MAD

PROJECT ID: 5989-03-84

WITH: N/A

COUNTY: ROCK

DECEMBER 2026

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 = 292

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5989-03-84		

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

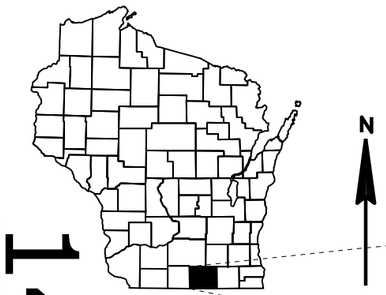
PLAN OF PROPOSED IMPROVEMENT

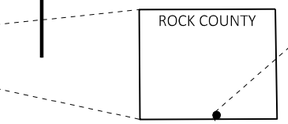
SOUTHWEST REGION, BRIDGE REHABS

ROCK RIVER B-53-172 & B-53-104

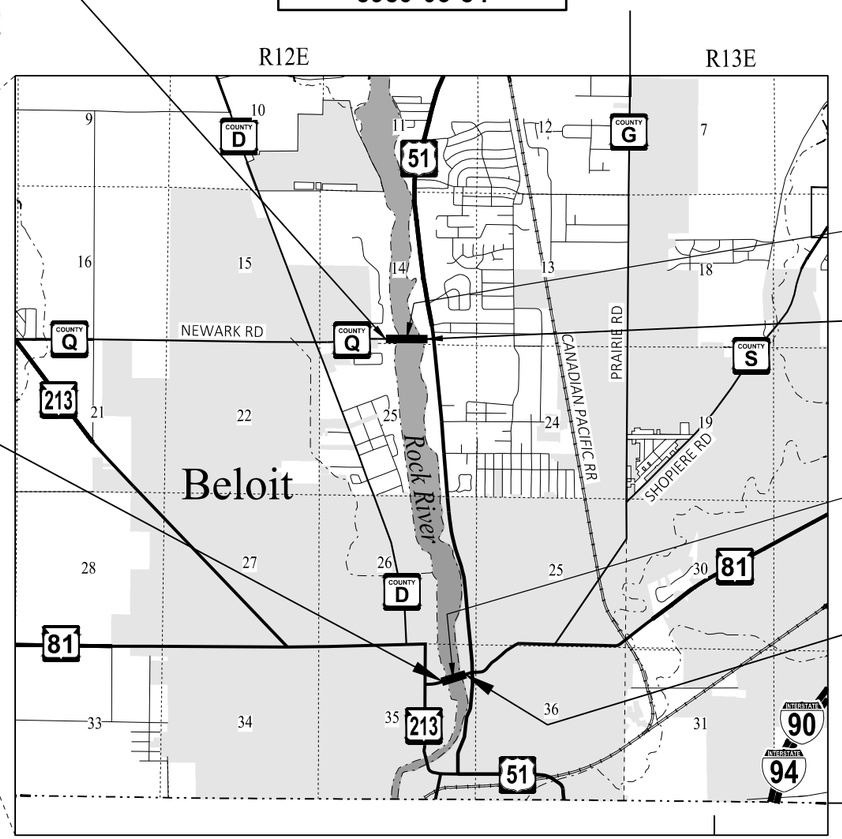
STH 081
ROCK COUNTY

STATE PROJECT NUMBER
5989-03-84





BEGIN CONSTRUCTION
STA 122+73.12'EB'
Y = 217131.464
X = 487658.723



REHABILITATE BRIDGE STRUCTURE B-53-104

END CONSTRUCTION
STA 238+46.15'EB'

T1N

REHABILITATE BRIDGE STRUCTURE B-53-172

END PROJECT 5989-03-84
STA 26+12.82'PD'

ILLINOIS

BEGIN PROJECT 5989-03-84
STA 20+17.17'PD'
Y = 205230.429
X = 489958.428

DESIGN DESIGNATION			B-53-104	B-53-172
A.A.D.T.	2027	=	9,300	16,600
A.A.D.T.	2047	=	9,300	17,550
D.H.V.		=	1,050	1950
D.D.		=	58/42	58/42
T.		=	5.3%	6.5%
DESIGN SPEED		=	50 MPH	30 MPH
ESALS		=	1,300,000	3,000,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE	300'EB'	ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
MARSH AREA		STORM SEWER	SS
WOODED OR SHRUB AREA		TELEPHONE	T
		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
		TELEPHONE POLE	

LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.411 MI

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

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

ORIGINAL PLANS PREPARED BY

AYRES

WISCONSIN
AMANDA M. INMAN
44690
OREGON
WI
PROFESSIONAL ENGINEER

DATE: 7/27/2026 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AYRES ASSOCIATES INC
Designer	AYRES ASSOCIATES INC
Project Manager	JOSHUA NELSON
Regional Examiner	WISDOT
Regional Supervisor	JIM SIMPSON

APPROVED FOR THE DEPARTMENT

DATE: 7/24/2026 (Signature)

E

GENERAL NOTES

NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY UTILITY WHICH IS NOT A MEMBER OF DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

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

A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

EXACT TRAFFIC CONTROL LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL SIGN LOCATIONS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO INSTALLATION.

THE LOCATIONS OF EROSION CONTROL ITEMS SHALL BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

HMA UNIT WEIGHT: 112 LB/SY/IN

ORDER OF SECTION 2 SHEETS

GENERAL NOTES AND CONTACTS
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
EROSION CONTROL
STORM SEWER
PERMANENT SIGNING AND PAVEMENT MARKING
LIGHTING PLAN
STH 81 CONSTRUCTION STAGING
DETOUR PLANS

STANDARD ABBREVIATIONS

A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC
BM	BENCHMARK
CBTP	CONCRETE BARRIER TEMPORARY PRECAST
C/L	CENTERLINE
COMM	COMMUNICATION
CONST	CONSTRUCTION
CP	CONTROL POINT
CWT	HUNDRED WEIGHT
D.D.	DIRECTIONAL DISTRIBUTION
D.H.V.	DESIGN HOURLY VOLUME
EB	EASTBOUND
ELEC	ELECTRIC
ESALS	EQUIVALENT SINGLE AXLE LOADS
EX	EXISTING
GAL	GALLON
GPS	GLOBAL POSITIONING SYSTEM
HMA	HOT MIX ASPHALT
IN.	INCH
INL	INLET
ITS	INTELLIGENT TRAFFIC SYSTEM
LB	POUND
LF	LINEAR FOOT
LT	LEFT
LS	LUMP SUM
MAX	MAXIMUM
MGAL	MEGA GALLON (1000 GALLONS)
MI.	MILE
MIN	MINIMUM
MPH	MILES PER HOUR
MH	MANHOLE
NAD	NORTH AMERICAN DATUM
NAVD	NORTH AMERICAN VERTICAL DATUM
NB	NORTHBOUND
NO.	NUMBER
NOR	NORMAL
PC	POINT OF CURVATURE
PCC	POINT OF COMMON CURVATURE
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
PI	POINT OF INTERSECTION
PPOL	POWER POLE
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
QTY.	QUANTITY
R/L	REFERENCE LINE
REQ'D	REQUIRED
RT	RIGHT
SB	SOUTHBOUND
SEG	SEGMENT
SSP	STORM SEWER PIPE
STA	STATION
SW	SOUTHWEST
SY	SQUARE YARD
T.	PERCENT TRUCKS
TYP	TYPICAL
VAR	VARIABLE
WB	WESTBOUND
Wt.	WEIGHT

PROJECT CONTACTS

ROCK COUNTY HIGHWAY DEPARTMENT
DUANE JORGENSON
DIRECTOR OF PUBLIC WORKS
3715 NEWVILLE RD
JANESVILLE, WI 53545
P: (608) 757-5450
E: JORGEND@CO.ROCK.WI.US

TOWN OF BELOIT
JOE ROSE
DIRECTOR OF PUBLIC WORKS
3628 S. WALTERS RD
BELOIT, WI 53511
P: (608) 473-0512
E: JROSE@TOWN.BELOIT.WI.US

CITY OF BELOIT
SCOT PRINDIVILLE, PE
2400 SPRINGBROOK CT
BELOIT, WI 53511
P: (608) 364-6690
C: (608) 207-5913
E: PRINDIVILLES@BELOITWI.GOV

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
ERIC HEGGELUND
DNR SOUTH CENTRAL REGION HEADQUARTERS
3911 FISH HATCHERY RD
FITCHBERG, WI 53711
P: (608) 228-7927
E: ERIC.HEGGELUND@WISCONSIN.GOV

DESIGNER
AMANDA INMAN, PE
AYRES ASSOCIATES
5201 E. TERRACE DRIVE, SUITE 200
MADISON, WI 53718
P: (715) 443-1239
E: INMANA@AYRESASSOCIATES.COM

WISDOT SIGNALS
LINDSEY R HEINECK
2101 WRIGHT ST
MADISON, WI 53704
(608) 246-3866
LINDSEY.HEINECK@DOT.WI.GOV

UTILITY CONTACTS

ALLIANT ENERGY - ELECTRICITY & GAS
NICHOLAS DACHNIWSKYJ
935 WBR TOWNLINE RD
BELOIT, WI 53511
P: (608) 364-6566
C: (608) 444-9362
E: NICHOLSDACHNIWSKYJ@ALLIANTENERGY.COM

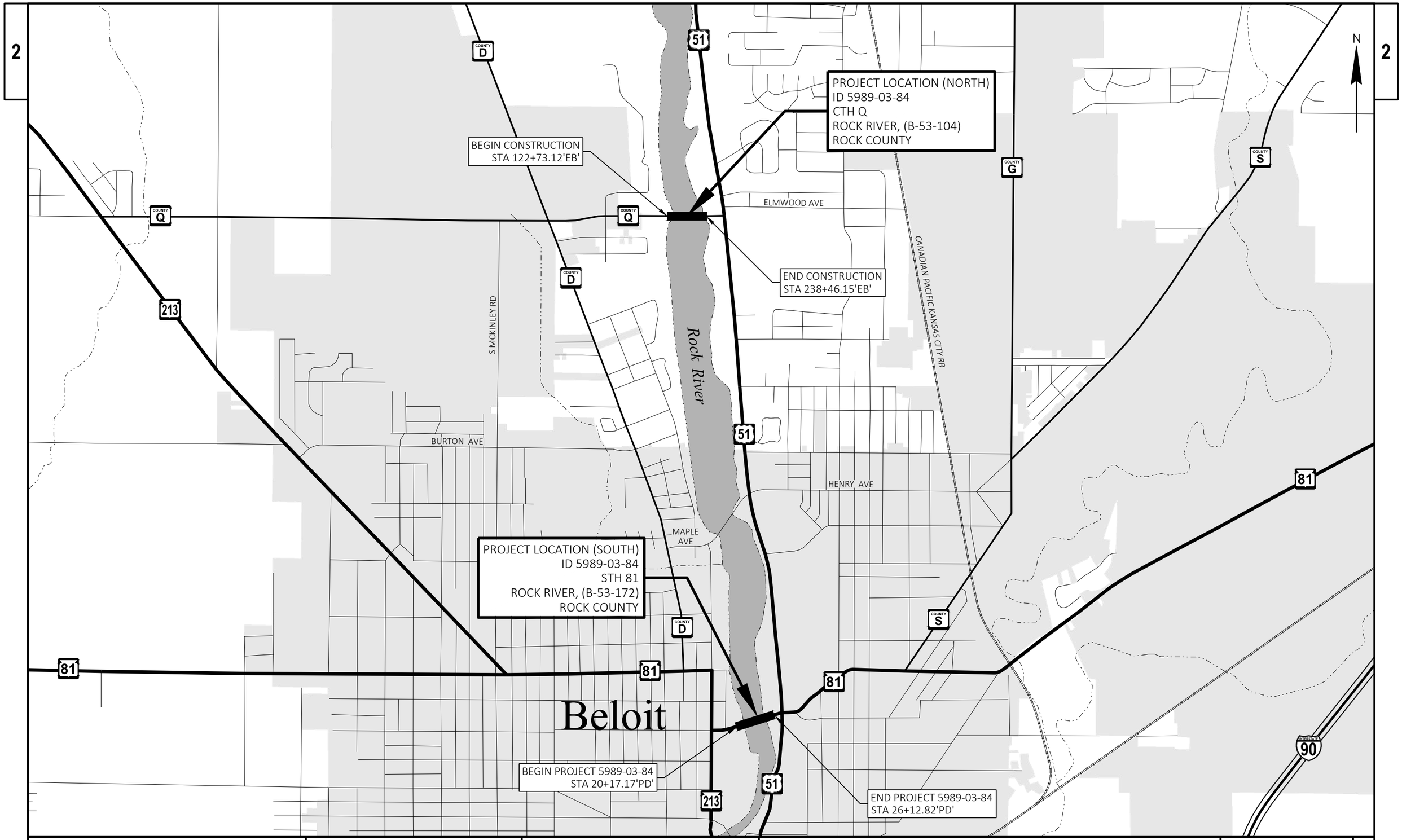
ATC MANAGEMENT. INC - ELECTRIC TRANSMISSION
DOUG VOSSBERG
2489 RINDEN RD
COTTAGE GROVE, WI 53718
(608) 877-7650
E: DVOSSBERG@ATCLLC.COM

CITY OF BELOIT - WATER & SEWER
SCOT PRINDIVILLE
2400 SPRINGVILLE CT
BELOIT, WI 53511
(608) 364-6690
E: PRINDIVILLES@BELOITWI.GOV

TOWN OF BELOIT - ELECTRIC & SEWER
JOE ROSE
3628 S. WALTERS ROAD
BELOIT, WI 53511
(608) 437-0512
E: JROSE@TOWN.BELOIT.WI.US

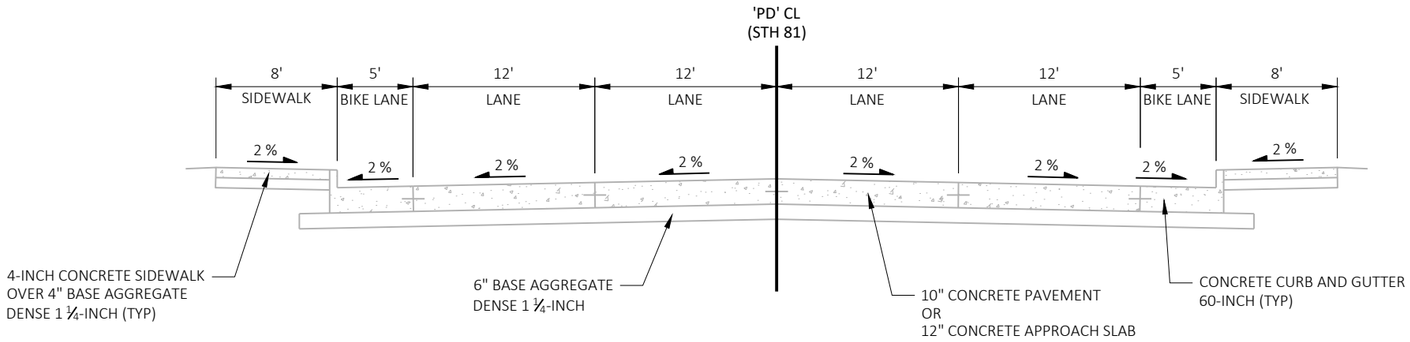
DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

** DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS



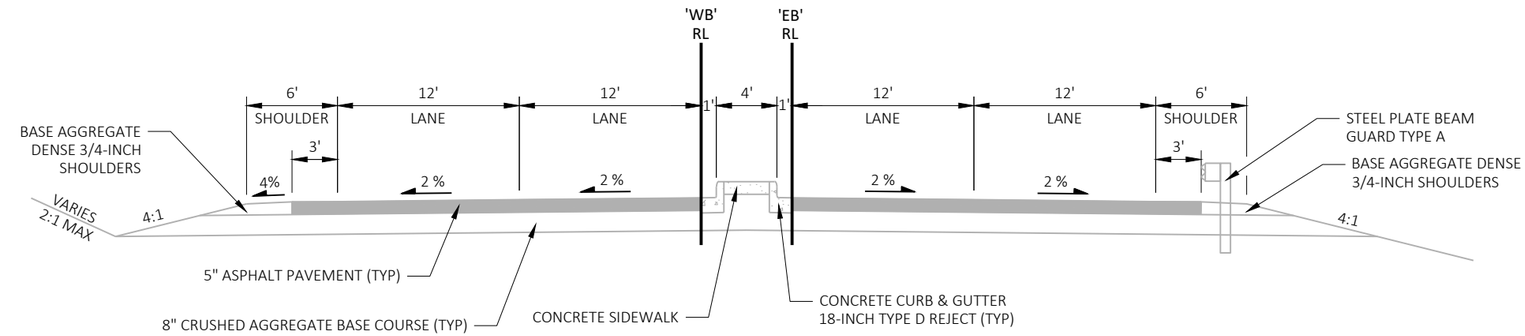
PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	PROJECT OVERVIEW	SHEET 3	E

2



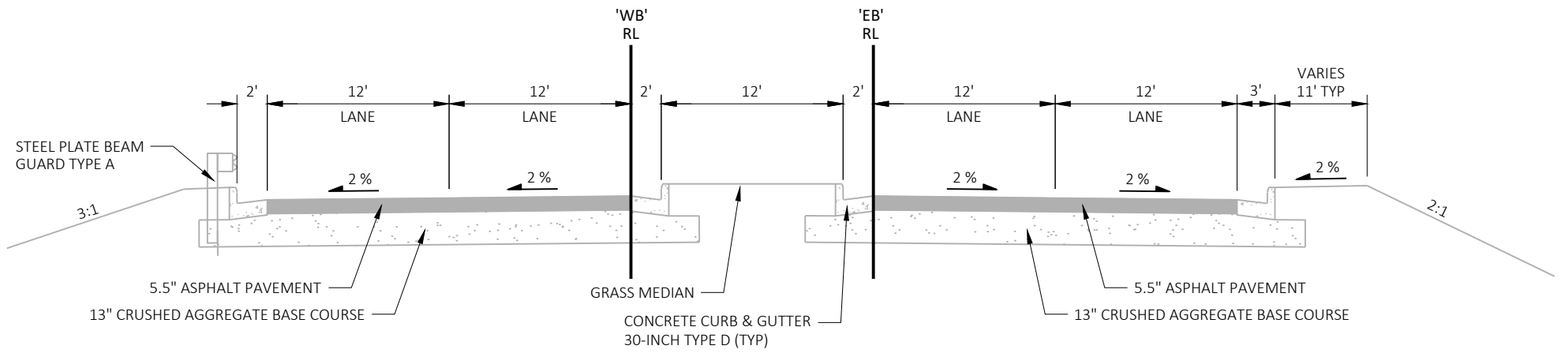
EXISTING TYPICAL SECTION - STH 81 (PORTLAND AVE)

BEGIN PROJECT TO STA. 20+23'PD' (PAVEMENT)
STA. 20+23'PD' TO STA. 20+43'PD' (APPROACH SLAB)
STA. 25+87'PD' TO STA. 26+07'PD' (APPROACH SLAB)
STA. 26+07'PD' TO END PROJECT (PAVEMENT)



EXISTING TYPICAL SECTION - CTH Q (NEWARK RD)

BEGIN PROJECT TO STA. 126+57'EB'



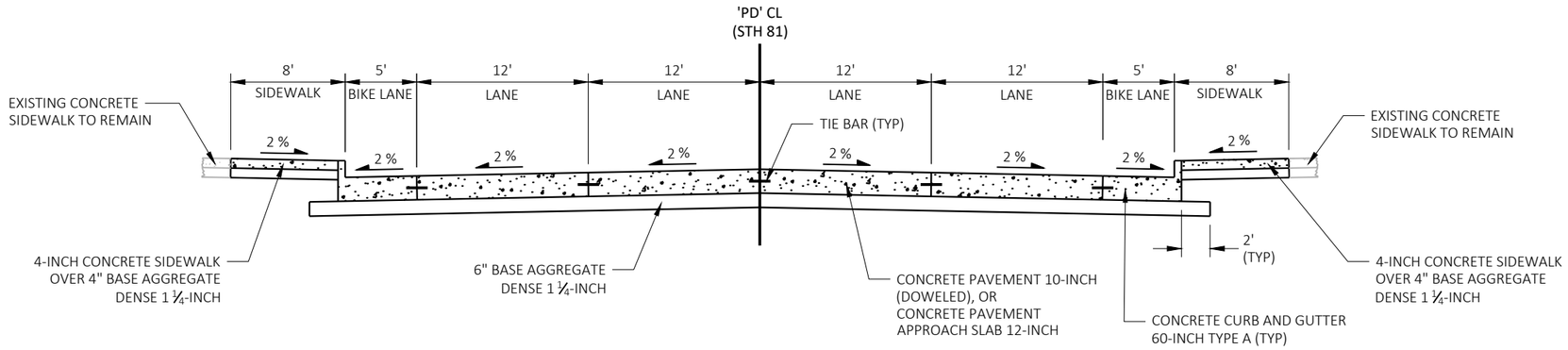
EXISTING TYPICAL SECTION - CTH Q (NEWARK RD)

STA. 237+02'EB' TO END PROJECT

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	TYPICAL SECTIONS	SHEET 4	E

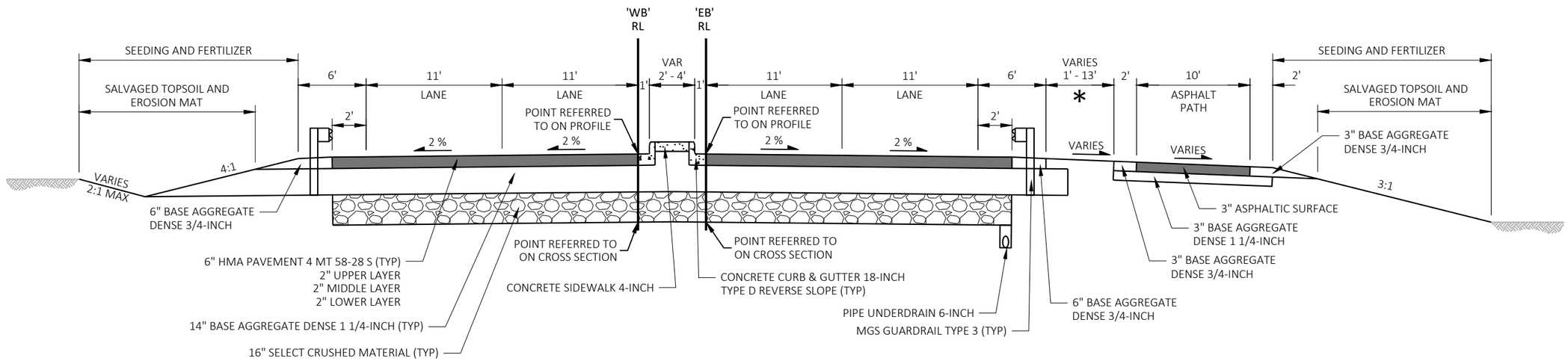
FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_020301_TS.DWG
LAYOUT NAME - 01
PLOT DATE : 10/26/2026 10:09 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



FINISHED TYPICAL SECTION - STH 81 (PORTLAND AVE)

STA. 20+17'PD' TO STA. 20+28'PD' (PAVEMENT)
STA. 20+28'PD' TO STA. 20+43'PD' (APPROACH SLAB)
STA. 25+87'PD' TO STA. 26+02'PD' (APPROACH SLAB)
STA. 26+02'PD' TO STA. 26+13'PD' (PAVEMENT)



FINISHED TYPICAL SECTION - CTH Q (NEWARK RD)

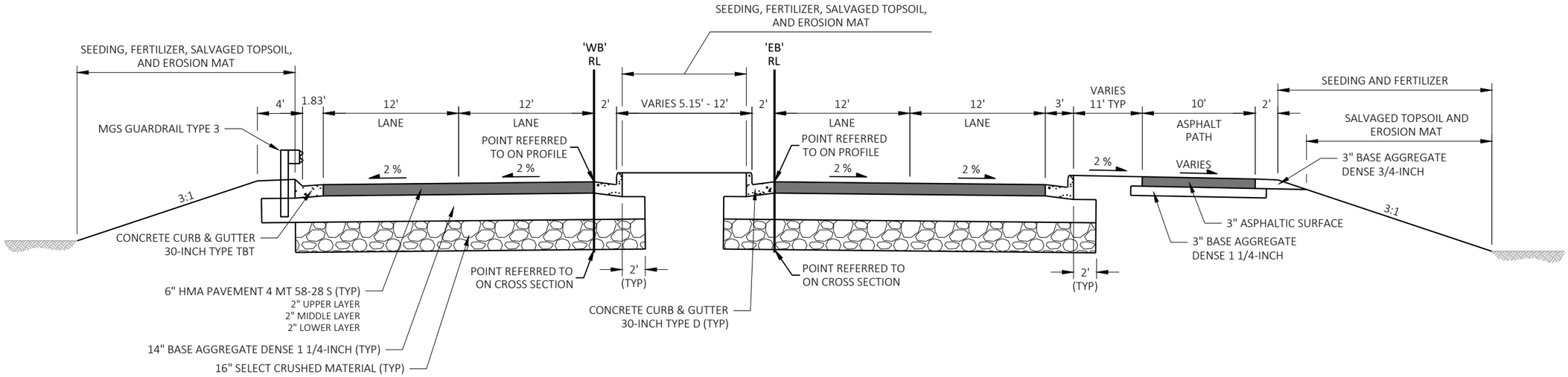
STA. 122+73'EB' TO STA. 126+57'EB'

* SALVAGED TOPSOIL, SEED, FERTILIZE, AND EROSION MAT

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	TYPICAL SECTIONS	SHEET 5	E

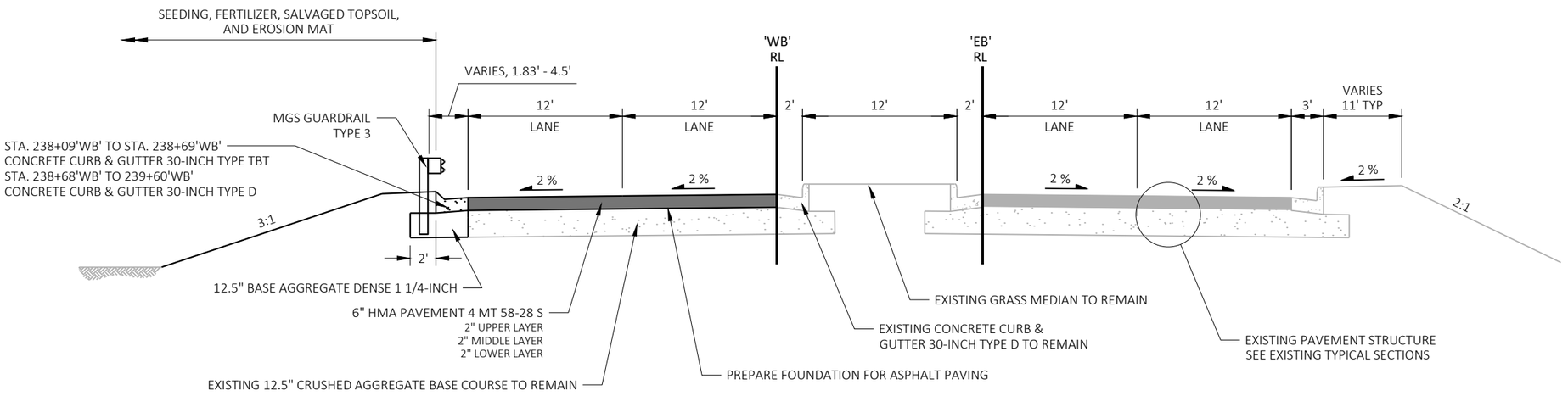
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LAYOUT NAME - 02
PLOT DATE : 10/26/2026 10:09 PM
PLOT BY : BUTTERIS, BRADLEY
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



FINISHED TYPICAL SECTION - CTH Q (NEWARK RD)

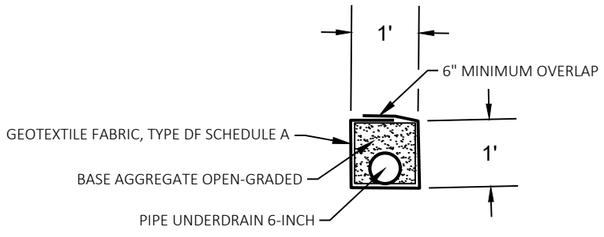
STA. 237+03'EB' TO STA. 238+46'EB



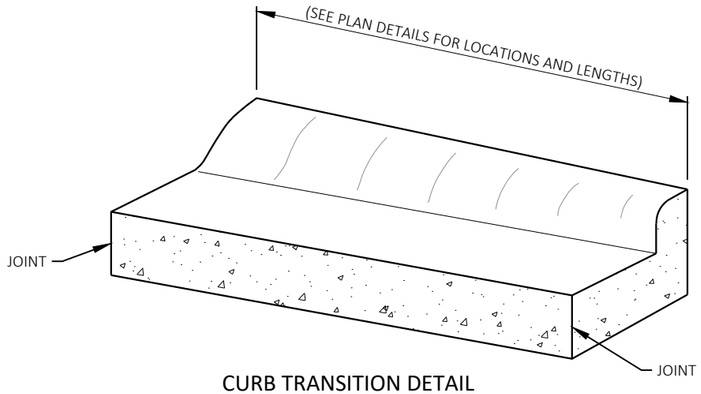
FINISHED TYPICAL SECTION - CTH Q (NEWARK RD)

STA. 238+09'WB' TO STA. 239+60'WB'

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	TYPICAL SECTIONS	SHEET 6	E



PIPE UNDERDRAIN DETAIL



CURB TRANSITION DETAIL

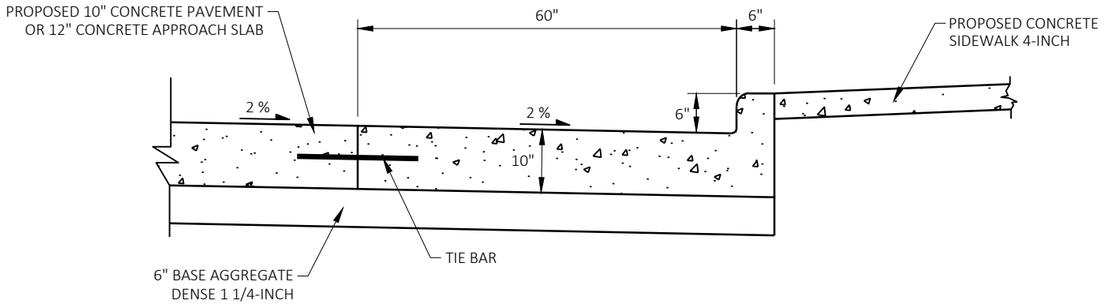
TO BE MEASURED AND PAID FOR AS CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE TBT

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											

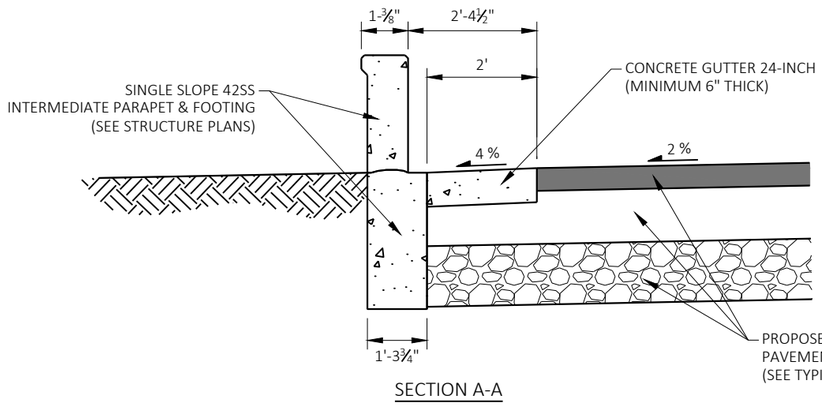
PROJECT ID: CTH Q
TOTAL PROJECT AREA = 7.624 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.705 ACRES

PROJECT ID: STH 81 - PORTLAND AVE
TOTAL PROJECT AREA = 1.579 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.579 ACRES

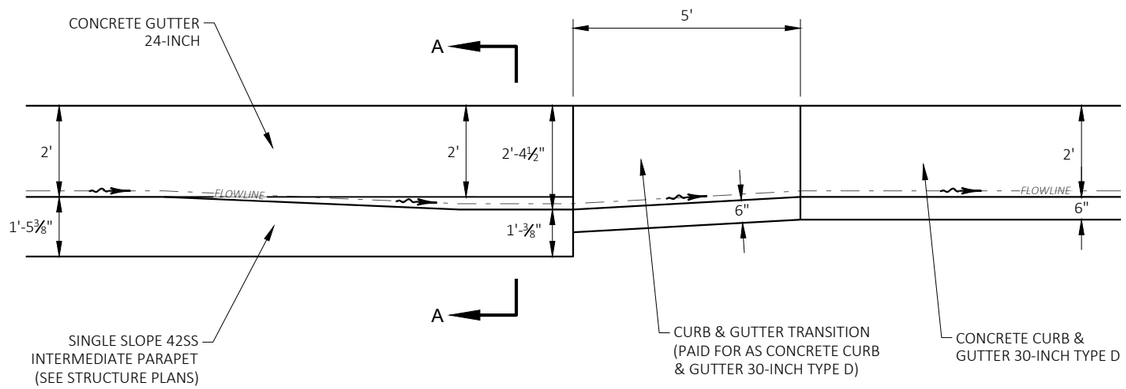


CONCRETE CURB AND GUTTER 60-INCH TYPE A

STH 81



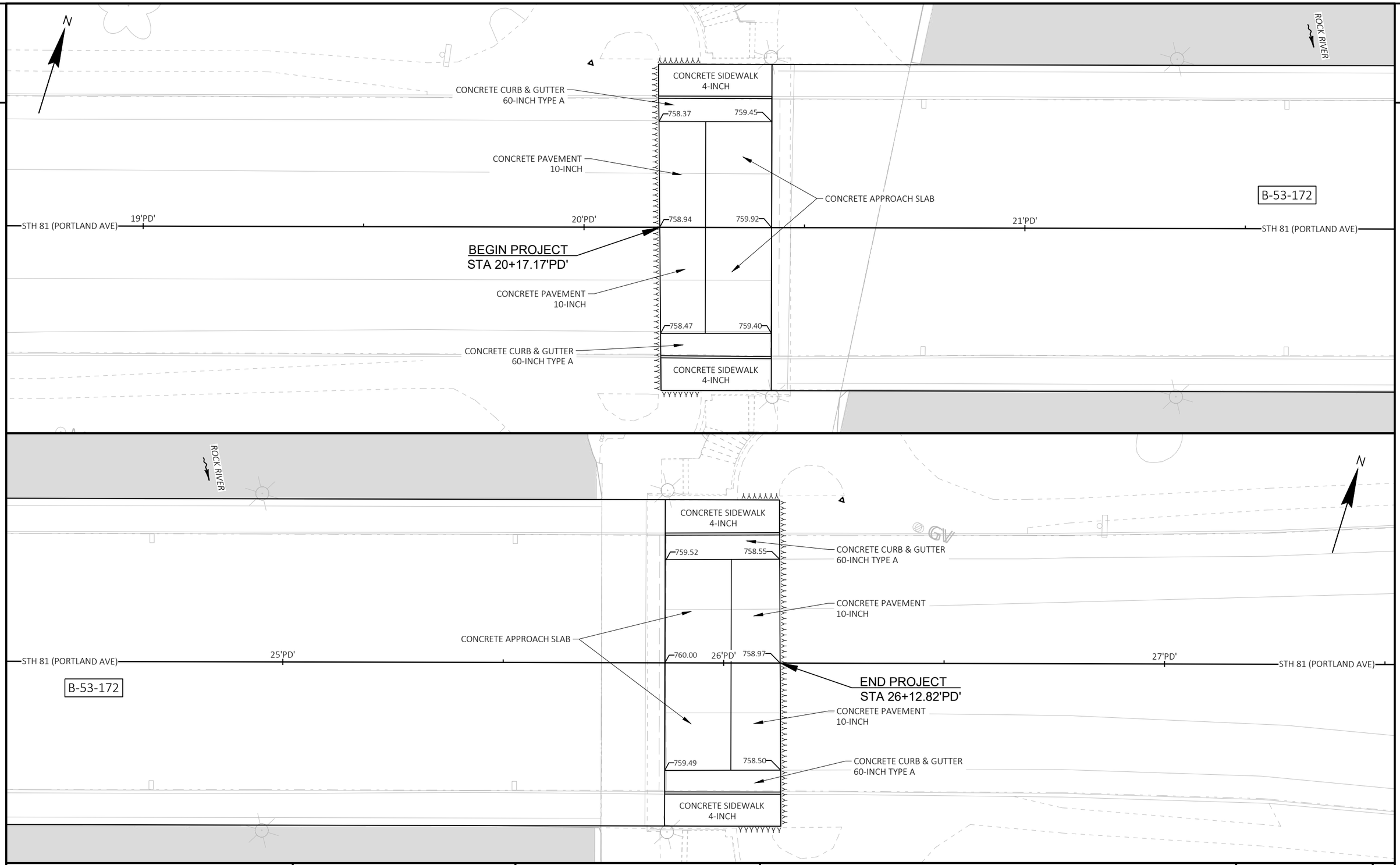
SECTION A-A



PLAN

INTERMEDIATE BARRIER TRANSITION TO CONCRETE CURB & GUTTER DETAIL

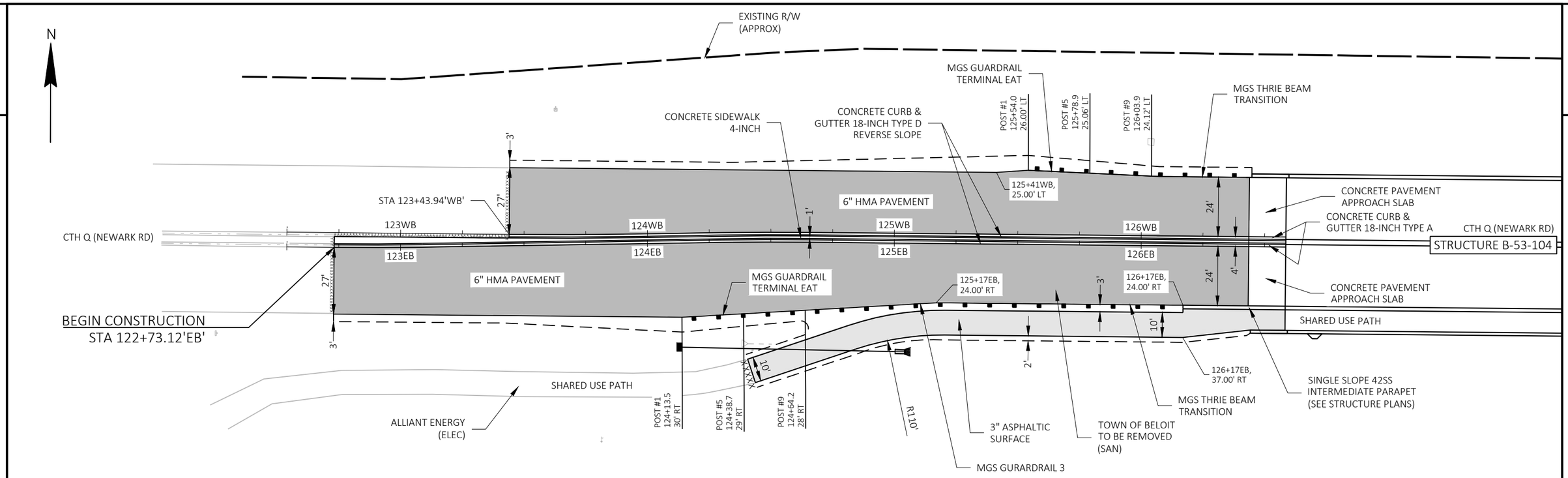
STA. 237+92.30'EB', RT

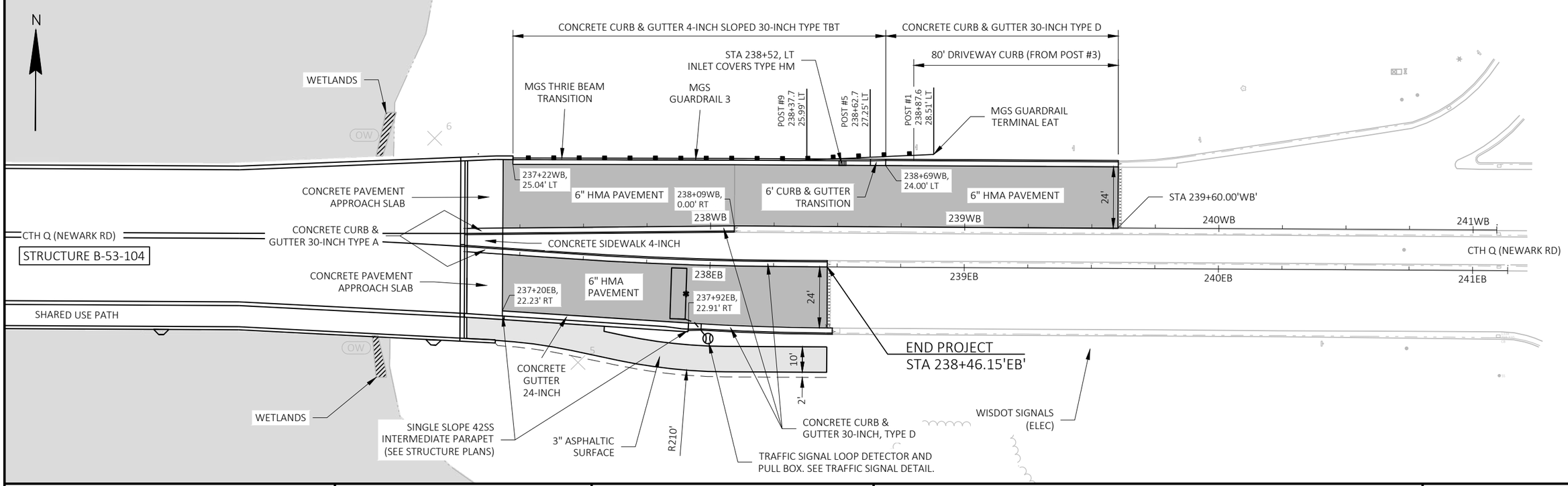


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PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	PLAN DETAILS - STH 81 GRADES	SHEET 8	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_021201_PD.DWG
LAYOUT NAME - - STH 81 GRADES
PLOT DATE : 10/26/2026 3:06 PM
PLOT BY : MUENCH, DOUGLAS
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 44





PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	PLAN DETAILS	SHEET 9	E

N

2

2

792.80

124WB

125WB

126WB

793.28

CTH Q (NEWARK RD)

STRUCTURE B-53-104

124EB

125EB

126EB

793.28

792.82

STA 125+00.92 EB
28.65' RT
EL 795.96

STA 125+20.77 EB
27.00' RT
EL 795.54

STA 125+68.78 EB
27.00' RT
EL 794.44

STA 126+17.20 EB
27.00' RT
EL 793.34

STA 124+81.62 EB
33.57' RT
EL 796.36

CURVE
MIDPOINT

CURVE
PT

TANGENT
MIDPOINT

PI

SHARED USE PATH

STA 124+61.21 EB
40.56' RT
EL 797.11

STA 124+40.19 EB
47.34' RT
EL 797.16

CURVE PC

TANGENT
MIDPOINT

STA 125+68.98 EB
37.00' RT
EL 794.29

STA 126+17.20 EB
37.00' RT
EL 793.19

STA 125+02.58 EB
38.52' RT
EL 795.77

STA 125+20.77 EB
37.00' RT
EL 795.39

STA 124+84.88 EB
43.02' RT
EL 796.26

MATCH EXISTING
PAVEMENT ELEVATION

SHARED USE PATH

STA 124+64.56 EB
50.02' RT
EL 797.23

STA 124+43.41 EB
56.85' RT
EL 797.78

IP

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	PLAN DETAILS - WEST END GRADES	SHEET 10	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_021202_PD.DWG
LAYOUT NAME - - WEST END GRADES

PLOT DATE : 10/26/2026 1:27 PM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

N

6

768.09

STA 237+22.45 WB
-25.04' LT
EL 768.01

STA 237+50 WB
-24.71' LT
EL 767.21

STA 237+75 WB
-24.41' LT
EL 766.49

STA 238+00 WB
-24.11' LT
EL 765.76

STA 238+25 WB
-24.00' LT
EL 765.31

STA 238+50 WB
-24.00' LT
EL 764.73

STA 238+75 WB
-24.00' LT
EL 764.10

STA 239+00 WB
-24.00' LT
EL 763.65

STA 239+25 WB
-24.00' LT
EL 763.10

STA 239+50 WB
-24.00' LT
EL 762.56

MATCH EXISTING

STA 237+25 WB
0.00'
EL 768.44

STA 237+50 WB
0.00'
EL 767.71

STA 237+75 WB
0.00'
EL 766.97

STA 238+00 WB
0.00'
EL 766.24

SHARED USE PATH PAVING GARDES - WEST END

STA 239+60.26 WB
-23.88' LT
EL 762.26

768.64

238WB

239WB

STRUCTURE B-53-104

MATCH EXISTING

CTH Q (NEWARK RD)

768.62

STA 237+25 EB
0.00'
EL 768.43

STA 237+50 EB
0.00'
EL 767.74

STA 237+75 EB
0.00'
EL 767.06

STA 238+00 EB
0.00'
EL 766.37

238EB

STA 238+25 EB
0.00'
EL 765.68

STA 238+46.10 EB
0.00'
EL 765.10

239EB

STA 237+25.07 EB
22.21' RT
EL 767.96

STA 237+50 EB
22.15' RT
EL 767.29

STA 237+75 EB
22.44' RT
EL 766.60

STA 238+00 EB
23.15' RT
EL 765.91

STA 238+25.23 EB
23.78' RT
EL 765.20

STA 238+46.10 EB
24.00' RT
EL 764.62

768.11

SHARED USE PATH

STA 237+36.38 EB
32.04' RT
EL 767.58

CURVE MIDPOINT

CURVE PT

PI

CURVE PC

CURVE MIDPOINT

CURVE PT

TANGENT MIDPOINT

END PAVEMENT

STA 237+17.75 EB
33.98' RT
EL 768.06

STA 237+32.70 EB
34.38' RT
EL 767.65

STA 237+47.44 EB
35.91' RT
EL 767.22

STA 237+59.76 EB
27.66' RT
EL 766.99

STA 237+67.49 EB
28.89' RT
EL 766.75

STA 237+65.97 EB
38.76' RT
EL 766.65

STA 237+87.13 EB
31.17' RT
EL 766.17

STA 237+86.45 EB
41.15' RT
EL 766.04

STA 238+06.88 EB
31.71' RT
EL 766.02

STA 238+07.04 EB
41.71' RT
EL 765.86

STA 238+26.32 EB
31.51' RT
EL 765.49

STA 238+26.35 EB
41.51' RT
EL 765.33

STA 238+46.10 EB
31.50' RT
EL 764.94

STA 238+46.10 EB
41.50' RT
EL 764.79

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	PLAN DETAILS - EAST END GRADES	SHEET 11	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_021202_PD.DWG
LAYOUT NAME - - EAST END GRADES

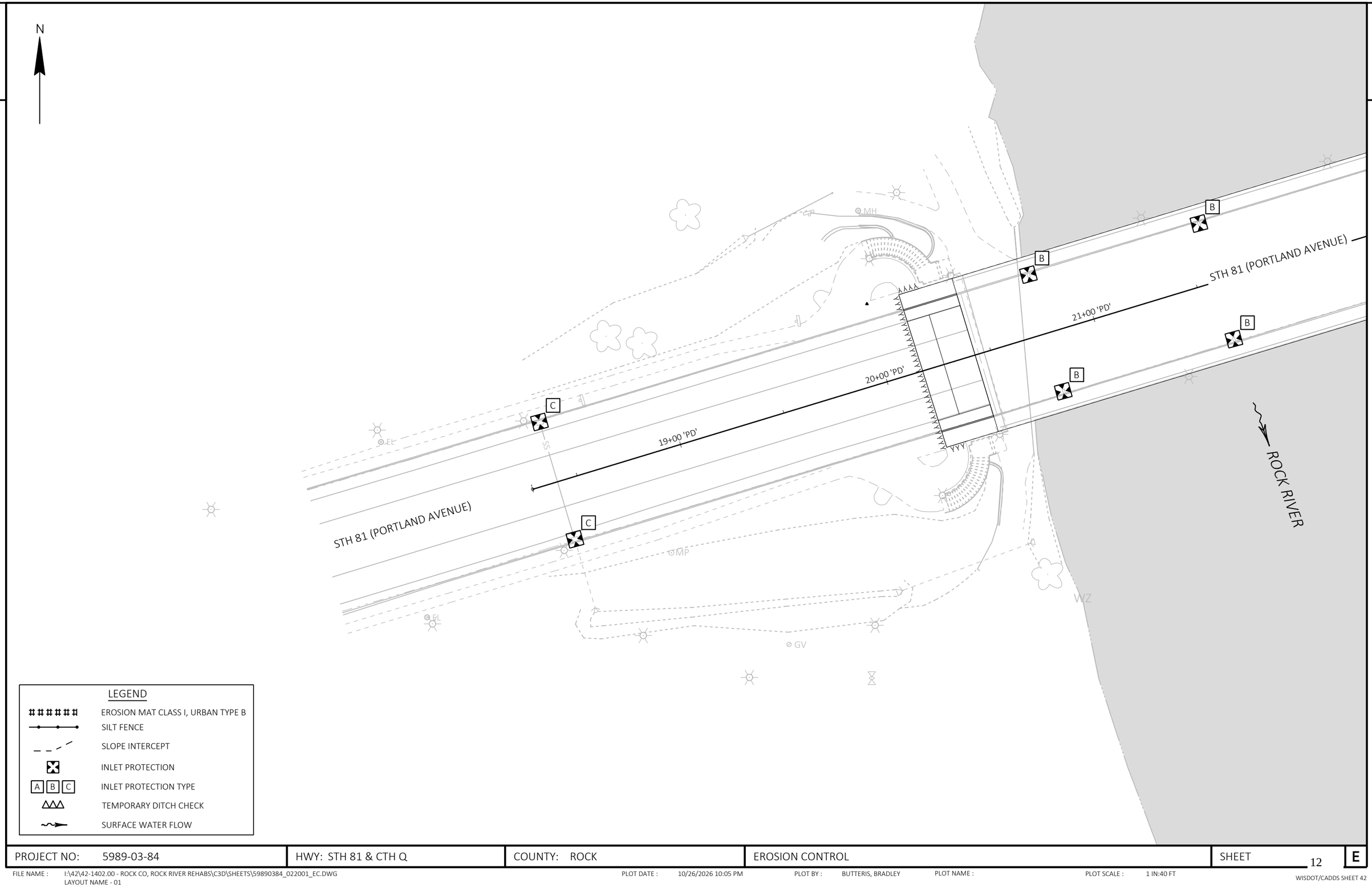
PLOT DATE : 10/26/2026 1:27 PM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

N



LEGEND

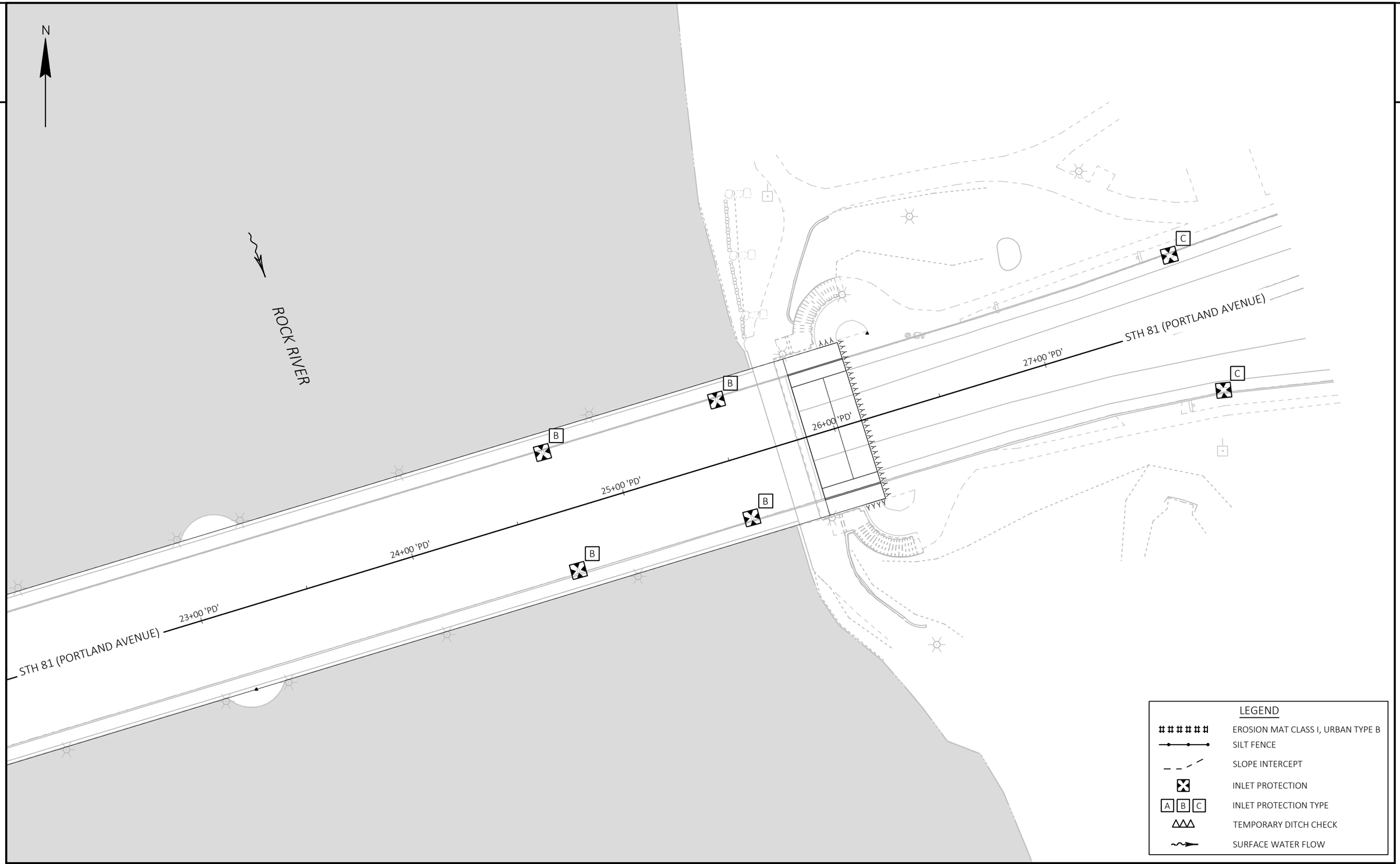
- EROSION MAT CLASS I, URBAN TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION
- A B C — INLET PROTECTION TYPE
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	EROSION CONTROL	SHEET 12	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_022001_EC.DWG
LAYOUT NAME - 01

PLOT DATE : 10/26/2026 10:05 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	EROSION CONTROL	SHEET 13	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_022001_EC.DWG
LAYOUT NAME - 02

PLOT DATE : 10/26/2026 10:05 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

RELIEF TRENCH

123+00
CTH Q (NEWARK RD)
123+00

124+00
124+00

125+00
125+00

126+00
126+00

27+00 'Q'

28+00 'Q'

CTH Q (NEWARK RD)

A

A

A

SS

SS

PIPE UNDERDRAIN 6-INCH (TYP)

PIPE UNDERDRAIN
UNPERFORATED 6-INCH

CONNECT PROPOSED PIPE
UNDERDRAIN TO EXISTNG INLET

LEGEND

- EROSION MAT CLASS I, URBAN TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION
- A B C — INLET PROTECTION TYPE
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	EROSION CONTROL	SHEET 14	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_022001_EC.DWG
LAYOUT NAME - 03

PLOT DATE : 10/26/2026 10:05 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

RELIEF TRENCH

C

35+00 'Q'

36+00 'Q'

37+00 'Q'

CTH Q (NEWARK RD)

238+00 WB

239+00 WB

240+00 WB

CTH Q (NEWARK RD)

238+00 EB

239+00 EB

240+00 EB

C

LIGHTING CONDUIT TRENCH
(CONTINUES TO USH 51, THEN SOUTH TO
METER ON POLE - SEE LIGHTING PLAN)

RELIEF TRENCH

ROCK RIVER

LEGEND

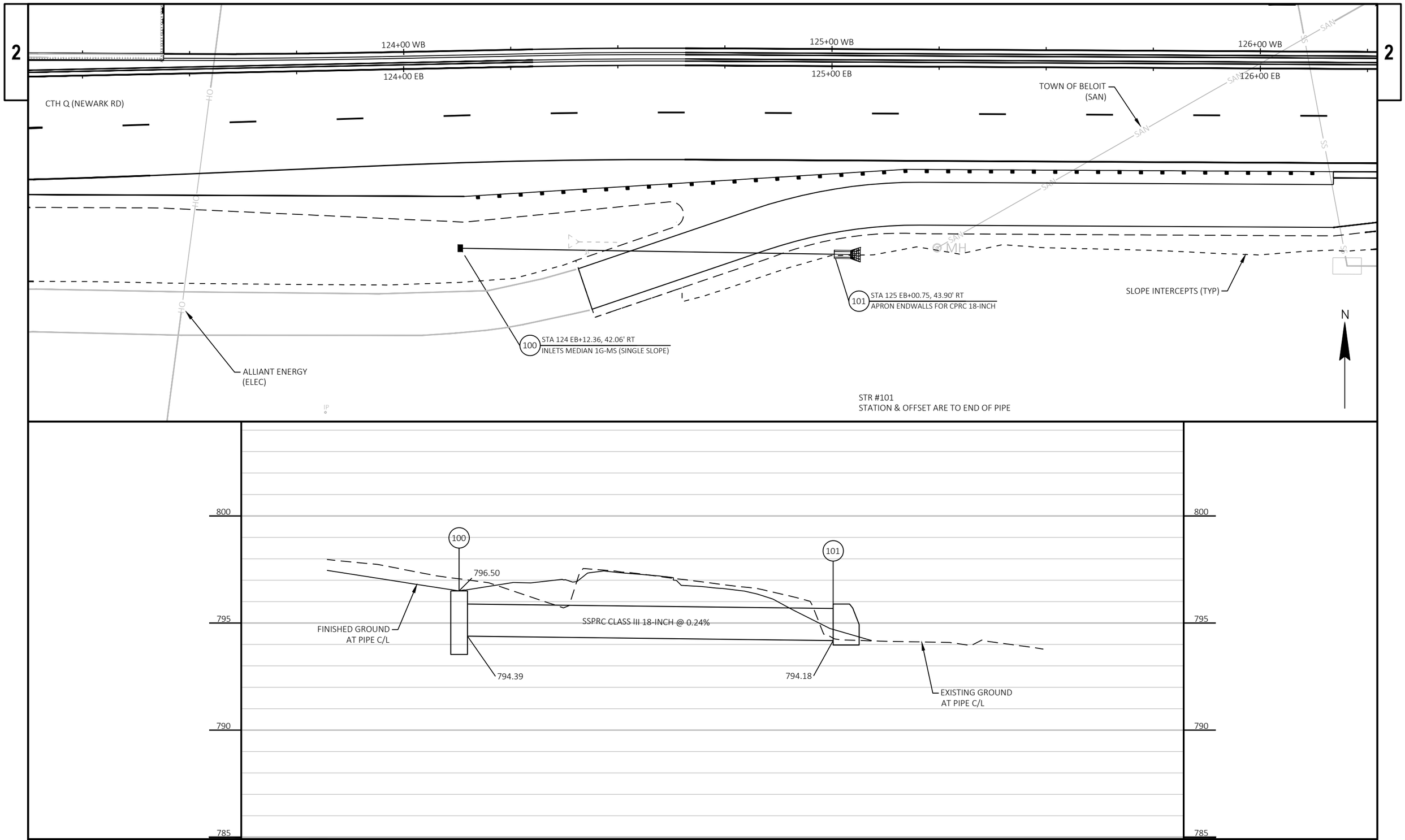
- EROSION MAT CLASS I, URBAN TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION
- A B C — INLET PROTECTION TYPE
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	EROSION CONTROL	SHEET 15	E

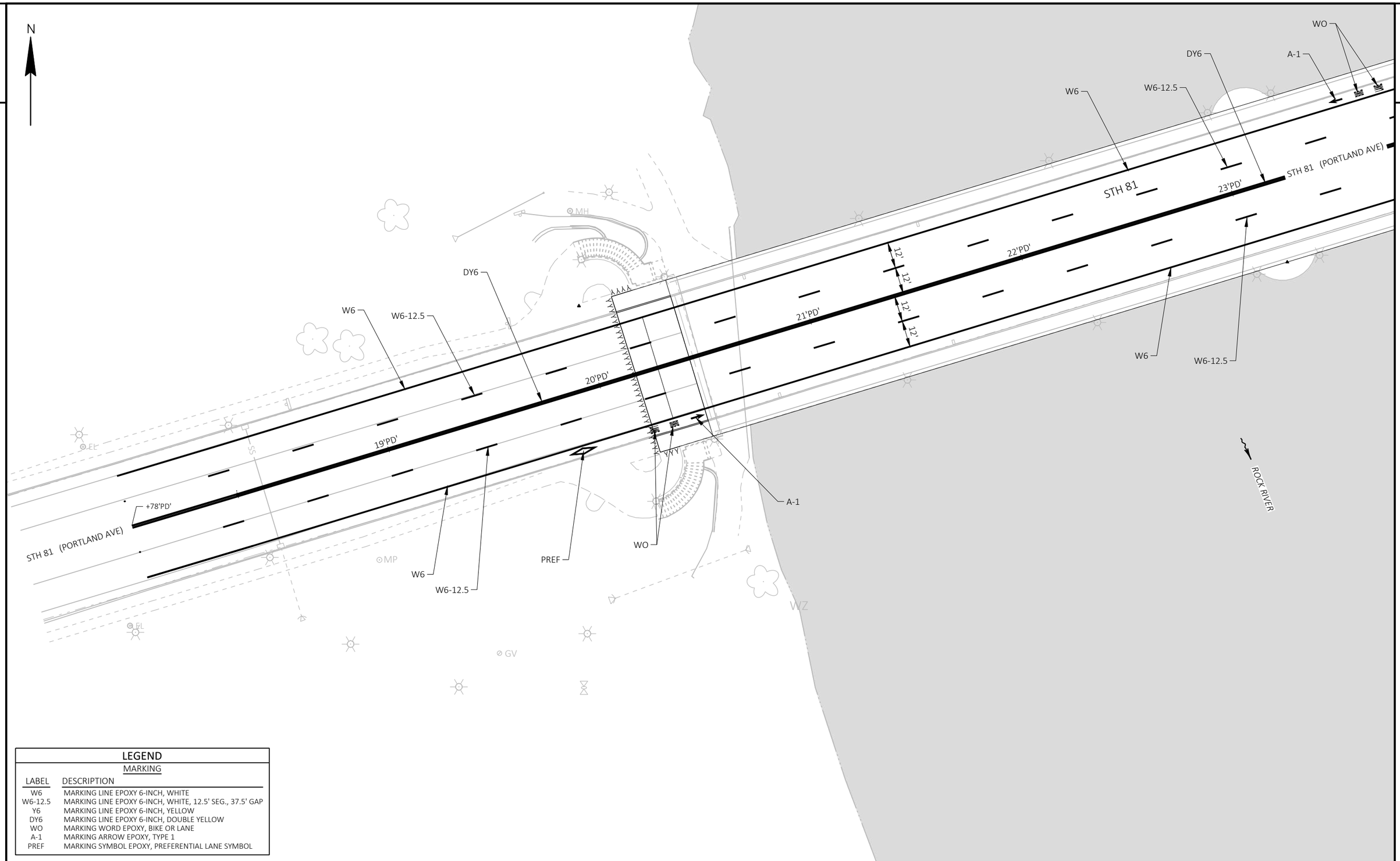
FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_022001_EC.DWG
LAYOUT NAME - 04

PLOT DATE : 10/26/2026 10:05 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STORM SEWER PLAN	SHEET 16	E



LEGEND

MARKING

LABEL	DESCRIPTION
W6	MARKING LINE EPOXY 6-INCH, WHITE
W6-12.5	MARKING LINE EPOXY 6-INCH, WHITE, 12.5' SEG., 37.5' GAP
Y6	MARKING LINE EPOXY 6-INCH, YELLOW
DY6	MARKING LINE EPOXY 6-INCH, DOUBLE YELLOW
WO	MARKING WORD EPOXY, BIKE OR LANE
A-1	MARKING ARROW EPOXY, TYPE 1
PREF	MARKING SYMBOL EPOXY, PREFERENTIAL LANE SYMBOL

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 17	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_024501_PS-PM.DWG
LAYOUT NAME - 01
PLOT DATE : 10/26/2026 4:12 PM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

N

W6-12.5
Y6
W6
DY6
+58'PD'
STH 81 (PORTLAND AVE)
27'PD'
+00'PD'
26'PD'
+00'PD'
W6-12.5
W6
WO
DY6
A-1
W6-12.5
W6
12'
12'
12'
12'
25'PD'
24'PD'
STH 81
23'PD'
STH 81 (PORTLAND AVE)
W6-12.5
W6
ROCK RIVER

LEGEND

MARKING

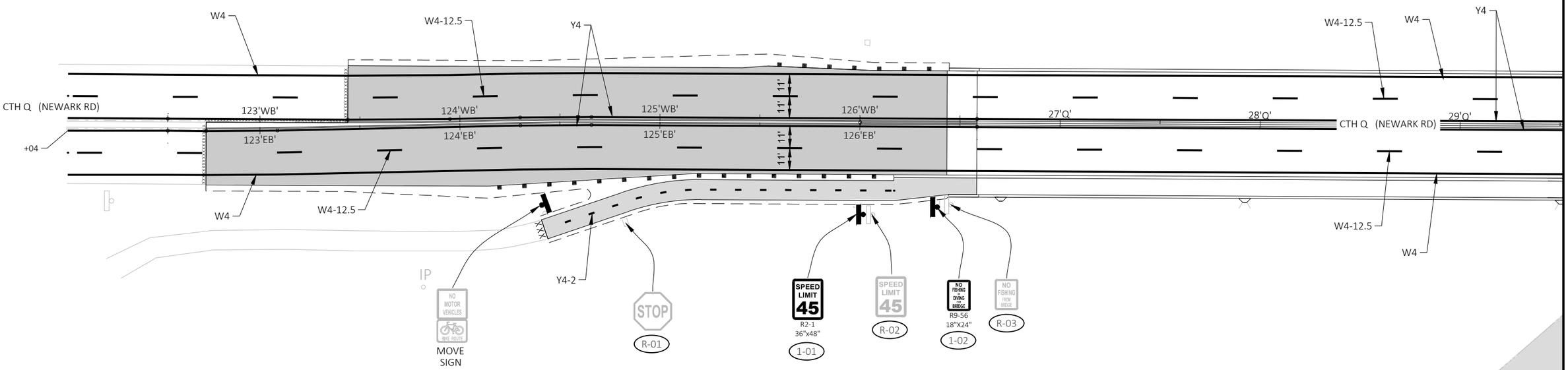
LABEL	DESCRIPTION
W6	MARKING LINE EPOXY 6-INCH, WHITE
W6-12.5	MARKING LINE EPOXY 6-INCH, WHITE, 12.5' SEG., 37.5' GAP
Y6	MARKING LINE EPOXY 6-INCH, YELLOW
DY6	MARKING LINE EPOXY 6-INCH, DOUBLE YELLOW
WO	MARKING WORD EPOXY, BIKE OR LANE
A-1	MARKING ARROW EPOXY, TYPE 1
PREF	MARKING SYMBOL EPOXY, PREFERENTIAL LANE SYMBOL

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 18	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_024501_PS-PM.DWG
LAYOUT NAME - 02
PLOT DATE : 10/26/2026 4:12 PM
PLOT BY : MUENCH, DOUGLAS
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

N



LEGEND

SIGNING

EXISTING SIGN

PROPOSED SIGN ON SINGLE/DOUBLE SUPPORT

X-XX — DENOTES SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)

R-XX — DENOTES SIGN REMOVAL NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)

MARKING

LABEL	DESCRIPTION
W4	MARKING LINE EPOXY 4-INCH, WHITE
W4-12.5	MARKING LINE EPOXY 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
Y4	MARKING LINE EPOXY 4-INCH, YELLOW
Y4-2	MARKING LINE EPOXY 4-INCH, YELLOW, 2' SEG., 8' GAP

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 19	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_024501_PS-PM.DWG
LAYOUT NAME - 03
PLOT DATE : 10/26/2026 4:12 PM
PLOT BY : MUENCH, DOUGLAS
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

N

ROCK RIVER

R-24 (NO FISHING DIVING BRIDGE) (ON STEEL POST)

R-25 (ON WOOD POST)

2-02 NO FISHING DIVING BRIDGE R9-56 18"X24"

R-26 LEFT LANE MUST TURN LEFT

2-05 LEFT LANE MUST TURN LEFT R3-7L 30"X30"

2-06 SPEED LIMIT 45 R2-1 36"X48"

R-27 SPEED LIMIT 45

R-28 COUNTY Q

2-08 COUNTY Q M1-5A 24"X24"

BRIDGE MAY BE ICY (EXISTING TO REMAIN)

W4

Y4

W4-12.5

11'

12'

34'O'

35'O'

36'O'

37'O'

238'WB'

239'WB'

240'WB'

241'WB'

+73'WB'

+76'WB'

CTH Q (NEWARK RD)

238'EB'

239'EB'

240'EB'

241'EB'

+14'EB'

E

SS

R-20

W3-3 36"X36" 2-01

R9-56 18"X24" 2-03

R-21

R-22

J1-1 36"X57" 2-04

RIGHT LANE MUST TURN RIGHT R3-7R 36"X36" 2-07

RIGHT LANE MUST TURN RIGHT R-23

LEGEND

SIGNING

- EXISTING SIGN
- PROPOSED SIGN ON SINGLE/DOUBLE SUPPORT
- X-XX DENOTES SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)
- R-XX DENOTES SIGN REMOVAL NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITIES)

MARKING

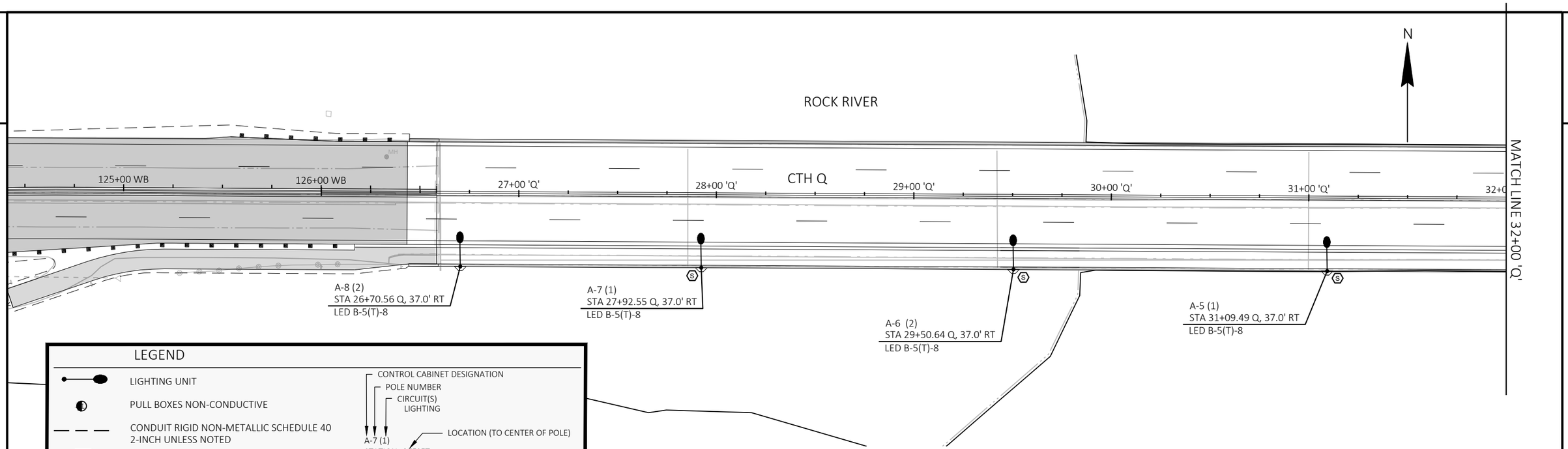
LABEL	DESCRIPTION
W4	MARKING LINE EPOXY 4-INCH, WHITE
W4-12.5	MARKING LINE EPOXY 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
Y4	MARKING LINE EPOXY 4-INCH, YELLOW
Y4-2	MARKING LINE EPOXY 4-INCH, YELLOW, 2' SEG., 8' GAP

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 20	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_024501_PS-PM.DWG
LAYOUT NAME - 04

PLOT DATE : 10/26/2026 4:12 PM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42



LEGEND

- LIGHTING UNIT
- PULL BOXES NON-CONDUCTIVE
- CONDUIT RIGID NON-METALLIC SCHEDULE 40 2-INCH UNLESS NOTED
- LIGHTING CONTROL CABINET
- (1) 2-#8 (CIRCUIT #) CONDUIT WIRE CONFIGURATION
- CONDUIT STUB

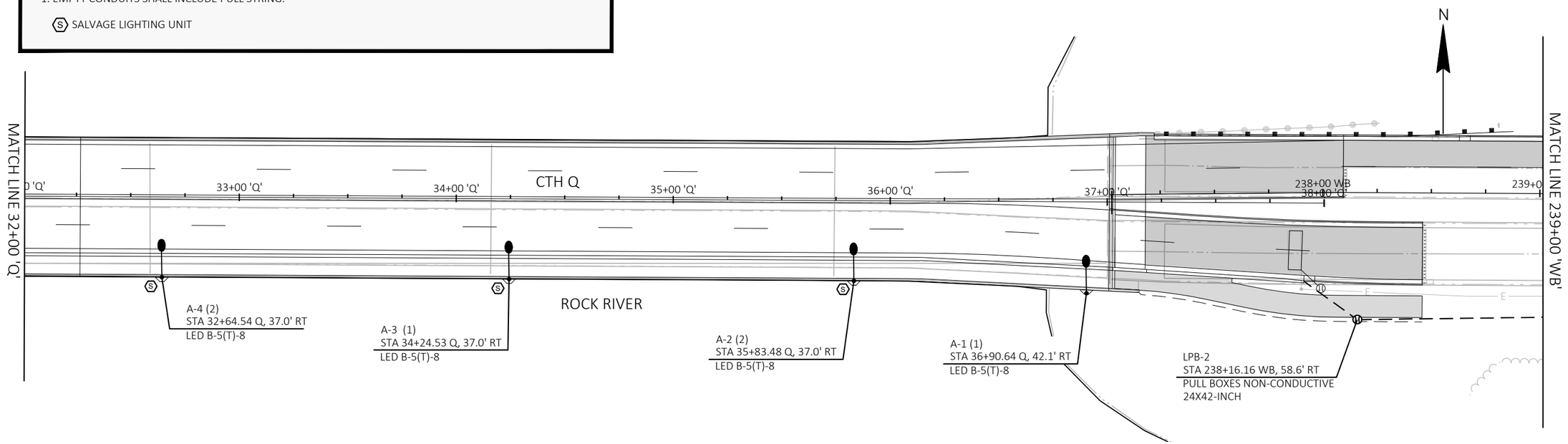
A-7 (1) = CONTROL CABINET DESIGNATION; POLE NUMBER; CIRCUIT(S) LIGHTING

STATION, OFFSET = LOCATION (TO CENTER OF POLE)

LED B-5(T)-8 = ARM LENGTH; POLE TYPE (T) INCLUDES TRANSFORMER BASE; LUMINAIRE DESIGNATION

GENERAL LIGHTING NOTES:
1. EMPTY CONDUITS SHALL INCLUDE PULL STRING.

(S) SALVAGE LIGHTING UNIT

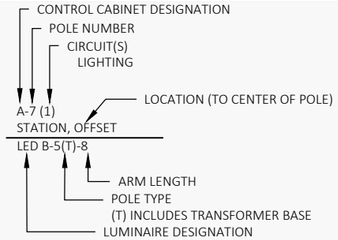


PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	LIGHTING PLAN	SHEET 21	E

2

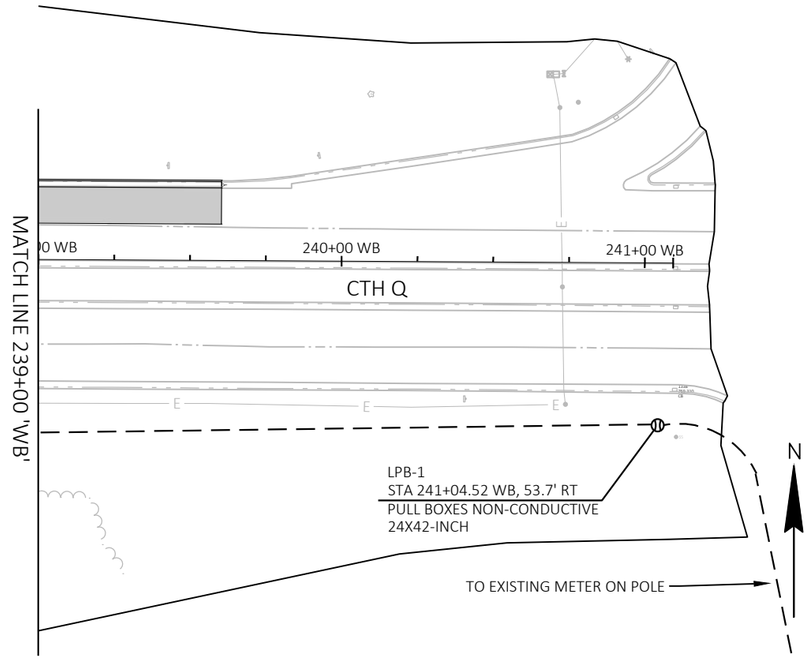
LEGEND

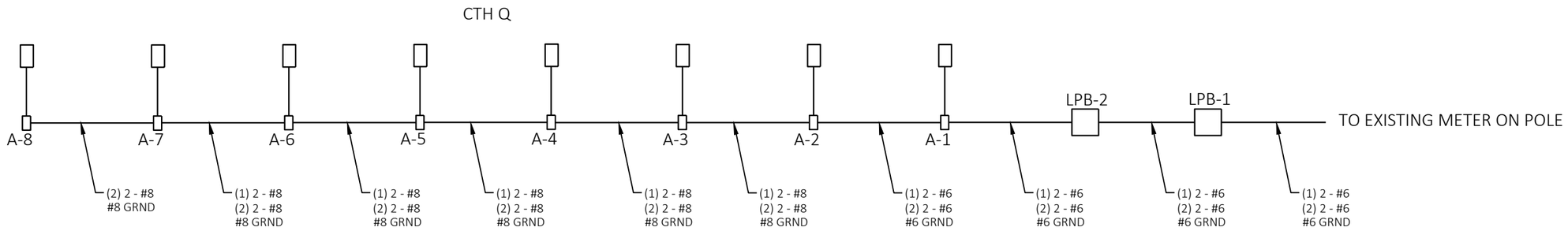
- LIGHTING UNIT
- PULL BOXES NON-CONDUCTIVE
- CONDUIT RIGID NON-METALLIC SCHEDULE 40 2-INCH UNLESS NOTED
- LIGHTING CONTROL CABINET
- (1) 2-#8 — (CIRCUIT #) CONDUIT WIRE CONFIGURATION
- CONDUIT STUB



GENERAL LIGHTING NOTES:

1. EMPTY CONDUITS SHALL INCLUDE PULL STRING.





CONCEPT WIRING DIAGRAM

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	LIGHTING PLAN	SHEET 22	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_023601_LP.DWG
59890384 lp (2)
PLOT DATE : 10/22/2026 9:30 AM
PLOT BY : AYRES
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

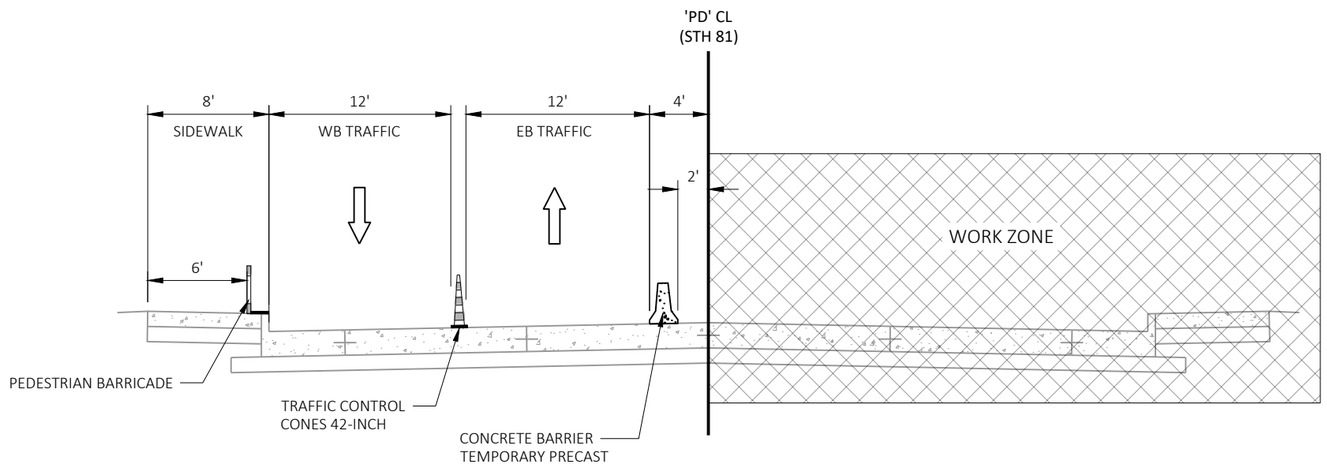
STAGE 1 NOTES (STH 81)

TRAFFIC

STH 81 (PORTLAND AVE) EB AND WB TRAFFIC SHIFTED TO NORTH SIDE OF BRIDGE.

CONSTRUCTION

ABUTMENT BACKWALL AND DECK REPAIR ON SOUTH SIDE OF BRIDGE.



TRAFFIC CONTROL TYPICAL SECTION - STH 81 - (PORTLAND AVE)

STAGE 1

2

5TH ST

M3-2 24"X12"
EAST
M1-6 24"X24"
81
ROAD WORK AHEAD
W20-1A

81

N

M3-2 24"X12"
EAST
M1-6 24"X24"
81
W12-52 48"X48"
MAX. 11' WIDTH
WO57-52 (MOD) 48"X36"
500 FEET AHEAD

LEGEND:

WORK AREA	CONCRETE BARRIER TEMPORARY PRECAST
DIRECTION OF TRAFFIC	TEMPORARY PEDESTRIAN BARRICADE
PAVEMENT MARKING REMOVAL	TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
PEDESTRIAN DETOUR ROUTE	TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS	TRAFFIC CONTROL ARROW BOARD
81 81 EXISTING SIGN, PROPOSED SIGN	TEMPORARY AUDIBLE MESSAGE DEVICE
TRAFFIC CONTROL SIGN	TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

TEMPORARY PAVEMENT MARKING LEGEND

W6x	TEMPORARY MARKING 6-INCH WHITE
DY6X	TEMPORARY MARKING 6-INCH DOUBLE YELLOW
Y6x	TEMPORARY MARKING 6-INCH YELLOW

FOR TEMPORARY PAVEMENT MARKING CALLOUTS:
"x" REPLACED BY "P" INDICATES PAINT
"x" REPLACED BY "T" INDICATES REMOVABLE TAPE

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

EAST
81
MAX. 11' WIDTH
W12-52 48"X48"
(ON EXISTING SIGN SUPPORT)
W04-3R
5' DRUM SPACING
3RD ST
81
PORTLAND AVE
25' TYP.
125'
W6T
PORTLAND AVE
213
5TH ST

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 1	SHEET 24	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026101_ST_1.DWG
LAYOUT NAME - 01
PLOT DATE : 10/22/2026 6:45 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

N

5TH ST

213 PORTLAND AVE

ROAD WORK AHEAD W20-1A

EAST 81 M3-2 24"X12" M1-6 24"X24"

MAX. 11' WIDTH W12-52 48"X48"

500 FEET AHEAD WO57-52 (MOD) 48"X36"

5TH ST

RIGHT LANE CLOSED AHEAD W20-5A

81 4TH ST

END ROAD WORK G20-2A 48"X24"

PORTLAND AVE 81

W6T

EAST 81

MAX. 11' WIDTH W12-52 48"X48"

(ON EXISTING SIGN SUPPORT)

W04-2R

EAST 81 M3-2 24"X12" M1-6 24"X24"

MAX. 11' WIDTH W12-52 48"X48"

500 FEET AHEAD WO57-52 (MOD) 48"X36"

EAST 81 M3-2 24"X12" M1-6 24"X24"

ROAD WORK AHEAD W20-1A

4TH ST

213

BARRETT PL

2

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC (or)
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- 81 81 EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

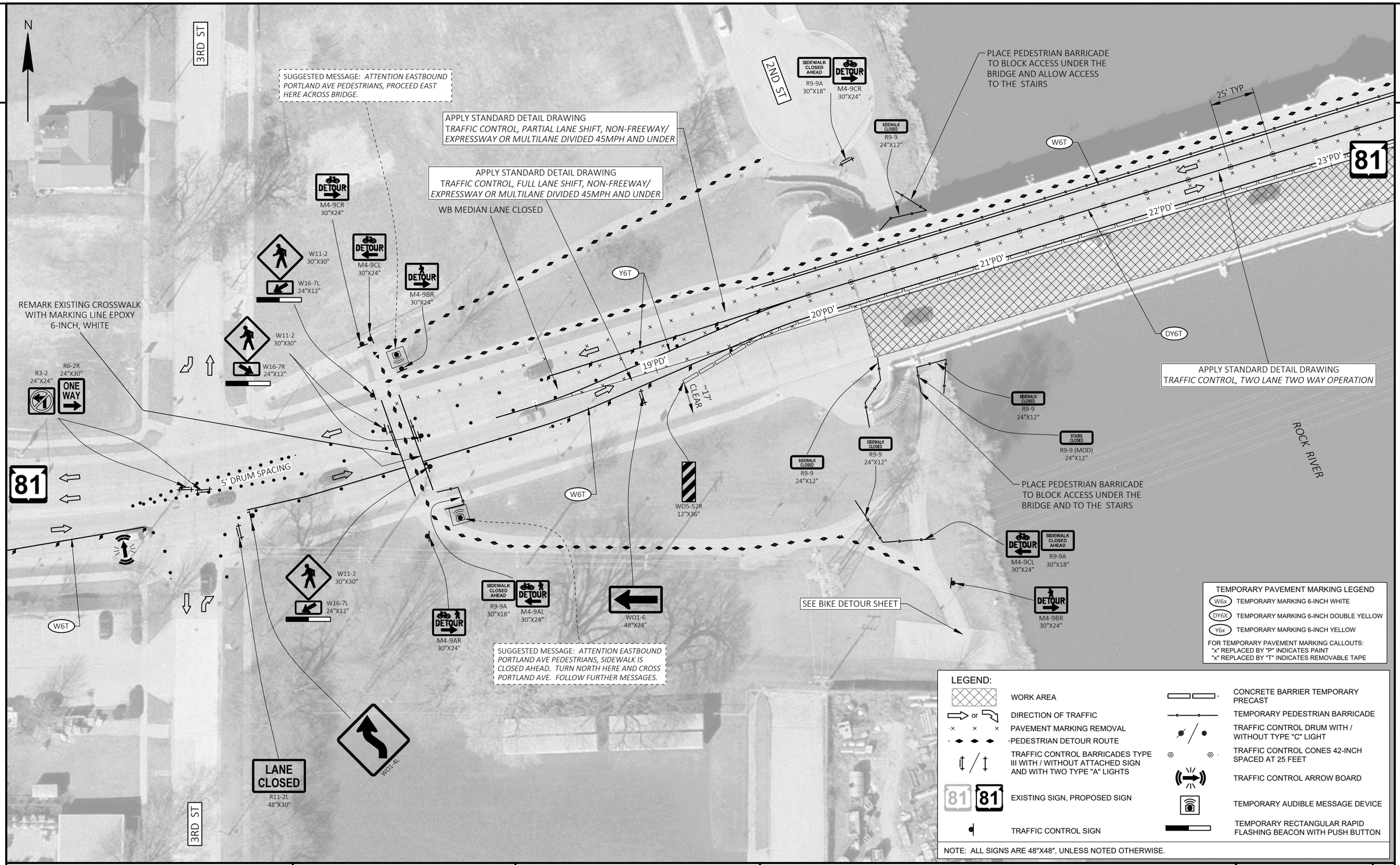
NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

TEMPORARY PAVEMENT MARKING LEGEND

- W6x TEMPORARY MARKING 6-INCH WHITE
- DY6X TEMPORARY MARKING 6-INCH DOUBLE YELLOW
- Y6x TEMPORARY MARKING 6-INCH YELLOW

FOR TEMPORARY PAVEMENT MARKING CALLOUTS:
"x" REPLACED BY "P" INDICATES PAINT
"x" REPLACED BY "T" INDICATES REMOVABLE TAPE

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 1	SHEET 25	E



TEMPORARY PAVEMENT MARKING LEGEND

W6x	TEMPORARY MARKING 6-INCH WHITE
DY6X	TEMPORARY MARKING 6-INCH DOUBLE YELLOW
Y6x	TEMPORARY MARKING 6-INCH YELLOW

FOR TEMPORARY PAVEMENT MARKING CALLOUTS:
"x" REPLACED BY "P" INDICATES PAINT
"x" REPLACED BY "T" INDICATES REMOVABLE TAPE

LEGEND:

WORK AREA	CONCRETE BARRIER TEMPORARY PRECAST
DIRECTION OF TRAFFIC	TEMPORARY PEDESTRIAN BARRICADE
PAVEMENT MARKING REMOVAL	TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
PEDESTRIAN DETOUR ROUTE	TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS	TRAFFIC CONTROL ARROW BOARD
EXISTING SIGN, PROPOSED SIGN	TEMPORARY AUDIBLE MESSAGE DEVICE
TRAFFIC CONTROL SIGN	TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 1	SHEET 26 E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026101_ST_1.DWG
LAYOUT NAME - 03
PLOT DATE : 10/22/2026 6:45 AM
PLOT BY : MUENCH, DOUGLAS
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC (or)
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

TEMPORARY PAVEMENT MARKING LEGEND

- W6x TEMPORARY MARKING 6-INCH WHITE
- DY6X TEMPORARY MARKING 6-INCH DOUBLE YELLOW
- Y6x TEMPORARY MARKING 6-INCH YELLOW

FOR TEMPORARY PAVEMENT MARKING CALLOUTS:
"x" REPLACED BY "P" INDICATES PAINT
"x" REPLACED BY "T" INDICATES REMOVABLE TAPE

N

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, PARTIAL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45MPH AND UNDER

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45MPH AND UNDER

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

DRIVEWAY OPEN

M4-9CR 30"X24"
M4-9CL 30"X24"
M4-9CR 30"X24"
M4-9CL 30"X24"
M4-9BL 30"X24"

MAX. 11' WIDTH
W12-52 48"X48"

LANE CLOSED
R11-2L 48"X30"

WO1-6 48"X24"
M4-9CL 30"X24"

WB OUTSIDE LANE CLOSED

WB MEDIAN LANE CLOSED

W6T

SIDEWALK CLOSED AHEAD
R9-9A 30"X18"
M4-9CL 30"X24"

PLACE PEDESTRIAN BARRICADE TO BLOCK ACCESS UNDER THE BRIDGE AND ALLOW ACCESS TO THE STAIRS

SIDEWALK CLOSED
R9-9 24"X12"

27'PD'
26'PD'
25'PD'
24'PD'
25' TYP

Y6T
W6T
DY6T

WO1-6 48"X24"
WO1-4R

SIDEWALK CLOSED
R9-9 24"X12"

STAIRS CLOSED
R9-9 (MOD) 24"X12"

SIDEWALK CLOSED AHEAD
R9-9A 30"X18"
M4-9AR 30"X24"

SIDEWALK CLOSED AHEAD
R9-9A 30"X18"
M4-9AR 30"X24"

SIDEWALK CLOSED
R9-9 24"X12"

M4-9CR 30"X24"

M4-9BL 30"X24"

SEE BIKE DETOUR SHEET

51
81

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 1	SHEET 27	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026101_ST_1.DWG
LAYOUT NAME - 04
PLOT DATE : 10/22/2026 6:45 AM
PLOT BY : MUENCH, DOUGLAS
PLOT NAME :
PLOT SCALE : 1 IN:50 FT

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC (or)
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- 81 / 81 — EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

TEMPORARY PAVEMENT MARKING LEGEND

- W6x — TEMPORARY MARKING 6-INCH WHITE
- DY6X — TEMPORARY MARKING 6-INCH DOUBLE YELLOW
- Y6x — TEMPORARY MARKING 6-INCH YELLOW

FOR TEMPORARY PAVEMENT MARKING CALLOUTS:
"x" REPLACED BY "P" INDICATES PAINT
"x" REPLACED BY "T" INDICATES REMOVABLE TAPE

N

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

ROAD WORK AHEAD
W20-1A

RIGHT LANE CLOSED AHEAD
W20-5A

MAX. 11' WIDTH
W12-52
48"X48"

500 FEET AHEAD
W057-52 (MOD)
48"X36"

W04-2R

81

200' MIN

WHITE AVE

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

WB OUTSIDE LANE CLOSED

125' TAPER

W6T

15' TYP

25' TYP

81

WOODWARD AVE

2

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 1	SHEET 28	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026101_ST_1.DWG
LAYOUT NAME - 05

PLOT DATE : 10/22/2026 6:45 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

N

51

TEMPORARY PAVEMENT MARKING LEGEND

- W6x — TEMPORARY MARKING 6-INCH WHITE
- DY6X — TEMPORARY MARKING 6-INCH DOUBLE YELLOW
- Y6x — TEMPORARY MARKING 6-INCH YELLOW

FOR TEMPORARY PAVEMENT MARKING CALLOUTS:
"x" REPLACED BY "P" INDICATES PAINT
"x" REPLACED BY "T" INDICATES REMOVABLE TAPE

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

M3-4 24"X12" WEST
M1-6 24"X24" 81
ROAD WORK AHEAD
W20-1A

M3-4 24"X12" WEST
M1-6 24"X24" 81
W12-52 48"X48" MAX. 11' WIDTH
WO57-52 (MOD) 48"X36" 500 FEET AHEAD

LANE CLOSED
R11-2L 48"X30"

LANE CLOSED
R11-2L 48"X30"

LANE CLOSED
R11-2L 48"X30"

51

WB OUTSIDE LANE CLOSED

15' TYP

125' TAPER
W6T

SEE EARLIER SHEETS FOR PEDESTRIAN/BIKE TRAFFIC ACCOMMODATIONS IN THIS AREA

MAX. 11' WIDTH
W12-52 48"X48"

81

81

G20-2A 48"X24" END ROAD WORK

WOODWARD AVE

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 1	SHEET 29 E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026101_ST_1.DWG
LAYOUT NAME - 06
PLOT DATE : 10/22/2026 6:45 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

51

81

N

WOODWARD AVE

25' TYP

27'PD'

81

WB MEDIAN LANE CLOSED

LANE CLOSED
R11-2L
48"X30"

END ROAD WORK
G20-2A
48"X24"

SEE EARLIER SHEETS FOR PEDESTRIAN/BIKE TRAFFIC ACCOMMODATIONS IN THIS AREA

WEST
81
M3-4
24"X12"
M1-6
24"X24"

MAX. 11' WIDTH
W12-52
48"X48"

500 FEET AHEAD
WO57-52 (MOD)
48"X36"

WEST
81
M3-4
24"X12"
M1-6
24"X24"

ROAD WORK AHEAD
W20-1A

51

LEGEND:

WORK AREA	CONCRETE BARRIER TEMPORARY PRECAST
DIRECTION OF TRAFFIC	TEMPORARY PEDESTRIAN BARRICADE
PAVEMENT MARKING REMOVAL	TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
PEDESTRIAN DETOUR ROUTE	TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS	TRAFFIC CONTROL ARROW BOARD
EXISTING SIGN, PROPOSED SIGN	TEMPORARY AUDIBLE MESSAGE DEVICE
TRAFFIC CONTROL SIGN	TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

TEMPORARY PAVEMENT MARKING LEGEND

W6x	TEMPORARY MARKING 6-INCH WHITE
DY6X	TEMPORARY MARKING 6-INCH DOUBLE YELLOW
Y6x	TEMPORARY MARKING 6-INCH YELLOW

FOR TEMPORARY PAVEMENT MARKING CALLOUTS:
"x" REPLACED BY "P" INDICATES PAINT
"x" REPLACED BY "T" INDICATES REMOVABLE TAPE

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 1	SHEET 30	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026101_ST_1.DWG
LAYOUT NAME - 07

PLOT DATE : 10/22/2026 6:45 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

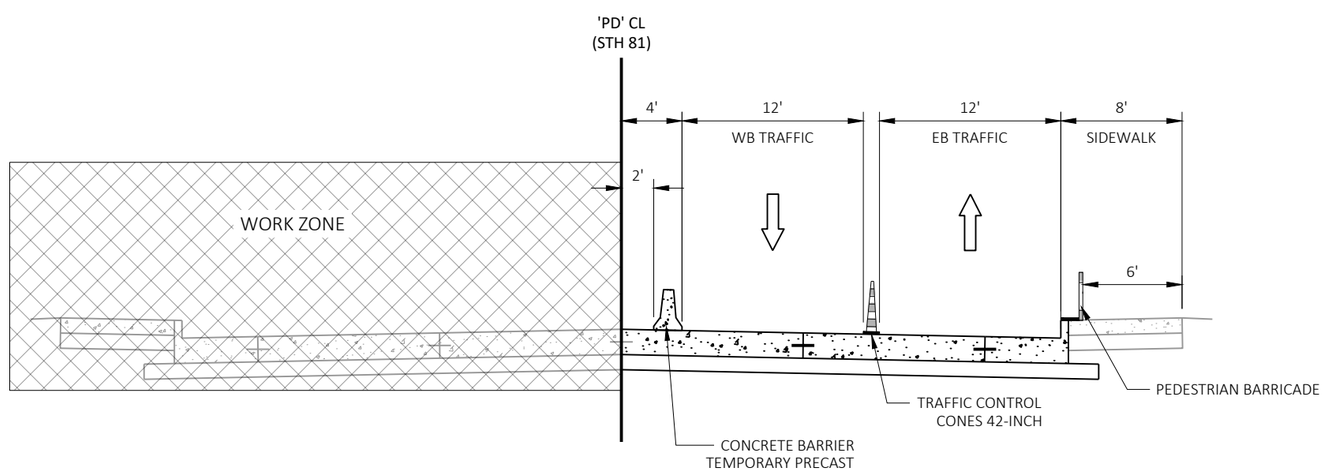
2

2

STAGE 2 NOTES (STH 81)

TRAFFIC
STH 81 (PORTLAND AVE) EB AND WB TRAFFIC SHIFTED TO SOUTH SIDE OF BRIDGE.

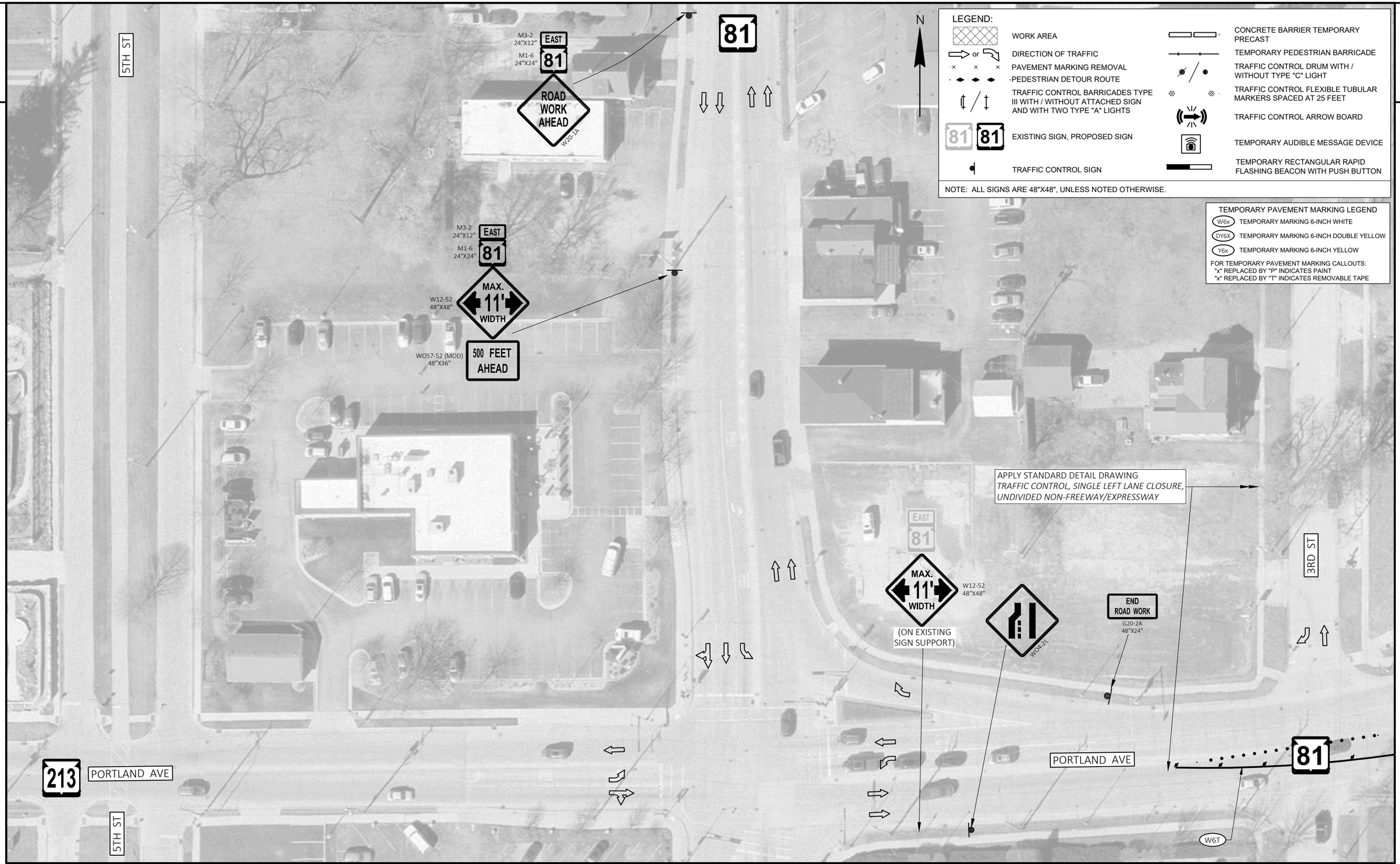
CONSTRUCTION
ABUTMENT BACKWALL AND DECK REPAIR ON NORTH SIDE OF BRIDGE.



TRAFFIC CONTROL TYPICAL SECTION - STH 81 - (PORTLAND AVE)
STAGE 2

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 2	SHEET 31	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026201_ST_2.DWG
LAYOUT NAME - TS & NOTES
PLOT DATE : 10/22/2026 7:04 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42



LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

TEMPORARY PAVEMENT MARKING LEGEND

- W6x TEMPORARY MARKING 6-INCH WHITE
- DY6X TEMPORARY MARKING 6-INCH DOUBLE YELLOW
- Y6x TEMPORARY MARKING 6-INCH YELLOW

FOR TEMPORARY PAVEMENT MARKING CALLOUTS:
"x" REPLACED BY "P" INDICATES PAINT
"x" REPLACED BY "T" INDICATES REMOVABLE TAPE

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 2	SHEET 32 E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026201_ST_2.DWG
LAYOUT NAME - 01
PLOT DATE : 10/22/2026 7:04 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

N

5TH ST

4TH ST

81

213 PORTLAND AVE

PORTLAND AVE 81

ROAD WORK AHEAD W20-1A

EAST 81 M3-2 24"X12" M1-6 24"X24"

MAX. 11' WIDTH W12-52 48"X48"

500 FEET AHEAD WO57-52 (MOD) 48"X36"

LEFT LANE CLOSED AHEAD W20-3A

END ROAD WORK G20-2A 48"X24"

EAST 81

MAX. 11' WIDTH W12-52 48"X48"

(ON EXISTING SIGN SUPPORT)

W04-2L

EAST 81 M3-2 24"X12" M1-6 24"X24"

MAX. 11' WIDTH W12-52 48"X48"

500 FEET AHEAD WO57-52 (MOD) 48"X36"

EAST 81 M3-2 24"X12" M1-6 24"X24"

ROAD WORK AHEAD W20-1A

4TH ST 213

5TH ST

BARRETT ST

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC (or)
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- 81 81 EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

TEMPORARY PAVEMENT MARKING LEGEND

- W6x TEMPORARY MARKING 6-INCH WHITE
- DY6X TEMPORARY MARKING 6-INCH DOUBLE YELLOW
- Y6x TEMPORARY MARKING 6-INCH YELLOW

FOR TEMPORARY PAVEMENT MARKING CALLOUTS:
"x" REPLACED BY "P" INDICATES PAINT
"x" REPLACED BY "T" INDICATES REMOVABLE TAPE

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 2	SHEET 33	E

N

3RD ST

2ND ST

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45MPH AND UNDER

PLACE PEDESTRIAN BARRICADE TO BLOCK ACCESS UNDER THE BRIDGE AND TO THE STAIRS

SIDEWALK CLOSED

TEMPORARY CONCRETE BARRIER

SUGGESTED MESSAGE: *ATTENTION EASTBOUND PORTLAND AVE PEDESTRIANS, SIDEWALK IS CLOSED AHEAD. TURN SOUTH HERE AND CROSS PORTLAND AVE. FOLLOW FURTHER MESSAGES.*

M4-9AL 30"X24"

SIDEWALK CLOSED AHEAD R9-9A 30"X18"

DETOUR M4-9AR 30"X24"

SIDEWALK CLOSED R9-9 24"X12"

WO1-4R

W6T

23'PD'

22'PD'

21'PD'

20'PD'

19'PD'

25' TYP

15' TYP

81

STAIRS CLOSED R9-9 (MOD) 24"X12"

WO1-6 48"X24"

DETOUR M4-9CR 30"X24"

SIDEWALK CLOSED AHEAD R9-9A 30"X18"

DETOUR M4-9BR 30"X24"

R3-2 24"X24"

R6-2R 24"X30" ONE WAY

W11-2 30"X30"

W16-7L 24"X12"

W11-2 30"X30"

W16-7R 24"X12"

5' DRUM SPACING TYP

DY6T

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION

PLACE PEDESTRIAN BARRICADE TO BLOCK ACCESS UNDER THE BRIDGE AND ALLOW ACCESS TO THE STAIRS

SIDEWALK CLOSED R9-9 24"X12"

Y6T

ROCK RIVER

EB MEDIAN LANE CLOSED

81

W6T

125' TAPER

DETOUR M4-9BL 30"X24"

DETOUR M4-9CR 30"X24"

W11-2 30"X30"

W16-7L 24"X12"

DETOUR M4-9CL 30"X24"

SIDEWALK CLOSED AHEAD R9-9A 30"X18"

SEE BIKE DETOUR SHEET

DETOUR M4-9BR 30"X24"

WO1-4R

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, PARTIAL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45MPH AND UNDER

SUGGESTED MESSAGE: *ATTENTION EASTBOUND PORTLAND AVE PEDESTRIANS, PROCEED EAST HERE ACROSS BRIDGE.*

3RD ST

TEMPORARY PAVEMENT MARKING LEGEND

W6x	TEMPORARY MARKING 6-INCH WHITE
DY6X	TEMPORARY MARKING 6-INCH DOUBLE YELLOW
Y6x	TEMPORARY MARKING 6-INCH YELLOW

FOR TEMPORARY PAVEMENT MARKING CALLOUTS:
"x" REPLACED BY "P" INDICATES PAINT
"x" REPLACED BY "T" INDICATES REMOVABLE TAPE

LEGEND:

WORK AREA	CONCRETE BARRIER TEMPORARY PRECAST
DIRECTION OF TRAFFIC	TEMPORARY PEDESTRIAN BARRICADE
PAVEMENT MARKING REMOVAL	TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
PEDESTRIAN DETOUR ROUTE	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS SPACED AT 25 FEET
TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS	TRAFFIC CONTROL ARROW BOARD
EXISTING SIGN, PROPOSED SIGN	TEMPORARY AUDIBLE MESSAGE DEVICE
TRAFFIC CONTROL SIGN	TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 2	SHEET 34 E

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

TEMPORARY PAVEMENT MARKING LEGEND

- W6x TEMPORARY MARKING 6-INCH WHITE
- DY6X TEMPORARY MARKING 6-INCH DOUBLE YELLOW
- Y6x TEMPORARY MARKING 6-INCH YELLOW

FOR TEMPORARY PAVEMENT MARKING CALLOUTS:
"x" REPLACED BY "P" INDICATES PAINT
"x" REPLACED BY "T" INDICATES REMOVABLE TAPE

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45MPH AND UNDER

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, PARTIAL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45MPH AND UNDER

PLACE PEDESTRIAN BARRICADE TO BLOCK ACCESS UNDER THE BRIDGE AND TO THE STAIRS

DRIVEWAY OPEN

WB OUTSIDE LANE CLOSED

EB MEDIAN LANE CLOSED

SEE BIKE DETOUR SHEET

M4-9AL 30"X24"
M4-9AR 30"X24"
W12-52 48"X48"
MAX. 11' WIDTH
M4-9AL 30"X24"
W1-4L 36"X36"
15' TYP
M4-9AA 30"X24"
R9-9A 30"X12"
R11-2L 48"X30"
WO1-6 48"X24"
R9-9 24"X12"
R9-9A 30"X18"
M4-9AL 30"X24"
R9-9 (MOD) 24"X12"
WO5-52R 12"X36"
W6T
27'PD'
25' TYP
26'PD'
25'PD'
24'PD'
Y6T
DY6T
M4-9BR 30"X24"
M4-9BL 30"X24"
M4-9CL 30"X24"
M4-9CR 30"X24"

51
81

N

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 2	SHEET 35 E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026201_ST_2.DWG
LAYOUT NAME - 04
PLOT DATE : 10/22/2026 7:04 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

TEMPORARY PAVEMENT MARKING LEGEND

- W6x TEMPORARY MARKING 6-INCH WHITE
- DY6X TEMPORARY MARKING 6-INCH DOUBLE YELLOW
- Y6x TEMPORARY MARKING 6-INCH YELLOW

FOR TEMPORARY PAVEMENT MARKING CALLOUTS:
"x" REPLACED BY "P" INDICATES PAINT
"x" REPLACED BY "T" INDICATES REMOVABLE TAPE

N

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

ROAD WORK AHEAD
W20-1A

81

200' MIN

RIGHT LANE CLOSED AHEAD
W20-5A

MAX. 11' WIDTH
W12-52
48"X48"

500 FEET AHEAD
WO57-52(MOD)
48"X36"

WHITE AVE

W04-2R

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

WB OUTSIDE LANE CLOSED

125' TAPER

W6T

25' TYP

15' TYP

81

2

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 2	SHEET 36	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026201_ST_2.DWG
LAYOUT NAME - 05
PLOT DATE : 10/22/2026 7:04 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

N

51

TEMPORARY PAVEMENT MARKING LEGEND

- W6x — TEMPORARY MARKING 6-INCH WHITE
- DY6X — TEMPORARY MARKING 6-INCH DOUBLE YELLOW
- Y6x — TEMPORARY MARKING 6-INCH YELLOW

FOR TEMPORARY PAVEMENT MARKING CALLOUTS:
"x" REPLACED BY "P" INDICATES PAINT
"x" REPLACED BY "T" INDICATES REMOVABLE TAPE

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- 81 / 81 — EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

M3-4 24"X12" WEST
M1-6 24"X24" 81
ROAD WORK AHEAD
W20-1A

M3-4 24"X12" WEST
M1-6 24"X24" 81
W12-52 48"X48" MAX. 11' WIDTH
WO57-52 (MOD) 48"X36" 500 FEET AHEAD

LANE CLOSED
R11-2L 48"X30"

LANE CLOSED
R11-2L 48"X30"

WB OUTSIDE LANE CLOSED

LANE CLOSED
R11-2L 48"X30"

SEE EARLIER SHEETS FOR PEDESTRIAN/BIKE TRAFFIC ACCOMMODATIONS IN THIS AREA

W12-52 48"X48" MAX. 11' WIDTH

15' TYP

50' TYP

125'

W6T

25' TYP

G20-2A 48"X24" END ROAD WORK

81

81

WOODWARD AVE

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 2	SHEET 37 E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026201_ST_2.DWG
LAYOUT NAME - 06

PLOT DATE : 10/22/2026 7:04 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

51

81

25' TYP

15' TYP

27'PD

EB MEDIAN LANE CLOSED

LANE CLOSED
R11-2L
48"X30"

END ROAD WORK
G20-2A
48"X24"

WOODWARD AVE

N

2

SEE EARLIER SHEETS FOR PEDESTRIAN/BIKE TRAFFIC ACCOMMODATIONS IN THIS AREA

WEST
81
M3-4
24"X12"
M1-6
24"X24"

MAX. 11' WIDTH
W12-52
48"X48"

500 FEET AHEAD
WO57-52 (MOD)
48"X36"

WEST
81
M3-4
24"X12"
M1-6
24"X24"

ROAD WORK AHEAD
W20-1A

51

TEMPORARY PAVEMENT MARKING LEGEND

W6x	TEMPORARY MARKING 6-INCH WHITE
DY6X	TEMPORARY MARKING 6-INCH DOUBLE YELLOW
Y6x	TEMPORARY MARKING 6-INCH YELLOW

FOR TEMPORARY PAVEMENT MARKING CALLOUTS:
"x" REPLACED BY "P" INDICATES PAINT
"x" REPLACED BY "T" INDICATES REMOVABLE TAPE

LEGEND:

WORK AREA	CONCRETE BARRIER TEMPORARY PRECAST
or DIRECTION OF TRAFFIC	TEMPORARY PEDESTRIAN BARRICADE
PAVEMENT MARKING REMOVAL	TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
PEDESTRIAN DETOUR ROUTE	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS SPACED AT 25 FEET
TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS	TRAFFIC CONTROL ARROW BOARD
81 81 EXISTING SIGN, PROPOSED SIGN	TEMPORARY AUDIBLE MESSAGE DEVICE
TRAFFIC CONTROL SIGN	TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 2	SHEET 38	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026201_ST_2.DWG
LAYOUT NAME - 07
PLOT DATE : 10/22/2026 7:04 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

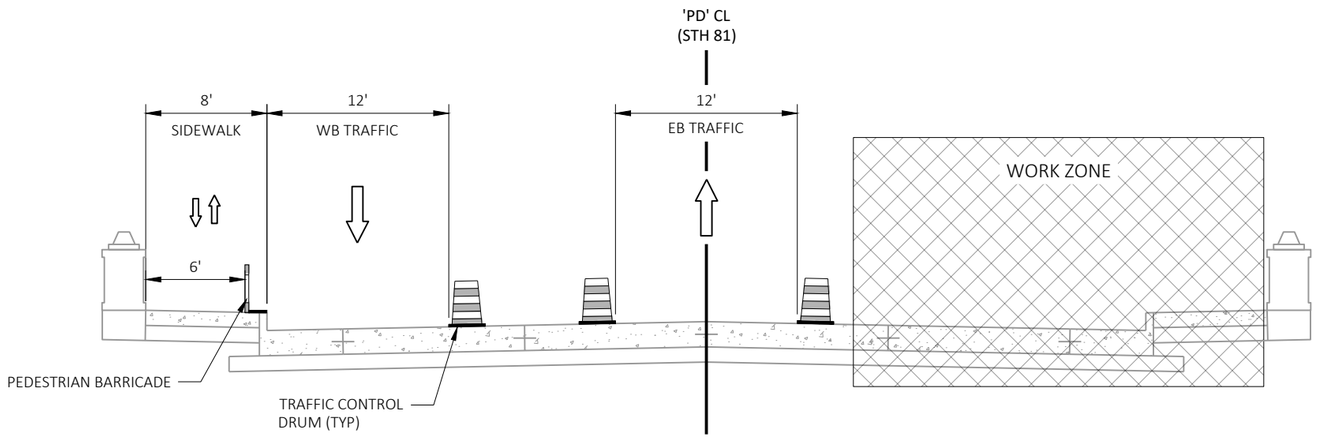
STAGE 3A NOTES (STH 81)

TRAFFIC

STH 81 (PORTLAND AVE) EB TRAFFIC ON CENTER OF BRIDGE.
STH 81 WB TRAFFIC ON EXISTING WB OUTSIDE LANE.

CONSTRUCTION

APPLY POLYMER OVERLAY ON EB OUTSIDE LANE AND ADJOINING SIDEWALK.



TRAFFIC CONTROL TYPICAL SECTION - STH 81 - (PORTLAND AVE)
STAGE 3A

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 3A	SHEET 39	E

2

5TH ST

M3-2 24"X12"
EAST
M1-6 24"X24"
81
ROAD WORK AHEAD
W20-1A

81

N

M3-2 24"X12"
EAST
M1-6 24"X24"
81
W12-52 48"X48"
MAX. 11' WIDTH
WO57-52 (MOD) 48"X36"
500 FEET AHEAD

LEGEND:

WORK AREA	CONCRETE BARRIER TEMPORARY PRECAST
DIRECTION OF TRAFFIC	TEMPORARY PEDESTRIAN BARRICADE
PAVEMENT MARKING REMOVAL	TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
PEDESTRIAN DETOUR ROUTE	TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS	TRAFFIC CONTROL ARROW BOARD
EXISTING SIGN, PROPOSED SIGN	TEMPORARY AUDIBLE MESSAGE DEVICE
TRAFFIC CONTROL SIGN	TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

EAST
81
MAX. 11' WIDTH
W12-52 48"X48"
(ON EXISTING SIGN SUPPORT)
W04-3R
5' DRUM SPACING
3RD ST
81
PORTLAND AVE
25' TYP.
125'
W6T
PORTLAND AVE
213
5TH ST

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 3A	SHEET 40 E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026301_ST_3A.DWG
LAYOUT NAME - 01
PLOT DATE : 10/23/2026 11:51 AM
PLOT BY : MUENCH, DOUGLAS
PLOT NAME :
PLOT SCALE : 1 IN:50 FT

2

N

5TH ST

213 PORTLAND AVE

ROAD WORK AHEAD W20-1A

EAST 81 M3-2 24"X12" M1-6 24"X24"

MAX. 11' WIDTH W12-52 48"X48"

500 FEET AHEAD WO57-52 (MOD) 48"X36"

5TH ST

RIGHT LANE CLOSED AHEAD W20-5A

81 4TH ST

END ROAD WORK G20-2A 48"X24"

PORTLAND AVE 81

W6T

EAST 81

MAX. 11' WIDTH W12-52 48"X48"

(ON EXISTING SIGN SUPPORT)

W04-2R

EAST 81 M3-2 24"X12" M1-6 24"X24"

MAX. 11' WIDTH W12-52 48"X48"

500 FEET AHEAD WO57-52 (MOD) 48"X36"

EAST 81 M3-2 24"X12" M1-6 24"X24"

ROAD WORK AHEAD W20-1A

4TH ST

213

BARRETT PL

2

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC (or)
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 3A	SHEET 41	E

2

2

N

3RD ST

2ND ST

PORTION OF WB
MEDIAN LANE CLOSED

25' TYP

23'PD

22'PD

21'PD

20'PD

19'PD

81

LANE
CLOSED
R11-2L
48"X30"

WB MEDIAN LANE CLOSED

W11-2
30"X30"

W16-7L
24"X12"

R3-2
24"X24"

R6-2R
24"X30"
ONE
WAY

W11-2
30"X30"

W16-7R
24"X12"

81

5' DRUM SPACING

SIDEWALK
CLOSED
AHEAD
R9-9A
30"X18"

DETOUR
M4-9BL
30"X24"

DETOUR
M4-9CR
30"X24"

W11-2
30"X30"

W16-7L
24"X12"

SUGGESTED MESSAGE:
ATTENTION EASTBOUND PORTLAND AVE PEDESTRIANS, SIDEWALK IS CLOSED AHEAD. TURN NORTH HERE, CROSSING PORTLAND AVE AND USE SIDEWALK ON NORTH SIDE OF PORTLAND AVE TO PROCEED EAST

WO1-4L

LANE
CLOSED
R11-2L
48"X30"

3RD ST

WO1-6
48"X24"

SIDEWALK
CLOSED
R9-9
24"X12"

STAIRS
CLOSED
R9-9 (MOD)
24"X12"

PLACE PEDESTRIAN BARRICADE
TO BLOCK ACCESS TO THE STAIRS

DETOUR
M4-9CR
30"X24"

ROCK RIVER

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 3A	SHEET 42	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026301_ST_3A.DWG
LAYOUT NAME - 03

PLOT DATE : 10/23/2026 11:51 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC (or)
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN (81 / 81)
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

N

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, PARTIAL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45MPH AND UNDER

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

51

DRIVEWAY OPEN

MAX. 11' WIDTH
W12-52
48"X48"

WO1-6
48"X24"

LANE CLOSED
R11-2L
48"X30"

WB MEDIAN LANE CLOSED

WB OUTSIDE LANE CLOSED

81

PORTION OF WB MEDIAN LANE CLOSED

LANE CLOSED
R11-2L
48"X30"

25' TYP

24'PD'

25'PD'

26'PD'

27'PD'

SIDEWALK CLOSED
R9-9
24"X12"

STAIRS CLOSED
R9-9 (MOD)
24"X12"

WO1-6
48"X24"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

SIDEWALK CLOSED
R9-9
24"X12"

DETOUR
M4-9BL
30"X24"

SUGGESTED MESSAGE:
ATTENTION WESTBOUND PORTLAND AVE PEDESTRIANS, SIDEWALK IS CLOSED AHEAD. TURN NORTH HERE, CROSSING PORTLAND AVE AND USE SIDEWALK ON NORTH SIDE OF PORTLAND AVE TO PROCEED WEST

DETOUR
M4-9BL
30"X24"

81

51

2

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 3A	SHEET 43	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026301_ST_3A.DWG
LAYOUT NAME - 04

PLOT DATE : 10/23/2026 11:51 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC (or)
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

N

ROAD WORK AHEAD
W20-1A

81

RIGHT LANE CLOSED AHEAD
W20-5A

200' MIN

MAX. 11' WIDTH
W12-52
48"X48"

500 FEET AHEAD
W057-52 (MOD)
48"X36"

WHITE AVE

W04-2R

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

WB OUTSIDE LANE CLOSED

125' TAPER

W6T

15' TYP

25' TYP

81

WOODWARD AVE

2

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 3A	SHEET 44	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026301_ST_3A.DWG
LAYOUT NAME - 05

PLOT DATE : 10/23/2026 11:51 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

N

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

51

M3-4 24"X12" WEST
M1-6 24"X24" 81
ROAD WORK AHEAD
W20-1A

M3-4 24"X12" WEST
M1-6 24"X24" 81
W12-52 48"X48" MAX. 11' WIDTH
WO57-52 (MOD) 48"X36" 500 FEET AHEAD

LANE CLOSED
R11-2L 48"X30"

LANE CLOSED
R11-2L 48"X30"

LANE CLOSED
R11-2L 48"X30"

51

WB OUTSIDE LANE CLOSED

15' TYP

125' TAPER

W6T

SEE EARLIER SHEETS FOR PEDESTRIAN/BIKE TRAFFIC ACCOMMODATIONS IN THIS AREA

MAX. 11' WIDTH
W12-52 48"X48"

81

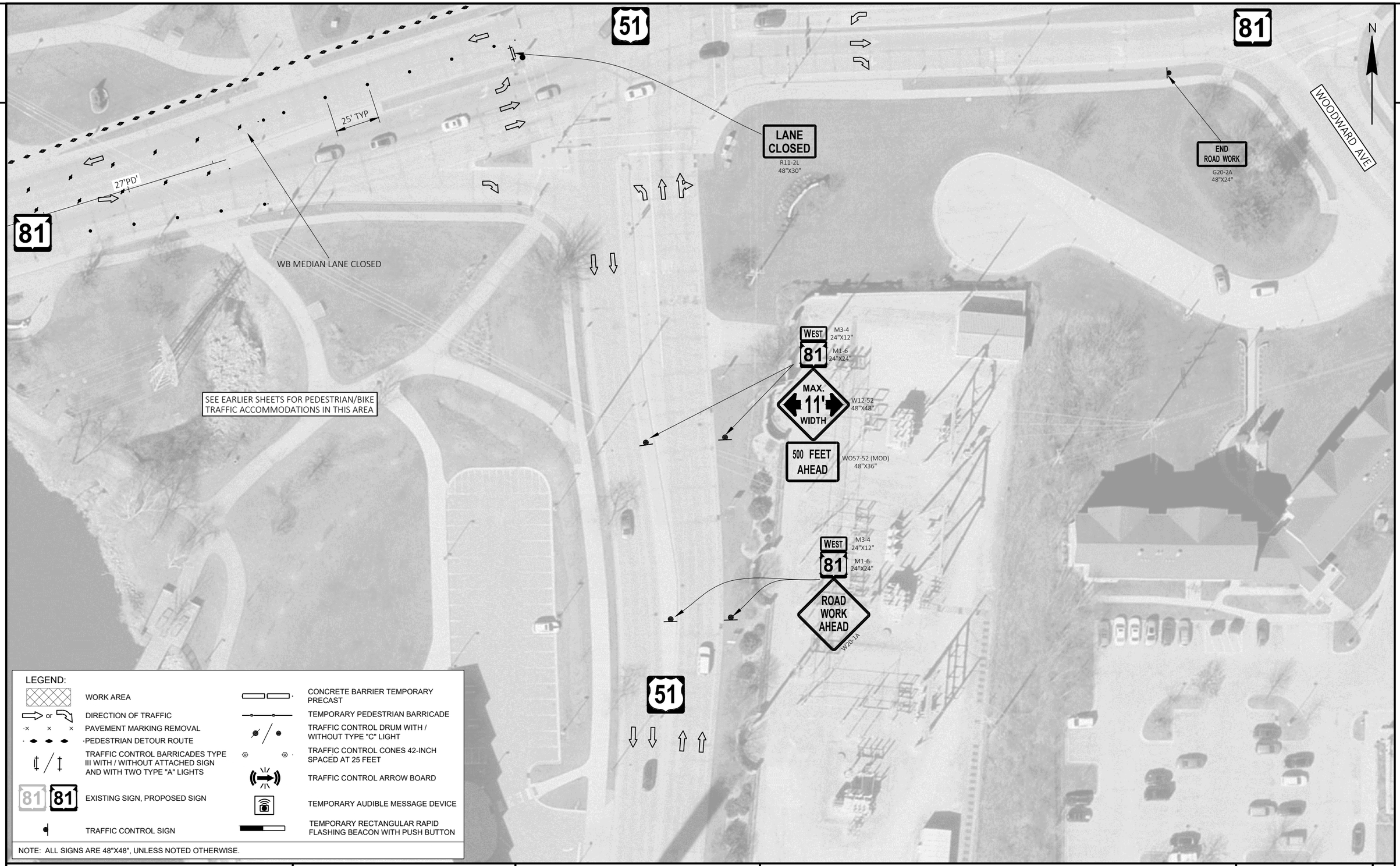
81

G20-2A 48"X24" END ROAD WORK

WOODWARD AVE

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 3A	SHEET 45	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026301_ST_3A.DWG
LAYOUT NAME - 06
PLOT DATE : 10/23/2026 11:51 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42



LEGEND:

WORK AREA	CONCRETE BARRIER TEMPORARY PRECAST
DIRECTION OF TRAFFIC	TEMPORARY PEDESTRIAN BARRICADE
PAVEMENT MARKING REMOVAL	TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
PEDESTRIAN DETOUR ROUTE	TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS	TRAFFIC CONTROL ARROW BOARD
EXISTING SIGN, PROPOSED SIGN	TEMPORARY AUDIBLE MESSAGE DEVICE
TRAFFIC CONTROL SIGN	TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 3A	SHEET 46	E

2

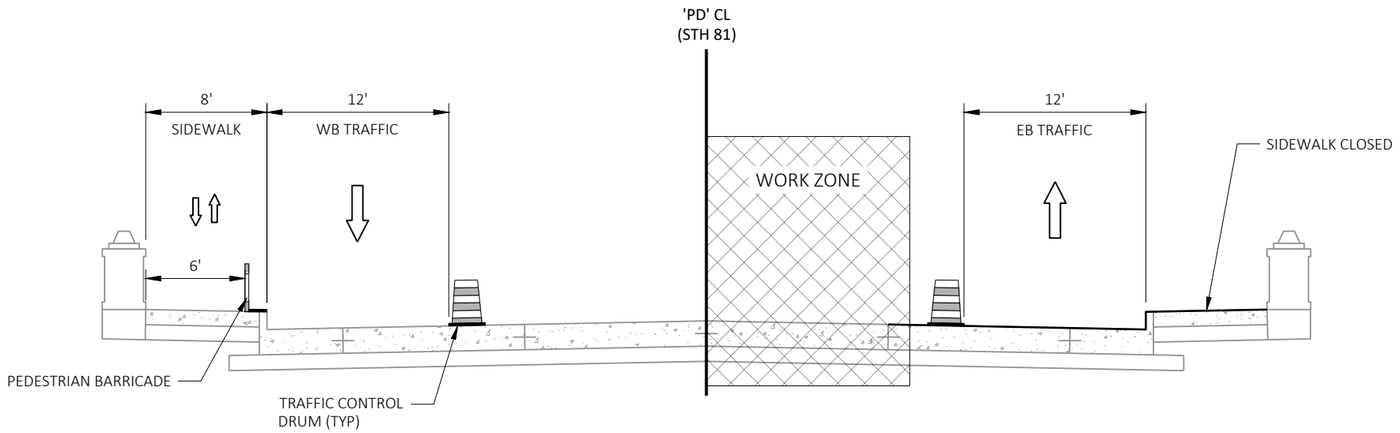
STAGE 3B NOTES (STH 81)

TRAFFIC

STH 81 (PORTLAND AVE) EB TRAFFIC ON EXISTING OUTSIDE LANE.
STH 81 WB TRAFFIC ON EXISTING WB OUTSIDE LANE.

CONSTRUCTION

APPLY POLYMER OVERLAY ON EB MEDIAN LANE.



TRAFFIC CONTROL TYPICAL SECTION - STH 81 - (PORTLAND AVE)

STAGE 3B

2

2

5TH ST

M3-2 24"X12"
EAST
M1-6 24"X24"
81
ROAD WORK AHEAD
W20-1A

81

N

LEGEND:

WORK AREA	CONCRETE BARRIER TEMPORARY PRECAST
or DIRECTION OF TRAFFIC	TEMPORARY PEDESTRIAN BARRICADE
PAVEMENT MARKING REMOVAL	TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
PEDESTRIAN DETOUR ROUTE	TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS	TRAFFIC CONTROL ARROW BOARD
81 81 EXISTING SIGN, PROPOSED SIGN	TEMPORARY AUDIBLE MESSAGE DEVICE
TRAFFIC CONTROL SIGN	TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

M3-2 24"X12"
EAST
M1-6 24"X24"
81
W12-52 48"X48"
MAX. 11' WIDTH
WO57-52 (MOD) 48"X36"
500 FEET AHEAD

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

EAST
81
MAX. 11' WIDTH
W12-52 48"X48"
(ON EXISTING SIGN SUPPORT)
W4-2L
5' DRUM SPACING

3RD ST

81

PORTLAND AVE

213

PORTLAND AVE

5TH ST

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 3B	SHEET 48	E

2

N

5TH ST

213 PORTLAND AVE

ROAD WORK AHEAD W20-1A

EAST 81 M3-2 24"X12" M1-6 24"X24"

MAX. 11' WIDTH W12-52 48"X48"

500 FEET AHEAD WO57-52 (MOD) 48"X36"

5TH ST

RIGHT LANE CLOSED AHEAD W20-5A

81 4TH ST

END ROAD WORK G20-2A 48"X24"

PORTLAND AVE 81

EAST 81

MAX. 11' WIDTH W12-52 48"X48"

(ON EXISTING SIGN SUPPORT)

W04-2L

EAST 81 M3-2 24"X12" M1-6 24"X24"

MAX. 11' WIDTH W12-52 48"X48"

500 FEET AHEAD WO57-52 (MOD) 48"X36"

4TH ST

213

EAST 81 M3-2 24"X12" M1-6 24"X24"

ROAD WORK AHEAD W20-1A

BARRETT PL

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC (or)
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- 81 81 EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 3B	SHEET 49 E

2

N

3RD ST

2ND ST

PORTION OF WB
MEDIAN LANE CLOSED

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, PARTIAL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45MPH AND UNDER

EB & WB MEDIAN
LANES CLOSED

25' TYP

23'PD'

22'PD'

21'PD'

20'PD'

19'PD'

81

R3-2
24"X24"

R6-2R
24"X30"
ONE WAY

W11-2
30"X30"

W16-7L
24"X12"

W11-2
30"X30"

W16-7R
24"X12"

5' DRUM SPACING

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BL
30"X24"

DETOUR
M4-9CR
30"X24"

W11-2
30"X30"

W16-7L
24"X12"

SUGGESTED MESSAGE:
ATTENTION EASTBOUND PORTLAND AVE PEDESTRIANS, SIDEWALK IS CLOSED AHEAD. TURN NORTH HERE, CROSSING PORTLAND AVE AND USE SIDEWALK ON NORTH SIDE OF PORTLAND AVE TO PROCEED EAST

SIDEWALK CLOSED
R9-9
24"X12"

STAIRS CLOSED
R9-9 (MOD)
24"X12"

PLACE PEDESTRIAN BARRICADE
TO BLOCK ACCESS TO THE STAIRS

ROCK RIVER

DETOUR
M4-9CR
30"X24"

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 3B	SHEET 50	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026302_ST_3B.DWG
LAYOUT NAME - 03
PLOT DATE : 10/23/2026 11:52 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

N

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, PARTIAL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45MPH AND UNDER

DRIVEWAY OPEN

MAX. 11' WIDTH
W12-52
48"X48"

WO1-6
48"X24"

LANE CLOSED
R11-2L
48"X30"

WB MEDIAN LANE CLOSED

WB OUTSIDE LANE CLOSED

PORTION OF WB MEDIAN LANE CLOSED

25' TYP

24'PD'

25'PD'

26'PD'

27'PD'

SIDEWALK CLOSED
R9-9
24"X12"

STAIRS CLOSED
R9-9 (MOD)
24"X12"

SIDEWALK CLOSED
R9-9
24"X12"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BL
30"X24"

DETOUR
M4-9BL
30"X24"

SUGGESTED MESSAGE:
ATTENTION WESTBOUND PORTLAND AVE PEDESTRIANS, SIDEWALK IS CLOSED AHEAD. TURN NORTH HERE, CROSSING PORTLAND AVE AND USE SIDEWALK ON NORTH SIDE OF PORTLAND AVE TO PROCEED WEST

51

81

51

81

2

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 3B	SHEET 51	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026302_ST_3B.DWG
LAYOUT NAME - 04

PLOT DATE : 10/23/2026 11:52 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC (or)
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- 81 / 81 EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

N

ROAD WORK AHEAD
W20-1A

RIGHT LANE CLOSED AHEAD
W20-5A

MAX. 11' WIDTH
W12-52
48"X48"

500 FEET AHEAD
W057-52 (MOD)
48"X36"

W04-2R

81

200' MIN

WHITE AVE

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

WB OUTSIDE LANE CLOSED

15' TYP

125' TAPER

W6T

25' TYP

81

WOODWARD AVE

2

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 3B	SHEET 52	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026302_ST_3B.DWG
LAYOUT NAME - 05

PLOT DATE : 10/23/2026 11:52 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

N

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

51

M3-4 24"X12" WEST
M1-6 24"X24" 81
ROAD WORK AHEAD
W20-1A

M3-4 24"X12" WEST
M1-6 24"X24" 81
W12-52 48"X48" MAX. 11' WIDTH
WO57-52 (MOD) 48"X36" 500 FEET AHEAD

LANE CLOSED
R11-2L 48"X30"

LANE CLOSED
R11-2L 48"X30"

LANE CLOSED
R11-2L 48"X30"

51

WB OUTSIDE LANE CLOSED

15' TYP

125' TAPER

W6T

SEE EARLIER SHEETS FOR PEDESTRIAN/BIKE TRAFFIC ACCOMMODATIONS IN THIS AREA

MAX. 11' WIDTH
W12-52 48"X48"

81

81

G20-2A 48"X24" END ROAD WORK

WOODWARD AVE

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 3B	SHEET 53	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026302_ST_3B.DWG
LAYOUT NAME - 06
PLOT DATE : 10/23/2026 11:52 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

51

81

25' TYP

27'PD'

81

WB MEDIAN LANE CLOSED

SEE EARLIER SHEETS FOR PEDESTRIAN/BIKE TRAFFIC ACCOMMODATIONS IN THIS AREA

LANE CLOSED
R11-2L
48"X30"

WEST
81
M3-4
24"X12"
M1-6
24"X24"

MAX. 11' WIDTH
W12-52
48"X48"

500 FEET AHEAD
WO57-52 (MOD)
48"X36"

WEST
81
M3-4
24"X12"
M1-6
24"X24"

ROAD WORK AHEAD
W20-1A

51

81

END ROAD WORK
G20-2A
48"X24"

WOODWARD AVE

N

2

LEGEND:

WORK AREA	CONCRETE BARRIER TEMPORARY PRECAST
DIRECTION OF TRAFFIC	TEMPORARY PEDESTRIAN BARRICADE
PAVEMENT MARKING REMOVAL	TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
PEDESTRIAN DETOUR ROUTE	TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS	TRAFFIC CONTROL ARROW BOARD
EXISTING SIGN, PROPOSED SIGN	TEMPORARY AUDIBLE MESSAGE DEVICE
TRAFFIC CONTROL SIGN	TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 3B	SHEET 54	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026302_ST_3B.DWG
LAYOUT NAME - 07

PLOT DATE : 10/23/2026 11:52 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

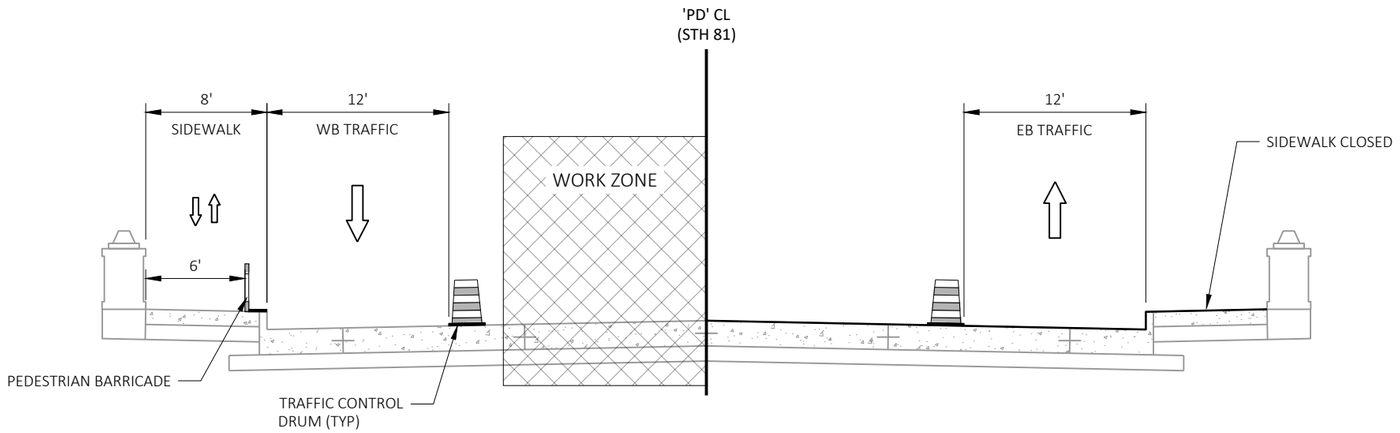
STAGE 4A NOTES (STH 81)

TRAFFIC

STH 81 (PORTLAND AVE) EB TRAFFIC ON EXISTING EB OUTSIDE LANE.
STH 81 WB TRAFFIC ON EXISTIN WB OUTSIDE LANE.

CONSTRUCTION

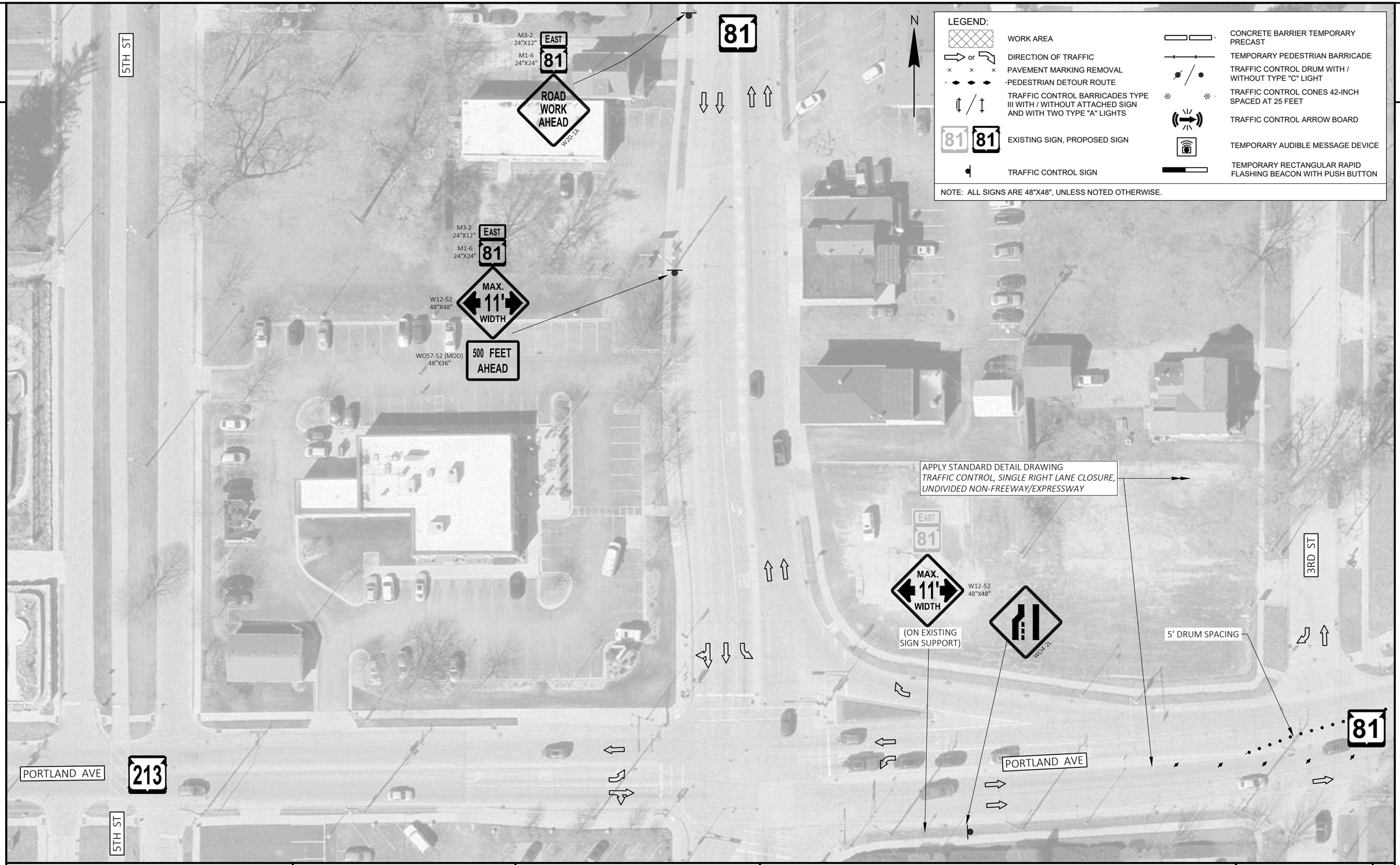
APPLY POLYMER OVERLAY ON WB MEDIAN LANE.



TRAFFIC CONTROL TYPICAL SECTION - STH 81 - (PORTLAND AVE)
STAGE 4A

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 4A	SHEET 55	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026401_ST_4A.DWG
LAYOUT NAME - TS & NOTES
PLOT DATE : 10/23/2026 11:55 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 4A	SHEET 56	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026401_ST_4A.DWG
LAYOUT NAME - 01
PLOT DATE : 10/23/2026 11:55 AM
PLOT BY : MUENCH, DOUGLAS
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

N

5TH ST

81

4TH ST

END ROAD WORK
G20-2A
48"X24"

213 PORTLAND AVE

PORTLAND AVE 81

ROAD WORK AHEAD
W20-1A

EAST 81
M3-2 24"X12"
M1-6 24"X24"

MAX. 11' WIDTH
W12-52 48"X48"

500 FEET AHEAD
W057-52 (MOD) 48"X36"

RIGHT LANE CLOSED AHEAD
W20-5A

EAST 81

MAX. 11' WIDTH
W12-52 48"X48"

(ON EXISTING SIGN SUPPORT)

W04-2L

EAST 81
M3-2 24"X12"
M1-6 24"X24"

MAX. 11' WIDTH
W12-52 48"X48"

500 FEET AHEAD
W057-52 (MOD) 48"X36"

5TH ST

4TH ST

213

EAST 81
M3-2 24"X12"
M1-6 24"X24"

ROAD WORK AHEAD
W20-1A

BARRETT PL

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC (or)
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 4A	SHEET 57	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026401_ST_4A.DWG
LAYOUT NAME - 02
PLOT DATE : 10/23/2026 11:55 AM
PLOT BY : MUENCH, DOUGLAS
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

2

N

3RD ST

2ND ST

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, PARTIAL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45MPH AND UNDER

EB & WB MEDIAN LANES CLOSED

LANE CLOSED
R11-2L
48"X30"

25' TYP

23'PD'

22'PD'

21'PD'

20'PD'

19'PD'

81

R3-2
24"X24"

R6-2R
24"X30"
ONE WAY

W11-2
30"X30"

W16-7L
24"X12"

W11-2
30"X30"

W16-7R
24"X12"

5' DRUM SPACING

81

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

M4-9BL
30"X24"

DETOUR

M4-9CR
30"X24"

DETOUR

W11-2
30"X30"

W16-7L
24"X12"

SUGGESTED MESSAGE:
ATTENTION EASTBOUND PORTLAND AVE PEDESTRIANS, SIDEWALK IS CLOSED AHEAD. TURN NORTH HERE, CROSSING PORTLAND AVE AND USE SIDEWALK ON NORTH SIDE OF PORTLAND AVE TO PROCEED EAST

SIDEWALK CLOSED
R9-9
24"X12"

WB MEDIAN LANE CLOSED

STAIRS CLOSED
R9-9 (MOD)
24"X12"

PLACE PEDESTRIAN BARRICADE TO BLOCK ACCESS TO THE STAIRS

DETOUR
M4-9CR
30"X24"

ROCK RIVER

3RD ST

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 4A	SHEET 58	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026401_ST_4A.DWG
LAYOUT NAME - 03

PLOT DATE : 10/23/2026 11:55 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

LEGEND:

WORK AREA	CONCRETE BARRIER TEMPORARY PRECAST
DIRECTION OF TRAFFIC	TEMPORARY PEDESTRIAN BARRICADE
PAVEMENT MARKING REMOVAL	TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
PEDESTRIAN DETOUR ROUTE	TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS	TRAFFIC CONTROL ARROW BOARD
EXISTING SIGN, PROPOSED SIGN	TEMPORARY AUDIBLE MESSAGE DEVICE
TRAFFIC CONTROL SIGN	TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

N

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, PARTIAL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45MPH AND UNDER

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

DRIVEWAY OPEN

MAX. 11' WIDTH
W12-52
48"X48"

WO1-6
48"X24"

LANE CLOSED
R11-2L
48"X30"

WB MEDIAN LANE CLOSED

WB OUTSIDE LANE CLOSED

25' TYP

27'PD'

26'PD'

25'PD'

24'PD'

LANE CLOSED
R11-2L
48"X30"

EB MEDIAN LANE CLOSED

SIDEWALK CLOSED
R9-9
24"X12"

STAIRS CLOSED
R9-9 (MOD)
24"X12"

SIDEWALK CLOSED
R9-9
24"X12"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BL
30"X24"

DETOUR
M4-9BL
30"X24"

SUGGESTED MESSAGE:
ATTENTION WESTBOUND PORTLAND AVE PEDESTRIANS, SIDEWALK IS CLOSED AHEAD. TURN NORTH HERE, CROSSING PORTLAND AVE AND USE SIDEWALK ON NORTH SIDE OF PORTLAND AVE TO PROCEED WEST

51

81

51

81

2

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 4A	SHEET 59	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026401_ST_4A.DWG
LAYOUT NAME - 04

PLOT DATE : 10/23/2026 11:56 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC (or)
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- 81 / 81 EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

N

ROAD WORK AHEAD
W20-1A

81

RIGHT LANE CLOSED AHEAD
W20-5A

200' MIN

MAX. 11' WIDTH
W12-52
48"X48"

500 FEET AHEAD
W057-52 (MOD)
48"X36"

WHITE AVE

W04-2R

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

WB OUTSIDE LANE CLOSED

15' TYP

125' TAPER

W6T

25' TYP

81

WOODWARD AVE

2

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 4A	SHEET 60	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026401_ST_4A.DWG
LAYOUT NAME - 05

PLOT DATE : 10/23/2026 11:56 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

N

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

51

M3-4 24"X12" WEST
M1-6 24"X24" 81
ROAD WORK AHEAD
W20-1A

M3-4 24"X12" WEST
M1-6 24"X24" 81
W12-52 48"X48" MAX. 11' WIDTH
WO57-52 (MOD) 48"X36" 500 FEET AHEAD

LANE CLOSED
R11-2L 48"X30"

51

LANE CLOSED
R11-2L 48"X30"

LANE CLOSED
R11-2L 48"X30"

WB OUTSIDE LANE CLOSED

15' TYP

125' TAPER
W6T

SEE EARLIER SHEETS FOR PEDESTRIAN/BIKE TRAFFIC ACCOMMODATIONS IN THIS AREA

MAX. 11' WIDTH
W12-52 48"X48"

81

81

G20-2A 48"X24" END ROAD WORK

WOODWARD AVE

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 4A	SHEET 61	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026401_ST_4A.DWG
LAYOUT NAME - 06
PLOT DATE : 10/23/2026 11:56 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

51

81

N

WOODWARD AVE

25' TYP

27'PD'

81

WB MEDIAN LANE CLOSED

LANE CLOSED
R11-2L
48"X30"

END ROAD WORK
G20-2A
48"X24"

SEE EARLIER SHEETS FOR PEDESTRIAN/BIKE TRAFFIC ACCOMMODATIONS IN THIS AREA

WEST
M3-4
24"X12"

81
M1-6
24"X24"

MAX. 11' WIDTH
W12-52
48"X48"

500 FEET AHEAD
W057-52 (MOD)
48"X36"

WEST
M3-4
24"X12"

81
M1-6
24"X24"

ROAD WORK AHEAD
W20-1A

51

LEGEND:

WORK AREA	CONCRETE BARRIER TEMPORARY PRECAST
DIRECTION OF TRAFFIC	TEMPORARY PEDESTRIAN BARRICADE
PAVEMENT MARKING REMOVAL	TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
PEDESTRIAN DETOUR ROUTE	TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS	TRAFFIC CONTROL ARROW BOARD
EXISTING SIGN, PROPOSED SIGN	TEMPORARY AUDIBLE MESSAGE DEVICE
TRAFFIC CONTROL SIGN	TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 4A	SHEET 62	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026401_ST_4A.DWG
LAYOUT NAME - 07

PLOT DATE : 10/23/2026 11:56 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

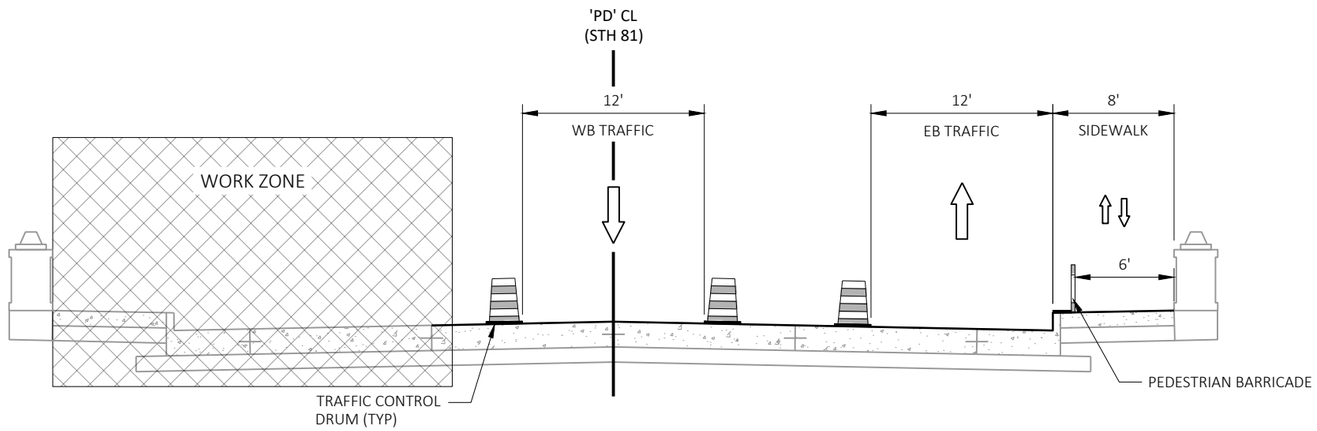
STAGE 4B NOTES (STH 81)

TRAFFIC

STH 81 (PORTLAND AVE) EB TRAFFIC ON EXISTING EB OUTSIDE LANE.
STH 81 WB TRAFFIC ON CENTER OF BRIDGE.

CONSTRUCTION

APPLY POLYMER OVERLAY ON WB OUTSIDE LANE.



TRAFFIC CONTROL TYPICAL SECTION - STH 81 - (PORTLAND AVE)
STAGE 4B

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 4B	SHEET 63	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026402_ST_4B.DWG
LAYOUT NAME - TS & NOTES
PLOT DATE : 10/23/2026 11:59 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

5TH ST

M3-2 24"X12"
EAST
M1-6 24"X24"
81
ROAD WORK AHEAD
W20-1X

81

M3-2 24"X12"
EAST
M1-6 24"X24"
81
W12-52 48"X48"
MAX. 11' WIDTH
WO57-52 (MOD) 48"X36"
500 FEET AHEAD

N

LEGEND:

WORK AREA	CONCRETE BARRIER TEMPORARY PRECAST
DIRECTION OF TRAFFIC	TEMPORARY PEDESTRIAN BARRICADE
PAVEMENT MARKING REMOVAL	TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
PEDESTRIAN DETOUR ROUTE	TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS	TRAFFIC CONTROL ARROW BOARD
EXISTING SIGN, PROPOSED SIGN	TEMPORARY AUDIBLE MESSAGE DEVICE
TRAFFIC CONTROL SIGN	TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

EAST
81
MAX. 11' WIDTH
W12-52 48"X48"
(ON EXISTING SIGN SUPPORT)
W04-2L
5' DRUM SPACING
3RD ST
81
PORTLAND AVE
PORTLAND AVE
213
5TH ST

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 4B	SHEET 64	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026402_ST_4B.DWG
LAYOUT NAME - 01
PLOT DATE : 10/23/2026 11:59 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

N

5TH ST

4TH ST

81

213 PORTLAND AVE

PORTLAND AVE 81

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

EAST 81
M3-2 24"X12"
M1-6 24"X24"

MAX. 11' WIDTH
W12-52
48"X48"

500 FEET AHEAD
W057-52 (MOD)
48"X36"

RIGHT LANE CLOSED AHEAD
W20-5A

EAST 81

MAX. 11' WIDTH
W12-52
48"X48"
(ON EXISTING SIGN SUPPORT)

W04-2L

EAST 81
M3-2 24"X12"
M1-6 24"X24"

MAX. 11' WIDTH
W12-52
48"X48"

500 FEET AHEAD
W057-52 (MOD)
48"X36"

EAST 81
M3-2 24"X12"
M1-6 24"X24"

ROAD WORK AHEAD
W20-1A

5TH ST

4TH ST

213

BARRETT PL

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC (or)
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- 81 81 EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 4B	SHEET 65	E

2

N

3RD ST

SUGGESTED MESSAGE:
ATTENTION EASTBOUND PORTLAND AVE PEDESTRIANS, SIDEWALK IS CLOSED AHEAD. TURN SOUTH HERE, CROSSING PORTLAND AVE AND USE SIDEWALK ON SOUTH SIDE OF PORTLAND AVE TO PROCEED EAST

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, PARTIAL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45MPH AND UNDER

2ND ST

R3-2
24"X24"

R6-2R
24"X30"
ONE WAY

W11-2
30"X30"

W16-7R
24"X12"

W11-2
30"X30"

W16-7L
24"X12"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

M4-9BR
30"X24"
DETOUR

M4-9CL
30"X24"
DETOUR

SIDEWALK CLOSED
R9-9
24"X12"

DETOUR
M4-9CR
30"X24"

STAIRS CLOSED
R9-9 (MOD)
24"X12"

PORTION OF
WB MEDIAN
LANE CLOSED

25' TYP

23'PD'

22'PD'

21'PD'

20'PD'

19'PD'

81

5' DRUM SPACING

EB MEDIAN
LANE CLOSED

LANE CLOSED
R11-2L
48"X30"

ROCK RIVER

81

PORTION OF
EB MEDIAN
LANE CLOSED

W11-2
30"X30"

W16-7L
24"X12"

DETOUR
M4-9CR
30"X24"

3RD ST

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 4B	SHEET 66	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026402_ST_4B.DWG
LAYOUT NAME - 03
PLOT DATE : 10/23/2026 11:59 AM
PLOT BY : MUENCH, DOUGLAS
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

N

SUGGESTED MESSAGE:
ATTENTION WESTBOUND PORTLAND AVE PEDESTRIANS, SIDEWALK IS CLOSED AHEAD. TURN SOUTH HERE, CROSSING PORTLAND AVE AND USE SIDEWALK ON SOUTH SIDE OF PORTLAND AVE TO PROCEED WEST

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, PARTIAL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45MPH AND UNDER

DRIVEWAY OPEN

M4-9CL 30"X24"

M4-9BL 30"X24"

M4-9CR 30"X24"

MAX. 11' WIDTH
W12-52 48"X48"

WO1-6 48"X24"

SIDEWALK CLOSED AHEAD
R9-9A 30"X18"

LANE CLOSED
R11-2L 48"X30"

WB OUTSIDE LANE CLOSED

M4-9CL 30"X24"

SIDEWALK CLOSED
R9-9 24"X12"

STAIRS CLOSED
R9-9 (MOD) 24"X12"

PORTION OF WB MEDIAN LANE CLOSED

LANE CLOSED
R11-2L 48"X30"

25' TYP

24'PD'

25'PD'

26'PD'

27'PD'

LANE CLOSED
R11-2L 48"X30"

EB MEDIAN LANE CLOSED

M4-9CR 30"X24"

WB OUTSIDE LANE CLOSED

51

81

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 4B	SHEET 67	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026402_ST_4B.DWG
LAYOUT NAME - 04

PLOT DATE : 10/23/2026 11:59 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC (or)
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

N

ROAD WORK AHEAD
W20-1A

RIGHT LANE CLOSED AHEAD
W20-5A

MAX. 11' WIDTH
W12-52
48"X48"

500 FEET AHEAD
W057-52 (MOD)
48"X36"

W04-2R

81

200' MIN

WHITE AVE

APPLY STANDARD DETAIL DRAWING
TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

WB OUTSIDE LANE CLOSED

15' TYP

125' TAPER

W6T

25' TYP

WOODWARD AVE

81

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 4B	SHEET 68	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026402_ST_4B.DWG
LAYOUT NAME - 05

PLOT DATE : 10/23/2026 11:59 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

N

LEGEND:

- WORK AREA
- DIRECTION OF TRAFFIC
- PAVEMENT MARKING REMOVAL
- PEDESTRIAN DETOUR ROUTE
- TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS
- EXISTING SIGN, PROPOSED SIGN
- TRAFFIC CONTROL SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
- TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
- TRAFFIC CONTROL ARROW BOARD
- TEMPORARY AUDIBLE MESSAGE DEVICE
- TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

51

M3-4 24"X12" WEST
M1-6 24"X24" 81
ROAD WORK AHEAD
W20-1A

M3-4 24"X12" WEST
M1-6 24"X24" 81
W12-52 48"X48" MAX. 11' WIDTH
WO57-52 (MOD) 48"X36" 500 FEET AHEAD

LANE CLOSED
R11-2L 48"X30"

51

LANE CLOSED
R11-2L 48"X30"

LANE CLOSED
R11-2L 48"X30"

WB OUTSIDE LANE CLOSED

15' TYP

125' TAPER

W6T

SEE EARLIER SHEETS FOR PEDESTRIAN/BIKE TRAFFIC ACCOMMODATIONS IN THIS AREA

MAX. 11' WIDTH
W12-52 48"X48"

81

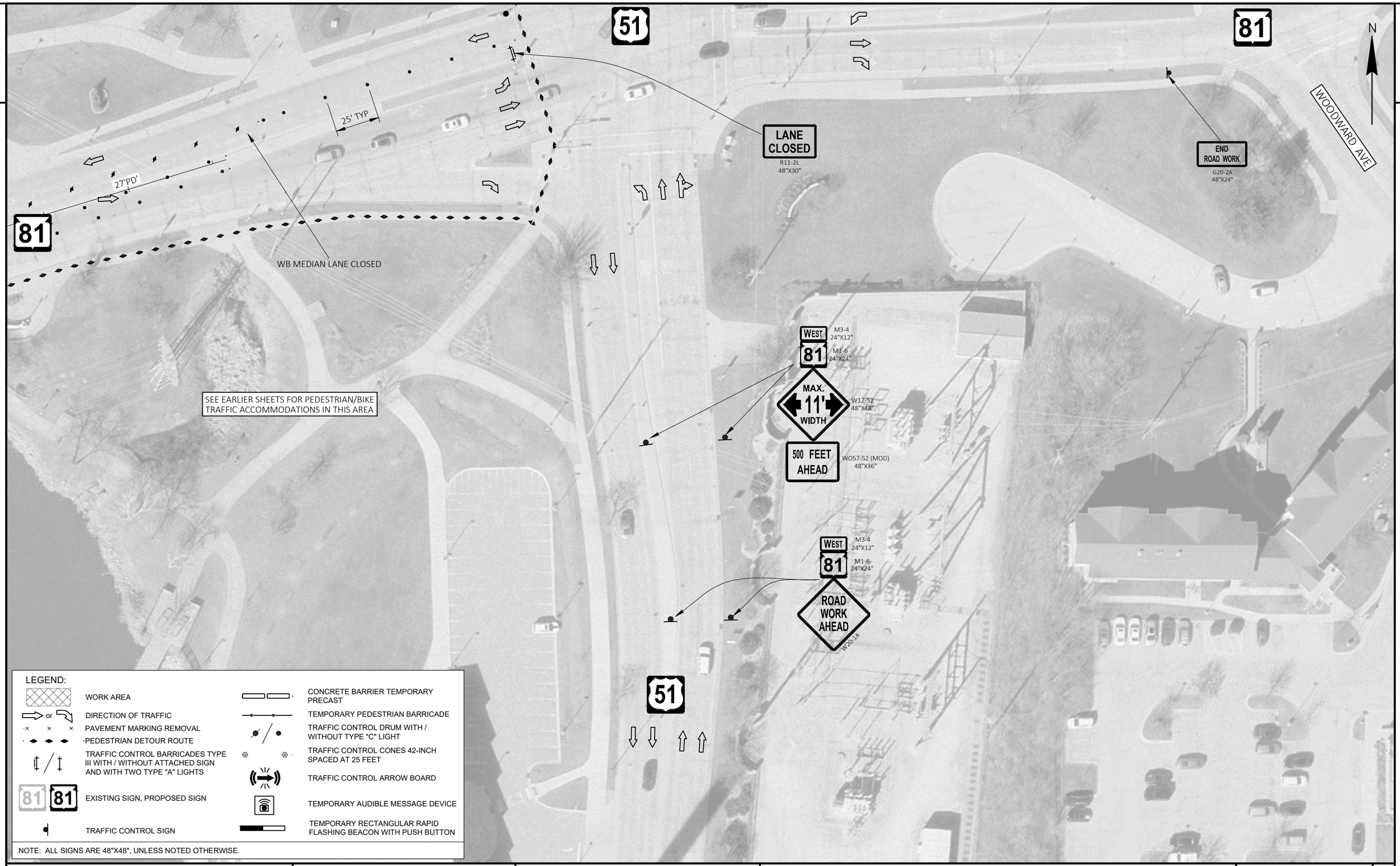
81

G20-2A 48"X24" END ROAD WORK

WOODWARD AVE

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 4B	SHEET 69 E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_026402_ST_4B.DWG
LAYOUT NAME - 06
PLOT DATE : 10/23/2026 11:59 AM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42



LEGEND:

WORK AREA	CONCRETE BARRIER TEMPORARY PRECAST
DIRECTION OF TRAFFIC	TEMPORARY PEDESTRIAN BARRICADE
PAVEMENT MARKING REMOVAL	TRAFFIC CONTROL DRUM WITH / WITHOUT TYPE "C" LIGHT
PEDESTRIAN DETOUR ROUTE	TRAFFIC CONTROL CONES 42-INCH SPACED AT 25 FEET
TRAFFIC CONTROL BARRICADES TYPE III WITH / WITHOUT ATTACHED SIGN AND WITH TWO TYPE "A" LIGHTS	TRAFFIC CONTROL ARROW BOARD
EXISTING SIGN, PROPOSED SIGN	TEMPORARY AUDIBLE MESSAGE DEVICE
TRAFFIC CONTROL SIGN	TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON

NOTE: ALL SIGNS ARE 48"X48", UNLESS NOTED OTHERWISE.

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 CONSTRUCTION STAGING - STAGE 4B	SHEET 70	E

2

2ND ST

81

PORTLAND AVE

ROCK RIVER

SEE CONSTRUCTION STAGING SHEETS FOR PEDESTRIAN/BIKE TRAFFIC ACCOMMODATIONS IN THIS AREA

SEE CONSTRUCTION STAGING SHEETS FOR PEDESTRIAN/BIKE TRAFFIC ACCOMMODATIONS IN THIS AREA

51

N

BARRETT PL

WOOD FAMILY FISHING BRIDGE

DETOUR
M4-9CR
30"X24"

DETOUR
M4-9CL
30"X24"

LEGEND:

WORK AREA

-BICYCLE DETOUR ROUTE

TRAFFIC CONTROL SIGN

NOTE: BICYCLISTS SHOULD FOLLOW DETOURS FOR STH 81 (PORTLAND AVE), DETAILED IN CONSTRUCTION STAGING SHEETS

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	STH 81 BIKE DETOUR	SHEET 71	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_027001_DT_BIKE_PATH.DWG
LAYOUT NAME - 01

PLOT DATE : 4/30/2026 2:14 PM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

LEGEND:

DETOUR ROUTE

WORK AREA

NOTES:
1) ALL SIGNS ARE 48" X 48", UNLESS OTHERWISE NOTED.
2) "WO" SIGNS ARE THE SAME AS "W" SIGNS, EXCEPT THE BACKGROUND IS ORANGE.
3) THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
4) MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.

APPLY THIS DETOUR PLAN TO AN ADDITIONAL 2 WEEK CLOSURE REQUIRED IN THE SUMMER OF 2028 FOR INSTALLATION OF POLYMER OVERLAY AND PERMANENT PAVEMENT MARKING.

2

2

N

SHEET 1

SHEET 2

SHEET 3

SHEET 4

SHEET 5

COUNTY D

COUNTY Q

51

213

W RAVINE DR

NEWARK RD

HABORN DR

CRIST RD

KELSEY RD

E BRIAR LN

ELMWOOD AVE

PARK AVE

DEWEY AVE

CANADIAN PACIFIC KANSAS CITY RR

S MCKINLEY RD

MILLAR DR

SHORE DR

JEANNIE LN

UDELL DR

CARROLL DR

RICE DR

FROEBEL DR

W CHERRY ST

ST AFTON RD

DAWSON AVE

BURTON ST

6TH ST

POOLE CT E

CALDWELL AVE

HAZEL AVE

CARPENTER ST

BIRCH AVE

CHESTNUT AVE

BEACH AVE

RIDGELAND AVE

MAPLE AVE

4TH ST

Rock River

CRANSTON AVE

HENDERSON AVE

BAYLISS AVE

GLEN AVE

SPRUCE AVE

HENRY AVE

MORSE AVE

SUMMIT AVE

Beloit

Beloit

PROJECT NO: 5989-03-84	HWY: CTH Q	COUNTY: ROCK	CTH Q DETOUR PLAN	SHEET 72	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_027002_DT.DWG
LAYOUT NAME - - OVERVIEW

PLOT DATE : 10/26/2026 12:03 PM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:1000 FT

WISDOT/CADDS SHEET 42

LEGEND:

- DETOUR ROUTE
- WORK AREA
- TRAFFIC CONTROL SIGN ON TEMPORARY SUPPORT
- EXISTING SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT ATTACHED SIGN
- EXISTING SIGN, COVER EXISTING SIGN, PROPOSED DETOUR SIGN

NOTES:
1) ALL SIGNS ARE 48" X 48", UNLESS OTHERWISE NOTED.
2) "WO" SIGNS ARE THE SAME AS "W" SIGNS, EXCEPT THE BACKGROUND IS ORANGE.
3) THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
4) MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.

APPLY THIS DETOUR PLAN TO AN ADDITIONAL 2 WEEK CLOSURE REQUIRED IN THE SUMMER OF 2028 FOR INSTALLATION OF POLYMER OVERLAY AND PERMANENT PAVEMENT MARKING.

N

M3-2 24"X12"
M1-5A 24"X24"
W20-2A

ST AFTON RD
NEWARK RD
W RAVINE DR
HABORN RD
HILL DR (COMMERCIAL/PRIVATE)
S MCKINLEY RD
CRIST RD
KELSEY RD
1000'

R11-2 48" X 30"
TYPE III BARRICADE

SIGN LEGEND:

M4-8 24"X12" · M4-8A 24"X18" · M3-2 24"X12" · M3-4 24"X12"
M05-1R 21"X21" · M05-1L 21"X21" · M06-1 21"X21" · M06-1 21"X21" · M06-1 21"X21"
M1-5A 24"X24"

PROJECT NO: 5989-03-84	HWY: CTH Q	COUNTY: ROCK	CTH Q DETOUR PLAN - SHEET 1	SHEET 73 E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_027002_DT.DWG
LAYOUT NAME - - SHEET 1
PLOT DATE : 10/26/2026 12:03 PM
PLOT BY : MUENCH, DOUGLAS
PLOT NAME :
PLOT SCALE : 1 IN:200 FT

2

LEGEND:

- DETOUR ROUTE
- WORK AREA
- TRAFFIC CONTROL SIGN ON TEMPORARY SUPPORT
- EXISTING SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT ATTACHED SIGN
- EXISTING SIGN, COVER EXISTING SIGN, PROPOSED DETOUR SIGN

NOTES:
1) ALL SIGNS ARE 48" X 48", UNLESS OTHERWISE NOTED.
2) "WO" SIGNS ARE THE SAME AS "W" SIGNS, EXCEPT THE BACKGROUND IS ORANGE.
3) THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
4) MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.

APPLY THIS DETOUR PLAN TO AN ADDITIONAL 2 WEEK CLOSURE REQUIRED IN THE SUMMER OF 2028 FOR INSTALLATION OF POLYMER OVERLAY AND PERMANENT PAVEMENT MARKING.

Rock River

HENRY AVE

SHORE DR

4TH ST

CHESTNUT AVE

BEACH AVE

MAPLE AVE

CARPENTER ST

BIRCH AVE

6TH ST

RIDGELAND AVE

OLYMPIAN BLVD

NORTH ST

500'

DETOUR WEST COUNTY Q

DETOUR EAST COUNTY Q

STOP 3 WAY

DETOUR AHEAD W20-2A

SIGN LEGEND:

- DETOUR M4-8 24"X12"
- EAST M3-2 24"X12"
- WEST M3-4 24"X12"
- M05-1R 21"X21"
- M05-1L 21"X21"
- M06-1 21"X21"
- M06-1 21"X21"
- COUNTY Q M1-5A 24"X24"
- DETOUR AHEAD W20-2A

PROJECT NO: 5989-03-84	HWY: CTH Q	COUNTY: ROCK	CTH Q DETOUR PLAN - SHEET 2	SHEET 74 E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_027002_DT.DWG
LAYOUT NAME - - SHEET 2

PLOT DATE : 10/26/2026 12:03 PM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

LEGEND:

- DETOUR ROUTE
- WORK AREA
- TRAFFIC CONTROL SIGN ON TEMPORARY SUPPORT
- EXISTING SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT ATTACHED SIGN
- EXISTING SIGN, COVER EXISTING SIGN, PROPOSED DETOUR SIGN

NOTES:
1) ALL SIGNS ARE 48" X 48", UNLESS OTHERWISE NOTED.
2) "WO" SIGNS ARE THE SAME AS "W" SIGNS, EXCEPT THE BACKGROUND IS ORANGE.
3) THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
4) MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.

APPLY THIS DETOUR PLAN TO AN ADDITIONAL 2 WEEK CLOSURE REQUIRED IN THE SUMMER OF 2028 FOR INSTALLATION OF POLYMER OVERLAY AND PERMANENT PAVEMENT MARKING.

SIGN LEGEND:

- DETOUR M4-8 24"X12"
- EAST M3-2 24"X12"
- WEST M3-4 24"X12"
- MO5-1R 21"X21"
- MO5-1L 21"X21"
- MO6-1 21"X21"
- MO6-1 21"X21"
- MO6-1 21"X21"
- COUNTY Q M1-5A 24"X24"
- DETOUR AHEAD W20-2A

GLEN AVE
BAYLISS AVE
HENRY AVE
MORSE AVE
VALLEY RD
S RIVERSIDE DR 51
Rock River
N
(EXISTING SIGN ON CANTILEVER SIGN STRUCTURE)
500'
1000'
500'

PROJECT NO: 5989-03-84	HWY: CTH Q	COUNTY: ROCK	CTH Q DETOUR PLAN - SHEET 3	SHEET 75	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_027002_DT.DWG
LAYOUT NAME - - SHEET 3
PLOT DATE : 10/26/2026 12:03 PM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

2

N

51

LANE CLOSED
R11-2L
48"X30"

R3-2
24"X24"

25' (TYP)

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

R11-2
48" X 30"

ROAD CLOSED

TYPE III BARRICADE

COUNTY Q

51

LEGEND:

- DETOUR ROUTE
- WORK AREA
- TRAFFIC CONTROL SIGN ON TEMPORARY SUPPORT
- EXISTING SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT ATTACHED SIGN
- EXISTING SIGN, COVER EXISTING SIGN, PROPOSED DETOUR SIGN

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N

51

S RIVERSIDE DR

BALDWIN WOODS RD

E BRIAR LN

ELMWOOD AVE

INTERSECTION CLOSURE DETAIL

END DETOUR EAST COUNTY Q

COUNTY Q
DETOUR AHEAD
W20-2A

DETOUR WEST COUNTY Q

500'

NEWARK RD

500'

DETOUR WEST COUNTY Q

COUNTY Q

DETOUR WEST COUNTY Q

S RIVERSIDE DR

51

Rock River

SIGN LEGEND:

DETOUR	END DETOUR	EAST	WEST
M4-8 24"X12"	M4-8A 24"X18"	M3-2 24"X12"	M3-4 24"X12"

MO6-1 21"X21"	COUNTY Q M1-5A 24"X24"	DETOUR AHEAD W20-2A

PROJECT NO: 5989-03-84	HWY: CTH Q	COUNTY: ROCK	CTH Q DETOUR PLAN - SHEET 4	SHEET 76	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_027002_DT.DWG
LAYOUT NAME - - SHEET 4

PLOT DATE : 10/26/2026 12:03 PM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

2

N

HILL DR (COMMERCIAL/PRIVATE)

COUNTY Q

NEWARK RD

BIKE PATH

PATH CLOSED
R9-9(MOD)
24"X12"

BIKE PATH (CLOSED)

TEMPORARY PEDESTRIAN BARRIER

R11-2
48" X 30"

ROAD CLOSED

TYPE III BARRICADE

BIKE PATH

CRIST RD

LOOKOUT DR

LEGEND:

- DETOUR ROUTE
- WORK AREA
- TRAFFIC CONTROL SIGN ON TEMPORARY SUPPORT
- EXISTING SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH/WITHOUT ATTACHED SIGN
- EXISTING SIGN, COVER EXISTING SIGN, PROPOSED DETOUR SIGN

NOTES:

1) ALL SIGNS ARE 48" X 48", UNLESS OTHERWISE NOTED.
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APPLY THIS DETOUR PLAN TO AN ADDITIONAL 2 WEEK CLOSURE REQUIRED IN THE SUMMER OF 2028 FOR INSTALLATION OF POLYMER OVERLAY AND PERMANENT PAVEMENT MARKING.

PROJECT NO: 5989-03-84	HWY: CTH Q	COUNTY: ROCK	CTH Q DETOUR PLAN - SHEET 5	SHEET 77	E

Estimate Of Quantities

5989-03-84

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	3.000	3.000
0004	201.0205	Grubbing	STA	3.000	3.000
0006	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0008	203.0211.S	Abatement of Asbestos Containing Material (structure) 01. B-53-104	EACH	1.000	1.000
0010	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. B-53-172	EACH	1.000	1.000
0012	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 02. B-53-104	EACH	1.000	1.000
0014	204.0100	Removing Concrete Pavement	SY	621.000	621.000
0016	204.0150	Removing Curb & Gutter	LF	1,212.000	1,212.000
0018	204.0155	Removing Concrete Sidewalk	SY	200.000	200.000
0020	204.0165	Removing Guardrail	LF	233.000	233.000
0022	205.0100	Excavation Common	CY	3,870.000	3,870.000
0024	205.0200	Excavation Rock	CY	25.000	25.000
0026	206.1001	Excavation for Structures Bridges (structure) 01. B-53-172	EACH	1.000	1.000
0028	206.1001	Excavation for Structures Bridges (structure) 02. B-53-104	EACH	1.000	1.000
0030	210.1500	Backfill Structure Type A	TON	664.000	664.000
0032	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 5989-03-84	EACH	1.000	1.000
0034	213.0100	Finishing Roadway (project) 01. 5989-03-84	EACH	1.000	1.000
0036	305.0110	Base Aggregate Dense 3/4-Inch	TON	145.000	145.000
0038	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2,945.000	2,945.000
0040	310.0110	Base Aggregate Open-Graded	TON	26.000	26.000
0042	312.0110	Select Crushed Material	TON	2,530.000	2,530.000
0044	415.0100	Concrete Pavement 10-Inch	SY	114.000	114.000
0046	415.0410	Concrete Pavement Approach Slab	SY	325.000	325.000
0048	416.0620	Drilled Dowel Bars	EACH	64.000	64.000
0050	455.0605	Tack Coat	GAL	294.000	294.000
0052	460.2000	Incentive Density HMA Pavement	DOL	640.000	640.000
0054	460.6224	HMA Pavement 4 MT 58-28 S	TON	985.000	985.000
0056	465.0105	Asphaltic Surface	TON	66.000	66.000
0058	502.0100	Concrete Masonry Bridges	CY	2,609.000	2,609.000
0060	502.3101	Expansion Device	LF	285.000	285.000
0062	502.3111.S	Expansion Device Modular	LF	65.000	65.000
0064	502.3200	Protective Surface Treatment	SY	7,141.000	7,141.000
0066	502.3210	Pigmented Surface Sealer	SY	1,790.000	1,790.000
0068	502.4112	Adhesive Anchors 1 1/2-Inch	EACH	14.000	14.000
0070	502.4204	Adhesive Anchors No. 4 Bar	EACH	1,392.000	1,392.000
0072	502.4205	Adhesive Anchors No. 5 Bar	EACH	704.000	704.000
0074	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	623,670.000	623,670.000
0076	505.0905	Bar Couplers No. 5	EACH	42.000	42.000
0078	506.6000	Bearing Assemblies Expansion (structure) 01. B-53-104	EACH	7.000	7.000
0080	506.7050.S	Removing Bearings (structure) 01. B-53-104	EACH	7.000	7.000
0082	509.0301	Preparation Decks Type 1	SY	12.000	12.000
0084	509.0302	Preparation Decks Type 2	SY	6.000	6.000
0086	509.0310.S	Sawing Pavement Deck Preparation Areas	LF	120.000	120.000
0088	509.1000	Joint Repair	SY	68.000	68.000
0090	509.1200	Curb Repair	LF	150.000	150.000
0092	509.1500	Concrete Surface Repair	SF	155.000	155.000
0094	509.2100.S	Concrete Masonry Deck Repair	CY	2.000	2.000
0096	509.5100.S	Polymer Overlay	SY	11,310.000	11,310.000
0098	509.9025.S	Epoxy Injection Crack Repair	LF	40.000	40.000

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Line	Item	Item Description	Unit	Total	Qty
0100	509.9026.S	Cored Holes 2-Inch Diameter	EACH	5.000	5.000
0102	511.1200	Temporary Shoring (structure) 01. B-53-172	SF	150.000	150.000
0104	513.8011	Railing Steel Pedestrian Type C2	LF	1,071.000	1,071.000
0106	514.0445	Floor Drains Type GC	EACH	14.000	14.000
0108	514.0460	Floor Drains Type H	EACH	7.000	7.000
0110	514.2625	Downspout 6-Inch	LF	120.000	120.000
0112	516.0500	Rubberized Membrane Waterproofing	SY	54.000	54.000
0114	517.0901.S	Preparation and Coating of Top Flanges (structure) 01. B-53-104	EACH	1.000	1.000
0116	517.3001.S	Structure Overcoating Cleaning and Priming (structure) 01. B-53-104	EACH	1.000	1.000
0118	517.4001.S	Containment and Collection of Waste Materials (structure) 01. B-53-104	EACH	1.000	1.000
0120	517.6001.S	Portable Decontamination Facility	EACH	1.000	1.000
0122	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	1.000	1.000
0124	531.8990	Anchor Assemblies Poles on Structures	EACH	8.000	8.000
0126	601.0205	Concrete Gutter 24-Inch	LF	74.000	74.000
0128	601.0405	Concrete Curb & Gutter 18-Inch Type A	LF	30.000	30.000
0130	601.0407	Concrete Curb & Gutter 18-Inch Type D	LF	670.000	670.000
0132	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	30.000	30.000
0134	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	367.000	367.000
0136	601.0584	Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type TBT	LF	147.000	147.000
0138	602.0405	Concrete Sidewalk 4-Inch	SF	1,320.000	1,320.000
0140	603.8000	Concrete Barrier Temporary Precast Delivered	LF	770.000	770.000
0142	603.8125	Concrete Barrier Temporary Precast Installed	LF	1,485.000	1,485.000
0144	606.0100	Riprap Light	CY	24.000	24.000
0146	608.0005	Storm Sewer Rock Excavation	CY	13.000	13.000
0148	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	87.000	87.000
0150	611.0627	Inlet Covers Type HM	EACH	1.000	1.000
0152	611.0642	Inlet Covers Type MS	EACH	1.000	1.000
0154	611.3901	Inlets Median 1 Grate	EACH	1.000	1.000
0156	612.0106	Pipe Underdrain 6-Inch	LF	370.000	370.000
0158	612.0206	Pipe Underdrain Unperforated 6-Inch	LF	48.000	48.000
0160	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	125.000	125.000
0162	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0164	614.0397	Guardrail Mow Strip Emulsified Asphalt	SY	40.000	40.000
0166	614.2300	MGS Guardrail 3	LF	187.500	187.500
0168	614.2500	MGS Thrie Beam Transition	LF	118.200	118.200
0170	614.2610	MGS Guardrail Terminal EAT	EACH	3.000	3.000
0172	618.0100	Maintenance and Repair of Haul Roads (project) 01. 5989-03-84	EACH	1.000	1.000
0174	619.1000	Mobilization	EACH	1.000	1.000
0176	624.0100	Water	MGAL	47.000	47.000
0178	625.0500	Salvaged Topsoil	SY	1,590.000	1,590.000
0180	628.1504	Silt Fence	LF	690.000	690.000
0182	628.1520	Silt Fence Maintenance	LF	690.000	690.000
0184	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0186	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0188	628.2008	Erosion Mat Urban Class I Type B	SY	1,740.000	1,740.000
0190	628.7005	Inlet Protection Type A	EACH	3.000	3.000
0192	628.7010	Inlet Protection Type B	EACH	10.000	10.000
0194	628.7015	Inlet Protection Type C	EACH	7.000	7.000
0196	628.7504	Temporary Ditch Checks	LF	80.000	80.000

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Line	Item	Item Description	Unit	Total	Qty
0198	629.0210	Fertilizer Type B	CWT	1.100	1.100
0200	630.0140	Seeding Mixture No. 40	LB	79.000	79.000
0202	630.0500	Seed Water	MGAL	38.000	38.000
0204	634.0614	Posts Wood 4x6-Inch x 14-FT	EACH	10.000	10.000
0206	637.2210	Signs Type II Reflective H	SF	74.250	74.250
0208	637.2230	Signs Type II Reflective F	SF	9.000	9.000
0210	638.2102	Moving Signs Type II	EACH	2.000	2.000
0212	638.2602	Removing Signs Type II	EACH	12.000	12.000
0214	638.3000	Removing Small Sign Supports	EACH	12.000	12.000
0216	638.4000	Moving Small Sign Supports	EACH	1.000	1.000
0218	642.5201	Field Office Type C	EACH	1.000	1.000
0220	643.0300	Traffic Control Drums	DAY	14,617.000	14,617.000
0222	643.0420	Traffic Control Barricades Type III	DAY	5,163.000	5,163.000
0224	643.0705	Traffic Control Warning Lights Type A	DAY	6,732.000	6,732.000
0226	643.0715	Traffic Control Warning Lights Type C	DAY	2,086.000	2,086.000
0228	643.0810	Traffic Control Connected Arrow Boards	DAY	70.000	70.000
0230	643.0900	Traffic Control Signs	DAY	46,046.000	46,046.000
0232	643.0920	Traffic Control Covering Signs Type II	EACH	8.000	8.000
0234	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000
0236	643.1070	Traffic Control Cones 42-Inch	DAY	1,113.000	1,113.000
0238	643.1220	Traffic Control Connected Work Zone Start and End Location Markers	DAY	70.000	70.000
0240	643.3105	Temporary Marking Line Paint 4-Inch	LF	4,833.000	4,833.000
0242	643.3180	Temporary Marking Line Removable Tape 6-Inch	LF	8,465.000	8,465.000
0244	643.5000	Traffic Control	EACH	1.000	1.000
0246	644.1810	Temporary Pedestrian Barricade	LF	2,535.000	2,535.000
0248	644.1900.S	Temporary Audible Message Devices	DAY	140.000	140.000
0250	645.0111	Geotextile Type DF Schedule A	SY	440.000	440.000
0252	646.1020	Marking Line Epoxy 4-Inch	LF	8,582.000	8,582.000
0254	646.2020	Marking Line Epoxy 6-Inch	LF	4,409.000	4,409.000
0256	646.5020	Marking Arrow Epoxy	EACH	2.000	2.000
0258	646.5120	Marking Word Epoxy	EACH	4.000	4.000
0260	646.5220	Marking Symbol Epoxy	EACH	2.000	2.000
0262	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	116.000	116.000
0264	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	3,480.000	3,480.000
0266	650.4000	Construction Staking Storm Sewer	EACH	2.000	2.000
0268	650.4500	Construction Staking Subgrade	LF	890.000	890.000
0270	650.5000	Construction Staking Base	LF	890.000	890.000
0272	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	1,195.000	1,195.000
0274	650.6501	Construction Staking Structure Layout (structure) 01. B-53-104	EACH	1.000	1.000
0276	650.6501	Construction Staking Structure Layout (structure) 02. B-53-172	EACH	1.000	1.000
0278	650.7000	Construction Staking Concrete Pavement	LF	112.000	112.000
0280	650.8501	Construction Staking Electrical Installations (project) 01. 5989-03-84	EACH	1.000	1.000
0282	650.9500	Construction Staking Sidewalk (project) 01. 5989-03-84	EACH	1.000	1.000
0284	650.9911	Construction Staking Supplemental Control (project) 01. 5989-03-84	EACH	1.000	1.000
0286	650.9920	Construction Staking Slope Stakes	LF	1,077.000	1,077.000
0288	652.0125	Conduit Rigid Metallic 2-Inch	LF	72.000	72.000
0290	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	5,130.000	5,130.000
0292	652.0800	Conduit Loop Detector	LF	60.000	60.000
0294	653.0164	Pull Boxes Non-Conductive 24x42-Inch	EACH	2.000	2.000

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Line	Item	Item Description	Unit	Total	Qty
0296	653.0222	Junction Boxes 18x12x6-Inch	EACH	16.000	16.000
0298	653.0905	Removing Pull Boxes	EACH	1.000	1.000
0300	655.0610	Electrical Wire Lighting 12 AWG	LF	1,296.000	1,296.000
0302	655.0620	Electrical Wire Lighting 8 AWG	LF	4,975.000	4,975.000
0304	655.0625	Electrical Wire Lighting 6 AWG	LF	3,800.000	3,800.000
0306	655.0800	Loop Detector Wire	LF	225.000	225.000
0308	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	8.000	8.000
0310	657.0322	Poles Type 5-Aluminum	EACH	8.000	8.000
0312	657.0615	Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT	EACH	8.000	8.000
0314	659.1120	Luminaires Utility LED B	EACH	8.000	8.000
0316	690.0150	Sawing Asphalt	LF	112.000	112.000
0318	690.0250	Sawing Concrete	LF	203.000	203.000
0320	715.0502	Incentive Strength Concrete Structures	DOL	9,392.000	9,392.000
0322	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0324	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. 20+42	EACH	1.000	1.000
0326	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 02. 25+86	EACH	1.000	1.000
0328	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 03. 32+00	EACH	1.000	1.000
0330	SPV.0055	Special 01. Incentive Air Content Concrete Structures	DOL	6,262.000	6,262.000
0332	SPV.0060	Special 01. Temporary Rectangular Rapid Flashing Beacon With Push Button	EACH	4.000	4.000
0334	SPV.0060	Special 02. Top of Girder Survey B-53-104	EACH	1.000	1.000
0336	SPV.0060	Special 03. Salvage Lighting Units	EACH	6.000	6.000
0338	SPV.0060	Special 04. Cored Holes 6-Inch	EACH	2.000	2.000
0340	SPV.0090	Special 01. Concrete Curb and Gutter 60-Inch Type A	LF	103.000	103.000
0342	SPV.0195	Special 01. Excavation, Hauling, and Disposal of Metals Contaminated Soil	TON	125.000	125.000

3

CLEARING & GRUBBING

CATEGORY	STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
0010	126+00 'WB'	-	127+00 'WB'	CTH Q WB LT	1	1
	125+00 'EB'	-	127+00 'EB'	CTH Q EB RT	2	2
				TOTAL 0010	3	3

REMOVAL ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0150 REMOVING CURB & GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY	204.0165 REMOVING GUARDRAIL LF	REMARKS
0010	20+17 'PD'	-	20+44 'PD'	STH 81	--	168	--	41	--	
	25+87 'PD'	-	26+13 'PD'	STH 81	--	170	--	43	--	
	122+73 'EB'	-	126+58 'EB'	CTH Q EB	--	62	365	116	120	
	123+44 'WB'	-	126+58 'WB'	CTH Q WB	--	67	294	--	--	
	237+02 'EB'	-	238+46 'EB'	CTH Q EB	--	76	238	--	--	
	237+02 'WB'	-	239+60 'WB'	CTH Q WB	--	78	315	--	113	
	124+40 'WB'	-	124+96 'WB'	CTH Q EB	1	--	--	--	--	55' - CPCPE 15-INCH
				TOTAL 0010	1	621	1,212	200	233	

EARTHWORK SUMMARY

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1) CUT (2)	205.0100 COMMON EXCAVATION (1) EBS EXCAVATION (3)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	205.0200 ROCK EXCAVATION (7) UNDISTRIBUTED	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR 1.30	MASS ORDINATE +/- (14)	WASTE (15)
WEST APPROACH	122+73 'EB' - 126+50 'EB'	CTH Q	2,595	0	300	25	2,295	10	13	2,282	2,282
EAST APPROACH	237+03 'WB' - 239+50 'WB'	CTH Q	1,092	0	190	-	902	64	83	819	819
WEST APPROACH	20+17 'PD' - 20+42 'PD'	STH 81	90	0	48	-	42	0	0	42	42
EAST APPROACH	25+87 'PD' - 26+13 'PD'	STH 81	93	0	59	-	34	0	0	34	34
GRAND TOTAL			3,870	0	597	25	3,273	74	96	3,177	3,177
TOTAL COMMON EXC			3,870								

NOTES:

(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100

(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

(3) EBS EXCAVATION TO BE BACKFILLED WITH SELECT BORROW MATERIAL. NOTE: THIS IS DESIGNERS CHOICE, CAN BE BACKFILLED WITH BORROW, OR CUT AS WELL.

(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL

(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL

(7) ROCK EXCAVATION ITEM NUMBER 205.0200

(13) EXPANDED FILL FACTOR = 1.30

EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR

(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

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

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

3

BASE AGGREGATE DENSE ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	624.0100 WATER MGAL
0010	20+17 'PD'	-	20+42 'PD'	STH 81	--	70	--	1
	25+87 'PD'	-	26+07 'PD'	STH 81	--	70	--	1
	122+73 'EB'	-	126+59 'EB'	CTH Q	135	2,125	1,910	34
	237+03 'WB'	-	239+60 'WB'	CTH Q	10	680	620	11
				TOTAL 0010	145	2,945	2,530	47

ASPHALTIC SURFACE ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	465.0105 ASPHALTIC SURFACE TON
0010	122+73 'EB'	-	126+42 'EB'	CTH Q EB	110	370	40
	123+44 'WB'	-	126+42 'WB'	CTH Q WB	85	285	--
	237+02 'EB'	-	238+46 'EB'	CTH Q EB	33	110	26
	237+02 'WB'	-	239+60 'WB'	CTH Q WB	66	220	--
				TOTAL 0010	294	985	66

CONCRETE SIDEWALK 4-INCH

CATEGORY	STATION	TO	STATION	LOCATION	602.0405 CONCRETE SIDEWALK 4-INCH SF
0010	20+17 'PD'	-	20+42 'PD'	STH 81	369
	25+86 'PD'	-	26+13 'PD'	STH 81	385
	122+73 'EB'	-	126+59 'EB'	CTH Q	495
	237+03 'EB'	-	237+18 'EB'	CTH Q	71
				TOTAL 0010	1,320

CONCRETE PAVEMENT ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	415.0100 CONCRETE PAVEMENT 10-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0620 DRILLED DOWEL BARS EACH
0010	20+17 'PD'	-	20+42 'PD'	STH 81	55	80	32
	25+86 'PD'	-	26+13 'PD'	STH 81	59	80	32
	126+42 'EB'	-	126+58 'EB'	CTH Q	--	80	--
	237+02 'EB'	-	237+18 'EB'	CTH Q	--	85	--
				TOTAL 0010	114	325	64

CONCRETE CURB & GUTTER ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	601.0205 CONCRETE GUTTER 24-INCH LF	601.0405 CONCRETE CURB & GUTTER 18-INCH TYPE A LF	601.0407 CONCRETE CURB & GUTTER 18-INCH TYPE D LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0584 CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE TBT LF	SPV.0090.01 SPECIAL (01. CONCRETE CURB AND GUTTER 60-INCH TYPE A) LF
0010	20+17 'PD'	-	20+42 'PD'	STH 81	--	--	--	--	--	--	51
	25+86 'PD'	-	26+13 'PD'	STH 81	--	--	--	--	--	--	52
	122+73'EB	-	126+58'EB	CTH Q EB	--	15	370	--	--	--	--
	123+44'WB'	-	126+58'WB'	CTH Q WB	--	15	300	--	--	--	--
	237+02'EB	-	238+46'EB'	CTH Q EB	74	--	--	15	184	--	--
	237+02'WB'	-	239+60'WB'	CTH Q WB	--	--	--	15	183	147	--
				TOTAL 0010	74	30	670	30	367	147	103

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

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STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH

CATEGORY	FROM		TO	608.0005 STORM SEWER ROCK EXCAVATION CY	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF
0010	100	-	101	13	87
			TOTAL 0010	13	87

PIPE UNDERDRAIN ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	310.0110 BASE AGGREGATE OPEN-GRADED TON	612.0106 PIPE UNDERDRAIN 6-INCH LF	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH LF	* 645.0111 GEOTEXTILE TYPE DF SCHEDULE A SY	SPV.0060.04 SPECIAL (04. CORED HOLES 6-INCH) EACH
0010	122+73 'EB'	-	126+42 'EB'	CTH Q EB	26	370	48	185	2
				TOTAL 0010	26	370	48	185	2

***ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLAN**

EROSION CONTROL ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECKS LF
0010	18+26	-	27+76	STH 81 LT & RT	--	--	--	--	8	4	--
	122+73	-	126+58	CTH Q 'EB' RT	52	52	398	1	--	--	32
	123+44	-	126+59	CTH Q 'WB' RT	67	67	302	1	--	--	32
	237+03	-	238+55	CTH Q 'EB' RT	174	174	320	--	--	1	--
	237+03	-	239+76	CTH Q 'WB' RT	260	260	270	--	--	1	--
	273+03	--	238+55	CTH Q 'EB' LT	--	--	100	--	--	--	--
				UNDISTRIBUTED	137	137	350	1	2	1	16
				TOTAL 0010	690	690	1,740	3	10	7	80

STORM SEWER STRUCTURE ITEMS

CATEGORY	STRUCTURE	**STATION	**OFFSET	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	611.0627 INLET COVERS TYPE HM EACH	611.0642 INLET COVERS TYPE MS EACH	611.3901 INLETS MEDIAN 1 GRATE EACH
0010	100	124+12 'EB'	42.0' RT	--	--	1	1
	101	125+00 'EB'	43.9' RT	1	--	--	--
	EX-1	238+52 'WB'	25.5' LT	--	1	--	--
			TOTAL 0010	1	1	1	1

**** STATION & OFFSET ARE TO CENTER OF INLET STRUCTURE AND END OF PIPE FOR ENDWALL**

MGS GUARDRAIL ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	614.0397 GUARDRAIL MOW STRIP EMULSIFIED ASPHALT SY	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
0010	125+00 'EB'	-	126+17 'EB'	CTH Q EB	40	112.5	39.4	1
	125+56 'WB'	-	126+47 'WB'	CTH Q WB	--	--	39.4	1
	237+26 'WB'	-	238+80 'WB'	CTH Q WB	--	75	39.4	1
				TOTAL 0010	40	187.5	118.2	3

MOBILIZATIONS EROSION CONTROL

CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	STH 81	2	1
	CTH Q	4	2
	TOTAL 0010	6	3

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

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PERMANENT SIGNING ITEMS

CATEGORY	SIGN NUMBER	SIGN CODE	SIZE (INCH)	SIZE (INCH)	MESSAGE	LOCATION	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	X-XX	--	--	--	NO MOTOR VEHICLES	BIKE PATH	--	--	--	1	--	--	1	
	X-XX	--	--	--	BIKE ROUTE	BIKE PATH	--	--	--	1	--	--	--	SAME POST AS NO MOTOR VEHICLES
	R-01	--	--	--	STOP SIGN	BIKE PATH	--	--	--	--	1	1	--	
	R-02	--	--	--	SPEED LIMIT 45 MPH	CTH Q EB RT	--	--	--	--	1	1	--	
	R-03	--	--	--	NO FISHING FROM BRIDGE	CTH Q EB RT	--	--	--	--	1	1	--	
	R-20	--	--	--	STOPLIGHT AHEAD	CTH Q EB RT	--	--	--	--	1	1	--	
	R-21	--	--	--	JCT USH 51	CTH Q EB RT	--	--	--	--	1	1	--	
	R-22	--	--	--	NO FISHING FROM BRIDGE	CTH Q EB RT	--	--	--	--	1	1	--	
	R-23	--	--	--	RIGHT LANE MUST TURN RIGHT	CTH Q EB RT	--	--	--	--	1	1	--	
	R-24	--	--	--	NO FISHING FROM BRIDGE	CTH Q EB LT	--	--	--	--	1	1	--	
	R-25	--	--	--	CHEVRON	CTH Q EB LT	--	--	--	--	1	1	--	
	R-26	--	--	--	LEFT LANE MUST TURN LEFT	CTH Q EB LT	--	--	--	--	1	1	--	
	R-27	--	--	--	SPEED LIMIT 45 MPH	CTH Q EB LT	--	--	--	--	1	1	--	
	R-28	--	--	--	COUNTY Q	CTH Q EB LT	--	--	--	--	1	1	--	
	1-01	R2-1	36	48	SPEED LIMIT 45 MPH	CTH Q EB RT	1	12.00	--	--	--	--	--	
	1-02	R9-56	18	24	NO FISHING OR DIVING	CTH Q EB RT	1	3.00	--	--	--	--	--	
	2-01	W3-3	36	36	STOPLIGHT AHEAD	CTH Q EB RT	1	--	9.00	--	--	--	--	
	2-02	R9-56	18	24	NO FISHING OR DIVING	CTH Q WB LT	1	3.00	--	--	--	--	--	
	2-03	R9-56	18	24	NO FISHING OR DIVING	CTH Q EB RT	1	3.00	--	--	--	--	--	
	2-04	J1-1	36	57	JCT USH 51	CTH Q EB RT	1	14.25	--	--	--	--	--	
	2-05	R3-7L	36	36	LEFT LANE MUST TURN LEFT	CTH Q EB LT	1	9.00	--	--	--	--	--	
	2-06	R2-1	36	48	SPEED LIMIT 45 MPH	CTH Q WB LT	1	12.00	--	--	--	--	--	
	2-07	R3-7R	36	36	RIGHT LANE MUST TURN RIGHT	CTH Q EB RT	1	9.00	--	--	--	--	--	
	2-08	M1-5A	36	36	CTH Q	CTH Q WB LT	1	9.00	--	--	--	--	--	
						TOTAL 0010	10	74.25	9.00	2	12	12	1	

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

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FINISHING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB	630.0500 SEED WATER MGAL
0010	122+73	-	126+58	CTH Q 'EB' RT	400	0.3	18	9
	123+44	-	126+59	CTH Q 'WB' RT	300	0.2	14	7
	237+03	-	238+55	CTH Q 'EB' RT	320	0.3	19	9
	237+03	-	239+76	CTH Q 'WB' RT	150	0.1	7	3
	273+03	-	238+55	CTH Q 'EB' LT	100	0.1	5	2
				UNDISTRIBUTED	320	0.1	16	8
				TOTAL 0010	1,590	1.1	79	38

TEMPORARY PAVEMENT MARKING

CATEGORY	STAGE	LOCATION	643.3105 TEMPORARY MARKING LINE PAINT 4-INCH LF	643.3180 TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH LF	REMARKS
0010	1	STH 81	--	4,100	
	2	STH 81	--	4,235	
	3	STH 81	--	130	
	-	CTH Q	4,833	--	PLACED IN 2027, PRIOR TO POLYMER OVERLAY
		TOTAL 0010	4,833	8,465	

MARKING LINE REMOVAL

CATEGORY	STAGE	LOCATION	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH LF
0010	1	STH 81	1,960
	2	STH 81	1,520
		TOTAL 0010	3,480

TRAFFIC CONTROL SIGNS PCMS

CATEGORY	LOCATION	QTY	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY
0010	STH 81	2	14
	CTH Q	2	14
	TOTAL 0010		28

SIGNAL LOOP ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	652.0800 CONDUIT LOOP DETECTOR LF	* 653.0164 PULL BOXES NON-CONDUCTIVE 24X42-INCH EACH	653.0905 REMOVING PULL BOXES EACH	655.0800 LOOP DETECTOR WIRE LF	REMARKS
0010	237+85 'EB'	-	238+00 'EB'	CTH Q EB	60	1	1	225	6' x 20', 4 TURNS
				TOTAL 0010	60	1	1	225	

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

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TRAFFIC CONTROL ITEMS

CATEGORY	STAGE	LOCATION	APPROX. SERVICE DAYS	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	643.0300 TRAFFIC CONTROL DRUMS QTY	643.0300 DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III QTY	643.0420 DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A QTY	643.0705 DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C QTY	643.0715 DAY	643.0810 TRAFFIC CONTROL CONNECTED ARROW BOARDS QTY	643.0810 DAY	643.0900 TRAFFIC CONTROL SIGNS CYCLE	643.0900 DAY	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.1070 TRAFFIC CONTROL CONES 42-INCH QTY	643.1070 DAY	643.1220 CONTROL CONNECTED WORK ZONE START AND END LOCATION DAY	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF	644.1900.S TEMPORARY AUDIBLE MESSAGE DEVICES QTY	644.1900.S DAY	SPV.0060.01 SPECIAL (01. TEMPORARY RECTANGULAR RAPID FLASHING BEACON WITH PUSH BUTTON) EACH
0010	1	STH 81	21	770	770	132	2772	9	189	18	378	37	777	1	21	78	1638	--	--	26	546	1	21	--	--	--	--
	2	STH 81	21	--	715	115	2415	8	168	16	336	31	651	1	21	79	1659	--	--	27	567	1	21	--	--	--	--
	3A	STH 81	7	--	--	201	1407	13	91	26	182	35	245	1	7	80	560	--	--	--	--	1	7	--	--	--	--
	3B	STH 81	7	--	--	133	931	6	42	12	84	20	140	1	7	72	504	--	--	--	--	1	7	--	--	--	--
	4A	STH 81	7	--	--	134	938	8	56	16	112	20	140	1	7	76	532	--	--	--	--	1	7	--	--	--	--
	4B	STH 81	7	--	--	172	1204	10	70	20	140	19	133	1	7	76	532	--	--	--	--	1	7	--	--	--	--
	--	CTH Q	261	--	--	18	4698	16	4176	20	5220	--	--	--	--	140	36540	1	4	--	--	--	--	--	--	--	--
	1	STH 81 (PED/BIKE DETOUR)	21	--	--	--	--	2	42	--	--	--	--	--	--	35	735	--	--	--	--	--	--	1,110	2	42	4
	2	STH 81 (PED/BIKE DETOUR)	21	--	--	--	--	5	105	--	--	--	--	--	--	36	756	--	--	--	--	--	--	990	2	42	--
	3	STH 81 (PED/BIKE DETOUR)	14	--	--	--	--	--	--	--	--	--	--	--	--	18	252	--	--	--	--	--	--	200	2	28	--
	4	STH 81 (PED/BIKE DETOUR)	14	--	--	--	--	--	--	--	--	--	--	--	--	27	378	--	--	--	--	--	--	235	2	28	--
		2028 - CTH Q DETOUR	14	--	--	18	252	16	224	20	280	--	--	--	--	140	1,960	1	4	--	--	--	--	--	--	--	--
		TOTAL 0010		770	1,485		14,617		5,163		6,732		2,086		70		46,046		8		1,113		70	2,535		140	4

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PERMANENT PAVEMENT MARKING

CATEGORY	STATION	TO	STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH (SOLID WHITE) LF	646.1020 (SKIP WHITE) LF	646.1020 (SOLID YELLOW) LF	646.1020 (SKIP YELLOW) LF	646.2020 MARKING LINE EPOXY 6-INCH (SOLID WHITE) LF	646.2020 (SKIP WHITE) LF	646.2020 (DOUBLE YELLOW) LF	646.2020 (SOLID YELLOW) LF	646.5020 MARKING ARROW EPOXY EACH	646.5120 MARKING WORD EPOXY EACH	646.5220 MARKING SYMBOL EPOXY EACH	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	REMARKS
0010	17+79'PD'	-	27+58'PD'	STH 81	--	--	--	--	1,957	490	1,843	119	2	4	2	116	
	122+04'EB'	-	126+58'EB'	CTH Q	440	110	440	29	--	--	--	--	--	--	--	--	
	237+02'EB'	-	241+14'EB'	CTH Q	396	99	396	--	--	--	--	--	--	--	--	--	
	26+58'Q'	-	37+02'Q'	CTH Q (B-53-104)	2149	537	2,148	--	--	--	--	--	--	--	--	--	PLACED IN 2028, AFTER POLYMER OVERLAY
	122+04'WB	-	126+59'WB'	CTH Q	440	110	440	--	--	--	--	--	--	--	--	--	
	237+02'WB	-	241+09'WB	CTH Q	359	98	391	--	--	--	--	--	--	--	--	--	
					3784	954	3815	29	1,957	490	1,843	119					
				TOTAL 0010			8,582				4,409		2	4	2	116	

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

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SAWING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
0010	20+17'PD'	-	20+42'PD'	STH 81	--	93
	25+86'PD	-	26+13'PD'	STH 81	--	94
	122+73 'EB'	-	126+59 'EB'	CTH Q	54	6
	237+03 'WB'	-	239+60 'WB'	CTH Q	48	10
	124+62'EB'	-	124.96'EB'	CTH Q (BIKE PATH)	10	--
				TOTAL 0010	112	203

EXCAVATION, HAULING, AND DISPOSAL OF METALS CONTAMINATED SOIL

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0195.01 SPECIAL (01. EXCAVATION, HAULING, AND DISPOSAL OF METALS CONTAMINATED SOIL) TON
0010	25+85 'PD'	-	26+12 'PD'	STH 81 RT	125
				TOTAL 0010	125

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CONSTRUCTION STAKING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.6501.01 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) (01. B-53-104) EACH	650.6501.02 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) (02. B-53-172) EACH	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF	650.9500.01 CONSTRUCTION STAKING SIDEWALK (PROJECT) (01. 5989-03-84) EACH	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 5989-03-84) EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	20+17 'PD'	-	20+44 'PD'	STH 81	--	--	--	--	--	--	26	--	--	--
	25+87 'PD'	-	26+13 'PD'	STH 81	--	--	--	--	--	--	26	--	--	--
	122+73 'EB'	-	126+59 'EB'	CTH Q EB	2	370	370	370	--	--	15	--	--	386
	123+44 'WB'	-	126+59 'WB'	CTH Q WB	--	300	300	300	--	--	15	--	--	315
	237+03 'EB'	-	238+46 'EB'	CTH Q EB	--	128	128	185	--	--	15	--	--	143
	237+03 'WB'	-	239+60 'WB'	CTH Q WB	--	92	92	340	--	--	15	--	--	233
				PROJECT WIDE	--	--	--	--	--	--	--	1	1	--
				TOTAL 0010	2	890	890	1,195	0	0	112	1	1	1,077
0020				B-53-172	--	--	--	--	--	1	--	--	--	--
				TOTAL 0020	0	0	0	0	0	1	0	0	0	0
0030				B-53-104	--	--	--	--	1	--	--	--	--	--
				TOTAL 0030	0	0	0	0	1	0	0	0	0	0

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

CONDUIT RIGID NONMETALLIC SCHEDULE 40 AND ELECTRICAL WIRE LIGHTING

CATEGORY	FROM	TO	652.0225 2-INCH LF	655.0620 8 AWG LF	655.0625 6 AWG LF
0010	METER	LPB-1	175	-	915
	LPB-1	LPB-2	318	-	1630
	LBP-2	A1	77	-	620
	A1	A2	-	-	635
	A2	A3	-	930	-
	A3	A4	-	940	-
	A4	A5	-	875	-
	A5	A6	-	895	-
	A6	A7	-	885	-
	A7	A8	-	450	-
	CONDUIT STUBS		20	-	-
	TOTALS 0010		590	4975	3800

PULL BOXES NON-CONDUCTIVE 24X42-INCH

CATEGORY	DESCRIPTION	STATION, OFFSET	653.0164 EACH
0010	LPB-1	241+04.52 WB, 53.7' RT	1
	LPB-2	238+16.16 WB, 58.6 RT	1
	TOTAL 0010		2

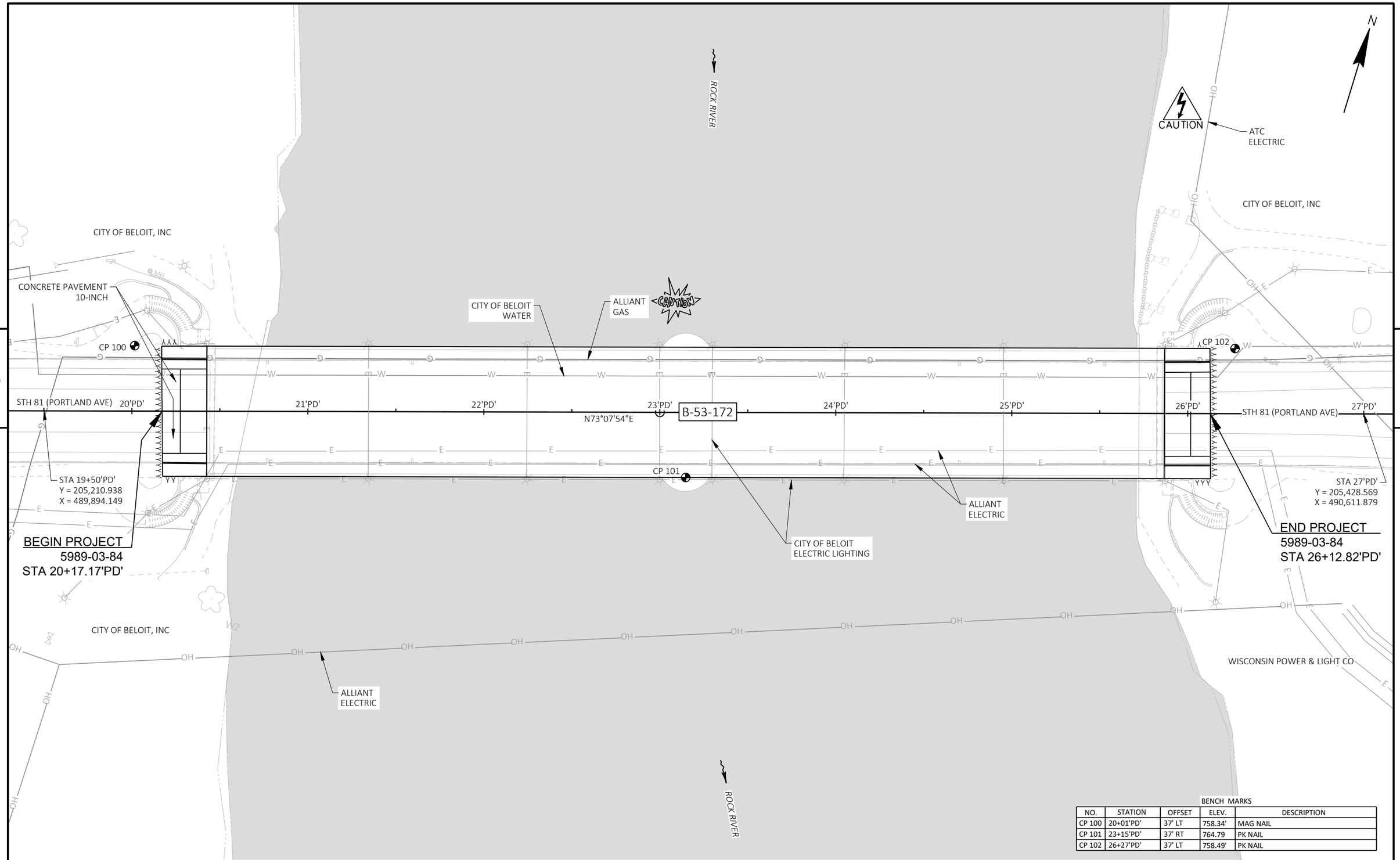
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE ON PLANS

LIGHTING UNITS AND ELECTRICAL WIRE LIGHTING

CATEGORY	DESCRIPTION	STATION, OFFSET	TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE 657.0255 EACH	POLES TYPE 5-ALUMINUM 657.0322 EACH	LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 8-FT 657.0615 LF	LUMINAIRES UTILITY LED B 659.1120 EACH	ELECTRICAL WIRE LIGHTING 12 AWG 655.0610 LF
0010	A-1	36+90.64 WB, 37.0' RT	1	1	1	1	162
	A-2	35+83.48 WB, 37.0' RT	1	1	1	1	162
	A-3	34+24.53 WB, 37.0' RT	1	1	1	1	162
	A-4	32+64.54 WB, 37.0' RT	1	1	1	1	162
	A-5	31+09.49 WB, 37.0' RT	1	1	1	1	162
	A-6	29+50.64 WB, 37.0' RT	1	1	1	1	162
	A-7	27+92.55 WB, 37.0' RT	1	1	1	1	162
	A-8	26+70.57 WB, 37.0' RT	1	1	1	1	162
	TOTALS 0010		8	8	8	8	1,296

SALVAGE LIGHTING UNITS

CATEGORY	STATION, OFFSET	SPV.0060.03 EACH
0010	35+83.48 WB, 37.0' RT	1
	34+24.53 WB, 37.0' RT	1
	32+64.54 WB, 37.0' RT	1
	31+09.49 WB, 37.0' RT	1
	29+50.64 WB, 37.0' RT	1
	27+92.55 WB, 37.0' RT	1
	TOTALS 0010	6



5 5

BENCH MARKS

NO.	STATION	OFFSET	ELEV.	DESCRIPTION
CP 100	20+01'PD'	37' LT	758.34'	MAG NAIL
CP 101	23+15'PD'	37' RT	764.79	PK NAIL
CP 102	26+27'PD'	37' LT	758.49'	PK NAIL

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	PLAN STH 81	SHEET 90 E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_050101_PP.DWG
LAYOUT NAME - STH 81
PLOT DATE : 10/26/2026 3:08 PM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 44

TOWN OF BELOIT

EXISTING SANITARY SEWER PIPE THROUGH WEST ABUTMENT

EXISTING R/W (APPROXIMATE)

SLOPE INTERCEPT

BP: 26+00.00 'Q'
Y = 217135.718
X = 487985.659

75'

MH

CTH Q (NEWARK RD)

27'Q' 28'Q' 29'Q' 30'Q' 31'Q' 32'Q'

S89°41'38"E

B-53-104

CTH Q (NEWARK RD)

CP 100

BM 200

SS

SS

125'

SLOPE INTERCEPT

OVERHEAD LIGHTING MAINTAINED BY THE TOWN OF BELOIT

BIKE PATH LEG TO BE CLOSED WHILE BRIDGE IS CLOSED

BEGIN STRUCTURE
5989-03-84
STA 26+58.50'Q'

EXISTING R/W (APPROXIMATE)

ROCK RIVER

N

5

5

BENCH MARKS

NO.	STATION	OFFSET	ELEV.	DESCRIPTION
BM 200	26+61'Q'	35.6' RT	793.17'	ALUMINUM DISC

STA 26+58.50
EL 792.98

PROPOSED PROFILE

EXISTING PROFILE

EXISTING ELEVATION
PROPOSED ELEVATION

-2.28%

795
790
785
780

25	26	27	28	29	30	31	32
	793.97	792.83	791.83	790.67	789.48	788.26	787.17	786.03	784.84	783.71	782.55	781.38	780.20
	792.03	790.89	789.75	788.61	787.47	786.33	785.19	784.05	782.91	781.77	780.63

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	PLAN AND PROFILE: CTH Q	SHEET 91	E

N

32'Q' CTH Q (NEWARK RD) 33'Q' 34'Q' B-53-104 35'Q' 36'Q' 37'Q' 38'Q'

S89°41'38"E

CP 101

BM 201

SLOPE INTERCEPT

EP: 38+00.00 'Q'
Y = 217129.307
X = 489185.645

APPROXIMATELY 140 ' TO EXISTING R/W BOUNDARY

CTH Q (NEWARK RD)

E E

WISDOT SIGNALS

SLOPE INTERCEPT

APPROXIMATELY 200' TO EXISTING R/W BOUNDARY

ROCK RIVER

5

5

BENCH MARKS

NO.	STATION	OFFSET	ELEV.	DESCRIPTION
BM 201	37+06'Q'	30.7' LT	768.98'	ALUMINUM DISK

780
775
770
765
762

END STRUCTURE
5989-03-84
STA 37+02.67'Q'

PROPOSED PROFILE

STA 37+02.67
EL 769.16

EXISTING PROFILE

EXISTING ELEVATION
PROPOSED ELEVATION

780.20	780.63	779.08	779.49	777.91	778.35	776.73	777.21	775.58	776.06	774.46	774.92	773.27	773.78	772.12	772.64	770.98	771.50	770.21	770.36	769.09	769.22	767.76	766.59
32		33		34		35		36		37		38		39									

PROJECT NO: 5989-03-84 | HWY: STH 81 & CTH Q | COUNTY: ROCK | PLAN AND PROFILE: CTH Q | SHEET 92 | E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_050101_PP.DWG
LAYOUT NAME - CTH Q - 2

PLOT DATE : 10/26/2026 3:08 PM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

PI STA = 123+69.42 'WB'
Y = 217136.950
X = 487755.019
DELTA = 1°27'35" LT
D = 2°51'53"
T = 25.48'
L = 50.96'
R = 2000.00'
PC STA = 123+43.94 'WB'
Y = 217137.086
X = 487729.539
PT STA = 123+94.89 'WB'
Y = 217137.463
X = 487780.494
DB = S89°41'38"E
DA = N88°50'46"E

PI STA = 124+47.92 'WB'
Y = 217138.531
X = 487833.508
DELTA = 1°27'35" RT
D = 4°05'33"
T = 17.84'
L = 35.67'
R = 1400.00'
PC STA = 124+30.08 'WB'
Y = 217138.171
X = 487815.676
PT STA = 124+65.75 'WB'
Y = 217138.435
X = 487851.344
DB = N88°50'46"E
DA = S89°41'38"E

PI STA = 122+90.96 'EB'
Y = 217131.369
X = 487676.559
DELTA = 1°27'35" LT
D = 4°05'33"
T = 17.84'
L = 35.67'
R = 1400.00'
PC STA = 122+73.12 'EB'
Y = 217131.464
X = 487658.723
PT STA = 123+08.79 'EB'
Y = 217131.728
X = 487694.391
DB = S89°41'38"E
DA = N88°50'46"E

PI STA = 124+47.97 'EB'
Y = 217134.530
X = 487833.538
DELTA = 1°27'35" RT
D = 4°06'15"
T = 17.79'
L = 35.57'
R = 1396.00'
PC STA = 124+30.18 'EB'
Y = 217134.172
X = 487815.757
PT STA = 124+65.75 'EB'
Y = 217134.435
X = 487851.323
DB = N88°50'46"E
DA = S89°41'38"E

TOWN OF BELOIT

CTH Q (NEWARK RD)

BP: 122+53.93 'WB'
Y = 217137.567
X = 487639.533

BP: 122+53.90 'EB'
Y = 217131.567
X = 487639.501

PC: 123+43.94 'WB'
PT: 123+94.89 'WB'
PC: 124+30.08 'WB'
PT: 124+65.75 'WB'
EP: 126+58.50 'WB'
Y = 217137.406
X = 488044.089

PC: 122+73.12 'EB'
PT: 123+08.79 'EB'
PC: 124+30.18 'EB'
PT: 124+65.75 'EB'
EP: 126+58.50 'EB'
Y = 217133.406
X = 488044.068

S89°41'38"E
123'WB'
123'EB'
124'WB'
124'EB'
N88°50'46"E
125'WB'
125'EB'
S89°41'38"E
126'WB'
126'EB'
S89°41'38"E

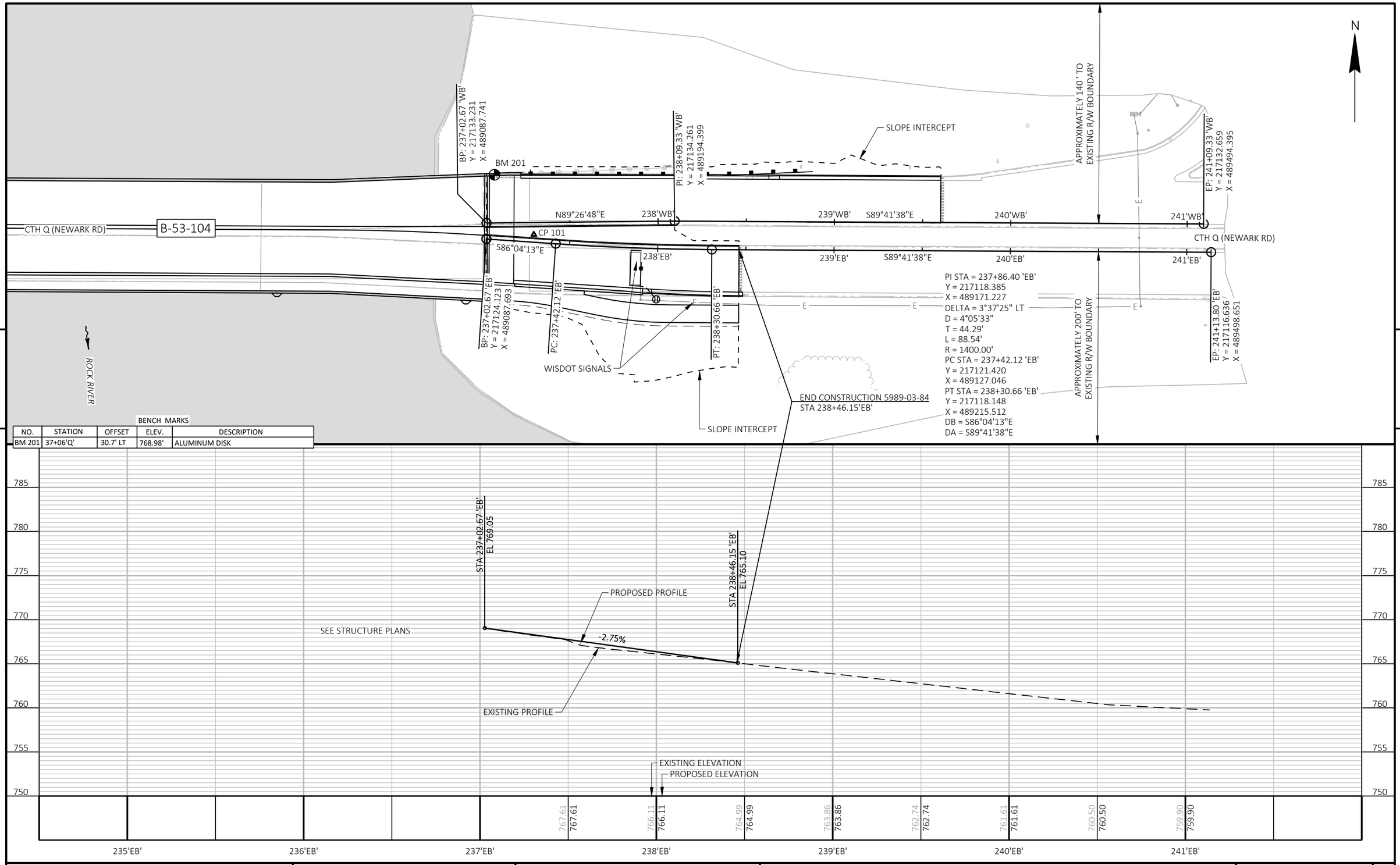
EXISTING R/W (APPROXIMATE)
75'
125'
B-53-104
CP 100
BM 200
SLOPE INTERCEPT
REMOVING MANHOLES
ROCK RIVER
EXISTING R/W (APPROXIMATE)

BEGIN CONSTRUCTION 5989-03-84
STA 122+73.12'EB'
STA 122+73.12 'EB'
EL 801.72
STA 126+58.50 'EB'
EL 792.94
EXISTING PROFILE
-2.28%
PROPOSED PROFILE
SEE STRUCTURE PLANS
EXISTING ELEVATION
PROPOSED ELEVATION

820 815 810 805 800 795 790 785

			801.11	801.10	800.43	799.97	799.30	798.83	798.12	797.69	796.91	796.55	795.68	795.41	794.41	794.27	793.07	793.13			
122'EB'			123'EB'			124'EB'			125'EB'			126'EB'			127'EB'			128'EB'			

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	PLAN AND PROFILE: CTH Q EB WEST APPROACH	SHEET 93 E



PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	PLAN AND PROFILE: CTH Q EB EAST APPROACH	SHEET 94 E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_050102_PP.DWG
LAYOUT NAME - CTH Q EB EAST APPROACH

PLOT DATE : 10/26/2026 2:20 PM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

PI STA = 123+69.42 'WB'
Y = 217136.950
X = 487755.019
DELTA = 1°27'35" LT
D = 2°51'53"
T = 25.48'
L = 50.96'
R = 2000.00'
PC STA = 123+43.94 'WB'
Y = 217137.086
X = 487729.539
PT STA = 123+94.89 'WB'
Y = 217137.463
X = 487780.494
DB = S89°41'38"E
DA = N88°50'46"E

PI STA = 124+47.92 'WB'
Y = 217138.531
X = 487833.508
DELTA = 1°27'35" RT
D = 4°05'33"
T = 17.84'
L = 35.67'
R = 1400.00'
PC STA = 124+30.08 'WB'
Y = 217138.171
X = 487815.676
PT STA = 124+65.75 'WB'
Y = 217138.435
X = 487851.344
DB = N88°50'46"E
DA = S89°41'38"E

PI STA = 122+90.96 'EB'
Y = 217131.369
X = 487676.559
DELTA = 1°27'35" LT
D = 4°05'33"
T = 17.84'
L = 35.67'
R = 1400.00'
PC STA = 122+73.12 'EB'
Y = 217131.464
X = 487658.723
PT STA = 123+08.79 'EB'
Y = 217131.728
X = 487694.391
DB = S89°41'38"E
DA = N88°50'46"E

PI STA = 124+47.97 'EB'
Y = 217134.530
X = 487833.538
DELTA = 1°27'35" RT
D = 4°06'15"
T = 17.79'
L = 35.57'
R = 1396.00'
PC STA = 124+30.18 'EB'
Y = 217134.172
X = 487815.757
PT STA = 124+65.75 'EB'
Y = 217134.435
X = 487851.323
DB = N88°50'46"E
DA = S89°41'38"E

TOWN OF BELOIT

N

EXISTING R/W (APPROXIMATE)

BP: 122+53.93 'WB'
Y = 217137.567
X = 487639.533

PC: 123+43.94 'WB'

PT: 123+94.89 'WB'

PC: 124+30.08 'WB'

PT: 124+65.75 'WB'

SLOPE INTERCEPT

EP: 126+58.50 'WB'
Y = 217137.406
X = 488044.089

75'

CTH Q (NEWARK RD)

S89°41'38"E 123'WB' N88°50'46"E 124'WB' 125'WB' S89°41'38"E 126'WB'

123'EB' 124'EB' 125'EB' S89°41'38"E 126'EB'

S89°41'38"E

B-53-104

BP: 122+53.90 'EB'
Y = 217131.567
X = 487639.501

PC: 122+73.12 'EB'

PT: 123+08.79 'EB'

PC: 124+30.18 'EB'

PT: 124+65.75 'EB'

CP 100

BM 200

SLOPE INTERCEPT

EP: 126+58.50 'EB'
Y = 217133.406
X = 488044.068

125'

ROCK RIVER

EXISTING R/W (APPROXIMATE)

5

5

BEGIN CONSTRUCTION 5989-03-84
STA 123+43.94'WB'

STA 123+43.94 'WB'
EL 800.08

STA 126+58.50 'WB'
EL 792.94

PROPOSED PROFILE

-2.27%

EXISTING PROFILE

SEE STRUCTURE PLANS

EXISTING ELEVATION
PROPOSED ELEVATION

820 815 810 805 800 795 790 785

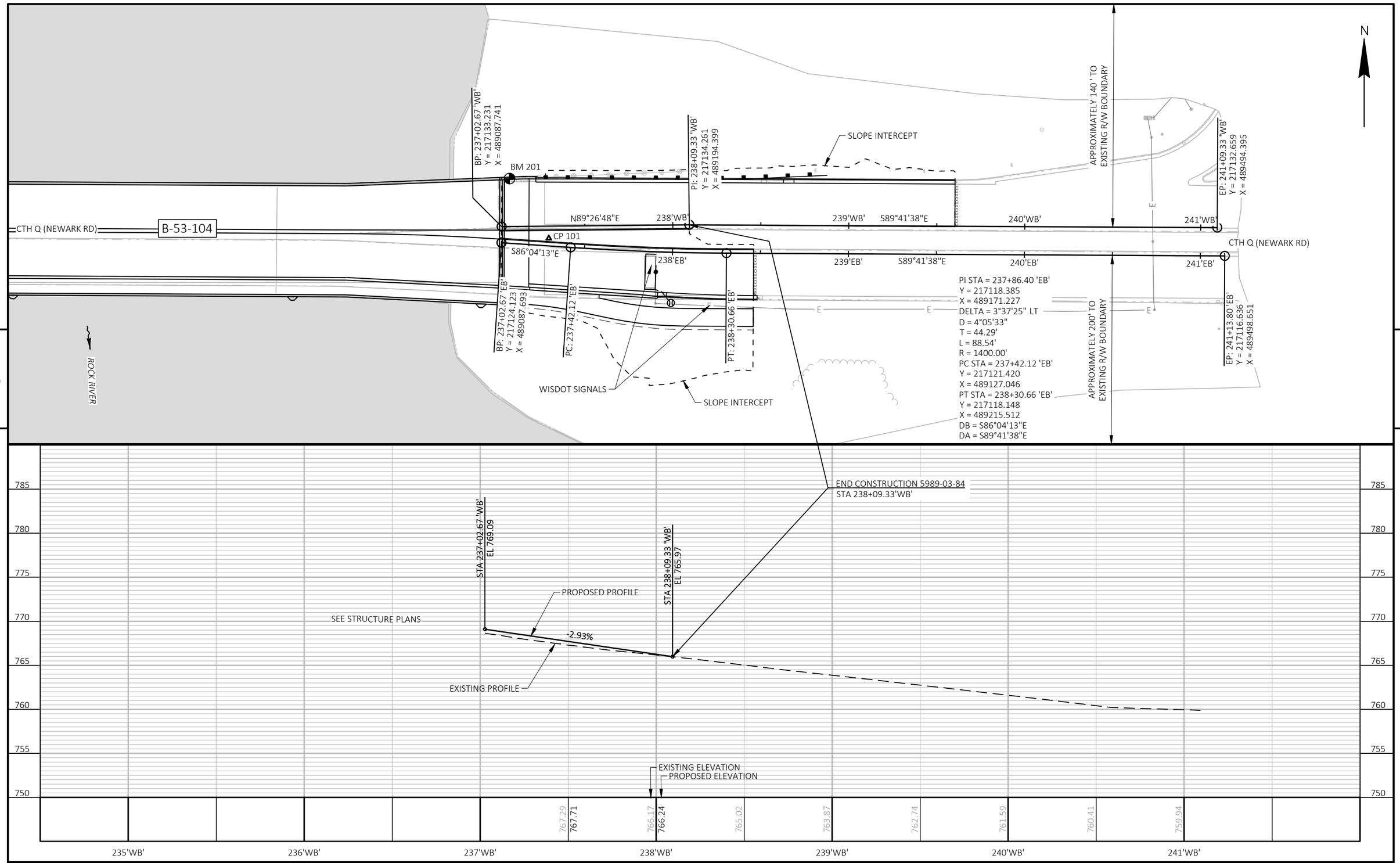
801.11
799.93 799.94
798.77 798.80
797.59 797.67
796.37 796.54
795.15 795.40
793.93 794.27
792.86 793.13

122'WB' 123'WB' 124'WB' 125'WB' 126'WB' 127'WB' 128'WB'

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	PLAN AND PROFILE: CTH Q WB WEST APPROACH	SHEET 95	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_050102_PP.DWG
LAYOUT NAME - CTH Q WB WEST APPROACH

PLOT DATE : 10/26/2026 2:20 PM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT



5 5

PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	PLAN AND PROFILE: CTH Q WB EAST APPROACH	SHEET 96	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\SHEETS\59890384_050102_PP.DWG
LAYOUT NAME - CTH Q WB EAST APPROACH
PLOT DATE : 10/26/2026 2:20 PM PLOT BY : MUENCH, DOUGLAS PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

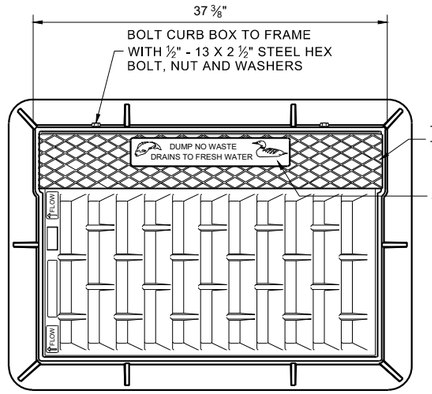
08A05-22A	INLET COVERS TYPE A, H, A-S, H-S AND Z
08A05-22B	INLET COVERS TYPE B, B-A, C, MS, MS-A, DW AND WM
08C08-03	INLETS MEDIAN 1 AND 2 GRATE
08D01-24A	CONCRETE CURB AND GUTTER
08D01-24B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPES A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B16-04	PULL BOXES NON-CONDUCTIVE
09C03-04	TRANSFORMER/PEDESTAL BASES
09E01-17D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-17G	HARDWARE DETAILS FOR POLE MOUNTING
09E02-05	FREEWAY LIGHTING UNIT POLE WIRING
09F08-04	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)
09F15-05A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09F15-05B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
09F15-05C	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 3)
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C19-03	HMA LONGITUDINAL JOINTS
14B07-16A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16J	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16K	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16L	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16M	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16N	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
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)
15A04-08E	DELINEATOR POST WITH REFLECTIVE SHEETING
15C02-10A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-10B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C07-16A	PAVEMENT MARKING SYMBOLS
15C07-16B	PAVEMENT MARKING WORDS
15C07-16C	PAVEMENT MARKING ARROWS
15C07-16E	PAVEMENT MARKING FOR BIKE LANES
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C11-11A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-11B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C29-08A	BICYCLE LANE MARKING
15C29-08B	PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS
15D06-07	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D20-12B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D20-12C	TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE
15D30-12A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-12B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-12C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

6

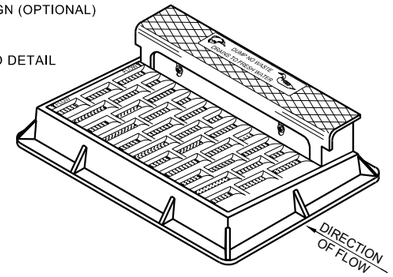
Standard Detail Drawing List

15D30-12F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-12K	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D40-08A	TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
15D40-08C	TRAFFIC CONTROL, PARTIAL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

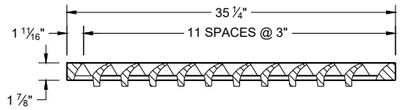
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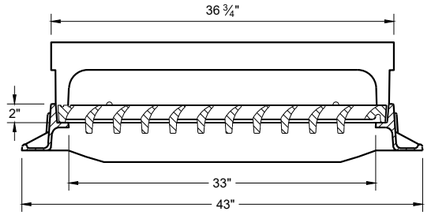


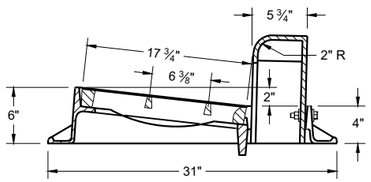
NOTE: EITHER CASTING IS ACCEPTABLE

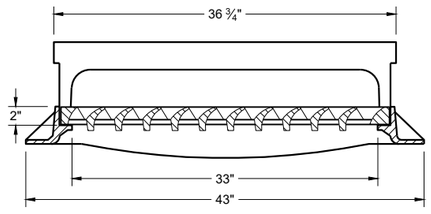


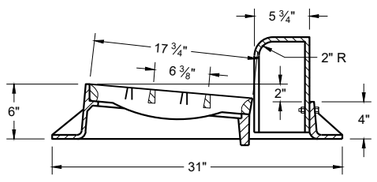
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"







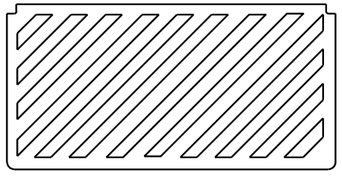




TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

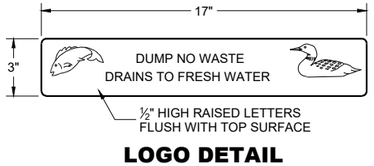
1 1/8" DIAGONAL BARS WITH 1 5/8" OPENINGS



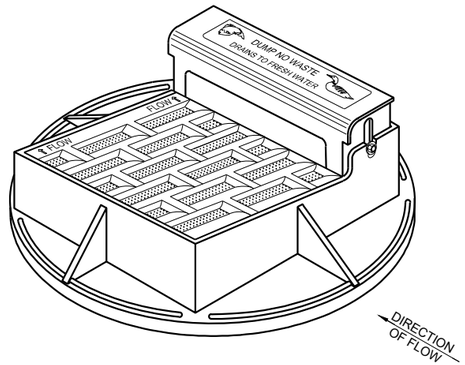
SPECIAL GRATE FOR TYPE "H" COVER

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

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

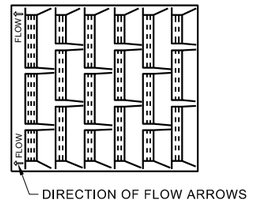


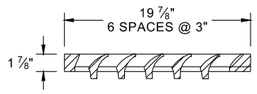
LOGO DETAIL

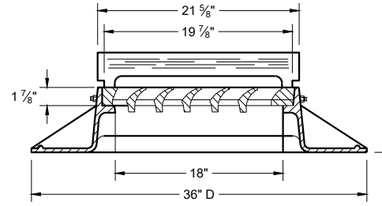


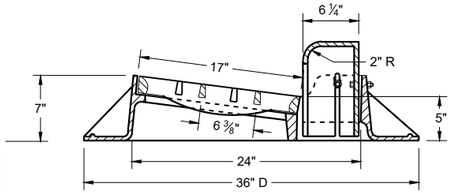
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

NOTE: EITHER CASTING IS ACCEPTABLE



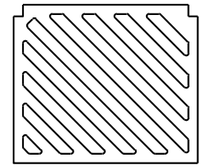






TYPE "A"

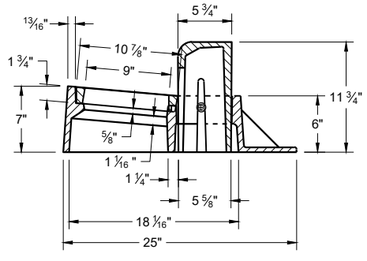
1" DIAGONAL BARS
WITH 1 1/2" OPENINGS

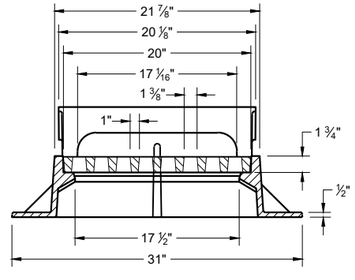


SPECIAL GRATE FOR TYPE "A" COVER

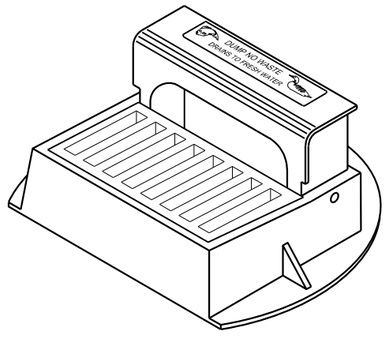
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"



GENERAL NOTES

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

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

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

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

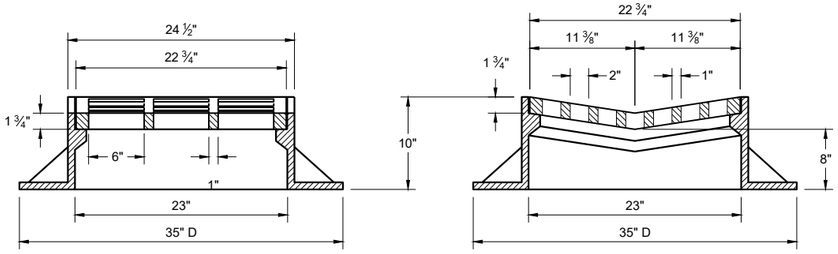
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

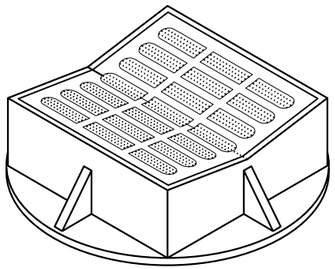
APPROVED
February 2025
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

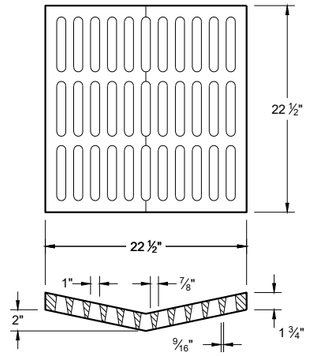
FHWA

6
SDD 08A05-22a





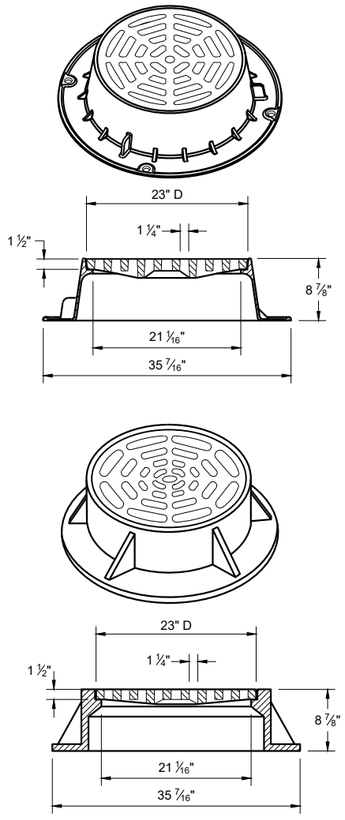
TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS POSSIBLE

NOTED AS TYPE B - A ON THE DRAINAGE TABLE



TYPE "C"

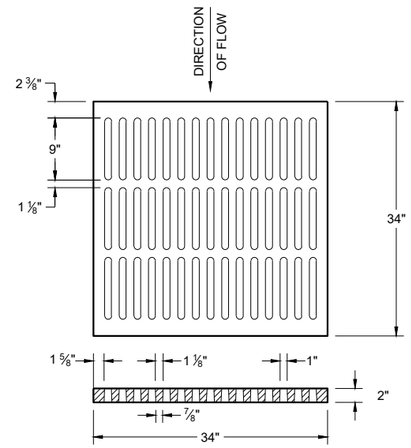
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

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

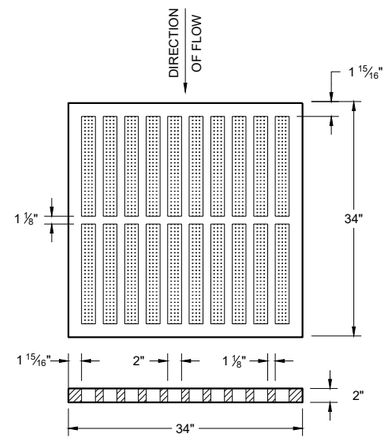
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS PERMITTED

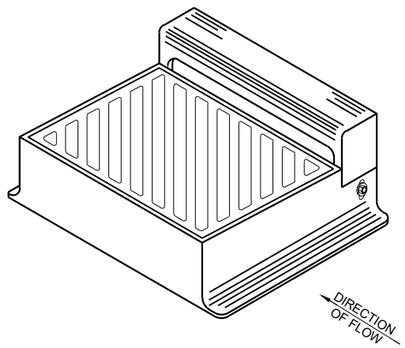
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



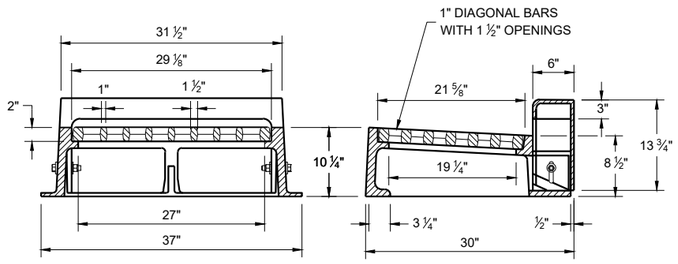
TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON THE DRAINAGE TABLE

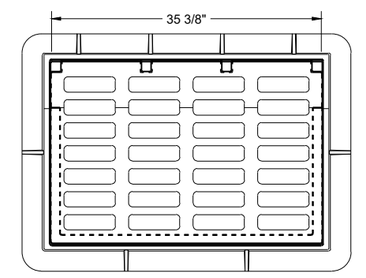


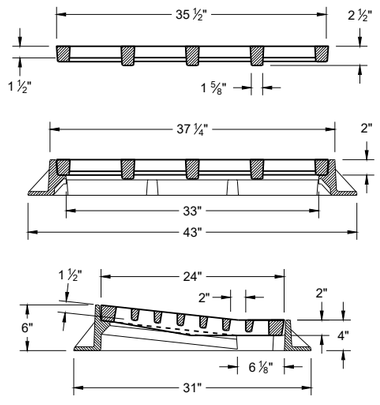
DIAGONAL SLOTS SHALL BE ORIENTEDTO THE DIRECTION OF FLOW AS ILLUSTRATED.
GRATES ARE MANUFACTURED TO BE REVERSIBLE.

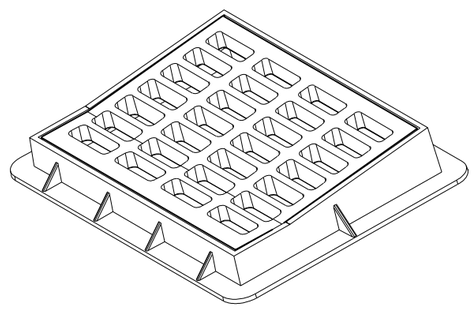


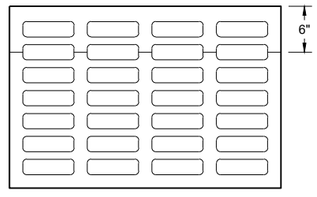
TYPE "WM"

NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"









TYPE "DW"

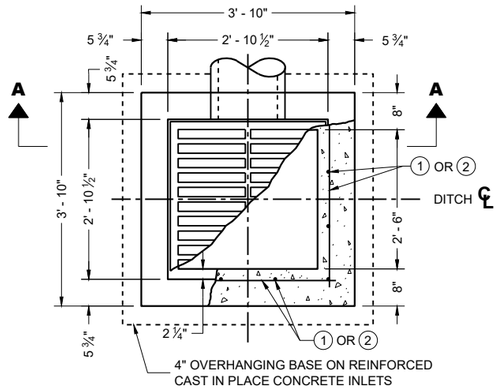
NOTES: FOR USE IN A SUMP CONDITION. THIS OPTION IS ONLY TO BE USED IF NO OTHER INLETS ARE APPLICABLE.

INLET COVERS
TYPES B, B-A, C,
MS, MS-A ,DW AND WM

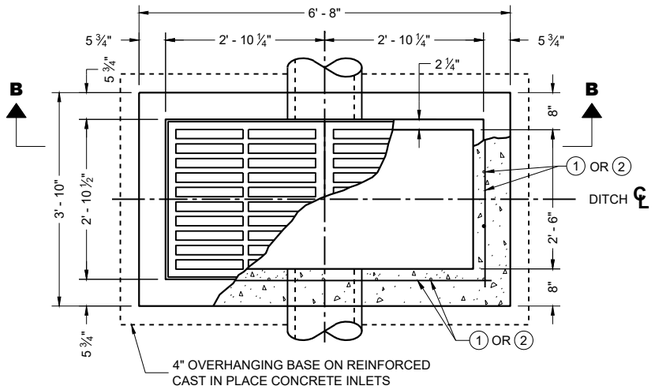
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

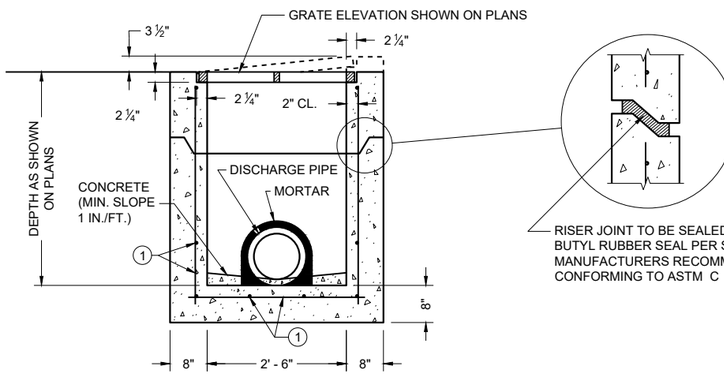
FHWA



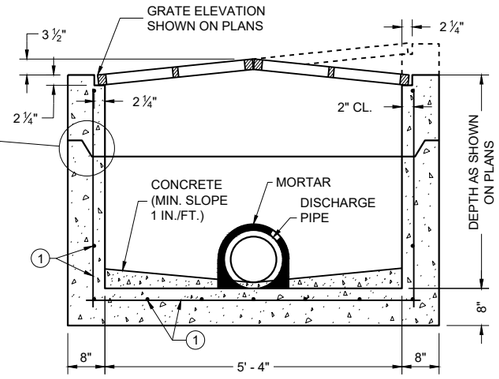
PLAN VIEW



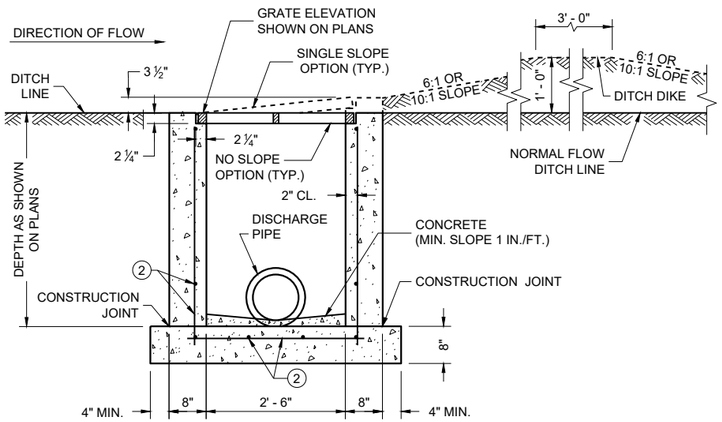
PLAN VIEW



PRECAST REINFORCED CONCRETE SECTION A - A

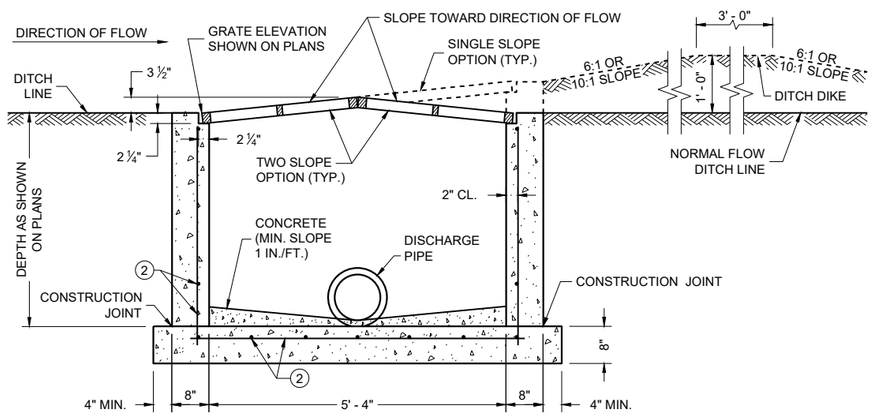


PRECAST REINFORCED CONCRETE SECTION B - B



REINFORCED CAST IN PLACE CONCRETE SECTION A - A

INLETS MEDIAN 1 GRATE



REINFORCED CAST IN PLACE CONCRETE SECTION B - B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE 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 PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

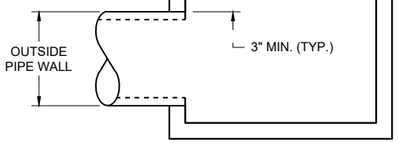
ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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

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

(1) FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

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



DETAIL "A"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42

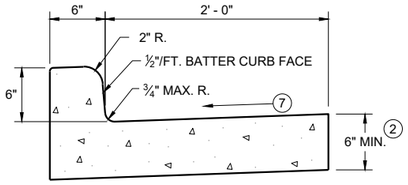
INLETS
MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

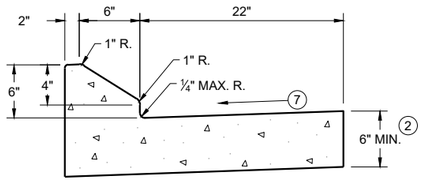
APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

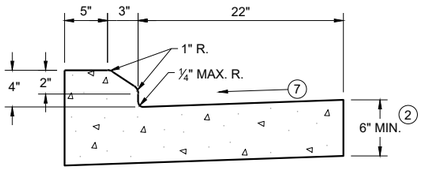
6
SDD 08C08-03



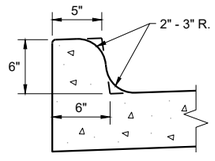
TYPES A (1) & D



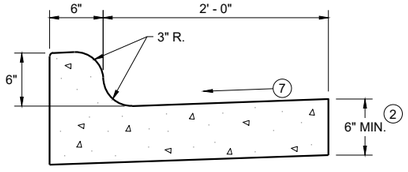
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

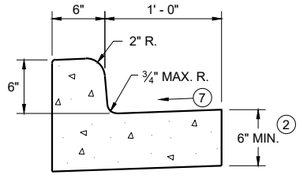


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



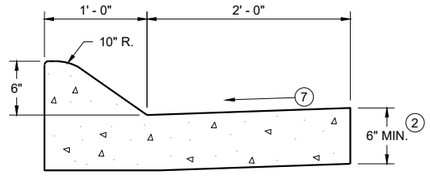
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

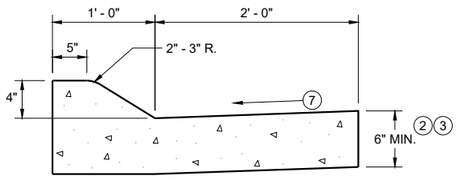


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

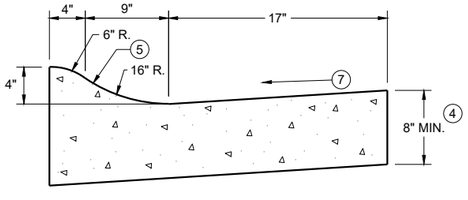


6" SLOPED CURB TYPES A (1) & D



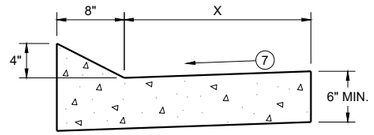
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



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

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

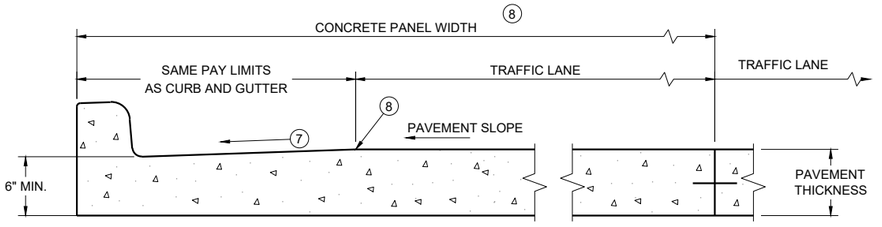


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

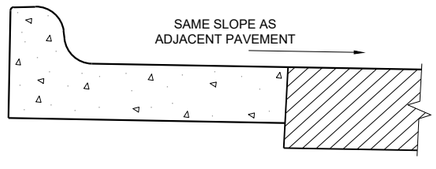
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER *

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

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

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

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

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

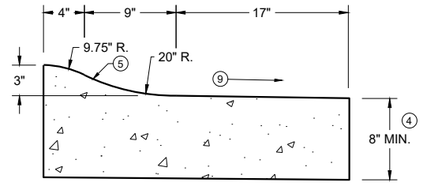
(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

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

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

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

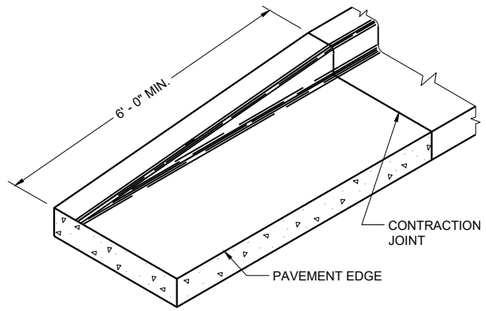
(9) SLOPE TO BE REVERSE SLOPE MATCHING THE SLOPE OF THE PAVEMENT AND THE CIRCULATORY ROADWAY



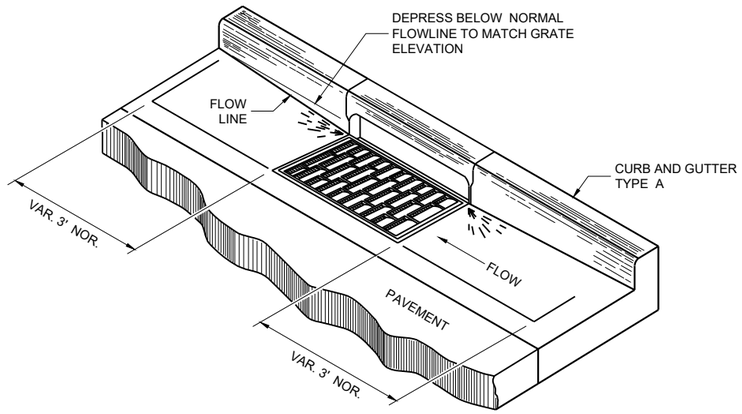
3" SLOPED CURB TYPES R (1) & T

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

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

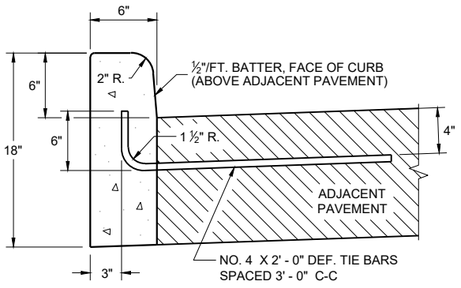
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

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

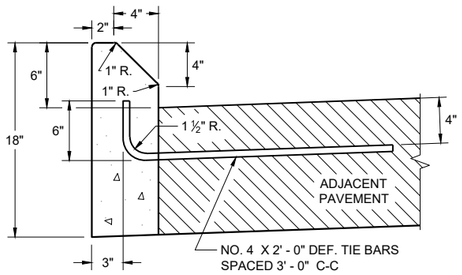
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

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

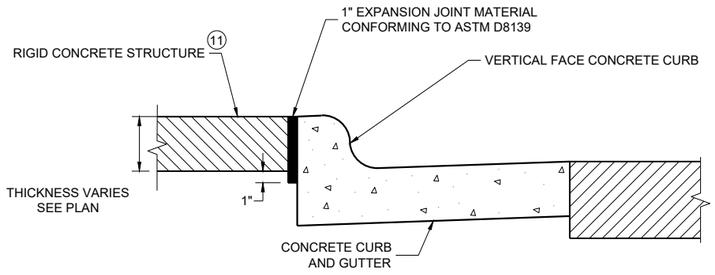


TYPES A (1) & D

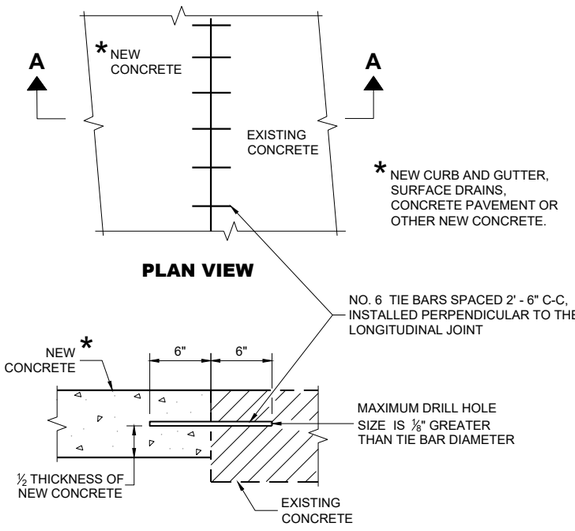


TYPES G (1) & J

CONCRETE CURB



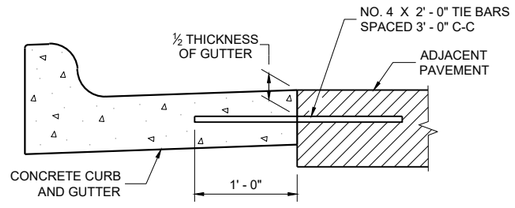
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



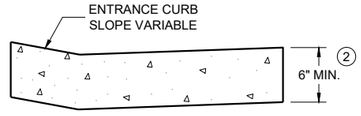
PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)

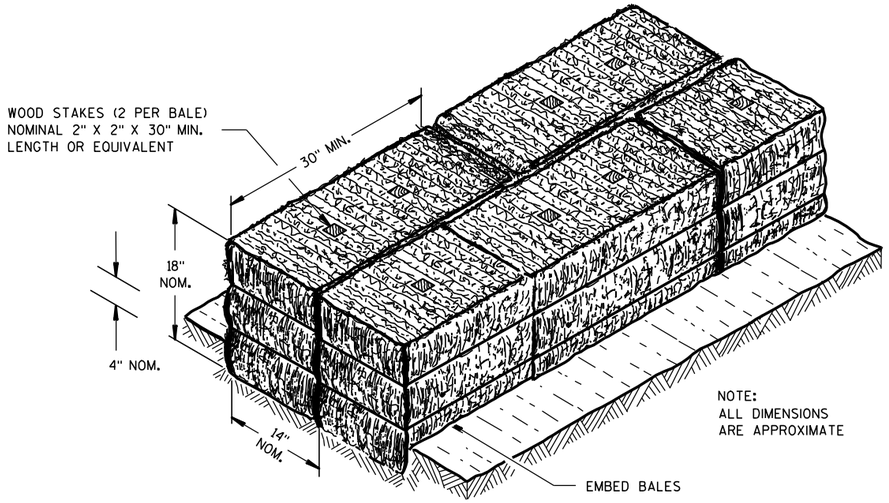
CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

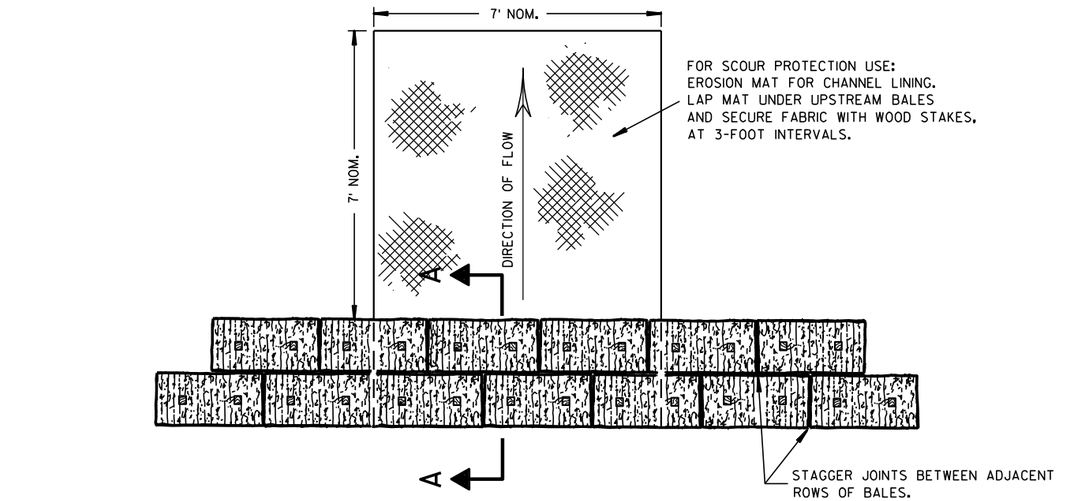
APPROVED
February 2025 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

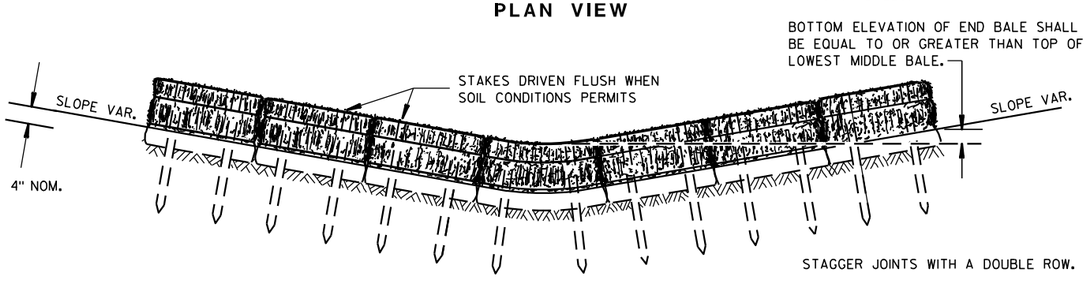
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SDD 08D01-24b



SECTION A-A



PLAN VIEW



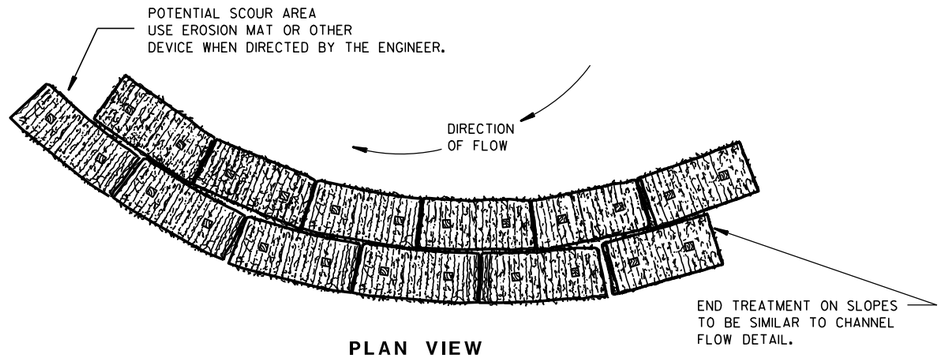
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

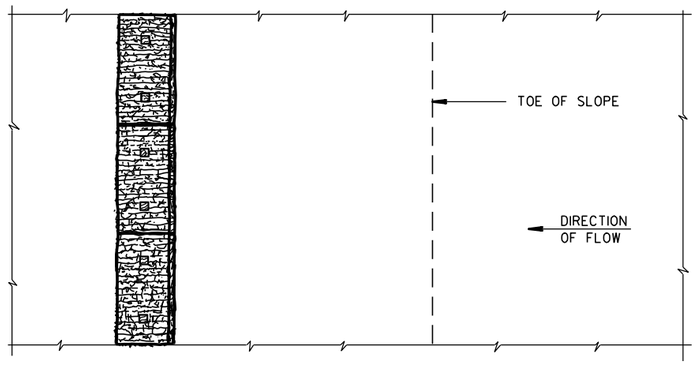
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

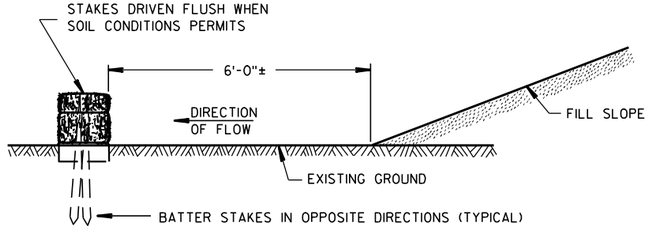


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

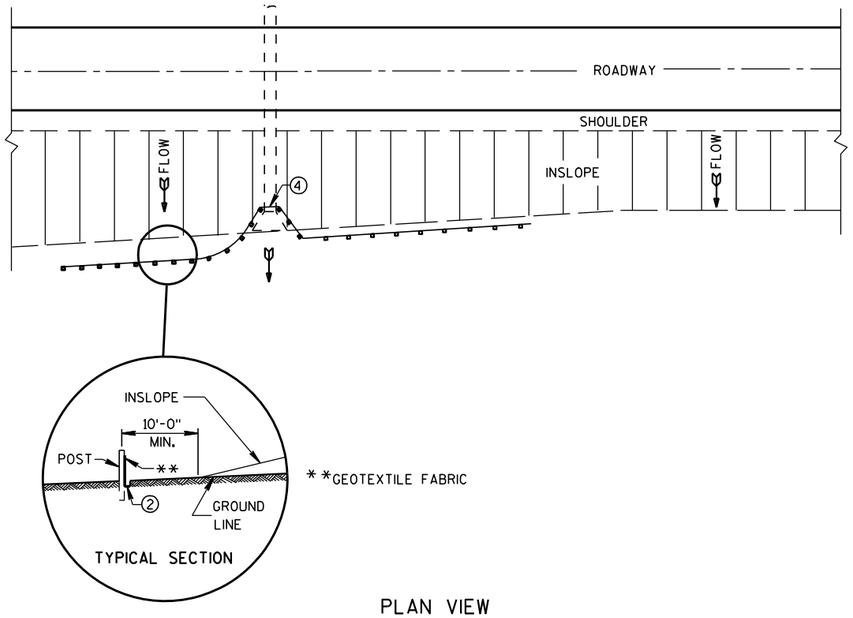
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

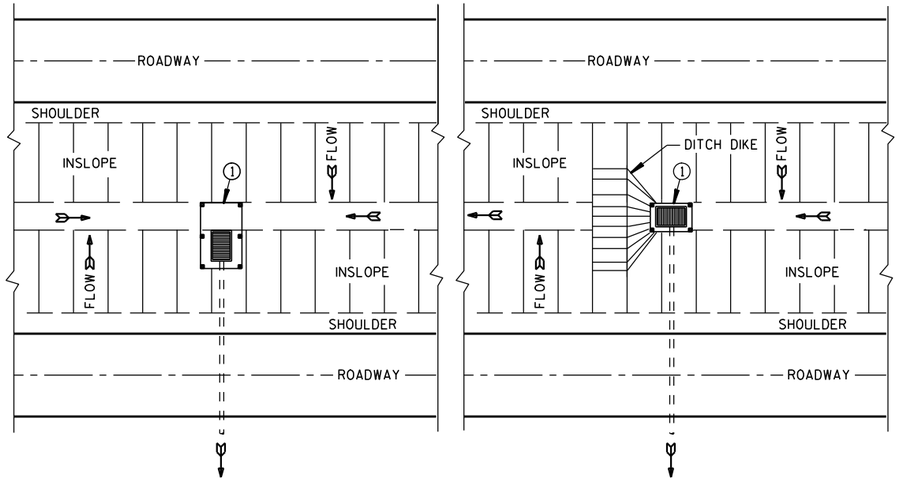
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

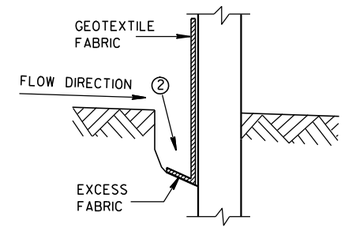
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

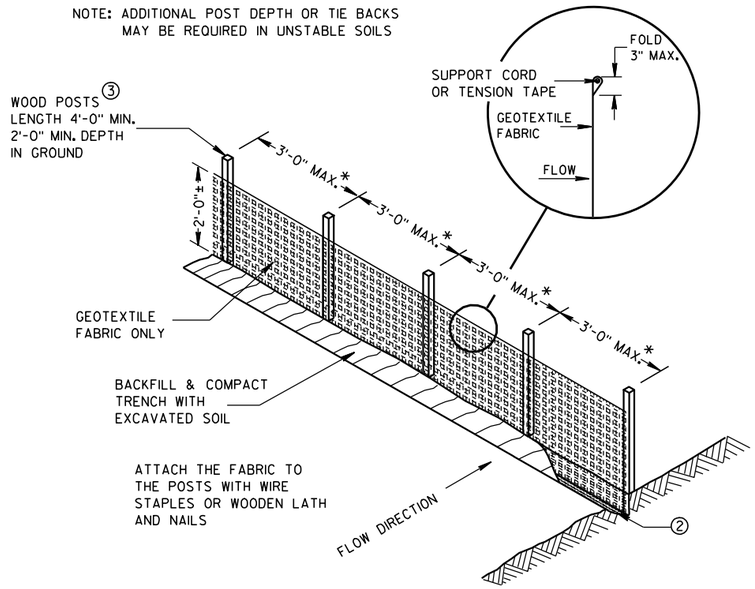
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

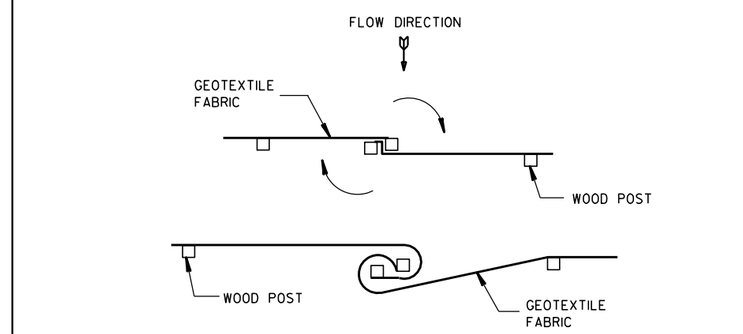
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



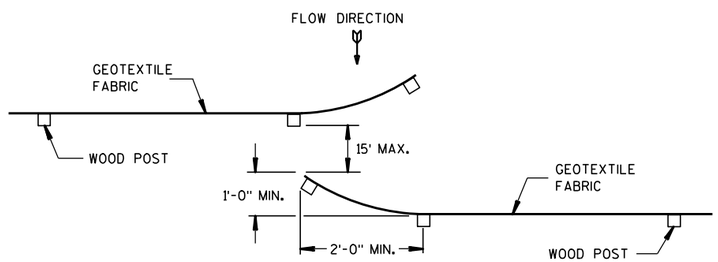
TRENCH DETAIL



SILT FENCE

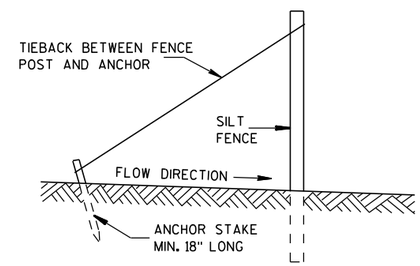


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

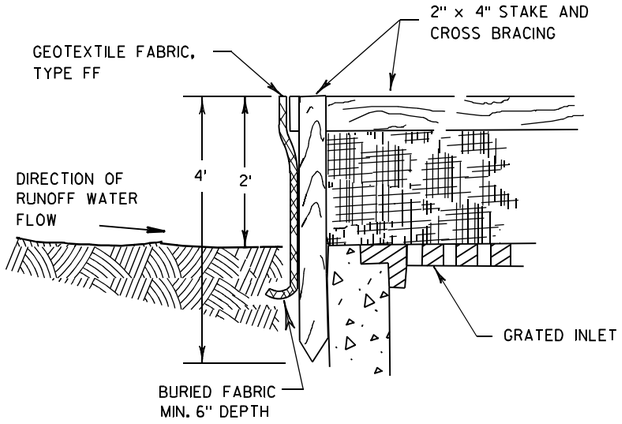
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

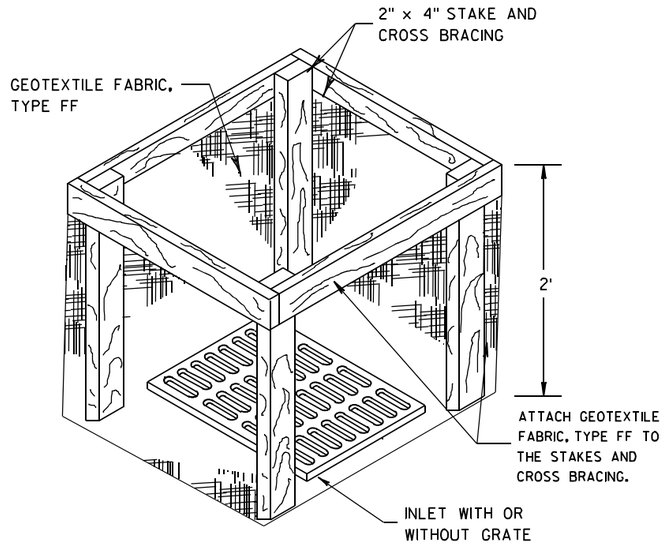
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S.D.D. 8 E 9-6

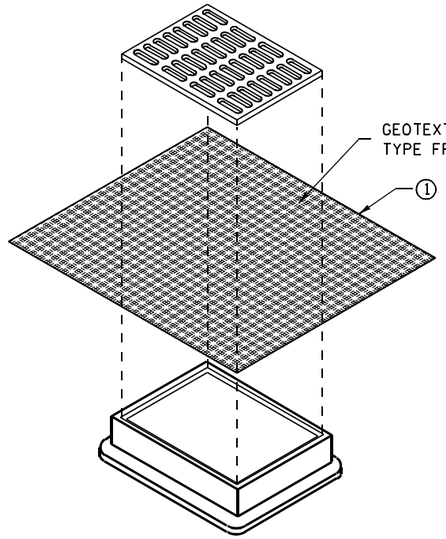
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S.D.D. 8 E 9-6



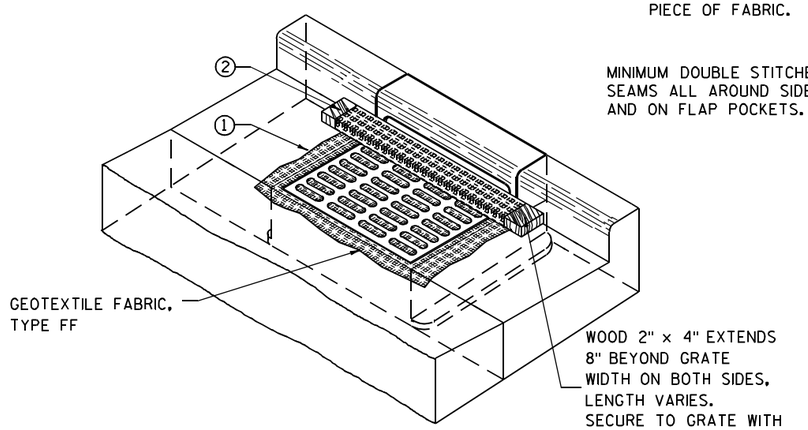


INLET PROTECTION, TYPE A

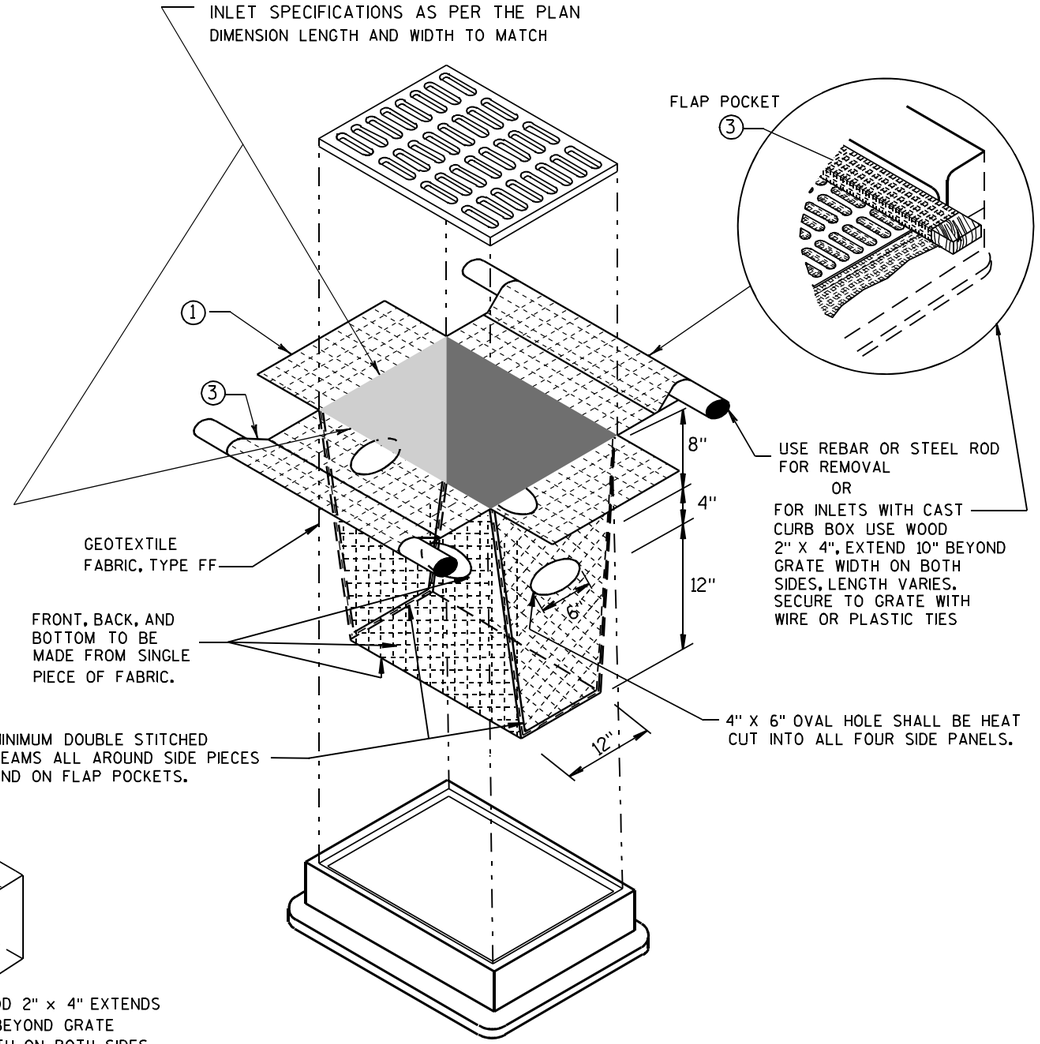


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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

METAL APRON ENDWALLS

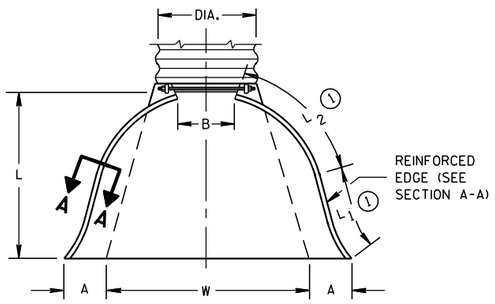
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

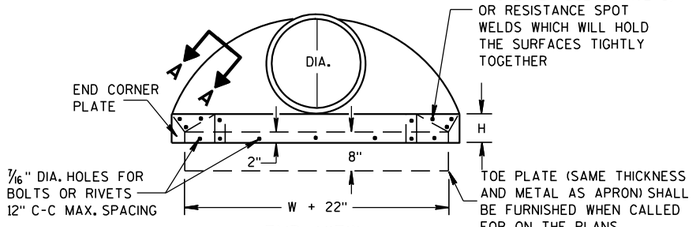
REINFORCED CONCRETE APRON ENDWALLS

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

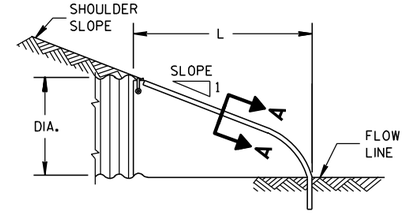
*MINIMUM
**MAXIMUM



PLAN VIEW

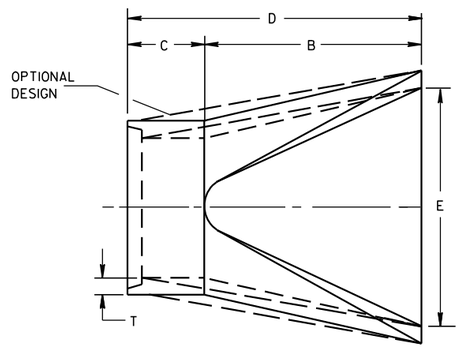


END VIEW

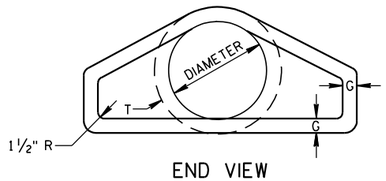


SIDE ELEVATION

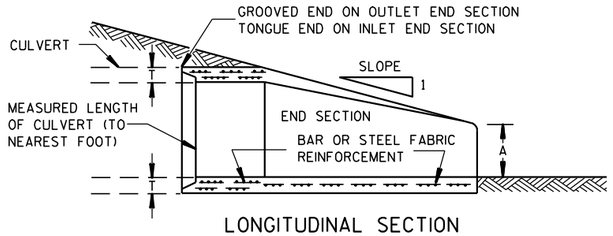
METAL ENDWALLS



PLAN

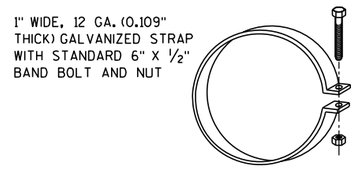


END VIEW



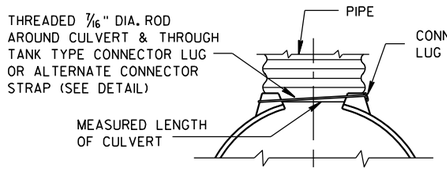
LONGITUDINAL SECTION

CONCRETE ENDWALLS

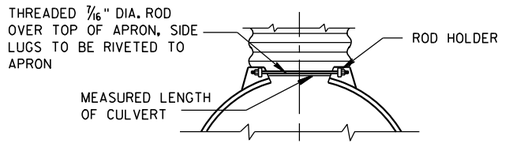


ALTERNATE FOR TYPE 1 CONNECTION

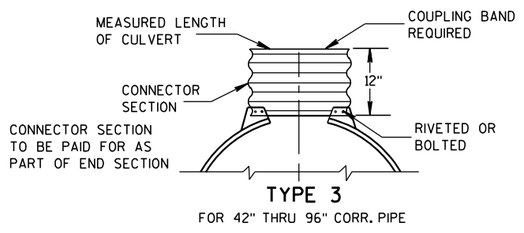
END SECTION CONNECTOR STRAP



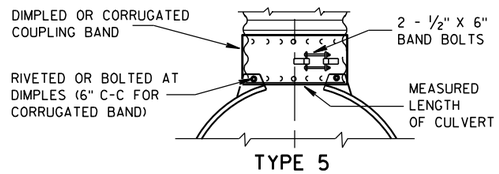
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

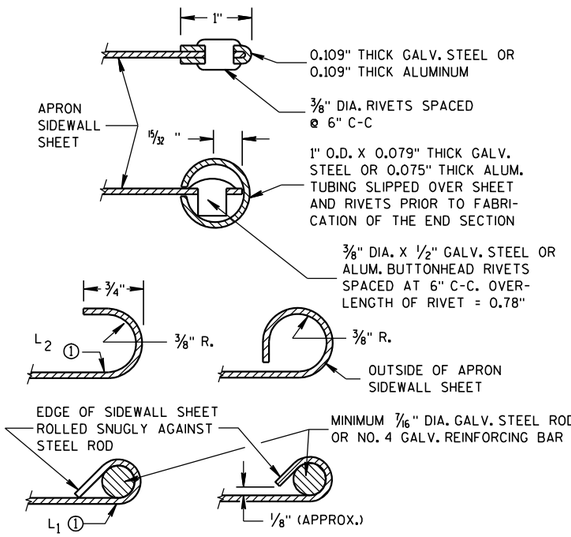
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

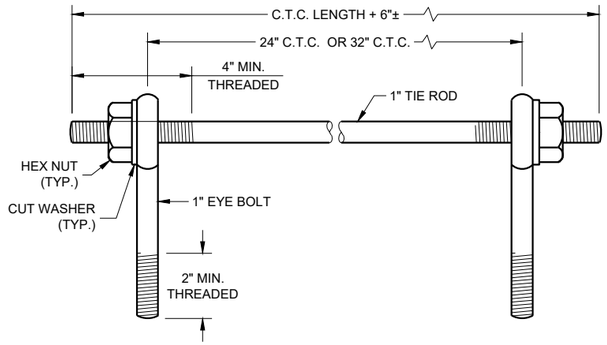
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

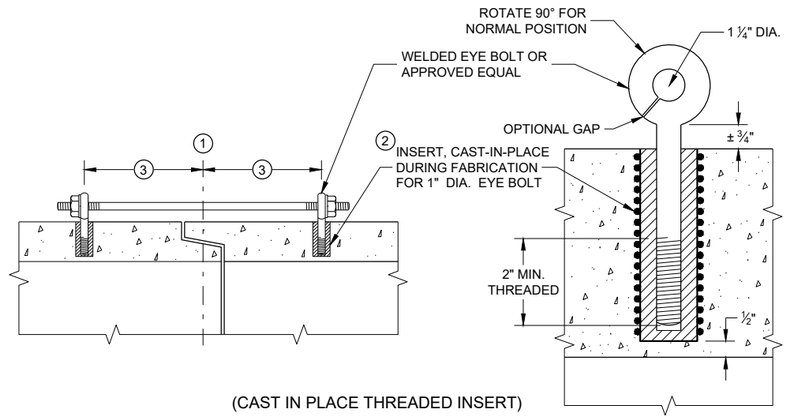
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

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

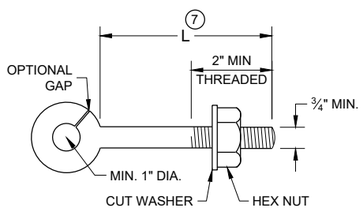
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

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

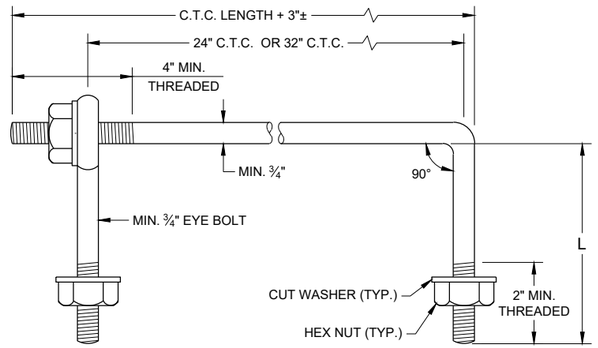
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

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

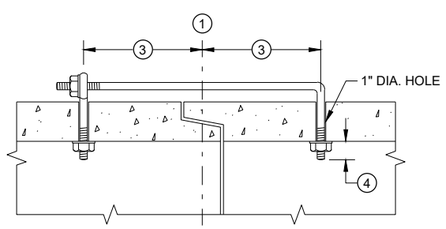


EYE BOLT (7)

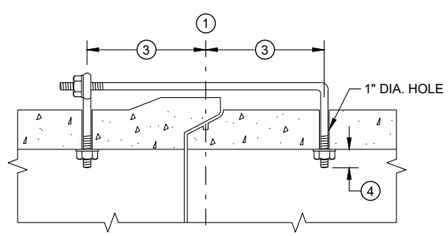
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

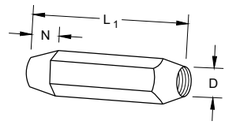
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

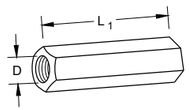
ADJUSTABLE TIE ROD TABLE

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

DIMENSIONS SHOWN ARE IN INCHES



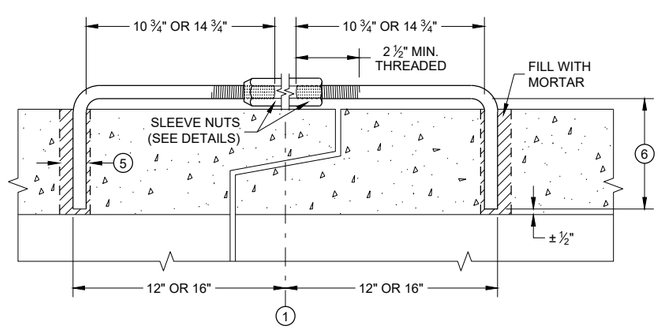
TAPERED



PLAIN

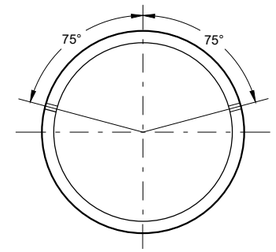
RIGHT AND LEFT THREADS

SLEEVE NUTS



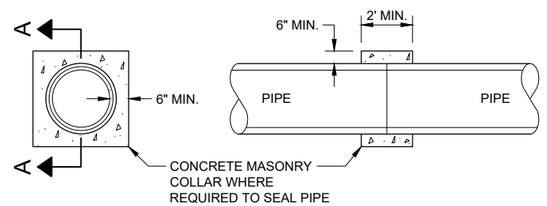
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

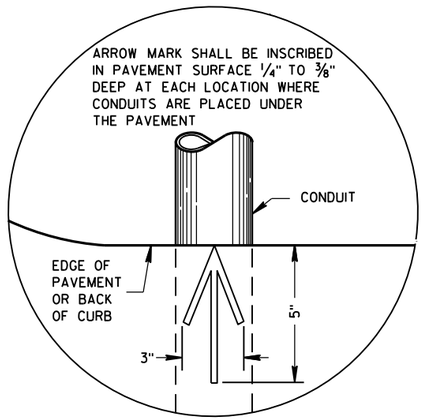
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

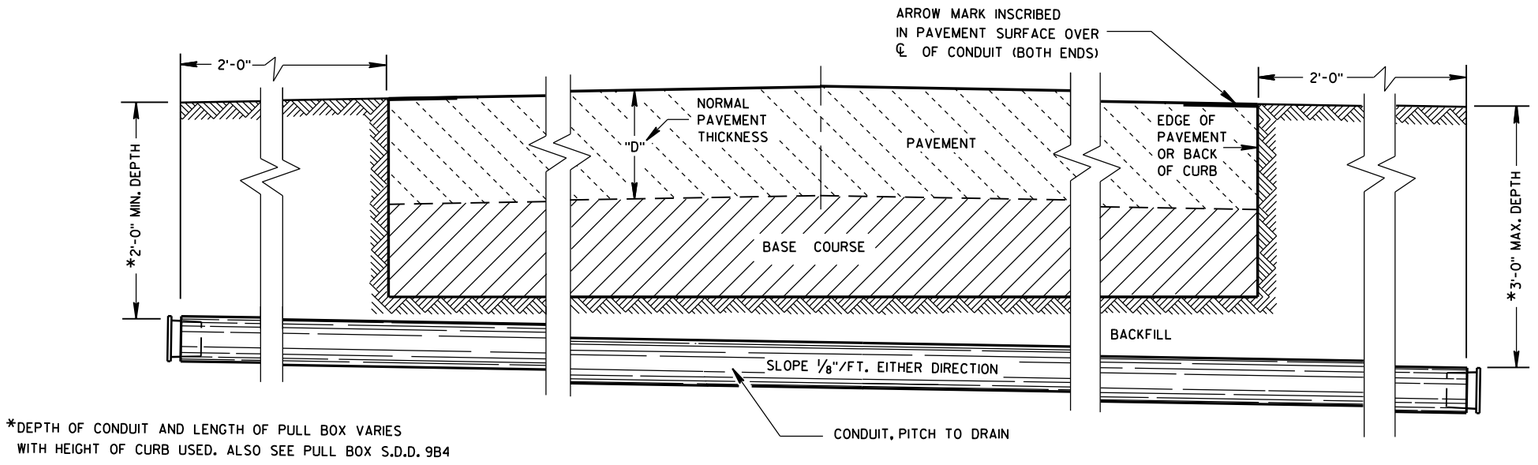
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SDD 08F04 - 08



PLAN VIEW

ARROW MARK



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

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

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

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

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

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

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

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

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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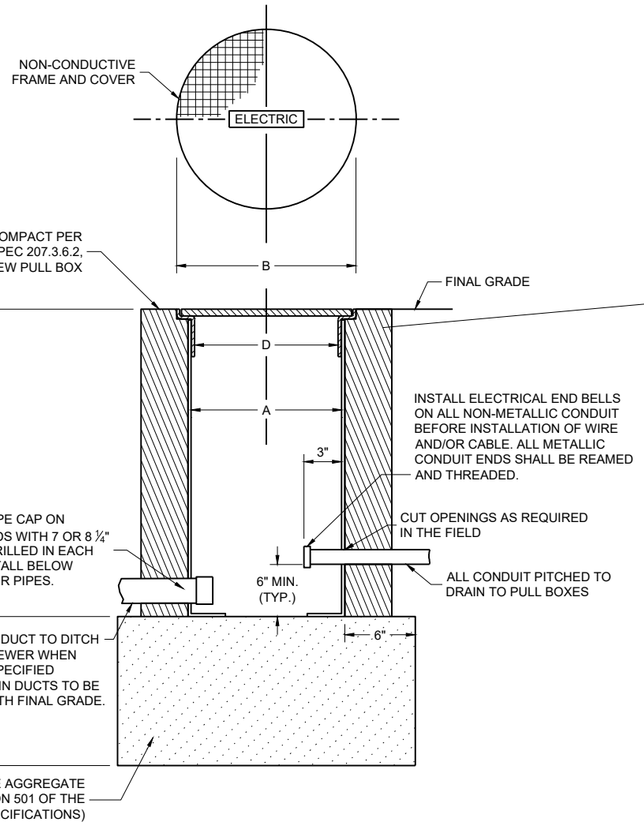
S.D.D. 9 B 2-10

TABLE OF NOMINAL DIMENSIONS
AND WEIGHTS

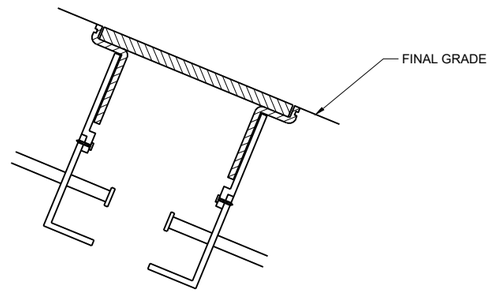
DIMENSION IN INCHES		NON- CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX OVERALL OUTSIDE DIAMETER	B	27	27
BOX LENGTH	C	36	42
FRAME OPENING	D	22 ½	22 ½
WEIGHT IN POUNDS *			
COVER		50	50
BOX ONLY		75	85

*THE ACTUAL WEIGHT OF THE COVER OR BOX ONLY MAY VARY NOT TO EXCEED 100 LBS INDIVIDUALLY.

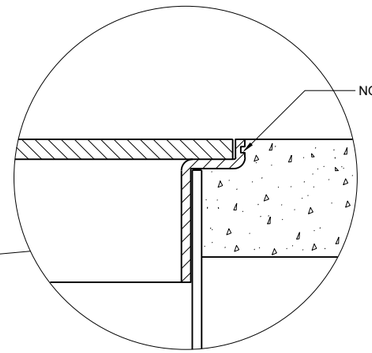
** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE.



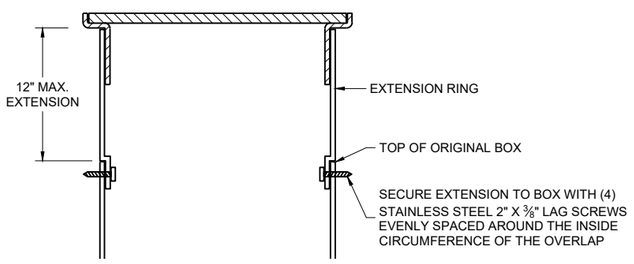
NON-CONDUCTIVE PULL BOX



**INSTALLED IN SOD
OR CRUSHED AGGREGATE**



INSTALLED IN SIDEWALK



BOX EXTENSION

GENERAL NOTES

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

ALL BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN $\frac{1}{2}$" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DICONTINUITIES LESS THAN ¼".

COVER SHALL BE MAGNETICALLY LOCATABLE.

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN ¼".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS AND MAGNETIC LOCATABLE DEVICE.

WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE.

LABEL ON COVER SHALL READ "ELECTRIC" FOR SIGNAL AND LIGHTING SYSTEMS, "WISDOT ITS" FOR COMMUNICATIONS AND ITS EQUIPMENT SYSTEMS.

INSTALL PULL BOX TO MATCH GRADE UP TO 3:1 MAX.

RING SHALL BE FLUSH WITH TOP OF PULL BOX.

COMPACT AROUND PULL BOX.

**MEASUREMENT DETAIL FOR
WIRE/CABLE IN THE PULL BOX**

**PULL BOXES
NON-CONDUCTIVE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2026 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL ENGINEER

FHWA

6
SDD 09B16-04

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

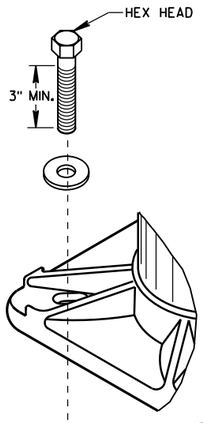
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

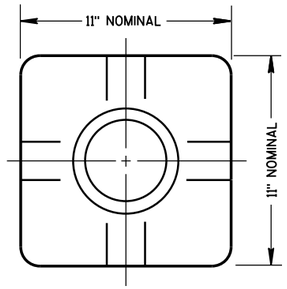
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

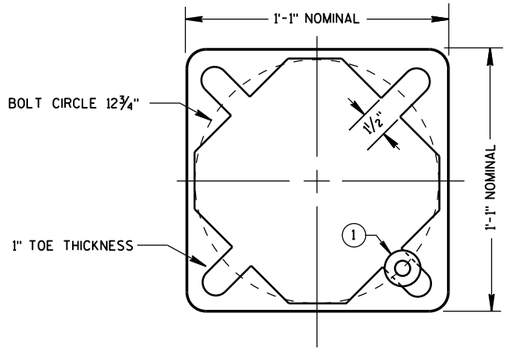
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

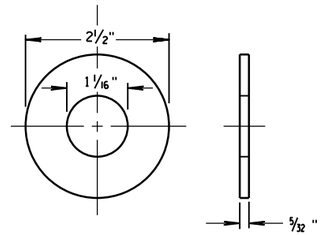




TOP VIEW
(PEDESTAL BASE)

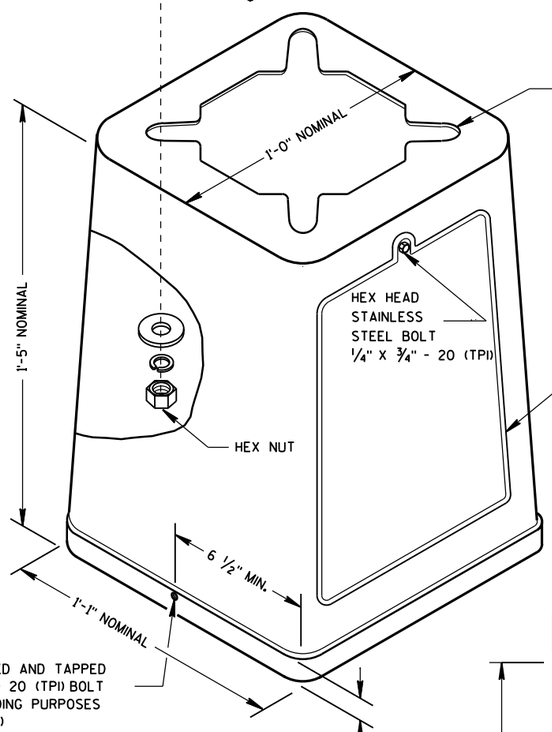


BOTTOM VIEW
(PEDESTAL BASE)

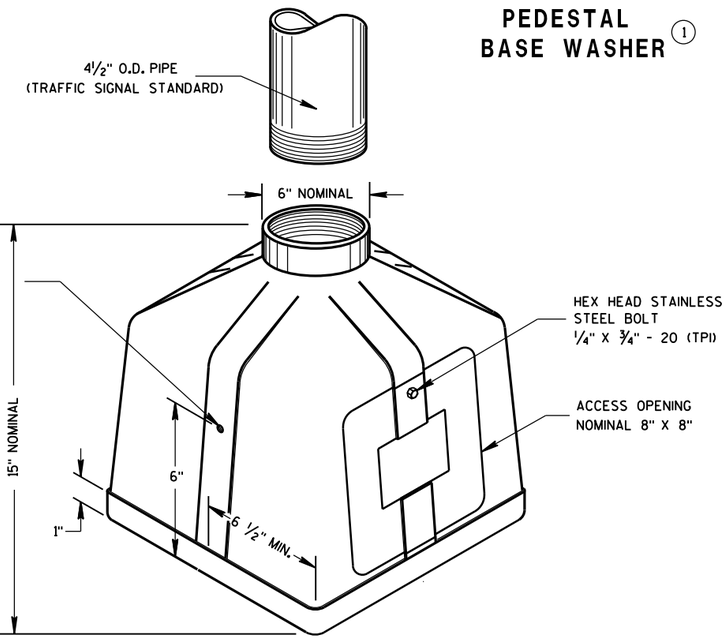


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

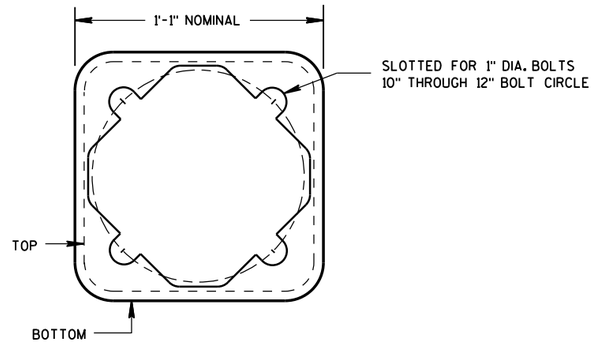


ISOMETRIC VIEW

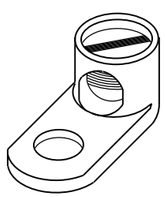


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

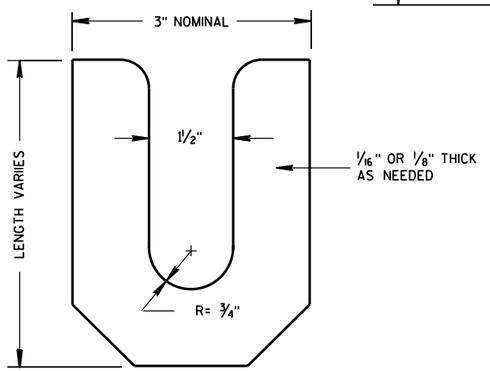


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

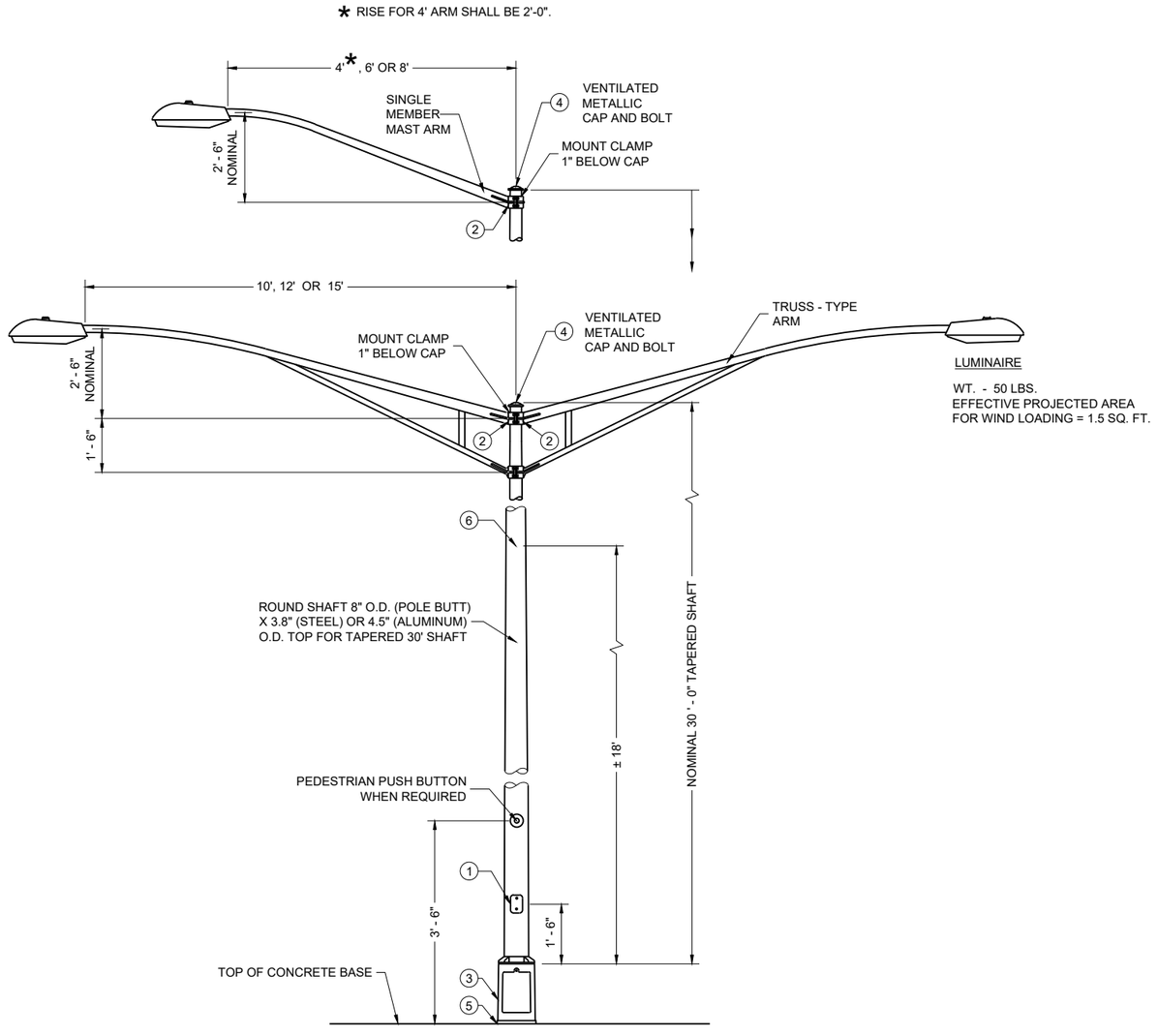
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 C 3-4

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S.D.D. 9 C 3-4



TYPE 5 POLE MOUNTING CONFIGURATION

(MAXIMUM LOAD)

LIGHTING ONLY

GENERAL NOTES

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

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.1888".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 ⅜" INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼"X¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

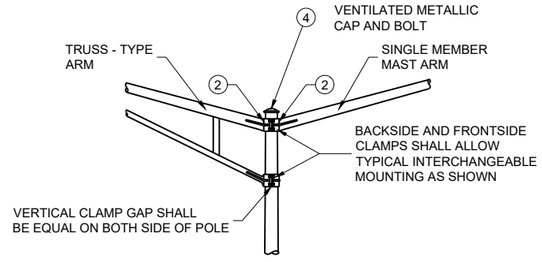
(2) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE.

(4) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ¼"X¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT. ONE (1)

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

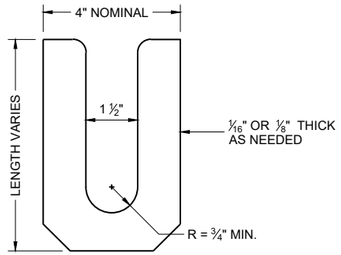
(6) INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.



INTERCHANGEABLE MOUNTING DETAIL

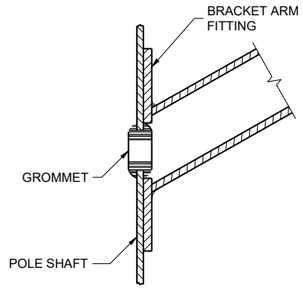
POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

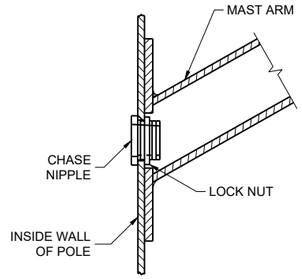


①

LEVELING SHIM
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

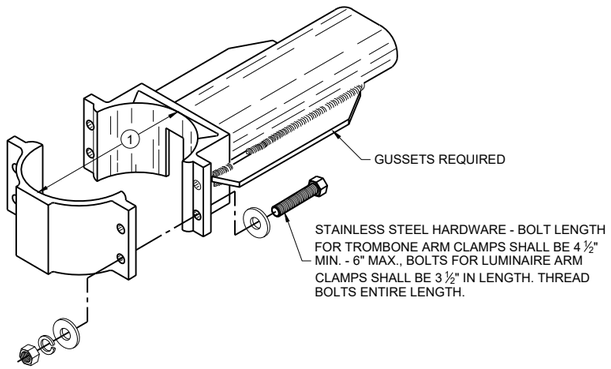
① 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

② INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

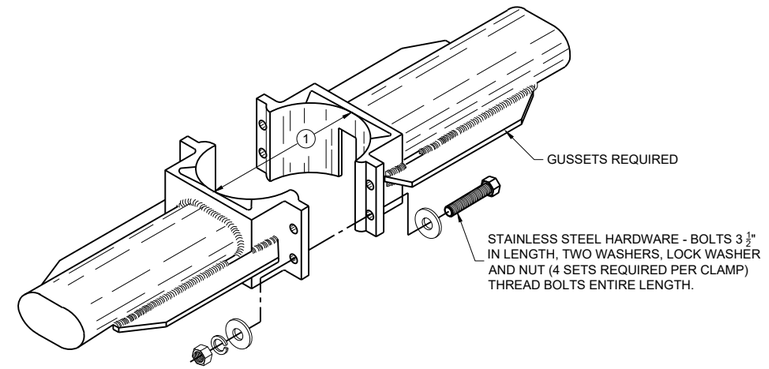
③ BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

④ LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

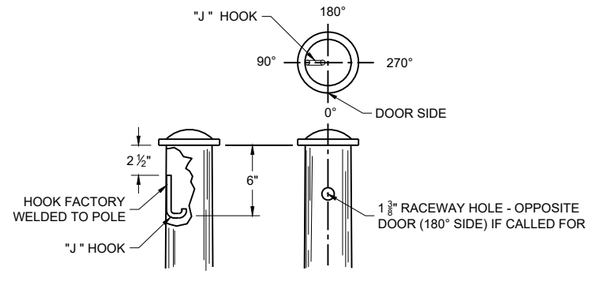
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



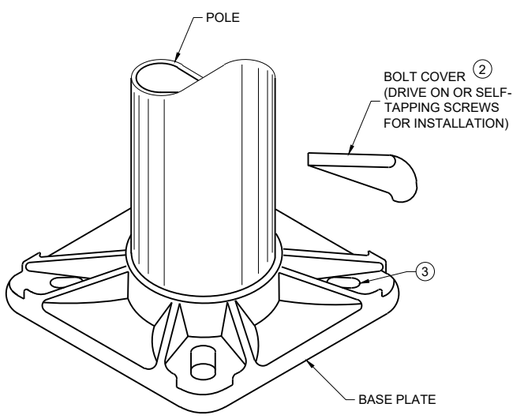
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



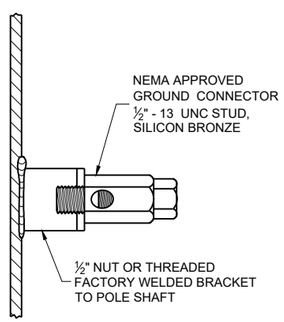
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

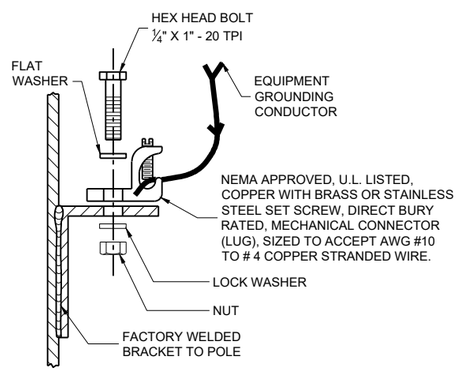


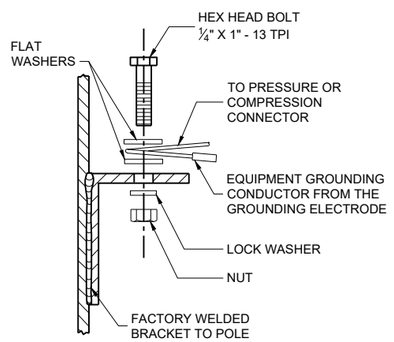
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2026 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL ENGINEER

FHWA

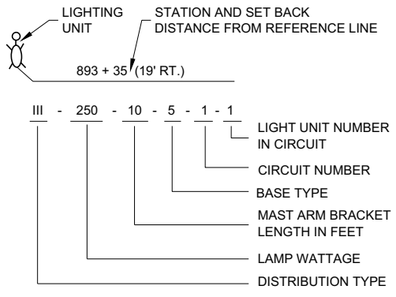
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SDD 09E01-17g

GENERAL NOTES

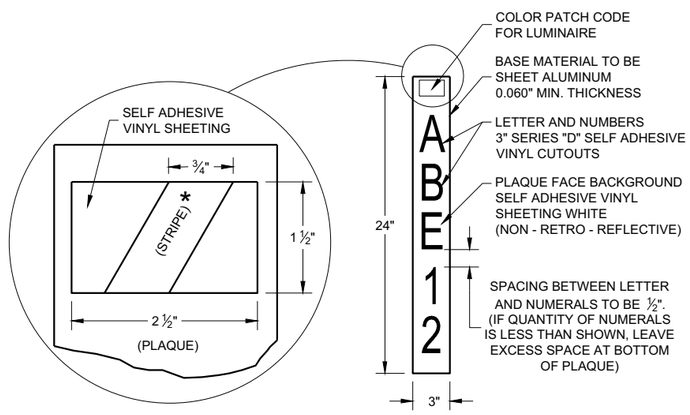
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



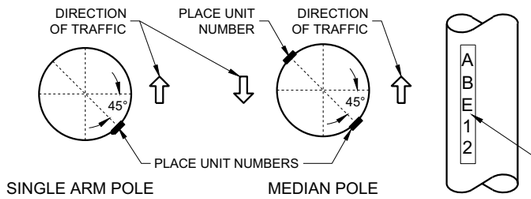
LIGHTING UNIT CODE
(TYPICAL)



COLOR PATCH CODE FOR LUMINAIRES

(HIGH PRESSURE SODIUM)	(MERCURY VAPOR)
1000 WATT - NO PATCH	400 WATT - NO PATCH
400 WATT - ORANGE	250 WATT - YELLOW
310 WATT - BLUE	
250 WATT - ORANGE W / WHITE STRIPE *	
200 WATT - RED	
150 WATT - GREEN	
100 WATT - BROWN	

IDENTIFICATION PLAQUE



NOTES

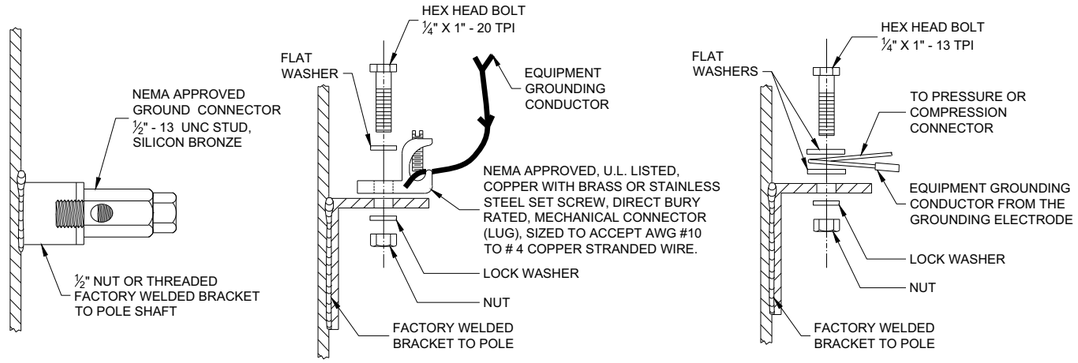
1) PLACE BOTTOM OF UNIT NUMBER PLAQUE 5'-0" ABOVE ELEVATION OF ADJACENT CURB OR SHOULDER.

2) UNIT NUMBER: ONE REQUIRED FOR SINGLE ARM POLES. TWO REQUIRED FOR MEDIAN MOUNT POLES.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE WITH 3 ALUMINUM POP RIVETS (ALUMINUM POLES) OR STAINLESS STEEL POP RIVETS (STEEL POLES).

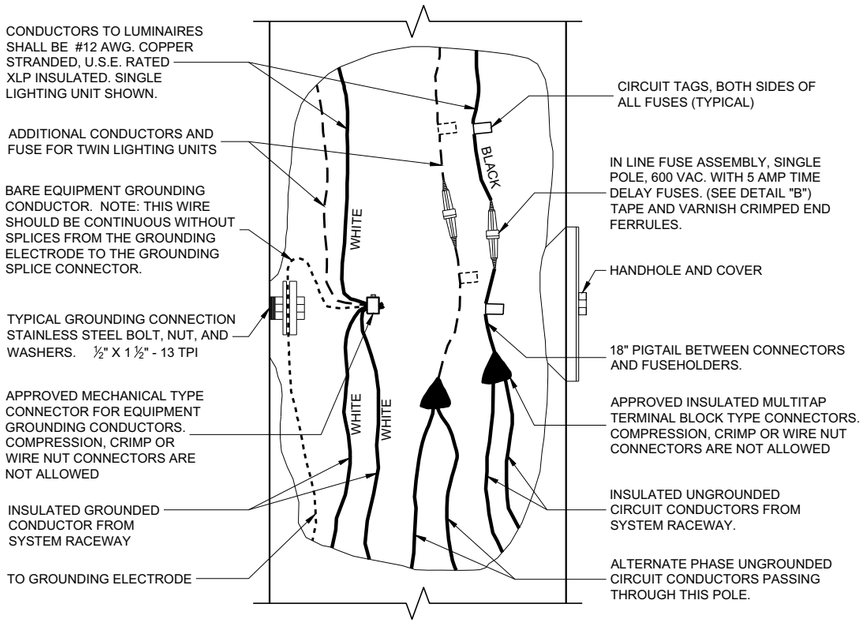
LIGHTING UNIT IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENT
(TYPICAL, ALL LIGHTING UNITS)

FURNISH PLAQUE WHEN CALLED FOR BY SPECIAL PROVISIONS

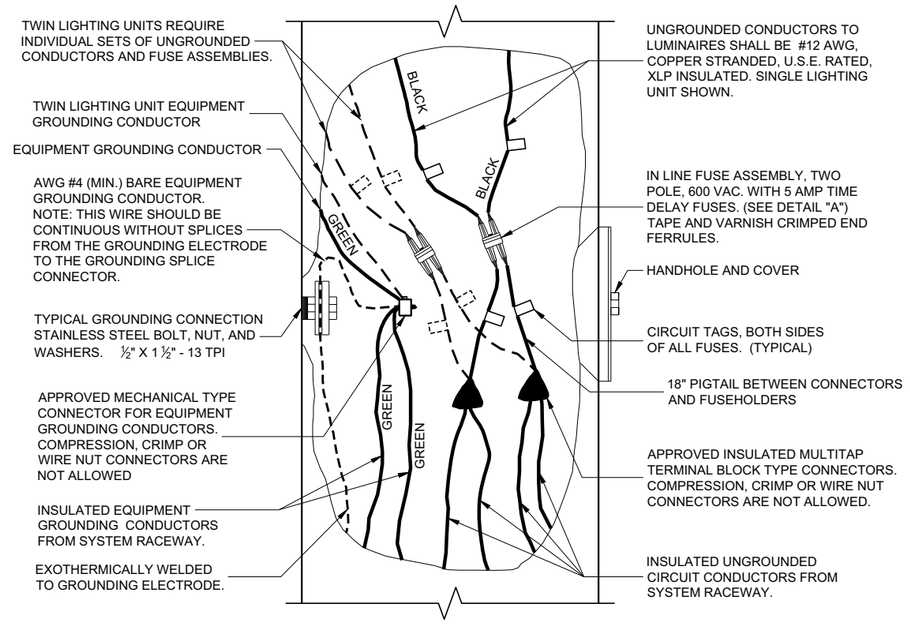


TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

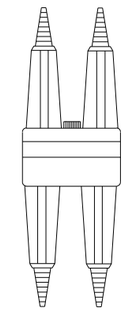
OLD EXISTING FREEWAY WIRING (SOME AREAS)



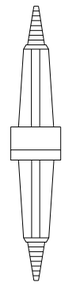
2 WIRE - 120, 240, OR 480 VAC TO GROUND



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR



DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT

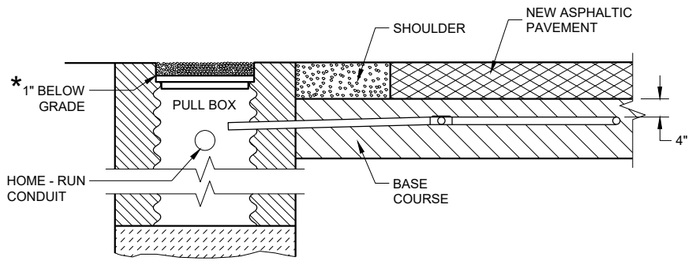
FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

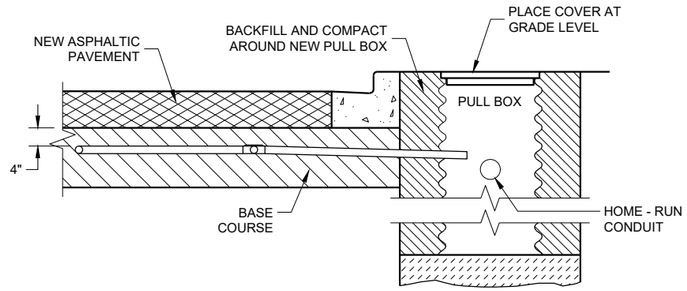
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 114

FHWA



SECTION A - A
NO CURB AND GUTTER

LOOP DETECTOR INSTALLATION DETAIL



SECTION B - B
CURB AND GUTTER

LOOP DETECTOR INSTALLATION DETAIL

* RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

GENERAL NOTES

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

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

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

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

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

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

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

THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

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

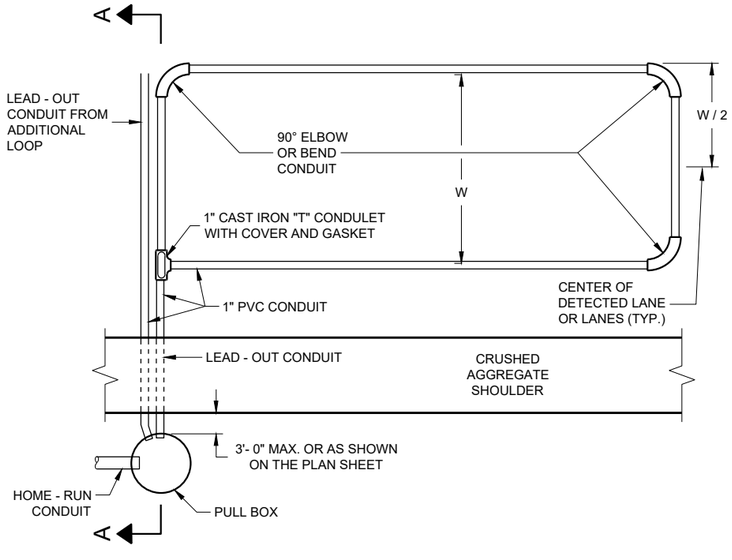
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP DUCT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE PULL BOX IN THE BASE COURSE, AND THE RELATED CONDUITS SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW CONCRETE PAVEMENT IS POURED.

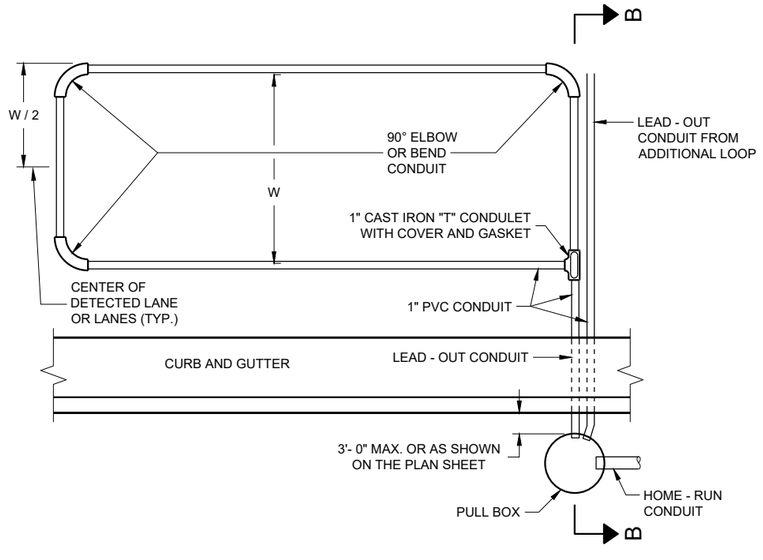
PROTECTION OF THE PULL BOX AND CONDULET SHALL BE REQUIRED AFTER THE ASPHALTIC PAVEMENT IS PLACED.

WHEN MULTIPLE LAYERS OF ASPHALTIC PAVEMENT ARE TO BE PLACED, LOOPS MAY BE INSTALLED BY SAWING A TWO INCH WIDE SLOT IN THE FIRST LAYER, DIG OUT THE ASPHALTIC MATERIAL AND BASE COURSE, PLACE THE LOOP, FILL THE SLOT WITH BASE COURSE MATERIAL AND NEW ASPHALTIC MATERIAL AND TAMP THE ASPHALTIC MATERIAL IN PLACE.

SHOULD TRAFFIC BE ALLOWED TO USE THE AREA OF ROADWAY WITH THE NEWLY INSTALLED LOOP BEFORE THE PLACEMENT OF THE NEXT LAYER OF ASPHALTIC PAVEMENT, THE SLOT/PAVEMENT OPENING SHALL BE SEALED WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".



TYPICAL PLAN OF LOOP DETECTOR



TYPICAL PLAN OF LOOP DETECTOR

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)

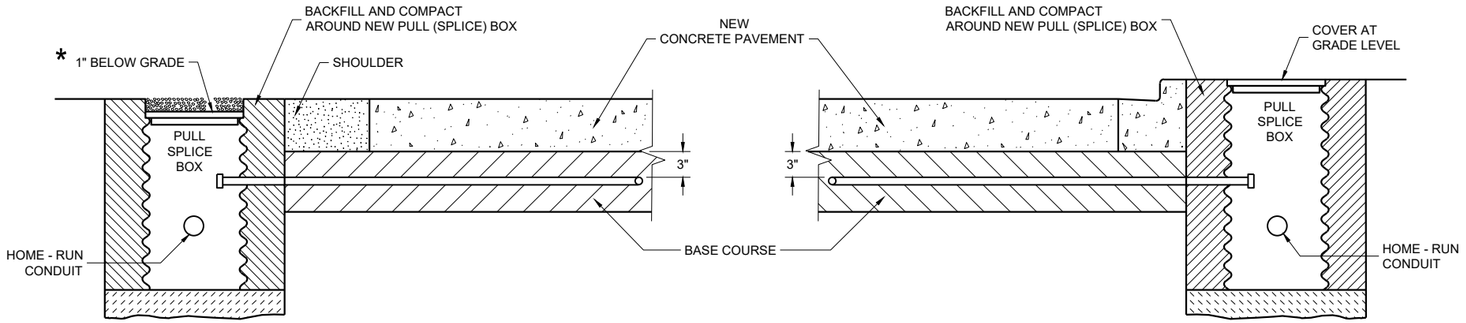
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

SDD 09F08 - 04

SDD 09F08 - 04



SECTION A - A
NO CURB AND GUTTER

SECTION B - B
CURB AND GUTTER

* RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

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

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

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

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

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

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

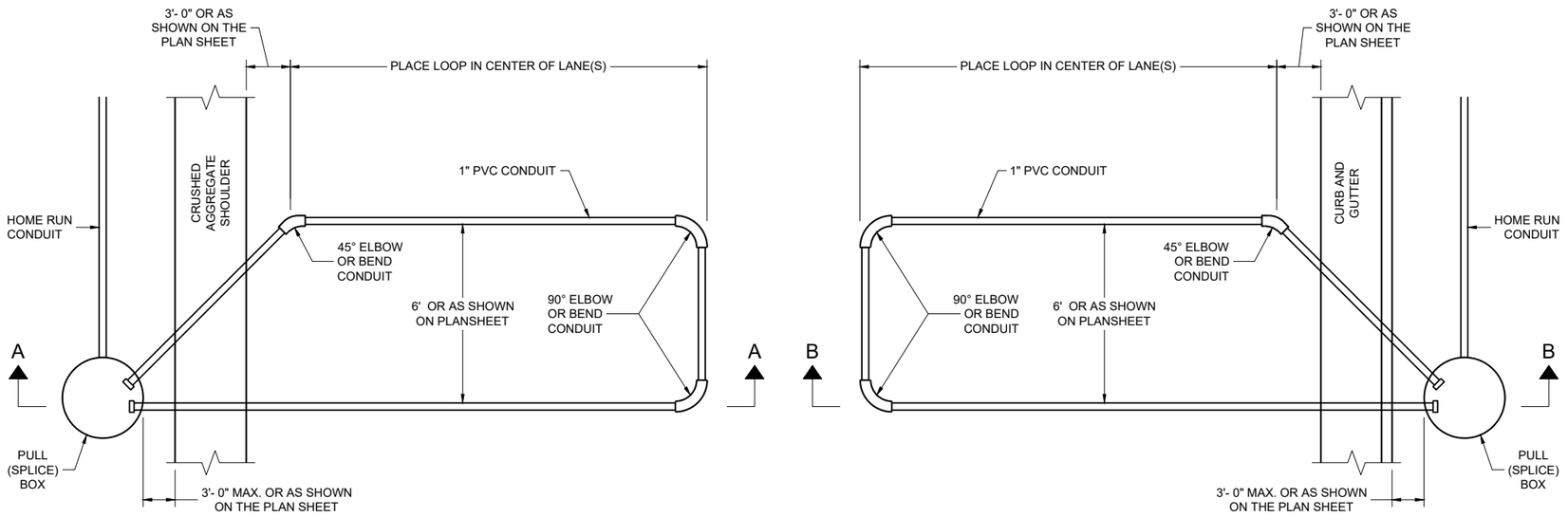
THE #12 AWG LOOP WIRE IN THE ROADSIDE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

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

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

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



TYPICAL PLAN LOOP DETECTOR
WITH 18" OR 24" PULL (SPLICE) BOX

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

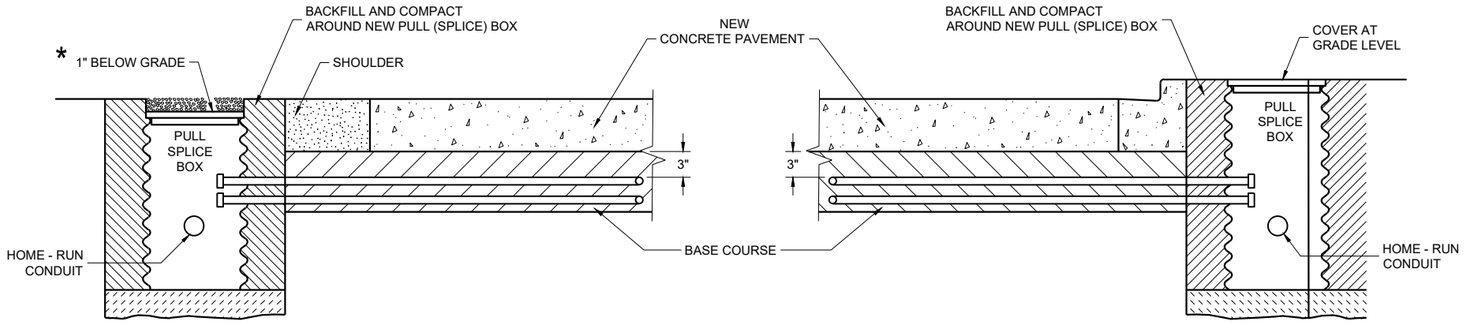
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 09F15-05a

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SDD 09F15-05a



SECTION A - A
NO CURB AND GUTTER

SECTION B - B
CURB AND GUTTER

* RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

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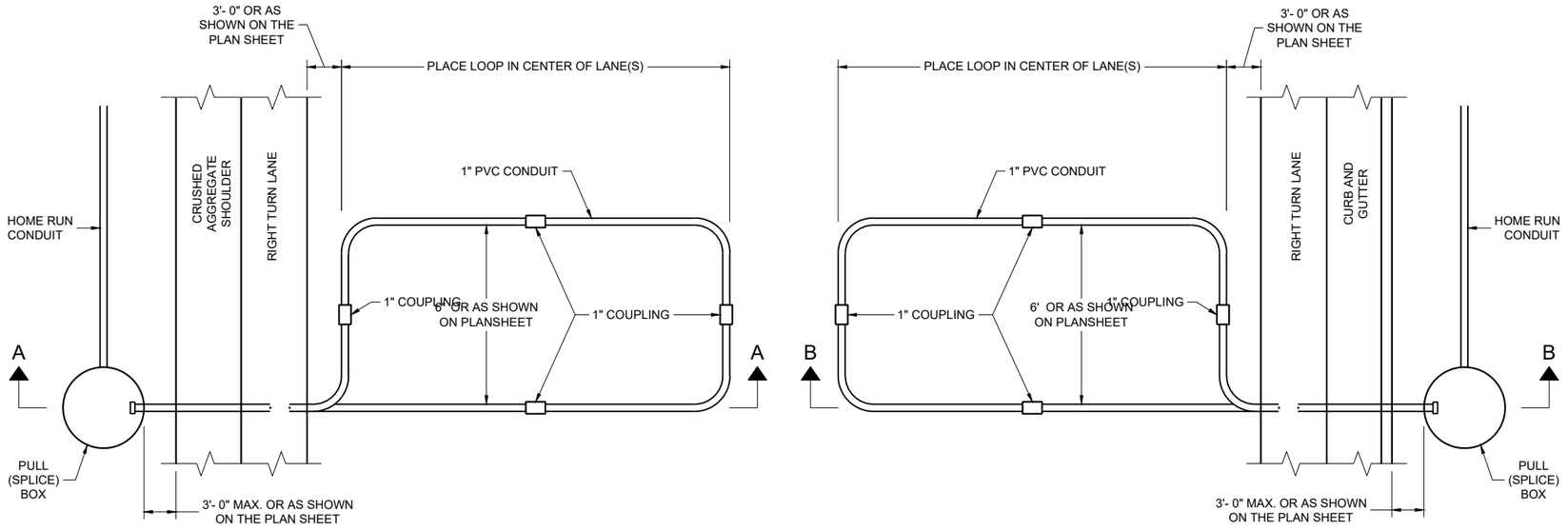
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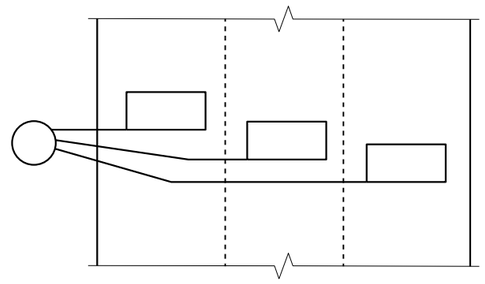
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PROTECTION OF THE CONDUIT IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

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



TYPICAL PLAN LOOP DETECTOR
WITH 24" PULL (SPLICE) BOX



MULTI-LANE
INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)

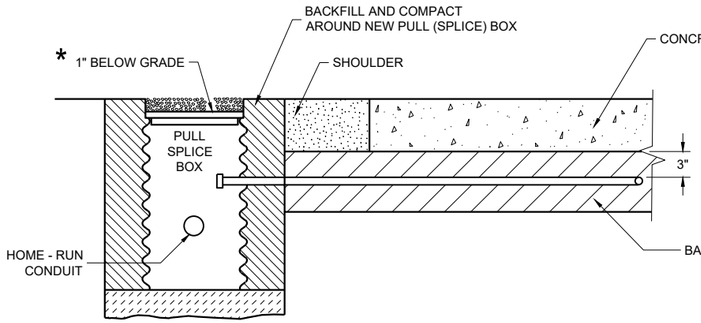
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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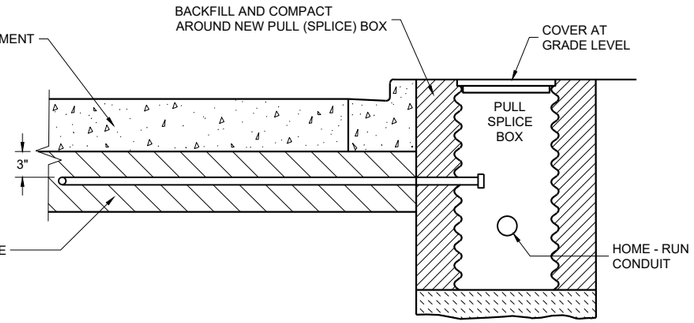
SDD 09F15-05b

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SDD 09F15-05b



SECTION A - A
NO CURB AND GUTTER



SECTION B - B
CURB AND GUTTER

* RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

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

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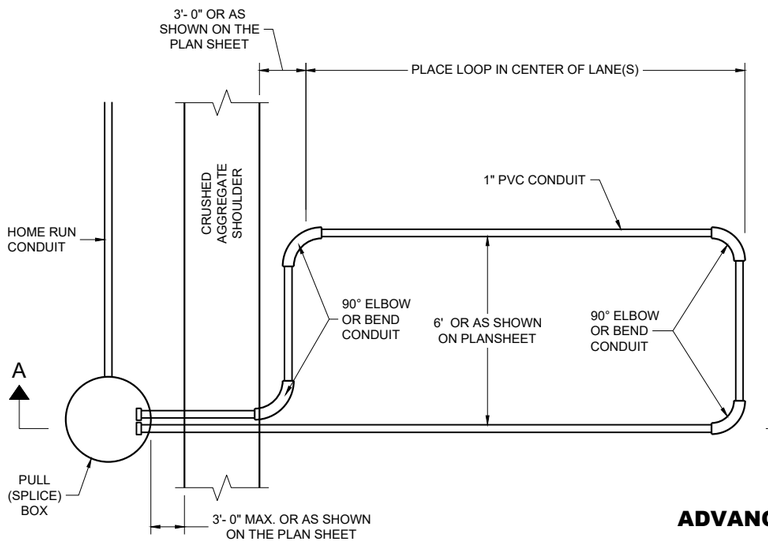
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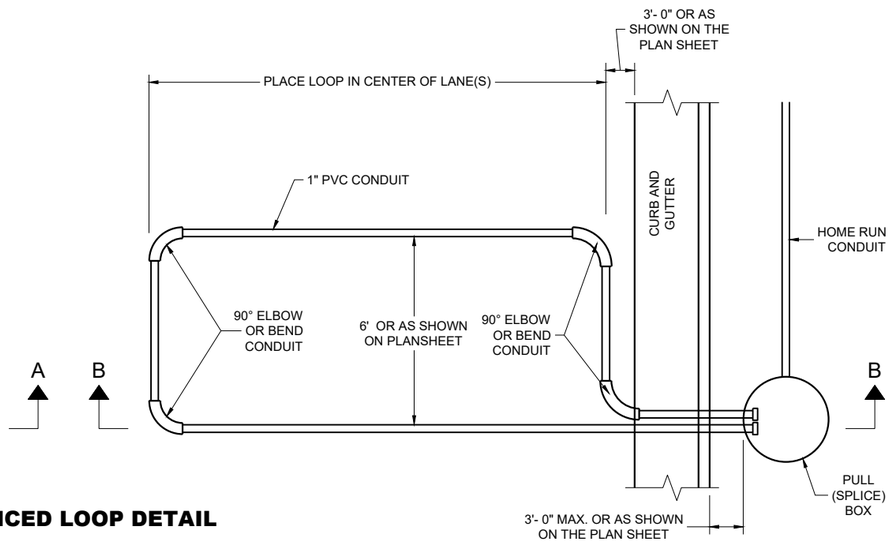
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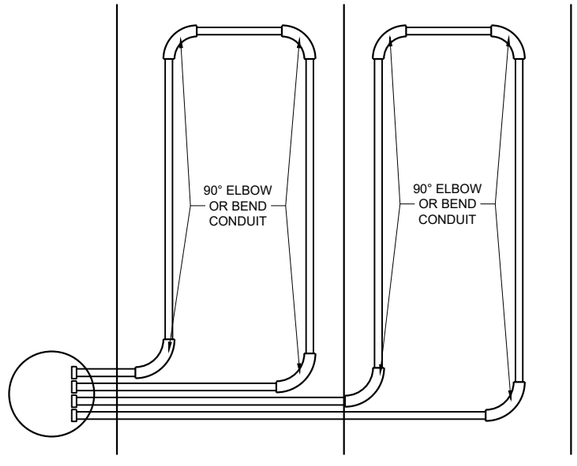




ADVANCED LOOP DETAIL

TYPICAL PLAN LOOP DETECTOR WITH 18" OR 24" PULL (SPLICE) BOX

STOP BAR LOOP DETAIL



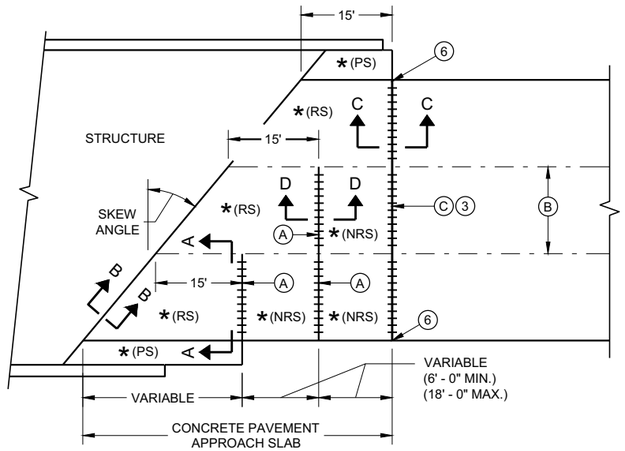
LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 3)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

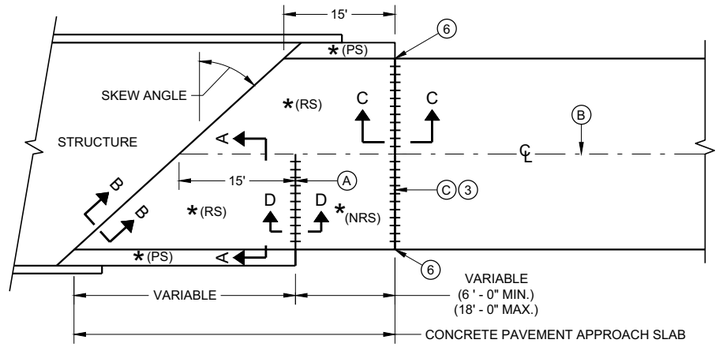
APPROVED
February 2026
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER
FHWA

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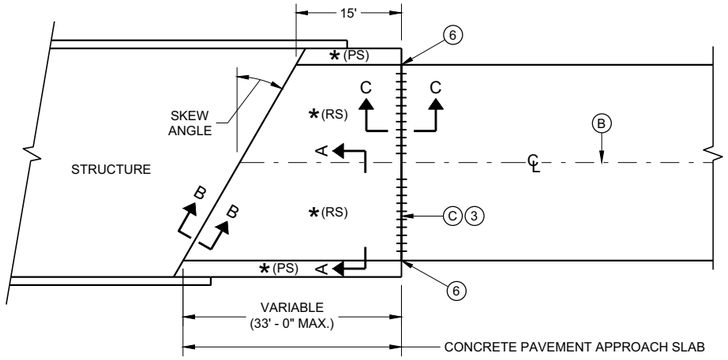
SDD 09F15-05c



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

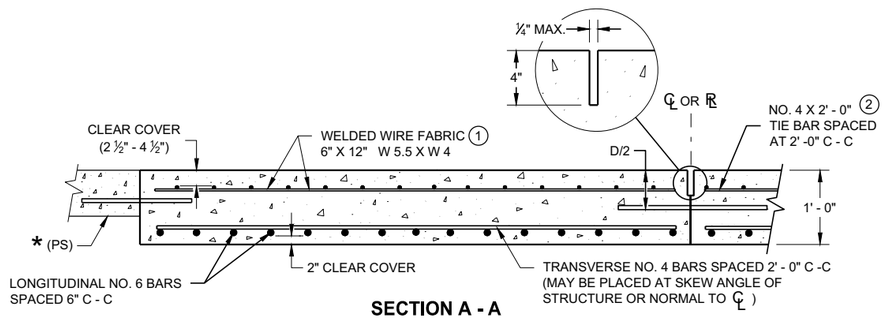
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

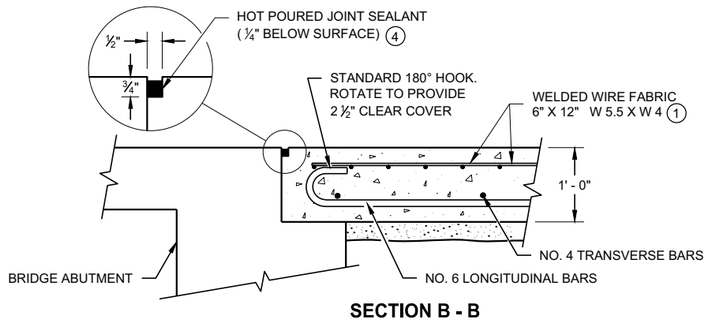
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

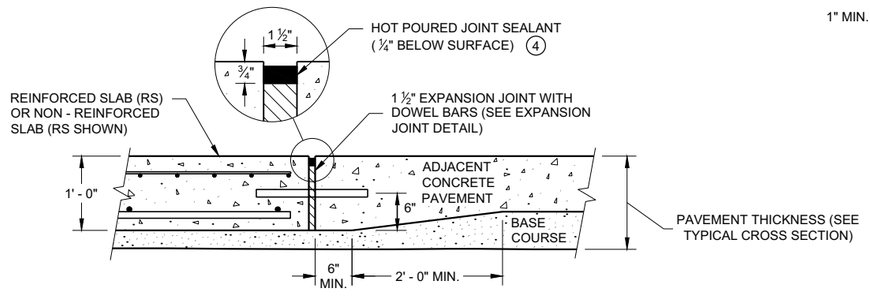
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



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.

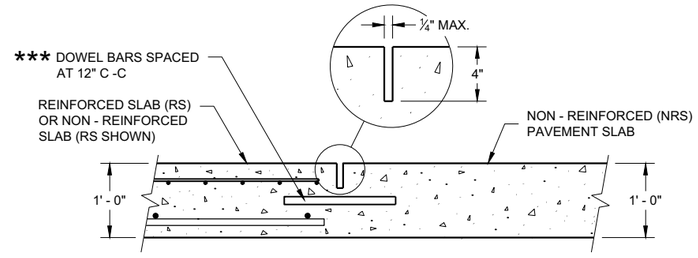
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

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

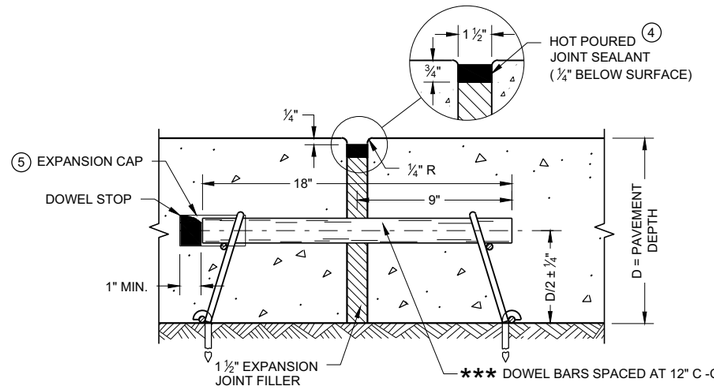
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(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

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DEPARTMENT OF TRANSPORTATION

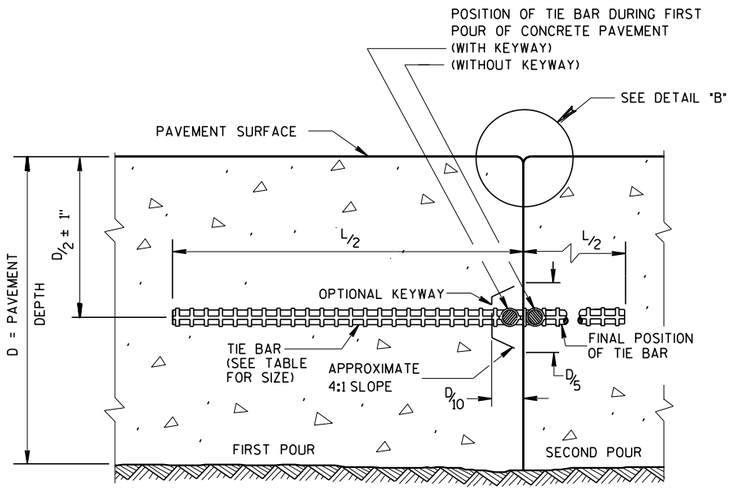
APPROVED
November 2018
DATE

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

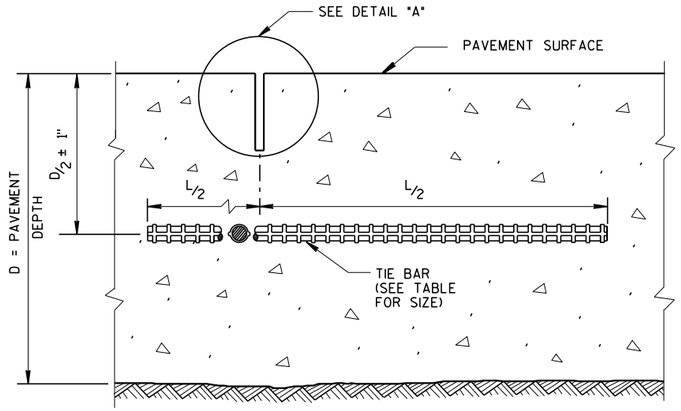
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SDD 13B02 - 09a



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

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

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

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

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

PLAN VIEW

SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

DETAIL "A"

DETAIL "B"

DETAIL "C"

TIE BAR TABLE

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

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

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

PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

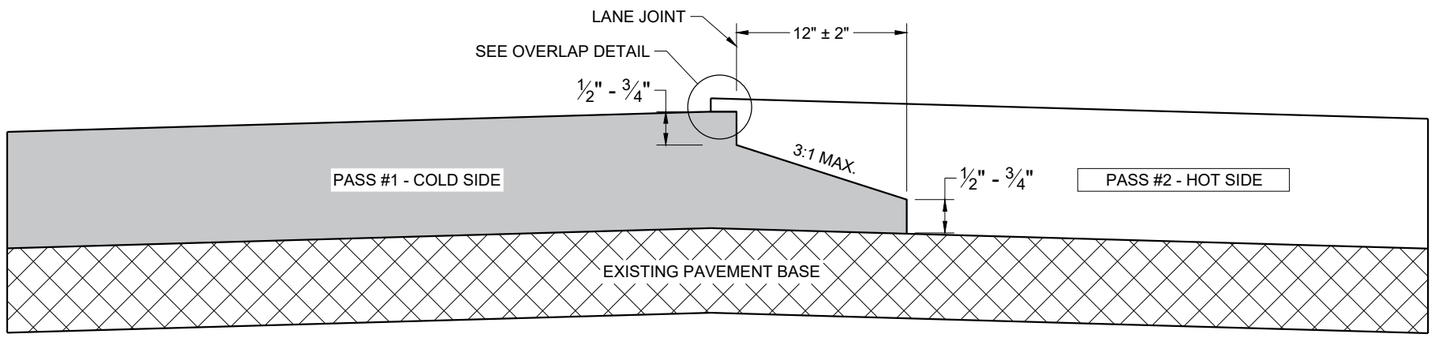
APPROVED
March 2018
DATE
/S/ Peter Kemp, PE
PAVEMENT SUPE
FHWA

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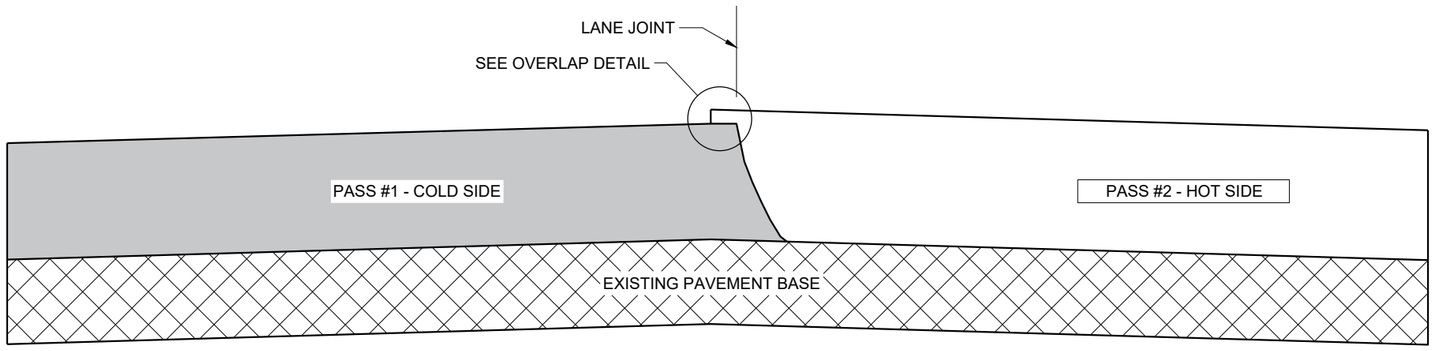
S.D.D. 13 C 1-19

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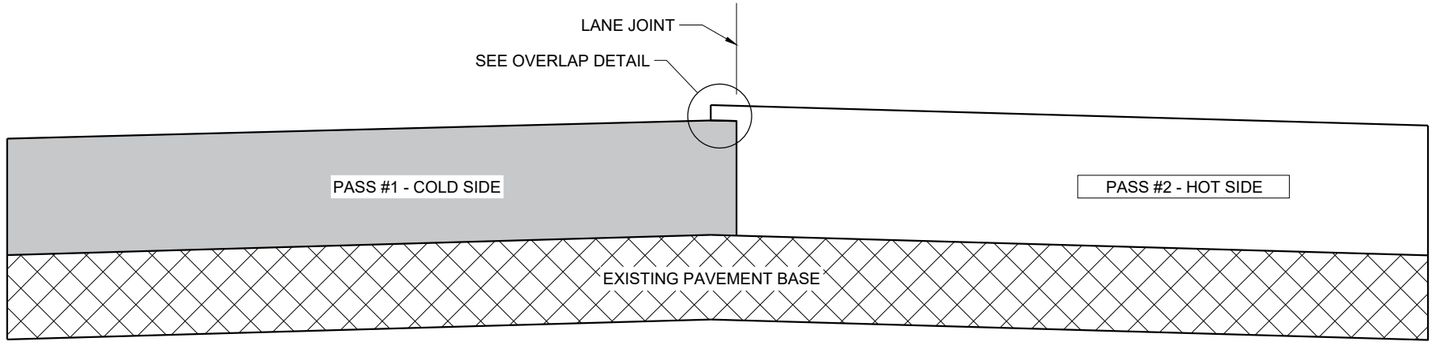
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TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

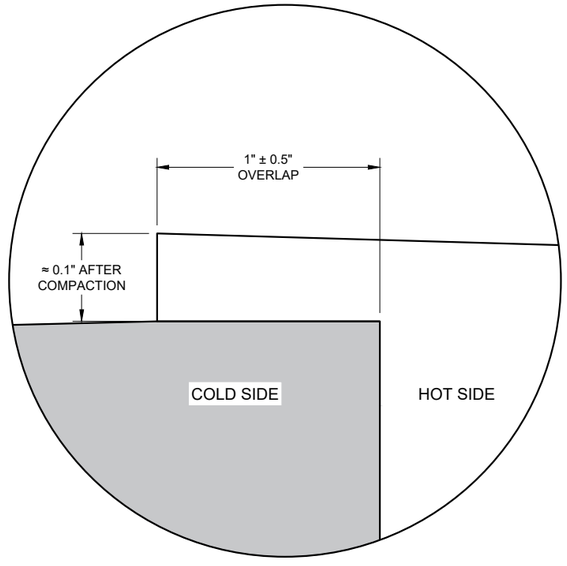
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

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SDD 13C19 - 03

SDD 13C19 - 03

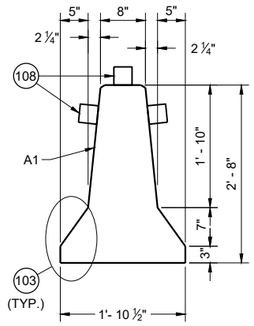
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

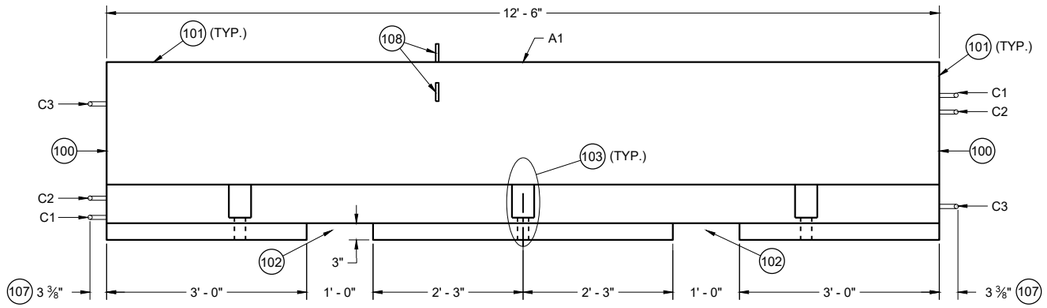
APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



CROSS SECTION



PROFILE VIEW

GENERAL NOTES

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

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

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

(101) 1" OPTIONAL CHAMFER

(102) SEE LIFTING SLOT DETAIL

(103) SEE ANCHOR BLOCK DETAIL

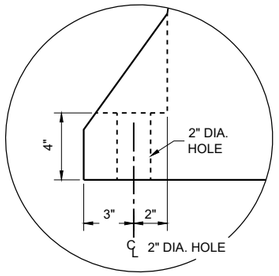
(104) 1 ¾" MIN. CLEAR COVER

(105) 2" MIN. CLEAR COVER

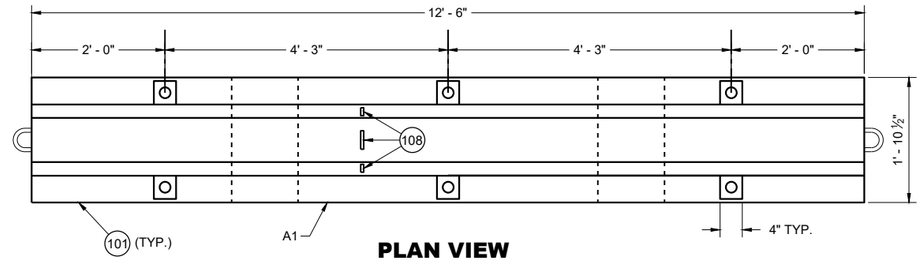
(106) 1" MIN. CLEAR COVER

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

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

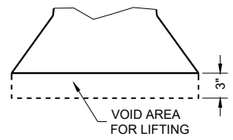


ANCHOR BLOCK DETAIL

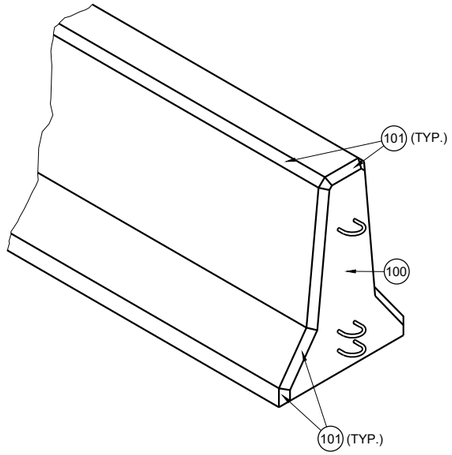


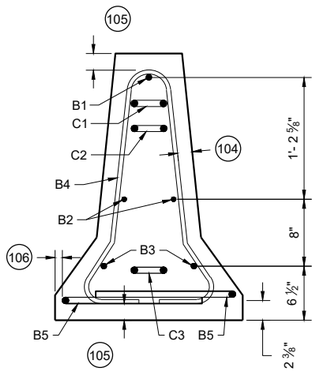
PLAN VIEW

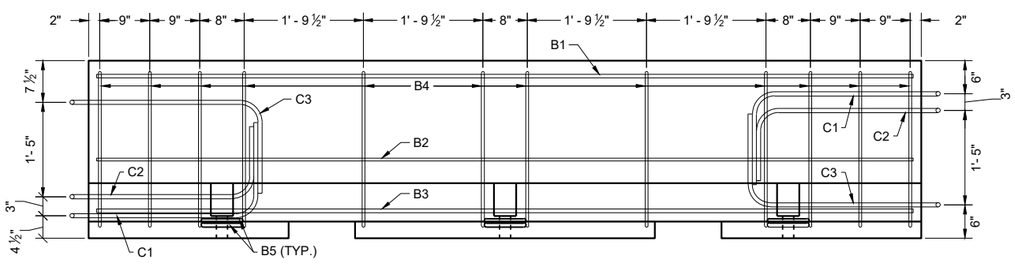
TEMPORARY BARRIER



LIFTING SLOT DETAIL (TYP.)







PROFILE VIEW

TEMPORARY BARRIER REINFORCEMENT

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

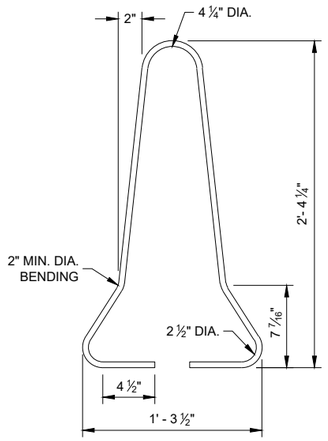
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

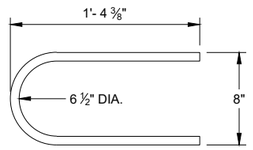
SDD 14B07-16a

6

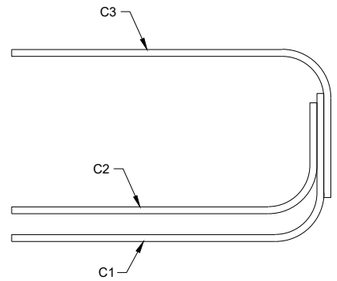
SDD 14B07-16a



B4 BAR DETAIL

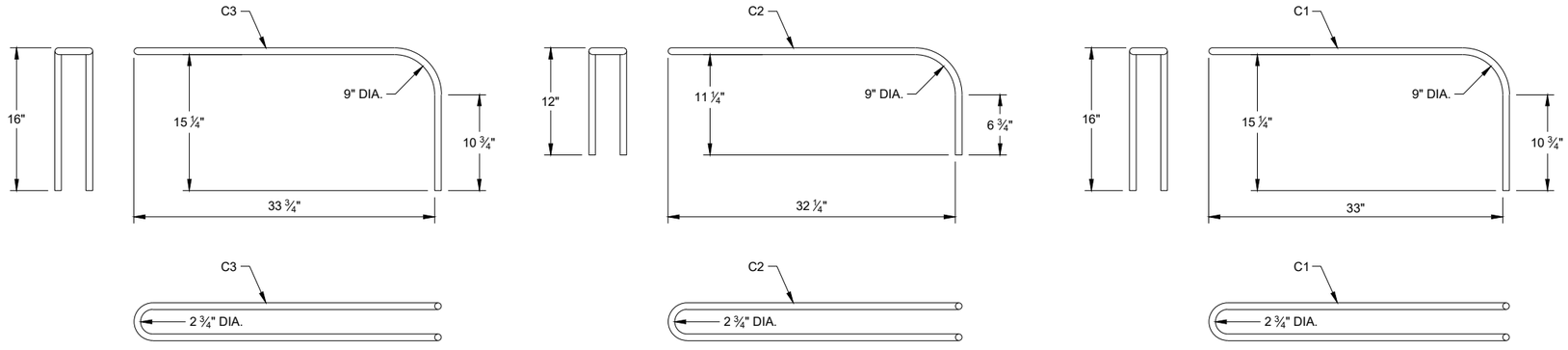


B5 BAR DETAIL



PROFILE VIEW

LOOP BAR ASSEMBLY

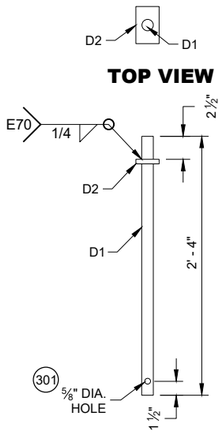


C BAR DETAILS

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

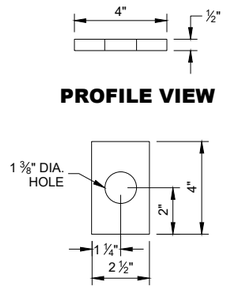
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SDD 14B07-16b



TOP VIEW

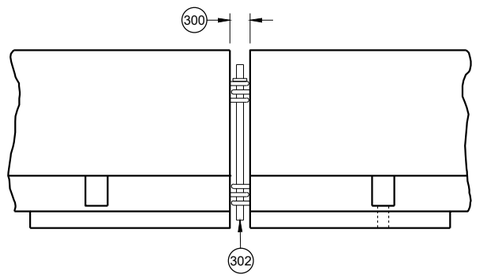
PROFILE VIEW

CONNECTOR PIN ASSEMBLY



PROFILE VIEW

TOP VIEW D2



CONNECTING TEMPORARY BARRIER SECTIONS

GENERAL NOTES

300 SET WITH 3 ⅝" WOOD BLOCK.

301 HOLE IS OPTIONAL.

302 CONNECTOR PIN ASSEMBLY.

303 CONCRETE PAVEMENT, APPROACH SLAB, OR DECK.

304 CONCRETE DECK.

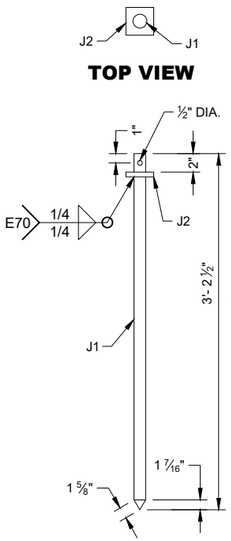
305 DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.

306 MINIMUM OF 2" OF ASPHALT.

307 ASPHALT ANCHOR PIN ASSEMBLY

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

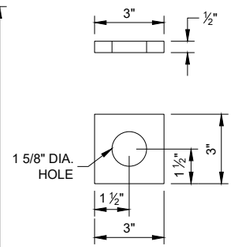
309 WHEN THERE IS ASPHALT OVERLAYING CONCRETE PAVEMENT, A 1 5/8" DIA. PILOT HOLE CAN BE DRILLED INTO THE OVERLAY AND CONCRETE. IF NEEDED DRILL A 3/4" PILOT HOLE IN BASE COURSE.



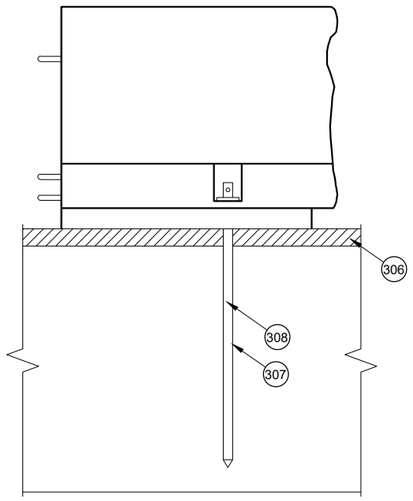
TOP VIEW

PROFILE VIEW

ASPHALT ANCHOR PIN ASSEMBLY

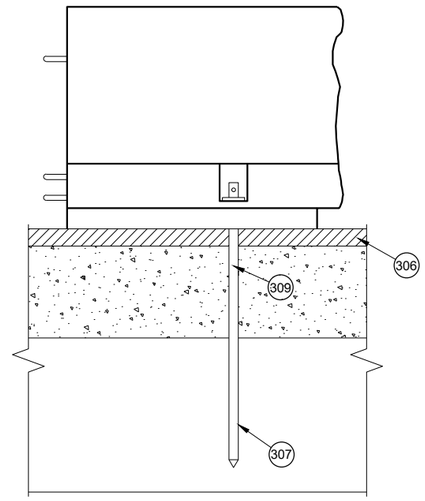


TOP VIEW J2



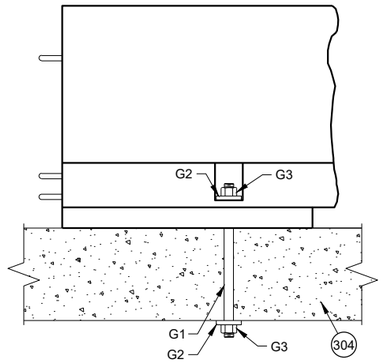
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT PAVEMENT



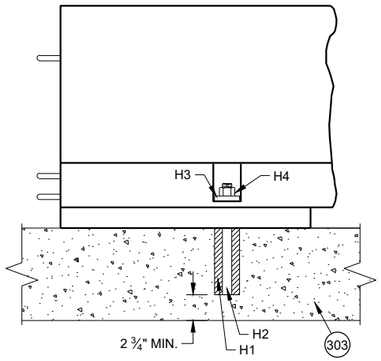
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT OVERLAY ON TOP OF CONCRETE PAVEMENT



SIDE VIEW

THROUGH BOLT ANCHOR INSTALLATION 305



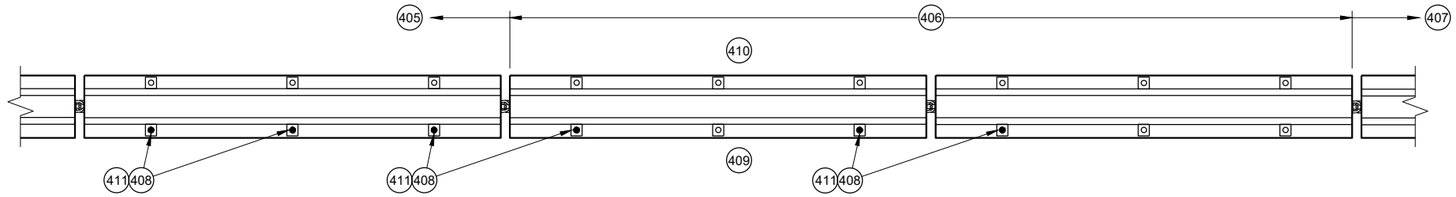
SIDE VIEW

ADHESIVE ANCHOR INSTALLATION 305

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

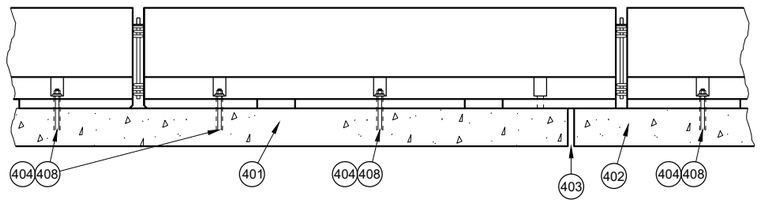
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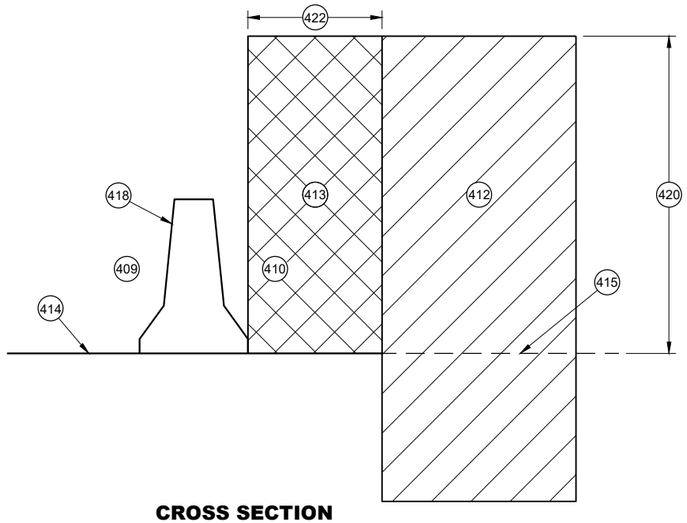
PLAN VIEW

TRANSITION FROM FREE STANDING TO ANCHORED BARRIER



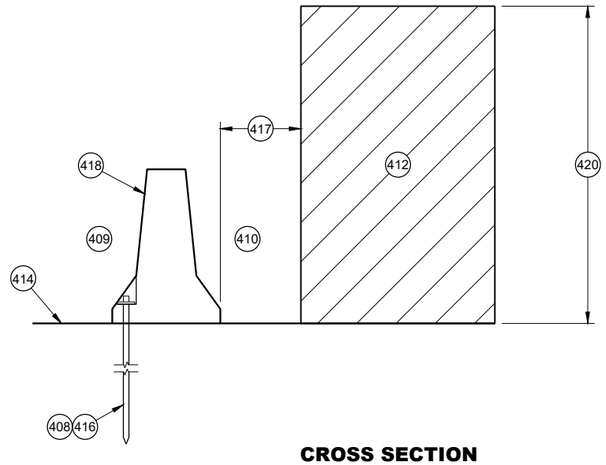
PROFILE VIEW

ANCHORED BARRIER NEAR EXPANSION JOINT (400)



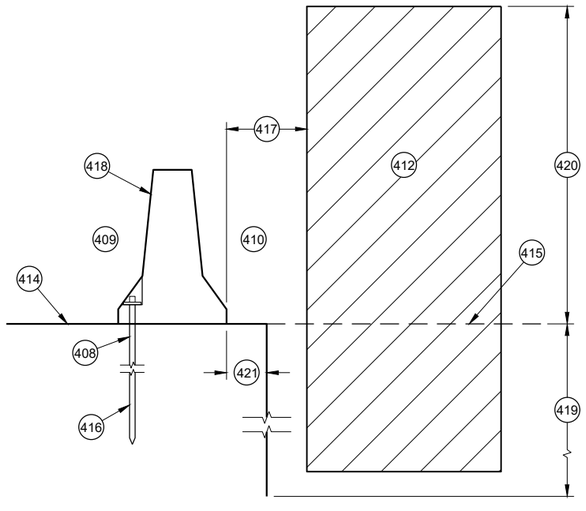
CROSS SECTION

FREE STANDING BARRIER



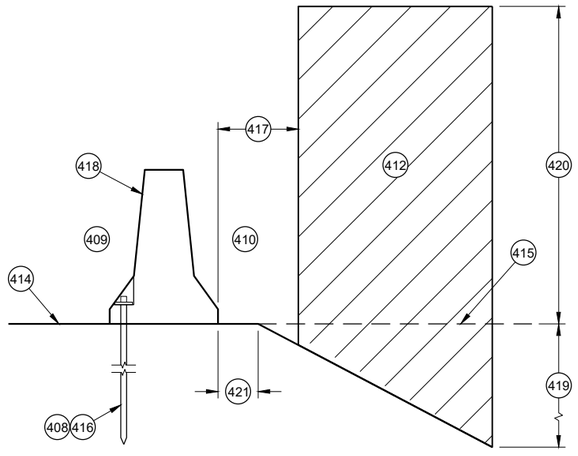
CROSS SECTION

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



CROSS SECTION

ANCHORED BARRIER NEAR VERTICAL DROP OFF



CROSS SECTION

ANCHORED BARRIER NEAR A SLOPE

GENERAL NOTES

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

(401) CONCRETE DECK

(402) CONCRETE DECK OR APPROACH SLAB.

(403) EXPANSION JOINT

(404) ADHESIVE ANCHOR SHOWN. SEE ANCHOR DETAILS.

(405) ANCHORED TEMPORARY BARRIER

(406) TRANSITION FROM ANCHORED TEMPORARY BARRIER TO FREE STANDING

(407) FREE STANDING BARRIER

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

(409) TRAFFIC SIDE

(410) NON-TRAFFIC SIDE

(411) ANCHOR LOCATION. SEE ANCHORING DETAILS.

(412) WORK AREA

(413) AREA FREE OF OBJECTS AND WORKERS

(414) GRADE LINE

(415) EXTENDED GRADE LINE

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

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

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

(419) DEPTHS OF 3 FEET OR MORE.

(420) Y = 6.5'

(421) OFFSET FROM BACK OF BARRIER EDGE:

CONCRETE PAVEMENT	0.5'
ASPHALT	0.5'

(422) POSTED SPEED (MPH):

45 OR GREATER	4.0'
40 OR LOWER	2.0'

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

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GENERAL NOTES

500 EXISTING RIGID BARRIERS (VARIES)

501 TEMPORARY BARRIER

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

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

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

505 TRAFFIC TRAVELS FROM PERMANENT BARRIER TO TEMPORARY BARRIER.

506 TRAFFIC TRAVELS FROM TEMPORARY BARRIER TO PERMANENT BARRIER.

507 VERTICAL BARRIER

508 SAFETY SHAPE BARRIER

509 SINGLE SLOPE BARRIER

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

511 BENT THRIE BEAM TO FIT.

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

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

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

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

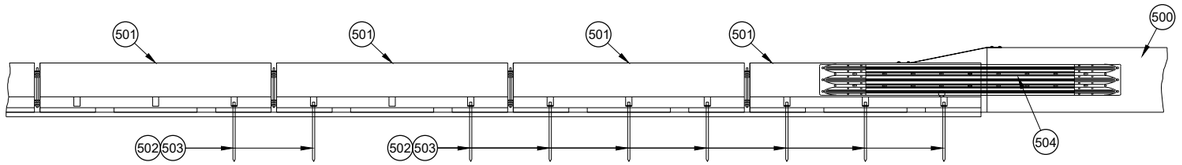
516 CUT WOOD BLOCK TO FIT.

517 SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL ASSEMBLY.

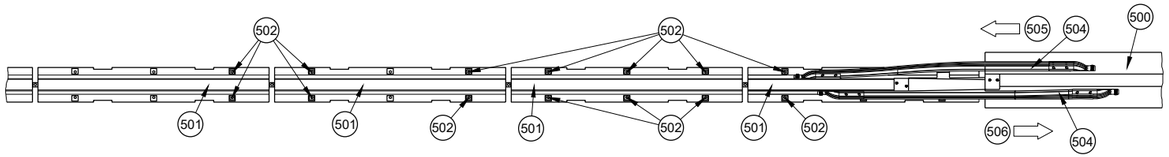
518 CAP ASSEMBLY

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

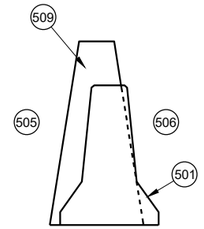
520 ALL TWELVE SPLICE HOLES REQUIRE M1 AND M2



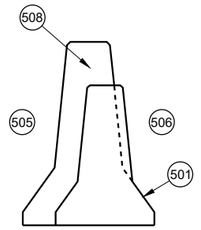
PROFILE VIEW



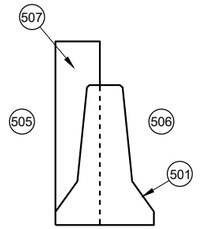
PLAN VIEW



CROSS SECTION TEMPORARY BARRIER PLACEMENT SINGLE SLOPE

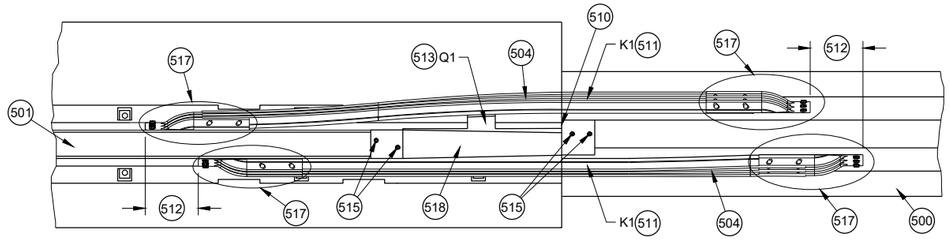


CROSS SECTION TEMPORARY BARRIER PLACEMENT SAFETY SHAPE

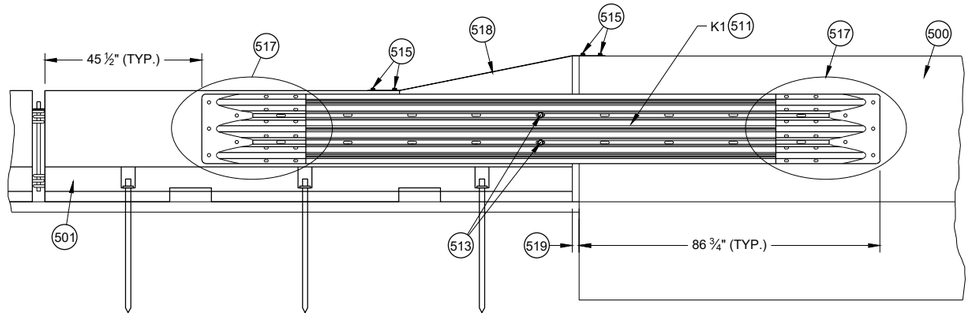


CROSS SECTION TEMPORARY BARRIER PLACEMENT VERTICAL

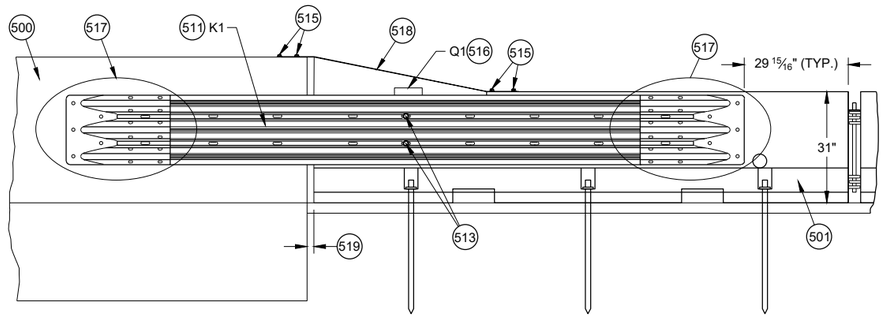
PLAN VIEW
TRANSITION TO RIGID BARRIER



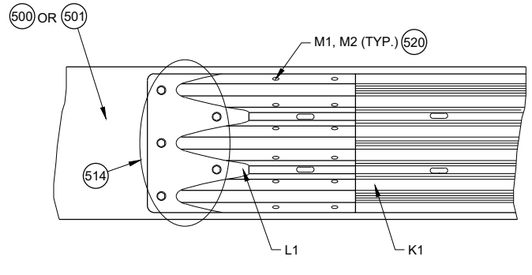
PLAN DETAIL VIEW
TRANSITION TO RIGID BARRIER



FRONT DETAIL VIEW
TRANSITION TO RIGID BARRIER



BACK DETAIL VIEW
TRANSITION TO RIGID BARRIER



517 DETAIL PLAN VIEW
THRIE BEAM RAIL TERMINAL CONNECTOR ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

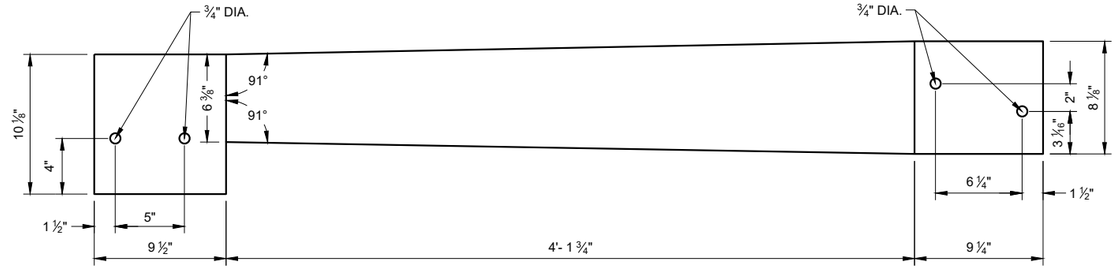
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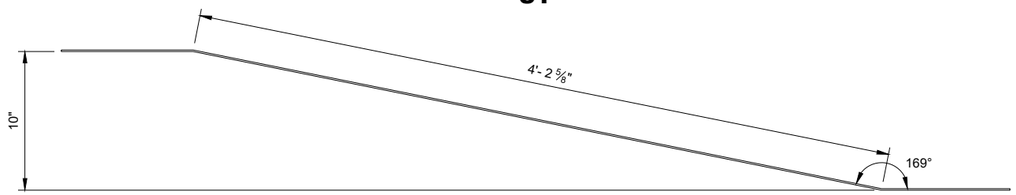
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SDD 14B07-16e



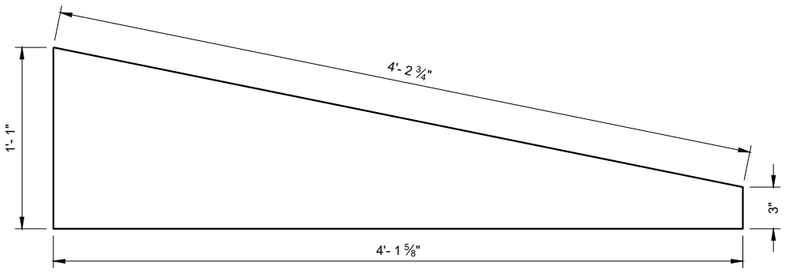
TOP VIEW

S1



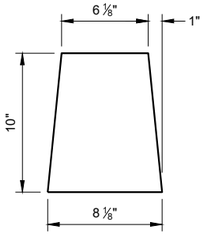
ELEVATION VIEW

S1

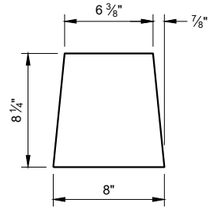


SIDE VIEW

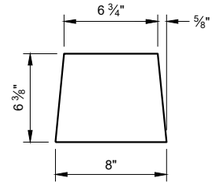
S3



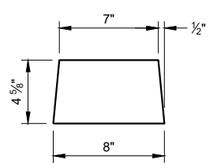
S2



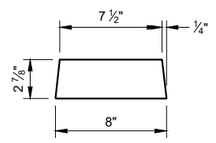
S4



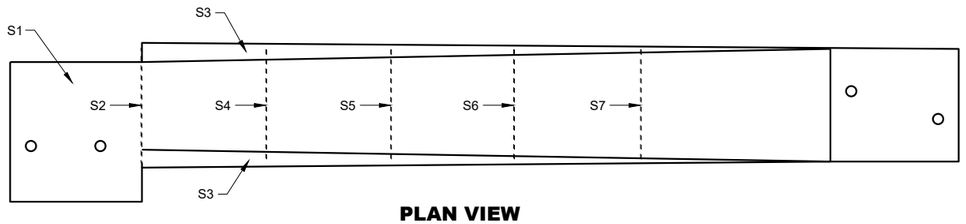
S5



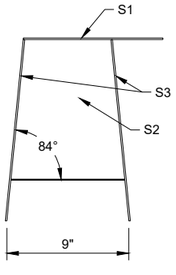
S6



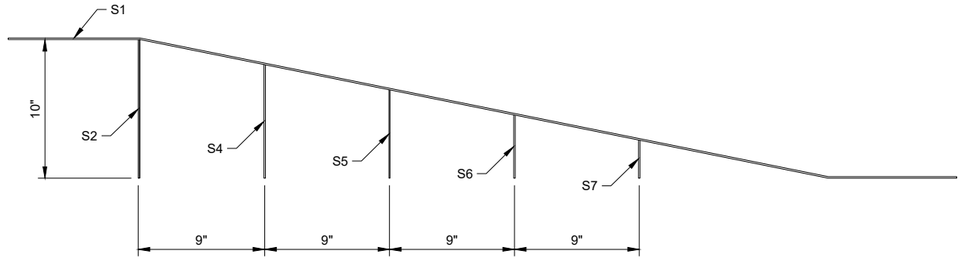
S7



PLAN VIEW



BACK VIEW



SIDE VIEW (600)

42" TOP CAP ASSEMBLY

GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THREE SIDES

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

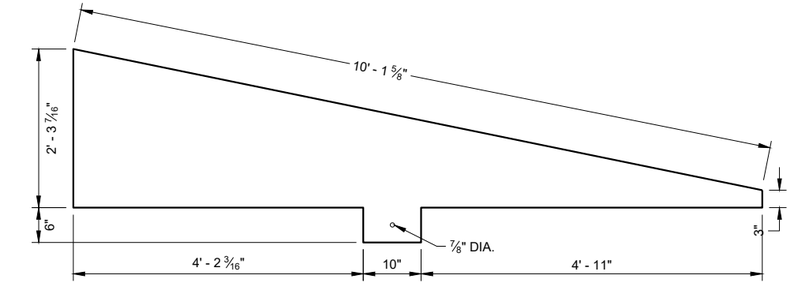
(600) SIDE PLATES (S3) NOT SHOWN FOR CLARITY.

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

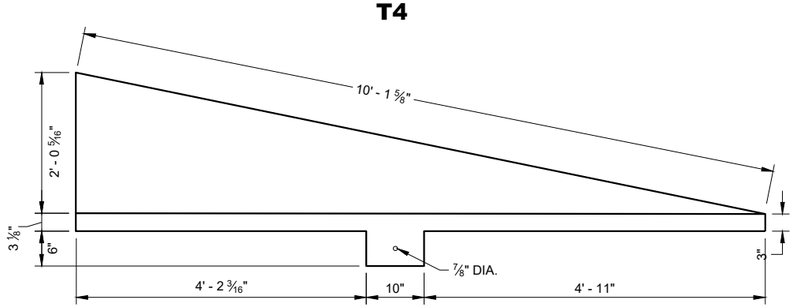
SDD 14B07-16f



SIDE VIEW
T4



END VIEW



SIDE VIEW
T3

END VIEW

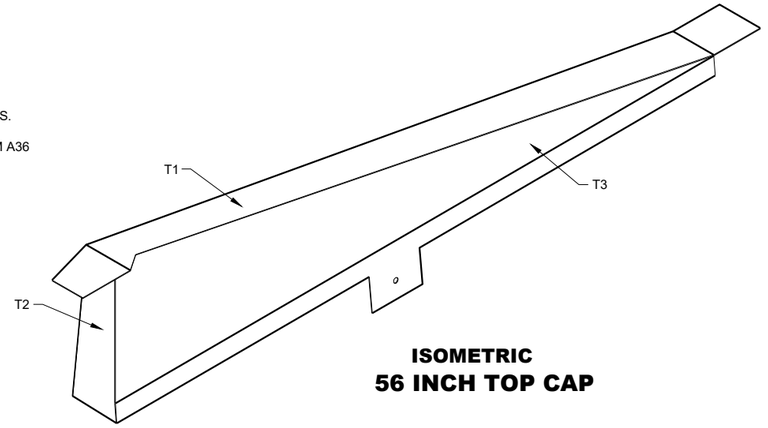
GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THRIE SIDES

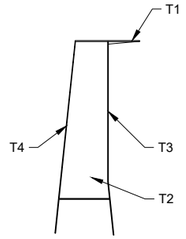
STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

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

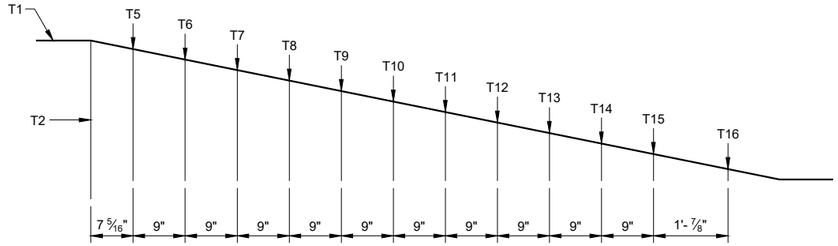
(700) SIDE PLATES (T3 AND T4) NOT SHOWN FOR CLARITY.



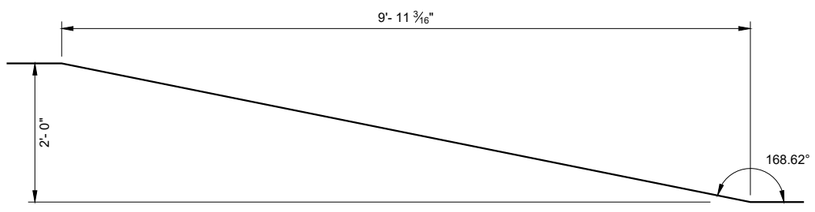
ISOMETRIC
56 INCH TOP CAP



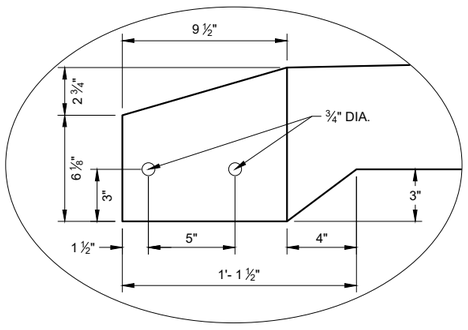
END VIEW
56 INCH TOP CAP



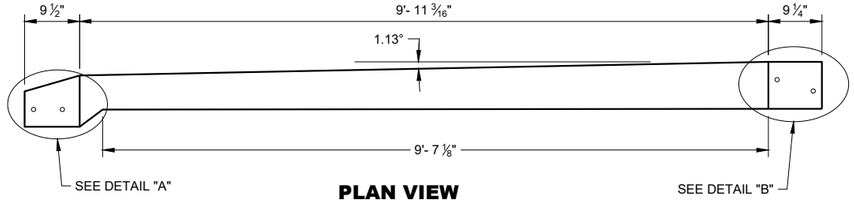
SIDE VIEW (700)
56 INCH TOP CAP



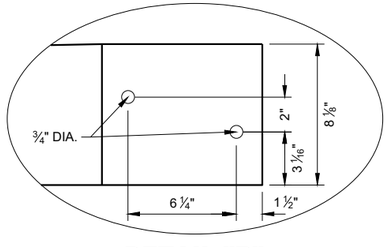
SIDE VIEW
TOP PLATE T1



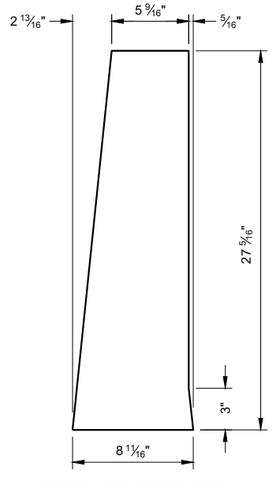
DETAIL "A"



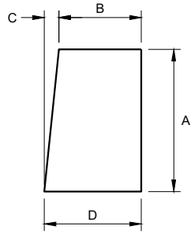
PLAN VIEW
TOP PLATE T1



DETAIL "B"



END PLATE T2



GUSSET PLATES
T5 - T16

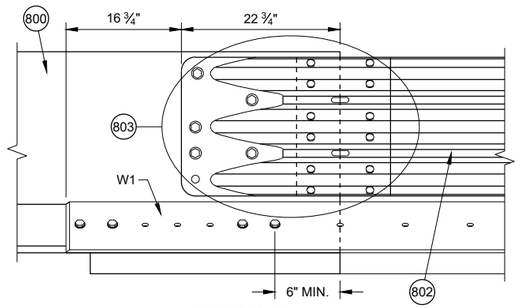
GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
T5	22 13/16"	5 1/16"	2 5/16"	8 1/16"
T6	21"	5 7/8"	2 3/16"	8 1/16"
T7	19 3/16"	6 1/16"	1 15/16"	8 1/16"
T8	17 3/8"	6 1/4"	1 13/16"	8 1/16"
T9	15 5/16"	6 7/16"	1 9/16"	8 1/16"
T10	13 3/4"	6 5/8"	1 7/16"	8 1/16"
T11	11 15/16"	6 13/16"	1 1/4"	8 1/16"
T12	10 1/8"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

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

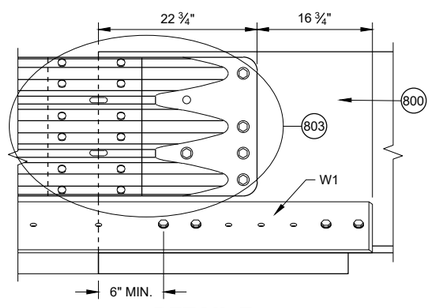
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

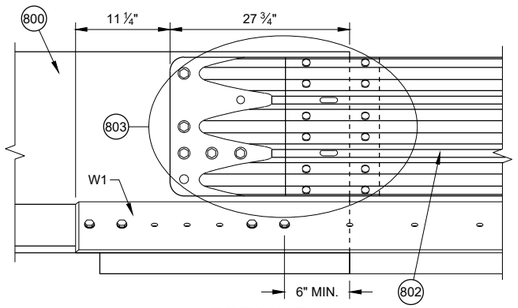
SDD 14B07-16g



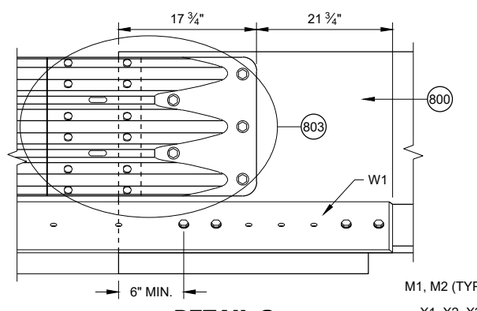
DETAIL D



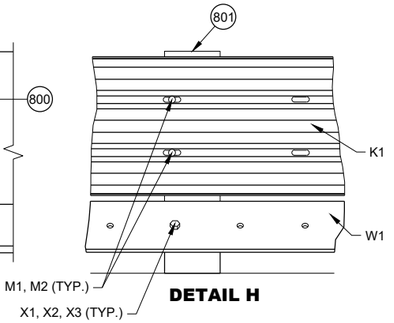
DETAIL E



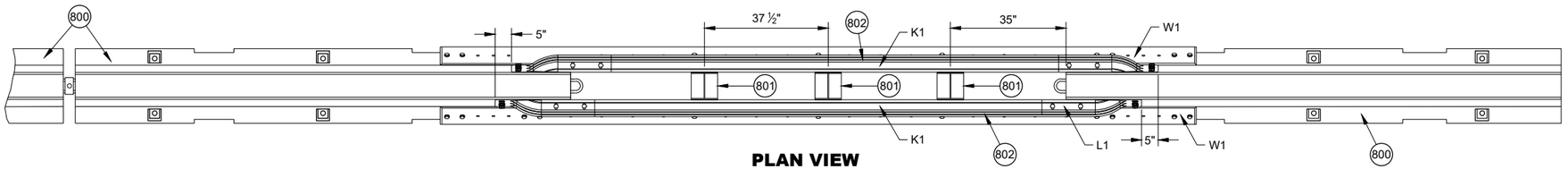
DETAIL F



DETAIL G



DETAIL H



PLAN VIEW

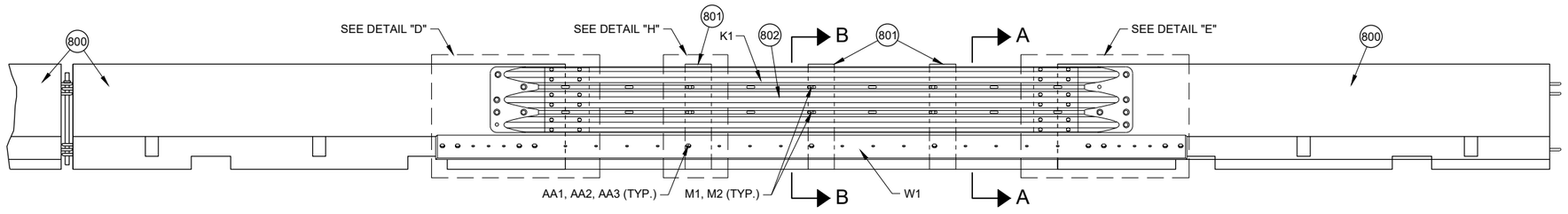
GENERAL NOTES

(800) FREE STANDING TEMPORARY BARRIER

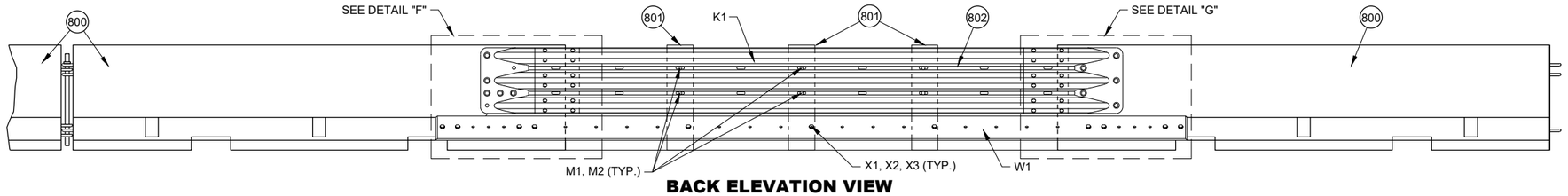
(801) GAP STIFFENER ASSEMBLY

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

(803) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL



FRONT ELEVATION VIEW



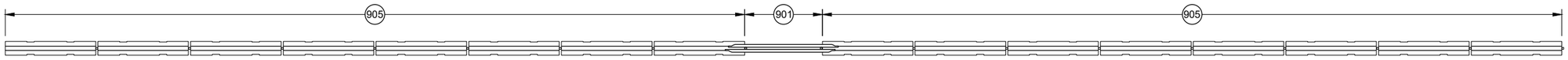
BACK ELEVATION VIEW

PORTABLE CONCRETE BARRIER GAP THRIE BEAM COVER

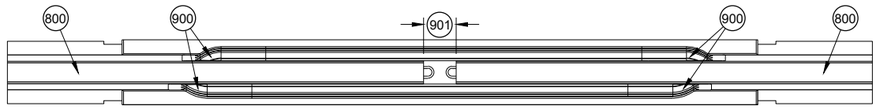
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16h



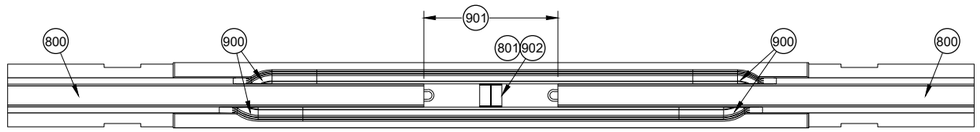
PLAN VIEW
GAP WITHIN SPACING



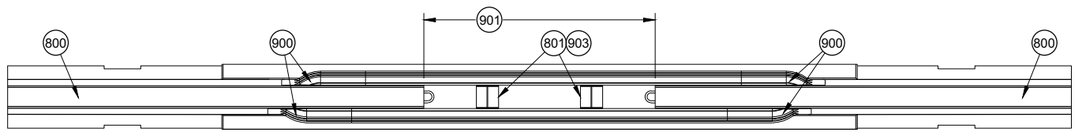
PLAN VIEW
TEMPORARY BARRIER GAP OVER 4" TO 1' MAX. (904)

GENERAL NOTES

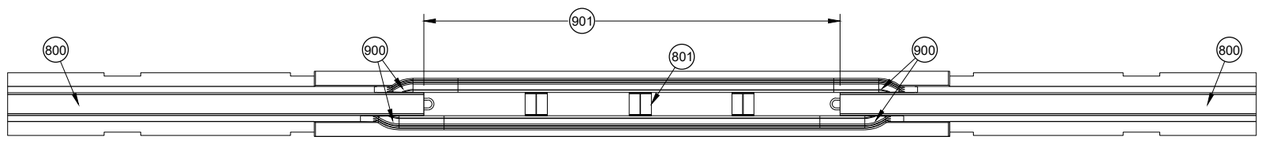
(900) SEE OTHER DETAILS FOR TEMPORARY GAP HARDWARE (TYP.)
(901) TEMPORARY BARRIER GAP
(902) GAP STIFFENER ASSEMBLY CENTERED IN THE GAP.
(903) GAP STIFFENER ASSEMBLY IS OFFSET 18 ¾" FROM CENTER
(904) MINIMUM NUMBER OF GAP STIFFENERS SHOWN FOR THE GAP RANGE SHOWN.
(905) MINIMUM OF 8 CONTINUOUS FREE STANDING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



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



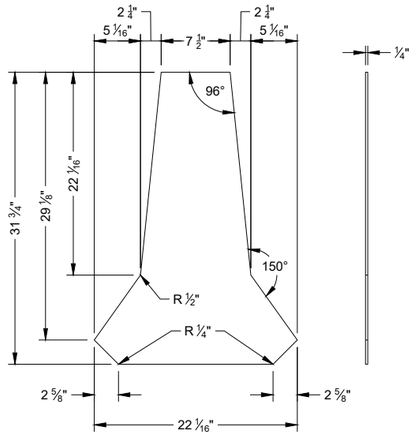
PLAN VIEW
TEMPORARY BARRIER GAP OVER 4' TO 7' MAX. (904)



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

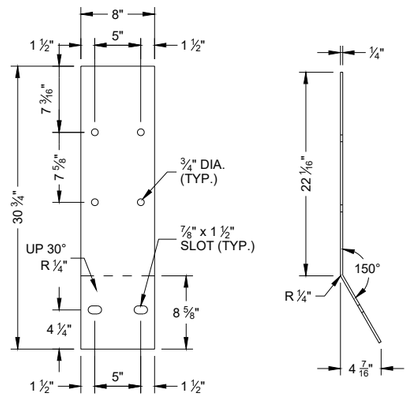
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

6
SDD 14B07-16i



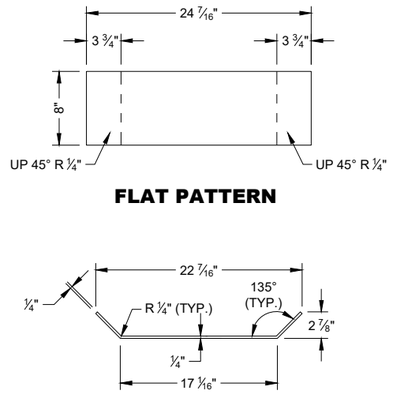
PROFILE VIEW **SIDE VIEW**

STIFFENER ASSEMBLY CENTER PANEL U1



FLAT PATTERN **SIDE VIEW**

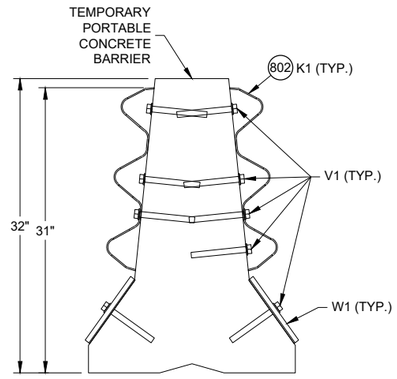
STIFFENER ASSEMBLY SIDE PANEL U2



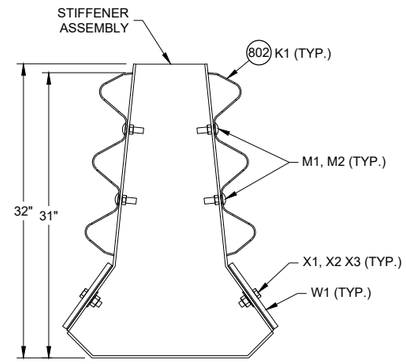
FLAT PATTERN

PROFILE VIEW

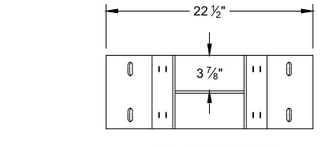
STIFFENER ASSEMBLY BOTTOM PANEL U3



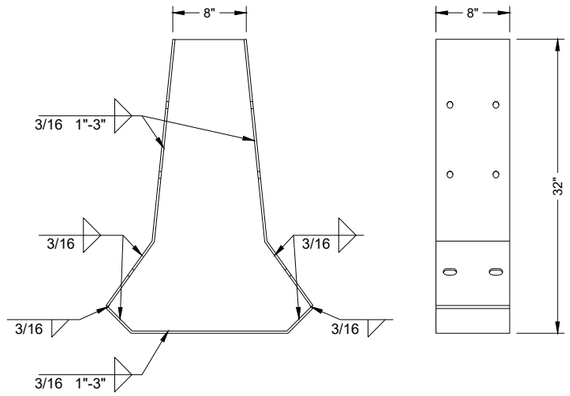
SECTION A - A



SECTION B - B

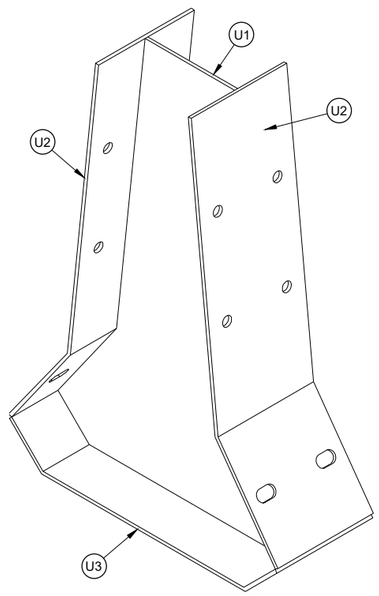


PLAN VIEW



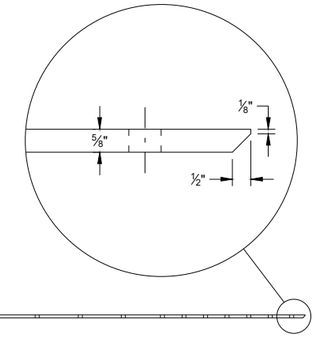
PROFILE VIEW

SIDE VIEW

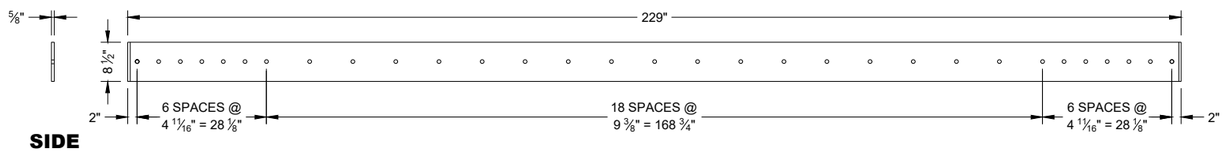


ISOMETRIC

GAP STIFFENER ASSEMBLY



PLAN VIEW



SIDE VIEW

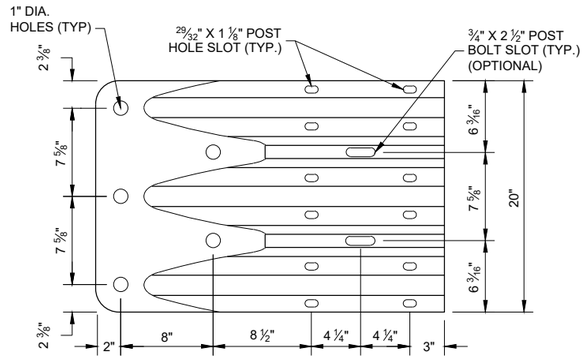
ELEVATION VIEW

W1 TOE PLATE

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

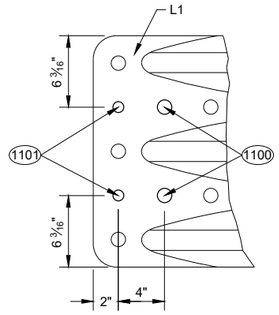
6

SDD 14B07-16j



ELEVATION VIEW

THRIE BEAM TERMINAL CONNECTOR



ELEVATION VIEW

ADDITIONAL THRIE BEAM (1102) TERMINAL CONNECTOR HOLE DETAIL

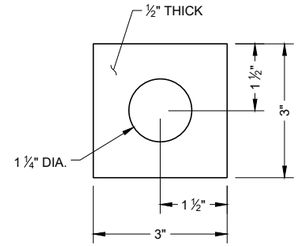


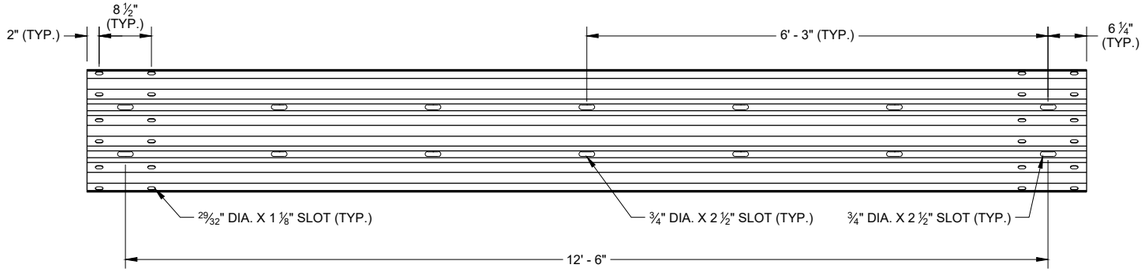
PLATE WASHER DETAIL G2, H3

GENERAL NOTES

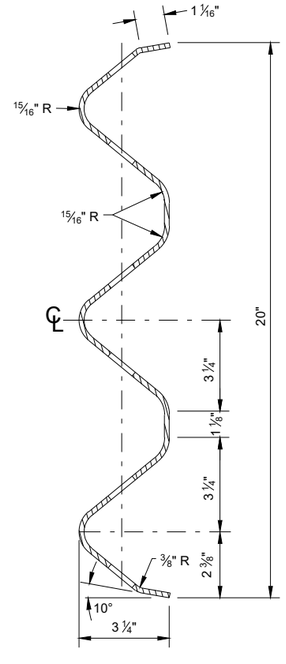
(1100) 1" DIA. HOLE

(1101) 3/4" DIA. HOLE

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



SLOTTED THRIE BEAM RAIL K1

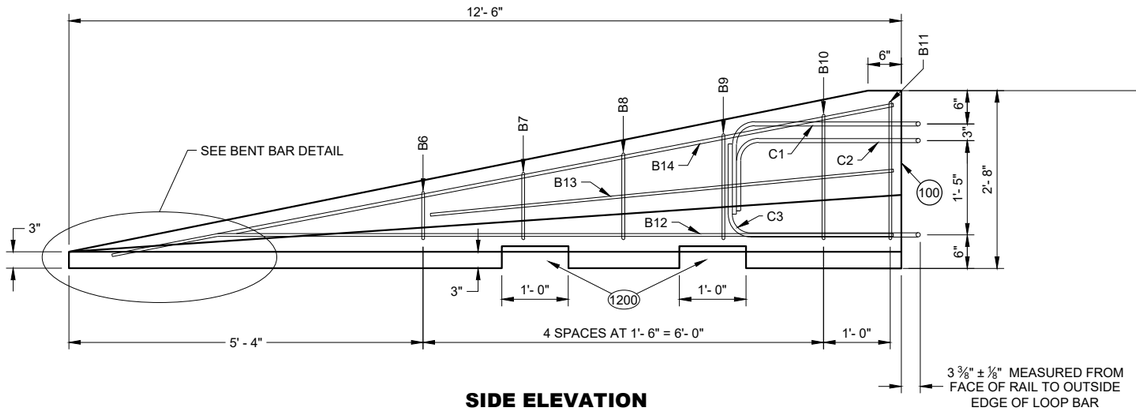


SECTION THROUGH BEAM K1

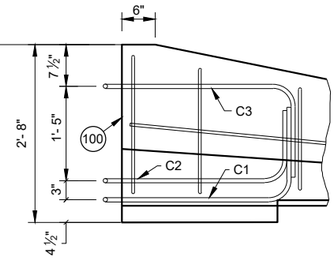
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B07-16k



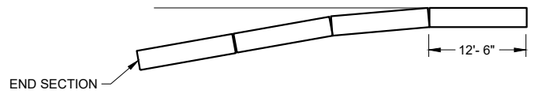
SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



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

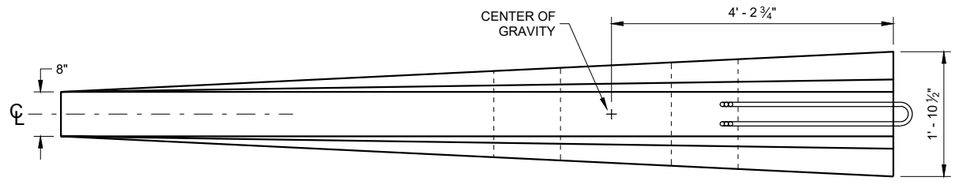
GENERAL NOTES

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

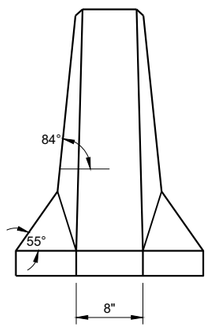


FLARE AT BARRIER END

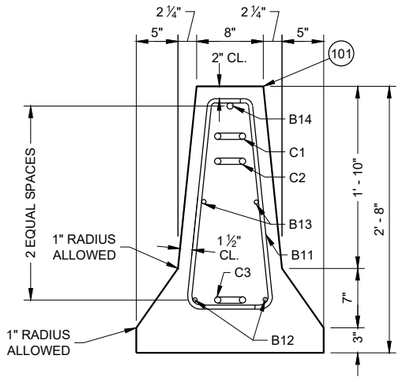
POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1



PLAN VIEW

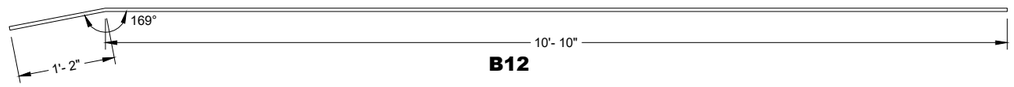


FRONT ELEVATION

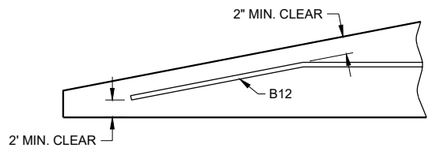


END SECTION

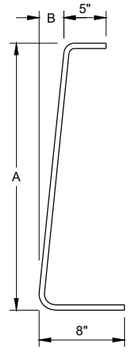
DETAILS OF BARRIER TAPER SECTION



B12



BENT BAR DETAIL



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

B BARS
2 OF EACH SIZE REQUIRED FOR STIRRUP ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

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

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

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SDD 14B07-16m

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SDD 14B07-16m

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

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

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

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SDD 14B07-16n

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

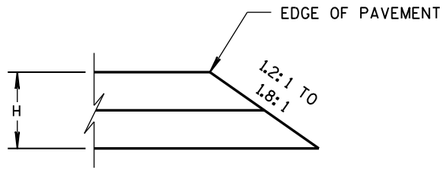
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

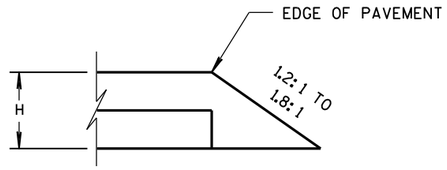
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SDD 14B07-16n



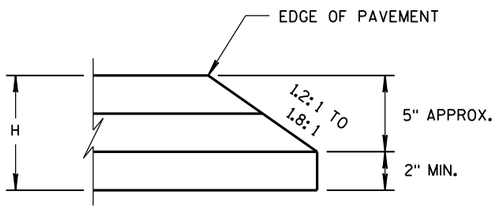
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



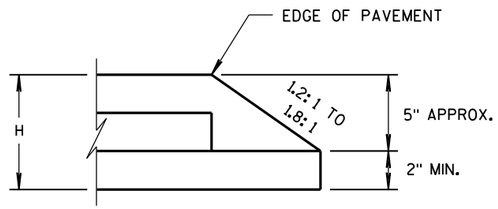
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FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

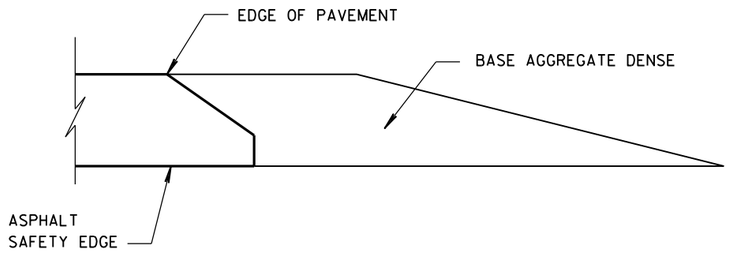
FOR H GREATER THAN 5"



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.

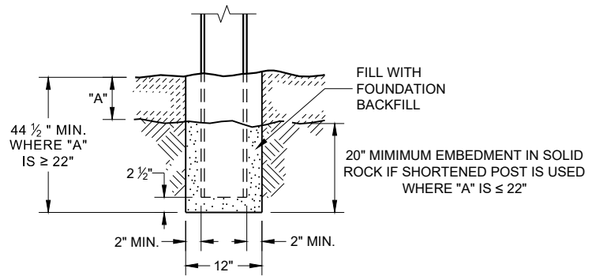
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

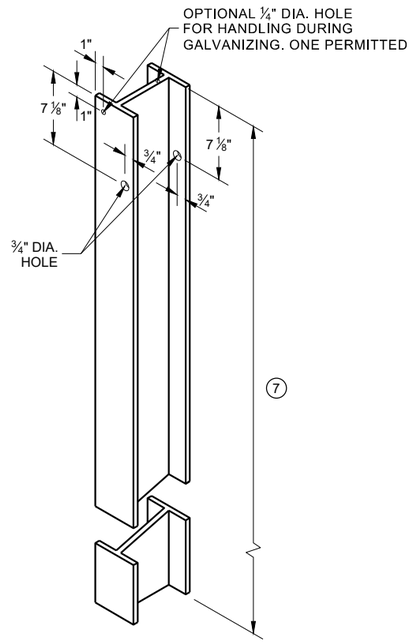
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

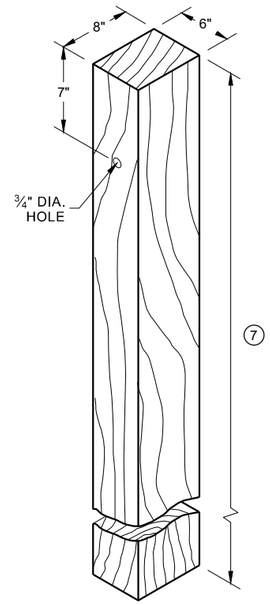
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



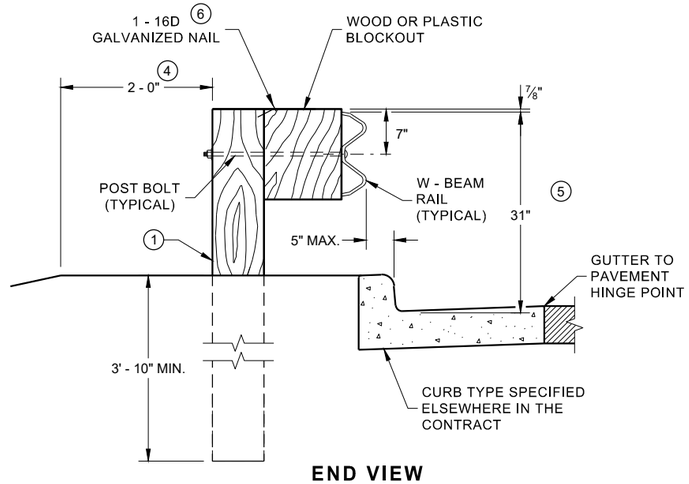
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



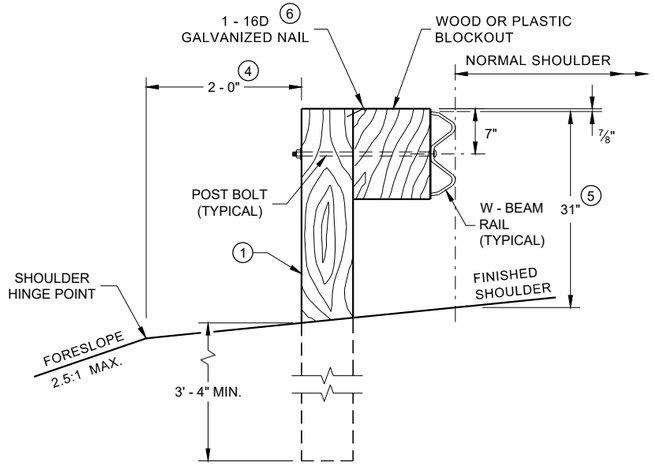
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



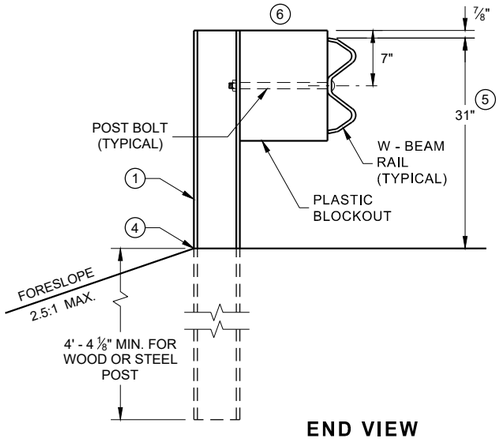
WOOD POST (6" X 8") NOMINAL (1)



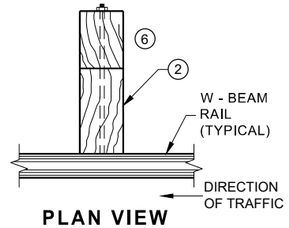
END VIEW
LOCATED ALONG A CURBED ROADWAY



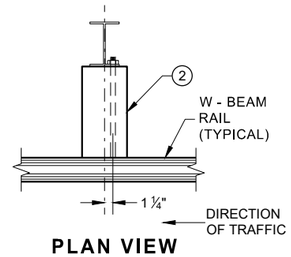
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



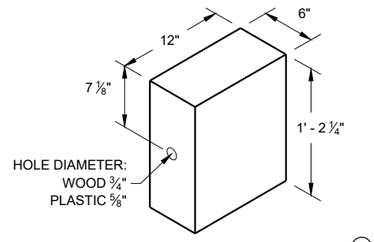
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

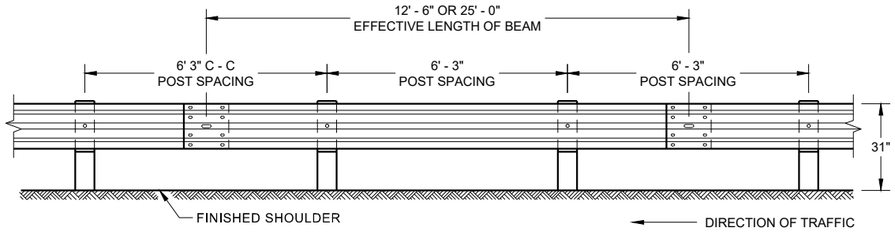
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

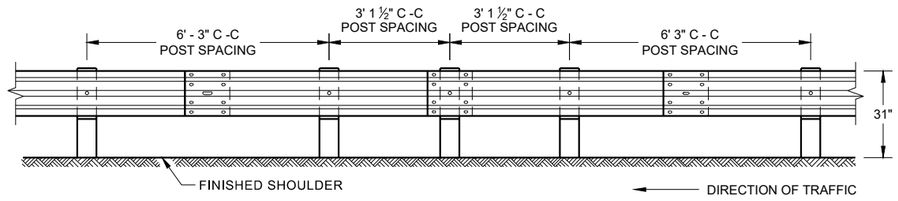
SDD 14B42 - 07a

6

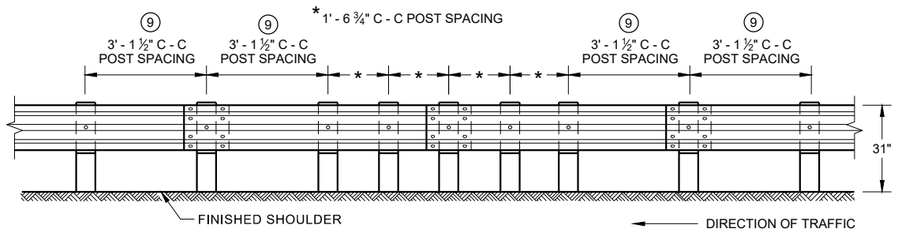
SDD 14B42 - 07a



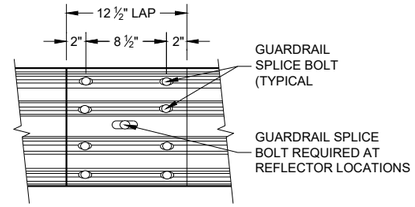
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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

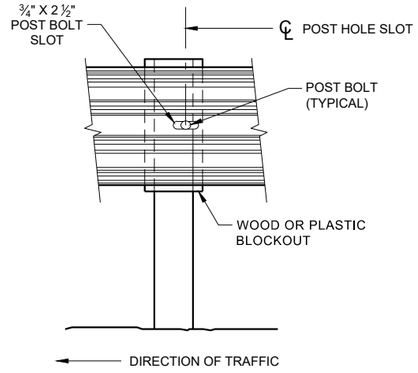
GENERAL NOTES

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

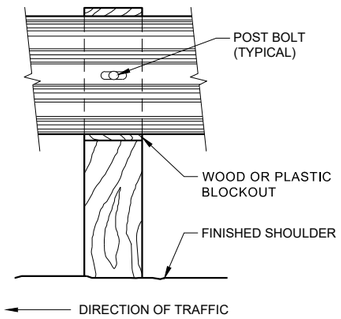
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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.

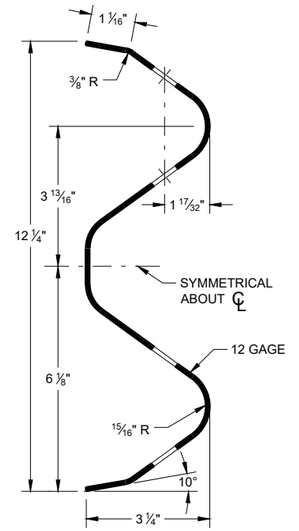
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



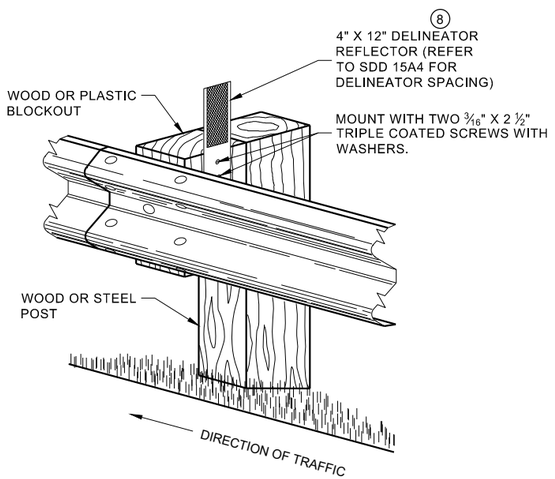
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



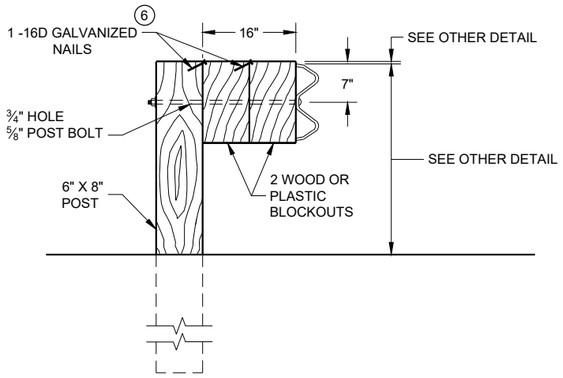
ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 07b

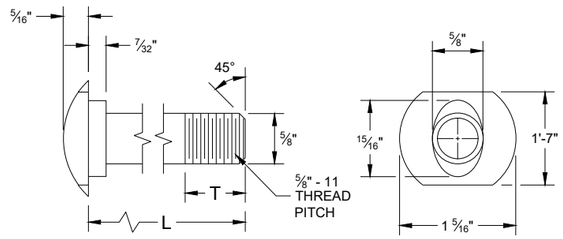


DETAIL FOR 16" BLOCKOUT DEPTH

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.

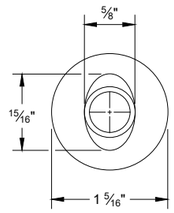
NOTE:

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

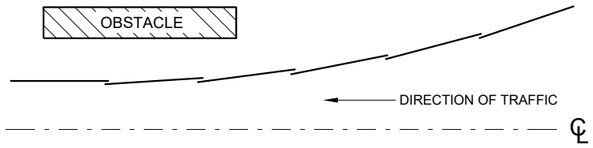


POST BOLT TABLE

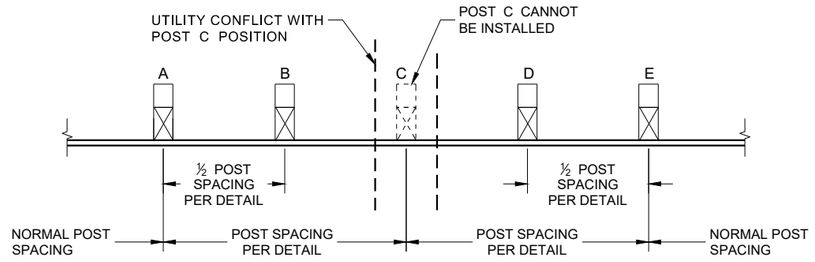
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



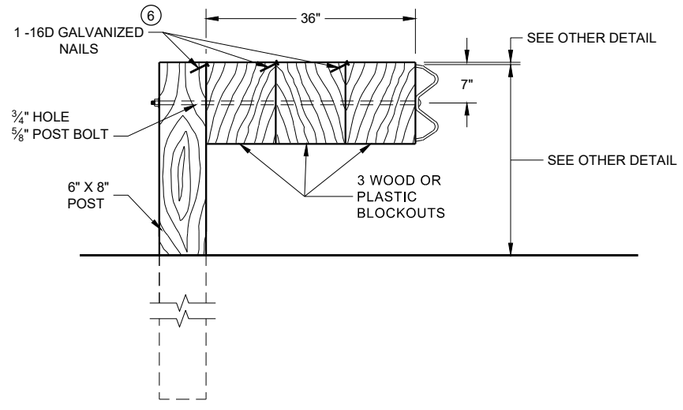
ALTERNATE BOLT HEAD



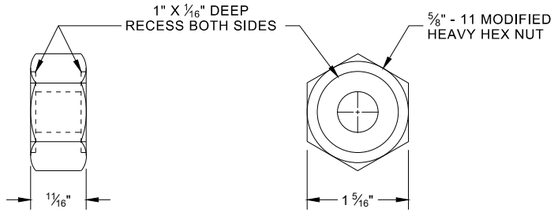
PLAN VIEW
BEAM LAPPING DETAIL



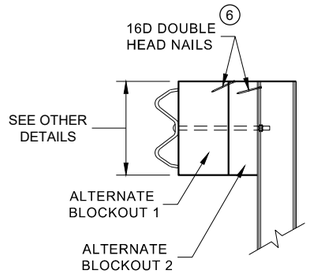
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



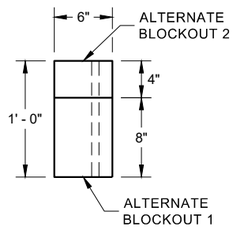
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

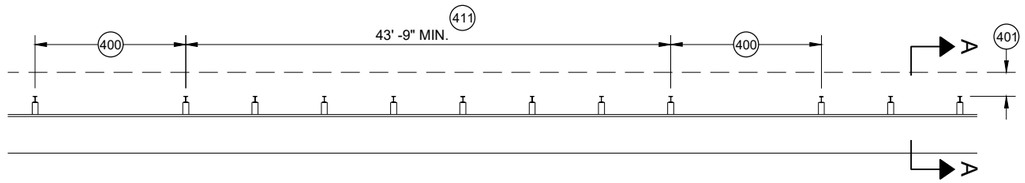
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

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

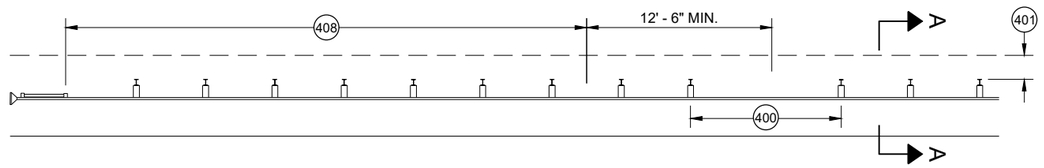
(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

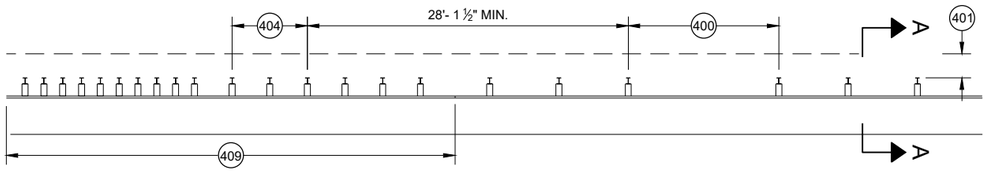
6
SDD 14B42 - 07c



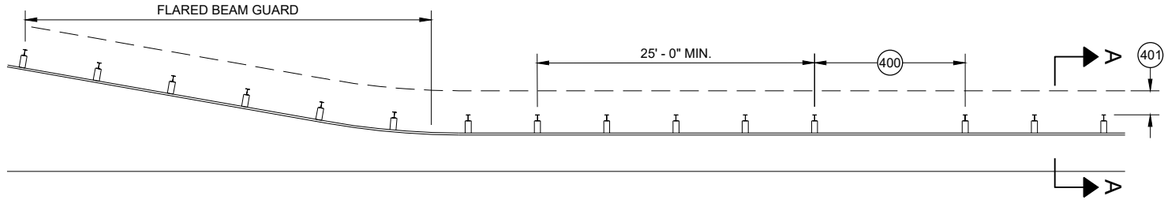
MISSING POST IN MGS GUARDRAIL



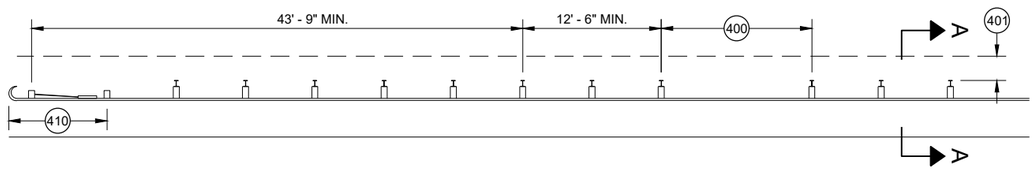
MISSING POST IN MGS GUARDRAIL NEAR EAT



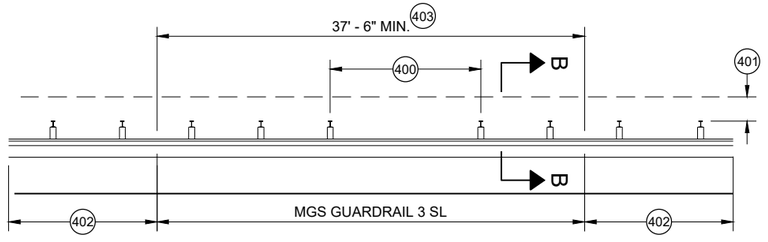
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

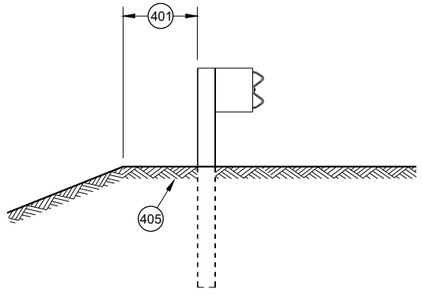


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

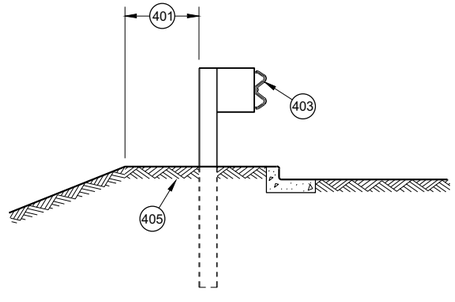


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(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.

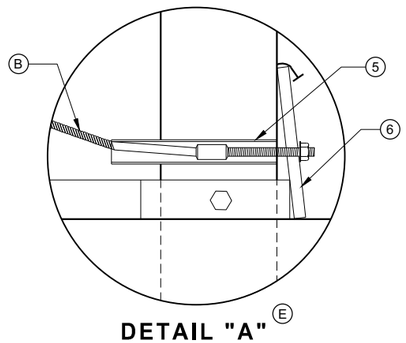
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

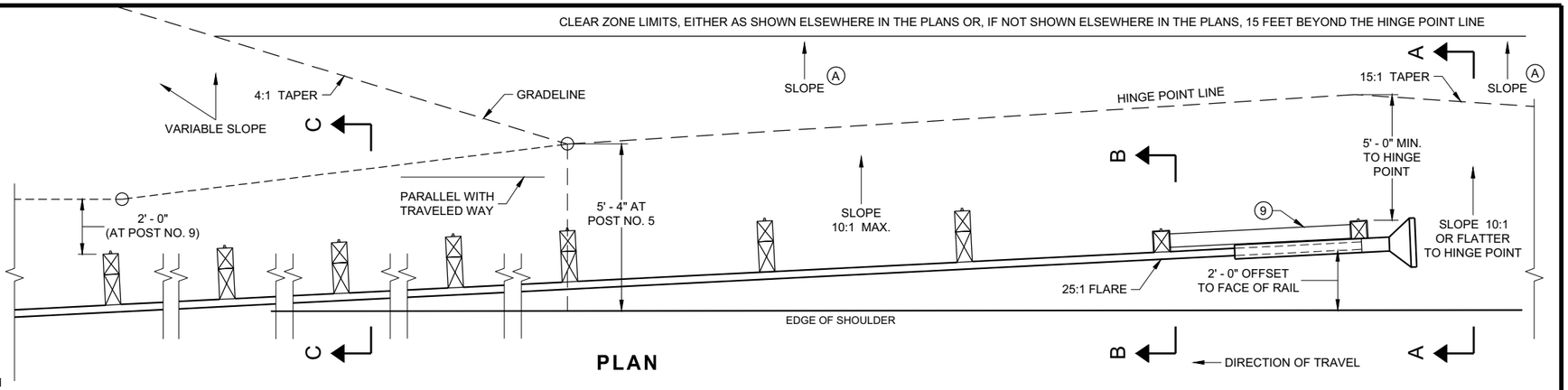
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

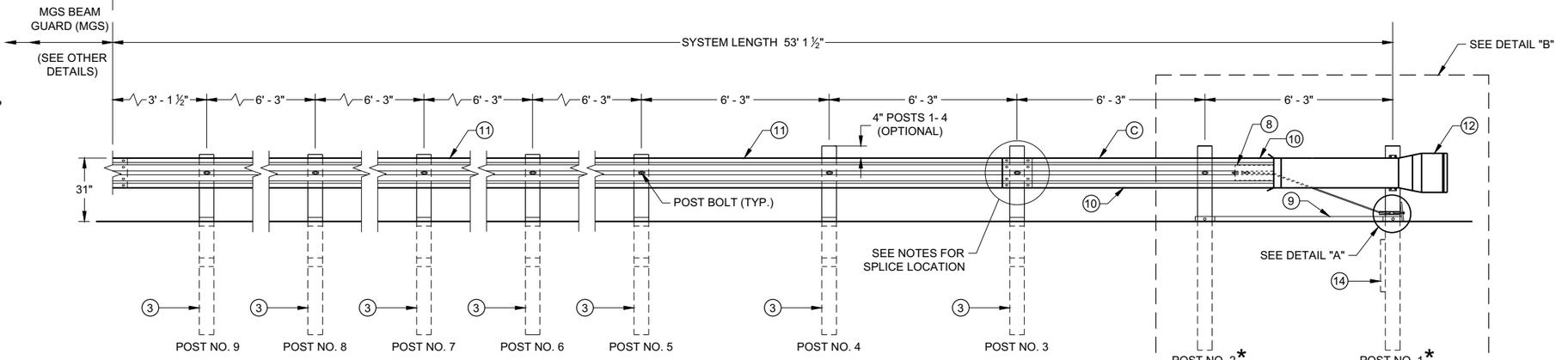
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



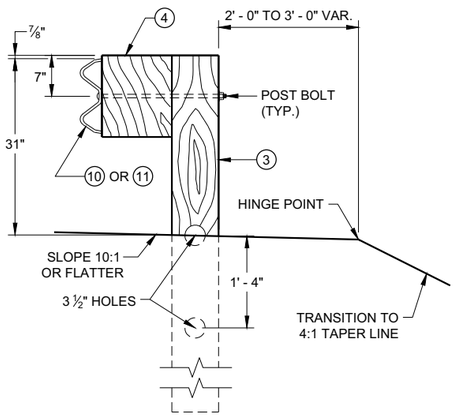
DETAIL "A" (E)



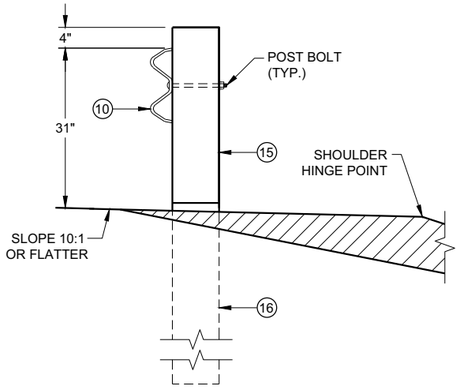
PLAN



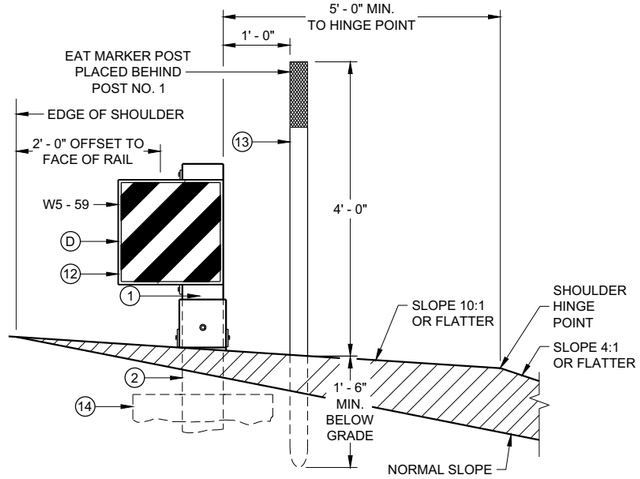
ELEVATION



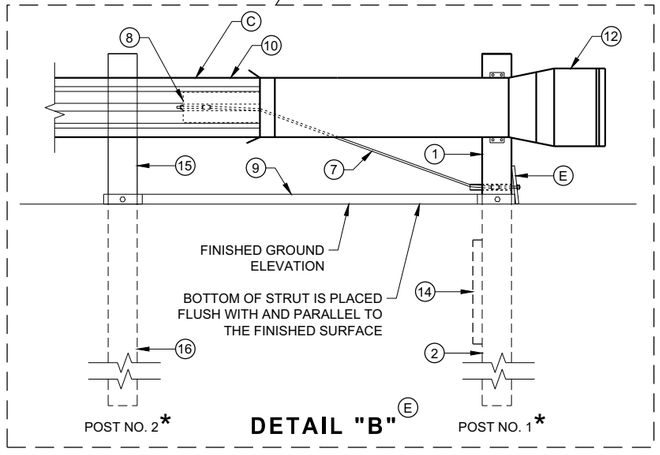
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



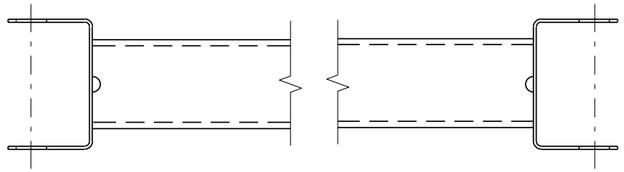
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

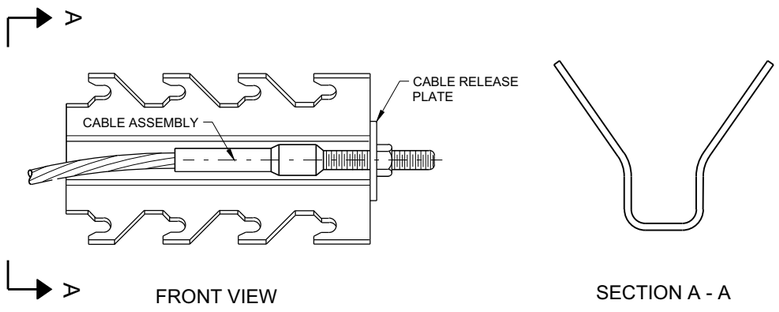
SDD 14B44 - 04a



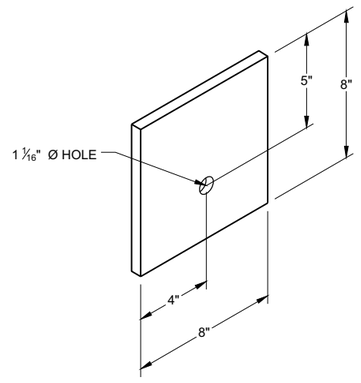
GENERIC GROUND STRUT (9) (E)

BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX (9) (E)



BEARING PLATE (6) (E)

6

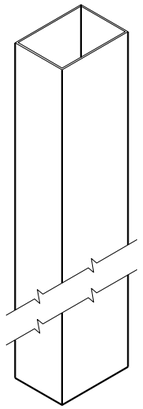
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SDD 14B44 - 04b

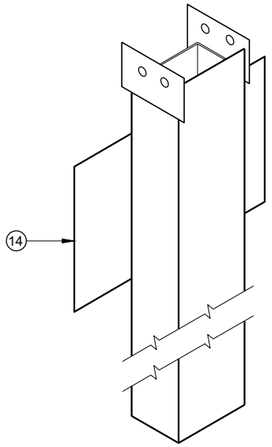
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

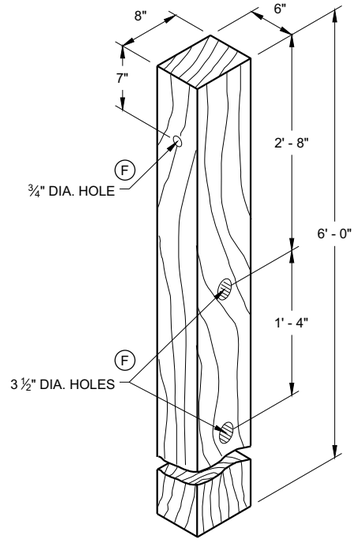
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA



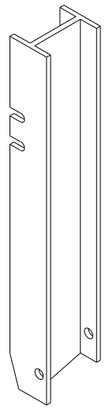
UPPER POST NO. 1 (1) (E)



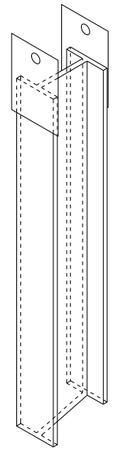
LOWER POST NO. 1 (2) (E)



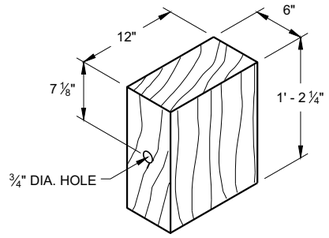
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



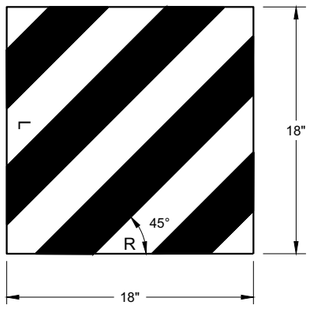
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

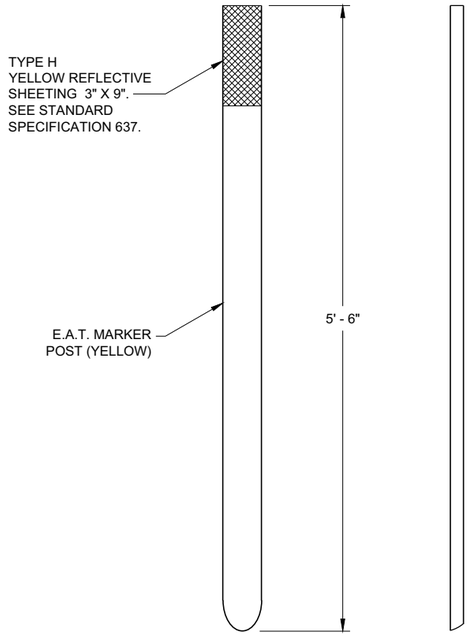


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



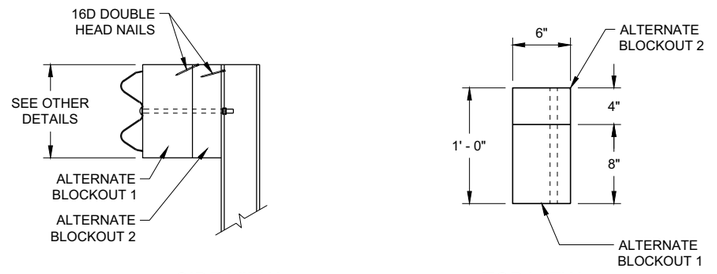
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

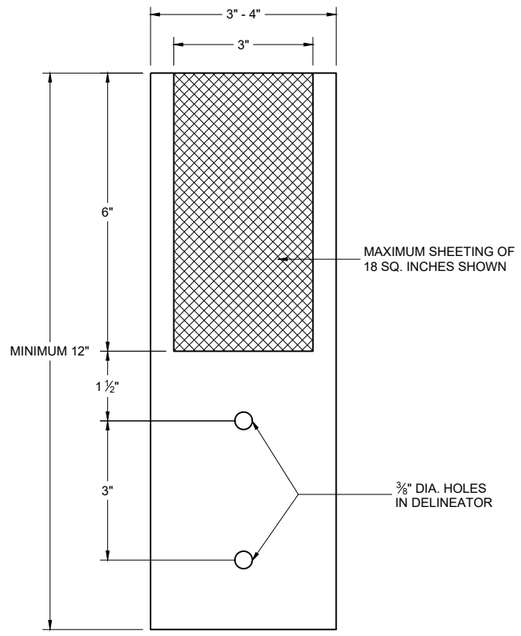
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



4" x 12" DELINEATOR
WITH REFLECTIVE SHEETING

REFLECTOR SPACING TABLE

REFLECTOR SPACING	MINIMUM NUMBER OF REFLECTORS
100' C-C	3

DELINEATOR POST
WITH REFLECTIVE SHEETING

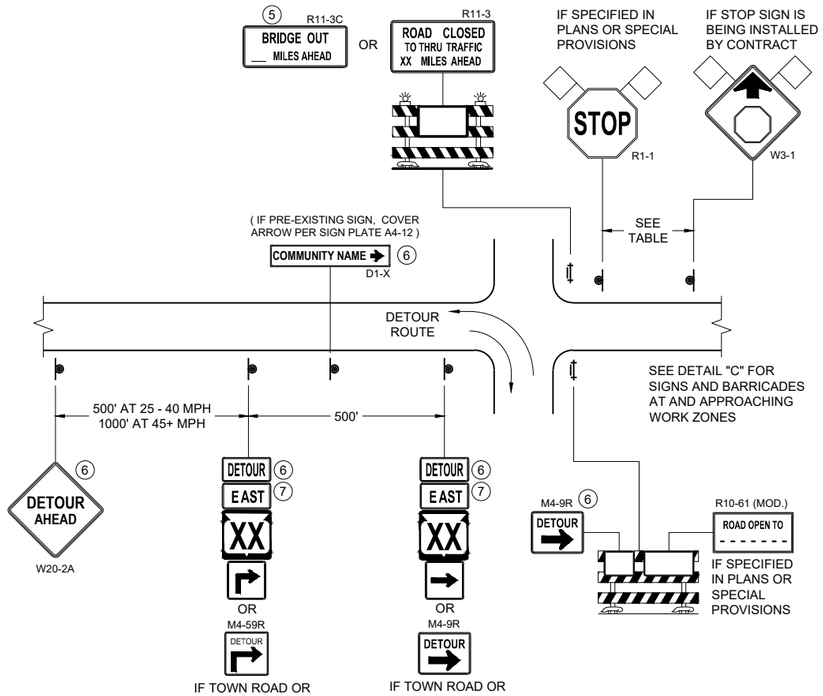
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

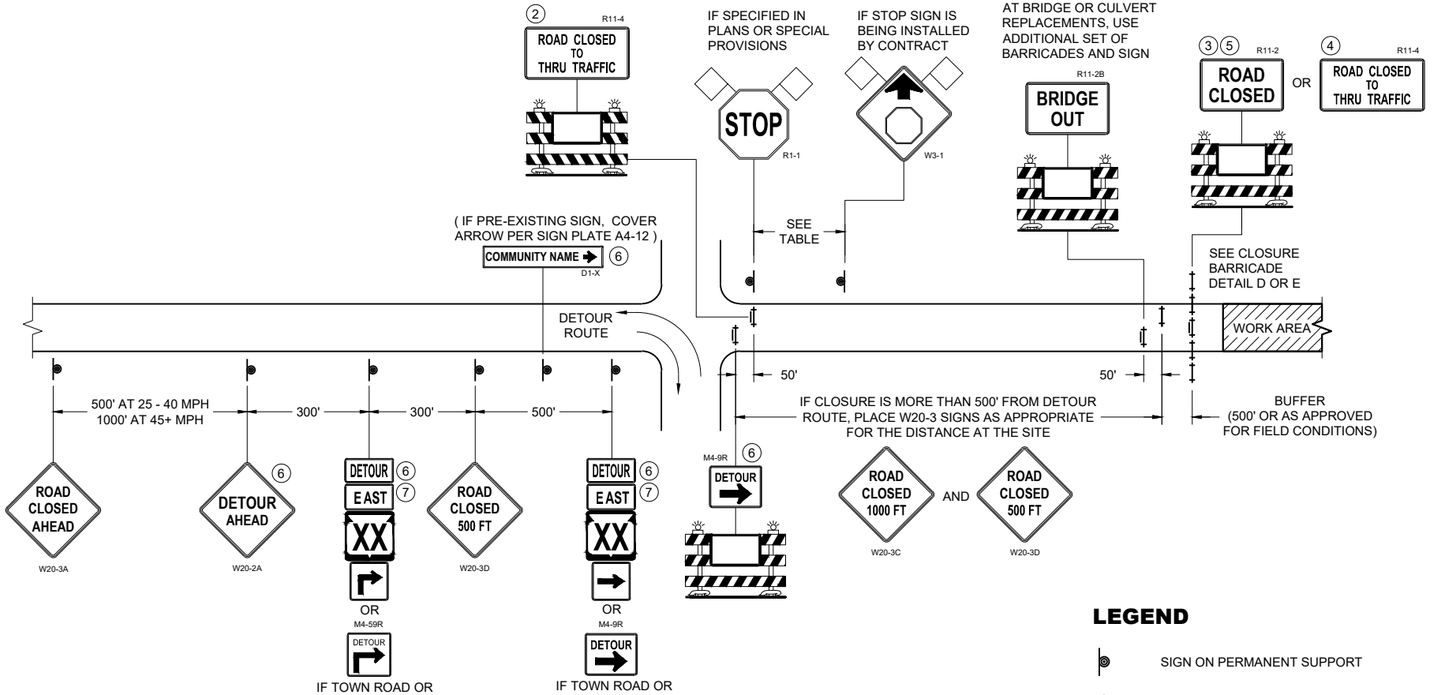
FHWA

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SDD 15A04-08e



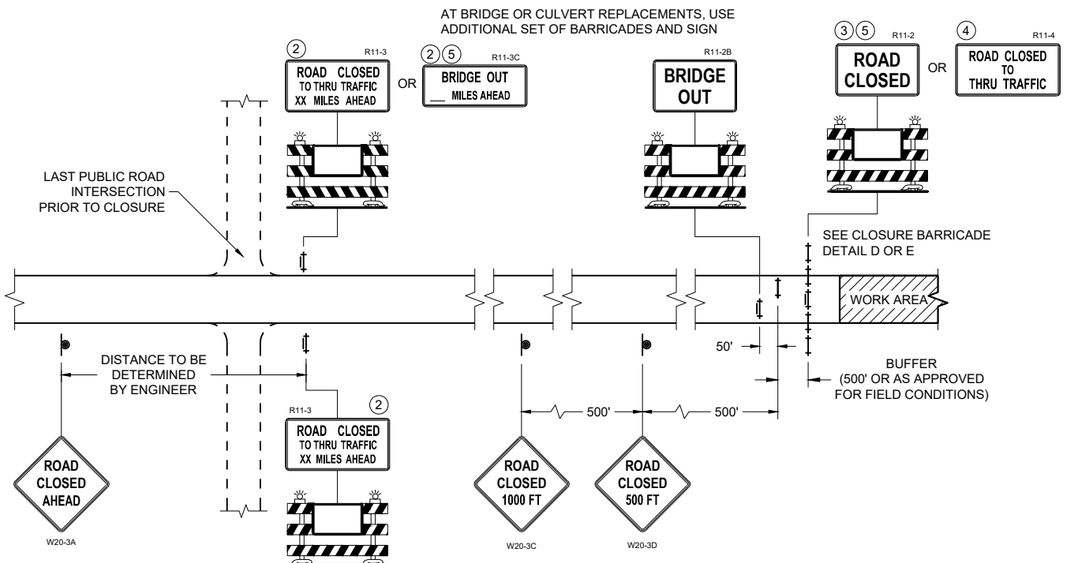
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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)

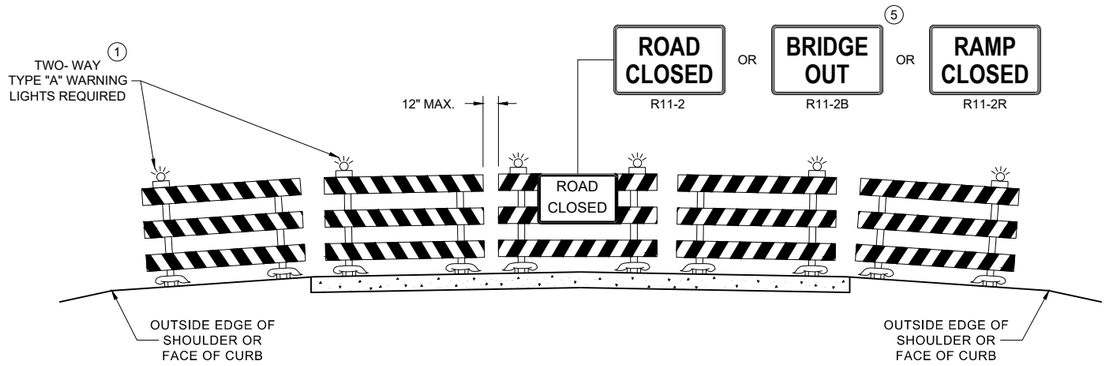
DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

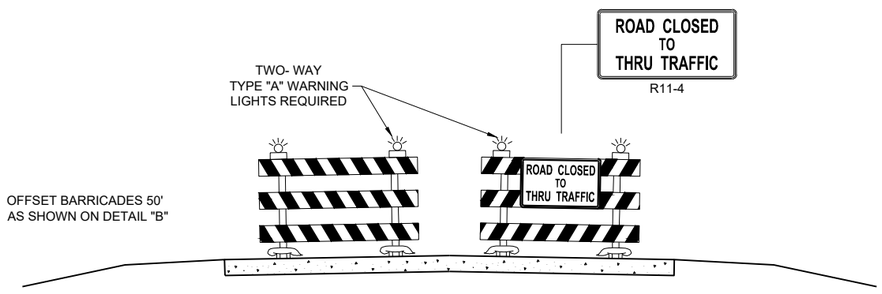
6
SDD 15C02-10a



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.

PARTIAL NUMBERS ON SIGNS SHALL BE DISPLAYED AS A WHOLE NUMBER(AS NEEDED) FOLLOWED BY A FRACTION. SIGNS SHALL NOT DISPLAY NUMBERS IN DECIMAL FORM.

"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"

SIGNS PLACED ON TYPE III BARRICADES THAT ARE SIZES OTHER THAN 48"X30" SHALL HAVE A CORRUGATED POLYPROPYLENE OR POLYETHYLENE PLASTIC SIGN BASE.

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

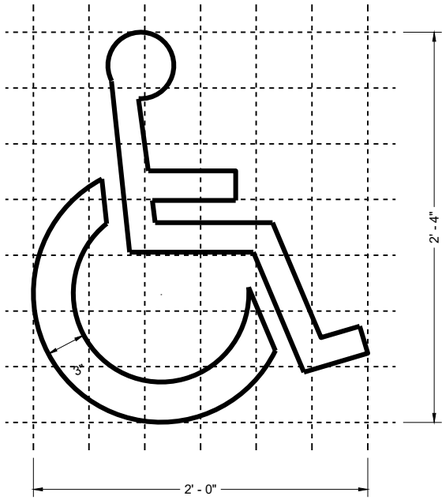
FHWA

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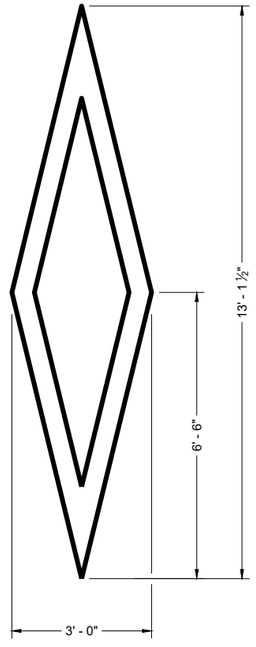
SDD 15C02-10b

GENERAL NOTES

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



HANDICAP SYMBOL



PREFERENTIAL LANE SYMBOL

6

6

SDD 15C07-16a

SDD 15C07-16a

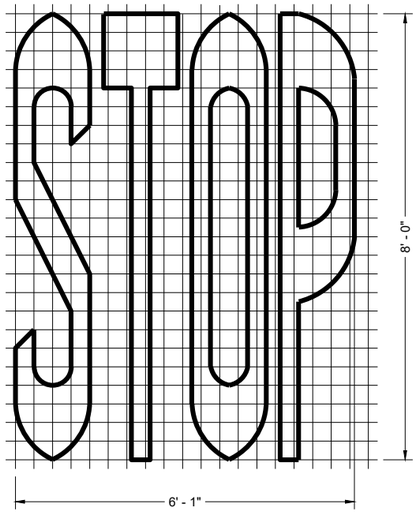
PAVEMENT MARKING SYMBOLS

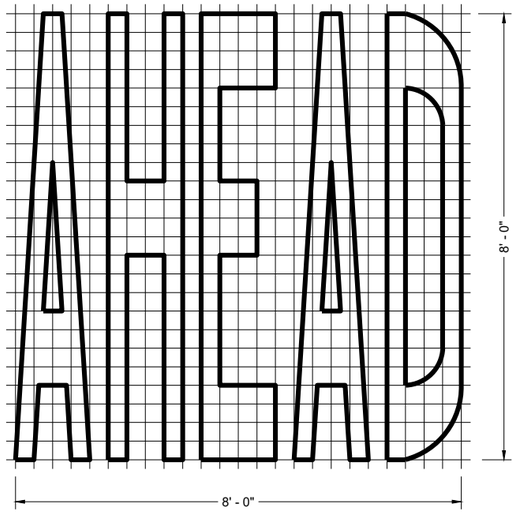
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

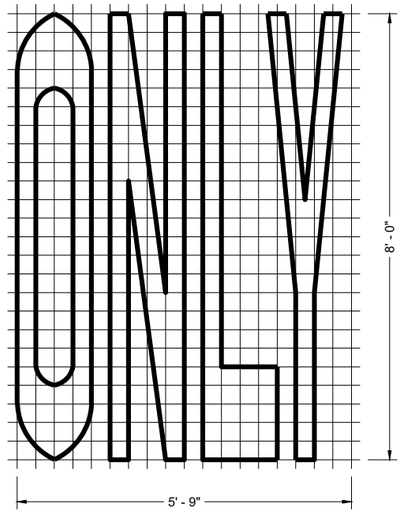
APPROVED
November 2024
DATE

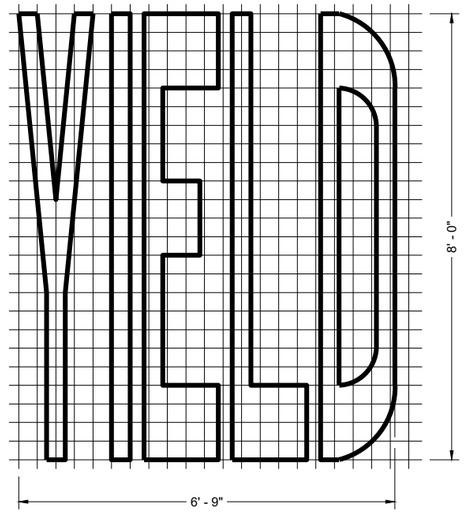
/S/ Jeannie Silver
STATE SIGNING AND MARKING ENGINEER

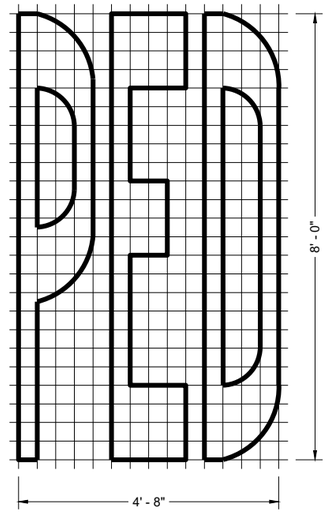
FHWA

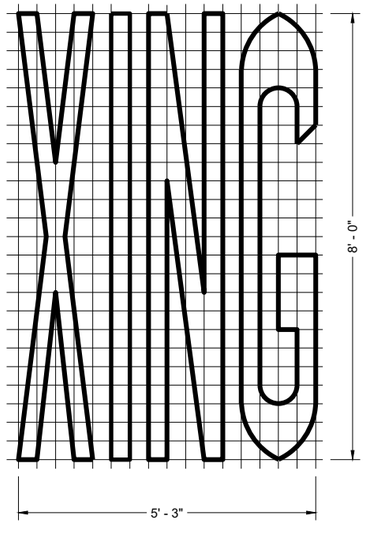


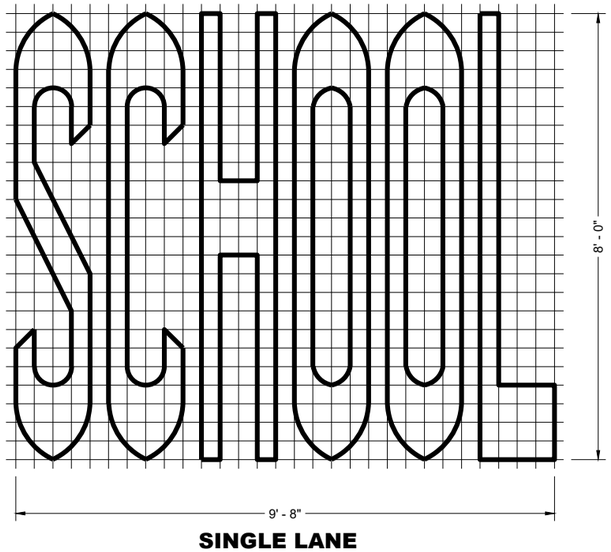




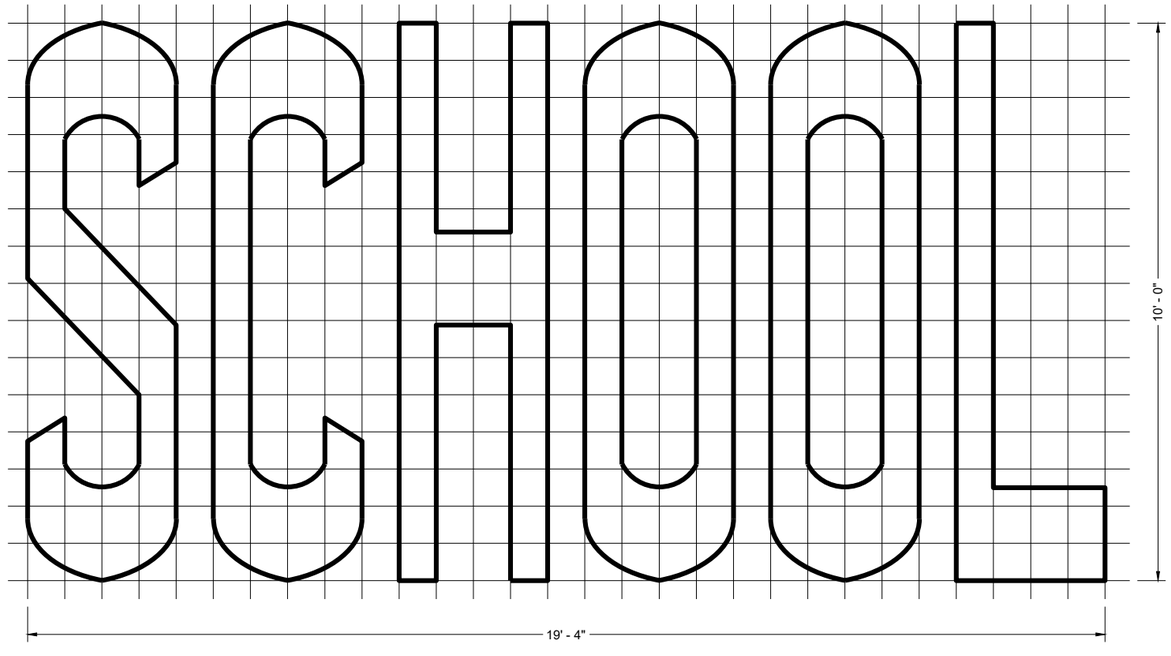








SINGLE LANE



TWO - LANE

GENERAL NOTES

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

PAVEMENT MARKING WORDS

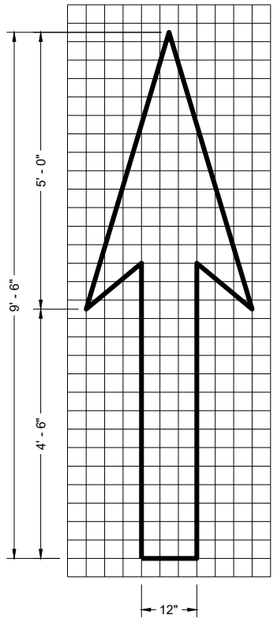
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024 — DATE
/S/ Jeannie Silver — STATE SIGNING AND MARKING ENGINEER

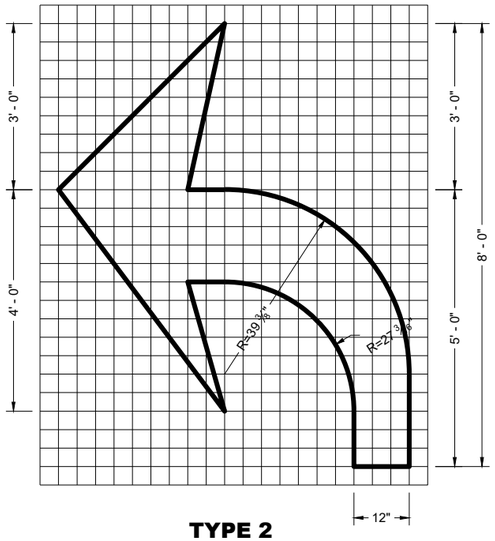
FHWA

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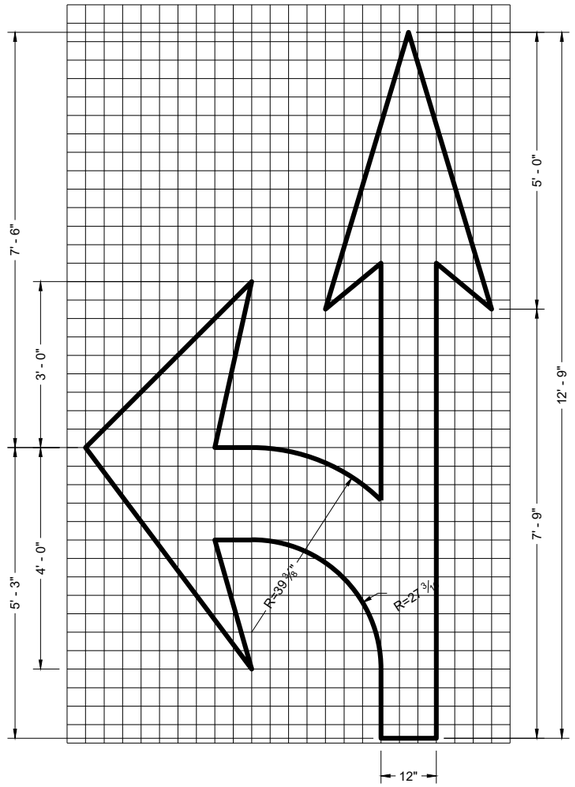
SDD 15C07-16b



TYPE 1



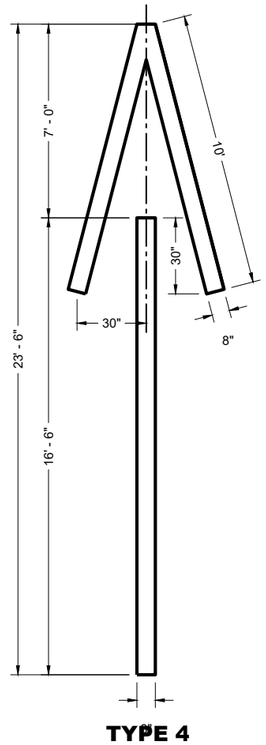
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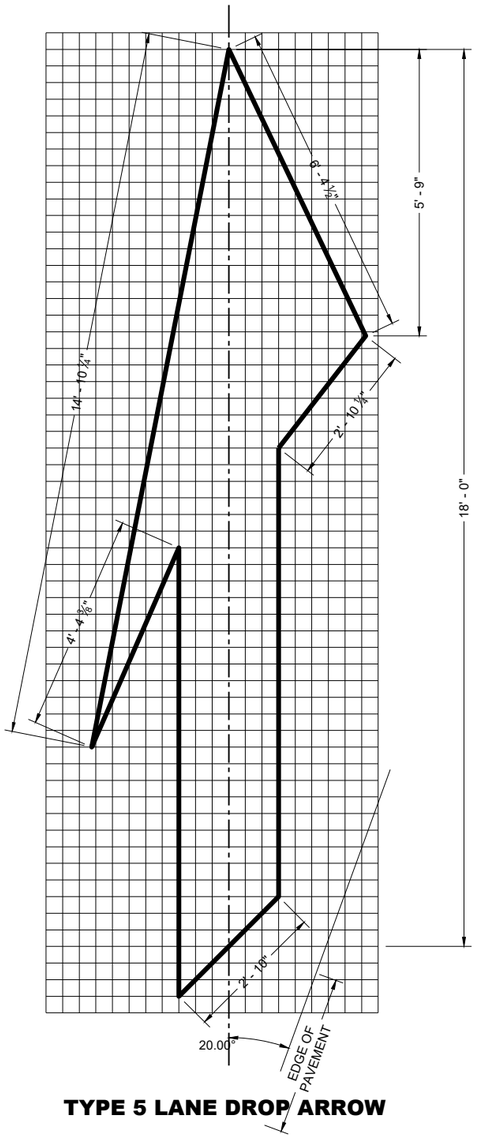
TYPE 3

GENERAL NOTES

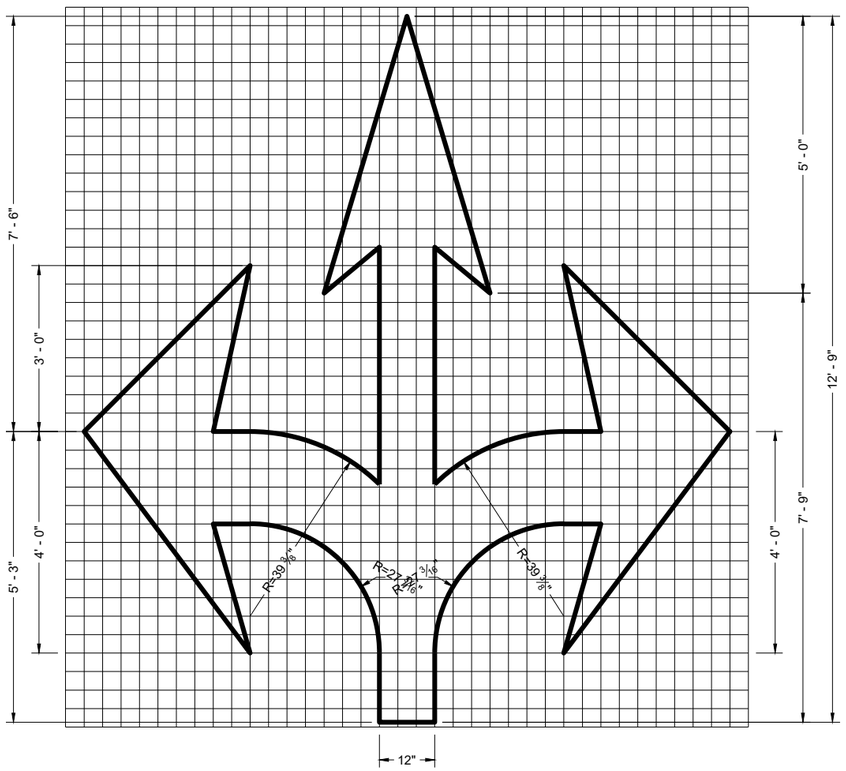
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



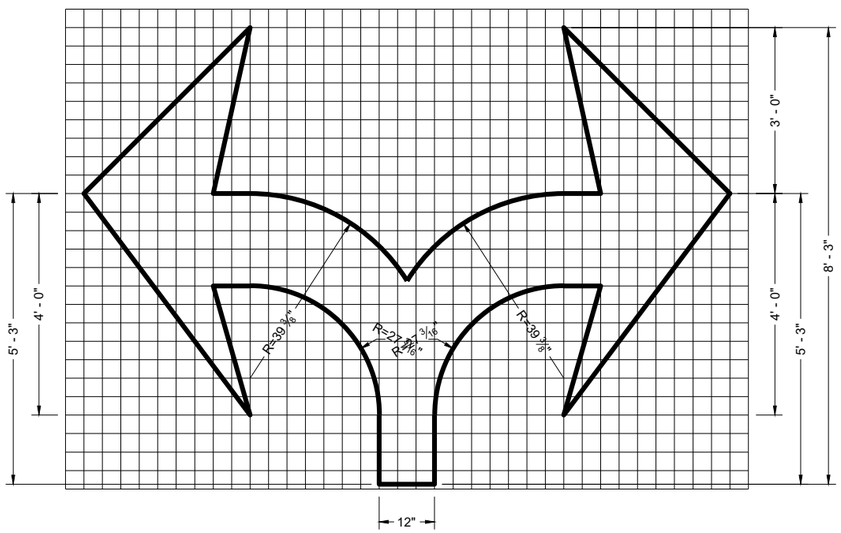
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

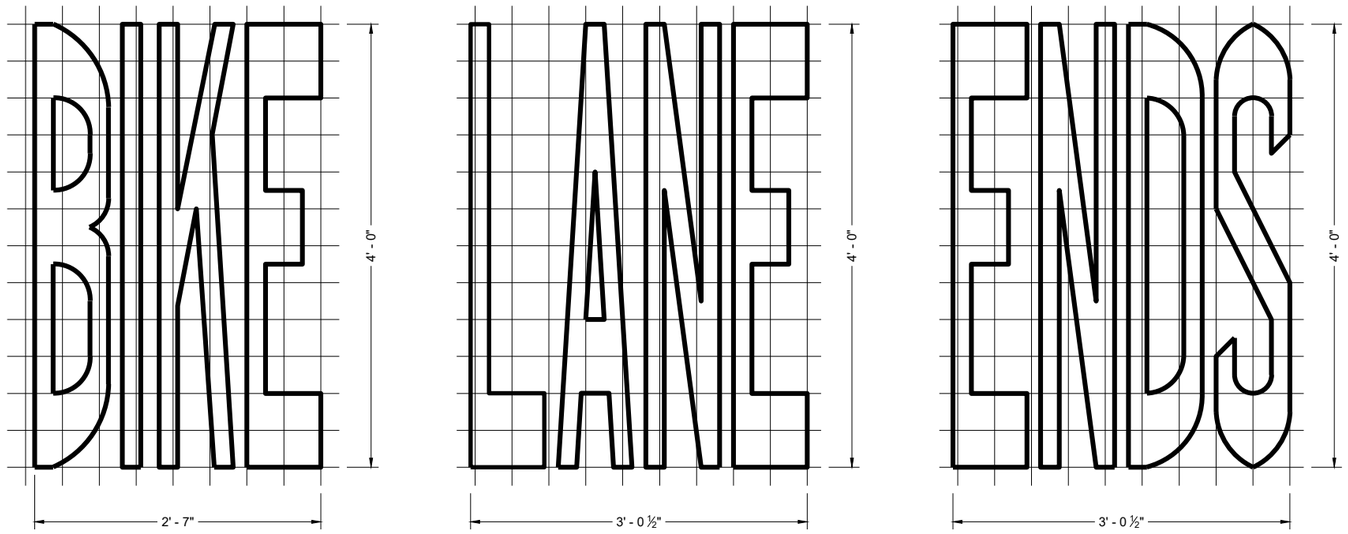
APPROVED
November 2024 — DATE
/S/ Jeannie Silver — STATE SIGNING AND MARKING ENGINEER

FHWA

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SDD 15C07-16c

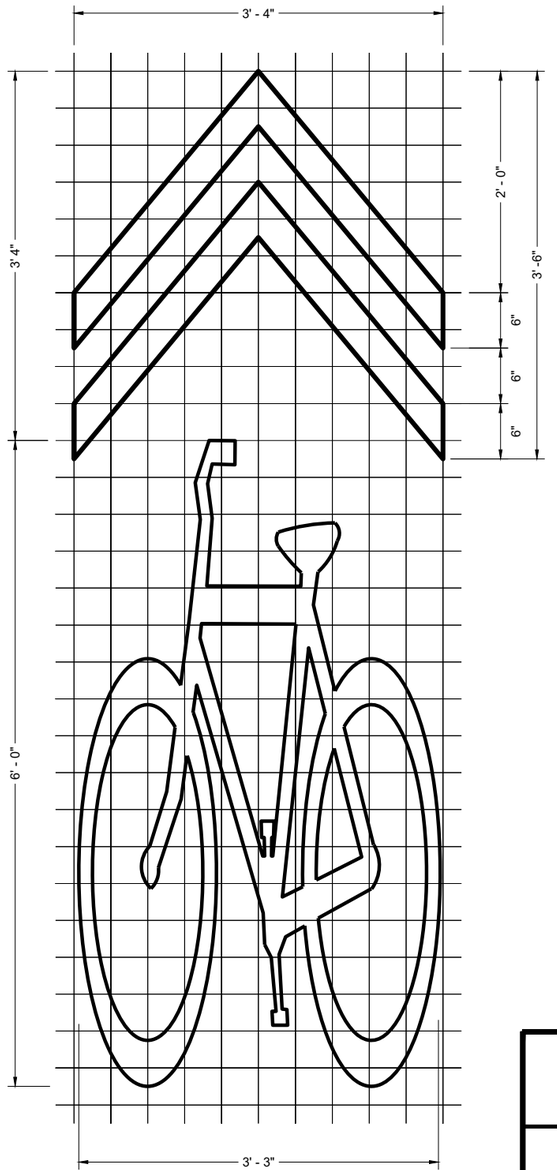
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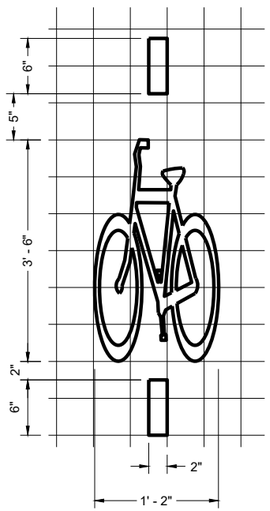
BIKE LANE WORDS

GENERAL NOTES

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



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

BIKE LANE SYMBOL

BIKE LANE SYMBOL FOR SHARED LANE

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024 — DATE
/S/ Jeannie Silver — STATE SIGNING AND MARKING ENGINEER

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SDD 15C07-16e

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SDD 15C07-16e

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.

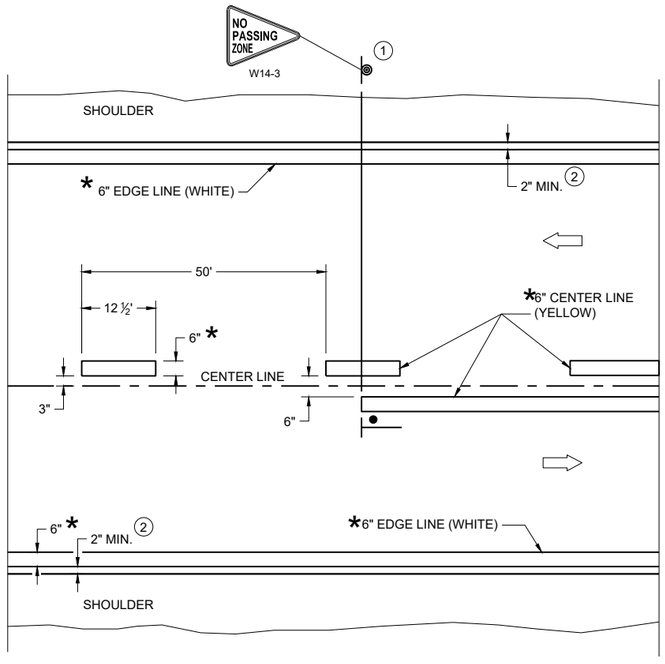
LEGEND

"T" MARKING

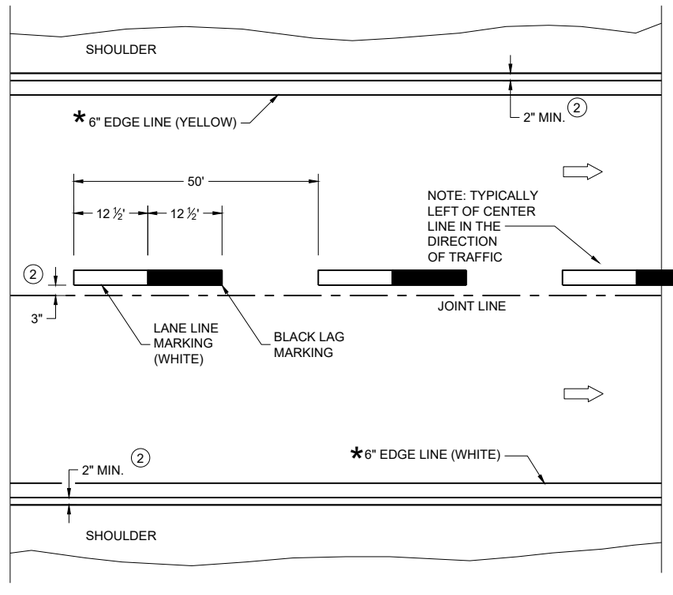
SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

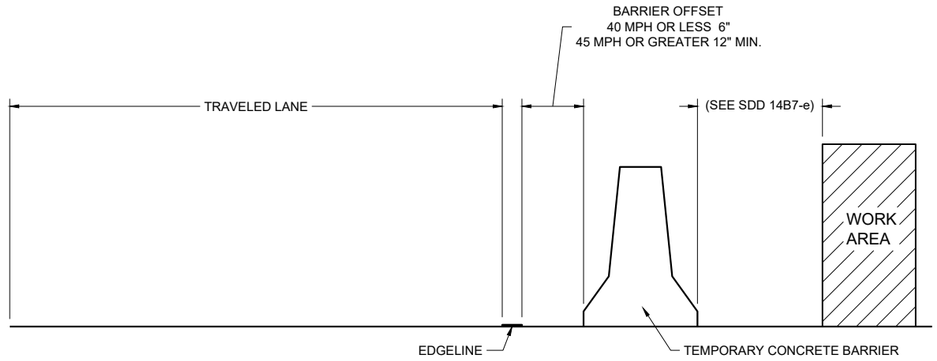
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

6
SDD 15C08-24a



TEMPORARY BARRIER OFFSET FROM EDGELINE

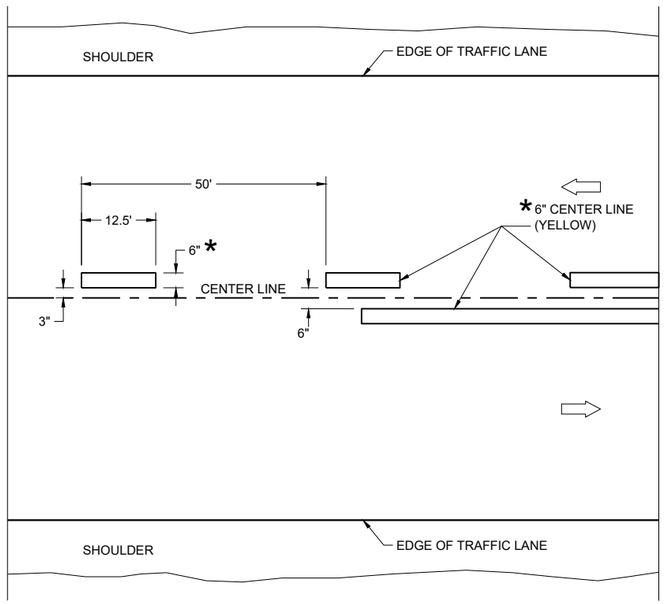
GENERAL NOTES

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

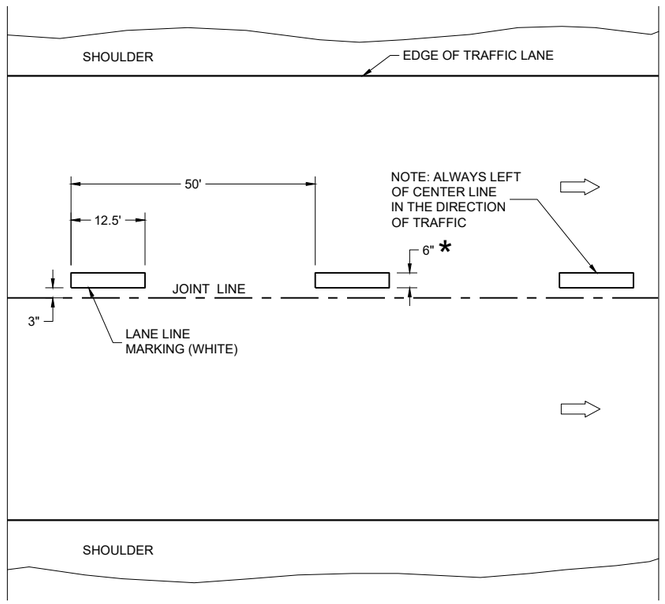
LEGEND

DIRECTION OF TRAFFIC

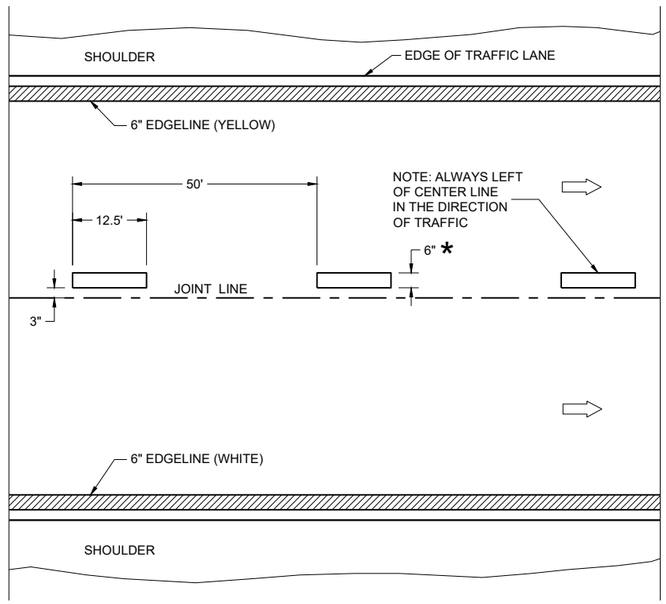
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

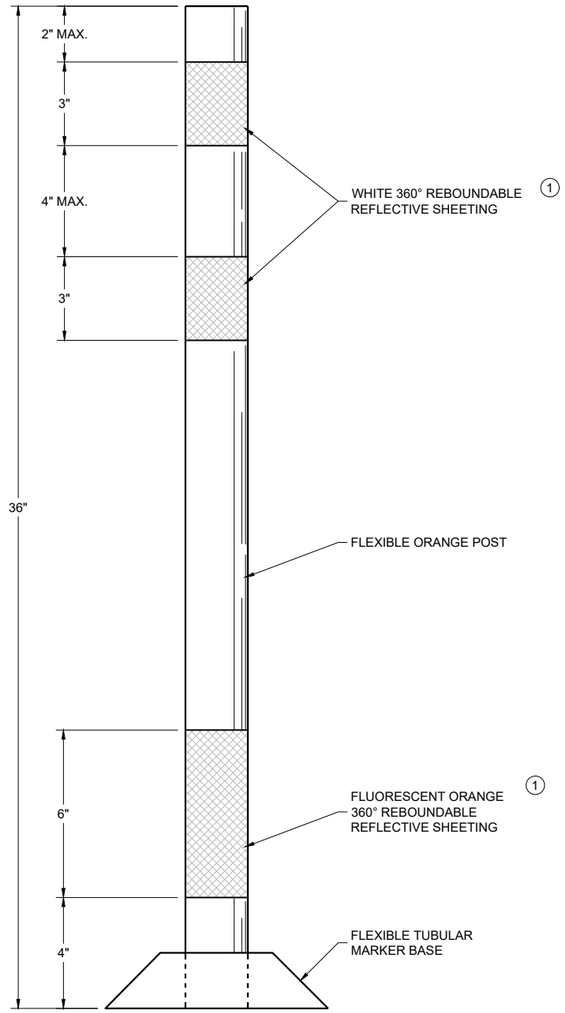
APPROVED
December 2024
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer
FHWA

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SDD 15C08-24b

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SDD 15C08-24b



FLEXIBLE TUBULAR MARKER POST WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

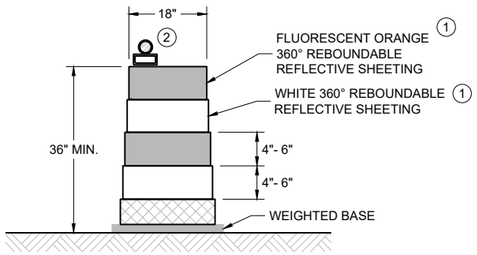
CHANNELIZING DEVICES
FLEXIBLE TUBULAR
MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

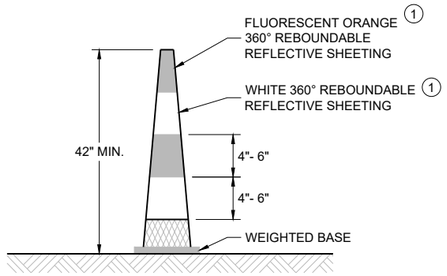
(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

(2) LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



DRUM

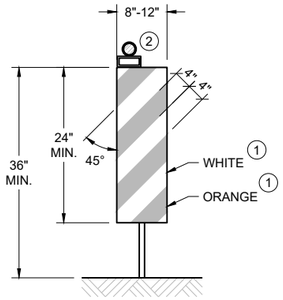
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

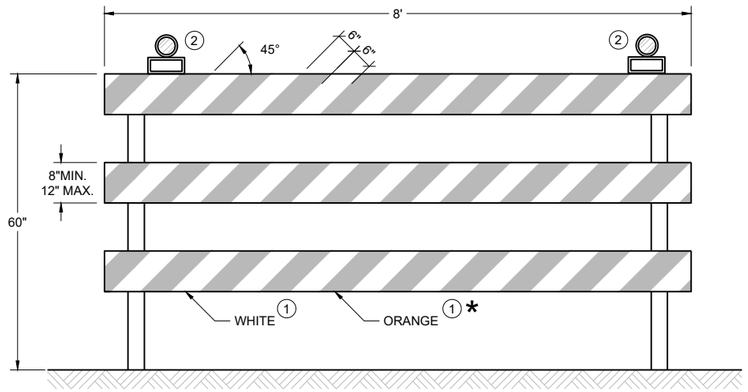
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE 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.

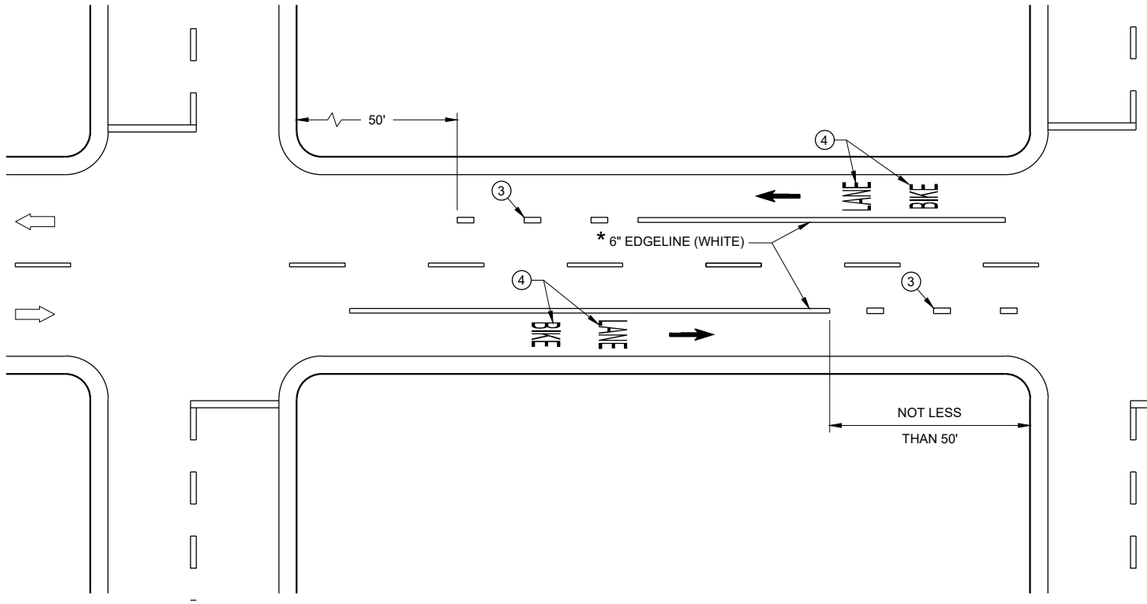
CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

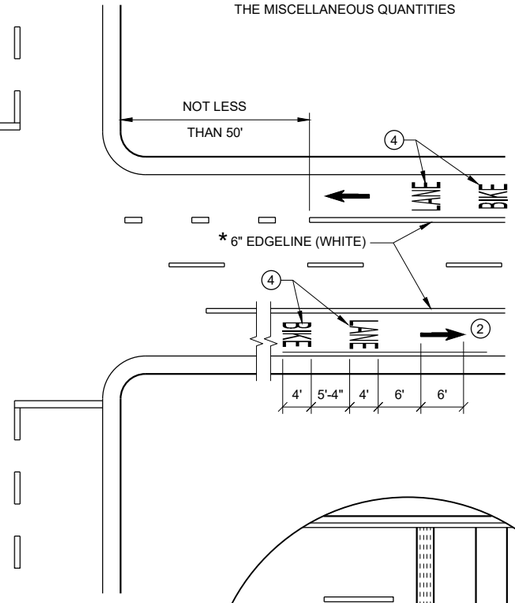
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2026 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

6
SDD 15C11-11b





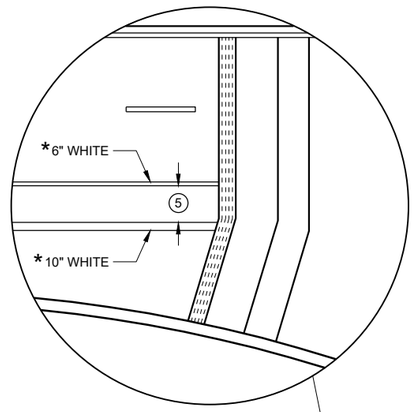
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

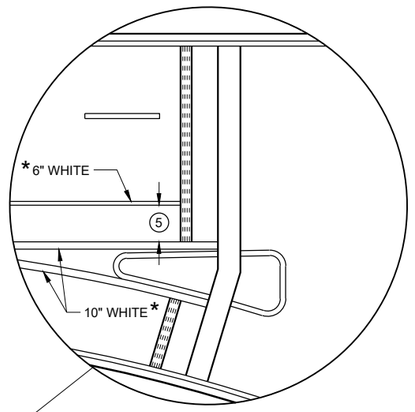
1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
3. DOTTED LINES (3' LINE, 9' GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. BIKE SYMBOLS OR WORDS MAY BE USED.
5. BIKE ACCOMMODATION IS TYPICAL 5 FEET WIDE AND MINIMUM OF 4 FEET FROM A LONGITUDINAL JOINT. USE 5 FEET AT ≥ 45 MPH.
6. OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FOOT WIDE TURN LANE).
7. REFER TO CONTRACT PLANS FOR LANE WIDTH.

DIRECTION OF TRAVEL

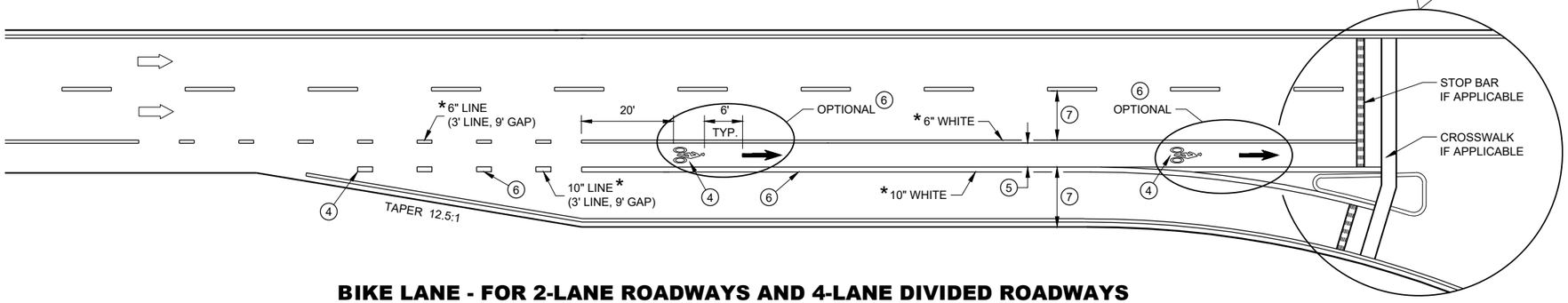
DESIGNATED BIKE LANE - NO PARKING



4 LANE DIVIDED WITHOUT ISLAND



4 LANE DIVIDED WITH ISLAND



BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS (4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)

BIKE LANE MARKING

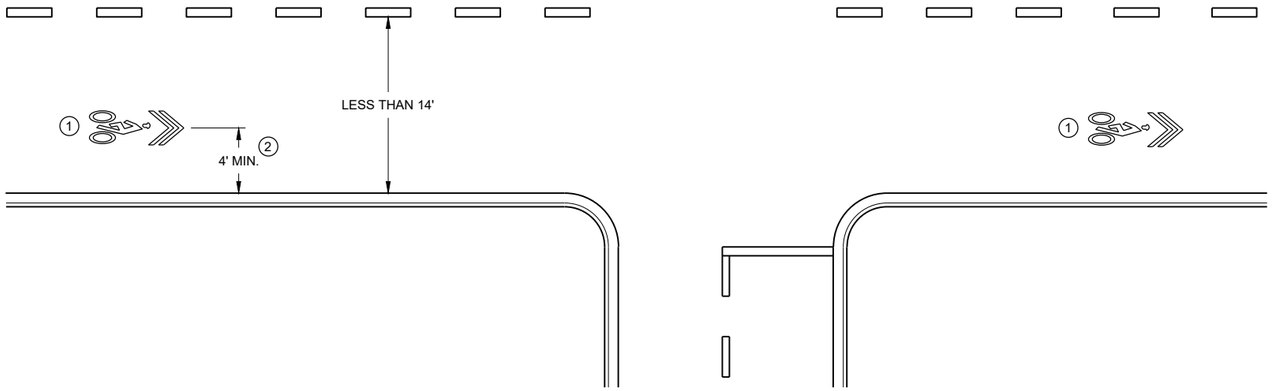
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

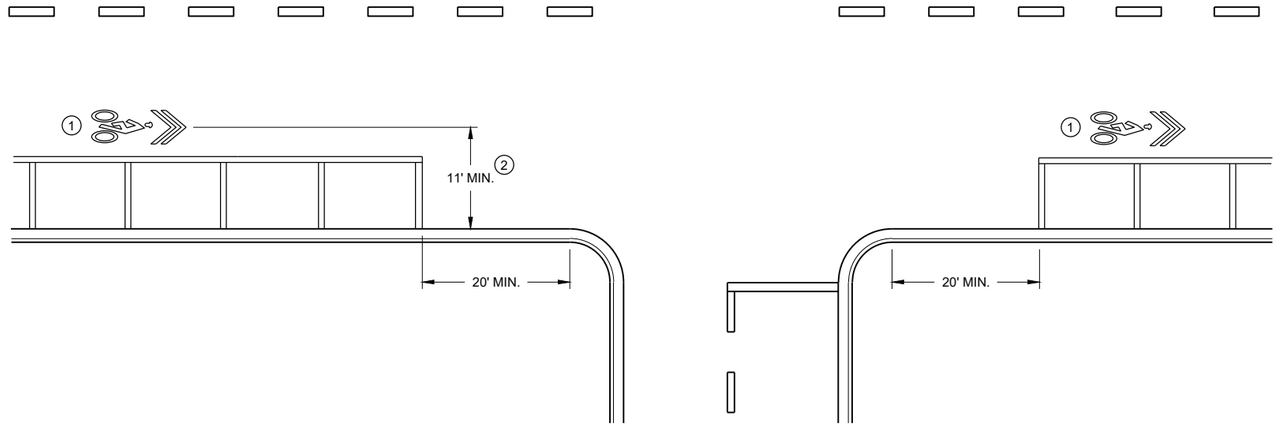
6
SDD 15C29-08a

GENERAL NOTES

1. MINIMUM OF ONE PER BLOCK, MAXIMUM OF 250 FEET.
2. OR TO EDGE OF PAVEMENT WITHOUT CURB.



WITHOUT PARKING



WITH PARKING

6

SDD 15C29-08b

PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

6

SDD 15C29-08b

LEGEND

- SIGN ON PERMANENT SUPPORT
- DELINEATOR, FLEXIBLE/TUBULAR MARKER
- DIRECTION OF TRAFFIC

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

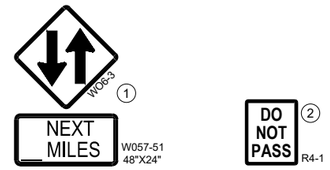
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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

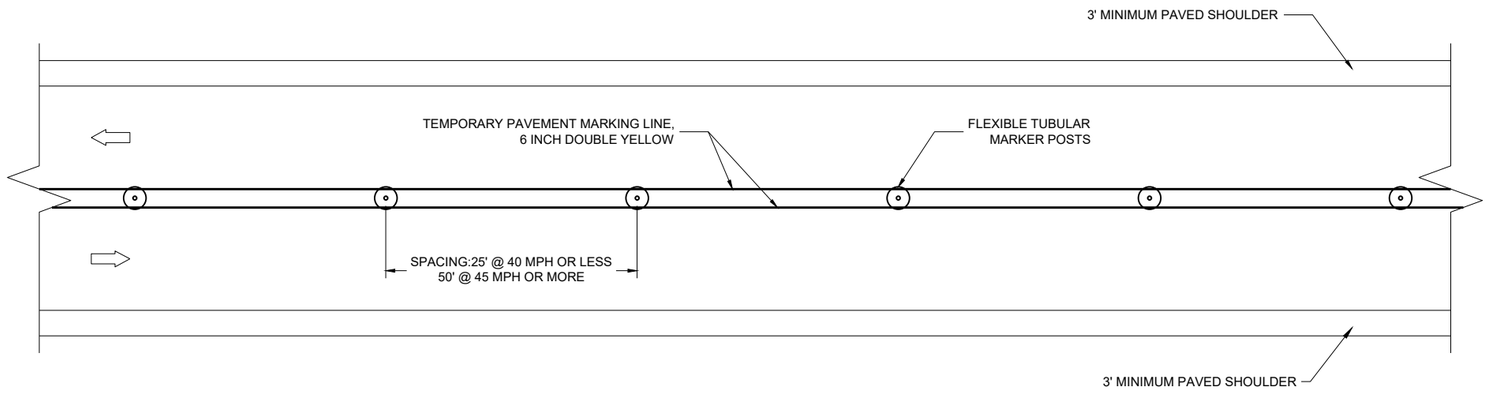
A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC AT 50 FOOT SPACING.

COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING LINE, 6 INCH DOUBLE YELLOW.

PARTIAL NUMBERS ON SIGNS SHALL BE DISPLAYED AS A WHOLE NUMBER(AS NEEDED) FOLLOWED BY A FRACTION. SIGNS SHALL NOT DISPLAY NUMBERS IN DECIMAL FORM.



1. THE WO6-3 AND WO57-51 SHALL BE LOCATED 200 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND / OR 500 FEET BEYOND ANY SIDE ROAD. THE R4-1 SHALL BE LOCATED 1000 FEET BEYOND THE WO6-3 AND THE WO57-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN THE SIGNS.
2. CONVENTIONAL: 24" X 30"
   FREEWAY AND EXPRESSWAY: 36" X 48"



TWO LANE, TWO WAY OPERATION

6

SDD 15D06-07

TRAFFIC CONTROL
TWO LANE TWO WAY
OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 15D06-07

LEGEND

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

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

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

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

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

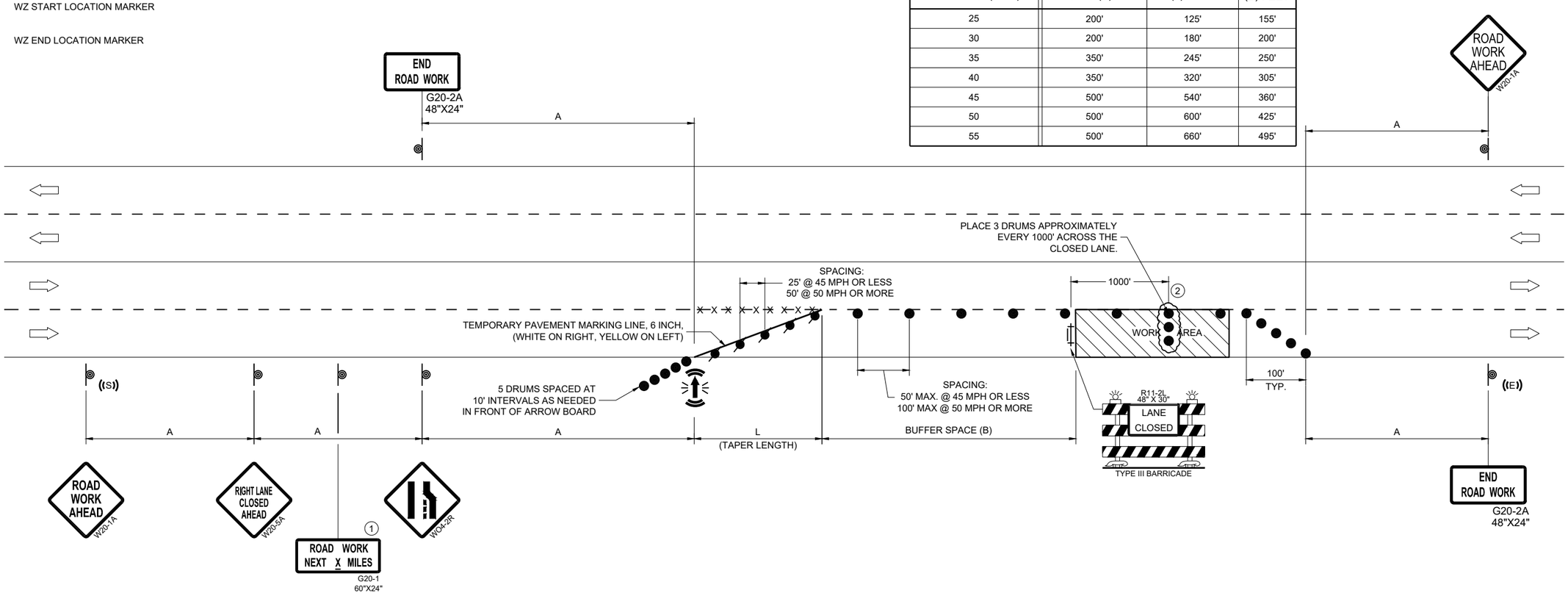
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

(2) DRUMS IN A CLOSED LANE 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.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	155'
30	200'	180'	200'
35	350'	245'	250'
40	350'	320'	305'
45	500'	540'	360'
50	500'	600'	425'
55	500'	660'	495'



TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 15D20-12b

LEGEND

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

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

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

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

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

DUE TO LACK OF SHOULDER/MEDIAN, ARROW BOARD IS PLACED AT THE THE END OF THE TAPER.

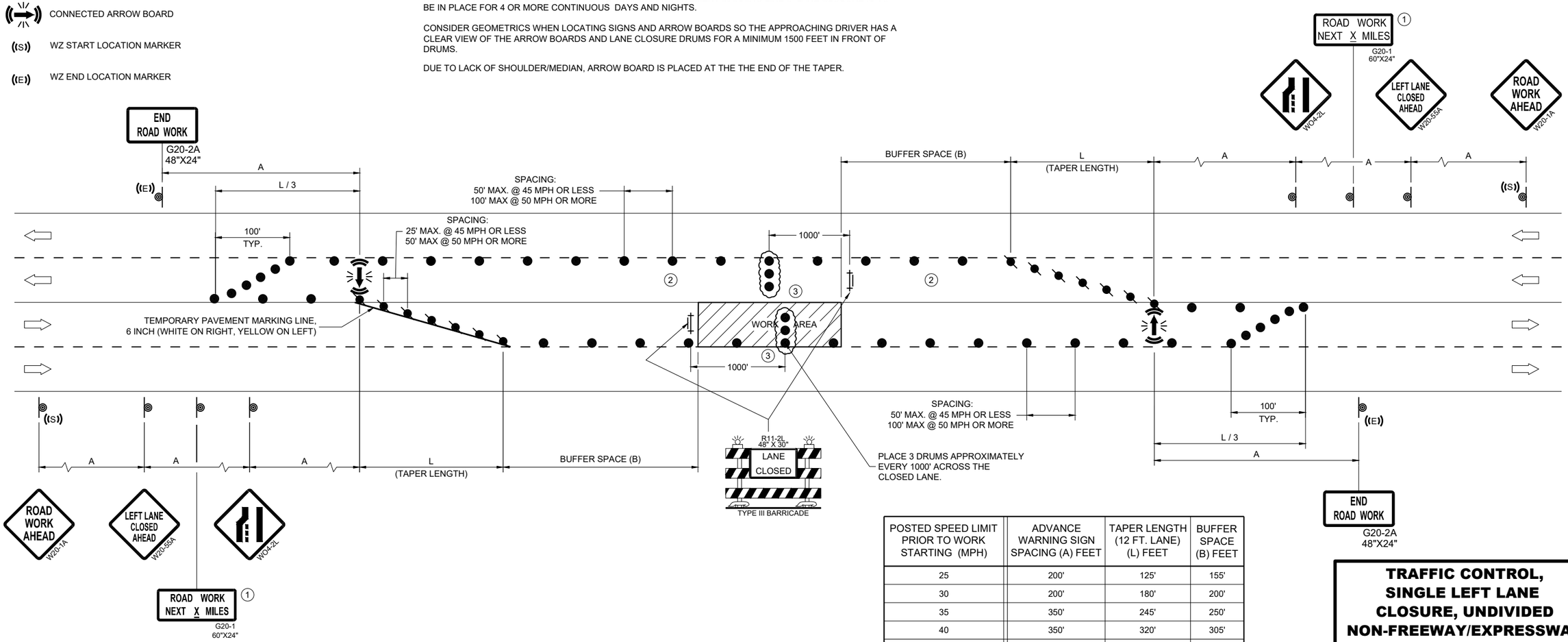
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

(2) LANE MAY BE OPENED WHEN WORKERS ARE NOT PRESENT IN THE WORK AREA.

DRUMS IN A CLOSED LANE 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.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	155'
30	200'	180'	200'
35	350'	245'	250'
40	350'	320'	305'
45	500'	540'	360'
50	500'	600'	425'
55	500'	660'	495'

TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

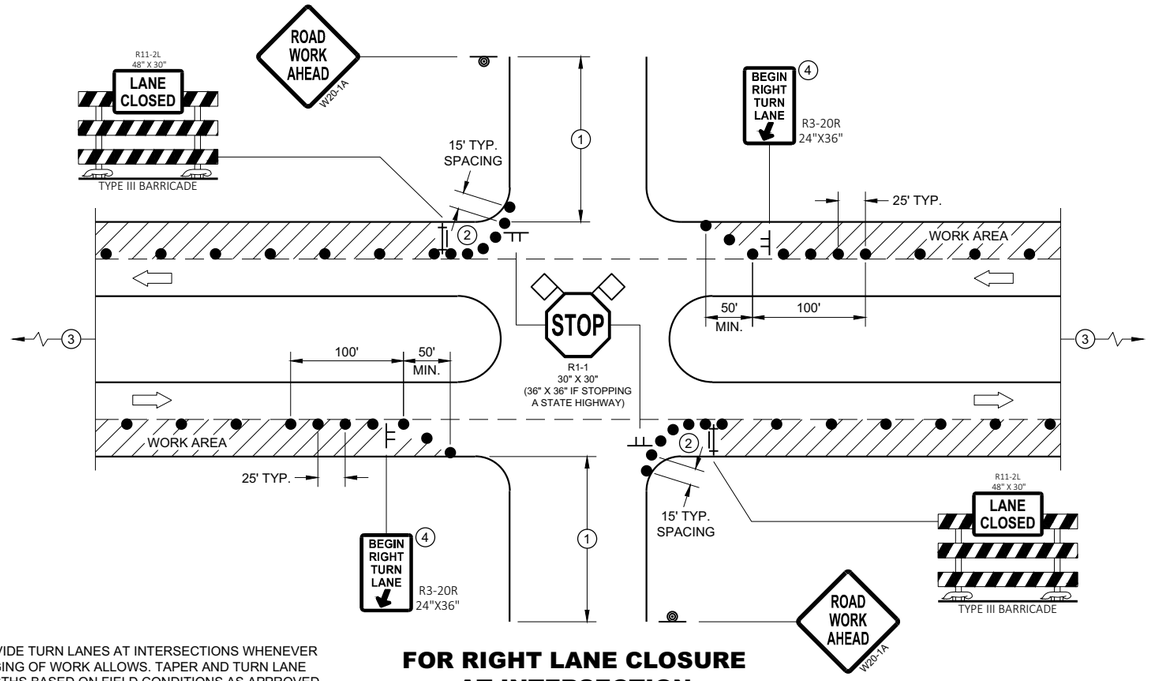
APPROVED

May 2026
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

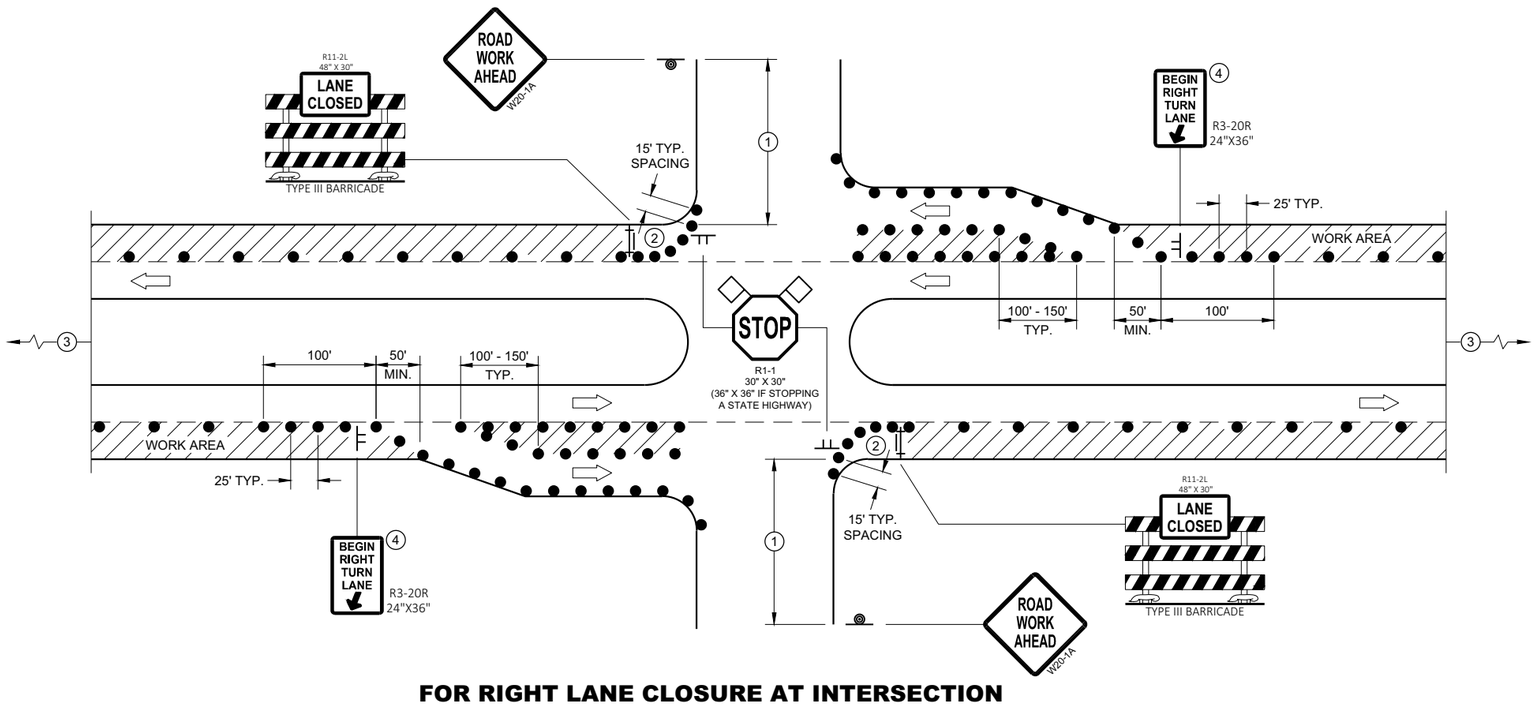
FHWA

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SDD 15D20-12c



FOR RIGHT LANE CLOSURE AT INTERSECTION

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

BARRICADES IN A CLOSED LANE 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.

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

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

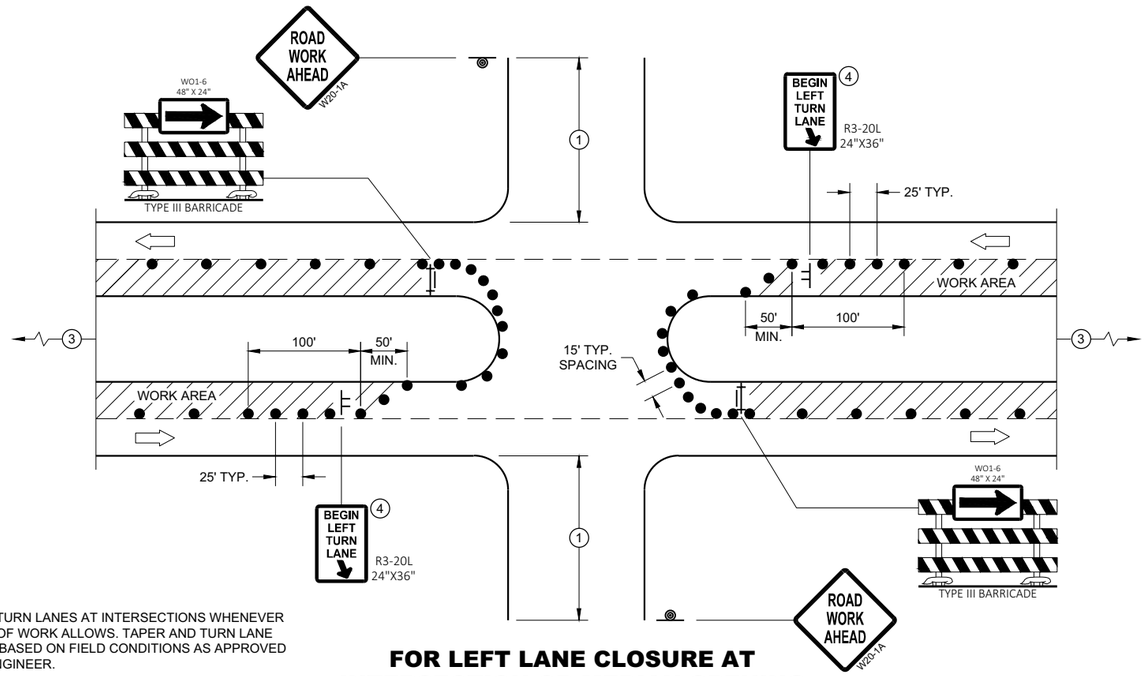
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

BARRICADES IN A CLOSED LANE 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.

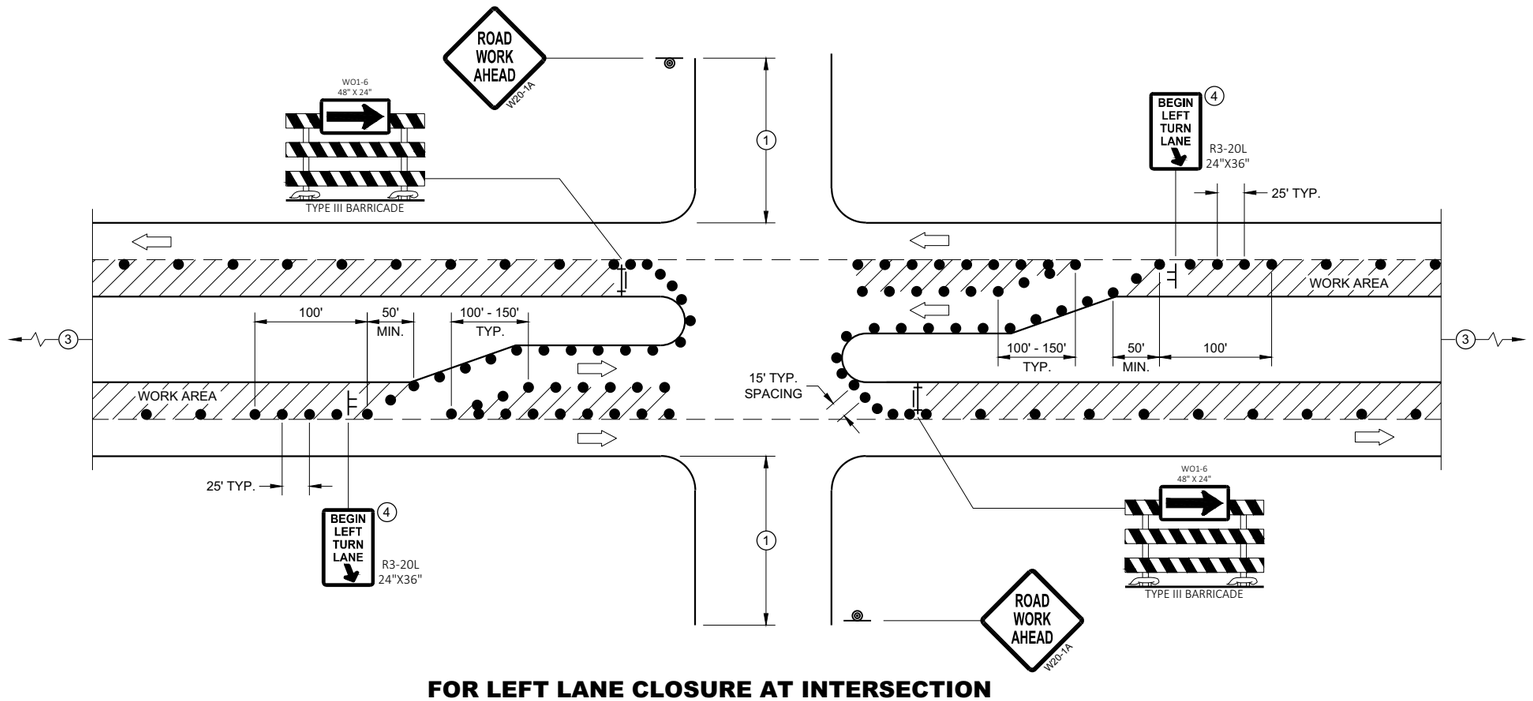
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

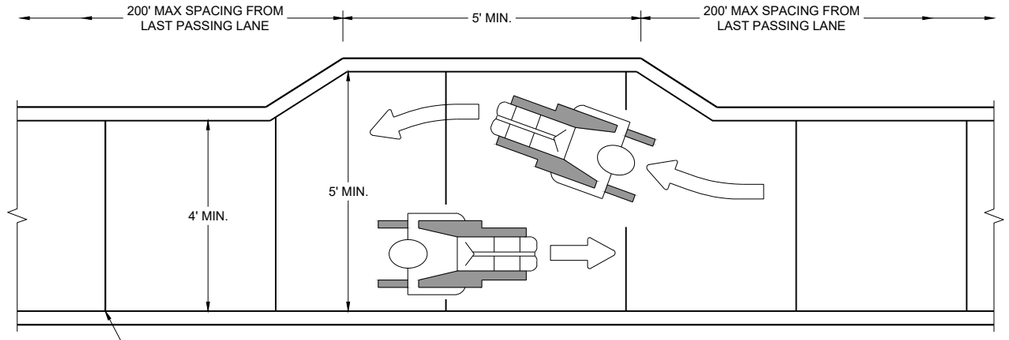
FHWA

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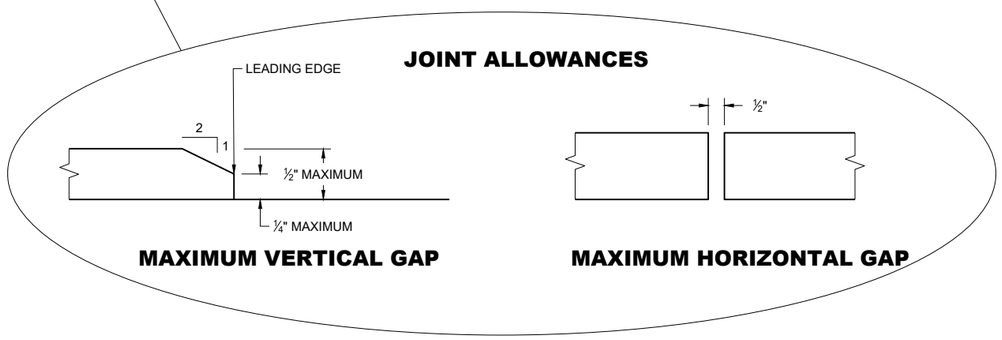
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NARROW SIDEWALK PASSING DETAIL



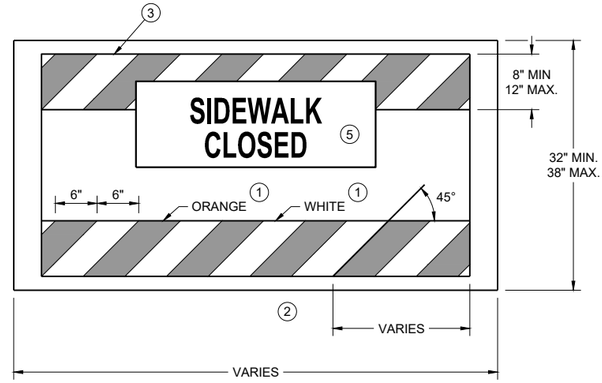
MAXIMUM VERTICAL GAP

MAXIMUM HORIZONTAL GAP

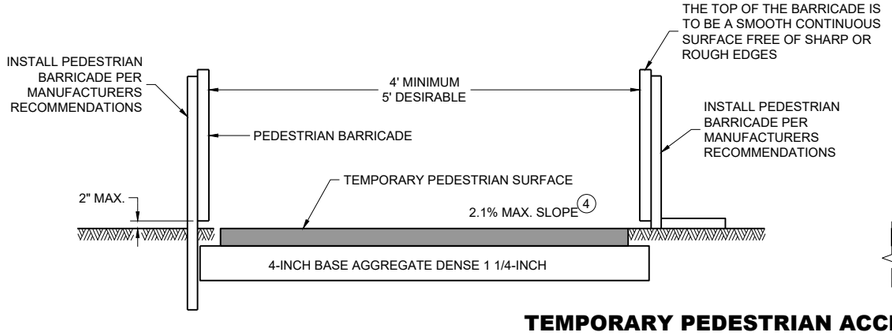
GENERAL NOTES

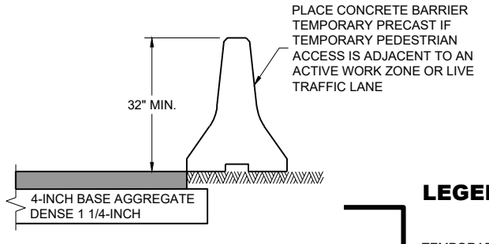
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
3. PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.
* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.
4. WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.
5. WHERE SIGNS FOR TEMPORARY PEDESTRIAN ACCOMMODATIONS ARE SHOWN BEING PLACED BEHIND TEMPORARY PEDESTRIAN BARRICADE, THE SIGNS MAY BE MOUNTED ON THE TEMPORARY PEDESTRIAN BARRICADE INSTEAD. A CORRUGATED POLYPROPYLENE OR POLYETHYLENE PLASTIC SIGN BASE SHALL BE USED IF MOUNTED ON THE BARRICADE. THE TOP OF THE SIGN SHALL BE MOUNTED BELOW THE TOP OF THE BARRICADE TO ALLOW A CONTINUOUS HAND-TRAILING EDGE.

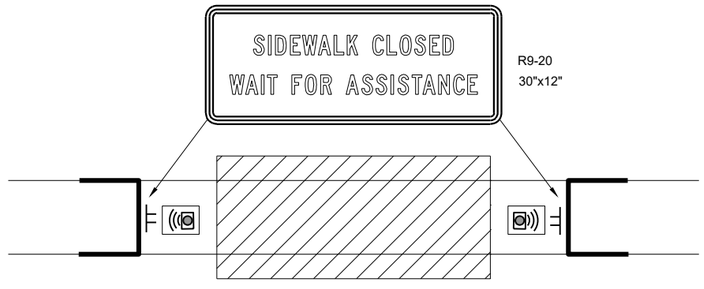


TEMPORARY PEDESTRIAN BARRICADE *





TEMPORARY PEDESTRIAN ACCESS



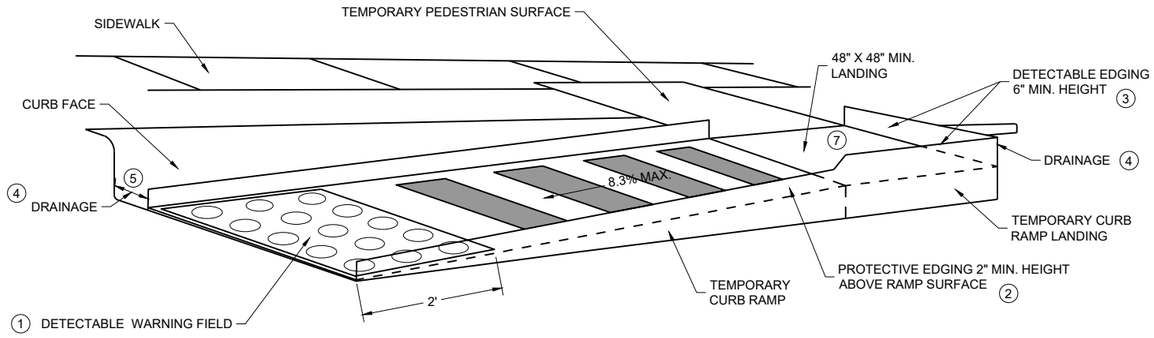
TEMPORARY PEDESTRIAN FLAGGING

LEGEND

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

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PERSPECTIVE VIEW

GENERAL NOTES

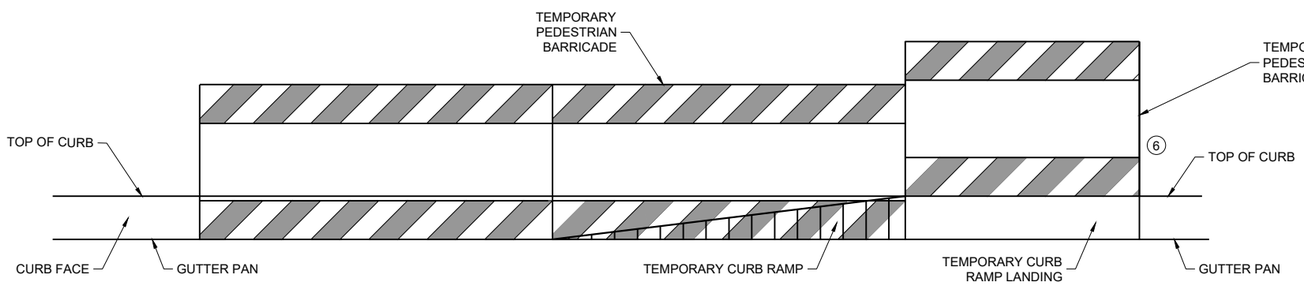
CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

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

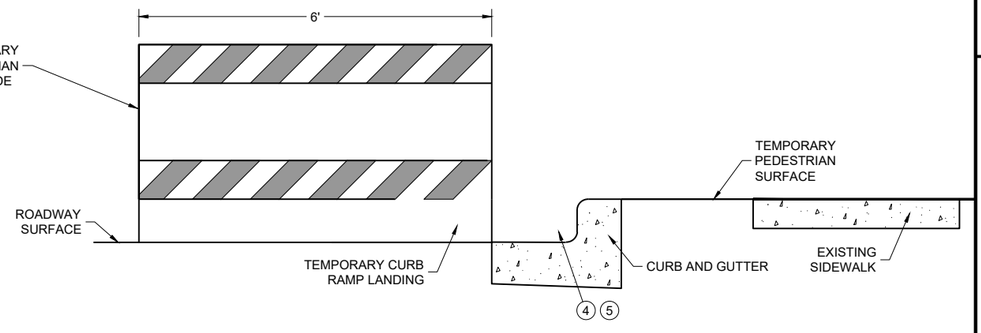
CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

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

1. INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.
2. PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
5. ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.
6. IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.
7. LANDING TO BE SLOPED A MAXIMUM OF 2.1% IN ALL DIRECTIONS OF PEDESTRIAN TRAVEL.



FRONT VIEW



SIDE VIEW

TEMPORARY CURB RAMP PARALLEL TO CURB

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

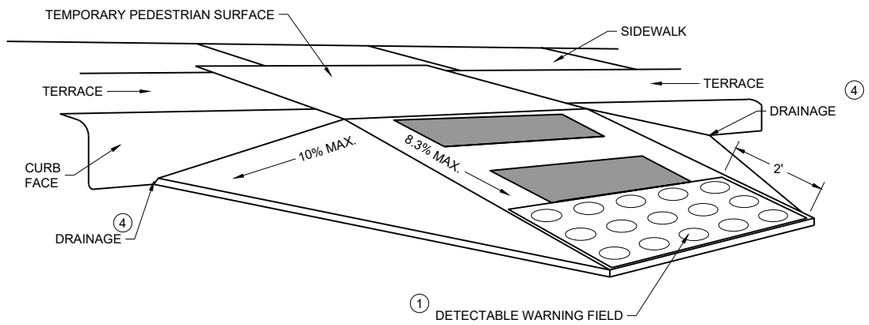
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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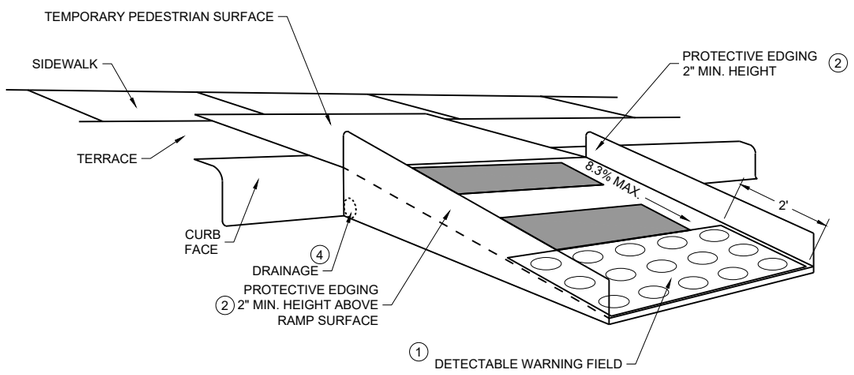
SDD 15D30-12b

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WITH SIDE APRON (5)



WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

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

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

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

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

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

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

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

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

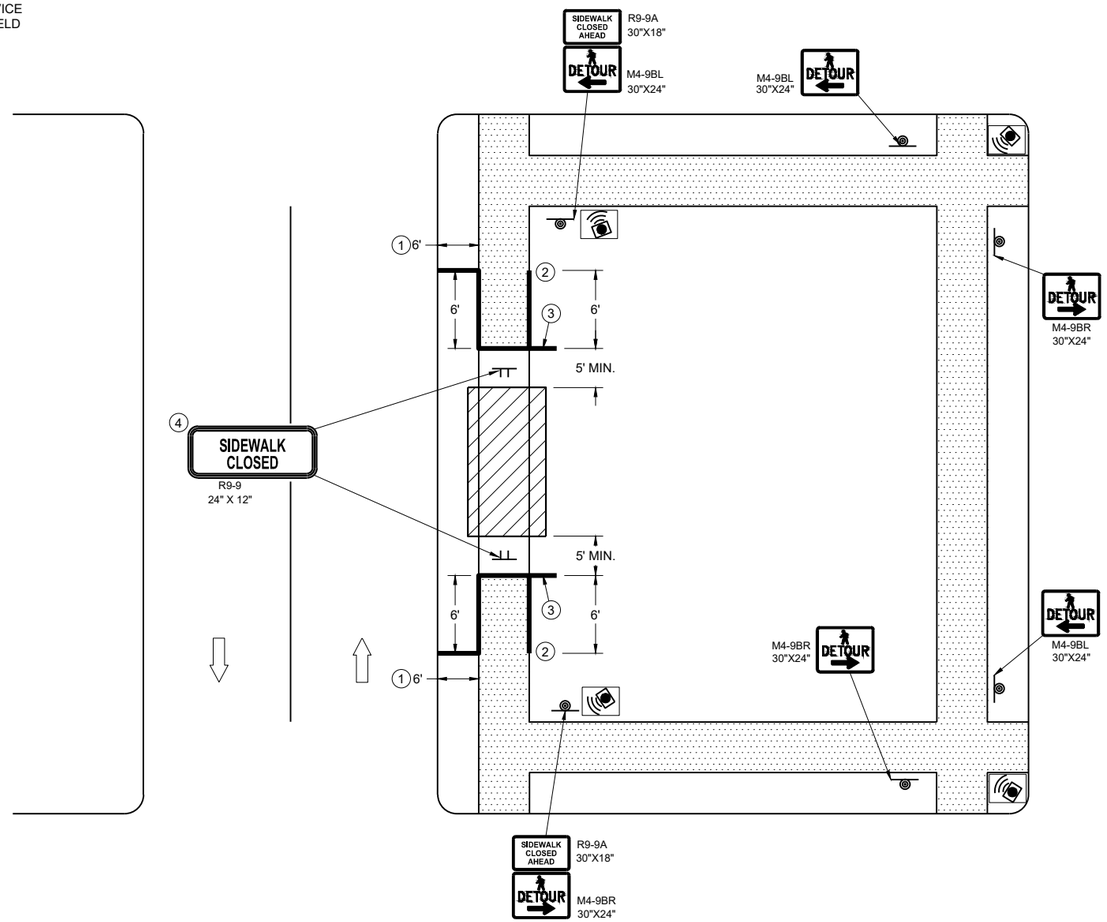
(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

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

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

LEGEND

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



SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

GENERAL NOTES

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

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

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

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

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

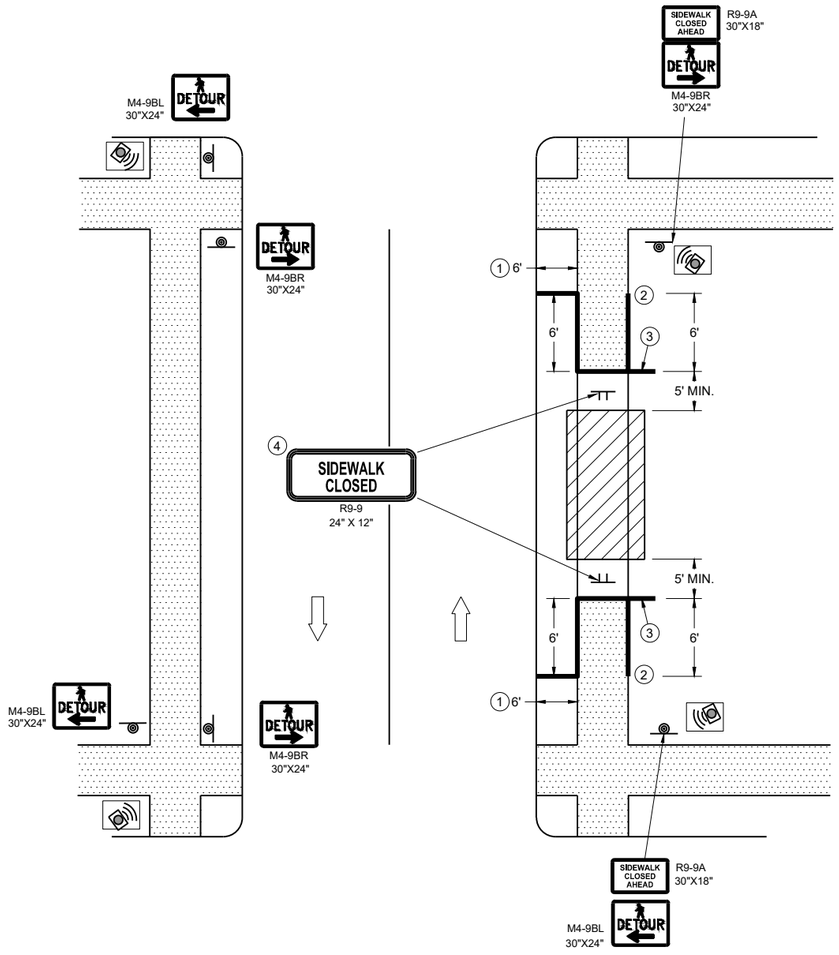
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 15D30-12f

LEGEND

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



SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES

GENERAL NOTES

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

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

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

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

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- CONCRETE BARRIER TEMPORARY PRECAST

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER L/2 W, LATERAL OFFSET (FT)					BUFFER SPACE (B) FEET
		10	11	12	13	14	
25	200	52	57	63	68	73	155
30	200	75	83	90	98	105	200
35	350	102	112	123	133	143	250
40	350	133	147	160	173	187	305
45	500	225	248	270	293	315	360

GENERAL NOTES

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

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

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON ANY "COVERED" OR "DOWNED" SIGNS.

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

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

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

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

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

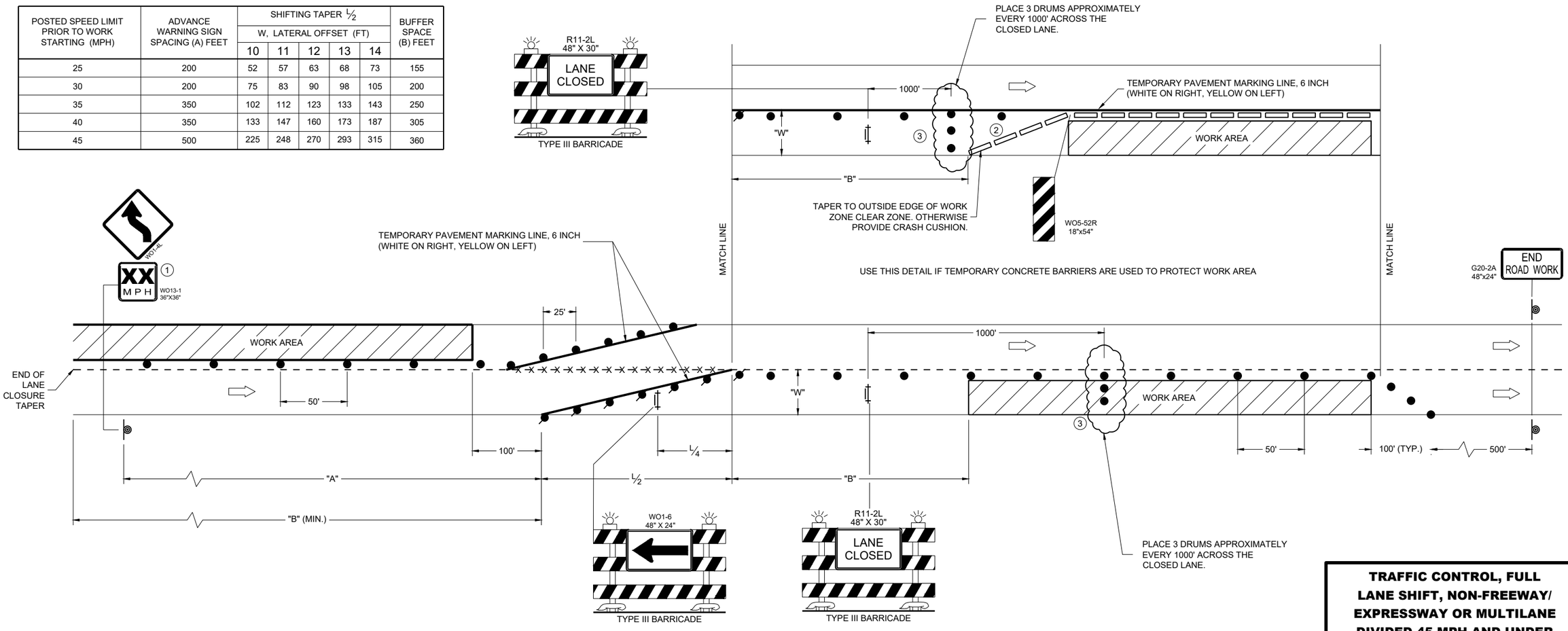
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER

SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL
CHANGE SUCH AS A CROSSOVER MANEUVER.

(1) USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

(2) BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
8:1 @ 45 MPH OR GREATER

(3) DRUMS IN A CLOSED LANE 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.



TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 15D40-08a

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- CONCRETE BARRIER TEMPORARY PRECAST

GENERAL NOTES

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

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

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT LEFT - REVERSE FOR SHIFTING RIGHT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON ANY "COVERED" OR "DOWNED" SIGNS.

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

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

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

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

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

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

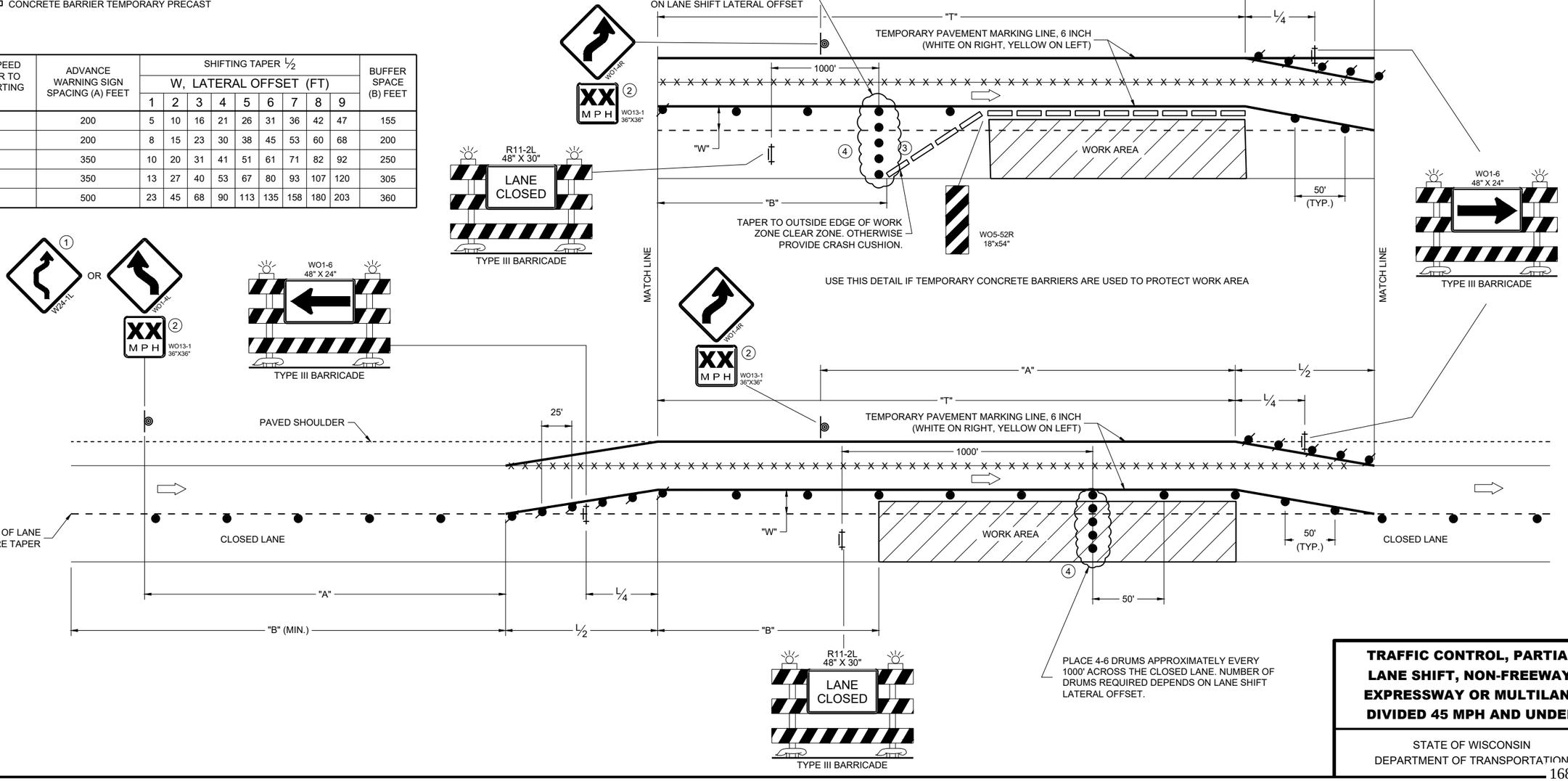
(1) USE ONLY WHEN T<600', OMIT WO1-4R.

(2) IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

(3) BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
8:1 @ 45 MPH OR GREATER

(4) DRUMS IN A CLOSED LANE 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.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER 1/2 W, LATERAL OFFSET (FT)									BUFFER SPACE (B) FEET
		1	2	3	4	5	6	7	8	9	
25	200	5	10	16	21	26	31	36	42	47	155
30	200	8	15	23	30	38	45	53	60	68	200
35	350	10	20	31	41	51	61	71	82	92	250
40	350	13	27	40	53	67	80	93	107	120	305
45	500	23	45	68	90	113	135	158	180	203	360

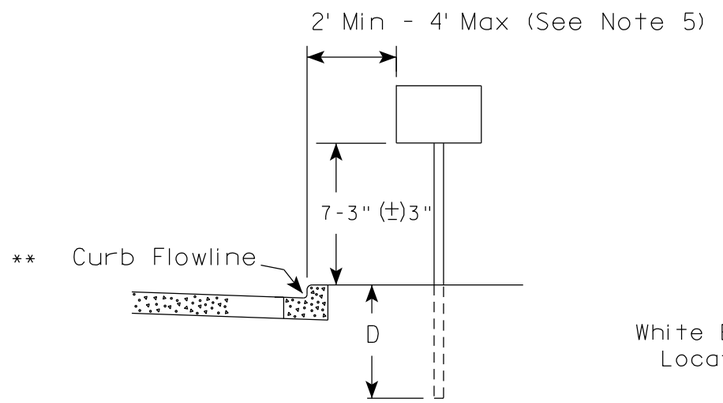


TRAFFIC CONTROL, PARTIAL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

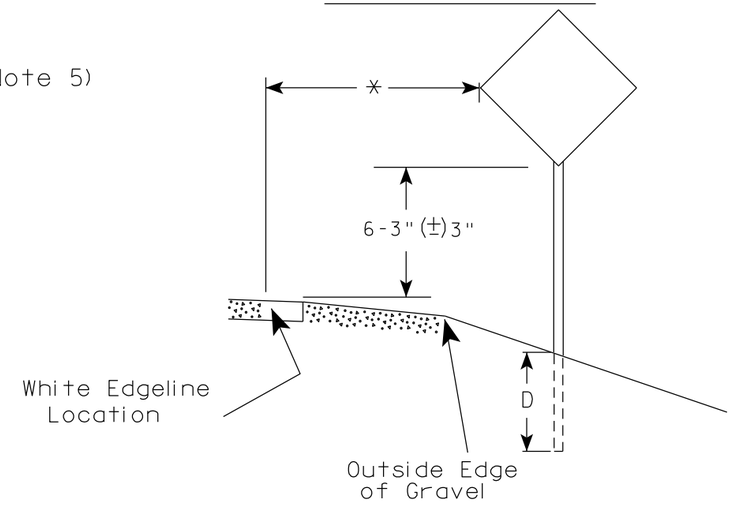
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

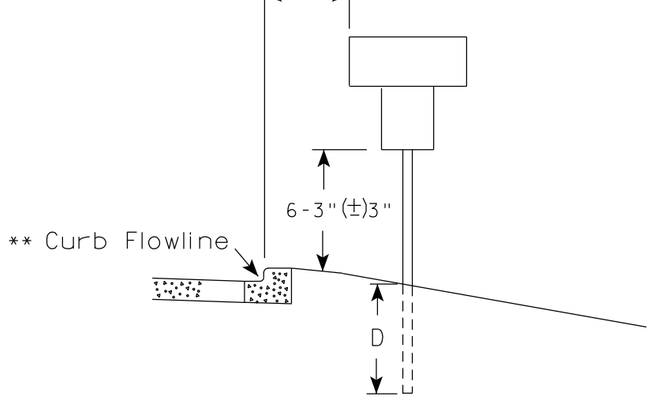
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SDD 15D40-08c

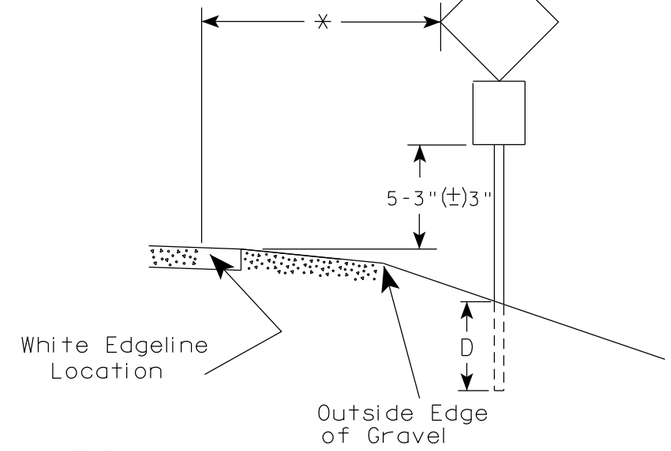
URBAN AREA



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.

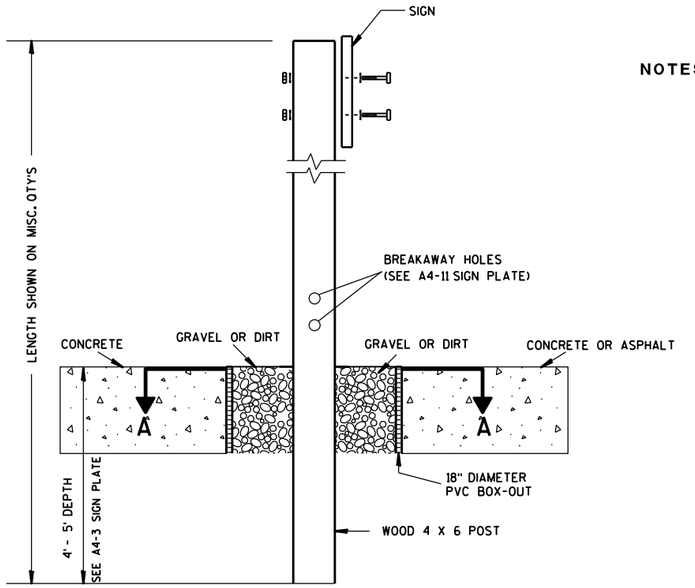
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

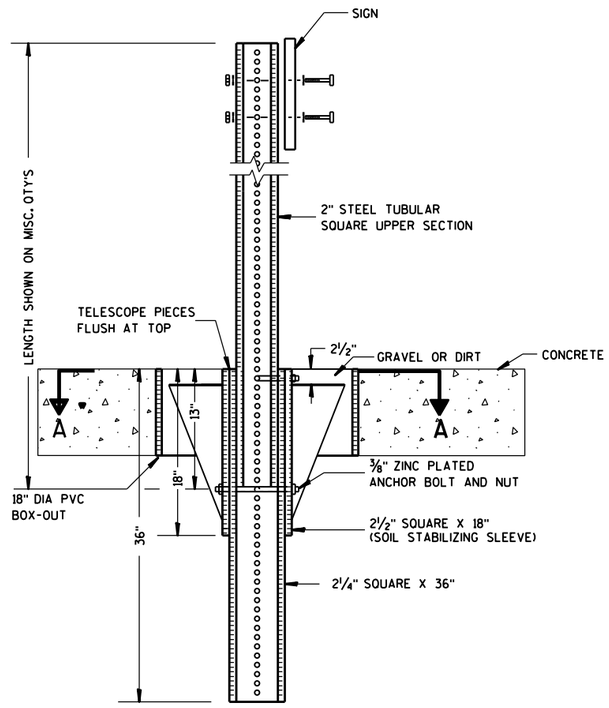
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 169	E



ELEVATION VIEW

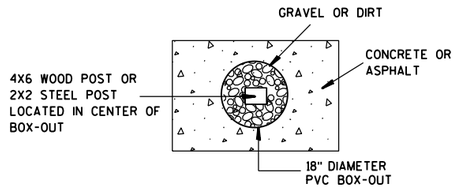
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

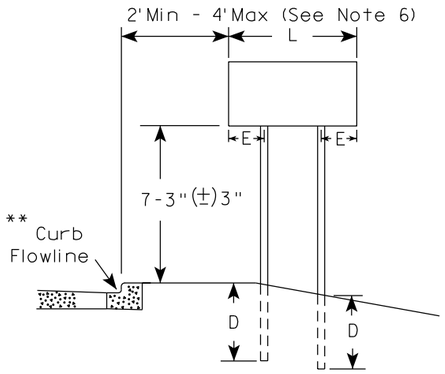
APPROVED Matthew R Rauch
for State Traffic Engineer

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

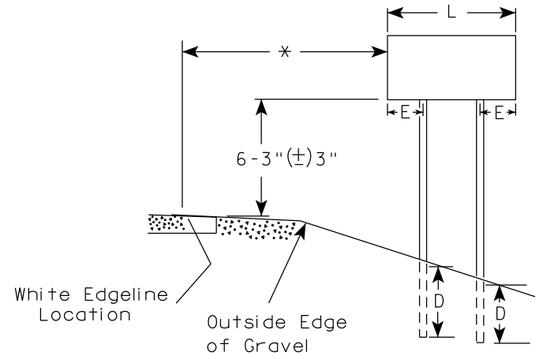
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

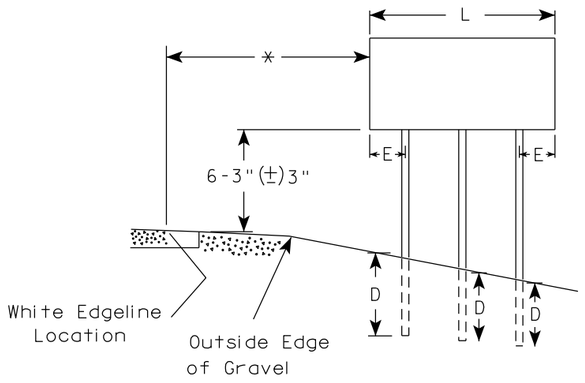
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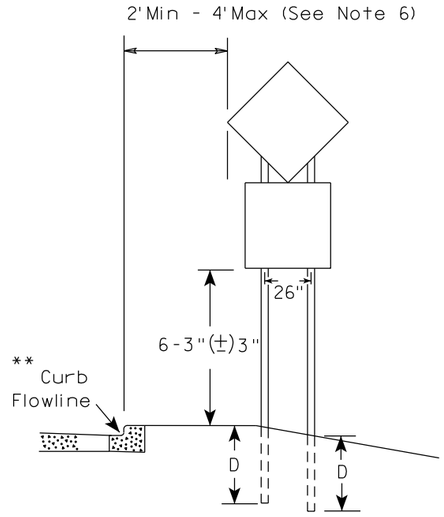
URBAN AREA



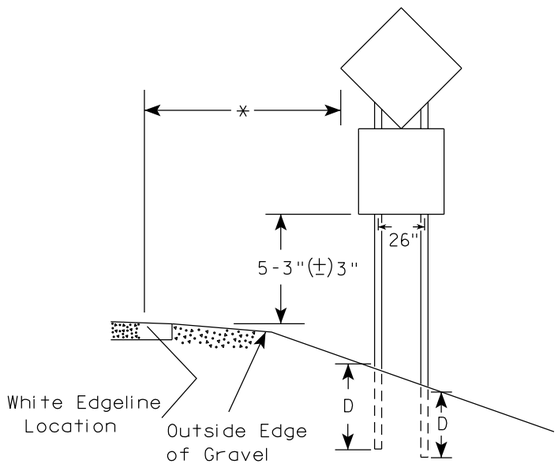
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) 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'

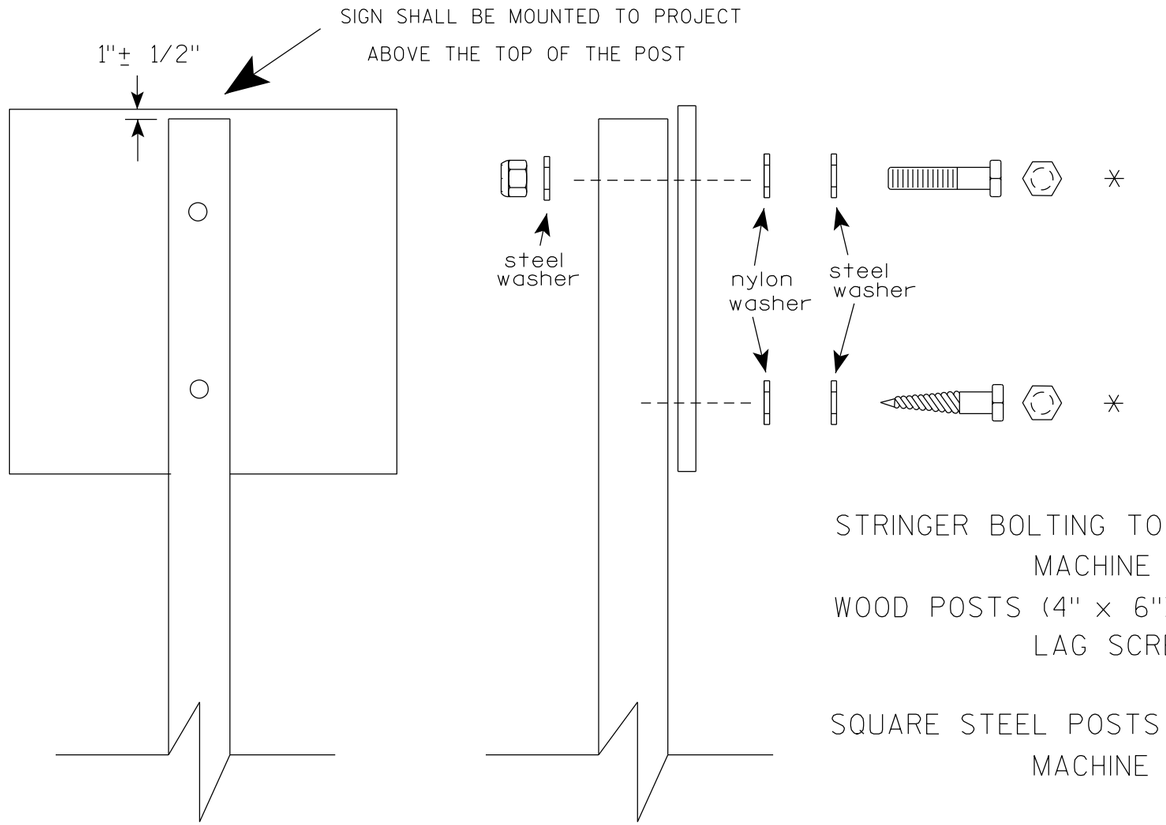
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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: 171	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

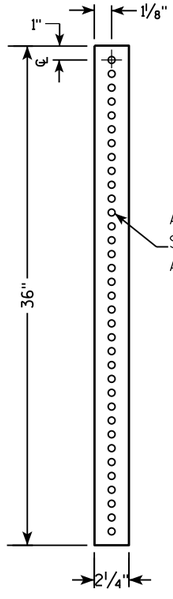
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

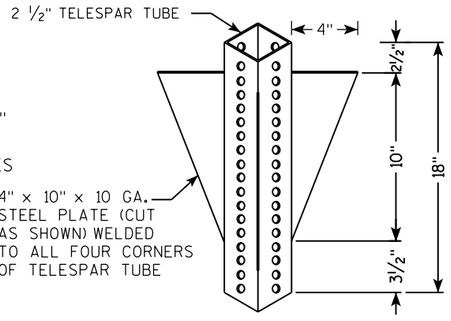
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

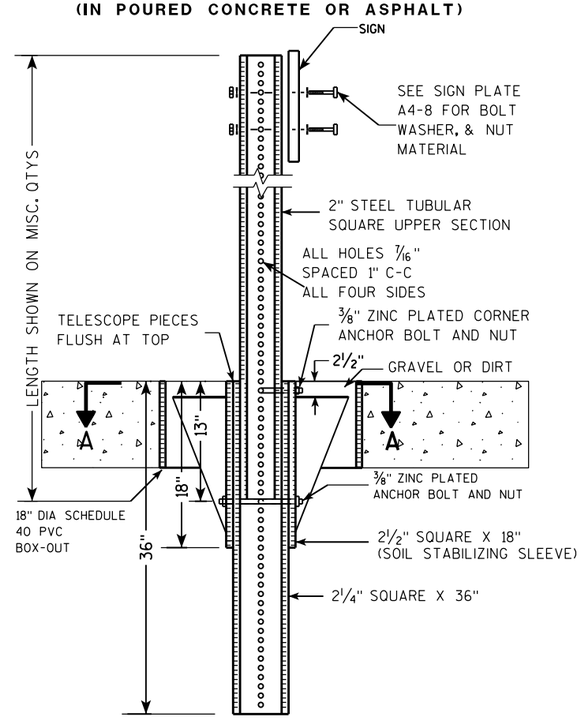
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



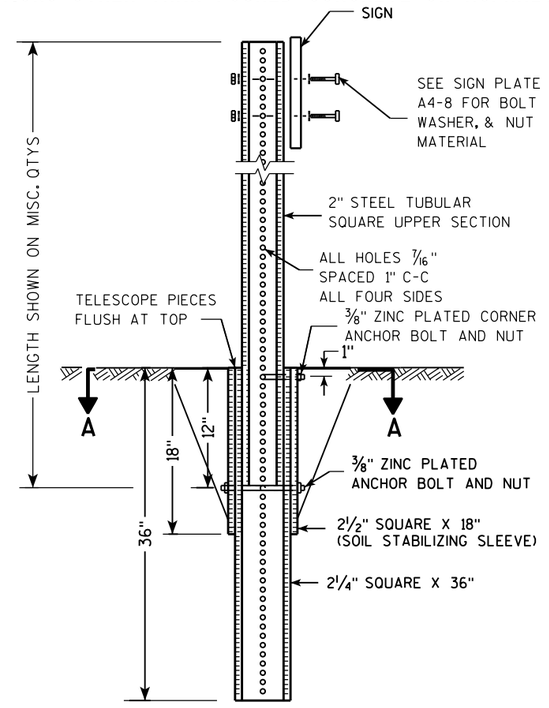
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

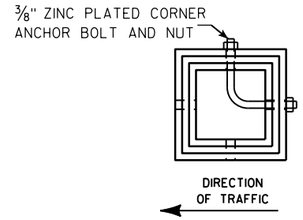


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

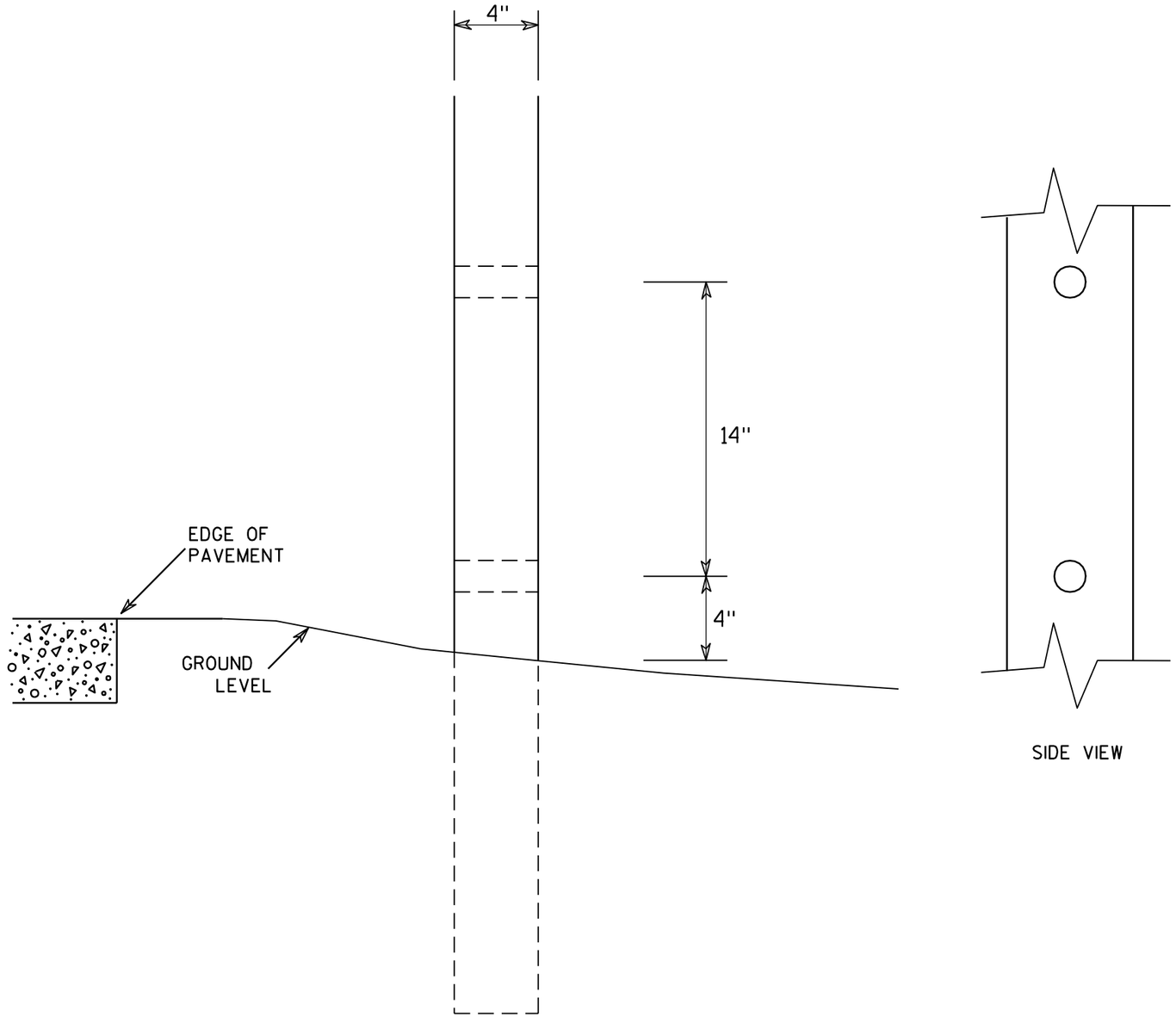
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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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.

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4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

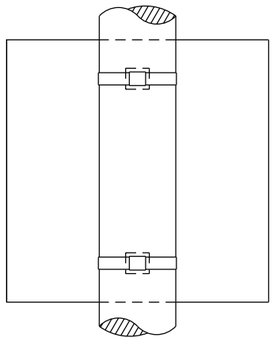
APPROVED Chester J Spang
for State Traffic Engineer

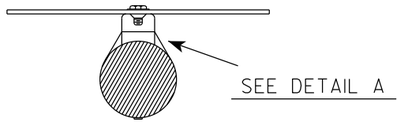
DATE 3/27/97 PLATE NO. A4-11.2

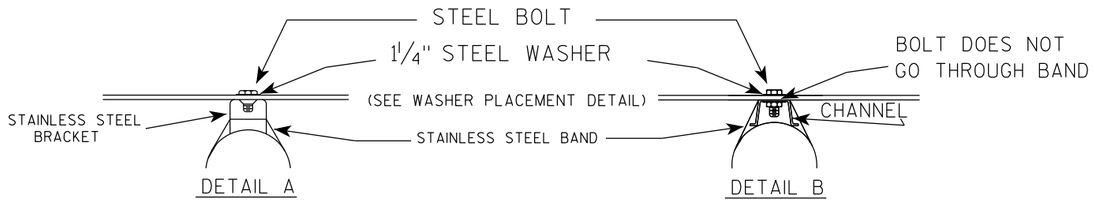
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 174	E

BANDING

SINGLE SIGN



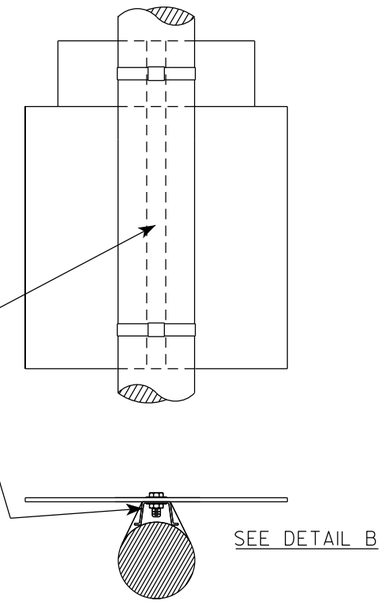




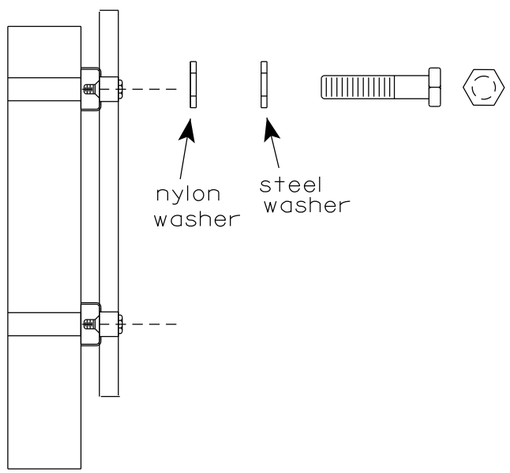
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

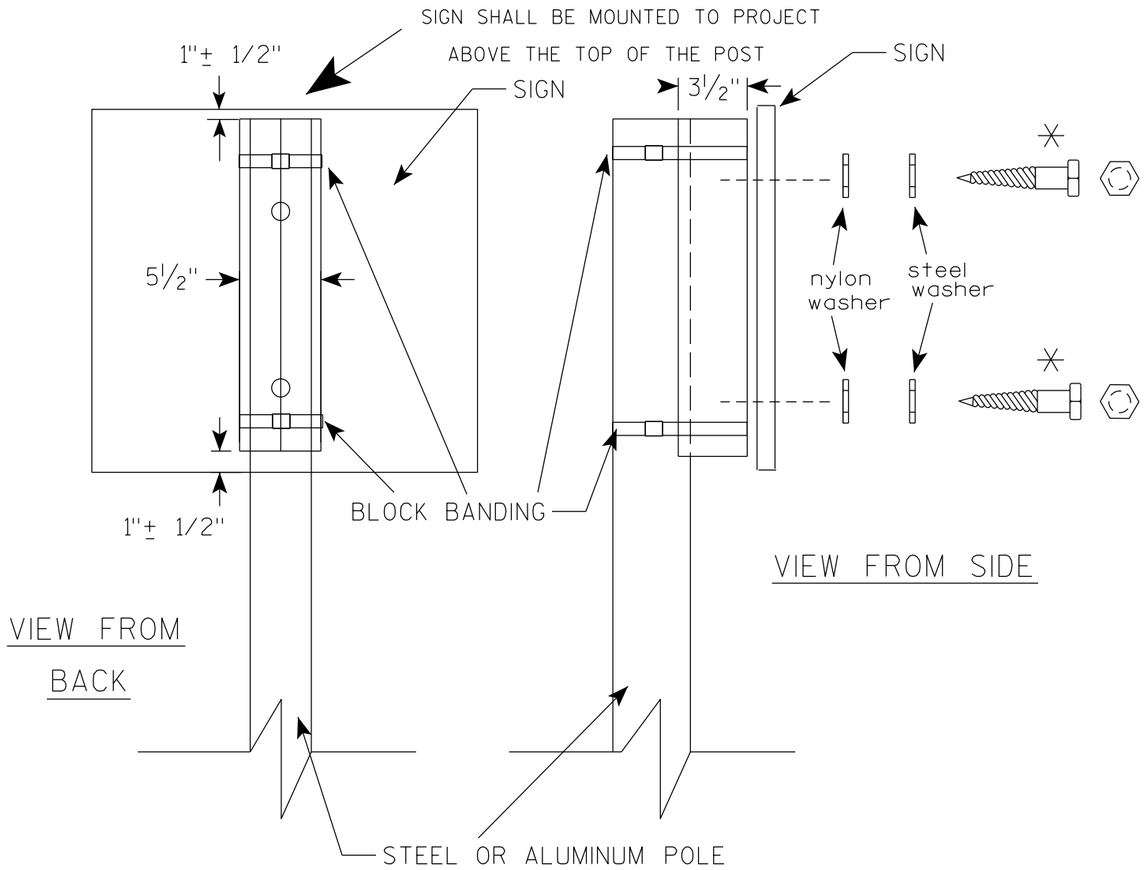
DATE 6/10/19 PLATE NO. A5-9.4

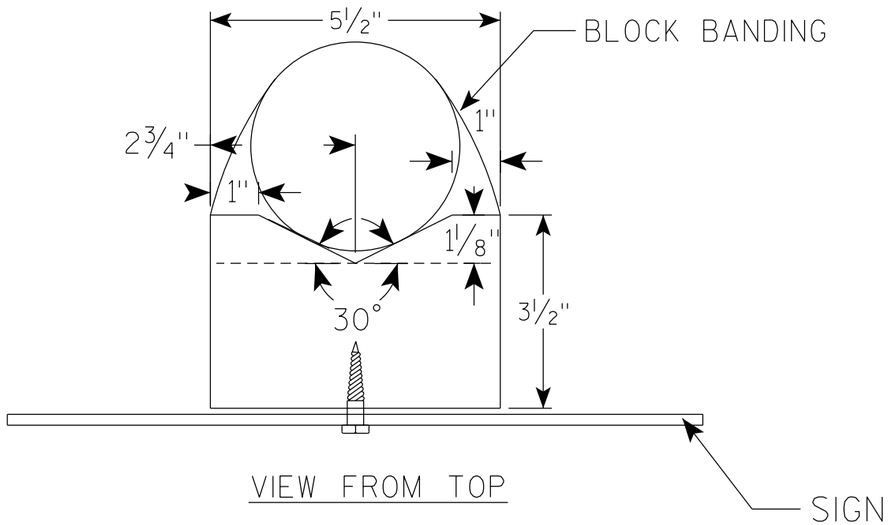
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 175	E

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

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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)

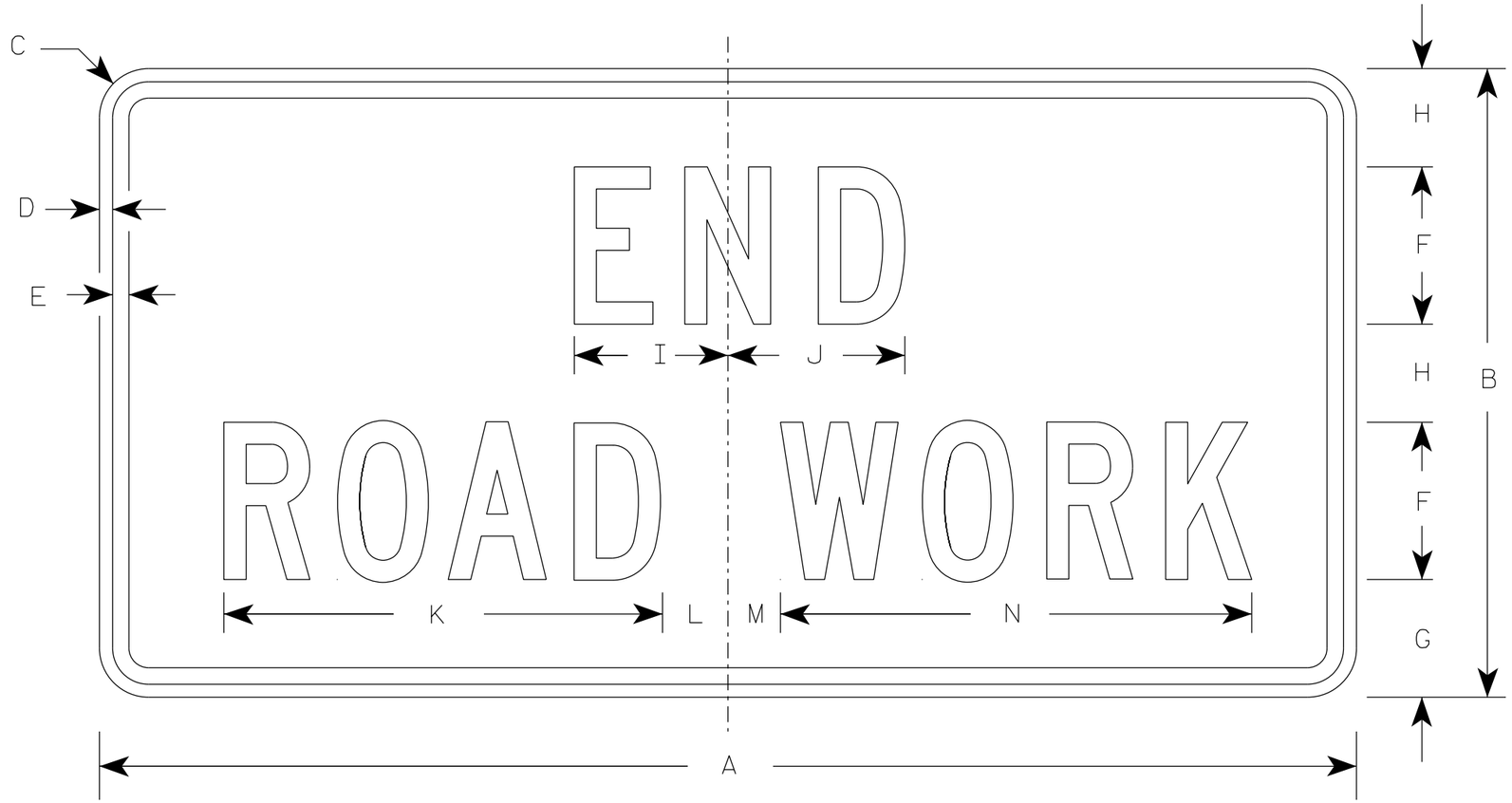
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 176 E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	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	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5
2	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
2M	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
3	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
4	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
5	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0

STANDARD SIGN

G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

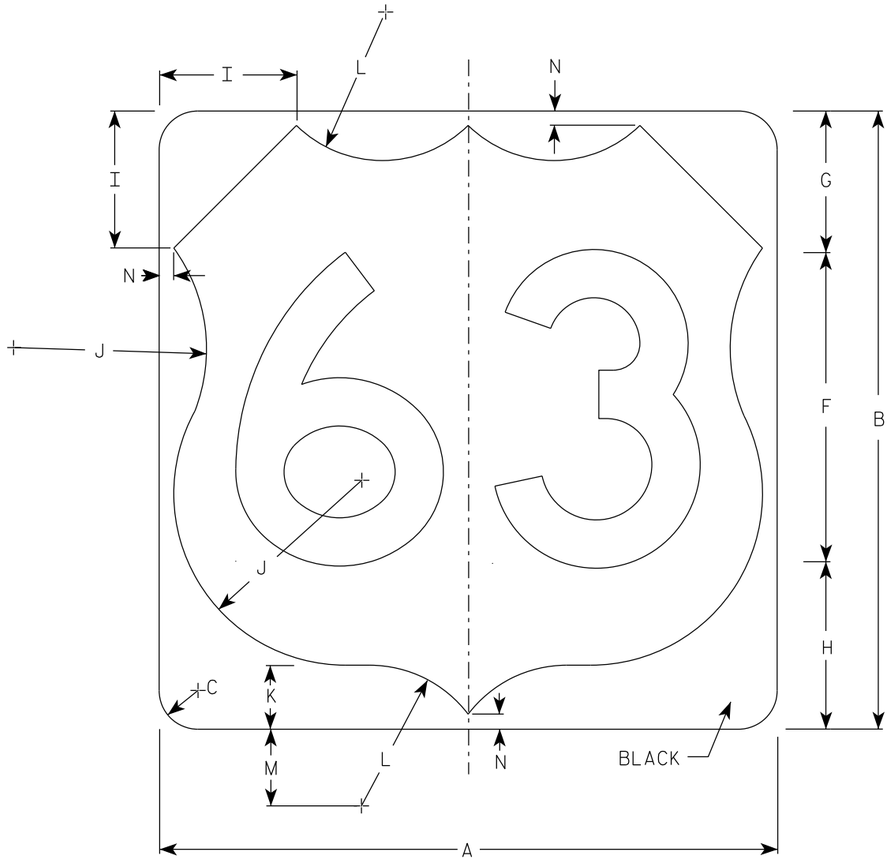
DATE 1/26/2023 PLATE NO. G20-2A.10

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

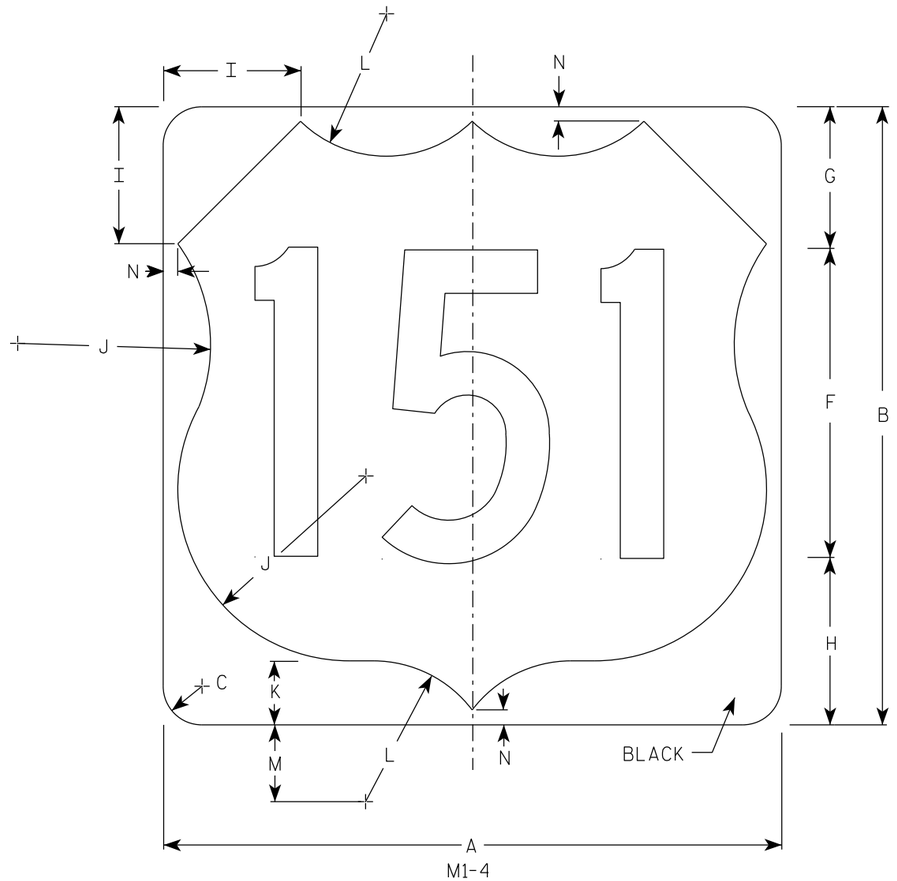
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\G202A.dgn PLOT DATE : 26-JAN 2023 8:27 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

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



M1-4



M1-4

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	24	1 ½			12	5 ½	6 ½	5	7 ½	2 ½	5 ½	3	½													4.0
2M	24	24	1 ½			12	5 ½	6 ½	5	7 ½	2 ½	5 ½	3	½													4.0
3	36	36	2 ¼			18	8 ¼	9 ¼	7 ¼	11 ¼	3 ¾	8 ¼	4 ½	¾													9.0
4	36	36	2 ¼			18	8 ¼	9 ¼	7 ¼	11 ¼	3 ¾	8 ¼	4 ½	¾													9.0
5	36	36	2 ¼			18	8 ¼	9 ¼	7 ¼	11 ¼	3 ¾	8 ¼	4 ½	¾													9.0

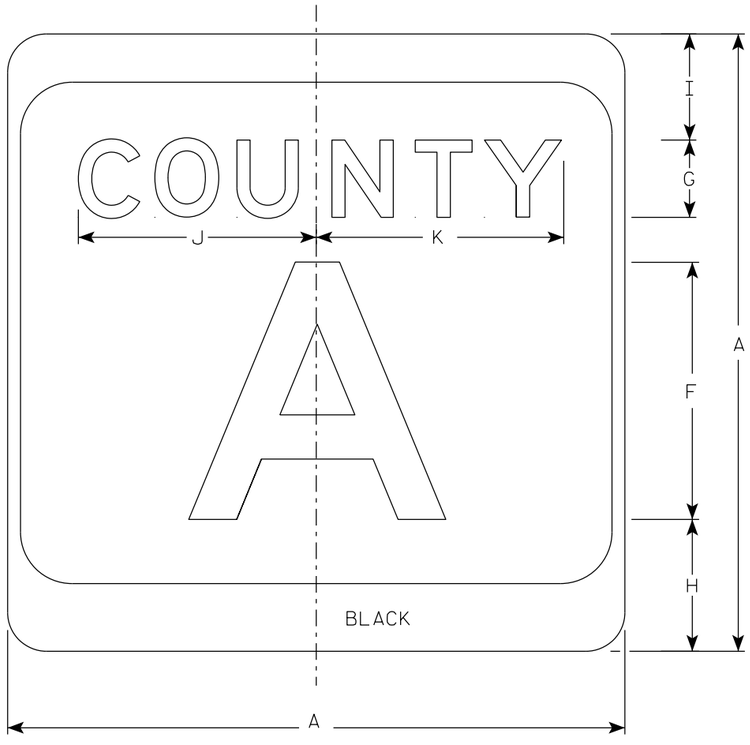
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

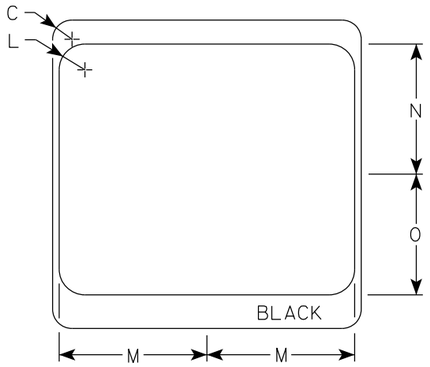
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/20/22 PLATE NO. M1-4.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 178 E

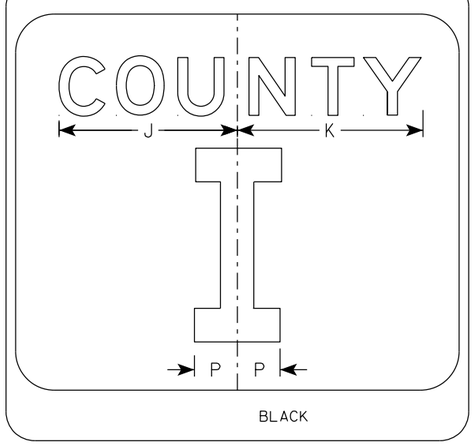


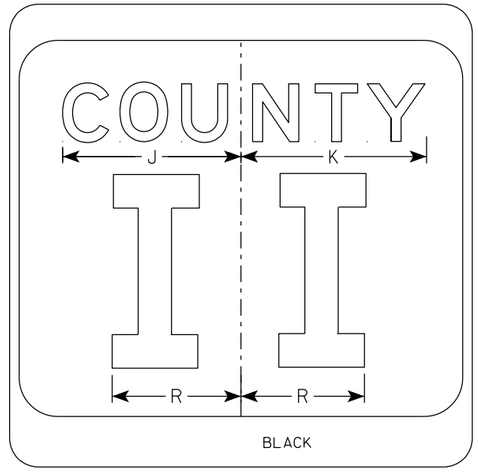
M1-5A



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White & Black
   Message - Black
3. Message Series - see Note 4
4. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
5. Substitute appropriate letters & optically center 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																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
2M	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

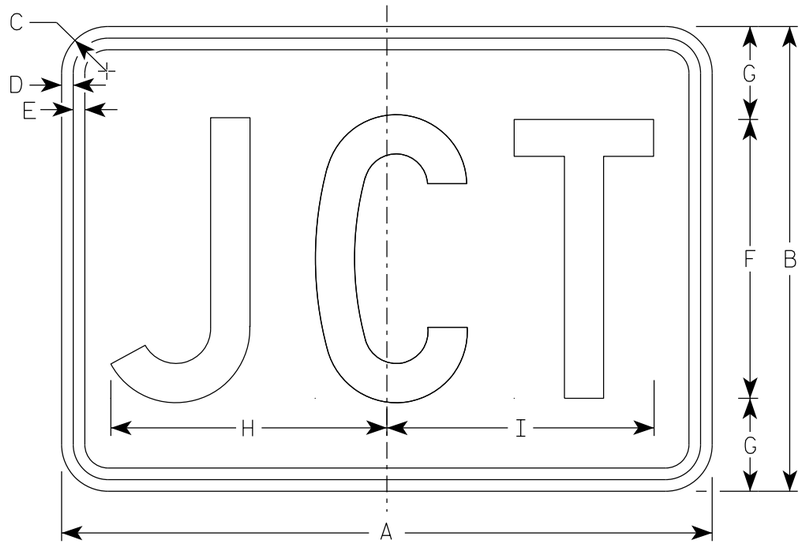
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-5A.9

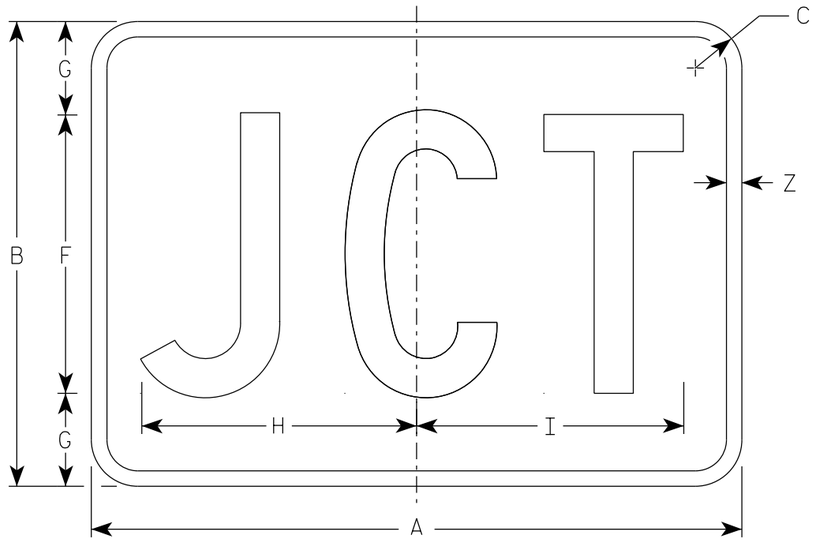
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M15A.dgn PLOT DATE : 8-NOV 2022 8:26 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MP2-1 Background - White
   Message - Blue
   MR2-1 Background - Brown
   Message - Yellow

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	15	1 1/2	3/8	3/8	9	3	8 7/8	8 5/8																	1/2	2.20
2M	21	15	1 1/2	3/8	3/8	9	3	8 7/8	8 5/8																	1/2	2.20
3	30	21	1 1/2	3/8	3/8	13	4	12 7/8	12 3/8																	1/2	4.40
4	30	21	1 1/2	3/8	3/8	13	4	12 7/8	12 3/8																	1/2	4.40
5	30	21	1 1/2	3/8	3/8	13	4	12 7/8	12 3/8																	1/2	4.40

STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

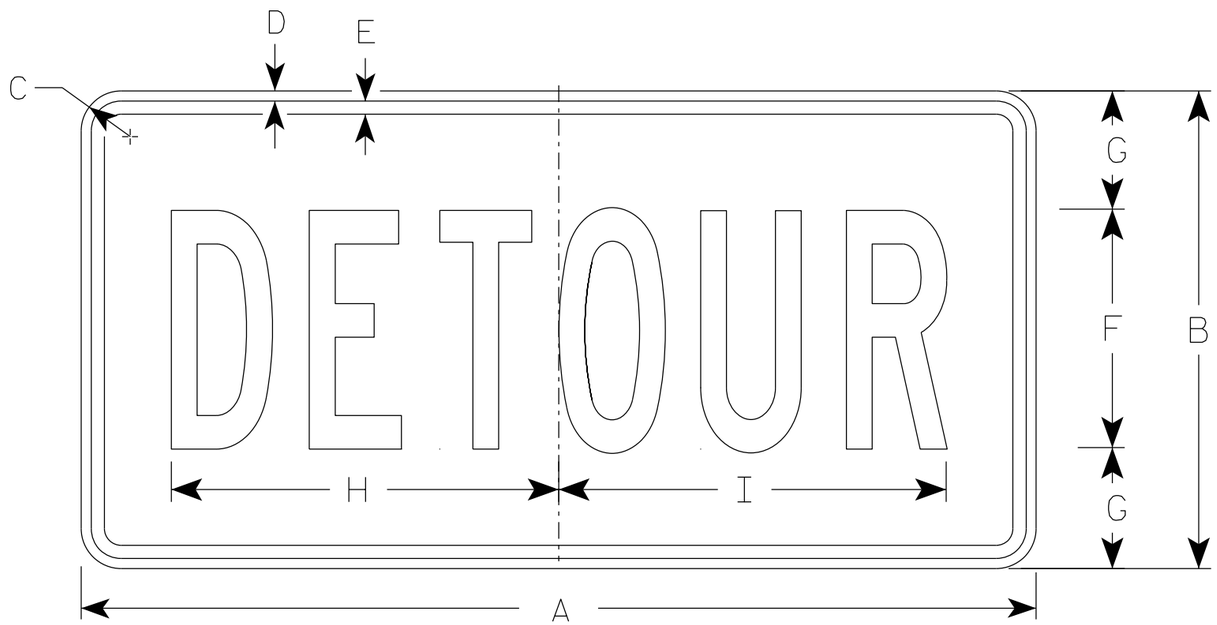
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/8/2023 PLATE NO. M2-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 180 | 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

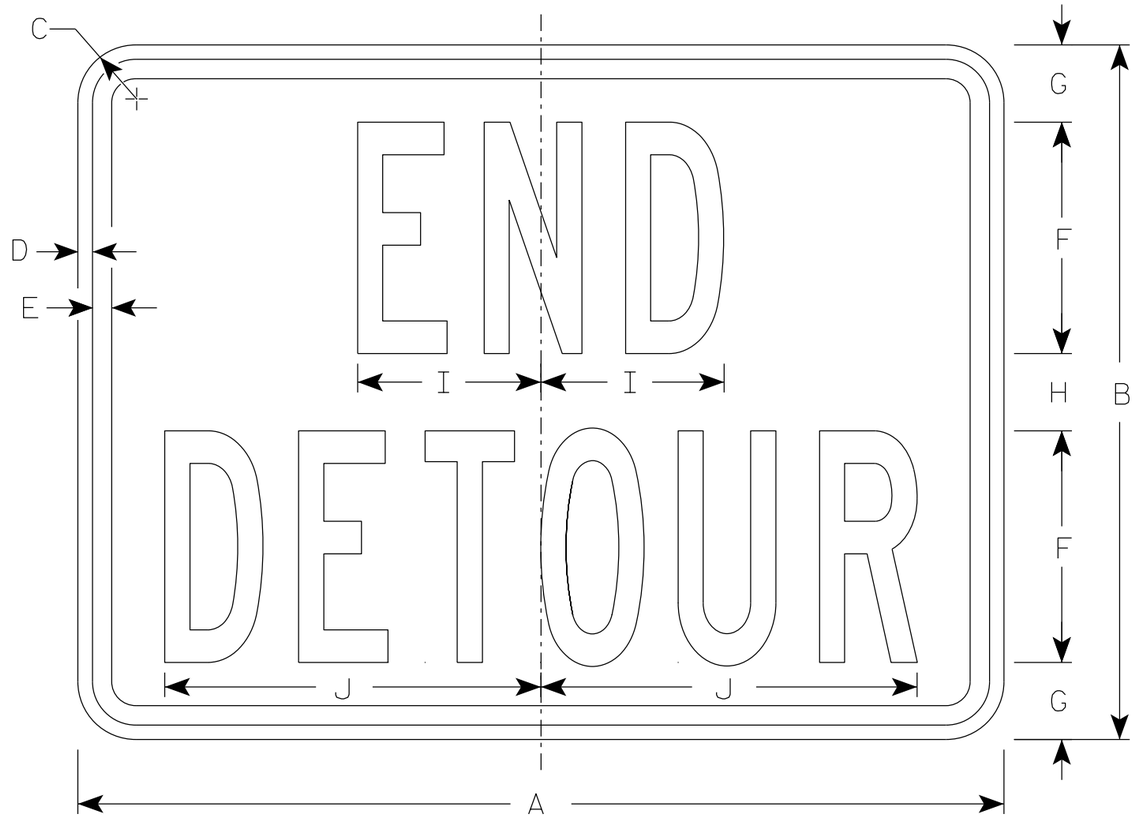
STANDARD SIGN
M4-8

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: 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

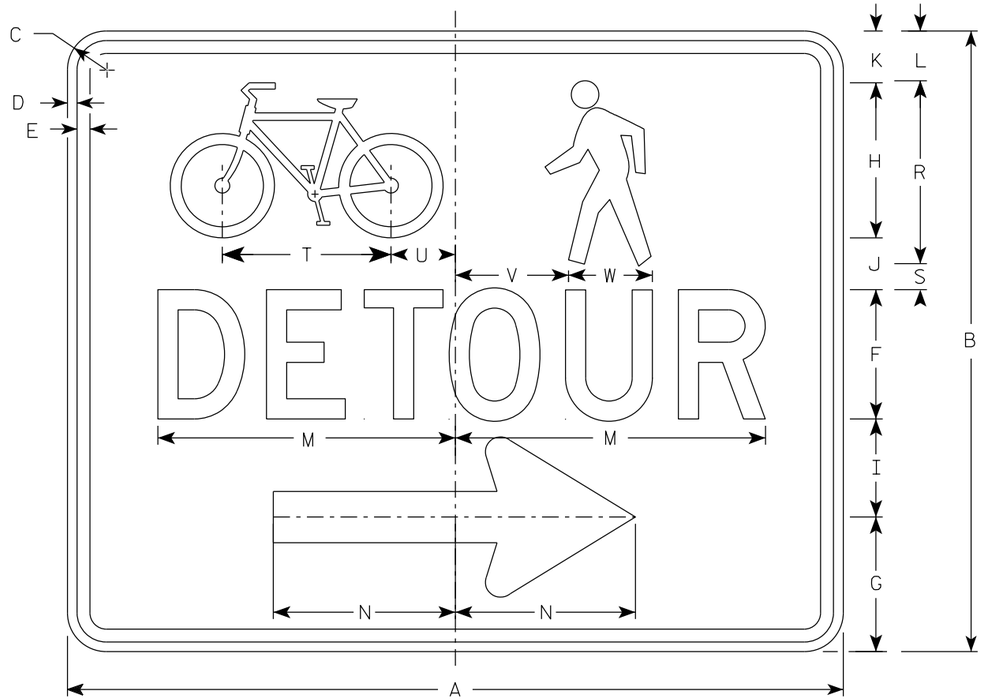
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8A.4

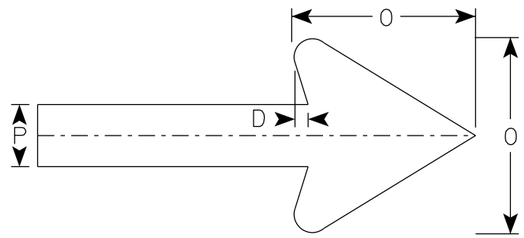
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 182 | E



M4-9AR

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.
5. M4-9AL is the same as M4-9AR 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																											
2S	30	24	1 1/2	3/8	1/2	5	5 1/4	6	3 3/4	2	2	1 7/8	11 3/4	7	6	2		7 1/8	1	6 1/2	2 1/2	4 3/8	3 1/4				5.00
2M	30	24	1 1/2	3/8	1/2	5	5 1/4	6	3 3/4	2	2	1 7/8	11 3/4	7	6	2		7 1/8	1	6 1/2	2 1/2	4 3/8	3 1/4				5.00
3																											
4																											
5																											

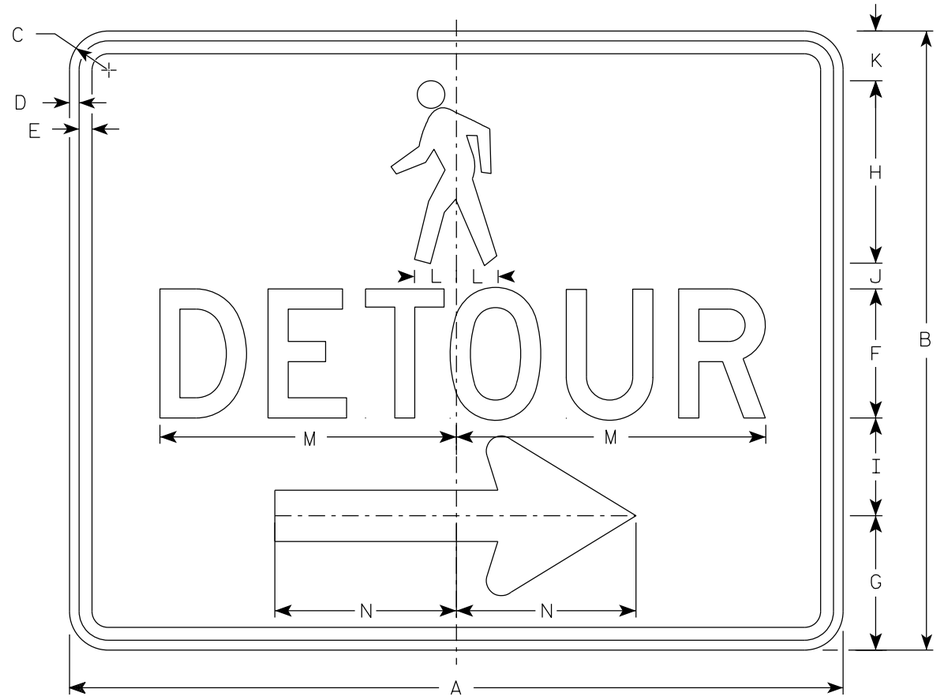
STANDARD SIGN
M4-9A L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-9A.3

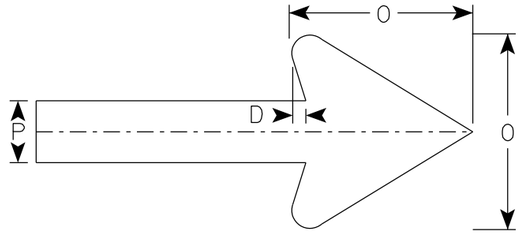
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 183 | E



M4-9BR

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.
5. M4-9BL is the same as M4-9BR 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																											
2S	30	24	1 1/2	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
2M	30	24	1 1/2	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
3																											
4																											
5																											

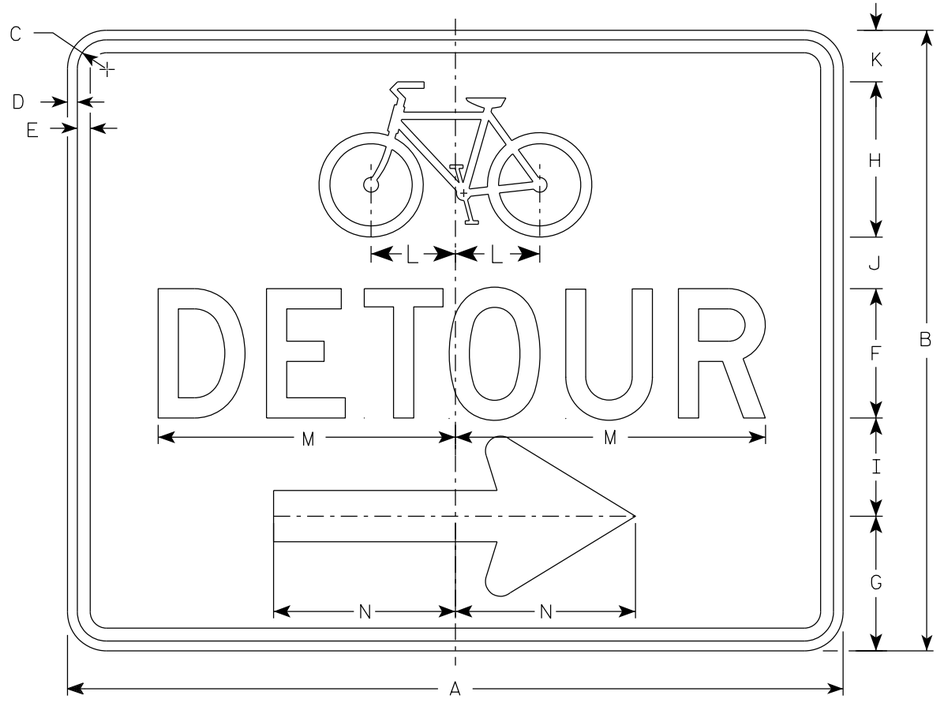
STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-9B.4

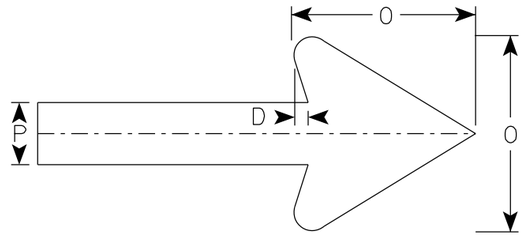
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 184 | E



M4-9CR

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.
5. M4-9CL is the same as M4-9CR 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																											
2S	30	24	1 1/8	3/8	1/2	5	5 1/4	6	3 3/4	2	2	3 1/4	11 3/4	7	6	2											5.00
2M	30	24	1 1/8	3/8	1/2	5	5 1/4	6	3 3/4	2	2	3 1/4	11 3/4	7	6	2											5.00
3																											
4																											
5																											

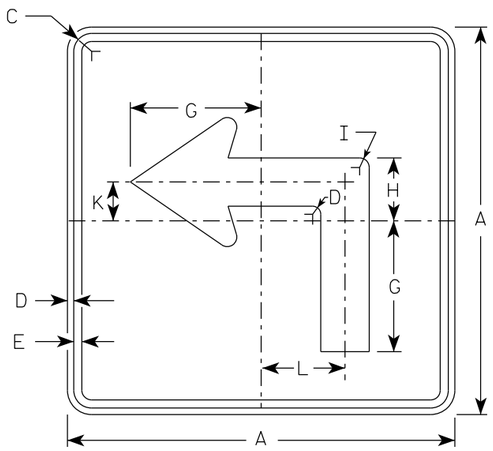
STANDARD SIGN
M4-9C L&R

WISCONSIN DEPT OF TRANSPORTATION

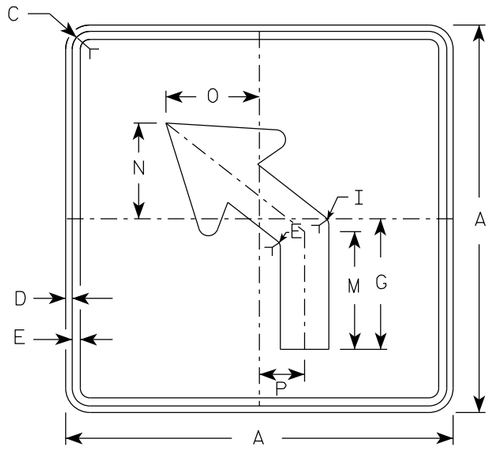
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/18/2023 PLATE NO. M4-9C.2

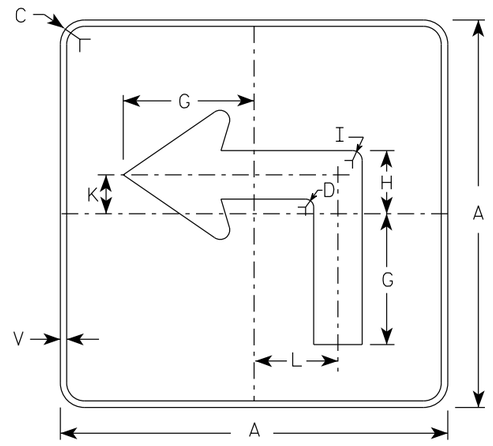
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 185	E



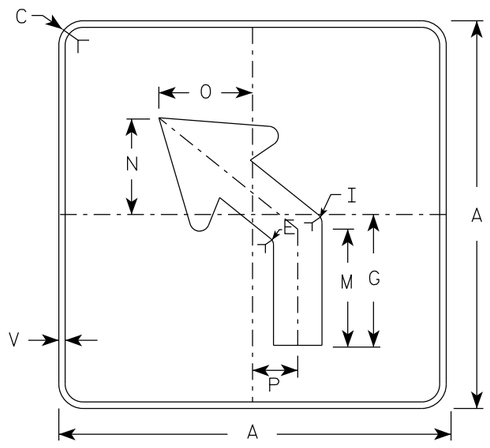
M5-1L
MM5-1L
MO5-1L
MP5-1L



M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L

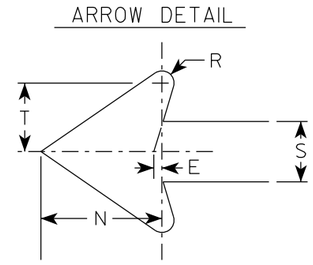


MB5-2L
MK5-2L
MN5-2L
MR5-2L

NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White
   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

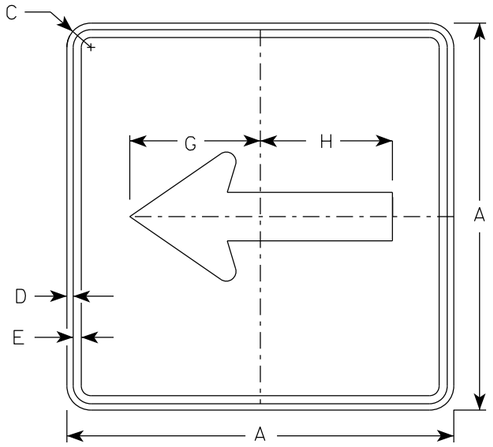
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

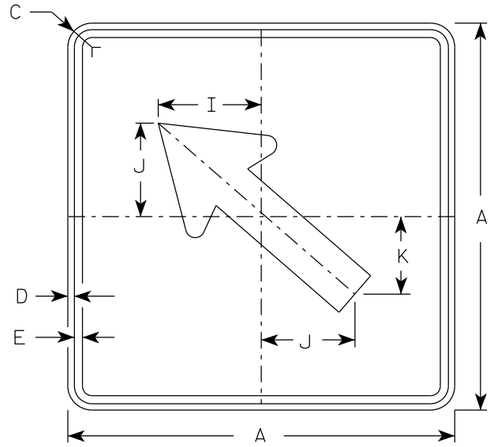
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M5-1.15

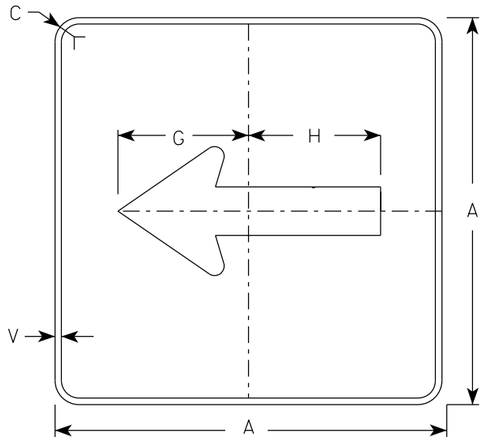
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 186 | E



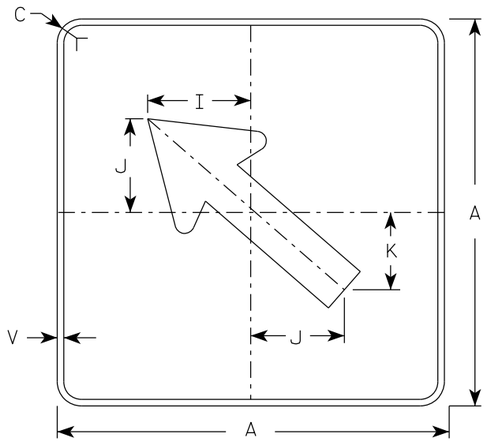
M6-1
MM6-1
MO6-1
MP6-1



M6-2
MM6-2
MO6-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1

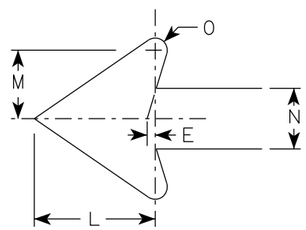


MB6-2
MK6-2
MN6-2
MR6-2

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

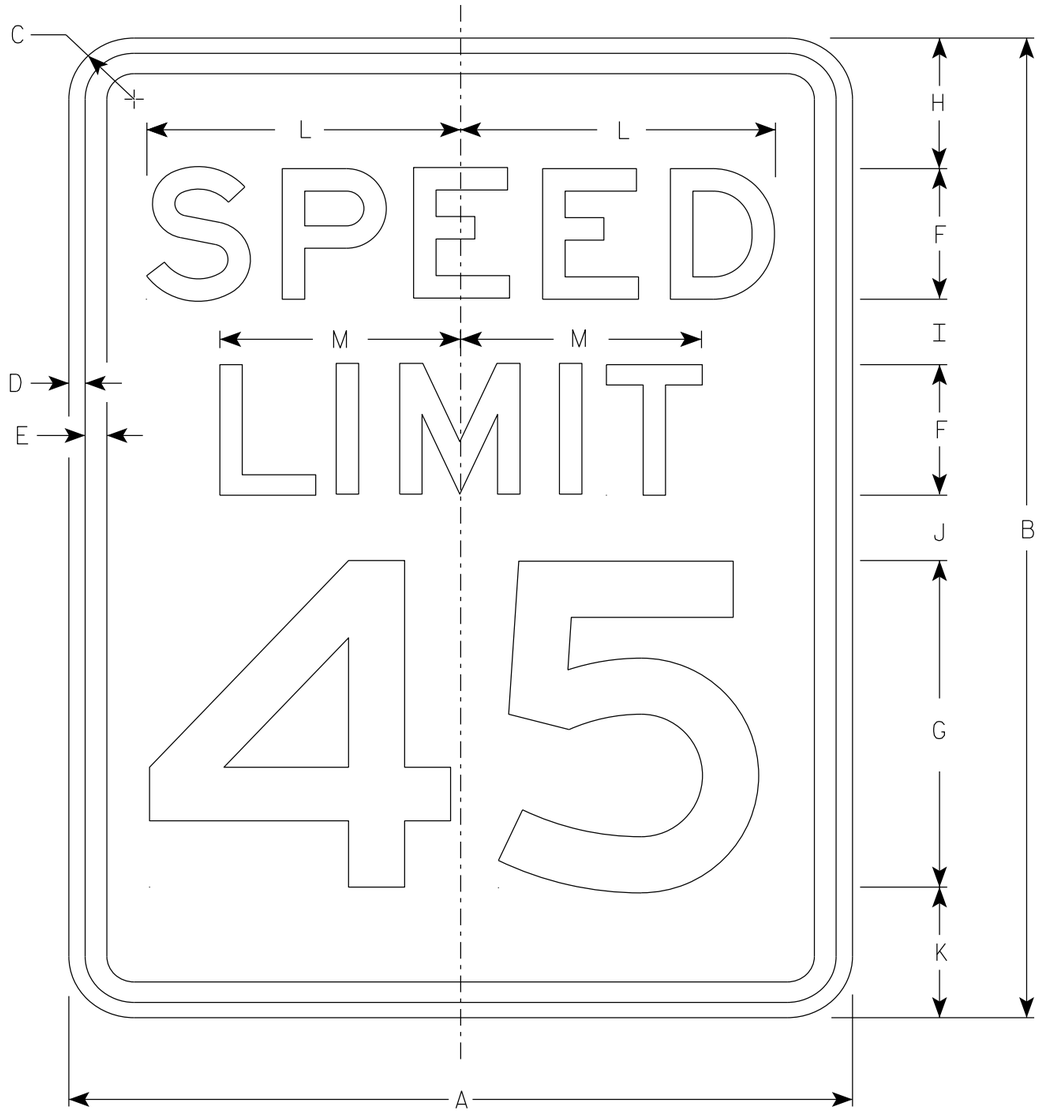
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 187 | E

7

7



R2-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Substitute appropriate numerals 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	18	24	1 1/2	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/2	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 7/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	3	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

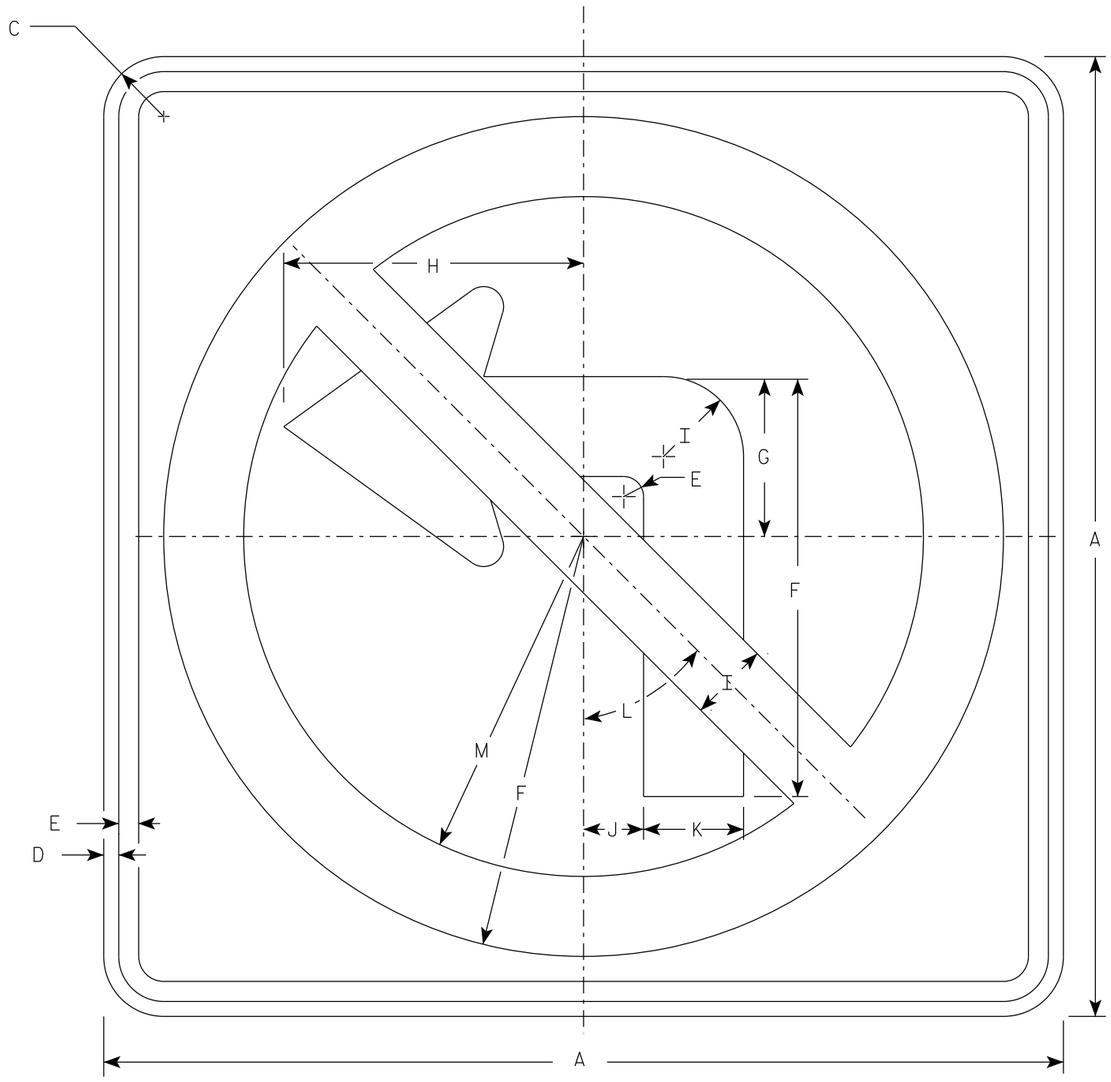
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/23 PLATE NO. R2-1.14

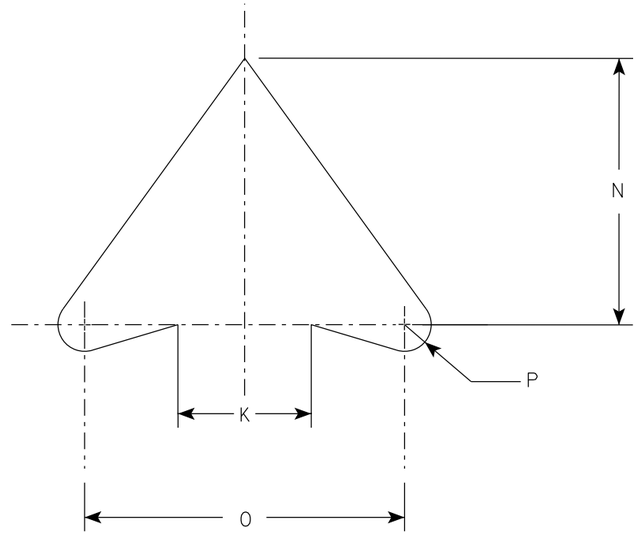
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 188 | E



R3-2

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - See note 3
3. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



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	24		1 ½	⅜	½	10 ½	4	7 ½	2	1 ½	2 ½	45°	8 ½	5	6	½											4.0
2S	24		1 ½	⅜	½	10 ½	4	7 ½	2	1 ½	2 ½	45°	8 ½	5	6	½											4.0
2M	36		2 ¼	⅝	¾	15 ¾	6	11 ¼	3	2 ¼	3 ¾	45°	12 ¾	7 ½	9	¾											9.0
3	36		2 ¼	⅝	¾	15 ¾	6	11 ¼	3	2 ¼	3 ¾	45°	12 ¾	7 ½	9	¾											9.0
4	36		2 ¼	⅝	¾	15 ¾	6	11 ¼	3	2 ¼	3 ¾	45°	12 ¾	7 ½	9	¾											9.0
5	48		2 ¼	¾	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

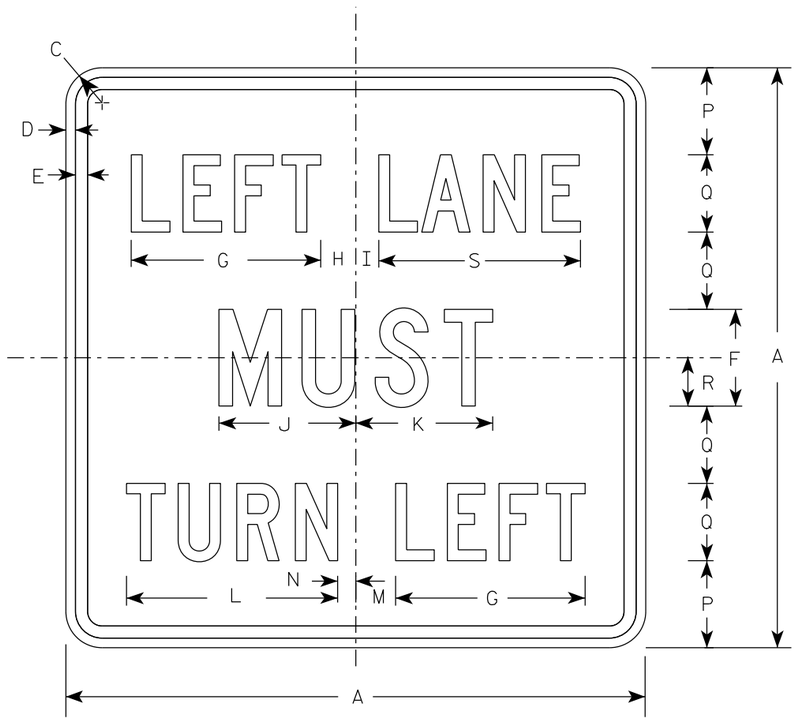
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/2/23 PLATE NO. R3-2.11

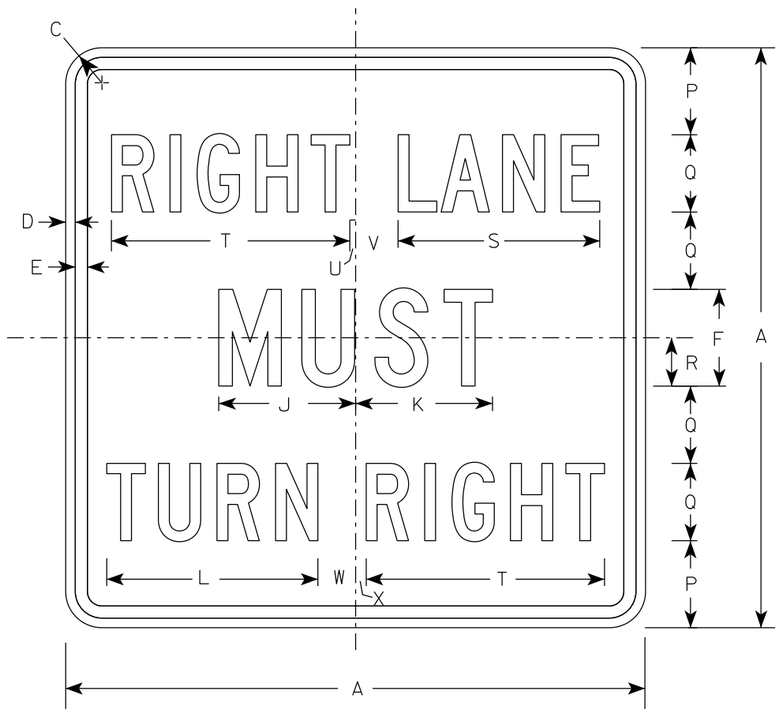
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 189	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C



R3-7L



R3-7R

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	30		1 7/8	1/2	5/8	5	9 3/4	1 7/8	1 1/8	7 1/8	7 1/8	10 7/8	2	1		4 1/2	4	2 1/2	10 3/8	12 3/8	1/4	2 1/4	2	1/2			6.25
2S	30		1 7/8	1/2	5/8	5	9 3/4	1 7/8	1 1/8	7 1/8	7 1/8	10 7/8	2	1		4 1/2	4	2 1/2	10 3/8	12 3/8	1/4	2 1/4	2	1/2			6.25
2M	30		1 7/8	1/2	5/8	5	9 3/4	1 7/8	1 1/8	7 1/8	7 1/8	10 7/8	2	1		4 1/2	4	2 1/2	10 3/8	12 3/8	1/4	2 1/4	2	1/2			6.25
3	36		2 1/4	5/8	3/4	6	11 3/4	2 1/8	1 3/8	8 1/2	8 1/2	13 1/8	2 1/8	1 1/8		5 3/8	4 3/4	3	12 1/2	14 3/4	3/8	2 5/8	2 3/8	5/8			9.00
4	48		3	3/4	1	8	15 5/8	2 7/8	1 7/8	11 3/8	11 3/8	17 1/2	3 1/4	1 1/2		7 1/8	6 3/8	4	16 3/4	19 3/4	1/2	3 1/2	3 1/8	7/8			16.00
5																											

STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

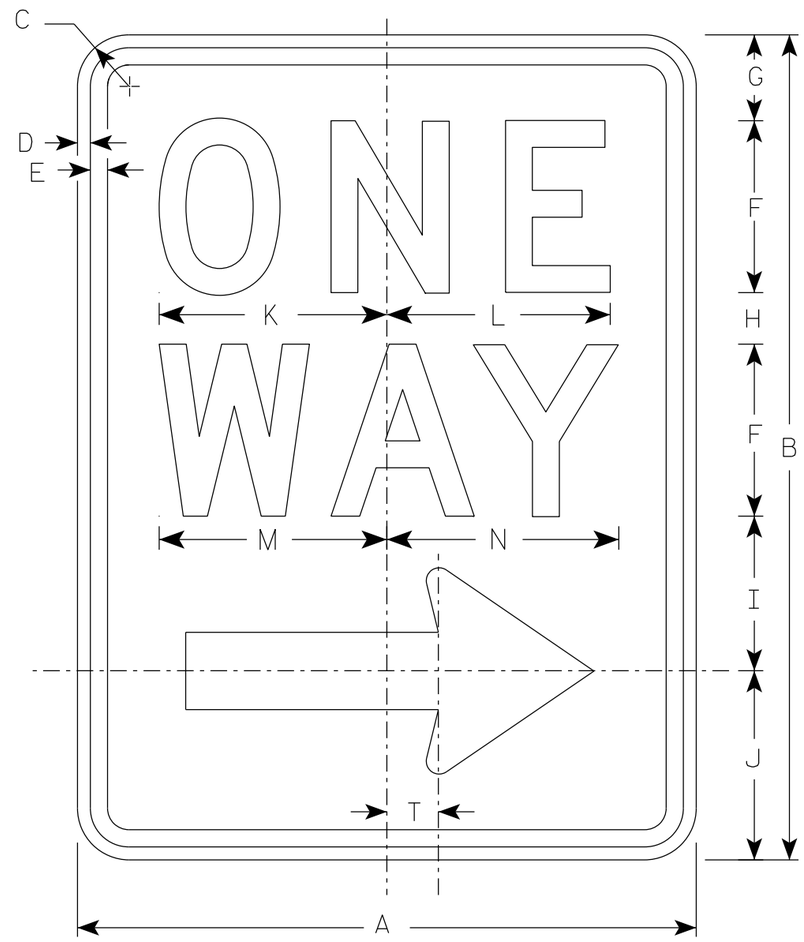
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/16/25 PLATE NO. R3-7.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 190 | E

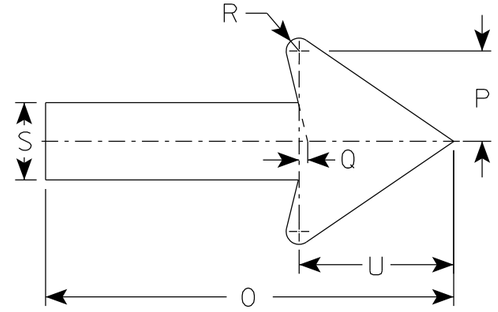
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. R6-2L same as R6-2R except arrow points to the left.



R6-2R

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
1	18	24	1 1/2	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	1 1/2	1 1/2	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 7/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

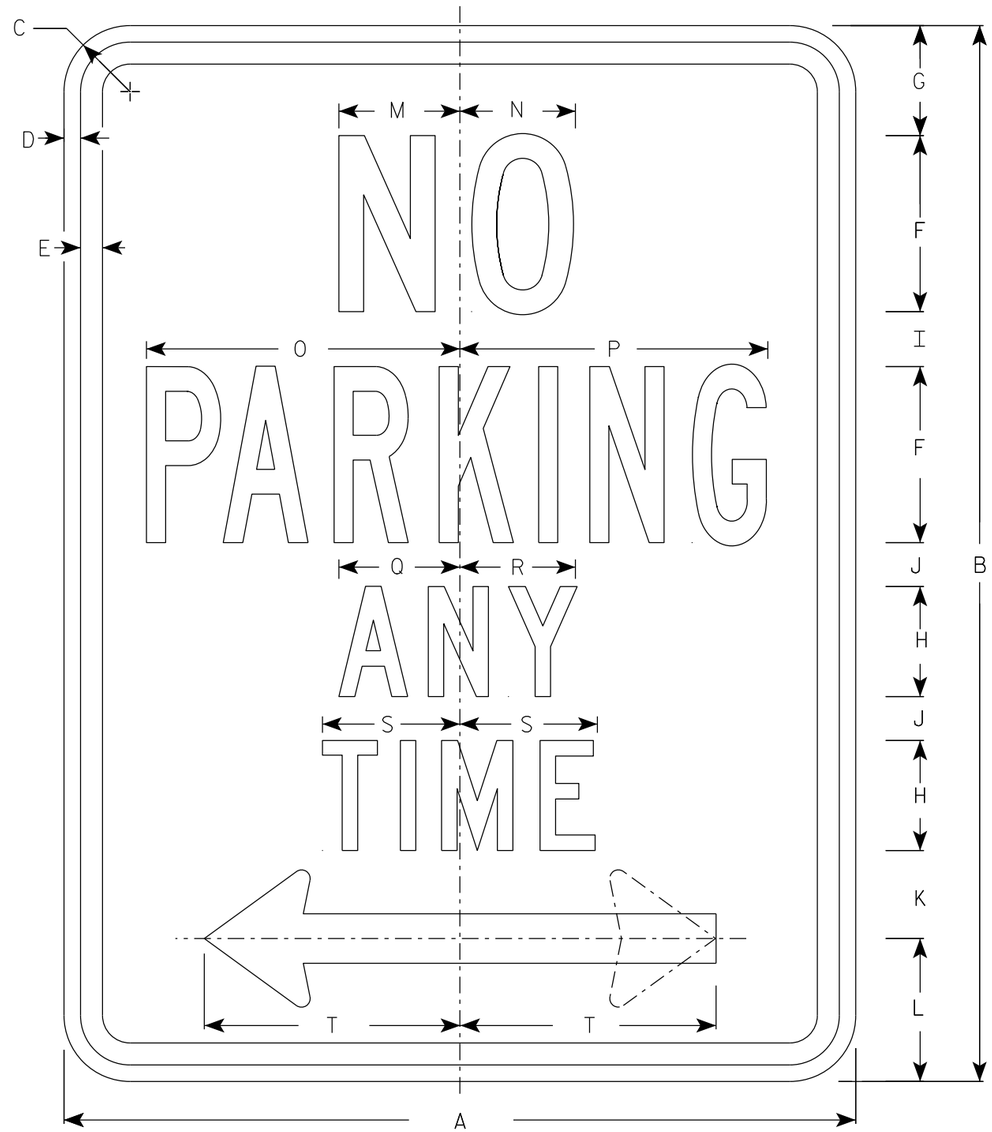
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 191	E

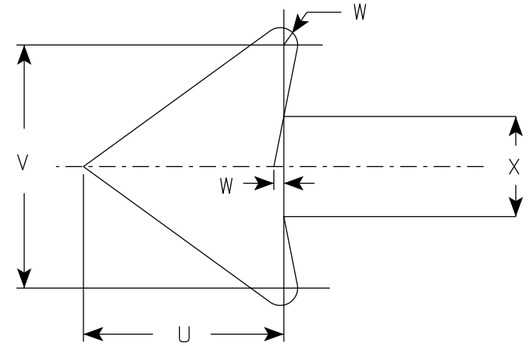


R7-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 4
4. Lines 1, 3 and 4 are series C, line 2 is series B.
5. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)

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	12	18	1 ½	⅜	⅜	3	1 ⅞	2	⅞	⅝	1 ½	2 ½	2	2	4 ⅞	4 ⅞	2 ¼	2 ⅛	2 ½	3 ⅞	1 ½	1 ¾	⅛	¾			1.5
2S	18	24	1 ½	⅜	½	4	2 ½	2 ½	1 ¼	1	2	3 ¼	2 ¾	2 ⅝	7 ⅛	7	2 ¾	2 ⅝	3 ⅛	5 ⅞	2 ¼	2 ⅝	¼	1 ⅛			3.0
2M	24	30	1 ½	⅜	½	5	3	3	2	1 ¼	2 ½	4	3 ¼	3 ⅜	9 ¼	9 ¼	3 ¼	3 ¼	3 ¾	7 ¾	3	3 ½	¼	1 ½			5.0
3	24	30	1 ½	⅜	½	5	3	3	2	1 ¼	2 ½	4	3 ¼	3 ⅜	9 ¼	9 ¼	3 ¼	3 ¼	3 ¾	7 ¾	3	3 ½	¼	1 ½			5.0
4																											
5																											

STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

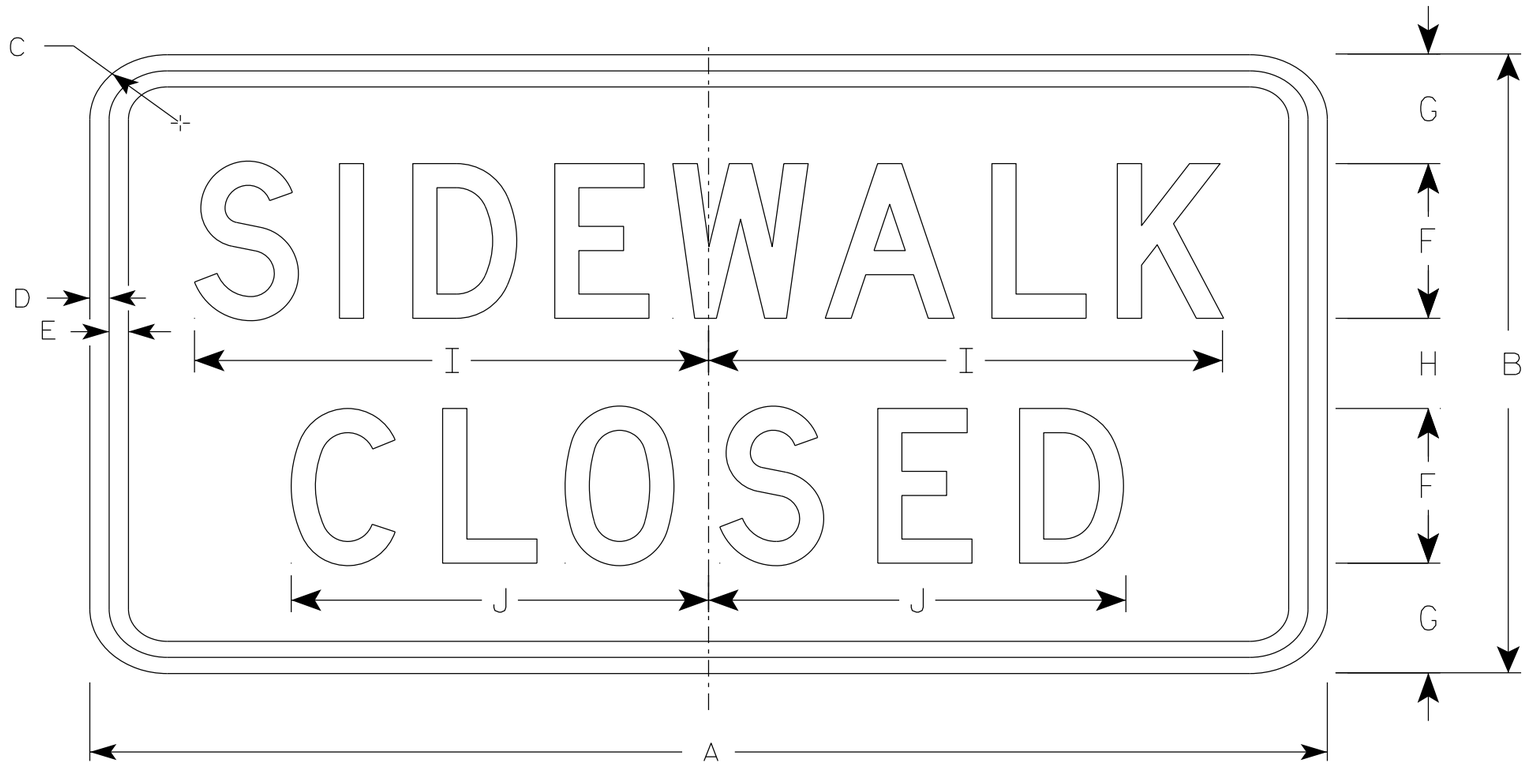
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/26/23 PLATE NO. R7-1.11

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

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R71.dgn PLOT DATE : 26-OCT 2023 2:48 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7



R9-9

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 ½	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
2M	24	12	1 ½	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
3	30	18	1 ½	½	½	4	3 ½	3	12 ½	10 ¼																	3.75
4																											
5																											

STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

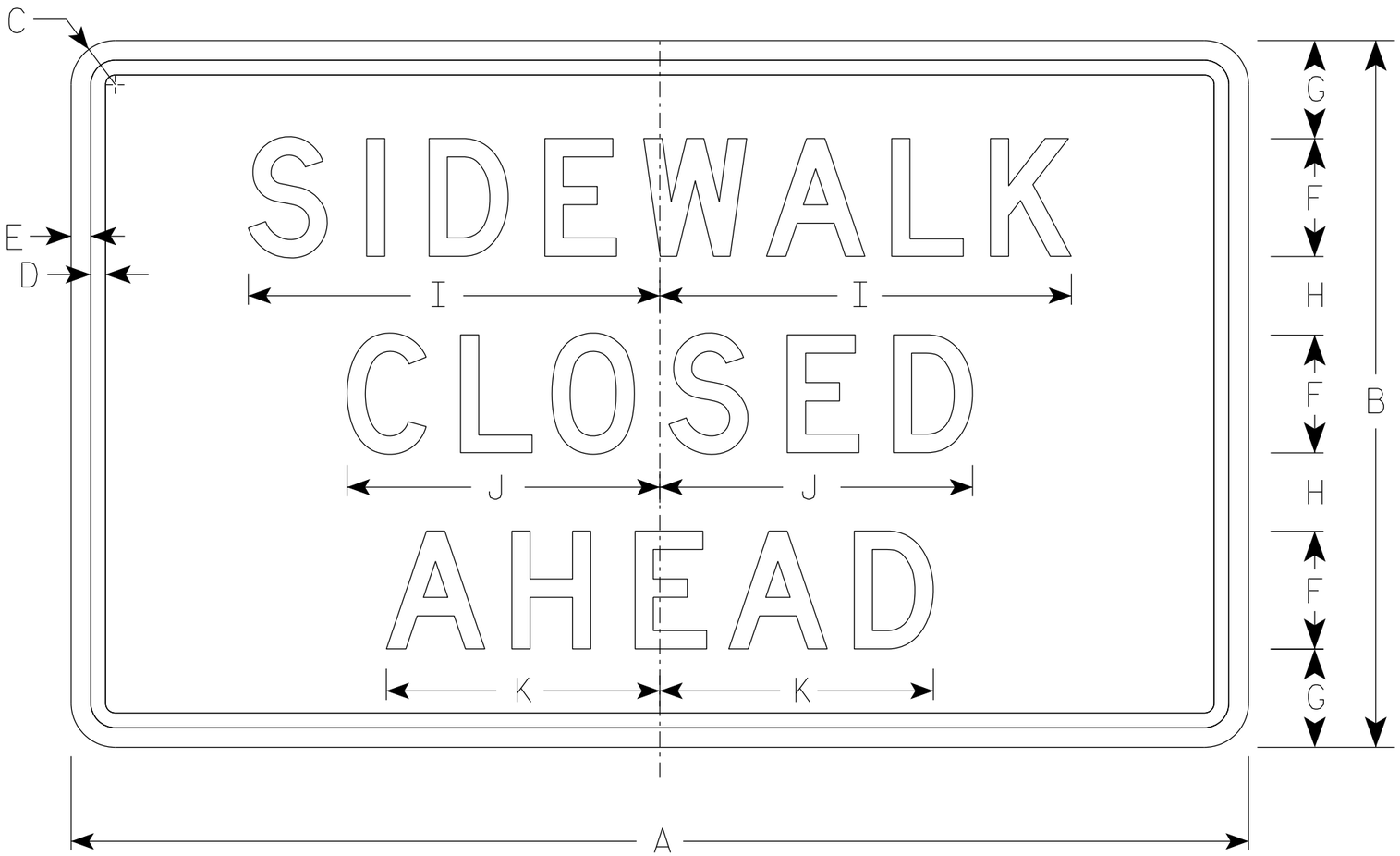
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/24 PLATE NO. R9-9.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 193 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



R9-9A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 ½	⅜	½	3	2 ½	2	10 ½	8	7																3.75
2M	30	18	1 ½	⅜	½	3	2 ½	2	10 ½	8	7																3.75
3																											
4																											
5																											

STANDARD SIGN
R9-9A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/24 PLATE NO. R9-9A.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 194 | E



R9-55

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series E.
   Lines 2, 3 and 4 are 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																											
2S	18	24	1 ½	⅜	½	4	3	2 ½	1 ⅞	2 ⅛	1 ¼	2 ¼	3 ¾	7 ¼	7 ½	5 ½											3.0
2M	18	24	1 ½	⅜	½	4	3	2 ½	1 ⅞	2 ⅛	1 ¼	2 ¼	3 ¾	7 ¼	7 ½	5 ½											3.0
3																											
4																											
5																											

STANDARD SIGN
R9-55

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/24 PLATE NO. R9-55.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 195 | E



R9-56

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series E.
   Lines 2, 3, 4, 5 and 6 are 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																											
2S	18	24	1 1/2	3/8	1/2	3	1 1/2	2	1	3 1/8	6 3/8		5 1/4	2 1/8	5 3/4												3.0
2M	18	24	1 1/2	3/8	1/2	3	1 1/2	2	1	3 1/8	6 3/8		5 1/4	2 1/8	5 3/4												3.0
3																											
4																											
5																											

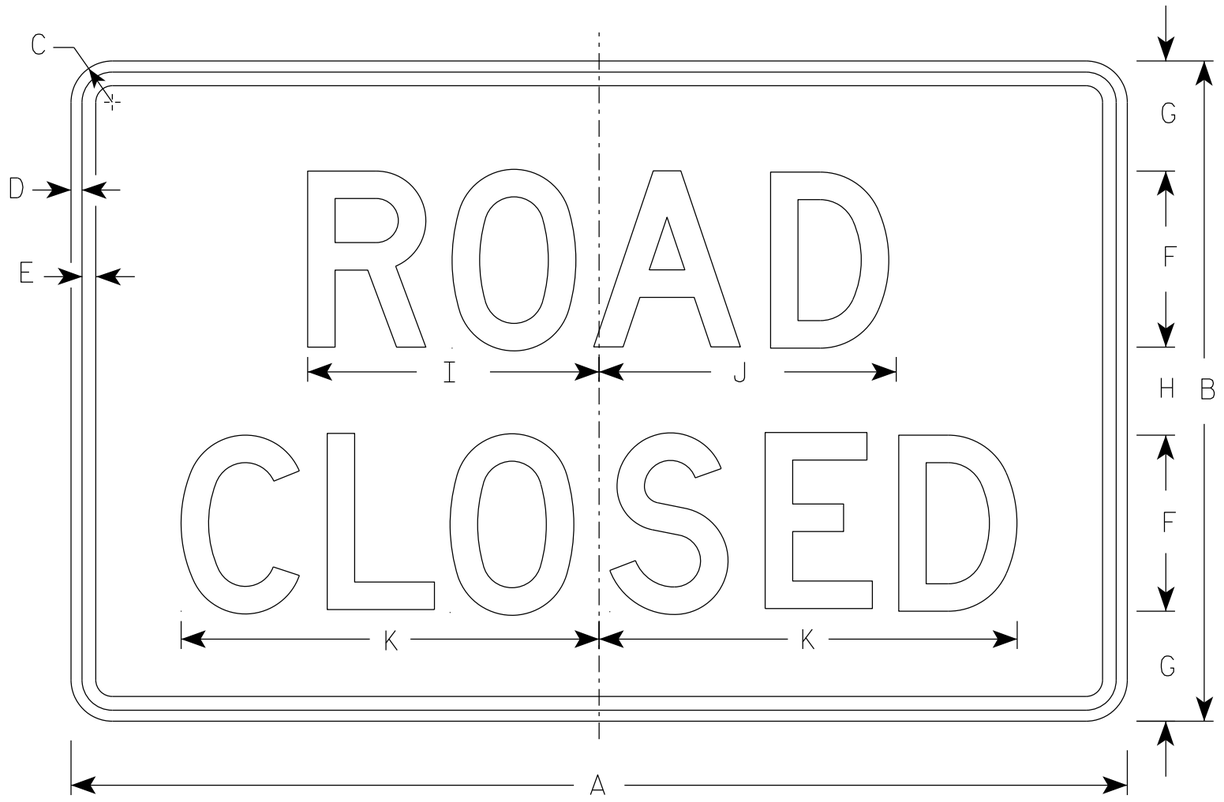
STANDARD SIGN
R9-56

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/24 PLATE NO. R9-56.6

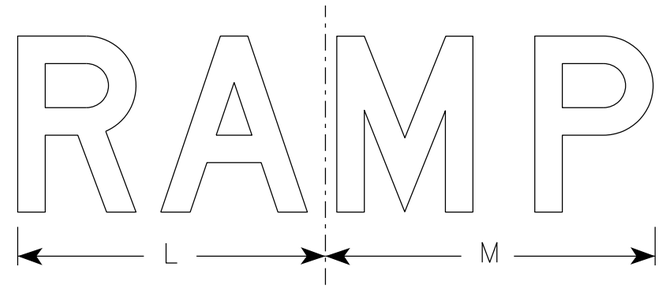
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 196 | E



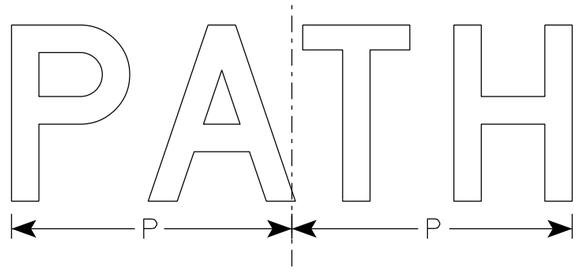
R11-2

NOTES

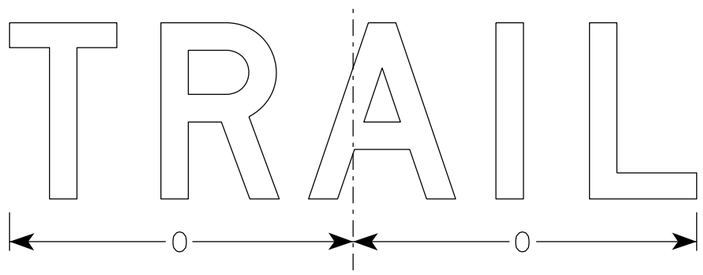
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



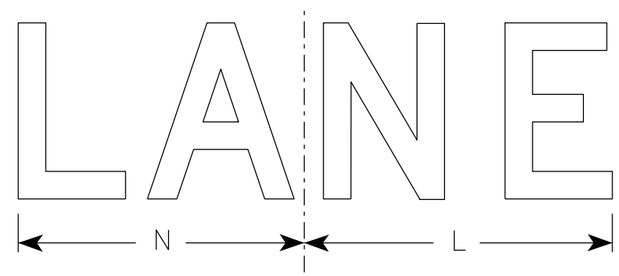
R11-2R



R11-2C



R11-2T



R11-2L

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	13 1/4	13 1/2	19	14	15	13	15 5/8	12 3/4											10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8	12 3/4											10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8	12 3/4											10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8	12 3/4											10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8	12 3/4											10.0

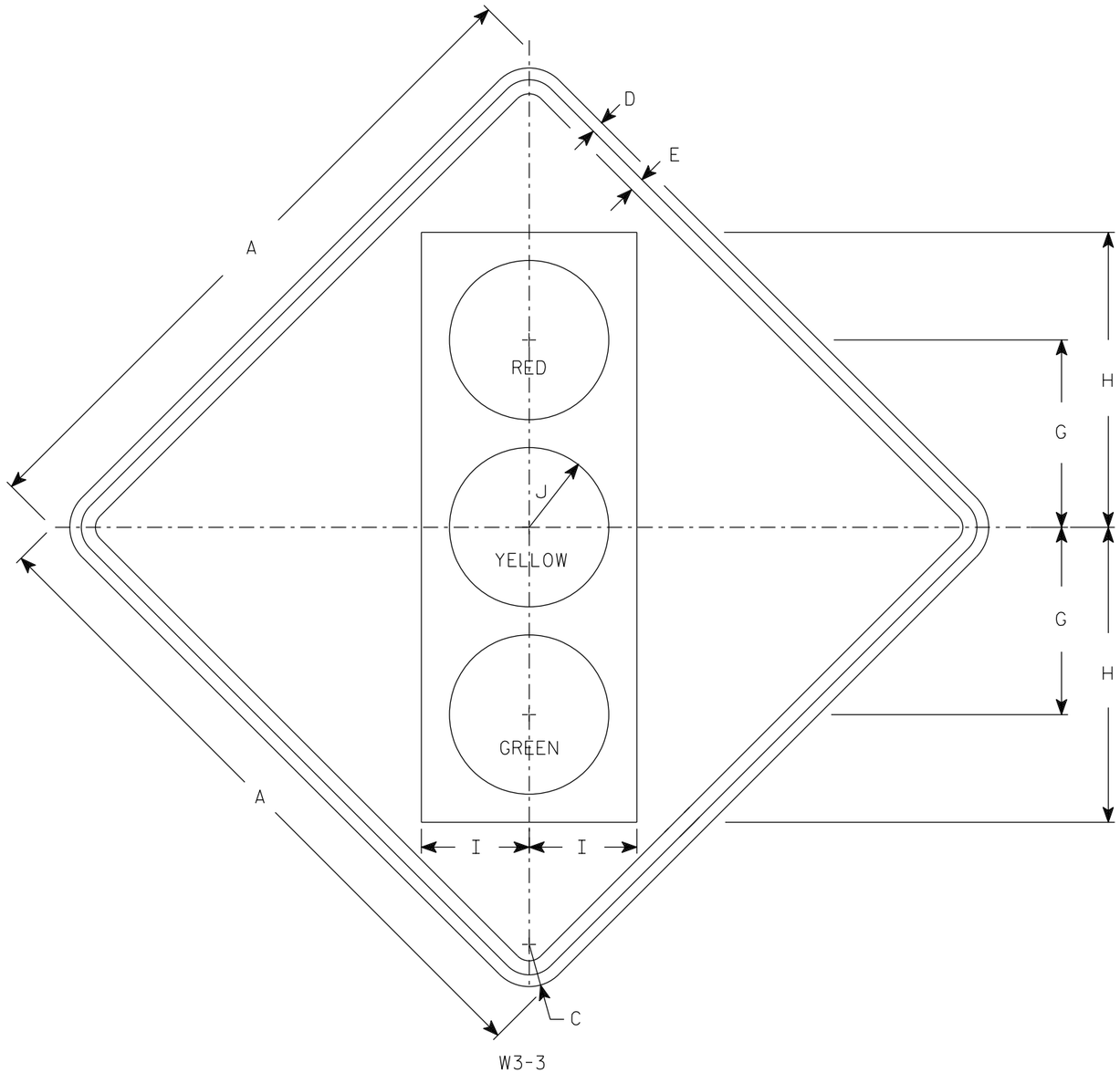
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/3/26 PLATE NO. R11-2.13

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



W3-3

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - See Note 3
3. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

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	30		1 7/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		2 1/4	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		2 1/4	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		2 1/4	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		3	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		3	3/4	1		12 1/2	20	7 1/2	5																	16.0

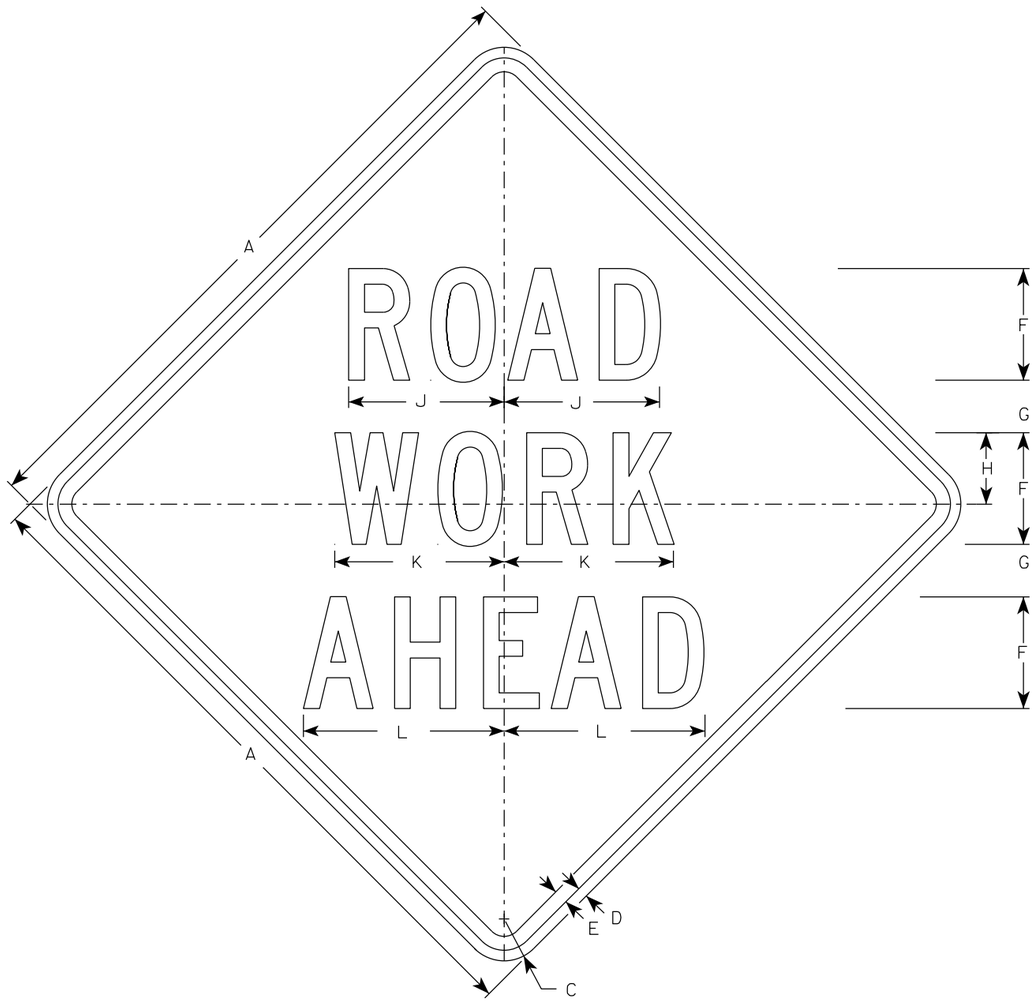
STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

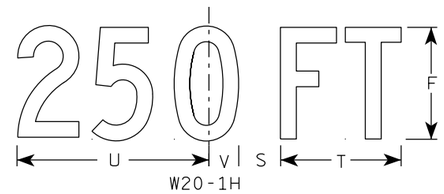
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/2023 PLATE NO. W3-3.12

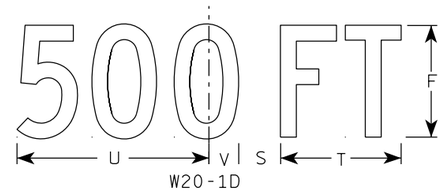
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 198	E



W20-1A



W20-1H



W20-1D



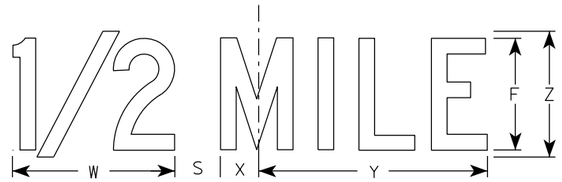
W20-1C



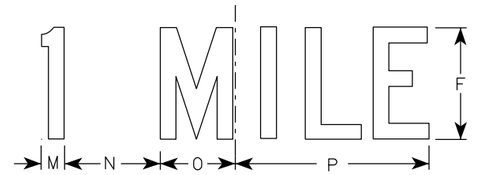
W20-1B

NOTES

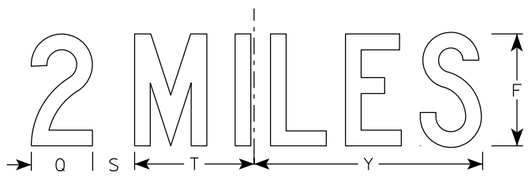
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

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	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

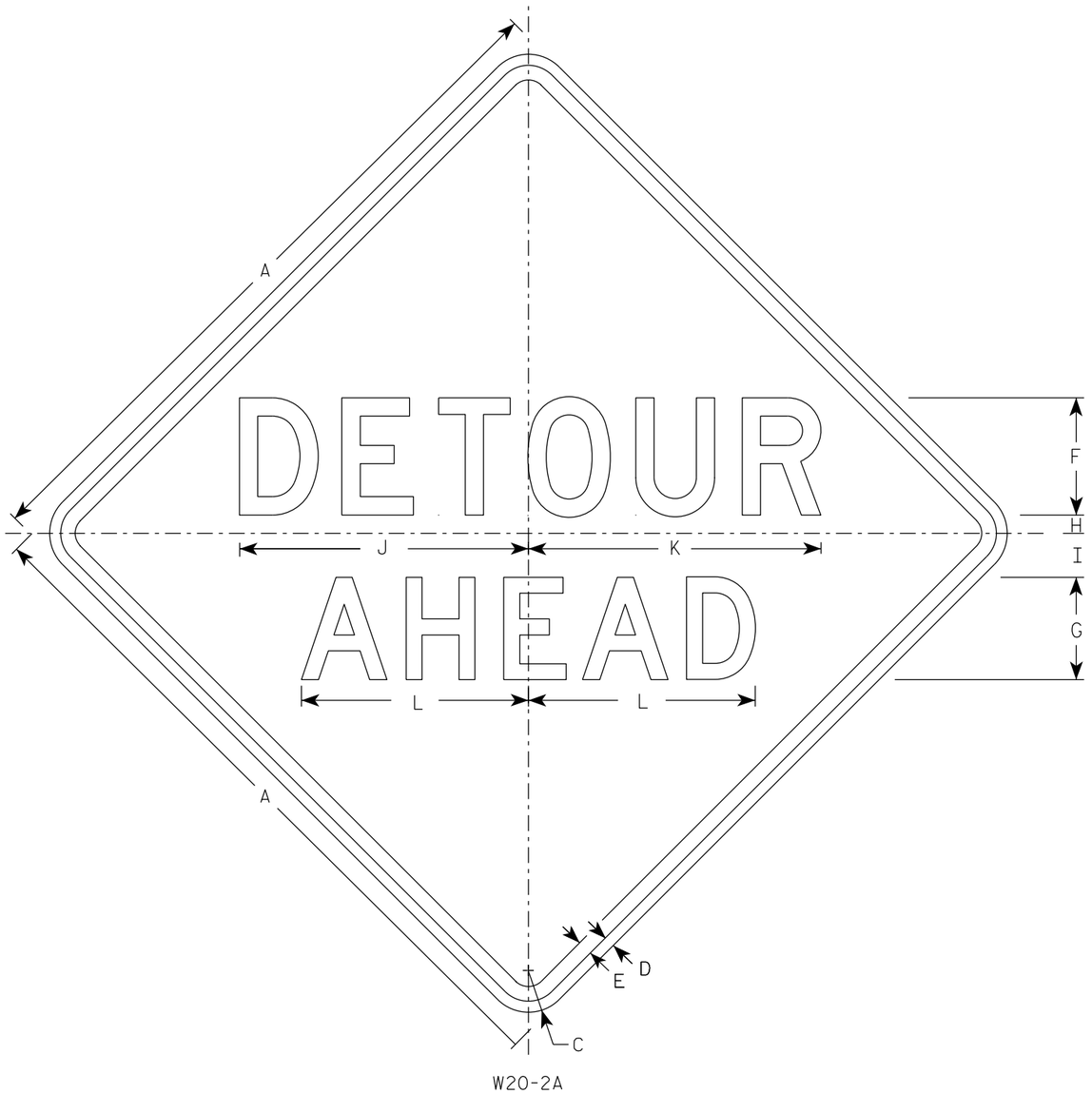
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

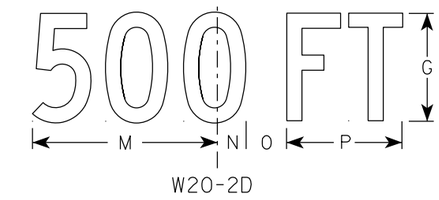
DATE 1/10/2024 PLATE NO. W20-1.12

PROJECT NO:

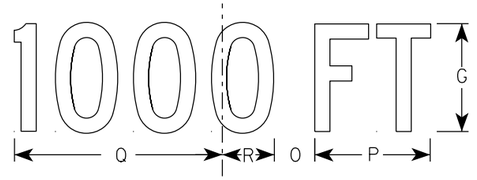
SHEET NO: 199 E



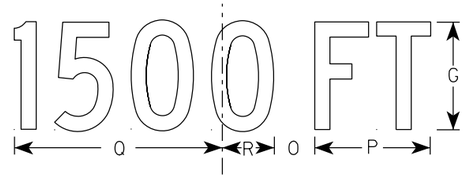
W20-2A



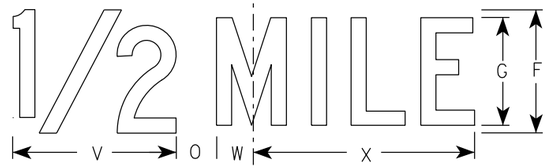
W20-2D



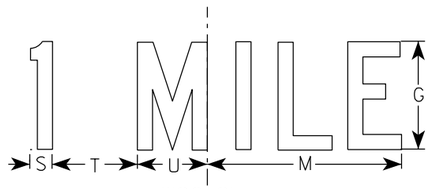
W20-2C



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

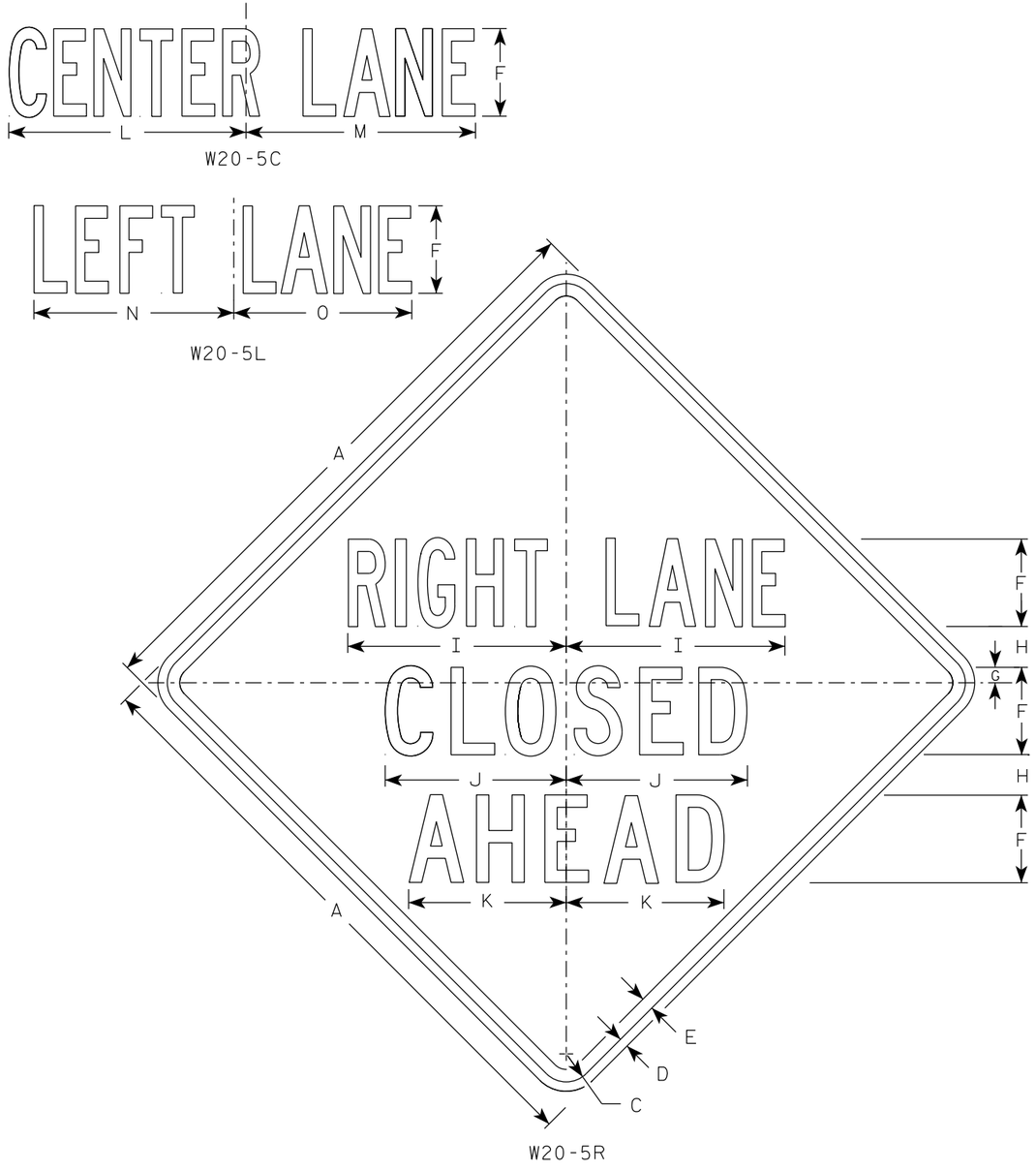
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

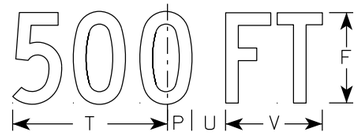
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W202.DGN PLOT DATE : 10-JAN 2024 11:36 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



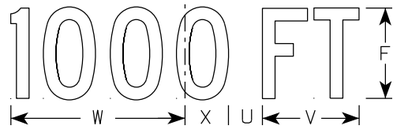
W20-5C

W20-5L

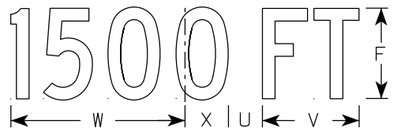
W20-5R



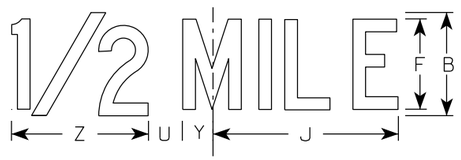
W20-5CD
W20-5LD
W20-5RD



W20-5CE
W20-5LE
W20-5RE



W20-5CB
W20-5LB
W20-5RB



W20-5CG
W20-5LG
W20-5RG



W20-5CF
W20-5LF
W20-5RF

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. " _____ LANE" is Series B.
   All other copy is 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	36	6	2 1/4	5/8	3/4	5	7/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

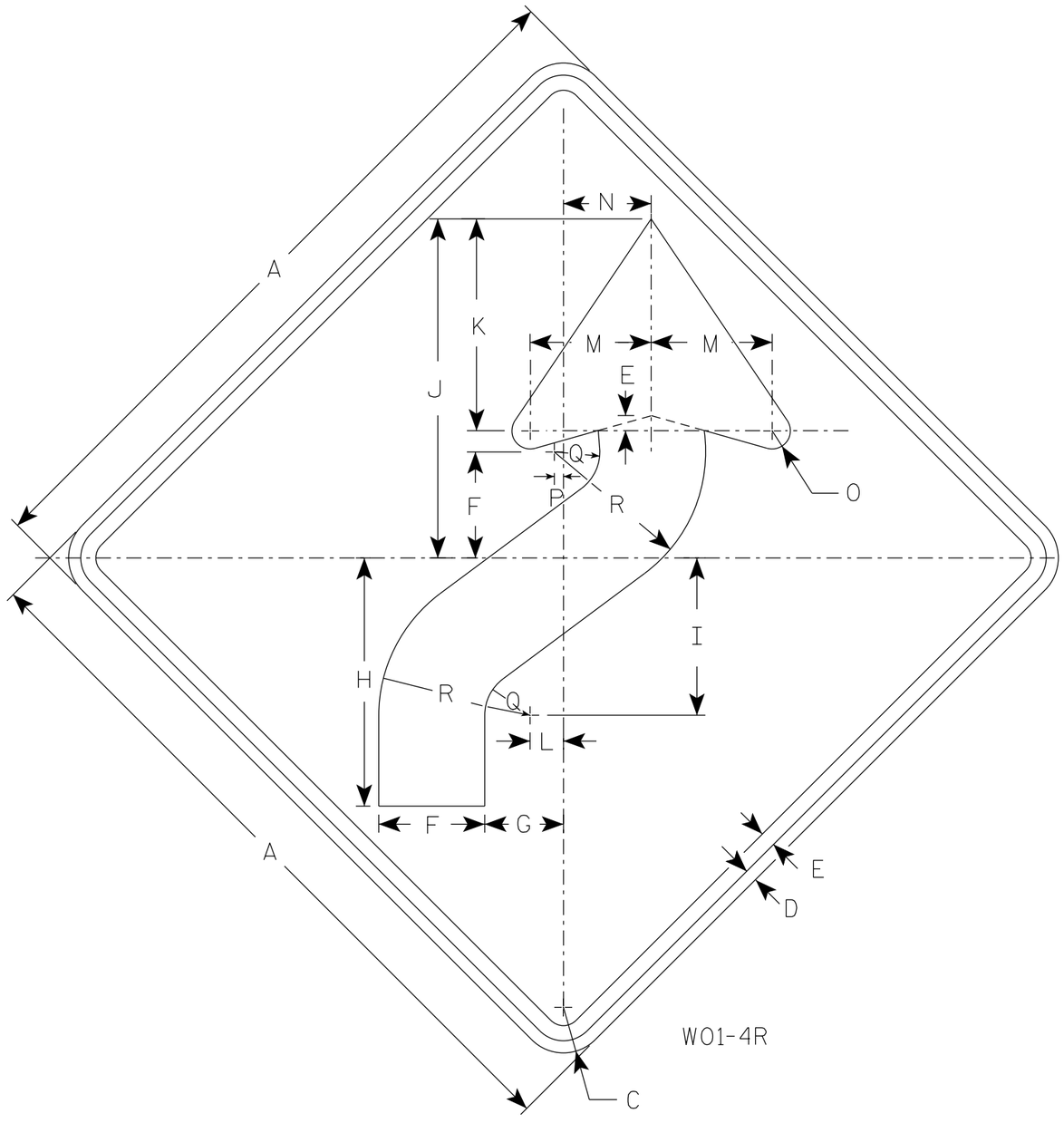
STANDARD SIGN
W20-5C,L,R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/26 PLATE NO. W20-5.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 201 E



W01-4R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

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	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

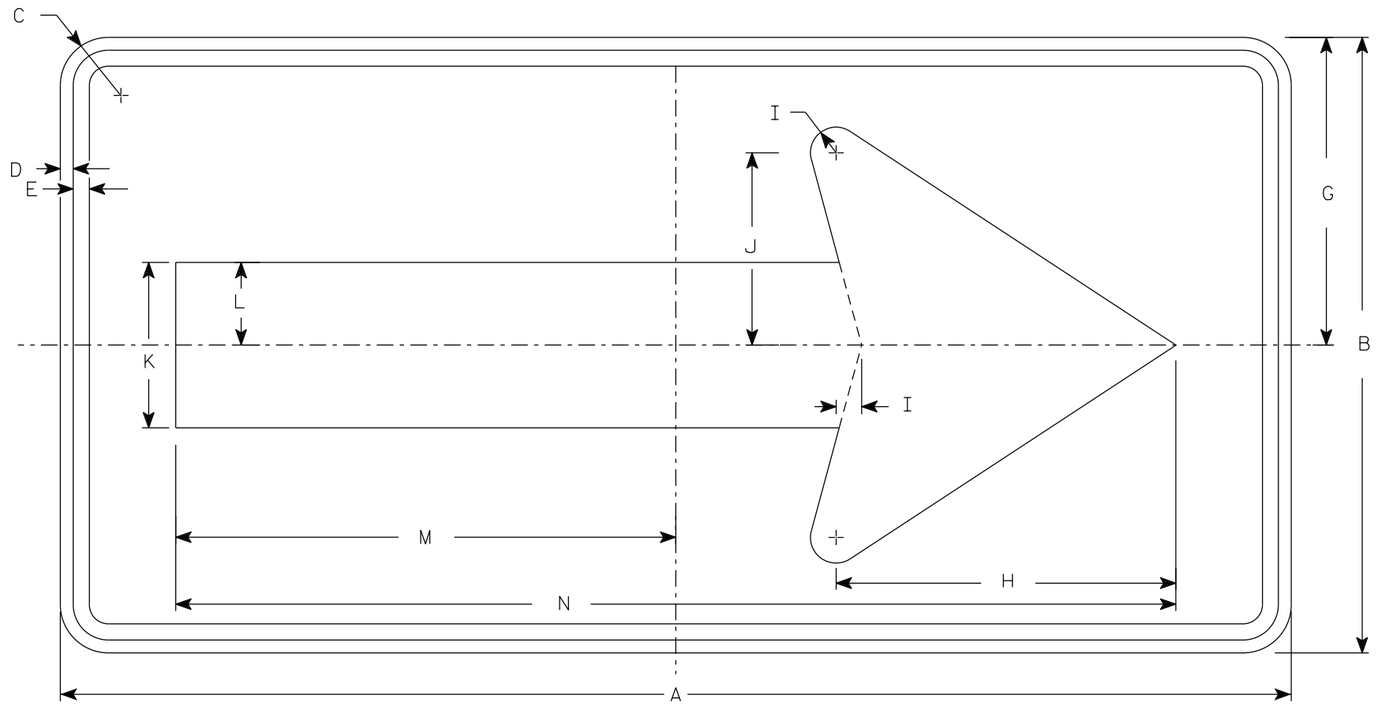
STANDARD SIGN
W01-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/24/2024 PLATE NO. W01-4.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 202 E



WO1-6

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

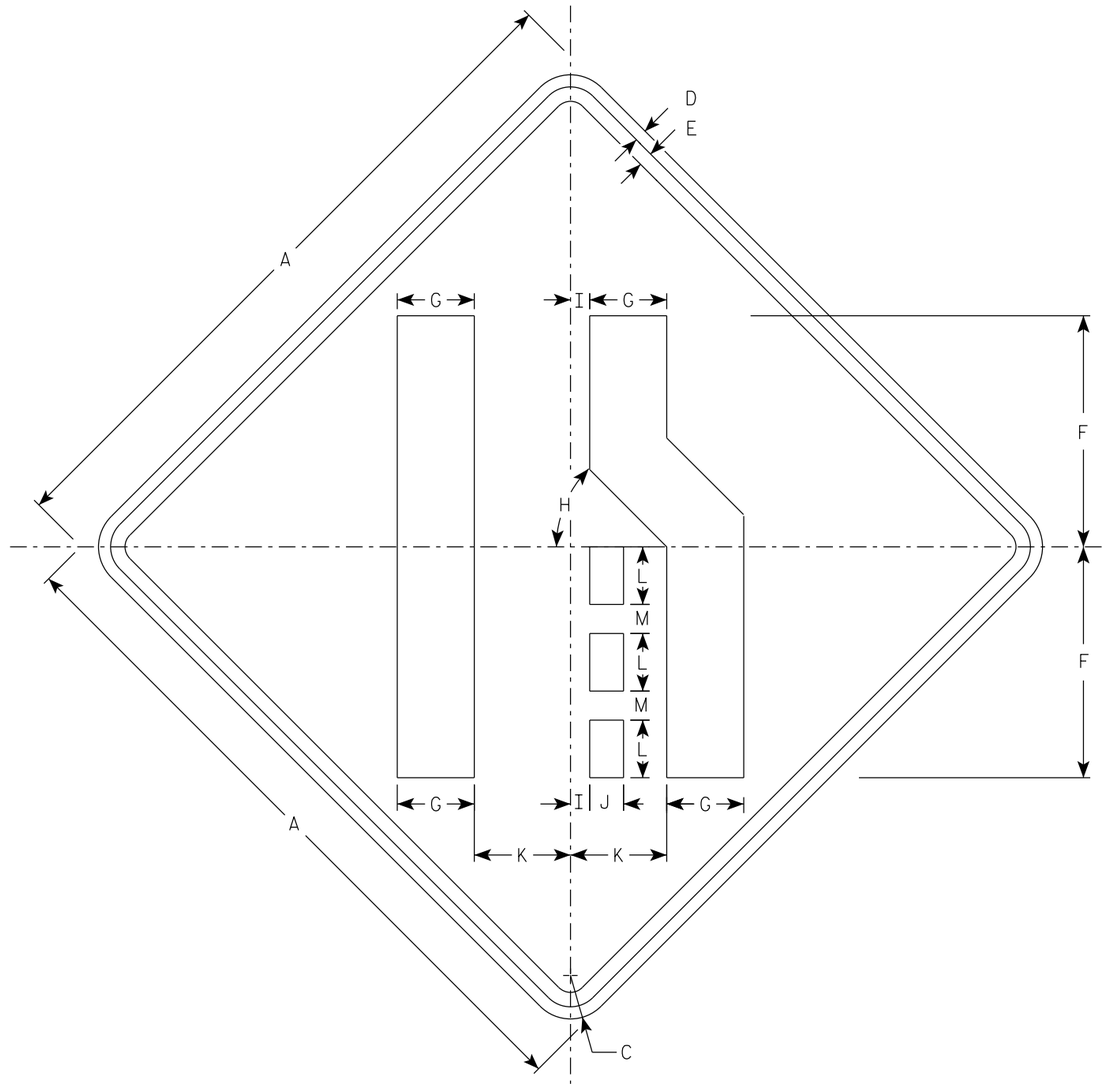
STANDARD SIGN
WO1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. WO1-6.2

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



W04-2R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

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	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

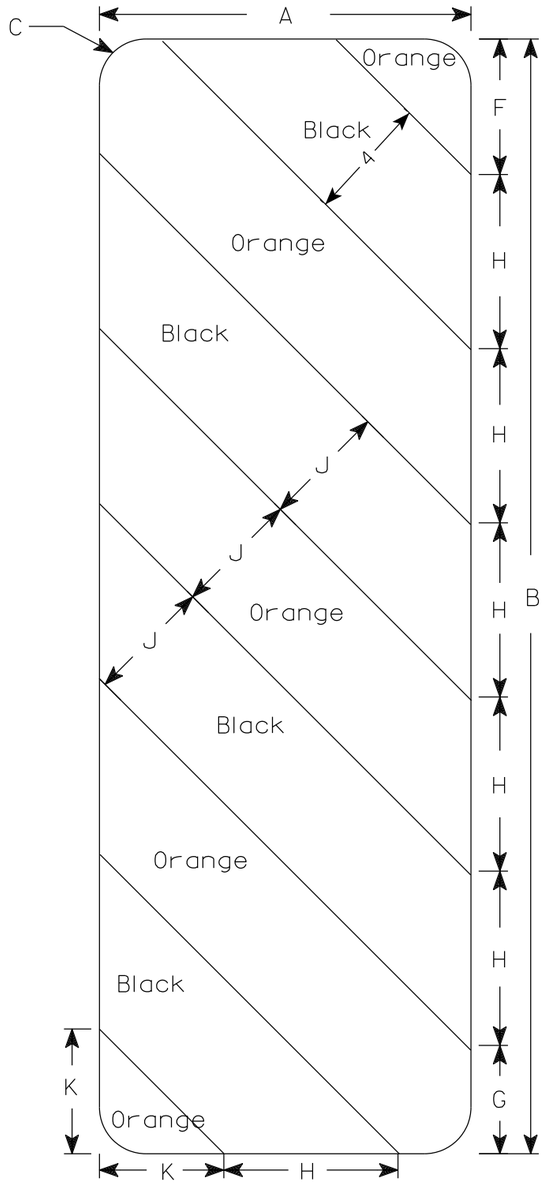
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

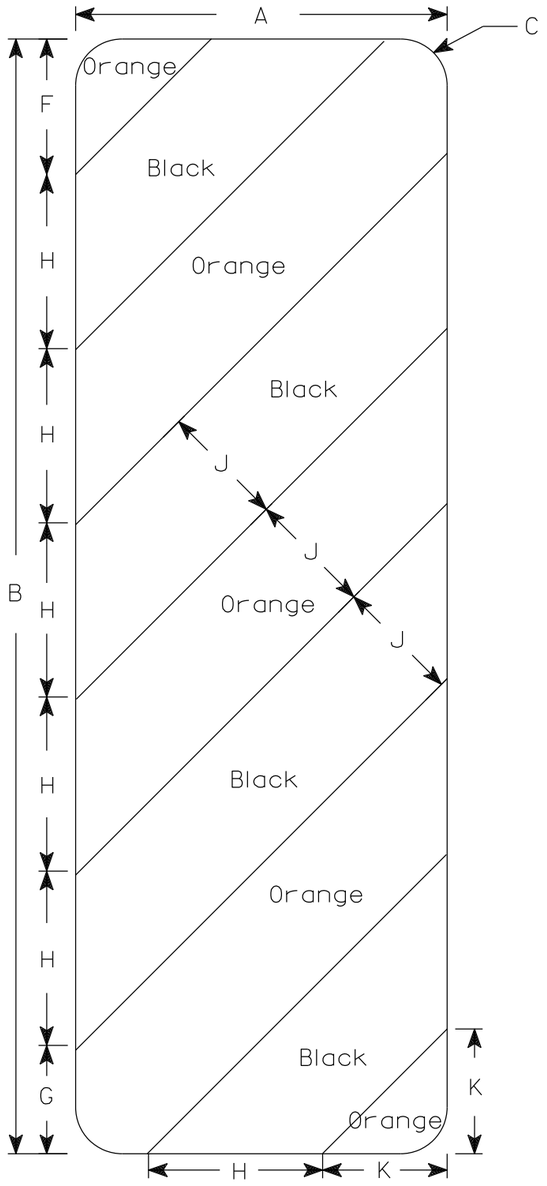
DATE 1/25/2024 PLATE NO. W04-2.2

PROJECT NO:

SHEET NO: 204 E



W05-52L



W05-52R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

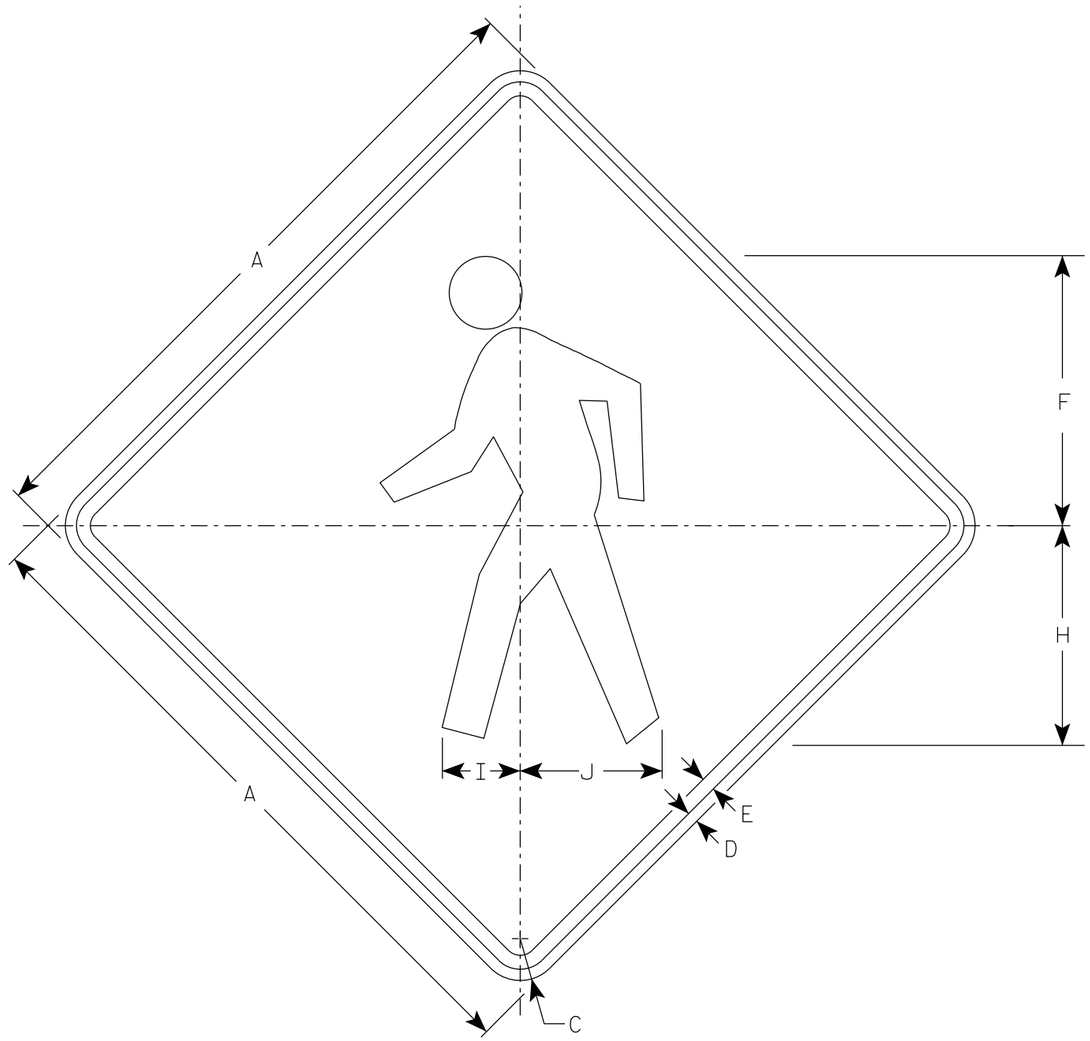
W05-52L & W05-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/2024 PLATE NO. W05-52.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 205	E



WO11-2

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
2S	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
2M	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
3	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
4	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

STANDARD SIGN

WO11-2

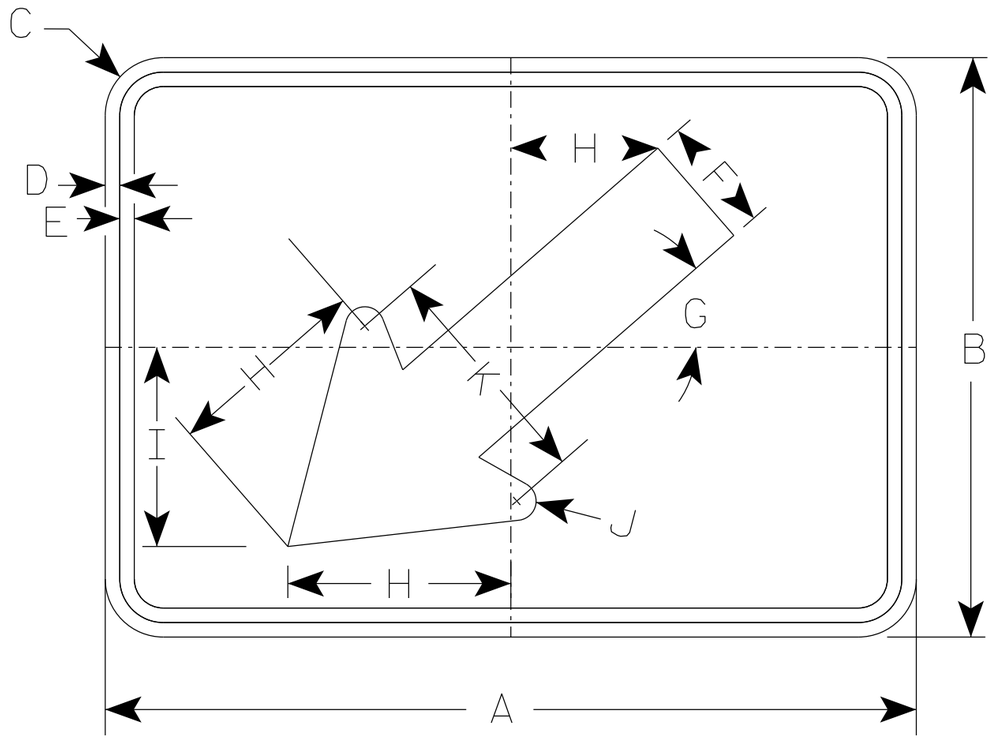
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

For State Traffic Engineer

DATE 2/1/2024 PLATE NO. WO11-2.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 206 E



W016-7L

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. W016-7R is the same as W016-7L except the arrow is reversed along the vertical centerline.

* For 36" x 36" Warning Signs, use 30" x 21" W016-7L signs.
* For 48" x 48" Warning Signs, use 42" x 24" W016-7L signs.

	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	15	1 1/2	3/8	3/8	3	41°	5 1/4	5 1/8	1/2	6																2.19
*	2M	30	21	1 1/2	3/8	1/2	4 1/2	41°	8 5/8	7 3/4	5/8	9 1/4																4.38
*	3	30	21	1 1/2	3/8	1/2	4 1/2	41°	8 5/8	7 3/4	5/8	9 1/4																4.38
*	4	42	24	1 7/8	1/2	5/8	6	41°	10 1/4	9 1/8	1	12																7.0
	5																											

STANDARD SIGN
W016-7

WISCONSIN DEPT OF TRANSPORTATION

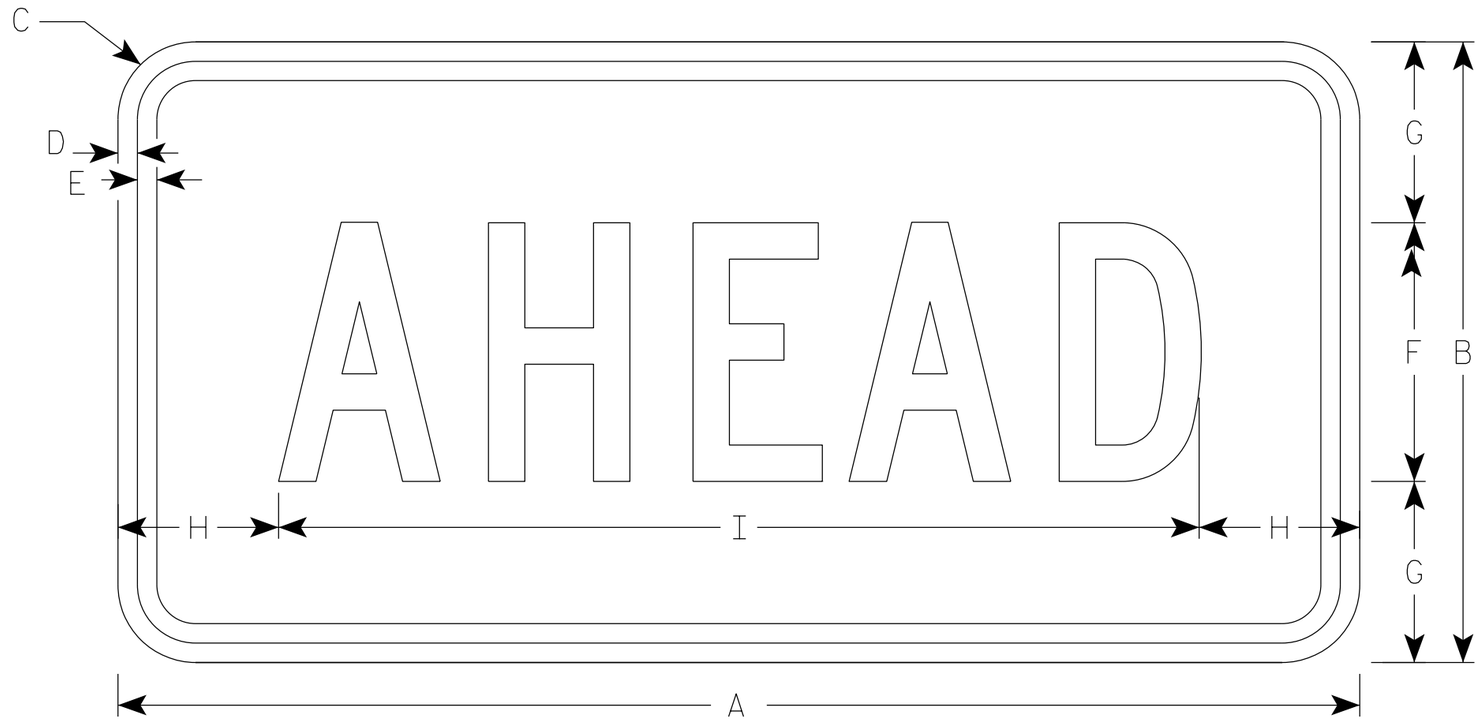
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/30/26 PLATE NO. W016-7.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 207 E

7

7



W016-9P

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	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	30	18	1 1/2	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
2S	48	24	1 7/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
2M	48	24	1 7/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
3	48	24	1 7/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
4	48	24	1 7/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5	48	24	1 7/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0

STANDARD SIGN
W016-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/2024 PLATE NO. W016-9P.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 208 E

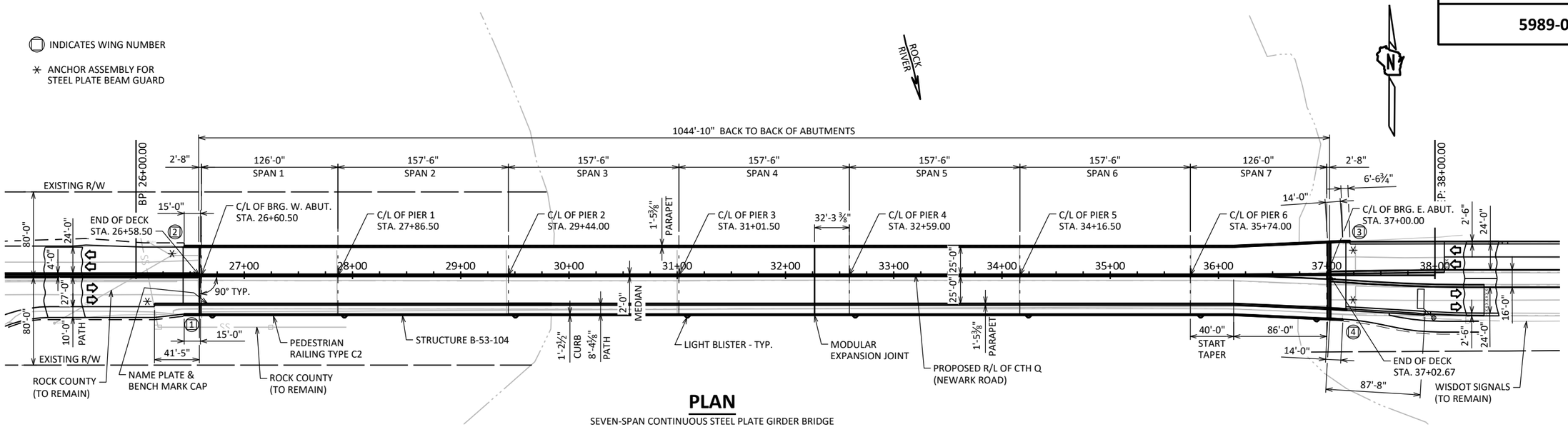
7

STATE PROJECT NUMBER

5989-03-84

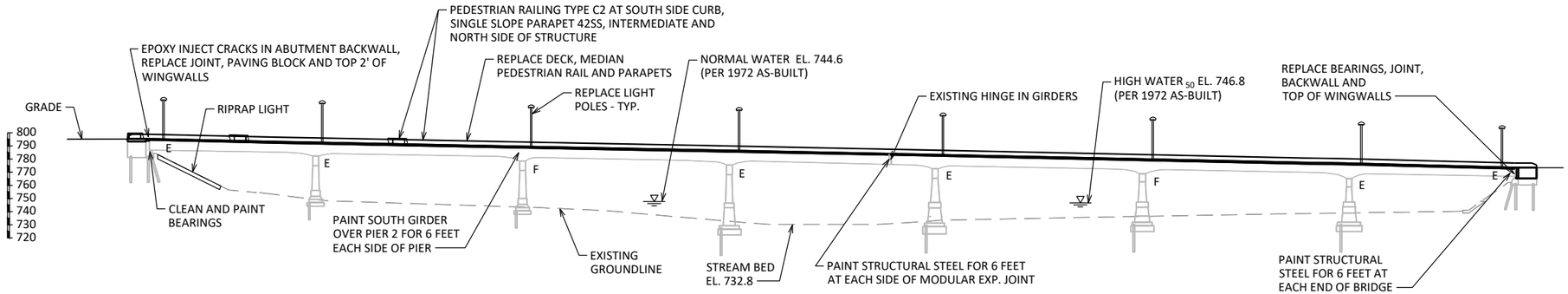
INDICATES WING NUMBER

ANCHOR ASSEMBLY FOR STEEL PLATE BEAM GUARD



PLAN

SEVEN-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
DECK REPLACEMENT



ELEVATION

LIST OF DRAWINGS:

1. GENERAL PLAN
2. TYPICAL SECTIONS
3. QUANTITIES AND NOTES
4. STRUCTURE DETAILS
5. WEST ABUTMENT
6. WEST ABUTMENT PLAN
7. WEST ABUTMENT WING 1 DETAILS
8. WEST ABUTMENT WING 2 DETAILS
9. WEST ABUTMENT BILL OF BARS AND DETAILS
10. EAST ABUTMENT
11. EAST ABUTMENT PLAN
12. EAST ABUTMENT WING 3 DETAILS
13. EAST ABUTMENT WING 4 DETAILS
14. EAST ABUTMENT BILL OF BARS AND DETAILS
15. BEARING DETAILS
16. SUPERSTRUCTURE
17. SUPERSTRUCTURE SPAN 7
18. SUPERSTRUCTURE PLAN 1
19. SUPERSTRUCTURE PLAN 2
20. SUPERSTRUCTURE PLAN 3
21. SUPERSTRUCTURE SPAN 7 BARS AT TAPER
22. LONGITUDINAL SECTIONS
23. TRANSVERSE SECTIONS
24. LIGHTING
25. LIGHTING DETAILS
26. SUPERSTRUCTURE BILL OF BARS
27. EXISTING EXTERIOR STEEL GIRDER DETAILS
28. TOP OF DECK ELEVATIONS
29. DEFLECTIONS AND TOP OF STEEL ELEVATIONS
30. DECK POURING DETAILS
31. EXPANSION DEVICE
32. COVER PLATE DETAILS
33. MULTI-USE PATH COVER PLATE DETAILS
34. MEDIAN COVER PLATE DETAILS
35. MODULAR EXPANSION JOINT DETAILS
36. COVER PLATES FOR SINGLE SLOPE PARAPET
37. FLOOR DRAIN TYPE GC
38. FLOOR DRAIN TYPE 'H'
39. CONDUIT DETAILS 4" FITTING
40. CONDUIT DETAILS 8" FITTING
41. SINGLE SLOPE PARAPET 42SS (NORTH SIDE)
42. SINGLE SLOPE 42SS INTERMEDIATE PARAPET
43. SINGLE SLOPE 42SS INTERMEDIATE PARAPET DETAILS
44. PEDESTRIAN RAILING TYPE C2
45. PEDESTRIAN RAIL TYPE C2 DETAILS

SCOPE OF WORK

- REPLACE CONCRETE DECK, MEDIAN, PARAPETS AND EXPANSION JOINTS
- PAINT STRUCTURAL STEEL AT EXPANSION JOINTS, PIER 2, AND BEARINGS AT WEST ABUTMENT
- REPAIR EXISTING SUBSTRUCTURE CONCRETE
- APPLY POLYMER OVERLAY TO NEW DECK
- REPLACE PAVING BLOCK AND TOP OF WINGWALLS AT WEST ABUTMENT
- REPLACE BEARINGS AT EAST ABUTMENT
- REPLACE EAST ABUTMENT BACKWALL AND TOP OF WINGWALLS
- PLACE RIPRAP LIGHT AT WEST ABUTMENT

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING: RF = 0.77
OPERATING RATING: RF = 1.00
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 (KIPS)

STRUCTURE RATING INCLUDES 5 PSF POLYMER OVERLAY

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

TRAFFIC DATA

FEATURE ON: CTH Q (NEWARK ROAD)

ADT = 9,300 (2027)
ADT = 9,300 (2047)
RDS = 50 MPH

WISCONSIN DANIEL N. SYDOW E-38363 WI PROFESSIONAL ENGINEER

10/26/2026

STRUCTURE DESIGN CONTACTS:

AARON BONK	608-261-0261
DAN SYDOW	715-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

AYRES 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED JLR 10/27/26
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-53-104

CTH Q (NEWARK ROAD) OVER ROCK RIVER

COUNTY	TOWN
ROCK	BELOIT

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D	DRAWN BY	PLANS CK'D
NBE	RCP	CLP	DNS

GENERAL PLAN

SHEET 1 OF 45
209

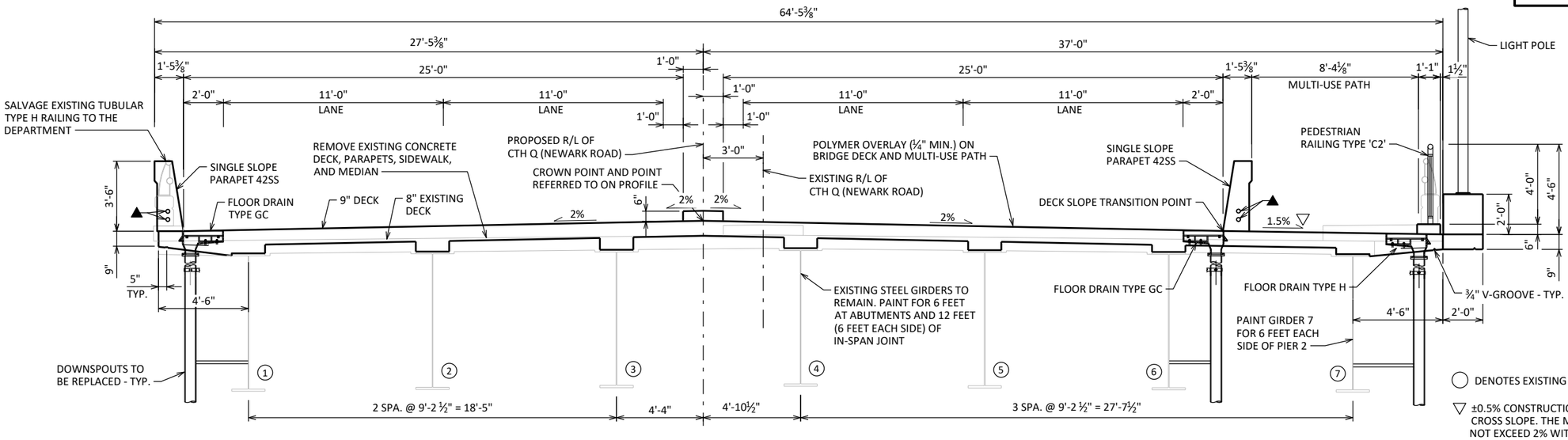
I.D. DATE:

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8

STATE PROJECT NUMBER

5989-03-84



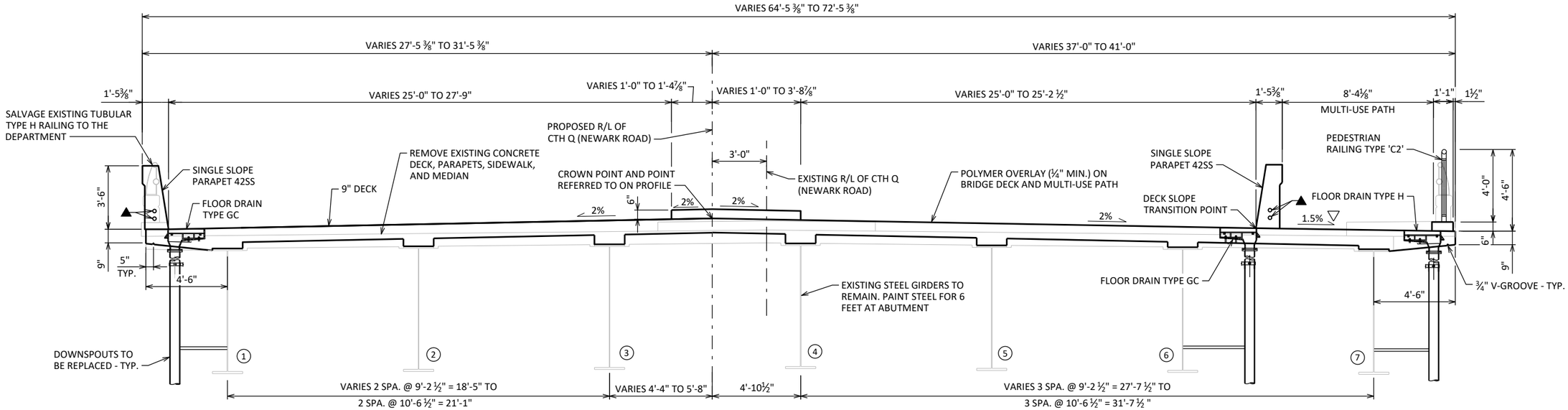
TYPICAL SECTION THRU BRIDGE SPANS 1 TO 6 AND 40' OF SPAN 7

(LOOKING EAST)

◯ DENOTES EXISTING GIRDER NUMBER.

▽ ±0.5% CONSTRUCTION TOLERANCE IN MULTI-USE PATH CROSS SLOPE. THE MULTI-USE PATH CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

▲ 2" CONDUITS
AT INTERMEDIATE PARAPET, ONE CONDUIT IS FOR LIGHTING AND THE OTHER FOR POTENTIAL FUTURE USE.
AT NORTH PARAPET, BOTH CONDUITS ARE FOR POTENTIAL FUTURE USE.



TYPICAL SECTION THRU BRIDGE SPAN 7

(LOOKING EAST)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D RCP

TYPICAL SECTIONS

SHEET 2 OF 45

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8

STATE PROJECT NUMBER

5989-03-84

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER	W. ABUT.	E. ABUT.	TOTALS
203.0211.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-53-104	EACH	-----	-----	-----	1
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS B-53-104	EACH	-----	-----	-----	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-53-104	EACH	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	-----	9	235	244
502.0100	CONCRETE MASONRY BRIDGES	CY	2,443.6	20.7	72.2	2,537
502.3101	EXPANSION DEVICE B-53-104	LF	137	-----	-----	137
502.3111.S	EXPANSION DEVICE MODULAR B-53-104	LF	65	-----	-----	65
502.3200	PROTECTIVE SURFACE TREATMENT	SY	7,141	-----	-----	7,141
502.3210	PIGMENTED SURFACE SEALER	SY	1,639	48	91	1,778
502.4112	ADHESIVE ANCHORS 1 1/2 - INCH	EACH	-----	-----	14	14
502.4204	ADHESIVE ANCHORS NO. 4 BARS	EACH	1,392	-----	-----	1,392
502.4205	ADHESIVE ANCHORS NO. 5 BARS	EACH	-----	192	220	412
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	601,830	3,320	9,180	614,330
506.6000	BEARING ASSEMBLIES EXPANSION B-53-104	EACH	-----	-----	7	7
506.7050.S	REMOVING BEARINGS B-53-104	EACH	-----	-----	7	7
509.1500	CONCRETE SURFACE REPAIR	SF	-----	100	-----	100
509.5100.S	POLYMER OVERLAY	SY	6,770	-----	-----	6,770
509.9025.S	EPOXY INJECTION CRACK REPAIR	LF	-----	40	-----	40
509.9026.S	CORED HOLES 2-INCH DIAMETER	EACH	-----	5	-----	5
513.8011	RAILING STEEL PEDESTRIAN TYPE C2	LF	1,071	-----	-----	1,071
514.0445	FLOOR DRAINS TYPE GC	EACH	14	-----	-----	14
514.0460	FLOOR DRAINS TYPE H	EACH	7	-----	-----	7
514.2625	DOWNSPOUT 6-INCH	LF	120	-----	-----	120
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-----	5	19	24
517.0901.S	PREPARATION AND COATING OF TOP FLANGES B-53-104	EACH	-----	-----	-----	1
517.3001.S	STRUCTURE OVERCOATING CLEANING AND PRIMING B-53-104	EACH	-----	-----	-----	1
517.4001.S	CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-53-104	EACH	-----	-----	-----	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	-----	-----	-----	1
531.8990	ANCHOR ASSEMBLIES POLES ON STRUCTURE	EACH	8	-----	-----	8
606.0100	RIPRAP LIGHT	CY	-----	24	-----	24
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-----	-----	125	125
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	-----	-----	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	-----	-----	95	95
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	72	-----	-----	72
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	4,540	-----	-----	4,540
653.0222	JUNCTION BOXES 18x12x6-INCH	EACH	16	-----	-----	16
SPV.0060	TOP OF GIRDER SURVEY B-53-104	EACH	1	-----	-----	1
	NON-BID ITEMS					
	FILLER	SIZE	---	---	---	½", ¾"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

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-53-104" SHALL BE THE EXISTING GROUNDLINE.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1" DEEP SAW CUT UNLESS SHOWN OR NOTED OTHERWISE.

AT ABUTMENTS ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

THE MINIMUM CONCRETE HAUNCH SHALL BE 2" FOR DESIGN CALCULATIONS AND THE HAUNCH CONCRETE QUANTITY IS BASED ON AN AVERAGE DEPTH OF 5", WHICH IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH THE CONTRACTOR WILL BE PAID.

PIGMENTED SURFACE SEALER, PROTECTIVE SURFACE TREATMENT, AND POLYMER OVERLAY TO BE APPLIED AS SHOWN ON THE DETAIL ON SHEET 4.

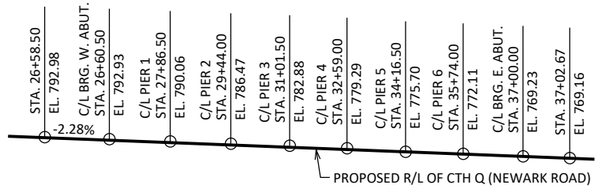
THE EXISTING TUBULAR RAILING IS TO BE SALVAGED TO THE DEPARTMENT. SEE SPECIAL PROVISIONS FOR EXACT DETAILS.

VARIATIONS TO THE NEW GRADE LINE OVER ¼" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE STRUCTURES DESIGN SECTION FOR REVIEW.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR.

ALL STRUCTURAL STEEL SHALL BE PAINTED 6-FEET FROM ABUTMENTS AND 6-FEET EITHER SIDE OF THE SPAN 4 HINGE AND SOUTH GIRDER AT PIER 2. THE COLOR TO BE AMS STANDARD NO. 20152, REDDISH-BROWN.

EXISTING BEARINGS TO BE CLEANED AND PAINTED AT WEST ABUTMENT.

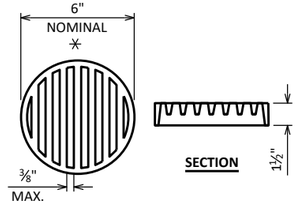


PROFILE GRADE LINE

CTH Q (NEWARK ROAD)

BENCH MARK

NO.	STATION	DESCRIPTION	ELEV.
200	26+61'Q'	ALUMINUM DISC, 35.6' RT.	793.17
201	37+06'Q'	ALUMINUM DISC, 30.7' LT.	768.98



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

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D RCP

QUANTITIES AND NOTES

SHEET 3 OF 45

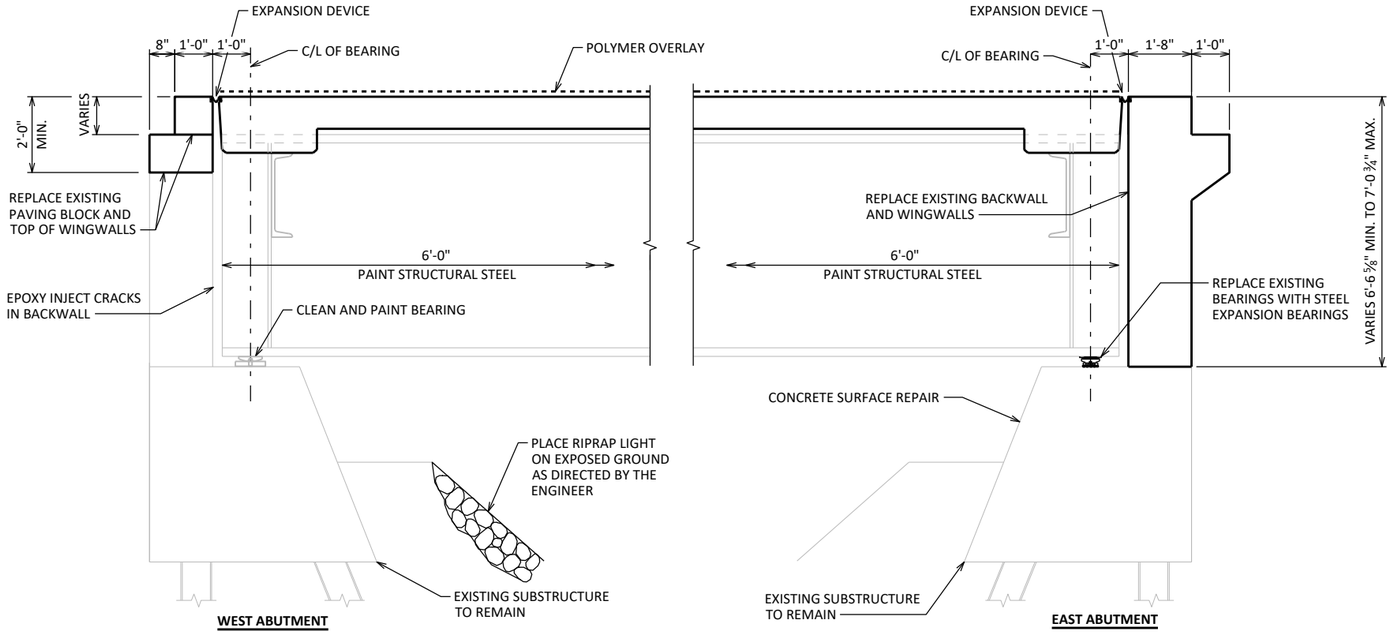
211

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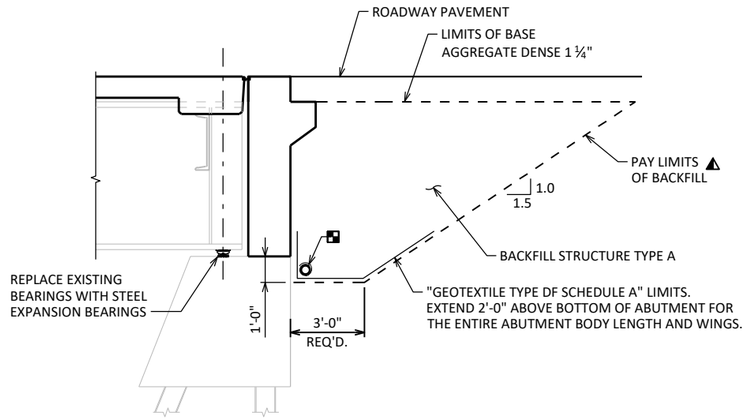
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STATE PROJECT NUMBER

5989-03-84



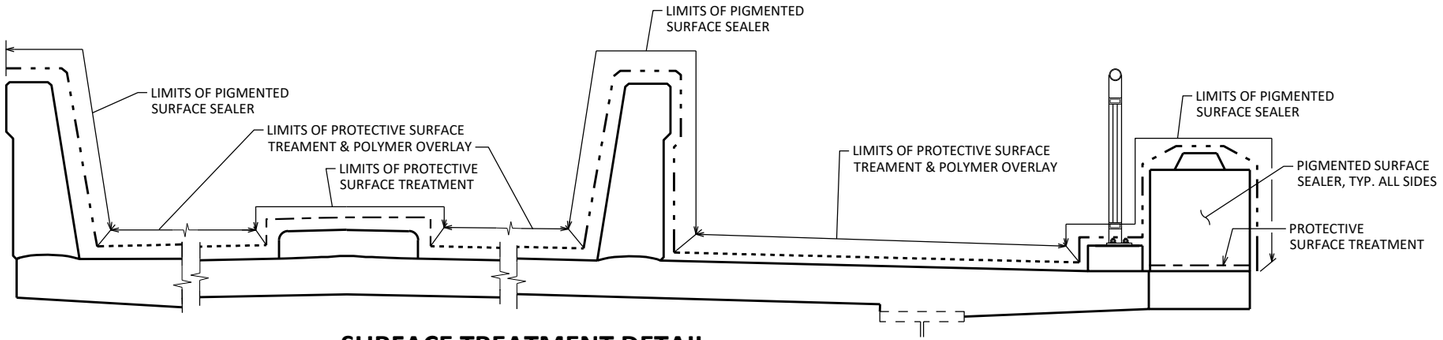
TYPICAL ABUTMENT REPAIR DETAILS



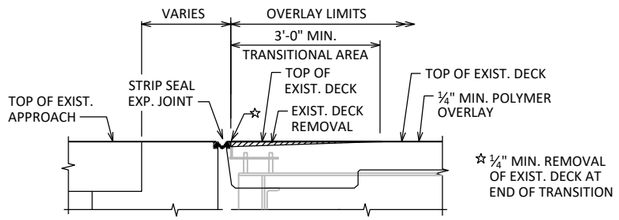
TYPICAL SECTION THRU EAST ABUTMENT

⚠ 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.

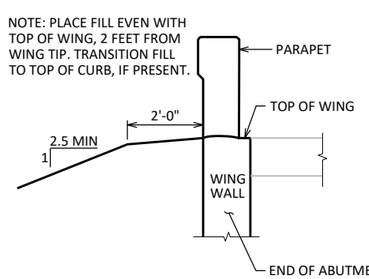


SURFACE TREATMENT DETAIL



SECTION THRU ABUTMENT TRANSITIONAL AREA ON DECK

(REMOVAL AND OVERLAY THICKNESS NOT TO SCALE)



TYPICAL FILL SECTION AT WING TIPS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D RCP/NBE

STRUCTURE DETAILS

SHEET 4 OF 45

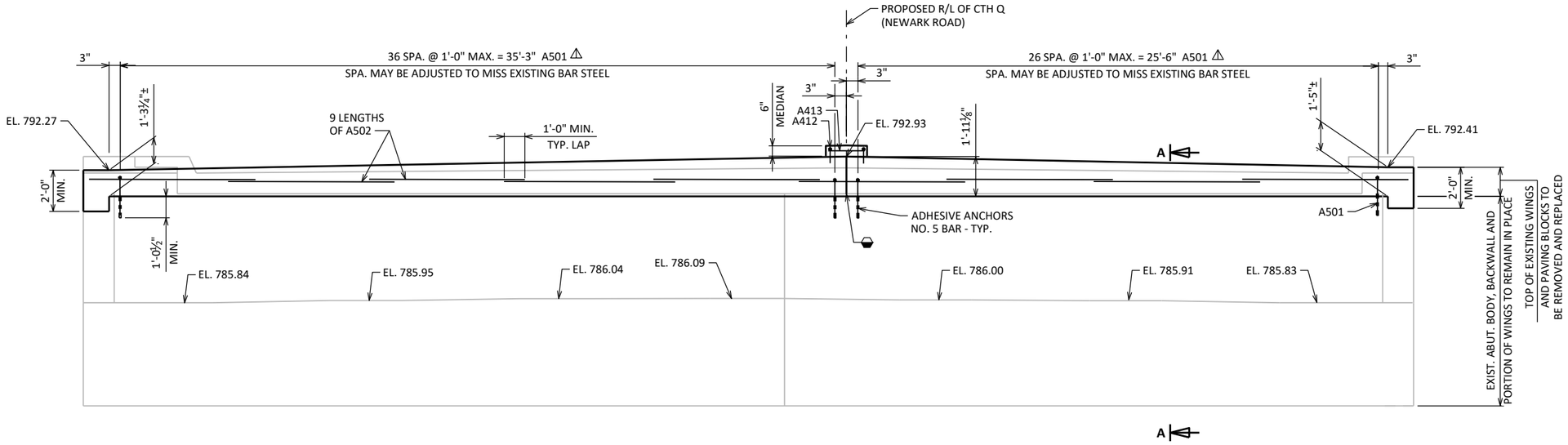
212

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8

STATE PROJECT NUMBER

5989-03-84



ELEVATION

(LOOKING WEST)

FOR SECTION A-A, SEE SHEET 9

⚠ ADHESIVE ANCHORS NO. 5 BAR

VERT. CONST. JOINT
KEYED CONST. JOINT FORMED
BY 2" x 8" IN BACKWALL.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D NBE

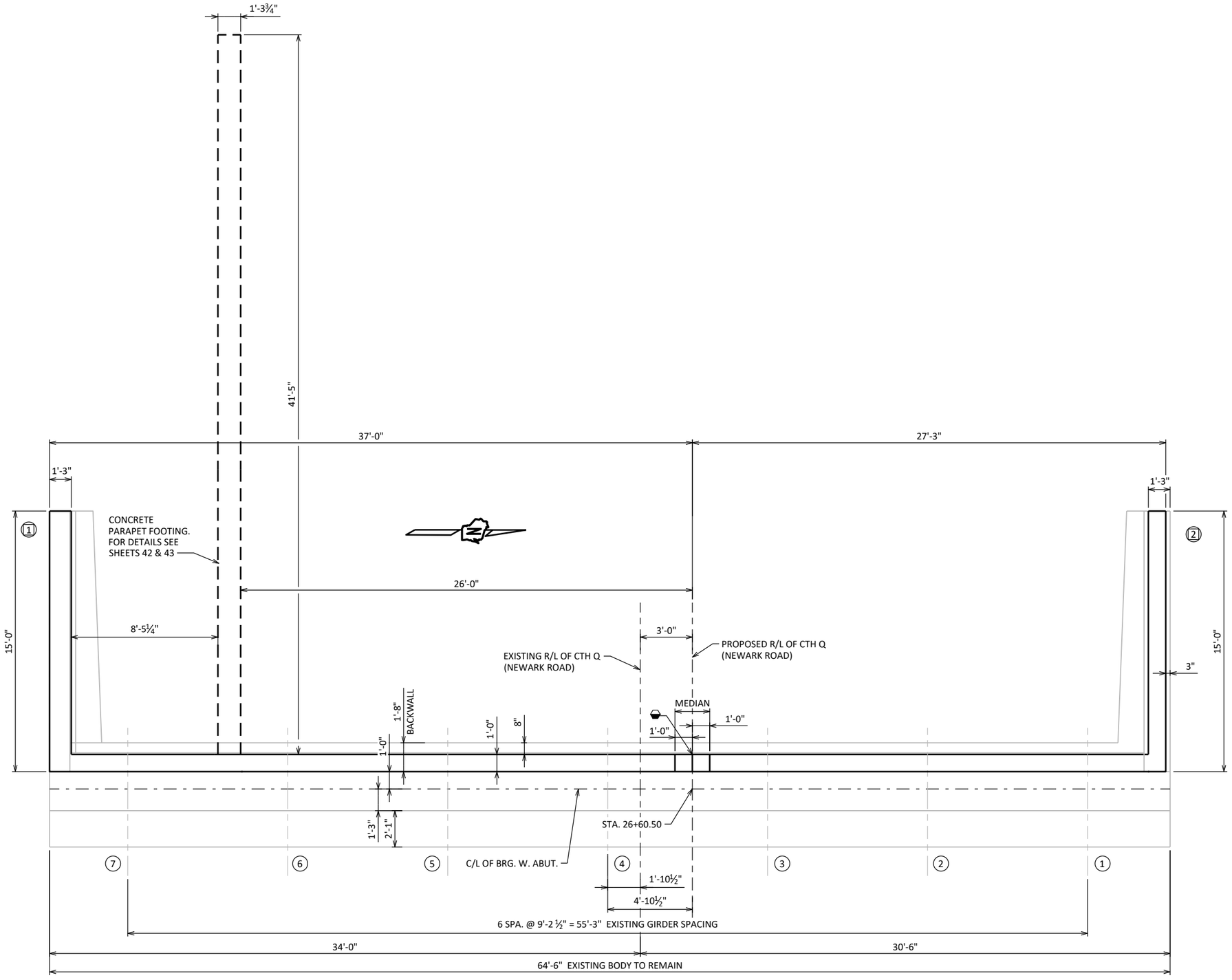
WEST ABUTMENT

SHEET 5 OF 45

213

STATE PROJECT NUMBER

5989-03-84



PLAN

VERT. CONST. JOINT
KEYED CONST. JOINT FORMED
BY 2" x 8" IN BACKWALL.

DENOTES EXISTING GIRDER NUMBER

DENOTES WING NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D NBE

WEST ABUTMENT PLAN

SHEET 6 OF 45

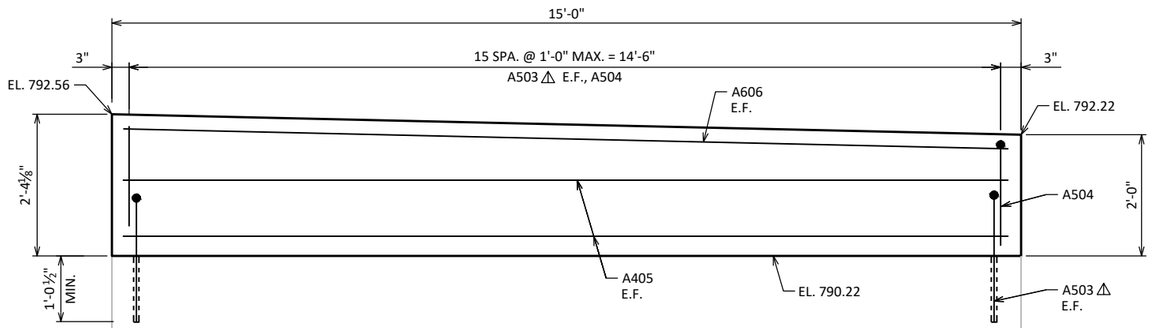
214

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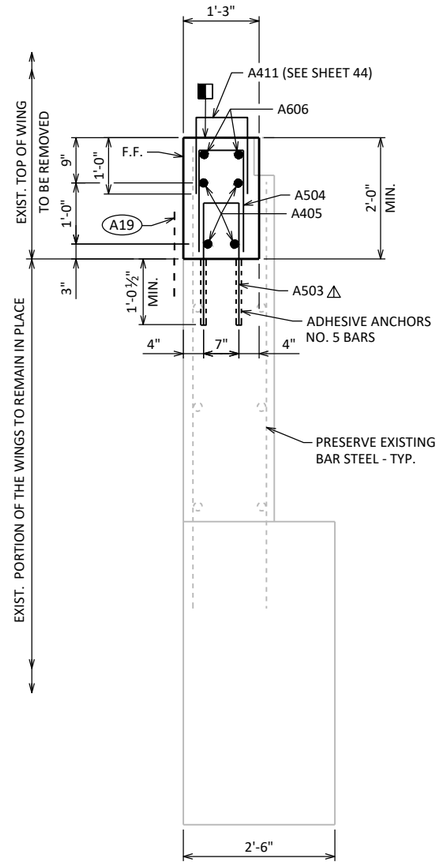
STATE PROJECT NUMBER

5989-03-84

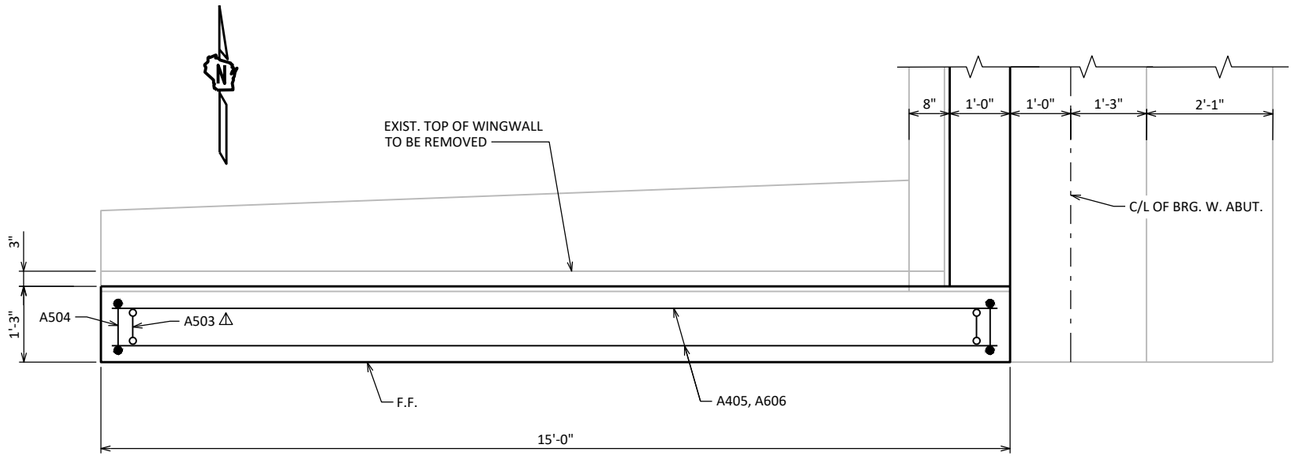


ELEVATION - WING 1

PEDESTRIAN RAILING TYPE C2
NOT SHOWN. FOR DETAILS
SEE SHEETS 44 & 45



END VIEW - WING 1



PLAN - WING 1

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE OF ABUT. AND WINGS.

CONST. JOINT, STRIKE OFF AND LEAVE ROUGH

⚠ ADHESIVE ANCHORS NO. 5 BAR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D NBE

WEST ABUTMENT WING 1 DETAILS

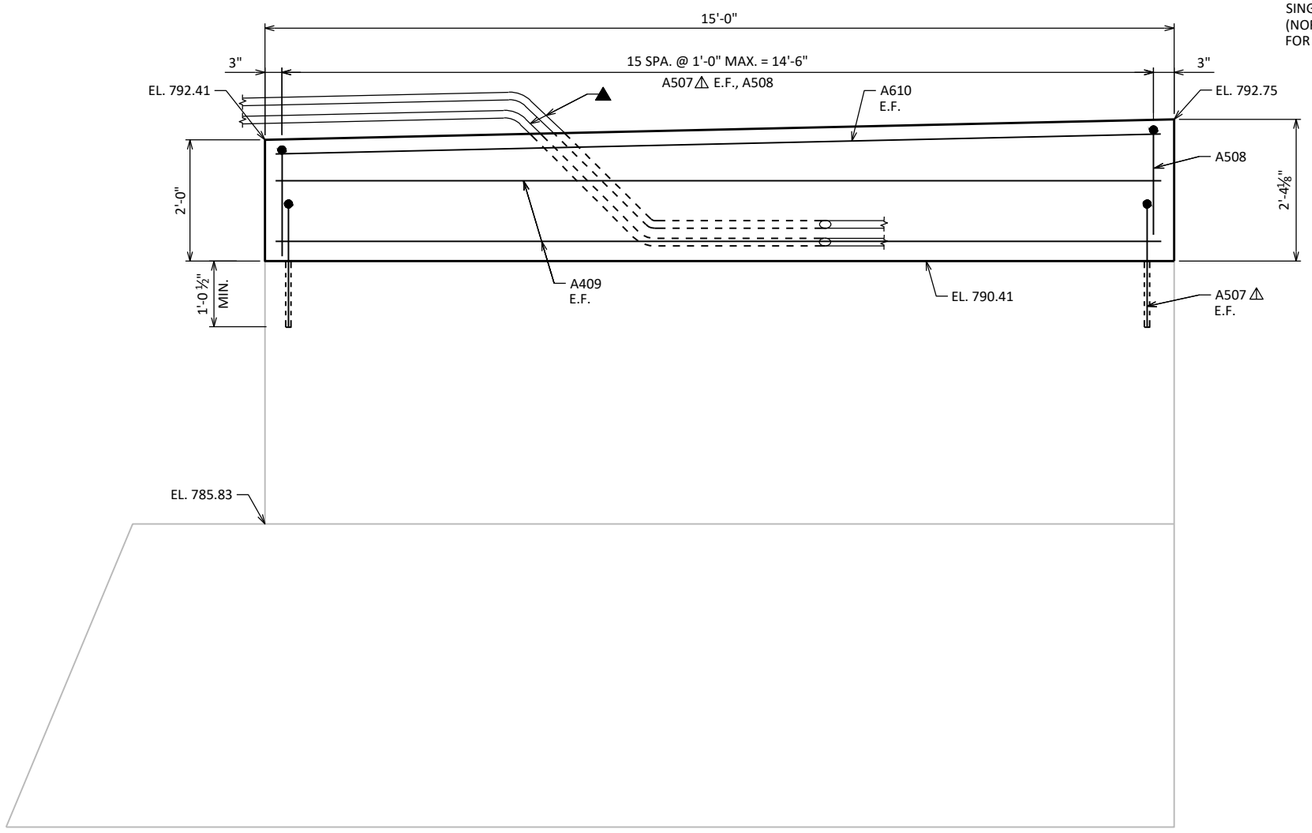
SHEET 7 OF 45

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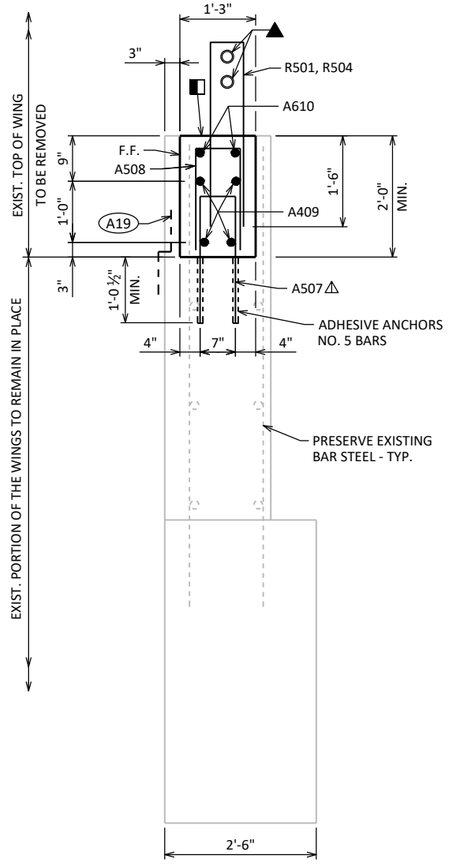
STATE PROJECT NUMBER

5989-03-84

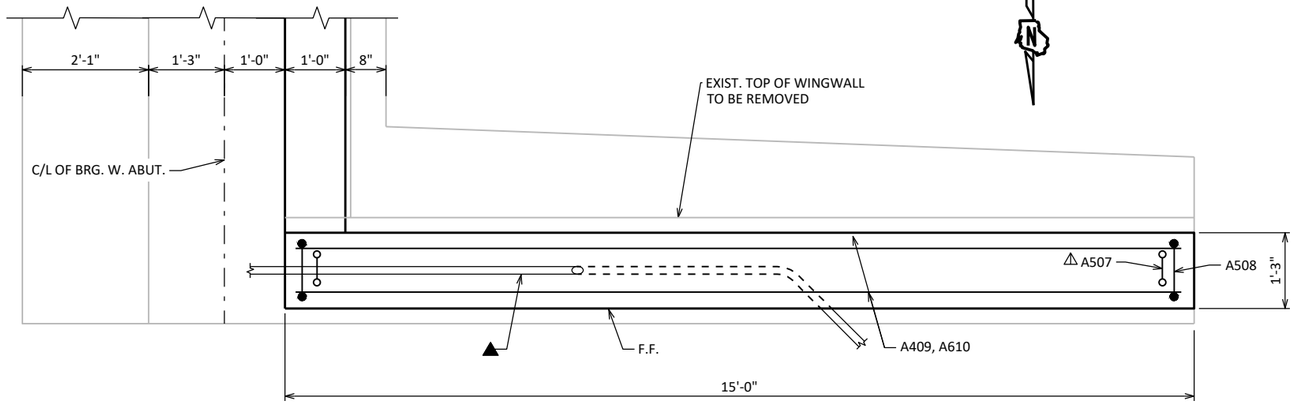


ELEVATION - WING 2

SINGLE SLOPE PARAPET 42SS (NORTH SIDE) NOT SHOWN. FOR DETAILS SEE SHEET 41



END VIEW - WING 2



PLAN - WING 2

A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE OF ABUT. AND WINGS.

CONST. JOINT, STRIKE OFF AND LEAVE ROUGH

⚠ ADHESIVE ANCHORS NO. 5 BAR

▲ 2" CONDUITS

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

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WEST ABUTMENT WING 2 DETAILS

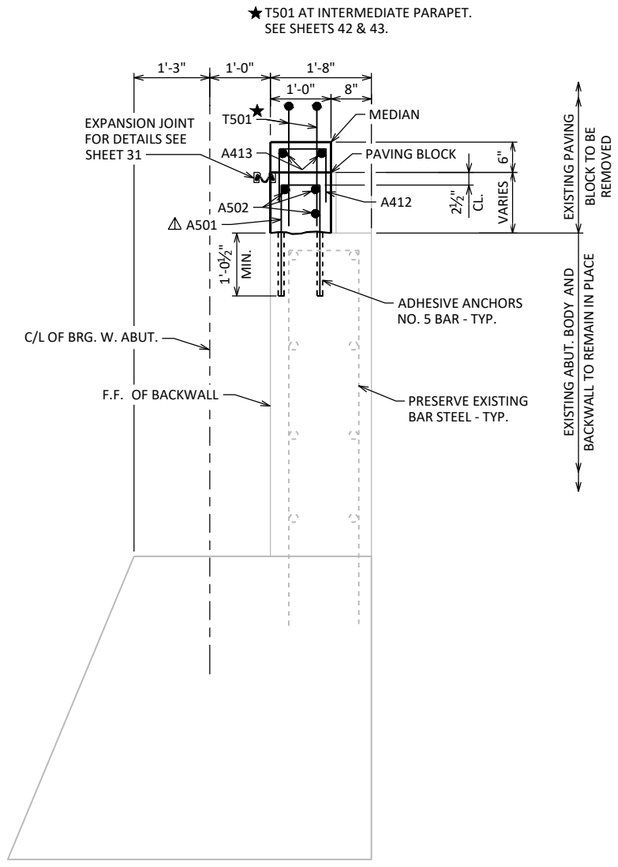
SHEET 8 OF 45

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SECTION A- A

FOR LOCATION OF SECTION A-A, SEE SHEET 5.

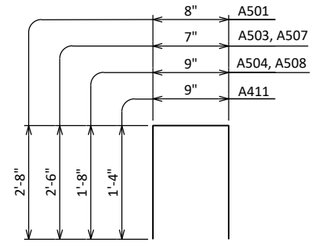
BILL OF BARS

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

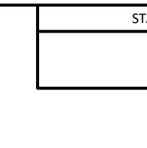
	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
⚠	A501	X	64	5'-9"	X		PAVING BLOCK VERT.
	A502	X	27	8'-0"			PAVING BLOCK HORIZ.
⚠	A503	X	16	5'-4"	X		WING 1 VERT.
	A504	X	16	3'-10"	X		WING 1 VERT.
	A405	X	6	14'-8"			WING 1 HORIZ. E.F. & CURB
	A606	X	2	14'-8"			WING 1 HORIZ. TOP E.F.
⚠	A507	X	16	5'-4"	X		WING 2 VERT.
	A508	X	16	3'-10"	X		WING 2 VERT.
	A409	X	4	14'-8"			WING 2 HORIZ. E.F.
	A610	X	2	14'-8"			WING 2 HORIZ. TOP E.F.
	A411	X	16	3'-3"	X		WING 1 VERT. @ CURB
	A412	X	2	2'-0"	X		MEDIAN VERT.
	A413	X	2	1'-8"			MEDIAN HORIZ.

BENDING DIMENSIONS ARE OUT TO OUT OF BARS

⚠ ADHESIVE ANCHORS NO. 5 BAR



A501, A503, A504
A507, A508, A411



A412

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

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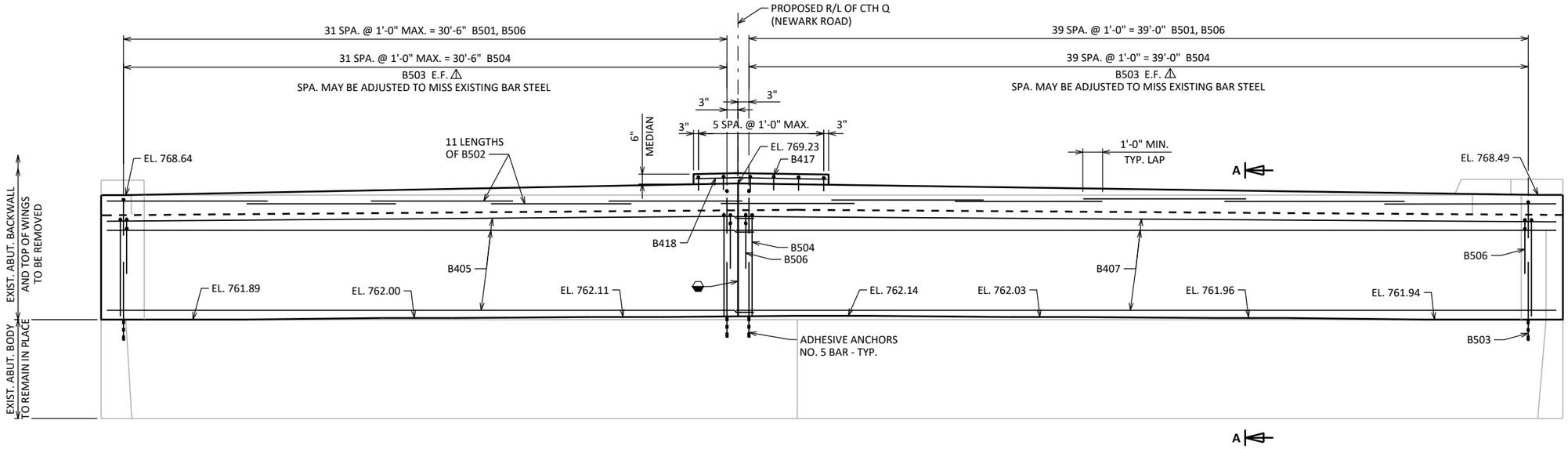
WEST ABUTMENT BILL OF BARS AND DETAILS

SHEET 9 OF 45

8

8

STATE PROJECT NUMBER
5989-03-84



ELEVATION

(LOOKING EAST)
FOR SECTION A-A, SEE SHEET 14

⚠ ADHESIVE ANCHORS NO. 5 BAR

VERT. CONST. JOINT
KEYED CONST. JOINT FORMED BY 2" x 8" IN BACKWALL.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

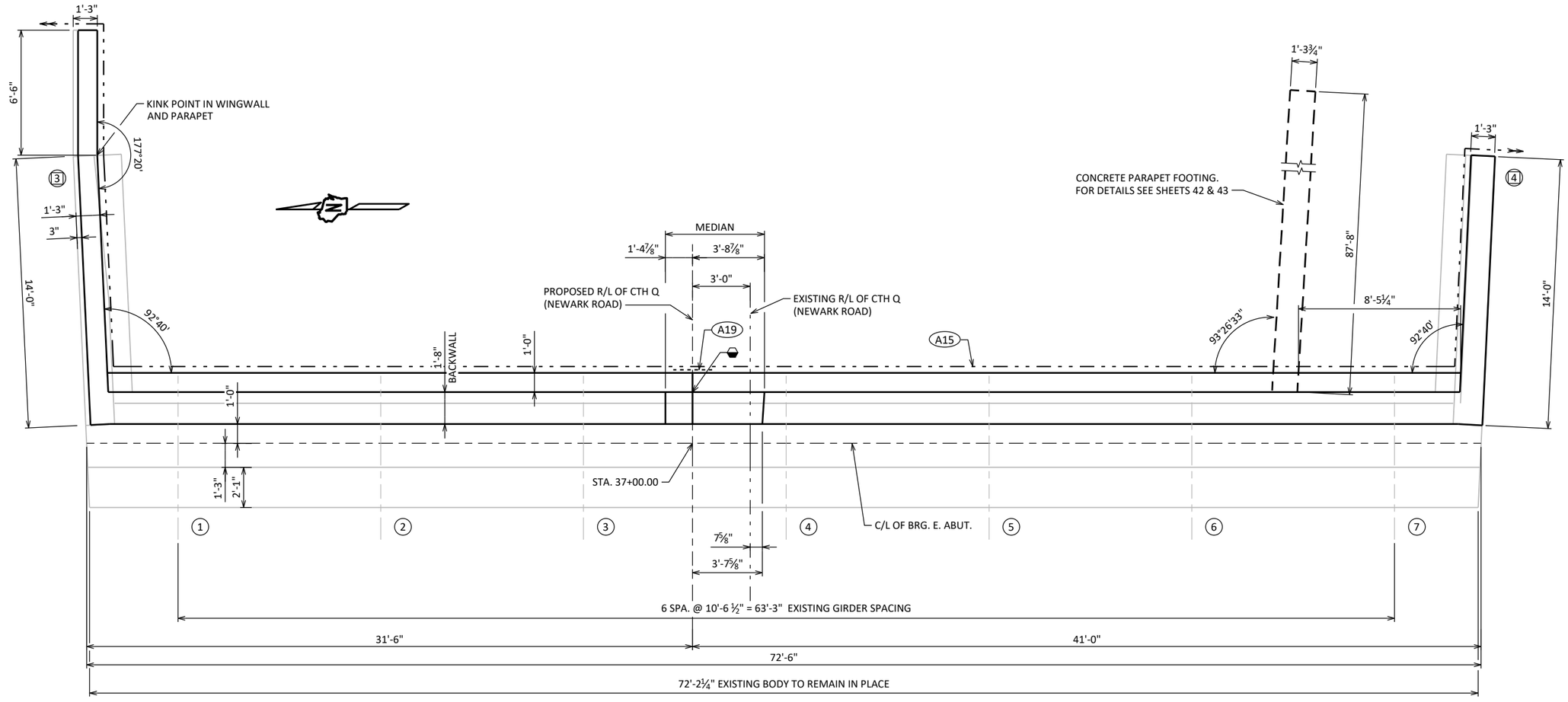
DRAWN BY CLP | PLANS CK'D NBE

EAST ABUTMENT

SHEET 10 OF 45

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PLAN

(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 3. RODENT SHIELD TO BE INCIDENTAL TO BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

VERT. CONST. JOINT
KEYED CONST. JOINT FORMED BY 2" x 8" IN BACKWALL.

(○) DENOTES EXISTING GIRDER NUMBER

(□) DENOTES WING NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

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EAST ABUTMENT PLAN

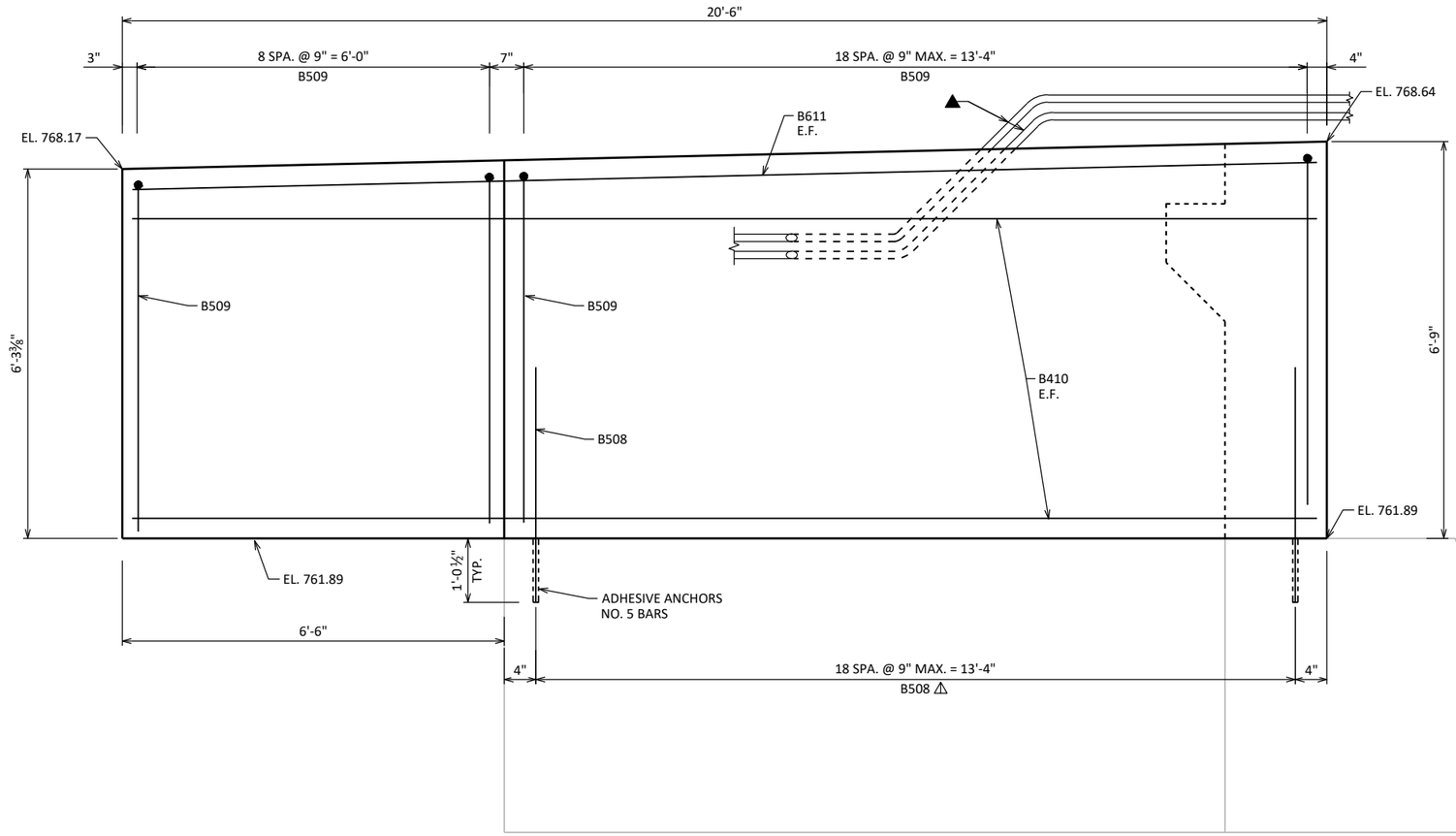
SHEET 11 OF 45

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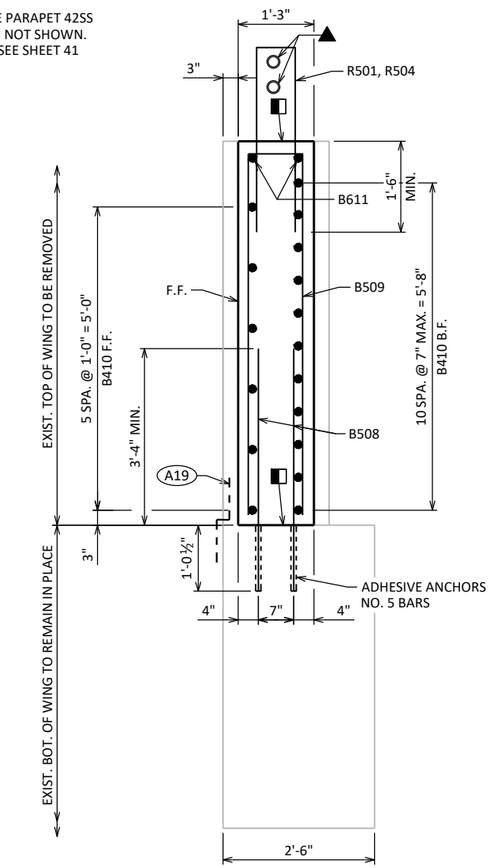
STATE PROJECT NUMBER

5989-03-84

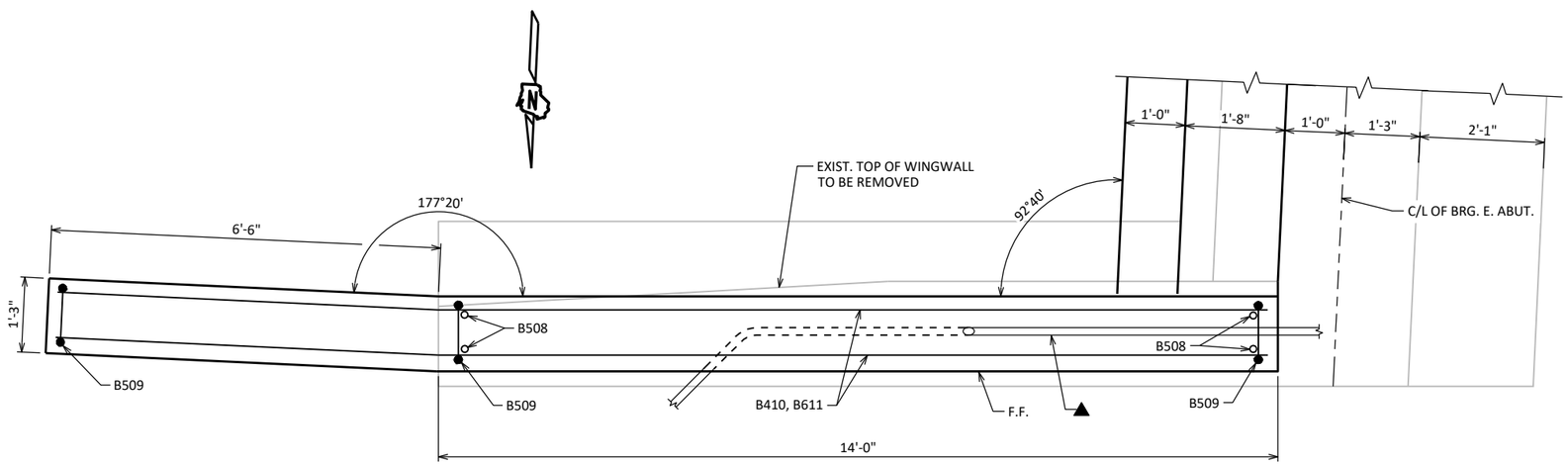


ELEVATION - WING 3

SINGLE SLOPE PARAPET 42SS
(NORTH SIDE) NOT SHOWN.
FOR DETAILS SEE SHEET 41



END VIEW - WING 3



PLAN - WING 3

A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE OF ABUT. AND WINGS.

CONST. JOINT, STRIKE OFF AND LEAVE ROUGH

⚠ ADHESIVE ANCHORS NO. 5 BAR

▲ 2" CONDUITS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D NBE

EAST ABUTMENT WING 3 DETAILS

SHEET 12 OF 45

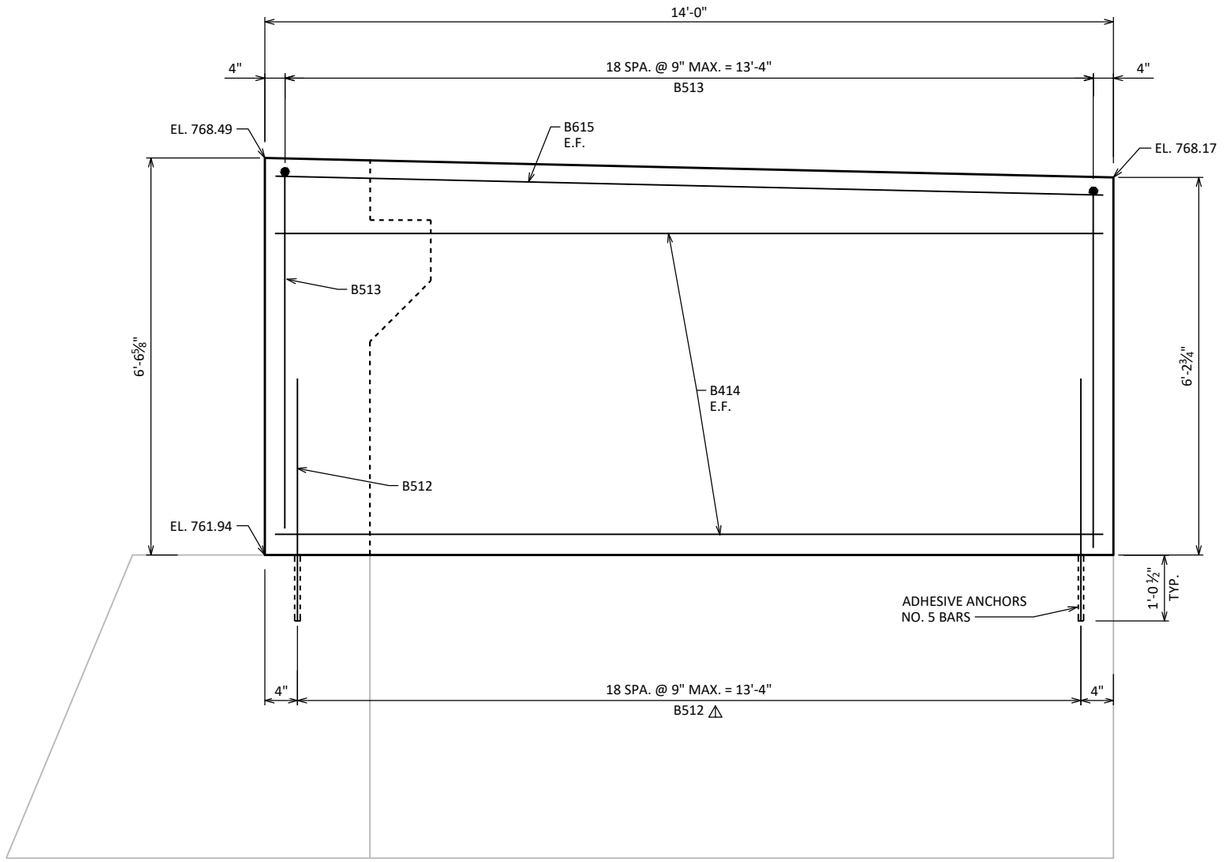
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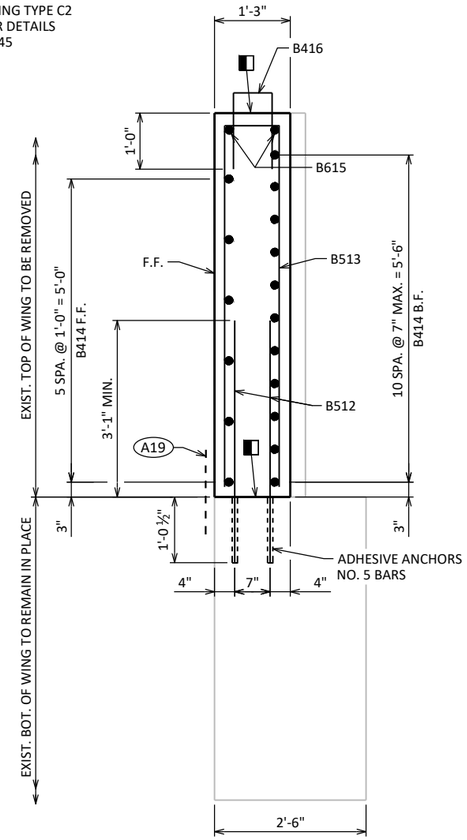
STATE PROJECT NUMBER

5989-03-84

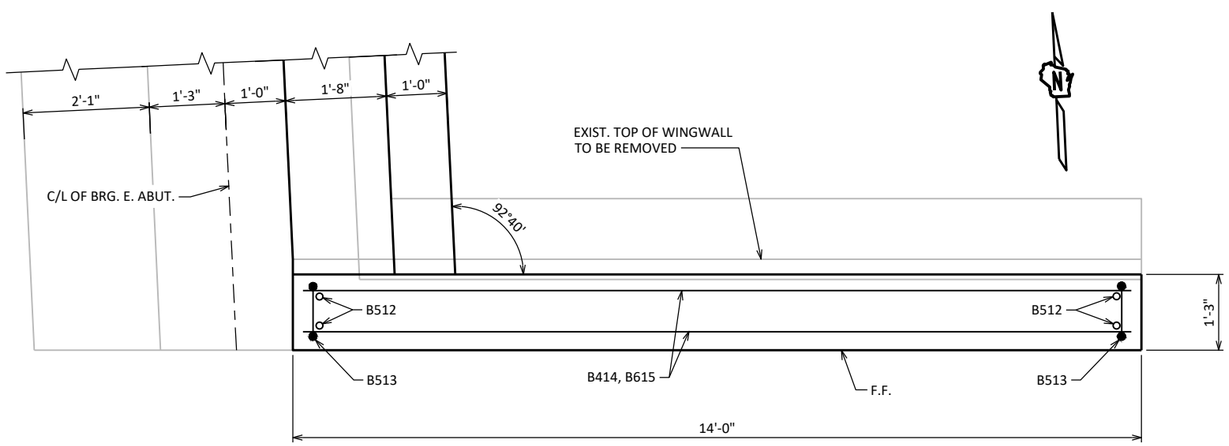


ELEVATION - WING 4

PEDESTRIAN RAILING TYPE C2
NOT SHOWN. FOR DETAILS
SEE SHEETS 44 & 45



END VIEW - WING 4



PLAN - WING 4

A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE OF ABUT. AND WINGS.

CONST. JOINT, STRIKE OFF AND LEAVE ROUGH

⚠ ADHESIVE ANCHORS NO. 5 BAR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D NBE

EAST ABUTMENT WING 4 DETAILS

SHEET 13 OF 45

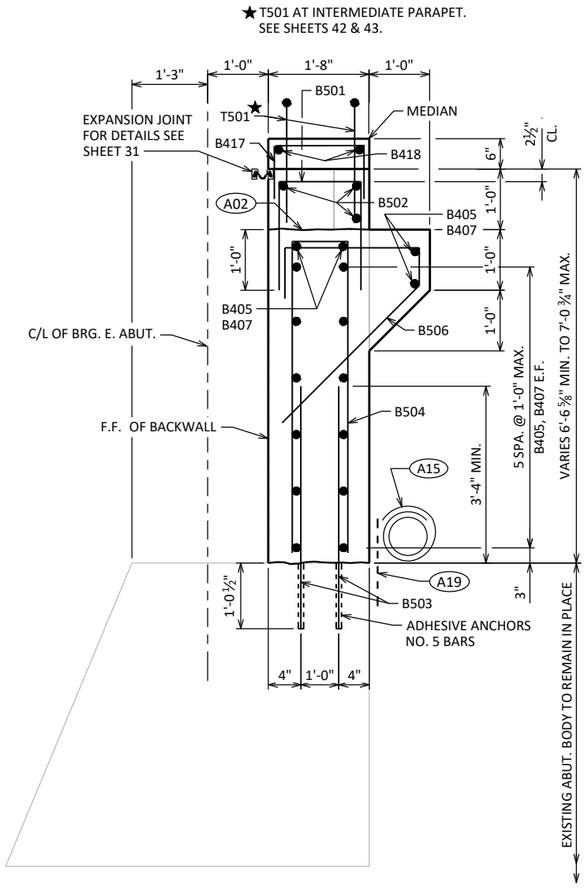
221

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STATE PROJECT NUMBER

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SECTION A-A

(A02) CONST. JOINT: POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

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

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE OF ABUT. AND WINGS.

FOR LOCATION OF SECTION A-A, SEE SHEET 10.

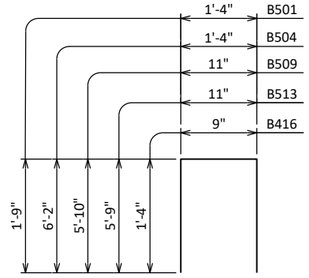
BILL OF BARS

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

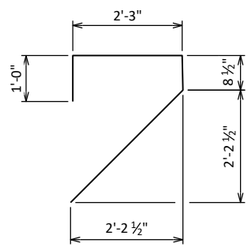
	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
	B501	X	72	4'-7"	X		PAVING BLOCK VERT.
	B502	X	33	7'-6"			PAVING BLOCK HORIZ.
⚠	B503	X	144	4'-5"			BACKWALL VERT. DOWELS E.F.
	B504	X	72	13'-5"	X		BACKWALL VERT.
	B405	X	16	33'-7"			BACKWALL HORIZ. E.F.
	B506	X	72	6'-10"	X		BACKWALL VERT. @ CORBEL
	B407	X	16	39'-4"			BACKWALL HORIZ. E.F.
⚠	B508	X	38	4'-5"			WING 3 VERT. DOWELS E.F.
	B509	X	28	12'-4"	X		WING 3 VERT.
	B410	X	17	20'-2"	X		WING 3 HORIZ. E.F.
	B611	X	2	20'-2"	X		WING 3 HORIZ. E.F. TOP
⚠	B512	X	38	4'-2"			WING 4 VERT. DOWELS E.F.
	B513	X	19	12'-2"	X		WING 4 VERT.
	B414	X	19	13'-8"			WING 4 HORIZ. E.F. & CURB
	B615	X	2	13'-8"			WING 4 HORIZ. E.F. TOP
	B416	X	15	3'-3"	X		WING 4 VERT. @ CURB
	B417	X	6	2'-8"	X		MEDIAN VERT. B.F.
	B418	X	2	4'-8"			MEDIAN HORIZ.

BENDING DIMENSIONS ARE OUT TO OUT OF BARS

⚠ ADHESIVE ANCHORS NO. 5 BAR



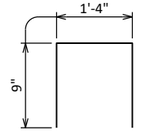
B501, B504
B509, B513, B416



B506



B410, B611



B417

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D NBE

EAST ABUTMENT BILL OF BARS AND DETAILS

SHEET 14 OF 45

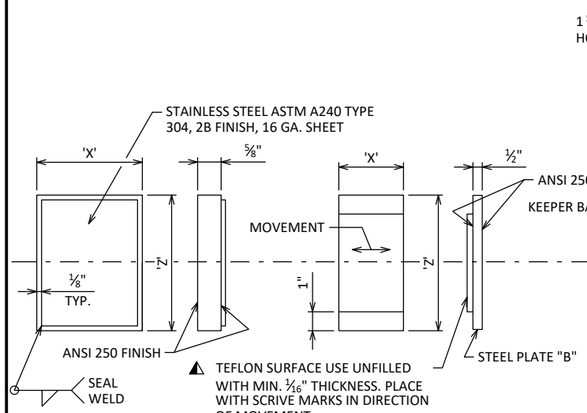
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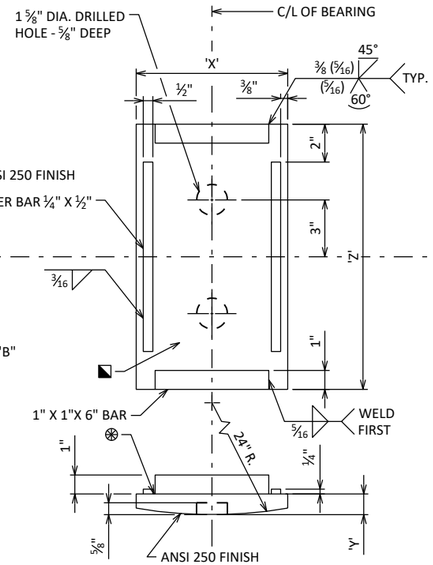
STATE PROJECT NUMBER

5989-03-84

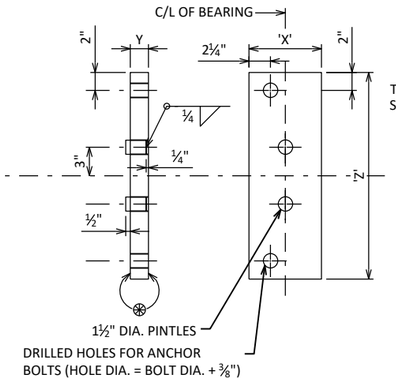


TOP PLATE "A"

TEFLON SURFACE ON PLATE "B"

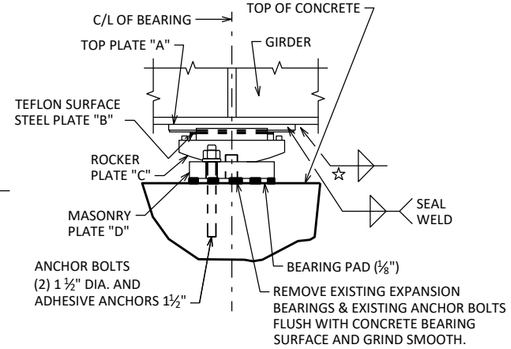


ROCKER PLATE "C"



MASONRY PLATE "D"

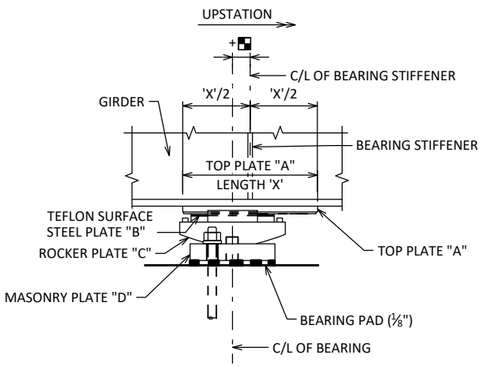
TYPE I



EXPANSION BEARING ASSEMBLY

EXPANSION BEARING

	TOTAL LOAD (KIPS)	PLATE "A"			PLATE "B"			PLATE "C"			PLATE "D"			HEIGHT FEET	PLATE "D" TYPE	ANCHOR BOLT SIZE	NO. OF BRG'S REQ'D.	LOCATION
		'X'	'Y'	'Z'	'X'	'Y'	'Z'	'X'	'Y'	'Z'	'X'	'Y'	'Z'					
EXPANSION BEARING	315	11"	⅝"	1'-9"	7"	½"	1'-9"	9"	1 15/16"	1'-11 ¼"	9"	2"	3'-0"	0.443	1	1 ½"	7	EAST ABUTMENT



EXPANSION BEARING OFFSET DETAIL

°F	E. ABUT.
30	-0.4
45	0
60	0.4
75	0.6
90	1.0

⬘ BEARING OFFSET TABLE

ALL DIMENSIONS IN INCHES
AMBIENT TEMPERATURE DURING BEARING REPLACEMENT

GIRDER REACTIONS AT BEARINGS (KIPS)

		C/L BRG. EAST ABUTMENT
INTERIOR GIRDER	DL	82
	LL	165
EXTERIOR GIRDER	DL	89
	LL	166

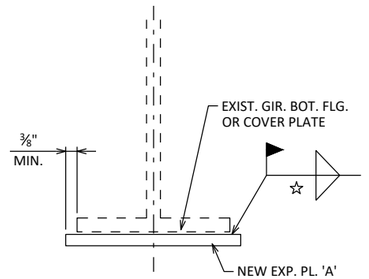
NOTES

THE THEORETICAL SERVICE LOADS (UNFACTORED) SHOWN IN THE TABLE ARE BASED ON THE BRIDGE IN ITS FINAL CONFIGURATION. ADDITIONAL LOAD RESULTING FROM STAGING AND/OR CONTRACTOR OPERATIONS, SUCH AS UNEVEN JACKING OF ADJACENT GIRDERS OR ADJACENT SUBSTRUCTURE UNITS, IS NOT INCLUDED.

THE LL REACTIONS ARE BASED ON (HS-20/HL-93) AND INCLUDE IMPACT.

EXTERIOR GIRDER DEAD LOAD REACTIONS WERE INCREASED 10% TO ACCOUNT FOR VARIABILITY IN COMPOSITE DL DISTRIBUTION METHODS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ADEQUACY OF THE GIRDER AT THE JACKING LOCATION.



BEARING REPLACEMENT DETAILS

☆ TABLE OF FILLET WELD SIZES

MATERIAL THICKNESS OF THICKER PART JOINED.	‡ MIN. SIZE OF FILLET WELD
TO ½" INCLUSIVE	3/16"
OVER ½" TO ¾"	¼"
OVER ¾" TO 1½"	△ 5/16"
OVER 1½" TO 2¼"	△ ⅜"
OVER 2¼" TO 6"	△ ½"

‡ EXCEPT THAT THE WELD SIZE SHALL NOT EXCEED THE THICKNESS OF THE THINNER PART JOINED.

△ MIN. PASS SIZE IS 5/16"

BEARING NOTES

ALL BEARINGS ARE SYMMETRICAL ABOUT C/L OF BEARING AND PLACED PARALLEL TO PROPOSED R/L OF CTH Q (NEWARK ROAD).

⊛ FINISH THESE SURFACES TO ANSI 250 IF 'Y' DIMENSION IS GREATER THAN 2".

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS C.

ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM F1554 GRADE 55, OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ALL MATERIAL IN BEARINGS, INCLUDING SHIM PLATES, BUT EXCLUDING STAINLESS STEEL SHEET, TEFLON SURFACE, PINTLES, ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 50W.

ALL MATERIAL IN BEARINGS, INCLUDING SHIM PLATES AND BEARING PADS, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING ASSEMBLIES EXPANSION B-53-104", EACH.

CHAMFER ANCHOR BOLTS PRIOR TO THREADING.

ALL FINISHED SURFACES SHALL BE MACHINE FINISHED BY AN AUTOMATIC PROCESS.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

PROVIDE ⅛" THICK BEARING PAD THE SAME SIZE AS MASONRY PLATE "D" FOR EACH BEARING.

ANCHOR BOLTS SHALL BE THREADED 3". PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. BOLT LENGTH TO BE 1'-5" FOR 1¼" DIA. AND 1'-10" FOR 1½" DIA. BOLTS. PROJECT ANCHOR BOLTS, MASONRY PLATE "D" THICKNESS + 2¼", ABOVE TOP OF CONCRETE.

CHAMFER TOP OF PINTLES ⅛". DRILL HOLES FOR ALL PINTLES IN MASONRY PLATE "D" FOR A DRIVING FIT.

STEEL PINTLES SHALL CONFORM TO ASTM A449 OR ASTM A572 GRADE 50.

EXPANSION BEARINGS:
ROCKER PLATE "C" AND MASONRY PLATE "D" SHALL BE GALVANIZED. TOP PLATE "A" AND STEEL PLATE "B" SHALL BE SHOP PAINTED. USE A WELDABLE PRIMER ON TOP PLATE "A". DO NOT PAINT STAINLESS STEEL OR TEFLON SURFACES.

◪ PROVIDE A METHOD FOR HANDLING ROCKER PLATE "C" DURING GALVANIZING.

◭ BOND STEEL PLATE "B" AND TEFLON WITH ADHESIVE MATERIAL MEETING REQUIREMENTS FOUND IN THE STANDARD SPECIFICATION.

AT INSTALLATION, ENSURE STAINLESS STEEL SLIDING FACE OF THE UPPER ELEMENT AND THE TFE SLIDING FACE OF THE LOWER ELEMENT HAVE THE SURFACE FINISH SPECIFIED AND ARE CLEAN AND FREE OF ALL DUST, MOISTURE, AND OTHER FOREIGN MATTER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D NBE

BEARING DETAILS

SHEET 15 OF 45

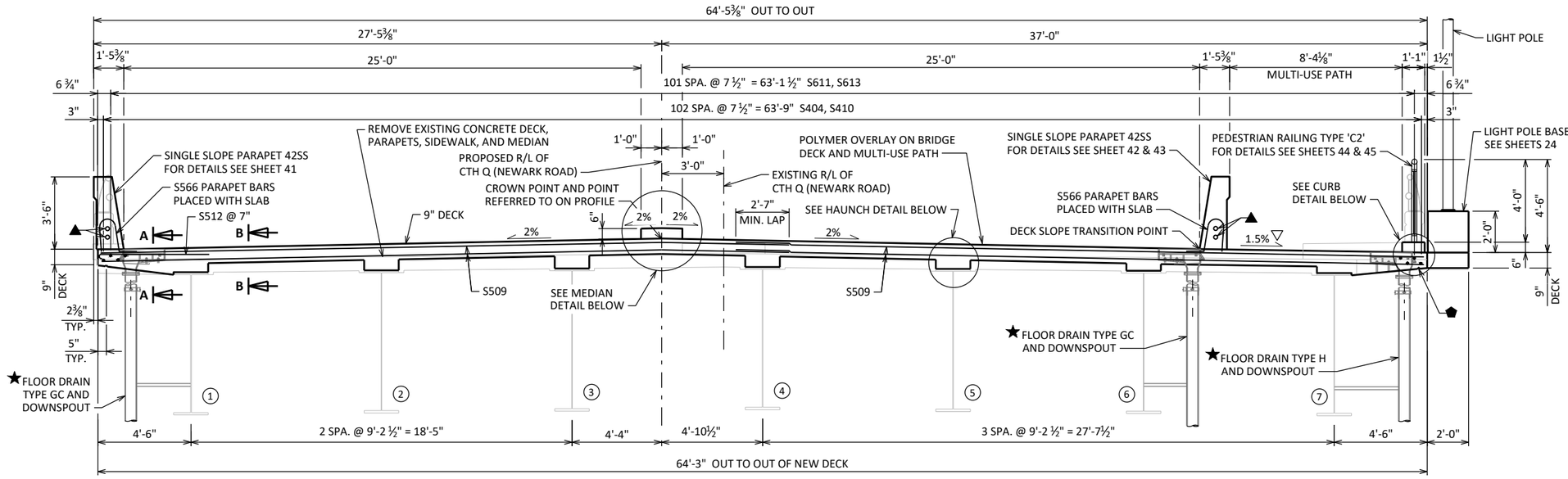
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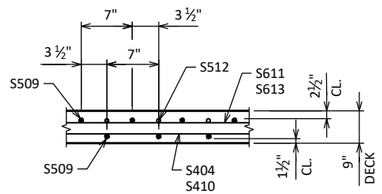
STATE PROJECT NUMBER

5989-03-84

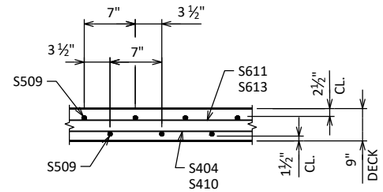


TYPICAL SECTION THRU BRIDGE SPANS 1 TO 6 AND 40' OF SPAN 7

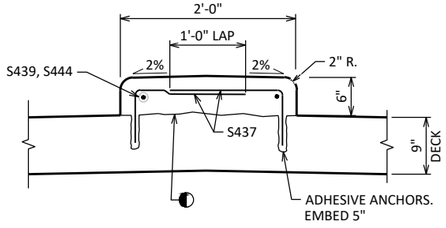
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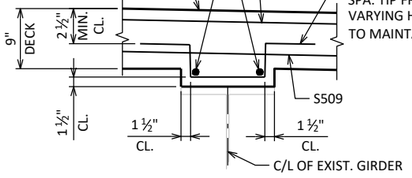
SECTION A-A



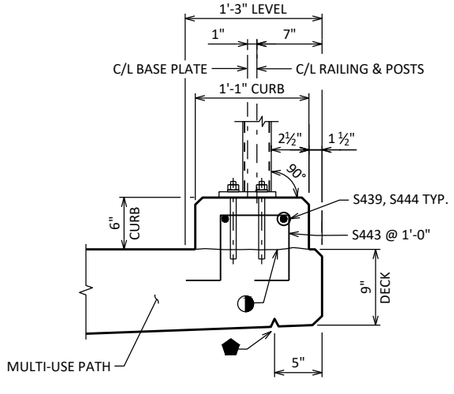
SECTION B-B



MEDIAN REINFORCEMENT DETAIL

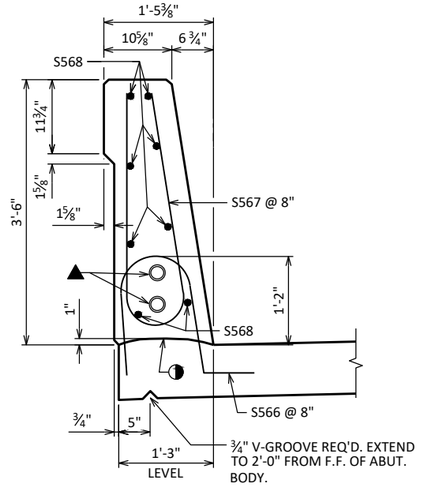


GIRDER HAUNCH DETAIL

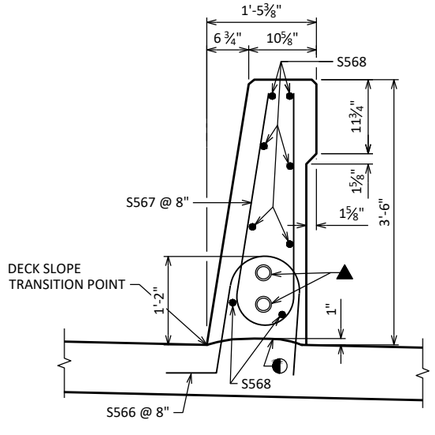


CURB MOUNTED PEDESTRIAN RAILING DETAIL

S443 BARS PLACED WITH DECK



SECTION THRU PARAPET ON DECK



SECTION THRU INTERMEDIATE PARAPET ON DECK

◯ DENOTES EXISTING GIRDER NUMBER.

⬟ ¾" V-GROOVE REQ'D. EXTEND TO 2'-0" FROM FRONT FACE OF ABUTMENT BODY - TYP.

▽ ±0.5% CONSTRUCTION TOLERANCE IN MULTI-USE PATH CROSS SLOPE. THE MULTI-USE PATH CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

▲ 2" CONDUITS AT INTERMEDIATE PARAPET, ONE CONDUIT IS FOR LIGHTING AND THE OTHER FOR POTENTIAL FUTURE USE. AT NORTH PARAPET, BOTH CONDUITS ARE FOR POTENTIAL FUTURE USE.

★ EXTEND DOWNSPOUT 6" MIN. (1'-0" MAX.) PAST BOTTOM FLANGE OF EXISTING GIRDER.

◐ CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.

NOTES:

EXISTING STEEL GIRDERS TO REMAIN. PAINT FOR 6 FEET AT ABUTMENTS AND 12 FEET (6 FEET EACH SIDE) OF IN-SPAN JOINT AND AT PIER 2.

SALVAGE EXISTING TUBULAR TYPE H RAILING TO THE DEPARTMENT.

IF EXISTING SHEAR LUGS ARE DAMAGED, REPLACE WITH SHEAR STUDS. COST CONSIDERED INCIDENTAL TO REMOVING STRUCTURE ITEM.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D RCP

SUPERSTRUCTURE

SHEET 16 OF 45

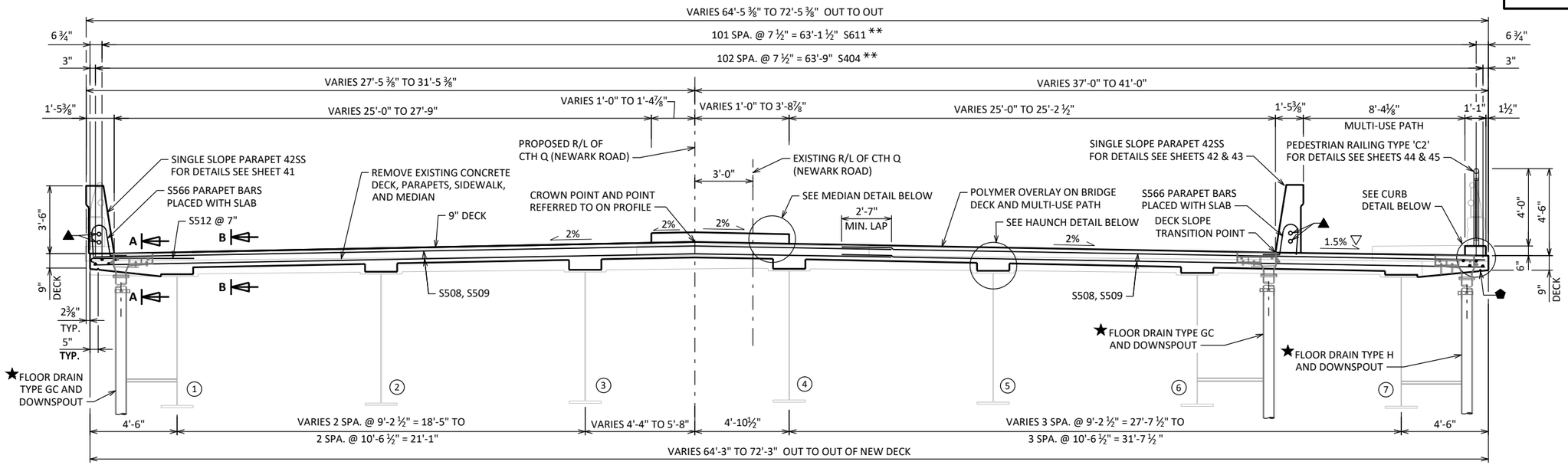
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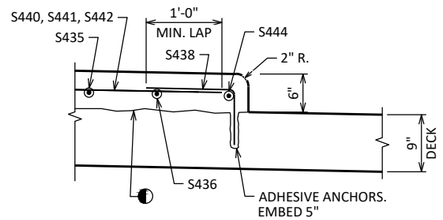
STATE PROJECT NUMBER

5989-03-84



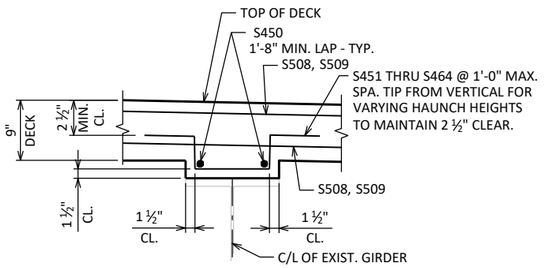
TYPICAL SECTION THRU BRIDGE SPAN 7

(LOOKING EAST)



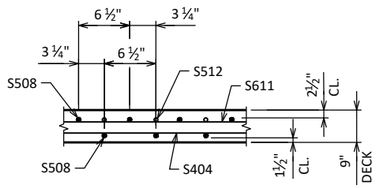
MEDIAN REINFORCEMENT DETAIL

AT TAPER



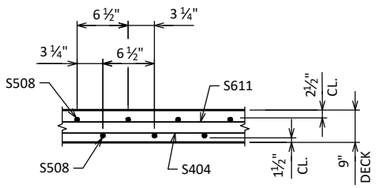
GIRDER HAUNCH DETAIL

PRESERVE AND INCORPORATE EXISTING STUDS OR STEEL ANGLE SHEAR CONNECTORS AT TOP OF GIRDERS



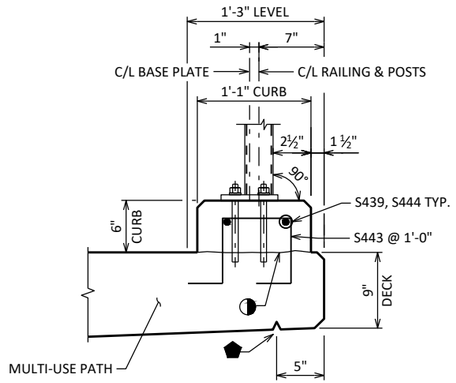
SECTION A-A

AT TAPER



SECTION B-B

AT TAPER



CURB MOUNTED PEDESTRIAN RAILING DETAIL

S443 BARS PLACED WITH DECK

FOR SECTIONS THRU PARAPETS, SEE SHEET 16.

** FOR BARS AT SPAN 7 TAPERS, SEE SHEET 21.

◯ DENOTES EXISTING GIRDER NUMBER.

⬟ ¾" V-GROOVE REQ'D. EXTEND TO 2'-0" FROM FRONT FACE OF ABUTMENT BODY - TYP.

▽ ±0.5% CONSTRUCTION TOLERANCE IN MULTI-USE PATH CROSS SLOPE. THE MULTI-USE PATH CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

▲ 2" CONDUITS AT INTERMEDIATE PARAPET, ONE CONDUIT IS FOR LIGHTING AND THE OTHER FOR POTENTIAL FUTURE USE. AT NORTH PARAPET, BOTH CONDUITS ARE FOR POTENTIAL FUTURE USE.

★ EXTEND DOWNSPOUT 6" MIN. (1'-0" MAX.) PAST BOTTOM FLANGE OF EXISTING GIRDER.

◐ CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.

NOTES:

EXISTING STEEL GIRDERS TO REMAIN. PAINT FOR 6 FEET AT ABUTMENTS .

SALVAGE EXISTING TUBULAR TYPE H RAILING TO THE DEPARTMENT.

IF EXISTING SHEAR LUGS ARE DAMAGED, REPLACE WITH SHEAR STUDS. COST CONSIDERED INCIDENTAL TO REMOVING STRUCTURE ITEM.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D RCP

SUPERSTRUCTURE SPAN 7

SHEET 17 OF 45

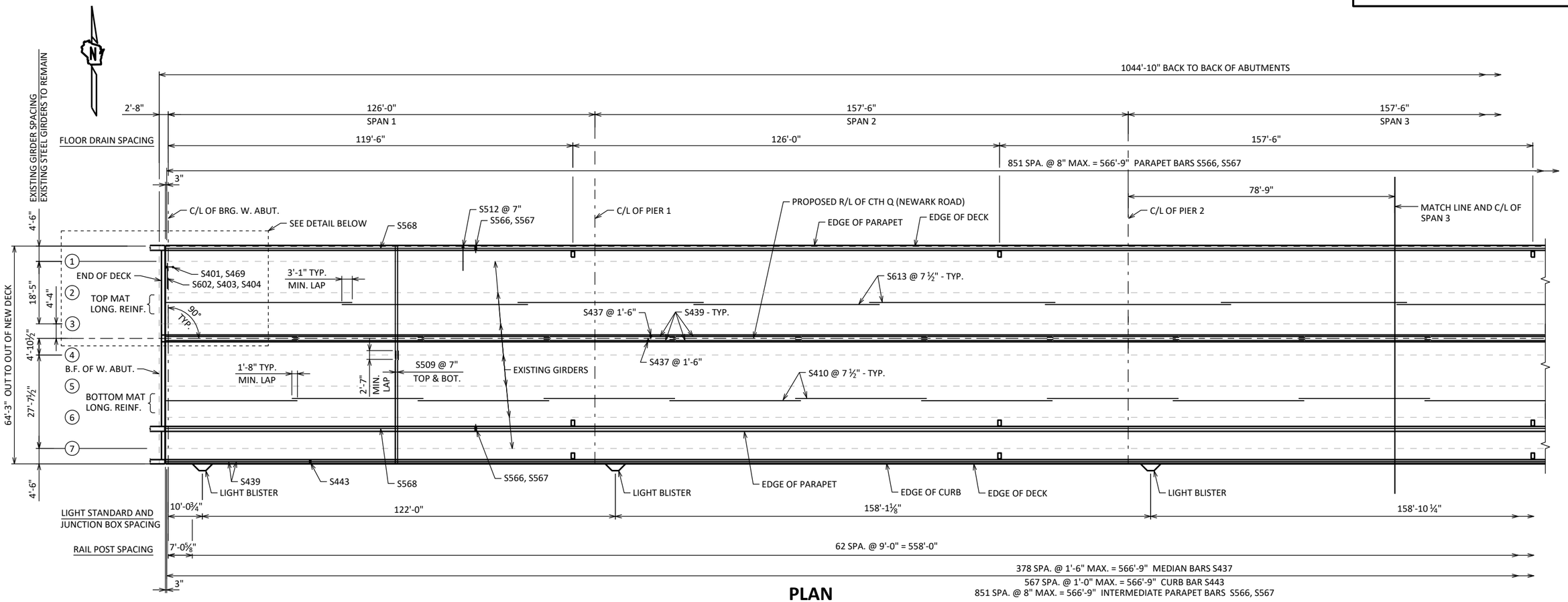
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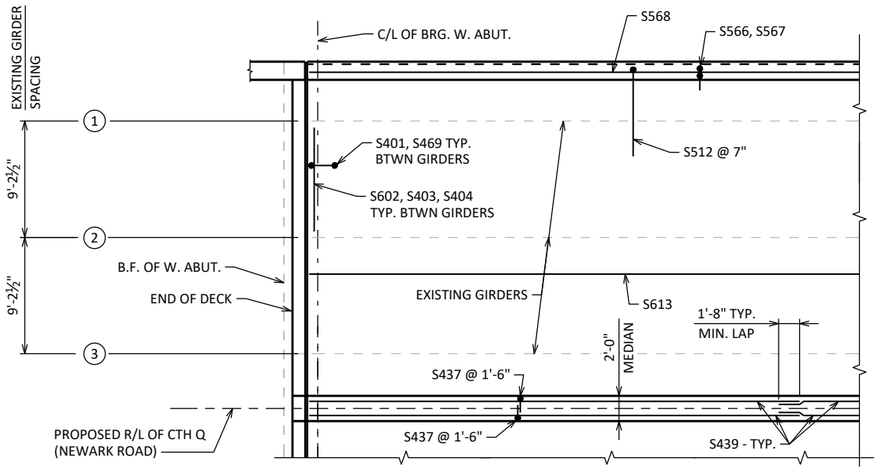
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STATE PROJECT NUMBER

5989-03-84



PLAN



PART BAR STEEL LAYOUT

AT WEST ABUTMENT AND SPANS 1 TO 6 AND 40' OF SPAN 7

◯ DENOTES EXISTING GIRDER NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D RCP

SUPERSTRUCTURE PLAN 1

SHEET 18 OF 45

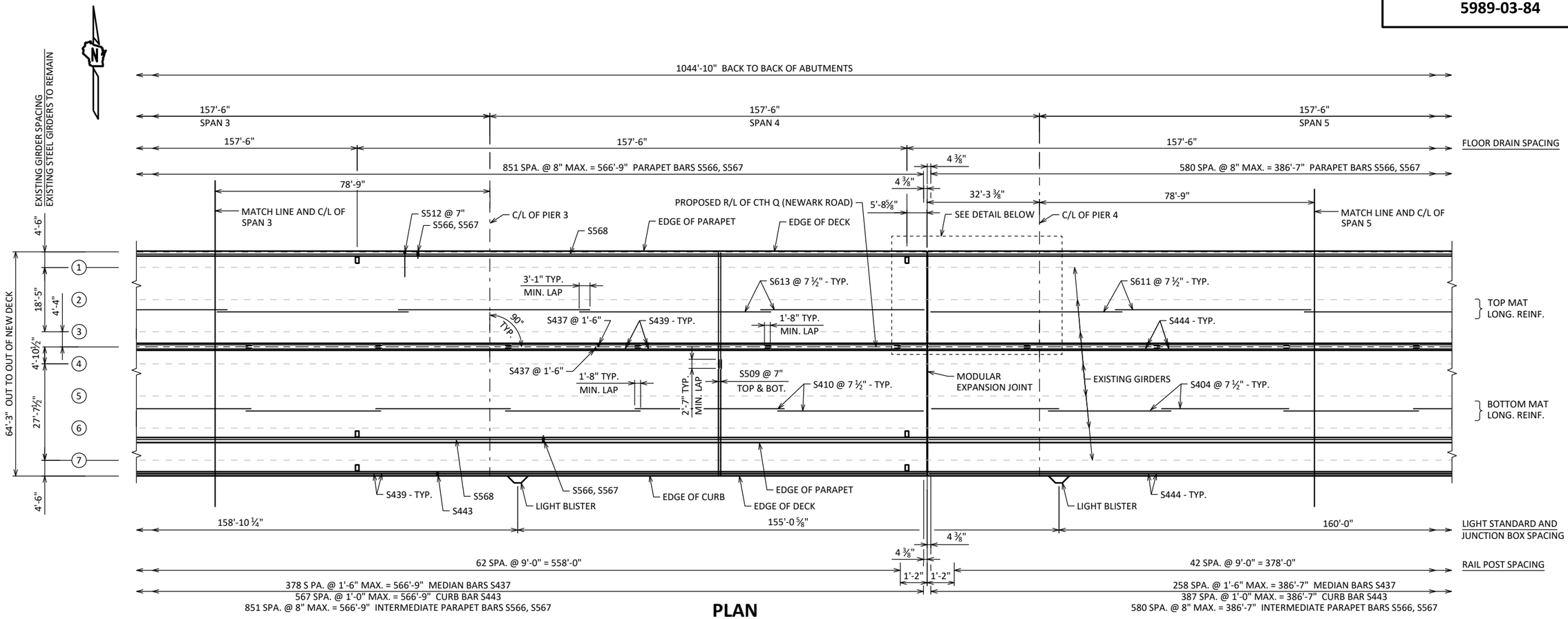
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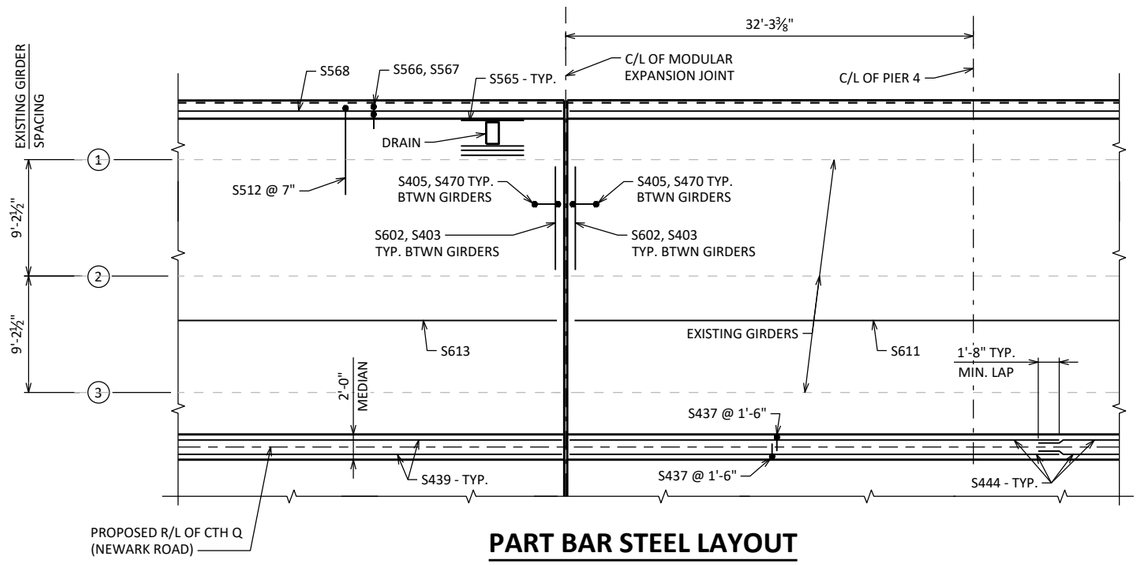
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STATE PROJECT NUMBER

5989-03-84



PLAN



PART BAR STEEL LAYOUT

IN SPAN NEAR PIER 4

DENOTES EXISTING GIRDER NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

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SUPERSTRUCTURE PLAN 2

SHEET 19 OF 45

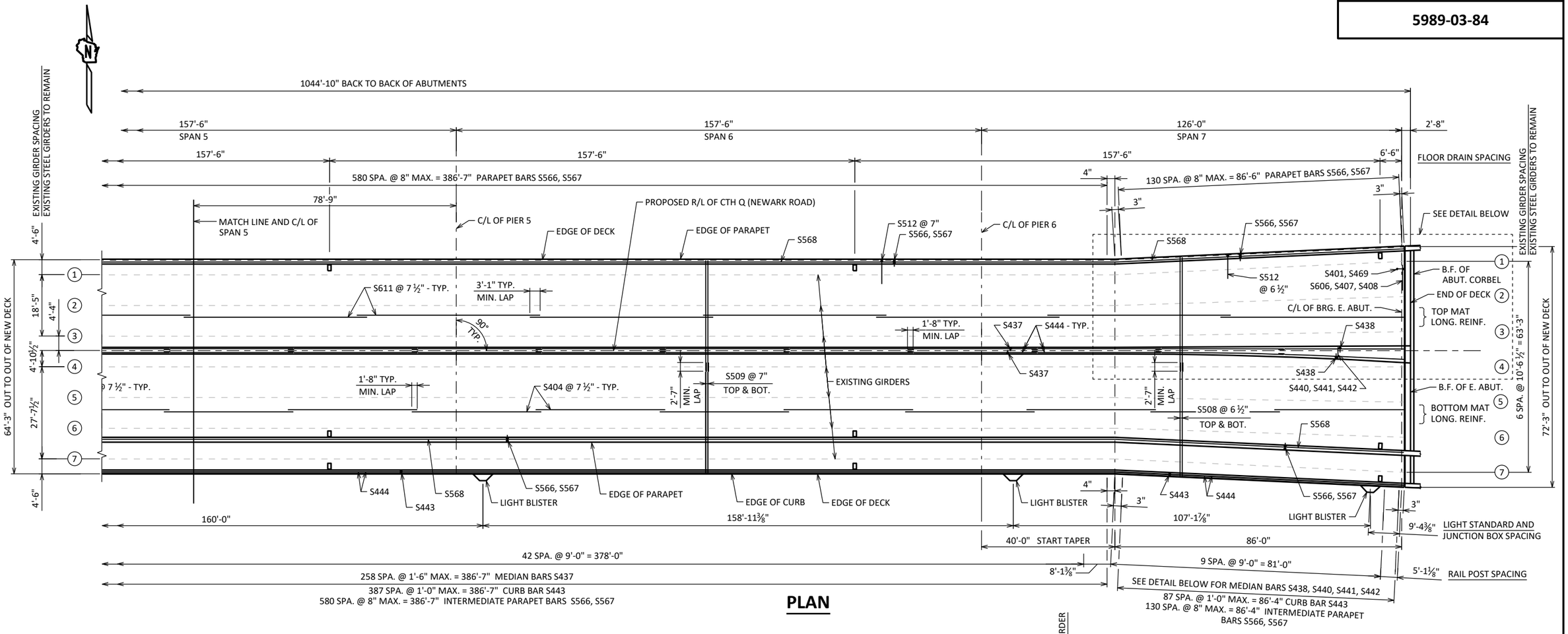
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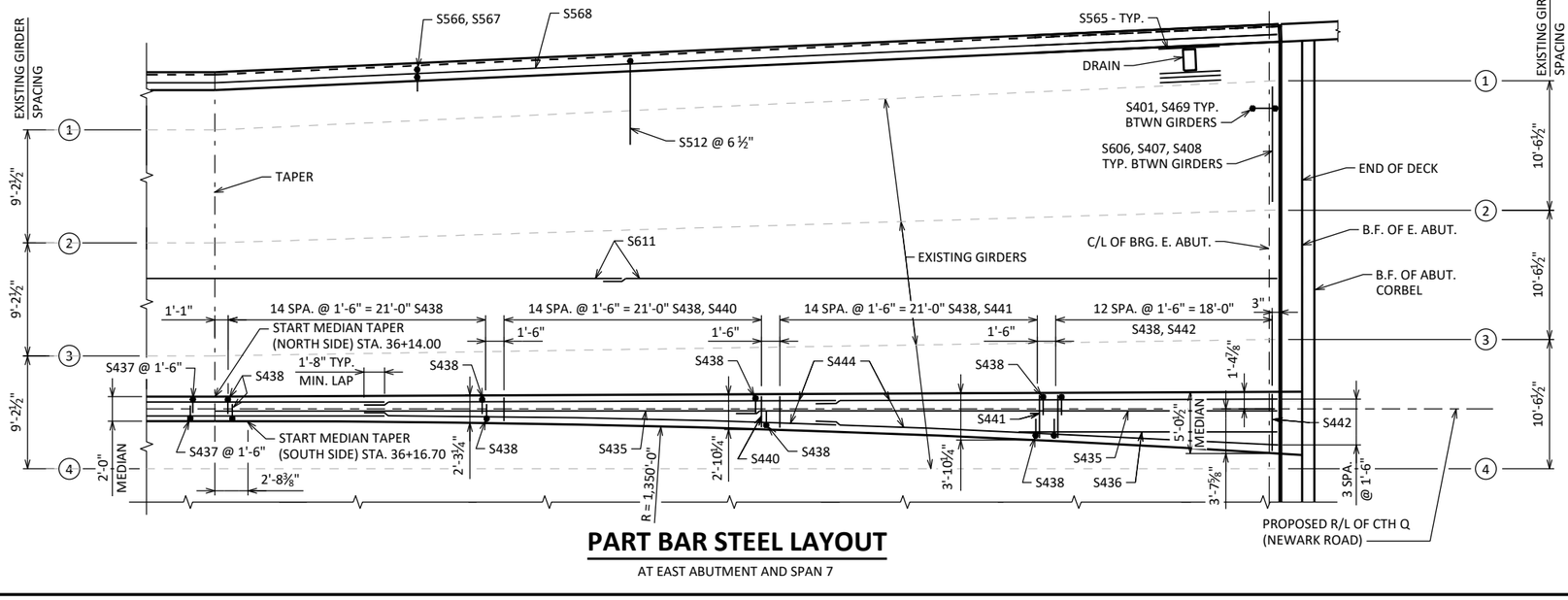
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STATE PROJECT NUMBER

5989-03-84



PLAN



PART BAR STEEL LAYOUT

AT EAST ABUTMENT AND SPAN 7

FOR LONG. BARS AT FLARED CORNERS SEE SHEET 21

◯ DENOTES EXISTING GIRDER NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D RCP

SUPERSTRUCTURE PLAN 3

SHEET 20 OF 45

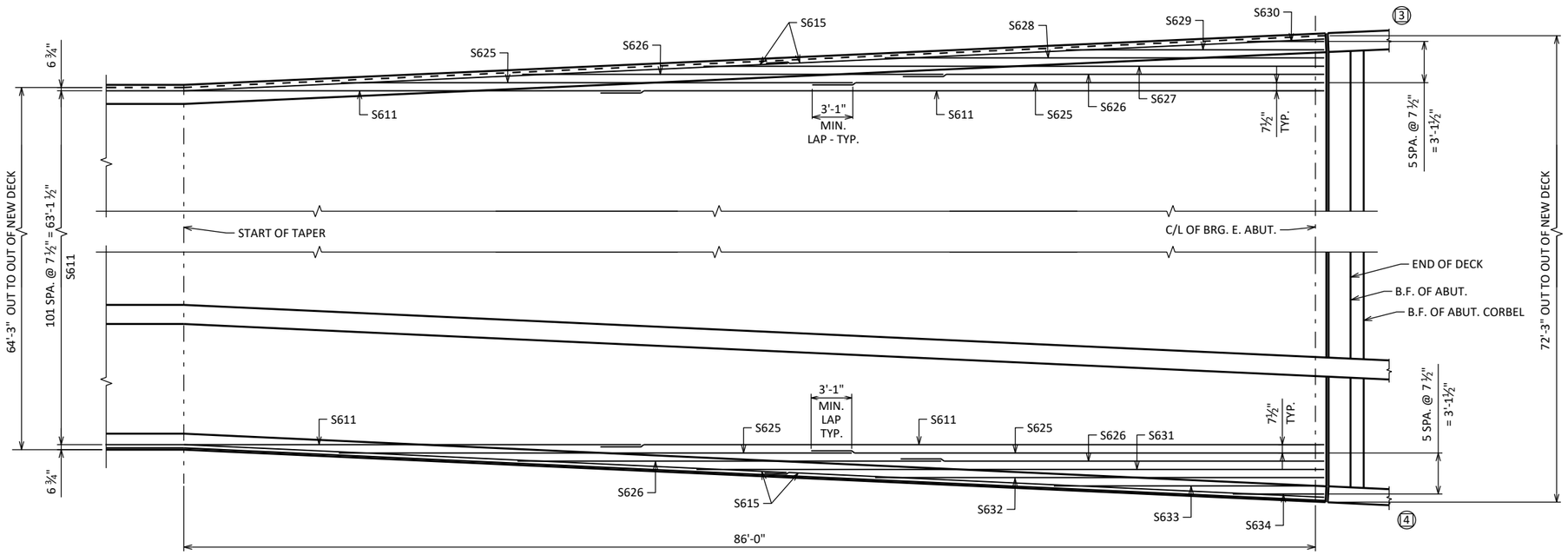
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STATE PROJECT NUMBER

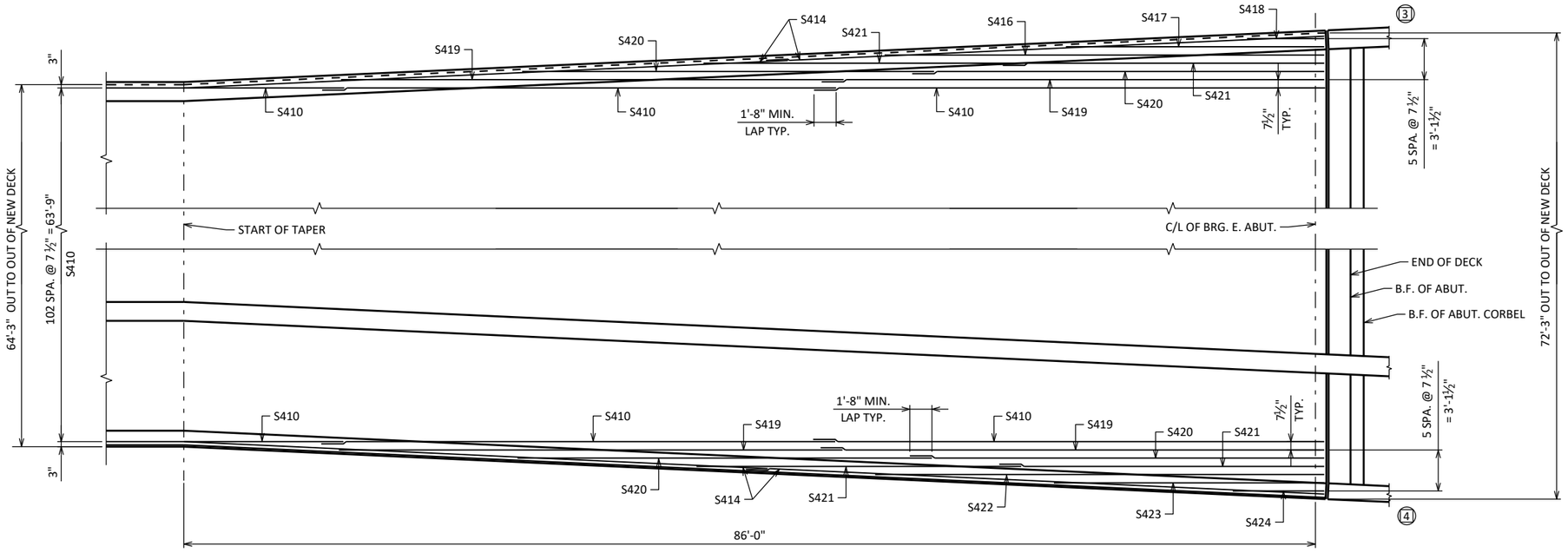
5989-03-84



SPAN 7 - TOP LONGITUDINAL BAR LAYOUT AT TAPER

EXISTING STEEL GIRDERS NOT SHOWN

DENOTES WING NUMBER



SPAN 7 - BOTTOM LONGITUDINAL BAR LAYOUT AT TAPER

EXISTING STEEL GIRDERS NOT SHOWN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D RCP

SUPERSTRUCTURE SPAN 7 BARS AT TAPER

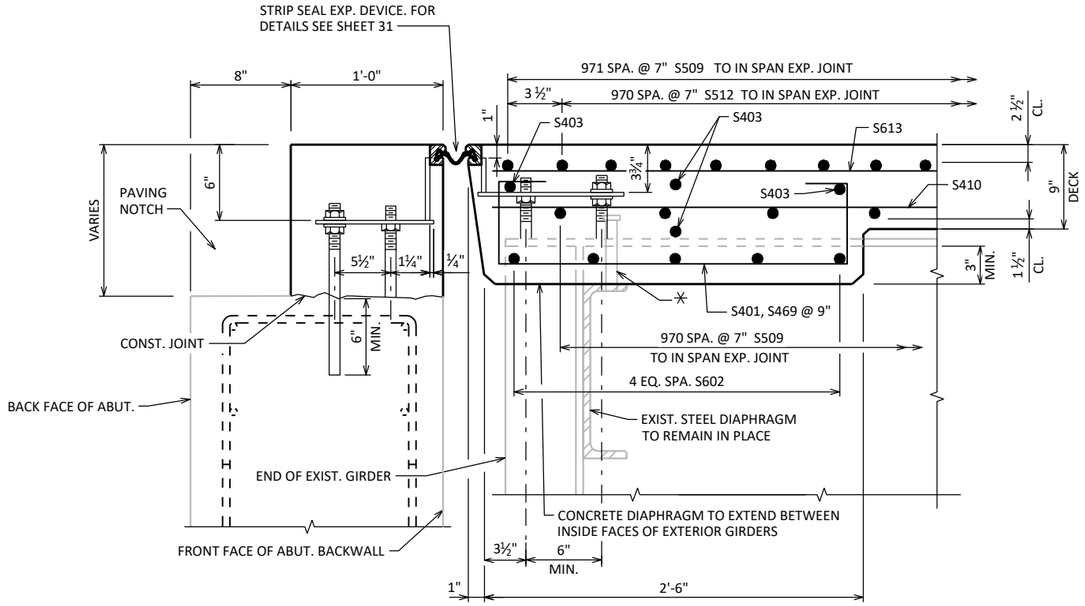
SHEET 21 OF 45

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8

STATE PROJECT NUMBER

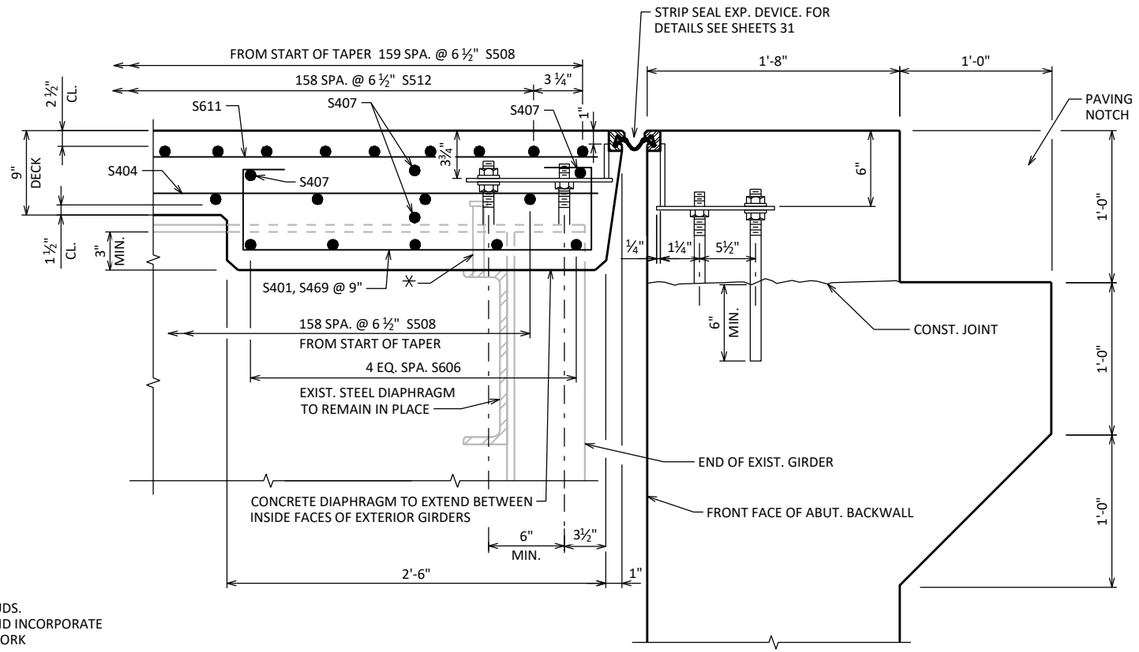
5989-03-84



PART LONGITUDINAL SECTION

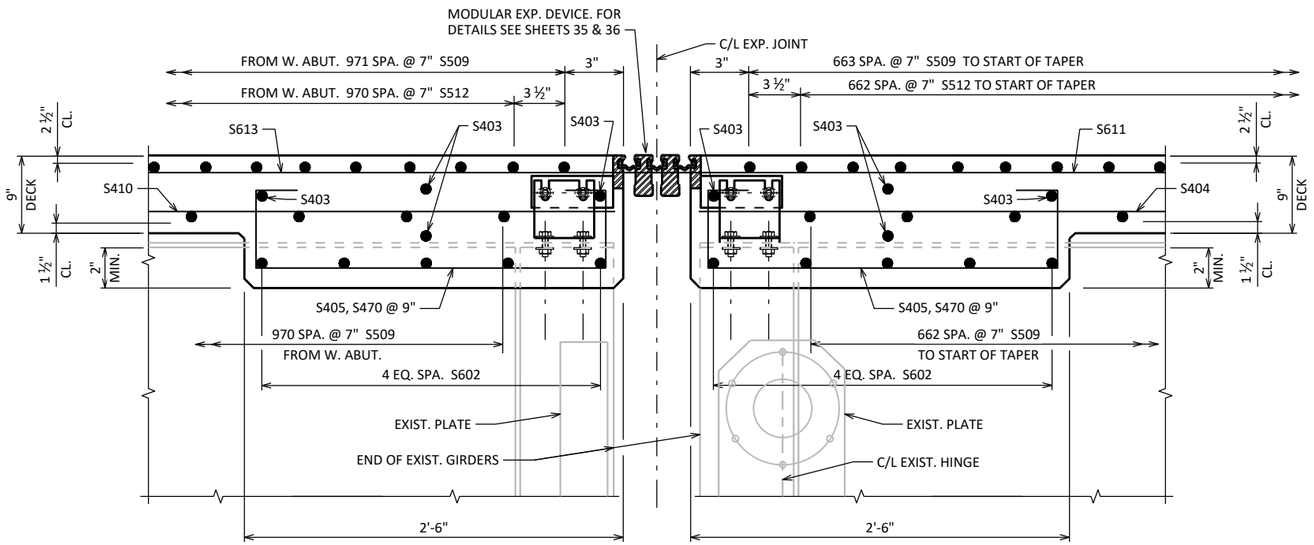
WEST ABUTMENT

✳ EXISTING STUDS. PRESERVE AND INCORPORATE INTO NEW WORK



PART LONGITUDINAL SECTION

EAST ABUTMENT



PART LONGITUDINAL SECTION

IN SPAN NEAR PIER 4

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

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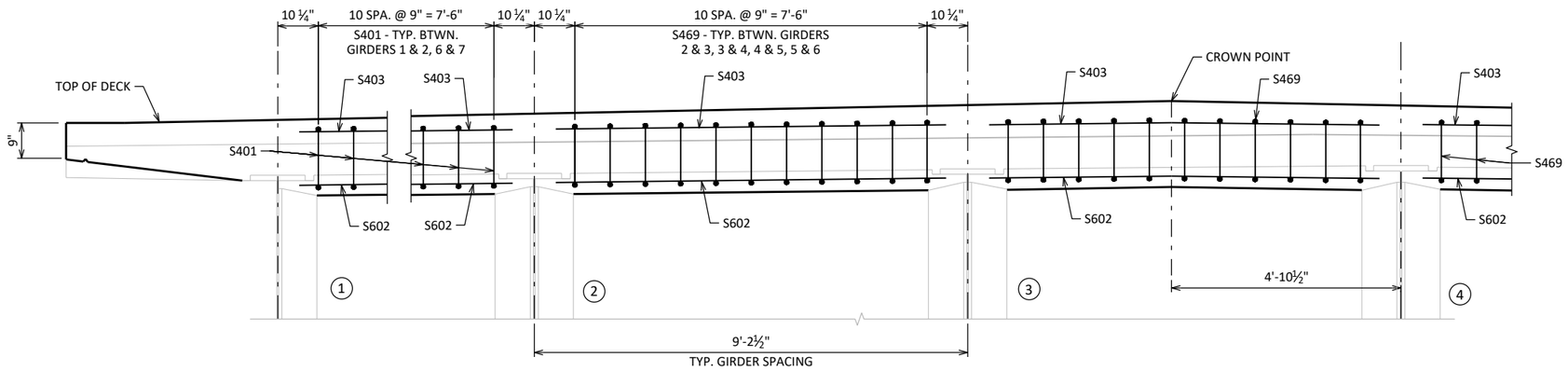
LONGITUDINAL SECTIONS

SHEET 22 OF 45

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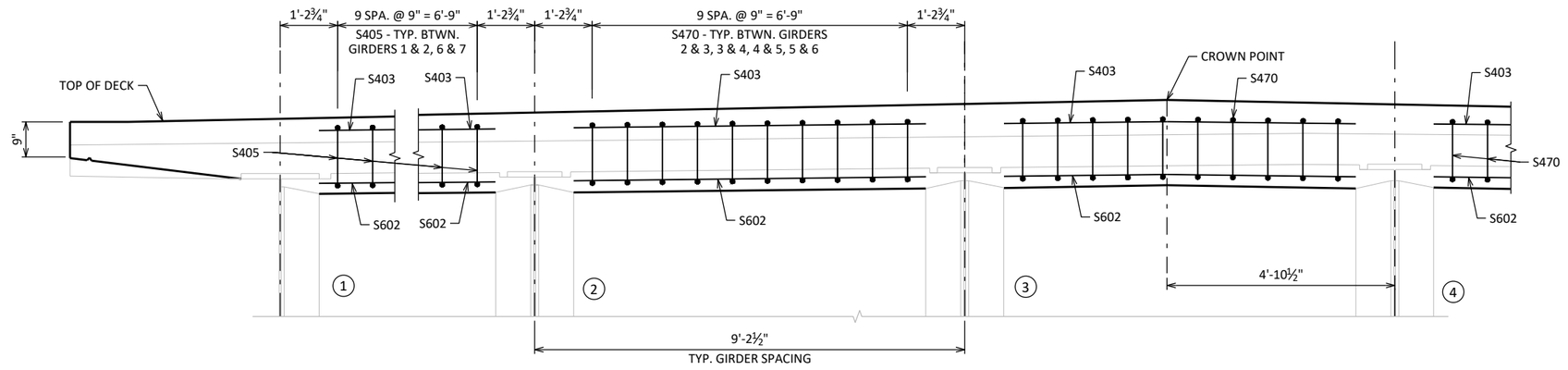
STATE PROJECT NUMBER

5989-03-84



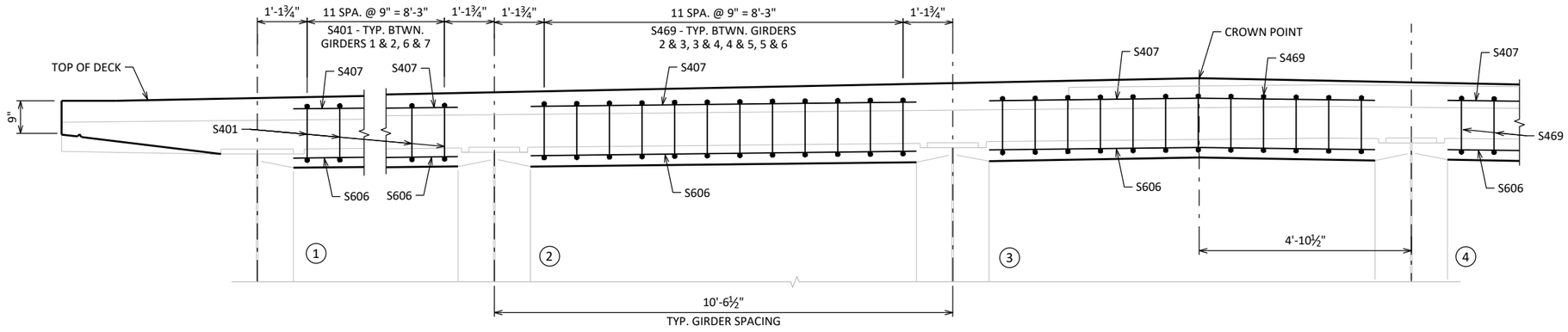
PART TRANSVERSE SECTION DETAIL AT DIAPHRAGM AT WEST ABUTMENT

(LOOKING EAST)



PART TRANSVERSE SECTION DETAIL AT DIAPHRAGM IN SPAN NEAR PIER 4

(LOOKING EAST)



PART TRANSVERSE SECTION DETAIL AT DIAPHRAGM AT EAST ABUTMENT

(LOOKING EAST)

◯ DENOTES EXISTING GIRDER NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D RCP

TRANSVERSE SECTIONS

SHEET 23 OF 45

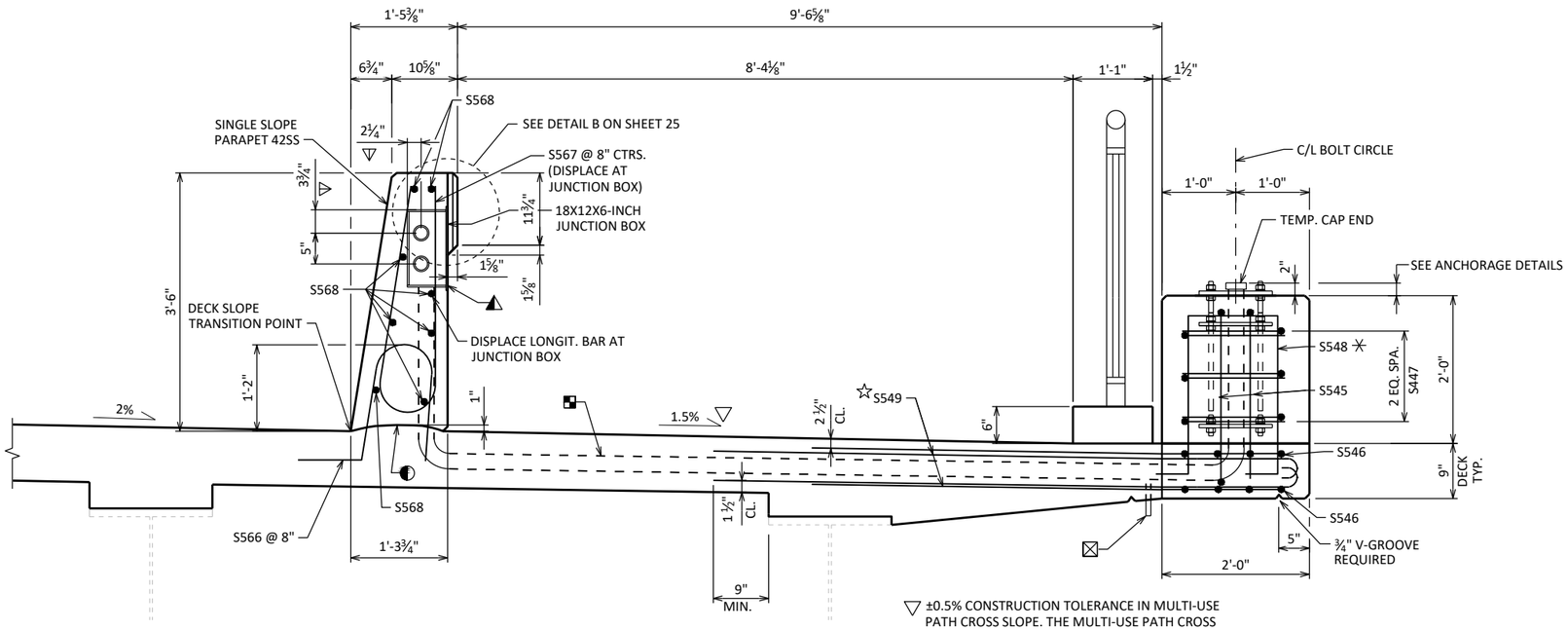
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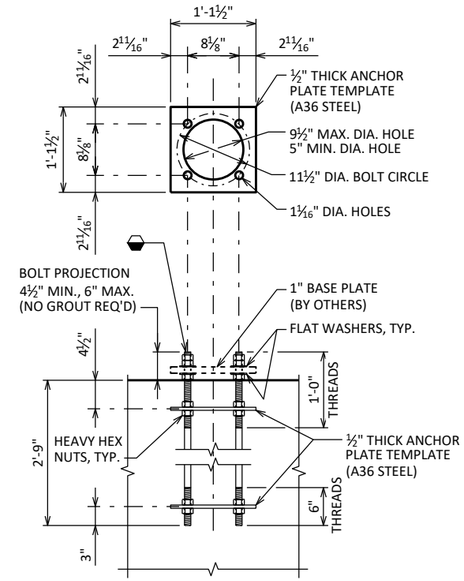
STATE PROJECT NUMBER

5989-03-84



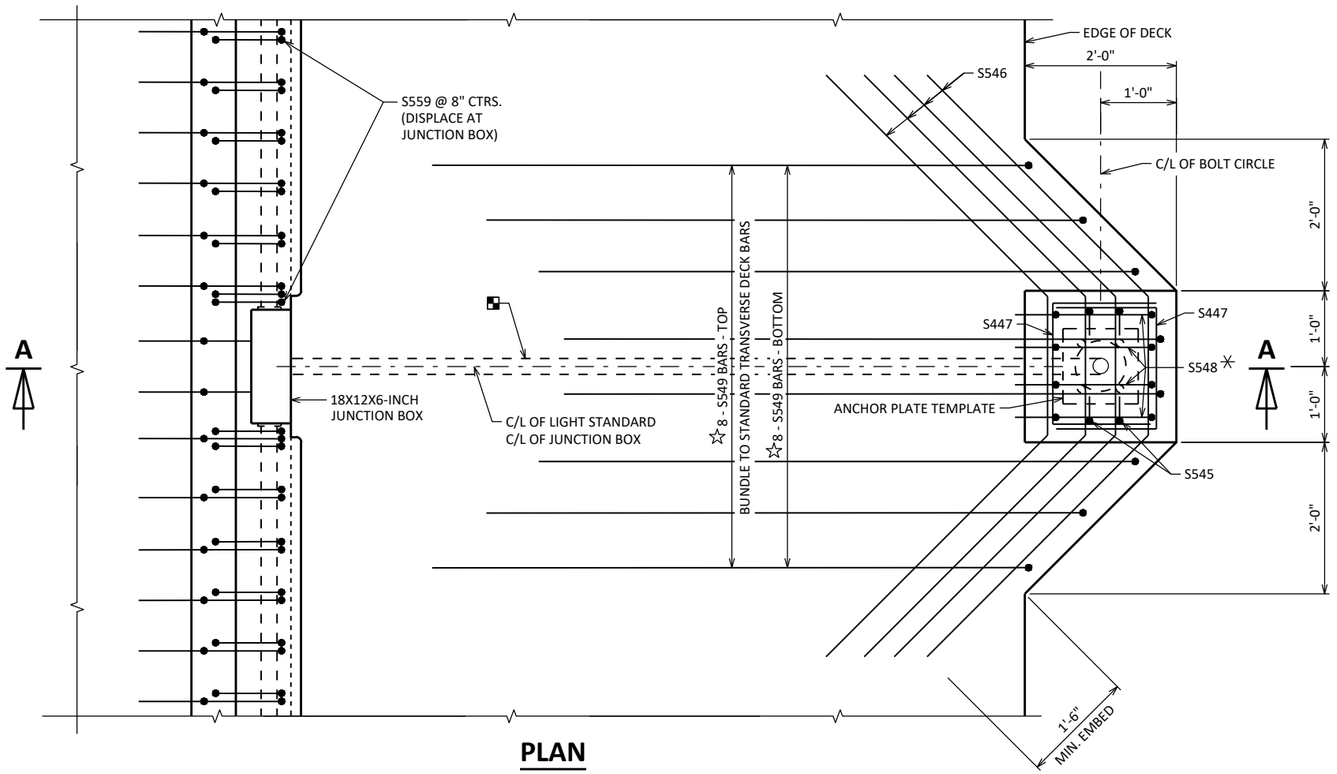
▽ ±0.5% CONSTRUCTION TOLERANCE IN MULTI-USE PATH CROSS SLOPE. THE MULTI-USE PATH CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

SECTION A-A



ANCHOR ROD ASSEMBLY DETAIL

SINGLE ASSEMBLY SHOWN
(4) - ANCHOR RODS REQUIRED PER ASSEMBLY
BID ITEM SHALL BE "ANCHOR ASSEMBLIES POLES ON STRUCTURES", EACH



PLAN

LEGEND

- CONSTRUCTION JOINT, STRIKE OFF AS SHOWN.
- CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.
- LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.
- 1" DIA. ANCHOR RODS ASTM F1554 GR 55, HEAVY HEX NUTS ASTM A563, AND WASHERS ASTM F436. ANCHOR ASSEMBLIES SHALL BE GALVANIZED PER SECTION 531 OF THE STANDARD SPECIFICATION. PROVIDE (2) WASHERS AND (7) NUTS PER ANCHOR ROD.
- THESE BARS ARE IN ADDITION TO STANDARD TRANSVERSE BARS IN DECK.
- 2" DIA. RIGID NONMETALLIC CONDUIT.
- TIE IN PLACE AFTER ANCHOR BOLT ASSEMBLY LOCATED.
- STANDARD PLUMBING TEE & GALVANIZED PIPE STUB. STUB TO PROJECT 1" BELOW BOTTOM OF DECK. LOCATE DRAIN AT LOW POINT IN EACH RUN OR AT OTHER LOCATIONS WHERE CONDUIT DOES NOT DRAIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

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LIGHTING

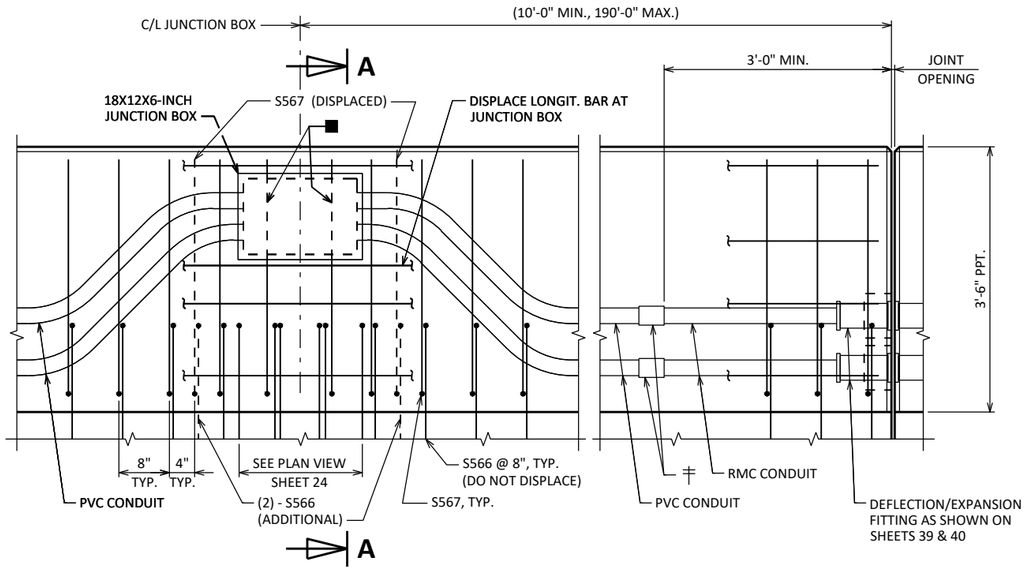
SHEET 24 OF 45
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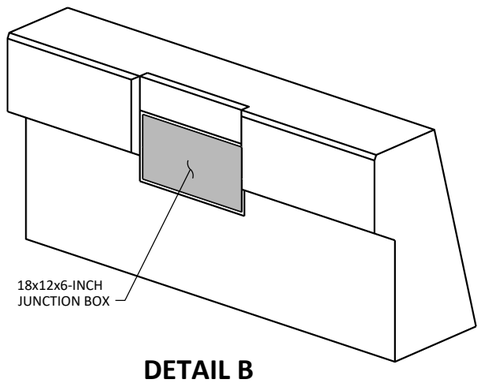
STATE PROJECT NUMBER

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INSIDE ELEVATION AT JUNCTION BOX

(DECK STEEL NOT SHOWN FOR CLARITY)
FOR SECTION A-A, SEE SHEET 24



DETAIL B

SHOWING B.F. OF PARAPET WITH BLOCK OUT FOR JUNCTION BOX

NOTES

CONDUIT SHALL BE EMBEDDED 2" CLEAR.

USE 2" DIA. RIGID NONMETALLIC CONDUIT (PVC) UNLESS NOTED OTHERWISE.

CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK.

PROVIDE JUNCTION BOXES FROM THE APPROVED PRODUCTS LIST.

SEE SHEETS 18-20 FOR JUNCTION BOX SPACING.

LEGEND

‡ NONMETALLIC CONDUIT TO METALLIC CONDUIT ADAPTER FITTING (UL OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED).

PVC = POLYVINYL CHLORIDE (RIGID NONMETALLIC) CONDUIT.

RMC = RIGID METALLIC CONDUIT.

■ FIELD CUT AT JUNCTION BOX

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D RCP

LIGHTING DETAILS

SHEET 25 OF 45

STATE PROJECT NUMBER

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BILL OF BARS

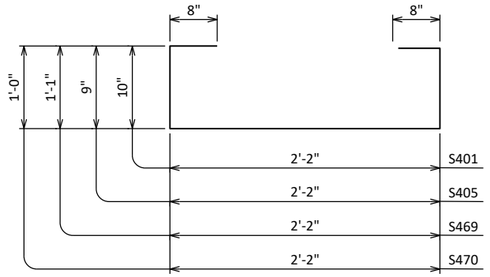
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S401	X	46	4'-10"	X		DIAPH. @ ABUTS. VERT. (EXTERIOR BAYS)
S602	X	90	7'-6"			DIAPH. @ W. ABUT. & INSPAN HORIZ. BOT. BTWN GIRDERS
S403	X	72	7'-6"			DIAPH. @ W. ABUT. & INSPAN HORIZ. BTWN GIRDERS
S404	X	1,339	38'-0"			DECK LONG. BOT. - EXPANSION JOINT TO E. ABUT.
S405	X	40	4'-8"	X		DIAPH. @ INSPAN VERT. (EXTERIOR BAYS)
S606	X	30	8'-10"			DIAPH. @ E. ABUT. HORIZ. BOT. BTWN GIRDERS
S407	X	24	8'-10"			DIAPH. @ E. ABUT. HORIZ. BTWN GIRDERS
S508	X	638	37'-3"			DECK TRANS. TOP & BOT. - SPAN 7 @ TAPER
S509	X	6,540	33'-3"			DECK TRANS. TOP & BOT. - W. ABUT. TO START OF TAPER
S410	X	1,545	39'-4"			DECK LONG. BOT. - W. ABUT. TO EXPANSION JOINT
S611	X	918	55'-5"			DECK LONG. TOP - EXPANSION JOINT TO E. ABUT.
S512	X	1,793	6'-5"	X		DECK TRANS. TOP @ EDGE
S613	X	1,122	54'-4"			DECK LONG. TOP - W. ABUT. TO EXPANSION JOINT
S414	X	4	44'-3"			DECK EDGE BOT. @ WING 3 & 4
S615	X	4	45'-0"			DECK EDGE TOP @ WING 3 & 4
S416	X	1	33'-5"			DECK LONG. BOT. @ WING 3
S417	X	1	19'-8"			DECK LONG. BOT. @ WING 3
S418	X	1	5'-10"			DECK LONG. BOT. @ WING 3
S419	X	4	38'-4"			DECK LONG. BOT. @ WING 3 & 4
S420	X	4	31'-6"			DECK LONG. BOT. @ WING 3 & 4
S421	X	4	24'-9"			DECK LONG. BOT. @ WING 3 & 4
S422	X	1	34'-2"			DECK LONG. BOT. @ WING 4
S423	X	1	20'-6"			DECK LONG. BOT. @ WING 4
S424	X	1	6'-11"			DECK LONG. BOT. @ WING 4
S625	X	4	42'-5"			DECK LONG. TOP @ WING 3 & 4
S626	X	4	35'-7"			DECK LONG. TOP @ WING 3 & 4
S627	X	1	54'-1"			DECK LONG. TOP @ WING 3
S628	X	1	40'-3"			DECK LONG. TOP @ WING 3
S629	X	1	26'-6"			DECK LONG. TOP @ WING 3
S630	X	1	12'-9"			DECK LONG. TOP @ WING 3
S631	X	1	54'-6"			DECK LONG. TOP @ WING 4
S632	X	1	40'-11"			DECK LONG. TOP @ WING 4
S633	X	1	27'-4"			DECK LONG. TOP @ WING 4
S634	X	1	13'-9"			DECK LONG. TOP @ WING 4
S435	X	2	44'-2"			DECK MEDIAN LONG. @ TAPER
S436	X	1	16'-6"			DECK MEDIAN LONG. @ TAPER
◇ S437	X	1,276	2'-0"	X		DECK MEDIAN DOWEL VERT.
◇ S438	X	116	2'-2"	X		DECK MEDIAN DOWEL VERT. @ TAPER
S439	X	60	39'-4"			DECK MEDIAN & CURB LONG. - W. ABUT. TO EXPANSION JOINT
S440	X	15	2'-2"		⊗	DECK MEDIAN TRANS. @ TAPER
S441	X	15	3'-0"		⊗	DECK MEDIAN TRANS. @ TAPER
S442	X	13	4'-1"		⊗	DECK MEDIAN TRANS. @ TAPER
S443	X	1,044	3'-3"	X		DECK CURB VERT.
S444	X	52	38'-0"			DECK MEDIAN & CURB LONG. - EXPANSION JOINT TO E. ABUT.
S545	X	32	3'-0"	X		LIGHT STD. - VERT
S546	X	64	10'-2"	X		LIGHT STD. - HORIZ. IN DECK
S447	X	48	4'-4"	X		LIGHT STD. - HORIZ.
S548	X	32	6'-5"	X		LIGHT STD. - VERT.
S549	X	128	8'-6"	X		LIGHT STD. - TRANS. IN DECK
S450	X	364	42'-1"			DECK LONG. @ BEAM HAUNCH
S451	X	578	3'-3"	X		DECK VERT. @ BEAM HAUNCH @ GIRDER 1
S452	X	463	3'-9"	X		DECK VERT. @ BEAM HAUNCH @ GIRDER 1
S453	X	578	3'-5"	X		DECK VERT. @ BEAM HAUNCH @ GIRDER 2
S454	X	463	3'-11"	X		DECK VERT. @ BEAM HAUNCH @ GIRDER 2

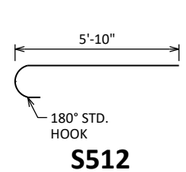
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

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

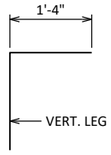
◇ ADHESIVE ANCHORS NO. 4 BAR



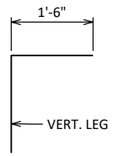
S401, S405, S469, S470



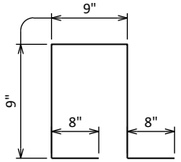
S512



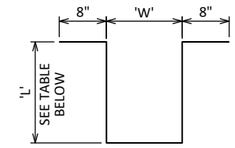
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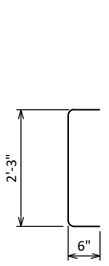
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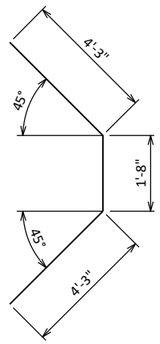
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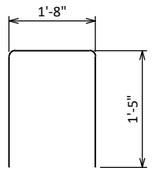
S451 THRU S464



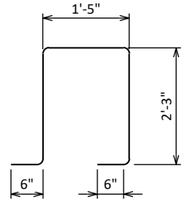
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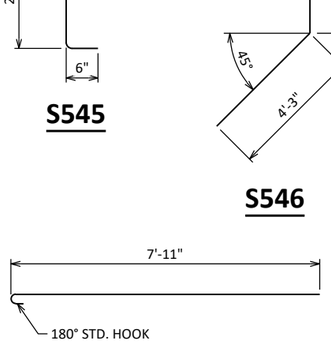
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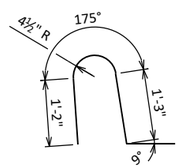
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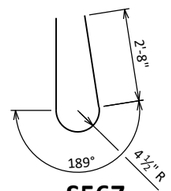
S548



S549



S566



S567

HAUNCH HAT BAR TABLE

BAR MARK	'L'	'W'
S451	8"	11"
S452	8"	1'-5"
S453	9"	11"
S454	9"	1'-5"
S455	10"	11"
S456	10"	1'-5"
S457	9"	11"
S458	9"	1'-5"
S459	8"	11"
S460	8"	1'-5"
S461	7"	11"
S462	7"	1'-5"
S463	6"	11"
S464	6"	1'-5"

BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
S440	1 SERIES OF 15	1'-11" TO 2'-5"
S441	1 SERIES OF 15	2'-6" TO 3'-6"
S442	1 SERIES OF 13	3'-6" TO 4'-8"

BUNDLE AND TAG EACH SERIES SEPARATELY

BILL OF BARS - CONTINUED

S455	X	578	3'-7"	X		DECK VERT. @ BEAM HAUNCH @ GIRDER 3
S456	X	463	4'-1"	X		DECK VERT. @ BEAM HAUNCH @ GIRDER 3
S457	X	578	3'-5"	X		DECK VERT. @ BEAM HAUNCH @ GIRDER 4
S458	X	463	3'-11"	X		DECK VERT. @ BEAM HAUNCH @ GIRDER 4
S459	X	578	3'-3"	X		DECK VERT. @ BEAM HAUNCH @ GIRDER 5
S460	X	463	3'-9"	X		DECK VERT. @ BEAM HAUNCH @ GIRDER 5
S461	X	578	3'-1"	X		DECK VERT. @ BEAM HAUNCH @ GIRDER 6
S462	X	463	3'-7"	X		DECK VERT. @ BEAM HAUNCH @ GIRDER 6
S463	X	578	2'-11"	X		DECK VERT. @ BEAM HAUNCH @ GIRDER 7
S464	X	463	3'-5"	X		DECK VERT. @ BEAM HAUNCH @ GIRDER 7
S565	X	84	5'-0"			DRAIN BARS
S566	X	3,128	4'-5"	X		DECK VERT. @ PARAPETS
S567	X	3,128	6'-8"	X		PARAPET VERT.
S568	X	352	49'-0"			PARAPET HORIZ.
S469	X	92	5'-4"	X		DIAPH. @ ABUTS. VERT. (INTERIOR BAYS)
S470	X	80	5'-0"	X		DIAPH. @ INSPAN VERT. (INTERIOR BAYS)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D RCP

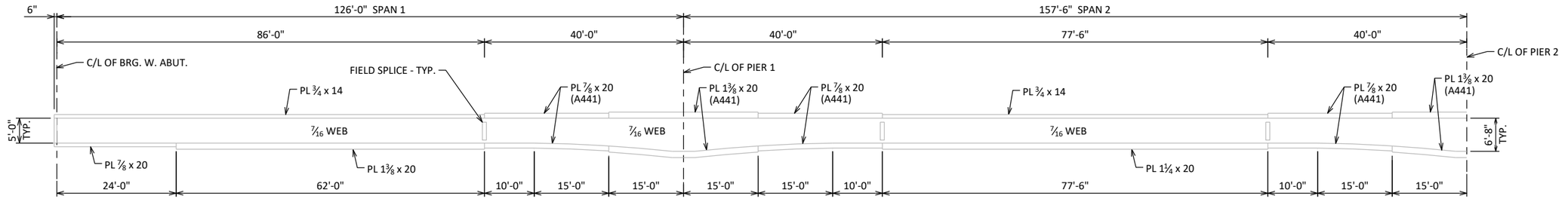
SUPERSTRUCTURE BILL OF BARS

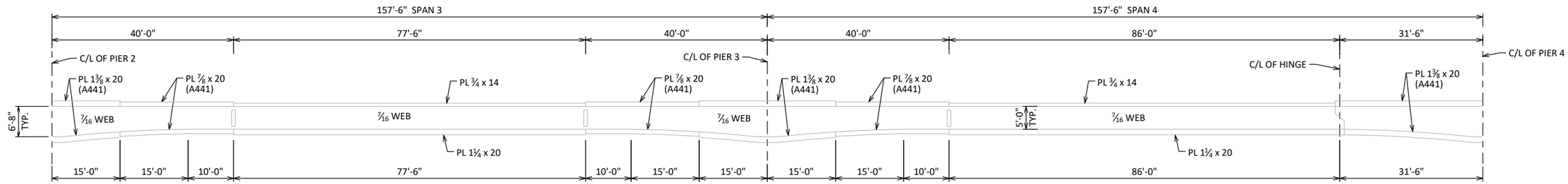
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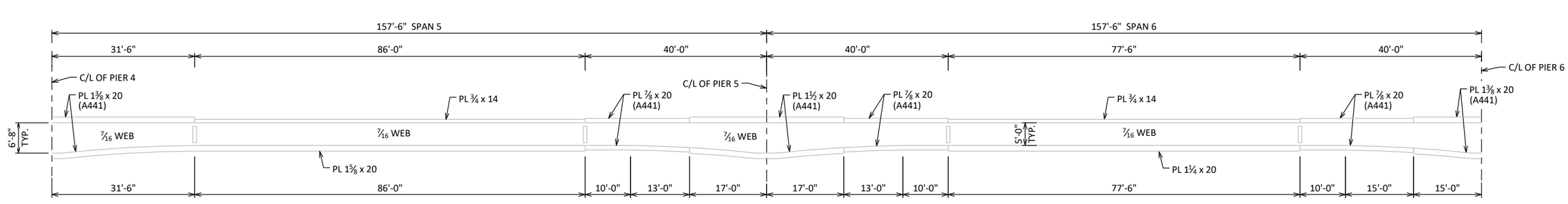
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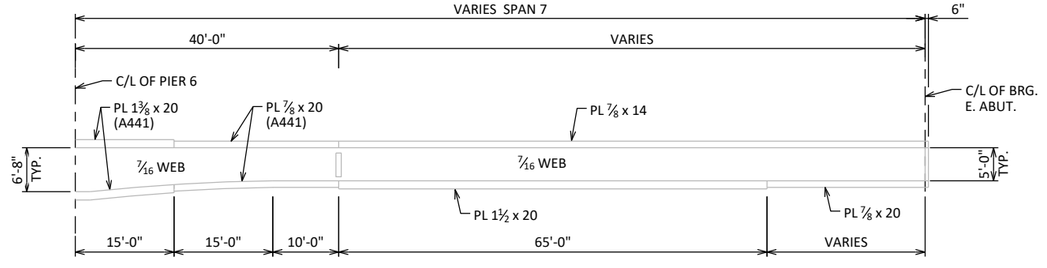
STATE PROJECT NUMBER

5989-03-84









ALLOWABLE DESIGN STRESSES:

STRUCTURAL CARBON STEEL _____ fs = 20,000 psi

STRUCTURAL LOW ALLOY STEEL
OVER ¾" TO AND INCLUDE 1½" THICK ____ fs = 25,000 psi

EXISTING EXTERIOR STEEL GIRDER DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D RCP

EXISTING EXTERIOR STEEL GIRDER DETAILS

SHEET 27 OF 45

8

8

STATE PROJECT NUMBER

5989-03-84

TOP OF DECK ELEVATIONS - SPAN 1

	C/L BRG. W. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	C/L PIER 1
N. EDGE OF DECK	792.41	792.13	791.84	791.55	791.27	790.98	790.69	790.40	790.12	789.83	789.54
INSIDE FACE OF N. PARAPET	792.41	792.13	791.84	791.55	791.27	790.98	790.69	790.40	790.12	789.83	789.54
GIRDER 1	792.48	792.19	791.90	791.62	791.33	791.04	790.76	790.47	790.18	789.89	789.61
GIRDER 2	792.66	792.38	792.09	791.80	791.51	791.23	790.94	790.65	790.37	790.08	789.79
GIRDER 3	792.85	792.56	792.27	791.99	791.70	791.41	791.12	790.84	790.55	790.26	789.97
R/L OF CTH Q	792.93	792.65	792.36	792.07	791.79	791.50	791.21	790.92	790.64	790.35	790.06
GIRDER 4	792.84	792.55	792.26	791.98	791.69	791.40	791.11	790.83	790.54	790.25	789.96
GIRDER 5	792.65	792.37	792.08	791.79	791.50	791.22	790.93	790.64	790.35	790.07	789.78
GIRDER 6	792.47	792.18	791.89	791.61	791.32	791.03	790.74	790.46	790.17	789.88	789.60
INSIDE FACE OF PATH PARAPET	792.41	792.13	791.84	791.55	791.27	790.98	790.69	790.40	790.12	789.83	789.54
GIRDER 7	792.32	792.03	791.74	791.46	791.17	790.88	790.59	790.31	790.02	789.73	789.44
INSIDE FACE OF S. CURB	792.27	791.98	791.69	791.41	791.12	790.83	790.54	790.26	789.97	789.68	789.40
S. EDGE OF DECK	792.27	791.98	791.69	791.41	791.12	790.83	790.54	790.26	789.97	789.68	789.40

TOP OF DECK ELEVATIONS - SPAN 2

	C/L PIER 1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	C/L PIER 2
N. EDGE OF DECK	789.54	789.18	788.82	788.46	788.11	787.75	787.39	787.03	786.67	786.31	785.95
INSIDE FACE OF N. PARAPET	789.54	789.18	788.82	788.46	788.11	787.75	787.39	787.03	786.67	786.31	785.95
GIRDER 1	789.61	789.25	788.89	788.53	788.17	787.81	787.45	787.09	786.73	786.37	786.02
GIRDER 2	789.79	789.43	789.07	788.71	788.35	788.00	787.64	787.28	786.92	786.56	786.20
GIRDER 3	789.97	789.62	789.26	788.90	788.54	788.18	787.82	787.46	787.10	786.74	786.38
R/L OF CTH Q	790.06	789.70	789.34	788.98	788.63	788.27	787.91	787.55	787.19	786.83	786.47
GIRDER 4	789.96	789.61	789.25	788.89	788.53	788.17	787.81	787.45	787.09	786.73	786.37
GIRDER 5	789.78	789.42	789.06	788.70	788.34	787.98	787.63	787.27	786.91	786.55	786.19
GIRDER 6	789.60	789.24	788.88	788.52	788.16	787.80	787.44	787.08	786.72	786.36	786.00
INSIDE FACE OF PATH PARAPET	789.54	789.18	788.82	788.46	788.11	787.75	787.39	787.03	786.67	786.31	785.95
GIRDER 7	789.44	789.09	788.73	788.37	788.01	787.65	787.29	786.93	786.57	786.21	785.85
INSIDE FACE OF S. CURB	789.40	789.04	788.68	788.32	787.96	787.60	787.24	786.88	786.52	786.16	785.80
S. EDGE OF DECK	789.40	789.04	788.68	788.32	787.96	787.60	787.24	786.88	786.52	786.16	785.80

TOP OF DECK ELEVATIONS - SPAN 3

	C/L PIER 2	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	C/L PIER 3
N. EDGE OF DECK	785.95	785.59	785.23	784.87	784.51	784.16	783.80	783.44	783.08	782.72	782.36
INSIDE FACE OF N. PARAPET	785.95	785.59	785.23	784.87	784.51	784.16	783.80	783.44	783.08	782.72	782.36
GIRDER 1	786.02	785.66	785.30	784.94	784.58	784.22	783.86	783.50	783.14	782.78	782.42
GIRDER 2	786.20	785.84	785.48	785.12	784.76	784.40	784.05	783.69	783.33	782.97	782.61
GIRDER 3	786.38	786.02	785.67	785.31	784.95	784.59	784.23	783.87	783.51	783.15	782.79
R/L OF CTH Q	786.47	786.11	785.75	785.39	785.03	784.68	784.32	783.96	783.60	783.24	782.88
GIRDER 4	786.37	786.01	785.65	785.30	784.94	784.58	784.22	783.86	783.50	783.14	782.78
GIRDER 5	786.19	785.83	785.47	785.11	784.75	784.39	784.03	783.68	783.32	782.96	782.60
GIRDER 6	786.00	785.65	785.29	784.93	784.57	784.21	783.85	783.49	783.13	782.77	782.41
INSIDE FACE OF PATH PARAPET	785.95	785.59	785.23	784.87	784.51	784.16	783.80	783.44	783.08	782.72	782.36
GIRDER 7	785.85	785.49	785.13	784.78	784.42	784.06	783.70	783.34	782.98	782.62	782.26
INSIDE FACE OF S. CURB	785.80	785.45	785.09	784.73	784.37	784.01	783.65	783.29	782.93	782.57	782.21
S. EDGE OF DECK	785.80	785.45	785.09	784.73	784.37	784.01	783.65	783.29	782.93	782.57	782.21

TOP OF DECK ELEVATIONS - SPAN 4

	C/L PIER 3	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	C/L PIER 4
N. EDGE OF DECK	782.36	782.00	781.64	781.28	780.92	780.56	780.21	779.85	779.49	779.13	778.77
INSIDE FACE OF N. PARAPET	782.36	782.00	781.64	781.28	780.92	780.56	780.21	779.85	779.49	779.13	778.77
GIRDER 1	782.42	782.07	781.71	781.35	780.99	780.63	780.27	779.91	779.55	779.19	778.83
GIRDER 2	782.61	782.25	781.89	781.53	781.17	780.81	780.45	780.10	779.74	779.38	779.02
GIRDER 3	782.79	782.43	782.07	781.72	781.36	781.00	780.64	780.28	779.92	779.56	779.20
R/L OF CTH Q	782.88	782.52	782.16	781.80	781.44	781.08	780.73	780.37	780.01	779.65	779.29
GIRDER 4	782.78	782.42	782.06	781.70	781.35	780.99	780.63	780.27	779.91	779.55	779.19
GIRDER 5	782.60	782.24	781.88	781.52	781.16	780.80	780.44	780.08	779.73	779.37	779.01
GIRDER 6	782.41	782.05	781.70	781.34	780.98	780.62	780.26	779.90	779.54	779.18	778.82
INSIDE FACE OF PATH PARAPET	782.36	782.00	781.64	781.28	780.92	780.56	780.21	779.85	779.49	779.13	778.77
GIRDER 7	782.26	781.90	781.54	781.18	780.83	780.47	780.11	779.75	779.39	779.03	778.67
INSIDE FACE OF S. CURB	782.21	781.85	781.50	781.14	780.78	780.42	780.06	779.70	779.34	778.98	778.62
S. EDGE OF DECK	782.21	781.85	781.50	781.14	780.78	780.42	780.06	779.70	779.34	778.98	778.62

TOP OF DECK ELEVATIONS - SPAN 5

	C/L PIER 4	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	C/L PIER 5
N. EDGE OF DECK	778.77	778.41	778.05	777.69	777.33	776.97	776.61	776.25	775.90	775.54	775.18
INSIDE FACE OF N. PARAPET	778.77	778.41	778.05	777.69	777.33	776.97	776.61	776.25	775.90	775.54	775.18
GIRDER 1	778.83	778.47	778.12	777.76	777.40	777.04	776.68	776.32	775.96	775.60	775.24
GIRDER 2	779.02	778.66	778.30	777.94	777.58	777.22	776.86	776.50	776.14	775.79	775.43
GIRDER 3	779.20	778.84	778.48	778.12	777.77	777.41	777.05	776.69	776.33	775.97	775.61
R/L OF CTH Q	779.29	778.93	778.57	778.21	777.85	777.49	777.13	776.77	776.42	776.06	775.70
GIRDER 4	779.19	778.83	778.47	778.11	777.75	777.40	777.04	776.68	776.32	775.96	775.60
GIRDER 5	779.01	778.65	778.29	777.93	777.57	777.21	776.85	776.49	776.13	775.78	775.42
GIRDER 6	778.82	778.46	778.10	777.75	777.39	777.03	776.67	776.31	775.95	775.59	775.23
INSIDE FACE OF PATH PARAPET	778.77	778.41	778.05	777.69	777.33	776.97	776.61	776.25	775.90	775.54	775.18
GIRDER 7	778.67	778.31	777.95	777.59	777.23	776.88	776.52	776.16	775.80	775.44	775.08
INSIDE FACE OF S. CURB	778.62	778.26	777.90	777.55	777.19	776.83	776.47	776.11	775.75	775.39	775.03
S. EDGE OF DECK	778.62	778.26	777.90	777.55	777.19	776.83	776.47	776.11	775.75	775.39	775.03

TOP OF DECK ELEVATIONS - SPAN 6

	C/L PIER 5	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	C/L PIER 6
N. EDGE OF DECK	775.18	774.82	774.46	774.10	773.74	773.38	773.02	772.66	772.30	771.95	771.59
INSIDE FACE OF N. PARAPET	775.18	774.82	774.46	774.10	773.74	773.38	773.02	772.66	772.30	771.95	771.59
GIRDER 1	775.24	774.88	774.52	774.17	773.81	773.45	773.09	772.73	772.37	772.01	771.65
GIRDER 2	775.43	775.07	774.71	774.35	773.99	773.63	773.27	772.91	772.55	772.19	771.84
GIRDER 3	775.61	775.25	774.89	774.53	774.17	773.82	773.46	773.10	772.74	772.38	772.02
R/L OF CTH Q	775.70	775.34	774.98	774.62	774.26	773.90	773.54	773.18	772.82	772.47	772.11
GIRDER 4	775.60	775.24	774.88	774.52	774.16	773.80	773.45	773.09	772.73	772.37	772.01
GIRDER 5	775.42	775.06	774.70	774.34	773.98	773.62	773.26	772.90	772.54	772.18	771.82
GIRDER 6	775.23	774.87	774.51	774.15	773.80	773.44	773.08	772.72	772.36	772.00	771.64
INSIDE FACE OF PATH PARAPET	775.18	774.82	774.46	774.10	773.74	773.38	773.02	772.66	772.30	771.95	771.59
GIRDER 7	775.08	774.72	774.36	774.00	773.64	773.28	772.93	772.57	772.21	771.85	771.49
INSIDE FACE OF S. CURB	775.03	774.67	774.31	773.95	773.59	773.24	772.88	772.52	772.16	771.80	771.44
S. EDGE OF DECK	775.03	774.67	774.31	773.95	773.59	773.24	772.88	772.52	772.16	771.80	771.44

TOP OF DECK ELEVATIONS - SPAN 7

	C/L PIER 6	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	C/L BRG. E. ABUT.
N. EDGE OF DECK	771.59	771.30	771.01	770.72	770.43	770.13	769.83	769.53	769.23	768.93	768.64
INSIDE FACE OF N. PARAPET	771.59	771.30	771.01	770.72	770.43	770.13	769.83	769.53	769.23	768.93	768.64
GIRDER 1	771.65	771.36	771.08	770.79	770.49	770.19	769.89	769.60	769.30	769.00	768.70
GIRDER 2	771.84	771.55	771.26	770.97	770.68	770.39	770.09	769.79	769.50	769.20	768.91
GIRDER 3	772.02	771.73	771.45	771.16	770.87	770.58	770.29	769.99	769.70	769.41	769.12
R/L OF CTH Q	772.11	771.82	771.53	771.24	770.96	770.67	770.38	770.10	769.81	769.52	769.23
GIRDER 4	772.01	771.72	771.43	771.15	770.86	770.57	770.29	770.00	769.71	769.42	769.14
GIRDER 5	771.82	771.54	771.25	770.96	770.67	770.38	770.09	769.80	769.51	769.22	768.93
GIRDER 6	771.64	771.35	771.07	770.78	770.49	770.19	769.90	769.60	769.30	769.01	768.71
INSIDE FACE OF PATH PARAPET	771.59	771.30	771.01	770.72	770.43	770.13	769.83	769.53	769.23	768.93	768.63
GIRDER 7	771.49	771.20	770.91	770.63	770.33	770.03	769.73	769.43	769.13	768.84	768.54
INSIDE FACE OF S. CURB	771.44	771.15	770.87	770.58	770.28	769.98	769.68	769.39	769.09	768.79	768.49
S. EDGE OF DECK	771.44	771.15	770.87	770.58	770.28	769.98	769.68	769.39	769.09	768.79	768.49

ELEVATIONS SHOWN ARE FINISHED DECK (PRE-OVERLAY) AND
DO NOT INCLUDE ALLOWANCES FOR DEAD LOAD DEFLECTIONS.

NO.	DATE	REVISION	BY

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STRUCTURE B-53-104

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TOP OF DECK ELEVATIONS

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STATE PROJECT NUMBER

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TOP OF STEEL ELEVATIONS

A. FIELD SURVEY BEFORE DECK REMOVAL
B. FIELD SURVEY AFTER DECK REMOVAL
C. ASSUMED IN DESIGN AFTER DECK REMOVAL

ASSUMED DESIGN ELEVATIONS IN TABLE PROVIDED FOR INFORMATION ONLY. FILL IN THE TABLE ON AS-BUILT PLANS. CONTRACTOR SHALL SURVEY TOP OF STEEL ELEVATIONS BEFORE AND AFTER EXISTING DECK REMOVAL. COST INCLUDED IN SPV.0060 ITEM "TOP OF GIRDER SURVEY B-53-104". VARIATIONS EXCEEDING ¼" BETWEEN ITEMS "B" AND "C" SHALL BE SUBMITTED TO THE STRUCTURES DESIGN SECTION FOR REVIEW.

LOCATION	ITEM	C/L W. ABUT.	¼ PT.	½ PT.	¾ PT.	C/L PIER 1	¼ PT.	½ PT.	¾ PT.	C/L PIER 2	¼ PT.	½ PT.	¾ PT.	C/L PIER 3	¼ PT.	½ PT.	¾ PT.	C/L PIER 4	¼ PT.	½ PT.	¾ PT.	C/L PIER 5	¼ PT.	½ PT.	¾ PT.	C/L PIER 6	¼ PT.	½ PT.	¾ PT.	C/L E. ABUT.
GIRDER 1	A																													
	B																													
	C	791.38	790.80	790.11	789.34	788.59	787.75	786.90	785.93	784.95	784.12	783.28	782.31	781.34	780.50	779.65	778.62	777.71	776.91	776.07	775.08	774.09	773.23	772.38	771.42	770.47	769.78	769.11	768.33	767.45
GIRDER 2	A																													
	B																													
	C	791.49	790.91	790.22	789.45	788.68	787.84	786.90	786.02	785.04	784.21	783.37	782.40	781.44	780.60	779.75	778.72	777.80	777.00	776.16	775.17	774.17	773.32	772.47	771.51	770.56	769.87	769.20	768.42	767.56
GIRDER 3	A																													
	B																													
	C	791.58	791.00	790.31	789.54	788.77	787.93	787.08	786.11	785.13	784.30	783.46	782.49	781.53	780.69	779.84	778.81	777.90	777.10	776.26	775.27	774.26	773.41	772.56	771.60	770.65	769.96	769.29	768.51	767.67
GIRDER 4	A																													
	B																													
	C	791.63	791.05	790.36	789.59	788.82	787.98	787.13	786.16	785.19	784.36	783.52	782.55	781.58	780.74	779.89	778.86	777.94	777.14	776.30	775.31	774.31	773.46	772.61	771.65	770.70	770.01	769.34	768.56	767.73
GIRDER 5	A																													
	B																													
	C	791.54	790.96	790.27	789.50	788.73	787.89	787.04	786.07	785.10	784.27	783.43	782.46	781.50	780.66	779.81	778.78	777.85	777.05	776.21	775.22	774.22	773.37	772.52	771.56	770.62	769.93	769.26	768.48	767.70
GIRDER 6	A																													
	B																													
	C	791.45	790.87	790.18	789.41	788.64	787.80	786.95	785.98	785.00	784.17	783.33	782.36	781.40	780.56	779.71	778.68	777.76	776.96	776.12	775.13	774.13	773.28	772.43	771.47	770.52	769.83	769.16	768.38	767.59
GIRDER 7	A																													
	B																													
	C	791.37	790.79	790.10	789.33	788.57	787.73	786.88	785.91	784.93	784.10	783.26	782.29	781.32	780.48	779.63	778.60	777.69	776.89	776.05	775.06	774.07	773.21	772.36	771.40	770.44	769.75	769.08	768.30	767.50

DEAD LOAD DEFLECTIONS

DEFLECTIONS SHOWN ARE IN INCHES.

	DEFLECTIONS										
	C/L BRG W. ABUT	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	PIER 1
SPAN 1	0.00	0.84	1.51	1.94	2.09	1.97	1.60	1.08	0.54	0.16	0.00

	PIER 1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	PIER 2
SPAN 2	0.00	0.18	0.73	1.40	1.92	2.12	1.94	1.43	0.76	0.20	0.00

	PIER 2	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	PIER 3
SPAN 3	0.00	0.20	0.76	1.43	1.94	2.12	1.93	1.40	0.73	0.19	0.00

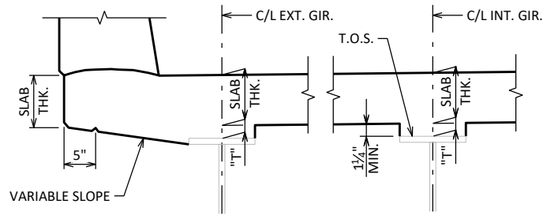
	PIER 3	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	PIER 4
SPAN 4	0.00	0.23	0.80	1.48	1.96	2.06	1.70	0.93	-0.11	-0.16	0.00

	PIER 4	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	PIER 5
SPAN 5	0.00	0.51	1.22	1.92	2.40	2.52	2.25	1.65	0.90	0.28	0.00

	PIER 5	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	PIER 6
SPAN 6	0.00	0.12	0.60	1.23	1.74	1.95	1.79	1.31	0.68	0.17	0.00

	PIER 6	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	C/L BRG E. ABUT
SPAN 7	0.00	0.16	0.54	1.05	1.53	1.87	1.98	1.83	1.42	0.79	0.00

NEGATIVE DEFLECTION VALUE DENOTES AN UPWARD DEFLECTION.
DEFLECTIONS ARE THEORETICAL AND MAY VARY IN THE FIELD.



CONCRETE HAUNCH DETAILS

TO DETERMINE 'T': AFTER DECK HAS BEEN REMOVED, ELEVATIONS OF THE TOP FLANGES, TOP OF SPLICE PLATES, OR TOP OF COVER PLATES, WHICHEVER APPLIES, SHALL BE TAKEN AT CENTERLINE OF BEARINGS, CENTERLINE OF FIELD SPLICES, AND AT 0.1 POINTS.

TOP OF DECK ELEVATION AT FINAL GRADE
\- TOP OF STEEL ELEVATION AFTER DECK HAS BEEN REMOVED
\+ CONC. ONLY DEFLECTION; DOWNWARD DEFLECTION IS ADDED, UPWARD DEFLECTION IS SUBTRACTED

\- SLAB THICKNESS (9")

= 'T' VALUE FOR SETTING HAUNCH

NOTE: AN AVERAGE HAUNCH ('T') OF 5" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D NBE

DEFLECTIONS AND TOP OF STEEL ELEVATIONS

SHEET 29 OF 45

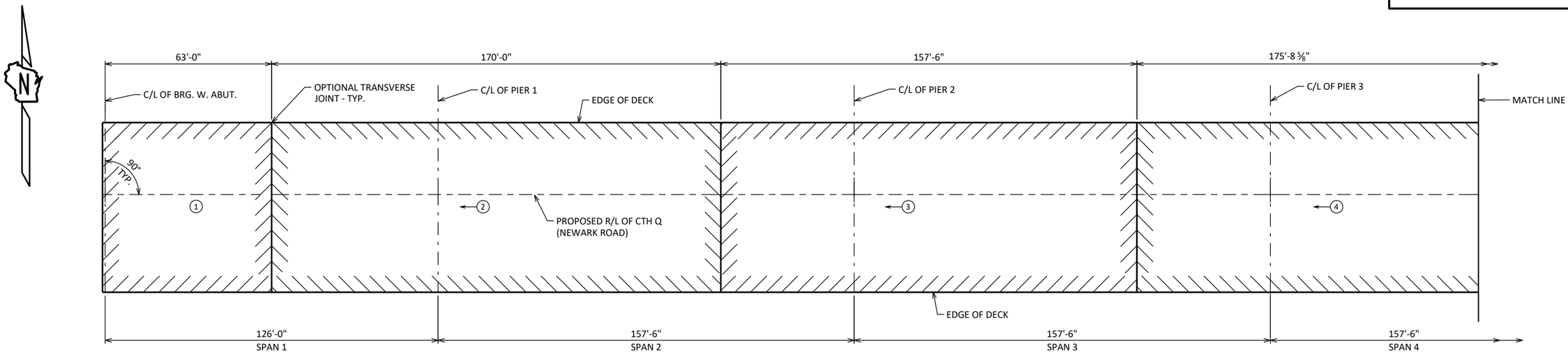
237

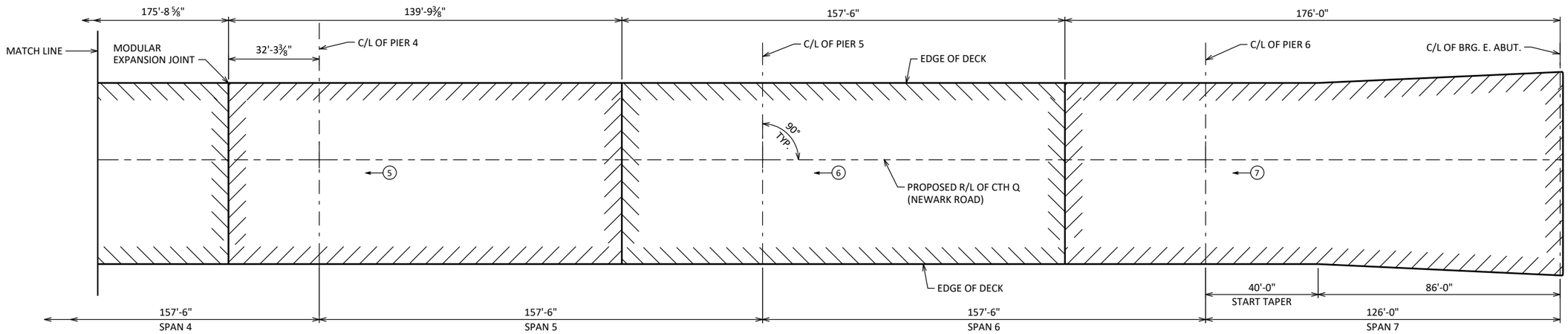
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POURING DIAGRAM

←○— INDICATES POUR NUMBER AND DIRECTION OF POUR

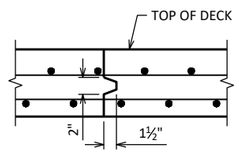
NOTES FOR POURING DIAGRAM

THE RATE OF PLACING CONCRETE SHALL EQUAL OR EXCEED ½ SPAN LENGTH PER HOUR BUT NEED NOT EXCEED 100 CU. YDS. PER HOUR.

TWO OR MORE SEQUENTIAL POURS MAY BE COMBINED AND PLACED IN ONE CONTINUOUS OPERATION. TWO OR MORE ALTERNATE DECK POURS (E.G. 1 & 3) MAY BE PLACED ON THE SAME DAY.

THE CONTRACTOR SHALL NOT PLACE CONCRETE IN AN ADJACENT POUR UNTIL A MINIMUM OF 72 HOUR HAS PASSED AFTER THE COMPLETION OF THE PRECEDING POUR.

THE CONTRACTOR MAY SUBMIT AN ALTERNATE POURING SEQUENCE SUBJECT TO THE APPROVAL OF THE STRUCTURES DESIGN SECTION.



SECTION THRU TRANSVERSE JOINT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D RCP

DECK POURING DETAILS

SHEET 30 OF 45

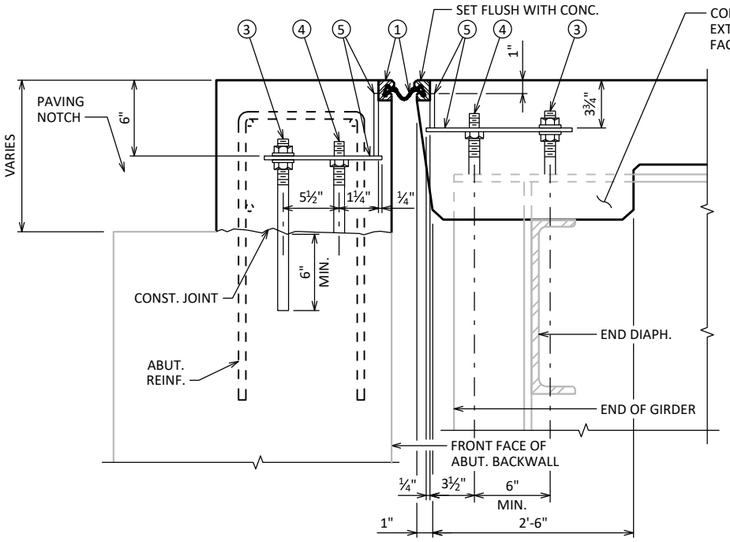
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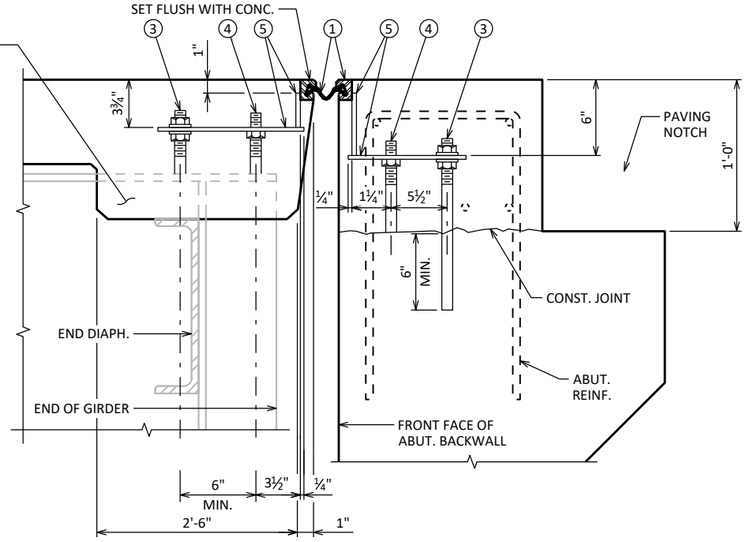
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SECTION THRU JOINT AT WEST ABUTMENT

NORMAL TO C/L SUBSTRUCTURE

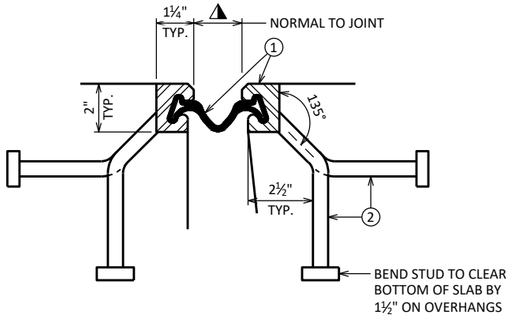


SECTION THRU JOINT AT EAST ABUTMENT

NORMAL TO C/L SUBSTRUCTURE

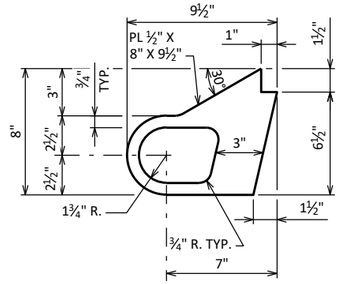
LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅝" DIA. X 6¾" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" DIA. HOLE FOR NO. 3 AND 1" DIA. HOLE FOR NO. 4.
6. GALVANIZED PLATE ⅜" X 10" X 2'-2" LONG WITH HOLES FOR NO. 7.
7. ¾" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾" DIA. X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. ¾" DIA. X 2¼" GALVANIZED THREADED COUPLING.
10. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.
11. SIDEWALK COVER PLATE ⅜" X 2'-0" X LIMITS SHOWN WITH HOLES FOR NO. 7. GALVANIZE PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.



SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK

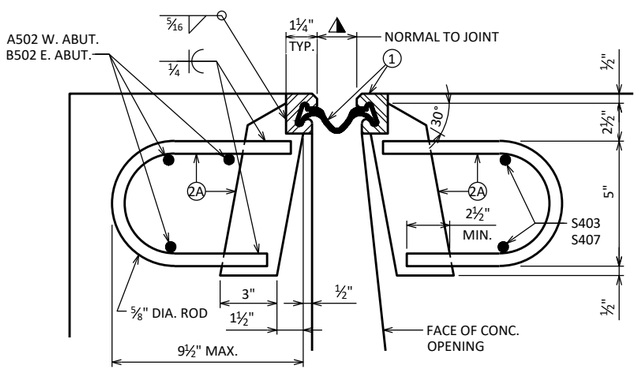


ALTERNATE STRIP SEAL ANCHOR

⚠ TEMPERATURE TABLE

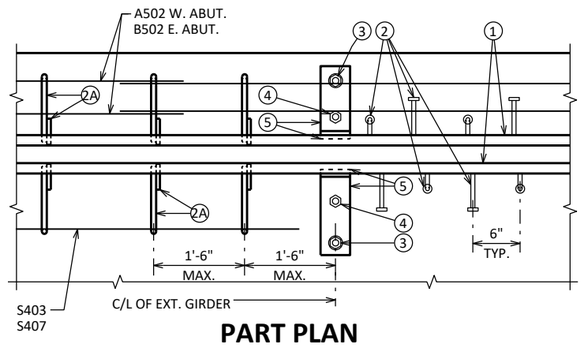
SHADED UNDERSIDE DECK TEMP. (°F)	JOINT OPENING (NORMAL TO JT.)
95	1 ⅛"
85	1 ⅜"
75	1 ⅝"
65	1 ¾"
55	2"
45	2 ¼"
35	2 ½"
25	2 ¾"
15	2 ⅞"
5	3 ⅛"
-5	3 ⅜"

A SMALL JOINT OPENING DUE TO A HIGH TEMPERATURE AT TIME OF CONSTRUCTION MAY REQUIRE NEOPRENE STRIP SEAL INSTALLATION INTO STEEL EXTRUSIONS PRIOR TO SETTING THE EXPANSION JOINT.



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS



PART PLAN

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, ANCHOR PLATES SHALL BE PROVIDED 3" FROM EACH SIDE OF THE FIELD SPLICE. DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

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

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

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

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

ALL MATERIAL IN THE EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID AT THE UNIT PRICE BID FOR "EXPANSION DEVICE B-53-104", LF.

WORK THIS SHEET WITH SHEETS 32 & 33

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D NBE

EXPANSION DEVICE

SHEET 31 OF 45

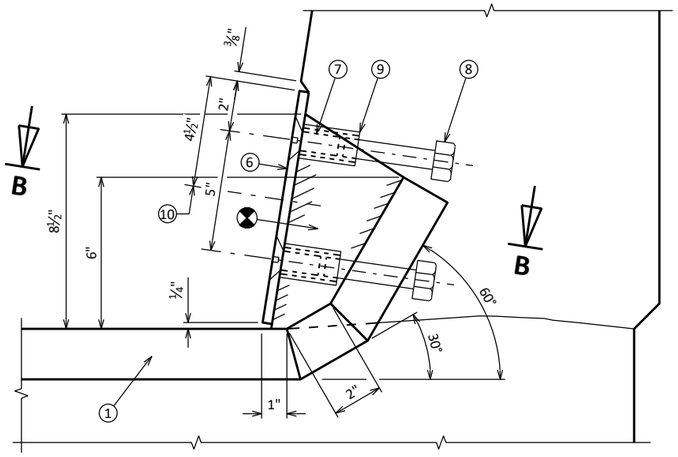
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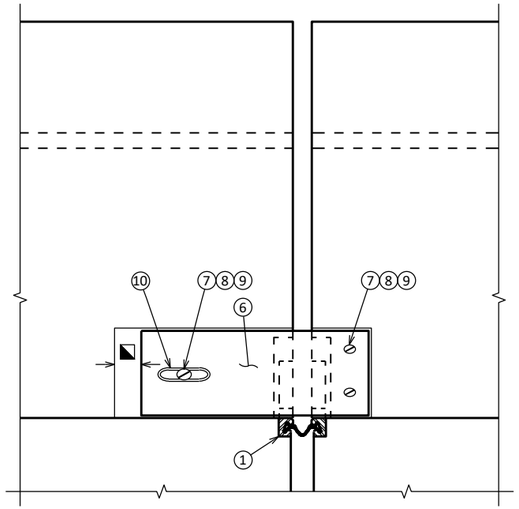
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STATE PROJECT NUMBER

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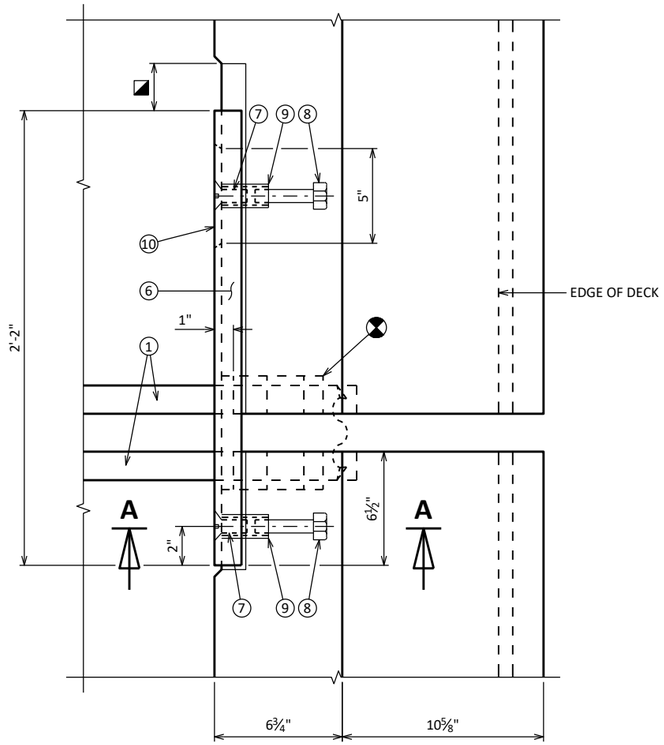


SECTION A-A

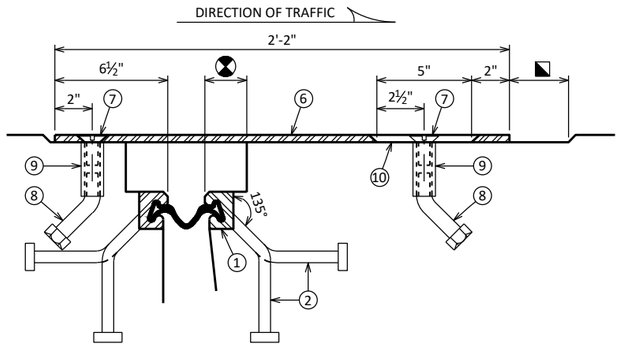


VIEW OF PARAPET PLATE FROM ROADWAY

(NORTH SIDE SINGLE SLOPE 42SS PARAPET)



PLAN



SECTION B-B

SEE SHEET 31 FOR LEGEND.

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

◪ JOINT OPENING DIMENSION PLUS ½".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D NBE

COVER PLATE DETAILS

SHEET 32 OF 45

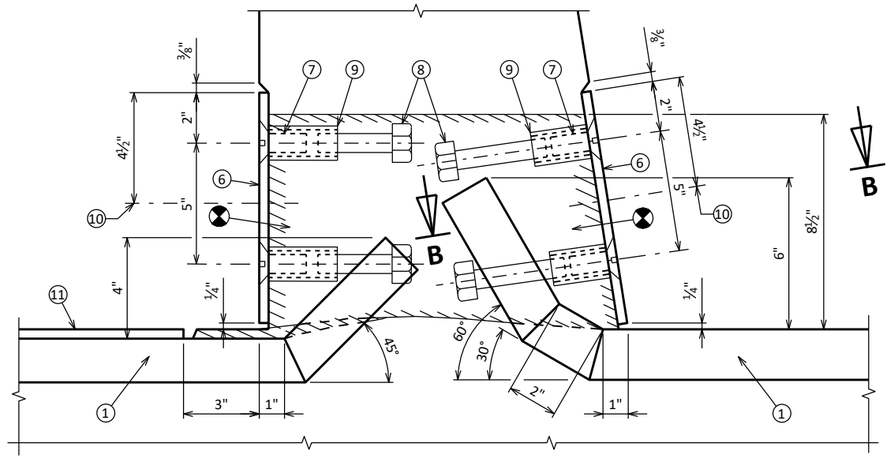
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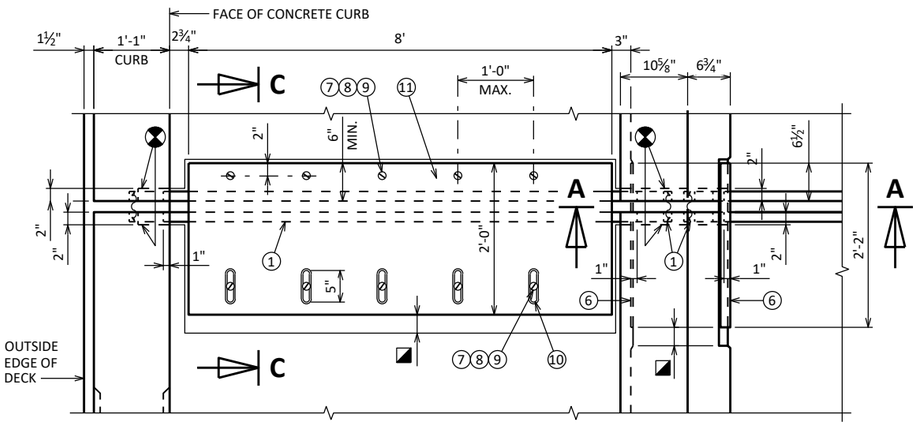
STATE PROJECT NUMBER

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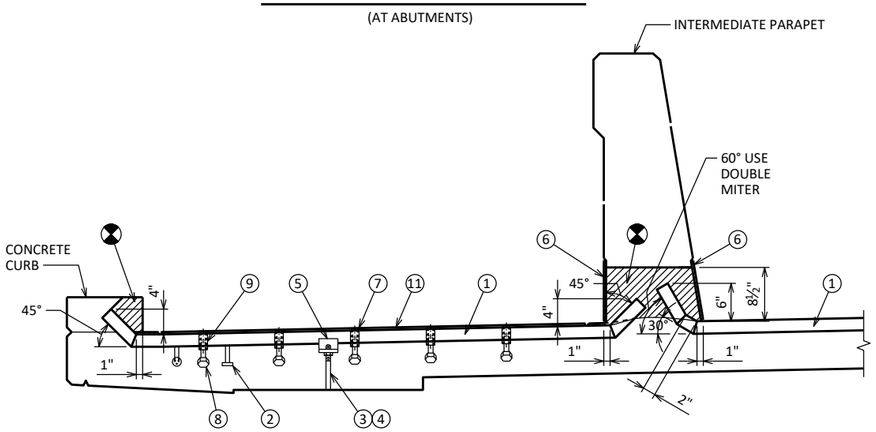
SECTION A-A

INTERMEDIATE PARAPET



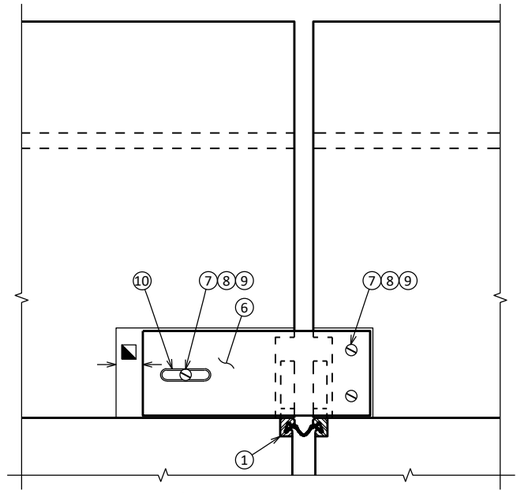
PLAN AT MULTI-USE PATH

(AT ABUTMENTS)



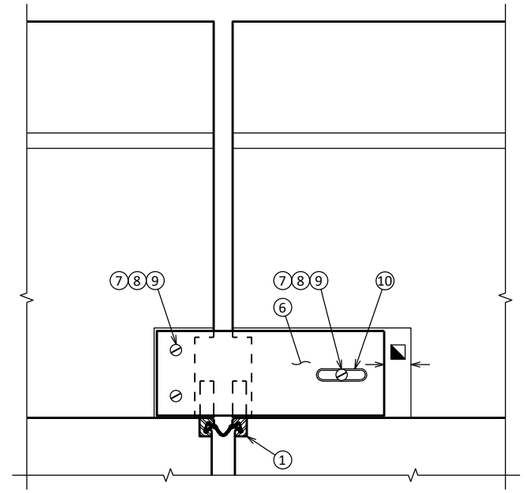
SECTION AT MULTI-USE PATH

(AT ABUTMENTS)



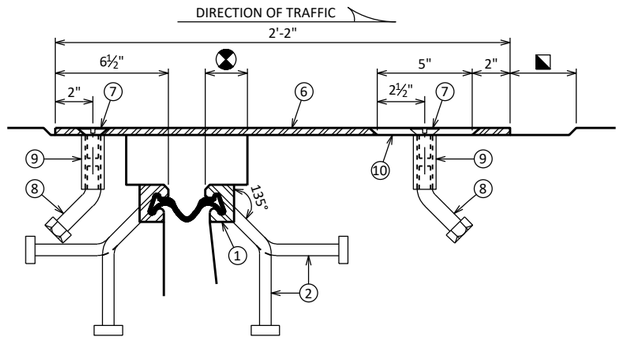
VIEW OF PARAPET PLATE FROM ROADWAY

INTERMEDIATE PARAPET

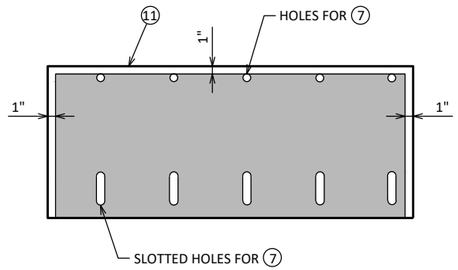


VIEW OF PARAPET PLATE FROM MULTI-USE PATH

INTERMEDIATE PARAPET

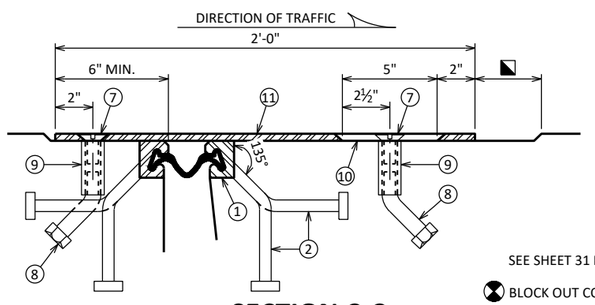


SECTION B-B



PLAN OF MULTI-USE PATH COVER PLATE WITH SLIP-RESISTANT SURFACE

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



SECTION C-C

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

SEE SHEET 31 FOR LEGEND.

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION PLUS ½".

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MULTI-USE PATH COVER PLATE DETAILS

SHEET 33 OF 45

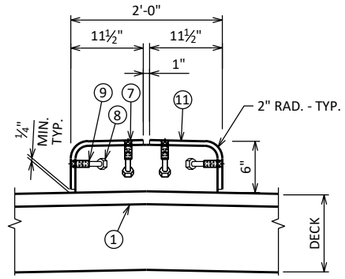
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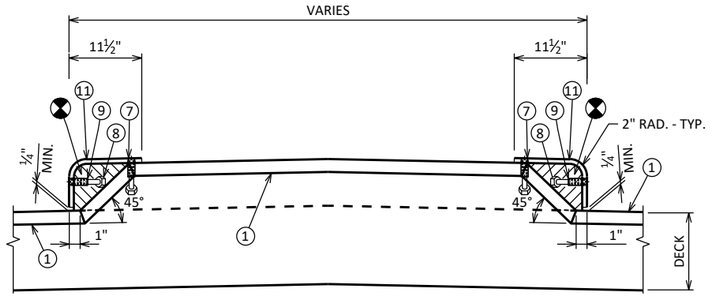
STATE PROJECT NUMBER

5989-03-84



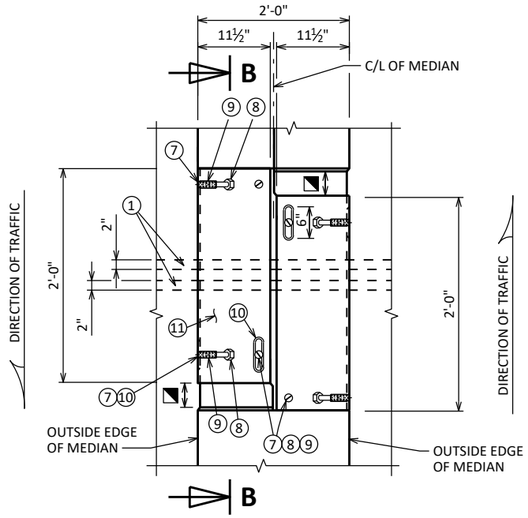
SECTION AT MEDIAN

AT WEST ABUTMENT AND SPAN 4 MODULAR JOINT



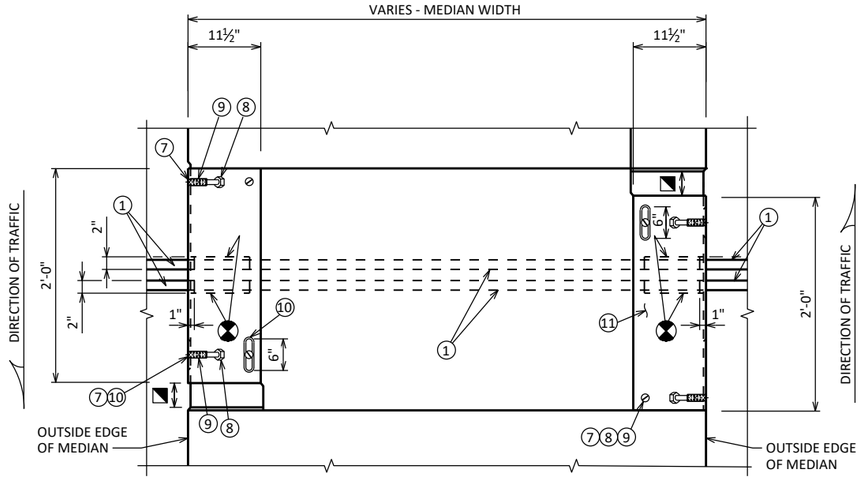
SECTION AT MEDIAN

AT EAST ABUTMENT



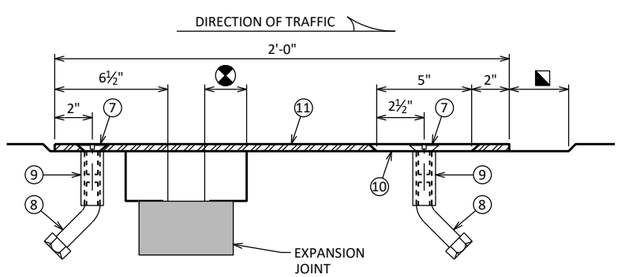
PLAN AT MEDIAN

AT WEST ABUTMENT AND SPAN 4 MODULAR JOINT



PLAN AT MEDIAN

AT EAST ABUTMENT



SECTION B-B

LEGEND

1. EXPANSION JOINT.
7. ¾" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾" DIA. X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. ¾" DIA. X 2¼" GALVANIZED THREADED COUPLING.
10. 1" X 6" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.
11. MEDIAN COVER PLATE ⅜" X 2'-0" X LIMITS SHOWN. BEND DOWN FACE OF SIDEWALK WITH HOLES FOR NO. 7. GALVANIZE PLATE

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

◪ JOINT OPENING DIMENSION PLUS ½".

8

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STRUCTURE B-53-104

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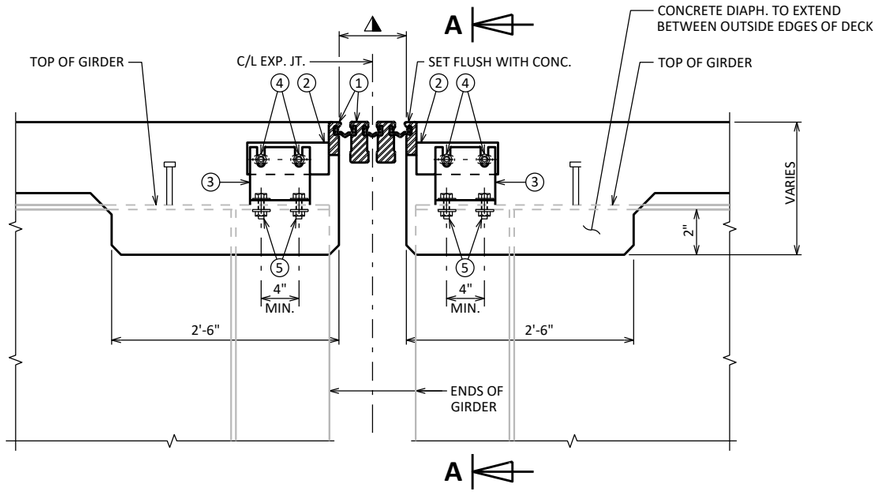
MEDIAN COVER PLATE DETAILS

SHEET 34 OF 45

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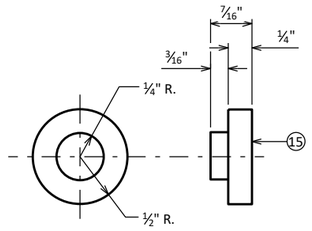
STATE PROJECT NUMBER

5989-03-84

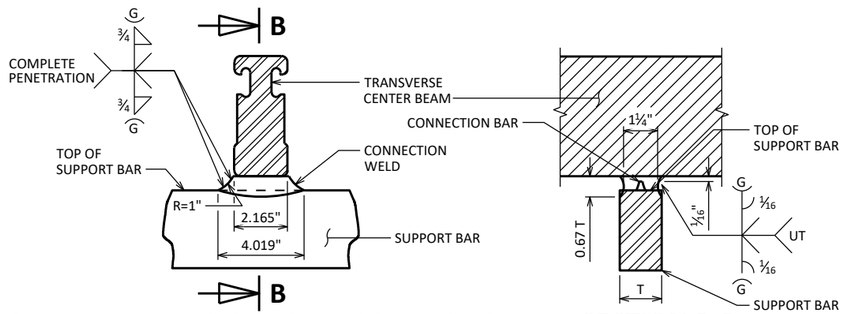


SECTION THRU JOINT @ HINGE

NORMAL TO C/L SUBSTRUCTURE

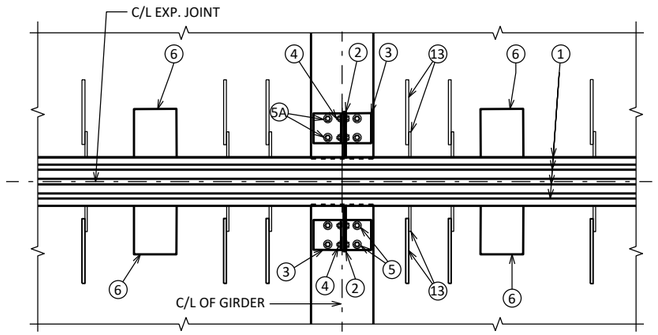


ADIPRENE BUTTON DETAIL



MODULAR EXPANSION JOINT CONNECTION DETAIL AND WELD SPECIFICATION

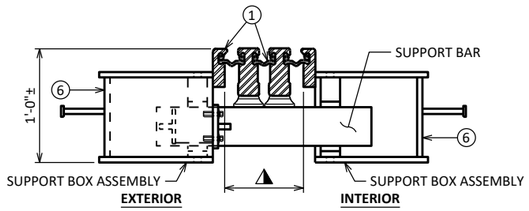
SECTION B-B



PART PLAN

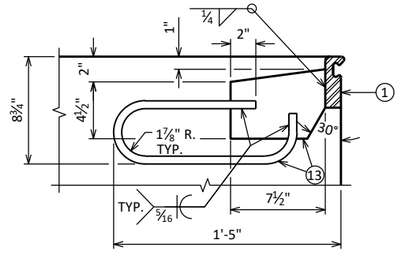
NOTE:
MODULAR EXPANSION DEVICE DESIGN AND DETAILS ARE SPECIFIC TO THE MANUFACTURER SELECTED FROM THOSE LISTED IN THE SPECIAL PROVISIONS.

SUPPORT BOXES ARE SHOWN FOR GENERAL INFORMATION AND LOCATION MAY VARY ACCORDING TO FABRICATOR DESIGN. SPACE SUPPORT BOXES TO MISS GIRDER TOP FLANGES WHEN POSSIBLE, BUT NOT TO EXCEED MAXIMUM SPACING PER SPECIAL PROVISIONS.



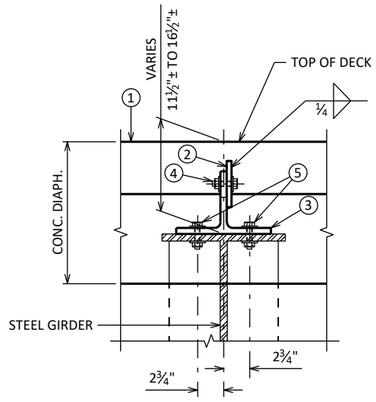
JOINT DETAIL

AT SUPPORT BAR & SUPPORT BOX ASSEMBLY



ANCHORAGE DETAIL

PLACE ADJACENT TO SUPPORT BOXES IN PAVING BLOCK IN DECK @ CONC. DIAPH.



SECTION A-A

GENERAL NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE GLAND.

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

NO EXPANSION JOINT PROTRUSIONS PERMITTED ABOVE ROADWAY SURFACE, ON PARAPET ROADWAY FACE OR ABOVE MULTI-USE PATH SURFACE.

THE EXPANSION JOINT SEALS SHALL BE PLACED, BONDED & SEALED AS RECOMMENDED BY THE MANUFACTURER. FORM WORK SHALL BE PLACED BETWEEN THE SUPPORT BOXES TO PREVENT CONCRETE INTRUSION INTO THE SUPPORT BOX. A TECHNICAL REPRESENTATIVE OF THE MANUFACTURER SHALL BE PRESENT DURING INSTALLATION. PRIOR TO SETTING THE JOINT ASSEMBLY INTO POSITION, THE PROJECT ENGINEER SHALL DETERMINE THE PROPER JOINT OPENING.

EXPANSION JOINT EXTRUSIONS SHALL BE FABRICATED TO CONFORM TO ROADWAY CROWN & GRADE. FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST BARS, PLATES, WT-SECTION, ANCHORAGE LOOP, & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THIS ASSEMBLY SHALL BE HOT DIPPED GALVANIZED. SLIP-RESISTANT SURFACE IS APPLIED TO MULTI-USE PATH COVER PLATES BY THE MANUFACTURER AND THEN HOT DIPPED GALVANIZED TO THEIR RECOMMENDATIONS TO MAINTAIN THE INTEGRITY OF THIS SURFACE.

ALL MATERIAL IN THE EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS, PARAPET & MEDIAN PLATES, MULTI-USE PATH PLATES, AND HARDWARE SHALL BE PAID AT THE UNIT PRICE BID FOR "EXPANSION DEVICE MODULAR B-53-104", LF.

BAR STEEL REINF. IN DECK AND CONC. DIAPHRAGM SHALL BE RESPACED AS NECESSARY TO ALLOW PLACEMENT OF JOINT ASSEMBLY. TOP TRANSVERSE BARS, ADJACENT TO MOD. JT., TO BE CUT AND PLACED BETWEEN JT. SUPPORT SYSTEM.

LEGEND

1. MODULAR EXPANSION JOINT DEVICE, 2 CELLS
2. ½" PLATE, ONE PER GIRDER MIN. PROVIDE 2 - 1" X 2" MIN. SLOTTED HOLES PLACED HORIZONTALLY FOR NO. 4
3. WT 6 X 29 (OR EQUIVALENT BUILT UP T-SECTION). ONE PER GIRDER. PROVIDE 2 - 1" X 3" MIN. SLOTTED HOLES PLACED VERTICALLY IN WEB OF WT FOR BOLTS NO. 4
4. ¾" DIA. HIGH STRENGTH BOLTS WITH NUTS & WASHERS. (A325 GALV.)
5. ¾" DIA. HIGH STRENGTH BOLTS WITH NUTS & WASHERS. FIELD DRILL HOLES IN GIRDER TOP FLANGE. (A325 GALV.)
6. SUPPORT BOX ASSEMBLY FOR SUPPORT BAR (SPA. PER MANUFACTURER). FABRICATE BOX FROM ½" PLATES
7. ⅜" BULKHEAD PLATE. WELD TO NO. 1, NO. 8 AND NO. 14. WHEN CONDUIT IS PRESENT IN PARAPET, ACCOMMODATE FOR BY PROVIDING OPENING IN NO. 7
8. INSIDE PLATE. FABRICATE FROM ⅜" PLATE
9. OUTSIDE PLATE. FABRICATE FROM ⅝" PLATE
10. ⅞" SQUARE BAR. WELD TO NO. 8 AS SHOWN
11. ¾" DIA. X 4" LONG STUDS. WELD TO NO. 8, NO. 7 & NO. 14 AS SHOWN
12. ¾" DIA. X 2" STAINLESS STEEL FLAT CTSK. SLOTTED HEAD CAP SCREWS WITH ANTI-SEIZE LUBRICANT. RECESS 1/16" BELOW PLATE SURFACE
13. ½" PLATE WITH ⅝" DIA. LOOP ANCHOR FABRICATED AS SHOWN. SPACED AT MANUFACTURER'S SPEC.
14. INSIDE PLATE. FABRICATE FROM ⅝" PLATE
15. ADIPRENE BUTTON. SEE DETAIL. SET IN OUTSIDE PLATE

▲ MANUFACTURER'S RECOMMENDED JOINT OPENING BASED ON THE TEMPERATURE ON THE DAY OF PLACEMENT PER TEMPERATURE TABLE. THE MODULAR EXPANSION DEVICE SHALL HAVE THE NUMBER OF CELLS AS INDICATED IN ①.

TEMP. TABLE

TEMPERATURE TABLE FOR SETTING JOINT OPENINGS TO BE DETERMINED BY JOINT MANUFACTURER WITH THE FOLLOWING DESIGN DATA:

1. ⅜ IN. OF MOVEMENT PER 10° F
2. MEDIAN TEMPERATURE OF 45° F
3. TEMP. RANGE IN TABLE FROM (-5)°F) TO (+95°F).

A TABLE OF JOINT OPENINGS BASED ON ABOVE DATA SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

WORK THIS SHEET WITH SHEET 36

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

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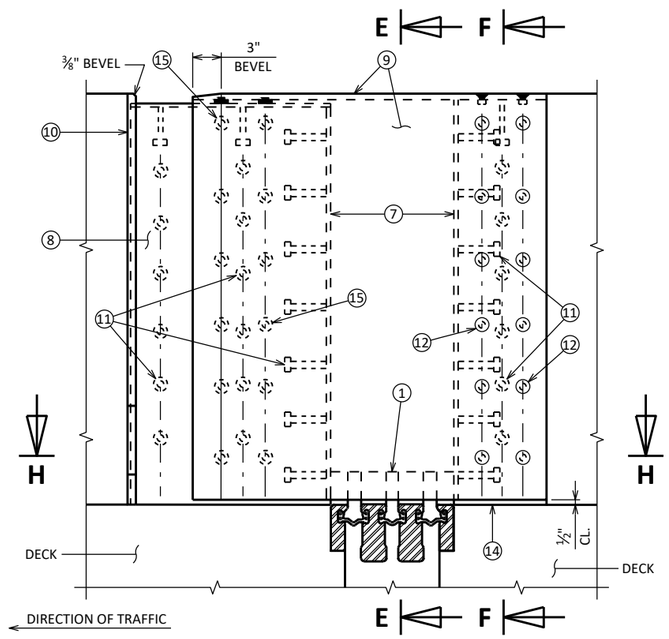
MODULAR EXPANSION JOINT DETAILS

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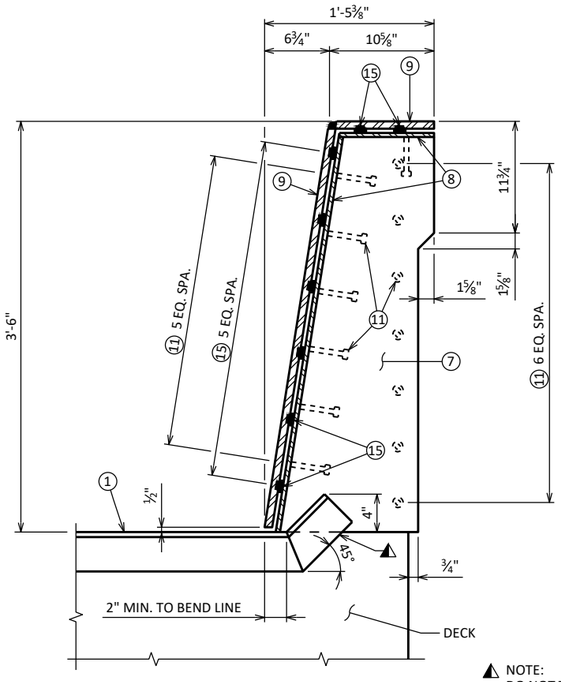
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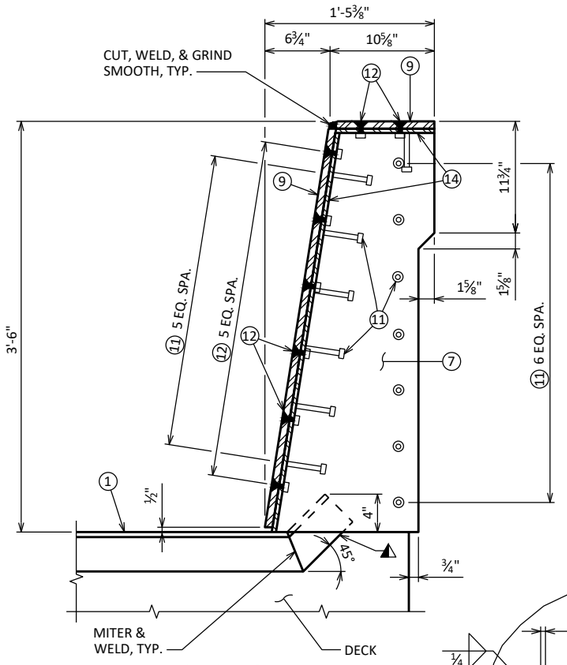
5989-03-84



ELEVATION OF SINGLE SLOPE PARAPET

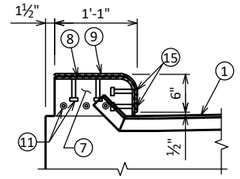


SECTION E-E

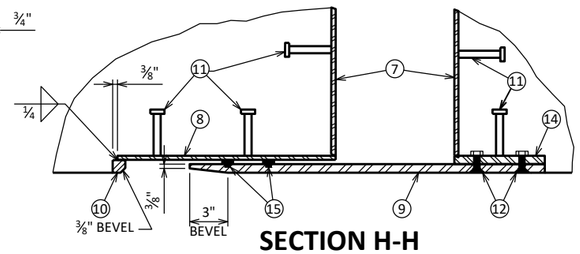


SECTION F-F

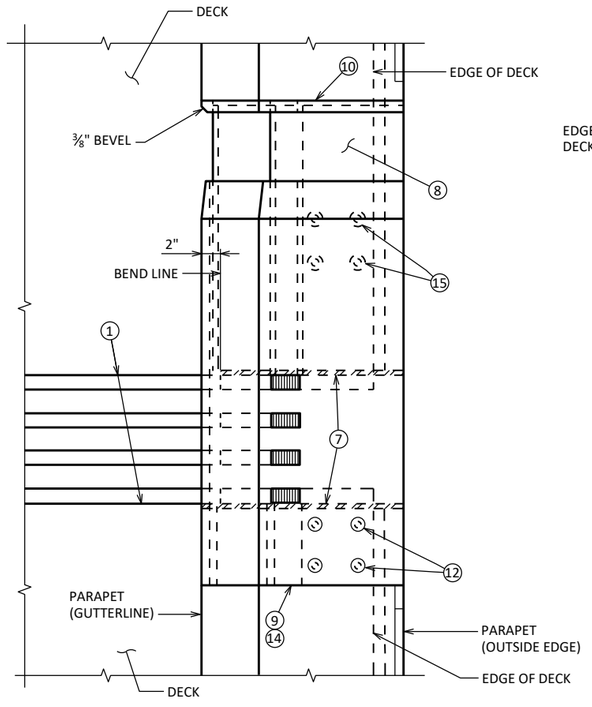
NOTE:
DO NOT TURN UP JOINT INTO INTERMEDIATE PARAPET



SECTION AT CURB

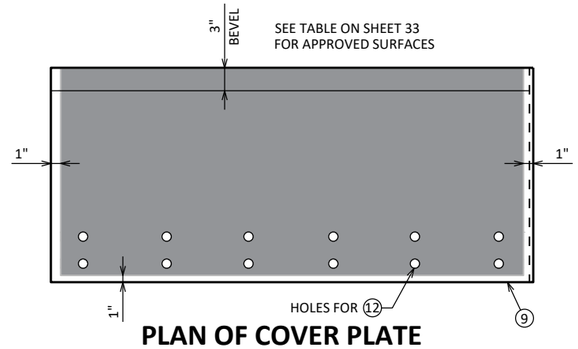


SECTION H-H



PLAN OF SINGLE SLOPE PARAPET

PLAN AT MULTI-USE PATH



PLAN OF COVER PLATE WITH SLIP-RESISTANT SURFACE ◪

◪ PLACE SLIP-RESISTANT SURFACE ON TOP WALKING SURFACE IN SHADED AREA ONLY.
GALVANIZE PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.

SEE SHEET 35 FOR LEGEND

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

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COVER PLATES FOR SINGLE SLOPE PARAPET

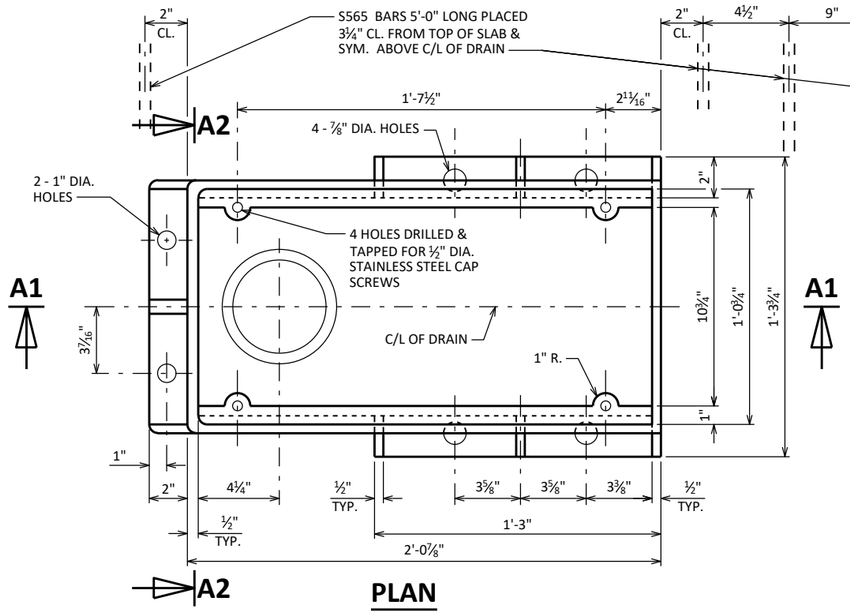
SHEET 36 OF 45

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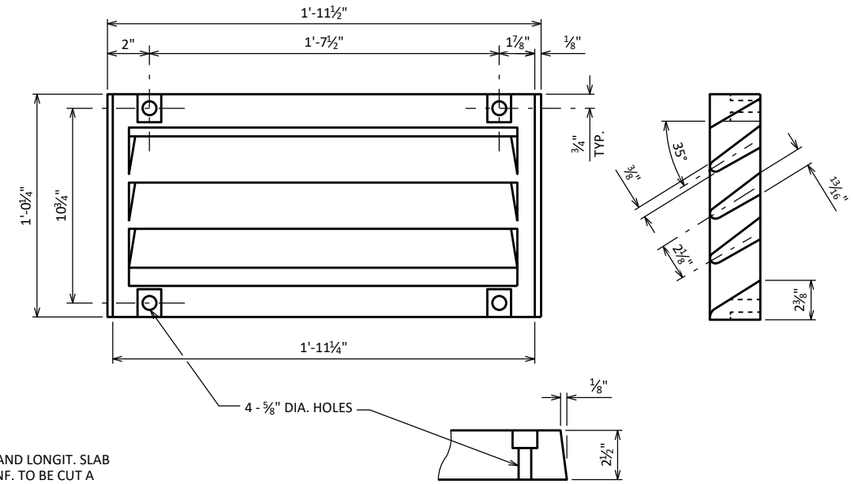
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STATE PROJECT NUMBER

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PLAN



TRANS. AND LONGIT. SLAB BAR REINF. TO BE CUT A MAX. 1" CL. FROM DRAIN FRAME DISPLACE BARS WHERE POSSIBLE

GRATE CASTING DETAIL

ATTACH GRATE TO FRAME FOR SHIPMENT

NOTES

ALL MATERIAL FOR TYPE "GC" CASTING, EXCLUDING GRATE HOLD DOWN SCREWS, SHALL BE GRAY IRON CONFORMING TO ASTM A48, CLASS 30. (APPROXIMATE WEIGHT = 225#)

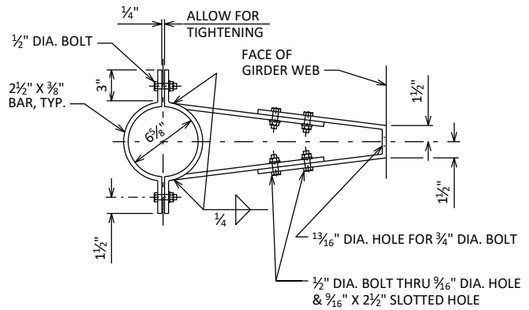
MATERIAL FOR BRACKETS SHALL CONFORM TO ASTM A36.

ALL MATERIAL FOR FLOOR DRAINS TO BE INCLUDED IN THE BID ITEM "FLOOR DRAINS TYPE GC".

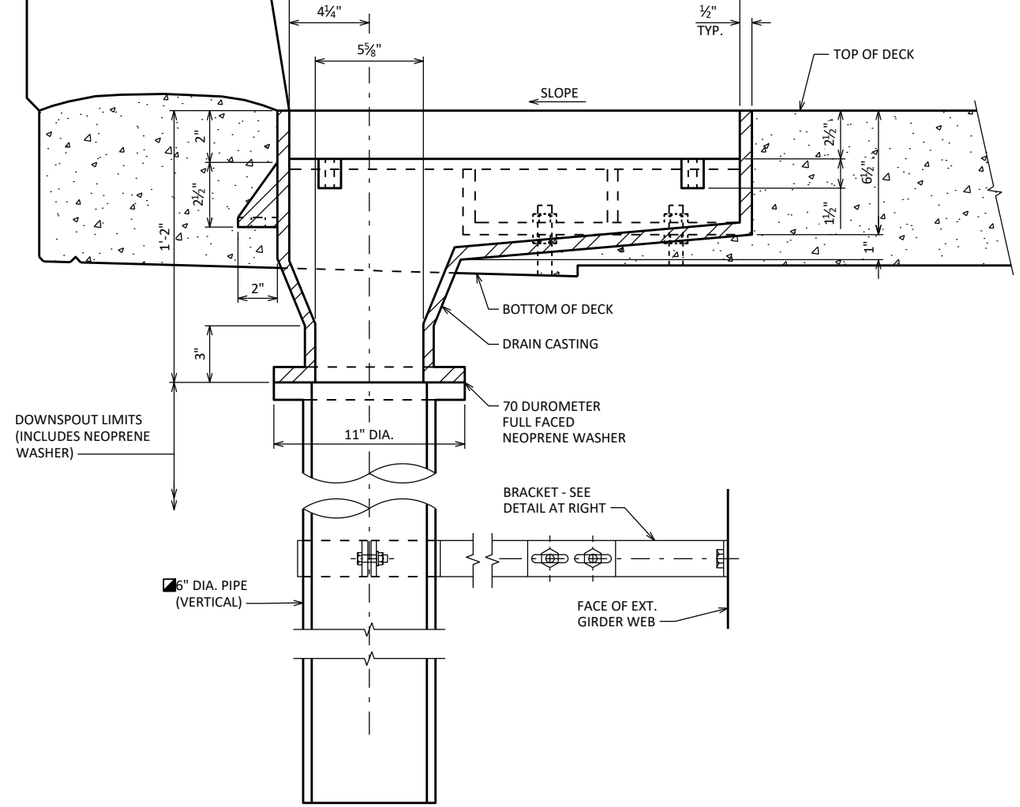
ALL MATERIAL FOR DOWNSPOUTS, DOWNSPOUT CONNECTIONS, AND BRACKETS TO BE INCLUDED IN THE BID ITEM "DOWNSPOUT 6-INCH".

ALTERNATE BRACKETS ARE NOT ALLOWED.

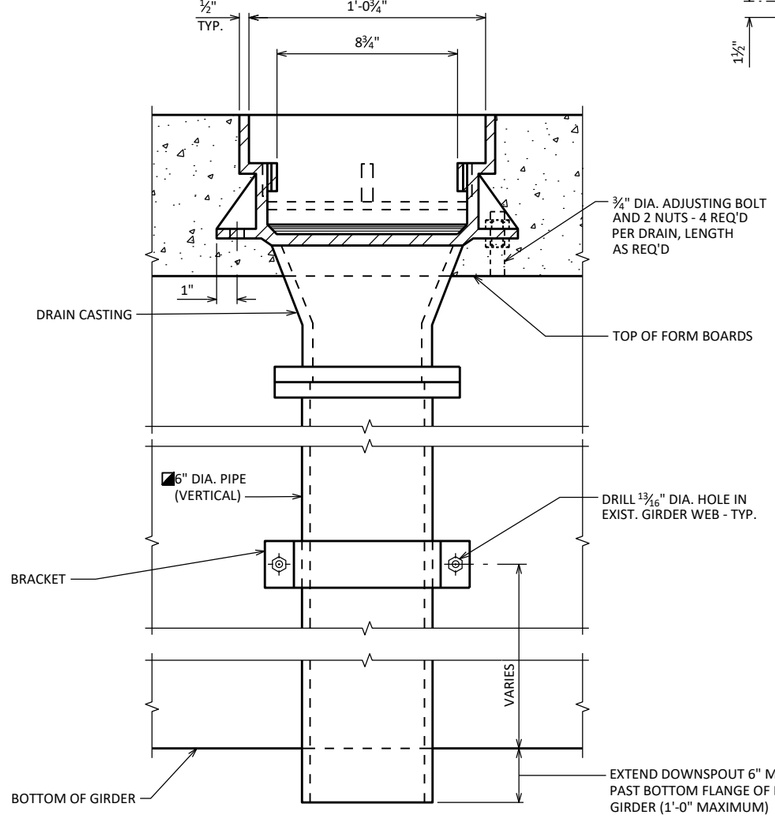
◪ FLANGED 6" DIA. DOWNSPOUTS SHALL BE REINFORCED THERMOSETTING RESIN PIPE (RTRP) OR GALVANIZED STANDARD PIPE CONFORMING TO ASTM A53.



BRACKET DETAIL



SECTION A1



SECTION A2

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STRUCTURE B-53-104

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FLOOR DRAIN TYPE GC

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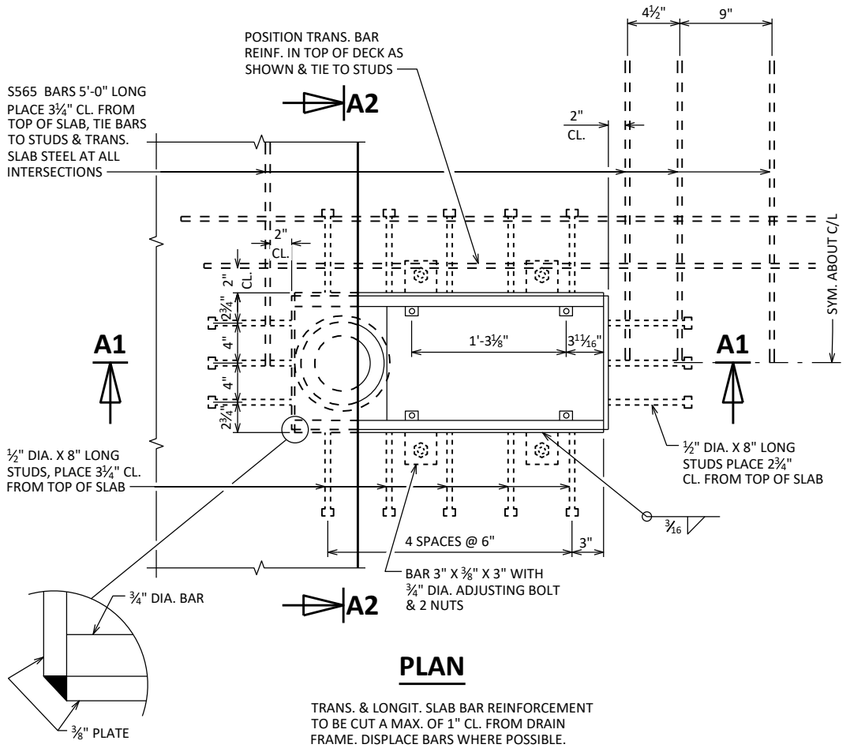
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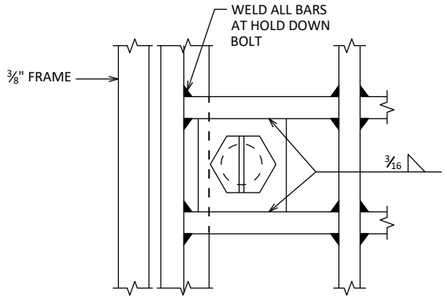
STATE PROJECT NUMBER

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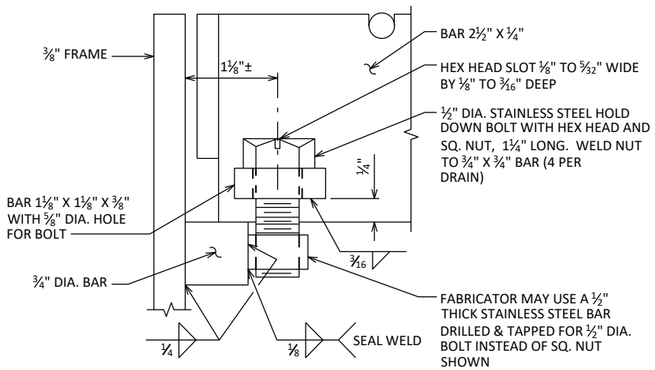


PLAN

TRANS. & LONGIT. SLAB BAR REINFORCEMENT TO BE CUT A MAX. OF 1" CL. FROM DRAIN FRAME. DISPLACE BARS WHERE POSSIBLE.



PART PLAN



SECTION AT HOLD DOWN BOLT

NOTES

ALL DRAIN MATERIAL INCLUDING GRATE, EXCLUDING PIPE & GRATE HOLD DOWN BOLTS, SHALL BE ASTM A36 STEEL.

MATERIAL FOR BRACKETS SHALL CONFORM TO ASTM A36.

ALTERNATE BRACKETS ARE NOT ALLOWED.

ALL STEEL SHALL BE GALVANIZED. WELDS SHALL BE MADE WITH LOW HYDROGEN ELECTRODES.

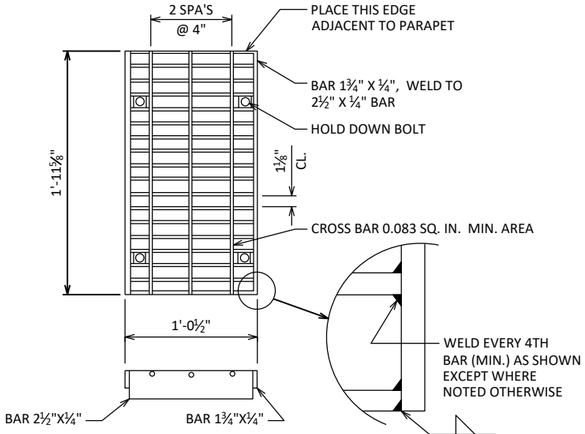
ALL MATERIAL FOR FLOOR DRAINS TO BE INCLUDED IN THE BID ITEM "FLOOR DRAINS TYPE H".

ALL MATERIAL FOR DOWNSPOUTS, DOWNSPOUT CONNECTIONS, AND BRACKETS TO BE INCLUDED IN THE BID ITEM "DOWNSPOUT 6-INCH".

SEAL WELD INSIDE OF DRAIN.

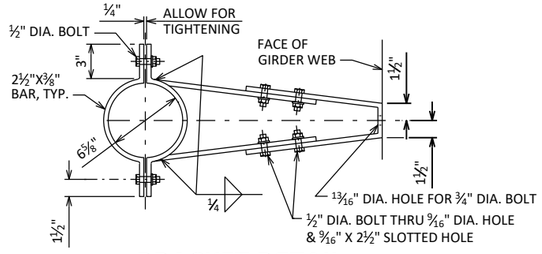
PRIOR TO GALVANIZING A NO. 6 BLAST CLEANING IS REQ'D.

◪ FLANGED 6" DIA. DOWNSPOUTS SHALL BE REINFORCED THERMOSETTING RESIN PIPE (RTRP) OR GALVANIZED STANDARD PIPE CONFORMING TO ASTM A53.

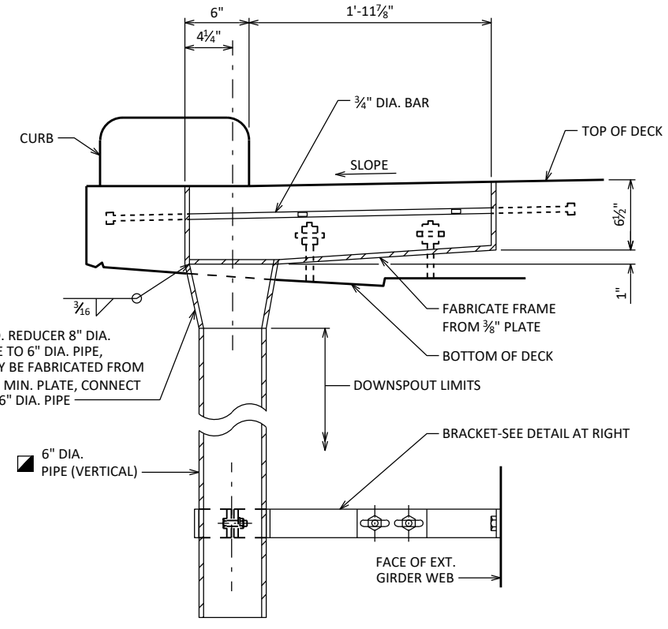


GRATE DETAIL

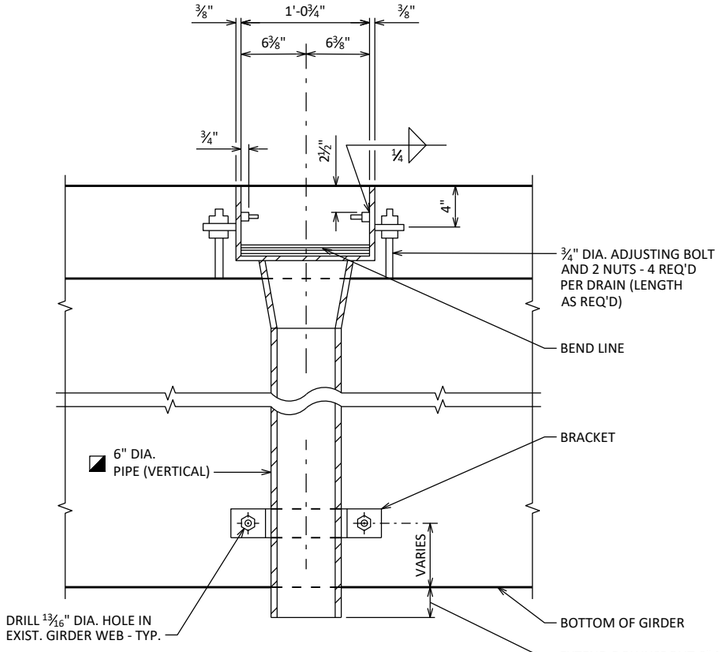
ATTACH GRATE TO FRAME FOR SHIPMENT



BRACKET DETAIL



SECTION A1



SECTION A2

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D RCP

FLOOR DRAIN TYPE 'H'

SHEET 38 OF 45

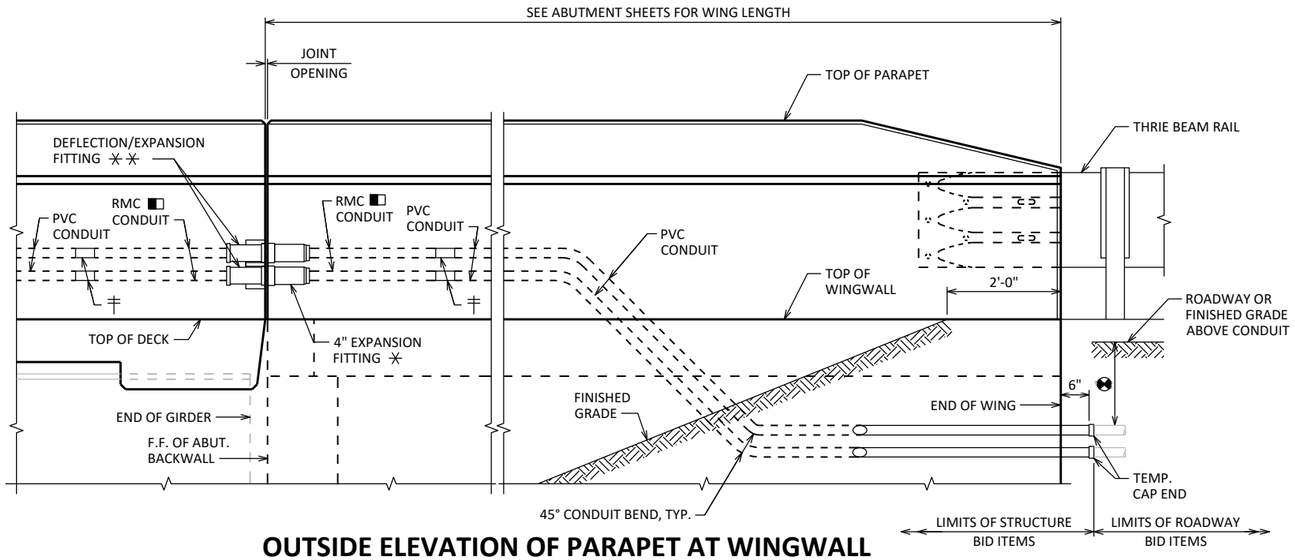
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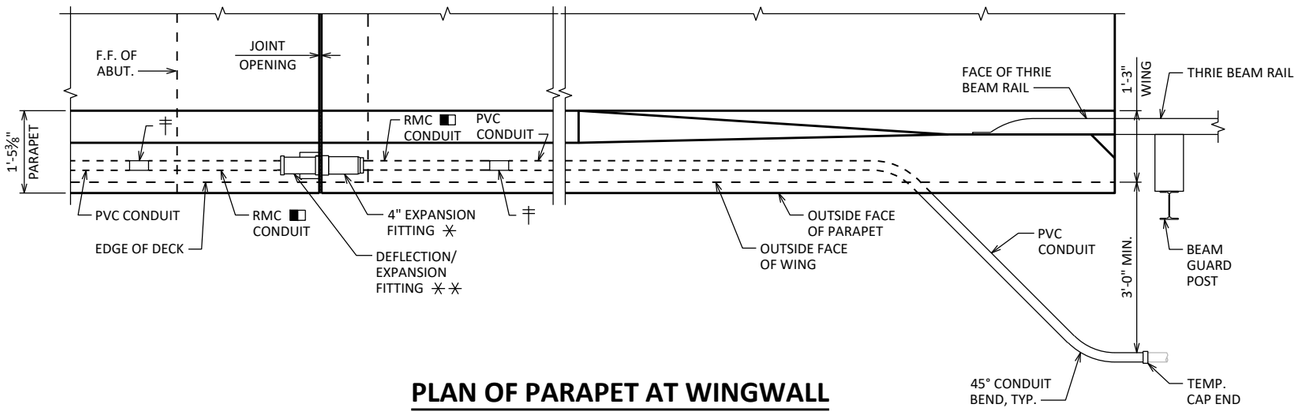
STATE PROJECT NUMBER

5989-03-84

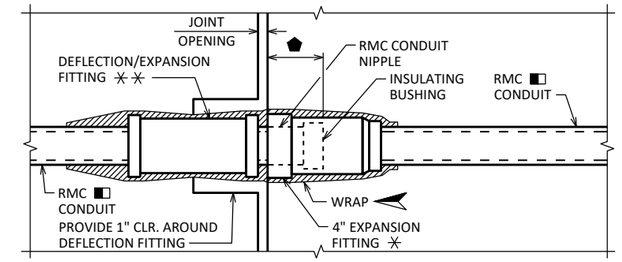


OUTSIDE ELEVATION OF PARAPET AT WINGWALL

(WEST ABUT. SHOWN, EAST ABUT. SIMILAR)



PLAN OF PARAPET AT WINGWALL



DEFLECTION/EXPANSION AND 4" EXPANSION FITTING

THIS DETAIL ACCOMMODATES A MAXIMUM OF 4" TOTAL MOVEMENT AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION. BOND JUMPER NOT SHOWN FOR CLARITY.

LEGEND

- USE 2" DIA. RIGID METALLIC (RMC) CONDUIT AT FITTINGS. PROVIDE RMC FOR 3'-0" MIN. ON EACH SIDE OF JOINT OPENINGS UNLESS NOTED OTHERWISE.
- NONMETALLIC CONDUIT TO METALLIC CONDUIT ADAPTER FITTING (UL OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED).
- SPONGE RUBBER WRAP TO BE AASHTO M153, TYPE 1 OR EQUIVALENT - ¼" MINIMUM THICKNESS. PROVIDE WRAP FOR THE ENTIRE LENGTH OF THE FITTING OR AS SHOWN. SPONGE RUBBER WRAP INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".
- POSITION MOVABLE END OF CONDUIT INSIDE EXPANSION FITTING, SUCH THAT IT WILL HAVE THE SAME ALLOWANCE FOR MOVEMENT (EXPANSION/CONTRACTION) AS THE EXPANSION DEVICE SET IN PLACE IN THE DECK BELOW IT. TAKE CARE TO INSTALL EXPANSION FITTING AND CONDUIT EXACTLY PARALLEL TO BRIDGE MOVEMENT.
- 2'-0" MIN. CONDUIT COVER UNDER ROADWAYS, 1'-6" OTHERWISE. CONDUIT COVER SHOULD NOT EXCEED 3'-0".
- EXPANSION FITTING REQUIREMENTS (IF USED):
  - 4" TOTAL MOVEMENT WITH BONDING JUMPER
- DEFLECTION/EXPANSION FITTING REQUIREMENTS (IF USED):
  - UP TO ¾" CONDUIT CONTRACTION OR EXPANSION AND UP TO 30° OF ANGULAR MISALIGNMENT IN ANY DIRECTION WITH BONDING JUMPER

NOTES

CONDUIT SHALL BE EMBEDDED 2" CLEAR.

USE 2" DIA. RIGID NONMETALLIC CONDUIT (PVC) UNLESS NOTED OTHERWISE.

CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK.

CONDUIT BENDS SHALL CONFORM TO THE NATIONAL ELECTRIC CODE.

PROVIDE JUNCTION BOXES FROM THE APPROVED PRODUCTS LIST.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY	CLP	PLANS CK'D	RCP

CONDUIT DETAILS 4" FITTING

SHEET 39 OF 45

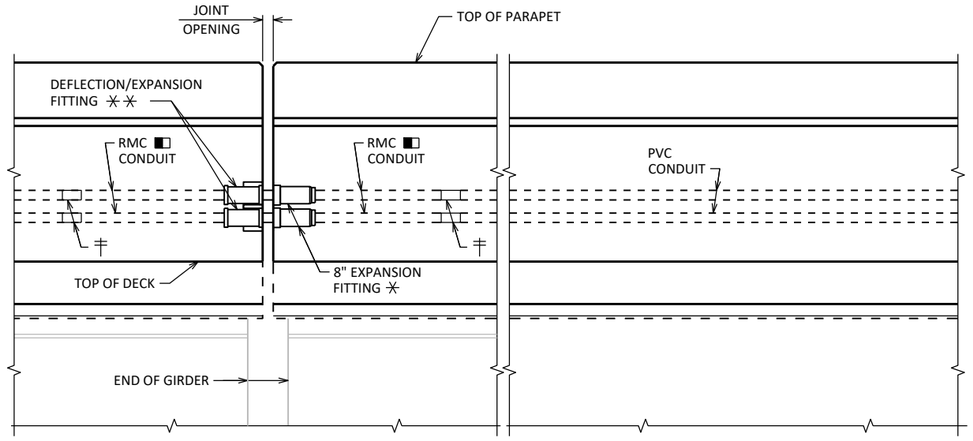
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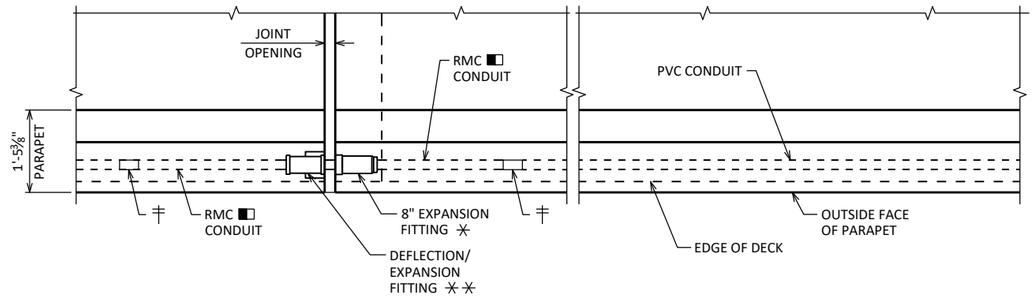
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STATE PROJECT NUMBER

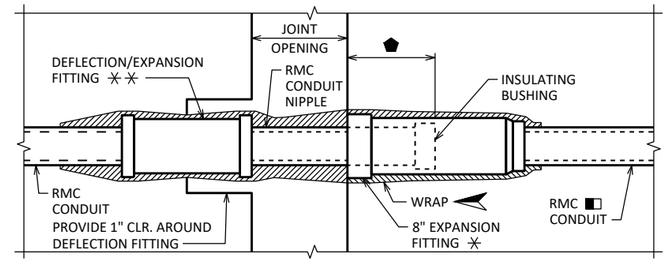
5989-03-84



OUTSIDE ELEVATION OF PARAPET - IN SPAN NEAR PIER 4



PLAN OF PARAPET - IN SPAN NEAR PIER 4



DEFLECTION/EXPANSION AND 8" EXPANSION FITTING

THIS DETAIL ACCOMMODATES A MAXIMUM OF 8" TOTAL MOVEMENT
AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION.
BOND JUMPER NOT SHOWN FOR CLARITY.

LEGEND

◧ USE 2" DIA. RIGID METALLIC (RMC) CONDUIT AT FITTINGS. PROVIDE RMC FOR 3'-0" MIN. ON EACH SIDE OF JOINT OPENINGS UNLESS NOTED OTHERWISE.

⫩ NONMETALLIC CONDUIT TO METALLIC CONDUIT ADAPTER FITTING (UL OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED).

◥ SPONGE RUBBER WRAP TO BE AASHTO M153, TYPE 1 OR EQUIVALENT - ¼" MINIMUM THICKNESS. PROVIDE WRAP FOR THE ENTIRE LENGTH OF THE FITTING OR AS SHOWN. SPONGE RUBBER WRAP INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

⬟ POSITION MOVABLE END OF CONDUIT INSIDE EXPANSION FITTING, SUCH THAT IT WILL HAVE THE SAME ALLOWANCE FOR MOVEMENT (EXPANSION/CONTRACTION) AS THE EXPANSION DEVICE SET IN PLACE IN THE DECK BELOW IT. TAKE CARE TO INSTALL EXPANSION FITTING AND CONDUIT EXACTLY PARALLEL TO BRIDGE MOVEMENT.

⚹ EXPANSION FITTING REQUIREMENTS:
- 8" TOTAL MOVEMENT WITH BONDING JUMPER

⚹⚹ DEFLECTION/EXPANSION FITTING REQUIREMENTS:
- UP TO ¾" CONDUIT CONTRACTION OR EXPANSION AND UP TO 30° OF ANGULAR MISALIGNMENT IN ANY DIRECTION WITH BONDING JUMPER

NOTES

CONDUIT SHALL BE EMBEDDED 2" CLEAR.

USE 2" DIA. RIGID NONMETALLIC CONDUIT (PVC) UNLESS NOTED OTHERWISE.

CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK.

CONDUIT BENDS SHALL CONFORM TO THE NATIONAL ELECTRIC CODE.

PROVIDE JUNCTION BOXES FROM THE APPROVED PRODUCTS LIST.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

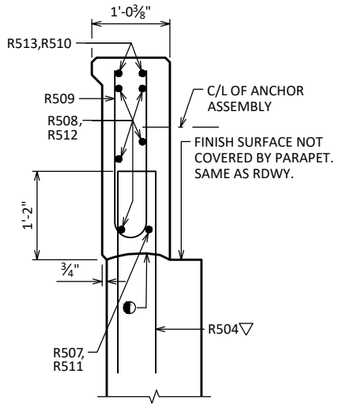
DRAWN BY CLP | PLANS CK'D RCP

CONDUIT DETAILS
8" FITTING

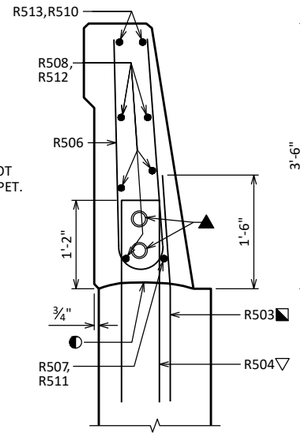
SHEET 40 OF 45

STATE PROJECT NUMBER

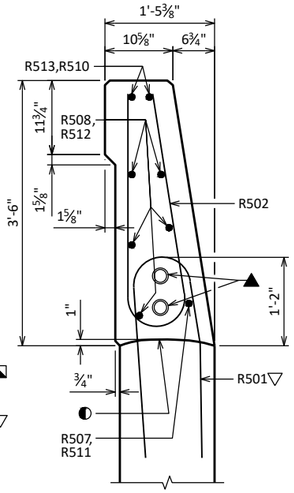
5989-03-84



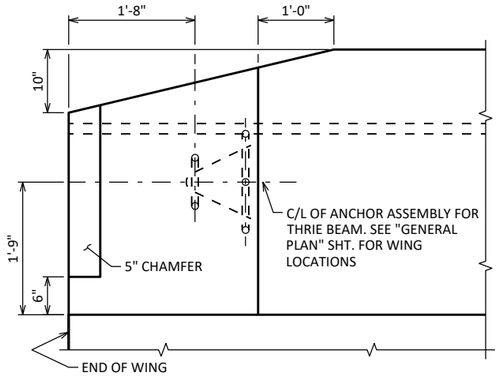
SECTION A-A



SECTION B-B



SECTION C-C



PARAPET END TREATMENT DETAIL

LOOKING AT INSIDE FACE OF PARAPET

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

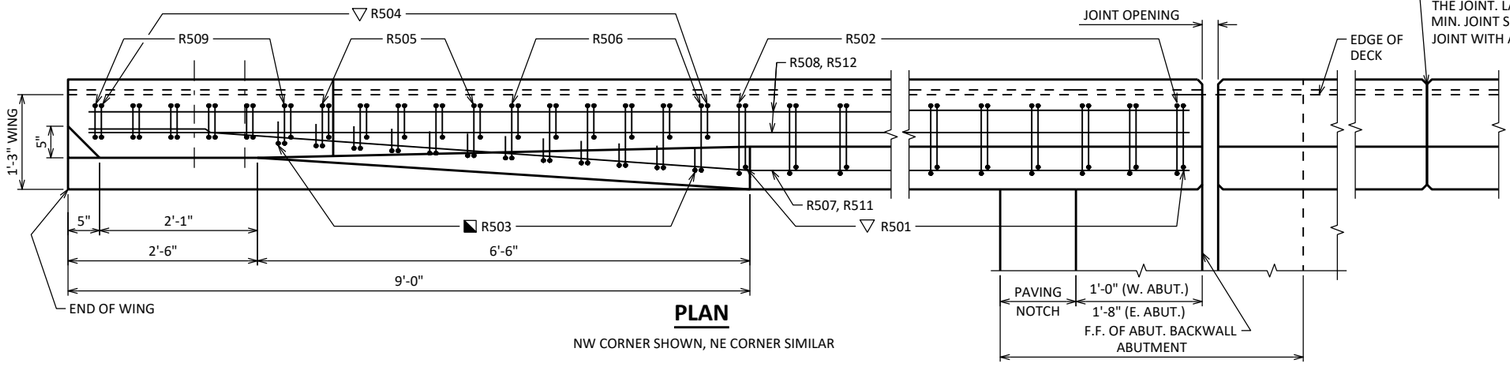
BAR MARK	NO. REQ'D.	LENGTH
R509	2 SERIES OF 6	4'-9" TO 6'-1"

BILL OF BARS

FOR WINGS 2 & 3 PARAPETS

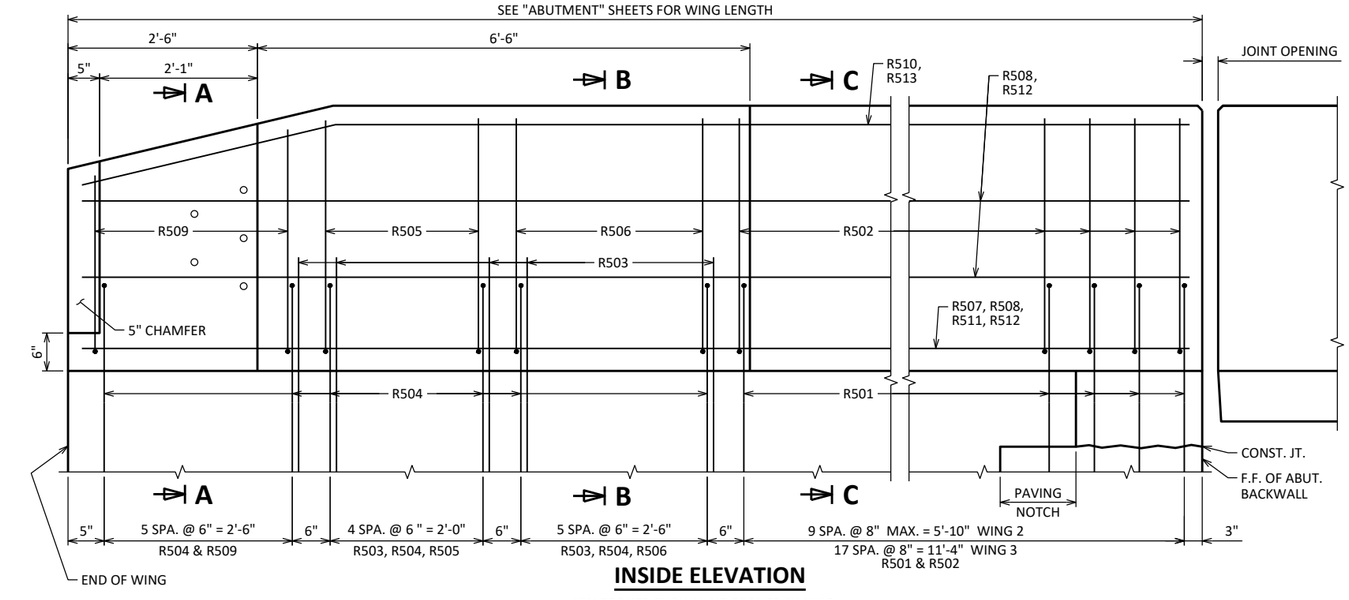
BAR MARK	COAT	W. ABUT.	E. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	10	18	5'-10"	X		PARAPET VERT.
R502	X	10	18	6'-8"	X		PARAPET VERT.
R503	X	12	12	3'-0"	X		PARAPET VERT.
R504	X	17	17	5'-7"	X		PARAPET VERT.
R505	X	5	5	6'-5"	X		PARAPET VERT.
R506	X	6	6	6'-6"	X		PARAPET VERT.
R507	X	1	---	14'-7"	X		PARAPET HORIZ.
R508	X	5	---	14'-7"			PARAPET HORIZ.
R509	X	6	6	5'-5"	X	⊗	PARAPET VERT.
R510	X	2	---	14'-8"	X		PARAPET HORIZ.
R511	X	---	1	20'-1"	X		PARAPET HORIZ.
R512	X	---	5	20'-1"	X		PARAPET HORIZ.
R513	X	---	2	20'-2"	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.



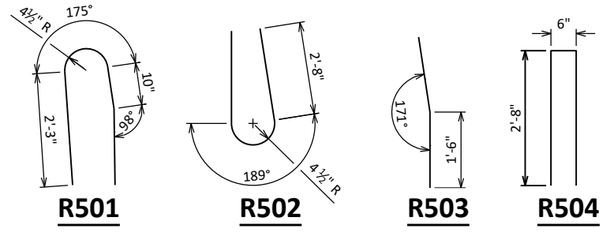
PLAN

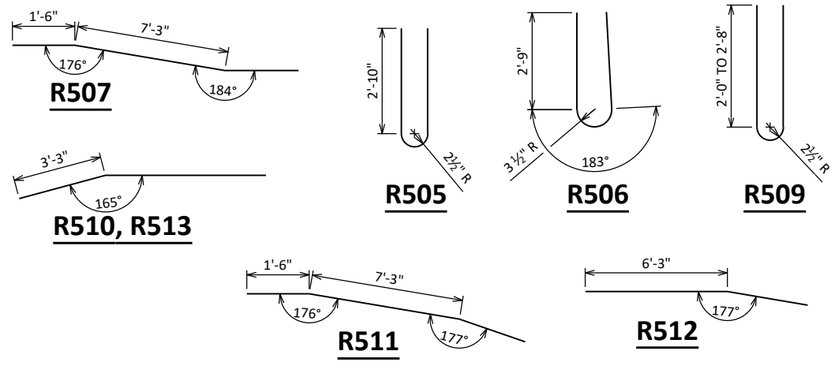
NW CORNER SHOWN, NE CORNER SHOWN SIMILAR

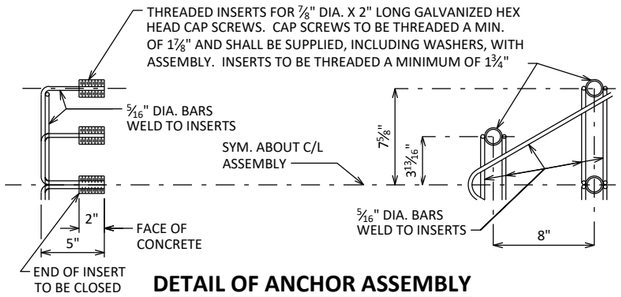


INSIDE ELEVATION

NW CORNER SHOWN, NE CORNER SHOWN SIMILAR







DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH ASTM F2329.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◪ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

▲ 2" CONDUITS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D NBE

SINGLE SLOPE PARAPET 42SS (NORTH SIDE)

SHEET 41 OF 45

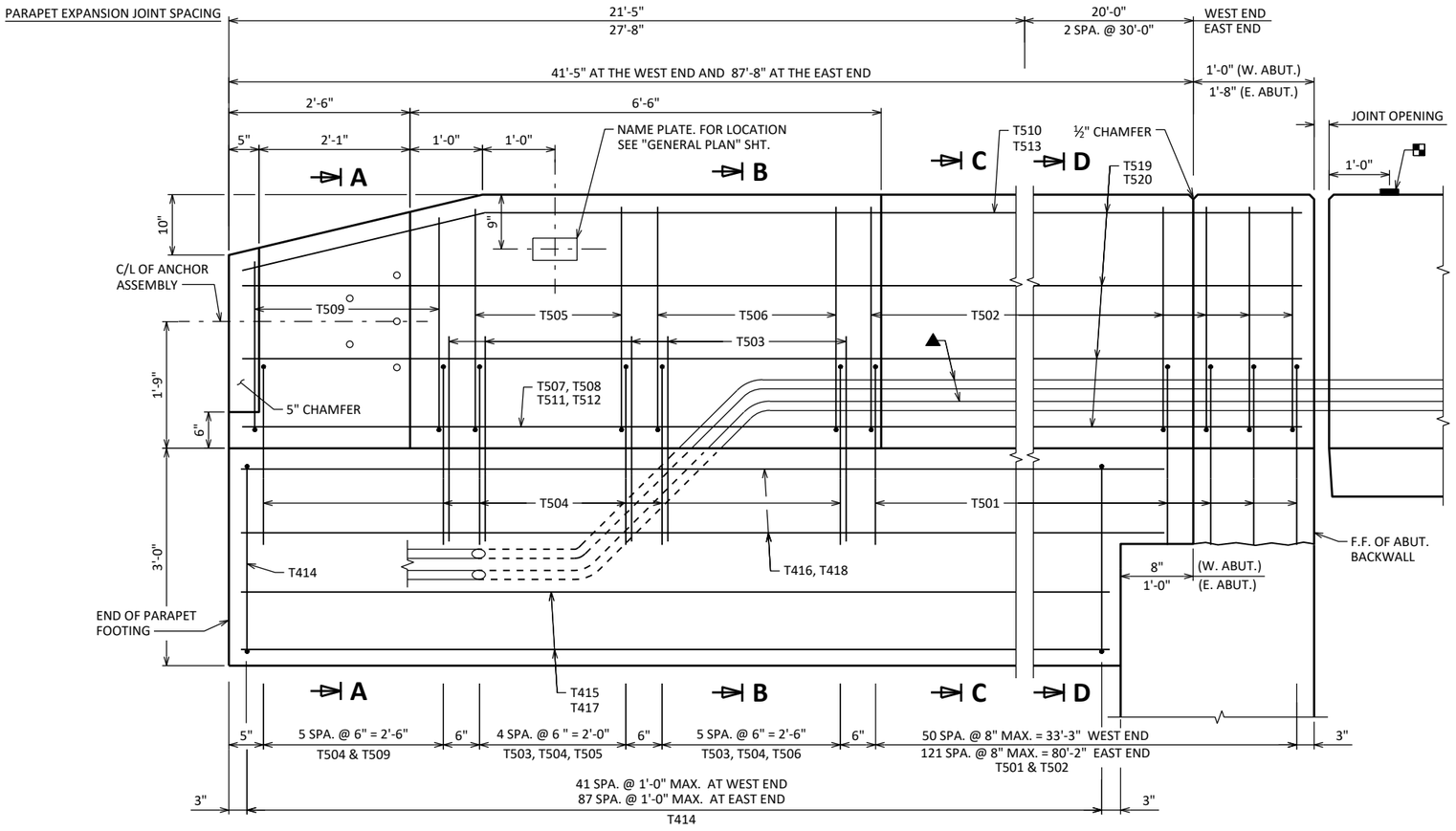
249

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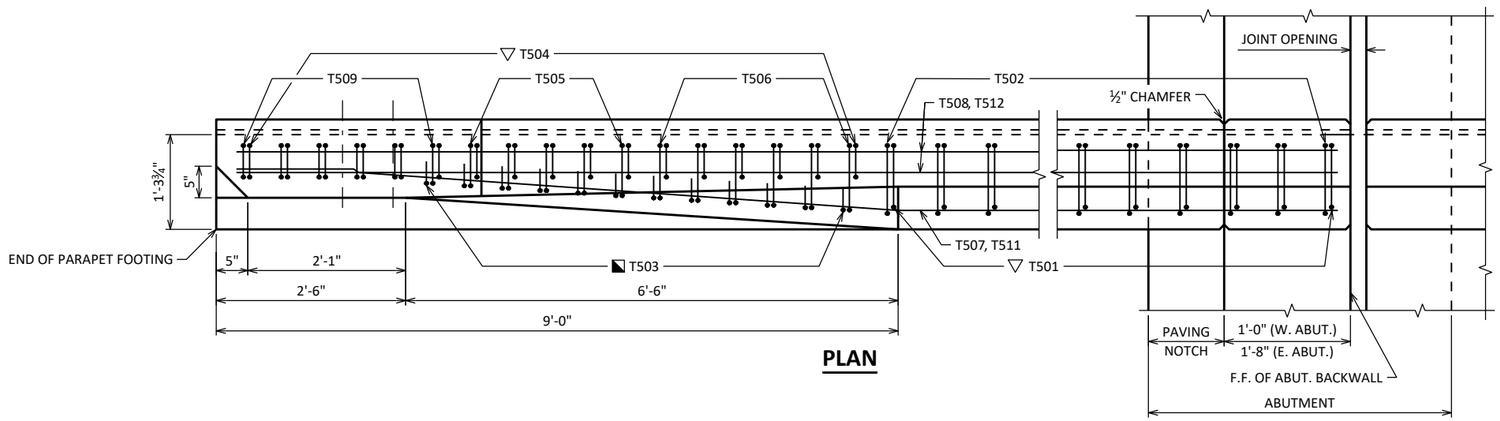
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STATE PROJECT NUMBER

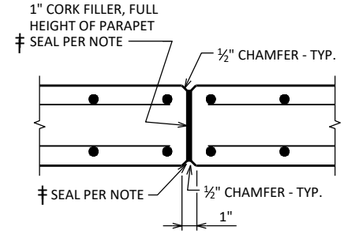
5989-03-84



ELEVATION



PLAN



PARAPET EXPANSION JOINT DETAIL

SEE SHEET 43 FOR SECTIONS AND BILL OF BARS.

◪ T503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE T503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ T501 AND T504 BARS TO BE TIED TO FOOTING STEEL BEFORE FOOTING IS POURED.

◪ BENCH MARK CAP (WHEN SUPPLIED). AVOID PLACING A BENCH MARK CAP BELOW A RAIL OR FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.

▲ 2" CONDUITS.

‡ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY	CLP	PLANS CK'D	NBE

SINGLE SLOPE 42SS INTERMEDIATE PARAPET

SHEET 42 OF 45

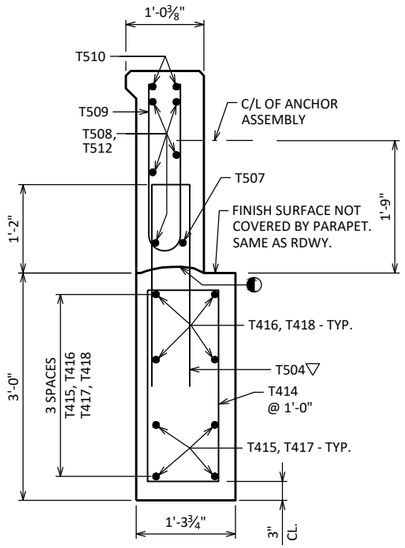
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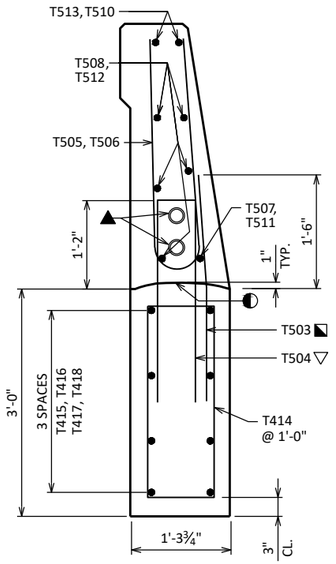
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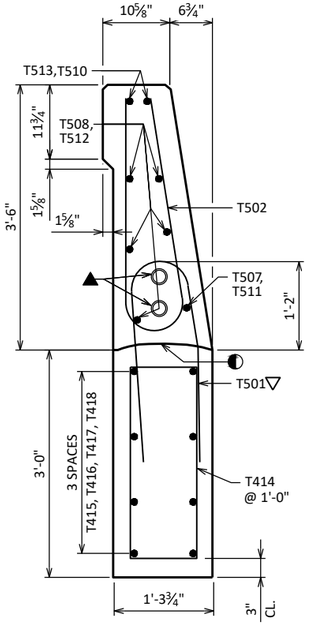
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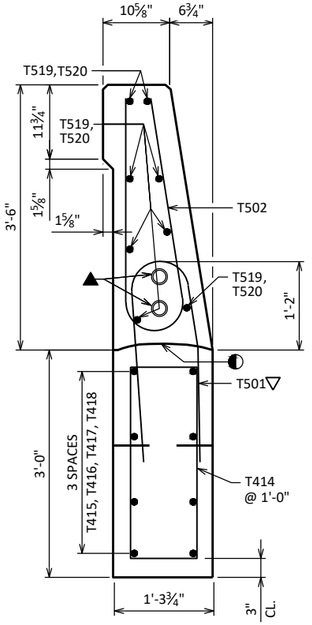
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

SEE SHEET 42 FOR LOCATION OF SECTIONS

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

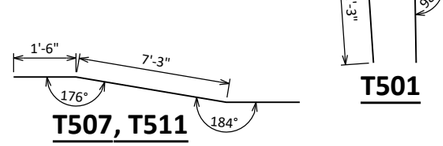
BAR MARK	NO. REQ'D.	LENGTH
T509	2 SERIES OF 6	4'-9" TO 6'-1"

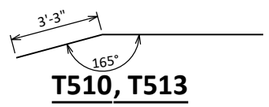
BILL OF BARS

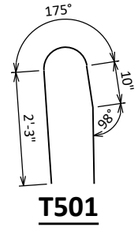
FOR INTERMEDIATE PARAPETS

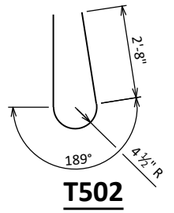
BAR MARK	COAT	W. ABUT.	E. ABUT.	LENGTH W. ABUT.	LENGTH E. ABUT.	BENT	BAR SERIES	LOCATION
T501	X	51	122	5'-10"	5'-10"	X		PARAPET VERT.
T502	X	51	122	6'-8"	6'-8"	X		PARAPET VERT.
T503	X	11	11	3'-0"	3'-0"	X		PARAPET VERT.
T504	X	17	17	5'-7"	5'-7"	X		PARAPET VERT.
T505	X	5	5	6'-5"	6'-5"	X		PARAPET VERT.
T506	X	6	6	6'-6"	6'-6"	X		PARAPET VERT.
T507	X	1	---	21'-0"	---	X		PARAPET HORIZ.
T508	X	5	---	21'-0"	---			PARAPET HORIZ.
T509	X	6	6	5'-5"	5'-5"	X	⊗	PARAPET VERT.
T510	X	2	---	21'-1"	---	X		PARAPET HORIZ.
T511	X	---	1	---	27'-3"	X		PARAPET HORIZ.
T512	X	---	5	---	27'-3"			PARAPET HORIZ.
T513	X	---	2	---	27'-4"	X		PARAPET HORIZ.
T414	X	42	88	7'-6"	7'-6"	X		PARAPET FOOTING VERT.
T415	X	4	---	40'-5"	---			PARAPET FOOTING HORIZ.
T416	X	4	---	41'-1"	---			PARAPET FOOTING HORIZ.
T417	X	---	8	---	44'-0"			PARAPET FOOTING HORIZ.
T418	X	---	8	---	45'-0"			PARAPET FOOTING HORIZ.
T519	X	8	---	20'-7"	---			PARAPET HORIZ.
T520	X	---	16	---	29'-7"			PARAPET HORIZ.

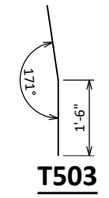
⊗ LENGTH SHOWN FOR BAR IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

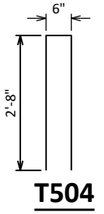


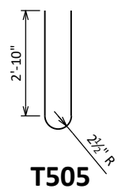


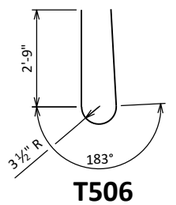


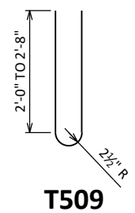


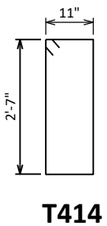












◐ CONST. JOINT - STRIKE OFF AS SHOWN

◪ T503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE T503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ T501 AND T504 BARS TO BE TIED TO FOOTING STEEL BEFORE FOOTING IS POURED.

▲ 2" CONDUITS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D NBE

SINGLE SLOPE 42SS INTERMEDIATE PARAPET DETAILS

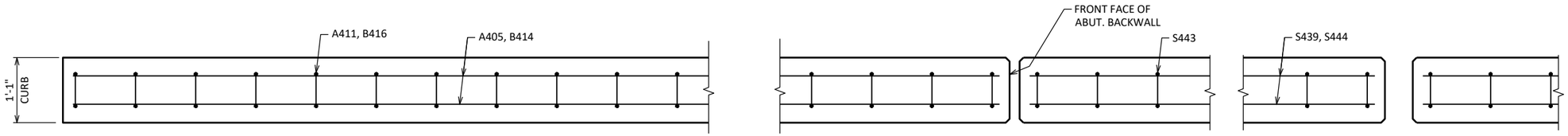
SHEET 43 OF 45

8

8

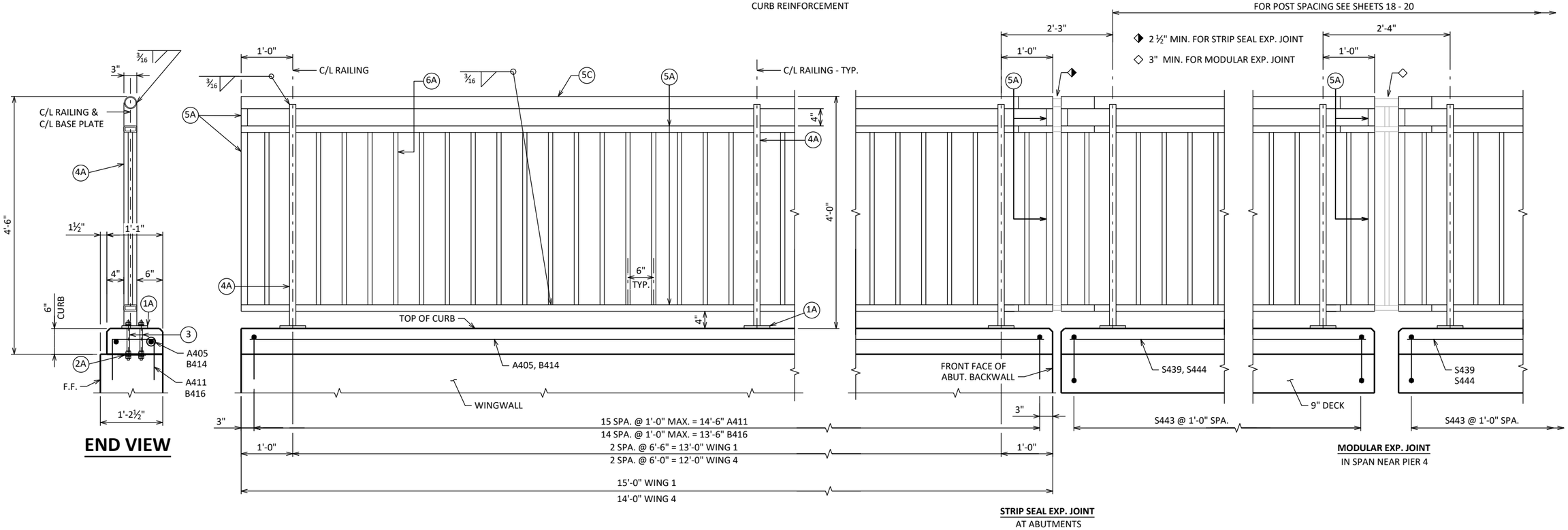
STATE PROJECT NUMBER

5989-03-84



PLAN

CURB REINFORCEMENT



END VIEW

STRIP SEAL EXP. JOINT
AT ABUTMENTS

MODULAR EXP. JOINT
IN SPAN NEAR PIER 4

PEDESTRIAN RAILING TYPE C2 ON CURB ELEVATION

SEE SHEET 45 FOR LEGEND

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

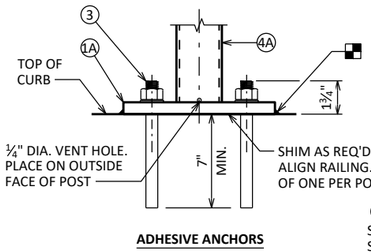
STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D RCP

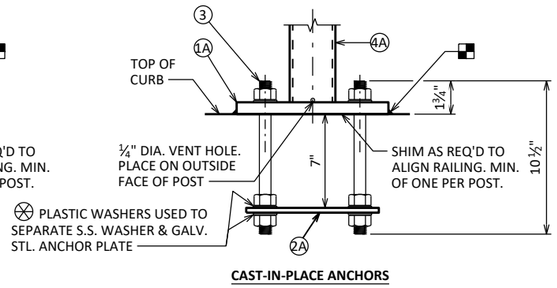
PEDESTRIAN RAILING TYPE C2

STATE PROJECT NUMBER

5989-03-84



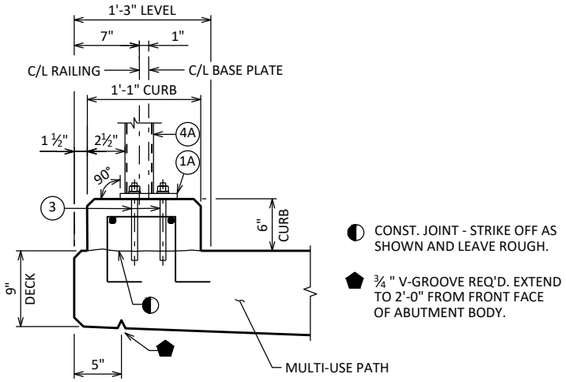
ADHESIVE ANCHORS



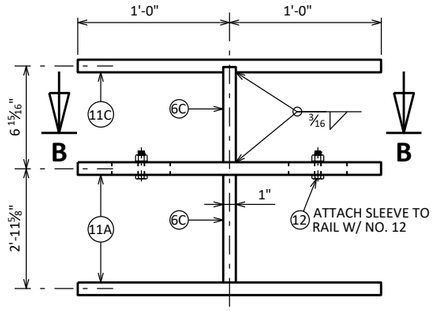
CAST-IN-PLACE ANCHORS

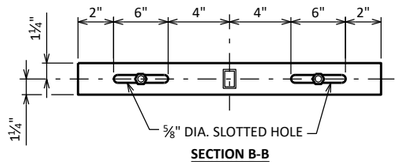
ANCHORAGE FOR RAIL POSTS

NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.



CURB MOUNTED PEDESTRIAN RAILING DETAIL

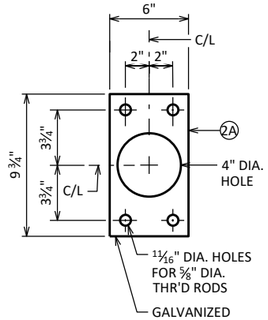




SECTION B-B

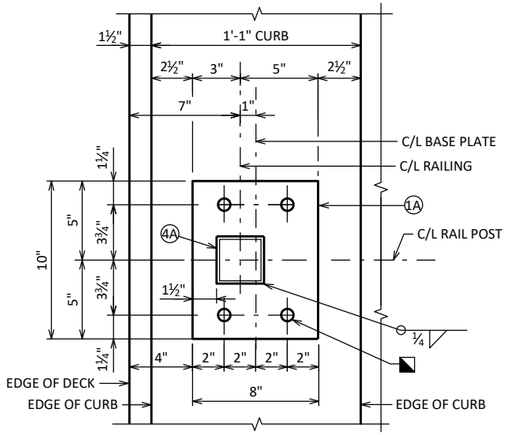
SLEEVE DETAIL

(AT MODULAR EXP. JT.)



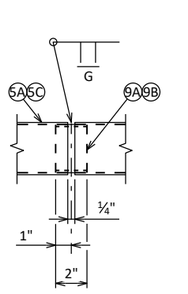
ANCHOR PLATE

NOTE: ANCHOR PLATE NOT REQ'D. WHEN ADHESIVE ANCHORS ARE USED.



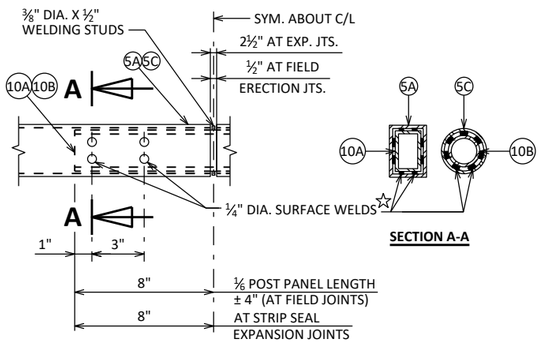
RAIL POST BASE PLATE - CURB MOUNTED

¾" DIA. HOLES FOR ADHESIVE ANCHORS.
¾" DIA. X 1 ½" SLOTTED HOLES FOR CAST-IN-PLACE ANCHORS.
PLACE SLOTTED HOLES PARALLEL TO C/L RAILING.



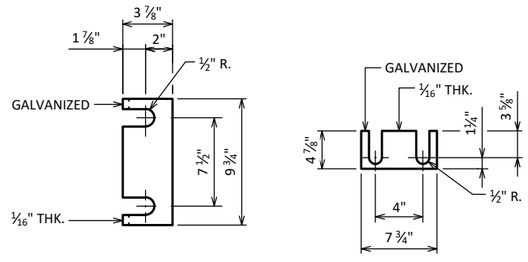
SHOP RAIL SPLICE DETAIL

(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



FIELD ERECTION JOINT DETAIL

☆ MIN. ⅝" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



SHIM PLATE DETAILS

(2 SETS PER POST)

LEGEND

- 1A PLATE ⅝" X 8" X 10" WITH ¾" HOLES.
- 2A ¼" X 6" X 9¾" ANCHOR PLATE WITH $1\frac{1}{16}$" DIA. HOLES FOR THR'D RODS NO. 3.
- 3 ⅝" DIA. X 10½" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. ALTERNATIVE ANCHORAGE: CONCRETE ADHESIVE ANCHORS ⅝-INCH. EMBED 7" IN CONCRETE FOR RAIL POSTS. ADHESIVE ANCHORS SHALL CONFORM TO SECTIONS 502.2.12 AND 502.3.14 OF THE STANDARD SPECIFICATIONS.
- 4A STRUCTURAL TUBING 3" X 3" X 3/16". PLACE VERTICAL. WELD TO NO. 1A.
- 5A STRUCTURAL TUBING 3" X 1½" X 3/16" RAILS. WELD TO NO. 1A & NO. 4A. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.
- 5C STRUCTURAL TUBING 2½" DIA. (STANDARD SIZE) (2.875" O.D.). WELD TO NO. 4A. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.
- 6A BAR 1" X 1" PICKETS. WELD TO NO. 5. PLACE VERTICAL.
- 6C BAR 1" X 1½" PICKETS. WELD TO NO. 11. PLACE VERTICAL.
- 9A RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. PROVIDE "SLIDING FIT".
- 9B CIRCULAR SLEEVE FABRICATED FROM STRUCTURAL TUBING 2" DIA. (STANDARD SIZE) (2.375" O.D.)
- 10A RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. (1'-4" @ FIELD ERECTION JTS.) (1'-4" @ STRIP SEAL EXP. JTS.)
- 10B CIRCULAR SLEEVE FABRICATED FROM STRUCTURAL TUBING 2" DIA. (STANDARD SIZE) (2.375" O.D.) (1'-4" @ FIELD ERECTION JTS.) (1'-4" @ STRIP SEAL EXP. JTS.)
- 11A BAR 2½" X 1" X 2'-0".
- 11C STRUCTURAL TUBING 2" DIA. (STANDARD SIZE) (2.375" O.D.) X 2'-0".
- 12 ½" DIA. STAINLESS STEEL BOLT WITH NUT AND LOCKWASHER.

RAILING NOTES

BID ITEM SHALL BE "RAILING STEEL PEDESTRIAN TYPE C2", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT, AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ALL PLATES, BARS, AND RECTANGULAR SLEEVES SHALL CONFORM TO ASTM A709 GRADE 36. ALL STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

CAULK AROUND PERIMETER OF BASE PLATES, NO. 1A, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL JOINTS AND RECESSES IN CONCRETE PARAPET ARE TO BE VERTICAL.

ALL MATERIAL (EXCEPT NO. 3 & 12) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE RAILINGS SHALL BE PAINTED AMS STD. COLOR NO. 27038, BLACK.

VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

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

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-104

DRAWN BY CLP | PLANS CK'D RCP

PEDESTRIAN RAIL TYPE C2 DETAILS

SHEET 45 OF 45

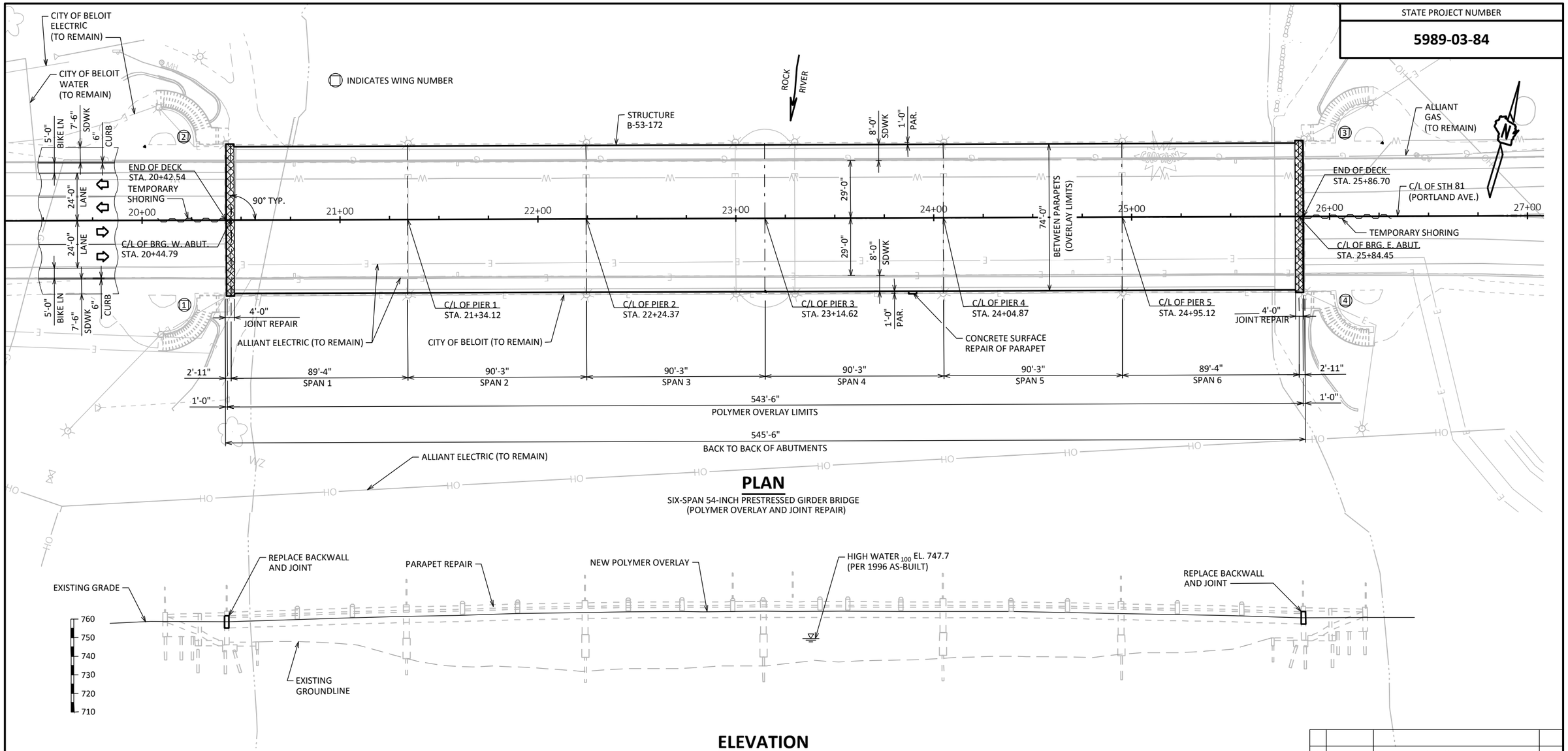
253

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STATE PROJECT NUMBER

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PLAN

SIX-SPAN 54-INCH PRESTRESSED GIRDER BRIDGE
(POLYMER OVERLAY AND JOINT REPAIR)

ELEVATION

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS-20
INVENTORY RATING: HS-23
OPERATING RATING: HS-38
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 230 (KIPS)

STRUCTURE RATING INCLUDES 5 PSF POLYMER OVERLAY

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

SCOPE OF WORK

- REPLACE BACKWALLS AND EXPANSION JOINTS AT ABUTMENTS
- REPAIR CONCRETE PARAPETS, CURBS, AND OTHER SURFACES
- REPAIR DECK
- POLYMER OVERLAY UNDER STAGED CONSTRUCTION

TRAFFIC DATA

FEATURE ON: STH 81 (PORTLAND AVE.)
ADT = 16,600 (2027)
ADT = 17,550 (2047)
RDS = 30 MPH

LIST OF DRAWINGS:

1. GENERAL PLAN
2. TYPICAL SECTION, QUANTITIES AND NOTES
3. TYPICAL DETAILS
4. BAR COUPLER & JOINT REMOVAL DETAILS
5. STAGE 1 & 2 CONSTRUCTION
6. STAGE 3 & 4 CONSTRUCTION
7. WEST ABUTMENT
8. WEST ABUTMENT BACKWALL & BILL OF BARS
9. EAST ABUTMENT
10. EAST ABUTMENT BACKWALL & BILL OF BARS
11. SUPERSTRUCTURE DETAILS
12. SLAB REINFORCEMENT
13. COVER PLATE DETAILS
14. EXPANSION DEVICE

WISCONSIN DANIEL N. SYDOW E-38363 WI PROFESSIONAL ENGINEER

10/26/2026

STRUCTURE DESIGN CONTACTS:
AARON BONK 608-261-0261
DAN SYDOW 715-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
AYRES 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED JLR 10/27/26
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-53-172

STH 81 (PORTLAND AVE.) OVER ROCK RIVER

COUNTY	CITY
ROCK	BELOIT

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D	DRAWN BY	PLANS CK'D
NBE	RCP	CLP/ERS	DNS

GENERAL PLAN

SHEET 1 OF 14
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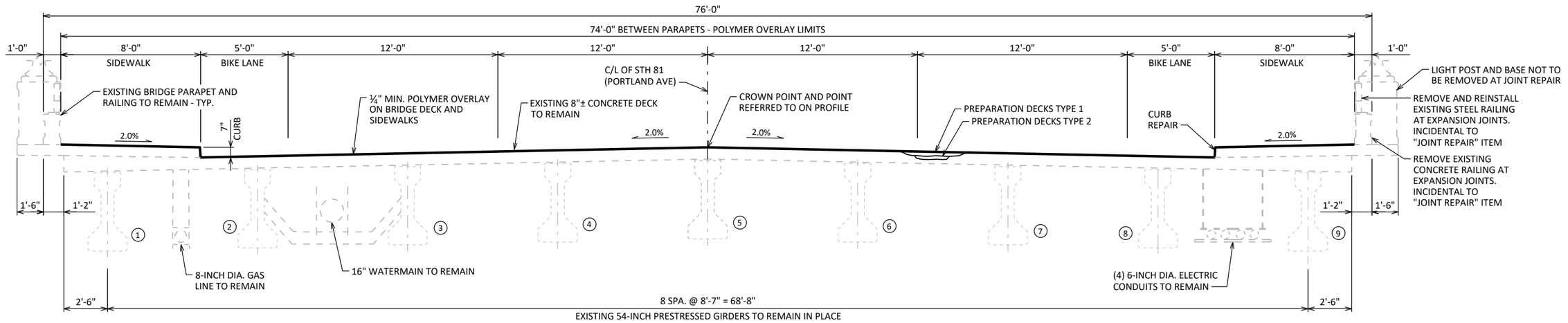
I.D. DATE:

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STATE PROJECT NUMBER

5989-03-84



TYPICAL SECTION THRU BRIDGE

LOOKING EAST

◯ DENOTES EXISTING GIRDER NUMBER

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER	W. ABUT.	E. ABUT.	TOTALS
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS B-53-172	EACH	---	---	---	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-53-172	EACH	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	---	210	210	420
502.0100	CONCRETE MASONRY BRIDGES	CY	20.4	25.8	25.8	72
502.3101	EXPANSION DEVICE	LF	148	---	---	148
502.3205	PIGMENTED SURFACE SEALER	SY	12	---	---	12
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	---	146	146	292
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	4020	2660	2660	9340
505.0905	BAR COUPLERS NO. 5	EACH	20	11	11	42
509.0301	PREPARATION DECKS TYPE 1	SY	12	---	---	12
509.0302	PREPARATION DECKS TYPE 2	SY	6	---	---	6
509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF	120	---	---	120
509.1000	JOINT REPAIR	SY	---	34	34	68
509.1200	CURB REPAIR	LF	150	---	---	150
509.1500	CONCRETE SURFACE REPAIR	SF	55	---	---	55
509.2100.S	CONCRETE MASONRY DECK REPAIR	CY	2	---	---	2
509.5100.S	POLYMER OVERLAY	SY	4540	---	---	4540
511.1200	TEMPORARY SHORING B-53-172	SF	---	75	75	150
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	---	15	15	30
645.01110	GEOTEXTILE TYPE DF SCHEDULE A	SY	---	80	80	160
	NON-BID ITEMS					
	FILLER	SIZE	---	---	---	½", ¾"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

SHOT BLASTING, SLAB SURFACE PREPARATIONS, AND TRANSITIONAL AREAS ARE INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

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.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACE OF THE EAST ABUTMENT AND BELOW EXPANSION DEVICE. POWER WASH AND ADEQUATELY DRY SURFACES BEFORE APPLICATION. WORK TO BE INCIDENTAL TO "CONCRETE MASONRY BRIDGES".

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES B-53-172" SHALL BE THE EXISTING GROUNDLINE.

ALL CONCRETE REMOVALS SHALL BE DEFINED BY A 1" DEEP SAWCUT UNLESS SHOWN OR NOTED OTHERWISE.

AT ABUTMENTS ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-172

DRAWN BY CLP/ERS | PLANS CK'D ZSS

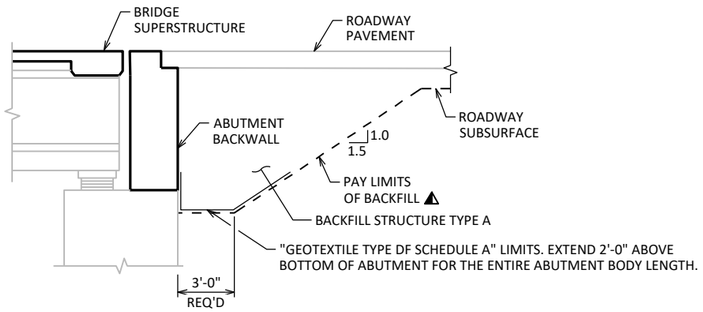
TYPICAL SECTION, QUANTITIES AND NOTES

SHEET 2 OF 14

255

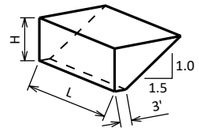
STATE PROJECT NUMBER

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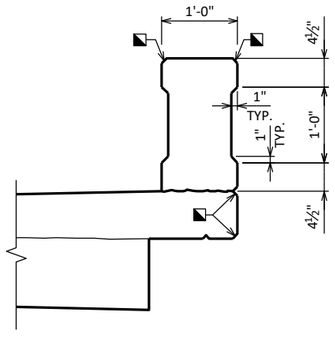
TYPICAL SECTION THRU ABUTMENT

⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.



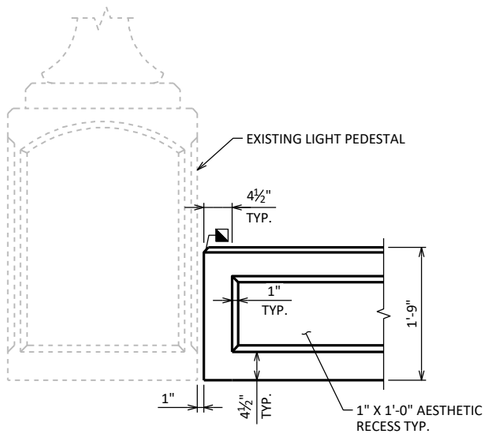
ABUTMENT BACKFILL DIAGRAM

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)

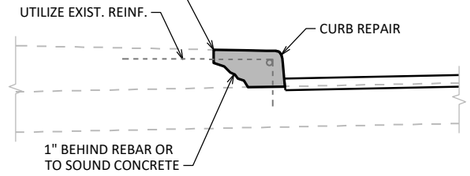


◥ ¾" BEVEL

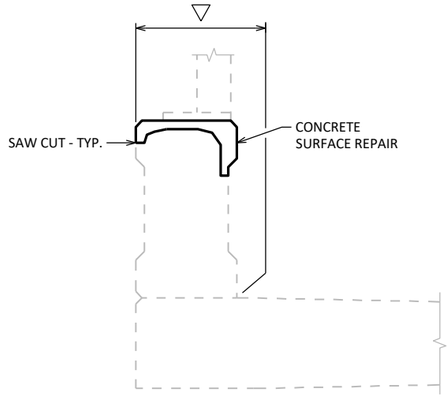
ARCHITECTURAL PARAPET DETAIL



PARAPET DETAIL @ ABUTMENTS



CURB REPAIR DETAIL



PARAPET REPAIR DETAIL

PIGMENTED SURFACE SEALER RESEAL SHALL BE APPLIED TO THE ENTIRE TOP AND INSIDE FACE OF PARAPET IN REPAIR AREA. SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "PIGMENTED SURFACE SEALER".

▽ "PIGMENTED SURFACE SEALER" LIMITS

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-172

DRAWN BY ERS | PLANS CK'D ZSS

TYPICAL DETAILS

SHEET 3 OF 14

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STATE PROJECT NUMBER

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NOTES

STEEL SPLICE (COUPLER) ASSEMBLY SHALL BE AN APPROVED TYPE AND SHALL DEVELOP IN TENSION AT LEAST 125% OF THE YIELD STRENGTH OF THE SPLICED REINFORCEMENT BARS.

DOWEL BAR SPLICES SHALL BE OF MINIMUM 60 ksi YIELD STRENGTH, AND HAVE TENSILE STRENGTH AREA EQUAL OR GREATER THAN THAT OF THE LAPPED REINFORCEMENT BARS.

DOWEL BAR SPLICERS SHALL MEET THE DEFORMATION REQUIREMENTS FOR STANDARD ASTM DEFORMED REINFORCING BARS.

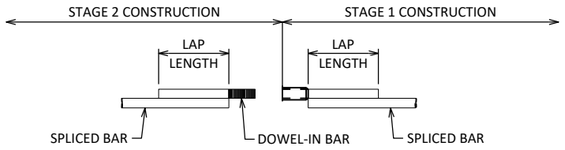
FOR DOWEL BAR SPLICES, ALL REINFORCEMENT BARS SHALL BE LAPPED AND TIED TO THE SPLICER BARS.

SPLICER (COUPLER) ASSEMBLY IN THE DECK SHALL BE EPOXY COATED IN ACCORDANCE WITH THE REQUIREMENTS FOR REINFORCEMENT BARS.

OTHER SYSTEMS OF SIMILAR DESIGN MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL. APPROVAL SHALL BE BASED ON CERTIFIED TEST RESULTS FROM AN APPROVED TESTING LABORATORY THAT THE PROPOSED SPLICER (COUPLER) ASSEMBLY SATISFIES THE FOLLOWING REQUIREMENT:

MINIMUM CAPACITY = 1.25 X fy X AREA OF SPLICED REINFORCEMENT BAR.

WHERE fy = YIELD STRENGTH OF SPLICED REINFORCEMENT BARS

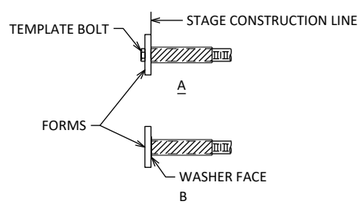


DOWEL BAR COUPLER



ONE PIECE THREADED COUPLER

BAR COUPLER ALTERNATIVES

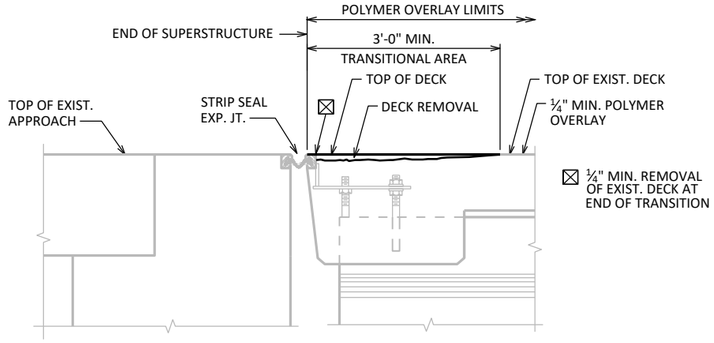


INSTALLATION AND SETTING METHODS

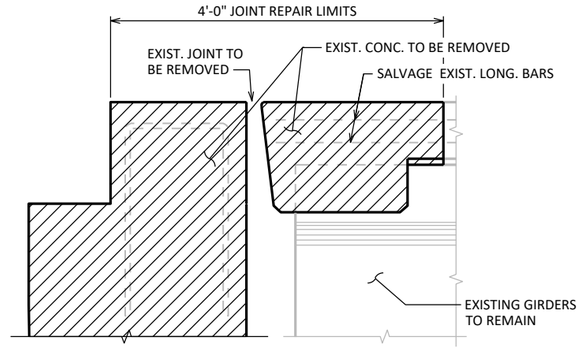
"A" SET SPLICER BY MEANS OF A TEMPLATE BOLT
"B" SET SPLICER BY NAILING TO WOOD FORMS OR CEMENTING TO STEEL FORMS.

DOWEL BAR SPLICER LAP LENGTHS

CONCRETE UNDER BAR	BAR SIZE	4	5	6	7	8	9	10	11
12" OR LESS	f'c = 3,500	1'-8"	2'-8"	3'-2"	4'-3"	5'-6"	7'-0"	8'-9"	10'-11"
	f'c = 4,000	1'-8"	2'-8"	3'-2"	4'-0"	5'-2"	6'-6"	8'-3"	10'-2"
MORE THAN 12"	f'c = 3,500	2'-3"	2'-11"	3'-6"	4'-8"	6'-1"	7'-10"	9'-10"	12'-1"
	f'c = 4,000	2'-3"	2'-11"	3'-6"	4'-5"	5'-8"	7'-4"	9'-2"	11'-4"



SECTION THRU ABUTMENT TRANSITIONAL AREA ON DECK AT EXPANSION JOINT



JOINT REPAIR-REMOVAL PRESTRESSED GIRDER

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-172

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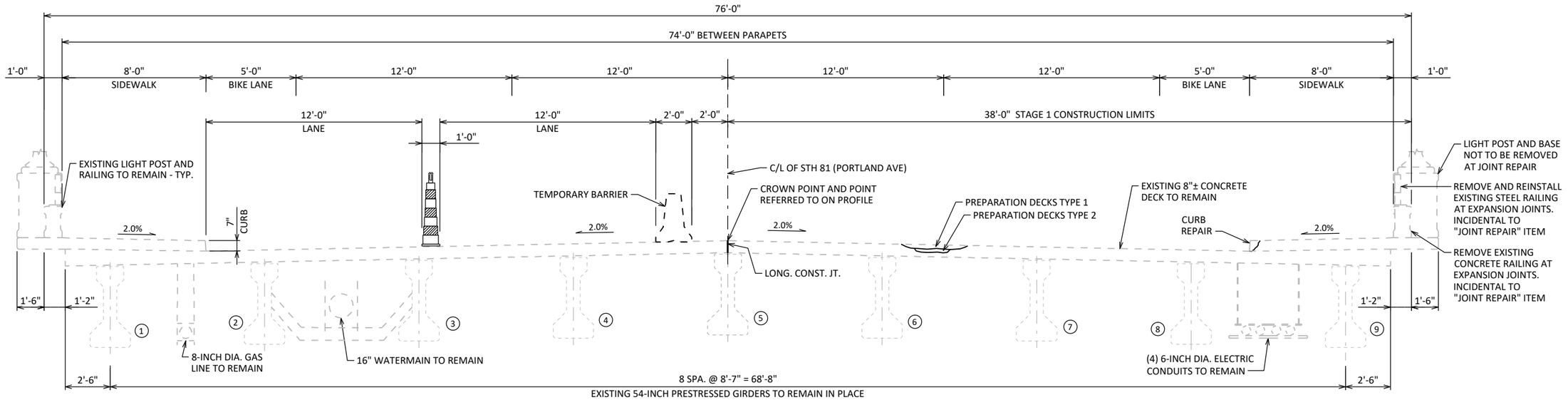
BAR COUPLER & JOINT REMOVAL DETAILS

SHEET 4 OF 14

257

STATE PROJECT NUMBER

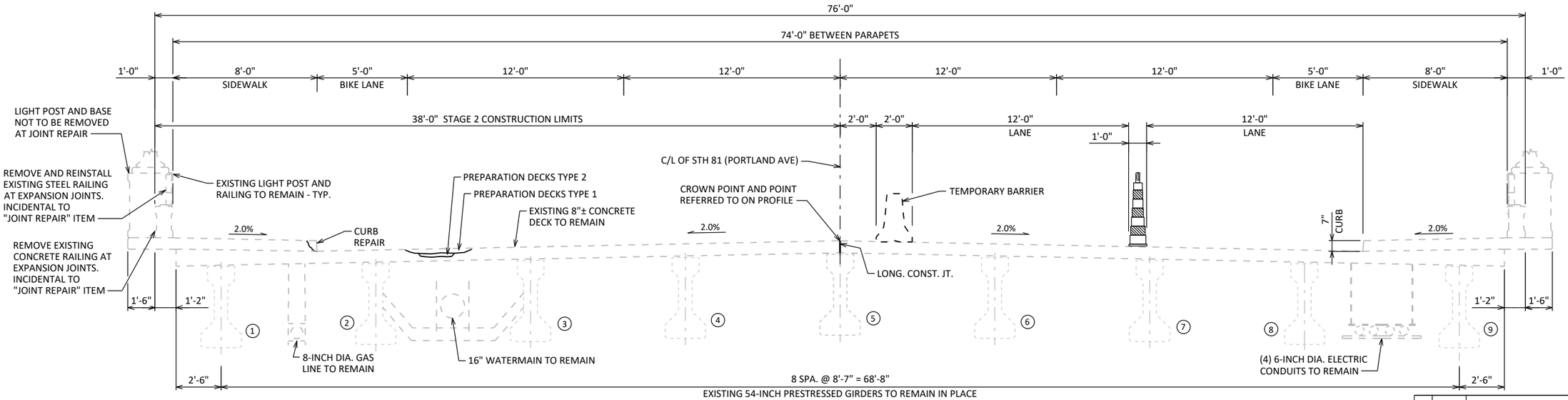
5989-03-84



STAGE 1

LOOKING EAST

◯ DENOTES EXISTING GIRDER NUMBER



STAGE 2

LOOKING EAST

NOTE: STAGE 1 & 2 DEFINE REMOVAL AND CONSTRUCTION LIMITS FOR ABUTMENT BACKWALL AND JOINT REPLACEMENTS.

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-172

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STAGE 1 & 2 CONSTRUCTION

SHEET 5 OF 14

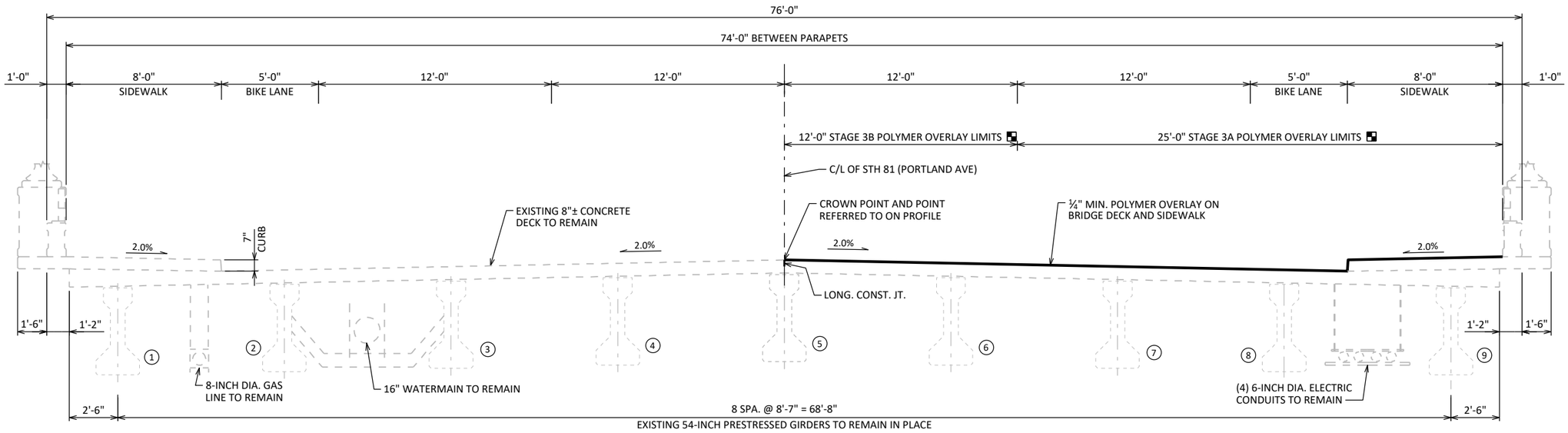
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STATE PROJECT NUMBER

5989-03-84

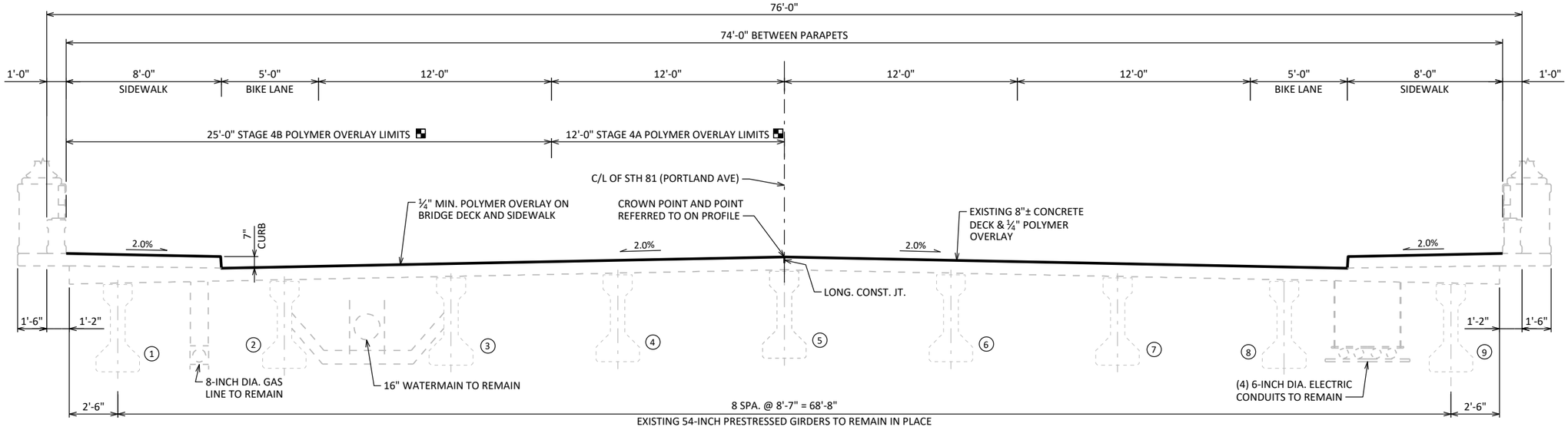


STAGE 3A & 3B

LOOKING EAST

◯ DENOTES EXISTING GIRDER NUMBER

SEE TRAFFIC CONTROL SHEETS FOR OTHER STAGING REQUIREMENTS



STAGE 4A & 4B

LOOKING EAST

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-172

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STAGE 3 & 4 CONSTRUCTION

SHEET 6 OF 14

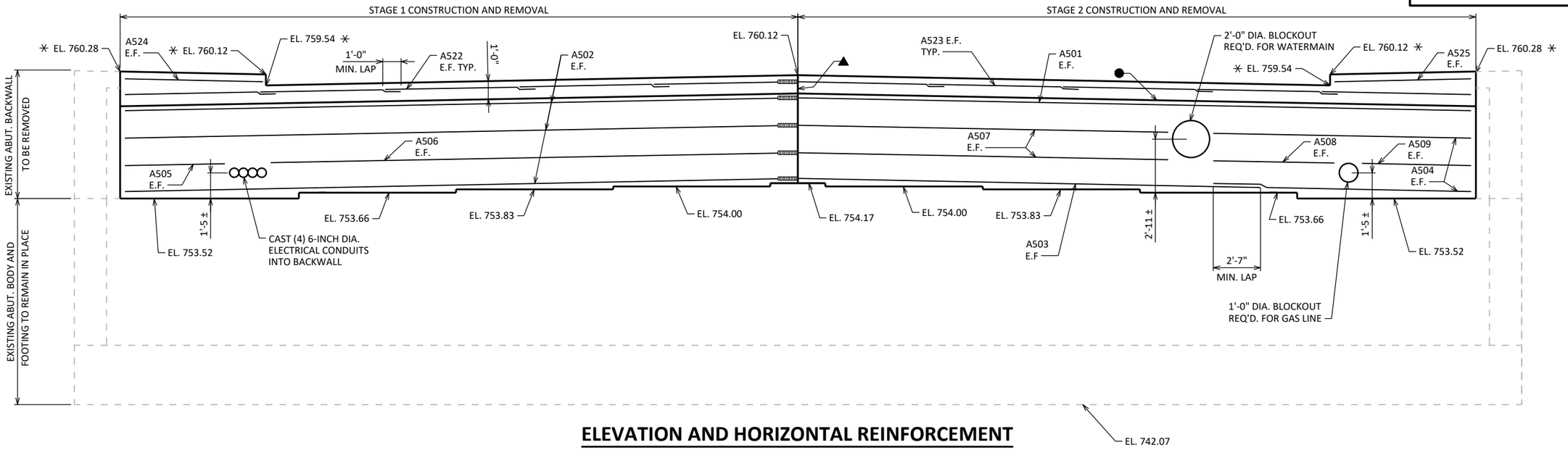
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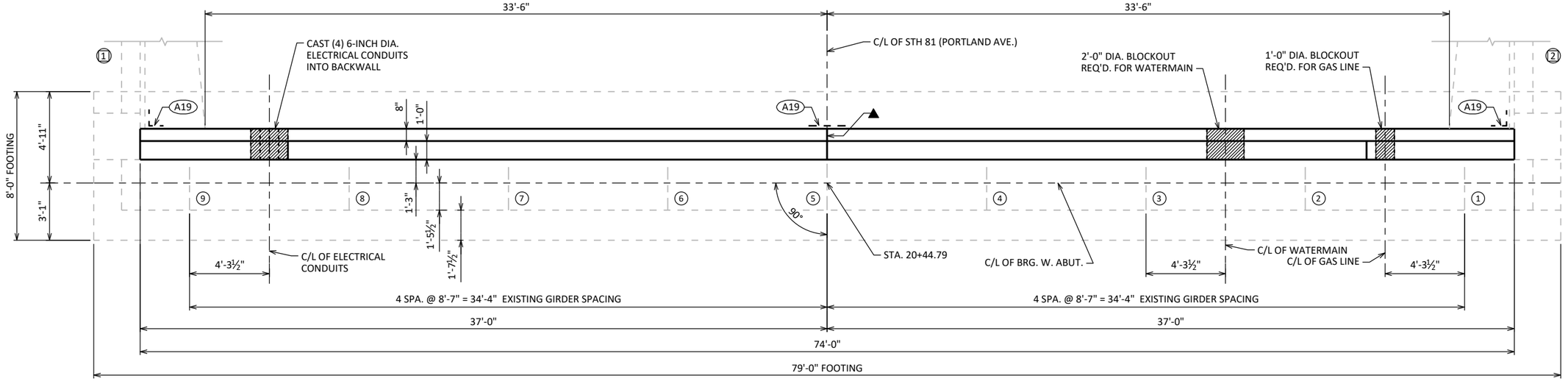
STATE PROJECT NUMBER

5989-03-84



ELEVATION AND HORIZONTAL REINFORCEMENT

LOOKING WEST



PLAN

NOTES:
ABUTMENT ELEVATIONS ARE FROM EXISTING PLAN. TO BE VERIFIED IN FIELD.

FOR VERTICAL BACKWALL STEEL LAYOUT, SEE SHEET 8.

FOR BAR COUPLER DETAILS, SEE SHEET 4.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

▲ LONG. CONST. JT.

⚠ ADHESIVE ANCHORS NO. 5 BARS.

◯ DENOTES EXISTING GIRDER NUMBER.

✳ SIDEWALK ELEVATIONS SHOWN ARE TAKEN AT THE BACK FACE OF THE PAVING BLOCK.

● HORIZ. CONST. JOINT - POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE - STRIKE OFF AND LEAVE ROUGH

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-172

DRAWN BY CLP/ERS | PLANS CK'D ZSS

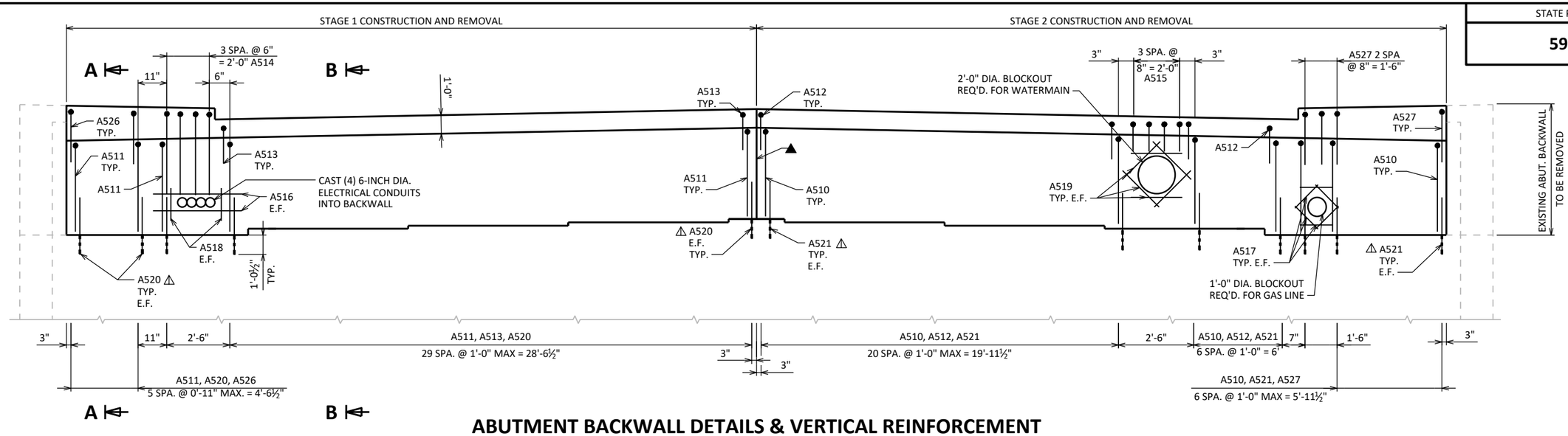
WEST ABUTMENT

SHEET 7 OF 14

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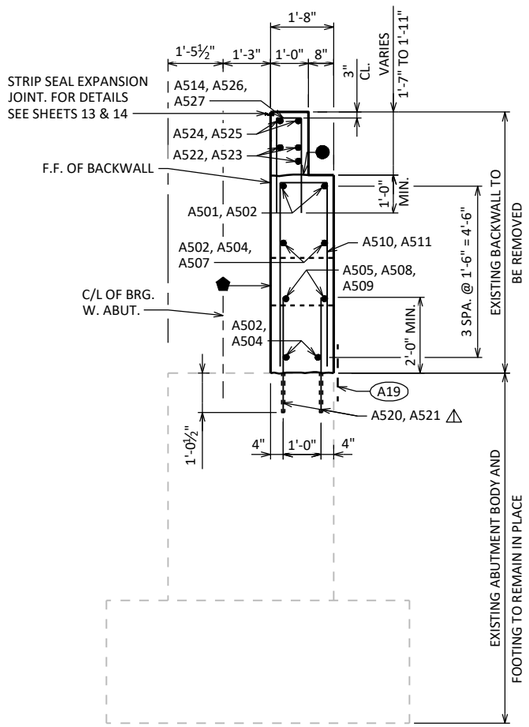
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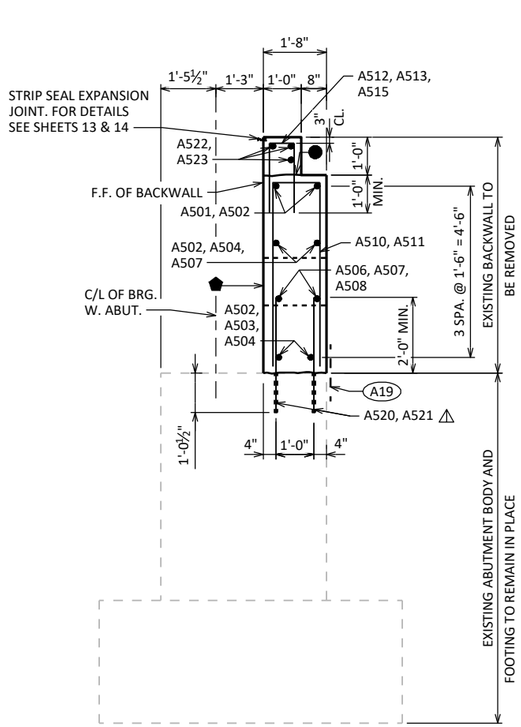
ABUTMENT BACKWALL DETAILS & VERTICAL REINFORCEMENT

LOOKING WEST



SECTION A-A

THRU BODY AT SIDEWALK



SECTION B-B

THRU BODY AT MAINLINE

▲ LONG. CONST. JT.

⬟ UTILITY BLOCKOUTS REQ'D. AT ABUTS.

● HORIZ. CONST. JOINT - POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE - STRIKE OFF AND LEAVE ROUGH

⚠ ADHESIVE ANCHORS NO. 5 BARS.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

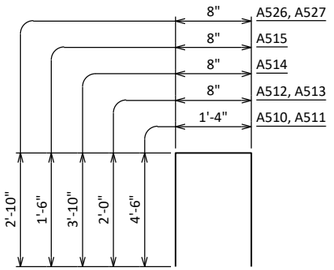
BILL OF BARS

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	STAGE 1	STAGE 2	LOCATION
◕	A501	X	2	36'-10"				X	ABUT. BACKWALL HORIZ. E.F.
◕	A502	X	6	36'-10"			X		ABUT. BACKWALL HORIZ. E.F.
◕	A503	X	2	25'-4"				X	ABUT. BACKWALL HORIZ. E.F. UNDER UTILITIES
	A504	X	4	14'-1"				X	ABUT. BACKWALL HORIZ. E.F. NEAR UTILITIES
	A505	X	2	5'-7"			X		ABUT. BACKWALL HORIZ. E.F. BETWEEN UTILITIES
◕	A506	X	2	28'-10"			X		ABUT. BACKWALL HORIZ. E.F. BETWEEN UTILITIES
◕	A507	X	4	20'-3"				X	ABUT. BACKWALL HORIZ. E.F. BETWEEN UTILITIES
	A508	X	2	6'-9"				X	ABUT. BACKWALL HORIZ. E.F. BETWEEN UTILITIES
	A509	X	2	6'-1"				X	ABUT. BACKWALL HORIZ. E.F. BETWEEN UTILITIES
	A510	X	36	10'-1"	X			X	ABUT. BACKWALL VERT.
	A511	X	37	10'-1"	X		X		ABUT. BACKWALL VERT.
	A512	X	28	4'-5"	X			X	ABUT. PAVING BLOCK VERT.
	A513	X	30	4'-5"	X		X		ABUT. PAVING BLOCK VERT.
	A514	X	4	8'-1"	X		X		ABUT. BACKWALL VERT. OVER CONDUITS
	A515	X	4	3'-5"	X			X	ABUT. BACKWALL VERT. ABOVE WATERMAIN
	A516	X	4	6'-6"			X		ABUT. BACKWALL UTILITY REINFORCEMENT
	A517	X	12	3'-0"				X	ABUT. BACKWALL UTILITY REINFORCEMENT
	A518	X	4	3'-0"			X		ABUT. BACKWALL UTILITY REINFORCEMENT
	A519	X	12	4'-0"				X	ABUT. BACKWALL UTILITY REINFORCEMENT
⚠	A520	X	74	3'-1"			X		ABUT. BACKWALL ANCHORS
⚠	A521	X	72	3'-1"				X	ABUT. BACKWALL ANCHORS
◕	A522	X	15	8'-3"			X		ABUT. PAVING BLOCK HORIZ.
◕	A523	X	15	8'-3"				X	ABUT. PAVING BLOCK HORIZ.
	A524	X	2	7'-8"			X		ABUT. PAVING BLOCK HORIZ. SIDEWALK
	A525	X	2	7'-8"				X	ABUT. PAVING BLOCK HORIZ. SIDEWALK
	A526	X	6	6'-1"	X		X		ABUT. PAVING BLOCK VERT. SIDEWALK
	A527	X	9	6'-1"	X			X	ABUT. PAVING BLOCK VERT. SIDEWALK

BENDING DIMENSIONS ARE OUT TO OUT OF BARS

◕ BAR COUPLER REQUIRED



A510, A511, A512, A513, A514, A515, A526, A527

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

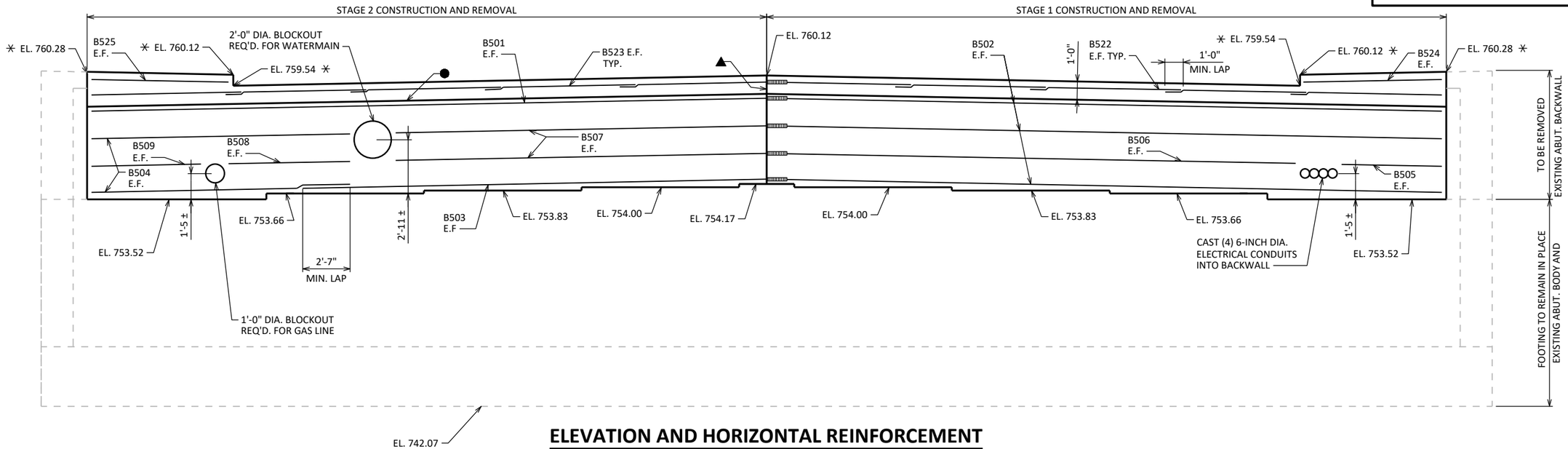
STRUCTURE B-53-172

DRAWN BY CLP/ERS | PLANS CK'D ZSS

WEST ABUTMENT BACKWALL & BILL OF BARS

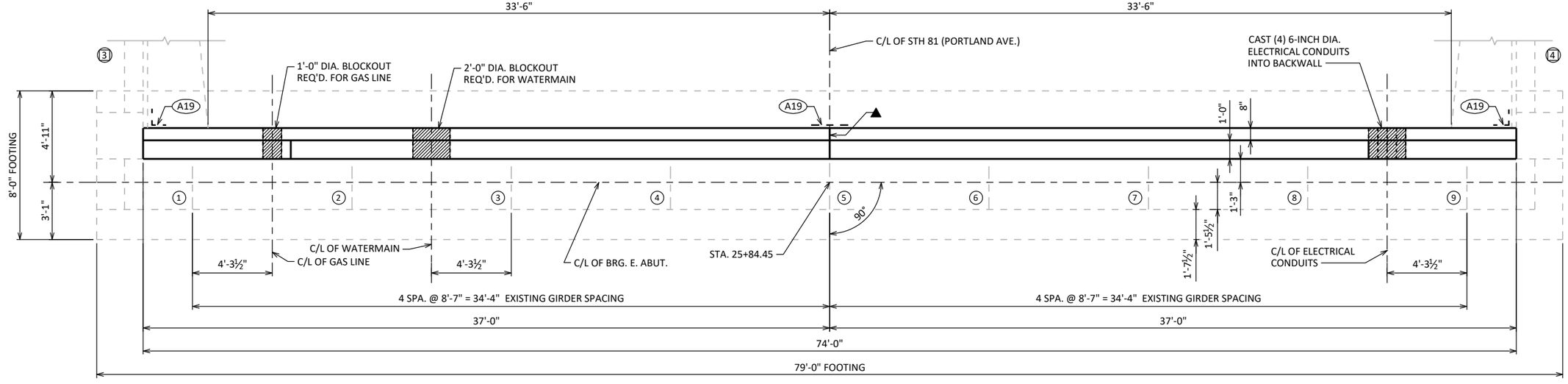
STATE PROJECT NUMBER

5989-03-84



ELEVATION AND HORIZONTAL REINFORCEMENT

LOOKING EAST



PLAN

NOTES:
ABUTMENT ELEVATIONS ARE FROM EXISTING PLAN. TO BE VERIFIED IN FIELD.

FOR VERTICAL BACKWALL STEEL LAYOUT, SEE SHEET 8.

FOR BAR COUPLER DETAILS, SEE SHEET 4.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

▲ LONG. CONST. JT.

⚠ ADHESIVE ANCHORS NO. 5 BARS.

◯ DENOTES EXISTING GIRDER NUMBER.

✳ SIDEWALK ELEVATIONS SHOWN ARE TAKEN AT THE BACK FACE OF THE PAVING BLOCK.

● HORIZ. CONST. JOINT - POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE - STRIKE OFF AND LEAVE ROUGH

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-172

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EAST ABUTMENT

SHEET 9 OF 14

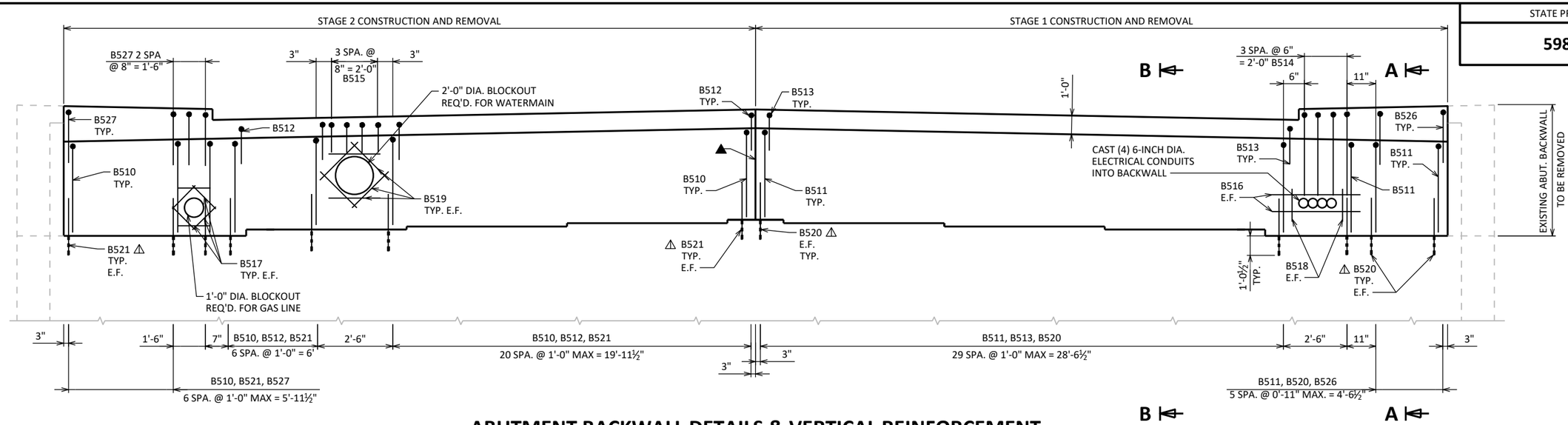
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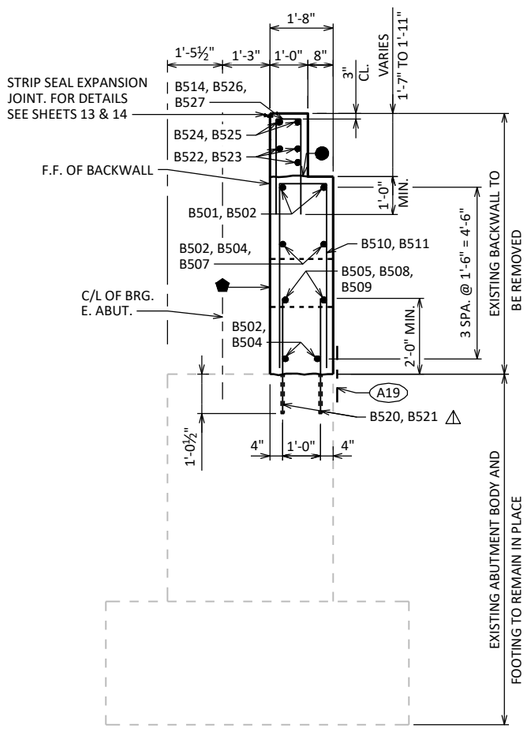
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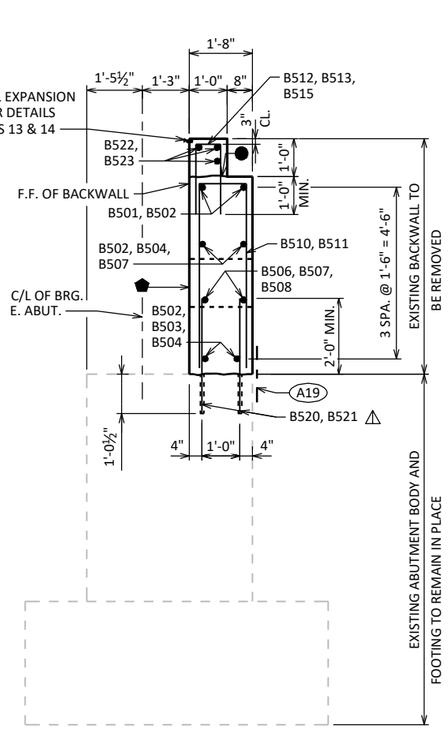
ABUTMENT BACKWALL DETAILS & VERTICAL REINFORCEMENT

LOOKING EAST



SECTION A-A

THRU BODY AT SIDEWALK



SECTION B-B

THRU BODY AT MAINLINE

▲ LONG. CONST. JT.

⬟ UTILITY BLOCKOUTS REQ'D. AT ABUTS.

● HORIZ. CONST. JOINT - POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE - STRIKE OFF AND LEAVE ROUGH

⚠ ADHESIVE ANCHORS NO. 5 BARS.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

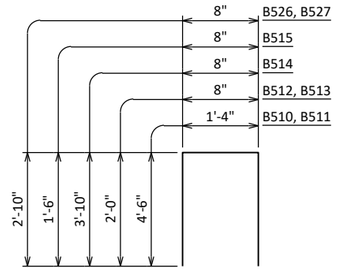
BILL OF BARS

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	STAGE 1	STAGE 2	LOCATION
◕	B501	X	2	36'-10"				X	ABUT. BACKWALL HORIZ. E.F.
◕	B502	X	6	36'-10"			X		ABUT. BACKWALL HORIZ. E.F.
◕	B503	X	2	25'-4"				X	ABUT. BACKWALL HORIZ. E.F. UNDER UTILITIES
	B504	X	4	14'-1"				X	ABUT. BACKWALL HORIZ. E.F. NEAR UTILITIES
	B505	X	2	5'-7"			X		ABUT. BACKWALL HORIZ. E.F. BETWEEN UTILITIES
◕	B506	X	2	28'-10"			X		ABUT. BACKWALL HORIZ. E.F. BETWEEN UTILITIES
◕	B507	X	4	20'-3"				X	ABUT. BACKWALL HORIZ. E.F. BETWEEN UTILITIES
	B508	X	2	6'-9"				X	ABUT. BACKWALL HORIZ. E.F. BETWEEN UTILITIES
	B509	X	2	6'-1"				X	ABUT. BACKWALL HORIZ. E.F. BETWEEN UTILITIES
	B510	X	36	10'-1"	X			X	ABUT. BACKWALL VERT.
	B511	X	37	10'-1"	X		X		ABUT. BACKWALL VERT.
	B512	X	28	4'-5"	X			X	ABUT. PAVING BLOCK VERT.
	B513	X	30	4'-5"	X		X		ABUT. PAVING BLOCK VERT.
	B514	X	4	8'-1"	X		X		ABUT. BACKWALL VERT. OVER CONDUITS
	B515	X	4	3'-5"	X			X	ABUT. BACKWALL VERT. ABOVE WATERMAIN
	B516	X	4	6'-6"			X		ABUT. BACKWALL UTILITY REINFORCEMENT
	B517	X	12	3'-0"				X	ABUT. BACKWALL UTILITY REINFORCEMENT
	B518	X	4	3'-0"			X		ABUT. BACKWALL UTILITY REINFORCEMENT
	B519	X	12	4'-0"				X	ABUT. BACKWALL UTILITY REINFORCEMENT
⚠	B520	X	74	3'-1"			X		ABUT. BACKWALL ANCHORS
⚠	B521	X	72	3'-1"				X	ABUT. BACKWALL ANCHORS
◕	B522	X	15	8'-3"			X		ABUT. PAVING BLOCK HORIZ.
◕	B523	X	15	8'-3"				X	ABUT. PAVING BLOCK HORIZ.
	B524	X	2	7'-8"			X		ABUT. PAVING BLOCK HORIZ. SIDEWALK
	B525	X	2	7'-8"				X	ABUT. PAVING BLOCK HORIZ. SIDEWALK
	B526	X	6	6'-1"	X		X		ABUT. PAVING BLOCK VERT. SIDEWALK
	B527	X	9	6'-1"	X			X	ABUT. PAVING BLOCK VERT. SIDEWALK

BENDING DIMENSIONS ARE OUT TO OUT OF BARS

◕ BAR COUPLER REQUIRED



B510, B511, B512, B513, B514, B515, B526, B527

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-172

DRAWN BY CLP/ERS | PLANS CK'D ZSS

EAST ABUTMENT BACKWALL & BILL OF BARS

SHEET 10 OF 14

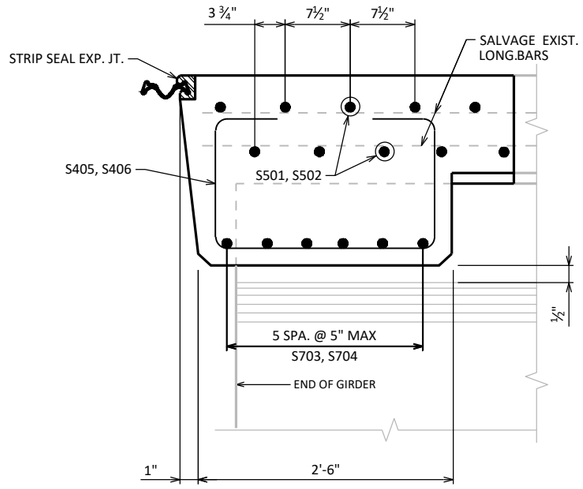
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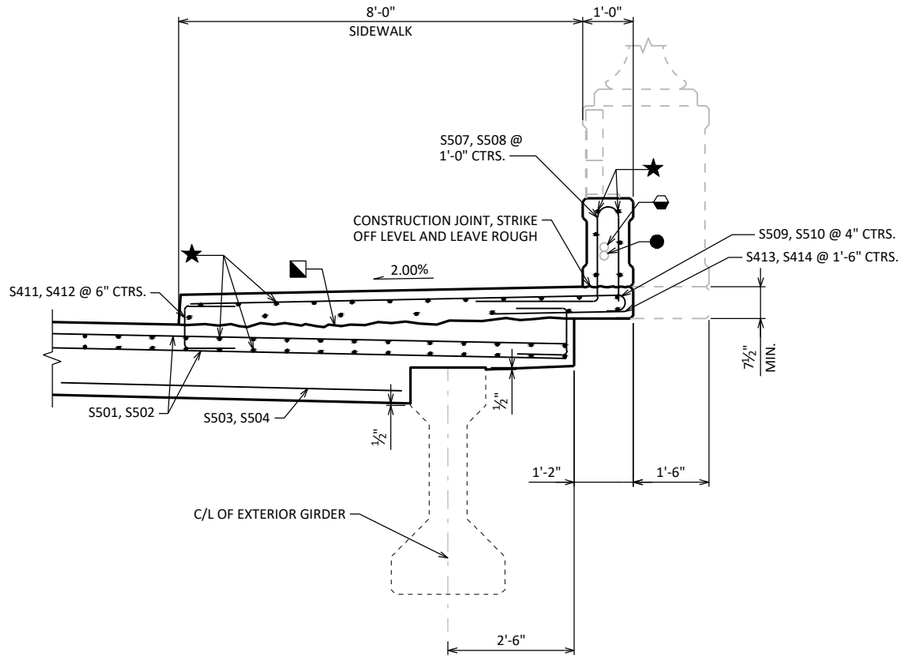
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STATE PROJECT NUMBER

5989-03-84

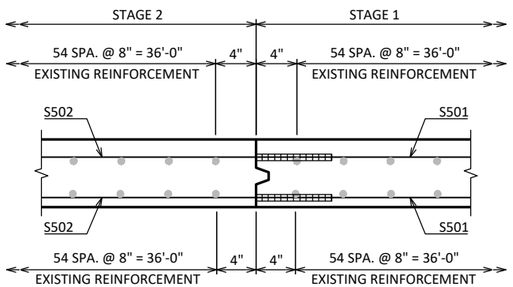


SECTION THRU JOINT AT ABUTMENT



TYPICAL SECTION THRU SIDEWALK

- EXISTING NONMETALLIC CONDUIT 2-INCH FOR ARCHITECTURAL THEME LIGHTS TO REMAIN.
- EXISTING NONMETALLIC CONDUIT 2-INCH FOR COMMUNICATION CABLE TO REMAIN. IN THE SOUTH ARCHITECTURAL CONCRETE PARAPET ONLY.
- CONST. JOINT. STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- ★ PRESERVE/CLEAN AND UTILIZE EXISTING LONGITUDINAL REINFORCEMENT WHERE POSSIBLE AND INCORPORATE INTO NEW WORK. BEND AND TRIM AS NECESSARY TO PROVIDE 2" CLEAR.



LONGITUDINAL CONST. JOINT AND BAR COUPLER DETAIL

LOOKING EAST

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-172

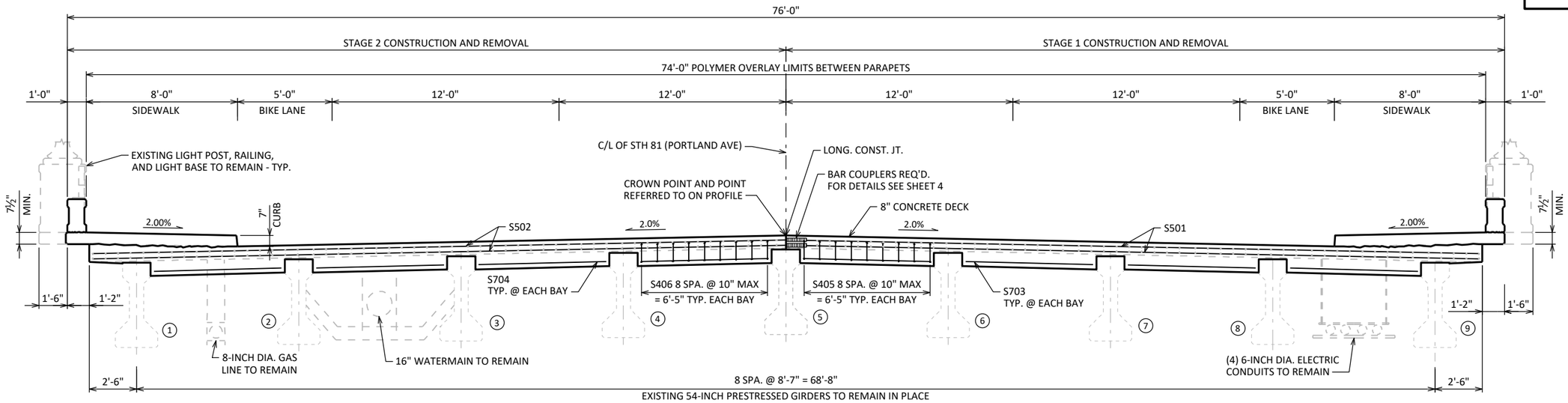
DRAWN BY ERS | PLANS CK'D ZSS

SUPERSTRUCTURE DETAILS

SHEET 11 OF 14

STATE PROJECT NUMBER

5989-03-84



TYPICAL SECTION THRU DECK AT JOINTS

LOOKING EAST

◯ DENOTES EXISTING GIRDER NUMBER

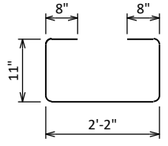
BILL OF BARS

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

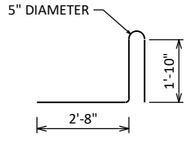
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	STAGE 1	STAGE 2	LOCATION
S501	X	20	36'-8"			X		DECK TRANS.
S502	X	20	36'-8"				X	DECK TRANS.
S703	X	48	6'-7"			X		DECK DIAPH. HORIZ.
S704	X	48	6'-7"				X	DECK DIAPH. HORIZ.
S405	X	72	5'-0"	X		X		DECK DIAPH. @ ABUT. VERT.
S406	X	72	5'-0"	X			X	DECK DIAPH. @ ABUT. VERT.
S507	X	8	7'-0"	X		X		PARAPET VERT.
S508	X	8	7'-0"	X			X	PARAPET VERT.
S509	X	18	9'-3"	X		X		SIDEWALK TRANS.
S510	X	18	9'-3"	X			X	SIDEWALK TRANS.
S411	X	24	2'-8"	X		X		SIDEWALK TRANS.
S412	X	24	2'-8"	X			X	SIDEWALK TRANS.
S413	X	6	2'-8"			X		SIDEWALK TRANS.
S414	X	6	2'-8"				X	SIDEWALK TRANS.
S415	X	16	6'-7"			X		JOINT REINFORCEMENT
S416	X	16	6'-7"				X	JOINT REINFORCEMENT

BENDING DIMENSIONS ARE OUT TO OUT OF BARS

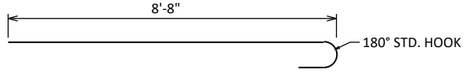
BAR COUPLER REQUIRED



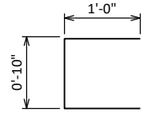
S405, S406



S507, S508



S509, S510



S411, S412

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-172

DRAWN BY CLP/ERS | PLANS CK'D ZSS

SLAB REINFORCEMENT

SHEET 12 OF 14

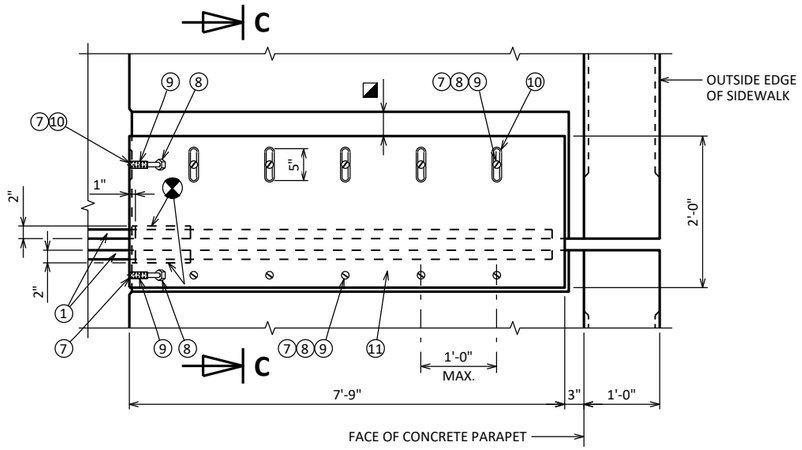
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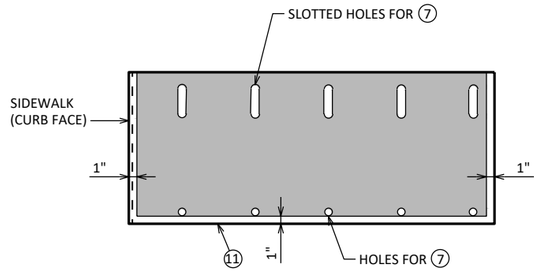
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STATE PROJECT NUMBER

5989-03-84



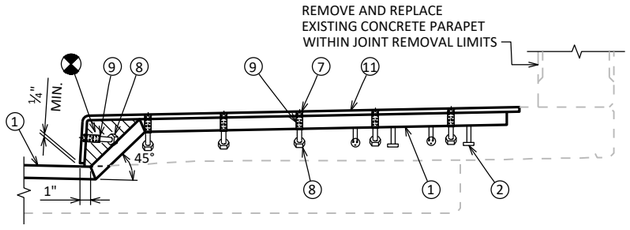
PLAN AT SIDEWALK



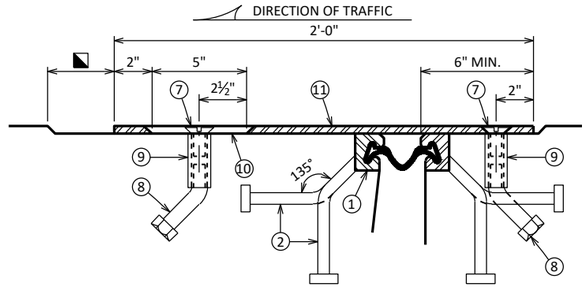
PLAN OF SIDEWALK COVER PLATE WITH SLIP-RESISTANT SURFACE

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

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



SECTION AT SIDEWALK



SECTION C-C

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS ½".

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-172

DRAWN BY CLP/ERS | PLANS CK'D ZSS

COVER PLATE DETAILS

SHEET 13 OF 14

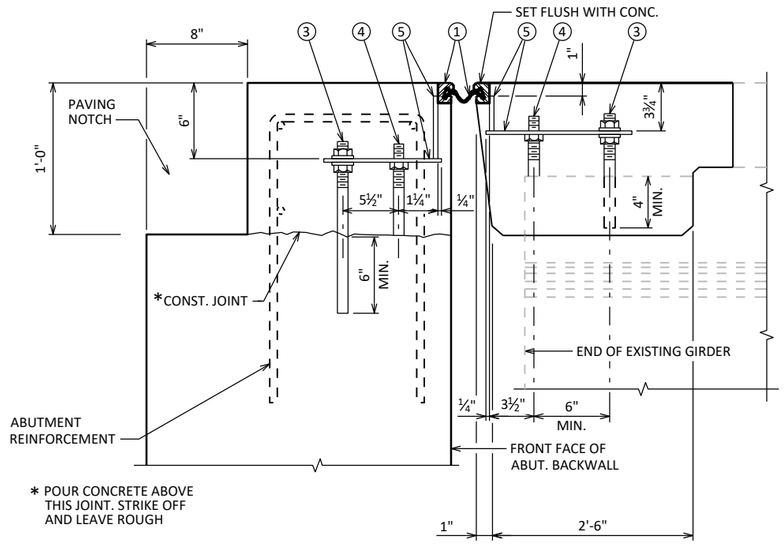
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STATE PROJECT NUMBER

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SECTION THRU JOINT AT ABUTMENT

NORMAL TO C/L SUBSTRUCTURE

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, ANCHOR PLATES SHALL BE PROVIDED 3" FROM EACH SIDE OF THE FIELD SPLICE. DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

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

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

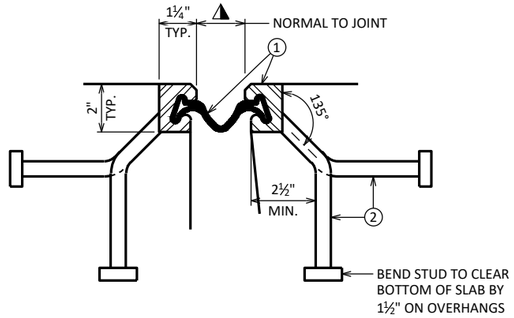
SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED. SLIP-RESISTANT SURFACE IS APPLIED TO SIDEWALK COVER PLATES BY THE MANUFACTURER AND THEN HOT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

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

ALL MATERIAL IN THE EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID AT THE UNIT PRICE BID FOR "EXPANSION DEVICE B-53-172", LF.

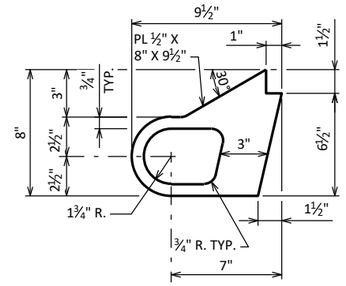
LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅝" DIA. X 6¾" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON C/L OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" DIA. HOLE FOR NO. 3 AND 1" DIA. HOLE FOR NO. 4.
7. ¾" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾" DIA. X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. ¾" DIA. X 2¼" GALVANIZED THREADED COUPLING.
10. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.
11. SIDEWALK COVER PLATE ⅜" X 2'-0" X LIMITS SHOWN. BEND DOWN FACE OF SIDEWALK WITH HOLES FOR NO. 7. GALVANIZE PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.

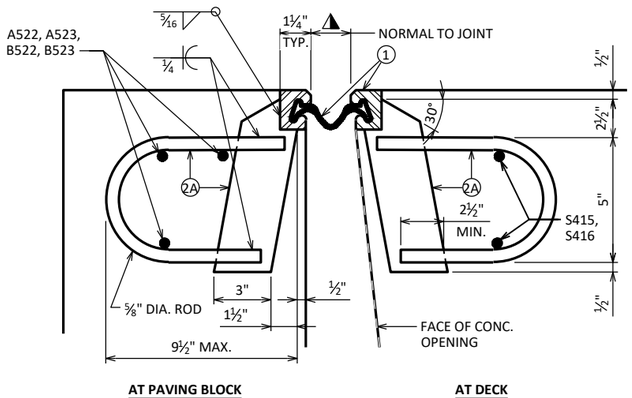


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS

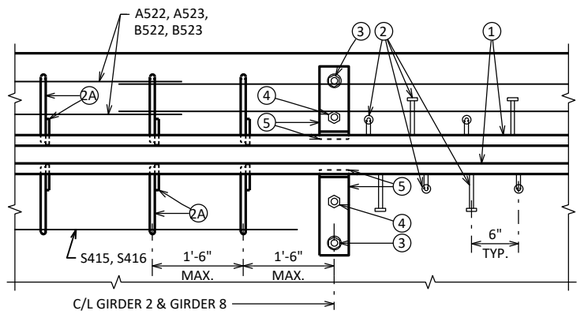


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS



PART PLAN

⚠ TEMPERATURE TABLE

SHADED UNDERSIDE DECK TEMP. (°F)	JOINT OPENING (NORMAL TO JT.)
85°	1.5"
75°	1.75"
65°	1.875"
55°	2.125"
45°	2.25"
35°	2.5"
25°	2.75"
15°	2.875"
5°	3.125"

A SMALL JOINT OPENING DUE TO A HIGH TEMPERATURE AT TIME OF CONSTRUCTION MAY REQUIRE NEOPRENE STRIP SEAL INSTALLATION INTO STEEL EXTRUSIONS PRIOR TO SETTING THE EXPANSION JOINT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-172

DRAWN BY CLP/ERS | PLANS CK'D ZSS

EXPANSION DEVICE

SHEET 14 OF 14

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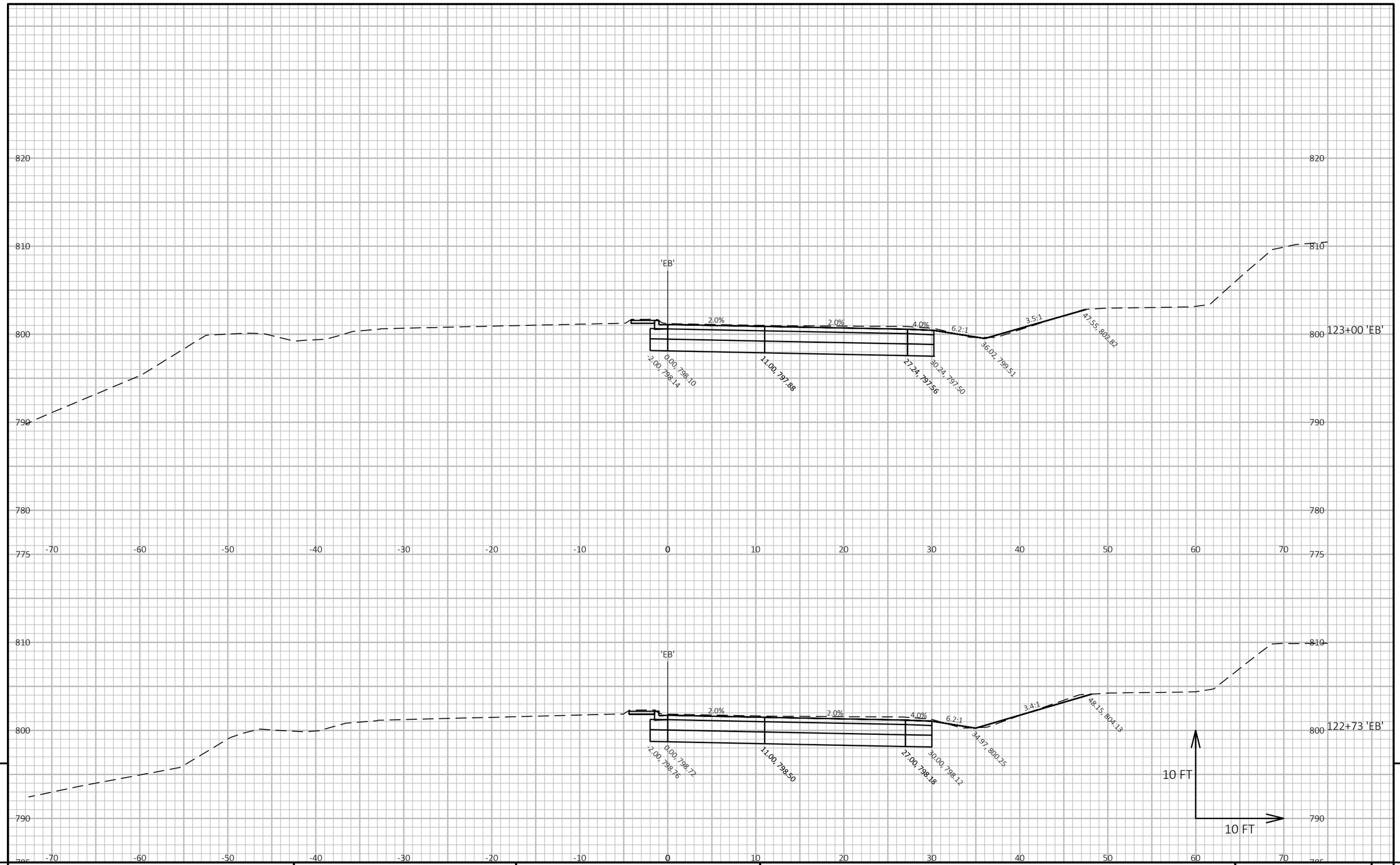
CTH Q EB (WEST)

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.30	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8
122+73.12	12273.12	0.00	104.04	0.00	1.09	0	0	0	0	0	0
123+00	12300.00	26.88	110.75	0.00	1.15	107	0	1	107	1	106
123+25	12325.00	25.00	111.04	0.00	0.78	103	0	1	210	3	207
123+50	12350.00	25.00	217.27	0.00	0.12	152	0	0	362	3	359
123+75	12375.00	25.00	222.73	0.00	0.00	204	0	0	566	3	563
124+00	12400.00	25.00	226.52	0.00	0.05	208	0	0	774	3	771
124+13.53	12413.53	13.53	225.82	0.00	0.99	113	0	0	887	3	884
124+38.67	12438.67	25.14	215.16	0.00	4.81	205	0	3	1,092	7	1,086
124+64.15	12464.15	25.48	221.67	0.00	0.00	206	0	2	1,298	9	1,289
124+75	12475.00	10.85	214.70	0.00	0.00	88	0	0	1,386	9	1,377
125+00	12500.00	25.00	195.90	0.00	2.52	190	0	1	1,576	10	1,566
125+25	12525.00	25.00	193.02	0.00	0.13	180	0	1	1,756	12	1,744
125+50	12550.00	25.00	189.24	0.00	0.07	177	0	0	1,933	12	1,921
125+75	12575.00	25.00	182.08	0.00	0.46	172	0	0	2,105	12	2,093
126+00	12600.00	25.00	174.67	0.00	0.63	165	0	1	2,270	13	2,257
126+25	12625.00	25.00	175.19	0.00	0.05	162	0	0	2,432	13	2,419
126+50	12650.00	25.00	177.33	0.00	0.00	163	0	0	2,595	13	2,582
			SUBTOTALS CATEGORY 0010			2,595	0	10			

CTH Q WB (EAST)

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.30	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8
237+03	23703.00	0.00	185.07	0.00	0.13	0	0	0	0	0	0
237+25	23725.00	22.00	183.83	0.00	0.00	150	0	0	150	0	150
237+50	23750.00	25.00	199.56	0.00	0.10	177	0	0	327	0	327
237+75	23775.00	25.00	193.72	0.00	12.14	182	0	6	509	8	501
238+00	23800.00	25.00	214.10	0.00	27.63	189	0	18	698	31	667
238+43.213	23843.21	43.21	134.21	0.00	13.97	279	0	33	977	74	903
238+68.182	23868.18	24.97	15.63	0.00	0.10	69	0	7	1,046	83	963
238+93.15	23893.15	24.97	15.28	0.00	0.00	14	0	0	1,060	83	977
239+00	23900.00	6.85	15.37	0.00	0.00	4	0	0	1,064	83	981
239+25	23925.00	25.00	15.37	0.00	0.00	14	0	0	1,078	83	995
239+50	23950.00	25.00	15.46	0.00	0.00	14	0	0	1,092	83	1,009
			SUBTOTALS CATEGORY 0010			1,092	0	64			

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



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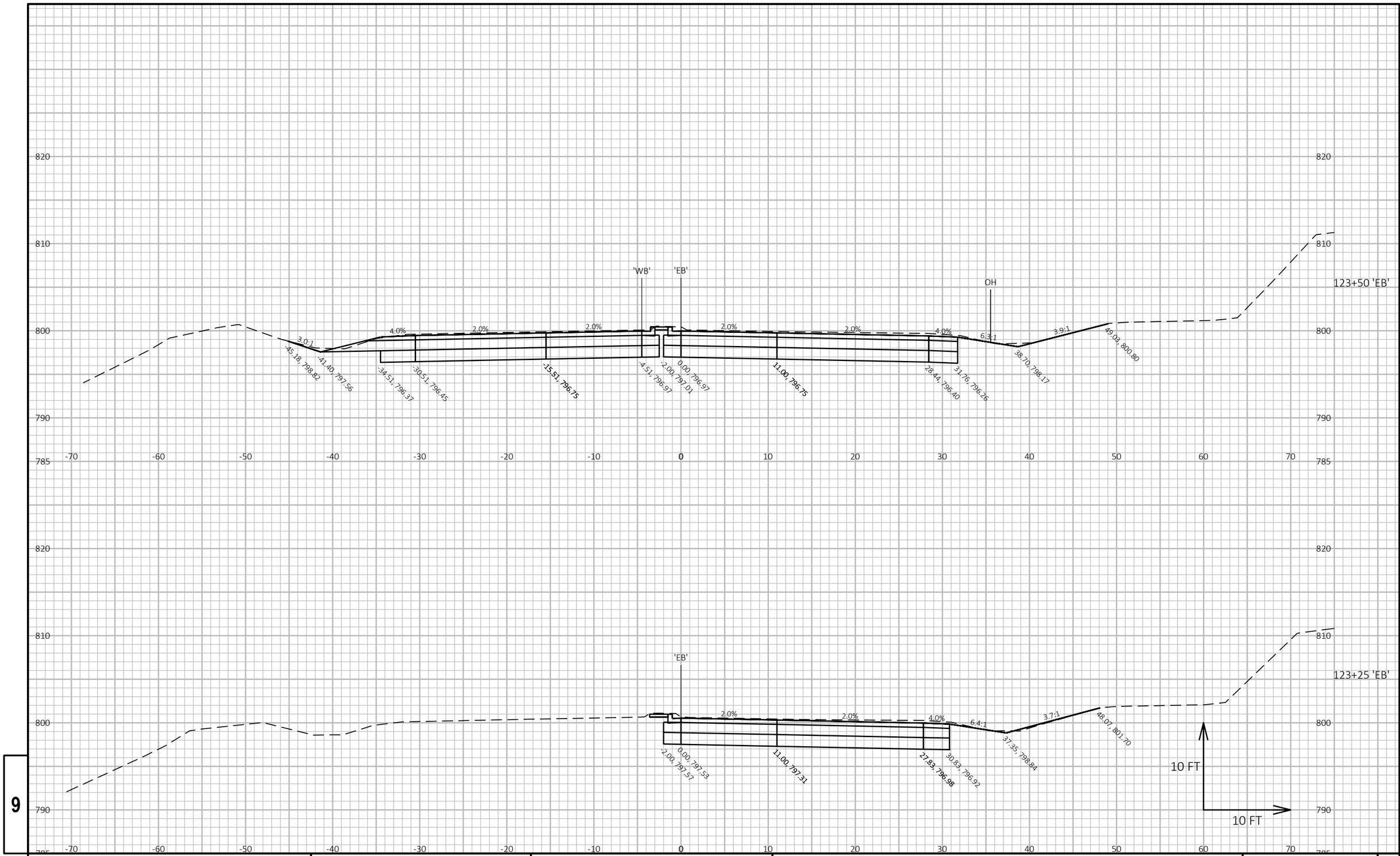
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LAYOUT NAME - EB-(WEST)1

PLOT DATE : 10/26/2026 9:58 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME :

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

WISDOT/CADDS SHEET 49



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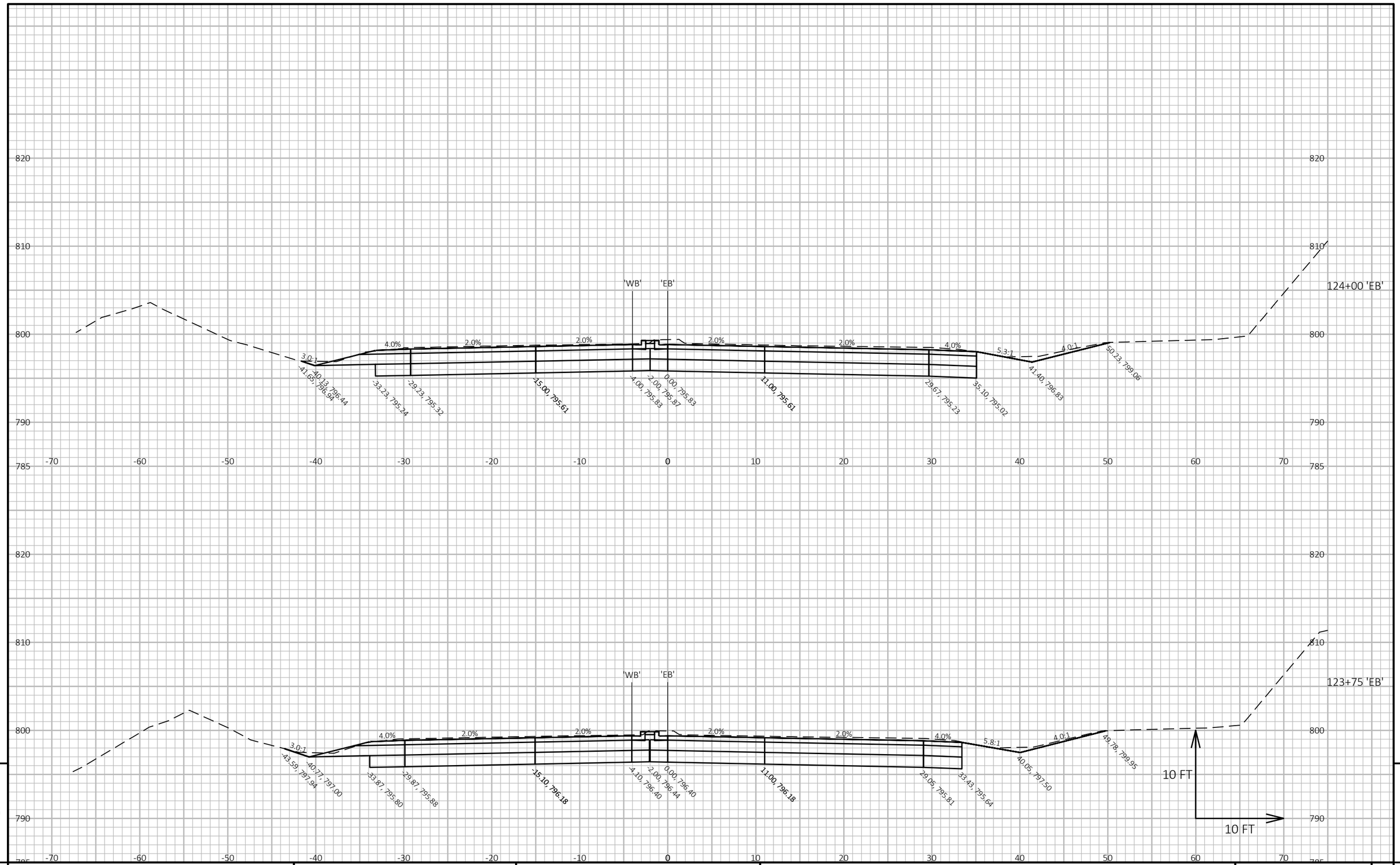
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PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	CROSS SECTIONS: CTH Q EB	SHEET 271	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\DSGN\CRDR\CRDR_BELOITBRIDGES.DWG
LAYOUT NAME - EB-(WEST)3

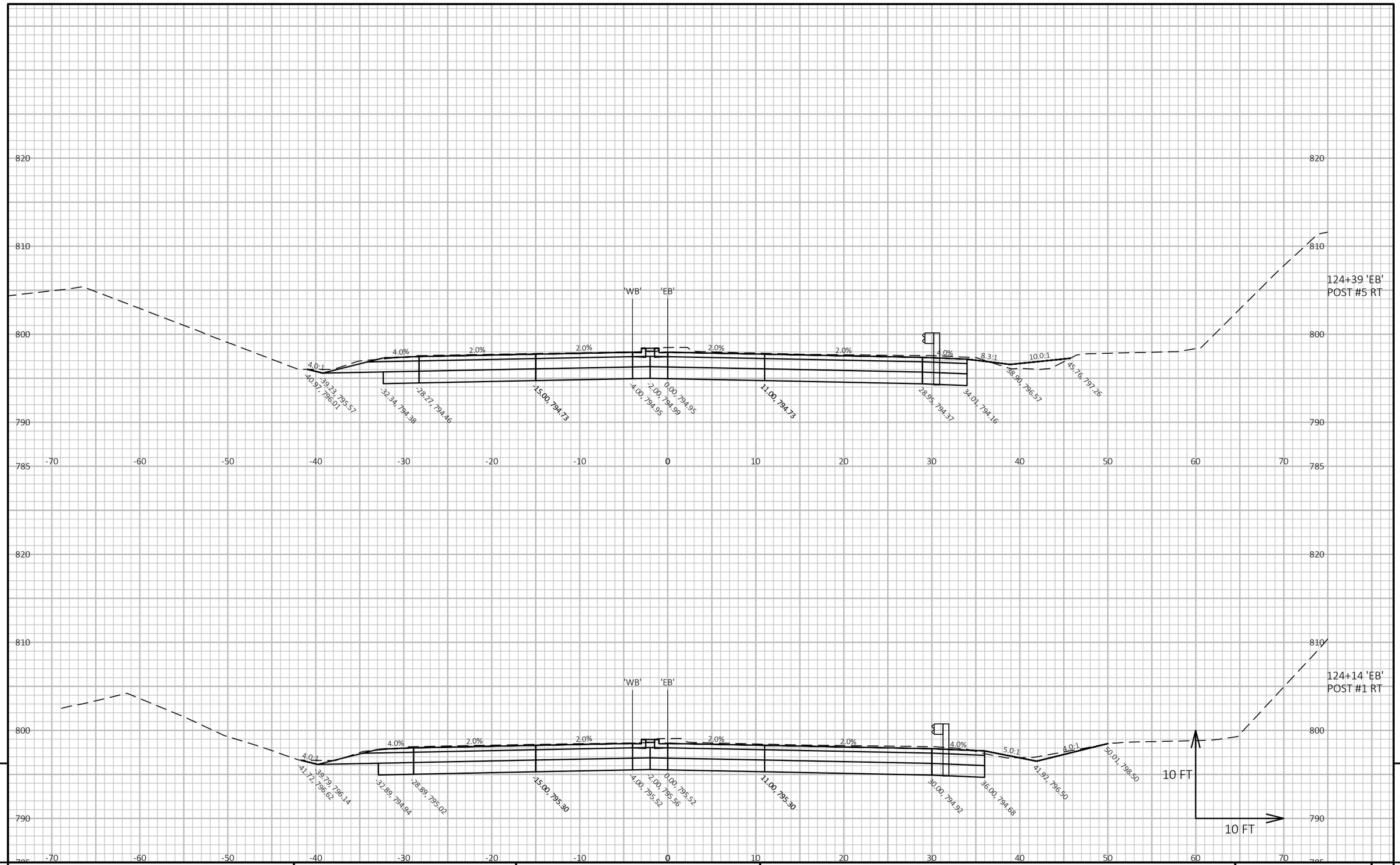
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PLOT BY : BUTTERIS, BRADLEY

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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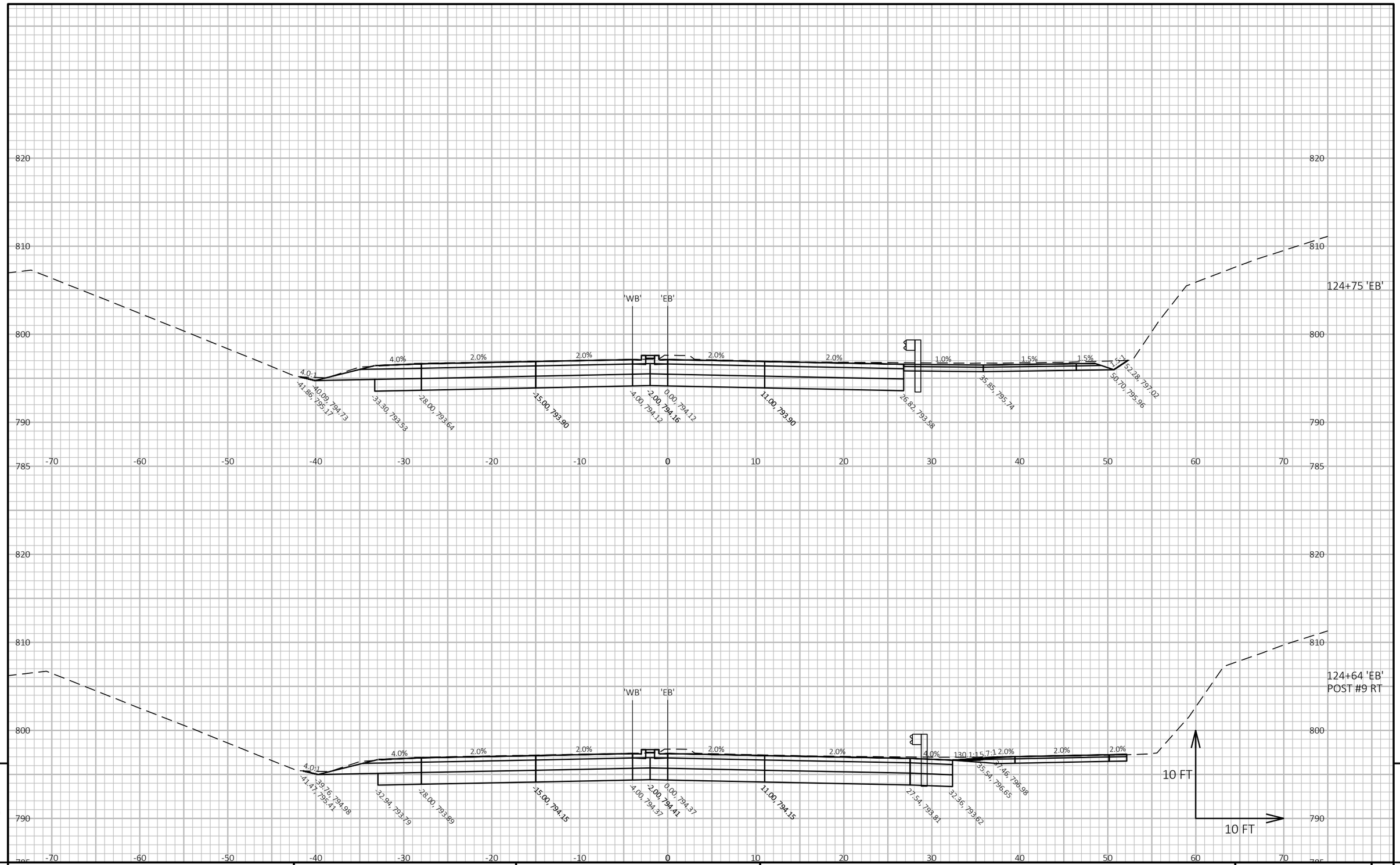
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LAYOUT NAME - EB-(WEST)4

PLOT DATE : 10/26/2026 9:58 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME :

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

WISDOT/CADDS SHEET 49



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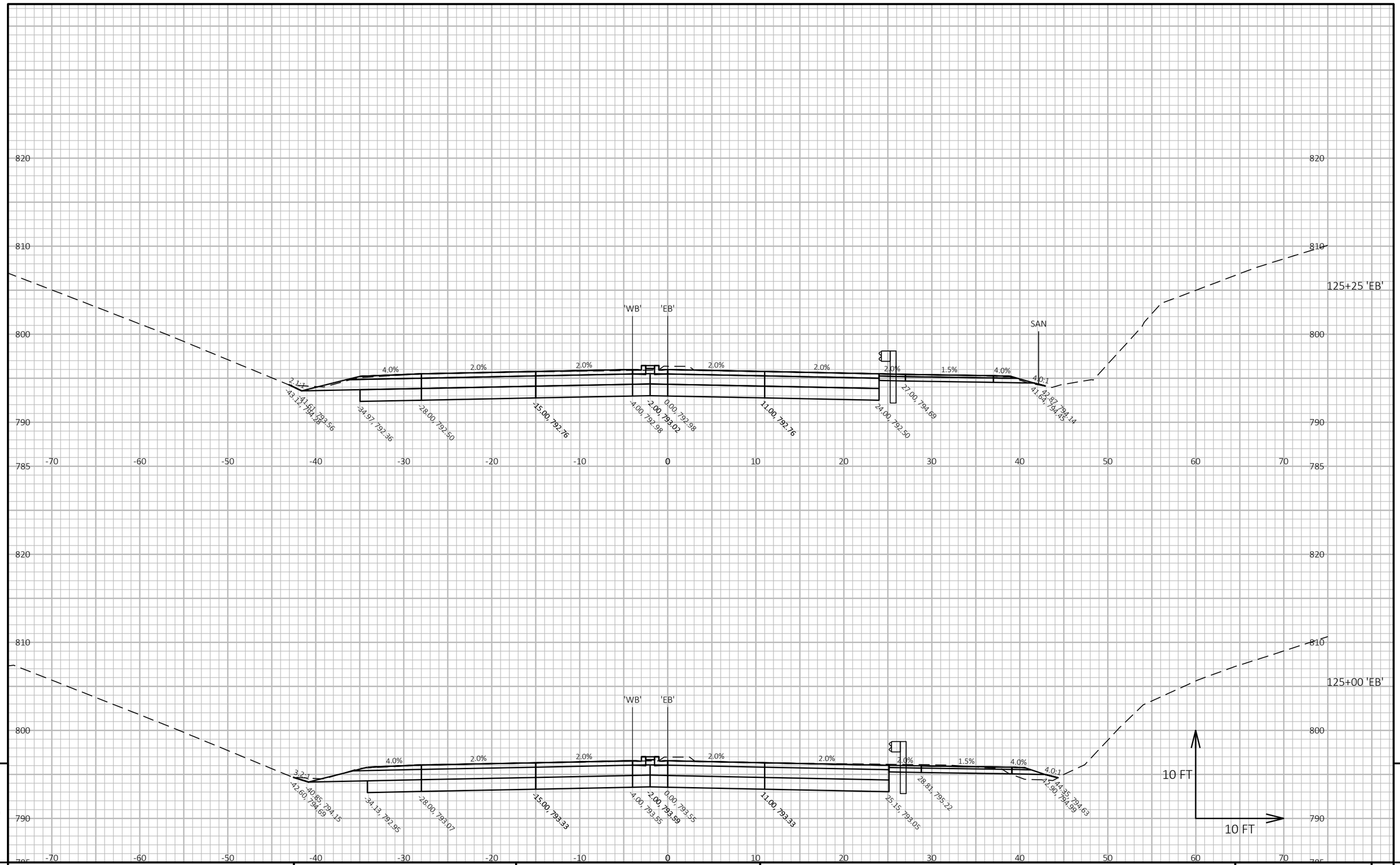
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LAYOUT NAME - EB-(WEST)5

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

WISDOT/CADDS SHEET 49



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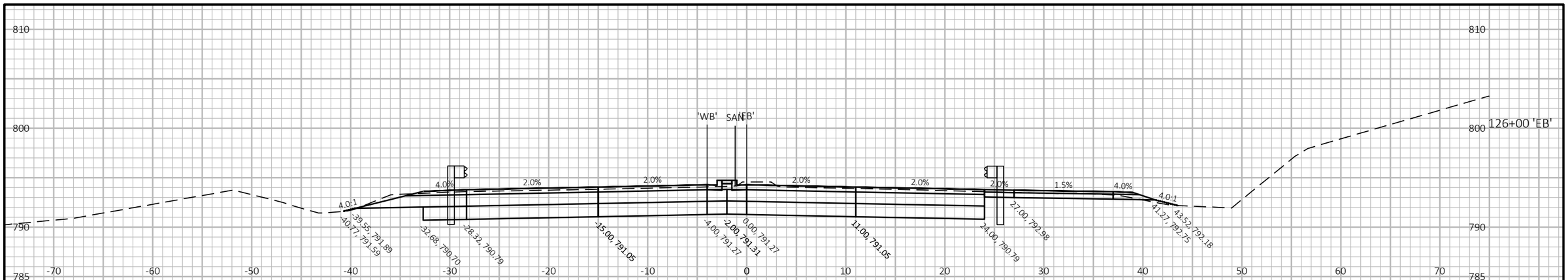
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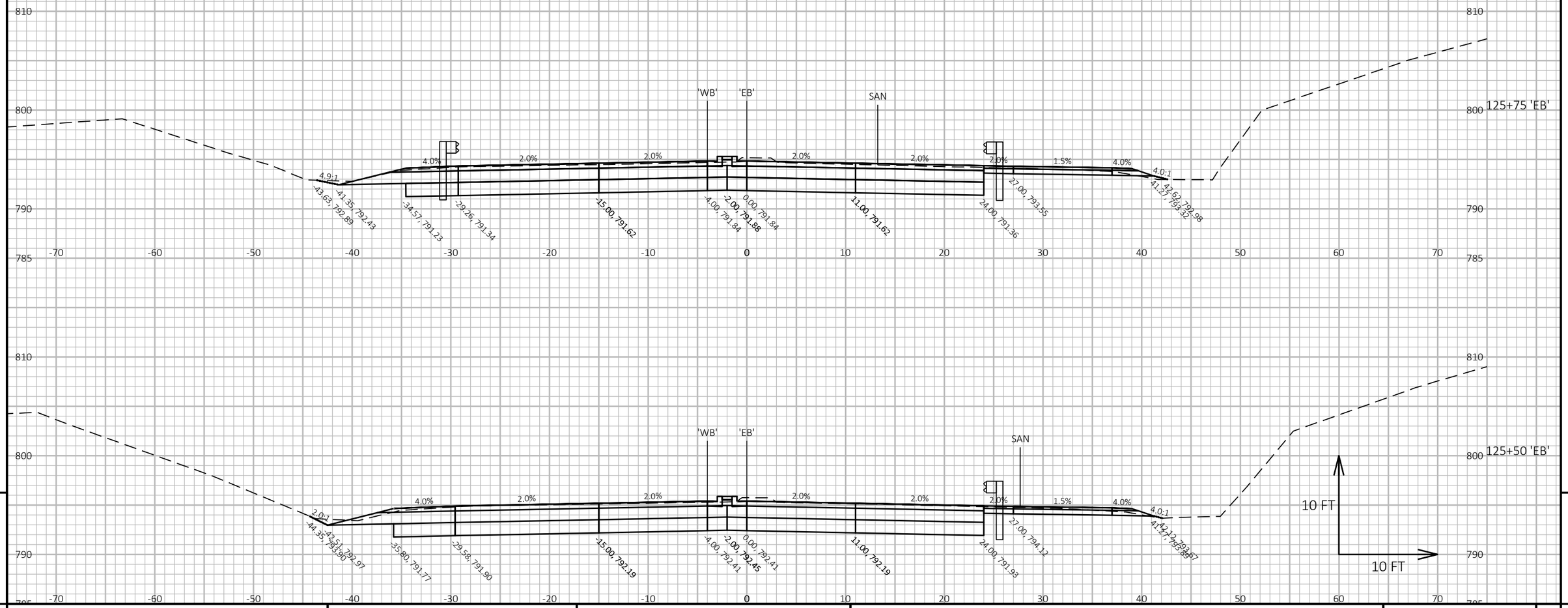
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LAYOUT NAME - EB-(WEST)6

PLOT DATE : 10/26/2026 9:58 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME :

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

WISDOT/CADDS SHEET 49





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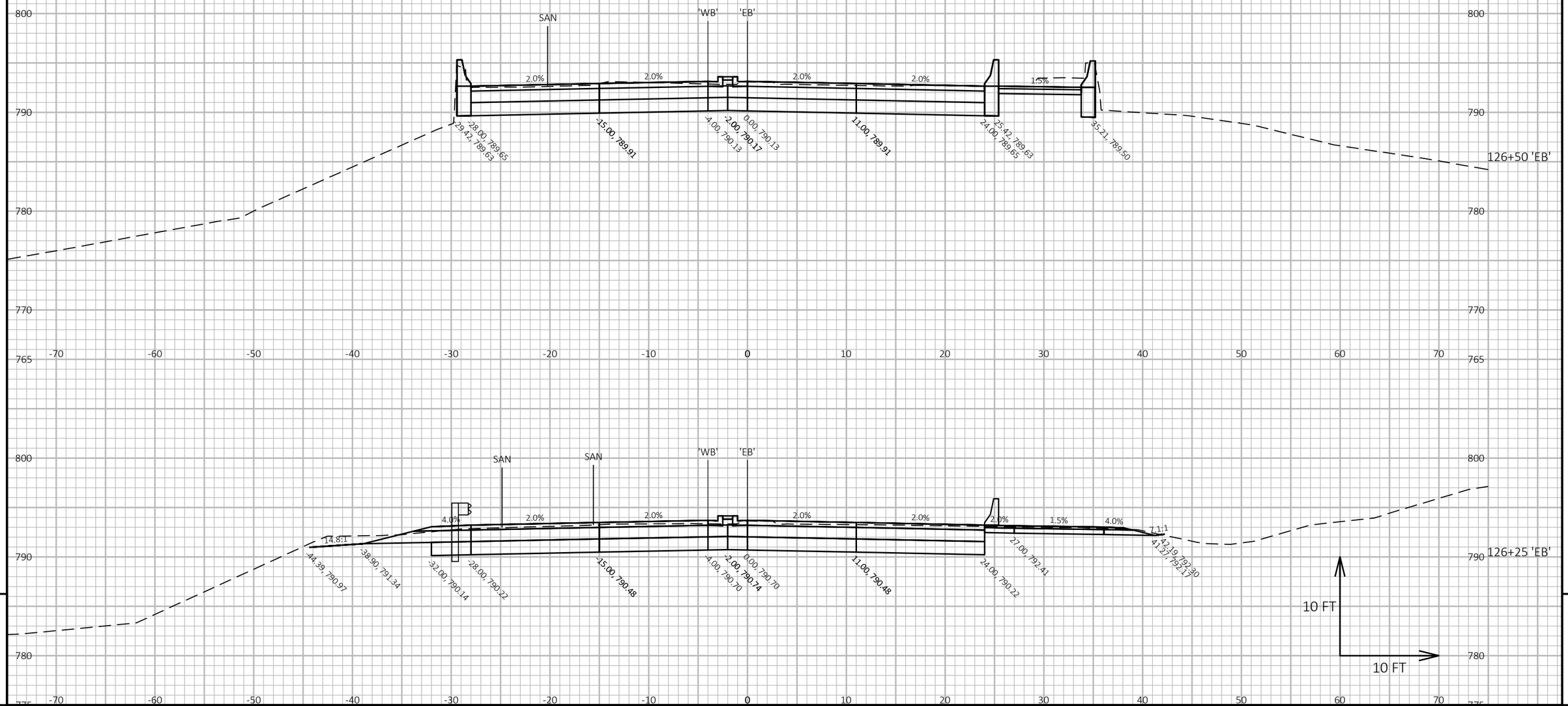
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FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\DSGN\CRDR\CRDR_BELOITBRIDGES.DWG
LAYOUT NAME - EB-(WEST)7

PLOT DATE : 10/26/2026 9:58 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	CROSS SECTIONS: CTH Q EB	SHEET 276	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\DSGN\CRDR\CRDR_BELOITBRIDGES.DWG
LAYOUT NAME - EB-(WEST)8

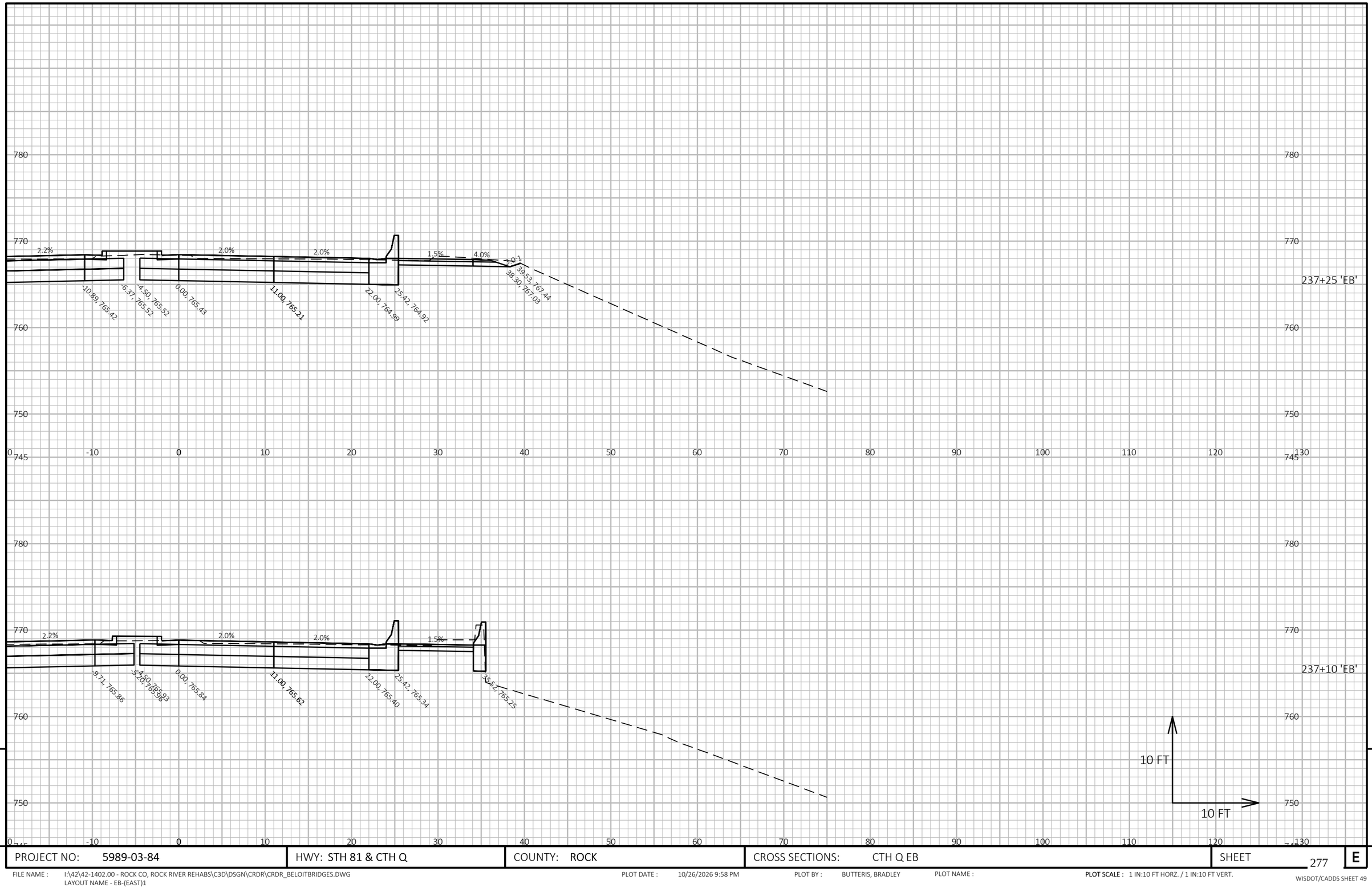
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PLOT BY : BUTTERIS, BRADLEY

PLOT NAME :

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

WISDOT/CADDS SHEET 49



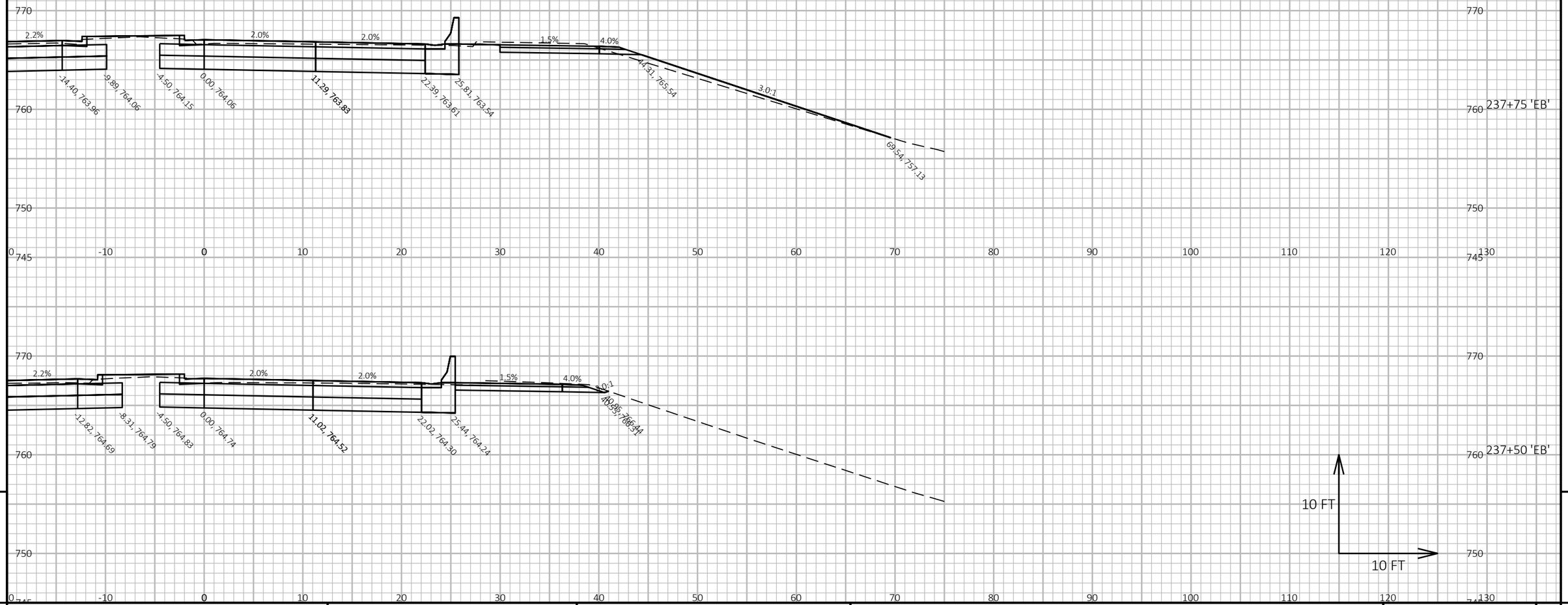
PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	CROSS SECTIONS: CTH Q EB	SHEET 277	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\DSGN\CRDR\CRDR_BELOITBRIDGES.DWG
LAYOUT NAME - EB-(EAST)1

PLOT DATE : 10/26/2026 9:58 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	CROSS SECTIONS: CTH Q EB	SHEET 278	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\DSGN\CRDR\CRDR_BELOITBRIDGES.DWG
LAYOUT NAME - EB-(EAST)2

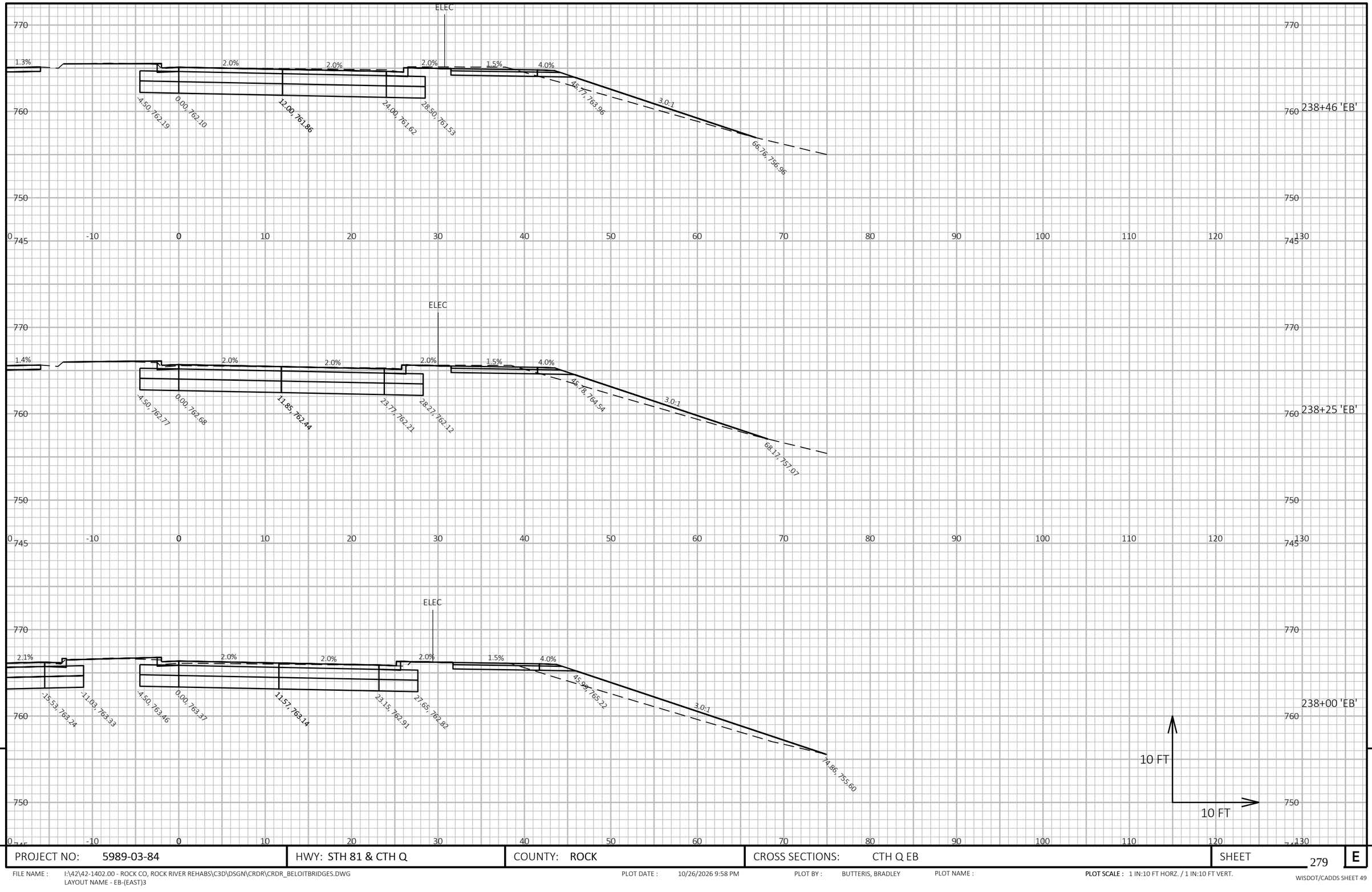
PLOT DATE : 10/26/2026 9:58 PM

PLOT BY : BUTTERIS, BRADLEY

PLOT NAME :

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

WISDOT/CADDS SHEET 49



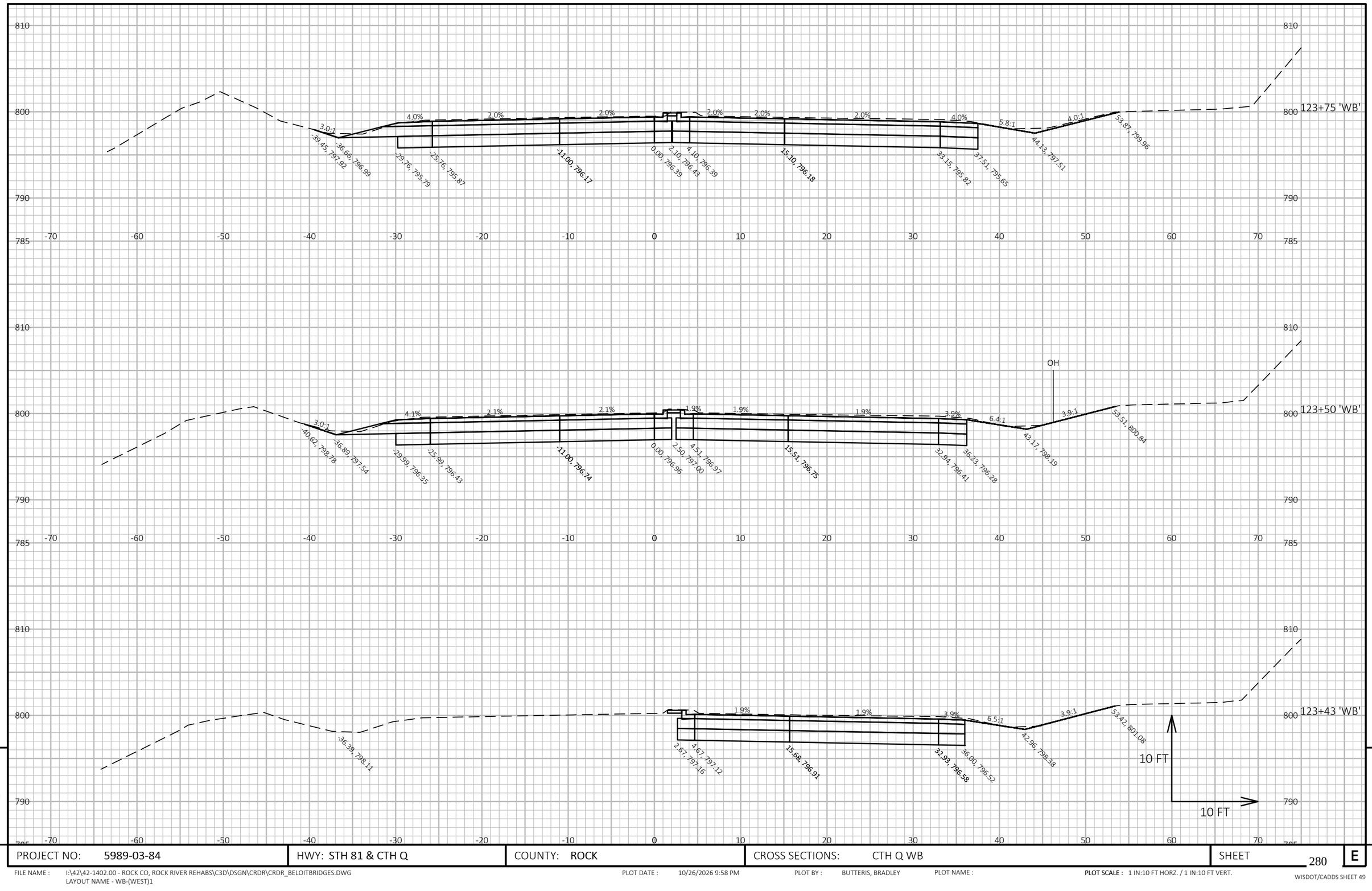
PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	CROSS SECTIONS: CTH Q EB	SHEET 279	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\DSGN\CRDR\CRDR_BELOITBRIDGES.DWG
LAYOUT NAME - EB-(EAST)3

PLOT DATE : 10/26/2026 9:58 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME :

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

WISDOT/CADDS SHEET 49

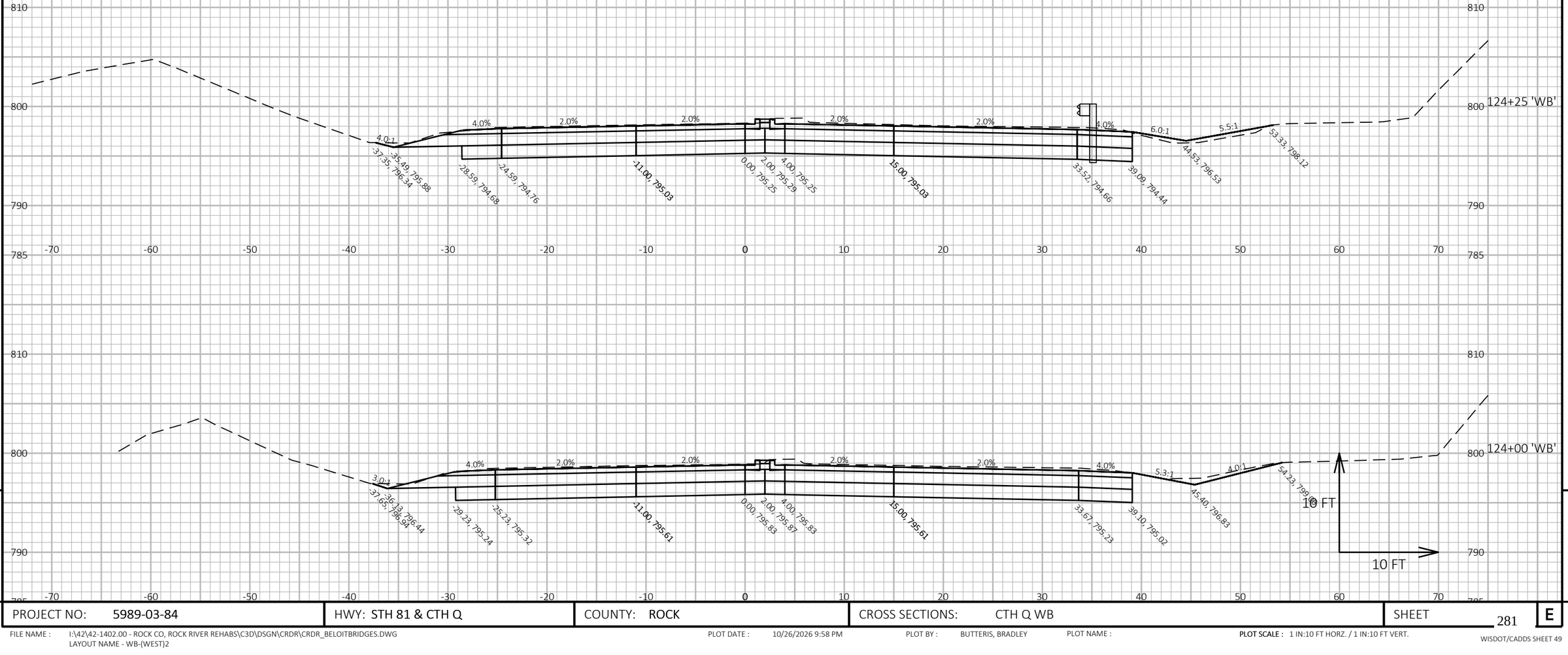


PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	CROSS SECTIONS: CTH Q WB	SHEET 280	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\DSGN\CRDR\CRDR_BELOITBRIDGES.DWG
LAYOUT NAME - WB-(WEST)1

PLOT DATE : 10/26/2026 9:58 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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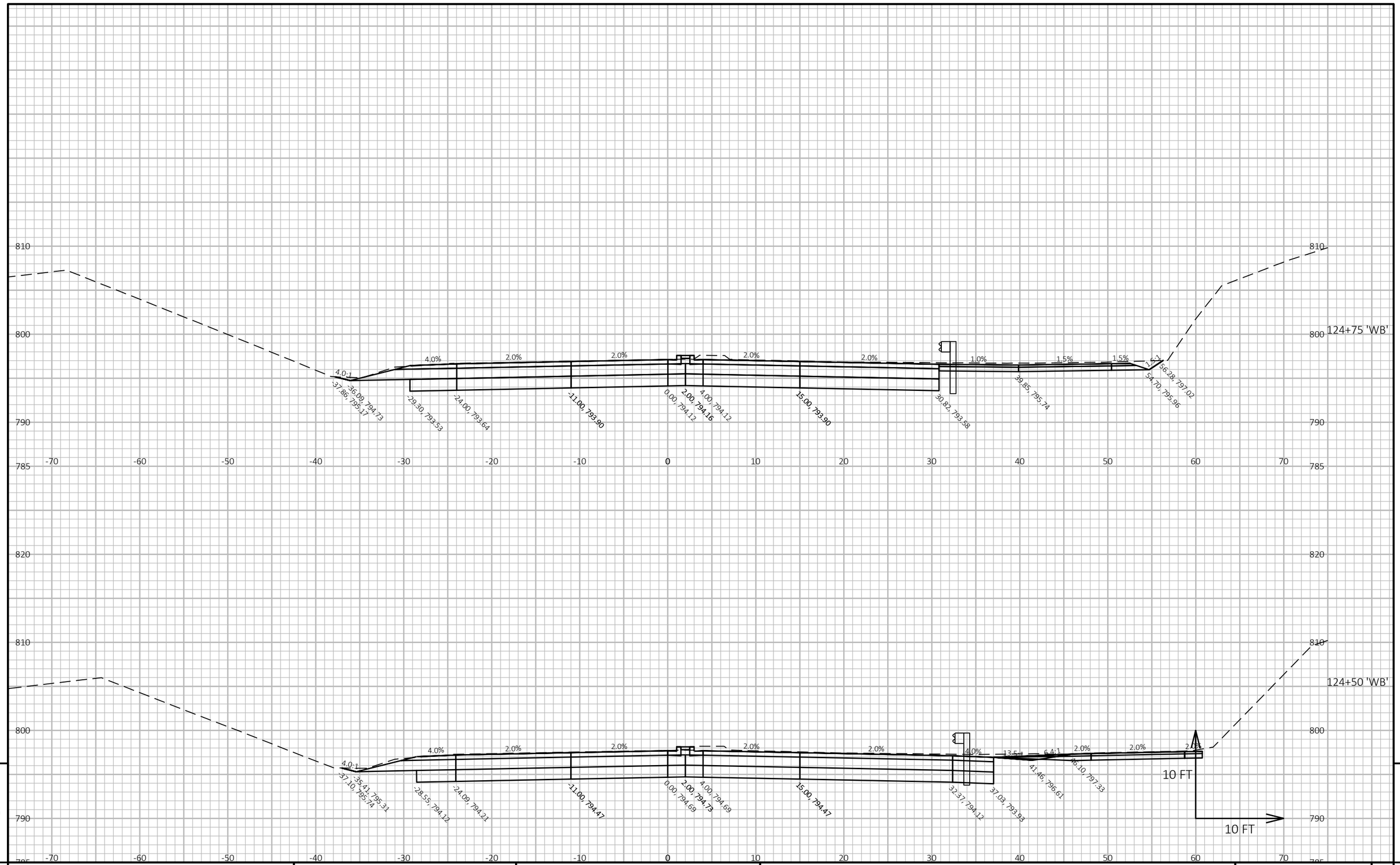
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PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	CROSS SECTIONS: CTH Q WB	SHEET 281	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\DSGN\CRDR\CRDR_BELOITBRIDGES.DWG
LAYOUT NAME - WB-(WEST)2

PLOT DATE : 10/26/2026 9:58 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME :

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



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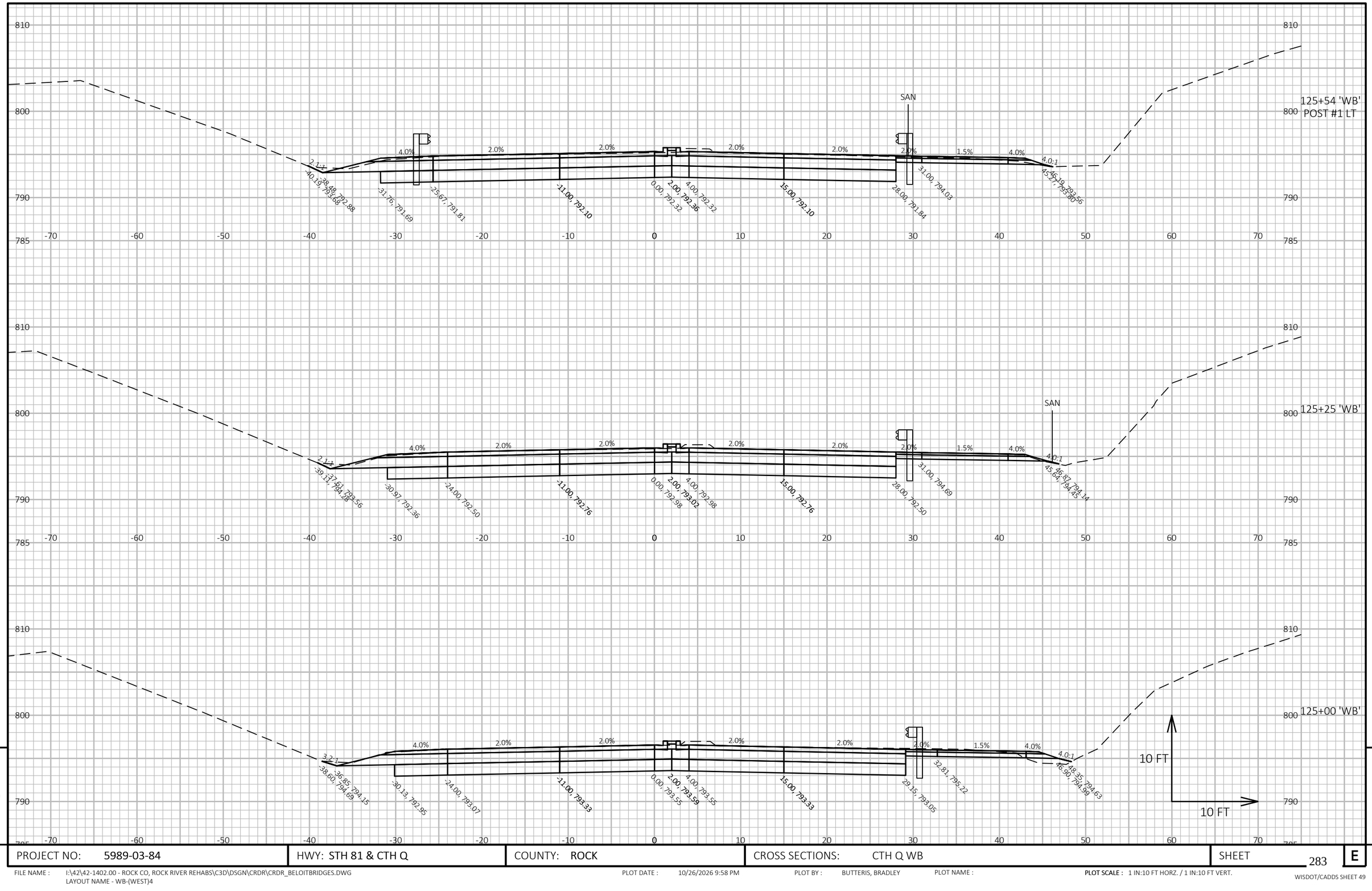
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FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\DSGN\CRDR\CRDR_BELOITBRIDGES.DWG
LAYOUT NAME - WB-(WEST)3

PLOT DATE : 10/26/2026 9:58 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME :

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

WISDOT/CADDS SHEET 49



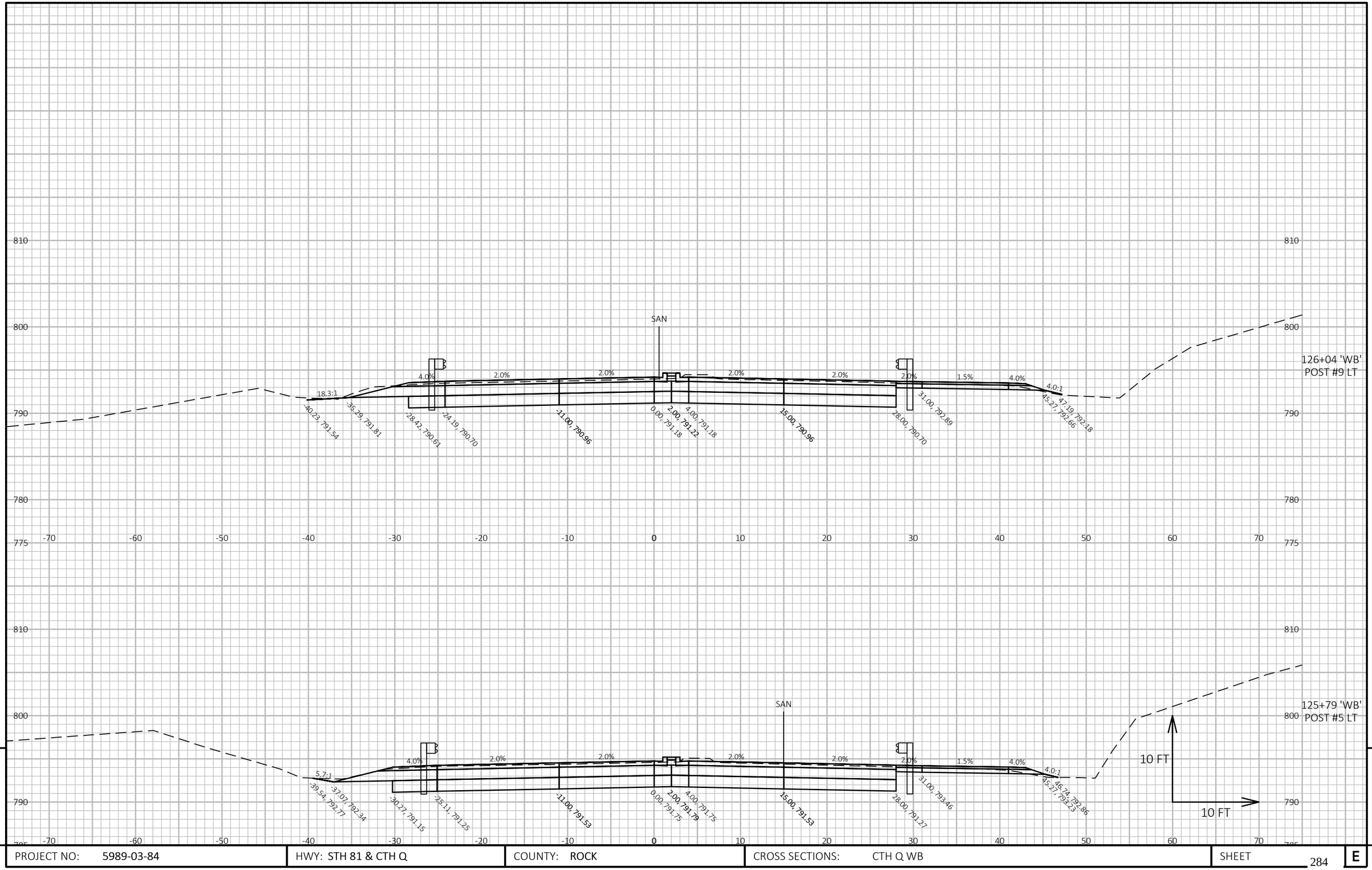
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FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\DSGN\CRDR\CRDR_BELOITBRIDGES.DWG
LAYOUT NAME - WB-(WEST)4

PLOT DATE : 10/26/2026 9:58 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME :

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

WISDOT/CADDS SHEET 49



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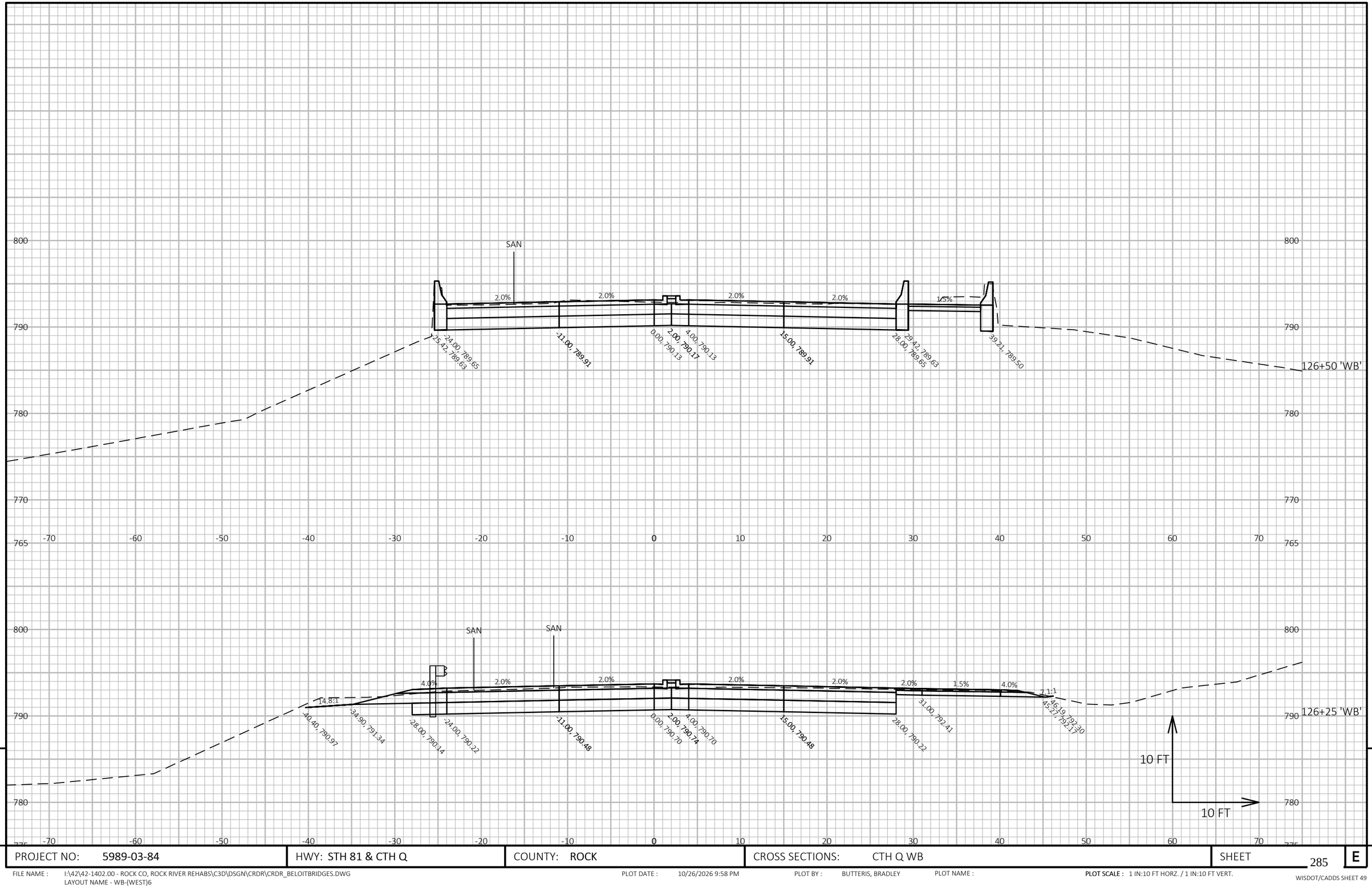
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PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	CROSS SECTIONS: CTH Q WB	SHEET 284	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\DSGN\CRDR\CRDR_BELOITBRIDGES.DWG
LAYOUT NAME - WB-(WEST)5

PLOT DATE : 10/26/2026 9:58 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



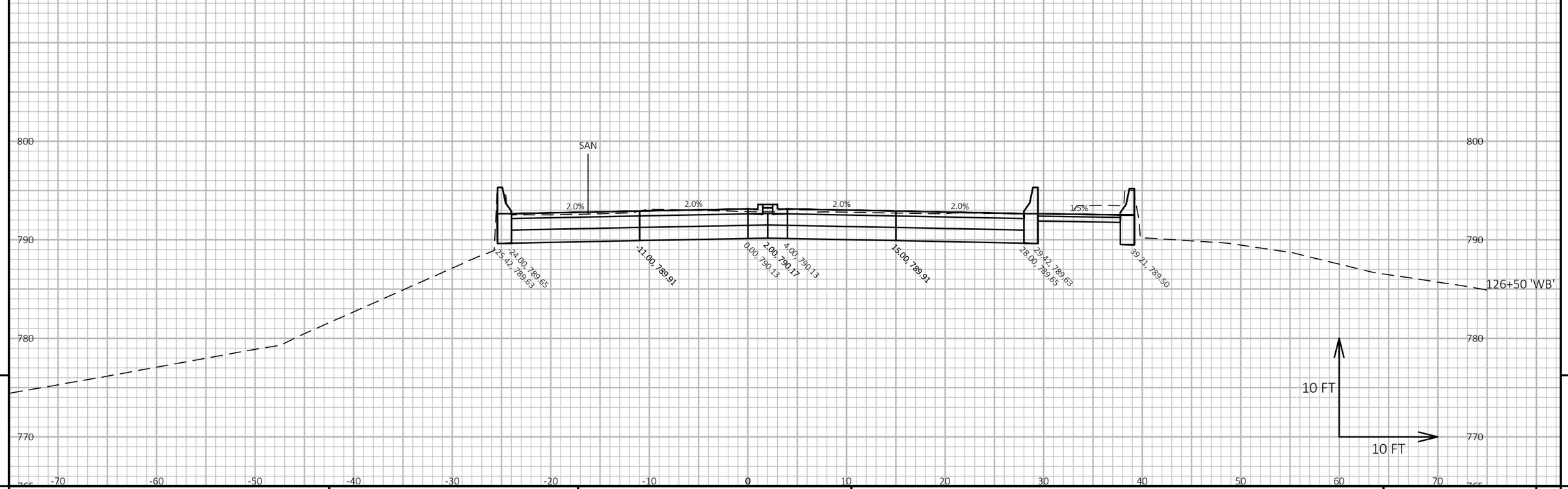
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FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\DSGN\CRDR\CRDR_BELOITBRIDGES.DWG
LAYOUT NAME - WB-(WEST)6

PLOT DATE : 10/26/2026 9:58 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME :

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

WISDOT/CADDS SHEET 49



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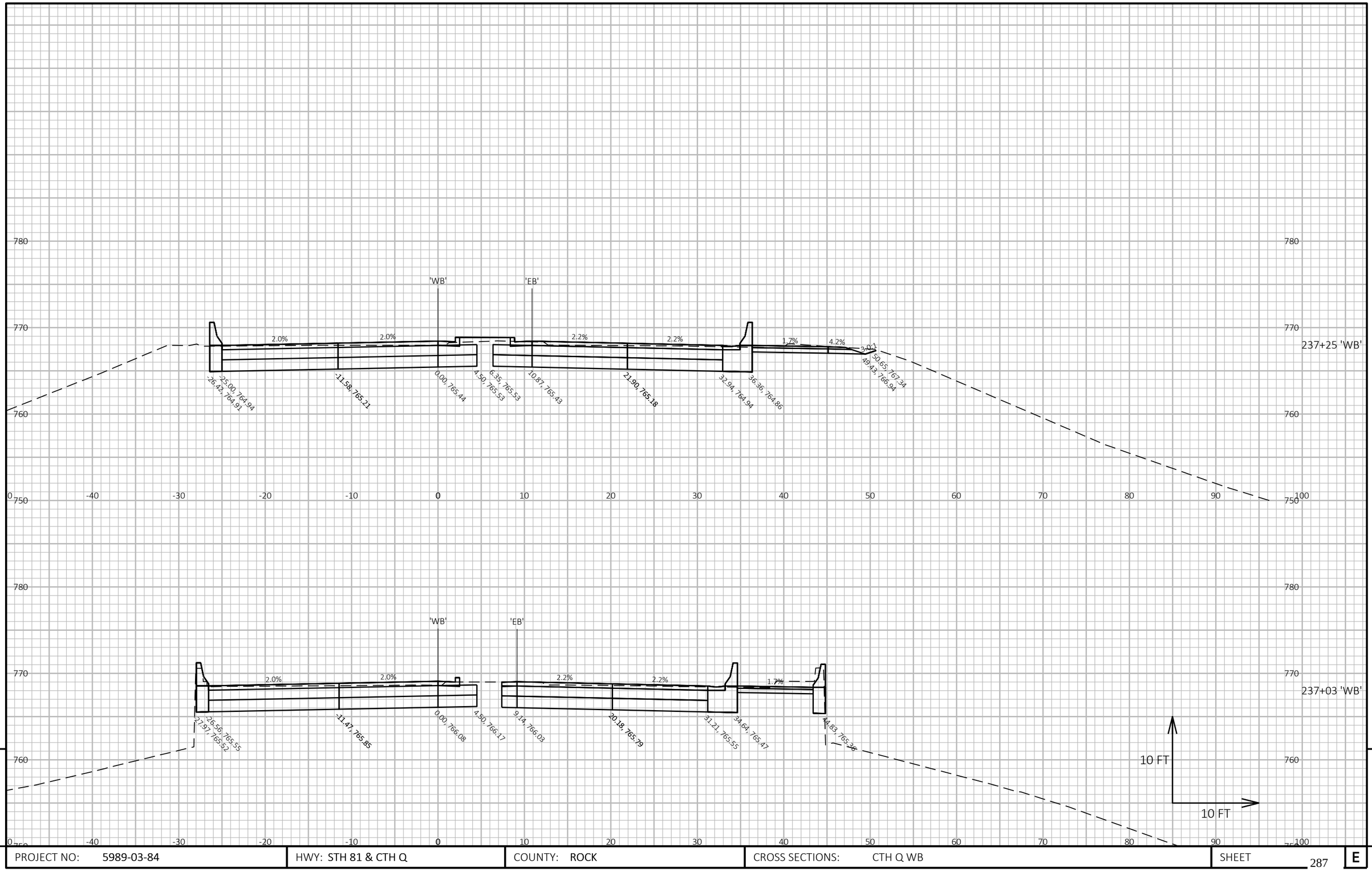
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FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\DSGN\CRDR\CRDR_BELOITBRIDGES.DWG
LAYOUT NAME - WB-(WEST)7

PLOT DATE : 10/26/2026 9:58 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME :

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

WISDOT/CADDS SHEET 49

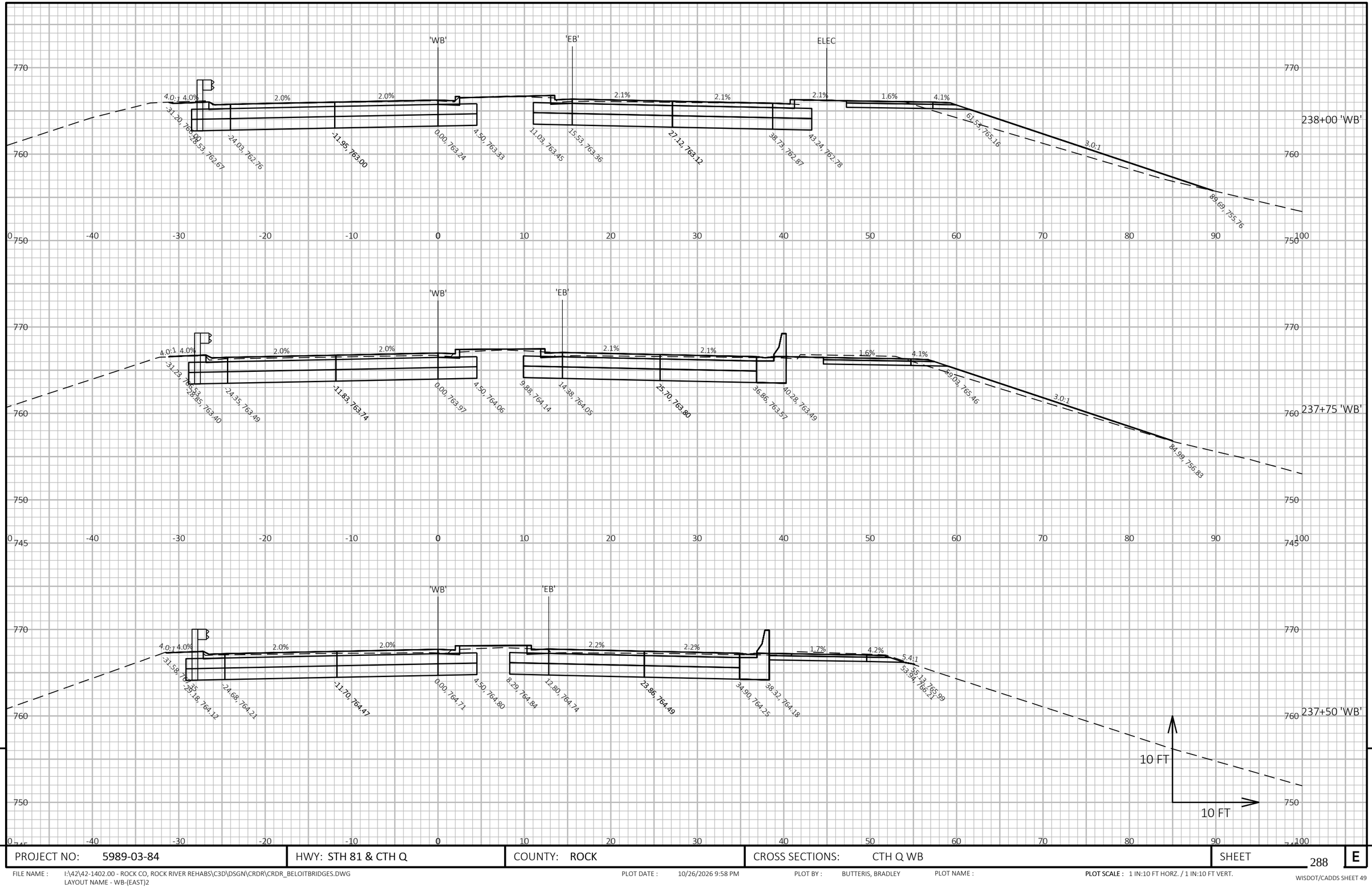


PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	CROSS SECTIONS: CTH Q WB	SHEET 287	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\DSGN\CRDR\CRDR_BELOITBRIDGES.DWG
LAYOUT NAME - WB-(EAST)1

PLOT DATE : 10/26/2026 9:58 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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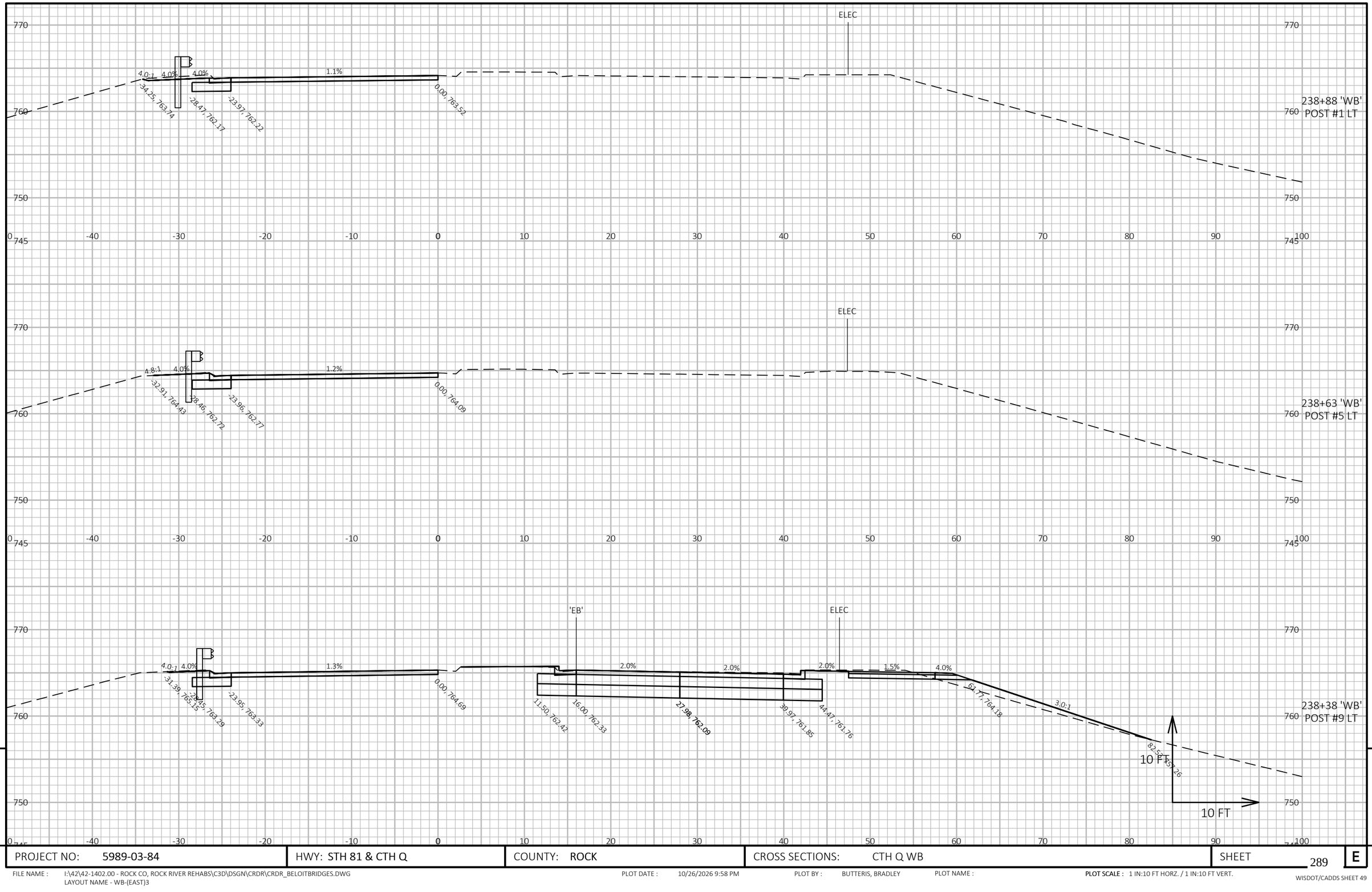
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PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	CROSS SECTIONS: CTH Q WB	SHEET 288	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\DSGN\CRDR\CRDR_BELOITBRIDGES.DWG
LAYOUT NAME - WB-(EAST)2

PLOT DATE : 10/26/2026 9:58 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	CROSS SECTIONS: CTH Q WB	SHEET 289	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\DSGN\CRDR\CRDR_BELOITBRIDGES.DWG
LAYOUT NAME - WB-(EAST)3

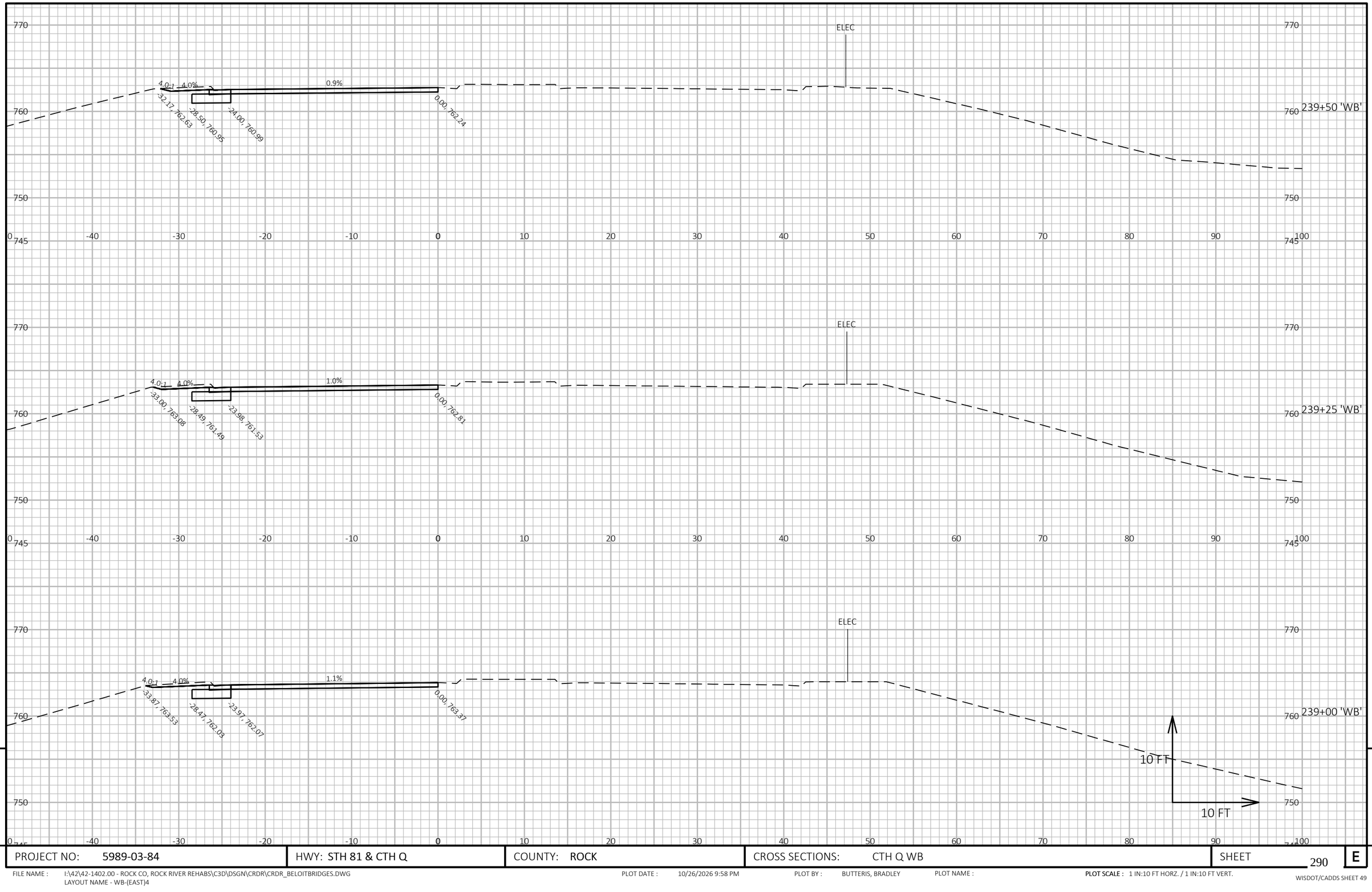
PLOT DATE : 10/26/2026 9:58 PM

PLOT BY : BUTTERIS, BRADLEY

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 5989-03-84	HWY: STH 81 & CTH Q	COUNTY: ROCK	CROSS SECTIONS: CTH Q WB	SHEET 290	E

FILE NAME : I:\42\42-1402.00 - ROCK CO, ROCK RIVER REHABS\C3D\DSGN\CRDR\CRDR_BELOITBRIDGES.DWG
LAYOUT NAME - WB-(EAST)4

PLOT DATE : 10/26/2026 9:58 PM

PLOT BY : BUTTERIS, BRADLEY

PLOT NAME :

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

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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