GRE DECEMBER 2016

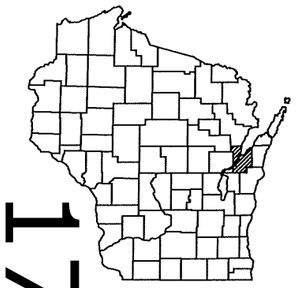
PROJECT ID: 1227-08-71 1210-12-71
WITH: N/A

COUNTY: BROWN

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
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 = 622



17

N

DESIGN DESIGNATION

A.A.D.T.	2017	= 27,600
A.A.D.T.	2037	= 35,400
D.H.V.		= 2,135
D.D.		= 58/42
T.		= 20.7%
DESIGN SPEED		= 70 MPH
ESALS		= 17,000,000

CONVENTIONAL SYMBOLS

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1227-08-71	WISC 2016478	1
1210-12-71	WISC 2016476	1

MANITOWOC - GREEN BAY
STH 96 - STH 172

IH 43

BROWN COUNTY

STATE PROJECT NUMBER
1227-08-71

STH 172, VILLAGE OF ALLOUEZ
WEBSTER AVE. - IH 43

STH 172

BROWN COUNTY

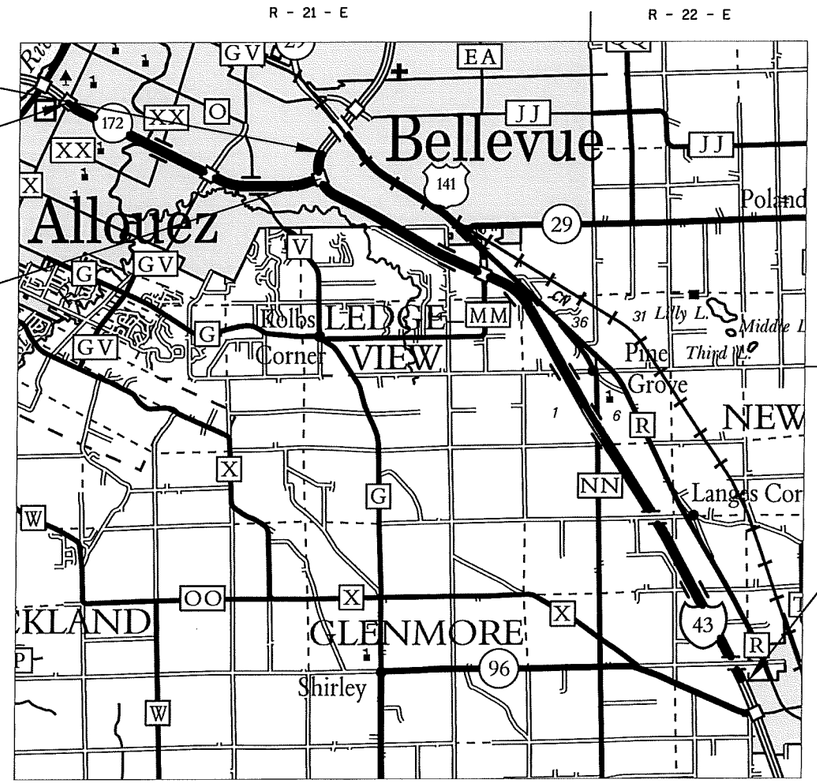
STATE PROJECT NUMBER
1210-12-71

END PROJECT 1227-08-71
STA 3321'NB'+50.00
X = 113677.0741
Y = 547046.6856

BEGIN PROJECT 1210-12-71
STA 431'EB'+99.96
X = 96273.725
Y = 550558.497

END PROJECT 1210-12-71
STA 588'EB'+05.36
X = 110489.5954
Y = 544667.6808

BEGIN PROJECT 1227-08-71
STA 2762'NB'+25.47
X = 145043.74
Y = 503623.37



LAYOUT
SCALE 0 2 MI.

TOTAL NET LENGTH OF CENTERLINE = 10.59 MI. (1227-08-71)
TOTAL NET LENGTH OF CENTERLINE = 2.98 MI. (1210-12-71)

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, BROWN COUNTY, NAD83 (2007), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NE REGION
Designer	C. HUBBARD
Project Manager	B. HAEN
Regional Examiner	
Regional Supervisor	C. KAROW

APPROVED FOR THE DEPARTMENT
DATE: 10/12/16 Brian Haen (Signature)

E

GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND ALL OTHER UTILITIES IN THE VICINITY OF THE PROJECT TO LOCATE THEIR FACILITIES AT LEAST 3 WORKING DAYS PRIOR TO BEGINNING WORK.

WETLANDS ARE PRESENT IN SEVERAL AREAS ADJACENT TO THE PROJECT. DO NOT OPERATE EQUIPMENT OUTSIDE OF THE SLOPE INTERCEPTS IN WETLAND AREAS UNLESS DIRECTED BY THE ENGINEER.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN ARE APPROXIMATE AND SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL CONTINUOUSLY REINFORCED CONCRETE REPAIRS ARE SEVEN (7) FEET IN LENGTH UNLESS OTHERWISE NOTED IN THE PLANS.

ALL SHOULDER BASE PATCH LENGTHS ADJACENT TO CONTINUOUSLY REINFORCED CONCRETE REPAIRS SHALL MATCH THE REPAIR LENGTHS UNLESS OTHERWISE NOTED IN THE PLANS. INDIVIDUAL SHOULDER BASE PATCHES NOT ADJACENT TO CONTINUOUSLY REINFORCED CONCRETE REPAIRS ARE SIX (6) FEET IN LENGTH UNLESS OTHERWISE NOTED IN THE PLANS.

ALL SHOULDER BASE PATCHES 6 FEET IN LENGTH REQUIRE, AT A MINIMUM, TWO (2) TIE BARS. SEE CONSTRUCTION DETAILS FOR MORE INFORMATION.

FOR BASE PATCHING ON EXISTING RAMPS, REFER TO THE CONSTRUCTION DETAILS FOR DRILLED DOWEL AND STANDARD DETAILS FOR DRILLED TIE BAR SPACINGS.

CONCRETE BASE PATCH SHES AND CONTINUOUSLY REINFORCED CONCRETE REPAIR SHES WILL BE FIELD LOCATED BY THE ENGINEER.

THE MAJORITY OF THE SOILS ALONG THIS PROJECT ARE CONSIDERED POOR FOR ROAD CONSTRUCTION, THEREFORE, ALL COMMON EXCAVATION TO BE PLACED ON-SITE SHALL ONLY BE OUTSIDE OF THE 1:1 OF THE ROADWAY.

DIGGERS HOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com

UTILITIES

Matt Hischke
ANR Pipeline Company - Gas/Petroleum
N4956 Oakcrest Dr
Bonduel, WI 54107
(715) 758-3345
(715) 460-4042
matthew_hischke@transcanada.com

Joseph Kassab
AT&T Wisconsin - Communication Line
221 West Washington St
Appleton, WI 54911-4742
(920) 735-3206
jk572k@att.com

Anthony Marciniak
ATC Management, Inc. - Electricity
W 234 N2000 Ridgeview Parkway Ct
Waukesha, WI 53188-1000
(262) 506-6814
amarciniak@atcllc.com

Dan Becker (Multimedia Communications and Engineering)
Brown County Technology Services - Communication Line
PO Box 11064
Green Bay, WI 54307-1064
(920) 676-3496
dbecker@mcae.biz

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Central Brown County Water Authority - Water
1303 S 8th St
P.O. Box 1090
Manitowoc, WI 54221-1090
(920) 686-4354
1/64 rmichaelson@mpu.org

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CenturyLink - Communication Line
256 Leffert St
Berlin, WI 54923
(920) 361-8425
ross.hartwig@centurylink.com

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3700 Dickinson Rd
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mpansier@ledgeviewwisconsin.com

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mpansier@ledgeviewwisconsin.com

Dennis Rues
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13935 Bishops Dr
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(812) 456-1249
dennis.ruess@windstream.com

Dennis La Fave
Net Lec LLC - Communication Line
1700 Industrial Dr
Green Bay, WI 54302
(920) 619-9774
dlafave@mi-tech.us

Vince Albin
Time Warner Cable - Communication Line
3520 E Destination Dr
Appleton, WI 54915
(920) 831-9249
vince.albin@twcable.com

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West Shore Pipe Line Company - Gas/Petroleum
2119 North Quincy Street
Green Bay, WI 54302
(920) 432-3223
cschwandt@buckeye.com

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2828 Allouez Ave
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billb@villageofbellevue.org

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billb@villageofbellevue.org

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(920) 362-7982
erika@villageofdenmark.com

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(920) 362-7982
erika@villageofdenmark.com

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Wisconsin Public Service Corporation - Gas/Petroleum
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(920) 604-1861
dpretzlaff@wisconsinpublicservice.com

Randy Steler
Wisconsin Public Service Corporation - Electricity
2850 S. Ashland Ave
Green Bay, WI 54307
(920) 617-5167
(920) 655-1596
RDSteler@wisconsinpublicservice.com

Craig Berndt
Village of Allouez Department of Public Works - Water
1900 Libal St
Green Bay, WI 54301
(920) 448-2800
craig@villageofallouez.com

Craig Berndt
Village of Allouez Department of Public Works - Sewer
1900 Libal St
Green Bay, WI 54301
(920) 448-2800
craig@villageofallouez.com

DNR AREA LIAISON

JAMES DOPERALSKI, JR.
DEPARTMENT OF NATURAL RESOURCES
NORTHEAST REGION
2984 SHAWANO AVE
GREEN BAY, WI 54313
920-662-5119
JAMES.DOPERALSKI@WISCONSIN.GOV

COUNTY SURVEYOR OR SURVEYS CONTACT PERSON

CORMAC MCINNIS
944 VANDERPERREN WAY
GREEN BAY, WI 54304
PHONE: 920-492-5638
EMAIL: CORMAC.MCINNIS@DOT.WI.GOV

2

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BEGIN PROJECT
STA 2762+29.82'NB'
STH 2762+29.79'SB'

END PROJECT
STA 3321+50.00'NB'
STA 3322+77.89"SB"

EQUATION
STA AHEAD 3264+41.34'SB'
STA AHEAD = 3264+34.63'SB'

EQUATION
STA AHEAD = 3210+14.08'SB'
STA BACK = 3210+23.95'SB'

STA AHEAD = 2822+84.18'SB'
STA BACK = 2822+75.47'SB'
EQUATION

STA AHEAD = 2947+02.70'SB'
STA BACK = 2946+98.09'SB'
EQUATION

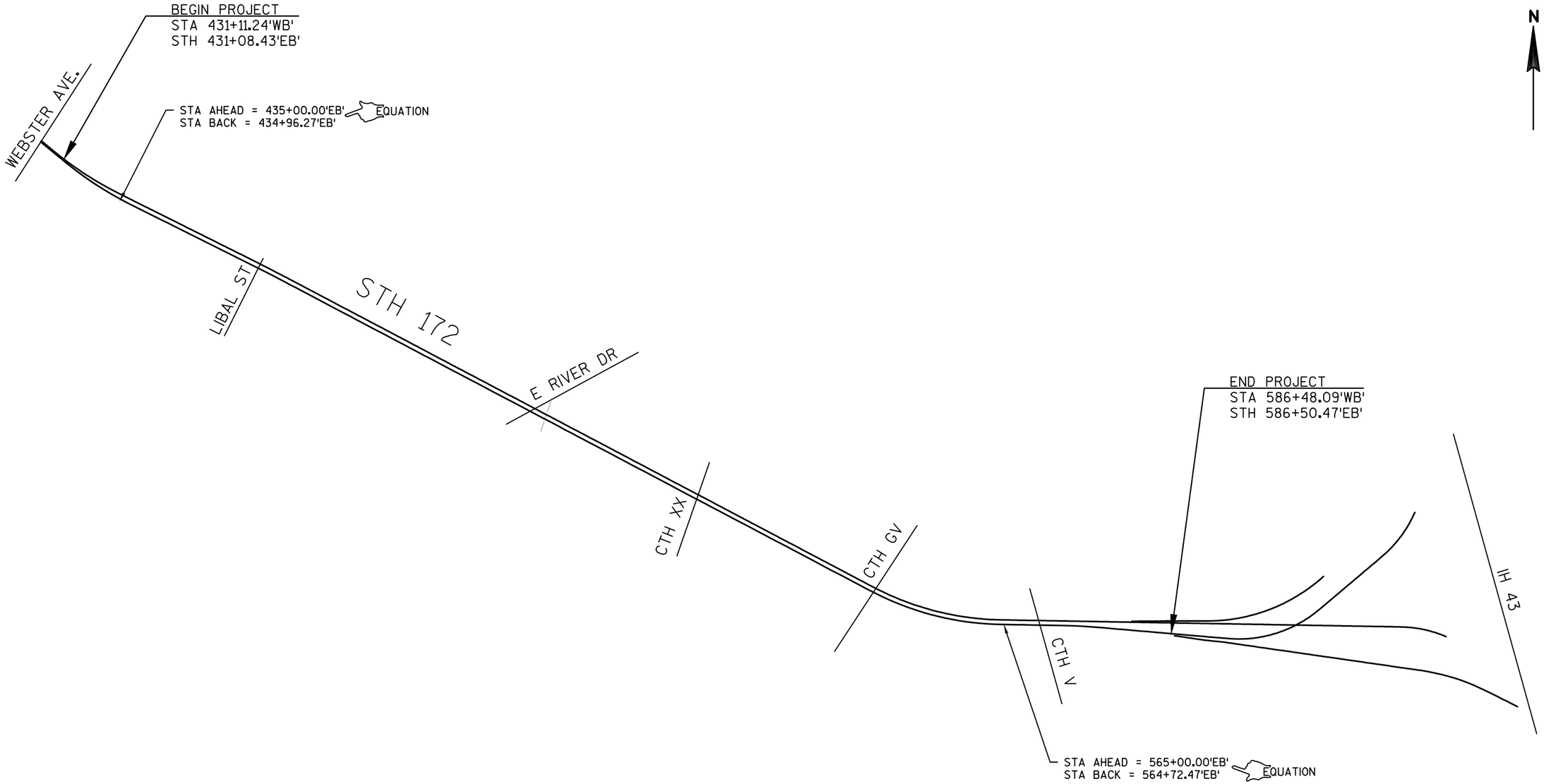
STA AHEAD = 3149+33.95'SB'
STA BACK = 3148+84.42'SB'
EQUATION

EQUATION
STA AHEAD = 3042+74.77'SB'
STA BACK = 3042+78.03'SB'

KLONDIKE RD.
STH 172 EB TO IH 43 WB RAMP
ALLOUEZ AVE.
GLENMORE RD.
CTH MM
CTH MM/USH 141
CTH NN
PINE GROVE RD.
SHADOW LN.
LANGES CORNERS RD.
W. TOWN HALL RD.
NORTH AVE.
SHIRLEY RD.
STH 96
DEPERE RD.
INTERSTATE 43

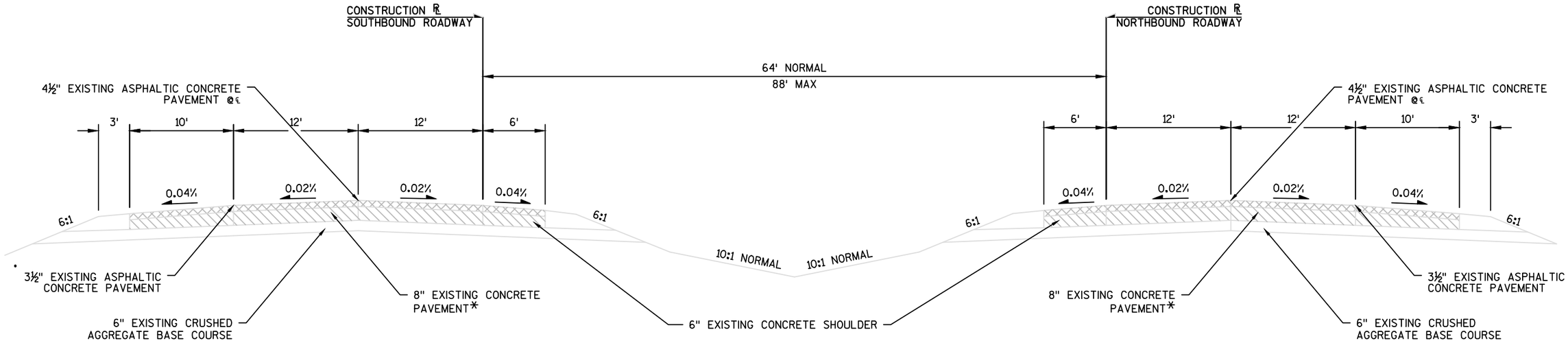
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	PROJECT OVERVIEW - IH 43	SHEET 3	E

2



PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	PROJECT OVERVIEW - STH 172	SHEET 4	E

2

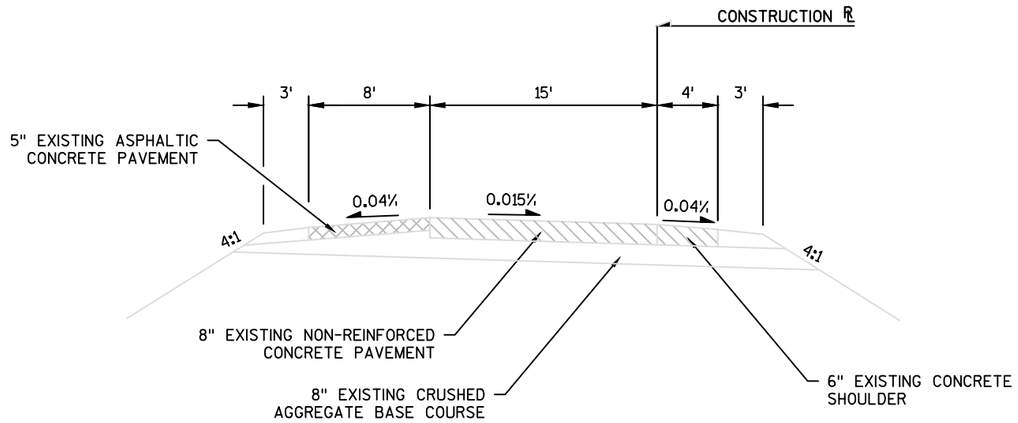


EXISTING TYPICAL SECTION IH-43

* 8" CONTINUOUSLY REINFORCED CONCRETE PAVEMENT
STA 2791+35.22'NB' TO STA 3293+00.00'NB'
STA 2791+70.21'SB' TO STA 3293+27.39'SB'

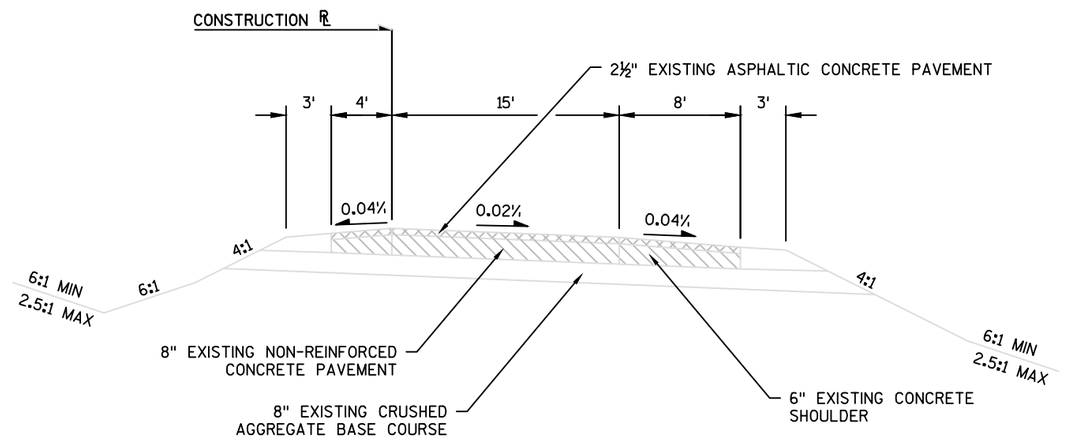
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN: EXISTING TYPICAL SECTIONS	SHEET 5	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\020301_TS_2014.DWG
LAYOUT NAME - 020301_TS 1 IN 10 FT
PLOT DATE : 4/8/2016 11:43 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



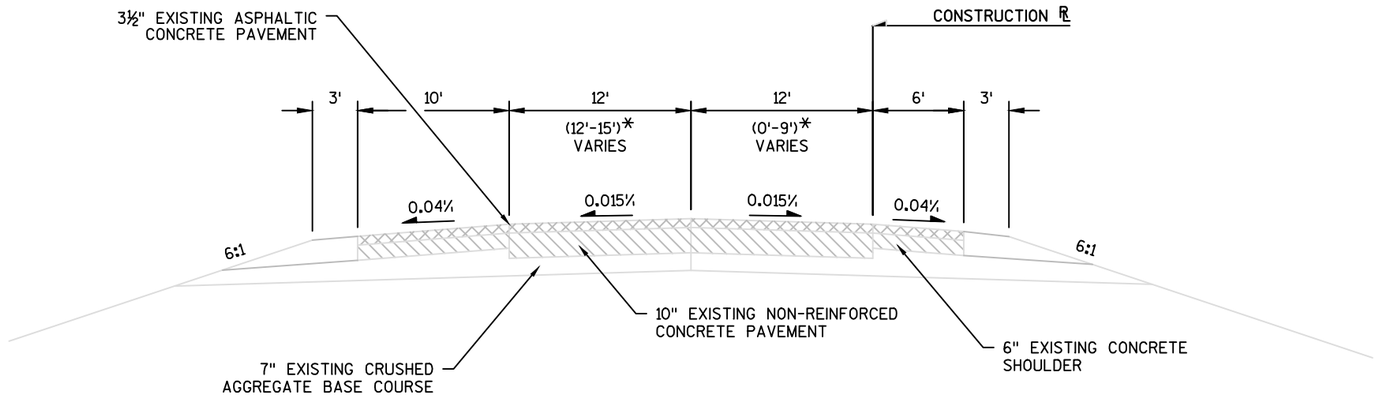
EXISTING TYPICAL SECTION STH 96 RAMPS

STA 2786+18.26'NE' TO STA 2801+36.39'NE'
STA 2788+87.59'NW' TO STA 2803+59.10'NW'
STA 2771+77.48'SE' TO STA 2785+97.94'SE'
STA 2771+43.43'SW' TO STA 2788+68.95'SW'



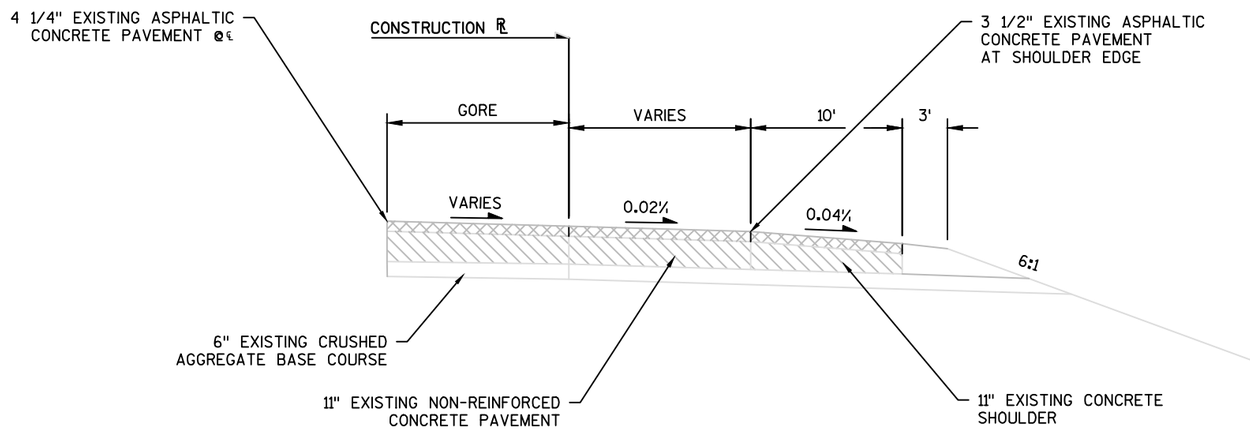
EXISTING TYPICAL SECTION CTH MM RAMPS

STA 3152+28.16'NE' TO STA 3166+71.63'NE'
STA 3166+34.24'NW' TO STA 3177+69.75'NW'
STA 3163+12.27'SW' TO STA 3176+06.98'SW'
STA 3152+17.24'SE' TO STA 3163+15.24'SE'



EXISTING TYPICAL SECTION STH 172 RAMPS

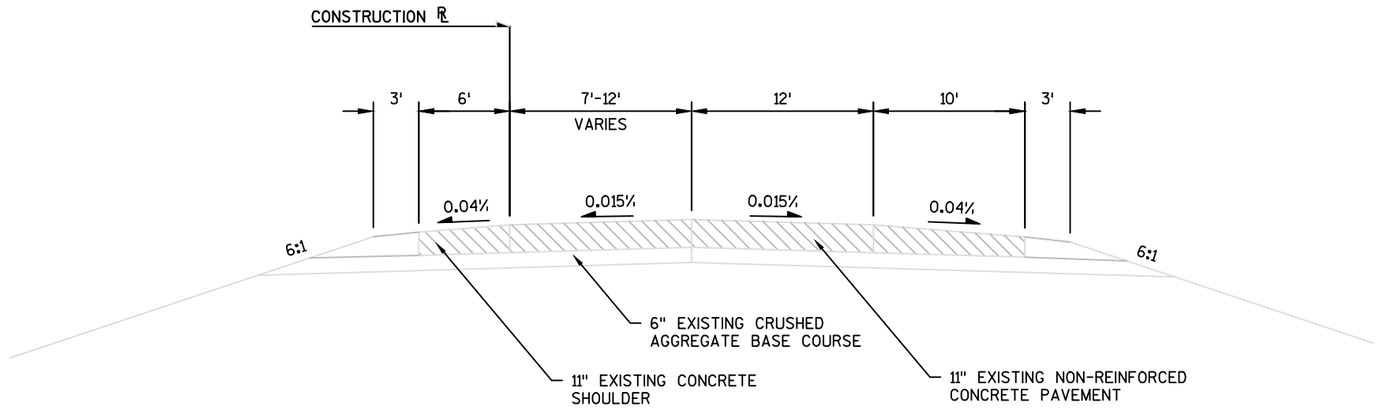
STA 3277+99.80'NC' TO STA 3283+23.01'NC' (LOOKING DOWN STATION)



EXISTING TYPICAL SECTION STH 172 EB TO IH 43 SB

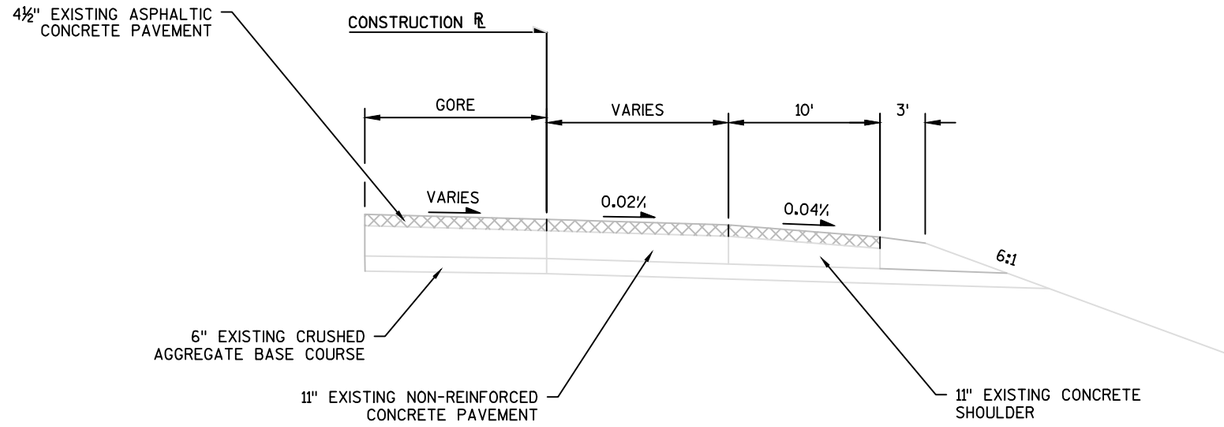
STA 3283+87.48'EBCONN' TO STA 3284+56.10'EBCONN'

2



EXISTING TYPICAL SECTION STH 172 EB TO IH 43 SB

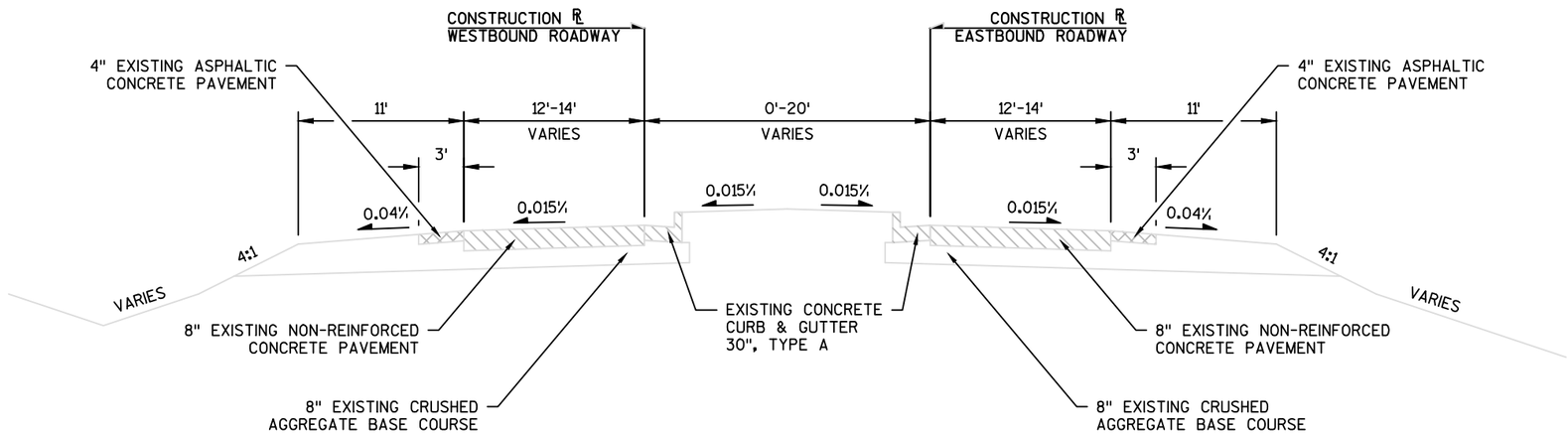
STA 3284+56.10'EBCONN' TO STA 3319+39.21'EBCONN'



EXISTING TYPICAL SECTION STH 172 EB TO IH 43 SB

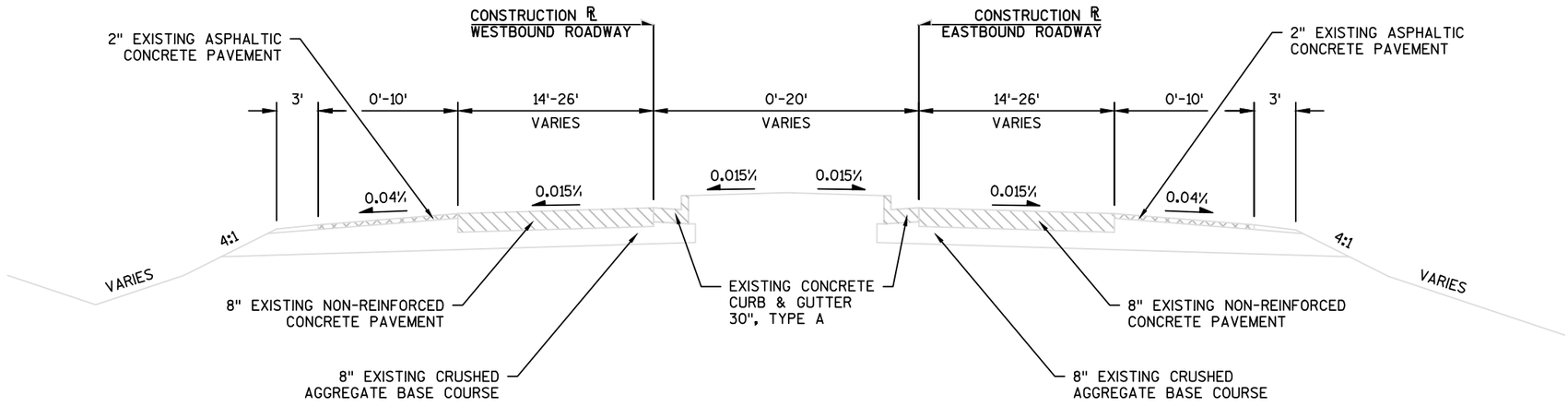
STA 3319+39.21'EBCONN' TO STA 3324+56.13'EBCONN'

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN: EXISTING TYPICAL SECTIONS	SHEET 8	E



EXISTING TYPICAL SECTION STH 96

STA 34+11.00'EB' TO STA 45+00.00'EB'
STA 34+63.15'WB' TO STA 44+96.82'WB'

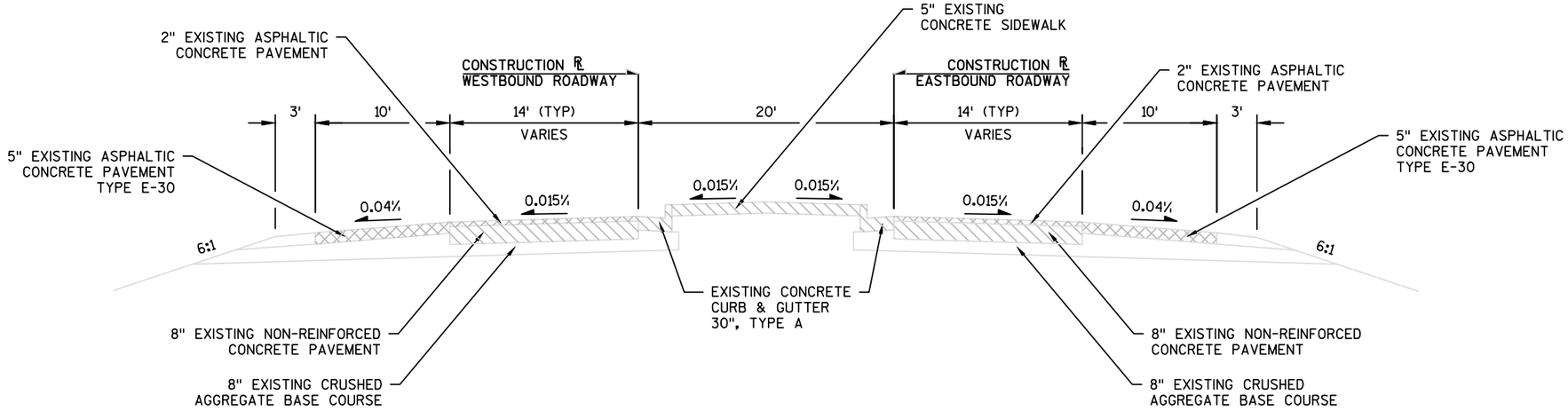


EXISTING TYPICAL SECTION STH 96

STA 45+00.00'EB' TO STA 46+69.17'EB'
STA 52+30.20'EB' TO STA 52+98.00'EB'
STA 44+96.82'WB' TO STA 46+67.34'WB'
STA 52+27.33'WB' TO STA 52+70.24'WB'

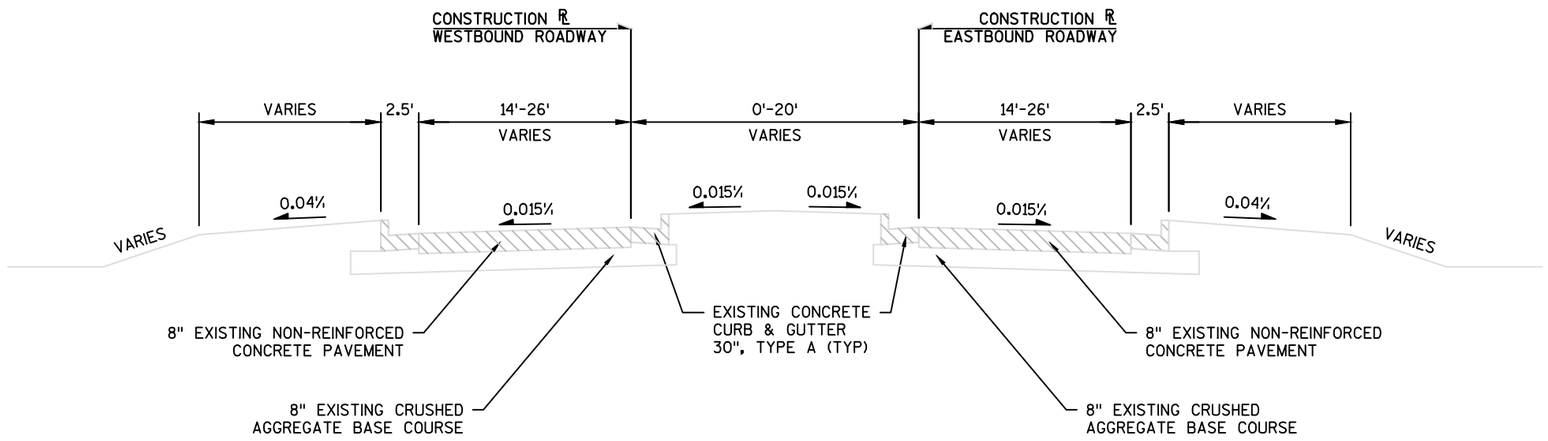
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN: EXISTING TYPICAL SECTIONS	SHEET 9	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\020301_TS_2014.DWG
LAYOUT NAME - 020305_TS 1 IN 10 FT
PLOT DATE : 4/8/2016 11:43 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



EXISTING TYPICAL SECTION STH 96

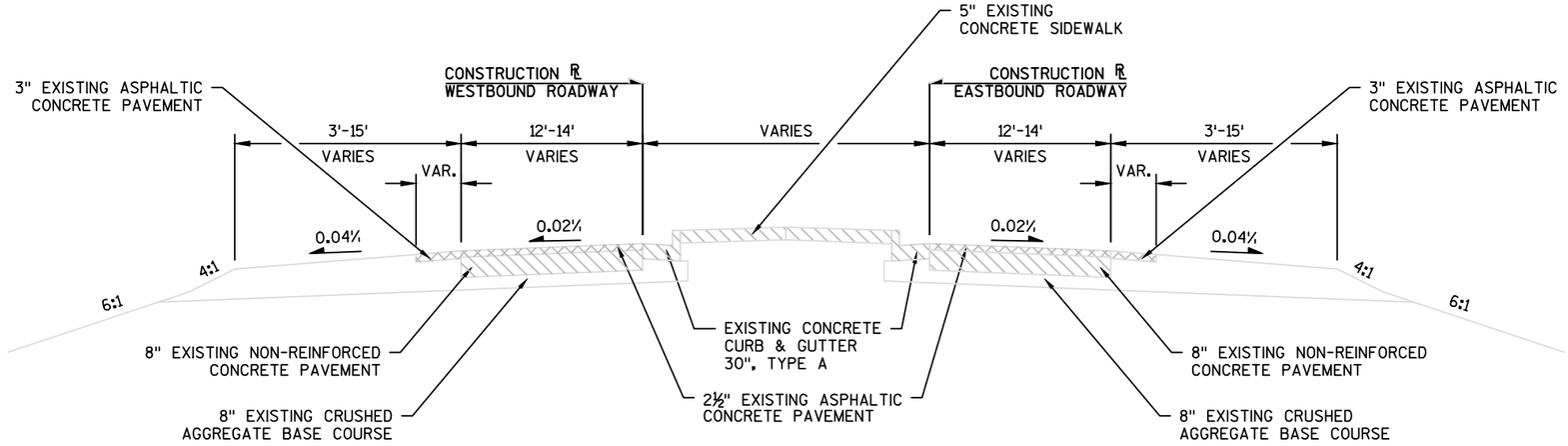
STA 46+69.17'EB' TO STA 52+30.20'EB'
STA 46+67.34'WB' TO STA 52+27.33'WB'



EXISTING TYPICAL SECTION STH 96

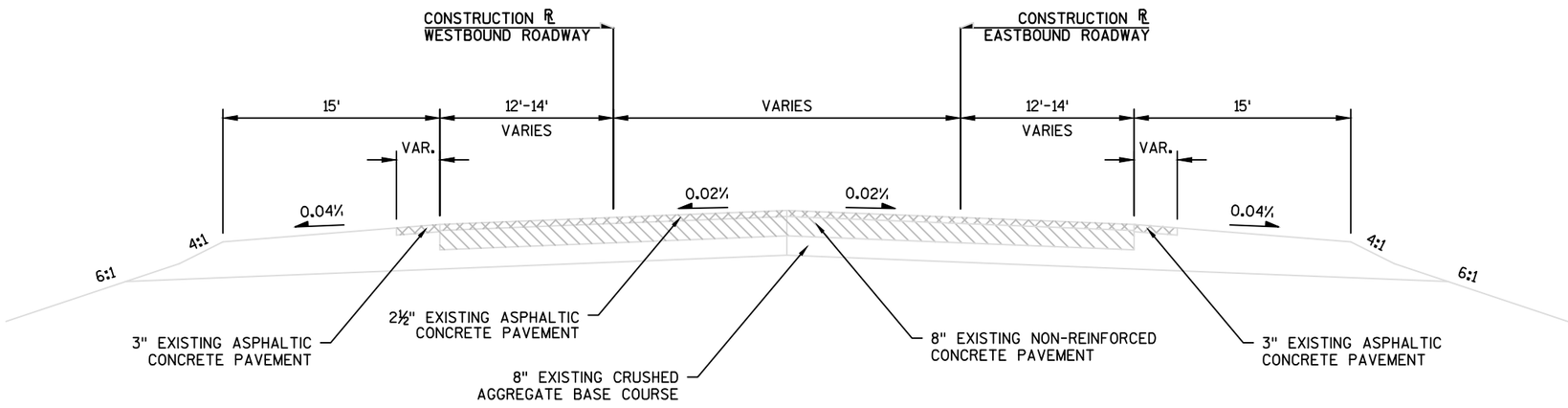
STA 52+98.00'EB' TO STA 57+30.81'EB'
STA 52+70.24'WB' TO STA 57+14.80'WB'

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN: EXISTING TYPICAL SECTIONS	SHEET 10	E



EXISTING TYPICAL SECTION USH 141/CTH MM

STA 36+94.87'MN' TO STA 61+55.00'MN'
STA 40+99.43'MS' TO STA 61+53.58'MS'

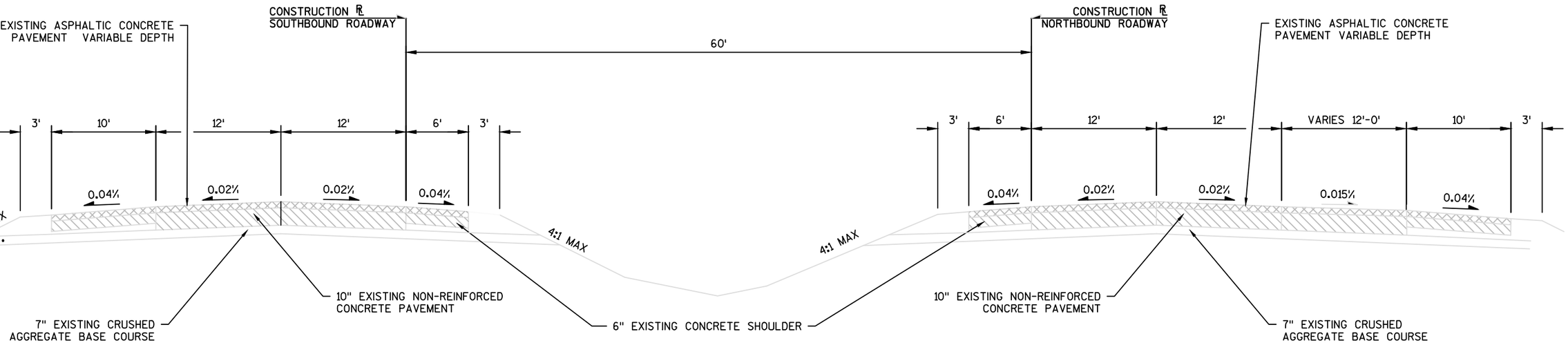


EXISTING TYPICAL SECTION USH 141/CTH MM

STA 61+55.00'MN' TO STA 64+11.71'MN'
STA 61+53.58'MS' TO STA 64+10.49'MS'

PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	PLAN: EXISTING TYPICAL SECTIONS	SHEET 11	E

2



EXISTING TYPICAL SECTION STH 172

STA 430+35.00'WB' - STA 433+94.00'WB'
STA 438+43.00'WB' - STA 445+59.00'WB'
STA 446+80.00'WB' - STA 466+99.00'WB'
STA 468+32.00'WB' - STA 483+97.00'WB'
STA 487+44.00'WB' - STA 497+07.00'WB'
STA 498+47.00'WB' - STA 511+18.00'WB'
STA 525+30.00'WB' - STA 536+20.00'WB'
STA 537+82.00'WB' - STA 543+94.00'WB'

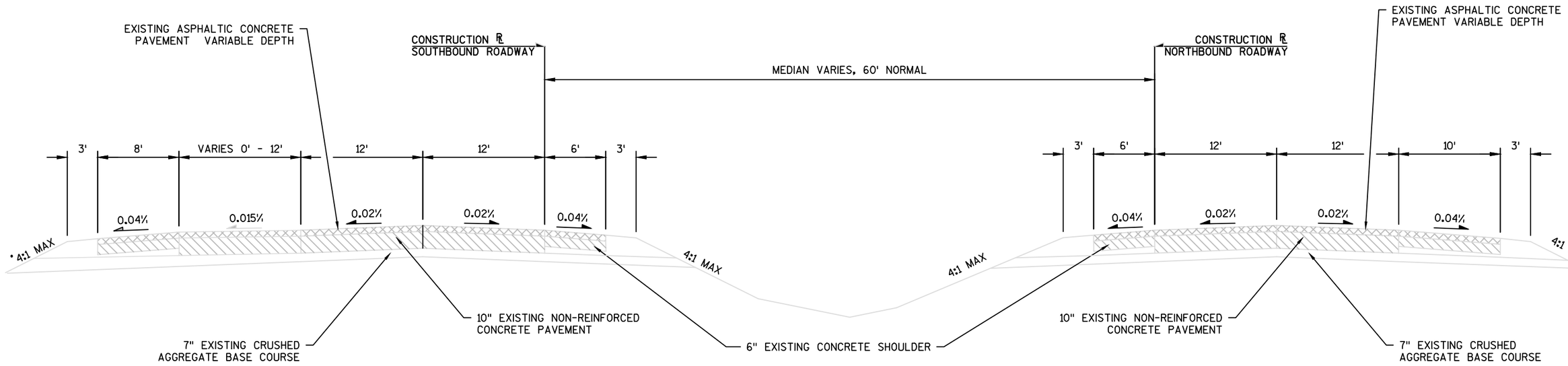
EXISTING TYPICAL SECTION STH 172

STA 430+41.00'EB' - STA 433+20.00'EB'
STA 446+80.00'EB' - STA 465+49.00'EB'

PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	PLAN: EXISTING TYPICAL SECTIONS	SHEET 12	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\020301_TS_2014.DWG
LAYOUT NAME - 020308_TS 1 IN 10 FT
PLOT DATE : 4/8/2016 11:43 AM
PLOT BY : HUBBARD, CHARLES T PLOT NAME :
PLOT SCALE : 0.099581
WISDOT/CADDS SHEET 42

2



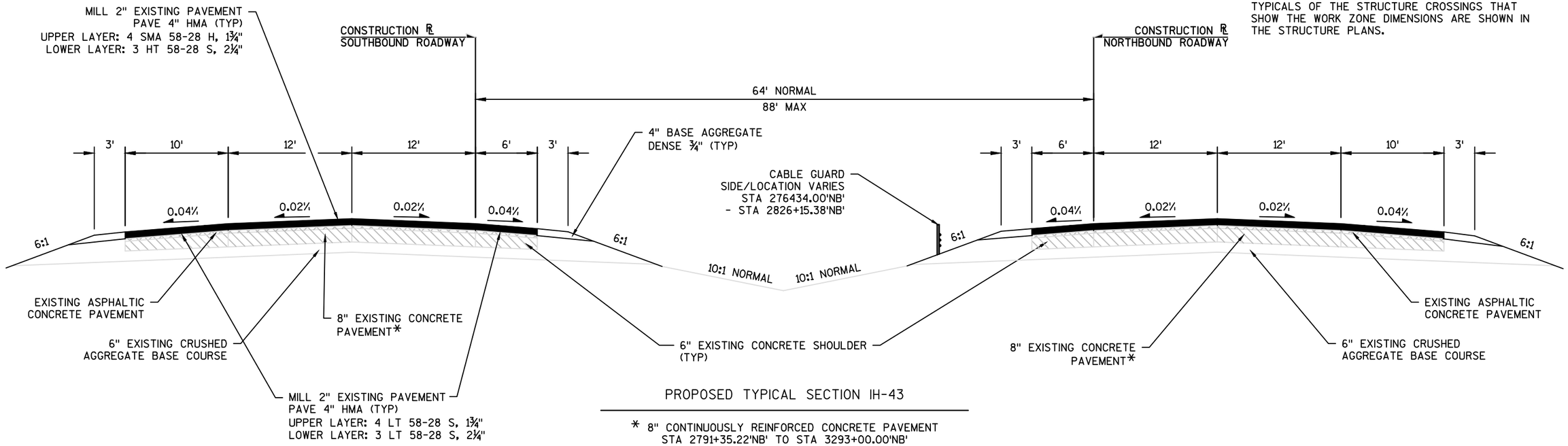
EXISTING TYPICAL SECTION STH 172

STA 543+94.00'WB' - STA 549+38.00'WB'
STA 553+86.00'WB' - STA 568+86.00'WB'
STA 570+32.00'WB' - STA 580+99.00'WB'

EXISTING TYPICAL SECTION STH 172

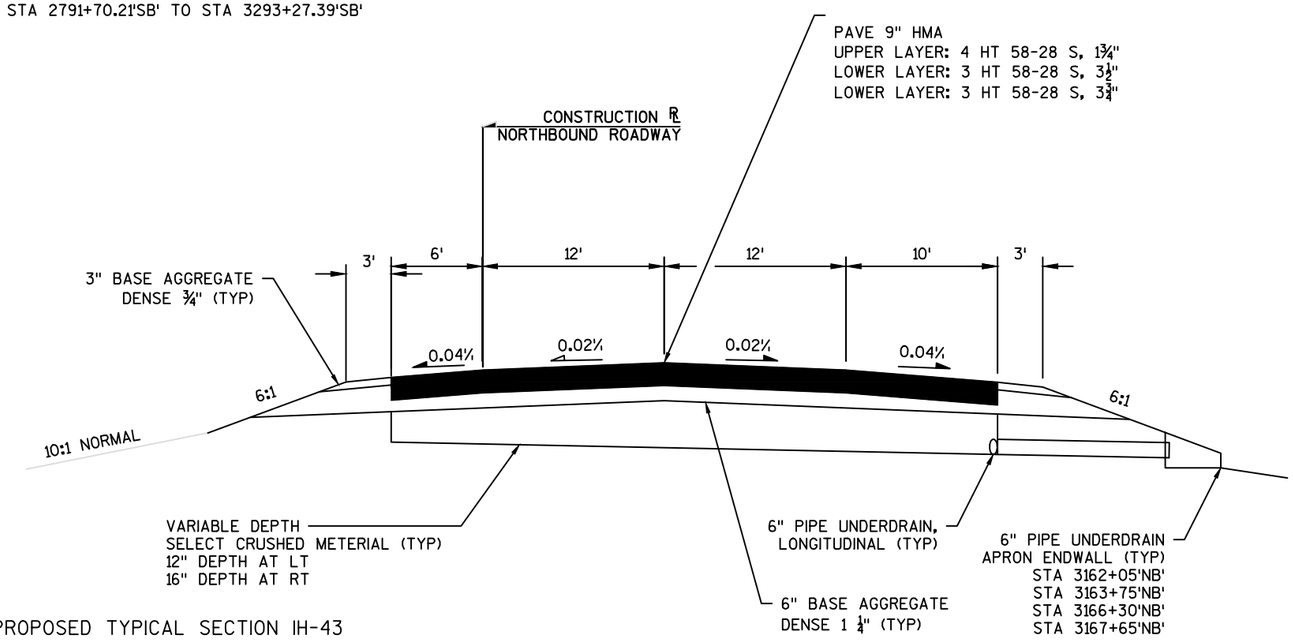
STA 465+49.00'EB' - STA 466+72.00'EB'
STA 468+11.00'EB' - STA 483+97.00'EB'
STA 487+44.00'EB' - STA 497+16.00'EB'
STA 831+26.00'EB' - STA 518+69.00'EB'
STA 523+10.00'EB' - STA 536+13.00'EB'
STA 537+75.00'EB' - STA 549+62.00'EB'
STA 560+79.00'EB' - STA 568+99.00'EB'
STA 570+45.00'EB' - STA 584+55.00'EB'

NOTE: CROSS SECTIONS FOR THE MAINLINE TYPICALS OF THE STRUCTURE CROSSINGS THAT SHOW THE WORK ZONE DIMENSIONS ARE SHOWN IN THE STRUCTURE PLANS.



PROPOSED TYPICAL SECTION IH-43

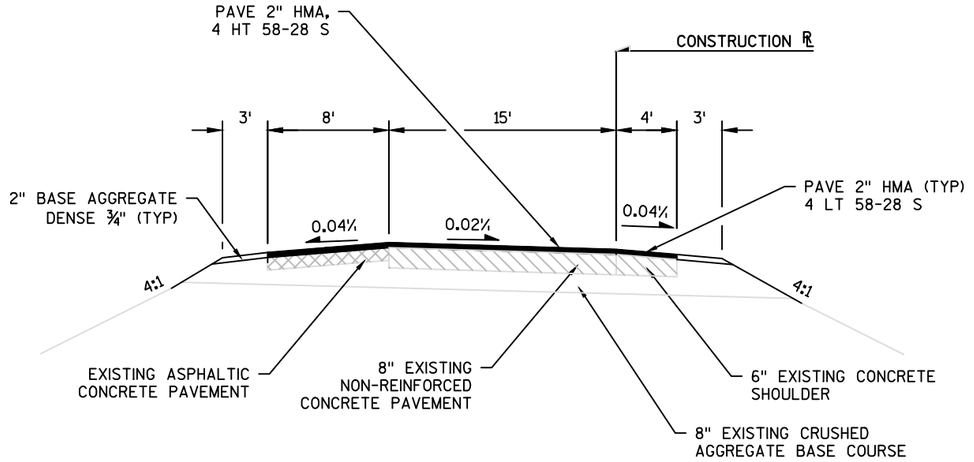
* 8" CONTINUOUSLY REINFORCED CONCRETE PAVEMENT
STA 2791+35.22'NB' TO STA 3293+00.00'NB'
STA 2791+70.21'SB' TO STA 3293+27.39'SB'



PROPOSED TYPICAL SECTION IH-43

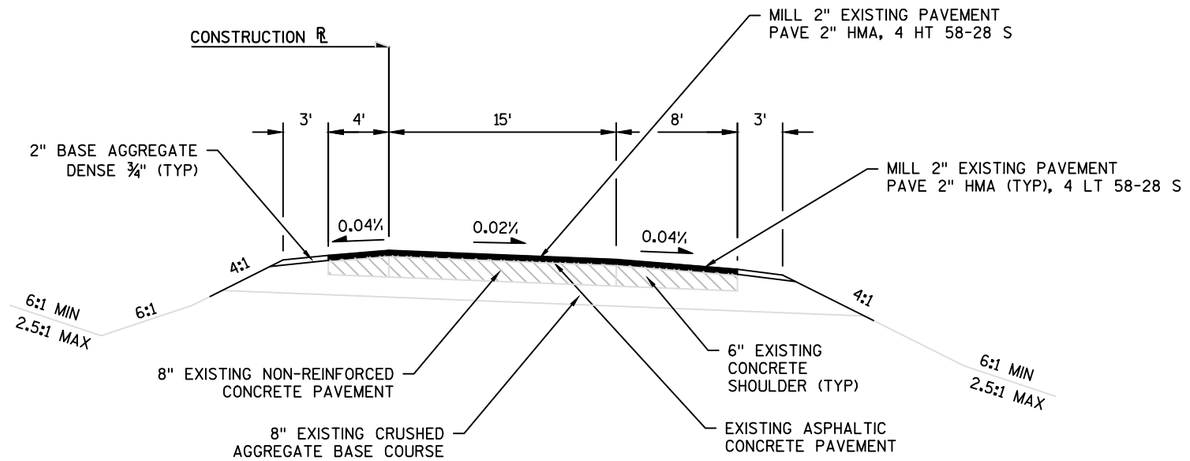
STA 3162+00.00'NB' TO STA 3169+00.00'NB'

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN: PROPOSED TYPICAL SECTIONS	SHEET 14	E



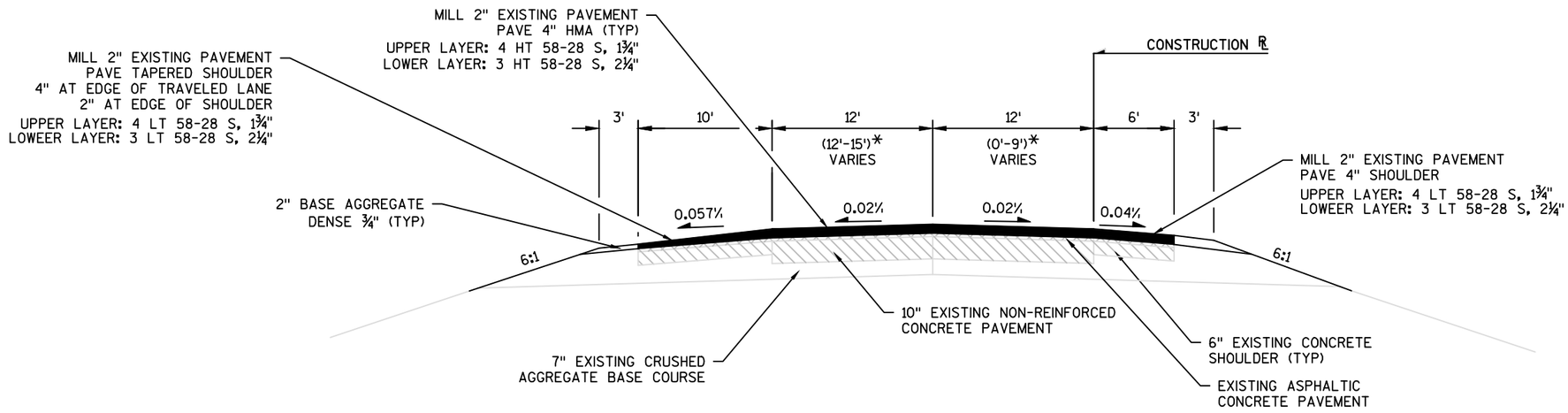
PROPOSED TYPICAL SECTION STH 96 RAMPS

STA 2786+18.26'NE' TO STA 2801+36.39'NE'
STA 2788+87.59'NW' TO STA 2803+59.10'NW'
STA 2771+77.48'SE' TO STA 2785+97.94'SE'
STA 2771+43.43'SW' TO STA 2788+68.95'SW'



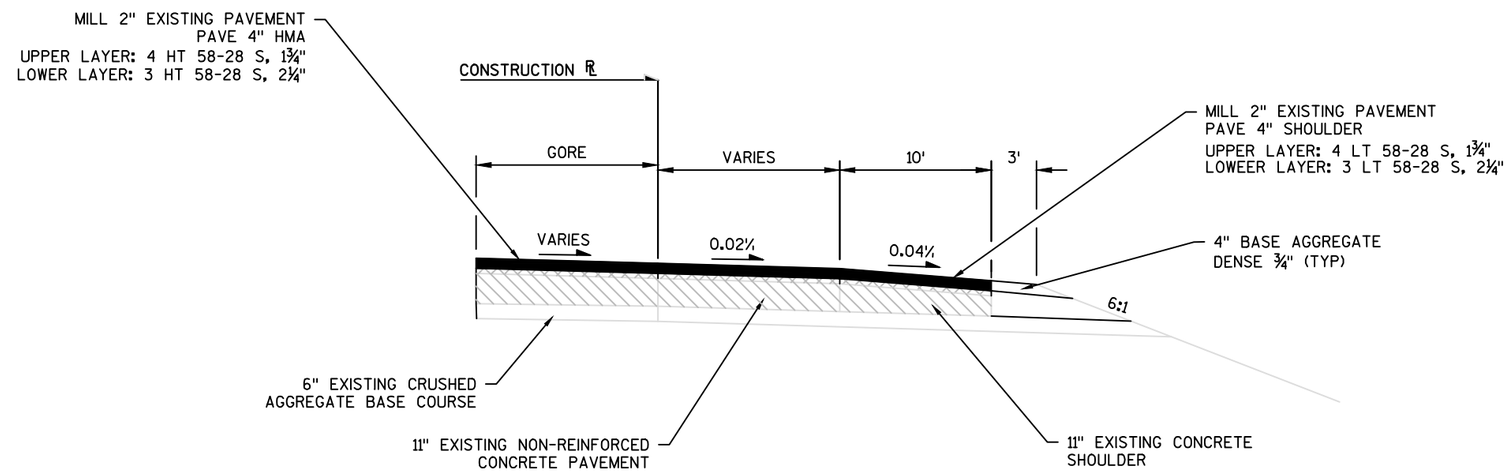
PROPOSED TYPICAL SECTION CTH MM RAMPS

STA 3152+28.16'NE' TO STA 3166+71.63'NE'
STA 3166+34.24'NW' TO STA 3177+69.75'NW'
STA 3163+12.27'SW' TO STA 3176+06.98'SW'
STA 3152+17.24'SE' TO STA 3163+15.24'SE'



PROPOSED TYPICAL SECTION STH 172 RAMPS

STA 3277+99.80'NC' TO STA 3283+23.01'NC' (LOOKING DOWN STATION)

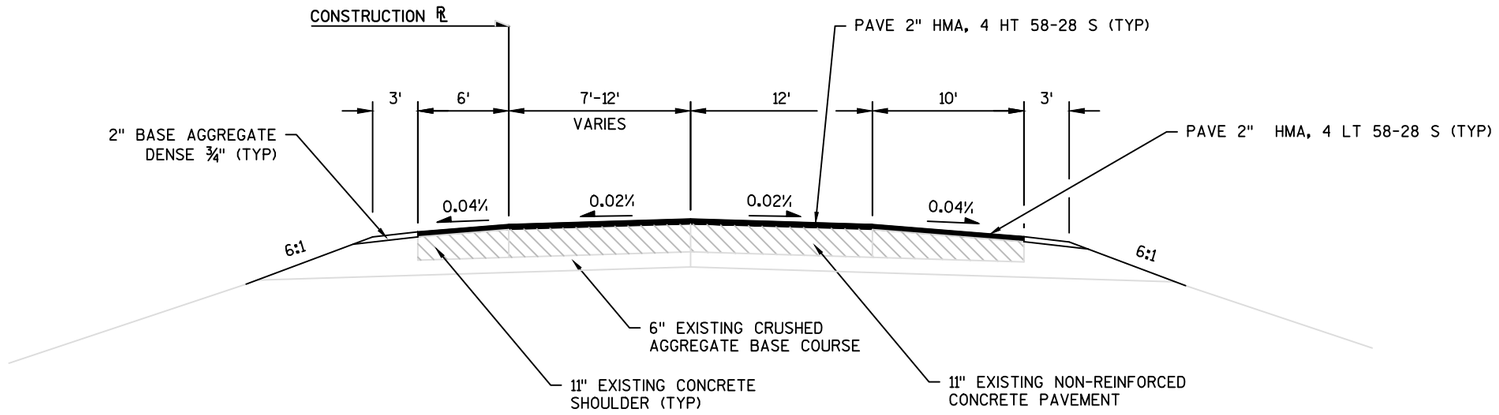


PROPOSED TYPICAL SECTION STH 172 EB TO IH 43 SB

STA 3283+87.48'EBCONN' TO STA 3284+56.10'EBCONN'

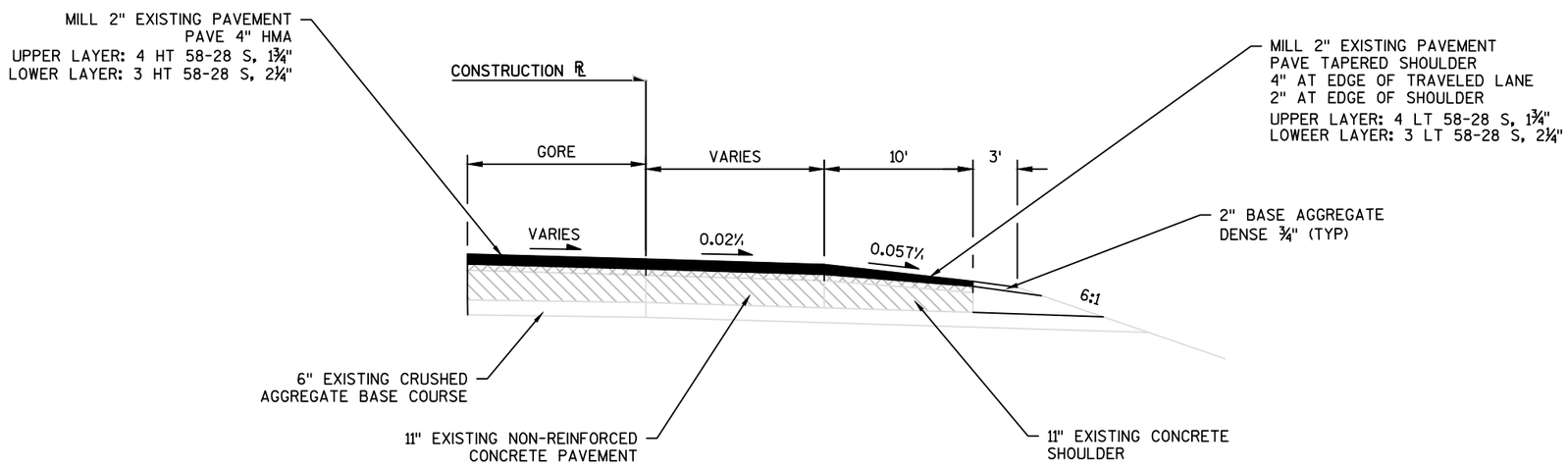
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN: PROPOSED TYPICAL SECTIONS	SHEET 16	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\020301_TS_2014_PROPOSED.DWG
LAYOUT NAME - 020303_TS PROPOSED 1 IN 10 FT
PLOT DATE : 8/25/2016 10:26 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



PROPOSED TYPICAL SECTION STH 172 EB TO IH 43 SB

STA 3284+56.10'EBCONN' TO STA 3319+39.21'EBCONN'

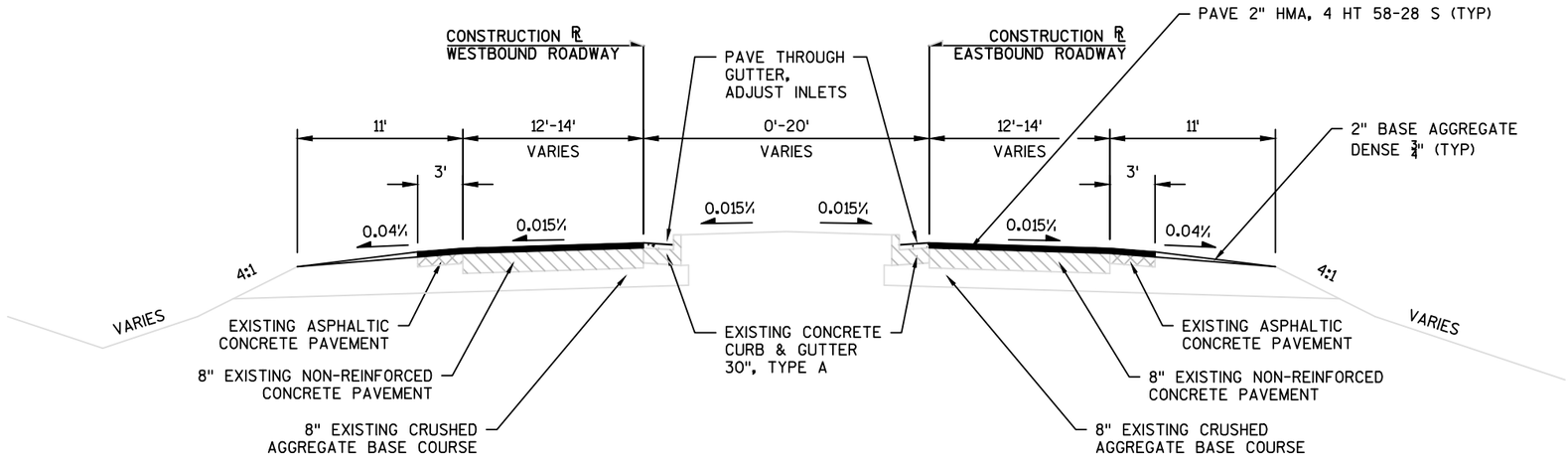


PROPOSED TYPICAL SECTION STH 172 EB TO IH 43 SB

STA 3319+39.21'EBCONN' TO STA 3324+56.13'EBCONN'

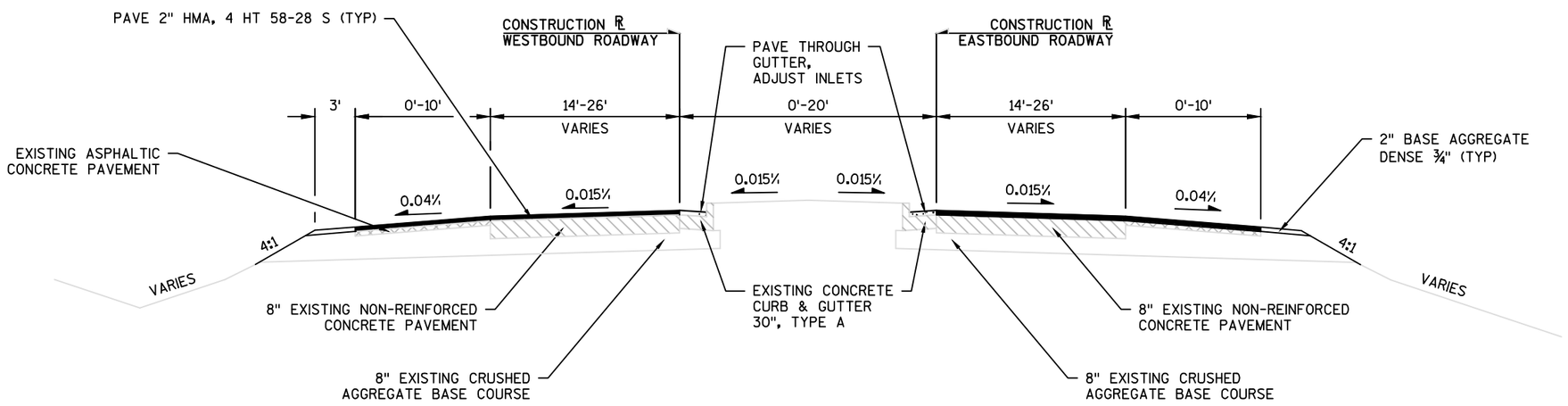
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN: PROPOSED TYPICAL SECTIONS	SHEET 17	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\020301_TS_2014_PROPOSED.DWG
LAYOUT NAME - 020304_TS PROPOSED 1 IN 10 FT
PLOT DATE : 8/25/2016 10:26 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



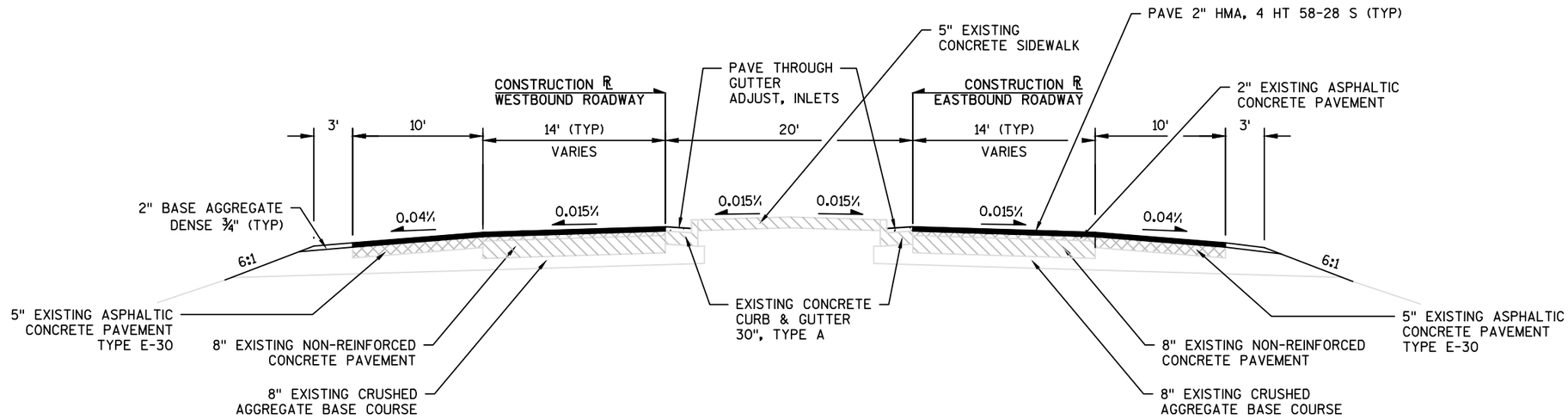
PROPOSED TYPICAL SECTION STH 96

STA 34+11.00'EB' TO STA 45+00.00'EB'
STA 34+63.15'WB' TO STA 44+96.82'WB'



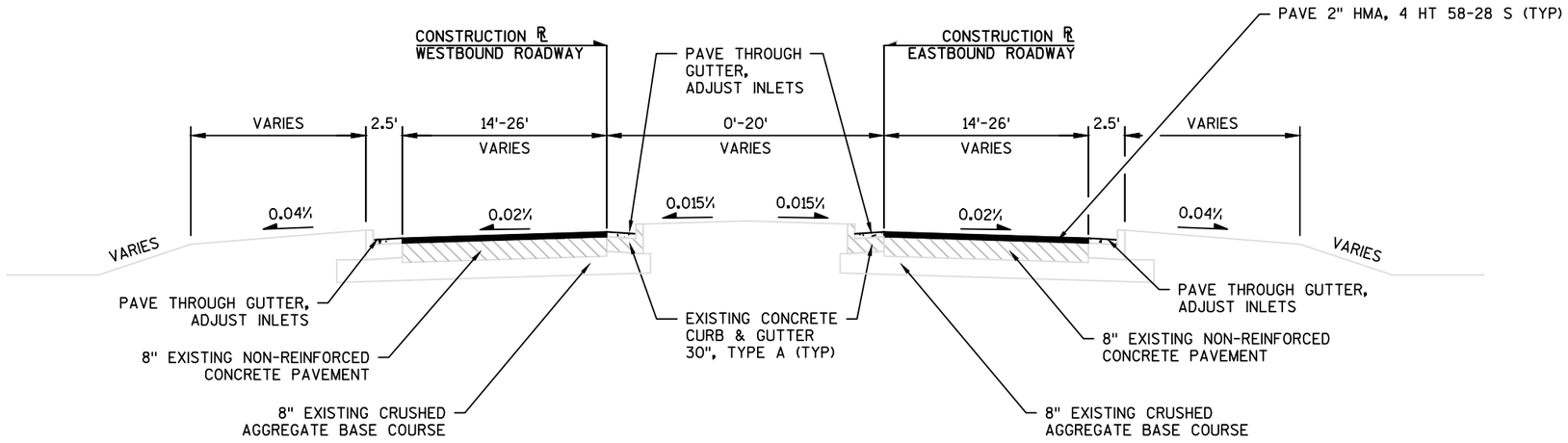
PROPOSED TYPICAL SECTION STH 96

STA 45+00.00'EB' TO STA 46+69.17'EB'
STA 52+30.20'EB' TO STA 52+98.00'EB'
STA 44+96.82'WB' TO STA 46+67.34'WB'
STA 52+27.33'WB' TO STA 52+70.24'WB'



PROPOSED TYPICAL SECTION STH 96

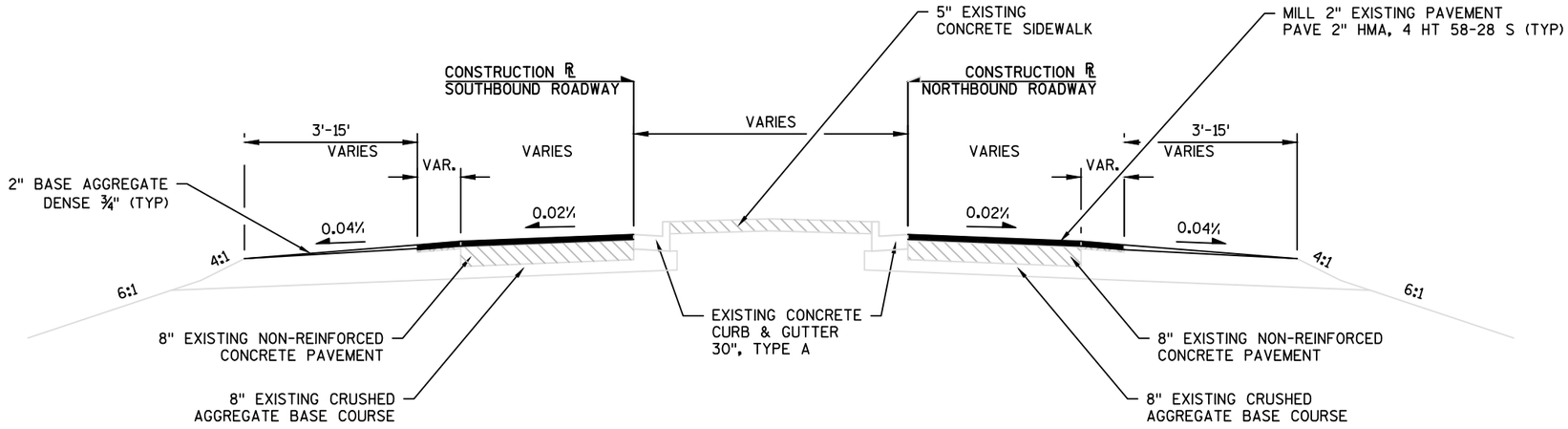
STA 46+69.17'EB' TO STA 52+30.20'EB'
STA 46+67.34'WB' TO STA 52+27.33'WB'



PROPOSED TYPICAL SECTION STH 96

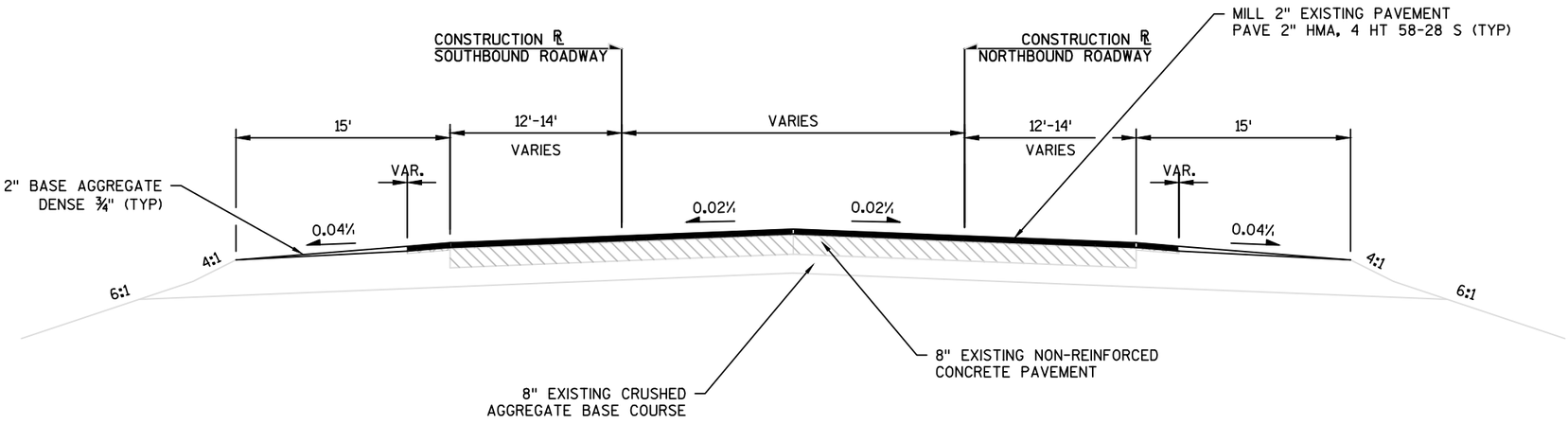
STA 52+98.00'EB' TO STA 57+30.81'EB'
STA 52+70.24'WB' TO STA 57+14.80'WB'

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN: PROPOSED TYPICAL SECTIONS	SHEET 19	E



PROPOSED TYPICAL SECTION USH 141/CTH MM

STA 36+94.87'NB' TO STA 61+55.00'NB'
STA 40+99.43'SB' TO STA 61+53.58'SB'



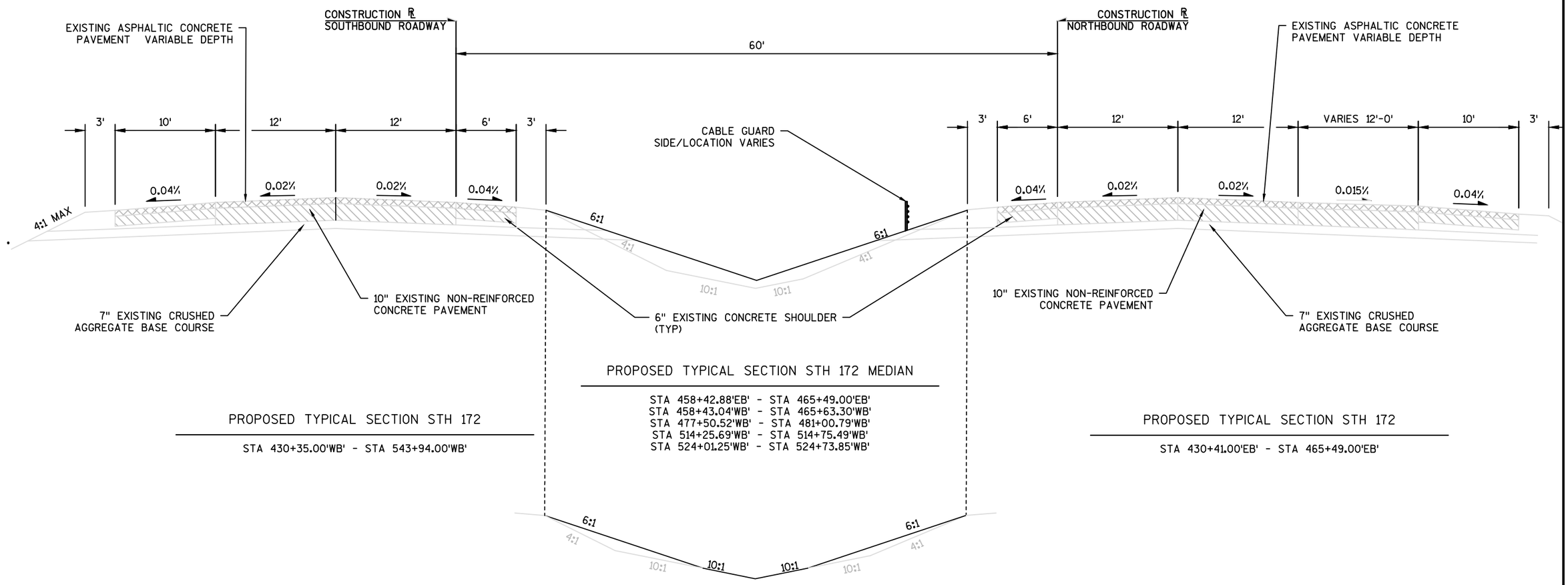
PROPOSED TYPICAL SECTION USH 141/CTH MM

STA 61+55.00'NB' TO STA 64+11.71'NB'
STA 61+53.58'SB' TO STA 64+10.49'SB'

PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	PLAN: PROPOSED TYPICAL SECTIONS	SHEET 20	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\020301_TS_2014_PROPOSED.DWG
LAYOUT NAME - 020307_TS PROPOSED 1 IN 10 FT
PLOT DATE : 8/25/2016 10:26 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 0.099672
WISDOT/CADDS SHEET 42

2



PROPOSED TYPICAL SECTION STH 172

STA 430+35.00'WB' - STA 543+94.00'WB'

PROPOSED TYPICAL SECTION STH 172 MEDIAN

STA 458+42.88'EB' - STA 465+49.00'EB'
STA 458+43.04'WB' - STA 465+63.30'WB'
STA 477+50.52'WB' - STA 481+00.79'WB'
STA 514+25.69'WB' - STA 514+75.49'WB'
STA 524+01.25'WB' - STA 524+73.85'WB'

PROPOSED TYPICAL SECTION STH 172

STA 430+41.00'EB' - STA 465+49.00'EB'

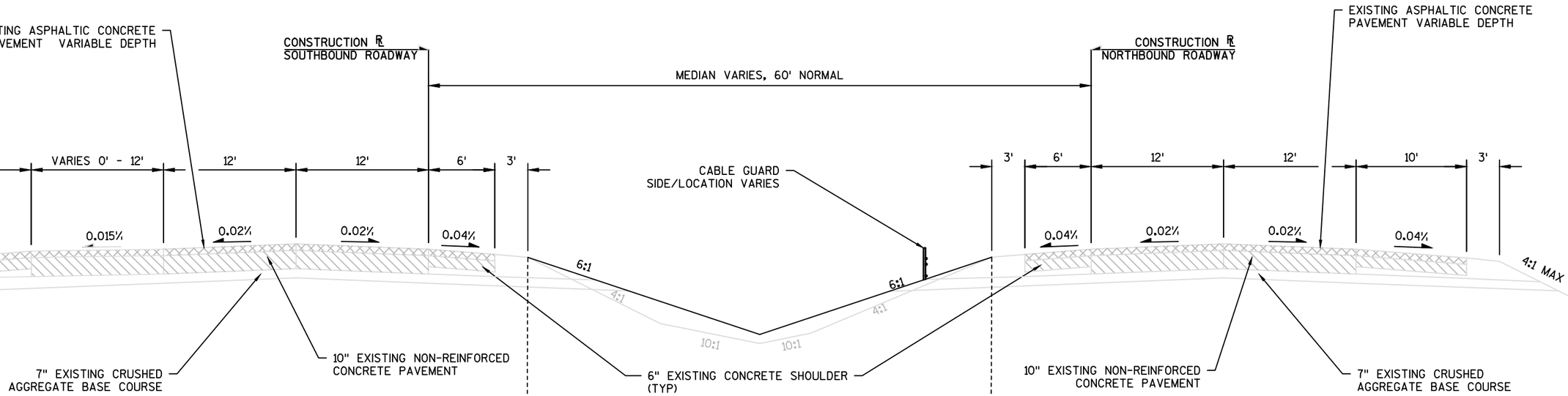
PROPOSED TYPICAL SECTION STH 172 MEDIAN

STA 430+41.00'EB' - STA 456+54.31'EB'
STA 430+35.00'WB' - STA 456+53.73'WB'
STA 470+00.34'WB' - STA 477+50.52'WB'
STA 481+00.79'WB' - STA 504+50.58'WB'
STA 506+00.65'WB' - STA 514+25.69'WB'

STA 514+75.49'WB' - STA 524+01.25'WB'
STA 524+73.85'WB' - STA 543+94.00'WB'

PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	PLAN: PROPOSED TYPICAL SECTIONS	SHEET 21	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\020301_TS_2014_PROPOSED.DWG
LAYOUT NAME - 020308_TS PROPOSED 1 IN 10 FT
PLOT DATE : 8/25/2016 10:26 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 0.099106
WISDOT/CADDS SHEET 42



PROPOSED TYPICAL SECTION STH 172

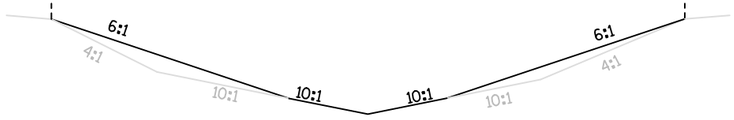
STA 543+94.00'WB' -STA 580+99.00'WB'

PROPOSED TYPICAL SECTION STH 172 MEDIAN

STA 465+49.00'EB' - STA 465+62.73'EB'
STA 477+49.90'EB' - STA 481+00.00'EB'
STA 514+25.03'EB' - STA 514+75.00'EB'
STA 524+00.00'EB' - STA 524+73.28'EB'
STA 561+50.00'EB' - STA 562+51.16'EB'
STA 565+87.92'EB' - STA 565+99.87'EB'
STA 561+26.99'WB' - STA 562+26.46'WB'
STA 565+87.79'WB' - STA 566+31.27'WB'

PROPOSED TYPICAL SECTION STH 172

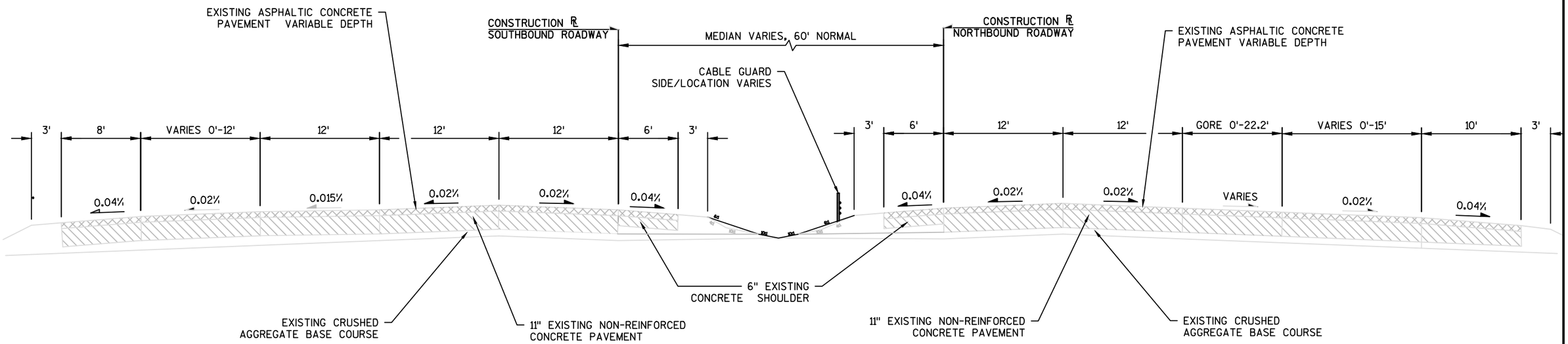
STA 465+49.00'EB' - STA 584+55.00'EB'



PROPOSED TYPICAL SECTION STH 172 MEDIAN

STA 470+00.00'EB' - STA 477+49.90'EB'
STA 481+00.00'EB' - STA 504+49.90'EB'
STA 506+00.00'EB' - STA 514+25.03'EB'
STA 514+75.00'EB' - STA 524+00.00'EB'
STA 524+73.28'EB' - STA 561+50.00'EB'
STA 562+51.16'EB' - STA 565+06.42'EB'
STA 565+99.87'EB' - STA 584+55.00'EB'
STA 543+94.00'WB' - STA 561+26.99'WB'
STA 562+26.46'WB' - STA 565+06.26'WB'
STA 566+31.27'WB' - STA 580+99.00'WB'

PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	PLAN: PROPOSED TYPICAL SECTIONS	SHEET 22	E



PROPOSED TYPICAL SECTION STH 172

STA 580+99.00'WB' - STA 587+31.26'WB'

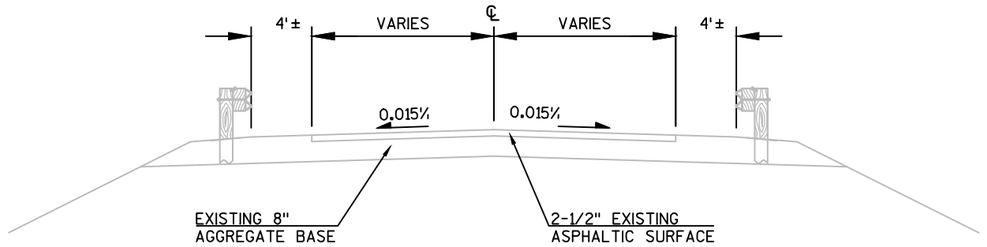
PROPOSED TYPICAL SECTION STH 172

STA 584+55.00'EB' - STA 587+24.80'EB'

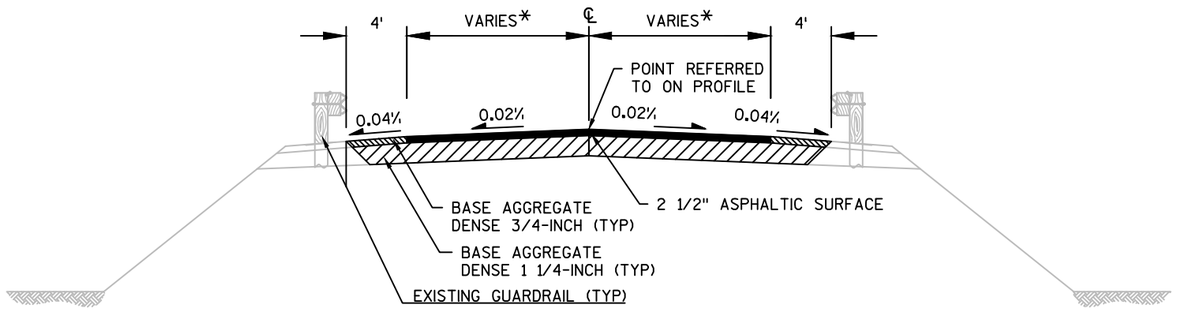
PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	PLAN: PROPOSED TYPICAL SECTIONS	SHEET 23	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\020301_TS_2014_PROPOSED.DWG
LAYOUT NAME - 020310_TS PROPOSED 1 IN 10 FT

PLOT DATE : 8/25/2016 10:26 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



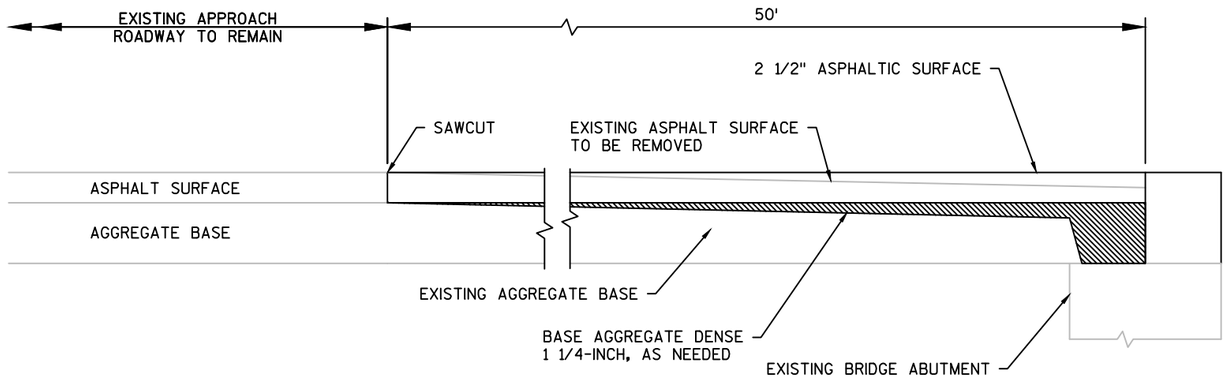
EXISTING TYPICAL SECTION



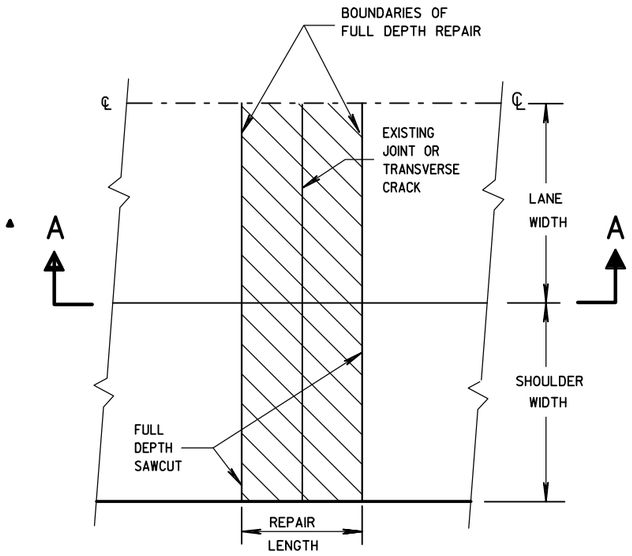
FINISHED TYPICAL SECTION

THIS SHEET APPLIES TO THE FOLLOWING ROADS AT OVERPASS BRIDGES OF IH 43:
NORTH AVENUE
LANGES CORNERS ROAD
ALLOUEZ AVENUE

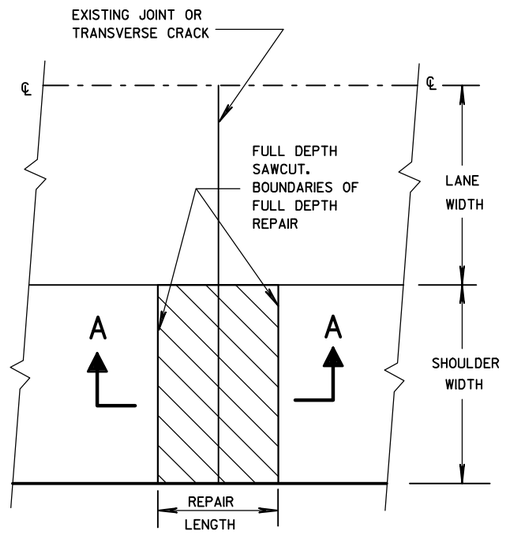
* TAPER FROM FULL WIDTH BETWEEN BARRIERS AT THE BRIDGE WINGWALLS TO MATCH EXISTING PAVED WIDTH AT THE PROJECT LIMITS.



TYPICAL APPROACH DETAIL



PLAN VIEW
(SHOULDER WITH LANE REPAIR)



PLAN VIEW
(SHOULDER REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL
(SEE NOTE)

NOTES

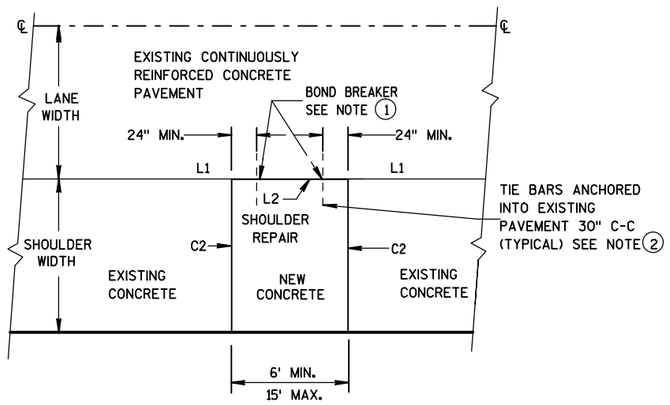
SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS ADJACENT TRANSVERSE JOINT OR CRACK.

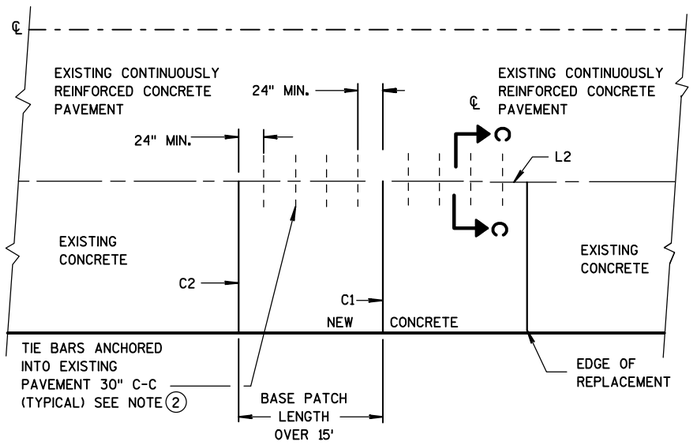
THE LENGHTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS OVERLAID AFTER REPAIRING.

(3) DOWEL BARS MIGHT NOT EXIST.

2



PLAN VIEW
SHOULDER CONCRETE BASE PATCH
15' MAXIMUM LENGTH

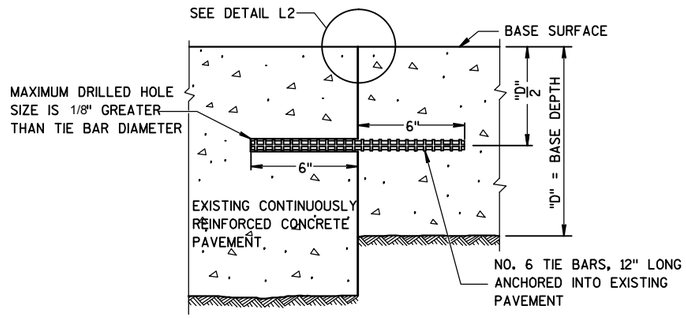


PLAN VIEW
SHOULDER CONCRETE BASE PATCH
GREATER THAN 15' IN LENGTH

NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER FOR SHOULDER BASE PATCHES UP TO 15 FEET IN LENGTH.

(2) WITH THE APPROVAL OF THE ENGINEER, FOR SHOULDER PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.



SECTION C-C

TIE BARS ANCHORED
INTO EXISTING PAVEMENT

NOTES

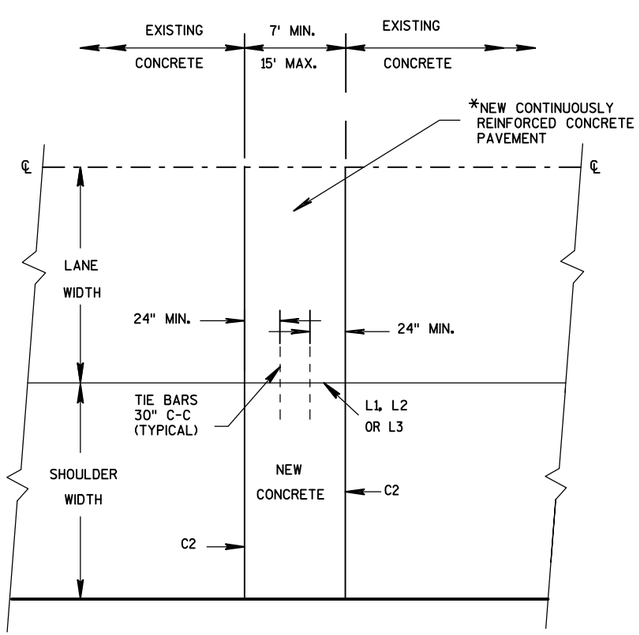
CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

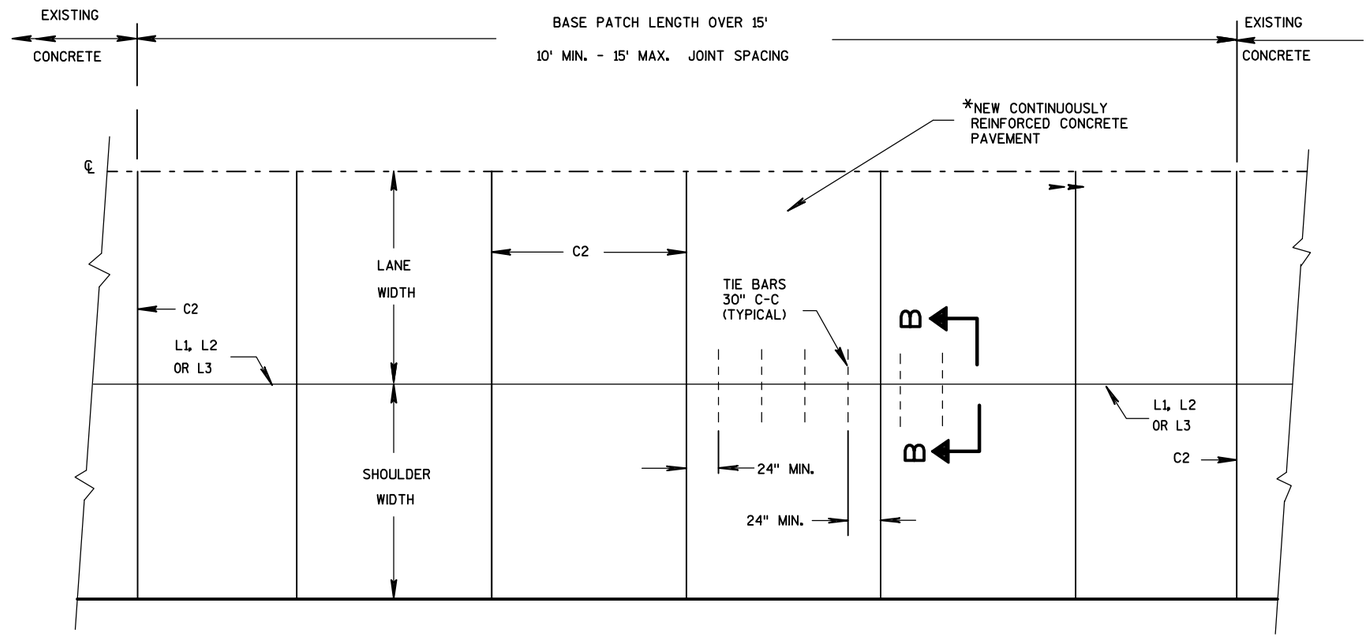
ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 24 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

* SEE SDD 13A7 CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPAIR AND REPLACEMENT FOR MORE DETAILS OF REINFORCEMENT LAYOUT.

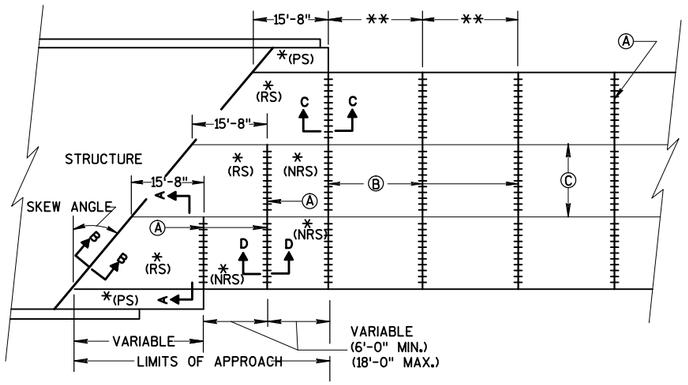


PLAN VIEW
SHOULDER WITH LANE CONCRETE BASE PATCH
15' MAXIMUM LENGTH

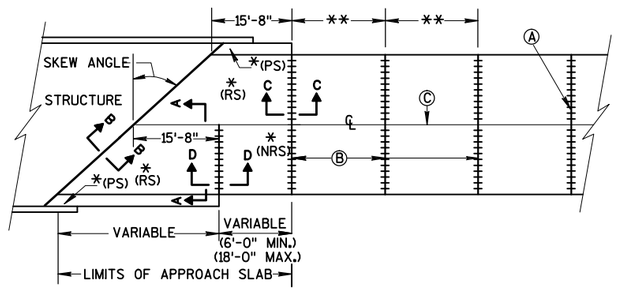


PLAN VIEW
SHOULDER WITH LANE CONCRETE BASE PATCH
GREATER THAN 15' IN LENGTH

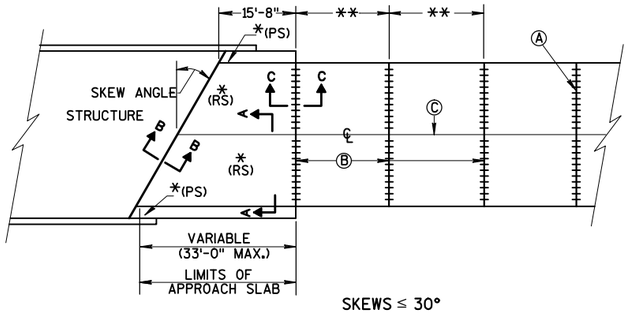
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CONSTRUCTION DETAILS - IH 43 BASE PATCHING	SHEET 26	E



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS > 30°
(PAVEMENT WIDTH ≤ 30')



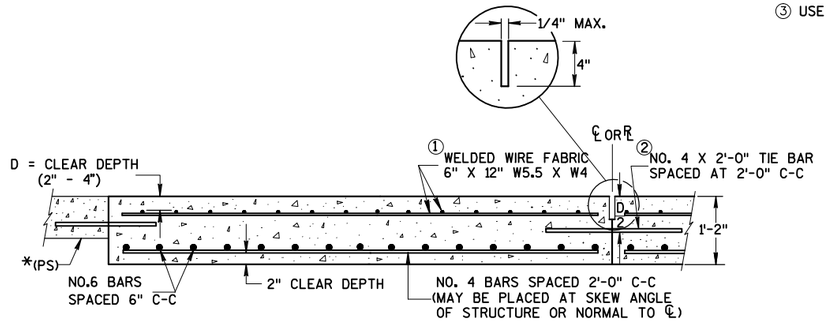
SKEWS ≤ 30°
(PAVEMENT WIDTH ≤ 30')

APPROACH SLAB AND ADJACENT PAVEMENT

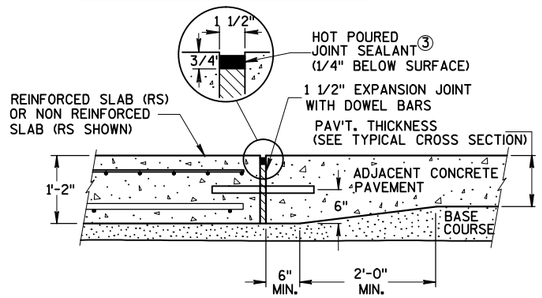
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER: CONCRETE PAVEMENT, OR CONCRETE SURFACE DRAIN (SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

**STANDARD TRANSVERSE JOINT SPACING (SEE SDD 13C4, SDD 13C11, & SDD 13C13)

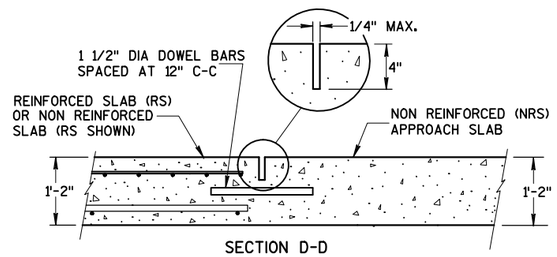
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄
Ⓑ 1 1/2" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄
Ⓒ STANDARD LONGITUDINAL JOINT AND TIE BARS.



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

NOTES

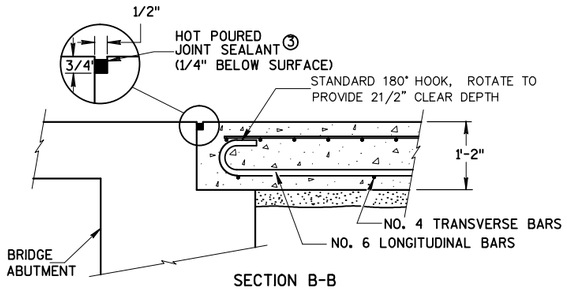
APPROACH SLABS ABUTTING AN HMA PAVEMENT OVER BASE COURSE DO NOT NEED TO BE DOWELED.

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.

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.

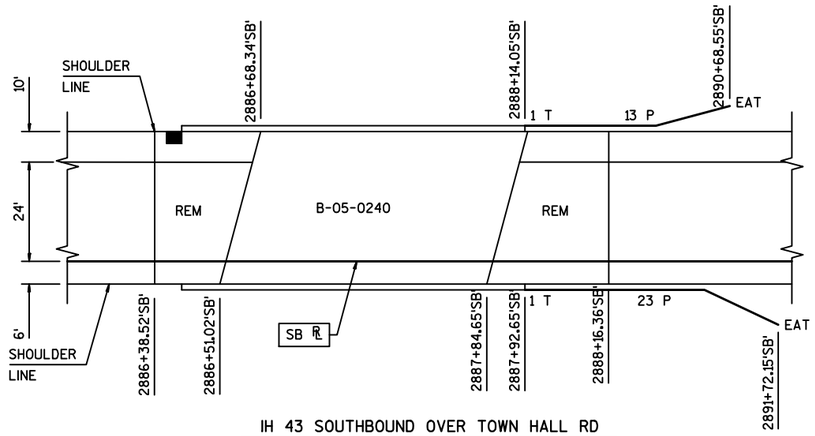
② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

③ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

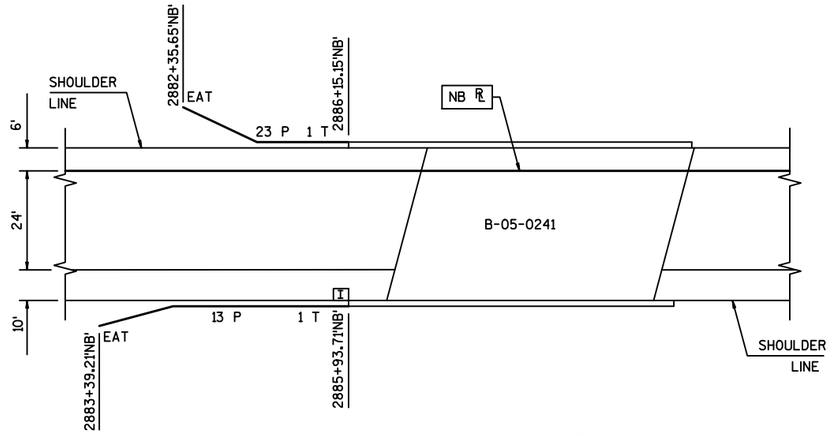


SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT

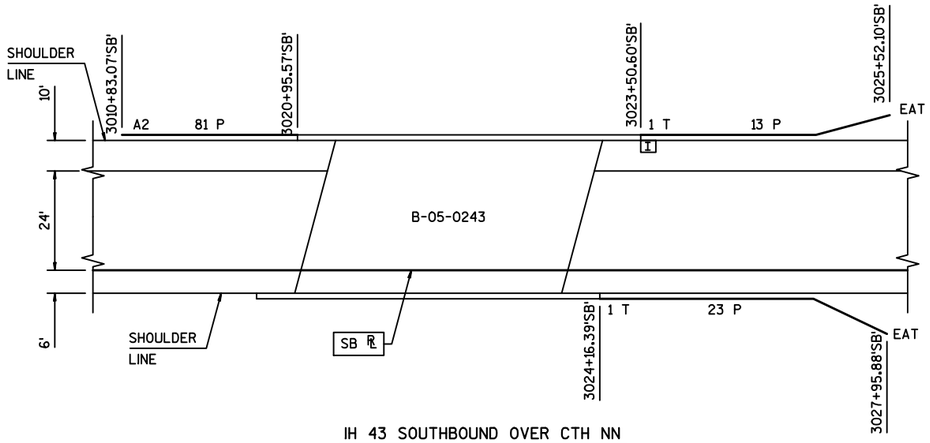
CONCRETE PAVEMENT
APPROACH SLAB



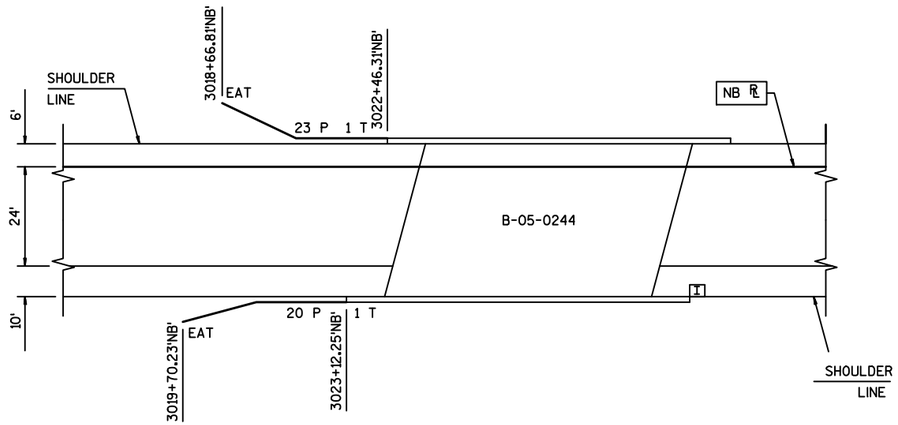
IH 43 SOUTHBOUND OVER TOWN HALL RD



IH 43 NORTHBOUND OVER TOWN HALL RD



IH 43 SOUTHBOUND OVER CTH NN

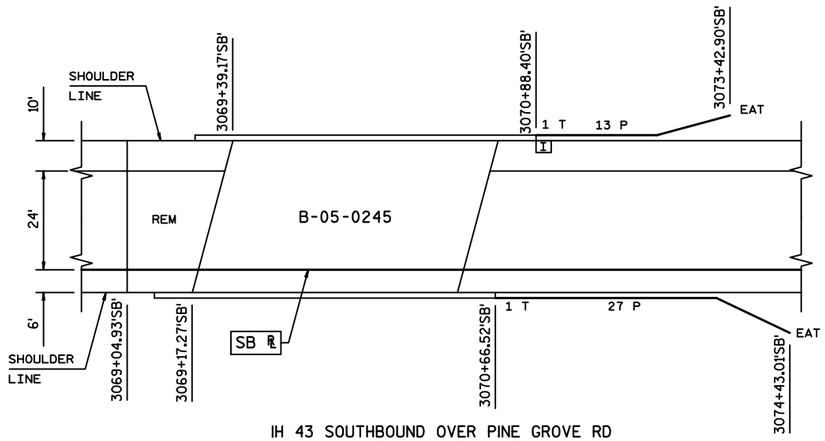


IH 43 NORTHBOUND OVER CTH NN

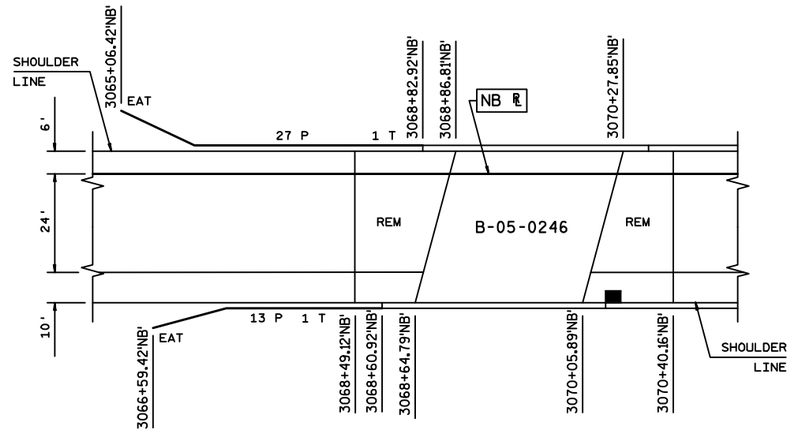
LEGEND

- ■ = REMOVE AND REPLACE INLET
- I = ADJUSTING/RECONSTRUCTING INLET
- REM = REMOVE AND REPLACE CONCRETE APPROACH SLAB AND SHOULDERS
- EAT = MGS ENERGY ABSORBING TERMINAL
- P = MGS PANELS AT 12.5 FT
- T = MGS THRIE BEAM TRANSITION
- A2 = MGS END TREATMENT, TYPE 2

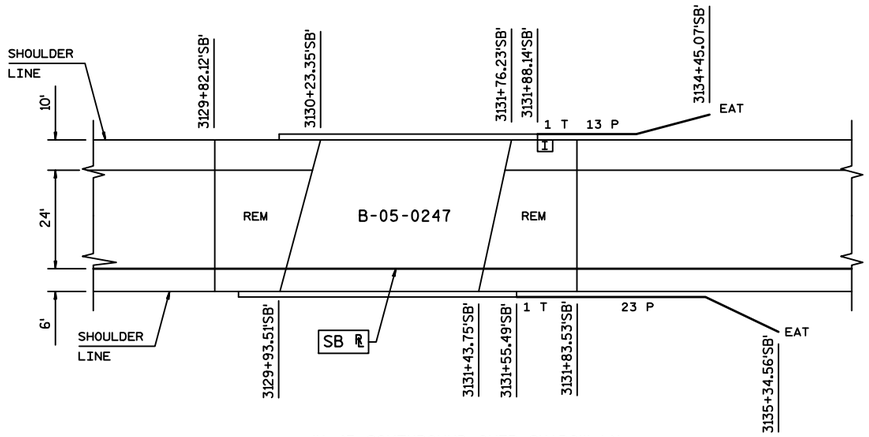
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CONSTRUCTION DETAILS	SHEET 28 E



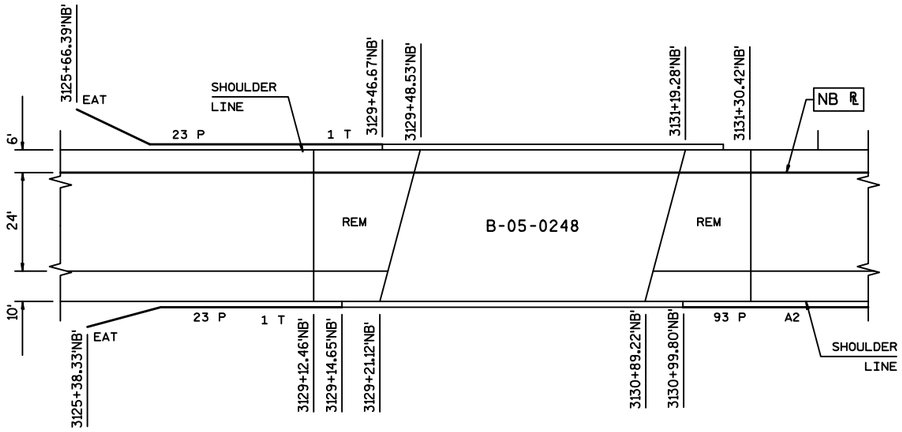
IH 43 SOUTHBOUND OVER PINE GROVE RD



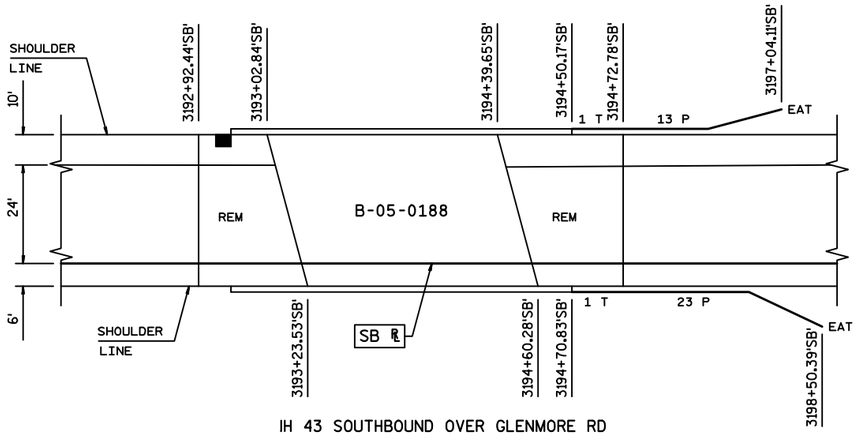
IH 43 NORTHBOUND OVER PINE GROVE RD



IH 43 SOUTHBOUND OVER SHADOW LN



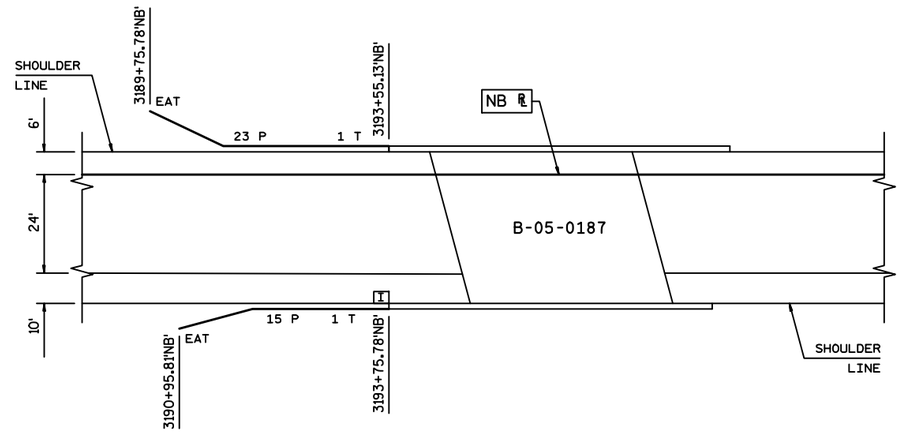
IH 43 NORTHBOUND OVER SHADOW LN



IH 43 SOUTHBOUND OVER GLENMORE RD

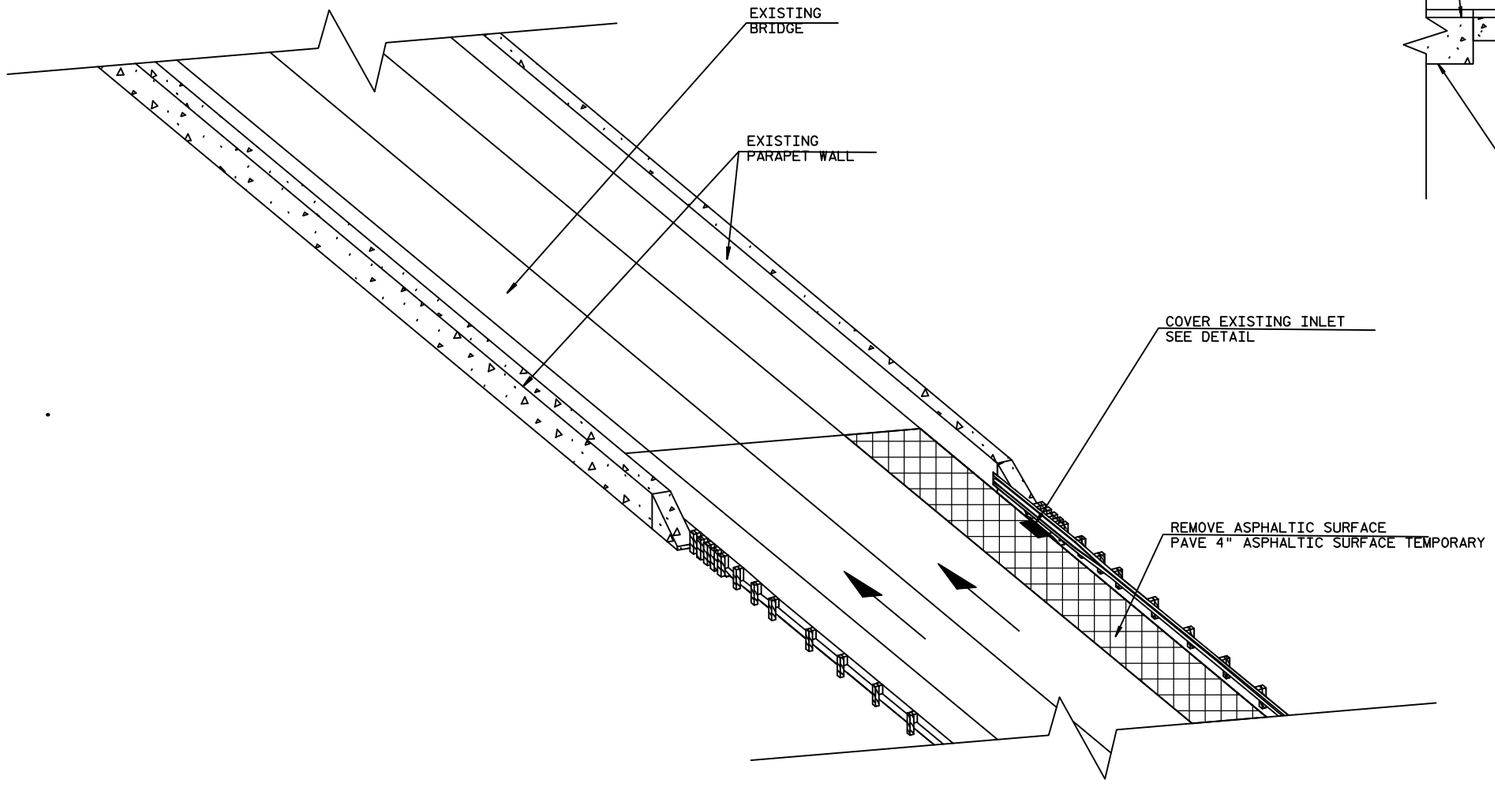
LEGEND

- ■ REMOVE AND REPLACE INLET
- I ADJUSTING/RECONSTRUCTING INLET
- REM = REMOVE AND REPLACE CONCRETE APPROACH SLAB AND SHOULDERS
- EAT = MGS ENERGY ABSORBING TERMINAL
- P = MGS PANELS AT 12.5 FT
- T = MGS THRIE BEAM TRANSITION
- A2 = MGS END TREATMENT, TYPE 2

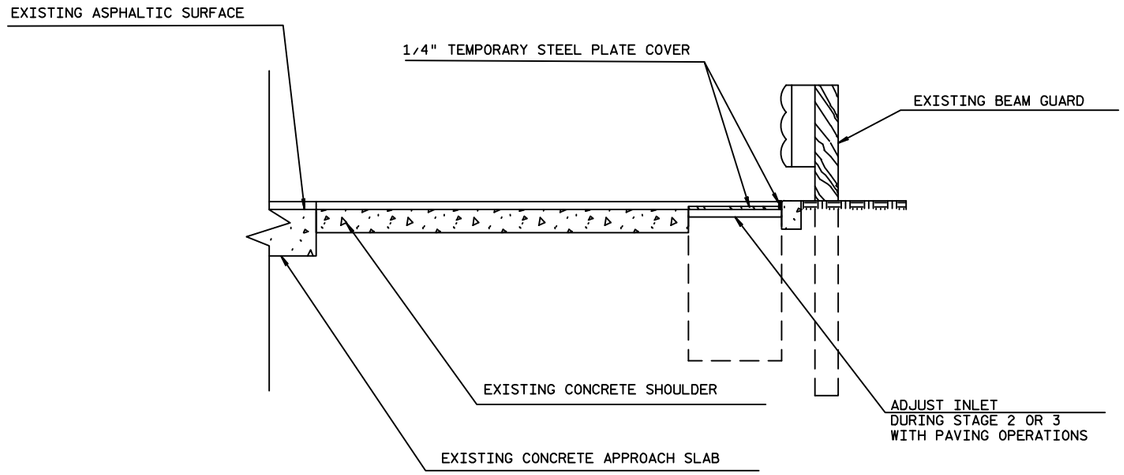


IH 43 NORTHBOUND OVER GLENMORE RD

2

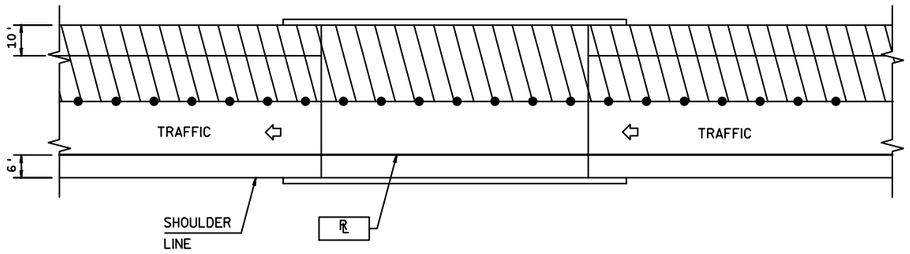


TEMPORARY SHOULDER IMPROVEMENT AT STRUCTURE APPROACHES



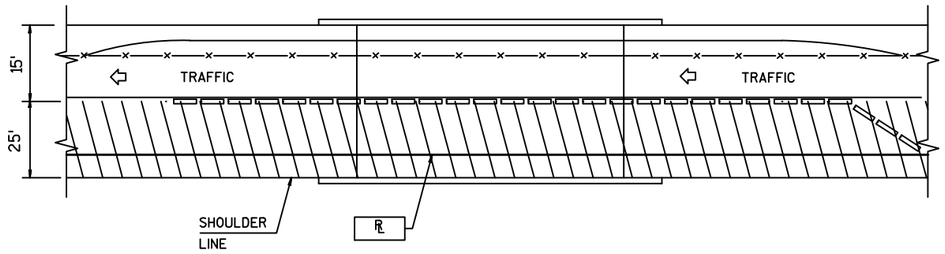
COVERING EXISTING INLET DETAIL

2



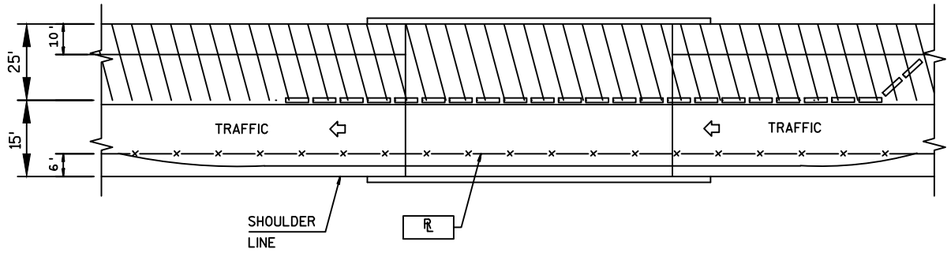
IH 43 STAGE 1 TRAFFIC DETAIL AT STRUCTURES

REFER TO SDD 15D12 FOR MORE DETAILS



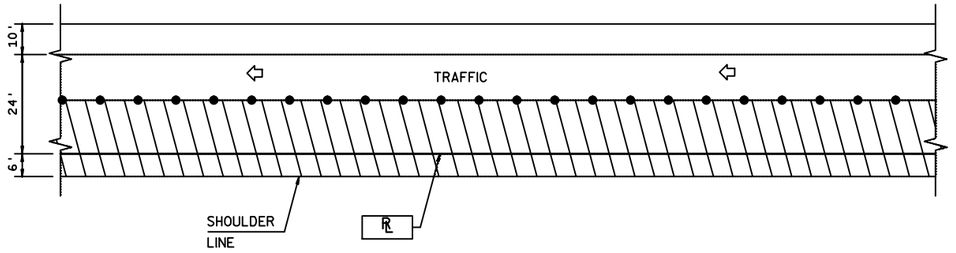
IH 43 STAGE 2A TRAFFIC DETAIL AT STRUCTURES

REFER TO SDD 15D3 FOR MORE DETAILS



IH 43 STAGE 2B TRAFFIC DETAIL AT STRUCTURES

REFER TO SDD 15D3 FOR MORE DETAILS



IH 43 STAGE 3 TRAFFIC DETAIL

INSIDE CLOSURE SHOWN OUTSIDE CLOSURE IS SIMILAR

REFER TO SDD 15D12 FOR MORE DETAILS

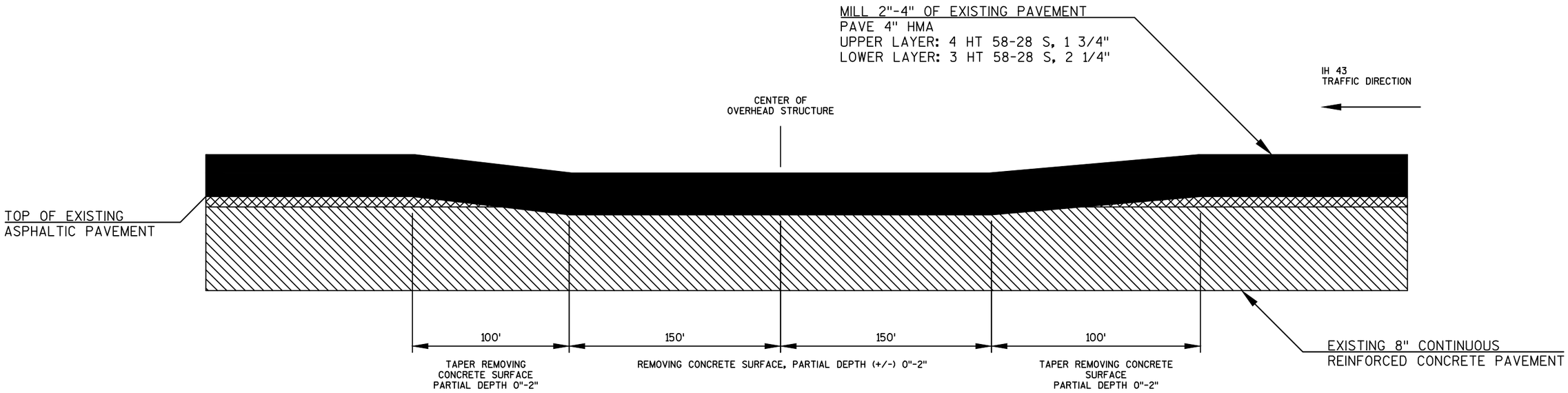
LEGEND

- WORK ZONE
- TEMPORARY PRECAST BARRIER WALL
- TRAFFIC CONTROL DRUM
- DIRECTION OF TRAVEL
- PAVEMENT MARKING REMOVAL

NOTES

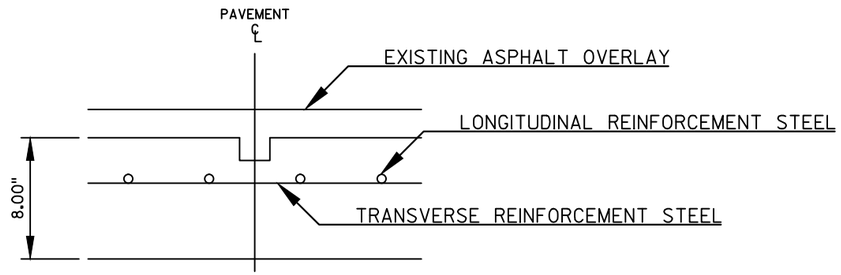
MAINTAIN MINIMUM BRIDGE CLEARANCE OF 16 FT

*NOTE: SEE STRUCTURE PLANS FOR MORE INFORMATION.



IH 43 PAVING DETAIL AT OVERHEAD STRUCTURES

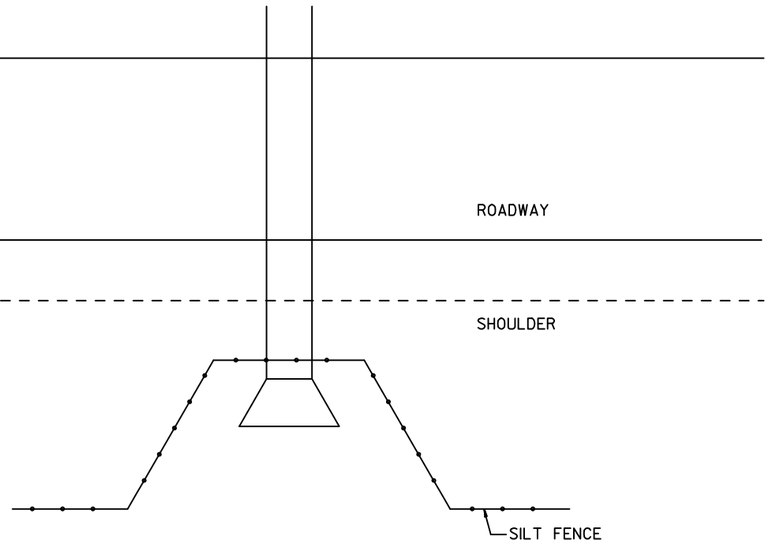
B-05-0242 LANGES CORNER ROAD OVER NB IH 43



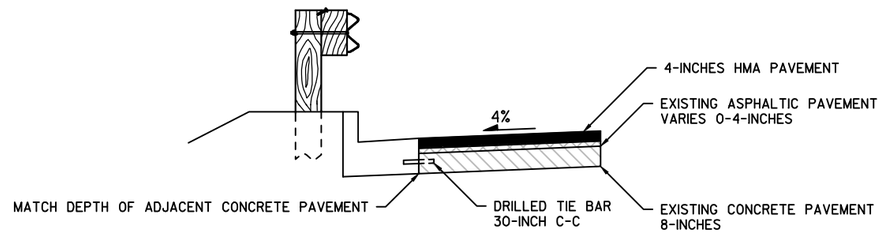
IH 43 REINFORCMENT DETAIL
FOR INFORMATION ONLY

EXISTING VERTICAL BRIDGE CLEARANCE DATA					
ROADWAY	BRIDGE	OVERPASS	CLEARANCE	APPROXIMATE ASPHALT DEPTHS NB	SB
IH 43	B-05-0242	LANGES CORNERS RD.	16.25	3.5" - 4.5"	3.5" - 4.5"

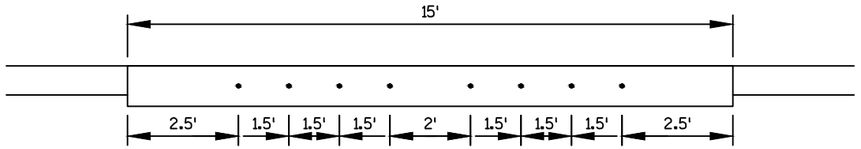
2



TYPICAL SILT FENCE DETAIL AT PIPE INLET



CURB AND GUTTER AT NEW INLETS ON IH 43

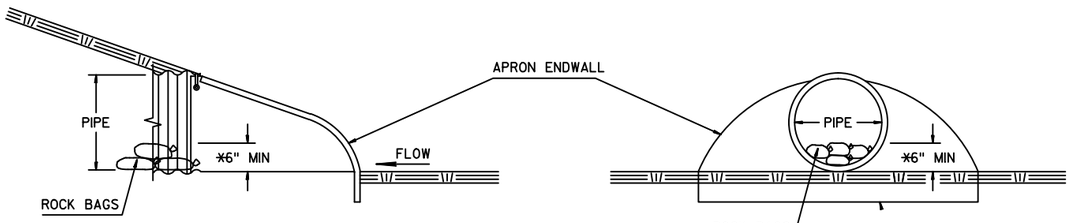


PROPOSED DOWEL BAR LAYOUT ON RAMPS

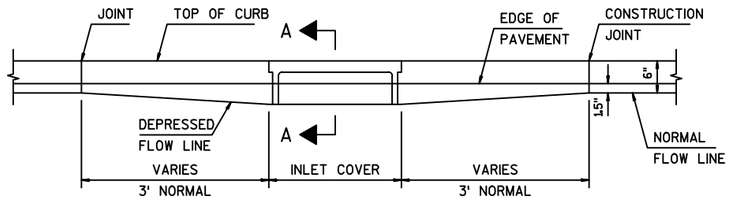
STH 96

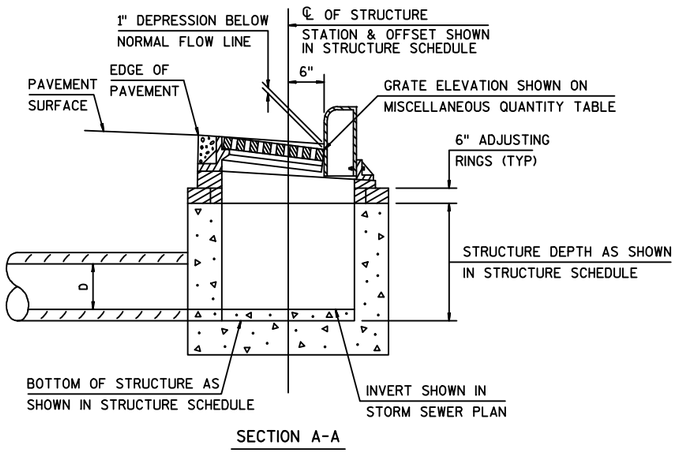
USH 141

STH 172 EB CONNECTOR - IH 43 SB

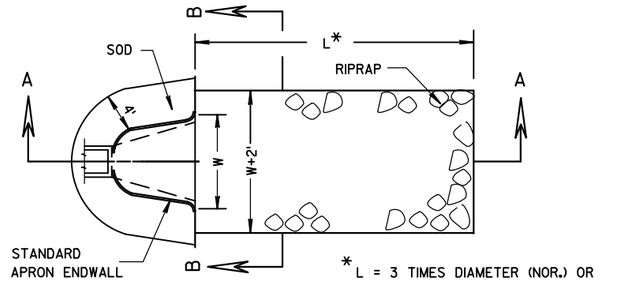


CULVERT PIPE CHECKS

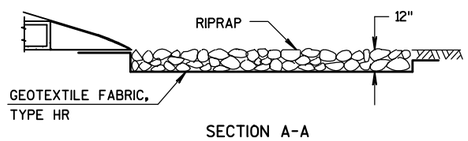


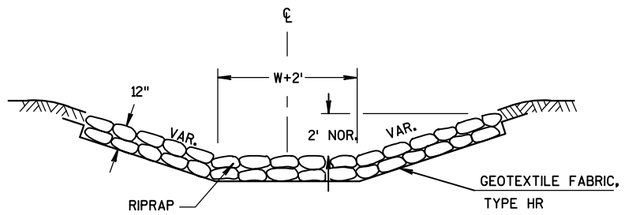


DETAIL OF CURB AND GUTTER AT INLETS

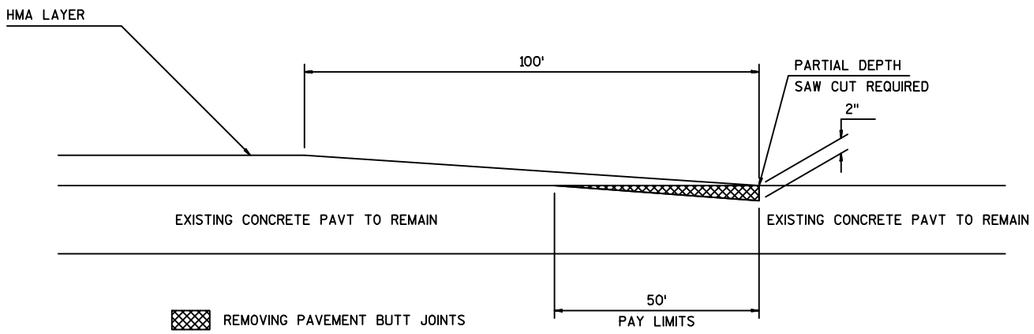


*L = 3 TIMES DIAMETER (NOR.) OR 10' MIN. OR AS DIRECTED BY THE ENGINEER



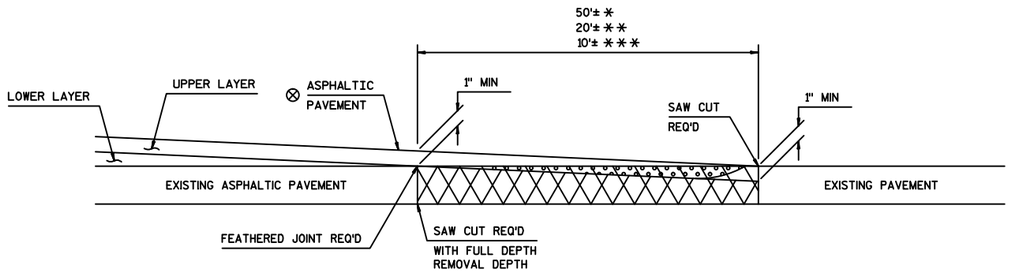


SOD, RIPRAP AND GEOTEXTILE FABRIC DETAIL AT APRON ENDWALLS



REMOVING PAVEMENT BUTT JOINT DETAIL

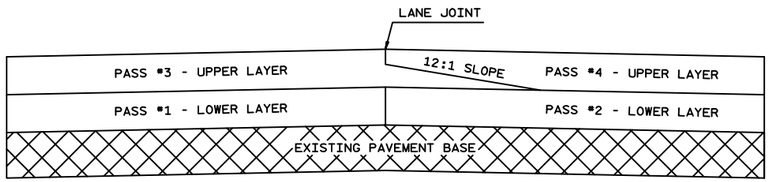
RAMPS



⊗ SEE TYPICAL CROSS SECTION FOR PAVEMENT TYPE AND THICKNESS OF INDIVIDUAL LAYERS

BUTT JOINT DETAIL FOR ASPHALTIC PAVEMENTS

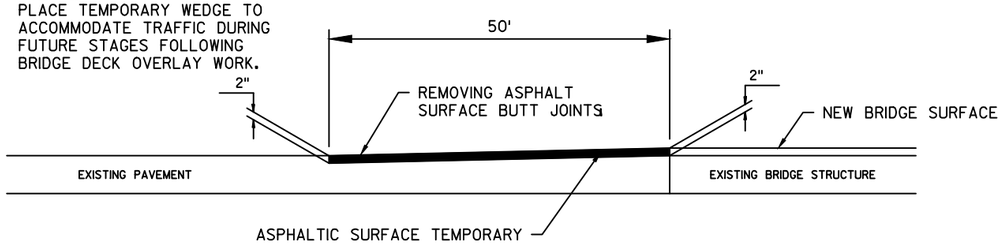
* MAINLINE
** SIDEROADS
*** PRIVATE ENTRANCES



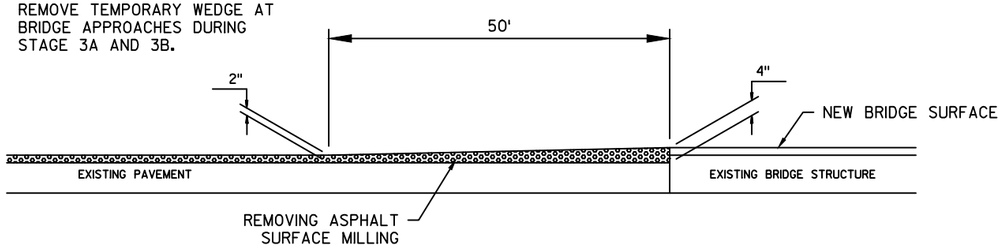
LOWER AND UPPER LAYERS

ASPHALT PAVEMENT LAYERING DETAIL

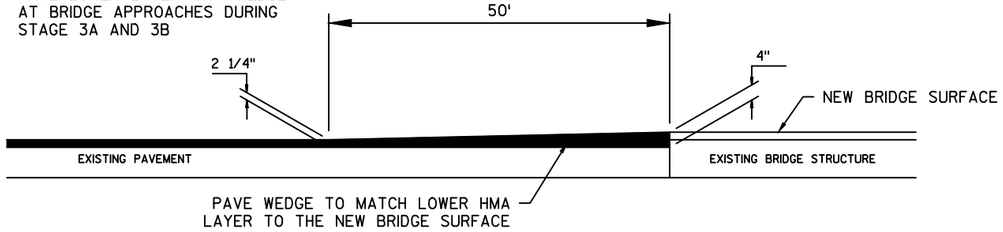
STEP 1:
PLACE TEMPORARY WEDGE TO ACCOMMODATE TRAFFIC DURING FUTURE STAGES FOLLOWING BRIDGE DECK OVERLAY WORK.



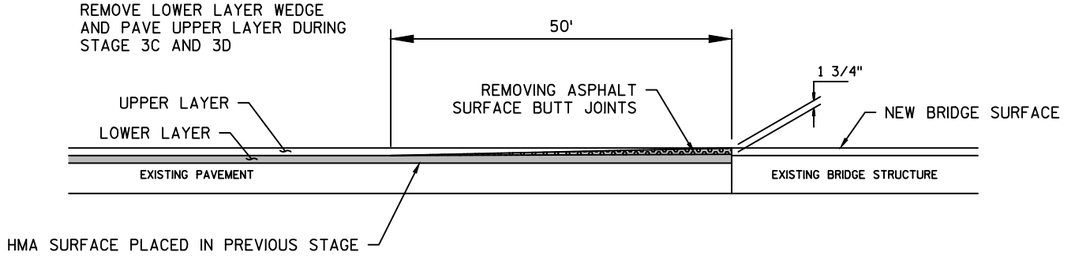
STEP 2:
REMOVE TEMPORARY WEDGE AT BRIDGE APPROACHES DURING STAGE 3A AND 3B.



STEP 2:
PAVE LOWER LAYER WITH WEDGE AT BRIDGE APPROACHES DURING STAGE 3A AND 3B



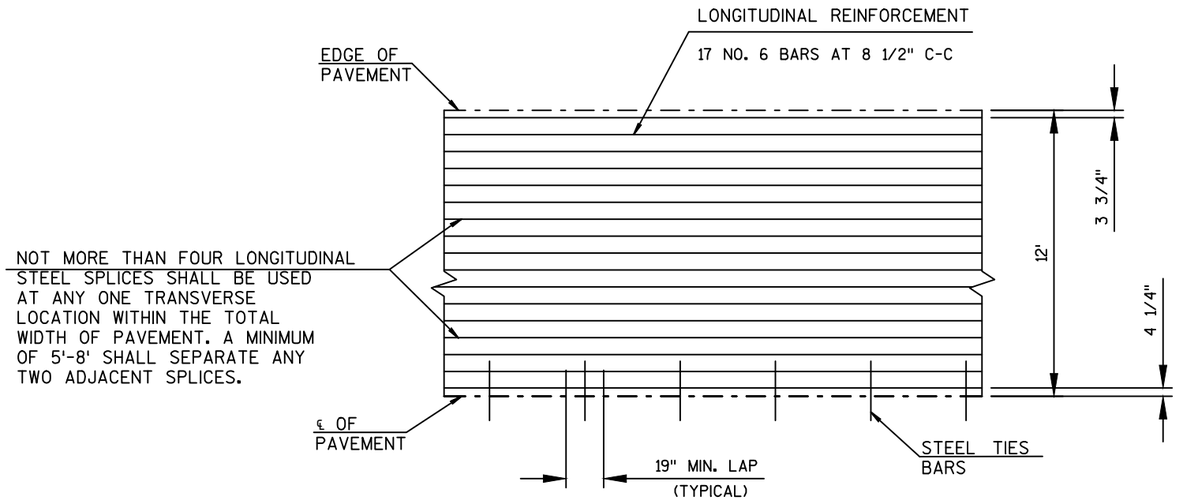
STEP 2:
REMOVE LOWER LAYER WEDGE AND PAVE UPPER LAYER DURING STAGE 3C AND 3D



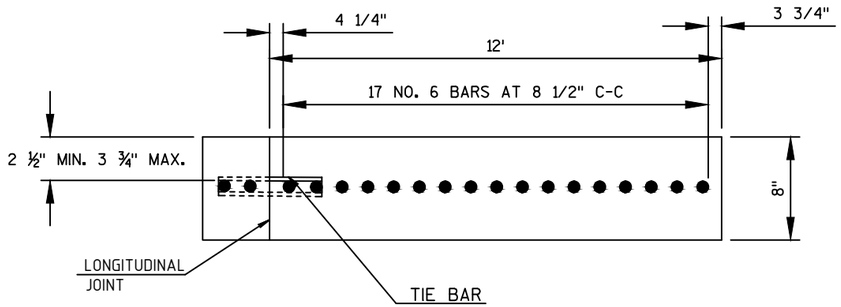
BRIDGE APPROACH PAVING DETAIL

IH 43 BRIDGE APPROACHES

2



REINFORCEMENT STEEL PLACEMENT

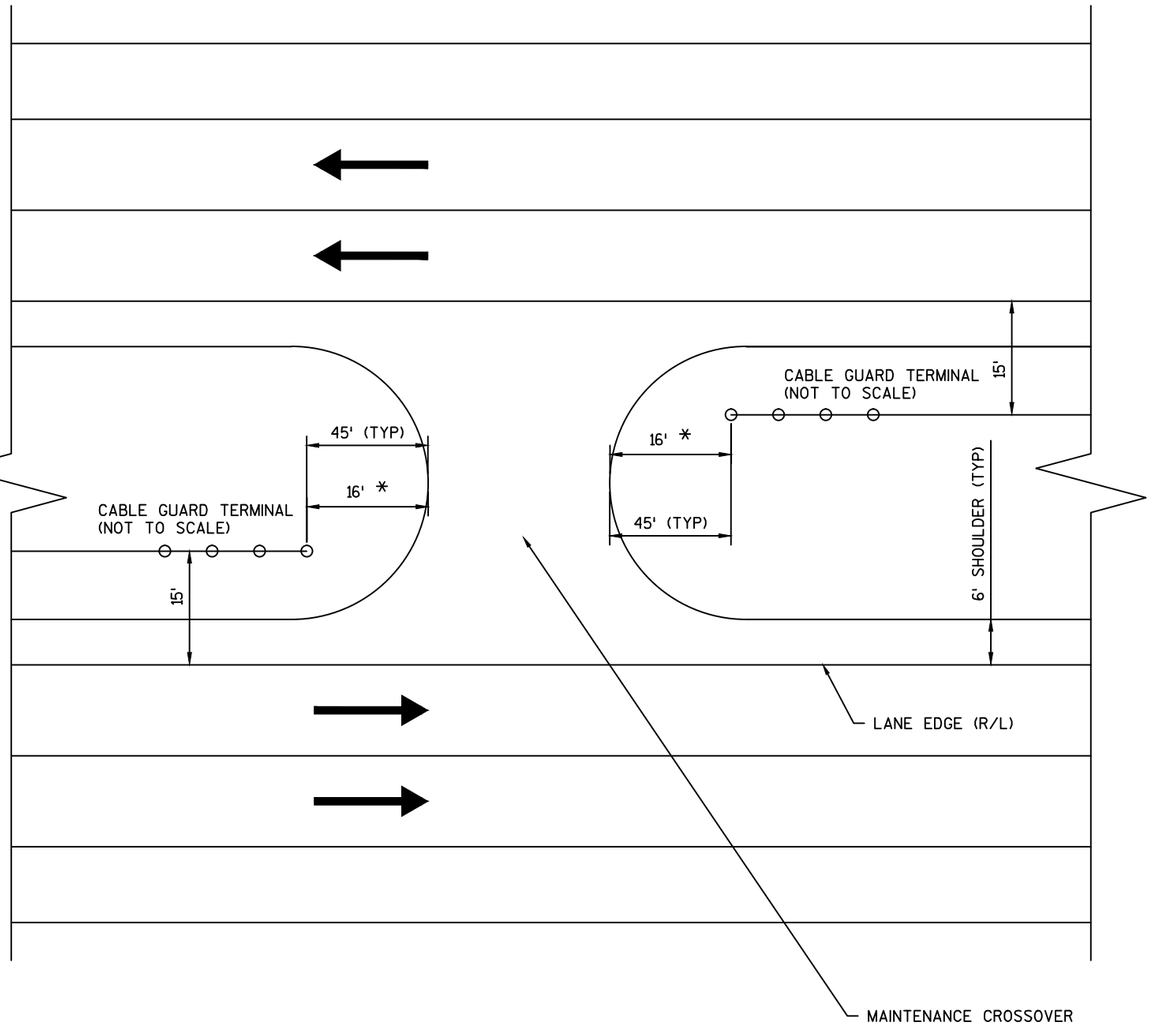


LONGITUDINAL CENTERLINE JOINT DETAIL

CONTINUOUSLY REINFORCED CONCRETE LONGITUDINAL BAR SPACING

NOTE: SEE STANDARD DETAIL FOR MORE INFORMATION

2

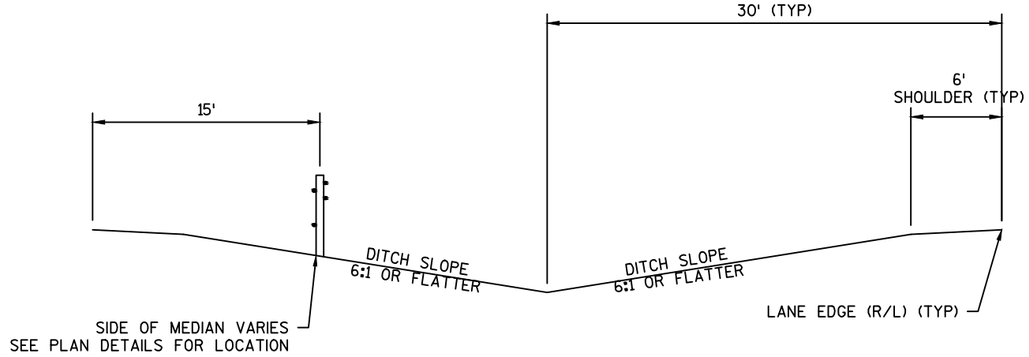


* DISTANCE MEASURED FROM
EDGE OF ASPHALT PAVEMENT

HIGH TENSION CABLE GUARD BARRIER TERMINAL END

NOTES

(1) DO NOT INSTALL HIGH TENSION CABLE GUARD BARRIER ON SLOPES STEEPER THAN 6:1.



HIGH TENSION CABLE GUARD BARRIER OFFSET LOCATIONS

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	11/20/2015	503786.327	144963.867

BORINGS COMPLETED BY: WISDOT
REPORT COMPLETED BY: WISDOT
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) BROWN COUNTY

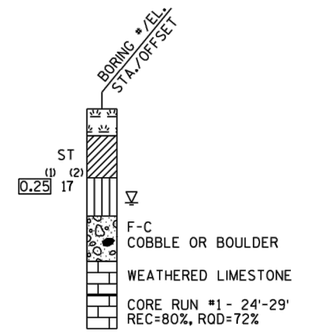
STATE PROJECT NUMBER

1227-08-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

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GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

CABLE GUARD BORINGS

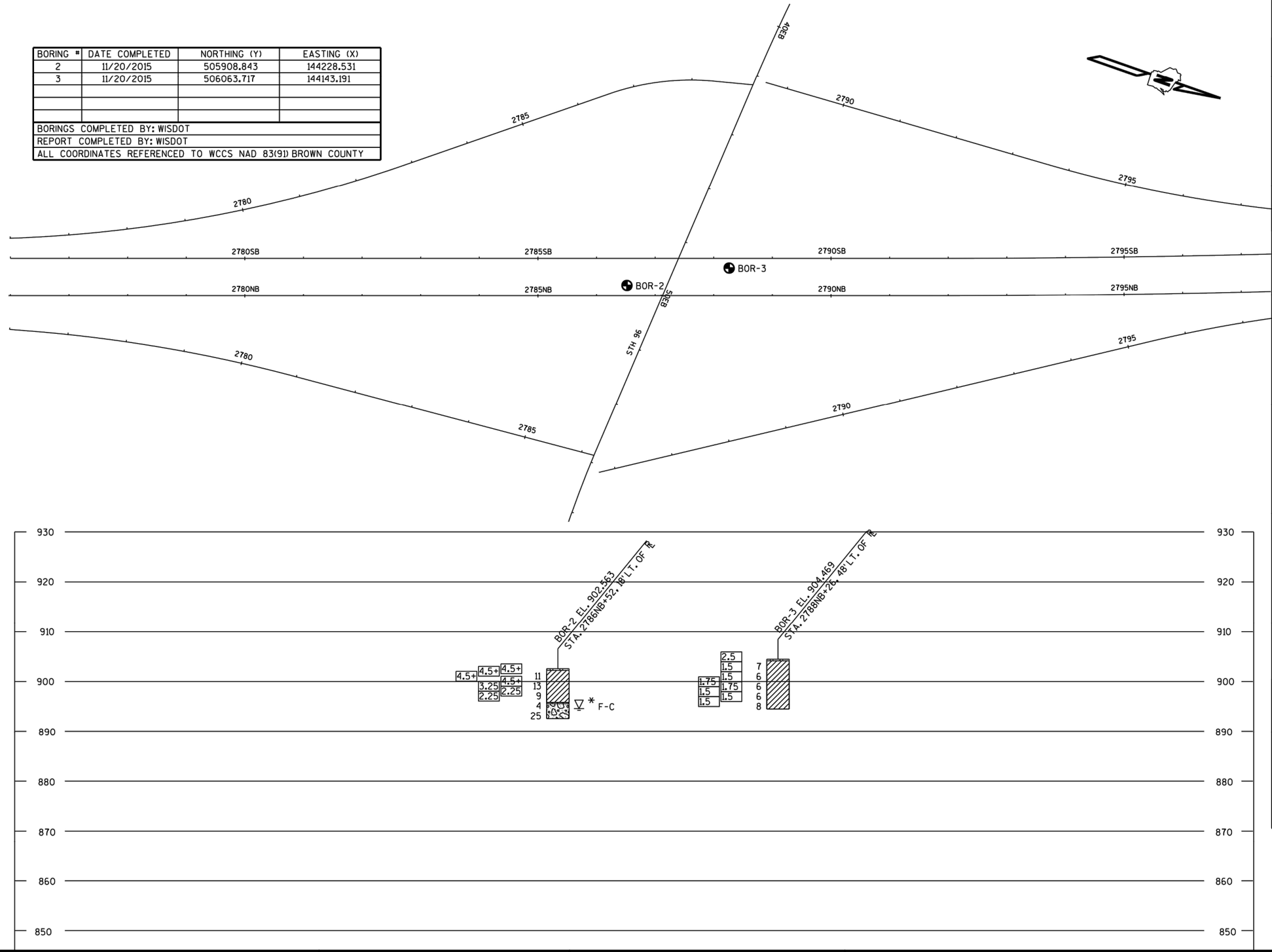
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	SOIL BORINGS FOR CABLE GUARD	SHEET 38	E

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
2	11/20/2015	505908.843	144228.531
3	11/20/2015	506063.717	144143.191

BORINGS COMPLETED BY: WISDOT

REPORT COMPLETED BY: WISDOT

ALL COORDINATES REFERENCED TO WCCS NAD 83(91) BROWN COUNTY



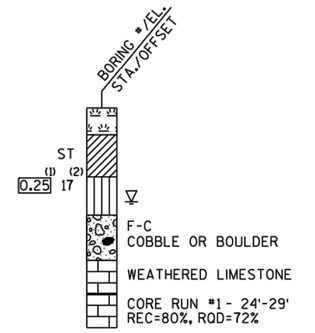
STATE PROJECT NUMBER

1227-08-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

CABLE GUARD BORINGS

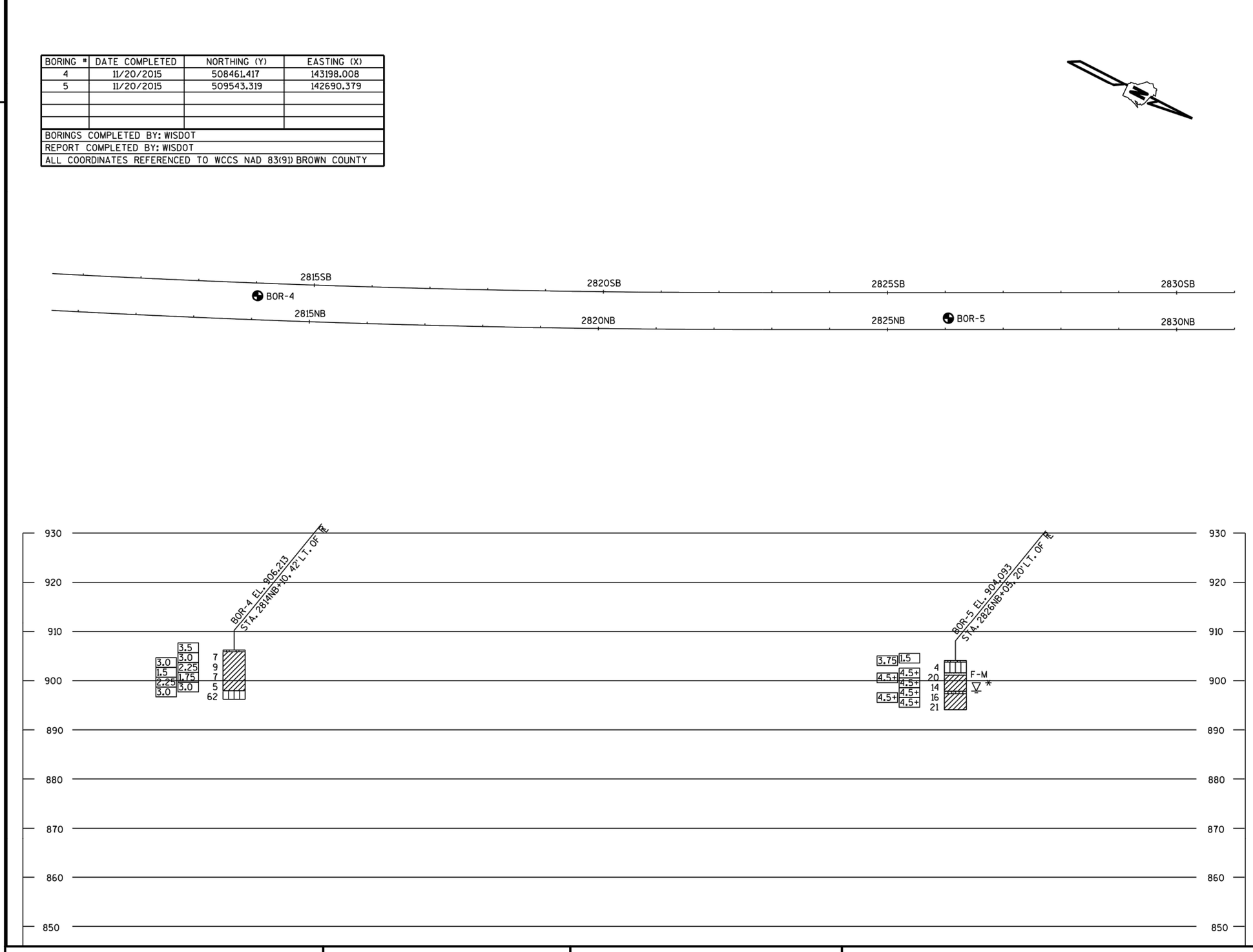
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	SOIL BORINGS FOR CABLE GUARD	SHEET 39	E

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
4	11/20/2015	508461.417	143198.008
5	11/20/2015	509543.319	142690.379

BORINGS COMPLETED BY: WISDOT

REPORT COMPLETED BY: WISDOT

ALL COORDINATES REFERENCED TO WCCS NAD 83(91) BROWN COUNTY



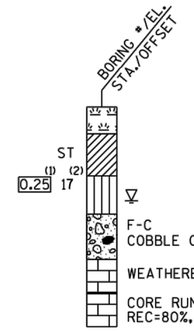
STATE PROJECT NUMBER

1227-08-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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GROUND WATER ELEVATION

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ABBREVIATIONS

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SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

CABLE GUARD BORINGS

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	SOIL BORINGS FOR CABLE GUARD	SHEET 40	E

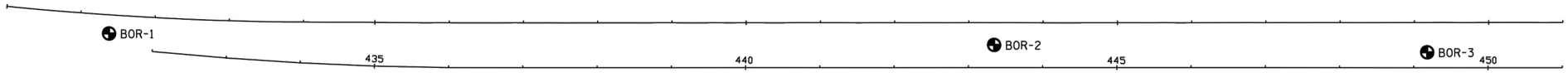
FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\027301-SB.DWG
LAYOUT NAME - 027301-sbC
PLOT DATE : 10/14/2016 7:47 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

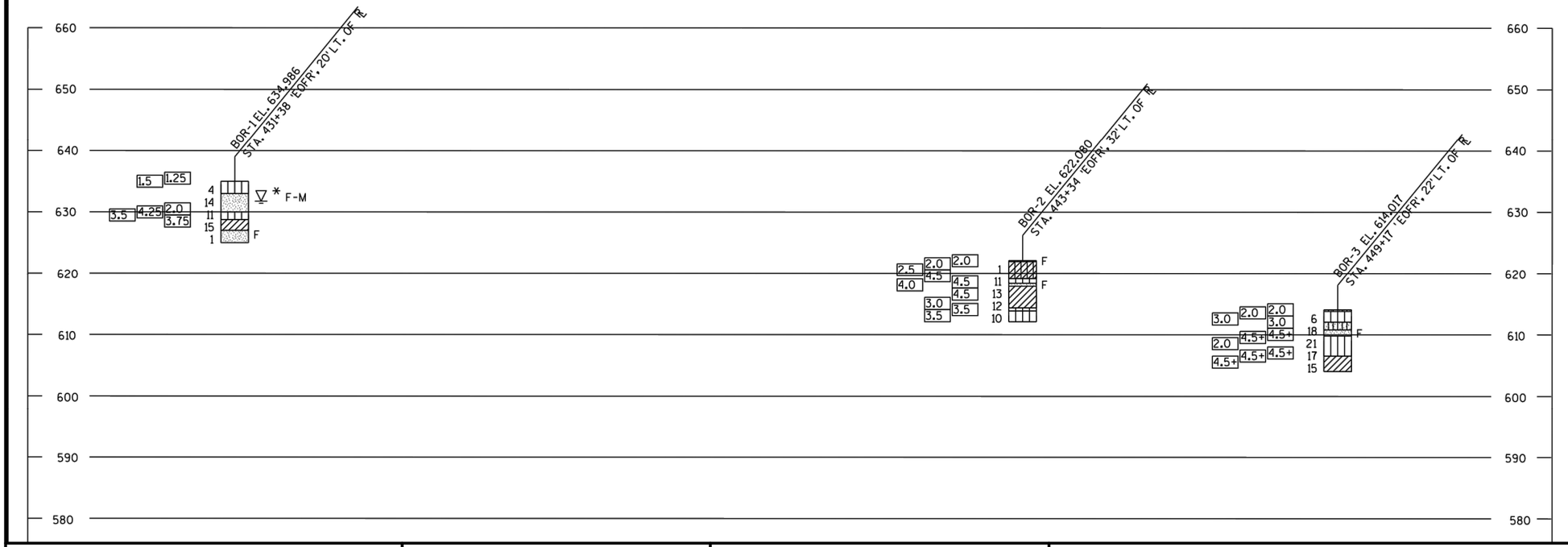
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	11/17/2015	550612.364	96230.163
2	11/17/2015	550064.871	97288.656
3	11/17/2015	549795.78	97808.655

BORINGS COMPLETED BY: WISDOT

REPORT COMPLETED BY: WISDOT

ALL COORDINATES REFERENCED TO WCCS NAD 83(91) BROWN COUNTY





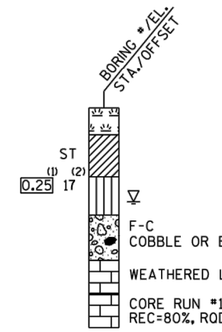
STATE PROJECT NUMBER

1210-12-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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GROUND WATER ELEVATION

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ABBREVIATIONS

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

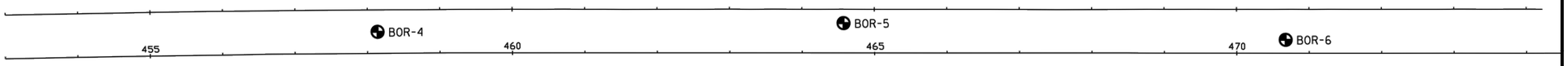
CABLE GUARD BORINGS

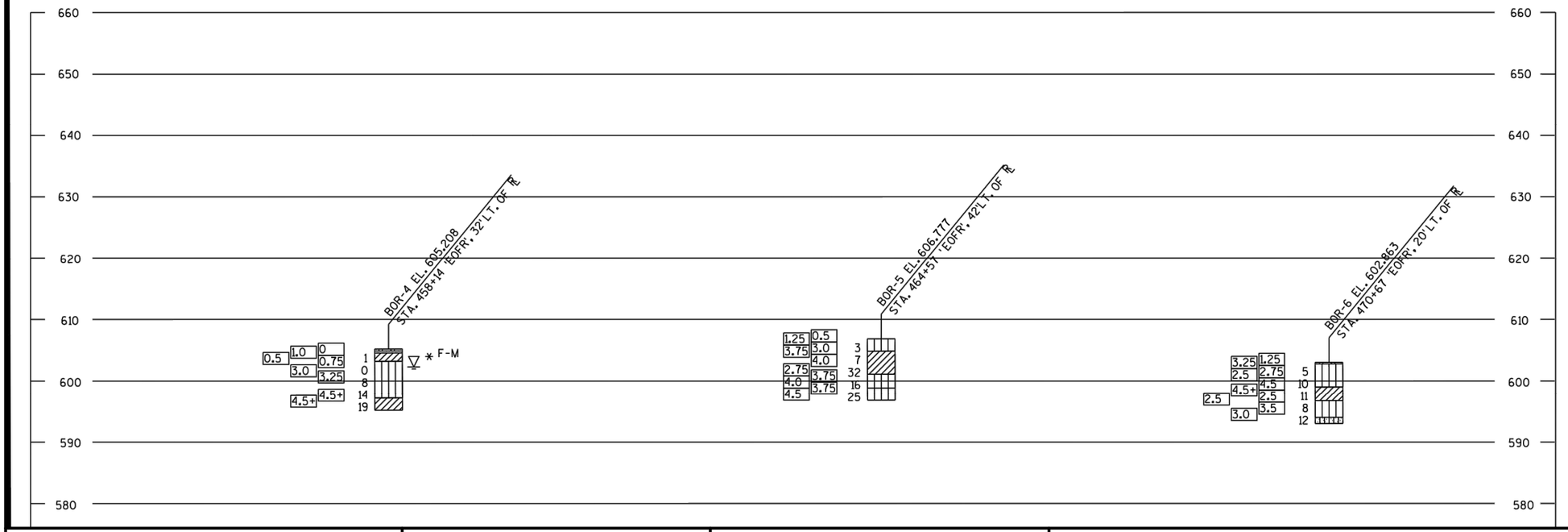
PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	SOIL BORINGS FOR CABLE GUARD	SHEET 41	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\027301-SB.DWG
LAYOUT NAME - 027301-sbD
PLOT DATE : 10/14/2016 7:47 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
4	11/17/2015	549398.238	98625.526
5	11/17/2015	549110.969	99186.807
6	11/17/2015	548807.928	99712.995

BORINGS COMPLETED BY: WISDOT
REPORT COMPLETED BY: WISDOT
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) BROWN COUNTY





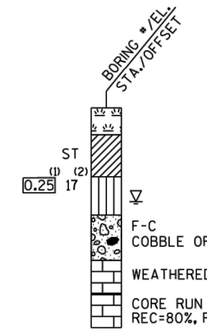
STATE PROJECT NUMBER

1210-12-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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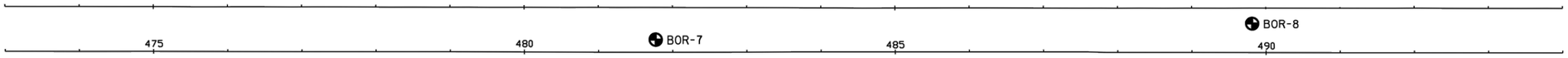
NO.	DATE	REVISION	BY

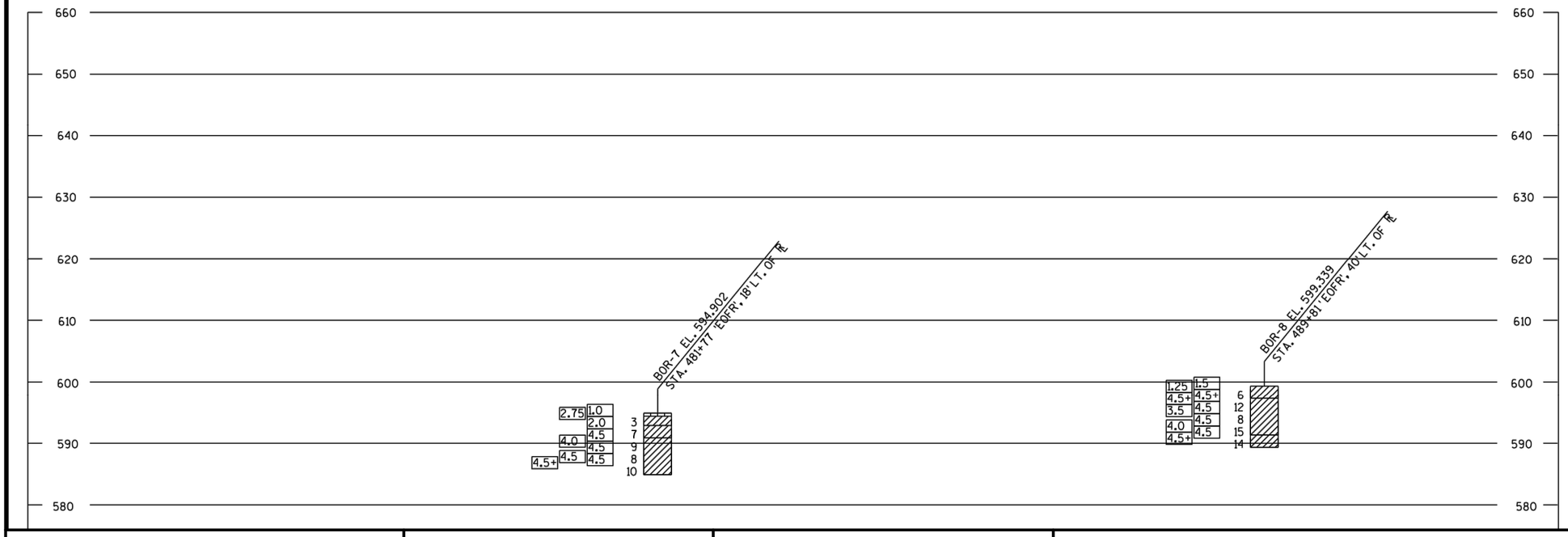
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

CABLE GUARD BORINGS

PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	SOIL BORINGS FOR CABLE GUARD	SHEET 42	E

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
7	11/18/2015	548288.321	100695.245
8	11/18/2015	547929.639	101416.943
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) BROWN COUNTY			





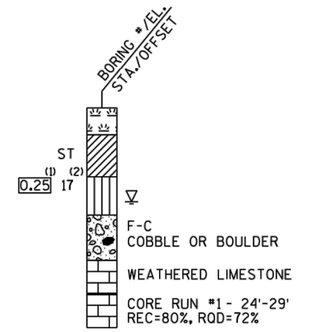
STATE PROJECT NUMBER

1210-12-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

CABLE GUARD BORINGS

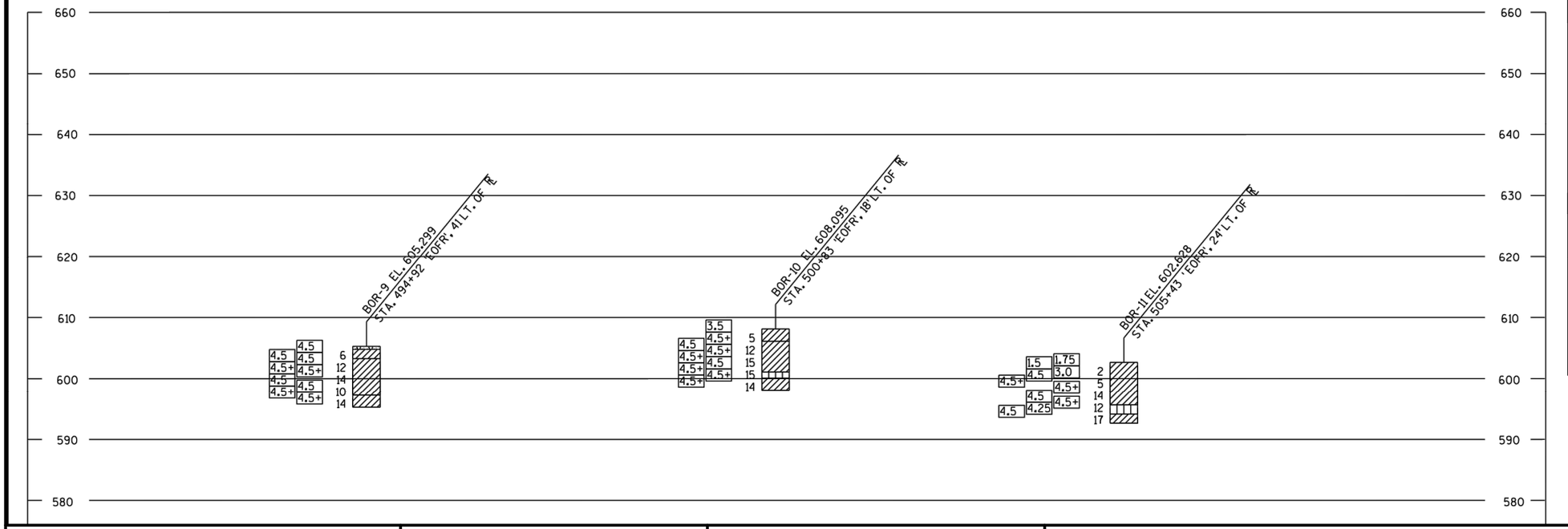
PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	SOIL BORINGS FOR CABLE GUARD	SHEET 43	E

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
9	11/18/2015	547691.906	101869.262
10	11/18/2015	547394.690	102382.308
11	11/18/2015	547186.404	102790.730	

BORINGS COMPLETED BY: WISDOT

REPORT COMPLETED BY: WISDOT

ALL COORDINATES REFERENCED TO WCCS NAD 83(91) BROWN COUNTY



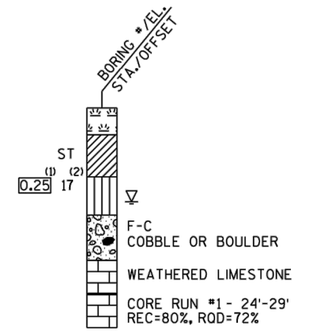
STATE PROJECT NUMBER

1210-12-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

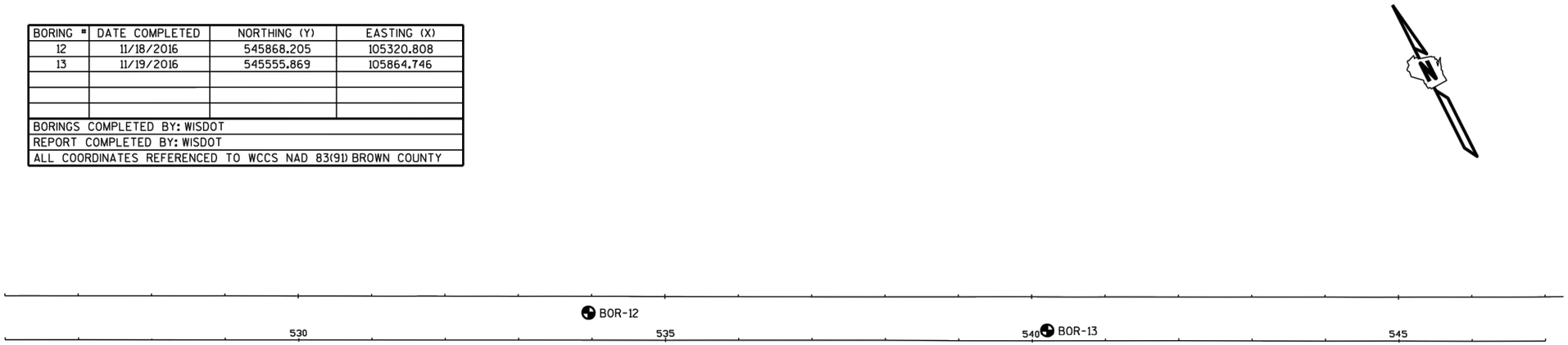
CABLE GUARD BORINGS

PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	SOIL BORINGS FOR CABLE GUARD	SHEET 44	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\027301-SB.DWG
LAYOUT NAME - 027301-sbG
PLOT DATE : 10/14/2016 7:47 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
12	11/18/2016	545868.205	105320.808
13	11/19/2016	545555.869	105864.746

BORINGS COMPLETED BY: WISDOT
REPORT COMPLETED BY: WISDOT
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) BROWN COUNTY



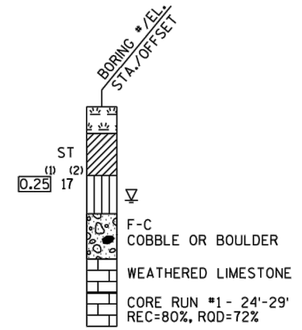
STATE PROJECT NUMBER

1210-12-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

CABLE GUARD BORINGS

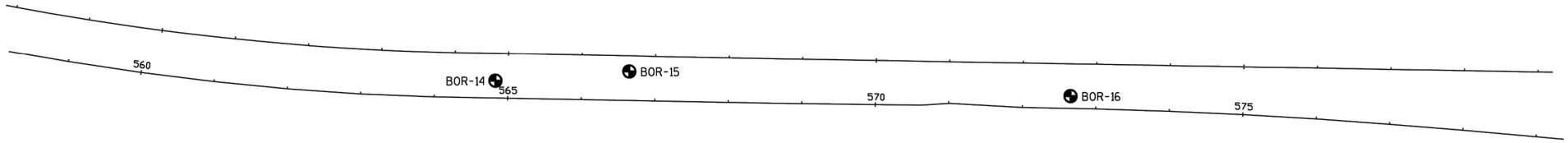
PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	SOIL BORINGS FOR CABLE GUARD	SHEET 45	E

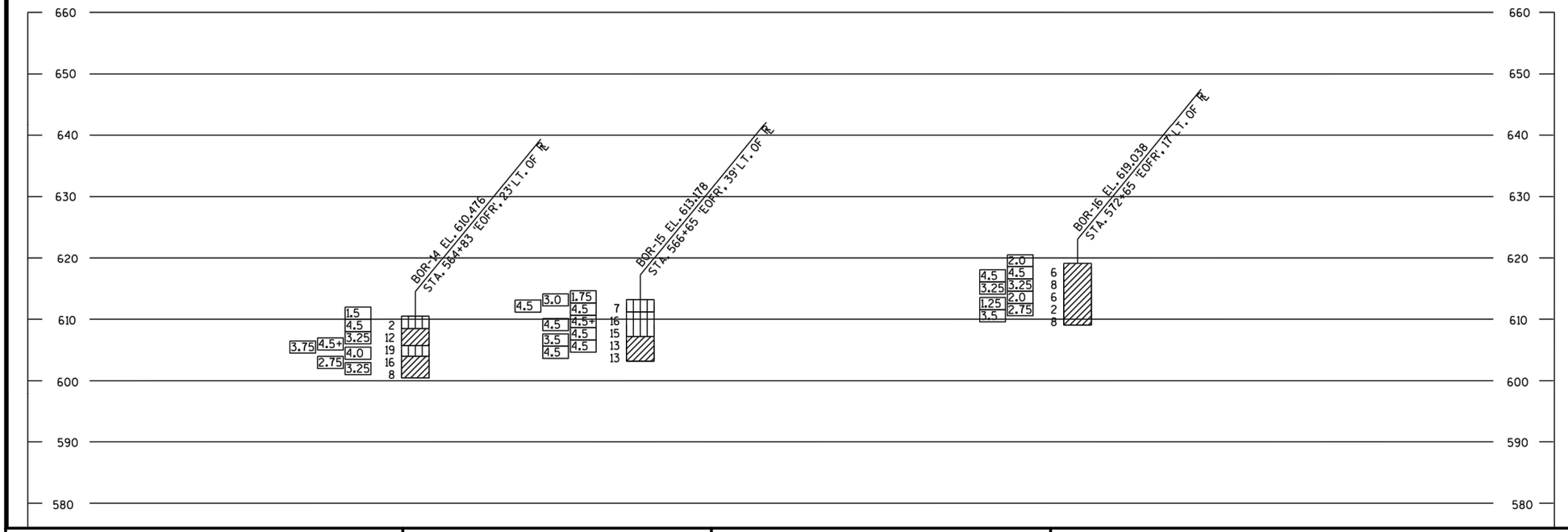
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
14	11/19/2015	544822.295	108170.956
15	11/19/2015	544835.720	108354.203
16	11/19/2015	544805.736	108955.658

BORINGS COMPLETED BY: WISDOT

REPORT COMPLETED BY: WISDOT

ALL COORDINATES REFERENCED TO WCCS NAD 83(91) BROWN COUNTY





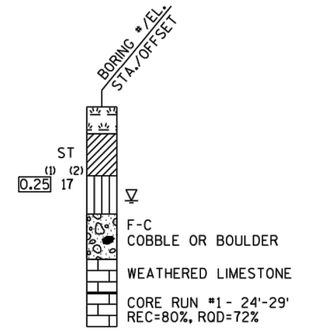
STATE PROJECT NUMBER

1210-12-71

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

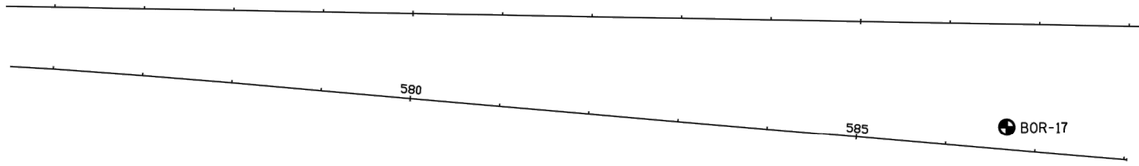
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

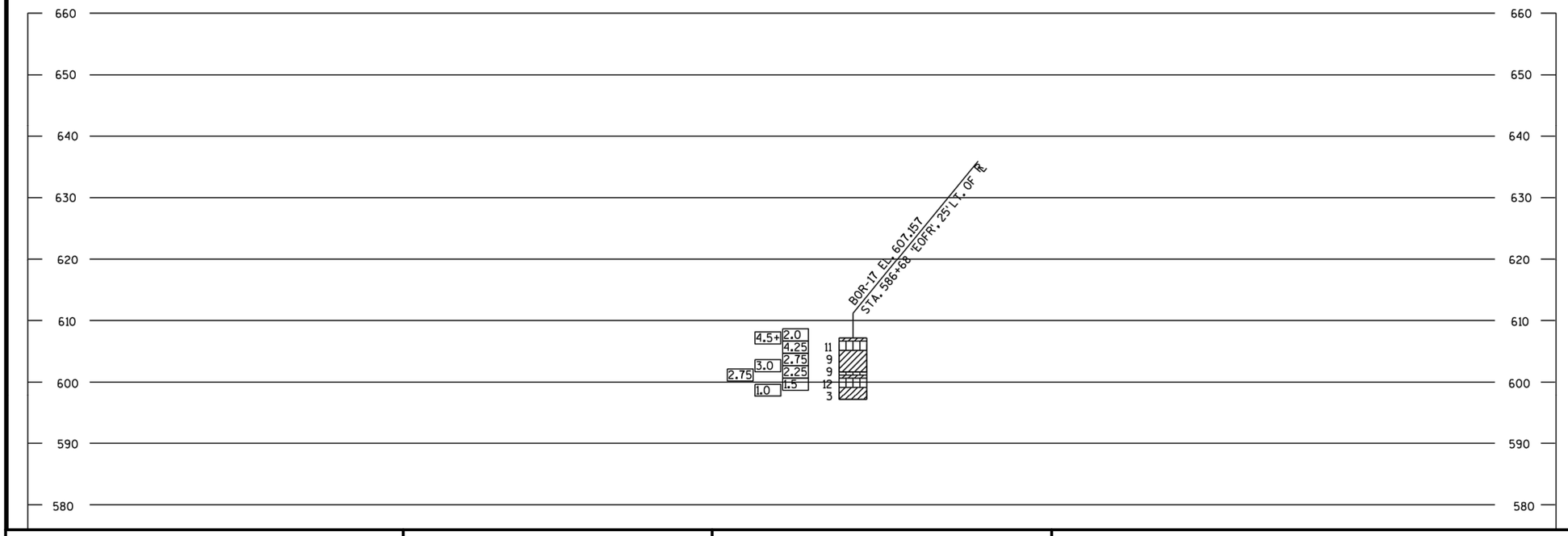
CABLE GUARD BORINGS

PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	SOIL BORINGS FOR CABLE GUARD	SHEET 46	E

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
17	11/19/2015	544709.052	110353.580

BORINGS COMPLETED BY: WISDOT
REPORT COMPLETED BY: WISDOT
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) BROWN COUNTY





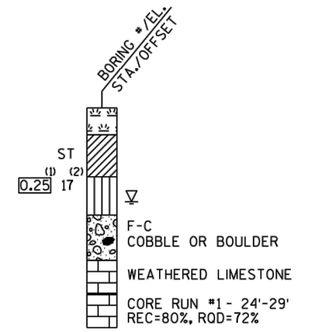
STATE PROJECT NUMBER

1210-12-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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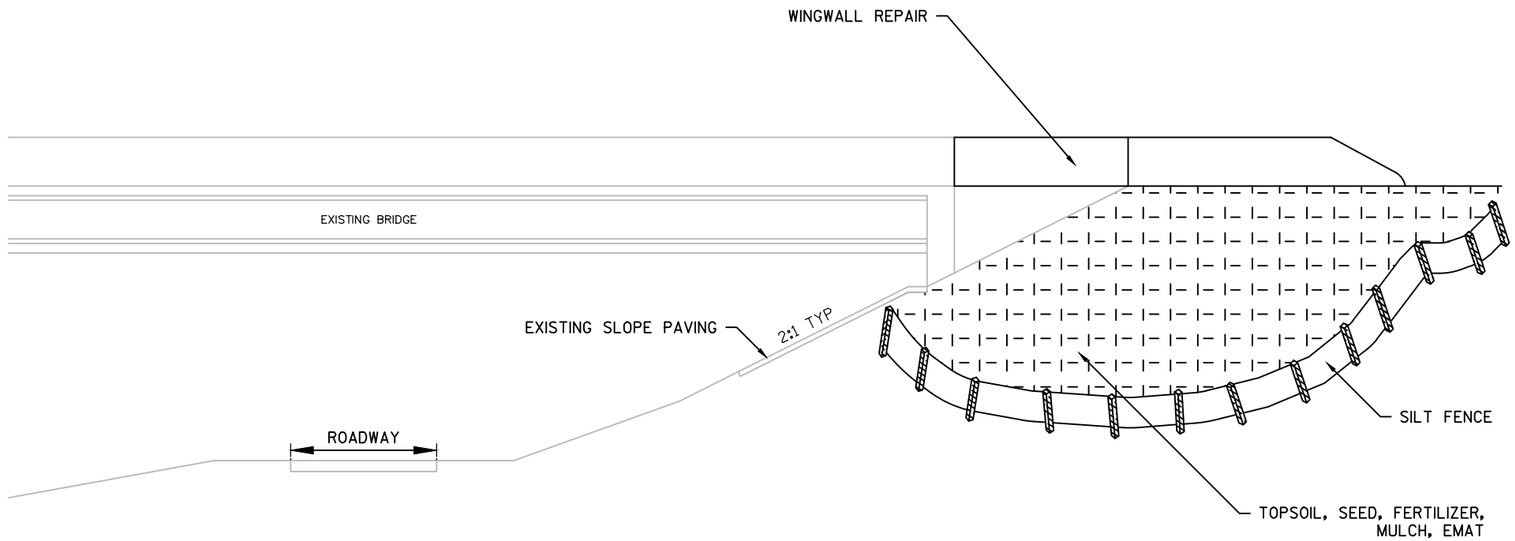
NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

CABLE GUARD BORINGS

PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	SOIL BORINGS FOR CABLE GUARD	SHEET 47	E



ELEVATION

EROSION CONTROL AT WINGWALL REPAIRS

STA 2885+94'NB' B-05-0241 SE WINGWALL
STA 2886+15'NB' B-05-0241 SW WINGWALL
STA 2887+50'NB' B-05-0241 NE WINGWALL
STA 2887+65'NB' B-05-0241 NW WINGWALL
STA 2886+55'SB' B-05-0240 SW WINGWALL
STA 2888+00'SB' B-05-0240 NE WINGWALL
STA 3070+30'NB' B-05-0246 NE WINGWALL
STA 3131+90'SB' B-05-0247 NW WINGWALL
STA 3193+50'NB' B-05-0187 SE WINGWALL
STA 3193+70'NB' B-05-0187 NE WINGWALL
STA 3192+95'SB' B-05-0188 SE WINGWALL
STA 3193+10'SB' B-05-0188 NE WINGWALL

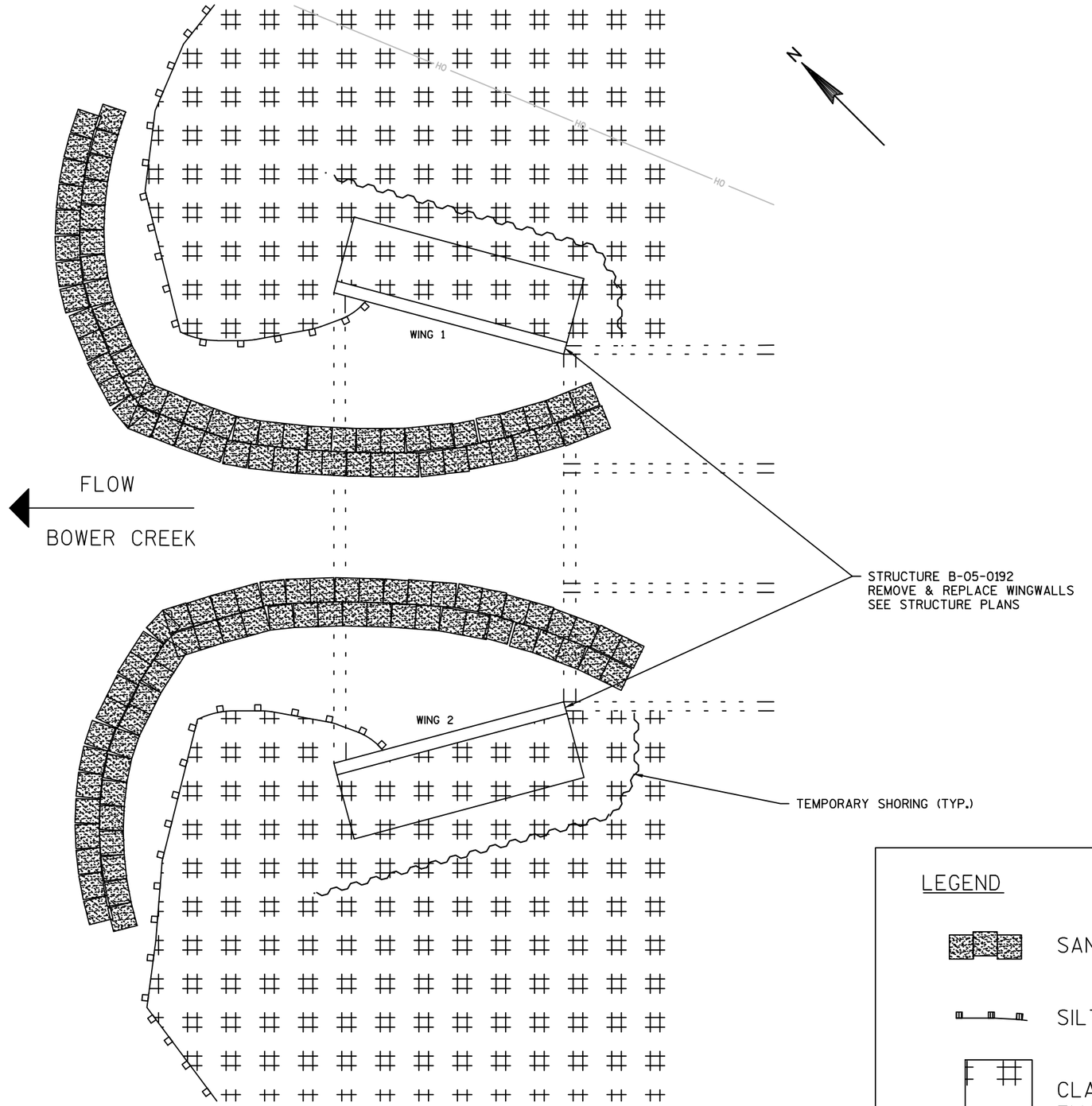
EROSION MAT CLASS 1B

PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN: EROSION CONTROL DETAILS	SHEET 48	E

NOTES:
EACH WINGWALL REMOVAL AND REPLACEMENT WILL BE DONE AT SEPARATE TIMES.

SANDBAGS SHALL BE INCIDENTAL TO THE REMOVING OLD STRUCTURE BID ITEMS.

STACK SANDBAGS TO A HEIGHT AND LENGTH NECESSARY TO PROTECT THE WINGWALL WORKZONE FROM THE FLOW OF WATER.



EROSION CONTROL AT B-05-0192 WINGWALL REPAIRS

LEGEND

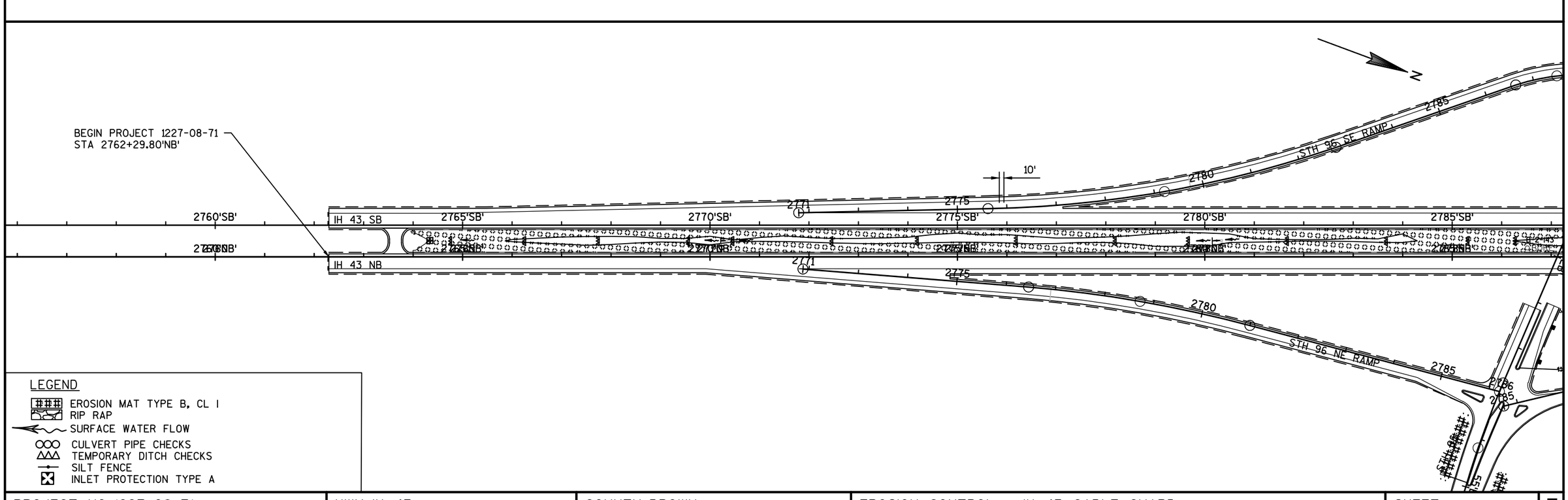
SANDBAGS

SILT FENCE

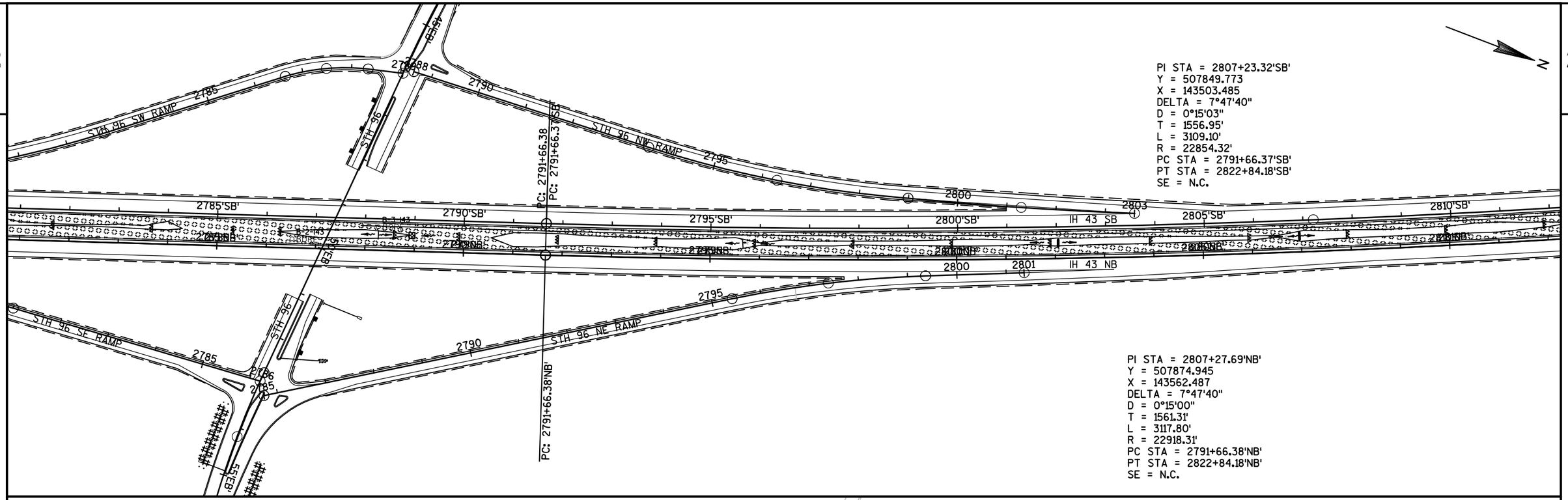
CLASS 1 TYPE B EMAT

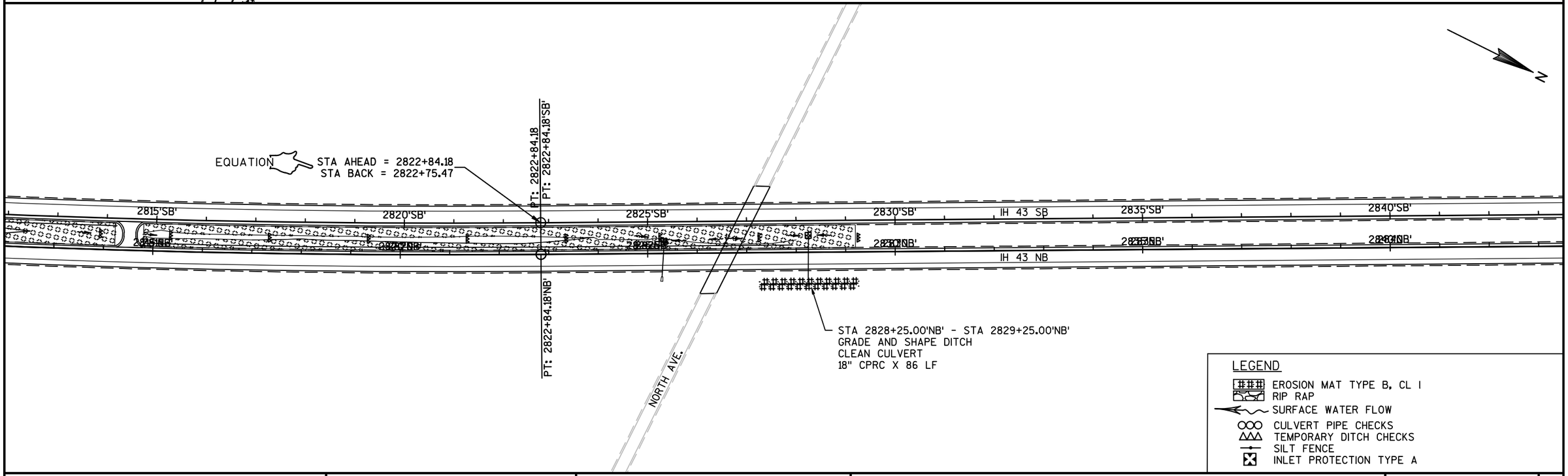
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN: EROSION CONTROL DETAILS	SHEET 49	E

2

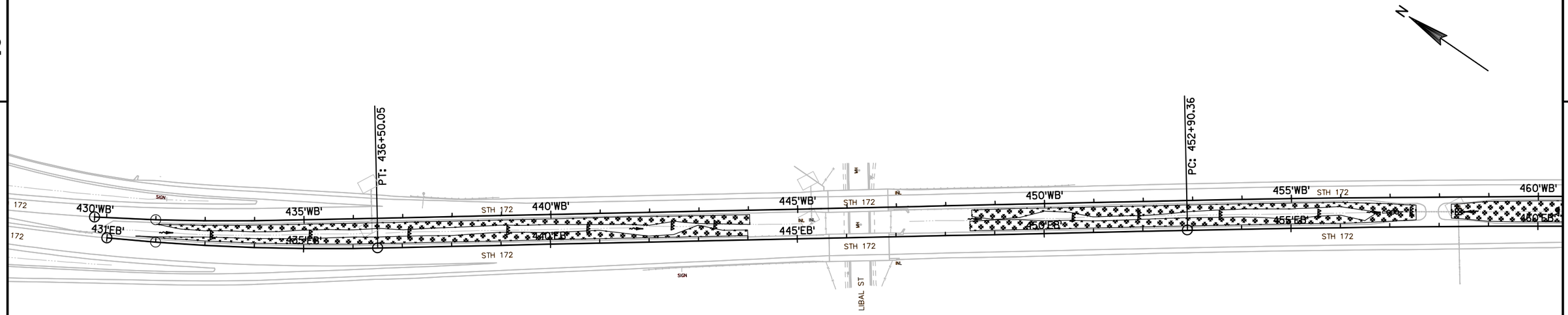


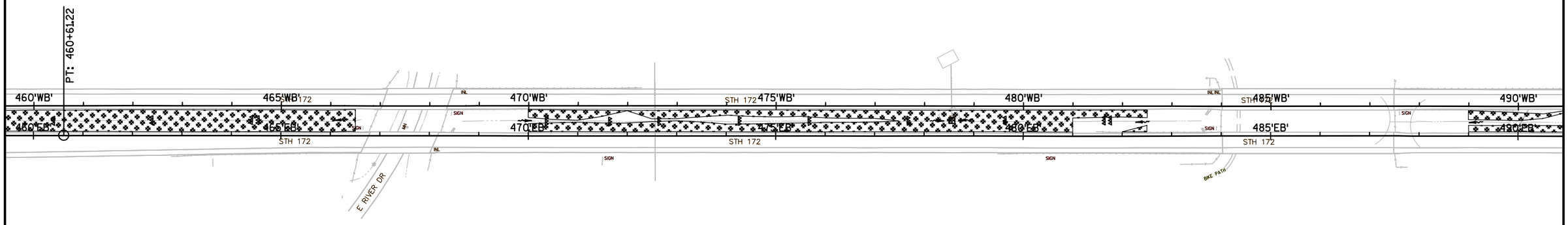
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	EROSION CONTROL - IH 43 CABLE GUARD	SHEET 50	E





PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	EROSION CONTROL - IH 43 CABLE GUARD	SHEET 51	E



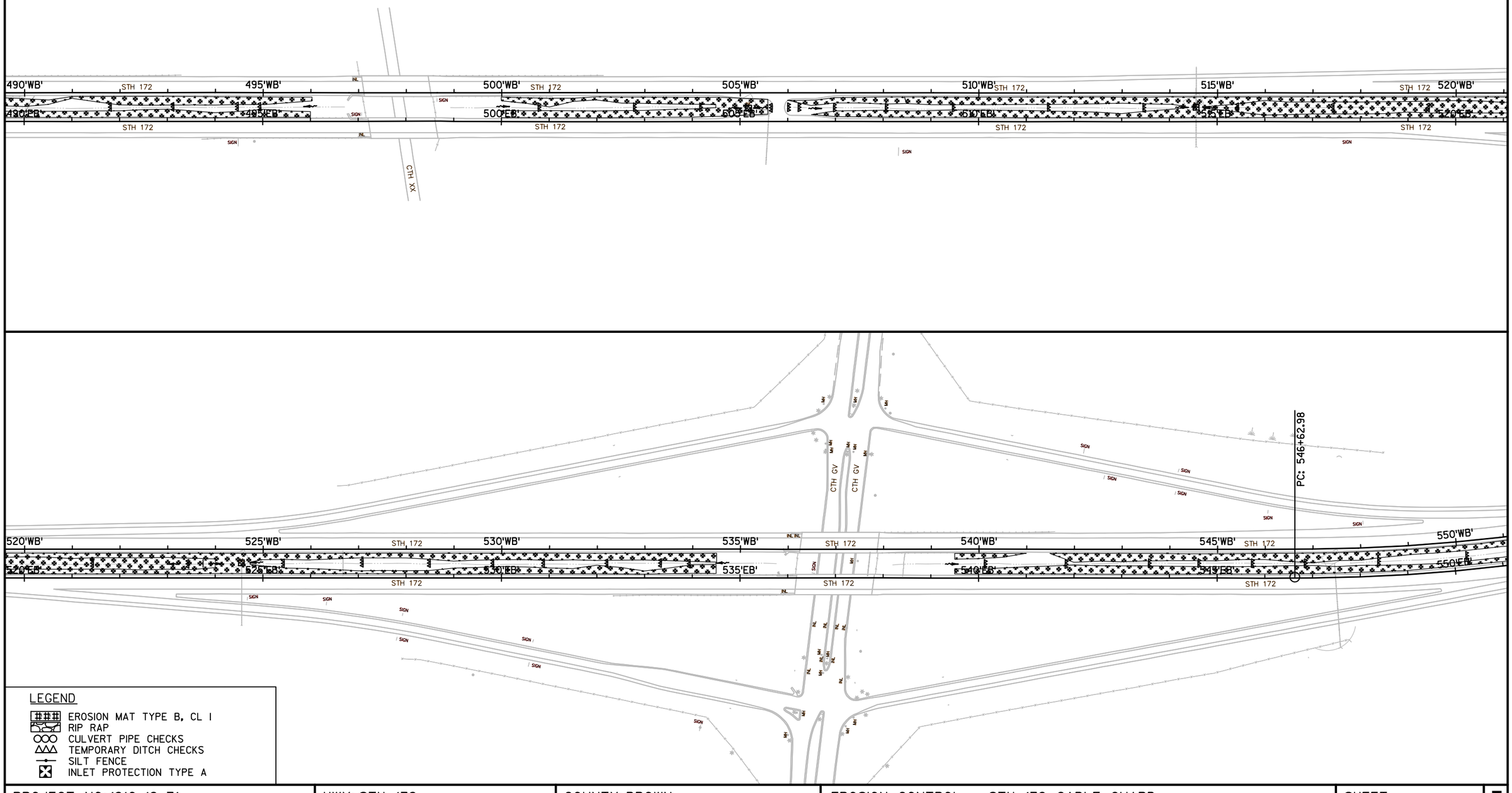


LEGEND

- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	EROSION CONTROL - STH 172 CABLE GUARD	SHEET 52	E

2



PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	EROSION CONTROL - STH 172 CABLE GUARD	SHEET 53	E

LEGEND

- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

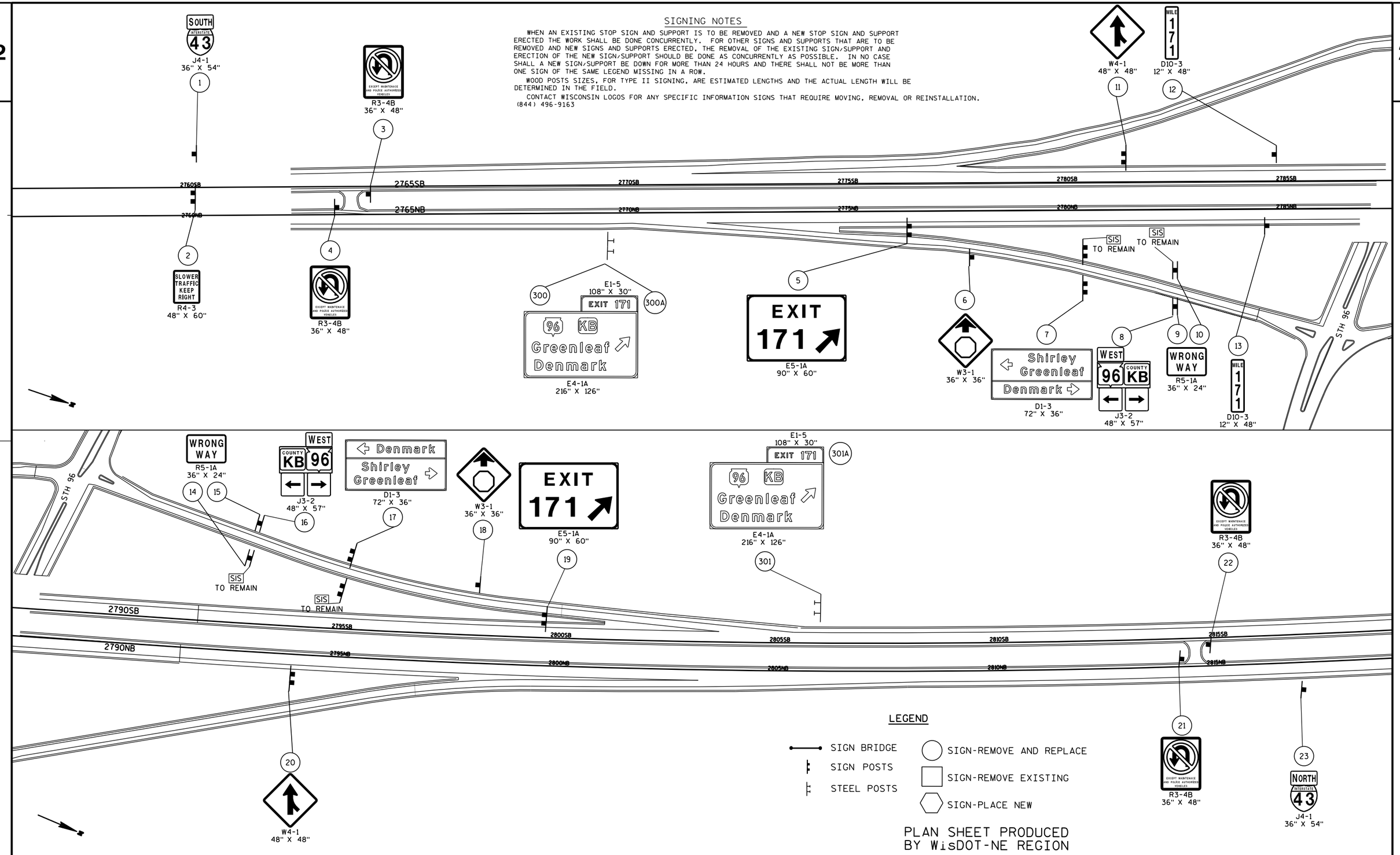
PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	EROSION CONTROL - STH 172 CABLE GUARD	SHEET 54	E

SIGNING NOTES

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

CONTACT WISCONSIN LOGOS FOR ANY SPECIFIC INFORMATION SIGNS THAT REQUIRE MOVING, REMOVAL OR REINSTALLATION. (844) 496-9163



PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1227-08-71	HWY: IH-43	COUNTY: BROWN	PERMANANT SIGNING	SHEET 55	E

FILE NAME : N:\spo\traffic\SIGNING\Projects\1227-08-71 I-43 Brown Co\43brown.dgn PLOT DATE : 17-OCT-2016 13:21 PLOT BY : dotets PLOT NAME : PLOT SCALE : 200:1

SIGNING NOTES

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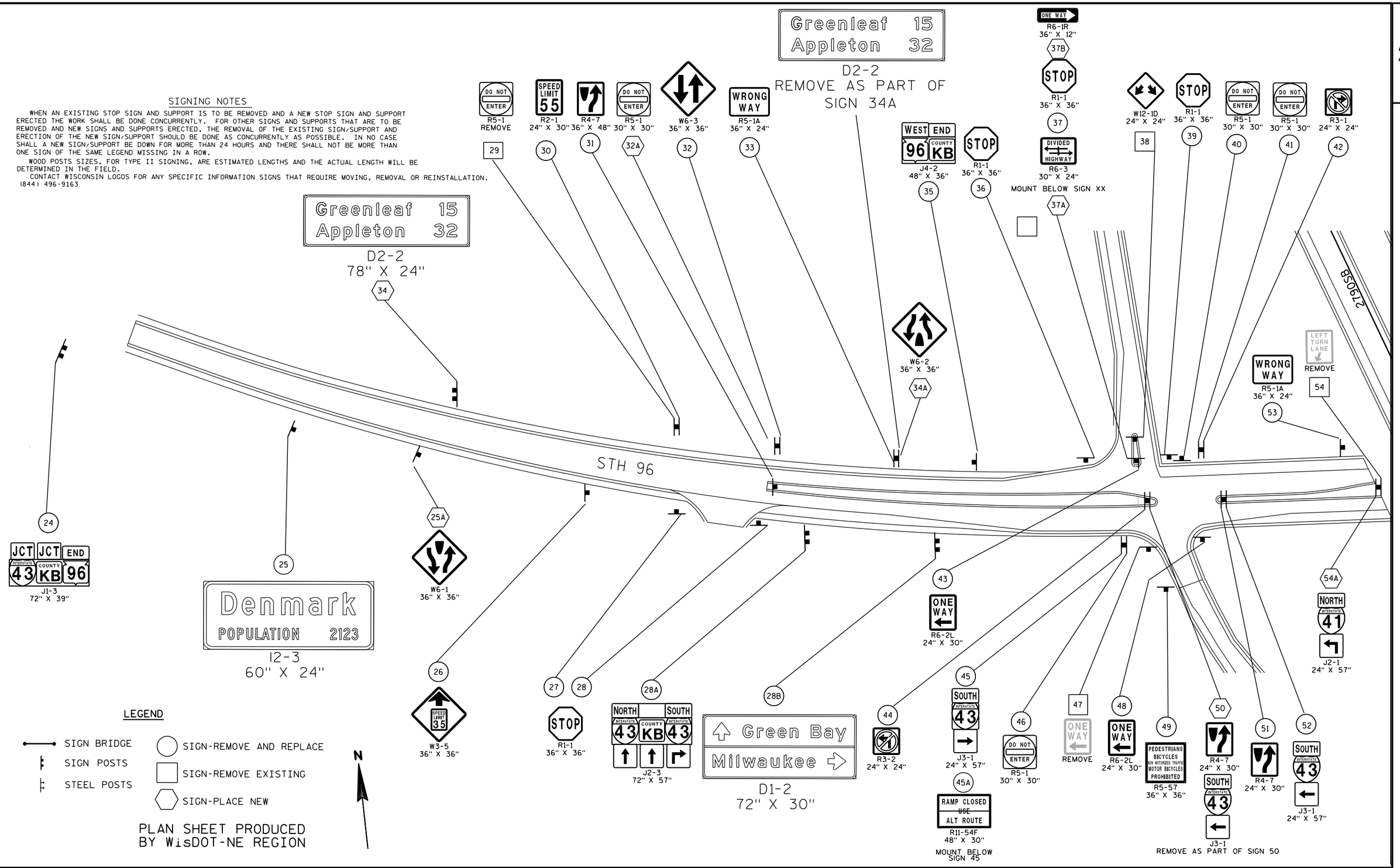

PROJECT NO: 1227-08-71	HWY: IH-43	COUNTY: BROWN	PERMANANT SIGNING	SHEET 56 E

2

LEGEND

- SIGN BRIDGE
- SIGN POSTS
- STEEL POSTS
- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW

PLAN SHEET PRODUCED
BY WisDOT-NE REGION

SIGNING NOTES

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N

Manitowoc
Milwaukee
D1-2
78" X 24"
75

Milwaukee
Green Bay
D1-2
72" X 30"
83

PEDESTRIANS
BICYCLES
NON MOTORIZED TRAFFIC
MOTOR BICYCLES
PROHIBITED
R5-57
36" X 36"
77

ONE WAY
R6-2L
24" X 30"
78

NORTH 43
J3-1
24" X 57"
80

WRONG WAY
R5-1A
36" X 24"
81

SOUTH WEST NORTH 43 96 43
J3-3
72" X 57"
82

W6-1
36" X 36"
MOUNT TO LIGHT POLE
83A

SOUTH WEST NORTH 43 96 43
J2-3
72" X 57"
84

JCT JCT 43 96
J1-2
48" X 39"
85

NORTH 43
J3-1
24" X 57"
76

R4-7
24" X 30"
76A

RAMP CLOSED
USE
ALT ROUTE
R11-54F
48" X 30"
MOUNT BELOW SIGN 78
78A

DO NOT ENTER
R5-1
30" X 30"
79

RAMP CLOSED
USE
ALT ROUTE
R11-54F
48" X 30"
MOUNT BELOW SIGN 80
80A

STH 96

56
LEFT TURN LANE
REMOVE

56A
SOUTH 41
J2-1
24" X 57"

57
SPEED LIMIT 35
R2-1
24" X 30"

58
WRONG WAY
R5-1A
36" X 24"

59
R3-1
24" X 24"

60
DO NOT ENTER
R5-1
30" X 30"

61
DO NOT ENTER
R5-1
30" X 30"

62
STOP
R1-1
36" X 36"

63
ONE WAY
R6-2L
24" X 30"

64B
ONE WAY
R6-1R
36" X 12"

64
STOP
R1-1
36" X 36"

64A
DIVIDED HIGHWAY
R6-3
30" X 24"
MOUNT BELOW SIGN XX

65
DO NOT ENTER
R5-1
30" X 30"

66
STOP
R1-1
36" X 36"

67A
W6-2
36" X 36"
COUNTY KB
J4-1
REMOVE AS PART OF SIGN 67A

68
WRONG WAY
R5-1A
36" X 24"

69
R4-7
24" X 30"
NORTH 43
J3-1
REMOVE AS PART OF SIGN 69

70
R3-2
24" X 24"

71
W6-3
36" X 36"

72
DO NOT ENTER
R5-1
30" X 30"

73
R4-7
36" X 48"

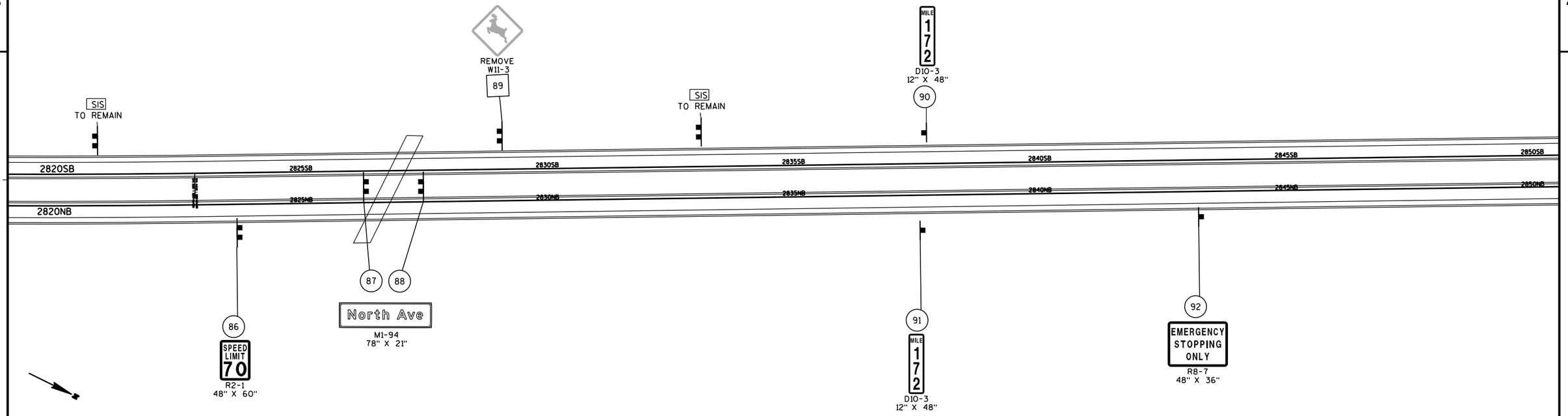
67
COUNTY KB
J4-1
24" X 24"

74
STOP
R1-1
36" X 36"

55
Green Bay
D1-1
72" X 15"

PROJECT NO: 1227-08-71	HWY: IH-43	COUNTY: BROWN	PERMANANT SIGNING	SHEET 57	E

2



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WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

CONTACT WISCONSIN LOGOS FOR ANY SPECIFIC INFORMATION SIGNS THAT REQUIRE MOVING, REMOVAL OR REINSTALLATION. (844) 496-9163

LEGEND

- SIGN BRIDGE
- SIGN POSTS
- STEEL POSTS
- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1227-08-71	HWY: IH-43	COUNTY: BROWN	PERMANANT SIGNING	SHEET 58	E

2

E1-5
108" X 30"

EXIT 171

302A

96 KB
Greenleaf
Denmark
1 MILE

E4-1A
180" X 156"

302

MILE 173
D10-3
12" X 48"

93

SIGNING NOTES

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2885SB

2890SB

2895SB

2900SB

2905SB

2910SB

2885NB

2890NB

2895NB

2900NB

2905NB

2910NB

92A

92B

Town Hall Rd

M1-94
96" X 21"

94

MILE 173
D10-3
12" X 48"

R3-4B
36" X 48"

96

2915SB

2920SB

2925SB

2930SB

2935SB

2940SB

2945SB

2915NB

2920NB

2925NB

2930NB

2935NB

2940NB

2945NB

95

R3-4B
36" X 48"

MILE 174
D10-3
12" X 48"

98

97

MILE 174
D10-3
12" X 48"

LEGEND

- SIGN BRIDGE
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- STEEL POSTS
- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
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PLAN SHEET PRODUCED
BY WisDOT-NE REGION

PROJECT NO: 1227-08-71	HWY: IH-43	COUNTY: BROWN	PERMANANT SIGNING	SHEET 59	E

2

SIGNING NOTES

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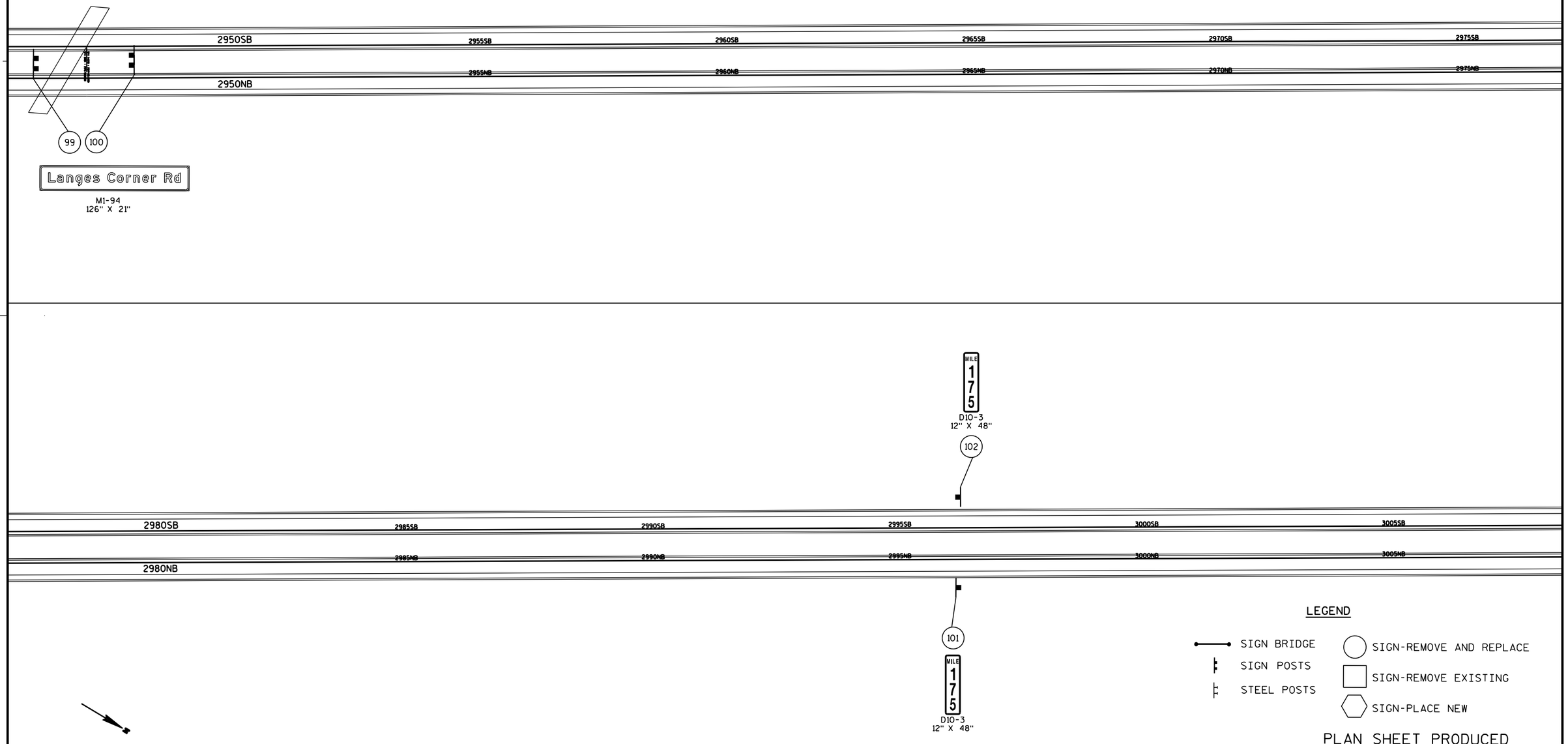

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- SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1227-08-71	HWY: IH-43	COUNTY: BROWN	PERMANANT SIGNING	SHEET 60	E

SIGNING NOTES

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

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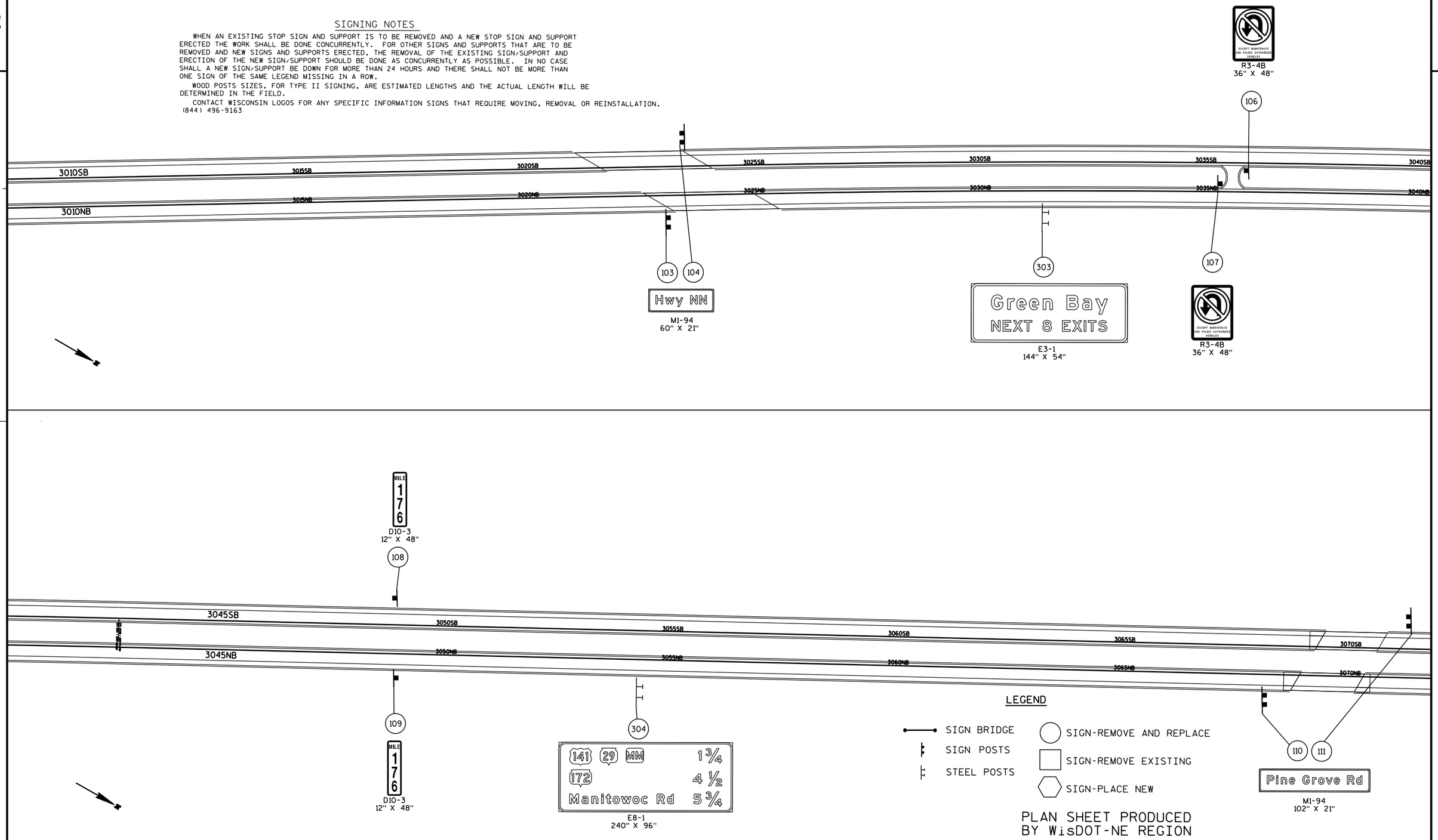
CONTACT WISCONSIN LOGOS FOR ANY SPECIFIC INFORMATION SIGNS THAT REQUIRE MOVING, REMOVAL OR REINSTALLATION. (844) 496-9163



LEGEND

- SIGN BRIDGE
- SIGN POSTS
- STEEL POSTS
- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1227-08-71	HWY: IH-43	COUNTY: BROWN	PERMANANT SIGNING	SHEET 61	E

FILE NAME : N:\spo\traffic\SIGNING\Projects\1227-08-71 I-43 Brown Co\43brown.dgn PLOT DATE : 17-OCT-2016 13:22 PLOT BY : dotets PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

SIGNING NOTES

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

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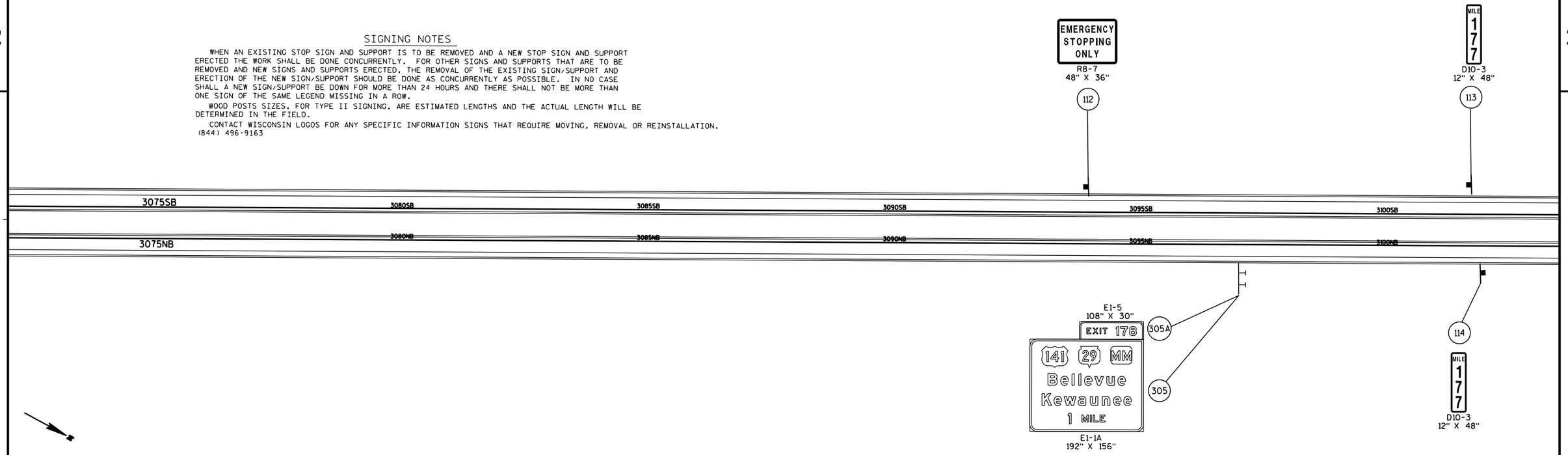
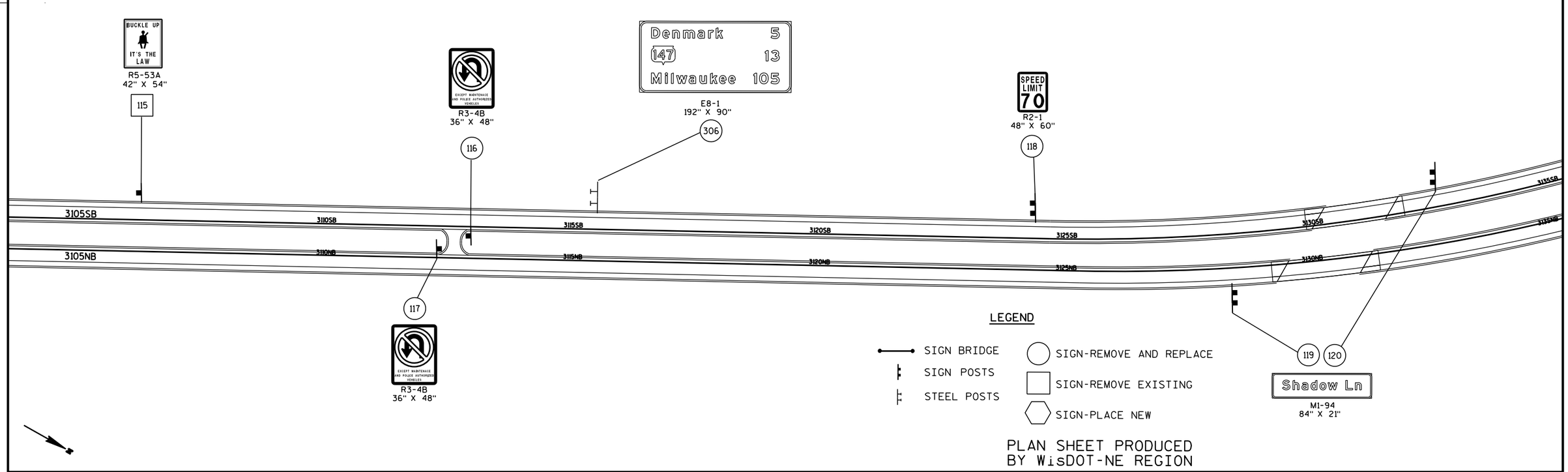
(844) 496-9163





PLAN SHEET PRODUCED
BY WisDOT-NE REGION

PROJECT NO: 1227-08-71	HWY: IH-43	COUNTY: BROWN	PERMANANT SIGNING	SHEET 62	E

SIGNING NOTES

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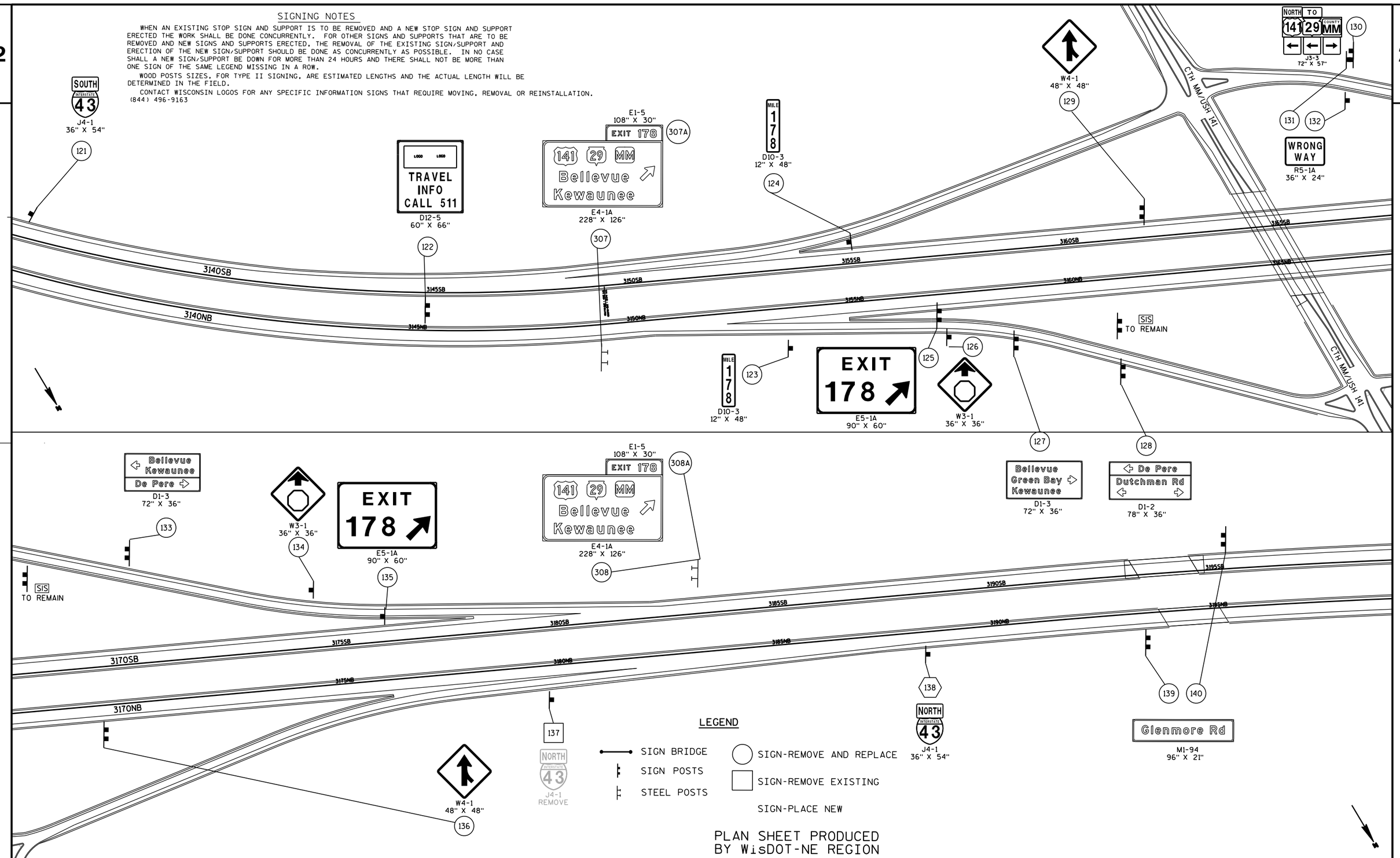

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1227-08-71	HWY: IH-43	COUNTY: BROWN	PERMANANT SIGNING	SHEET 63 E

LEGEND

- SIGN BRIDGE
- SIGN POSTS
- STEEL POSTS
- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW

PLAN SHEET PRODUCED
BY WisDOT-NE REGION

SIGNING NOTES

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

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CTH MM/USH 141

141 JCT 43 JCT 141 END COUNTY MM — J1-3, 72" X 39"
142 W6-1, 36" X 36"
143 De Pere 9 — D2-1, 66" X 15"
144 COUNTY MM — M1-5A, 24" X 24"
145 R4-7, 24" X 30"
146 DO NOT ENTER — R5-1, 30" X 30"
147 W6-3, 36" X 36"
148 WRONG WAY — R5-1A, 36" X 24"
149 W6-2, 36" X 36"
150 STOP — R1-1, 36" X 36"
151 DO NOT ENTER — R5-1, 30" X 30"
152 STOP — R1-1, 36" X 36"
152A DIVIDED HIGHWAY — R6-3, 30" X 24"
152B ONE WAY — R6-1R, 36" X 12"
152C ONE WAY — R6-2L, 24" X 30"
153 W12-1D, 24" X 24"
154 NORTH 43 NORTH 141 TO 29 SOUTH 43 — J2-4, 96" X 57"
155 Kewaunee / Green Bay / Milwaukee — D1-3, 72" X 36"
156 WRONG WAY — R5-1A, 36" X 24"
157 SOUTH 43 — J3-1, 24" X 57"
158 DO NOT ENTER — R5-1, 30" X 30"
159 R3-2, 24" X 24"
160 PEDESTRIANS BICYCLES NON MOTORIZED TRAFFIC MOTOR BICYCLES PROHIBITED — R5-57, 36" X 36"
161 ONE WAY — R6-2L, 24" X 30"
162 R4-7, 24" X 30"
162A SOUTH 43 — J3-1, 24" X 57"
163 LEFT TURN LANE — REMOVE
163A NORTH 43 — J2-1, 24" X 57"
164 Bellevue / Kewaunee / Green Bay — D1-3, 72" X 36"
165 STOP — R1-1, 36" X 36"
166 DO NOT ENTER — R5-1, 30" X 30"
167 R5-1, 30" X 30"
168 R3-1, 24" X 24"
169 R4-7, 24" X 30"
170 WRONG WAY — R5-1A, 36" X 24"

3165SB
3160SB

N

PROJECT NO: 1227-08-71	HWY: IH-43	COUNTY: BROWN	PERMANANT SIGNING	SHEET 64 E

FILE NAME : N:\spo\traffic\SIGNING\Projects\1227-08-71 I-43 Brown Co\43brown.dgn PLOT DATE : 17-OCT-2016 13:22 PLOT BY : dotets PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

SIGNING NOTES

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LEGEND

- SIGN BRIDGE
- SIGN POSTS
- STEEL POSTS
- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

N

31TOSB

31TONB

CTH MM/USH 141

Manitowoc / Milwaukee — D1-2, 78" X 24" — 176

NORTH INTERSTATE 43 ← — J3-1, 24" X 57" — 177

R4-7, 24" X 30" — 177A

ONE WAY ← — R6-2L, 24" X 30" — 178, 178A

PEDESTRIANS BICYCLES (NON MOTORIZED TRAFFIC) MOTOR BICYCLES PROHIBITED — R5-57, 36" X 36" — 179

YIELD — R1-2, 36" X 31" — 180

DO NOT ENTER — R5-1, 30" X 30" — 181

NORTH INTERSTATE 43 → — J3-1, 24" X 57" — 182

NORTH INTERSTATE 43 → — REMOVE — 183

De Pere / Milwaukee / Green Bay — D1-3, 72" X 36" — 183A

SOUTH INTERSTATE 43 ← — J2-1, 24" X 57" — 171A

171 — LEFT TURN LANE — REMOVE

174 — R3-1, 24" X 24"

175 — DO NOT ENTER — R5-1, 30" X 30"

172 — NORTH INTERSTATE 43 / NORTH 141 — J3-2, 48" X 57"

173 — WRONG WAY — R5-1A, 36" X 24"

SIS TO REMAIN

184A, 184B — WRONG WAY — R5-1A, 36" X 24"

184 — COUNTY MM / TO 141 / TO 29 — J3-3, 72" X 57"

185 — DO NOT ENTER — R5-1, 30" X 30"

186 — STOP — R1-1, 36" X 36"

187 — W12-1D, 24" X 24"

188 — ONE WAY ← — R6-2L, 24" X 30"

189B — ONE WAY → — R6-1R, 36" X 12"

189 — STOP — R1-1, 36" X 36"

189A — DIVIDED HIGHWAY — R6-3, 30" X 24"

190 — DO NOT ENTER — R5-1, 30" X 30"

191 — STOP — R1-1, 36" X 36"

192 — R4-7, 24" X 30"

NORTH INTERSTATE 43 ← — J3-1 — REMOVE AS PART OF SIGN 192

193 — R3-2, 24" X 24"

194 — JCT COUNTY R — J1-1, 24" X 39"

195 — W3-1, 36" X 36"

196 — WRONG WAY — R5-1A, 36" X 24"

197 — R4-7, 24" X 30"

198 — DO NOT ENTER — R5-1, 30" X 30"

199 — Green Bay / Kewaunee / Langes Corners — D1-3, 102" X 36"

200 — NORTH 141 / TO 29 / COUNTY R — J3-3, 72" X 57"

SOUTH INTERSTATE 43 / WEST COUNTY MM / NORTH INTERSTATE 43 ↑ — J3-3, 72" X 57" — 201

JCT INTERSTATE 43 / JCT COUNTY MM — J1-2, 48" X 39" — 200A

PROJECT NO: 1227-08-71	HWY: IH-43	COUNTY: BROWN	PERMANANT SIGNING	SHEET 65	E

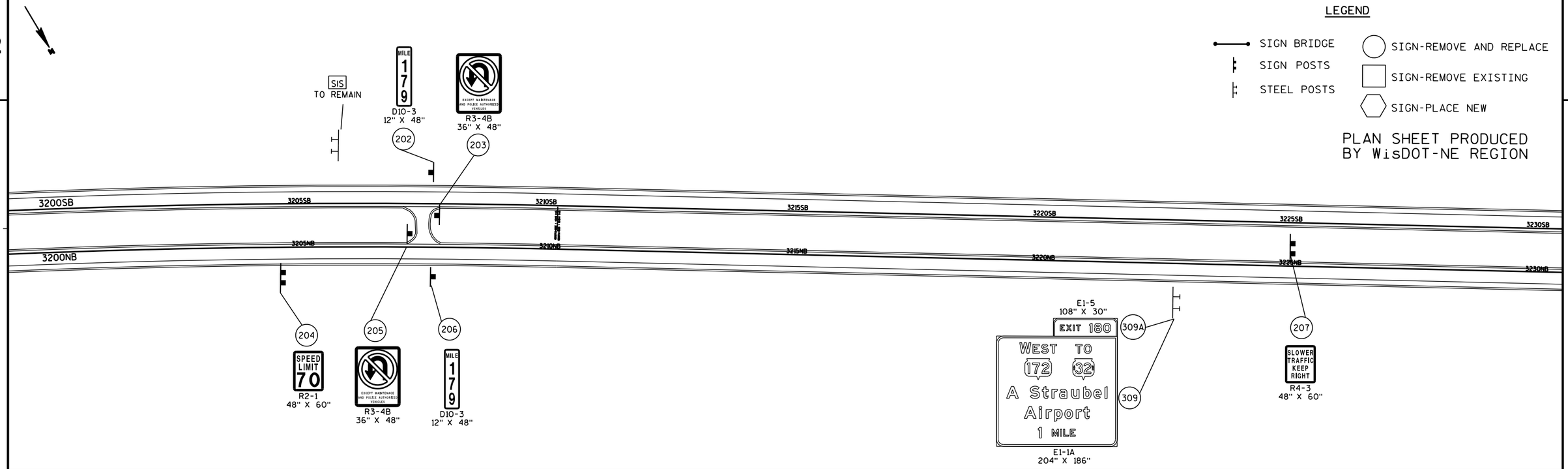
FILE NAME : N:\spo\traffic\SIGNING\Projects\1227-08-71 I-43 Brown Co\43brown.dgn PLOT DATE : 17-OCT-2016 13:22 PLOT BY : dotets PLOT NAME : PLOT SCALE : 100:1

2

LEGEND

- SIGN BRIDGE
- SIGN POSTS
- STEEL POSTS
- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION



CONTACT WISCONSIN LOGOS LLC
FOR REMOVAL OF SIS SIGN
(844) 496-9163

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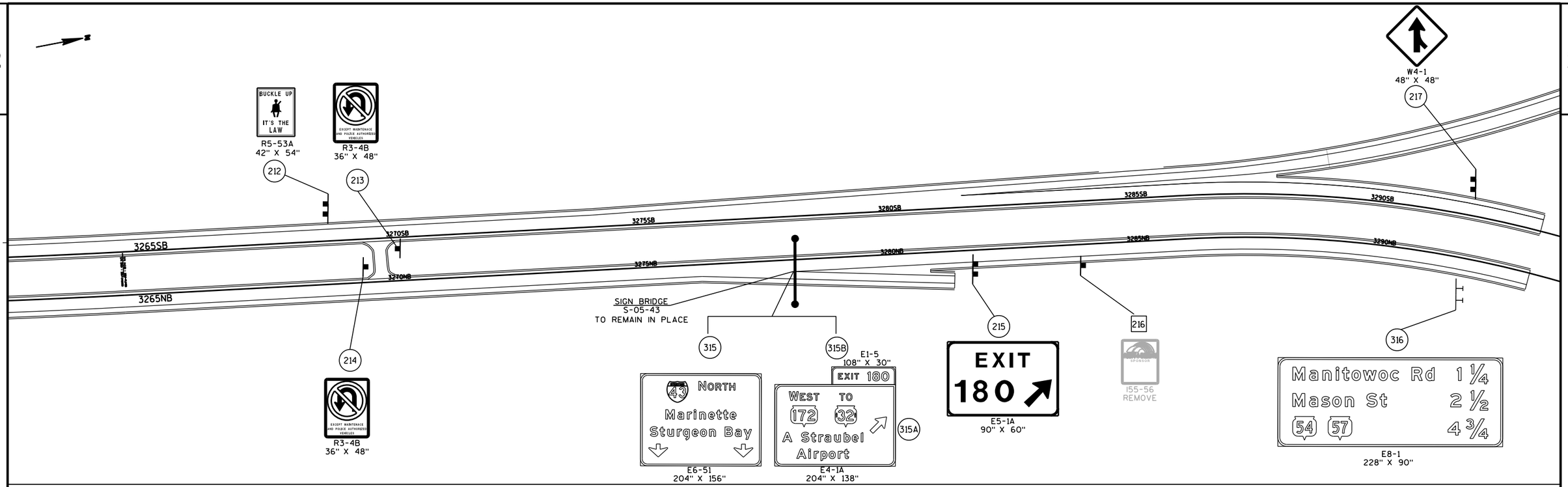
PROJECT NO: 1227-08-71	HWY: IH-43	COUNTY: BROWN	PERMANANT SIGNING	SHEET 66	E



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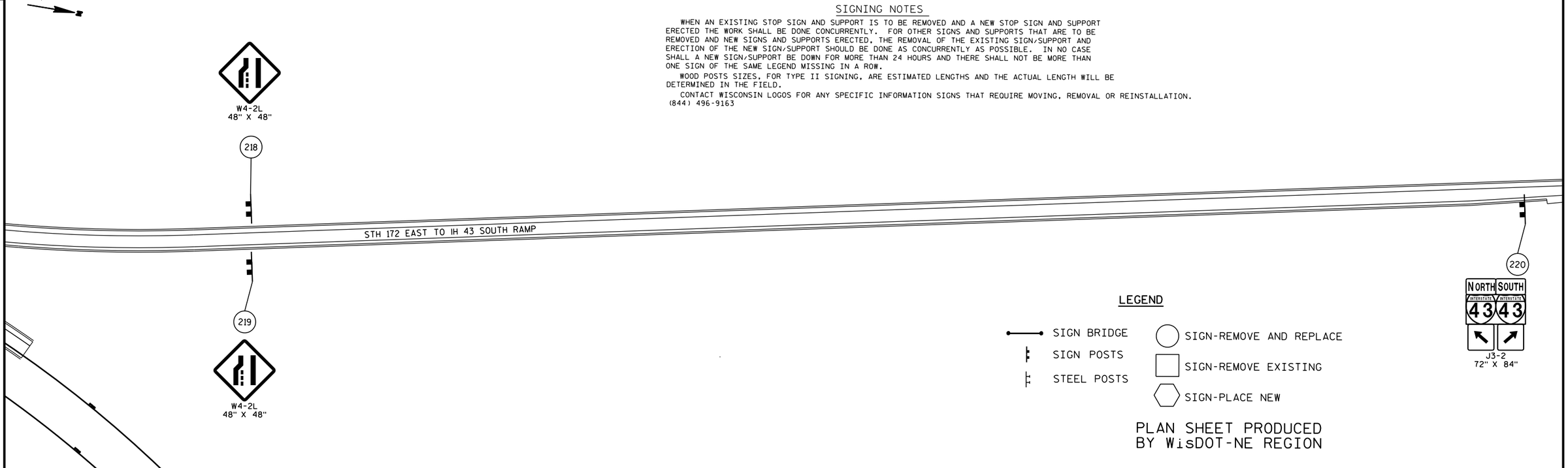


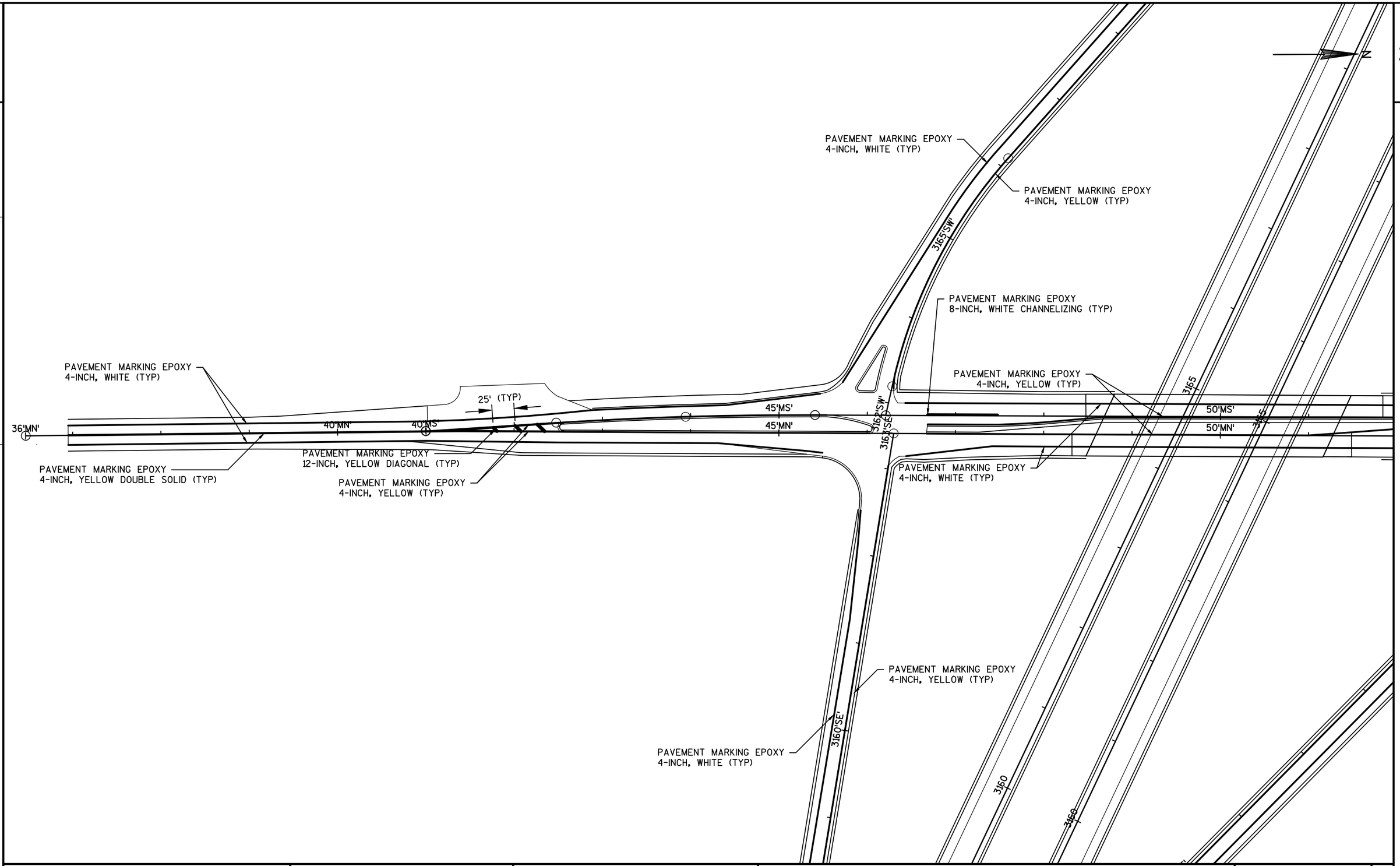
LEGEND

- SIGN BRIDGE
- SIGN POSTS
- STEEL POSTS
- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW

PLAN SHEET PRODUCED
BY WisDOT-NE REGION

PROJECT NO: 1227-08-71	HWY: IH-43	COUNTY: BROWN	PERMANANT SIGNING	SHEET 67	E

2



PROJECT NO:1227-08-71	HWY: IH 43	COUNTY:BROWN	PAVMENT MARKING DETAILS - USH 141/CTH MM & RAMPS	SHEET 68	E

2

N

PAVEMENT MARKING EPOXY
4-INCH, YELLOW (TYP)

PAVEMENT MARKING EPOXY
4-INCH, WHITE (TYP)

PAVEMENT MARKING EPOXY
8-INCH, WHITE CHANNELIZED (TYP)

PAVEMENT MARKING EPOXY
4-INCH, WHITE (TYP)

PAVEMENT MARKING EPOXY
4-INCH, WHITE (TYP)

PAVEMENT MARKING EPOXY
4-INCH, YELLOW (TYP)

PAVEMENT MARKING EPOXY
4-INCH, YELLOW DOUBLE SOLID (TYP)

PAVEMENT MARKING EPOXY
12-INCH, YELLOW DIAGONAL (TYP)

PAVEMENT MARKING EPOXY
4-INCH YELLOW (TYP)

PAVEMENT MARKING EPOXY
8-INCH, CHANNELIZING (TYP)

316'NW'

316'NE'

316'SW'

317'NW'

55'MS'

55'MN'

60'MS'

60'MN'

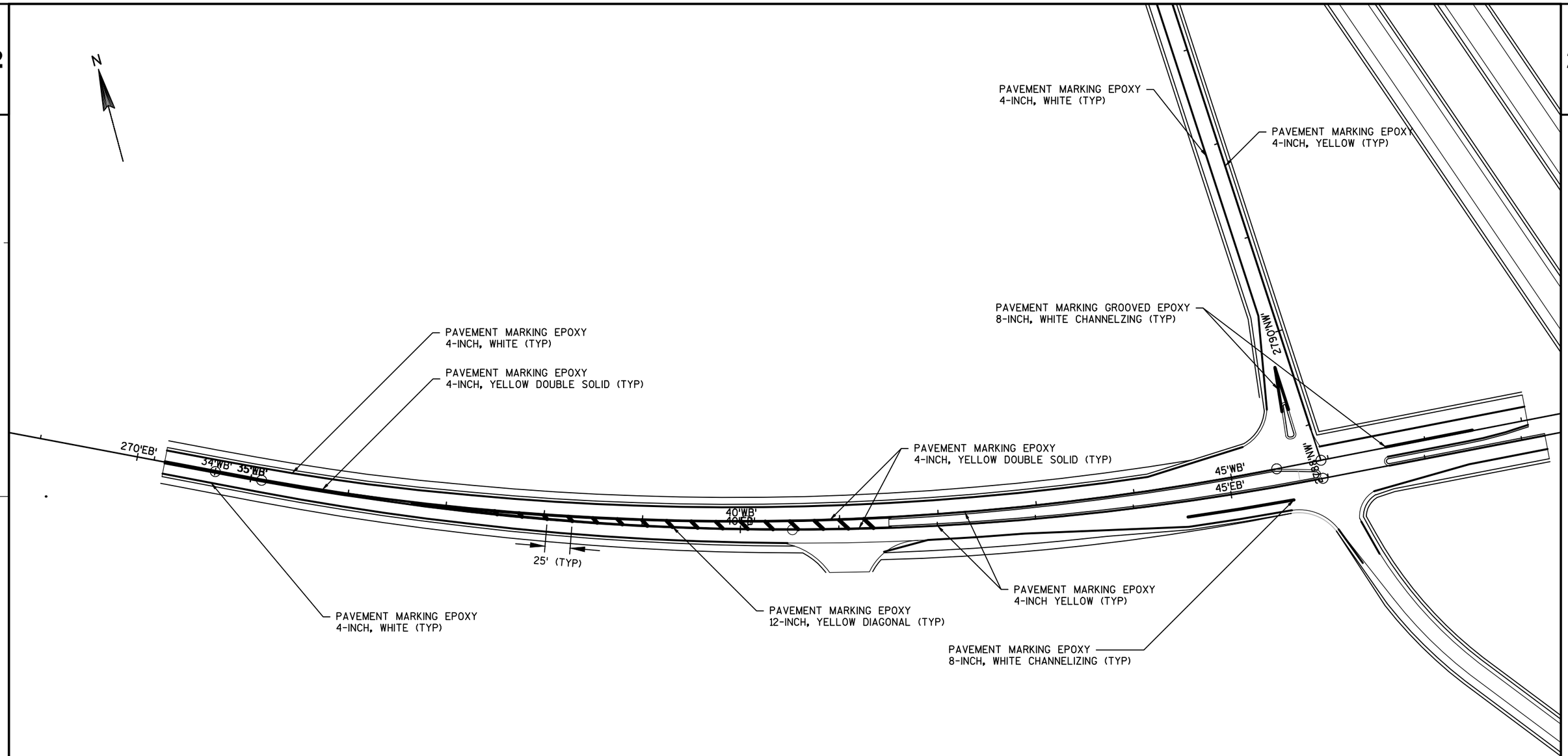
64'MS'

65'MN'

65'MN'

75' (TYP)

PROJECT NO:1227-08-71	HWY: IH 43	COUNTY:BROWN	PAVEMENT MARKING DETAILS - USH 141/CTHMM & RAMPS	SHEET 69	E

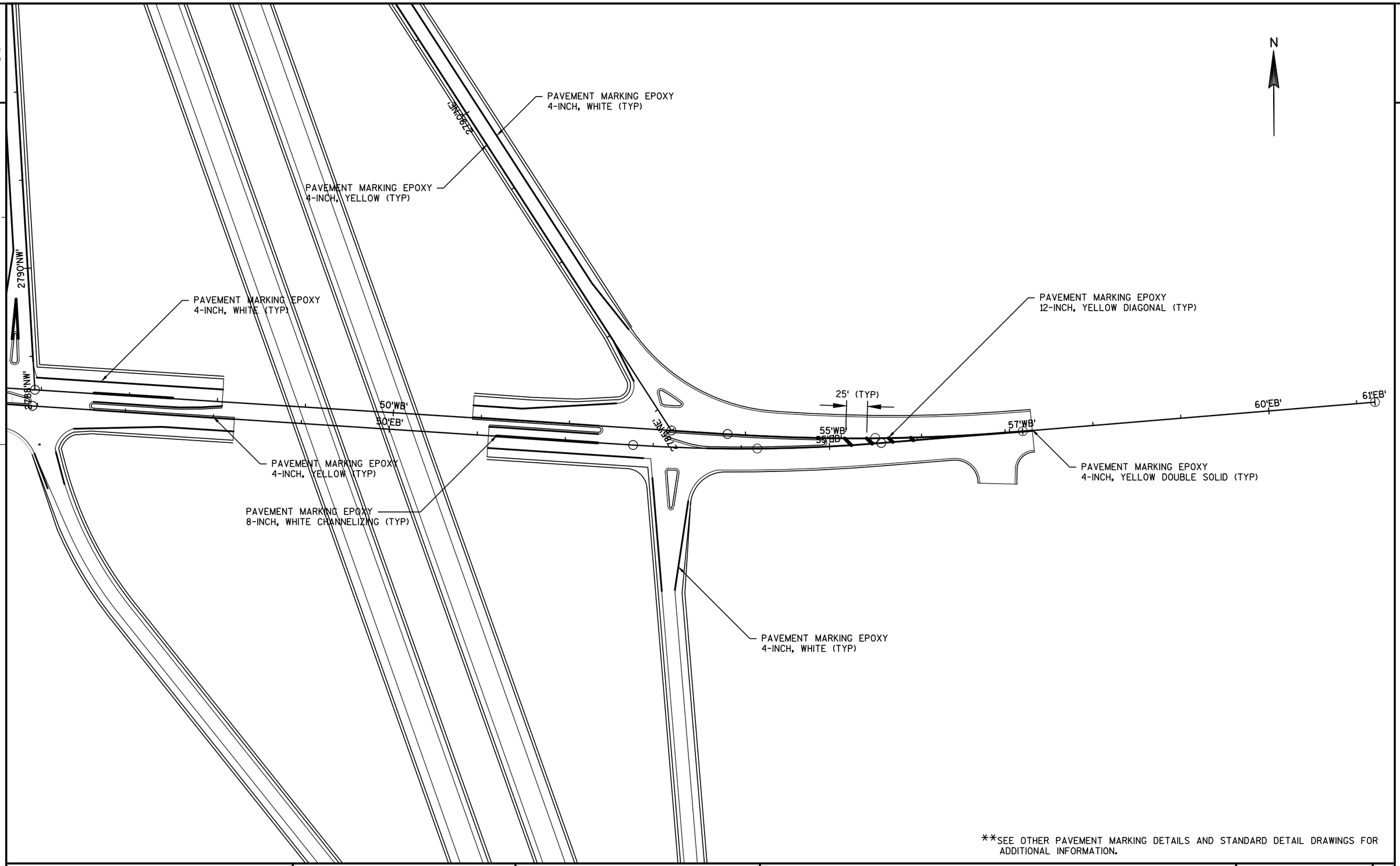


2

**SEE OTHER PAVEMENT MARKING DETAILS AND STANDARD DETAIL DRAWINGS FOR ADDITIONAL INFORMATION.

PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	PAVEMENT MARKING DETAILS - STH 96 & NE/NW RAMPS	SHEET 70	E

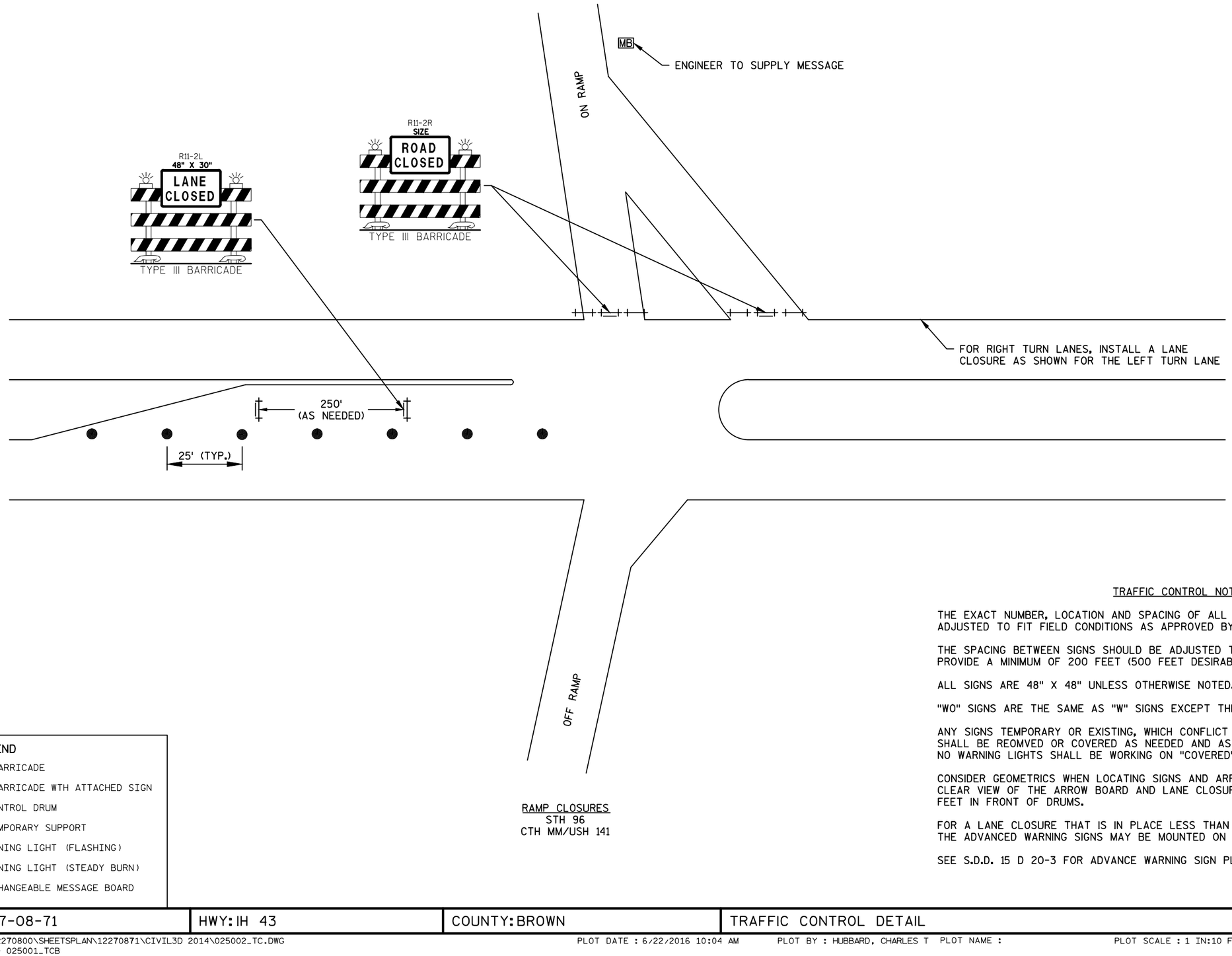
2



**SEE OTHER PAVEMENT MARKING DETAILS AND STANDARD DETAIL DRAWINGS FOR ADDITIONAL INFORMATION.

PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	PAVEMENT MARKING DETAILS - STH 96 & NE/NW RAMPS	SHEET 71	E

2



RAMP CLOSURES
STH 96
CTH MM/USH 141

LEGEND

↕	TYPE III BARRICADE
↕	TYPE III BARRICADE WTH ATTACHED SIGN
●	TRAFFIC CONTROL DRUM
⊢	SIGN ON TEMPORARY SUPPORT
Ⓐ	TYPE A WARNING LIGHT (FLASHING)
Ⓒ	TYPE C WARNING LIGHT (STEADY BURN)
MB	PORTABLE CHANGEABLE MESSAGE BOARD

TRAFFIC CONTROL 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.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REOMVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1600 FEET IN FRONT OF DRUMS.

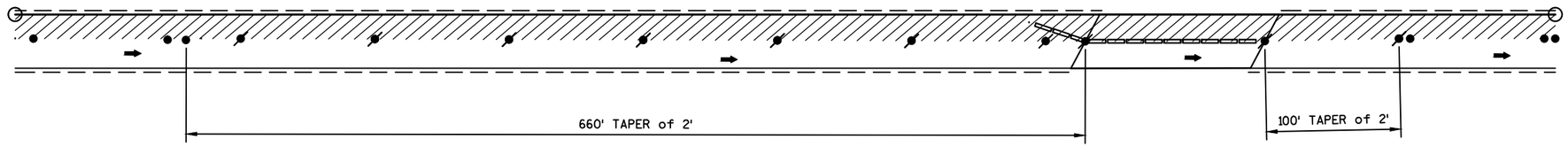
FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

SEE S.D.D. 15 D 20-3 FOR ADVANCE WARNING SIGN PLACEMENT.

PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	TRAFFIC CONTROL DETAIL	SHEET 72	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\025002_TC.DWG
LAYOUT NAME - 025001_TCB
PLOT DATE : 6/22/2016 10:04 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



STAGE 2A AND 2B FOR IH 43 AT STRUCTURES

NORTHBOUND
B-05-0241
B-05-0244
B-05-0246
B-05-0248
B-05-0187
B-05-0186TA 3162+00.00'NB' - 3169+00.00'NB' (IH 43 UNDER B-05-0189)

SOUTHBOUND
B-05-0240
B-05-0243
B-05-0245
B-05-0247
B-05-0188

LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC

GENERAL NOTES

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

THIS LANE CLOSURE IS TYPICAL FOR CLOSING LEFT LANE (STAGE 2A) - REVERSE FOR CLOSING RIGHT LANE (STAGE 2B).

PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	TRAFFIC CONTROL DETAIL	SHEET 73	E

2

2

USH 141/CTH MM

55

55

N

LEGEND

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT

DIRECTION OF TRAFFIC

PROJECT NO:1227-08-71	HWY:USH 141/CTH MM	COUNTY:BROWN	TRAFFIC CONTROL DETAIL	SHEET 74	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\025003_TC.DWG
LAYOUT NAME - ****

PLOT DATE : 10/10/2016 2:58 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

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

N

DETAIL 1
SEE SHEET 2 OF 3

DETAIL 2
SEE SHEET 2 OF 3

DETAIL 3
SEE SHEET 3 OF 3

DETAIL 4
SEE SHEET 3 OF 3

WORK ZONE

DETOUR M04-8 24" X 12" EAST M3-2 24" X 12" 96 M1-6 24" X 24" M06-1 21" X 21" — 33
DETOUR M04-8 24" X 12" EAST M3-2 24" X 12" 96 M1-6 24" X 24" M05-1L 21" X 21" — 34

31 32 WEST M3-4 36" X 18" 96 M1-6 36" X 36" DETOUR AHEAD W020-2A 48" X 48"

29 30 HWY 96 CLOSED AT HWY 43 FOLLOW DETOUR FMS 132" X 54"

27 28 DETOUR M04-8 36" X 18" WEST M3-4 36" X 18" 96 M1-6 36" X 36" M05-2R 30" X 30"

17 DETOUR M04-8 36" X 18" WEST M3-4 36" X 18" 96 M1-6 36" X 36" M06-2 30" X 30"

15 16 DETOUR M04-8 36" X 18" WEST M3-4 36" X 18" 96 M1-6 36" X 36" M05-2R 30" X 30"

DETOUR M04-8 24" X 12" WEST M3-4 24" X 12" 96 M1-6 24" X 24" — 43

DETOUR M04-8 24" X 12" EAST M3-2 24" X 12" 96 M1-6 24" X 24" — 42

EXIT 171 96 COUNTY KB Greenleaf Denmark 1 MILE — COVER AS SHOWN — 14

DETOUR M04-8 36" X 18" WEST M3-4 36" X 18" 96 M1-6 36" X 36" M06-1 30" X 30" — 4 5

54 DETOUR AHEAD W020-2A 48" X 48"

53 DETOUR M04-8 24" X 12" EAST M3-2 24" X 12" 96 M1-6 24" X 24" M05-1L 21" X 21"

2 3 WEST M3-4 36" X 18" 96 M1-6 36" X 36" DETOUR AHEAD W020-2A 48" X 48"

1 EXIT 171 96 COUNTY KB Greenleaf Denmark 1 MILE — COVER AS SHOWN

SHEET 1 OF 3

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1227-08-71	HWY: I-43	COUNTY: BROWN	DETOUR SIGNING DETAIL	SHEET	E

FILE NAME : N:\spo\traffic\A Work Zone\Detours\Brown County\STH 96\I-43 Interchange\027001_dt.dgn PLOT DATE : 21-APR-2016 13:38 PLOT BY : dotj1f PLOT NAME : PLOT SCALE : 10000:1

WISDOT/CADDS SHEET

2

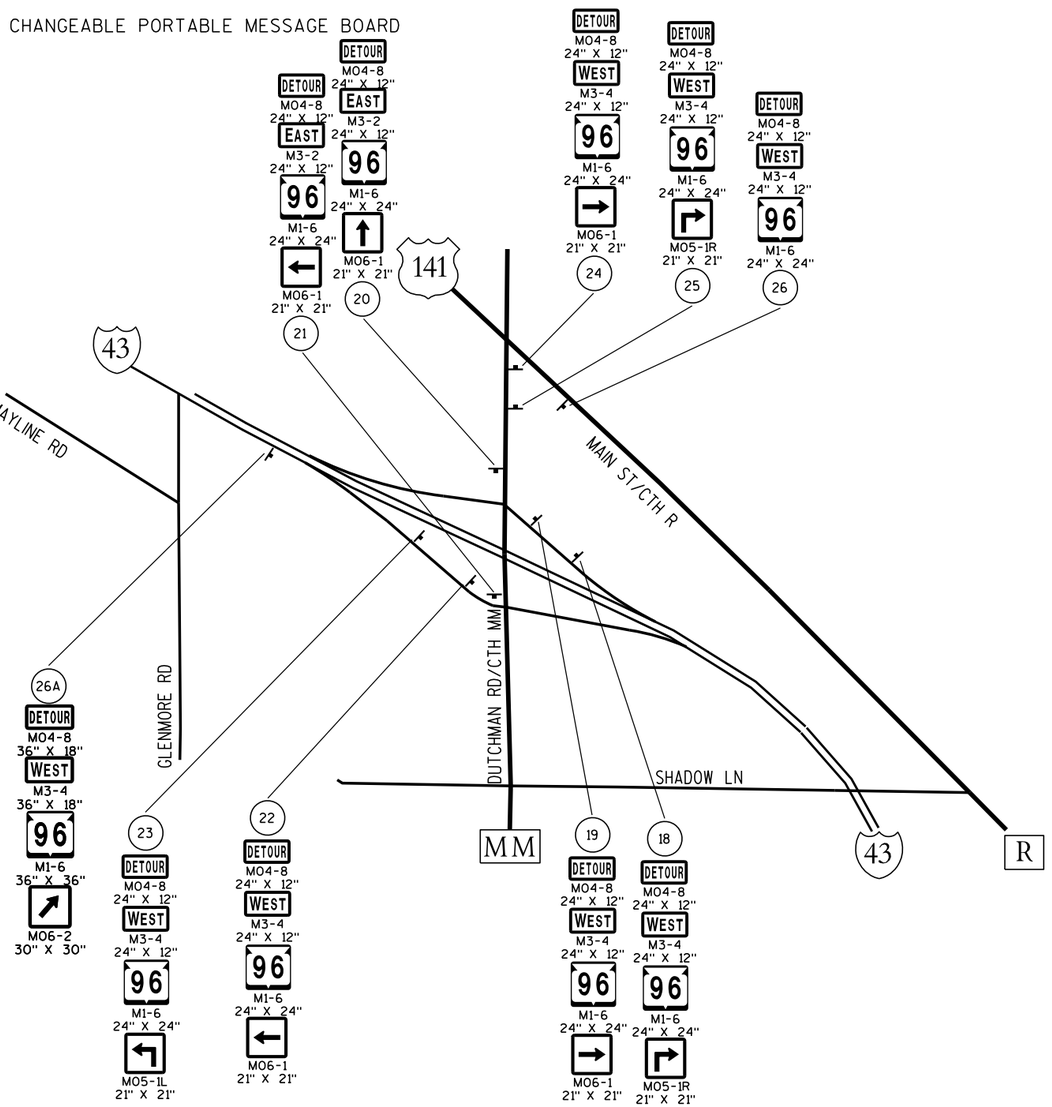
LEGEND

(X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET

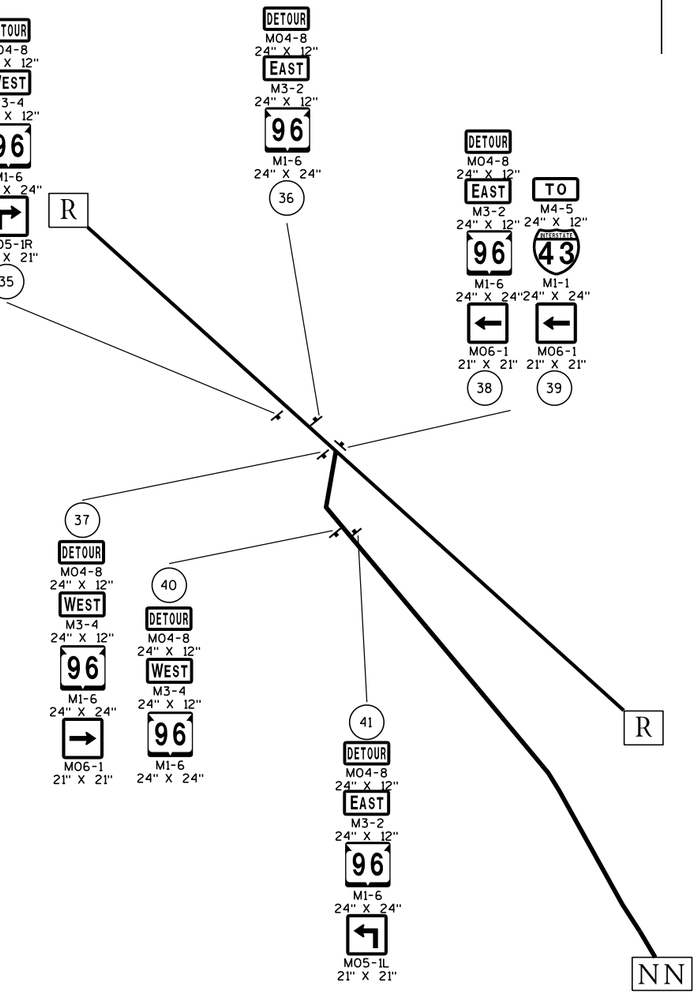
SIGN MOUNTED ON TYPE III BARRICADE

POST MOUNTED SIGN

(X) CHANGEABLE PORTABLE MESSAGE BOARD



DETAIL 1



DETAIL 2

SHEET 2 OF 3

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO:1227-08-71	HWY:I-43	COUNTY:BROWN	DETOUR SIGNING DETAIL	SHEET 76	E

2

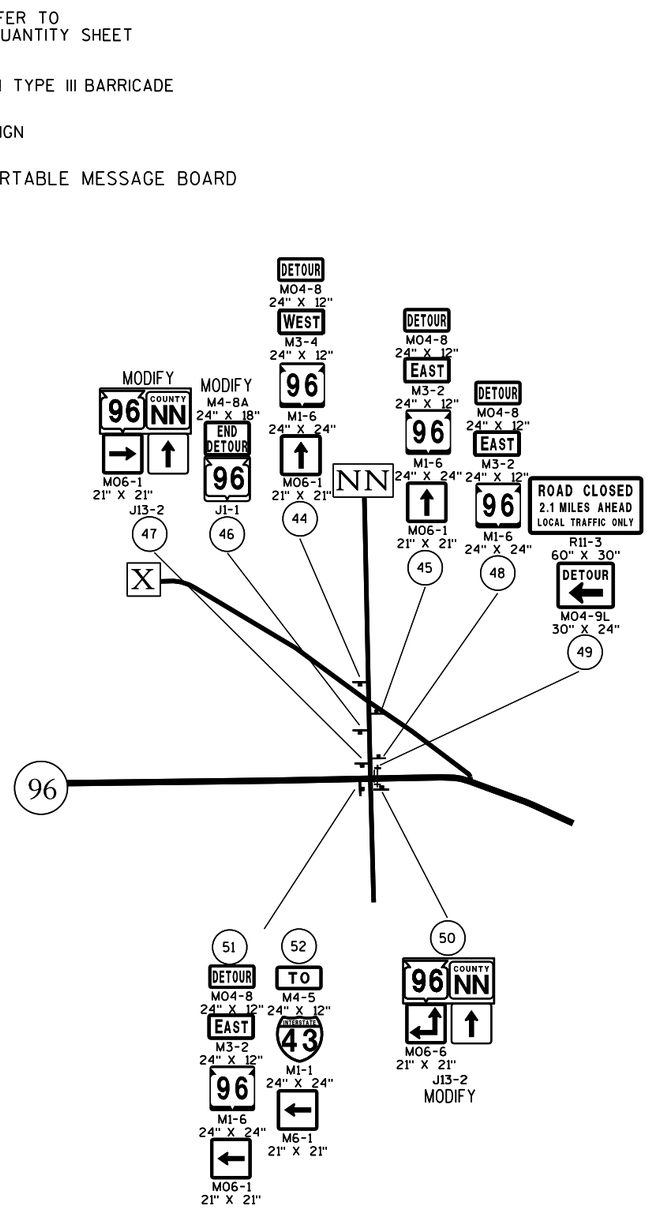
LEGEND

(X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET

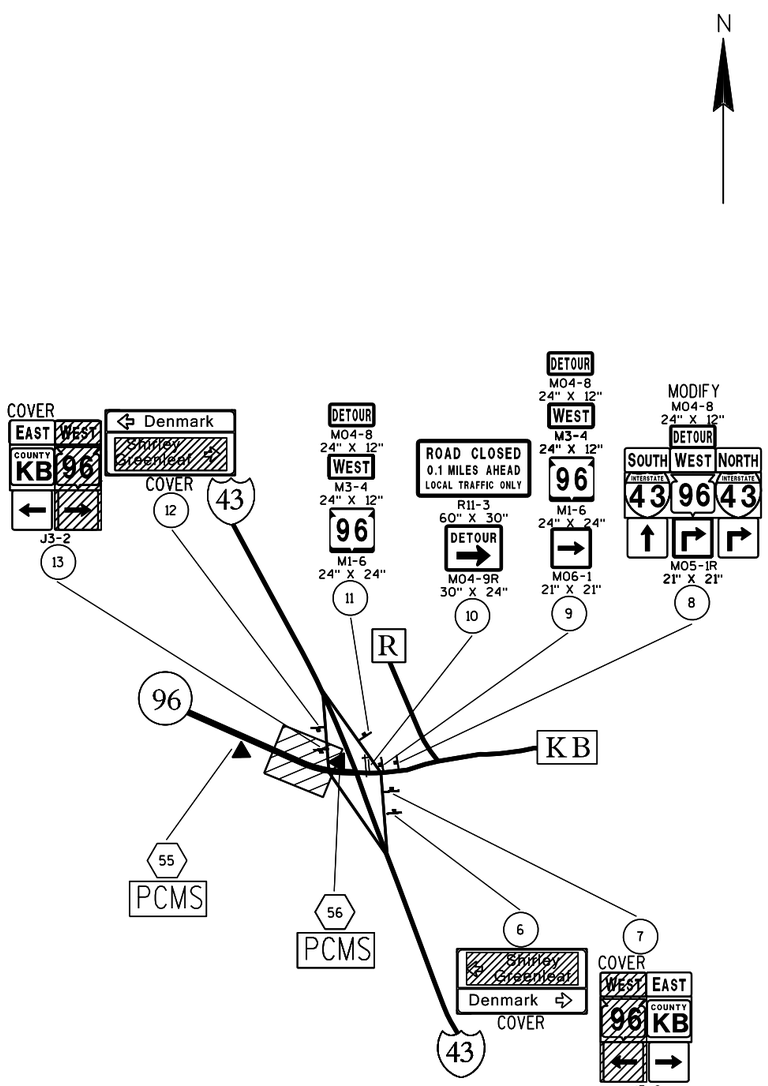
SIGN MOUNTED ON TYPE III BARRICADE

POST MOUNTED SIGN

(X) CHANGEABLE PORTABLE MESSAGE BOARD



DETAIL 3



DETAIL 4

SHEET 3 OF 3

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1227-08-71	HWY: I-43	COUNTY: BROWN	DETOUR SIGNING DETAIL	SHEET 77	E

FILE NAME : N:\spo\traffic\A Work Zone\Detours\Brown County\STH 96\I-43 Interchange\027003_dt.dgn PLOT DATE : 21-APR-2016 14:23 PLOT BY : dotj1f PLOT NAME : PLOT SCALE : 1200:1

WISDOT/CADDS SHEET 42

2

LEGEND

(X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET

SIGN MOUNTED ON TYPE III BARRICADE

POST MOUNTED SIGN

(X) CHANGEABLE PORTABLE MESSAGE BOARD

N

COVER
De Pere
Milwaukee
Green Bay
9

COVER
NORTH
43
MM
8

PCMS
45

WORK ZONE

43

MATCH LINE (SEE NEXT SHEET)

MAYLINE RD

MAIN ST/CTH R

GLENMORE RD

DUTCHMAN RD/CTH MM

SHADOW LN

Green Bay
Kewaunee
De Pere
COVER
7

EXIT 178
TO
141 29 MM
Bellevue
Kewaunee
COVER AS SHOWN
2

EXIT 178
TO
141 29 MM
Bellevue
Kewaunee
1 MILE
COVER AS SHOWN
1

11
EXIT 178
141 STH 29 COUNTY MM
Bellevue
Kewaunee
COVER AS SHOWN

12
Bellevue
Kewaunee
De Pere
COVER

13
COUNTY MM
COVER

6
Kewaunee
Green Bay
Milwaukee
COVER

MM

PCMS
46

5
COVER

4
TO NORTH
29 141
COVER

3
De Pere
Dutchman Rd
West EAST
COVER

43

R

SHEET 1 OF 4

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1227-08-71	HWY: I-43	COUNTY: BROWN	DETOUR SIGNING DETAIL	SHEET 78	E

FILE NAME : N:\spo\traffic\A Work Zone\Detours\Brown County\USH 141\CTH MM Structure\027001_dt.dgn PLOT DATE : 13-JAN-2016 10:51 PLOT BY : dotjlf PLOT NAME : PLOT SCALE : 1200:1

WISDOT/CADDS SHEET 42

LEGEND

(X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET

SIGN MOUNTED ON TYPE III BARRICADE

POST MOUNTED SIGN

N

MATCH LINE (SEE NEXT SHEET)

MATCH LINE (SEE SHEET #4)

MATCH LINE (SEE PREVIOUS SHEET)

43 172 29 141

USH 141/STH 29/MAIN ST

MANITOWOC RD

HURON RD

KEWAUNEE RD/STH 29

BIG CREEK RD

MAYLINE RD

GLENMORE RD

WALL ST

R

(25) TO M4-5 24" X 12" / SOUTH M3-3 24" X 12" / INTERSTATE 43 M1-1 24" X 24" / M06-1 21" X 21"

(24) TO M4-5 24" X 12" / SOUTH M3-3 24" X 12" / INTERSTATE 43 M1-1 24" X 24" / M06-1 21" X 21"

(23) Denmark / Manitowoc / Green Bay — COVER

(22) TO M4-5 24" X 12" / SOUTH M3-3 24" X 12" / INTERSTATE 43 M1-1 24" X 24" / M05-1R 21" X 21"

(21) M4-5 24" X 12" / TO M3-1 24" X 12" / NORTH WEST NORTH 43 29 141 — MODIFY AS SHOWN

(19A) TO M4-5 24" X 12" / SOUTH M3-3 24" X 12" / INTERSTATE 43 M1-1 24" X 24" / M06-1 21" X 21"

(16) M4-5 24" X 12" / TO M3-1 24" X 12" / NORTH SOUTH 43 141 — MODIFY AS SHOWN

(10) EXIT 178 / 141 TO 29 COUNTY MM / Bellevue / Kewaunee / 1 MILE — COVER AS SHOWN

(20) M4-5 24" X 12" / TO M3-1 24" X 12" / NORTH TO 43 COUNTY R MM — COVER — MODIFY AS SHOWN

(19) JCT COUNTY R MM — COVER

(18) M4-5 24" X 12" / TO M3-1 24" X 12" / NORTH SOUTH 43 141 — MODIFY AS SHOWN

(17) Langes Corners / Milwaukee / De Pere — COVER

(15) ROAD CLOSED 1/4 MILE AHEAD LOCAL TRAFFIC ONLY — R11-3 60" X 30"

(14) M4-5 24" X 12" / TO M3-1 24" X 12" / NORTH 43 MM — COVER — MODIFY AS SHOWN

(14A) TO M4-5 24" X 12" / SOUTH M3-3 24" X 12" / INTERSTATE 43 M1-1 24" X 24" / M06-1 21" X 21"

SHEET 2 OF 4

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1227-08-71	HWY: I-43	COUNTY: BROWN	DETOUR SIGNING DETAIL	SHEET 79	E

FILE NAME : N:\spo\traffic\A Work Zone\Detours\Brown County\USH 141\CTH MM Structure\027002_dt.dgn PLOT DATE : 21-JAN-2016 16:10 PLOT BY : dotj1f PLOT NAME : PLOT SCALE : 1200:1

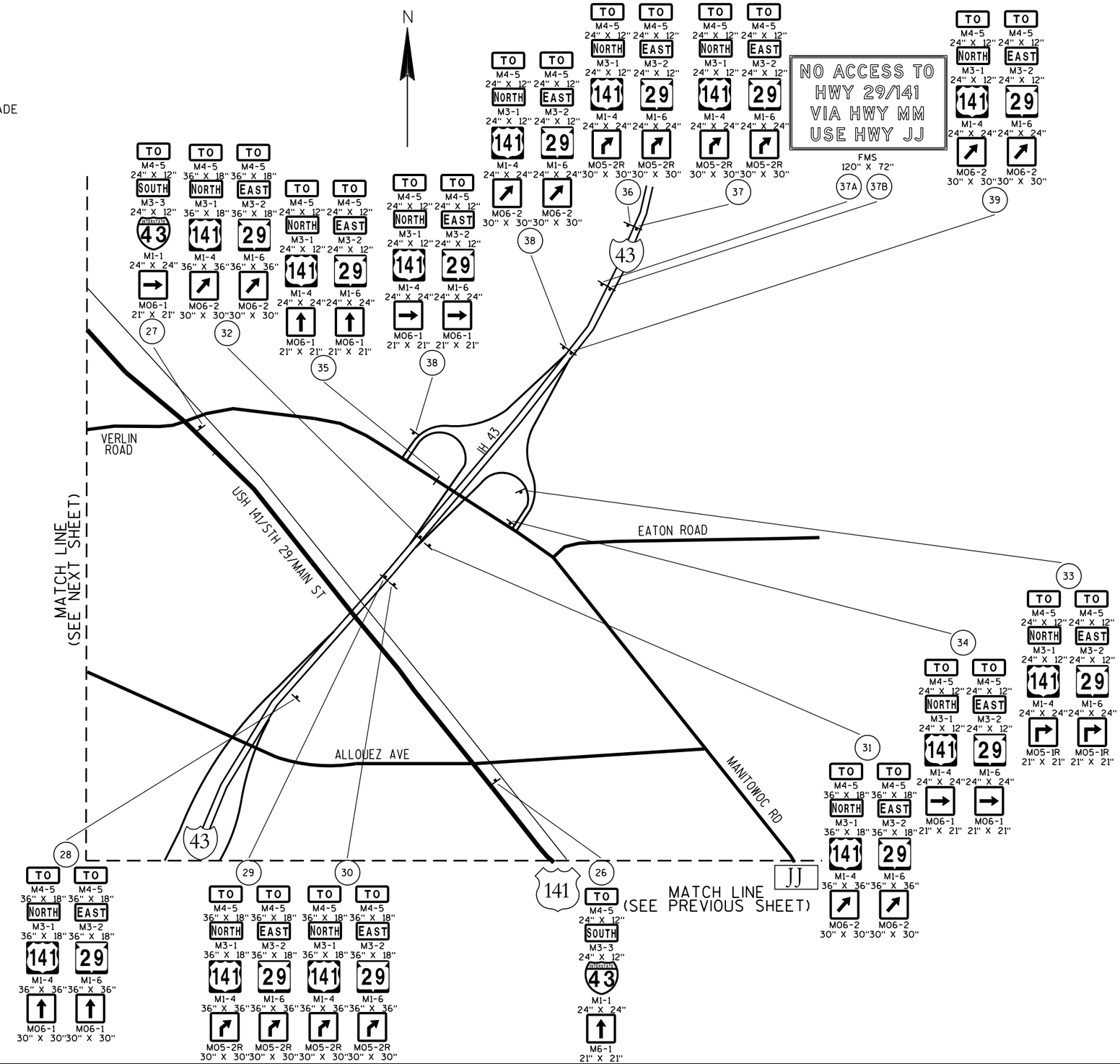
WISDOT/CADDS SHEET 42

LEGEND

(X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET

SIGN MOUNTED ON TYPE III BARRICADE

POST MOUNTED SIGN

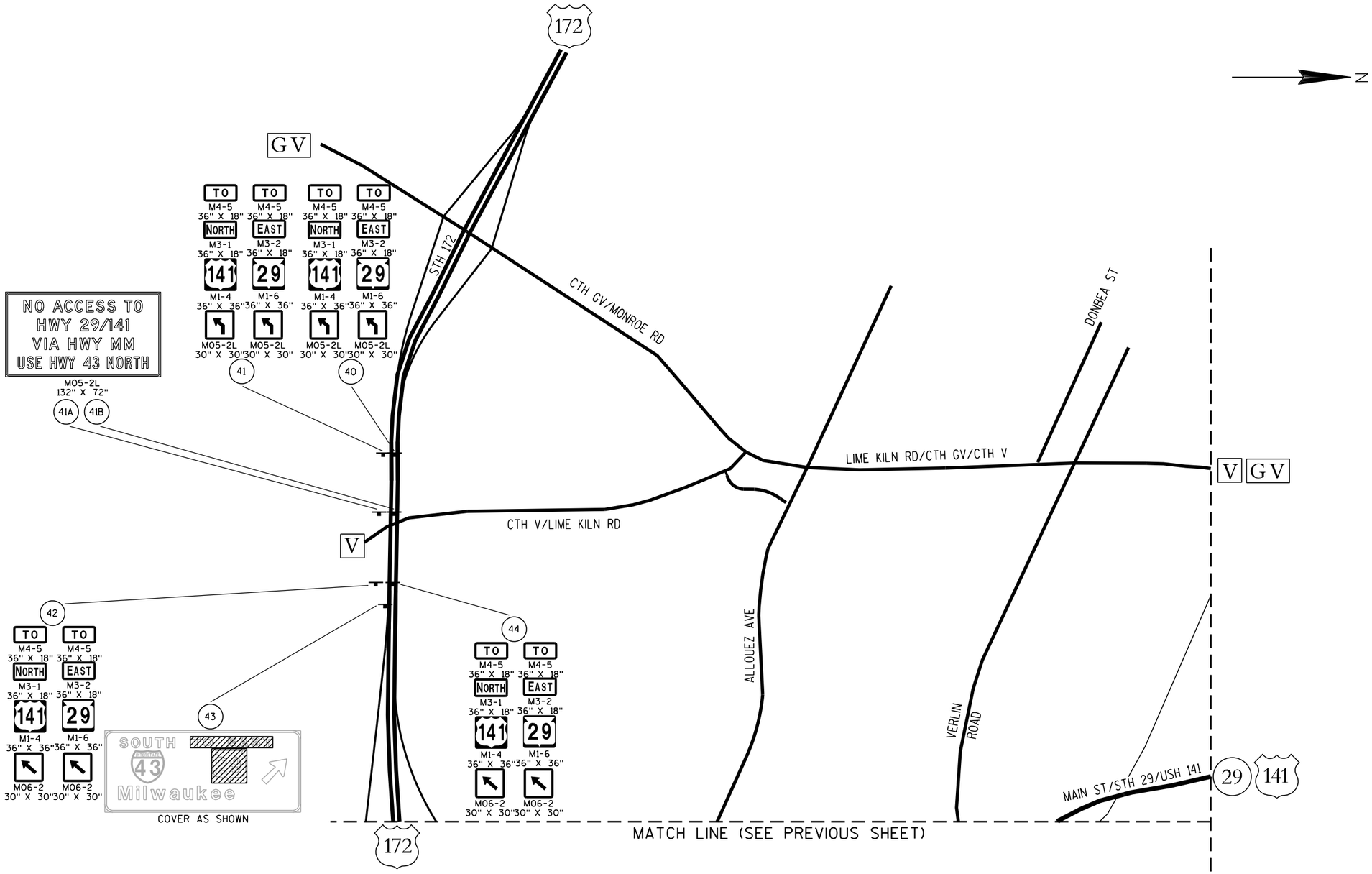


SHEET 3 OF 4

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO:1227-08-71	HWY:I-43	COUNTY:BROWN	DETOUR SIGNING DETAIL	SHEET 80	E

2



LEGEND

(X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET

SIGN MOUNTED ON TYPE III BARRICADE

POST MOUNTED SIGN

SHEET 4 OF 4

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1227-08-71	HWY: I-43	COUNTY: BROWN	DETOUR SIGNING DETAIL	SHEET 81	E

FILE NAME : N:\spo\traffic\A Work Zone\Detours\Brown County\USH 141\CTH MM Structure\027004_dt.dgn PLOT DATE : 21-JAN-2016 16:15 PLOT BY : dotj1f PLOT NAME : PLOT SCALE : 1200:1

WISDOT/CADDS SHEET 42

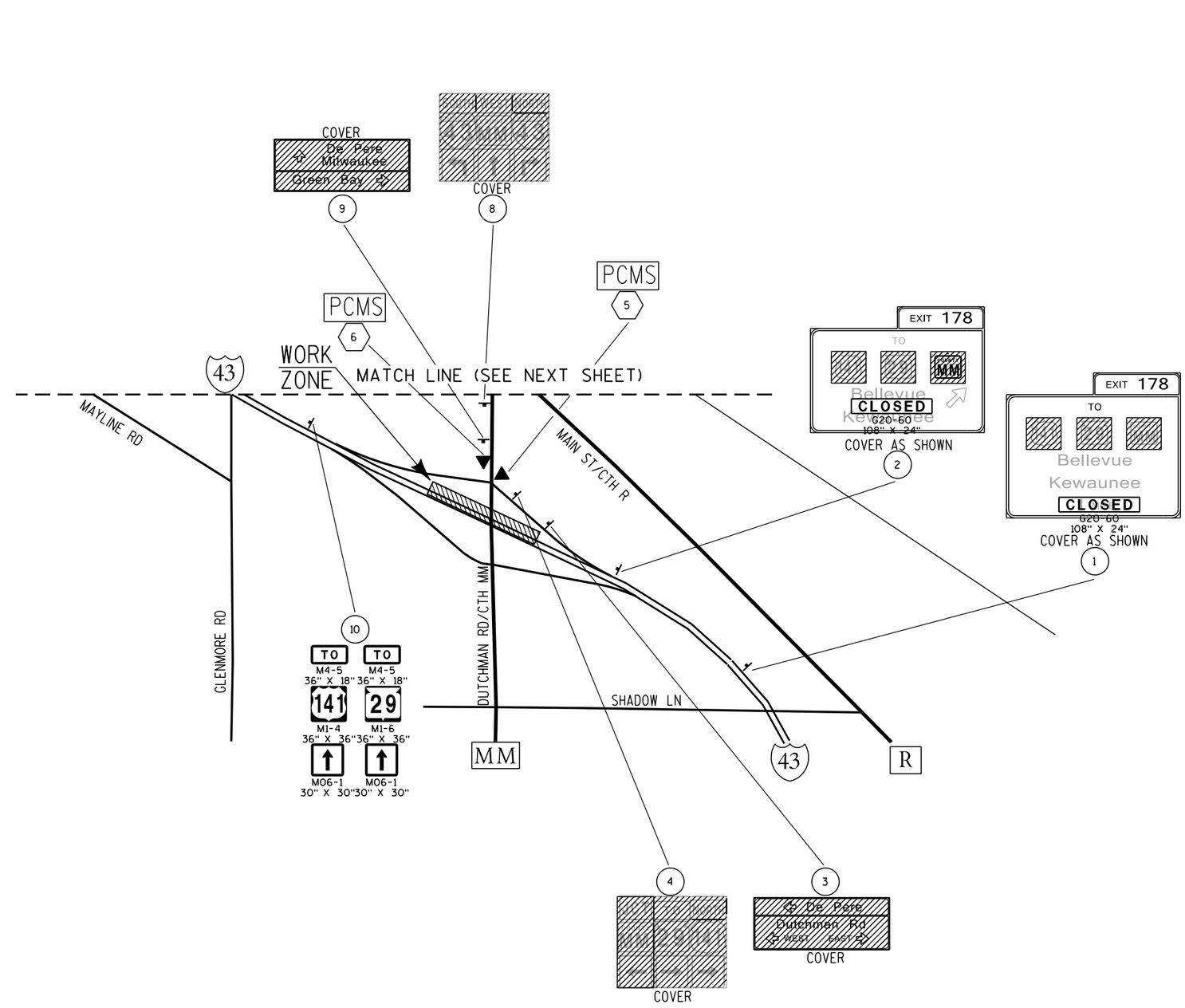
LEGEND

(X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET

SIGN MOUNTED ON TYPE III BARRICADE

POST MOUNTED SIGN

(X) CHANGEABLE PORTABLE MESSAGE BOARD



SHEET 1 OF 3

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1227-08-71	HWY: I-43	COUNTY: BROWN	DETOUR SIGNING DETAIL - I-43 MAINLINE RECONSTRUCT	SHEET 82	E

LEGEND

(X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET

SIGN MOUNTED ON TYPE III BARRICADE

POST MOUNTED SIGN

N

MATCH LINE (SEE NEXT SHEET)

MATCH LINE (SEE SHEET #4)

MATCH LINE (SEE PREVIOUS SHEET)

43 172 29 141

MANITOWOC RD

USH 141/STH 29/MAIN ST

HURON RD

KEWAUNEE RD/STH 29

BIG CREEK RD

MAYLINE RD

GLENMORE RD

WALL ST

24
TO M4-5 36" X 18" | TO M4-5 36" X 18"
141 M1-4 36" X 36" | 29 M1-6 36" X 36"
M06-1 30" X 30" | M06-1 30" X 30"

25
TO M4-5 36" X 18" | TO M4-5 36" X 18"
141 M1-4 36" X 36" | 29 M1-6 36" X 36"
M06-1 30" X 30" | M06-1 30" X 30"

22
TO M4-5 24" X 12"
NORTH M3-1 24" X 12"
43 M1-1 24" X 24"
M06-1 21" X 21"

21
TO M4-5 24" X 12"
NORTH M3-1 24" X 12"
43 M1-1 24" X 24"
M06-1 21" X 21"

19
TO NORTH WEST NORTH
43 29 141
M05-1R 21" X 21"
MODIFY AS SHOWN

17
TO M4-5 24" X 12"
NORTH M3-1 24" X 12"
43 M1-1 24" X 24"
M06-1 21" X 21"

13
COVER AS SHOWN

18
TO NORTH TO COUNTY R
43
M06-1 21" X 21"
MODIFY AS SHOWN

15
COVER AS SHOWN

12
ROAD CLOSED 0.1 MILES AHEAD LOCAL TRAFFIC ONLY
R11-3 60" X 30"

11
TO NORTH 43
M06-1 21" X 21"
MODIFY AS SHOWN

SHEET 2 OF 3

PLAN SHEET PRODUCED BY WisDOT-NE REGION

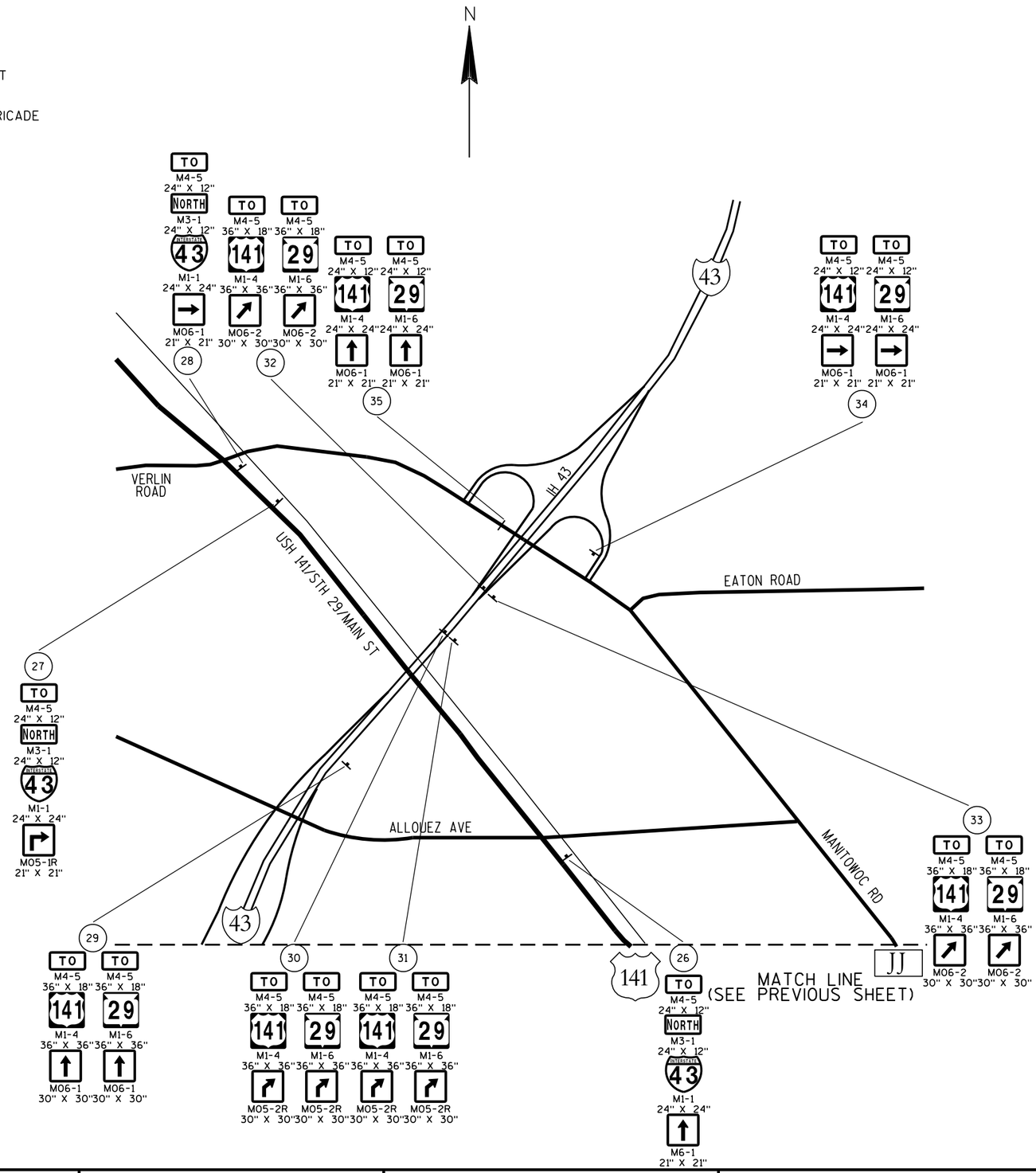
PROJECT NO: 1227-08-71	HWY: I-43	COUNTY: BROWN	DETOUR SIGNING DETAIL - I-43 MAINLINE RECONSTRUCT	SHEET 83	E

LEGEND

(X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET

SIGN MOUNTED ON TYPE III BARRICADE

POST MOUNTED SIGN



SHEET 3 OF 3

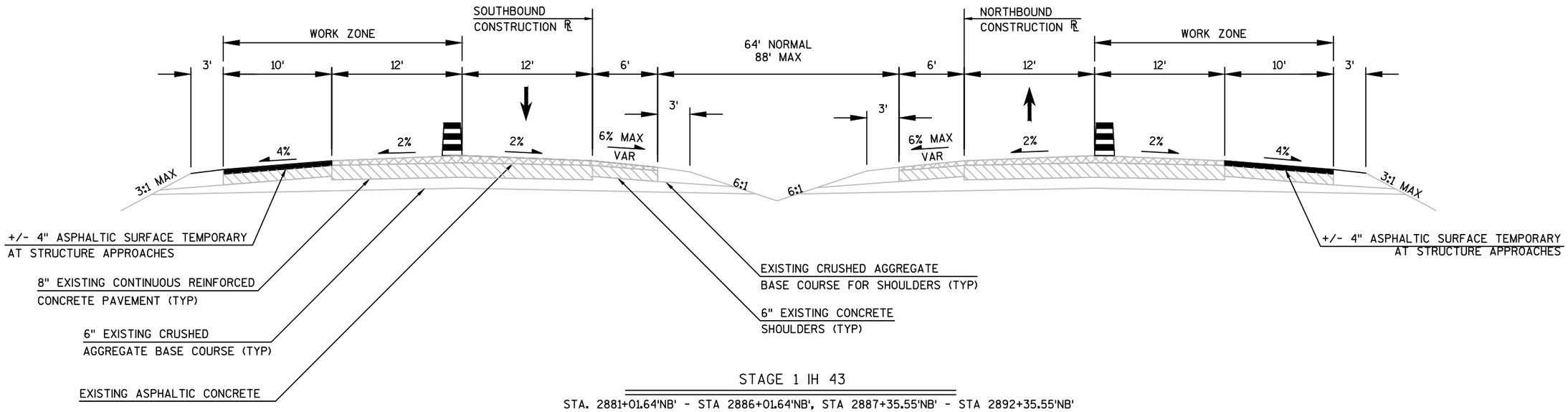
PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO:1227-08-71	HWY:I-43	COUNTY:BROWN	DETOUR SIGNING DETAIL - I-43 MAINLINE RECONSTRUCT	SHEET 84	E

FILE NAME : N:\spo\traffic\A Work Zone\Detours\Brown County\I-43\US 141-CTH MM Interchange\027003_dt.dgn PLOT DATE : 11-OCT-2016 09:56 PLOT BY : dotjlf PLOT NAME : PLOT SCALE : 1200:1

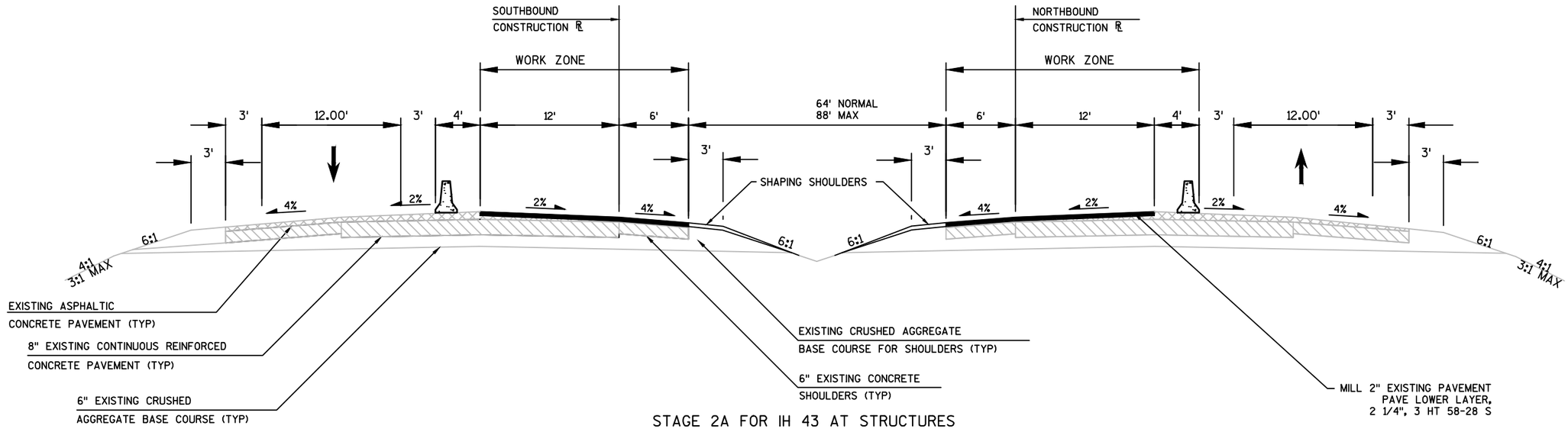
WISDOT/CADDS SHEET 42

NOTE: The lane closure setup
is to follow SDD 15d12b.



STAGE 1 IH 43

STA. 2881+01.64'NB' - STA 2886+01.64'NB', STA 2887+35.55'NB' - STA 2892+35.55'NB'
STA. 3018+20.25'NB' - STA 3023+20.25'NB', STA 3025+54.55'NB' - STA 3030+54.55'NB'
STA. 3063+68.93'NB' - STA 3068+68.93'NB', STA 3070+10.04'NB' - STA 3075+10.04'NB'
STA. 3124+25.05'NB' - STA 3129+25.05'NB', STA 3130+93.07'NB' - STA 3135+93.07'NB'
STA 3188+83.94'NB' - STA 3193+83.94'NB', STA 3195+21.26'NB' - STA 3200+21.26'NB'
STA 2881+72.52'SB' - STA 2886+72.52'SB', STA 2888+06.08'SB' - STA 2893+06.08'SB'
STA 3016+03.57'SB' - STA 3021+03.57'SB', STA 3023+42.25'SB' - STA 3028+42.25'SB'
STA 3064+43.31'SB' - STA 3069+43.31'SB', STA 3070+80.33'SB' - STA 3075+80.33'SB'
STA 3125+27.28'SB' - STA 3130+27.28'SB', STA 3131+80.06'SB' - STA 3136+80.06'SB'
STA 3188+05.34'SB' - STA 3193+05.34, STA 3194+42.19'SB' - STA 3199+42.19'SB'

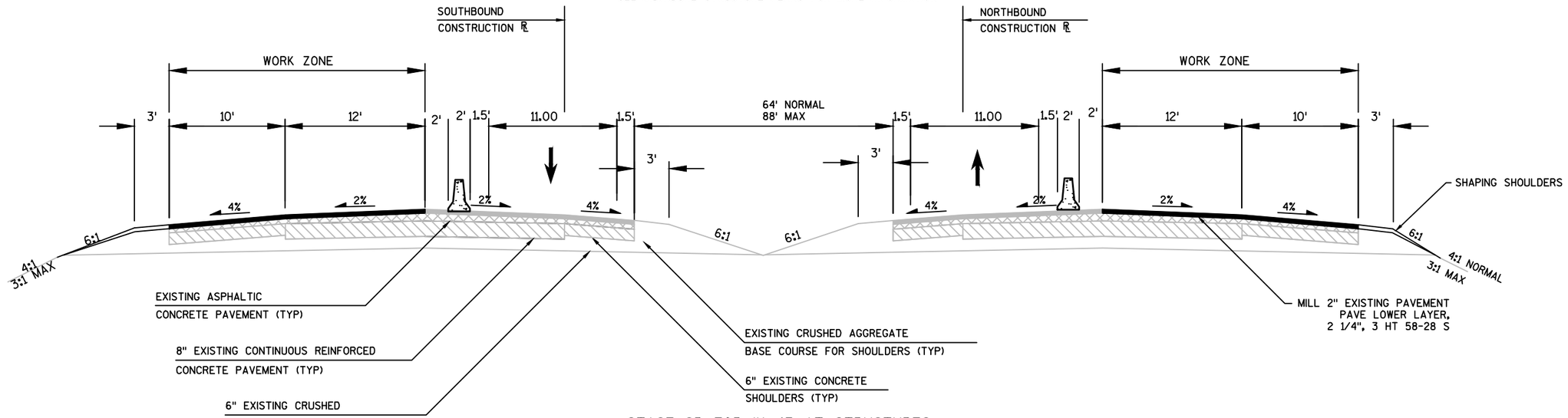


STAGE 2A FOR IH 43 AT STRUCTURES

NORTHBOUND	SOUTHBOUND
B-05-0241	B-05-0240
B-05-0244	B-05-0243
B-05-0246	B-05-0245
B-05-0248	B-05-0247
B-05-0187	B-05-0188

B-05-0186TA 3162+00.00'NB' - 3169+00.00'NB' (IH 43 UNDER B-05-0189)

SEE INDIVIDUAL STRUCTURE PLANS FOR MORE INFORMATION



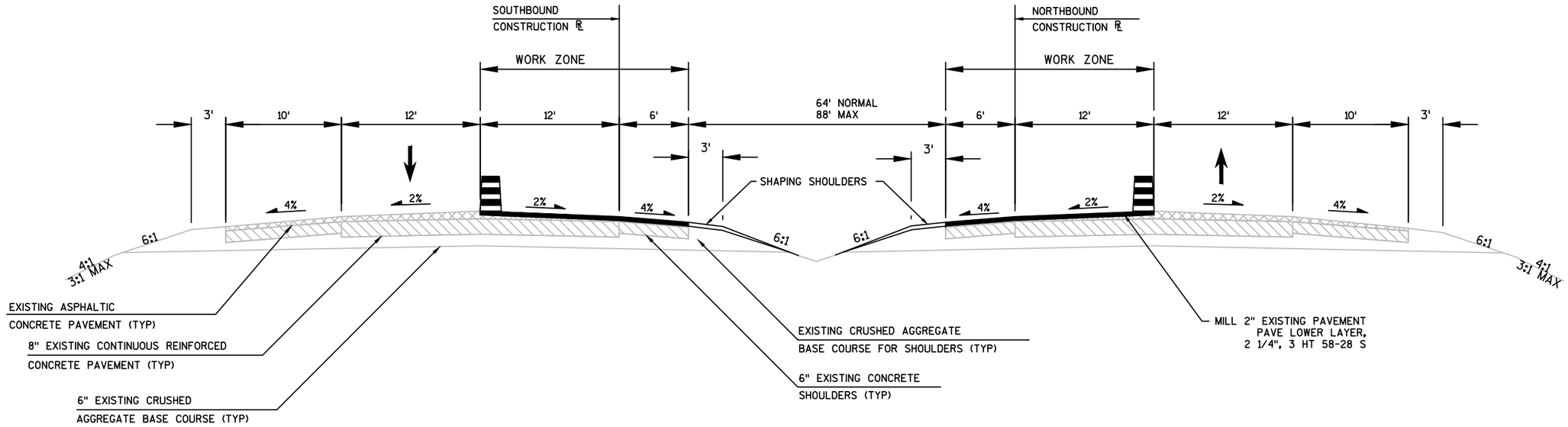
STAGE 2B FOR IH 43 AT STRUCTURES

NORTHBOUND	SOUTHBOUND
B-05-0241	B-05-0240
B-05-0244	B-05-0243
B-05-0246	B-05-0245
B-05-0248	B-05-0247
B-05-0187	B-05-0188

STA 3162+00.00'NB' - 3169+00.00'NB' (IH 43 UNDER B-05-0189)

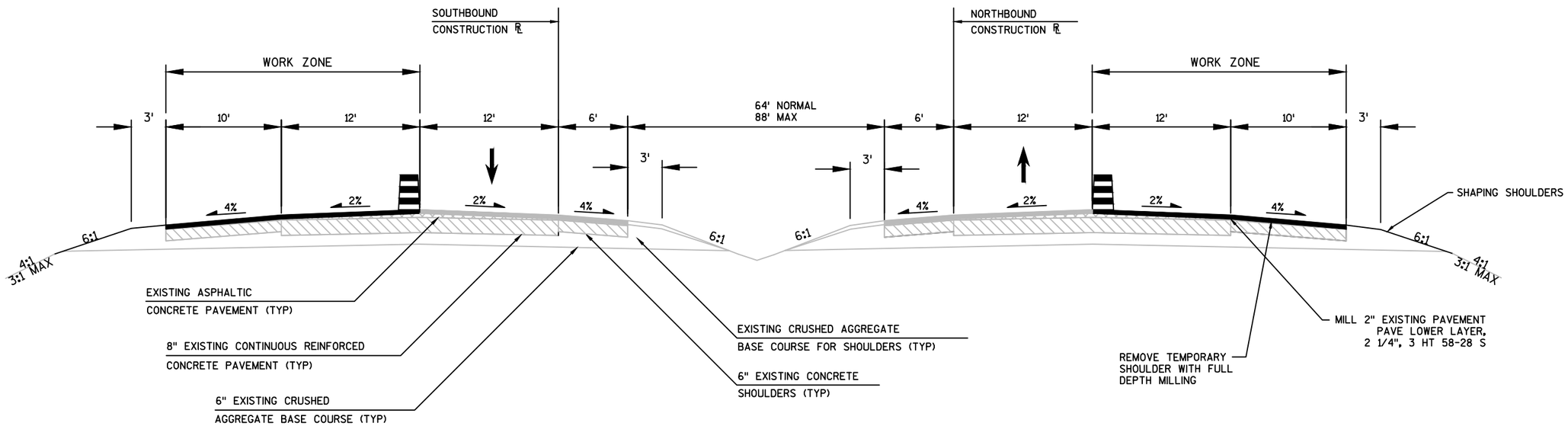
SEE INDIVIDUAL STRUCTURE PLANS FOR MORE INFORMATION

PROJECT NO:1227-08-71	HWY: IH 43	COUNTY:BROWN	STAGE CONSTRUCTION - IH 43	SHEET 86	E



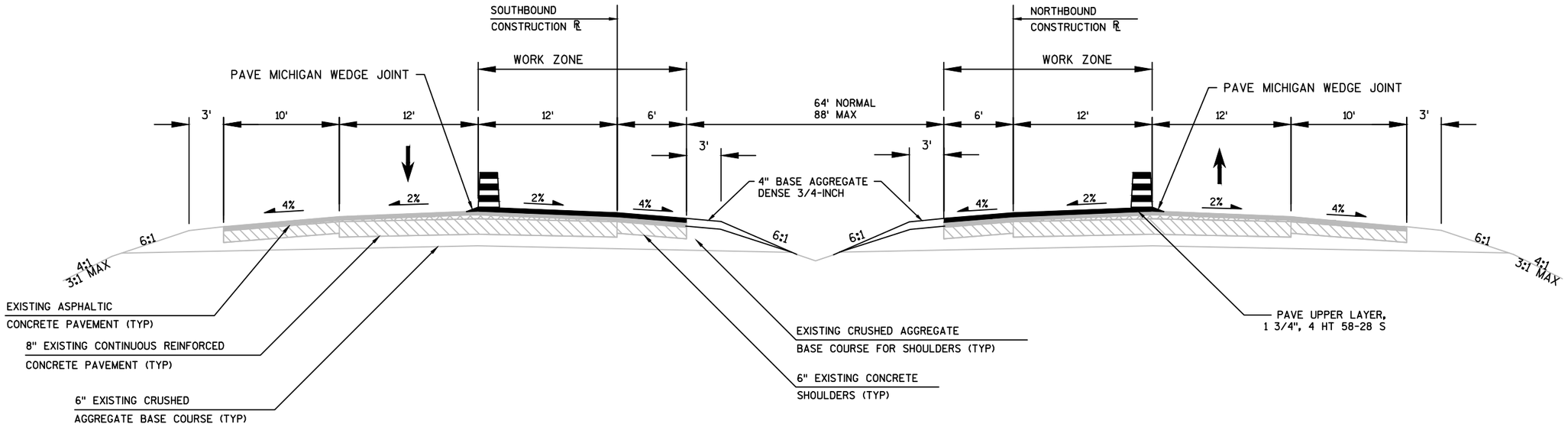
STAGE 3 FOR IH 43 MAINLINE

STA 2762+29.80'NB' - STA 3042+13.80'NB'
STA 3042+13.80'NB' - STA 3321+50.00'NB'
STA 2762+29.79'SB' - STA 3042+53.84'SB'
STA 3042+53.84'SB' - STA 3322+77.89'SB'



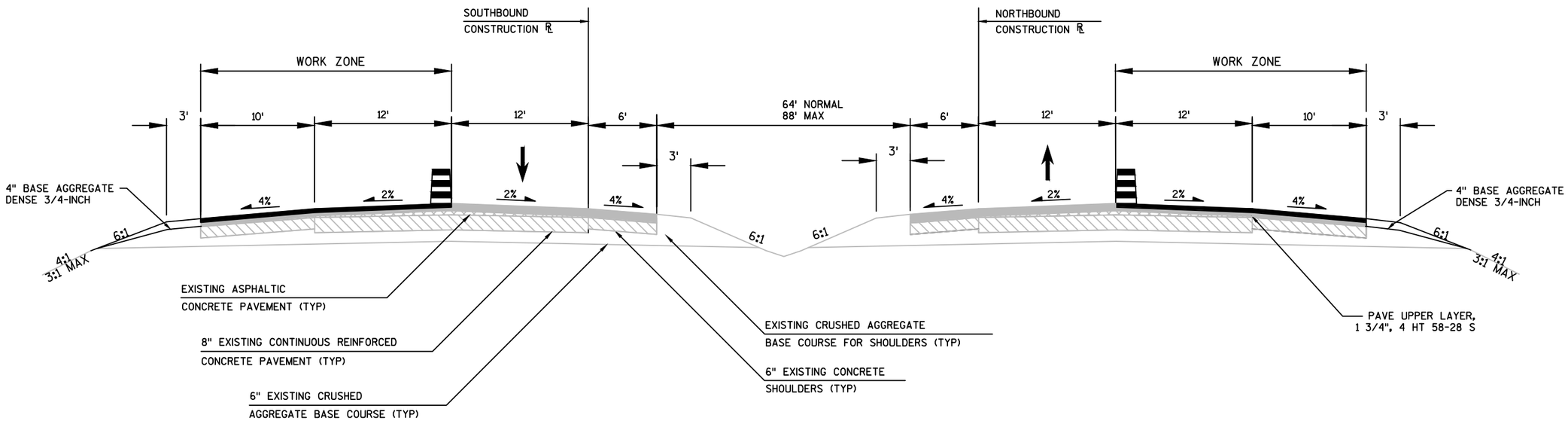
STAGE 3 FOR IH 43 MAINLINE

STA 2762+29.80'NB' - STA 3042+13.80'NB'
STA 3042+13.80'NB' - STA 3321+50.00'NB'
STA 2762+29.79'SB' - STA 3042+53.84'SB'
STA 3042+53.84'SB' - STA 3322+77.89



STAGE 3 FOR IH 43 MAINLINE

STA 2762+29.80'NB' - STA 3042+13.80'NB'
STA 3042+13.80'NB' - STA 3321+50.00'NB'
STA 2762+29.79'SB' - STA 3042+53.84'SB'
STA 3042+53.84'SB' - STA 3322+77.89'SB'



STAGE 3 FOR IH 43 MAINLINE

STA 2762+29.80'NB' - STA 3042+13.80'NB'
STA 3042+13.80'NB' - STA 3321+50.00'NB'
STA 2762+29.79'SB' - STA 3042+53.84'SB'
STA 3042+53.84'SB' - STA 3322+77.89'SB'

PROJECT NO:1227-08-71	HWY: IH 43	COUNTY:BROWN	STAGE CONSTRUCTION - IH 43	SHEET 88	E

					1210-12-71	1227-08-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0010	203.0100	Removing Small Pipe Culverts	EACH	8.000		8.000
0020	203.0200	Removing Old Structure (station) 01. STA 322'N'+17.13	LS	1.000		1.000
0030	203.0200	Removing Old Structure (station) 02. STA. 321'S'+73.39	LS	1.000		1.000
0040	203.0200	Removing Old Structure (station) 03. 49+98.81	LS	1.000		1.000
0050	203.0200	Removing Old Structure (station) 04. STA. 300'S'+87.74	LS	1.000		1.000
0060	203.0200	Removing Old Structure (station) 05. STA. 434'N'+46.00 Outlet Wingwalls	LS	1.000		1.000
0070	203.0200	Removing Old Structure (station) 06. STA. 483'N'+26.72	LS	1.000		1.000
0080	203.0200	Removing Old Structure (station) 07. STA. 544'S'+43.78	LS	1.000		1.000
0090	203.0200	Removing Old Structure (station) 08. STA. 300'N'53.52	LS	1.000		1.000
0100	203.0225.S	Debris Containment (structure) 01. B-5-189	LS	1.000		1.000
0110	204.0100	Removing Pavement	SY	1,483.000		1,483.000
0120	204.0105	Removing Pavement Butt Joints	SY	3,888.000		3,888.000
0130	204.0109.S	Removing Concrete Surface Partial Depth	SF	10,800.000		10,800.000
0140	204.0110	Removing Asphaltic Surface	SY	1,110.000		1,110.000
0150	204.0115	Removing Asphaltic Surface Butt Joints	SY	14,540.000		14,540.000
0160	204.0120	Removing Asphaltic Surface Milling	SY	537,696.000		537,696.000
0170	204.0150	Removing Curb & Gutter	LF	410.000		410.000
0180	204.0155	Removing Concrete Sidewalk	SY	11.000		11.000
0190	204.0170	Removing Fence	LF	303.000		303.000
0200	204.0190	Removing Surface Drains	EACH	9.000		9.000
0210	204.0220	Removing Inlets	EACH	11.000		11.000
0220	204.9060.S	Removing (item description) 01. Removing Culvert Endwalls	EACH	14.000	2.000	12.000
0230	205.0100	Excavation Common	CY	1,810.000		1,810.000
0240	206.1000	Excavation for Structures Bridges (structure) 01. B-5-187	LS	1.000		1.000
0250	206.1000	Excavation for Structures Bridges (structure) 02. B-5-188	LS	1.000		1.000
0260	206.1000	Excavation for Structures Bridges (structure) 03. B-5-240	LS	1.000		1.000
0270	206.1000	Excavation for Structures Bridges (structure) 04. B-5-241	LS	1.000		1.000
0280	206.1000	Excavation for Structures Bridges (structure) 05. B-5-246	LS	1.000		1.000
0290	206.1000	Excavation for Structures Bridges (structure) 06. B-5-247	LS	1.000		1.000
0300	206.2000	Excavation for Structures Culverts (structure) 07. B-5-192	LS	1.000		1.000
0310	210.1500	Backfill Structure Type A	TON	654.000		654.000
0320	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 1227-08-71	LS	1.000		1.000

					1210-12-71	1227-08-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0330	213.0100	Finishing Roadway (project) 01. 1227-08-71	EACH	1.000		1.000
0340	213.0100	Finishing Roadway (project) 02. 1210-12-71	EACH	1.000	1.000	
0350	305.0110	Base Aggregate Dense 3/4-Inch	TON	24,050.000	840.000	23,210.000
0360	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,450.000		1,450.000
0370	305.0500	Shaping Shoulders	STA	2,463.000		2,463.000
0380	312.0110	Select Crushed Material	TON	2,830.000		2,830.000
0390	390.0403	Base Patching Concrete Shes	SY	4,965.000		4,965.000
0400	415.1080	Concrete Pavement HES 8-Inch	SY	631.000		631.000
0410	415.1410	Concrete Pavement Approach Slab HES	SY	947.000		947.000
0420	416.0610	Drilled Tie Bars	EACH	4,508.000		4,508.000
0430	416.0620	Drilled Dowel Bars	EACH	4,957.000		4,957.000
0440	416.1010	Concrete Surface Drains	CY	20.000		20.000
0450	440.4410	Incentive IRI Ride	DOL	84,720.000		84,720.000
0460	450.4000	HMA Cold Weather Paving	TON	6,170.000		6,170.000
0470	455.0605	Tack Coat	GAL	68,710.000		68,710.000
0480	460.2000	Incentive Density HMA Pavement	DOL	78,940.000		78,940.000
0490	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	220,110.000		220,110.000
0500	460.5223	HMA Pavement 3 LT 58-28 S	TON	26,140.000		26,140.000
0510	460.5224	HMA Pavement 4 LT 58-28 S	TON	20,380.000		20,380.000
0520	460.7223	HMA Pavement 3 HT 58-28 S	TON	41,420.000		41,420.000
0530	460.7224	HMA Pavement 4 HT 58-28 S	TON	5,040.000		5,040.000
0540	460.8424	HMA Pavement 4 SMA 58-28 H	TON	29,680.000		29,680.000
0550	465.0105	Asphaltic Surface	TON	197.000		197.000
0560	465.0125	Asphaltic Surface Temporary	TON	5,130.000		5,130.000
0570	465.0400	Asphaltic Shoulder Rumble Strips	LF	214,990.000		214,990.000
0580	502.0100	Concrete Masonry Bridges	CY	731.000		731.000
0590	502.3100	Expansion Device (structure) 01. B-5-187	LS	1.000		1.000
0600	502.3100	Expansion Device (structure) 02. B-5-188	LS	1.000		1.000
0610	502.3100	Expansion Device (structure) 03. B-5-194	LS	1.000		1.000
0620	502.3100	Expansion Device (structure) 04. B-5-242	LS	1.000		1.000
0630	502.3100	Expansion Device (structure) 05. B-5-243	LS	1.000		1.000
0640	502.3100	Expansion Device (structure) 06. B-5-244	LS	1.000		1.000
0650	502.3100	Expansion Device (structure) 07. B-5-247	LS	1.000		1.000
0660	502.3100	Expansion Device (structure) 08. B-5-248	LS	1.000		1.000
0670	502.3100	Expansion Device (structure) 09. B-5-254	LS	1.000		1.000
0680	502.3100	Expansion Device (structure) 10. B-5-189	LS	1.000		1.000
0690	502.3200	Protective Surface Treatment	SY	12,840.000		12,840.000
0700	502.3210	Pigmented Surface Sealer	SY	2,474.000		2,474.000
0710	502.4106	Adhesive Anchors 3/4-inch	EACH	8.000		8.000
0720	502.4204	Adhesive Anchors No. 4 Bar	EACH	55.000		55.000

					1210-12-71	1227-08-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0730	502.4205	Adhesive Anchors No. 5 Bar	EACH	1,338.000		1,338.000
0740	502.4206	Adhesive Anchors No. 6 Bar	EACH	210.000		210.000
0750	502.6500	Protective Coating Clear	GAL	9.000		9.000
0760	504.0100	Concrete Masonry Culverts	CY	25.000		25.000
0770	505.0400	Bar Steel Reinforcement HS Structures	LB	2,300.000		2,300.000
0780	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	185,415.000		185,415.000
0790	505.0904	Bar Couplers No. 4	EACH	32.000		32.000
0800	505.0905	Bar Couplers No. 5	EACH	24.000		24.000
0810	505.0906	Bar Couplers No. 6	EACH	88.000		88.000
0820	505.0907	Bar Couplers No. 7	EACH	20.000		20.000
0830	505.0908	Bar Couplers No. 8	EACH	24.000		24.000
0840	509.0301	Preparation Decks Type 1	SY	363.000		363.000
0850	509.0302	Preparation Decks Type 2	SY	180.000		180.000
0860	509.0500	Cleaning Decks	SY	10,443.000		10,443.000
0870	509.1000	Joint Repair	SY	373.000		373.000
0880	509.1500	Concrete Surface Repair	SF	598.000		598.000
0890	509.2000	Full-Depth Deck Repair	SY	13.000		13.000
0900	509.2500	Concrete Masonry Overlay Decks	CY	1,142.000		1,142.000
0910	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 01. B-5-240	SY	595.000		595.000
0920	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 02. B-5-241	SY	595.000		595.000
0930	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 03. B-5-243	SY	996.000		996.000
0940	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 04. B-5-244	SY	976.000		976.000
0950	509.9050.S	Cleaning Parapets	LF	5,725.000		5,725.000
0960	511.1200	Temporary Shoring (structure) 01. B-5-192	SF	660.000		660.000
0970	516.0500	Rubberized Membrane Waterproofing	SY	74.000		74.000
0980	517.0900.S	Preparation and Coating of Top Flanges (structure) 01. B-5-189	LS	1.000		1.000
0990	517.3000.S	Structure Overcoating Cleaning and Priming (structure) 01. B-5-189	LS	1.000		1.000
1000	517.3000.S	Structure Overcoating Cleaning and Priming (structure) 02. B-5-254	LS	1.000		1.000
1010	517.3000.S	Structure Overcoating Cleaning and Priming (structure) 03. B-5-242	LS	1.000		1.000
1020	517.4000.S	Containment and Collection of Waste Materials (structure) 01. B-5-189	LS	1.000		1.000
1030	517.4000.S	Containment and Collection of Waste Materials (structure) 02. B-5-254	LS	1.000		1.000
1040	517.4000.S	Containment and Collection of Waste Materials	LS	1.000		1.000

					1210-12-71	1227-08-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
		(structure) 03. B-5-242				
1050	520.8000	Concrete Collars for Pipe	EACH	1.000		1.000
1060	520.8700	Cleaning Culvert Pipes	EACH	13.000		13.000
1070	521.0112	Culvert Pipe Corrugated Steel 12-Inch	LF	8.000		8.000
1080	521.0118	Culvert Pipe Corrugated Steel 18-Inch	LF	62.000	42.000	20.000
1090	521.1012	Apron Endwalls for Culvert Pipe Steel 12-Inch	EACH	1.000		1.000
1100	521.1015	Apron Endwalls for Culvert Pipe Steel 15-Inch	EACH	2.000		2.000
1110	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	4.000	2.000	2.000
1120	522.0118	Culvert Pipe Reinforced Concrete Class III 18-Inch	LF	8.000		8.000
1130	522.0136	Culvert Pipe Reinforced Concrete Class III 36-Inch	LF	16.000		16.000
1140	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	3.000		3.000
1150	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000		2.000
1160	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	1.000		1.000
1170	522.1036	Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	EACH	1.000		1.000
1180	523.0529	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch	EACH	1.000		1.000
1190	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	177.000		177.000
1200	602.2400	Concrete Safety Islands	SF	11.000		11.000
1210	603.8000	Concrete Barrier Temporary Precast Delivered	LF	5,663.000		5,663.000
1220	603.8125	Concrete Barrier Temporary Precast Installed	LF	18,000.000		18,000.000
1230	604.9010.S	Slope Paving Repair Crushed Aggregate	CY	158.000		158.000
1240	606.0100	Riprap Light	CY	12.000		12.000
1250	606.0200	Riprap Medium	CY	21.000		21.000
1260	611.0430	Reconstructing Inlets	EACH	10.000		10.000
1270	611.0600	Inlet Covers Type A	EACH	7.000		7.000
1280	611.0642	Inlet Covers Type MS	EACH	4.000		4.000
1290	611.3220	Inlets 2x2-FT	EACH	12.000	5.000	7.000
1300	611.3901	Inlets Median 1 Grate	EACH	4.000		4.000
1310	611.8115	Adjusting Inlet Covers	EACH	5.000		5.000
1320	611.8120.S	Cover Plates Temporary	EACH	9.000		9.000
1330	612.0106	Pipe Underdrain 6-Inch	LF	850.000		850.000
1340	612.0215	Pipe Underdrain Unperforated 15-Inch	LF	100.000		100.000
1350	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	443.000		443.000
1360	612.0806	Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	EACH	5.000		5.000
1370	613.1100.S	Cable Barrier Type 1	LF	19,280.000	12,740.000	6,540.000
1380	613.1200.S	Cable Barrier End Terminal Type 1	EACH	28.000	20.000	8.000

					1210-12-71	1227-08-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
1390	614.0010	Barrier System Grading Shaping Finishing	EACH	30.000		30.000
1400	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	9.000		9.000
1410	614.0215	Steel Thrie Beam Structure Approach Retrofit Span	EACH	9.000		9.000
1420	614.0220	Steel Thrie Beam Bullnose Terminal	EACH	2.000		2.000
1430	614.0230	Steel Thrie Beam	LF	280.000		280.000
1440	614.0397	Guardrail Mow Strip Emulsified Asphalt	SY	5,703.000		5,703.000
1450	614.0905	Crash Cushions Temporary	EACH	22.000		22.000
1460	614.0920	Salvaged Rail	LF	12,166.000		12,166.000
1470	614.0925	Salvaged Guardrail End Treatments	EACH	36.000		36.000
1480	614.2300	MGS Guardrail 3	LF	10,140.000		10,140.000
1490	614.2500	MGS Thrie Beam Transition	LF	1,020.000		1,020.000
1500	614.2610	MGS Guardrail Terminal EAT	EACH	31.000		31.000
1510	614.2620	MGS Guardrail Terminal Type 2	EACH	5.000		5.000
1520	616.0100	Fence Woven Wire (height) 01. 4.5ft	LF	333.000		333.000
1530	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1227-08-71	EACH	1.000		1.000
1540	618.0100	Maintenance And Repair of Haul Roads (project) 02. 1210-12-71	EACH	1.000	1.000	
1550	619.1000	Mobilization	EACH	1.000	0.010	0.990
1560	624.0100	Water	MGAL	260.000	10.000	250.000
1570	625.0100	Topsoil	SY	77.000		77.000
1580	625.0500	Salvaged Topsoil	SY	5,858.000	22.000	5,836.000
1590	628.1504	Silt Fence	LF	7,335.000		7,335.000
1600	628.1520	Silt Fence Maintenance	LF	7,335.000		7,335.000
1610	628.1905	Mobilizations Erosion Control	EACH	8.000	2.000	6.000
1620	628.1910	Mobilizations Emergency Erosion Control	EACH	8.000	2.000	6.000
1630	628.2004	Erosion Mat Class I Type B	SY	87,715.000	43,505.000	44,210.000
1640	628.7005	Inlet Protection Type A	EACH	13.000	6.000	7.000
1650	628.7015	Inlet Protection Type C	EACH	17.000		17.000
1660	628.7504	Temporary Ditch Checks	LF	1,833.000	1,120.000	713.000
1670	628.7555	Culvert Pipe Checks	EACH	43.000	4.000	39.000
1680	629.0210	Fertilizer Type B	CWT	49.500	22.000	27.500
1690	630.0110	Seeding Mixture No. 10	LB	1,199.000	583.000	616.000
1700	630.0200	Seeding Temporary	LB	1,261.000	583.000	678.000
1710	633.0100	Delineator Posts Steel	EACH	56.000		56.000
1720	633.0500	Delineator Reflectors	EACH	56.000		56.000
1730	633.5200	Markers Culvert End	EACH	15.000	2.000	13.000
1740	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	20.000		20.000
1750	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	33.000		33.000
1760	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	169.000		169.000

					1210-12-71	1227-08-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
1770	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	24.000		24.000
1780	635.0200	Sign Supports Structural Steel HS	LB	11,069.000		11,069.000
1790	636.0100	Sign Supports Concrete Masonry	CY	26.800		26.800
1800	636.0500	Sign Supports Steel Reinforcement	LB	1,146.000		1,146.000
1810	636.1500	Sign Supports Steel Coated Reinforcement HS	LB	990.000		990.000
1820	637.1220	Signs Type I Reflective SH	SF	2,747.000		2,747.000
1830	637.2210	Signs Type II Reflective H	SF	2,249.230		2,249.230
1840	637.2215	Signs Type II Reflective H Folding	SF	24.000		24.000
1850	637.2230	Signs Type II Reflective F	SF	246.000		246.000
1860	638.2601	Removing Signs Type I	EACH	16.000		16.000
1870	638.2602	Removing Signs Type II	EACH	188.000		188.000
1880	638.3000	Removing Small Sign Supports	EACH	245.000		245.000
1890	638.3100	Removing Structural Steel Sign Supports	EACH	28.000		28.000
1900	641.1200	Sign Bridge Cantilevered (structure) 01. S-5-388	LS	1.000		1.000
1910	642.5401	Field Office Type D	EACH	1.000		1.000
1920	643.0100	Traffic Control (project) 01. 1227-08-71	EACH	1.000		1.000
1930	643.0100	Traffic Control (project) 02. 1210-12-71	EACH	1.000	1.000	
1940	643.0300	Traffic Control Drums	DAY	155,208.000	19,492.000	135,716.000
1950	643.0420	Traffic Control Barricades Type III	DAY	11,319.000	352.000	10,967.000
1960	643.0705	Traffic Control Warning Lights Type A	DAY	22,726.000		22,726.000
1970	643.0715	Traffic Control Warning Lights Type C	DAY	17,909.000	1,936.000	15,973.000
1980	643.0800	Traffic Control Arrow Boards	DAY	1,131.000	176.000	955.000
1990	643.0900	Traffic Control Signs	DAY	24,187.000	1,496.000	22,691.000
2000	643.0910	Traffic Control Covering Signs Type I	EACH	9.000		9.000
2010	643.0920	Traffic Control Covering Signs Type II	EACH	307.000		307.000
2020	643.1000	Traffic Control Signs Fixed Message	SF	387.000		387.000
2030	643.1050	Traffic Control Signs PCMS	DAY	167.000	14.000	153.000
2040	643.2000	Traffic Control Detour (project) 01. 1227-08-71	EACH	1.000		1.000
2050	643.3000	Traffic Control Detour Signs	DAY	10,979.000		10,979.000
2060	645.0130	Geotextile Type R	SY	26.000		26.000
2070	645.0140	Geotextile Type SAS	SY	1,556.000		1,556.000
2080	646.0106	Pavement Marking Epoxy 4-Inch	LF	269,770.000		269,770.000
2090	646.0126	Pavement Marking Epoxy 8-Inch	LF	1,550.000		1,550.000
2100	646.0600	Removing Pavement Markings	LF	65,120.000		65,120.000
2110	646.0790.S	Removing Raised Pavement Markers	EACH	1,094.000		1,094.000
2120	646.0881.S	Pavement Marking Grooved Wet Reflective Tape 4-Inch	LF	28,900.000		28,900.000
2130	646.0883.S	Pavement Marking Grooved Wet Reflective Tape 8-Inch	LF	9,450.000		9,450.000
2140	647.0456	Pavement Marking Curb Epoxy	LF	590.000		590.000
2150	647.0606	Pavement Marking Island Nose Epoxy	EACH	11.000		11.000
2160	647.0726	Pavement Marking Diagonal Epoxy 12-Inch	LF	241.000		241.000

					1210-12-71	1227-08-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
2170	647.0803	Pavement Marking Aerial Enforcement Bars Epoxy 24-Inch	LF	180.000		180.000
2180	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	200.000		200.000
2190	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	291,710.000		291,710.000
2200	650.5000	Construction Staking Base	LF	700.000		700.000
2210	650.6000	Construction Staking Pipe Culverts	EACH	7.000	2.000	5.000
2220	650.8000	Construction Staking Resurfacing Reference	LF	131,982.000		131,982.000
2230	650.9920	Construction Staking Slope Stakes	LF	29,260.000	25,300.000	3,960.000
2240	690.0150	Sawing Asphalt	LF	941.000		941.000
2250	690.0250	Sawing Concrete	LF	73,717.000		73,717.000
2260	715.0502	Incentive Strength Concrete Structures	DOL	6,786.000		6,786.000
2270	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	7.000		7.000
2280	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	12.000		12.000
2290	SPV.0060	Special 01. Cleaning and Painting Bearings	EACH	28.000		28.000
2300	SPV.0060	Special 02. Remove and Reset Beam Connection	EACH	1.000		1.000
2310	SPV.0060	Special 03. Strapping B-5-241	EACH	1.000		1.000
2320	SPV.0060	Special 04. Strapping B-5-245	EACH	2.000		2.000
2330	SPV.0090	Special 01. Cleaning Concrete Girder Ends	LF	21.000		21.000
2340	SPV.0090	Special 02. Concrete Joint and Crack Cleaning	LF	2,877.000		2,877.000
2350	SPV.0105	Special 01. Removing Sign Bridge S-5-18	LS	1.000		1.000
2360	SPV.0170	Special 01. Cable Guard Median Grading and Shaping	STA	189.000	124.000	65.000
2370	SPV.0180	Special 01. Grade and Shape Ditch	SY	4,071.000		4,071.000
2380	SPV.0180	Special 02. Base Patching Concrete HES	SY	5,219.000		5,219.000
2390	SPV.0180	Special 03. Continuously Reinforced Concrete Repair HES	SY	6,992.000		6,992.000

REMOVING SMALL PIPE CULVERTS

CATEGORY	STATION	LOCATION	SIZE LENGTH FT	x	DIA. IN	203.0100 REMOVING SMALL PIPE CULVERTS EACH	204.9060.S REMOVING CULVERT ENDWALLS EACH	MATERIAL	REMARKS	CN Culvert Number
NORTHBOUND										
0010	2825+30.00 NB	IH 43 NB	70	x	18	--	1	CPRC		CN 19
0010	2915+38.00 NB	IH 43 NB	172	x	18	1	--	CPRC	ONLY REMOVE 8 FT.	CN 31
0010	2955+41.00 NB	IH 43 NB	168, 200	x	18	2	--	CPCS	ONLY REMOVE 6 FT. EACH	CN 34,34A
0010	2964+46.00 NB	IH 43 NB	68	x	18	--	1	CPRC		CN 35
0010	3035+45.00 NB	IH 43 NB	86	x	18	--	1	CPRC		CN 41
0010	3093+95.00 NB	IH 43 NB	168	x	18	1	--	CPCS	ONLY REMOVE 8 FT.	CN 46
0010	3166+10.00 NB	IH 43 NB	210	x	30	--	1	CPRC		CN 55
0010	3217+65.00 NB	IH 43 NB	230	x	24	--	1	CPRC		CN 65
	NORTHBOUND TOTALS					**4**	**5**			
SOUTHBOUND										
0010	2880+37.00 SB	IH 43 SB	260	x	36	1	1	CPRC	ONLY REMOVE 16 FT.	CN 28
0010	3255+25.00 SB	IH 43 SB	110	x	18	--	1	CPCS	CP STEEL	
								CPRC		
	SOUTHBOUND TOTALS					**1**	**2**	CPRC		
CTH MM										
0010	3172+78.00 SW	MM SW RAMP	92	x		--	1	CPRC	29"X45" ELLIPTICAL ENDWALL	CN MMSW1
0010	3159+15.00 NE	MM NE RAMP	60	x	24	--	1	CPRC		CN MMNE1
0010	46+80.02 SB	CTH MM SB	76	x	12	1	1	CPCS	STEEL ENDWALL, ONLY REMOVE 8 FT.	CN 5-MM.003
0010	51+42.52 NB	CTH MM NB	50	x	12	1	1	CPCS		
0010	51+74.23 SB	CTH MM SB	50	x	12	1	1	CPCS		
	MM TOTALS					**3**	**5**			
	PROJECT 1227-08-71 TOTAL					**8**	**12**			
STH 172										
0010	457+25.50 EB	STH 172 EB	24	x	18	--	1	CPCS		
0010	565+96.00 EB	STH 172 EB	16	x	18	--	1	CPCS		
	STH 172 TOTALS					**0**	**2**			
	PROJECT 1210-12-71 TOTALS					**0**	**2**			

* NON BID ITEM: FOR INFORMATION ONLY

**ADDITIONAL QUANTITES LOCATED ELSWHERE IN THE PLAN

REMOVING PAVEMENT AND ASPHALTIC SURFACE

CATEGORY	STATION TO STATION	LOCATION	SIZE LENGTH FT x WIDTH FT	AREA SF	204.0100 REMOVING PAVEMENT SY	204.0155 REMOVING CONCRETE SIDEWALK SY	204.0109.S REMOVING CONC. SURFACE PARTIAL DEPTH SF	204.0105 REMOVING PAVEMENT BUTT JOINT SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	646.0790.S REMOVING RAISED PAVEMENT MARKERS EACH	REMARKS
	NORTHBOUND											
0010	2762+29.80 NB - 2764+29.80 NB	IH 43 NB	200 x 40	8000					889		2	BUTT JOINT S. PROJ. LIMIT
0010	2763+37.67 NB - 2763+91.27 NB	IH 43 NB	54 x 52	2787							--	MAINT. CROSSOVER
0010	2764+29.80 NB - 2769+91.63 NB	IH 43 NB	562 x 40	22473						2,497.0	6	
0010	2769+91.63 NB - 2774+85.18 NB	IH 43 NB	494 x VARIES	28446						3,160.6	5	
0010	2774+85.18 NB - 2797+71.90 NB	IH 43 NB	2287 x 40	91469						10,163.2	23	
0010	2797+71.90 NB - 2808+42.27 NB	IH 43 NB	1070 x VARIES	34276						3,808	11	
0010	2808+42.27 NB - 2885+69.94 NB	IH 43 NB	7728 x 40	309107						34,345	77	
0010	2814+26.11 NB - 2814+79.87 NB	IH 43 NB	54 X 52	2796							--	MAINT. CROSSOVER
0010	2885+69.94 NB - 2886+19.94 NB	IH 43 NB	50 x 24	1200					267	133	--	B-05-0241 TEMP. APPROACH
0010	2881+19.94 NB - 2886+19.94 NB	IH 43 NB	500 x 10	5000					111	556		B-05-0241 TEMP. SHOULDERS
0010	2887+53.58 NB - 2888+03.58 NB	IH 43 NB	50 x 24	1200					267	133	--	B-05-0241 TEMP. APPROACH
0010	2887+53.58 NB - 2892+53.58 NB	IH 43 NB	500 x 10	5000					111	556		B-05-0241 TEMP. SHOULDERS
0010	2888+03.53 NB - 3022+14.21 NB	IH 43 NB	13411 x 40	536427						59,603	134	
0010	2924+33.83 NB - 2924+88.93 NB	IH 43 NB	55 X 52	2865							--	MAINT. CROSSOVER
0010	2944+95.11 NB - 2947+95.11 NB	IH 43 NB	300 36	10800			10,800					UNDER B-05-0242
0010	3022+14.21 NB - 3022+64.21 NB	IH 43 NB	50 x 24	1200					267	133	--	B-05-0244 TEMP. APPROACH
0010	3017+64.21 NB - 3022+64.21 NB	IH 43 NB	500 x 10	5000					111	556		B-05-0244 TEMP. SHOULDERS
0010	3024+98.82 NB - 3025+48.82 NB	IH 43 NB	50 x 24	1200					267	133	--	B-05-0244 TEMP. APPROACH
0010	3024+98.82 NB - 3029+98.82 NB	IH 43 NB	500 x 10	5000					111	556		B-05-0244 TEMP. SHOULDERS
0010	3025+48.82 NB - 3066+53.26 NB	IH 43 NB	4104 x 40	164178						18,242	41	
0010	3035+30.54 NB - 3035+85.31 NB	IH 43 NB	55 X 52	2848							--	MAINT. CROSSOVER
0010	3068+53.26 NB - 3068+90.96 NB	IH 43 NB	38 x 40	1508	121						--	B-05-0246 APPROACH SLAB
0010	3063+79.95 NB - 3068+79.95 NB	IH 43 NB	500 x 10	5000					84	556		B-05-0246 TEMP. SHOULDERS
0010	3070+10.12 NB - 3070+44.31 NB	IH 43 NB	34 x 40	1368	106						--	B-05-0246 APPROACH SLAB
0010	3070+21.02 NB - 3075+21.02 NB	IH 43 NB	500 x 10	5000					76	556		B-05-0246 TEMP. SHOULDERS
0010	3070+44.31 NB - 3129+16.23 NB	IH 43 NB	5872 x 40	234877						26,097	59	
0010	3112+28.88 NB - 3112+90.21 NB	IH 43 NB	61 X 52	3189							--	MAINT. CROSSOVER
0010	3129+16.23 NB - 3129+52.50 NB	IH 43 NB	36 x 40	1451	102						--	B-05-0248 APPROACH SLAB
0010	3124+38.70 NB - 3129+38.70 NB	IH 43 NB	500 x 10	5000					81	556		B-05-0248 TEMP. SHOULDERS
0010	3130+93.07 NB - 3131+34.12 NB	IH 43 NB	41 x 40	1642	117						--	B-05-0248 APPROACH SLAB
0010	3131+08.04 NB - 3136+08.04 NB	IH 43 NB	500 x 10	5000					91	556		B-05-0248 TEMP. SHOULDERS
0010	3131+34.23 NB - 3150+15.30 NB	IH 43 NB	1881 x 40	75243						8,360	19	
0010	3150+15.30 NB - 3154+84.73 NB	IH 43 NB	469 x VARIES	26551						2,950	5	
0010	3154+84.73 NB - 3176+07.82 NB	IH 43 NB	2123 x 40	84924					4,173	9,436	21	
0010	3176+07.82 NB - 3188+29.04 NB	IH 43 NB	1221 x VARIES	63479						7,053	12	
0010	3188+29.04 NB - 3193+16.37 NB	IH 43 NB	487 x 40	19493						2,166	5	
0010	3193+16.37 NB - 3193+66.37 NB	IH 43 NB	50 x 24	1200					267	133	--	B-05-0187 TEMP. APPROACH
0010	3188+66.37 NB - 3193+66.37 NB	IH 43 NB	500 x 10	5000					111	556		B-05-0187 TEMP. SHOULDERS
0010	3195+03.41 NB - 3195+53.41 NB	IH 43 NB	50 x 24	1200					267	133	--	B-05-0187 TEMP. APPROACH
0010	3195+03.41 NB - 3200+03.41 NB	IH 43 NB	500 x 10	5000					111	556		B-05-0187 TEMP. SHOULDERS
0010	3195+53.41 NB - 3276+13.00 NB	IH 43 NB	8060 x 40	322384						35,820	81	
0010	3207+02.32 NB - 3207+78.78 NB	IH 43 NB	76 X 76	5811							--	MAINT. CROSSOVER
0010	3269+28.50 NB - 3269+96.88 NB	IH 43 NB	68 x 76	5197							--	MAINT. CROSSOVER
0010	3276+13.00 NB - 3280+76.38 NB	IH 43 NB	463 x VARIES	25587						2,843	5	
0010	3280+76.38 NB - 3319+50.00 NB	IH 43 NB	3874 x 40	154945						17,216	39	
0010	3319+50.00 NB - 3321+50.00 NB	IH 43 NB	200 x 40	8000					889		2	BUTT JOINT N. PROJ. LIMIT
	NORTHBOUND TOTALS				**445**	**0**	**10,800**	**0**	**8,549**	**250,117**	**545**	

REMOVING PAVEMENT AND ASPHALTIC SURFACE - (CONTINUED)

CATEGORY	STATION TO STATION	LOCATION	SIZE LENGTH FT x WIDTH FT	AREA SF	204.0100 REMOVING PAVEMENT SY	204.0155 REMOVING CONCRETE SIDEWALK SY	204.0109.S REMOVING CONC. SURFACE PARTIAL DEPTH SF	204.0105 REMOVING PAVEMENT BUTT JOINT SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	646.0790.S REMOVING RAISED PAVEMENT MARKERS EACH	REMARKS
	SOUTHBOUND											
0010	2762+29.79 SB - 2764+29.79 SB	IH 43 SB	200 x 40	8000					889		2	BUTT JOINT S. PROJ. LIMIT
0010	2764+29.79 SB - 2764+64.14 SB	IH 43 SB	34 x 40	1374						3,239	0	
0010	2764+64.14 SB - 2777+13.21 SB	IH 43 SB	1249 x VARIES	65106						7,234	12	
0010	2777+13.21 SB - 2800+98.92 SB	IH 43 SB	2386 x 40	95428						10,603	24	
0010	2800+98.92 SB - 2805+31.58 SB	IH 43 SB	433 x VARIES	17843						1,983	4	
0010	2805+31.58 SB - 2822+75.47 SB BK	IH 43 SB	1744 x 40	69756						7,751	17	
0010	2822+84.18 SB - 2886+38.52 SB	IH 43 SB	6354 x 40	254174						28,242	64	
0010	2886+38.52 SB - 2886+72.52 SB	IH 43 SB	34 x 40	1360	103						--	B-05-0240 APPROACH SLAB
0010	2881+61.77 SB - 2886+61.77 SB	IH 43 SB	500 x 10	5000					76	556		B-05-0240 TEMP. SHOULDERS
0010	2887+84.65 SB - 2888+16.36 SB	IH 43 SB	32 x 40	1268	93						--	B-05-0240 APPROACH SLAB
0010	2887+95.36 SB - 2892+95.36 SB	IH 43 SB	500 x 10	5000					70	556		B-05-0240 TEMP. SHOULDERS
0010	2888+16.36 SB - 2946+98.09 SB BK	IH 43 SB	5882 x 40	235269						26,141	59	
0010	2947+02.70 SB - 3021+10.28 SB	IH 43 SB	7408 x 40	296303						32,923	74	
0010	3021+10.28 SB - 3021+60.28 SB	IH 43 SB	50 x 40	2000					444	222	--	B-05-0243 TEMP. APPROACH
0010	3016+60.28 SB - 3021+60.28 SB	IH 43 SB	500 x 10	5000					111	556		B-05-0243 TEMP. SHOULDERS
0010	3023+98.58 SB - 3024+48.58 SB	IH 43 SB	50 x 40	2000					444	222	--	B-05-0243 TEMP. APPROACH
0010	3023+98.58 SB - 3028+98.58 SB	IH 43 SB	500 x 10	5000					111	556		B-05-0243 TEMP. SHOULDERS
0010	3024+48.58 SB - 3042+78.03 SB BK	IH 43 SB	1829 x 40	73178						8,131	18	
0010	3042+74.77 SB - 3069+09.08 SB	IH 43 SB	2634 x 40	105372						11,708	26	
0010	3069+09.08 SB - 3069+43.31 SB	IH 43 SB	34 x 24	822	104						--	B-05-0245 APPROACH SLAB
0010	3064+32.37 SB - 3069+32.37 SB	IH 43 SB	500 x 10	5000					76	556		B-05-0245 TEMP. SHOULDERS
0010	3070+61.77 SB - 3071+11.77 SB	IH 43 SB	50 x 24	1200					267	133	--	B-05-0245 TEMP. APPROACH
0010	3070+61.77 SB - 3075+61.77 SB	IH 43 SB	500 x 10	5000					111	556		B-05-0245 TEMP. SHOULDERS
0010	3071+11.77 SB - 3129+86.06 SB	IH 43 SB	5874 x 40	234972						26,108	59	
0010	3129+86.06 SB - 3130+27.28 SB	IH 43 SB	41 x 24	989	118						--	B-05-0247 APPROACH SLAB
0010	3125+12.26 SB - 3130+12.26 SB	IH 43 SB	500 x 10	5000					92	556		B-05-0247 TEMP. SHOULDERS
0010	3131+47.56 SB - 3131+87.32 SB	IH 43 SB	40 x 24	954	118						--	B-05-0247 APPROACH SLAB
0010	3131+63.72 SB - 3136+63.72 SB	IH 43 SB	500 x 10	5000					88	556		B-05-0247 TEMP. SHOULDERS
0010	3131+87.32 SB - 3140+78.66 SB	IH 43 SB	891 x 40	35654						3,962	9	
0010	3140+78.66 SB - 3148+84.42 SB BK	IH 43 SB	806 x VARIES	37556						4,173	8	
0010	3149+33.95 SB - 3153+84.70 SB	IH 43 SB	451 x VARIES	27637						3,071	5	
0010	3153+84.70 SB - 3178+05.87 SB	IH 43 SB	2421 x 40	96847						10,761	24	
0010	3178+05.87 SB - 3182+33.81 SB	IH 43 SB	428 x VARIES	23407						2,601	4	
0010	3182+33.81 SB - 3192+94.90 SB	IH 43 SB	1061 x 40	42444						4,716	11	
0010	3192+94.90 SB - 3193+26.05 SB	IH 43 SB	31 x 40	1246	94						--	B-05-0188 APPROACH SLAB
0010	3188+15.68 SB - 3193+15.68 SB	IH 43 SB	500 x 10	5000					69	556		B-05-0188 TEMP. SHOULDERS
0010	3194+42.19 SB - 3194+75.33 SB	IH 43 SB	33 x 40	1326	94						--	B-05-0188 APPROACH SLAB
0010	3194+53.50 SB - 3199+53.50 SB	IH 43 SB	500 x 10	5000					74	556		B-05-0188 TEMP. SHOULDERS
0010	3194+75.33 SB - 3210+23.95 SB BK	IH 43 SB	1549 x 40	61945						6,883	15	
0010	3210+14.08 SB - 3264+34.63 SB BK	IH 43 SB	5421 x 40	216822						24,091	54	
0010	3264+41.34 SB - 3273+97.10 SB	IH 43 SB	956 x 40	38230						4,248	10	
0010	3273+97.10 SB - 3287+84.96 SB	IH 43 SB	1388 x VARIES	75235						8,359	14	
0010	3287+84.96 SB - 3320+77.91 SB	IH 43 SB	3293 x 40	131718						14,635	33	
0010	3320+77.91 SB - 3322+77.91 SB	IH 43 SB	200 x 40	8000					889		2	BUTT JOINT N. PROJ. LIMIT
	SOUTHBOUND TOTALS				**724**	**0**	**0**	**0**	**3,812**	**257,694**	**549**	

REMOVING PAVEMENT AND ASPHALTIC SURFACE - (CONTINUED)

CATEGORY	STATION TO STATION	LOCATION	SIZE LENGTH FT x WIDTH FT	AREA SF	204.0100 REMOVING PAVEMENT SY	204.0155 REMOVING CONCRETE SIDEWALK SY	204.0109.S REMOVING CONC. SURFACE PARTIAL DEPTH SF	204.0105 REMOVING PAVEMENT BUTT JOINT SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	646.0790.S REMOVING RAISED PAVEMENT MARKERS EACH	REMARKS
	STH 96											
0010	2796+71.06 NE - 2797+71.43 NE	96 NE RAMP	100 x 27	2710						301	--	
0010	2799+98.97 NW - 2800+99.10 NW	96 NW RAMP	100 x 28	2804						312	--	
0010	2774+85.68 SE - 2776+90.65 SE	97 SE RAMP	205 x 27	5534						615	--	
0010	2777+12.93 SW - 2779+73.83 SW	98 SW RAMP	261 x 27	7044						783	--	
0010	34+11.00 EB - 34+61.00 EB	96 EB	50 x 30	1500				167			--	BUTT JOINT W. PROJ. LIMIT
0010	56+80.81 EB - 57+30.81 EB	96 EB	50 x VARIES	2533				281			--	BUTT JOINT E. PROJ. LIMIT
0010	40+42.99 EB - 41+86.14 EB	96 EB	143 x VARIES	2286					254		--	At KVITEK RD.
0010	46+46.16 EB - 48+46.16 EB	97 EB	200 x VARIES	12196				1355			--	WEST END OF BRIDGE, BOTH EB & WB LANES
0010	50+83.92 EB - 52+33.92 EB	96 EB	150 x VARIES	9521				1058			--	EAST END OF BRIDGE, BOTH EB & WB LANES
0010	56+39.50 EB - 57+19.39 EB	96 EB	29 x VARIES	1512				168			--	At BOHEMIA DR.
	STH 96 TOTALS				**0**	**0**	**0**	**3,029**	**254**	**2,010**	**0**	
	CTH MM											
0010	3154+85.22 NE - 3166+66.02 NE	MM NE RAMP	1181 x VARIES	33365						3,707	--	
0010	3166+41.59 NW - 3166+74.59 NW	MM NW RAMP	VARIES x VARIES	48		5.3					--	IH 43 NB CLOSURE UNDER USH 141/CTH MM
0010	3166+36.83 NW - 3176+08.82 NW	MM NW RAMP	972 x VARIES	28256						3,140	--	
0010	3153+84.71 SE - 3163+11.86 SE	MM SE RAMP	927 x VARIES	25861						2,873	--	
0010	3163+12.77 SW - 3178+05.87 SW	MM SW RAMP	1227 x VARIES	42768						4,752	--	
0010	36+94.87 NB - 48+68.59 NB	CTH MM NB	1174 x VARIES	50173						5,575	--	
0010	51+36.82 NB - 64+11.71 NB	CTH MM NB	1275 x VARIES	65077						7,231	--	
0010	48+31.89 NB - 48+59.13 NB	CTH MM NB	27 x VARIES	523	58							B-05-0189 NE APPROACH SLAB
0010	51+16.56 NB - 51+44.07 NB	CTH MM NB	28 x VARIES	576	64						--	B-05-0189 SE APPROACH SLAB
0010	41+01.87 NB - 42+88.81 NB	CTH MM NB	187 x VARIES	3914					435		--	AT ENTRANCE TO HELRON OIL
0010	62+44.68 NB - 63+62.50 NB	CTH MM NB	118 x VARIES	3249					361		--	AT CEDAR HEDGE LN.
0010	36+94.87 NB - 37+44.87 NB	CTH MM NB	50 x 22	1100					122		--	BUTT JOINT S. PROJ. LIMIT
0010	63+61.71 NB - 64+11.71 NB	CTH MM NB	50 x VARIES	2839					315		--	BUTT JOINT N. PROJ. LIMIT
0010	48+47.73 SB - 48+80.09 SB	CTH MM SB	32 x VARIES	707	79						--	B-05-0189 NW APPROACH SLAB
0010	51+36.83 SB - 51+83.95 SB	CTH MM SB	47 x VARIES	1019	113						--	B-05-0189 SW APPROACH SLAB
0010	53+88.38 SB - 53+98.28 SB	CTH MM SB	VARIES x VARIES	48		5.3					--	IH 43 NB CLOSURE UNDER USH 141/CTH MM
	CTH MM TOTALS				**314**	**11**	**0**	**0**	**1,233**	**27,278**	**0**	
	STH 172											
0010	3287+89.02 SB - 3288+96.77 SB	172 EB TO 43 SB	108 x VARIES	3842						427	--	
0010	3321+73.66 SB - 3323+73.66 SB	173 EB TO 43 SB	200 x VARIES	7378				820			--	
0010	3323+35.49 SB - 3323+73.66 SB	174 EB TO 43 SB	38 x VARIES	349				39			--	
0010	3280+76.52 WB - 3281+26.00 WB	43 NB TO 172 WB	49 x 31	1534						170	--	
0010	3279+26.00 NB - 3281+26.00 NB	43 NB TO 172 WB	200 x VARIES	6229					692		--	
	STH 172 TOTALS				**0**	**0**	**0**	**859**	**692**	**597**	**0**	
	PROJECT 1227-08-71 TOTALS				**1,483**	**11**	**10,800**	**3,888**	**14,540**	**537,696**	**1,094**	

**ADDITIONAL QUANTITIES LOCATED ELSEWHERE IN THE PLAN

3

REMOVING CURB & GUTTER AND SURFACE DRAINS

CATEGORY	LOCATION		204.0150 REMOVING CURB & GUTTER LF	204.0190 REMOVING SURFACE DRAINS EACH	REMARKS
	NORTHBOUND				
0010	B-05-0241	IH 43 NB	6	1	SE QUAD CURB, SW QUAD DRAIN
0010	B-05-0244	IH 43 NB	4	1	NW QUAD CURB, SW QUAD DRAIN
0010	B-05-0246	IH 43 NB	6	1	NE QUAD CURB, NW QUAD DRAIN
0010	B-05-0248	IH 43 NB		1	NW QUAD
0010	B-05-0187	IH 43 NB	6	1	NE QUAD CURB, SE QUAD DRAIN
		NORTHBOUND TOTALS	**22**	**5**	
	SOUTHBOUND				
0010	B-05-0240	IH 43 SB	6	1	SW QUAD, SE QUAD DRAIN
0010	B-05-0243	IH 43 SB	6	1	SW QUAD CURB, NW QUAD DRAIN
0010	B-05-0245	IH 43 SB	6	1	NW QUAD CURB, NE QUAD DRAIN
0010	B-05-0247	IH 43 SB	6		NW QUAD
0010	B-05-0188	IH 43 SB	6	1	SE QUAD CURB, NE QUAD DRAIN
		SOUTHBOUND TOTALS	**30**	**4**	
	USH 141/CTH MM				
0010	ISLANDS NEAR NB RAMPS	USH 141/CTH MM	65		IH 43 NB CLOSURE UNDER USH 141/CTH MM
		USH 141/CTH MM TOTAL	**65**	**0**	
	OVERPASS STRUCTURES				
0010	B-05-0254	NORTH AVE.	16		
0010	B-05-0242	LANGES CORNER RD.	24		NE & SE QUAD
0010	B-05-0189	USH 141/CTH MM	20		NW & NE QUAD
0010	B-05-0189	USH 141/CTH MM	233		SE & SW QUAD
		OVERPASS TOTALS	**293**	**0**	

PROJECT 1227-08-71 TOTALS	**410**	**9**

REMOVING FENCE

CATEGORY	STATION TO STATION	LOCATION	204.0170 REMOVING FENCE LF	616.0100 FENCE WOVEN WIRE 4.5-FEET LF	REMARKS
	NORTHBOUND				
0010	2886+22.87 'NB' - 2887+85.25 'NB'	IH 43 NB	128	128	B-05-0241 NE, NW, & SW QUADS, 54 FT. FOR MEDIAN
0010	3070+13.11 'NB'	IH 43 NB	20	20	B-05-0246 NE QUAD
0010	3193+56.74 'NB'	IH 43 NB	85	115	B-05-0187 NE & SE QUAD, 75 FT. FOR MEDIAN
	NORTHBOUND TOTALS		**233**	**263**	
	SOUTHBOUND				
0010	2886+67.57 'SB'	IH 43 SB	20	20	B-05-0240 NE & SW QUAD (54 FT. MEDIAN IN NB QUANT.)
0010	3131+86.94 'SB'	IH 43 SB	21	21	B-05-0247 NW QUAD
0010	3193+00.28 'SB'	IH 43 SB	29	29	B-05-0188 NE & SE QUAD (75 FT. MEDIAN IN NB QUANT.)
	SOUTHBOUND TOTALS		**70**	**70**	

PROJECT 1227-08-71 TOTALS	**303**	**333**

REMOVING INLETS

CATEGORY	STATION		LOCATION	204.0220 REMOVING INLETS EACH	REMARKS
	NORTHBOUND				
0010	2825+33.00	'NB'	IH 43 NB	1	MEDIAN
0010	2915+38.00	'NB'	IH 43 NB	1	MEDIAN
0010	2955+41.00	'NB'	IH 43 NB	2	MEDIAN
0010	3070+23.04	'NB'	IH 43 NB	1	B-05-0246 NE QUAD
	NORTHBOUND TOTALS			**5**	
	SOUTHBOUND				
0010	2886+61.52	'SB'	IH 43 SB	1	B-05-0240 SW QUAD
0010	3070+94.02	'SB'	IH 43 SB	1	B-05-0245 NW QUAD
0010	3131+93.88	'SB'	IH 43 SB	1	B-05-0247 SW QUAD
0010	3192+93.34	'SB'	IH 43 SB	1	B-05-0188 SE QUAD
	SOUTHBOUND TOTALS			**4**	
	USH 141/CTH MM				
0010	51+41.41	'NB'	CTH MM NB	1	CTH MM NE QUAD
0010	51+31.00	'NB'	CTH MM NB	1	CTH MM NW QUAD
	CTH MM TOTAL			**2**	

PROJECT 1227-08-71 TOTAL	**11**

FINISHING ROADWAY PROJECT

CATEGORY	LOCATION	213.0100 FINISHING ROADWAY PROJECT EACH
0010	PROJECT 1227-08-71	1
PROJECT 1227-08-71 TOTAL		**1**
0010	PROJECT 1210-12-71	1
PROJECT 1210-12-71 TOTAL		**1**

PREPARE FOUNDATION FOR ASPHALT PAVING

CATEGORY	LOCATION	211.0100 PREPARE FOUNDATION FOR ASPHALT PAVING LS
0010	PROJECT IH 43	1
PROJECT 1227-08-71 TOTAL		**1**

3

Location	From - To Station	205.0100 Common Excavation (1) Cut (2)	Unexpanded Fill	Expanded Fill (13) Factor 1.25	Mass Ordinate +/- (14)	208.0100 Borrow	Comment:
IH 43 NB							
IH 43 NB	3162+00.00 'NB' - 3169+00.00 'NB'	1,806	0	0	1,806	--	PVMT REPLACEMENT
IH 43 NB TOTAL		1,810	0	0	1,806	0	
PROJECT 1227-08-71 TOTAL		**1,810**	**0**	**0**	**1,810**	**0**	

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.
13) Expanded Fill. Factor = 1.25

Depending on selections: **Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh - Reduced EBS) * Fill Factor**
Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced EBS) * Fill Factor
Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh) * Fill Factor
Expanded Fill = (Unexpanded Fill - Rock* Rock Factor) * 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.

FILE NAME : _____ PLOT DATE : _____ PLOT BY : _____ PLOT NAME : _____ PLOT SCALE : 1:1

Location	From - To Station	TOPSOIL (For Information Only) SY	Unexpanded Fill	Expanded Fill (13) Factor 1.25	Mass Ordinate +/- (14)	SPV.0170.01 CABLE GUARD GRADING AND SHAPING (PER 100 FT. STA.)
IH 43 NB						
IH 43 NB	2764+00.00 'NB' - 2814+23.00 'NB'	29094	2,575	3,219	-2,575	50.23
IH 43 NB	2814+80.00 'NB' - 2829+20.00 'NB'	9203	1,230	1,538	-1,121	14.40
IH 43 NB TOTAL		38,300	3,810	4,760	-3,696	65
PROJECT 1227-08-71 TOTAL			3,810	4,760	-3,700	65
STH 172						
STH 172 EB	431+09.00 'EB' - 444+04.00 'EB'	3337	218	251	-214	12.95
STH 172 EB	448+49.00 'EB' - 457+04.00 'EB'	2986	236	271	-235	8.55
STH 172 EB	458+25.00 'EB' - 466+51.00 'EB'	3905	952	1,095	-952	8.26
STH 172 EB	470+00.00 'EB' - 482+50.00 'EB'	4731	620	713	-619	12.50
STH 172 EB	489+00.00 'EB' - 496+00.00 'EB'	2197	155	178	-155	7.00
STH 172 EB	500+00.00 'EB' - 505+59.00 'EB'	1805	155	178	-155	5.59
STH 172 EB	506+00.00 'EB' - 534+51.00 'EB'	7829	635	730	-635	28.51
STH 172 EB	539+50.00 'EB' - 565+03.00 'EB'	7854	704	810	-687	25.53
STH 172 EB	565+50.00 'EB' - 567+32.00 'EB'	539	51	59	-51	1.82
STH 172 EB	573+01.00 'EB' - 586+00.00 'EB'	4349	354	407	-353	12.99
STH 172 TOTAL		39,535	4,080	4,690	-4,056	124
PROJECT 1210-12-71 TOTAL		39,540	4,080	4,690	-4,060	124

2) Salvaged/Unsuable Pavement Material is included in Cut.

13) Expanded Fill. Factor = 1.25

Depending on selections:

Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh - Reduced EBS) * Fill Factor

Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced EBS) * Fill Factor

Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh) * Fill Factor

Expanded Fill = (Unexpanded Fill - Rock* Rock Factor) * Fill Factor

14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the

BASE AGGREGATE SUMMARY

CATEGORY	STATION		TO	STATION	LOCATION	**305.011 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	645.0140 GEOTEXTILE TYPE SAS SY
	NORTHBOUND									
0010	2762+29.80	NB	-	2886+19.97 NB	IH 43 NB	2446.83			24.47	
0010	2887+53.58	NB	-	3022+64.21 NB	IH 43 NB	2668.10			26.68	
0010	3024+98.82	NB	-	3068+87.62 NB	IH 43 NB	866.71			8.67	
0010	3070+28.64	NB	-	3129+48.42 NB	IH 43 NB	1169.05			11.69	
0010	3131+18.59	NB	-	3162+00.00 NB	IH 43 NB	608.52			6.09	
0010	3162+00.00	NB	-	3169+00.00 NB	IH 43 NB	97.27	1446.67	2830.59	15.44	1555.56
0010	3169+00.00	NB	-	3193+66.37 NB	IH 43 NB	487.06			4.87	
0010	3195+03.40	NB	-	3321+50.00 NB	IH 43 NB	2497.47			24.97	
	NORTHBOUND TOTALS					**10840**	**1450**	**2830**	**123**	**1556**
	SOUTHBOUND									
0010	2762+29.79	SB	-	2822+75.47 SB BK	IH 43 SB	1193.91			11.94	
0010	2822+84.18	SB AH	-	2886+54.19 SB	IH 43 SB	1257.96			12.58	
0010	2887+87.86	SB	-	2946+98.09 SB BK	IH 43 SB	1167.16			11.67	
0010	2947+02.70	SB AH	-	3021+60.28 SB	IH 43 SB	1472.73			14.73	
0010	3023+98.58	SB	-	3042+78.03 SB BK	IH 43 SB	371.16			3.71	
0010	3042+74.77	SB AH	-	3069+24.75 SB	IH 43 SB	523.32			5.23	
0010	3070+61.77	SB	-	3130+01.88 SB	IH 43 SB	1173.06			11.73	
0010	3131+52.21	SB	-	3148+84.42 SB BK	IH 43 SB	342.08			3.42	
0010	3149+33.95	SB AH	-	3193+22.84 SB	IH 43 SB	866.72			8.67	
0010	3194+59.69	SB	-	3210+23.95 SB BK	IH 43 SB	308.91			3.09	
0010	3210+14.08	SB AH	-	3264+34.63 SB BK	IH 43 SB	1070.46			10.70	
0010	3264+41.34	SB AH	-	3322+77.91 SB	IH 43 SB	1152.61			11.53	
	SOUTHBOUND TOTALS					**10900**	**0**	**0**	**109**	**0**

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BASE AGGREGATE SUMMARY - (CONTINUED)

CATEGORY	STATION	TO	STATION	LOCATION	**305.011 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	311.0110 BREAKER RUN TON	624.0100 WATER MGAL	645.0140 GEOTEXTILE TYPE SAS SY
	STH 96								
0010	34+11.00 EB	-	45+00.00 EB	STH 96 EB	53.80			0.54	
0010	45+00.00 EB	-	46+69.17 EB	STH 96 EB	6.97			0.07	
0010	46+69.17 EB	-	52+30.20 EB	STH 96 EB	24.23			0.24	
0010	52+30.20 EB	-	52+98.00 EB	STH 96 EB	2.79			0.03	
0010	34+63.15 WB	-	44+96.82 WB	STH 96 WB	51.07			0.51	
0010	44+96.82 WB	-	46+67.34 WB	STH 96 WB	7.02			0.07	
0010	46+67.34 WB	-	52+27.33 WB	STH 96 WB	24.18			0.24	
0010	52+27.33 WB	-	52+70.24 WB	STH 96 WB	1.77			0.02	
	STH 96 TOTALS				**170**			**2**	**0**
	USH 141/CTH MM								
0010	36+94.87 NB	-	61+55.00 NB	USH 141/CTH MM NB	91.30			0.91	
0010	61+55.00 NB	-	64+11.71 NB	USH 141/CTH MM NB	9.53			0.10	
0010	40+99.43 SB	-	61+53.58 SB	USH 141/CTH MM SB	76.23			0.76	
0010	61+53.58 SB	-	64+10.49 SB	USH 141/CTH MM SB	9.53			0.10	
	USH 141/CTH MM TOTALS				**190**			**2**	**0**
	STH 96 INTERCHANGE								
0010	2786+65.96 NE	-	2797+71.44 NE	STH 96 NE RAMP	91.06			0.91	
0010	2789+15.95 NW	-	2800+99.10 NW	STH 96 NW RAMP	97.46			0.97	
0010	2777+12.93 SW	-	2788+70.38 SW	STH 96 SW RAMP	95.34			0.95	
0010	2774+85.68 SE	-	2785+76.40 SE	STH 96 SE RAMP	89.84			0.90	
	STH 96 INTERCHANGE TOTALS				**370**	**0**	**0**	**4**	**0**
	CTH MM/STH 141 INTERCHANGE								
0010	3154+85.22 NE	-	3165+99.18 NE	CTH MM/STH 141 NE RAMP	91.76			0.92	
0010	3166+84.89 NW	-	3176+08.82 NW	CTH MM/STH 141 NW RAMP	76.10			0.76	
0010	3153+84.71 SE	-	3162+79.79 SE	CTH MM/STH 141 SE RAMP	73.73			0.74	
0010	3163+10.24 SW	-	3178+05.87 SW	CTH MM/STH 141 SW RAMP	123.20			1.23	
	CTH MM/STH 141 INTERCHANGE TOTALS				**360**	**0**	**0**	**4**	**0**

BASE AGGREGATE SUMMARY - (CONTINUED)

CATEGORY	STATION	TO	STATION	LOCATION	**305.011 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	311.0110 BREAKER RUN TON	624.0100 WATER MGAL	645.0140 GEOTEXTILE TYPE SAS SY
	STH 172 INTERCHANGE								
0010	3280+76.52 WB	-	3283+23.00 WB	IH 43 NB TO STH 172 WB	64.98			0.65	
0010	3287+89.02 EB	-	3324+48.49 EB	STH 172 EB TO IH 43 SB	316.07			3.16	
				STH 172 INTERCHANGE TOTALS	**380**	**0**	**0**	**4**	**0**
				PROJECT 1227-08-71 TOTALS	**23210**	**1450**	**2830**	**250**	**1560**
	STH 172								
0010	430+70.73 EB	-	445+58.45 EB	STH 172 EB	43.39			0.43	
0010	447+15.14 EB	-	457+73.50 EB	STH 172 EB	30.87			0.31	
0010	457+98.51 EB	-	466+71.58 EB	STH 172 EB	25.46			0.25	
0010	468+48.68 EB	-	483+64.47 EB	STH 172 EB	44.21			0.44	
0010	487+60.21 EB	-	496+81.91 EB	STH 172 EB	26.88			0.27	
0010	498+72.50 EB	-	505+69.05 EB	STH 172 EB	20.32			0.20	
0010	505+93.42 EB	-	535+77.72 EB	STH 172 EB	87.04			0.87	
0010	537+92.85 EB	-	565+12.25 EB	STH 172 EB	79.32			0.79	
0010	565+36.41 EB	-	568+90.60 EB	STH 172 EB	10.33			0.10	
0010	570+61.37 EB	-	588+02.79 EB	STH 172 EB	50.79			0.51	
0010	430+70.96 WB	-	445+50.84 WB	STH 172 WB	43.16			0.43	
0010	447+25.02 WB	-	457+73.60 WB	STH 172 WB	30.58			0.31	
0010	457+98.61 WB	-	466+89.44 WB	STH 172 WB	25.98			0.26	
0010	468+45.57 WB	-	483+74.72 WB	STH 172 WB	44.60			0.45	
0010	487+59.11 WB	-	496+83.68 WB	STH 172 WB	26.97			0.27	
0010	498+63.82 WB	-	505+69.69 WB	STH 172 WB	20.59			0.21	
0010	505+94.03 WB	-	536+13.56 WB	STH 172 WB	88.07			0.88	
0010	537+98.14 WB	-	565+12.12 WB	STH 172 WB	79.16			0.79	
0010	565+36.23 WB	-	568+79.71 WB	STH 172 WB	10.02			0.10	
0010	570+48.91 WB	-	588+00.62 WB	STH 172 WB	51.09			0.51	
				PROJECT 1210-12-71 TOTALS	**840**	**0**	**0**	**10**	**0**

BASE PATCHING SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0180.02 BASE PATCHING CONCRETE HES SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	**690.0250 SAWING CONCRETE LF	SPV.0090.03 CONCRETE JOINT AND CRACK CLEANING LF	SPV.0180.03 CONTINUOUSLY REINFORCED CONCRETE REPAIR HES SY	REMARKS
	NORTHBOUND										
0010	2762+29.80 NB	-	2786+35.52 NB	IH 43 NB	0.0	180	---	2621	---	472	BP - MI. 171
0010	2786+35.52 NB	-	2838+73.58 NB	IH 43 NB	151.6	188	---	2607	---	422.7	MI. 171 - MI. 172
0010	2838+73.58 NB	-	2891+53.58 NB	IH 43 NB	145.1	119	---	1425	---	194.7	MI. 172 - MI. 173
0010	2891+53.58 NB	-	2944+31.72 NB	IH 43 NB	99.1	80	---	1179	---	142.7	MI. 173 - MI. 174
0010	2944+31.72 NB	-	2996+31.49 NB	IH 43 NB	76.0	40	---	598	---	46.7	MI. 174 - MI. 175
0010	2996+31.49 NB	-	3049+50.97 NB	IH 43 NB	316.2	118	---	2147	---	310.7	MI. 175 - MI. 176
0010	3049+50.97 NB	-	3102+50.97 NB	IH 43 NB	312.9	130	---	2711	---	378.7	MI. 176 - MI. 177
0010	3102+50.97 NB	-	3154+44.70 NB	IH 43 NB	314.9	107	---	2216	---	414.7	MI. 177 - MI. 178
0010	3154+44.70 NB	-	3207+80.56 NB	IH 43 NB	286.7	123	---	2100	---	413.3	MI. 178 - MI. 179
0010	3207+80.56 NB	-	3260+59.39 NB	IH 43 NB	208.0	172	---	2381	---	328	MI. 179- MI. 180
0010	3260+59.39 NB	-	3313+40.00 NB	IH 43 NB	135.8	102	---	833	320	112	MI. 180 - MI. 181
0010	3313+40.00 NB	-	3321+50.00 NB	IH 43 NB	4.0	2	---	18	---	0	MI. 181 - EP
	NORTHBOUND TOTALS				**2,051**	**1,361**	**0**	**20,900**	**320**	**2765**	
	SOUTHBOUND										
0010	2762+29.79 SB	-	2786+35.51 SB	IH 43 SB	7.8	288	---	4664	---	771.8	BP - MI. 171
0010	2786+35.51 SB	-	2838+73.57 SB	IH 43 SB	106.0	128	---	1729	---	294.7	MI. 171 - MI. 172
0010	2838+73.57 SB	-	2891+53.57 SB	IH 43 SB	84.7	52	---	895	---	98.7	MI. 172 - MI. 173
0010	2891+53.57 SB	-	2944+27.62 SB	IH 43 SB	82.4	56	---	809	---	92	MI. 173 - MI. 174
0010	2944+27.62 SB	-	2996+31.48 SB	IH 43 SB	136.4	59	---	1100	---	93.3	MI. 174 - MI. 175
0010	2996+31.48 SB	-	3049+50.97 SB	IH 43 SB	180.9	64	---	1471	---	164	MI. 175 - MI. 176
0010	3049+50.97 SB	-	3102+50.97 SB	IH 43 SB	223.6	86	---	1127	---	94.7	MI. 176 - MI. 177
0010	3102+50.97 SB	-	3154+44.70 SB	IH 43 SB	223.1	142	---	2498	---	370.9	MI. 177 - MI. 178
0010	3154+44.70 SB	-	3207+89.24 SB	IH 43 SB	344.4	169	---	3312	---	600.1	MI. 178 - MI. 179
0010	3207+89.24 SB	-	3260+54.64 SB	IH 43 SB	76.0	70	---	1289	---	230.7	MI. 179- MI. 180
0010	3260+54.64 SB	-	3314+44.63 SB	IH 43 SB	115.1	203	---	1393	---	362.7	MI. 180 - MI. 181
0010	3314+44.63 SB	-	3322+77.89 SB	IH 43 SB	18.7	8	---	80	---	0	MI. 181 - EP
	SOUTHBOUND TOTALS				**1,600**	**1,325**	**0**	**20,370**	**0**	**3,174**	

BASE PATCHING SUMMARY - (CONTINUED)

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0180.02 BASE PATCHING CONCRETE HES SY	390.0403 BASE PATCHING CONCRETE SHES SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	**690.0250 SAWING CONCRETE LF	SPV.0090.03 CONCRETE JOINT AND CRACK CLEANING LF	SPV.0180.03 CONTINUOUSLY REINFORCED CONCRETE REPAIR HES SY	REMARKS
	STH 96 INTERCHANGE											
0010	2771+87.85 SE	-	2786+21.69 SE	SE RAMP	---	915.0	372	224	2403	---	---	INCLUDES BASE PATCHING TO RAMP TAPER END
0010	2785+71.99 NE	-	2796+71.06 NE	NE RAMP	---	306.7	100	176	958	195	---	INCLUDES BASE PATCHING TO RAMP TAPER END
0010	2771+79.46 SW	-	2789+04.47 SW	SW RAMP	---	555.0	136	416	1644	---	---	INCLUDES BASE PATCHING TO RAMP TAPER END
0010	2788+61.89 NW	-	2799+98.88 NW	NW RAMP	---	767.3	302	302	2112	133	---	INCLUDES BASE PATCHING TO RAMP TAPER END
	STH 96 INTERCHANGE TOTALS				**0**	**1,629**	**538**	**894**	**4,720**	**328**	**0**	
	USH 141/CTH MM INTERCHANGE											
0010	3152+17.24 SE	-	3163+40.80 SE	SE RAMP	---	305.7	70	272	1096	---	---	INCLUDES BASE PATCHING TO RAMP TAPER END
0010	3152+28.16 NE	-	3167+05.24 NE	NE RAMP	---	393.6	92	368	1343	---	---	INCLUDES BASE PATCHING TO RAMP TAPER END
0010	3162+85.63 SW	-	3176+06.98 SW	SW RAMP	---	205.3	16	272	898	---	---	INCLUDES BASE PATCHING TO RAMP TAPER END
0010	3166+08.24 NW	-	3177+69.75 NW	NW RAMP	---	413.3	61	402	1494	---	---	INCLUDES BASE PATCHING TO RAMP TAPER END
	USH 141/CTH MM INTERCHANGE TOTALS				**0**	**1,318**	**239**	**1,314**	**4,840**	**0**	**0**	
	43 NB CONNECTOR - 172 WB											
0010	3277+99.80 WB	-	3283+23.01 WB	IH 43 NB - STH 172 WB RAMP	---	50	0	80	210	---	---	
	172 EB CONNECTOR - 43 SB TOTALS				**0**	**50**	**0**	**80**	**210**	**0**	**0**	
	172 EB CONNECTOR - 43 SB											
0010	3283+79.85 EB	-	3323+73.66 EB	STH 172 EB - IH 43 SB RAMP	564	327	218	1156	3352	680	---	
	172 EB CONNECTOR - 43 SB TOTALS				**564**	**330**	**218**	**1,156**	**3,360**	**680**	**0**	
	STH 96											
0010	34+11.00 EB	-	57+30.81 EB	EB LANES	---	259.3	44	320	946	692	---	
0010	34+11.00 WB	-	57+14.80 WB	WB LANES	---	630.4	125	390	1952	482	---	
	STH 96 TOTALS				**0**	**890**	**169**	**710**	**2,900**	**1,174**	**0**	
	USH 141/CTH MM											
0010	36+94.87 NB	-	64+11.71 NB	NB LANES	---	34.4	2	48	120	---	---	
0010	36+94.87 SB	-	64+11.71 SB	SB LANES	---	64.7	2	108	290	---	---	
	USH 141/CTH MM TOTALS				**0**	**100**	**4**	**156**	**410**	**0**	**0**	
	UNDISTRIBUTED QUANTITY:				**681**	**648**	**583**	**647**	**8987**	**375**	**912**	
	PROJECT 1227-08-71 TOTALS				**5,219**	**4,965**	**4,472**	**4,957**	**68,897**	**2,877**	**6,992**	

**ADDITIONAL QUANTITES LOCATED ELSWHERE IN THE PLAN

HMA SUMMARY

STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	460.7223 HMA PAVEMENT 3 HT 58-28 S TON	460.7224 HMA PAVEMENT 4 HT 58-28 S TON	460.8424 HMA PAVEMENT 4 SMA 58-28 H TON	460.5223 HMA PAVEMENT 3 LT 58-28 S TON	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	460.4110.S REHEATING HMA PAVEMENT LONGITUDINAL JOINTS LF	465.0125 ASPHALTIC SURFACE TEMPORARY TON	REMARKS
NORTHBOUND												
2762+29.80 NB	-	2769+91.63 NB	IH 43 NB	406	272	--	196	181	130	1524	--	S. PROJECT LIMIT-STH 96 SE RAMP GORE
2763+37.54 NB	-	2763+91.40 NB	IH 43 NB	11	--	--			20	--	--	MAINTENANCE CROSSOVER
2769+91.63 NB	-	2774+85.18 NB	IH 43 NB	379	320	--	230	103	74	988	--	STH 96 SE RAMP GORE
2774+85.18 NB	-	2797+71.90 NB	IH 43 NB	1220	816	--	587	544	391	4574	--	STH 96 SE RAMP GORE-STH 96 NE RAMP GORE
2797+71.90 NB	-	2808+42.24 NB	IH 43 NB	758	615	--	443	230	165	2141	--	STH 96 NE RAMP GORE
2814+25.48 NB	-	2814+80.23 NB	IH 43 NB	11	--	--			20	--	--	MAINTENANCE CROSSOVER
2808+42.24 NB	-	2886+19.94 NB	IH 43 NB	4148	2774	--	1996	1849	1331	15556	--	STH 96 NE RAMP GORE-B-05-0241
2881+19.24 NB	-	2886+19.24 NB	IH 43 NB	62	--	--				--	256	B-05-0241 TEMP. SHOULDERS
2887+53.58 NB	-	2892+53.58 NB	IH 43 NB	62	--	--				--	256	B-05-0241 TEMP. SHOULDERS
2924+34.28 NB	-	2924+89.38 NB	IH 43 NB	11	--	--			20	--	--	MAINTENANCE CROSSOVER
2887+53.58 NB	-	3022+64.21 NB	IH 43 NB	7206	4819	--	3468	3213	2312	27022	--	B-05-0241-B-05-0244
3035+31.01 NB	-	3035+85.77 NB	IH 43 NB	11	--	--			20	--	--	MAINTENANCE CROSSOVER
3017+64.21 NB	-	3022+64.21 NB	IH 43 NB	62	--	--				--	256	B-05-0244 TEMP. SHOULDERS
3024+98.82 NB	-	3029+98.82 NB	IH 43 NB	62	--	--				--	256	B-05-0244 TEMP. SHOULDERS
3024+98.82 NB	-	3068+53.26 NB	IH 43 NB	2322	1553	--	1118	1035	745	8709	--	B-05-0244-B-05-0246
3063+79.95 NB	-	3068+79.95 NB	IH 43 NB	62	--	--				--	256	B-05-0246 TEMP. SHOULDERS
3070+21.02 NB	-	3075+21.02 NB	IH 43 NB	62	--	--				--	256	B-05-0246 TEMP. SHOULDERS
3070+44.31 NB	-	3129+16.26 NB	IH 43 NB	3132	2094	--	1507	1396	1005	11744	--	B-05-0246-B-05-0248
3112+29.34 NB	-	3112+90.66 NB	IH 43 NB	11	--	--			20	--	--	MAINTENANCE CROSSOVER
3124+38.70 NB	-	3129+38.70 NB	IH 43 NB	62	--	--				--	256	B-05-0248 TEMP. SHOULDERS
3131+08.04 NB	-	3136+08.04 NB	IH 43 NB	62	--	--				--	256	B-05-0248 TEMP. SHOULDERS
3131+34.26 NB	-	3150+16.08 NB	IH 43 NB	1004	671	--	483	447	322	3764	--	B-05-0248-CTH MM NE RAMP GORE
3150+16.08 NB	-	3154+85.52 NB	IH 43 NB	354	297	--	213	98	71	939	--	CTH MM NE RAMP GORE
3154+85.52 NB	-	3162+00.00 NB	IH 43 NB	381	255	--	183	170	122	1429	--	CTH MM NE RAMP GORE-PVMT REPLACEMENT
3162+00.00 NB	-	3169+00.00 NB	IH 43 NB	373	378	--	180	252	120	1400	--	PVMT REPLACEMENT
3169+00.00 NB	-	3176+08.61 NB	IH 43 NB	378	253	--	182	168	121	1418	--	PVMT REPLACEMENT-CTH MM NW RAMP GORE
3176+08.61 NB	-	3188+29.83 NB	IH 43 NB	856	688	--	495	266	191	2443	--	CTH MM NW RAMP GORE
3188+29.83 NB	-	3193+66.37 NB	IH 43 NB	286	191	--	138	128	92	1074	--	CTH MM NW RAMP GORE-B-05-0187
3188+66.37 NB	-	3193+66.37 NB	IH 43 NB	62	--	--				--	256	B-05-0187 TEMP. SHOULDERS
3195+03.41 NB	-	3200+03.41 NB	IH 43 NB	62	--	--				--	256	B-05-0187 TEMP. SHOULDERS
3195+03.41 NB	-	3276+13.56 NB	IH 43 NB	4325	2893	--	2082	1928	1388	16221	--	B-05-0187-43 NB TO 172 WB RAMP GORE
3207+02.88 NB	-	3207+79.34 NB	IH 43 NB	18	--	--			32	--	--	MAINTENANCE CROSSOVER
3269+28.26 NB	-	3269+97.44 NB	IH 43 NB	16	--	--			29	--	--	MAINTENANCE CROSSOVER
3276+13.56 NB	-	3280+76.94 NB	IH 43 NB	424	362	--	261	110	79	927	--	43 NB TO 172 WB RAMP GORE
3280+76.94 NB	-	3321+50.00 NB	IH 43 NB	2172	1453	--	1045	968	697	8147	--	44 NB TO 172 WB RAMP GORE-N. PROJECT LIMIT
			NORTHBOUND TOTALS	**30,835**	**20,703**	**0**	**14,806**	**13,087**	**9,519**	**110,020**	**2,564**	

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HMA SUMMARY - (CONTINUED)

CATEGORY	STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	460.7223 HMA PAVEMENT 3 HT 58-28 S TON	460.7224 HMA PAVEMENT 4 HT 58-28 S TON	460.8424 HMA PAVEMENT 4 SMA 58-28 H TON	460.5223 HMA PAVEMENT 3 LT 58-28 S TON	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	460.4110.S REHEATING HMA PAVEMENT LONGITUDINAL JOINTS LF	465.0125 ASPHALTIC SURFACE TEMPORARY TON	REMARKS
	SOUTHBOUND												
0010	2762+29.79 SB	-	2764+64.14 SB	IH 43 SB	125	84	--	60	56	40	469	--	S. PROJECT LIMIT-STH 96 SW RAMP GORE
0010	2764+64.14 SB	-	2777+13.21 SB	IH 43 SB	867	708	--	509	259	186	2499	--	STH 96 SW RAMP GORE
0010	2777+13.21 SB	-	2800+98.92 SB	IH 43 SB	1272	851	--	612	567	408	4772	--	STH 96 SW RAMP GORE-STH 96 NW RAMP GORE
0010	2800+98.92 SB	-	2805+47.05 SB	IH 43 SB	340	275	--	198	103	74	897	--	STH 96 NW RAMP GORE
0010	2805+47.05 SB	-	2822+75.47 SB BK	IH 43 SB	922	616	--	444	411	296	3457	--	STH 96 NW RAMP GORE-STATION EQUATION
0010	2822+84.18 SB AH	-	2886+38.52 SB	IH 43 SB	3389	2266	--	1631	1511	1087	12709	--	STATION EQUATION-B-05-0240
0010	2881+61.77 SB	-	2886+61.77 SB	IH 43 SB	62	--	--				--	256	B-05-0240 TEMP. SHOULDERS
0010	2887+95.36 SB	-	2892+95.36 SB	IH 43 SB	62	--	--				--	256	B-05-0240 TEMP. SHOULDERS
0010	2888+16.36 SB	-	2946+98.09 SB BK	IH 43 SB	3137	2098		1510	1399	1006	11764	--	B-05-0240-STATION EQUATION
0010	2947+02.70 SB AH	-	3021+60.28 SB	IH 43 SB	3977	2660		1914	1773	1276	14916	--	STATION EQUATION-B-05-0243
0010	3016+60.28 SB	-	3021+60.28 SB	IH 43 SB	62	--	--				--	256	B-05-0243 TEMP. SHOULDERS
0010	3023+98.58 SB	-	3028+98.58 SB	IH 43 SB	62	--	--				--	256	B-05-0243 TEMP. SHOULDERS
0010	3023+98.58 SB	-	3042+78.03 SB BK	IH 43 SB	1002	670		482	447	322	3759	--	B-05-0243-STATION EQUATION
0010	3042+74.77 SB AH	-	3069+09.08 SB	IH 43 SB	1405	940		676	626	451	5269	--	STATION EQUATION-B-05-0245
0010	3064+32.37 SB	-	3069+32.37 SB	IH 43 SB	62	--	--				--	256	B-05-0245 TEMP. SHOULDERS
0010	3070+61.77 SB	-	3075+61.77 SB	IH 43 SB	62	--	--				--	256	B-05-0245 TEMP. SHOULDERS
0010	3070+61.77 SB	-	3129+86.21 SB	IH 43 SB	3160	2113		1521	1409	1014	11849	--	B-05-0245-B-05-0247
0010	3125+12.26 SB	-	3130+12.26 SB	IH 43 SB	62	--	--				--	256	B-05-0247 TEMP. SHOULDERS
0010	3131+63.72 SB	-	3136+63.72 SB	IH 43 SB	62	--	--				--	256	B-05-0247 TEMP. SHOULDERS
0010	3131+87.35 SB	-	3140+78.66 SB	IH 43 SB	475	318		229	212	153	1783	--	B-05-0247-CTH MM SE RAMP GORE
0010	3140+78.66 SB	-	3148+84.42 SB BK	IH 43 SB	499	388		279	168	121	1612	--	CTH MM SE RAMP GORE-STATION EQUATION
0010	3149+33.95 SB AH	-	3153+84.70 SB	IH 43 SB	368	316		228	94	67	902	--	STATION EQUATION-CTH MM SE RAMP GORE
0010	3153+84.70 SB	-	3178+05.87 SB	IH 43 SB	1291	864		621	576	414	4843	--	CTH MM SE RAMP GORE-CTH MM SW RAMP GORE
0010	3178+05.87 SB	-	3182+33.81 SB	IH 43 SB	311	258		186	88	64	856	--	CTH MM SW RAMP GORE
0010	3182+33.81 SB	-	3192+94.91 SB	IH 43 SB	566	378		272	252	182	2123	--	CTH MM SW RAMP GORE-B-05-0188
0010	3188+15.68 SB	-	3193+15.68 SB	IH 43 SB	62	--	--				--	256	B-05-0188 TEMP. SHOULDERS
0010	3194+53.50 SB	-	3199+53.50 SB	IH 43 SB	62	--	--				--	256	B-05-0188 TEMP. SHOULDERS
0010	3194+75.36 SB	-	3210+23.95 SB BK	IH 43 SB	826	552		397	368	265	3098	--	B-05-0188-STATION EQUATION
0010	3210+14.08 SB AH	-	3264+34.63 SB BK	IH 43 SB	2891	1933		1391	1289	928	10842	--	STATION EQUATION-STATION EQUATION
0010	3264+41.34 SB AH	-	3273+97.10 SB	IH 43 SB	510	341		245	227	164	1912	--	STATION EQUATION-172 EB TO 43 SB RAMP GORE
0010	3273+97.10 SB	-	3287+84.96 SB	IH 43 SB	1006	790		568	331	238	2776	--	172 EB TO 43 SB RAMP GORE
0010	3287+84.96 SB	-	3322+77.91 SB	IH 43 SB	1863	1246		897	831	598	6986	--	173 EB TO 43 SB RAMP GORE-N. PROJECT LIMIT
			SOUTHBOUND TOTALS		**30,824**	**20,665**	**0**	**14,871**	**12,997**	**9,353**	**110,093**	**2,564**	

HMA SUMMARY - (CONTINUED)

CATEGORY	STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	460.7223 HMA PAVEMENT 3 HT 58-28 S TON	460.7224 HMA PAVEMENT 4 HT 58-28 S TON	460.8424 HMA PAVEMENT 4 SMA 58-28 H TON	460.5223 HMA PAVEMENT 3 LT 58-28 S TON	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	460.4110.S REHEATING HMA PAVEMENT LONGITUDINAL JOINTS LF	465.0125 ASPHALTIC SURFACE TEMPORARY TON	REMARKS
	STH 96 INTERCHANGE												
0010	2796+71.06 NE	-	2797+71.43 NE	STH 96 NE RAMP	36	--	18			15			
0010	2799+97.77 NW	-	2800+99.10 NW	STH 96 NW RAMP	36	--	19			15			
0010	2777+12.93 SW	-	2779+73.83 SW	STH 96 SW RAMP	94	--	48			38			
0010	2774+85.68 SE	-	2776+90.65 SE	STH 96 SE RAMP	74	--	38			30			
0010	34+11.00 96 EB	-	40+54.85 96 EB	STH 96 EB	279	--	279						
0010	40+54.85 96 EB	-	46+69.17 96 EB	STH 96 EB	360	--	358						
0010	46+69.17 96 EB	-	48+46.16 96 EB	STH 96 EB	108	--	120						
0010	50+83.92 96 EB	-	52+30.20 96 EB	STH 96 EB	99	--	108						
0010	52+30.20 96 EB	-	57+30.81 96 EB	STH 96 EB	354	--	329						
				STH 96 TOTALS	**1,440**	**0**	**1,317**	**0**	**0**	**98**	**0**	**0**	
	CTH MM INTERCHANGE												
0010	3154+85.22 NE	-	3165+08.68 NE	CTH MM NE RAMP	368	--	188			150			
0010	3165+08.68 NE	-	3167+01.18 NE	CTH MM NE RAMP	78	--	48			23			
0010	3166+83.60 NW	-	3168+22.64 NW	CTH MM NW RAMP	123	--	90			23			
0010	3168+22.64 NW	-	3176+08.82 NW	CTH MM NW RAMP	283	--	144			115			
0010	3153+84.71 SE	-	3161+24.88 SE	CTH MM SE RAMP	266	--	136			109			
0010	3161+24.88 SE	-	3163+16.40 SE	CTH MM SE RAMP	81	--	56			18			
0010	3162+98.84 SW	-	3164+87.03 SW	CTH MM SW RAMP	94	--	62			24			
0010	3164+87.03 SW	-	3178+05.87 SW	CTH MM SW RAMP	475	--	242			193			
0010	36+94.87 MM NB	-	48+47.72 MM NB	CTH MM NB	628	--	576						
0010	51+48.69 MM NB	-	64+11.71 MM NB	CTH MM NB	848	--	778						
				CTH MM TOTALS	**3,245**	**0**	**2,320**	**0**	**0**	**655**	**0**	**0**	
	STH 172 INTERCHANGE												
0010	3280+76.52 172 WB	-	3283+23.00 172 WB	43 NB TO 172 WB	102	55	40		59	42			
0010	3287+89.02 172 EB	-	3324+48.49 172 EB	172 EB CONN 43 SB	1908	--	1033			716			
				STH 172 INTERCHANGE TOTALS	**2,010**	**55**	**1,073**	**0**	**59**	**758**	**0**	**0**	
	OVERPASS STRUCTURES												
0010	NORTH AVE.				77	--	71						
0010	LANGES CORNERS RD.				93	--	85						
0010	ALLOUEZ AVE.				189	--	173						
				OVERPASS STRUCTURE TOTALS	**359**	**0**	**329**	**0**	**0**	**0**	**0**	**0**	
				PROJECT 1227-08-71 TOTALS	**68,710**	**41,420**	**5,040**	**29,680**	**26,140**	**20,380**	**220,110**	**5,130**	

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ASPHALTIC SHOULDER RUMBLE STRIPS

CATEGORY	STATION		TO	STATION	LOCATION	465.04 ASPHALTIC SHOULDER RUMBLE STRIPS LF	REMARKS
	NORTHBOUND						
0010	2762+29.80	NB LT & RT	-	2769+91.63 NB LT & RT	IH 43 NB	1523.7	SOUTH PROJECT LIMIT - STH 96 SE RAMP
0010	2769+91.63	NB LT	-	2774+85.18 NB LT	IH 43 NB	493.5	STH 96 SE RAMP - STH 96 SE RAMP GORE
0010	2774+85.18	NB LT & RT	-	2797+71.90 NB LT & RT	IH 43 NB	4573.4	STH 96 SE RAMP GORE - STH 96 NE RAMP GORE
0010	2797+71.90	NB LT	-	2802+24.32 NB LT	IH 43 NB	452.4	STH 96 NE RAMP GORE - STH 96 NE RAMP
0010	2802+24.32	NB LT & RT	-	2886+12.44 NB LT & RT	IH 43 NB	16776.2	STH 96 NE RAMP - B-05-0241
0010	2887+46.21	NB LT & RT	-	3022+87.07 NB LT & RT	IH 43 NB	27081.7	B-05-0241 - B-05-0244
0010	3025+21.66	NB LT & RT	-	3068+53.26 NB LT & RT	IH 43 NB	8663.2	B-05-244 - B-05-0246
0010	3070+44.31	NB LT & RT	-	3129+16.26 NB LT & RT	IH 43 NB	11743.9	B-05-0246 - B-05-0248
0010	3131+34.26	NB LT & RT	-	3150+15.30 NB LT & RT	IH 43 NB	3762.1	B-05-0248 - USH 141 NE RAMP
0010	3150+15.30	NB LT	-	3154+84.73 NB LT	IH 43 NB	469.4	USH 141 NE RAMP - USH 141 NE RAMP GORE
0010	3154+84.73	NB LT & RT	-	3176+07.82 NB LT & RT	IH 43 NB	4246.2	USH 141 NE RAMP GORE - USH 141 NW RAMP GORE
0010	3176+07.82	NB LT	-	3181+66.00 NB LT	IH 43 NB	558.2	USH 141 NW RAMP GORE - USH 141 NW RAMP
0010	3181+66.00	NB LT & RT	-	3193+73.52 NB LT & RT	IH 43 NB	2415.0	USH 141 NW RAMP - B-05-0187
0010	3195+10.63	NB LT & RT	-	3276+13.00 NB LT & RT	IH 43 NB	16204.7	B-05-0187 - IH 43 NB TO STH 172 WB RAMP
0010	3276+13.00	NB LT	-	3280+76.38 NB LT	IH 43 NB	463.4	IH 43 NB TO STH 172 WB RAMP - RAMP GORE
0010	3280+76.38	NB RT	-	3321+50.00 NB RT	IH 43 NB	8147.2	IH 43 NB TO STH 172 WB RAMP GORE - NORTH PROJECT LIMIT
				NORTHBOUND TOTALS		**107,570**	

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ASPHALTIC SHOULDER RUMBLE STRIPS - (CONTINUED)

CATEGORY	STATION		TO STATION	LOCATION	465.04 ASPHALTIC SHOULDER RUMBLE STRIPS LF	REMARKS
	SOUTHBOUND					
0010	2762+29.79 SB LT & RT	-	2771+97.46 SB LT & RT	IH 43 SB	1935.3	SOUTH PROJECT LIMIT - STH 96 SW RAMP
0010	2771+97.46 SB RT	-	2777+13.21 SB RT	IH 43 SB	515.8	STH 96 SW RAMP - STH 96 SW RAMP GORE
0010	2777+13.21 SB LT & RT	-	2800+98.92 SB LT & RT	IH 43 SB	4771.4	STH 96 SW RAMP GORE - STH 96 NW RAMP GORE
0010	2800+98.92 SB RT	-	2805+31.58 SB RT	IH 43 SB	432.7	STH 96 NW RAMP GORE - STH 96 NW RAMP
0010	2805+31.58 SB LT & RT	-	2822+75.47 SB LT & RT BK	IH 43 SB	3487.8	STH 96 NW RAMP - STATION EQUATION
0010	2822+84.18 SB LT & RT AH	-	2886+38.52 SB LT & RT	IH 43 SB	12708.7	STATION EQUATION - B-05-0240
0010	2888+16.36 SB LT & RT	-	2946+98.09 SB LT & RT BK	IH 43 SB	11763.5	B-05-0240 - STATION EQUATION
0010	2947+02.70 SB LT & RT AH	-	3021+36.74 SB LT & RT	IH 43 SB	14868.1	STATION EQUATION - B-05-0243
0010	3023+75.32 SB LT & RT	-	3042+78.03 SB LT & RT BK	IH 43 SB	3805.4	B-05-0243 - STATION EQUATION
0010	3042+74.77 SB LT & RT AH	-	3069+09.08 SB LT & RT	IH 43 SB	5268.6	STATION EQUATION - B-05-0245
0010	3070+69.53 SB LT & RT	-	3129+86.21 SB LT & RT	IH 43 SB	11833.4	B-05-0245 - B-05-0247
0010	3131+87.35 SB LT & RT	-	3148+52.78 SB LT & RT	IH 43 SB	3330.9	B-05-0247 - USH 141 SE RAMP
0010	3148+52.78 SB RT	-	3153+84.70 SB RT	IH 43 SB	531.9	USH 141 SE RAMP - USH 141 SE RAMP GORE
0010	3153+84.70 SB LT & RT	-	3178+05.87 SB LT & RT	IH 43 SB	4842.3	USH 141 SE RAMP GORE - USH 141 SW RAMP GORE
0010	3178+05.87 SB RT	-	3182+33.81 SB RT	IH 43 SB	427.9	USH 141 SW RAMP GORE - USH 141 SW RAMP
0010	3182+33.81 SB LT & RT	-	3192+94.91 SB LT & RT	IH 43 SB	2122.2	USH 141 SW RAMP - B-05-0188
0010	3194+75.36 SB LT & RT	-	3210+23.95 SB LT & RT BK	IH 43 SB	3097.2	B-05-0188 - STATION EQUATION
0010	3210+14.08 SB LT & RT AH	-	3264+34.63 SB LT & RT BK	IH 43 SB	10841.1	STATION EQUATION - STATION EQUATION
0010	3264+41.34 SB LT & RT AH	-	3279+51.20 SB LT & RT	IH 43 SB	3019.7	STATION EQUATION - STH 172 EB CONNECTOR
0010	3279+51.20 SB RT	-	3287+84.96 SB RT	IH 43 SB	833.8	STH 172 EB CONN. - RAMP GORE
0010	3287+84.96 SB LT & RT	-	3322+77.89 SB LT & RT	IH 43 SB	6985.9	STH 172 EB CONN. RAMP GORE - NORTH PROJECT LIMIT
			SOUTHBOUND TOTALS		**107,420**	

PROJECT 1227-08-71 TOTAL	**214,990**

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CULVERT PIPE SUMMARY

CATEGORY	STATION	LOCATION	520.8700 CLEANING CULVERT PIPES EACH	520.8000 CONCRETE COLLARS FOR PIPE EACH	521.0112 CULVERT PIPE CORRUGATED STEEL 12-INCH LF	521.0118 CULVERT PIPE CORRUGATED STEEL 18-INCH LF	521.1012 APRON ENDWALL FOR CULVERT PIPE STEEL 12-INCH EACH	521.1015 APRON ENDWALL FOR CULVERT PIPE STEEL 15-INCH EACH	521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH EACH	522.0118 CULVERT PIPE REINFORCED CONCRETE CL III 18-INCH LF
	NORTHBOUND									
0010	2828+24.33 NB	IH 43 NB	1							
0010	2901+47.00 NB	IH 43 NB	1							
0010	2915+38.00 NB	IH 43 NB				8				
0010	2924+38.00 NB	IH 43 NB	1							
0010	2955+41.00 NB	IH 43 NB				12				
0010	2964+46.00 NB	IH 43 NB								
0010	3035+45.00 NB	IH 43 NB								
0010	3093+95.00 NB	IH 43 NB		1						8
0010	3166+10.00 NB	IH 43 NB								
0010	3217+65.00 NB	IH 43 NB								
0010	3269+10.00 NB	IH 43 NB	1							
	NORTHBOUND TOTALS		**4**	**1**	**0**	**20**	**0**	**0**	**0**	**8**
	SOUTHBOUND									
0010	2880+37.00 SB	IH 43 SB								
0010	3255+25.00 SB	IH 43 SB							1	
	SOUTHBOUND TOTALS		**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**

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CULVERT PIPE SUMMARY - (CONTINUED)

CATEGORY	STATION	LOCATION	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REAINFORCED CONCRETE 30-INCH EACH	522.1036 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH EACH
	NORTHBOUND					
0010	2828+24.33 NB	IH 43 NB				
0010	2901+47.00 NB	IH 43 NB				
0010	2915+38.00 NB	IH 43 NB				
0010	2924+38.00 NB	IH 43 NB				
0010	2955+41.00 NB	IH 43 NB				
0010	2964+46.00 NB	IH 43 NB	1			
0010	3035+45.00 NB	IH 43 NB	1			
0010	3093+95.00 NB	IH 43 NB				
0010	3166+10.00 NB	IH 43 NB			1	
0010	3217+65.00 NB	IH 43 NB		1		
0010	3269+10.00 NB	IH 43 NB				
	NORTHBOUND TOTALS		**2**	**1**	**1**	**0**
	SOUTHBOUND					
0010	2880+37.00 SB	IH 43 SB				1
0010	3255+25.00 SB	IH 43 SB				
	SOUTHBOUND TOTALS		**0**	**0**	**0**	**1**

CULVERT PIPE SUMMARY - (CONTINUED)

			520.8700	520.8000	521.0112 CULVERT PIPE	521.0118 CULVERT PIPE	521.1012 APRON ENDWALL	521.1015 APRON ENDWALL	521.1018 APRON ENDWALLS	522.0118 CULVERT PIPE REINFORCED
	STH 96									
0010	51+00.00 EB	STH 96 EB	1							
0010	54+91.23 EB	STH 96 EB	1							
0010	56+41.49 EB	STH 96 EB	1							
	STH 96 TOTALS		**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	USH 141/CTH MM									
0010	42+50.23 SB	USH141/CTH MM SB	1							
0010	42+86.49 SB	USH141/CTH MM SB	1							
0010	46+80.00 SB	USH141/CTH MM SB			8		1			
0010	3159+15.00 NE	USH141/CTH MM NE RAMP								
0010	3166+39.00 NE	USH141/CTH MM NE RAMP	1							
0010	3172+78.00 SW	USH141/CTH MM SW RAMP								
0010	51+42.52 NB	USH141/CTH MM NB						1		
0010	51+74.23 SB	USH141/CTH MM SB						1		
0010	54+80.00 SB	USH141/CTH MM SB	1							
0010	55+20.00 SB	USH141/CTH MM SB	1						1	
0010	61+40.70 SB	USH141/CTH MM SB	1							
	USH 141/CTH MM TOTALS		**6**	**0**	**8**	**0**	**1**	**2**	**1**	**0**
	PROJECT 1227-08-71 TOTALS		**13**	**1**	**8**	**20**	**1**	**2**	**2**	**8**
	STH 172									
0010	456+92.75 EB	STH 172 EB				28			1	
0010	565+96.00 EB	STH 172 EB				14			1	
	PROJECT 1210-12-71 TOTALS		**0**	**0**	**0**	**42**	**0**	**0**	**2**	**0**

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CULVERT PIPE SUMMARY - (CONTINUED)

			522.0136 CULVERT PIPE REINFORCED CONCRETE CL III 36-INCH LF	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REAINFORCED CONCRETE 30-INCH EACH	522.1036 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH EACH	523.0529 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 29X45-INCH EACH
	STH 96							
0010	51+00.00 EB	STH 96 EB						
0010	54+91.23 EB	STH 96 EB						
0010	56+41.49 EB	STH 96 EB		1				
	STH 96 TOTALS		**0**	**1**	**0**	**0**	**0**	**0**
	USH 141/CTH MM							
0010	42+50.23 SB	USH141/CTH MM SB						
0010	42+86.49 SB	USH141/CTH MM SB						
0010	46+80.00 SB	USH141/CTH MM SB						
0010	3159+15.00 NE	USH141/CTH MM NE RAMP			1			
0010	3166+39.00 NE	USH141/CTH MM NE RAMP						
0010	3172+78.00 SW	USH141/CTH MM SW RAMP						1
0010	51+42.52 NB	USH141/CTH MM NB						
0010	51+74.23 SB	USH141/CTH MM SB						
0010	54+80.00 SB	USH141/CTH MM SB						
0010	55+20.00 SB	USH141/CTH MM SB						
0010	61+40.70 SB	USH141/CTH MM SB						
	USH 141/CTH MM TOTALS		**0**	**0**	**1**	**0**	**0**	**1**
	PROJECT 1227-08-71 TOTALS		**16**	**3**	**2**	**1**	**1**	**1**
	STH 172							
0010	456+92.75 EB	STH 172 EB						
0010	565+96.00 EB	STH 172 EB						
	PROJECT 1210-12-71 TOTALS		**0**	**0**	**0**	**0**	**0**	**0**

CONCRETE PAVEMENT SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	415.1080 CONCRETE PAVEMENT HES 8-INCH SY	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	602.24 CONCRETE SAFETY ISLANDS SF	415.1410 CONCRETE PAVEMENT APPROACH SLAB HES SY	**416.0610 DRILLED TIE BARS EACH	416.1010 CONCRETE SURFACE DRAINS CY	REMARKS
	NORTHBOUND										
0010	2885+84.64 NB	-	2885+90.64 NB	IH 43 NB		6			4	2.48	B-05-0241 SE QUAD
0010	3025+72.55 NB	-	3025+76.55 NB	IH 43 NB		4			4	2.48	B-05-0244 NW & SW QUAD
0010	3068+53.26 NB	-	3068+87.62 NB	IH 43 NB	31	---		74			B-05-0246 S. APPROACH; ITEM 415.1080 IS FOR THE SHOULDERS
0010	3070+28.64 NB	-	3070+44.31 NB	IH 43 NB	45	6		59	4	2.48	B-05-0246 N. APPROACH & NW QUAD; ITEM 415.1080 IS FOR THE SHOULDERS
0010	3129+16.26 NB	-	3129.48.42 NB	IH 43 NB	38	---		64			B-05-0248 S. APPROACH; ITEM 415.1080 IS FOR THE SHOULDERS
0010	3131+18.59 NB	-	3131+34.26 NB	IH 43 NB	51	---		66	4	2.48	B-05-0248 N. APPROACH & NW QUAD; ITEM 415.1080 IS FOR THE SHOULDERS
0010	3193+68.94 NB	-	3193+74.94 NB	IH 43 NB		6			4	2.48	B-05-0187 NE & SE QUAD
	NORTHBOUND TOTALS				**165**	**22**		**263**	**20**	**10**	
	SOUTHBOUND										
0010	2886+38.52 SB	-	2886+54.19 SB	IH 43 SB	44	6		59	4	2.53	B-05-0240 S. APPROACH; ITEM 415.1080 IS FOR THE SHOULDERS
0010	2887+87.86 SB	-	2888+16.36 SB	IH 43 SB	35	---		59			B-05-0240 N. APPROACH; ITEM 415.1080 IS FOR THE SHOULDERS
0010	3023+54.25 SB	-	3023+60.25 SB	IH 43 SB		6			4	2.53	B-05-0243 SW & NW QUAD
0010	3069+09.08 SB	-	3069+24.75 SB	IH 43 SB	44	---		59			B-05-0245 S. APPROACH; ITEM 415.1080 IS FOR THE SHOULDERS
0010	3070+61.77 SB	-	3070+92.73 SB	IH 43 SB	38			65			B-05-0245 N. APPROACH; ITEM 415.1080 IS FOR THE SHOULDERS
0010	3070+92.52 SB	-	3070+98.52 SB	IH 43 SB		6			4	2.53	B-05-0245 NW & NE QUAD
0010	3129+86.21 SB	-	3130+01.88 SB	IH 43 SB	51	---		66			B-05-0247 S. APPROACH; ITEM 415.1080 IS FOR THE SHOULDERS
0010	3131+52.21 SB	-	3131+87.35 SB	IH 43 SB	37	6		68			B-05-0247 N. APPROACH; ITEM 415.1080 IS FOR THE SHOULDERS
0010	3192+94.91 SB	-	3193+22.84 SB	IH 43 SB	36	6		58	4	2.53	B-05-0188 E. APPROACH; ITEM 415.1080 IS FOR THE SHOULDERS
0010	3194+59.69 SB	-	3194+75.36 SB	IH 43 SB	44			58			B-05-0188 W. APPROACH; ITEM 415.1080 IS FOR THE SHOULDERS
	SOUTHBOUND TOTALS				**329**	**30**		**492**	**16**	**10**	
	OVERPASS STRUCTURES										
0010	B-05-0254			NORTH AVE.		16					ALL 4 QUADS
0010	B-05-0242			LANGES CORNER RD.		24					NE & SE QUAD
	OVERPASS TOTALS				**0**	**40**		**0**	**0**	**0**	
	USH 141/CTH MM										
0010	51+27.39 NB	-	51+48.68 NB	NB LANES	33	10		45			NE QUAD, ITEM 415.1080 IS FOR THE SHOULDERS
0010	48+31.89 NB	-	48+59.13 NB	NB LANES	21			37			SE QUAD, ITEM 415.1080 IS FOR THE SHOULDERS
0010	48+47.73 SB	-	48+68.60 SB	SB LANES	36			42			SW QUAD, ITEM 415.1080 IS FOR THE SHOULDERS
0010	51+36.80 SB	-	51+83.95 SB	SB LANES	46	10		68			NW QUAD, ITEM 415.1080 IS FOR THE SHOULDERS
0010	53+88.38 SB	-	53+98.28 SB	SB LANES		22	5.3				IH 43 NB CLOSURE UNDER USH 141/CTH MM
0010	3166+41.59 NW	-	3166+74.59 NW	CTH MM NW RAMP		42	5.3				IH 43 NB CLOSURE UNDER USH 141/CTH MM
	USH 141/CTH MM TOTALS				**137**	**85**	**11**	**192**	**0**	**0**	
	PROJECT 1227-08-71 TOTALS				**631**	**177**	**11**	**947**	**36**	**20**	

**ADDITIONAL QUANTITIES LOCATED ELSEWHERE IN THE PLAN

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TEMPORARY CONCRETE BARRIER SUMMARY

CATEGORY	STATION TO STATION	STRUCTURE LENGTH	LENGTH BEFORE	LENGTH AFTER	TOTAL LENGTH	NO. PIECES	ROUNDED LENGTH	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	614.0905 CRASH CUSHIONS TEMPORARY EACH
	NORTHBOUND									
0010	2884+62.44 'NB' - 2888+96.21 'NB IH 43 NB	133.8	150	150	433.8	35.0	437.5	437.5	1,750.0	2
0010	3021+37.07 'NB' - 3026+71.66 'NB IH 43 NB	234.6	150	150	534.6	43.0	537.5	537.5	2,150.0	2
0010	3067+29.95 'NB' - 3071+71.02 'NB IH 43 NB	141.1	150	150	441.1	36.0	450.0	450.0	1,800.0	2
0010	3127+88.70 'NB' - 3132+58.04 'NB IH 43 NB	169.3	150	150	469.3	38.0	475.0	475.0	1,900.0	2
0010	3192+23.52 'NB' - 3196+60.63 'NB IH 43 NB	137.1	150	150	437.1	35.0	437.5	437.5	1,750.0	2
	NORTHBOUND TOTALS							**2338**	**9350**	**10**
	SOUTHBOUND									
0010	2885+11.77 'SB' - 2889+45.36 'SB' IH 43 SB	133.6	150	150	433.6	35.0	437.5	437.5	875.0	2
0010	3019+86.74 'SB' - 3025+25.32 'SB' IH 43 SB	238.6	150	150	538.6	44.0	550.0	550.0	1,100.0	2
0010	3067+82.37 'SB' - 3072+19.53 'SB' IH 43 SB	137.2	150	150	437.2	35.0	437.5	437.5	875.0	2
0010	3128+62.26 'SB' - 3133+13.72 'SB' IH 43 SB	151.5	150	150	451.5	37.0	462.5	462.5	925.0	2
0010	3191+65.68 'SB' - 3196+02.49 'SB' IH 43 SB	136.8	150	150	436.8	35.0	437.5	437.5	875.0	2
	SOUTHBOUND TOTALS							**2325**	**4650**	**10**
	PROJECT 1227-08-71 TOTALS							**4663**	**14000**	**20**

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TEMPORARY CONCRETE BARRIER SUMMARY - (CONTINUED)

CATEGORY	STATION TO STATION	BACK WIDTH STAGE 2A FT	BACK WIDTH STAGE 2B FT	OBJECT MARKING PATTERN STAGE 2A	OBJECT MARKING PATTERN STAGE 2B	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION STAGE 2A	TRAFFIC LOCATION STAGE 2B	CRASH CUSION SHIELDS
	NORTHBOUND									
0010	2884+62.44 'NB' - 2888+96.21 'NB IH 43 NB	2	1	OM-3L	OM-3R	TL-3	UNIDIRECTIONAL	RT	LT	B-05-0241 STRUCTURE WORK
0010	3021+37.07 'NB' - 3026+71.66 'NB IH 43 NB	2	1	OM-3L	OM-3R	TL-3	UNIDIRECTIONAL	RT	LT	B-05-0244 STRUCTURE WORK
0010	3067+29.95 'NB' - 3071+71.02 'NB IH 43 NB	2	1	OM-3L	OM-3R	TL-3	UNIDIRECTIONAL	RT	LT	B-05-0246 STRUCTURE WORK
0010	3127+88.70 'NB' - 3132+58.04 'NB IH 43 NB	2	1	OM-3L	OM-3R	TL-3	UNIDIRECTIONAL	RT	LT	B-05-0248 STRUCTURE WORK
0010	3162+00.00 'NB' - 3169+00.00 'NB IH 43 NB	2	1	OM-3L	OM-3R	TL-3	UNIDIRECTIONAL	RT	LT	IH 43 UNDERNEATH B-05-0189
0010	3192+23.52 'NB' - 3196+60.63 'NB IH 43 NB	2	1	OM-3L	OM-3R	TL-3	UNIDIRECTIONAL	RT	LT	B-05-0187 STRUCTURE WORK
	NORTHBOUND TOTALS									
	SOUTHBOUND									
0010	2885+11.77 'SB' - 2889+45.36 'SB' IH 43 SB	2	1	OM-3L	OM-3R	TL-3	UNIDIRECTIONAL	LT	RT	B-05-0240 STRUCTURE WORK
0010	3019+86.74 'SB' - 3025+25.32 'SB' IH 43 SB	2	1	OM-3L	OM-3R	TL-3	UNIDIRECTIONAL	LT	RT	B-05-0243 STRUCTURE WORK
0010	3067+82.37 'SB' - 3072+19.53 'SB' IH 43 SB	2	1	OM-3L	OM-3R	TL-3	UNIDIRECTIONAL	LT	RT	B-05-0245 STRUCTURE WORK
0010	3128+62.26 'SB' - 3133+13.72 'SB' IH 43 SB	2	1	OM-3L	OM-3R	TL-3	UNIDIRECTIONAL	LT	RT	B-05-0247 STRUCTURE WORK
0010	3191+65.68 'SB' - 3196+02.49 'SB' IH 43 SB	2	1	OM-3L	OM-3R	TL-3	UNIDIRECTIONAL	LT	RT	B-05-0188 STRUCTURE WORK
	SOUTHBOUND TOTALS									
	PROJECT 1227-08-71 TOTALS									

INLET SUMMARY

CATEGORY	STATION	LOCATION	611.0600 INLET COVERS TYPE A EACH	611.0642 INLET COVERS TYPE MS EACH	611.0430 RECONSTRUCTING INLETS EACH	611.8115 ADJUSTING INLET COVERS EACH	611.3220 INLETS 2X2-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.8120.S COVER PLATES TEMPORARY EACH	REMARKS	GUTTER FLOWLINE (GRATE) ELEVATION	FLOWLINE ELEVATION	PROPOSED ELEVATION	DEPTH FEET
	NORTHBOUND													
0190	2764+34.00 'NB'	IH 43 NB				1				MEDIAN			878.64	
0190	2788+95.00 'NB'	IH 43 NB				1				MEDIAN			903.60	
0190	2825+33.00 'NB'	IH 43 NB		1				1		MEDIAN			903.63	
0190	2828+24.00 'NB'	IH 43 NB				1				MEDIAN			903.49	
	CATEGORY 0190 TOTALS		**0**	**1**	**0**	**3**	**0**	**1**	**0**					
0010	2885+86.14 'NB' RT	IH 43 NB			1				1	B-05-0241 SE QUAD				
0010	2915+38.00 'NB'	IH 43 NB		1				1		MEDIAN	889.9	887.4		2.5
0010	2955+41.00 'NB'	IH 43 NB		2				2		MEDIAN	871.6	869.6		2.0
0010	3025+72.05 'NB' RT	IH 43 NB			1				1	B-05-0244 NE QUAD				
0010	3070+23.04 'NB' LT	IH 43 NB	1				1		1	B-05-0246 NE QUAD				
0010	3193+70.94 'NB' RT	IH 43 NB				1			1	B-05-0187 NE QUAD				
	CATEGORY 0010 NORTHBOUND TOTALS		**1**	**3**	**2**	**1**	**1**	**3**	**4**					
	NORTHBOUND TOTALS		**1**	**4**	**2**	**4**	**1**	**4**	**4**					
	SOUTHBOUND													
0010	2886+61.52 'SB' RT	IH 43 SB	1				1		1	B-05-0240 SW QUAD				
0010	3023+52.75 'SB' LT	IH 43 SB				1			1	B-05-0243 NW QUAD				
0010	3070+94.02 'SB' LT	IH 43 SB	1				1		1	B-05-0245 NW QUAD				
0010	3131+94.56 'SB' LT	IH 43 SB	1				1		1	B-05-0247 NW QUAD				
0010	3192+93.34 'SB' RT	IH 43 SB	1				1		1	B-05-0188 SE QUAD				
	SOUTHBOUND TOTALS		**4**	**0**	**0**	**1**	**4**	**0**	**5**					
	OVERPASS STRUCTURES													
0010	B-05-0254	NORTH AVE.			4					ALL 4 QUADS				
0010	B-05-0242	LANGES CORNER RD.			2					NE QUAD				
0010	B-05-0242	LANGES CORNER RD.			2					SE QUAD				
0010	B-05-0189	USH 141/CTH MM	1				1			NE QUAD				
0010	B-05-0189	USH 141/CTH MM	1				1			NW QUAD				
	OVERPASS TOTALS		**2**	**0**	**8**	**0**	**2**	**0**	**0**					
	CATEGORY 0010 TOTALS		**7**	**3**	**10**	**2**	**7**	**3**	**9**					
	CATEGORY 0190 TOTALS		**0**	**1**	**0**	**3**	**0**	**1**	**0**					
	PROJECT 1227-08-71 TOTALS		**7**	**4**	**10**	**5**	**7**	**4**	**9**					

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PIPE UNDERDRAIN

CATEGORY	STATION		STATION	LOCATION	612.0106 PIPE UNDERDRAIN 6-INCH LF	612.0215 PIPE UNDERDRAIN UNPERFORATED 15-INCH LF	612.0806 APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH EACH
0010	3162+00.00 NB	-	3169+00.00 NB	IH 43 NB	850		5
0010	51+42.52 NB			CTH MM		50	
0010	51+74.23 SB			CTH MM		50	
			PROJECT 1227-08-71 TOTALS		**850**	**100**	**5**

CABLE BARRIER SUMMARY

CATEGORY	STATION		STATION	LOCATION	613.1200.S TERMINAL 4-STRAND HT CABLE GUARD TL4 EACH	613.1100.S BARRIER 4-STRAND HT CABLE GUARD SOCKETED TL4 LF
	IH 43					
0190			2764+05.03	IH 43 NB	1	
0190	2764+05.03	-	2786+92.32	IH 43 NB		2287
0190			2786+92.32	IH 43 NB	1	
0190			2787+91.15	IH 43 SB	1	
0190	2787+91.15	-	2814+25.57	IH 43 SB		2630
0190			2814+25.57	IH 43 SB	1	
0190			2814+80.40	IH 43 NB	1	
0190	2814+80.40	-	2827+92.91	IH 43 NB		1313
0190			2827+92.91	IH 43 NB	1	
0190			2825+67.05	IH 43 NB	1	
0190	2825+67.05	-	2828+67.05	IH 43 NB		300
0190			2828+67.05	IH 43 NB	1	
				IH 43 TOTALS	**8**	**6540**
				PROJECT 1227-08-71 TOTALS	**8**	**6540**

CABLE BARRIER SUMMARY - (CONTINUED)

CATEGORY	STATION		STATION	LOCATION	613.1200.S TERMINAL 4-STRAND HT CABLE GUARD TL4 EACH	613.1100.S BARRIER 4-STRAND HT CABLE GUARD SOCKETED TL4 LF
	STH 172					
0010			430+60.77	STH 172 EB	1	
0010	430+60.77	-	444+43.08	STH 172 EB		1382
0010			444+43.08	STH 172 EB	1	
0010			448+02.44	STH 172 EB	1	
0010	448+02.44	-	457+26.44	STH 172 EB		924
0010			457+26.44	STH 172 EB	1	
0010			458+42.79	STH 172 EB	1	
0010	458+42.79	-	465+63.77	STH 172 EB		721
0010			465+63.77	STH 172 EB	1	
0010			469+52.81	STH 172 EB	1	
0010	469+52.81	-	481+82.38	STH 172 EB		1230
0010			481+82.38	STH 172 EB	1	
0010			489+82.34	STH 172 EB	1	
0010	489+82.34	-	496+02.76	STH 172 EB		620
0010			496+02.76	STH 172 EB	1	
0010			499+69.92	STH 172 EB	1	
0010	499+69.92	-	505+58.27	STH 172 EB		588
0010			505+58.27	STH 172 EB	1	
0010			506+12.27	STH 172 EB	1	
0010	506+12.27	-	535+03.54	STH 172 EB		2891
0010			535+03.54	STH 172 EB	1	
0010			539+03.73	STH 172 EB	1	
0010	539+03.73	-	564+94.06	STH 172 EB		2590
0010			564+94.06	STH 172 EB	1	
0010			565+64.96	STH 172 EB	1	
0010	565+64.96	-	568+59.51	STH 172 EB		295
0010			568+59.51	STH 172 EB	1	
0010			571+58.25	STH 172 EB	1	
0010	571+58.25	-	586+50.47	STH 172 EB		1492
0010			586+50.47	STH 172 EB	1	
				STH 172 TOTALS	**20**	**12740**
				PROJECT 1210-12-71 TOTALS	**20**	**12740**

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BEAM GUARD SUMMARY

CATEGORY	STATION TO STATION	LOCATION	614.0215 STEEL THRIE BEAM STRUTURE APPROACH RETROFIT EACH	614.0220 THRIE BEAM BULLNOSE TERMINAL EACH	614.0230 STEEL THRIE BEAM LF	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 GUARDRAIL TERMINAL TYPE 2 EACH	614.0397 GUARDRAIL MOW STRIP EMULSIFIED ASPHALT SY	614.0920 SALVAGED RAIL LF	614.0925 SALVAGED GUARDRAIL END TREATMENTS EACH	REMARKS
	NORTHBOUND												
0010	2882+35.65 NB - 2886+15.15 NB	IH 43 NB	1			287.5	39	1		170	425.0	1	B-05-0241 SW QUAD
0010	2883+39.21 NB - 2885+93.71 NB	IH 43 NB	1			162.5	39	1		114	183.2	1	B-05-0241 SE QUAD
0010	2945+79.43 NB - 2947+48.70 NB	IH 43 NB		2	275					--	--	--	LANGES CORNERS RD.
0010	3018+66.81 NB - 3022+46.31 NB	IH 43 NB				282.0	39	1		167	371.0	1	B-05-0244 SE QUAD
0010	3019+70.23 NB - 3023+12.25 NB	IH 43 NB				250.0	39	1		153	333.2	1	B-05-0244 NE QUAD
0010	3065+06.42 NB - 3068+82.92 NB	IH 43 NB				284.5	39	1		168	370.8	1	B-05-0246 SW QUAD
0010	3066+59.42 NB - 3068+60.92 NB	IH 43 NB				162.5	39	1		114	183.4	1	B-05-0246 SE QUAD
0010	3125+66.39 NB - 3129+46.58 NB	IH 43 NB				287.5	39	1		170	371.2	1	B-05-0248 SW QUAD
0010	3125+38.34 NB - 3129+14.65 NB	IH 43 NB				287.5	39	1		170	373.3	1	B-05-0248 SE QUAD
0010	3130+99.80 NB - 3142+52.72 NB	IH 43 NB				1,123.5	39		1	517	1,156.3	1	B-05-0248 NE QUAD
0010	3177+04.42 NB - 3183+20.33 NB	IH 43 NB				563.4		1	1	275	613.9	2	CTH MM NW ON-RAMP
0010	3189+75.78 NB - 3193+55.13 NB	IH 43 NB	1			287.5	39	1		170	445.7	1	B-05-0187 SE QUAD
0010	3190+95.82 NB - 3193+75.78 NB	IH 43 NB	1			187.5	39	1		125	183.0	1	B-05-0187 NE QUAD
0010	3239+96.54 NB - 3251+17.03 NB	IH 43 NB				1,067.5		1	1	499	1,147.5	2	BETWEEN GLENMORE RD. & KLONDIKE RD.
0010	3304+61.80 NB - 3306+48.36 NB	IH 43 NB				130.8		1	1	83	130.8	2	BETWEEN IH 43 NB TO STH 172 WB & STH 172 EB TO IH 43 NB
	NORTHBOUND TOTALS		**4**	**2**	**280**	**5,370**	**430**	**13**	**4**	**2893**	**6,288**	**17**	
	SOUTHBOUND												
0010	2887+92.65 SB - 2891+72.15 SB	IH 43 SB				287.5	39	1		170	425.0	1	B-05-240 NE QUAD
0010	2888+14.05 SB - 2890+68.55 SB	IH 43 SB				162.5	39	1		114	183.3	1	B-05-240 NW QUAD
0010	3010+83.07 SB - 3020+95.57 SB	IH 43 SB				920.4	39	1		451	1,008.0	1	B-05-0243 SE QUAD
0010	3023+50.60 SB - 3026+05.02 SB	IH 43 SB	1			162.5	39	1		114	183.0	1	B-05-0243 SW QUAD
0010	3024+16.39 SB - 3027+95.72 SB	IH 43 SB	1			287.5	39	1		170	371.0	1	B-05-0243 NW QUAD
0010	3070+66.52 SB - 3074+43.01 SB	IH 43 SB	1			284.5	39	1		168	370.7	1	B-05-0245 NE QUAD
0010	3070+88.40 SB - 3073+42.90 SB	IH 43 SB	1			162.5	39	1		114	183.0	1	B-05-0245 NW QUAD
0010	3131+55.49 SB - 3135+34.56 SB	IH 43 SB				287.6	39	1		170	371.8	1	B-05-0247 NE QUAD
0010	3131+88.13 SB - 3134+45.04 SB	IH 43 SB	1			162.5	39	1		114	182.9	1	B-05-0247 NW QUAD
0010	3176+61.75 SB - 3182+61.73 SB	IH 43 SB				548.4		1	1	268	639.5	2	CTH MM SW OFF-RAMP
0010	3194+50.17 SB - 3197+04.11 SB	IH 43 SB				162.5	39	1		114	246.5	1	B-05-0188 SW QUAD
0010	3194+70.83 SB - 3198+50.39 SB	IH 43 SB				282.1	39	1		167	370.9	1	B-05-0188 NW QUAD
0010	3251+13.86 SB - 3258+69.38 SB	IH 43 SB				700.9		2		360	764.4	2	BETWEEN GLENMORE RD. & KLONDIKE RD.
	SOUTHBOUND TOTALS		**5**	**0**	**0**	**4,420**	**430**	**14**	**1**	**2494**	**5,300**	**15**	
	USH 141/CTH MM												
0010	46+54.73 NB - 48+30.78 NB	CTH MM NB				87.5	39	1		81	110.0	1	B-05-0189 SE QUAD
0010	51+66.90 SB - 53+48.81 SB	CTH MM SB				87.5	39	1		81	109.0	1	B-05-0189 NW QUAD
	USH 141/CTH MM TOTALS		**0**	**0**	**0**	**180**	**80**	**2**	**0**	**161**	**219**	**2**	
	STH 96												
0010	46+44.08 EB - 48+44.08 EB	STH 96 EB				100.0	39	1		86	200.0	1	B-05-0239 SW QUAD
0010	50+64.79 EB - 52+19.42 EB	STH 96 EB				62.5	39	1		70	159.0	1	B-05-0239 NE QUAD
	STH 96 TOTALS		**0**	**0**	**0**	**170**	**80**	**2**	**0**	**156**	**359**	**2**	
	PROJECT 1227-08-71 TOTALS		**9**	**2**	**280**	**10,140**	**1,020**	**31**	**5**	**5,703**	**12,166**	**36**	

BARRIER SYSTEM GRADING, SHAPING & FINISHING SUMMARY

CATEGORY	STATION		TO	STATION		LOCATION	614.0010 BARRIER SYSTEM GRADING, SHAPING & FINISHING EACH	*COMMON EXCAVATION CY	*BORROW CY	*TOPSOIL SY	*SALVAGED TOPSOIL SY	*FERTILIZER TYPE B CWT	*SEEDING NO. 10 LB	*EROSION MAT CLASS I, TYPE B SY	REMARKS
				NORTHBOUND											
0010	2881+01.00	'NB'	-	2883+92.00	'NB'	IH 43 NB	2	0	20	--	146	0.092	2.0	146	B-05-0241 BEAMGUARD LT & RT
0010	2945+19.00	'NB'	-	2948+09.00	'NB'	IH 43 NB	2	107	366	2,059	--	1.297	27.8	2059	LANGES CORNERS RD. BULLNOSE
0010	3017+32.00	'NB'	-	3020+23.00	'NB'	IH 43 NB	2	0	26	--	224	0.141	3.0	224	B-05-0244 BEAMGUARD LT & RT
0010	3063+71.00	'NB'	-	3067+12.00	'NB'	IH 43 NB	2	0	68	--	325	0.205	4.4	325	B-05-0246 BEAMGUARD LT & RT
0010	3124+04.00	'NB'	-	3126+14.00	'NB'	IH 43 NB	2	0	149	--	517	0.326	7.0	517	B-05-0248 BEAMGUARD LT & RT
0010	3175+66.00	'NB'	-	3177+57.00	'NB'	IH 43 NB	1	0	93	--	311	0.196	4.2	311	CTH MM NW ON-RAMP BEAMGUARD
0010	3188+41.00	'NB'	-	3191+49.00	'NB'	IH 43 NB	2	0	5	--	72	0.045	1.0	72	B-05-0187 BEAMGUARD LT & RT
0010	3238+62.00	'NB'	-	3240+50.00	'NB'	IH 43 NB	1	0	3	--	22	0.014	0.3	22	BETWEEEN GLENMORE RD. & KLONDIKE RD. BEAMGUARD
				NORTHBOUND TOTALS			**14**	**107**	**730**	**2059**	**1617**	**2.32**	**50**	**3675**	
				SOUTHBOUND											
0010	2890+16.00	'SB'	-	2893+07.00	'SB'	IH 43 SB	2	0	44	--	213	0.134	2.9	213	B-05-0240 BEAMGUARD LT & RT
0010	3025+52.00	'SB'	-	3029+31.00	'SB'	IH 43 SB	2	0	10	--	136	0.085	1.8	136	B-05-0243 BEAMGUARD LT & RT
0010	3072+90.00	'SB'	-	3075+78.00	'SB'	IH 43 SB	2	0	71	--	343	0.216	4.6	343	B-05-0245 BEAMGUARD LT & RT
0010	3133+92.00	'SB'	-	3136+69.00	'SB'	IH 43 SB	2	0	147	--	693	0.436	9.4	693	B-05-0247 BEAMGUARD LT & RT
0010	3182+09.00	'SB'	-	3183+97.00	'SB'	IH 43 SB	1	0	5	--	84	0.053	1.1	84	CTH MM SW OFF-RAMP BEAMGUARD
0010	3196+51.00	'SB'	-	3199+85.00	'SB'	IH 43 SB	2	0	45	--	261	0.164	3.5	261	B-05-0188 BEAMGUARD LT & RT
0010	3258+16.00	'SB'	-	3260+05.00	'SB'	IH 43 SB	1	0	5	--	31	0.020	0.4	31	BETWEEN GLENMORE RD. & KLONDIKE RD. BEAMGUARD
				SOUTHBOUND TOTALS			**12**	**0**	**327**	**0**	**1760**	**1.11**	**24**	**1760**	
USH 141/CTH MM															
141/CTH M	46+54.73	'NB'	-	48+30.78	'NB'	CTH MM NB	1	0	6	--	30	0.019	0.4	30	B-05-0189 SE QUAD BEAMGUARD
141/CTH M	51+66.90	'SB'	-	53+48.81	'SB'	CTH MM SB	1	0	6	--	30	0.019	0.4	30	B-05-0189 NW QUAD BEAMGUARD
USH 141/CTH MM TO							**2**	**0**	**12**	**0**	**60**	**0.04**	**1**	**60**	
STH 96															
STH 96 EB	46+44.08	'EB'	-	48+44.08	'EB'	STH 96 EB	1	0	7	--	34	0.022	0.5	34	B-05-0239 SW QUAD BEAMGUARD
STH 96 EB	50+64.79	'EB'	-	52+19.42	'EB'	STH 96 EB	1	0	4	--	22	0.014	0.3	22	B-05-0239 NE QUAD BEAMGUARD
STH 96 TOTAL							**2**	**0**	**11**	**0**	**56**	**0.04**	**1**	**56**	
				1227-08-71 TOTAL			**30**	**107**	**1,080**	**2,059**	**3,493**	**3**	**75**	**5,552**	

*FOR INFORMATION ONLY

** SEE CROSS SECTIONS FOR MORE INFORMATION

LANDSCAPING SUMMARY

CATEGORY	STATION	TO	STATION	OFFSET	LOCATION	625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	628.2004 EROSION MAT CLASS I, TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0200 SEEDING TEMPORARY LB	SPV.0180.XX GRADE AND SHAPE DITCH SY	REMARKS
	NORTHBOUND												
0190	2764+00.00 NB	-	2814+23.00 NB		IH 43 NB	--	--	29094	18.329	392.8	392.77	--	MEDIAN CABLEGUARD
0190	2814+80.00 NB	-	2829+20.00 NB		IH 43 NB	--	--	9203	5.798	124.2	124.24	--	MEDIAN CABLEGUARD
					CATEGORY 0190 TOTALS	**0**	**0**	**38297**	**24.12711**	**517.0095**	**517.0095**	**0**	
0010	2825+30.00 NB		NB		IH 43 NB	--	10	10	0.006	0.1	0.14	--	CULVERT ENDWALL REPLACEMENT
0010	2827+25.00 NB	-	2829+25.00 NB	RT	IH 43 NB	--	222	222	0.140	3.0	3.00	222	GRADE & SHAPE
0010	2881+01.00 NB	-	2883+92.00 NB	RT/LT	IH 43 NB	--	--	--	--	--	1.97	--	B-05-0241 BEAMGUARD
0010	2885+93.71 NB				IH 43 NB	--	100	100	0.06	2.7	1.35	--	B-05-0241 SE WINGWALL
0010	2886+15.00 NB				IH 43 NB	--	100	100	0.06	2.7	1.35	--	B-05-0241 SW WINGWALL
0010	2887+50.00 NB				IH 43 NB	--	100	100	0.06	2.7	1.35	--	B-05-0241 NE WINGWALL
0010	2887+65.00 NB				IH 43 NB	--	100	100	0.06	2.7	1.35	--	B-05-0241 NW WINGWALL
0010	2915+00.00 NB				IH 43 NB	--	22	22	0.014	0.3	0.30	--	CULVERT PIPE/ENDWALL REPLACEMENT
0010	2945+19.00 NB	-	2948+09.00 NB	LT	IH 43 NB	--	--	--	--	--	27.80	--	LANGES CORNERS RD. BULLNOSE
0010	2955+41.00 NB				IH 43 NB	--	20	20	0.013	0.3	0.27	--	CULVERT PIPE/ENDWALL REPLACEMENT
0010	2964+46.00 NB				IH 43 NB	--	10	10	0.006	0.1	0.14	--	CULVERT ENDWALL REPLACEMENT
0010	3017+32.00 NB	-	3020+23.00 NB	RT/LT	IH 43 NB	--	--	--	--	--	3.02	--	B-05-0244 BEAMGUARD
0010	3035+45.00 NB				IH 43 NB	--	10	10	0.006	0.1	0.14	--	CULVERT ENDWALL REPLACEMENT
0010	3063+71.00 NB	-	3067+12.00 NB	RT/LT	IH 43 NB	--	--	--	--	--	4.39	--	B-05-0246 BEAMGUARD
0010	3070+30.00 NB				IH 43 NB	--	100	100	0.06	2.7	1.35	--	B-05-0246 NE WINGWALL
0010	3093+95.00 NB				IH 43 NB	--	22	22	0.014	0.3	0.30	--	CULVERT PIPE/ENDWALL REPLACEMENT
0010	3124+04.00 NB	-	3126+14.00 NB	RT/LT	IH 43 NB	--	--	--	--	--	6.98	--	B-05-0248 BEAMGUARD
0010	3159+00.00 NB	-	3164+00.00 NB	RT	IH 43 NB	--	833	833	0.525	11.3	11.25	833	GRADE & SHAPE
0010	3166+00.00 NB	-	3173+00.00 NB	RT	IH 43 NB	--	1167	1167	0.735	15.8	15.75	1167	GRADE & SHAPE
0010	3166+10.00 NB				IH 43 NB	--	18	18	0.011	0.2	0.24	--	CULVERT ENDWALL REPLACEMENT
0010	3175+66.00 NB	-	3177+57.00 NB	RT	IH 43 NB	--	--	--	--	--	4.20	--	CTH MM NW ON-RAMP BEAMGUARD
0010	3188+41.00 NB	-	3191+49.00 NB	RT/LT	IH 43 NB	--	--	--	--	--	0.97	--	B-05-0187 BEAMGUARD
0010	3217+65.00 NB				IH 43 NB	--	16	16	0.010	0.2	0.22	--	CULVERT ENDWALL REPLACEMENT
0010	3193+50.00 NB				IH 43 NB	--	100	100	0.06	2.7	1.35	--	B-05-0187 SE WINGWALL
0010	3193+70.00 NB				IH 43 NB	--	100	100	0.06	2.7	1.35	--	B-05-0187 NE WINGWALL
0010	3238+62.00 NB	-	3240+50.00 NB	RT	IH 43 NB	--	--	--	--	--	0.30	--	BETWEEEN GLENMORE RD. & KLONDIKE RD. BEAMGUARD
0010	3297+11.64 NB	-	3298+69.20 NB	RT	IH 43 NB	--	175	175	0.110	2.4	2.36	175	GRADE & SHAPE
					CATEGORY 0010 NORTHBOUND TOTALS	**0**	**3225**	**3225**	**2**	**53**	**93**	**2397**	
					NORTHBOUND TOTALS	**0**	**3230**	**41520**	**30**	**570**	**610**	**2400**	
	SOUTHBOUND												
0010	2875+17.00 SB			LT	IH 43 SB	4	--	4	0.003	0.1	0.05	--	FILL SINKHOLE
0010	2880+37.00 SB			LT	IH 43 SB	36	--	36	0.023	0.5	0.49	--	FILL SINKHOLE, CULVERT PIPE/ENDWALL REPLACEMENT
0010	2886+55.00 SB				IH 43 SB	--	100	100	0.06	2.7	1.35	--	B-05-0240 SW WINGWALL
0010	2888+00.00 SB				IH 43 SB	--	100	100	0.06	2.7	1.35	--	B-05-0240 NE WINGWALL
0010	2890+16.00 SB	-	2893+07.00 SB	RT/LT	IH 43 SB	--	--	--	--	--	2.88	--	B-05-0240 BEAMGUARD
0010	3025+52.00 SB	-	3029+31.00 SB	RT/LT	IH 43 SB	--	--	--	--	--	1.84	--	B-05-0243 BEAMGUARD
0010	3072+90.00 SB	-	3075+78.00 SB	RT/LT	IH 43 SB	--	--	--	--	--	4.63	--	B-05-0245 BEAMGUARD
0010	3131+90.00 SB				IH 43 SB	--	100	100	0.06	2.7	1.35	--	B-05-0247 NW WINGWALL

LANDSCAPING SUMMARY - (CONTINUED)

CATEGORY	STATION TO STATION	OFFSET	LOCATION	625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	628.2004 EROSION MAT CLASS I, TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0200 SEEDING TEMPORARY LB	SPV.0180.XX GRADE AND SHAPE DITCH SY	REMARKS
0010	3133+92.00 SB - 3136+69.00 SB	RT/LT	IH 43 SB	--	--	--	--	--	9.36	--	B-05-0247 BEAMGUARD
0010	3182+09.00 SB - 3183+97.00 SB	LT	IH 43 SB	--	--	--	--	--	1.13	--	CTH MM SW OFF-RAMP BEAMGUARD
0010	3192+95.00 SB		IH 43 SB	--	100	100	0.06	2.7	1.35	--	B-05-0188 SE WINGWALL
0010	3193+10.00 SB		IH 43 SB	--	100	100	0.06	2.7	1.35	--	B-05-0188 NE WINGWALL
0010	3196+51.00 SB - 3199+85.00 SB	RT/LT	IH 43 SB	--	--	--	--	--	3.52	--	B-05-0188 BEAMGUARD
0010	3217+65.00 SB	LT	IH 43 SB	4	--	4	0.003	0.1	0.05	--	FILL SINKHOLE
0010	3224+85.00 SB	LT	IH 43 SB	4	--	4	0.003	0.1	0.05	--	FILL SINKHOLE
0010	3255+25.00 SB	LT	IH 43 SB	14	--	14	0.009	0.2	0.19	--	FILL SINKHOLE, CULVERT ENDWALL REPLACEMENT
0010	3258+16.00 SB - 3260+05.00 SB	LT	IH 43 SB	--	--	--	--	--	0.42	--	BETWEEN GLENMORE RD. & KLONDIKE RD. BEAMGUARD
0010	3310+08.00 SB	LT	IH 43 SB	--	266	266	0.17	7.2	3.59	--	B-05-0192 NW & SW WINGWALL REPLACEMENTS
	SOUTHBOUND TOTALS			**62**	**770**	**830**	**0.52**	**22**	**35**	**0**	
	STH 96										
0010	52+88.00 EB - 55+00.00 EB	RT	STH 96 EB	--	452	452	0.285	6.1	6.10	452	GRADE & SHAPE
0010	54+50.00 EB - 56+50.00 EB	RT	STH 96 EB	--	222	222	0.140	3.0	3.00	222	GRADE & SHAPE
	STH 96 TOTALS			**0**	**670**	**670**	**0**	**9**	**9**	**674**	
	USH 141/CTH MM										
0010	3172+78.00 SW		CTH MM SW RAMP	--	24	24	0.015	0.3	0.32	24	CULVERT ENDWALL REPLACEMENT
0010	3159+15.00 NE		CTH MM NE RAMP	--	16	16	0.010	0.2	0.22	16	CULVERT ENDWALL REPLACEMENT
0010	41+50.00 SB - 43+50.00 SB	LT	CTH MM SB	--	222	222	0.140	3.0	3.00	222	GRADE & SHAPE
0010	46+80.00 SB	LT	CTH MM SB	4	10	14	0.003	0.1	0.05	--	FILL SINKHOLE, CULVERT PIPE/ENDWALL REPLACEMENT
0010	49+05.68 SB	LT	CTH MM SB	4	--	4	0.003	0.1	0.05	--	FILL SINKHOLE
0010	51+20.00 NB - 52+70.00 NB	RT	CTH MM NB	--	167	167	0.105	2.3	2.25	167	GRADE & SHAPE
0010	60+50.00 SB - 62+50.00 SB	LT	CTH MM SB	--	222	222	0.140	3.0	3.00	222	GRADE & SHAPE
	USH 141/CTH MM TOTALS			**8**	**640**	**650**	**0.40**	**9**	**9**	**630**	
	CATEGORY 0010 TOALS			**70**	**5305**	**5375**	**3.4**	**92**	**146**	**3701**	
	CATEGORY 0190 TOTALS			**0**	**0**	**38297**	**24.1**	**517**	**517**	**0**	
	UNDISTRIBUTED QUANTITY			**7**	**531**	**538**	**0**	**9**	**15**	**370**	
	PROJECT 1227-08-71 TOTALS			**77**	**5836**	**44210**	**28**	**618**	**677**	**4071**	
	STH 172										
0010	431+09.00 EB - 444+04.00 EB		STH 172 EB	--	--	3337	2.102	45.0	45.05	--	MEDIAN CABLEGUARD
0010	488+49.00 EB - 457+04.00 EB		STH 172 EB	--	--	2986	1.881	40.3	40.31	--	MEDIAN CABLEGUARD
0010	457+25.50 EB		STH 172 EB	--	10	10	0.006	0.1	0.14	--	CULVERT ENDWALL REPLACEMENT
0010	458+25.00 EB - 466+51.00 EB		STH 172 EB	--	--	3905	2.460	52.7	52.72	--	MEDIAN CABLEGUARD
0010	470+00.00 EB - 482+50.00 EB		STH 172 EB	--	--	4731	2.981	63.9	63.87	--	MEDIAN CABLEGUARD
0010	489+00.00 EB - 496+00.00 EB		STH 172 EB	--	--	2197	1.384	29.7	29.66	--	MEDIAN CABLEGUARD
0010	500+00.00 EB - 505+59.00 EB		STH 172 EB	--	--	1805	1.137	24.4	24.37	--	MEDIAN CABLEGUARD
0010	506+00.00 EB - 534+51.00 EB		STH 172 EB	--	--	7829	4.932	105.7	105.69	--	MEDIAN CABLEGUARD
0010	539+50.00 EB - 565+03.00 EB		STH 172 EB	--	--	7854	4.948	106.0	106.03	--	MEDIAN CABLEGUARD
0010	565+50.00 EB - 567+32.00 EB		STH 172 EB	--	--	539	0.340	7.3	7.28	--	MEDIAN CABLEGUARD
0010	565+96.00 EB		STH 172 EB	--	10	10	0.006	0.1	0.14	--	CULVERT ENDWALL REPLACEMENT
0010	573+01.00 EB - 586+00.00 EB		STH 172 EB	--	--	4349	2.740	58.7	58.71	--	MEDIAN CABLEGUARD
	EASTBOUND TOTALS			**0**	**20**	**39550**	**20**	**530**	**530**	**0**	
	UNDISTRIBUTED QUANTITY			**0**	**2**	**3955**	**2**	**53**	**53**	**0**	
	PROJECT 1210-10-71 TOTALS			**0**	**22**	**43505**	**22.0**	**583**	**583**	**0**	

LANDSCAPING SUMMARY - (CONTINUED)

CATEGORY	STATION TO STATION	OFFSET	LOCATION	625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	628.2004 EROSION MAT CLASS I, TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0200 SEEDING TEMPORARY LB	SPV.0180.XX GRADE AND SHAPE DITCH SY	REMARKS
	STH 172										
0010	431+09.00 EB - 444+04.00 EB		STH 172 EB	--	--	3337	2.102	45.0	45.05	--	MEDIAN CABLEGUARD
0010	488+49.00 EB - 457+04.00 EB		STH 172 EB	--	--	2986	1.881	40.3	40.31	--	MEDIAN CABLEGUARD
0010	457+25.50 EB		STH 172 EB	--	10	10	0.006	0.1	0.14	--	CULVERT ENDWALL REPLACEMENT
0010	458+25.00 EB - 466+51.00 EB		STH 172 EB	--	--	3905	2.460	52.7	52.72	--	MEDIAN CABLEGUARD
0010	470+00.00 EB - 482+50.00 EB		STH 172 EB	--	--	4731	2.981	63.9	63.87	--	MEDIAN CABLEGUARD
0010	489+00.00 EB - 496+00.00 EB		STH 172 EB	--	--	2197	1.384	29.7	29.66	--	MEDIAN CABLEGUARD
0010	500+00.00 EB - 505+59.00 EB		STH 172 EB	--	--	1805	1.137	24.4	24.37	--	MEDIAN CABLEGUARD
0010	506+00.00 EB - 534+51.00 EB		STH 172 EB	--	--	7829	4.932	105.7	105.69	--	MEDIAN CABLEGUARD
0010	539+50.00 EB - 565+03.00 EB		STH 172 EB	--	--	7854	4.948	106.0	106.03	--	MEDIAN CABLEGUARD
0010	565+50.00 EB - 567+32.00 EB		STH 172 EB	--	--	539	0.340	7.3	7.28	--	MEDIAN CABLEGUARD
0010	565+96.00 EB		STH 172 EB	--	10	10	0.006	0.1	0.14	--	CULVERT ENDWALL REPLACEMENT
0010	573+01.00 EB - 586+00.00 EB		STH 172 EB	--	--	4349	2.740	58.7	58.71	--	MEDIAN CABLEGUARD
	EASTBOUND TOTALS			**0**	**20**	**39550**	**20**	**530**	**530**	**0**	
	UNDISTRIBUTED QUANTITY			**0**	**2**	**3955**	**2**	**53**	**53**	**0**	
	PROJECT 1210-10-71 TOTALS			**0**	**22**	**43505**	**22.0**	**583**	**583**	**0**	

EROSION CONTROL SUMMARY

CATEGORY	STATION TO STATION	LOCATION	606.0200 RIP RAP MEDIUM CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	645.0130 GEOTEXTILE TYPE R SY	REMARKS
	NORTHBOUND										
0190	2764+34.00 NB	IH 43 NB				1					MEDIAN INLET ADJUSTMENT
0190	2764+75.69 NB	IH 43 NB						18			BEGINNING OF CABLE GUARD
0190	2766+27.37 NB	IH 43 NB						18			2 FT. ELEV. DIFF. IN MEDIAN
0190	2767+75.92 NB	IH 43 NB						18			2 FT. ELEV. DIFF. IN MEDIAN
0190	2769+58.18 NB	IH 43 NB						18			2 FT. ELEV. DIFF. IN MEDIAN
0190	2770+47.93 NB	IH 43 NB						18			2 FT. ELEV. DIFF. IN MEDIAN
0190	2772+47.93 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2774+20.71 NB	IH 43 NB						18			2 FT. ELEV. DIFF. IN MEDIAN
0190	2776+20.71 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2778+20.71 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2779+68.62 NB	IH 43 NB						18			2 FT. ELEV. DIFF. IN MEDIAN
0190	2781+68.62 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2783+68.62 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2785+33.37 NB	IH 43 NB						18			2 FT. ELEV. DIFF. IN MEDIAN
0190	2786+29.00 NB	IH 43 NB						18			END OF 1ST CABLE GUARD SEGMENT
0190	2788+95.00 NB	IH 43 NB				1					MEDIAN INLET ADJUSTMENT
0190	2788+57.00 NB	IH 43 NB						18			BEGINNING OF 2ND CABLE GUARD SEGMENT
0190	2789+91.54 NB	IH 43 NB						18			2 FT. ELEV. DIFF. IN MEDIAN
0190	2791+91.54 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2793+91.54 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2795+91.54 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2797+91.54 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2799+91.54 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2797+91.54 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2799+91.54 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2801+91.54 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2803+91.54 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2805+91.54 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2807+91.54 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2809+91.54 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2811+91.54 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2813+91.54 NB	IH 43 NB						18			200 FT. MAX SPACING/END OF 2ND CG SEGMENT
0190	2815+33.30 NB	IH 43 NB						18			BEGINNING OF 3RD CABLE GUARD SEGMENT
0190	2817+33.30 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2819+33.30 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2821+33.30 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2823+33.30 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2825+23.00 NB	IH 43 NB						18			TEMP. DITCH CHECK NEAR INLET
0190	2825+33.00 NB	IH 43 NB				1					MEDIAN INLET REPLACEMENT
0190	2827+33.00 NB	IH 43 NB						18			200 FT. MAX. SPACING
0190	2829+33.00 NB	IH 43 NB						18			200 FT. MAX. SPACING/END OF CG
0190	2828+24.00 NB	IH 43 NB				1					MEDIAN INLET ADJUSTMENT
	CATEGORY 0190 TOTALS		**0**	**0**	**0**	**4**	**0**	**648**	**0**	**0**	
0010	2880+90.40 NB - 2883+04.20 NB	IH 43 NB		214	214						EAT LEFT
0010	2881+93.29 NB - 2884+07.12 NB	IH 43 NB		218	218						EAT RIGHT
0010	2886+15.00 NB	IH 43 NB	1	100	100					3	B-05-0241 SW WING & CONC. SURF. DRAIN
0010	2885+93.71 NB	IH 43 NB		100	100		1				B-05-0241 SE WING & QUAD; INLET RECONSTRUCTION
0010	2887+50.00 NB	IH 43 NB		100	100						B-05-0241 NE WING
0010	2887+65.00 NB	IH 43 NB		100	100						B-05-0241 NW WING
0010	2915+38.00 NB	IH 43 NB				1			4		MEDIAN INLET & CULVERT REPLACEMENT
0010	2955+41.00 NB	IH 43 NB	8.64			2			8		MEDIAN INLET & CULVERT REPLACEMENT, ADD RIPRAP TO OUTLETS

EROSION CONTROL SUMMARY - (CONTINUED)

CATEGORY	STATION	TO	STATION	LOCATION	606.0200 RIP RAP MEDIUM CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	645.0130 GEOTEXTILE TYPE R SY	REMARKS
	NORTHBOUND												
0010	2964+46.00 NB			IH 43 NB							4		REMOVE & REPLACE APRON ENDWALL
0010	3017+20.41 NB	-	3019+34.37 NB	IH 43 NB		215	215						EAT LEFT
0010	3018+34.94 NB	-	3020+45.26 NB	IH 43 NB		212	212						EAT RIGHT
0010	3025+02.81 NB			IH 43 NB	1							3	B-05-0244 SW QUAD CONC. SURF. DRAIN
0010	3025+72.05 NB			IH 43 NB					1				B-05-0244 NE QUAD INLET RECONSTRUCTION
0010	3063+57.77 NB	-	3065+71.74 NB	IH 43 NB		214	214						EAT LEFT
0010	3065+13.56 NB	-	3067+23.47 NB	IH 43 NB		215	215						EAT RIGHT
0010	3070+30.00 NB			IH 43 NB		100	100		1				B-05-0246 NE WING & QUAD; INLET REPLACEMENT
0010	3093+95.00 NB			IH 43 NB							4		REMOVE & REPLACE MEDIAN CULVERT
0010	3124+02.11 NB	-	3126+01.11 NB	IH 43 NB		214	214						EAT RIGHT
0010	3124+13.71 NB	-	3126+33.48 NB	IH 43 NB		220	220						EAT LEFT
0010	3131+23.16 NB			IH 43 NB	1							3	B-05-0248 NW QUAD CONC. SURF. DRAIN
0010	3175+58.87 NB	-	3177+71.96 NB	IH 43 NB		215	215						EAT RIGHT AT CTH MM NW RAMP
0010	3188+26.80 NB	-	3190+34.84 NB	IH 43 NB		209	209						EAT LEFT
0010	3189+48.50 NB	-	3191+62.31 NB	IH 43 NB		214	214						EAT RIGHT
0010	3193+50.00 NB			IH 43 NB	1	100	100					3	B-05-0187 SE WING & CONC. SURF. DRAIN
0010	3193+70.00 NB			IH 43 NB		100	100		1				B-05-0187 NE WING & QUAD; INLET RECONSTRUCTION
0010	3238+47.84 NB	-	3240+65.01 NB	IH 43 NB		218	218						EAT RIGHT
0010	3303+11.08 NB	-	3305+33.77 NB	IH 43 NB		219	219						EAT RIGHT
0010	NB	-	NB	IH 43 NB									
	CATEGORY 0010 NORTHBOUND TOTALS				**12.6**	**3498.4**	**3498.4**	**3**	**4**	**0**	**20**	**12**	
	NORTHBOUND TOTALS				**13**	**3498**	**3498**	**7**	**4**	**648**	**20**	**12**	
	SOUTHBOUND												
0010	2880+37.00 SB			IH 43 SB							6		REMOVE & REPLACE CULVERT & ENDWALL
0010	2886+24.52 SB			IH 43 SB	1							3	B-05-0240 SE QUAD CONC. SURF. DRAIN
0010	2886+55.00 SB			IH 43 SB		100	100		1				B-05-0240 SW WING & QUAD; INLET REPLACEMENT
0010	2888+00.00 SB			IH 43 SB		100	100						B-05-0240 NE WING
0010	2890+04.24 SB	-	2892+16.70 SB	IH 43 SB		213	213						EAT LEFT
0010	2891+06.62 SB	-	2893+18.89 SB	IH 43 SB		213	213						EAT RIGHT
0010	3023+52.75 SB			IH 43 SB					1				B-05-0243 SW QUAD INLET RECONSTRUCTION
0010	3024+49.39 SB			IH 43 SB	1							3	B-05-0243 NW QUAD CONC. SURF. DRAIN
0010	3025+40.23 SB	-	3027+54.12 SB	IH 43 SB		216	216						EAT LEFT
0010	3027+27.34 SB	-	3029+46.84 SB	IH 43 SB		220	220						EAT RIGHT
0010	3070+76.46 SB			IH 43 SB	1							3	B-05-0245 NE QUAD CONC. SURF. DRAIN
0010	3070+94.02 SB			IH 43 SB					1				B-05-0245 NW QUAD INLET REPLACEMENT
0010	3072+81.25 SB	-	3074+95.39 SB	IH 43 SB		221	221						EAT LEFT
0010	3073+73.64 SB	-	3075+90.64 SB	IH 43 SB		218	218						EAT RIGHT
0010	3131+90.00 SB			IH 43 SB		100	100		1				B-05-0247 NW WING & QUAD; INLET REPLACEMENT
0010	3133+73.90 SB	-	3135+98.59 SB	IH 43 SB		231	231						EAT LEFT
0010	3134+69.38 SB	-	3136+83.76 SB	IH 43 SB		218	218						EAT RIGHT
0010	3182+04.53 SB	-	3184+02.90 SB	IH 43 SB		200	200						EAT LEFT AT CTH MM SW RAMP
0010	3192+95.00 SB			IH 43 SB		100	100		1				B-05-0188 SE WING & QUAD; INLET REPLACEMENT
0010	3193+10.00 SB			IH 43 SB	1	100	100					3	B-05-0188 NE WING & CONC. SURF. DRAIN
0010	3196+44.88 SB	-	3198+51.36 SB	IH 43 SB		211	211						EAT LEFT
0010	3197+87.02 SB	-	3199+97.99 SB	IH 43 SB		212	212						EAT RIGHT
0010	3255+25.00 SB			IH 43 SB	2.35								ADD RIPRAP TO OUTLET
0010	3258+13.94 SB	-	3260+13.78 SB	IH 43 SB		200	200						EAT LEFT
0010	3310+08.00 SB		SB	IH 43 SB		95	95						B-05-0192 NW & SW WINGWALL REPLACEMENTS
	SOUTHBOUND TOTALS				**6**	**3170**	**3170**	**0**	**5**	**0**	**6**	**12**	

EROSION CONTROL SUMMARY - (CONTINUED)

CATEGORY	STATION	TO STATION	LOCATION	606.0200 RIP RAP MEDIUM CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	645.0130 GEOTEXTILE TYPE R SY	REMARKS
	OVERPASS STRUCTURES											
0010	B-05-0242		LANGES CORNER RD.					2				NE QUAD INLET RECONSTRUCTION
0010	B-05-0242		LANGES CORNER RD.					2				SE QUAD INLET RECONSTRUCTION
0010	B-05-0189		USH 141/CTH MM					1				NE QUAD INLET REPLACEMENT
0010	B-05-0189		USH 141/CTH MM					1				NW QUAD INLET REPLACEMENT
0010	3172+78.00	SW	USH 141/CTH MM SW RAMP							9		REMOVE & REPLACE CULVERT
			OVERPASS TOTALS	**0**	**0**	**0**	**0**	**6**	**0**	**9**	**0**	
			CATEGORY 0010 TOTALS	**19**	**6668**	**6668**	**3**	**15**	**0**	**35**	**24**	
			CATEGORY 0190 TOTALS	**0**	**0**	**0**	**4**	**0**	**648**	**0**	**0**	
			UNDISTRIBUTED QUANTITY	**2**	**667**	**667**	**0**	**2**	**65**	**4**	**2**	
			PROJECT 1227-08-71 TOTALS	**21**	**7335**	**7335**	**7**	**17**	**713**	**39**	**26**	
	STH 172											
0010	433+11.23 (1+11.23)	'WB'	STH 172 WB						12			200 FT. MAX. SPACING FROM BEGINNING OF CG
0010	435+11.23 (3+11.23)	'WB'	STH 172 WB						12			200 FT. MAX. SPACING
0010	437+11.23 (5+11.23)	'WB'	STH 172 WB						12			200 FT. MAX. SPACING
0010	439+11.23 (7+11.23)	'WB'	STH 172 WB						12			200 FT. MAX. SPACING
0010	440+73.69 (8+73.69)	'WB'	STH 172 WB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	442+44.56 (10+44.56)	'WB'	STH 172 WB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	443+31.02 (11+31.02)	'WB'	STH 172 WB						12			END OF 1ST CABLE GUARD SEGMENT
0010	451+48.57		STH 172 EB						12			2 FT. ELEV. DIFF. FROM BEGINNING OF CG
0010	452+81.85		STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	454+45.99		STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	456+45.99		STH 172 EB						12			200 FT. MAX. SPACING
0010	456+92.75		STH 172 EB							4		REMOVE & REPLACE CULVERT & ENDWALL
0010	458+33.16		STH 172 EB						12			END OF 2ND CABLE GUARD SEGMENT
0010	458+39.00		STH 172 EB				1					MEDIAN INLET ADJUSTMENT
0010	460+76.57		STH 172 EB						12			200 FT. MAX. SPACING FROM BEGINNING OF CG
0010	462+76.57		STH 172 EB						12			200 FT. MAX. SPACING
0010	464+76.57		STH 172 EB						12			200 FT. MAX. SPACING
0010	464+89.70		STH 172 EB						12			END OF 3RD CABLE GUARD SEGMENT
0010	470+35.34		STH 172 EB						12			BEGINNING OF 4TH CABLE GUARD SEGMENT
0010	471+63.29		STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	472+63.00		STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	474+25.39		STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	475+66.38		STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	477+66.38		STH 172 EB						12			200 FT. MAX. SPACING
0010	478+56.00		STH 172 EB				1					MEDIAN INLET ADJUSTMENT
0010	479+66.38		STH 172 EB						12			200 FT. MAX. SPACING
0010	481+66.38		STH 172 EB						12			200 FT. MAX. SPACING
0010	481+79.02		STH 172 EB						12			END OF 4TH CABLE GUARD SEGMENT
0010	491+83.21		STH 172 EB						12			200 FT. MAX SPACING FROM BEGINNING OF CG
0010	493+14.46		STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	494+49.44		STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	494+96.56		STH 172 EB						12			END OF 5TH CABLE GUARD SEGMENT
0010	500+77.79		STH 172 EB						12			BEGINNING OF 6TH CABLE GUARD SEGMENT
0010	502+77.79		STH 172 EB						12			200 FT. MAX. SPACING

EROSION CONTROL SUMMARY - (CONTINUED)

CATEGORY	STATION TO STATION	LOCATION	606.0200 RIP RAP MEDIUM CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	645.0130 GEOTEXTILE TYPE R SY	REMARKS
	STH 172										
0010	504+16.62	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	505+18.00	STH 172 EB				1					MEDIAN INLET ADJUSTMENT
0010	505+68.12	STH 172 EB						12			END OF 6TH CABLE GUARD SEGMENT
0010	506+26.50	STH 172 EB						12			BEGINNING OF 7TH CABLE GUARD SEGMENT
0010	506+48.51	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	507+22.74	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	508+31.40	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	509+71.85	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	511+71.40	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	513+71.40	STH 172 EB						12			200 FT. MAX. SPACING
0010	514+56.00	STH 172 EB				1					MEDIAN INLET ADJUSTMENT
0010	515+71.40	STH 172 EB						12			200 FT. MAX. SPACING
0010	517+71.40	STH 172 EB						12			200 FT. MAX. SPACING
0010	519+71.40	STH 172 EB						12			200 FT. MAX. SPACING
0010	521+71.40	STH 172 EB						12			200 FT. MAX. SPACING
0010	523+71.40	STH 172 EB						12			200 FT. MAX. SPACING
0010	524+55.00	STH 172 EB				1					MEDIAN INLET ADJUSTMENT
0010	525+71.40	STH 172 EB						12			200 FT. MAX. SPACING
0010	527+37.33	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	528+77.48	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	530+10.66	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	531+17.23	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	532+49.39	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	533+61.98	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	534+22.16	STH 172 EB						12			END OF 7TH CABLE GUARD SEGMENT
0010	540+13.36	STH 172 EB						12			BEGINNING OF 8TH CABLE GUARD SEGMENT
0010	541+82.90	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	543+57.45	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	544+61.43	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	545+73.42	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	546+84.32	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	548+38.07	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	550+23.26	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	552+23.26	STH 172 EB						12			200 FT. MAX. SPACING
0010	554+23.26	STH 172 EB						12			200 FT. MAX. SPACING
0010	556+23.26	STH 172 EB						12			200 FT. MAX. SPACING
0010	558+23.26	STH 172 EB						12			200 FT. MAX. SPACING
0010	559+81.83	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	561+55.83	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	562+60.94	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	563+76.53	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	564+72.90	STH 172 EB						12			10 FT. BEFORE END OF 8TH CG SEGMENT
0010	564+92.90	STH 172 EB						12			10 FT. AFTER END OF 8TH CG SEGMENT
0010	565+85.62	STH 172 EB						12			BEGINNING OF 9TH CABLE GUARD SEGMENT
0010	567+85.62	STH 172 EB						12			END OF 9TH CABLE GUARD SEGMENT
0010	572+67.14	STH 172 EB						12			BEGINNING OF 10TH CABLE GUARD SEGMENT
0010	574+27.34	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	575+58.44	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN

EROSION CONTROL SUMMARY - (CONTINUED)

CATEGORY	STATION TO STATION	LOCATION	606.0200 RIP RAP MEDIUM CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	645.0130 GEOTEXTILE TYPE R SY	REMARKS
	STH 172										
0010	576+95.42	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	578+04.85	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	579+01.86	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	580+03.67	STH 172 EB						12			2 FT. ELEV. DIFF. IN MEDIAN
0010	582+03.67	STH 172 EB						12			200 FT. MAX. SPACING
0010	584+03.67	STH 172 EB						12			200 FT. MAX. SPACING
0010	586+03.67	STH 172 EB						12			200 FT. MAX. SPACING
0010	586+70.95	STH 172 EB						12			END OF 10TH CABLE GUARD SEGMENT
	STH 172 TOTALS		**0**	**0**	**0**	**5**	**0**	**1010**	**4**	**0**	
	UNDISTRIBUTED QUANTITY		**0**	**0**	**0**	**1**	**0**	**101**	**0**	**0**	
	PROJECT 1210-12-71 TOTALS		**0**	**0**	**0**	**6**	**0**	**1120**	**4**	**0**	

EROSION CONTROL MOBILIZATIONS

CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	PROJECT IH 43	5	5
	CATEGORY 0010 TOTALS	**5**	**5**
0190	IH 43 CABLEGUARD	1	1
	CATEGORY 0190 TOTALS	**1**	**1**
	PROJECT 1227-08-71 TOTALS	**6**	**6**
0010	PROJECT STH 172	2	2
	PROJECT 1210-12-71 TOTALS	**2**	**2**

DELINEATOR SUMMARY

CATEGORY	LOCATION	633.0100 DELINEATOR POSTS STEEL EACH	633.0500 DELINEATOR REFLECTORS EACH	633.5200 MARKERS CULVERT END EACH	REMARKS
	NORTHBOUND				
0010	2762+30.00 NB - 3321+50.00 NB IH 43 NB	28	28		REPLACE MISSING
0010	2964+46.00 NB IH 43 NB			1	ENDWALL REPLACEMENT
0010	3035+45.00 NB IH 43 NB			1	ENDWALL REPLACEMENT
0010	3166+10.00 NB IH 43 NB			1	ENDWALL REPLACEMENT
0010	3217+65.00 NB IH 43 NB			1	ENDWALL REPLACEMENT
	NORTHBOUND TOTALS	**28**	**28**	**4**	
	SOUTHBOUND				
0010	2762+30.00 SB - 3322+78.00 SB IH 43 SB	28	28		REPLACE MISSING
0010	2880+37.00 SB IH 43 SB			1	ENDWALL REPLACEMENT
0010	3255+25.00 SB IH 43 SB			1	ENDWALL REPLACEMENT
	SOUTHBOUND TOTALS	**28**	**28**	**2**	
	STH 96				
0010	56+41.49 EB STH 96 EB			1	ENDWALL REPLACEMENT
	STH 96 TOTALS			**1**	
	USH 141/CTH MM				
0010	46+80.00 SB USH 141/CTH MM SB			1	ENDWALL REPLACEMENT
0010	3159+15.00 NE USH 141/CTH MM NE RAMP			1	ENDWALL REPLACEMENT
0010	3172+78.00 SW USH 141/CTH MM SW RAMP			1	ENDWALL REPLACEMENT
0010	51+42.52 NB USH 141/CTH MM NB			1	ENDWALL REPLACEMENT
0010	51+74.23 SB USH 141/CTH MM SB			1	ENDWALL REPLACEMENT
0010	55+20.00 SB USH 141/CTH MM SB			1	ENDWALL REPLACEMENT
	USH 141/CTH MM TOTALS			**6**	
	PROJECT 1227-08-71 TOTALS	**56**	**56**	**13**	
	STH 172				
0010	456+92.75 EB STH 172 EB			1	ENDWALL REPLACEMENT
0010	565+96.00 EB STH 172 EB			1	ENDWALL REPLACEMENT
	PROJECT 1210-12-71 TOTALS			**2**	

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2215 FOLDING SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0612 POSTS WOOD 4x6x12 EACH	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
1	I43, S. OF STH 96	J4-1	36" X 54"	13.50	---	---	---	---	1	---	1	1	SOUTH INTERSTATE 43
2	"	R4-3	48" X 60"	20.00	---	---	---	---	2	---	1	2	
3	"	R3-4B	36" X 48"	12.00	---	---	---	---	1	---	1	1	
4	"	R3-4B	36" X 48"	12.00	---	---	---	---	1	---	1	1	
5	"	E5-1A	90" X 60"	37.50	---	---	---	---	2	---	1	2	EXIT 171
6	I43 NB OFF RAMP TO STH 96	W3-1	36" X 36"	---	---	9.00	---	---	1	---	1	1	
7	"	D1-3	72" X 36"	18.00	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
8		J3-2	48" X 72"	24.00	---	---	---	---	1	---	1	1	WEST 96 LEFT, KB RIGHT
9		R5-1A	36" X 24"	6.00	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 8, INCLUDED IN SIGN 8 REMOVAL
10		R5-1A	36" X 24"	6.00	---	---	---	---	---	---	1	---	MOUNT TO BACK OF EXISTING SIS SIGN
11	I43, S. OF STH 96	W4-1	48" X 48"		---	16.00	---	---	2	---	1	2	
12	"	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 171
13	"	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 171
14	I43SB OFF RAMP TO STH 96	R5-1A	36" X 24"	6.00	---	---	---	---	---	---	1	---	MOUNT TO BACK OF EXISTING SIS SIGN
15	"	R5-1A	36" X 24"	6.00	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 16, INCLUDED IN SIGN 16 REMOVAL
16	"	J3-2	48" X 57"	19.00	---	---	---	---	1	---	1	1	KB LEFT, WEST 96 RIGHT
17	"	D1-3	72" X 36"	18.00	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
18	"	W3-1	36" X 36"		---	9.00	---	---	1	---	1	1	
19	I43, N. OF STH 96	E5-1A	90" X 60"	37.50	---	---	---	---	2	---	1	2	EXIT 171
20	"	W4-1	48" X 48"	---	---	16.00	---	---	2	---	1	2	
21	"	R3-4B	36" X 48"	12.00	---	---	---	---	1	---	1	1	
22	"	R3-4B	36" X 48"	12.00	---	---	---	---	1	---	1	1	
23	"	J4-1	36" X 54"	13.50	---	---	---	---	1	---	1	1	NORTH INTERSTATE 43
24	STH 96	J1-3	72" X 39"	19.50	---	---	---	---	2	---	1	2	JCT 43, JCT KB, END 96
25	"	I-2-3	60" X 24"	10.00	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
25A	"	W6-1	36" X 36"	---	---	9.00							
26	"	W3-5	36" X 36"	---	---	9.00	---	---	1	---	1	1	REDUCED SPEED AHEAD, 35 MPH
27	"	R1-1	36" X 36"	9.00	---	---	---	---	1	---	1	1	
28	"	R1-1	36" X 36"	9.00	---	---	---	---	1	---	1	1	
28A	"	J2-3	72" X 57"	28.50	---	---	---	---	2		1	1	N. 43, E. KB, S. 43
28B	"	D1-2	72" X 30"	15.00	---	---	---	---	2		1	2	SEE SIGN DETAIL SHEET
29	"	R5-1	---	---	---	---	---	---	---	---	---	---	INCLUDED IN SIGN 30 REMOVAL
30	"	R2-1	24" X 30"	5.00	---	---	---	1	---	---	1	1	SPEED LIMIT 55
31	"	R4-7	36" X 48"	12.00	---	---	---	1	---	---	1	1	
32	"	W6-3	36" X 36"	---	---	9.00	---	---	1	---	1	1	
32A	"	R5-1	30" X 30"	6.25	---	---	---	---	2	---	---	---	
33	"	R5-1A	36" X 24"	6.00	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 34, INCLUDED IN SIGN 34 REMOVAL
34	"	D2-2	78" X 24"	13.00	---	---	---	---	2	---	---	---	SEE SIGN DETAIL SHEET
34A	"	W6-2	36" X 36"	---	---	9.00	---	---	1	---	1	2	
35	"	J4-2	48" X 36"	12.00	---	---	---	---	1	---	1	1	WEST 96, END KB
36	"	R1-1	36" X 36"	7.46	---	---	---	---	1	---	---	---	
37	"	R1-1	36" X 36"	7.46	---	---	---	---	---	1	1	1	
37A	"	R6-3	30" X 24"	5.00	---	---	---	---	---	---	---	---	MOUNT BELOW SIGN 37
37B	"	R6-1R	36" X 12"	3.00	---	---	---	---	---	---	---	---	MOUNT ABOVE SIGN 37
38	"	W12-1D	---	---	---	---	---	---	---	---	1	1	
39	"	R1-1	36" X 36"	7.46	---	---	---	---	1	---	1	1	
40	"	R5-1	30" X 30"	6.25	---	---	---	---	---	---	1	1	
PAGE SUBTOTALS				462.88	0.00	86.00	2	2	44	1	37	46	

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2215 FOLDING SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0612 POSTS WOOD 4x6x12 EACH	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
41	STH 96	R5-1	30" X 30"	6.25	---	---	---	1	---	---	1	1	
42	"	R3-1	24" X 24"	4.00	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 41, INCLUDED IN SIGN 41 REMOVAL
43	"	R6-2L	24" X 30"	5.00	---	---	---	---	---	---	---	---	MOUNT WITH SIGN 37, INCLUDED IN SIGN 37 REMOVAL
44	"	R3-2	24" X 24"	4.00	---	---	---	---	1	---	1	1	
45	"	J3-1	24" X 57"	9.50	---	---	---	---	1	---	1	1	SOUTH 43 RIGHT
45A	"	R11-54F	48" X 36"	---	12.00	---	---	---	---	---	---	---	MOUNT UNDER SIGN 45
46	"	R5-1	30" X 30"	6.25	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 45, INCLUDED IN SIGN 45 REMOVAL
47	"	R6-2L	---	---	---	---	---	---	---	---	1	1	
48	"	R6-2L	24" X 30"	5.00	---	---	---	1	---	---	1	1	
49	I43 ON RAMP	R5-57	36" X 36"	9.00	---	---	---	1	---	---	1	1	
50	STH 96	R4-7	24" X 30"	5.00	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 44, INCLUDED IN SIGN 44 REMOVAL
51	"	R4-7	24" X 30"	5.00	---	---	---	---	1	---	1	1	
52	"	J3-1	24" X 57"	9.50	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 51
53	"	R5-1A	36" X 24"	6.00	---	---	---	1	---	---	---	---	
54	"	---	---	---	---	---	---	---	---	---	1	1	LEFT TURN LANE
54A	"	J2-1	24" X 57"	9.50	---	---	---	1	---	---	---	---	NORTH 43 AHEAD LEFT
55	"	D2-2	72" X 15"	7.50	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
56	"	---	---	---	---	---	---	---	---	---	1	1	LEFT TURN LANE
56A	"	J2-1	24" X 57"	9.50	---	---	---	1	---	---	---	---	SOUTH 43 AHEAD LEFT
57	"	R2-1	24" X 30"	5.00	---	---	---	1	---	---	1	1	
58	"	R5-1A	36" X 24"	6.00	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 57, INCLUDED IN SIGN 57 REMOVAL
59	"	R3-1	24" X 24"	4.00	---	---	---	1	---	---	1	1	
60	"	R5-1	30" X 30"	6.25	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 59, INCLUDED IN SIGN 59 REMOVAL
61	"	R5-1	30" X 30"	6.25	---	---	---	1	---	---	1	1	
62	"	R1-1	36" X 36"	7.46	---	---	---	---	1	---	1	1	
63	"	R6-2L	24" X 30"	5.00	---	---	---	---	---	---	---	---	MOUNT WITH SIGN 64, INCLUDED IN SIGN 64 REMOVAL
64	"	R1-1	36" X 36"	7.46	---	---	---	---	---	1	1	1	
64A	"	R6-3	30" X 24"	5.00	---	---	---	---	---	---	---	---	MOUNT BELOW SIGN 64
64B	"	R6-1R	36" X 12"	3.00	---	---	---	---	---	---	---	---	MOUNT ABOVE SIGN 64
65	"	R5-1	30" X 30"	6.25	---	---	---	1	---	---	1	1	
66	"	R1-1	36" X 36"	7.46	---	---	---	---	1	---	1	1	
67	"	J4-1	24" X 24"	4.00	---	---	---	1	---	---	---	---	CTY KB
67A	"	W6-2	36" X 36"	---	---	9.00	---	---	1	---	1	1	
68	"	R5-1A	36" X 24"	6.00	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 67, INCLUDED IN SIGN 67 REMOVAL
69	"	R4-7	24" X 30"	5.00	---	---	---	---	1	---	1	1	REMOVE J ASSEMBLY
70	"	R3-2	24" X 24"	4.00	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 69, INCLUDED IN SIGN 69 REMOVAL
71	"	W6-3	36" X 36"	---	---	9.00	---	---	1	---	1	1	
72	"	R5-1	30" X 30"	6.25	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 71, INCLUDED IN SIGN 71 REMOVAL
73	"	R4-7	36" X 48"	12.00	---	---	---	1	---	---	1	1	
74	"	R1-1	36" X 36"	7.46	---	---	---	---	1	---	1	1	
75	"	D2-2	78" X 24"	13.00	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
76	"	J3-1	24" X 57"	9.50	---	---	---	---	1	---	1	1	NORTH 43 LEFT
76A	"	R4-7	24" X 30"	5.00	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 76
PAGE SUBTOTALS				242.34	12.00	18.00	0	12	14	1	24	26	

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2215 FOLDING SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0612 POSTS WOOD 4x6x12 EACH	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
77	I43 ON RAMP FROM STH 96	R5-57	36" X 36"	9.00	---	---	---	1	---	---	1	1	
78	STH 96	R6-2L	24" X 30"	5.00	---	---	---	---	1	---	1	1	
78A	"	R11-54F	48" X 36"	---	12.00	---	---	---	---	---	---	---	MOUNT BELOW SIGN 78
79	"	R5-1	30" X 30"	6.25	---	---	---	---	---	1	1	1	
80	"	J3-1	24" X 57"	9.50	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 79, INCLUDED IN SIGN 79 REMOVAL
80A	"	R11-54F	48" X 30"	10.00	---	---	---	---	---	---	---	---	MOUNT BELOW SIGN 80
81	"	R5-1A	36" X 24"	6.00	---	---	---	---	1	---	---	---	INCLUDED IN SIGN 82 REMOVAL
82	"	J3-3	---	0.00	---	---	---	---	---	---	1	2	S. 43 AHEAD, W. 96 AHEAD, N. 43 RIGHT
83	"	D1-2	72" X 30"	15.00	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
83A	"	W6-3	36" X 36"	---	---	9.00	---	---	---	---	---	---	MOUNT TO LIGHT POLE
84	"	J2-3	72" X 57"	28.50	---	---	---	---	2	---	1	2	S. 43 AHEAD, W. 96 AHEAD, N. 43 AHEAD RIGHT
85	"	J1-2	48" X 39"	13.00	---	---	---	---	1	---	1	1	JCT 43, JCT 96
86	I43 NORTH OF STH 96	R2-1	48" X 60"	20.00	---	---	---	---	---	2	1	2	SPEED LIMIT 70
87	I43 AT NORTH AVE	M1-94	78" X 21"	11.38	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
88	"	M1-94	78" X 21"	11.38	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
89	I43 NORTH OF NORTH AVE	W11-3	---	0.00	---	---	---	---	---	---	1	1	
90	"	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 172
91	"	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 172
92	"	R8-7	48" X 36"	12.00	---	---	---	1	---	---	1	1	
92A	I43 AT TOWN HALL RD	M1-94	96" X 21"	14.00	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
92B	"	M1-94	96" X 21"	14.00	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
93	I43 NORTH OF TOWN HALL RD	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 173
94	"	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 173
95	"	R3-4B	36" X 48"	12.00	---	---	---	---	1	---	1	1	
96	"	R3-4B	36" X 48"	12.00	---	---	---	---	1	---	1	1	
97	"	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 174
98	"	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 174
99	I43 AT LANGES CORNER RD	M1-94	126" X 21"	18.38	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
100	"	M1-94	126" X 21"	18.38	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
101	I43 NORTH OF LANGES CORNER	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 175
102	"	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 175
103	I43 AT CTH NN	M1-94	60" X 21"	8.75	---	---	---	---	2	---	1	2	
104	"	M1-94	60" X 21"	8.75	---	---	---	---	2	---	1	2	
105	VACANT	---	---	---	---	---	---	---	---	---	---	---	
106	I43 NORTH OF CTH NN	R3-4B	36" X 48"	12.00	---	---	---	---	1	---	1	1	
107	"	R3-4B	36" X 48"	12.00	---	---	---	---	1	---	1	1	
108	"	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 176
109	"	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 176
110	I43 AT PINE GROVE RD	M1-94	102" X 21"	14.88	---	---	---	---	2	---	1	2	
111	"	M1-94	102" X 21"	14.88	---	---	---	---	2	---	1	2	
112	I43 NORTH OF PINE GROVE RD	R8-12	48" X 36"	12.00	---	---	---	---	1	---	1	1	
113	"	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 177
114	"	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 177
115	"	R5-53A	---	0.00	---	---	---	---	---	---	1	1	
116	"	R3-4B	36" X 48"	12.00	---	---	---	---	1	---	1	1	
117	"	R3-4B	36" X 48"	12.00	---	---	---	---	1	---	1	1	
118	"	R2-1	48" X 60"	20.00	---	---	---	---	---	2	1	2	SPEED LIMIT 70
119	I43 AT SHADOW LN	M1-94	84" X 21"	12.25	---	---	---	---	2	---	1	2	
120	"	M1-94	84" X 21"	12.25	---	---	---	---	2	---	1	2	
PAGE SUBTOTALS				445.50	12.00	9.00	12	2	38	5	43	60	

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2215 FOLDING SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0612 POSTS WOOD 4x6x12 EACH	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
121	I43 NORTH OF SHADOW LN	J4-1	36" X 54"	13.50	---	---	---	---	1	---	1	1	NORTH 43
122	"	D12-5	60" X 66"	27.50	---	---	---	---	---	2	1	2	
123	"	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 178
124	"	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 178
125	I43 SOUTH OF USH 141	E5-1A	90" X 60"	37.50	---	---	---	---	---	2	1	2	EXIT 178
126	I43 NB EXIT RAMP TO USH 141	W3-1	36" X 36"	---	---	9.00	---	---	1	---	1	1	
127	"	D1-3	72" X 36"	18.00	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
128	"	D1-2	78" X 36"	19.50	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
129	I43 BETWEEN USH 141 RAMPS	W4-1	48" X 48"	---	---	16.00	---	---	2	---	1	2	
130	I43 SB EXIT RAMP TO USH 141	J3-3	72" X 57"	28.50	---	---	---	---	2	---	1	2	NORTH 141 LEFT, TO 29 LEFT, MM RIGHT
131	"	R5-1A	36" X 24"	6.00	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 130, INCLUDED IN SIGN 130 REMOVAL
132	"	R5-1A	36" X 24"	6.00	---	---	---	---	1	---	1	1	
133	"	D1-3	72" X 36"	18.00	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
134	"	W3-1	36" X 36"	---	---	9.00	---	---	1	---	1	1	
135	"	E5-1A	90" X 60"	37.50	---	---	---	---	---	2	1	2	EXIT 178
136	I43 BETWEEN USH 141 RAMPS	W4-1	48" X 48"	---	---	16.00	---	---	2	---	1	2	
137	I43 NORTH OF USH 141	J4-1	---	---	---	---	---	---	---	---	1	1	NORTH 43
138	"	J4-1	36" X 54"	13.50	---	---	---	---	1	---	---	---	NORTH 43
139	I43 AT GLENMORE RD	M1-94	96" X 21"	14.00	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
140	"	M1-94	96" X 21"	14.00	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
141	CTH MM	J1-3	72" X 39"	19.50	---	---	---	---	2	---	1	2	JCT 43, JCT 141, END MM
142	"	W6-1	36" X 36"	---	---	9.00	---	---	1	---	1	1	
143	"	D2-2	66" X 15"	6.88	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
144	"	M1-5A	24" X 24"	4.00	---	---	---	1	---	---	1	1	CTH MM
145	"	R4-7	24" X 30"	5.00	---	---	---	1	---	---	1	1	
146	"	R5-1A	30" X 30"	6.25	---	---	---	---	1	---	1	1	
147	"	W6-3	36" X 36"	---	---	9.00	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 146, INCLUDED IN SIGN 146 REMOVAL
148	"	R5-1A	36" X 24"	6.00	---	---	---	---	1	---	1	1	
149	"	W6-2	36" X 36"	---	---	9.00	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 148, INCLUDED IN SIGN 148 REMOVAL
150	"	R1-1	36" X 36"	7.46	---	---	---	---	1	---	1	1	
151	"	R5-1	30" X 30"	6.25	---	---	---	1	---	---	1	1	
152	"	R1-1	36" X 36"	7.46	---	---	---	---	1	---	1	1	
152A	"	R6-3	30" X 24"	5.00	---	---	---	---	---	---	---	---	MOUNT BELOW SIGN 152
152B	"	R6-1R	36" X 12"	3.00	---	---	---	---	---	---	---	---	MOUNT ABOVE SIGN 152
152C	"	R6-2L	24" X 30"	5.00	---	---	---	---	---	---	---	---	MOUNT ON SIGN 152 SIGN POST
153	"	W12-1D	24" X 24"	---	---	4.00	---	---	---	---	---	---	4' MOUNTING HEIGHT
154	"	J2-4	96" X 57"	38.00	---	---	---	---	---	2	1	2	SEE PLAN SHEET
155	"	D1-3	72" X 36"	18.00	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
156	"	R5-1A	36" X 24"	6.00	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 155, INCLUDED IN SIGN 155 REMOVAL
157	"	J3-1	24" X 57"	9.50	---	---	---	---	1	---	1	1	SOUTH 43 RIGHT
158	"	R5-1	30" X 30"	6.25	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 157
159	"	R3-2	24" X 24"	4.00	---	---	---	1	---	---	1	1	
160	I43 SB ON RAMP AT CTH MM	R5-57	36" X 36"	9.00	---	---	---	---	---	---	---	---	
161	CTH MM	R6-2L	24" X 30"	5.00	---	---	---	1	---	---	1	1	
	PAGE SUBTOTALS			439.05	0.00	81.00	2	5	33	8	33	48	

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2215 FOLDING SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0612 POSTS WOOD 4x6x12 EACH	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
162	CTH MM	R4-7	24" X 30"	5.00	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 159
162A	"	J3-1	24" X 57"	9.50	---	---	---	---	1	---	1	1	SOUTH 43 LEFT
163	"	---	---	0.00	---	---	---	---	---	---	1	1	LEFT TURN LANE SIGN
163A	"	J2-1	24" X 57"	9.50	---	---	---	1	---	---	---	---	NORTH 43 AHEAD LEFT
164	"	D1-3	72" X 36"	18.00	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
165	"	R1-1	36" X 36"	7.46	---	---	---	---	1	---	1	1	
166	"	R5-1	30" X 30"	6.25	---	---	---	1	---	---	1	1	
167	"	R5-1	30" X 30"	6.25	---	---	---	1	---	---	1	1	
168	"	R3-1	24" X 24"	4.00	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 167
169	"	R4-7	24" X 30"	5.00	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 162A
170	"	R5-1A	36" X 24"	6.00	---	---	---	1	---	---	1	1	
171	USH 141	---	---	---	---	---	---	---	---	---	1	1	LEFT TURN LANE SIGN
171A	"	J2-1	24" X 57"	---	---	---	---	1	---	---	---	---	SOUTH 43 AHEAD LEFT
172	"	J3-2	48" X 57"	19.00	---	---	---	---	1	---	1	1	NORTH 43 AHEAD RIGHT, NORTH 141 AHEAD
173	"	R5-1A	30" X 30"	6.25	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 172
174	"	R3-1	24" X 24"	4.00	---	---	---	1	---	---	1	1	
175	"	R5-1	30" X 30"	6.25	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 174, INCLUDED IN SIGN 174 REMOVAL
176	"	D1-2	78" X 24"	13.00	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
177	"	J3-1	24" X 57"	9.50	---	---	---	---	1	---	1	1	NORTH 43 RIGHT
177A	"	R4-7	24" X 30"	5.00	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 177
178	"	R6-2L	24" X 30"	5.00	---	---	---	1	---	---	1	1	
178A	"	R6-2L	---	---	---	---	---	---	---	---	1	1	
179	I43 NB ON RAMP AT USH 141	R5-57	36" X 36"	9.00	---	---	---	---	1	---	1	1	
180	"	R1-2	36" X 31"	3.88	---	---	---	---	1	---	1	1	
181	"	R5-1	30" X 30"	6.25	---	---	---	---	1	---	1	1	
182	"	J3-1	24" X 57"	9.50	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 181, INCLUDED IN SIGN 181 REMOVAL
183	"	J3-1	24" X 57"	9.50	---	---	---	---	---	---	---	---	
183A	"	D1-3	72" X 36"	18.00	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
184	I43 NB OFF RAMP TO USH 141	J3-3	72" X 57"	28.50	---	---	---	---	2	---	1	2	CTH MM LEFT, TO 29 RIGHT, TO 141 RIGHT
184A	"	R5-1A	36" X 24"	6.00	---	---	---	---	---	---	---	---	MOUNT TO BACK OF EXISTING SIS SIGN
184B	"	R5-1A	36" X 24"	6.00	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 184
185	"	R5-1	30" X 30"	6.25	---	---	---	1	---	---	1	1	
186	"	R1-1	36" X 36"	7.46	---	---	---	---	1	---	1	1	
187	"	W12-1D	24" X 24"	---	---	4.00	---	---	---	---	---	---	4' MOUNTING HEIGHT
188	"	R6-2L	24" X 30"	5.00	---	---	---	---	---	---	---	---	MOUNT WITH SIGN 189
189	"	R1-1	36" X 36"	7.46	---	---	---	---	1	---	1	1	
189A	"	R6-3	30" X 24"	5.00	---	---	---	---	---	---	---	---	MOUNT BELOW SIGN 189
189B	"	R6-1R	36" X 12"	3.00	---	---	---	---	---	---	---	---	MOUNT ABOVE SIGN 189
190	"	R5-1	30" X 30"	6.25	---	---	---	1	---	---	1	1	
191	"	R1-1	36" X 36"	7.46	---	---	---	---	1	---	1	1	
192	USH 141	R4-7	24" X 30"	5.00	---	---	---	1	---	---	1	1	
193	"	R3-2	24" X 24"	4.00	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 192
194	"	J1-1	24" X 39"	6.50	---	---	---	---	1	---	1	1	JCT CTH R
195	"	W3-1	36" X 36"	9.00	---	---	---	---	1	---	1	1	
196	"	R5-1A	36" X 24"	6.00	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 195
197	"	R4-7	24" X 30"	5.00	---	---	---	1	---	---	1	1	
198	"	R5-1	30" X 30"	6.25	---	---	---	1	---	---	1	1	
199	"	D1-3	102" X 36"	25.50	---	---	---	---	2	---	1	2	SEE SIGN DETAIL SHEET
200	"	J3-3	72" X 57"	28.50	---	---	---	---	2	---	1	2	NORTH 141 LEFT, TO 29 LEFT, SOUTH CTH R RIGHT
200A	"	J1-2	48" X 39"	13.00	---	---	---	---	1	---	1	1	JCT 43, JCT MM
201	"	J3-3	72" X 57"	28.50	---	---	---	---	2	---	1	2	SOUTH 43 AHEAD, WEST CTH MM AHEAD, NORTH 43 AHEAD RIGHT
PAGE SUBTOTALS				426.72	0.00	4.00	0	12	27	0	33	40	

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ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2215 FOLDING SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0612 POSTS WOOD 4x6x12 EACH	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
202	I43 NORTH OF USH 141	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 179
203	"	R3-4B	36" X 48"	12.00	---	---	---	---	1	---	1	1	
204	"	R2-1	48" X 60"	20.00	---	---	---	---	---	2	1	2	SPEED LIMIT 70
205	"	R3-4B	36" X 48"	12.00	---	---	---	---	1	---	1	1	
206	I43 NORTH OF USH 141	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 179
207	"	R4-3	48" X 60"	20.00	---	---	---	---	2	---	1	2	
208	"	J4-1	36" X 54"	13.50	---	---	---	---	---	1	---	---	SOUTH 43
209	"	R2-1	48" X 60"	20.00	---	---	---	---	---	2	1	2	SPEED LIMIT 70
210	"	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 179
211	"	D10-3	12" X 48"	4.00	---	---	1	---	---	---	1	1	MILE 180
212	"	R5-53A	42" X 54"	15.75	---	---	---	---	1	---	1	1	MILE 180
213	"	R3-4B	36" X 48"	12.00	---	---	---	---	1	---	1	1	
214	"	R3-4B	36" X 48"	12.00	---	---	---	---	1	---	1	1	
215	I43 AT STH 172 OFF RAMP	E5-1A	90" X 60"	37.50	---	---	---	---	---	2	1	1	EXIT 180
216	"	I55-56	---	---	---	---	---	---	---	---	1	1	
217	I43 AT STH ON RAMP	W4-1	48" X 48"	---	---	16.00	---	---	2	---	1	2	
218	STH 172 RAMP TO I43 SB	W4-2L	48" X 48"	---	---	16.00	---	---	2	---	1	2	
219	"	W4-2L	48" X 48"	---	---	16.00	---	---	2	---	1	2	
220	"	J3-2	72" X 84"	42.00	---	---	---	---	---	2	1	2	NORTH 43 TILT LEFT, SOUTH 43 TILT RIGHT
PAGE SUBTOTALS				232.75	0.00	48.00	4	0	13	9	18	25	
PROJECT TOTALS				**2249.23**	**24.00**	**246.00**	**20**	**33**	**169**	**24**	**188**	**245**	

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ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE I

SIGN NO.	LOCATION	SIGN CODE	W X H	637.1220 SIGNS TYPE I REFLECTIVE TYPE SH S.F.	638.2601 REMOVING SIGNS TYPE I EACH	638.3100 REMOVING STRUCTURAL STEEL SUPPORTS EACH	TYPE/SIZE OF STEEL	636.0100 SIGN SUPPORTS CONCRETE MASONRY CY	636.0500 SIGN SUPPORTS STEEL REINFORCEMENT LB	635.0200 SIGN SUPPORTS STRUCT. STEEL HIGH-STRENGTH LB	INFO ONLY - POST LENGTH TO BE VERIFIED BY CONTRACTOR			REMARKS
											POST NO. 1 LENGTH (ROAD SIDE) FT	POST NO. 2 LENGTH (DITCH) FT	DISTANCE BETWEEN POSTS (S) FT	
300	I43 SOUTH OF STH 96	E4-1A	216" X 126"	189.00	1	2	2-TYPE B	1.6	98	1021	22.5	23.0	10.8	SEE SIGN DETAIL SHEET
300A	"	E1-5	108" X 30"	22.50	---	---	---	---	---	---	---	---	---	EXIT 171, MOUNT TOP RIGHT OF SIGN 300
301	I43 NORTH OF STH 96	E4-1A	216" X 126"	189.00	1	2	2-TYPE B	1.6	98	1029	24.0	22.0	10.8	SEE SIGN DETAIL SHEET
301A	"	E1-5	108" X 30"	22.50	---	---	---	---	---	---	---	---	---	EXIT 171, MOUNT TOP RIGHT OF SIGN 300
302	"	E1-1A	180" X 156"	195.00	1	2	2-TYPE B	1.6	98	1173	30.0	25.0	9.0	SEE SIGN DETAIL SHEET
302A	"	E1-5	108" X 30"	22.50	---	---	---	---	---	---	---	---	---	EXIT 178, MOUNT TOP RIGHT OF SIGN 302
303	143 NORTH OF CTH NN OVERPASS	E3-1	144" X 54"	54.00	1	2	2-TYPE A	1.2	68	555	17.8	15.8	9.0	SEE SIGN DETAIL SHEET
304	"	E8-1	240" X 96"	160.00	1	2	2-TYPE B	1.6	98	933	19.0	21.0	12.0	SEE SIGN DETAIL SHEET
305	I43 NORTH OF PINE GROVE RD OVERPASS	E1-1A	192" X 156"	208.00	1	2	2-TYPE B	1.6	98	1077	25.0	24.0	9.6	SEE SIGN DETAIL SHEET
305A	"	E1-5	108" X 30"	22.50	---	---	---	---	---	---	---	---	---	EXIT 178, MOUNT TOP RIGHT OF SIGN 305
306	I43 SOUTH OF USH 141	E8-1	192" X 90"	120.00	1	2	2-TYPE B	1.6	98	---	18.5	20.5	9.6	SEE SIGN DETAIL SHEET
307	I43 SOUTH OF USH 141 RAMP	E4-1A	228" X 126"	199.50	1	2	2-TYPE B	1.6	98	981	22.0	21.0	11.4	SEE SIGN DETAIL SHEET
307A	"	E1-5	108" X 30"	22.50	---	---	---	---	---	---	---	---	---	EXIT 178, MOUNT TOP RIGHT OF SIGN 307
308	I43 NORTH OF USH 141 RAMP	E4-1A	228" X 126"	199.50	1	2	2-TYPE B	1.6	98	1037	23.0	23.5	11.4	SEE SIGN DETAIL SHEET
308A	"	E1-5	108" X 30"	22.50	---	---	---	---	---	---	---	---	---	EXIT 178, MOUNT TOP RIGHT OF SIGN 308
309	I43 NORTH OF USH 141	E1-1A	204" X 186"	263.50	1	2	2-TYPE B	1.6	98	1133	25.5	27.0	10.2	SEE SIGN DETAIL SHEET
309A	"	E1-5	108" X 30"	22.50	---	---	---	---	---	---	---	---	---	EXIT 180, MOUNT TOP RIGHT OF SIGN 309
310	VACANT	---	---	---	---	---	---	---	---	---	---	---	---	
311	I43 SOUTH OF STH 172	E1-1A	192" X 156"	208.00	1	2	2-TYPE B	1.6	98	1101	25.5	25.0	9.6	SEE SIGN DETAIL SHEET
311A		E1-5	108" X 30"	22.50	---	---	---	---	---	---	---	---	---	EXIT 178, MOUNT TOP RIGHT OF SIGN 311
312	"	E3-1	---	0.00	1	2	---	---	---	---	---	---	---	
313	"	E3-1	---	0.00	1	2	---	---	---	---	---	---	---	
314	"	E3-1	---	0.00	1	2	---	---	---	---	---	---	---	
315	I43 AT STH 172 EXIT	E6-1	204" X 156"	221.00	1	---	---	---	---	---	---	---	---	MOUNT TO S-05-43, CENTER OVER LANES
315A	"	E6-1	204" X 138"	195.50	1	---	---	---	---	---	---	---	---	MOUNT TO S-05-43, CENTER OVER EXIT LANE
315B	"	E1-5	108" X 30"	22.50	---	---	---	---	---	---	---	---	---	EXIT 180, MOUNT TOP RIGHT OF SIGN 315A
316	"	E8-1	228" X 90"	142.50	---	---	2-TYPE B	1.6	98	1029	24.0	22.0	11.4	SEE SIGN DETAIL SHEET
	PROJECT TOTALS			**2747.00**	**16**	**28**		**18.8**	**1146**	**11069**				

TRAFFIC CONTROL SUMMARY

CATEGORY	STATION TO STATION	LOCATION	APPROX. SERVICE PERIOD DAYS	643.0300 DRUMS NO. IN SERVICE	643.0300 DRUMS DAY	**643.042 BARRICADES TYPE III NO. IN SERVICE	**643.042 BARRICADES TYPE III DAY	**643.0705 WARNING LIGHTS TYPE A NO. IN SERVICE	**643.0705 WARNING LIGHTS TYPE A DAY	643.0715 WARNING LIGHTS TYPE C NO. IN SERVICE	643.0715 WARNING LIGHTS TYPE C DAYS	643.0800 ARROW BOARDS NO. IN SERVICE	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS NO. IN SERVICE	643.0900 SIGNS DAY	**643.092 COVERING SIGNS TYPE II NO. OF CYCLES	**643.092 COVERING SIGNS TYPE II NO. IN SERVICE	**643.092 COVERING SIGNS TYPE II EACH	**643.105 PCMS NO. IN SERVICE	**643.105 PCMS DAYS	REMARKS
	NORTHBOUND STAGE 1																				
0010	2809+16.71 NB - 2895+35.55 NB	IH 43 NB	4	47	188	4	16	8	32	14	56	2	8	16	64	--	0	--	1	7	B-05-0241 RT LANE CLOSURE
0010	3003+35.25 NB - 3203+21.57 NB	IH 43 NB	4	218	872	17	68	34	136	14	56	2	8	29	116	1	1	1	1	7	B-05-0244 - B-05-0187 RT LANE CLOSURE
	NORTHBOUND STAGE 1 TOTALS		**8**		**1060**		**84**		**168**		**112**		**16**		**180**			**1**		**14**	
	NORTHBOUND STAGE 2A																				
0010	2813+47.44 NB - 2893+46.21 NB	IH 43 NB	21	56	1176	0	0	0	0	26	546	2	42	19	399	--	0	--	0	0	B-05-0241 LT LANE CLOSURE
0010	2950+22.07 NB - 3201+10.63 NB	IH 43 NB	21	236	4956	18	378	42	882	35	735	2	42	21	441	1	2	2	1	7	B-05-0244 - B-05-0187 LT LANE CLOSURE; CLOSURE UNDER CTH MM
	NORTHBOUND STAGE 2A TOTALS		**42**		**6132**		**378**		**882**		**1281**		**84**		**840**			**2**		**7**	
	NORTHBOUND STAGE 2B																				
0010	2813+47.44 NB - 2893+46.21 NB	IH 43 NB	21	56	1176	0	0	0	0	26	546	2	42	19	399	--	0	--	0	0	B-05-0241 RT LANE CLOSURE
0010	2950+22.07 NB - 3201+10.63 NB	IH 43 NB	21	227	4767	13	273	26	546	26	546	2	42	19	399	1	1	1	0	0	B-05-0244 - B-05-0187 RT LANE CLOSURE
	NORTHBOUND STAGE 2B TOTALS		**42**		**5943**		**273**		**546**		**1092**		**84**		**798**			**1**		**0**	
	NORTHBOUND STAGE 3																				
0010	2695+69.80 NB - 3050+13.80 NB	IH 43 NB	15	375	5625	28	420	56	840	34	510	2	30	49	735	3	1	3	0	0	LT LANE CLOSURE
0010	2975+53.80 NB - 3329+50.00 NB	IH 43 NB	15	399	5985	29	435	58	870	42	630	2	30	53	795	3	1	3	0	0	LT LANE CLOSURE
	NORTHBOUND STAGE 3A TOTALS		**30**		**11610**		**855**		**1710**		**1140**		**60**		**1530**			**6**		**0**	
	NORTHBOUND STAGE 3																				
0010	2695+69.80 NB - 3050+13.80 NB	IH 43 NB	15	375	5625	28	420	56	840	34	510	2	30	49	735	3	1	3	0	0	RT LANE CLOSURE
0010	2975+53.80 NB - 3329+50.00 NB	IH 43 NB	15	399	5985	29	435	58	870	42	630	2	30	53	795	3	1	3	0	0	RT LANE CLOSURE
	NORTHBOUND STAGE 3B TOTALS		**30**		**11610**		**855**		**1710**		**1140**		**60**		**1530**			**6**		**0**	
	NORTHBOUND STAGE 3C																				
0010	2695+69.80 NB - 3050+13.80 NB	IH 43 NB	15	375	5625	28	420	56	840	34	510	2	30	49	735	3	1	3	0	0	LT LANE CLOSURE
0010	2975+53.80 NB - 3329+50.00 NB	IH 43 NB	15	399	5985	29	435	58	870	42	630	2	30	53	795	3	1	3	0	0	LT LANE CLOSURE
	NORTHBOUND STAGE 3C TOTALS		**30**		**11610**		**855**		**1710**		**1140**		**60**		**1530**			**6**		**0**	
	NORTHBOUND STAGE 3D																				
0010	2695+69.80 NB - 3050+13.80 NB	IH 43 NB	15	375	5625	28	420	56	840	34	510	2	30	49	735	3	1	3	0	0	RT LANE CLOSURE
0010	2975+53.80 NB - 3329+50.00 NB	IH 43 NB	15	399	5985	29	435	58	870	42	630	2	30	53	795	3	1	3	0	0	RT LANE CLOSURE
	NORTHBOUND STAGE 3D TOTALS		**30**		**11610**		**855**		**1710**		**1140**		**60**		**1530**			**6**		**0**	
	NORTHBOUND TOTALS		**212**		**59575**		**4155**		**8436**		**7045**		**424**		**7938**			**28**		**21**	
	SOUTHBOUND STAGE 1																				
0010	2878+72.44 SB - 2954+66.80 SB	IH 43 SB	4	47	188	4	16	8	32	14	56	2	8	16	64	--	0	--	1	7	B-05-0240 RT LANE CLOSURE
0010	3013+03.57 SB - 3261+02.19 SB	IH 43 SB	4	219	876	17	68	34	136	14	56	2	8	29	116	1	1	1	1	7	B-05-0243 - B-05-0188 RT LANE CLOSURE
	SOUTHBOUND STAGE 1 TOTALS		**8**		**1064**		**84**		**168**		**112**		**16**		**180**			**1**		**14**	

TRAFFIC CONTROL SUMMARY - (CONTINUED)

CATEGORY	STATION TO STATION	LOCATION	APPROX. SERVICE PERIOD DAYS	643.0300 DRUMS NO. IN SERVICE	643.0300 DRUMS DAY	**643.042 BARRICADES TYPE III NO. IN SERVICE	**643.042 BARRICADES TYPE III DAY	**643.0705 WARNING LIGHTS TYPE A NO. IN SERVICE	**643.0705 WARNING LIGHTS TYPE A DAY	643.0715 WARNING LIGHTS TYPE C NO. IN SERVICE	643.0715 WARNING LIGHTS TYPE C DAYS	643.0800 ARROW BOARDS NO. IN SERVICE	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS NO. IN SERVICE	643.0900 SIGNS DAY	**643.092 COVERING SIGNS TYPE II NO. OF CYCLES	**643.092 COVERING SIGNS TYPE II NO. IN SERVICE	**643.092 COVERING SIGNS TYPE II EACH	**643.105 PCMS NO. IN SERVICE	**643.105 PCMS DAYS	REMARKS
	SOUTHBOUND STAGE 2A																				
0010	2813+95.63 SB - 2893+94.27 SB	IH 43 SB	21	56	1176	0	0	0	0	26	546	2	42	19	399	--	0	--	0	0	B-05-0240 LT LANE CLOSURE
0010	2948+71.74 SB - 3200+53.50 SB	IH 43 SB	21	226	4746	13	273	26	546	26	546	2	42	19	399	1	1	1	0	0	B-05-0243 - B-05-0188 LT LANE CLOSURE
	SOUTHBOUND STAGE 2A TOTALS		**42**		**5922**		**273**		**546**		**1092**		**84**		**798**			**1**		**0**	
	SOUTHBOUND STAGE 2B																				
0010	2813+95.63 SB - 2893+94.27 SB	IH 43 SB	21	56	1176	0	0	0	0	26	546	2	42	19	399	--	0	--	0	0	B-05-0240 RT LANE CLOSURE
0010	2948+71.74 SB - 3200+53.50 SB	IH 43 SB	21	226	4746	13	273	26	546	26	546	2	42	19	399	1	1	1	0	0	B-05-0243 - B-05-0188 RT LANE CLOSURE
	SOUTHBOUND STAGE 2B TOTALS		**42**		**5922**		**273**		**546**		**1092**		**84**		**798**			**1**		**0**	
	SOUTHBOUND STAGE 3A																				
0010	2754+29.79 SB - 3109+13.84 SB	IH 43 SB	15	376	5640	27	405	54	810	34	510	2	30	48	720	3	1	3	0	0	LT LANE CLOSURE
0010	3034+53.84 SB - 3389+37.89 SB	IH 43 SB	15	402	6030	29	435	58	870	46	690	2	30	56	840	3	2	6	0	0	LT LANE CLOSURE
	SOUTHBOUND STAGE 3A TOTALS		**30**		**11670**		**840**		**1680**		**1200**		**60**		**1560**			**9**		**0**	
	SOUTHBOUND STAGE 3B																				
0010	2754+29.79 SB - 3109+13.84 SB	IH 43 SB	15	376	5640	27	405	54	810	34	510	2	30	48	720	3	1	3	0	0	RT LANE CLOSURE
0010	3034+53.84 SB - 3389+37.89 SB	IH 43 SB	15	402	6030	29	435	58	870	46	690	2	30	56	840	3	2	6	0	0	RT LANE CLOSURE
	SOUTHBOUND STAGE 3B TOTALS		**30**		**11670**		**840**		**1680**		**1200**		**60**		**1560**			**9**		**0**	
	SOUTHBOUND STAGE 3C																				
0010	2754+29.79 SB - 3109+13.84 SB	IH 43 SB	15	376	5640	27	405	54	810	34	510	2	30	48	720	3	1	3	0	0	LT LANE CLOSURE
0010	3034+53.84 SB - 3389+37.89 SB	IH 43 SB	15	402	6030	29	435	58	870	46	690	2	30	56	840	3	2	6	0	0	LT LANE CLOSURE
	SOUTHBOUND STAGE 3C TOTALS		**30**		**11670**		**840**		**1680**		**1200**		**60**		**1560**			**9**		**0**	
	SOUTHBOUND STAGE 3D																				
0010	2754+29.79 SB - 3109+13.84 SB	IH 43 SB	15	376	5640	27	405	54	810	34	510	2	30	48	720	3	1	3	0	0	RT LANE CLOSURE
0010	3034+53.84 SB - 3389+37.89 SB	IH 43 SB	15	402	6030	29	435	58	870	46	690	2	30	56	840	3	2	6	0	0	RT LANE CLOSURE
	SOUTHBOUND STAGE 3D TOTALS		**30**		**11670**		**840**		**1680**		**1200**		**60**		**1560**			**9**		**0**	
	SOUTHBOUND TOTALS		**212**		**59588**		**3990**		**7980**		**7096**		**424**		**8016**			**39**		**14**	
	STH 172 EB CONNECTOR																				
0010	3283+79.85 EB - 3324+56.13 EB CONN.	STH 172 EB TO IH 43 SB	5	183	915	10	50	20	100	22	110	2	10	27	135	--	0	--	1	7	LT LANE CLSURE
0010	3283+79.85 EB - 3324+56.13 EB CONN.	STH 172 EB TO IH 43 SB	5	183	915	10	50	20	100	22	110	2	10	27	135	--	0	--	0	0	RT LANE CLSURE
	STH 172 EB TO IH 43 SB TOTALS		**10**		**1830**		**100**		**200**		**220**		**20**		**270**			**0**		**7**	
	NORTHBOUND RAMPS																				
0010	STH 96 SE RAMP		8	32	256	4	32	8	64	0	0	0	0	15	120	2	2	4	0	0	
0010	STH 96 NE RAMP		4	19	76	3	12	6	24	0	0	0	0	9	36	1	6	6	1	7	
0010	CTH MM NE RAMP		7	31	217	4	28	8	56	0	0	0	0	15	105	2	5	10	1	7	COVER 3 STOP SIGNS DURING BRIDGE REPLACEMENT; PCMS TO USE RAMPS DURING IH 43 CLOSURE UNDER CTH MM
0010	CTH MM NW RAMP		7	25	175	3	21	6	42	0	0	0	0	9	63	2	8	16	1	7	COVER YIELD SIGN
0010	IH 43 NB TO STH 172 WB		2	31	62	4	8	8	16	0	0	0	0	15	30	1	2	2	0	0	
	NORTHBOUND RAMP TOTALS		**28**		**786**		**101**		**202**		**0**		**0**		**354**			**38**		**21**	

TRAFFIC CONTROL SUMMARY - (CONTINUED)

CATEGORY	STATION	TO	STATION	LOCATION	APPROX. SERVICE PERIOD DAYS	643.0300 DRUMS NO. IN SERVICE	643.0300 DRUMS DAY	**643.042 BARRICADES TYPE III NO. IN SERVICE	**643.042 BARRICADES TYPE III DAY	**643.0705 WARNING LIGHTS TYPE A NO. IN SERVICE	**643.0705 WARNING LIGHTS TYPE A DAY	643.0715 WARNING LIGHTS TYPE C NO. IN SERVICE	643.0715 WARNING LIGHTS TYPE C DAYS	643.0800 ARROW BOARDS NO. IN SERVICE	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS NO. IN SERVICE	643.0900 SIGNS DAY	**643.092 COVERING SIGNS TYPE II NO. OF CYCLES	**643.092 COVERING SIGNS TYPE II NO. IN SERVICE	**643.092 COVERING SIGNS TYPE II EACH	**643.105 PCMS NO. IN SERVICE	**643.105 PCMS DAYS	REMARKS
	SOUTHBOUND RAMPS																						
0010	STH 96 SW RAMP				7	20	140	3	21	6	42	0	0	0	0	9	63	2	6	12	1	7	
0010	STH 96 NW RAMP				7	30	210	4	28	8	56	0	0	0	0	15	105	2	2	4	0	0	
0010	CTH MM SE RAMP				6	15	90	2	12	4	24	0	0	0	0	8	48	2	4	8	1	7	
0010	CTHH MM SW RAMP				6	30	180	4	24	8	48	0	0	0	0	15	90	2	5	10	0	0	COVER 3 STOP SIGNS DURING BRIDGE REPLACEMENT
	SOUTHBOUND RAMP TOTALS				**26**		**620**		**85**		**170**		**0**		**0**		**306**			**34**		**14**	
	OVERPASS STRUCTURES																						
0010	NORTH AVE.				17	0	0	8	136	28	476	0	0	0	0	16	272	--	--	--	2	14	B-05-0254
0010	LANGES CORNERS RD.				23	0	0	8	184	28	644	0	0	0	0	16	368	--	--	--	2	14	B-05-0242
0010	ALLOUEZ AVE.				46	0	0	8	368	28	1288	0	0	0	0	16	736	--	--	--	2	14	B-05-0194
	OVERPASS STRUCTURE TOTALS				**86**		**0**		**688**		**2408**		**0**		**0**		**1376**			**0**		**42**	
	STH 96																						
0010	263+44.99 EB	-	45+24.67 EB	STH 96 EB	5	0	0	19	95	26	130	0	0	0	0	19	95	1	9	9	1	7	FULL CLOSURE FOR BASE PATCHING
0010	45+24.97 EB	-	48+32.20 EB	STH 96 EB	1	54	54	4	4	0	0	0	0	0	0	17	17	--	0	--	1	7	SINGLE LANE CLOSURE FOR BASE PATCHING
0010	52+41.77 EB	-	56+64.37 EB	STH 96 EB	1	109	109	10	10	10	10	0	0	0	0	30	30	--	0	--	0	0	SINGLE LANE CLOSURE FOR BASE PATCHING
0010	263+44.99 EB	-	61+20.77 EB	STH 96 EB	1	0	0	0	0	0	0	0	0	0	0	8	8	--	0	--	0	0	FLAGGING DURING PAVING
	STH 96 TOTALS				**8**		**163**		**109**		**140**		**0**		**0**		**150**			**9**		**14**	
	USH 141/CTH MM																						
0010	45+70.67 NB	-	54+56.00 NB	USH 141/CTH MM NB	70	0	0	9	630	14	980	0	0	0	0	31	2170	14	8	112	1	7	FULL CLOSURE FOR BRIDGE REDECK
0010				USH 141/CTH MM NB NB RAMPS	8	102	816	14	112	18	144	20	160	0	0	4	32	2	7	14	1	7	FULL CLOSURE OF IH 43 NB UNDER CTH MM; ADD YIELD SIGN FOR TURNING RIGHT ONTO CTH MM SE RAMP; BARRICADES ALSO NEAR CEDAR HEDGE LN. FOR FULL CLOSURE ON SB CTH MM
0010	54+56.00 NB	-	64+11.71 NB	USH 141/CTH MM NB	1	0	0	0	0	0	0	0	0	0	0	8	8	--	0	--	0	0	FLAGGING DURING MILLING OF NORTH END
0010	36+94.87 NB	-	64+11.71 NB	USH 141/CTH MM NB	1	0	0	0	0	0	0	0	0	0	0	8	8	--	0	--	0	0	FLAGGING DURING PAVING
	USH 141/CTH MM TOTALS				**80**		**816**		**742**		**1124**		**160**		**0**		**2218**			**126**		**14**	
	UNDISTRIBUTED				**66**		**12338**		**997**		**2066**		**1452**		**87**		**2063**			**27**			
	PROJECT 1227-08-71 TOTALS				**728**		**135716**		**10967**		**22726**		**15973**		**955**		**22691**			**301**		**147**	
	STH 172																						
0010	431+00.13 EB	-	588+01.79 EB	STH 172 EB	40	222	8880	4	160	0	0	22	880	2	80	17	680	0	0	0	1	7	SHOULDER/LANE CLOSURE FOR CABLE GUARD
0010	431+00.89 WB	-	587+98.76 WB	STH 172 WB	40	221	8840	4	160	0	0	22	880	2	80	17	680	0	0	0	1	7	SHOULDER/LANE CLOSURE FOR CABLE GUARD
	STH 172 TOTALS				**80**		**17720**		**320**		**0**		**1760**		**160**		**1360**			**0**		**14**	
	UNDISTRIBUTED						**1772**		**32**		**0**		**176**		**16**		**136**			**0**			
	PROJECT 1210-12-71 TOTALS				**80**		**19492**		**352**		**0**		**1936**		**176**		**1496**			**0**		**14**	

**ADDITIONAL QUANTITIES LOCATED ELSEWHERE IN THE PLAN.

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 7 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
1	I-43 NB, N. OF CTH BB, COVER EXISTING TYPE I SIGN AS SHOWN										1	1		COVER AS SHOWN
2	I-43 NB, PLACE 1500' S. OF STH 96 RAMP DIVERGE ON RIGHT SHOULDER	M 3-4	36"X18"	1	7	7								
	"	M 1-6	36"X36"	1	7	7								96
	"	WO 20-2A	48"X48"	1	7	7								
3	I-43 NB, PLACE 1500' S. OF STH 96 RAMP DIVERGE ON MEDIAN SHOULDER	M 3-4	36"X18"	1	7	7								
	"	M 1-6	36"X36"	1	7	7								96
	"	WO 20-2A	48"X48"	1	7	7								
4	I-43 NB, PLACE 500' S. OF STH 96 RAMP DIVERGE ON RIGHT SHOULDER	MO 4-8	36"X18"	1	7	7								
	"	M 3-4	36"X18"	1	7	7								
	"	M 1-6	36"X36"	1	7	7								96
	"	MO 6-1	30"X30"	1	7	7								AHEAD
5	I-43 NB, PLACE 500' S. OF STH 96 RAMP DIVERGE ON MEDIAN SHOULDER	MO 4-8	36"X18"	1	7	7								
	"	M 3-4	36"X18"	1	7	7								
	"	M 1-6	36"X36"	1	7	7								96
	"	MO 6-1	30"X30"	1	7	7								AHEAD
6	I-43 OFF-RAMP TO STH 96, COVER EXISTING TYPE II SIGN AS SHOWN										1		1	COVER "SHIRLEY-GREENLEAF"
7	I-43 OFF-RAMP TO STH 96, COVER EXISTING J3-2 SIGN AS SHOWN										1		1	COVER "WEST 96 LT"
8	CTH KB, E. OF I-43, MODIFY EXISTING J2-3 AS SHOWN	MO 4-8	24"X12"	1	7	7								
	"	MO 5-1R	21"X21"	1	7	7								
9	CTH KB, AT I-43 NB RAMP INTERSECTION, PLACE RIGHT OF EXISTING J3-1 SIGN	MO 4-8	24"X12"	1	7	7								
	"	M 3-4	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
	"	MO 6-1	21"X21"	1	7	7								RIGHT
10	CTH KB, AT I-43 NB RAMP INTERSECTION, PLACE ON SHOULDER JUST W. OF INTERSCTION	R 11-3	60"X30"	1	7	7								0.1 MILES AHEAD
	"	MO 4-9R	30"X24"	1	7	7								
11	STH 96 ON-RAMP TO I-43 NB, 200' N. OF INTERSECTION	MO 4-8	24"X12"	1	7	7								
	"	M 3-4	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								
12	I-43 OFF-RAMP TO STH 96, COVER EXISTING TYPE II SIGN AS SHOWN										1		1	COVER "SHIRLEY-GREENLEAF"
13	I-43 OFF-RAMP TO STH 96, COVER EXISTING J3-2 SIGN AS SHOWN										1		1	COVER "WEST 96 RT"
14	I-43 SB, N. OF TOWN HALL RD, COVER EXISTING TYPE I SIGN AS SHOWN										1	1		COVER AS SHOWN
15	I-43 NB, PLACE 500' S. OF CTH MM RAMP DIVERGE ON RIGHT SHOULDER	MO 4-8	36"X18"	1	7	7								
	"	M 3-4	36"X18"	1	7	7								
	"	M 1-6	36"X36"	1	7	7								96
	"	MO 5-2R	30"X30"	1	7	7								
16	I-43 NB, PLACE 500' S. OF CTH MM RAMP DIVERGE ON MEDIAN SHOULDER	MO 4-8	36"X18"	1	7	7								
	"	M 3-4	36"X18"	1	7	7								
	"	M 1-6	36"X36"	1	7	7								96
	"	MO 5-2R	30"X30"	1	7	7								
17	I-43 NB, PLACE AT CTH MM RAMP DIVERGE ON RIGHT SHOULDER	MO 4-8	36"X18"	1	7	7								
	"	M 3-4	36"X18"	1	7	7								
	"	M 1-6	36"X36"	1	7	7								96
	"	MO 6-2	30"X30"	1	7	7								TILT RIGHT
18	I-43 NB OFF-RAMP TO CTH MM, PLACE 600' PRIOR TO RAMP INTERSECTION	MO 4-8	24"X12"	1	7	7								
	"	M 3-4	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
	"	MO 5-1R	21"X21"	1	7	7								
	PAGE SUBTOTALS			41		287	0	0	0	0		2	4	

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 7 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
19	I-43 NB OFF-RAMP TO CTH MM, PLACE 100' PRIOR TO RAMP INTERSECTION	MO 4-8	24"X12"	1	7	7								
	"	M 3-4	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
	"	MO 6-1	21"X21"	1	7	7								RIGHT
20	US 141/CTH MM, PLACE 200' PRIOR TO I-43 NB RAMP INTERSECTION	MO 4-8	24"X12"	1	7	7								
	"	M 3-2	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
	"	MO 6-1	21"X21"	1	7	7								AHEAD
21	CTH MM, PLACE 100' N. OF I-43 SB RAMP INTERSECTION	MO 4-8	24"X12"	1	7	7								
	"	M 3-2	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
	"	MO 6-1	21"X21"	1	7	7								LEFT
22	I-43 SB OFF-RAMP TO CTH MM, PLACE 100' PRIOR TO RAMP INTERSECTION	MO 4-8	24"X12"	1	7	7								
	"	M 3-4	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
	"	MO 6-1	21"X21"	1	7	7								LEFT
23	I-43 SB OFF-RAMP TO CTH MM, PLACE 600' PRIOR TO RAMP INTERSECTION	MO 4-8	24"X12"	1	7	7								
	"	M 3-4	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
	"	MO 5-1L	21"X21"	1	7	7								
24	US 141/CTH MM, S. OF CTH R INTERSECTION, PLACE TO RIGHT OF EXISTING J3-2 SIGN	MO 4-8	24"X12"	1	7	7								
	"	M 3-4	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
	"	MO 6-1	21"X21"	1	7	7								RIGHT
25	US 141/CTH MM, S. OF CTH R INTERSECTION, PLACE 600' PRIOR TO CTH R INTERSECTION	MO 4-8	24"X12"	1	7	7								
	"	M 3-4	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
	"	MO 5-1L	21"X21"	1	7	7								
26	CTH R, E. OF US 141 INTERSECTION, PLACE 100' E. OF INTERSECTION	MO 4-8	24"X12"	1	7	7								
	"	M 3-4	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
26A	I-43 SB, PLACE 100' N. OF US 141/CTH MM OFF-RAMP DIVERGE	MO 4-8	36"X18"	1	7	7								
	"	M 3-4	36"X18"	1	7	7								
	"	M 1-6	36"X36"	1	7	7								
	"	MO 6-2	30"X30"	1	7	7								
27	I-43 SB, PLACE 600' N. OF CTH MM OFF-RAMP ON RIGHT SHOULDER	MO 4-8	36"X18"	1	7	7								
	"	M 3-4	36"X18"	1	7	7								
	"	M 1-6	36"X36"	1	7	7								96
	"	MO 5-2R	30"X30"	1	7	7								TILT RIGHT
28	I-43 SB, PLACE 600' N. OF CTH MM OFF-RAMP ON MEDIAN SHOULDER	MO 4-8	36"X18"	1	7	7								
	"	M 3-4	36"X18"	1	7	7								
	"	M 1-6	36"X36"	1	7	7								
	"	MO 5-2R	30"X30"	1	7	7								
29	I-43 SB, PLACE 1000' N. OF CTH MM OFF-RAMP ON RIGHT SHOULDER	FMS	132"X54"	1					49.5					
30	I-43 SB, PLACE 1000' N. OF CTH MM OFF-RAMP ON MEDIAN SHOULDER	FMS	132"X54"	1					49.5					
31	I-43 SB, PLACE 1500' N. OF CTH MM OFF-RAMP ON RIGHT SHOULDER	M 3-4	36"X18"	1	7	7								
	"	M 1-6	36"X36"	1	7	7								
	"	WO 20-2A	48"X48"	1	7	7								
32	I-43 SB, PLACE 1500' N. OF CTH MM OFF-RAMP ON RIGHT SHOULDER	M 3-4	36"X18"	1	7	7								
	"	M 1-6	36"X36"	1	7	7								
	"	WO 20-2A	48"X48"	1	7	7								
	PAGE SUBTOTALS			51		343	0	0	99	0		0	0	

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 7 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
33	CTH R, AT US 141/CTH MM INTERSECTION, PLACE TO RIGHT OF EXISTING	MO 4-8	24"X12"	1	7	7								
	"	M 3-2	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
	"	MO 6-1	21"X21"	1	7	7								LEFT
34	CTH R, E. OF US 141/CTH MM INTERSECTION, PLACE 500' E. OF INTERSECTION	MO 4-8	24"X12"	1	7	7								
	"	M 3-2	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
	"	MO 5-1L	21"X21"	1	7	7								
35	CTH R, PLACE 500' W. OF CTH NN INTERSECTION	MO 4-8	24"X12"	1	7	7								
	"	M 3-4	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
	"	MO 5-1R	21"X21"	1	7	7								
36	CTH R, PLACE 250' W. OF CTH NN INTERSECTION	MO 4-8	24"X12"	1	7	7								
	"	M 3-2	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
37	CTH R, AT CTH NN INTERSECTION, PLACE TO RIGHT OF EXISTING J13-1 SIGN	MO 4-8	24"X12"	1	7	7								
	"	M 3-4	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
	"	MO 6-1	21"X21"	1	7	7								RIGHT
38	CTH R, AT CTH NN INTERSECTION, PLACE ACROSS ROADWAY FROM CTH NN OPENING	MO 4-8	24"X12"	1	7	7								
	"	M 3-2	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
	"	MO 6-1	21"X21"	1	7	7								LEFT
39	CTH R, AT CTH NN INTERSECTION, PLACE NEXT TO SIGN #38	M 4-5	24"X12"	1	7	7								
	"	M 1-1	24"X24"	1	7	7								43
	"	MO 6-1	21"X21"	1	7	7								LEFT
40	CTH NN, S. OF CTH R INTERSECTION, 150' S. OF INTERSECTION	MO 4-8	24"X12"	1	7	7								
	"	M 3-4	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
41	CTH NN, S. OF CTH R INTERSECTION, 250' S. OF INTERSECTION	MO 4-8	24"X12"	1	7	7								
	"	M 3-2	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
	"	MO 5-1L	21"X21"	1	7	7								
42	CTH NN, 100' N. OF LANGES CORNER RD	MO 4-8	24"X12"	1	7	7								
	"	M 3-2	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
43	CTH NN, 100' S. OF LANGES CORNER RD	MO 4-8	24"X12"	1	7	7								
	"	M 3-4	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
44	CTH NN, PLACE RIGHT OF EXISTING J13-2 SIGN AT CTH X INTERSECTION	MO 4-8	24"X12"	1	7	7								
	"	M 3-4	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
	"	MO 6-1	21"X21"	1	7	7								AHEAD
	PAGE SUBTOTALS			43		301	0	0	0	0		0	0	

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 7 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
45	CTH NN, PLACE RIGHT OF EXISTING R1-1 SIGN AT CTH X INTERSECTION	MO 4-8	24"X12"	1	7	7								
	"	M 3-2	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
	"	MO 6-1	21"X21"	1	7	7								AHEAD
46	CTH NN, BETWEEN CTH X AND STH 96, MODIFY EXISTING J1-1 AS SHOWN	M 4-8A	24"X18"	1	7	7								
47	CTH NN, AT STH 96 INTERSECTION, MODIFY EXISTING J13-2 AS SHOWN	MO 6-1	21"X21"	1	7	7								RIGHT
48	CTH NN, PLACE 100' N. OF STH 96 INTERSECTION	MO 4-8	24"X12"	1	7	7								
	"	M 3-2	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								
49	STH 96, AT CTH NN INTERSECTION, PLACE ON RIGHT SHOULDER FACING WEST	R 11-3	60"X30"	1	7	7	7	14						2.1 MILES AHEAD
	"	MO 4-9L	30"X24"	1	7	7								
50	CTH NN, AT STH 96 INTERSECTION, MODIFY EXISTING J13-2 AS SHOWN	MO 6-6	21"X21"	1	7	7								
51	STH 96, AT CTH NN INTERSECTION, PLACE RIGHT OF EXISTING J13-1 SIGN	MO 4-8	24"X12"	1	7	7								
	"	M 3-2	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
	"	MO 6-1	21"X21"	1	7	7								LEFT
52	STH 96, AT CTH NN INTERSECTION, PLACE TO RIGHT OF SIGN #51	M 4-5	24"X12"	1	7	7								
	"	M 1-1	24"X24"	1	7	7								43
	"	M 6-1	21"X21"	1	7	7								LEFT
53	STH 96, W. OF CTH NN INTERSECTION, PLACE 500' W. OF INTERSECTION	MO 4-8	24"X12"	1	7	7								
	"	M 3-2	24"X12"	1	7	7								
	"	M 1-6	24"X24"	1	7	7								96
	"	MO 5-1L	21"X21"	1	7	7								
54	STH 96, W. OF CTH NN INTERSECTION, PLACE 1500' W. OF INTERSECTION	WO 20-2A	48"X48"	1	7	7								
55	STH 96, JUST W. OF KVITEK RD ON RIGHT SHOULDER, FIELD VERIFY	PCMS								7				
56	STH 96, PLACE JUST W. OF I-43 SB OFF-RAMP, FIELD VERIFY	PCMS								7				
	PAGE SUBTOTALS			24		168	7	14	0	14		0	0	
	PROJECT TOTALS			**159**		**1,099**	**7**	**14**	**99**	**14**		**2**	**4**	

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 56 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
1	I-43, S. OF CTH MM, COVER EXISTING TYPE I SIGN AS SHOWN										1	1		COVER AS SHOWN
2	I-43, AT DIVERGE TAPER POINT, COVER EXISTING TYPE I SIGN AS SHOWN										1	1		COVER AS SHOWN
3	I-43 OFF-RAMP TO CTH MM, COVER EXISTING TYPE II SIGN AS SHOWN										1		1	COVER AS SHOWN
4	I-43 OFF-RAMP TO CTH MM, COVER EXISTING TYPE II SIGN AS SHOWN										1		1	COVER "JCT MM LT"
5	CTH MM, S. OF I-43 SB RAMP TERMINI, COVER EXISTING TYPE II SIGN AS SHOWN										1		1	COVER ENTIRE SIGN
6	CTH MM, S. OF I-43 SB RAMP TERMINI, COVER EXISTING TYPE II SIGN AS SHOWN										1		1	COVER "KEWAUNEE-GREEN BAY"
7	CTH R, S. OF US 141, COVER EXISTING TYPE II SIGN AS SHOWN										1		1	COVER "DEPERE"
8	CTH MM, S. OF CEDAR HEDGE LN, COVER EXISTING TYPE II SIGN AS SHOWN										1		1	COVER "SOUTH 43 LT - WEST MM AH"
9	CTH MM, S. OF CEDAR HEDGE LN, COVER EXISTING TYPE II SIGN AS SHOWN										1		1	COVER "DEPERE-MILWAUKEE"
10	I-43, N. OF GLENMORE RD OVERPASS, COVER EXISTING TYPE I SIGN AS SHOWN										1	1		COVER AS SHOWN
11	I-43, S. OF GLENMORE RD, COVER EXISTING TYPE I SIGN AS SHOWN										1	1		COVER AS SHOWN
12	I-43 OFF-RAMP TO CTH MM, COVER EXISTING TYPE II SIGN AS SHOWN										1		1	COVER "DEPERE"
13	I-43 OFF-RAMP TO CTH MM, COVER EXISTING TYPE II SIGN AS SHOWN										1		1	COVER "TO 141 LT-TO 29 LT"
14	CTH R, AT CTH MM INTERSECTION, MODIFY AND COVER AS SHOWN	M 4-5	24"X12"	1	56	56					1		1	COVER "WEST MM LT"
	"	M 3-1	24"X12"	1	56	56								
14A	CTH R, AT CTH MM INTERSECTION, PLACE RIGHT OF EXISTING J3-2 SIGN	M 4-5	24"X12"	1	56	56								
	"	M 3-3	24"X12"	1	56	56								
	"	M 1-1	24"X24"	1	56	56								43
	"	MO 6-1	21"X21"	1	56	56								AHEAD
15	CTH MM, PLACE ON SHOULDER IN SW QUADRANT OF INTERSECTION	R 11-3	60"X30"	1	56	56	56	112						1/4 MILE AHEAD
16	US 141, AT CTH MM INTERSECTION, MODIFY TYPE II SIGN AS SHOWN	M 4-5	24"X12"	1	56	56								
	"	M 3-1	24"X12"	1	56	56								
17	US 141, N. OF CTH MM INTERSECTION, COVER EXISTING TYPE II AS SHOWN										1		1	COVER "MILWAUKEE-DEPERE"
18	US 141, N. OF CTH MM INTERSECTION, MODIFY TYPE II AS SHOWN	M 4-5	24"X12"	1	56	56								
	"	M 3-1	24"X12"	1	56	56								
19	US 141, S. OF STH 29 INTERSECTION, COVER EXISTING TYPE II AS SHOWN										1		1	COVER "JCT MM"
19A	US 141, PLACE 400' S. OF STH 29 INTERSECTION	M 4-5	24"X12"	1	56	56								
	"	M 3-3	24"X12"	1	56	56								
	"	M 1-1	24"X24"	1	56	56								43
	"	MO 6-1	21"X21"	1	56	56								AHEAD
20	US 141, AT STH 29 INTERSECTION, MODIFY AND COVER AS SHOWN	M 4-5	24"X12"	1	56	56					1		1	COVER "TO MM LT"
	"	M 3-1	24"X12"	1	56	56								
21	STH 29, W. OF MANITOWOC RD, MODIFY TYPE II AS SHOWN	M 4-5	24"X12"	1	56	56								
	"	M 3-1	24"X12"	1	56	56								
22	STH 29, W. OF MANITOWOC RD, PLACE RIGHT OF J3-3 SIGN	M 4-5	24"X12"	1	56	56								
	"	M 3-3	24"X12"	1	56	56								
	"	M 1-1	24"X24"	1	56	56								43
	"	MO 5-1R	21"X21"	1	56	56								
23	STH 29, W. OF MANITOWOC RD, COVER EXISTING TYPE II AS SHOWN										1		1	COVER "MANITOWOC"
24	STH 29, AT US 141 INTERSECTION, PLACE TO RIGHT OF EXISTING J3-2 SIGN	M 4-5	24"X12"	1	56	56								
	"	M 3-3	24"X12"	1	56	56								
	"	M 1-1	24"X24"	1	56	56								43
	"	MO 6-1	21"X21"	1	56	56								RIGHT
25	US 141/STH 29, W. OF STH 29 INTERSECTION, PLACE TO RIGHT OF EXISTING J4-2 SIGN	M 4-5	24"X12"	1	56	56								
	"	M 3-3	24"X12"	1	56	56								
	"	M 1-1	24"X24"	1	56	56								43
	"	MO 6-1	21"X21"	1	56	56								AHEAD
	PAGE SUBTOTALS			31		1,736	56	112	0	0		4	14	

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 56 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
26	US 141/STH 29, E. OF ALLOUEZ AVE RAB, PLACE TO LEFT OF EXISTING D1-62 SIGN	M 4-5	24"X12"	1	56	56								
	"	M 3-3	24"X12"	1	56	56								
	"	M 1-1	24"X24"	1	56	56								43
	"	MO 6-1	21"X21"	1	56	56								AHEAD
27	US 141/STH 29, E. OF CTH JJ RAB, PLACE IMMEDIATELY IN FRONT OF S-05-106 COLUMN	M 4-5	24"X12"	1	56	56								
	"	M 3-3	24"X12"	1	56	56								
	"	M 1-1	24"X24"	1	56	56								43
	"	MO 6-1	21"X21"	1	56	56								RIGHT
28	I-43, N. OF STH 172 EB ON-RAMP, PLACE IN FRONT OF S-05-144 RIGHT COLUMN	M 4-5	36"X18"	1	56	56								
	"	M 3-1	36"X18"	1	56	56								
	"	M 1-4	36"X36"	1	56	56								141
	"	MO 6-1	30"X30"	1	56	56								AHEAD
	"	M 4-5	36"X18"	1	56	56								
	"	M 3-2	36"X18"	1	56	56								
	"	M 1-6	36"X36"	1	56	56								29
	"	MO 6-1	30"X30"	1	56	56								AHEAD
29	I-43, N. OF RxR BRIDGE, PLACE IN MEDIAN ACROSS FROM EXISTING TYPE I SIGN	M 4-5	36"X18"	1	56	56								
	"	M 3-1	36"X18"	1	56	56								
	"	M 1-4	36"X36"	1	56	56								141
	"	MO 5-2R	30"X30"	1	56	56								
	"	M 4-5	36"X18"	1	56	56								
	"	M 3-2	36"X18"	1	56	56								
	"	M 1-6	36"X36"	1	56	56								29
	"	MO 5-2R	30"X30"	1	56	56								
30	I-43, N. OF RxR BRIDGE, PLACE TO LEFT OF EXISTING TYPE I SIGN	M 4-5	36"X18"	1	56	56								
	"	M 3-1	36"X18"	1	56	56								
	"	M 1-4	36"X36"	1	56	56								141
	"	MO 5-2R	30"X30"	1	56	56								
	"	M 4-5	36"X18"	1	56	56								
	"	M 3-2	36"X18"	1	56	56								
	"	M 1-6	36"X36"	1	56	56								29
	"	MO 5-2R	30"X30"	1	56	56								
31	I-43, AT CTH JJ OFF-RAMP, PLACE IN FRONT OF S-05-101 CANTILEVER COLUMN	M 4-5	36"X18"	1	56	56								
	"	M 3-1	36"X18"	1	56	56								
	"	M 1-4	36"X36"	1	56	56								141
	"	MO 6-2	30"X30"	1	56	56								TILT RIGHT
	"	M 4-5	36"X18"	1	56	56								
	"	M 3-2	36"X18"	1	56	56								
	"	M 1-6	36"X36"	1	56	56								29
	"	MO 6-2	30"X30"	1	56	56								TILT RIGHT
32	I-43, AT CTH JJ OFF-RAMP, PLACE IN MEDIAN ACROSS FROM S-05-101 CANTILEVER STRUCTURE	M 4-5	36"X18"	1	56	56								
	"	M 3-1	36"X18"	1	56	56								
	"	M 1-4	36"X36"	1	56	56								141
	"	MO 6-2	30"X30"	1	56	56								TILT RIGHT
	"	M 4-5	36"X18"	1	56	56								
	"	M 3-2	36"X18"	1	56	56								
	"	M 1-6	36"X36"	1	56	56								29
	"	MO 6-2	30"X30"	1	56	56								TILT RIGHT
	PAGE SUBTOTALS			48		2,688	0	0	0	0		0	0	

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 56 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
33	I-43 OFF-RAMP TO CTH JJ, PLACE 750' PRIOR TO RAMP TERMINI INTERSECTION	M 4-5	24"X12"	1	56	56								
	"	M 3-1	24"X12"	1	56	56								
	"	M 1-4	24"X24"	1	56	56								141
	"	MO 5-1R	21"X21"	1	56	56								
	"	M 4-5	24"X12"	1	56	56								
	"	M 3-2	24"X12"	1	56	56								
	"	M 1-6	24"X24"	1	56	56								29
	"	MO 5-1R	21"X21"	1	56	56								
34	I-43 OFF-RAMP TO CTH JJ, PLACE TO RIGHT OF EXISTING J13-1 SIGN PRIOR TO RIGHT TURN LANE	M 4-5	24"X12"	1	56	56								
	"	M 3-1	24"X12"	1	56	56								
	"	M 1-4	24"X24"	1	56	56								141
	"	MO 6-1	21"X21"	1	56	56								RIGHT
	"	M 4-5	24"X12"	1	56	56								
	"	M 3-2	24"X12"	1	56	56								
	"	M 1-6	24"X24"	1	56	56								29
	"	MO 6-1	21"X21"	1	56	56								RIGHT
35	CTH JJ, W. OF I-43, PLACE IN MEDIAN 300' PRIOR TO I-43 SB RAMP	M 4-5	24"X12"	1	56	56								
	"	M 3-1	24"X12"	1	56	56								
	"	M 1-4	24"X24"	1	56	56								141
	"	MO 6-1	21"X21"	1	56	56								AHEAD
	"	M 4-5	24"X12"	1	56	56								
	"	M 3-2	24"X12"	1	56	56								
	"	M 1-6	24"X24"	1	56	56								29
	"	MO 6-1	21"X21"	1	56	56								AHEAD
36	I-43, N. OF GREENBRIER RD OVERPASS, PLACE 700' PRIOR TO GREENBRIER STRUCTURE	M 4-5	36"X18"	1	56	56								
	"	M 3-1	36"X18"	1	56	56								
	"	M 1-4	36"X36"	1	56	56								141
	"	MO 5-2R	30"X30"	1	56	56								
	"	M 4-5	36"X18"	1	56	56								
	"	M 3-2	36"X18"	1	56	56								
	"	M 1-6	36"X36"	1	56	56								29
	"	MO 5-2R	30"X30"	1	56	56								
37	I-43, N. OF GREENBRIER RD OVERPASS, PLACE IN MEDIAN 700' PRIOR TO GREENBRIER STRUCTURE	M 4-5	36"X18"	1	56	56								
	"	M 3-1	36"X18"	1	56	56								
	"	M 1-4	36"X36"	1	56	56								141
	"	MO 5-2R	30"X30"	1	56	56								
	"	M 4-5	36"X18"	1	56	56								
	"	M 3-2	36"X18"	1	56	56								
	"	M 1-6	36"X36"	1	56	56								29
	"	MO 5-2R	30"X30"	1	56	56								
37A	I-43, N. OF GREENBRIER RD OVERPASS, PLACE 200' PRIOR TO GREENBRIER STRUCTURE	FMS	120"X72"						60					SEE FIXED MESSAGE SIGN DETAIL
37B	I-43, N. OF GREENBRIER RD OVERPASS, PLACE 200' PRIOR TO GREENBRIER STRUCTURE IN MEDIAN	FMS	120"X72"						60					SEE FIXED MESSAGE SIGN DETAIL
38	I-43, S. OF GREENBRIER RD OVERPASS, PLACE 150' N. OF EXISTING TYPE I SIGN	M 4-5	36"X18"	1	56	56								
	"	M 3-1	36"X18"	1	56	56								
	"	M 1-4	36"X36"	1	56	56								141
	"	MO 6-2	30"X30"	1	56	56								TILT RIGHT
	"	M 4-5	36"X18"	1	56	56								
	"	M 3-2	36"X18"	1	56	56								
	"	M 1-6	36"X36"	1	56	56								29
	"	MO 6-2	30"X30"	1	56	56								TILT RIGHT
39	I-43, S. OF GREENBRIER RD OVERPASS, PLACE IN MEDIAN 150' N. OF EXISTING TYPE I SIGN	M 4-5	36"X18"	1	56	56								
	"	M 3-1	36"X18"	1	56	56								
	"	M 1-4	36"X36"	1	56	56								141
	"	MO 6-2	30"X30"	1	56	56								TILT RIGHT
	"	M 4-5	36"X18"	1	56	56								
	"	M 3-2	36"X18"	1	56	56								
	"	M 1-6	36"X36"	1	56	56								29
	"	MO 6-2	30"X30"	1	56	56								TILT RIGHT
	PAGE SUBTOTALS			56		3,136	0	0	120	0		0	0	

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 56 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
40	STH 172, W. OF CTH V/LIME KILN RD, PLACE 1000' W. OF CTH V IN MEDIAN	M 4-5	36"X18"	1	56	56								
	"	M 3-1	36"X18"	1	56	56								
	"	M 1-4	36"X36"	1	56	56								141
	"	MO 5-2L	30"X30"	1	56	56								
	"	M 4-5	36"X18"	1	56	56								
	"	M 3-2	36"X18"	1	56	56								
	"	M 1-6	36"X36"	1	56	56								29
	"	MO 5-2L	30"X30"	1	56	56								
41	STH 172, W. OF CTH V/LIME KILN RD, PLACE 1000' W. OF CTH V ON RIGHT SIDE	M 4-5	36"X18"	1	56	56								
	"	M 3-1	36"X18"	1	56	56								
	"	M 1-4	36"X36"	1	56	56								141
	"	MO 5-2L	30"X30"	1	56	56								
	"	M 4-5	36"X18"	1	56	56								
	"	M 3-2	36"X18"	1	56	56								
	"	M 1-6	36"X36"	1	56	56								29
	"	MO 5-2L	30"X30"	1	56	56								
41A	STH 172, W. OF CTH V/LIME KILN RD, PLACE 250' W. OF CTH V ON RIGHT SIDE	FMS	132"X72"						66					SEE FIXED MESSAGE SIGN DETAIL
41B	STH 172, W. OF CTH V/LIME KILN RD, PLACE 250' W. OF CTH V IN MEDIAN	FMS	132"X72"						66					SEE FIXED MESSAGE SIGN DETAIL
42	STH 172, E. OF CTH V/LIME KILN RD, PLACE 400' PRIOR TO S-05-40 SIGN BRIDGE ON RIGHT SIDE	M 4-5	36"X18"	1	56	56								
	"	M 3-1	36"X18"	1	56	56								
	"	M 1-4	36"X36"	1	56	56								141
	"	MO 6-2	30"X30"	1	56	56								TILT LEFT
	"	M 4-5	36"X18"	1	56	56								
	"	M 3-2	36"X18"	1	56	56								
	"	M 1-6	36"X36"	1	56	56								29
	"	MO 6-2	30"X30"	1	56	56								TILT LEFT
43	STH 172, AT I-43 NB/SB SPLIT, ON S-05-40 STRUCTURE, COVER TYPE I SIGN AS SHOWN										1	1		COVER "TO EAST 29"
44	STH 172, E. OF CTH V/LIME KILN RD, PLACE 400' PRIOR TO S-05-40 SIGN BRIDGE IN MEDIAN	M 4-5	36"X18"	1	56	56								
	"	M 3-1	36"X18"	1	56	56								
	"	M 1-4	36"X36"	1	56	56								141
	"	MO 6-2	30"X30"	1	56	56								TILT LEFT
	"	M 4-5	36"X18"	1	56	56								
	"	M 3-2	36"X18"	1	56	56								
	"	M 1-6	36"X36"	1	56	56								29
	"	MO 6-2	30"X30"	1	56	56								TILT LEFT
45	CTH MM, PLACE IN MEDIAN, 300' N. OF I-43 NB RAMP INTERSECTION	PCMS								7				
46	CTH MM, PLACE ON RIGHT SHOULDER, 275' S. OF I-43 SB RAMP INTERSECTION	PCMS								7				
	PAGE SUBTOTALS			32		1,792	0	0	132	14		1	0	
	PROJECT TOTALS			**167**		**9,352**	**56**	**112**	**252**	**14**		**5**	**14**	

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 6 DAYS	643.3000 DETOUR SIGNS DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
1	I-43, S. OF CTH MM, COVER/MODIFY EXISTING TYPE I SIGN AS SHOWN	G20-60	108"X24"	1	6		18		1	1		COVER AS SHOWN
2	I-43, AT DIVERGE TAPER POINT, COVER/MODIFY EXISTING TYPE I SIGN AS SHOWN	G20-60	108"X24"	1	6		18		1	1		COVER AS SHOWN
3	I-43 OFF-RAMP TO CTH MM, COVER EXISTING TYPE II SIGN AS SHOWN								1		1	COVER ENTIRE SIGN
4	I-43 OFF-RAMP TO CTH MM, COVER EXISTING TYPE II SIGN AS SHOWN								1		1	COVER ENTIRE SIGN
5	US 141, N. OF I-43 NB RAMP INTERSECTION, PLACE IN MEDIAN FOR NB TRAFFIC	PCMS						3				PLACE 3 DAYS PRIOR TO MAINLINE CLOSURE
6	US 141, N. OF I-43 NB RAMP INTERSECTION, PLACE IN MEDIAN FOR SB TRAFFIC	PCMS						3				PLACE 3 DAYS PRIOR TO MAINLINE CLOSURE
7	VACANT											
8	CTH MM, S. OF CEDAR HEDGE LN, COVER EXISTING TYPE II SIGN AS SHOWN								1		1	COVER ENTIRE SIGN
9	CTH MM, S. OF CEDAR HEDGE LN, COVER EXISTING TYPE II SIGN AS SHOWN								1		1	COVER ENTIRE SIGN
10	I-43, PLACE 1200' S. OF GLENMORE RD UNDERPASS	M 4-5	36"X18"	1	6	6						
	"	M 1-4	36"X36"	1	6	6						141
	"	MD 6-1	30"X30"	1	6	6						AHEAD
	"	M 4-5	36"X18"	1	6	6						
	"	M 1-6	36"X36"	1	6	6						29
	"	MD 6-1	30"X30"	1	6	6						AHEAD
11	CTH R, AT US 141 INTERSECTION, MODIFY EXISTING TYPE II SIGN AS SHOWN	MD 6-1	21"X21"	1	6	6						AHEAD
12	US 141, AT CTH R INTERSECTION, MODIFY EXISTING TYPE III BARRICADE SIGN AS SHOWN	R 11-3	60"X30"	1	6	6						0.1 MILES AHEAD
13	US 141, W. OF CTH R INTERSECTION, COVER EXISTING TYPE II SIGN AS SHOWN								1		1	COVER ENTIRE SIGN
14	VACANT											
15	US 141, E. OF STH 29 INTERSECTION, COVER EXISTING TYPE II SIGN AS SHOWN								1		1	COVER ENTIRE SIGN
16	VACANT											
17	US 141, E. OF STH 29 INTERSECTION, PLACE LEFT OF EXISTING D1-3 DIRECTIONAL SIGN	M 4-5	24"X12"	1	6	6						
	"	M 3-1	24"X12"	1	6	6						
	"	M 1-1	24"X24"	1	6	6						43
	"	MD 6-1	21"X21"	1	6	6						AHEAD
18	US 141, AT STH 29 INTERSECTION, MODIFY EXISTING TYPE II SIGN AS SHOWN	MD 6-1	21"X21"	1	6	6						RIGHT
19	STH 29, W. OF MANITOWOC RD, MODIFY EXISTING TYPE II SIGN AS SHOWN	MD 5-1R	21"X21"	1	6	6						
20	VACANT											
21	STH 29, AT US 141 INTERSECTION, PLACE TO RIGHT OF EXISTING J3-2 SIGN	M 4-5	24"X12"	1	6	6						
	"	M 3-1	24"X12"	1	6	6						
	I-43, AT STH 172 EXIT RAMP DIVERGE POINT, PLACE 500' PRIOR TO RAM	M 1-1	24"X24"	1	6	6						43
	"	MD 6-1	21"X21"	1	6	6						RIGHT
22	US 141/STH 29, W. OF STH 29 INTERSECTION, PLACE TO RIGHT OF EXISTING J4-2 SIGN	M 4-5	24"X12"	1	6	6						
	"	M 3-1	24"X12"	1	6	6						
	"	M 1-1	24"X24"	1	6	6						43
	"	MD 6-1	21"X21"	1	6	6						AHEAD
23	VACANT											
24	I-43, AT STH 172 EXIT RAMP DIVERGE POINT, PLACE 500' PRIOR TO RAMP IN MEDIAN	M 4-5	36"X18"	1	6	6						
	"	M 1-4	36"X36"	1	6	6						141
	"	MD 6-1	30"X30"	1	6	6						AHEAD
	"	M 4-5	36"X18"	1	6	6						
	"	M 1-6	36"X36"	1	6	6						29
	"	MD 6-1	30"X30"	1	6	6						AHEAD
25	I-43, AT STH 172 EXIT RAMP DIVERGE POINT, PLACE 500' PRIOR TO RAMP ON RIGHT	M 4-5	36"X18"	1	6	6						
	"	M 1-4	36"X36"	1	6	6						141
	"	MD 6-1	30"X30"	1	6	6						AHEAD
	"	M 4-5	36"X18"	1	6	6						
	"	M 1-6	36"X36"	1	6	6						29
	"	MD 6-1	30"X30"	1	6	6						AHEAD
	PAGE SUBTOTALS			36		204	36	6		2	6	

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 6 DAYS	643.3000 DETOUR SIGNS DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
26	US 141/STH 29, E. OF ALLOUEZ AVE RAB, PLACE TO LEFT OF EXISTING D1-62 SIGN	M 4-5	24"X12"	1	6	6						
	"	M 3-1	24"X12"	1	6	6						
	"	M 1-1	24"X24"	1	6	6						43
	"	MO 6-1	21"X21"	1	6	6						AHEAD
27	US 141/STH 29, E. OF CTH JJ RAB, PLACE IMMEDIATELY IN FRONT OF S-05-106 COLUMN	M 4-5	24"X12"	1	6	6						
	"	M 3-1	24"X12"	1	6	6						
	"	M 1-1	24"X24"	1	6	6						43
	"	MO 6-1	21"X21"	1	6	6						RIGHT
28	US 141/STH 29, E. OF CTH JJ RAB, PLACE 100' E. OF OF RAB	M 4-5	36"X18"	1	6	6						
	"	M 3-1	36"X18"	1	6	6						
	"	M 1-1	36"X36"	1	6	6						43
	"	MO 6-1	30"X30"	1	6	6						RIGHT
29	I-43, N. OF ALLOUEZ AVE, PLACE 200' N. OF S-05-144 SIGN BRIDGE	M 4-5	36"X18"	1	6	6						
	"	M 1-4	36"X36"	1	6	6						141
	"	MO 6-1	30"X30"	1	6	6						AHEAD
	"	M 4-5	36"X18"	1	6	6						
	"	M 1-6	36"X36"	1	6	6						29
	"	MO 6-1	30"X30"	1	6	6						AHEAD
30	I-43, N. OF RXR BRIDGE, PLACE 250' N. OF RXR BRIDGE IN MEDIAN	M 4-5	36"X18"	1	6	6						
	"	M 1-4	36"X36"	1	6	6						141
	"	MO 5-2R	30"X30"	1	6	6						
	"	M 4-5	36"X18"	1	6	6						
	"	M 1-6	36"X36"	1	6	6						29
	"	MO 5-2R	30"X30"	1	6	6						
31	I-43, N. OF RXR BRIDGE, PLACE 250' N. OF RXR BRIDGE ON RIGHT SHOULDER	M 4-5	36"X18"	1	6	6						
	"	M 1-4	36"X36"	1	6	6						141
	"	MO 5-2R	30"X30"	1	6	6						
	"	M 4-5	36"X18"	1	6	6						
	"	M 1-6	36"X36"	1	6	6						29
	"	MO 5-2R	30"X30"	1	6	6						
32	I-43, S. OF CTH JJ, PLACE 150' S. OF S-05-101 SIGN CANTILEVER IN MEDIAN	M 4-5	36"X18"	1	6	6						
	"	M 1-4	36"X18"	1	6	6						141
	"	MO 6-2	36"X36"	1	6	6						TILT RIGHT
	"	M 4-5	30"X30"	1	6	6						
	"	M 1-6	36"X18"	1	6	6						29
	"	MO 6-2	36"X18"	1	6	6						TILT RIGHT
33	I-43, S. OF CTH JJ, PLACE 150' S. OF S-05-101 SIGN CANTILEVER ON RIGHT SHOULDER	M 4-5	36"X18"	1	6	6						
	"	M 1-4	36"X36"	1	6	6						141
	"	MO 6-2	30"X30"	1	6	6						TILT RIGHT
	"	M 4-5	36"X18"	1	6	6						
	"	M 1-6	36"X36"	1	6	6						29
	"	MO 6-2	30"X30"	1	6	6						TILT RIGHT
	PAGE SUBTOTALS			42		252	0	0		0	0	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 6 DAYS	643.3000 DETOUR SIGNS DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
34	I-43 OFF-RAMP TO CTH JJ, PLACE 300' PRIOR TO RAMP TERMINI INTERSECTION	M 4-5	24"X12"	1	6	6						
	"	M 1-4	24"X24"	1	6	6						141
	"	MO 6-1	21"X21"	1	6	6						RIGHT
	"	M 4-5	24"X12"	1	6	6						
	"	M 1-6	24"X24"	1	6	6						29
	"	MO 6-1	21"X21"	1	6	6						RIGHT
35	CTH JJ, W. OF I-43, PLACE 400' E. OF I-43 SB RAMP TERMINI INTERSECTION IN MEDIAN	M 4-5	24"X12"	1	6	6						
	"	M 1-4	24"X24"	1	6	6						141
	"	MO 6-1	21"X21"	1	6	6						AHEAD
	"	M 4-5	24"X12"	1	6	6						
	"	M 1-6	24"X24"	1	6	6						29
	"	MO 6-1	21"X21'	1	6	6						AHEAD
	PAGE SUBTOTALS			12		72	0	0		0	0	
	PROJECT TOTALS			**90**		**528**	**36**	**6**		**2**	**6**	

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

PAVEMENT MARKING SUMMARY

CATEGORY	STATION TO STATION	LOCATION	**646.0106 PAVEMENT MARKING EPOXY 4-INCH EDGELINE (WHITE) SOLID LF	4-INCH EDGELINE (YELLOW) SOLID LF	4-INCH CENTERLINE (DOUBLE YELLOW) SOLID LF	4-INCH CENTERLINE (YELLOW) SOLID LF	646.0126 PAVEMENT MARKING EPOXY 8-INCH CHANNELIZING (WHITE) SOLID LF	646.0881.S PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH 12.5' LINE, 37.5' GAP LF	3' LINE, 9' GAP LF	646.0883.S PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING LF	647.0456 PAVEMENT MARKING CURB EPOXY (YELLOW) LF
	IH 43 NORTHBOUND										
0010	2762+29.80 NB - 2791+35.00 NB	IH 43 NB	2,905	2,905				727	48	710	
0010	2791+35.00 NB - 2797+21.00 NB	IH 43 NB	586	586				147			
0010	2797+21.00 NB - 2803+18.00 NB	IH 43 NB	597	597				150		1,194	
0010	2803+18.00 NB - 3150+15.00 NB	IH 43 NB	34,697	34,697				8,675			
0010	3150+15.00 NB - 3152+06.00 NB	IH 43 NB	191	191				48	48		
0010	3152+06.00 NB - 3155+34.00 NB	IH 43 NB	328	328				82		656	
0010	3155+34.00 NB - 3175+58.00 NB	IH 43 NB	2,024	2,024				506			
0010	3175+58.00 NB - 3181+66.00 NB	IH 43 NB	608	608				152		1,216	
0010	3181+66.00 NB - 3276+13.00 NB	IH 43 NB	9,447	9,447				2,362			
0010	3276+13.00 NB - 3278+00.00 NB	IH 43 NB	187	187				47	47		
0010	3278+00.00 NB - 3281+26.00 NB	IH 43 NB	326	326				82		652	
0010	3281+26.00 NB - 3293+28.00 NB	IH 43 NB	1,202	1,202				301			
0010	3293+28.00 NB - 3321+50.00 NB	IH 43 NB	2,822	2,822				706			
	NORTHBOUND SUBTOTALS		55,920	55,920				13,985	143	4,428	
	NORTHBOUND TOTALS		**111,900**				**0**	**14,130**		**4,430**	**0**
	IH 43 SOUTHBOUND										
0010	2762+29.80 SB - 2791+70.00 SB	IH 43 SB	2,940	2,940				736		1,166	
0010	2791+70.00 SB - 2800+49.00 SB	IH 43 SB	879	879				220			
0010	2800+49.00 SB - 2803+61.00 SB	IH 43 SB	312	312				78		624	
0010	2803+61.00 SB - 2805+31.00 SB	IH 43 SB	170	170				43	43		
0010	2805+31.00 SB - 2822+75.47 SB BK	IH 43 SB	1,744	1,744				437			
0010	2822+84.18 SB - 2946+98.09 SB BK	IH 43 SB	12,414	12,414				3,104			
0010	2947+02.70 SB - 3042+78.03 SB BK	IH 43 SB	9,575	9,575				2,394			
0010	3042+74.77 SB - 3147+97.00 SB	IH 43 SB	10,522	10,522				2,631			
0010	3147+97.00 SB - 3148+84.42 SB BK	IH 43 SB	87	87				22		175	
0010	3149+33.95 SB - 3154+35.00 SB	IH 43 SB	501	501				126		1,002	
0010	3154+35.00 SB - 3177+56.00 SB	IH 43 SB	2,321	2,321				581			
0010	3177+56.00 SB - 3180+50.00 SB	IH 43 SB	294	294				74		588	
0010	3180+50.00 SB - 3182+34.00 SB	IH 43 SB	184	184				46	46		
0010	3182+34.00 SB - 3210+23.95 SB BK	IH 43 SB	2,790	2,790				698			
0010	3210+14.08 SB - 3264+34.63 SB BK	IH 43 SB	5,421	5,421				1,356			
0010	3264+41.34 SB - 3281+46.00 SB	IH 43 SB	1,705	1,705				427			
0010	3281+46.00 SB - 3288+35.00 SB	IH 43 SB	689	689				173		1,378	
0010	3288+35.00 SB - 3322+77.90 SB	IH 43 SB	3,443	3,443				861			
	SOUTHBOUND SUBTOTALS		55,992	55,992				14,007	89	4,933	
	SOUTHBOUND TOTALS		**112,000**				**0**	**14,100**		**4,940**	**0**

PAVEMENT MARKING SUMMARY - (CONTINUED)

CATEGORY	STATION	TO	STATION	LOCATION	647.0803 PAVEMENT MARKING AERIAL ENFORCEMENT BARS EPOXY 24-INCH (WHITE) LF	REMARKS
	IH 43 NORTHBOUND					
0010	2762+29.80 NB	-	2791+35.00 NB	IH 43 NB	--	
0010	2791+35.00 NB	-	2797+21.00 NB	IH 43 NB	--	
0010	2797+21.00 NB	-	2803+18.00 NB	IH 43 NB	--	MAINLINE AND RAMP LANE
0010	2803+18.00 NB	-	3150+15.00 NB	IH 43 NB	60	
0010	3150+15.00 NB	-	3152+06.00 NB	IH 43 NB	--	
0010	3152+06.00 NB	-	3155+34.00 NB	IH 43 NB	--	MAINLINE AND RAMP LANE
0010	3155+34.00 NB	-	3175+58.00 NB	IH 43 NB	--	
0010	3175+58.00 NB	-	3181+66.00 NB	IH 43 NB	--	
0010	3181+66.00 NB	-	3276+13.00 NB	IH 43 NB	--	
0010	3276+13.00 NB	-	3278+00.00 NB	IH 43 NB	--	
0010	3278+00.00 NB	-	3281+26.00 NB	IH 43 NB	--	MAINLINE AND RAMP LANE
0010	3281+26.00 NB	-	3293+28.00 NB	IH 43 NB	--	
0010	3293+28.00 NB	-	3321+50.00 NB	IH 43 NB	--	
				NORTHBOUND SUBTOTALS	60	
				NORTHBOUND TOTALS	**60**	
	IH 43 SOUTHBOUND					
0010	2762+29.80 SB	-	2791+70.00 SB	IH 43 SB	--	
0010	2791+70.00 SB	-	2800+49.00 SB	IH 43 SB	--	
0010	2800+49.00 SB	-	2803+61.00 SB	IH 43 SB	--	MAINLINE AND RAMP LANE
0010	2803+61.00 SB	-	2805+31.00 SB	IH 43 SB	--	
0010	2805+31.00 SB	-	2822+75.47 SB BK	IH 43 SB	--	
0010	2822+84.18 SB	-	2946+98.09 SB BK	IH 43 SB	60	
0010	2947+02.70 SB	-	3042+78.03 SB BK	IH 43 SB	60	
0010	3042+74.77 SB	-	3147+97.00 SB	IH 43 SB	--	
0010	3147+97.00 SB	-	3148+84.42 SB BK	IH 43 SB	--	MAINLINE AND RAMP LANE
0010	3149+33.95 SB	-	3154+35.00 SB	IH 43 SB	--	MAINLINE AND RAMP LANE
0010	3154+35.00 SB	-	3177+56.00 SB	IH 43 SB	--	
0010	3177+56.00 SB	-	3180+50.00 SB	IH 43 SB	--	MAINLINE AND RAMP LANE
0010	3180+50.00 SB	-	3182+34.00 SB	IH 43 SB	--	
0010	3182+34.00 SB	-	3210+23.95 SB BK	IH 43 SB	--	
0010	3210+14.08 SB	-	3264+34.63 SB BK	IH 43 SB	--	
0010	3264+41.34 SB	-	3281+46.00 SB	IH 43 SB	--	
0010	3281+46.00 SB	-	3288+35.00 SB	IH 43 SB	--	MAINLINE AND RAMP LANE
0010	3288+35.00 SB	-	3322+77.90 SB	IH 43 SB	--	
				SOUTHBOUND SUBTOTALS	120	
				SOUTHBOUND TOTALS	**120**	

PAVEMENT MARKING SUMMARY - (CONTINUED)

CATEGORY	STATION	TO	STATION	LOCATION	**646.0106 PAVEMENT MARKING EPOXY 4-INCH EDGELINE (WHITE) SOLID LF	**646.0106 PAVEMENT MARKING EPOXY 4-INCH EDGELINE (YELLOW) SOLID LF	**646.0106 PAVEMENT MARKING EPOXY 4-INCH CENTERLINE (DOUBLE YELLOW) SOLID LF	**646.0106 PAVEMENT MARKING EPOXY 4-INCH CENTERLINE (YELLOW) SOLID LF	646.0126 PAVEMENT MARKING EPOXY 8-INCH CHANNELIZING (WHITE) SOLID LF	646.0881.S PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH 12.5' LINE, 37.5' GAP LF	646.0881.S PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH 3' LINE, 9' GAP LF	646.0883.S PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING LF	647.0456 PAVEMENT MARKING CURB EPOXY (YELLOW) LF
	STH 96 INTERCHANGE												
0010	2777+63.00 SW	-	2788+52.00 SW	SW RAMP		1,089							
0010	2777+63.00 SW	-	2788+56.00 SW	SW RAMP	1,093								
0010	2775+36.00 SE	-	2785+56.00 SE	SE RAMP	1,020								
0010	2775+36.00 SE	-	2785+86.00 SE	SE RAMP		1,050							
0010	2785+15.00 SE	-	2785+57.00 SE	SE RAMP					84				
0010	2788+91.00 NW	-	2788+96.00 NW	NW RAMP									26
0010	2788+94.00 NW	-	2800+49.00 NW	NW RAMP		1,155							
0010	2789+21.00 NW	-	2789+66.00 NW	NW RAMP					90				
0010	2789+24.00 NW	-	2789+29.00 NW	NW RAMP									20
0010	2789+27.00 NW	-	2800+49.00 NW	NW RAMP	1,122								
0010	2785+88.00 NE	-	2786+19.00 NE	NE RAMP									80
0010	2786+42.00 NE	-	2797+21.00 NE	NE RAMP		1,079							
0010	2786+94.00 NE	-	2797+21.00 NE	NE RAMP	1,027								
	STH 96 INTERCHANGE SUBTOTALS				4,262	4,373			174				126
	STH 96 INTERCHANGE TOTALS				**8,640**				**174**	**0**		**0**	**126**
	CTH MM INTERCHANGE												
0010	3163+05.00 SW	-	3163+18.00 SW	SW RAMP									30
0010	3163+12.00 SW	-	3176+07.00 SW	SW RAMP	1,295								
0010	3163+17.00 SW	-	3176+07.00 SW	SW RAMP		1,290							
0010	3163+53.00 SW	-	3163+61.00 SW	SW RAMP									15
0010	3163+53.00 SW	-	3163+85.00 SW	SW RAMP					64				
0010	3176+07.00 SB	-	3177+56.00 SB	SW RAMP	149								
0010	3176+07.00 SB	-	3177+56.00 SB	SW RAMP		149							
0010	3154+35.00 SE	-	3162+42.00 SE	SE RAMP	807								
0010	3154+35.00 SE	-	3163+04.00 SE	SE RAMP		869							
0010	3166+31.00 NW	-	3166+52.00 NW	NW RAMP					300				
0010	3166+40.00 NW	-	3175+59.00 NW	NW RAMP		919							
0010	3166+42.00 NW	-	3166+52.00 NW	NW RAMP									33
0010	3166+94.00 NW	-	3167+00.00 NW	NW RAMP									14
0010	3167+35.00 NW	-	3175+59.00 NW	NW RAMP	824								
0010	3155+35.00 NE	-	3166+58.00 NE	NE RAMP	1,123								
0010	3155+35.00 NE	-	3166+24.00 NE	NE RAMP		1,092							
0010	3165+79.00 NE	-	3165+98.09 NE	NE RAMP					38				
0010	3165+93.00 NE	-	3166+00.00 NE	NE RAMP									14
0010	3166+51.00 NE	-	3166+60.00 NE	NE RAMP									32
	CTH MM INTERCHANGE SUBTOTALS				4,198	4,319			402				138
	CTH MM INTERCHANGE TOTALS				**8,520**				**402**	**0**		**0**	**138**
	USH 172 INTERCHANGE												
0010	3281+27.00 WB	-	3283+23.00 WB	IH 43 NB - STH 172 WB	196	196							
0010	3283+87.00 EB	-	3286+54.00 EB	STH 172 EB - IH 43 SB	267	267							
0010	3286+54.00 EB	-	3313+36.00 EB	STH 172 EB - IH 43 SB	2,682	2,682				670			
0010	3313+36.00 EB	-	3319+97.00 EB	STH 172 EB - IH 43 SB	661	661							
	STH 172 INTERCHANGE SUBTOTALS				3,806	3,806				670			
	STH 172 INTERCHANGE TOTALS				**7,620**				**0**	**670**		**0**	**0**

PAVEMENT MARKING SUMMARY - (CONTINUED)

CATEGORY	STATION	TO	STATION	LOCATION	**646.0106 PAVEMENT MARKING EPOXY 4-INCH EDGELINE (WHITE) SOLID LF	4-INCH EDGELINE (YELLOW) SOLID LF	4-INCH CENTERLINE (DOUBLE YELLOW) SOLID LF	4-INCH CENTERLINE (YELLOW) SOLID LF	646.0126 PAVEMENT MARKING EPOXY 8-INCH CHANNELIZING (WHITE) SOLID LF	646.0881.S PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH 12.5' LINE, 37.5' GAP LF	3' LINE, 9' GAP LF	646.0883.S PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING LF	647.0456 PAVEMENT MARKING CURB EPOXY (YELLOW) LF
	STH 96												
0010	34+63.15 WB	-	45+17.00 WB	WB LANES	1053								
0010	34+11.00 WB	-	41+49.85 WB	WB LANES			1478						
0010	37+49.50 WB	-	41+33.91 WB	MEDIAN									
0010	37+74.00 WB	-	41+49.00 WB	MEDIAN									
0010			41+49.00 WB	MEDIAN									
0010	41+49.00 WB	-	41+54.00 WB	WB LANES									5
0010	41+49.85 WB	-	45+44.78 WB	WB LANES				395					
0010	45+40.00 WB	-	45+86.00 WB	WB LANES									50
0010			45+86.00 WB	MEDIAN									
0010	45+94.00 WB	-	52+47.00 WB	WB LANES	465								
0010			46+59.00 WB	MEDIAN									
0010	46+59.00 WB	-	46+64.00 WB	WB LANES									5
0010	46+59.72 WB	-	52+34.13 WB	WB LANES				390					
0010	46+59.75 WB	-	47+49.16 WB	WB LANES					89				
0010	52+29.00 WB	-	52+34.00 WB	WB LANES									5
0010			52+34.00 WB	MEDIAN									
0010			53+12.00 WB	MEDIAN									
0010	53+12.00 WB	-	53+17.00 WB	WB LANES									5
0010	53+12.00 WB	-	56+47.00 WB	WB LANES				335					
0010	54+83.00 WB	-	54+88.00 WB	WB LANES									5
0010			54+88.00 WB	MEDIAN									
0010	54+88.00 WB	-	56+47.00 WB	MEDIAN					180				
0010	55+12.68 WB	-	55+90.78 WB	MEDIAN									
0010	34+11.00 EB	-	41+50.81 EB	EB LANES			1480						
0010	34+63.15 EB	-	40+55.00 EB	EB LANES	592								
0010	41+45.00 EB	-	45+57.00 EB	EB LANES	415								
0010	41+50.81 EB	-	45+88.04 EB	EB LANES				437					
0010	41+51.00 EB	-	41+56.00 EB	EB LANES									5
0010	41+52.00 EB	-	45+84.00 EB	EB LANES		432							
0010	44+53.31 EB	-	45+61.67 EB	EB LANES					108				
0010	45+83.00 EB	-	45+88.00 EB	EB LANES									5
0010	46+43.00 EB	-	52+98.00 EB	EB LANES	470								
0010	46+63.00 EB	-	46+68.00 EB	EB LANES									5
0010	46+63.37 EB	-	52+37.05 EB	EB LANES				390					
0010	51+21.76 EB	-	52+37.03 EB	EB LANES					115				
0010	52+32.00 EB	-	52+37.00 EB	EB LANES									5
0010	53+15.00 EB	-	53+62.00 EB	EB LANES									50
0010	53+57.00 EB	-	54+92.00 EB	EB LANES		135							
0010	54+92.00 EB	-	56+52.00 EB	EB LANES				160					
0010	54+87.00 EB	-	54+92.00 EB	EB LANES									5
0010	57+20.00 EB	-	57+31.00 EB	EB & WB LANES			22						
				STH 96 SUBTOTALS	2,995	567	2,979	2,107	493			0	150
				STH 96 TOTALS	**8,650**				**493**	**0**		**0**	**150**

PAVEMENT MARKING SUMMARY - (CONTINUED)

CATEGORY	STATION	TO	STATION	LOCATION	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY (YELLOW) EACH	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE) LF	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW) LF	647.0803 PAVEMENT MARKING AERIAL ENFORCEMENT BARS EPOXY 24-INCH (WHITE) LF	REMARKS
	STH 96								
0010	34+63.15 WB	-	45+17.00 WB	WB LANES					
0010	34+11.00 WB	-	41+49.85 WB	WB LANES					
0010	37+49.50 WB	-	41+33.91 WB	MEDIAN			141		
0010	37+74.00 WB	-	41+49.00 WB	MEDIAN					
0010			41+49.00 WB	MEDIAN	1				
0010	41+49.00 WB	-	41+54.00 WB	WB LANES					
0010	41+49.85 WB	-	45+44.78 WB	WB LANES					
0010	45+40.00 WB	-	45+86.00 WB	WB LANES					
0010			45+86.00 WB	MEDIAN	1				
0010	45+94.00 WB	-	52+47.00 WB	WB LANES					
0010			46+59.00 WB	MEDIAN	1				
0010	46+59.00 WB	-	46+64.00 WB	WB LANES					
0010	46+59.72 WB	-	52+34.13 WB	WB LANES					
0010	46+59.75 WB	-	47+49.16 WB	WB LANES					
0010	52+29.00 WB	-	52+34.00 WB	WB LANES					
0010			52+34.00 WB	MEDIAN	1				
0010			53+12.00 WB	MEDIAN	1				
0010			53+12.00 WB	MEDIAN	1				
0010	53+12.00 WB	-	53+17.00 WB	WB LANES					
0010	53+12.00 WB	-	56+47.00 WB	WB LANES					
0010	54+83.00 WB	-	54+88.00 WB	WB LANES					
0010			54+88.00 WB	MEDIAN	1				
0010	54+88.00 WB	-	56+47.00 WB	MEDIAN					
0010	55+12.68 WB	-	55+90.78 WB	MEDIAN			30		
0010	34+11.00 EB	-	41+50.81 EB	EB LANES					
0010	34+63.15 EB	-	40+55.00 EB	EB LANES					
0010	41+45.00 EB	-	45+57.00 EB	EB LANES					
0010	41+50.81 EB	-	45+88.04 EB	EB LANES					
0010	41+51.00 EB	-	41+56.00 EB	EB LANES					
0010	41+52.00 EB	-	45+84.00 EB	EB LANES					
0010	44+53.31 EB	-	45+61.67 EB	EB LANES					
0010	45+83.00 EB	-	45+88.00 EB	EB LANES					
0010	46+43.00 EB	-	52+98.00 EB	EB LANES					
0010	46+63.00 EB	-	46+68.00 EB	EB LANES					
0010	46+63.37 EB	-	52+37.05 EB	EB LANES					
0010	51+21.76 EB	-	52+37.03 EB	EB LANES					
0010	52+32.00 EB	-	52+37.00 EB	EB LANES					
0010	53+15.00 EB	-	53+62.00 EB	EB LANES					
0010	53+57.00 EB	-	54+92.00 EB	EB LANES					
0010	54+92.00 EB	-	56+52.00 EB	EB LANES					
0010	54+87.00 EB	-	54+92.00 EB	EB LANES					
0010	57+20.00 EB	-	57+31.00 EB	EB & WB LANES					
				STH 96 SUBTOTALS	6		172		
				STH 96 TOTALS	**6**	**172**		**0**	

PAVEMENT MARKING SUMMARY - (CONTINUED)

CATEGORY	STATION	TO	STATION	LOCATION	**646.0106 PAVEMENT MARKING EPOXY 4-INCH EDGELINE (WHITE) SOLID LF	**646.0106 PAVEMENT MARKING EPOXY 4-INCH EDGELINE (YELLOW) SOLID LF	**646.0106 PAVEMENT MARKING EPOXY 4-INCH CENTERLINE (DOUBLE YELLOW) SOLID LF	**646.0106 PAVEMENT MARKING EPOXY 4-INCH CENTERLINE (YELLOW) SOLID LF	646.0126 PAVEMENT MARKING EPOXY 8-INCH CHANNELIZING (WHITE) SOLID LF	646.0881.S PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH 12.5' LINE, 37.5' GAP LF	646.0881.S PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH 3' LINE, 9' GAP LF	646.0883.S PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING LF	647.0456 PAVEMENT MARKING CURB EPOXY (YELLOW) LF
	USH 141/CTH MM												
0010	40+99.43 SB	-	45+47.00 SB	SB LANES	448								
0010	40+99.43 SB	-	42+50.00 SB	SB LANES			301						
0010	40+90.00 SB	-	42+50.00 SB	MEDIAN								25	
0010			42+50.00 SB	MEDIAN									
0010	42+50.00 SB	-	42+55.00 SB	MEDIAN									5
0010	42+50.00 SB	-	45+51.00 SB	SB LANES				301					
0010	45+54.00 SB	-	46+04.00 SB	SB LANES									56
0010			46+04.00 SB	MEDIAN									
0010	46+35.00 SB	-	53+59.00 SB	SB LANES	727								
0010			46+68.00 SB	MEDIAN									
0010	46+68.00 SB	-	46+73.00 SB	SB LANES									5
0010	46+68.34 SB	-	47+47.55 SB	SB LANES					79				
0010	46+68.00 SB	-	53+28.00 SB	SB LANES				661					
0010	53+23.00 SB	-	53+28.00 SB	SB LANES									5
0010			53+28.00 SB	MEDIAN									
0010			53+93.00 SB	MEDIAN									
0010	53+93.00 SB	-	53+98.00 SB	SB LANES									5
0010	53+93.00 SB	-	61+54.00 SB	SB LANES				761					
0010	53+98.42 SB	-	56+28.22 SB	SB LANES					292				
0010	55+20.00 SB	-	64+11.00 SB	SB LANES	882								
0010	61+49.00 SB	-	61+54.00 SB	SB LANES									5
0010			61+54.00 SB	MEDIAN									
0010	61+54.00 SB	-	64+11.00 SB	MEDIAN								52	
0010	61+54.00 SB	-	64+11.00 SB	SB LANES			514						
0010	36+95.00 NB	-	40+99.43 NB	NB & SB LANES	809		809						
0010	40+99.43 NB	-	45+50.00 NB	NB LANES	451								
0010	40+90.00 NB	-	42+50.00 NB	NB LANES			320						
0010	41+76.56 NB	-	42+34.36 NB	MEDIAN									
0010	42+50.00 NB	-	46+03.00 NB	NB LANES		353							
0010	42+55.00 NB	-	42+60.00 NB	NB LANES									5
0010	45+95.00 NB	-	46+00.00 NB	NB LANES									5
0010	46+44.00 NB	-	53+58.00 NB	NB LANES	715								
0010	46+67.00 NB	-	46+72.00 NB	NB LANES									5
0010	46+67.00 NB	-	53+26.00 NB	NB LANES				660					
0010	52+26.00 NB	-	53+25.79 NB	NB LANES					100				
0010	53+21.00 NB	-	53+26.00 NB	NB LANES									5
0010	53+92.00 NB	-	54+61.00 NB	NB LANES									70
0010	54+55.00 NB	-	61+55.00 NB	NB LANES				700					
0010	54+71.00 NB	-	64+12.00 NB	NB LANES	943								
0010	61+50.00 NB	-	61+55.00 NB	NB LANES									5
0010	61+55.00 NB	-	64+12.00 NB	NB LANES			257						
0010	61+60.73 NB	-	63+86.97 NB	MEDIAN									
				CTH MM SUBTOTALS	4,974	353	2,201	3,083	471			77	176
				CTH MM TOTALS	**10,610**				**471**	**0**		**77**	**176**
				PROJECT 1227-08-71 TOTALS	**267,940**				**1,550**	**28,900**		**9,450**	**590**

PAVEMENT MARKING SUMMARY - (CONTINUED)

CATEGORY	STATION	TO	STATION	LOCATION	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY (YELLOW) EACH	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE) LF	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW) LF	647.0803 PAVEMENT MARKING AERIAL ENFORCEMENT BARS EPOXY 24-INCH (WHITE) LF	REMARKS
	USH 141/CTH MM								
0010	40+99.43 SB	-	45+47.00 SB	SB LANES					
0010	40+99.43 SB	-	42+50.00 SB	SB LANES					
0010	40+90.00 SB	-	42+50.00 SB	MEDIAN					
0010			42+50.00 SB	MEDIAN	1				
0010	42+50.00 SB	-	42+55.00 SB	MEDIAN					
0010	42+50.00 SB	-	45+51.00 SB	SB LANES					
0010	45+54.00 SB	-	46+04.00 SB	SB LANES					
0010			46+04.00 SB	MEDIAN	1				
0010	46+35.00 SB	-	53+59.00 SB	SB LANES					
0010			46+68.00 SB	MEDIAN					
0010	46+68.00 SB	-	46+73.00 SB	SB LANES					
0010	46+68.34 SB	-	47+47.55 SB	SB LANES					
0010	46+68.00 SB	-	53+28.00 SB	SB LANES					
0010	53+23.00 SB	-	53+28.00 SB	SB LANES					
0010			53+28.00 SB	MEDIAN	1				
0010			53+93.00 SB	MEDIAN	1				
0010	53+93.00 SB	-	53+98.00 SB	SB LANES					
0010	53+93.00 SB	-	61+54.00 SB	SB LANES					
0010	53+98.42 SB	-	56+28.22 SB	SB LANES					
0010	55+20.00 SB	-	64+11.00 SB	SB LANES					
0010	61+49.00 SB	-	61+54.00 SB	SB LANES					
0010			61+54.00 SB	MEDIAN	1				
0010	61+54.00 SB	-	64+11.00 SB	MEDIAN					
0010	61+54.00 SB	-	64+11.00 SB	SB LANES					
0010	36+95.00 NB	-	40+99.43 NB	NB & SB LANES					
0010	40+99.43 NB	-	45+50.00 NB	NB LANES					
0010	40+90.00 NB	-	42+50.00 NB	NB LANES					
0010	41+76.56 NB	-	42+34.36 NB	MEDIAN			25		
0010	42+50.00 NB	-	46+03.00 NB	NB LANES					
0010	42+55.00 NB	-	42+60.00 NB	NB LANES					
0010	45+95.00 NB	-	46+00.00 NB	NB LANES					
0010	46+44.00 NB	-	53+58.00 NB	NB LANES					
0010	46+67.00 NB	-	46+72.00 NB	NB LANES					
0010	46+67.00 NB	-	53+26.00 NB	NB LANES					
0010	52+26.00 NB	-	53+25.79 NB	NB LANES					
0010	53+21.00 NB	-	53+26.00 NB	NB LANES					
0010	53+92.00 NB	-	54+61.00 NB	NB LANES					
0010	54+55.00 NB	-	61+55.00 NB	NB LANES					
0010	54+71.00 NB	-	64+12.00 NB	NB LANES					
0010	61+50.00 NB	-	61+55.00 NB	NB LANES					
0010	61+55.00 NB	-	64+12.00 NB	NB LANES					
0010	61+60.73 NB	-	63+86.97 NB	MEDIAN			45		
				CTH MM SUBTOTALS	5		69		
				CTH MM TOTALS	**5**		**69**		
				PROJECT 1227-08-71 TOTALS	**11**		**241**	**180**	

TEMPORARY PAVEMENT MARKING SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	646.0600 REMOVING PAVEMENT MARKINGS LF	TEMPORARY PAVEMENT MARKING 649.0402 4' SKIP 46' GAP 4-INCH LF	649.0402 4-INCH LF	649.0400 REMOVABLE TAPE 8-INCH LF	REMARKS
NORTHBOUND									
0010	2762+29.80 'NB'	-	3321+50.00 'NB'	IH 43 NB	--	13,421	111,840		
0010	2874+00.00 'NB'	-	2890+53.00 'NB'	IH 43 NB	6,426	--	3,839		B-5-241
0010	3004+14.00 'NB'	-	3027+61.00 'NB'	IH 43 NB	6,756	--	4,059		B-5-244
0010	3050+26.00 'NB'	-	3073+69.00 'NB'	IH 43 NB	6,444	--	3,851		B-5-246
0010	3110+54.00 'NB'	-	3134+11.00 'NB'	IH 43 NB	6,486	--	3,879		B-5-248
0010	3150+05.76 'NB'	-	3152+05.76 'NB'	IH 43 NB	--	--	--	200	CTH MM NE EXIT RAMP FOR CLOSURE UNDER CTH MM ON IH 43 NB
0010	3174+66.00 'NB'	-	3196+59.00 'NB'	IH 43 NB	6,444	--	3,851		B-5-187
NORTHBOUND TOTALS					**32,560**	**13,430**	**131,320**	**200**	

SOUTHBOUND									
0010	2762+29.80 'SB'	-	2822+75.47 'SB' BK	IH 43 SB	--	1,451	12,092		
0010	2822+84.18 'SB'	-	2946+98.09 'SB' BK	IH 43 SB	--	2,979	24,828		
0010	2874+00.00 'SB'	-	2890+53.00 'SB'	IH 43 SB	6,426	--	3,839		B-5-240
0010	2947+02.70 'SB'	-	3042+78.03 'SB' BK	IH 43 SB	--	2,298	19,150		
0010	3004+14.00 'SB'	-	3027+61.00 'SB'	IH 43 SB	6,756	--	4,059		B-5-243
0010	3042+74.77 'SB'	-	3148+84.42 'SB' BK	IH 43 SB	--	2,546	21,220		
0010	3050+26.00 'NB'	-	3073+69.00 'NB'	IH 43 NB	6,444	--	3,851		B-5-245
0010	3110+54.00 'NB'	-	3134+11.00 'NB'	IH 43 NB	6,486	--	3,879		B-5-247
0010	3149+33.95 'SB'	-	3210+23.95 'SB' BK	IH 43 SB	--	1,462	12,180		
0010	3174+66.00 'SB'	-	3169+59.00 'SB'	IH 43 SB	6,444	--	3,851		B-5-188
0010	3210+14.08 'SB'	-	3264+34.63 'SB' BK	IH 43 SB	--	1,301	10,842		
0010	3264+41.34 'SB' AH		3322+77.89 'SB'	IH 43 SB	--	1,401	11,674		
SOUTHBOUND TOTALS					**32,560**	**13,440**	**131,470**	**0**	

RAMPS/SIDEROADS									
0010	3281+27.00 WB	-	3283+23.00 WB	IH 43 NB - STH 172 WB	--	--	392		
0010	3286+54.00 EB	-	3313+36.00 EB	STH 172 EB - IH 43 SB	--	215	--		
0010	3319+39.00 EB	-	3319+97.00 EB	STH 172 EB - IH 43 SB	--	--	116		
0010	36+95.00 NB	-	41+00.00 NB	CTH MM 'NB	--	--	810		
0010	34+11.00 NB	-	36+65.00 NB	STH 96 'NB	--	--	508		
RAMPS/SIDEROADS TOTALS					**0**	**215**	**1,826**	**0**	

PROJECT 1227-08-71 TOTALS	**65,120**	**27,090**	**264,620**	**200**

CONSTRUCTION STAKING SUMMARY

CATEGORY	STATION TO STATION	LOCATION	650.5000 CONSTRUCTION STAKING BASE LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	REMARKS
	NORTHBOUND						
0010	2762+29.80 NB - 3162+00.00 NB	IH 43 NB	--	--	39970	--	
0010	3162+00.00 NB - 3169+00.00 NB	IH 43 NB	700	--	--	--	
0010	3169+00.00 NB - 3321+50.00 NB	IH 43 NB	--	--	15250	--	
0010	2881+00.00 NB - 2883+92.21 NB	IH 43 NB	--	--	--	292	BEAMGUARD
0010	2915+38.00 NB	IH 43 NB LT	--	1	--	--	
0010	2955+41.00 NB	IH 43 NB LT	--	1	--	--	
0010	3017+31.81 NB - 3020+23.25 NB	IH 43 NB	--	--	--	291	BEAMGUARD
0010	3063+71.42 NB - 3067+12.42 NB	IH 43 NB	--	--	--	341	BEAMGUARD
0010	3093+95.00 NB	IH 43 NB LT	--	1	--	--	
0010	3124+12.50 NB - 3126+19.50 NB	IH 43 NB	--	--	--	207	BEAMGUARD
0010	3188+40.78 NB - 3191+48.91 NB	IH 43 NB	--	--	--	308	BEAMGUARD
0010	3238+61.54 NB - 3240+49.54 NB	IH 43 NB	--	--	--	188	BEAMGUARD
0010	3303+25.25 NB - 3305+15.58 NB	IH 43 NB	--	--	--	190	BEAMGUARD
		NORTHBOUND TOTALS	**700**	**3**	**55230**	**1820**	

	SOUTHBOUND						
0010	2762+29.80 'SB' - 2822+75.47 'SB' BK	IH 43 SB	--	--	6046	--	
0010	2822+84.18 'SB' AH - 2946+98.09 'SB' BK	IH 43 SB	--	--	12414	--	
0010	2880+37.00 'SB'	IH 43 SB	--	1	--	--	
0010	2890+15.55 'SB' - 2893+07.15 'SB'	IH 43 SB	--	--	--	292	BEAMGUARD
0010	2947+02.70 'SB' AH - 3042+78.03 'SB' BK	IH 43 SB	--	--	9575	--	
0010	3025+52.06 'SB' - 3029+30.96 'SB'	IH 43 SB	--	--	--	379	BEAMGUARD
0010	3042+74.77 'SB' AH - 3148+84.42 'SB' BK	IH 43 SB	--	--	10610	--	
0010	3072+89.90 'SB' - 3075+78.02 'SB'	IH 43 SB	--	--	--	288	BEAMGUARD
0010	3133+91.24 'SB' - 3136+69.31 'SB'	IH 43 SB	--	--	--	278	BEAMGUARD
0010	3149+33.95 'SB' AH - 3210+23.95 'SB' BK	IH 43 SB	--	--	6090	--	
0010	3182+08.73 'SB' - 3183+96.62 'SB'	IH 43 SB	--	--	--	188	BEAMGUARD
0010	3196+51.23 'SB' - 3199+85.44 'SB'	IH 43 SB	--	--	--	334	BEAMGUARD
0010	3210+14.08 'SB' AH - 3264+34.63 'SB' BK	IH 43 SB	--	--	5421	--	
0010	3258+16.26 'SB' - 3260+04.70 'SB'	IH 43 SB	--	--	--	188	BEAMGUARD
0010	3264+41.34 'SB' AH - 3322+77.89 'SB'	IH 43 SB	--	--	5837	--	
		SOUTHBOUND TOTALS	**0**	**1**	**56000**	**1950**	

CONSTRUCTION STAKING SUMMARY - (CONTINUED)

CATEGORY	STATION TO STATION	LOCATION	650.5000 CONSTRUCTION STAKING BASE LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	REMARKS
STH 172 INTERCHANGE							
0010	3277+99.80 WB - 3283+23.00 WB	IH 43 NB - STH 172 WB	--	--	523.2	--	
0010	3283+87.48 EB - 3324+56.13 EB	STH 172 EB - IH 43 SB	--	--	4068.7	--	
	STH 172 INTERCHANGE TOTALS		**0**	**0**	**4592**	**0**	
USH 141/CTH MM							
0010	3152+17.24 SE - 3163+40.80 SE	CTH MM SE RAMP	--	--	1123.6	--	
0010	3152+28.16 NE - 3167+05.24 NE	CTH MM NE RAMP	--	--	1477.1	--	
0010	3162+85.63 SW - 3176+06.98 SW	CTH MM SW RAMP	--	--	1321.3	--	
0010	3166+08.24 NW - 3177+69.75 NW	CTH MM NW RAMP	--	--	1161.5	--	
0010	3175+65.86 NW - 3177+56.51 NW	CTH MM NW RAMP	--	--	--	191	BEAMGUARD
0010	36+94.87 NB - 48+47.72 NB	CTH MM NB	--	--	1152.9	--	
0010	51+48.69 NB - 64+11.71 NB	CTH MM NB	--	--	1263.0	--	
0010	46+80.00 NB	CTH MM NB LT	--	1	--	--	
	USH 141/CTH MM TOTALS		**0**	**1**	**7500**	**190**	
STH 96							
0010	2771+79.46 SW - 2789+04.47 SW	STH 96 SW RAMP	--	--	1725.0	--	
0010	2771+87.85 SE - 2786+21.69 SE	STH 96 SE RAMP	--	--	1433.8	--	
0010	2778+61.89 NW - 2803+59.10 NW	STH 96 NW RAMP	--	--	2497.2	--	
0010	2785+71.99 NE - 2801+36.39 NE	STH 96 NE RAMP	--	--	1564.4	--	
0010	34+11.00 EB - 48+46.16 EB	STH 96 EB	--	--	1435.2	--	
0010	50+83.92 EB - 57+30.81 EB	STH 96 EB	--	--	646.9	--	
	STH 96 TOTALS		**0**	**0**	**8660**	**0**	
	PROJECT 1227-08-71 TOTALS		**700**	**5**	**131982**	**3960**	
STH 172							
0010	3277+99.80 WB - 3278+75.81 WB	IH 43 NB - STH 172 WB	--	--	--	76	BEAMGUARD
0010	3318+14.08 EB - 3320+04.68 EB	STH 172 EB - IH 43 SB	--	--	--	191	BEAMGUARD
0010	431+08.61 EB, WB - 444+00.00 EB, WB	STH 172 EB/WB	--	--	--	2583	CABLEGUARD, EB AND WB
0010	448+54.51 EB, WB - 466+50.65 EB, WB	STH 172 EB/WB	--	--	--	3592	CABLEGUARD, EB AND WB
0010	456+92.75 EB - 457+26.50 EB	STH 172 EB	--	1	--	--	

CONSTRUCTION STAKING SUMMARY - (CONTINUED)

CATEGORY	STATION TO STATION	LOCATION	650.5000 CONSTRUCTION STAKING BASE LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	REMARKS
0010	470+00.00 EB, WB - 482+50.88 EB, WB	STH 172 EB/WB	--	--	--	2502	CABLEGUARD, EB AND WB
0010	489+00.27 EB, WB - 496+00.00 EB, WB	STH 172 EB/WB	--	--	--	1399	CABLEGUARD, EB AND WB
0010	500+00.00 EB, WB - 534+50.00 EB, WB	STH 172 EB/WB	--	--	--	6900	CABLEGUARD, EB AND WB
0010	539+50.00 EB, WB - 567+27.57 EB, WB	STH 172 EB/WB	--	--	--	5555	CABLEGUARD, EB AND WB
0010	565+96.00 EB - 566+16.00 EB	STH 172 EB	--	1	--	--	
0010	573+00.00 EB, WB - 585+50.00 EB, WB	STH 172 EB/WB	--	--	--	2500	CABLEGUARD, EB AND WB
		STH 172 TOTALS	**0**	**2**	**0**	**25300**	
		PROJECT 1210-12-71 TOTALS	**0**	**2**	**0**	**25300**	

SAWING SUMMARY

CATEGORY	STATION TO STATION	LOCATION	**690.015 SAWING ASPHALT LF	**690.0250 SAWING CONCRETE LF	REMARKS
	NORTHBOUND				
0010	2762+29.80 'NB'	IH 43 NB	40	--	SOUTH PROJECT LIMITS
0010	3068+53.26 'NB' - 3068+90.96 'NB'	IH 43 NB	--	340	B-05-0246 S. APPROACH SLAB
0010	3070+09.76 'NB' - 3070+44.31 'NB'	IH 43 NB	--	340	B-05-0246 N. APPROACH SLAB
0010	3129+16.36 'NB' - 3129+52.50 'NB'	IH 43 NB	--	340	B-05-0248 S. APPROACH SLAB
0010	3130+93.07 'NB' - 3131+34.16 'NB'	IH 43 NB	--	340	B-05-0248 N. APPROACH SLAB
0010	3162+00.00 'NB' - 3169+00.00 'NB'	IH 43 NB	--	220	CONCRETE PVMT REMOVAL LIMITS
0010	3321+50.00 'NB'	IH 43 NB	40	--	NORTH PROJECT LIMITS
	NORTHBOUND TOTALS		**80**	**1580**	
	SOUTHBOUND				
0010	2762+29.80 'SB'	IH 43 SB	40	--	SOUTH PROJECT LIMITS
0010	2886+36.52 'SB' - 2886+72.44 'SB'	IH 43 SB	--	340	B-05-0240 S. APPROACH SLAB
0010	2887+84.64 'SB' - 2888+16.36 'SB'	IH 43 SB	--	340	B-05-0240 N. APPROACH SLAB
0010	3069+09.08 'SB' - 3069+43.31 'SB'	IH 43 SB	--	340	B-05-0245 S. APPROACH SLAB
0010	3070+58.46 'SB' - 3070+80.52 'SB'	IH 43 SB	--	340	B-05-0245 N. APPROACH SLAB
0010	3129+86.23 'SB' 3130+27.28 'SB'	IH 43 SB	--	340	B-05-0247 S. APPROACH SLAB
0010	3131+47.58 'SB' 3131+87.32 'SB'	IH 43 SB	--	340	B-05-0247 N. APPROACH SLAB
0010	3192+94.94 'SB' 3193+25.91 'SB'	IH 43 SB	--	340	B-05-0188 S. APPROACH SLAB
0010	3194+42.19 'SB' 3194+75.36 'SB'	IH 43 SB	--	340	B-05-0188 N. APPROACH SLAB
0010	3322+77.89 'SB'	IH 43 SB	40	--	NORTH PROJECT LIMITS
	SOUTHBOUND TOTALS		**80**	**2720**	

CATEGORY	STATION TO STATION	**690.015 SAWING ASPHALT LF	**690.0250 SAWING CONCRETE LF	REMARKS
	STH 172 RAMPS			
0010	3283+87.48 'EB' - 3285+00.00 'EB'	151	--	PAVING LIMITS
0010	3283+23.01 'WB'	33	--	PAVING LIMITS
	STH 172 TOTALS	**184**	**0**	
	USH 141/CTH MM			
0010	36+94.80 'NB'	--	--	PAVING LIMITS
0010	48+31.89 'NB' - 48+59.13 'NB'	--	177	B-05-0189 S. APPROACH SLAB
0010	64+10.50 'NB'	--	--	PAVING LIMITS
0010	41+41.50 'SB' - 42+37.20 'SB'	96	--	DRIVEWAY
0010	48+47.73 'SB' - 48+80.09 'SB'	--	243	B-05-0189 S. APPROACH SLAB
0010	62+74.39 'SB' - 63+17.94 'SB'	44	--	PAVING LIMITS
	USH 151 TOTALS	**139**	**420**	
	STH 96			
0010	34+11.00 'EB'	--	--	PAVING LIMITS
0010	40+89.81 'EB' 41+29.68 'EB'	40	--	KVITEK ROAD
0010	48+23.96 'EB'	26	--	OVERPASS
0010	51+12.83 'EB'	36	--	OVERPASS
0010	56+64.37 'EB' 57+08.26 'EB'	--	44	BOHEMIA DRIVE
0010	57+30.81 'EB'	--	49	PAVING LIMITS
0010	48+05.66 'WB'	33	--	OVERPASS
0010	50+90.07 'WB'	27	--	OVERPASS
	STH 96 TOTALS	**162**	**93**	
	PROJECT 1227-08-71 TOTALS	**645**	**4820**	

**ADDITIONAL QUANTITES LOCATED ELSWHERE IN THE PLAN

3

OVERPASS APPROACH SUMMARY

CATEGORY	STATION	TO	STATION	204.0110 REMOVING ASPHALTIC SURFACE SY	**305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	465.0105 ASPHALTIC SURFACE TON	**646.0106 PAVEMENT MARKING EPOXY 4-INCH LF	**690.0150 SAWING ASPHALT SY	REMARKS
NORTH AVE.									
0010	47+92.22	-	48+42.22	167	20	20	--	--	
0010	50+85.90	-	51+35.90	167	20	20	--	--	
0010	47+92.22			--	--	--	--	30	APPROACH LIMITS
0010	51+35.90			--	--	--	--	30	APPROACH LIMITS
NORTH AVE. TOTALS				**333**	**40**	**40**	**0**	**60**	
LANGES CORNERS RD.									
0010	47+82.16	-	48+32.16	189	23	23	--	--	
0010	50+91.50	-	51+41.50	189	23	23	--	--	
0010	47+82.16			--	--	--	--	34	APPROACH LIMITS
0010	51+41.50			--	--	--	--	34	APPROACH LIMITS
ANGES CORNERS RD. TOTALS				**378**	**45**	**45**	**0**	**68**	
ALLOUEZ AVE.									
0010	48+33.44	-	53+77.30	--	--	--	1087.7	--	DOUBLE YELLOW CENTERLINE
0010	48+33.44	-	48+83.44	200	24	24	--	--	
0010	53+27.30	-	53+77.30	200	24	24	--	--	
0010	48+33.44			--	--	--	--	36	APPROACH LIMITS
0010	53+77.30			--	--	--	--	36	APPROACH LIMITS
ALLOUEZ AVE. TOTALS				**400**	**48**	**48**	**1088**	**72**	
CTHMM/USH141									
0010	48+08.59	-	51+79.69	--	--	--	742.2	--	DOUBLE YELLOW CENTERLINE
0010	48+08.59	-	48+58.59	--	--	32	--	--	CONCRETE APPROACH REPLACED
0010	51+29.69	-	51+79.69	--	--	32	--	--	CONCRETE APPROACH REPLACED
0010	48+08.59			--	--	--	--	48	APPROACH LIMITS
0010	51+79.69			--	--	--	--	48	APPROACH LIMITS
CTH MM/USH141 TOTALS				**0**	**0**	**64**	**742**	**96**	
PAGE TOTALS				**1110**	**133**	**197**	**1830**	**296**	

**ADDITIONAL QUANTITIES LOCATED ELSEWHERE IN THE PLAN.

5

5

STA 2764+34.00'NB'
PROPOSED INLET
ELEV. 878.64

BEGIN PROJECT 1227-08-71
STA 2762+29.80'NB'

BUTT JOINT AND
SAW CUT REQUIRED

PROPOSED CABLE BARRIER
STA 2764+05.03'NB' - STA 2786+92.32'NB'

IH 43 SB

IH 43 NB

CP 900

STH 96 SE RAMP

STH 96 NE RAMP

STH 96

2760'SB' 2765'SB' 2770'SB' 2775'SB' 2780'SB' 2785'SB'

2760'NB' 2765'NB' 2770'NB' 2775'NB' 2780'NB' 2785'NB'

2771 2775 2780 2785 2786

10' 20' 10' 20' 10' 10' 23' 10' 11'

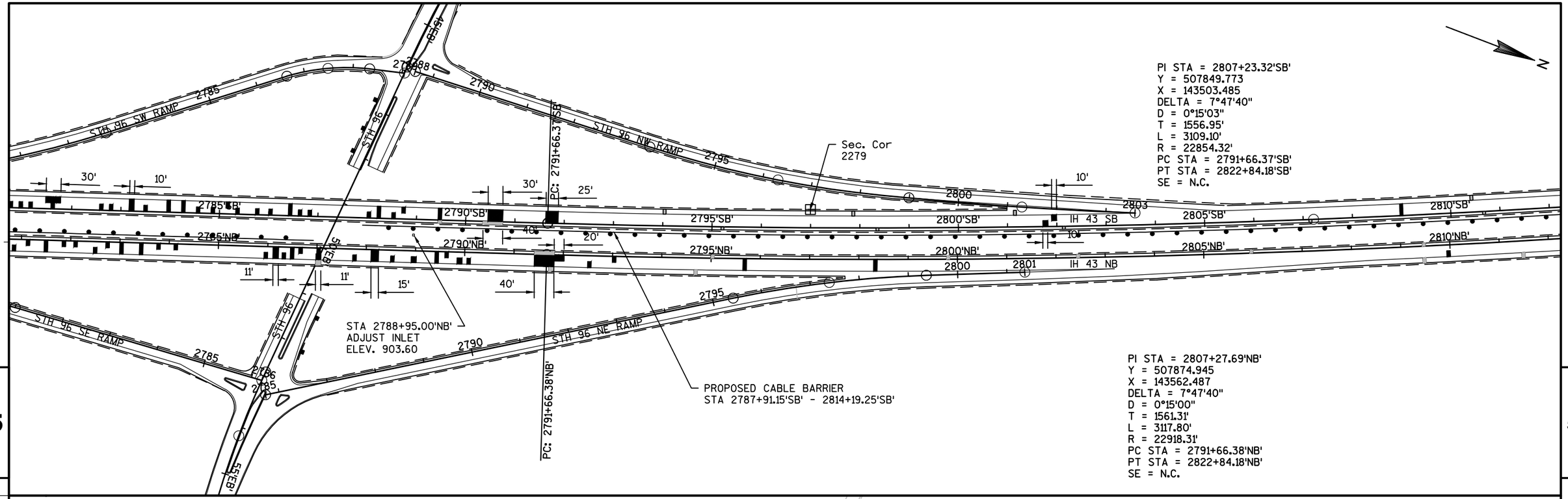
N

LEGEND

- CONTINUOUSLY REINFORCED CONCRETE REPAIR HES
- CONCRETE BASE PATCH HES
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

BENCHMARK					
NO.	STATION	NORTHING	EASTING	DESCRIPTION	ELEV.
CP 900	2763+81.03'NB'	503759.744	144962.332	1" I.P.	881.523

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN	SHEET 167	E

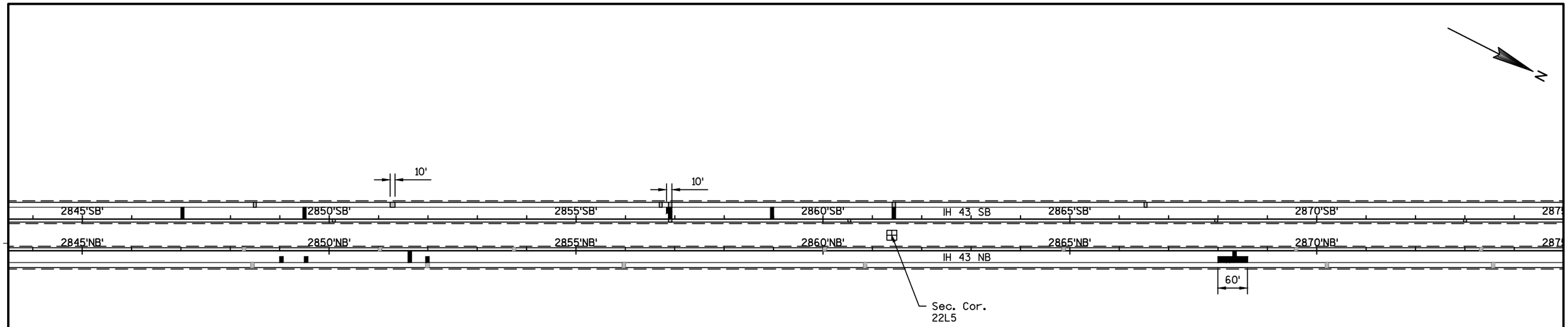


BENCHMARK					
NO.	STATION	NORTHING	EASTING	DESCRIPTION	ELEV.
CP 901	2814+68.70'NB'	508519.859	143182.560	1" I.P.	907.736
CP 800	2825+70.15'NB'	509537.6887	142756.812	1" I.P. with Cap	905.40971
CP 801	2829+13.87'NB'	509781.1303	142477.5064	1" I.P. with Cap	905.37176

LEGEND

- CONTINUOUSLY REINFORCED CONCRETE REPAIR HES
- CONCRETE BASE PATCH HES
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN	SHEET 168 E



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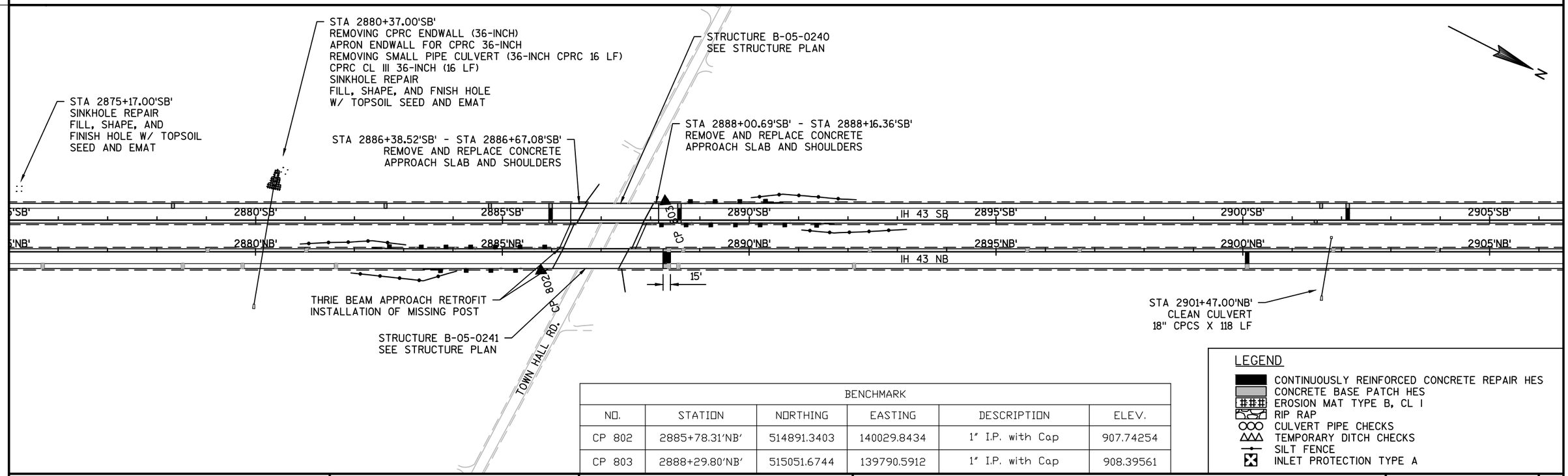
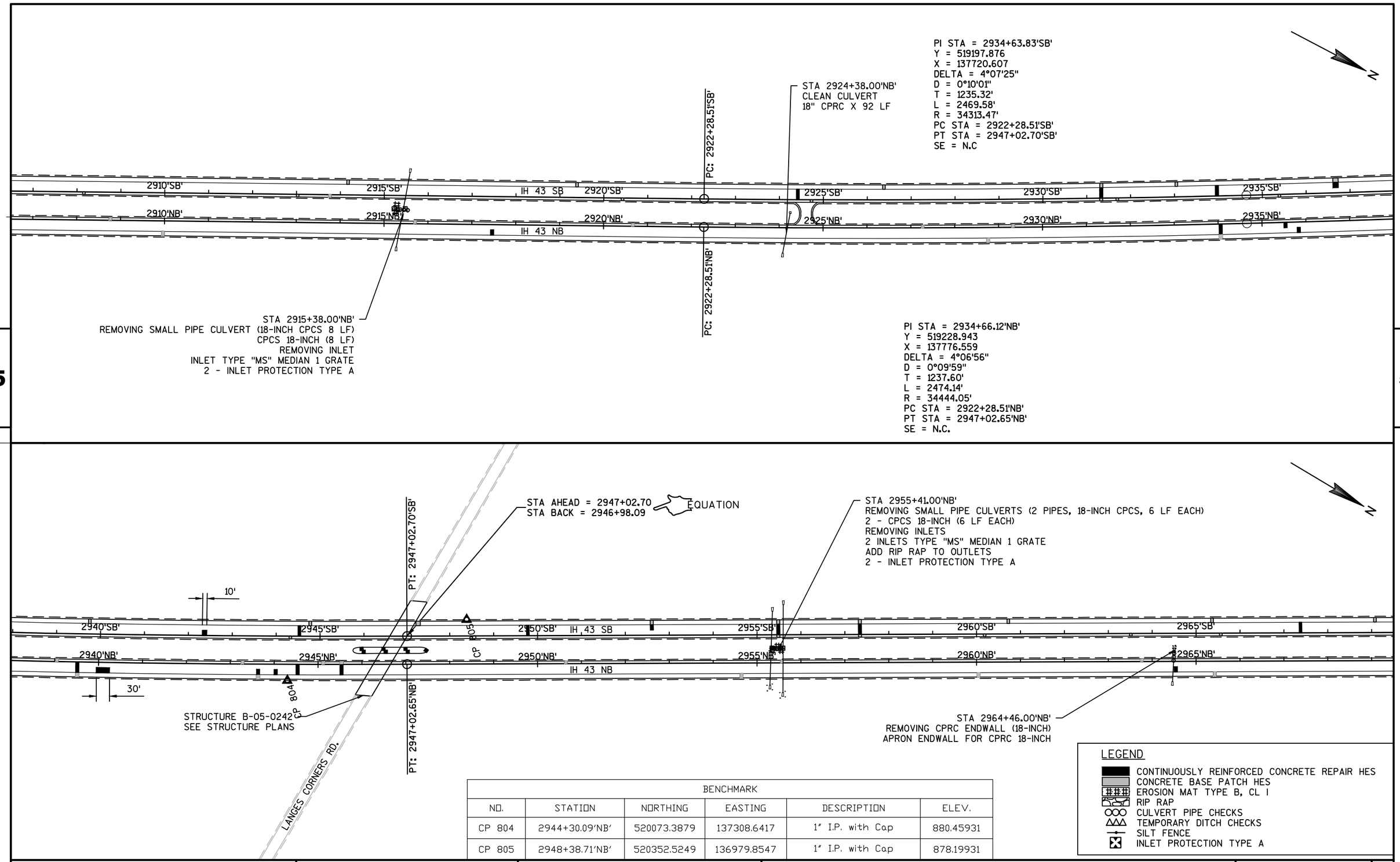


BENCHMARK					
NO.	STATION	NORTHING	EASTING	DESCRIPTION	ELEV.
CP 802	2885+78.31'NB'	514891.3403	140029.8434	1" I.P. with Cap	907.74254
CP 803	2888+29.80'NB'	515051.6744	139790.5912	1" I.P. with Cap	908.39561

LEGEND

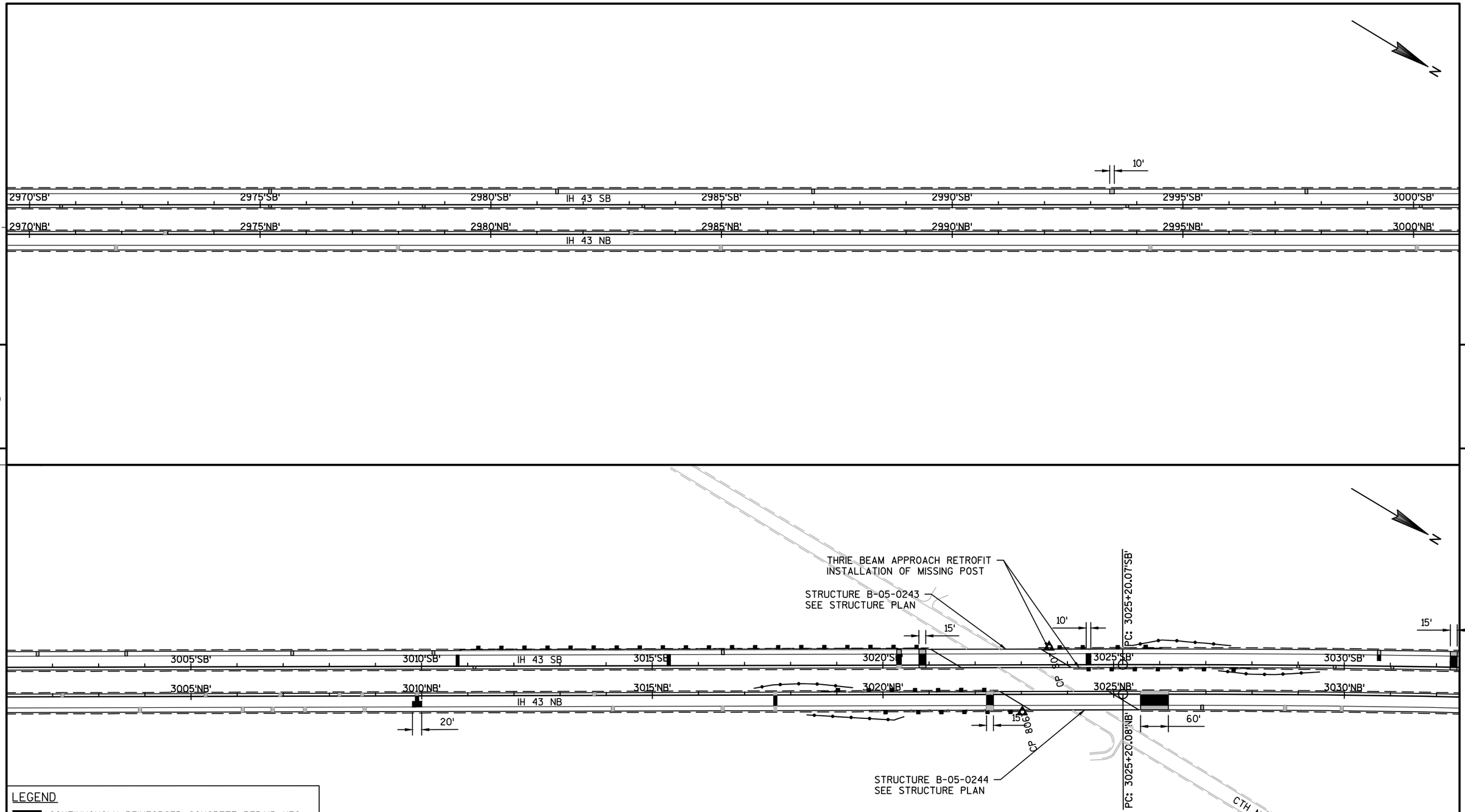
- CONTINUOUSLY REINFORCED CONCRETE REPAIR HES
- CONCRETE BASE PATCH HES
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN	SHEET 169	E



BENCHMARK					
NO.	STATION	NORTHING	EASTING	DESCRIPTION	ELEV.
CP 804	2944+30.09'NB'	520073.3879	137308.6417	1" I.P. with Cap	880.45931
CP 805	2948+38.71'NB'	520352.5249	136979.8547	1" I.P. with Cap	878.19931

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN	SHEET 170	E



LEGEND

- CONTINUOUSLY REINFORCED CONCRETE REPAIR HES
- CONCRETE BASE PATCH HES
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

BENCHMARK					
NO.	STATION	NORTHING	EASTING	DESCRIPTION	ELEV.
CP 806	3023+01.99'NB'	526813.2596	133241.0154	1" I.P. with Cap	878.08156
CP 807	3023+60.36'NB'	526790.6402	133090.6493	1" I.P. with Cap	877.86128

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN	SHEET 171	E

PI STA = 3033+99.24'SB'
Y = 527699.828
X = 132586.524
DELTA = 2°55'28"
D = 0°09'59"
T = 879.17'
L = 1757.96'
R = 34441.47'
PC STA = 3025+20.07'SB'
PT STA = 3042+74.77'SB'
SE = N.C.

STA AHEAD = 3042+74.77
STA BACK = 3042+78.03
EQUATION

PT: 3042+74.77'SB'

3035'SB' 3040'SB' 3045'SB' IH 43 SB 3050'SB' 3055'SB' 3060'SB'

3035'NB' 3040'NB' 3045'NB' IH 43 NB 3050'NB' 3055'NB' 3060'NB'

STA 3035+45.00'NB'
REMOVING CPRC ENDWALL (18-INCH)
APRON ENDWALL FOR CPRC 18-INCH

PT: 3042+74.77'NB'

PI STA = 3033+97.61'NB'
Y = 527731.514
X = 132642.154
DELTA = 2°55'28"
D = 0°10'00"
T = 877.54'
L = 1754.69'
R = 34377.47'
PC STA = 3025+20.08'NB'
PT STA = 3042+74.77'NB'
SE = N.C.

PINE GROVE RD.

THRIE BEAM APPROACH RETROFIT
INSTALLATION OF MISSING POST

STRUCTURE B-05-0245
SEE STRUCTURE PLAN

STA 3069+09.08'SB' - STA 3069+37.85 'SB'
REMOVE AND REPLACE CONCRETE
APPROACH SLAB AND SHOULDERS

30'

CP 809

3065'SB' 3070'SB' 3075'SB' 3080'SB' 3085'SB' IH 43 SB 3090'SB' 3095'SB'

CP 10'

3065'NB' 3070'NB' 3075'NB' 3080'NB' 3085'NB' IH 43 NB 3090'NB' 3095'NB'

CP 808

40'

20'

STA 3068+53.26'NB' - STA 3068+74.39 'NB'
REMOVE AND REPLACE CONCRETE
APPROACH SLAB AND SHOULDERS

STA 3070+15.56'NB' - STA 3070+44.31'NB'
REMOVE AND REPLACE CONCRETE
APPROACH SLAB AND SHOULDERS

STRUCTURE B-05-246
SEE STRUCTURE PLAN

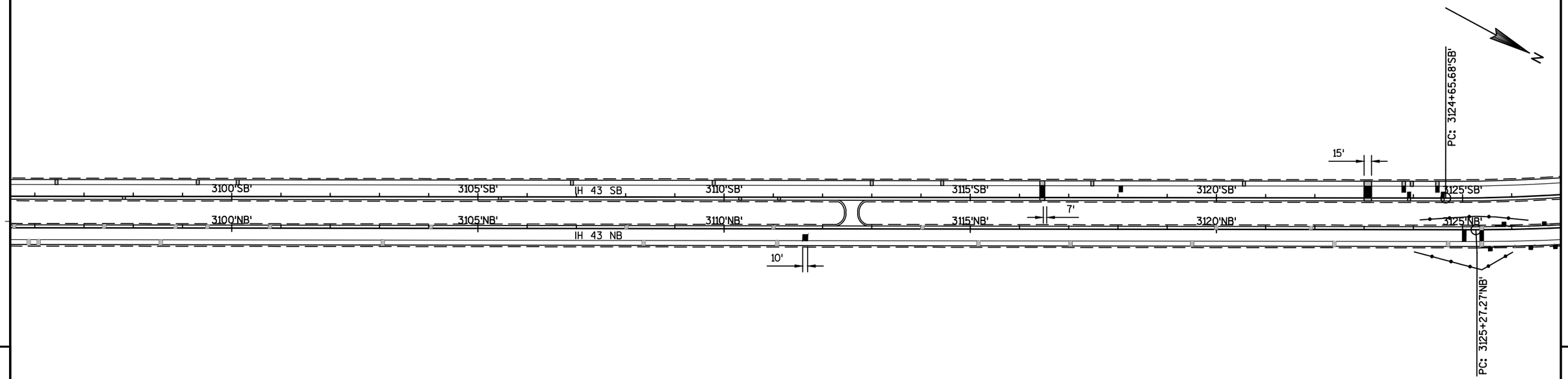
STA 3093+95.00'NB'
REMOVING SMALL PIPE CULVERT (18-INCH CPCS 8 LF)
CPRC CL III 18-INCH (8 LF)
CONCRETE COLLAR FOR PIPE

LEGEND

- CONTINUOUSLY REINFORCED CONCRETE REPAIR HES
- CONCRETE BASE PATCH HES
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

BENCHMARK					
NO.	STATION	NORTHING	EASTING	DESCRIPTION	ELEV.
CP 808	3068+47.00'NB'	530789.872	131045.6469	1" I.P. with Cap	867.62378
CP 809	3071+03.35'NB'	530949.1772	130800.2857	1" I.P. with Cap	865.29351

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN	SHEET 172	E



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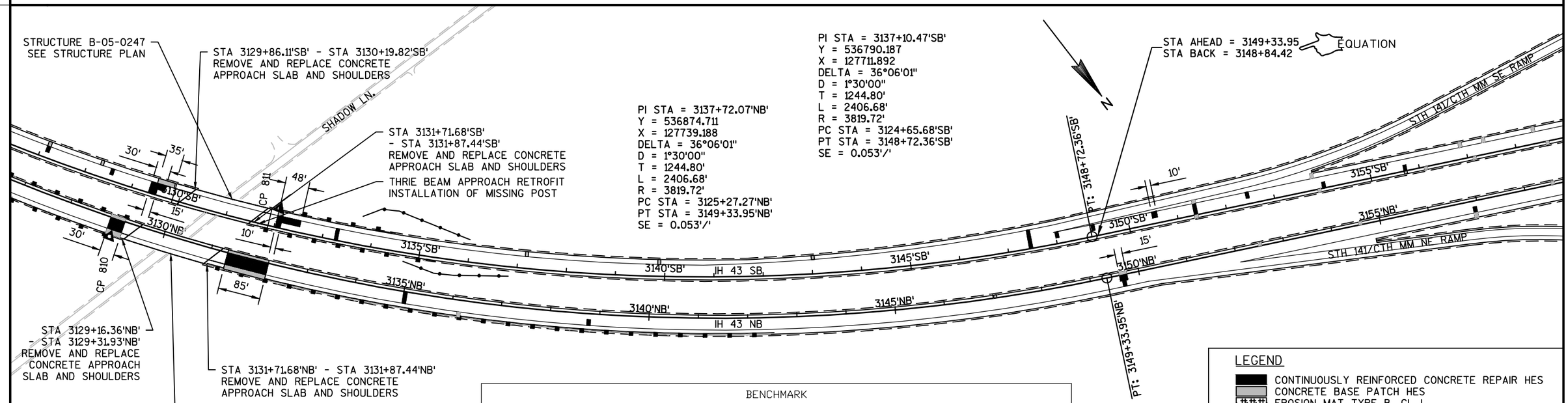
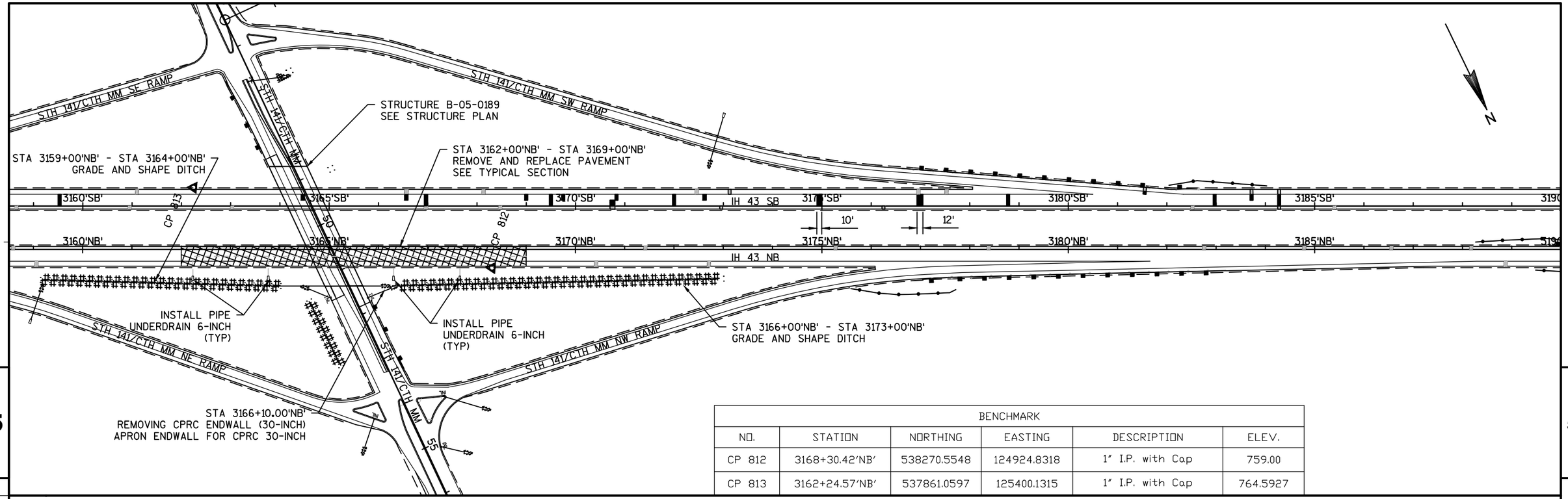


BENCHMARK					
NO.	STATION	NORTHING	EASTING	DESCRIPTION	ELEV.
CP 810	3128+96.25'NB'	536115.1379	128169.3886	1" I.P. with Cap	812.35016
CP 811	3132+14.45'NB'	536280.5442	127861.717	1" I.P. with Cap	802.38386

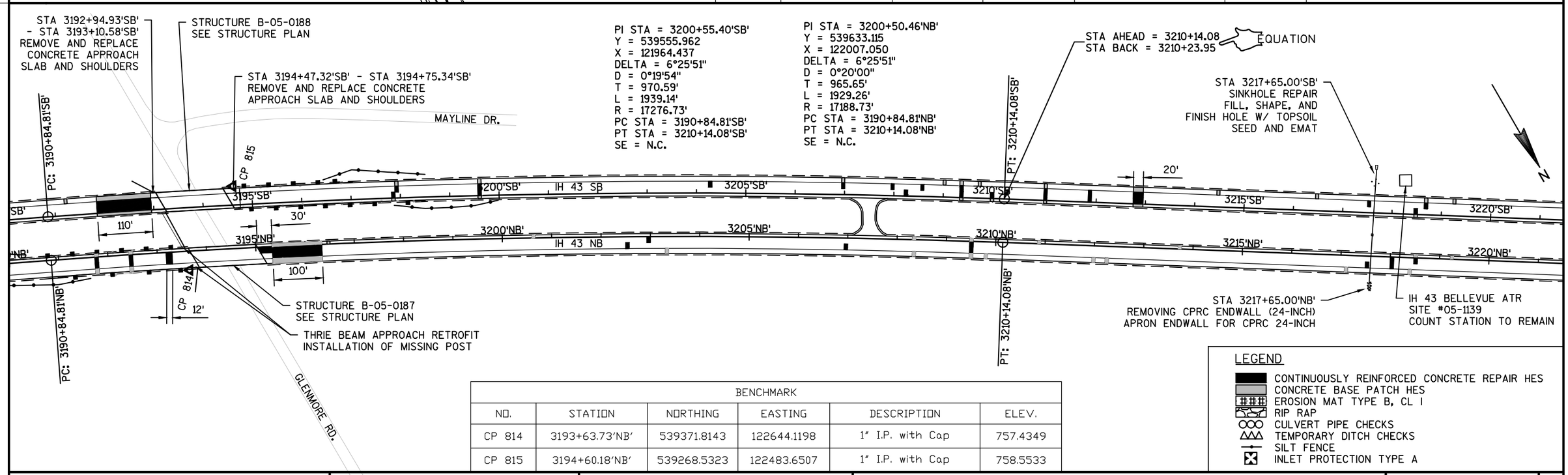
LEGEND

- CONTINUOUSLY REINFORCED CONCRETE REPAIR HES
- CONCRETE BASE PATCH HES
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN	SHEET 173	E



BENCHMARK					
NO.	STATION	NORTHING	EASTING	DESCRIPTION	ELEV.
CP 812	3168+30.42'NB'	538270.5548	124924.8318	1" I.P. with Cap	759.00
CP 813	3162+24.57'NB'	537861.0597	125400.1315	1" I.P. with Cap	764.5927

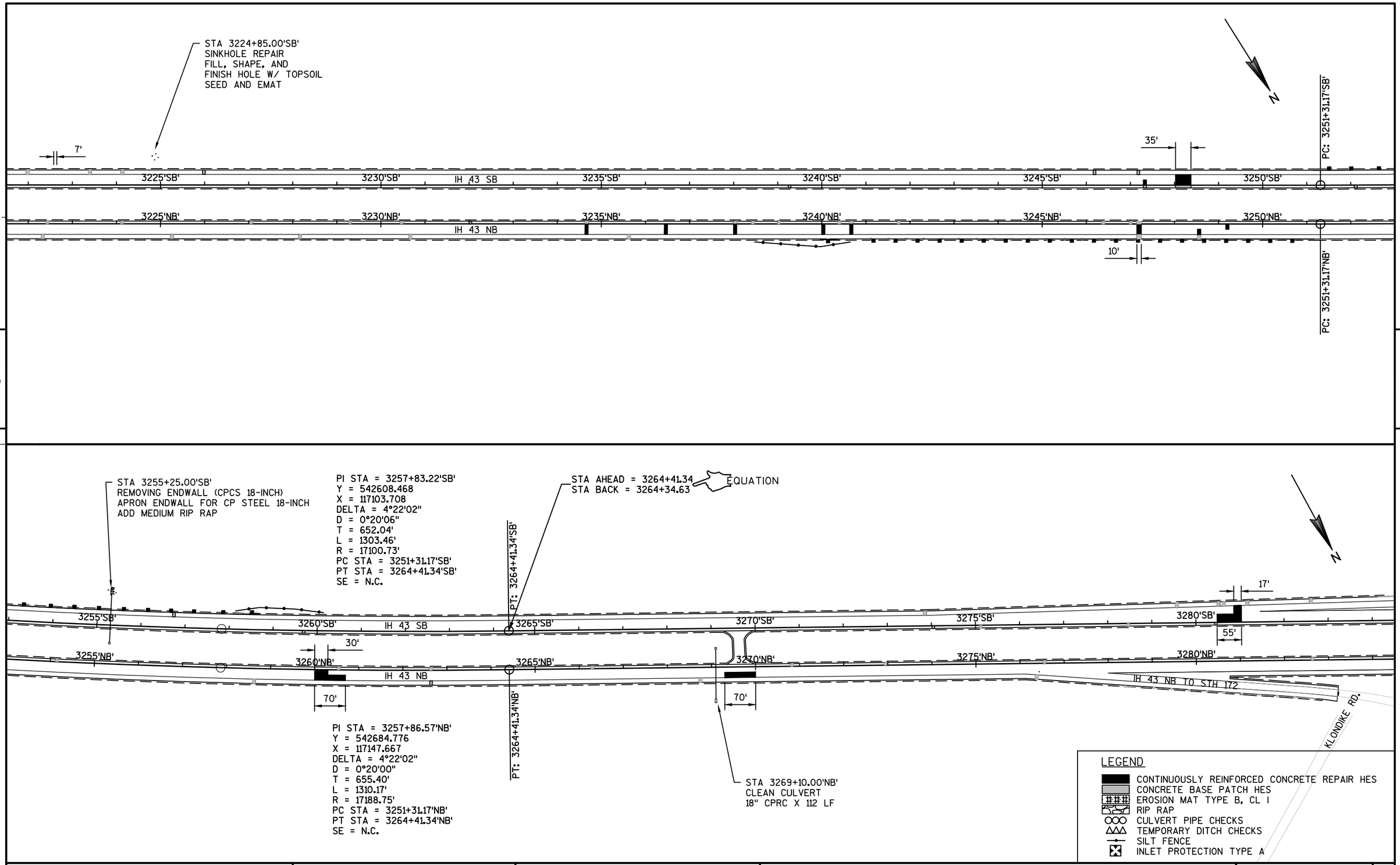


BENCHMARK					
NO.	STATION	NORTHING	EASTING	DESCRIPTION	ELEV.
CP 814	3193+63.73'NB'	539371.8143	122644.1198	1" I.P. with Cap	757.4349
CP 815	3194+60.18'NB'	539268.5323	122483.6507	1" I.P. with Cap	758.5533

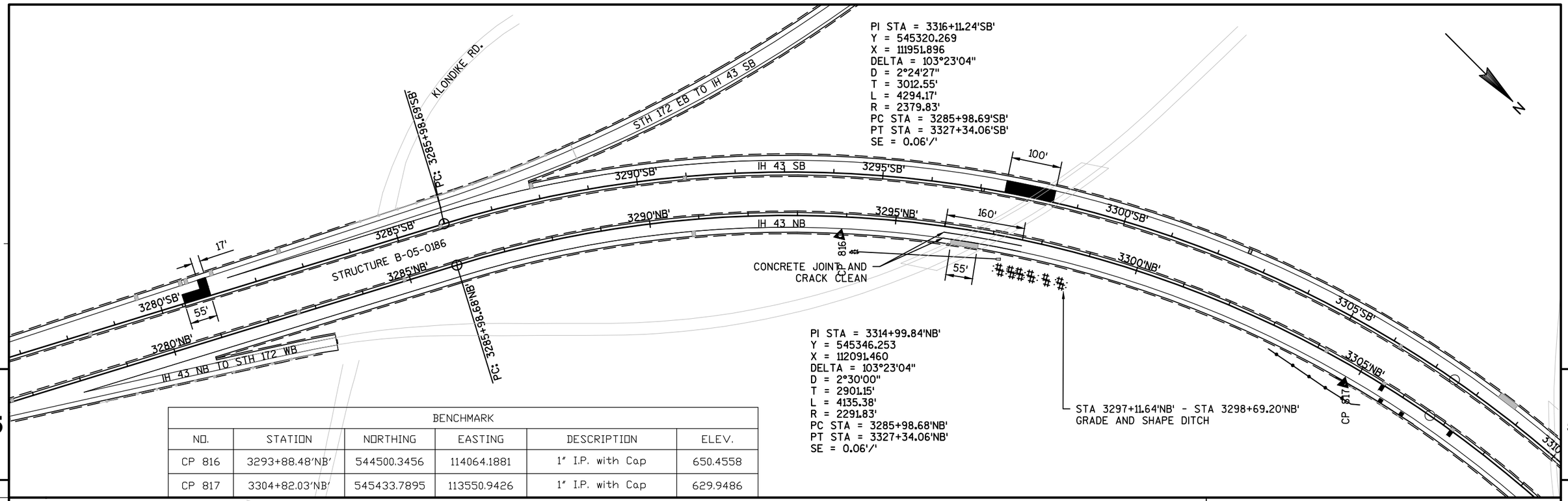
LEGEND

- CONTINUOUSLY REINFORCED CONCRETE REPAIR HES
- CONCRETE BASE PATCH HES
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

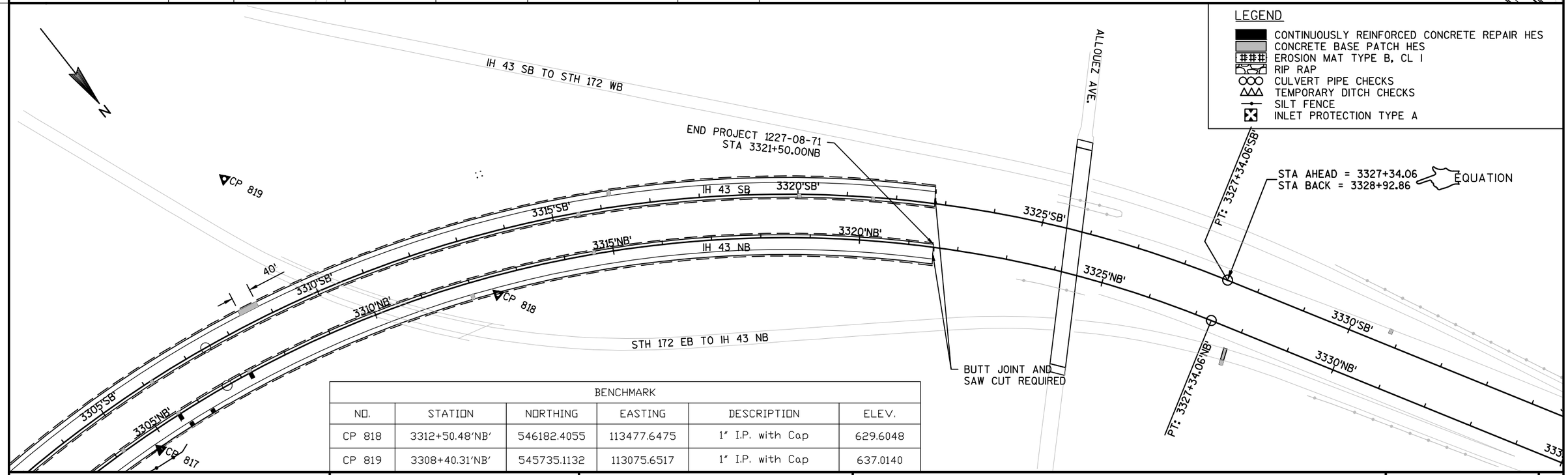
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN	SHEET 174	E



PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN	SHEET 175	E



BENCHMARK					
NO.	STATION	NORTHING	EASTING	DESCRIPTION	ELEV.
CP 816	3293+88.48'NB'	544500.3456	114064.1881	1" I.P. with Cap	650.4558
CP 817	3304+82.03'NB'	545433.7895	113550.9426	1" I.P. with Cap	629.9486



BENCHMARK					
NO.	STATION	NORTHING	EASTING	DESCRIPTION	ELEV.
CP 818	3312+50.48'NB'	546182.4055	113477.6475	1" I.P. with Cap	629.6048
CP 819	3308+40.31'NB'	545735.1132	113075.6517	1" I.P. with Cap	637.0140

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN	SHEET 176	E

STA AHEAD = 34+00.00'EB'
STA BACK = 270+17.25'EB'
EQUATION

BUTT JOINT AND
SAW CUT REQUIRED

270'EB'

PC: 35+11.00'EB'

PI STA = 40+59.29
Y = 506038.962
X = 143274.097
DELTA = 21°40'10"
D = 2°00'00"
T = 548.29'
L = 1083.48'
R = 2864.79'
PC STA = 35+11.00
PT STA = 45+94.48

8' 8' 14' 74' 24' 32' 23' 33' 43' 41' 8' 15' 11' 8' 40'EB' 45'EB' 51' 15' 9' 9'

KVITEK RD.

PI: 40+59.29

BUTT JOINT AND
SAW CUT REQUIRED

N

STH 96 NW RAMP

IH 43 NB

IH 43 SB

PC: 2791+66.37

PC: 2791+66.88

2790

2790

PT: 45+94.48'EB'

BUTT JOINT AND
SAW CUT REQUIRED

2788

STH 96

STH 96 SW RAMP

5

5

LEGEND

- CONCRETE BASE PATCH SHES (LANE)
- CONCRETE BASE PATCH SHES (SHOULDER)
- CONCRETE JOINT AND CRACK CLEANING
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN - STH 96	SHEET 177	E

PC: 2791+66.37
PC: 2791+68.88

2790

2792

STH 96 NE RAMP

PI STA = 54+18.24
Y = 505942.368
X = 144642.743
DELTA = 8°27'07"
D = 3°00'00"
T = 141.12'
L = 281.73'
R = 1909.86'
PC STA = 52+77.12
PT STA = 55+58.85

STA 51+00.00'EB'
CLEAN CULVERT
12" CPCS X 73 LF

STA 52+88.00'EB' - STA 56+50.00'EB'
GRADE AND SHAPE DITCH
CLEAN CULVERT
18" CPRC X 72 LF
APRON ENDWALL FOR CPRC 18-INCH AT INLET (SOUTH SIDE)

PT: 55+58.85'EB'

EP: 61+20.77'EB'

5

5

50'EB'

STH 96

55'EB'

60'EB'

61'EB'

2786

PC: 52+77.12'EB'

14'

XXXX

BUTT JOINT AND
SAW CUT REQUIRED

BUTT JOINT AND
SAW CUT REQUIRED

BUTT JOINT AND
SAW CUT REQUIRED

PI: 54+18.24

BOHEMIA DR.

2785

IH 43 NB

IH 43 SB

STA 53+50.00'EB' - STA 55+00.00'EB'
GRADE AND SHAPE DITCH
CLEAN CULVERT
18" CPRC X 48 LF

STH 96 SW RAMP

2785

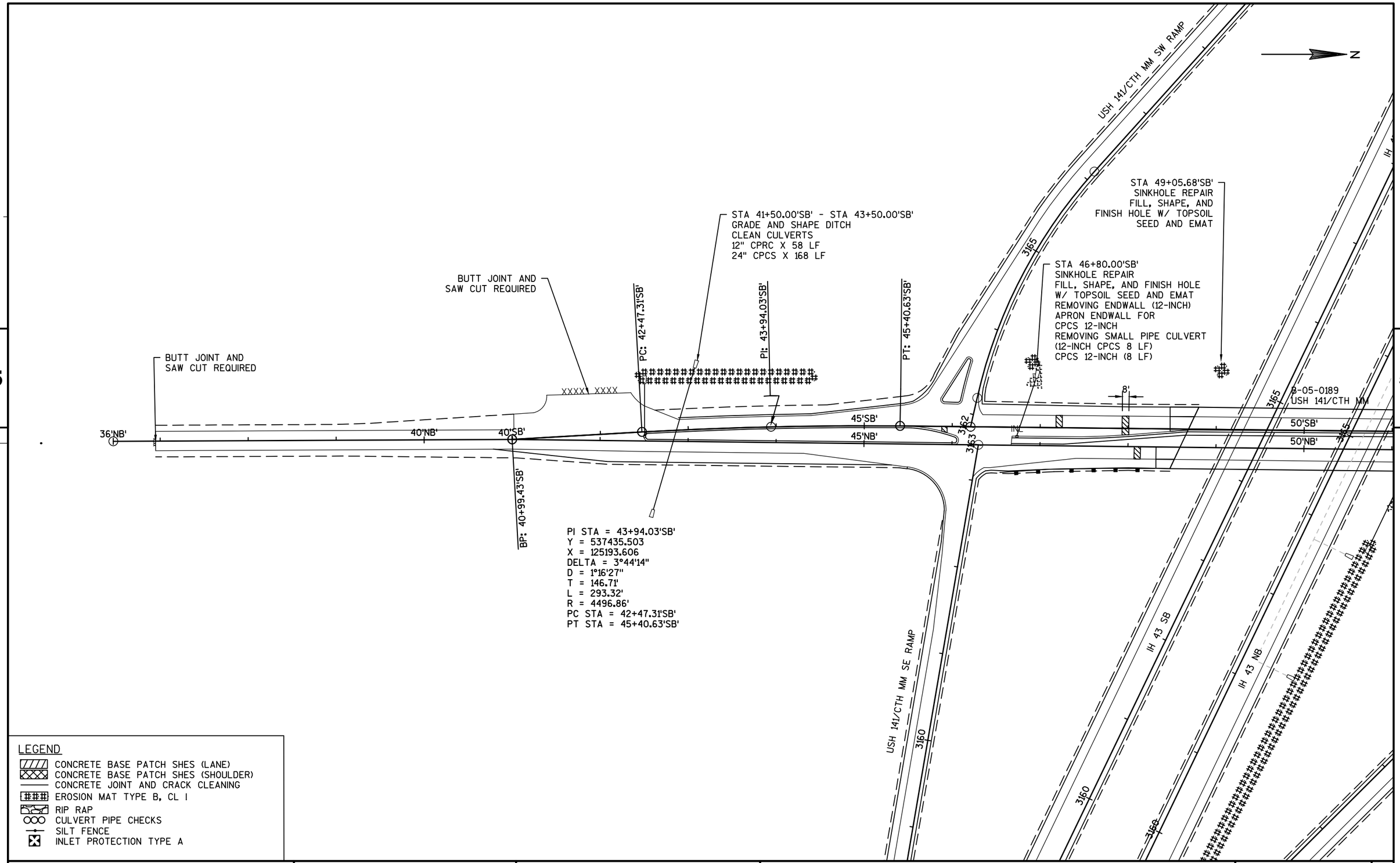
STH 96 SE RAMP

N

LEGEND

- CONCRETE BASE PATCH SHES (LANE)
- CONCRETE BASE PATCH SHES (SHOULDER)
- CONCRETE JOINT AND CRACK CLEANING
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN - STH 96	SHEET 178	E



PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN - USH 141/CTH MM	SHEET 179	E

N

IH 43 SB

IH 43 NB

USH 141/CTH MM NW RAMP

3170

3175

3180

STA 51+74.23'SB'
REMOVING CPCS ENDWALL (12-INCH)
APRON ENDWALL FOR CP STEEL 15-INCH
REMOVING SMALL PIPE CULVERT (12-INCH CPCS 50 LF)
PIPE UNDERDRAIN UNPERFORATED 15-INCH (50 LF)
REMOVING INLET
INLET 2X2-FT
INLET PROTECTION TYPE C

STA 54+80.00'SB'
CLEAN CULVERT
18" CPCS X 83 LF

STA 55+20.00'SB'
ADD 18" STEEL APRON ENDWALL
CLEAN CULVERT
18" CPCS X 48 LF

PI STA = 61+53.23'SB'
Y = 539194.705
X = 125212.634
DELTA = 5°57'03"
D = 1°00'00"
T = 297.81'
L = 595.08'
R = 5729.58'
PC STA = 58+55.42'SB'
PT STA = 64+50.50'SB'

STA 60+50.00'SB' - STA 62+50.00'SB'
GRADE AND SHAPE DITCH
CLEAN CULVERT
12" CPCS X 67 LF

CEDAR HEDGE LN.

BUTT JOINT AND
SAW CUT REQUIRED

EP: 64+50.50'SB'

PC: 58+55.42'SB'

5

5

3165

B-05-0189
USH 141/CTH MM

50'SB'

50'NB'

3165

3166

55'SB'

55'NB'

3167

USH 141/CTH MM

60'SB'

60'NB'

64'SB'

65'NB'

INL

11'

STA 51+21.07'NB'
- STA 51+44.07'NB'
REMOVE AND REPLACE
CONCRETE APPROACH
SLABS AND SHOULDERS

STA 3166+39.00'NE'
CLEAN CULVERT
18" CPCS X 62 LF

STA 51+20.00'NB' - STA 52+70.00'NB'
GRADE AND SHAPE DITCH

STA 51+42.52'NB'
REMOVING CPCS ENDWALL (12-INCH)
APRON ENDWALL FOR CP STEEL 15-INCH
REMOVING SMALL PIPE CULVERT (12-INCH CPCS 50 LF)
PIPE UNDERDRAIN UNPERFORATED 15-INCH (50 LF)
REMOVING INLET
INLET 2X2-FT
INLET PROTECTION TYPE C

USH 141/CTH MM NE RAMP

PI: 59+46.94'NB'

PI: 61+53.23'SB'

BUTT JOINT AND
SAW CUT REQUIRED

PI STA = 59+46.94'NB'
Y = 538988.194
X = 125231.880
DELTA = 5°59'46"
D = 1°30'00"
T = 200.05'
L = 399.73'
R = 3819.72'
PC STA = 57+46.89'NB'
PT STA = 61+46.63'NB'

LEGEND

- CONCRETE BASE PATCH SHES (LANE)
- CONCRETE BASE PATCH SHES (SHOULDER)
- CONCRETE JOINT AND CRACK CLEANING
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN - USH 141/CTH MM	SHEET 180	E

N

BP: 3277+99.80'WB'

3277'WB'

3280

3280

3280'WB'

BP: 3283+79.85'EB'

3285'EB'

IH 43 SB

3285

IH 43 NB

3285

PC: 3285+98.69

PC: 3286+88.17'EB'

PC: 3285+98.68

PI STA = 3289+67.85'EB'
Y = 544052.484
X = 114273.436
DELTA = 11°52'57"
D = 2°07'55"
T = 279.68'
L = 557.35'
R = 2687.50'
PC STA = 3286+88.17'EB'
PT STA = 3292+45.53'EB'
SE = 0.046'/'

ASPHALT LIMIT
3288+96.77'EB'

115'

PC: 3282+44.63'WB'

STA 3281+26.00
END MILLING/PAVING LIMIT
BUTT JOINT AND
SAW CUT REQUIRED

PI: 3284+41.52'WB'

3285'WB'

3286'WB'

PT: 3286+36.86'WB'

EP: 3286+60.66'WB'

PI STA = 3284+41.52'WB'
Y = 543987.587
X = 114834.765
DELTA = 12°25'14"
D = 3°10'00"
T = 196.89'
L = 392.23'
R = 1809.34'
PC STA = 3282+44.63'WB'
PT STA = 3286+36.86'WB'

STH 172 EB - IH 43 SB

3290'EB'

PCC: 3292+45.53'EB'

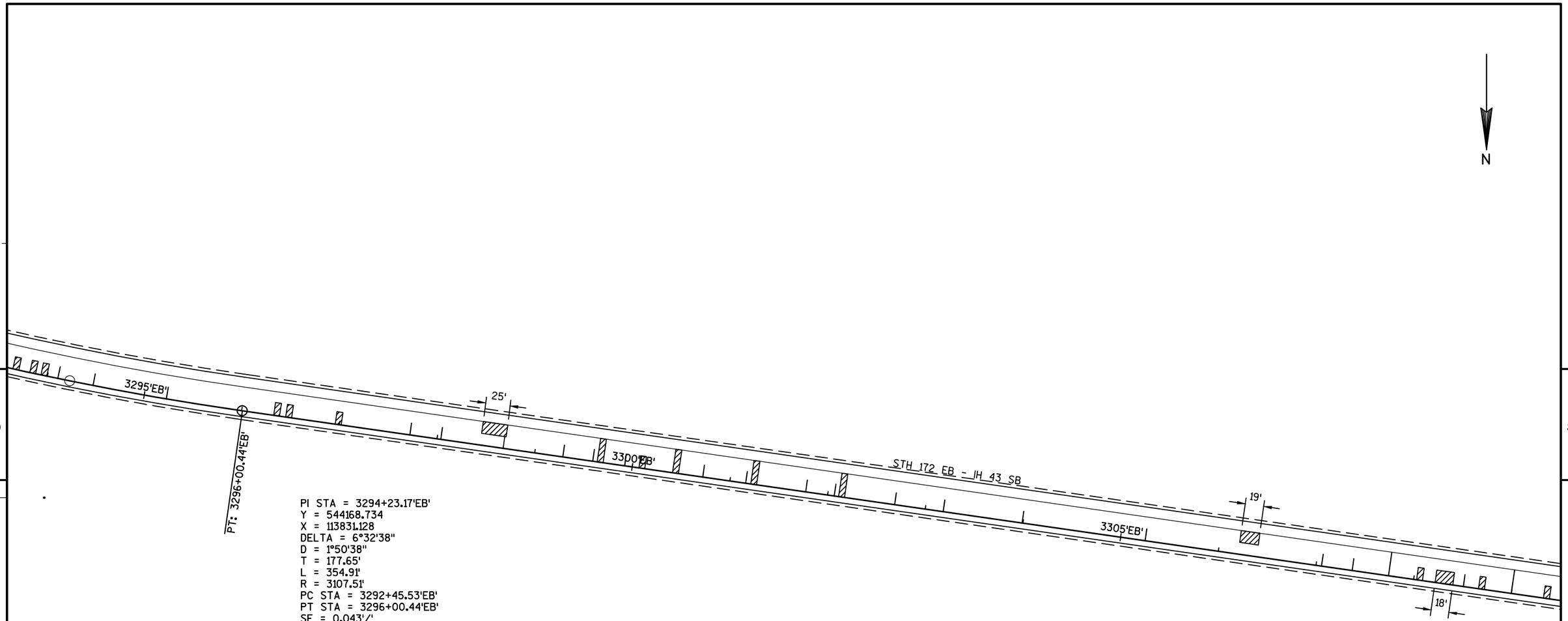
3290

3290

LEGEND

- CONCRETE BASE PATCH SHES (LANE)
- CONCRETE BASE PATCH SHES (SHOULDER)
- CONCRETE JOINT AND CRACK CLEANING
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN: STH 172 EB CONNECTOR - IH 43 SB	SHEET 181	E



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PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN: STH 172 EB CONNECTOR - IH 43 SB	SHEET 182	E

N

STH 172 EB - IH 43 SB

3310'EB'

3315'EB'

3320'EB'

26'

END CONSTRUCTION 1227-08-71
STA 3323+73.66

BUTT JOINT AND
SAW CUT REQUIRED

EP: 3324+56.13'EB'

3324'EB'

XXXX XXXX

SAW CUT
REQUIRED

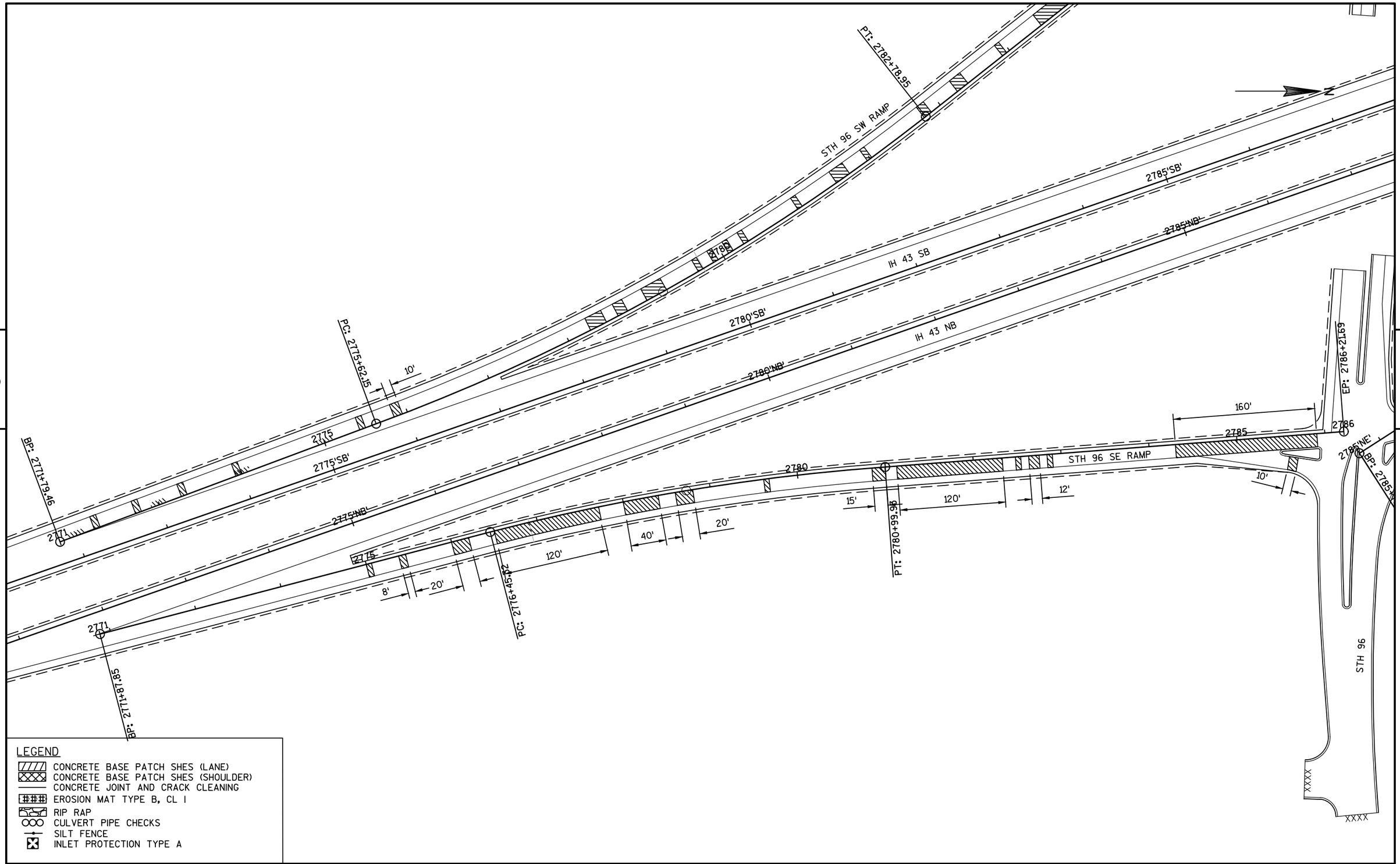
5

5

LEGEND

- CONCRETE BASE PATCH SHES (LANE)
- CONCRETE BASE PATCH SHES (SHOULDER)
- CONCRETE JOINT AND CRACK CLEANING
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

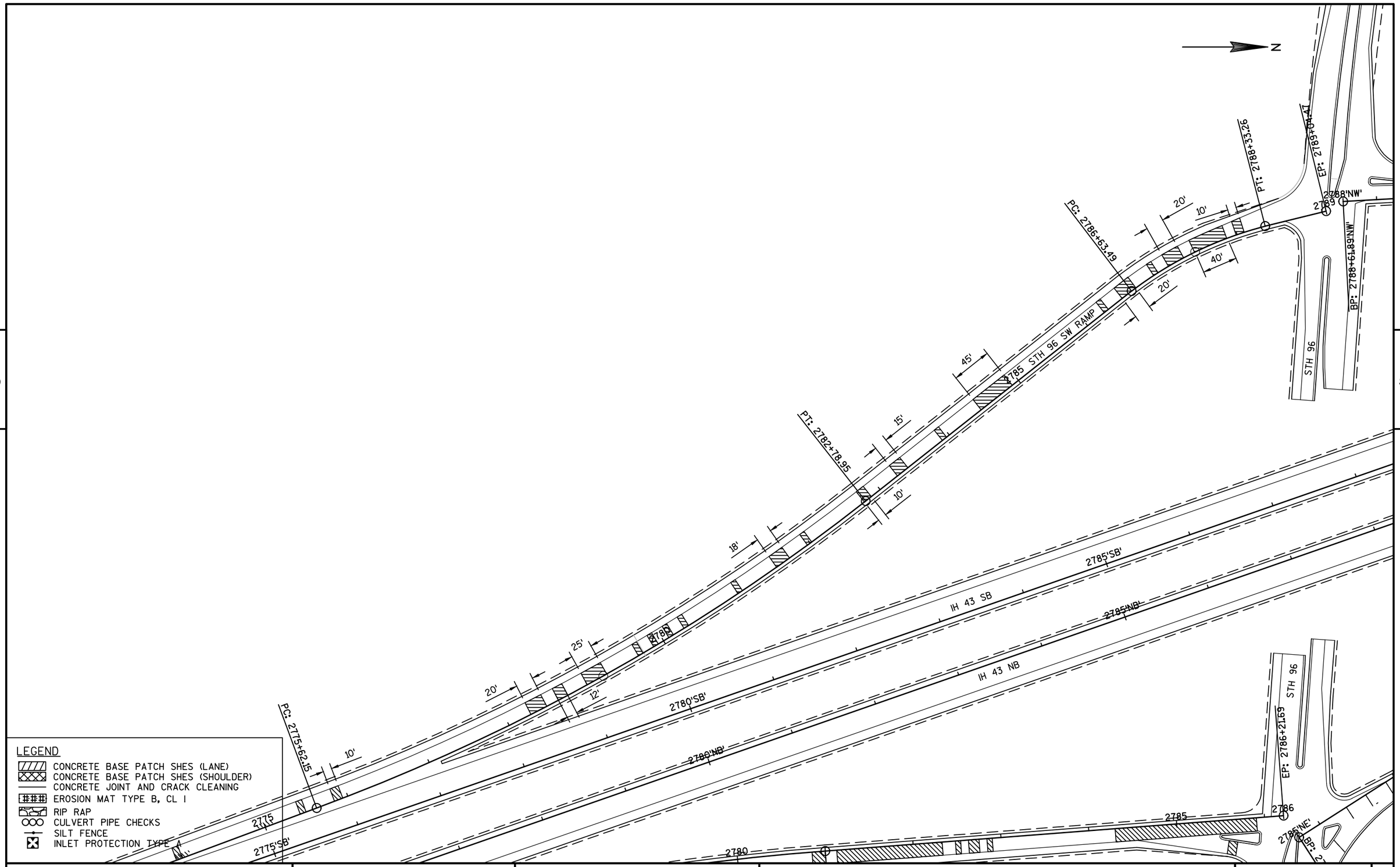
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN: STH 172 EB CONNECTOR - IH 43 SB	SHEET 183	E



LEGEND

- CONCRETE BASE PATCH SHES (LANE)
- CONCRETE BASE PATCH SHES (SHOULDER)
- CONCRETE JOINT AND CRACK CLEANING
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN - STH 96 SE RAMP	SHEET 184	E



PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN - STH 96 SW RAMP	SHEET 185 E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\050203_PN.DWG PLOT DATE : 4/21/2016 2:00 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1" = 100'_XREF

WISDOT/CADDS SHEET 44

PI STA = 2796+31.86'NW'
Y = 506787.545
X = 143782.919
DELTA = 13°25'13"
D = 2°30'00"
T = 269.64'
L = 536.81'
R = 2291.83'
PC STA = 2793+62.22'NW'
PT STA = 2798+99.03'NW'

PI STA = 2801+29.14'NW'
Y = 507268.084
X = 143645.808
DELTA = 3°30'52"
D = 0°45'50"
T = 230.10'
L = 460.06'
R = 7500.12'
PC STA = 2798+99.03'NW'
PT STA = 2803+59.10'NW'

N

STH 96

XXXX

EP: 2789+07.47

2788'NW'

2789

BP: 2788+61.89'NW'

STH 96 NW RAMP

2790'NW'

92'

13'

28'

PC: 2793+62.22'NW'

2795'NW'

21'

20'

13'

20'

20'

20'

50'

35'

PC: 2798+99.03'NW'

85'

2800'NW'

EP: 2803+59.10'NW'

2803'NW'

2800'SB'

2800'NB'

2801'NE'

2800'NE'

EP: 2801+36.39'NE'

STH 96 NE RAMP

PT: 2799+36.39'NE'

2795'SB'

2795'NB'

IH 43 SB

PC: 2791+66.38

IH 43 NB

2790'SB'

2790'NB'

2791+66.38

2795'NE'

PC: 2795+40.88'NE'

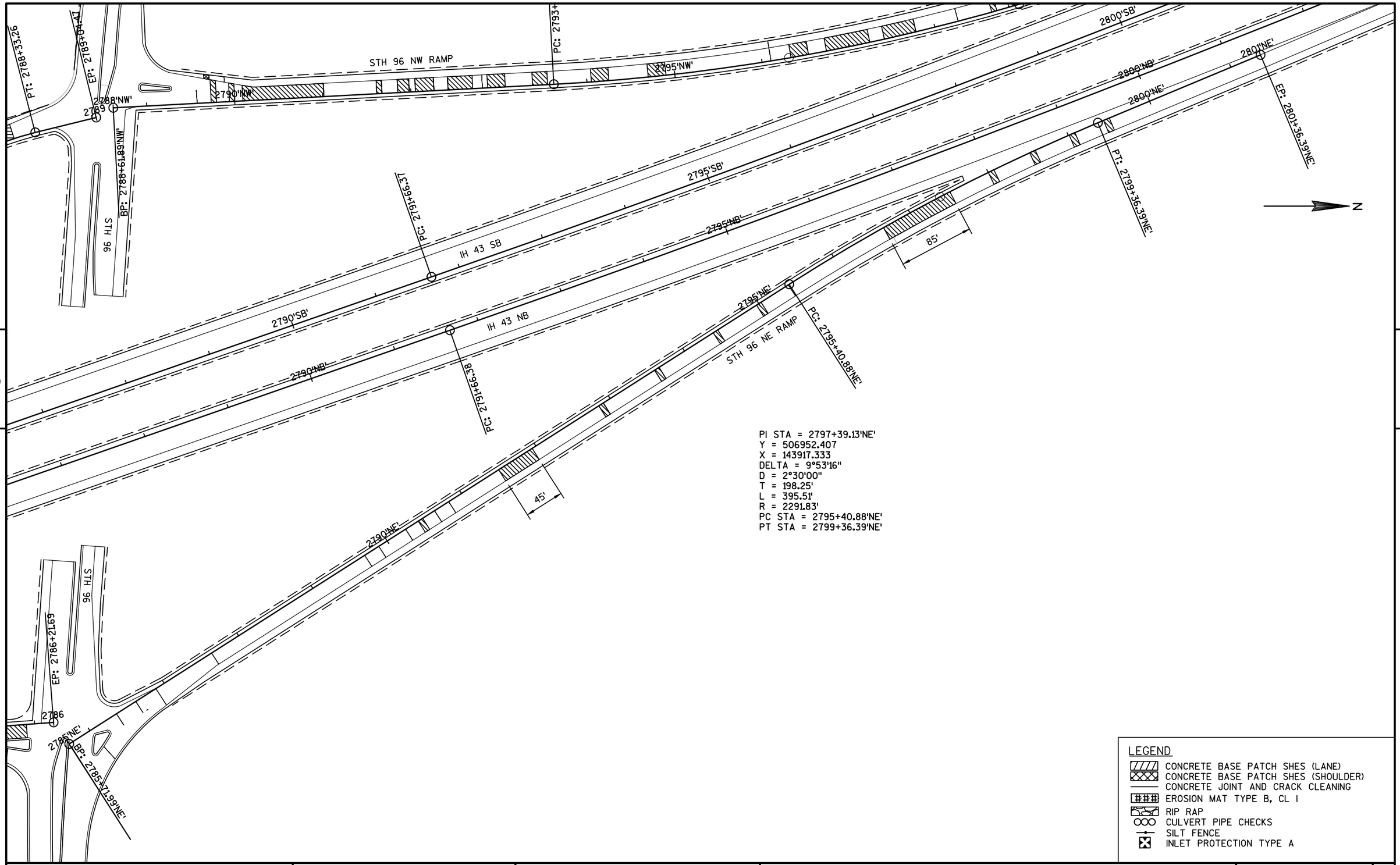
LEGEND

- CONCRETE BASE PATCH SHES (LANE)
- CONCRETE BASE PATCH SHES (SHOULDER)
- CONCRETE JOINT AND CRACK CLEANING
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN - STH 96 NW RAMP	SHEET	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\050203_PN.DWG PLOT DATE : 4/21/2016 2:00 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1" = 100'_XREF

WISDOT/CADDS SHEET 44



PI STA = 2797+39.13'NE'
Y = 506952.407
X = 143917.333
DELTA = 9°53'16"
D = 2°30'00"
T = 198.25'
L = 395.51'
R = 2291.83'
PC STA = 2795+40.88'NE'
PT STA = 2799+36.39'NE'

LEGEND

- CONCRETE BASE PATCH SHES (LANE)
- CONCRETE BASE PATCH SHES (SHOULDER)
- CONCRETE JOINT AND CRACK CLEANING
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN - STH 96 NE RAMP	SHEET 187	E

PI STA = 3154+30.20'SE'
Y = 537517.373
X = 126116.343
DELTA = 14°49'27"
D = 3°30'00"
T = 212.96'
L = 423.55'
R = 1637.02'
PC STA = 3152+17.24'SE'
PT STA = 3156+40.79'SE'

N

12.36

BP: 3152+17.24'SE'

3150'SB'

3151'SE'

22'

25'

PT: 3156+40.79'SE'

3155'SE'

USH 141/CTH MM SE RAMP

3160'SE'

35'

XXXX

XXXX

BP: 3162+86.63'SW'

PC: 3163+19.26'SW'

3163'SW'

3163'SE'

3165'SW'

EP: 3163+40.80'SE'

3152'NE'

BP: 3152+28.16'NE'

3155'NB'

3155'NE'

USH 141/CTH MM NE RAMP

3160'SB'

IH 43 SB

3160'NB'

PC: 3156+71.28'NE'

IH 43 NB

3160'NE'

3165'SB'

LEGEND

- CONCRETE BASE PATCH SHES (LANE)
- CONCRETE BASE PATCH SHES (SHOULDER)
- CONCRETE JOINT AND CRACK CLEANING
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN - USH 141/CTH MM SE RAMP	SHEET 188 E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\050203_PN.DWG PLOT DATE : 4/21/2016 2:00 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1" = 100'_XREF

WISDOT/CADDS SHEET 44

BP: 3152+28.16'NE'
3155'NB'
3155'NE'
3160'SB'
3160'NB'
IH 43 SB
IH 43 NB
3165'SB'
3165'NB'
3163'SW'
3163'SE'
BP: 3163+40.80'SE'
3165'SW'
PT: 3165+
USH 141/CTH MM
B-05-0189
N
PC: 3156+71.28'NE'
30'
20'
45'
STA 3159+15.00'NE'
REMOVING CPRC ENDWALL (24-INCH)
APRON ENDWALL FOR CPRC 24-INCH
3160'NE'
PT: 3159+69.25'NE'
15'
USH 141/CTH MM NE RAMP
3155'NE'
BP: 3166+08.24'NW'
PT: 3167+79.73'NW'
3166'NW'
3167'NE'
EP: 3167+05.24'NE'
15'

PI STA = 3158+21.11'NE'
Y = 537863.676
X = 125851.182
DELTA = 14°53'55"
D = 5°00'00"
T = 149.83'
L = 297.97'
R = 1145.92'
PC STA = 3156+71.28'NE'
PT STA = 3159+69.25'NE'

LEGEND

- CONCRETE BASE PATCH SHES (LANE)
- CONCRETE BASE PATCH SHES (SHOULDER)
- CONCRETE JOINT AND CRACK CLEANING
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN - USH 141/CTH MM NE RAMP	SHEET 189 E

LEGEND

- CONCRETE BASE PATCH SHES (LANE)
- CONCRETE BASE PATCH SHES (SHOULDER)
- CONCRETE JOINT AND CRACK CLEANING
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

N

PI STA = 3164+68.92'SW'
Y = 537702.892
X = 125017.090
DELTA = 29°16'40"
D = 10°00'00"
T = 149.66'
L = 292.78'
R = 572.96'
PC STA = 3163+19.26'SW'
PT STA = 3166+12.04'SW'

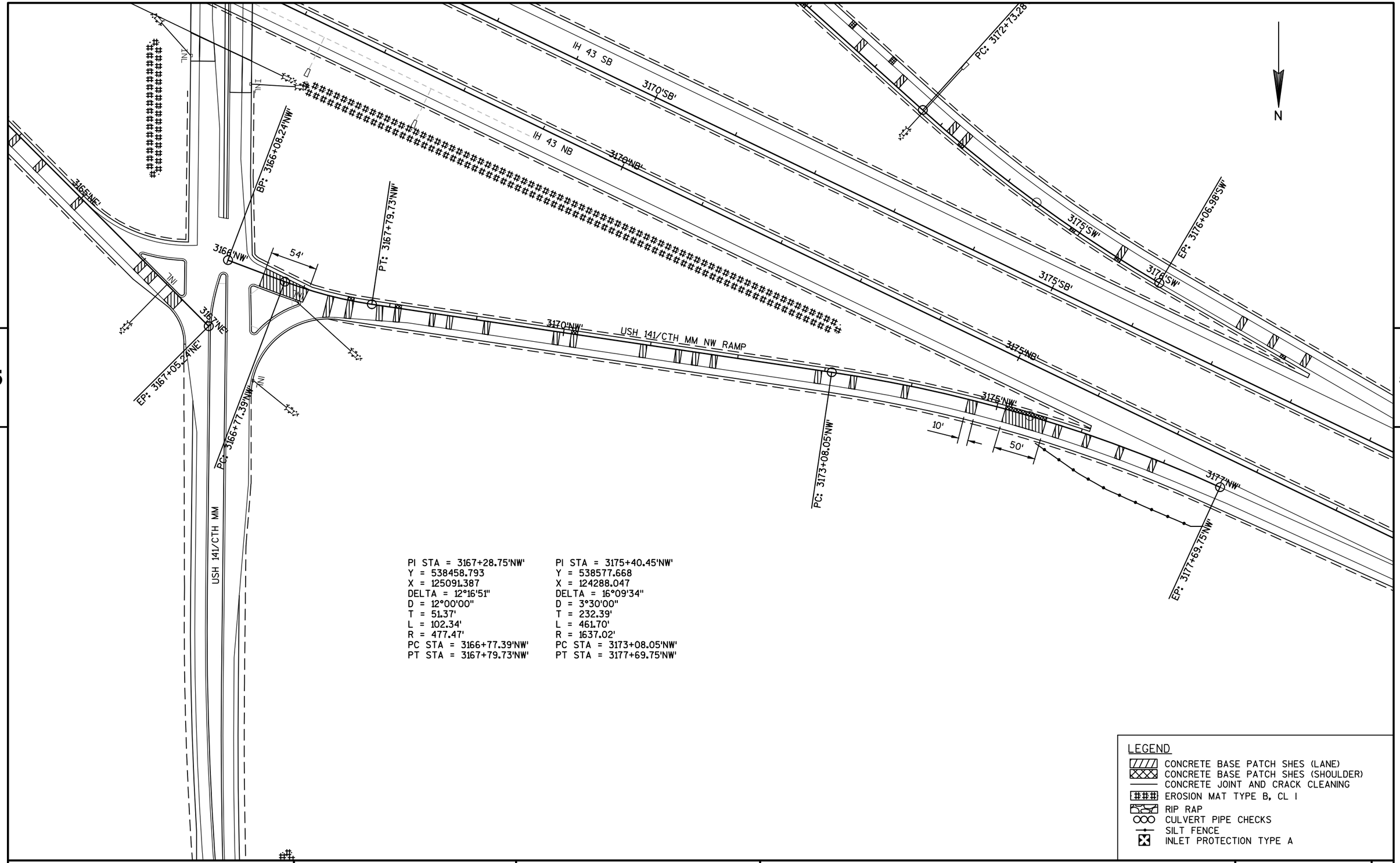
PI STA = 3174+40.71'SW'
Y = 538357.627
X = 124290.143
DELTA = 11°40'46"
D = 3°30'00"
T = 167.43'
L = 333.70'
R = 1637.02'
PC STA = 3172+73.28'SW'
PT STA = 3176+06.98'SW'

STA 3172+78.00'SW'
REMOVING CPRC ENDWALL (ELLIPTICAL 29"X45")
APRON ENDWALL FOR CPRC
HORIZONTAL ELLIPTICAL 29X45-INCH

BP: 3162+85.63'SW'
PC: 3163+19.26'SW'
3162'SW'
3163'SE'
EP: 3163+40.80'SE'
USH 141/CTH MM
3165'SW'
PT: 3166+12.04'SW'
USH 141/CTH MM SW RAMP
3170'SW'
PC: 3172+73.28'SW'
3175'SW'
EP: 3176+06.98'SW'
3178'SW'
3165'SB'
B-05-0189
3166'NB'
IH 43 SB
3170'SB'
IH 43 NB
3170'NB'
3175'SB'
BP: 3166+08.24'NW'
PT: 3167+79.73'NW'
3166'NW'
3167'NE'
3170'NW'

PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN - USH 141/CTH MM SW RAMP	SHEET 190	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\050203_PN.DWG PLOT DATE : 4/21/2016 2:00 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1" = 100'_XREF

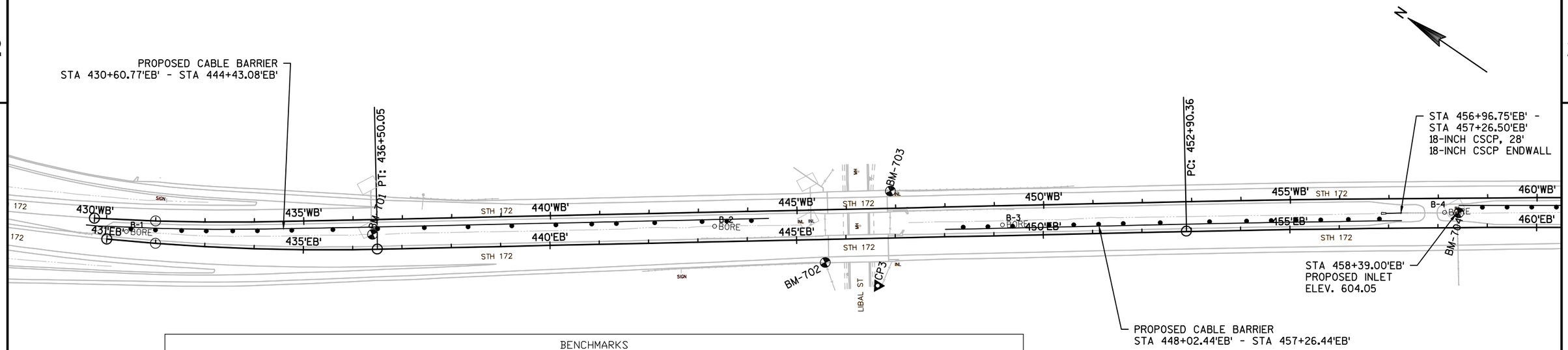


PI STA = 3167+28.75'NW'
Y = 538458.793
X = 125091.387
DELTA = 12°16'51"
D = 12°00'00"
T = 51.37'
L = 102.34'
R = 477.47'
PC STA = 3166+77.39'NW'
PT STA = 3167+79.73'NW'

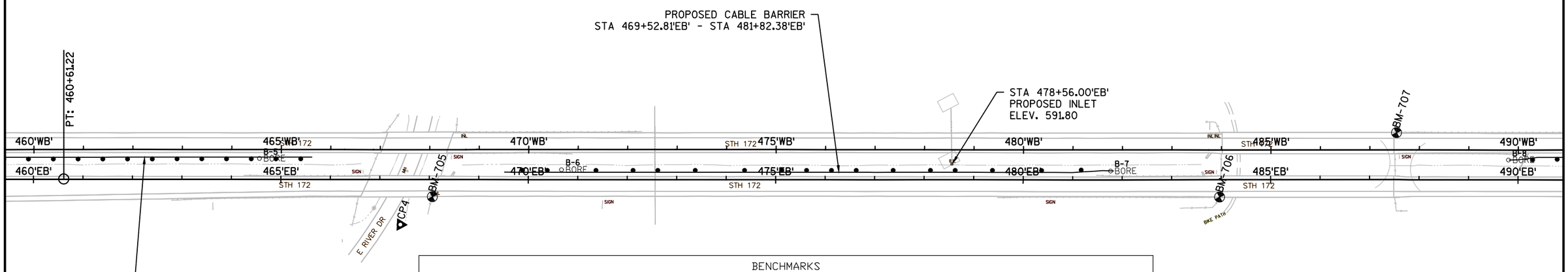
PI STA = 3175+40.45'NW'
Y = 538577.668
X = 124288.047
DELTA = 16°09'34"
D = 3°30'00"
T = 232.39'
L = 461.70'
R = 1637.02'
PC STA = 3173+08.05'NW'
PT STA = 3177+69.75'NW'

LEGEND
- CONCRETE BASE PATCH SHES (LANE)
- CONCRETE BASE PATCH SHES (SHOULDER)
- CONCRETE JOINT AND CRACK CLEANING
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN - USH 141/CTH MM NW RAMP	SHEET 191	E



BENCHMARKS					
NO.	STATION	NORTHING	EASTING	DESCRIPTION	ELEV.
BM-701	436+41.14'EB'	550369.207	96671.534	'X' on Inlet	629.13
BM-702	445+57.17'EB'	549890.824	97456.484	Disk on SW corner of bridge	624.42
BM-703	446+92.31'EB'	549957.712	97640.974	Disk on NE corner of bridge	622.60
CP3	446+62.52'EB'	549799.813	97528.791	FEND Marker	600.72
BM-704	458+42.48'EB'	549381.319	98639.181	'X' on Inlet	602.26



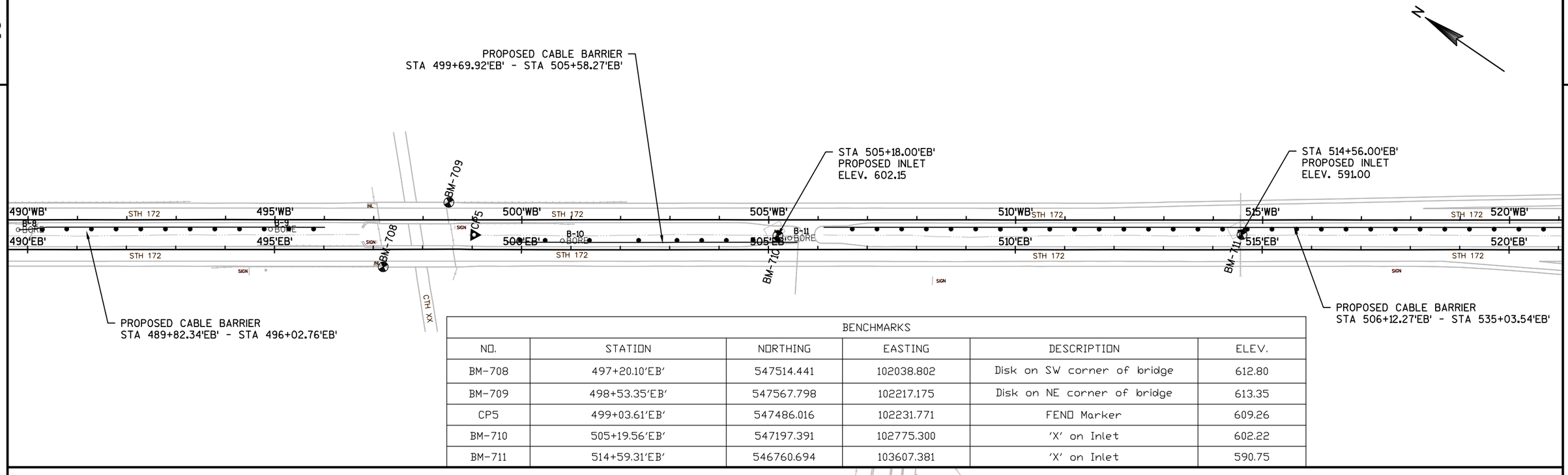
BENCHMARKS					
NO.	STATION	NORTHING	EASTING	DESCRIPTION	ELEV.
CP4	467+41.63'EB'	548854.798	99378.353	FEND Marker	586.74
BM-705	468+06.30'EB'	548874.444	99461.784	Disk on SE corner of bridge	610.53
BM-706	483+97.10'EB'	548131.943	100868.688	Disk on SW corner of bridge	600.01
BM-707	487+54.84'EB'	548080.358	101245.793	Disk on NE corner of bridge	601.88

LEGEND

- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	PLAN - STH 172 CABLE GUARD	SHEET 192	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\050204_PN_CABLE_GUARD_STH 172.DWG
LAYOUT NAME - 050204_PNA
PLOT DATE : 7/26/2016 12:59 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44



BENCHMARKS					
NO.	STATION	NORTHING	EASTING	DESCRIPTION	ELEV.
BM-708	497+20.10'EB'	547514.441	102038.802	Disk on SW corner of bridge	612.80
BM-709	498+53.35'EB'	547567.798	102217.175	Disk on NE corner of bridge	613.35
CP5	499+03.61'EB'	547486.016	102231.771	FEND Marker	609.26
BM-710	505+19.56'EB'	547197.391	102775.300	'X' on Inlet	602.22
BM-711	514+59.31'EB'	546760.694	103607.381	'X' on Inlet	590.75

LEGEND

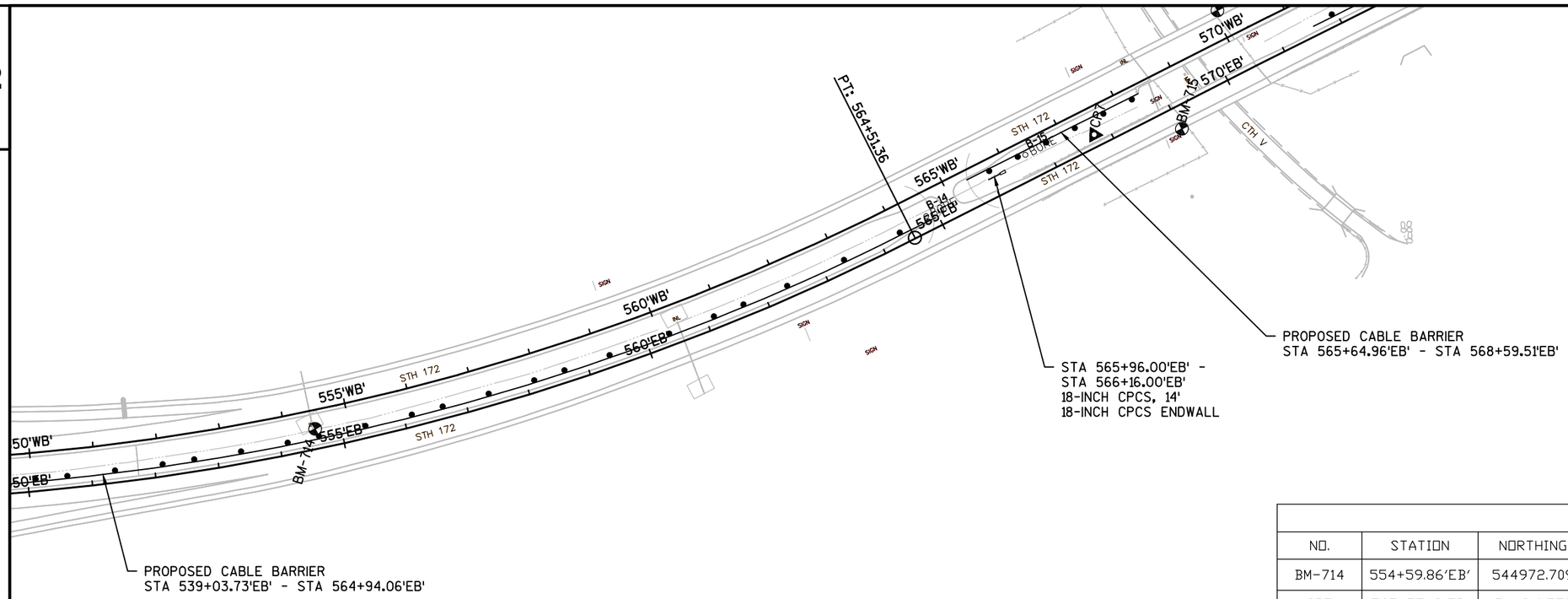
- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

BENCHMARKS					
NO.	STATION	NORTHING	EASTING	DESCRIPTION	ELEV.
CP6	535+29.56'EB'	545422.751	105243.154	FEND Marker	593.14
BM-712	536+07.54'EB'	545699.909	105476.674	Disk on SW corner of bridge	618.00
BM-713	537+97.67'EB'	545726.236	105706.190	Disk on NE corner of bridge	619.91

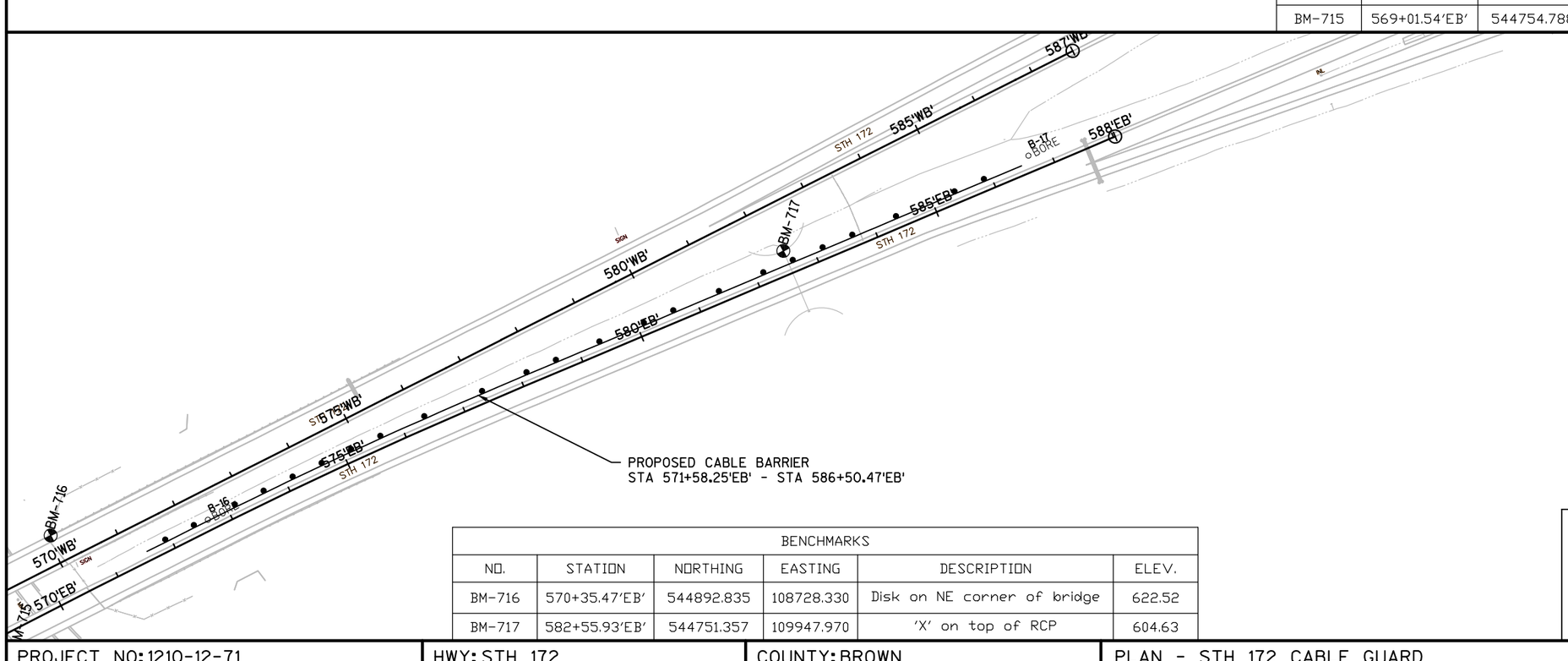
PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	PLAN - STH 172 CABLE GUARD	SHEET 193 E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\050204_PN_CABLE_GUARD_STH 172.DWG
LAYOUT NAME - 050204_PNB
PLOT DATE : 7/26/2016 12:59 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

2



BENCHMARKS					
NO.	STATION	NORTHING	EASTING	DESCRIPTION	ELEV.
BM-714	554+59.86'EB'	544972.709	107173.517	'X' on Inlet	596.68
CP7	567+75.12'EB'	544810.750	108466.985	FEND Marker	615.73
BM-715	569+01.54'EB'	544754.788	108592.582	Disk on SW corner of bridge	622.33

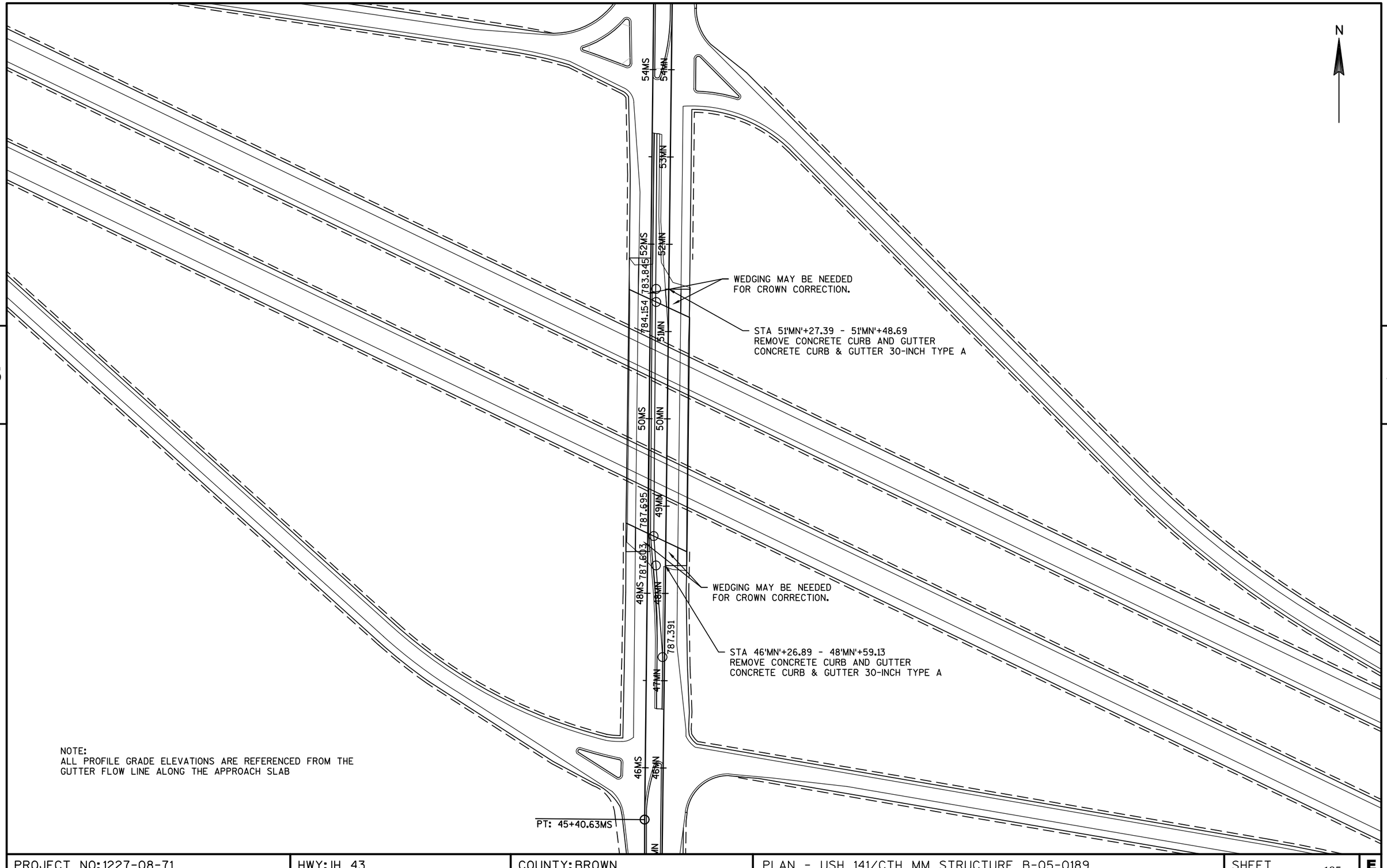


BENCHMARKS					
NO.	STATION	NORTHING	EASTING	DESCRIPTION	ELEV.
BM-716	570+35.47'EB'	544892.835	108728.330	Disk on NE corner of bridge	622.52
BM-717	582+55.93'EB'	544751.357	109947.970	'X' on top of RCP	604.63

LEGEND

- EROSION MAT TYPE B, CL I
- RIP RAP
- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A

PROJECT NO: 1210-12-71	HWY: STH 172	COUNTY: BROWN	PLAN - STH 172 CABLE GUARD	SHEET 194	E



NOTE:
ALL PROFILE GRADE ELEVATIONS ARE REFERENCED FROM THE GUTTER FLOW LINE ALONG THE APPROACH SLAB

5

5

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PLAN - USH 141/CTH MM STRUCTURE B-05-0189	SHEET 195	E

Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D02-06	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D03-06	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
11A01-05	MAINTENANCE CROSSOVER FOR FREEWAYS
12A03-10	NAME PLATE (STRUCTURES)
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13A07-02	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C14-06A	BASE PATCHING CONCRETE
13C14-06B	BASE PATCHING CONCRETE
13C14-06C	BASE PATCHING CONCRETE
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B26-03A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B28-03	GUARDRAIL MOW STRIP
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-02A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B50-01A	THRIE BEAM APPROACH RETROFIT INSTALLATION OF MISSING POST
14B50-01B	THRIE BEAM APPROACH RETROFIT INSTALLATION OF MISSING POST

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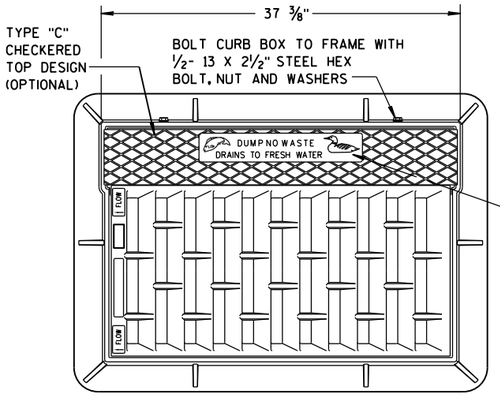
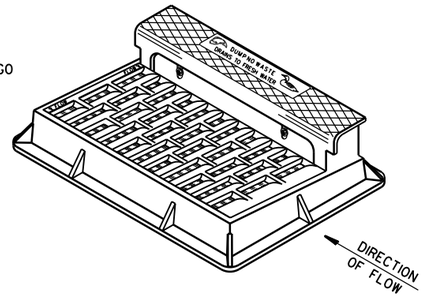
Standard Detail Drawing List

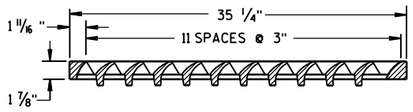
14B50-01C	THRIE BEAM APPROACH RETROFIT INSTALLATION OF MISSING POST
14B52-01A	CABLE BARRIER TYPE 1 LAYOUT
14B52-01B	CABLE BARRIER TYPE 1 LAYOUT
15A02-08	DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A06-02	DELINEATOR LAYOUT
15B01-08A	FENCE WOVEN WIRE
15B01-08B	FENCE WOVEN WIRE
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C14-01	AERIAL ENFORCEMENT BARS PAVEMENT MARKING DETAILS
15C18-03	MEDIAN ISLAND MARKING
15C25-03	42" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15D03-03	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D12-06B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D15-02	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D16-03	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-03	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-03	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

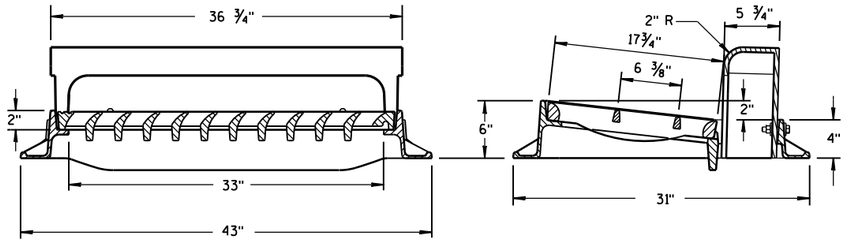


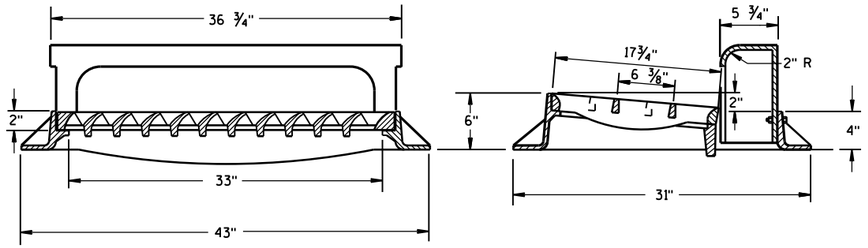
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

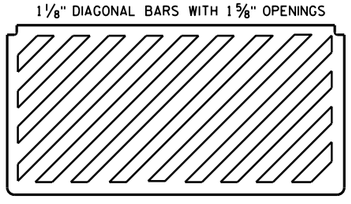






TYPE "H"

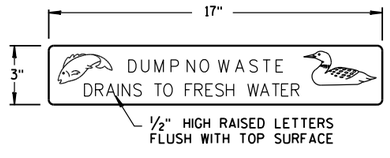
NOTE: EITHER CASTING IS ACCEPTABLE



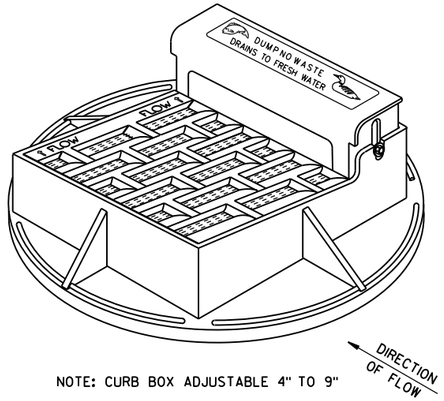
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

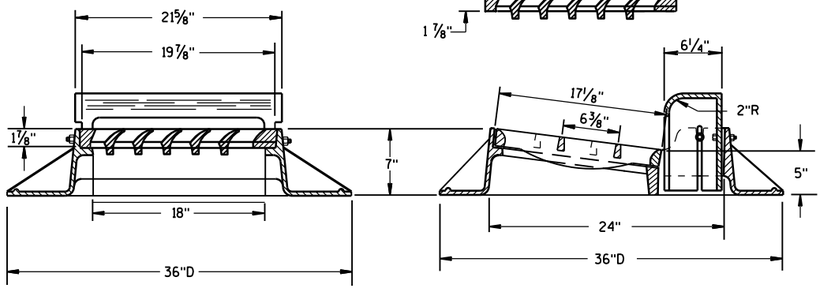


LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.



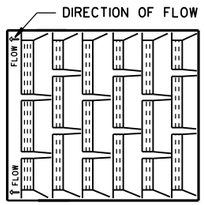
TYPE "A"

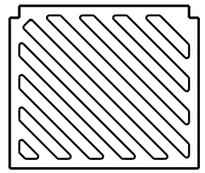
GENERAL NOTES

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

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

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

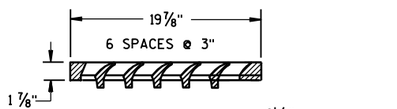


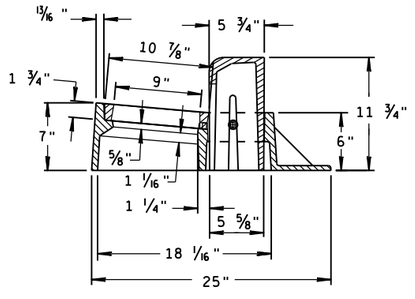


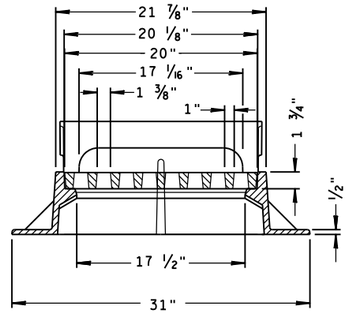
SPECIAL GRATE FOR TYPE "A" COVER

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

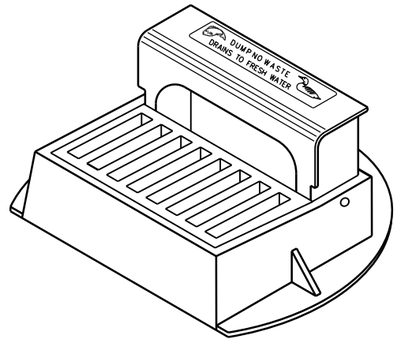
(NOTED AS TYPE A-S ON DRAINAGE TABLE)







TYPE "Z"

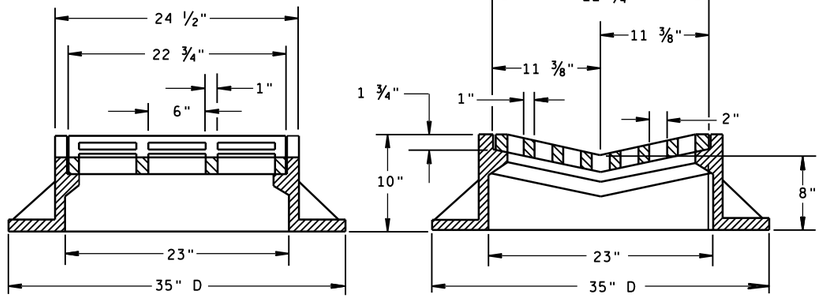


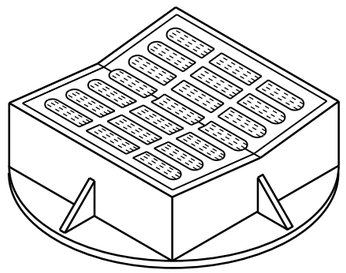
INLET COVERS
TYPE A, H, A-S, H-S & Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

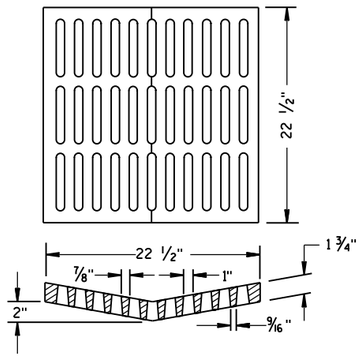
APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

S.D.D. 8 A 5-19a



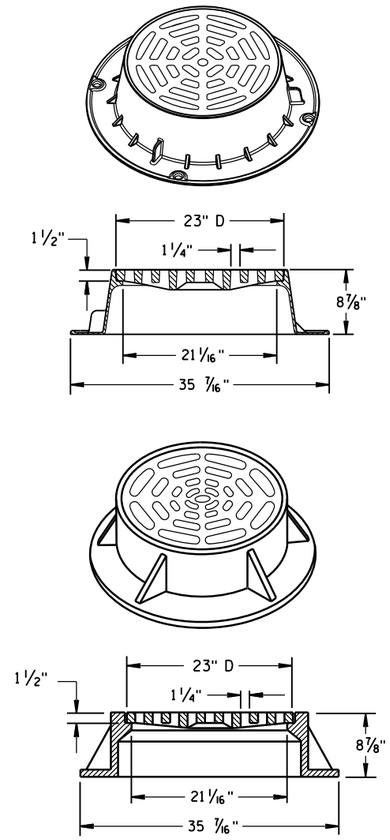


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

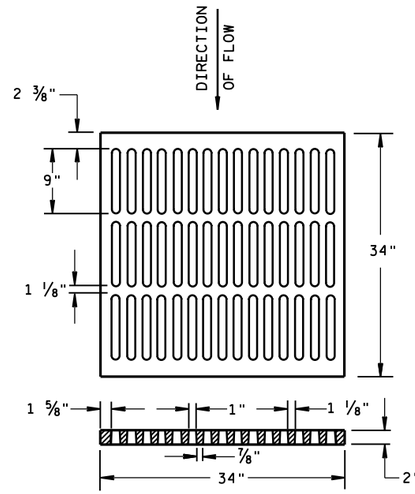
NOTE: EITHER CASTING IS ACCEPTABLE

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.

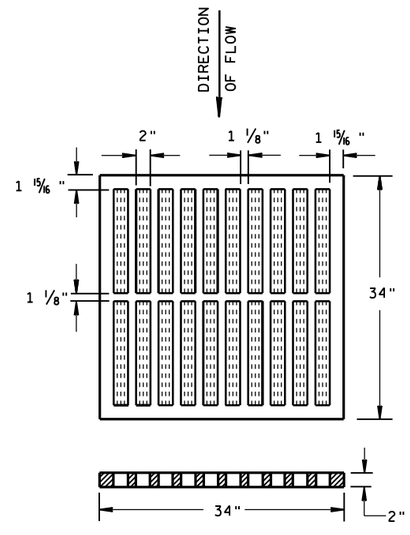
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



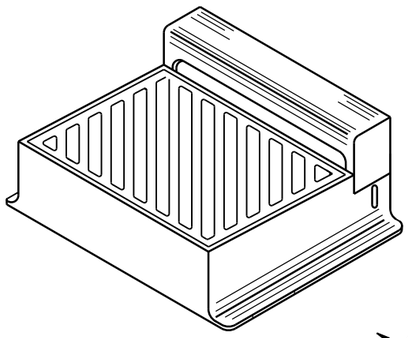
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

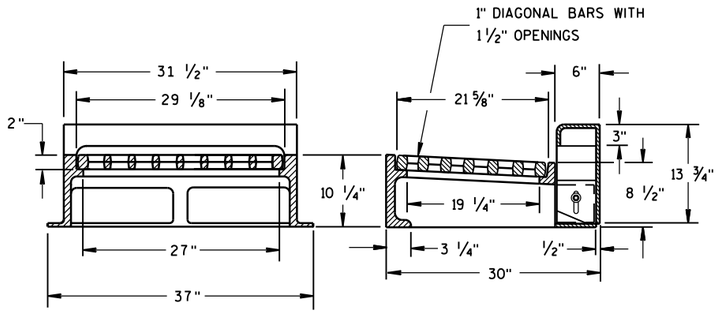


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

INLET COVERS
TYPE B, B-A, C,
MS, MS-A, & WM

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11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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6

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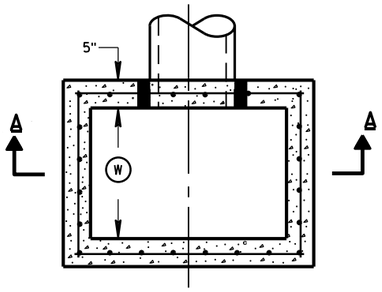
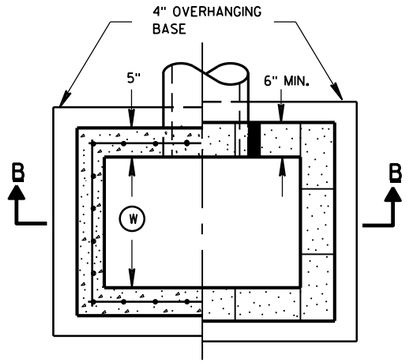
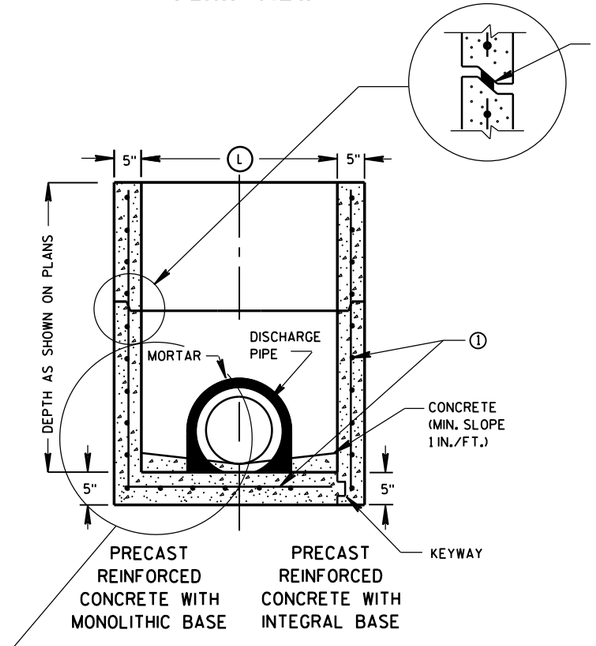


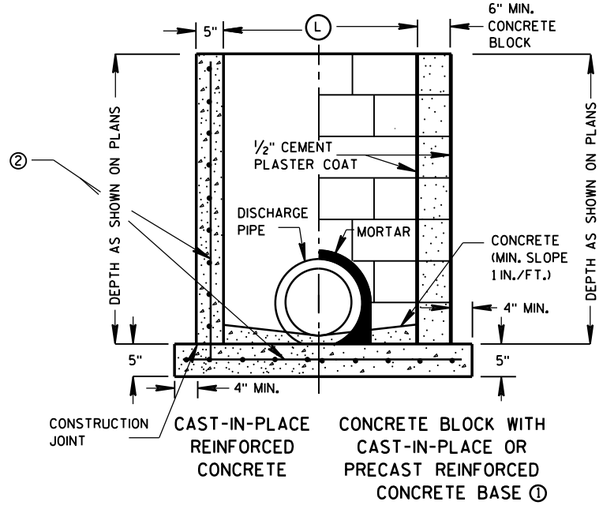
PLAN VIEW



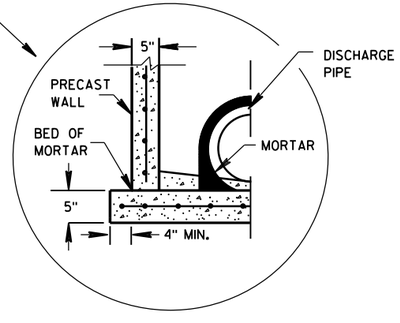
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

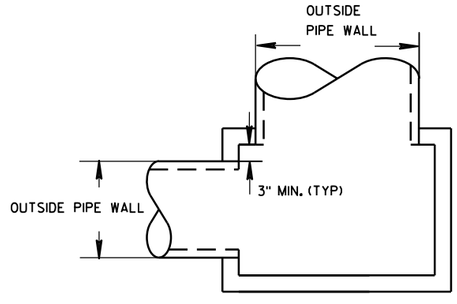
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

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

PIPE MATRIX

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



DETAIL "A"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

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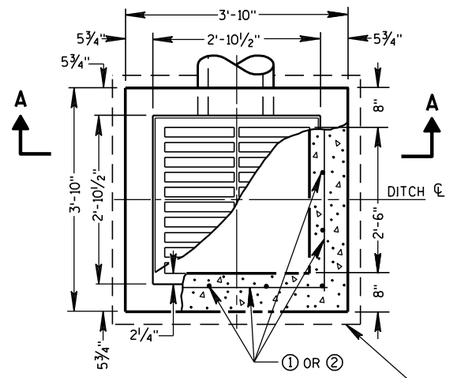
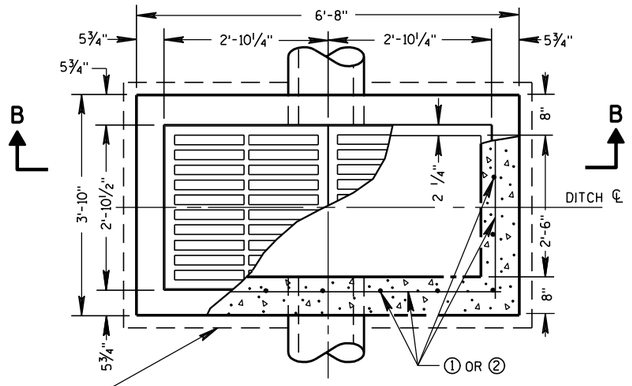
S.D.D. 8 C 7-1

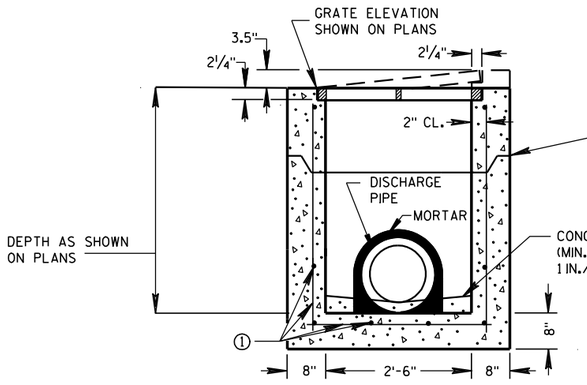


PLAN VIEW

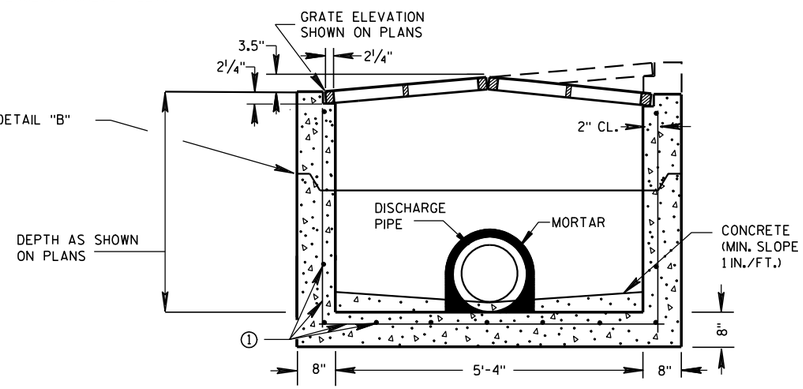


PLAN VIEW

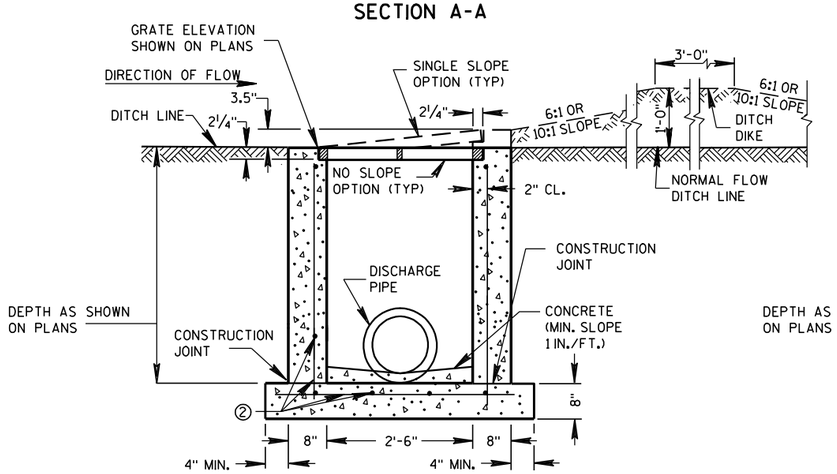
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



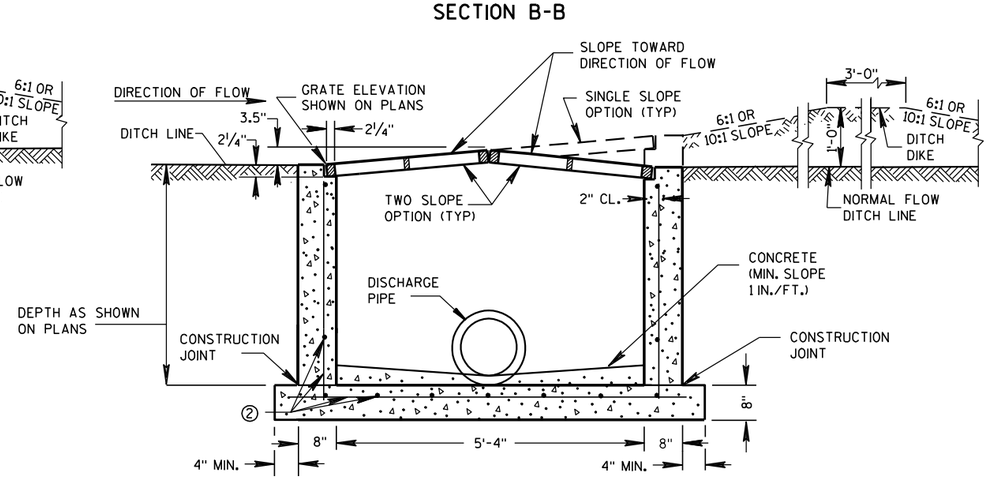
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR 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.

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.

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

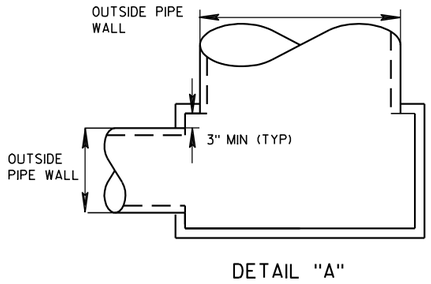
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS 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.

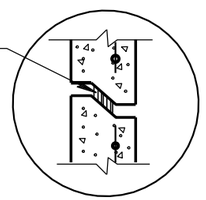
PIPE MATRIX

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



DETAIL "A"

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



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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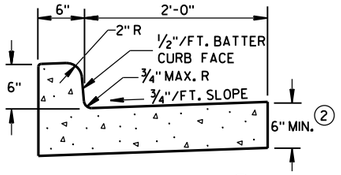
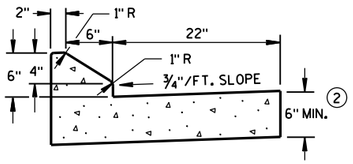
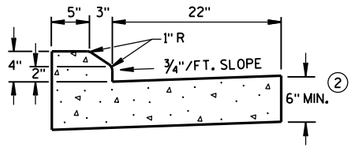
S.D.D. 8 C 8-1



TYPES A & D ①

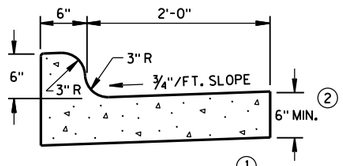


6" SLOPED CURB TYPES G & J ①

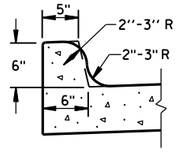


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

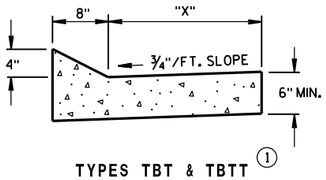


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

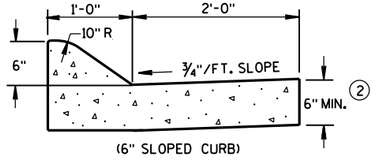
CONCRETE CURB & GUTTER 30"



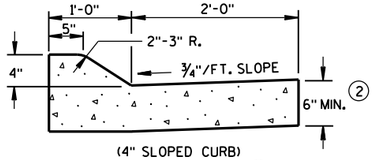
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

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

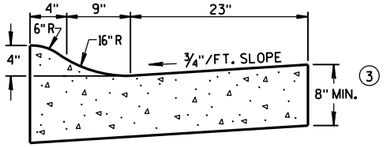


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

GENERAL NOTES

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

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

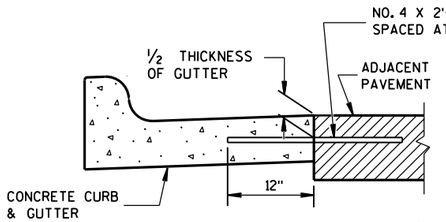
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

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.

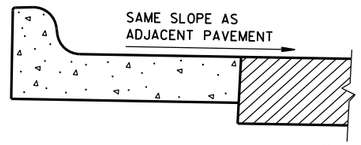
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

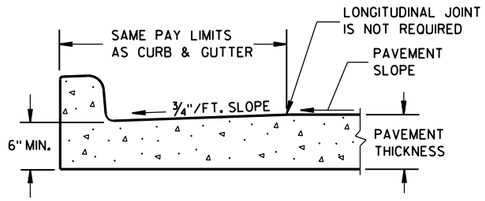
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



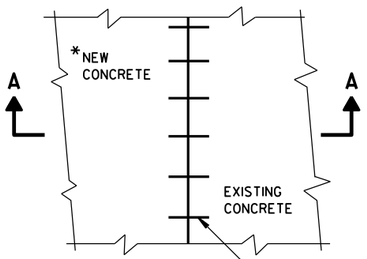
TYPICAL TIE BAR LOCATION ①



REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)

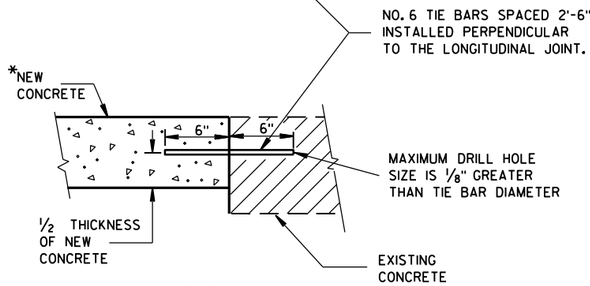


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



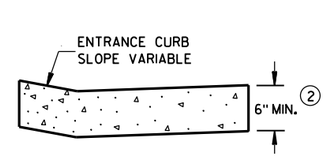
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

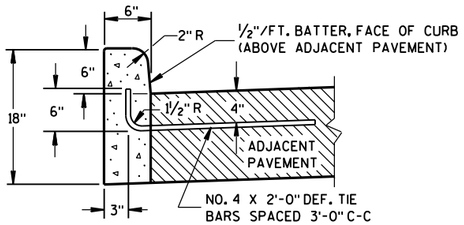


SECTION A-A

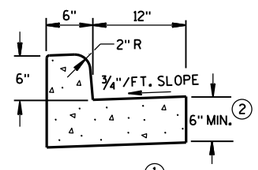
TIE BARS DRILLED
INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

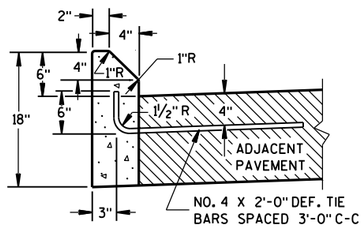


① TYPES A & D

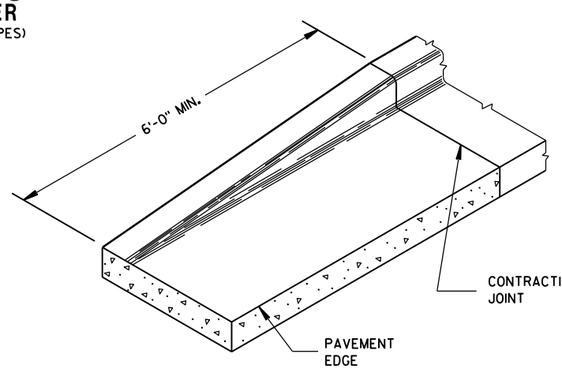


① TYPES A & D

CONCRETE CURB & GUTTER 18"



① TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

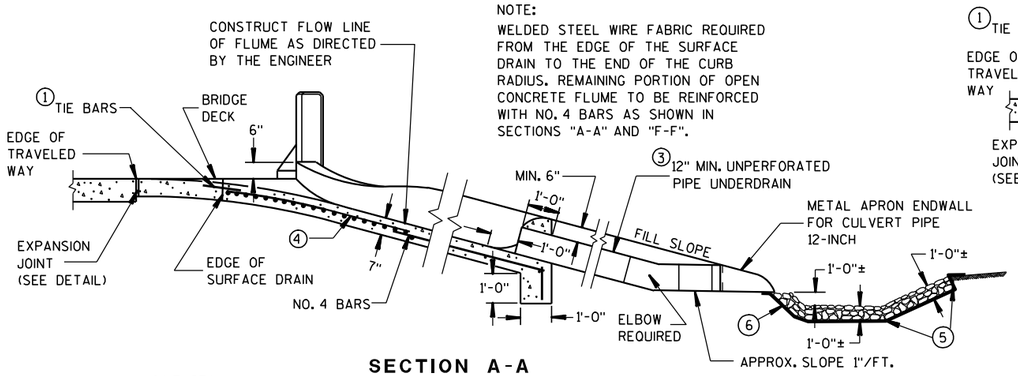
CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

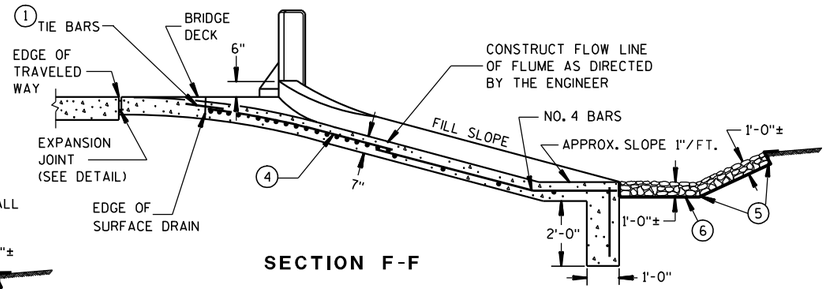
APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 D 1-18



SECTION A-A



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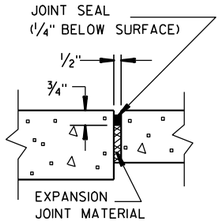
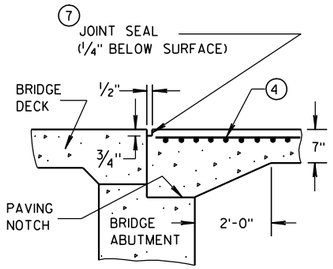
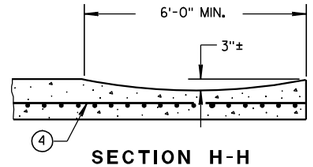


EXPANSION JOINT DETAIL



SECTION D-D



SECTION H-H

GENERAL NOTES

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

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

(1) NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.

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

(3) PIPE UNDERDRAIN MAY BE ANY OF THE MATERIALS LISTED IN SECTION 612.2 OF THE STANDARD SPECIFICATIONS EXCEPT DRAIN TILE.

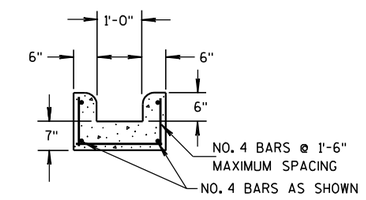
(4) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.

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

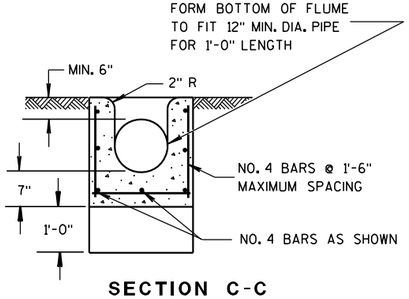
(6) GEOTEXTILE FABRIC, TYPE 'R"

(7) HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

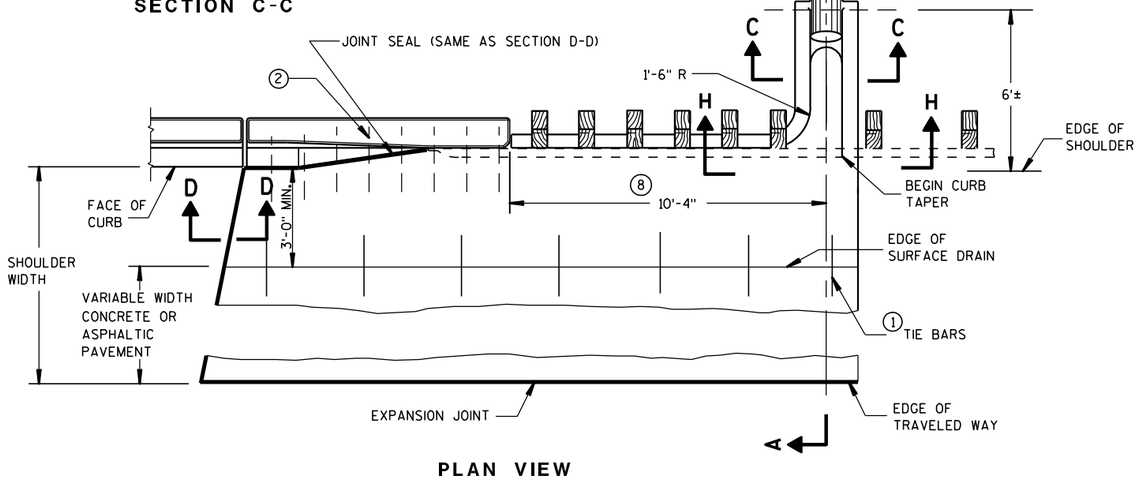
(8) THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'-1½".



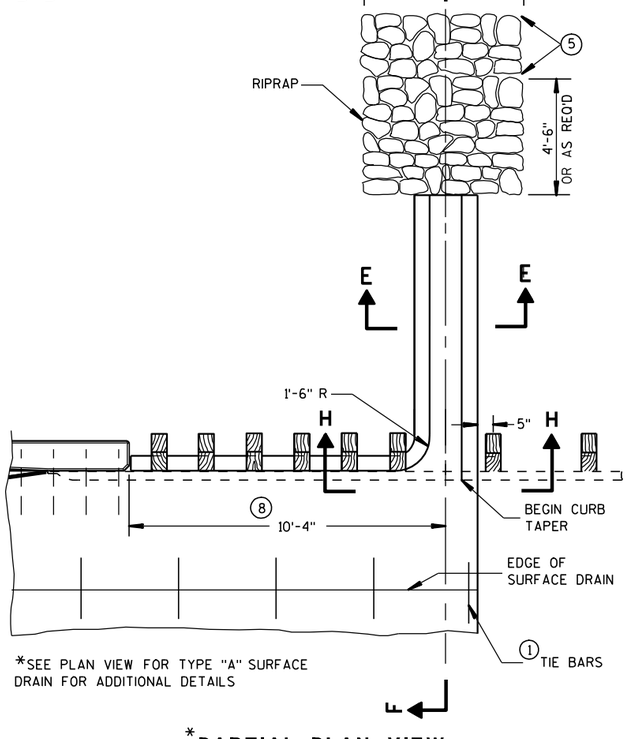
SECTION E-E



SECTION C-C

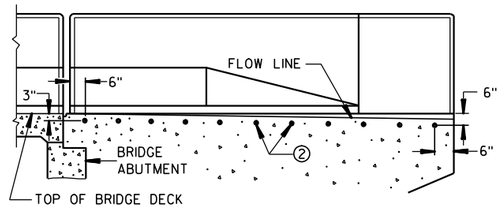


PLAN VIEW
SURFACE DRAIN WITH PIPE
TYPE "A"



*SEE PLAN VIEW FOR TYPE "A" SURFACE DRAIN FOR ADDITIONAL DETAILS

*PARTIAL PLAN VIEW
SURFACE DRAIN WITHOUT PIPE
TYPE "B"



LOCATION OF TIE BARS IN WINGWALL

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

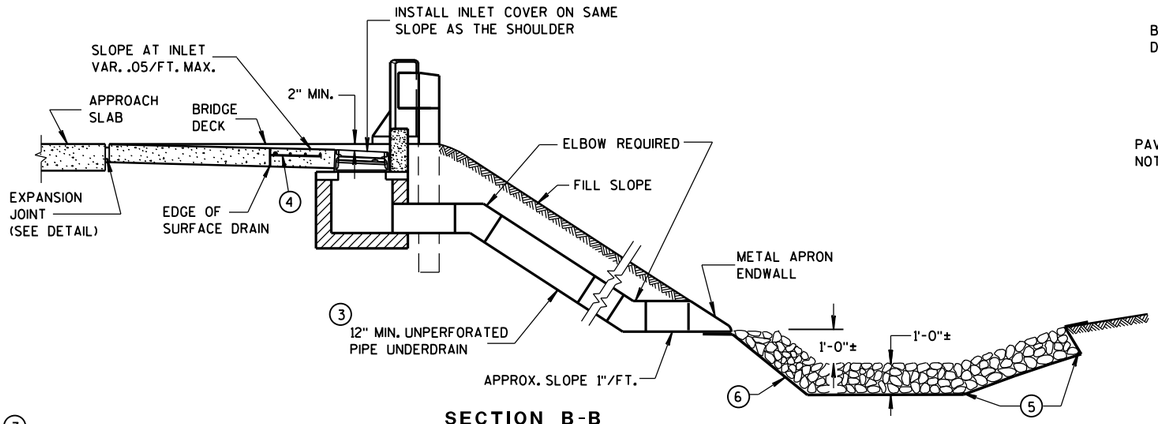
APPROVED
9/4/08
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

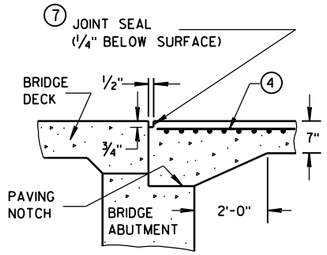
S.D.D. 8 D 2-6

6

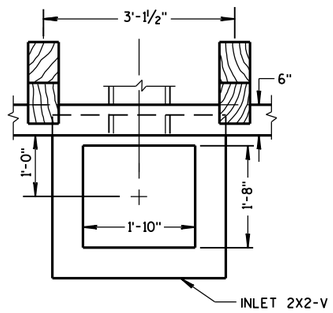
S.D.D. 8 D 2-6



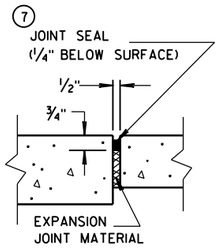
SECTION B-B



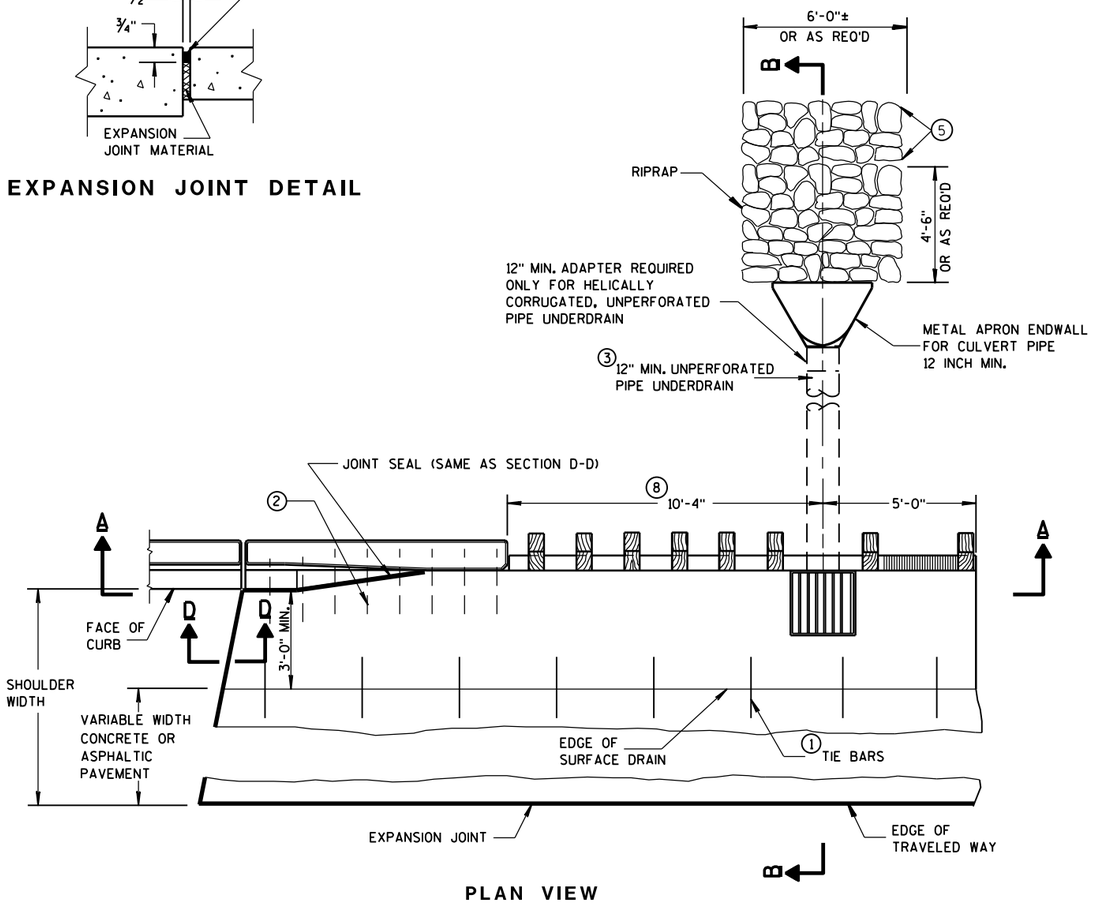
SECTION D-D



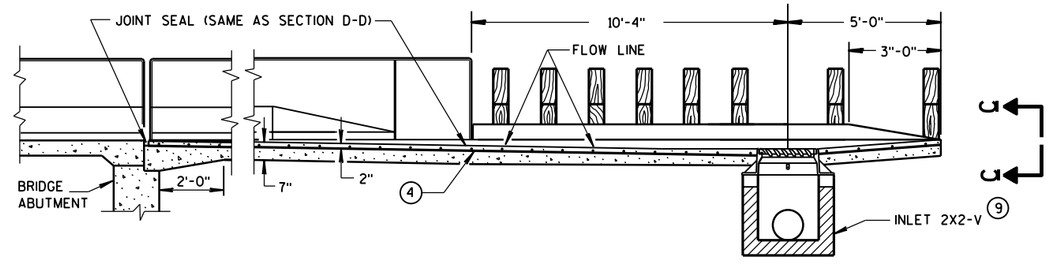
PLAN VIEW



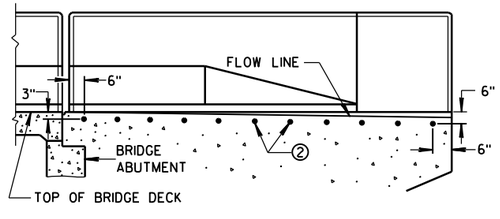
EXPANSION JOINT DETAIL



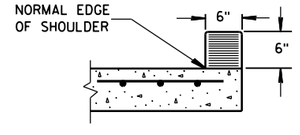
PLAN VIEW



SECTION A-A



LOCATION OF TIE BARS IN WINGWALL



SECTION C-C

GENERAL NOTES

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

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

(1) NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.

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

(3) THE PIPE UNDERDRAIN MAY BE ANY ONE OF THE SIX MATERIALS LISTED IN THE STANDARD SPECIFICATIONS SECTION 612.2 EXCEPT DRAIN TILE.

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

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

(6) GEOTEXTILE FABRIC, TYPE 'R'

(7) HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

(8) THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'-1½".

(9) SEE CURRENT STANDARD DETAIL DRAWINGS 8A5 AND 8C7 FOR DETAILS.

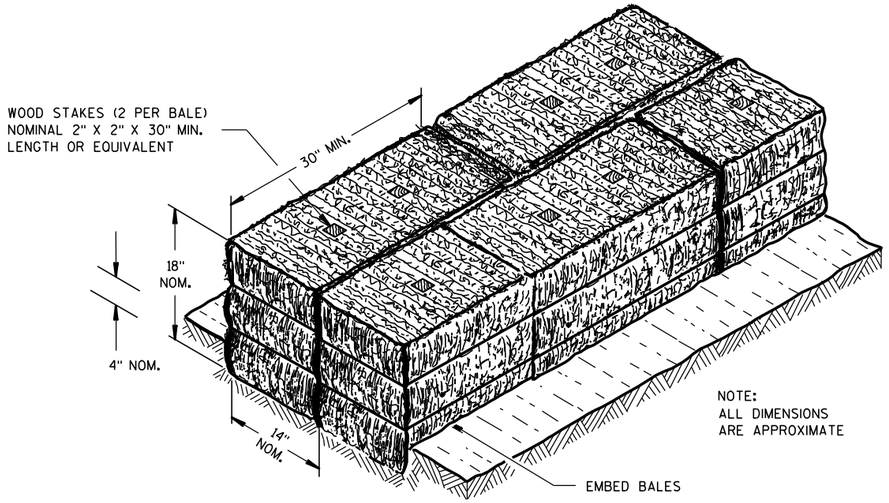
CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

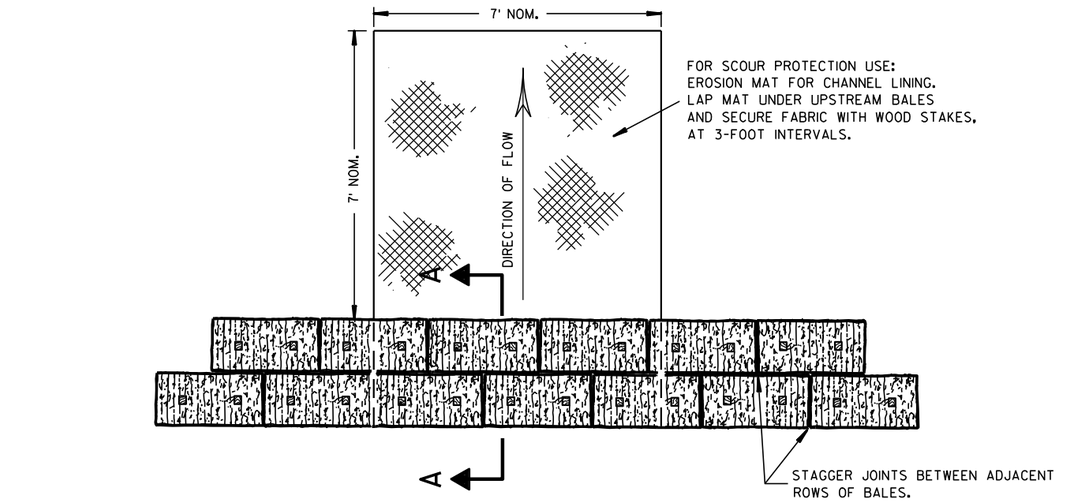
APPROVED
9/4/08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

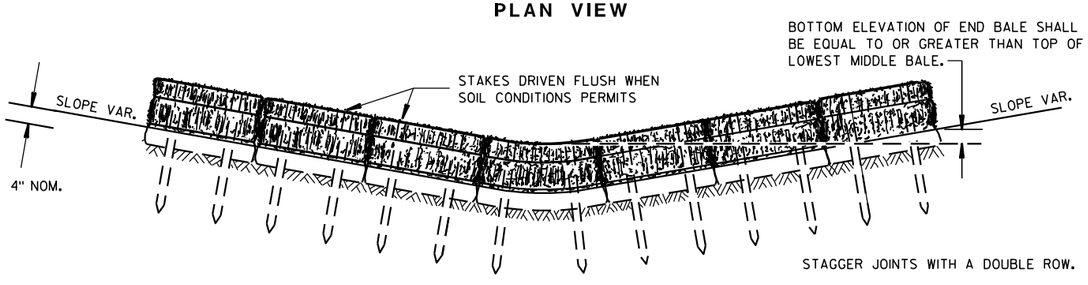
S.D.D. 8 D 3-6



SECTION A-A



PLAN VIEW



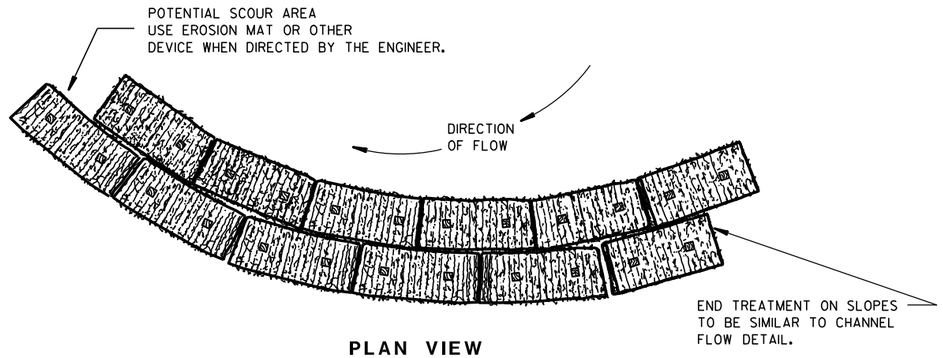
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

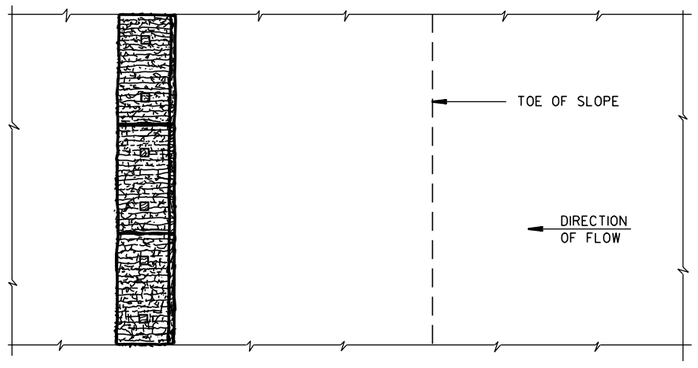
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

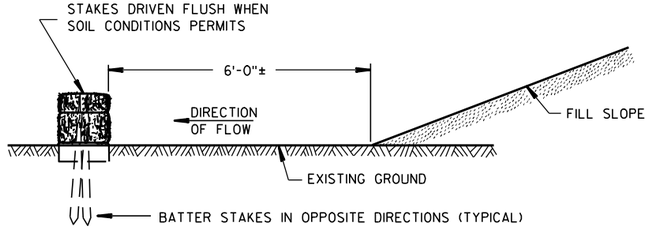


PLAN VIEW

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

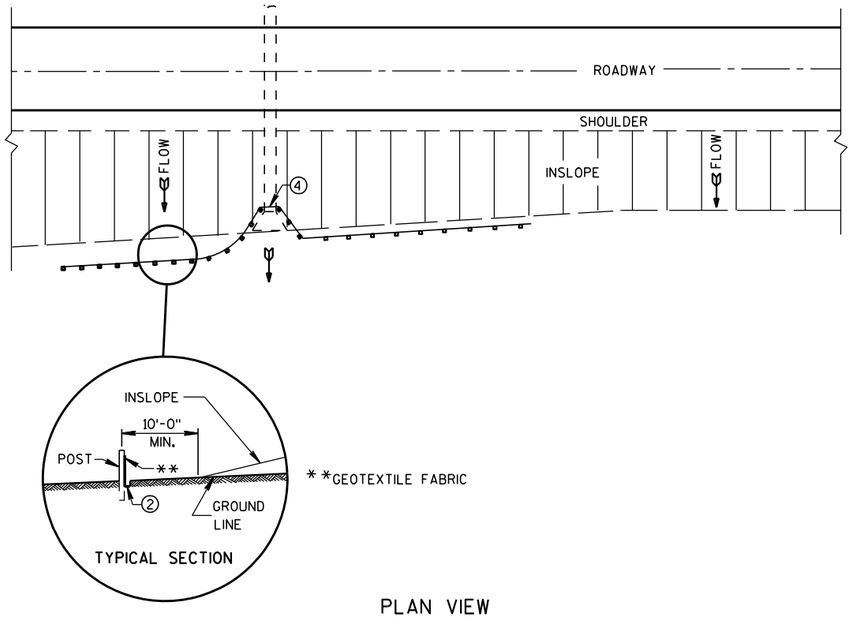
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

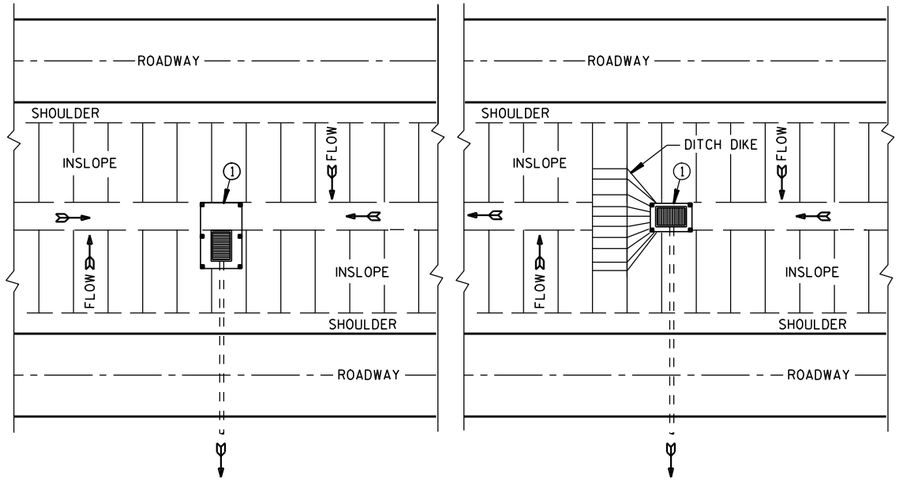
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



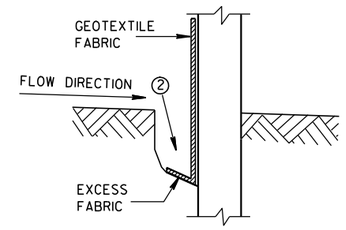
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

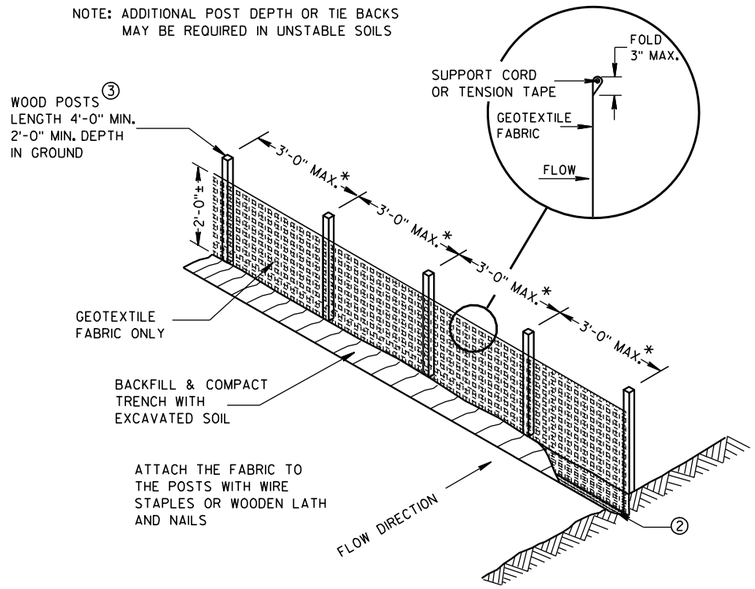
GENERAL NOTES

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

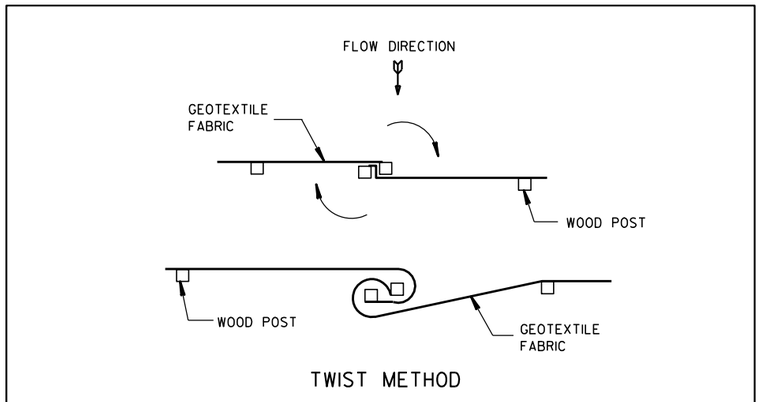
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



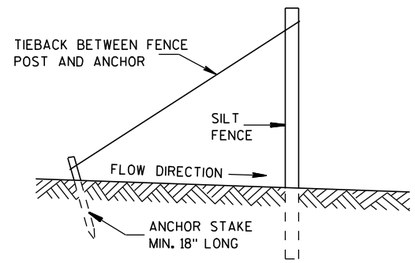
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

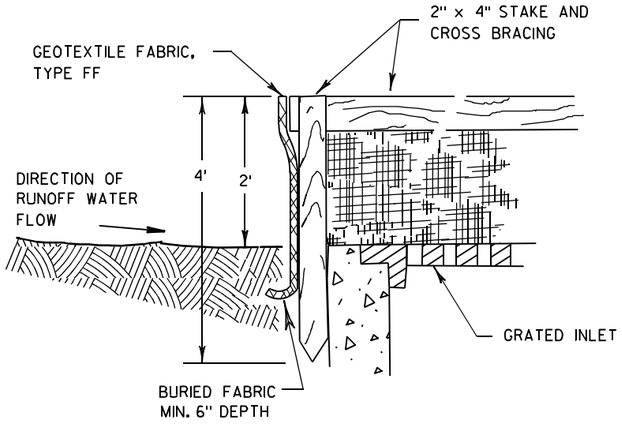
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

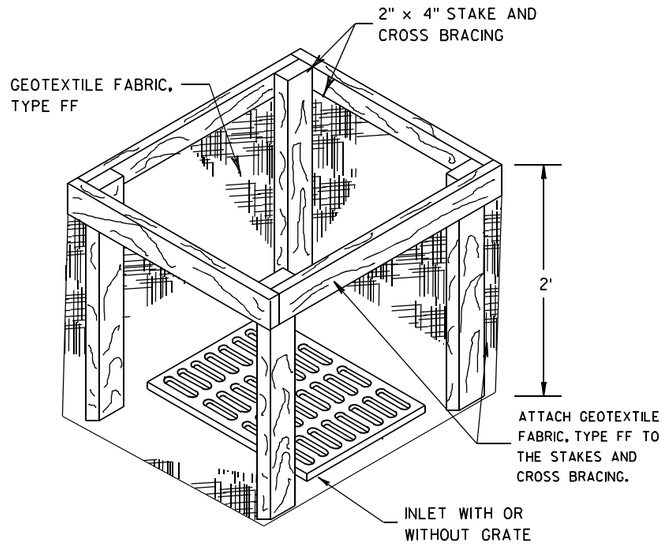
6

S.D.D. 8 E 9-6

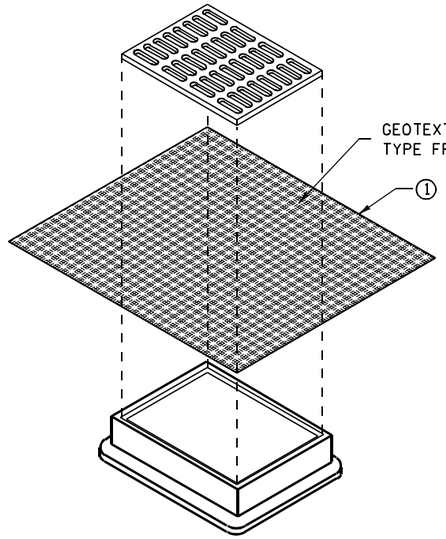
6

S.D.D. 8 E 9-6



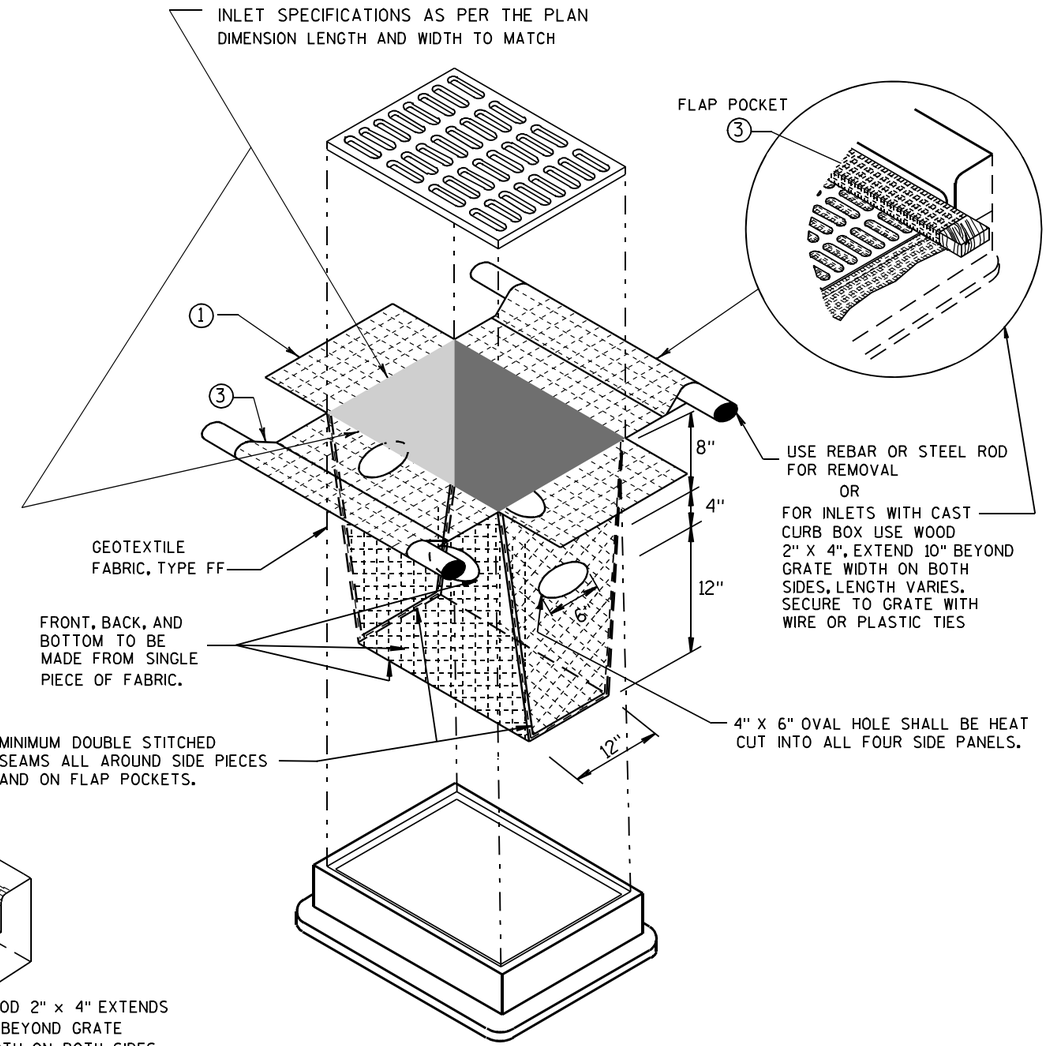


INLET PROTECTION, TYPE A



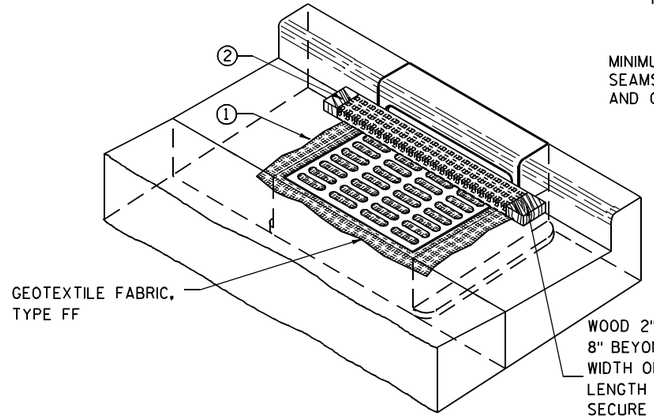
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE D

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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

METAL APRON ENDWALLS

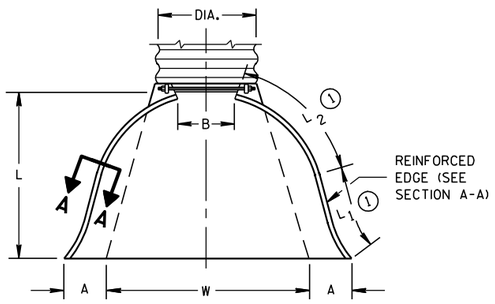
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

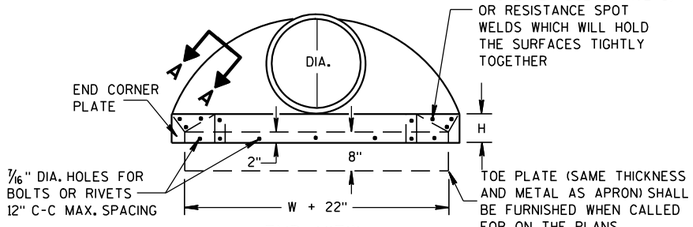
REINFORCED CONCRETE APRON ENDWALLS

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

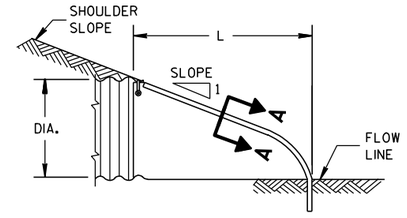
*MINIMUM
**MAXIMUM



PLAN VIEW

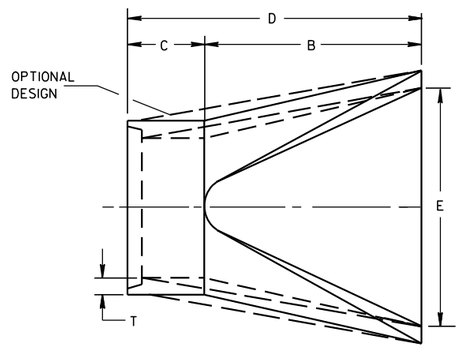


END VIEW

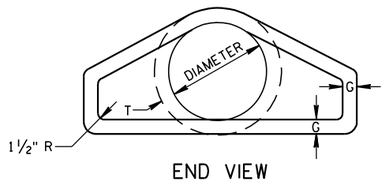


SIDE ELEVATION

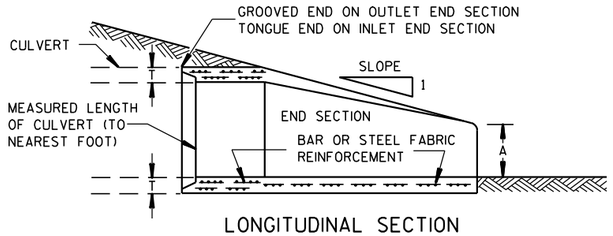
METAL ENDWALLS



PLAN

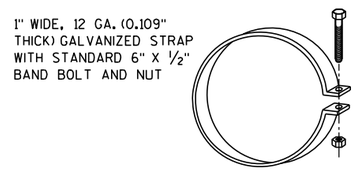


END VIEW



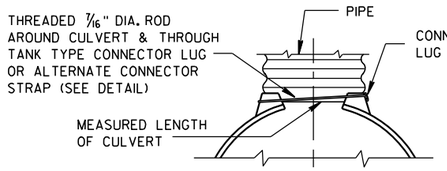
LONGITUDINAL SECTION

CONCRETE ENDWALLS

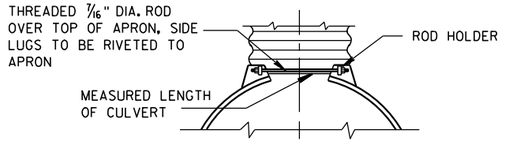


ALTERNATE FOR TYPE 1 CONNECTION

END SECTION CONNECTOR STRAP

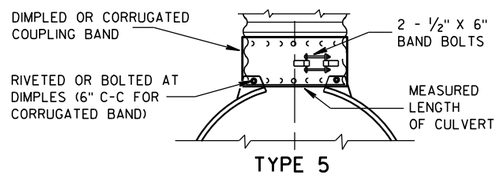


TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE

TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

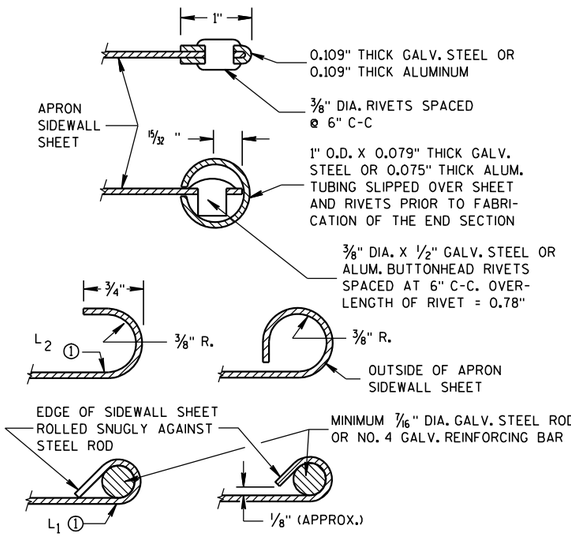
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

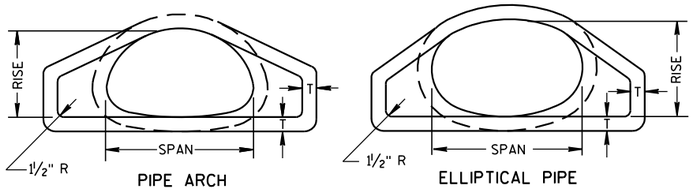
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

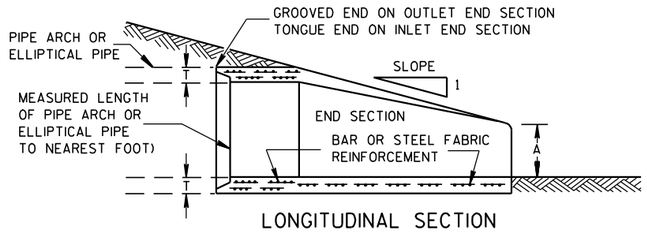
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

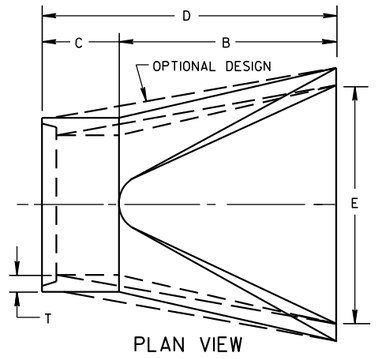
6
S.D.D. 8 F 1-11



END VIEW

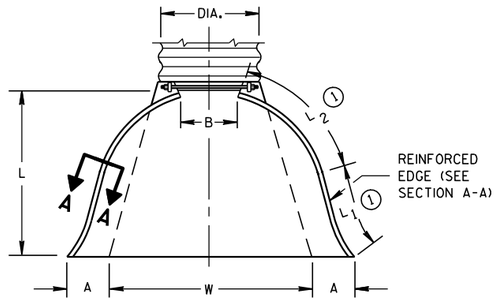


LONGITUDINAL SECTION

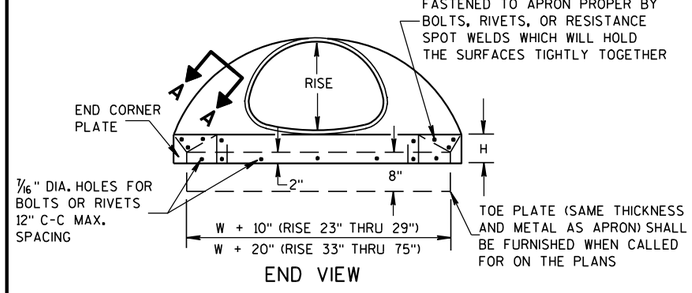


PLAN VIEW

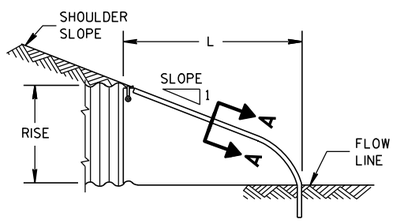
CONCRETE ENDWALLS



PLAN VIEW

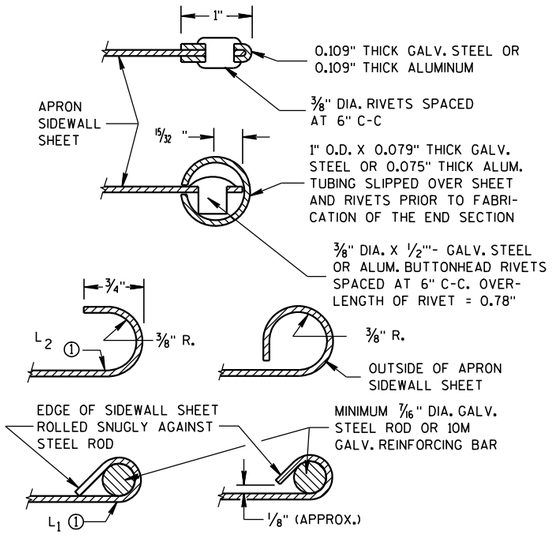


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

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

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

3" X 1" CORRUGATIONS

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

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

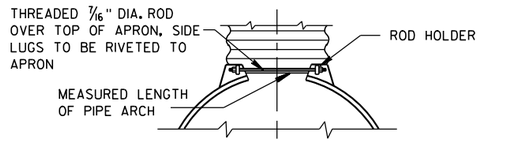
REINFORCED CONCRETE PIPE ARCH

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

REINFORCED CONCRETE ELLIPTICAL PIPE

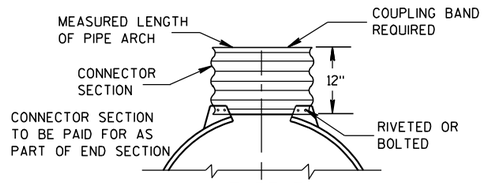
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48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

**NOMINAL SIZE



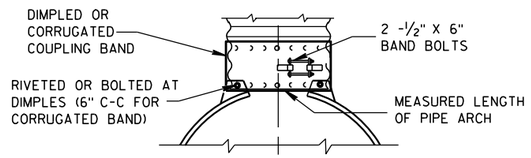
TYPE 2

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



TYPE 3

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



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

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

CONNECTION DETAILS

GENERAL NOTES

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

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

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

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

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

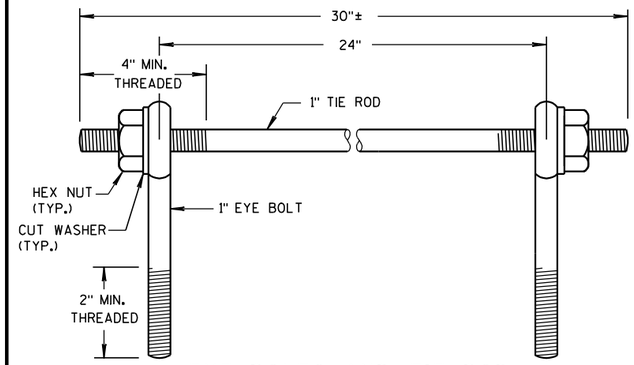
11/30/94 — DATE

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

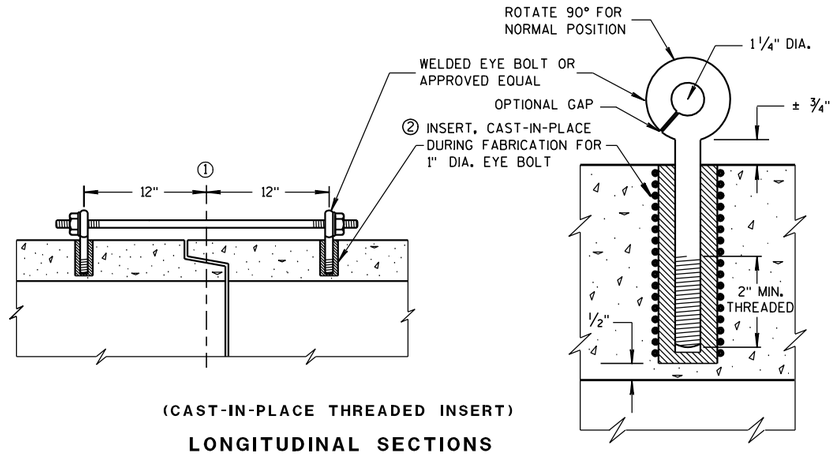
FHWA

6

S.D.D. 8 F 2-1



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

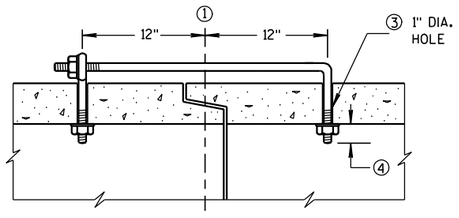
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

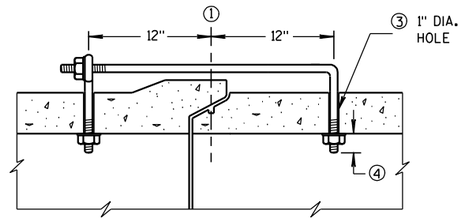
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

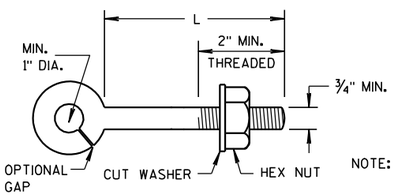


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

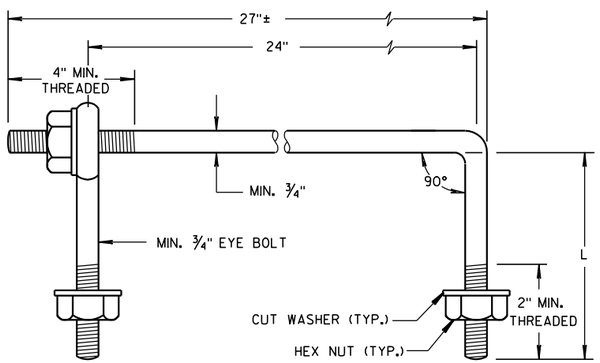
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

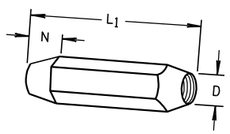
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

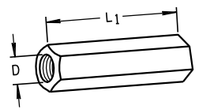
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES



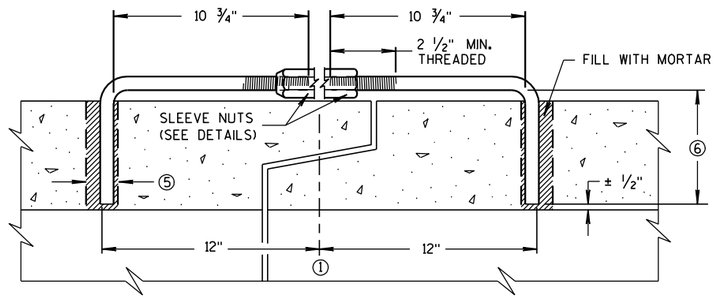
TAPERED



PLAIN

RIGHT AND LEFT THREADS

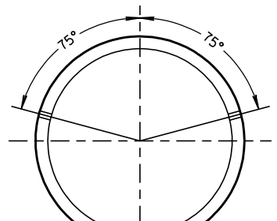
SLEEVE NUTS



LONGITUDINAL SECTION

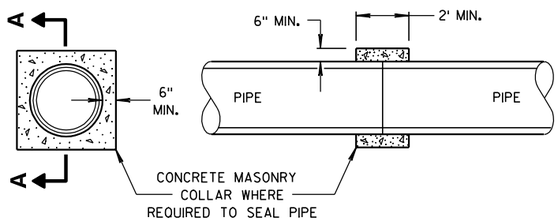
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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
6/5/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
210
FHWA

6

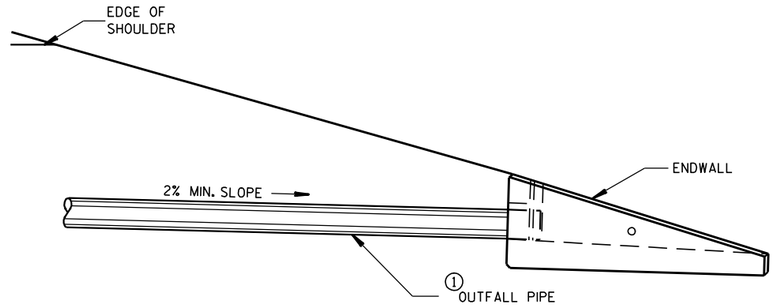
S.D.D. 8 F 4-7

6

S.D.D. 8 F 4-7

DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

**APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



INSTALLATION DETAIL

GENERAL NOTES

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

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

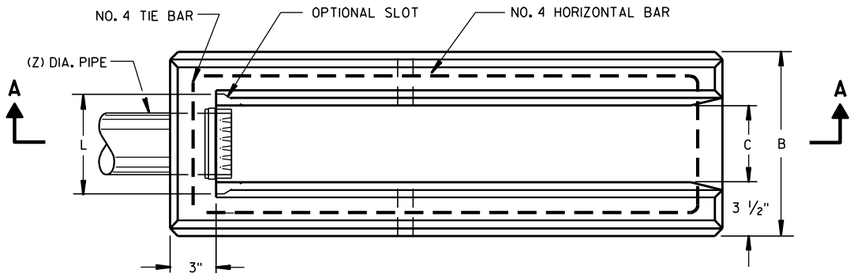
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

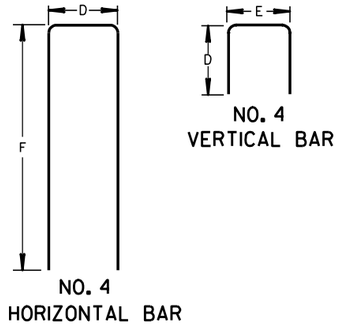
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

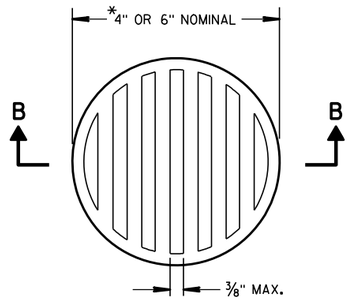
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

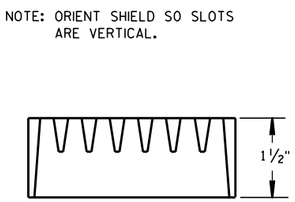


PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS

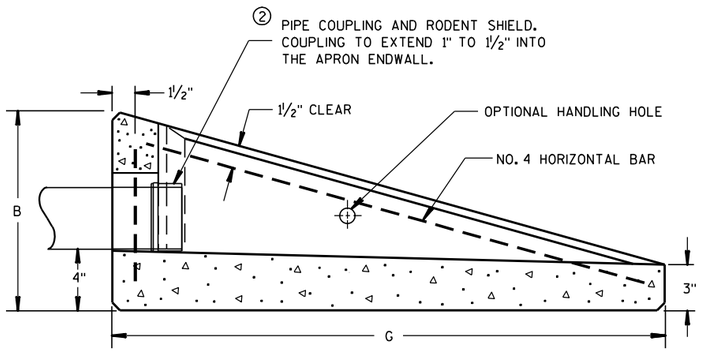




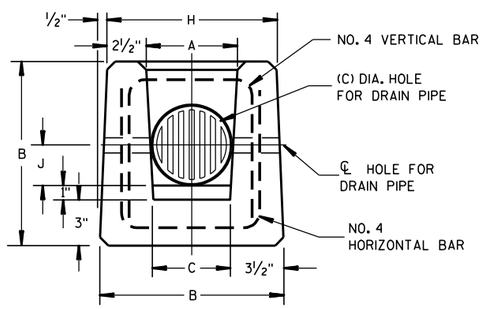
SECTION B-B

② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.



SECTION A-A



END VIEW

CONCRETE APRON ENDWALL FOR UNDERDRAIN

REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

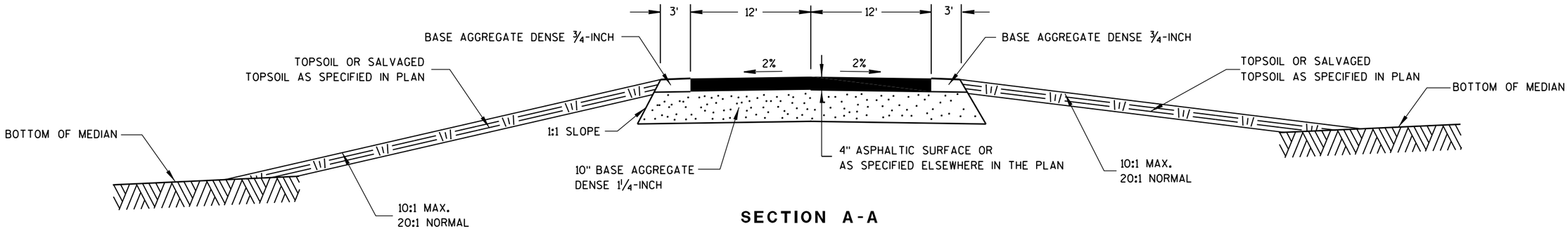
APPROVED
3/10/98 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

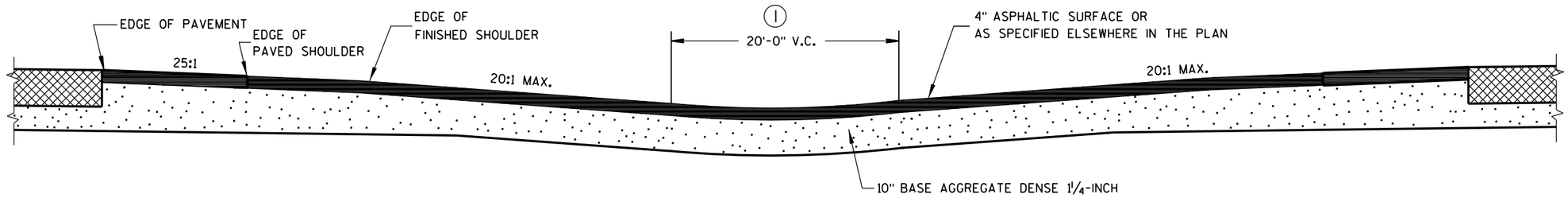
S.D.D. 8 F 6-4

6

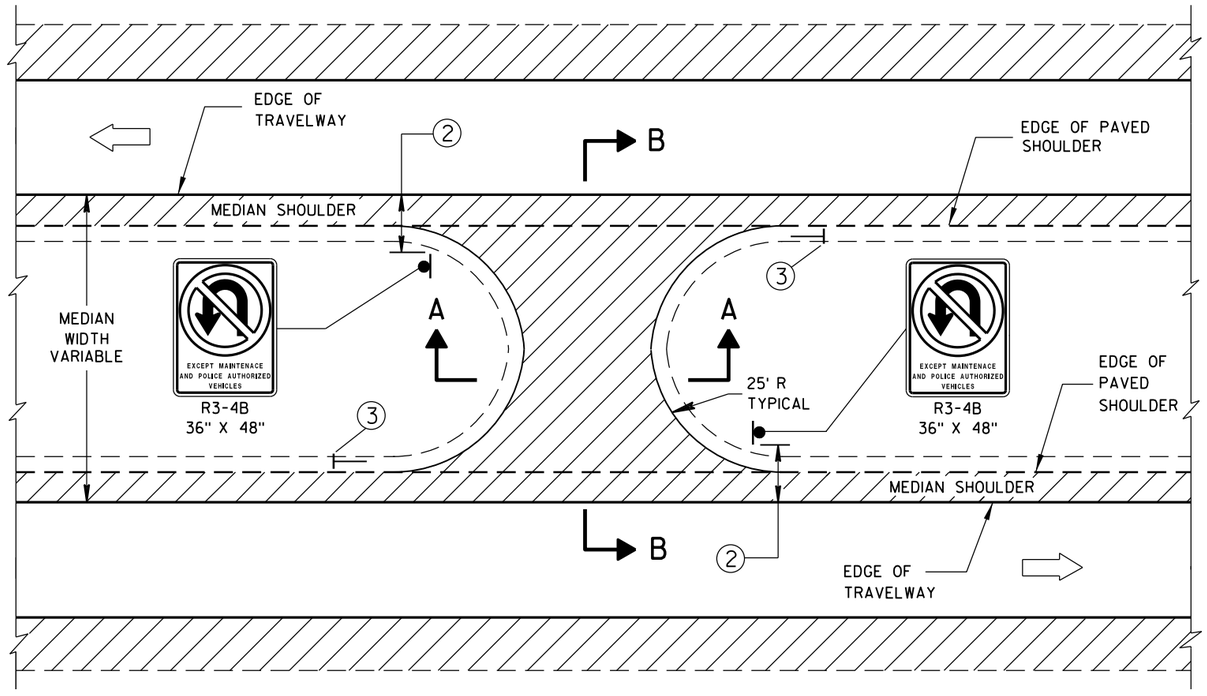
S.D.D. 8 F 6-4



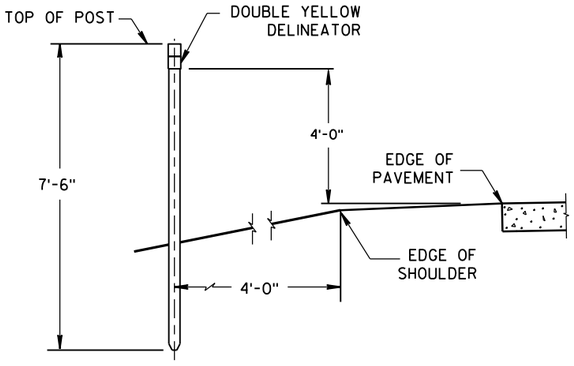
SECTION A-A



SECTION B-B



PLAN VIEW



DOUBLE YELLOW DELINEATOR INSTALLATION

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) ADJUST VERTICAL CURVE LOCATION LATERALLY TO MAINTAIN 20:1 MAX.

(2) SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

(3) INSTALL DOUBLE YELLOW DELINEATOR. SEE STANDARD DETAIL DRAWING 15A2.

MAINTENANCE CROSSOVER FOR FREEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

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

FHWA

6

S.D.D. 11 A 1-5

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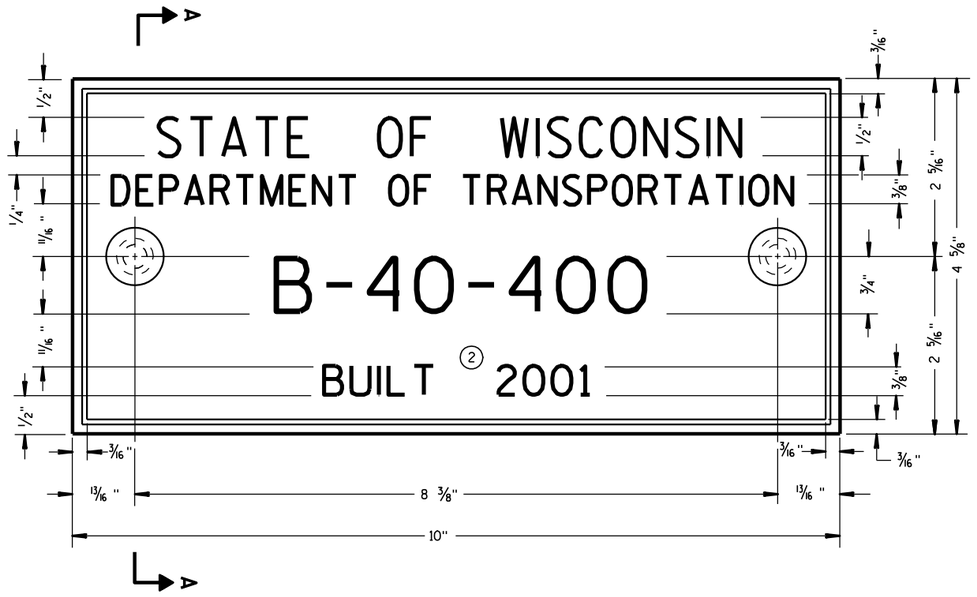
S.D.D. 11 A 1-5



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

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

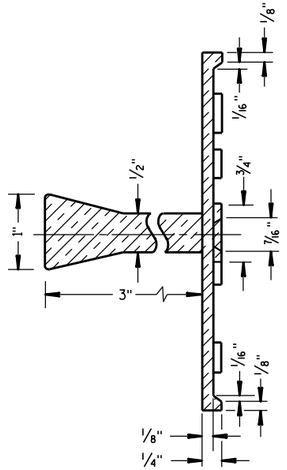
GENERAL NOTES

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

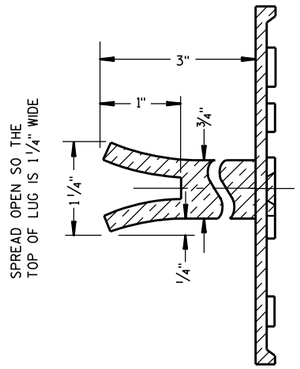
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

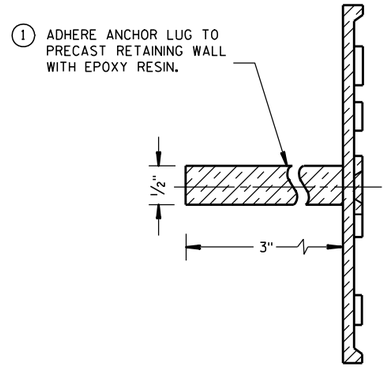
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

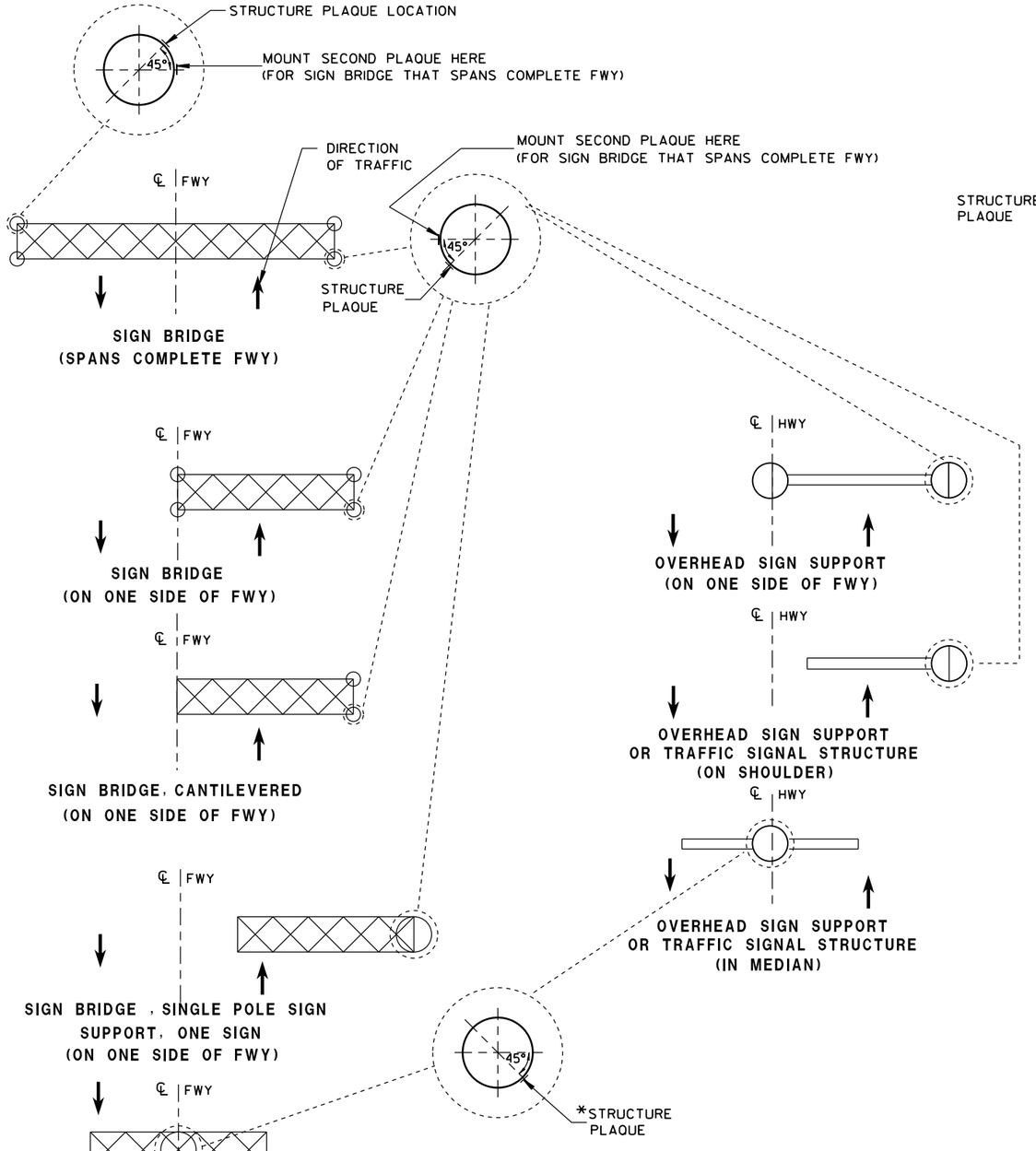
3/26/10 DATE

/S/ Scot Beck CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

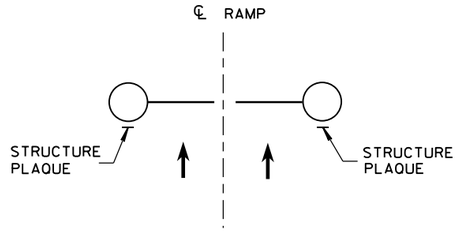
6

S.D.D. 12 A 3-10

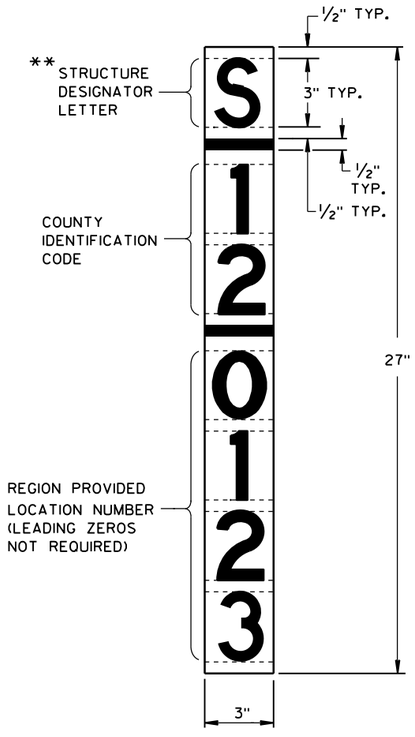


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

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



RAMP GATE
(ACROSS FWY ON-RAMP)



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

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

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

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

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

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

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

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

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

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

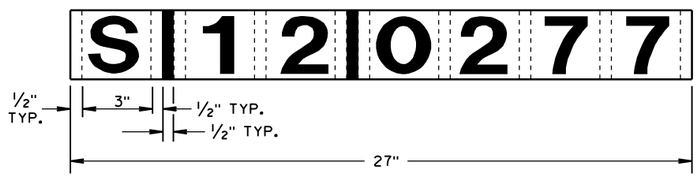
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

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

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

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



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

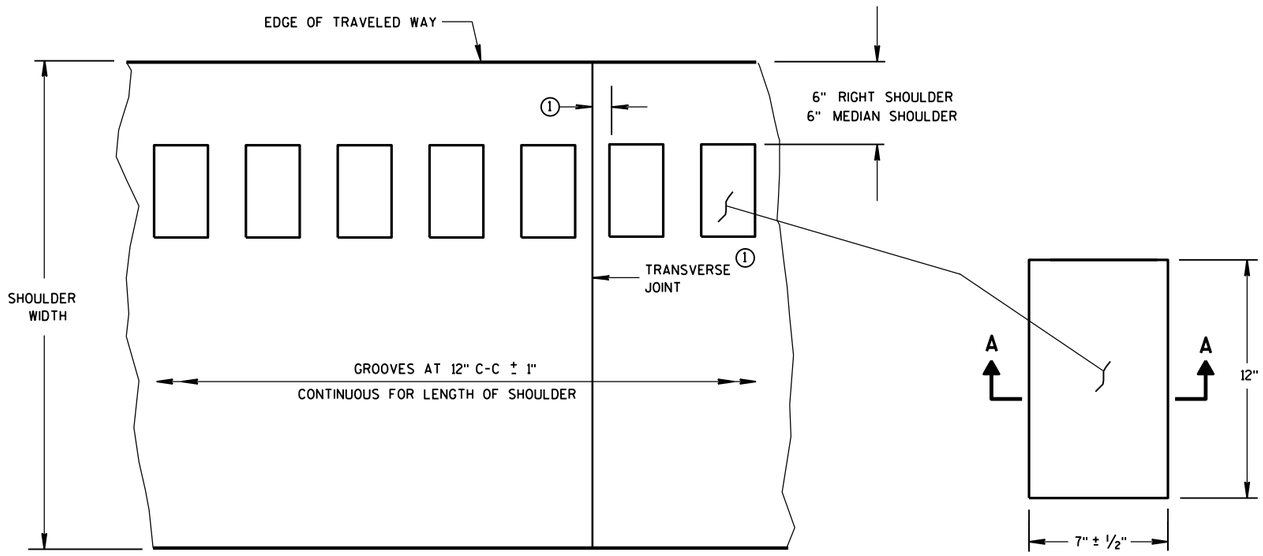
FHWA

6

S.D.D. 12 A 4-3

6

S.D.D. 12 A 4-3



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

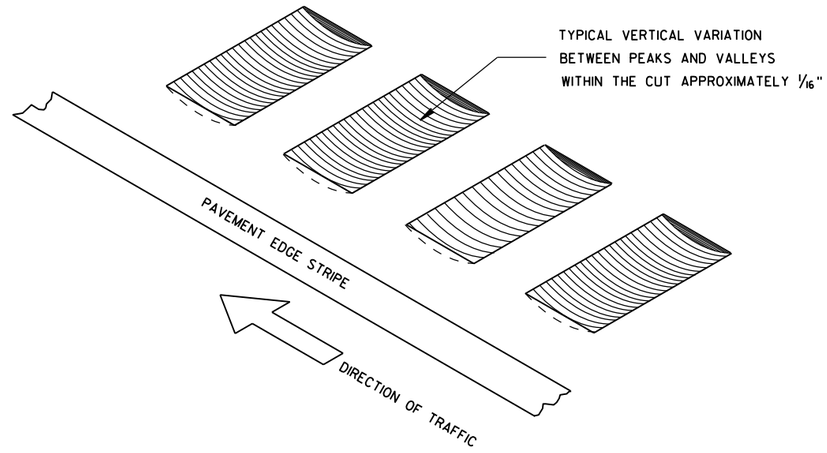
GENERAL NOTES

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

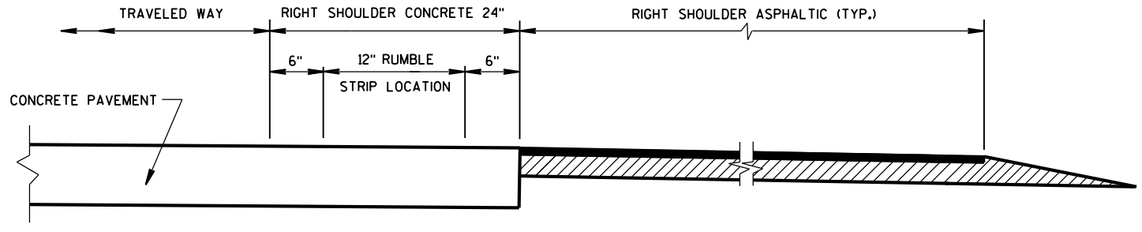
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

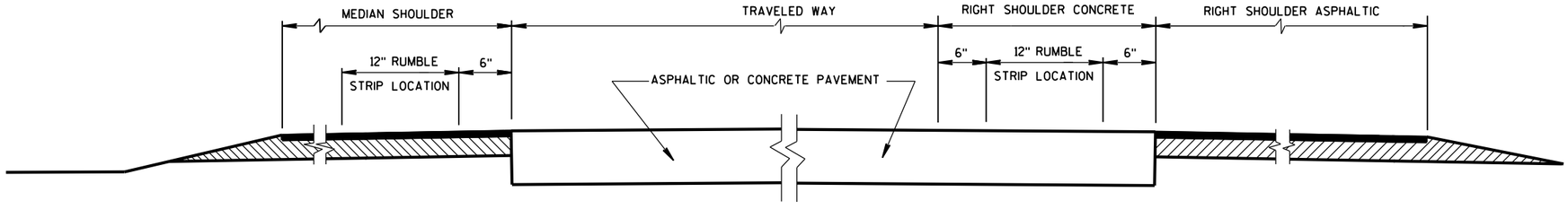
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



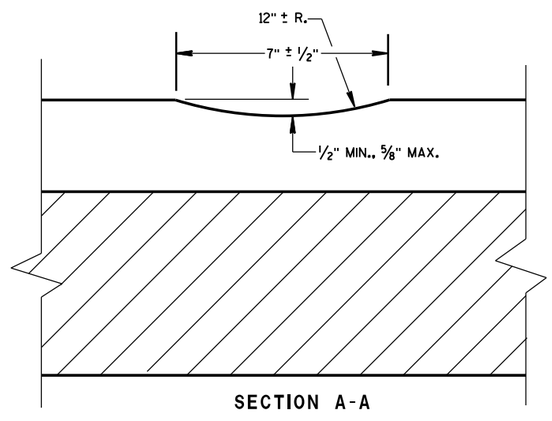
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 13 A 5-5a

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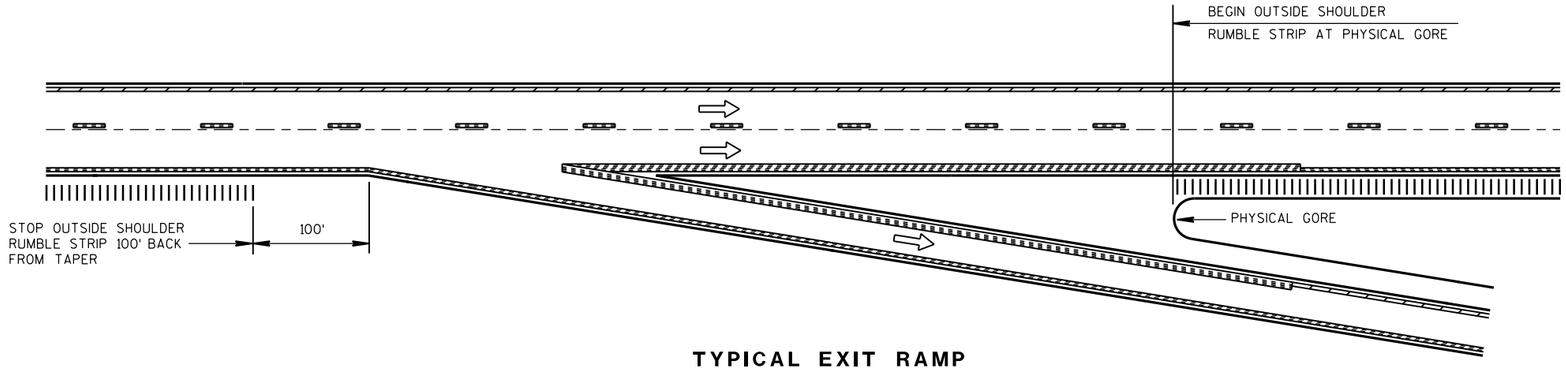
S.D.D. 13 A 5-5a



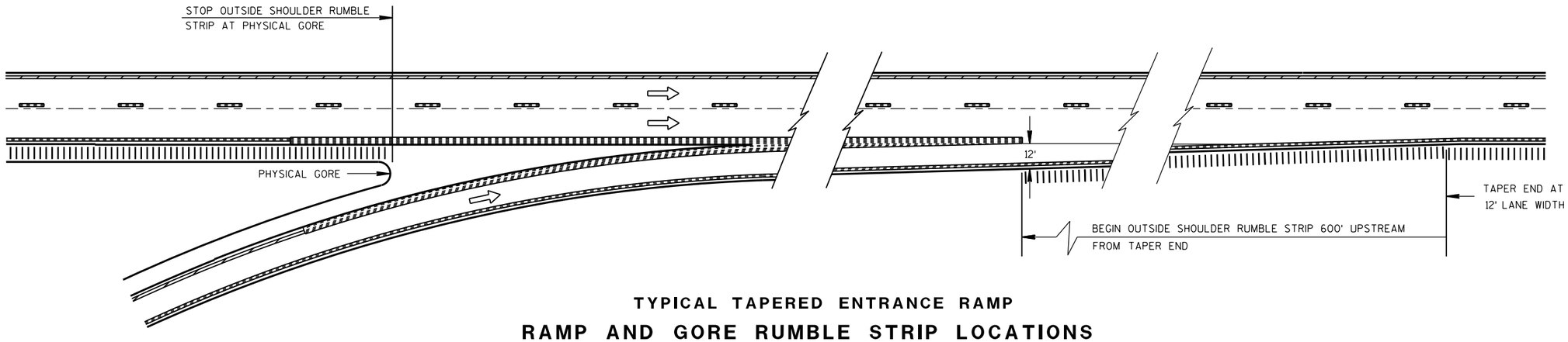
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

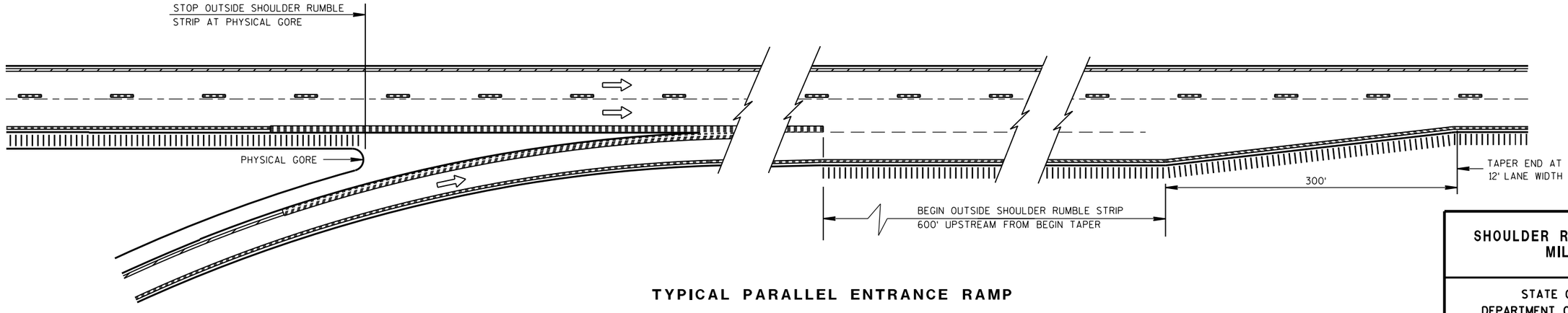
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 13 A 5-5b

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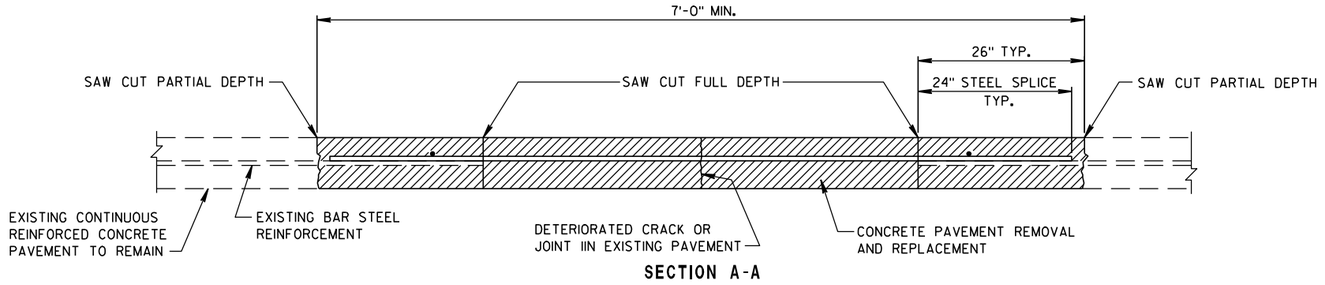
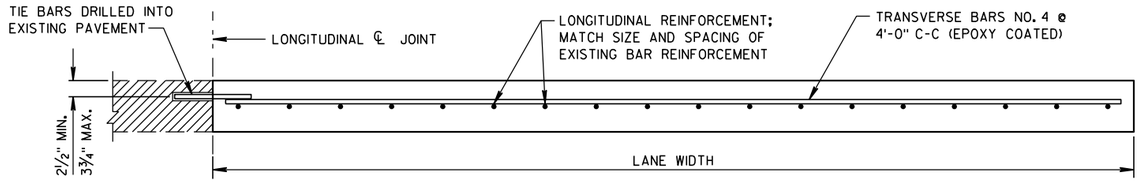
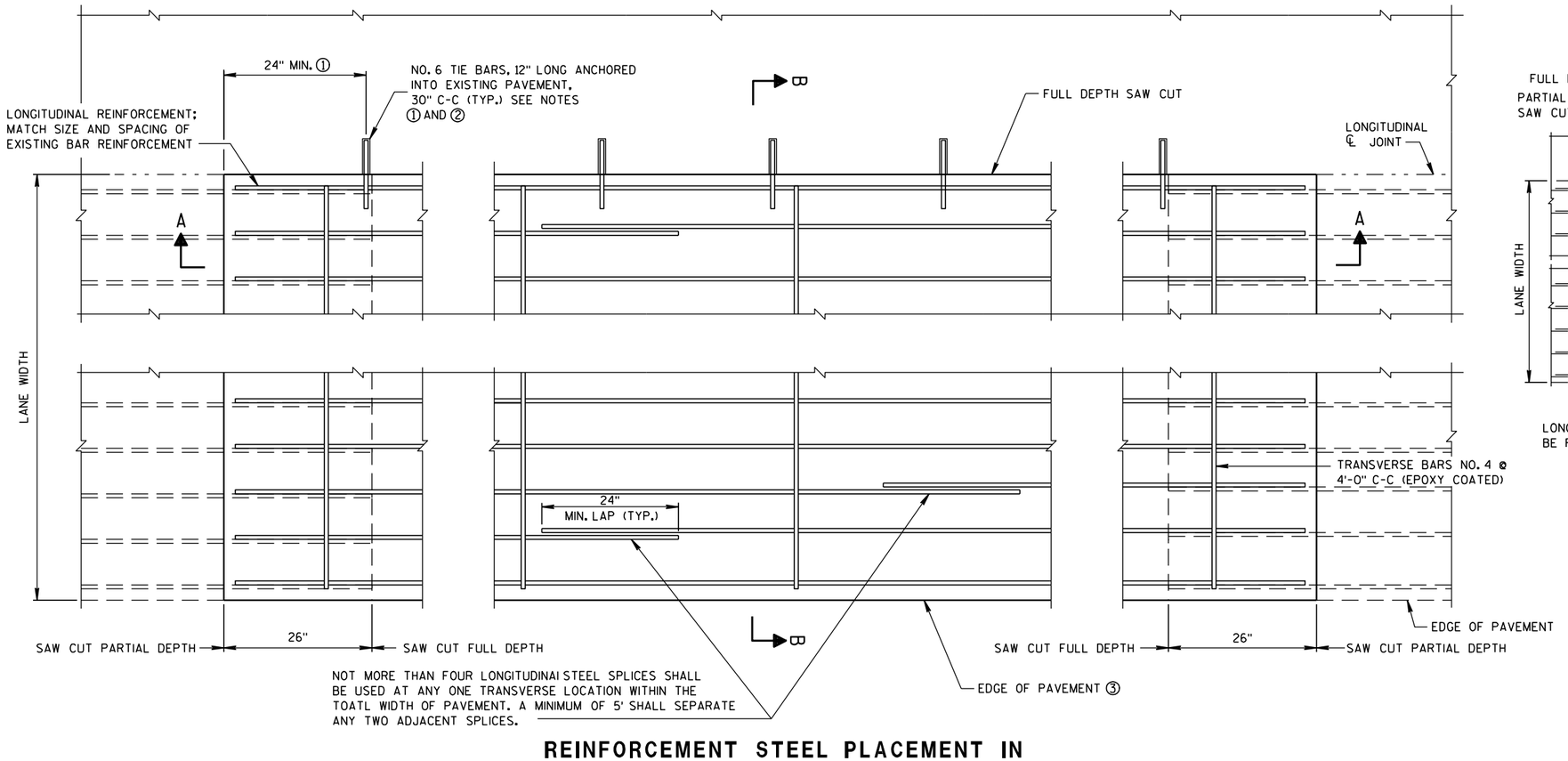
S.D.D. 13 A 5-5b



SECTION A-A



SECTION B-B



NOT MORE THAN FOUR LONGITUDINAI STEEL SPLICES SHALL BE USED AT ANY ONE TRANSVERSE LOCATION WITHIN THE TOATL WIDTH OF PAVEMENT. A MINIMUM OF 5' SHALL SEPARATE ANY TWO ADJACENT SPLICES.

REINFORCEMENT STEEL PLACEMENT IN CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPLACEMENT

GENERAL NOTES

PLACE ALL BAR STEEL REINFORCEMENT AT MID PAVEMENT DEPTH UNLESS OTHERWISE NOTED.

PAY FOR THE TRANSVERSE AND LONGITUDINAL JOINT SAW CUT AS LINEAR FEET OF "SAWING CONCRETE".

WHEN THE PASSING AND TRAVELING LANES ARE TO BE REPLACED, REPLACE THE PASSING LANE FIRST.

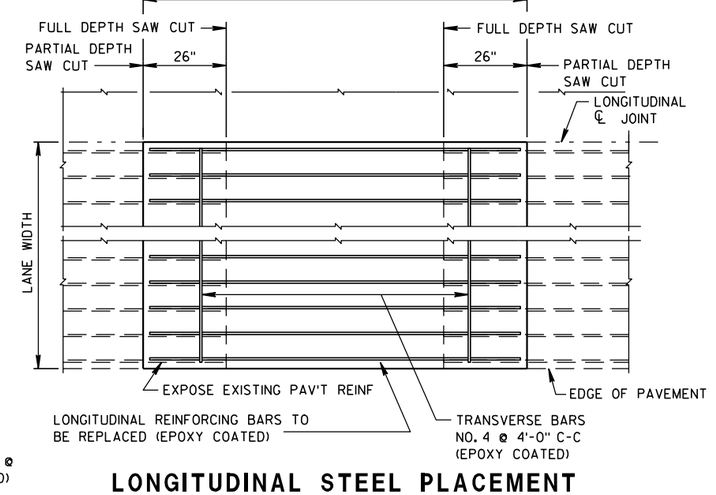
ADD TRANSVERSE STEEL BARS TO REPAIRS GREATER THAN 6'IN LENGTH, USE NO. 4 BARS PLACED TRANSVERSELY AND SPACED 4'C-C. PAYMENT SHALL BE INCIDENTAL TO "CONCRETE PAVEMENT CONTINUOUS REINFORCEMENT".

TIE ALL CONCRETE PAVEMENT REPAIRS WHICH ARE GREATER THAN 15'IN LENGTH, AND ARE ADJACENT TO EXISING CONCRETE PAVEMENT, TO THE EXISTING PAVEMENT USING TIE BARS. DETAILS FOR TIE BAR CONSTRUCTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND STANDARD DETAIL DRAWINGS.

① PROVIDE A MINIMUM DISTANCE OF 24 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

② ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

③ SAW CUT THE LONGITUDINAL EDGE JOINT IF THE ADJACENT SHOULDER IS CONCRETE.



LONGITUDINAL STEEL PLACEMENT IN CRCP REPAIRS

PLAN VIEW

CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

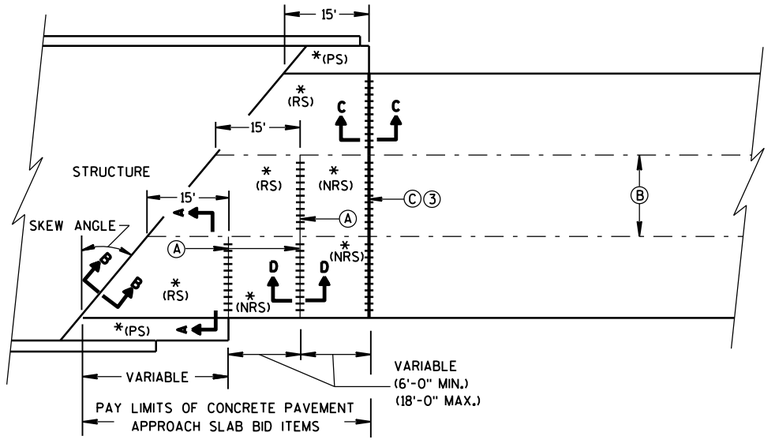
11/1/2011 — DATE

/S/ Deb Bischoff — PAVEMENT POLICY & DESIGN ENGINEER

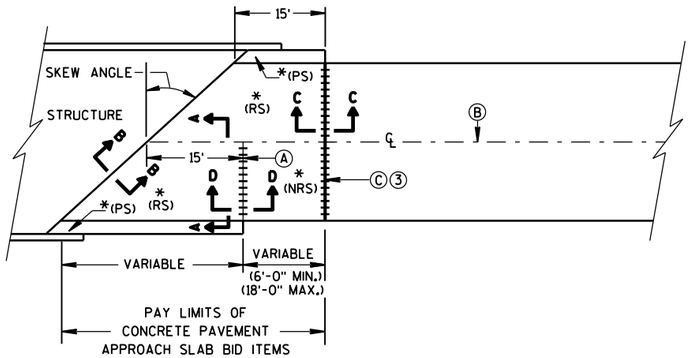
FHWA

6

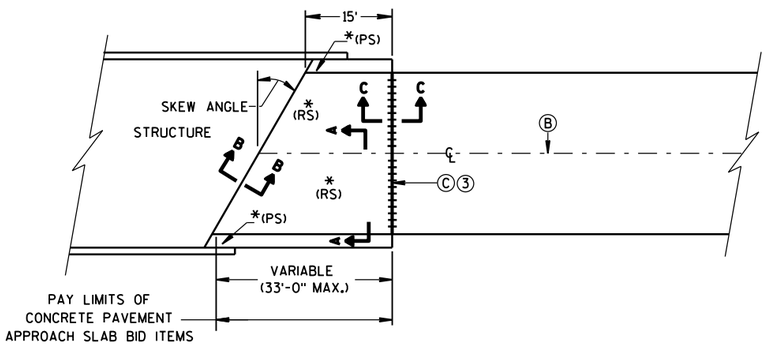
S.D.D. 13 A 7-2



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

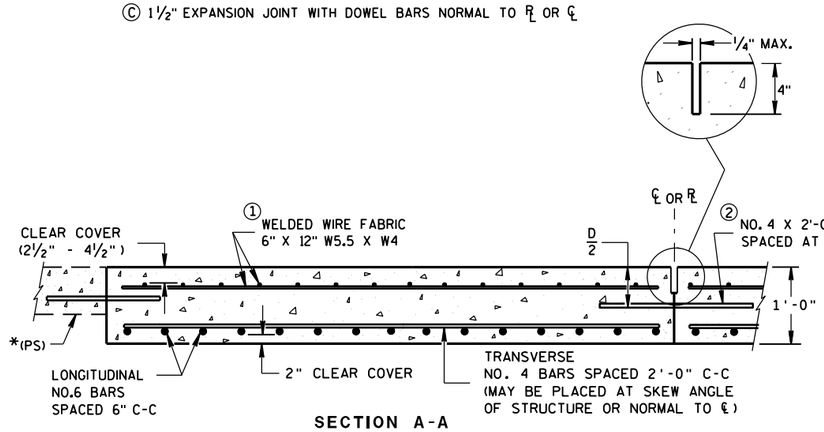
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

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

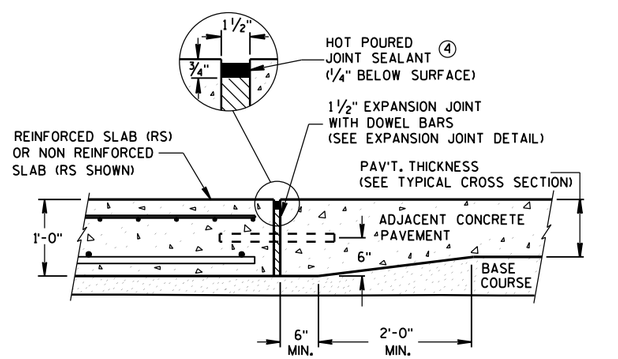
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄

Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.

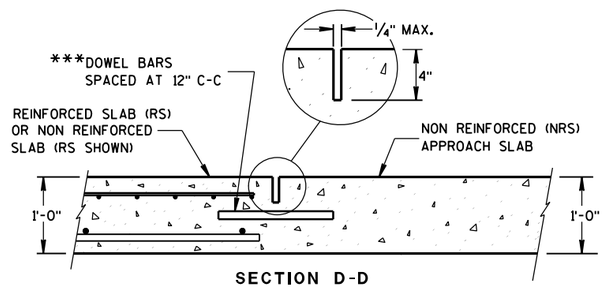
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

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.

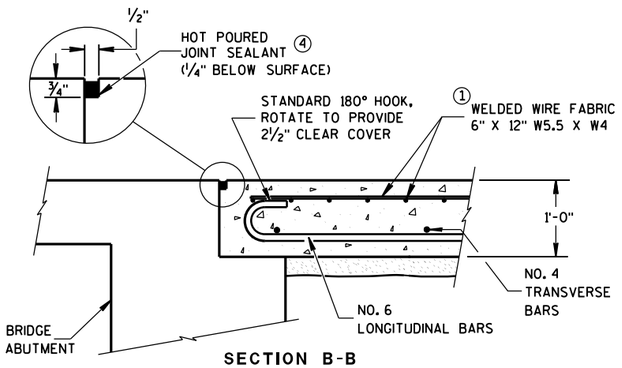
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

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

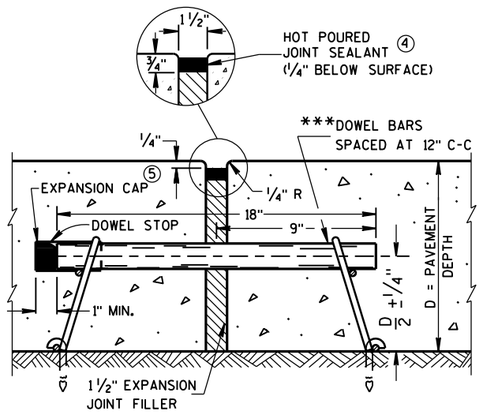
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

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.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

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S.D.D. 13 B 2-8a

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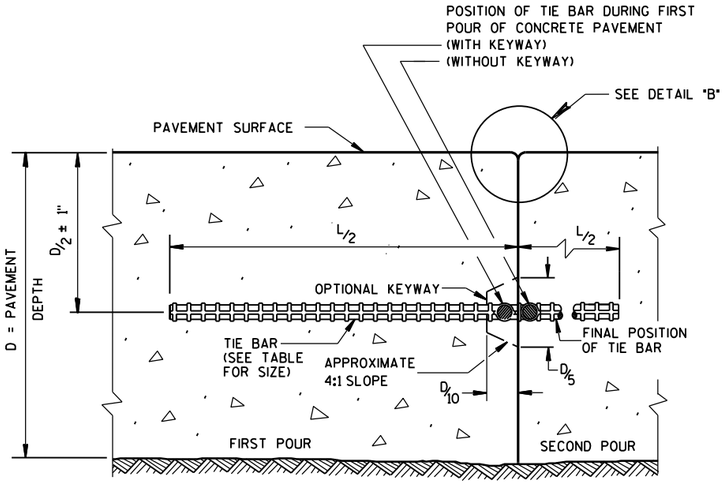
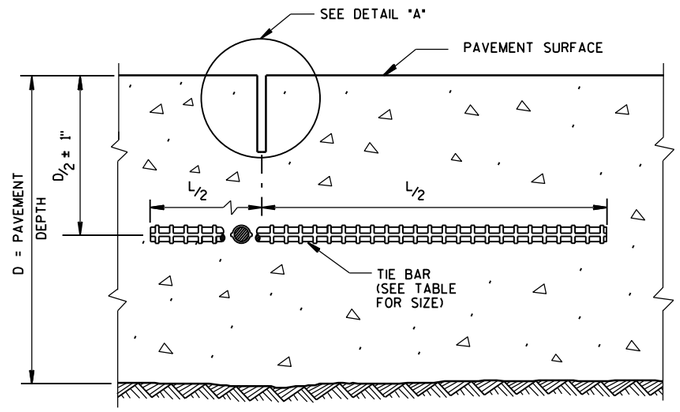
S.D.D. 13 B 2-8a



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

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"

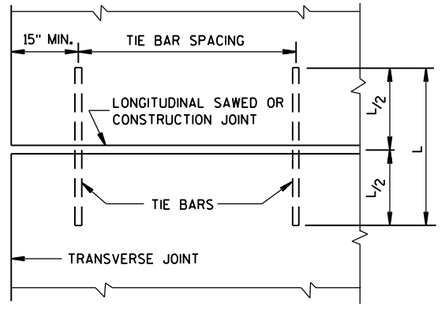
DETAIL "C"

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
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

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S.D.D. 13 C 1-18

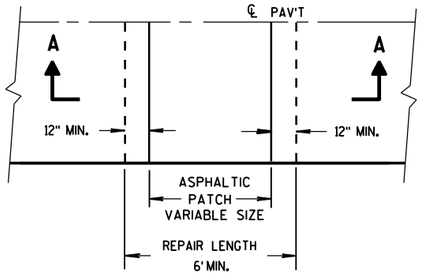
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

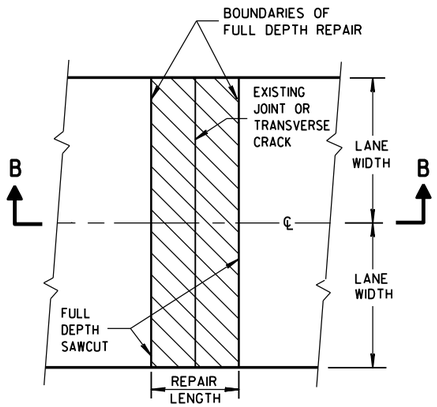
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

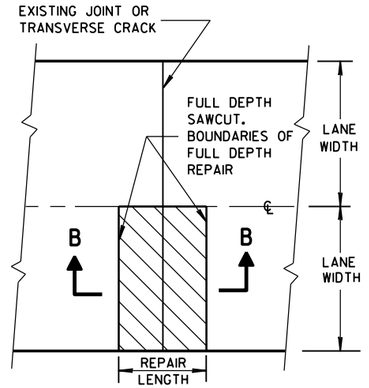
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

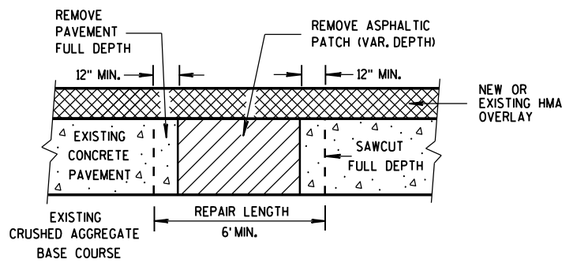


PLAN VIEW
(DOUBLE LANE REPAIR)



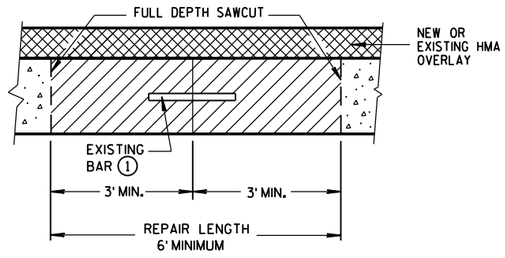
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

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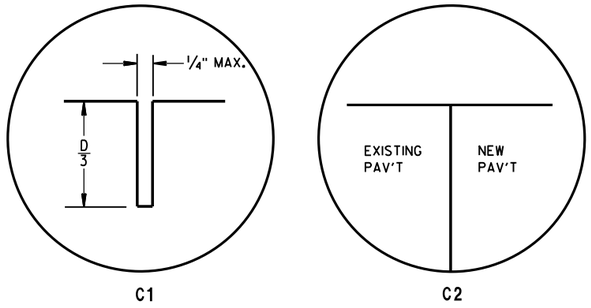
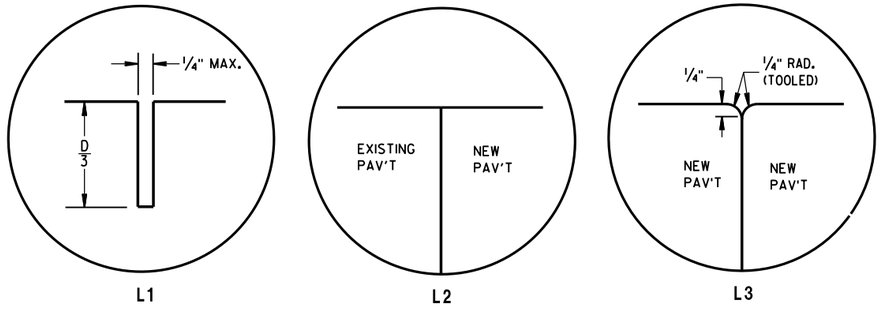
S.D.D. 13 C 14-6a

BASE PATCHING CONCRETE

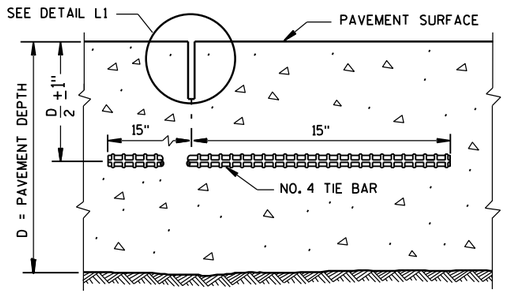
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



TRANSVERSE JOINTS

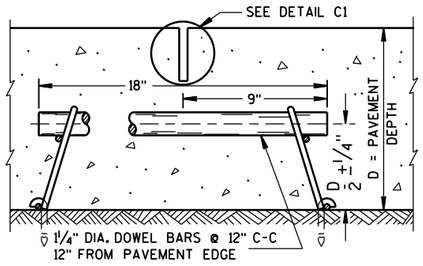


LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

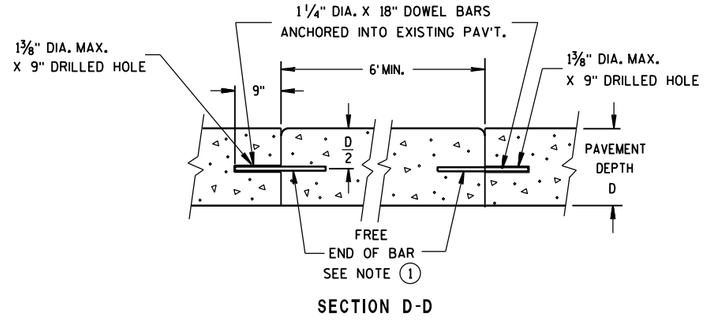
CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

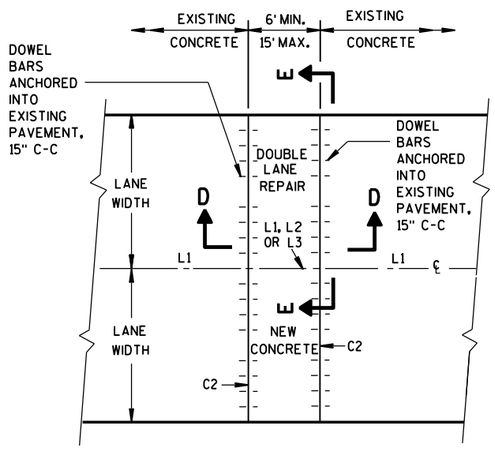
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

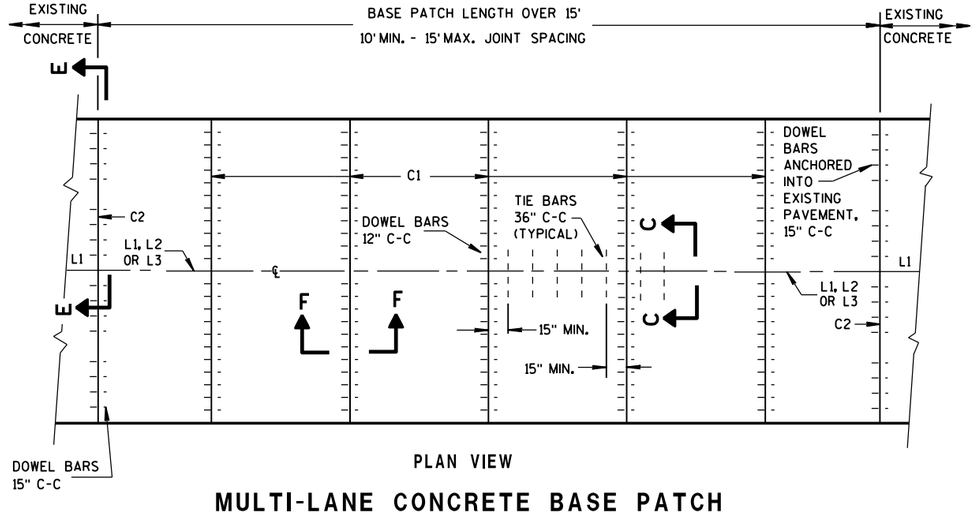


SECTION D-D



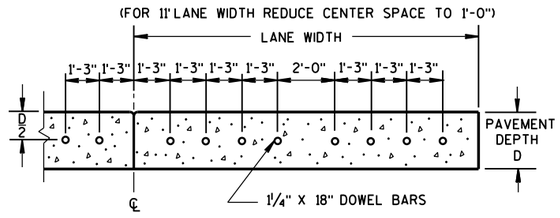
PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH



SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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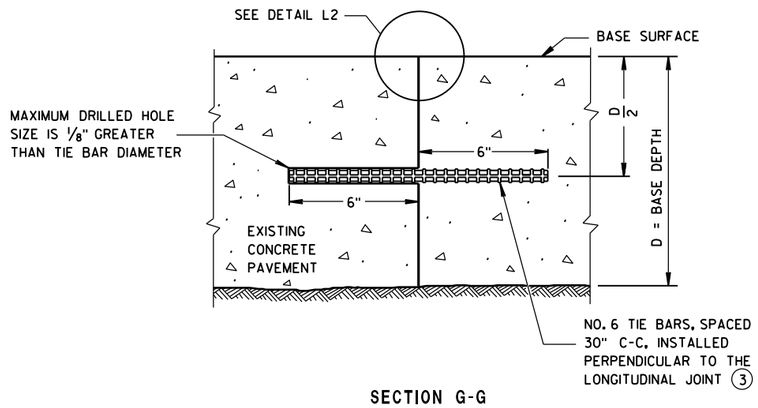
S.D.D. 13 C 14-6b



SECTION G-G

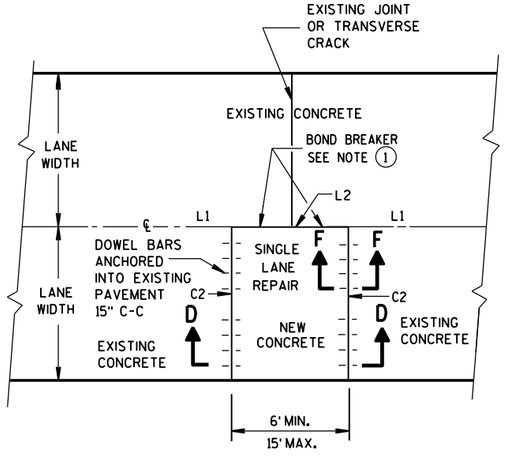
TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE BASE PATCHES UP TO 15 FEET IN LENGTH.

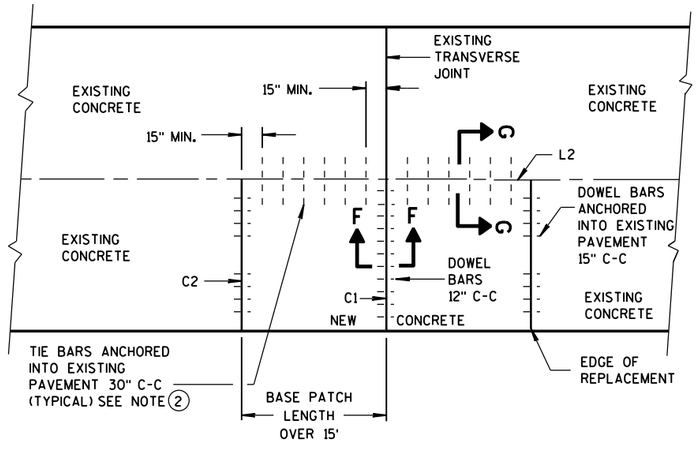
(2) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

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



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

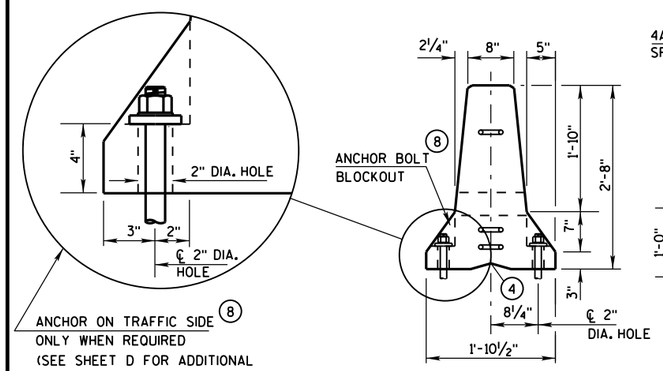
BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

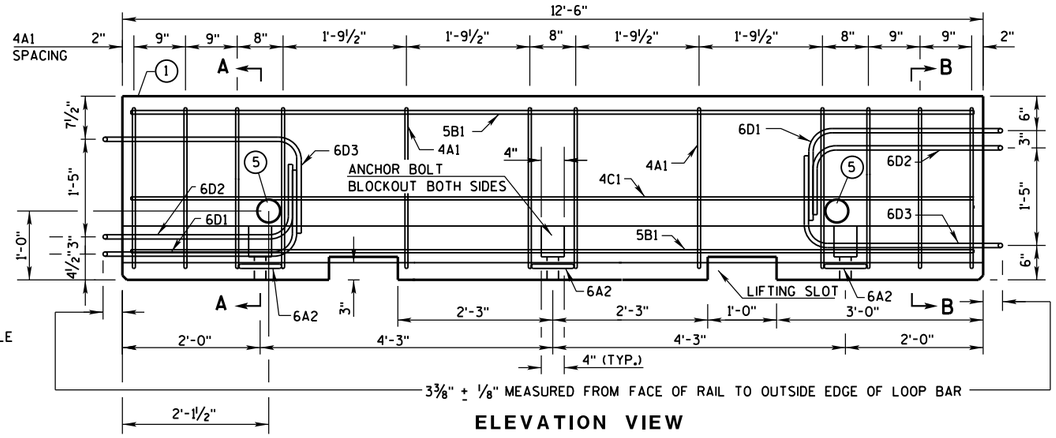
APPROVED
Sept., 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

6

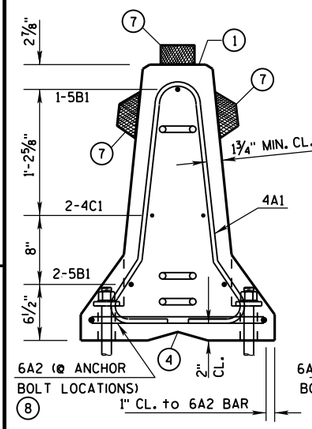
S.D.D. 13 C 14-6c



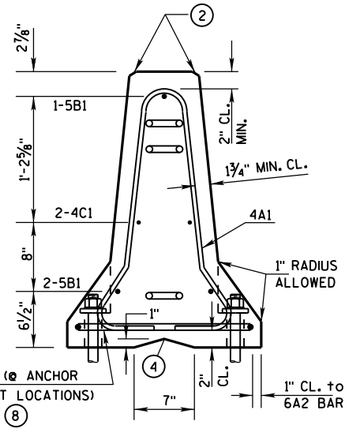
END VIEW



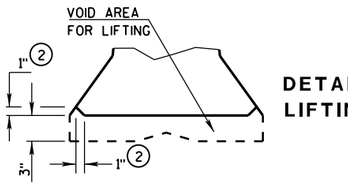
ELEVATION VIEW



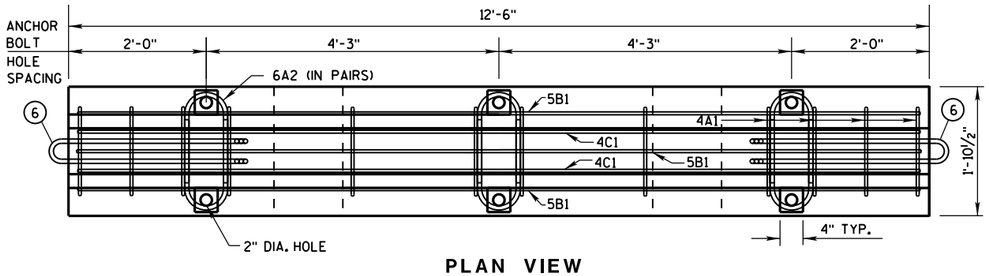
SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)

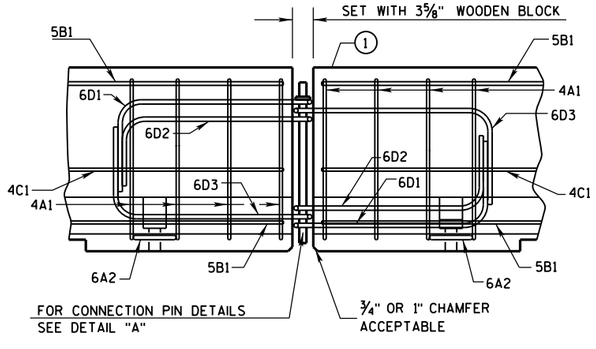


DETAIL "B"
LIFTING SLOT DETAIL

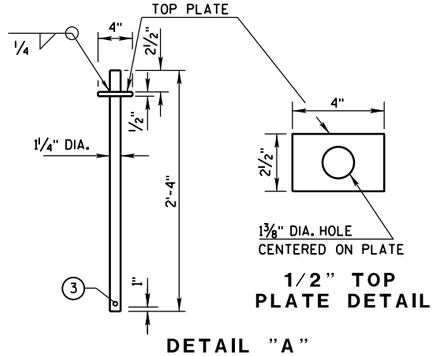


PLAN VIEW

DETAILS OF BARRIER SECTION

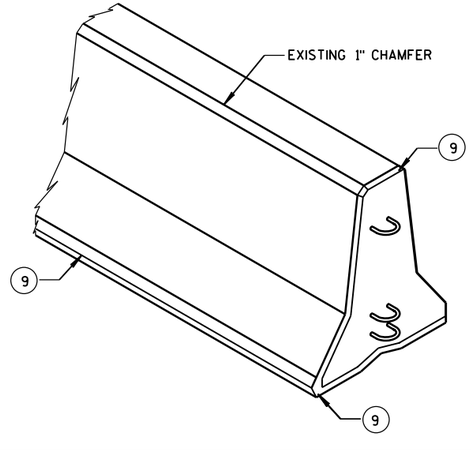


DETAILS OF BARRIER CONNECTION



1/2" TOP PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-14(a) THRU 14B7-14(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

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

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

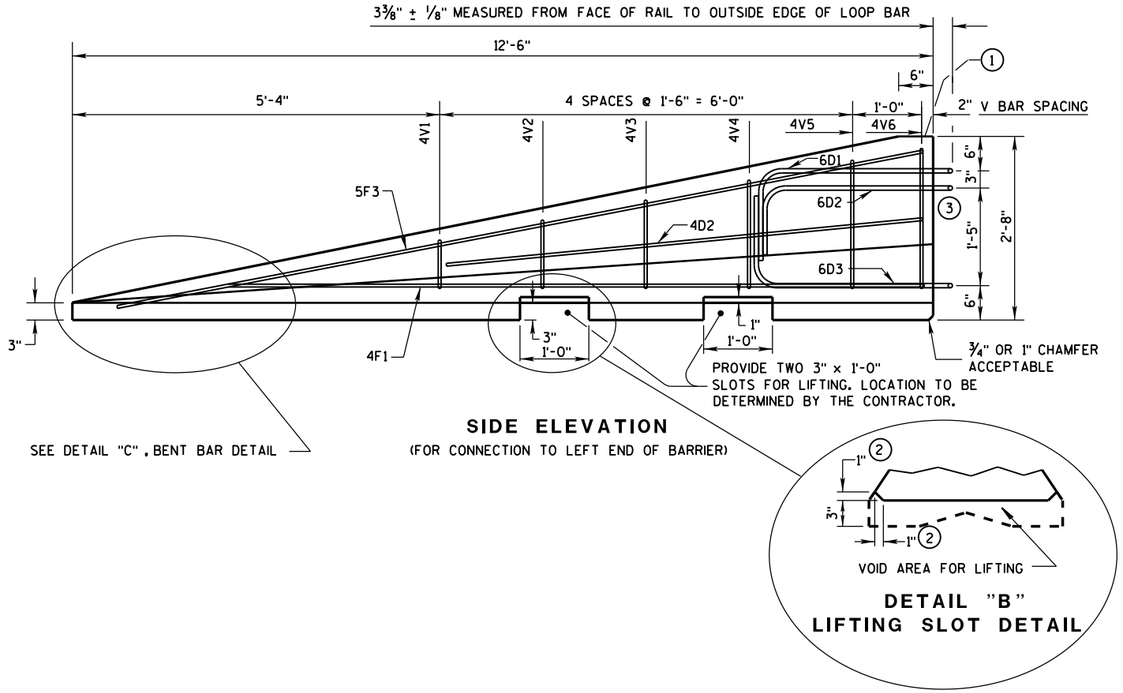
(8) SEE SHEET D FOR ANCHORING CRITERIA.

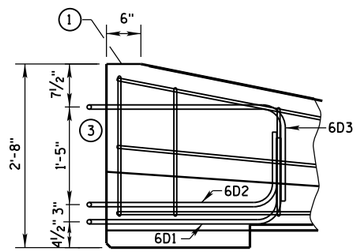
(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

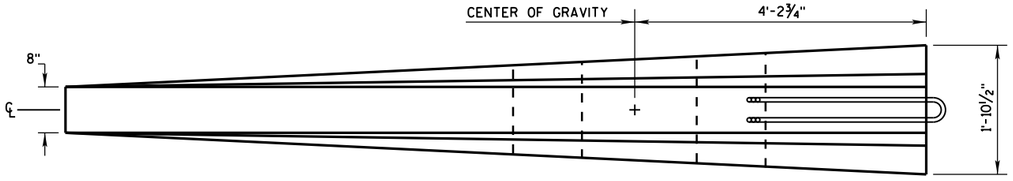
6
S.D.D. 14 B 7-14a

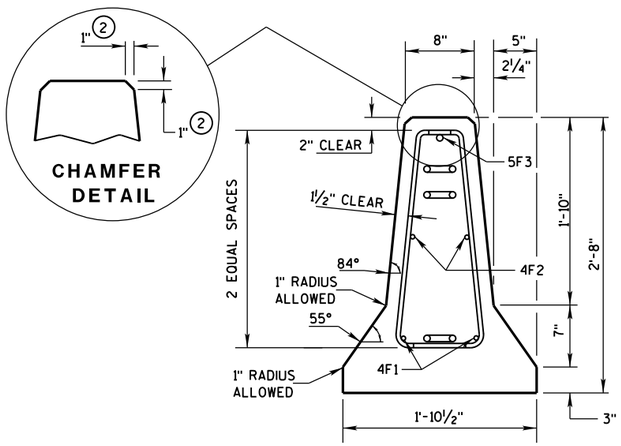


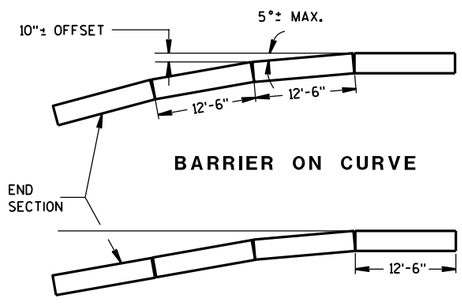


GENERAL NOTES

1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.







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

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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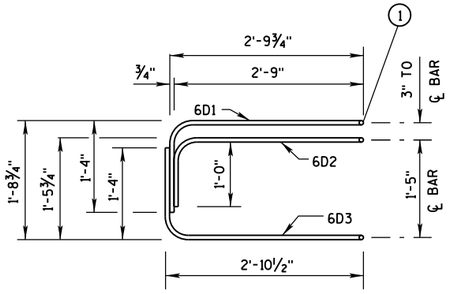
S.D.D. 14 B 7-14b

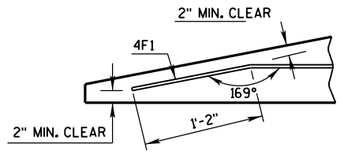
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

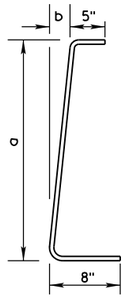
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

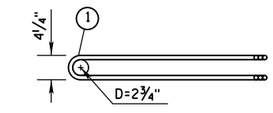
GENERAL NOTES

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

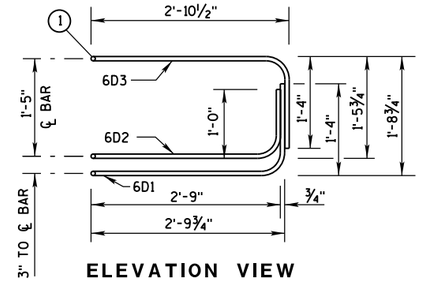
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

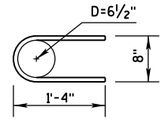
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



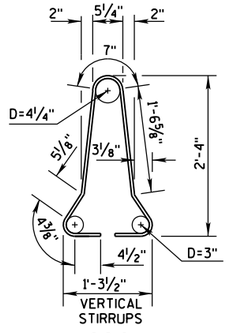
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2



4A1

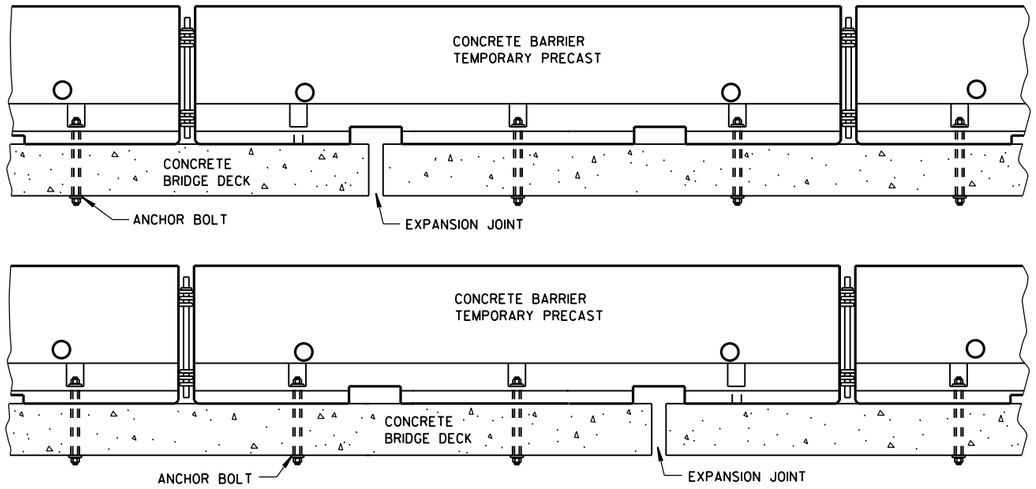
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

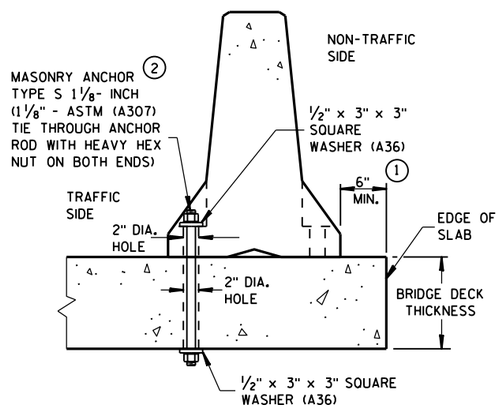
6

S.D.D. 14 B 7-14c



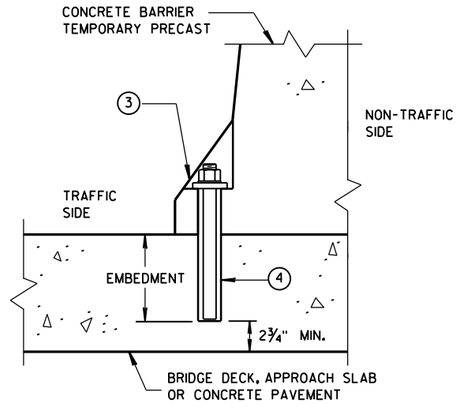
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(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.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR ② INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

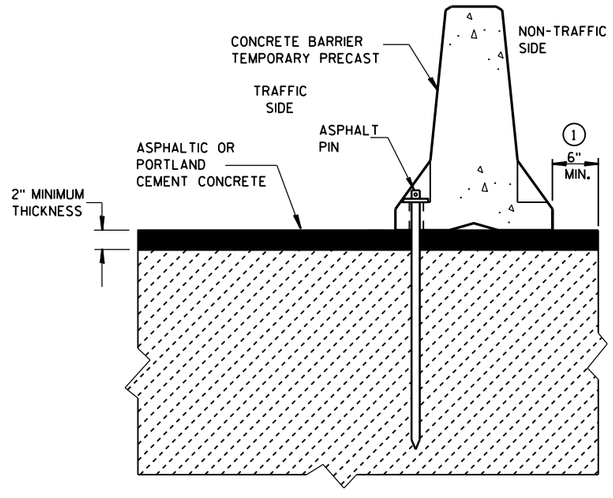
② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.

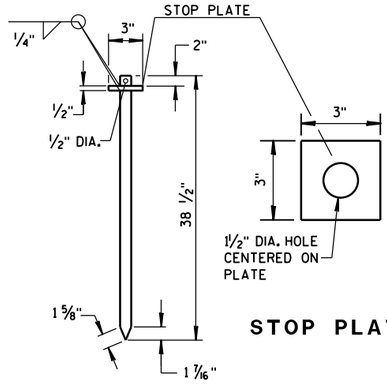
③ 1⅛" DIAMENTER A307 THREADED ROD, ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.

④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.



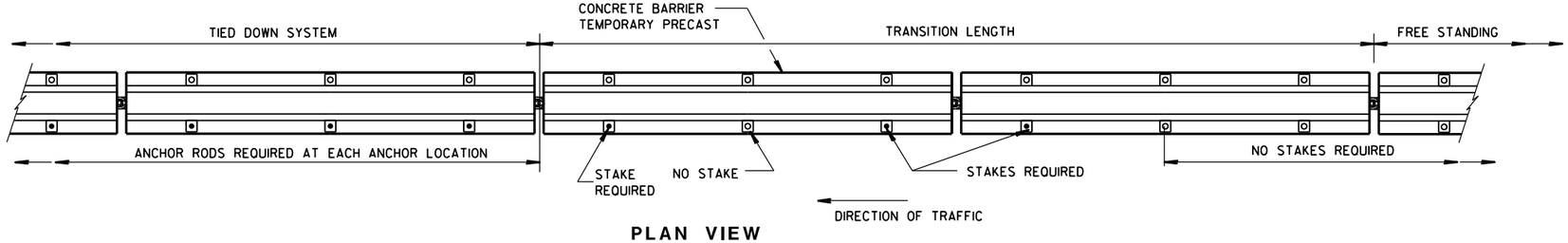
STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN
(ASTM A36 STEEL)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

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

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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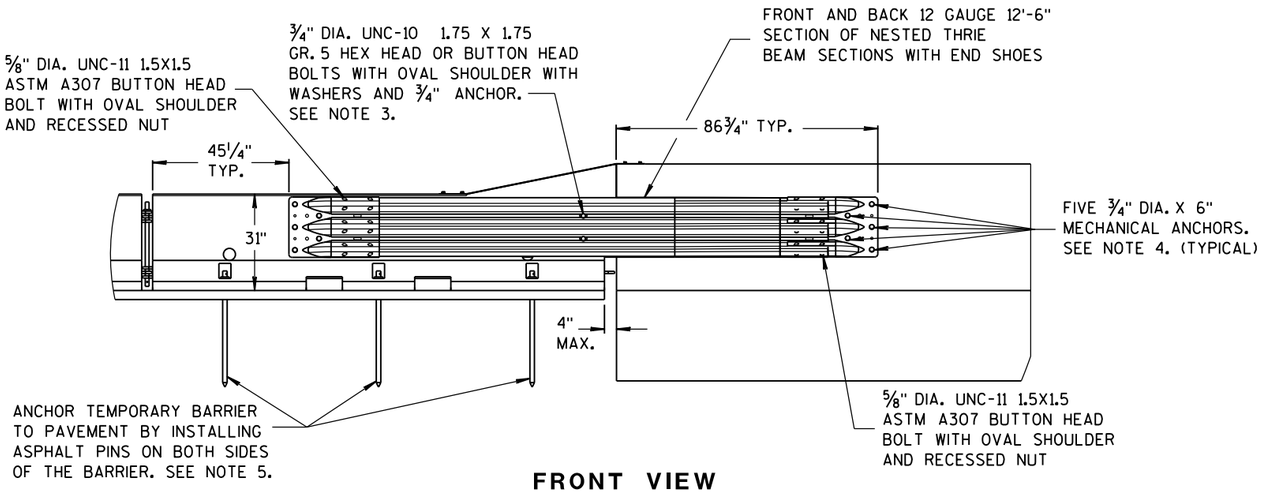
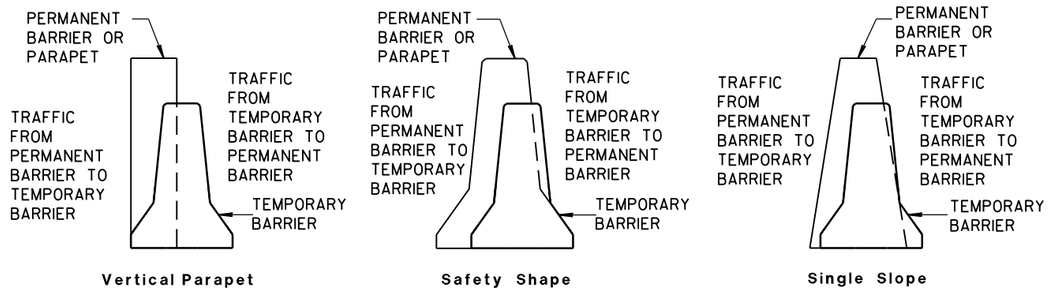
S.D.D. 14 B 7-14d



FRONT VIEW

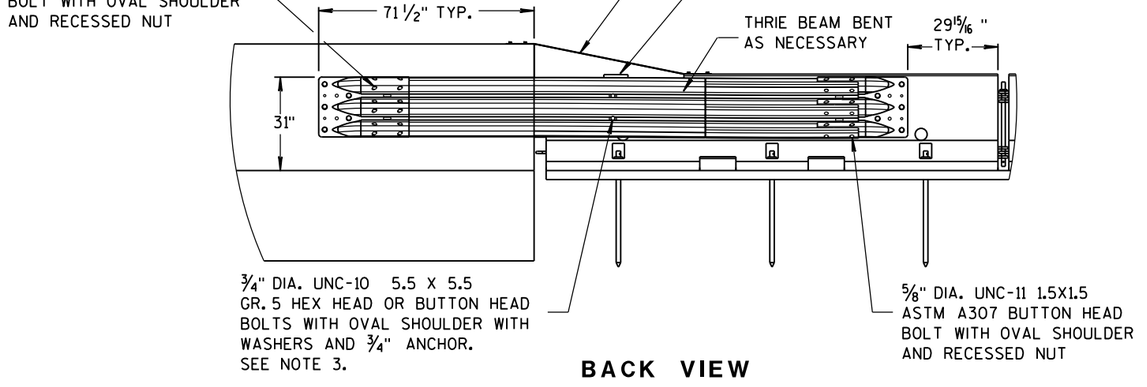


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

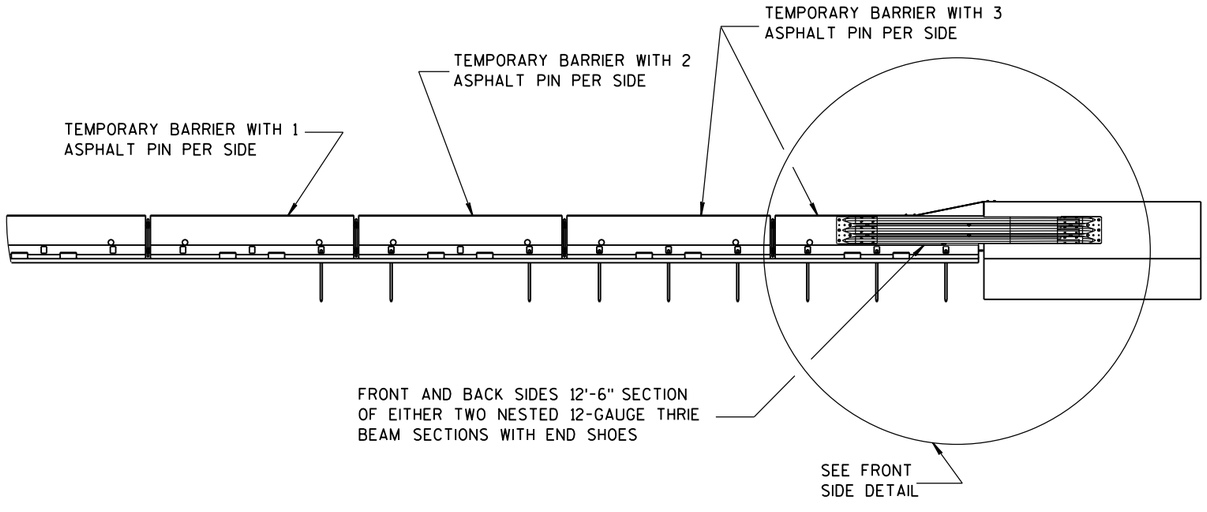
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

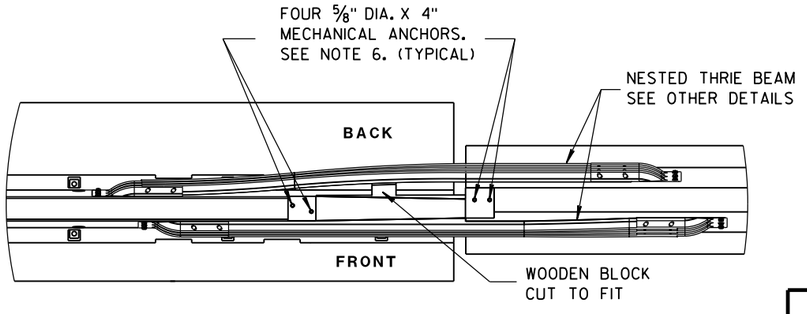
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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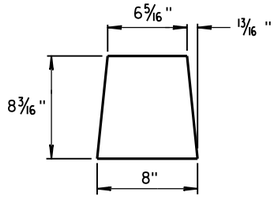
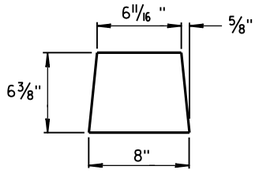
S.D.D. 14 B 7-14e



GUSSET 1



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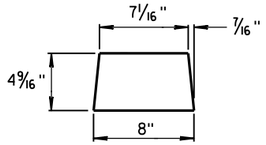

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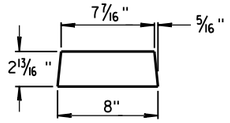
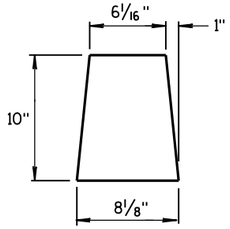
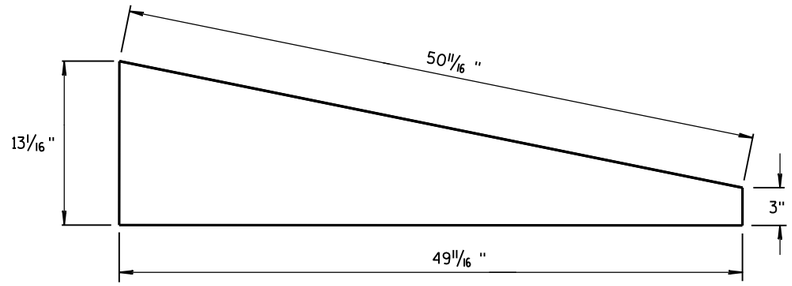


GUSSET 4

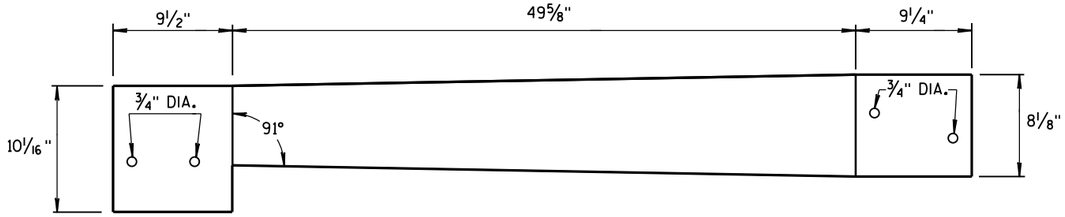
GUSSETS

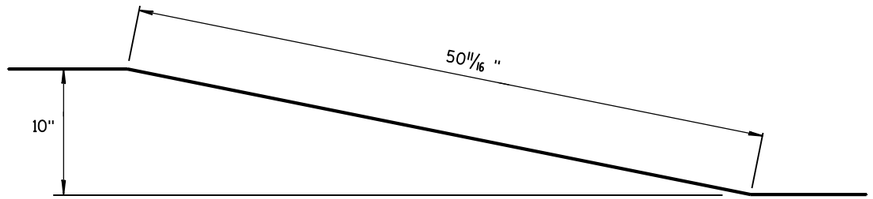


END PLATE



SIDE PLATE

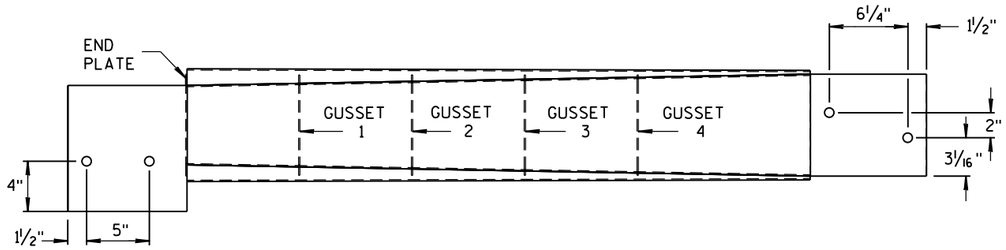


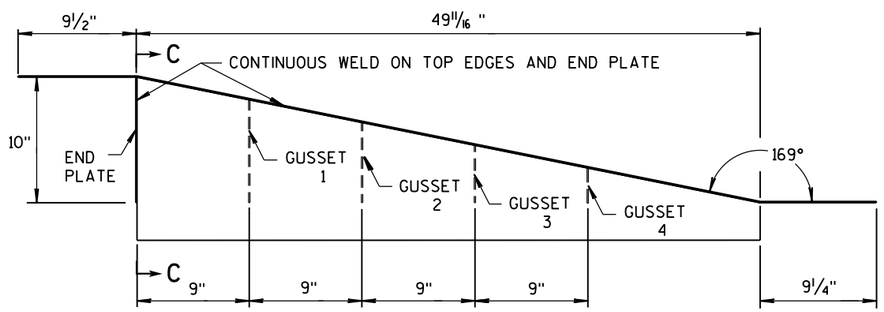


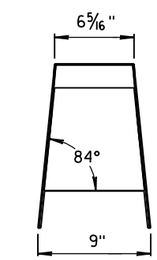
TOP PLATE

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

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







SECTION C-C

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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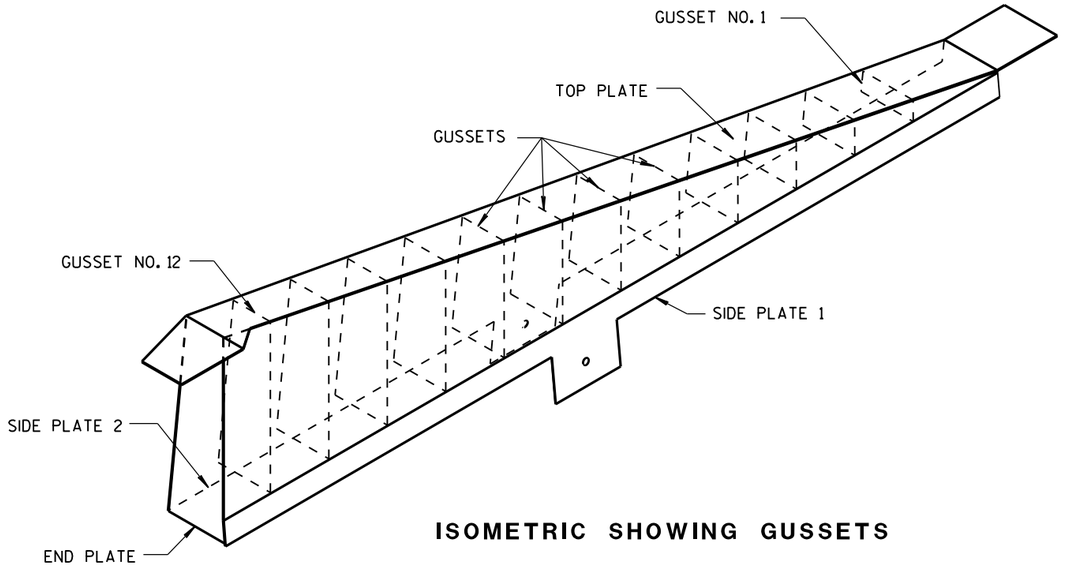
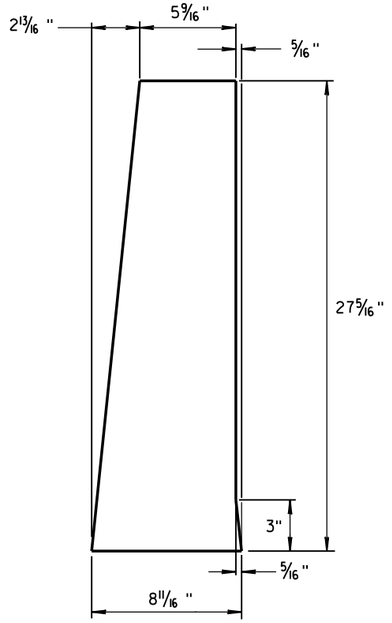
S.D.D. 14 B 7-14f

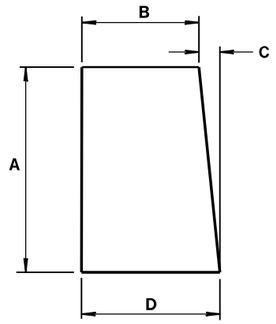


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



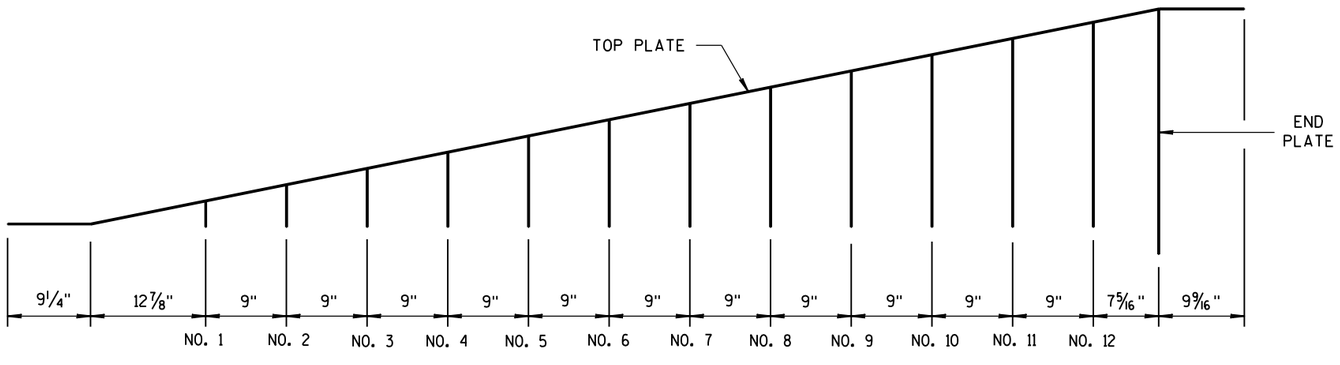
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

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

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



GUSSET LOCATION

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

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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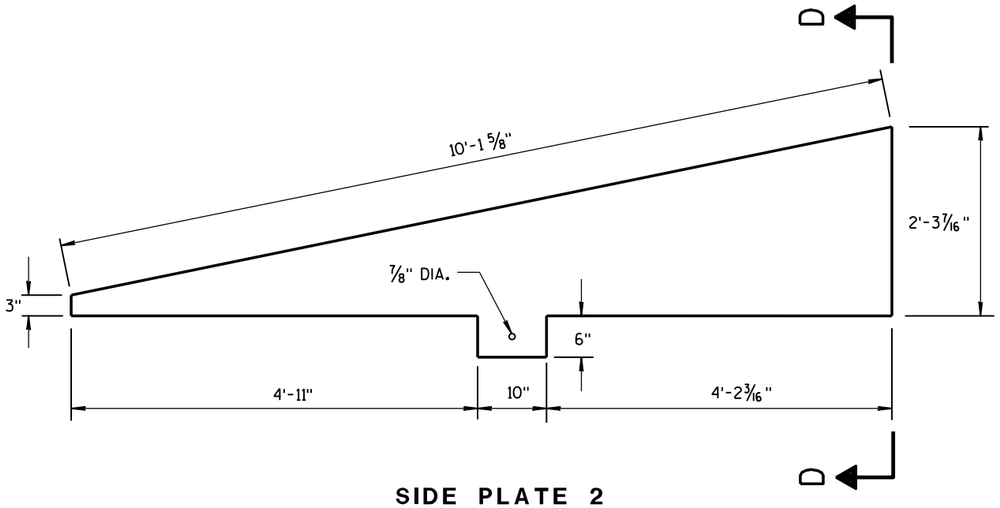
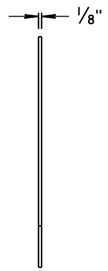
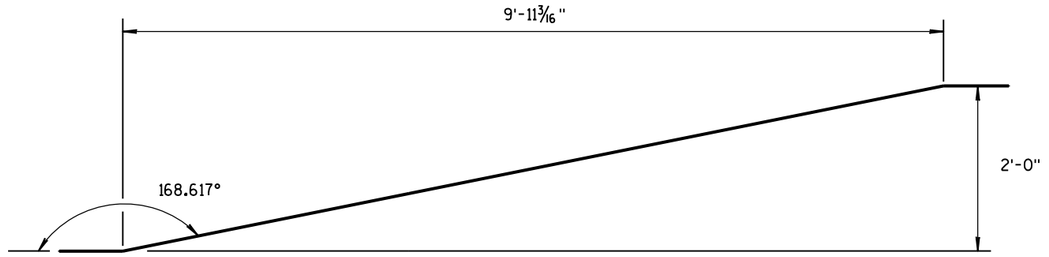
S.D.D. 14 B 7-14g



SIDE PLATE 2

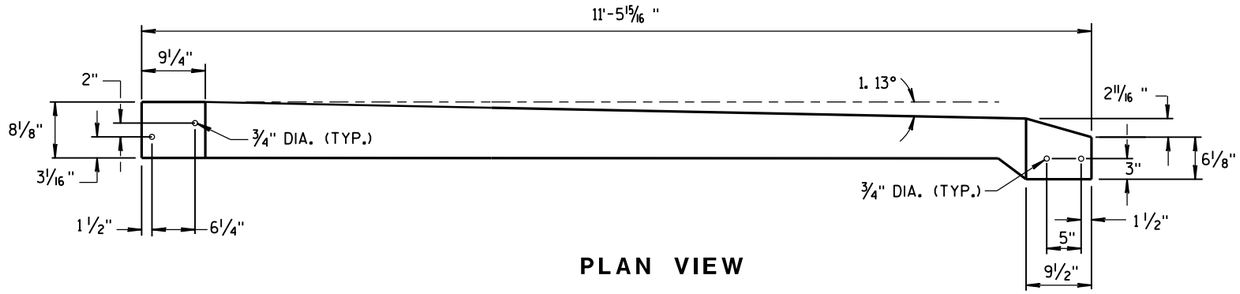


END VIEW



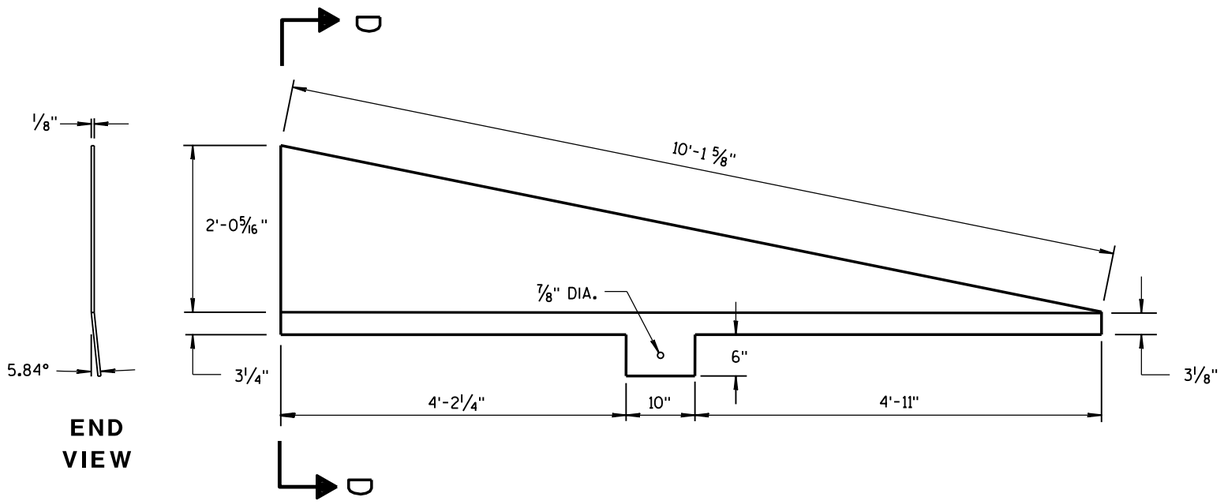
SIDE VIEW

TOP PLATE



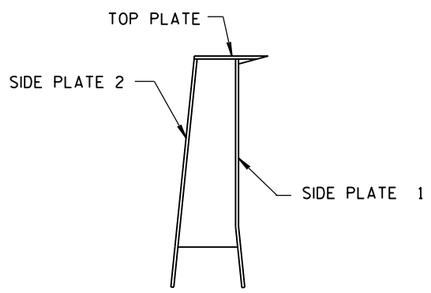
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

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

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 7-14h

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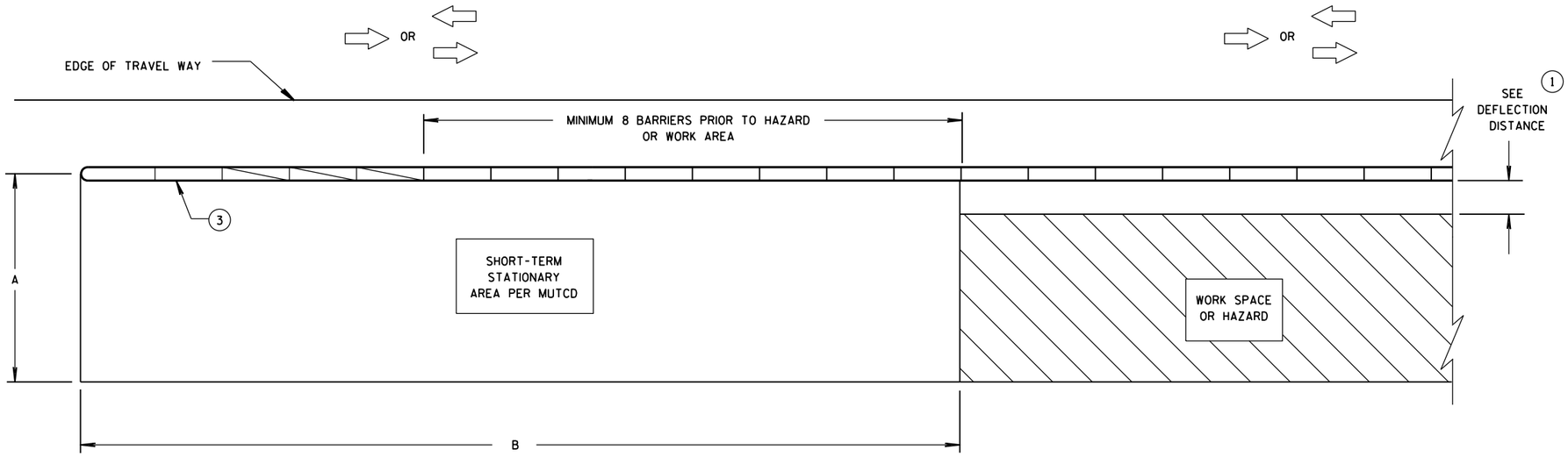
S.D.D. 14 B 7-14h



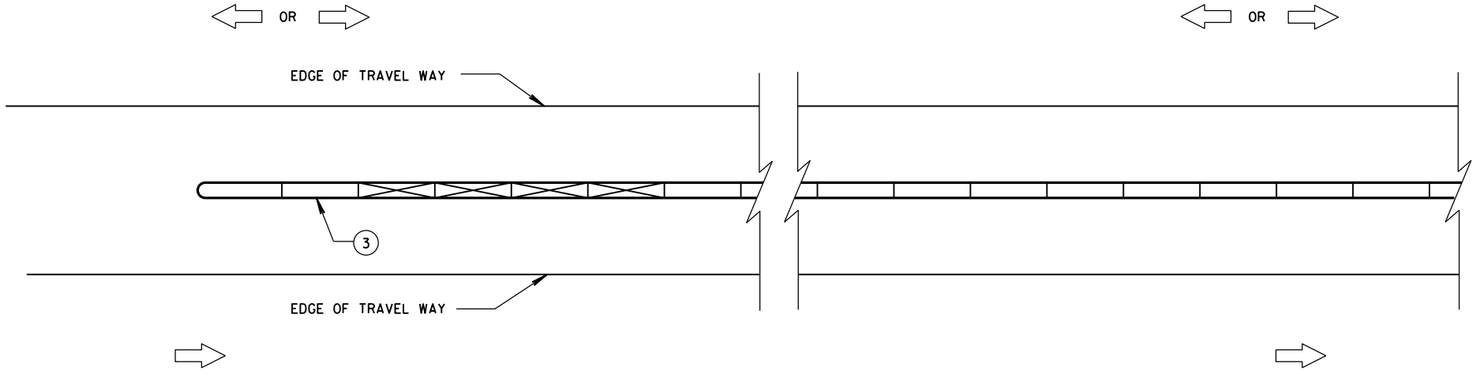
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

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

DIMENSION B TABLE (2)

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



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

LEGEND

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

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

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

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

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

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

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

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

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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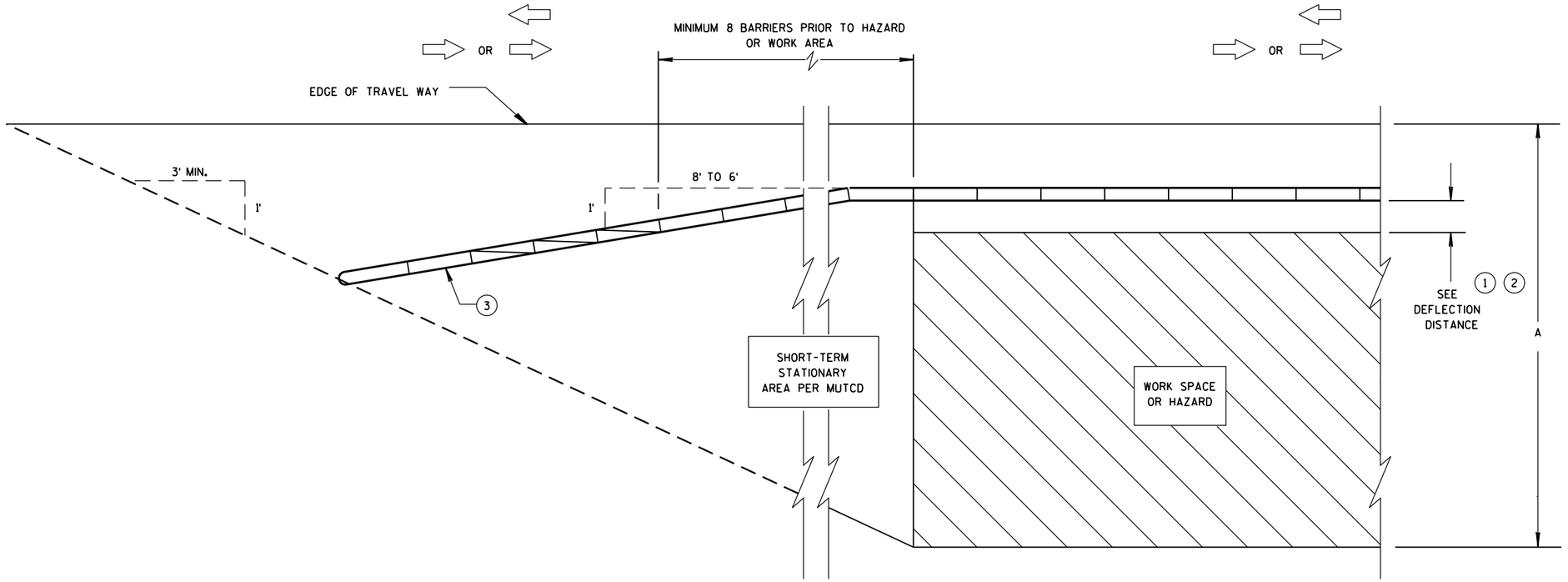
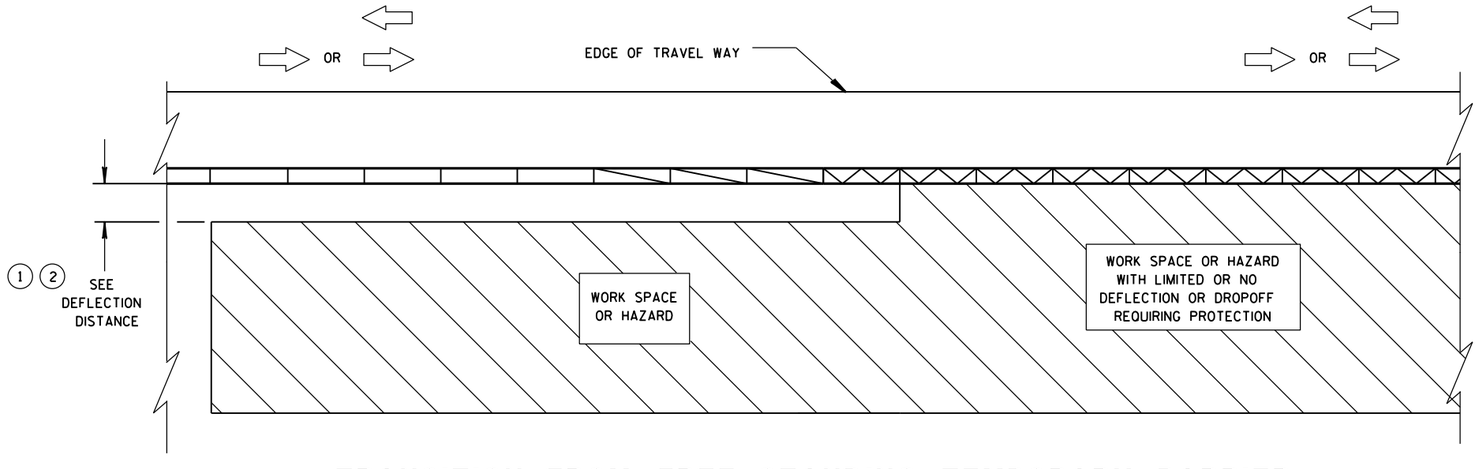
S.D.D. 14 B 8-2a



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



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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

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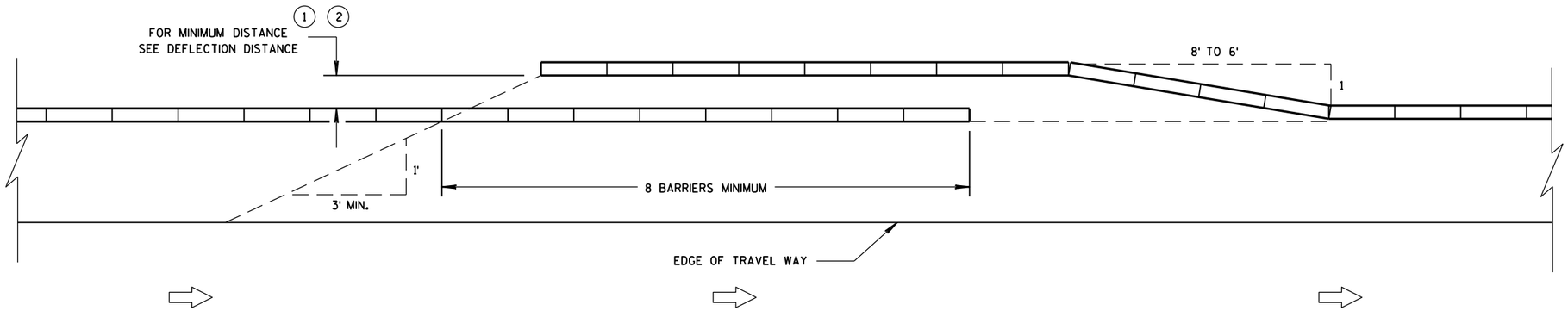
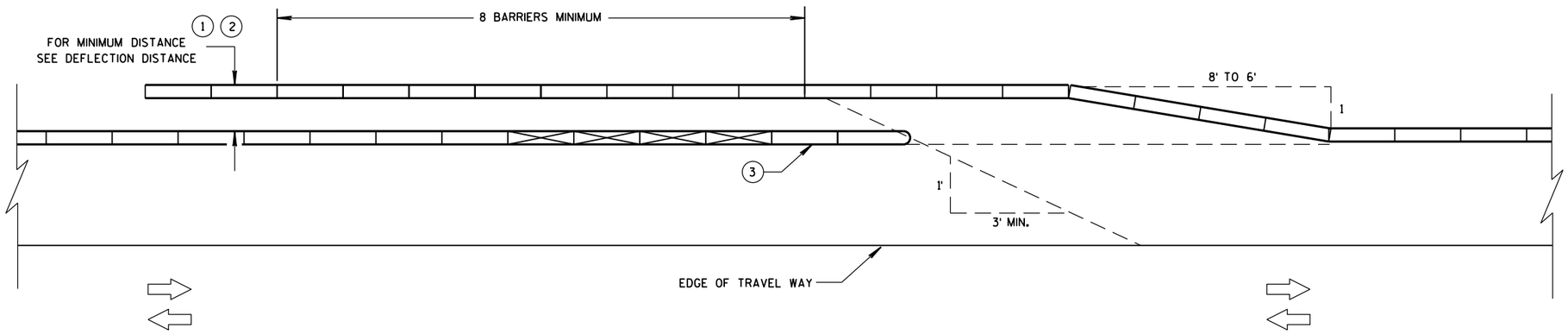
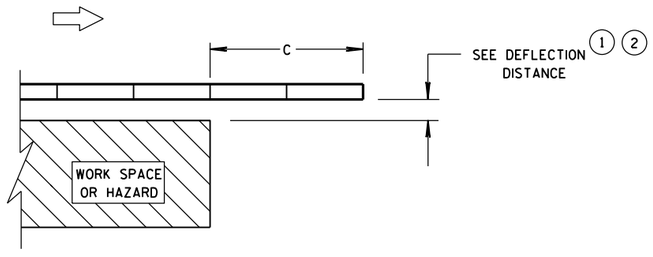
S.D.D. 14 B 8-2b



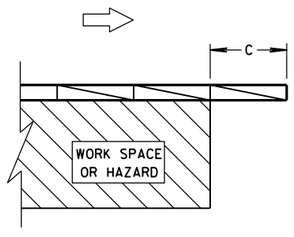
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

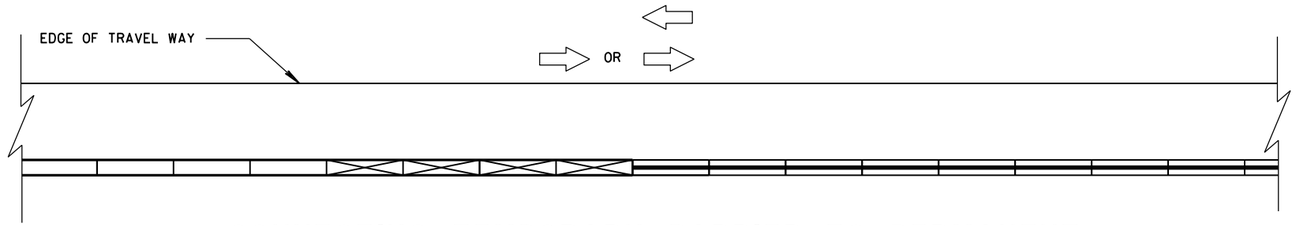
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

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

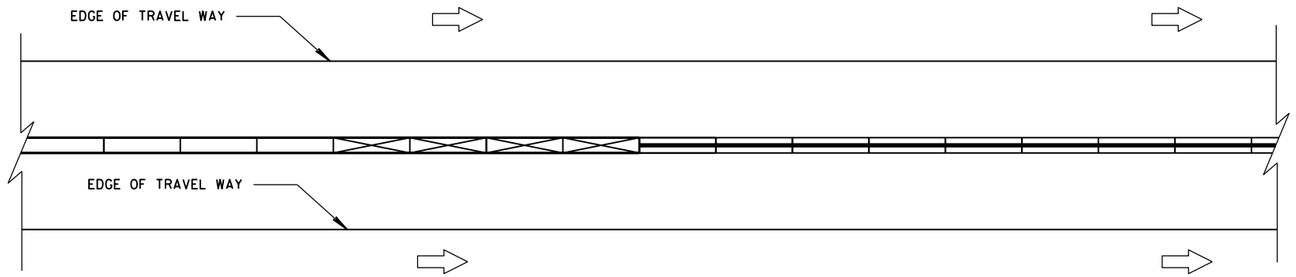
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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



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



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

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

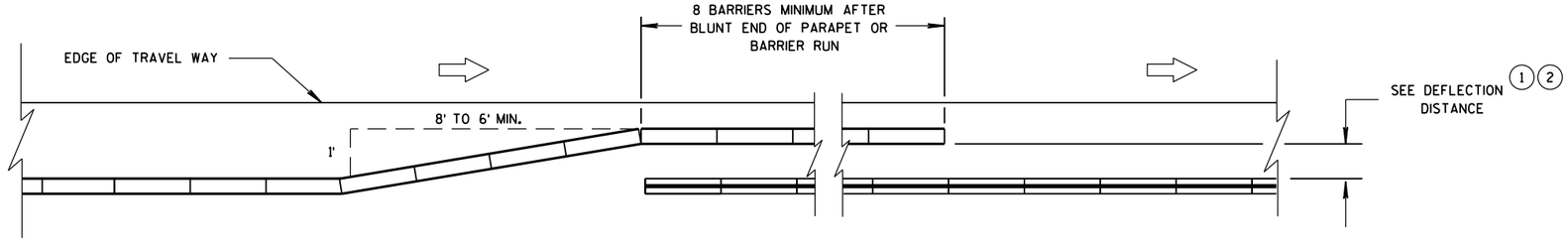
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

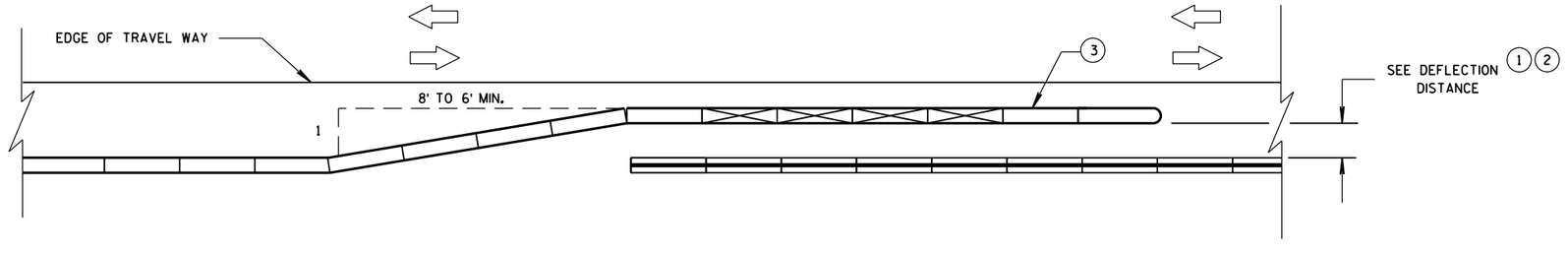
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

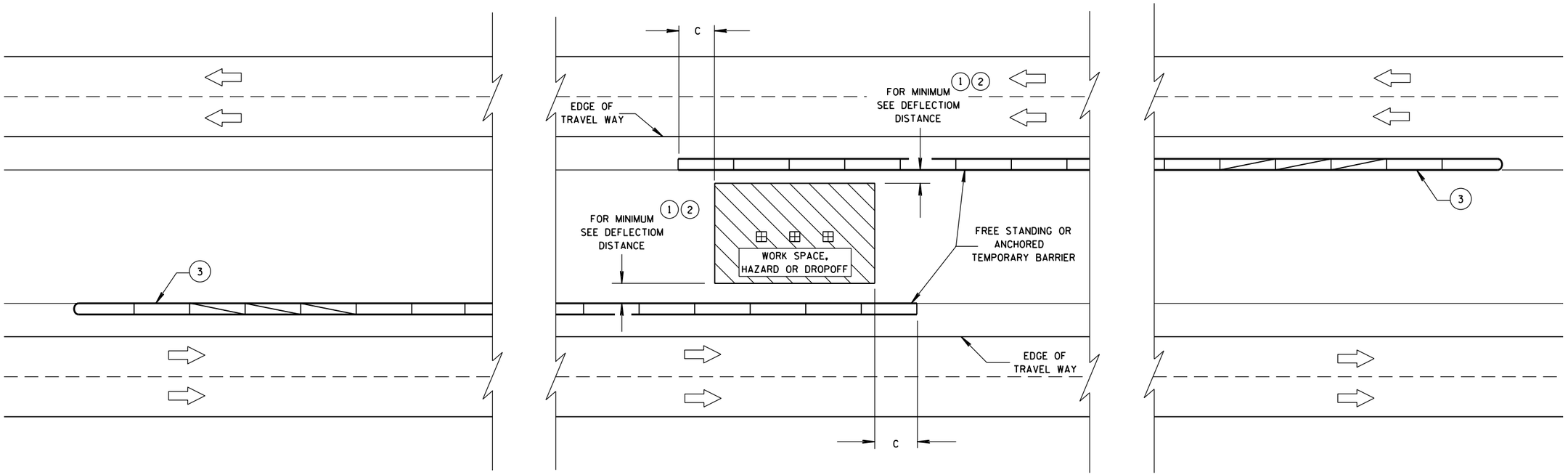
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

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



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER
235
FHWA

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

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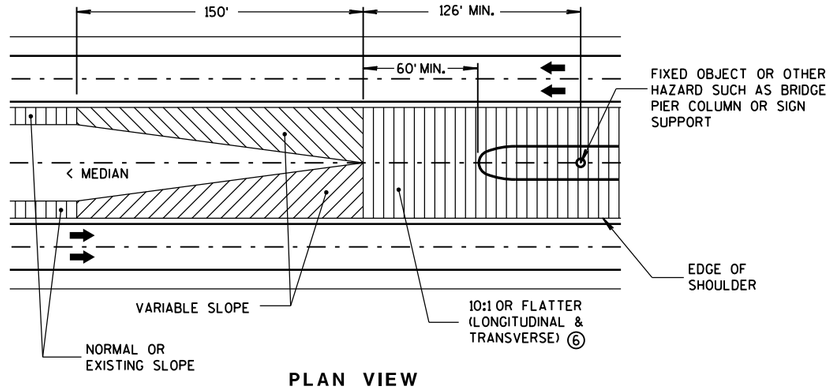
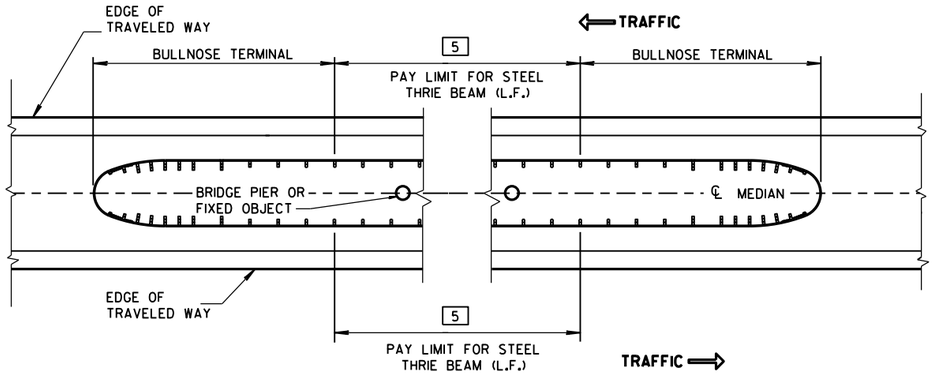
S.D.D. 14 B 8-2e

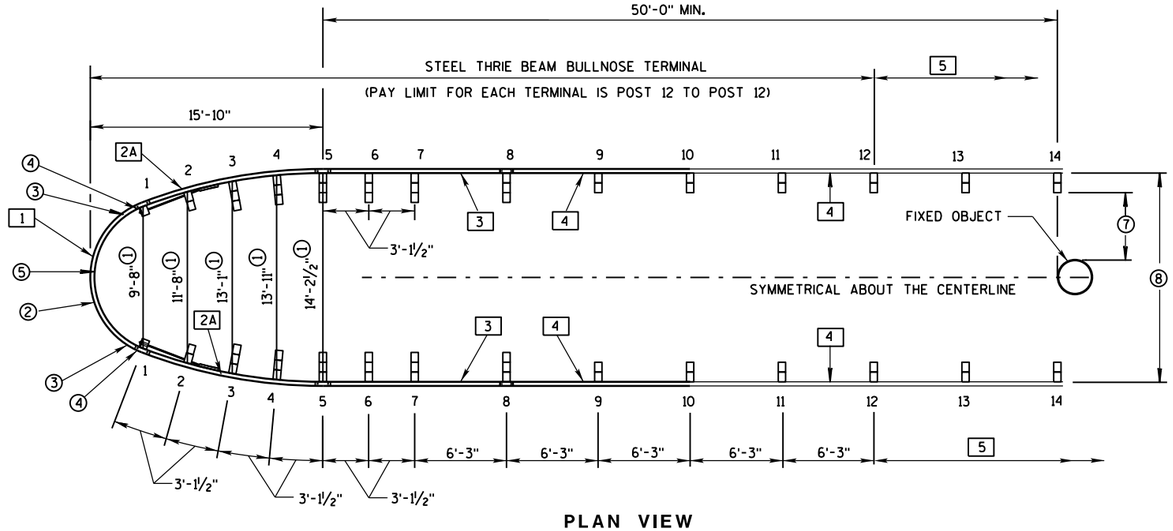


PLAN VIEW

GRADING AT BULLNOSE
(ALL INSTALLATIONS)

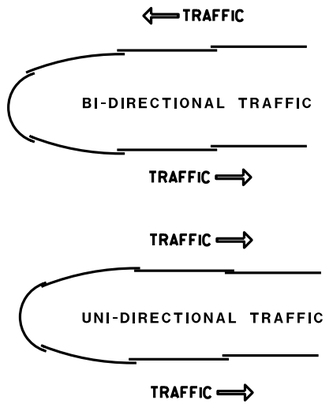


MEDIAN HAZARD PROTECTION PAY LIMITS



PLAN VIEW

TYPICAL BULLNOSE LAYOUT



LAPPING DETAIL
(ALL INSTALLATIONS)

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

PUNCHING, DRILLING, CUTTING OR WELDING IS NOT PERMITTED ON ANY GALVANIZED THRIE BEAM ACCESSORY OR TERMINAL ACCESSORY.

OTHER ANCHOR CABLE ASSEMBLIES HAVING 40,000 LBS. MIN. BREAKING STRENGTH MAY BE USED.

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

THE USE OF STEEL POSTS ON THE BULLNOSE IS NOT ALLOWED.

BOLTS AND ALL NECESSARY HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

ALL THRIE BEAM SHALL BE 12-GAUGE.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½" AND 12" DIAMETER AROUND POST. SEE SDD 14B15 OR SDD 14B42 FOR MORE INFORMATION.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A. (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

[4] UNBENT STANDARD THRIE-BEAM RAIL NO.4. (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.

② U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.

③ NOSE CABLE W/SWAGGED END BUTTONS.

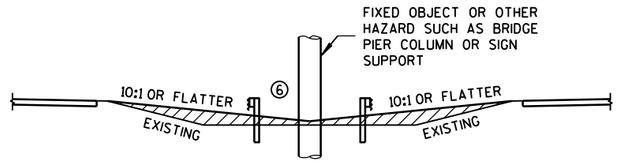
④ NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).

⑤ THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.

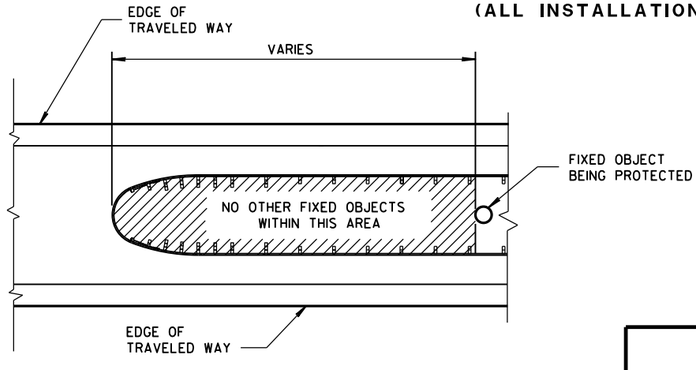
⑥ PROVIDE SUITABLE DRAINAGE WHEN MEDIAN GRADING IMPEDES NORMAL FLOW.

⑦ 2'-6" MINIMUM LATERAL DISTANCE BETWEEN BACK OF POST AND FACE OF FIXED OBJECT.

⑧ MAXIMUM WIDTH OF SYSTEM IS 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



MEDIAN GRADING SECTION
(ALL INSTALLATIONS)

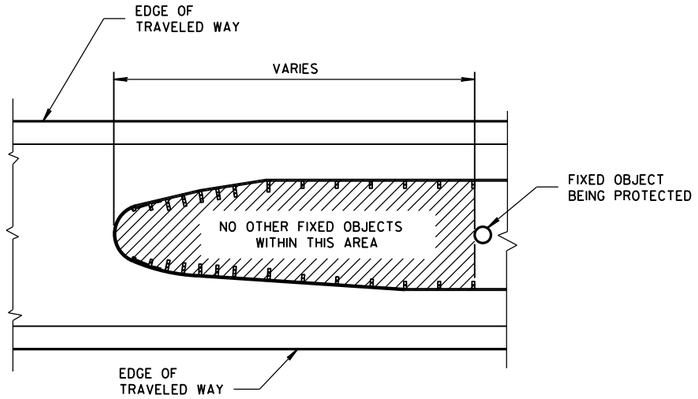


HAZARD FREE AREA INSIDE BULLNOSE

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6
S.D.D. 14 B 26-3a



HAZARD FREE
AREA INSIDE BULLNOSE

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

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

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A, (POST 1 TO POST 5)

[2B] SLOTTED THRIE BEAM RAIL NO. 2B, (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

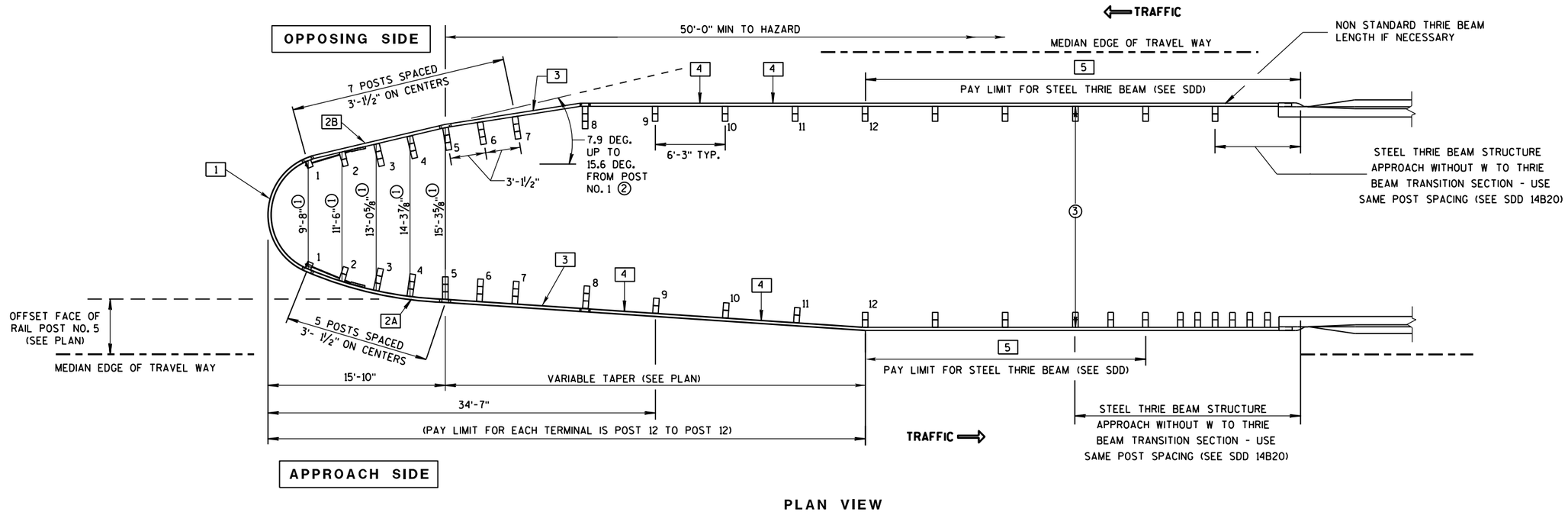
[4] UNBENT STANDARD THRIE-BEAM RAIL NO. 4, (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST.

② TAPER BEGINNING AT POST NO. 1 MUST CONTINUE TO POST NO. 5. PAST POST NO. 5 TAPER MAY END OR BE EXTENDED UP TO 15.6 DEGREES TO FIT VARIABLE MEDIAN WIDTHS. (SEE PLAN)

③ FOR MEDIANS WIDER THAN 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



PLAN VIEW

WIDENED BULLNOSE DESIGN

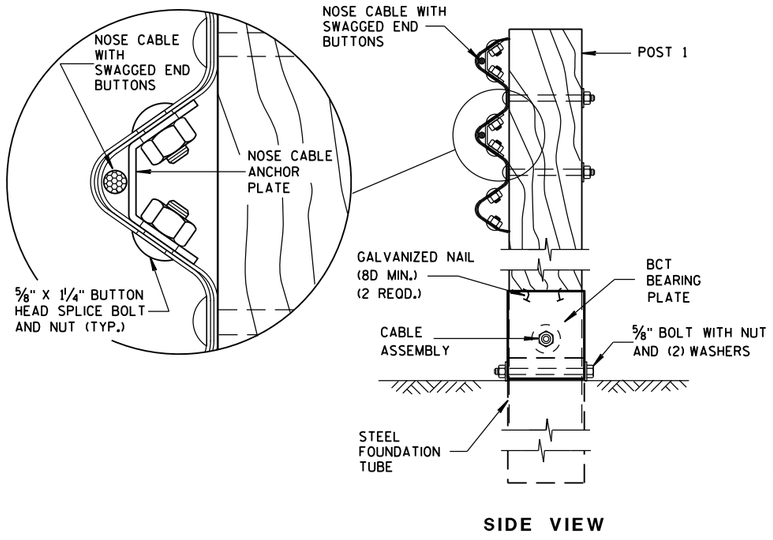
(INSTALLATION AT TWIN BRIDGES WITH BI-DIRECTIONAL TRAFFIC SHOWN)

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

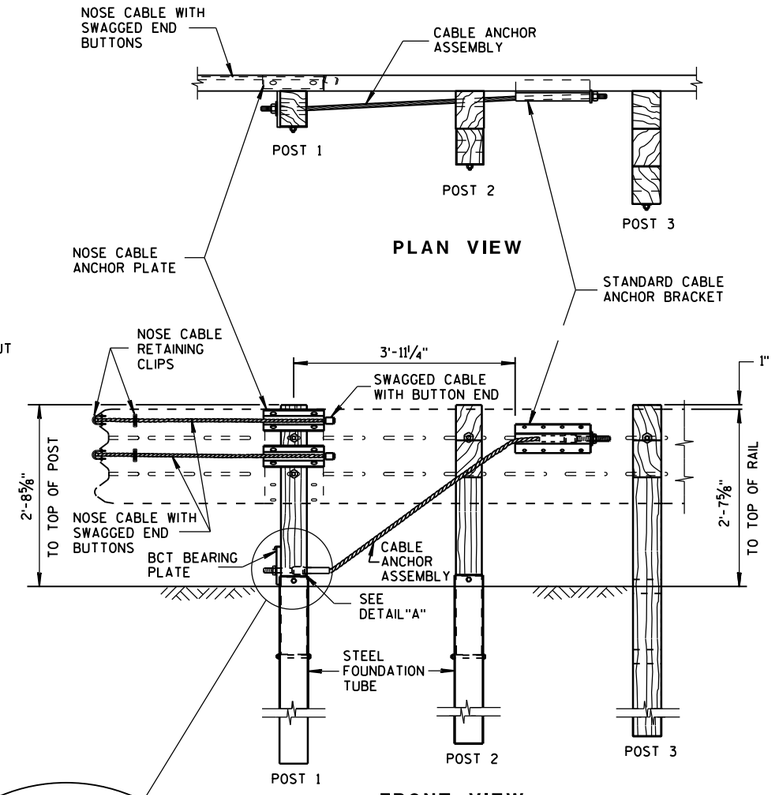
6

S.D.D. 14 B 26-3b



SIDE VIEW

NOSE CABLE ASSEMBLY AT POST NO. 1



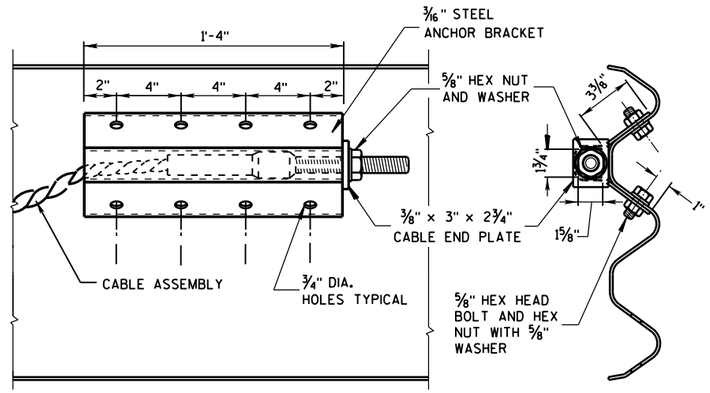
PLAN VIEW

FRONT VIEW

NOSE CABLE ANCHOR AND STANDARD BRACKET ASSEMBLY

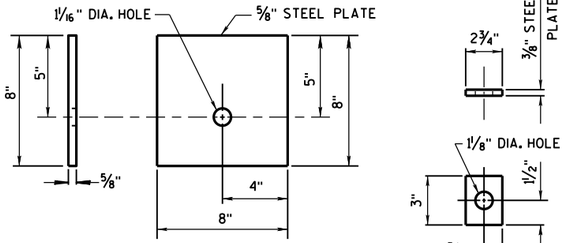
GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



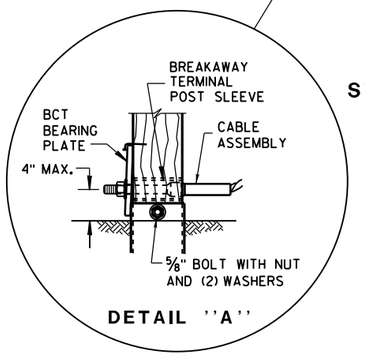
FRONT VIEW END VIEW

DETAILS OF CABLE ANCHOR BRACKET

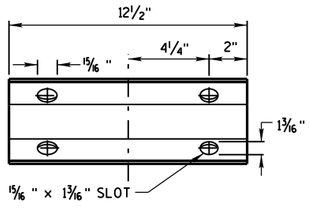


BCT BEARING PLATE

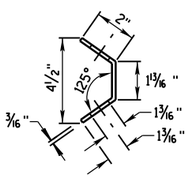
CABLE END PLATE



DETAIL ''A''



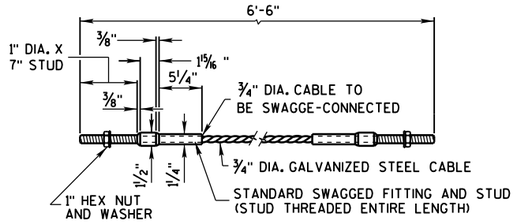
ELEVATION VIEW



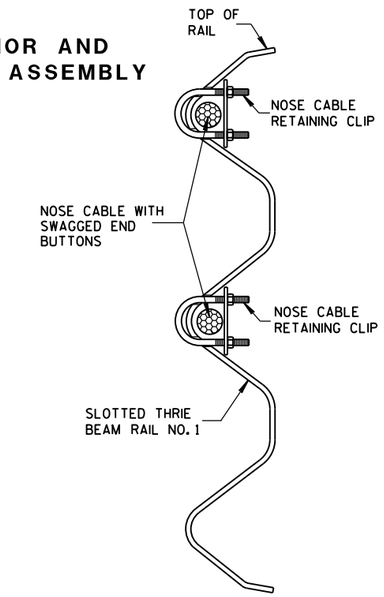
END VIEW

NOSE CABLE ANCHOR PLATE

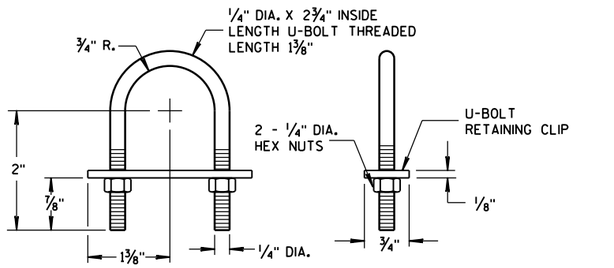
NOTE: 12 1/2" x 5 13/16" x 3/16" STEEL PLATE (A306)



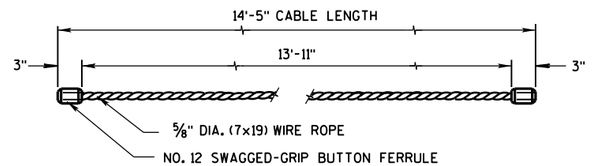
DETAILS OF CABLE ANCHOR ASSEMBLY



PLACEMENT OF NOSE CABLE RETAINING CLIP



NOSE CABLE RETAINING CLIP



NOSE CABLE WITH SWAGGED END BUTTONS

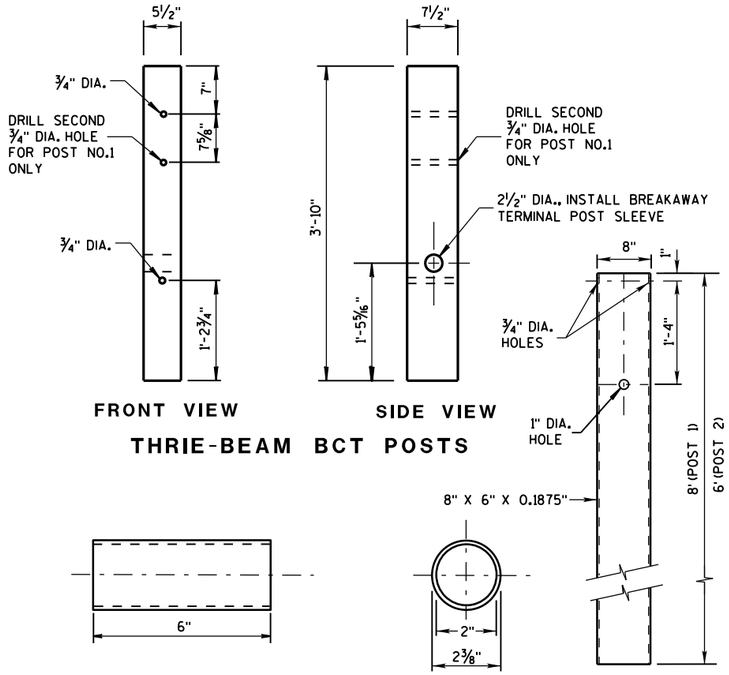
TO PULL OFF SWAGGED GRIP BUTTON FERRULE FROM WIRE ROPE REQUIRES A FORCE EQUAL TO 98% OF THE WIRE ROPE'S BREAKING STRENGHT.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 26-3c

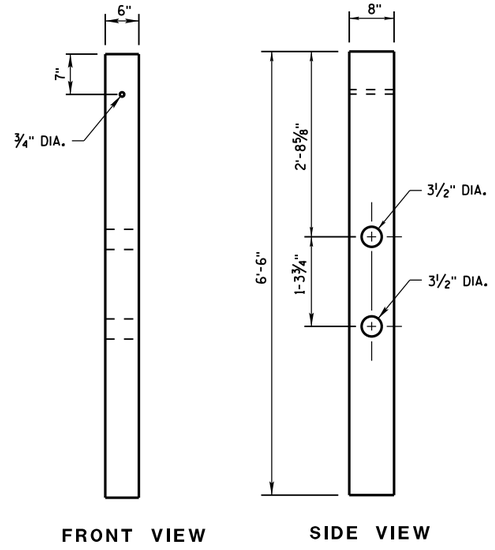


FRONT VIEW SIDE VIEW

THRIE-BEAM BCT POSTS

BREAKAWAY TERMINAL POST SLEEVE

STEEL FOUNDATION TUBE

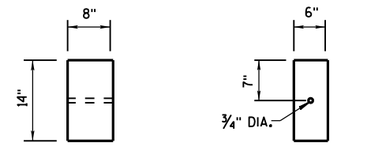


FRONT VIEW SIDE VIEW

THRIE-BEAM CRT WOOD POSTS

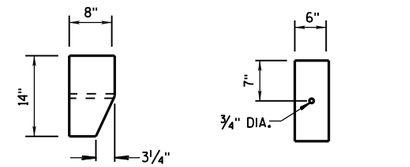
GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



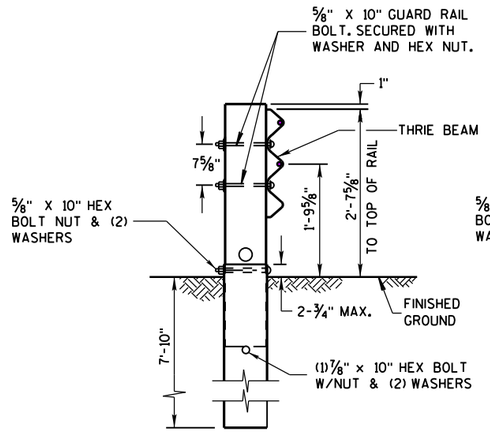
SIDE VIEW FRONT VIEW

STANDARD WOOD BLOCK



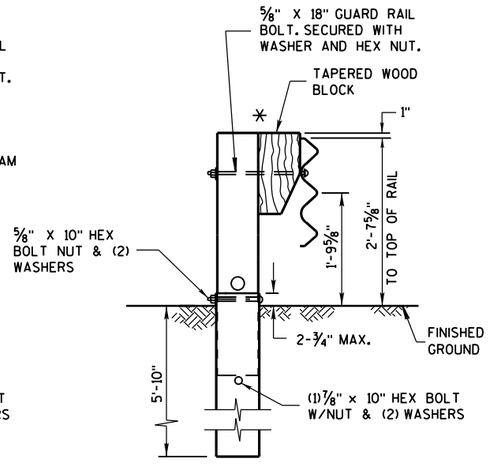
SIDE VIEW FRONT VIEW

TAPERED WOOD BLOCK



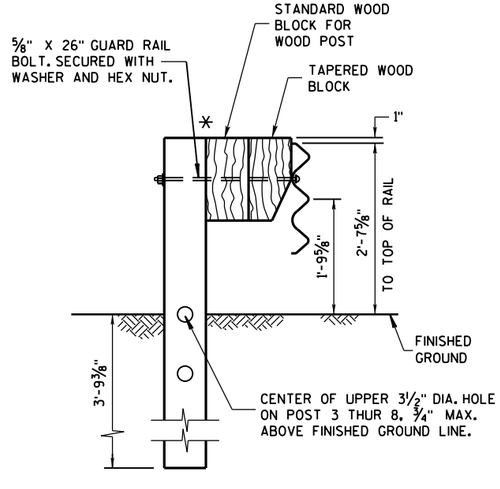
THRIE-BEAM BCT POST
(WITH 8'-0" FOUNDATION TUBE)

POST NO. 1



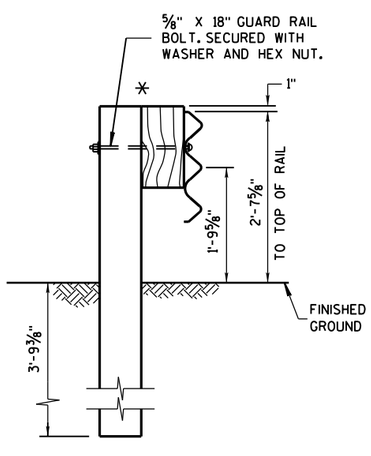
THRIE-BEAM BCT POST
(WITH 6'-0" FOUNDATION TUBE AND 1'-2" TAPERED BLOCK)

POST NO. 2



THRIE-BEAM CRT POST
(6'-6" LONG POST WITH 1'-2" BLOCK AND 1'-2" TAPERED BLOCK)

POST NO. 3,4,5,6,7, & 8



THRIE-BEAM POST
(6'-6" LONG POST WITH 1'-2" BLOCK)

POST NO. 9,10,11,& 12
(ALSO USE FOR STEEL THRIE BEAM BEYOND POST 12)

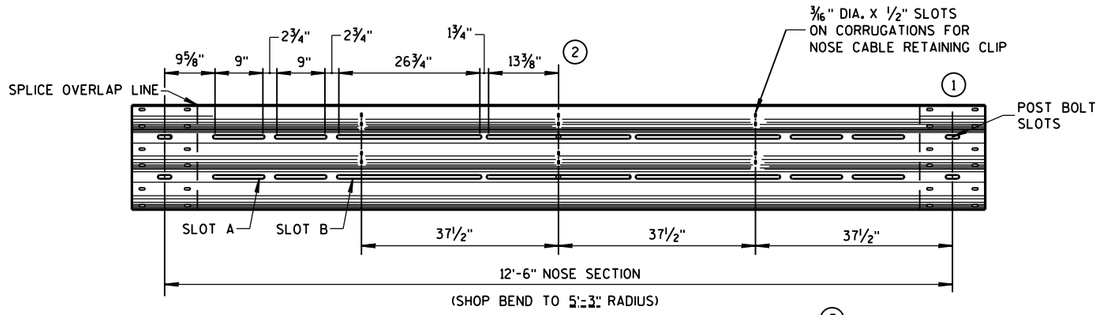
* IF NEEDED DUE TO AN UNDERGROUND OBSTACLE ADD 1 ADDITIONAL STANDARD BLOCKOUT TO POST.

STEEL THRIE BEAM BULLNOSE TERMINAL

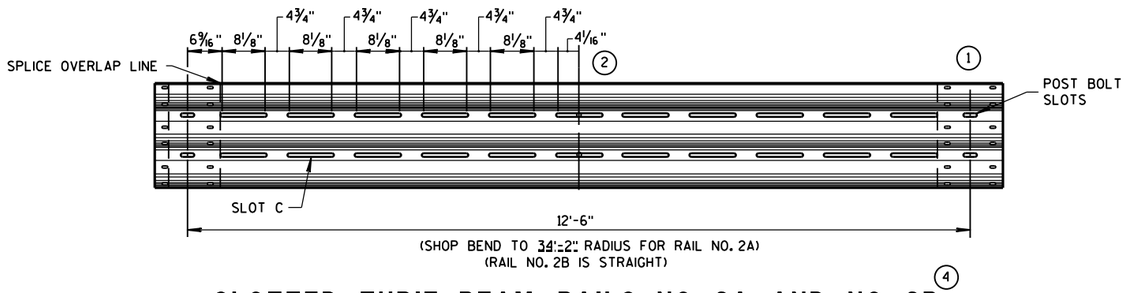
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

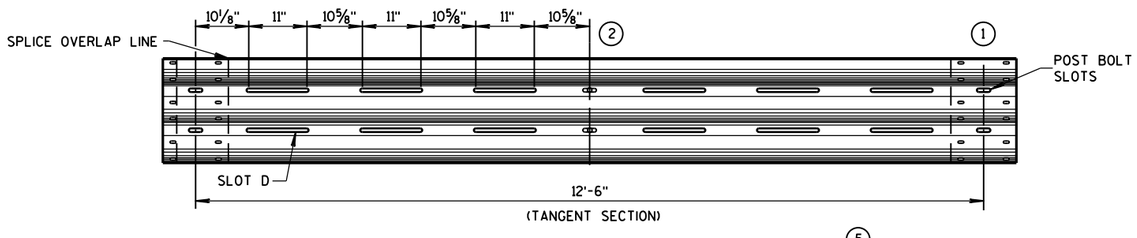
S.D.D. 14 B 26-3d



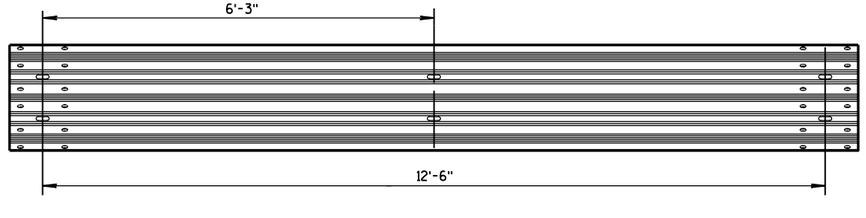
SLOTTED THRIE BEAM RAIL NO. 1 (3)



SLOTTED THRIE BEAM RAILS NO. 2A AND NO. 2B (4)



SLOTTED THRIE BEAM RAIL NO. 3 (5)



UNBENT STANDARD THRIE BEAM RAIL NO. 4 AND NO. 5

GENERAL NOTES

SEE STANADRD DETAIL DRAWINGS 14 B 26a-e.

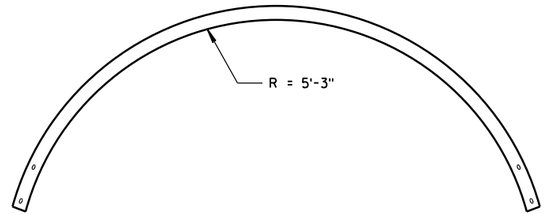
(1) SLOTTED THRIE BEAM RAIL DIMENSIONS SHOWN ARE BEFORE BENDING TO THE RADIUS SHOWN.

(2) SLOT SIZE AND SPACING SYMMETRIC.

(3) SLOTTED THRIE BEAM RAIL NO. 1, 12'-6", SHOP BEND TO R=5'-3".

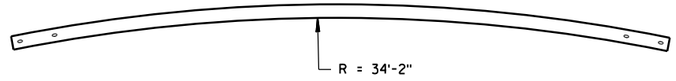
(4) SLOTTED THRIE BEAM RAIL NO. 2A, 12'-6", SHOP BEND TO R=34'-2".
SLOTTED THRIE BEAM RAIL NO. 2B, 12'-6", RAIL IS STRAIGHT.

(5) SLOTTED THRIE BEAM RAIL NO. 3, 12'-6", TANGENT.



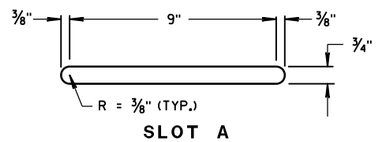
PLAN VIEW

SLOTTED THRIE BEAM RAIL NO. 1

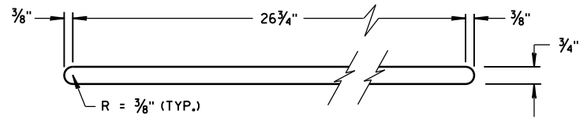


PLAN VIEW

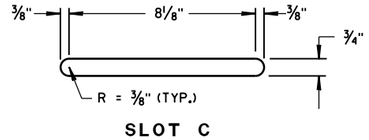
SLOTTED THRIE BEAM RAIL NO. 2A



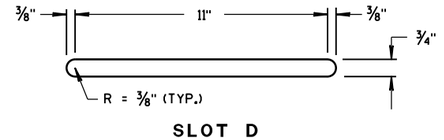
SLOT A



SLOT B



SLOT C



SLOT D

SLOT DETAILS

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 14 B 26-3e

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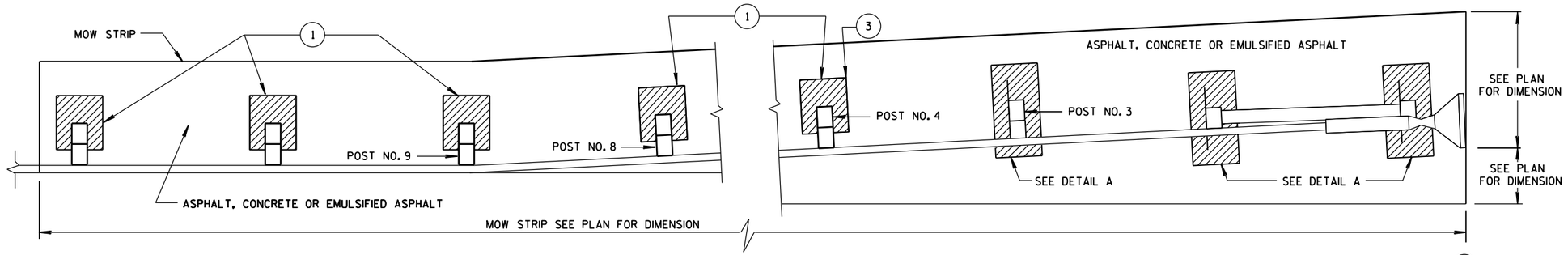
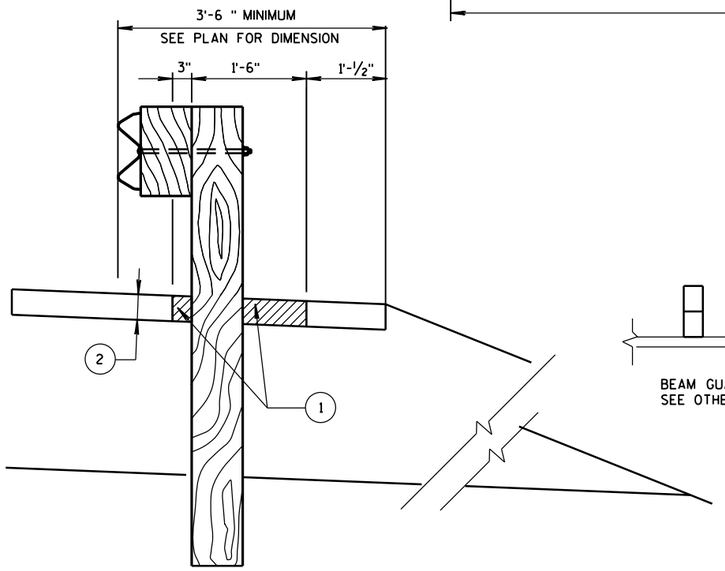
S.D.D. 14 B 26-3e

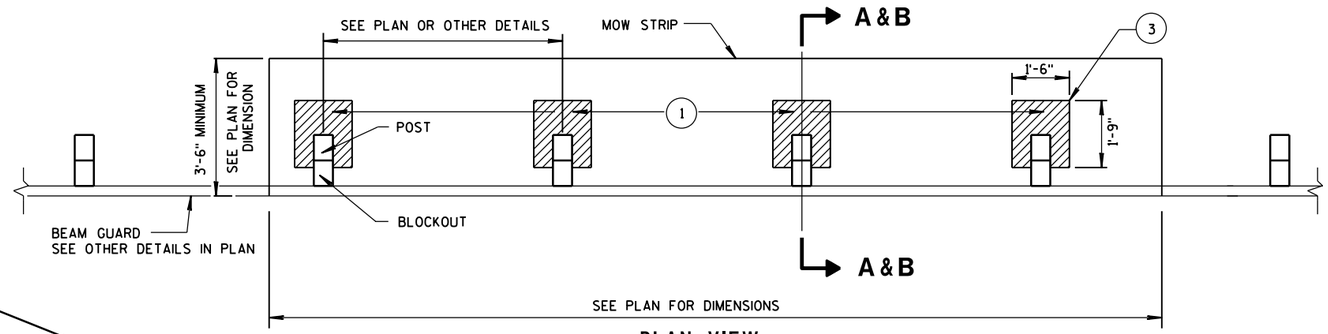


PLAN VIEW

MOW STRIP LAYOUT FOR ENERGY ABORBING TERMINAL

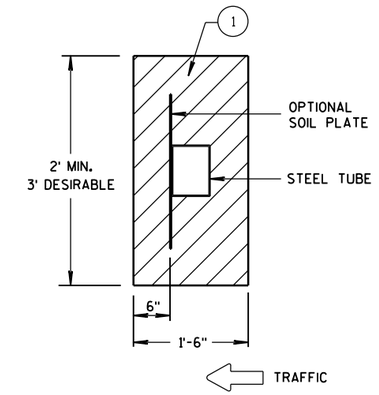


SECTION A-A

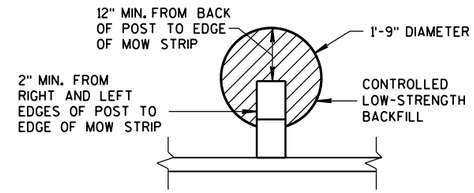


PLAN VIEW

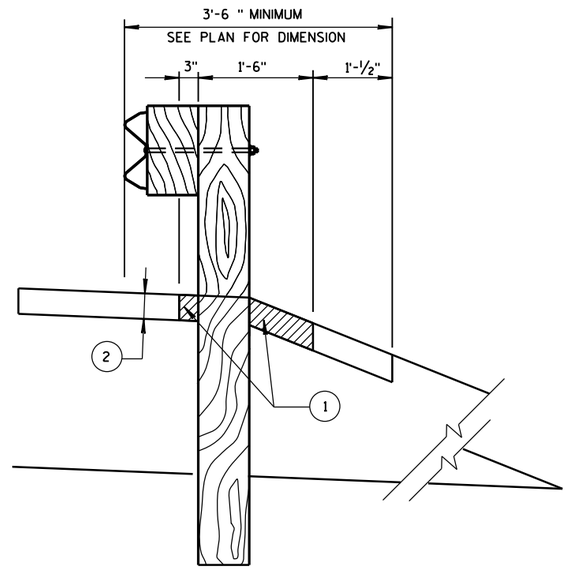
MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT



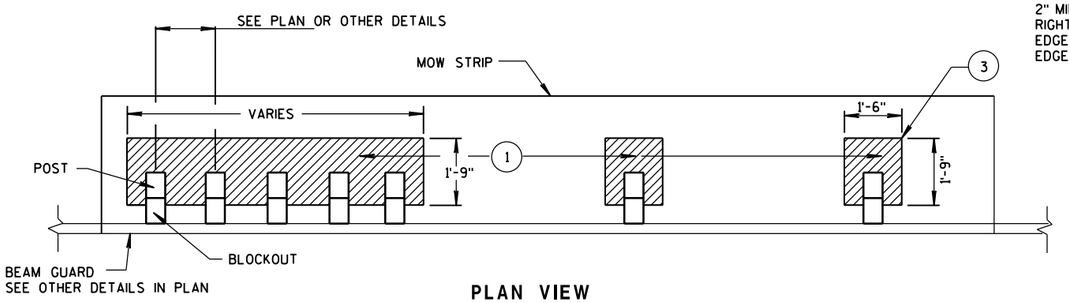
DETAIL A



ALTERNATIVE HMA
MOW STRIP DESIGN

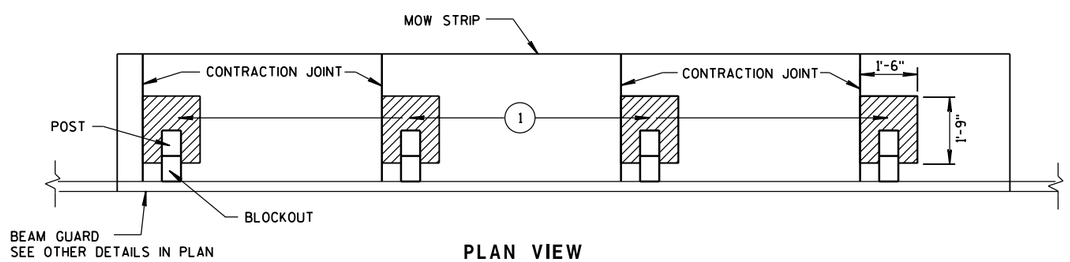


SECTION B-B



PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP

1. CONTROLLED LOW-STRENGTH BACKFILL OR EMULSIFIED ASPHALT.
2. DEPTH OF MOW STRIP:
   ASPHALT - 4"
   CONCRETE - 4"
   EMULSIFIED ASPHALT - 1" OR LESS
3. FOR EMULSIFIED ASPHALT MOW STRIP LEAVE OUTS NOT REQUIRED. (TYPICAL FOR ALL POSTS.)

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA
NT

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S.D.D. 14 B 28-3

GENERAL NOTES

(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.

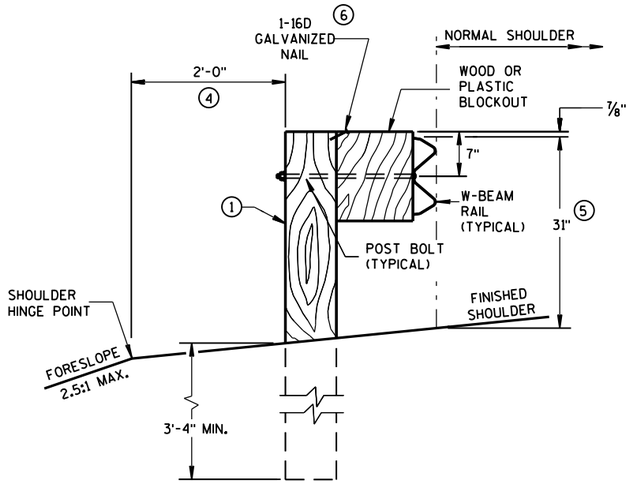
(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ 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).

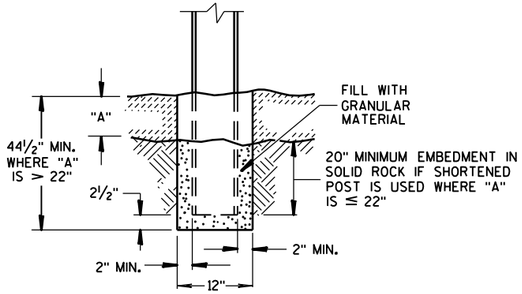
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

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



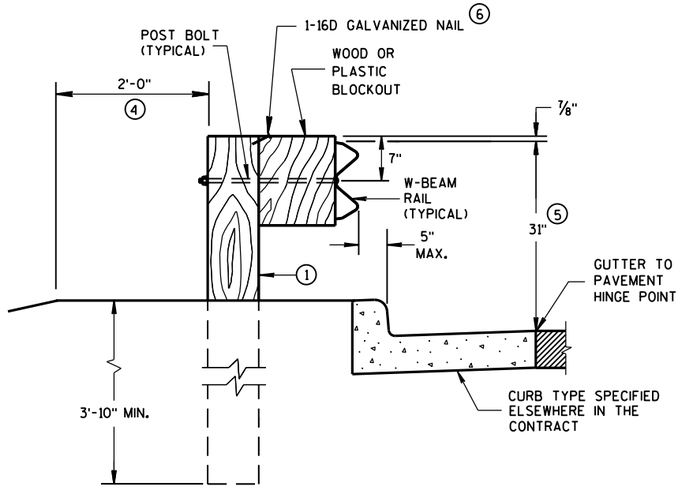
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



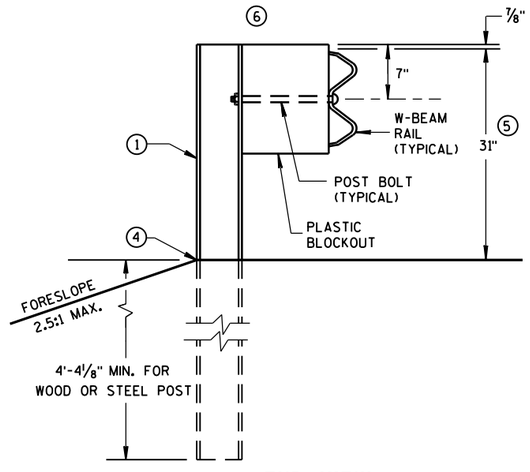
END VIEW

SETTING STEEL OR WOOD POST IN ROCK (3)



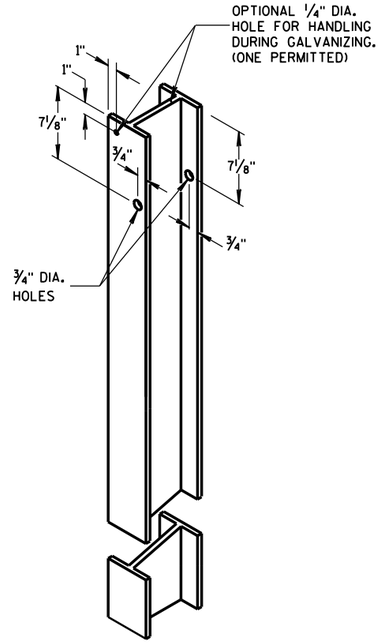
END VIEW

LOCATED ALONG A CURBED ROADWAY

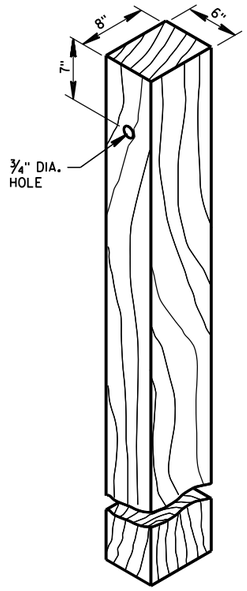


END VIEW

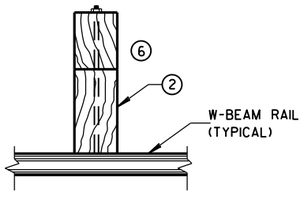
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



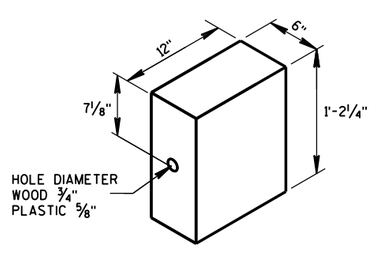
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) (1)



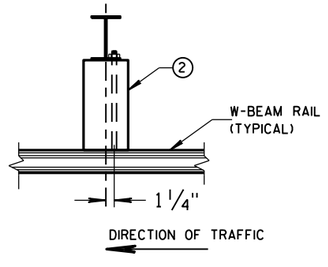
WOOD POST
(6" X 8") NOMINAL (1)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT (2)



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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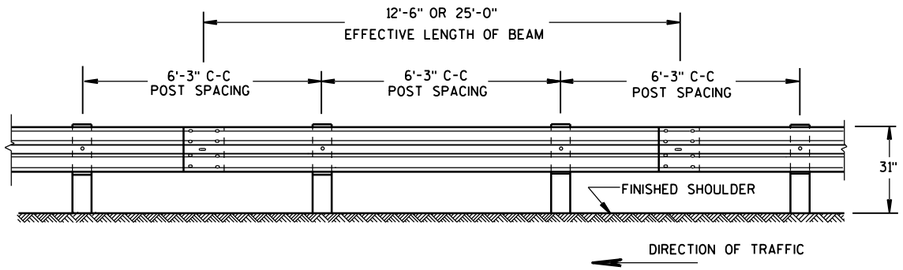
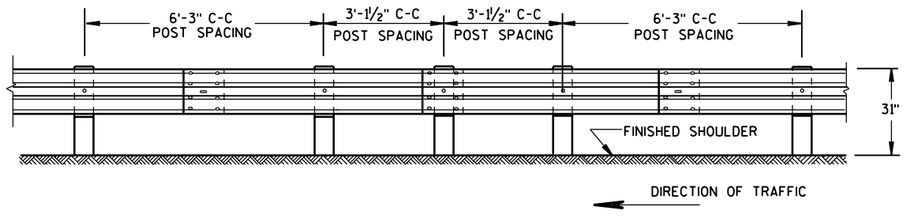


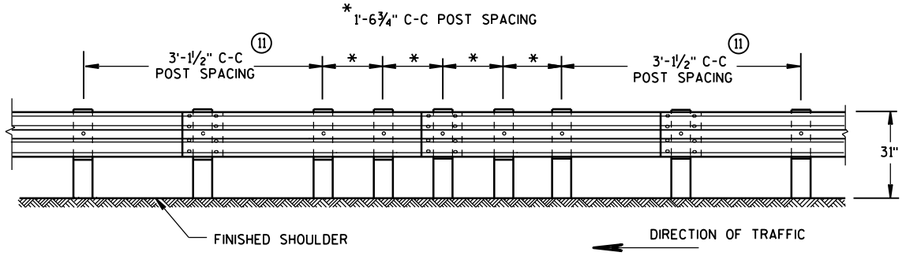
FRONT VIEW

POST SPACING STANDARD INSTALLATION



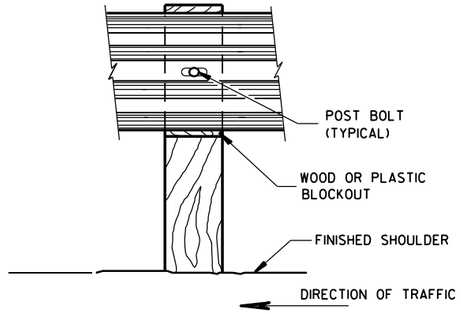
FRONT VIEW

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

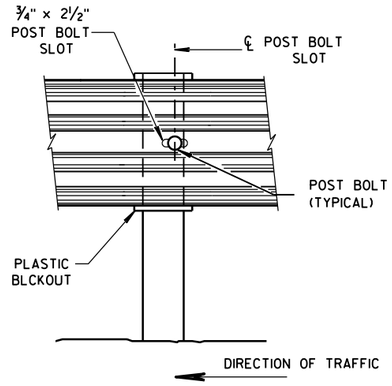


FRONT VIEW

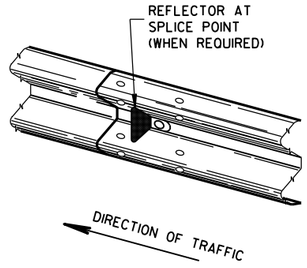
QUARTER POST SPACING (QS)

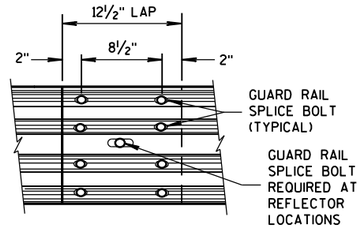


FRONT VIEW AT WOOD POST



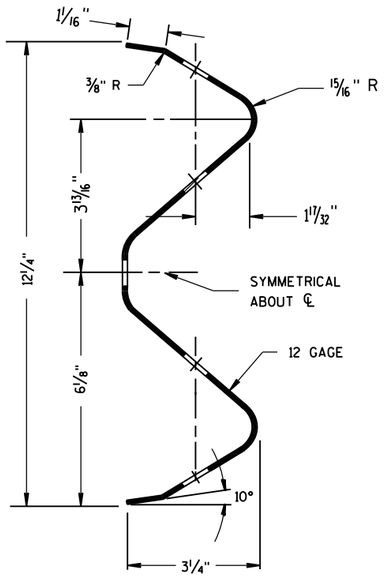
FRONT VIEW AT STEEL POST



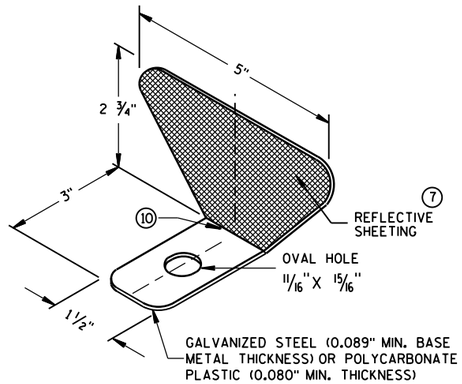


FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ⑦

GENERAL NOTES

⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

⑩ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

⑪ 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.

REFLECTOR SPACING ⑧

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 ⑨ 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 2 ⑩	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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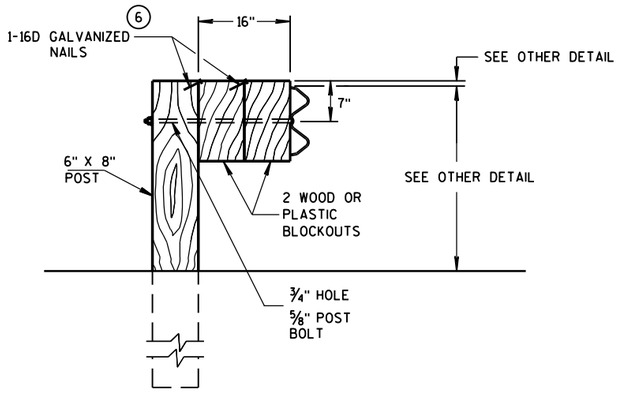
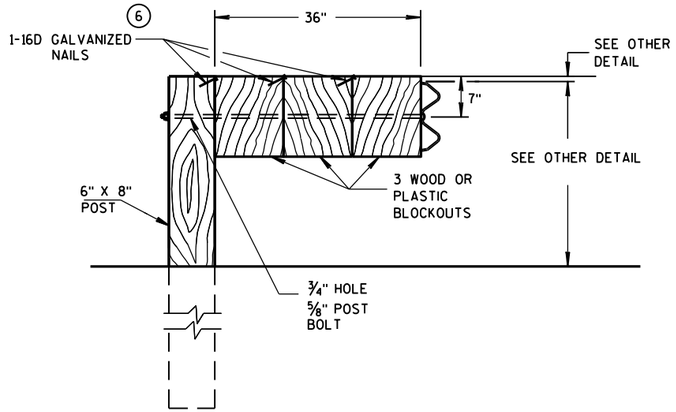


DETAIL FOR 16" BLOCKOUT DEPTH

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

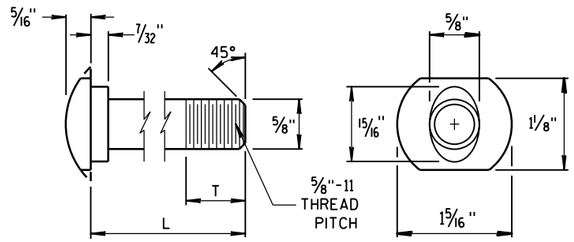


DETAIL FOR 36" BLOCKOUT DEPTH

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

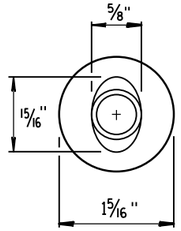
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

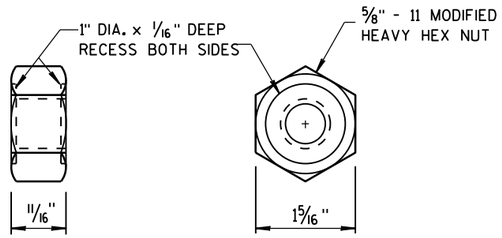


POST BOLT TABLE

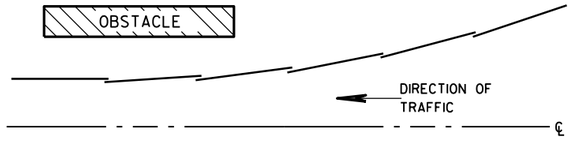
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

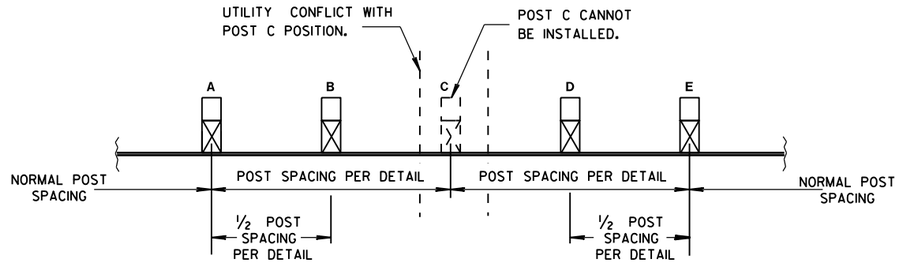


POST BOLT AND RECESS NUT

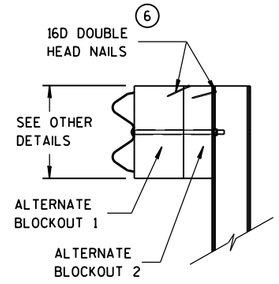


PLAN VIEW

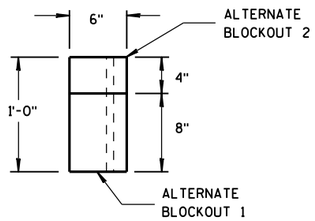
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 14 B 42-3c

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 MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

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

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

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

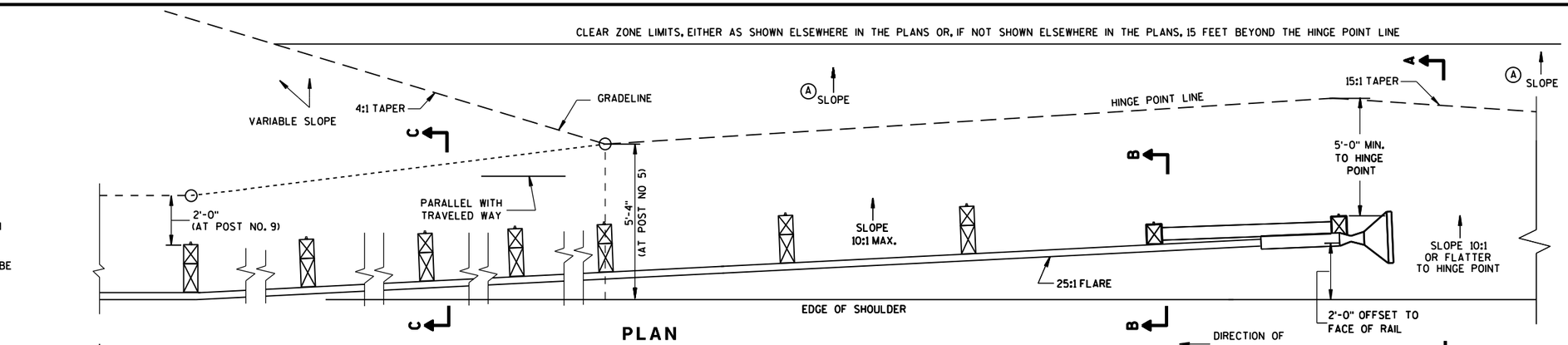
SEE SDD 14B42 FOR MORE INFORMATION.

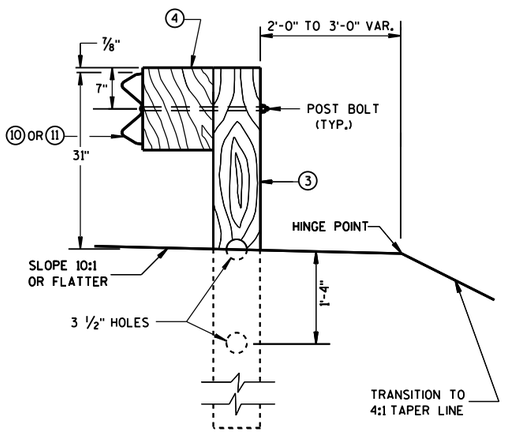
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

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

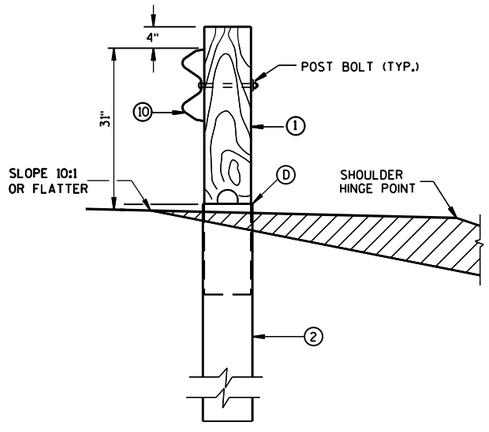
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

THE CENTER OF THE UPPER 3½" 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.

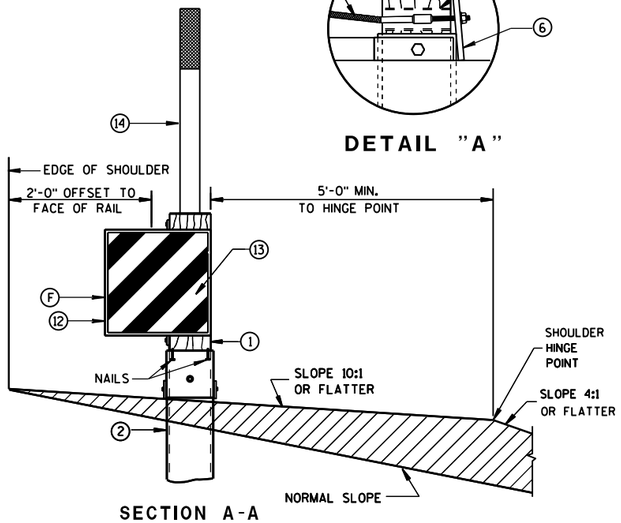




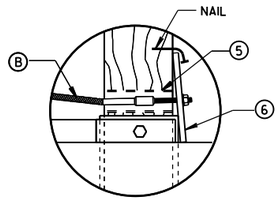
SECTION C-C
TYPICAL AT POST NOS. 3-9



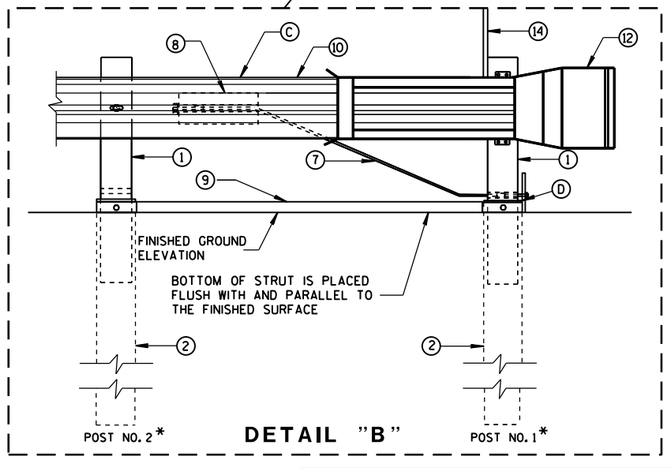
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"

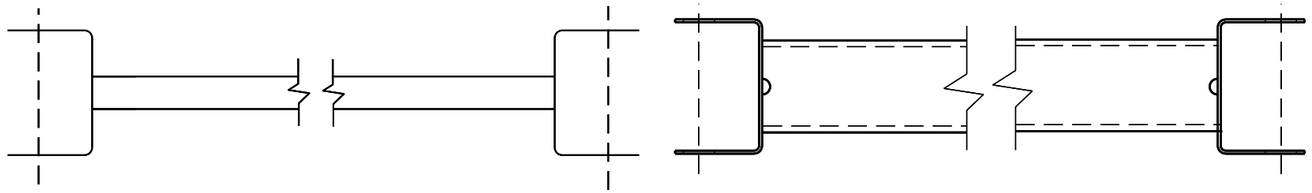


DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

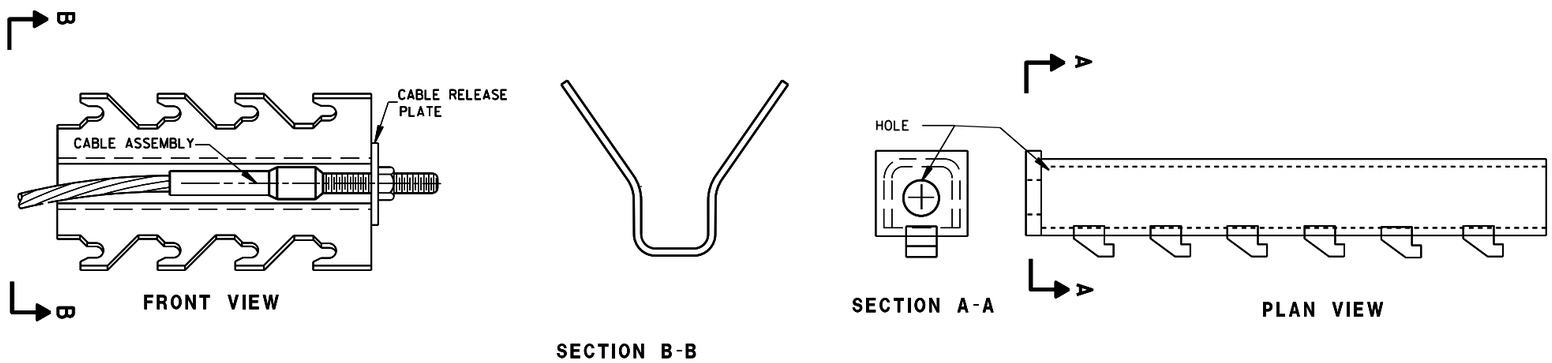
S.D.D. 14 B 44-2a



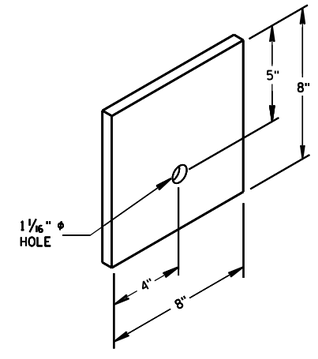
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(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)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



GENERIC ANCHOR CABLE BOX (8) (H)



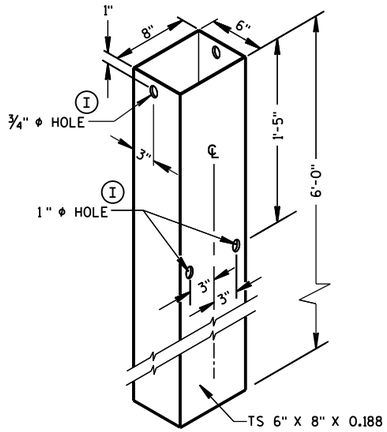
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

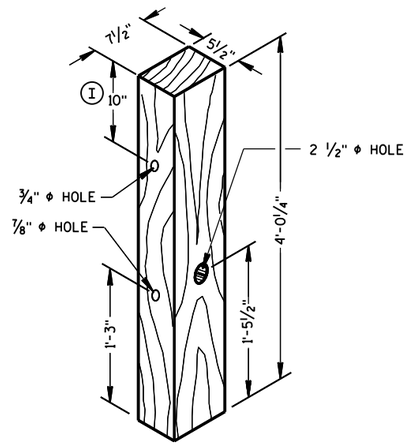
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 44-2b

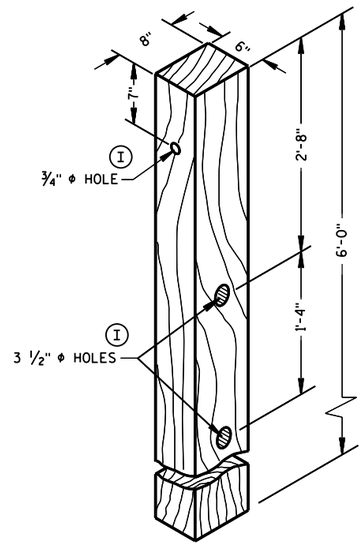


FOUNDATION TUBE (2)



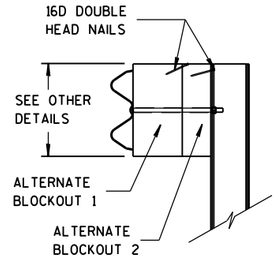
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

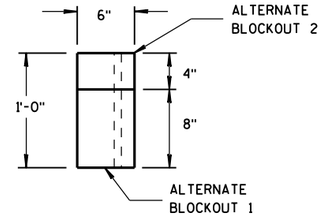


POSTS NUMBER 3-9

WOOD CRT POST (3)

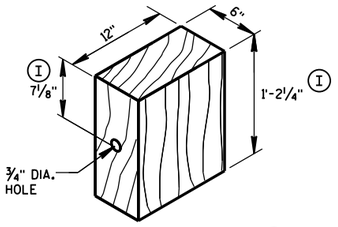


SIDE VIEW



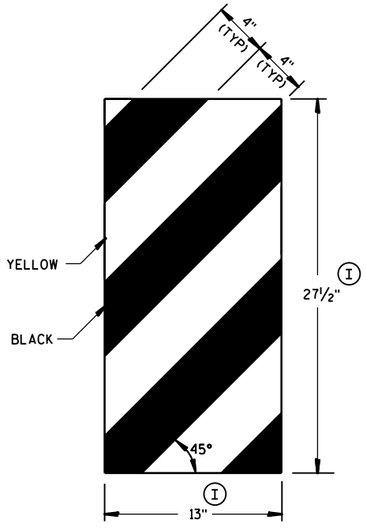
TOP VIEW

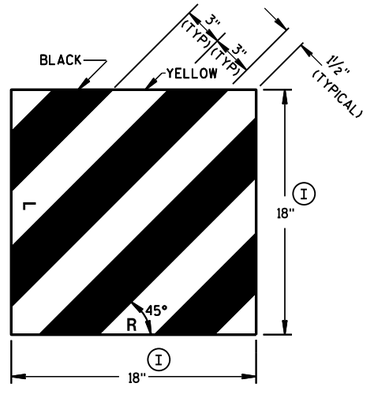
ALTERNATE WOOD BLOCKOUT DETAIL



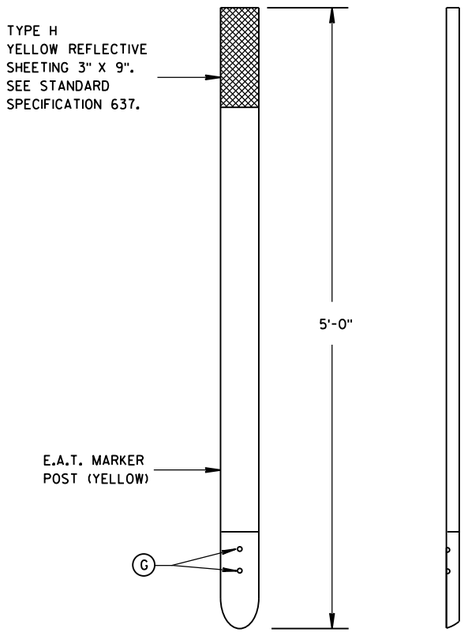
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





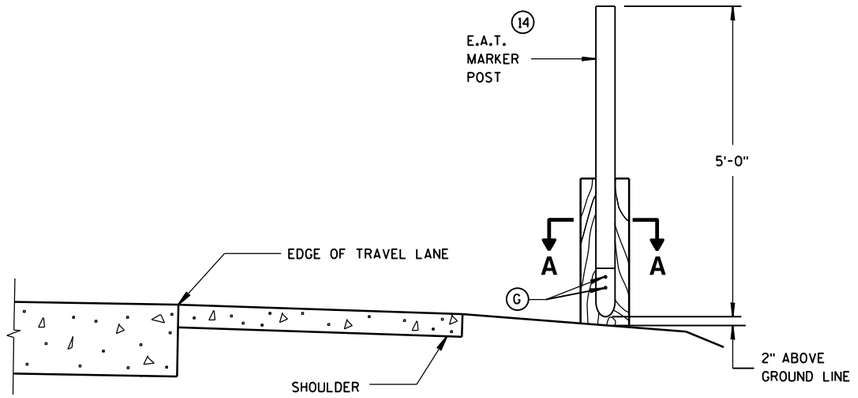
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

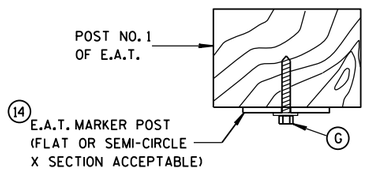
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

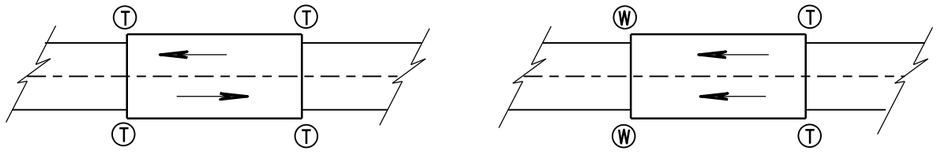
FHWA

6

S.D.D. 14 B 44-2c

6

S.D.D. 14 B 44-2c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

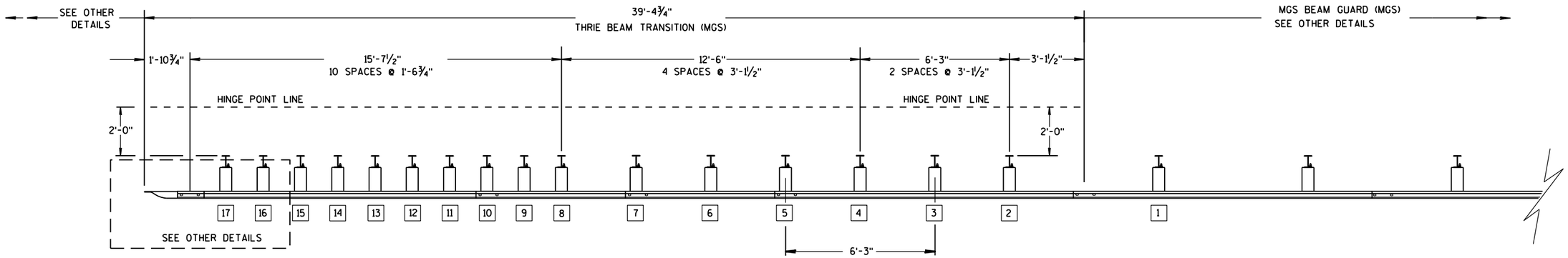
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

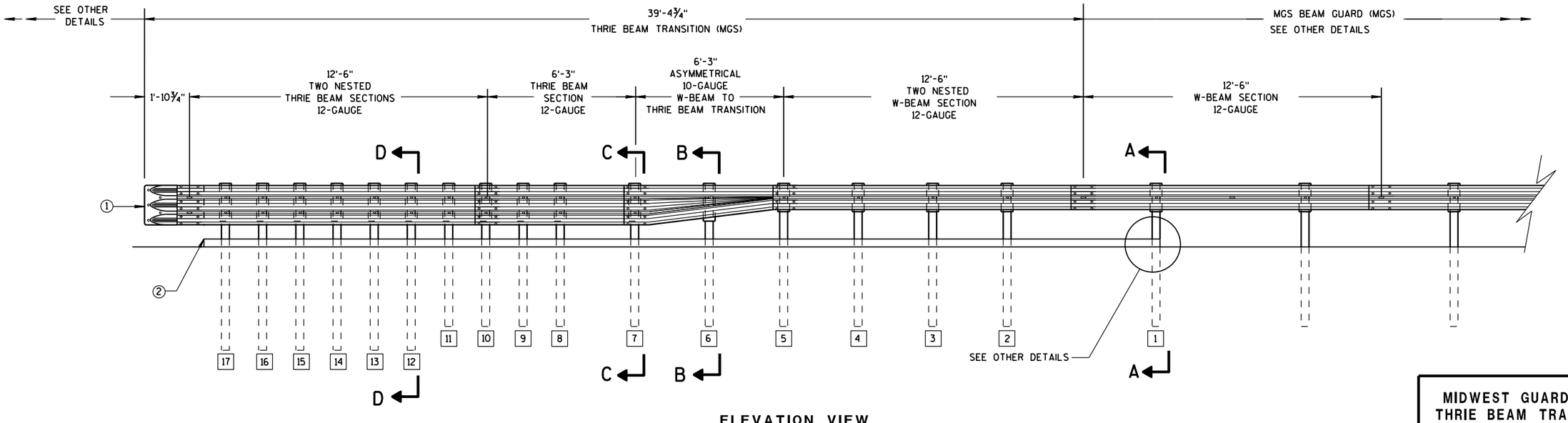
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 45-4a

6

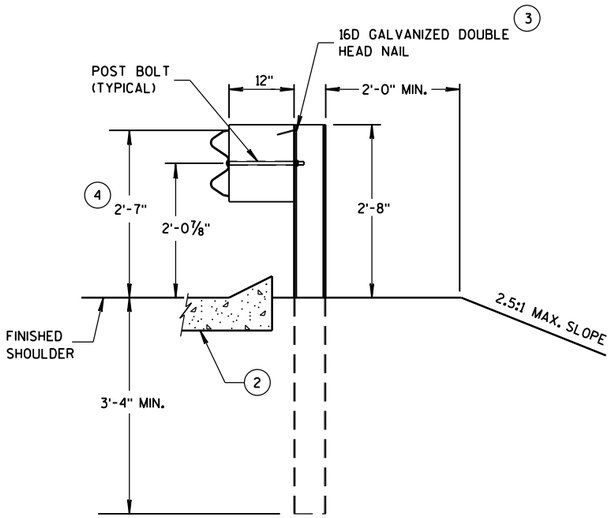
S.D.D. 14 B 45-4a

GENERAL NOTES

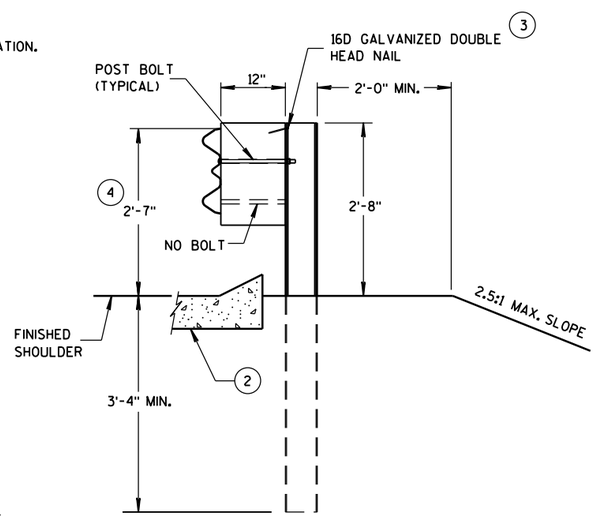
(2) OPTIONAL CURB AND GUTTER OR DRAINAGE_FEATURE SEE PLAN FOR INFORMATION.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

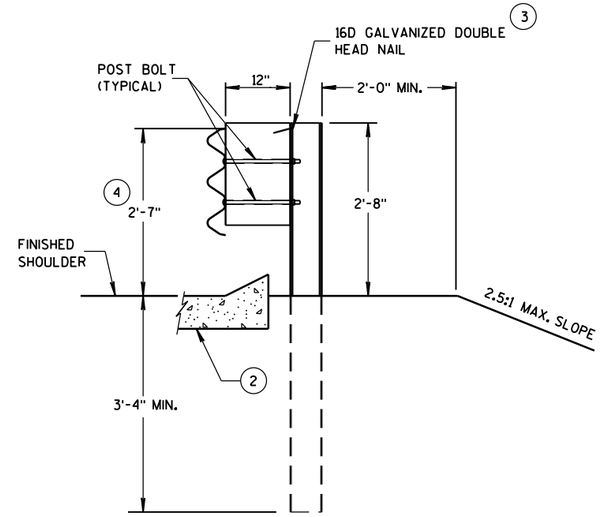
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



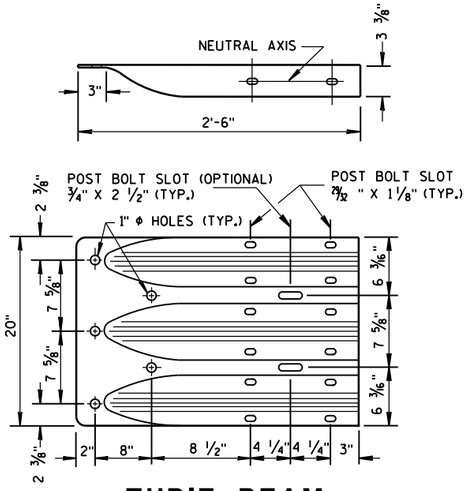
SECTION A-A
POSTS 1-5



SECTION B-B
POST 6



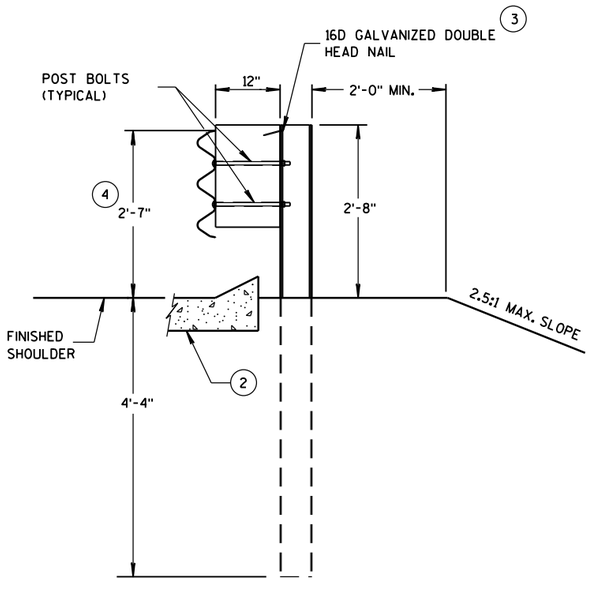
SECTION C-C
POSTS 7-11



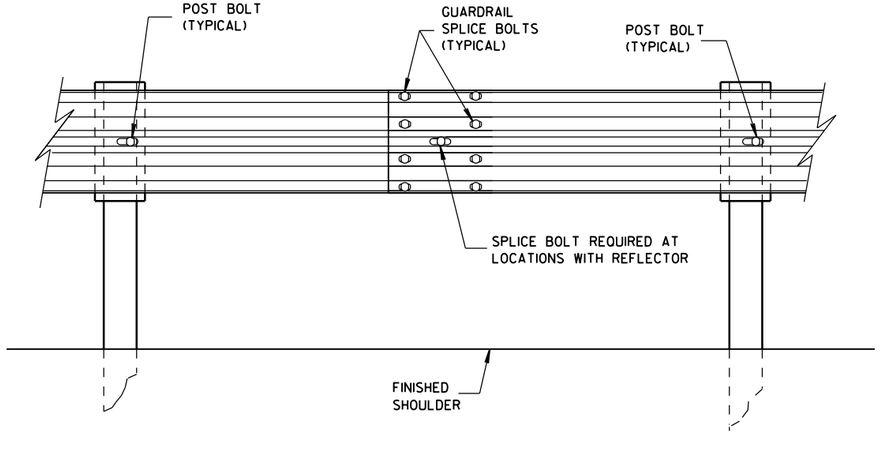
THRIE BEAM TERMINAL CONNECTOR

PLATE WASHER DETAIL

SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D
POSTS 12-17



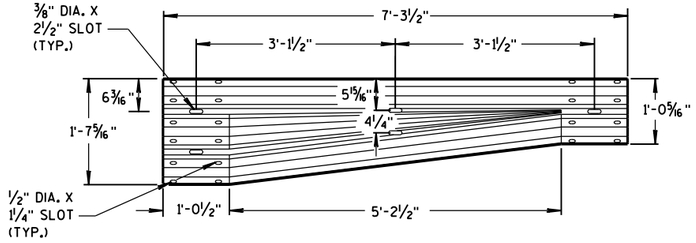
SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

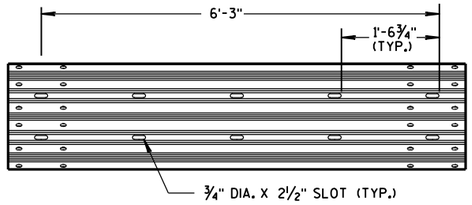
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

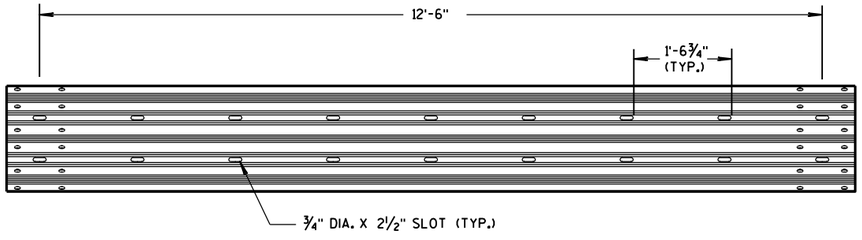
S.D.D. 14 B 45-4b



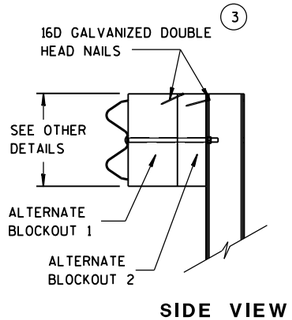
W-BEAM TO THRIE BEAM TRANSITION SECTION



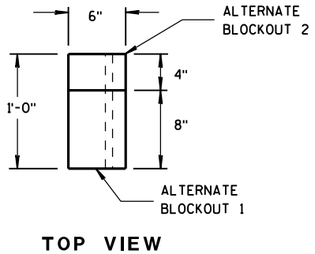
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

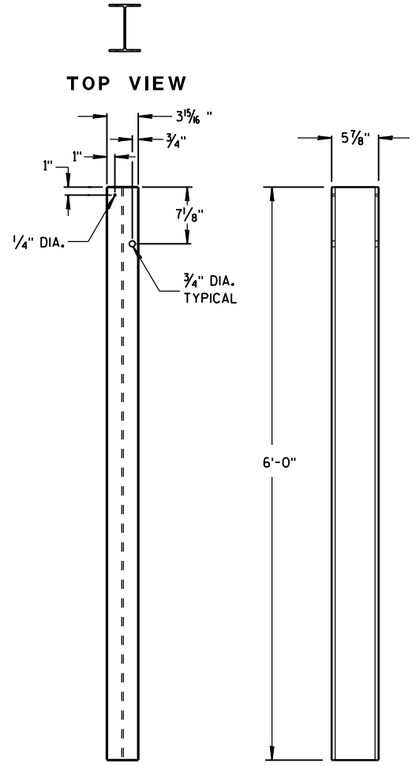


SIDE VIEW

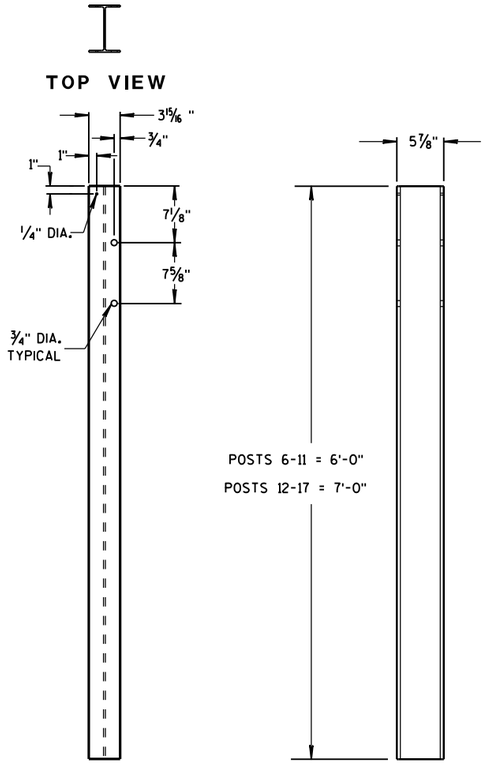


TOP VIEW

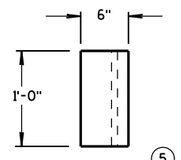
ALTERNATE WOOD BLOCKOUT DETAIL



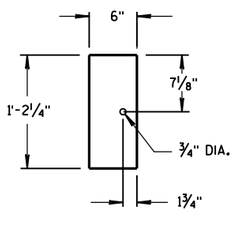
STEEL POSTS 1-5



STEEL POSTS 6-17

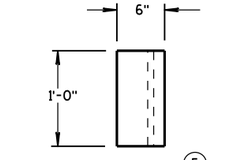


TOP VIEW

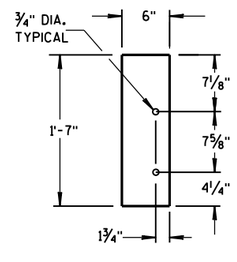


FRONT VIEW

BLOCKOUT POSTS 1-5



TOP VIEW



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

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

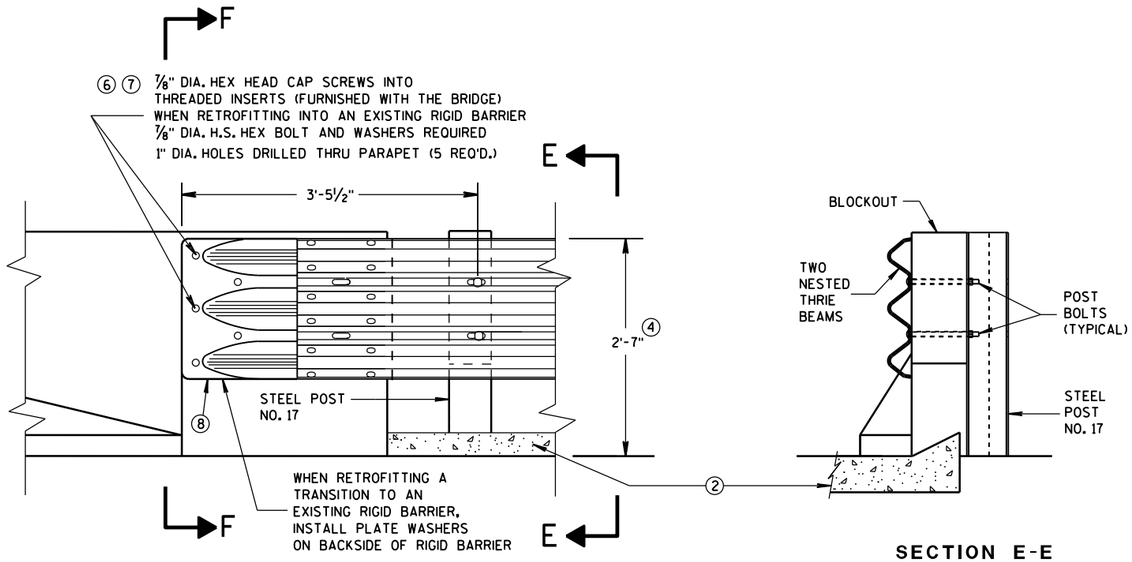
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-4c
S.D.D. 14 B 45-4c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

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

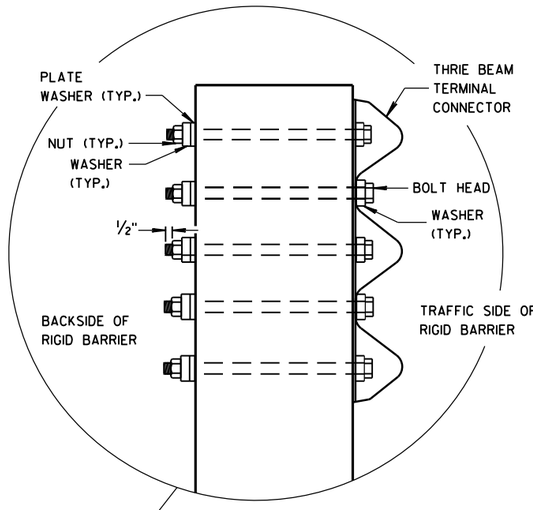
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

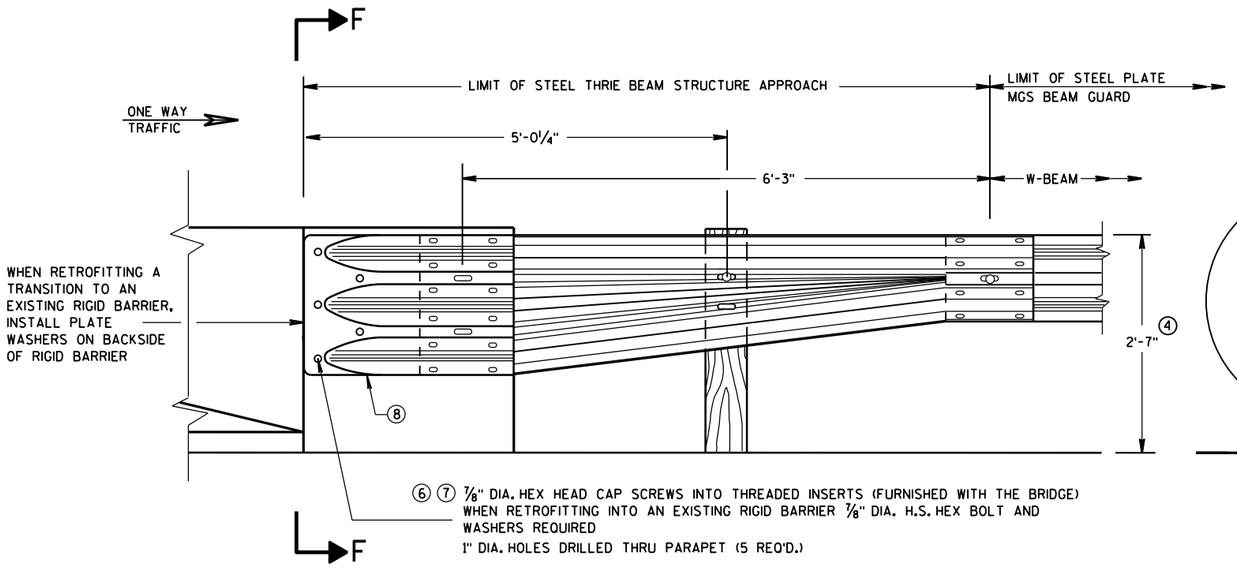
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

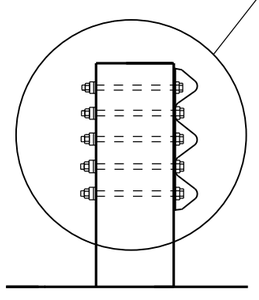
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

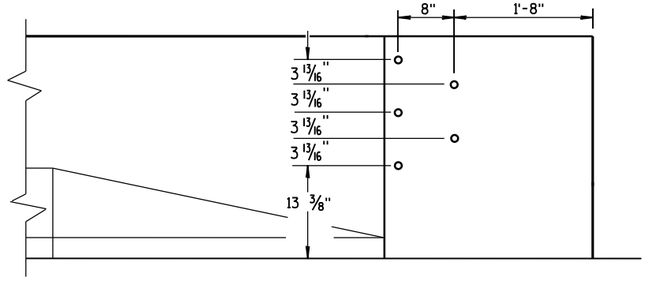




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 14 B 45-4d

6

S.D.D. 14 B 45-4d

GENERAL NOTES

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

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

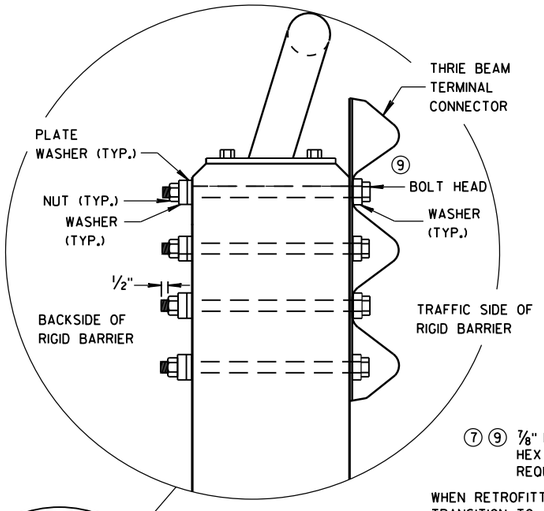
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

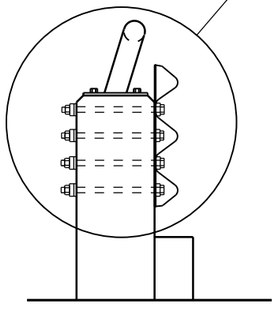
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

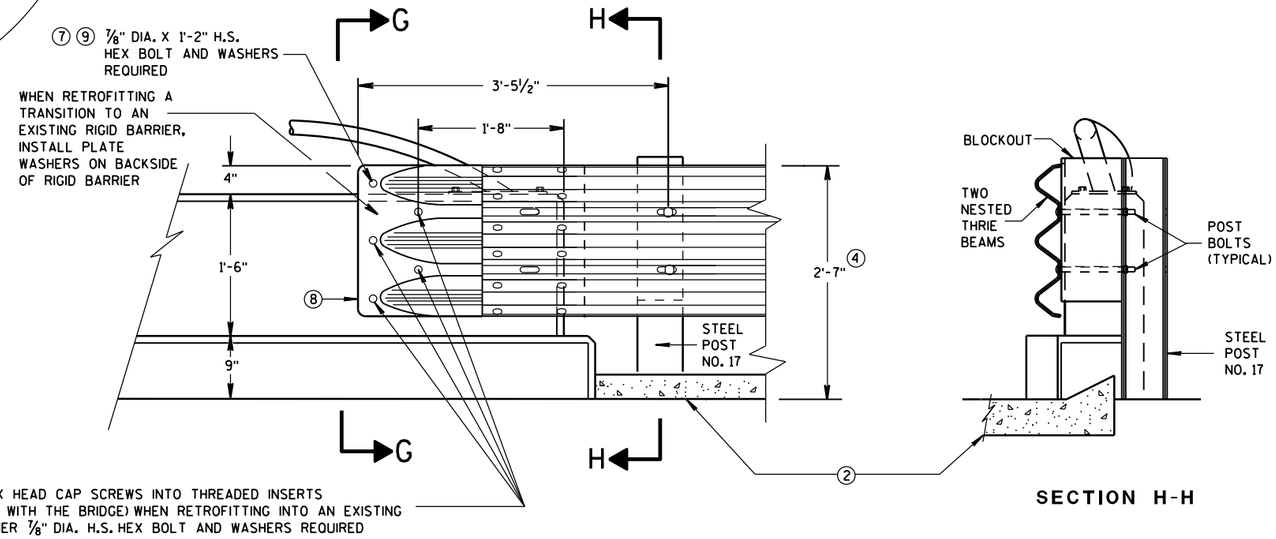
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





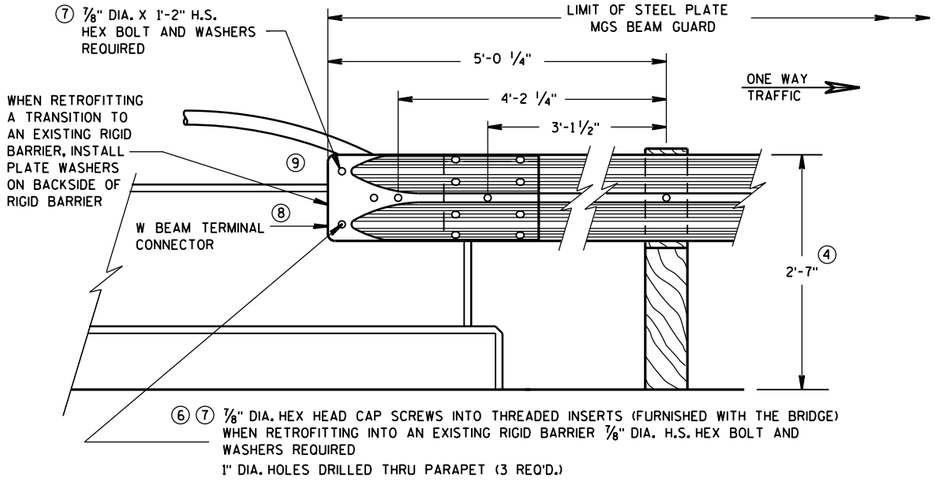
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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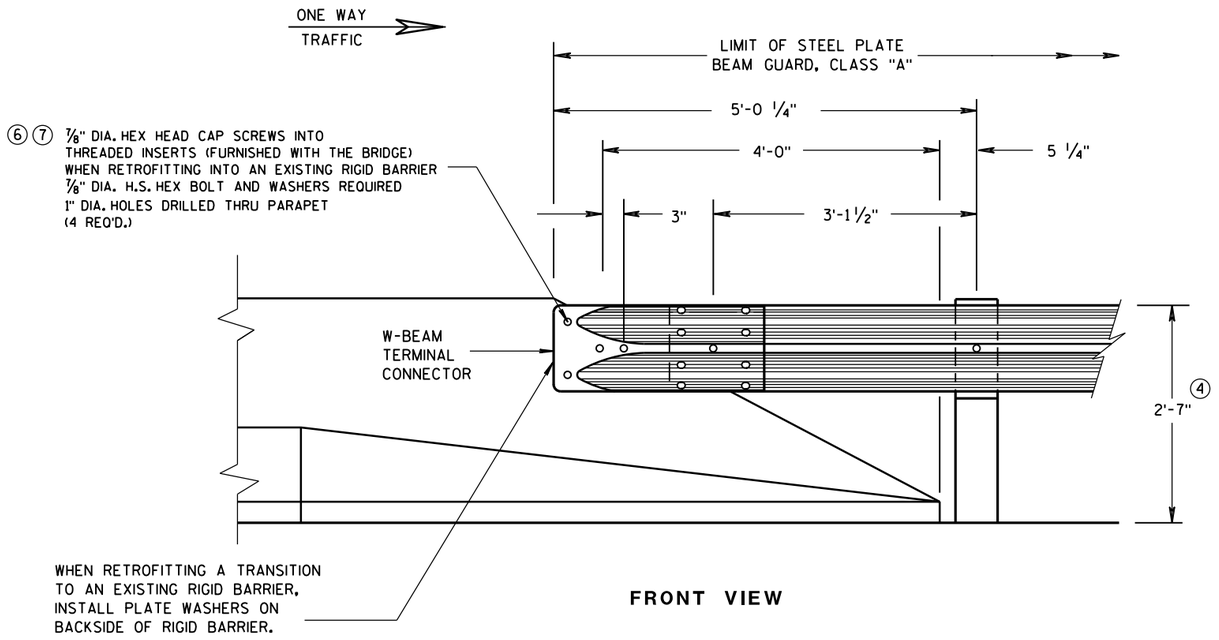


FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

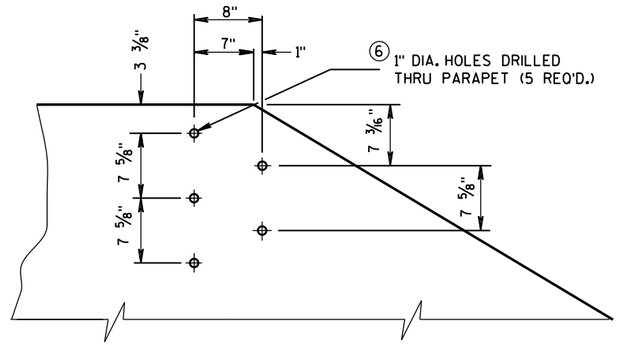
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

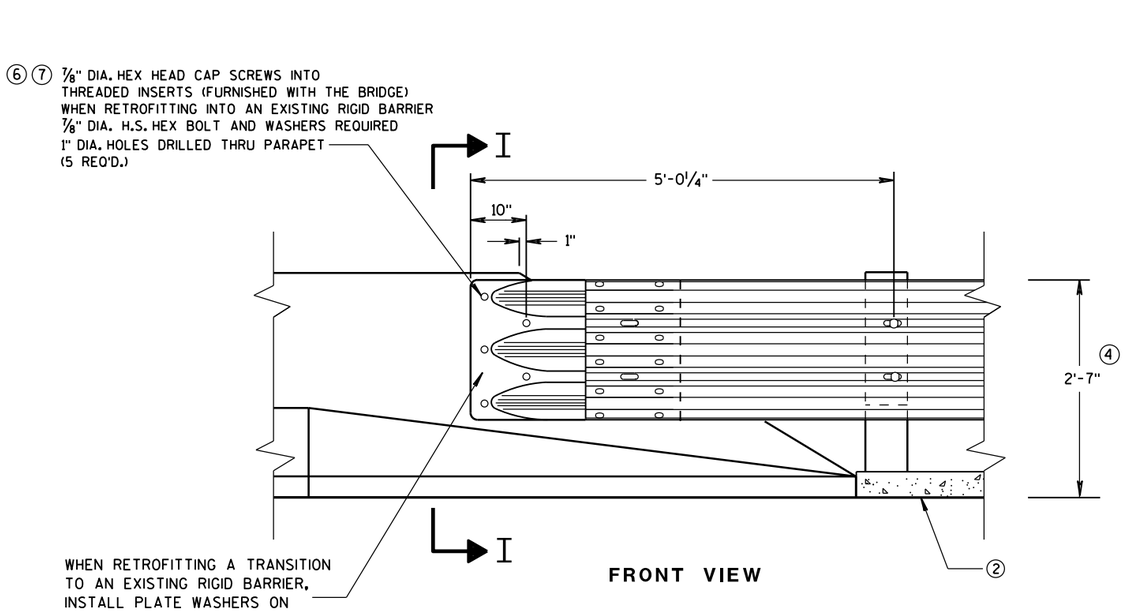
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

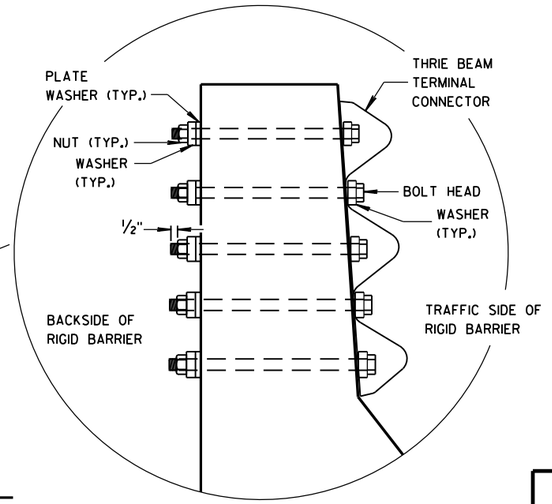


DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW

SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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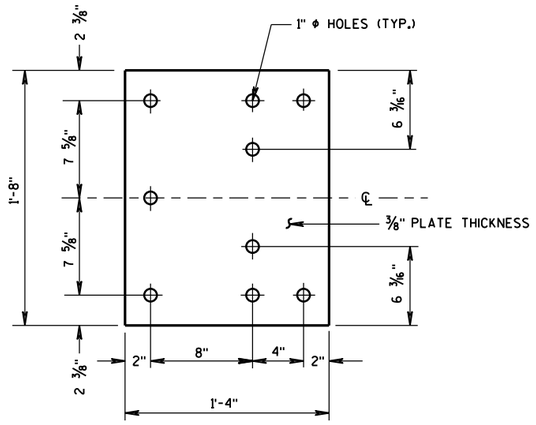
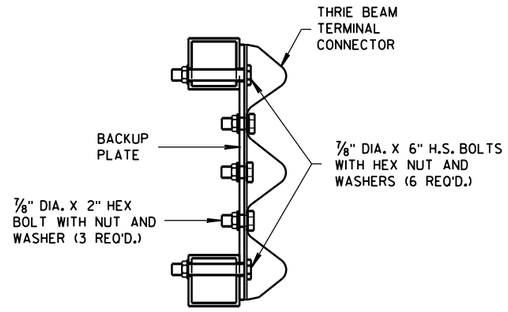
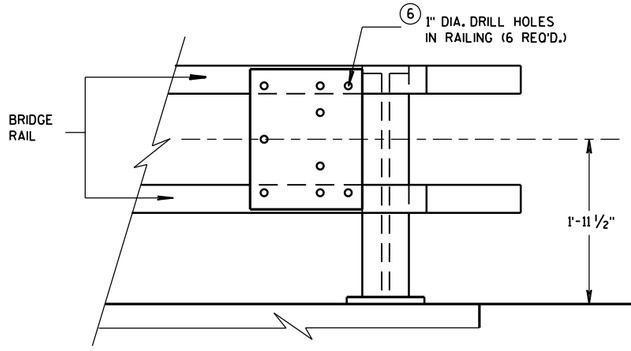


BACK-UP PLATE DETAIL



SECTION J-J

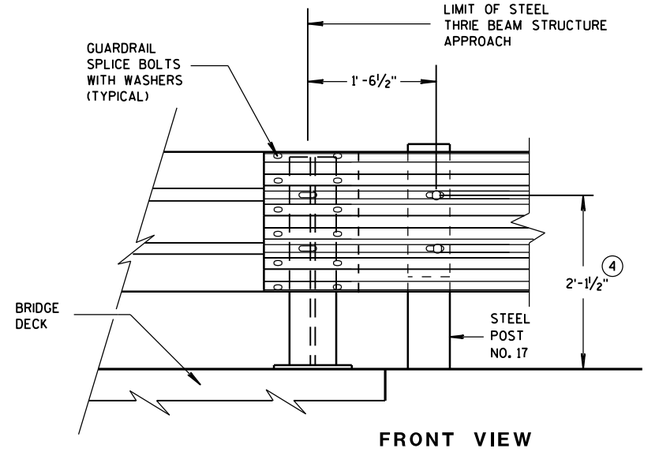


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

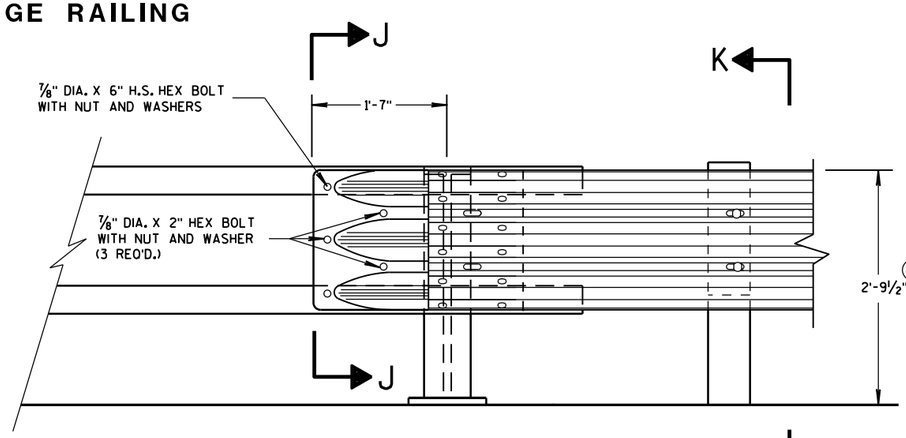
4 TOLERANCE FOR TOP OF BEAM IS ± 1".

6 DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

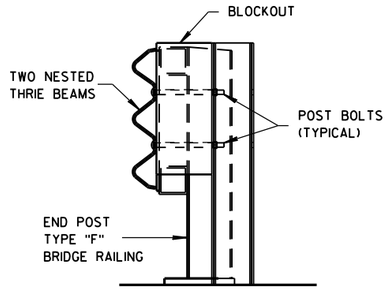


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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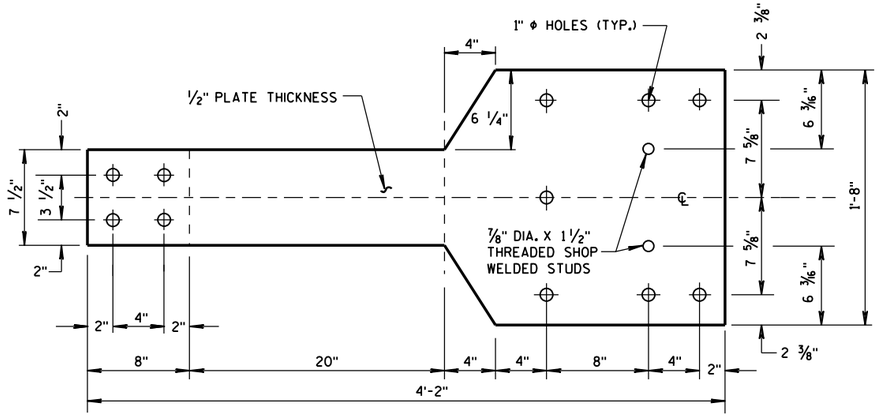
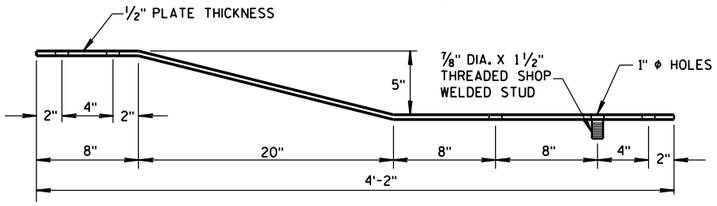
GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

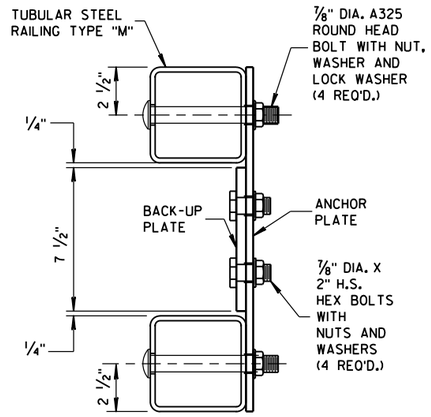


FRONT VIEW

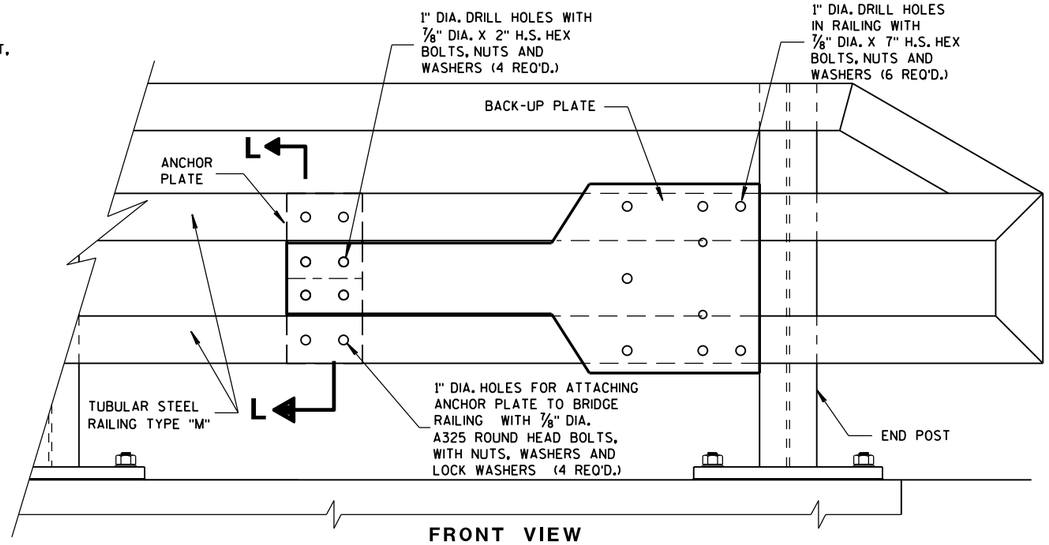


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

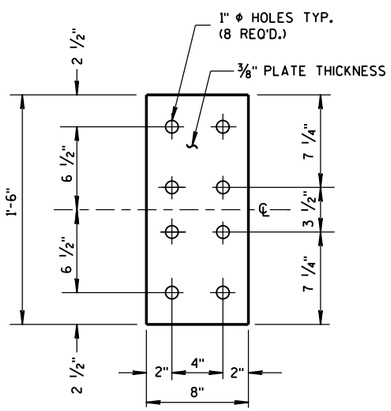


SECTION L-L



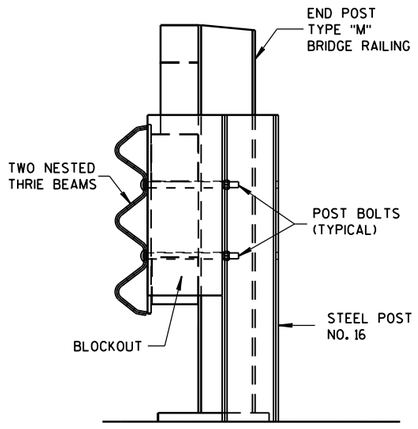
FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

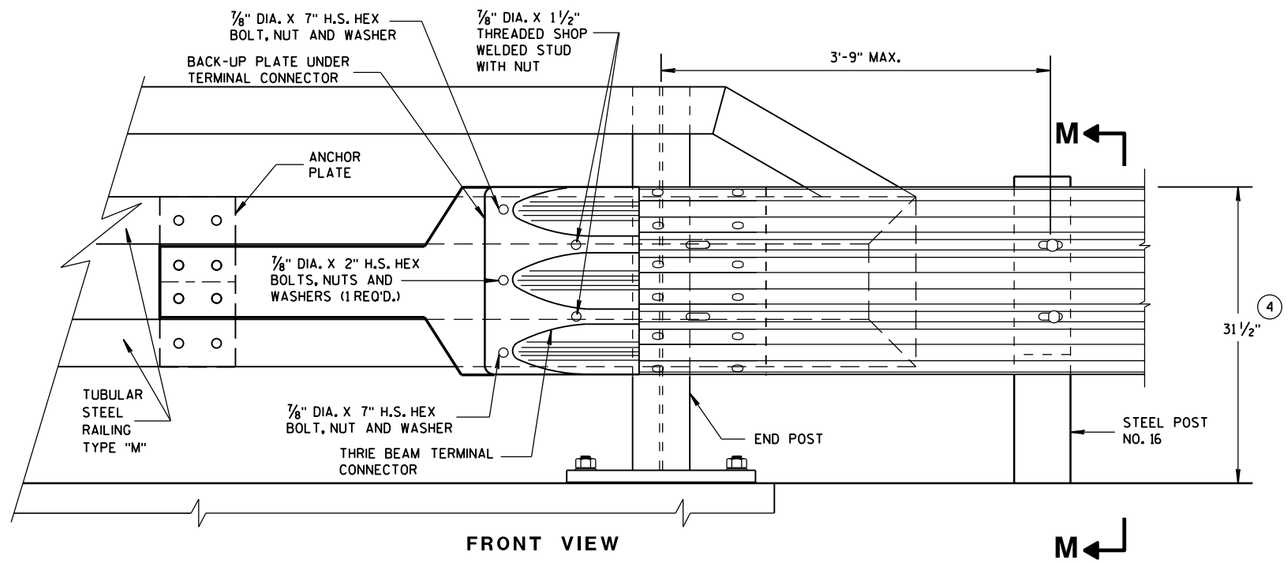


FRONT VIEW

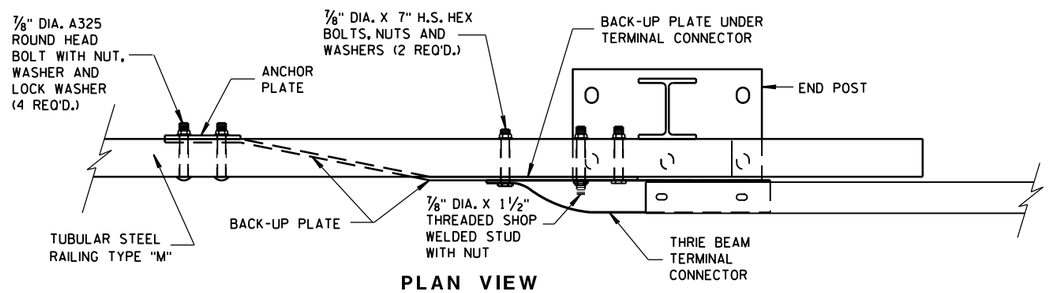
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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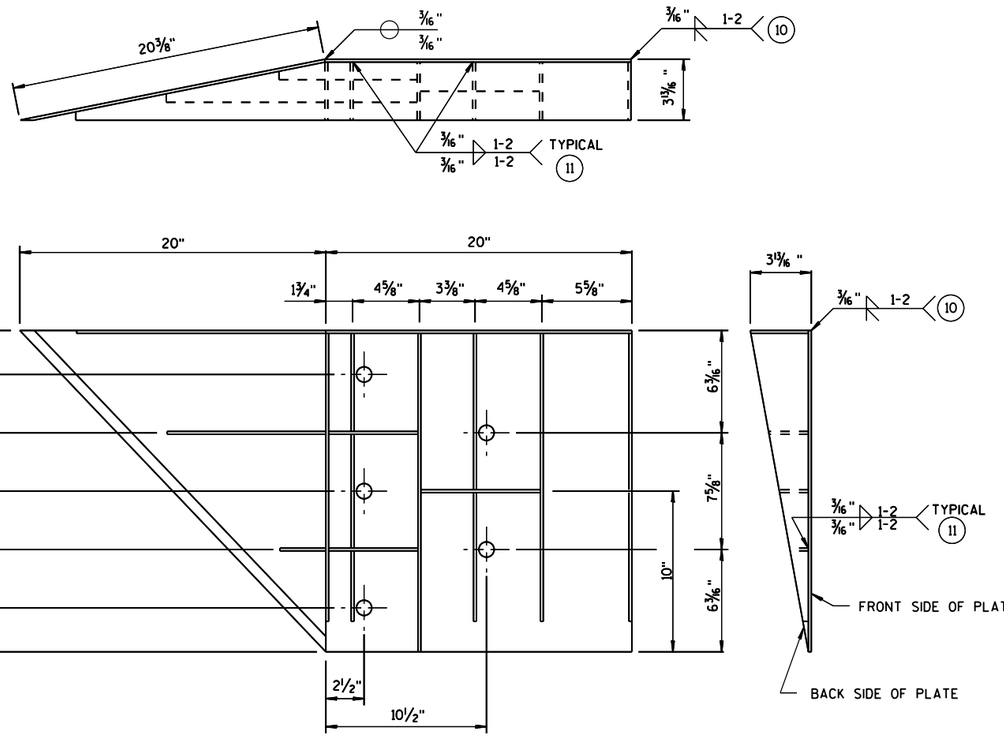

WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

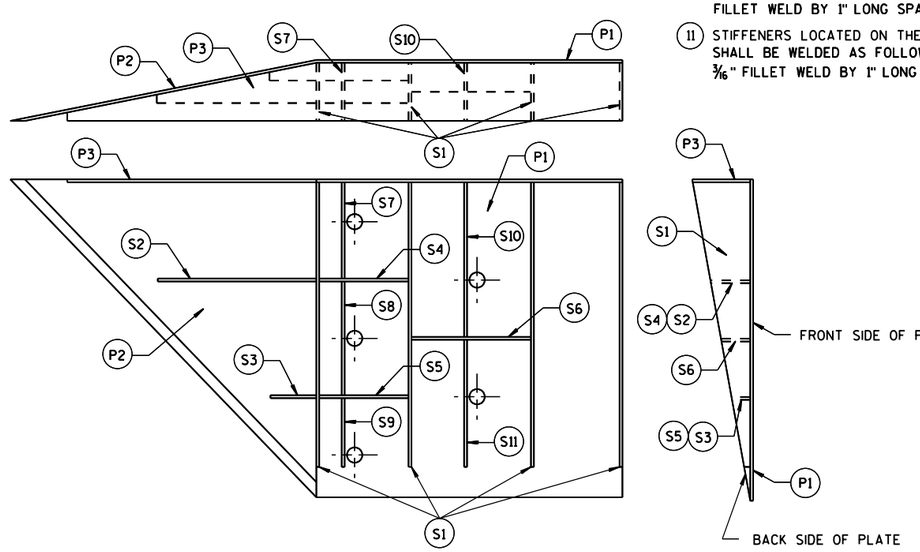

PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 3/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 1/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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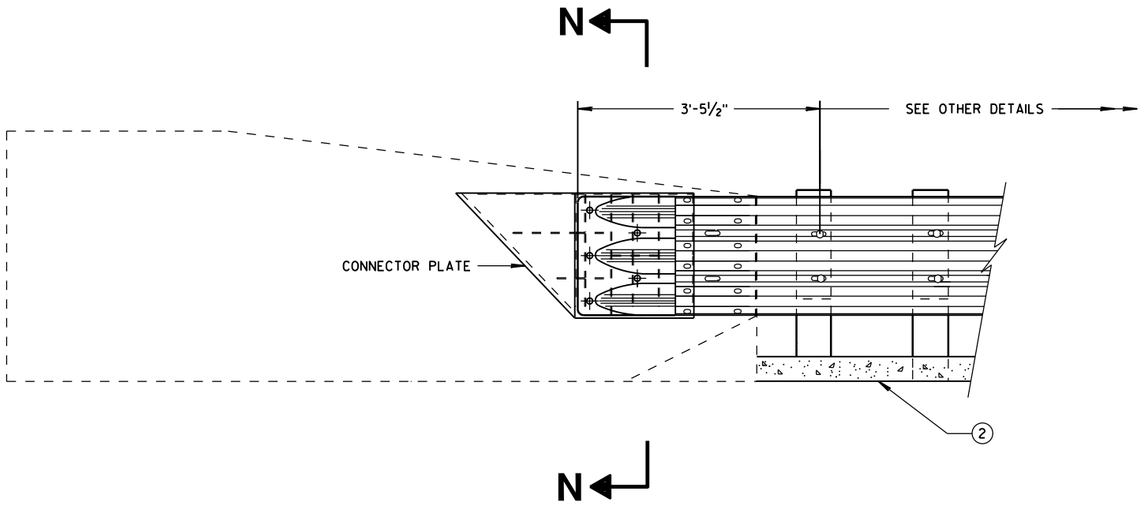
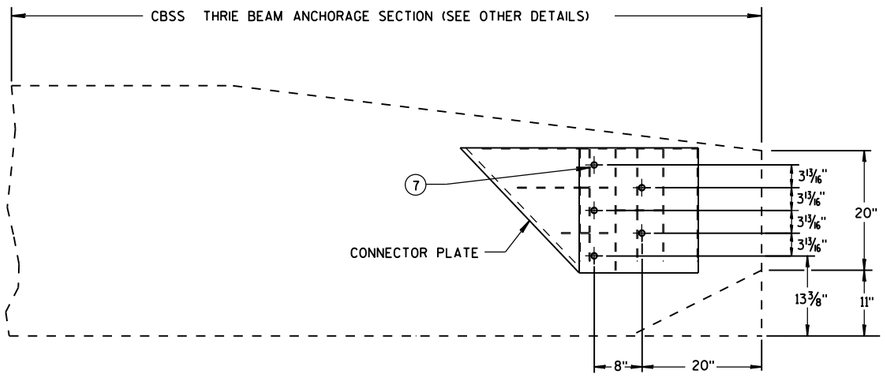


THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



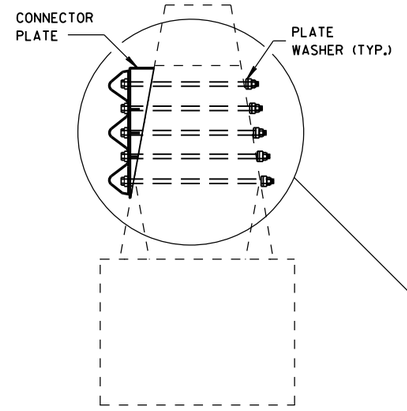
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

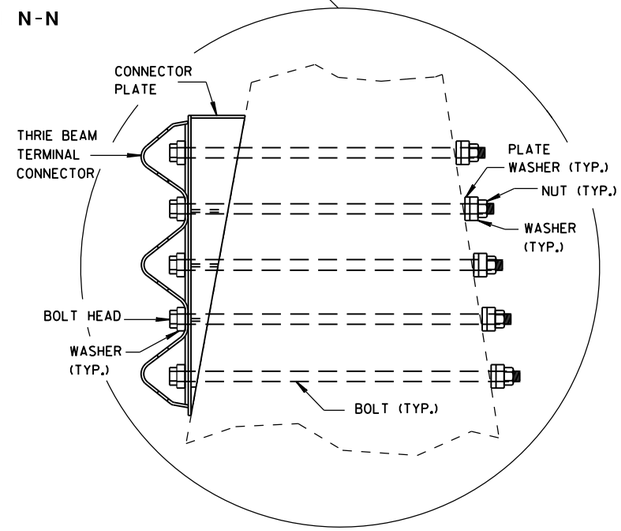
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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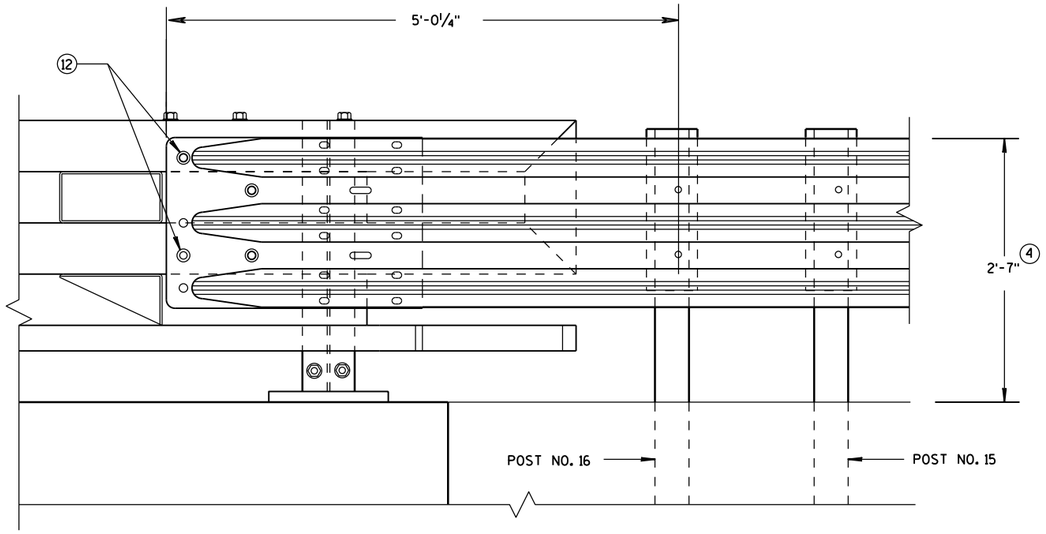
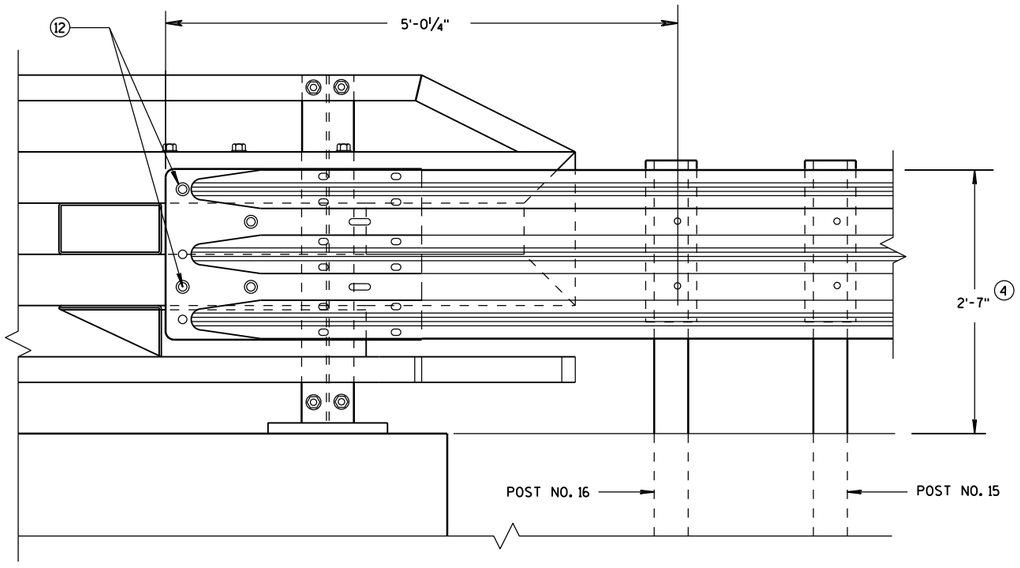


ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND ½-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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DATE
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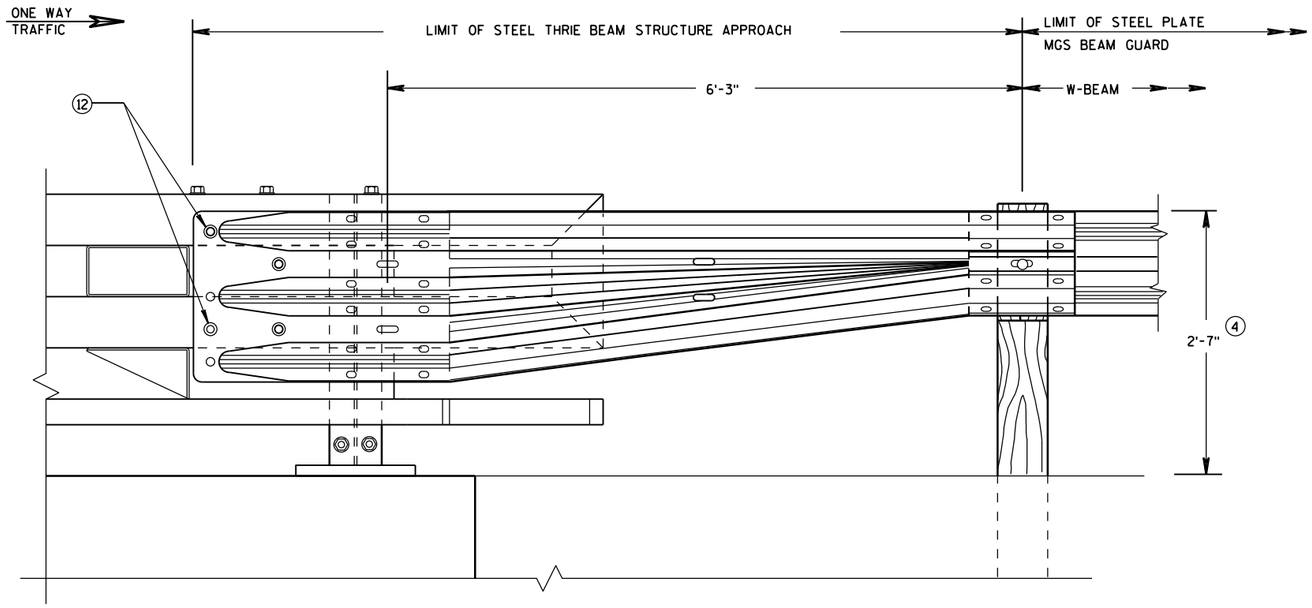


FRONT VIEW

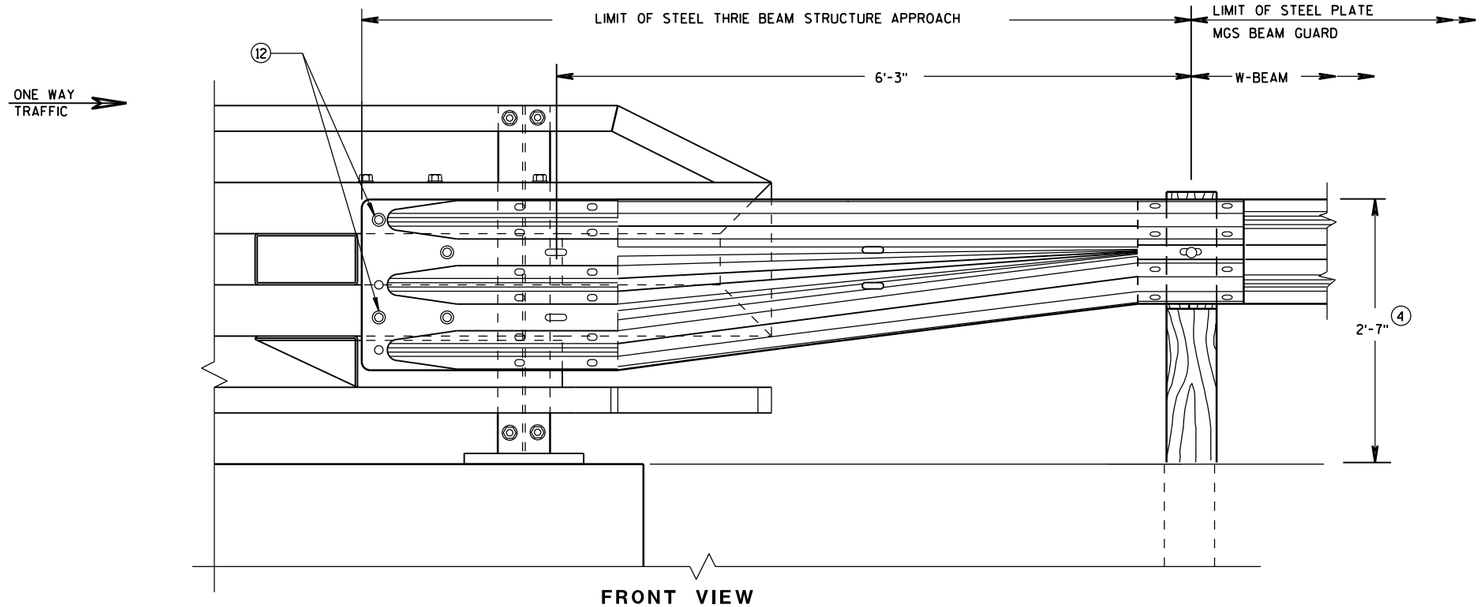
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND ½-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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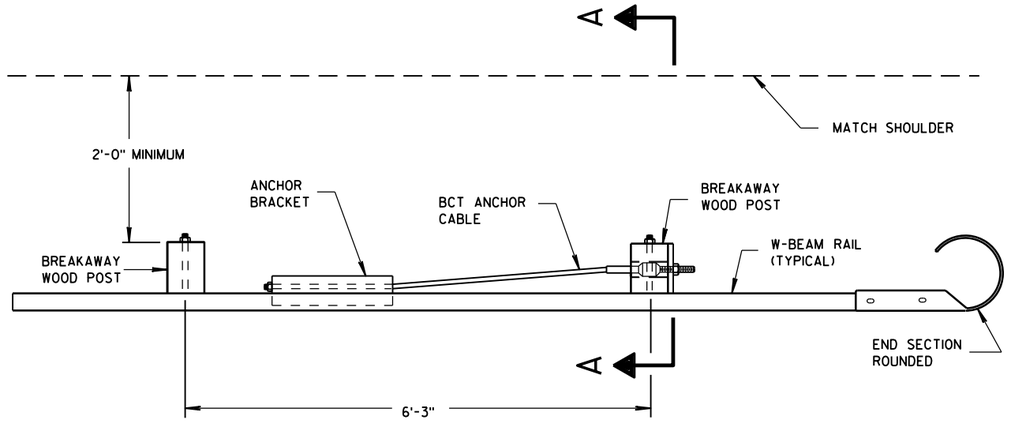
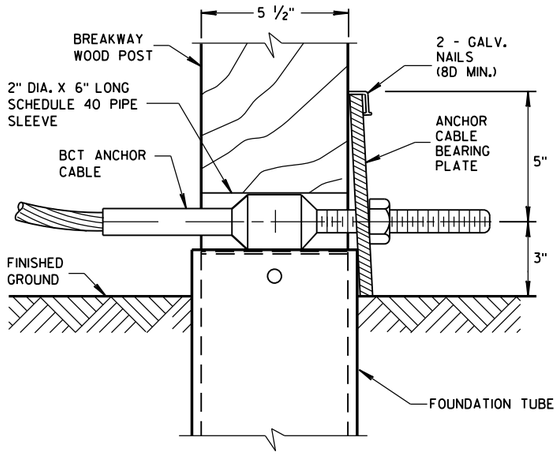


PLAN VIEW



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

END SECTION BOLTS AND NUTS HAVE THE SAME MATERIAL REQUIREMENTS AS SPLICE BOLTS.

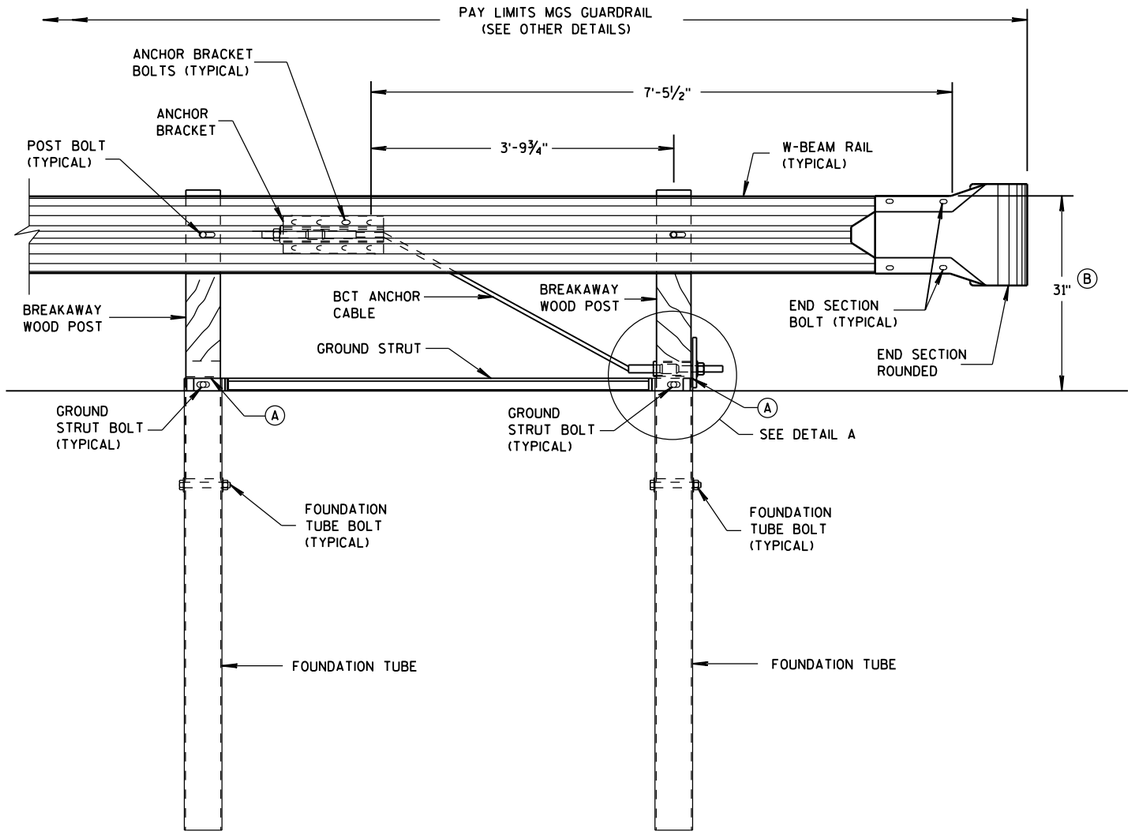
FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

ANCHOR BRACKET AND GROUND STRUT BOLTS ARE A ⅝" DIAMETER ASTM A307 HEX HEAD BOLT. ANCHOR BRACKET BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅝" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

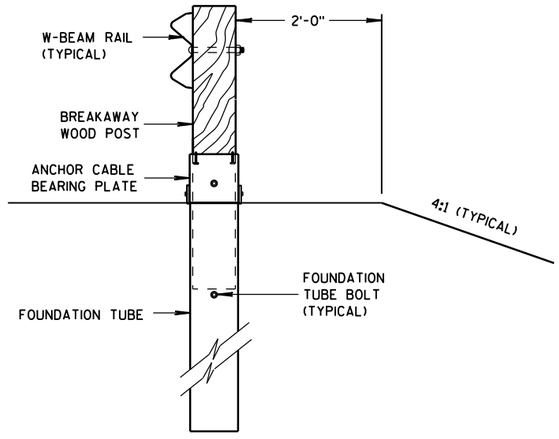
(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".

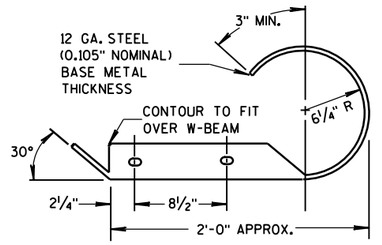


FRONT VIEW

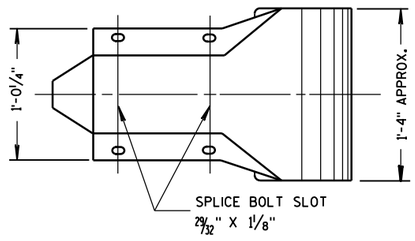
END RAIL DETAIL



SECTION A-A



PLAN VIEW



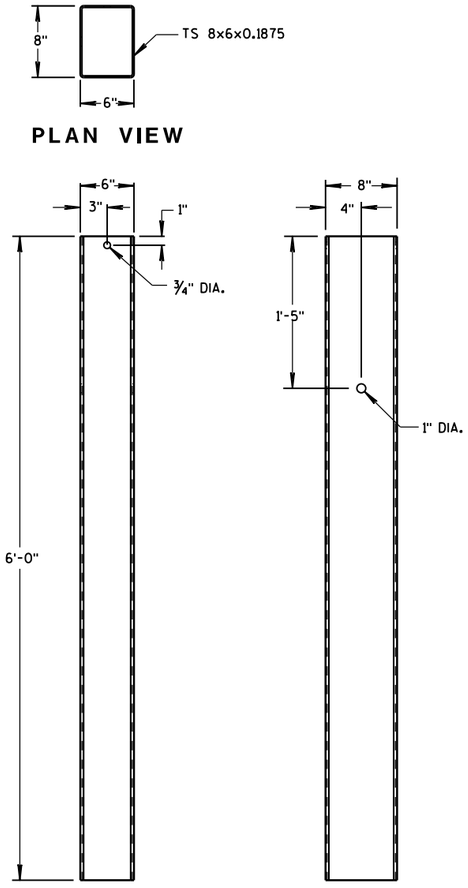
FRONT VIEW

W BEAM END SECTION ROUNDED

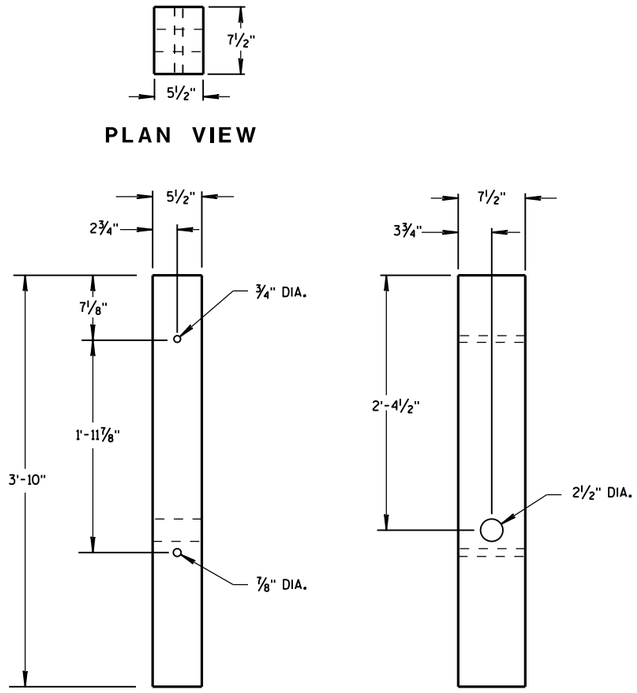
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6
S.D.D. 14 B 47-2a



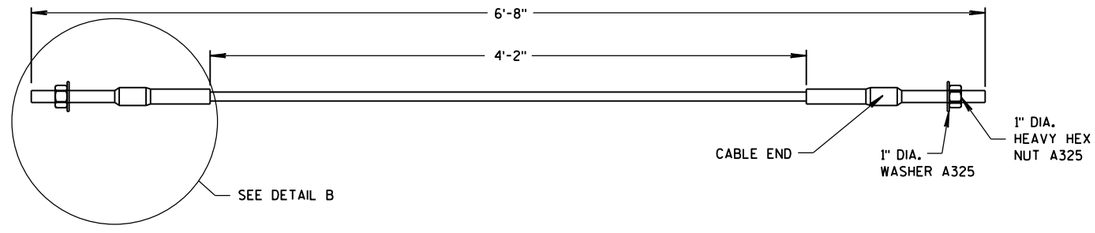
FOUNDATION TUBE



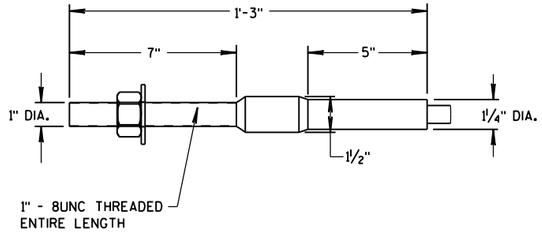
BREAKAWAY WOOD POST

GENERAL NOTES

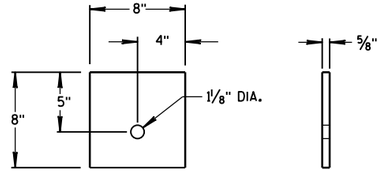
BCT ANCHOR CABLE IS A ¾" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.



BCT ANCHOR CABLE



DETAIL B



ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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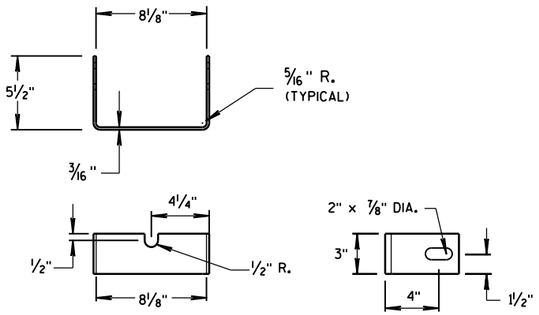
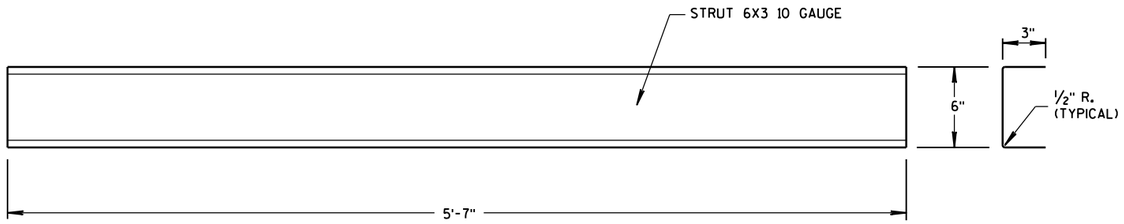
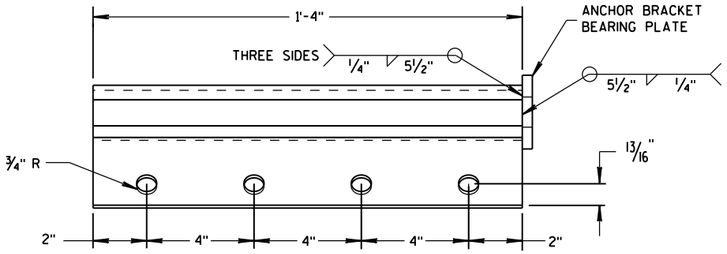
S.D.D. 14 B 47-2b

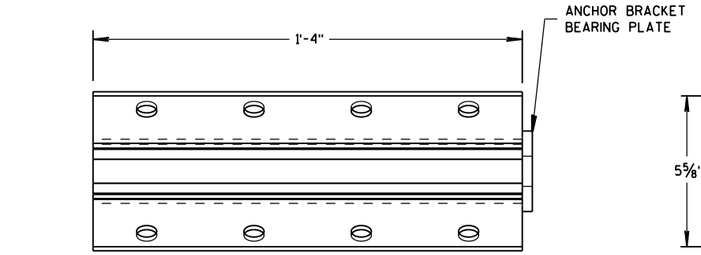


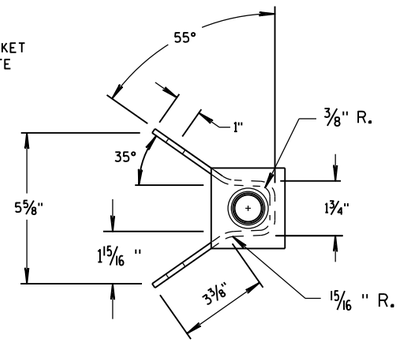
YOKE DETAIL



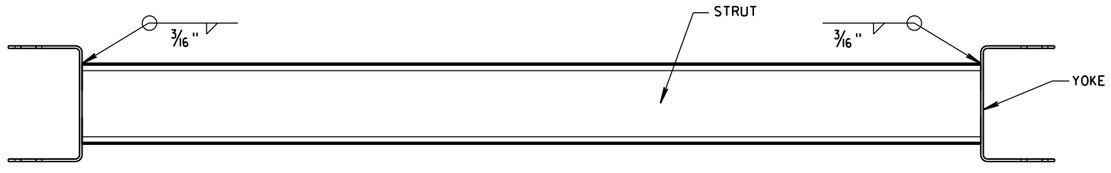
STRUT DETAIL



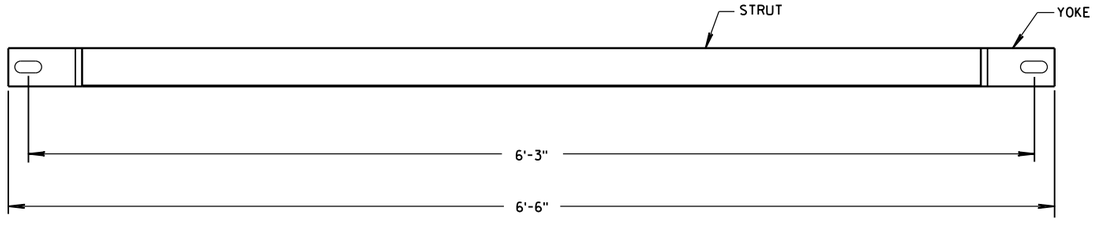




ANCHOR BRACKET

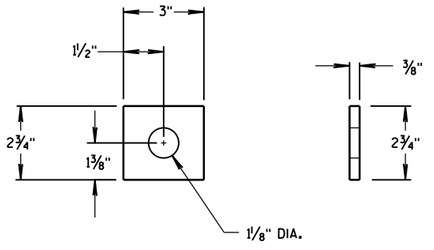


PLAN VIEW



FRONT VIEW

GROUND STRUT DETAIL



ANCHOR BRACKET BEARING PLATE

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

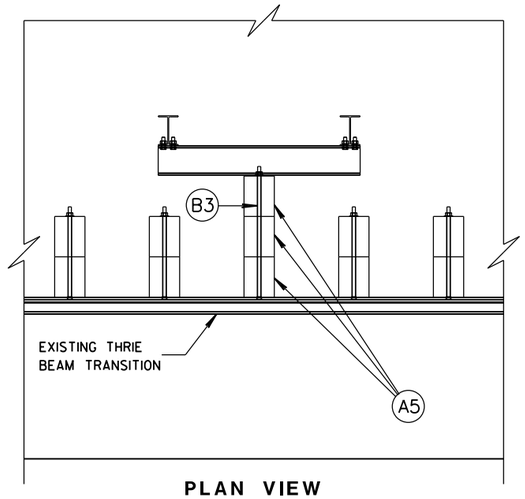
APPROVED
June 2014
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

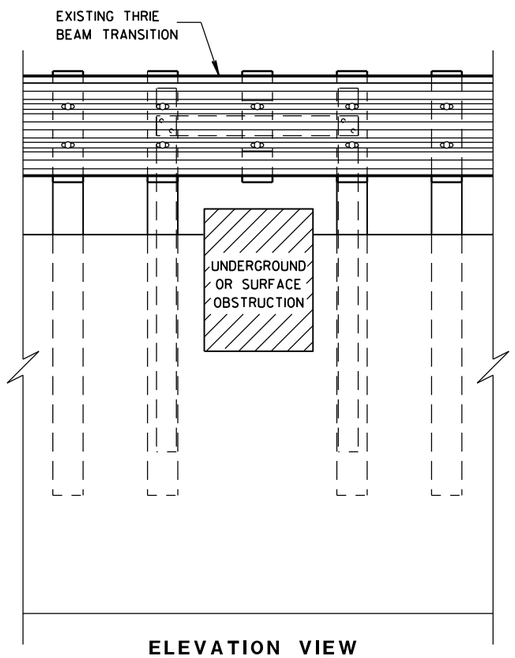
FHWA

6

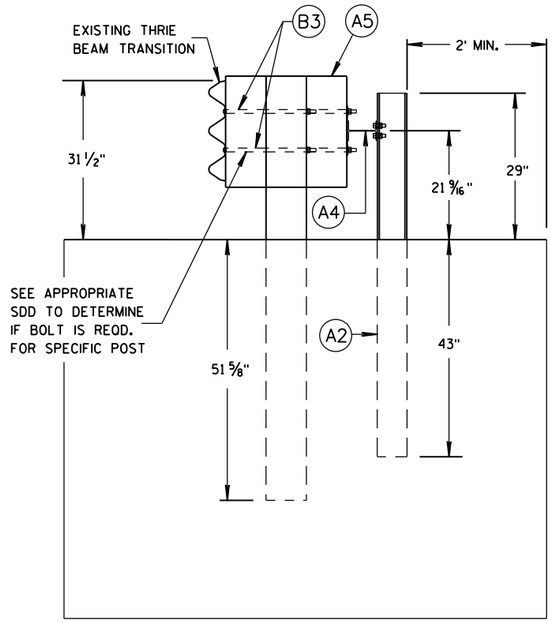
S.D.D. 14 B 47-2c



PLAN VIEW



ELEVATION VIEW



SIDE VIEW

72" MISSING POST CROSS-BEAM

GENERAL NOTES

ONLY ONE SUCH POST RETROFIT PER SYSTEM.

SEE SDD 14B20 FOR MORE INFORMATION ON THE THRIE BEAM TRANSITIONS.

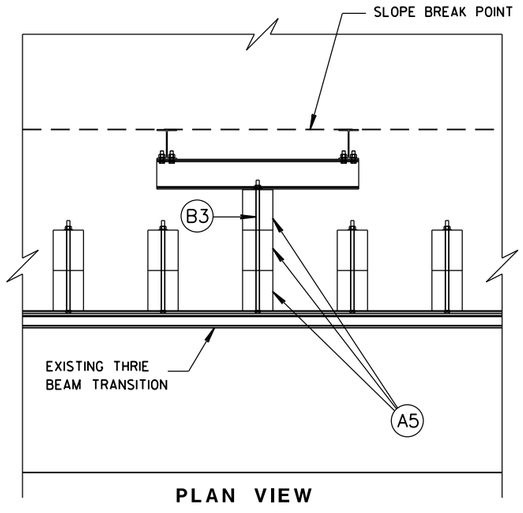
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½-INCHES AND 12-INCHES IN DIAMETER AROUND POST. SEE SDD 14B20 OR 14B45 FOR MORE DETAILS.

ONLY STEEL POST CAN BE USED.

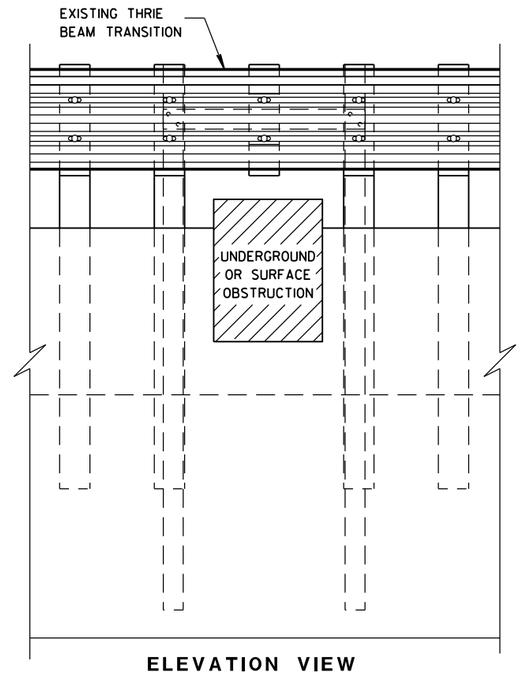
BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN ALL HARDWARE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH.

ONLY ONE WASHER AND ONE NUT CAN BE INSTALLED AT A CONNECTION. CUT THREADING OF BOLTS SO THAT NO MORE THAN ¼-INCH TO ½-INCH OF THREADING IS BEYOND THE NUT.

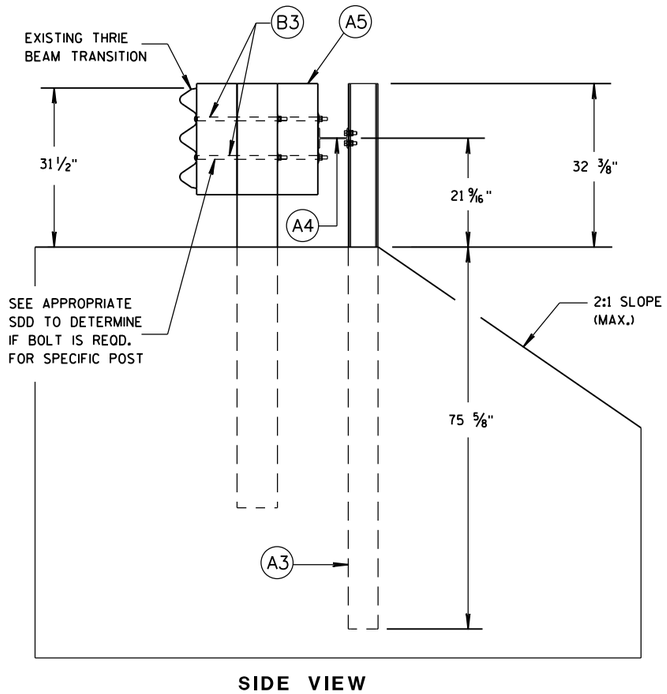
WHEN USING APPROACH RETROFIT POST BID ITEM, REVIEW SDD 14B20 INSTALL POST INFORMATION AND LOCATION, BLOCK AND HARDWARE.



PLAN VIEW



ELEVATION VIEW



SIDE VIEW

108" MISSING POST CROSS-BEAM

THRIE BEAM APPROACH
RETROFIT INSTALLATION
OF MISSING POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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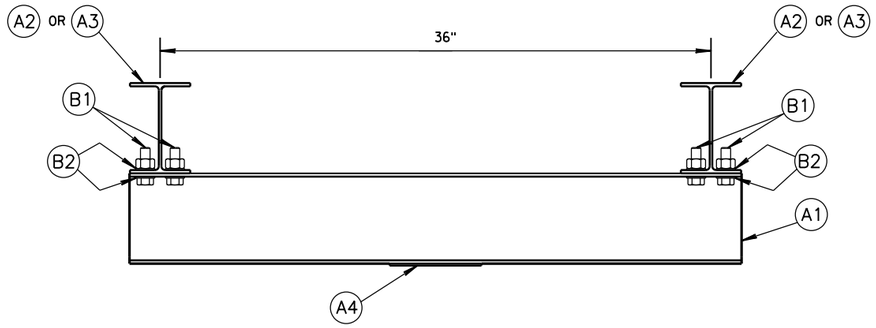
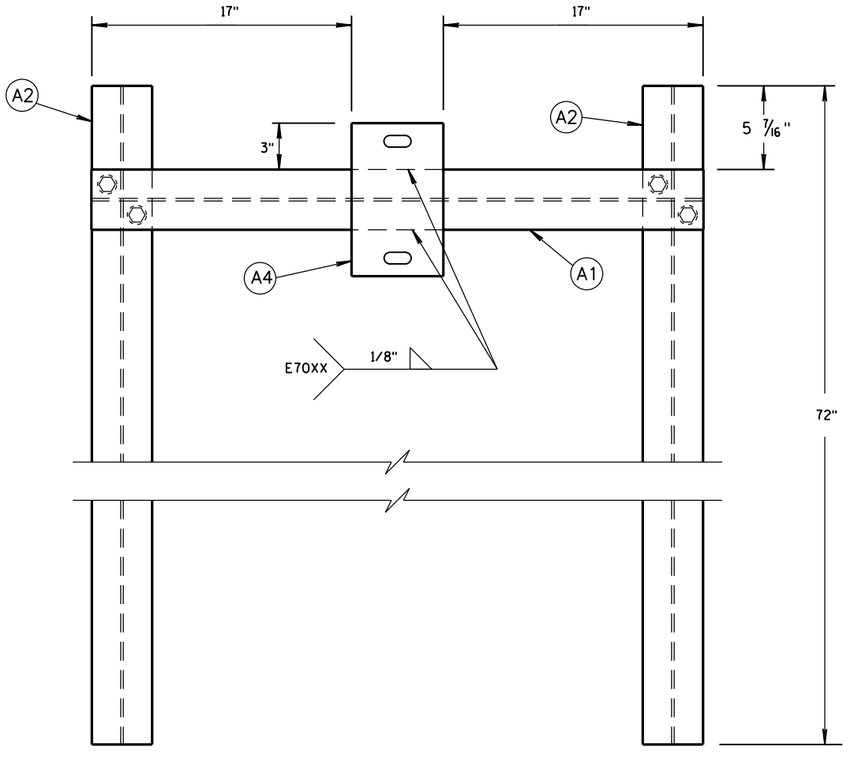
S.D.D. 14 B 50-1a

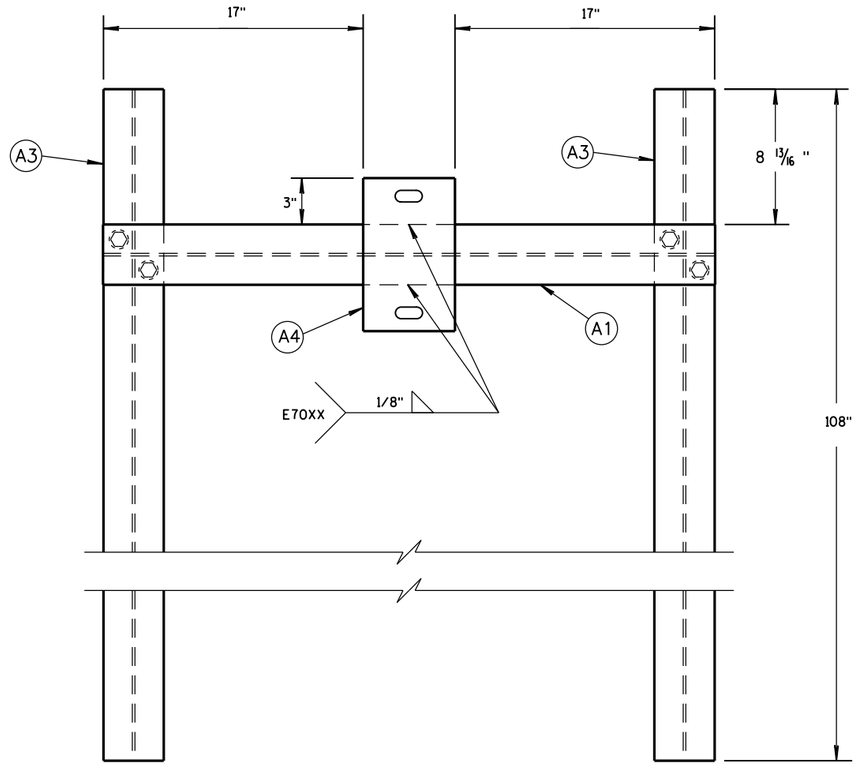


PLAN VIEW



ELEVATION VIEW

72" POST



ELEVATION VIEW

108" POST

MISSING POST CROSS-BEAM DETAIL

THRIE BEAM APPROACH
RETROFIT INSTALLATION
OF MISSING POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 50-1b

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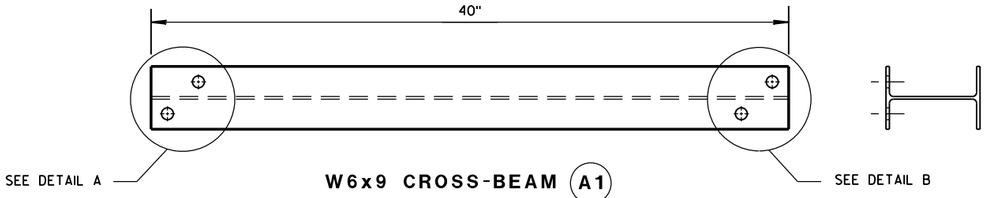
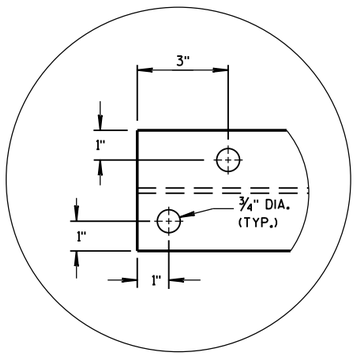
S.D.D. 14 B 50-1b

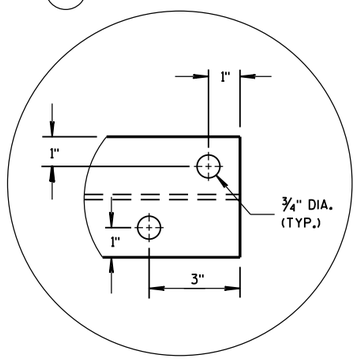


W6x9 CROSS-BEAM (A1)

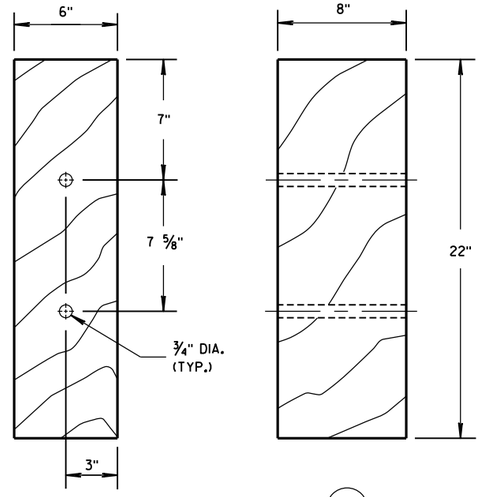
BILL OF MATERIALS			
ITEM NO.	QTY.	DESCRIPTION	MATERIAL SPECIFICATION
(A1)	1	40" LONG W6x9 CROSS-BEAM	ASTM A992 GR. 50 OR ASTM A36
(A2)	2	72" LONG W6x9 POST	ASTM A992 GR. 50 OR ASTM A36
(A3)	2	108" LONG W6x9 POST	ASTM A992 GR. 50 OR ASTM A36
(A4)	1	6" x 10" x 1/8" BACKUP PLATE	ASTM A992 GR. 50 OR ASTM A36
(A5)	3	6" x 8" x 22" BLOCKOUT	
(B1)	4	5/8" DIA. - HEX HEAD BOLT	BOLT: HEAVY HEX HEAD ASTM A307 OR SAE J429 GRADE 2 NUT: HEAVY HEX HEAD ASTM A563 A
(B2)	8	5/8" DIA. NARROW FLAT WASHER	ASTM F436
(B3)	2	LONG, 5/8" DIA. - POST BOLT AND NUT	BOLT: SAE J429 GRADE 2 OR ASTM A307 GRADE C OR ASTM F1554 GRADE 36 NUT: 5/8" DIA. ASTM A563 A DOUBLE RECESSED (DR) HEAVY HEX HEAD
(B4)	2	5/8" DIA. PLAIN ROUND WASHER	ASTM F844



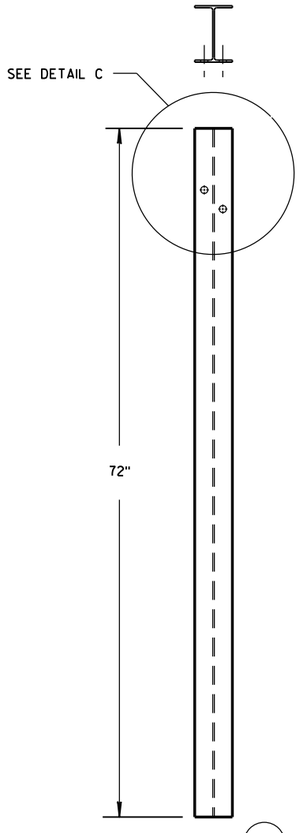
DETAIL A



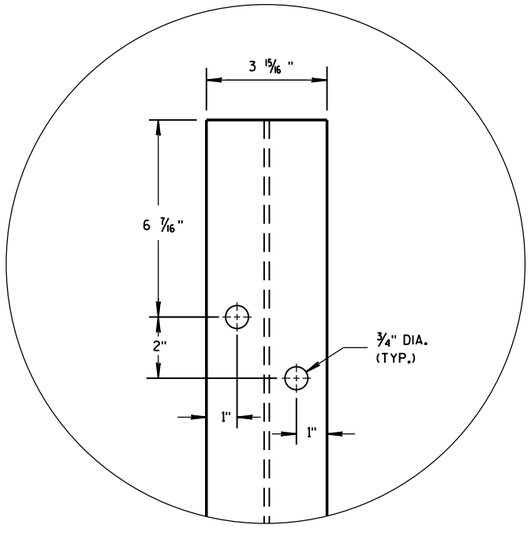
DETAIL B



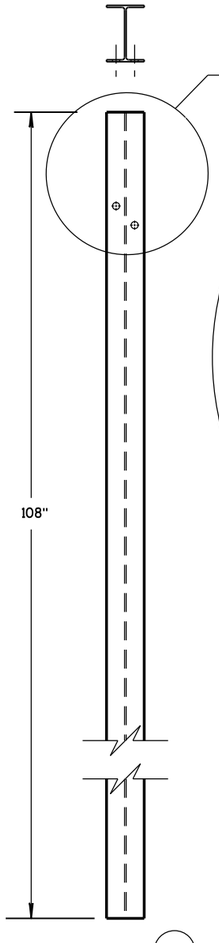
BLOCKOUT (A5)



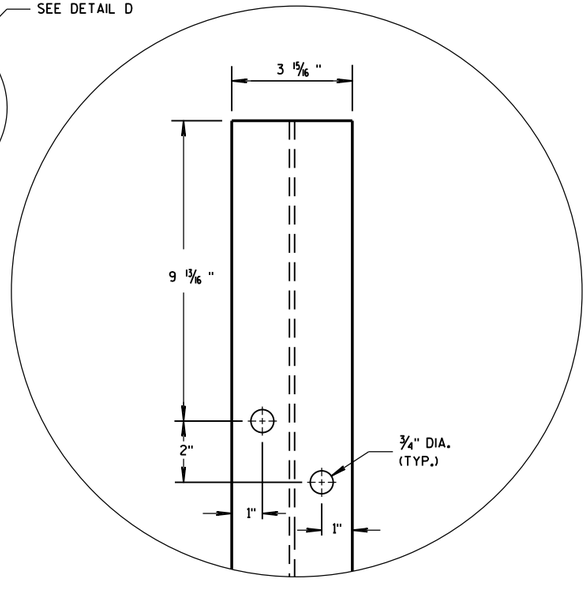
W6x9 POST (A2)



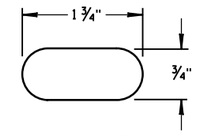
DETAIL C



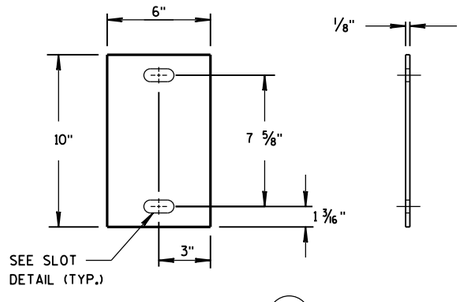
W6x9 POST (A3)



DETAIL D



SLOT DETAIL



BLACKUP PLATE (A4)

THRIE BEAM APPROACH
RETROFIT INSTALLATION
OF MISSING POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

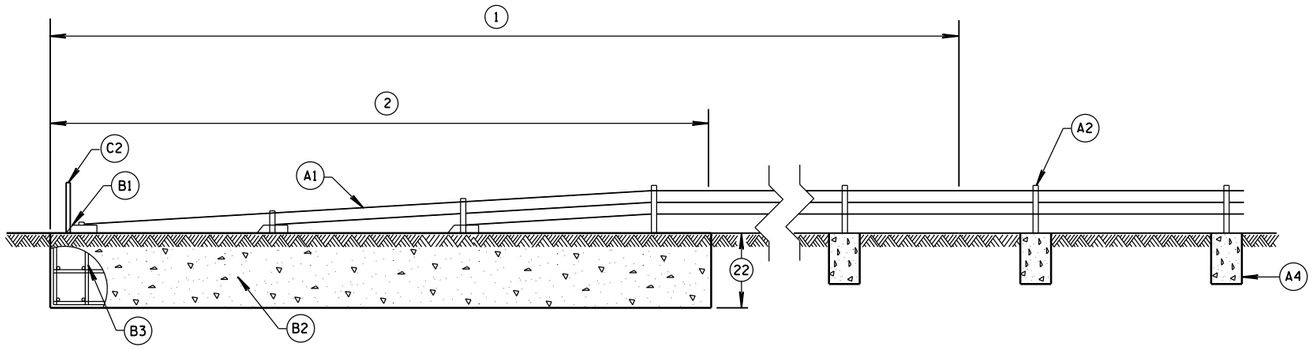
FHWA

6

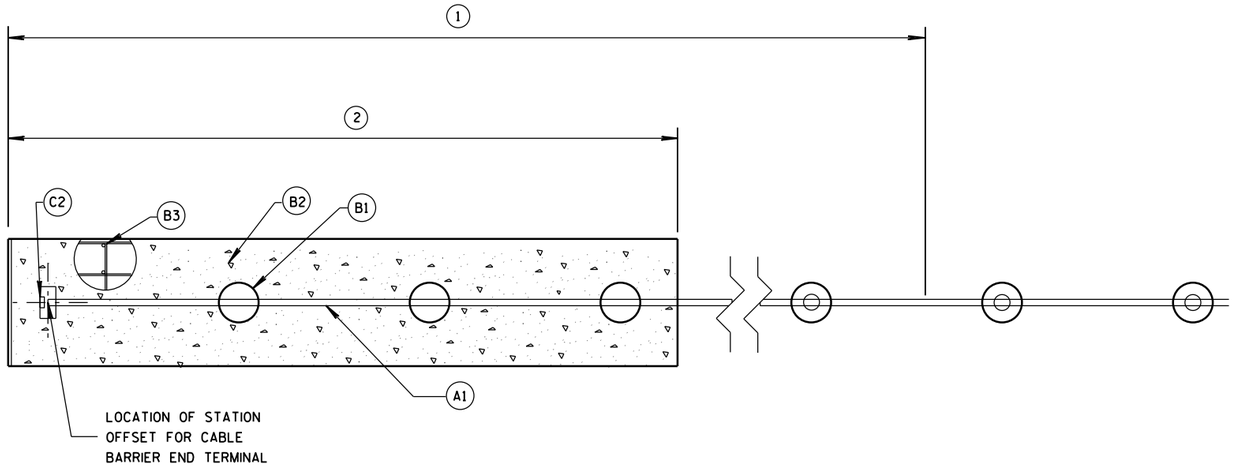
S.D.D. 14 B 50-1c

6

S.D.D. 14 B 50-1c

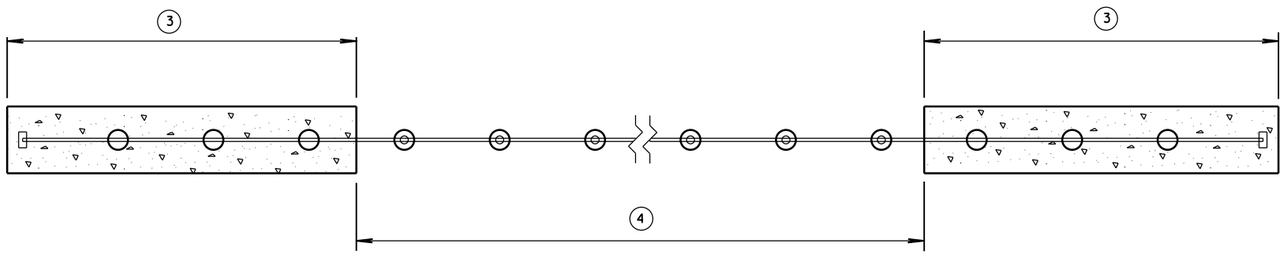


PROFILE VIEW



PLAN VIEW

TRANSITION FROM CABLE BARRIER TERMINAL TO CABLE BARRIER LINE POSTS



TYPICAL PLAN VIEW

GENERAL NOTES

DRAWINGS ARE GENERAL IN NATURE. SEE MANUFACTURER'S INFORMATION FOR MORE DETAIL.

PROVIDE 2 INCH CLEAR COVER FROM OUTER EDGE OF CONCRETE FOOTINGS TO REINFORCEMENT.

INSTALL LINE POST PLUMB. LINE POSTS ARE TO BE EASILY REMOVED BY HAND AND HOLD CABLES AT THE PROPER ELEVATION.

PROVIDE CABLE BARRIER SYSTEM FROM APPROVED PRODUCT LIST.

PROVIDE A SYSTEM TO HAVE THE WORKING WIDTH INDICTED IN PLAN.

PROVIDE DOCUMENTATION HOW POST SPACING, RADIUS OF CURVE AND ANCHOR SPACING INFLUENCES WORKING WIDTH TO CONSTRUCTION STAFF.

PROVIDE A WISCONSIN PROFESSIONAL ENGINEERS STAMPED ANALYSIS THAT THE LINE POST AND CABLE BARRIER END TERMINAL FOOTINGS ARE DESIGNED FOR THE SOIL CONDITIONS PRESENT. THE WISCONSIN P.E. STAMP ANALYSIS IS TO INCLUDE, BUT IS NOT LIMITED TO: DESIGN IMPACT LOADS, FOUNDATION DEISGN METHODOLOGY USED, FACTORS OF SAFETY, SOIL TYPE, SOIL CONDITIONS, AND TEMPERATURE RANGES.

DESIGN LINE POST FOOTINGS SO THAT LINE POST FOOTING MOVE LESS THAN 1 INCH WHEN LINE POST IS IMPACTED BY A TL-3 SMALL CAR.

BILL OF MATERIALS

PART NUMBER	QTY.	DESCRIPTION	MATERIALS SPECIFICATIONS
(A1)	3 OR 4	3/4" 3x7 PRESTRECHED GALVANIZED STEEL WIRE ROPE	ASTM A741 MIN. BREAKING STRENGTH 39,000 LBS.
			AASHTO M30 TYPE 1 CLASS A (GALVANIATION).
			MINIMUM WIRE ROPE MODULUS OF ELASTICITY OF 19,000 PSI ACCORDING TO ISO 12067-202 WIRE ROPE MODULUS OF ELASTICITY "INITIAL" (AS MANUFACTURED), WITH NO BEDDING OR PRESTRECHING OF THE ROPE PERMITTED DURING TESTING.
(A2)	1 PER LINE POST	GALVANIZED REMOVABLE STEEL LINE POST	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
			ASTM A123 (GALVANIZATION).
(A3)	1 PER LINE POST	GALVANIZED METAL SLEEVE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
			ASTM A123 (GALVANIZATION).
(A4)	VARIES	CONCRETE FOR LINE POST FOOTING	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2 OR AS MANUFACTURER SPECIFIES.
			STANDARD SPECIFICATION 716 OMP FOR CLASS II ANCILLARY CONCRETE.
			SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
(A5)	VARIES	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
(A6)	VARIES	TURNBUCKLES AND OTHER CABLE CONNECTING HARDWARE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
			MINIMUM BREAKING STRENGTH OF TURNBUCKLES AND CONNECTION HARDWARE IS EQUAL TO CABLE.
			TURNBUCKLES AND OTHER CABLE CONNECTION HARDWARE IS FIELD SWAGED PER MANUFACTURER'S RECOMMENDATIONS AND DETAILS.
(B1)	VARIES	CABLE CONNECTION TO CABLE BARRIER END TERMINAL	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
(B2)	VARIES	CONCRETE FOR CABLE BARRIER END TERMINAL	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2.
			STANDARD SPECIFICATION 716 OMP FOR CLASS II ANCILLARY CONCRETE.
(B3)	VARIES	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
(C1)	VARIES	LINE POST DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVE PRODUCT LIST YELLOW.
(C2)	VARIES	CABLE BARRIER END TERMINAL DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVE PRODUCT LIST OBJECT MARKER TYPE 3 PATTERN.

(1) LOCATION OF LENGTH OF NEED POINT FOR CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)

(2) PAY LIMIT FOR CABLE BARRIER END TERMINAL. LENGTH OF CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)

(3) CABLE BARRIER END TERMINAL

(4) CABLE BARRIER AND LINE POSTS

CABLE BARRIER TYPE 1 LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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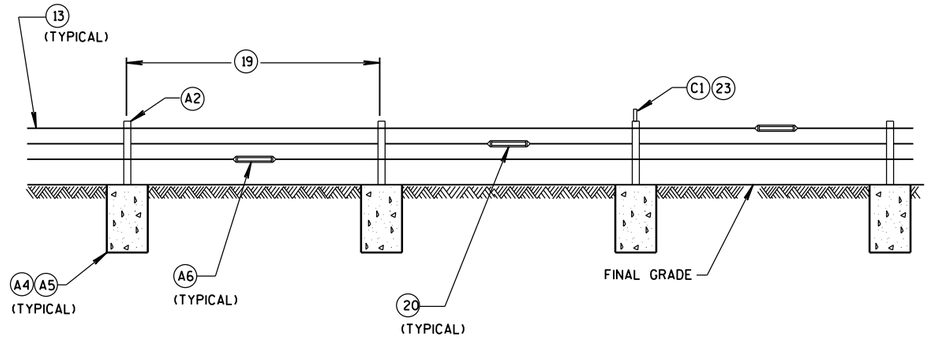
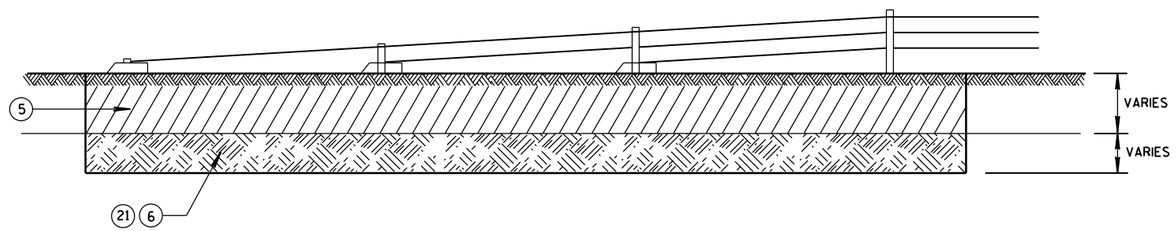
S.D.D. 14 B 52-1a



PROFILE VIEW

LINE POST INSTALLATION



CABLE BARRIER END TERMINAL ROCK EXCAVATION DETAIL

(5) SOIL TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES).

(6) ROCK TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES).

(7) SOIL TO BE EXCAVATED FOR LINE POST (VARIES).

(8) ROCK TO BE EXCAVATED FOR LINE POST (VARIES).

(9) EXCAVATE AND GRADE LINE FOR LINE POST FOOTINGS. INSTALL LINE POST FOOTING TO MINIMIZE 4 INCH TALL OBJECT ON 5 FOOT CHORD.

(10) 2 INCHES OF CLEAR COVER FROM EDGE OF CONCRETE TO REINFORCEMENT.

(11) DIAMETER OF LINE POST FOOTING VARIES. SEE MANUFACTURER'S INFORMATION.

(12) MINIMUM DEPTH OF LINE POST FOOTING IS 48 INCHES IN SOIL. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENDATION ARE ACCEPTABLE.

(13) NUMBER AND LOCATION OF CABLES VARY. SEE MANUFACTURER'S INFORMATION.

(14) LINE POST DIMENSIONS AND CONNECTION HARDWARE VARY. SEE MANUFACTURER'S INFORMATION.

(15) LANE OF ROADWAY (VARIES). SEE PLAN FOR MORE INFORMATION.

(16) PAVED SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.

(17) GRAVEL SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.

(18) CABLE BARRIER OFFSET FROM CENTERLINE OF MEDIAN DITCH (8 FOOT MINIMUM). SEE PLAN FOR MORE INFORMATION.

(19) MAXIMUM POST SPACING IS 15 FEET.

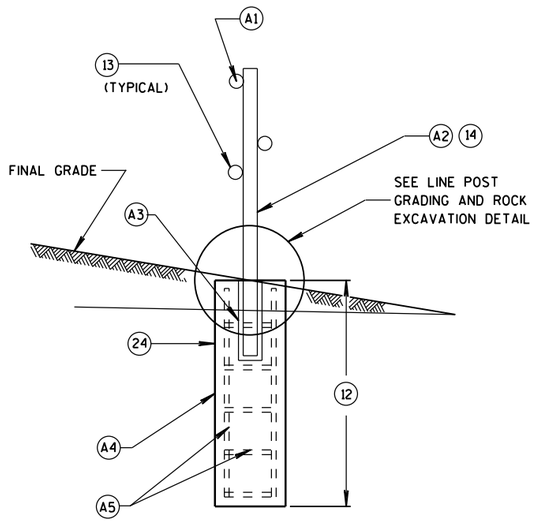
(20) STAGGER TURNBUCKLES (TYPICAL).

(21) SEE MANUFACTURER'S DESIGN WHEN ROCK IS ENCOUNTERED.

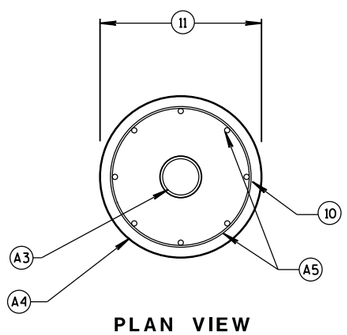
(22) IN SOIL MINIMUM DEPTH OF CABLE BARRIER END TERMINAL FOOTING IS 60 INCHES. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENATION ARE ACCEPTABLE.

(23) LINE POST DELINEATOR SPACING IS 100 FEET.

(24) LINE POST FOOTINGS ARE REQUIRED TO HAVE LESS THAN 1 INCH OF MOVEMENT WHEN LINE POST IS IMPACTED BY A NCHRP 350 SMALL CAR UNDER TL-3 TEST CONDITIONS.

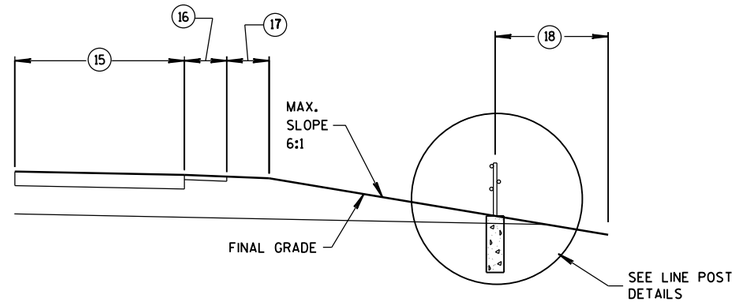


CROSS SECTION

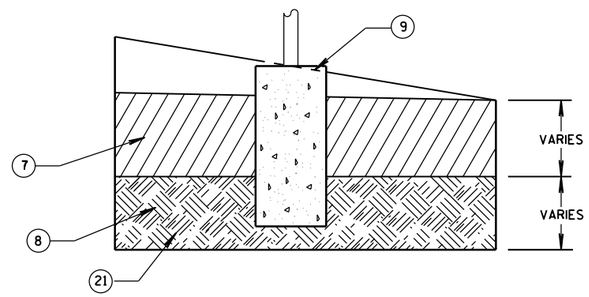


PLAN VIEW
(LINE POST AND CABLES NOT SHOWN)

LINE POST DETAILS



CABLE BARRIER OFFSET FROM DITCH LINE



LINE POST GRADING AND ROCK EXCAVATION DETAIL

CABLE BARRIER TYPE 1
LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 14 B 52-1b

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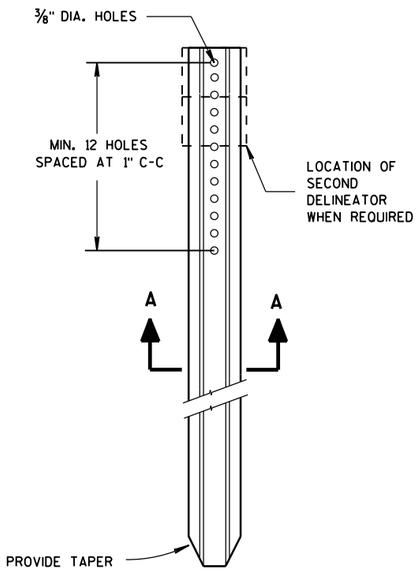
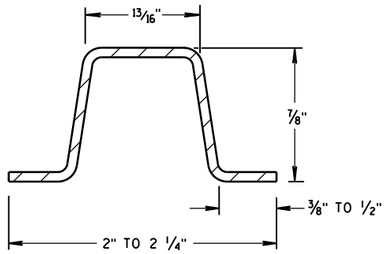
S.D.D. 14 B 52-1b

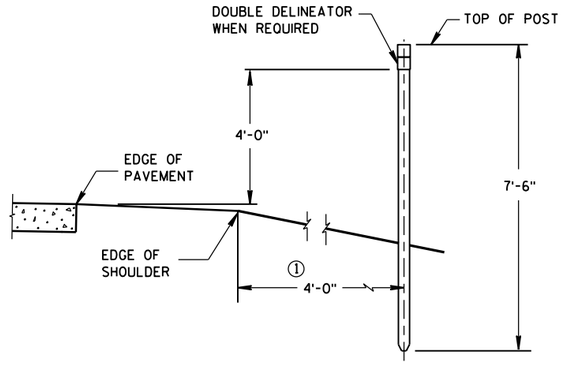


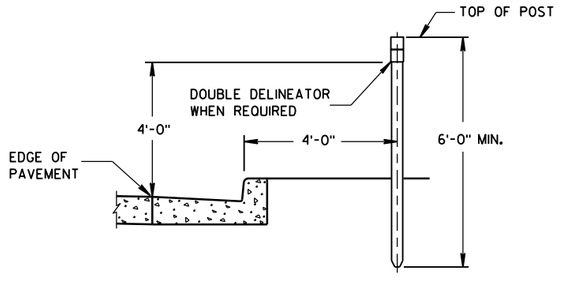
DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.



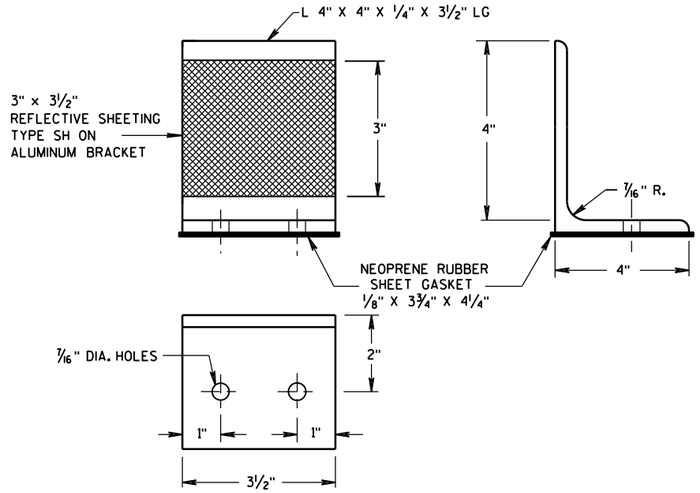


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

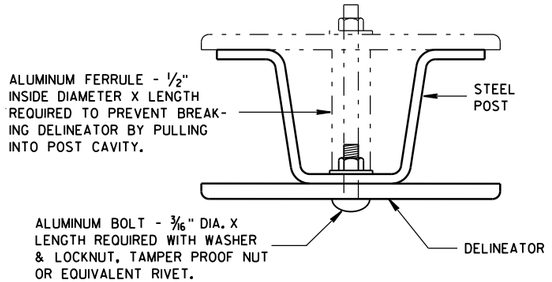
GENERAL NOTES

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

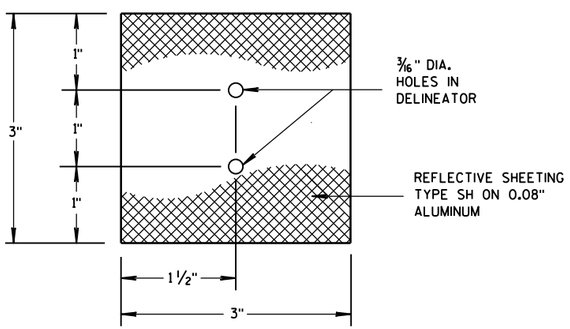
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



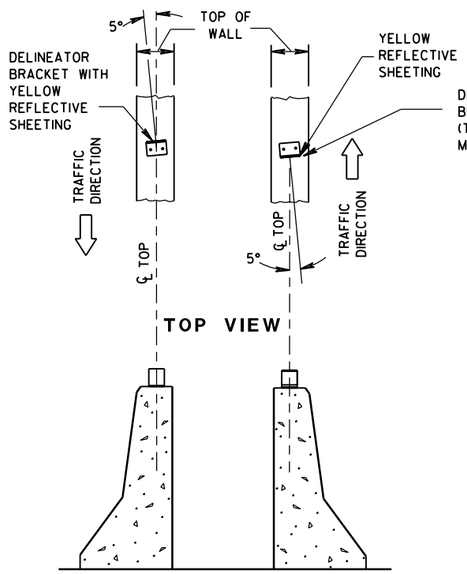
DELINEATOR BRACKET



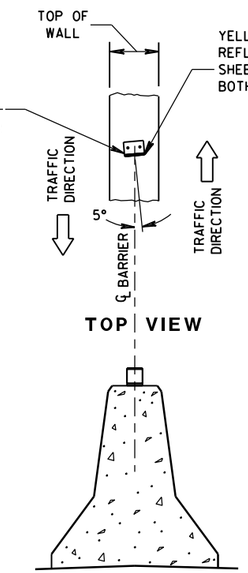
MOUNTING DETAIL FOR DELINEATOR



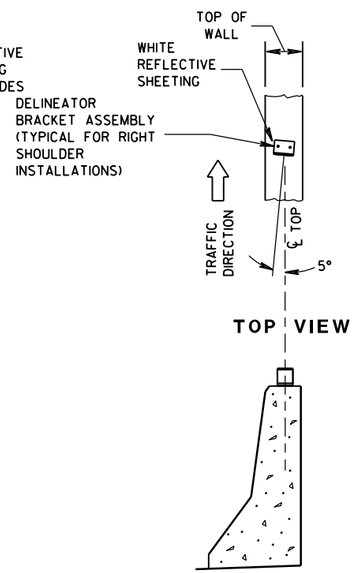
3"x 3" DELINEATOR



DOUBLE BARRIERS IN MEDIAN

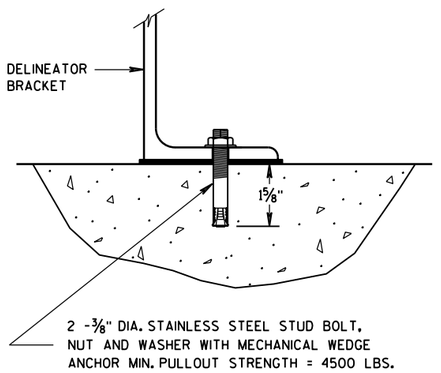


MEDIAN BARRIER



BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATOR BRACKETS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC E
FHWA

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S.D.D. 15 A 2-8

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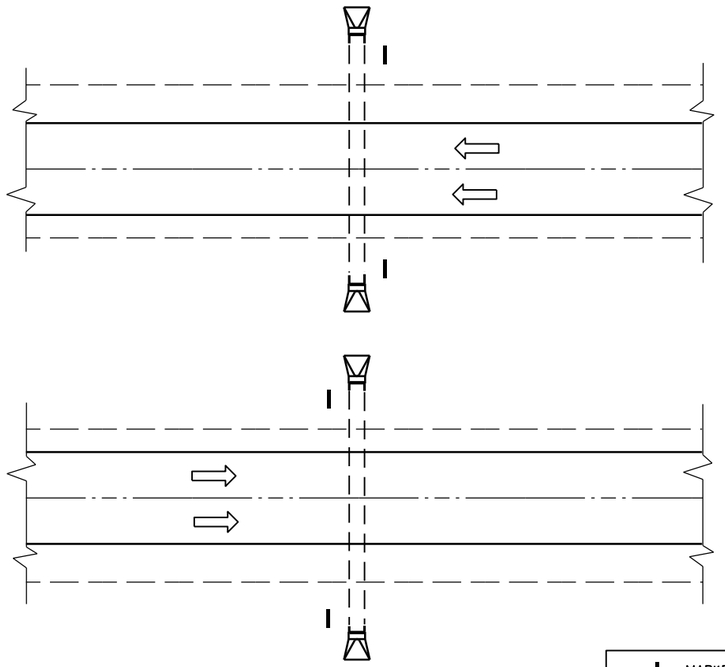
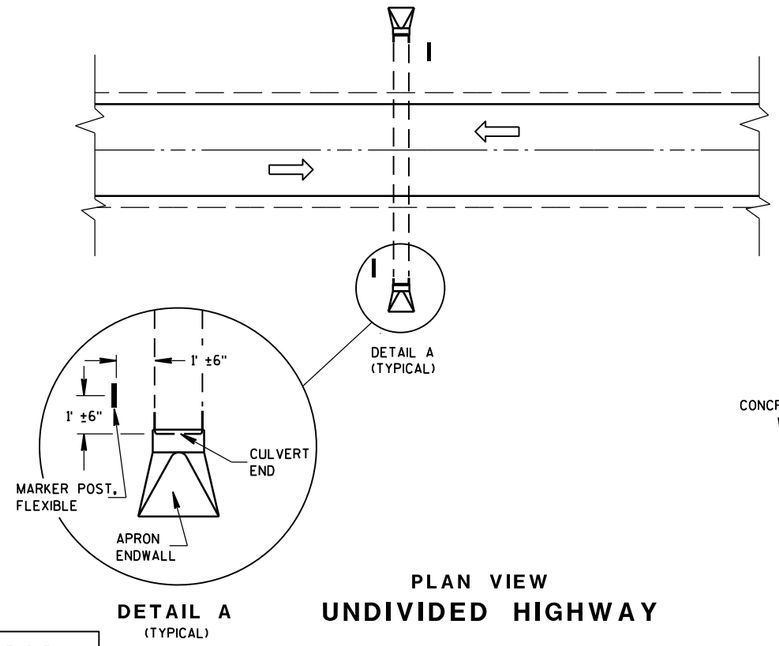
S.D.D. 15 A 2-8



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

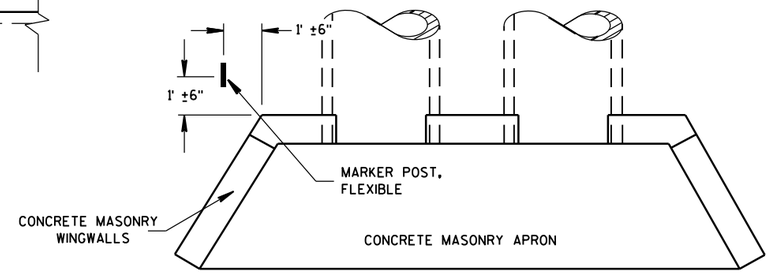
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

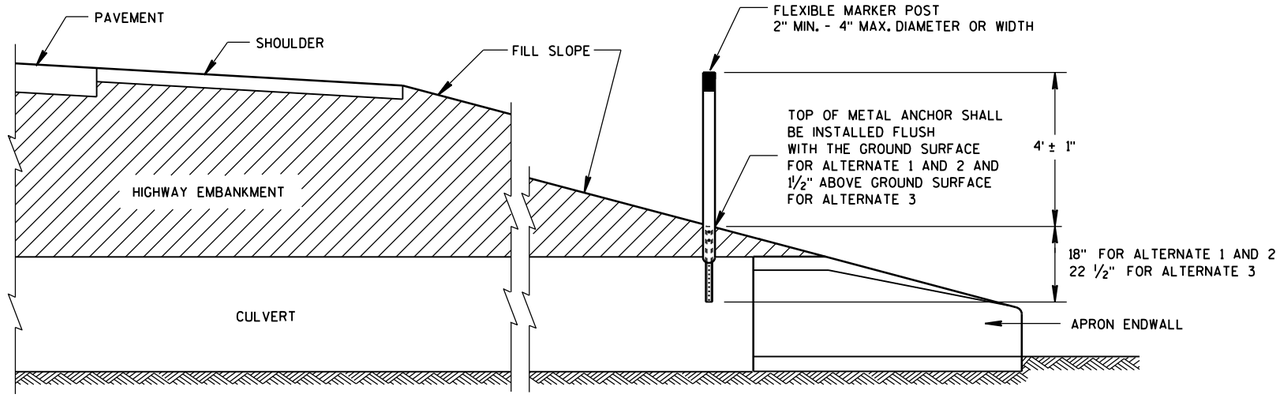
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 A 3-2a

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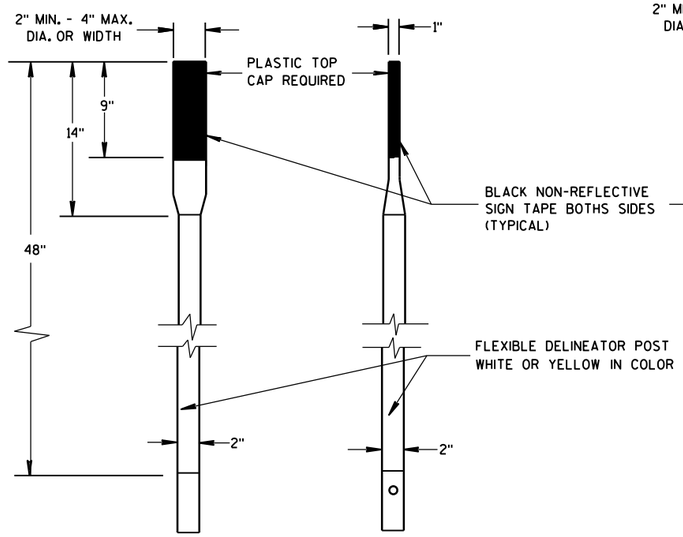
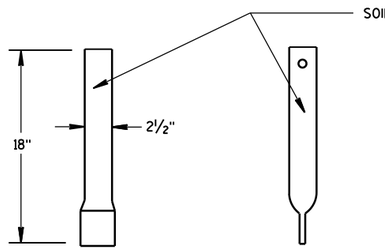
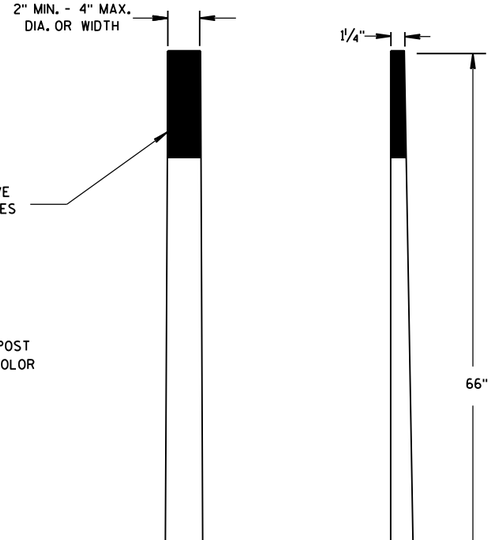
S.D.D. 15 A 3-2a





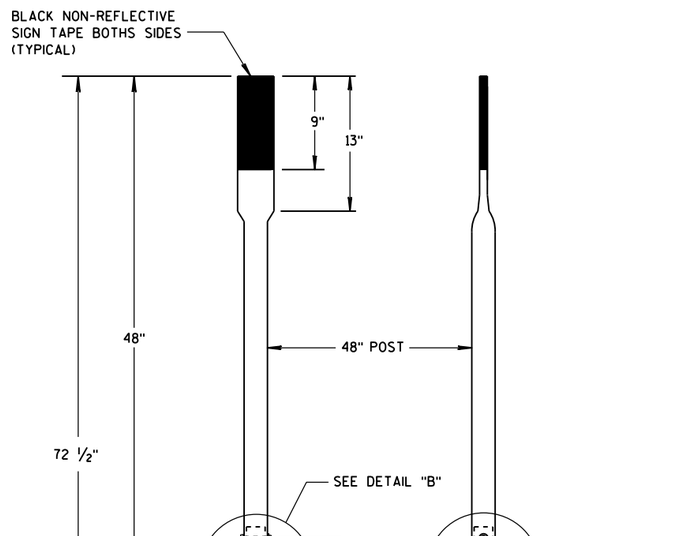
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

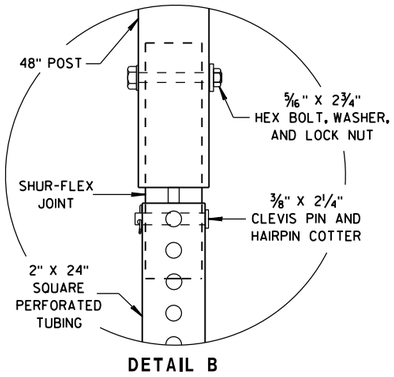
ALTERNATE 2



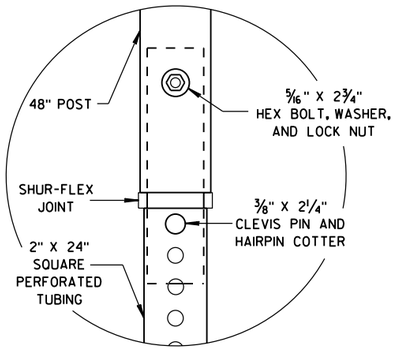
FRONT VIEW SIDE VIEW

ALTERNATE 3

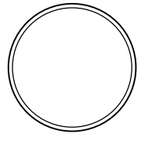
FLEXIBLE MARKER POSTS



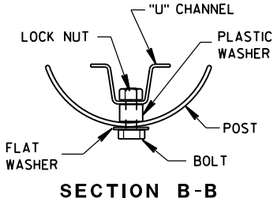
DETAIL B



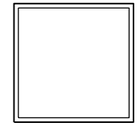
DETAIL C



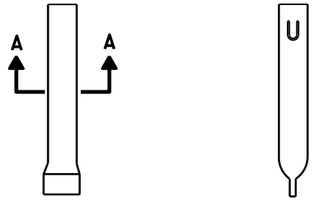
SECTION A-A



SECTION B-B

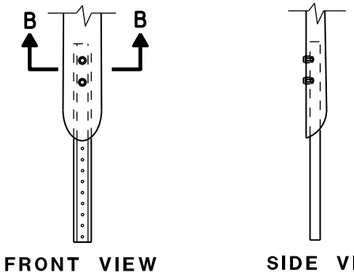


SECTION C-C



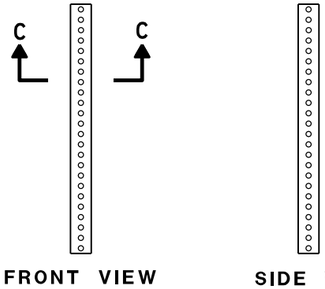
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2



FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
270
IGN
FHWA

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S.D.D. 15 A 3-2b

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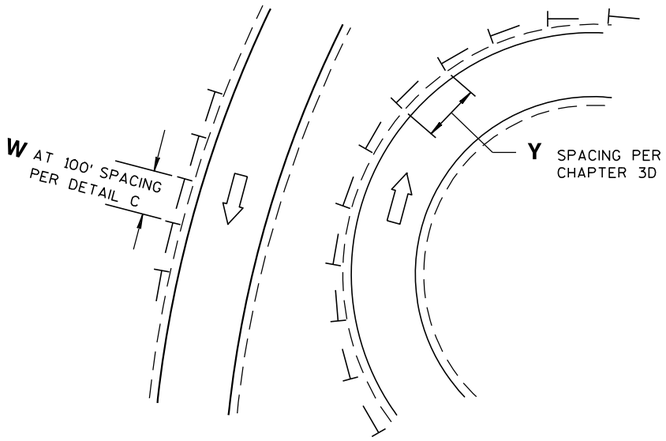
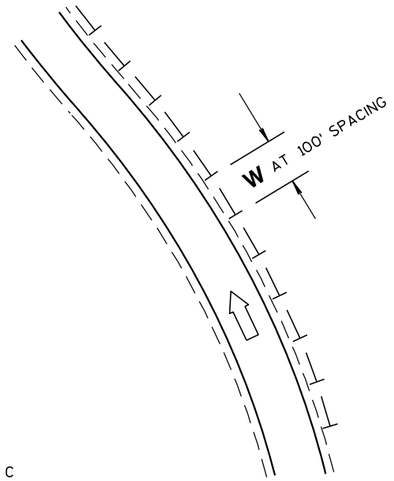
S.D.D. 15 A 3-2b

GENERAL NOTES

* USE DOUBLE DELINEATOR ALONG ACCELERATION-DECELERATION LANES AND TAPERS. USE SINGLE DELINEATOR WHEN RAMP PAVEMENT IS FULL WIDTH.



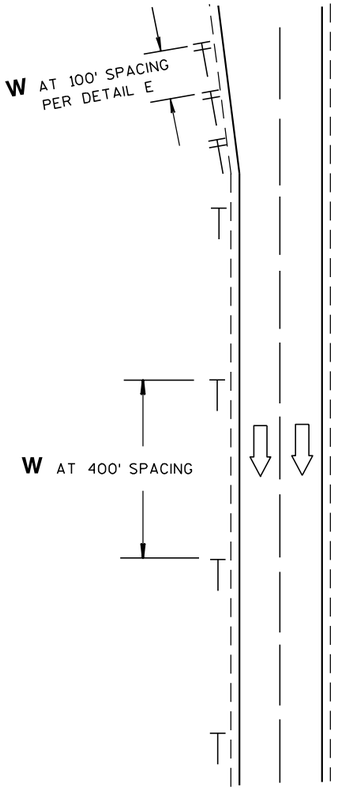
DETAIL A
DELINEATOR LAYOUT AT CURVED RAMP



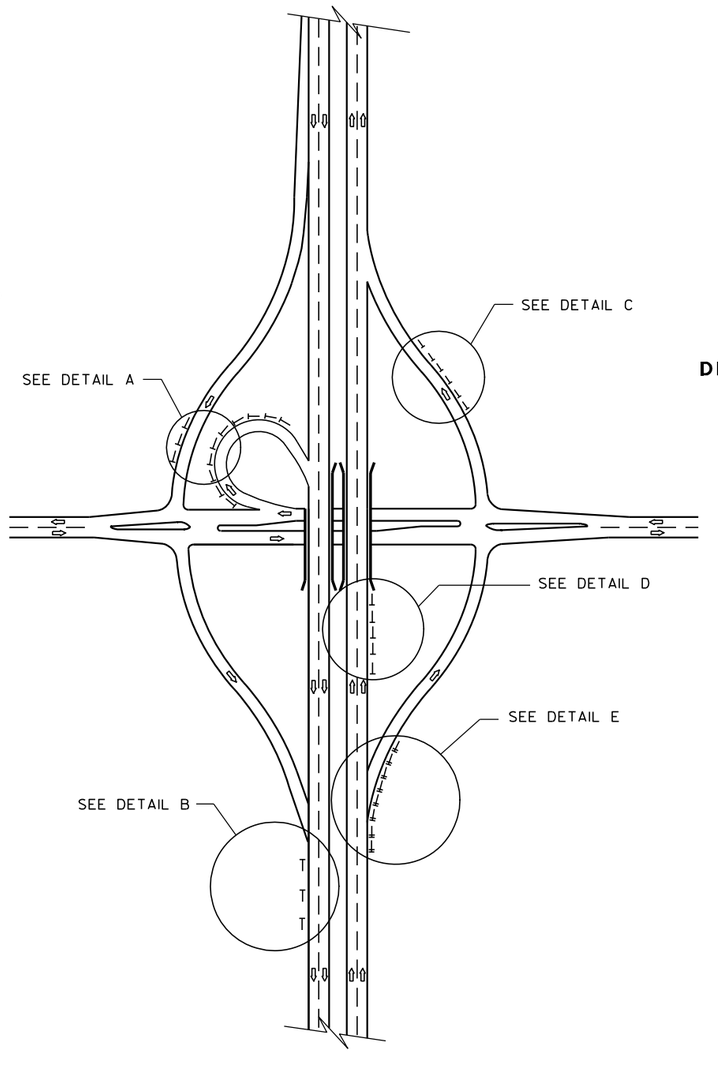
DETAIL C
DELINEATOR LAYOUT ALONG RAMP

LEGEND

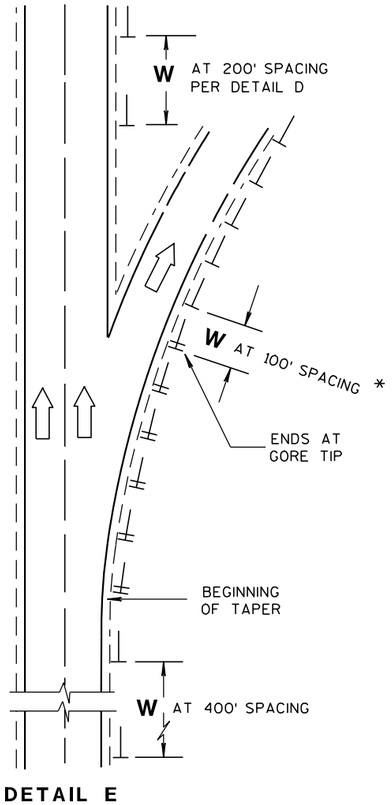
- DIRECTION OF TRAFFIC FLOW
- SINGLE DELINEATOR
- DOUBLE DELINEATOR
- W — WHITE
- Y — YELLOW



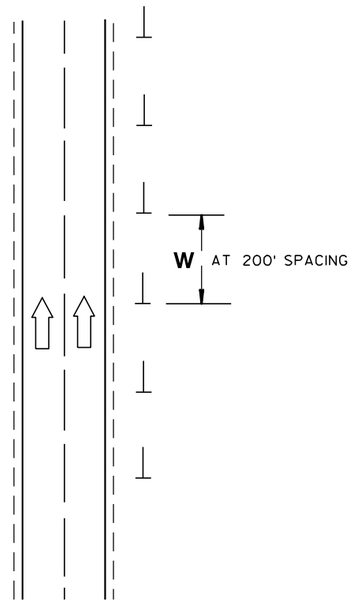
DETAIL B
DELINEATOR LAYOUT ALONG MAINLINE



DELINEATOR LAYOUT



DETAIL E
DELINEATOR LAYOUT FOR ACCELERATION - DECELERATION LANES AND TAPERS AT RAMPS



DETAIL D
DELINEATOR LAYOUT BETWEEN INTERCHANGE RAMPS

DELINEATOR LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/5/09 DATE
/S/ Thomas N. Nothnam STATE TRAFFIC ENGINEER
FHWA

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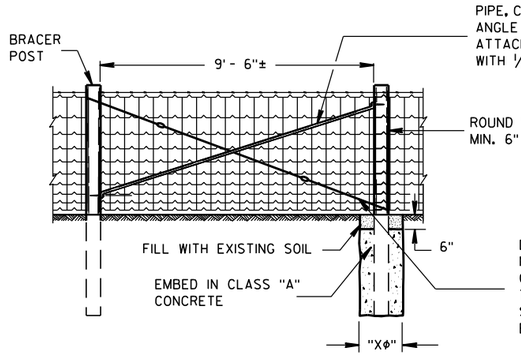
S.D.D. 15 A 6-2

6

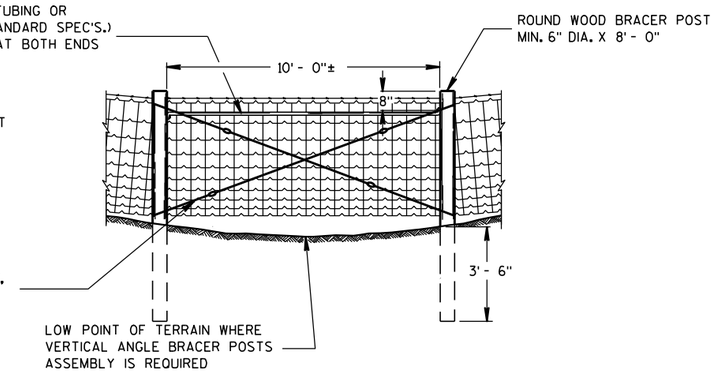
S.D.D. 15 A 6-2

NOTE: PULL OR STRETCHER POST ASSEMBLIES SHALL BE PLACED MIDWAY BETWEEN END POSTS AND CORNER POSTS WHERE A RUN OF FENCE EXCEEDS 660' BUT IS LESS THAN 1,320'. FOR RUNS OF FENCE IN EXCESS OF 1,320' MAXIMUM SPACING OF PULL OR STRETCHER POST ASSEMBLIES SHALL BE 660'± C-C.

ILLUSTRATION SHOWS POSITION OF STANDARD STEEL BRACE, DOUBLE STRAND GALVANIZED WIRE, AND THE POST TO BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM LEFT TO RIGHT. THE BRACES SHALL BE POSITIONED ON THE OPPOSITE DIAGONALS AND THE OPPOSITE POST SHALL BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM RIGHT TO LEFT.



PULL OR STRETCHER POSTS ASSEMBLY



VERTICAL ANGLE BRACER POSTS ASSEMBLY

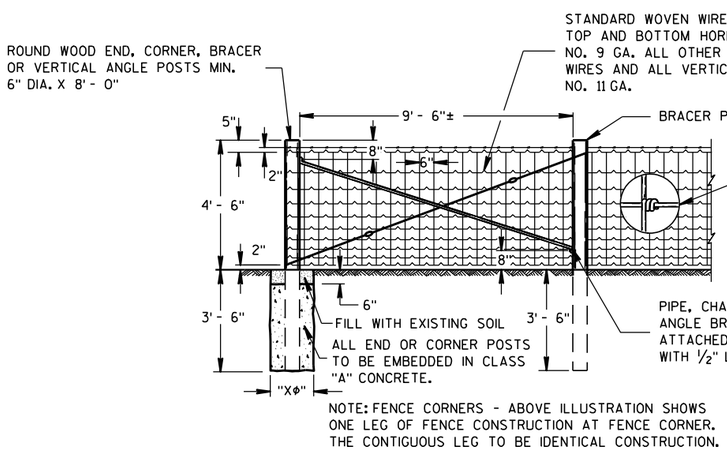
GENERAL NOTES

"XΦ" = DIAMETER OF THE POST PLUS 12".

FENCE STAPLES SHOULD NEVER BE DRIVEN VERTICALLY INTO WOOD POSTS (WITH BOTH LEGS PARALLEL WITH THE WOOD GRAIN). DOING SO CAN SEPARATE THE GRAIN AND SIGNIFICANTLY REDUCE THE HOLDING POWER. ROTATING THE STAPLES SLIGHTLY OFF VERTICAL STRADDLES THE GRAIN AND PROVIDES MORE RESISTANCE TO PULL-OUT.

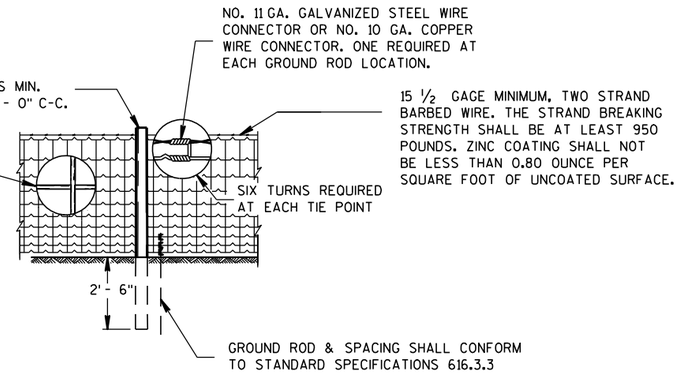
DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED AFTER FORMING. STAPLES SHALL HAVE SLASH-CUT POINTS.

FENCE SHALL BE LOCATED 3'-0" INSIDE THE RIGHT OF WAY LINE UNLESS OTHERWISE INDICATED ON THE PLANS.



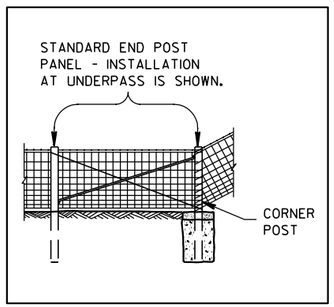
NOTE: FENCE CORNERS - ABOVE ILLUSTRATION SHOWS ONE LEG OF FENCE CONSTRUCTION AT FENCE CORNER. THE CONTIGUOUS LEG TO BE IDENTICAL CONSTRUCTION.

END OR CORNER POSTS ASSEMBLY

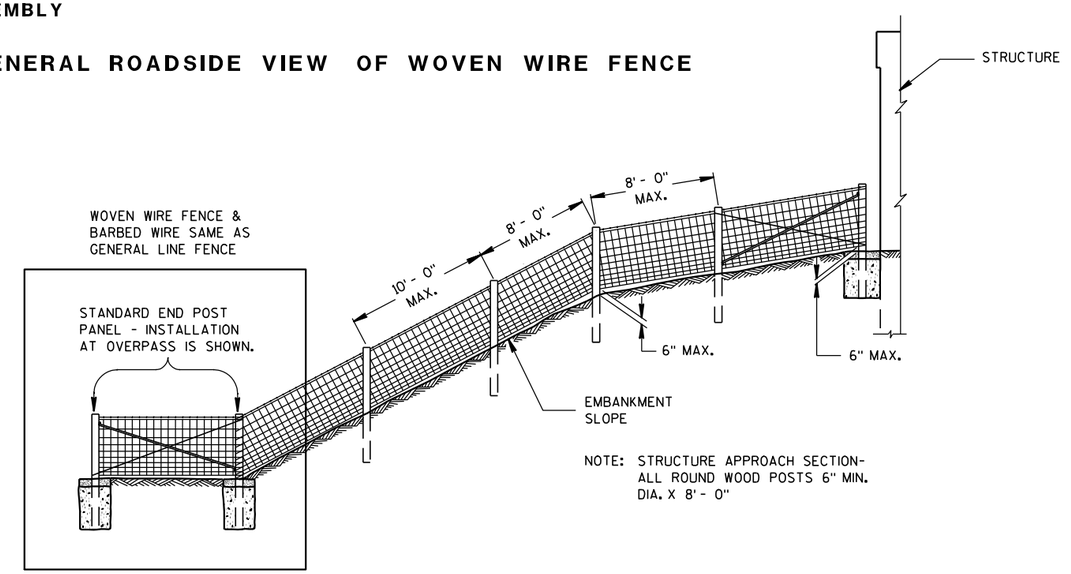


LINE FENCE CONSTRUCTION

GENERAL ROADSIDE VIEW OF WOVEN WIRE FENCE



ALTERNATE FENCE DESIGN AT STRUCTURE



NOTE: STRUCTURE APPROACH SECTION- ALL ROUND WOOD POSTS 6" MIN. DIA. X 8' - 0"

FENCE DESIGN AT STRUCTURE APPROACH

FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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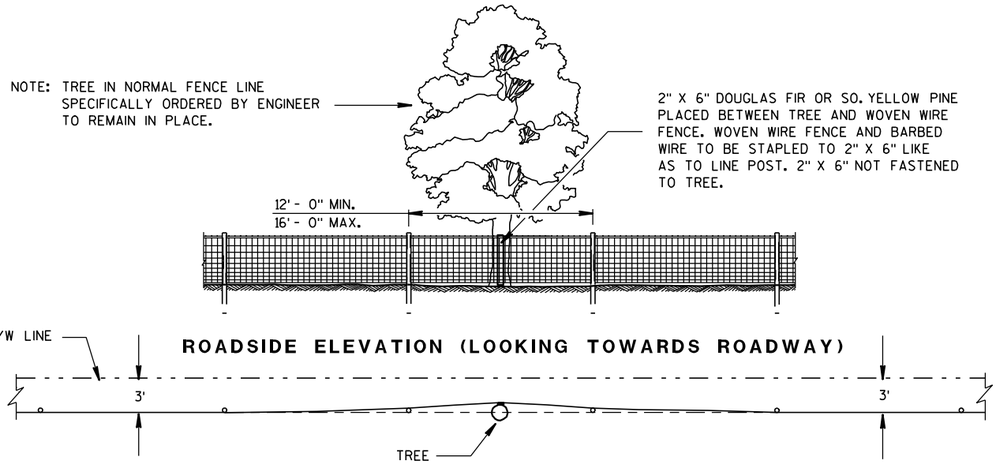
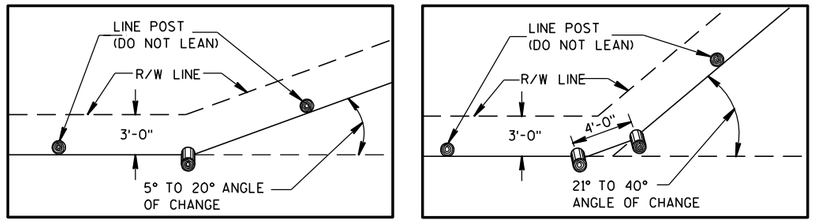
S.D.D. 15 B 1-8a



PLAN VIEW

FENCE DESIGN AT TREES REMAINING IN NORMAL FENCE LINE



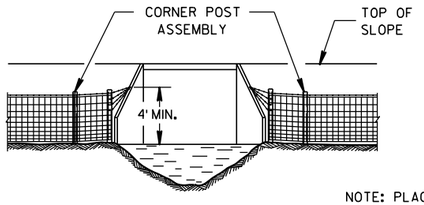
PLAN VIEW
SINGLE POST CORNER

PLAN VIEW
DOUBLE POST CORNER

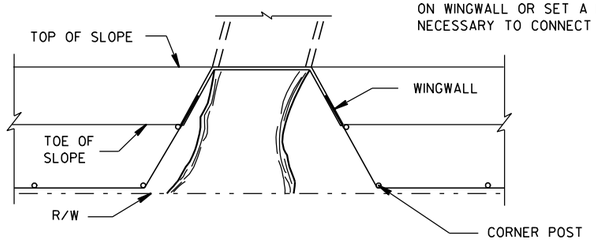
RIGHT OF WAY LINE CHANGE 40° AND LESS

NOTE: SINGLE AND DOUBLE POSTS SHALL BE A MIN. 6" DIA. X 8'-0" WITH A LEAN OF 4" TOWARD THE OUTSIDE OF THE CURVE.

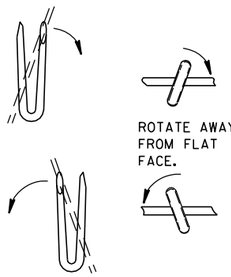
WHEN THE RIGHT OF WAY LINE CHANGE IS MORE THAN 40° USE THE CORNER OR STRETCHER POSTS ASSEMBLY.



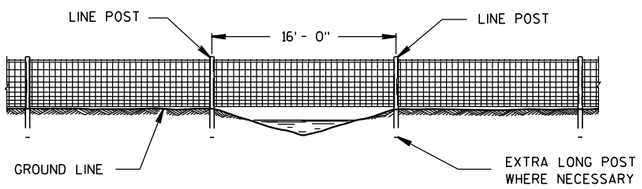
NOTE: PLACE A MINIMUM OF 4 STRANDS OF BARBED WIRE, 6" MAXIMUM CENTERS IN FAN SHAPE CONNECTED TO AN EYE BOLT ON WINGWALL OR SET A LONE POST WHEN NECESSARY TO CONNECT BARBED WIRE.



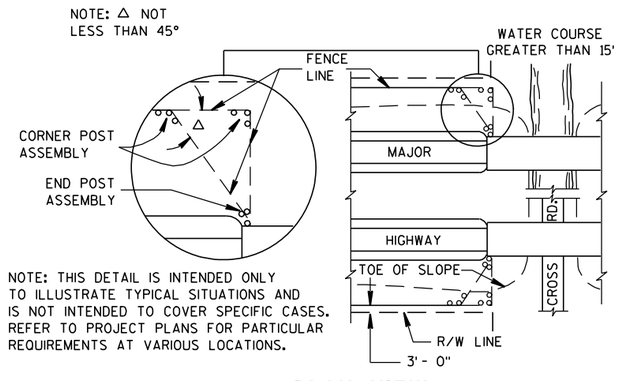
FENCE INSTALLATION TO WINGWALLS



LINE POST

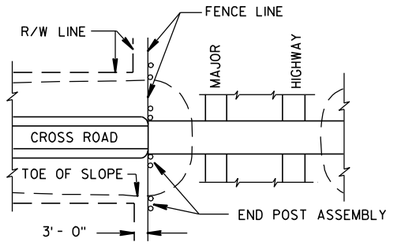


FENCE CONSTRUCTION OVER STREAM COURSES OF 15 FT. OR LESS IN WIDTH



PLAN VIEW

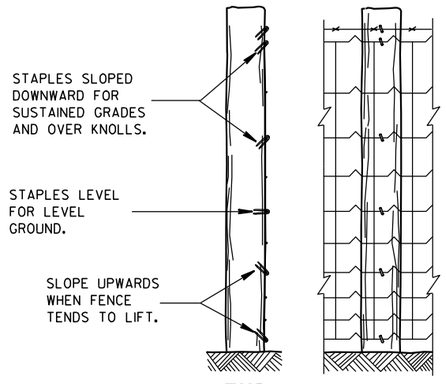
MAJOR HIGHWAY OVERPASS OR STREAM COURSE CROSSING OF GREATER THAN 15 FT. IN WIDTH



PLAN VIEW

MAJOR HIGHWAY UNDERPASS

NOTE: WHEN POSTS ARE DRIVEN THE SMALL END SHALL BE DOWN.



END ELEVATION **FARM SIDE ELEVATION**

FENCE MOUNTING DETAIL

FENCE LOCATION AT STRUCTURES

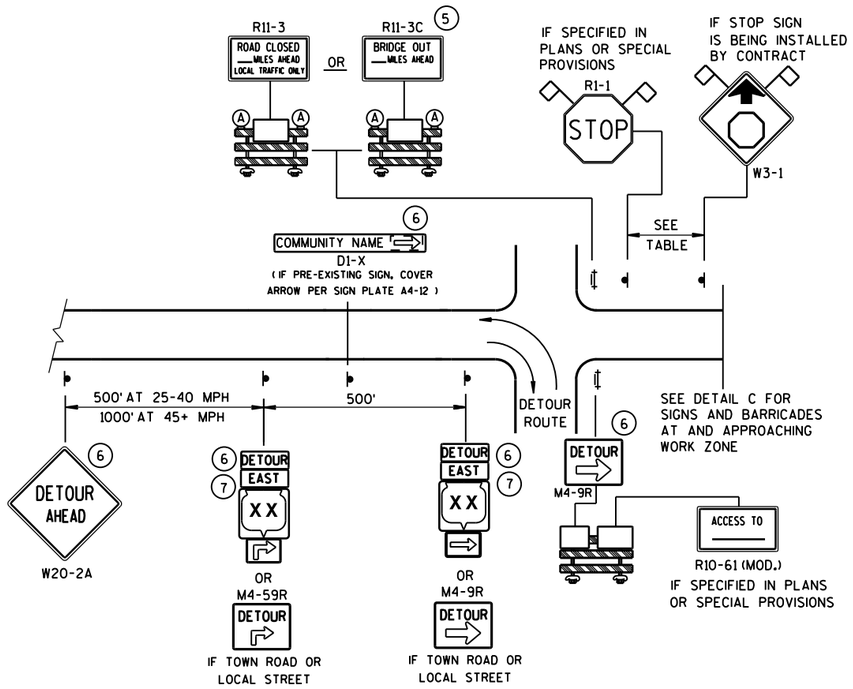
FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/4/2008 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

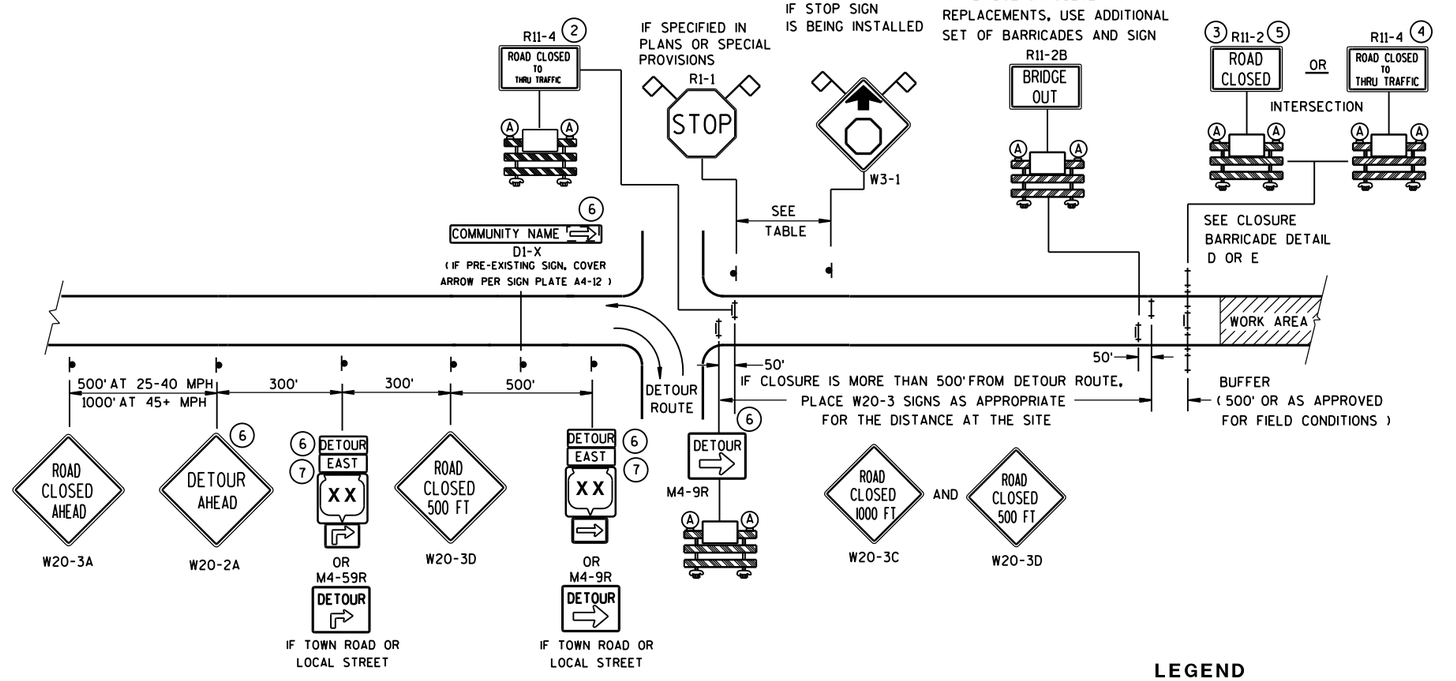
6

S.D.D. 15 B 1-8b



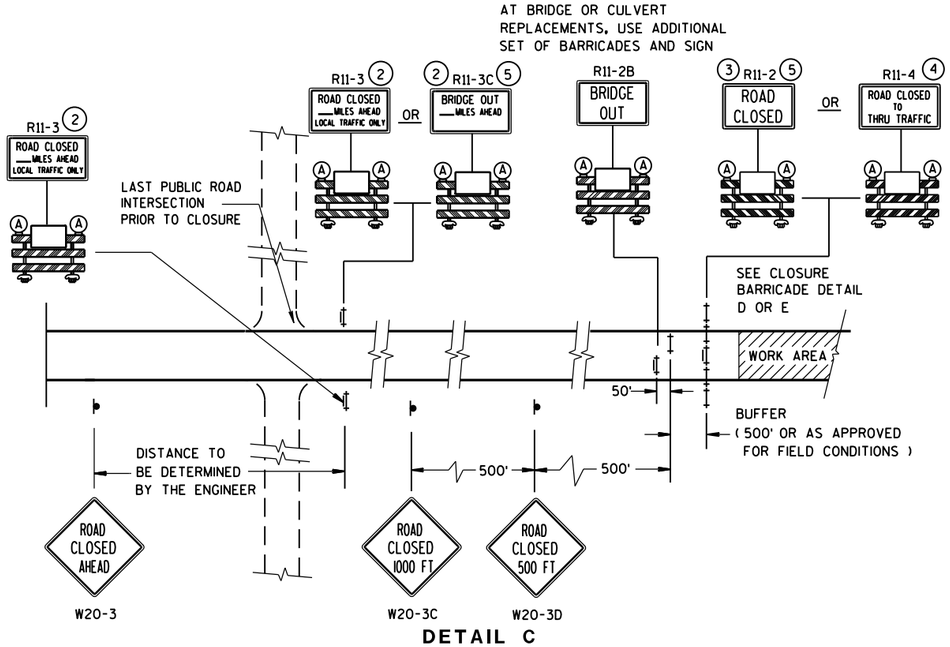
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN 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
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

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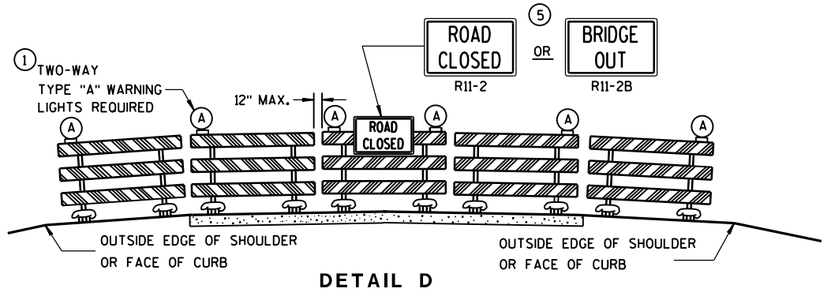
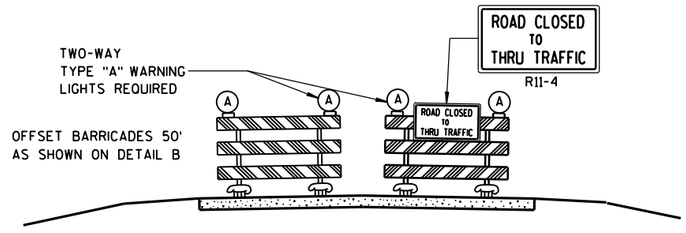
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

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

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT 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 LANE 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 MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI

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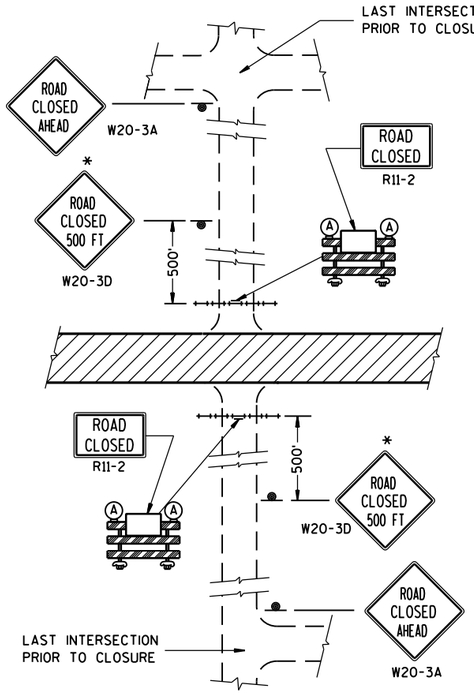
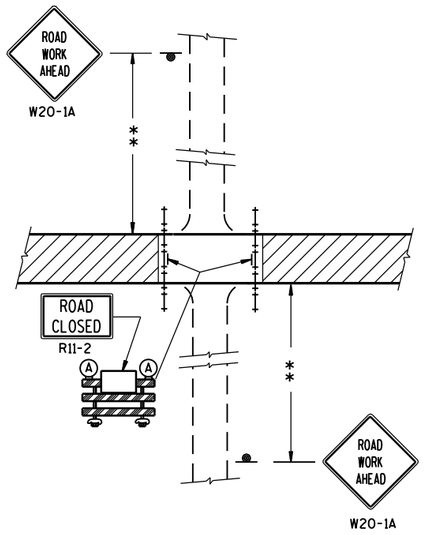


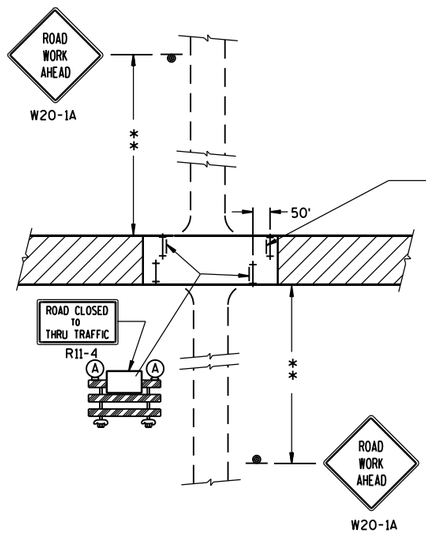
DETAIL 1

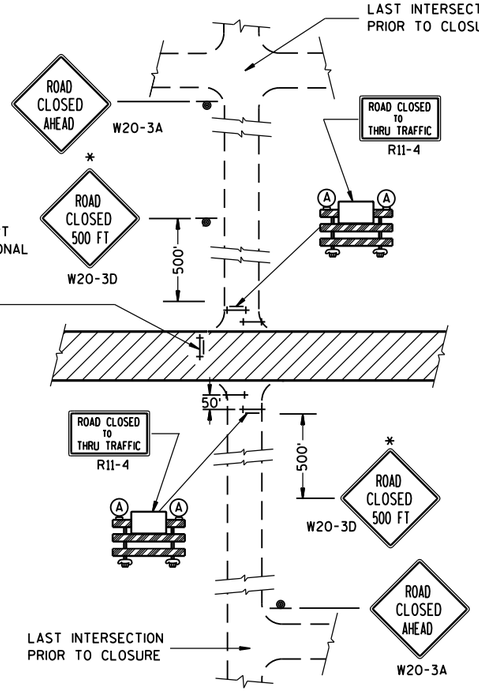
(NO ACCESS TO PROJECT)



DETAIL 2

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





DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).

DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible]FIC SAFETY ENGI[illegible]
FHWA

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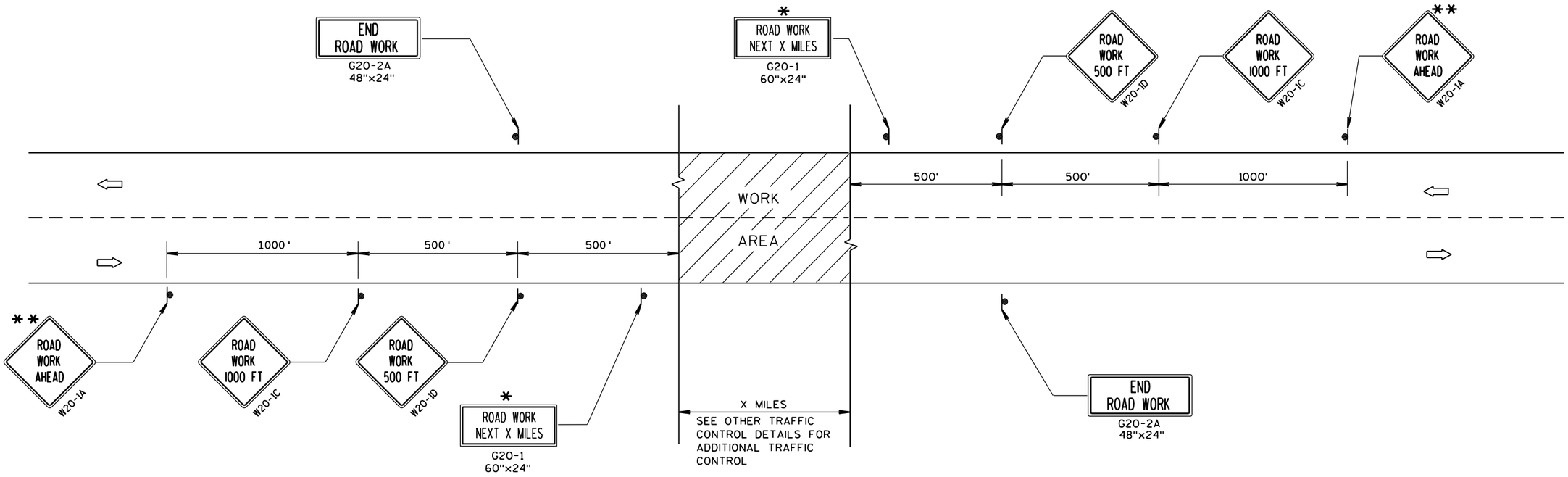


TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

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

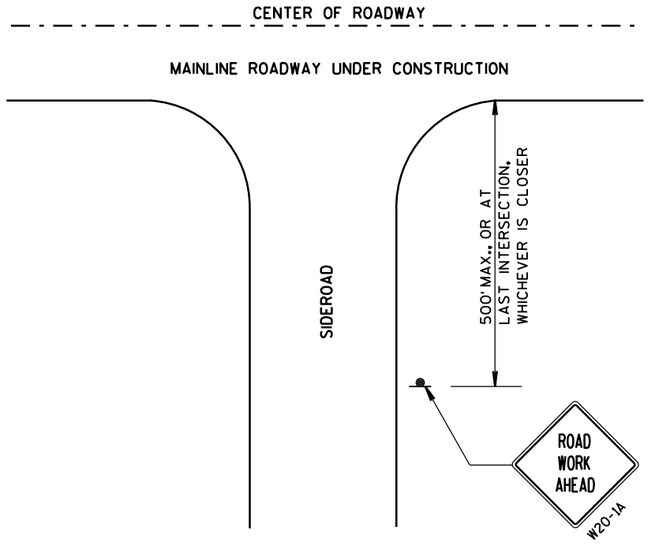
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

** PLACE ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER

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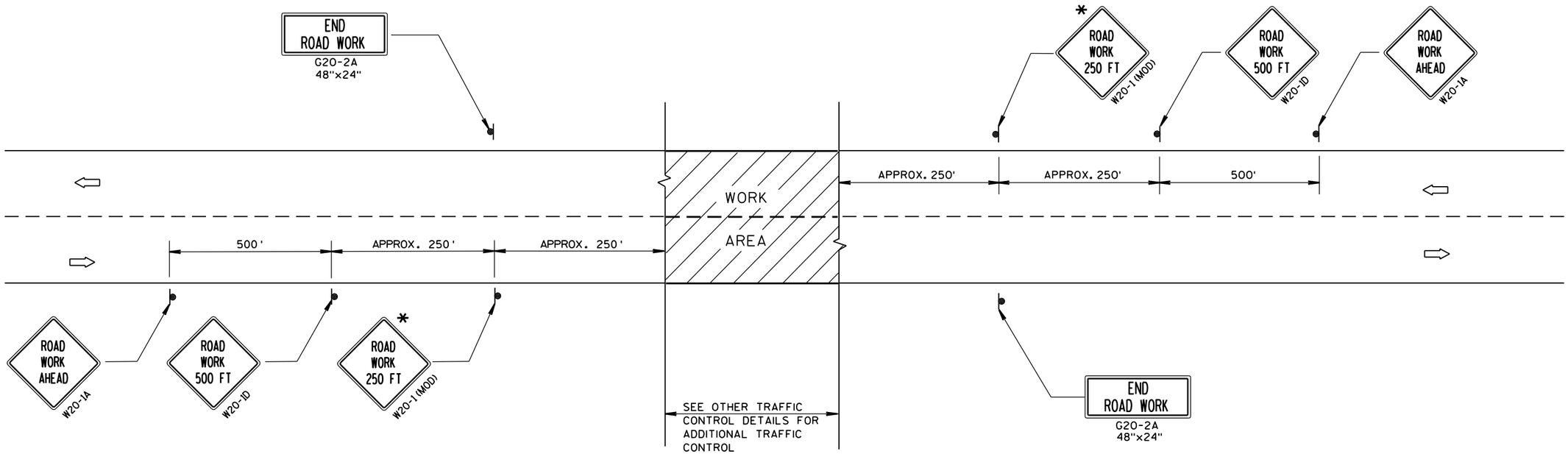
S.D.D. 15 C 4-3

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

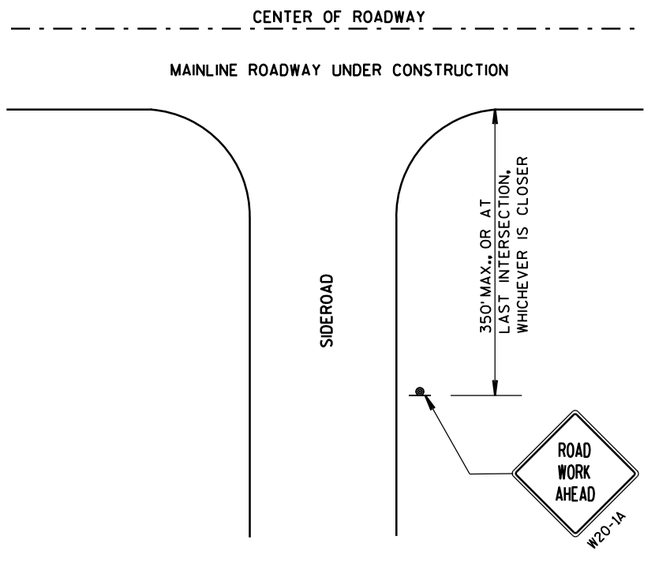
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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

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

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



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

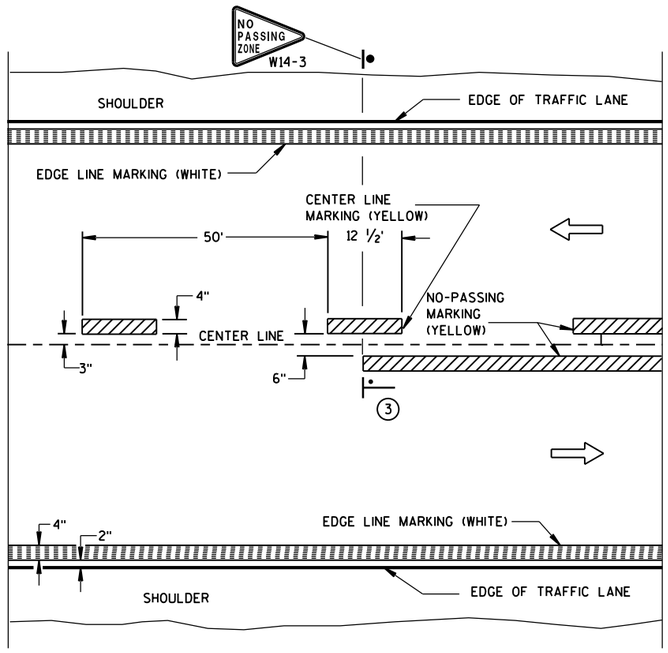
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

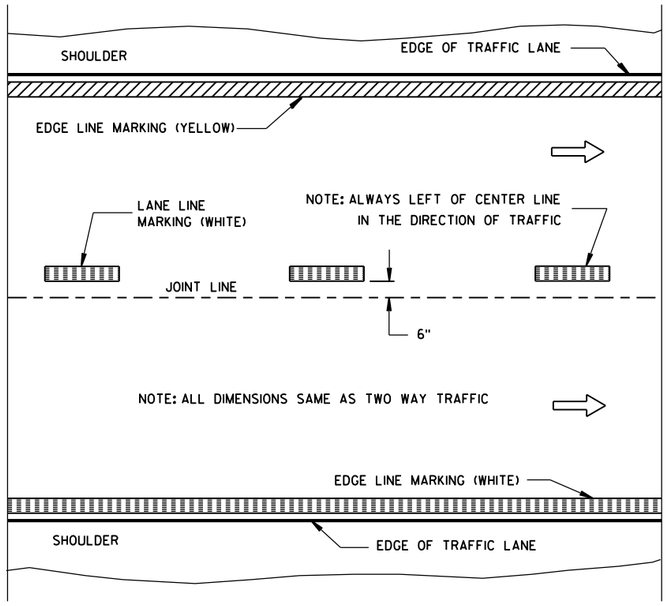
APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

6

S.D.D. 15 C 5-3

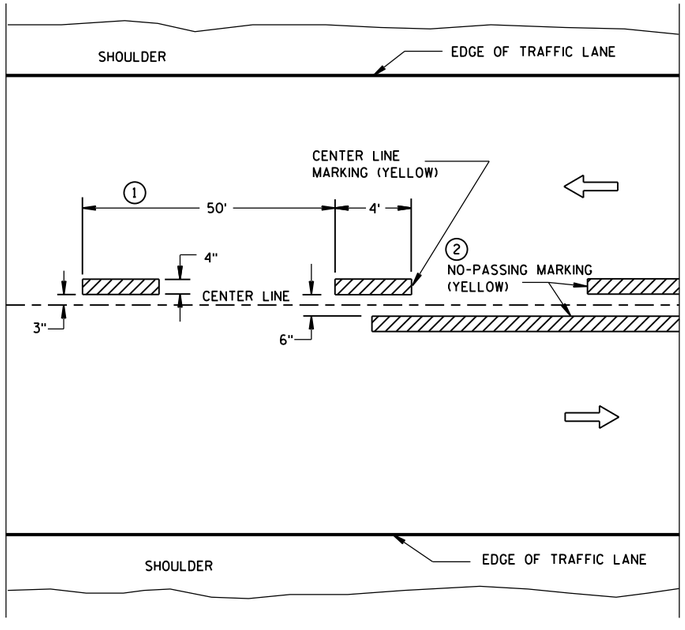


TWO WAY TRAFFIC

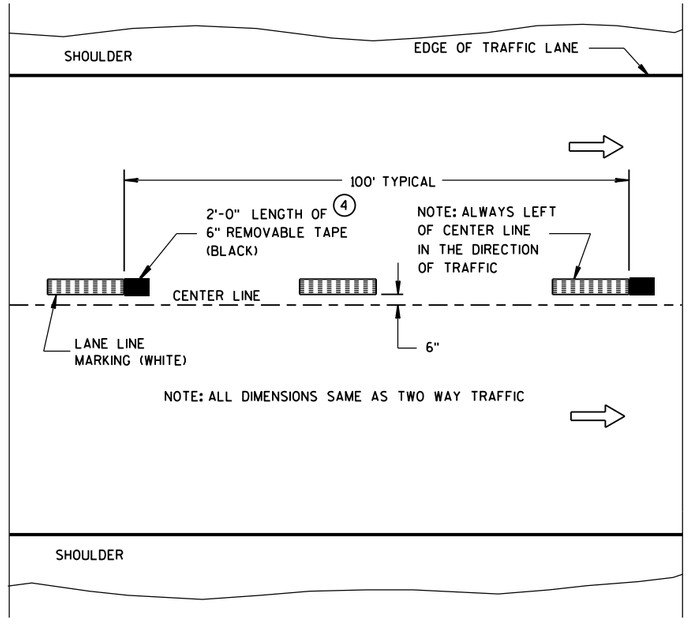


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

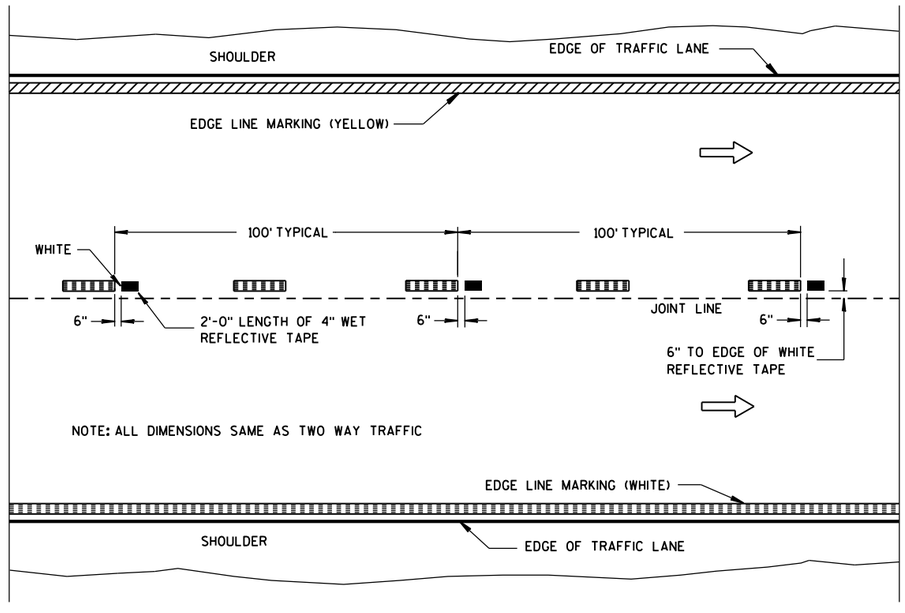
GENERAL NOTES

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

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

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S.D.D. 15 C 8-16a

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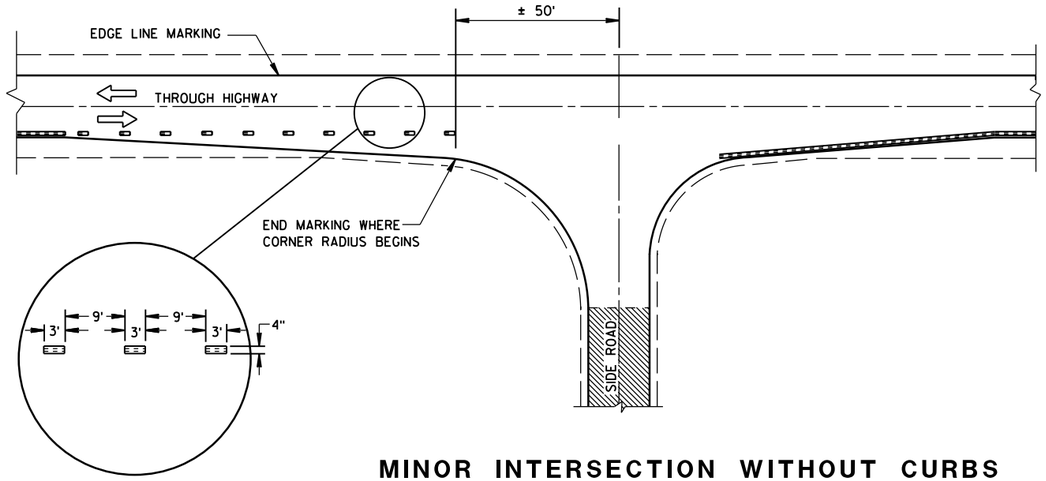
S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

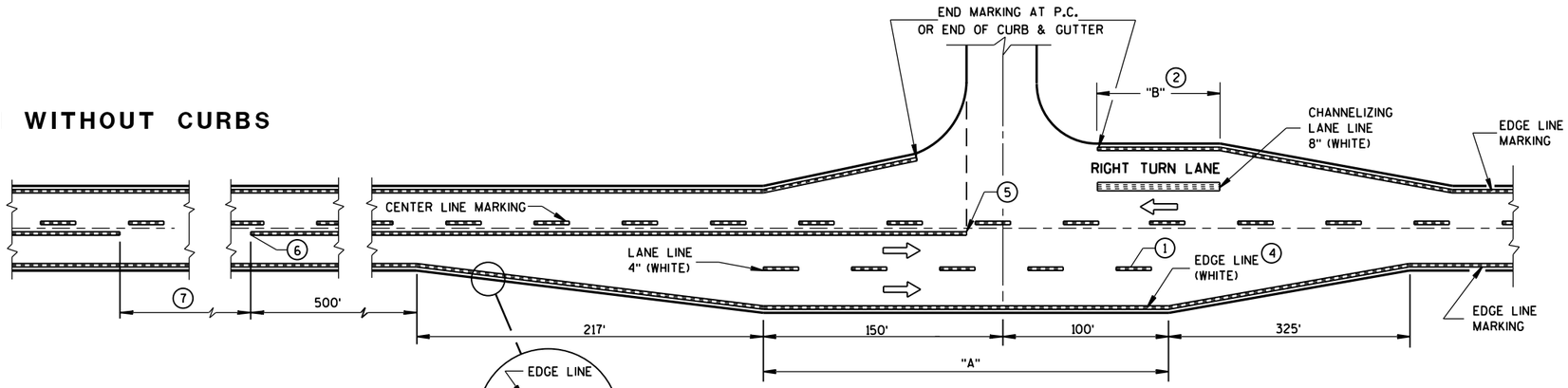
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

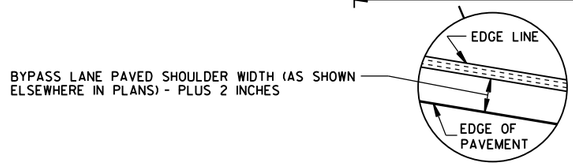
(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

(7)

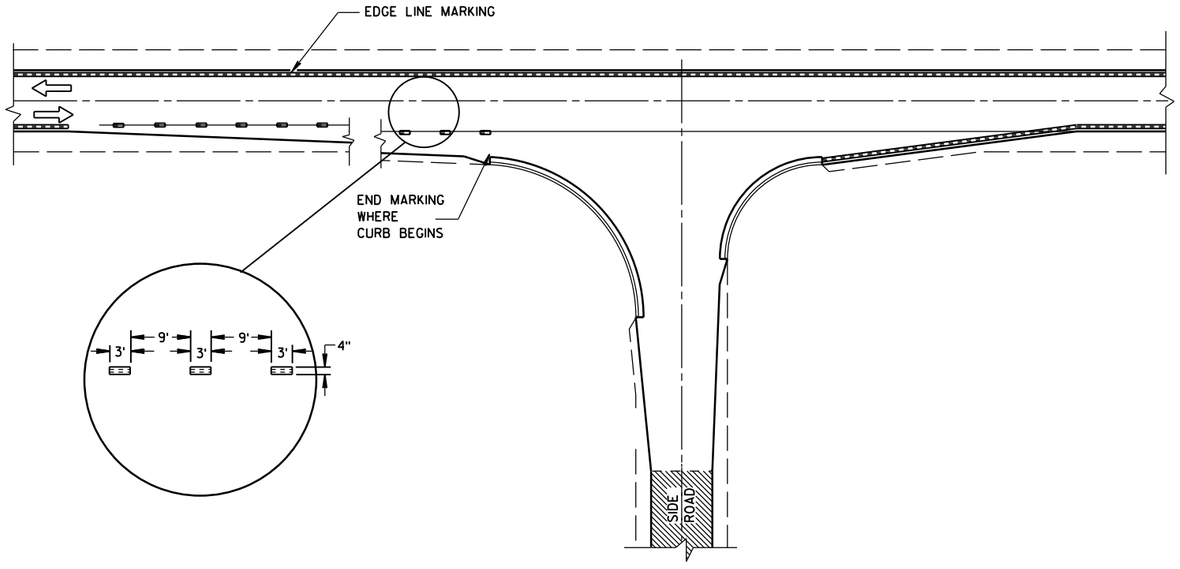
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792





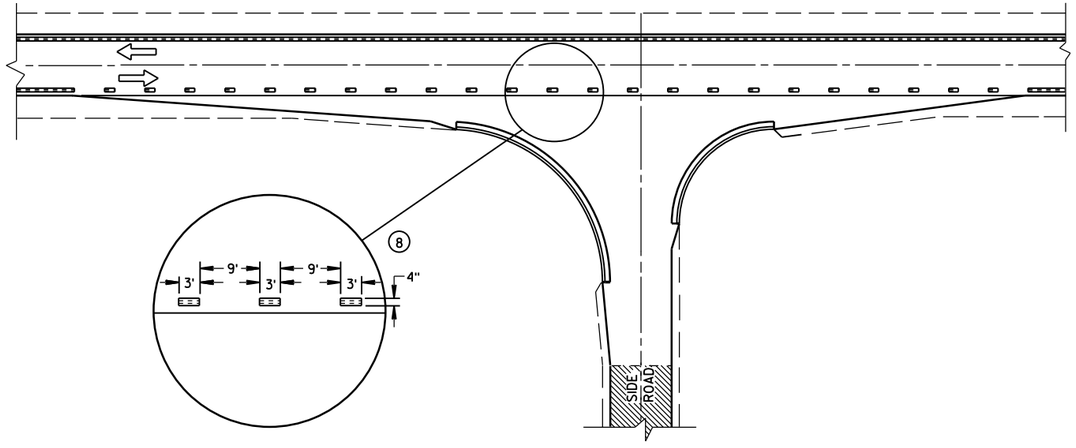
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

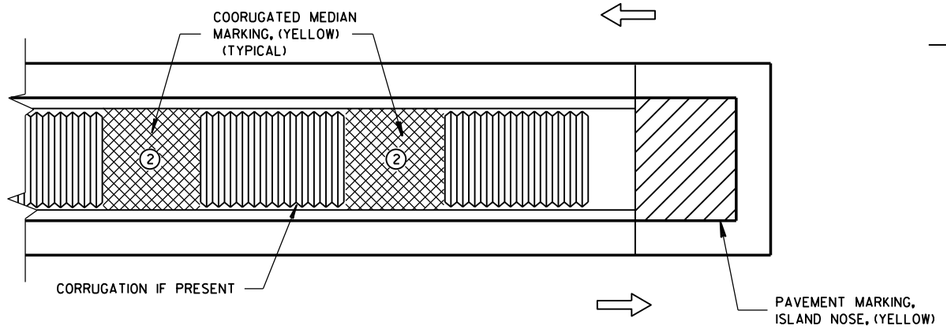
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

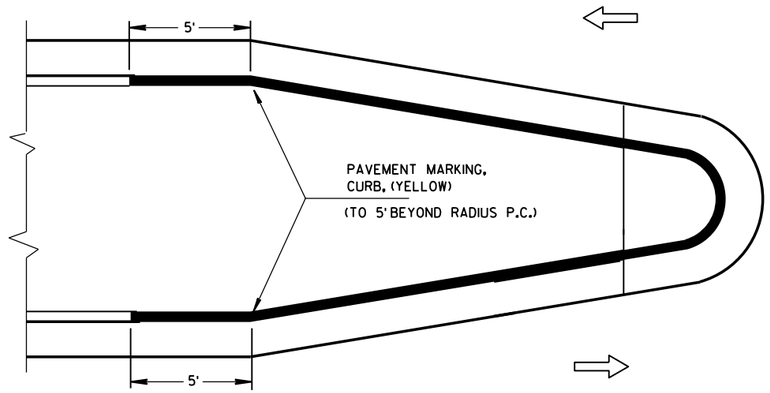
S.D.D. 15 C 8-16b

6

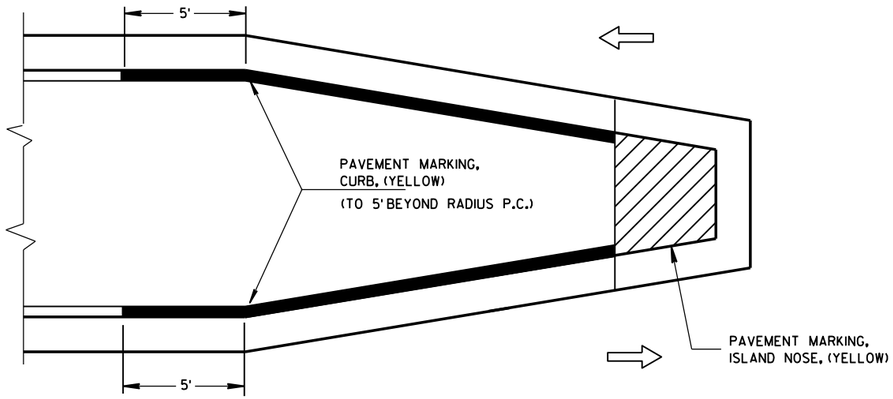
S.D.D. 15 C 8-16b



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

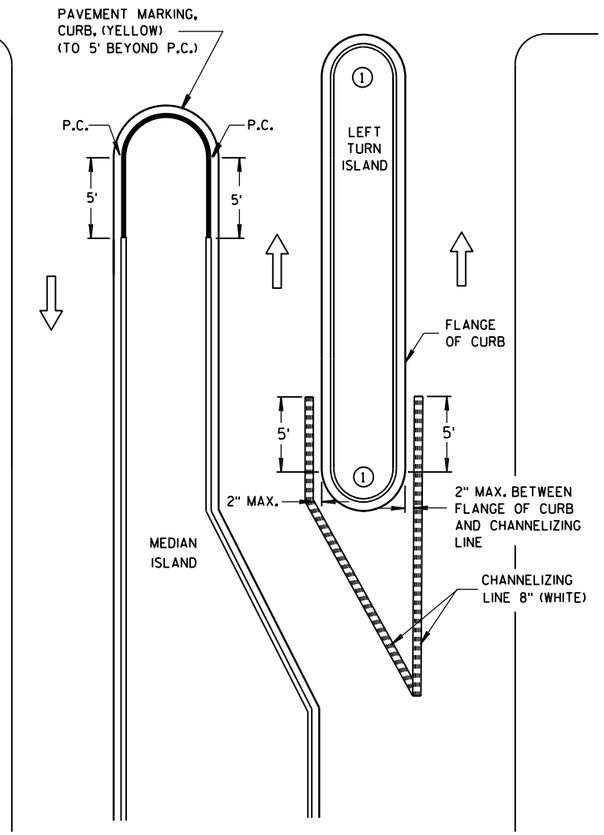


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

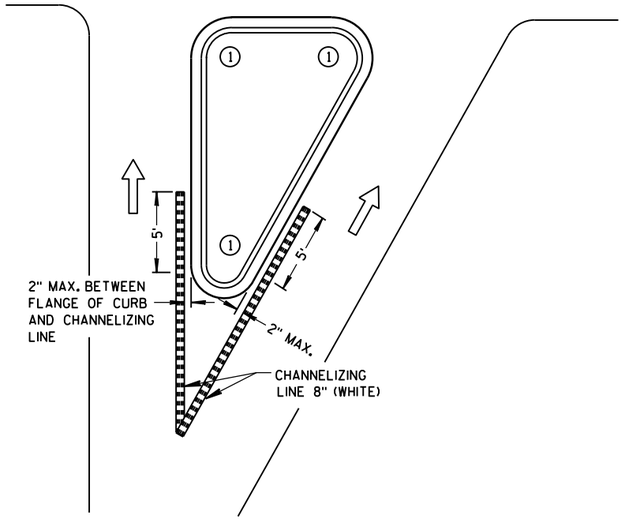


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

2. WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

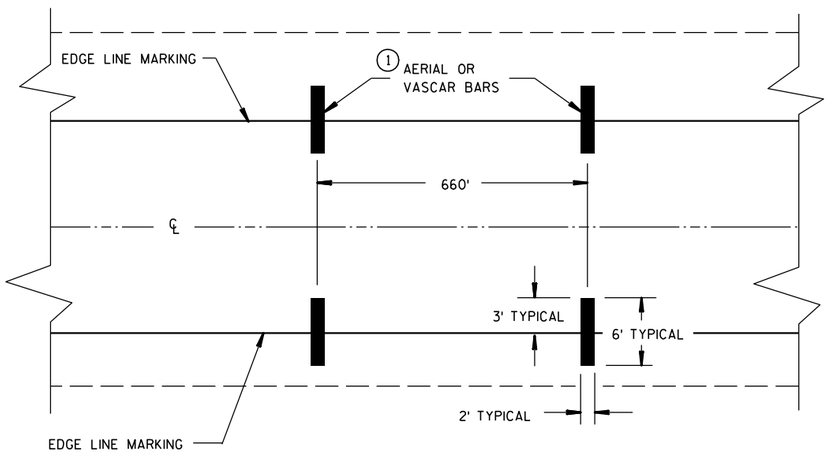
6

S.D.D. 15 C 8-16f

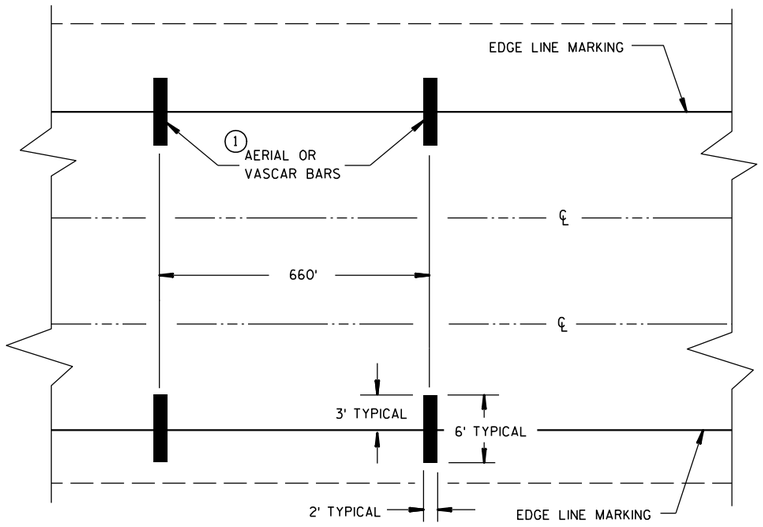
GENERAL NOTES

(1) NUMBER OF VASCAR OR AERIAL BARS SHALL BE A MINIMUM OF 2 OR A MAXIMUM OF 5 AT 660' SPACING.

A CAR CAN BE PROVIDED BY THE WISCONSIN STATE PATROL FOR TRAFFIC CONTROL.



TYPICAL FOR TWO WAY OR ONE WAY TRAFFIC



TYPICAL FOR MULTILANE TRAFFIC

SPEED ENFORCEMENT ZONE WITH AERIAL OR VASCAR BARS

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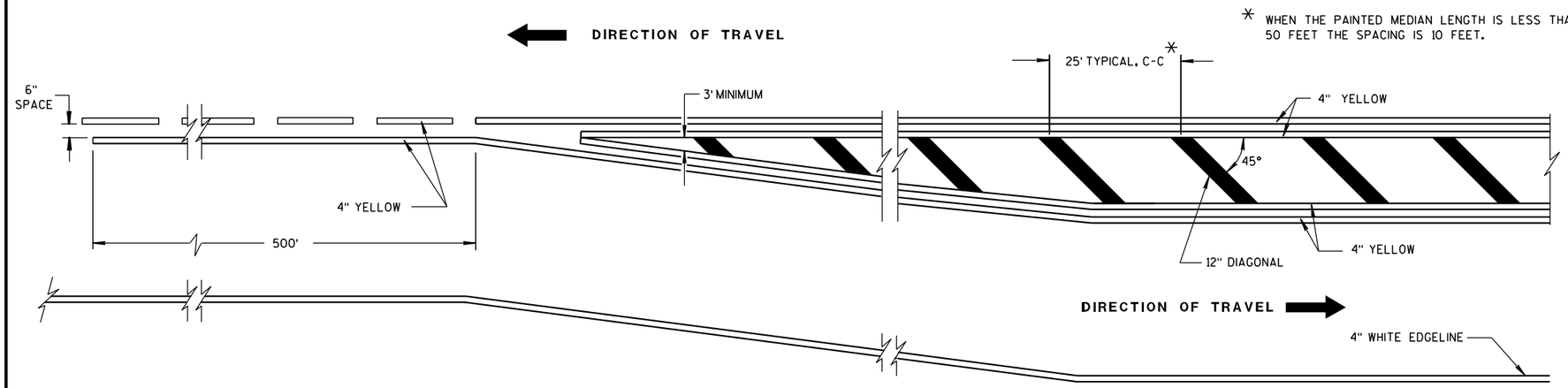
S.D.D. 15 C 14-1

AERIAL ENFORCEMENT BARS PAVEMENT MARKING DETAILS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4/23/01 DATE	/S/ Chester L Spong CHIEF SIGNS AND MARKINGS ENGINEER
FHWA	

6

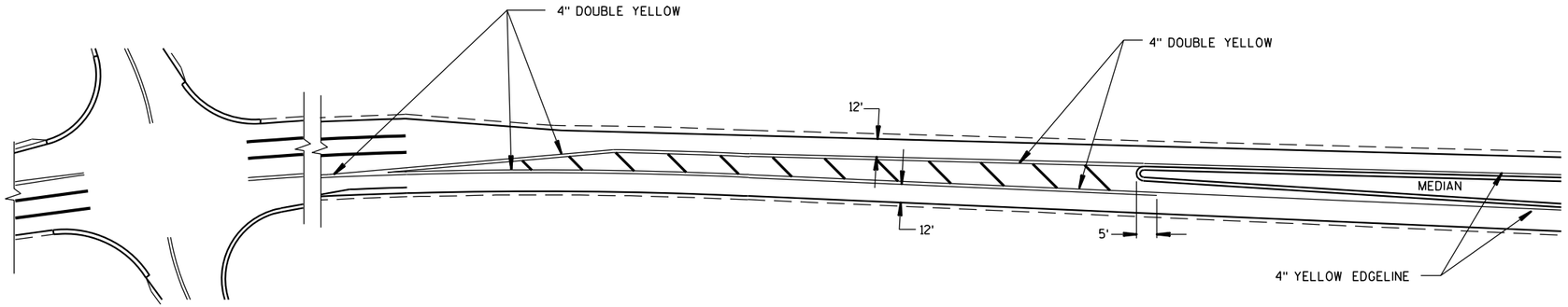
S.D.D. 15 C 14-1



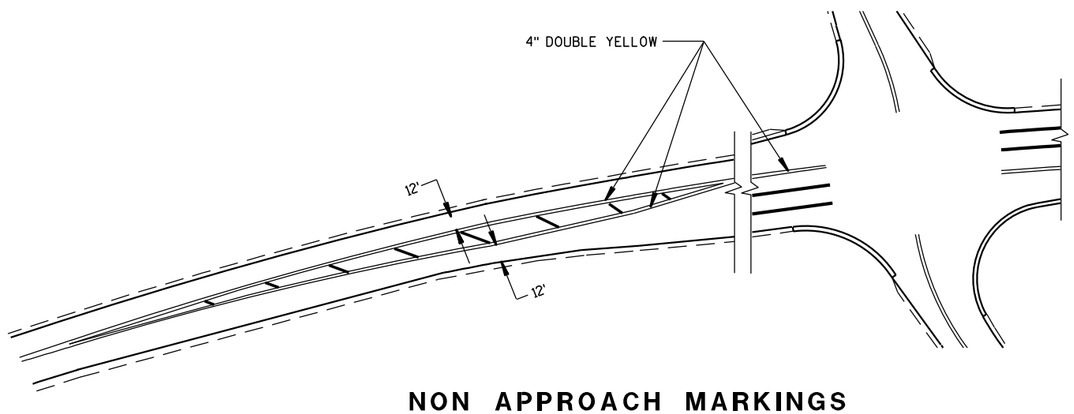
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER
FHWA	

6

S.D.D. 15 C 18-3

GENERAL NOTES

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

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

SIGN SUPPORTS SHALL BE LOCATED NORMAL TO ROADWAY.

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

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

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

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

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

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

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

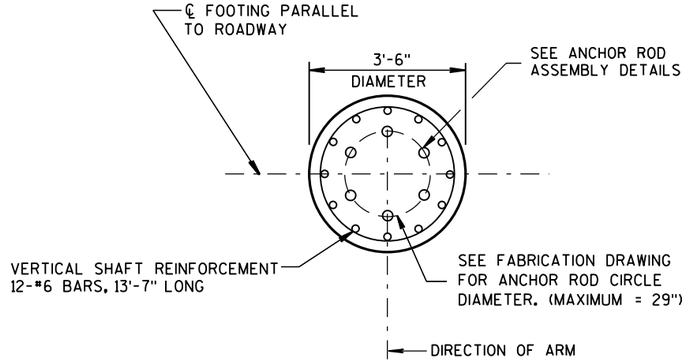
THE REINFORCEMENT AND ANCHOR RODS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

FORM ALL EXPOSED CONCRETE CORNERS WITH ¾" CHAMFER ALL AROUND. TOP OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

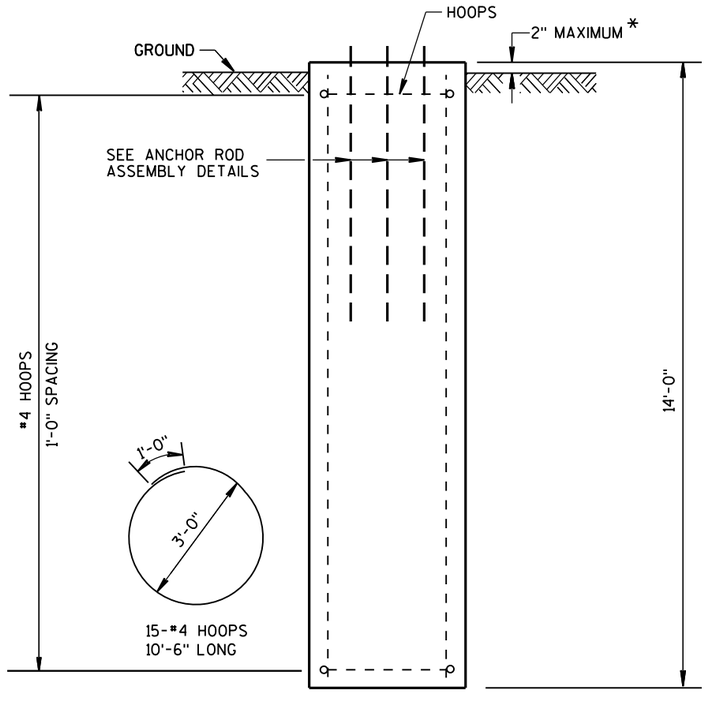
ANY DAMAGE TO THE CONCRETE BASE AND ANCHOR RODS DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554, GRADE 55	fy=55,000 p.s.i.
ASTM A563A HEAVY HEX NUTS, AND ASTM F436 WASHERS.	
PLATES, ASTM A709, GRADE 36	fy=36,000 p.s.i.

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

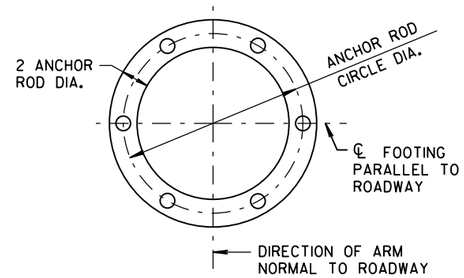


PLAN VIEW

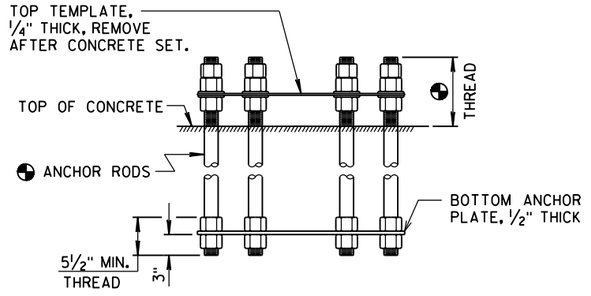


ELEVATION VIEW

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



TOP TEMPLATE AND BOTTOM ANCHOR PLATE



ANCHOR ROD ASSEMBLY DETAILS

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

CONCRETE - 5.0 C.Y. PER FOOTING
H.S. REINFORCEMENT - 350 LBS. PER FOOTING

42" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2016 — DATE
/S/ Vu Thao — WIND LOADED STR PROGRAM LEA
FHWA

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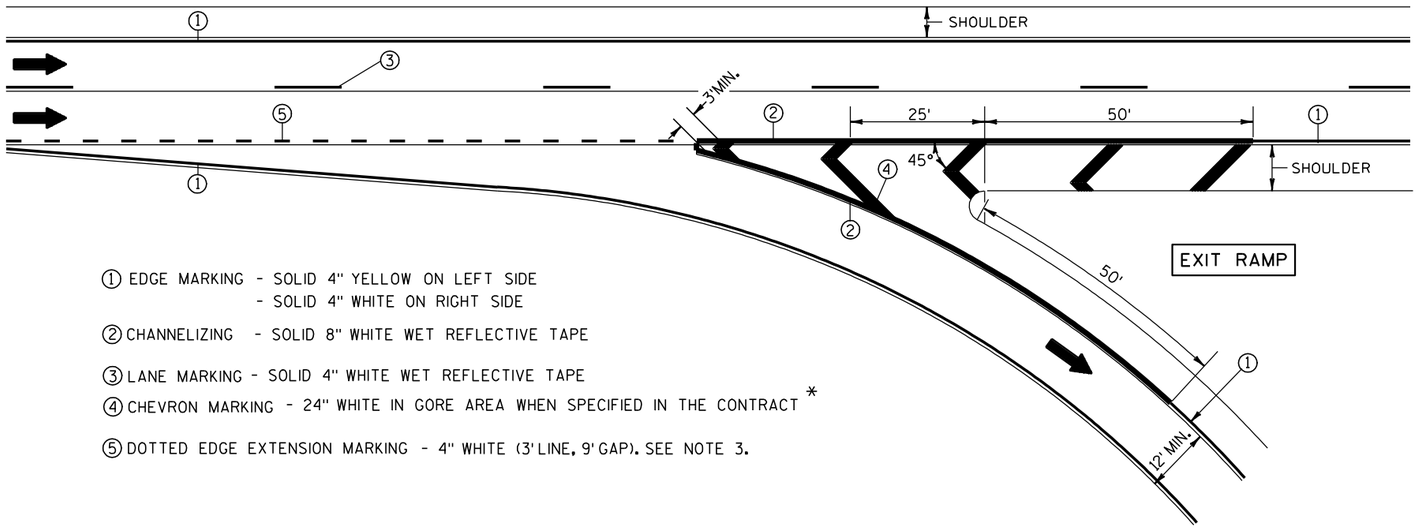
S.D.D. 15 C 25-3

6

S.D.D. 15 C 25-3



① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE

② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE

③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE

④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT *

⑤ DOTTED EDGE EXTENSION MARKING - 4" WHITE (3' LINE, 9' GAP). SEE NOTE 3.

NOTES:

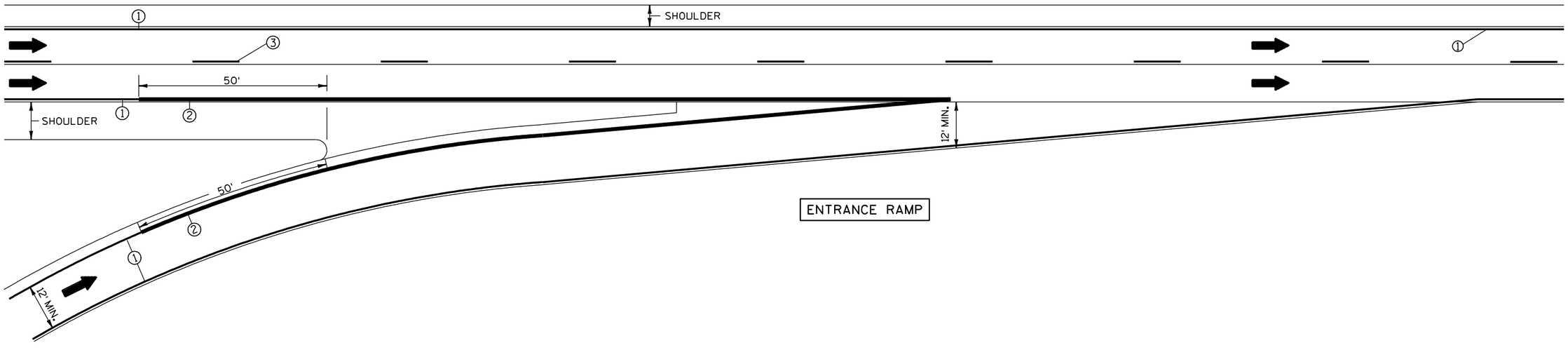
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

3. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

4. RETRACE EXISTING DIAGONAL MARKINGS.

* REFER TO DESIGN NOTES.



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S.D.D. 15 C 31-1a

PAVEMENT MARKING (RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 31-1a

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA

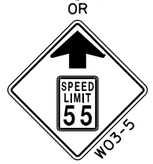
L, TAPER LENGTH (MPH)									
SPEED (MPH)	W, LATERAL OFFSET (FT)								
	10	11	12	13	14	15	16	17	18
45	450	495	540	585	630	675	720	765	810
50	500	550	600	650	700	750	800	850	900
55	550	605	660	715	770	825	880	935	990
60	600	660	720	780	840	900	960	1020	1080
65	650	715	780	845	910	975	1040	1105	1170
70	700	770	840	910	980	1050	1120	1190	1260

W12-52P 42"x36" EACH LANE

OR

INSTALL ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER. WIDTH ON SIGN TO BE APPROX. 1 FOOT LESS THAN AVAILABLE WIDTH (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET).

OR



LOCATED 2600 FEET IN ADVANCE OF R2-1 SIGN AND 500 FEET BEYOND THE "ROAD WORK 1 MILE" SIGN.

OR

R2-1 48"x60" (BLACK AND WHITE) LOCATED 500 FEET BEYOND W20-5G SIGN.

IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES.

* INCLUDE RESUME SPEED LIMIT SIGN A MINIMUM OF 200 FEET (500 FEET DESIRABLE) AFTER END ROAD WORK SIGNS.

GENERAL NOTES

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

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

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

ALL SIGNS ARE 48"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 OR AS APPROVED BY THE ENGINEER.

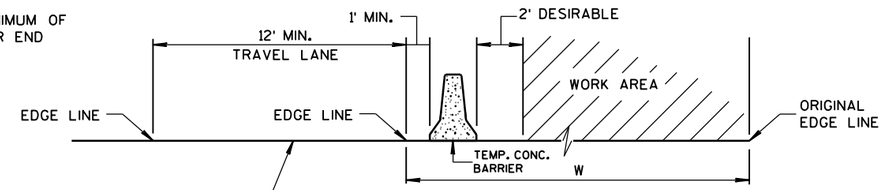
(1) CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUM TAPER.

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.

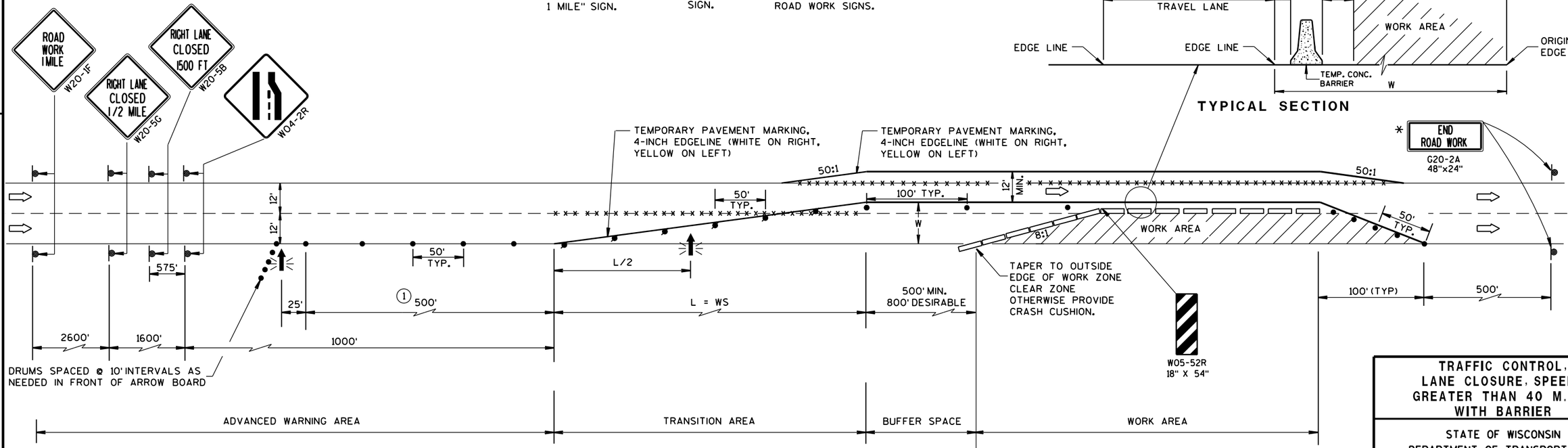
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 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.



TYPICAL SECTION



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED March 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZOI SAFETY ENGIN IC
FHWA

6

S.D.D. 15 D 3-3

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S.D.D. 15 D 3-3

LEGEND

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

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 DESIREABLE) DISTANCE TO EXISTING SIGNS.

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

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD 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 IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

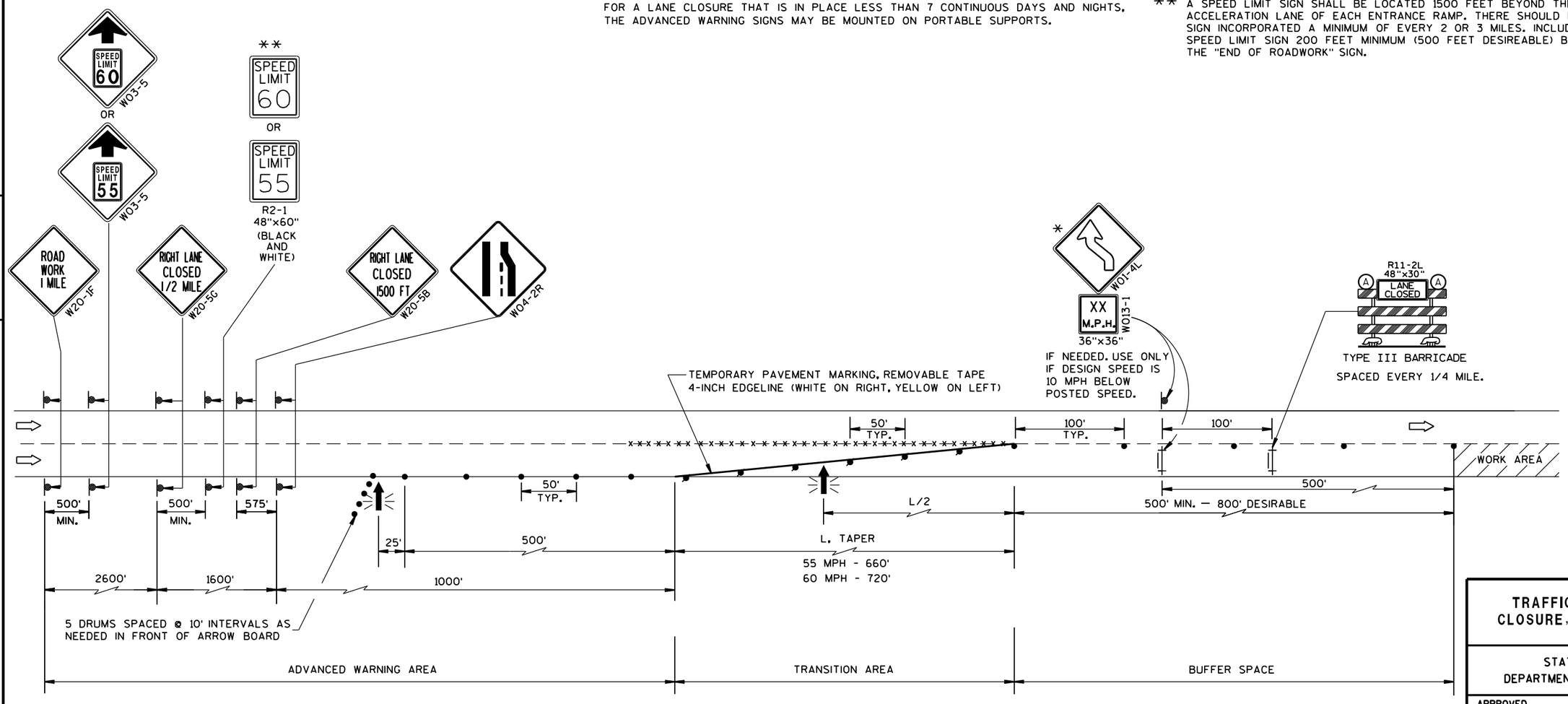
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST 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.

* THE LEFT REVERSE CURVE SIGN (W01-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

6

S.D.D. 15 D 12-6b

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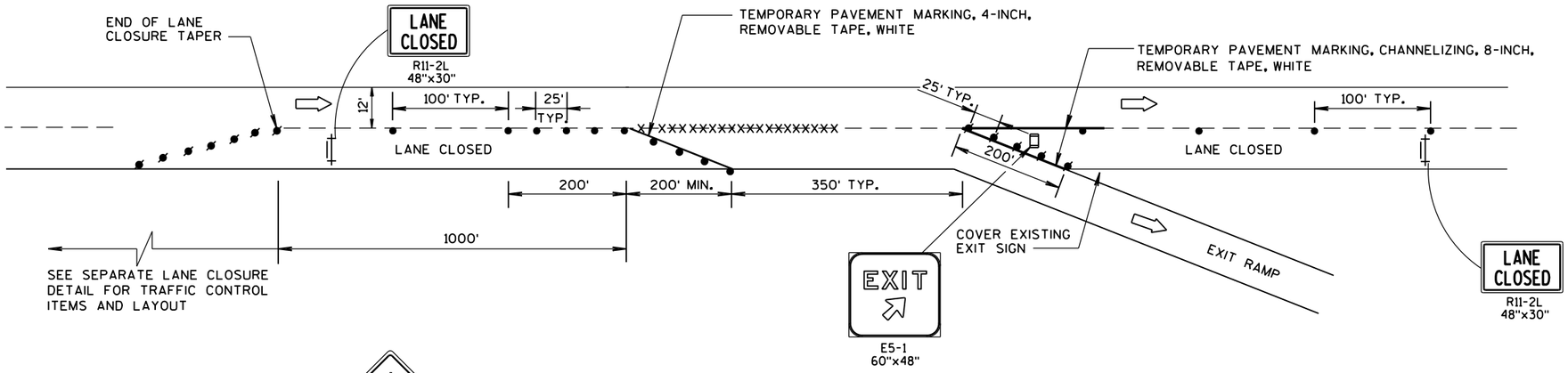
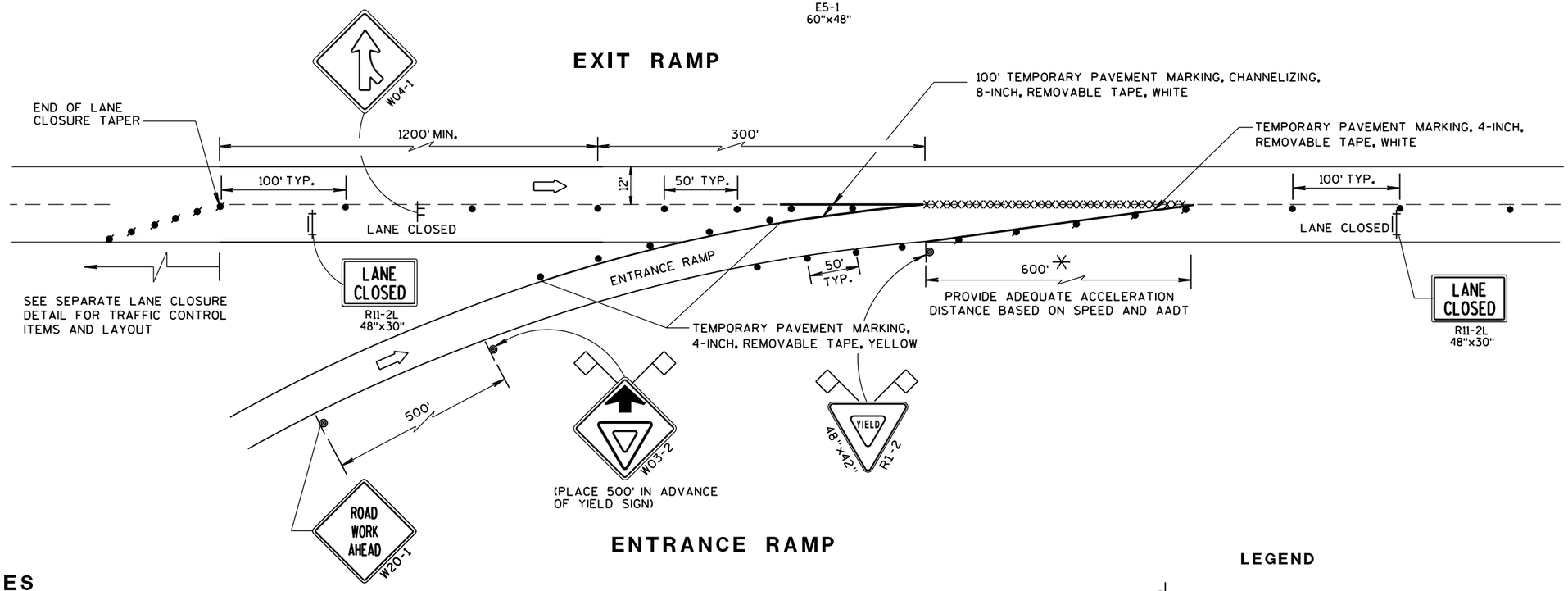
S.D.D. 15 D 12-6b



EXIT RAMP



ENTRANCE RAMP

GENERAL NOTES

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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

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

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

* LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGS, 16" x 16" MIN., (ORANGE)
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

S.D.D. 15 D 15-2

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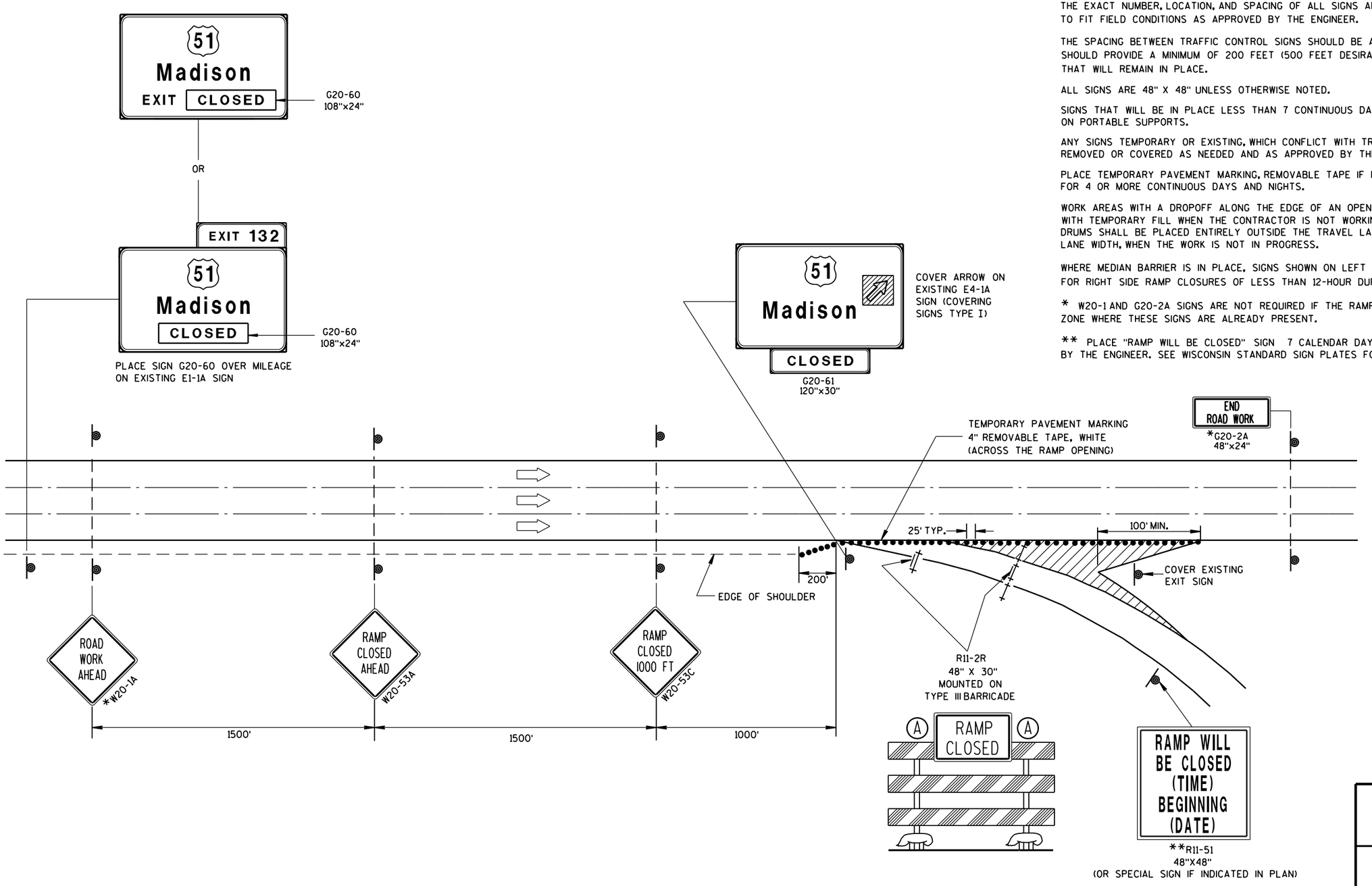

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

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

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

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

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

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

PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROPOFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN THE WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12-HOUR DURATION.

* W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO SAFETY ENGI FIC
FHWA

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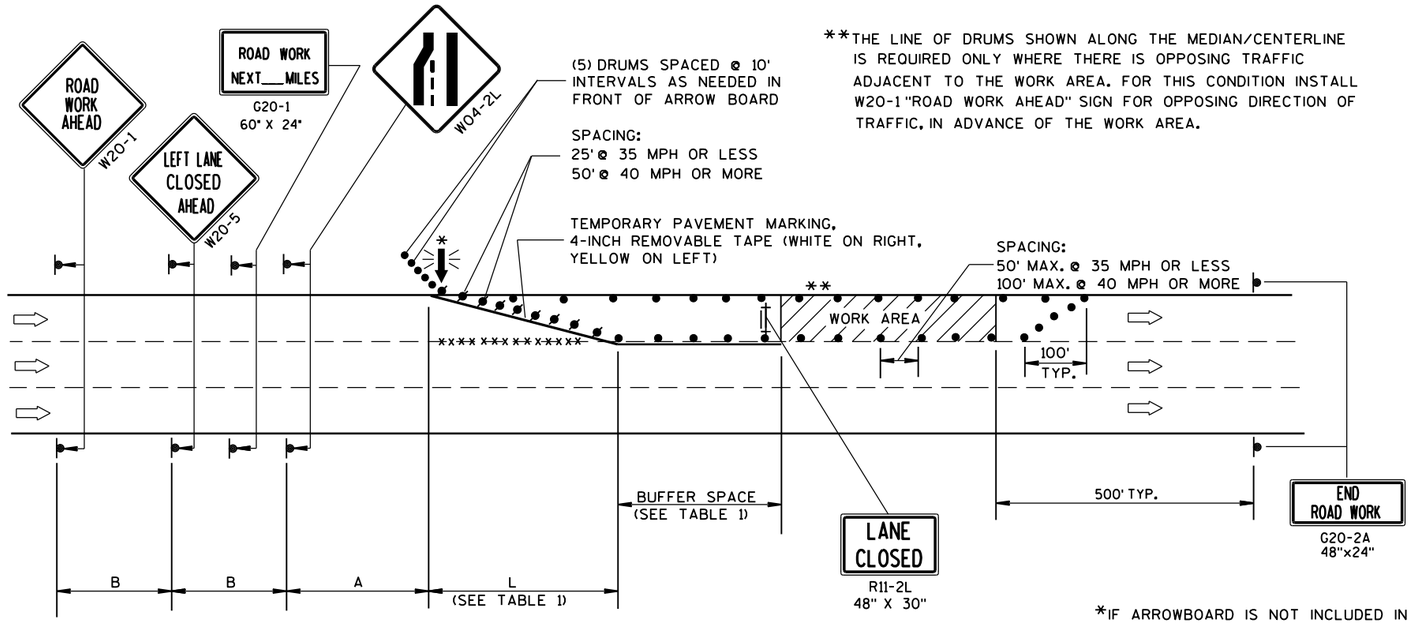


**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

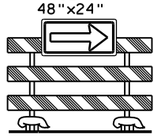


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

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

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

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 DISTRICT TRAFFIC UNIT.

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

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 PORTABLE SUPPORTS.

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

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

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1, 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.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

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

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

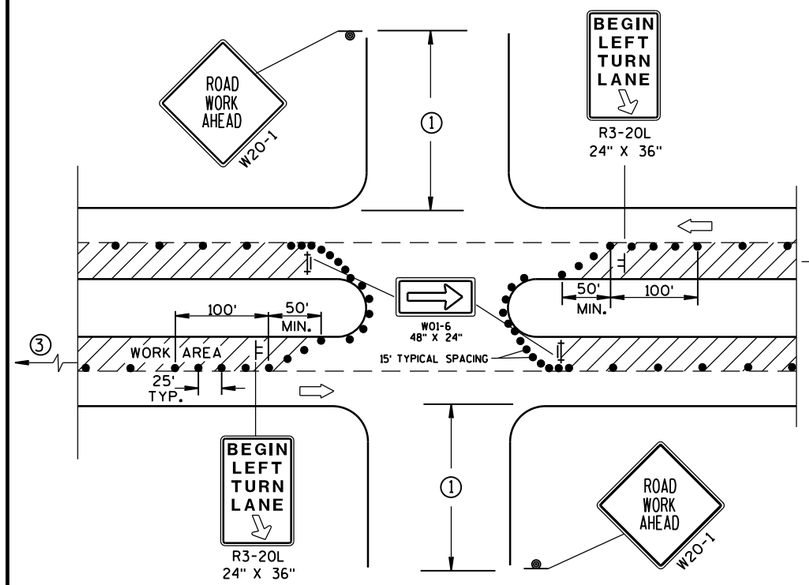
TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

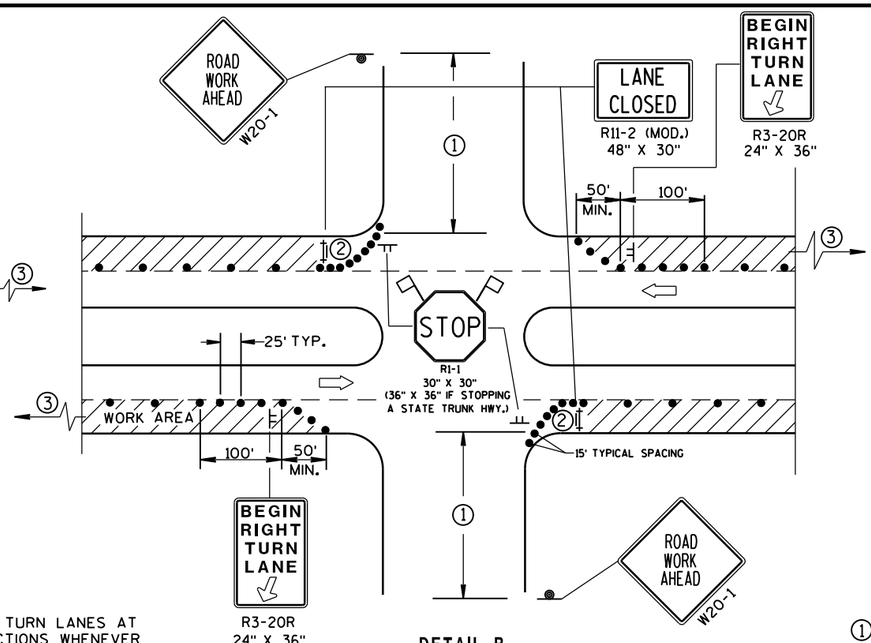
S.D.D. 15 D 20-3



DETAIL A

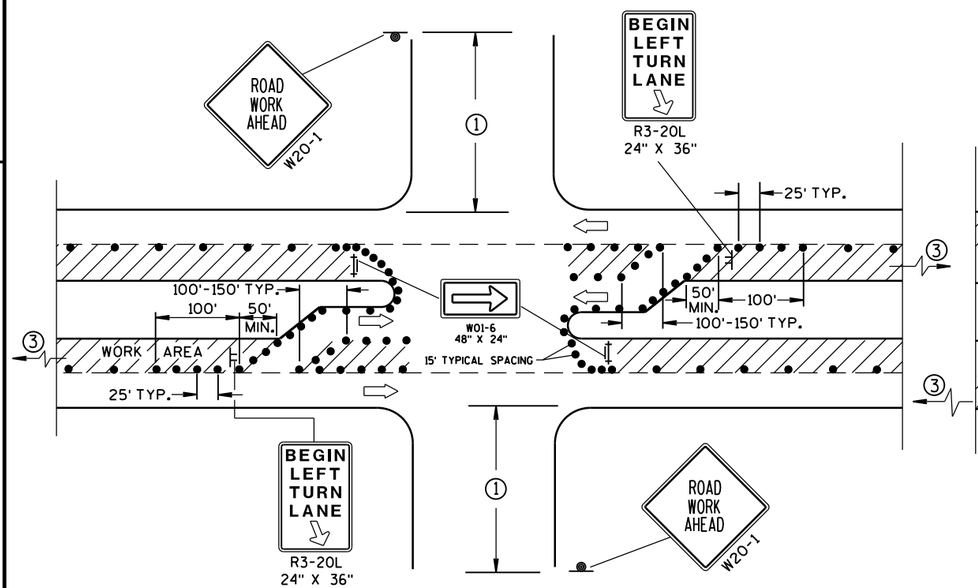
FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



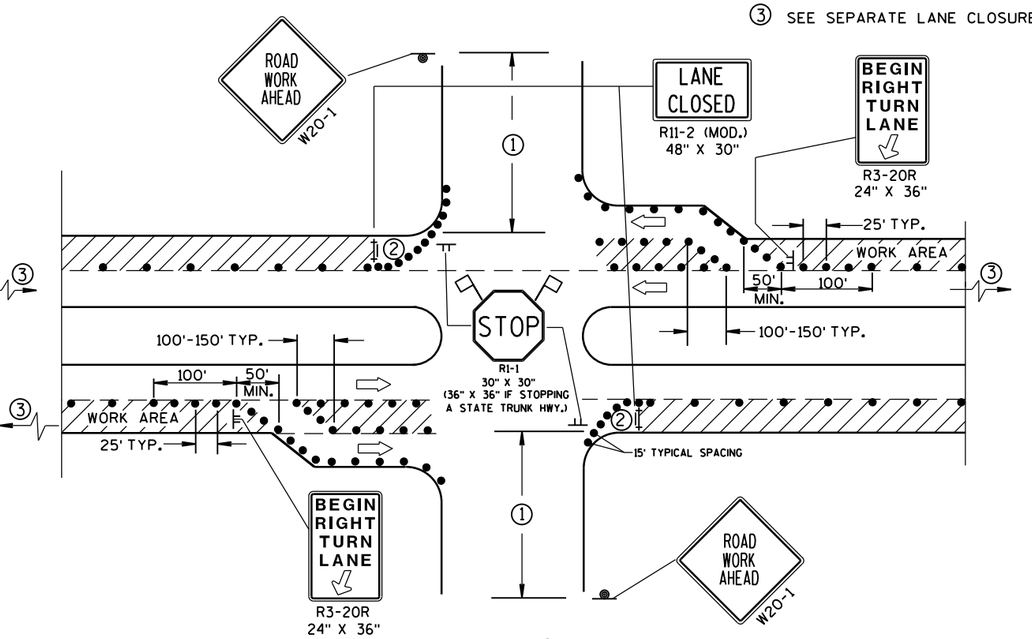
DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

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 SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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 DISTRICT TRAFFIC UNIT.

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

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

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

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

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.

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Nov. 2014 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 D 21-3

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

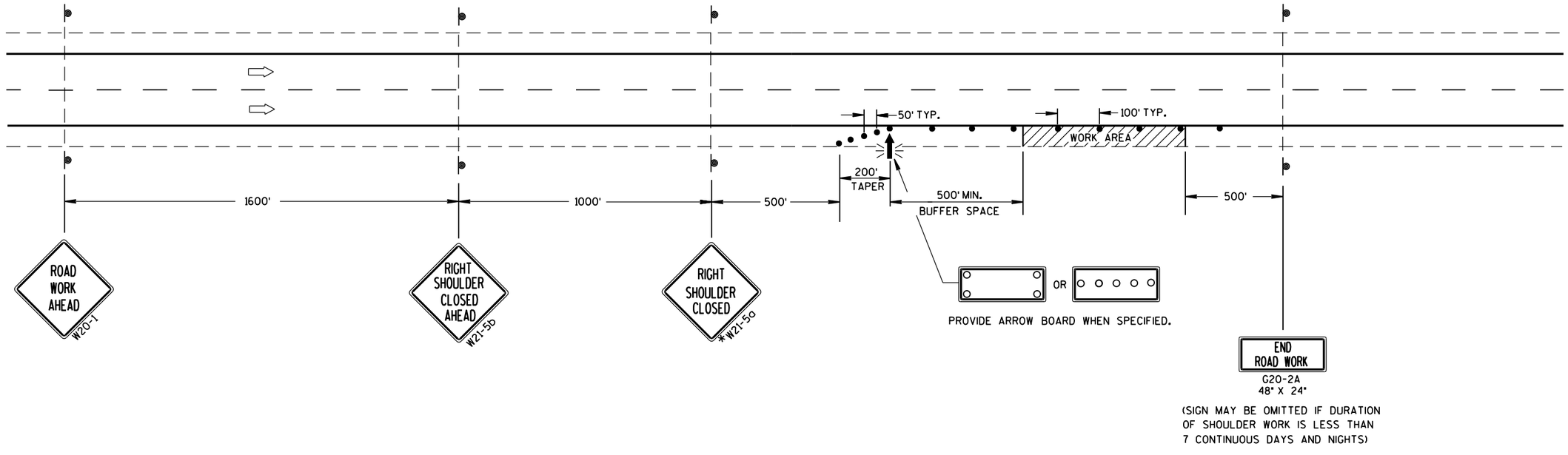
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

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

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

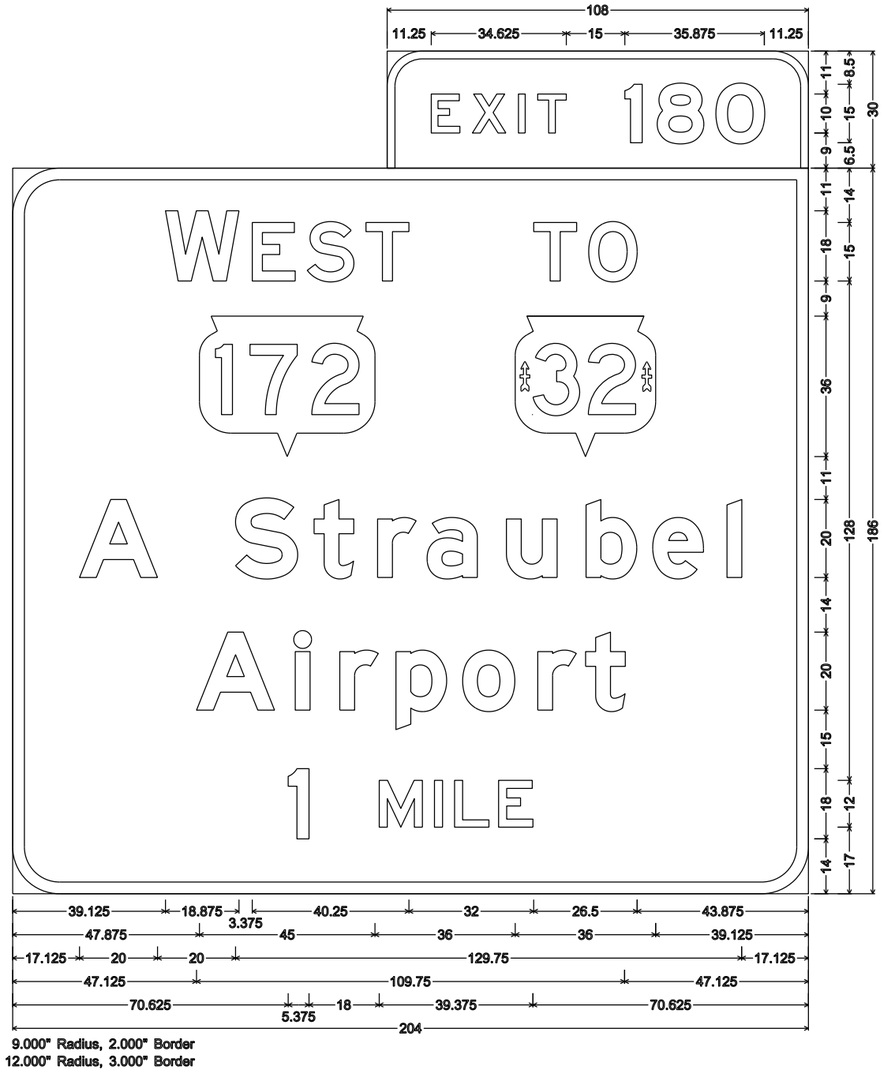
6

S.D.D. 15 D 27-2

NOTES

1. Signs are Type I - Type SH Reflective except as noted
2. Color:
   Background - Green except as noted
   Message - White except as noted
3. Message Series - Series E except as noted

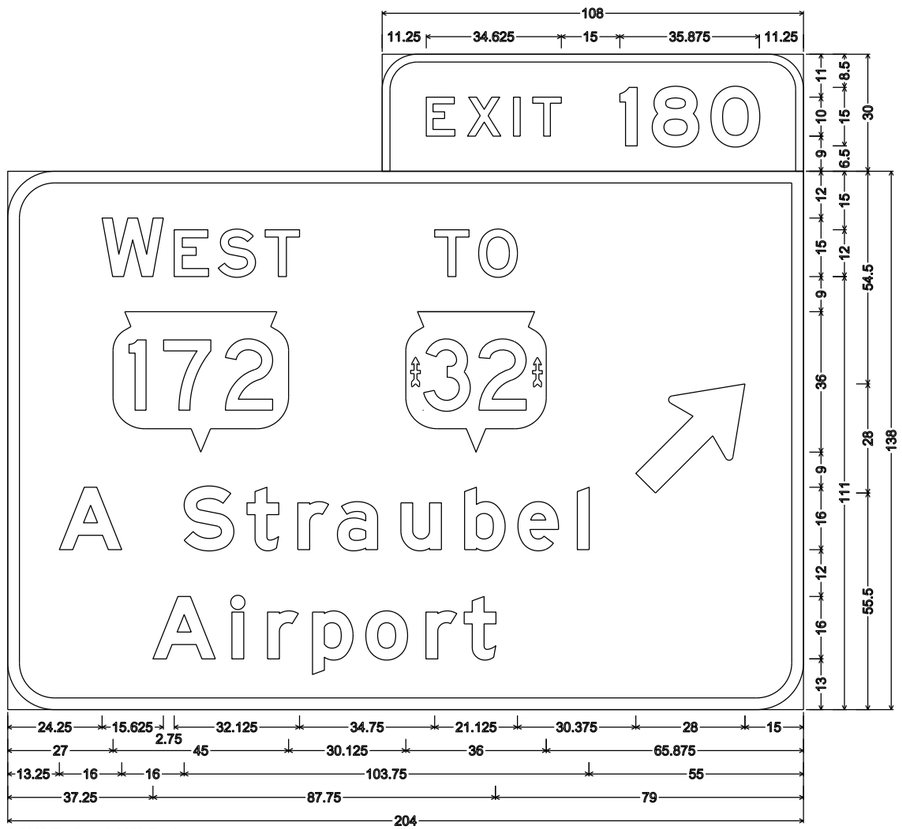
309A



9.000" Radius, 2.000" Border
12.000" Radius, 3.000" Border

309

315B



9.000" Radius, 2.000" Border
12.000" Radius, 3.000" Border

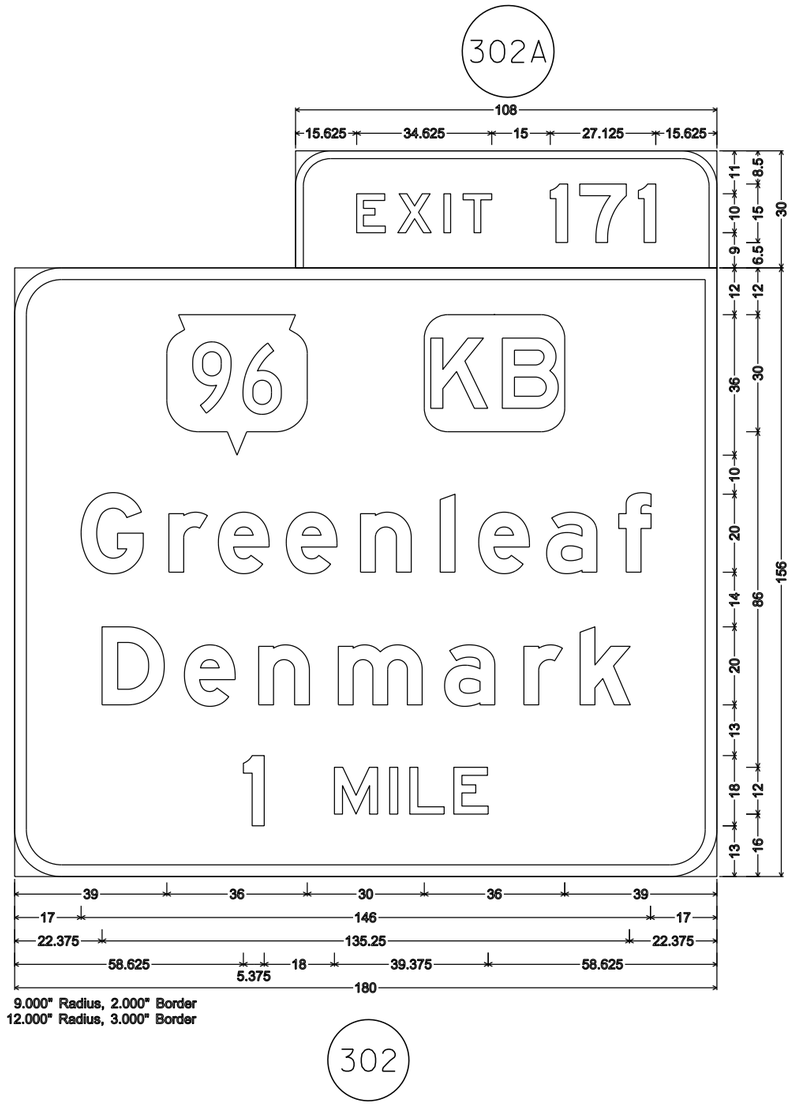
315A

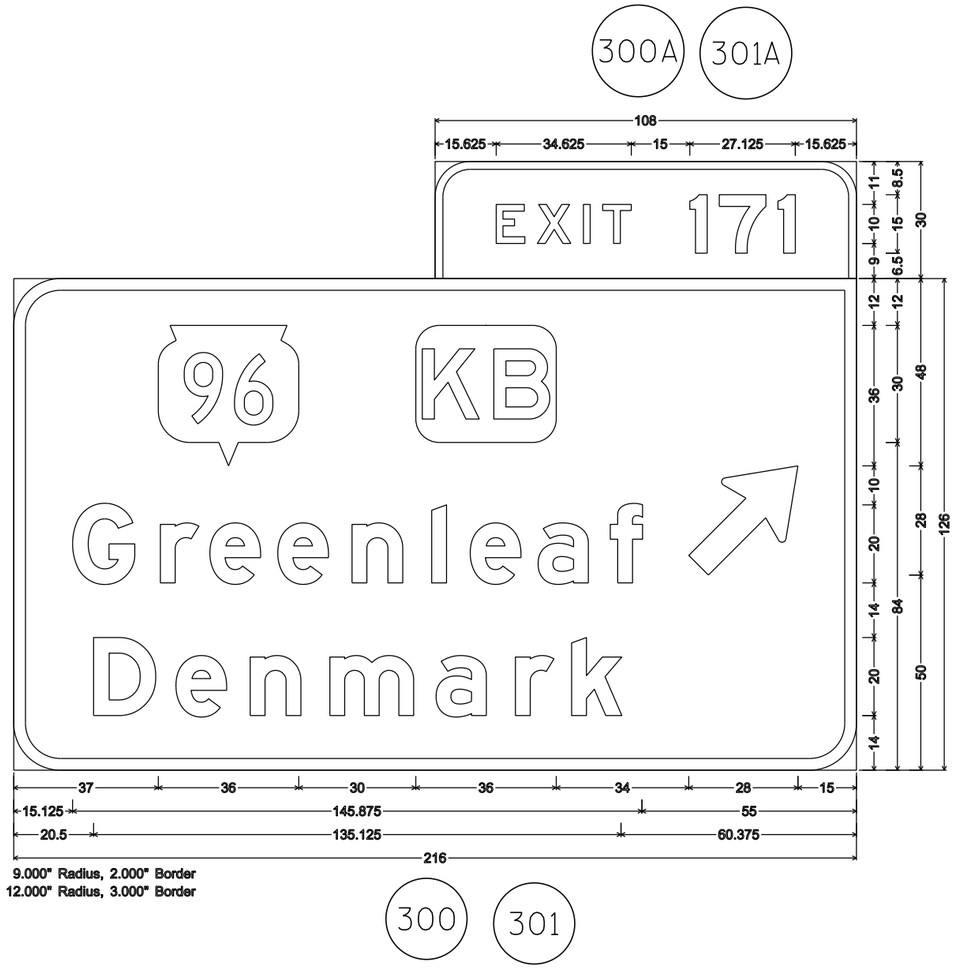
7

7

NOTES

1. Signs are Type I - Type SH Reflective except as noted
2. Color:
   Background - Green except as noted
   Message - White except as noted
3. Message Series - Series E except as noted





7

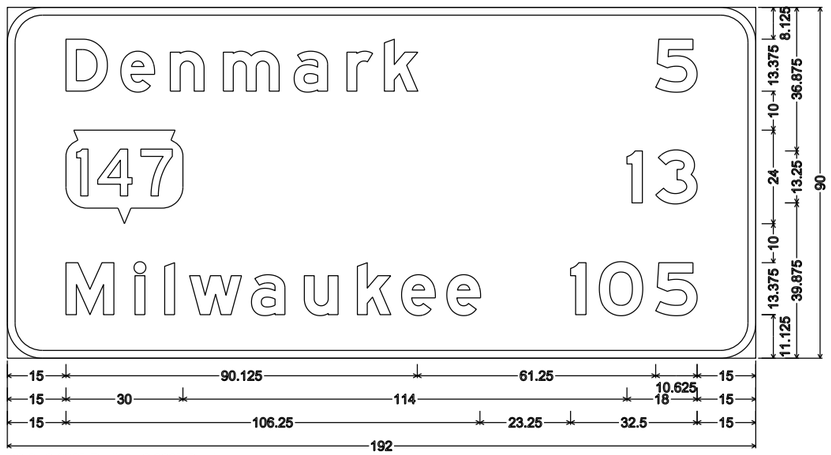
7

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PERMANENT SIGNING	SHEET NO: 294	E

NOTES

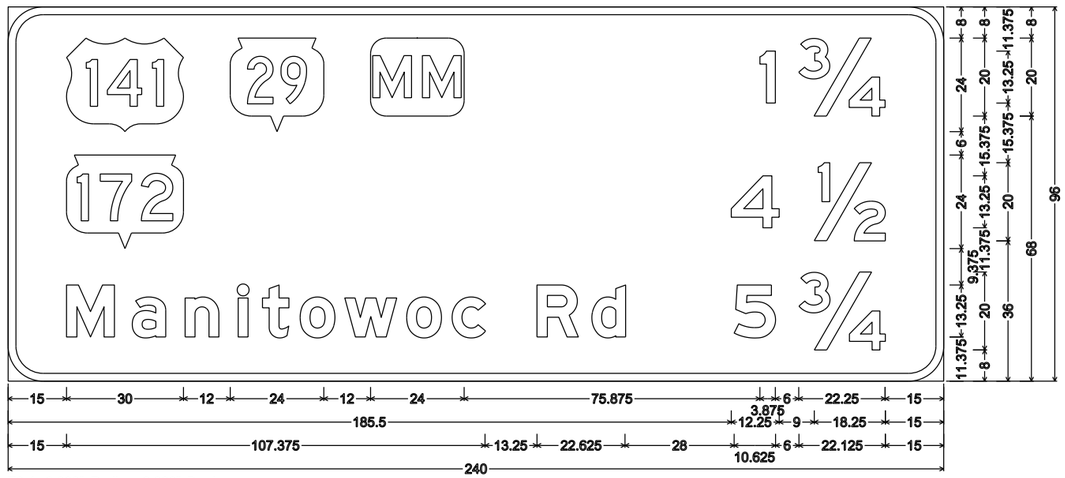
1. Signs are Type I - Type SH Reflective except as noted
2. Color:
   Background - Green except as noted
   Message - White except as noted
3. Message Series - Series E except as noted

306



D2-3; 9.000" Radius, 2.000" Border

304



E8-1; 9.000" Radius, 2.000" Border,

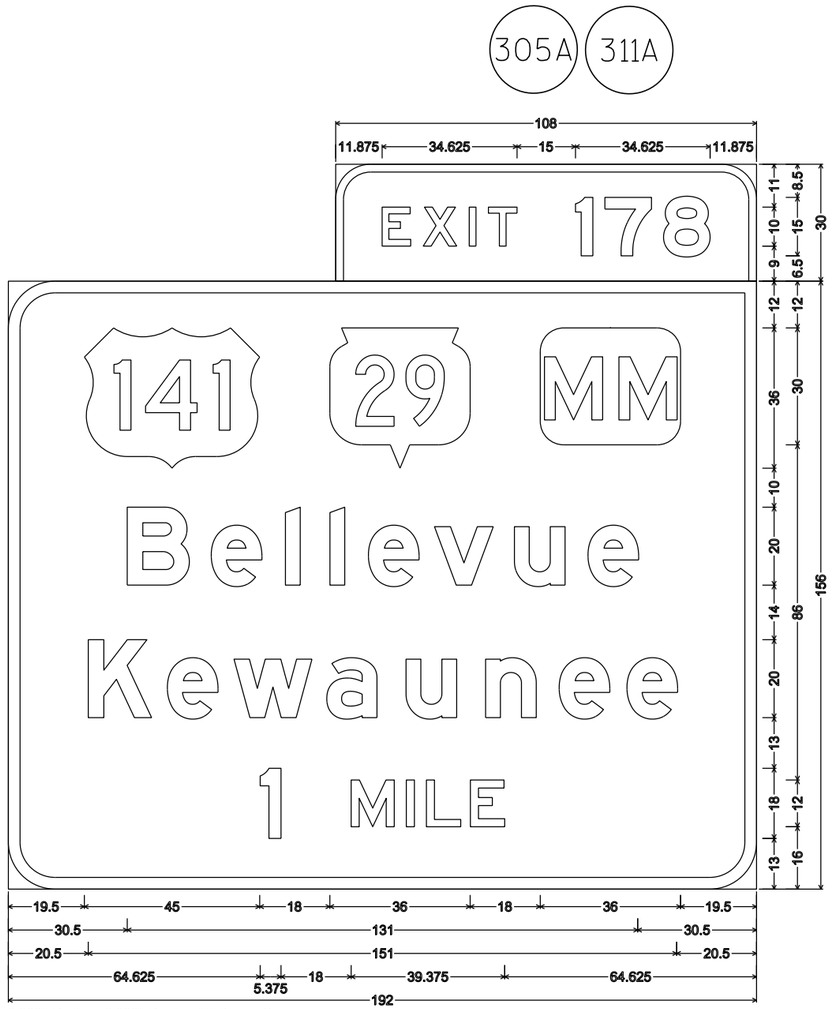
7

7

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PERMANENT SIGNING	SHEET NO: 295	E

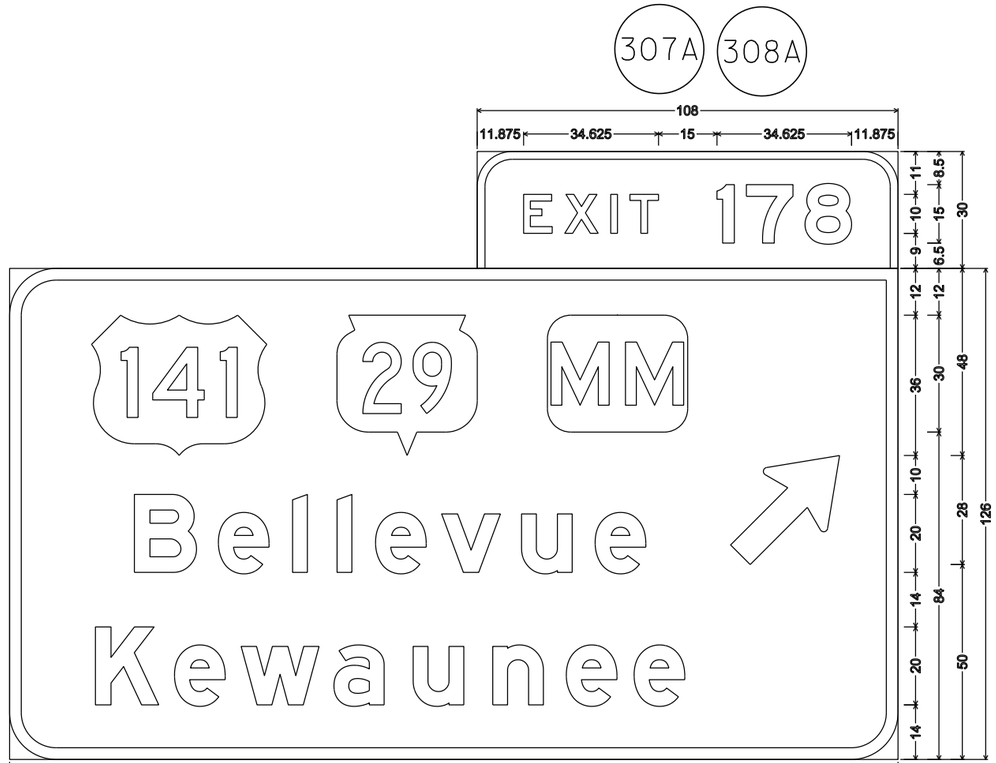
NOTES

1. Signs are Type I - Type SH Reflective except as noted
2. Color:
   Background - Green except as noted
   Message - White except as noted
3. Message Series - Series E except as noted



9.000" Radius, 2.000" Border, White on Green;
"EXIT" E specified length; "178" E Mod;
12.000" Radius, 3.000" Border, White on Green;
State Highway 29 M1-56; Square County MM M1-55-2; "Bellevue" E Mod; "Kewaunee" E Mod; "1" E; "MILE" E;

305 311



9.000" Radius, 2.000" Border
12.000" Radius, 3.000" Border

307 308

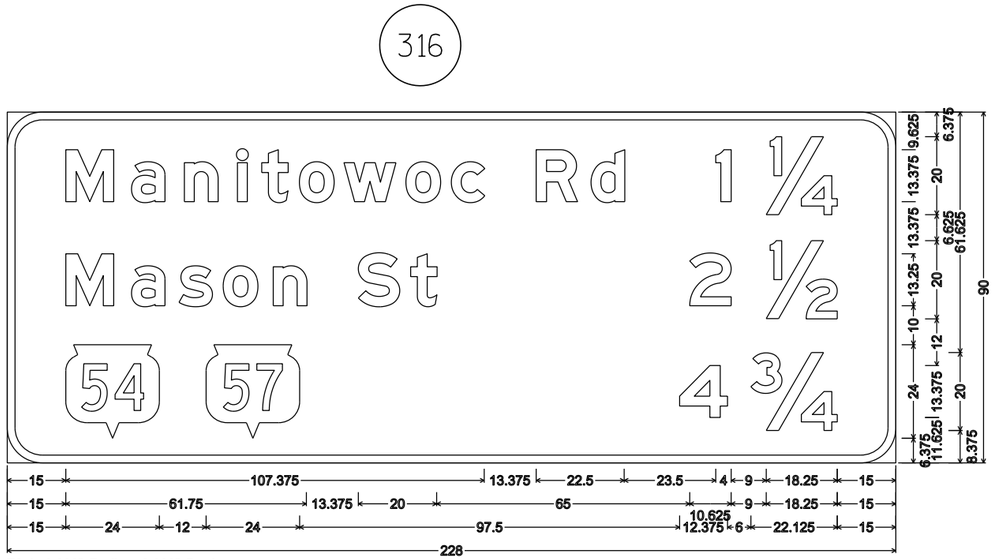
7

7

NOTES

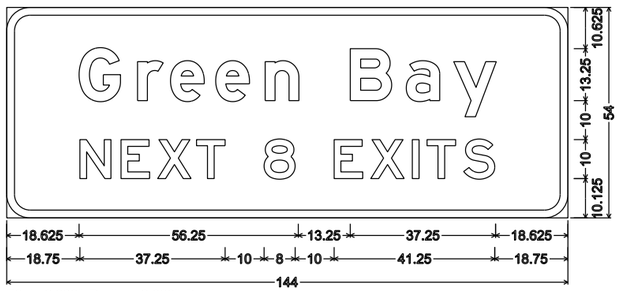
1. Signs are Type I - Type SH Reflective except as noted
2. Color:
   Background - Green except as noted
   Message - White except as noted
3. Message Series - Series E except as noted

316



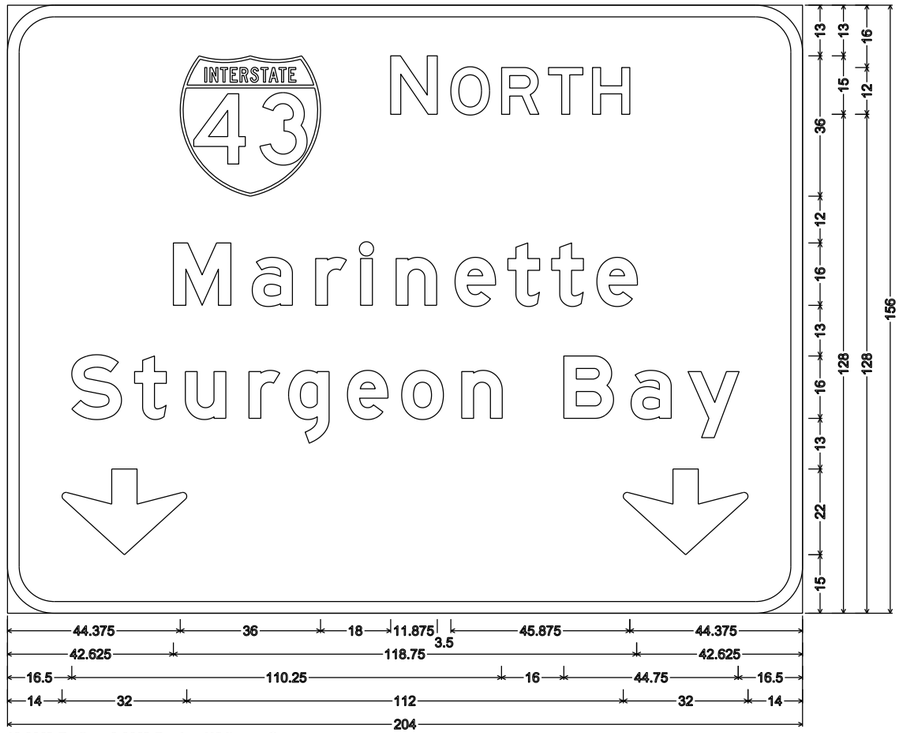
E8-1; 9.000" Radius, 2.000" Border

303



E3-1; 6.000" Radius, 2.000" Border

315



12.000" Radius, 3.000" Border, White on Green;

7

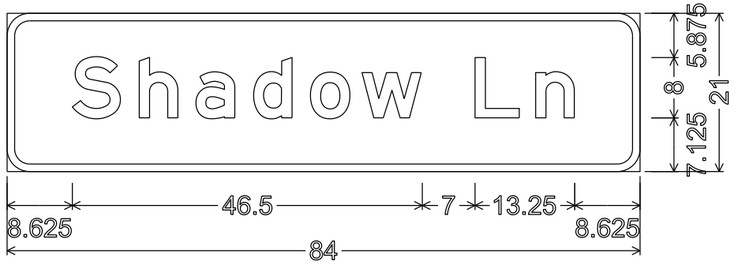
7

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PERMANENT SIGNING	SHEET NO: 297	E

NOTES

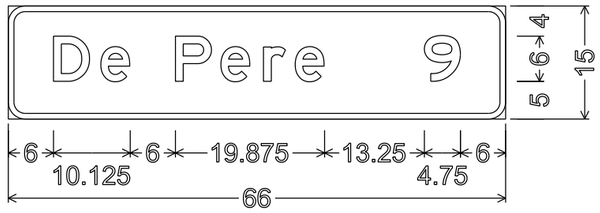
1. Signs are Type II- Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted

119 120



M1-94;
3.000" Radius, 1.000" Border

143

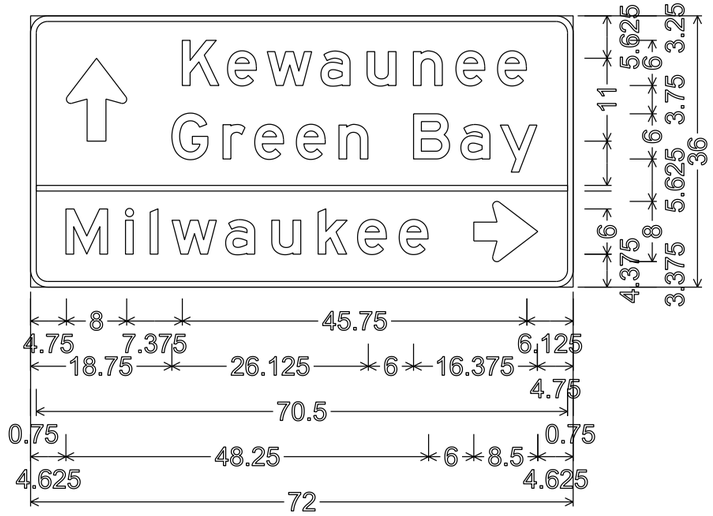


D2-1;
2.250" Radius, 0.750" Border

17

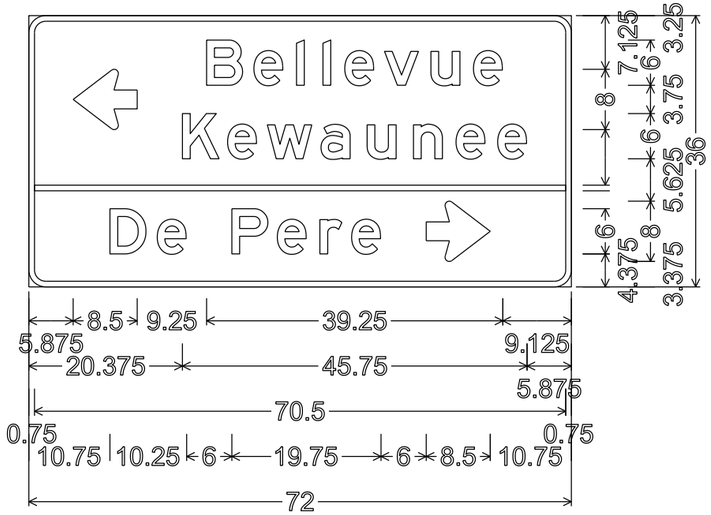
D1-3;
2.250" Radius, 0.750" Border

155



D1-3;
2.250" Radius, 0.750" Border

133



D1-3;
2.250" Radius, 0.750" Border

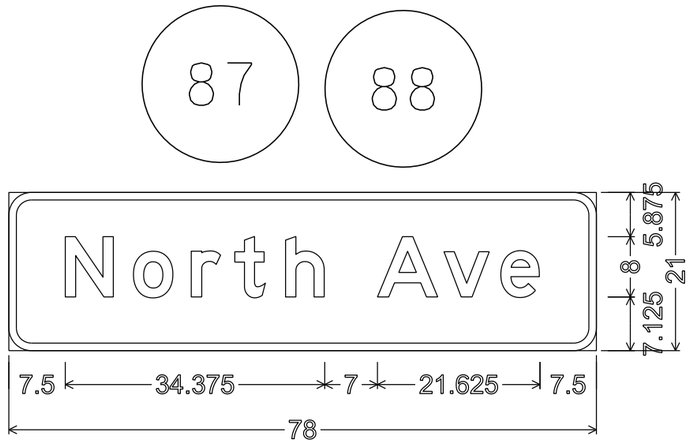
7

7

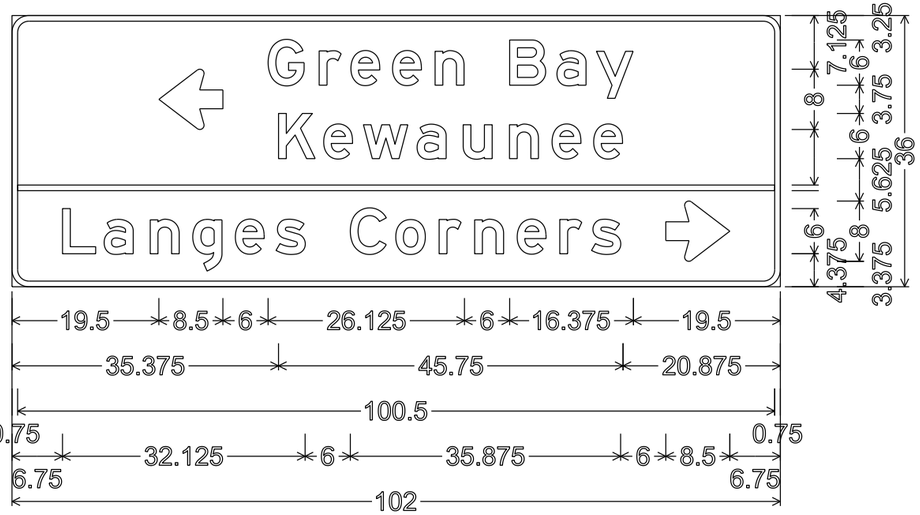
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PERMANENT SIGNING	SHEET NO: 298	E

NOTES

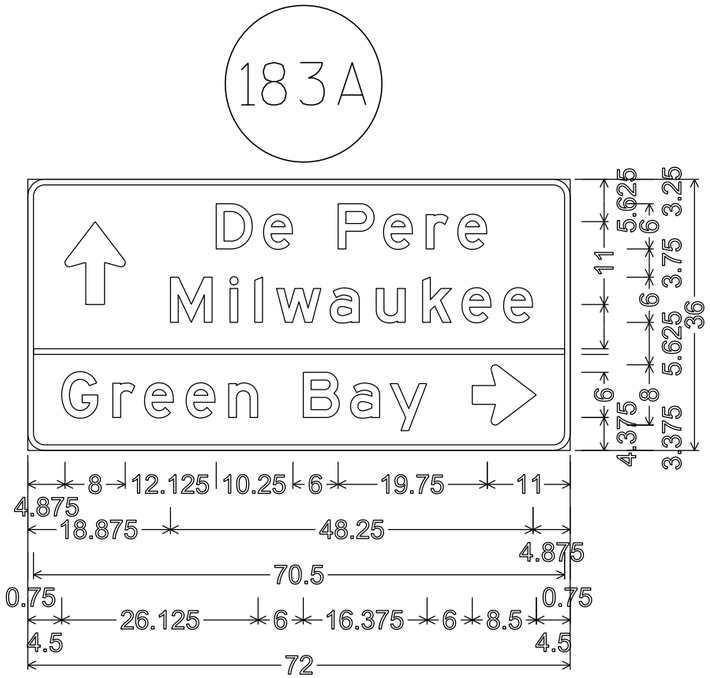
1. Signs are Type II- Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted



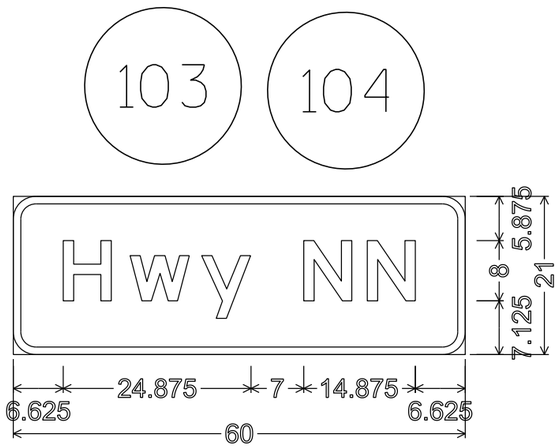
M1-94;
3.000" Radius, 1.000" Border



D1-3; 2.250" Radius, 0.750" Border,



D1-3;
2.250" Radius, 0.750" Border



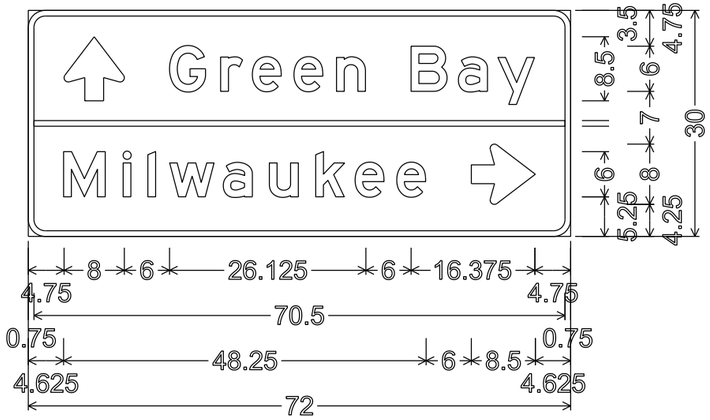
M1-94;
3.000" Radius, 1.000" Border

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PERMANENT SIGNING	SHEET NO: 299	E

NOTES

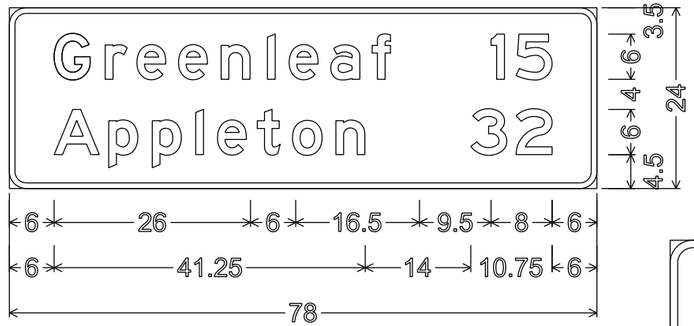
1. Signs are Type II- Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted

28B



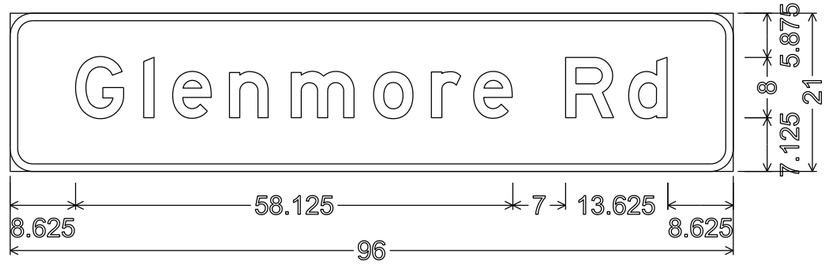
D1-2;
2.250" Radius, 0.750" Border

35



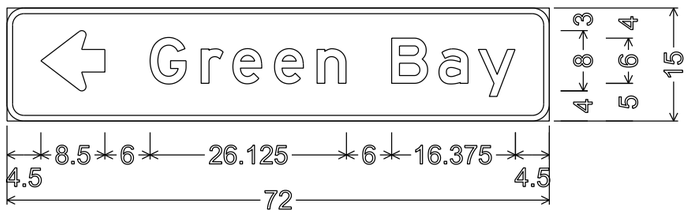
D2-2;
2.250" Radius, 0.750" Border

139 140



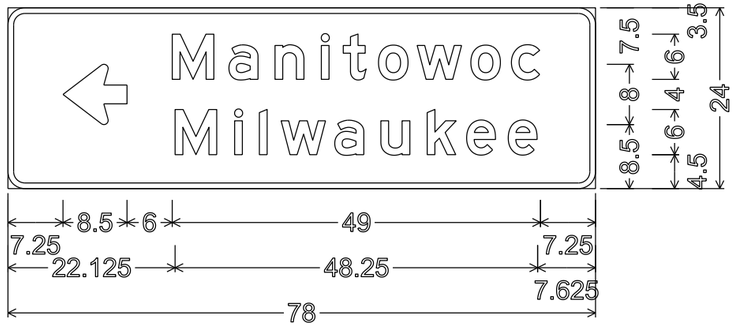
M1-94; 3.000" Radius, 1.000" Border

55



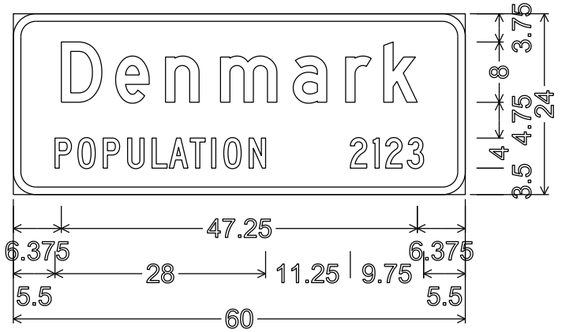
D1-1;
2.250" Radius, 0.750" Border,

176



D1-2;
2.250" Radius 0.750" Border

25



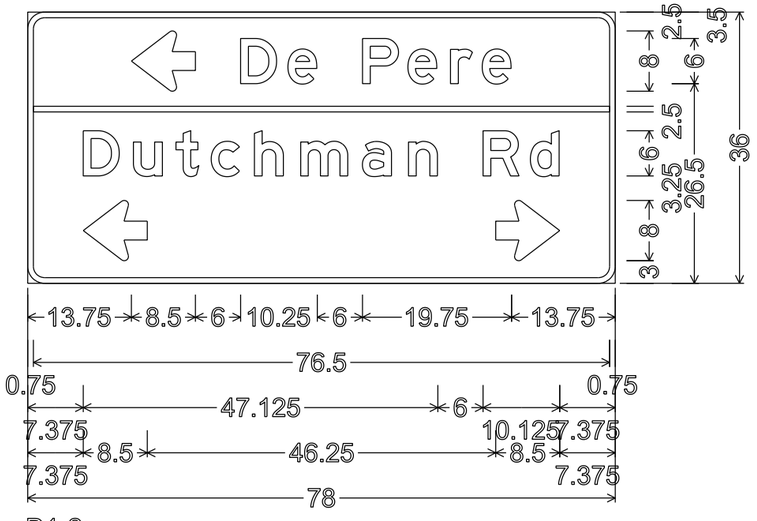
I2-3;
3.000" Radius, 1.000" Border,
"Denmark" D; "POPULATION" C; "2123" C

7

7

PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	PERMANENT SIGNING	SHEET NO: 300	E

128

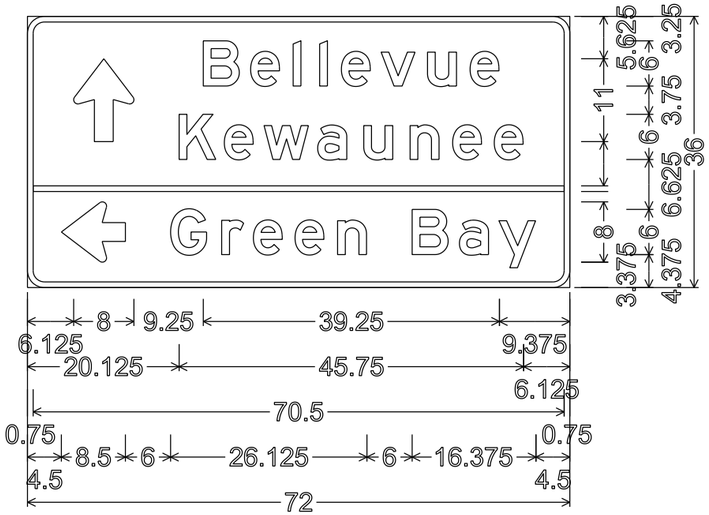


D1-2;
2.250" Radius, 0.750" Border

NOTES

1. Signs are Type II- Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted

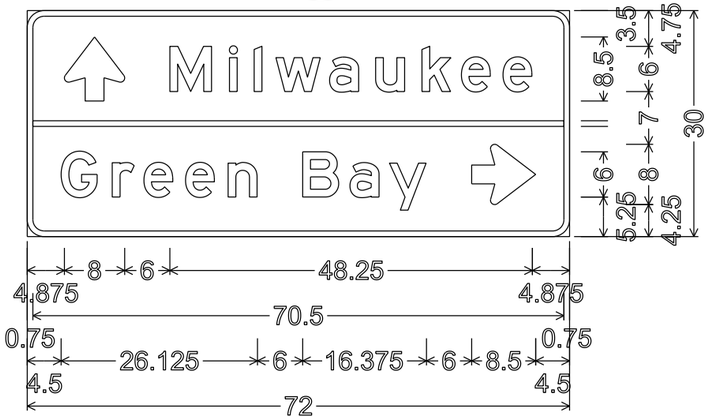
164



D1-3;
2.250" Radius, 0.750" Border

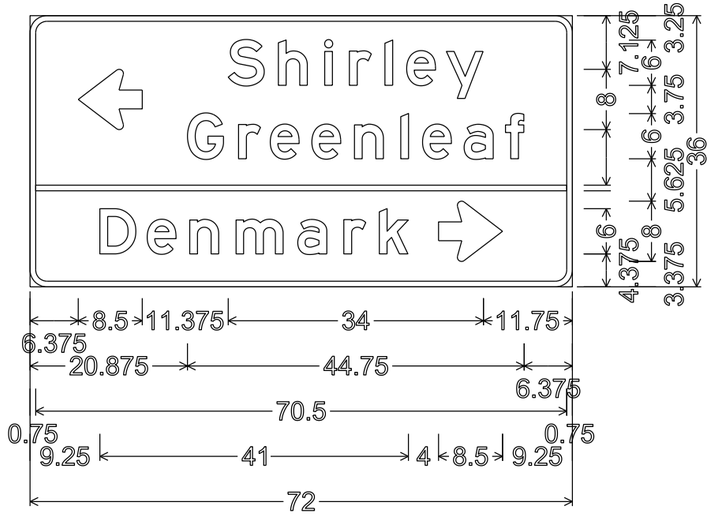
7

83



D1-2;
2.250" Radius, 0.750" Border

7



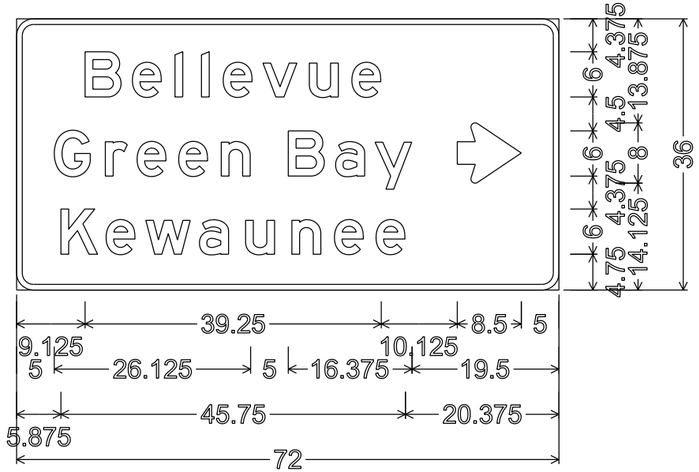
D1-3;
2.250" Radius, 0.750" Border

7

NOTES

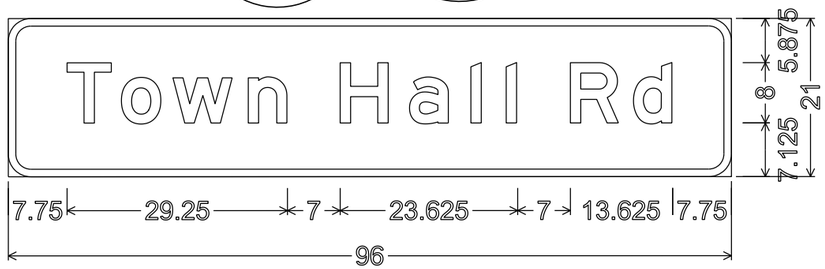
1. Signs are Type II- Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted

127



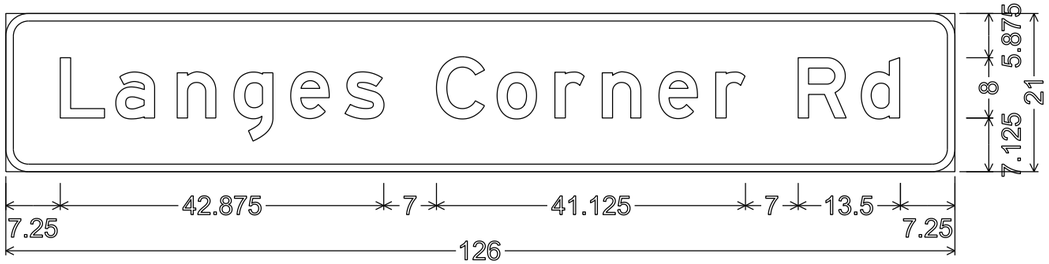
D1-3;
2.250" Radius, 0.750" Border

92A 92B



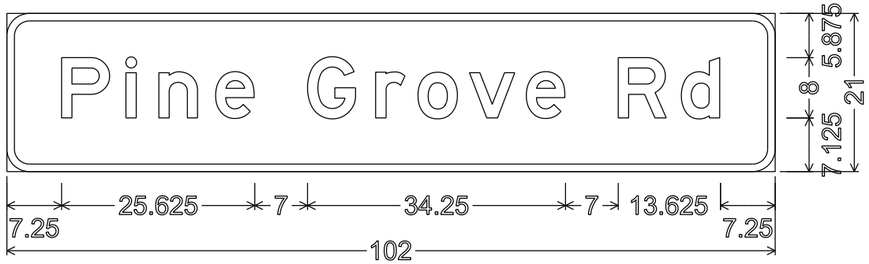
M1-94; 3.000" Radius, 1.000" Border, White on Green;
"Town" E; "Hall" E; "Rd" E;

99 100



M1-94; 3.000" Radius, 1.000" Border

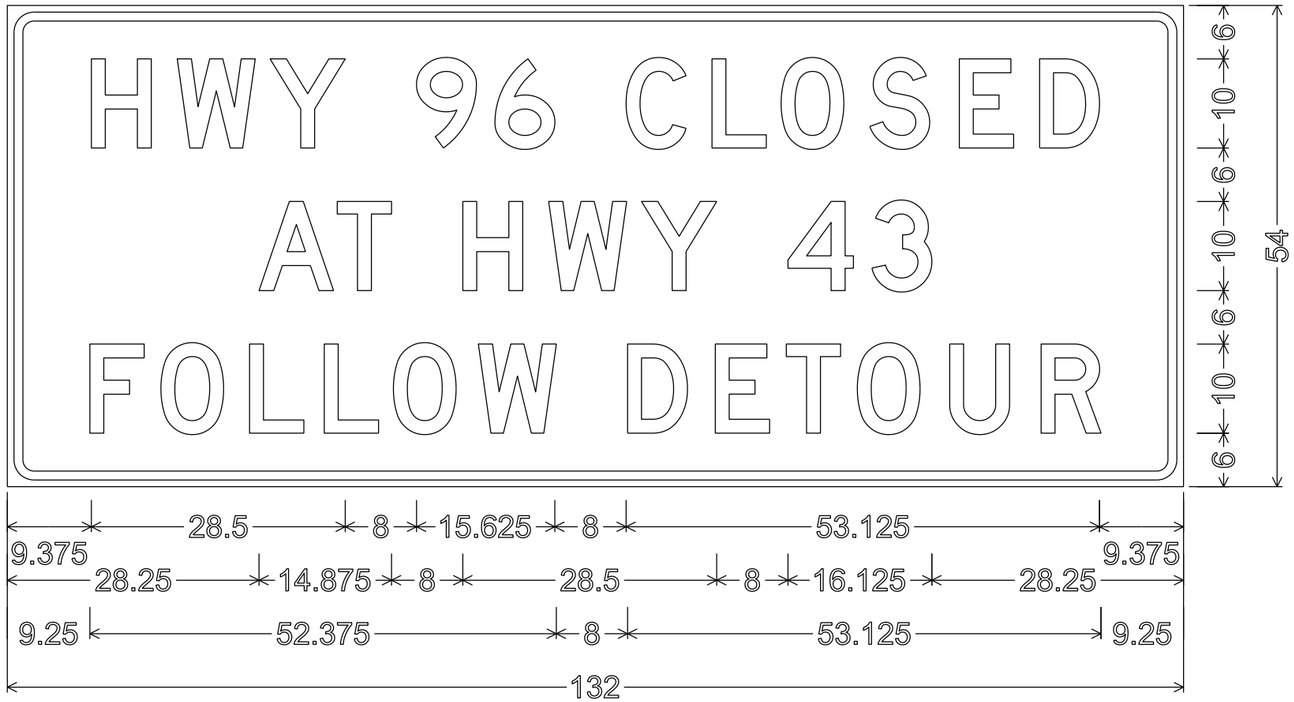
110 111



M1-94; 3.000" Radius, 1.000" Border

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D

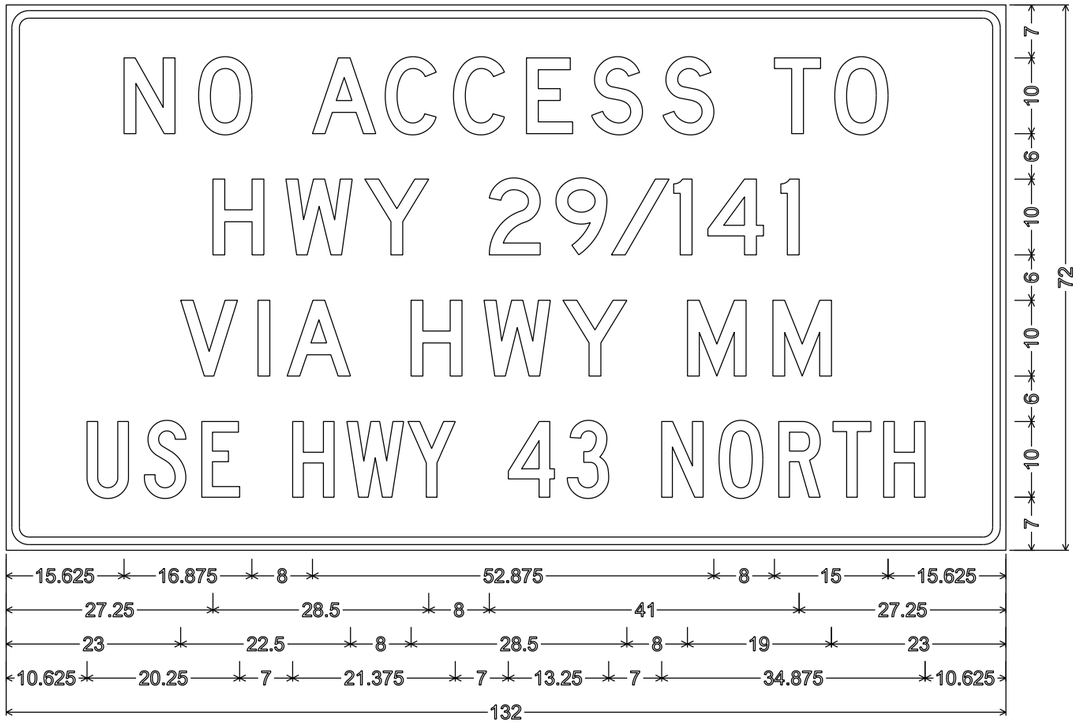


3.000" Radius, 1.000" Border, 0.750" Indent,

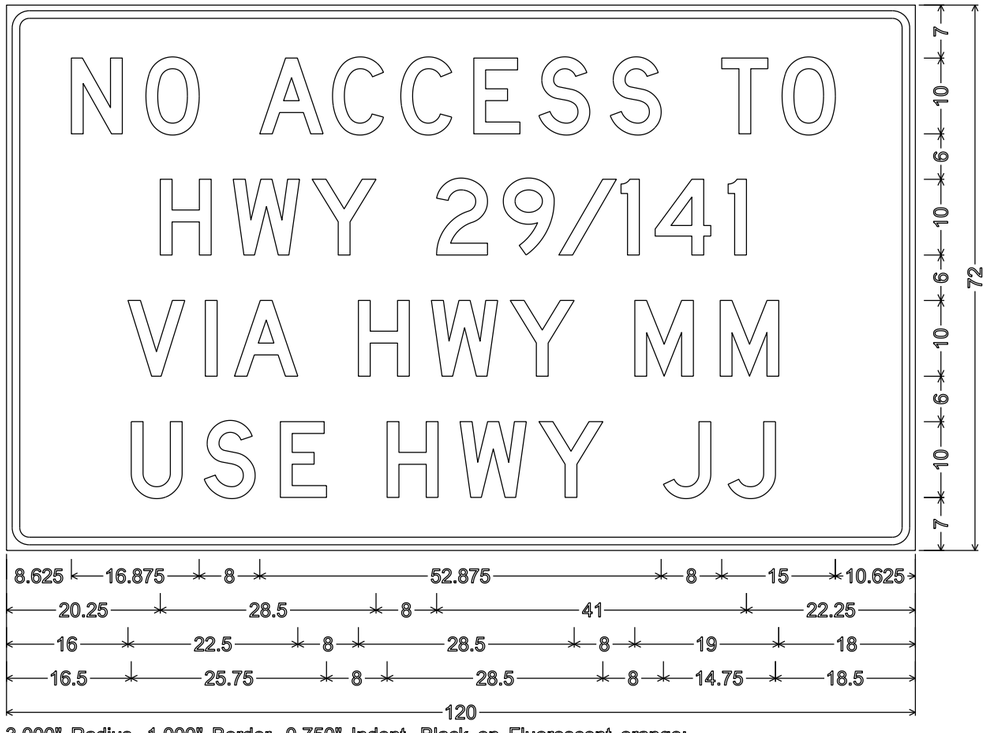
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	FIXED MESSAGE SIGN DETAIL	SHEET NO: 303	E

NOTES

1. All Signs Type II - Type F Reflective
2. Color:
   Background - Orange
   Message -Black
3. Message Series - D except as noted



3.000" Radius, 1.000" Border, 0.750" Indent, Black on Fluorescent orange;
"NO" D; "ACCESS" D; "TO" D; "HWY" D; "29/141" D; "VIA" D; "HWY" D; "MM" D; "USE" C; "HWY" C;
"43" C; "NORTH" C;



3.000" Radius, 1.000" Border, 0.750" Indent, Black on Fluorescent orange;
"NO" D; "ACCESS" D; "TO" D; "HWY" D; "29/141" D; "VIA" D; "HWY" D; "MM" D; "USE" D;
"HWY" D; "JJ" D;

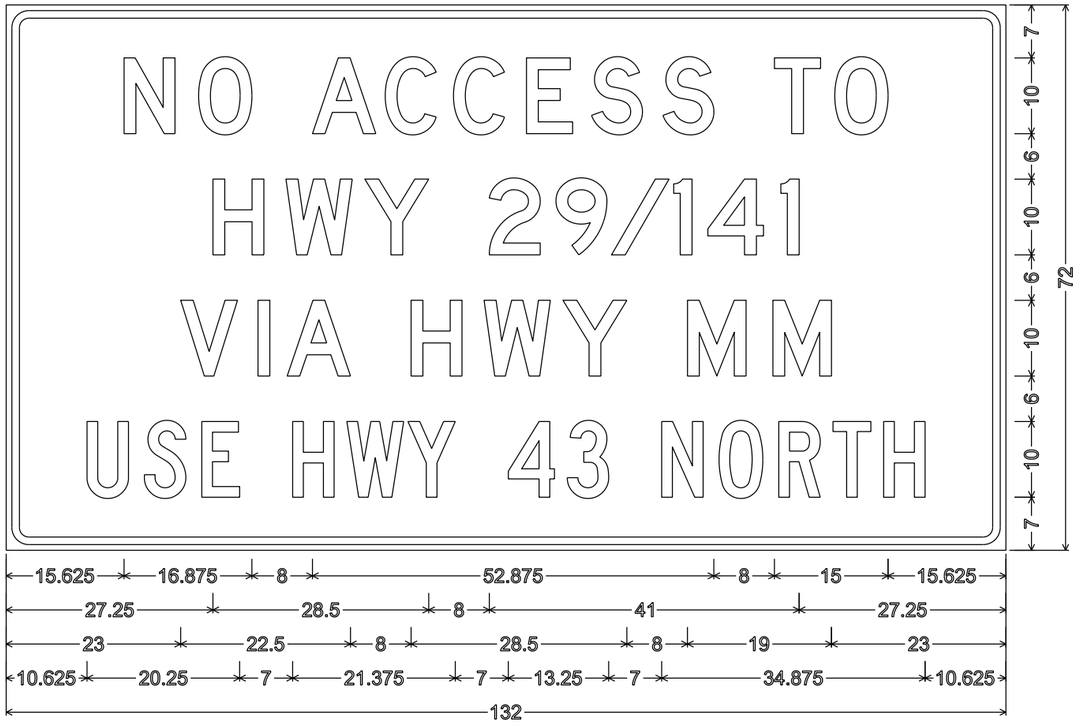
7

7

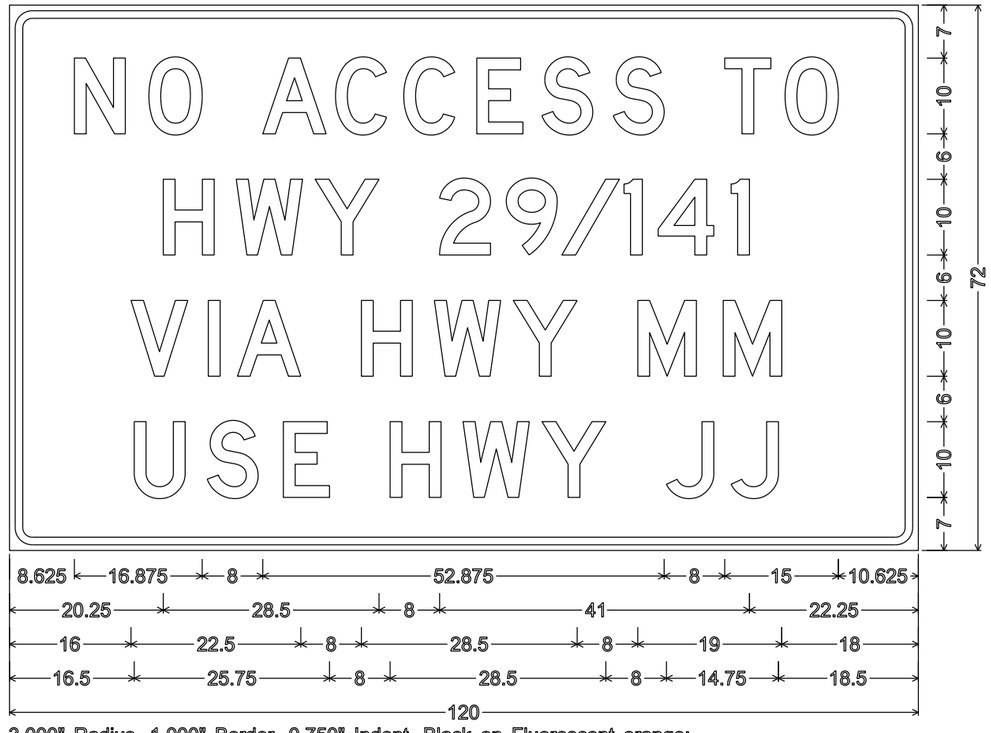
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	FIXED MESSAGE SIGN DETAILS	SHEET NO:	E

NOTES

1. All Signs Type II - Type F Reflective
2. Color:
   Background - Orange
   Message -Black
3. Message Series - D except as noted



3.000" Radius, 1.000" Border, 0.750" Indent, Black on Fluorescent orange;
"NO" D; "ACCESS" D; "TO" D; "HWY" D; "29/141" D; "VIA" D; "HWY" D; "MM" D; "USE" C; "HWY" C;
"43" C; "NORTH" C;



3.000" Radius, 1.000" Border, 0.750" Indent, Black on Fluorescent orange;
"NO" D; "ACCESS" D; "TO" D; "HWY" D; "29/141" D; "VIA" D; "HWY" D; "MM" D; "USE" D;
"HWY" D; "JJ" D;

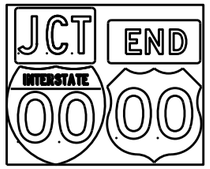
7

7

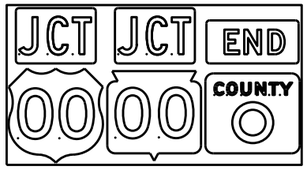
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	FIXED MESSAGE SIGN DETAILS	SHEET NO:	E

TYPICAL ASSEMBLIES

J1-1

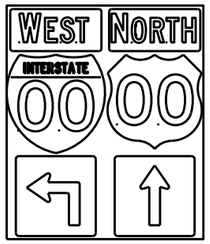


J1-2

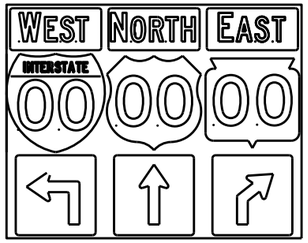


J1-3

J2-1



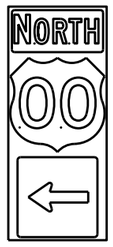
J2-2



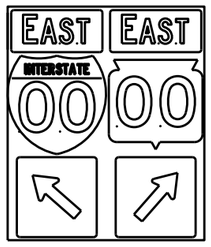
J2-3

JV

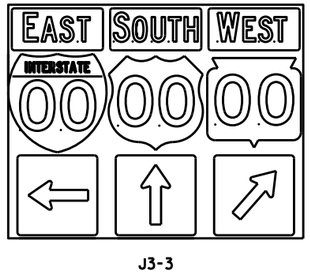
(Typical Vertical J-Assembly
See Note 10 and 11)



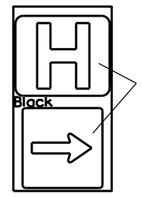
J3-1



J3-2



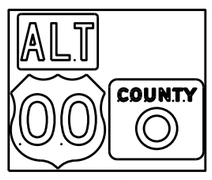
J3-3



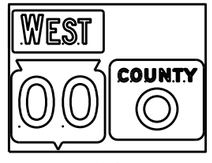
Blue Background

JH-1

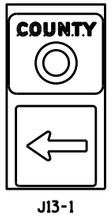
J4-1



J4-2



J4-2



J13-1

J12-1

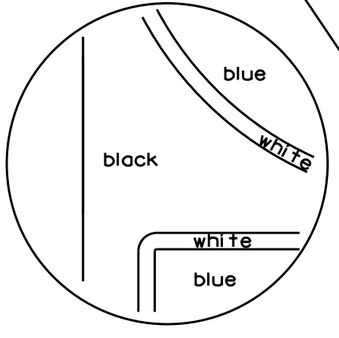
J32-1

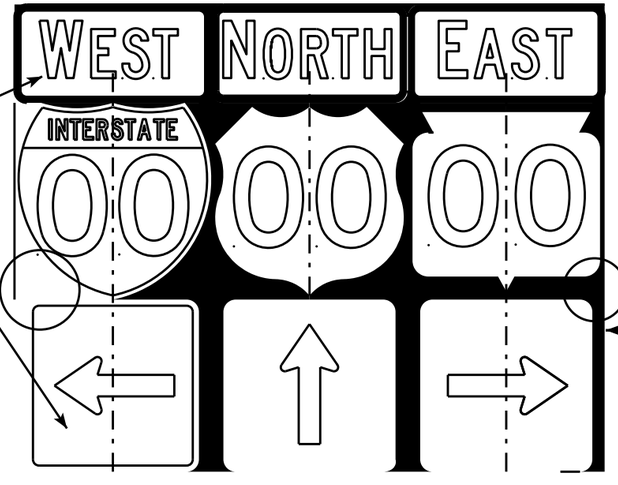
J33-1

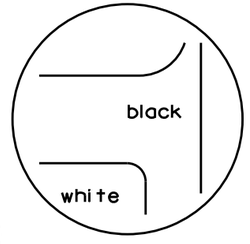
J23-1

J22-1

[blue background with interstate]







[black background]

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

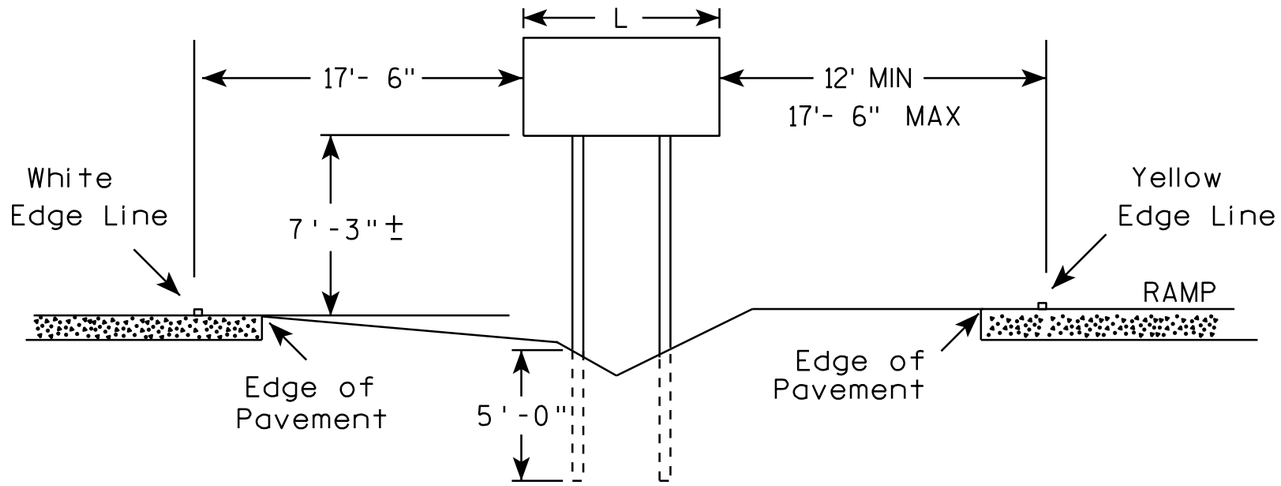
APPROVED Matthew R Rauch
for State Traffic Engineer

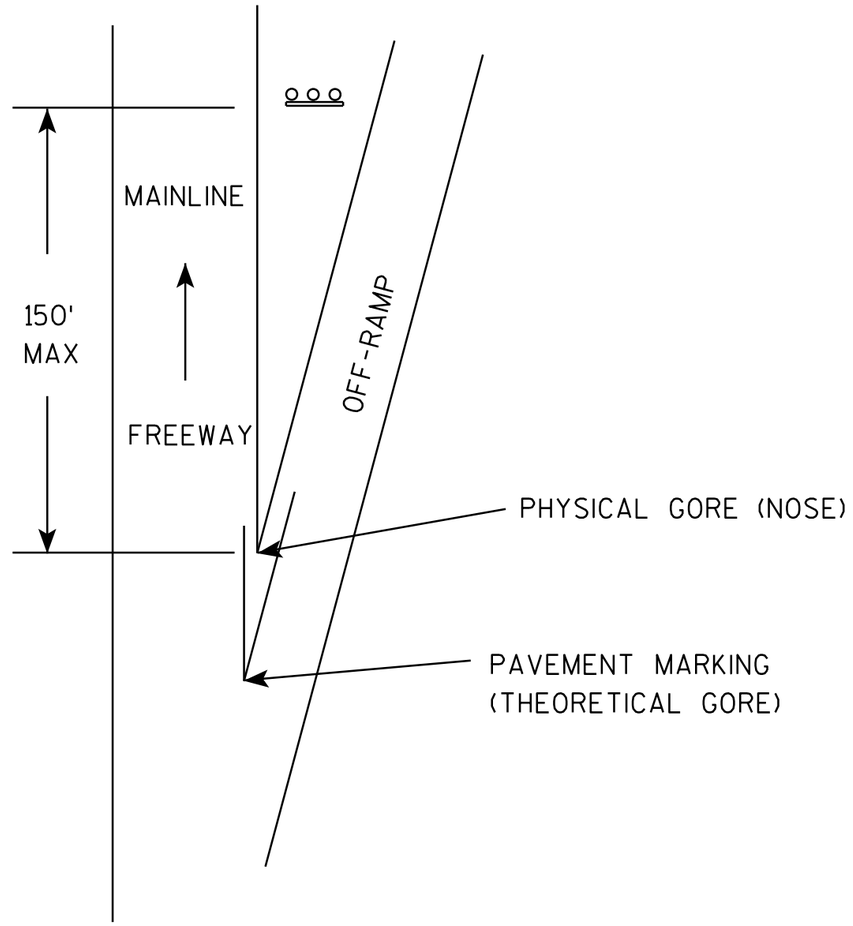
DATE 2/06/14 PL... A2-1S.8

PROJECT NO: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

WISDOT/CADDS SHEET 42





GENERAL NOTES

1. The 150 foot distance from the physical gore (where pavement ends) will normally provide the offsets as shown.
2. If roadway geometrics permit, the sign may be closer than the 150 foot distance as long as the offsets are maintained.
3. At no time shall the location be greater than 150 feet. If the normal offsets cannot be maintained, they can be reduced to 6 feet from the edge of the paved shoulder (both freeway and ramp).
4. The offset from edge of sign to the yellow edge line on the ramp is shown as a minimum of 12 feet and a maximum of 17 feet, 6 inches. Preference is adhering to the maximum rather than the minimum dimension.
5. When L is equal to or exceeds 10 feet, use 3 posts as per A4-4.
6. The (∓) tolerance for the mounting height is 3 inches.

TYPICAL INSTALLATION OF TYPE II SIGNS ON WOOD POSTS IN GORE

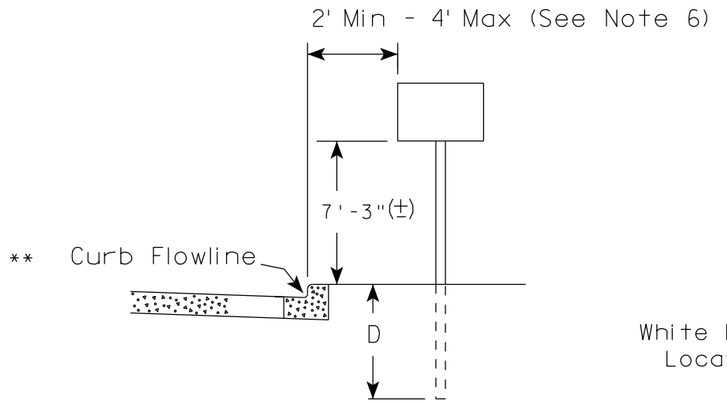
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

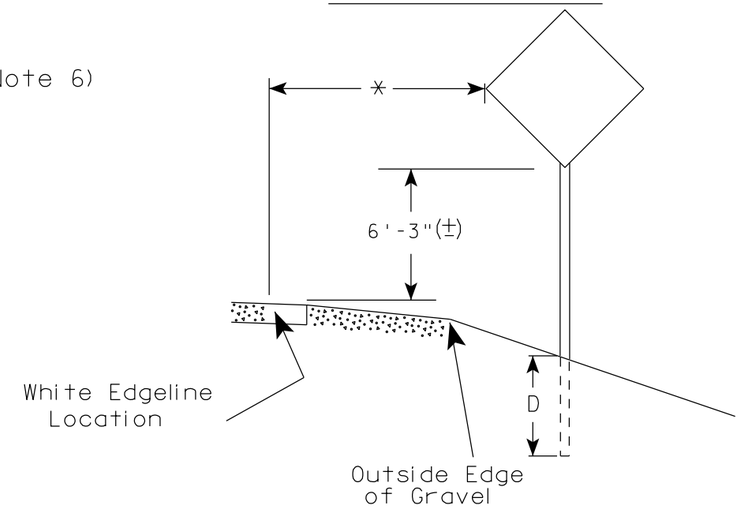
DATE 2/06/14 PLATE A4-2.3

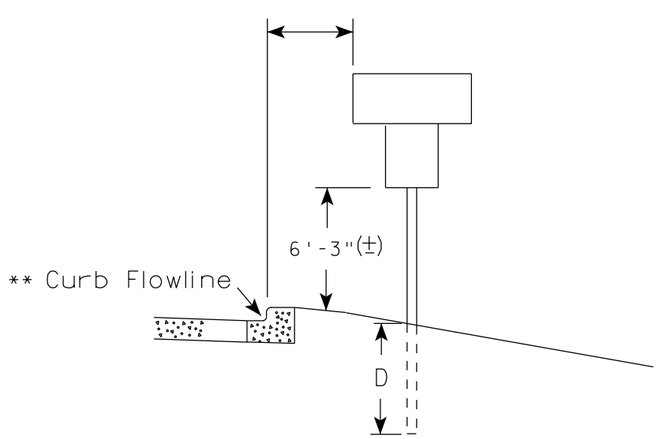
PROJECT NO: | SHEET NO: E

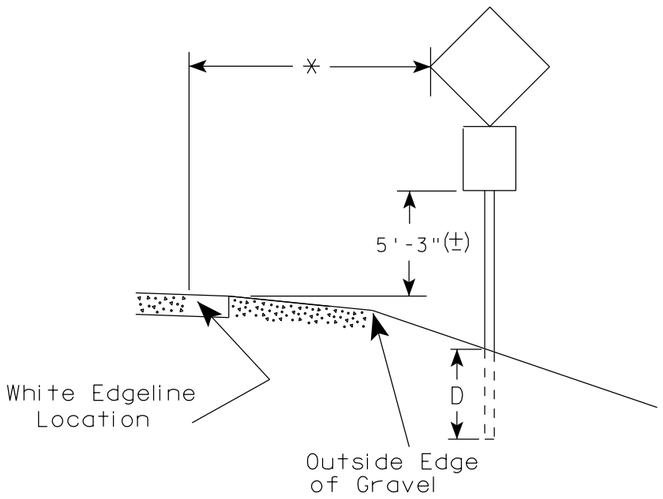
URBAN AREA



RURAL AREA (See Note 2)







GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), 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" (±).

POST EMBEDMENT DEPTH

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

** 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.

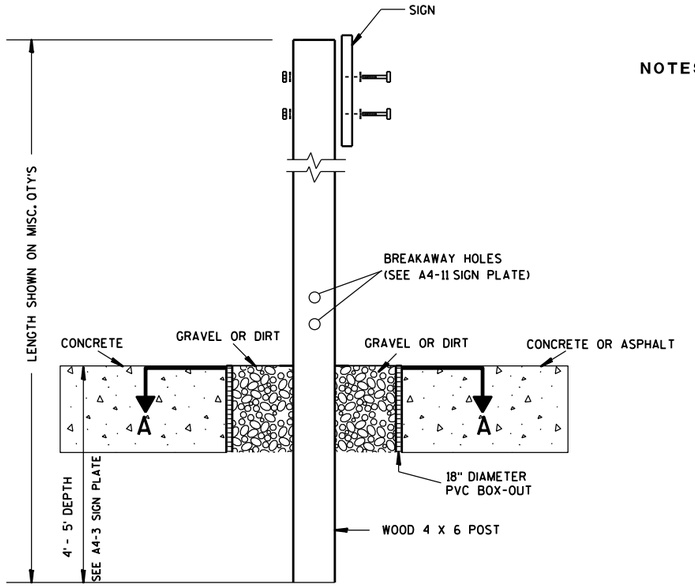
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

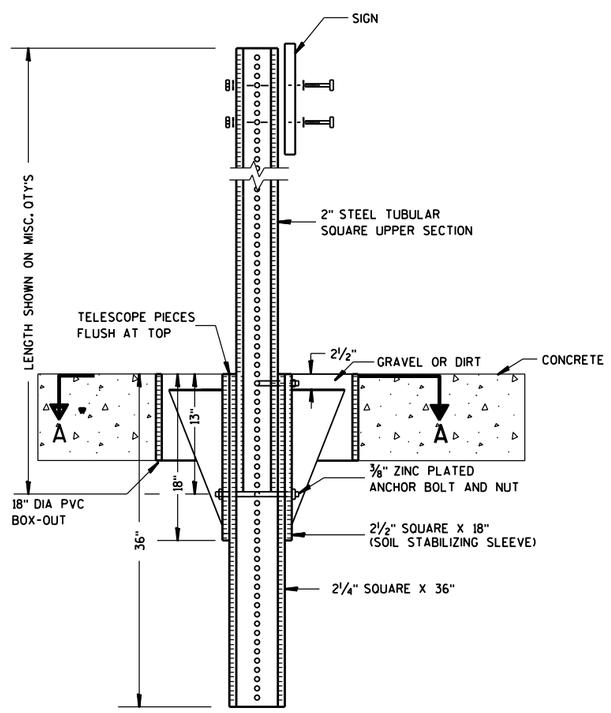
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

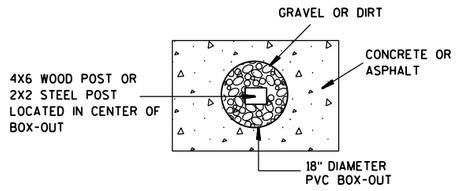
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

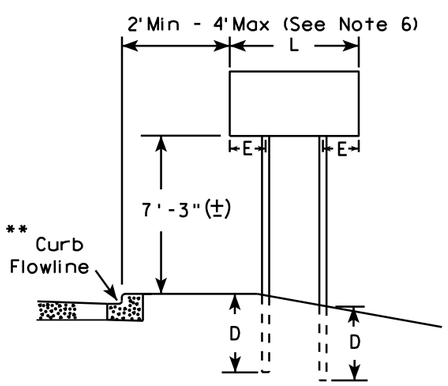
APPROVED Matthew R Rauch
for State Traffic Engineer

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

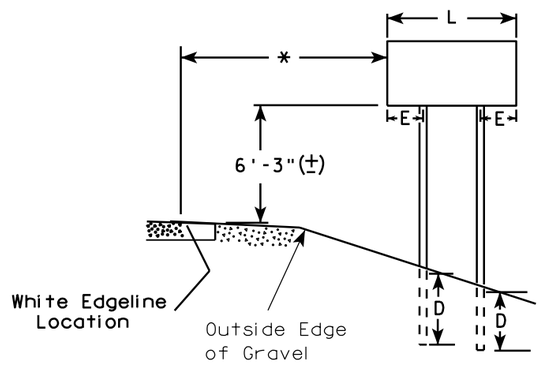
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

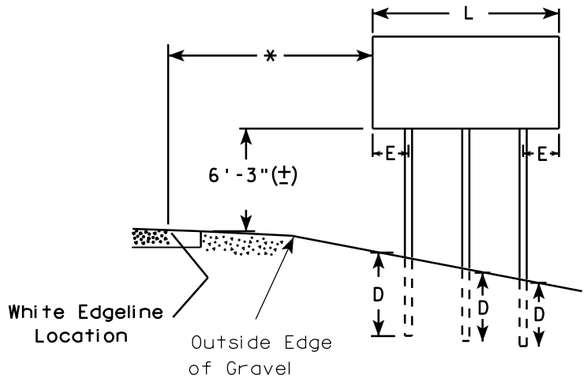
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

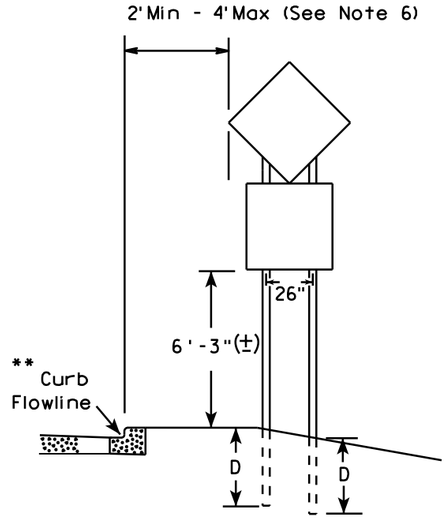
URBAN AREA



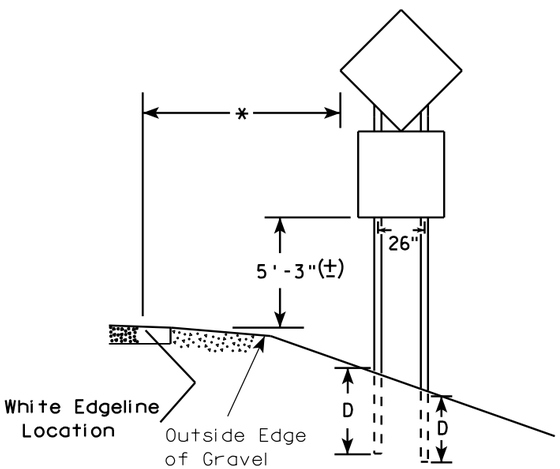
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

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

***

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

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

POST EMBEDMENT DEPTH

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

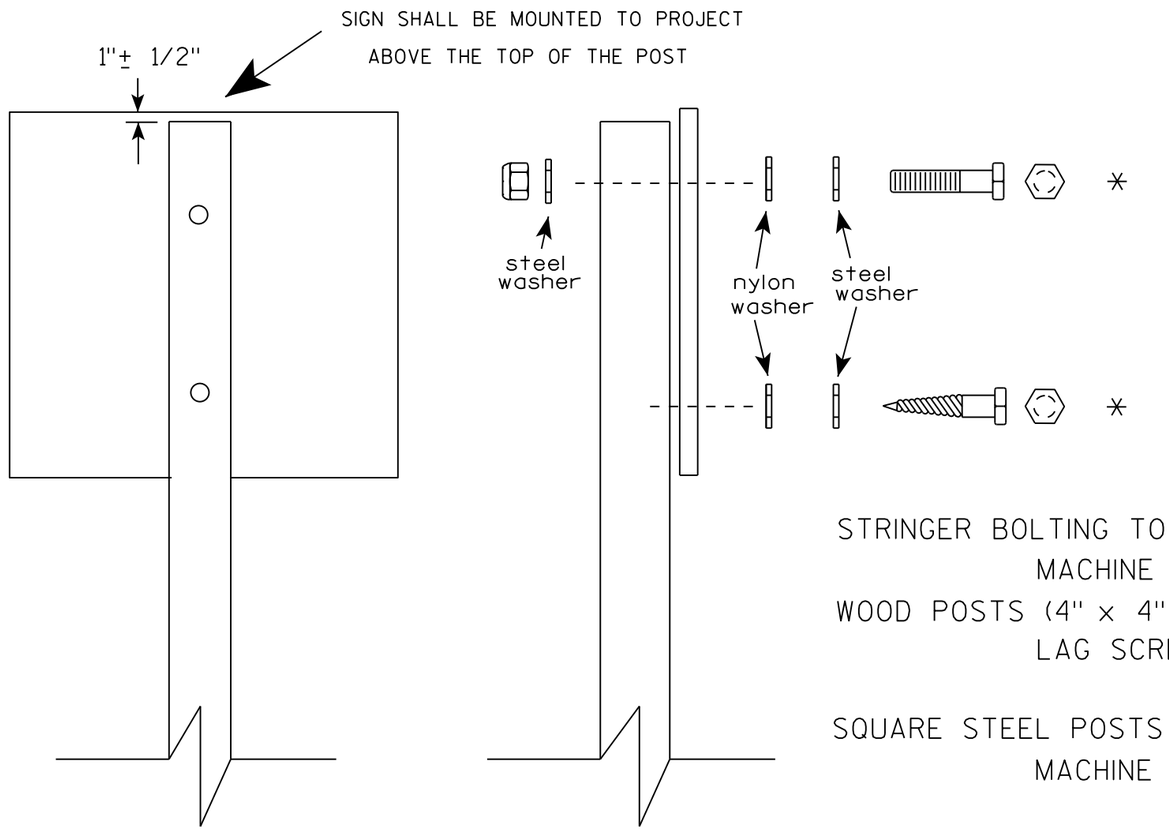
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14
310

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	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 4" or 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

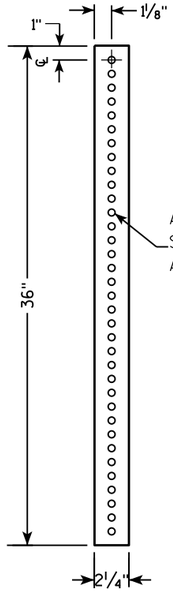
DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

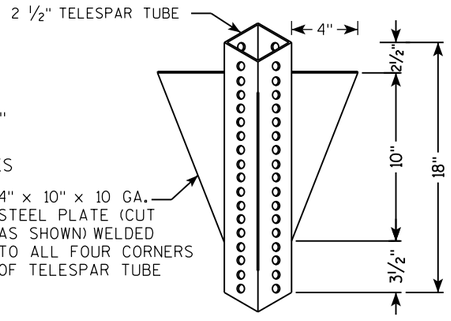
FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

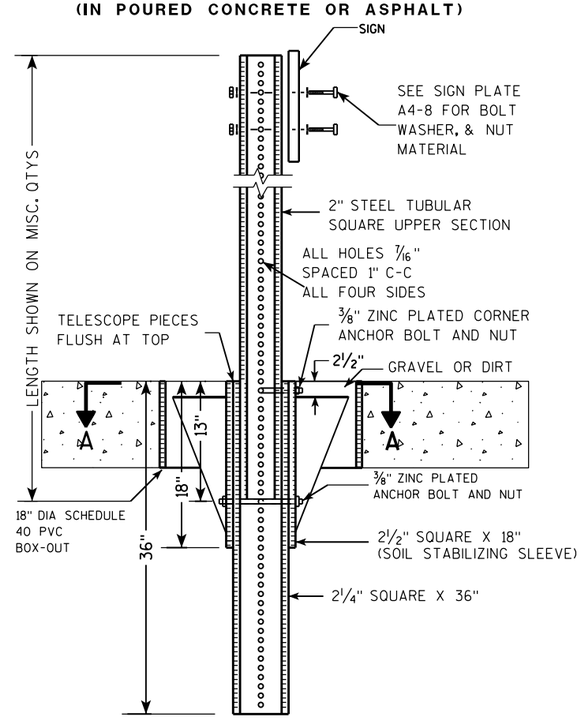
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



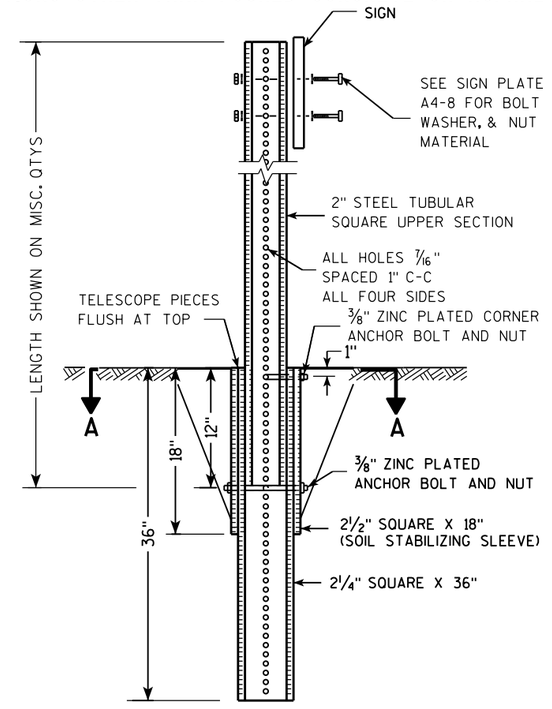
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

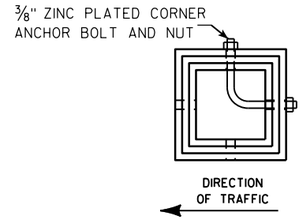


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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).

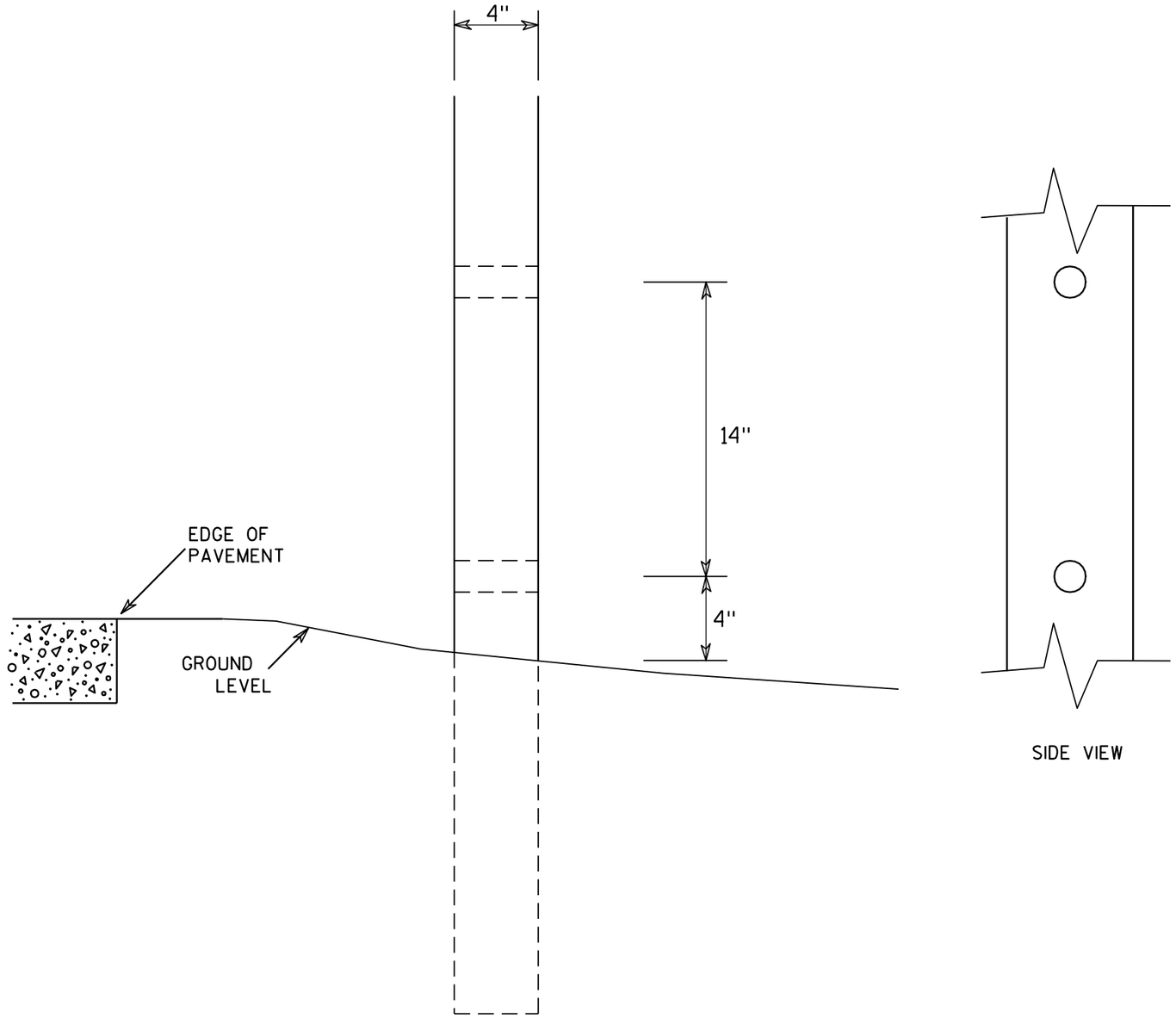
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 312 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

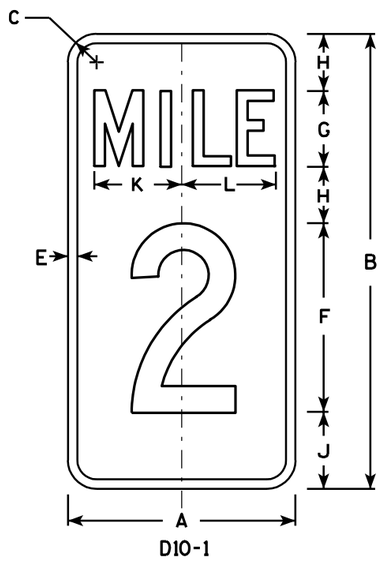
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

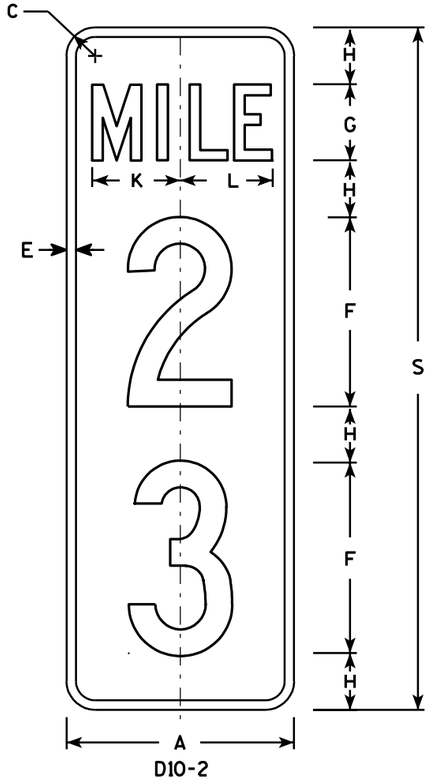
APPROVED Chester J Spang
for State Traffic Engineer

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

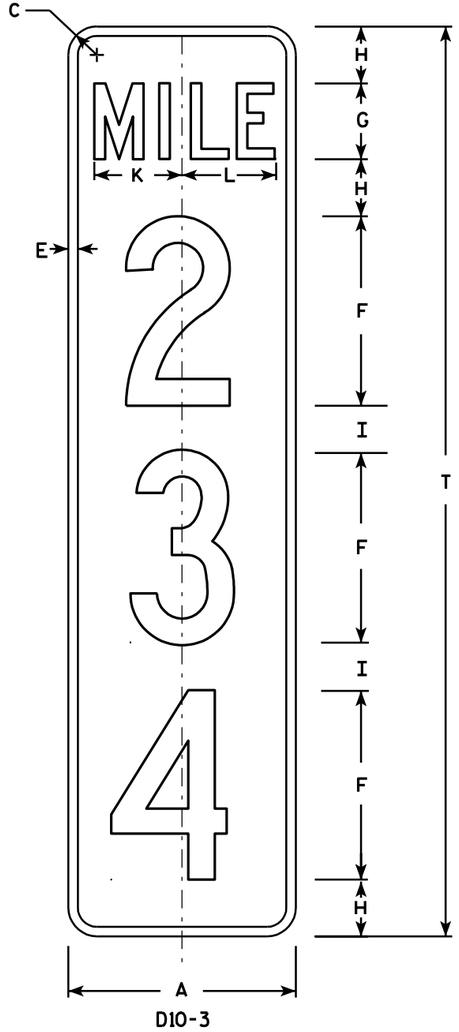
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 313	E



D10-1



D10-2



D10-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White - Type H Reflective
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Optically adjust numerals about the centerline of the sign to achieve proper balance.

7

Metric equivalent for this sign is:

PHY. SIZE	
12 X 24	300 mm X 600 mm
12 X 36	300 mm X 900 mm
12 X 48	300 mm X 1200 mm

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																										
2																										
3																										
4	12	24	1 ½		½	10	4	3	2 ½	4	4 ⅝	4 ⅞							36	48						
5	12	24	1 ½		½	10	4	3	2 ½	4	4 ⅝	4 ⅞							36	48						

D10-1	D10-2	D10-3
Area sq. ft.	Area sq. ft.	Area sq. ft.
2.0	3.0	4.0
Area m2	Area m2	Area m2
.19	.28	.38

STANDARD SIGN
D10-1 , D10-2 & D10-3

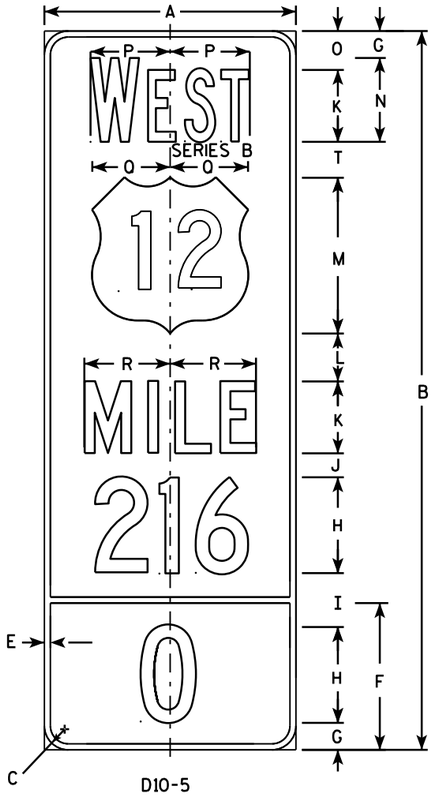
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for Director, Office of Traffic

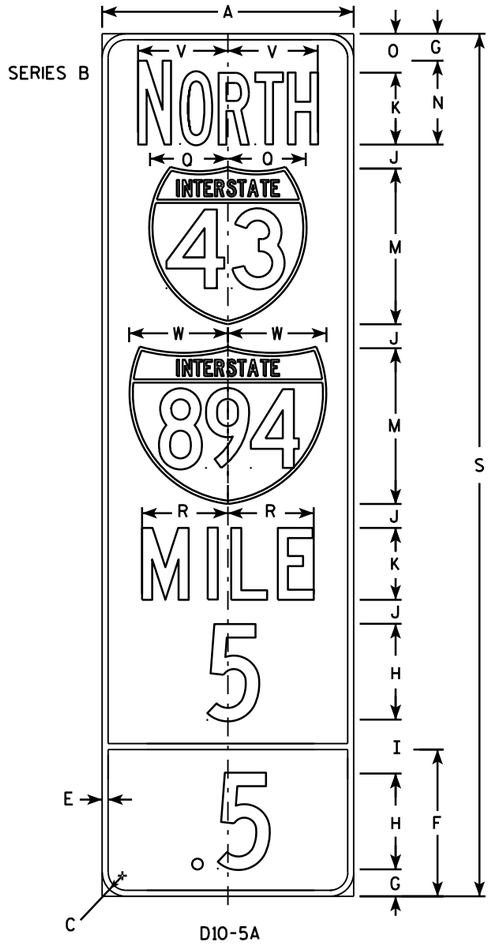
DATE 1/16/02 PLATE NO. D10-3.2

PROJECT NO:

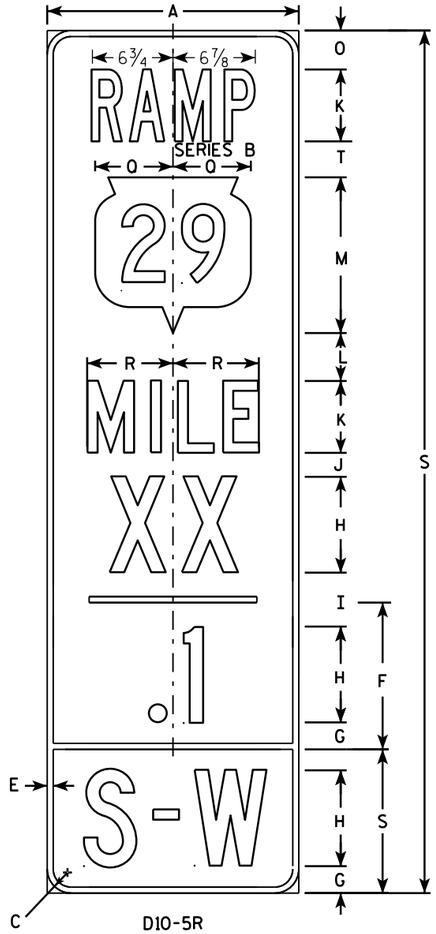
SHEET NO: 314 E



D10-5



D10-5A



D10-5R

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - BLUE
   Message - WHITE
3. Interstate Shield Color
   Background - Top Red
   - Bottom Blue
   Message - White
4. Message Series - C or as noted on the Sign.
5. 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.
6. The decimal point is required for all digits except "0".
7. Optically adjust mileage numbers about the centerline of the sign to achieve proper balance.
8. Optically adjust Ramp direction letters about the centerline of the sign to achieve proper balance.

SERIES B

SERIES B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	D10-5 Area sq. ft.	D10-5A Area sq. ft.	D10-5R Area sq. ft.
1																													
2																													
3																													
4	21	60	1 ½		½	12 ¼	2 ¼	8	4 ½	2	6	4	13	7	3 ¼	6 ⅝	6 ½	7 ⅛	72	3		7 ½	8 ¼				8.75	10.5	10.5
5	21	60	1 ½		½	12 ¼	2 ¼	8	4 ½	2	6	4	13	7	3 ¼	6 ⅝	6 ½	7 ⅛	72	3		7 ½	8 ¼				8.75	10.5	10.5

STANDARD SIGN
D10-5

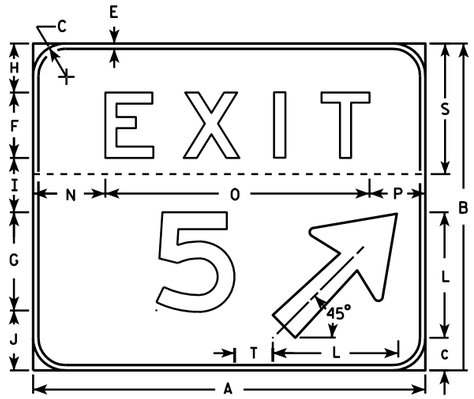
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

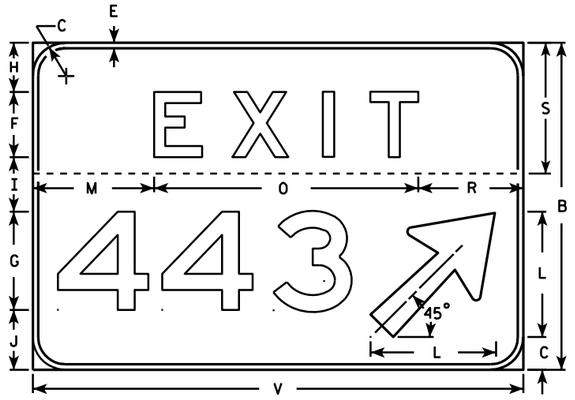
DATE 6/26/14 PL 315 D10-5.2

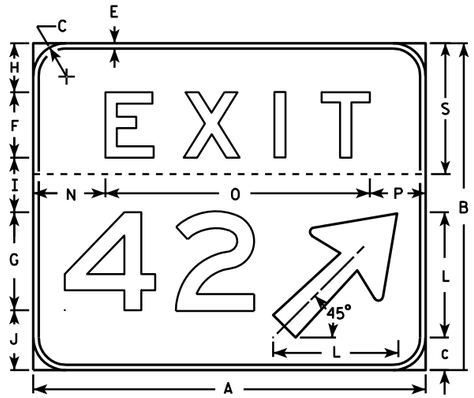
PROJECT NO:

SHEET NO: E



NOTE: T diminision shall be measured from the back of the number to the front of the arrow





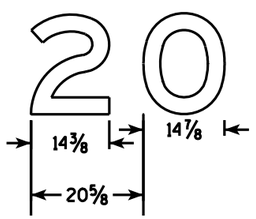
NOTES

1. Sign is Type II - Type H reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White (Type H reflective)
3. Message Series - E
4. Corners may be square or rounded but the border shall be rounded as shown.
5. Base material for this sign shall be plywood and shall be split into two seperate pieces as shown on each detail by the dashed line (----------).
6. Arrow is Type "A" from sign plate A1-1.
7. Substitute appropriate message, space per the table and adjust placement on sign to achieve proper balance.
8. As per the Standard Spec's, these signs shall not have a vertical joint.

SPACING CHART FOR 18" NUMERALS

NUMBERS	WIDTH	0	1	2	3	4	5	6	7	8	9	A	B	C
0	14 7/8	21 5/8	21 5/8	21 1/4	20 3/8	21 1/4	21 1/4	21 5/8	19 7/8	22 1/8	21 5/8			
1	5 7/8	14	14	14	13 1/8	12 1/8	14	14	12 1/4	14	14			
2	14 3/8	20 5/8	21 1/8	20 5/8	19 3/4	20 1/4	20 5/8	20 5/8	18 7/8	21 1/8	20 5/8			
3	14 3/8	20 3/4	21 1/8	20 3/4	20 1/4	19 3/4	20 3/4	20 3/4	19 3/8	21 1/8	20 3/4			
4	16 5/8	22 7/8	22	22 1/2	21 5/8	21 5/8	22 7/8	22 7/8	20 5/8	23 3/8	22 7/8			
5	14 1/4	20 5/8	20 5/8	20 1/8	18 3/4	18 3/4	20 5/8	20 5/8	18 3/8	20 5/8	20 5/8			
6	14 1/2	21 1/4	20 3/4	20 3/4	19 7/8	19 1/2	20 3/8	20 3/4	19	20 3/4	20 3/8			
7	14 3/8	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4			
8	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8			
9	14 1/2	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4			
A	18	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4	21 5/8	23 7/8	23
B	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8	19 1/2	22 3/8	21 1/2
C	14 1/4	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4	18 3/8	21	19 3/4

EXAMPLE FOR USING SPACING CHART



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
2																										
3																										
4																										
5	72	60	6		1	12	18	9	10	11	8 7/8	23	22 1/4	13 1/4	48 1/2	10 1/4		19 1/4	24	7		90		96	7 1/2	

1-2 Digit Bid Area	3 Digit Bid Area
Sq. Ft.	
30	37.5

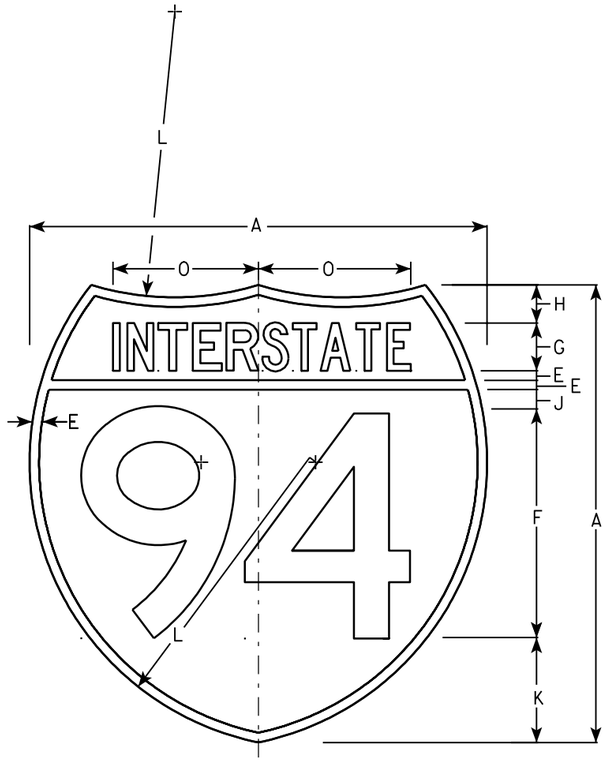
STANDARD SIGN E5-1A

WISCONSIN DEPT OF TRANSPORTATION

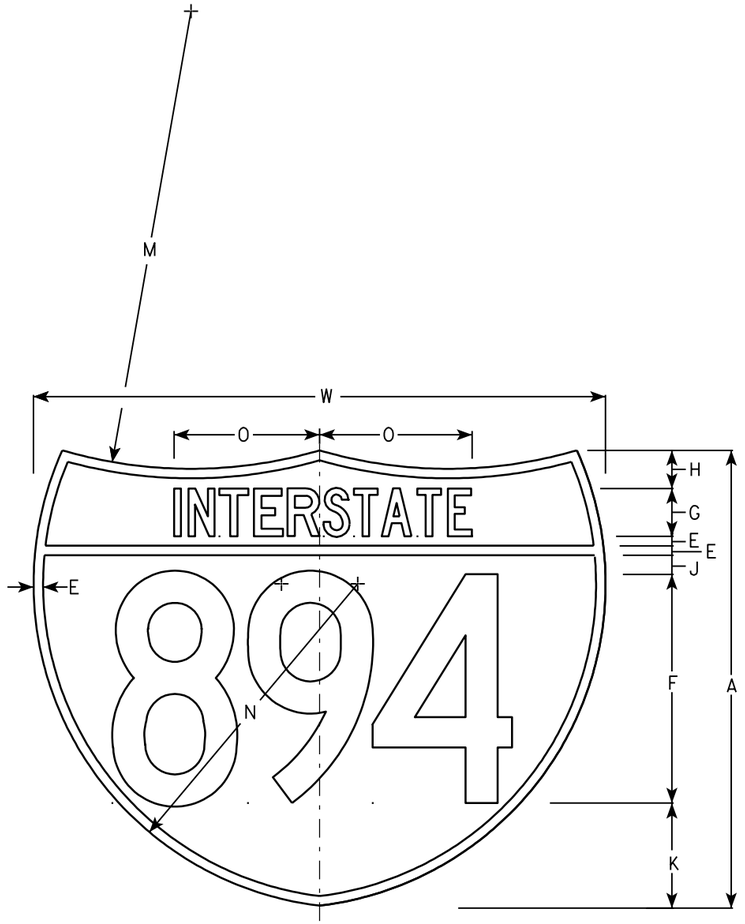
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 5/11/10 PLATE NO. E5-1A.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 316 | E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

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	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

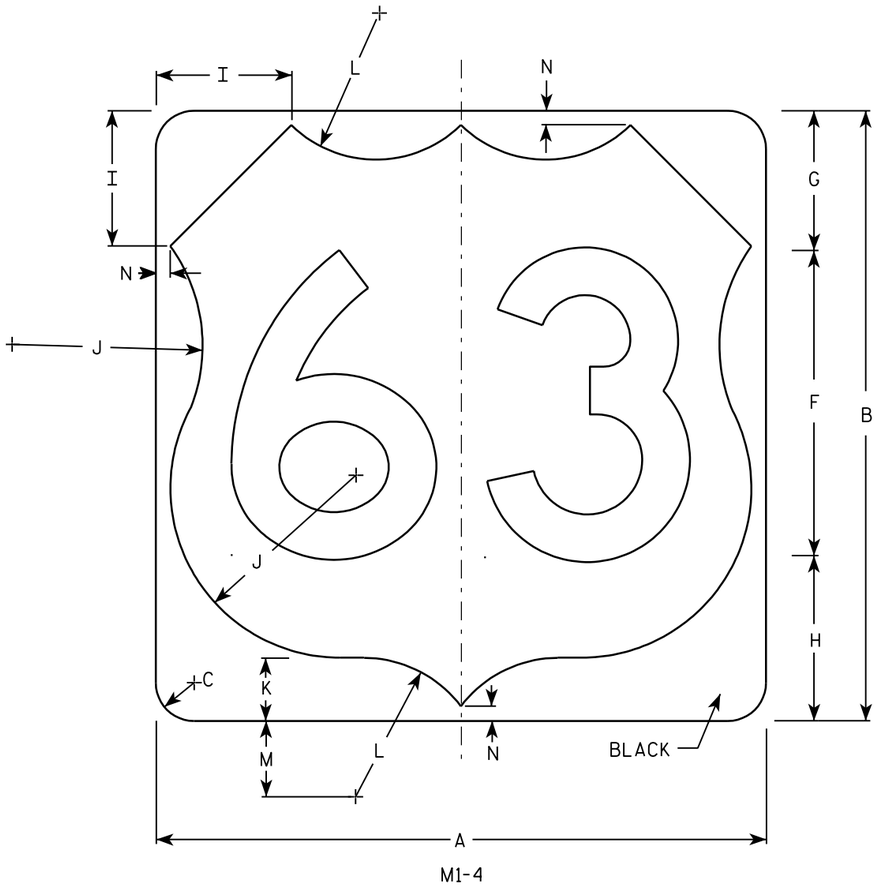
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

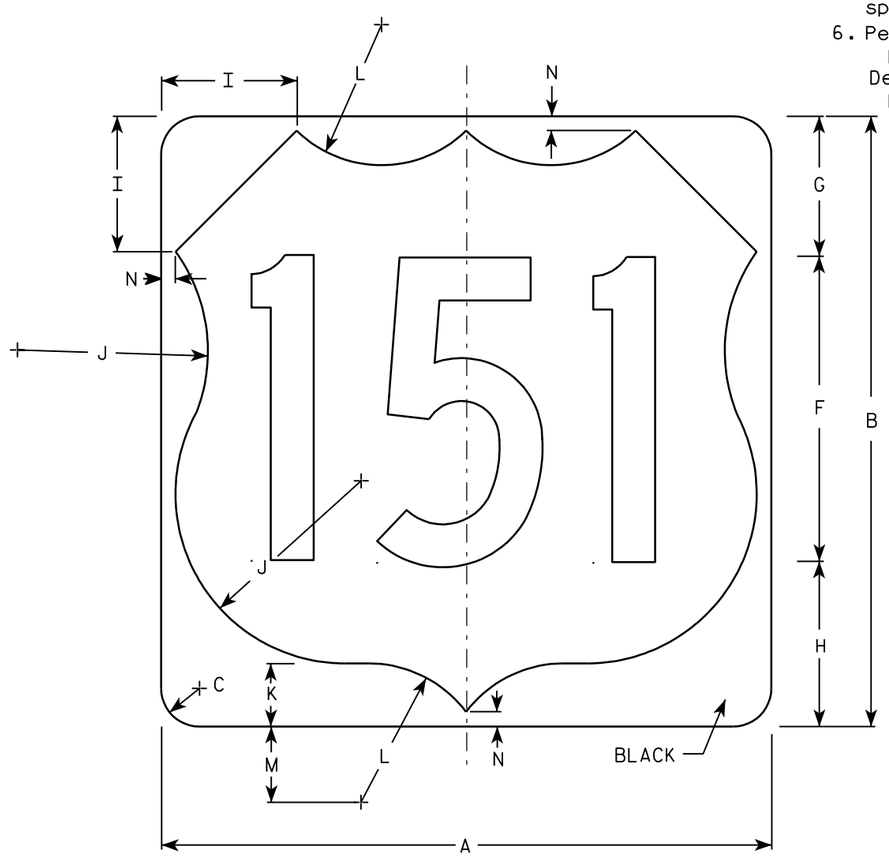
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 317	E

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   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. Substitute appropriate numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary signs
   Background - Reflective



M1-4



M1-4

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

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.	Area m2
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

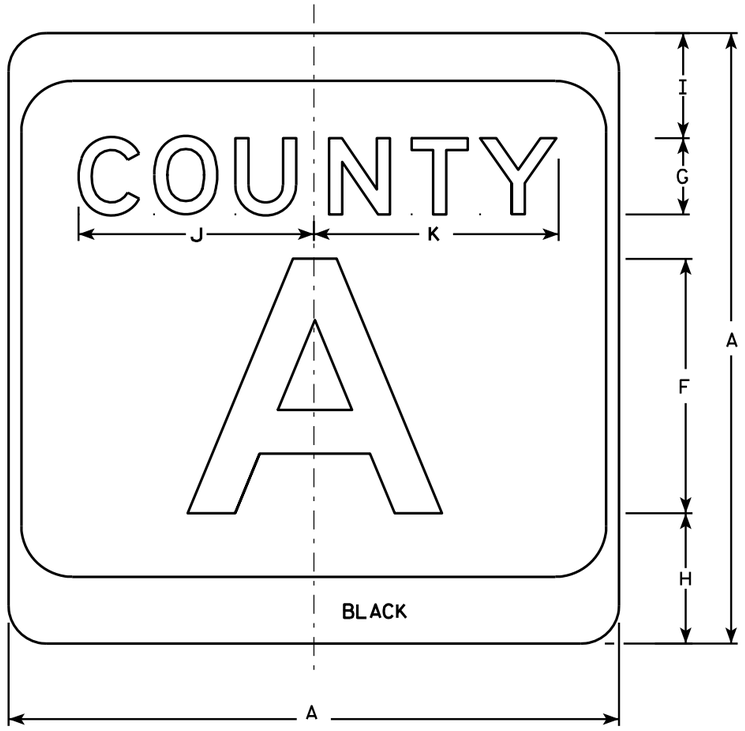
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

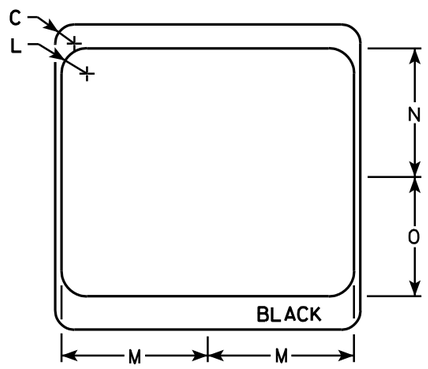
APPROVED Matthew R Rauch
for State Traffic Engineer

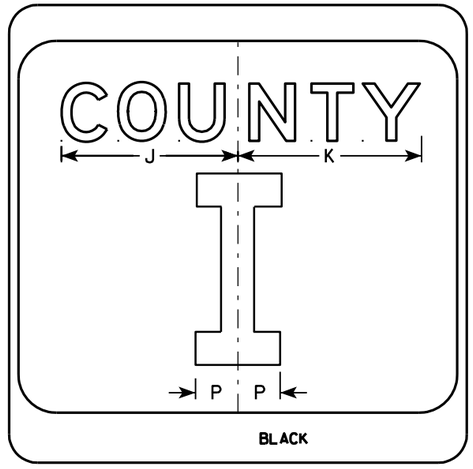
DATE 08/25/05 PLATE NO. M1-4.9

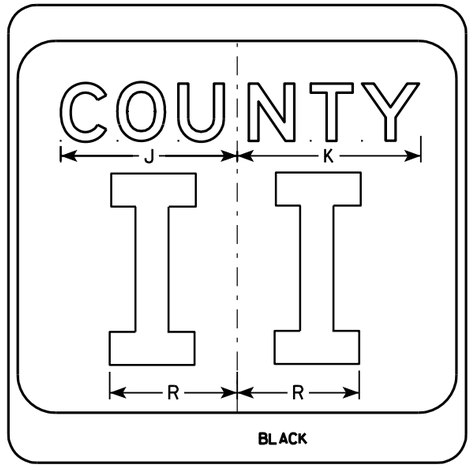
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 318 | E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   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. 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.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

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
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

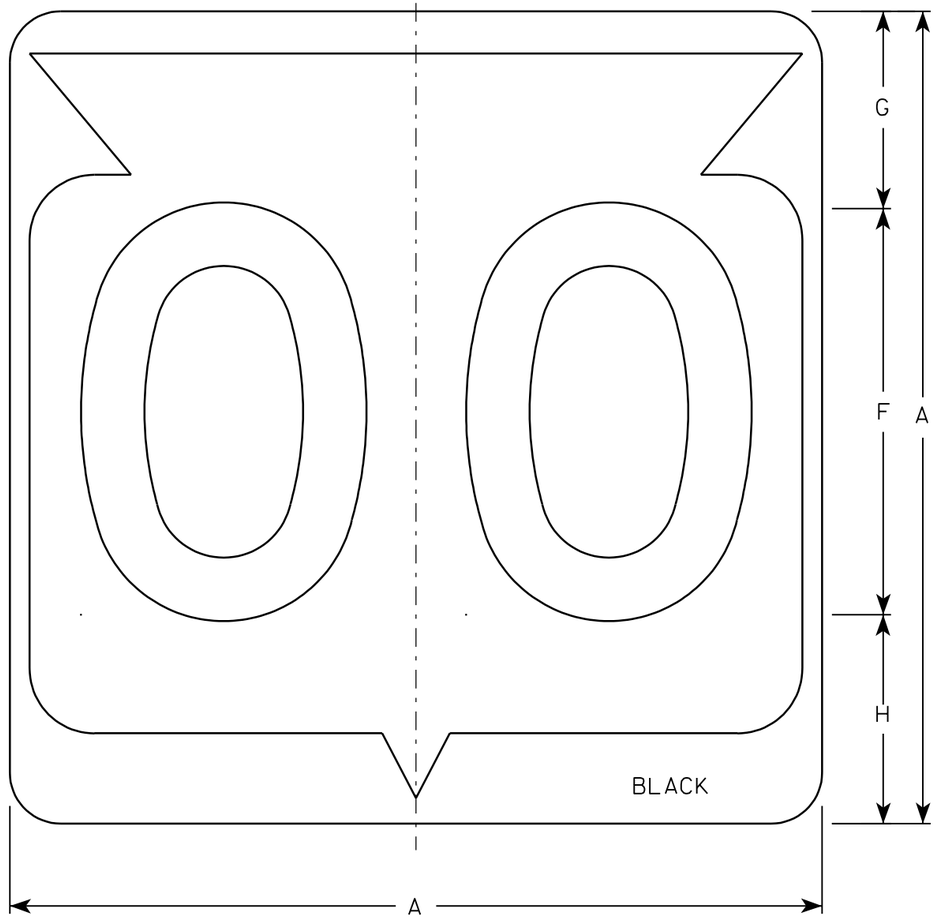
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

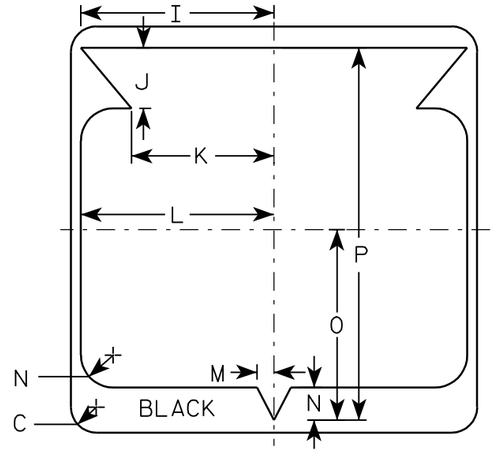
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 319	E



M1-6

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   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. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

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.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

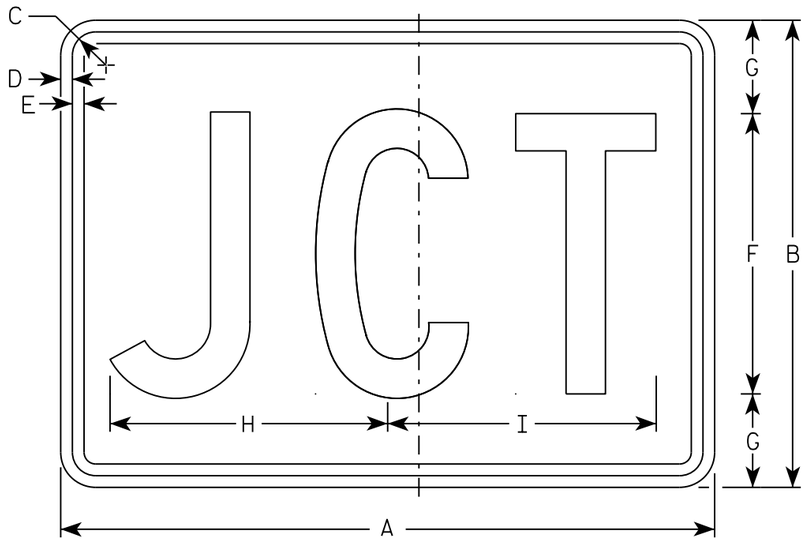
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

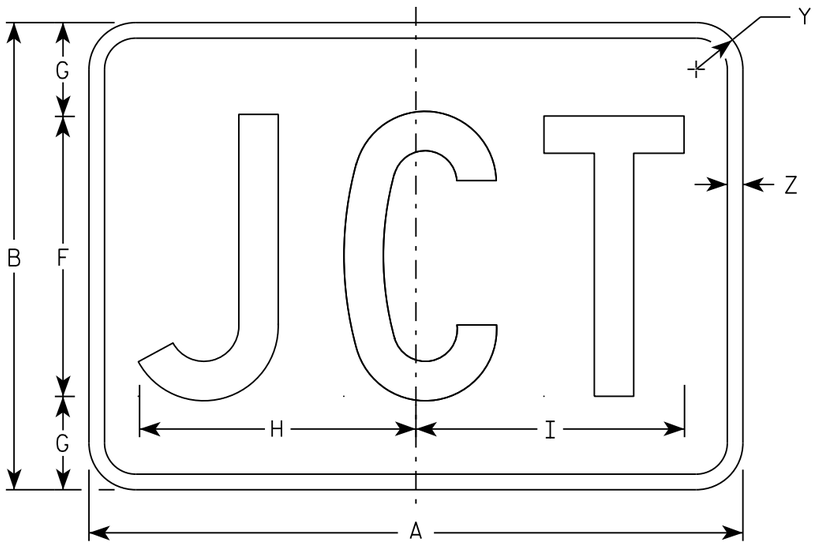
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 320	E



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. 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																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

STANDARD SIGN
M2-1

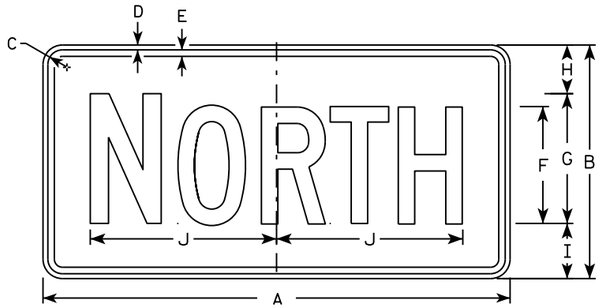
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

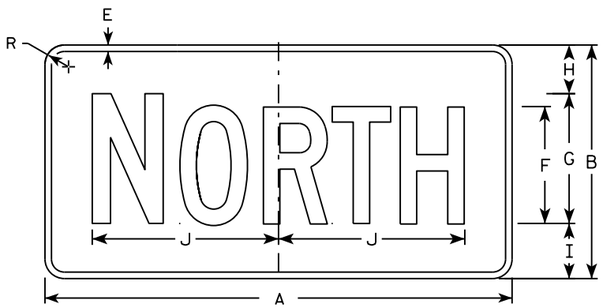
DATE 10/15/15 PLATE 321 12-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M21.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.864603:1.000000



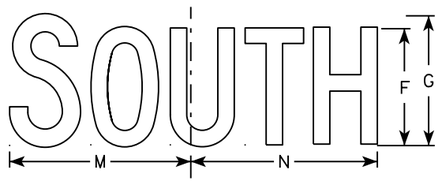
M3-1
MM3-1
MP3-1



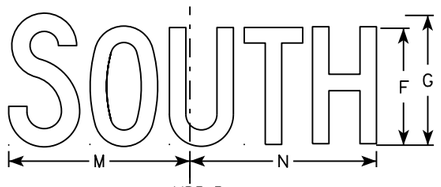
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

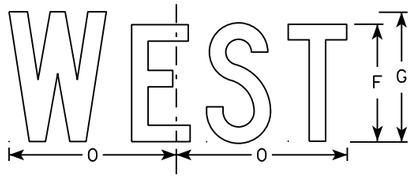
MB3-2
MK3-2
MN3-2



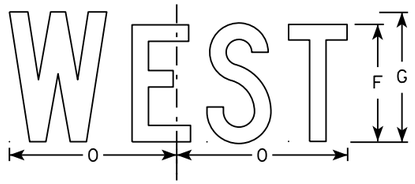
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

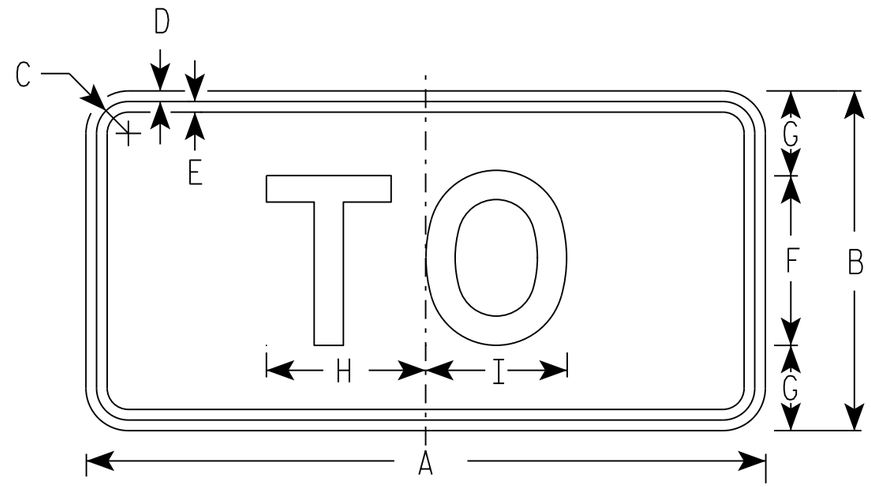
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

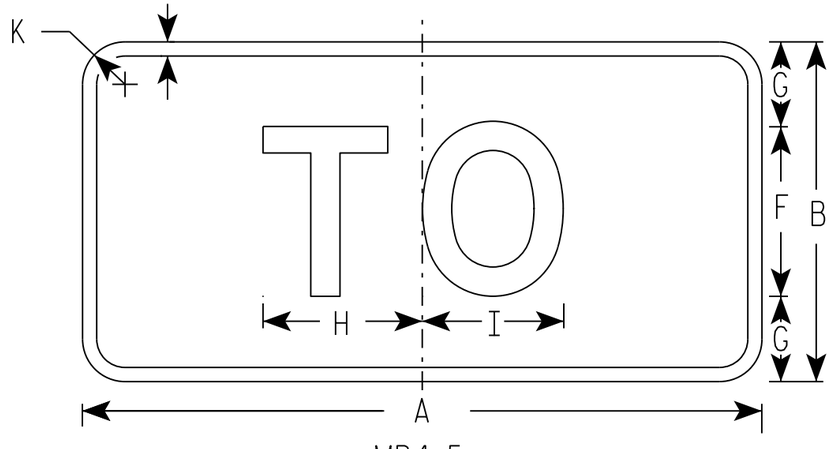
DATE 10/15/15 PLATE NO M3-1.14

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-5
MM4-5
MP4-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

   MP4-5 Background - White
   Message - Blue

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

STANDARD SIGN
M4-5

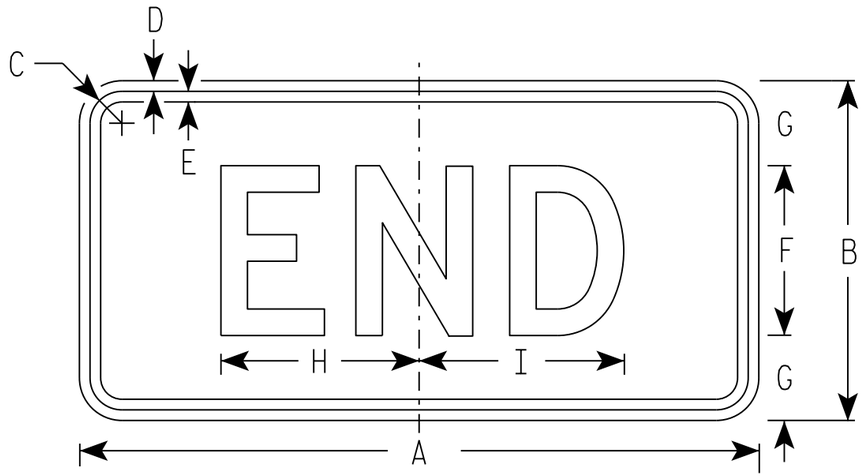
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

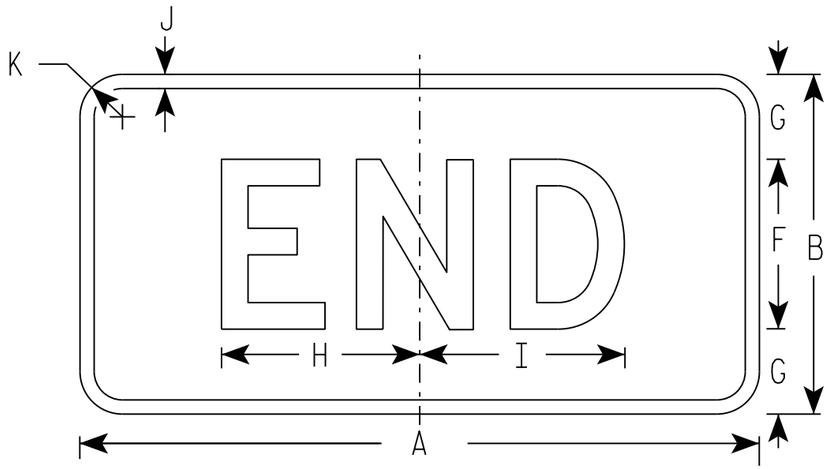
DATE 10/15/15 PLATE 323 M4-5.8

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M45.DGN PLOT DATE : 01-DEC-2015 17:55 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.351066:1.000000



M4-6
MM4-6
MP4-6



MB4-6
MK4-6
MN4-6
MR4-6

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
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. M4-6 Background - White
   Message - Black

   MB4-6 Background - Blue
   Message - White

   MK4-6 Background - Green
   Message - White

   MM4-6 Background - White
   Message - Green

   MN4-6 Background - Brown
   Message - White

   MP4-6 Background - White
   Message - Blue

   MR4-6 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																											
2	24	12	1 1/8	3/8	3/8	6	3	7	7 1/4	1/2	1 1/2																2.00
3	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
4	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
5	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5

STANDARD SIGN
M4-6

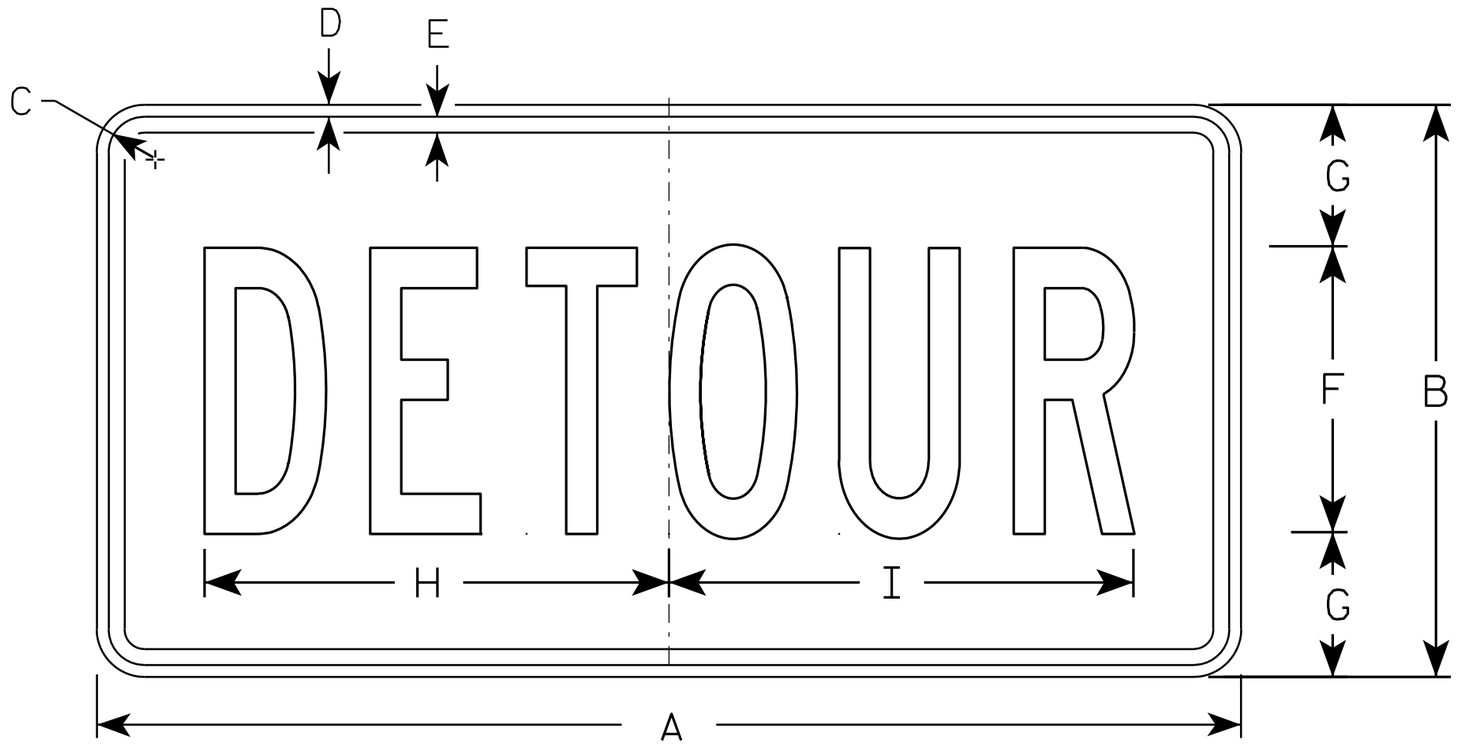
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 324 '14-7.9

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M46.DGN PLOT DATE : 01-DEC-2015 17:55 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.351066:1.000000



M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

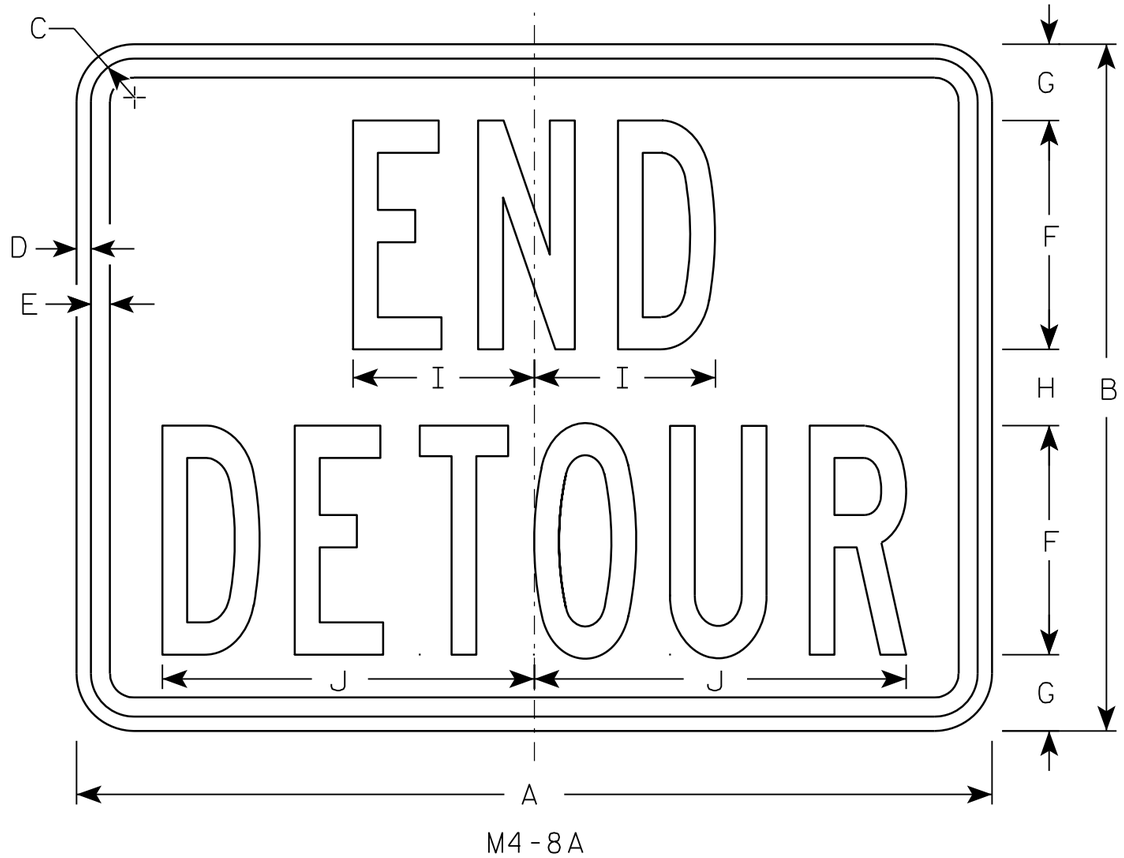
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 325	E



M4-8A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

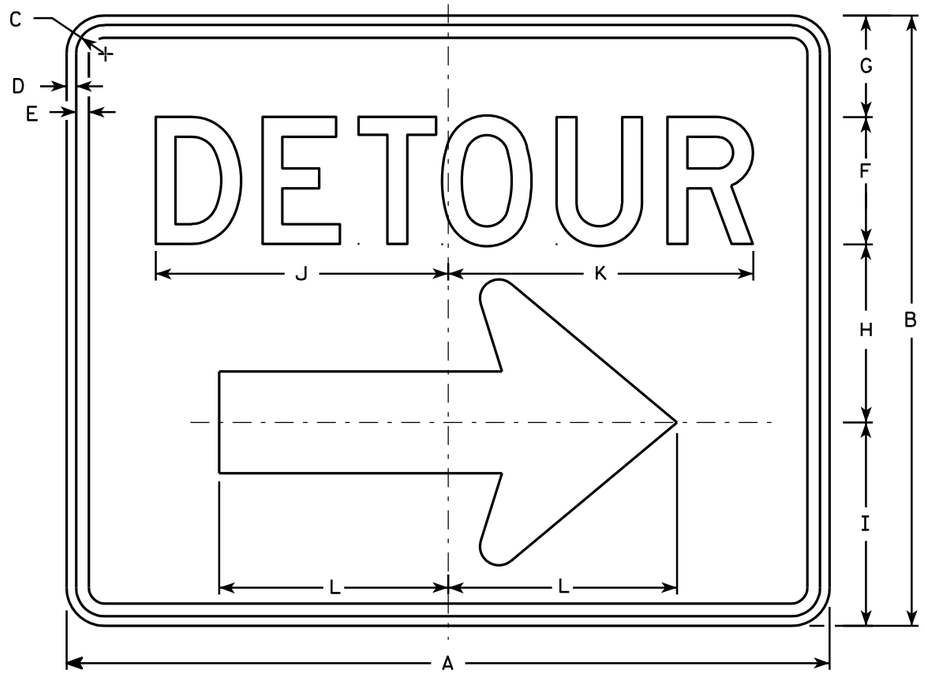
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

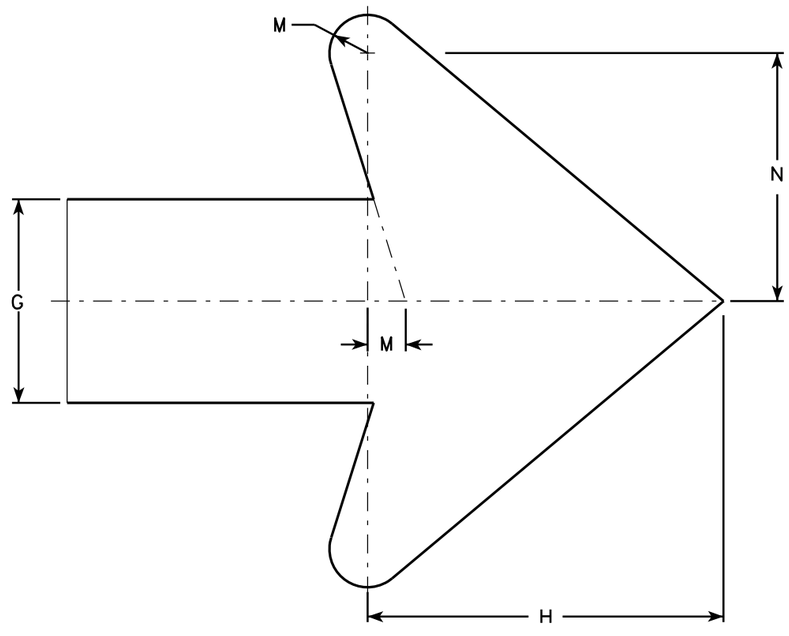
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 326	E



M4-9R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - 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. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

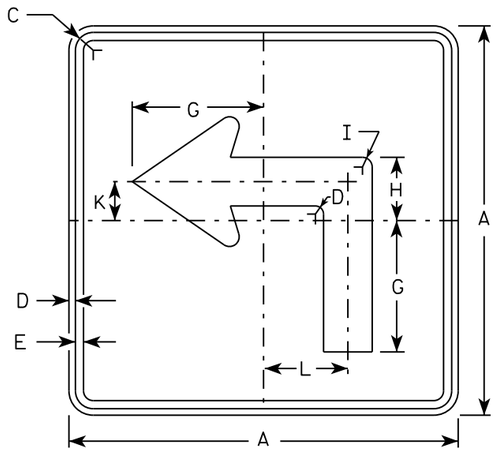
STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

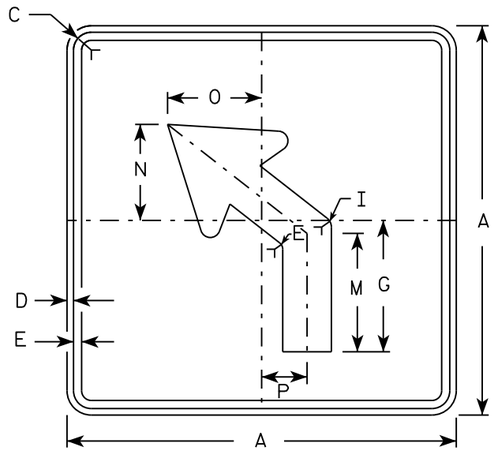
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

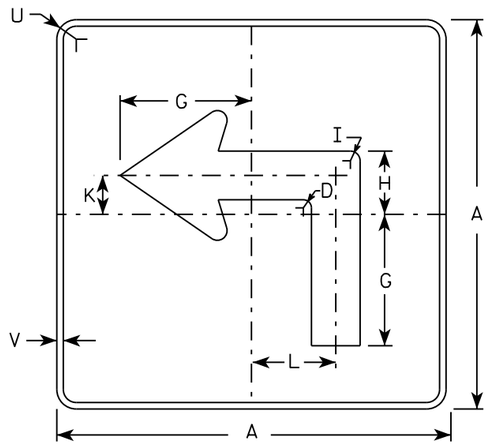
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 327	E



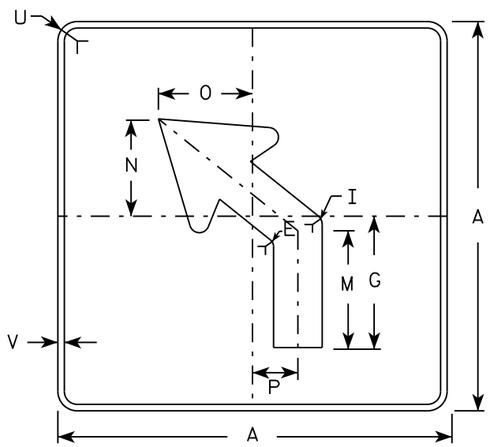
M5-1L
MM5-1L
MO5-1L
MP5-1L



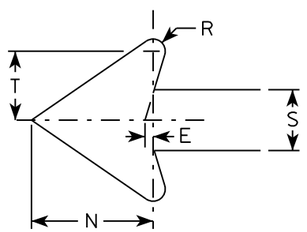
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

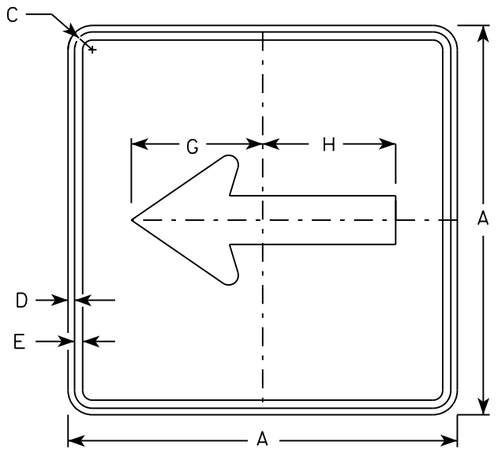
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

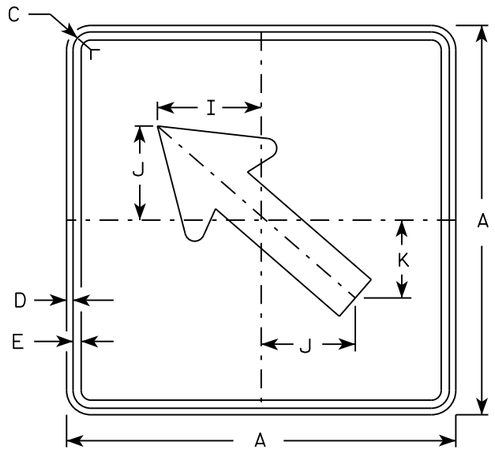
DATE 10/15/15 PLATE No. M5-1.13

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



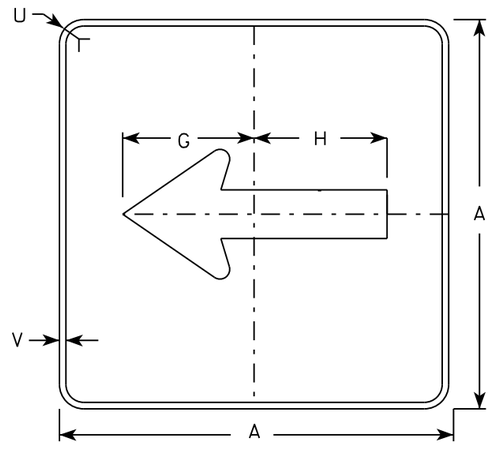
M6-1
MM6-1
MO6-1
MP6-1



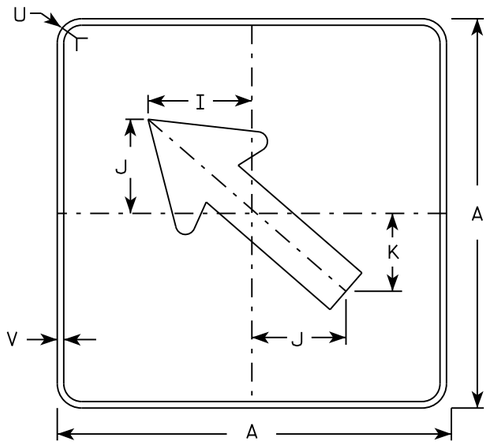
M6-2
MM6-2
MO6-2
MP6-2

NOTES

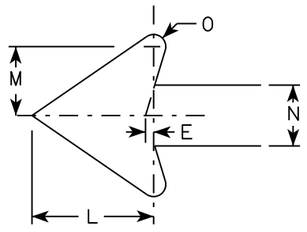
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

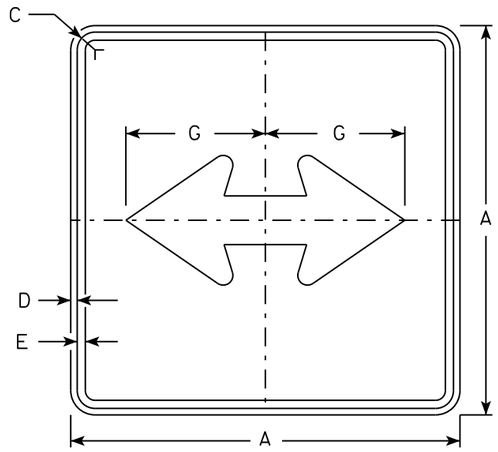
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

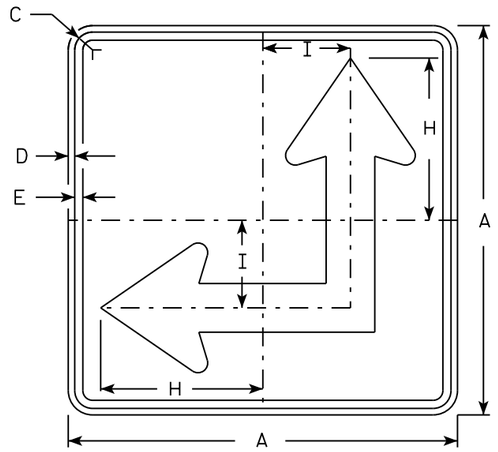
DATE 10/15/15 PLATE 329 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



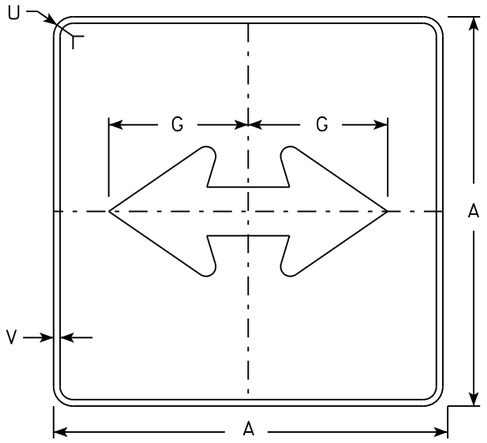
M6-4
MM6-4
MO6-4
MP6-4



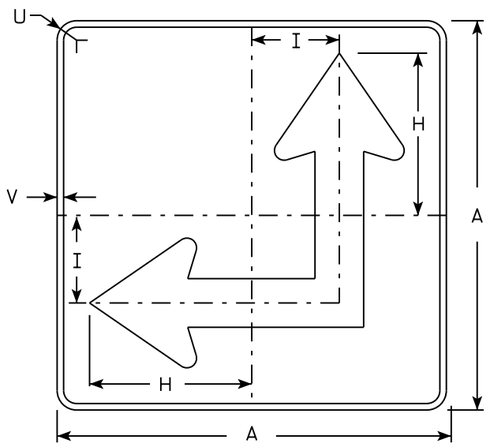
M6-6
MM6-6
MO6-6
MP6-6

NOTES

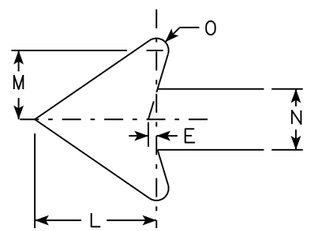
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.



MB6-4
MK6-4
MN6-4
MR6-4



MB6-6
MK6-6
MN6-6
MR6-6



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN
M6-4 & M6-6
SERIES

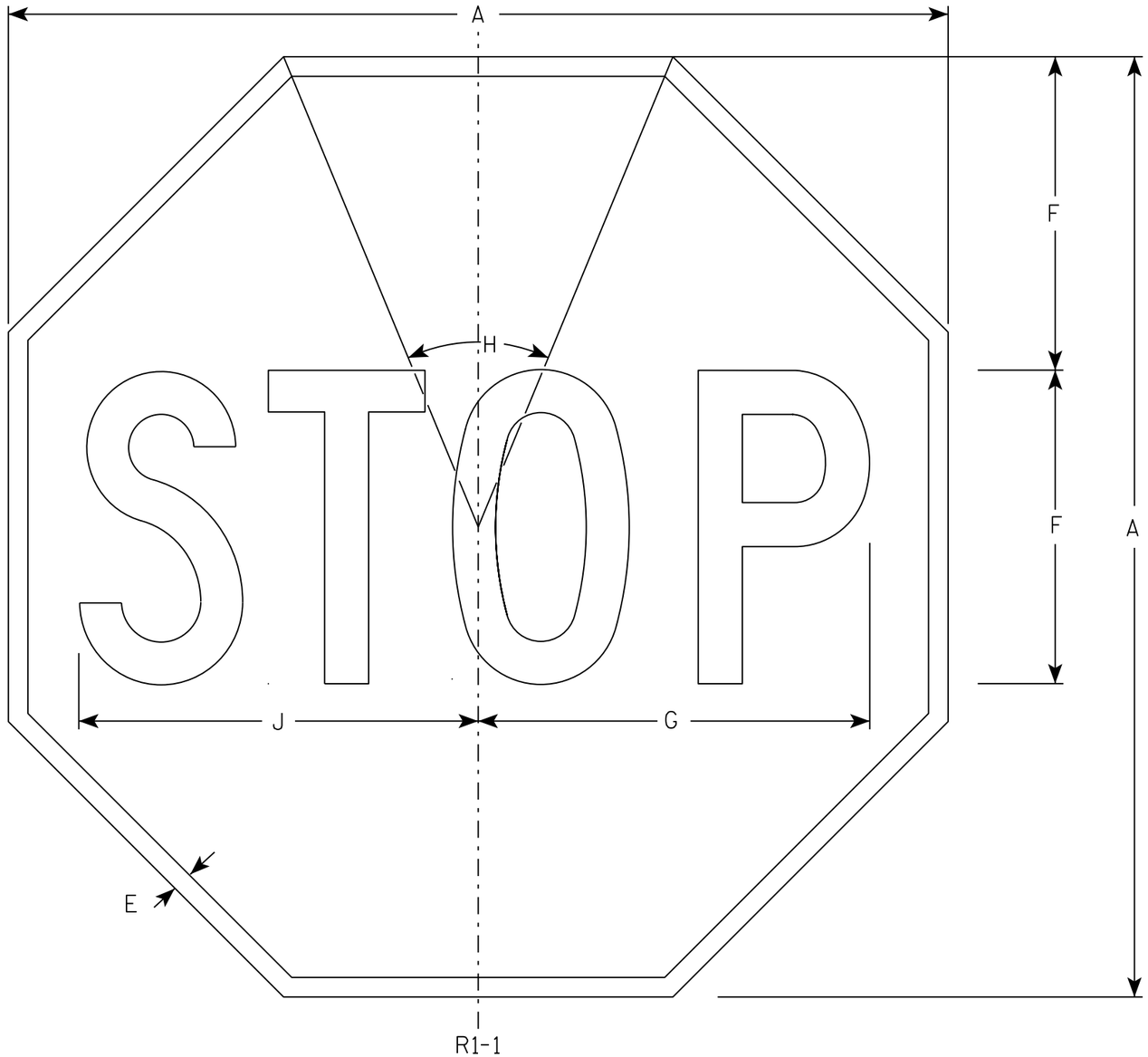
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 330 M6-4.10

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M64.DGN PLOT DATE : 01-DEC-2015 17:58 PLOT BY : $$ platuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R1-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message 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	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1-1

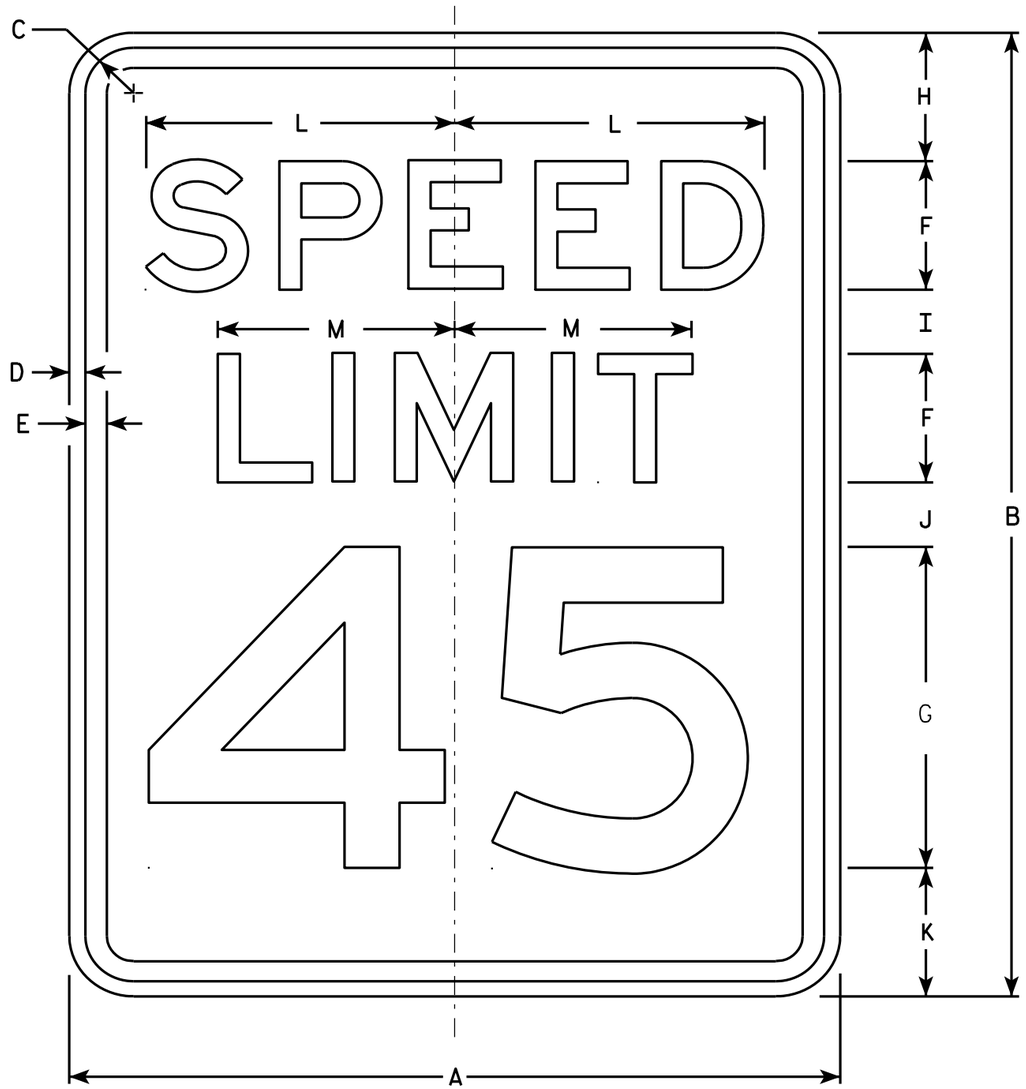
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R11.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.378143:1.000000



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. 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 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	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 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	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

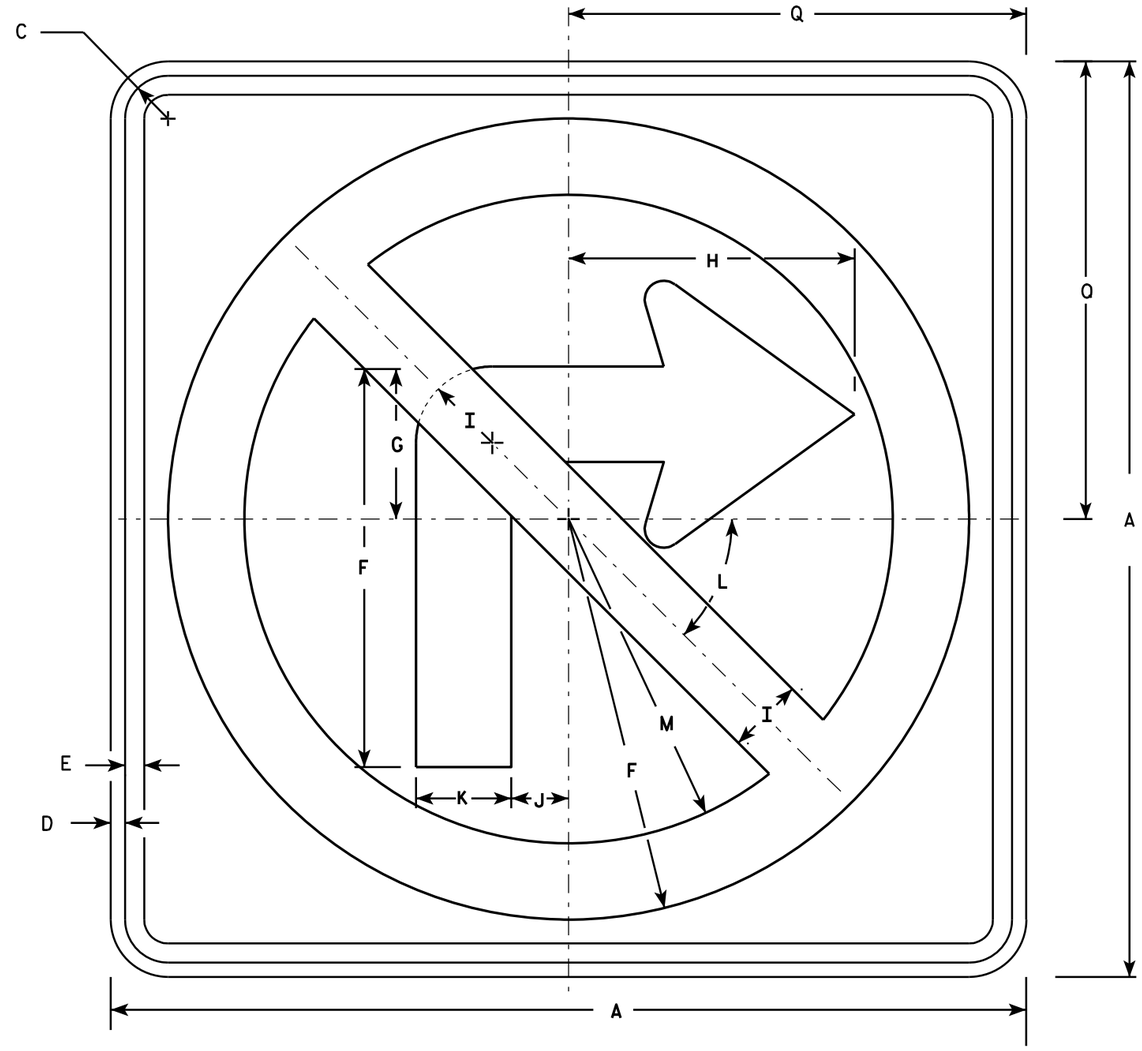
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 332 | E

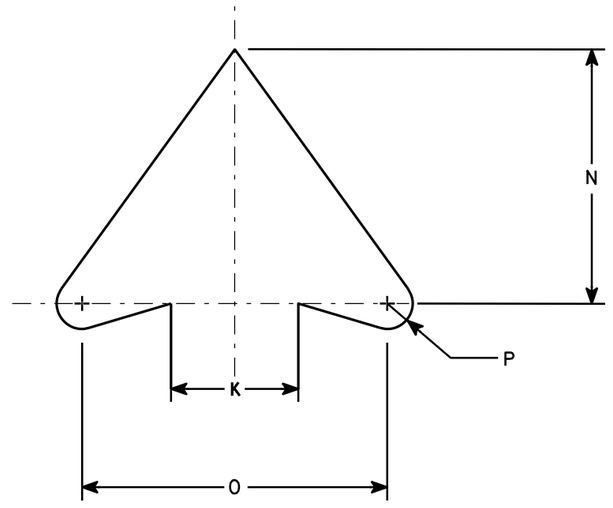
FILE NAME : C:\Users\PROJECTS\tr_stdplate\R21.DGN PLOT DATE : 28-MAY-2010 08:32 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.717577:1.000000 WISDOT/CADDS SHEET 42



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	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 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

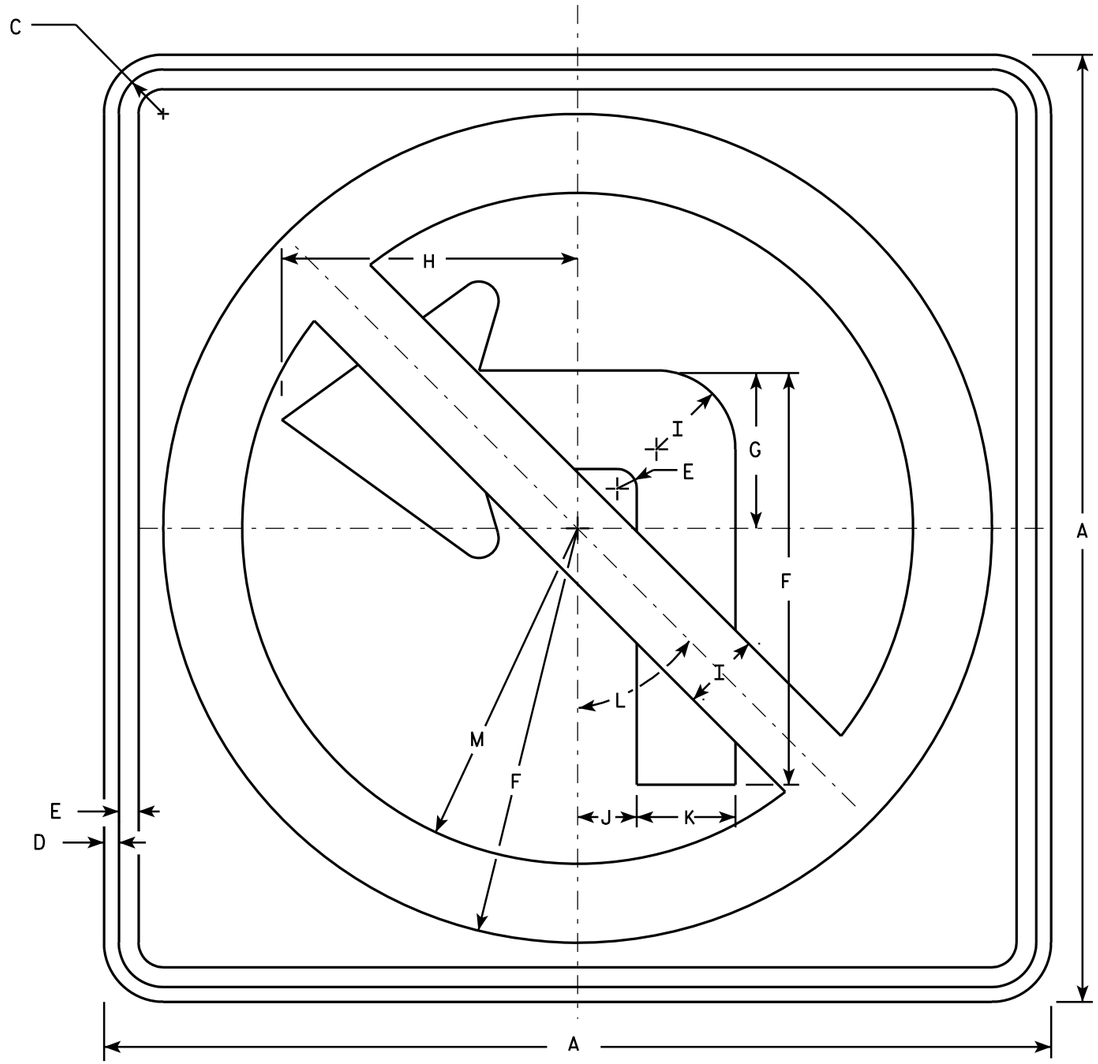
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

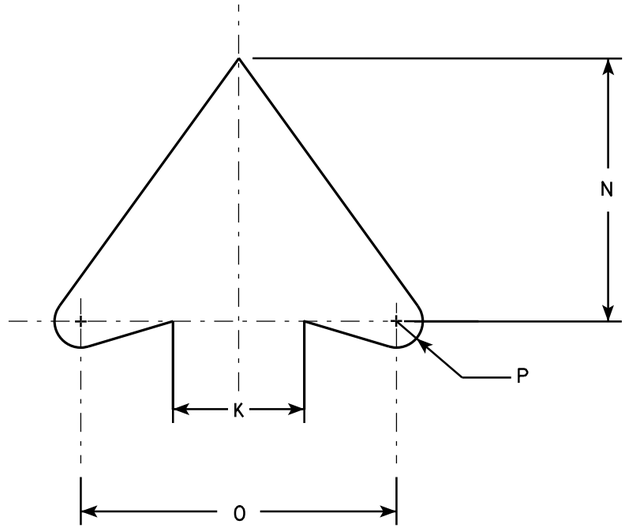
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 333	E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	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 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

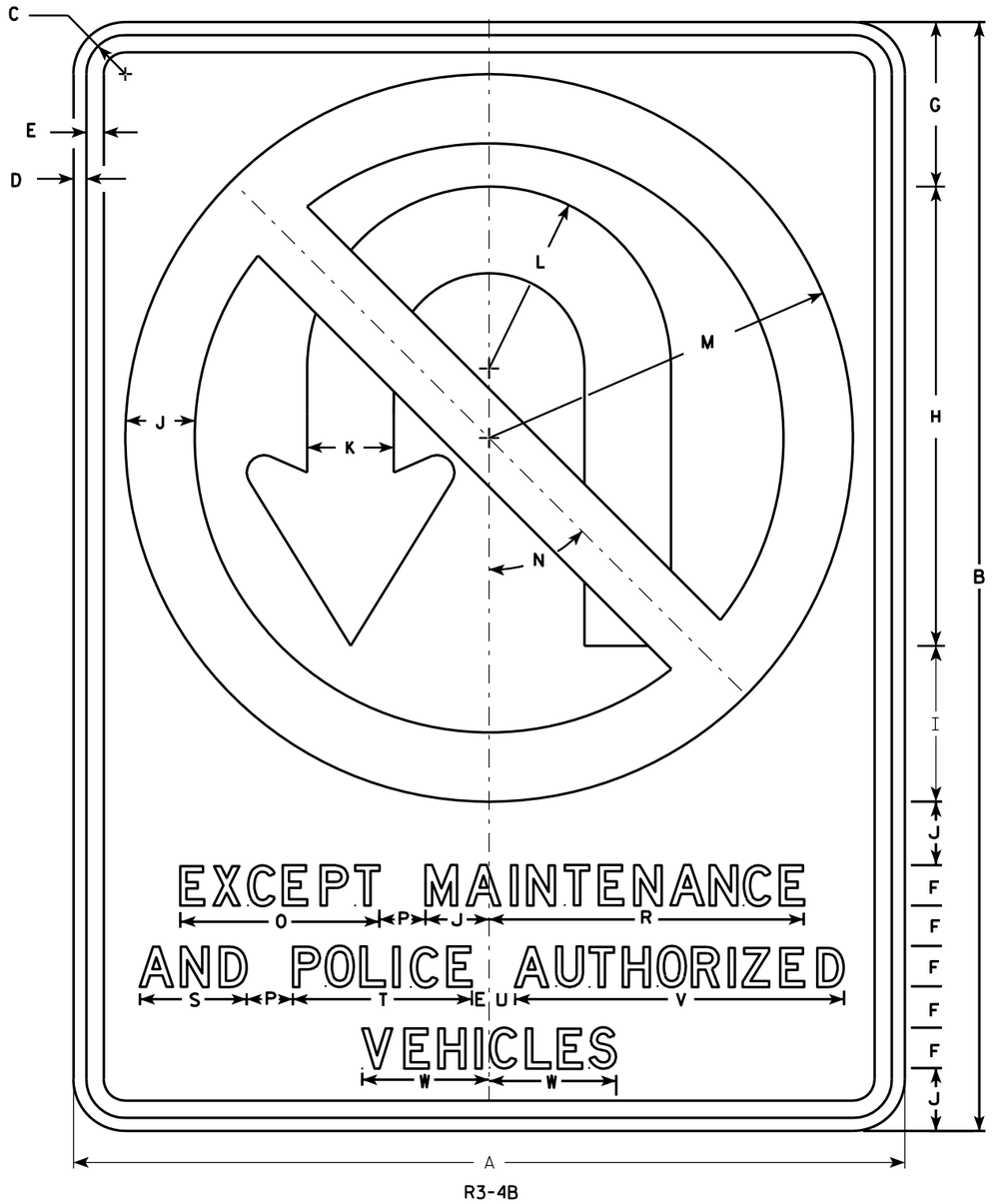
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

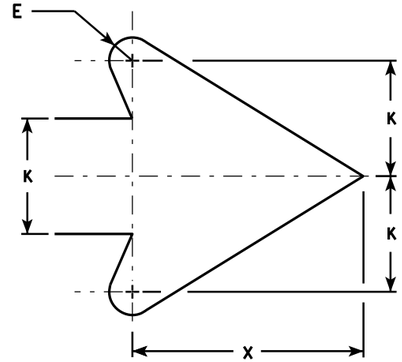
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 334	E



R3-4B

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	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																											
2M																											
3																											
4	36	48	1 5/8	5/8	3/4	1 3/4	7 1/8	19 7/8	6 3/4	2 3/4	3 3/4	7 7/8	15 3/4	45°	8 5/8	2		13 5/8	4 5/8	7 3/4	1 1/8	14 1/4	5 1/2	7 5/8			12.0
5	36	48	1 5/8	5/8	3/4	1 3/4	7 1/8	19 7/8	6 3/4	2 3/4	3 3/4	7 7/8	15 3/4	45°	8 5/8	2		13 5/8	4 5/8	7 3/4	1 1/8	14 1/4	5 1/2	7 5/8			12.0

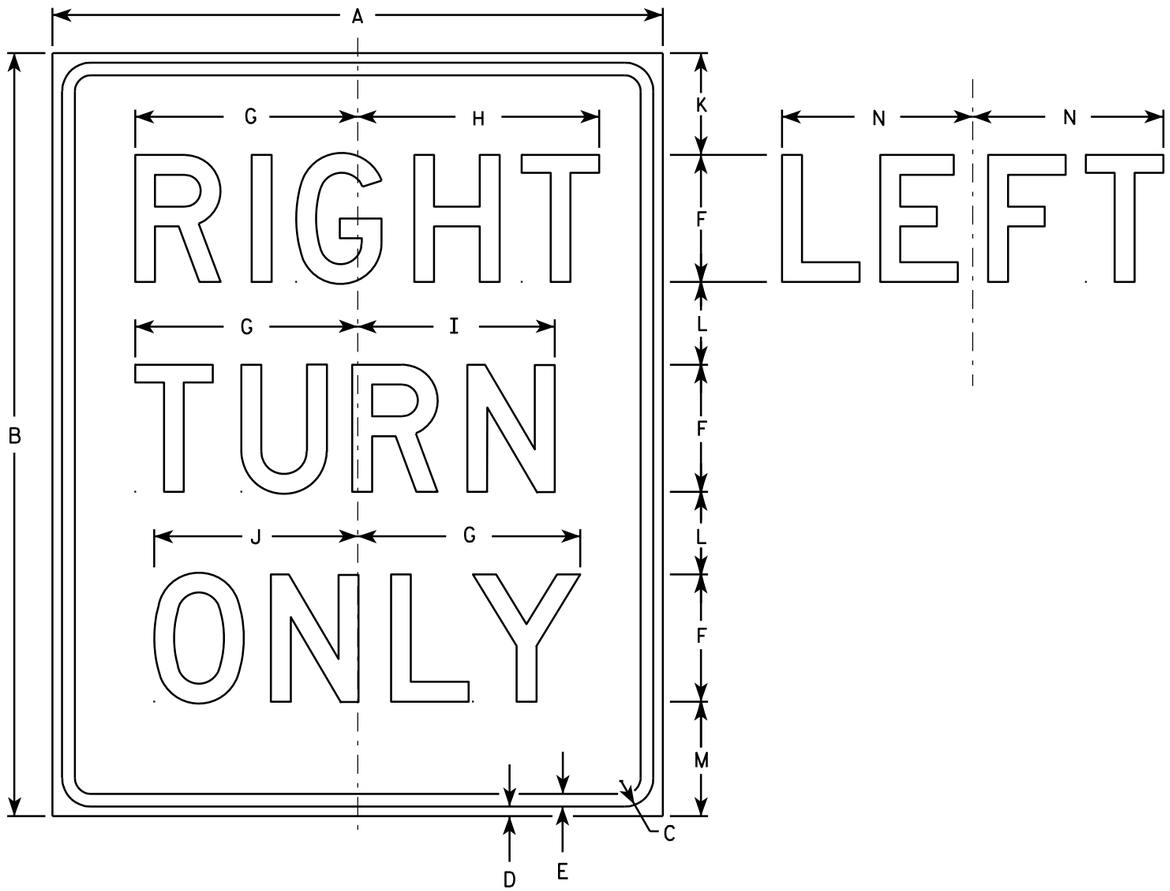
STANDARD SIGN
R3-4B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/17/2011 PLATE NO. R3-4B.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 335	E



R3-53R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - 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. R3-53L same as R3-53R except LEFT is substituted for RIGHT.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
2M	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
3	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
4																											
5																											

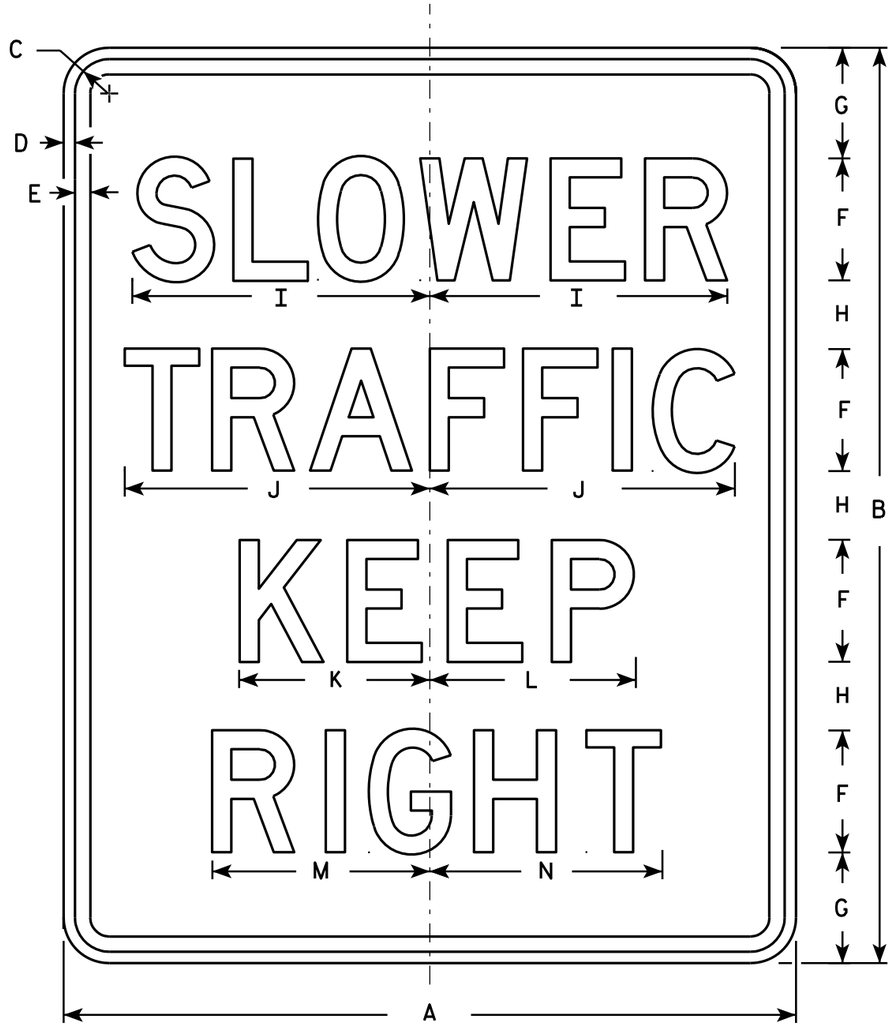
STANDARD SIGN
R3-53

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-53.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 336	E



R4-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
3	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
4	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/2	20	12 1/2	13 1/2	14 1/4	15 1/4													20.0

STANDARD SIGN
R4-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-3.8

PROJECT NO:

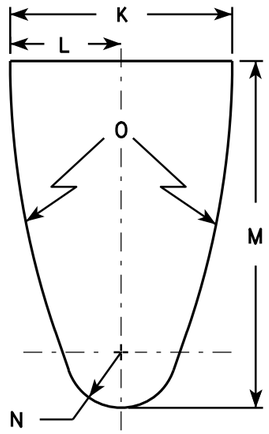
SHEET NO: 337 E

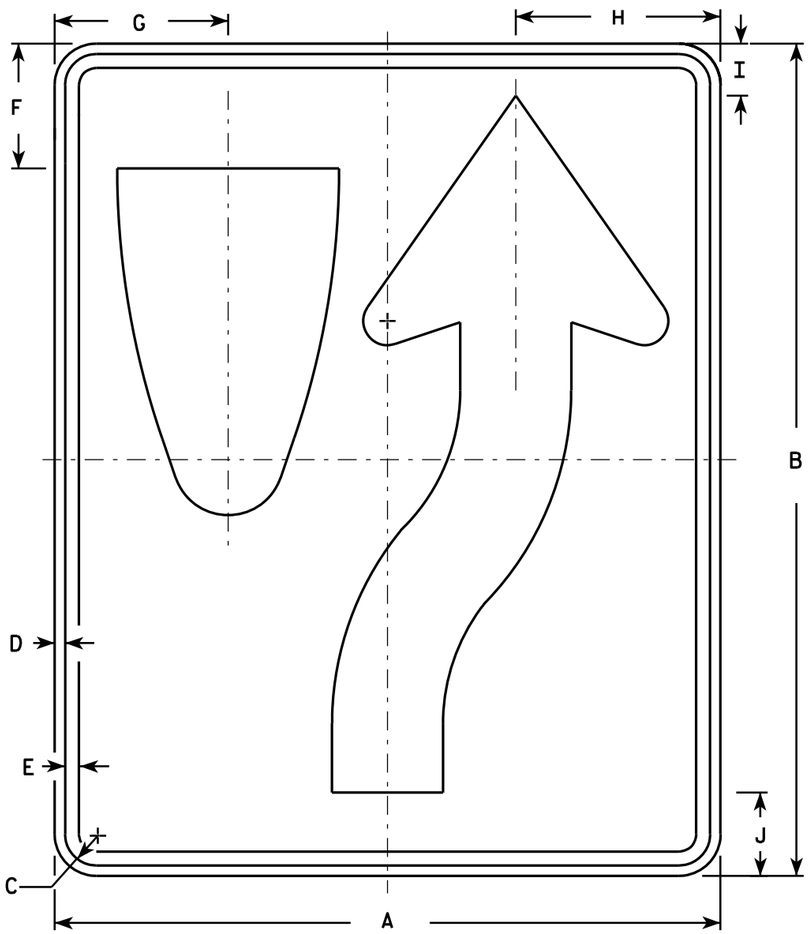
FILE NAME : C:\Users\PROJECTS\tr_stdplate\R43.DGN PLOT DATE : 25-MAR-2011 13:40 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

7

7

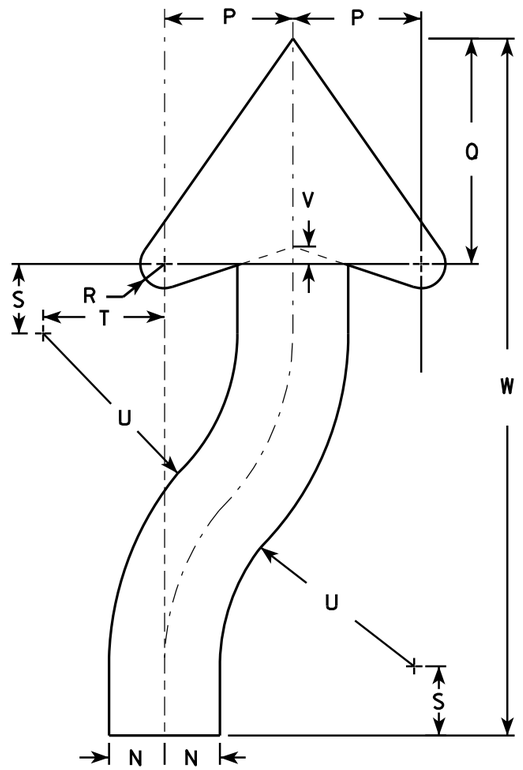




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend 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	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

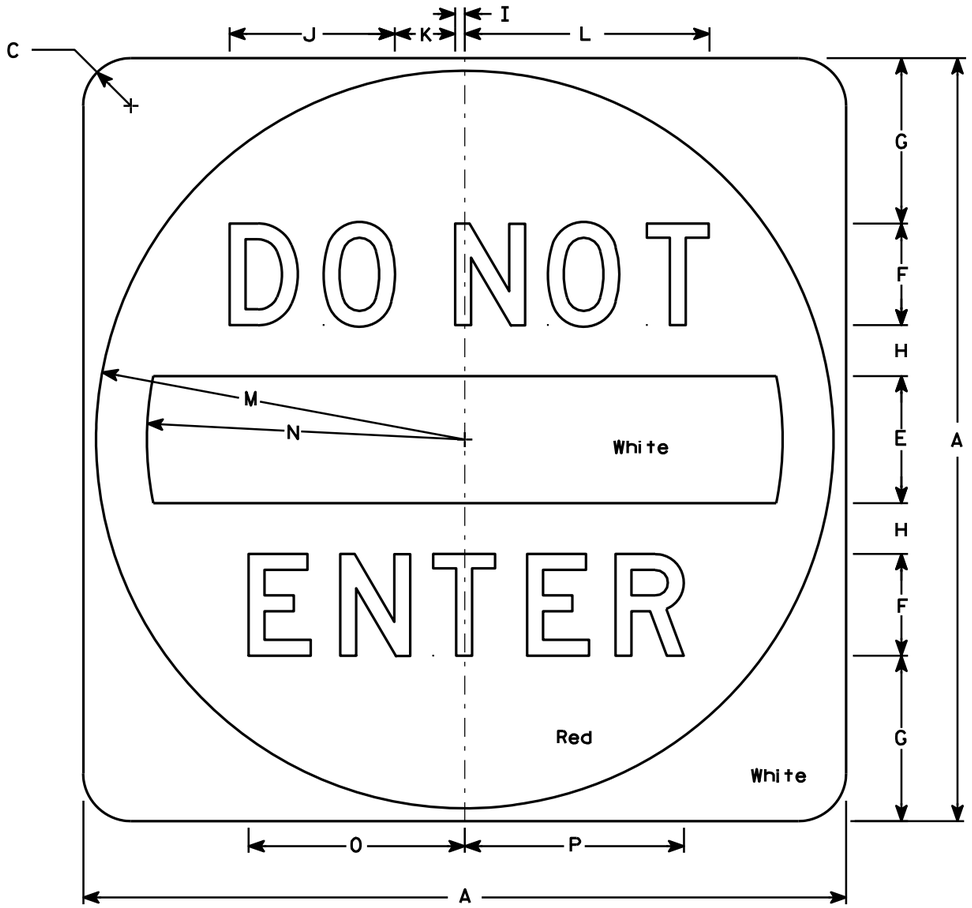
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 338	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See detail
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but when base material is metal, the cornors shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.26
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

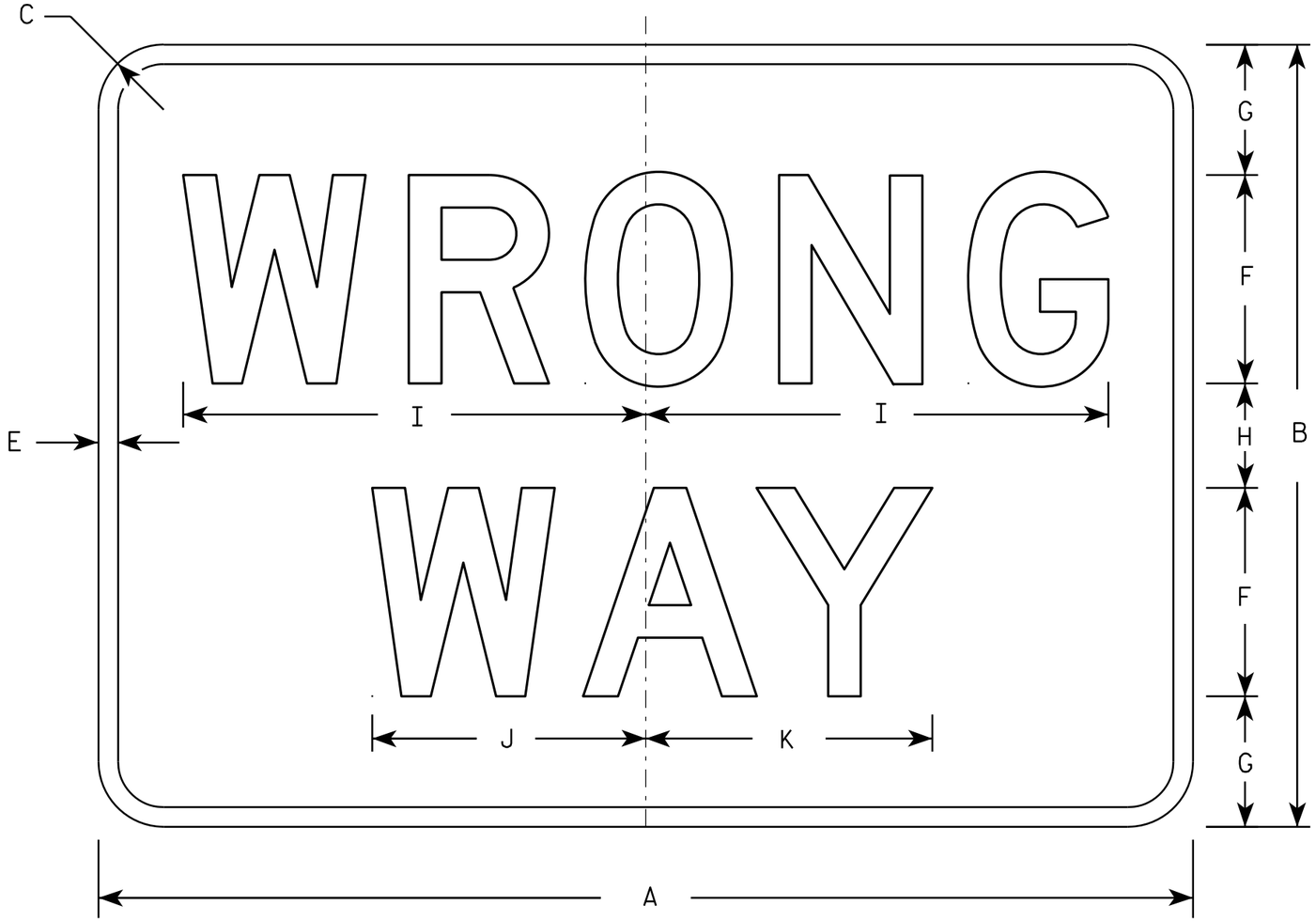
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 339 | E



R5-1A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 340 | E

R5-57

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Lines 1, 2, and 5 are Series C.
   Lines 3 and 4 are 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																											
2S																											
2M																											
3																											
4	36		1 5/8	5/8	3/4	4	3	2	3 1/2	14 1/4	14 7/8	11	11 1/2	4 3/4	1 3/4	9		1 3/8	10	11	2 1/2	1 3/4	15 1/2	13	13 5/8		9.0
5	36		1 5/8	5/8	3/4	4	3	2	3 1/2	14 1/4	14 7/8	11	11 1/2	4 3/4	1 3/4	9		1 3/8	10	11	2 1/2	1 3/4	15 1/2	13	13 5/8		9.0

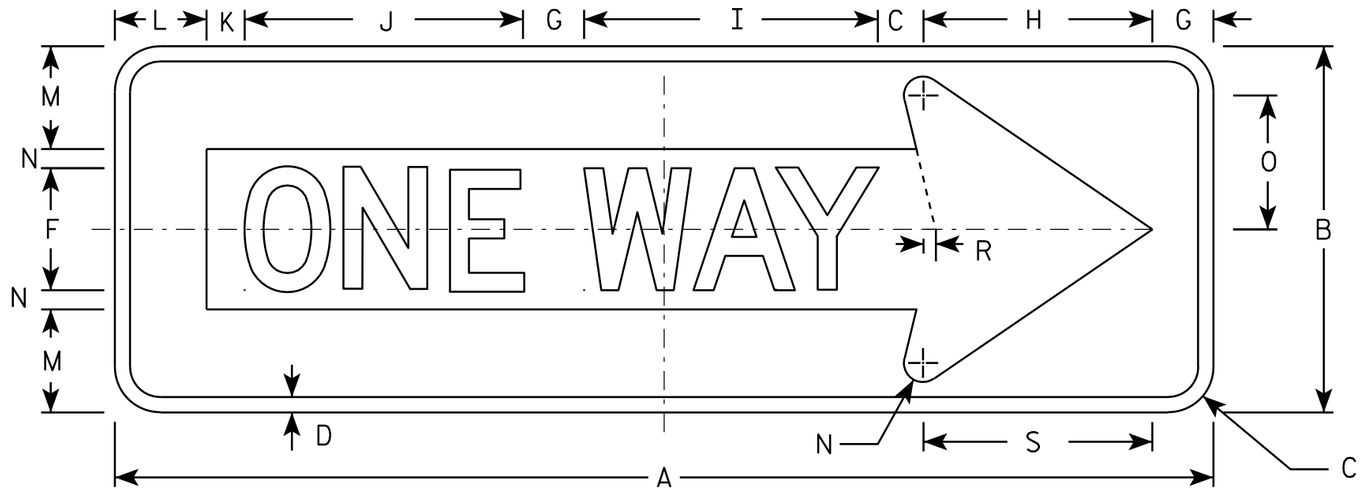
STANDARD SIGN
R5-57

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-57.10

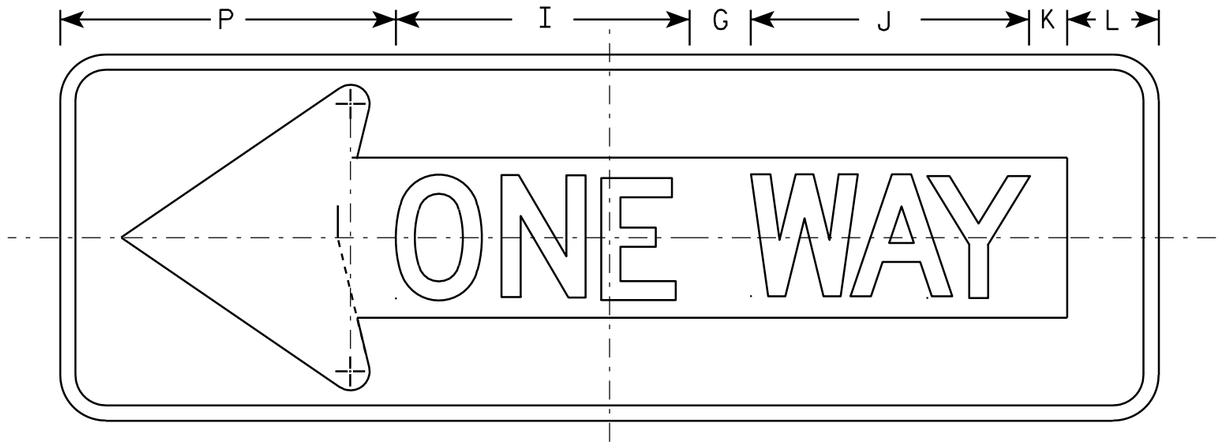
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 341 | E



R6-1R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - BLACK
   Message - BLACK LEGEND & WHITE ARROW & BORDER
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.



R6-1L

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	36	12	1 ½	½		4	2	7 ½	9 ⅝	9 ⅛	1 ¼	3	3 ⅜	⅝	4 ⅜	11		⅜	7 ½								3.0
2M	54	18	2 ¼	¾		6	3	11 ¼	14 ½	13 ⅝	1 ⅞	4 ½	5	1	6 ½	16 ½		⅝	11 ¼								6.75
3	54	18	2 ¼	¾		6	3	11 ¼	14 ½	13 ⅝	1 ⅞	4 ½	5	1	6 ½	16 ½		⅝	11 ¼								6.75
4	54	18	2 ¼	¾		6	3	11 ¼	14 ½	13 ⅝	1 ⅞	4 ½	5	1	6 ½	16 ½		⅝	11 ¼								6.75
5																											

STANDARD SIGN
R6-1 L & R

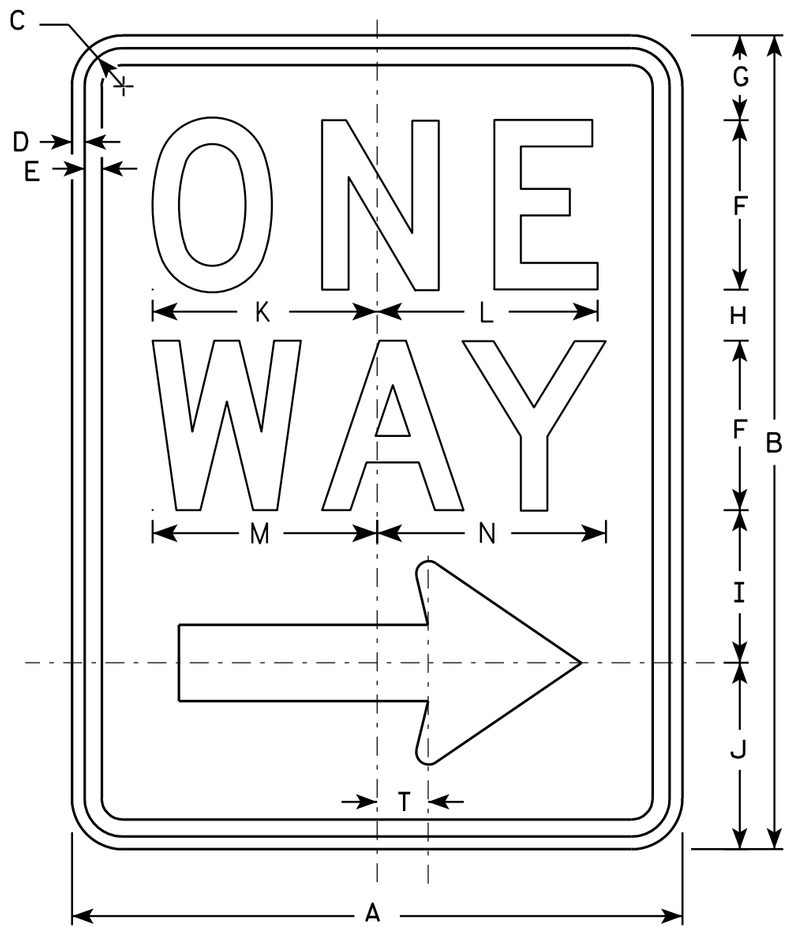
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R6-1.2

PROJECT NO:

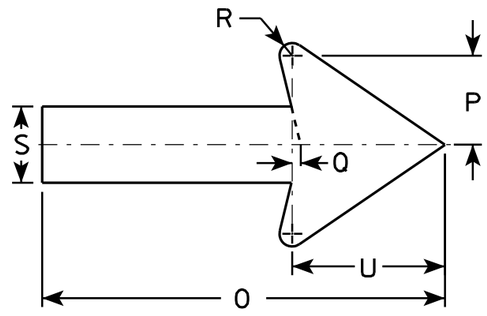
SHEET NO: 342 E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - 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. R6-2L same as R6-2R except arrow points to the left.



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 1/8	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	30	1 1/8	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 3/8	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																										

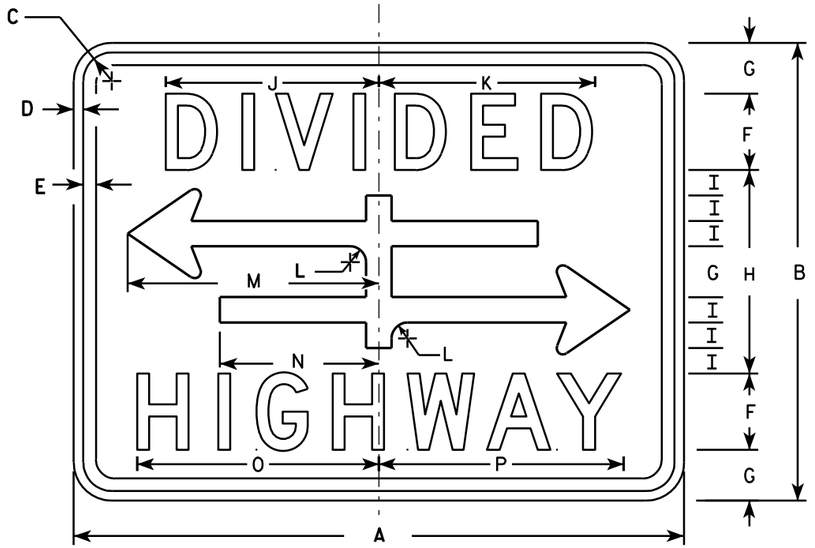
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

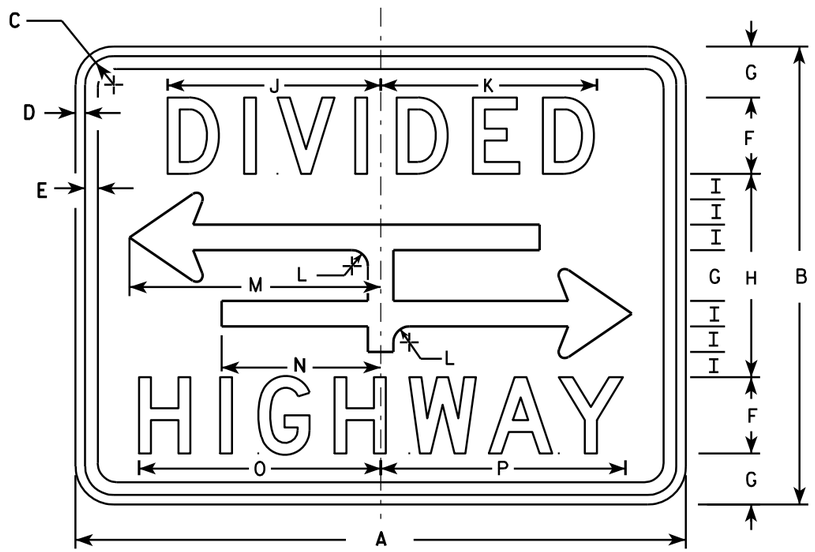
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 343	E



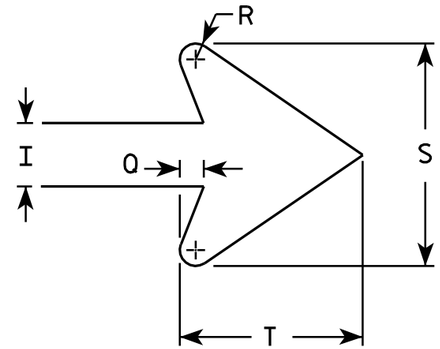
R6-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - 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.



R6-3A



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	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

STANDARD SIGN
R6-3 & R6-3A

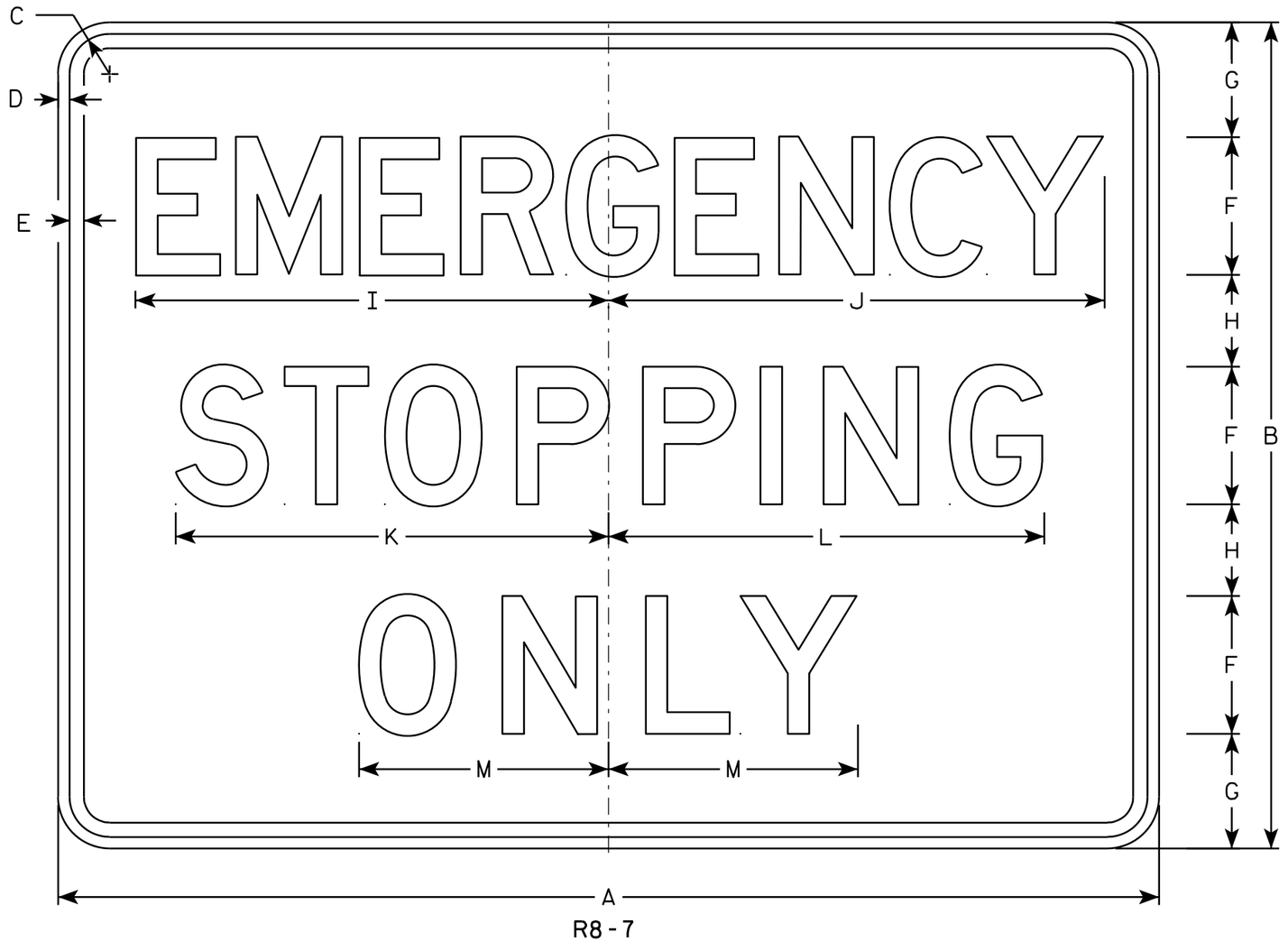
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

SHEET NO: 344 E



R8-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	48	36	1 3/4	1/2	5/8	6	5	4	20 5/8	21 5/8	18 7/8	19	10 7/8														12.0
5	48	36	1 3/4	1/2	5/8	6	5	4	20 5/8	21 5/8	18 7/8	19	10 7/8														12.0

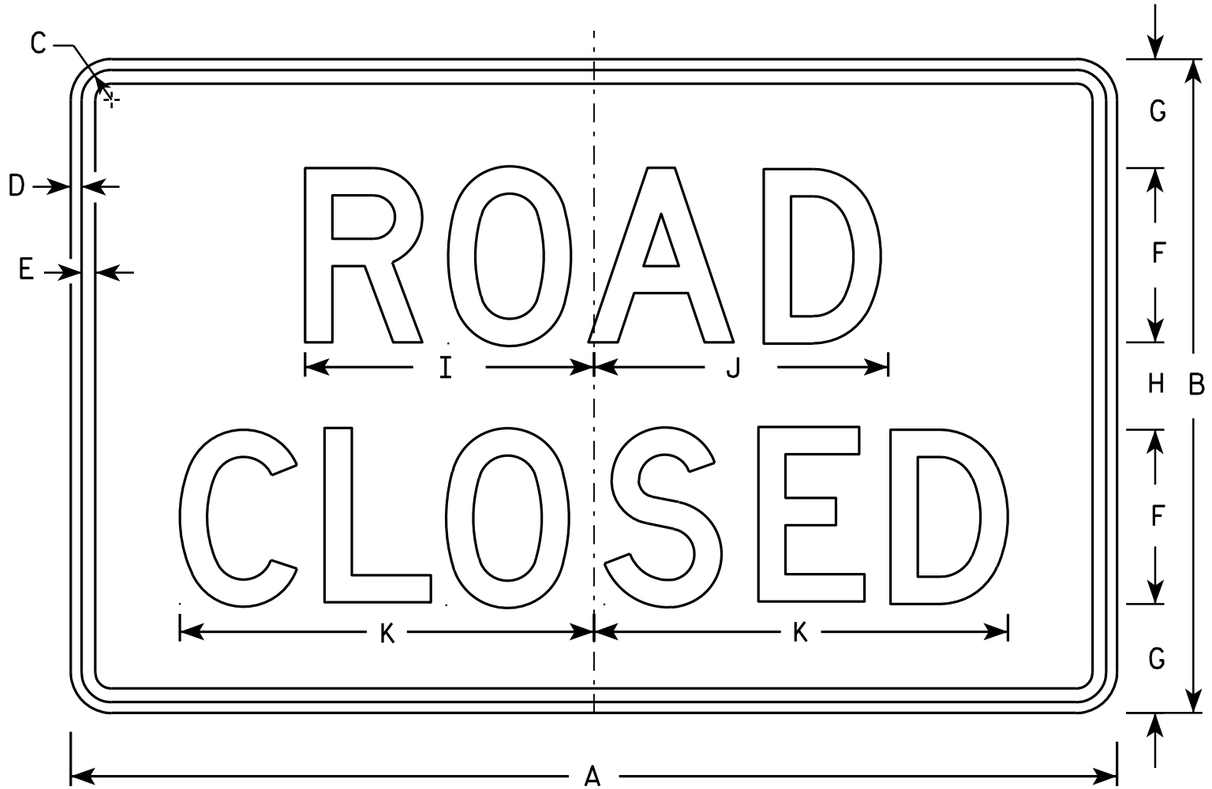
STANDARD SIGN
R8-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R8-7.6

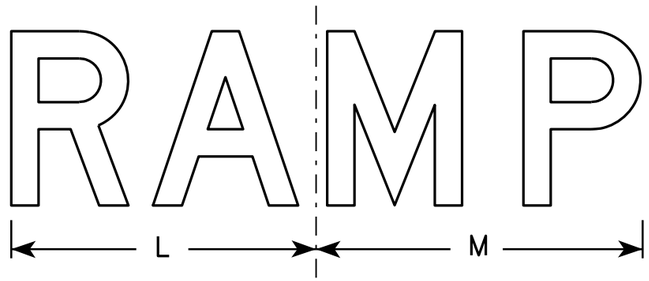
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 345 | E



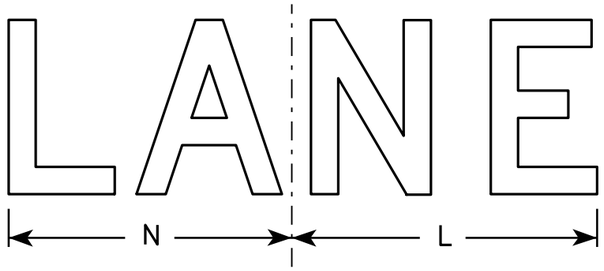
R11-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - 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



R11-2L

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 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

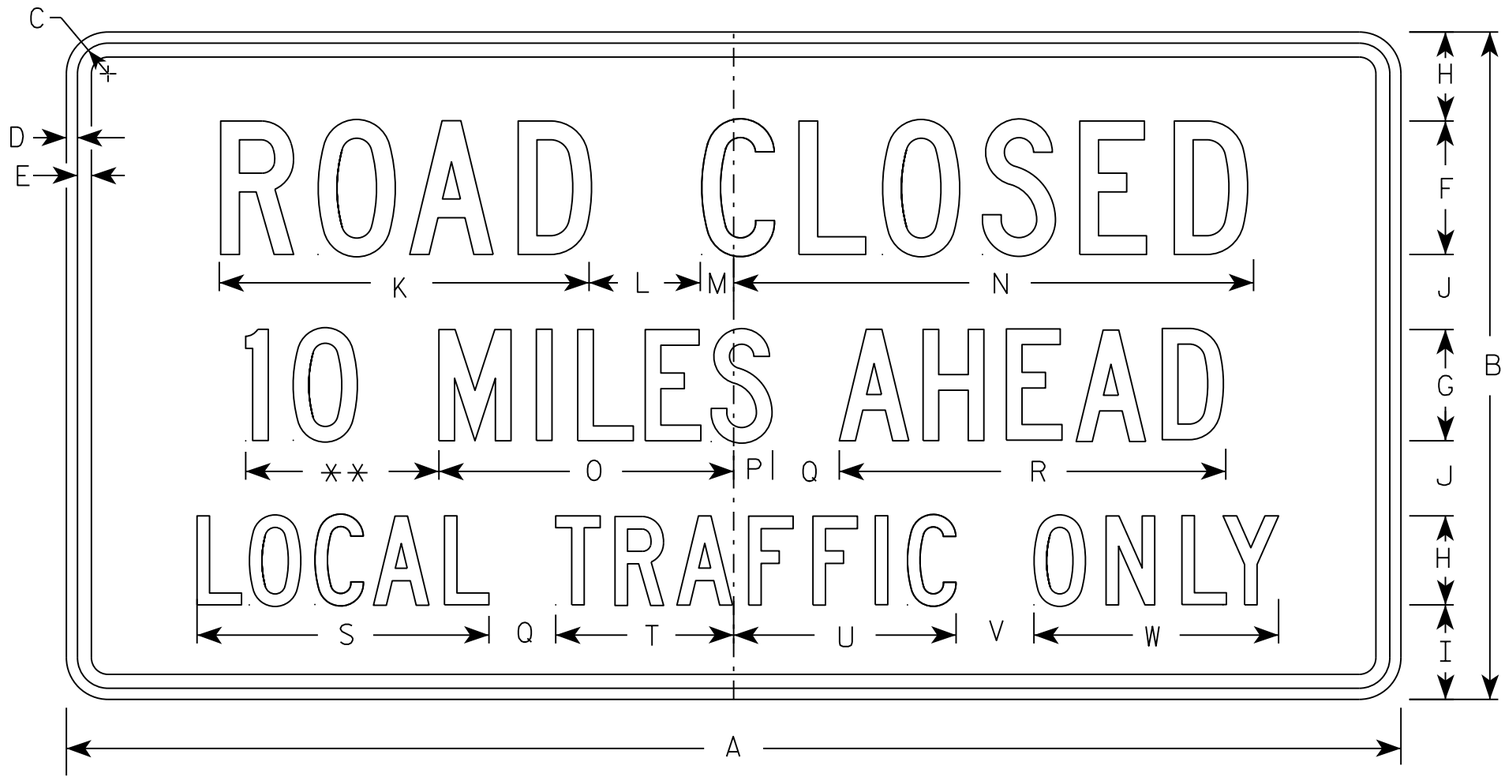
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 346	E



R11-3

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.

** See Note 5

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 3/8	1/2	5/8	4	3	2 1/2	2	2	11 1/8	3	1 1/8	15 1/4	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4				4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11				12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11				12.5
3																											
4																											
5																											

STANDARD SIGN
R11-3

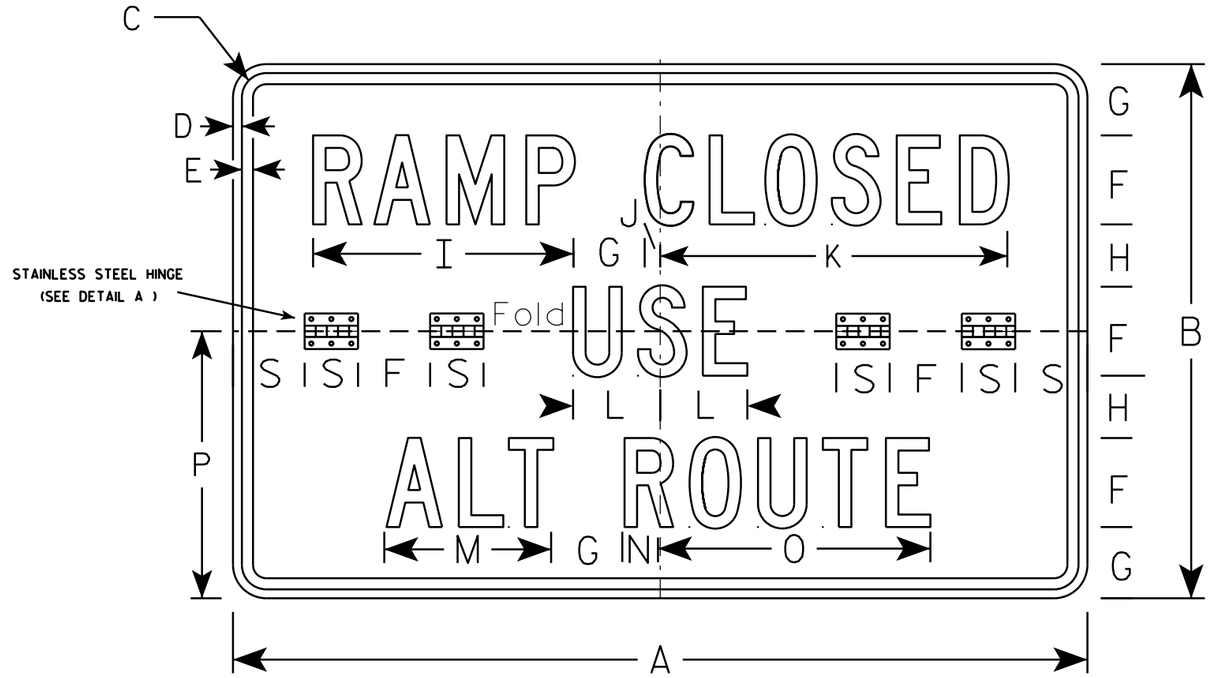
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/28/16 PLATE NO. R11-3.7

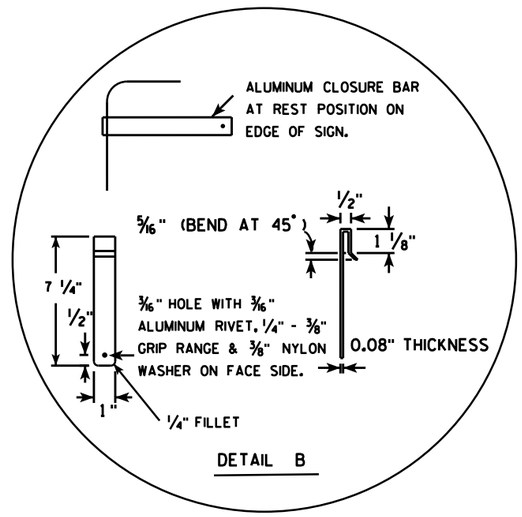
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R113.DGN PLOT DATE : 28-JUL-2016 16:25 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 6.810445:1.000000



R11-54F

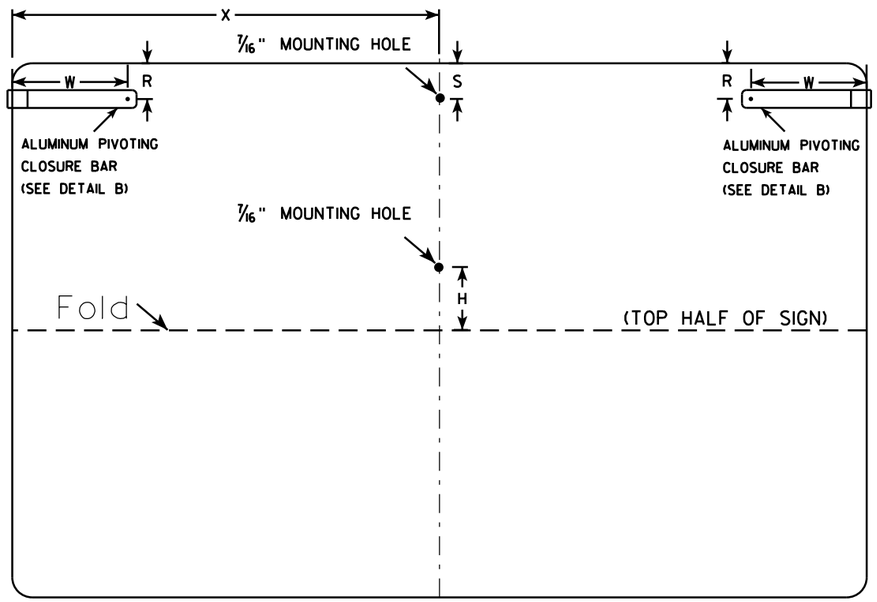
DETAIL A



DETAIL B

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - WHITE
   Message - BLACK
3. Message Series - C
4. Sign Base Material shall be aluminum, corners and borders shall be rounded.
5. All hardware used on the folding sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.
6. Refer to plate A5-3A for sign blank layout.



(BACK VIEW)

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 3/8	1/2	5/8	5	4	3 1/2	14 5/8	7/8	19 1/2	4 7/8	9 3/8	2	15 1/4	15		2	3	2 5/8	1 1/4	11/16	6 1/2	24			10.0
2M	48	30	1 3/8	1/2	5/8	5	4	3 1/2	14 5/8	7/8	19 1/2	4 7/8	9 3/8	2	15 1/4	15		2	3	2 5/8	1 1/4	11/16	6 1/2	24			10.0
3																											
4																											
5																											

STANDARD SIGN
R11-54F

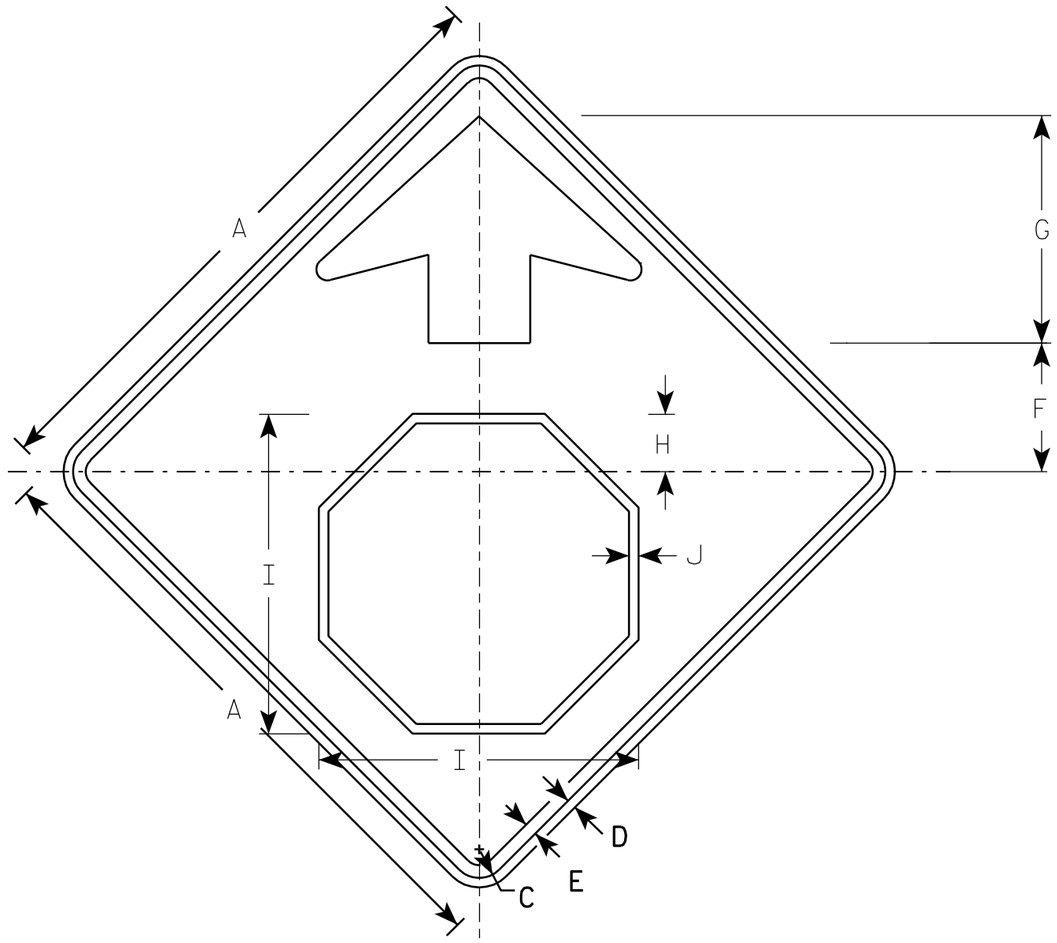
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/28/14 PLATE NO. R11-54F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

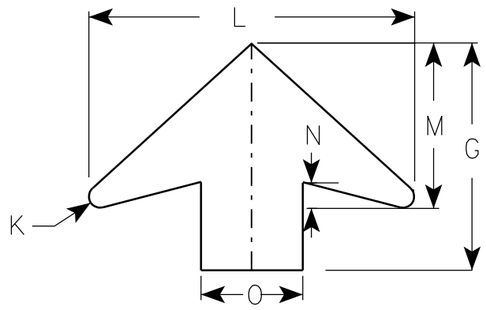
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R1154F.DGN PLOT DATE : 28-MAY-2014 14:15 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 8.511110:1.000000 WISDOT/CADDS SHEET 42



W3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Stop Symbol - WHITE BORDER ON RED BACKGROUND



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	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

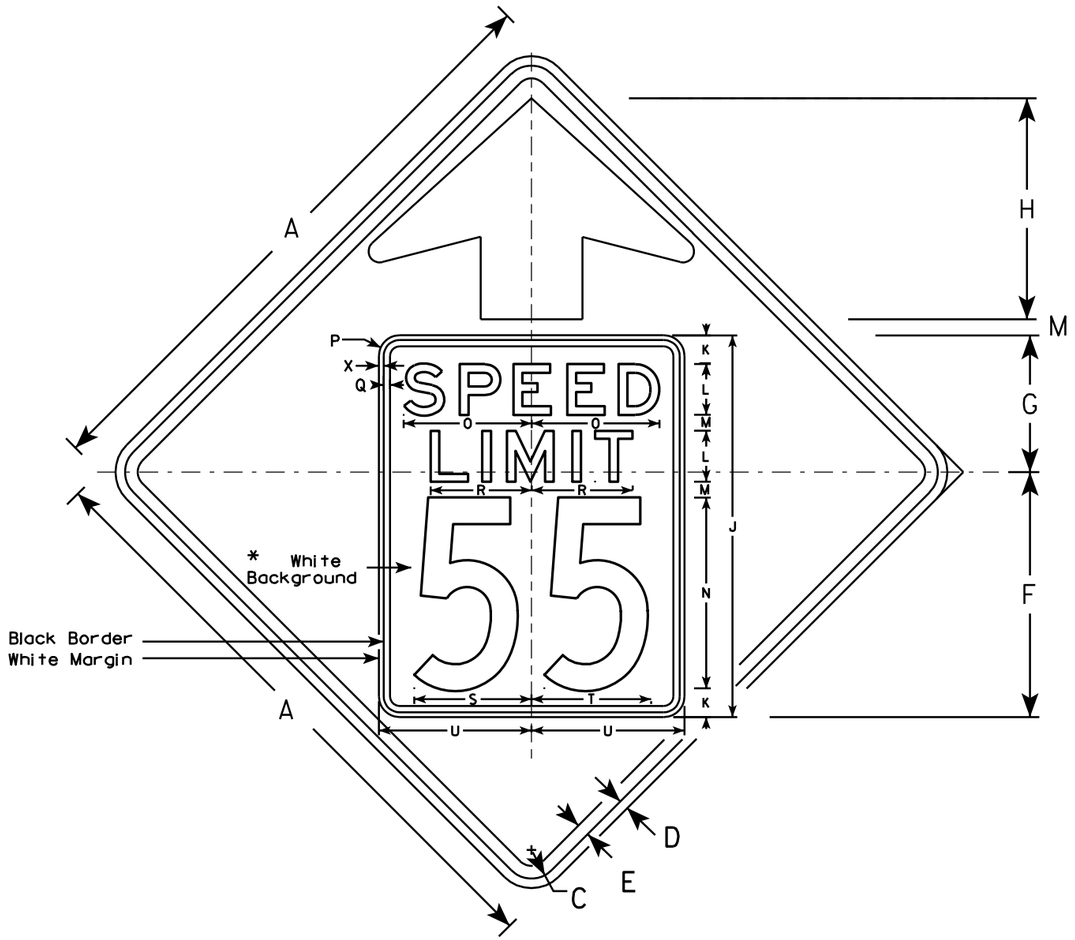
SHEET NO: 349 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W31.DGN PLOT DATE : 07-JUN-2010 12:59 PLOT BY : ditjph

WISDOT/CADDS SHEET 42

7

7

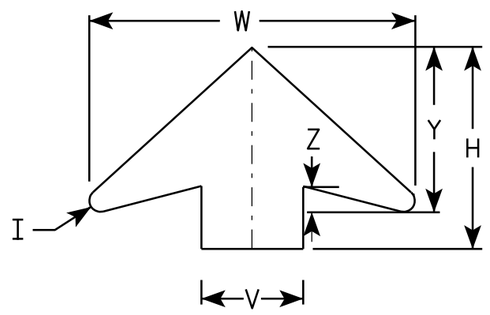


W3-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - YELLOW*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



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	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2M	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
3	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W3-5

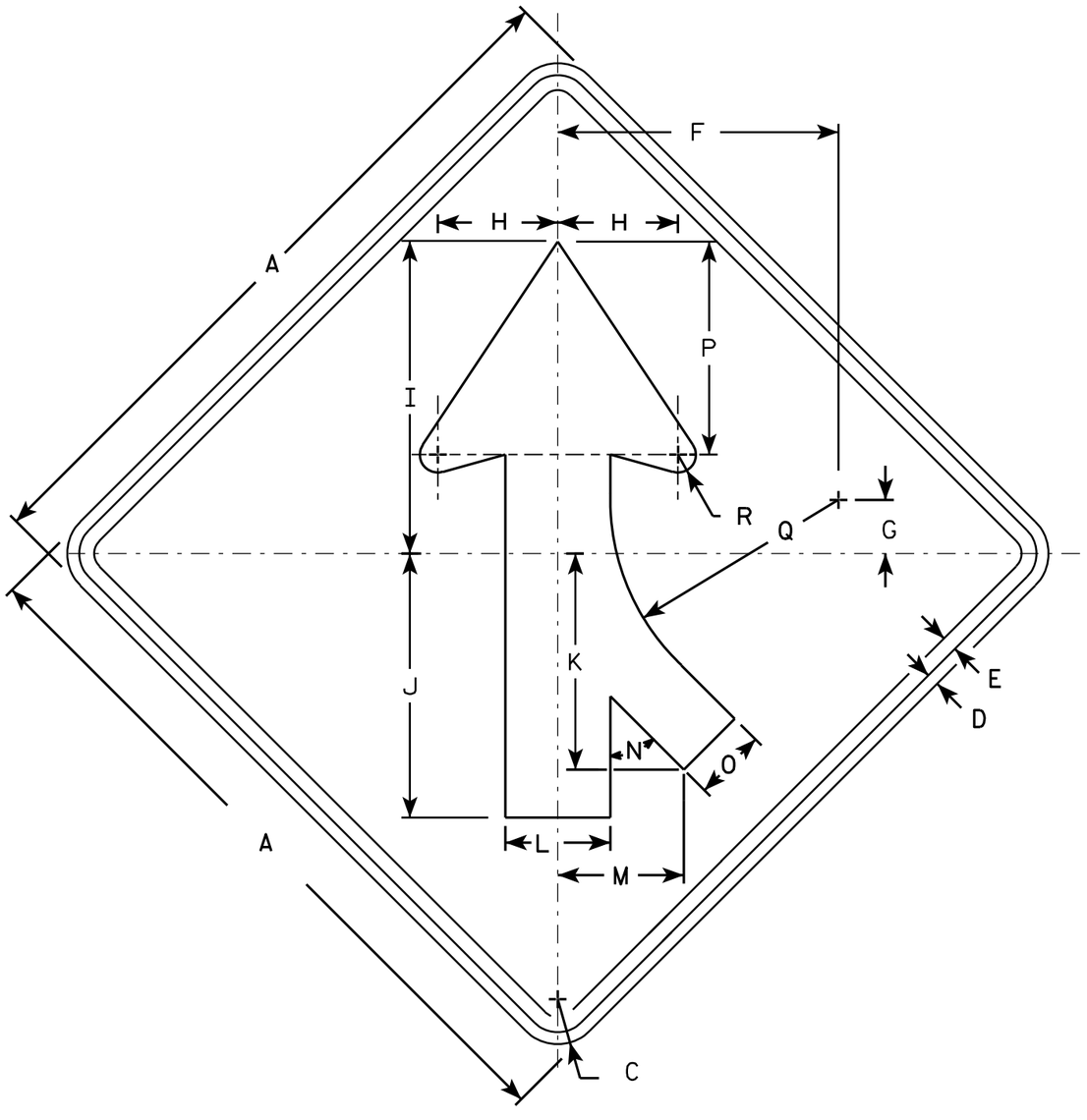
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 350 E



W4-1 R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-1L is the same as W4-1R 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	30		1 3/8	1/2	5/8	11 5/8	2 1/2	5	13	11	9	4 3/8	5 1/4	45°	3	8 7/8	9 1/2	3/4									6.25
2S	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2M	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
3	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

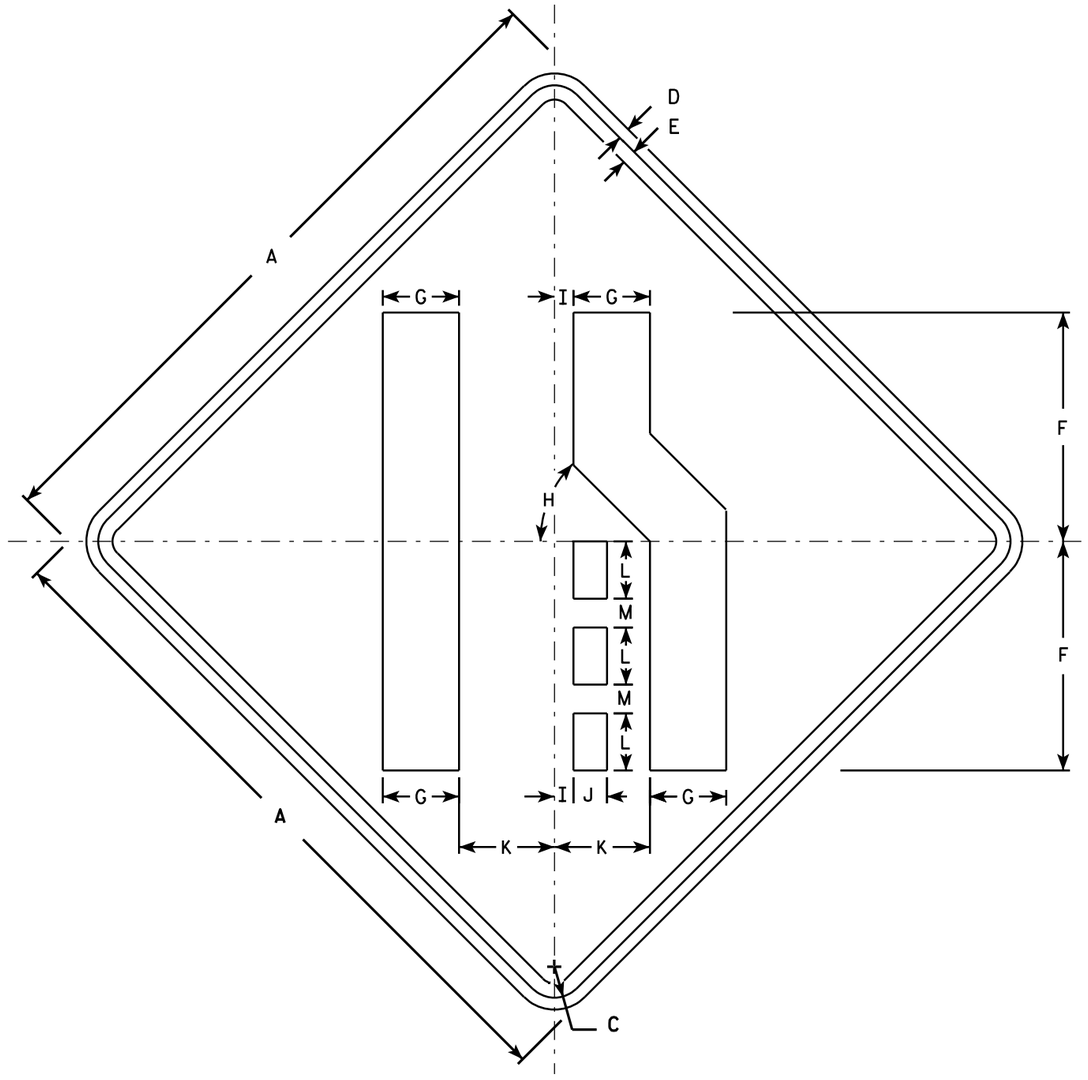
STANDARD SIGN
W4-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rausch for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 351	E



W4-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-2L is the same as W4-2R 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	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W4-2

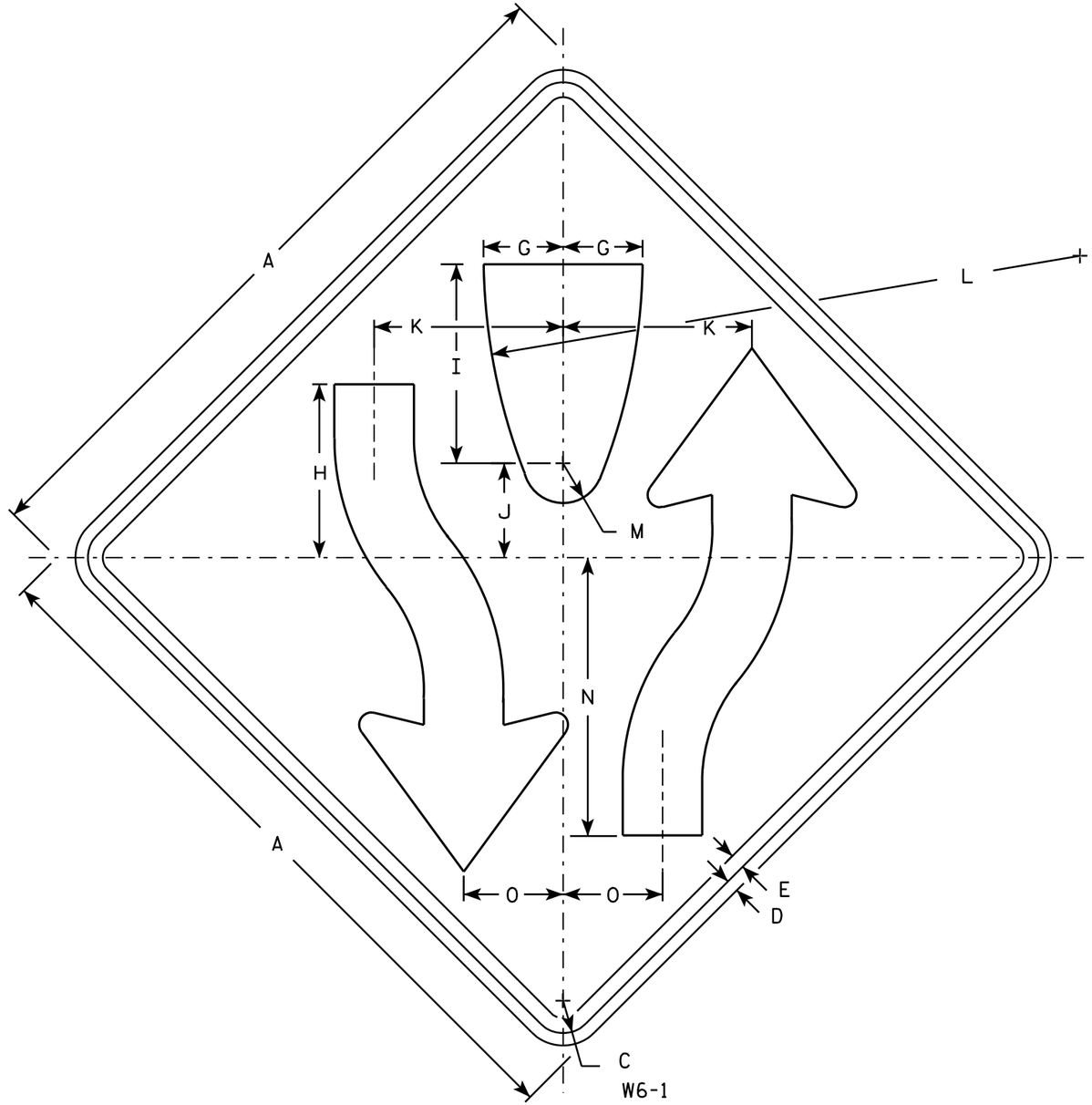
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

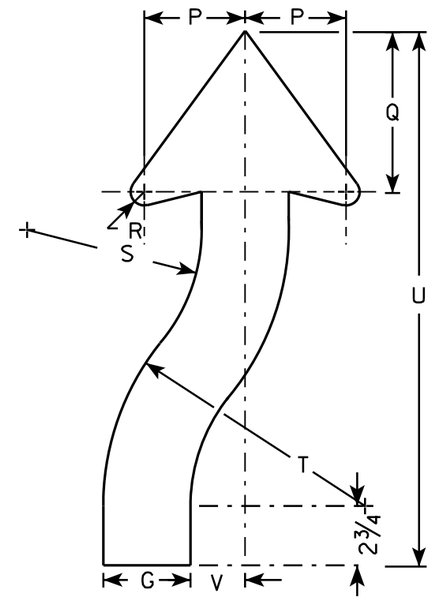
PROJECT NO:

SHEET NO: 352 E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W6-2 same as W6-1 but is rotated 180° when mounted.



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	30		1 3/8	1/2	5/8		3 1/4	8	8 1/4	4 1/8	7 7/8	25	1 3/4	11 5/8	4 1/8	3 7/8	6 3/4	5/8	6 5/8	9 7/8	21 5/8	2					6.25
2S	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2M	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
3																											
4	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

STANDARD SIGN
W6-1 & W6-2

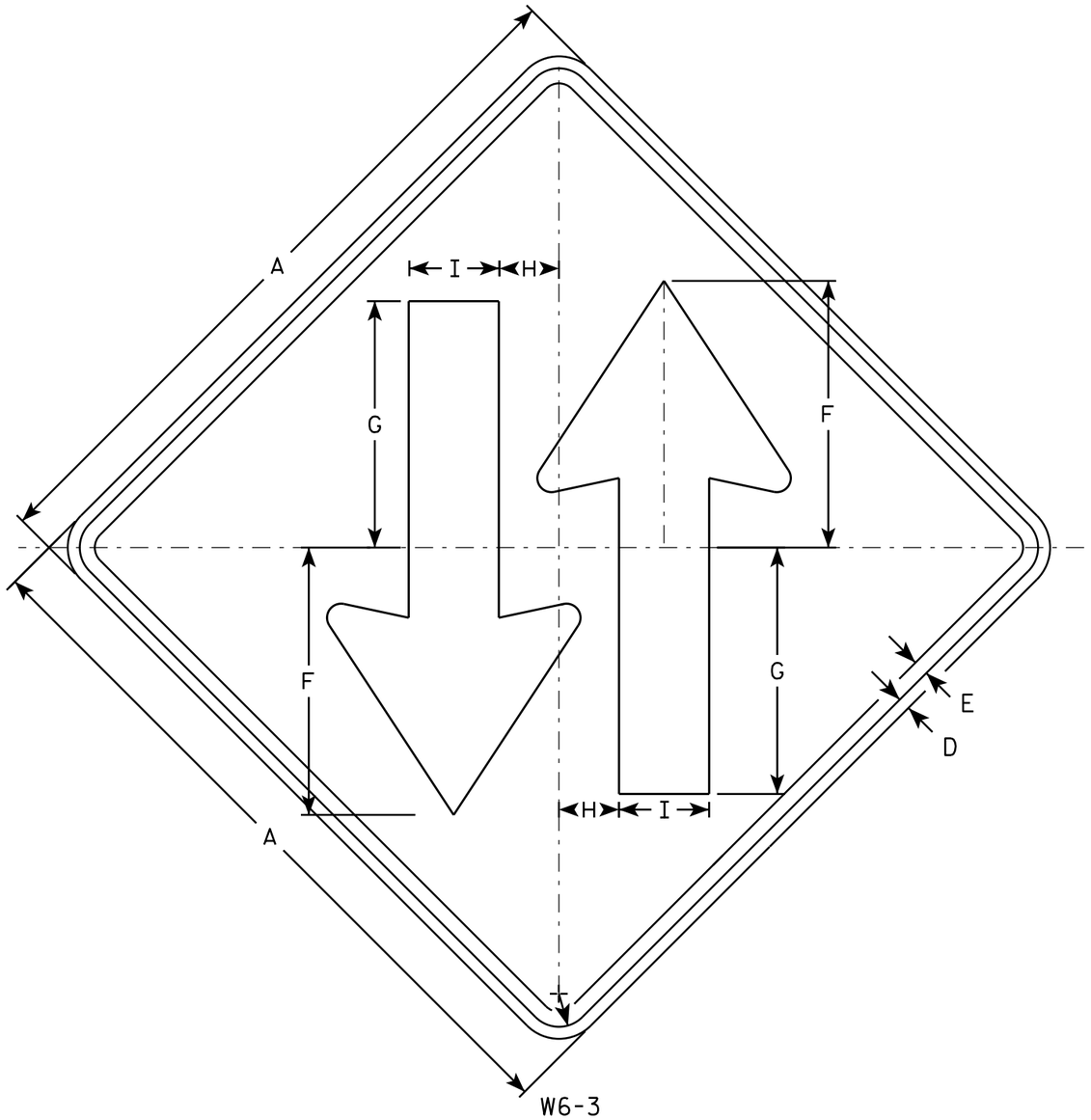
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 353 | E

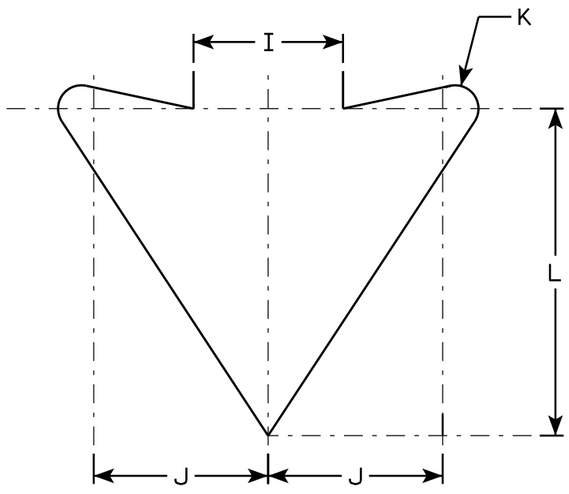
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W61.DGN PLOT DATE : 12-MAR-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.946657:1.000000
WISDOT/CADDS SHEET 42



W6-3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



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	30		1 3/8	1/2	5/8	11 1/8	10 1/4	2 1/2	3 3/4	4 3/8	5/8	8 1/4															6.25
2S	36		1 5/8	5/8	3/4	13 3/8	12 1/4	3	4 1/2	5 1/4	3/4	9 7/8															9.0
2M	36		1 5/8	5/8	3/4	13 3/8	12 1/4	3	4 1/2	5 1/4	3/4	9 7/8															9.0
3																											
4	48		2 1/4	3/4	1	17 3/4	16 3/8	4	6	7	1	13 1/8															16.0
5	48		2 1/4	3/4	1	17 3/4	16 3/8	4	6	7	1	13 1/8															16.0

STANDARD SIGN
W6-3

WISCONSIN DEPT OF TRANSPORTATION

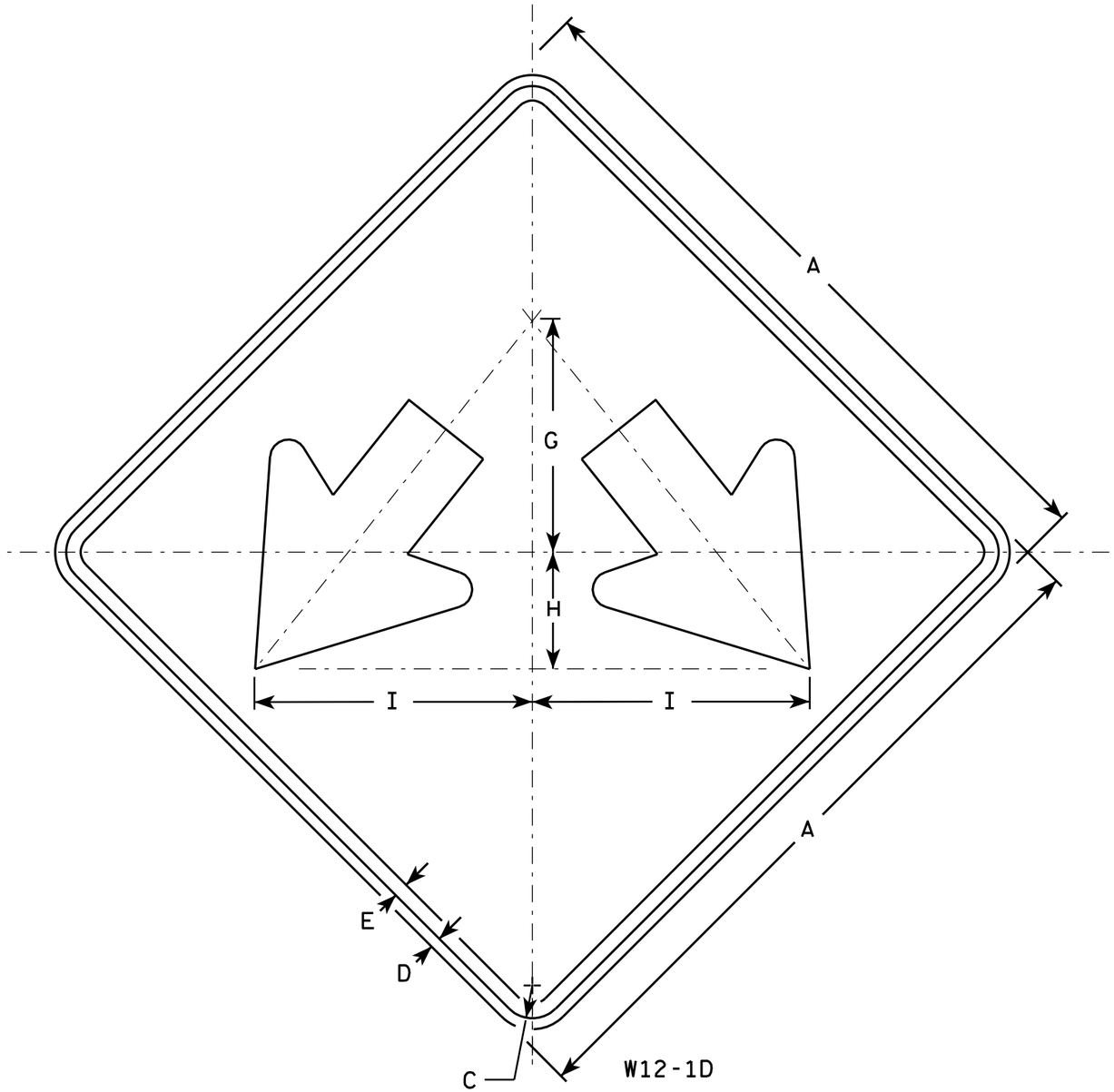
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/10/16 PLATE W6-3.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

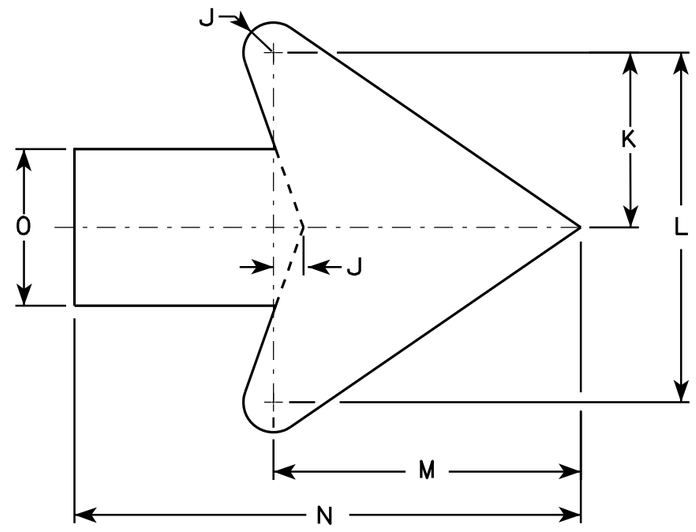
7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W63.DGN PLOT DATE : 10-MAR-2016 14:01 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.080757:1.000000
WISDOT/CADDS SHEET 42



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

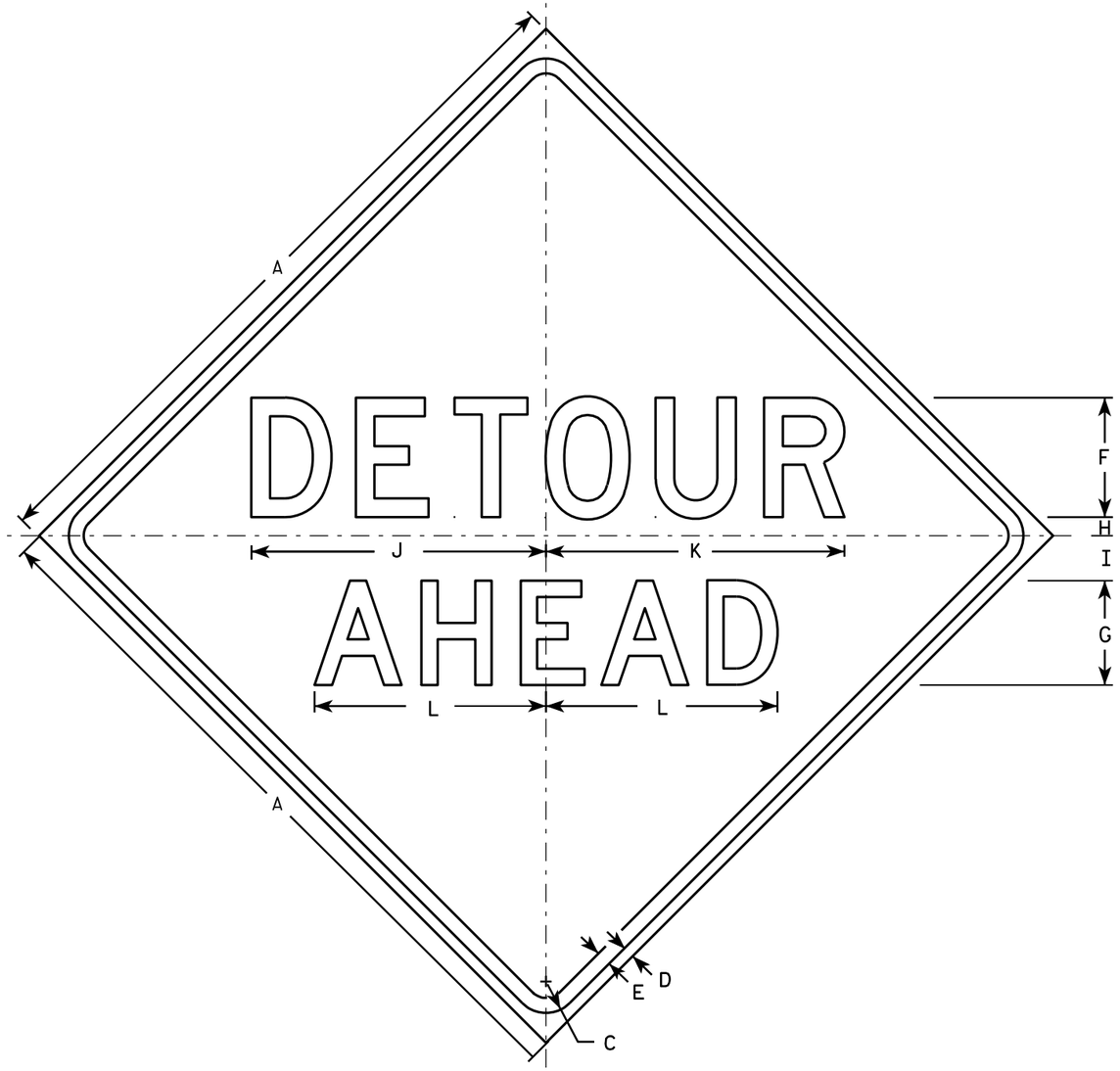
STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

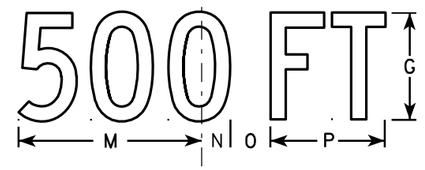
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

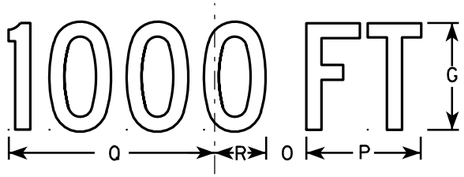
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 355	E



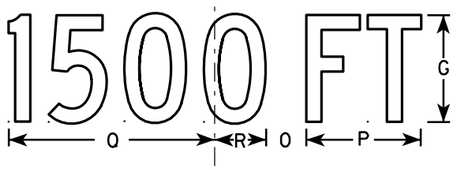
W20-2A



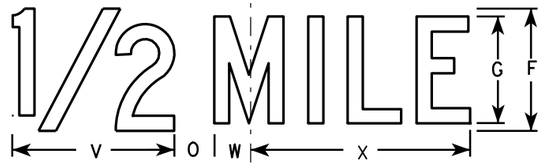
W20-2D



W20-2C



W20-2B



W20-2G

W20-2F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - 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		1 5/8	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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 3/18/11 PLATE NO. W20-2.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 356	E

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STATE PROJECT NUMBER
1227-08-71

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
509.1500	CONCRETE SURFACE REPAIR	SF	300
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	3/4 "

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS OF EXISTING STRUCTURE MEMBERS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

"CONCRETE SURFACE REPAIR" SHALL BE PERFORMED AT LOCATIONS AND LIMITS DETERMINED IN THE FIELD BY THE FIELD ENGINEER. PAYMENT WILL BE MADE FOR THE ACTUAL REPAIRS PERFORMED.

DESIGN DATA

LIVE LOAD:

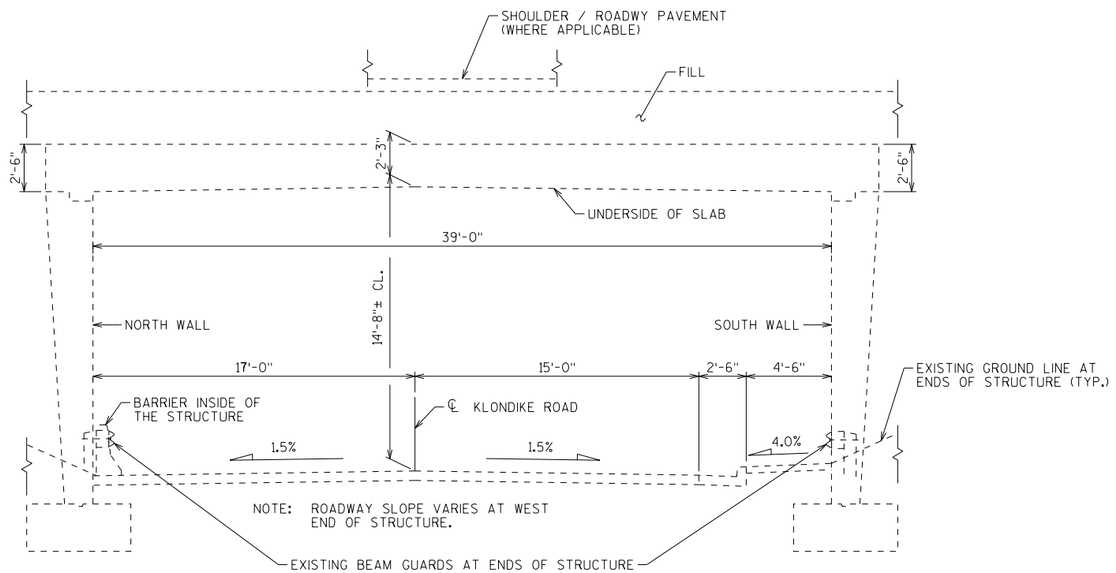
INVENTORY RATING: HS23
OPERATING RATING: HS35
WISCONSIN STANDARD PERMIT VEHICLE (Wis-SPV): 190 KIPS
(TAKEN FROM HSI, 06/10/2015)

MATERIAL PROPERTIES:

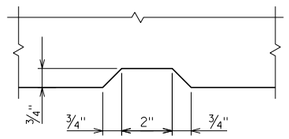
CONCRETE MASONRY: f'c = 3,500 P.S.I.

TRAFFIC VOLUME

IH 43	KLONDIKE ROAD
A.D.T. = 36,200 (2036)	A.D.T. = 350 (2036)
R.D.S. = 70 MPH	R.D.S. = 40 MPH



CROSS SECTION C-C



RUSTICATION DETAIL

TYP. HORIZ. & VERT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-186

DRAWN BY YC | PLANS CK'D. VCP

CROSS SECTION, QUANTITIES & NOTES

SHEET 2 OF 2

358

FILENAME
SCALE

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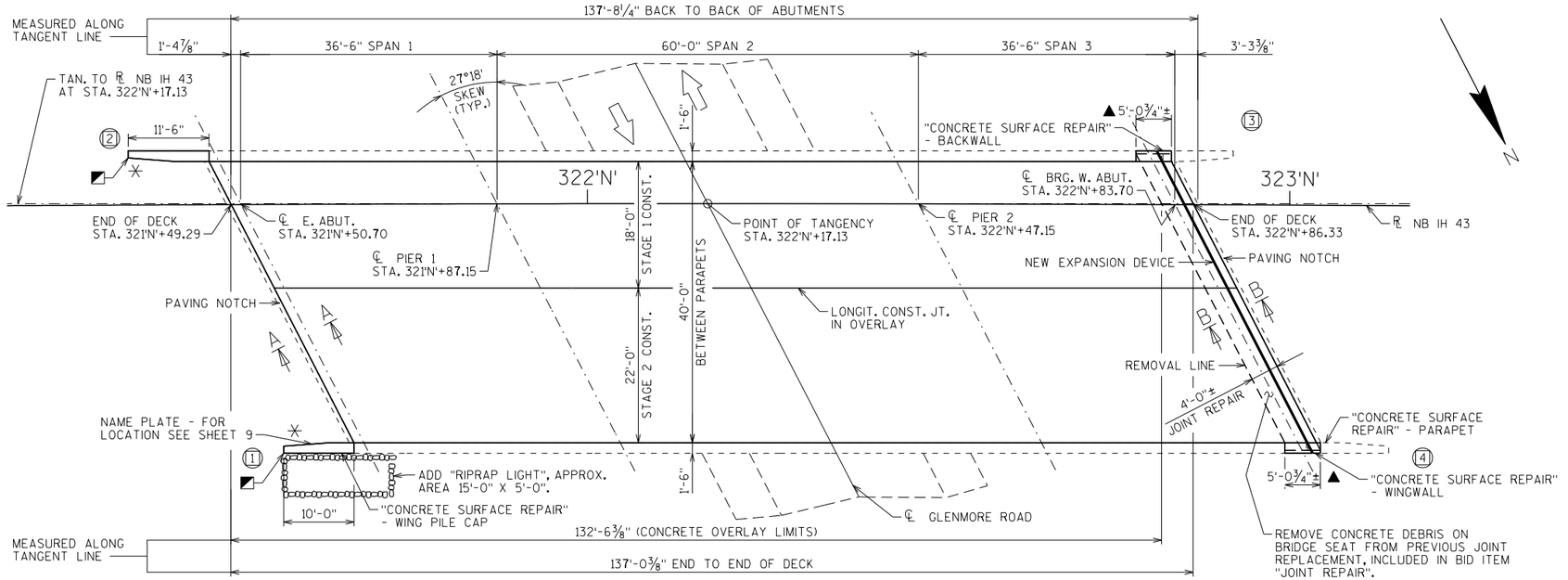
STATE PROJECT NUMBER

1227-08-71



INDICATES WINGWALL NUMBER

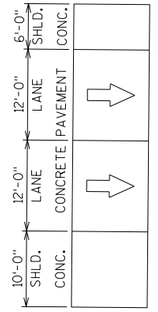
▲ PARAPET REPLACEMENT AREA. SEE SHEETS 3 AND 5 FOR DETAILS.

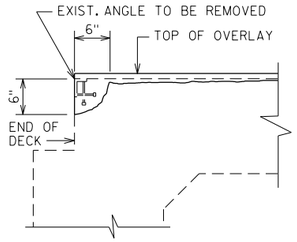
PLAN

(3-SPAN PRESTRESSED CONCRETE GIRDER, CONCRETE OVERLAY)

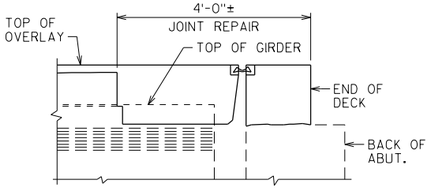
REPLACE WINGWALL. SEE SHEETS 7 AND 8 FOR DETAILS.

✳ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT



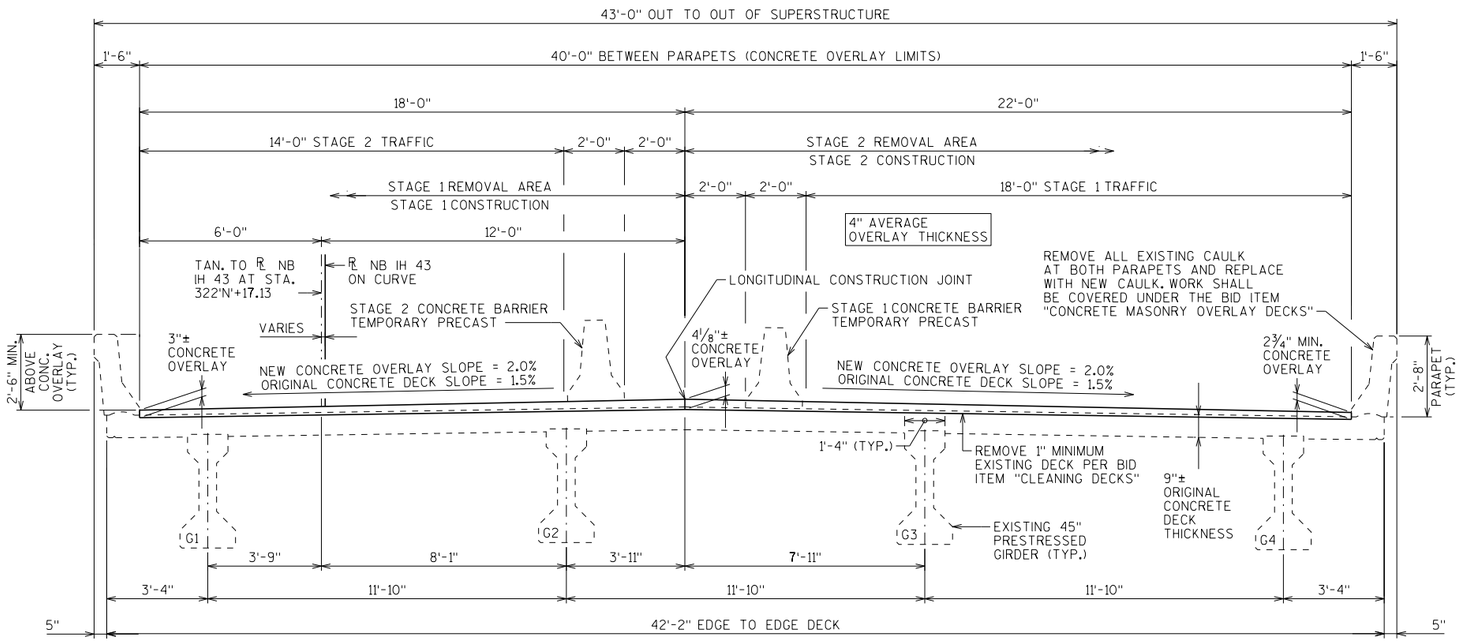


SECTION A-A



SECTION B-B

SEE SHEET 4 FOR DETAILS.



CROSS SECTION THRU DECK LOOKING WEST

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS20
INVENTORY RATING: HS19
OPERATING RATING: HS31
WISCONSIN STANDARD PERMIT VEHICLE (Wis-SPV): 250 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY:	OVERLAY DECKS	f'c = 4,000 P.S.I.
	ALL OTHER	f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60:		fy = 60,000 P.S.I.

TRAFFIC VOLUME

IH 43	GLENMORE ROAD
A.D.T. = 36,200 (2036)	A.D.T. = 8,100 (2036)
R.D.S. = 70 MPH	R.D.S. = 50 MPH

LIST OF DRAWINGS

1. GENERAL PLAN & CROSS SECTION
2. QUANTITIES, NOTES & PRESTRESSED GIRDER REPAIRS
3. JOINT REPAIR
4. EXPANSION DEVICE
5. JOINT REPAIR - BILL OF BARS
6. COVER PLATE DETAILS
7. WINGWALL 1 REPLACEMENT
8. WINGWALL 2 REPLACEMENT
9. SLOPED FACE PARAPET "B"
10. DECK REPAIR PLAN

WISCONSIN VINOD C. PATEL 37887 CAROL STREAM, IL PROFESSIONAL ENGINEER

DATE: 07/20/2016

STRUCTURE DESIGN CONTACTS

BRIDGE OFFICE: WILLIAM DREHER, P.E. (608) 266-8489

CONSULTANT: VINOD PATEL, P.E. (312) 616-7395

NO.	DATE	REVISION	BY

exp U.S. Services Inc.
Milwaukee, WI
BUILDINGS • EARTH & ENVIRONMENT • ENERGY
INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/10/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-5-187

IH 43 NB OVER GLENMORE ROAD

COUNTY	TOWN ~~CITY/VILLAGE~~
BROWN	DE PERE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
YC	VCP	JJG/YC	VCP

GENERAL PLAN & CROSS SECTION

SHEET 1 OF 10

359

FILENAME

SCALE

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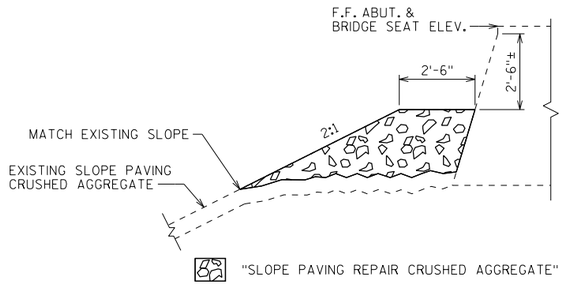
STATE PROJECT NUMBER
1227-08-71

TOTAL ESTIMATED QUANTITIES

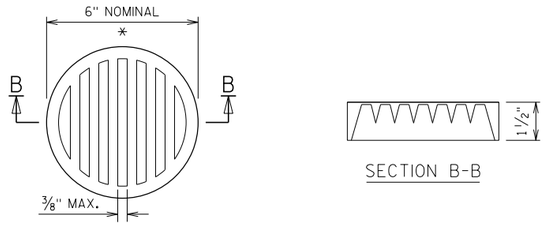
BID ITEM NUMBER	BID ITEMS	UNIT	E. ABUT.	W. ABUT.	SUPER.	TOTAL
203.0200.01	REMOVING OLD STRUCTURE STA. 322'N'+17.13	LS	-	-	-	1
206.1000.01	EXCAVATION FOR STRUCTURES BRIDGES B-5-187	LS	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	80	-	-	80
502.0100	CONCRETE MASONRY BRIDGES	CY	9	-	-	9
502.3100.01	EXPANSION DEVICE B-5-187	LS	-	-	-	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	609	609
502.3210	PIGMENTED SURFACE SEALER	SY	8	7	104	119
502.4204	ADHESIVE ANCHORS NO. 4 BAR	EACH	10	-	-	10
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	-	54	-	54
502.4206	ADHESIVE ANCHORS NO. 6 BAR	EACH	36	-	-	36
502.6500	PROTECTIVE COATING CLEAR	GAL	-	-	1	1
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,650	2,070	-	3,720
505.0904	BAR COUPLERS NO. 4	EACH	-	4	-	4
505.0905	BAR COUPLERS NO. 5	EACH	-	3	-	3
505.0906	BAR COUPLERS NO. 6	EACH	-	11	-	11
505.0908	BAR COUPLERS NO. 8	EACH	-	6	-	6
509.0301	PREPARATION DECKS TYPE 1	SY	-	-	8	8
509.0302	PREPARATION DECKS TYPE 2	SY	-	-	2	2
509.0500	CLEANING DECKS	SY	-	-	589	589
509.1000	JOINT REPAIR	SY	-	-	23	23
509.1500	CONCRETE SURFACE REPAIR	SF	11	36	-	47
509.2000	FULL-DEPTH DECK REPAIR	SY	-	-	1	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	-	-	76	76
509.9050.S	CLEANING PARAPETS	LF	-	22	264	286
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	4	-	-	4
604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY	30	30	-	60
606.0100	RIPRAP LIGHT	CY	3	-	-	3
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	79	-	-	79
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	-	-	2
SPV.0060.01	CLEANING AND PAINTING BEARINGS	EACH	-	4	-	4
SPV.0090.01	CLEANING CONCRETE GIRDER ENDS	LF	-	5	-	5
	NON-BID ITEMS					
	PREFORMED JOINT FILLER	SIZE	-	-	-	1/2 "
	BRIDGE SEAT PROTECTION					

BID ITEM "CONCRETE MASONRY OVERLAY DECKS" ALSO INCLUDES CONCRETE FOR:
"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "FULL-DEPTH DECK REPAIR", AND "JOINT REPAIR".
THE QUANTITIES OF "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL-DEPTH DECK REPAIR" ARE BASED ON AN INFRARED THERMOGRAPHIC DECK SURVEY REPORT.



SECTION AT ABUTMENTS

SLOPE PAVING REPAIR DETAIL



SECTION B-B

RODENT SCREEN DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO INTO A PIPE COUPLING. ORIENT SCREEN SO SLOTS ARE VERTICAL.

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

THE RODENT SCREEN 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 SCREEN TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS OF EXISTING STRUCTURE MEMBERS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "CONCRETE SURFACE REPAIR", AND "FULL-DEPTH DECK REPAIR" AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2 3/4" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS AS GIVEN ON THE PLANS. IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE ABUTMENT.

AT THE BACKFACE OF ABUTMENT, ALL VOLUME WHICH CANNOT BE PLACED BEFORE WINGWALL CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND MINIMUM 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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.

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 1981.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACE OF WEST ABUTMENT BELOW EXPANSION DEVICE. POWER WASH AND ADEQUATELY DRY SURFACES BEFORE APPLICATION. WORK TO BE INCIDENTAL TO "JOINT REPAIR".

COAT ALL EXPOSED SURFACES OF THE LAST 5'-0" OF GIRDERS (SPAN 3 AT WEST ABUTMENT END ONLY) WITH "PROTECTIVE COATING CLEAR" AS DIRECTED BY THE ENGINEER. APPLY AT A RATE OF ONE GALLON PER 200 SF PER THE STANDARD SPECIFICATION 502.3.15 PARA. 4.

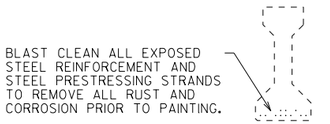
CLEAN AND PAINT ALL BEARINGS AT WEST ABUTMENT. SEE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING BEARINGS".

CLEAN THE INSIDE FACES AND TOP SURFACE OF THE EXISTING CONCRETE PARAPETS. PARAPET JOINTS SHALL BE CLEANED AND RE-SEALED WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. INCLUDE IN BID ITEM "CLEANING PARAPETS".

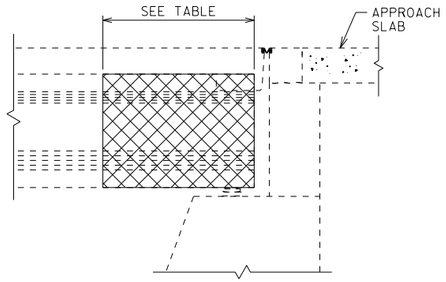
APPLY "PROTECTIVE SURFACE TREATMENT" TO THE EXPOSED DECK SURFACE OF THE NEW CONCRETE OVERLAY BETWEEN PARAPETS AND EXPOSED TOP SURFACE OF JOINT REPAIR.

APPLY "PIGMENTED SURFACE SEALER" ON THE INSIDE AND TOP FACES OF PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS.

INSTALL RODENT SCREEN(S) AT THE EXPOSED END(S) OF PIPE UNDERDRAIN.



END VIEW



PART LONGITUDINAL SECTION

(WEST ABUT.)

CLEANING CONCRETE GIRDER ENDS (L.F.)

	G1	G2	G3	G4
WEST ABUT.	-	-	-	5

LEGEND

DENOTES AREAS OF BID ITEM "CLEANING CONCRETE GIRDER ENDS". SEE NOTES.

NOTES:

1. REMOVE ANY LOOSE, DELAMINATED, OR DETERIORATED CONCRETE FROM THE END OF CONCRETE GIRDERS.
2. CLEAN AND PAINT ANY EXPOSED STEEL REINFORCEMENT AND STEEL PRESTRESSING STRANDS.
3. MINIMUM LENGTH OF CLEANING IS 5'. VERIFY LENGTH OF CLEANING WITH ENGINEER.

PRESTRESSED GIRDER REPAIRS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-187

DRAWN BY YC | PLANS CK'D. VCP

QUANTITIES, NOTES & PRESTRESSED GIRDER REPAIRS

SHEET 2 OF 10

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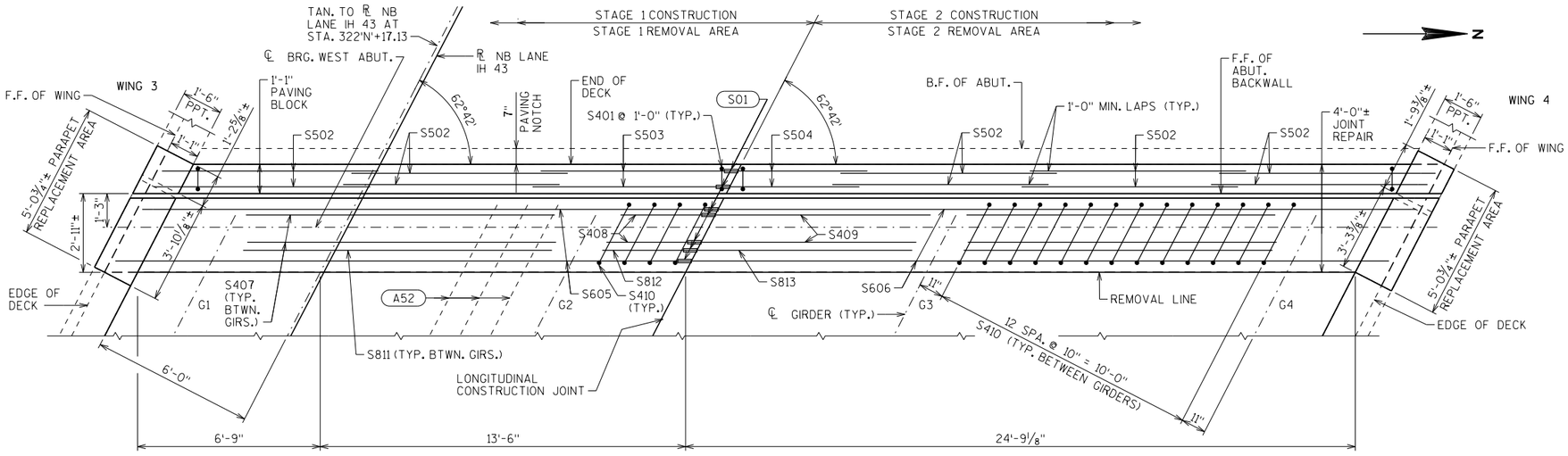
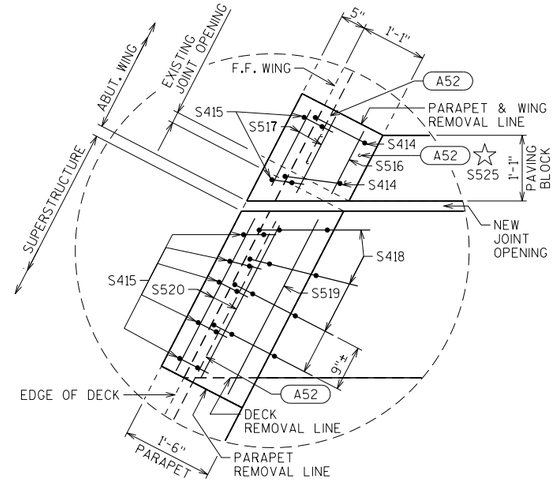
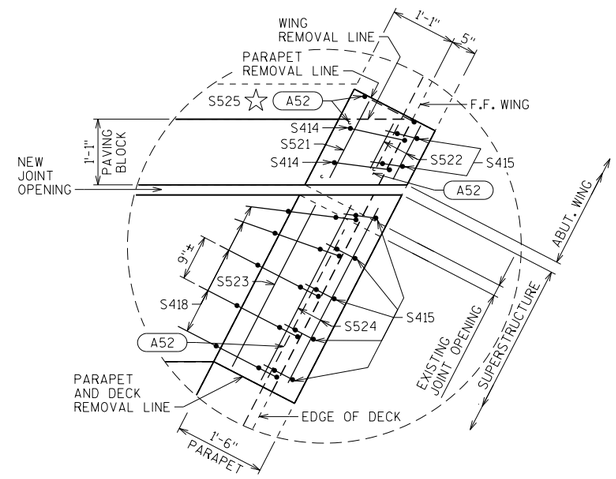
STATE PROJECT NUMBER
1227-08-71



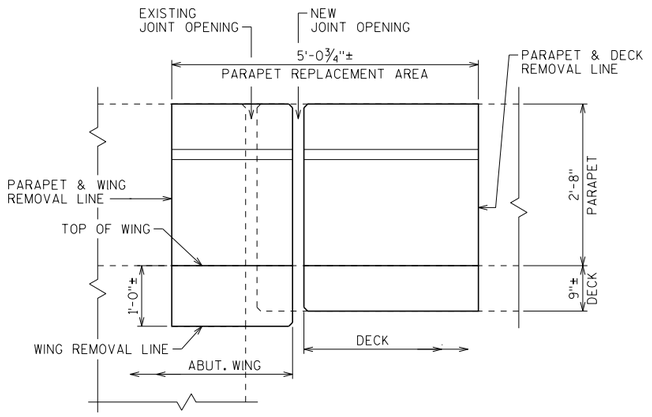
WEST ABUTMENT "JOINT REPAIR" PLAN



PLAN DETAIL OF PARAPET REPLACEMENT AREA AT WING CORNER 3

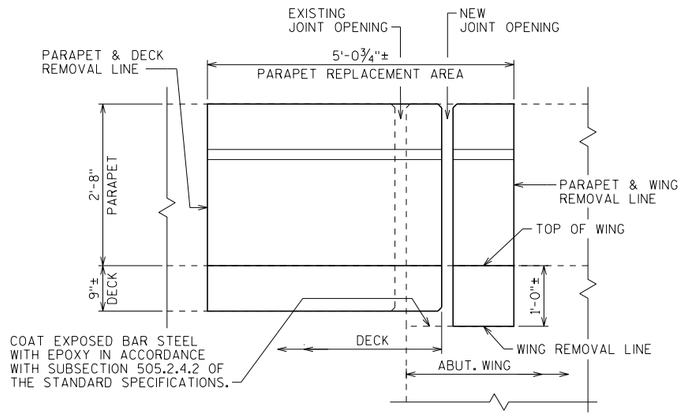


PLAN DETAIL OF PARAPET REPLACEMENT AREA AT WING CORNER 4



ELEVATION OF NEW WING CORNER 3

SHOWING NEW CONCRETE AREAS FOR "JOINT REPAIR"
(LOOKING AT OUTSIDE FACE OF PARAPET)



ELEVATION OF NEW WING CORNER 4

SHOWING NEW CONCRETE AREAS FOR "JOINT REPAIR"
(LOOKING AT OUTSIDE FACE OF PARAPET)

(A52) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

THE NEW ADDITIONAL HORIZONTAL REINFORCEMENT REQUIRED IN THE PARAPETS SHALL BE TIED TO THE EXISTING HORIZONTAL REINFORCEMENT.

☆ IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH BARS S525 ANCHORED WITH ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" MIN. INTO EXISTING CONC. PLACE 4" CL. MIN. OF VERT. CONC. FACE.

(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT & SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS' RECOMMENDATIONS.

NOTES

ALL REMOVAL LINES SHALL BE DEFINED BY A 1" DEEP SAW-CUT.

REBUILD NEW PARAPET, WING AND DECK AREAS TO MATCH THE EXISTING PARAPET, WING AND DECK. SEE SHEET 5 FOR NEW PARAPET DETAILS.

PARAPET REPLACEMENT SHALL BE INCLUDED UNDER THE BID ITEM "JOINT REPAIR".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-187

DRAWN BY YC | PLANS CK'D. VCP

JOINT REPAIR

SHEET 3 OF 10

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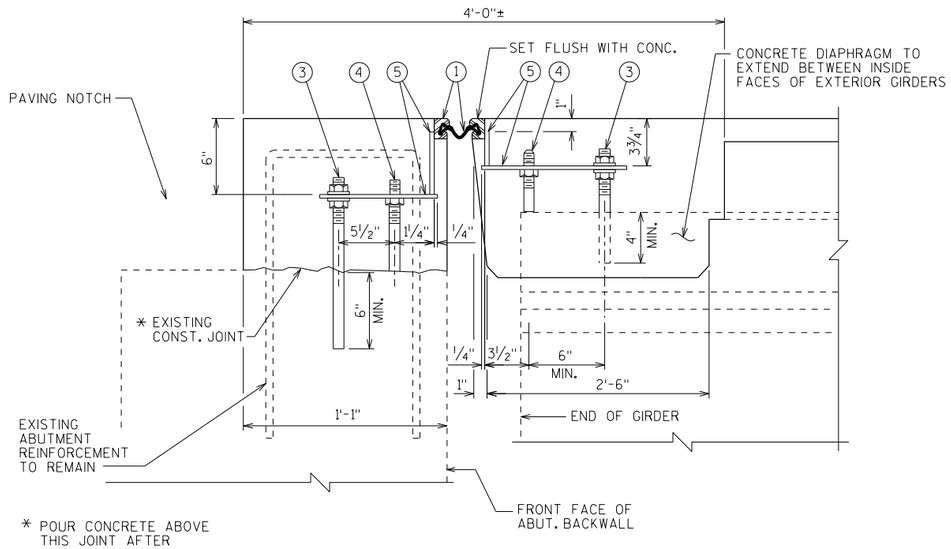
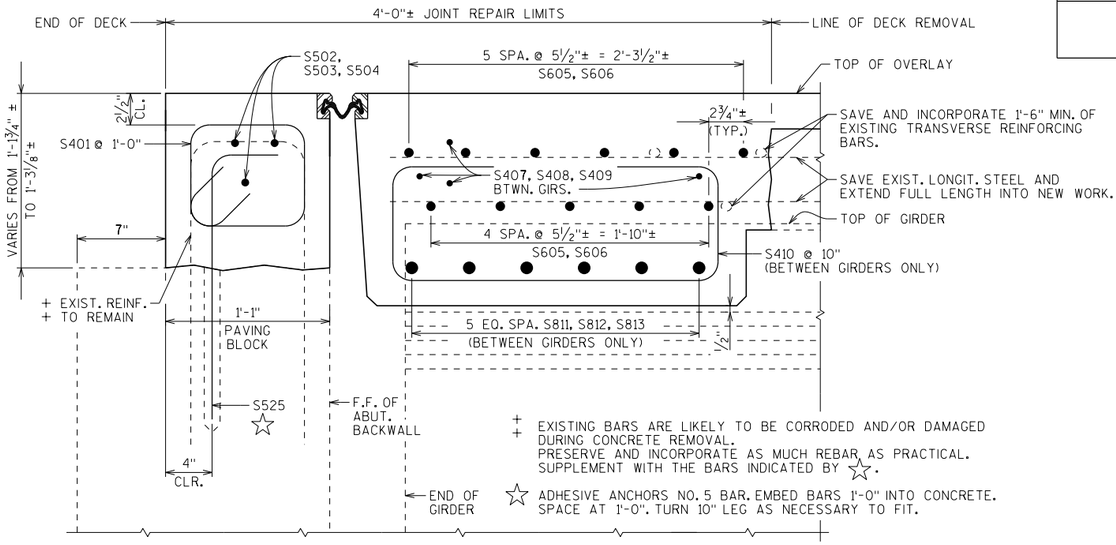
STATE PROJECT NUMBER

1227-08-71



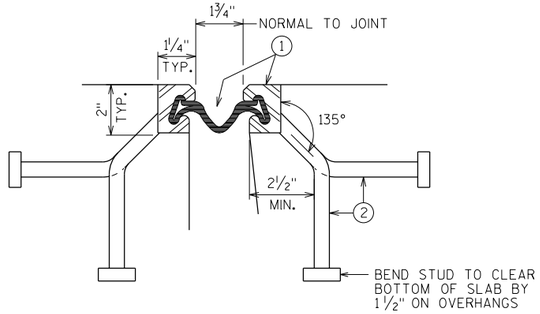
SECTION THRU JOINT AT WEST ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE



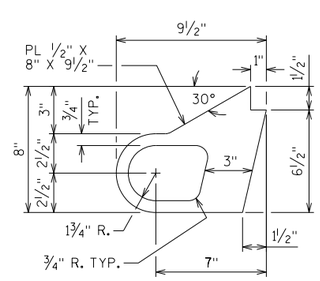
SECTION THRU JOINT AT WEST ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE
SHOWING REINFORCEMENT



SECTION THRU JOINT

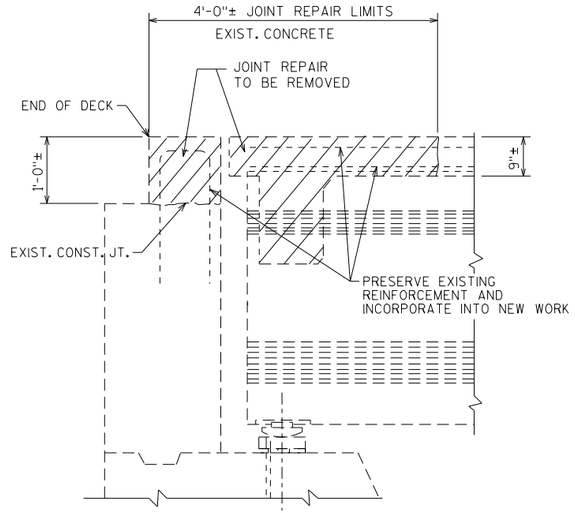
EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS



ALTERNATE STRIP SEAL ANCHOR

LEGEND

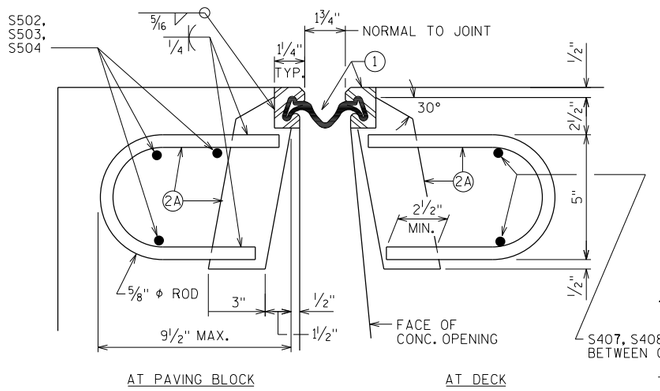
1. NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅝"ϕ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝"ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾" ϕ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾"ϕ 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" ϕ HOLE FOR NO. 3 AND 1" ϕ HOLE FOR NO. 4.



JOINT REPAIR - REMOVAL

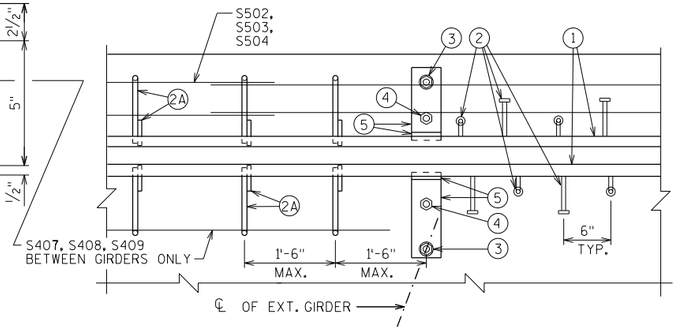
SECTION THRU EXISTING EXPANSION JOINT AT WEST ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE



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, 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.

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

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-5-187".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-187

DRAWN BY YC | PLANS CK'D. VCP

EXPANSION DEVICE

SHEET 4 OF 10

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STATE PROJECT NUMBER

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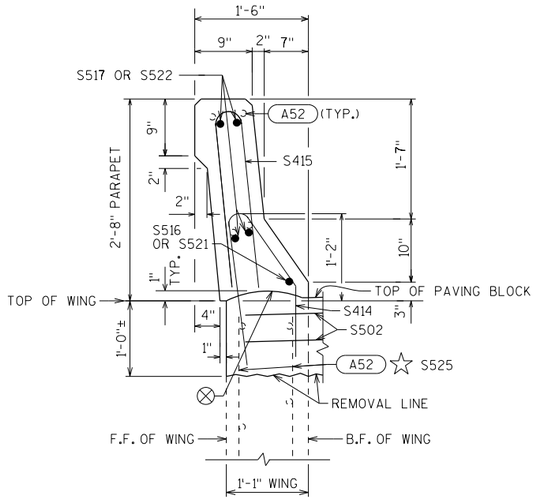
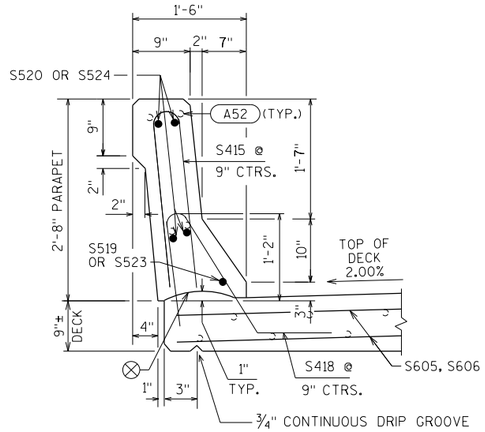


NEW SECTION THRU PARAPET ON WING



NEW SECTION THRU PARAPET ON DECK

⊗ CONST. JOINT - STRIKE OFF AS SHOWN.

A52 SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

THE NEW ADDITIONAL HORIZONTAL REINFORCEMENT REQUIRED IN THE PARAPETS SHALL BE TIED TO THE EXISTING HORIZONTAL REINFORCEMENT.

☆ IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH BARS S525 ANCHORED WITH ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" MIN. INTO EXISTING CONC. PLACE 4" CL. MIN. OF VERT. CONC. FACE.

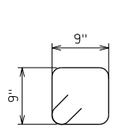
BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

	E. ABUT.	W. ABUT.
UNCOATED:	0 LBS	0 LBS
COATED:	0 LBS	2095 LBS

	BAR MARK	COAT	NO. REQ'D E. ABUT.	NO. REQ'D W. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
	S401	X	-	46	3'-6"	X		PAVING BLOCK - VERT. - STIRRUP - AT STAGE 1 & 2 CONST.
	S502	X	-	15	8'-0"			PAVING BLOCK - HORIZ. - AT STAGE 1 & 2 CONST.
*	S503	X	-	3	7'-4"			PAVING BLOCK - HORIZ. - AT STAGE 1 CONST.
*	S504	X	-	3	4'-10"			PAVING BLOCK - HORIZ. - AT STAGE 2 CONST.
*	S605	X	-	11	21'-3"			DECK - HORIZ. - TRANS. - TOP & BOT. - AT STAGE 1 CONST.
*	S606	X	-	11	25'-9"			DECK - HORIZ. - TRANS. - TOP & BOT. - AT STAGE 2 CONST.
	S407	X	-	8	11'-5"			DECK - HORIZ. - TRANS. - BTWN. GIRS. - AT STAGE 1 & 2 CONST.
*	S408	X	-	4	3'-6"			DECK - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 1 CONST.
*	S409	X	-	4	8'-0"			DECK - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 2 CONST.
	S410	X	-	39	5'-1"	X		DECK/CONC. DIAPH. - VERT. - BTWN. GIRS. - AT STAGE 1 & 2 CONST.
	S811	X	-	12	11'-5"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. GIRS. - AT STAGE 1 & 2 CONST.
*	S812	X	-	6	3'-6"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 1 CONST.
*	S813	X	-	6	8'-0"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 2 CONST.
	S414	X	-	4	4'-3"	X		WING & PARAPET - VERT. - TRANS. - AT WING CORNERS 3 & 4
	S415	X	-	14	4'-10"	X		PARAPET - VERT. - TRANS. - ABOVE DECK AND WINGS - AT WING CORNERS 3 & 4
	S516	X	-	1	1'-2"			WING PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNER 3
	S517	X	-	4	1'-5"			WING PARAPET - HORIZ. - LONGIT. - AT WING CORNER 3
	S418	X	-	9	4'-3"	X		DECK & PARAPET- VERT. - TRANS. - AT WING CORNERS 3 & 4
	S519	X	-	1	3'-3"			DECK PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNER 3
	S520	X	-	4	2'-10"			DECK PARAPET - HORIZ. - LONGIT. - AT WING CORNER 3
	S521	X	-	1	1'-5"			WING PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNER 4
	S522	X	-	4	1'-0"			WING PARAPET - HORIZ. - LONGIT. - AT WING CORNER 4
	S523	X	-	1	3'-0"			DECK PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNER 4
	S524	X	-	4	3'-3"			DECK PARAPET - HORIZ. - LONGIT. - AT WING CORNER 4
	S525	X	-	54	2'-7"	X		PAVING BLOCK & ENDS OF ABUT. BACKWALL - VERT. - DOWEL - AT STAGE 1 & 2 CONST.

* BAR COUPLERS USED. BAR LENGTH COMPUTED UP TO THE LONGIT. CONST. JOINT AND SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS' RECOMMENDATIONS.



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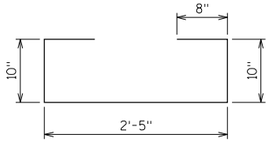

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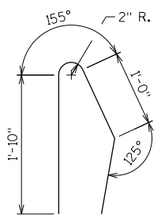

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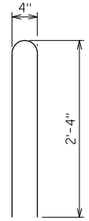

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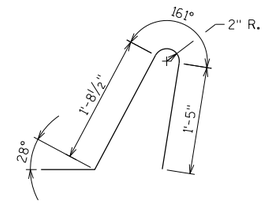

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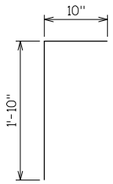

S525

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-187

DRAWN BY YC | PLANS CK'D. VCP

JOINT REPAIR - BILL OF BARS

SHEET 5 OF 10

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FILENAME

SCALE

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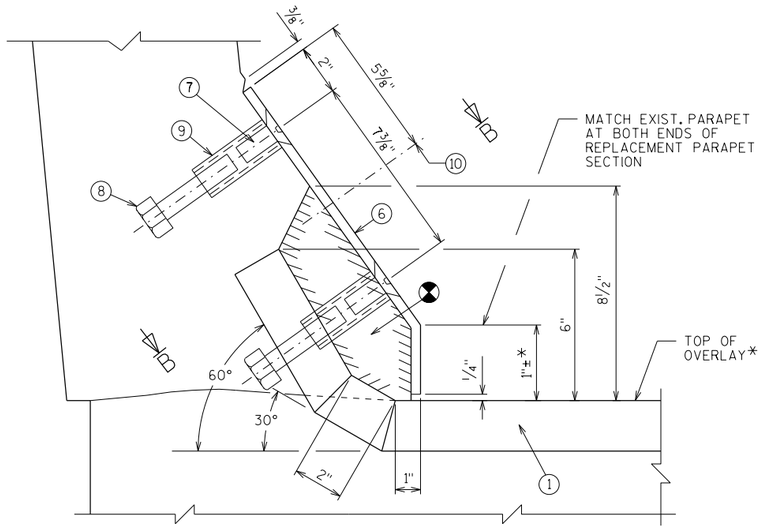
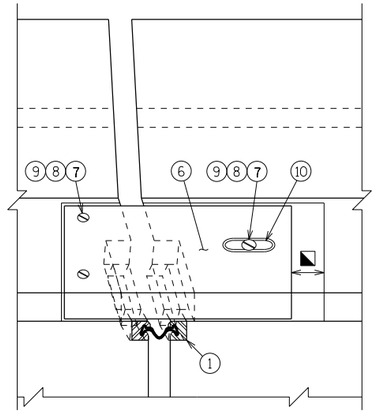
STATE PROJECT NUMBER

1227-08-71



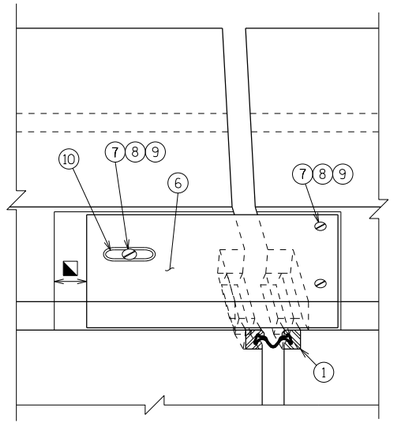
SECTION A-A

* TOP OF OVERLAY @ 2"± ABOVE TOP OF ORIGINAL DECK.



VIEW OF PARAPET PLATE FROM ROADWAY

AT WING CORNER 3



VIEW OF PARAPET PLATE FROM ROADWAY

AT WING CORNER 4

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.

(2) STUDS 5/8"Φ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

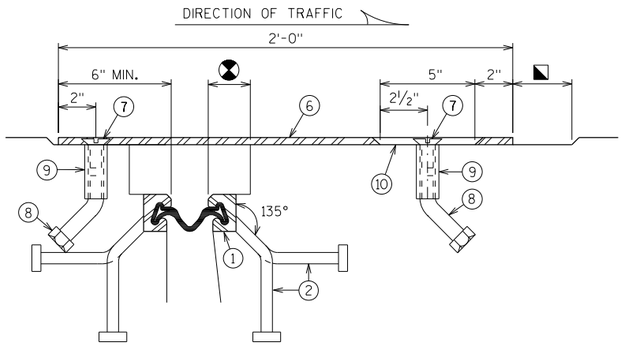
(6) GALVANIZED PLATE 3/8" X 1'-2" X 2'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

(7) 3/4"Φ X 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) 3/4"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) 3/4"Φ X 2 1/4" GALVANIZED THREADED COUPLING.

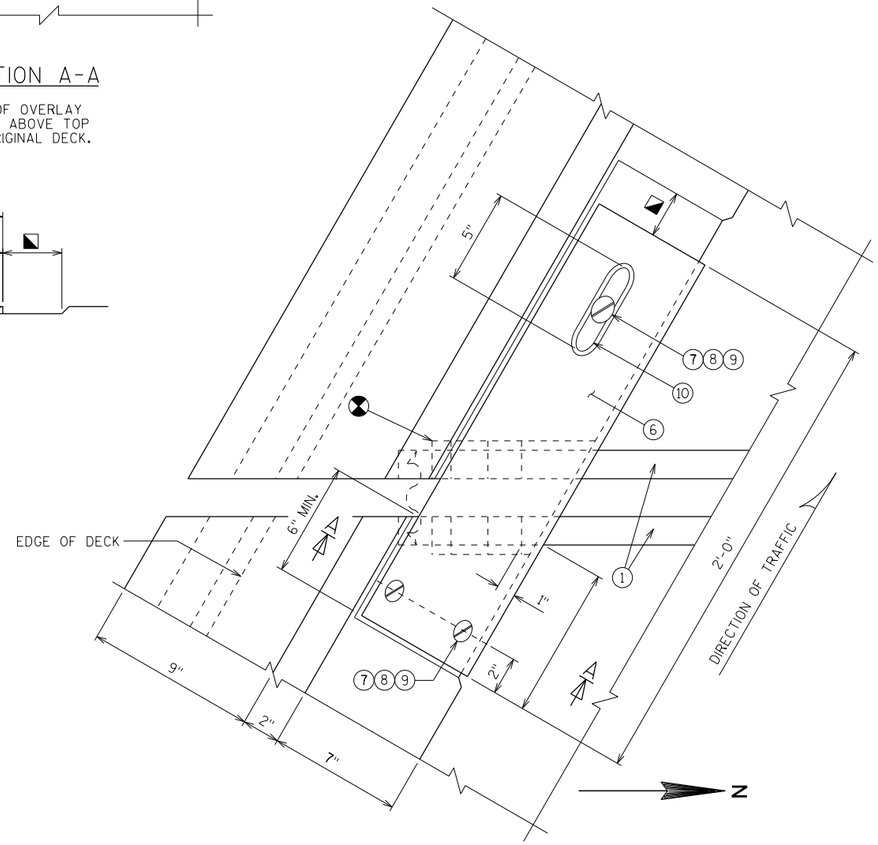
(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.



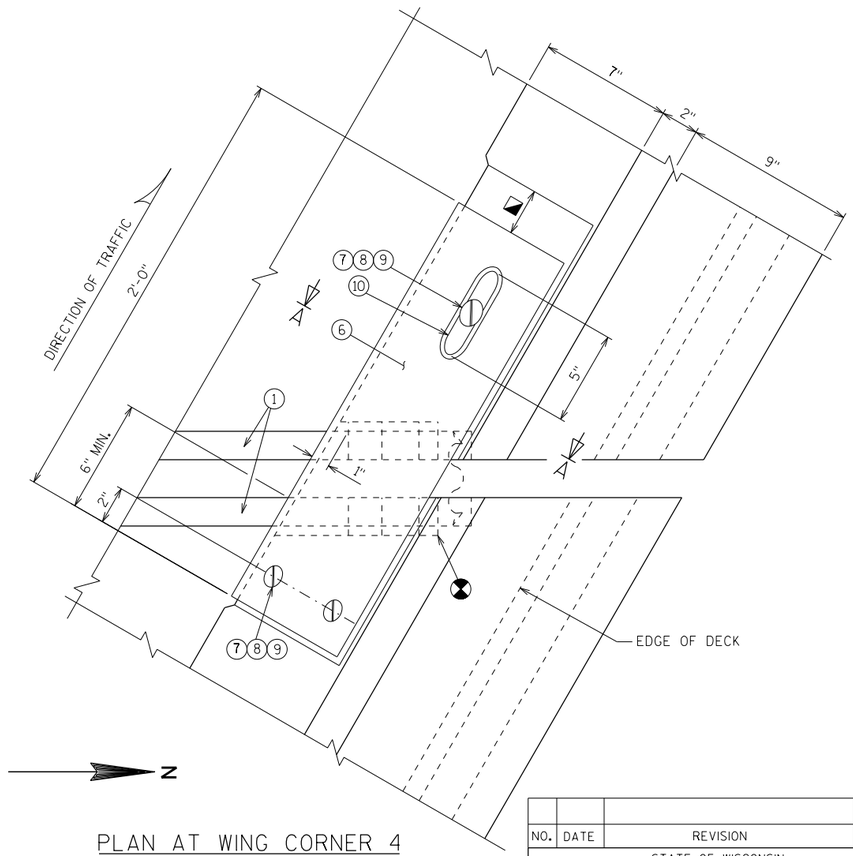
SECTION B-B

AT WING CORNER 4

OPPOSITE HAND AT WING CORNER 3



PLAN AT WING CORNER 3



PLAN AT WING CORNER 4

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-187

DRAWN BY YC | PLANS CK'D. VCP

COVER PLATE DETAILS

SHEET 6 OF 10

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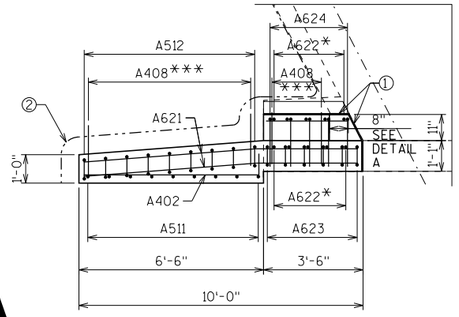
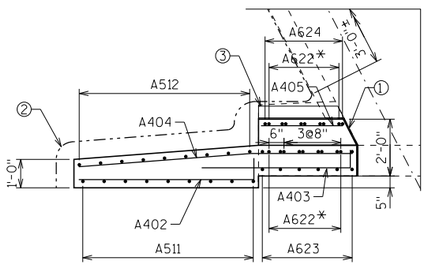
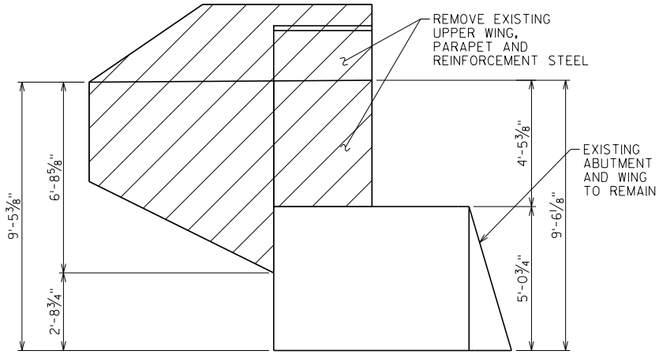


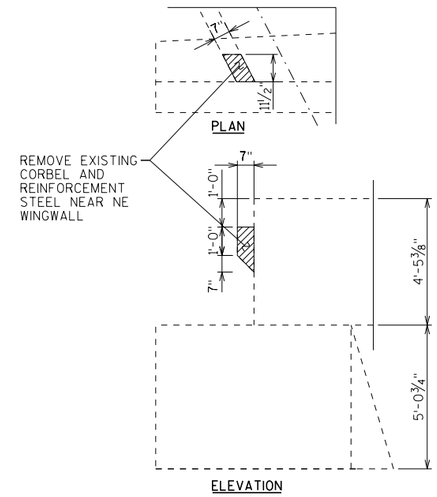
SECTION A-A



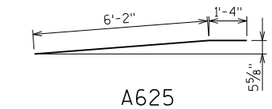
SECTION B-B



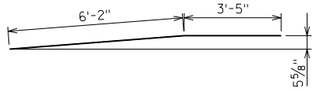
EXISTING WING REMOVAL



PARTIAL CORBEL REMOVAL



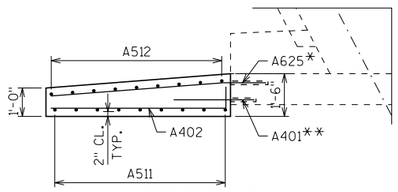
A625



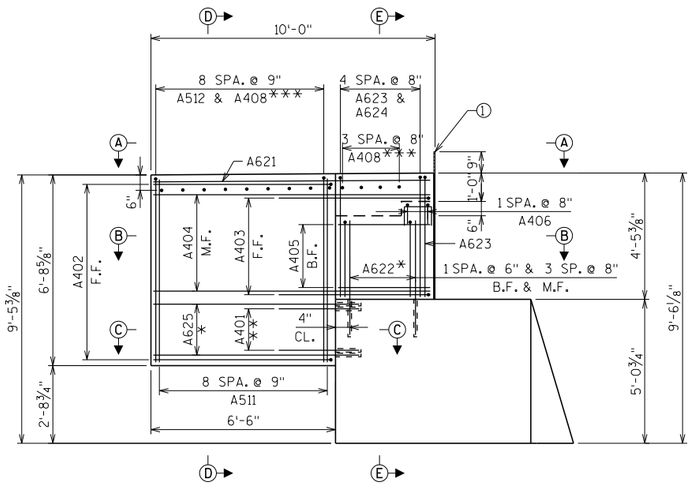
A404 & A621

A402, A403 & A624

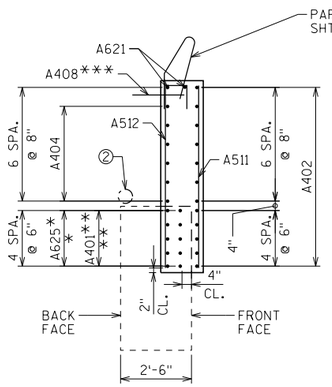
BAR MARK	A	B
A402	6'-2"	9"
A403	5'-4"	9"
A624	2'-9"	1'-8"



SECTION C-C



WING ELEVATION



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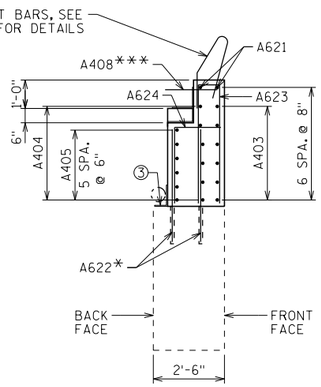
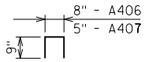
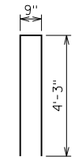


SECTION E-E

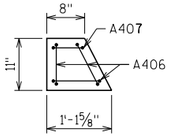
A512



A406 & A407



A623



DETAIL A

BILL OF BARS

550 LBS

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
**	A401	X	5	2-10			HORIZONTAL ANCHOR BARS, B.F.
	A402	X	12	6-10	X		HORIZONTAL, F.F.
	A403	X	6	6-0	X		HORIZONTAL, B.F.
	A404	X	6	9-7	X		HORIZONTAL, M.F.
	A405	X	6	2-9			HORIZONTAL, F.F.
	A406	X	3	2-0	X		U BARS
	A407	X	1	1-9	X		U BARS
	A408	X	13	1-10			HORIZONTAL, M.F.
	A511	X	9	6-5			VERTICAL, F.F.
	A512	X	9	7-9	X		VERTICAL, B.F.
	A621	X	2	9-7	X		HORIZONTAL
*	A622	X	10	4-0			VERTICAL ANCHOR BARS
	A623	X	6	8-11	X		U BARS
	A624	X	5	4-3	X		L BARS
*	A625	X	5	7-6	X		HORIZONTAL ANCHOR BARS, M.F.

THE FIRST DIGIT OF A THREE DIGIT MARK SIGNIFIES THE BAR SIZE.
ALL BAR DIMENSIONS ARE OUT TO OUT OF BAR.

NOTES:

① ½" FILLER INCLUDED IN WING LENGTH, SEAL ALL HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.

② PIPE UNDERDRAIN WRAPPED 6 INCH, SLOPE 0.5% MIN. TO DRAIN.

③ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

④ PROVIDE 2" CLEAR COVER U.N.O.

* ADHESIVE ANCHORS NO. 6 BAR. EMBED 15" INTO CONCRETE.

** ADHESIVE ANCHORS NO. 4 BAR. EMBED 10" INTO CONCRETE.

*** A408 BARS LAP WITH A512 & A623 BARS. EMBED 10" INTO WING CONCRETE. LOCATE 3" DOWN FROM TOP OF WING AT BACKFACE TO 6" DOWN AT WING TIP. (DRILLED IN EPOXY ANCHORED #4 BARS 1'-10" LONG MAY BE USED.) COST INCIDENTAL TO BID ITEM "BAR STEEL REINFORCEMENT HS COATED BRIDGES."

STATE PROJECT NUMBER

1227-08-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-187

DRAWN BY SD | PLANS CK'D. VCP

WINGWALL 1
REPLACEMENT

SHEET 7 OF 10
365

FILENAME
SCALE

8

8

\\PCHIAPP004\AM\VAULT\D-TRANS.07\TDCWS\0021489\-A0\STRUCT\CAD\87 B05087\IA EXP\SHEET\WW87IA001.SHT

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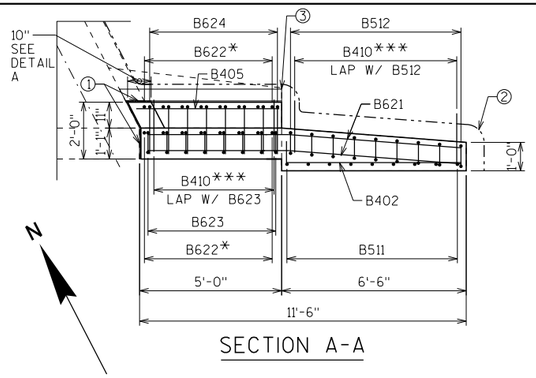
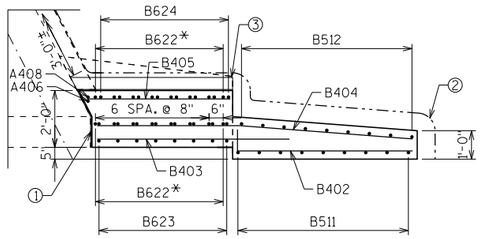
7-20-2016, 13:04:32

STATE PROJECT NUMBER

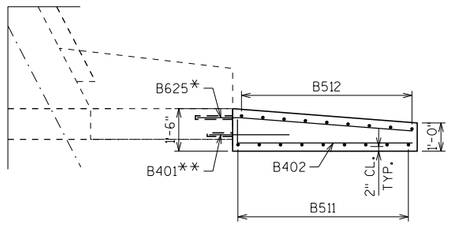
1227-08-71



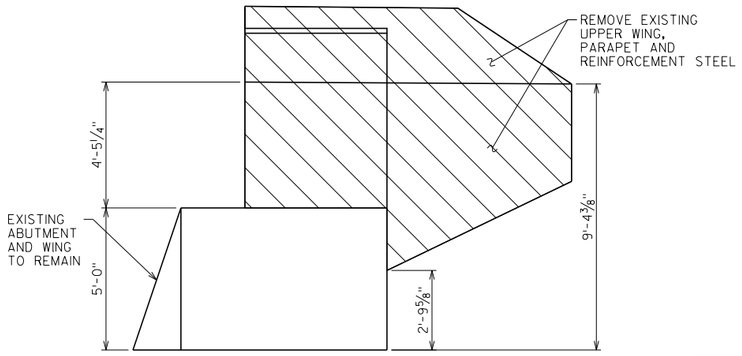
SECTION A-A



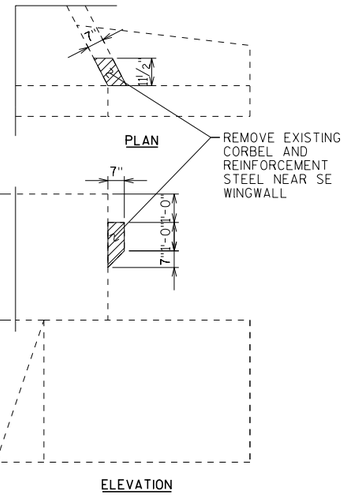
SECTION B-B



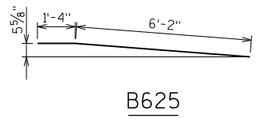
SECTION C-C



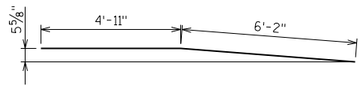
EXISTING WING REMOVAL



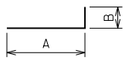
PARTIAL CORBEL REMOVAL



B625



B404 & B621

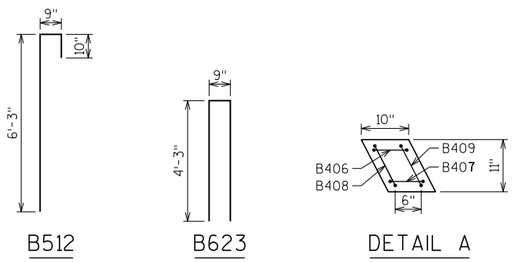


B402, B403 & B624

BAR MARK	A	B
B402	6'-2"	9"
B403	6'-10"	9"
B624	2'-9"	1'-8"

B406, B407, B408 & B409

BAR MARK	C	D
B406	6"	3'-2"
B407	6"	9"
B408	8"	3'-3"
B409	8"	9"



BILL OF BARS

670 LBS

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
**	B401	X	5	2-10			HORIZONTAL ANCHOR BARS, B.F.
	B402	X	12	6-10	X		HORIZONTAL, F.F.
	B403	X	6	7-6	X		HORIZONTAL, B.F.
	B404	X	6	11-1	X		HORIZONTAL, M.F.
	B405	X	6	5-1			HORIZONTAL, F.F.
	B406	X	1	4-3	X		U BARS
	B407	X	1	1-10	X		U BARS
	B408	X	1	4-6	X		U BARS
	B409	X	1	2-0	X		U BARS
	B410	X	17	1-10			HORIZONTAL, M.F.
	B511	X	9	6-3			VERTICAL, F.F.
	B512	X	9	7-7	X		VERTICAL, B.F.
	B621	X	2	11-1	X		HORIZONTAL
*	B622	X	16	4-0			VERTICAL ANCHOR BARS
	B623	X	8	8-11	X		U BARS
	B624	X	8	4-3	X		L BARS
*	B625	X	5	7-6	X		HORIZONTAL ANCHOR BARS, M.F.

THE FIRST DIGIT OF A THREE DIGIT MARK SIGNIFIES THE BAR SIZE.
ALL BAR DIMENSIONS ARE OUT TO OUT OF BAR.

NOTES:

① ½" FILLER INCLUDED IN WING LENGTH, SEAL ALL HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.

② PIPE UNDERDRAIN WRAPPED 6 INCH, SLOPE 0.5% MIN. TO DRAIN.

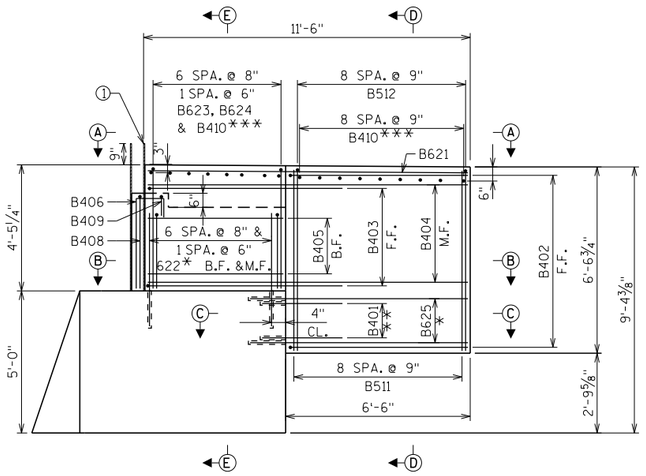
③ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

④ PROVIDE 2" CLEAR COVER U.N.O.

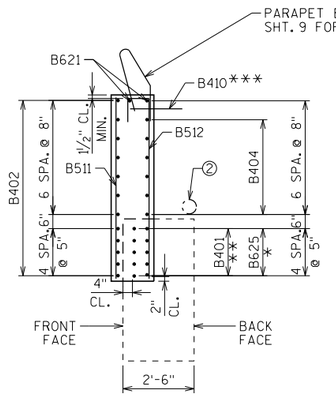
* ADHESIVE ANCHORS NO. 6 BAR. EMBED 15" INTO CONCRETE.

** ADHESIVE ANCHORS NO. 4 BAR. EMBED 10" INTO CONCRETE.

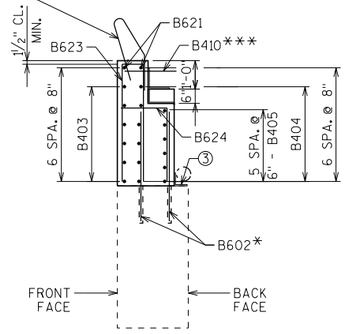
*** B410 BARS SPACED EQUALLY W/ B512 & B623 BARS. EMBED 10" INTO WING CONCRETE. LOCATE 3" DOWN FROM TOP OF WING AT BACKFACE TO 6" DOWN AT WING TIP. (DRILLED IN EPOXY ANCHORED #4 BARS 1'-10" LONG MAYBE USED.) COST INCIDENTAL TO BID ITEM "BAR STEEL REINFORCEMENT HS COATED BRIDGES."



WING ELEVATION



SECTION D-D



SECTION E-E

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-187

DRAWN BY SD | PLANS CK'D. VCP

WINGWALL 2 REPLACEMENT

SHEET 8 OF 10

366

8

8

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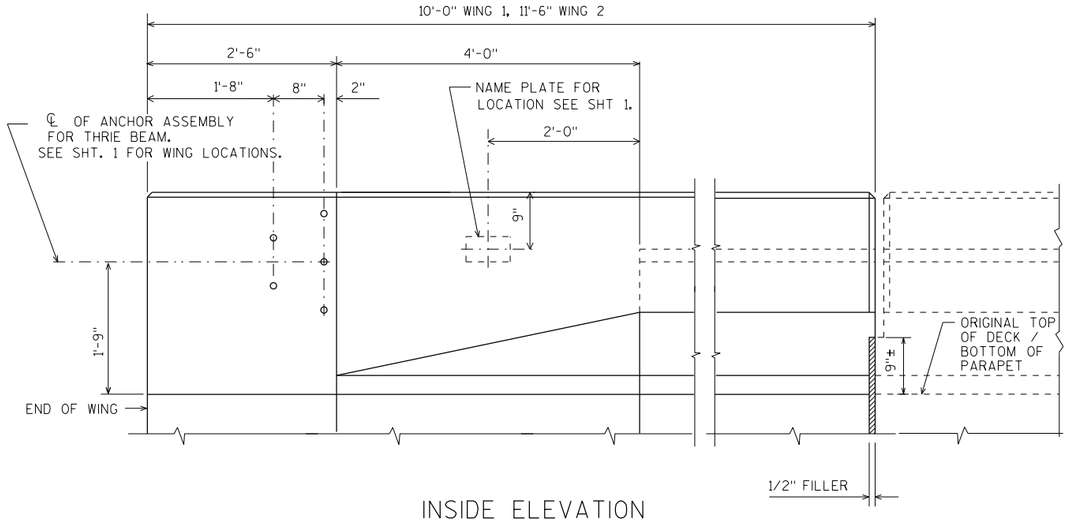
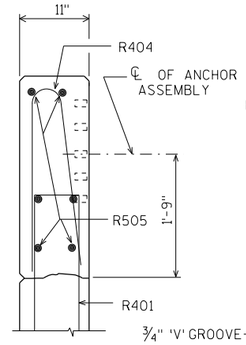
FILENAME

SCALE

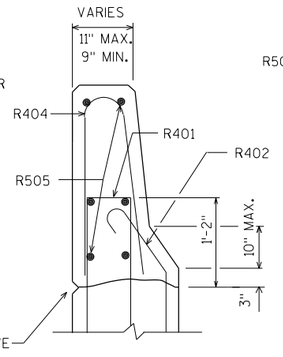
STATE PROJECT NUMBER
1227-08-71



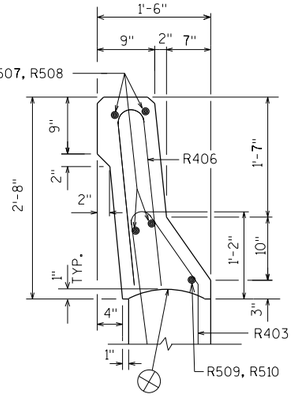
INSIDE ELEVATION



SECTION A



SECTION B



SECTION C

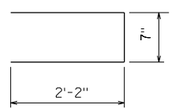
BILL OF BARS

FOR ABUTMENT PARAPETS

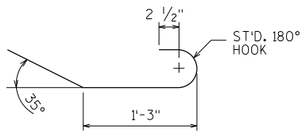
THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE. EPOXY COAT ALL PRAPET REINF.

	E. ABUT.	W. ABUT.
UNCOATED:	0 LBS	0 LBS
COATED:	430 LBS	0 LBS

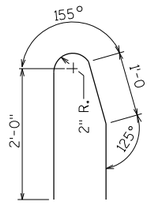
BAR MARK	NO. REQ'D E. ABUT.	NO. REQ'D W. ABUT.	LENGTH	BENT	LOCATION
R401	30	-	4'-9"	X	WINGS STIRRUPS
R402	8	-	3'-1"	X	WINGS
R403	12	-	4'-7"	X	WINGS STIRRUPS
R404	30	-	4'-9"	X	WINGS
R505	12	-	6'-2"		WINGS
R406	12	-	4'-10"	X	WINGS
R507	4	-	5'-3"		WING 1
R508	4	-	6'-9"		WING 2
R509	1	-	9'-7"	X	WING 1
R510	1	-	11'-1"	X	WING 2
- - -	-	-			



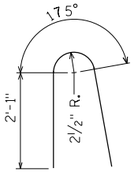
R401



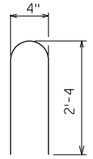
R402



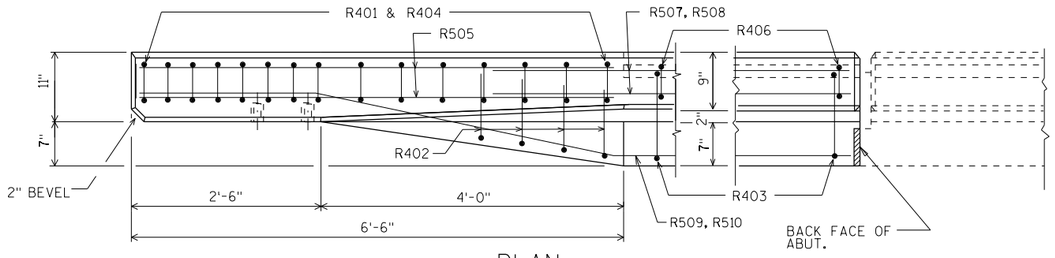
R403



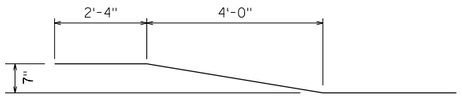
R404



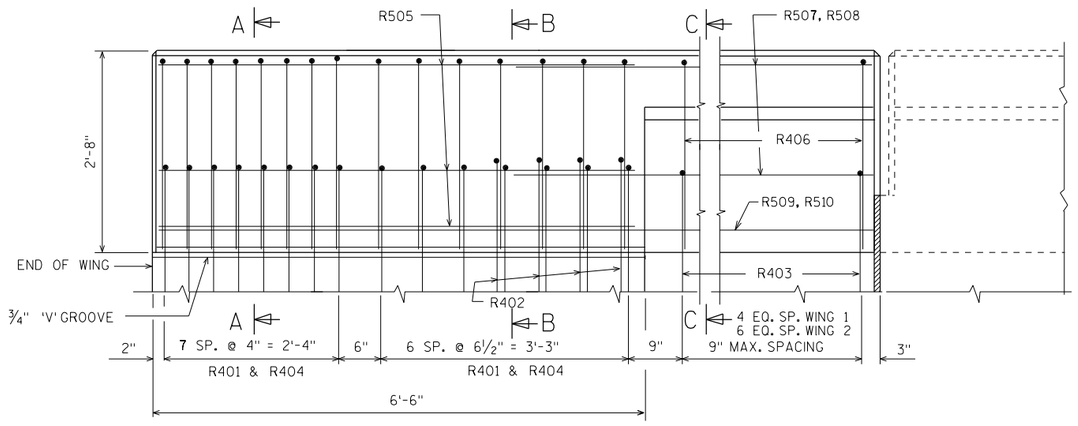
R406



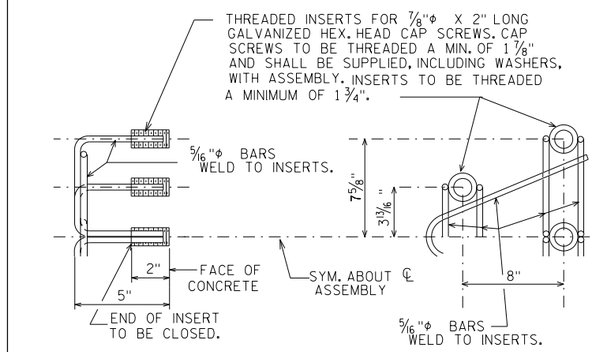
PLAN



R509, R510



OUTSIDE ELEVATION



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX. HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

⊗ CONST. JOINT - STRIKE OFF AS SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-187

DRAWN BY SD | PLANS CK'D. YC

SLOPED FACE PARAPET "B"

SHEET 9 OF 10

367

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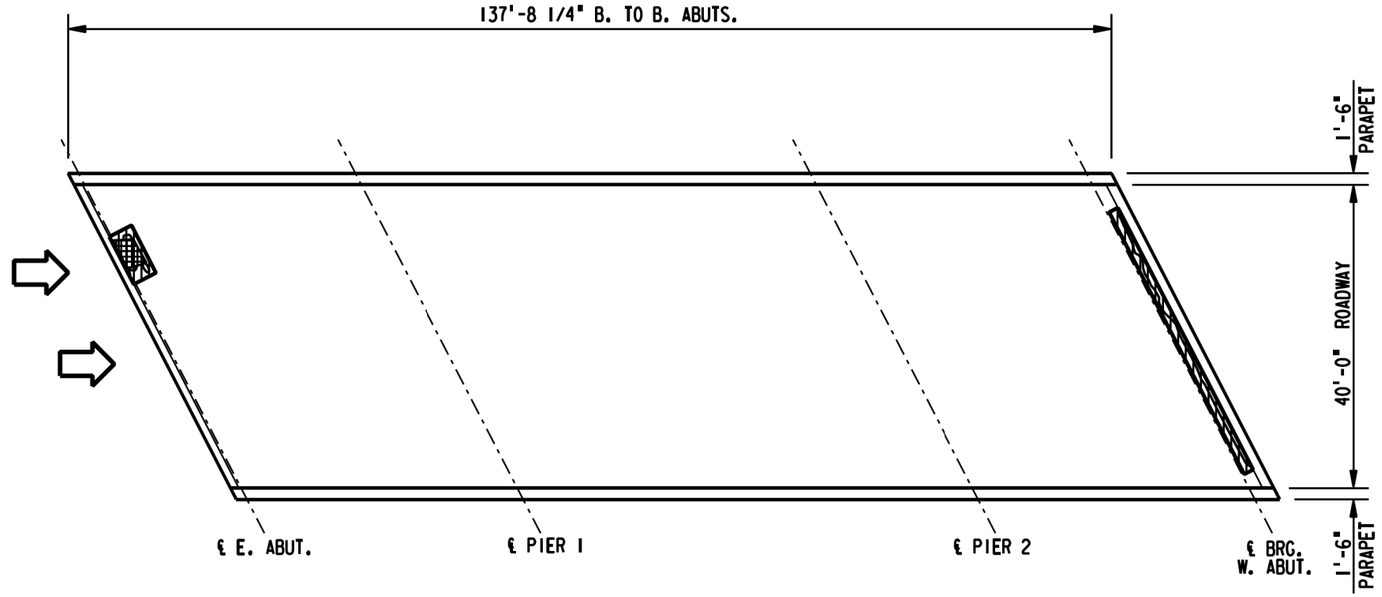
STATE PROJECT NUMBER
1227-08-71



PLAN

PROPOSED REHAB AREAS

FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-5-187	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	609.3	
SHADE/DEBRIS	yd^2	0	
PREPARATION, DECKS, TYPE 1	yd^2	8.2	1.3
PREPARATION, DECKS, TYPE 2	yd^2	1.6	0.3
FULL DEPTH DECK REPAIR	yd^2	1.0	0.2

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND

ASPHALT PATCH

CONCRETE PATCH

NOTES

THIS SHEET PROVIDES THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS REPORTED BY AECOM IN AUGUST 2015. THE PROPOSED DECK REPAIRS ARE BASED ON THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS.

SCALE 0' 5' 10' 20'

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 7/23/15

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-187

DRAWN BY YC | PLANS CK'D. VCP

DECK REPAIR PLAN

SHEET 10 OF 10

368

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FILENAME
SCALE

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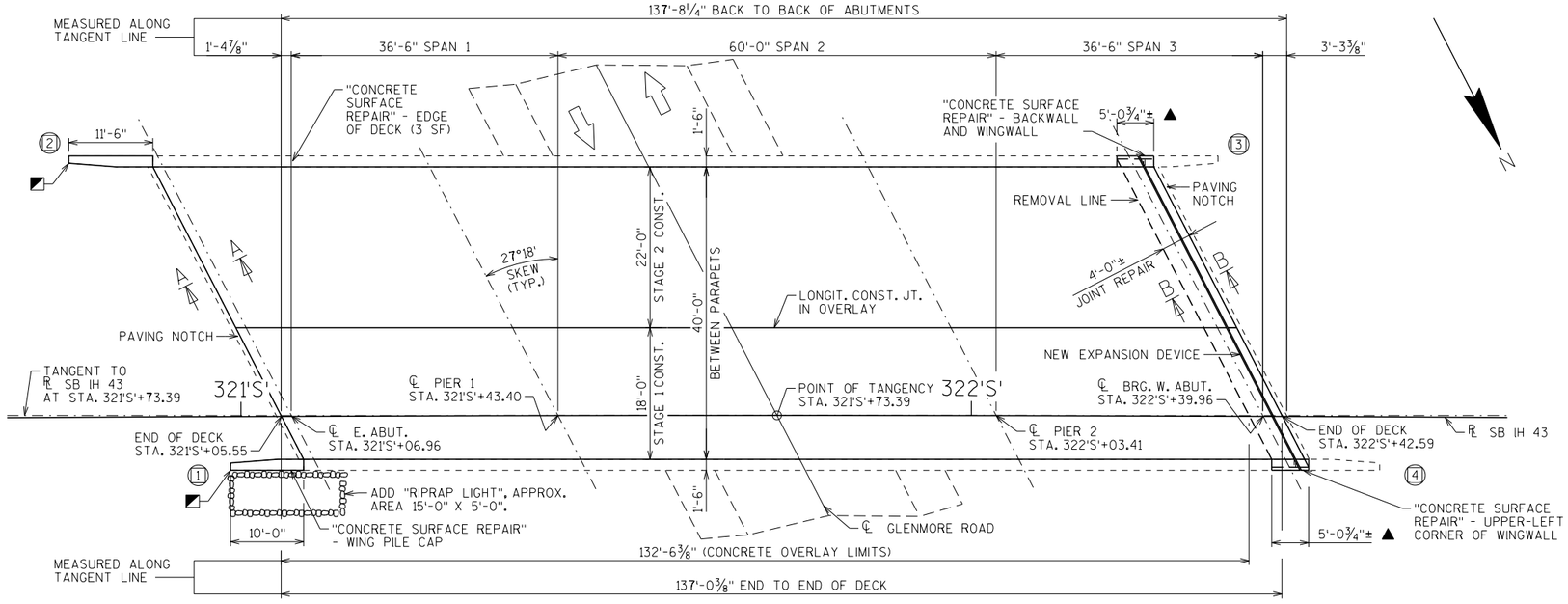
STATE PROJECT NUMBER
1227-08-71



INDICATES WINGWALL NUMBER

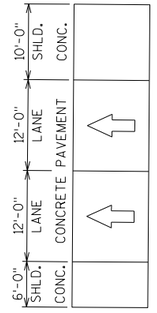
▲ PARAPET REPLACEMENT AREA. SEE SHEETS 3 AND 5 FOR DETAILS.

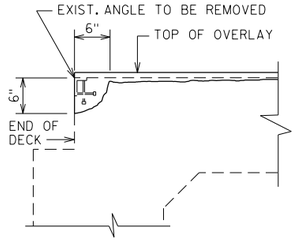
PLAN

(3-SPAN PRESTRESSED CONCRETE GIRDER, CONCRETE OVERLAY)

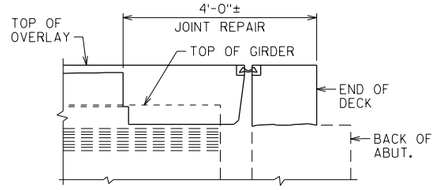
◩ REPLACE WINGWALL. SEE SHEETS 7 AND 8 FOR DETAILS.

✳ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT



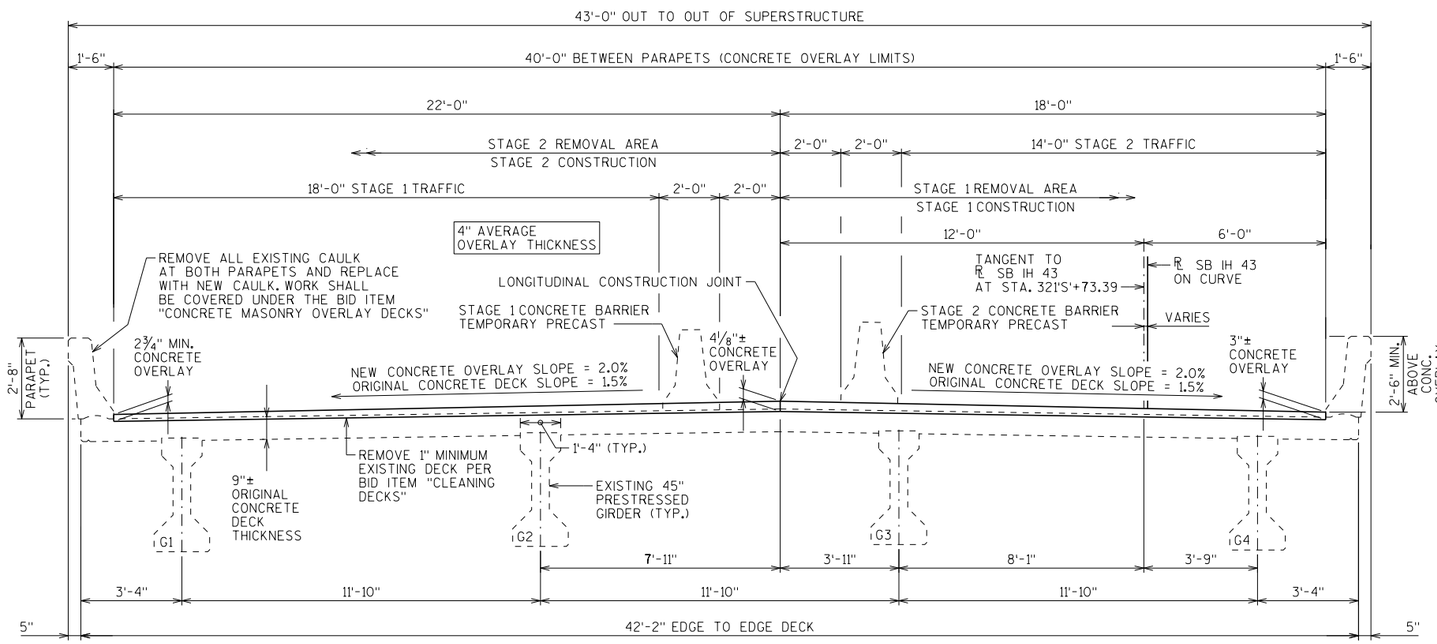


SECTION A-A



SECTION B-B

SEE SHEET 4 FOR DETAILS.



CROSS SECTION THRU DECK LOOKING WEST

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS20
INVENTORY RATING: HS19
OPERATING RATING: HS31
WISCONSIN STANDARD PERMIT VEHICLE (Wis-SPV): 250 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY:	OVERLAY DECKS	f'c = 4,000 P.S.I.
	ALL OTHER	f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60:		fy = 60,000 P.S.I.

TRAFFIC VOLUME

IH 43	GLENMORE ROAD
A.D.T. = 36,200 (2036)	A.D.T. = 650 (2036)
R.D.S. = 70 MPH	R.D.S. = 50 MPH

LIST OF DRAWINGS

1. GENERAL PLAN & CROSS SECTION
2. QUANTITIES & NOTES
3. JOINT REPAIR
4. EXPANSION DEVICE
5. JOINT REPAIR - BILL OF BARS
6. COVER PLATE DETAILS
7. WINGWALL 1 REPLACEMENT
8. WINGWALL 2 REPLACEMENT
9. SLOPED FACE PARAPET "B"
10. DECK REPAIR PLAN

WISCONSIN
VINOD C. PATEL
37887
CAROL STREAM, IL
PROFESSIONAL ENGINEER

DATE: 07/20/2016

STRUCTURE DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER, P.E.
(608) 266-8489

CONSULTANT:
VINOD PATEL, P.E.
(312) 616-7395

NO.	DATE	REVISION	BY

exp U.S. Services Inc.
Milwaukee, WI
BUILDINGS • EARTH & ENVIRONMENT • ENERGY
INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/10/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-5-188

IH 43 SB OVER GLENMORE ROAD

COUNTY	TOWN ~~/CITY/VILLAGE~~
BROWN	DE PERE

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
YC	VCP	JJG/YC	VCP

GENERAL PLAN & CROSS SECTION

SHEET 1 OF 10

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FILENAME
SCALE

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STATE PROJECT NUMBER
1227-08-71

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	E. ABUT.	W. ABUT.	SUPER.	TOTAL
203.0200.02	REMOVING OLD STRUCTURE STA. 321'S'+73.39	LS	-	-	-	1
206.1000.02	EXCAVATION FOR STRUCTURES BRIDGES B-5-188	LS	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	80	-	-	80
502.0100	CONCRETE MASONRY BRIDGES	CY	9	-	-	9
502.3100.02	EXPANSION DEVICE B-5-188	LS	-	-	-	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	609	609
502.3210	PIGMENTED SURFACE SEALER	SY	8	7	104	119
502.4204	ADHESIVE ANCHORS NO. 4 BAR	EACH	10	-	-	10
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	-	54	-	54
502.4206	ADHESIVE ANCHORS NO. 6 BAR	EACH	36	-	-	36
502.6500	PROTECTIVE COATING CLEAR	GAL	-	-	1	1
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,650	2,095	-	3,745
505.0904	BAR COUPLERS NO. 4	EACH	-	4	-	4
505.0905	BAR COUPLERS NO. 5	EACH	-	3	-	3
505.0906	BAR COUPLERS NO. 6	EACH	-	11	-	11
505.0908	BAR COUPLERS NO. 8	EACH	-	6	-	6
509.0301	PREPARATION DECKS TYPE 1	SY	-	-	2	2
509.0302	PREPARATION DECKS TYPE 2	SY	-	-	1	1
509.0500	CLEANING DECKS	SY	-	-	589	589
509.1000	JOINT REPAIR	SY	-	-	23	23
509.1500	CONCRETE SURFACE REPAIR	SF	6	32	11	49
509.2000	FULL-DEPTH DECK REPAIR	SY	-	-	1	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	-	-	76	76
509.9050.S	CLEANING PARAPETS	LF	-	22	264	286
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	4	-	-	4
604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY	30	30	-	60
606.0100	RIPRAP LIGHT	CY	3	-	-	3
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	79	-	-	79
SPV.0060.01	CLEANING AND PAINTING BEARINGS	EACH	-	4	-	4
	NON-BID ITEMS					
	PREFORMED JOINT FILLER	SIZE	-	-	-	1/2 "
	BRIDGE SEAT PROTECTION					

BID ITEM "CONCRETE MASONRY OVERLAY DECKS" ALSO INCLUDES CONCRETE FOR:
"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "FULL-DEPTH DECK REPAIR", AND "JOINT REPAIR".
THE QUANTITIES OF "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL-DEPTH DECK REPAIR" ARE BASED ON AN INFRARED THERMOGRAPHIC DECK SURVEY REPORT.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS OF EXISTING STRUCTURE MEMBERS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "CONCRETE SURFACE REPAIR", AND "FULL-DEPTH DECK REPAIR" AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2 3/4" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS AS GIVEN ON THE PLANS. IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE ABUTMENT.

AT THE BACKFACE OF ABUTMENT, ALL VOLUME WHICH CANNOT BE PLACED BEFORE WINGWALL CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND MINIMUM 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACE OF WEST ABUTMENT BELOW EXPANSION DEVICE. POWER WASH AND ADEQUATELY DRY SURFACES BEFORE APPLICATION. WORK TO BE INCIDENTAL TO "JOINT REPAIR".

COAT ALL EXPOSED SURFACES OF THE LAST 5'-0" OF GIRDERS (SPAN 3 AT WEST ABUTMENT END ONLY) WITH "PROTECTIVE COATING CLEAR" AS DIRECTED BY THE ENGINEER. APPLY AT A RATE OF ONE GALLON PER 200 SF PER THE STANDARD SPECIFICATION 502.3.15 PARA. 4.

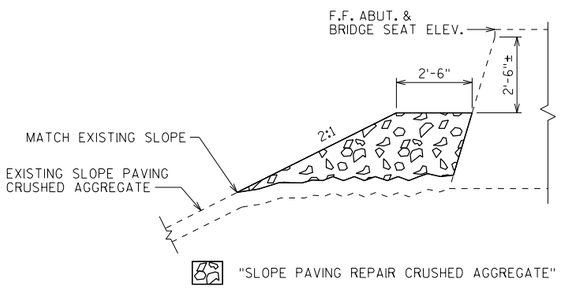
CLEAN AND PAINT ALL BEARINGS AT WEST ABUTMENT. SEE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING BEARINGS".

CLEAN THE INSIDE FACES AND TOP SURFACE OF THE EXISTING CONCRETE PARAPETS. PARAPET JOINTS SHALL BE CLEANED AND RE-SEALED WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. INCLUDE IN BID ITEM "CLEANING PARAPETS".

APPLY "PROTECTIVE SURFACE TREATMENT" TO THE EXPOSED DECK SURFACE OF THE NEW CONCRETE OVERLAY BETWEEN PARAPETS AND EXPOSED TOP SURFACE OF JOINT REPAIR.

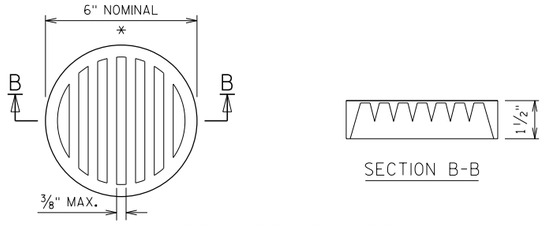
APPLY "PIGMENTED SURFACE SEALER" ON THE INSIDE AND TOP FACES OF PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS.

INSTALL RODENT SCREEN(S) AT THE EXPOSED END(S) OF PIPE UNDERDRAIN.



SECTION AT ABUTMENTS

SLOPE PAVING REPAIR DETAIL



RODENT SCREEN DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO INTO A PIPE COUPLING. ORIENT SCREEN SO SLOTS ARE VERTICAL.

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

THE RODENT SCREEN 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 SCREEN TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-188

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QUANTITIES & NOTES

SHEET 2 OF 10

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STATE PROJECT NUMBER
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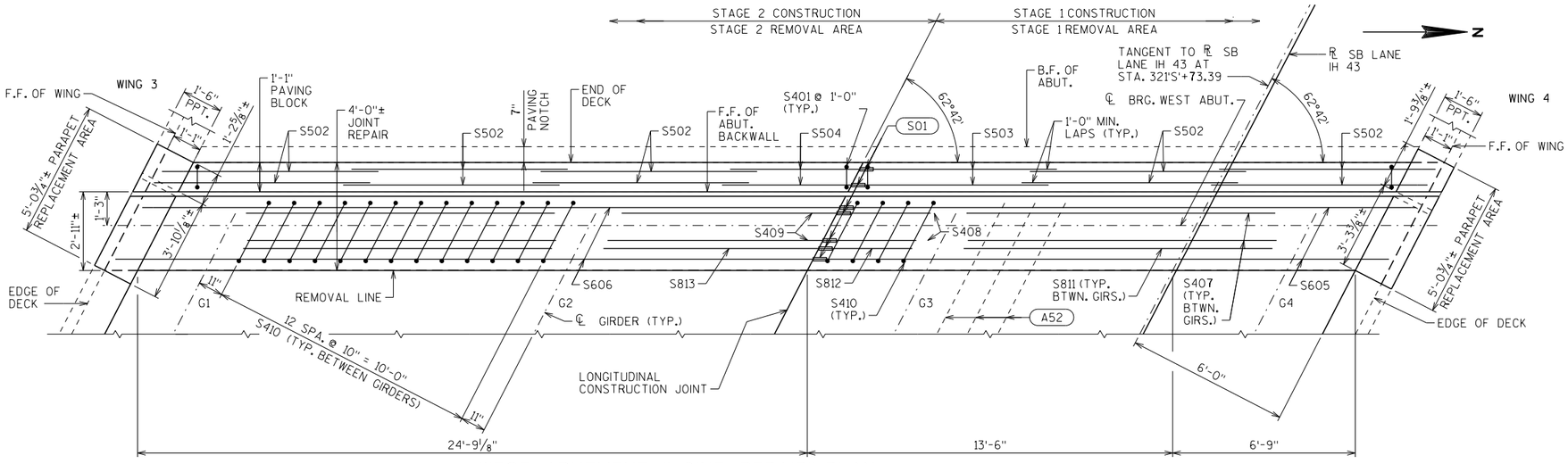
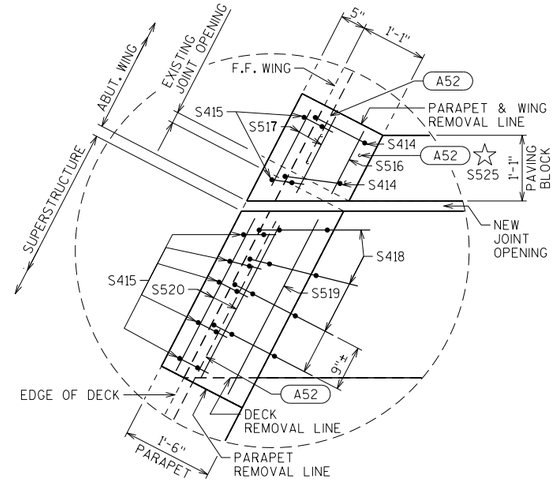
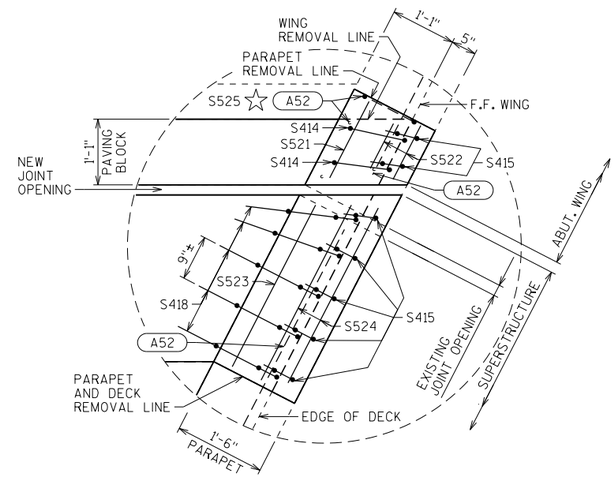


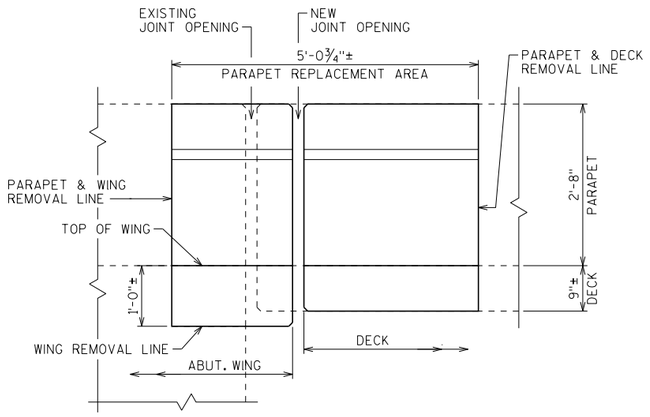
WEST ABUTMENT "JOINT REPAIR" PLAN



PLAN DETAIL OF PARAPET REPLACEMENT AREA AT WING CORNER 3

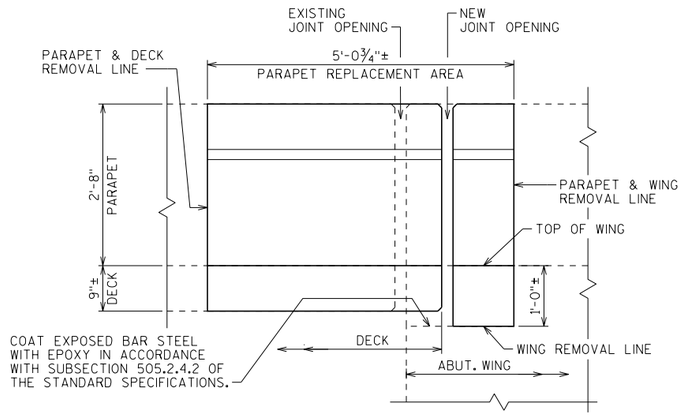


PLAN DETAIL OF PARAPET REPLACEMENT AREA AT WING CORNER 4



ELEVATION OF NEW WING CORNER 3

SHOWING NEW CONCRETE AREAS FOR "JOINT REPAIR" (LOOKING AT OUTSIDE FACE OF PARAPET)



ELEVATION OF NEW WING CORNER 4

SHOWING NEW CONCRETE AREAS FOR "JOINT REPAIR" (LOOKING AT OUTSIDE FACE OF PARAPET)

(A52) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

THE NEW ADDITIONAL HORIZONTAL REINFORCEMENT REQUIRED IN THE PARAPETS SHALL BE TIED TO THE EXISTING HORIZONTAL REINFORCEMENT.

☆ IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH BARS S525 ANCHORED WITH ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" MIN. INTO EXISTING CONC. PLACE 4" CL. MIN. OF VERT. CONC. FACE.

(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT & SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS' RECOMMENDATIONS.

NOTES

ALL REMOVAL LINES SHALL BE DEFINED BY A 1" DEEP SAW-CUT.

REBUILD NEW PARAPET, WING AND DECK AREAS TO MATCH THE EXISTING PARAPET, WING AND DECK. SEE SHEET 5 FOR NEW PARAPET DETAILS.

PARAPET REPLACEMENT SHALL BE INCLUDED UNDER THE BID ITEM "JOINT REPAIR".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-188

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JOINT REPAIR

SHEET 3 OF 10

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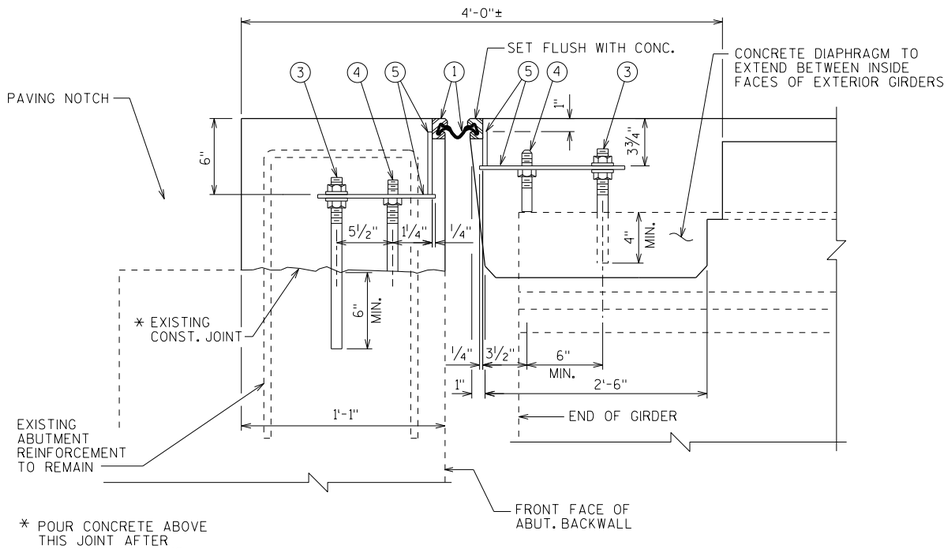
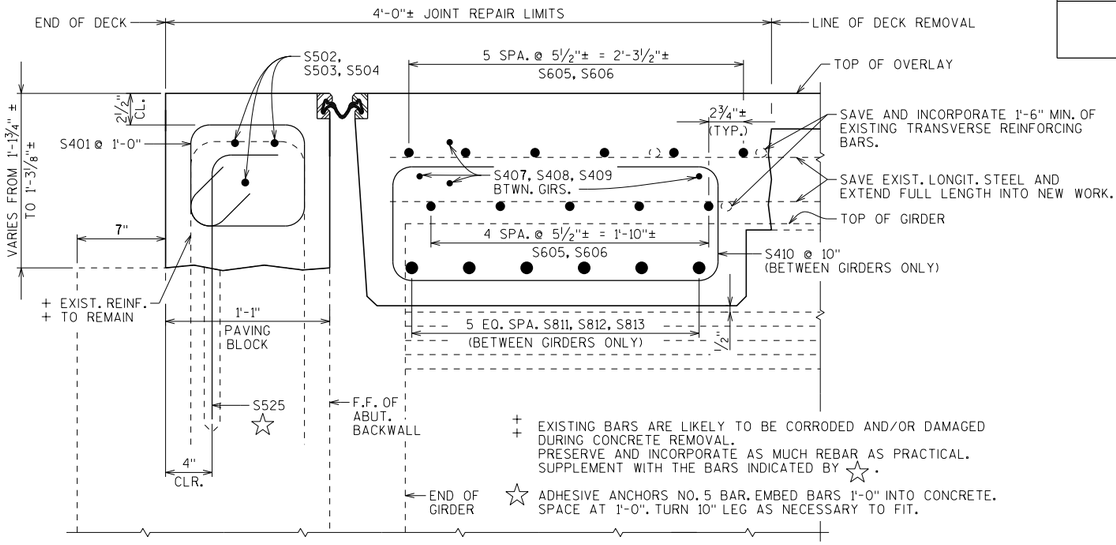


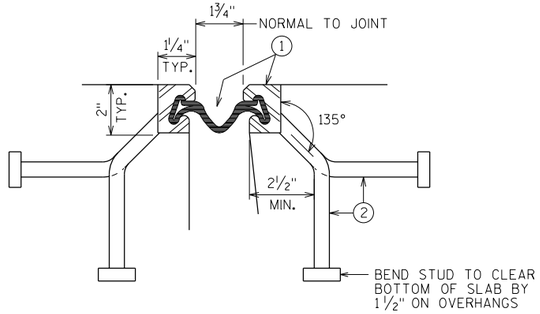
SECTION THRU JOINT AT WEST ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE



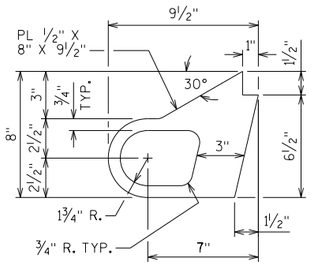
SECTION THRU JOINT AT WEST ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE
SHOWING REINFORCEMENT



SECTION THRU JOINT

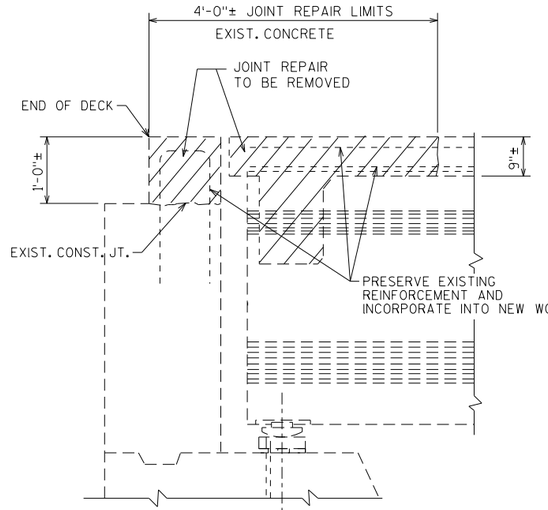
EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS



ALTERNATE STRIP SEAL ANCHOR

LEGEND

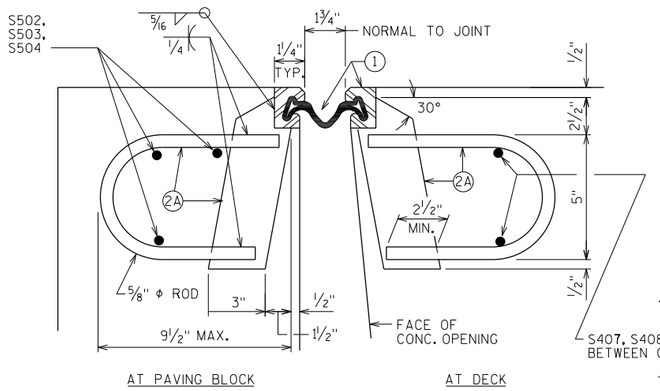
1. NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅝"ϕ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝"ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾" ϕ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾"ϕ 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" ϕ HOLE FOR NO. 3 AND 1" ϕ HOLE FOR NO. 4.



JOINT REPAIR - REMOVAL

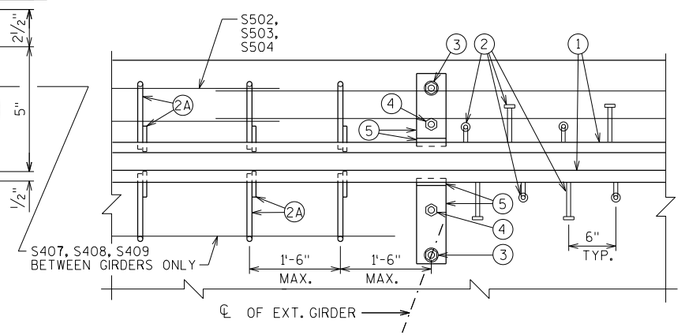
SECTION THRU EXISTING EXPANSION JOINT AT WEST ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE



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, 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.

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

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-5-188".

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-188

DRAWN BY YC | PLANS CK'D. VCP

EXPANSION DEVICE

SHEET 4 OF 10
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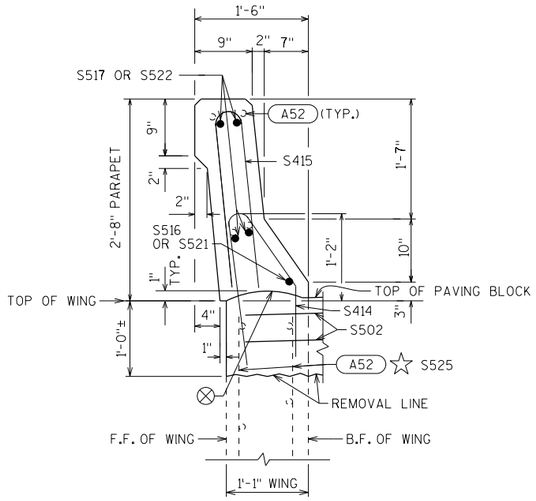
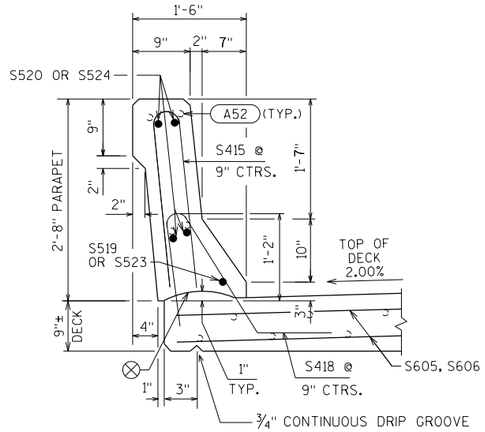


NEW SECTION THRU PARAPET ON WING



NEW SECTION THRU PARAPET ON DECK

⊗ CONST. JOINT - STRIKE OFF AS SHOWN.

A52 SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

THE NEW ADDITIONAL HORIZONTAL REINFORCEMENT REQUIRED IN THE PARAPETS SHALL BE TIED TO THE EXISTING HORIZONTAL REINFORCEMENT.

☆ IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH BARS S525 ANCHORED WITH ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" MIN. INTO EXISTING CONC. PLACE 4" CL. MIN. OF VERT. CONC. FACE.

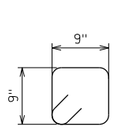
BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

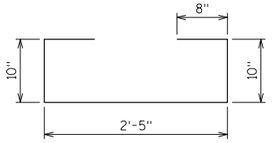
	E. ABUT.	W. ABUT.
UNCOATED:	0 LBS	0 LBS
COATED:	0 LBS	2095 LBS

	BAR MARK	COAT	NO. REQ'D E. ABUT.	NO. REQ'D W. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
	S401	X	-	46	3'-6"	X		PAVING BLOCK - VERT. - STIRRUP - AT STAGE 1 & 2 CONST.
	S502	X	-	15	8'-0"			PAVING BLOCK - HORIZ. - AT STAGE 1 & 2 CONST.
*	S503	X	-	3	7'-4"			PAVING BLOCK - HORIZ. - AT STAGE 1 CONST.
*	S504	X	-	3	4'-10"			PAVING BLOCK - HORIZ. - AT STAGE 2 CONST.
*	S605	X	-	11	21'-3"			DECK - HORIZ. - TRANS. - TOP & BOT. - AT STAGE 1 CONST.
*	S606	X	-	11	25'-9"			DECK - HORIZ. - TRANS. - TOP & BOT. - AT STAGE 2 CONST.
	S407	X	-	8	11'-5"			DECK - HORIZ. - TRANS. - BTWN. GIRS. - AT STAGE 1 & 2 CONST.
*	S408	X	-	4	3'-6"			DECK - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 1 CONST.
*	S409	X	-	4	8'-0"			DECK - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 2 CONST.
	S410	X	-	39	5'-1"	X		DECK/CONC. DIAPH. - VERT. - BTWN. GIRS. - AT STAGE 1 & 2 CONST.
	S811	X	-	12	11'-5"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. GIRS. - AT STAGE 1 & 2 CONST.
*	S812	X	-	6	3'-6"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 1 CONST.
*	S813	X	-	6	8'-0"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 2 CONST.
	S414	X	-	4	4'-3"	X		WING & PARAPET - VERT. - TRANS. - AT WING CORNERS 3 & 4
	S415	X	-	14	4'-10"	X		PARAPET - VERT. - TRANS. - ABOVE DECK AND WINGS - AT WING CORNERS 3 & 4
	S516	X	-	1	1'-2"			WING PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNER 3
	S517	X	-	4	1'-5"			WING PARAPET - HORIZ. - LONGIT. - AT WING CORNER 3
	S418	X	-	9	4'-3"	X		DECK & PARAPET- VERT. - TRANS. - AT WING CORNERS 3 & 4
	S519	X	-	1	3'-3"			DECK PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNER 3
	S520	X	-	4	2'-10"			DECK PARAPET - HORIZ. - LONGIT. - AT WING CORNER 3
	S521	X	-	1	1'-5"			WING PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNER 4
	S522	X	-	4	1'-0"			WING PARAPET - HORIZ. - LONGIT. - AT WING CORNER 4
	S523	X	-	1	3'-0"			DECK PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNER 4
	S524	X	-	4	3'-3"			DECK PARAPET - HORIZ. - LONGIT. - AT WING CORNER 4
	S525	X	-	54	2'-7"	X		PAVING BLOCK & ENDS OF ABUT. BACKWALL - VERT. - DOWEL - AT STAGE 1 & 2 CONST.

* BAR COUPLERS USED. BAR LENGTH COMPUTED UP TO THE LONGIT. CONST. JOINT AND SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS' RECOMMENDATIONS.



S401



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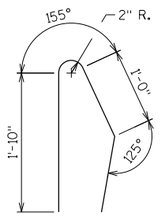

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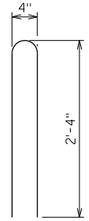

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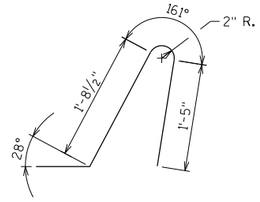

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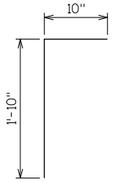

S525

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-188

DRAWN BY YC | PLANS CK'D. VCP

JOINT REPAIR - BILL OF BARS

SHEET 5 OF 10

373

FILENAME

SCALE

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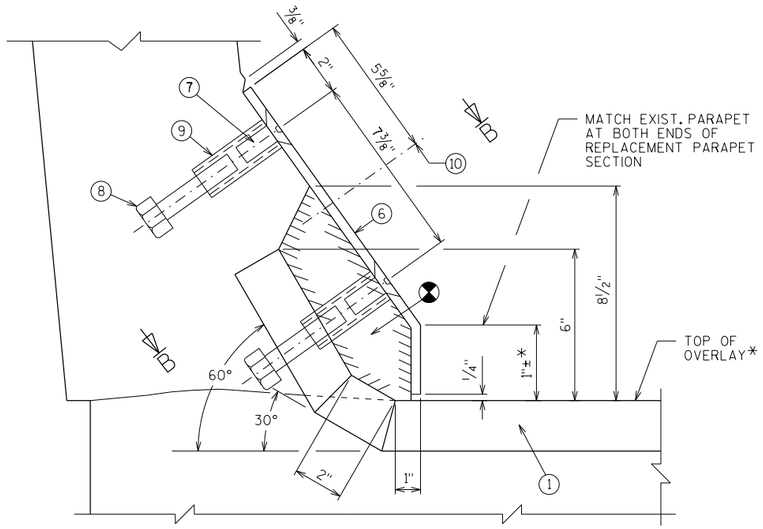
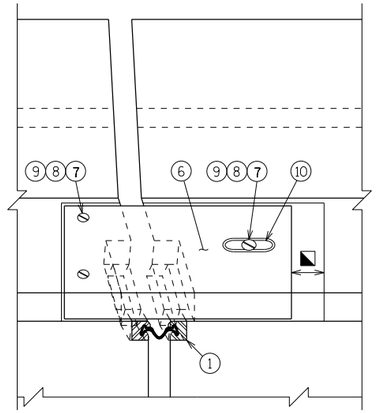
STATE PROJECT NUMBER

1227-08-71



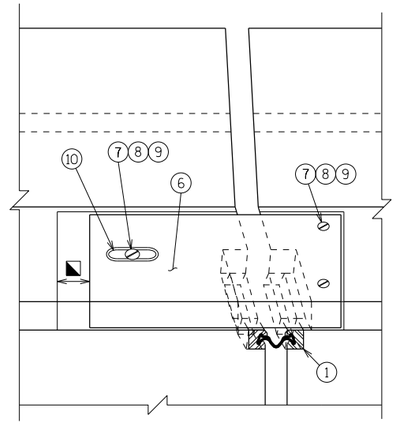
SECTION A-A

* TOP OF OVERLAY @ 2"± ABOVE TOP OF ORIGINAL DECK.



VIEW OF PARAPET PLATE FROM ROADWAY

AT WING CORNER 4



VIEW OF PARAPET PLATE FROM ROADWAY

AT WING CORNER 3

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.

(2) STUDS 5/8"Φ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

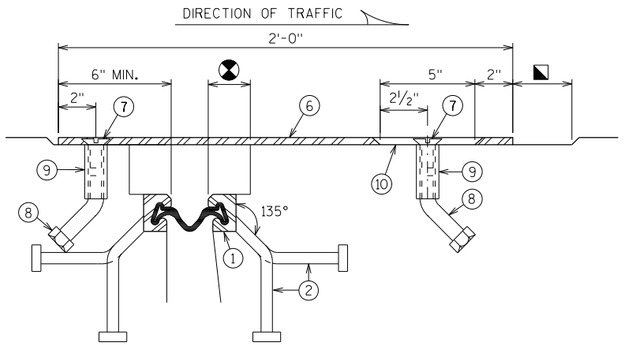
(6) GALVANIZED PLATE 3/8" X 1'-2" X 2'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

(7) 3/4"Φ X 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) 3/4"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) 3/4"Φ X 2 1/4" GALVANIZED THREADED COUPLING.

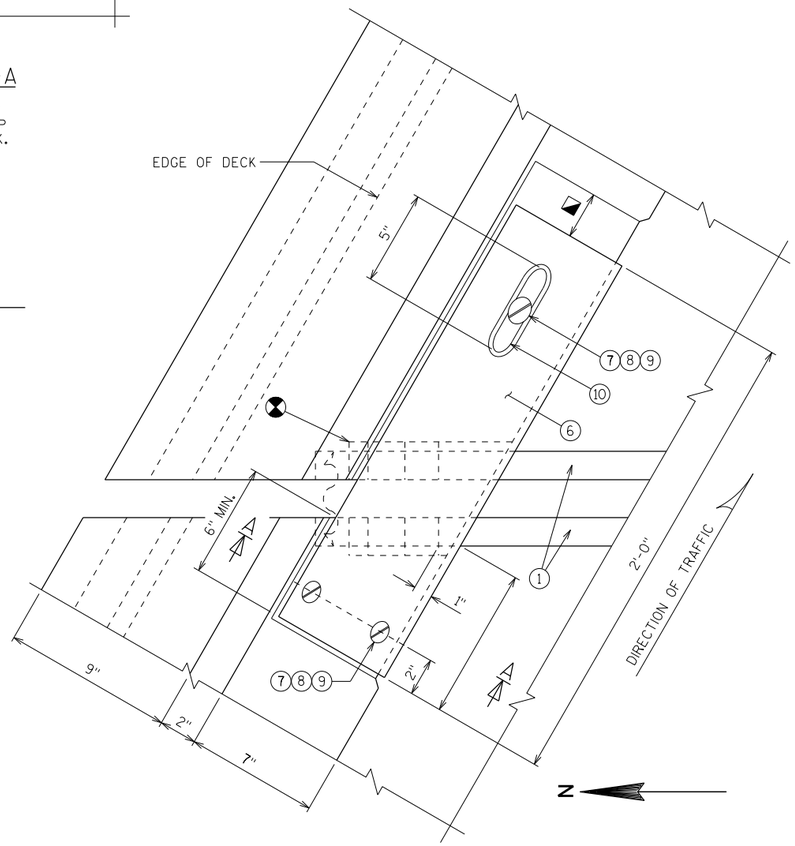
(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.



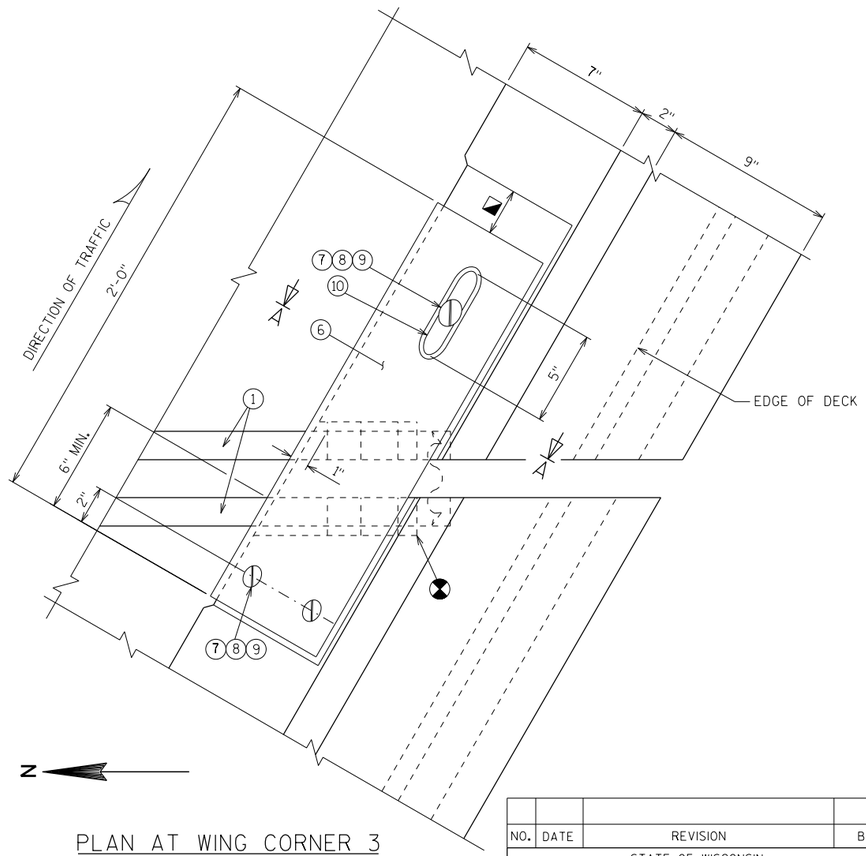
SECTION B-B

AT WING CORNER 3

OPPOSITE HAND AT WING CORNER 4



PLAN AT WING CORNER 4



PLAN AT WING CORNER 3

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-188

DRAWN BY YC | PLANS CK'D. VCP

COVER PLATE DETAILS

SHEET 6 OF 10

374

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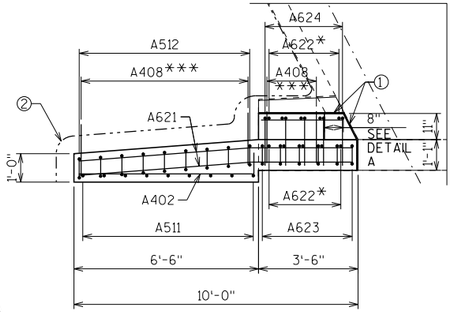
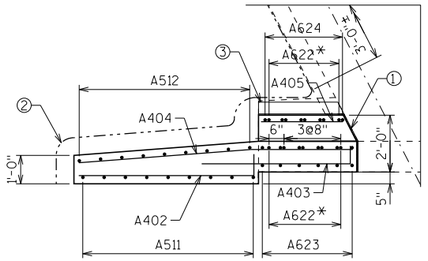
STATE PROJECT NUMBER

1227-08-71

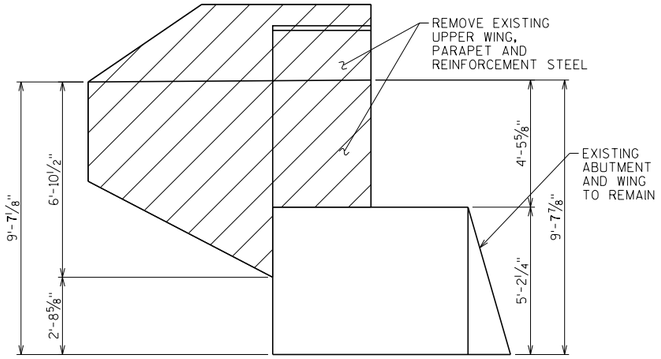


SECTION A-A

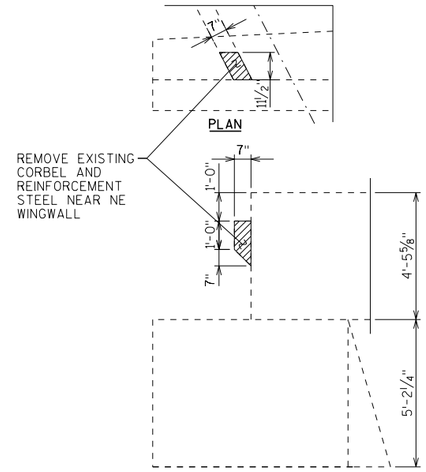


SECTION B-B

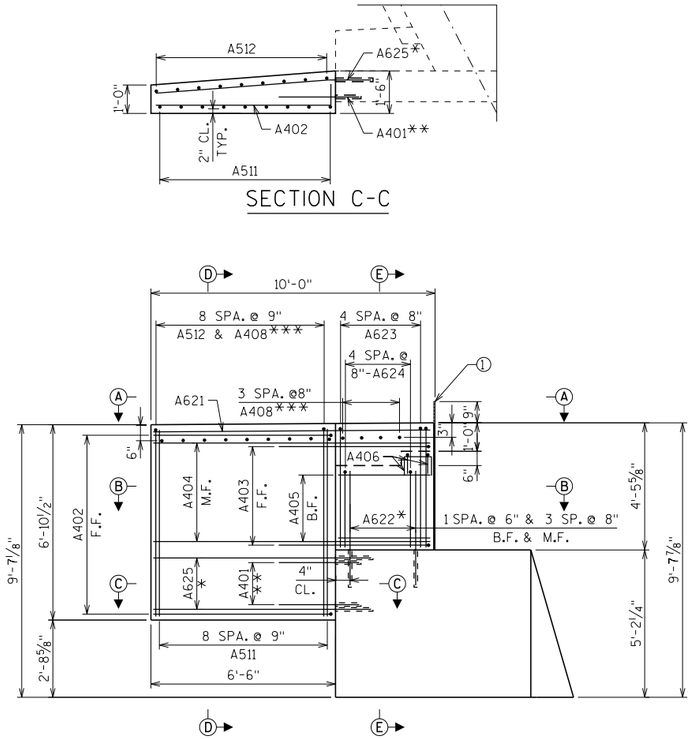
SECTION C-C



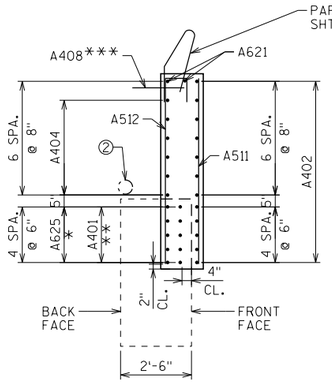
EXISTING WING REMOVAL



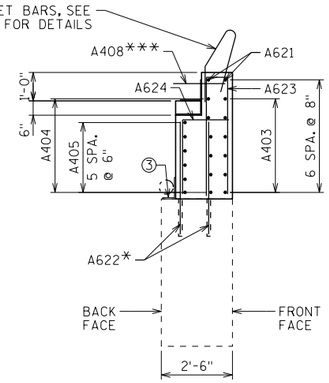
PARTIAL CORBEL REMOVAL



WING ELEVATION



SECTION D-D



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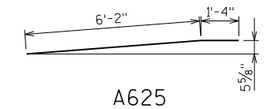
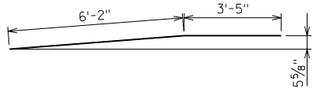
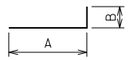


A625

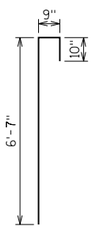


A404 & A621

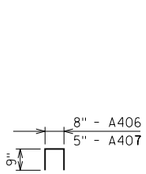


A402, A403 & A624

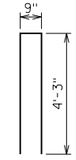
BAR MARK	A	B
A402	6'-2"	9"
A403	5'-4"	9"
A624	2'-9"	1'-8"



A512



A406 & A407



A623

BILL OF BARS

550 LBS

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
**	A401	X	5	2-10			HORIZONTAL ANCHOR BARS, B.F.
	A402	X	12	6-10	X		HORIZONTAL, F.F.
	A403	X	6	6-0	X		HORIZONTAL, B.F.
	A404	X	6	9-7	X		HORIZONTAL, M.F.
	A405	X	6	2-9			HORIZONTAL, F.F.
	A406	X	3	2-0	X		U BARS
	A407	X	1	1-9	X		U BARS
	A408	X	13	1-10			HORIZONTAL, M.F.
	A511	X	9	6-7			VERTICAL, F.F.
	A512	X	9	7-11	X		VERTICAL, B.F.
	A621	X	2	9-7	X		HORIZONTAL
*	A622	X	10	4-0			VERTICAL ANCHOR BARS
	A623	X	6	8-11	X		U BARS
	A624	X	5	4-3	X		L BARS
*	A625	X	5	7-6	X		HORIZONTAL ANCHOR BARS, M.F.

THE FIRST DIGIT OF A THREE DIGIT MARK SIGNIFIES THE BAR SIZE.
ALL BAR DIMENSIONS ARE OUT TO OUT OF BAR.

NOTES:

① ½" FILLER INCLUDED IN WING LENGTH, SEAL ALL HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.

② PIPE UNDERDRAIN WRAPPED 6 INCH, SLOPE 0.5% MIN. TO DRAIN.

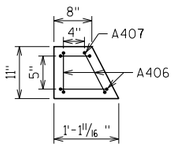
③ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

④ PROVIDE 2" CLEAR COVER U.N.O.

* ADHESIVE ANCHORS NO. 6 BAR. EMBED 15" INTO CONCRETE.

** ADHESIVE ANCHORS NO. 4 BAR. EMBED 10" INTO CONCRETE.

***A408 BARS LAP WITH A512 & A623 BARS. EMBED 10" INTO WING CONCRETE. LOCATE 3" DOWN FROM TOP OF WING AT BACKFACE TO 6" DOWN AT WING TIP. (DRILLED IN EPOXY ANCHORED #4 BARS 1'-10" LONG MAY BE USED.) COST INCIDENTAL TO BID ITEM "BAR STEEL REINFORCEMENT HS COATED BRIDGES."



DETAIL A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-188

DRAWN BY SD | PLANS CK'D. VCP

WINGWALL 1 REPLACEMENT

SHEET 7 OF 10

375

FILENAME

SCALE

8

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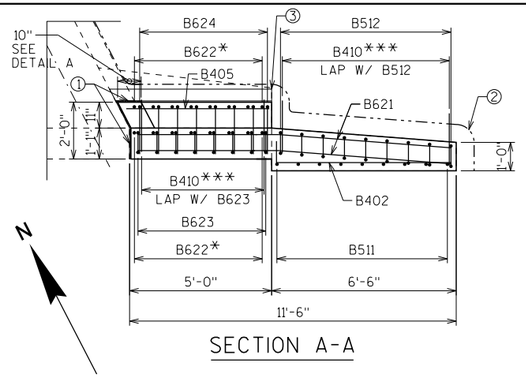
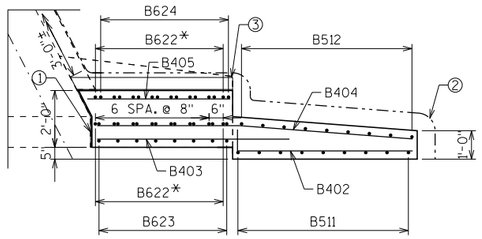


SECTION A-A



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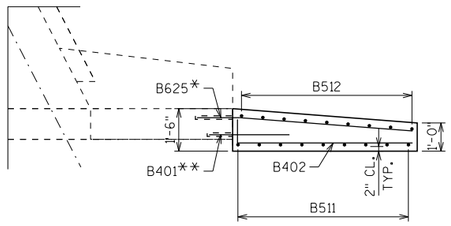

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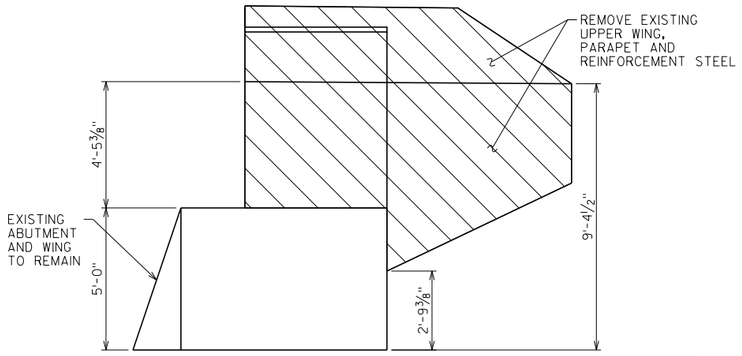
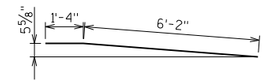
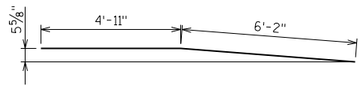


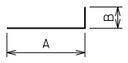
EXISTING WING REMOVAL



B625

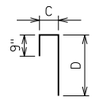


B404 & B621



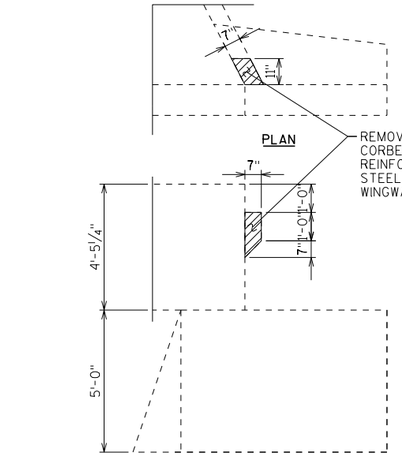
B402, B403 & B624

BAR MARK	A	B
B402	6'-2"	9"
B403	6'-10"	9"
B624	2'-9"	1'-8"



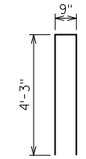
B406, B407, B408 & B409

BAR MARK	C	D
B406	6"	3'-2"
B407	6"	9"
B408	8"	3'-3"
B409	8"	9"

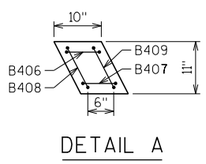


PARTIAL CORBEL REMOVAL

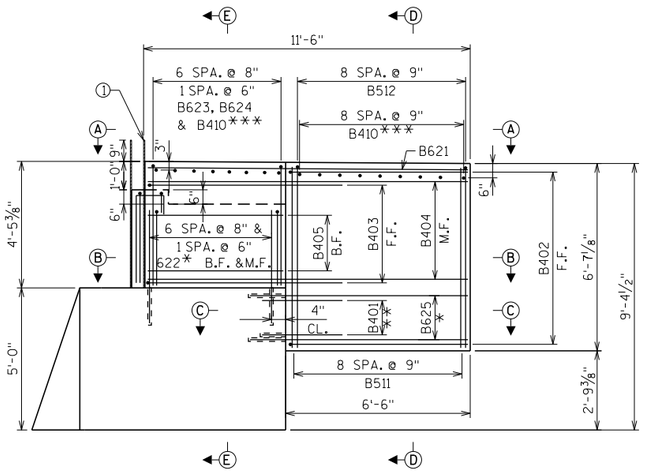
B512



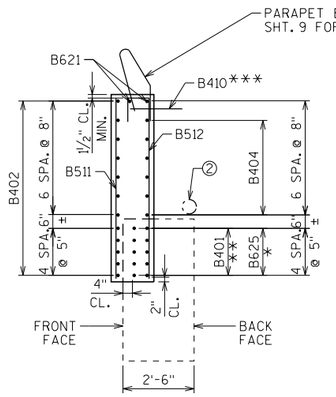
B623



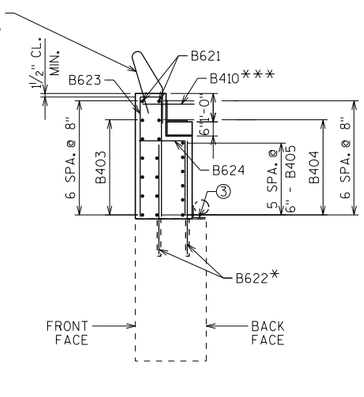
DETAIL A



WING ELEVATION



SECTION D-D



SECTION E-E

STATE PROJECT NUMBER

1227-08-71

BILL OF BARS

670 LBS

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
**	B401	X	5	2-10			HORIZONTAL ANCHOR BARS, B.F.
	B402	X	12	6-10	X		HORIZONTAL, F.F.
	B403	X	6	7-6	X		HORIZONTAL, B.F.
	B404	X	6	11-1	X		HORIZONTAL, M.F.
	B405	X	6	5-1			HORIZONTAL, F.F.
	B406	X	1	4-3	X		U BARS
	B407	X	1	1-10	X		U BARS
	B408	X	1	4-6	X		U BARS
	B409	X	1	2-0	X		U BARS
	B410	X	17	1-10			HORIZONTAL, M.F.
	B511	X	9	6-3			VERTICAL, F.F.
	B512	X	9	7-7	X		VERTICAL, B.F.
	B621	X	2	11-1	X		HORIZONTAL
*	B622	X	16	4-0			VERTICAL ANCHOR BARS
	B623	X	8	8-11	X		U BARS
	B624	X	8	4-3	X		L BARS
*	B625	X	5	7-6	X		HORIZONTAL ANCHOR BARS, M.F.

THE FIRST DIGIT OF A THREE DIGIT MARK SIGNIFIES THE BAR SIZE.
ALL BAR DIMENSIONS ARE OUT TO OUT OF BAR.

NOTES:

① ½" FILLER INCLUDED IN WING LENGTH, SEAL ALL HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.

② PIPE UNDERDRAIN WRAPPED 6 INCH, SLOPE 0.5% MIN. TO DRAIN.

③ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

④ PROVIDE 2" CLEAR COVER U.N.O.

* ADHESIVE ANCHORS NO. 6 BAR. EMBED 15" INTO CONCRETE.

** ADHESIVE ANCHORS NO. 4 BAR. EMBED 10" INTO CONCRETE.

*** B410 BARS SPACED EQUALLY W/ B512 & B623 BARS. EMBED 10" INTO WING CONCRETE. LOCATE 3" DOWN FROM TOP OF WING AT BACKFACE TO 6" DOWN AT WING TIP. (DRILLED IN EPOXY ANCHORED #4 BARS 1'-10" LONG MAYBE USED.) COST INCIDENTAL TO BID ITEM "BAR STEEL REINFORCEMENT HS COATED BRIDGES."

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-188

DRAWN BY SD | PLANS CK'D. VCP

WINGWALL 2 REPLACEMENT

SHEET 8 OF 10

376

8

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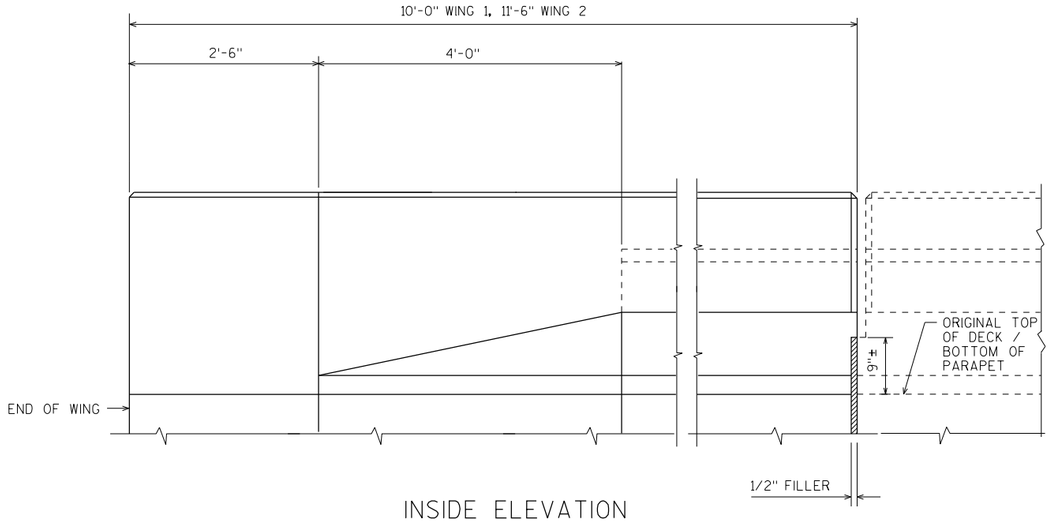
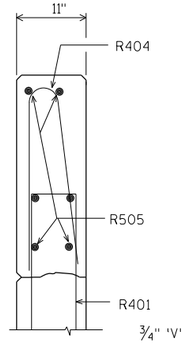
FILENAME
SCALE

STATE PROJECT NUMBER

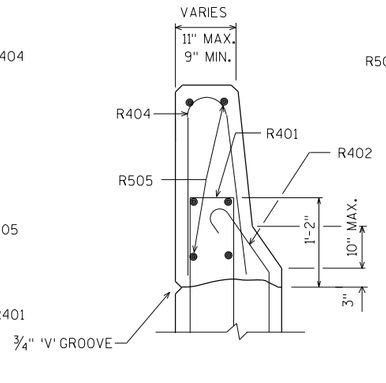
1227-08-71



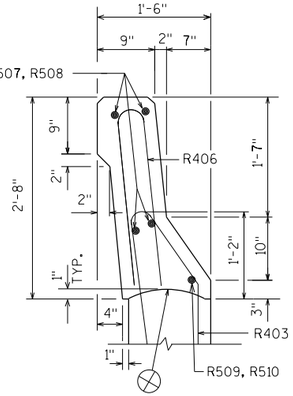
INSIDE ELEVATION



SECTION A



SECTION B



SECTION C

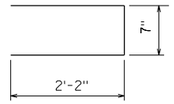
BILL OF BARS

FOR ABUTMENT PARAPETS

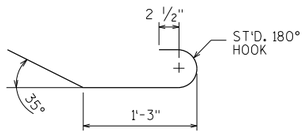
THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE. EPOXY COAT ALL PRAPET REINF.

	E. ABUT.	W. ABUT.
UNCOATED:	0 LBS	0 LBS
COATED:	430 LBS	0 LBS

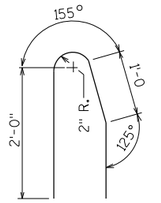
BAR MARK	NO. REQ'D E. ABUT.	NO. REQ'D W. ABUT.	LENGTH	BENT	LOCATION
R401	30	-	4'-9"	X	WINGS STIRRUPS
R402	8	-	3'-1"	X	WINGS
R403	12	-	4'-7"	X	WINGS STIRRUPS
R404	30	-	4'-9"	X	WINGS
R505	12	-	6'-2"		WINGS
R406	12	-	4'-10"	X	WINGS
R507	4	-	5'-3"		WING 1
R508	4	-	6'-9"		WING 2
R509	1	-	9'-7"	X	WING 1
R510	1	-	11'-1"	X	WING 2
- - -	-	-			



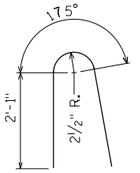
R401



R402



R403



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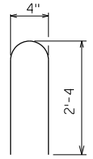
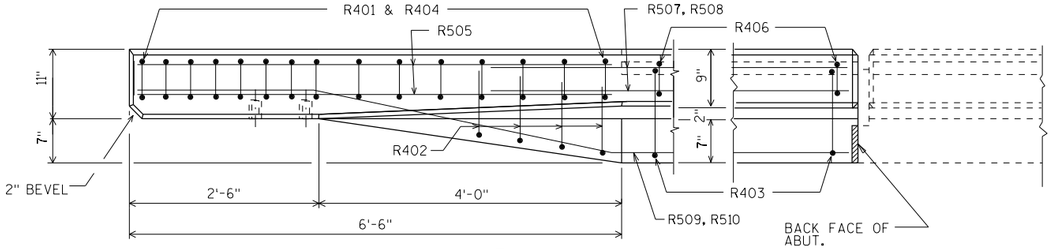
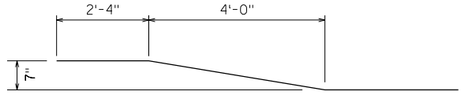


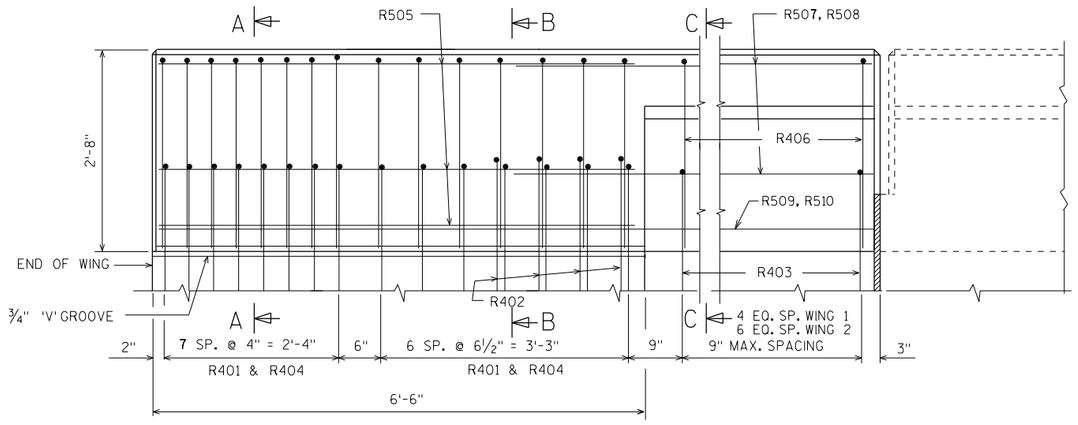
R406



PLAN



R509, R510



OUTSIDE ELEVATION

CONST. JOINT - STRIKE OFF AS SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-188

DRAWN BY SD | PLANS CK'D. YC

SLOPED FACE PARAPET "B"

SHEET 9 OF 10

377

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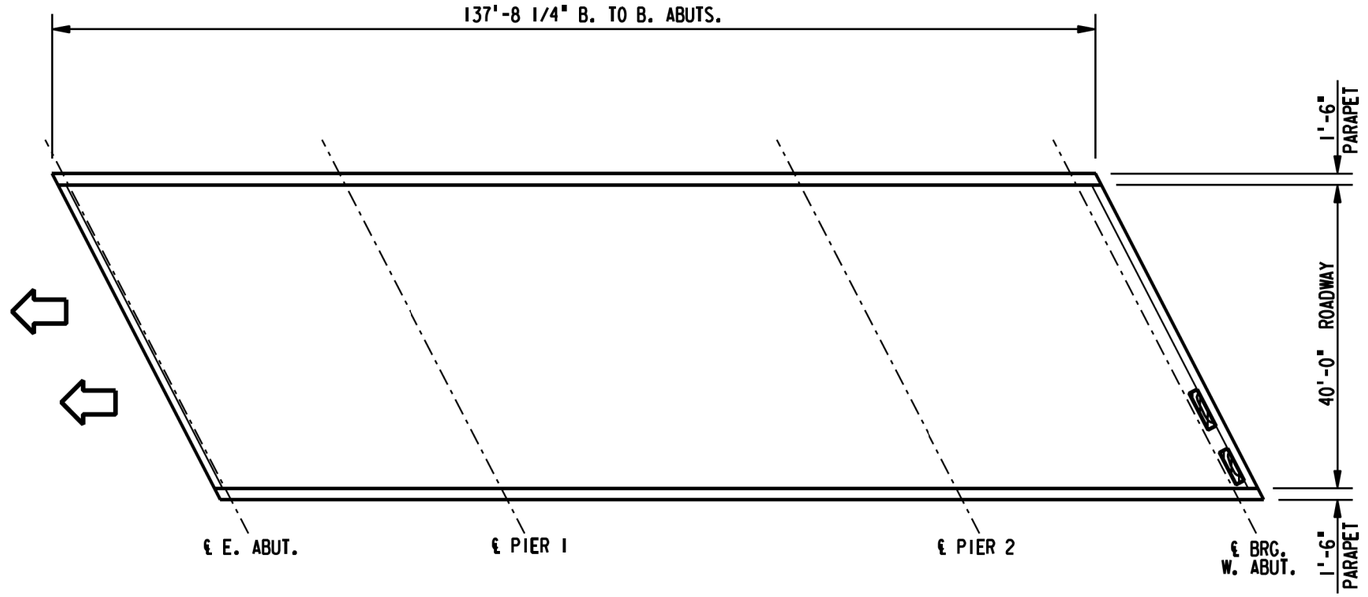
STATE PROJECT NUMBER
1227-08-71



PLAN

PROPOSED REHAB AREAS

FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-5-188	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	609.3	
SHADE/DEBRIS	yd^2	0	
PREPARATION, DECKS, TYPE 1	yd^2	1.3	0.2
PREPARATION, DECKS, TYPE 2	yd^2	0.1	<0.1
FULL DEPTH DECK REPAIR	yd^2	1.0	0.2

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND

ASPHALT PATCH

CONCRETE PATCH

NOTES

THIS SHEET PROVIDES THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS REPORTED BY AECOM IN AUGUST 2015. THE PROPOSED DECK REPAIRS ARE BASED ON THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS.

SCALE 0' 5' 10' 20'

SURFACE TYPE: CONCRETE - NO OVERLAY

INFRARED INSPECTION DATE: 7/23/15

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-188

DRAWN BY YC | PLANS CK'D. VCP

DECK REPAIR PLAN

SHEET 10 OF 10

378

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FILENAME
SCALE

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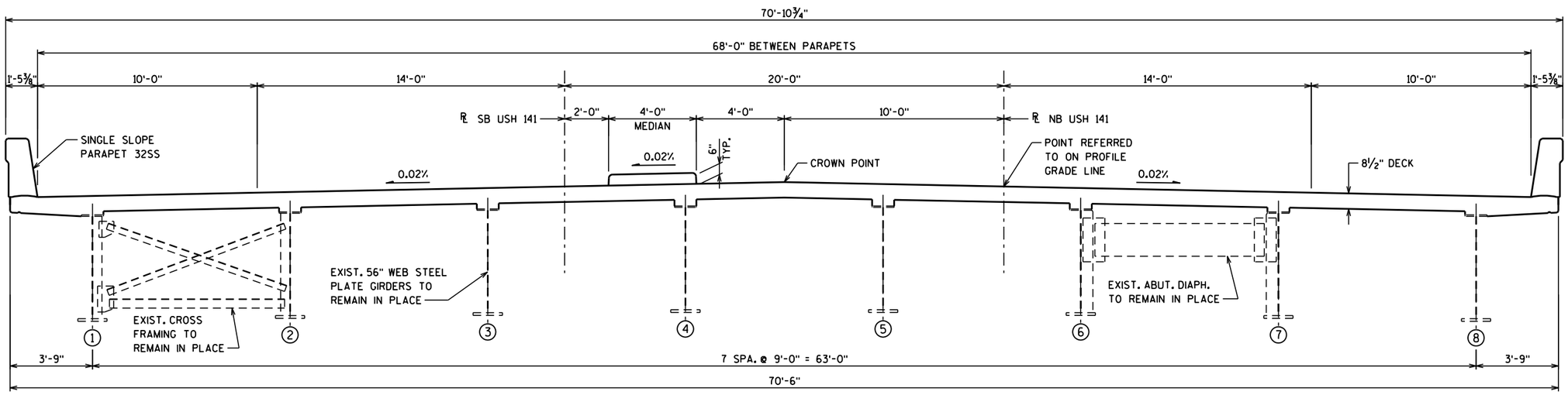
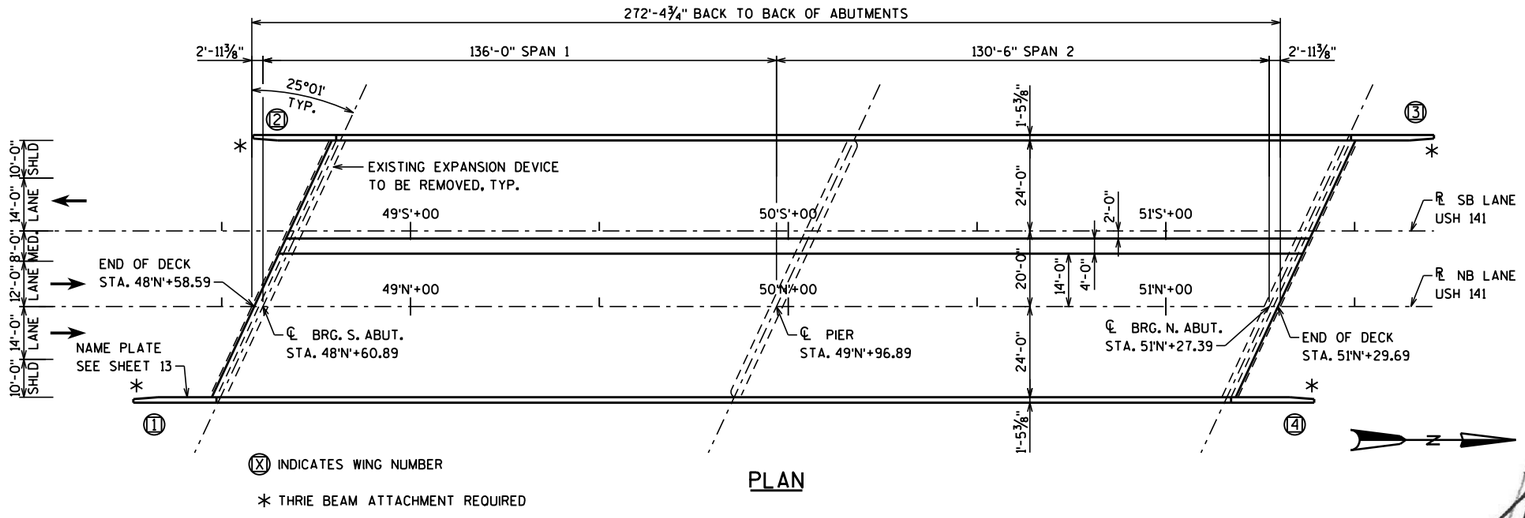
STATE PROJECT NUMBER
1227-08-71

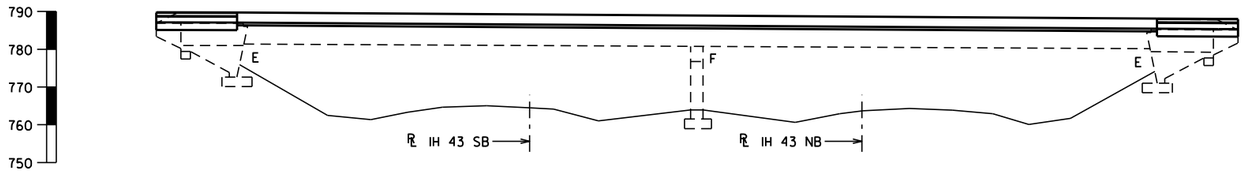


CROSS SECTION THRU ROADWAY

(LOOKING NORTH)



PLAN



ELEVATION

NORMAL TO IH 43

TRAFFIC DATA

USH 141
ADT = 9,400 (2037)
RDS = 50 M.P.H.

IH-43
ADT = 35,400 (2037)
RDS = 70 M.P.H.

LIST OF DRAWINGS

1. NEW DECK
2. REMOVAL PLAN & QUANTITIES
3. SOUTH ABUTMENT
4. SOUTH ABUTMENT DETAILS
5. NORTH ABUTMENT
6. NORTH ABUTMENT DETAILS
7. HAUNCH DETAILS
8. SUPERSTRUCTURE
9. SUPERSTRUCTURE CROSS SECTION
10. SUPERSTRUCTURE DETAILS
11. EXPANSION DEVICE
12. COVER PLATE DETAILS
13. SINGLE SLOPE 32SS PARAPET

DESIGN DATA

LIVE LOAD:
- INVENTORY RATING: HS-28
- OPERATING RATING: HS-46
- WISCONSIN STANDARD PERMIT VEHICLE (Wis-SPV): 250 KIPS

MATERIAL PROPERTIES:
- CONCRETE MASONRY
- SUPERSTRUCTURE: ——— f'c = 4,000 p.s.i.
- ALL OTHER: ——— f'c = 3,500 p.s.i.
- BAR STEEL REINFORCEMENT
- GRADE 60: ——— fy = 60,000 p.s.i.

7/21/16

CONSULTANT CONTACT

KRISTOFER OLSON
OMNNI ASSOCIATES, INC.
(920) 735-6900

BRIDGE OFFICE CONTACT

WILLIAM DREHER
(608) 266-8489

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
OMNNI ASSOCIATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/09/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-5-189

USH 141 OVER IH 43

COUNTY	TOWN
BROWN	DE PERE

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
BRE	KRO	BRE	KRO

NEW DECK

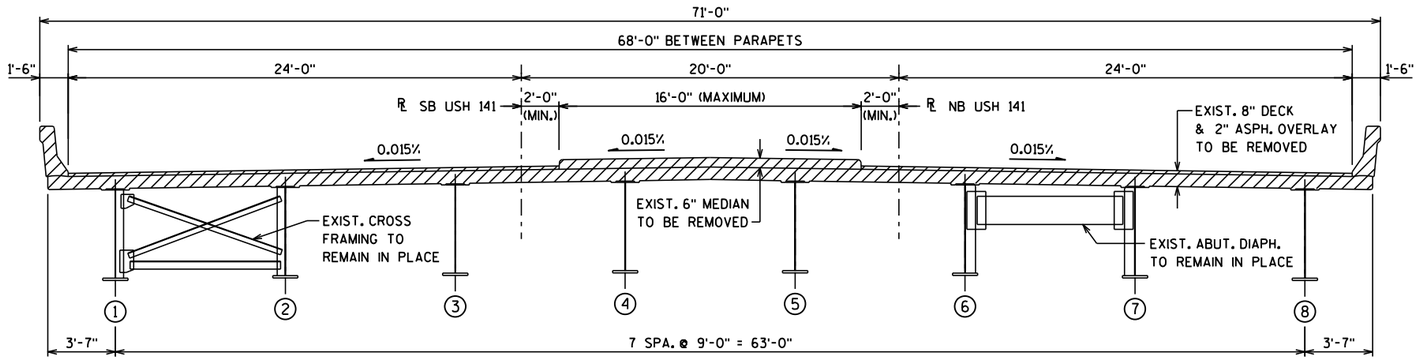
SHEET 1 OF 13

379

8

8

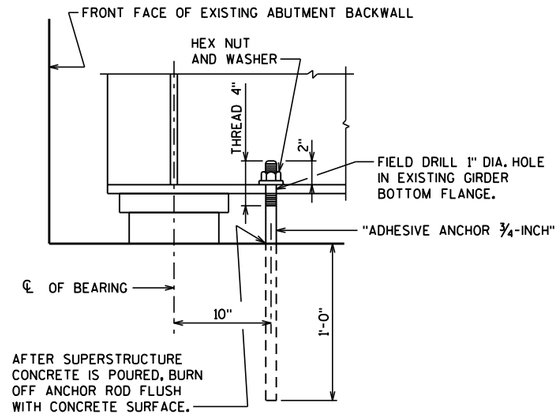
STATE PROJECT NUMBER
1227-08-71



CROSS SECTION THRU EXISTING STRUCTURE

(LOOKING NORTH)

▨ REMOVAL AREA



TEMPORARY HOLD DOWN DEVICE

PLACE ONE ANCHOR ROD PER GIRDER AT ABUTMENT WHERE SLAB POUR TERMINATES. LOCATE 4" (NORMAL) OFF ℄ OF GIRDER. ANCHOR ROD, NUT, WASHER AND DRILLED HOLE IN GIRDER FLANGE SHALL BE PAID FOR AS "ADHESIVE ANCHOR ¾-INCH". MINIMUM PULLOUT CAPACITY OF 27 KIPS. EMBED 12" IN CONCRETE.

BENCH MARKS (NAVD 88)

NO.	STATION	DESCRIPTION	ELEV.
BM1	48'E'+30, 25'RT.	WDOT DISC ON TOP OF S.E. PARAPET	789.83
BM2	51'E'+16, 45'LT.	WDOT DISC ON TOP OF N.W. PARAPET	785.42

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

ANY EXCAVATION NECESSARY TO COMPLETE THE DECK REPLACEMENT OR WING MODIFICATION AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY BRIDGES".

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

VARIATIONS TO THE NEW GRADE LINE OVER ¼" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE STRUCTURES DESIGN SECTION FOR REVIEW.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK SURFACE AND MEDIAN, AND PIGMENTED SURFACE SEALER IS TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPET, INCLUDING PARAPETS ON ABUTMENT WINGS.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF ALL ABUTMENTS AND PIERS BELOW EXPANSION DEVICES. INCIDENTAL TO BID ITEM CONCRETE MASONRY BRIDGES.

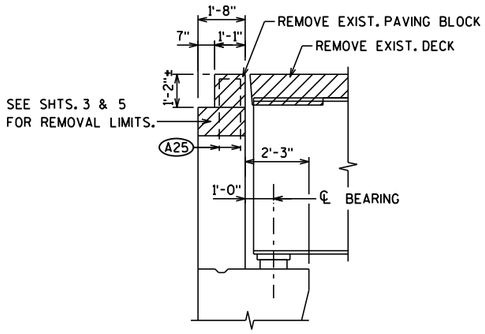
THE COLOR OF THE STEEL GIRDER FINISH TOP COAT SHALL BE BROWN (FEDERAL STANDARD COLOR NO. 20059).

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURE PLANS.

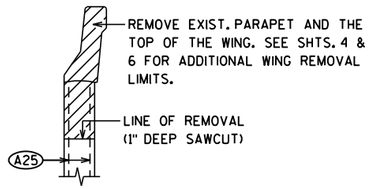
THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR 1980.

REMOVAL LINES ON THE OUTSIDE FACE OF WING WALLS SHALL BE DEFINED BY A 1-INCH SAW CUT.

PROVIDE TEMPORARY HOLD DOWN DEVICE AT ABUTMENT WHERE SLAB POUR TERMINATES. USE ADHESIVE ANCHORS 3/4-INCH.



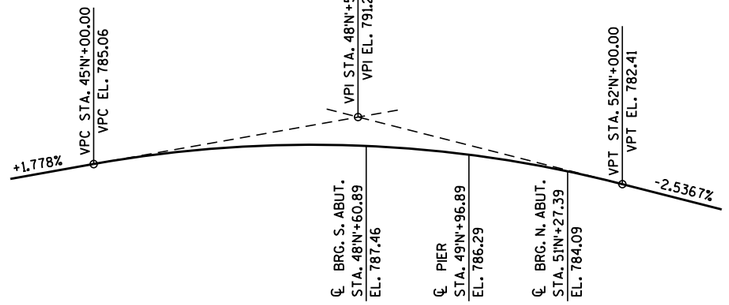
SECTION THRU EXIST. ABUTMENT BACKWALL



SECTION THRU EXIST. WINGS

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

▨ REMOVAL AREA



PROFILE GRADE LINE USH 141

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	SUPER	SOUTH ABUT.	NORTH ABUT.	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 49+98.81	LS	---	---	---	1
203.0225.S	DEBRIS CONTAINMENT B-5-189	LS	---	---	---	1
502.0100	CONCRETE MASONRY BRIDGES	CY	608	37	37	682
502.3100	EXPANSION DEVICE B-5-189	LS	---	---	---	2
502.3200	PROTECTIVE SURFACE TREATMENT	SY	2,080	---	---	2,080
502.3210	PIGMENTED SURFACE SEALER	SY	220	20	20	260
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	---	245	245	490
502.4106	ADHESIVE ANCHORS 3/4-INCH	EACH	---	8	---	8
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	140,320	3,250	3,250	146,820
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	---	20	20	40
517.0900.S	PREPARATION AND COATING OF TOP FLANGES B-5-189	LS	---	---	---	1
◪ 517.3000.S	STRUCTURE OVERCOATING CLEANING AND PRIMING B-5-189	LS	---	---	---	1
◪ 517.4000.S	CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-5-189	LS	---	---	---	1
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	---	---	4

◪ CLEAN AND PAINT 6'END SECTIONS OF ALL GIRDERS AND END DIAPHRAGMS ADJACENT TO JOINTS ONLY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-189

DRAWN BY BRE | PLANS CK'D. KRO

REMOVAL PLAN & QUANTITIES

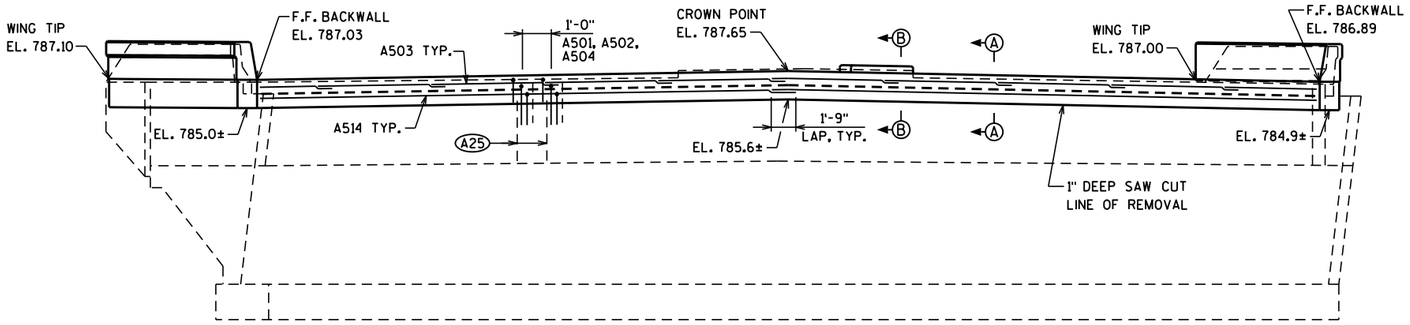
SHEET 2 OF 13

380

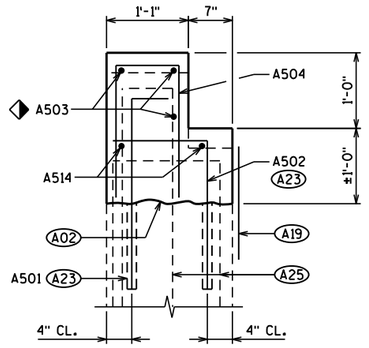
8

8

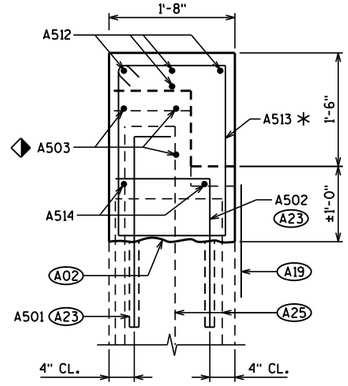
STATE PROJECT NUMBER
1227-08-71



ELEVATION
(LOOKING SOUTH)

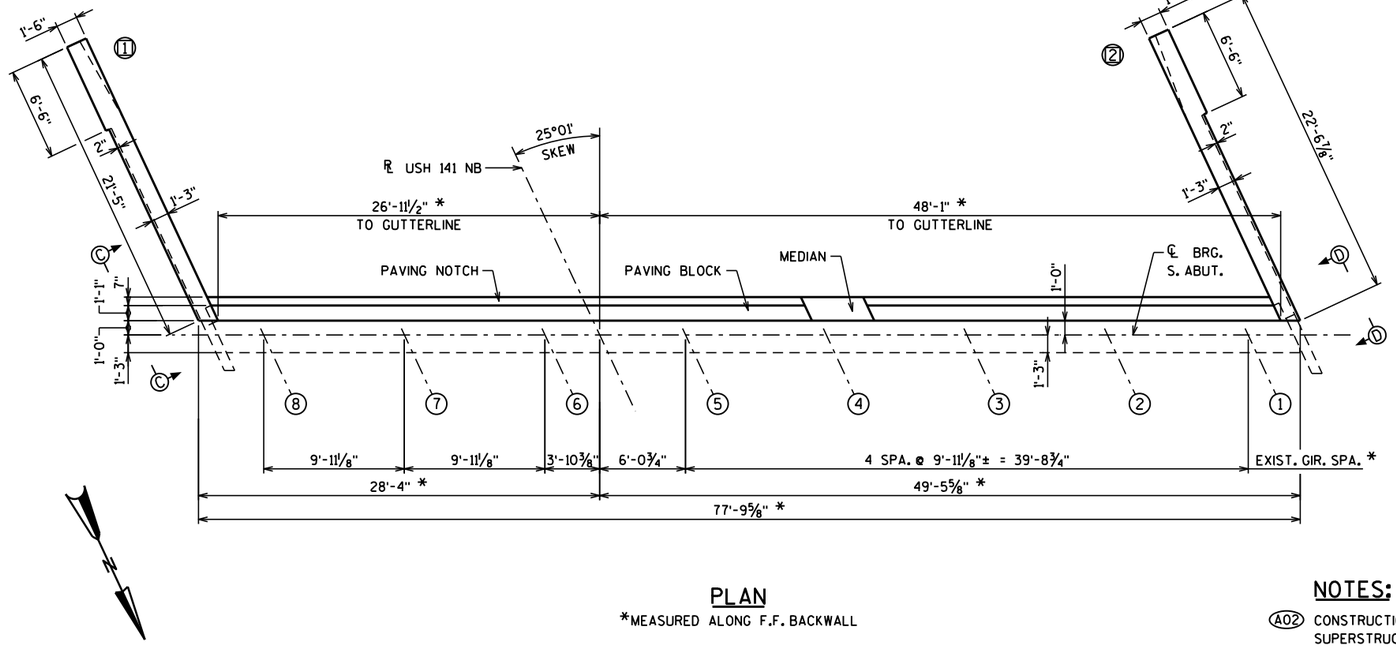


SECTION A-A

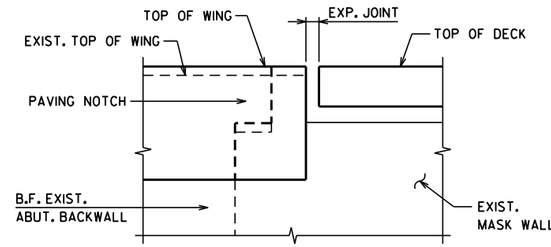


SECTION B-B

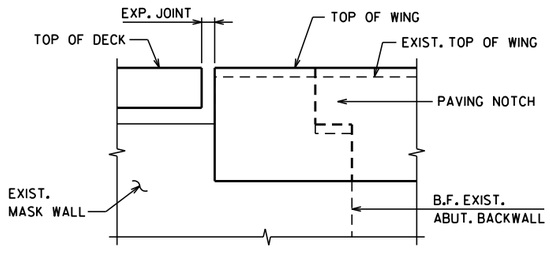
* PLACE A513 ALONG SKEW PARALLEL WITH ℄



PLAN
*MEASURED ALONG F.F. BACKWALL



SECTION C-C



SECTION D-D

NOTES:

(A02) CONSTRUCTION JOINT: POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE. ROUGHEN SURFACE OF CONCRETE 1/4" DEEP MIN. ALL AREAS OF NEW TO EXIST. CONCRETE CONTACT.

(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING (RMW) SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

(A23) ADHESIVE ANCHORS NO. 5 BARS. EMBED MIN. 1'-6" INTO EXISTING CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

(A25) SALVAGE EXIST. REINFORCEMENT AND EXTEND FULL LENGTH INTO NEW WORK.

◆ LAP 1'-0" MIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-189

DRAWN BY BRE | PLANS CK'D. KRO

SOUTH ABUTMENT

SHEET 3 OF 13

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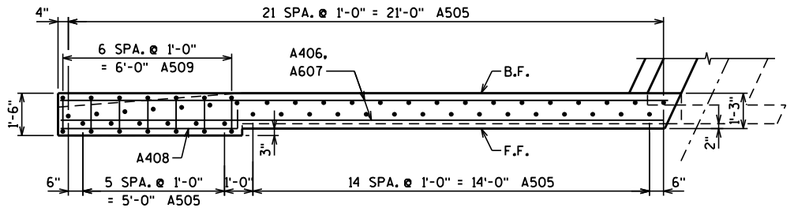
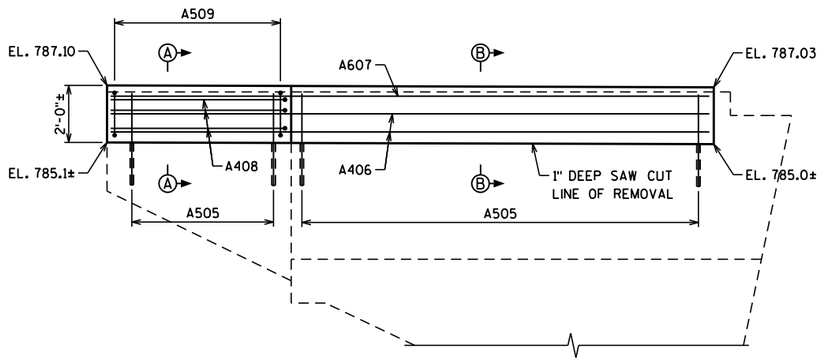
8

8

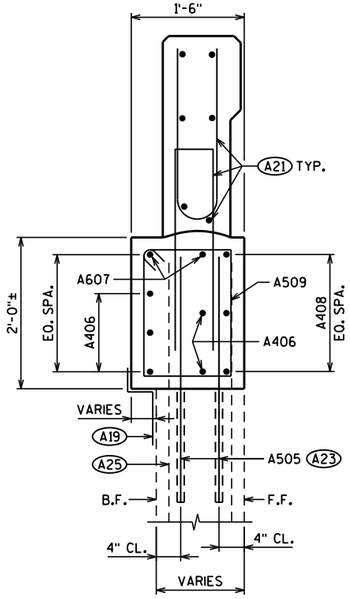
STATE PROJECT NUMBER
1227-08-71



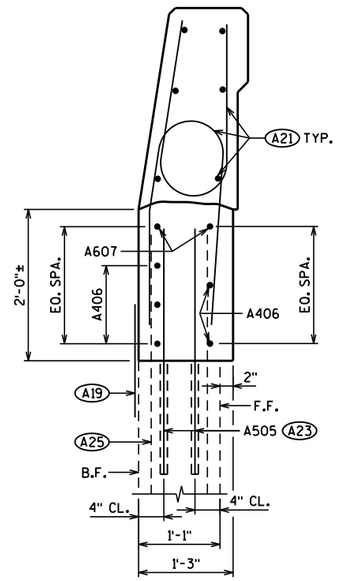
PLAN WING 1



ELEVATION WING 1



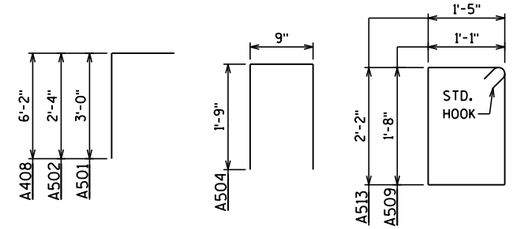
SECTION A-A



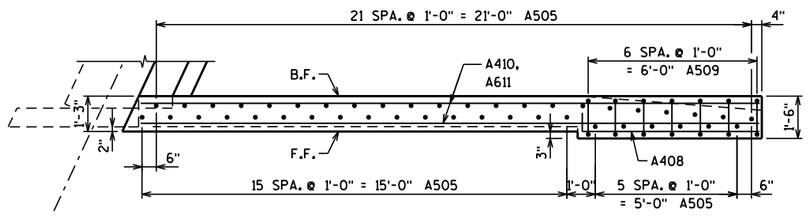
SECTION B-B

BILL OF BARS

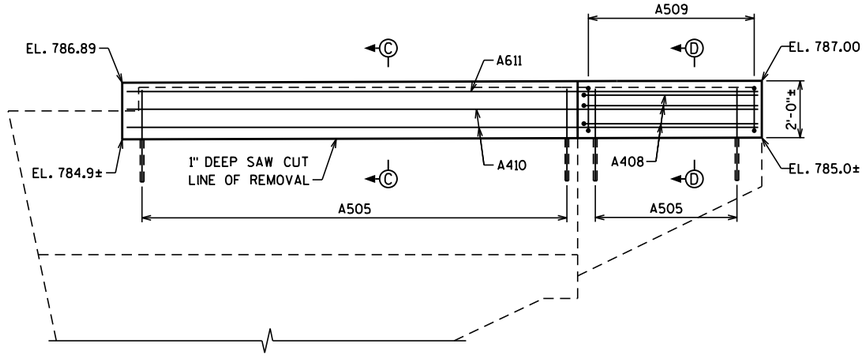
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
A501	X	79	3'-9"	X	PAVING BLOCK
A502	X	79	3'-5"	X	PAVING BLOCK
A503	X	33	8'-0"		PAVING BLOCK
A504	X	79	4'-0"	X	PAVING BLOCK
A505	X	87	3'-3"		WINGS VERTICAL ANCHOR
A406	X	5	21'-2"		WING 1 HORIZONTAL
A607	X	2	21'-2"		WING 1 HORIZONTAL TOP
A408	X	6	6'-9"	X	WINGS HORIZONTAL F.F.
A509	X	14	6'-1"	X	WINGS VERTICAL STIRRUPS
A410	X	5	21'-9"		WING 2 HORIZONTAL
A611	X	2	21'-9"		WING 2 HORIZONTAL TOP
A512	X	4	4'-0"		MEDIAN TRANSVERSE
A513	X	5	7'-9"	X	MEDIAN STIRRUP
A514	X	4	39'-8"		BACKWALL



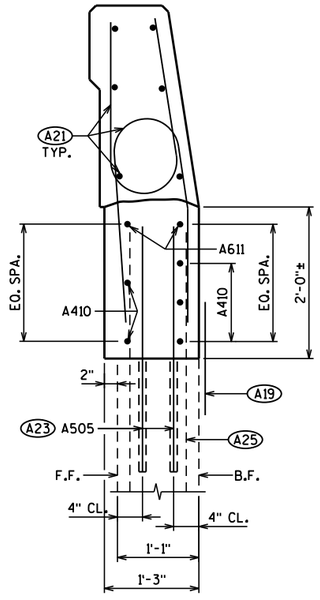
BAR BENDING DIAGRAMS



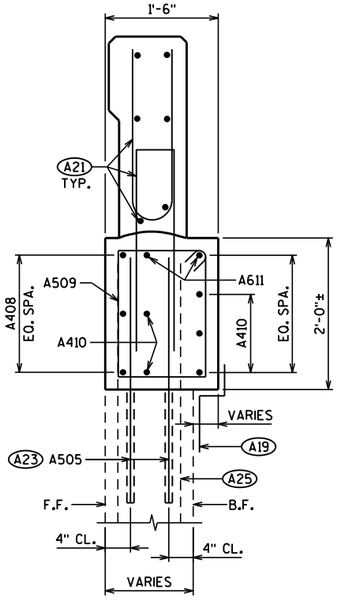
PLAN WING 2



ELEVATION WING 2



SECTION C-C



SECTION D-D

NOTES:

(A02) CONSTRUCTION JOINT: POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING (RMW) SEAL ALL HORIZONTAL & VERTICAL JOINTS AT BACKFACE.

(A21) FOR PARAPET BARS & DIMENSION SEE PARAPET SHEET.

(A23) ADHESIVE ANCHORS NO. 5 BARS. EMBED MIN. 1'-6" INTO EXISTING CONCRETE. SPACE AT 1'-0".

(A25) SALVAGE EXIST. LONGITUDINAL REINFORCEMENT AND EXTEND FULL LENGTH INTO NEW WORK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-189

DRAWN BY BRE | PLANS CK'D. KRO

SOUTH ABUTMENT DETAILS

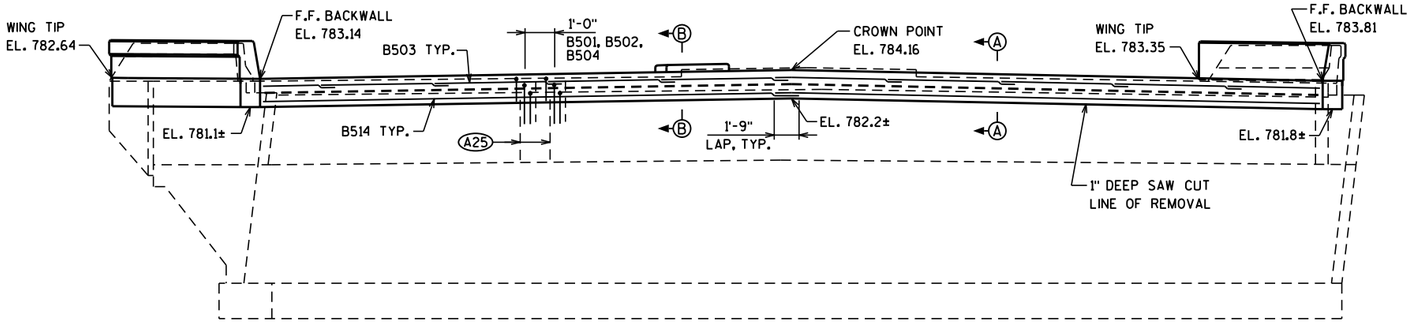
SHEET 4 OF 13

382

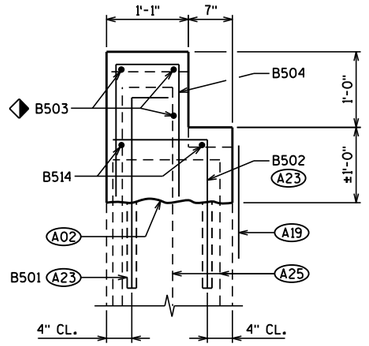
8

8

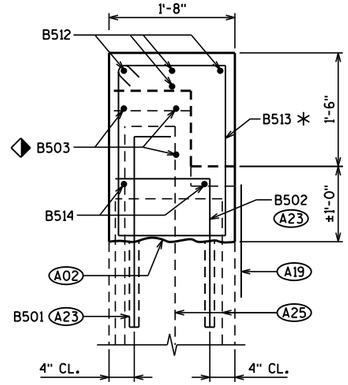
STATE PROJECT NUMBER
1227-08-71



ELEVATION
(LOOKING NORTH)

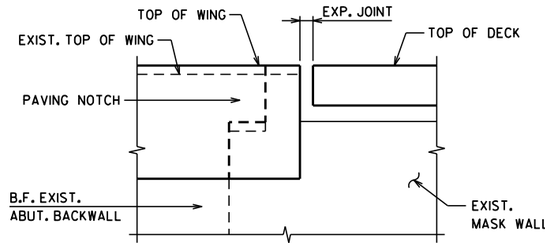


SECTION A-A

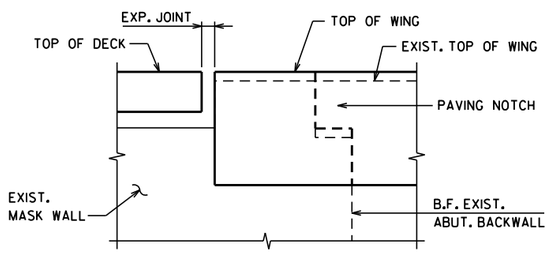


SECTION B-B

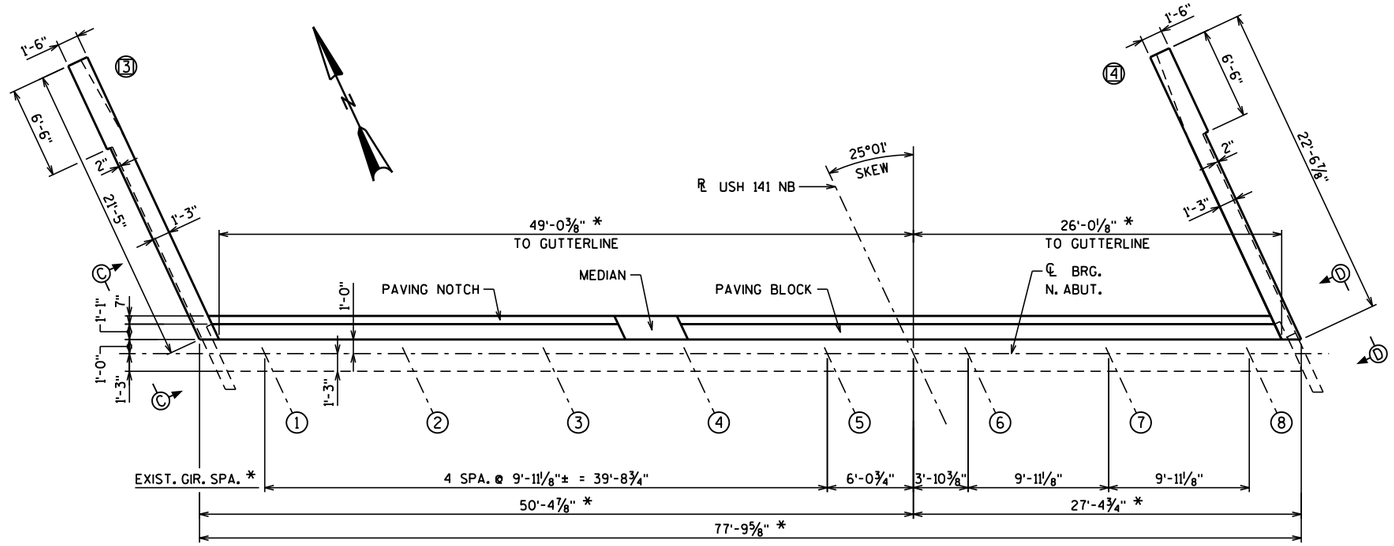
* PLBCE B513 BLONG SKEW
PARALLEL WITH ℄



SECTION C-C



SECTION D-D



PLAN
*MEASURED ALONG F.F. BACKWALL

NOTES:

(A02) CONSTRUCTION JOINT: POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE. ROUGHEN SURFACE OF CONCRETE 1/4" DEEP MIN. ALL AREAS OF NEW TO EXIST. CONCRETE CONTACT.

(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING (RMW) SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

(A23) ADHESIVE ANCHORS NO. 5 BARS. EMBED MIN. 1'-6" INTO EXISTING CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

(A25) SALVAGE EXIST. REINFORCEMENT AND EXTEND FULL LENGTH INTO NEW WORK.

◆ LAP 1'-0" MIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-189

DRAWN BY BRE | PLANS CK'D. KRO

NORTH ABUTMENT

SHEET 5 OF 13

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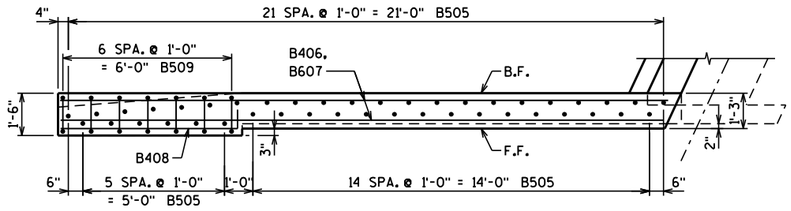
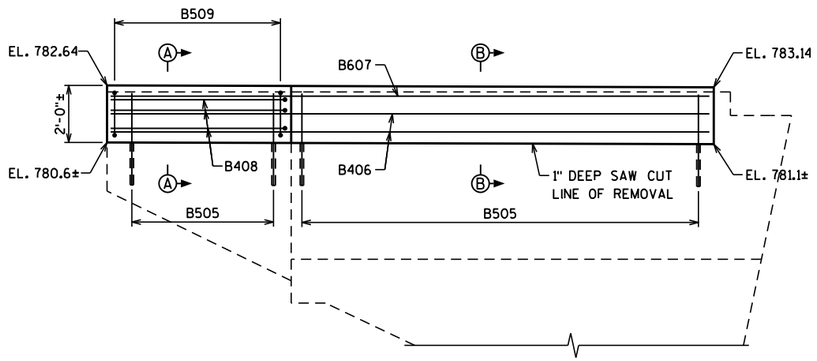
FILE NAME : F:±TR±JOBS±E2194A15±Sheets±B-5-189 05 n abut.dgn PLOT BY : EpleyB PLOT DATE: 7/20/2016 3:38:43 PM

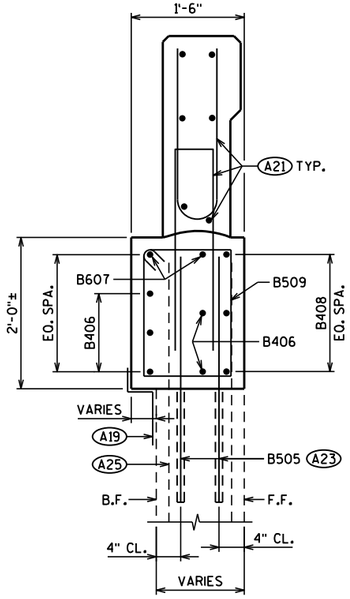
STATE PROJECT NUMBER
1227-08-71



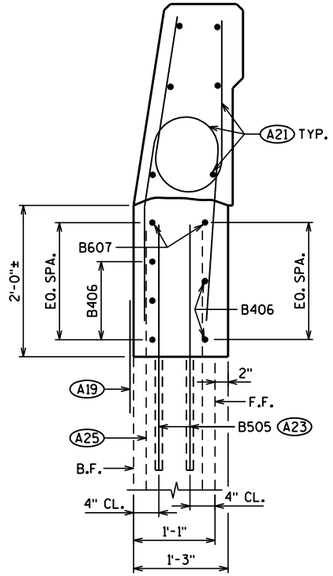
PLAN WING 3



ELEVATION WING 3



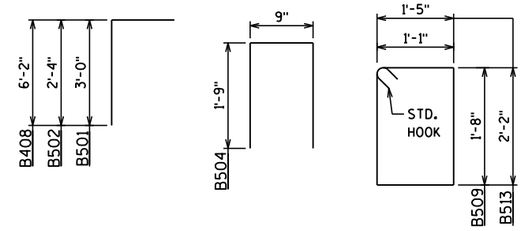
SECTION A-A



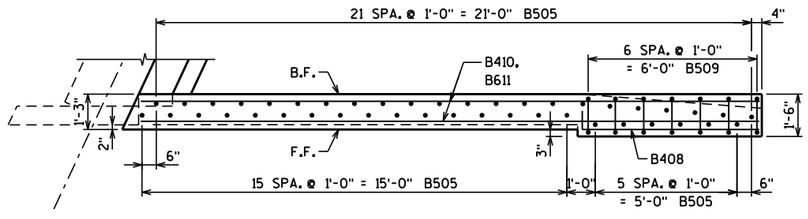
SECTION B-B

BILL OF BARS

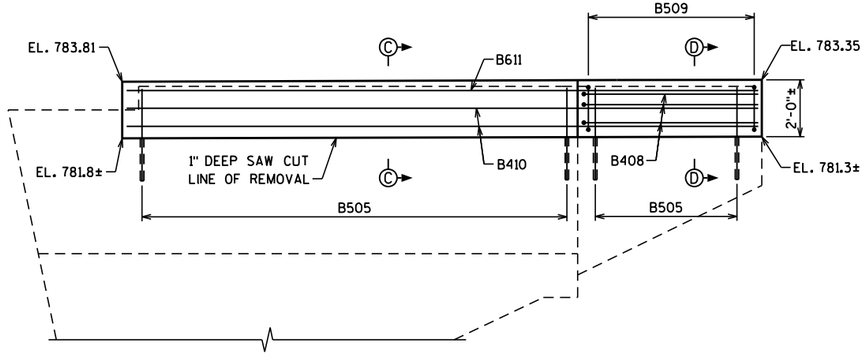
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
B501	X	79	3'-9"	X	PAVING BLOCK
B502	X	79	3'-5"	X	PAVING BLOCK
B503	X	33	8'-0"		PAVING BLOCK
B504	X	79	4'-0"	X	PAVING BLOCK
B505	X	87	3'-3"		WINGS VERTICAL ANCHOR
B406	X	5	21'-2"		WING 3 HORIZONTAL
B607	X	2	21'-2"		WING 3 HORIZONTAL TOP
B408	X	6	6'-9"	X	WINGS HORIZONTAL F.F.
B509	X	14	6'-1"	X	WINGS VERTICAL STIRRUPS
B410	X	5	21'-9"		WING 4 HORIZONTAL
B611	X	2	21'-9"		WING 4 HORIZONTAL TOP
B512	X	4	4'-0"		MEDIAN TRANSVERSE
B513	X	5	7'-9"	X	MEDIAN STIRRUP
B514	X	4	39'-8"		BACKWALL



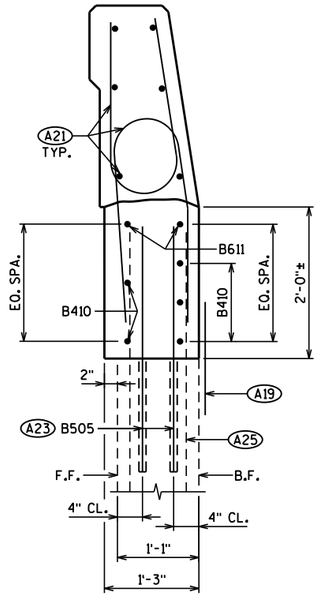
BAR BENDING DIAGRAMS



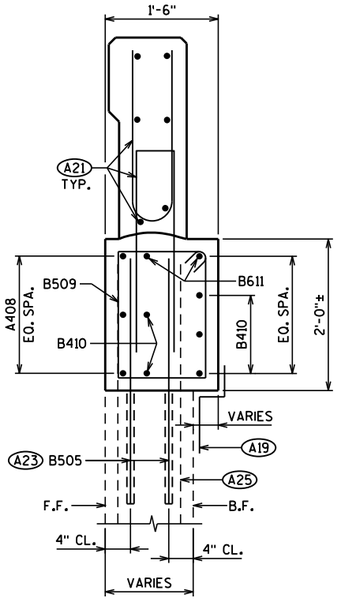
PLAN WING 4



ELEVATION WING 4



SECTION C-C



SECTION D-D

NOTES:

(A02) CONSTRUCTION JOINT: POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING (RMW) SEAL ALL HORIZONTAL & VERTICAL JOINTS AT BACKFACE.

(A21) FOR PARAPET BARS & DIMENSION SEE PARAPET SHEET.

(A23) ADHESIVE ANCHORS NO. 5 BARS. EMBED MIN. 1'-6" INTO EXISTING CONCRETE. SPACE AT 1'-0".

(A25) SALVAGE EXIST. LONGITUDINAL REINFORCEMENT AND EXTEND FULL LENGTH INTO NEW WORK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-189

DRAWN BY BRE | PLANS CK'D. KRO

NORTH ABUTMENT DETAILS

SHEET 6 OF 13

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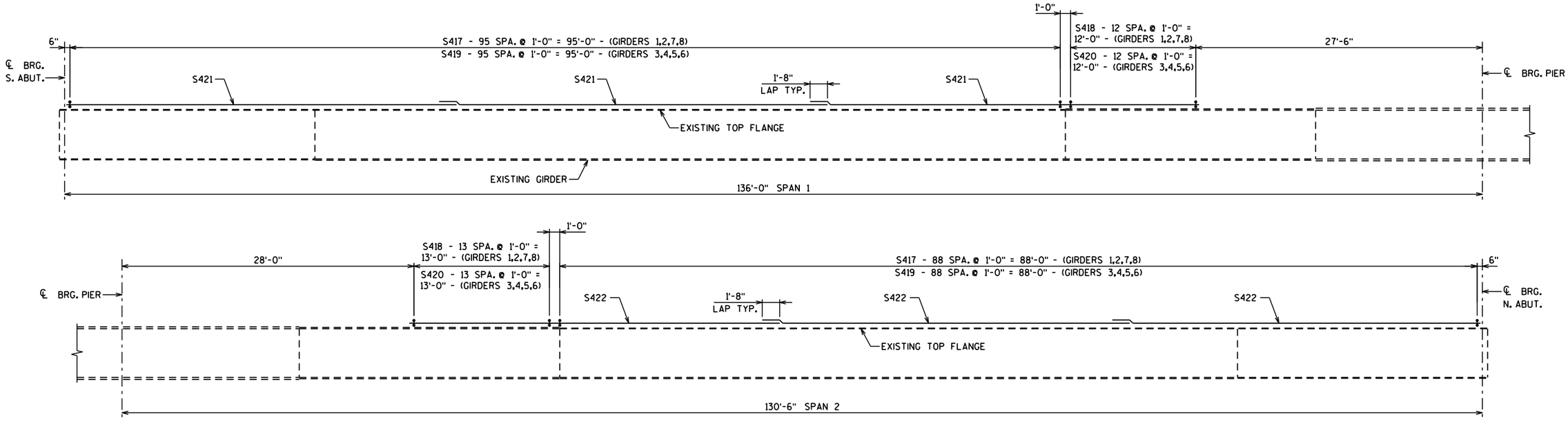
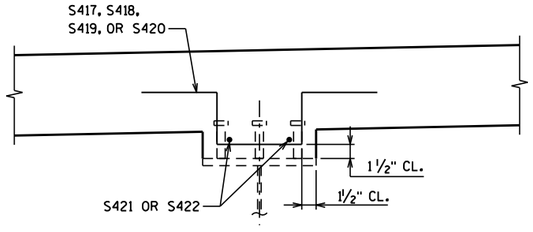
STATE PROJECT NUMBER
1227-08-71



ELEVATION



TYPICAL SECTION THRU HAUNCH

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-189

DRAWN BY BRE | PLANS CK'D. KRO

HAUNCH DETAILS

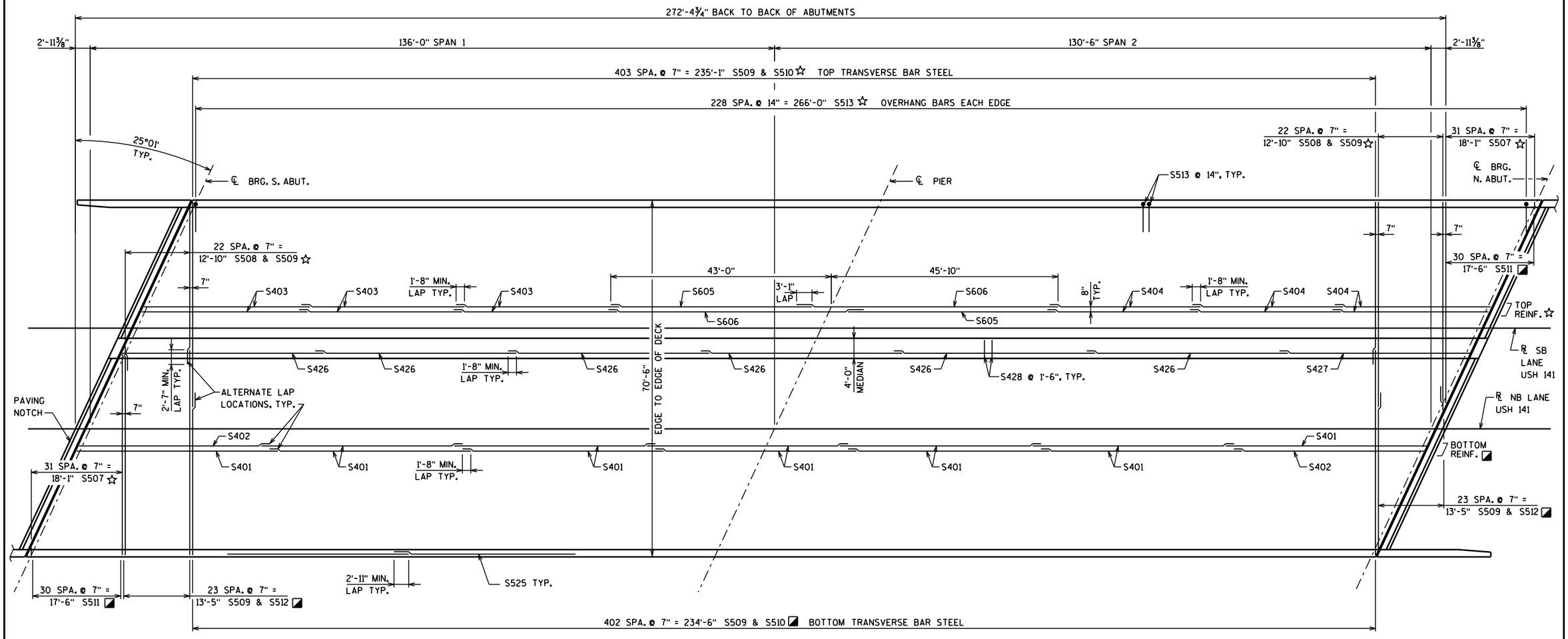
SHEET 7 OF 13

385

8

8

STATE PROJECT NUMBER
1227-08-71



PLAN

LEGEND

☆ TOP MAT REINFORCING

◪ BOTTOM MAT REINFORCING

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-189

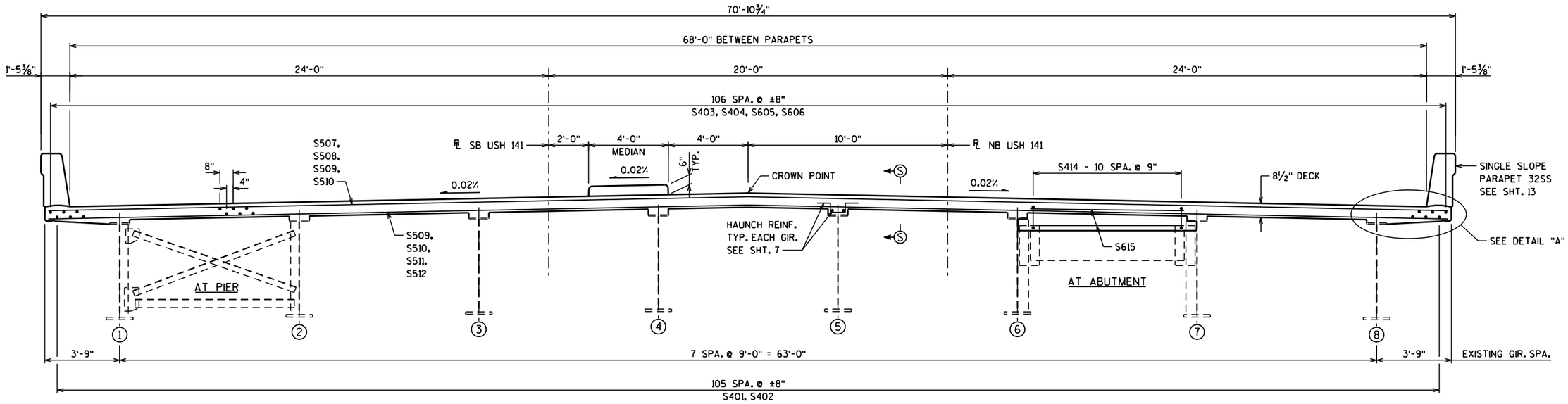
DRAWN BY BRE | PLANS CK'D. KRO

SUPERSTRUCTURE

SHEET 8 OF 13

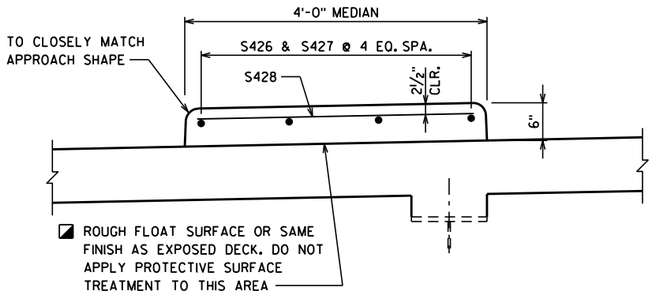
386

STATE PROJECT NUMBER
1227-08-71

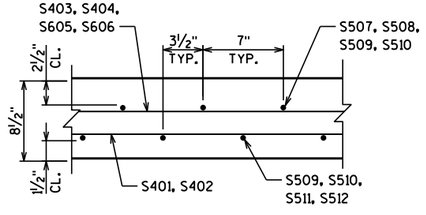


CROSS SECTION THRU PROPOSED ROADWAY

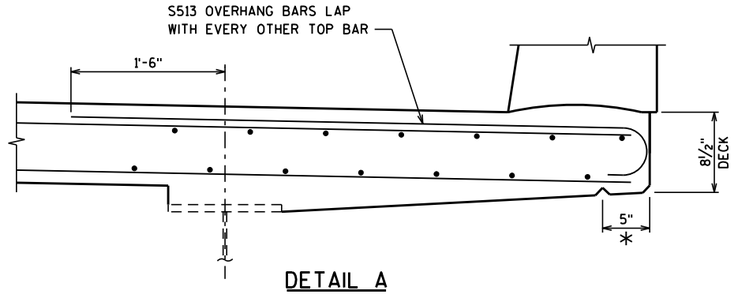
(LOOKING NORTH)



SECTION THRU MEDIAN



SECTION S-S



DETAIL A

NOTES:

* ¾" CONTINUOUS DRIP GROOVE (TYP.) TERMINATE 2'-0" FROM FACE OF ABUTMENTS.

◪ CLEAN ALL LOOSE MATERIAL ON THE DECK AT THE MEDIAN LOCATION PRIOR TO MEDIAN PLACEMENT USING HIGH PRESSURE WATER OR AIR, ENSURING ALL FREE-STANDING WATER IS REMOVED PRIOR TO MEDIAN PLACEMENT. NEAT CEMENT IS REQUIRED AS PER 509.3.9.2 OF THE STANDARD SPECIFICATIONS UNLESS THE MEDIAN IS POURED WITHIN 45 DAYS OF COMPLETING THE DECK POUR.

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STRUCTURE B-5-189

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SUPERSTRUCTURE CROSS SECTION

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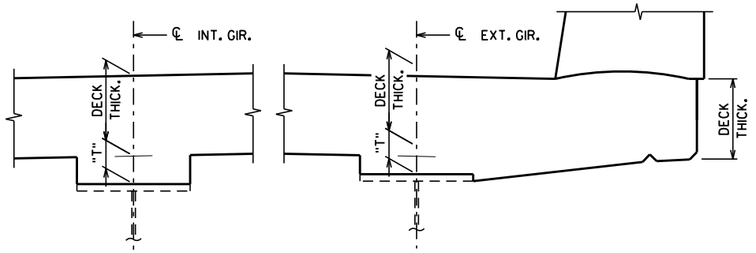
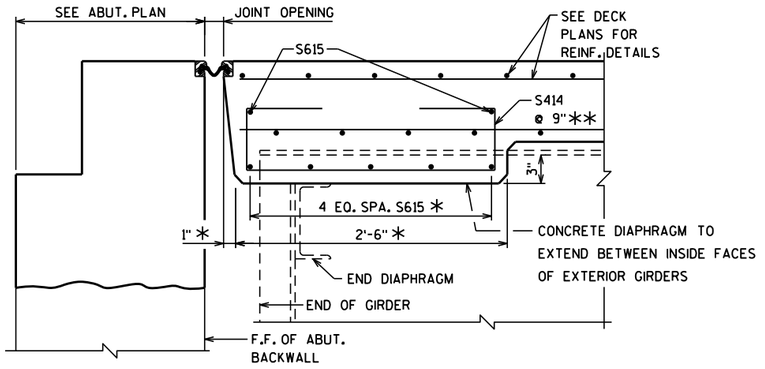


CONCRETE HAUNCH DETAIL

TO DETERMINE 'T': AFTER ALL STRUCTURAL STEEL HAS BEEN PREPARED, 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 TENTH POINTS.

	TOP OF DECK ELEV. AT FINAL GRADE
-	TOP OF STEEL ELEV. AFTER EXISTING DECK REMOVAL
+	DEFLECTION (CONCRETE ONLY)
-	DECK THICKNESS (8½")
=	'T' VALUE FOR SETTING HAUNCH



ABUTMENT DIAPHRAGM DETAIL

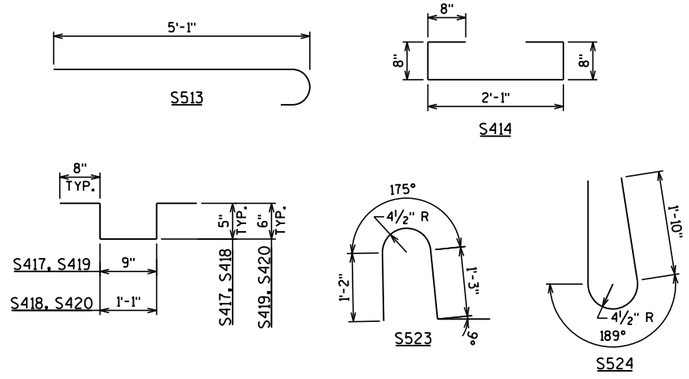
* DIMENSION IS TAKEN NORMAL TO ℄ ABUTMENT

** DIMENSION IS TAKEN PARALLEL TO ℄ GIRDER

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	SERIES	LOCATION
S401	X	636	40'-0"			LONGITUDINAL BOTTOM
S402	X	106	37'-11"			LONGITUDINAL BOTTOM
S403	X	321	32'-11"			LONGITUDINAL TOP, SPAN 1
S404	X	321	30'-2"			LONGITUDINAL TOP, SPAN 2
S605	X	107	40'-0"			LONGITUDINAL TOP, OVER PIER
S606	X	107	52'-0"			LONGITUDINAL TOP, OVER PIER
S507	X	64	20'-10"		△	TRANSVERSE TOP
S508	X	46	17'-10"		△	TRANSVERSE TOP
S509	X	901	40'-0"			TRANSVERSE TOP & BOTTOM
S510	X	807	32'-9"			TRANSVERSE TOP & BOTTOM
S511	X	62	20'-10"		△	TRANSVERSE BOTTOM
S512	X	48	17'-10"		△	TRANSVERSE BOTTOM
S513	X	458	5'-8"	X		TRANSVERSE AT OVERHANG
S414	X	154	4'-5"	X		END DIAPHRAGM VERTICAL
S615	X	98	8'-5"			END DIAPHRAGM HORIZONTAL
S416	X	28	9'-5"			EXPANSION DEVICE
S417	X	740	2'-7"	X		HAUNCH VERTICAL
S418	X	108	2'-11"	X		HAUNCH VERTICAL
S419	X	740	2'-9"	X		HAUNCH VERTICAL
S420	X	108	3'-1"	X		HAUNCH VERTICAL
S421	X	48	37'-3"			HAUNCH HORIZ. SPAN 1
S422	X	48	35'-3"			HAUNCH HORIZ. SPAN 2
S523	X	806	4'-5"	X		PARAPET VERTICAL
S524	X	806	5'-0"	X		PARAPET VERTICAL
S525	X	96	36'-1"			PARAPET HORIZONTAL
S426	X	24	40'-0"			MEDIAN LONG.
S427	X	4	37'-11"			MEDIAN LONG.
S428	X	181	3'-8"			MEDIAN TRANS.

△ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

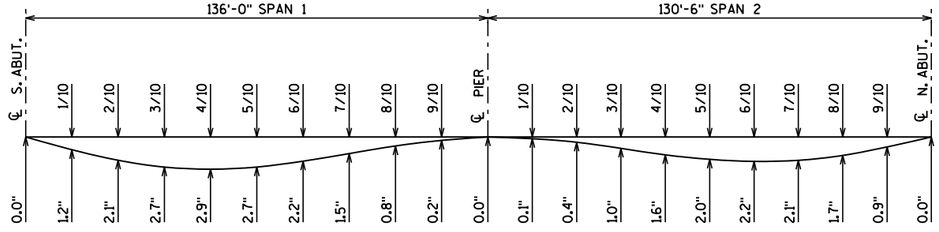


BAR BEND DIAGRAMS

BAR SERIES

BAR NO.	NO. REQ'D.	LENGTH
S507	2 SERIES OF 32	1'-6" TO 40'-2"
S508	2 SERIES OF 23	4'-1" TO 31'-7"
S511	2 SERIES OF 31	2'-1" TO 39'-7"
S512	2 SERIES OF 24	3'-5" TO 32'-3"

BUNDLE AND TAG EACH SERIES SEPARATELY.



DEFLECTION DIAGRAM

TOP OF DECK ELEVATIONS

LOCATION	S.ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	PIER	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	N.ABUT.
GIRDER 1	786.94	786.85	786.76	786.65	786.54	786.41	786.27	786.12	785.96	785.78	785.60	785.41	785.21	785.00	784.78	784.55	784.31	784.06	783.80	783.52	783.24
GIRDER 2	787.14	787.06	786.97	786.87	786.75	786.63	786.49	786.35	786.19	786.02	785.84	785.65	785.45	785.25	785.03	784.80	784.57	784.32	784.06	783.79	783.51
GIRDER 3	787.34	787.27	787.18	787.08	786.97	786.85	786.72	786.57	786.42	786.25	786.07	785.89	785.70	785.50	785.28	785.06	784.82	784.58	784.32	784.06	783.78
GIRDER 4	787.54	787.47	787.39	787.29	787.19	787.07	786.94	786.80	786.65	786.48	786.31	786.13	785.94	785.74	785.53	785.31	785.08	784.84	784.59	784.33	784.05
GIRDER 5	787.56	787.49	787.41	787.32	787.22	787.11	786.98	786.84	786.70	786.54	786.36	786.19	786.00	785.81	785.60	785.38	785.16	784.92	784.67	784.41	784.14
GIRDER 6	787.40	787.34	787.26	787.17	787.07	786.96	786.84	786.71	786.56	786.41	786.24	786.07	785.88	785.69	785.49	785.28	785.05	784.82	784.57	784.32	784.05
GIRDER 7	787.24	787.18	787.11	787.02	786.93	786.82	786.70	786.57	786.43	786.28	786.11	785.94	785.76	785.58	785.38	785.17	784.94	784.71	784.47	784.22	783.96
GIRDER 8	787.08	787.02	786.95	786.87	786.78	786.67	786.56	786.43	786.29	786.14	785.98	785.82	785.64	785.46	785.26	785.05	784.84	784.61	784.37	784.12	783.86

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STRUCTURE B-5-189

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SUPERSTRUCTURE DETAILS

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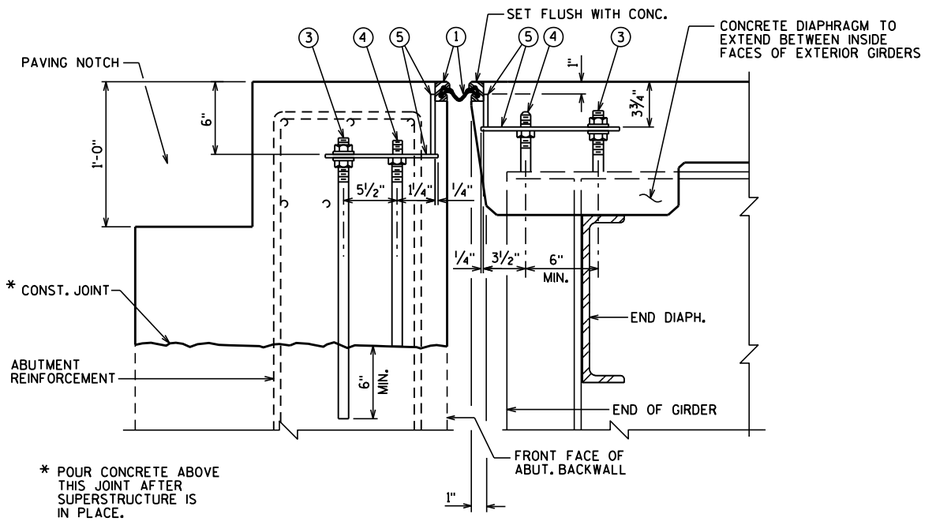
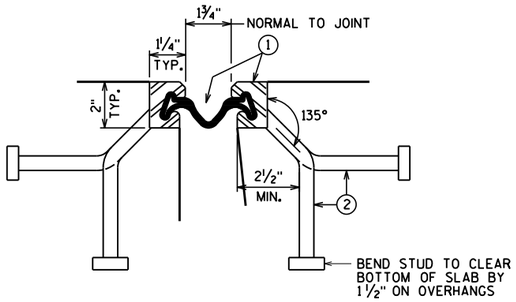


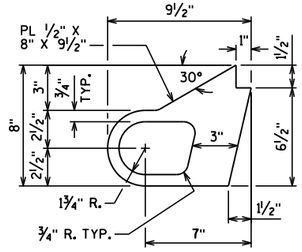
SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

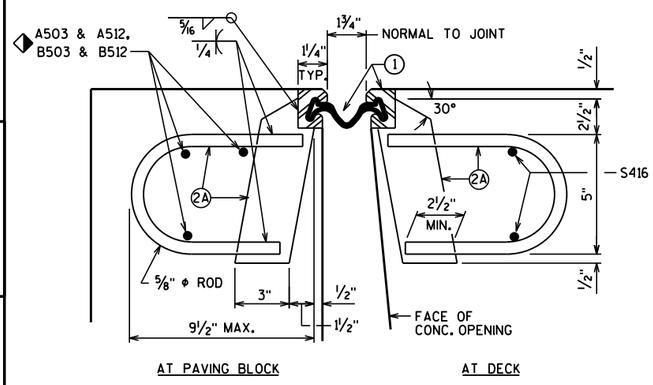


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS



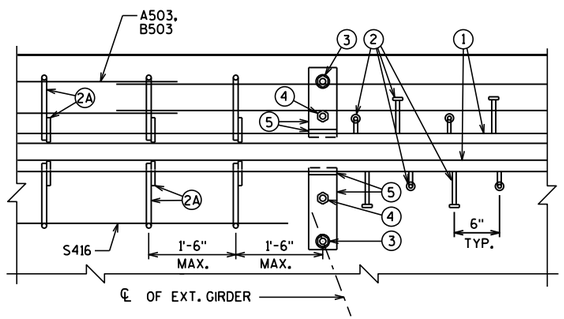
ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.

◆ LAP A503 & B503 1'-0" MIN.



PART PLAN

LEGEND

(1) NEOPRENE STRIP SEAL (4- INCH) AND STEEL EXTRUSIONS.

(2) STUDS ⅝"ø X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

(2A) ½" THICK ANCHOR PLATE WITH ⅝"ø 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" ø 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"ø 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" ø HOLE FOR NO. 3 AND 1" ø HOLE FOR NO. 4.

(6) GALVANIZED PLATE ⅜" X 10" X 2'-2" LONG WITH HOLES FOR NO. 7.

(7) ¾"ø X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) ¾"ø X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) ¾"ø X 2¼" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

(11) PLATE 3/8" X 6" X 14" PROVIDE COUNTERSUNK HOLES FOR NO. 15.

(12) PLATE 3/8" X 1 1/4" X 6" PLACE FLUSH WITH FACE OF MEDIAN AS SHOWN. WELD TO PLATE NO. 13 WITH 2 LINES OF 3/16" FILLET WELD. FIELD WELD TO NO. 1.

(13) PLATE 3/8" X 6" X 8". WELD TO PLATE NO. 12.

(14) PLATE 3/8" X 6" X 6" CUT TO CLEAR BLOCK OUT. WELD TO NO. 1. PROVIDE HOLES FOR NO. 15.

(15) USE NO. 7 WITH HEX HEAD NUT. WELD NUT TO NO. 14. PROVIDE NUT WITH 1" DEEP PLASTIC CAP OVER NUT TO KEEP CONCRETE FROM ENTERING THE BOLT CAVITY.

NOTES

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

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

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

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

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

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-5-189".

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STRUCTURE B-5-189

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EXPANSION DEVICE

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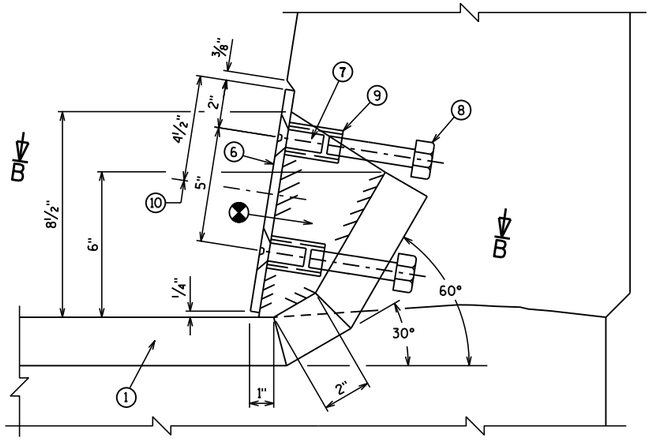
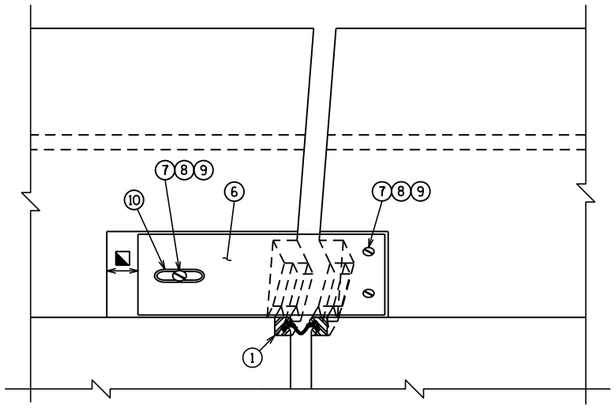
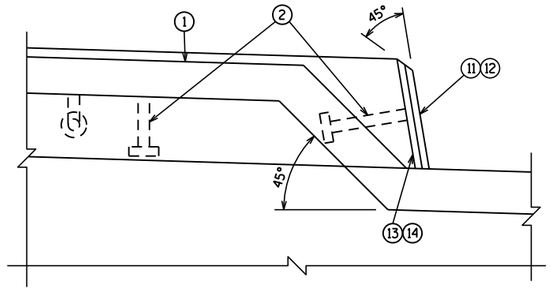


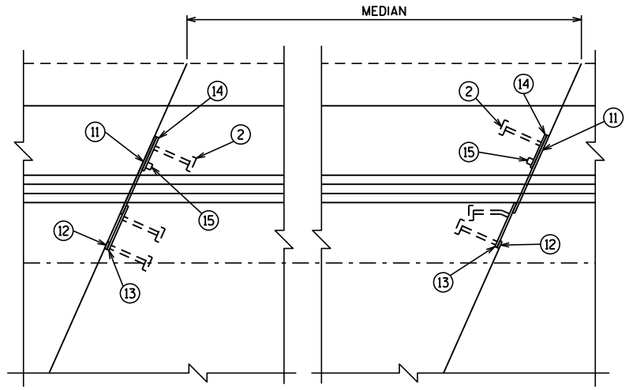
SECTION A-A



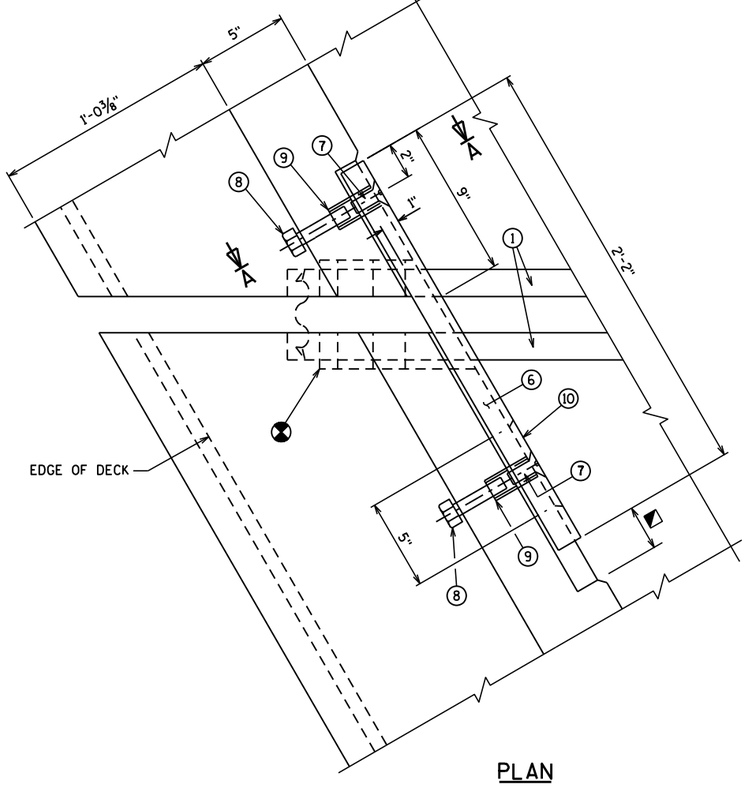
VIEW OF PARAPET PLATE
FROM ROADWAY



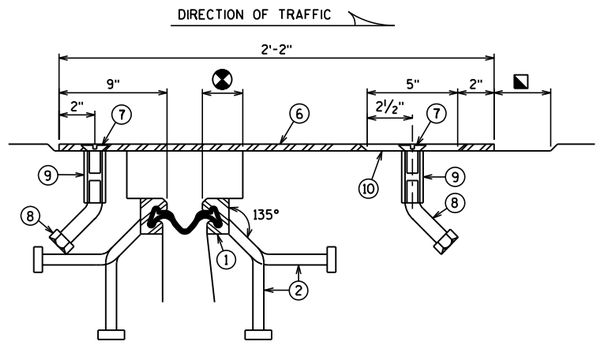
SECTION AT MEDIAN



PLAN AT MEDIAN



PLAN



SECTION B-B

NOTES

SEE SHEET 11 FOR LEGEND AND NOTES

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS ½".

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COVER PLATE DETAILS

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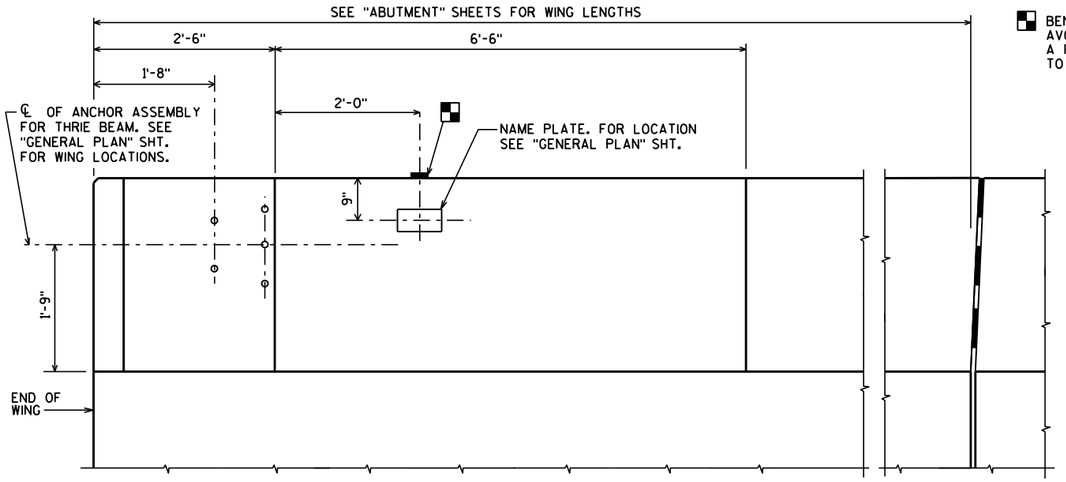
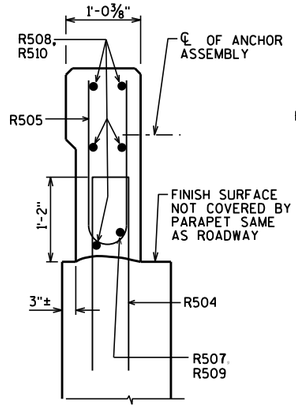
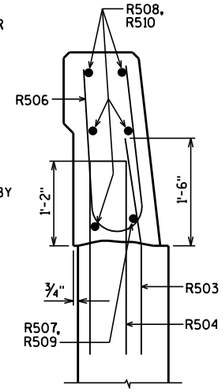


INSIDE ELEVATION

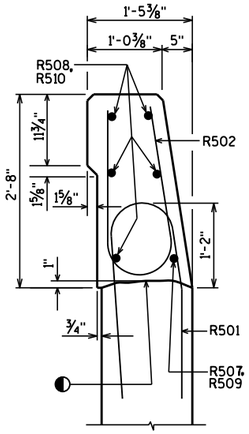
BENCH MARK CAP (WHEN SUPPLIED). AVOID PLACING A BENCH MARK CAP BELOW A RAIL OR FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.



SECTION A



SECTION B

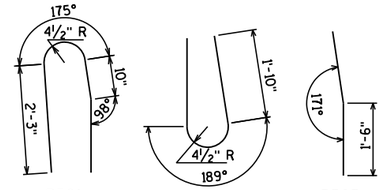


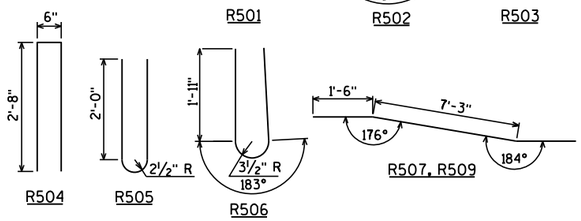
SECTION C

BILL OF BARS

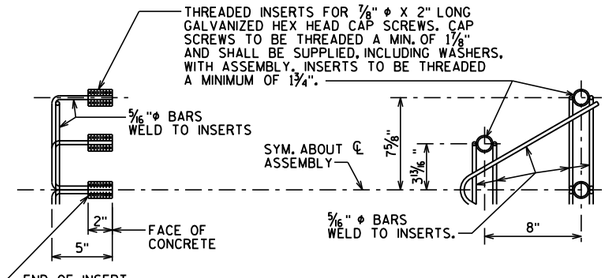
(FOR ABUTMENT PARAPETS)

BAR MARK	COAT	SOUTH ABUT.	NORTH ABUT.	LENGTH	BENT	LOCATION
R501	X	39	39	5'-10"	X	PARAPET VERTICAL
R502	X	39	39	5'-0"	X	PARAPET VERTICAL
R503	X	24	24	3'-0"	X	PARAPET VERTICAL
R504	X	34	34	5'-7"	X	PARAPET VERTICAL
R505	X	22	22	4'-9"	X	PARAPET VERTICAL
R506	X	12	12	4'-10"	X	PARAPET VERTICAL
R507	X	1	1	21'-5"	X	PARAPET HORIZ. W1, W3
R508	X	5	5	20'-11"		PARAPET HORIZ. W1, W3
R509	X	1	1	21'-7"	X	PARAPET HORIZ. W2, W4
R510	X	5	5	21'-9"		PARAPET HORIZ. W2, W4





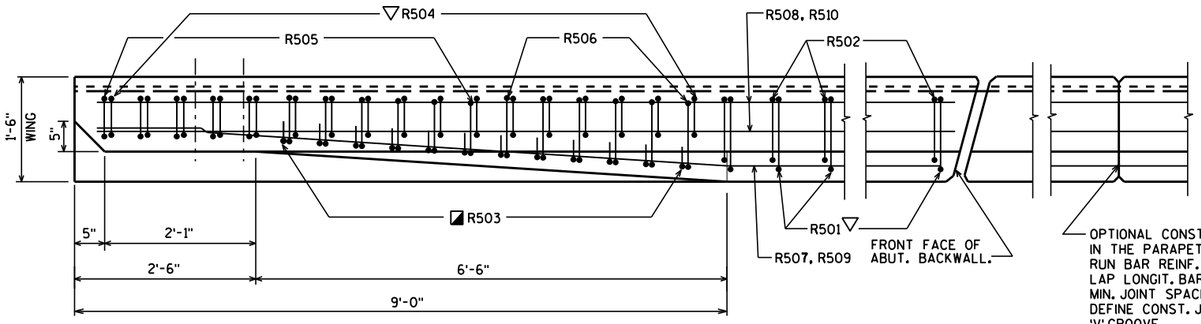
BAR BEND DIAGRAMS



DETAIL OF ANCHOR ASSEMBLY

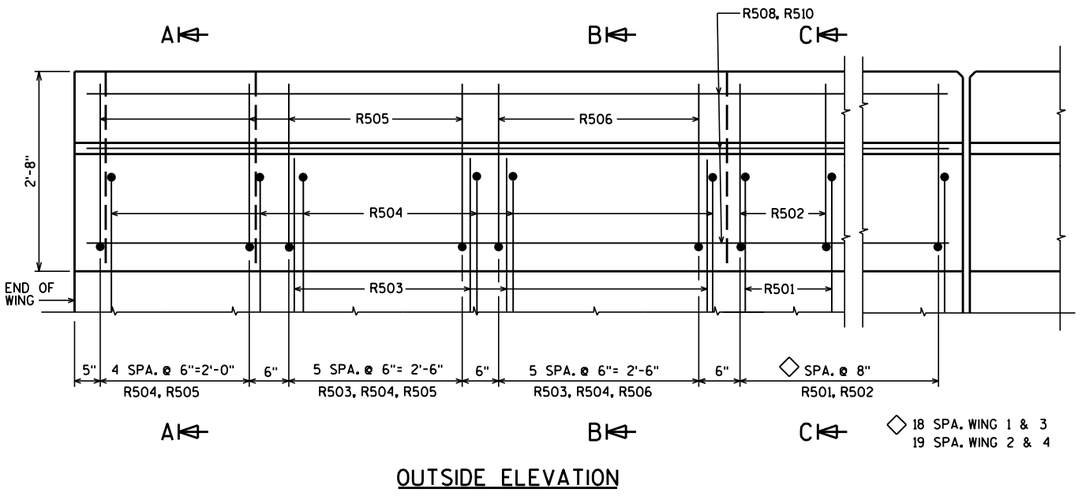
NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

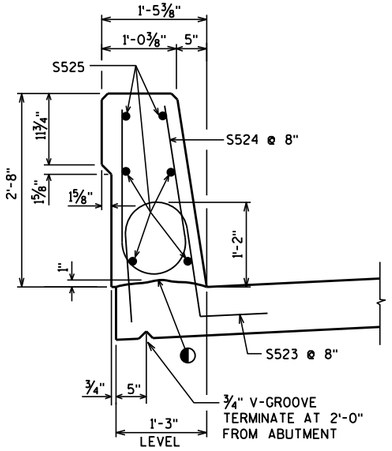


PLAN

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



OUTSIDE ELEVATION



SECTION THRU PARAPET ON BRIDGE

◐ 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 OR S503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-189

DRAWN BY BRE | PLANS CK'D. KRO

SINGLE SLOPE
32SS PARAPET

SHEET 13 OF 13

391

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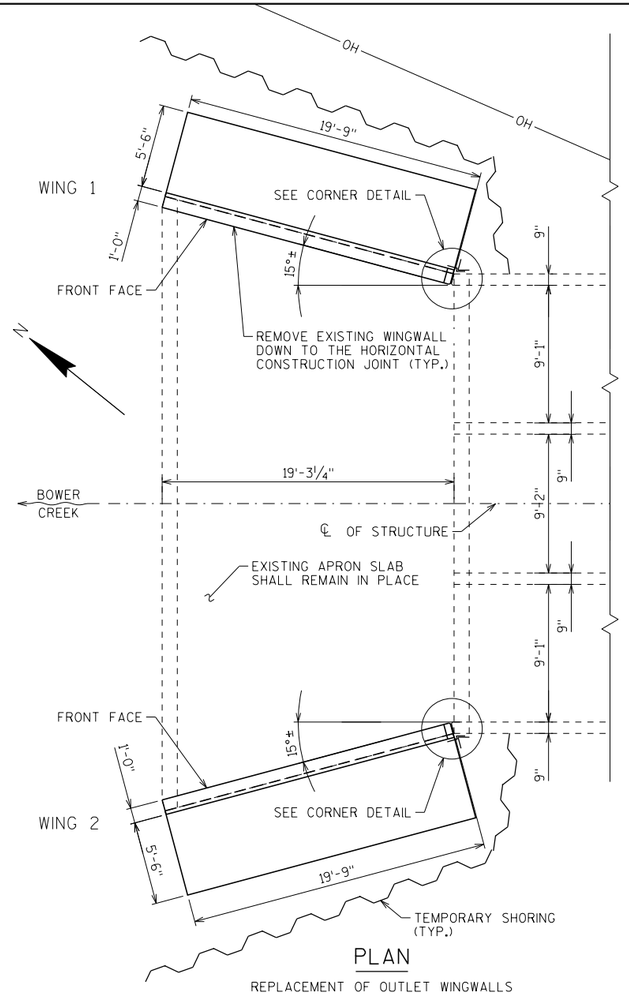
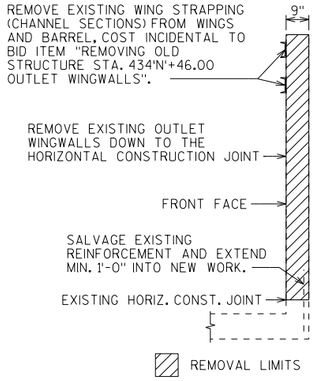
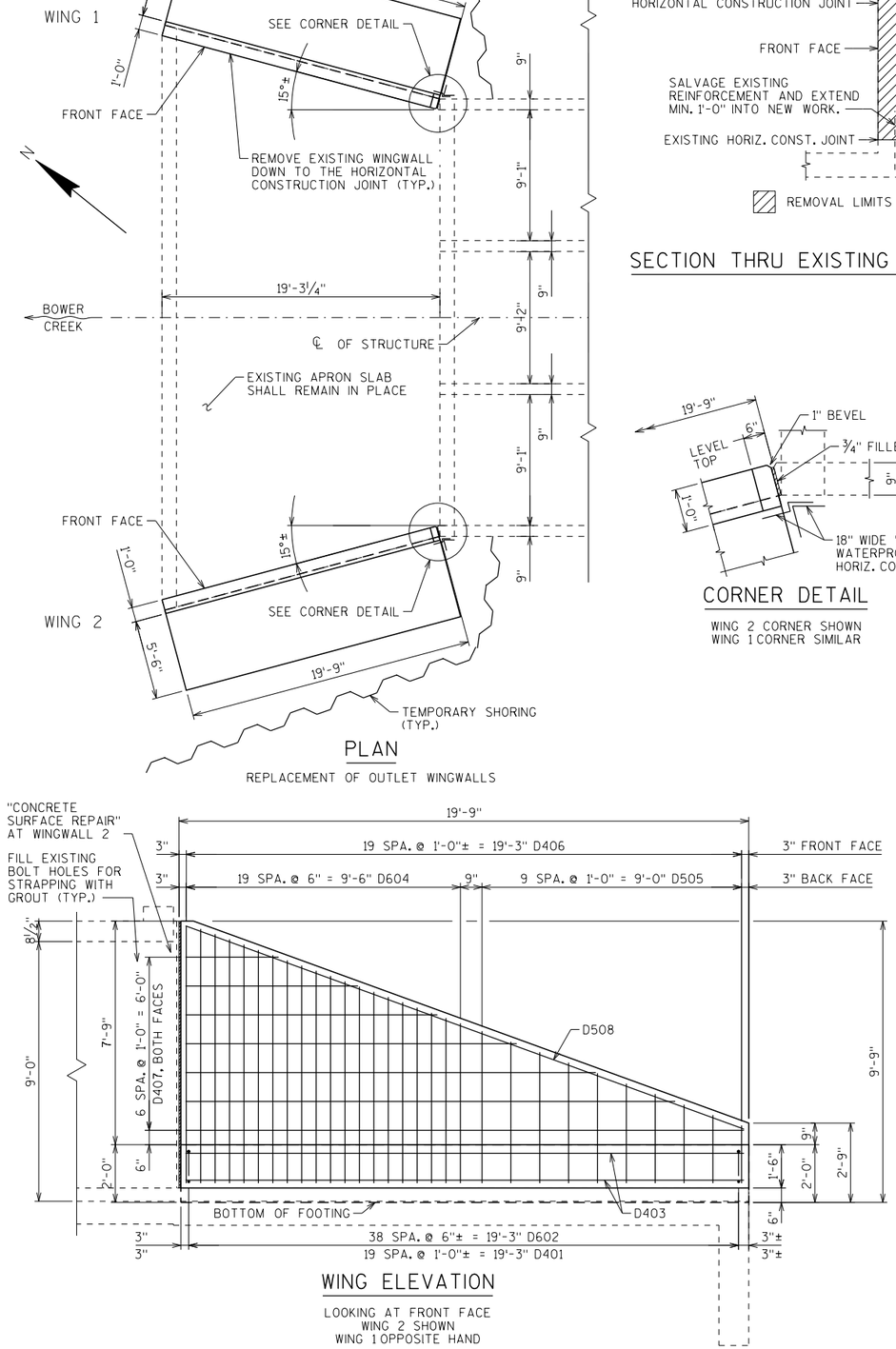


PLAN

REPLACEMENT OF OUTLET WINGWALLS

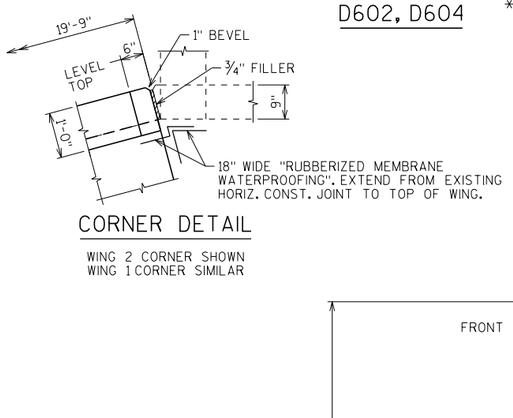


SECTION THRU EXISTING WING



WING ELEVATION

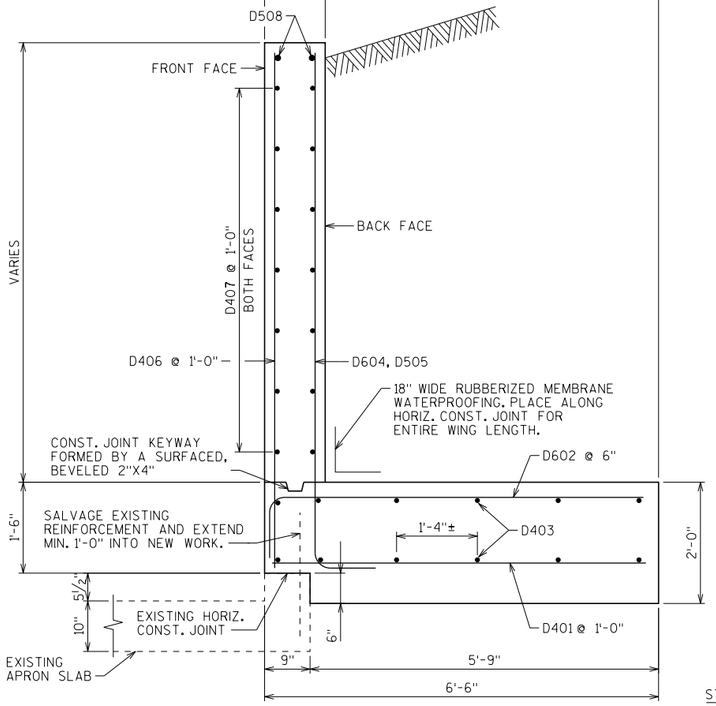
LOOKING AT FRONT FACE
WING 2 SHOWN
WING 1 OPPOSITE HAND



CORNER DETAIL

WING 2 CORNER SHOWN
WING 1 CORNER SIMILAR

D602, D604



SECTION THRU PROPOSED WING

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
203.0200.03	REMOVING OLD STRUCTURE STA. 434'N'+46.00 OUTLET WINGWALLS	LS	1
206.2000.01	EXCAVATION FOR STRUCTURES CULVERTS B-5-192	LS	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	220
504.0100	CONCRETE MASONRY CULVERTS	CY	25
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2300
509.1500	CONCRETE SURFACE REPAIR	SF	6
511.1200.01	TEMPORARY SHORING B-5-192	SF	660
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	10
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	3/4 "

BILL OF BARS

BAR DIMENSIONS ARE OUT TO OUT OF BAR.

	WING 1	WING 2
UNCOATED:	1150 LBS	1150 LBS
COATED:	0 LBS	0 LBS

BAR MARK	COAT	NO. REQ'D WING 1	NO. REQ'D WING 2	LENGTH	BENT	BAR SERIES	LOCATION
D401		20	20	6'-2"			FOOTING - HORIZ.
D602		39	39	7'-0"	X		FOOTING - HORIZ.
D403		12	12	19'-4"			FOOTING - HORIZ.
D604		20	20	8'-1"	X	*	WING - B.F. - VERT.
D505		10	10	3'-8"		*	WING - B.F. - VERT.
D406		20	20	5'-6"		*	WING - F.F. - VERT.
D407		14	14	11'-3"		*	WING - HORIZ.
D508		2	2	20'-7"			WING - TOP - HORIZ.

* LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

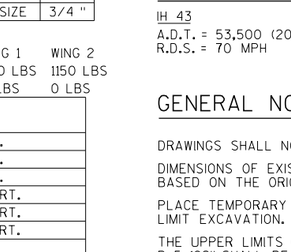
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY

BAR MARK	NO. REQ'D	LENGTHS FOR EACH SERIES
D604	2 SERIES OF 20	6'-4" TO 9'-9"
D505	2 SERIES OF 10	2'-0" TO 5"-3"
D406	2 SERIES OF 20	2'-0" TO 8'-11"
D407	4 SERIES OF 7	3'-3" TO 19-4"

LIST OF DRAWINGS

1. GENERAL PLAN, ELEVATION & CROSS SECTION



DATE: 07/20/2016

STRUCTURE DESIGN CONTACTS

BRIDGE OFFICE: WILLIAM DREHER, P.E. (608) 266-8489

CONSULTANT: VINOD PATEL, P.E. (312) 616-7395

STATE PROJECT NUMBER

1227-08-71

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS20
OPERATING RATING: HS30
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS
(TAKEN FROM HSI, 03/12/2015)

MATERIAL PROPERTIES:

CONCRETE MASONRY, GRADE A-FA: f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60: fy = 60,000 P.S.I.

TRAFFIC VOLUME

IH 43

A.D.T. = 53,500 (2036)
R.D.S. = 70 MPH

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS OF EXISTING STRUCTURE MEMBERS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

PLACE TEMPORARY SHORING AS DIRECTED BY THE ENGINEER TO LIMIT EXCAVATION.

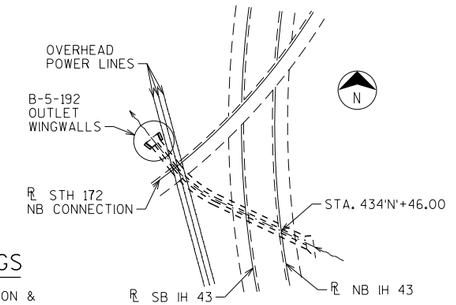
THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS B-5-192" SHALL BE THE EXISTING GROUND LINE.

ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH "BACKFILL STRUCTURE TYPE A" TO THE TOP OF THE WING WITHIN THE LENGTH OF THE WINGWALL.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND MINIMUM 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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.



LOCATION MAP

NO.	DATE	REVISION	BY

exp U.S. Services Inc.
Milwaukee, WI
BUILDINGS·EARTH & ENVIRONMENT·ENERGY
INDUSTRIAL·INFRASTRUCTURE·SUSTAINABILITY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/11/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-5-192

IH 43 OVER BOWER CREEK

COUNTY: BROWN — TOWN/~~CITY/VILLAGE~~: BELLEVUE

DESIGN SPEC.: REHABILITATION — N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
YC	VCP	YC	VCP

GENERAL PLAN, ELEVATION & CROSS SECTION

SHEET 1 OF 1
392

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FILENAME
SCALE

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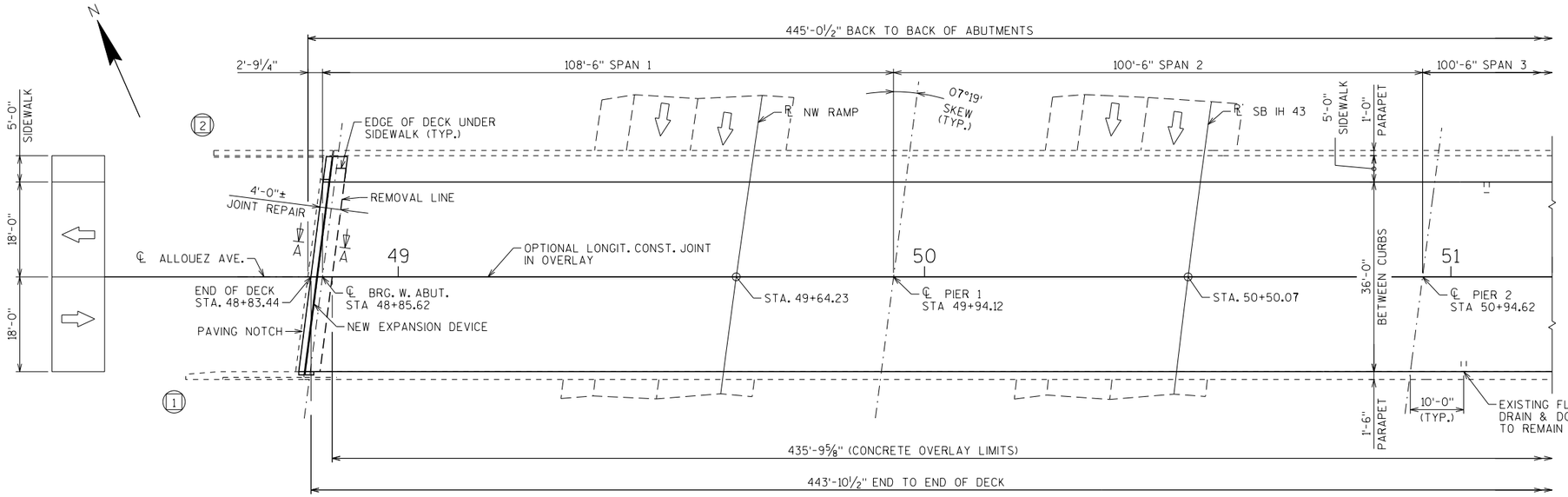
STATE PROJECT NUMBER

1227-08-71



PLAN

(4-SPAN PRESTRESSED CONCRETE GIRDER, CONCRETE OVERLAY)

⬡ INDICATES WINGWALL NUMBER

DESIGN DATA

LIVE LOAD:

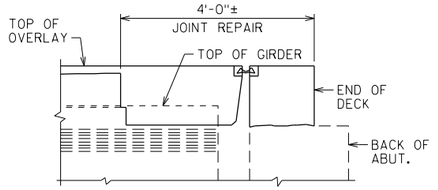
DESIGN LOADING: HS20
INVENTORY RATING: HS20
OPERATING RATING: HS34
WISCONSIN STANDARD PERMIT VEHICLE (Wis-SPV): 250 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY:	OVERLAY DECKS	f'c = 4,000 P.S.I.
	ALL OTHER	f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60:		fy = 60,000 P.S.I.

TRAFFIC VOLUME

ALLOUEZ AVE	IH 43
A.D.T. = 5,000 (2036)	A.D.T. = 51,800 (2036)
R.D.S. = 50 MPH	R.D.S. = 70 MPH



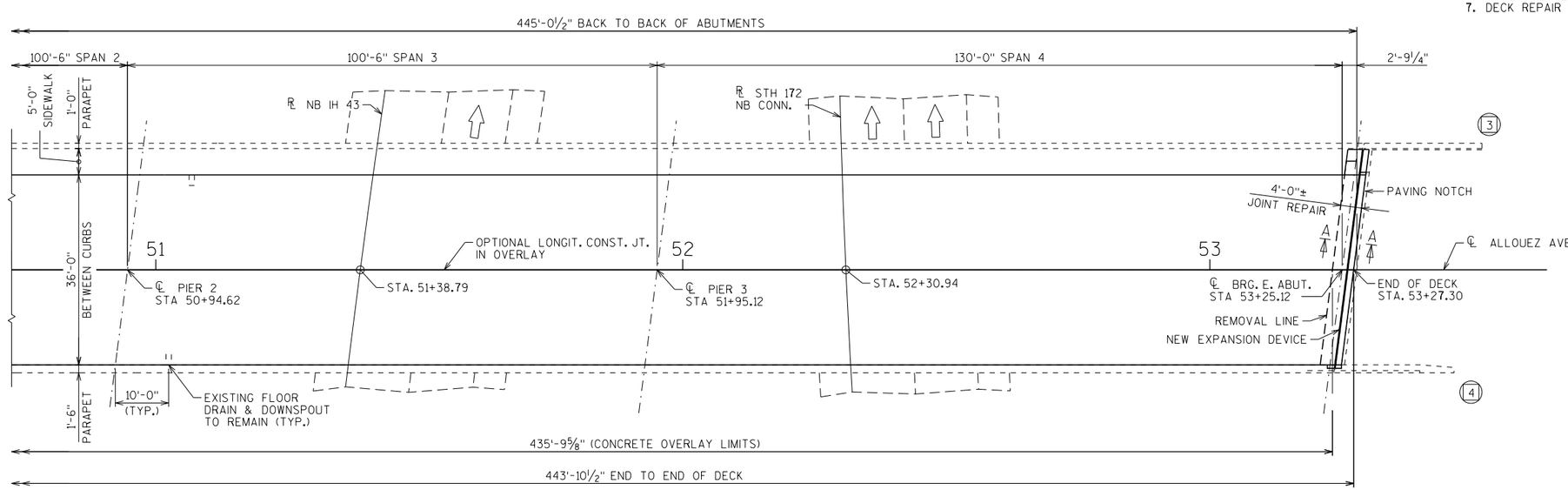
SECTION A-A

SEE SHEET 4 FOR DETAILS.

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION, QUANTITIES & NOTES
3. JOINT REPAIR
4. EXPANSION DEVICE
5. JOINT REPAIR - BILL OF BARS
6. COVER PLATE DETAILS
7. DECK REPAIR PLAN

DATE: 07/20/2016



PLAN

(4-SPAN PRESTRESSED CONCRETE GIRDER, CONCRETE OVERLAY)

⬡ INDICATES WINGWALL NUMBER

STRUCTURE DESIGN CONTACTS

BRIDGE OFFICE:	CONSULTANT:
WILLIAM DREHER, P.E.	VINOD PATEL, P.E.
(608) 266-8489	(312) 616-7395

NO.	DATE	REVISION	BY

exp U.S. Services Inc.
Milwaukee, WI
BUILDINGS · EARTH & ENVIRONMENT · ENERGY
INDUSTRIAL · INFRASTRUCTURE · SUSTAINABILITY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/11/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-5-194

ALLOUEZ AVE OVER IH 43

COUNTY	TOWN ~~CITY/VILLAGE~~
BROWN	BELLEVUE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
YC	VCP	YC	VCP

SHEET 1 OF 7

GENERAL PLAN 393

FILENAME
SCALE

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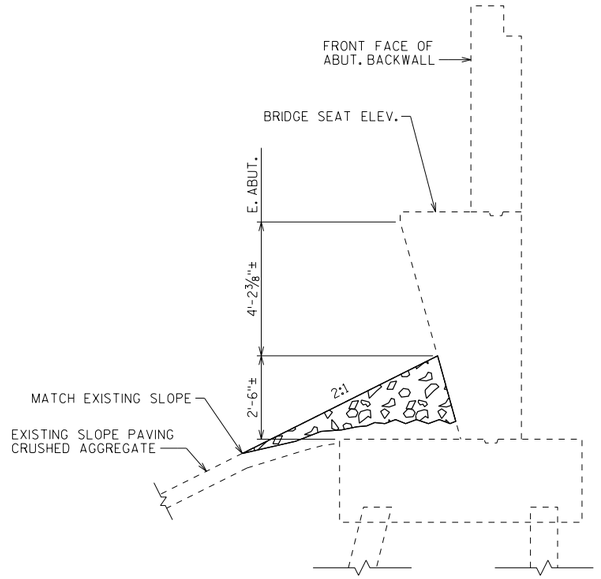
STATE PROJECT NUMBER

1227-08-71

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	W. ABUT.	E. ABUT.	SUPER.	TOTAL
502.3100.03	EXPANSION DEVICE B-5-194	LS	-	-	-	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	1,780	1,780
502.3210	PIGMENTED SURFACE SEALER	SY	14	14	290	318
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	42	42	-	84
502.6500	PROTECTIVE COATING CLEAR	GAL	-	-	5	5
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	970	980	-	1,950
509.0301	PREPARATION DECKS TYPE 1	SY	-	-	21	21
509.0302	PREPARATION DECKS TYPE 2	SY	-	-	5	5
509.0500	CLEANING DECKS	SY	-	-	1,750	1,750
509.1000	JOINT REPAIR	SY	-	-	37	37
509.1500	CONCRETE SURFACE REPAIR	SF	-	-	5	5
509.2000	FULL-DEPTH DECK REPAIR	SY	-	-	1	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	-	-	161	161
509.9050.S	CLEANING PARAPETS	LF	45	45	888	978
604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY	-	18	-	18
SPV.0060.01	CLEANING AND PAINTING BEARINGS	EACH	6	6	-	12
	NON-BID ITEMS					
	BRIDGE SEAT PROTECTION					

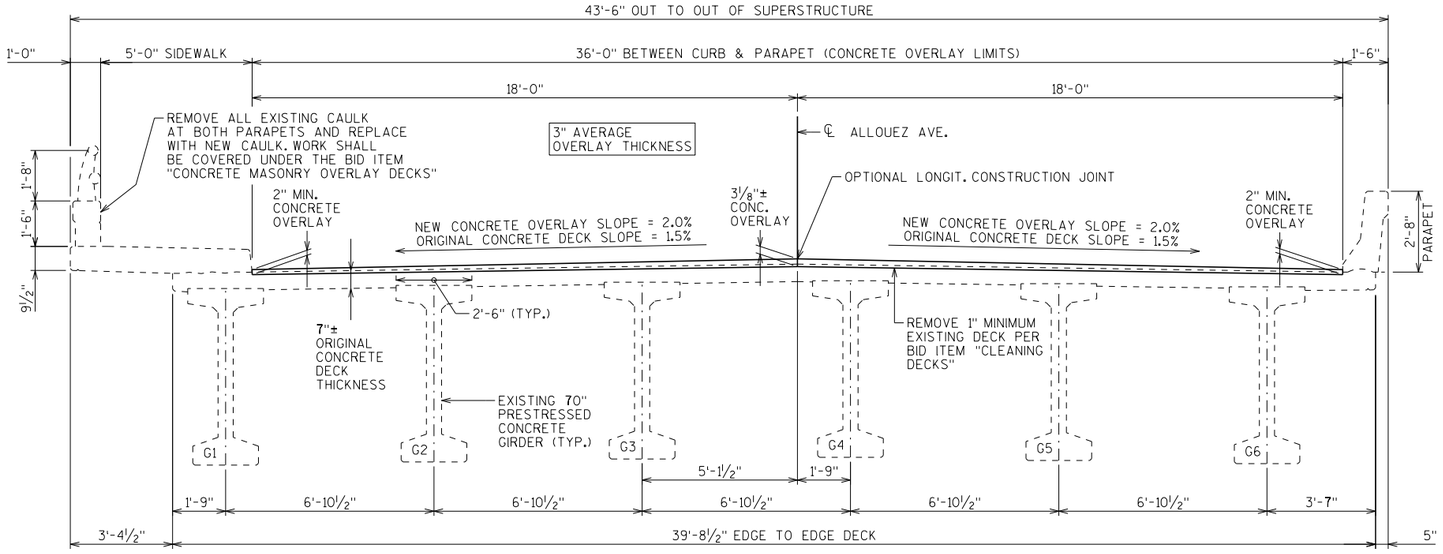
BID ITEM "CONCRETE MASONRY OVERLAY DECKS" ALSO INCLUDES CONCRETE FOR:
"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "FULL-DEPTH DECK REPAIR", AND "JOINT REPAIR".
THE QUANTITIES OF "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL-DEPTH DECK REPAIR" ARE BASED ON AN INFRARED THERMOGRAPHIC DECK SURVEY REPORT.
THERE IS NO SPECIFIC LOCATION OF "CONCRETE SURFACE REPAIR" IDENTIFIED IN THE PLANS.
THE QUANTITY IS PROVIDED TO MAKE ALLOWANCE IN CASE SUCH A REPAIR IS NEEDED.



"SLOPE PAVING REPAIR CRUSHED AGGREGATE"

SECTION AT EAST ABUTMENT

SLOPE PAVING REPAIR DETAIL



CROSS SECTION THRU DECK LOOKING EAST

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS OF EXISTING STRUCTURE MEMBERS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "CONCRETE SURFACE REPAIR", AND "FULL-DEPTH DECK REPAIR" AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS AS GIVEN ON THE PLANS. IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY OR JOINT REPAIRS AT ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND MINIMUM 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF BOTH ABUTMENTS BELOW EXPANSION DEVICES. POWER WASH AND ADEQUATELY DRY SURFACES BEFORE APPLICATION. WORK TO BE INCIDENTAL TO "JOINT REPAIR".

COAT ALL EXPOSED SURFACES OF THE LAST 5'-0" OF GIRDERS (SPANS 1 & 4 AT ABUTMENT ENDS ONLY) WITH "PROTECTIVE COATING CLEAR" AS DIRECTED BY THE ENGINEER. APPLY AT A RATE OF ONE GALLON PER 200 SF PER THE STANDARD SPECIFICATION 502.3.15 PARA. 4.

CLEAN AND PAINT ALL BEARINGS AT BOTH ABUTMENTS. SEE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING BEARINGS".

CLEAN THE INSIDE FACES AND TOP SURFACE OF THE EXISTING CONCRETE PARAPETS. PARAPET JOINTS SHALL BE CLEANED AND RE-SEALED WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. INCLUDE IN BID ITEM "CLEANING PARAPETS".

APPLY "PROTECTIVE SURFACE TREATMENT" TO THE EXPOSED DECK SURFACE OF THE NEW CONCRETE OVERLAY BETWEEN PARAPETS AND EXPOSED TOP SURFACE OF JOINT REPAIR.

APPLY "PIGMENTED SURFACE SEALER" ON THE INSIDE AND TOP FACES OF PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS.

TRAFFIC CONTROL: BRIDGE TO BE TEMPORARILY CLOSED TO COMPLETE JOINT REPAIRS AND MILL AND OVERLAY ACTIVITIES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-194

DRAWN BY YC | PLANS CK'D. VCP

CROSS SECTION, QUANTITIES & NOTES

SHEET 2 OF 7

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STATE PROJECT NUMBER

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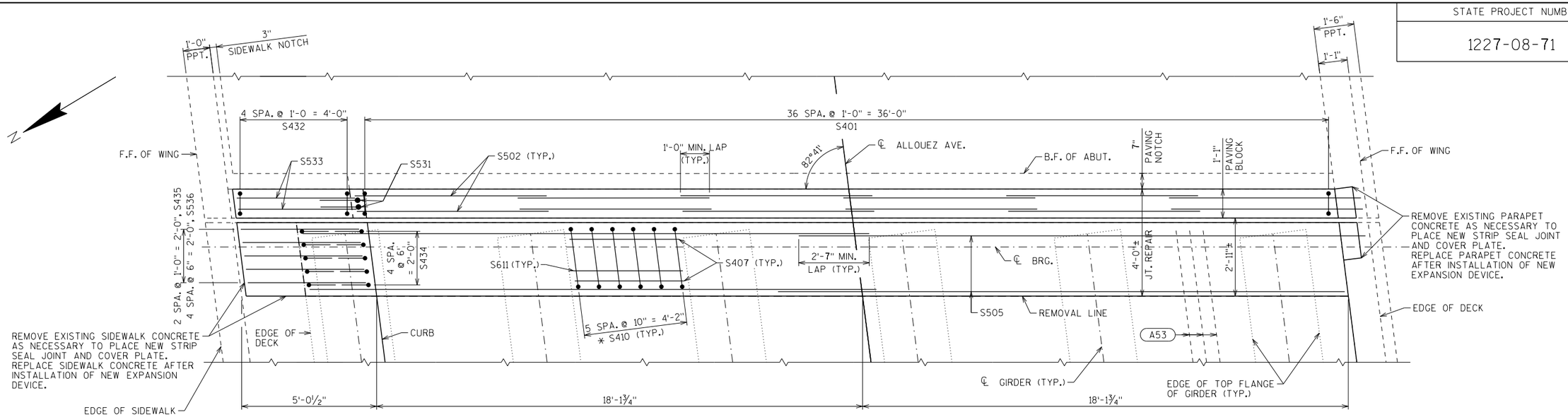
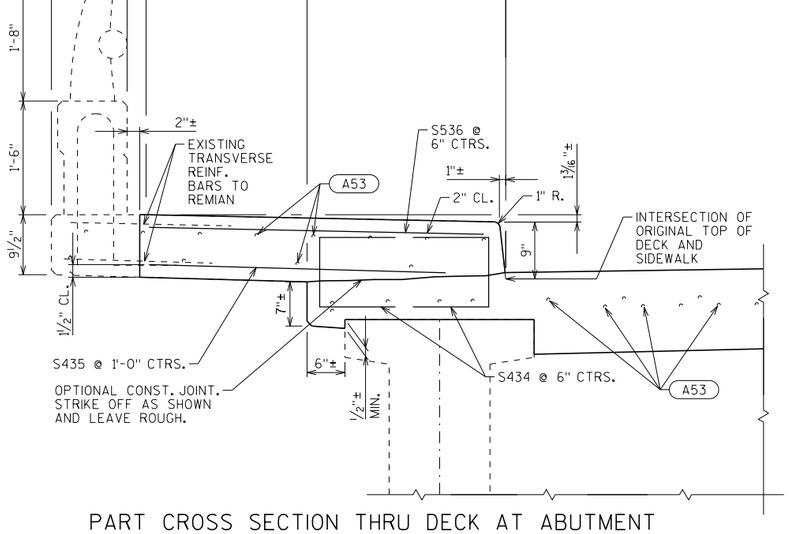


ABUTMENT "JOINT REPAIR" PLAN

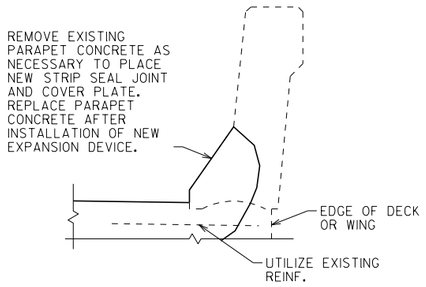
EAST ABUTMENT SHOWN
WEST ABUTMENT SIMILAR

* S410 AT E. ABUT., S409 AT W. ABUT.

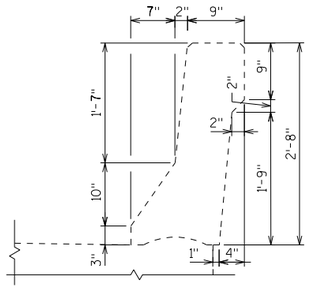


PART CROSS SECTION THRU DECK AT ABUTMENT

SHOWING SIDEWALK REINFORCEMENT



SLOPED PARAPET REMOVAL LIMITS



SECTION THRU EXISTING SLOPED PARAPET

SECTION THRU ABUT. BACKWALL AT SIDEWALK

NORMAL TO ℄ SUBSTRUCTURE

NOTES

ALL REMOVAL LINES SHALL BE DEFINED BY A 1" DEEP SAW-CUT.

REBUILD NEW PARAPET, DECK AND SIDEWALK AREAS TO MATCH THE EXISTING PARAPET, DECK AND SIDEWALK.

(A53) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

\+ PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL.
\+ SUPPLEMENT WITH THE BARS INDICATED BY ☆.

☆ IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH EPOXY ANCHORED COATED NO. 5 L-SHAPED BARS S537 WITH A 10" HORIZ. LEG. EMBED BARS 1'-0" MIN. INTO EXISTING CONC. PLACE 4" CL. MIN. OF VERT. CONC. FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-194

DRAWN BY YC | PLANS CK'D. VCP

JOINT REPAIR

SHEET 3 OF 7

395

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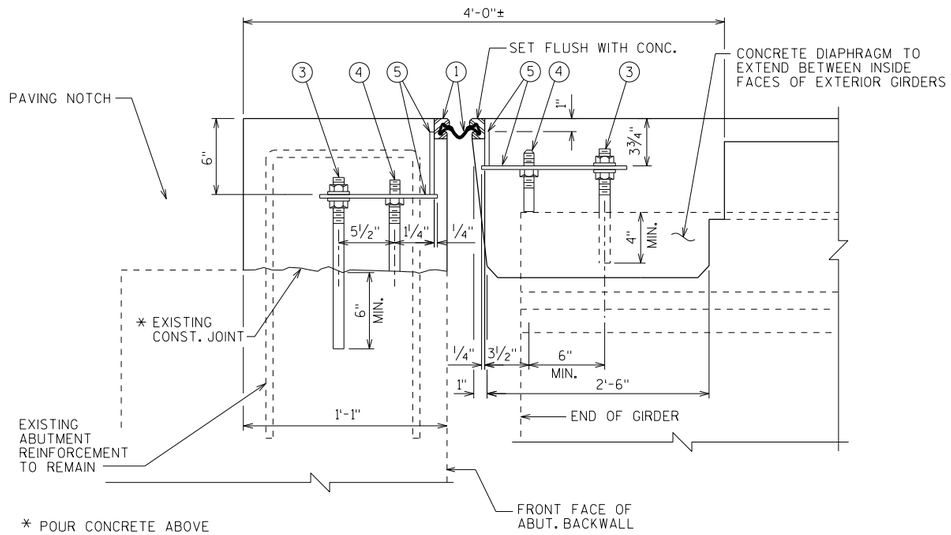
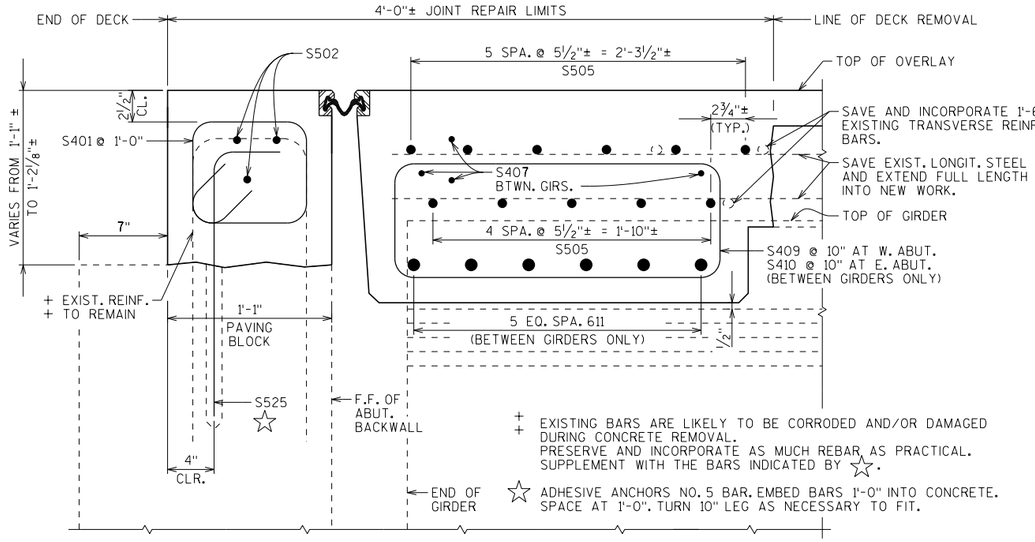


* POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE.

SECTION THRU JOINT AT ABUTMENTS

NORMAL TO ℄ SUBSTRUCTURE



\+ + EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY ☆.

☆ ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" INTO CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

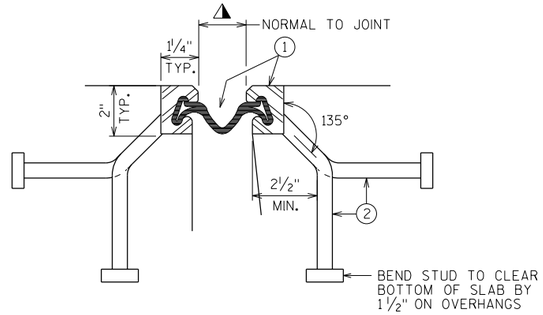
SECTION THRU JOINT AT ABUTMENTS

NORMAL TO ℄ SUBSTRUCTURE
SHOWING REINFORCEMENT

⚠ TEMPERATURE TABLE

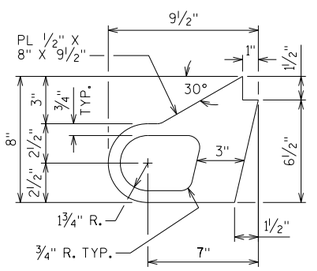
SHADED UNDERSIDE DECK TEMP. (°F)	JOINT OPENING (NORMAL TO JT.)
85°	1 ½"
75°	1 11/16"
65°	1 ⅞"
55°	2 1/16"
45°	2 ¼"
35°	2 7/16"
25°	2 ⅝"
15°	2 13/16"
5°	3"

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

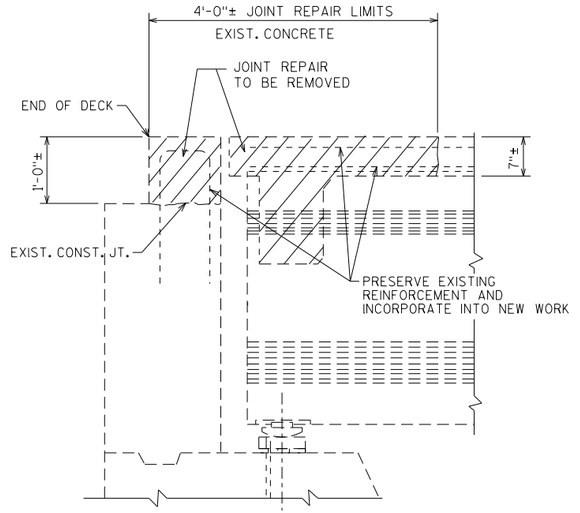
EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS



ALTERNATE STRIP SEAL ANCHOR

LEGEND

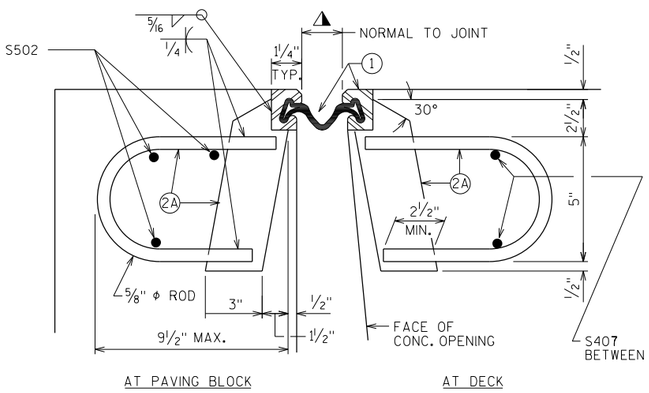
1. NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅝"ϕ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝"ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾" ϕ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾"ϕ 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" ϕ HOLE FOR NO. 3 AND 1" ϕ HOLE FOR NO. 4.



JOINT REPAIR - REMOVAL

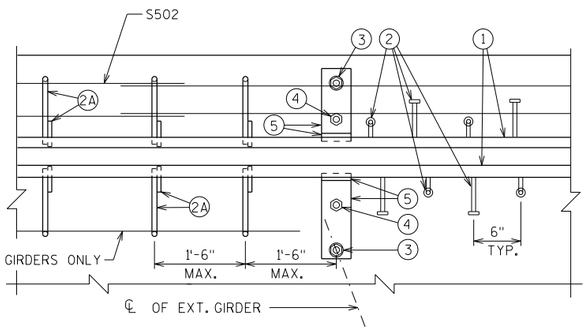
SECTION THRU EXISTING EXPANSION JOINT AT ABUTMENTS

NORMAL TO ℄ SUBSTRUCTURE



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, 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.

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

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-5-194".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-194

DRAWN BY YC | PLANS CK'D. VCP

EXPANSION DEVICE

SHEET 4 OF 7

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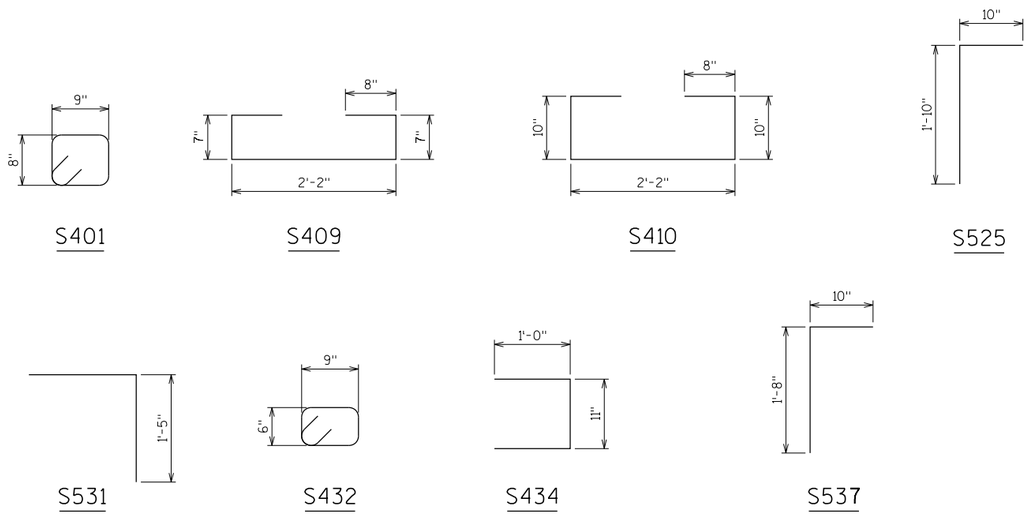
STATE PROJECT NUMBER
1227-08-71

BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

	W. ABUT.	E. ABUT.
UNCOATED:	0 LBS	0 LBS
COATED:	970 LBS	980 LBS

BAR MARK	COAT	NO. REQ'D W. ABUT.	NO. REQ'D E. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
S401	X	37	37	3'-4"	X		PAVING BLOCK - VERT. - STIRRUP
S502	X	18	18	7'-2"			PAVING BLOCK - HORIZ.
- - -	-	-	-	--			- - -
- - -	-	-	-	--			- - -
S505	X	11	11	21'-2"			DECK - HORIZ. - TRANS. - TOP & BOT.
- - -	-	-	-	--			- - -
S407	X	20	20	4'-1"			DECK - HORIZ. - TRANS. - BTWN. GIRS.
- - -	-	-	-	--			- - -
S409	X	30	-	4'-4"	X		DECK/CONC. DIAPH. - VERT. - BTWN. GIRS. - W. ABUT.
S410	X	-	30	4'-10"	X		DECK/CONC. DIAPH. - VERT. - BTWN. GIRS. - E. ABUT.
S611	X	30	30	4'-1"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. GIRS.
S525	X	37	37	2'-7"	X		PAVING BLOCK - VERT. - DOWEL
S531	X	2	2	2'-9"	X		PAVING BLOCK AT SDWK.
S432	X	5	5	3'-0"	X		PAVING BLOCK AT SDWK. - VERT. - STIRRUP
S533	X	2	2	4'-5"			PAVING BLOCK AT SDWK. - HORIZ.
S434	X	10	10	2'-9"	X		SDWK. INTO SLAB - VERT.
S435	X	3	3	3'-11"			SDWK. - BOTTOM - TRANS.
S536	X	5	5	4'-5"			SDWK. - TOP - TRANS.
S537	X	5	5	2'-5"			SDWK. - VERT. - DOWEL



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-194

DRAWN BY YC | PLANS CK'D. VCP

JOINT REPAIR - BILL OF BARS

SHEET 5 OF 7

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FILENAME
SCALE

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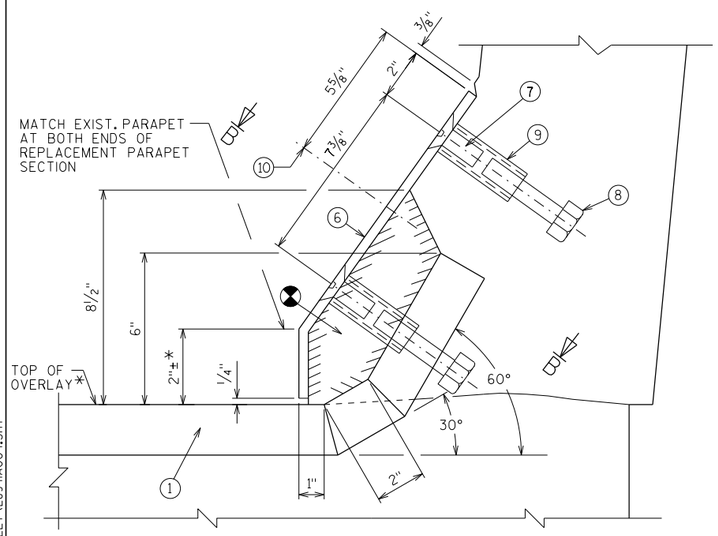
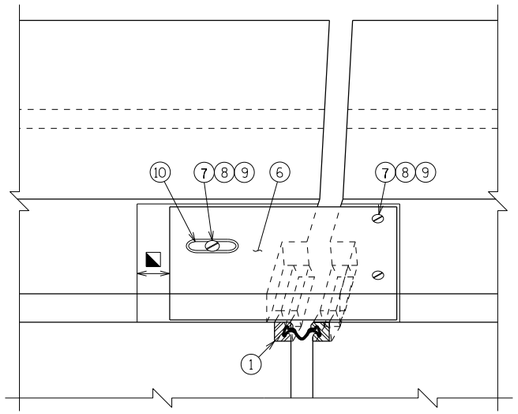
1227-08-71

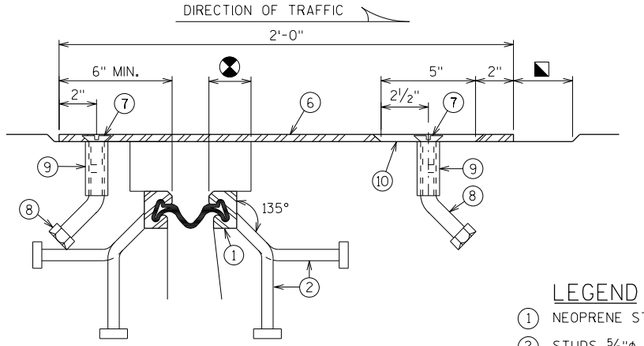


SECTION A-A

* TOP OF OVERLAY @ 1" ABOVE TOP OF ORIGINAL DECK.



VIEW OF PARAPET PLATE FROM ROADWAY



SECTION B-B

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.

(2) STUDS 5/8"Φ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

(6) GALVANIZED PLATE 3/8" X 1'-2" X 2'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

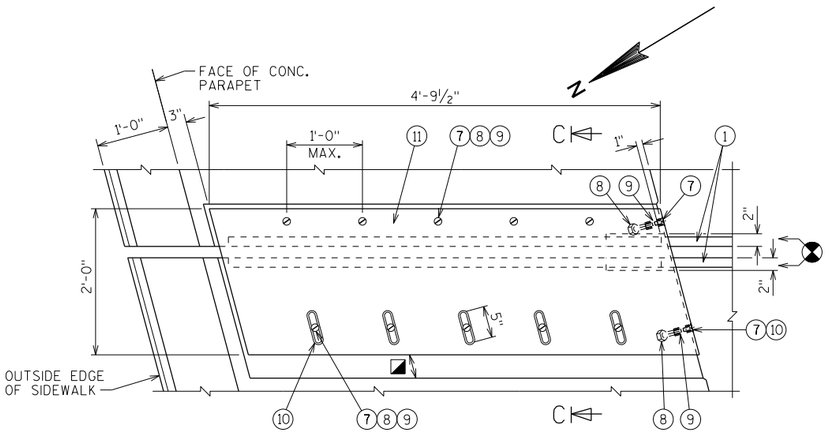
(7) 3/4"Φ X 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) 3/4"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

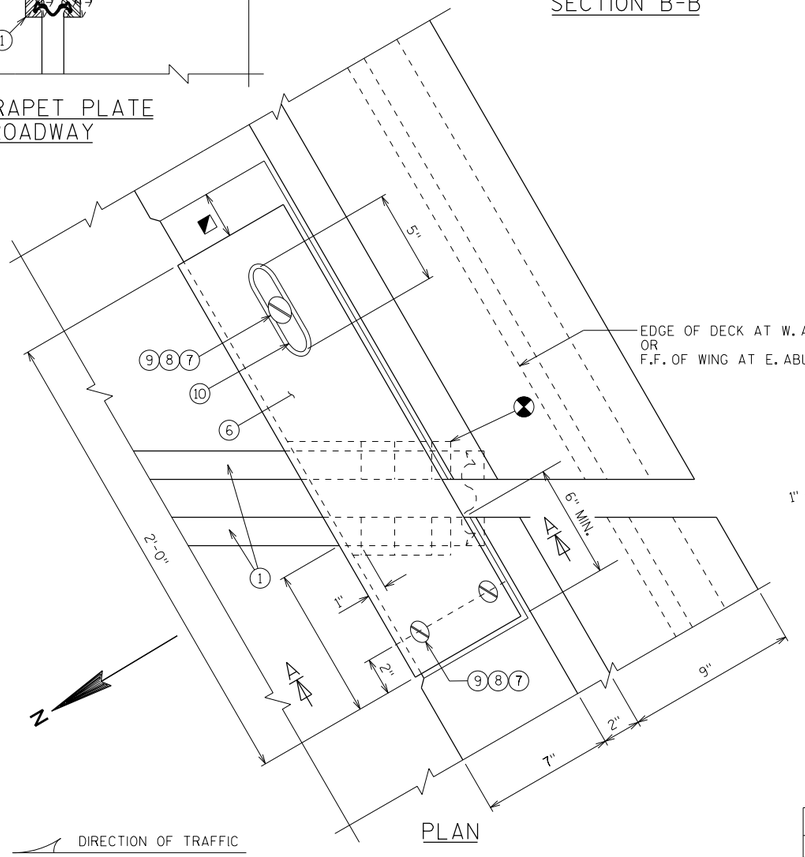
(9) 3/4"Φ X 2 1/4" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

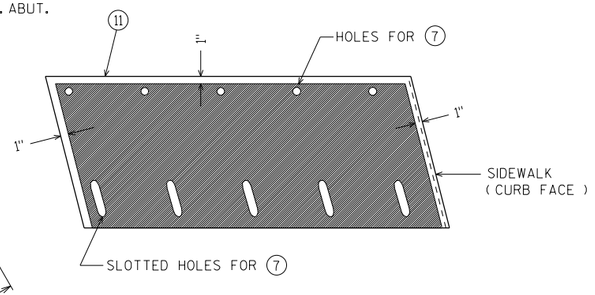
(11) SIDEWALK COVER PLATE 3/8" X 2'-0" X LIMITS SHOWN. BEND DOWN FACE OF SIDEWALK WITH HOLES FOR NO. 7. GALVANIZE PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.



PLAN AT SIDEWALK



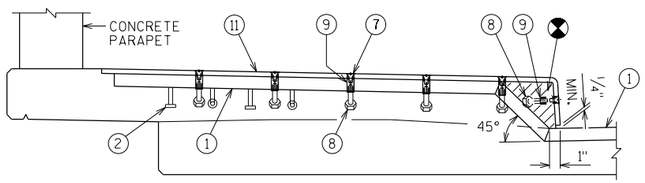
PLAN



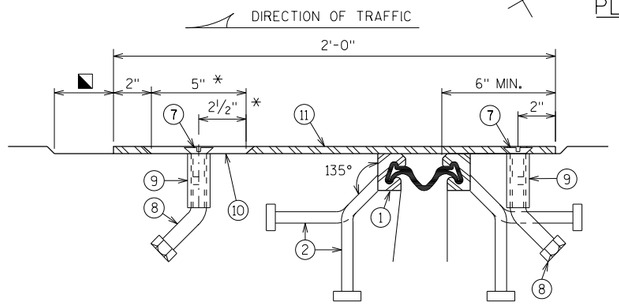
PLAN OF SIDEWALK COVER PLATE WITH SLIP-RESISTANT SURFACE

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

APPROVED SLIP-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

* DIMENSION ALONG DIRECTION OF MOVEMENT

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-194

DRAWN BY YC | PLANS CK'D. VCP

COVER PLATE DETAILS

SHEET 6 OF 7
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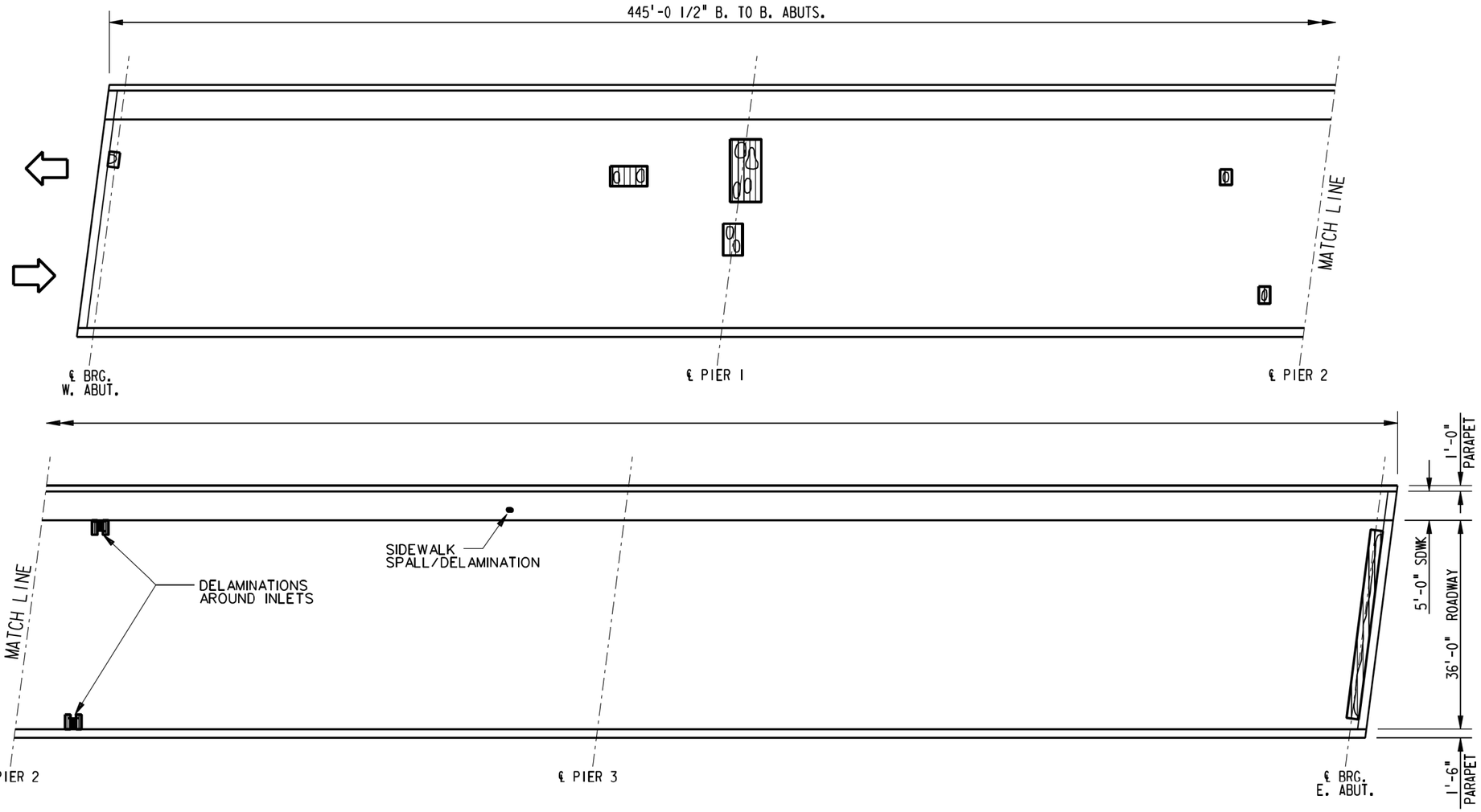
STATE PROJECT NUMBER
1227-08-71



PLAN

PROPOSED REHAB AREAS

SCALE 0' 5' 10' 20'

FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-5-194	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	1775.2	
SHADE/DEBRIS	yd^2	0	
PREPARATION, DECKS, TYPE 1	yd^2	21.3	1.2
PREPARATION, DECKS, TYPE 2	yd^2	5.3	0.3
FULL DEPTH DECK REPAIR	yd^2	1.0	<0.1

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION
SPALL
DEBOND
ASPHALT PATCH
CONCRETE PATCH

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 7/23/15

NOTES

THIS SHEET PROVIDES THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS REPORTED BY AECOM IN AUGUST 2015. THE PROPOSED DECK REPAIRS ARE BASED ON THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-194

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DECK REPAIR PLAN

SHEET 7 OF 7

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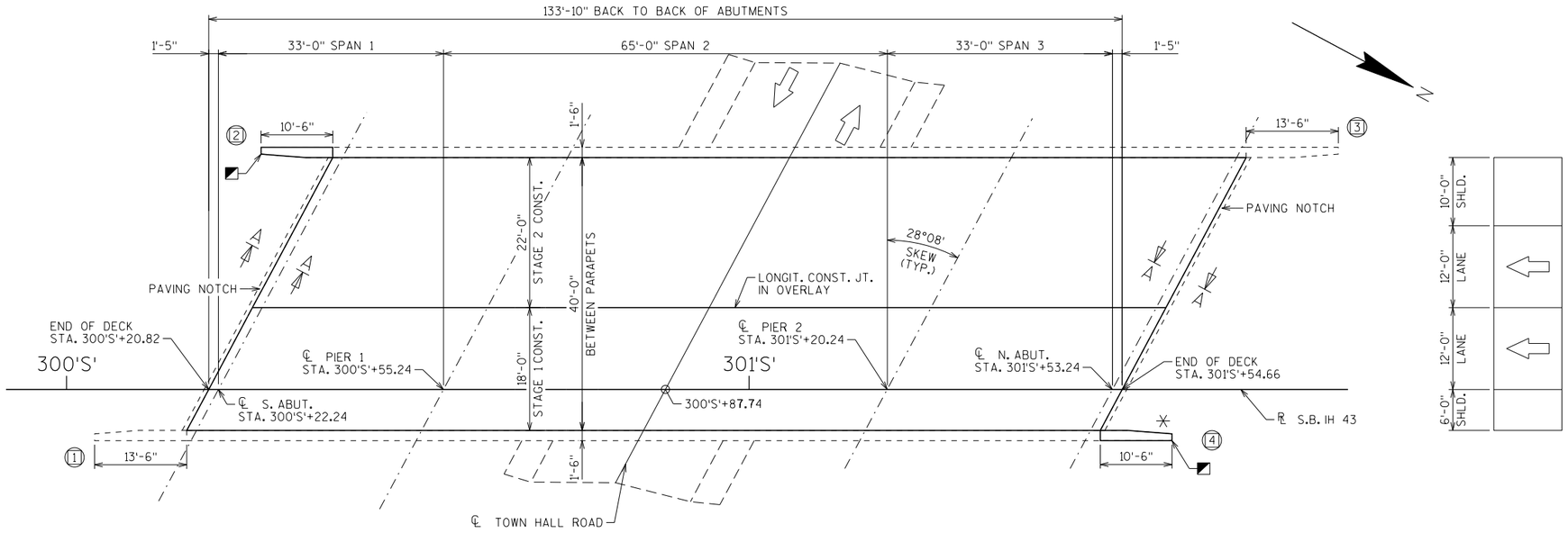
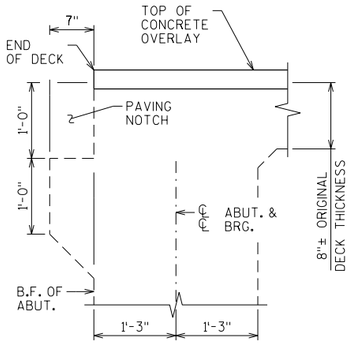


PLAN

(3-SPAN PRESTRESSED CONCRETE GIRDER, CONCRETE OVERLAY)



SECTION A-A

SECTION THRU ABUT. DIAPH.

INDICATES WINGWALL NUMBER

REPLACE WINGWALL. SEE SHEETS 3 AND 4 FOR DETAILS.

PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20
INVENTORY RATING: HS20
OPERATING RATING: HS34
WISCONSIN STANDARD PERMIT VEHICLE (Wis-SPV): 250 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY:	OVERLAY DECKS	f'c = 4,000 P.S.I.
	ALL OTHER	f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60:		fy = 60,000 P.S.I.

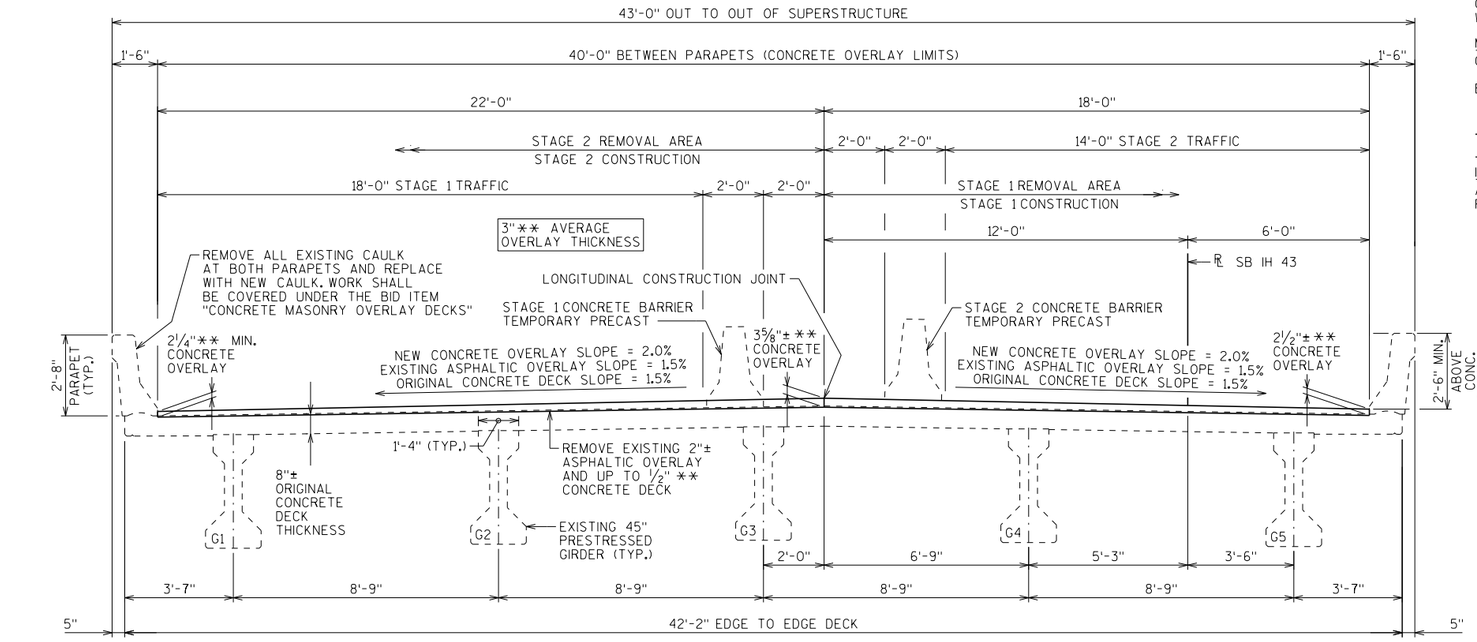
TRAFFIC VOLUME

IH 43
A.D.T. = 30,100 (2036)
R.D.S. = 70 MPH

TOWN HALL ROAD
A.D.T. = 300 (2036)
R.D.S. = 30 MPH

LIST OF DRAWINGS

1. GENERAL PLAN & CROSS SECTION
2. QUANTITIES & NOTES
3. WINGWALL 2 REPLACEMENT
4. WINGWALL 4 REPLACEMENT
5. SLOPED FACE PARAPET "B"
6. DECK REPAIR PLAN



CROSS SECTION THRU DECK LOOKING NORTH

** THE OVERLAY THICKNESS INCLUDES ½" THICKNESS OF CONCRETE REMOVAL FROM ORIGINAL CONCRETE DECK.

WISCONSIN
VINOD C. PATEL
37887
CAROL STREAM, IL
PROFESSIONAL ENGINEER

DATE: 07/20/2016

STRUCTURE DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER, P.E.
(608) 266-8489

CONSULTANT:
VINOD PATEL, P.E.
(312) 616-7395

NO.	DATE	REVISION	BY

exp U.S. Services Inc.
Milwaukee, WI
BUILDINGS·EARTH & ENVIRONMENT·ENERGY
INDUSTRIAL·INFRASTRUCTURE·SUSTAINABILITY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/11/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-5-240

IH 43 SB OVER TOWN HALL ROAD

COUNTY	TOWN ~~CITY/VILLAGE~~
BROWN	NEW DENMARK

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
YC	VCP	JJG/YC	VCP

GENERAL PLAN & CROSS SECTION

SHEET 1 OF 6

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SCALE

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STATE PROJECT NUMBER

1227-08-71

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTAL
203.0200.04	REMOVING OLD STRUCTURE STA. 300'S'+87.74	LS	-	-	-	1
206.1000.03	EXCAVATION FOR STRUCTURES BRIDGES B-5-240	LS	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	40	40	-	80
502.0100	CONCRETE MASONRY BRIDGES	CY	4	4	-	8
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	595	595
502.3210	PIGMENTED SURFACE SEALER	SY	9	9	102	120
502.4204	ADHESIVE ANCHORS NO. 4 BAR	EACH	5	5	-	10
502.4206	ADHESIVE ANCHORS NO. 6 BAR	EACH	17	17	-	34
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	805	785	-	1,590
509.0301	PREPARATION DECKS TYPE 1	SY	-	-	2	2
509.0302	PREPARATION DECKS TYPE 2	SY	-	-	1	1
509.0500	CLEANING DECKS	SY	-	-	595	595
509.1500	CONCRETE SURFACE REPAIR	SF	-	-	20	20
509.2000	FULL-DEPTH DECK REPAIR	SY	-	-	1	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	-	-	50	50
509.9010.S.01	REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-5-240	SY	-	-	595	595
509.9050.S	CLEANING PARAPETS	LF	14	14	267	295
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	2	2	-	4
604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY	10	10	-	20
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	39	39	-	78
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	-	1	-	1
	NON-BID ITEMS					
	PREFORMED JOINT FILLER	SIZE	-	-	-	1/2 "

BID ITEM "CONCRETE MASONRY OVERLAY DECKS" ALSO INCLUDES CONCRETE FOR:
"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL-DEPTH DECK REPAIR".
THE QUANTITIES OF "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL-DEPTH DECK REPAIR" ARE BASED ON AN INFRARED THERMOGRAPHIC DECK SURVEY REPORT.
"CONCRETE SURFACE REPAIR" OF SUPERSTRUCTURE INCLUDES E. PPT.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS OF EXISTING STRUCTURE MEMBERS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

THE EXISTING BITUMINOUS ASPHALTIC OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK UNDER BID ITEM "REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-5-240".

AFTER REMOVING EXISTING ASPHALTIC OVERLAY, UP TO 1/2" OF CONCRETE SHALL BE REMOVED FROM ORIGINAL BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "CONCRETE SURFACE REPAIR", AND "FULL-DEPTH DECK REPAIR" AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2 1/4" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS AS GIVEN ON THE PLANS. IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE ABUTMENT.

AT THE BACKFACE OF ABUTMENT, ALL VOLUME WHICH CANNOT BE PLACED BEFORE WINGWALL CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND MINIMUM 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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

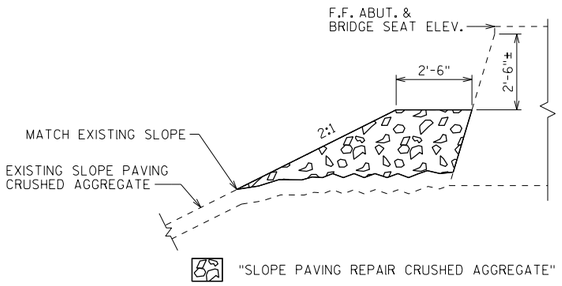
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

CLEAN THE INSIDE FACES AND TOP SURFACE OF THE EXISTING CONCRETE PARAPETS. PARAPET JOINTS SHALL BE CLEANED AND RE-SEALED WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. INCLUDE IN BID ITEM "CLEANING PARAPETS".

APPLY "PROTECTIVE SURFACE TREATMENT" TO THE EXPOSED DECK SURFACE OF THE NEW CONCRETE OVERLAY BETWEEN PARAPETS.

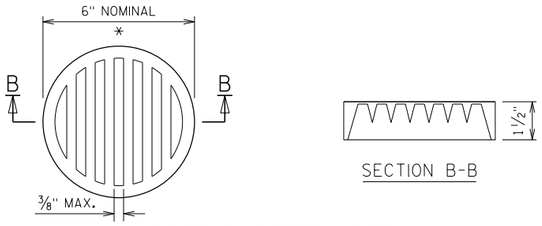
APPLY "PIGMENTED SURFACE SEALER" ON THE INSIDE AND TOP FACES OF PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS.

INSTALL RODENT SCREEN(S) AT THE EXPOSED END(S) OF PIPE UNDERDRAIN.



SECTION AT ABUTMENTS

SLOPE PAVING REPAIR DETAIL



RODENT SCREEN DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO INTO A PIPE COUPLING. ORIENT SCREEN SO SLOTS ARE VERTICAL.

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

THE RODENT SCREEN 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 SCREEN TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SCREEN 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-5-240

DRAWN BY YC | PLANS CK'D. VCP

QUANTITIES & NOTES

SHEET 2 OF 6

401

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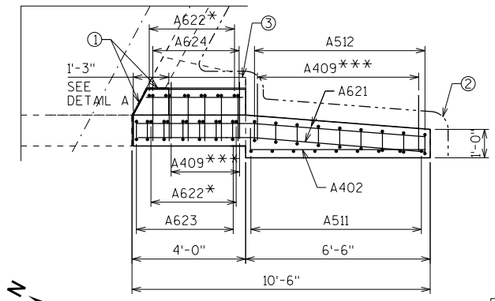
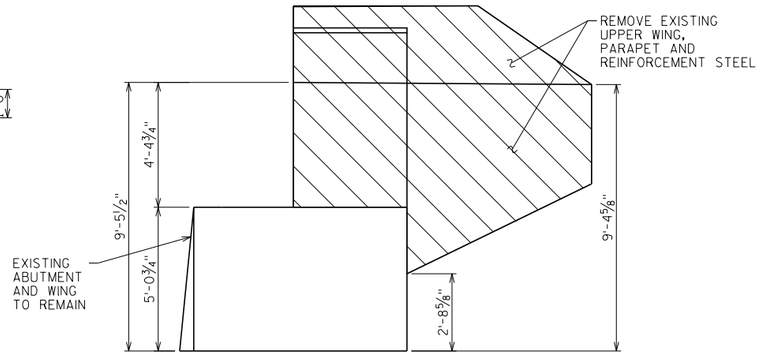
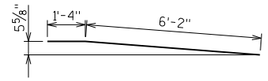
STATE PROJECT NUMBER
1227-08-71



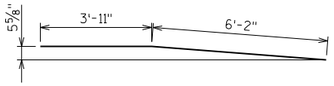
SECTION A-A



EXISTING WING REMOVAL



A625



A404 & A621

A402, A403 & A624

BAR MARK	A	B
A402	6'-2"	9"
A403	5'-10"	9"
A624	2'-8"	1'-8"

A406, A407 & A408

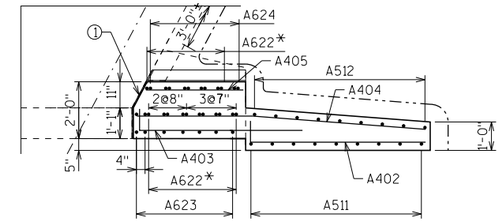
BAR MARK	C
A406	7"
A407	9"
A408	8"

BILL OF BARS

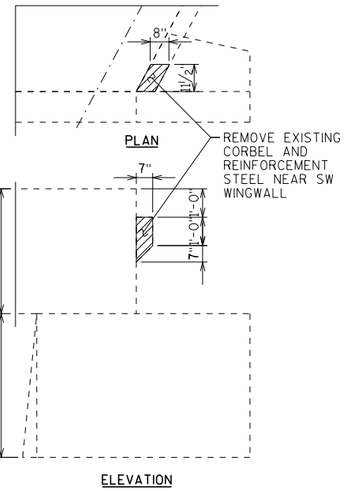
590 LBS

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
**	A401	X	5	2-10			HORIZONTAL ANCHOR BARS, B.F.
	A402	X	12	6-10	X		HORIZONTAL, F.F.
	A403	X	6	6-6	X		HORIZONTAL, B.F.
	A404	X	6	10-1	X		HORIZONTAL, M.F.
	A405	X	5	3-3			HORIZONTAL, F.F.
	A406	X	1	1-11	X		U BARS
	A407	X	1	2-1	X		U BARS
	A408	X	2	2-0	X		U BARS
	A409	X	14	1-10			HORIZONTAL, M.F.
	A511	X	9	6-4			VERTICAL, F.F.
	A512	X	9	7-8	X		VERTICAL, B.F.
	A621	X	2	10-1	X		HORIZONTAL
*	A622	X	12	4-0			VERTICAL ANCHOR BARS
	A623	X	7	8-11	X		U BARS
	A624	X	6	4-2	X		L BARS
*	A625	X	5	7-6	X		HORIZONTAL ANCHOR BARS, M.F.

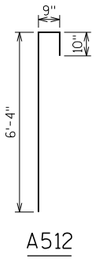
THE FIRST DIGIT OF A THREE DIGIT MARK SIGNIFIES THE BAR SIZE.
ALL BAR DIMENSIONS ARE OUT TO OUT OF BAR.



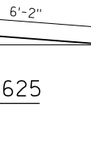
SECTION B-B



PARTIAL CORBEL REMOVAL



A512



A623

NOTES:

① ½" FILLER INCLUDED IN WING LENGTH. SEAL ALL HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.

② PIPE UNDERDRAIN WRAPPED 6 INCH, SLOPE 0.5% MIN. TO DRAIN.

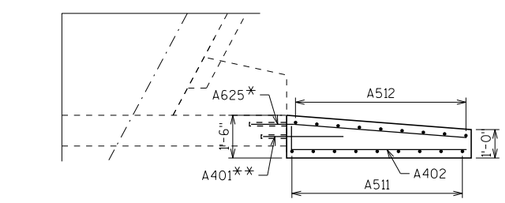
③ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

④ PROVIDE 2" CLEAR COVER U.N.O.

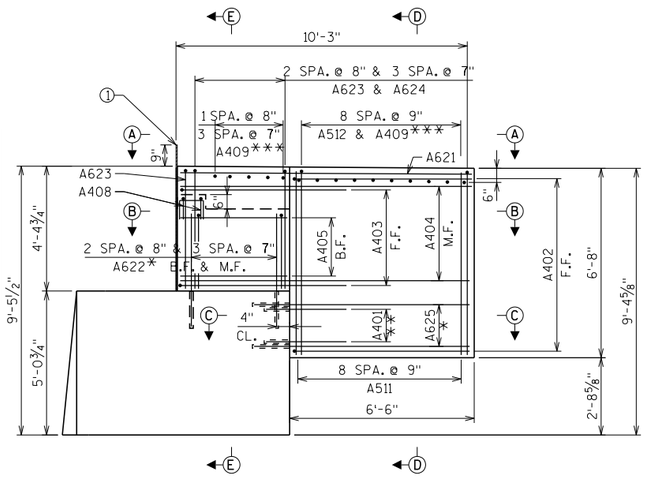
* ADHESIVE ANCHORS NO. 6 BAR. EMBED 15" INTO CONCRETE.

** ADHESIVE ANCHORS NO. 4 BAR. EMBED 10" INTO CONCRETE.

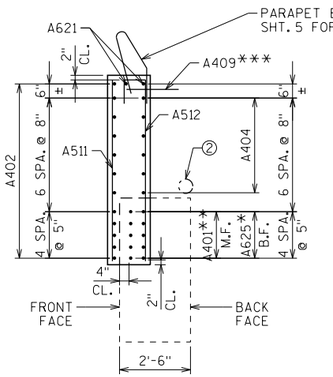
*** A409 BARS SPACED EQUALLY WITH A623 & A512 BARS. EMBED 10" INTO WING CONCRETE. LOCATE 3" DOWN FROM TOP OF WING AT BACKFACE TO 5" DOWN AT WING TIP. (DRILLED IN EPOXY ANCHORED #4 BARS 1'-10" LONG MAY BE USED.) COST INCIDENTAL TO BID ITEM "BAR STEEL REINFORCEMENT HS COATED BRIDGES."



SECTION C-C



WING ELEVATION



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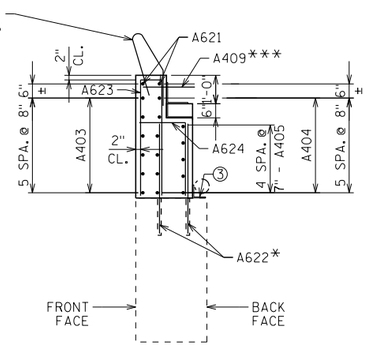
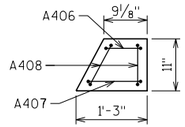


SECTION E-E



DETAIL A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-240

DRAWN BY SD | PLANS CK'D. VCP

WINGWALL 2 REPLACEMENT

SHEET 3 OF 6

402

FILENAME
SCALE

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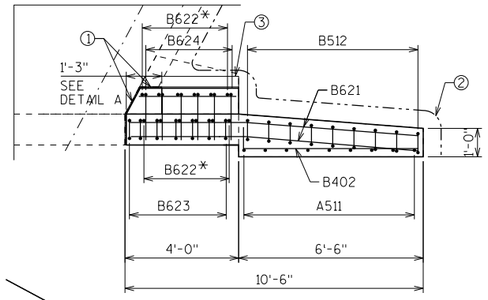
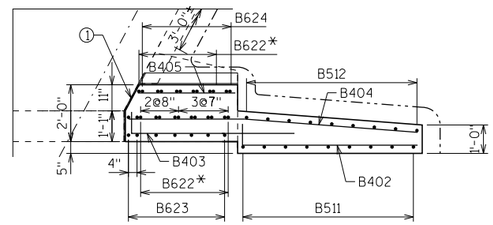
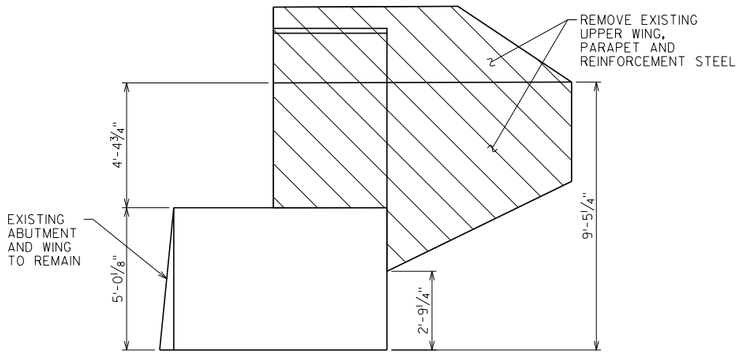


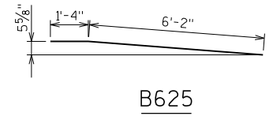
SECTION A-A



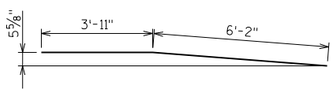
SECTION B-B



EXISTING WING REMOVAL



B625



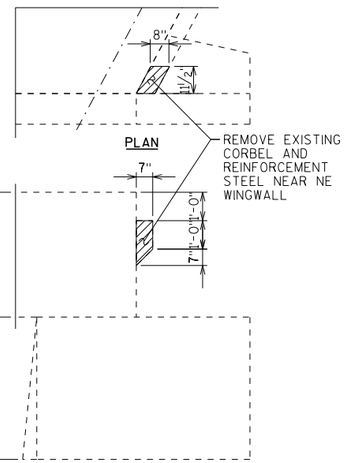
B404 & B621

B402, B403 & B624

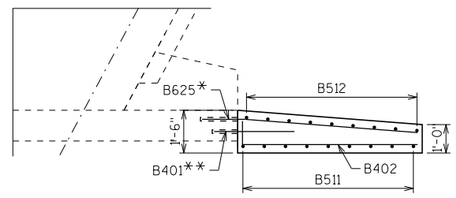
BAR MARK	A	B
B402	6'-2"	9"
B403	5'-10"	9"
B624	2'-8"	1'-8"

B406, B407 & B408

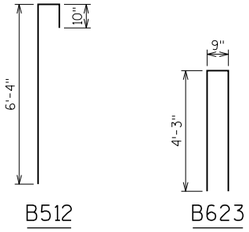
BAR MARK	C
B406	7"
B407	9"
B408	8"



PARTIAL CORBEL REMOVAL



SECTION C-C



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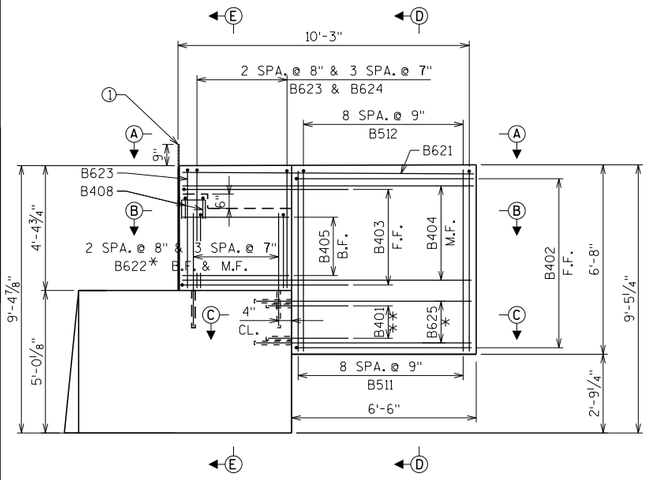
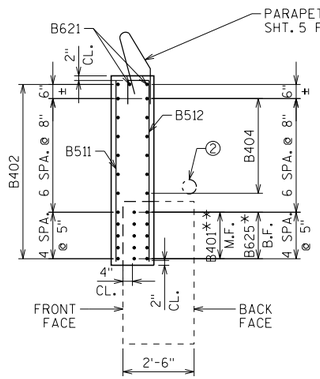
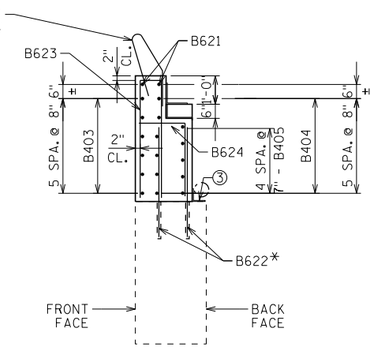
B623



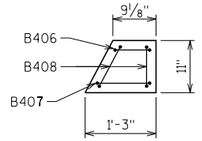
WING ELEVATION



SECTION D-D



SECTION E-E



DETAIL A

STATE PROJECT NUMBER

1227-08-71

BILL OF BARS

570 LBS

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
**	B401	X	5	2-10			HORIZONTAL ANCHOR BARS, B.F.
	B402	X	12	6-10	X		HORIZONTAL, F.F.
	B403	X	6	6-6	X		HORIZONTAL, B.F.
	B404	X	6	10-1	X		HORIZONTAL, M.F.
	B405	X	5	3-3			HORIZONTAL, F.F.
	B406	X	1	1-11	X		U BARS
	B407	X	1	2-1	X		U BARS
	B408	X	2	2-0	X		U BARS
	B511	X	9	6-4			VERTICAL, F.F.
	B512	X	9	7-8	X		VERTICAL, B.F.
	B621	X	2	10-1	X		HORIZONTAL
*	B622	X	12	4-0			VERTICAL ANCHOR BARS
	B623	X	7	8-11	X		U BARS
	B624	X	6	4-2	X		L BARS
*	B625	X	5	7-6	X		HORIZONTAL ANCHOR BARS, M.F.

THE FIRST DIGIT OF A THREE DIGIT MARK SIGNIFIES THE BAR SIZE.
ALL BAR DIMENSIONS ARE OUT TO OUT OF BAR.

NOTES:

① ½" FILLER INCLUDED IN WING LENGTH, SEAL ALL HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.

② PIPE UNDERDRAIN WRAPPED 6 INCH, SLOPE 0.5% MIN. TO DRAIN.

③ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

④ PROVIDE 2" CLEAR COVER U.N.O.

* ADHESIVE ANCHORS NO. 6 BAR. EMBED 15" INTO CONCRETE.

** ADHESIVE ANCHORS NO. 4 BAR. EMBED 10" INTO CONCRETE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-240

DRAWN BY SD | PLANS CK'D. VCP

WINGWALL 4 REPLACEMENT

SHEET 4 OF 6

403

FILENAME

SCALE

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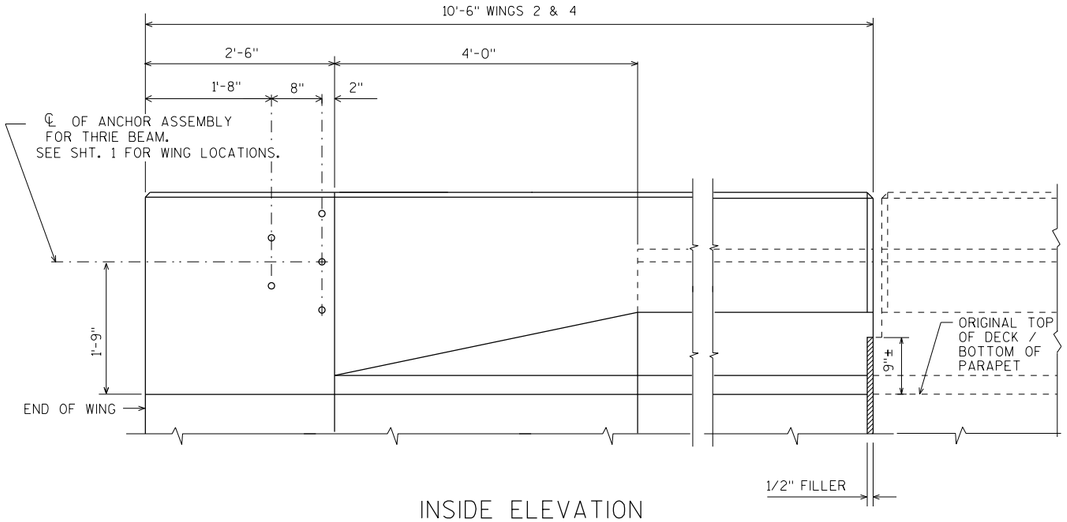
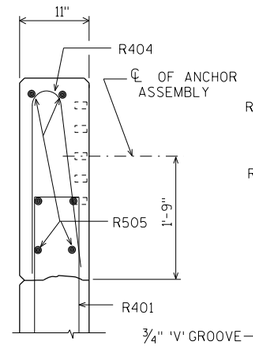
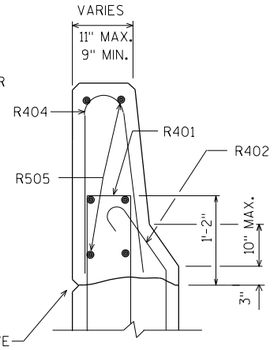
STATE PROJECT NUMBER
1227-08-71



INSIDE ELEVATION



SECTION A



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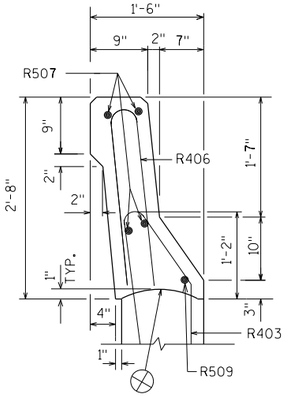


SECTION C

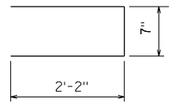
BILL OF BARS

FOR ABUTMENT PARAPETS

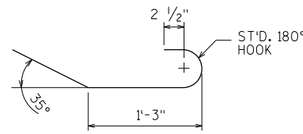
THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE. EPOXY COAT ALL PRAPET REINF.

	S. ABUT.	N. ABUT.
UNCOATED:	0 LBS	0 LBS
COATED:	215 LBS	215 LBS

BAR MARK	NO. REQ'D S. ABUT.	NO. REQ'D N. ABUT.	LENGTH	BENT	LOCATION
R401	15	15	4'-9"	X	WINGS STIRRUPS
R402	4	4	3'-1"	X	WINGS
R403	6	6	4'-7"	X	WINGS STIRRUPS
R404	15	15	4'-9"	X	WINGS
R505	6	6	6'-2"		WINGS
R406	6	6	4'-10"	X	WINGS
R507	4	4	5'-9"		WINGS
- - -	-	-			
R509	1	1	10'-1"	X	WINGS
- - -	-	-			
- - -	-	-			



R401



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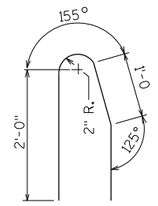

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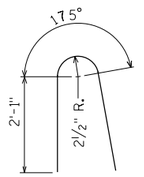

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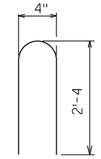

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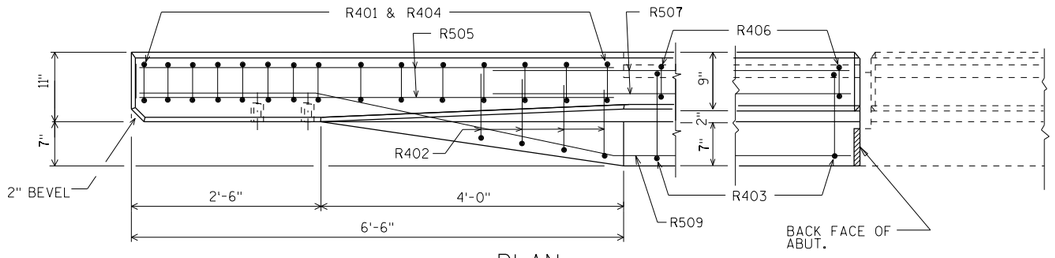
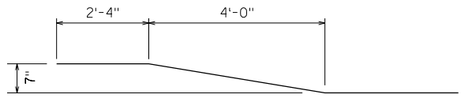


PLAN



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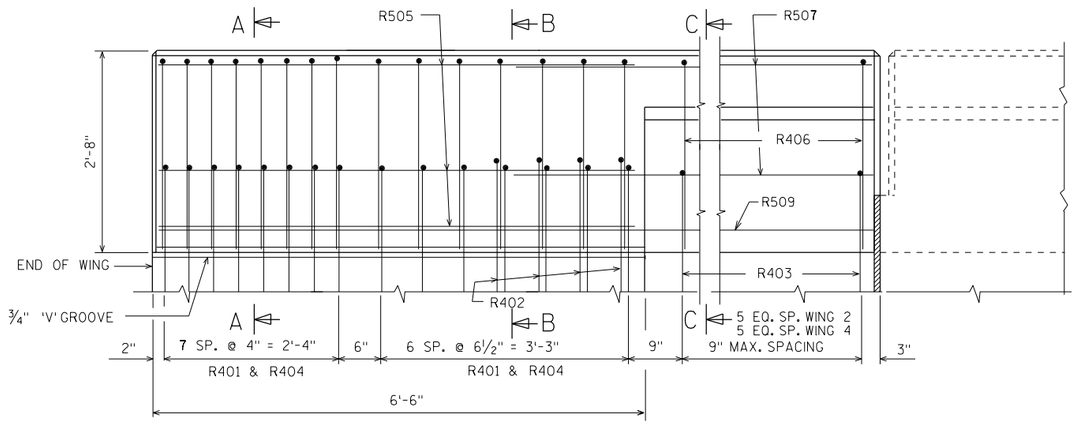
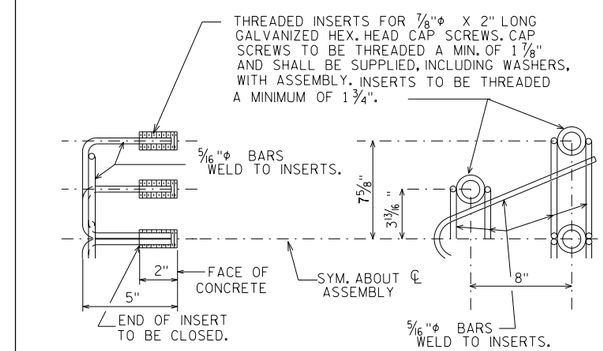


OUTSIDE ELEVATION



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX. HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

⊗ CONST. JOINT - STRIKE OFF AS SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-240

DRAWN BY SD | PLANS CK'D. YC

SLOPED FACE PARAPET "B"

SHEET 5 OF 6

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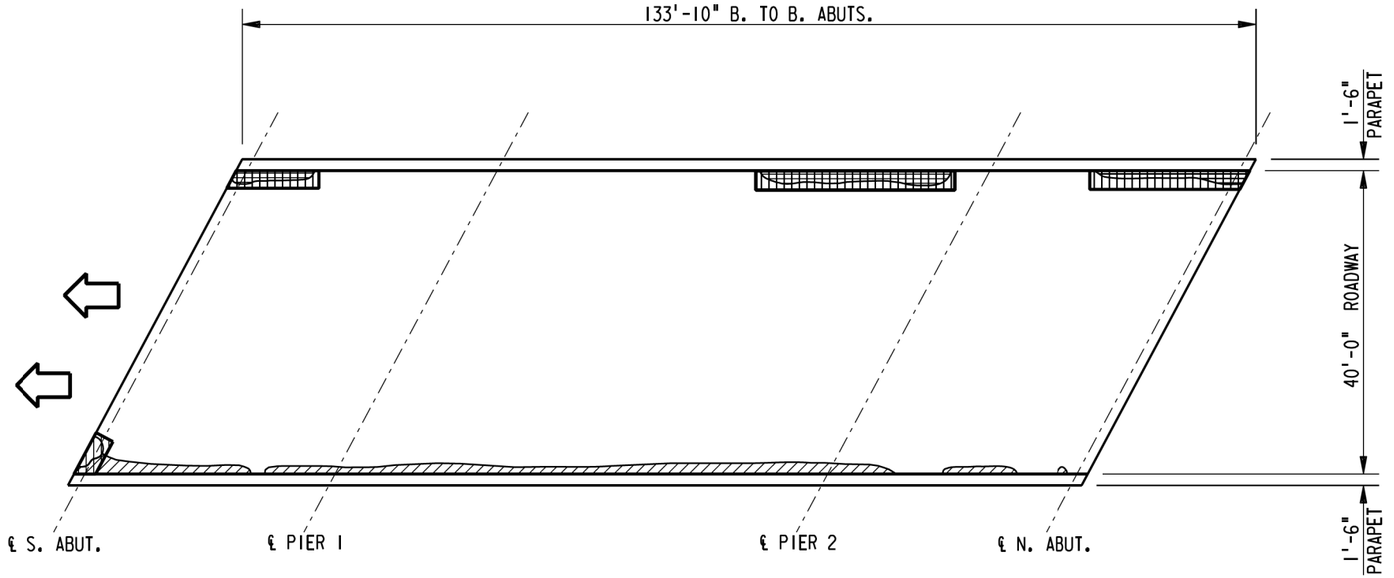
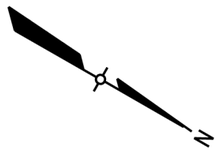
STATE PROJECT NUMBER
1227-08-71



PLAN

PROPOSED REHAB AREAS



FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-5-240	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	594.7	
SHADE/DEBRIS	yd^2	15.7	
PREPARATION, DECKS, TYPE 1	yd^2	1.6	0.3
PREPARATION, DECKS, TYPE 2	yd^2	0.2	<0.1
FULL DEPTH DECK REPAIR	yd^2	1.0	0.2
PREPARATION, DECKS, TYPE 1 DEBOND/SCALING ONLY	yd^2	16.1	2.8

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION
SPALL
DEBOND/SCALING
ASPHALT PATCH
CONCRETE PATCH

SCALE 0' 5' 10' 20'

SURFACE TYPE: BITUMINOUS OVERLAY
INFRARED INSPECTION DATE: 7/27/15

NOTES

THIS SHEET PROVIDES THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS REPORTED BY AECOM IN AUGUST 2015. THE PROPOSED DECK REPAIRS ARE BASED ON THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-240

DRAWN BY YC | PLANS CK'D. VCP

DECK REPAIR PLAN

SHEET 6 OF 6

405

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FILENAME
SCALE

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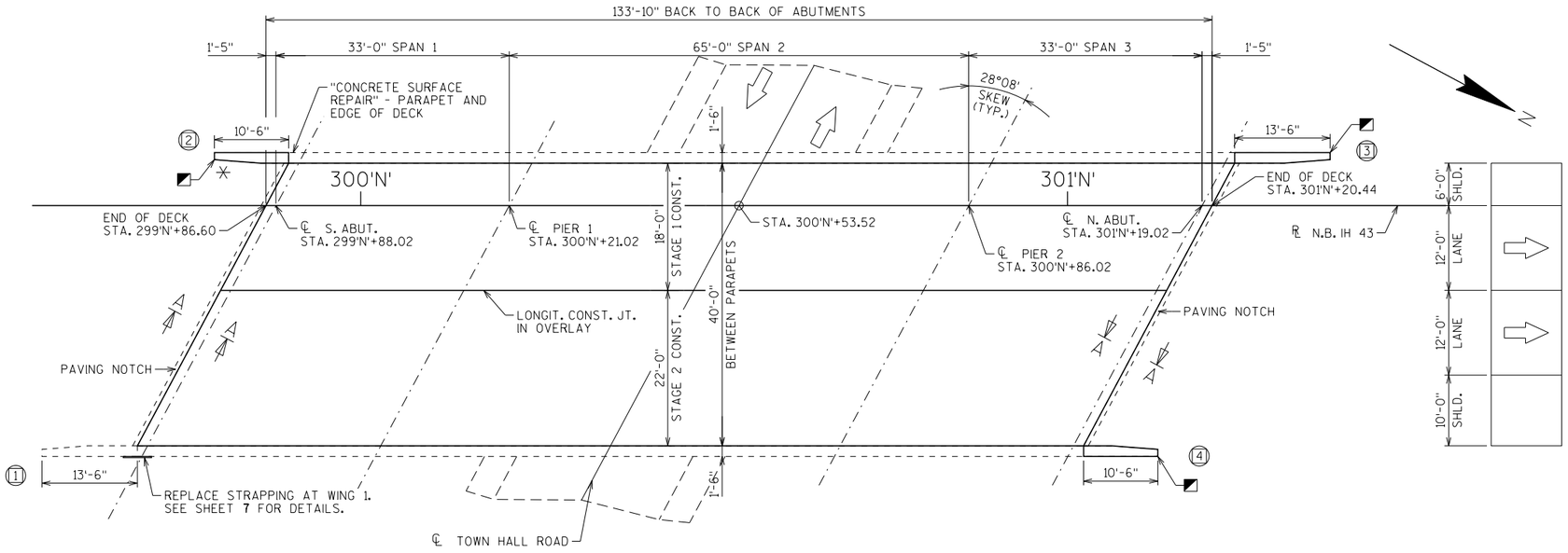
STATE PROJECT NUMBER
1227-08-71



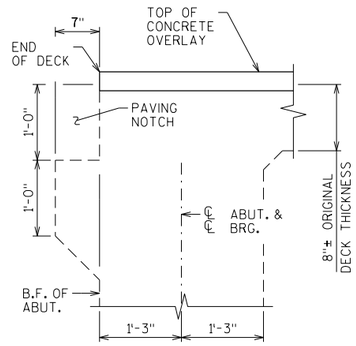
PLAN

(3-SPAN PRESTRESSED CONCRETE GIRDER, CONCRETE OVERLAY)

⬡ INDICATES WINGWALL NUMBER

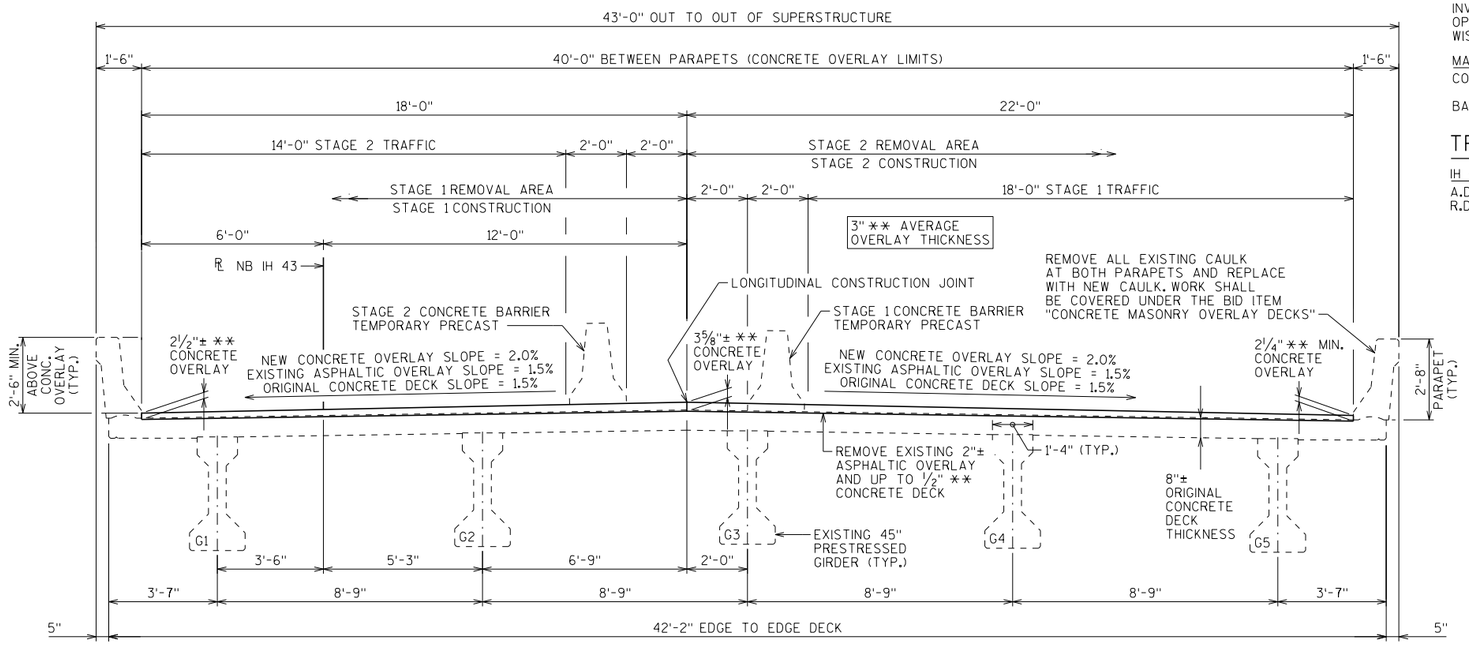
◩ REPLACE WINGWALL. SEE SHEETS 3, 4, AND 5 FOR DETAILS.

✳ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT



SECTION A-A

SECTION THRU ABUT. DIAPH.



CROSS SECTION THRU DECK LOOKING NORTH

** THE OVERLAY THICKNESS INCLUDES ½" THICKNESS OF CONCRETE REMOVAL FROM ORIGINAL CONCRETE DECK.

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS20
INVENTORY RATING: HS20
OPERATING RATING: HS34
WISCONSIN STANDARD PERMIT VEHICLE (Wis-SPV): 250 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY:	OVERLAY DECKS	f'c = 4,000 P.S.I.
	ALL OTHER	f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60:		fy = 60,000 P.S.I.

TRAFFIC VOLUME

IH 43	TOWN HALL ROAD
A.D.T. = 30,100 (2036)	A.D.T. = 300 (2036)
R.D.S. = 70 MPH	R.D.S. = 30 MPH

LIST OF DRAWINGS

1. GENERAL PLAN & CROSS SECTION
2. QUANTITIES & NOTES
3. WINGWALL 2 REPLACEMENT
4. WINGWALL 3 REPLACEMENT
5. WINGWALL 4 REPLACEMENT
6. SLOPED FACE PARAPET "B"
7. WING STRAPPING
8. DECK REPAIR PLAN

WISCONSIN VINOD C. PATEL 37887 CAROL STREAM, IL PROFESSIONAL ENGINEER

DATE: 07/20/2016

STRUCTURE DESIGN CONTACTS

BRIDGE OFFICE: WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT: VINOD PATEL, P.E. (312) 616-7395

NO.	DATE	REVISION	BY

exp U.S. Services Inc.
Milwaukee, WI
BUILDINGS · EARTH & ENVIRONMENT · ENERGY
INDUSTRIAL · INFRASTRUCTURE · SUSTAINABILITY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/11/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-5-241

IH 43 NB OVER TOWN HALL ROAD

COUNTY	TOWN ~~CITY/VILLAGE~~
BROWN	NEW DENMARK

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
YC	VCP	JJG/YC	VCP

GENERAL PLAN & CROSS SECTION

SHEET 1 OF 8

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FILENAME
SCALE

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STATE PROJECT NUMBER

1227-08-71

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTAL
203.0200.05	REMOVING OLD STRUCTURE STA. 300'N'+53.52	LS	-	-	-	1
206.1000.04	EXCAVATION FOR STRUCTURES BRIDGES B-5-241	LS	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	40	86	-	126
502.0100	CONCRETE MASONRY BRIDGES	CY	4	9	-	13
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	595	595
502.3210	PIGMENTED SURFACE SEALER	SY	9	9	102	120
502.4204	ADHESIVE ANCHORS NO. 4 BAR	EACH	5	10	-	15
502.4206	ADHESIVE ANCHORS NO. 6 BAR	EACH	17	44	-	61
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	815	1,690	-	2,505
509.0301	PREPARATION DECKS TYPE 1	SY	-	-	27	27
509.0302	PREPARATION DECKS TYPE 2	SY	-	-	7	7
509.0500	CLEANING DECKS	SY	-	-	595	595
509.1500	CONCRETE SURFACE REPAIR	SF	-	-	7	7
509.2000	FULL-DEPTH DECK REPAIR	SY	-	-	1	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	-	-	52	52
509.9010.S.02	REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-5-241	SY	-	-	595	595
509.9050.S	CLEANING PARAPETS	LF	14	0	267	281
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	2	5	-	7
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	39	84	-	123
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1	-	-	1
SPV.0060.03	STRAPPING B-5-241	EACH	1	-	-	1
	NON-BID ITEMS					
	PREFORMED JOINT FILLER	SIZE	-	-	-	1/2 "

BID ITEM "CONCRETE MASONRY OVERLAY DECKS" ALSO INCLUDES CONCRETE FOR:
"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL-DEPTH DECK REPAIR".
THE QUANTITIES OF "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL-DEPTH DECK REPAIR" ARE BASED ON AN INFRARED THERMOGRAPHIC DECK SURVEY REPORT.
"CONCRETE SURFACE REPAIR" OF SUPERSTRUCTURE INCLUDES E. PPT.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS OF EXISTING STRUCTURE MEMBERS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

THE EXISTING BITUMINOUS ASPHALTIC OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK UNDER BID ITEM "REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-5-241".

AFTER REMOVING EXISTING ASPHALTIC OVERLAY, UP TO 1/2" OF CONCRETE SHALL BE REMOVED FROM ORIGINAL BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "CONCRETE SURFACE REPAIR", AND "FULL-DEPTH DECK REPAIR" AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2 1/4" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS AS GIVEN ON THE PLANS. IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE ABUTMENT.

AT THE BACKFACE OF ABUTMENT, ALL VOLUME WHICH CANNOT BE PLACED BEFORE WINGWALL CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND MINIMUM 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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

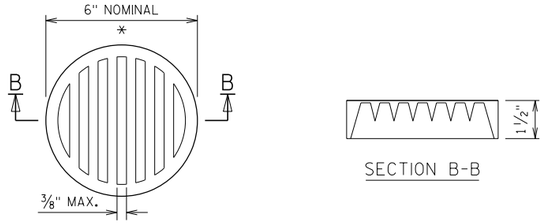
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

CLEAN THE INSIDE FACES AND TOP SURFACE OF THE EXISTING CONCRETE PARAPETS. PARAPET JOINTS SHALL BE CLEANED AND RE-SEALED WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. INCLUDE IN BID ITEM "CLEANING PARAPETS".

APPLY "PROTECTIVE SURFACE TREATMENT" TO THE EXPOSED DECK SURFACE OF THE NEW CONCRETE OVERLAY BETWEEN PARAPETS.

APPLY "PIGMENTED SURFACE SEALER" ON THE INSIDE AND TOP FACES OF PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS.

INSTALL RODENT SCREEN(S) AT THE EXPOSED END(S) OF PIPE UNDERDRAIN.



RODENT SCREEN DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO INTO A PIPE COUPLING. ORIENT SCREEN SO SLOTS ARE VERTICAL.

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

THE RODENT SCREEN 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 SCREEN TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SCREEN 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-5-241

DRAWN BY YC | PLANS CK'D. VCP

QUANTITIES & NOTES

SHEET 2 OF 8

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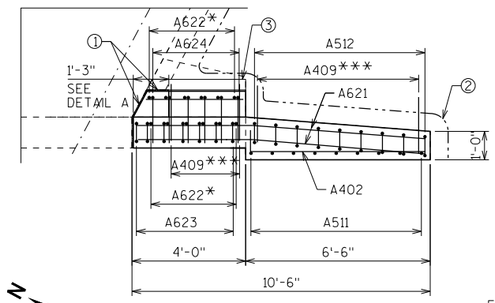
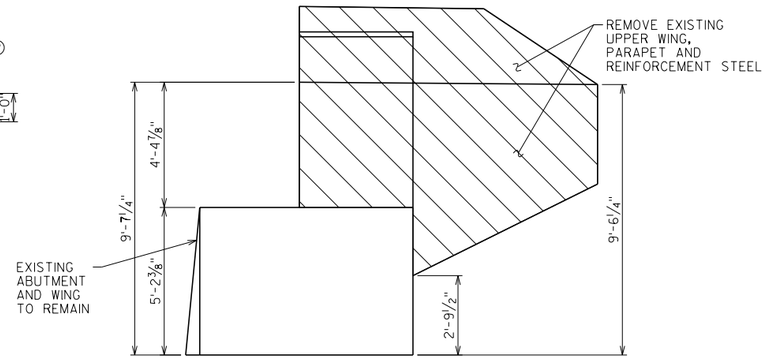
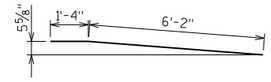


SECTION A-A



EXISTING WING REMOVAL



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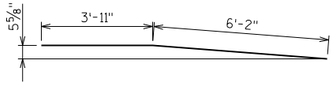


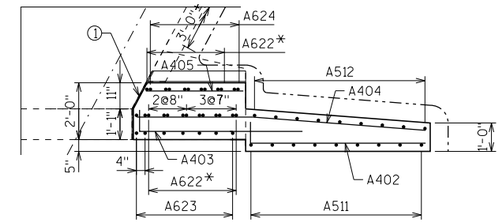
A404 & A621

A402, A403 & A624

BAR MARK	A	B
A402	6'-2"	9"
A403	5'-10"	9"
A624	2'-8"	1'-8"

A406, A407 & A408

BAR MARK	C
A406	7"
A407	9"
A408	8"



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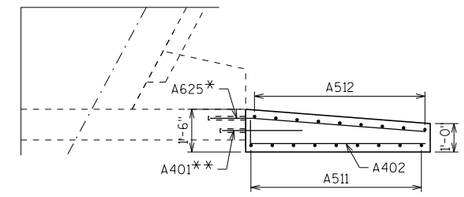
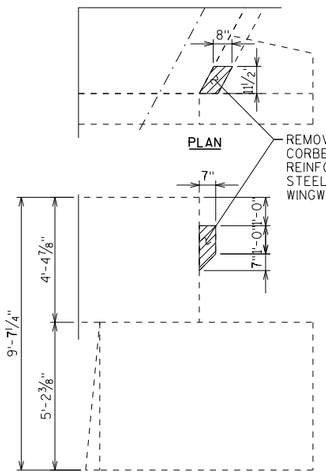
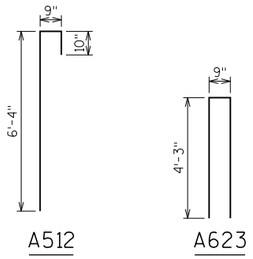


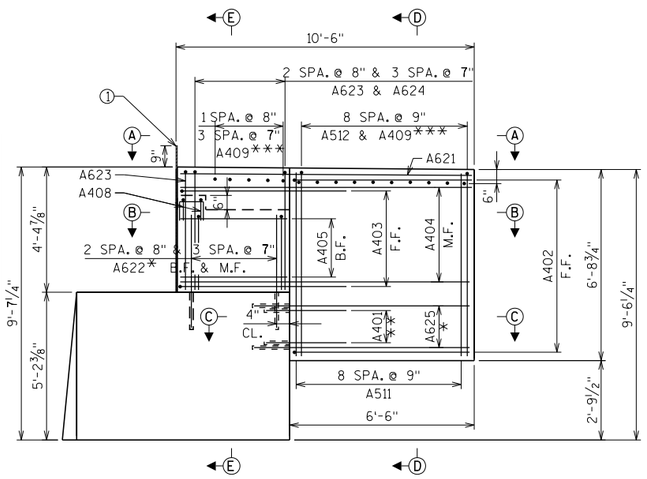
SECTION C-C



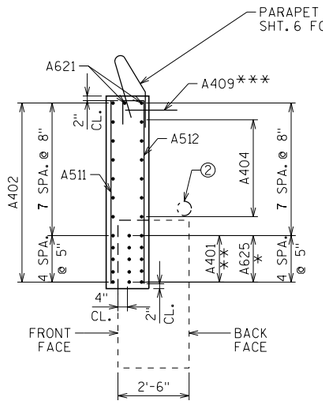
PARTIAL CORBEL REMOVAL



A512 A623



WING ELEVATION



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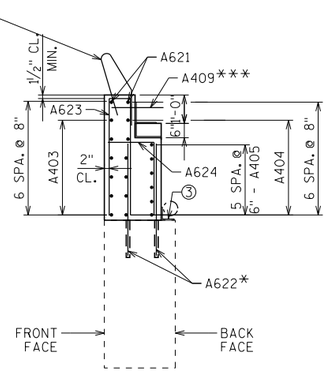

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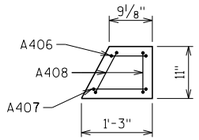

DETAIL A

BILL OF BARS

600 LBS

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
**	A401	X	5	2-10			HORIZONTAL ANCHOR BARS, B.F.
	A402	X	12	6-11	X		HORIZONTAL, F.F.
	A403	X	6	6-7	X		HORIZONTAL, B.F.
	A404	X	6	10-2	X		HORIZONTAL, M.F.
	A405	X	6	3-3			HORIZONTAL, F.F.
	A406	X	1	2-1	X		U BARS
	A407	X	1	2-3	X		U BARS
	A408	X	2	2-2	X		U BARS
	A409	X	14	1-10			HORIZONTAL, M.F.
	A511	X	9	6-5			VERTICAL, F.F.
	A512	X	9	7-11	X		VERTICAL, B.F.
	A621	X	2	10-2	X		HORIZONTAL
*	A622	X	12	4-0			VERTICAL ANCHOR BARS
	A623	X	7	9-3	X		U BARS
	A624	X	6	4-4	X		L BARS
*	A625	X	5	7-6	X		HORIZONTAL ANCHOR BARS, M.F.

THE FIRST DIGIT OF A THREE DIGIT MARK SIGNIFIES THE BAR SIZE.
ALL BAR DIMENSIONS ARE OUT TO OUT OF BAR.

NOTES:

① ½" FILLER INCLUDED IN WING LENGTH, SEAL ALL HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.

② PIPE UNDERDRAIN WRAPPED 6 INCH, SLOPE 0.5% MIN. TO DRAIN.

③ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

④ PROVIDE 2" CLEAR COVER U.N.O.

* ADHESIVE ANCHORS NO. 6 BAR. EMBED 15" INTO CONCRETE.

** ADHESIVE ANCHORS NO. 4 BAR. EMBED 10" INTO CONCRETE.

*** A409 BARS SPACED EQUALLY WITH A623 & A512 BARS. EMBED 10" INTO WING CONCRETE. LOCATE 3" DOWN FROM TOP OF WING AT BACKFACE TO 6" DOWN AT WING TIP. (DRILLED IN EPOXY ANCHORED #4 BARS 1'-10" LONG MAY BE USED.) COST INCIDENTAL TO BID ITEM "BAR STEEL REINFORCEMENT HS COATED BRIDGES."

STATE PROJECT NUMBER

1227-08-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-241

DRAWN BY SD | PLANS CK'D. VCP

WINGWALL 2 REPLACEMENT

SHEET 3 OF 8

408

8

8

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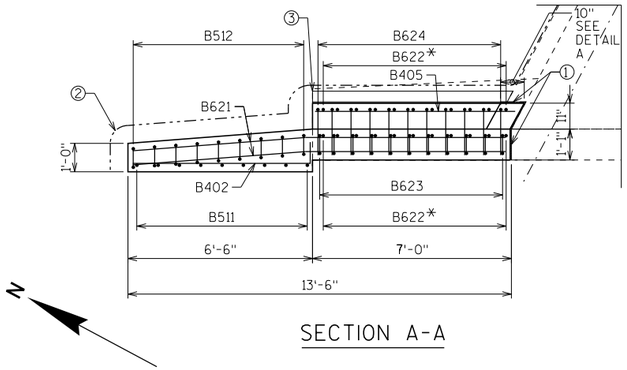
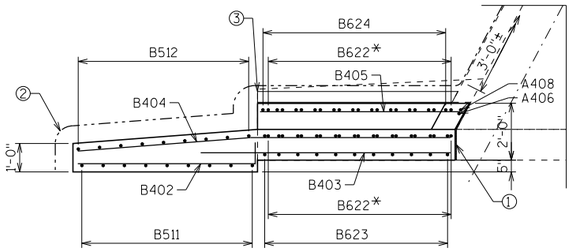


SECTION A-A



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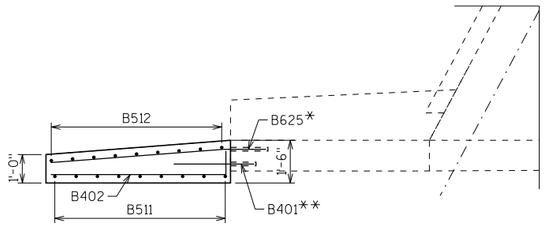
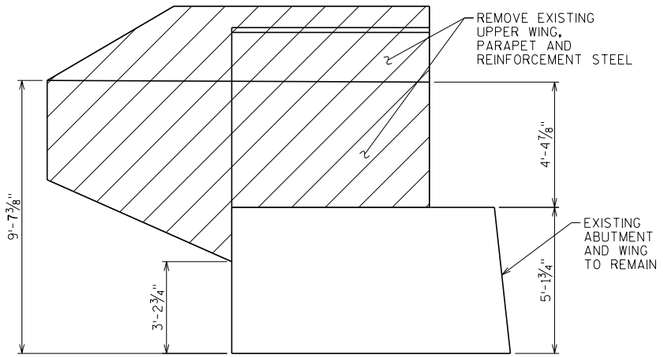
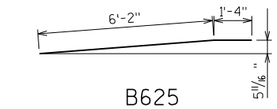


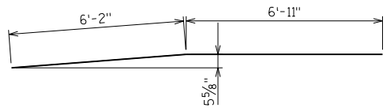
SECTION C-C



EXISTING WING REMOVAL



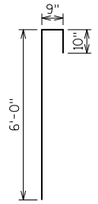
B625



B404 & B621

B402, B403 & B624

BAR MARK	A	B
B402	6'-2"	9"
B403	5'-10"	9"
B624	2'-8"	1'-8"



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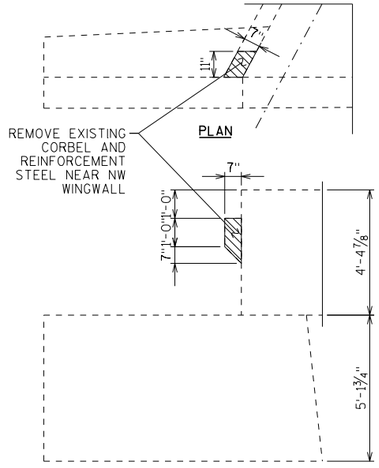
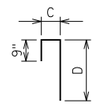
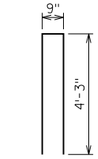


PARTIAL CORBEL REMOVAL

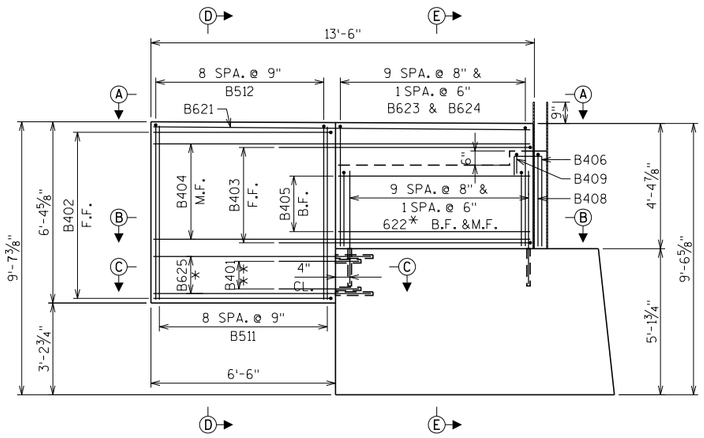


B406, B407, B408 & B409

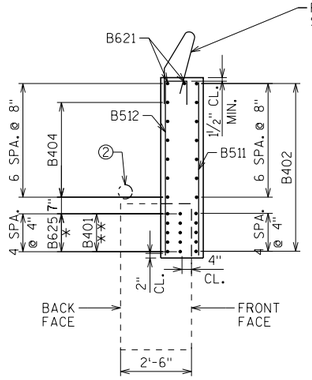
BAR MARK	C	D
B406	6"	3'-2"
B407	6"	9"
B408	8"	3'-3"
B409	8"	9"



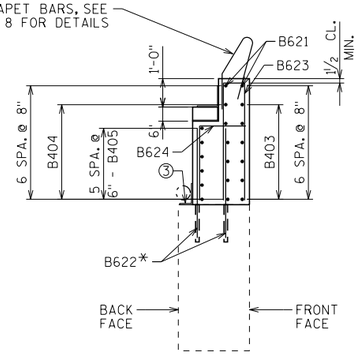
B623



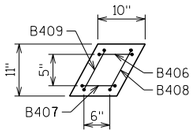
WING ELEVATION



SECTION D-D



SECTION E-E



DETAIL A

BILL OF BARS

650 LBS

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
**	B401	X	5	2-10			HORIZONTAL ANCHOR BARS, B.F.
	B402	X	11	6-10	X		HORIZONTAL, F.F.
	B403	X	6	6-6	X		HORIZONTAL, B.F.
	B404	X	6	13-1	X		HORIZONTAL, M.F.
	B405	X	6	7-1			HORIZONTAL, F.F.
	B406	X	1	4-3	X		U BARS
	B407	X	1	1-10	X		U BARS
	B408	X	1	4-6	X		U BARS
	B409	X	1	2-0	X		U BARS
	B511	X	9	6-0			VERTICAL, F.F.
	B512	X	9	7-4	X		VERTICAL, B.F.
	B621	X	2	13-1	X		HORIZONTAL
*	B622	X	22	4-0			VERTICAL ANCHOR BARS
	B623	X	6	8-11	X		U BARS
	B624	X	6	4-2	X		L BARS
*	B625	X	5	7-6	X		HORIZONTAL ANCHOR BARS, M.F.

THE FIRST DIGIT OF A THREE DIGIT MARK SIGNIFIES THE BAR SIZE.
ALL BAR DIMENSIONS ARE OUT TO OUT OF BAR.

NOTES:

① ½" FILLER INCLUDED IN WING LENGTH, SEAL ALL HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.

② PIPE UNDERDRAIN WRAPPED, 6 INCH, SLOPE 0.5% MIN. TO DRAIN.

③ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

④ PROVIDE 2" CLEAR COVER U.N.O.

* ADHESIVE ANCHORS NO. 6 BAR. EMBED 15" INTO CONCRETE.

** ADHESIVE ANCHORS NO. 4 BAR. EMBED 10" INTO CONCRETE.

STATE PROJECT NUMBER

1227-08-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-241

DRAWN BY EG | PLANS CK'D. VCP

WINGWALL 3 REPLACEMENT

SHEET 4 OF 8

409

8

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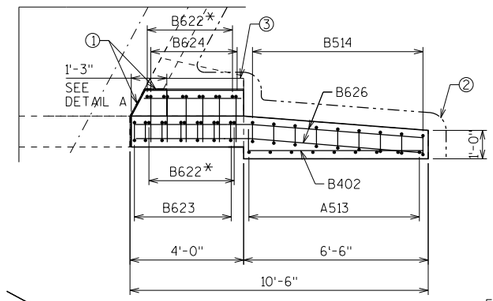
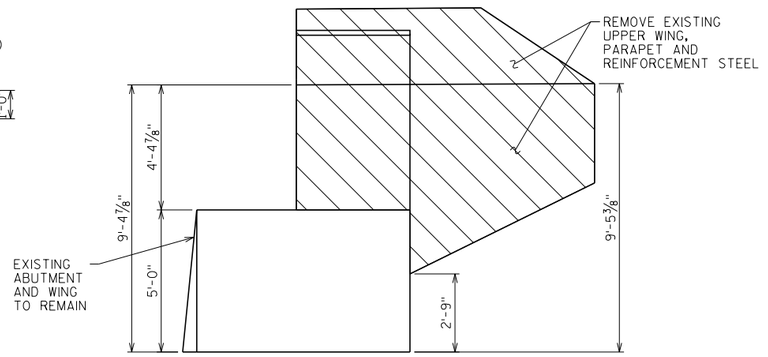
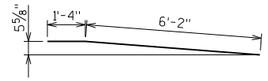
FILENAME
SCALE



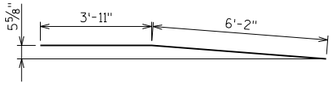
SECTION A-A



EXISTING WING REMOVAL



B625



B434 & B626

B402, B403 & B624

BAR MARK	A	B
B402	6'-2"	9"
B403	5'-10"	9"
B624	2'-8"	1'-8"

B436, C437 & C409

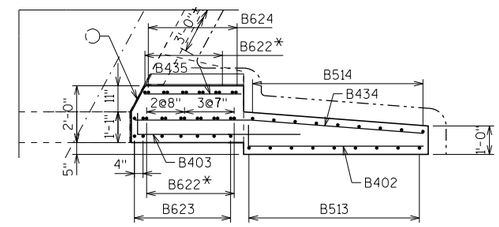
BAR MARK	C
B436	7"
B437	9"
B409	8"

BILL OF BARS

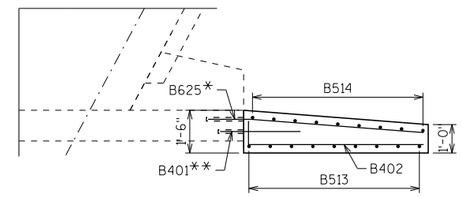
570 LBS

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
**	B401	X	5	2-10			HORIZONTAL ANCHOR BARS, B.F.
	B402	X	12	6-10	X		HORIZONTAL, F.F.
	B403	X	6	6-6	X		HORIZONTAL, B.F.
	B409	X	2	2-0	X		U BARS
	B434	X	6	10-1	X		HORIZONTAL, M.F.
	B435	X	6	3-3			HORIZONTAL, F.F.
	B436	X	1	1-11	X		U BARS
	B437	X	1	2-1	X		U BARS
	B513	X	9	6-4			VERTICAL, F.F.
	B514	X	9	7-8	X		VERTICAL, B.F.
*	B622	X	12	4-0			VERTICAL ANCHOR BARS
	B623	X	7	8-11	X		U BARS
	B624	X	6	4-2	X		L BARS
*	B625	X	5	7-6	X		HORIZONTAL ANCHOR BARS, M.F.
	B626	X	2	10-1	X		HORIZONTAL

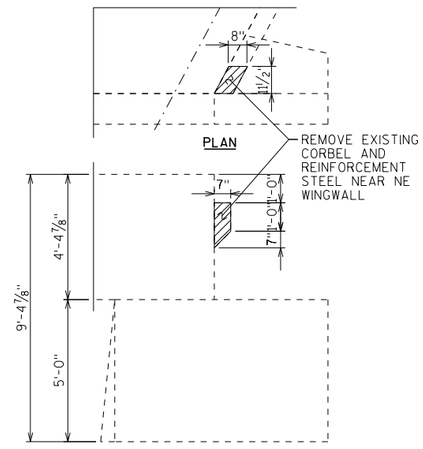
THE FIRST DIGIT OF A THREE DIGIT MARK SIGNIFIES THE BAR SIZE.
ALL BAR DIMENSIONS ARE OUT TO OUT OF BAR.



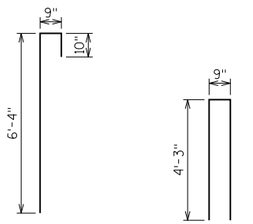
SECTION B-B



SECTION C-C



PARTIAL CORBEL REMOVAL



B514 B623

NOTES:

① ½" FILLER INCLUDED IN WING LENGTH, SEAL ALL HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.

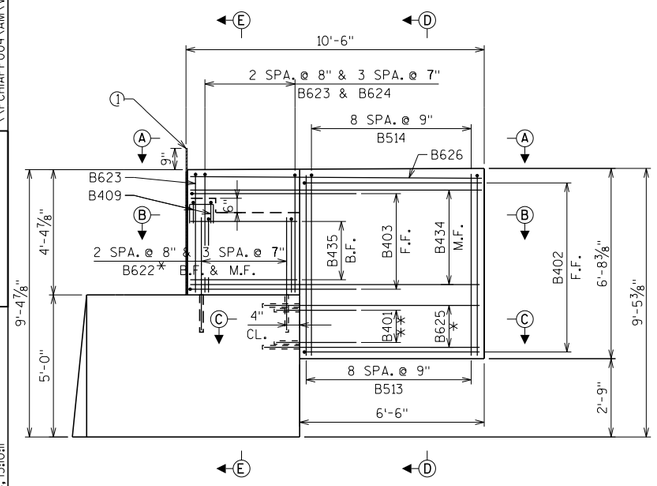
② PIPE UNDERDRAIN WRAPPED 6 INCH, SLOPE 0.5% MIN. TO DRAIN.

③ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

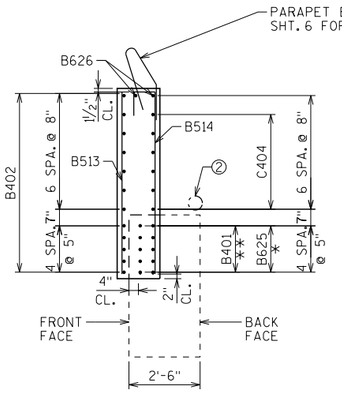
4 PROVIDE 2" CLEAR COVER U.N.O.

* ADHESIVE ANCHORS NO. 6 BAR. EMBED 15" INTO CONCRETE.

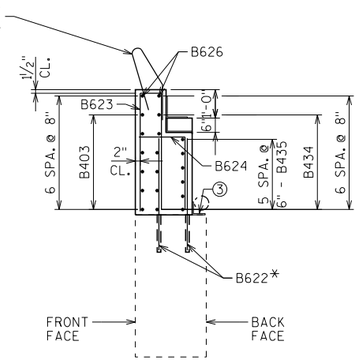
** ADHESIVE ANCHORS NO. 4 BAR. EMBED 10" INTO CONCRETE.



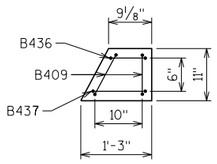
WING ELEVATION



SECTION D-D



SECTION E-E



DETAIL A

STATE PROJECT NUMBER

1227-08-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-241

DRAWN BY SD | PLANS CK'D. VCP

WINGWALL 4 REPLACEMENT

SHEET 5 OF 8

410

FILENAME
SCALE

8

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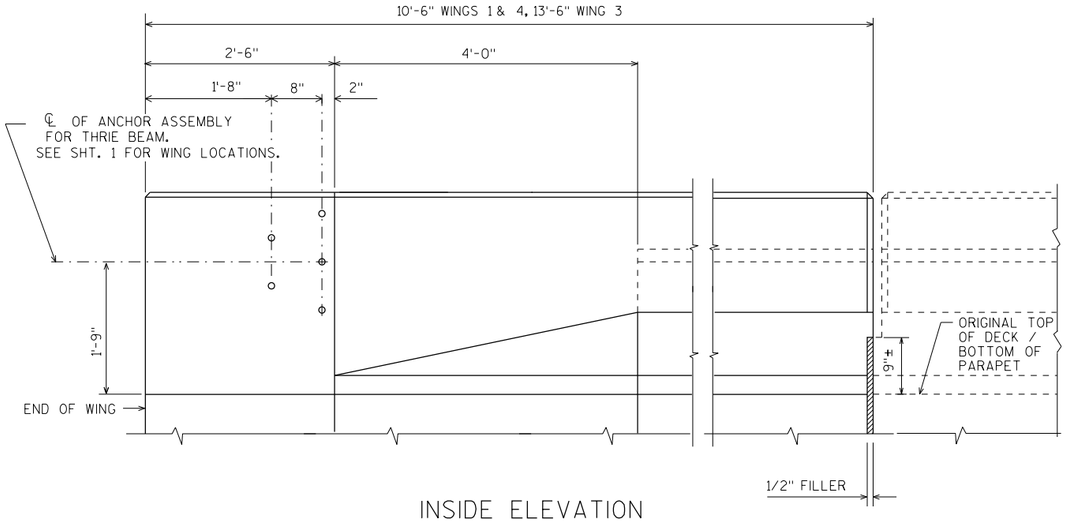
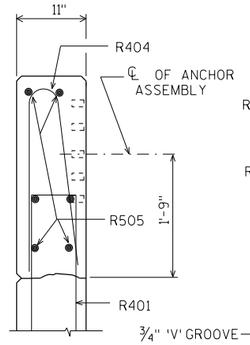
STATE PROJECT NUMBER

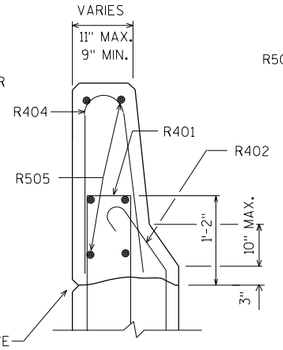
1227-08-71



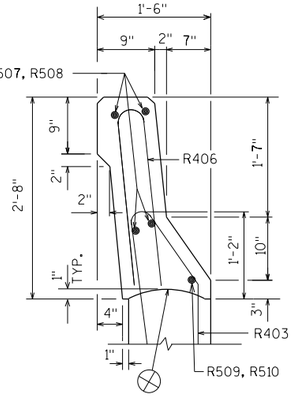
INSIDE ELEVATION



SECTION A



SECTION B



SECTION C

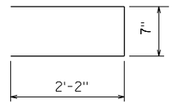
BILL OF BARS

FOR ABUTMENT PARAPETS

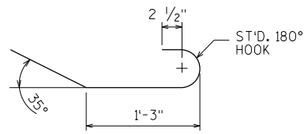
THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE. EPOXY COAT ALL PRAPET REINF.

	S. ABUT.	N. ABUT.
UNCOATED:	0 LBS	0 LBS
COATED:	215 LBS	470 LBS

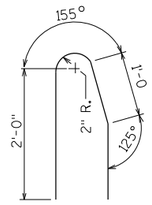
BAR MARK	NO. REQ'D S. ABUT.	NO. REQ'D N. ABUT.	LENGTH	BENT	LOCATION
R401	15	30	4'-9"	X	WINGS STIRRUPS
R402	4	8	3'-1"	X	WINGS
R403	6	16	4'-7"	X	WINGS STIRRUPS
R404	15	30	4'-9"	X	WINGS
R505	6	12	6'-2"		WINGS
R406	6	16	4'-10"	X	WINGS
R507	4	4	5'-9"		WING 1 & WING 4
R508	-	4	8'-9"		WING 3
R509	1	1	10'-1"	X	WING 1 & WING 4
R510	-	1	13'-1"	X	WING 3
- - -	-	-			



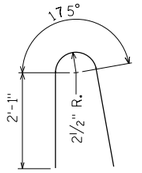
R401



R402



R403



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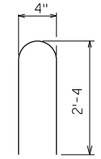
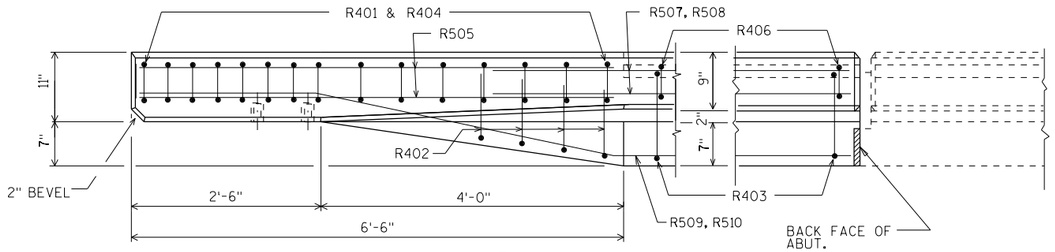
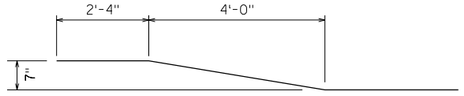


R406



PLAN



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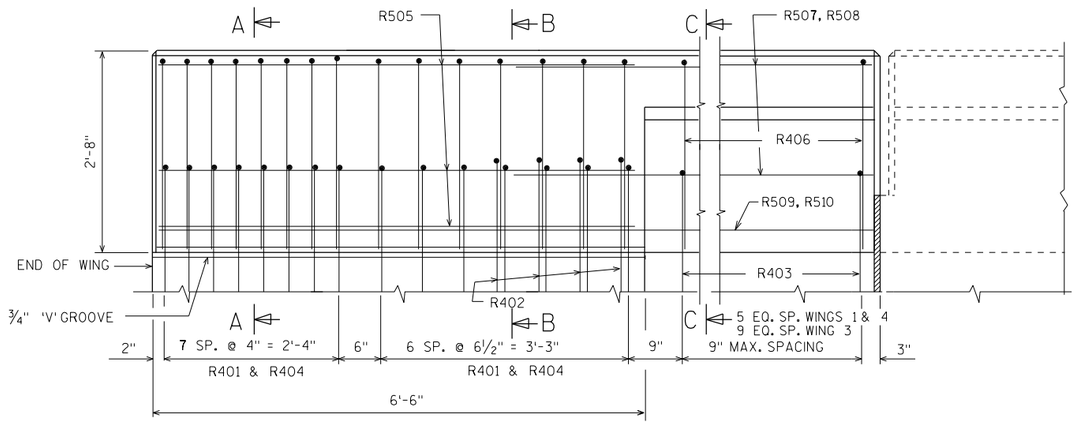
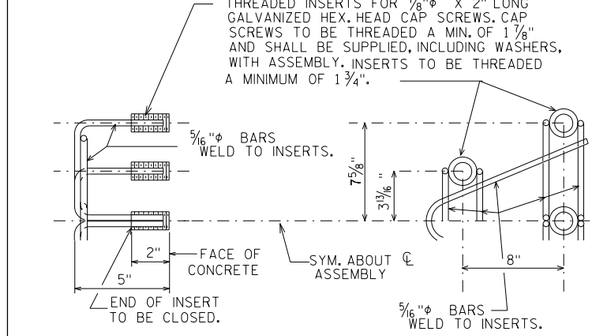


OUTSIDE ELEVATION



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX. HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

⊗ CONST. JOINT - STRIKE OFF AS SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-241

DRAWN BY SD | PLANS CK'D. YC

SLOPED FACE PARAPET "B"

SHEET 6 OF 8

411

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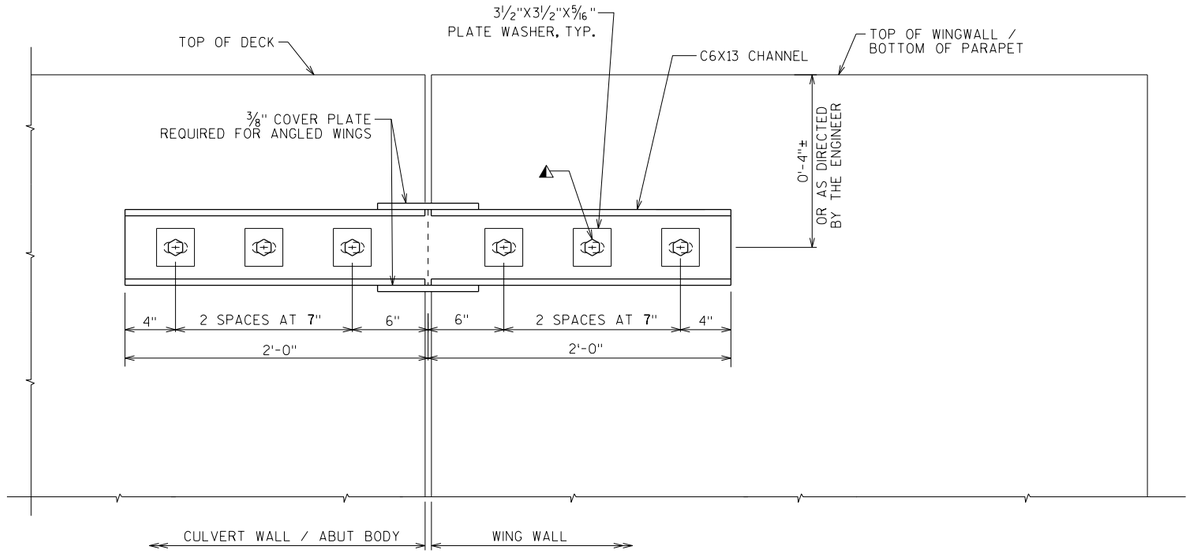
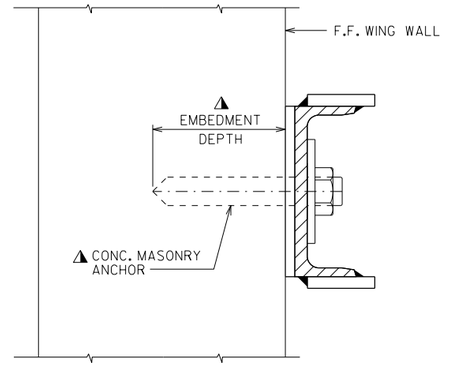
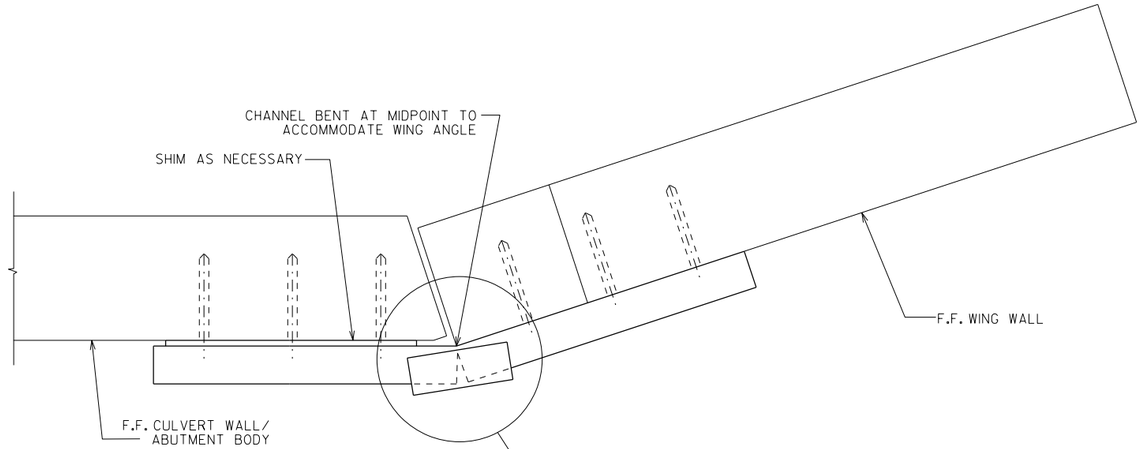
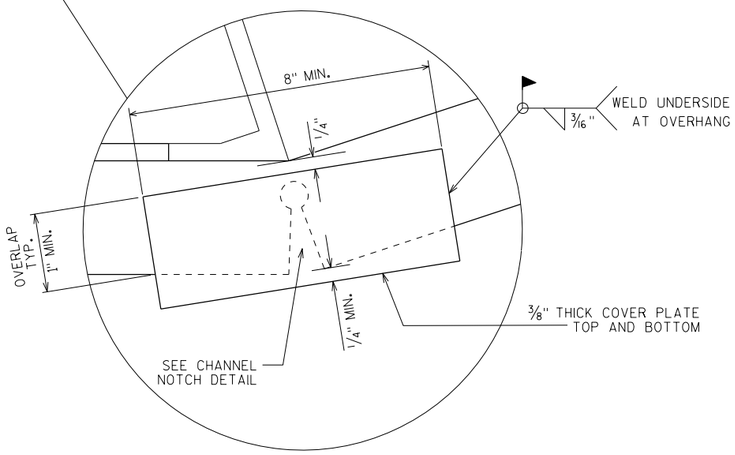


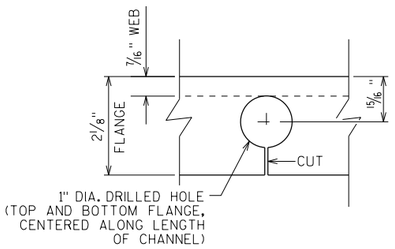


DETAIL "A"
SECTION THRU CHANNEL



PLAN





CHANNEL NOTCH DETAIL
FOR USE WITH ANGLED WINGS ONLY

▲ 1" DIA. CONCRETE MASONRY ANCHOR, TYPE S
10" EMBEDMENT DEPTH
SEE DETAIL "A"

USE 1 1⁄16" X 2 1⁄2" LONG SLOTTED HOLES

GENERAL NOTES

WING STRAPPING DETAIL FOR THE PURPOSE OF MITIGATING WING TIPPING, AS AN ALTERNATIVE TO THE PREFERRED METHOD OF WING REPLACEMENT.

BID ITEM SHALL BE "STRAPPING B-5-241" WHICH INCLUDES ALL ITEMS SHOWN, INCLUDING REMOVAL OF EXISTING STRAPPING AND CUTTING OF EXISTING ANCHOR BOLTS.

WISDOT REGIONAL BRIDGE MAINTENANCE ENGINEER TO APPROVE USE OF DETAIL PRIOR TO INSTALLATION.

ALL PROVIDED STEEL MATERIAL SHALL CONFORM TO ASTM A36.

ALL STRUCTURAL STEEL SHOWN SHALL BE GALVANIZED. THREADED RODS, MASONRY ANCHORS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C.

CUTTING AND DRILLING OF CHANNEL SHALL BE DONE IN FABRICATION SHOP, PRIOR TO GALVANIZING.

IF WELDING COVER PLATE IN FIELD, PRIOR TO WELDING, REMOVE GALVANIZING FROM AREA TO BE WELDED. TOUCH UP WITH PAINT ALL AREAS LACKING GALVANIZING WHEN COMPLETE.

CAULK AROUND PERIMETER OF CHANNEL AND FILL PORTION OF HOLE AROUND ANCHOR BOLT AND SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-241

DRAWN BY YC	PLANS CK'D. VCP

WING STRAPPING

SHEET 7 OF 8

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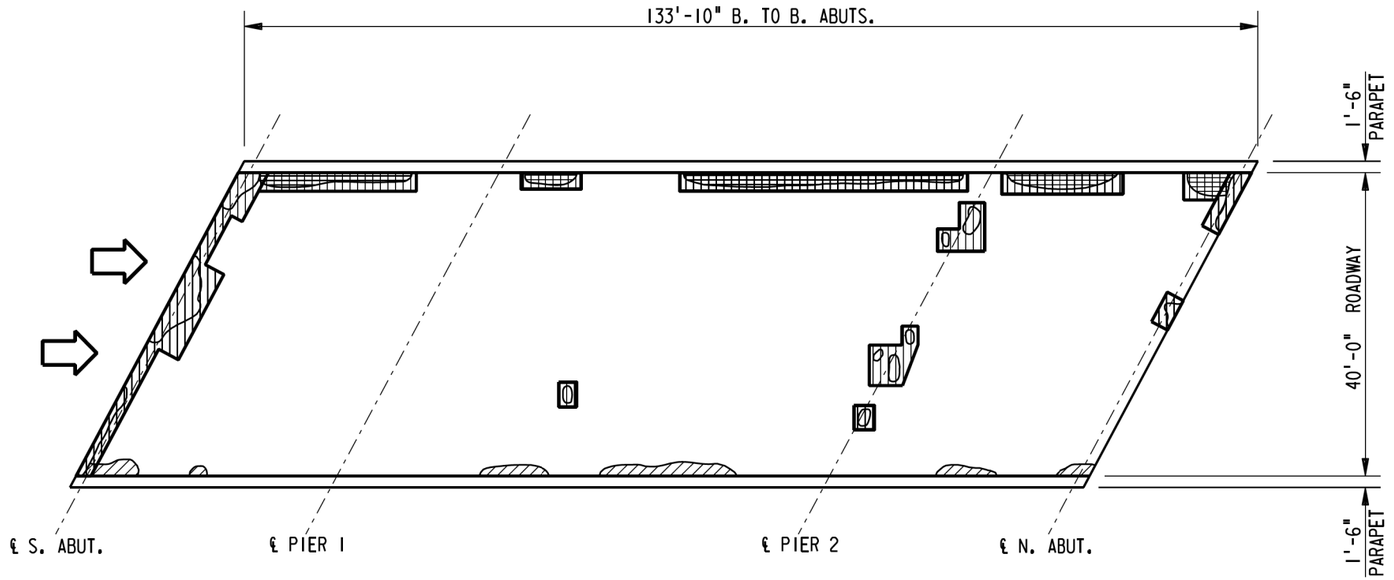
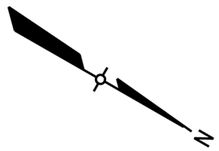
WINGSTRAP
7-13

STATE PROJECT NUMBER
1227-08-71



PLAN

PROPOSED REHAB AREAS



FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-5-241	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	594.7	
SHADE/DEBRIS	yd^2	7.4	
PREPARATION, DECKS, TYPE 1	yd^2	26.8	4.6
PREPARATION, DECKS, TYPE 2	yd^2	6.7	1.1
FULL DEPTH DECK REPAIR	yd^2	1.0	0.2
PREPARATION, DECKS, TYPE 1 DEBOND/SCALING ONLY	yd^2	24.8	4.2

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION
SPALL
DEBOND/SCALING
ASPHALT PATCH
CONCRETE PATCH

SCALE 0' 5' 10' 20'

SURFACE TYPE: BITUMINOUS OVERLAY
INFRARED INSPECTION DATE: 7/27/15

NOTES

THIS SHEET PROVIDES THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS REPORTED BY AECOM IN AUGUST 2015. THE PROPOSED DECK REPAIRS ARE BASED ON THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-241

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DECK REPAIR PLAN

SHEET 8 OF 8

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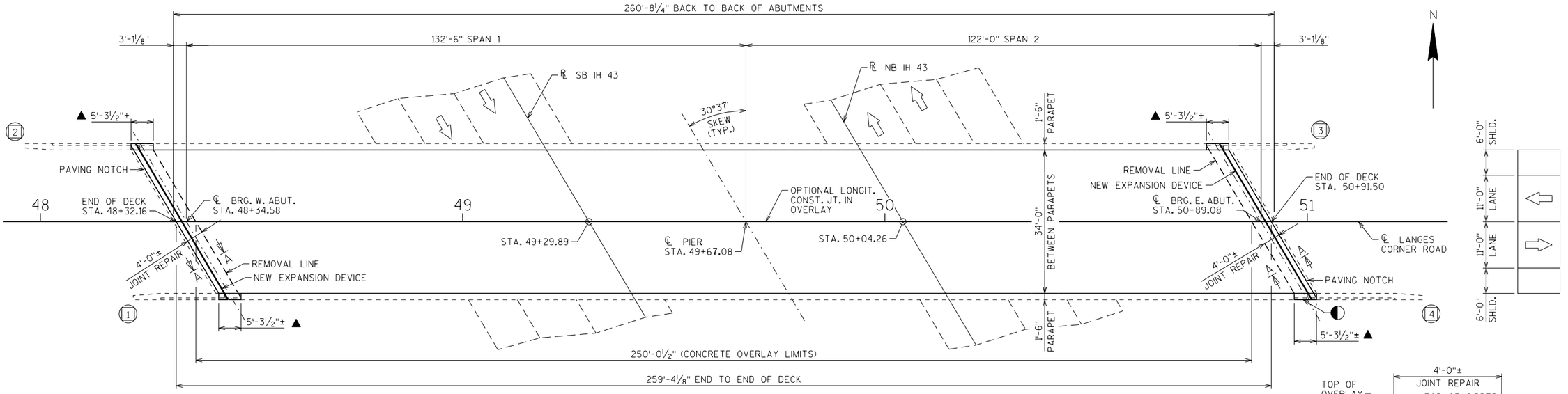


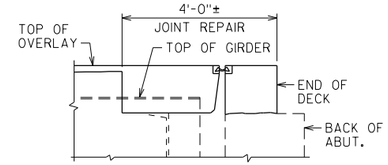
PLAN

(2-SPAN STEEL GIRDER, CONCRETE OVERLAY)

⬭ INDICATES WINGWALL NUMBER

▲ PARAPET REPLACEMENT AREA. SEE SHEETS 3 AND 5 FOR DETAILS.

◐ "CONCRETE SURFACE REPAIR" - END OF ABUT. BODY (12 SF)



SECTION A-A

SEE SHEET 4 FOR DETAILS.

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS20
INVENTORY RATING: HS19
OPERATING RATING: HS33
WISCONSIN STANDARD PERMIT VEHICLE (Wis-SPV): 200 KIPS

MATERIAL PROPERTIES:

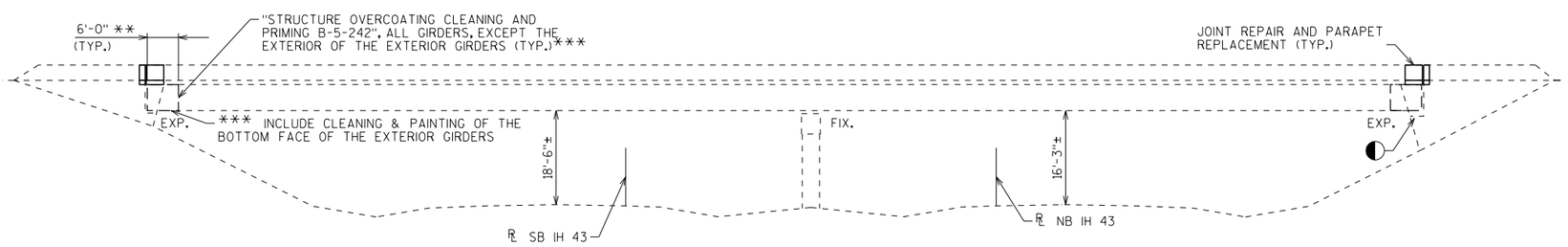
CONCRETE MASONRY:	OVERLAY DECKS	f'c = 4,000 P.S.I.
	ALL OTHER	f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60:		fy = 60,000 P.S.I.

TRAFFIC VOLUME

LANGES CORNER ROAD	IH 43
A.D.T. = 300 (2036)	A.D.T. = 51,800 (2036)
R.D.S. = 50 MPH	R.D.S. = 70 MPH

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. CROSS SECTION, QUANTITIES & NOTES
3. JOINT REPAIR
4. EXPANSION DEVICE
5. JOINT REPAIR - BILL OF BARS
6. COVER PLATE DETAILS
7. DECK REPAIR PLAN



ELEVATION

NORMAL TO IH 43
(LOOKING NORTH)

** DIMENSION IS TAKEN PARALLEL TO ℄ GIRDERS.

◐ "CONCRETE SURFACE REPAIR" - END OF ABUT. BODY (12 SF)

WISCONSIN
VINOD C. PATEL
37887
CAROL STREAM, IL
PROFESSIONAL ENGINEER

DATE: 07/20/2016

STRUCTURE DESIGN CONTACTS

BRIDGE OFFICE: WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT: VINOD PATEL, P.E. (312) 616-7395

NO.	DATE	REVISION	BY

exp U.S. Services Inc.
Milwaukee, WI
BUILDINGS·EARTH & ENVIRONMENT·ENERGY
INDUSTRIAL·INFRASTRUCTURE·SUSTAINABILITY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/11/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-5-242

LANGES CORNER ROAD OVER IH 43

COUNTY	TOWN ~~CITY/VILLAGE~~
BROWN	NEW DENMARK

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
YC	VCP	YC	VCP

GENERAL PLAN & ELEVATION

SHEET 1 OF 7

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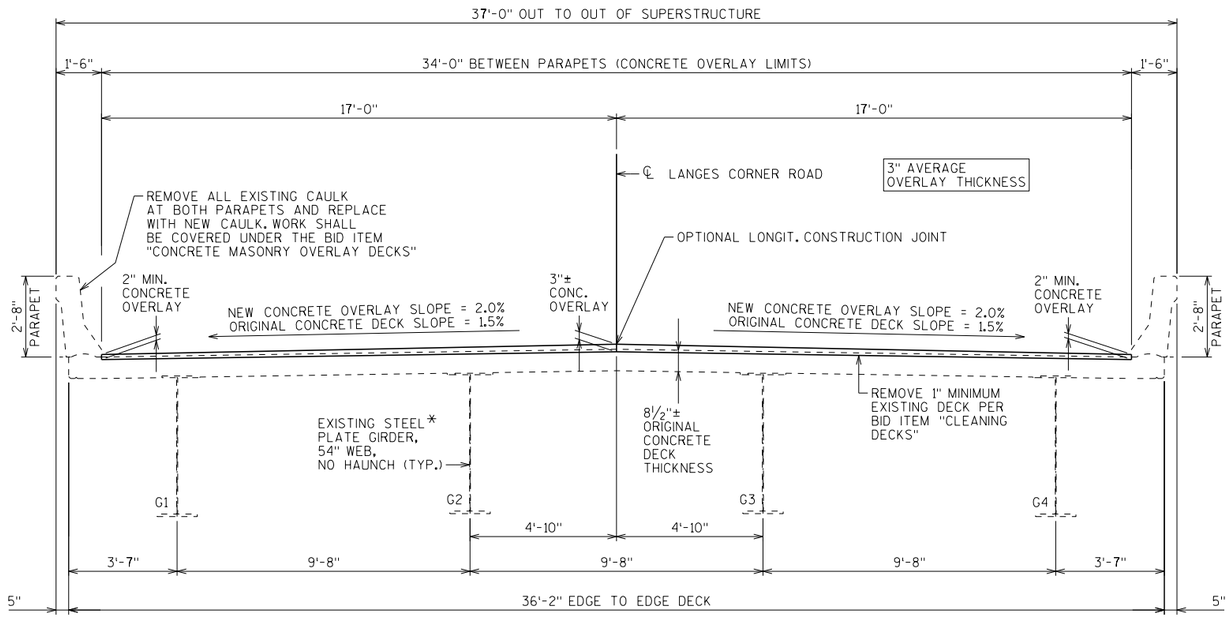
STATE PROJECT NUMBER
1227-08-71

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	W. ABUT.	E. ABUT.	SUPER.	TOTAL
502.3100.04	EXPANSION DEVICE B-5-242	LS	-	-	-	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	980	980
502.3210	PIGMENTED SURFACE SEALER	SY	18	17	200	235
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	48	48	-	96
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,575	1,575	-	3,150
509.0301	PREPARATION DECKS TYPE 1	SY	-	-	193	193
509.0302	PREPARATION DECKS TYPE 2	SY	-	-	97	97
509.0500	CLEANING DECKS	SY	-	-	945	945
509.1000	JOINT REPAIR	SY	-	-	42	42
509.1500	CONCRETE SURFACE REPAIR	SF	-	12	-	12
509.2000	FULL-DEPTH DECK REPAIR	SY	-	-	1	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	-	-	111	111
509.9050.S	CLEANING PARAPETS	LF	49	46	497	592
517.3000.S.01	STRUCTURE OVERCOATING CLEANING AND PRIMING B-5-242	LS	-	-	-	1
517.4000.S.01	CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-5-242	LS	-	-	-	1
	NON-BID ITEMS					
	BRIDGE SEAT PROTECTION					

BID ITEM "CONCRETE MASONRY OVERLAY DECKS" ALSO INCLUDES CONCRETE FOR:
"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "FULL-DEPTH DECK REPAIR", AND "JOINT REPAIR".
THE QUANTITIES OF "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL-DEPTH DECK REPAIR" ARE BASED ON AN INFRARED THERMOGRAPHIC DECK SURVEY REPORT.



CROSS SECTION THRU DECK LOOKING EAST

* WEATHERING STEEL

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS OF EXISTING STRUCTURE MEMBERS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "CONCRETE SURFACE REPAIR", AND "FULL-DEPTH DECK REPAIR" AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS AS GIVEN ON THE PLANS. IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY OR JOINT REPAIRS AT ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND MINIMUM 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF BOTH ABUTMENTS BELOW EXPANSION DEVICES. POWER WASH AND ADEQUATELY DRY SURFACES BEFORE APPLICATION. WORK TO BE INCIDENTAL TO "JOINT REPAIR".

CLEAN AND PAINT THE END 6 FEET OF ALL STRUCTURAL WEATHERING STEEL AT BOTH ABUTMENTS, EXCEPT THE EXTERIOR OF THE EXTERIOR GIRDERS. USE A FEDERAL STANDARD COLOR NO. 20059 (BROWN) FOR THE TOP COAT.

CLEAN AND PAINT ALL BEARINGS AT BOTH ABUTMENTS. CLEANING AND PAINTING OF BEARINGS IS INCLUDED WITH "STRUCTURE OVERCOATING CLEANING AND PRIMING B-5-242".

CLEAN THE INSIDE FACES AND TOP SURFACE OF THE EXISTING CONCRETE PARAPETS. PARAPET JOINTS SHALL BE CLEANED AND RE-SEALED WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. INCLUDE IN BID ITEM "CLEANING PARAPETS".

APPLY "PROTECTIVE SURFACE TREATMENT" TO THE EXPOSED DECK SURFACE OF THE NEW CONCRETE OVERLAY BETWEEN PARAPETS AND EXPOSED TOP SURFACE OF JOINT REPAIR.

APPLY "PIGMENTED SURFACE SEALER" ON THE INSIDE AND TOP FACES OF PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS.

TRAFFIC CONTROL: BRIDGE TO BE TEMPORARILY CLOSED TO COMPLETE JOINT REPAIRS AND MILL AND OVERLAY ACTIVITIES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-242

DRAWN BY YC | PLANS CK'D. VCP

CROSS SECTION, QUANTITIES & NOTES

SHEET 2 OF 7

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STATE PROJECT NUMBER

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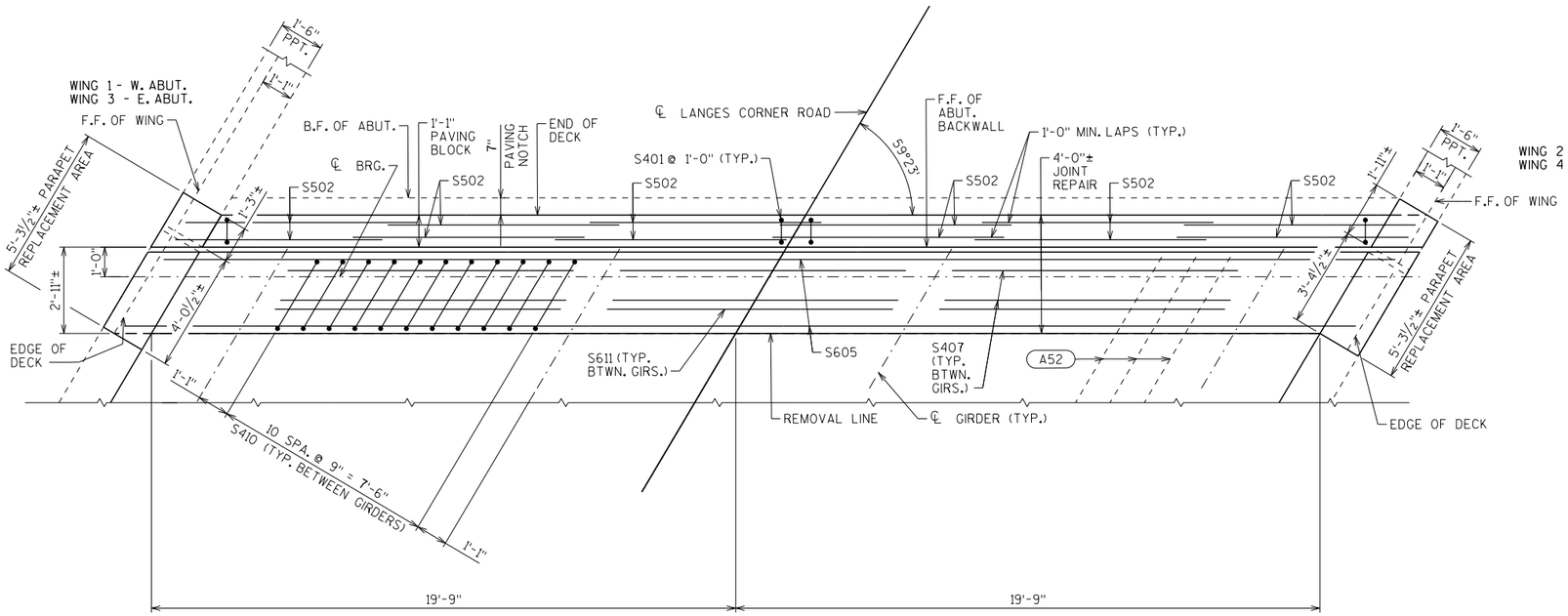
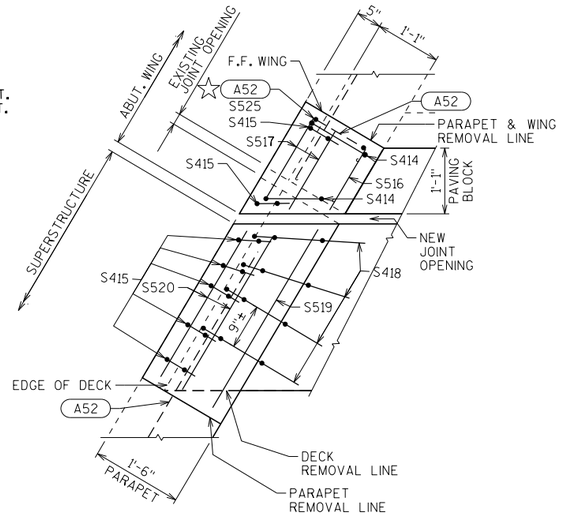
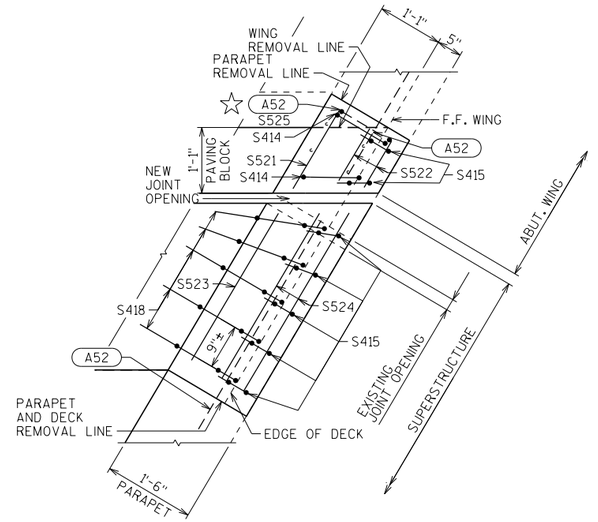


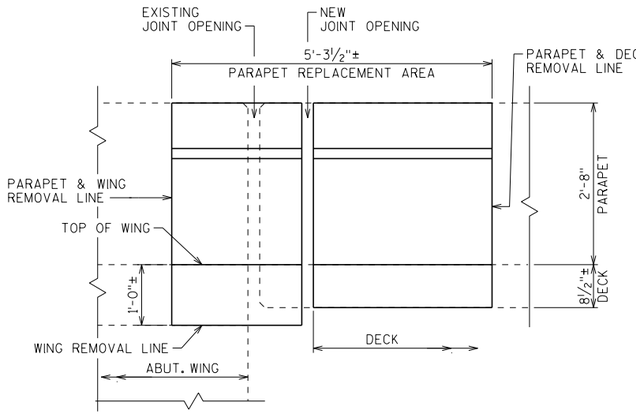
"JOINT REPAIR" PLAN



PLAN DETAIL OF PARAPET REPLACEMENT AREA AT WING CORNERS 1 & 3

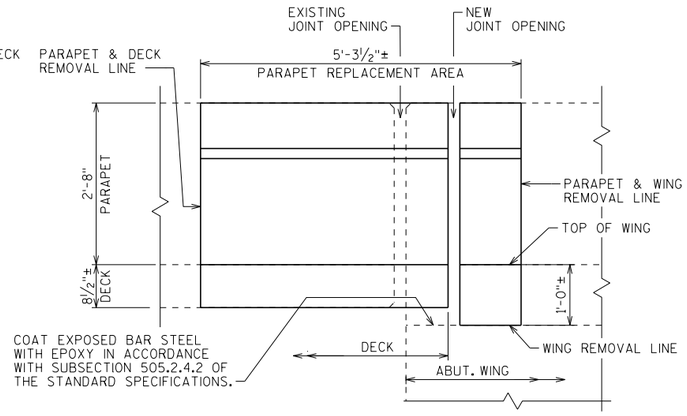


PLAN DETAIL OF PARAPET REPLACEMENT AREA AT WING CORNERS 2 & 4



ELEVATION OF NEW WING CORNERS 1 & 3

SHOWING NEW CONCRETE AREAS FOR "JOINT REPAIR" (LOOKING AT OUTSIDE FACE OF PARAPET)



ELEVATION OF NEW WING CORNERS 2 & 4

SHOWING NEW CONCRETE AREAS FOR "JOINT REPAIR" (LOOKING AT OUTSIDE FACE OF PARAPET)

(A52) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

THE NEW ADDITIONAL HORIZONTAL REINFORCEMENT REQUIRED IN THE PARAPETS SHALL BE TIED TO THE EXISTING HORIZONTAL REINFORCEMENT.

☆ IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH BARS S525 ANCHORED WITH ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" MIN. INTO EXISTING CONC. PLACE 4" CL. MIN. OF VERT. CONC. FACE.

(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT & SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS' RECOMMENDATIONS.

NOTES

ALL REMOVAL LINES SHALL BE DEFINED BY A 1" DEEP SAW-CUT.

REBUILD NEW PARAPET, WING AND DECK AREAS TO MATCH THE EXISTING PARAPET, WING AND DECK. SEE SHEET 5 FOR NEW PARAPET DETAILS.

PARAPET REPLACEMENT SHALL BE INCLUDED UNDER THE BID ITEM "JOINT REPAIR".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-242

DRAWN BY YC | PLANS CK'D. VCP

JOINT REPAIR

SHEET 3 OF 7

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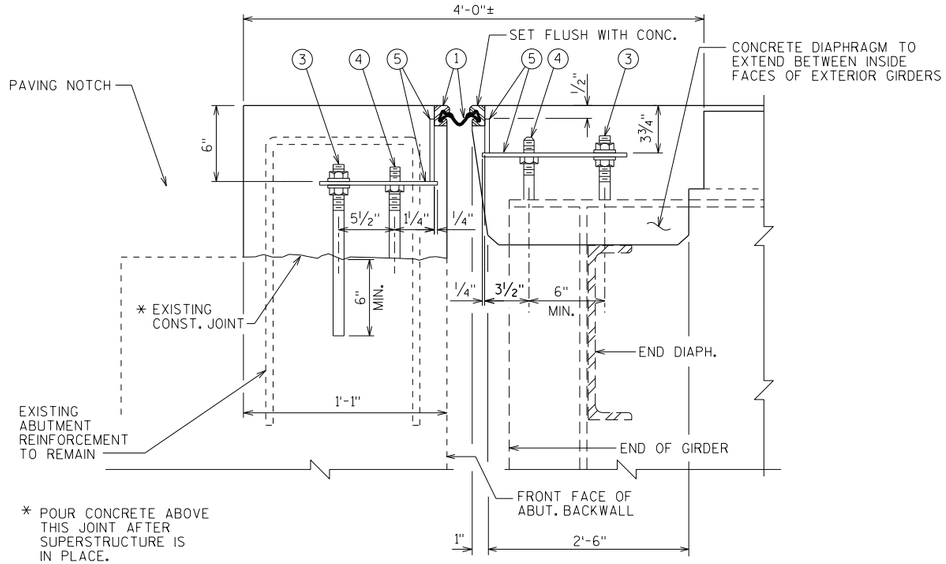
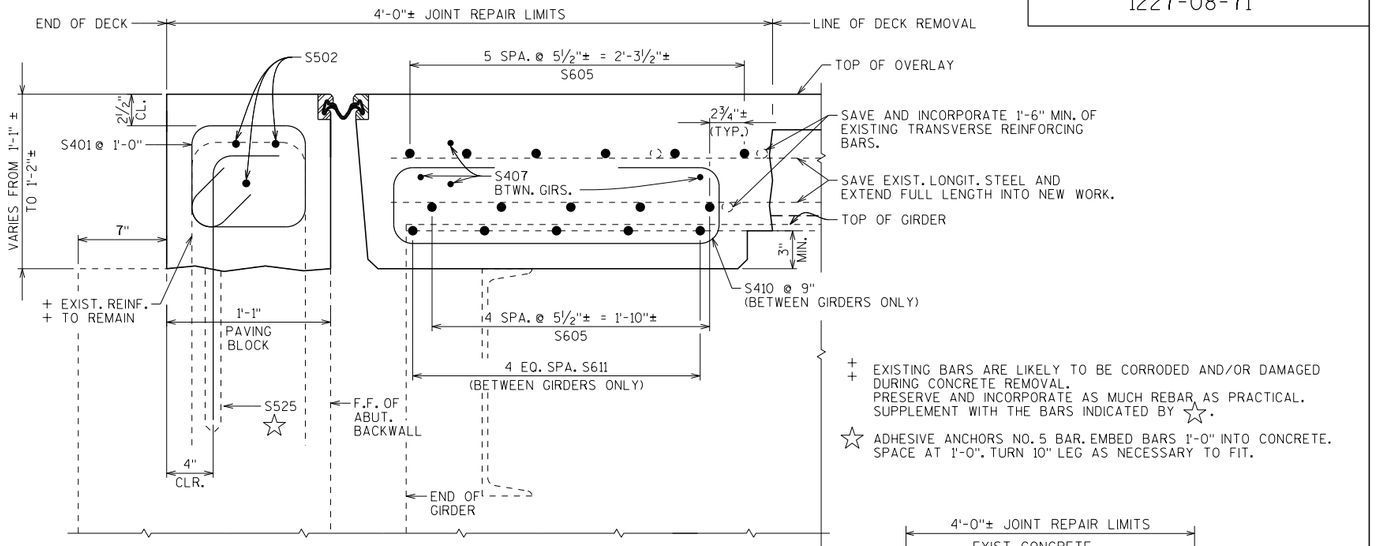


SECTION THRU JOINT AT ABUTMENTS

NORMAL TO ℄ SUBSTRUCTURE

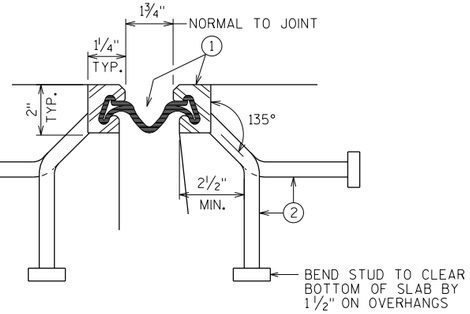


\+ \+ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY ☆.

☆ ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" INTO CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

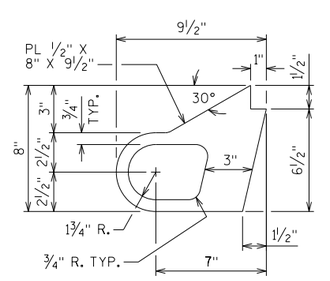
SECTION THRU JOINT AT ABUTMENTS

NORMAL TO ℄ SUBSTRUCTURE
SHOWING REINFORCEMENT



SECTION THRU JOINT

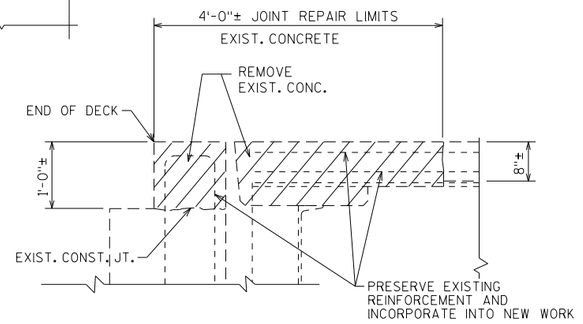
EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS



ALTERNATE STRIP SEAL ANCHOR

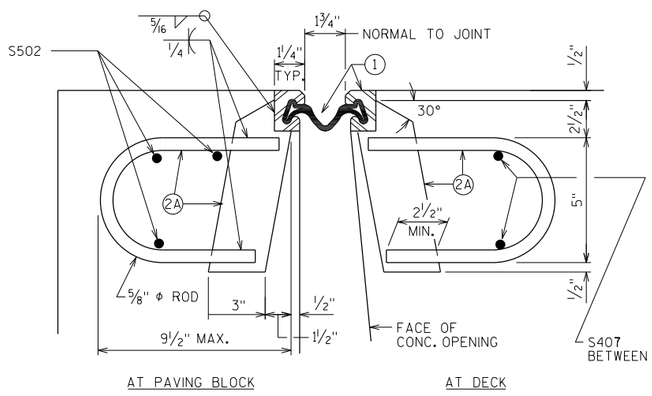
LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
2. STUDS 5/8"ϕ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. 1/2" THICK ANCHOR PLATE WITH 5/8"ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. 3/4" ϕ 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. 3/4"ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X 1/2" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1 1/2" ϕ HOLE FOR NO. 3 AND 1" ϕ HOLE FOR NO. 4.



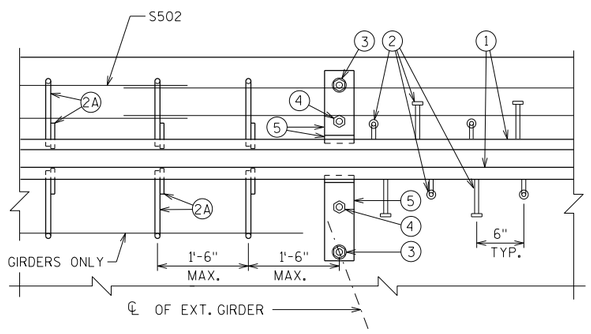
JOINT REPAIR - REMOVAL
SECTION THRU EXISTING EXPANSION JOINT
AT ABUTMENTS

NORMAL TO ℄ SUBSTRUCTURE



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, 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.

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

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-5-242".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-242

DRAWN BY YC | PLANS CK'D. VCP

EXPANSION DEVICE

SHEET 4 OF 7
417

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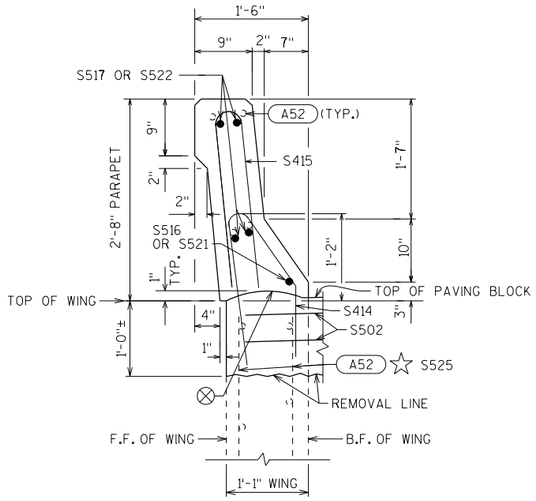
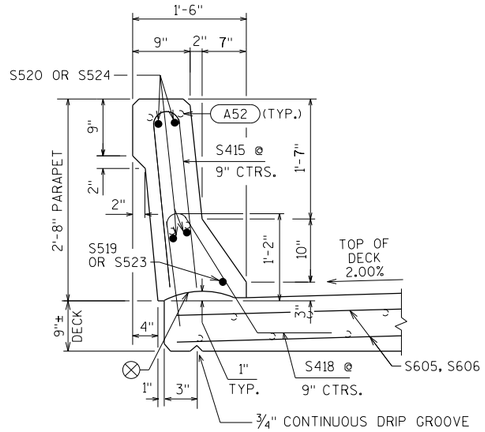
STATE PROJECT NUMBER
1227-08-71



NEW SECTION THRU PARAPET ON WING



NEW SECTION THRU PARAPET ON DECK

BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

	W. ABUT.	E. ABUT.
UNCOATED:	0 LBS	0 LBS
COATED:	1575 LBS	1575 LBS

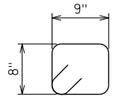
BAR MARK	COAT	NO. REQ'D W. ABUT.	NO. REQ'D E. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
S401	X	40	40	3'-4"	X		PAVING BLOCK - VERT. - STIRRUP
S502	X	18	18	7'-10"			PAVING BLOCK - HORIZ.
- - -	-	-	-	--			- - -
- - -	-	-	-	--			- - -
S605	X	11	11	41'-8"			DECK - HORIZ. - TRANS. - TOP & BOT.
- - -	-	-	-	--			- - -
S407	X	12	12	9'-8"			DECK - HORIZ. - TRANS. - BTWN. GIRS.
- - -	-	-	-	--			- - -
- - -	-	-	-	--			- - -
S410	X	33	33	4'-6"	X		DECK/CONC. DIAPH. - VERT. - BTWN. GIRS.
S611	X	15	15	9'-8"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. GIRS.
- - -	-	-	-	--			- - -
- - -	-	-	-	--			- - -
S414	X	4	4	4'-3"	X		WING & PARAPET - VERT. - TRANS. - AT WING CORNERS 1, 2, 3 & 4
S415	X	14	14	4'-10"	X		PARAPET - VERT. - TRANS. - ABOVE DECK AND WINGS - AT WING CORNERS 1, 2, 3 & 4
S516	X	1	1	1'-2"			WING PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNERS 1 & 3
S517	X	4	4	1'-6"			WING PARAPET - HORIZ. - LONGIT. - AT WING CORNERS 1 & 3
S418	X	9	9	4'-3"	X		DECK & PARAPET- VERT. - TRANS. - AT WING CORNERS 1, 2, 3 & 4
S519	X	1	1	3'-5"			DECK PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNERS 1 & 3
S520	X	4	4	2'-11"			DECK PARAPET - HORIZ. - LONGIT. - AT WING CORNERS 1 & 3
S521	X	1	1	1'-6"			WING PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNERS 2 & 4
S522	X	4	4	1'-0"			WING PARAPET - HORIZ. - LONGIT. - AT WING CORNERS 2 & 4
S523	X	1	1	3'-1"			DECK PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNERS 2 & 4
S524	X	4	4	3'-5"			DECK PARAPET - HORIZ. - LONGIT. - AT WING CORNERS 2 & 4
S525	X	48	48	2'-7"	X		PAVING BLOCK & ENDS OF ABUT. BACKWALL - VERT. - DOWEL - AT STAGE 1 & 2 CONST.

⊗ CONST. JOINT - STRIKE OFF AS SHOWN.

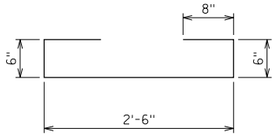
(A52) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

THE NEW ADDITIONAL HORIZONTAL REINFORCEMENT REQUIRED IN THE PARAPETS SHALL BE TIED TO THE EXISTING HORIZONTAL REINFORCEMENT.

☆ IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH BARS S525 ANCHORED WITH ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" MIN. INTO EXISTING CONC. PLACE 4" CL. MIN. OF VERT. CONC. FACE.



S401



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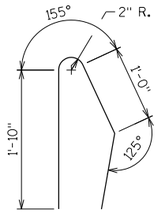

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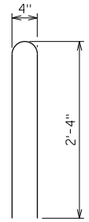

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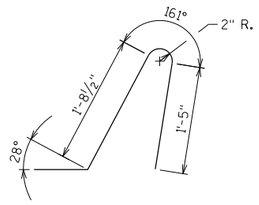

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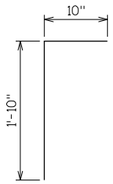

S525

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-242

DRAWN BY YC | PLANS CK'D. VCP

JOINT REPAIR - BILL OF BARS

SHEET 5 OF 7

418

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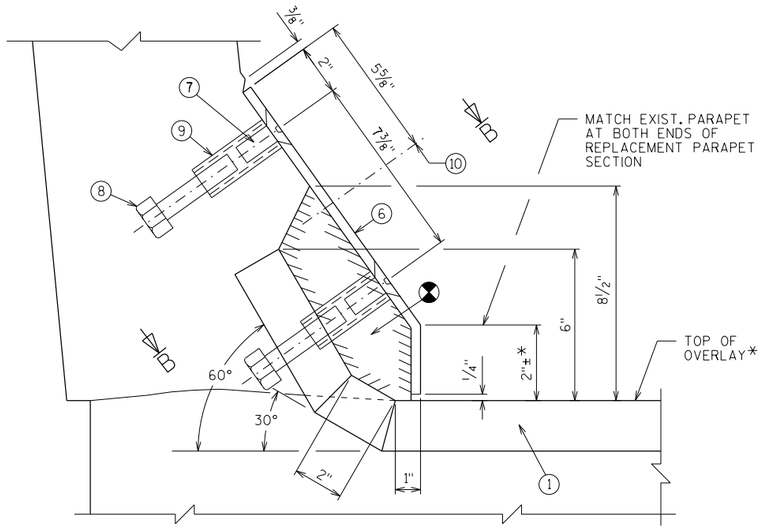
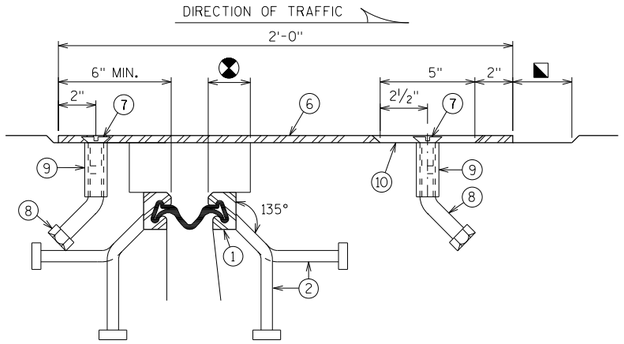
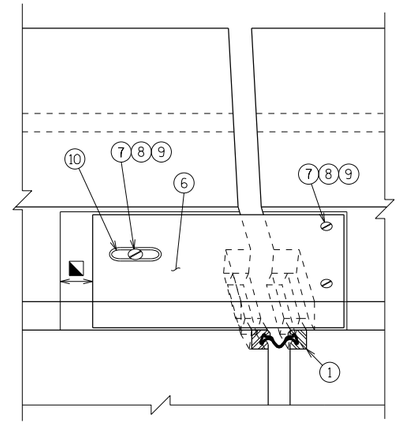


SECTION A-A

*TOP OF OVERLAY @ 1"± ABOVE TOP OF ORIGINAL DECK.



SECTION B-B



VIEW OF PARAPET PLATE FROM ROADWAY

STATE PROJECT NUMBER
1227-08-71

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.

(2) STUDS 5/8"ϕ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

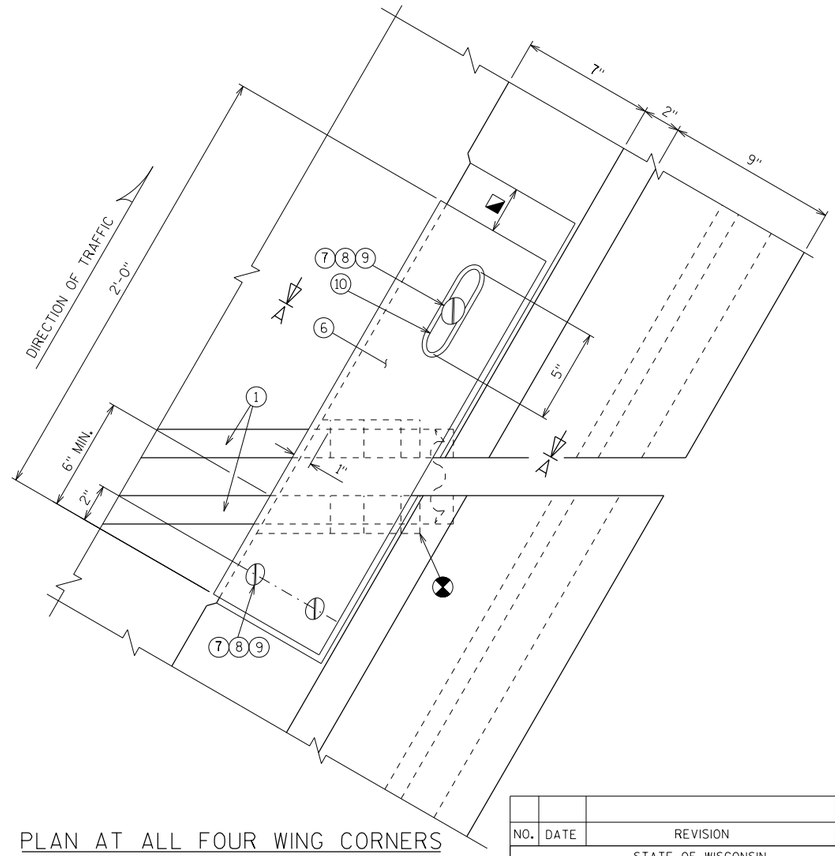
(6) GALVANIZED PLATE 3/8" X 1'-2" X 2'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

(7) 3/4"ϕ X 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) 3/4"ϕ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) 3/4"ϕ X 2 1/4" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.



PLAN AT ALL FOUR WING CORNERS

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-242

DRAWN BY YC | PLANS CK'D. VCP

COVER PLATE DETAILS

SHEET 6 OF 7

419

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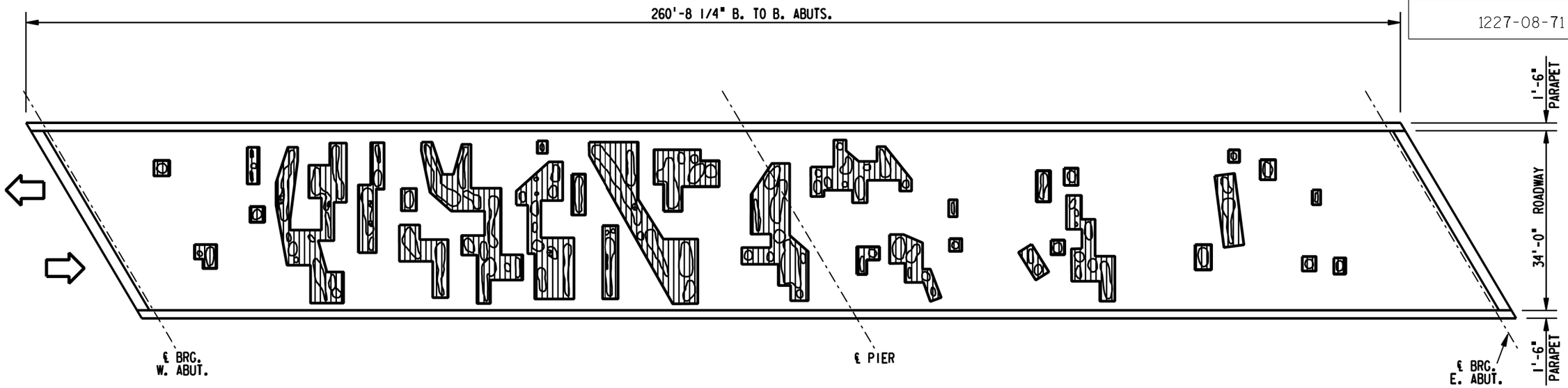

PLAN

PROPOSED REHAB AREAS

FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-5-242	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	979.6	
SHADE/DEBRIS	yd^2	0	
PREPARATION, DECKS, TYPE 1	yd^2	193.1	19.7
PREPARATION, DECKS, TYPE 2	yd^2	96.6	9.9
FULL DEPTH DECK REPAIR	yd^2	1.0	0.1

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND

ASPHALT PATCH

CONCRETE PATCH

SCALE 0' 5' 10' 20'

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 7/27/15

NOTES

THIS SHEET PROVIDES THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS REPORTED BY AECOM IN AUGUST 2015. THE PROPOSED DECK REPAIRS ARE BASED ON THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-242

DRAWN BY YC | PLANS CK'D. VCP

DECK REPAIR PLAN

SHEET 7 OF 7

420

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FILENAME
SCALE

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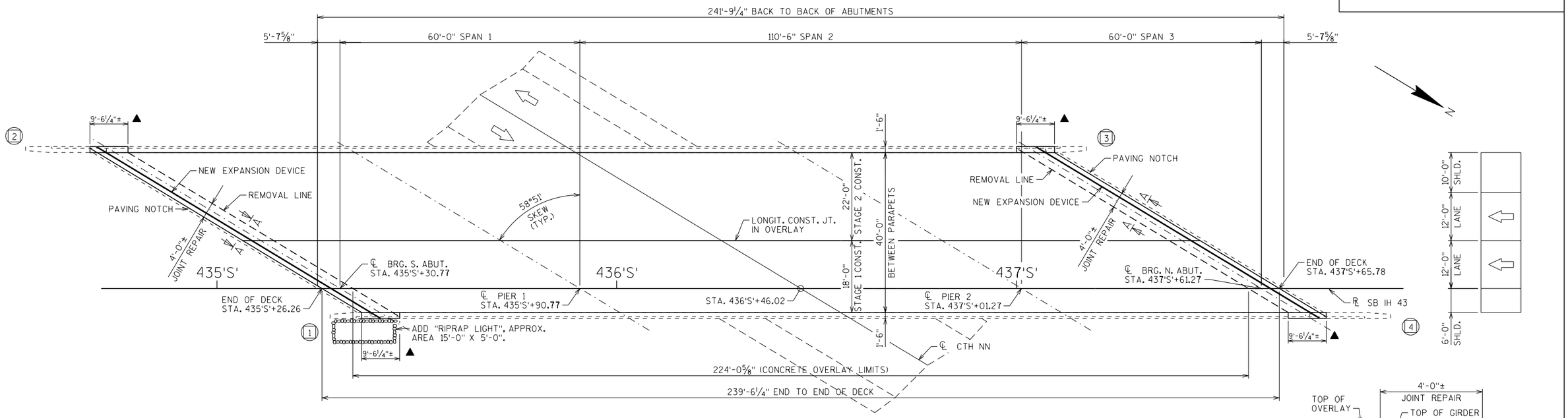
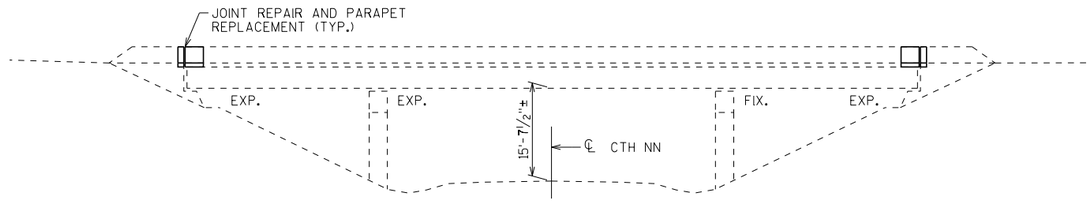


▲ INDICATES WINGWALL NUMBER

▲ PARAPET REPLACEMENT AREA. SEE SHEETS 3 AND 5 FOR DETAILS.

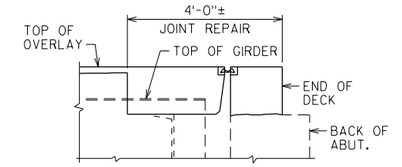
PLAN

(3-SPAN STEEL GRIDER, CONCRETE OVERLAY)



ELEVATION

NORMAL TO CTH NN (LOOKING SOUTH)



SECTION A-A

SEE SHEET 4 FOR DETAILS.

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS20
INVENTORY RATING: HS21
OPERATING RATING: HS36
WISCONSIN STANDARD PERMIT VEHICLE (Wis-SPV): 200 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY:	OVERLAY DECKS	f'c = 4,000 P.S.I.
	ALL OTHER	f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60:		fy = 60,000 P.S.I.

TRAFFIC VOLUME

IH 43	CTH NN
A.D.T. = 30,100 (2036)	A.D.T. = 7,000 (2036)
R.D.S. = 70 MPH	R.D.S. = 50 MPH

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. CROSS SECTION, QUANTITIES & NOTES
3. JOINT REPAIR
4. EXPANSION DEVICE
5. JOINT REPAIR - BILL OF BARS
6. COVER PLATE DETAILS
7. DECK REPAIR PLAN

WISCONSIN VINOD C. PATEL 37887 CAROL STREAM, IL PROFESSIONAL ENGINEER

DATE: 07/20/2016

STRUCTURE DESIGN CONTACTS

BRIDGE OFFICE: WILLIAM DREHER, P.E. (608) 266-8489

CONSULTANT: VINOD PATEL, P.E. (312) 616-7395

NO.	DATE	REVISION	BY

exp U.S. Services Inc.
Milwaukee, WI
BUILDINGS · EARTH & ENVIRONMENT · ENERGY
INDUSTRIAL · INFRASTRUCTURE · SUSTAINABILITY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/11/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-5-243

IH 43 SB OVER CTH NN

COUNTY	TOWN ~~/CITY/VILLAGE~~
BROWN	NEW DENMARK

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
YC	VCP	JJG/YC	VCP

GENERAL PLAN & ELEVATION

SHEET 1 OF 7

421

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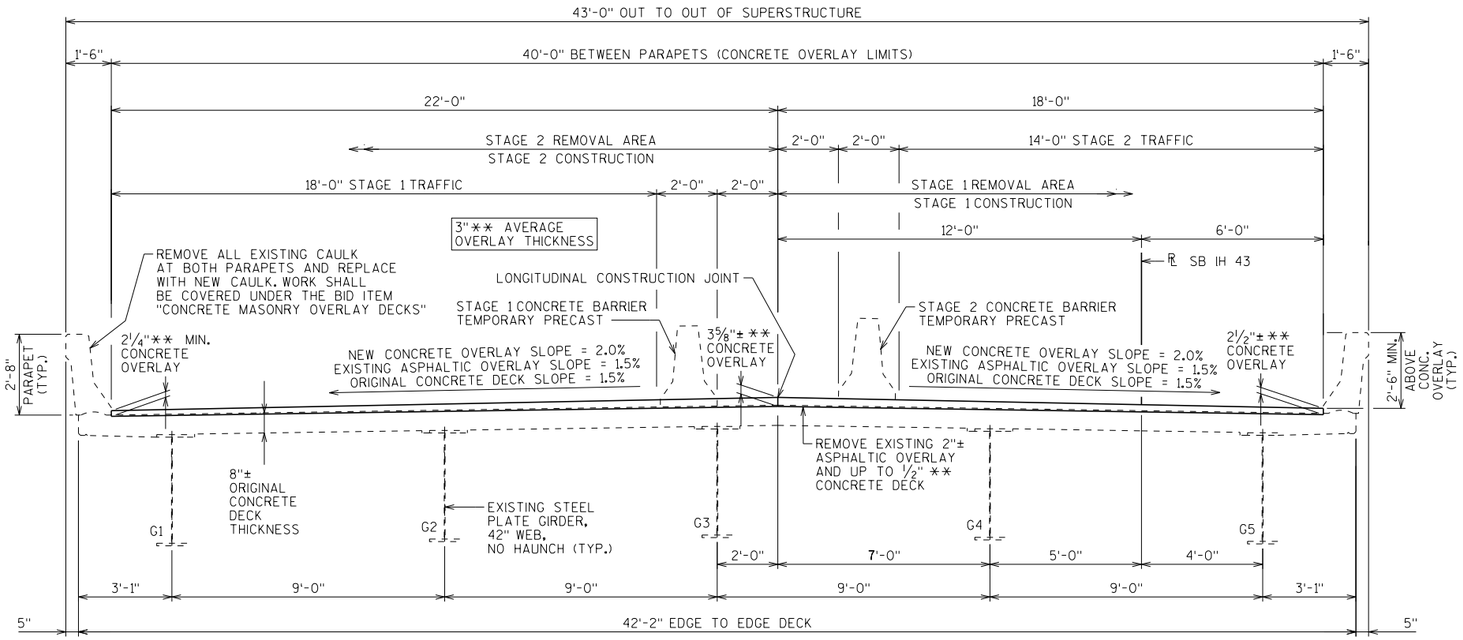
STATE PROJECT NUMBER
1227-08-71

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTAL
502.3100.05	EXPANSION DEVICE B-5-243	LS	-	-	-	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	1,065	1,065
502.3210	PIGMENTED SURFACE SEALER	SY	10	10	180	200
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	90	90	-	180
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	3,200	3,200	-	6,400
505.0904	BAR COUPLERS NO. 4	EACH	4	4	-	8
505.0905	BAR COUPLERS NO. 5	EACH	3	3	-	6
505.0906	BAR COUPLERS NO. 6	EACH	11	11	-	22
505.0907	BAR COUPLERS NO. 7	EACH	5	5	-	10
509.0301	PREPARATION DECKS TYPE 1	SY	-	-	13	13
509.0302	PREPARATION DECKS TYPE 2	SY	-	-	7	7
509.0500	CLEANING DECKS	SY	-	-	996	996
509.1000	JOINT REPAIR	SY	-	-	80	80
509.1500	CONCRETE SURFACE REPAIR	SF	-	-	5	5
509.2000	FULL-DEPTH DECK REPAIR	SY	-	-	1	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	-	-	118	118
509.9010.S.03	REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-5-243	SY	-	-	996	996
509.9050.S	CLEANING PARAPETS	LF	30	30	441	501
606.0100	RIPRAP LIGHT	CY	3	-	-	3
	NON-BID ITEMS					
	BRIDGE SEAT PROTECTION					

BID ITEM "CONCRETE MASONRY OVERLAY DECKS" ALSO INCLUDES CONCRETE FOR:
"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "FULL-DEPTH DECK REPAIR", AND "JOINT REPAIR".
THE QUANTITIES OF "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL-DEPTH DECK REPAIR" ARE BASED ON AN INFRARED THERMOGRAPHIC DECK SURVEY REPORT.
THERE IS NO SPECIFIC LOCATION OF "CONCRETE SURFACE REPAIR" IDENTIFIED IN THE PLANS.
THE QUANTITY IS PROVIDED TO MAKE ALLOWANCE IN CASE SUCH A REPAIR IS NEEDED.



CROSS SECTION THRU DECK LOOKING NORTH

** THE OVERLAY THICKNESS INCLUDES ½" THICKNESS OF CONCRETE REMOVAL FROM ORIGINAL CONCRETE DECK.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS OF EXISTING STRUCTURE MEMBERS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

THE EXISTING BITUMINOUS ASPHALTIC OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK UNDER BID ITEM "REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-5-243".

AFTER REMOVING EXISTING ASPHALTIC OVERLAY, UP TO 1/2" OF CONCRETE SHALL BE REMOVED FROM ORIGINAL BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "CONCRETE SURFACE REPAIR", AND "FULL-DEPTH DECK REPAIR" AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2 1/4" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS AS GIVEN ON THE PLANS. IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY OR JOINT REPAIRS AT ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND MINIMUM 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF BOTH ABUTMENTS BELOW EXPANSION DEVICES. POWER WASH AND ADEQUATELY DRY SURFACES BEFORE APPLICATION. WORK TO BE INCIDENTAL TO "JOINT REPAIR".

CLEAN THE INSIDE FACES AND TOP SURFACE OF THE EXISTING CONCRETE PARAPETS. PARAPET JOINTS SHALL BE CLEANED AND RE-SEALED WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. INCLUDE IN BID ITEM "CLEANING PARAPETS".

APPLY "PROTECTIVE SURFACE TREATMENT" TO THE EXPOSED DECK SURFACE OF THE NEW CONCRETE OVERLAY BETWEEN PARAPETS AND EXPOSED TOP SURFACE OF JOINT REPAIR.

APPLY "PIGMENTED SURFACE SEALER" ON THE INSIDE AND TOP FACES OF PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS.

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STRUCTURE B-5-243

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CROSS SECTION, QUANTITIES & NOTES

SHEET 2 OF 7

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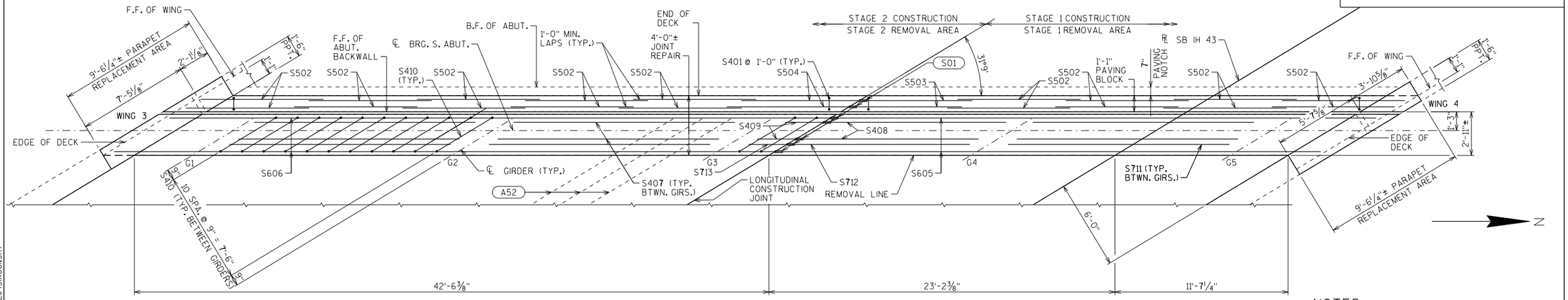
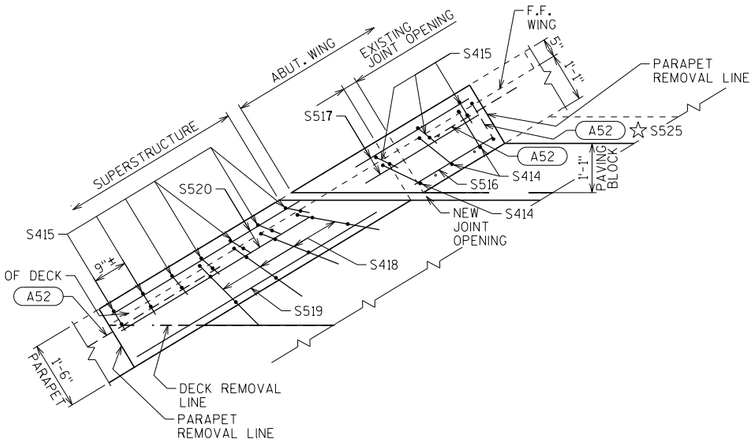
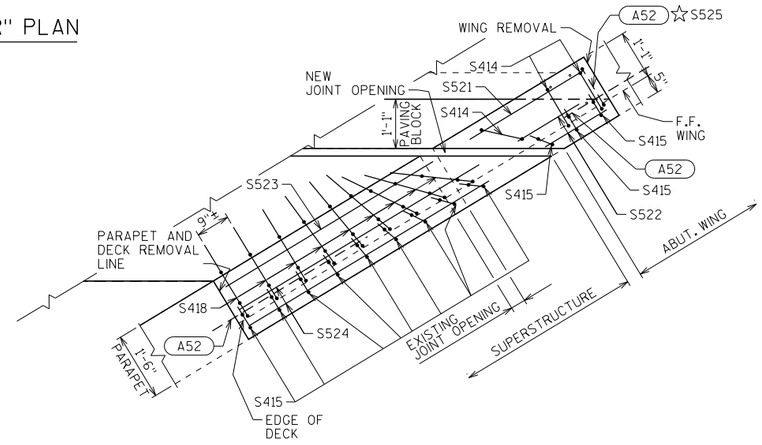


ABUTMENT "JOINT REPAIR" PLAN

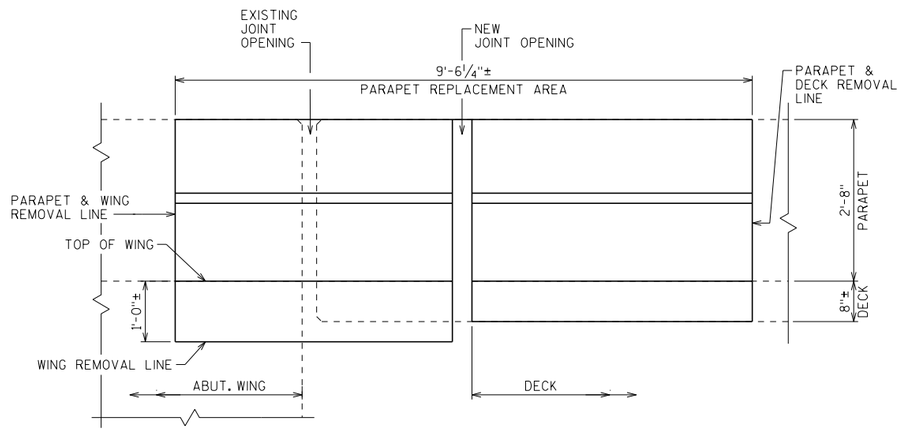
NORTH ABUT. SHOWN
SOUTH ABUT. SIMILAR



PLAN DETAIL OF PARAPET REPLACEMENT AREA AT WING CORNERS 1 & 3

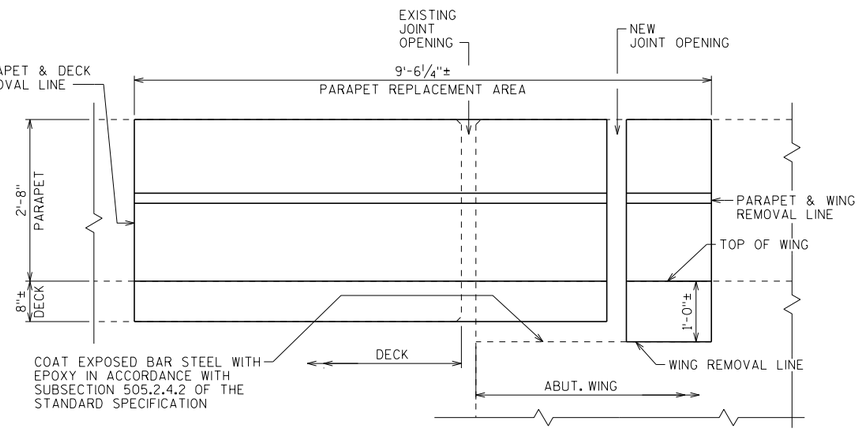


PLAN DETAIL OF PARAPET REPLACEMENT AREA AT WING CORNERS 2 & 4



ELEVATION OF NEW WING CORNERS 1 & 3

SHOWING NEW CONCRETE AREAS FOR "JOINT REPAIR"
(LOOKING AT OUTSIDE FACE OF PARAPET)



ELEVATION OF NEW WING CORNERS 2 & 4

SHOWING NEW CONCRETE AREAS FOR "JOINT REPAIR"
(LOOKING AT OUTSIDE FACE OF PARAPET)

NOTES

ALL REMOVAL LINES SHALL BE DEFINED BY A 1" DEEP SAW-CUT.

REBUILD NEW PARAPET, WING AND DECK AREAS TO MATCH THE EXISTING PARAPET, WING AND DECK. SEE SHEET 5 FOR NEW PARAPET DETAILS.

PARAPET REPLACEMENT SHALL BE INCLUDED UNDER THE BID ITEM "JOINT REPAIR".

(A52) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

THE NEW ADDITIONAL HORIZONTAL REINFORCEMENT REQUIRED IN THE PARAPETS SHALL BE TIED TO THE EXISTING HORIZONTAL REINFORCEMENT.

☆ IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH BARS S525 ANCHORED WITH ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" MIN. INTO EXISTING CONC. PLACE 4" CL. MIN. OF VERT. CONC. FACE.

(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT & SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS' RECOMMENDATIONS.

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STRUCTURE B-5-243

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JOINT REPAIR

SHEET 3 OF 7

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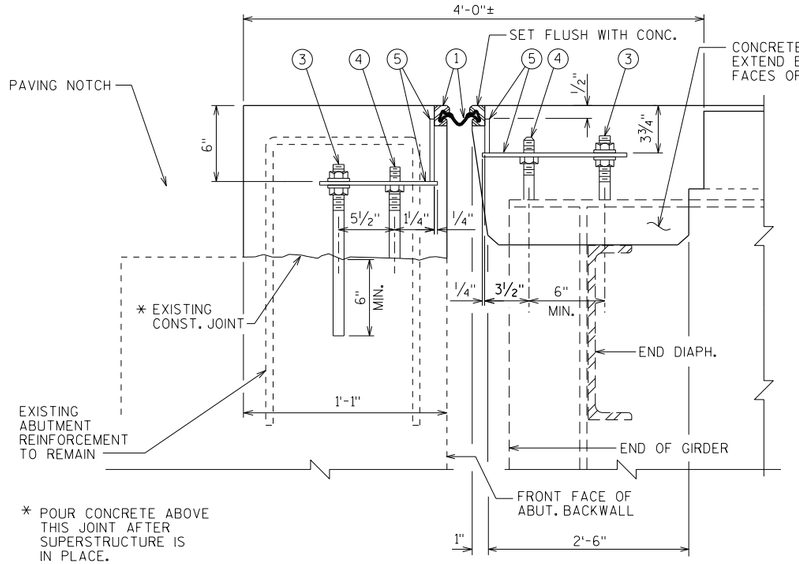
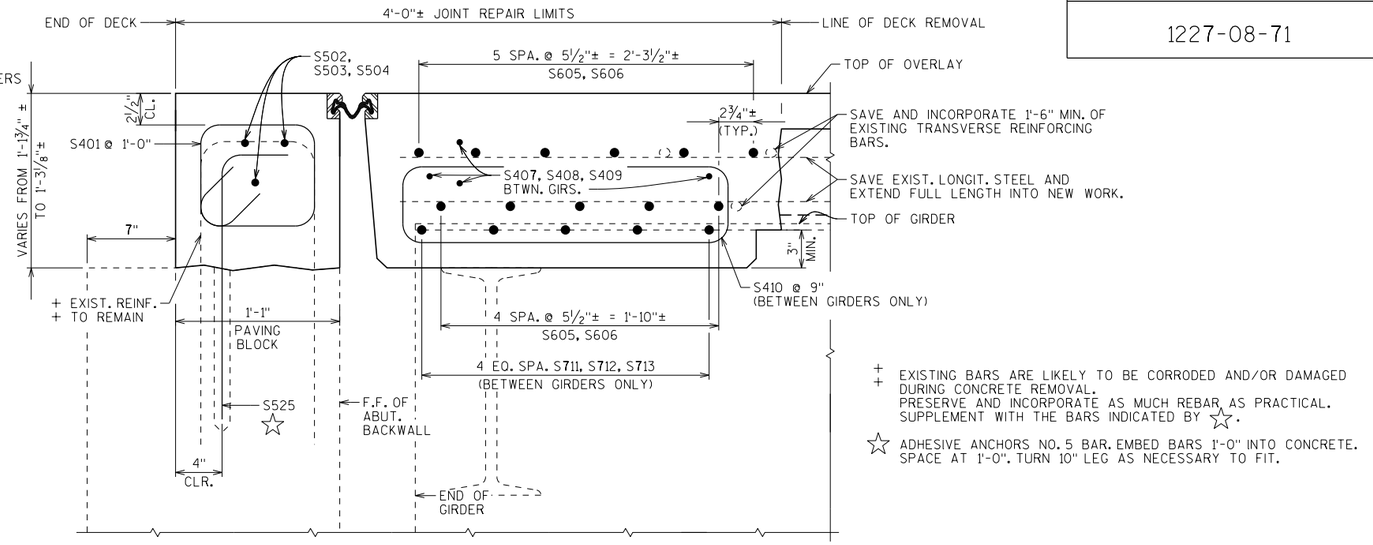


SECTION THRU JOINT AT ABUTMENTS

NORMAL TO ℄ SUBSTRUCTURE

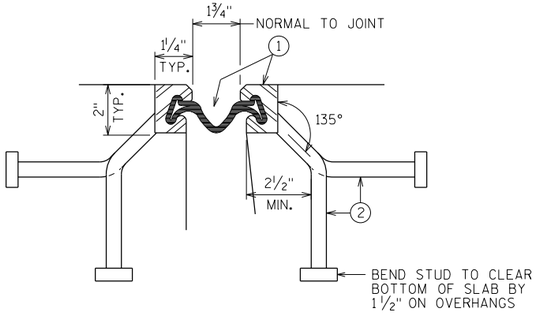


\+ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY ☆.

☆ ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" INTO CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

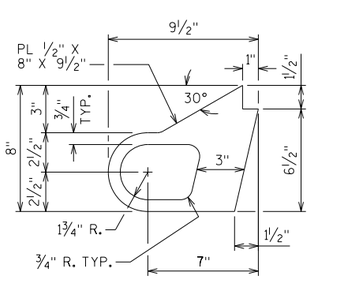
SECTION THRU JOINT AT ABUTMENTS

NORMAL TO ℄ SUBSTRUCTURE
SHOWING REINFORCEMENT



SECTION THRU JOINT

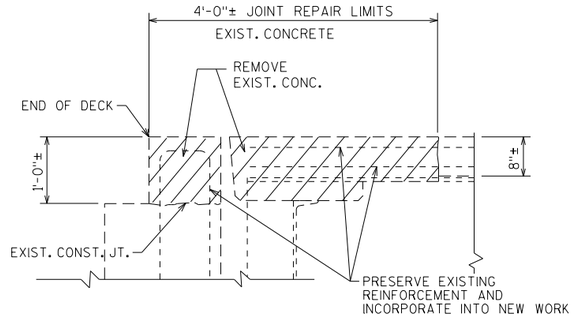
EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS



ALTERNATE STRIP SEAL ANCHOR

LEGEND

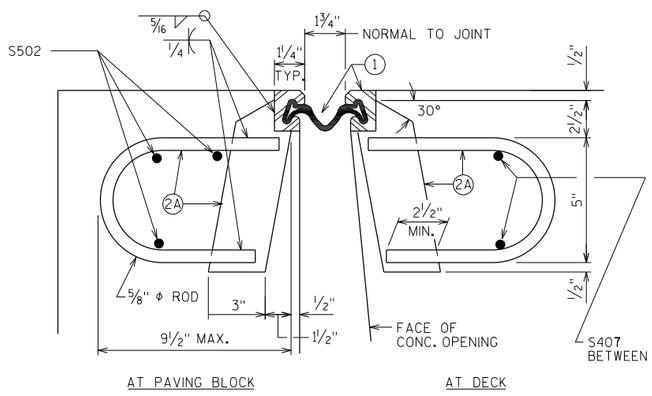
1. NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
2. STUDS 5/8"ϕ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. 1/2" THICK ANCHOR PLATE WITH 5/8"ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. 3/4" ϕ 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. 3/4"ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X 1/2" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1 1/2" ϕ HOLE FOR NO. 3 AND 1" ϕ HOLE FOR NO. 4.



JOINT REPAIR - REMOVAL

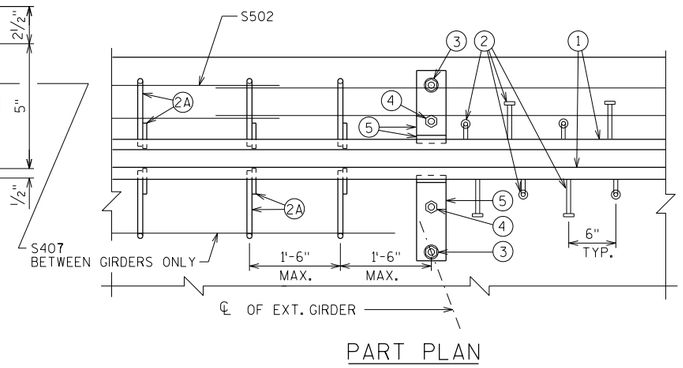
SECTION THRU EXISTING EXPANSION JOINT AT ABUTMENTS

NORMAL TO ℄ SUBSTRUCTURE



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, 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.

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

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-5-243".

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-243

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EXPANSION DEVICE

SHEET 4 OF 7

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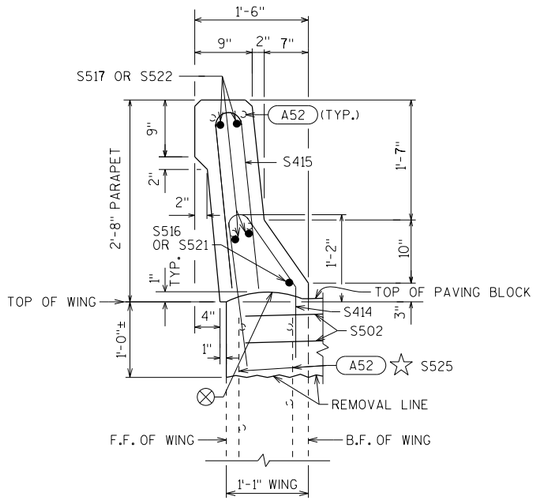
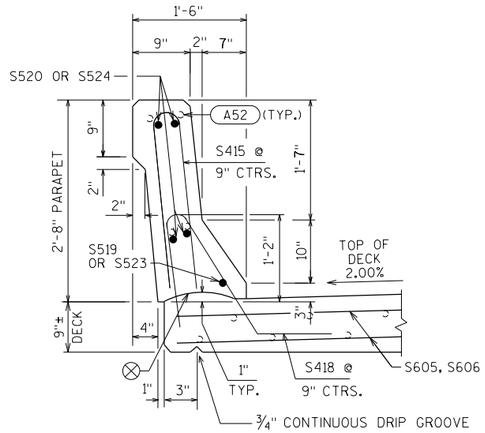


NEW SECTION THRU PARAPET ON WING



NEW SECTION THRU PARAPET ON DECK

⊗ CONST. JOINT - STRIKE OFF AS SHOWN.

(A52) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

THE NEW ADDITIONAL HORIZONTAL REINFORCEMENT REQUIRED IN THE PARAPETS SHALL BE TIED TO THE EXISTING HORIZONTAL REINFORCEMENT.

☆ IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH BARS S525 ANCHORED WITH ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" MIN. INTO EXISTING CONC. PLACE 4" CL. MIN. OF VERT. CONC. FACE.

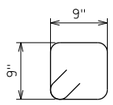
BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

	S. ABUT.	N. ABUT.
UNCOATED:	0 LBS	0 LBS
COATED:	3200 LBS	3200 LBS

	BAR MARK	COAT	NO. REQ'D S. ABUT.	NO. REQ'D N. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
	S401	X	78	78	3'-6"	X		PAVING BLOCK - VERT. - STIRRUP - AT STAGE 1 & 2 CONST.
	S502	X	27	27	8'-3"			PAVING BLOCK - HORIZ. - AT STAGE 1 & 2 CONST.
*	S503	X	3	3	7'-7"			PAVING BLOCK - HORIZ. - AT STAGE 1 CONST.
*	S504	X	3	3	8'-1"			PAVING BLOCK - HORIZ. - AT STAGE 2 CONST.
*	S605	X	11	11	36'-7"			DECK - HORIZ. - TRANS. - TOP & BOT. - AT STAGE 1 CONST.
*	S606	X	11	11	44'-4"			DECK - HORIZ. - TRANS. - TOP & BOT. - AT STAGE 2 CONST.
	S407	X	12	12	14'-10"			DECK - HORIZ. - TRANS. - BTWN. GIRS. - AT STAGE 1 & 2 CONST.
*	S408	X	4	4	12'-3"			DECK - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 1 CONST.
*	S409	X	4	4	2'-7"			DECK - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 2 CONST.
	S410	X	44	44	6'-4"	X		DECK/CONC. DIAPH. - VERT. - BTWN. GIRS. - AT STAGE 1 & 2 CONST.
	S711	X	15	15	14'-10"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. GIRS. - AT STAGE 1 & 2 CONST.
*	S712	X	5	5	12'-3"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 1 CONST.
*	S713	X	5	5	2'-7"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 2 CONST.
	S414	X	6	6	4'-3"	X		WING & PARAPET - VERT. - TRANS. - AT WING CORNERS 1, 2, 3 & 4
	S415	X	22	22	4'-10"	X		PARAPET - VERT. - TRANS. - ABOVE DECK AND WINGS - AT WING CORNERS 1, 2, 3 & 4
	S516	X	1	1	2'-1"			WING PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNERS 1 & 3
	S517	X	4	4	2'-11"			WING PARAPET - HORIZ. - LONGIT. - AT WING CORNERS 1 & 3
	S418	X	13	13	4'-3"	X		DECK & PARAPET- VERT. - TRANS. - AT WING CORNERS 1, 2, 3 & 4
	S519	X	1	1	6'-2"			DECK PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNERS 1 & 3
	S520	X	4	4	4'-10"			DECK PARAPET - HORIZ. - LONGIT. - AT WING CORNERS 1 & 3
	S521	X	1	1	2'-11"			WING PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNERS 2 & 4
	S522	X	4	4	1'-7"			WING PARAPET - HORIZ. - LONGIT. - AT WING CORNERS 2 & 4
	S523	X	1	1	5'-4"			DECK PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNERS 2 & 4
	S524	X	4	4	6'-2"			DECK PARAPET - HORIZ. - LONGIT. - AT WING CORNERS 2 & 4
	S525	X	90	90	2'-7"	X		PAVING BLOCK & ENDS OF ABUT. BACKWALL - VERT. - DOWEL - AT STAGE 1 & 2 CONST.

* BAR COUPLERS USED. BAR LENGTH COMPUTED UP TO THE LONGIT. CONST. JOINT AND SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS' RECOMMENDATIONS.



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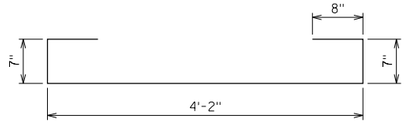

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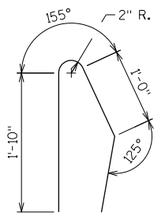

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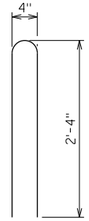

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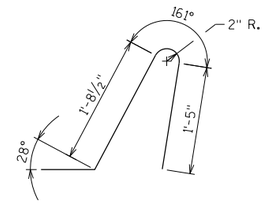

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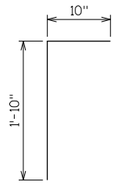

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-243

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JOINT REPAIR - BILL OF BARS

SHEET 5 OF 7

425

FILENAME
SCALE

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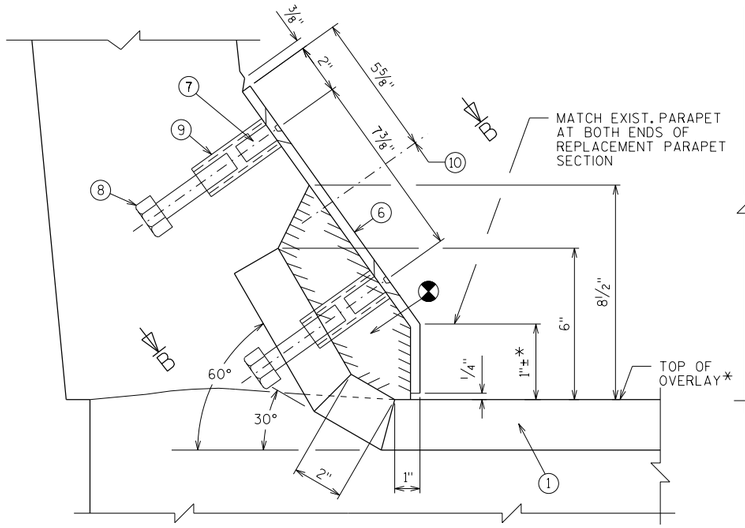
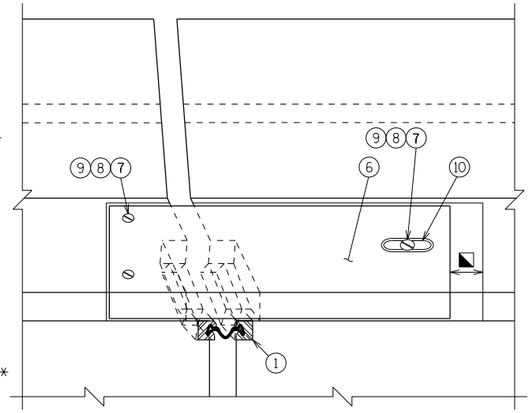


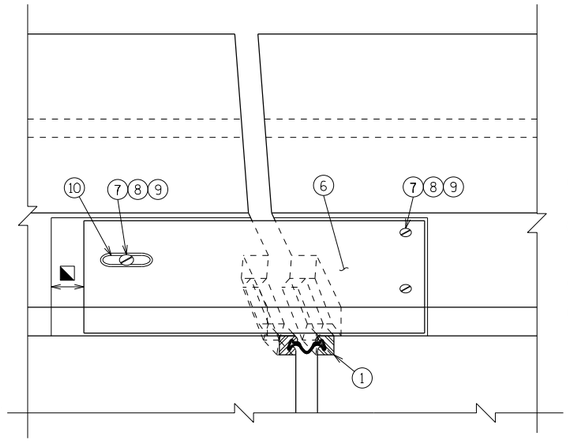
SECTION A-A

* TOP OF OVERLAY @ 2"± ABOVE TOP OF ORIGINAL DECK.



VIEW OF PARAPET PLATE FROM ROADWAY

AT WING CORNERS 1 AND 4

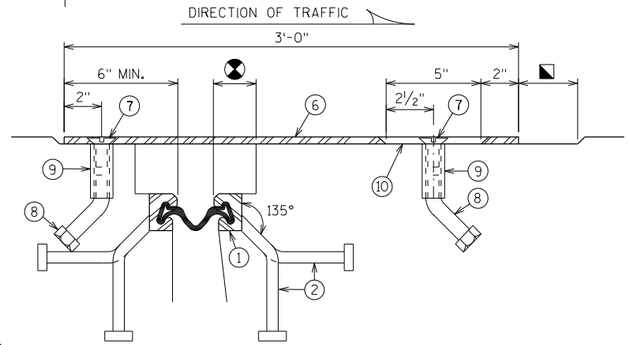


VIEW OF PARAPET PLATE FROM ROADWAY

AT WING CORNERS 2 AND 3

LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
2. STUDS 5/8"ϕ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
6. GALVANIZED PLATE 3/8" X 1'-2" X 3'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. 3/4"ϕ X 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. 3/4"ϕ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. 3/4"ϕ X 2 1/4" GALVANIZED THREADED COUPLING.
10. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.



SECTION B-B

AT WING CORNERS 2 AND 3

OPPOSITE HAND AT WING CORNERS 1 AND 4

PLAN AT WING CORNERS 1 AND 4

PLAN AT WING CORNERS 2 AND 3

⊠ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

◪ JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-243

DRAWN BY YC | PLANS CK'D. VCP

COVER PLATE DETAILS

SHEET 6 OF 7

426

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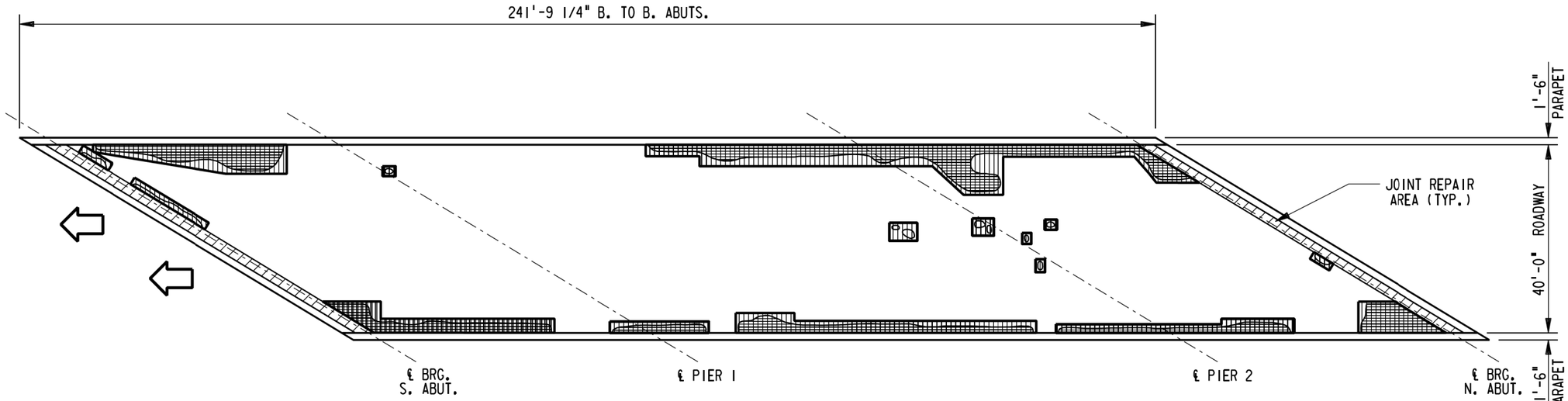
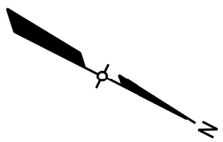
STATE PROJECT NUMBER
1227-08-71



PLAN

PROPOSED REHAB AREAS



FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-5-243	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	1064.0	
SHADE/DEBRIS	yd^2	0	
PREPARATION, DECKS, TYPE 1	yd^2	12.6	1.2
PREPARATION, DECKS, TYPE 2	yd^2	6.3	0.6
FULL DEPTH DECK REPAIR	yd^2	1.0	<0.1
PREPARATION, DECKS, TYPE 1 DEBOND/SCALING ONLY	yd^2	143.7	13.5

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND/SCALING

ASPHALT PATCH

CONCRETE PATCH

NOTES

THIS SHEET PROVIDES THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS REPORTED BY AECOM IN AUGUST 2015. THE PROPOSED DECK REPAIRS ARE BASED ON THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS.

SCALE 0' 5' 10' 25'

SURFACE TYPE: BITUMINOUS OVERLAY OVER CONCRETE OVERLAY

INFRARED INSPECTION DATE: 7/22/15

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-243

DRAWN BY YC | PLANS CK'D. VCP

DECK REPAIR PLAN

SHEET 7 OF 7

427

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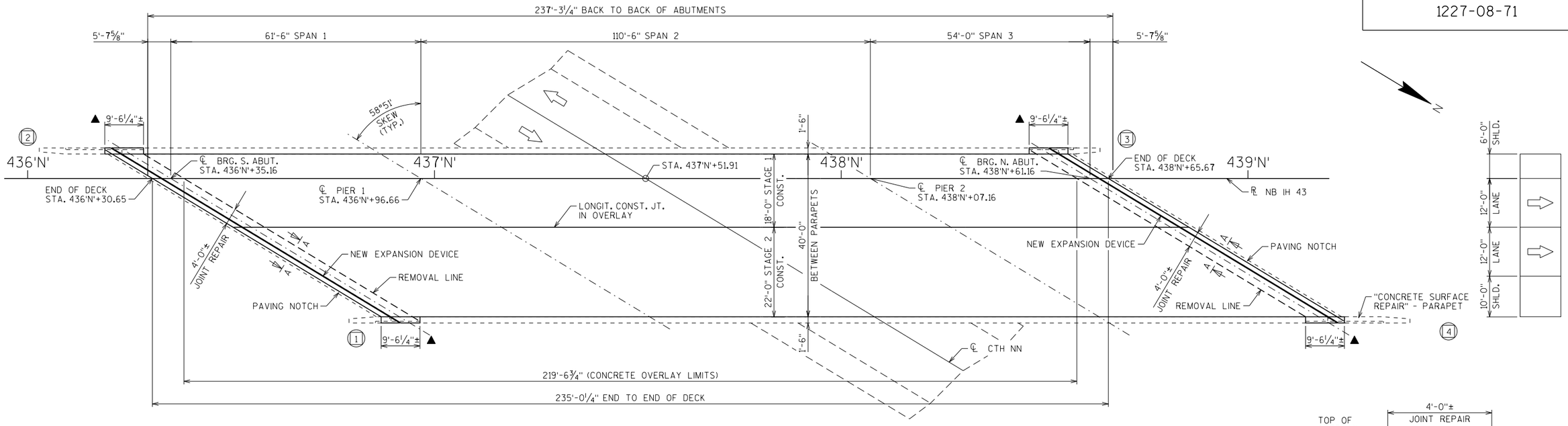
FILENAME
SCALE

STATE PROJECT NUMBER
1227-08-71

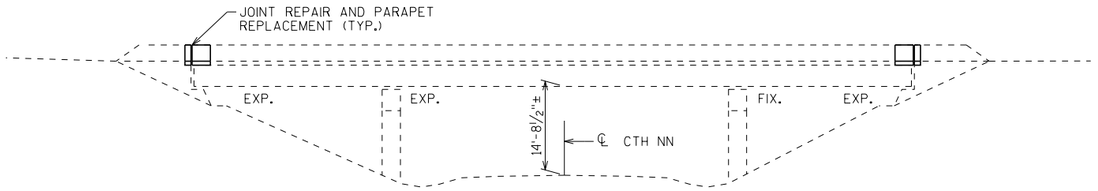


(1) (2) (3) (4) INDICATES WINGWALL NUMBER

▲ PARAPET REPLACEMENT AREA. SEE SHEETS 3 AND 5 FOR DETAILS.

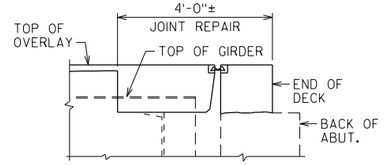
PLAN

(3-SPAN STEEL GIRDER, CONCRETE OVERLAY)



ELEVATION

NORMAL TO CTH NN (LOOKING SOUTH)



SECTION A-A

SEE SHEET 4 FOR DETAILS.

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20
INVENTORY RATING: HS19
OPERATING RATING: HS32
WISCONSIN STANDARD PERMIT VEHICLE (Wis-SPV): 200 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY:	OVERLAY DECKS	f'c = 4,000 P.S.I.
	ALL OTHER	f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60:		fy = 60,000 P.S.I.

TRAFFIC VOLUME

IH 43	CTH NN
A.D.T. = 30,100 (2036)	A.D.T. = 7,000 (2036)
R.D.S. = 70 MPH	R.D.S. = 50 MPH

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. CROSS SECTION, QUANTITIES & NOTES
3. JOINT REPAIR
4. EXPANSION DEVICE
5. JOINT REPAIR - BILL OF BARS
6. COVER PLATE DETAILS
7. DECK REPAIR PLAN

WISCONSIN VINOD C. PATEL 37887 CAROL STREAM, IL PROFESSIONAL ENGINEER

DATE: 07/20/2016

STRUCTURE DESIGN CONTACTS

BRIDGE OFFICE: WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT: VINOD PATEL, P.E. (312) 616-7395

NO.	DATE	REVISION	BY

exp U.S. Services Inc.
Milwaukee, WI
BUILDINGS·EARTH & ENVIRONMENT·ENERGY
INDUSTRIAL·INFRASTRUCTURE·SUSTAINABILITY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/11/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-5-244

IH 43 NB OVER CTH NN

COUNTY	TOWN ~~CITY/VILLAGE~~
BROWN	NEW DENMARK

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
YC	VCP	JJG	VCP

GENERAL PLAN & ELEVATION

SHEET 1 OF 7

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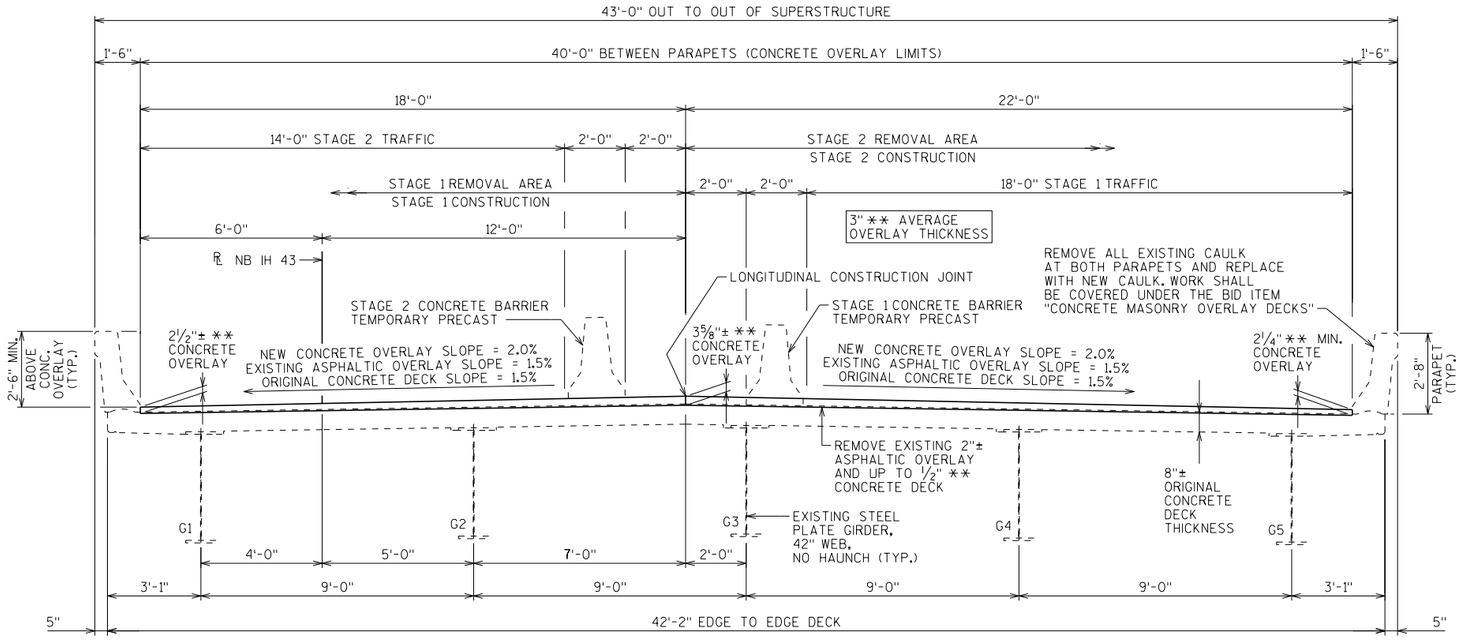
STATE PROJECT NUMBER

1227-08-71

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTAL
502.3100.06	EXPANSION DEVICE B-5-244	LS	-	-	-	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	1,045	1,045
502.3210	PIGMENTED SURFACE SEALER	SY	10	10	176	196
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	90	90	-	180
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	3,200	3,230	-	6,430
505.0904	BAR COUPLERS NO. 4	EACH	4	4	-	8
505.0905	BAR COUPLERS NO. 5	EACH	3	3	-	6
505.0906	BAR COUPLERS NO. 6	EACH	11	11	-	22
505.0907	BAR COUPLERS NO. 7	EACH	5	5	-	10
509.0301	PREPARATION DECKS TYPE 1	SY	-	-	18	18
509.0302	PREPARATION DECKS TYPE 2	SY	-	-	9	9
509.0500	CLEANING DECKS	SY	-	-	976	976
509.1000	JOINT REPAIR	SY	-	-	80	80
509.1500	CONCRETE SURFACE REPAIR	SF	-	36	9	45
509.2000	FULL-DEPTH DECK REPAIR	SY	-	-	1	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	-	-	120	120
509.9010.S.04	REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-5-244	SY	-	-	976	976
509.9050.S	CLEANING PARAPETS	LF	30	30	432	492
	NON-BID ITEMS					
	BRIDGE SEAT PROTECTION					

BID ITEM "CONCRETE MASONRY OVERLAY DECKS" ALSO INCLUDES CONCRETE FOR:
"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "FULL-DEPTH DECK REPAIR", AND "JOINT REPAIR".
THE QUANTITIES OF "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL-DEPTH DECK REPAIR" ARE BASED ON AN INFRARED THERMOGRAPHIC DECK SURVEY REPORT.



CROSS SECTION THRU DECK LOOKING NORTH

** THE OVERLAY THICKNESS INCLUDES ½" THICKNESS OF CONCRETE REMOVAL FROM ORIGINAL CONCRETE DECK.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS OF EXISTING STRUCTURE MEMBERS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

THE EXISTING BITUMINOUS ASPHALTIC OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK UNDER BID ITEM "REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-5-244".

AFTER REMOVING EXISTING ASPHALTIC OVERLAY, UP TO 1/2" OF CONCRETE SHALL BE REMOVED FROM ORIGINAL BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "CONCRETE SURFACE REPAIR", AND "FULL-DEPTH DECK REPAIR" AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2 1/4" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS AS GIVEN ON THE PLANS. IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY OR JOINT REPAIRS AT ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND MINIMUM 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF BOTH ABUTMENTS BELOW EXPANSION DEVICES. POWER WASH AND ADEQUATELY DRY SURFACES BEFORE APPLICATION. WORK TO BE INCIDENTAL TO "JOINT REPAIR".

CLEAN THE INSIDE FACES AND TOP SURFACE OF THE EXISTING CONCRETE PARAPETS. PARAPET JOINTS SHALL BE CLEANED AND RE-SEALED WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. INCLUDE IN BID ITEM "CLEANING PARAPETS".

APPLY "PROTECTIVE SURFACE TREATMENT" TO THE EXPOSED DECK SURFACE OF THE NEW CONCRETE OVERLAY BETWEEN PARAPETS AND EXPOSED TOP SURFACE OF JOINT REPAIR.

APPLY "PIGMENTED SURFACE SEALER" ON THE INSIDE AND TOP FACES OF PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-244

DRAWN BY YC | PLANS CK'D. VCP

CROSS SECTION, QUANTITIES & NOTES

SHEET 2 OF 7

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STATE PROJECT NUMBER
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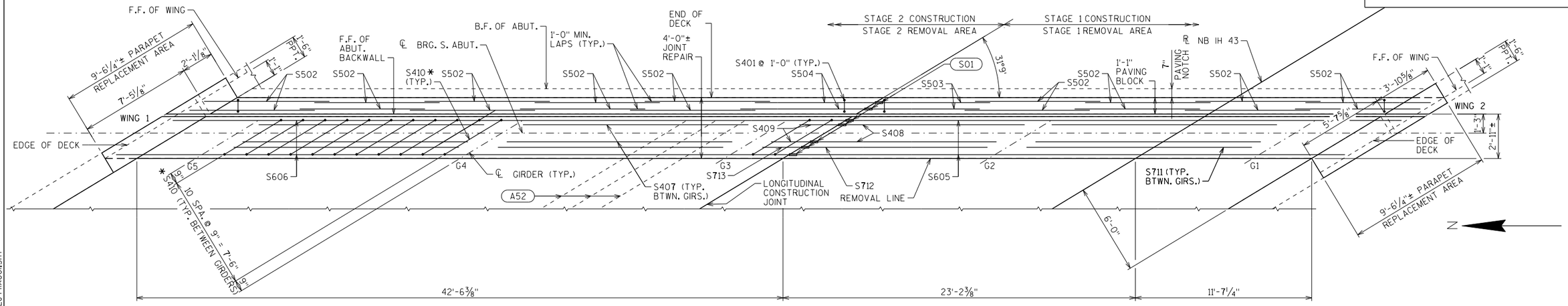
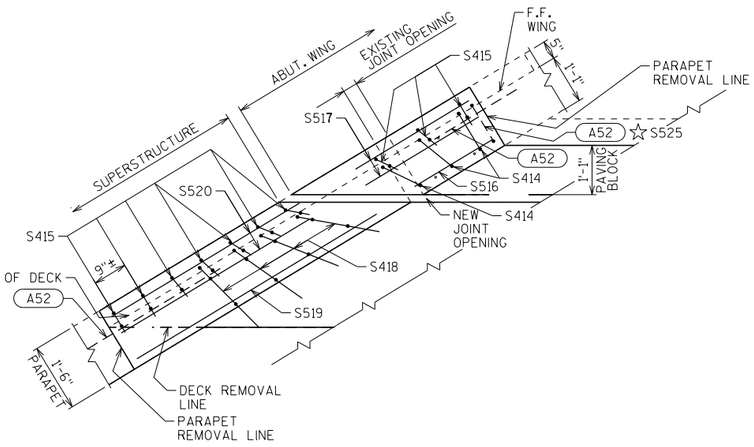


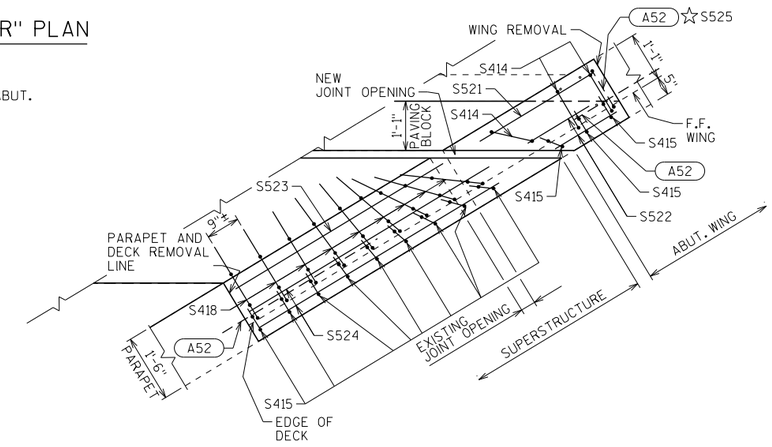
ABUTMENT "JOINT REPAIR" PLAN

SOUTH ABUT. SHOWN
NORTH ABUT. SIMILAR

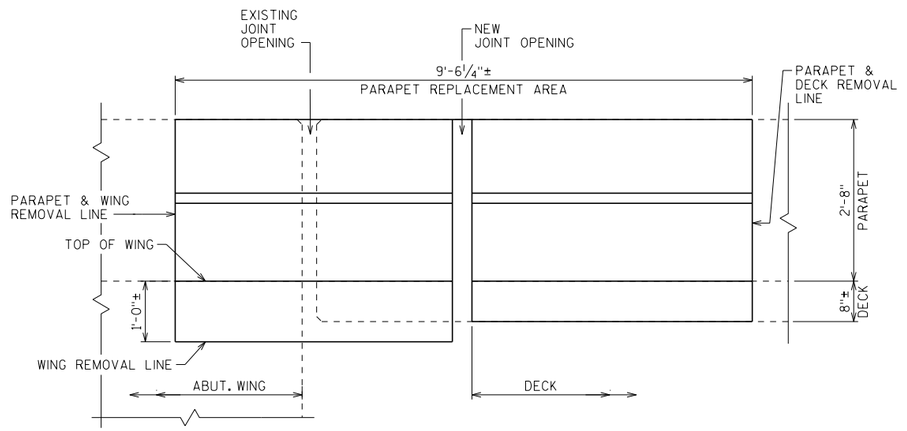
* S410 AT S. ABUT., S426 AT N. ABUT.



PLAN DETAIL OF PARAPET REPLACEMENT AREA AT WING CORNERS 1 & 3

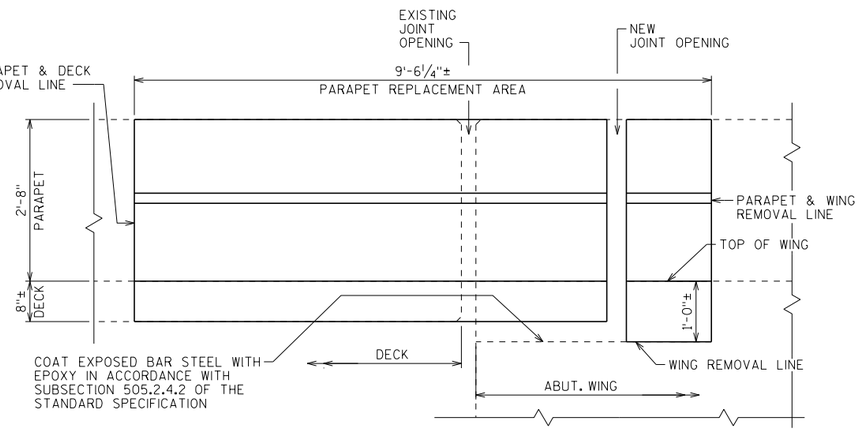


PLAN DETAIL OF PARAPET REPLACEMENT AREA AT WING CORNERS 2 & 4



ELEVATION OF NEW WING CORNERS 1 & 3

SHOWING NEW CONCRETE AREAS FOR "JOINT REPAIR"
(LOOKING AT OUTSIDE FACE OF PARAPET)



ELEVATION OF NEW WING CORNERS 2 & 4

SHOWING NEW CONCRETE AREAS FOR "JOINT REPAIR"
(LOOKING AT OUTSIDE FACE OF PARAPET)

NOTES

ALL REMOVAL LINES SHALL BE DEFINED BY A 1" DEEP SAW-CUT.

REBUILD NEW PARAPET, WING AND DECK AREAS TO MATCH THE EXISTING PARAPET, WING AND DECK. SEE SHEET 5 FOR NEW PARAPET DETAILS.

PARAPET REPLACEMENT SHALL BE INCLUDED UNDER THE BID ITEM "JOINT REPAIR".

(A52) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

THE NEW ADDITIONAL HORIZONTAL REINFORCEMENT REQUIRED IN THE PARAPETS SHALL BE TIED TO THE EXISTING HORIZONTAL REINFORCEMENT.

☆ IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH BARS S525 ANCHORED WITH ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" MIN. INTO EXISTING CONC. PLACE 4" CL. MIN. OF VERT. CONC. FACE.

(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT & SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS' RECOMMENDATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-244

	DRAWN BY YC	PLANS CK'D. VCP

JOINT REPAIR

SHEET 3 OF 7

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STATE PROJECT NUMBER

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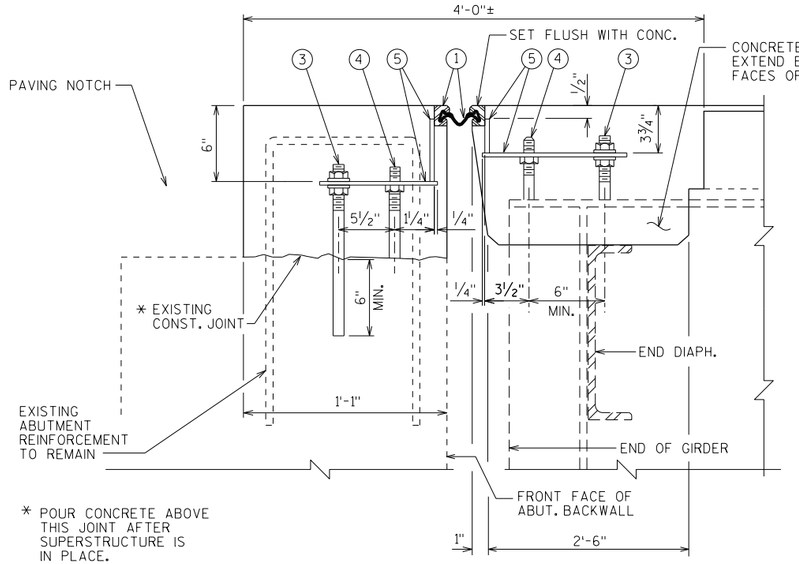
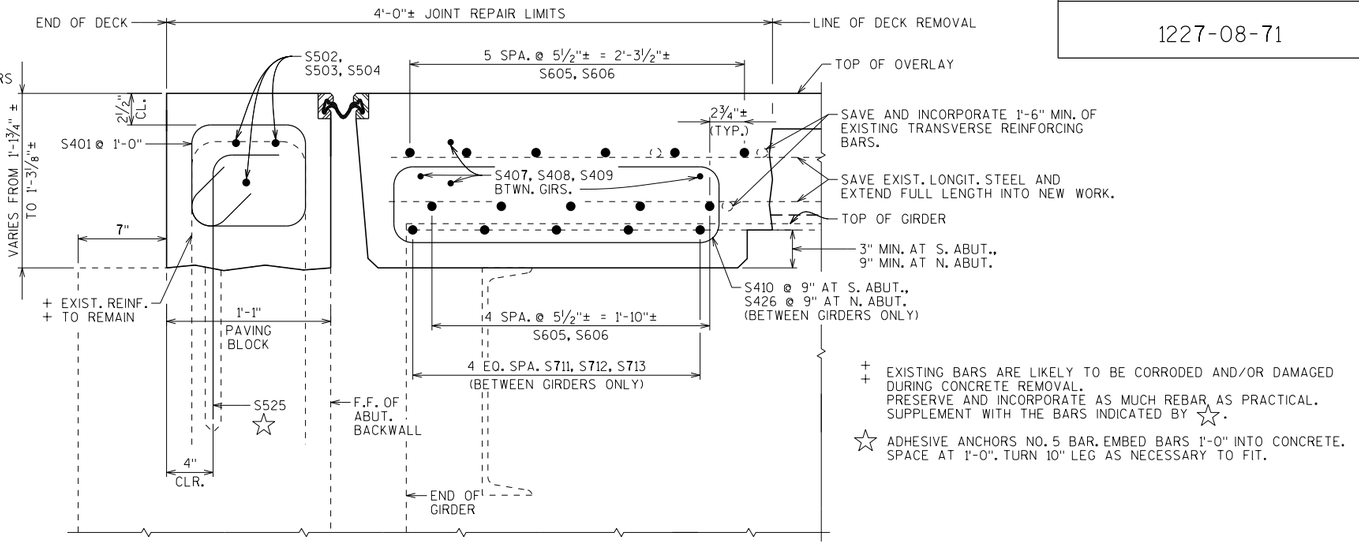


SECTION THRU JOINT AT ABUTMENTS

NORMAL TO ℄ SUBSTRUCTURE

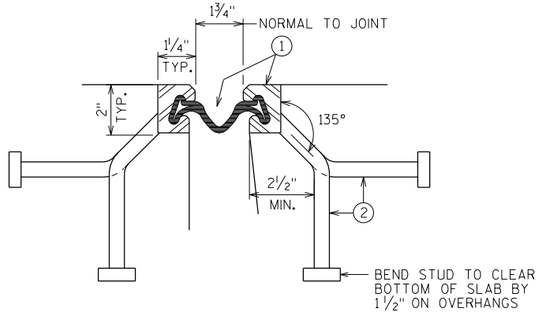


\+ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY ☆.

☆ ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" INTO CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

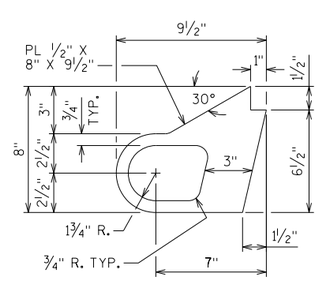
SECTION THRU JOINT AT ABUTMENTS

NORMAL TO ℄ SUBSTRUCTURE
SHOWING REINFORCEMENT



SECTION THRU JOINT

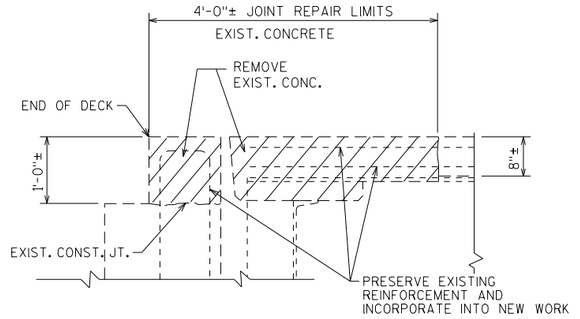
EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS



ALTERNATE STRIP SEAL ANCHOR

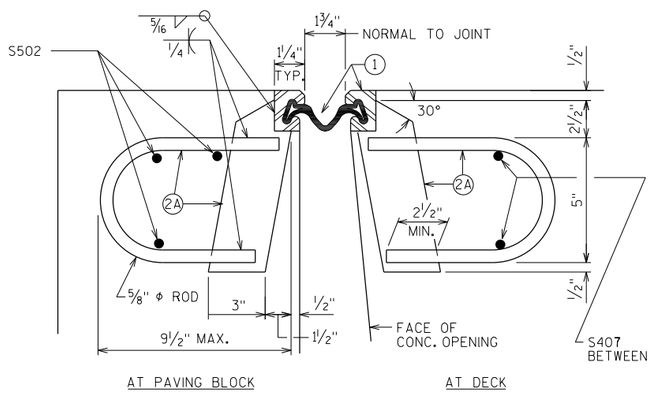
LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
2. STUDS 5/8"ϕ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. 1/2" THICK ANCHOR PLATE WITH 5/8"ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. 3/4" ϕ 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. 3/4"ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X 1/2" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1 1/2" ϕ HOLE FOR NO. 3 AND 1" ϕ HOLE FOR NO. 4.



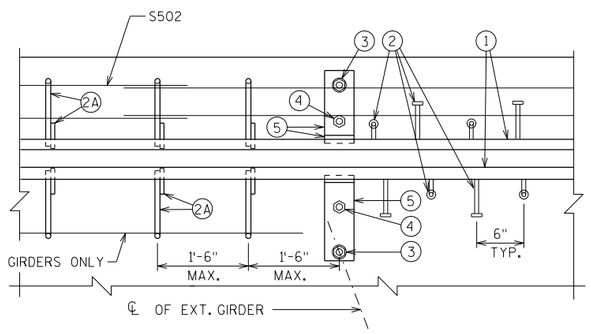
JOINT REPAIR - REMOVAL
SECTION THRU EXISTING EXPANSION JOINT
AT ABUTMENTS

NORMAL TO ℄ SUBSTRUCTURE



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, 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.

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

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-5-244".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-244

DRAWN BY YC | PLANS CK'D. VCP

EXPANSION DEVICE

SHEET 4 OF 7

431

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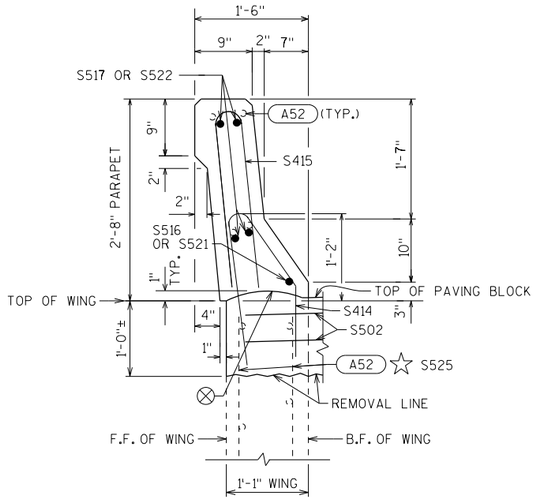
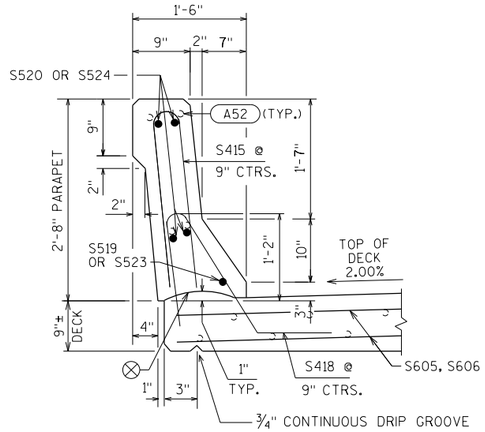


NEW SECTION THRU PARAPET ON WING



NEW SECTION THRU PARAPET ON DECK

⊗ CONST. JOINT - STRIKE OFF AS SHOWN.

A52 SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

THE NEW ADDITIONAL HORIZONTAL REINFORCEMENT REQUIRED IN THE PARAPETS SHALL BE TIED TO THE EXISTING HORIZONTAL REINFORCEMENT.

☆ IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH BARS S525 ANCHORED WITH ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" MIN. INTO EXISTING CONC. PLACE 4" CL. MIN. OF VERT. CONC. FACE.

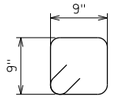
BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

	S. ABUT.	N. ABUT.
UNCOATED:	0 LBS	0 LBS
COATED:	3200 LBS	3230 LBS

	BAR MARK	COAT	NO. REQ'D S. ABUT.	NO. REQ'D N. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
	S401	X	78	78	3'-6"	X		PAVING BLOCK - VERT. - STIRRUP - AT STAGE 1 & 2 CONST.
	S502	X	27	27	8'-3"			PAVING BLOCK - HORIZ. - AT STAGE 1 & 2 CONST.
*	S503	X	3	3	7'-7"			PAVING BLOCK - HORIZ. - AT STAGE 1 CONST.
*	S504	X	3	3	8'-1"			PAVING BLOCK - HORIZ. - AT STAGE 2 CONST.
*	S605	X	11	11	36'-7"			DECK - HORIZ. - TRANS. - TOP & BOT. - AT STAGE 1 CONST.
*	S606	X	11	11	44'-4"			DECK - HORIZ. - TRANS. - TOP & BOT. - AT STAGE 2 CONST.
	S407	X	12	12	14'-10"			DECK - HORIZ. - TRANS. - BTWN. GIRS. - AT STAGE 1 & 2 CONST.
*	S408	X	4	4	12'-3"			DECK - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 1 CONST.
*	S409	X	4	4	2'-7"			DECK - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 2 CONST.
	S410	X	44	-	6'-4"	X		DECK/CONC. DIAPH. - VERT. - BTWN. GIRS. - AT STAGE 1 & 2 CONST.
	S711	X	15	15	14'-10"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. GIRS. - AT STAGE 1 & 2 CONST.
*	S712	X	5	5	12'-3"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 1 CONST.
*	S713	X	5	5	2'-7"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 2 CONST.
	S414	X	6	6	4'-3"	X		WING & PARAPET - VERT. - TRANS. - AT WING CORNERS 1, 2, 3 & 4
	S415	X	22	22	4'-10"	X		PARAPET - VERT. - TRANS. - ABOVE DECK AND WINGS - AT WING CORNERS 1, 2, 3 & 4
	S516	X	1	1	2'-1"			WING PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNERS 1 & 3
	S517	X	4	4	2'-11"			WING PARAPET - HORIZ. - LONGIT. - AT WING CORNERS 1 & 3
	S418	X	13	13	4'-3"	X		DECK & PARAPET- VERT. - TRANS. - AT WING CORNERS 1, 2, 3 & 4
	S519	X	1	1	6'-2"			DECK PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNERS 1 & 3
	S520	X	4	4	4'-10"			DECK PARAPET - HORIZ. - LONGIT. - AT WING CORNERS 1 & 3
	S521	X	1	1	2'-11"			WING PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNERS 2 & 4
	S522	X	4	4	1'-7"			WING PARAPET - HORIZ. - LONGIT. - AT WING CORNERS 2 & 4
	S523	X	1	1	5'-4"			DECK PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNERS 2 & 4
	S524	X	4	4	6'-2"			DECK PARAPET - HORIZ. - LONGIT. - AT WING CORNERS 2 & 4
	S525	X	90	90	2'-7"	X		PAVING BLOCK & ENDS OF ABUT. BACKWALL - VERT. - DOWEL - AT STAGE 1 & 2 CONST.
	S426	X	-	44	7'-4"	X		DECK/CONC. DIAPH. - VERT. - BTWN. GIRS. - AT STAGE 1 & 2 CONST.

* BAR COUPLERS USED. BAR LENGTH COMPUTED UP TO THE LONGIT. CONST. JOINT AND SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS' RECOMMENDATIONS.



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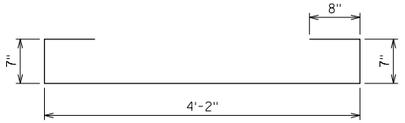

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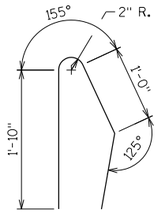

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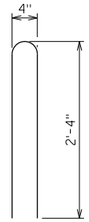

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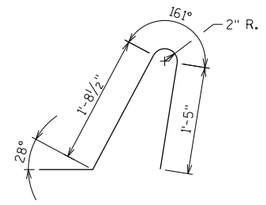
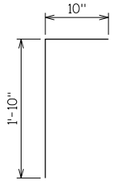
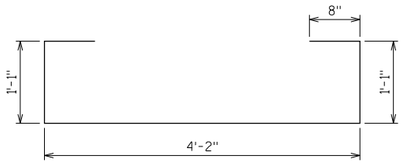


S418



S525



S426

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-244

DRAWN BY YC | PLANS CK'D. VCP

JOINT REPAIR - BILL OF BARS

SHEET 5 OF 7

432

FILENAME

SCALE

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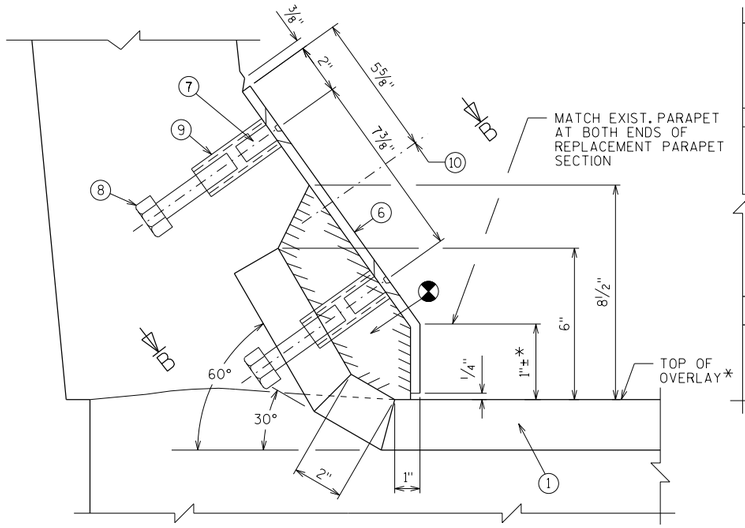
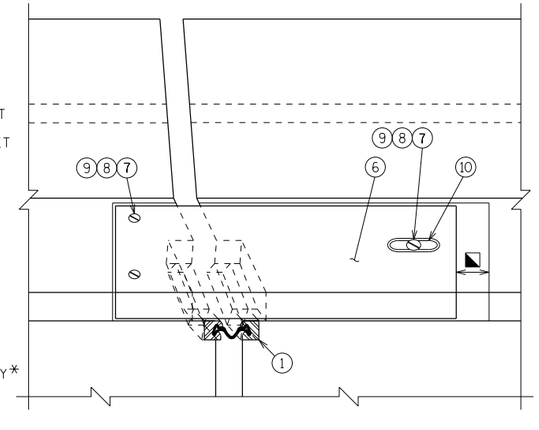
STATE PROJECT NUMBER

1227-08-71



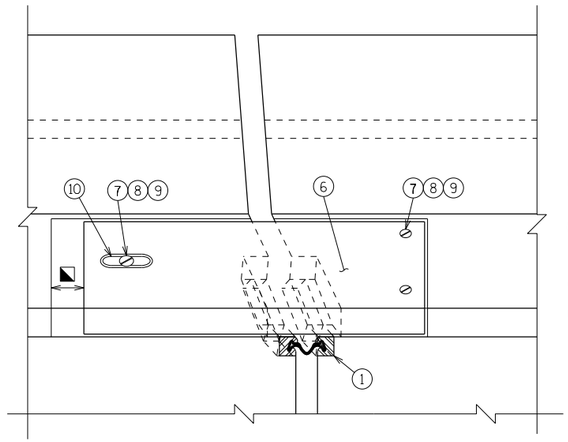
SECTION A-A

* TOP OF OVERLAY @ 2"± ABOVE TOP OF ORIGINAL DECK.



VIEW OF PARAPET PLATE FROM ROADWAY

AT WING CORNERS 2 AND 3

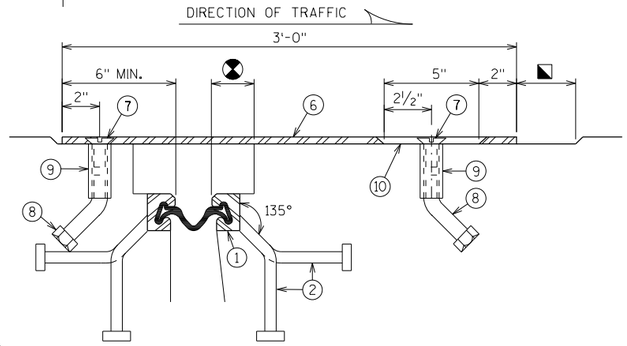


VIEW OF PARAPET PLATE FROM ROADWAY

AT WING CORNERS 1 AND 4

LEGEND

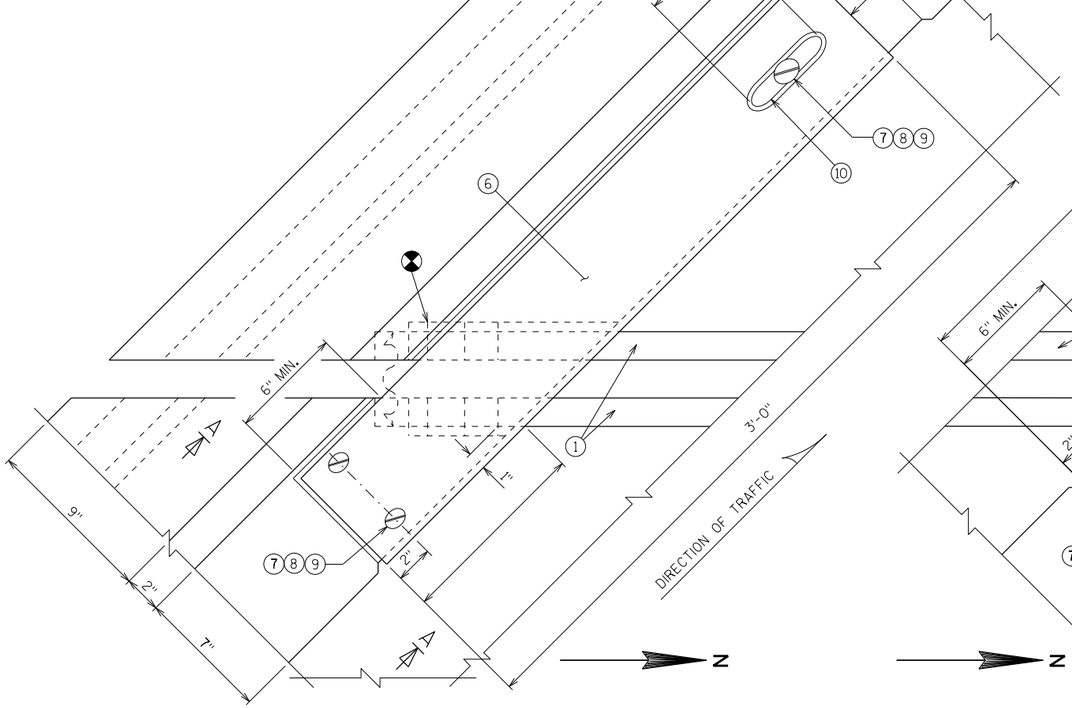
1. NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
2. STUDS 5/8"Φ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
6. GALVANIZED PLATE 3/8" X 1'-2" X 3'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. 3/4"Φ X 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. 3/4"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. 3/4"Φ X 2 1/4" GALVANIZED THREADED COUPLING.
10. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.



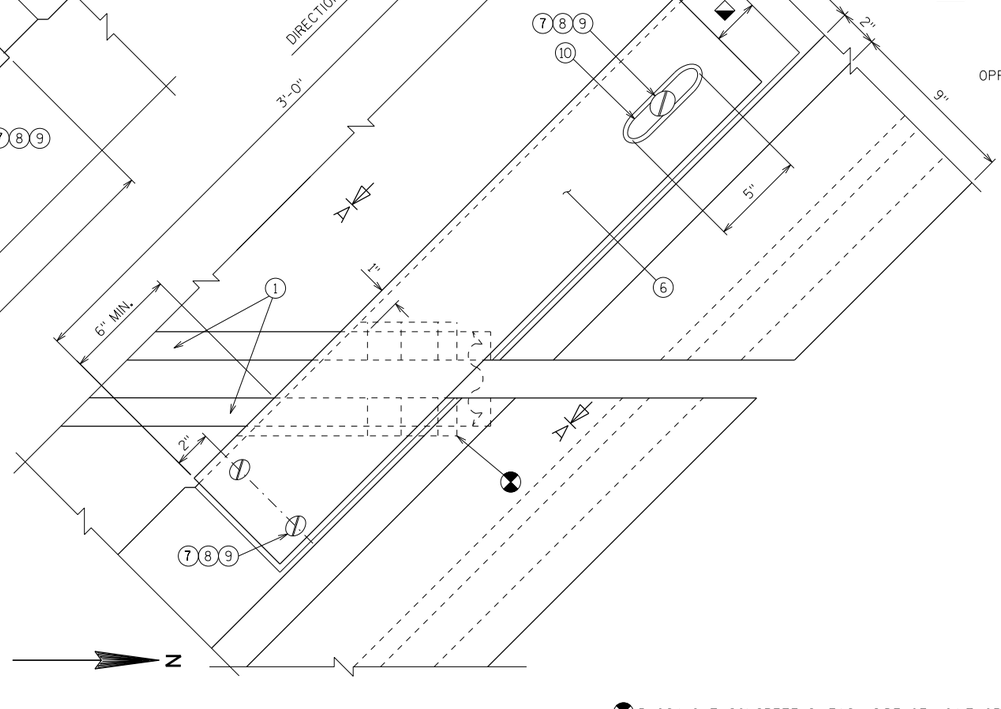
SECTION B-B

AT WING CORNERS 1 AND 4

OPPOSITE HAND AT WING CORNERS 2 AND 3



PLAN AT WING CORNERS 2 AND 3



PLAN AT WING CORNERS 1 AND 4

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

◥ JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-244

DRAWN BY YC | PLANS CK'D. VCP

COVER PLATE DETAILS

SHEET 6 OF 7

433

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STATE PROJECT NUMBER
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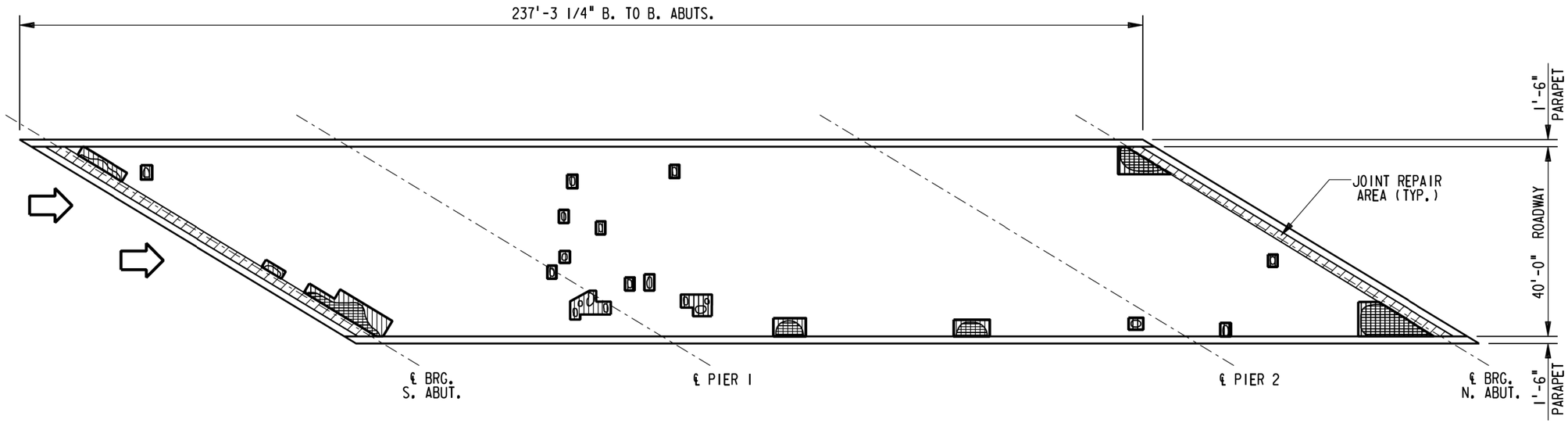
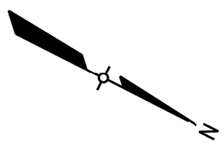


PLAN

PROPOSED REHAB AREAS



FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-5-244	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	1044.4	
SHADE/DEBRIS	yd^2	0	
PREPARATION, DECKS, TYPE 1	yd^2	18.2	1.7
PREPARATION, DECKS, TYPE 2	yd^2	9.1	0.9
FULL DEPTH DECK REPAIR	yd^2	1.0	<0.1
PREPARATION, DECKS, TYPE 1 DEBOND/SCALING ONLY	yd^2	26.1	2.5

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND/SCALING

ASPHALT PATCH

CONCRETE PATCH

NOTES

THIS SHEET PROVIDES THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS REPORTED BY AECOM IN AUGUST 2015. THE PROPOSED DECK REPAIRS ARE BASED ON THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS.

SCALE 0' 5' 10' 25'

SURFACE TYPE: BITUMINOUS OVERLAY

INFRARED INSPECTION DATE: 7/22/15

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-244

DRAWN BY YC | PLANS CK'D. VCP

DECK REPAIR PLAN

SHEET 7 OF 7

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STATE PROJECT NUMBER
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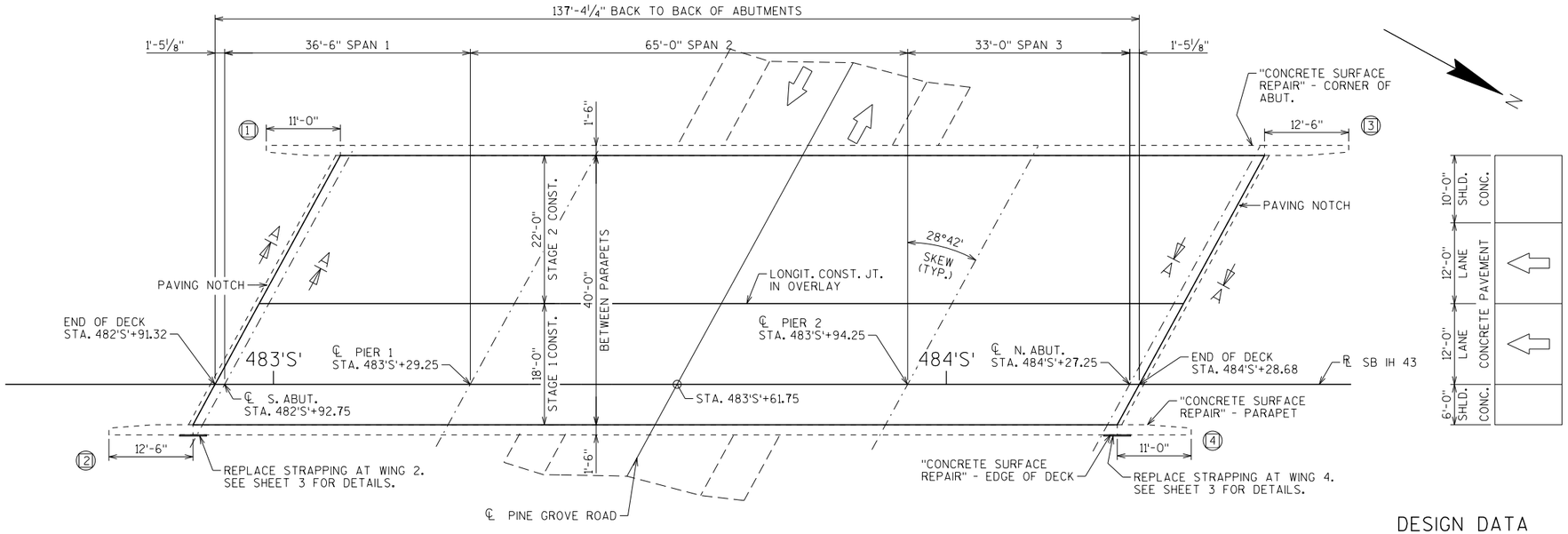
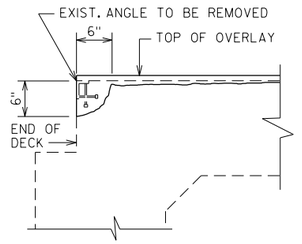


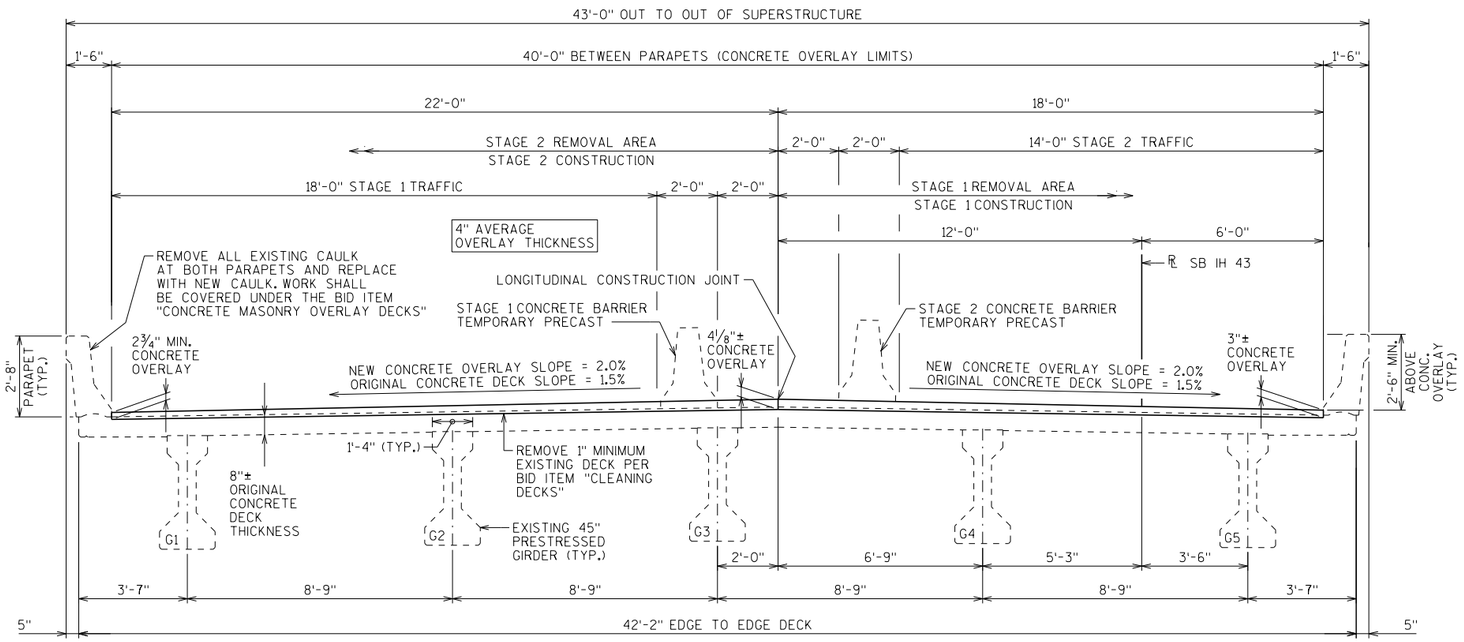
PLAN

(3-SPAN PRESTRESSED CONCRETE GIRDER, CONCRETE OVERLAY)

INDICATES WINGWALL NUMBER



SECTION A-A



CROSS SECTION THRU DECK LOOKING NORTH

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS20
INVENTORY RATING: HS16
OPERATING RATING: HS26
WISCONSIN STANDARD PERMIT VEHICLE (Wis-SPV): 160 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY:	OVERLAY DECKS	f'c = 4,000 P.S.I.
	ALL OTHER	f'c = 3,500 P.S.I.

TRAFFIC VOLUME

IH 43	PINE GROVE ROAD
A.D.T. = 30,100 (2036)	A.D.T. = 200 (2036)
R.D.S. = 70 MPH	R.D.S. = 50 MPH

LIST OF DRAWINGS

1. GENERAL PLAN & CROSS SECTION
2. QUANTITIES & NOTES
3. WING STRAPPING
4. DECK REPAIR PLAN

WISCONSIN
VINOD C. PATEL
37887
CAROL STREAM, IL
PROFESSIONAL ENGINEER

DATE: 07/20/2016

STRUCTURE DESIGN CONTACTS

BRIDGE OFFICE:	CONSULTANT:
WILLIAM DREHER, P.E.	VINOD PATEL, P.E.
(608) 266-8489	(312) 616-7395

NO.	DATE	REVISION	BY

exp U.S. Services Inc.
Milwaukee, WI
BUILDINGS • EARTH & ENVIRONMENT • ENERGY
INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/11/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-5-245

IH 43 SB OVER PINE GROVE ROAD

COUNTY	TOWN ~~CITY/VILLAGE~~
BROWN	DE PERE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
YC	VCP	JJG	VCP

GENERAL PLAN & CROSS SECTION

SHEET 1 OF 4

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FILENAME
SCALE

STATE PROJECT NUMBER

1227-08-71

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	611	611
502.3210	PIGMENTED SURFACE SEALER	SY	8	8	105	121
509.0301	PREPARATION DECKS TYPE 1	SY	-	-	4	4
509.0302	PREPARATION DECKS TYPE 2	SY	-	-	1	1
509.0500	CLEANING DECKS	SY	-	-	611	611
509.1500	CONCRETE SURFACE REPAIR	SF	-	26	8	34
509.2000	FULL-DEPTH DECK REPAIR	SY	-	-	1	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	-	-	68	68
509.9050.S	CLEANING PARAPETS	LF	24	24	274	322
SPV.0060.04	STRAPPING B-5-245	EACH	1	1	-	2
	NON-BID ITEMS					

BID ITEM "CONCRETE MASONRY OVERLAY DECKS" ALSO INCLUDES CONCRETE FOR:
"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL-DEPTH DECK REPAIR".
THE QUANTITIES OF "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL-DEPTH DECK REPAIR" ARE BASED ON AN INFRARED THERMOGRAPHIC DECK SURVEY REPORT.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS OF EXISTING STRUCTURE MEMBERS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "CONCRETE SURFACE REPAIR", AND "FULL-DEPTH DECK REPAIR" AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2 3/4" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS AS GIVEN ON THE PLANS. IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY AT ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND MINIMUM 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

CLEAN THE INSIDE FACES AND TOP SURFACE OF THE EXISTING CONCRETE PARAPETS. PARAPET JOINTS SHALL BE CLEANED AND RE-SEALED WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. INCLUDE IN BID ITEM "CLEANING PARAPETS".

APPLY "PROTECTIVE SURFACE TREATMENT" TO THE EXPOSED DECK SURFACE OF THE NEW CONCRETE OVERLAY BETWEEN PARAPETS.

APPLY "PIGMENTED SURFACE SEALER" ON THE INSIDE AND TOP FACES OF PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-245

DRAWN BY YC | PLANS CK'D. VCP

QUANTITIES & NOTES

SHEET 2 OF 4

436

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STATE PROJECT NUMBER
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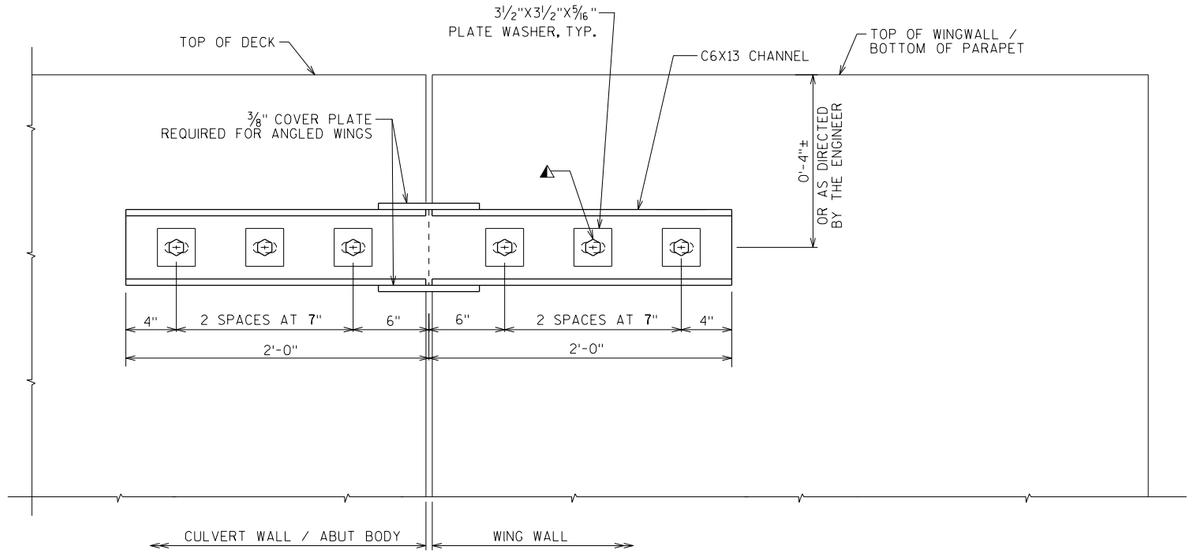
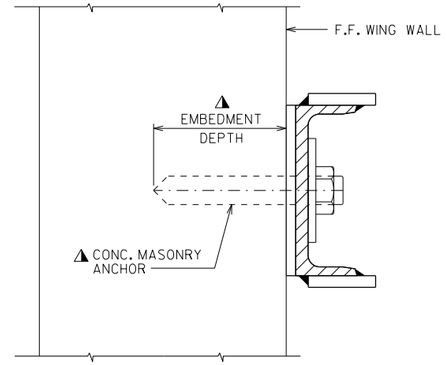
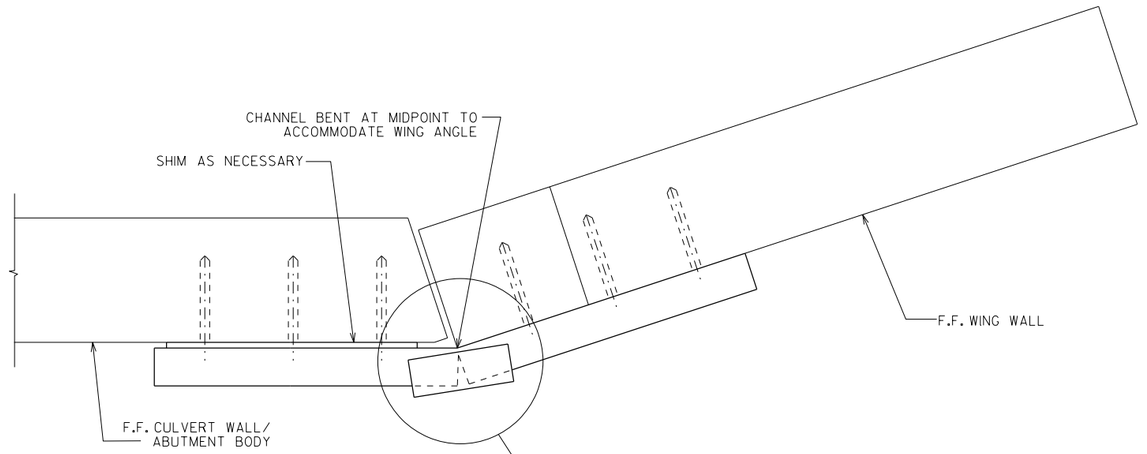
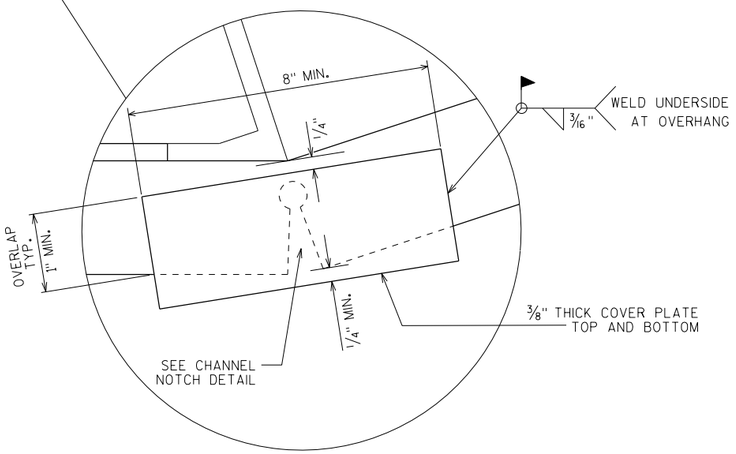


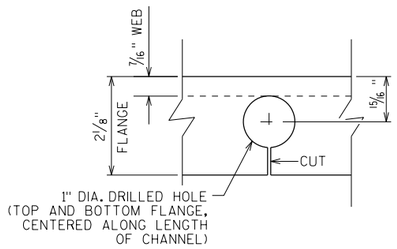


DETAIL "A"
SECTION THRU CHANNEL



PLAN





CHANNEL NOTCH DETAIL
FOR USE WITH ANGLED WINGS ONLY

▲ 1" DIA. CONCRETE MASONRY ANCHOR, TYPE S
10" EMBEDMENT DEPTH
SEE DETAIL "A"

USE 1 1/16" X 2 1/2" LONG SLOTTED HOLES

GENERAL NOTES

WING STRAPPING DETAIL FOR THE PURPOSE OF MITIGATING WING TIPPING, AS AN ALTERNATIVE TO THE PREFERRED METHOD OF WING REPLACEMENT.

BID ITEM SHALL BE "STRAPPING B-5-245" WHICH INCLUDES ALL ITEMS SHOWN, INCLUDING REMOVAL OF EXISTING STRAPPING AND CUTTING OF EXISTING ANCHOR BOLTS.

WISDOT REGIONAL BRIDGE MAINTENANCE ENGINEER TO APPROVE USE OF DETAIL PRIOR TO INSTALLATION.

ALL PROVIDED STEEL MATERIAL SHALL CONFORM TO ASTM A36.

ALL STRUCTURAL STEEL SHOWN SHALL BE GALVANIZED. THREADED RODS, MASONRY ANCHORS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C.

CUTTING AND DRILLING OF CHANNEL SHALL BE DONE IN FABRICATION SHOP, PRIOR TO GALVANIZING.

IF WELDING COVER PLATE IN FIELD, PRIOR TO WELDING, REMOVE GALVANIZING FROM AREA TO BE WELDED. TOUCH UP WITH PAINT ALL AREAS LACKING GALVANIZING WHEN COMPLETE.

CAULK AROUND PERIMETER OF CHANNEL AND FILL PORTION OF HOLE AROUND ANCHOR BOLT AND SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-245

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WING STRAPPING

SHEET 3 OF 4

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FILENAME

SCALE

WINGSTRAP
7-13

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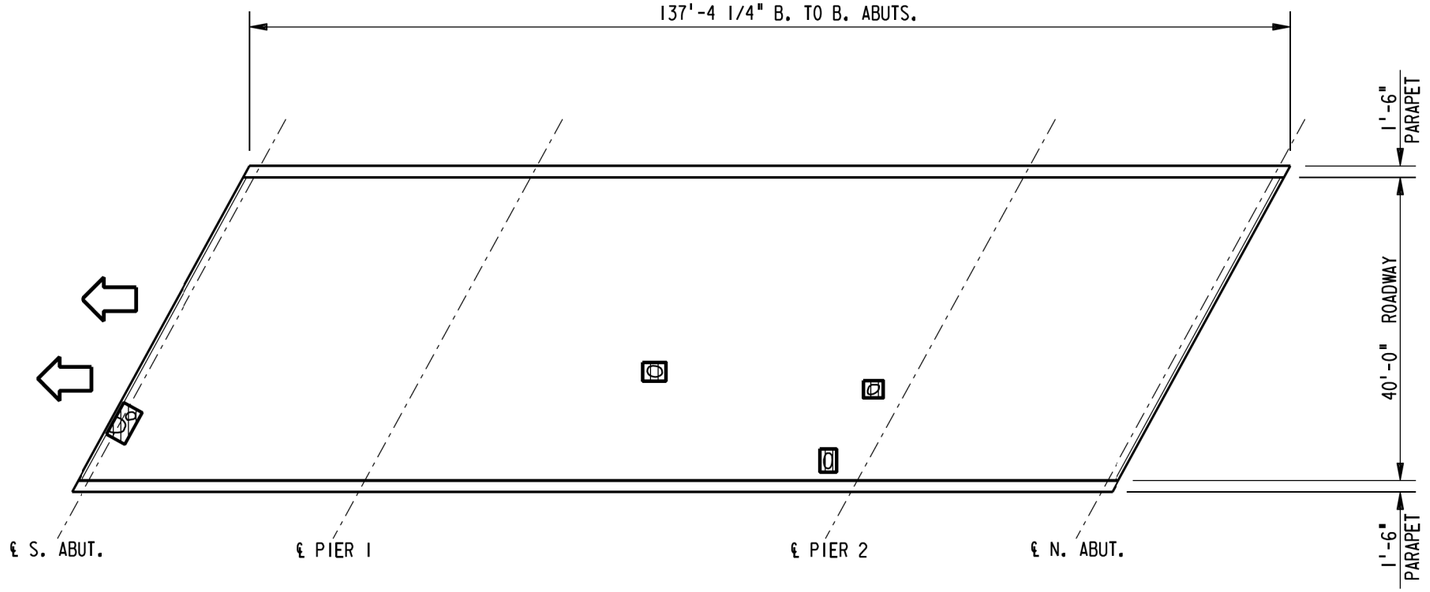
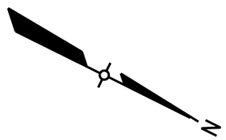


PLAN

PROPOSED REHAB AREAS



FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-5-245	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	610.2	
SHADE/DEBRIS	yd^2	0	
PREPARATION, DECKS, TYPE 1	yd^2	3.7	0.6
PREPARATION, DECKS, TYPE 2	yd^2	0.9	0.1
FULL DEPTH DECK REPAIR	yd^2	1.0	0.2

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND

ASPHALT PATCH

CONCRETE PATCH

SCALE 0' 5' 10' 20'

SURFACE TYPE: CONCRETE - NO OVERLAY

INFRARED INSPECTION DATE: 7/22/15

NOTES

THIS SHEET PROVIDES THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS REPORTED BY AECOM IN AUGUST 2015. THE PROPOSED DECK REPAIRS ARE BASED ON THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-245

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DECK REPAIR PLAN

SHEET 4 OF 4

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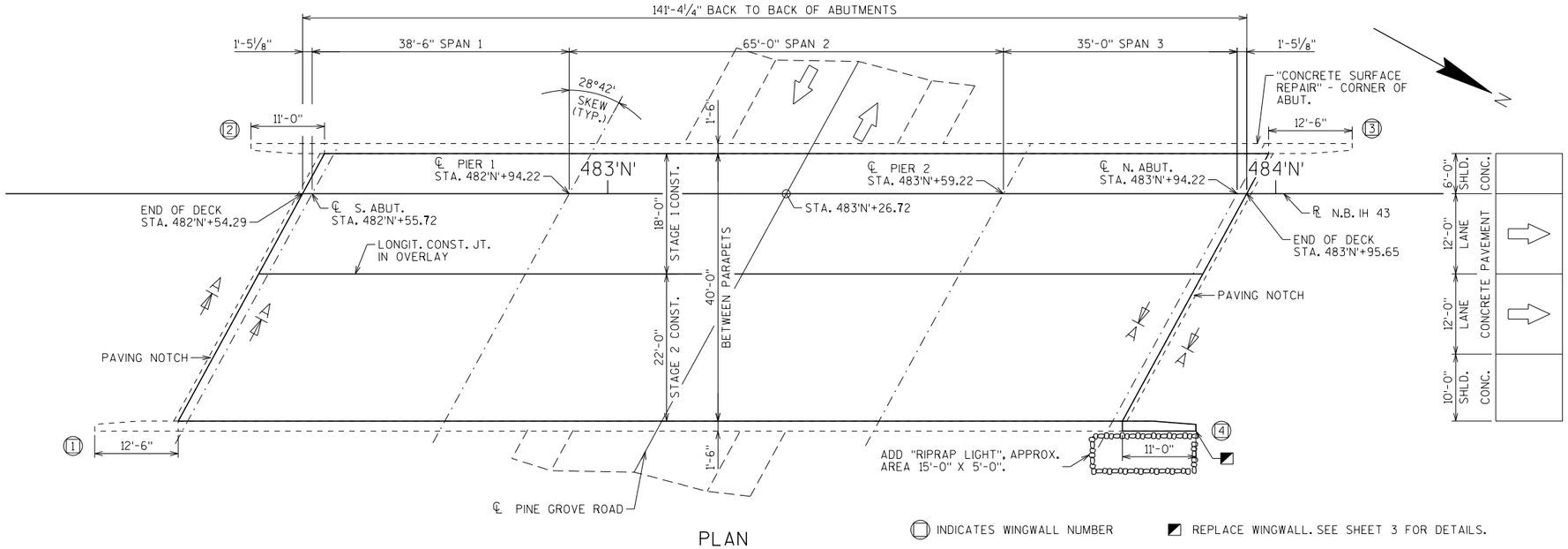
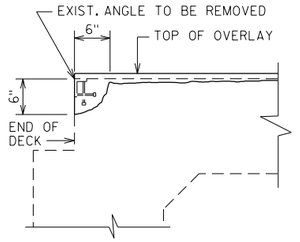


PLAN

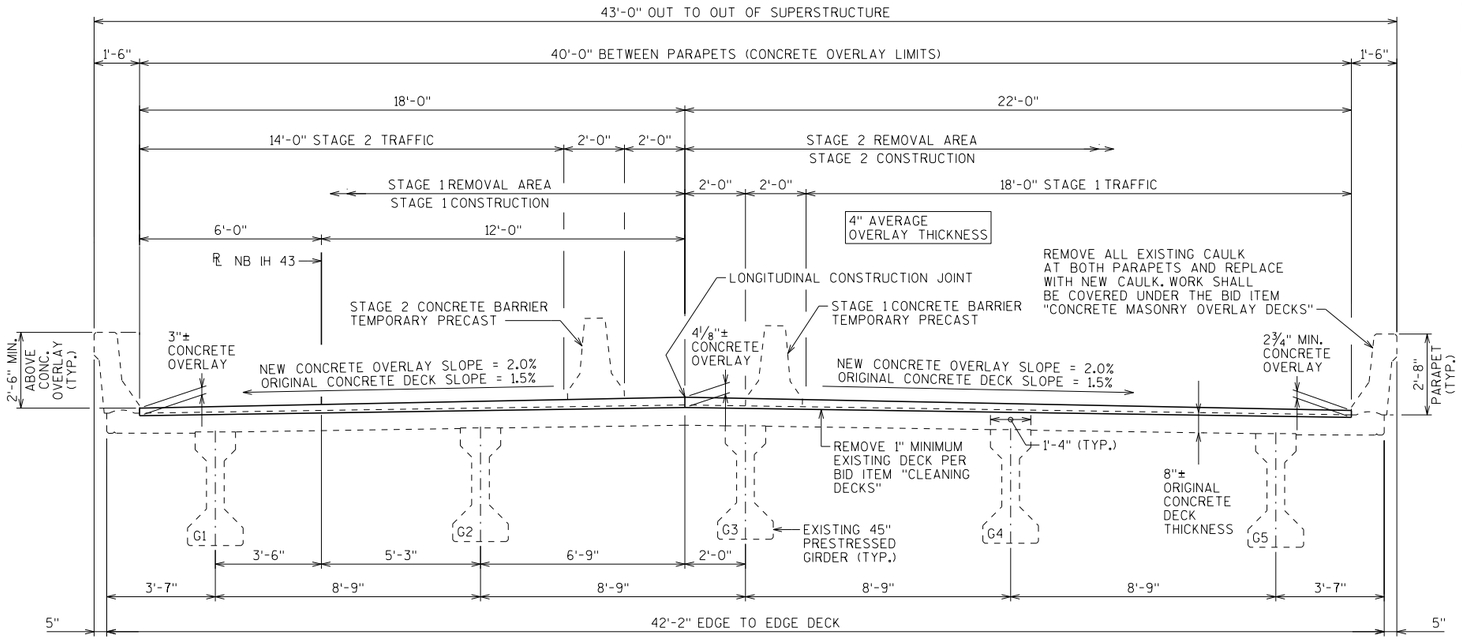
(3-SPAN PRESTRESSED CONCRETE GIRDER, CONCRETE OVERLAY)

INDICATES WINGWALL NUMBER

REPLACE WINGWALL. SEE SHEET 3 FOR DETAILS.



SECTION A-A



CROSS SECTION THRU DECK LOOKING NORTH

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20
INVENTORY RATING: HS16
OPERATING RATING: HS26
WISCONSIN STANDARD PERMIT VEHICLE (Wis-SPV): 160 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY:	OVERLAY DECKS	f'c = 4,000 P.S.I.
	ALL OTHER	f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60:		fy = 60,000 P.S.I.

TRAFFIC VOLUME

IH 43	PINE GROVE ROAD
A.D.T. = 30,100 (2036)	A.D.T. = 200 (2036)
R.D.S. = 70 MPH	R.D.S. = 50 MPH

LIST OF DRAWINGS

1. GENERAL PLAN & CROSS SECTION
2. QUANTITIES & NOTES
3. WINGWALL 4 REPLACEMENT
4. SLOPED FACE PARAPET "B"
5. DECK REPAIR PLAN

WISCONSIN
VINOD C. PATEL
37887
CAROL STREAM, IL
PROFESSIONAL ENGINEER

DATE: 07/20/2016

STRUCTURE DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER, P.E.
(608) 266-8489

CONSULTANT:
VINOD PATEL, P.E.
(312) 616-7395

NO.	DATE	REVISION	BY

exp U.S. Services Inc.
Milwaukee, WI
BUILDINGS · EARTH & ENVIRONMENT · ENERGY
INDUSTRIAL · INFRASTRUCTURE · SUSTAINABILITY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/11/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-5-246

IH 43 NB OVER PINE GROVE ROAD

COUNTY	TOWN ~~CITY/VILLAGE~~
BROWN	BELLEVUE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
YC	VCP	JJG	VCP

GENERAL PLAN & CROSS SECTION

SHEET 1 OF 5

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FILENAME
SCALE

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STATE PROJECT NUMBER
1227-08-71

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTAL
203.0200.06	REMOVING OLD STRUCTURE STA. 483'N'+26.72	LS	-	-	-	1
206.1000.05	EXCAVATION FOR STRUCTURES BRIDGES B-5-246	LS	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	-	41	-	41
502.0100	CONCRETE MASONRY BRIDGES	CY	-	5	-	5
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	628	628
502.3210	PIGMENTED SURFACE SEALER	SY	9	8	108	125
502.4204	ADHESIVE ANCHORS NO. 4 BAR	EACH	-	5	-	5
502.4206	ADHESIVE ANCHORS NO. 6 BAR	EACH	-	18	-	18
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	-	765	-	765
509.0301	PREPARATION DECKS TYPE 1	SY	-	-	11	11
509.0302	PREPARATION DECKS TYPE 2	SY	-	-	6	6
509.0500	CLEANING DECKS	SY	-	-	628	628
509.1500	CONCRETE SURFACE REPAIR	SF	-	9	-	9
509.2000	FULL-DEPTH DECK REPAIR	SY	-	-	1	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	-	-	71	71
509.9050.S	CLEANING PARAPETS	LF	24	13	282	319
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-	2	-	2
606.0100	RIPRAP LIGHT	CY	-	3	-	3
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-	40	-	40
	NON-BID ITEMS					
	PREFORMED JOINT FILLER	SIZE	-	-	-	1/2 "

BID ITEM "CONCRETE MASONRY OVERLAY DECKS" ALSO INCLUDES CONCRETE FOR:
"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL-DEPTH DECK REPAIR".
THE QUANTITIES OF "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL-DEPTH DECK REPAIR" ARE BASED ON AN INFRARED THERMOGRAPHIC DECK SURVEY REPORT.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS OF EXISTING STRUCTURE MEMBERS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "CONCRETE SURFACE REPAIR", AND "FULL-DEPTH DECK REPAIR" AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2 3/4" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS AS GIVEN ON THE PLANS. IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE ABUTMENT.

AT THE BACKFACE OF ABUTMENT, ALL VOLUME WHICH CANNOT BE PLACED BEFORE WINGWALL CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND MINIMUM 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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

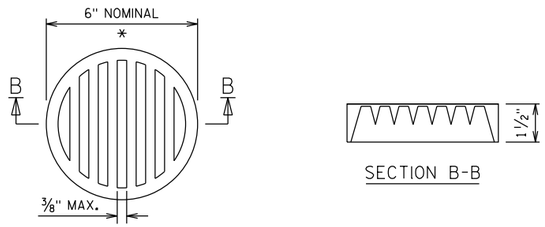
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

CLEAN THE INSIDE FACES AND TOP SURFACE OF THE EXISTING CONCRETE PARAPETS. PARAPET JOINTS SHALL BE CLEANED AND RE-SEALED WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. INCLUDE IN BID ITEM "CLEANING PARAPETS".

APPLY "PROTECTIVE SURFACE TREATMENT" TO THE EXPOSED DECK SURFACE OF THE NEW CONCRETE OVERLAY BETWEEN PARAPETS.

APPLY "PIGMENTED SURFACE SEALER" ON THE INSIDE AND TOP FACES OF PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS.

INSTALL RODENT SCREEN(S) AT THE EXPOSED END(S) OF PIPE UNDERDRAIN.



SECTION B-B

RODENT SCREEN DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO INTO A PIPE COUPLING. ORIENT SCREEN SO SLOTS ARE VERTICAL.

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

THE RODENT SCREEN 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 SCREEN TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SCREEN 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-5-246

DRAWN BY YC | PLANS CK'D. VCP

QUANTITIES & NOTES

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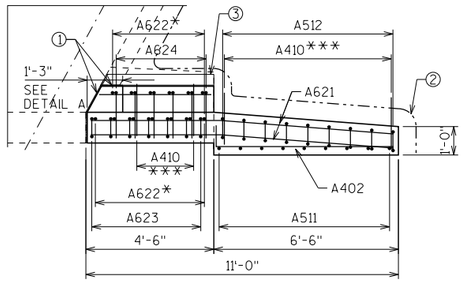
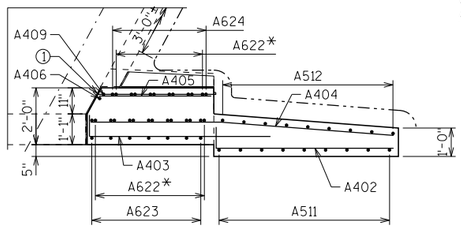
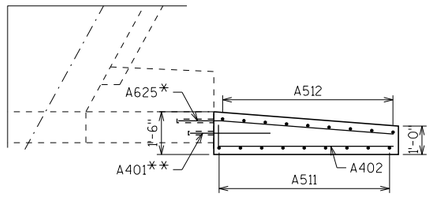


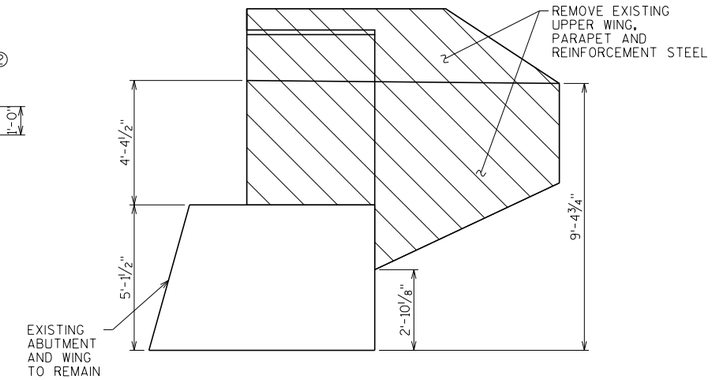
SECTION A-A



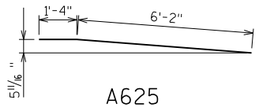
SECTION B-B



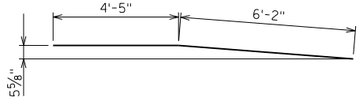
SECTION C-C



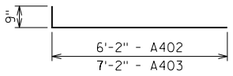
EXISTING WING REMOVAL



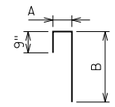
A625



A404 & A621

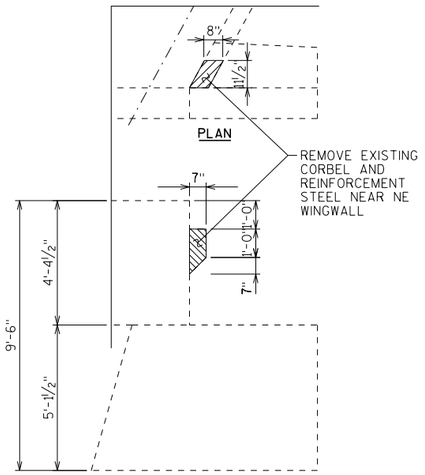


A402 & A403

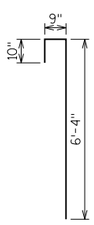


A406, A407, A408 & A409

BAR	A	B
A406	6"	3'-1"
A407	9"	9"
A408	7"	9"
A409	8"	3'-2"

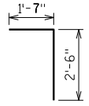


PARTIAL CORBEL REMOVAL



A512

A623



A624

BILL OF BARS

550 LBS

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
**	A401	X	5	2-10			HORIZONTAL ANCHOR BARS, B.F.
	A402	X	12	6-10	X		HORIZONTAL, F.F.
	A403	X	6	7-10	X		HORIZONTAL, B.F.
	A404	X	6	10-7	X		HORIZONTAL, M.F.
	A405	X	5	3-9			HORIZONTAL, F.F.
	A406	X	1	4-2	X		U BARS
	A407	X	1	2-1	X		U BARS
	A408	X	1	1-11	X		U BARS
	A409	X	1	4-5	X		U BARS
	A410	X	13	1-10			HORIZONTAL BARS, M.F.
	A511	X	9	6-4			VERTICAL, F.F.
	A512	X	9	7-8	X		VERTICAL, B.F.
	A621	X	2	10-7	X		HORIZONTAL
*	A622	X	13	3-8			VERTICAL ANCHOR BARS
	A623	X	7	4-5	X		U BARS
	A624	X	6	3-11	X		L BARS
*	A625	X	5	7-6	X		HORIZONTAL ANCHOR BARS, M.F.

THE FIRST DIGIT OF A THREE DIGIT MARK SIGNIFIES THE BAR SIZE.
ALL BAR DIMENSIONS ARE OUT TO OUT OF BAR.

NOTES:

① ½" FILLER INCLUDED IN WING LENGTH. SEAL ALL HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.

② PIPE UNDERDRAIN WRAPPED 6 INCH, SLOPE 0.5% MIN. TO DRAIN.

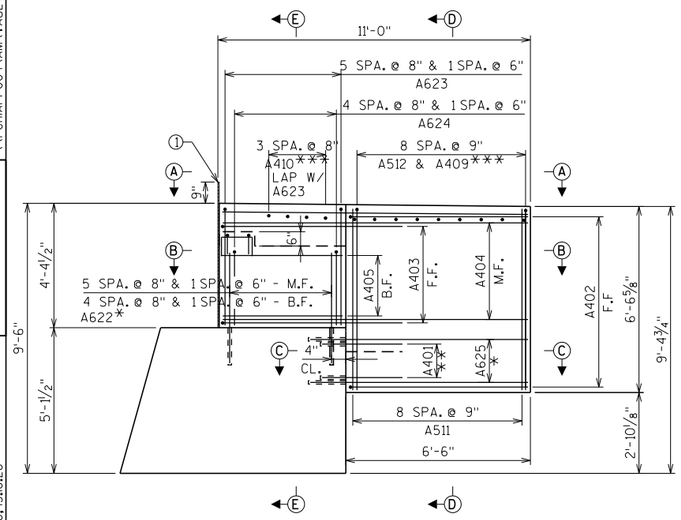
③ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

④ PROVIDE 2" CLEAR COVER U.N.O.

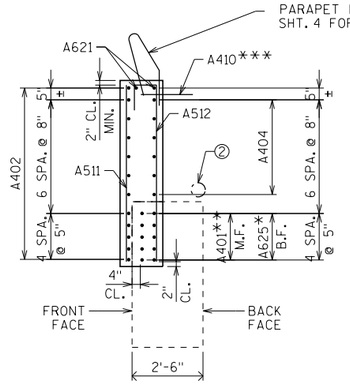
* ADHESIVE ANCHORS NO. 6 BAR. EMBED 15" INTO CONCRETE.

** ADHESIVE ANCHORS NO. 4 BAR. EMBED 10" INTO CONCRETE.

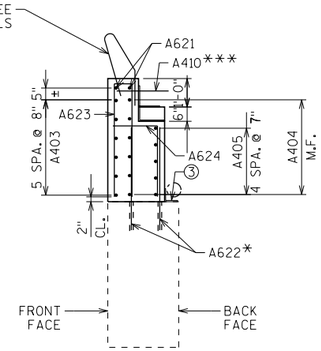
*** A410 BARS SPACED EQAULLY WITH A623 & A512 BARS. EMBED 10" INTO WING CONCRETE. LOCATE 3" DOWN FROM TOP OF WING AT BACKFACE TO 6" DOWN AT WING TIP. (DRILLED IN EPOXY ANCHORED #4 BARS 1'-10" LONG MAY BE USED.) COST INCIDENTAL TO BID ITEM "BAR STEEL REINFORCEMENT HS COATED BRIDGES."



WING ELEVATION



SECTION D-D



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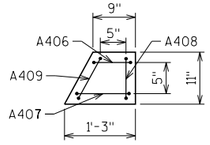

DETAIL A

STATE PROJECT NUMBER

1227-08-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-246

DRAWN BY EG | PLANS CK'D. VCP

WINGWALL 4 REPLACEMENT

SHEET 3 OF 5

441

FILENAME
SCALE

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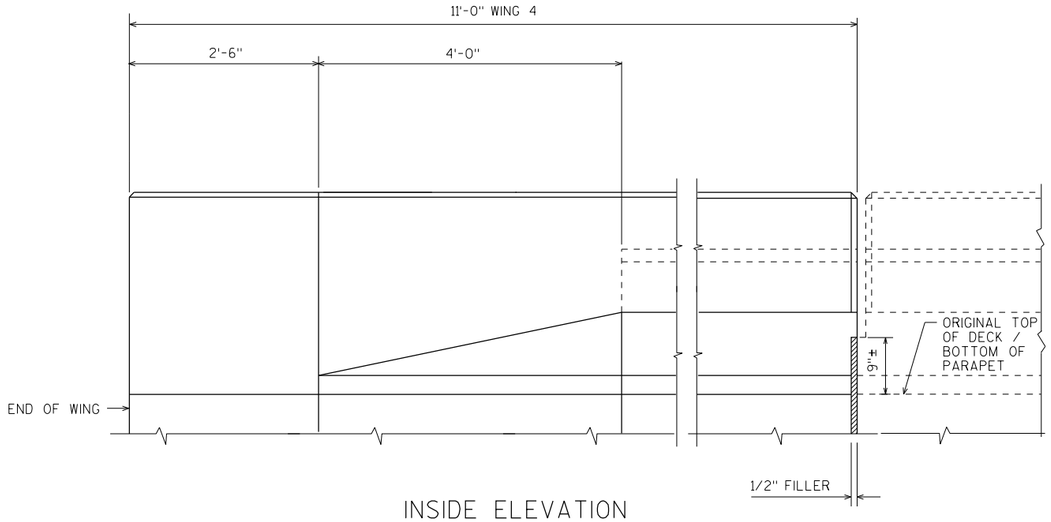
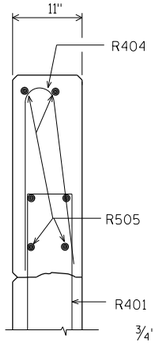
STATE PROJECT NUMBER

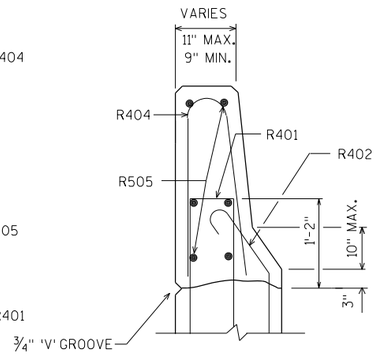
1227-08-71



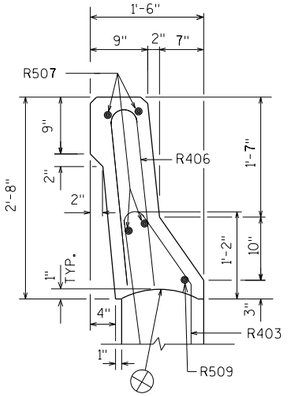
INSIDE ELEVATION



SECTION A



SECTION B



SECTION C

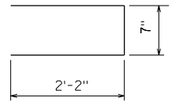
BILL OF BARS

FOR ABUTMENT PARAPETS

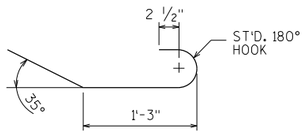
THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE. EPOXY COAT ALL PRAPET REINF.

	S. ABUT.	N. ABUT.
UNCOATED:	0 LBS	0 LBS
COATED:	0 LBS	215 LBS

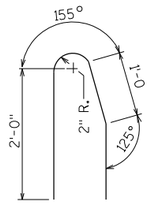
BAR MARK	NO. REQ'D S. ABUT.	NO. REQ'D N. ABUT.	LENGTH	BENT	LOCATION
R401	-	15	4'-9"	X	WING 4 STIRRUPS
R402	-	4	3'-1"	X	WING 4
R403	-	6	4'-7"	X	WING 4 STIRRUPS
R404	-	15	4'-9"	X	WING 4
R505	-	6	6'-2"		WING 4
R406	-	6	4'-10"	X	WING 4
R507	-	4	6'-3"		WING 4
- - -	-	-			
R509	-	1	10'-7"	X	WING 4
- - -	-	-			
- - -	-	-			



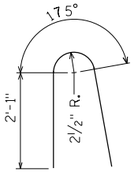
R401



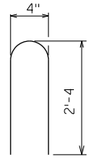
R402



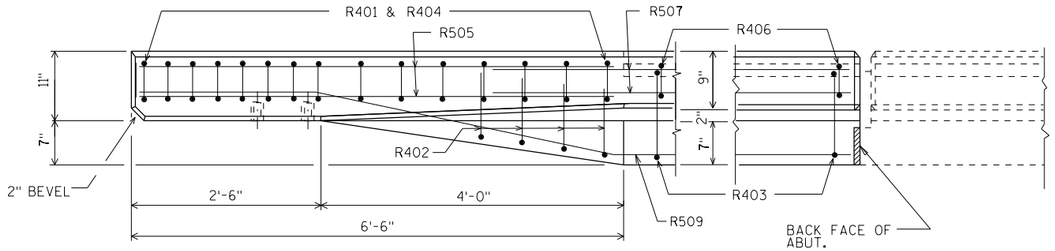
R403



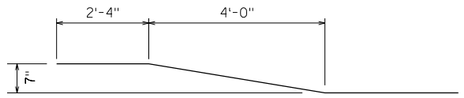
R404



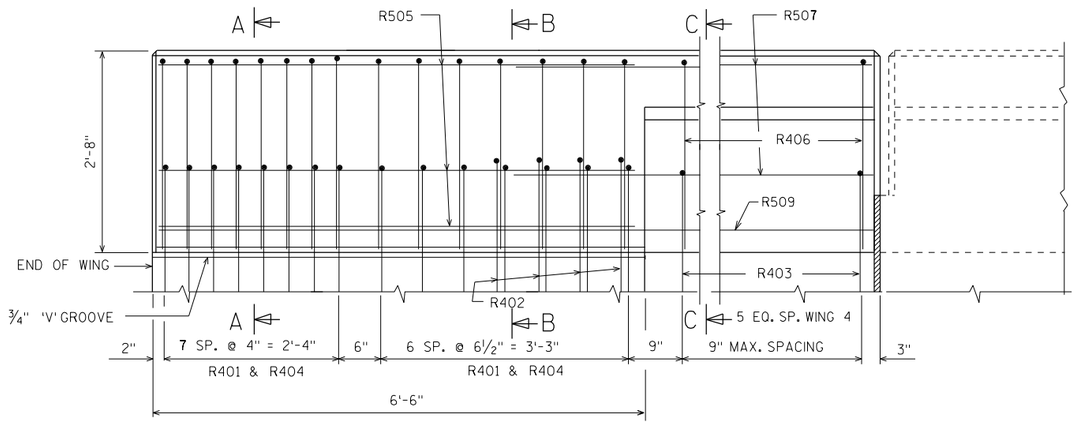
R406



PLAN



R509



OUTSIDE ELEVATION

⊗ CONST. JOINT - STRIKE OFF AS SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-246

DRAWN BY SD | PLANS CK'D. YC

SLOPED FACE PARAPET "B"

SHEET 4 OF 5

442

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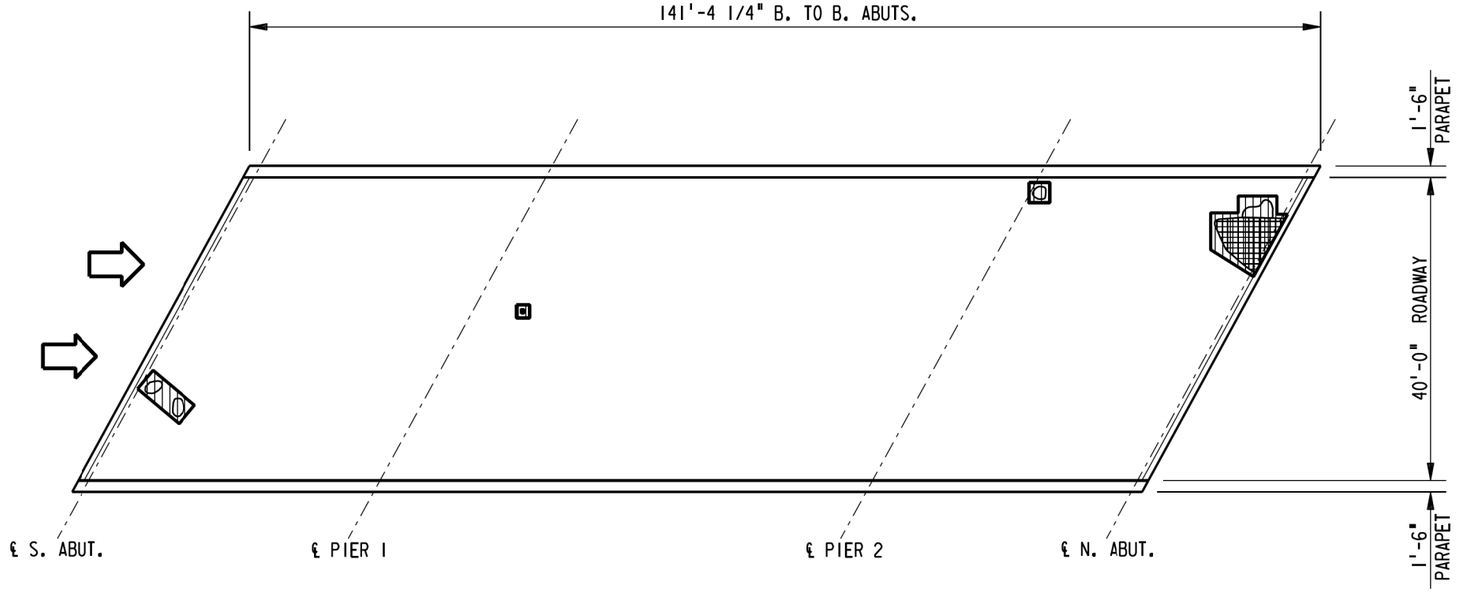
STATE PROJECT NUMBER
1227-08-71



PLAN

PROPOSED REHAB AREAS

FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-5-246	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	628.0	
SHADE/DEBRIS	yd^2	0	
PREPARATION, DECKS, TYPE 1	yd^2	11.2	1.8
PREPARATION, DECKS, TYPE 2	yd^2	5.6	0.9
FULL DEPTH DECK REPAIR	yd^2	1.0	0.2

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND

ASPHALT PATCH

CONCRETE PATCH

SCALE 0' 5' 10' 20'

SURFACE TYPE: CONCRETE - NO OVERLAY

INFRARED INSPECTION DATE: 7/22/15

NOTES

THIS SHEET PROVIDES THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS REPORTED BY AECOM IN AUGUST 2015. THE PROPOSED DECK REPAIRS ARE BASED ON THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-246

DRAWN BY YC | PLANS CK'D. VCP

DECK REPAIR PLAN

SHEET 5 OF 5

443

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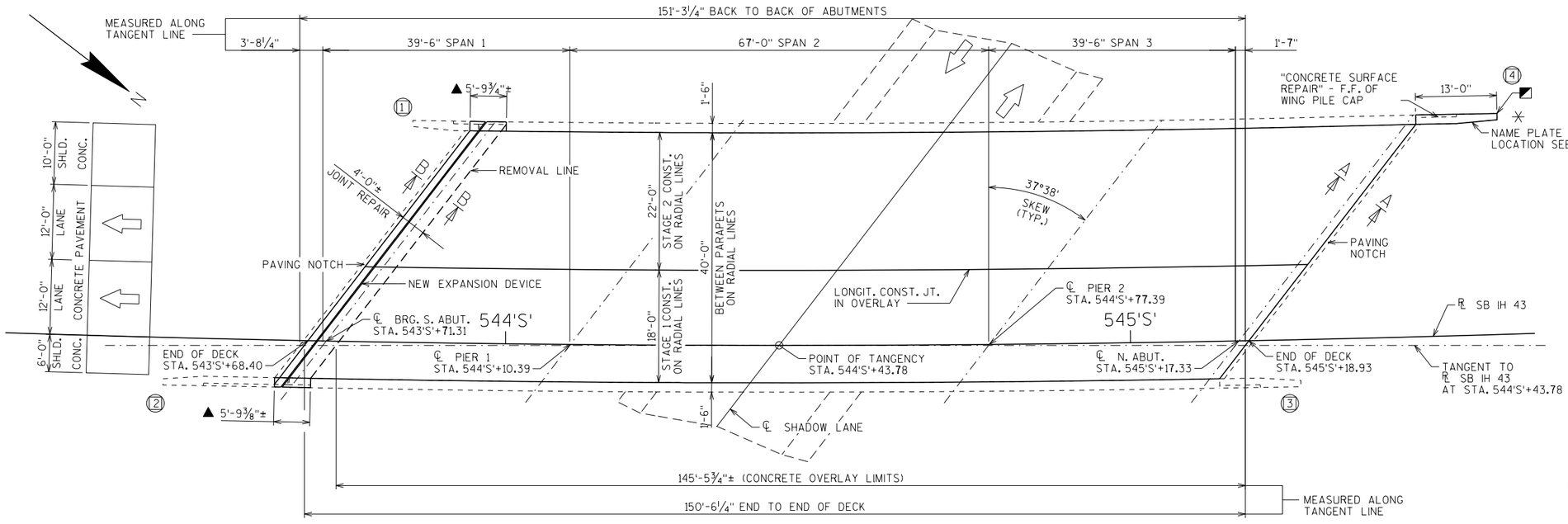
STATE PROJECT NUMBER
1227-08-71

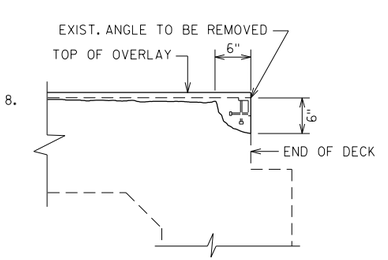


◯ INDICATES WINGWALL NUMBER

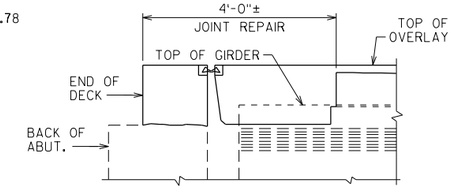
▲ PARAPET REPLACEMENT AREA. SEE SHEETS 3 AND 5 FOR DETAILS.

PLAN

(3-SPAN PRESTRESSED CONCRETE GIRDER, CONCRETE OVERLAY)



SECTION A-A

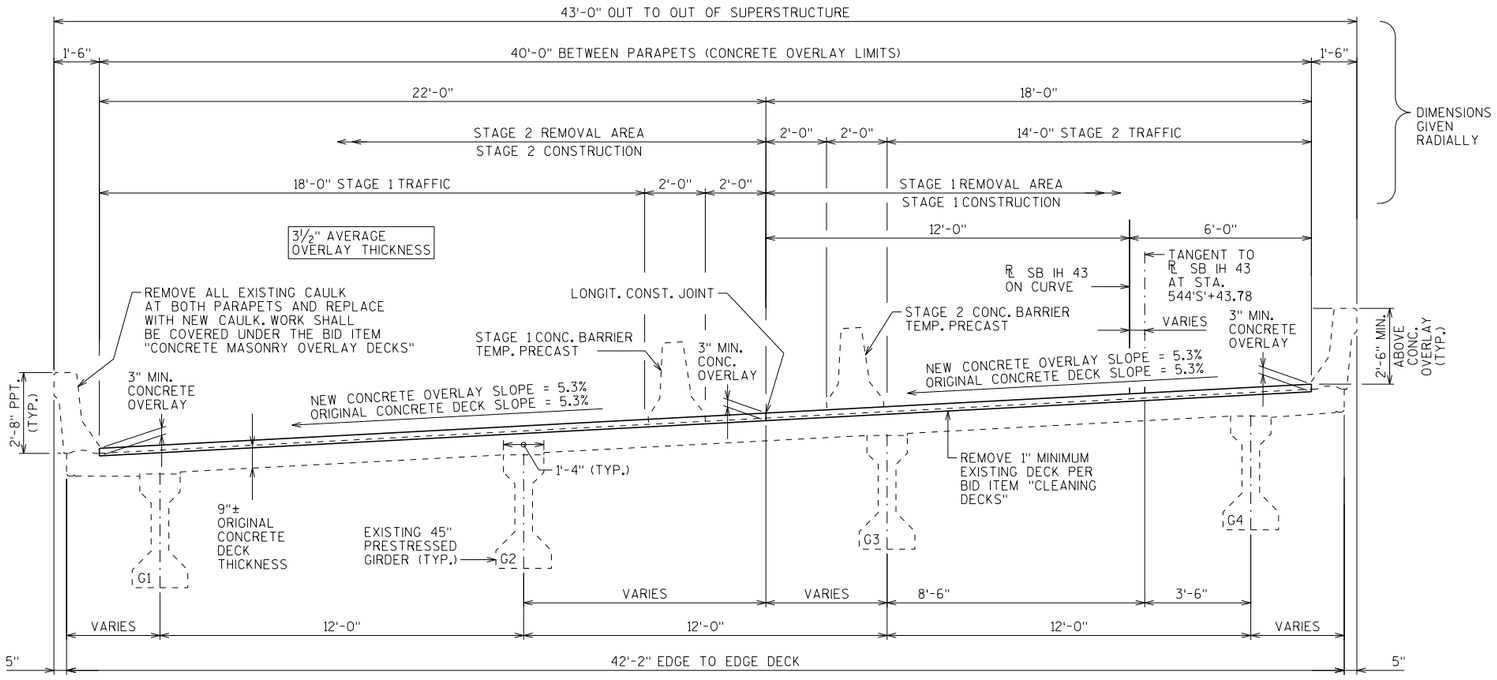


SECTION B-B

SEE SHEET 4 FOR DETAILS.

◩ REPLACE WINGWALL. SEE SHEET 7 FOR DETAILS.

✳ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT



CROSS SECTION THRU DECK LOOKING NORTH

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20
INVENTORY RATING: HS17
OPERATING RATING: HS29
WISCONSIN STANDARD PERMIT VEHICLE (Wis-SPV): 210 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY:	OVERLAY DECKS	f'c = 4,000 P.S.I.
	ALL OTHER	f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60:		fy = 60,000 P.S.I.

TRAFFIC VOLUME

IH 43	SHADOW LANE
A.D.T. = 36,200 (2036)	A.D.T. = 200 (2036)
R.D.S. = 70 MPH	R.D.S. = 50 MPH

LIST OF DRAWINGS

1. GENERAL PLAN & CROSS SECTION
2. QUANTITIES, NOTES & PRESTRESSED GIRDER REPAIRS
3. JOINT REPAIR
4. EXPANSION DEVICE
5. JOINT REPAIR - BILL OF BARS
6. COVER PLATE DETAILS
7. WINGWALL 4 REPLACEMENT
8. SLOPED FACE PARAPET "B"
9. DECK REPAIR PLAN

WISCONSIN
VINOD C. PATEL
37887
CAROL STREAM, IL
PROFESSIONAL ENGINEER

DATE: 07/20/2016

STRUCTURE DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER, P.E.
(608) 266-8489

CONSULTANT:
VINOD PATEL, P.E.
(312) 616-7395

NO.	DATE	REVISION	BY

exp U.S. Services Inc.
Milwaukee, WI
BUILDINGS · EARTH & ENVIRONMENT · ENERGY
INDUSTRIAL · INFRASTRUCTURE · SUSTAINABILITY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/11/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-5-247

IH 43 SB OVER SHADOW LANE

COUNTY	TOWN ~~CITY/VILLAGE~~
BROWN	DE PERE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	YC	DESIGN CK'D.	VCP	DRAWN BY	JJG	PLANS CK'D.	VCP

GENERAL PLAN & CROSS SECTION

SHEET 1 OF 9

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FILENAME

SCALE

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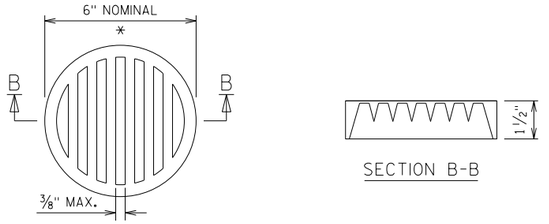
4891-A0\STRUCT\CADD\47 B05024TNIA EXP\SHEET\GP47IA001.SHT

STATE PROJECT NUMBER
1227-08-71

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTAL
203.0200.07	REMOVING OLD STRUCTURE STA. 544'S'+43.78	LS	-	-	-	1
206.1000.06	EXCAVATION FOR STRUCTURES BRIDGES B-5-247	LS	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	-	27	-	27
502.0100	CONCRETE MASONRY BRIDGES	CY	-	5	-	5
502.3100.07	EXPANSION DEVICE B-5-247	LS	-	-	-	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	669	669
502.3210	PIGMENTED SURFACE SEALER	SY	11	9	114	134
502.4204	ADHESIVE ANCHORS NO. 4 BAR	EACH	-	5	-	5
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	59	-	-	59
502.4206	ADHESIVE ANCHORS NO. 6 BAR	EACH	-	25	-	25
502.6500	PROTECTIVE COATING CLEAR	GAL	-	-	1	1
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,320	995	-	3,315
505.0904	BAR COUPLERS NO. 4	EACH	-	-	4	4
505.0905	BAR COUPLERS NO. 5	EACH	-	-	3	3
505.0906	BAR COUPLERS NO. 6	EACH	-	-	11	11
505.0908	BAR COUPLERS NO. 8	EACH	-	-	6	6
509.0301	PREPARATION DECKS TYPE 1	SY	-	-	7	7
509.0302	PREPARATION DECKS TYPE 2	SY	-	-	1	1
509.0500	CLEANING DECKS	SY	-	-	647	647
509.1000	JOINT REPAIR	SY	-	-	26	26
509.1500	CONCRETE SURFACE REPAIR	SF	-	6	17	23
509.2000	FULL-DEPTH DECK REPAIR	SY	-	-	1	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	-	-	75	75
509.9050.S	CLEANING PARAPETS	LF	31	13	289	333
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-	3	-	3
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-	44	-	44
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	-	1	-	1
SPV.0060.01	CLEANING AND PAINTING BEARINGS	EACH	4	-	-	4
SPV.0090.01	CLEANING CONCRETE GIRDER ENDS	LF	10	-	-	10
	NON-BID ITEMS					
	PREFORMED JOINT FILLER	SIZE	-	-	-	1/2 "
	BRIDGE SEAT PROTECTION					

BID ITEM "CONCRETE MASONRY OVERLAY DECKS" ALSO INCLUDES CONCRETE FOR:
"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "FULL-DEPTH DECK REPAIR", AND "JOINT REPAIR".
THE QUANTITIES OF "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL-DEPTH DECK REPAIR" ARE BASED ON AN INFRARED THERMOGRAPHIC DECK SURVEY REPORT.
"CONCRETE SURFACE REPAIR" OF SUPERSTRUCTURE INCLUDES W. PPT. (6 SF), E. PPT. (6 SF), AND POSSIBLE REPAIR OF GIRS. 1 & 2 AT S. ABUT. (5 SF).



SECTION B-B

RODENT SCREEN DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO INTO A PIPE COUPLING. ORIENT SCREEN SO SLOTS ARE VERTICAL.

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

THE RODENT SCREEN 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 SCREEN TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS OF EXISTING STRUCTURE MEMBERS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "CONCRETE SURFACE REPAIR", AND "FULL-DEPTH DECK REPAIR" AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 3" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS AS GIVEN ON THE PLANS. IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE ABUTMENT.

AT THE BACKFACE OF ABUTMENT, ALL VOLUME WHICH CANNOT BE PLACED BEFORE WINGWALL CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND MINIMUM 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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.

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 1980.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACE OF SOUTH ABUTMENT BELOW EXPANSION DEVICE. POWER WASH AND ADEQUATELY DRY SURFACES BEFORE APPLICATION. WORK TO BE INCIDENTAL TO "JOINT REPAIR".

COAT ALL EXPOSED SURFACES OF THE LAST 5'-0" OF GIRDERS (SPAN 1 AT SOUTH ABUTMENT END ONLY) WITH "PROTECTIVE COATING CLEAR" AS DIRECTED BY THE ENGINEER. APPLY AT A RATE OF ONE GALLON PER 200 SF PER THE STANDARD SPECIFICATION 502.3.15 PARA. 4.

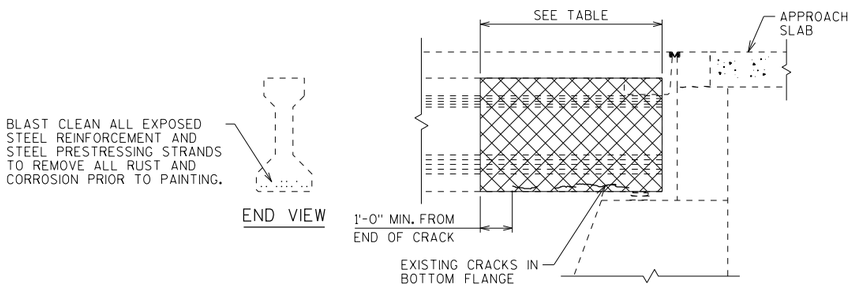
CLEAN AND PAINT ALL BEARINGS AT SOUTH ABUTMENT. SEE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING BEARINGS".

CLEAN THE INSIDE FACES AND TOP SURFACE OF THE EXISTING CONCRETE PARAPETS. PARAPET JOINTS SHALL BE CLEANED AND RE-SEALED WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. INCLUDE IN BID ITEM "CLEANING PARAPETS".

APPLY "PROTECTIVE SURFACE TREATMENT" TO THE EXPOSED DECK SURFACE OF THE NEW CONCRETE OVERLAY BETWEEN PARAPETS AND EXPOSED TOP SURFACE OF JOINT REPAIR.

APPLY "PIGMENTED SURFACE SEALER" ON THE INSIDE AND TOP FACES OF PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS.

INSTALL RODENT SCREEN(S) AT THE EXPOSED END(S) OF PIPE UNDERDRAIN.



PART LONGITUDINAL SECTION
(SOUTH ABUT.)

CLEANING CONCRETE GIRDER ENDS (L.F.)

	G1	G2	G3	G4
SOUTH ABUT.	5	5	-	-

LEGEND

DENOTES AREAS OF BID ITEM "CLEANING CONCRETE GIRDER ENDS". SEE NOTES.

NOTES:

1. REMOVE ANY LOOSE, DELAMINATED, OR DETERIORATED CONCRETE FROM THE END OF CONCRETE GIRDERS.
2. CLEAN AND PAINT ANY EXPOSED STEEL REINFORCEMENT AND STEEL PRESTRESSING STRANDS.
3. MINIMUM LENGTH OF CLEANING IS 5'. VERIFY LENGTH OF CLEANING WITH ENGINEER.

PRESTRESSED GIRDER REPAIRS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-247

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QUANTITIES, NOTES & PRESTRESSED GIRDER REPAIRS

SHEET 2 OF 9
445

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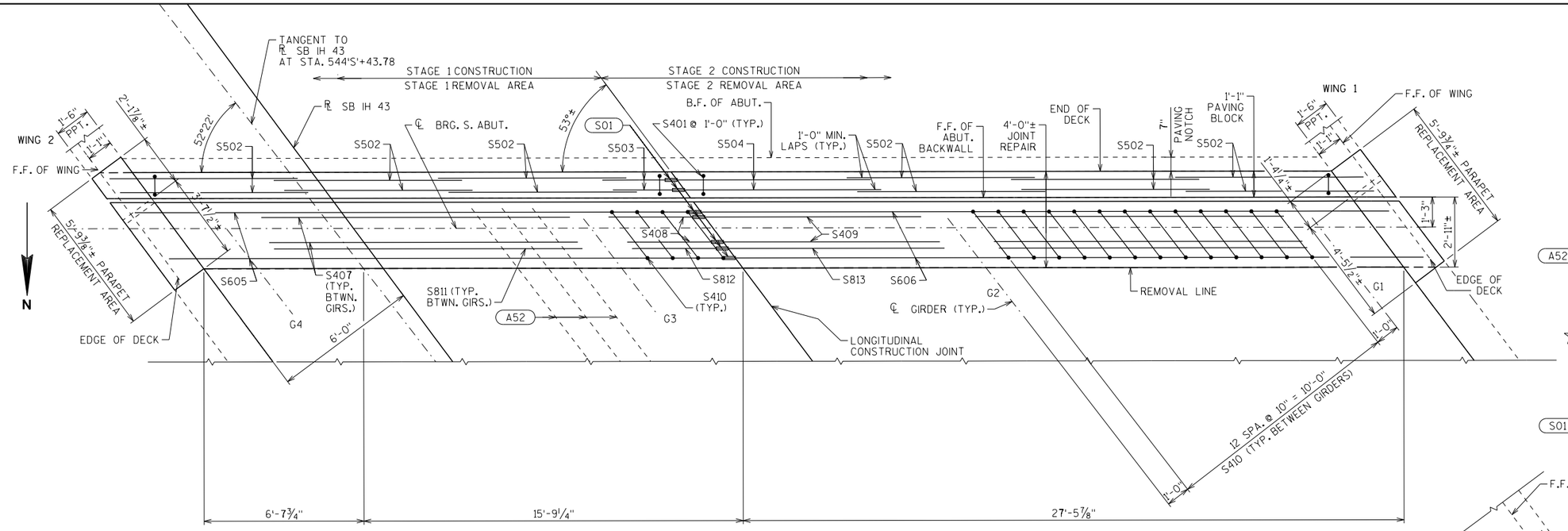


SOUTH ABUTMENT "JOINT REPAIR" PLAN

STATE PROJECT NUMBER

1227-08-71

NOTES

ALL REMOVAL LINES SHALL BE DEFINED BY A 1" DEEP SAW-CUT.

REBUILD NEW PARAPET, WING AND DECK AREAS TO MATCH THE EXISTING PARAPET, WING AND DECK. SEE SHEET 5 FOR NEW PARAPET DETAILS.

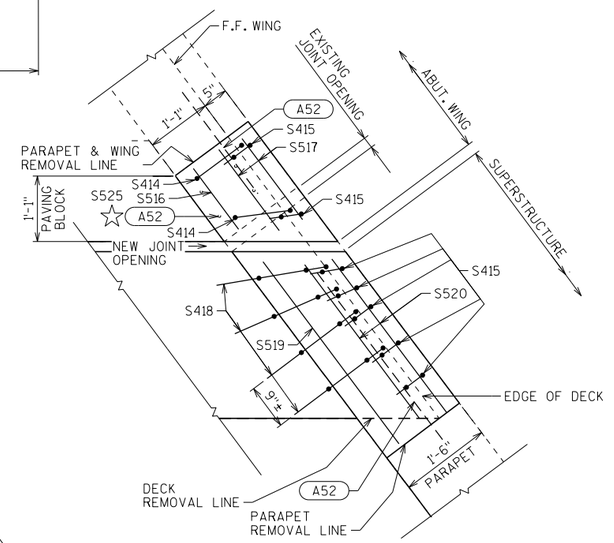
PARAPET REPLACEMENT SHALL BE INCLUDED UNDER THE BID ITEM "JOINT REPAIR".

(A52) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

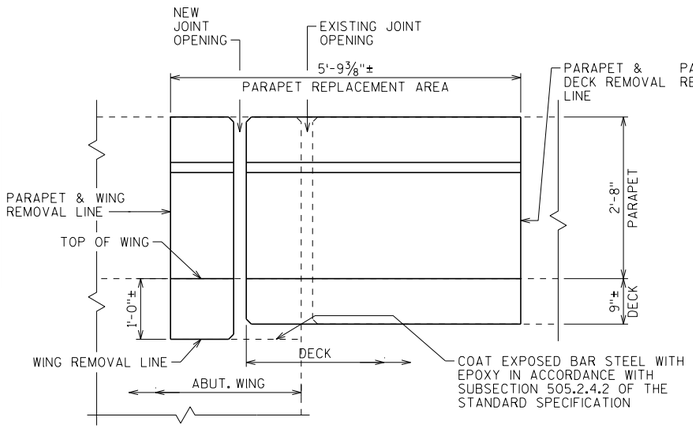
THE NEW ADDITIONAL HORIZONTAL REINFORCEMENT REQUIRED IN THE PARAPETS SHALL BE TIED TO THE EXISTING HORIZONTAL REINFORCEMENT.

☆ IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH BARS S525 ANCHORED WITH ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" MIN. INTO EXISTING CONC. PLACE 4" CL. MIN. OF VERT. CONC. FACE.

(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT & SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS' RECOMMENDATIONS.

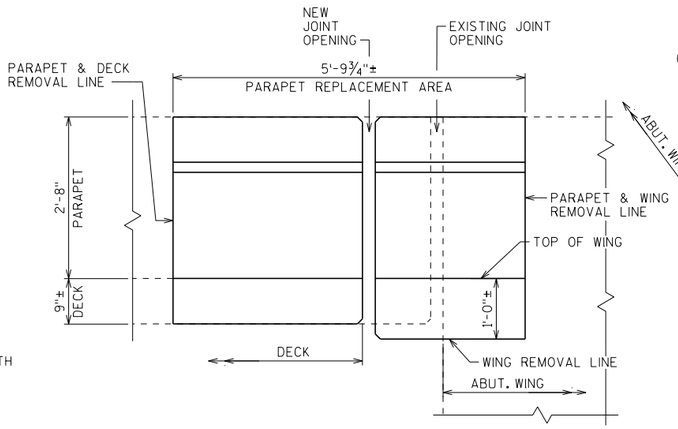


PLAN DETAIL OF PARAPET REPLACEMENT AREA AT WING CORNER 1



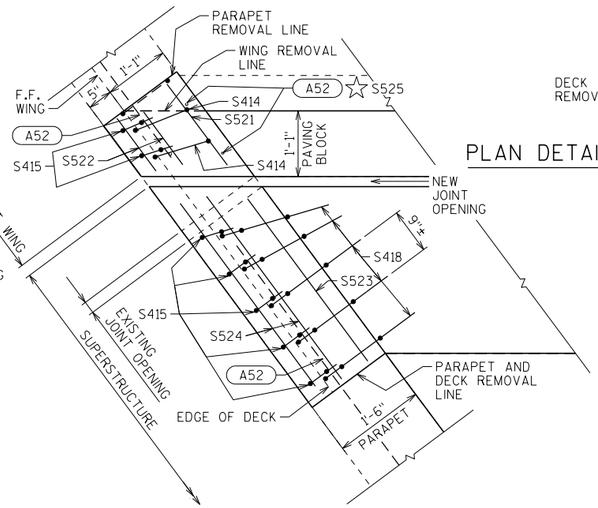
ELEVATION OF NEW WING CORNER 2

SHOWING NEW CONCRETE AREAS FOR "JOINT REPAIR" (LOOKING AT OUTSIDE FACE OF PARAPET)



ELEVATION OF NEW WING CORNER 1

SHOWING NEW CONCRETE AREAS FOR "JOINT REPAIR" (LOOKING AT OUTSIDE FACE OF PARAPET)



PLAN DETAIL OF PARAPET REPLACEMENT AREA AT WING CORNER 2

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-247

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JOINT REPAIR

SHEET 3 OF 9

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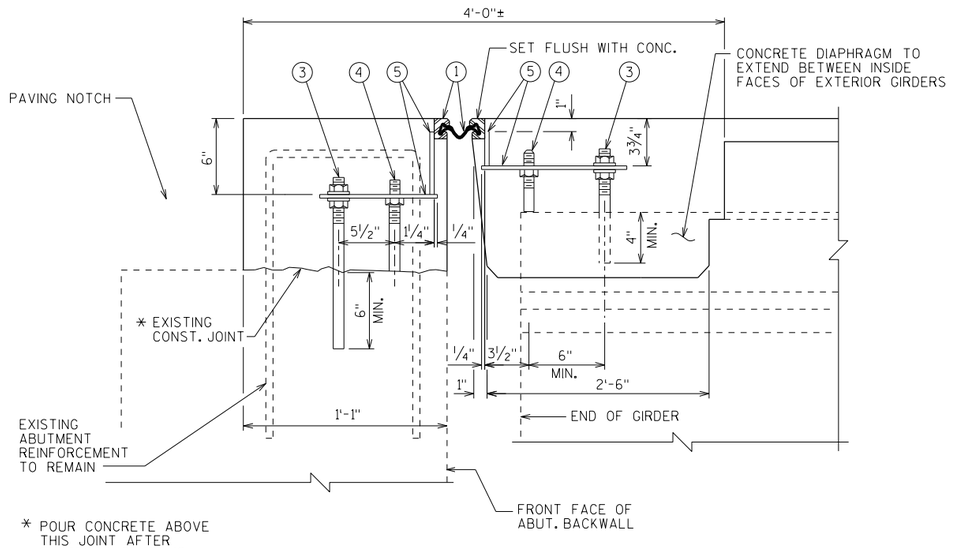
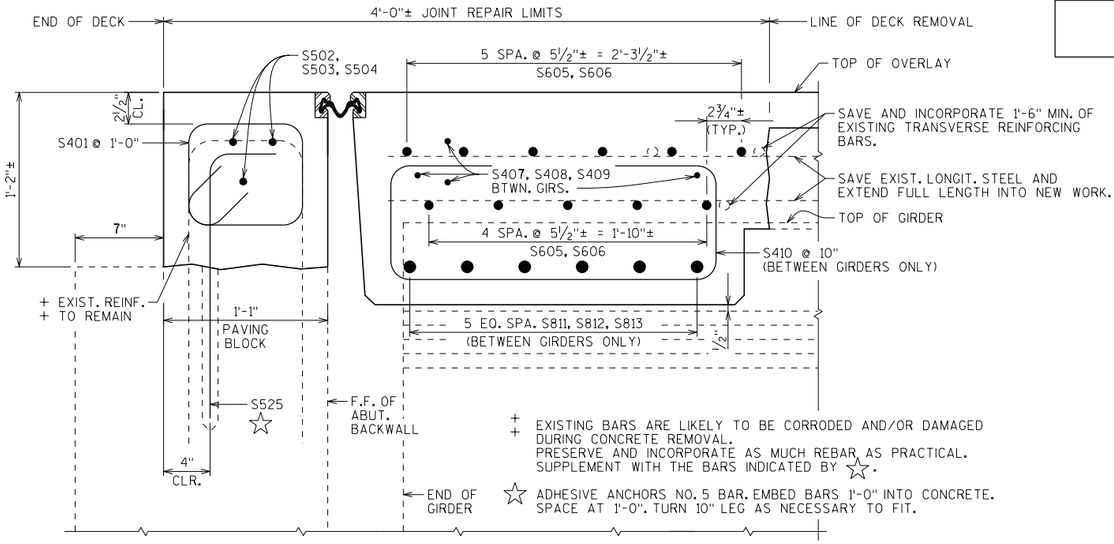
STATE PROJECT NUMBER

1227-08-71



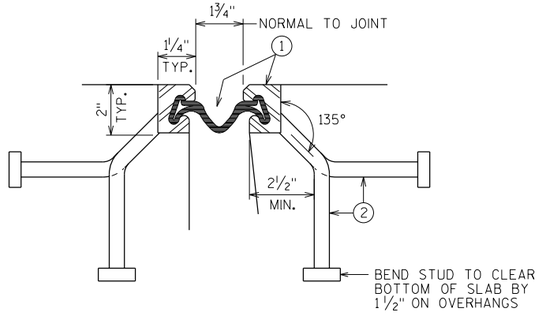
SECTION THRU JOINT AT SOUTH ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE



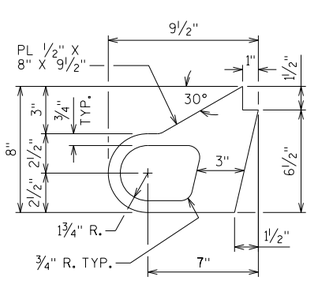
SECTION THRU JOINT AT SOUTH ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE
SHOWING REINFORCEMENT



SECTION THRU JOINT

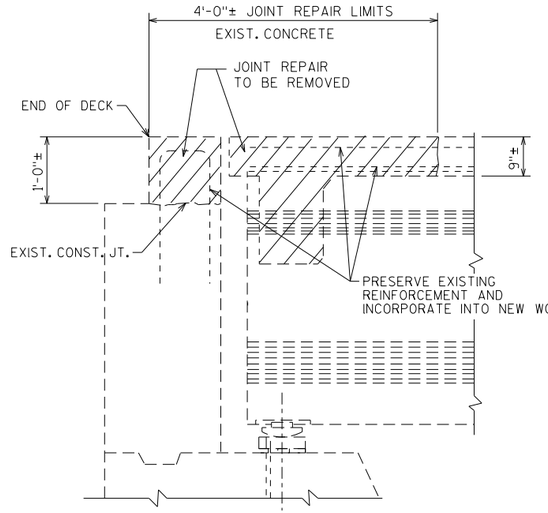
EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS



ALTERNATE STRIP SEAL ANCHOR

LEGEND

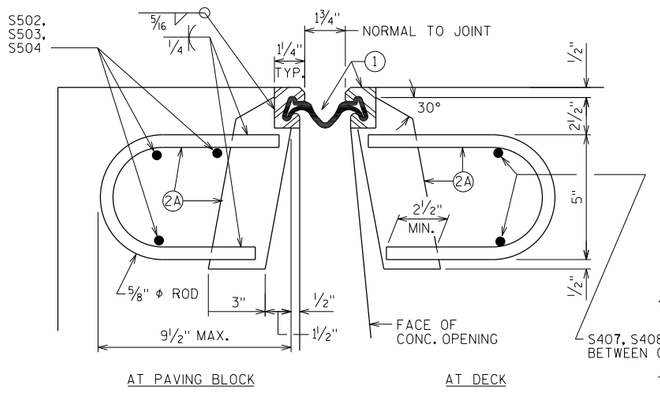
1. NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅝"ϕ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝"ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾" ϕ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾"ϕ 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" ϕ HOLE FOR NO. 3 AND 1" ϕ HOLE FOR NO. 4.



JOINT REPAIR - REMOVAL

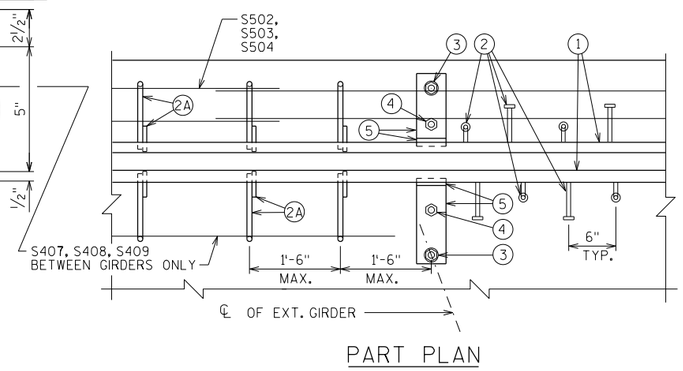
SECTION THRU EXISTING EXPANSION JOINT AT SOUTH ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE



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, 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.

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

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-5-247".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-247

DRAWN BY YC | PLANS CK'D. VCP

EXPANSION DEVICE

SHEET 4 OF 9

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STATE PROJECT NUMBER
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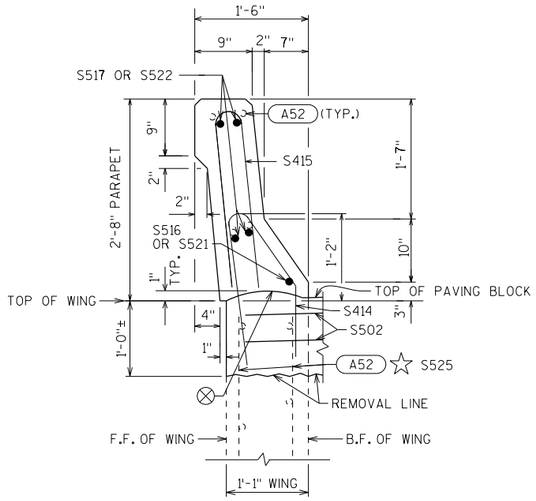
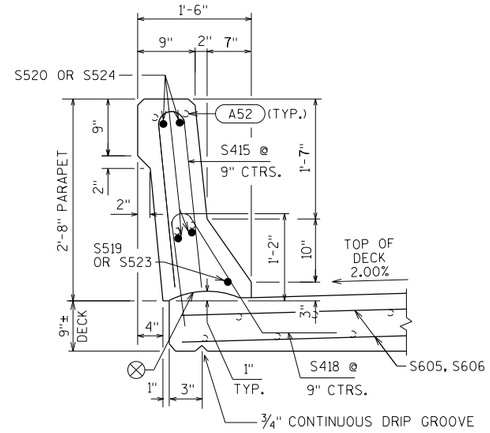


NEW SECTION THRU PARAPET ON WING



NEW SECTION THRU PARAPET ON DECK

BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

	S. ABUT.	N. ABUT.
UNCOATED:	0 LBS	0 LBS
COATED:	2320 LBS	0 LBS

	BAR MARK	COAT	NO. REQ'D S. ABUT.	NO. REQ'D N. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
	S401	X	51	-	3'-6"	X		PAVING BLOCK - VERT. - STIRRUP - AT STAGE 1 & 2 CONST.
	S502	X	18	-	7'-10"			PAVING BLOCK - HORIZ. - AT STAGE 1 & 2 CONST.
*	S503	X	3	-	3'-1"			PAVING BLOCK - HORIZ. - AT STAGE 1 CONST.
*	S504	X	3	-	8'-1"			PAVING BLOCK - HORIZ. - AT STAGE 2 CONST.
*	S605	X	11	-	23'-7"			DECK - HORIZ. - TRANS. - TOP & BOT. - AT STAGE 1 CONST.
*	S606	X	11	-	28'-6"			DECK - HORIZ. - TRANS. - TOP & BOT. - AT STAGE 2 CONST.
	S407	X	8	-	12'-10"			DECK - HORIZ. - TRANS. - BTWN. GIRS. - AT STAGE 1 & 2 CONST.
*	S408	X	4	-	4'-0"			DECK - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 1 CONST.
*	S409	X	4	-	9'-0"			DECK - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 2 CONST.
	S410	X	39	-	5'-6"	X		DECK/CONC. DIAPH. - VERT. - BTWN. GIRS. - AT STAGE 1 & 2 CONST.
	S811	X	12	-	12'-10"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. GIRS. - AT STAGE 1 & 2 CONST.
*	S812	X	6	-	4'-0"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 1 CONST.
*	S813	X	6	-	9'-0"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 2 CONST.
	S414	X	4	-	4'-3"	X		WING & PARAPET - VERT. - TRANS. - AT WING CORNERS 1 & 2
	S415	X	14	-	4'-10"	X		PARAPET - VERT. - TRANS. - ABOVE DECK AND WINGS - AT WING CORNERS 1 & 2
	S516	X	1	-	1'-3"			WING PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNER 1
	S517	X	4	-	1'-8"			WING PARAPET - HORIZ. - LONGIT. - AT WING CORNER 1
	S418	X	9	-	4'-3"	X		DECK & PARAPET- VERT. - TRANS. - AT WING CORNERS 1 & 2
	S519	X	1	-	3'-9"			DECK PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNER 1
	S520	X	4	-	3'-2"			DECK PARAPET - HORIZ. - LONGIT. - AT WING CORNER 1
	S521	X	1	-	1'-8"			WING PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNER 2
	S522	X	4	-	1'-1"			WING PARAPET - HORIZ. - LONGIT. - AT WING CORNER 2
	S523	X	1	-	3'-4"			DECK PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNER 2
	S524	X	4	-	3'-9"			DECK PARAPET - HORIZ. - LONGIT. - AT WING CORNER 2
	S525	X	59	-	2'-7"	X		PAVING BLOCK & ENDS OF ABUT. BACKWALL - VERT. - DOWEL - AT STAGE 1 & 2 CONST.

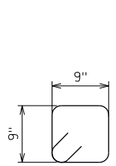
* BAR COUPLERS USED. BAR LENGTH COMPUTED UP TO THE LONGIT. CONST. JOINT AND SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS' RECOMMENDATIONS.

⊗ CONST. JOINT - STRIKE OFF AS SHOWN.

(A52) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

THE NEW ADDITIONAL HORIZONTAL REINFORCEMENT REQUIRED IN THE PARAPETS SHALL BE TIED TO THE EXISTING HORIZONTAL REINFORCEMENT.

☆ IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH BARS S525 ANCHORED WITH ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" MIN. INTO EXISTING CONC. PLACE 4" CL. MIN. OF VERT. CONC. FACE.



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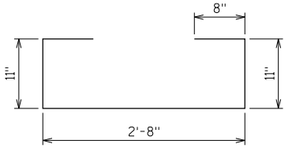

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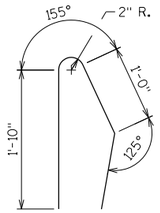

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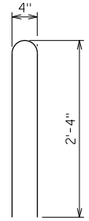

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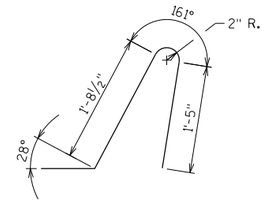

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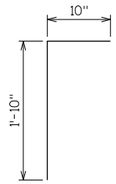

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-247

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JOINT REPAIR - BILL OF BARS

SHEET 5 OF 9

448

FILENAME

SCALE

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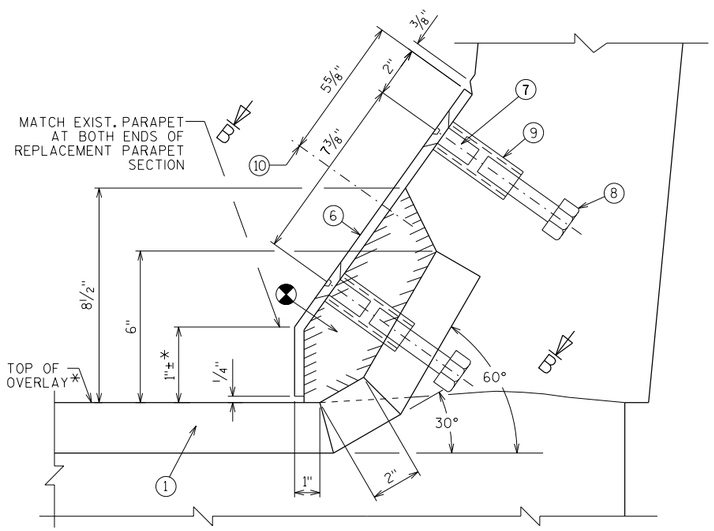
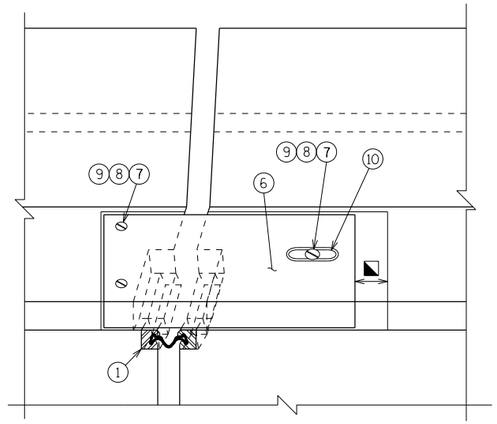
STATE PROJECT NUMBER

1227-08-71



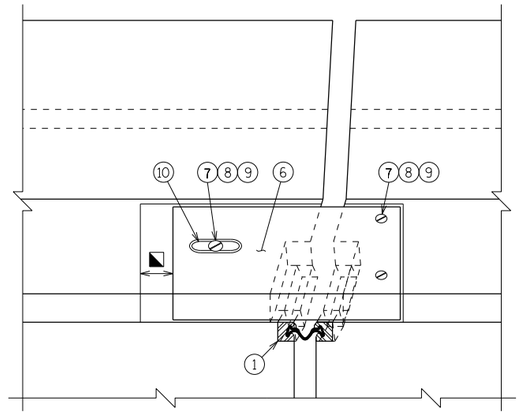
SECTION A-A

* TOP OF OVERLAY @ 2" ABOVE TOP OF ORIGINAL DECK.



VIEW OF PARAPET PLATE FROM ROADWAY

AT WING CORNER 2



VIEW OF PARAPET PLATE FROM ROADWAY

AT WING CORNER 1

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.

(2) STUDS 5/8"Φ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

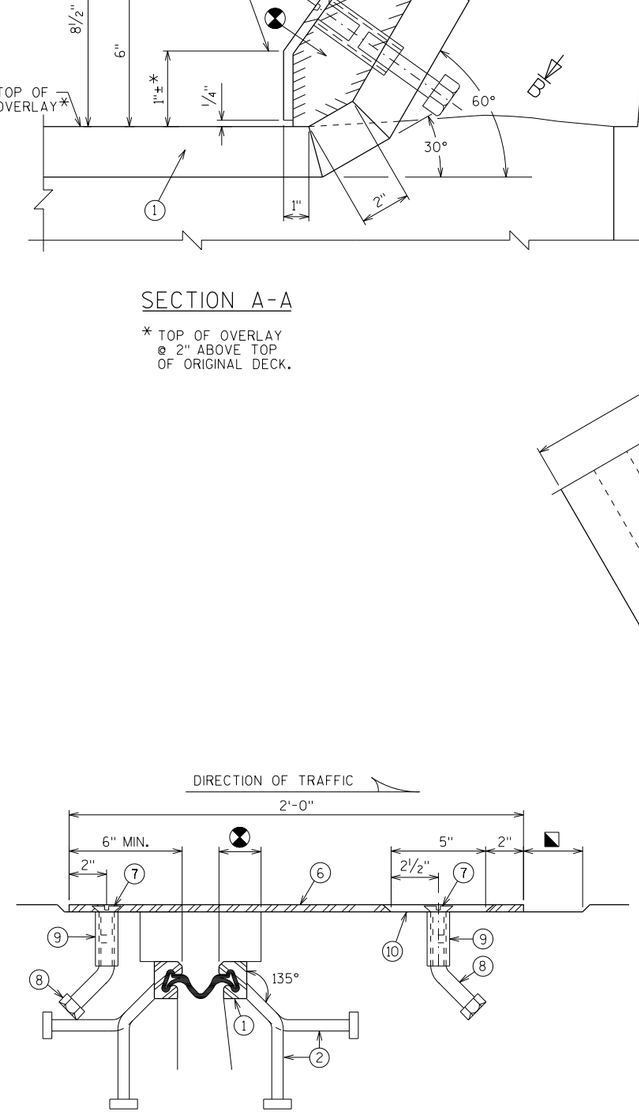
(6) GALVANIZED PLATE 3/8" X 1'-2" X 2'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

(7) 3/4"Φ X 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) 3/4"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) 3/4"Φ X 2 1/4" GALVANIZED THREADED COUPLING.

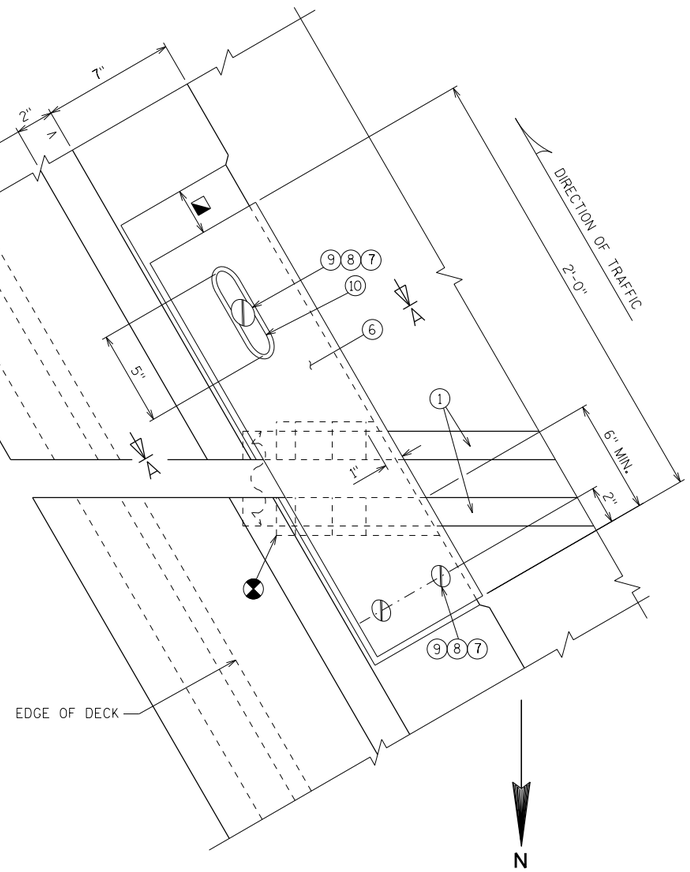
(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.



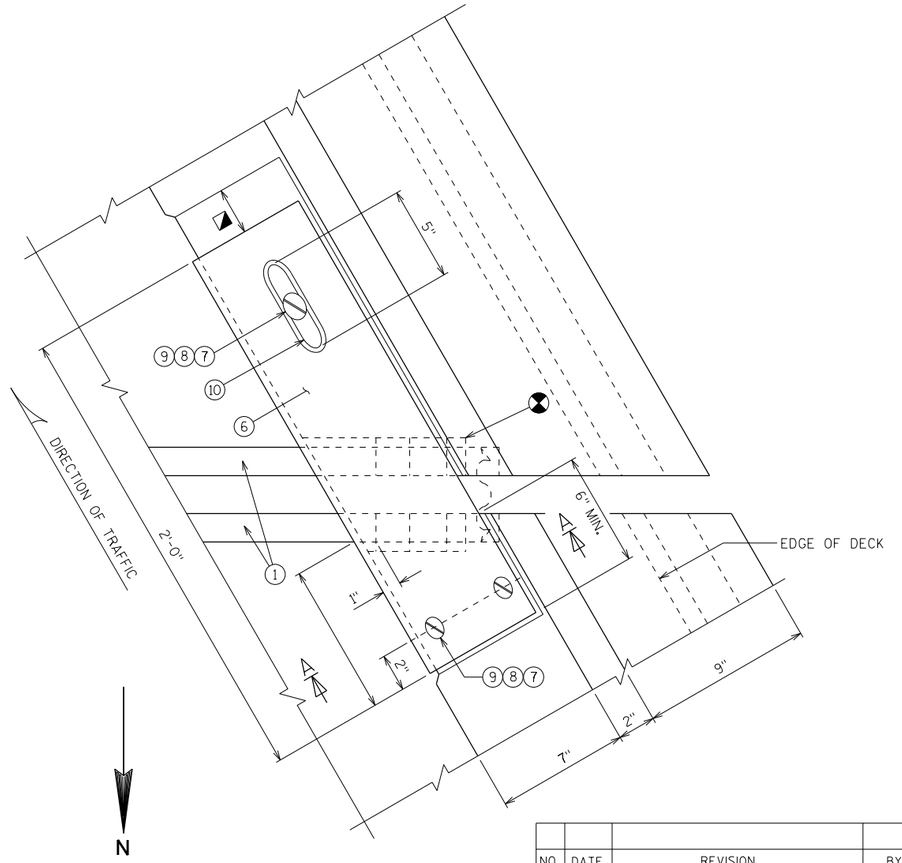
SECTION B-B

AT WING CORNER 1

OPPOSITE HAND AT WING CORNER 2



PLAN AT WING CORNER 2



PLAN AT WING CORNER 1

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-247

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COVER PLATE DETAILS

SHEET 6 OF 9

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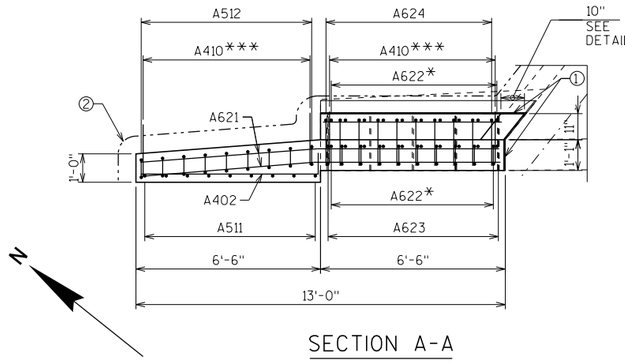
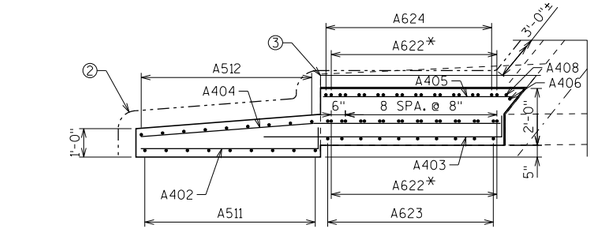


SECTION A-A



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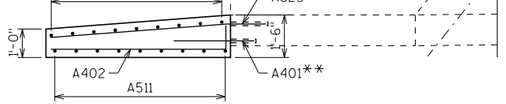

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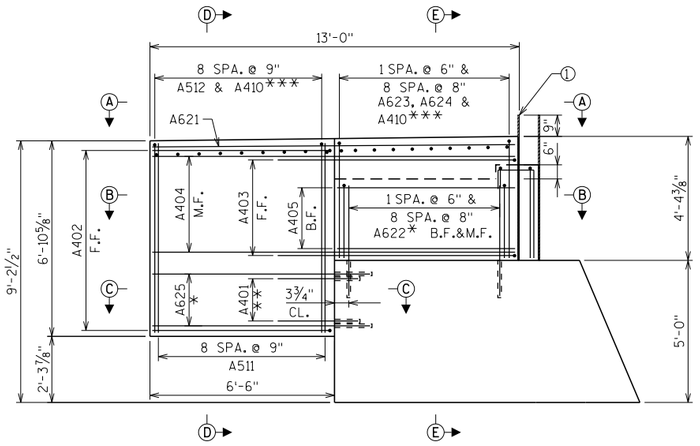
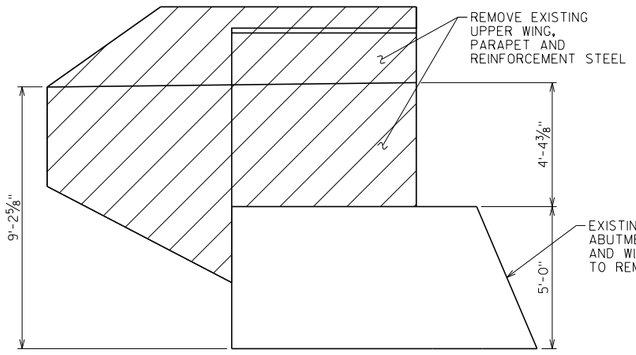
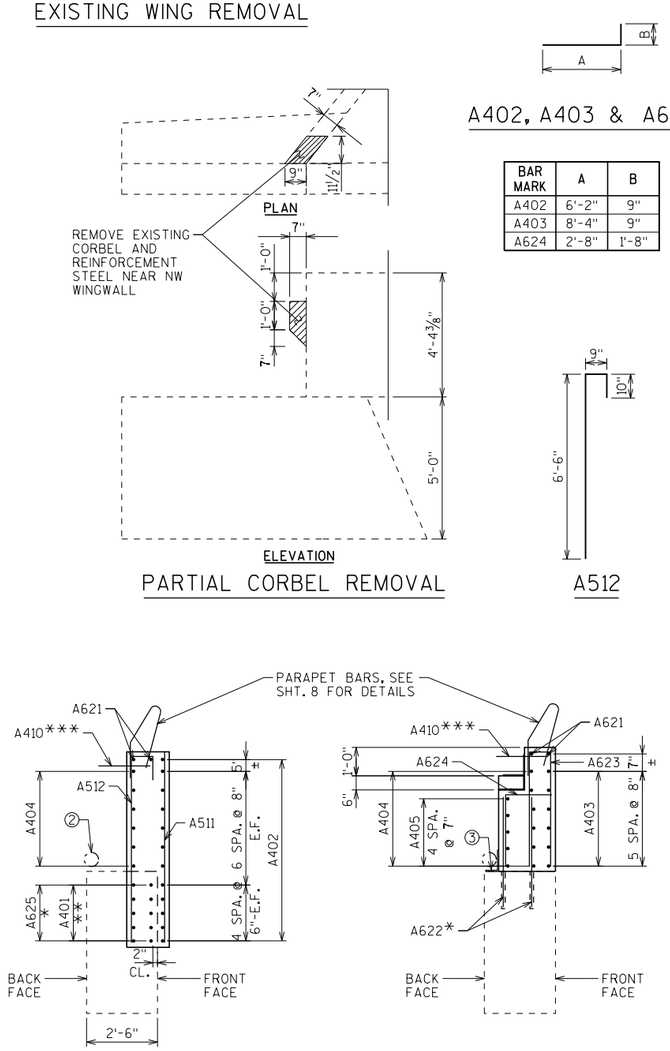


WING ELEVATION



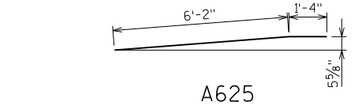
EXISTING WING REMOVAL

PARTIAL CORBEL REMOVAL

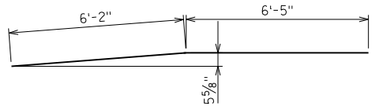


SECTION D-D

SECTION E-E



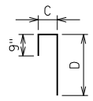
A625



A404 & A621

A402, A403 & A624

BAR MARK	A	B
A402	6'-2"	9"
A403	8'-4"	9"
A624	2'-8"	1'-8"

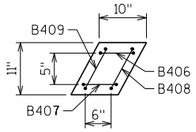


A406, A407 & B408

BAR MARK	C	D
A406	6"	3'-1"
A407	6"	9"
A408	8"	3'-2"
A409	8"	9"

A512

A623



DETAIL A

STATE PROJECT NUMBER

1227-08-71

BILL OF BARS

750 LBS

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
**	A401	X	5	2-10			HORIZONTAL ANCHOR BARS, B.F.
	A402	X	12	6-10	X		HORIZONTAL, F.F.
	A403	X	6	9-1	X		HORIZONTAL, B.F.
	A404	X	6	12-7	X		HORIZONTAL, M.F.
	A405	X	5	6-2			HORIZONTAL, F.F.
	A406	X	1	4-2	X		U BARS
	A407	X	1	1-10	X		U BARS
	A408	X	1	4-5	X		U BARS
	A409	X	4	2-0	X		U BARS
	A410	X	19	1-10			HORIZONTAL, M.F.
	A511	X	9	6-6			VERTICAL, F.F.
	A512	X	9	7-10	X		VERTICAL, B.F.
	A621	X	2	12-7	X		HORIZONTAL
*	A622	X	20	3-11			VERTICAL ANCHOR BARS
	A623	X	10	8-9	X		U BARS
	A624	X	10	4-2	X		L BARS
*	A625	X	5	7-6	X		HORIZONTAL ANCHOR BARS, M.F.

THE FIRST DIGIT OF A THREE DIGIT MARK SIGNIFIES THE BAR SIZE.
ALL BAR DIMENSIONS ARE OUT TO OUT OF BAR.

NOTES:

① ½" FILLER INCLUDED IN WING LENGTH, SEAL ALL HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.

② PIPE UNDERDRAIN WRAPPED, 6 INCH, SLOPE 0.5% MIN. TO DRAIN.

③ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

④ PROVIDE 2" CLEAR COVER U.N.O.

* ADHESIVE ANCHORS NO. 6 BAR. EMBED 15" INTO CONCRETE.

** ADHESIVE ANCHORS NO. 4 BAR. EMBED 10" INTO CONCRETE.

***A410 BARS SPACED EQUALLY WITH A623 & A512 BARS. EMBED 10" INTO WING CONCRETE. LOCATE 3" DOWN FROM TOP OF WING AT BACKFACE TO 6" DOWN AT WING TIP. (DRILLED IN EPOXY ANCHORED #4 BARS 1'-10" LONG MAY BE USED.) COST INCIDENTAL TO BID ITEM "BAR STEEL REINFORCEMENT HS COATED BRIDGES."

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-247

DRAWN BY	SD	PLANS CK'D.	VCP

WINGWALL 4 REPLACEMENT

SHEET 7 OF 9

450

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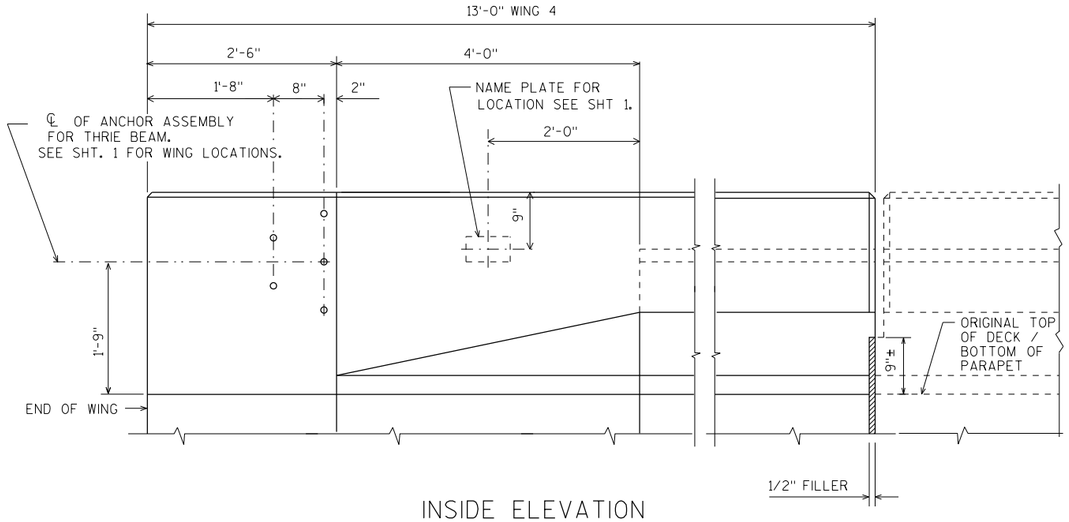
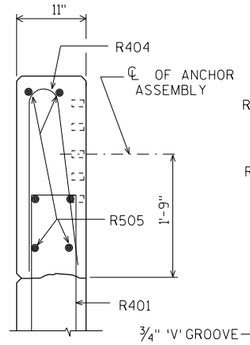
FILENAME
SCALE

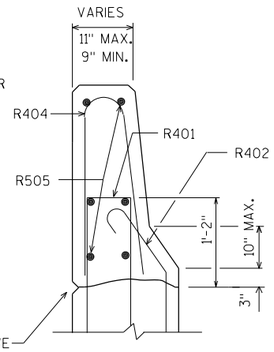
STATE PROJECT NUMBER
1227-08-71



INSIDE ELEVATION



SECTION A



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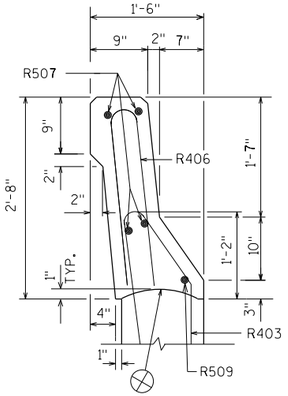


SECTION C

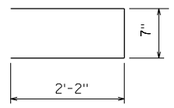
BILL OF BARS

FOR ABUTMENT PARAPETS

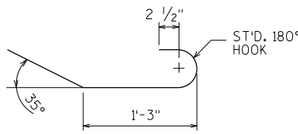
THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE. EPOXY COAT ALL PRAPET REINF.

	S. ABUT.	N. ABUT.
UNCOATED:	0 LBS	0 LBS
COATED:	0 LBS	245 LBS

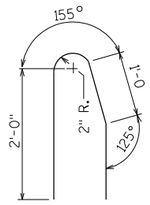
BAR MARK	NO. REQ'D S. ABUT.	NO. REQ'D N. ABUT.	LENGTH	BENT	LOCATION
R401	-	15	4'-9"	X	WING 4 STIRRUPS
R402	-	4	3'-1"	X	WING 4
R403	-	9	4'-7"	X	WING 4 STIRRUPS
R404	-	15	4'-9"	X	WING 4
R505	-	6	6'-2"		WING 4
R406	-	9	4'-10"	X	WING 4
R507	-	4	8'-3"		WING 4
- - -	-	-			
R509	-	1	12'-7"	X	WING 4
- - -	-	-			
- - -	-	-			



R401



R402



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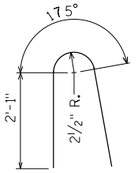

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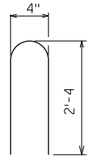

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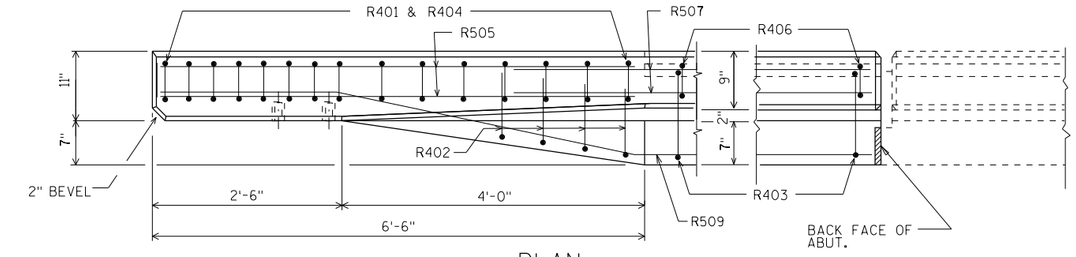
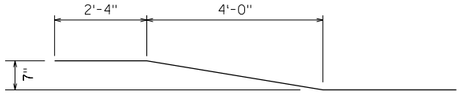
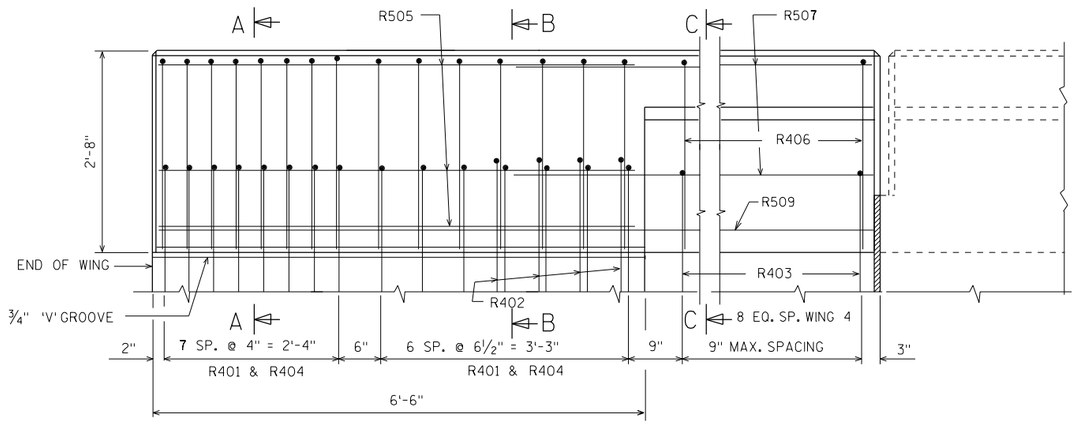


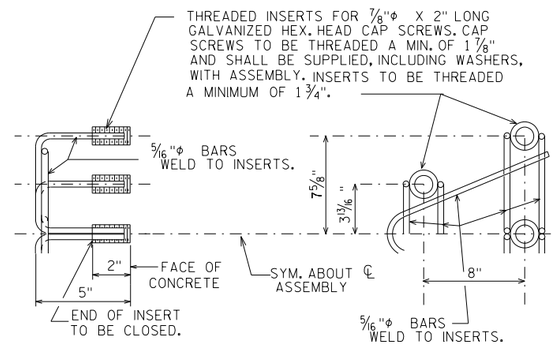
PLAN



R509



OUTSIDE ELEVATION



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX. HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

⊗ CONST. JOINT - STRIKE OFF AS SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-247

DRAWN BY SD | PLANS CK'D. YC

SLOPED FACE PARAPET "B"

SHEET 8 OF 9

451

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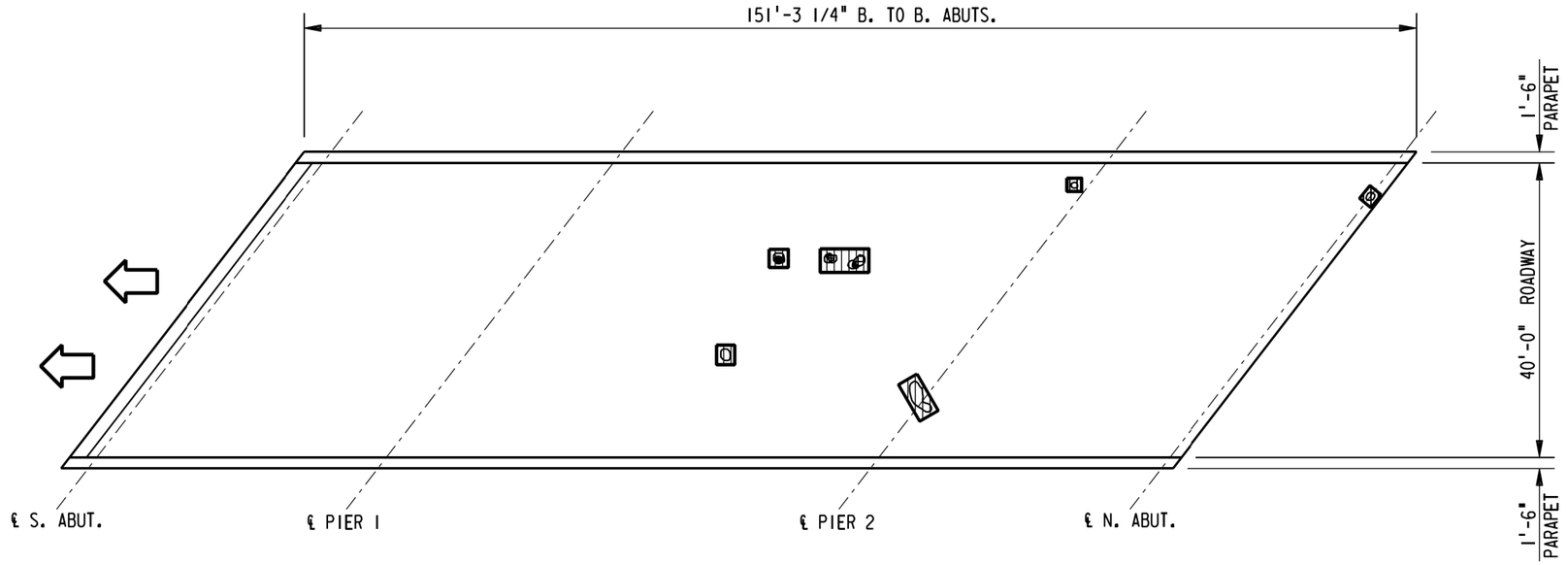
STATE PROJECT NUMBER
1227-08-71



PLAN

PROPOSED REHAB AREAS

SCALE 0' 5' 10' 20'

FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-5-247	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	668.4	
SHADE/DEBRIS	yd^2	0	
PREPARATION, DECKS, TYPE 1	yd^2	6.6	1.0
PREPARATION, DECKS, TYPE 2	yd^2	0.7	0.1
FULL DEPTH DECK REPAIR	yd^2	1.0	0.1

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION
SPALL
DEBOND
ASPHALT PATCH
CONCRETE PATCH

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 7/23/15

NOTES

THIS SHEET PROVIDES THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS REPORTED BY AECOM IN AUGUST 2015. THE PROPOSED DECK REPAIRS ARE BASED ON THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-247

DRAWN BY YC | PLANS CK'D. VCP

DECK REPAIR PLAN

SHEET 9 OF 9

452

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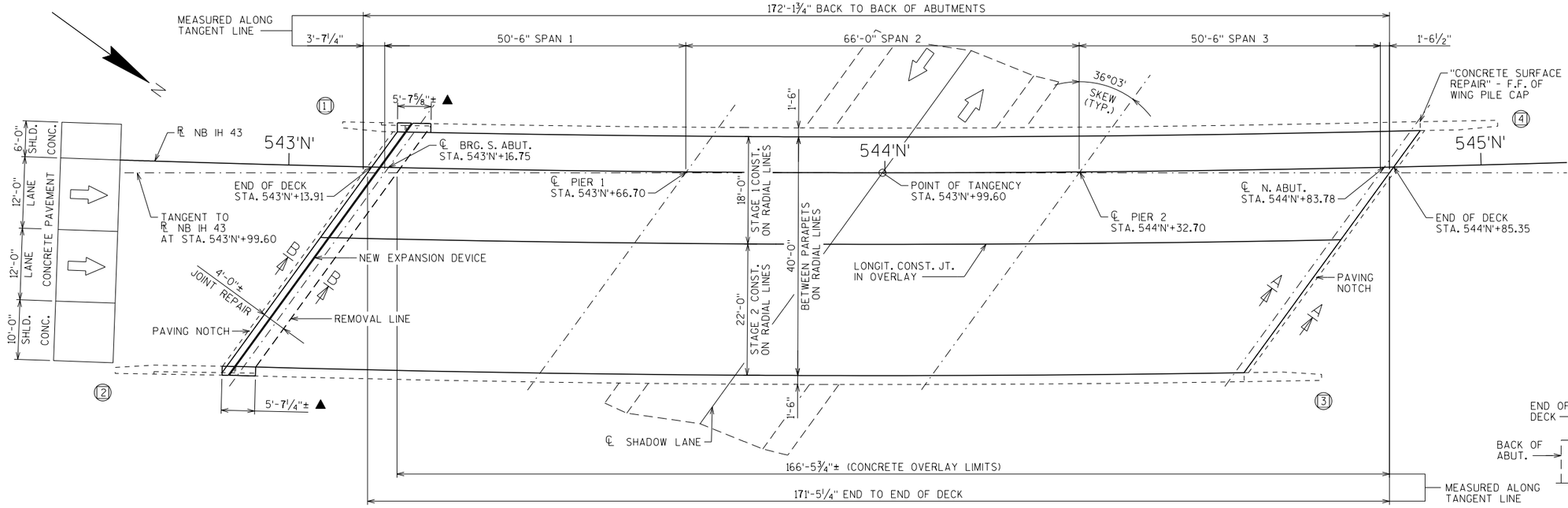
FILENAME
SCALE

STATE PROJECT NUMBER

1227-08-71

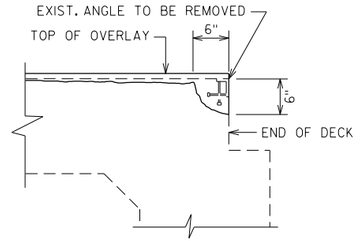


INDICATES WINGWALL NUMBER

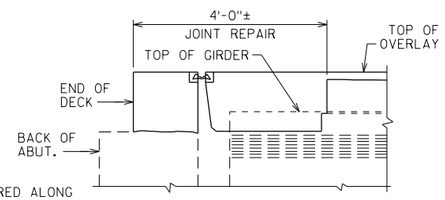
▲ PARAPET REPLACEMENT AREA. SEE SHEET 3 AND 5 FOR DETAILS.

PLAN

(3-SPAN PRESTRESSED CONCRETE GIRDER, CONCRETE OVERLAY)

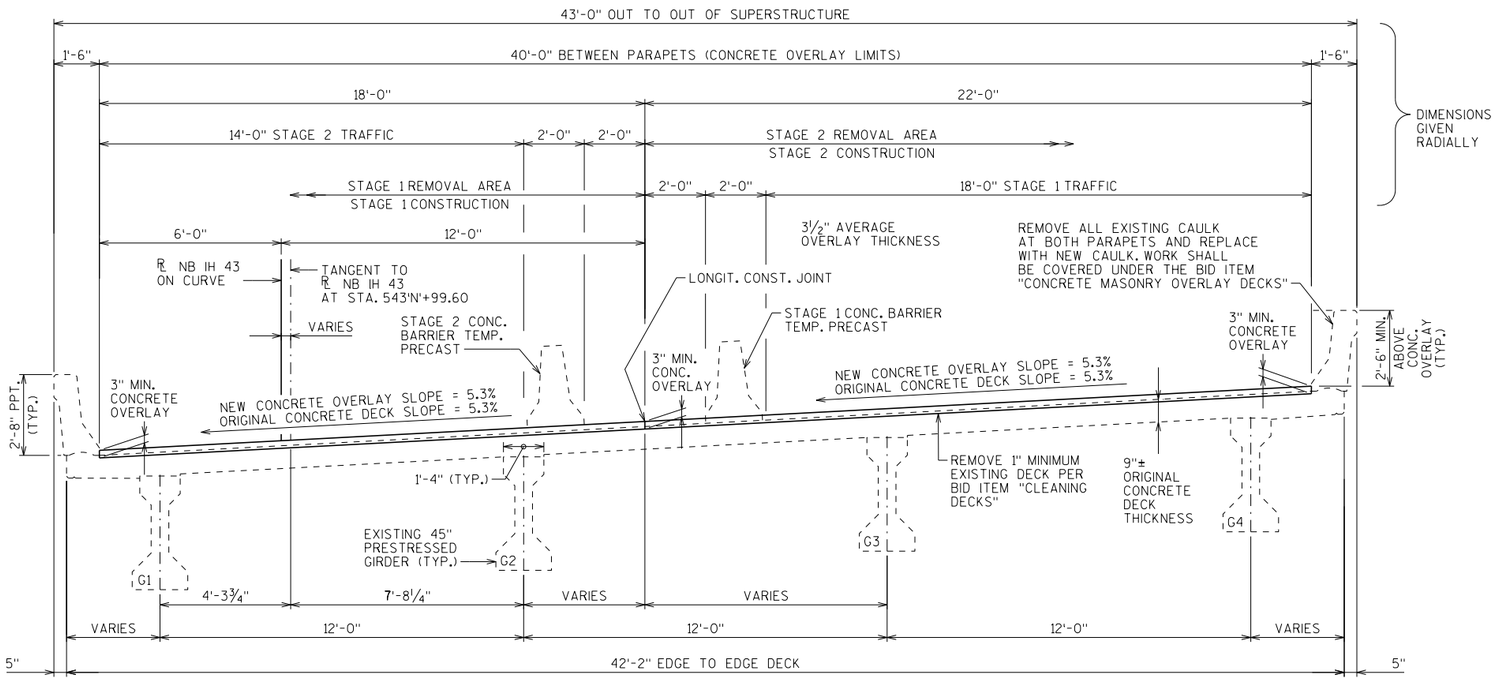


SECTION A-A



SECTION B-B

SEE SHEET 4 FOR DETAILS.



CROSS SECTION THRU DECK LOOKING NORTH

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20
INVENTORY RATING: HS14
OPERATING RATING: HS23
WISCONSIN STANDARD PERMIT VEHICLE (Wis-SPV): 200 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY:	OVERLAY DECKS	f'c = 4,000 P.S.I.
	ALL OTHER	f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60:		fy = 60,000 P.S.I.

TRAFFIC VOLUME

IH 43	SHADOW LANE
A.D.T. = 36,200 (2036)	A.D.T. = 200 (2036)
R.D.S. = 70 MPH	R.D.S. = 50 MPH

LIST OF DRAWINGS

1. GENERAL PLAN & CROSS SECTION
2. QUANTITIES, NOTES & PRESTRESSED GIRDER REPAIRS
3. JOINT REPAIR
4. EXPANSION DEVICE
5. JOINT REPAIR - BILL OF BARS
6. COVER PLATE DETAILS
7. DECK REPAIR PLAN

WISCONSIN VINOD C. PATEL 37887 CAROL STREAM, IL PROFESSIONAL ENGINEER

DATE: 07/20/2016

STRUCTURE DESIGN CONTACTS

BRIDGE OFFICE: WILLIAM DREHER, P.E. (608) 266-8489

CONSULTANT: VINOD PATEL, P.E. (312) 616-7395

NO.	DATE	REVISION	BY

exp U.S. Services Inc.
Milwaukee, WI
BUILDINGS·EARTH & ENVIRONMENT·ENERGY
INDUSTRIAL·INFRASTRUCTURE·SUSTAINABILITY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/11/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-5-248

IH 43 NB OVER SHADOW LANE

COUNTY	TOWN ~~CITY/VILLAGE~~
BROWN	DE PERE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	YC	DESIGN CK'D.	VCP	DRAWN BY	JJG	PLANS CK'D.	VCP

GENERAL PLAN & CROSS SECTION

SHEET 1 OF 7

453

FILENAME
SCALE

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STATE PROJECT NUMBER
1227-08-71

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTAL
502.3100.08	EXPANSION DEVICE B-5-248	LS	-	-	-	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	762	762
502.3210	PIGMENTED SURFACE SEALER	SY	11	9	130	150
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	57	-	-	57
502.6500	PROTECTIVE COATING CLEAR	GAL	-	-	1	1
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,275	-	-	2,275
505.0904	BAR COUPLERS NO. 4	EACH	-	-	4	4
505.0905	BAR COUPLERS NO. 5	EACH	-	-	3	3
505.0906	BAR COUPLERS NO. 6	EACH	-	-	11	11
505.0908	BAR COUPLERS NO. 8	EACH	-	-	6	6
509.0301	PREPARATION DECKS TYPE 1	SY	-	-	56	56
509.0302	PREPARATION DECKS TYPE 2	SY	-	-	42	42
509.0500	CLEANING DECKS	SY	-	-	740	740
509.1000	JOINT REPAIR	SY	-	-	26	26
509.1500	CONCRETE SURFACE REPAIR	SF	-	4	10	14
509.2000	FULL-DEPTH DECK REPAIR	SY	-	-	1	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	-	-	85	85
509.9050.S	CLEANING PARAPETS	LF	31	26	331	388
SPV.0060.01	CLEANING AND PAINTING BEARINGS	EACH	4	-	-	4
SPV.0090.01	CLEANING CONCRETE GIRDER ENDS	LF	6	-	-	6
	NON-BID ITEMS					
	BRIDGE SEAT PROTECTION					

BID ITEM "CONCRETE MASONRY OVERLAY DECKS" ALSO INCLUDES CONCRETE FOR:
"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "FULL-DEPTH DECK REPAIR", AND "JOINT REPAIR".
THE QUANTITIES OF "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL-DEPTH DECK REPAIR" ARE BASED ON AN INFRARED THERMOGRAPHIC DECK SURVEY REPORT.
"CONCRETE SURFACE REPAIR" OF SUPERSTRUCTURE INCLUDES E. PPT. (2 SF) AND POSSIBLE REPAIR OF GIR. 1 AT S. ABUT. (8 SF).

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS OF EXISTING STRUCTURE MEMBERS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "CONCRETE SURFACE REPAIR", AND "FULL-DEPTH DECK REPAIR" AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 3" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS AS GIVEN ON THE PLANS. IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY OR JOINT REPAIRS AT ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND MINIMUM 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACE OF SOUTH ABUTMENT BELOW EXPANSION DEVICE. POWER WASH AND ADEQUATELY DRY SURFACES BEFORE APPLICATION. WORK TO BE INCIDENTAL TO "JOINT REPAIR".

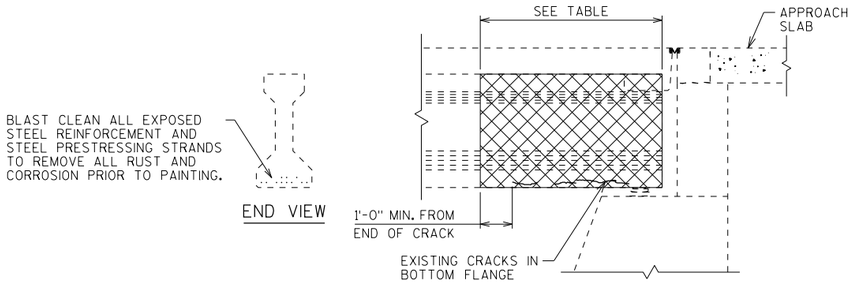
COAT ALL EXPOSED SURFACES OF THE LAST 5'-0" OF GIRDERS (SPAN 1 AT SOUTH ABUTMENT END ONLY) WITH "PROTECTIVE COATING CLEAR" AS DIRECTED BY THE ENGINEER. APPLY AT A RATE OF ONE GALLON PER 200 SF PER THE STANDARD SPECIFICATION 502.3.15 PARA. 4.

CLEAN AND PAINT ALL BEARINGS AT SOUTH ABUTMENT. SEE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING BEARINGS".

CLEAN THE INSIDE FACES AND TOP SURFACE OF THE EXISTING CONCRETE PARAPETS. PARAPET JOINTS SHALL BE CLEANED AND RE-SEALED WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. INCLUDE IN BID ITEM "CLEANING PARAPETS".

APPLY "PROTECTIVE SURFACE TREATMENT" TO THE EXPOSED DECK SURFACE OF THE NEW CONCRETE OVERLAY BETWEEN PARAPETS AND EXPOSED TOP SURFACE OF JOINT REPAIR.

APPLY "PIGMENTED SURFACE SEALER" ON THE INSIDE AND TOP FACES OF PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS.



PART LONGITUDINAL SECTION
(SOUTH ABUT.)

CLEANING CONCRETE GIRDER ENDS (L.F.)

	G1	G2	G3	G4
SOUTH ABUT.	6	-	-	-

LEGEND

DENOTES AREAS OF BID ITEM "CLEANING CONCRETE GIRDER ENDS". SEE NOTES.

NOTES:

1. REMOVE ANY LOOSE, DELAMINATED, OR DETERIORATED CONCRETE FROM THE END OF CONCRETE GIRDERS.
2. CLEAN AND PAINT ANY EXPOSED STEEL REINFORCEMENT AND STEEL PRESTRESSING STRANDS.
3. MINIMUM LENGTH OF CLEANING IS 5'. VERIFY LENGTH OF CLEANING WITH ENGINEER.

PRESTRESSED GIRDER REPAIRS

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-248

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QUANTITIES, NOTES & PRESTRESSED GIRDER REPAIRS

SHEET 2 OF 7
454

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STATE PROJECT NUMBER
1227-08-71

NOTES

ALL REMOVAL LINES SHALL BE DEFINED BY A 1" DEEP SAW-CUT.

REBUILD NEW PARAPET, WING AND DECK AREAS TO MATCH THE EXISTING PARAPET, WING AND DECK. SEE SHEET 5 FOR NEW PARAPET DETAILS.

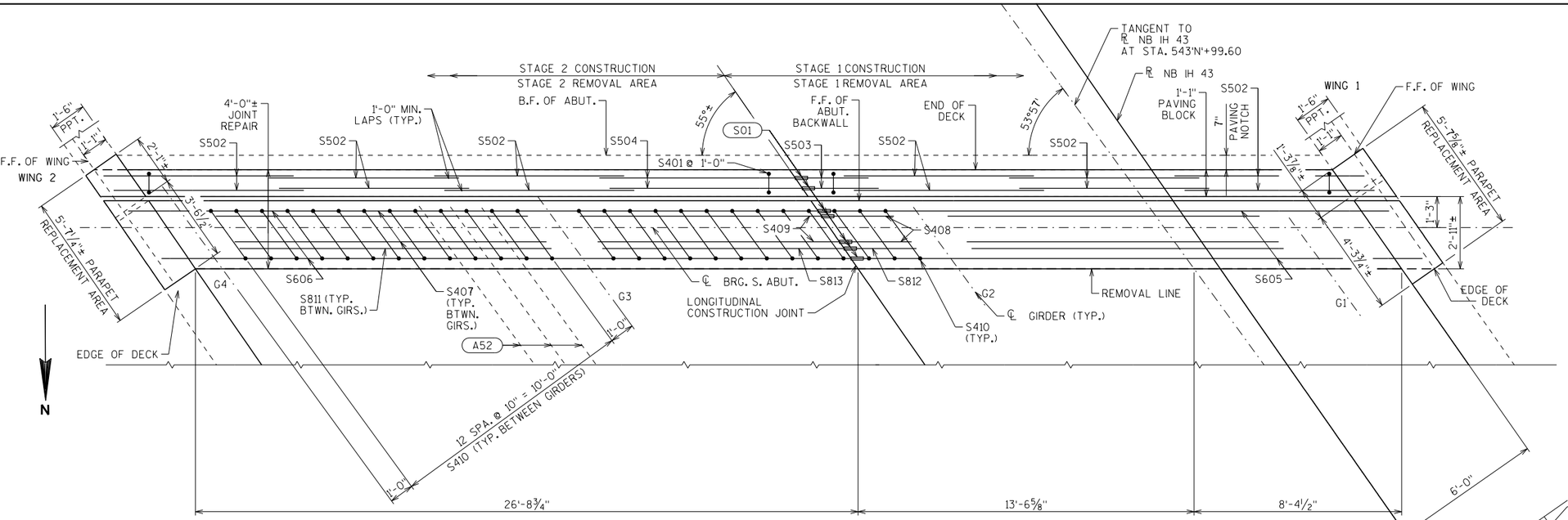
PARAPET REPLACEMENT SHALL BE INCLUDED UNDER THE BID ITEM "JOINT REPAIR".

(A52) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

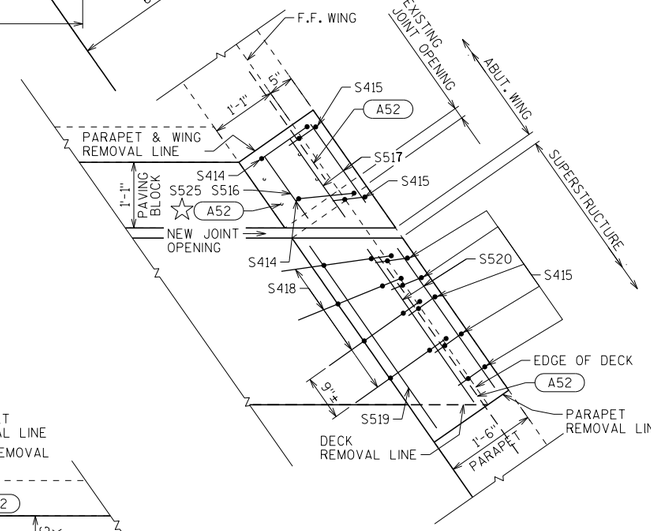
THE NEW ADDITIONAL HORIZONTAL REINFORCEMENT REQUIRED IN THE PARAPETS SHALL BE TIED TO THE EXISTING HORIZONTAL REINFORCEMENT.

☆ IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH BARS S525 ANCHORED WITH ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" MIN. INTO EXISTING CONC. PLACE 4" CL. MIN. OF VERT. CONC. FACE.

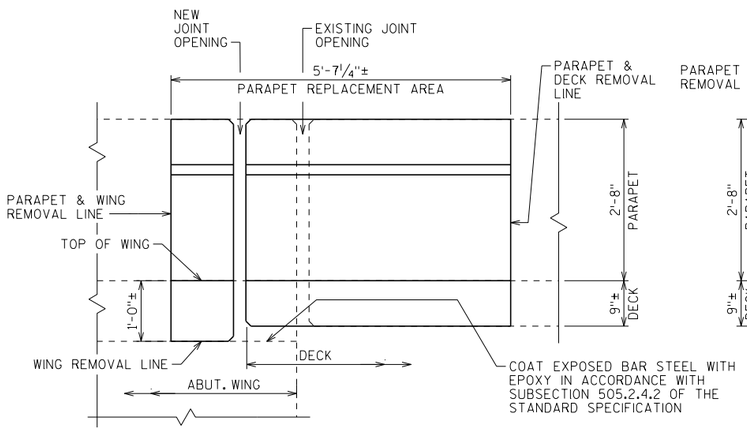
(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT & SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS' RECOMMENDATIONS.



SOUTH ABUTMENT "JOINT REPAIR" PLAN

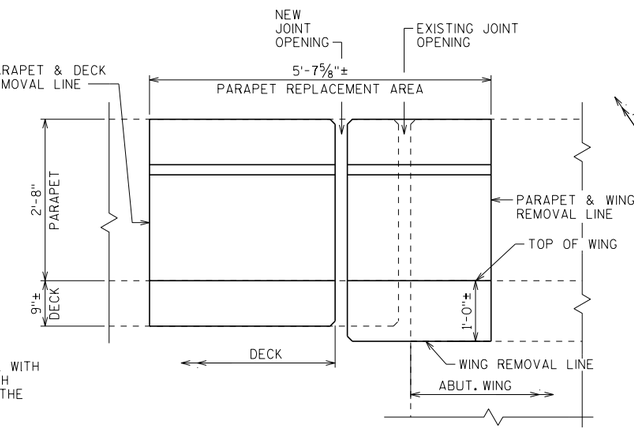


PLAN DETAIL OF PARAPET REPLACEMENT AREA AT WING CORNER 1



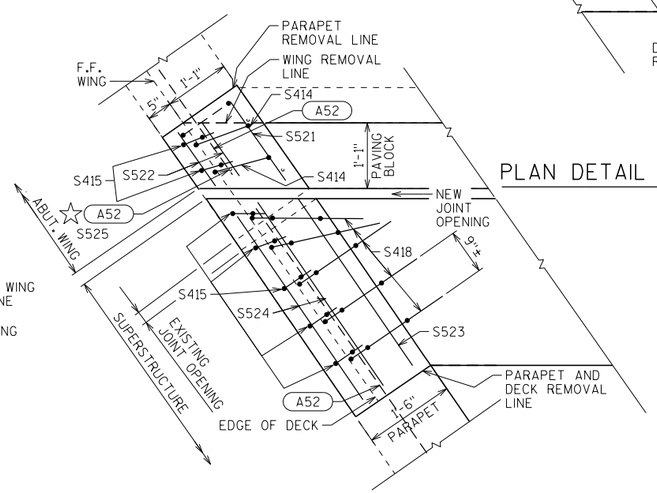
ELEVATION OF NEW WING CORNER 2

SHOWING NEW CONCRETE AREAS FOR "JOINT REPAIR" (LOOKING AT OUTSIDE FACE OF PARAPET)



ELEVATION OF NEW WING CORNER 1

SHOWING NEW CONCRETE AREAS FOR "JOINT REPAIR" (LOOKING AT OUTSIDE FACE OF PARAPET)



PLAN DETAIL OF PARAPET REPLACEMENT AREA AT WING CORNER 2

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STRUCTURE B-5-248

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JOINT REPAIR

SHEET 3 OF 7

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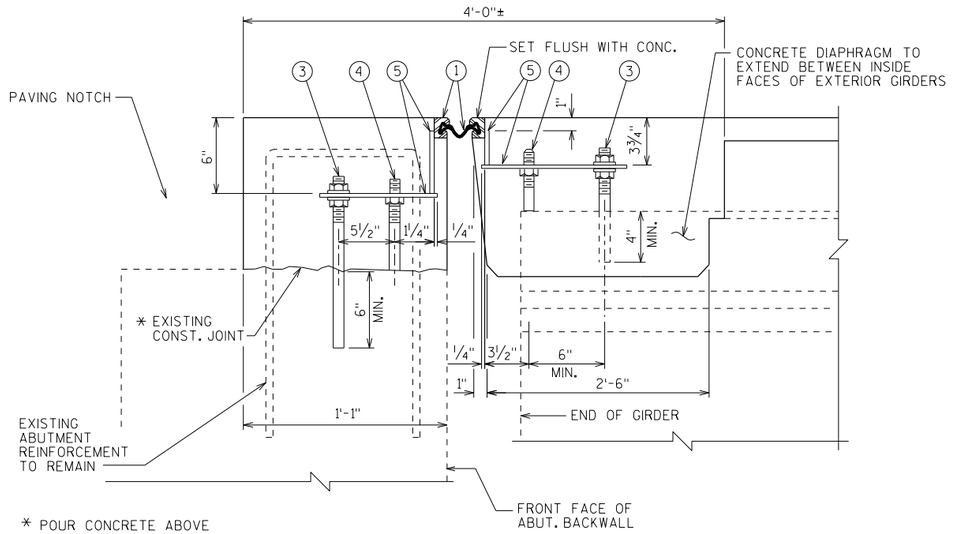
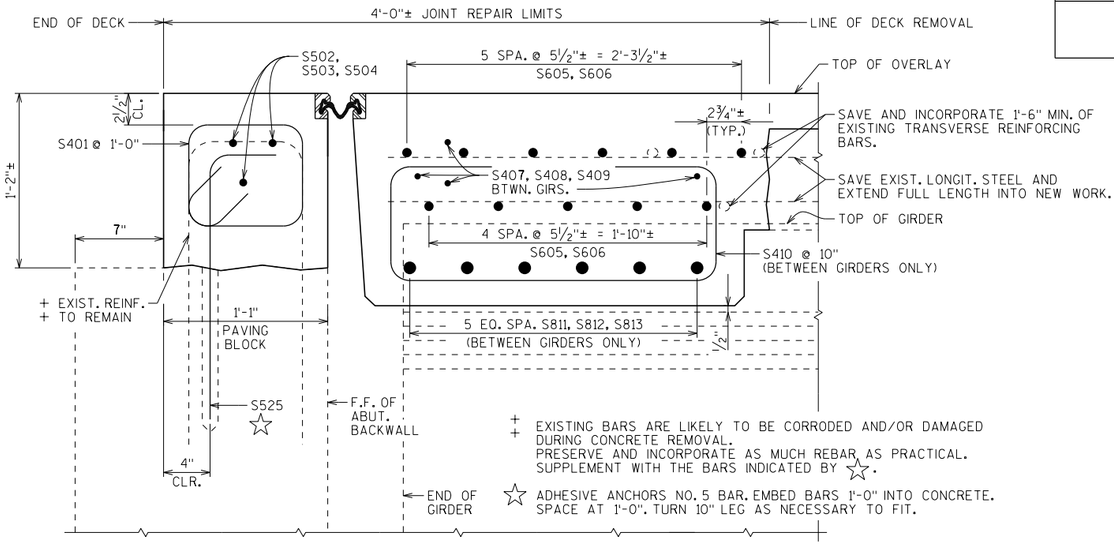


* POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE.

SECTION THRU JOINT AT SOUTH ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

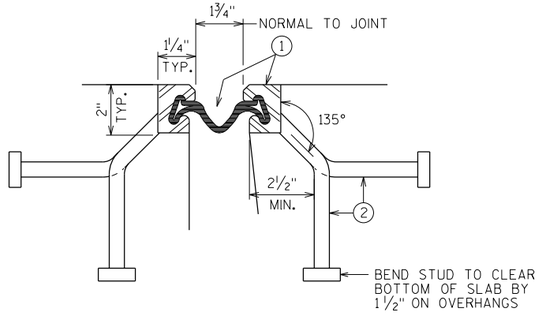


\+ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY ☆.

☆ ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" INTO CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

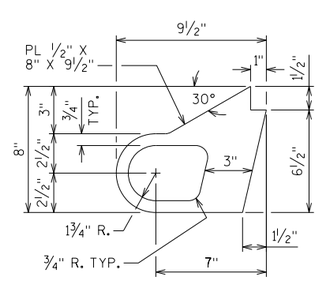
SECTION THRU JOINT AT SOUTH ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE
SHOWING REINFORCEMENT



SECTION THRU JOINT

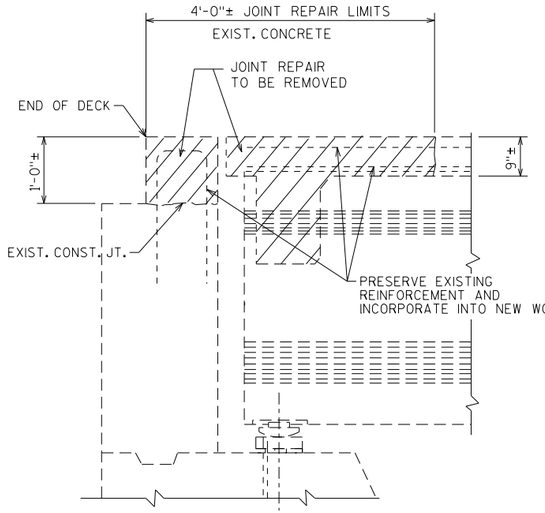
EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS



ALTERNATE STRIP SEAL ANCHOR

LEGEND

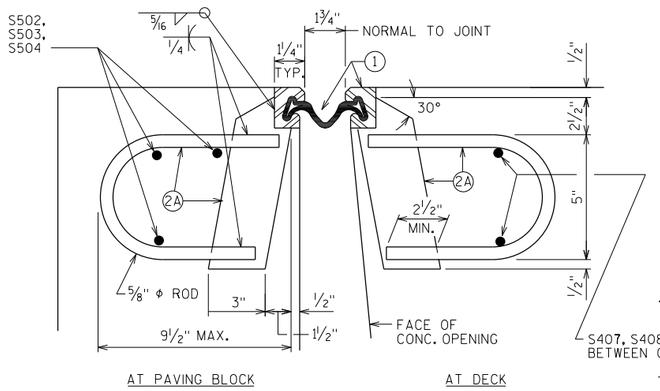
1. NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅝"ϕ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝"ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾" ϕ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾"ϕ 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" ϕ HOLE FOR NO. 3 AND 1" ϕ HOLE FOR NO. 4.



JOINT REPAIR - REMOVAL

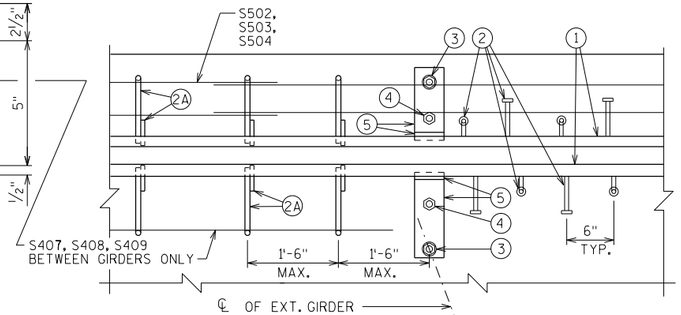
SECTION THRU EXISTING EXPANSION JOINT AT SOUTH ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE



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, 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.

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

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-5-248".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-248

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EXPANSION DEVICE

SHEET 4 OF 7

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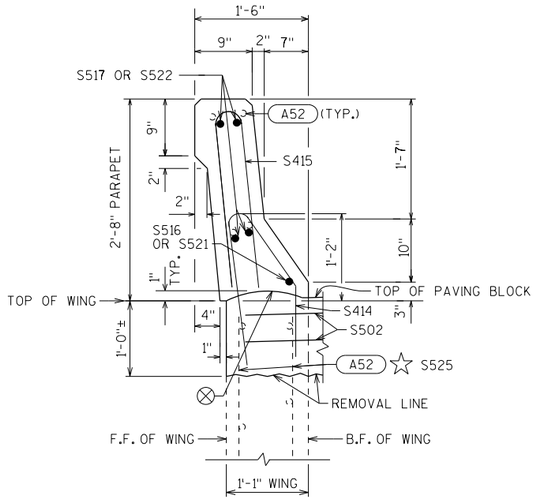
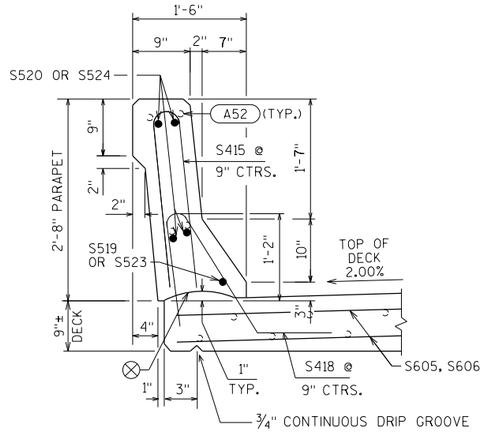


NEW SECTION THRU PARAPET ON WING



NEW SECTION THRU PARAPET ON DECK

BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

	S. ABUT.	N. ABUT.
UNCOATED:	0 LBS	0 LBS
COATED:	2275 LBS	0 LBS

	BAR MARK	COAT	NO. REQ'D S. ABUT.	NO. REQ'D N. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
	S401	X	49	-	3'-6"	X		PAVING BLOCK - VERT. - STIRRUP - AT STAGE 1 & 2 CONST.
	S502	X	18	-	7'-8"			PAVING BLOCK - HORIZ. - AT STAGE 1 & 2 CONST.
*	S503	X	3	-	3'-2"			PAVING BLOCK - HORIZ. - AT STAGE 1 CONST.
*	S504	X	3	-	8'-0"			PAVING BLOCK - HORIZ. - AT STAGE 2 CONST.
*	S605	X	11	-	23'-1"			DECK - HORIZ. - TRANS. - TOP & BOT. - AT STAGE 1 CONST.
*	S606	X	11	-	28'-0"			DECK - HORIZ. - TRANS. - TOP & BOT. - AT STAGE 2 CONST.
	S407	X	8	-	12'-7"			DECK - HORIZ. - TRANS. - BTWN. GIRS. - AT STAGE 1 & 2 CONST.
*	S408	X	4	-	2'-11"			DECK - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 1 CONST.
*	S409	X	4	-	9'-9"			DECK - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 2 CONST.
	S410	X	39	-	5'-6"	X		DECK/CONC. DIAPH. - VERT. - BTWN. GIRS. - AT STAGE 1 & 2 CONST.
	S811	X	12	-	12'-7"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. GIRS. - AT STAGE 1 & 2 CONST.
*	S812	X	6	-	2'-11"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 1 CONST.
*	S813	X	6	-	9'-9"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. G2 & G3 - AT STAGE 2 CONST.
	S414	X	4	-	4'-3"	X		WING & PARAPET - VERT. - TRANS. - AT WING CORNERS 1 & 2
	S415	X	14	-	4'-10"	X		PARAPET - VERT. - TRANS. - ABOVE DECK AND WINGS - AT WING CORNERS 1 & 2
	S516	X	1	-	1'-3"			WING PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNER 1
	S517	X	4	-	1'-7"			WING PARAPET - HORIZ. - LONGIT. - AT WING CORNER 1
	S418	X	9	-	4'-3"	X		DECK & PARAPET- VERT. - TRANS. - AT WING CORNERS 1 & 2
	S519	X	1	-	3'-8"			DECK PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNER 1
	S520	X	4	-	3'-1"			DECK PARAPET - HORIZ. - LONGIT. - AT WING CORNER 1
	S521	X	1	-	1'-7"			WING PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNER 2
	S522	X	4	-	1'-1"			WING PARAPET - HORIZ. - LONGIT. - AT WING CORNER 2
	S523	X	1	-	3'-4"			DECK PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNER 2
	S524	X	4	-	3'-8"			DECK PARAPET - HORIZ. - LONGIT. - AT WING CORNER 2
	S525	X	57	-	2'-7"	X		PAVING BLOCK & ENDS OF ABUT. BACKWALL - VERT. - DOWEL - AT STAGE 1 & 2 CONST.

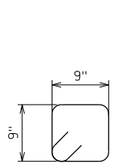
* BAR COUPLERS USED. BAR LENGTH COMPUTED UP TO THE LONGIT. CONST. JOINT AND SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS' RECOMMENDATIONS.

⊗ CONST. JOINT - STRIKE OFF AS SHOWN.

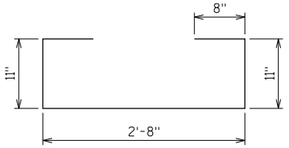
(A52) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

THE NEW ADDITIONAL HORIZONTAL REINFORCEMENT REQUIRED IN THE PARAPETS SHALL BE TIED TO THE EXISTING HORIZONTAL REINFORCEMENT.

☆ IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH BARS S525 ANCHORED WITH ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" MIN. INTO EXISTING CONC. PLACE 4" CL. MIN. OF VERT. CONC. FACE.



S401



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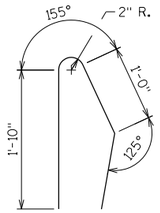

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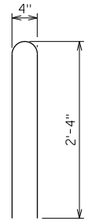

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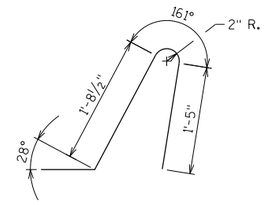

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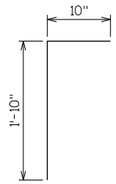

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STATE OF WISCONSIN
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STRUCTURE B-5-248

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JOINT REPAIR - BILL OF BARS

SHEET 5 OF 7

457

FILENAME

SCALE

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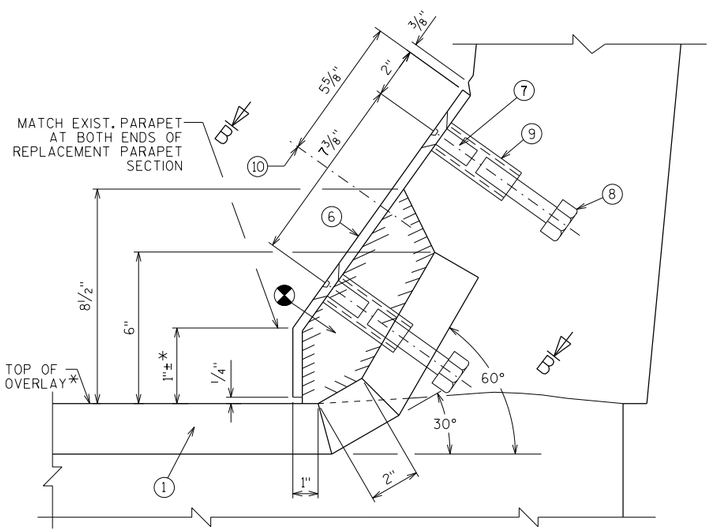
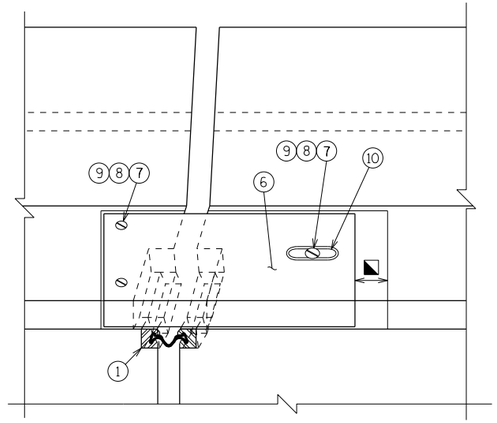


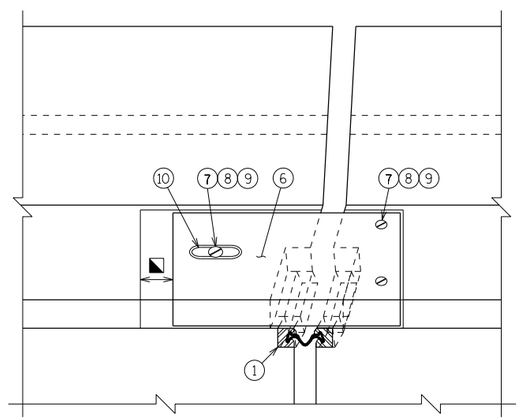
SECTION A-A

* TOP OF OVERLAY @ 2" ABOVE TOP OF ORIGINAL DECK.



VIEW OF PARAPET PLATE FROM ROADWAY

AT WING CORNER 1



VIEW OF PARAPET PLATE FROM ROADWAY

AT WING CORNER 2

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.

(2) STUDS 5/8"Φ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

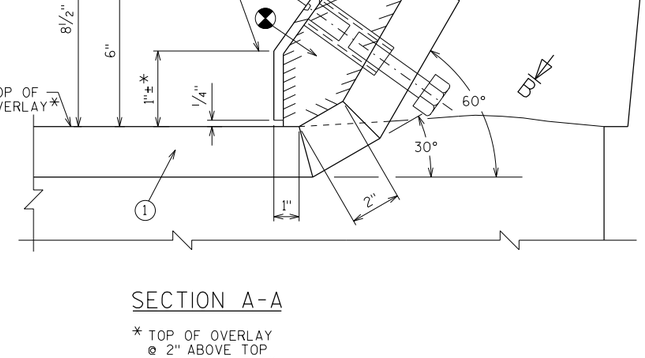
(6) GALVANIZED PLATE 3/8" X 1'-2" X 2'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

(7) 3/4"Φ X 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) 3/4"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) 3/4"Φ X 2 1/4" GALVANIZED THREADED COUPLING.

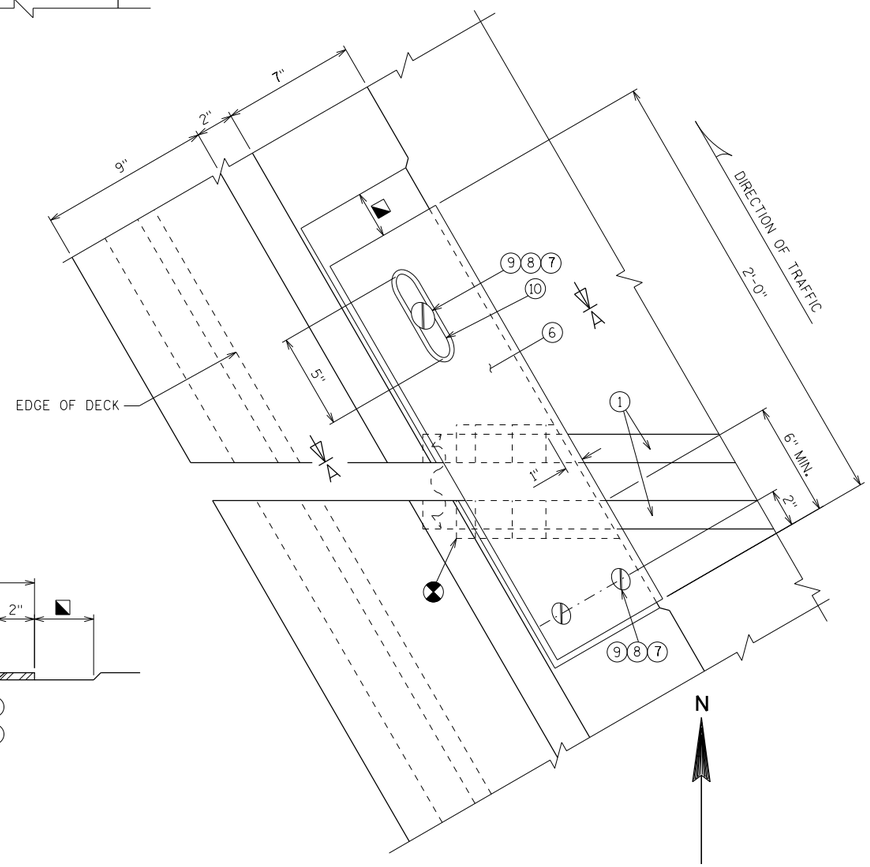
(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.



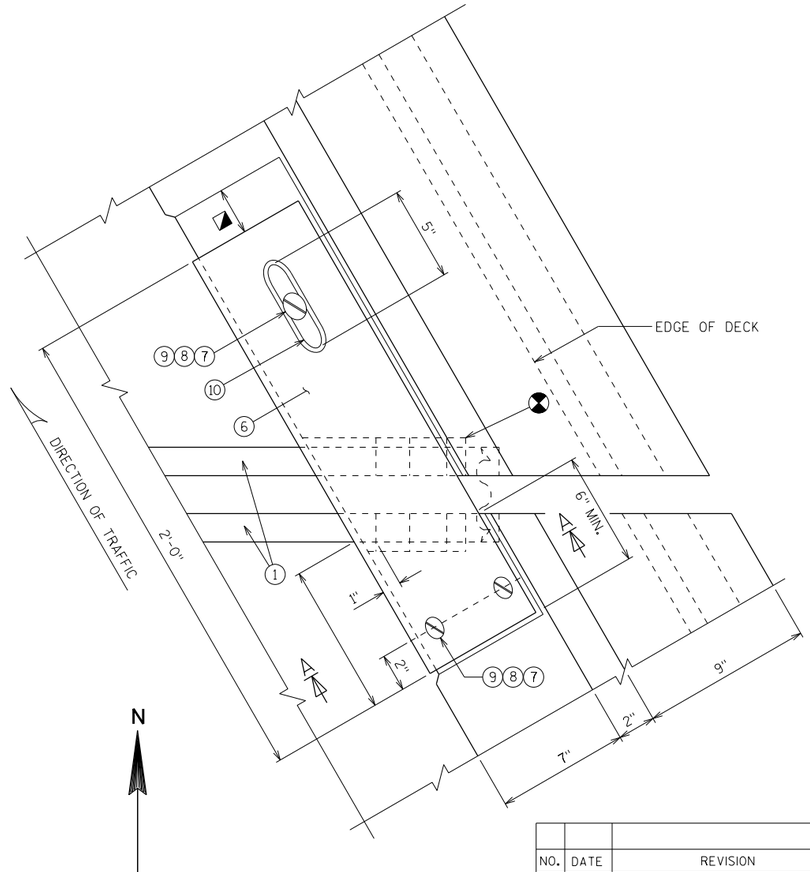
SECTION B-B

AT WING CORNER 2

OPPOSITE HAND AT WING CORNER 1



PLAN AT WING CORNER 1



PLAN AT WING CORNER 2

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-248

DRAWN BY YC | PLANS CK'D. VCP

COVER PLATE DETAILS

SHEET 6 OF 7

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STATE PROJECT NUMBER
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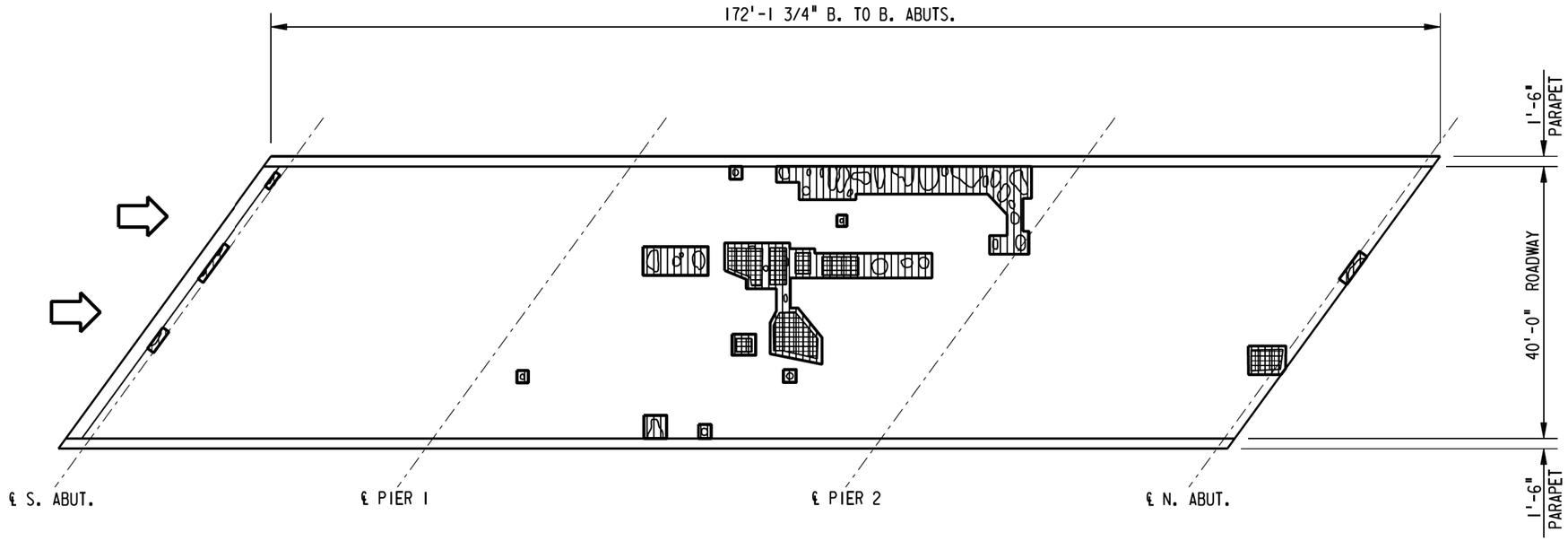
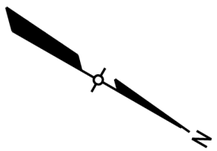


PLAN

PROPOSED REHAB AREAS



NOTES

THIS SHEET PROVIDES THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS REPORTED BY AECOM IN AUGUST 2015. THE PROPOSED DECK REPAIRS ARE BASED ON THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS.

SCALE 0' 5' 10' 20'

FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-5-248	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	761.8	
SHADE/DEBRIS	yd^2	0	
PREPARATION, DECKS, TYPE 1	yd^2	55.7	7.3
PREPARATION, DECKS, TYPE 2	yd^2	41.8	5.5
FULL DEPTH DECK REPAIR	yd^2	1.0	0.1

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION
SPALL
DEBOND
ASPHALT PATCH
CONCRETE PATCH

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 7/23/15

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-248

DRAWN BY YC | PLANS CK'D. VCP

DECK REPAIR PLAN

SHEET 7 OF 7

459

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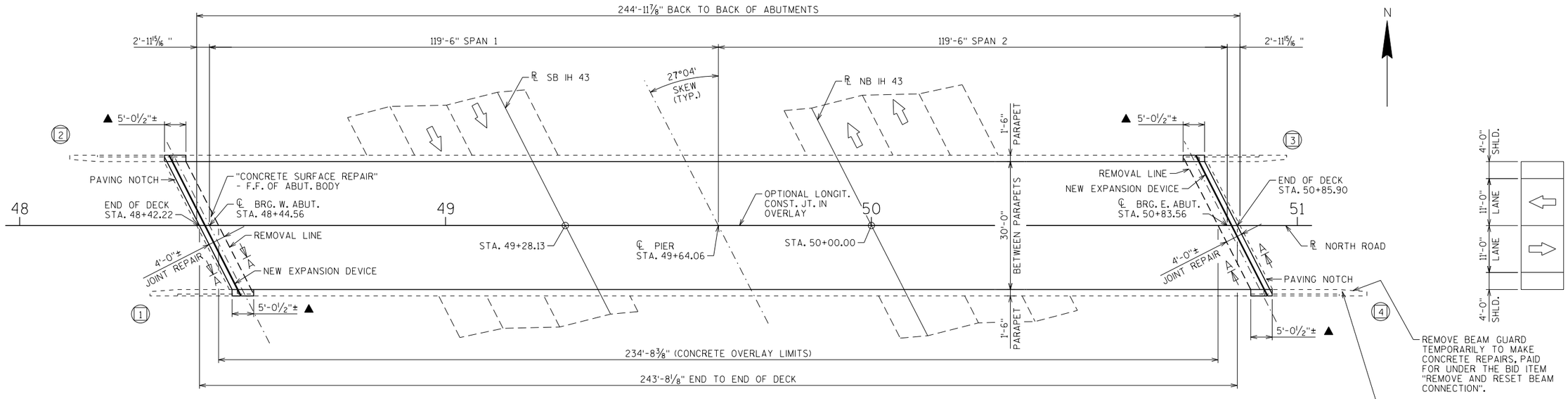
FILENAME
SCALE

STATE PROJECT NUMBER
1227-08-71

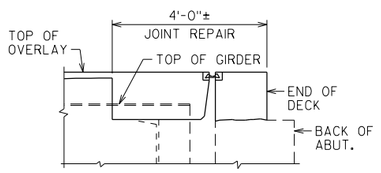


PLAN

(2-SPAN STEEL GIRDER, CONCRETE OVERLAY)

⬭ INDICATES WINGWALL NUMBER

▲ PARAPET REPLACEMENT AREA. SEE SHEET 3 AND 5 FOR DETAILS.



SECTION A-A

SEE SHEET 4 FOR DETAILS.

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20
INVENTORY RATING: HS20
OPERATING RATING: HS34
WISCONSIN STANDARD PERMIT VEHICLE (Wis-SPV): 250 KIPS

MATERIAL PROPERTIES:

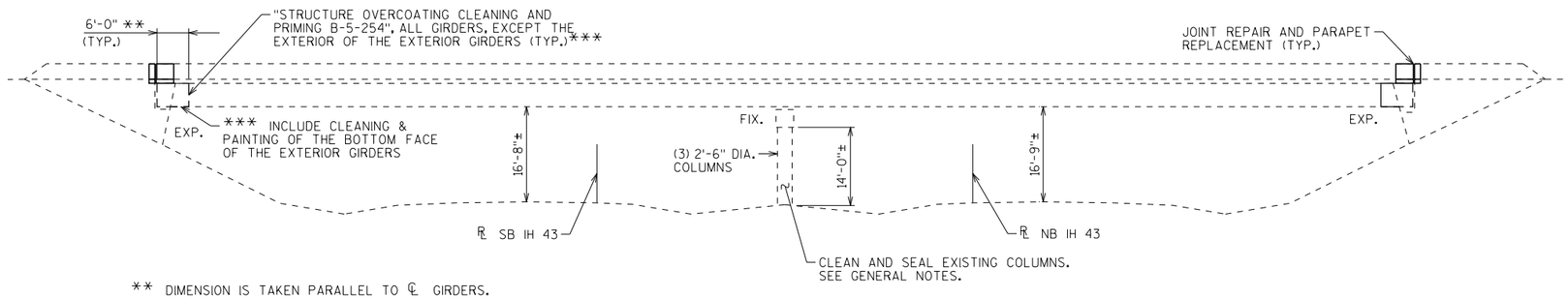
CONCRETE MASONRY:	OVERLAY DECKS	f'c = 4,000 P.S.I.
	ALL OTHER	f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60:		fy = 60,000 P.S.I.

TRAFFIC VOLUME

NORTH ROAD	IH 43
A.D.T. = 300 (2036)	A.D.T. = 30,100 (2036)
R.D.S. = 50 MPH	R.D.S. = 70 MPH

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. CROSS SECTION, QUANTITIES & NOTES
3. JOINT REPAIR
4. EXPANSION DEVICE
5. JOINT REPAIR - BILL OF BARS
6. COVER PLATE DETAILS
7. DECK REPAIR PLAN



** DIMENSION IS TAKEN PARALLEL TO ℄ GIRDERS.

ELEVATION

NORMAL TO IH 43
(LOOKING NORTH)

WISCONSIN
VINOD C. PATEL 37887
CAROL STREAM, IL
PROFESSIONAL ENGINEER

DATE: 07/20/2016

STRUCTURE DESIGN CONTACTS

BRIDGE OFFICE: WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT: VINOD PATEL, P.E. (312) 616-7395

NO.	DATE	REVISION	BY

exp U.S. Services Inc.
Milwaukee, WI
BUILDINGS·EARTH & ENVIRONMENT·ENERGY
INDUSTRIAL·INFRASTRUCTURE·SUSTAINABILITY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/11/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-5-254

NORTH ROAD OVER IH 43

COUNTY	TOWN/~~CITY/VILLAGE~~
BROWN	NEW DENMARK

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
YC	VCP	YC	VCP

GENERAL PLAN & ELEVATION

SHEET 1 OF 7

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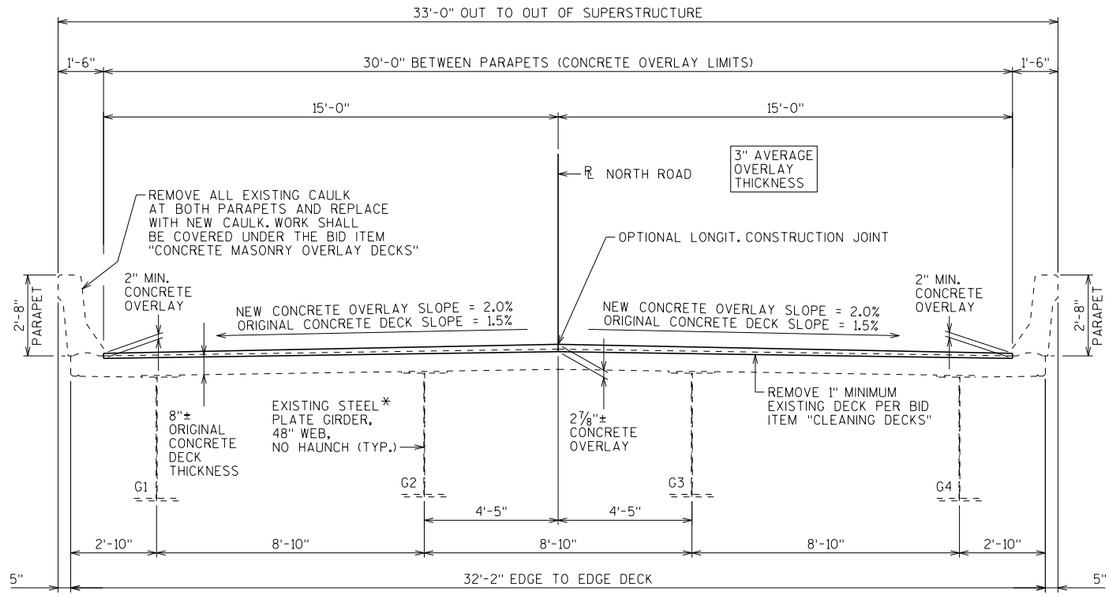
STATE PROJECT NUMBER

1227-08-71

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	W. ABUT.	E. ABUT.	PIER	SUPER.	TOTAL
502.3100.09	EXPANSION DEVICE B-5-254	LS	-	-	-	-	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-	812	812
502.3210	PIGMENTED SURFACE SEALER	SY	16	16	37	188	257
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	42	42	-	-	84
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,375	1,375	-	-	2,750
509.0301	PREPARATION DECKS TYPE 1	SY	-	-	-	1	1
509.0302	PREPARATION DECKS TYPE 2	SY	-	-	-	1	1
509.0500	CLEANING DECKS	SY	-	-	-	782	782
509.1000	JOINT REPAIR	SY	-	-	-	36	36
509.1500	CONCRETE SURFACE REPAIR	SF	12	10	-	-	22
509.2000	FULL-DEPTH DECK REPAIR	SY	-	-	-	1	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	-	-	-	79	79
509.9050.S	CLEANING PARAPETS	LF	45	45	95	467	652
517.3000.S.02	STRUCTURE OVERCOATING CLEANING AND PRIMING B-5-254	LS					
517.4000.S.02	CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-5-254	LS					
SPV.0060.02	REMOVE AND RESET BEAM CONNECTION	EACH	-	1	-	-	1
	NON-BID ITEMS						
	BRIDGE SEAT PROTECTION						

BID ITEM "CONCRETE MASONRY OVERLAY DECKS" ALSO INCLUDES CONCRETE FOR:
"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "FULL-DEPTH DECK REPAIR", AND "JOINT REPAIR".
THE QUANTITIES OF "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL-DEPTH DECK REPAIR" ARE BASED ON AN INFRARED THERMOGRAPHIC DECK SURVEY REPORT.



CROSS SECTION THRU DECK LOOKING EAST

* WEATHERING STEEL

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS OF EXISTING STRUCTURE MEMBERS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "CONCRETE SURFACE REPAIR", AND "FULL-DEPTH DECK REPAIR" AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS AS GIVEN ON THE PLANS. IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY OR JOINT REPAIRS AT ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND MINIMUM 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF BOTH ABUTMENTS BELOW EXPANSION DEVICES. POWER WASH AND ADEQUATELY DRY SURFACES BEFORE APPLICATION. WORK TO BE INCIDENTAL TO "JOINT REPAIR".

CLEAN AND PAINT THE END 6 FEET OF ALL STRUCTURAL WEATHERING STEEL AT BOTH ABUTMENTS, EXCEPT THE EXTERIOR OF THE EXTERIOR GIRDERS. USE A FEDERAL STANDARD COLOR NO. 20059 (BROWN) FOR THE TOP COAT.

CLEAN AND PAINT ALL BEARINGS AT BOTH ABUTMENTS. CLEANING AND PAINTING OF BEARINGS IS INCLUDED WITH "STRUCTURE OVERCOATING CLEANING AND PRIMING B-5-254".

CLEAN THE INSIDE FACES AND TOP SURFACE OF THE EXISTING CONCRETE PARAPETS. PARAPET JOINTS SHALL BE CLEANED AND RE-SEALED WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. INCLUDE IN BID ITEM "CLEANING PARAPETS".

APPLY "PROTECTIVE SURFACE TREATMENT" TO THE EXPOSED DECK SURFACE OF THE NEW CONCRETE OVERLAY BETWEEN PARAPETS AND EXPOSED TOP SURFACE OF JOINT REPAIR.

APPLY "PIGMENTED SURFACE SEALER" ON THE INSIDE AND TOP FACES OF PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS.

TRAFFIC CONTROL: BRIDGE TO BE TEMPORARILY CLOSED TO COMPLETE JOINT REPAIRS AND MILL AND OVERLAY ACTIVITIES.

CLEAN THE EXISTING COLUMN FACES FROM THE GROUNDLINE TO THE BOTTOM OF PIER CAP IN ACCORDANCE WITH "CLEANING PARAPETS". WORK TO BE PAID FOR UNDER THE BID ITEM "CLEANING PARAPETS".

APPLY "PIGMENTED SURFACE SEALER" ON THE CLEANED FACES OF COLUMNS FROM THE GROUNDLINE TO THE BOTTOM OF PIER CAP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-254

DRAWN BY YC | PLANS CK'D. VCP

CROSS SECTION, QUANTITIES & NOTES

SHEET 2 OF 7

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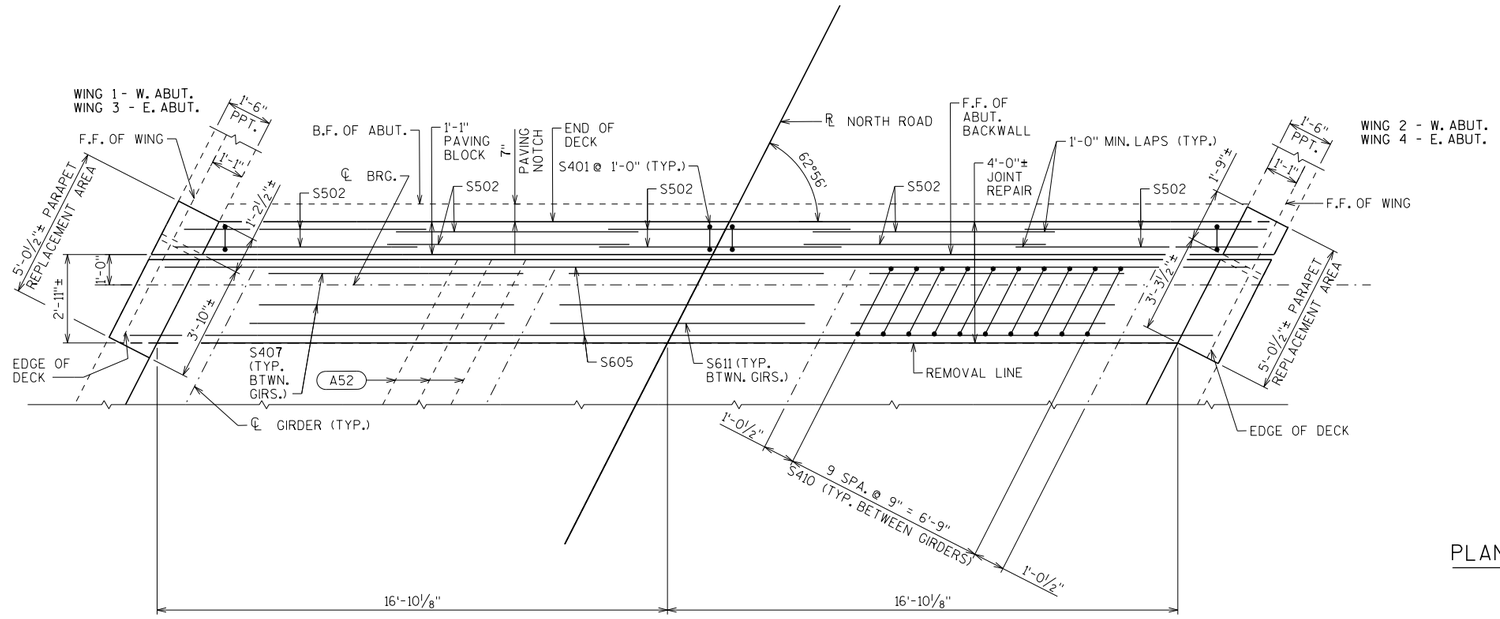
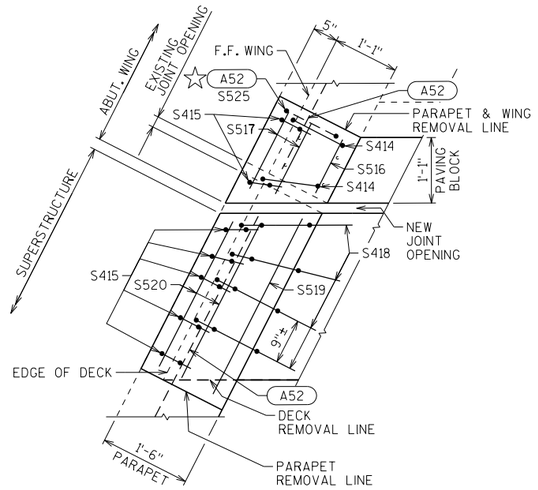
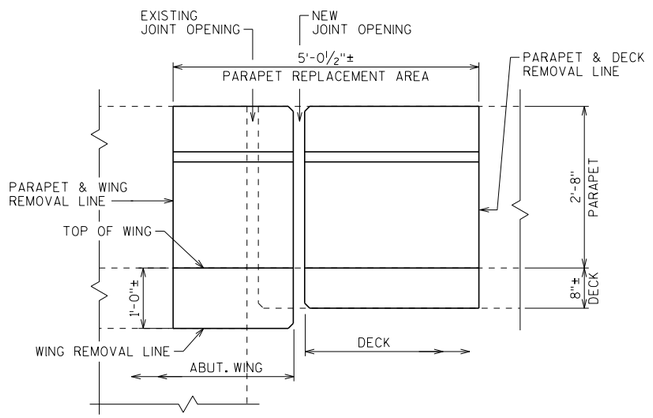


"JOINT REPAIR" PLAN

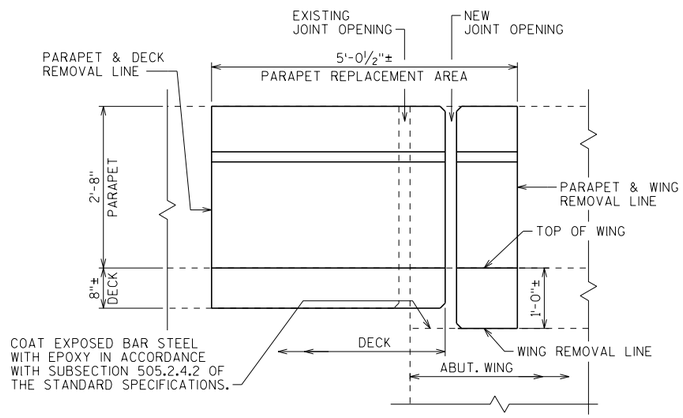


PLAN DETAIL OF PARAPET REPLACEMENT AREA
AT WING CORNERS 1& 3



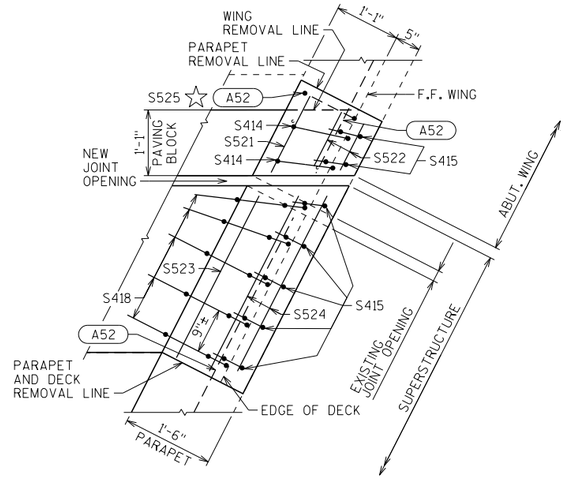
ELEVATION OF NEW WING CORNERS 1& 3

SHOWING NEW CONCRETE AREAS FOR "JOINT REPAIR"
(LOOKING AT OUTSIDE FACE OF PARAPET)



ELEVATION OF NEW WING CORNERS 2 & 4

SHOWING NEW CONCRETE AREAS FOR "JOINT REPAIR"
(LOOKING AT OUTSIDE FACE OF PARAPET)



PLAN DETAIL OF PARAPET REPLACEMENT AREA
AT WING CORNERS 2 & 4

(A52) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

THE NEW ADDITIONAL HORIZONTAL REINFORCEMENT REQUIRED IN THE PARAPETS SHALL BE TIED TO THE EXISTING HORIZONTAL REINFORCEMENT.

☆ IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH BARS S525 ANCHORED WITH ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" MIN. INTO EXISTING CONC. PLACE 4" CL. MIN. OF VERT. CONC. FACE.

(S01) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT & SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS' RECOMMENDATIONS.

NOTES

ALL REMOVAL LINES SHALL BE DEFINED BY A 1" DEEP SAW-CUT.

REBUILD NEW PARAPET, WING AND DECK AREAS TO MATCH THE EXISTING PARAPET, WING AND DECK. SEE SHEET 5 FOR NEW PARAPET DETAILS.

PARAPET REPLACEMENT SHALL BE INCLUDED UNDER THE BID ITEM "JOINT REPAIR".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-254

DRAWN BY YC | PLANS CK'D. VCP

JOINT REPAIR

SHEET 3 OF 7

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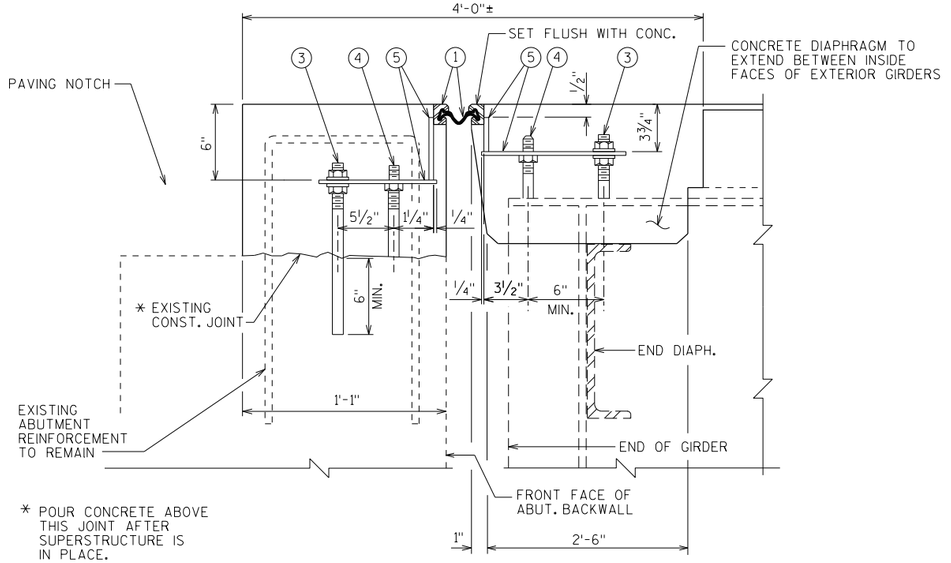
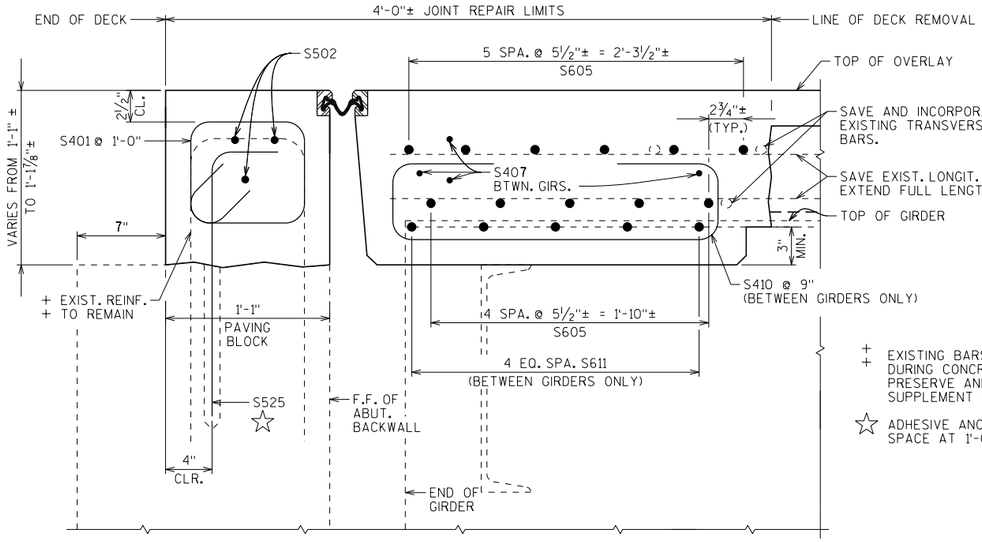


* POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE.

SECTION THRU JOINT AT ABUTMENTS

NORMAL TO ℄ SUBSTRUCTURE

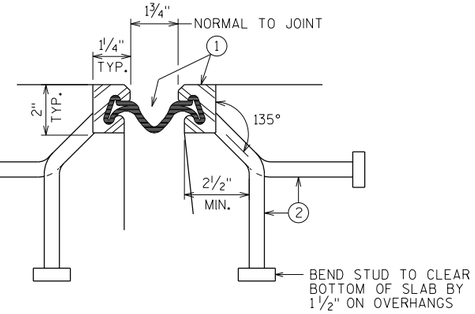


\+ + EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY ☆.

☆ ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" INTO CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

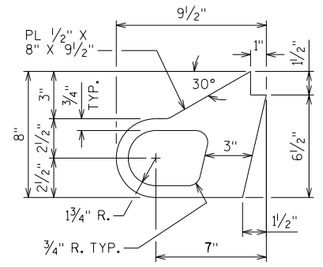
SECTION THRU JOINT AT ABUTMENTS

NORMAL TO ℄ SUBSTRUCTURE
SHOWING REINFORCEMENT



SECTION THRU JOINT

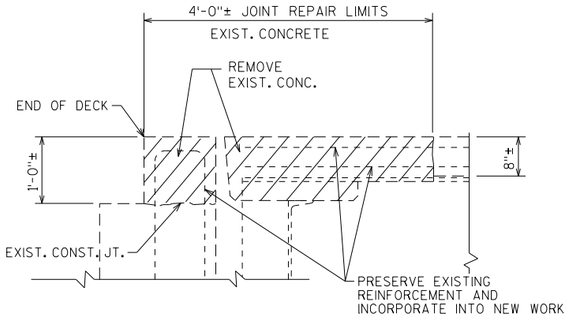
EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS



ALTERNATE STRIP SEAL ANCHOR

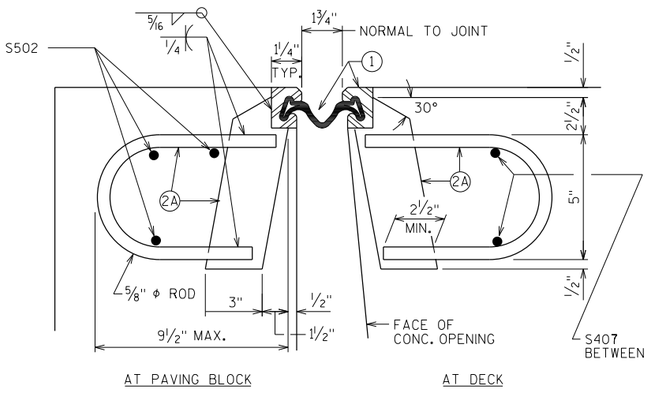
LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅝"ϕ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝"ϕ 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" ϕ 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"ϕ 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" ϕ HOLE FOR NO. 3 AND 1" ϕ HOLE FOR NO. 4.



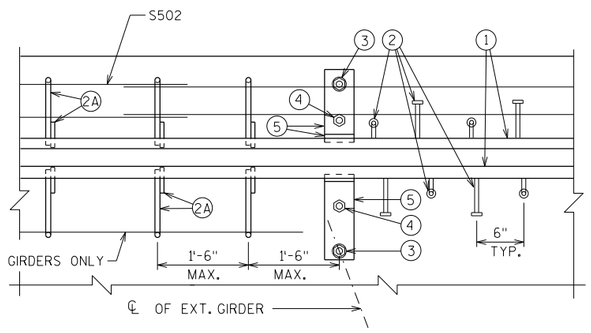
JOINT REPAIR - REMOVAL
SECTION THRU EXISTING EXPANSION JOINT
AT ABUTMENTS

NORMAL TO ℄ SUBSTRUCTURE



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, 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.

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

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-5-254".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-254

DRAWN BY YC | PLANS CK'D. VCP

EXPANSION DEVICE

SHEET 4 OF 7

463

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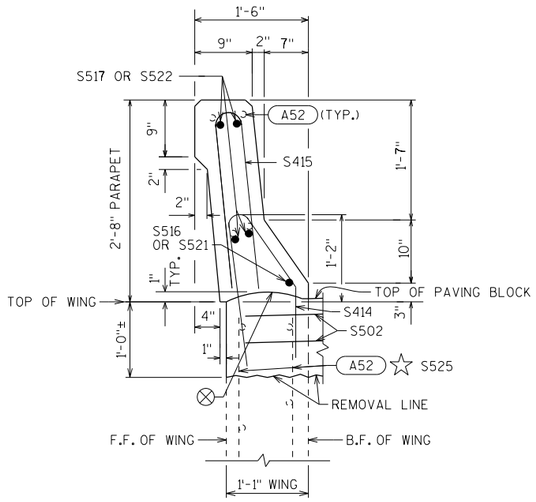
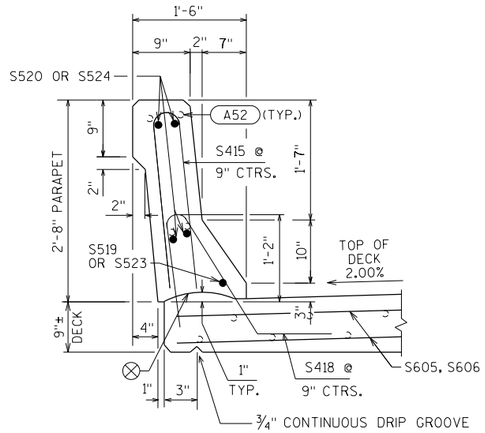
STATE PROJECT NUMBER
1227-08-71



NEW SECTION THRU PARAPET ON WING



NEW SECTION THRU PARAPET ON DECK

BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

	W. ABUT.	E. ABUT.
UNCOATED:	0 LBS	0 LBS
COATED:	1375 LBS	1375 LBS

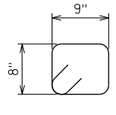
BAR MARK	COAT	NO. REQ'D W. ABUT.	NO. REQ'D E. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
S401	X	34	34	3'-4"	X		PAVING BLOCK - VERT. - STIRRUP
S502	X	15	15	8'-0"			PAVING BLOCK - HORIZ.
- - -	-	-	-	--			- - -
- - -	-	-	-	--			- - -
S605	X	11	11	35'-9"			DECK - HORIZ. - TRANS. - TOP & BOT.
- - -	-	-	-	--			- - -
S407	X	12	12	8'-5"			DECK - HORIZ. - TRANS. - BTWN. GIRS.
- - -	-	-	-	--			- - -
- - -	-	-	-	--			- - -
S410	X	30	30	4'-5"	X		DECK/CONC. DIAPH. - VERT. - BTWN. GIRS.
S611	X	15	15	8'-5"			CONC. DIAPH. - BOT. - HORIZ. - TRANS. - BTWN. GIRS.
- - -	-	-	-	--			- - -
- - -	-	-	-	--			- - -
S414	X	4	4	4'-3"	X		WING & PARAPET - VERT. - TRANS. - AT WING CORNERS 1, 2, 3 & 4
S415	X	14	14	4'-10"	X		PARAPET - VERT. - TRANS. - ABOVE DECK AND WINGS - AT WING CORNERS 1, 2, 3 & 4
S516	X	1	1	1'-2"			WING PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNERS 1 & 3
S517	X	4	4	1'-5"			WING PARAPET - HORIZ. - LONGIT. - AT WING CORNERS 1 & 3
S418	X	9	9	4'-3"	X		DECK & PARAPET- VERT. - TRANS. - AT WING CORNERS 1, 2, 3 & 4
S519	X	1	1	3'-3"			DECK PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNERS 1 & 3
S520	X	4	4	2'-10"			DECK PARAPET - HORIZ. - LONGIT. - AT WING CORNERS 1 & 3
S521	X	1	1	1'-5"			WING PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNERS 2 & 4
S522	X	4	4	1'-0"			WING PARAPET - HORIZ. - LONGIT. - AT WING CORNERS 2 & 4
S523	X	1	1	3'-0"			DECK PARAPET - F.F. - HORIZ. - LONGIT. - AT WING CORNERS 2 & 4
S524	X	4	4	3'-3"			DECK PARAPET - HORIZ. - LONGIT. - AT WING CORNERS 2 & 4
S525	X	42	42	2'-7"	X		PAVING BLOCK & ENDS OF ABUT. BACKWALL - VERT. - DOWEL - AT STAGE 1 & 2 CONST.

⊗ CONST. JOINT - STRIKE OFF AS SHOWN.

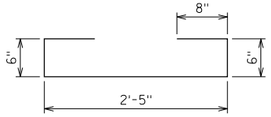
(A52) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

THE NEW ADDITIONAL HORIZONTAL REINFORCEMENT REQUIRED IN THE PARAPETS SHALL BE TIED TO THE EXISTING HORIZONTAL REINFORCEMENT.

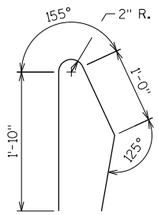
☆ IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH BARS S525 ANCHORED WITH ADHESIVE ANCHORS NO. 5 BAR. EMBED BARS 1'-0" MIN. INTO EXISTING CONC. PLACE 4" CL. MIN. OF VERT. CONC. FACE.



S401



S410



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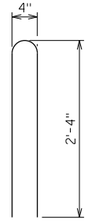

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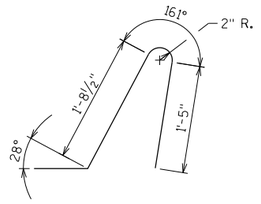

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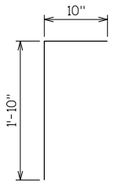

S525

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-254

DRAWN BY YC | PLANS CK'D. VCP

JOINT REPAIR - BILL OF BARS

SHEET 5 OF 7

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FILENAME

SCALE

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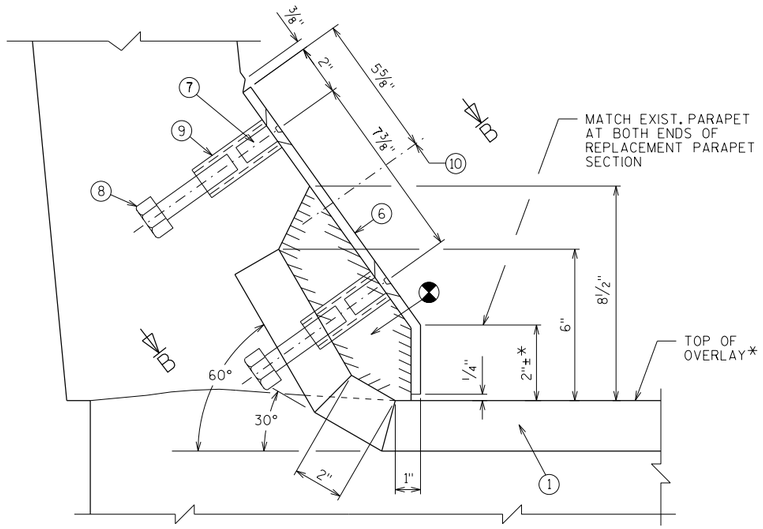
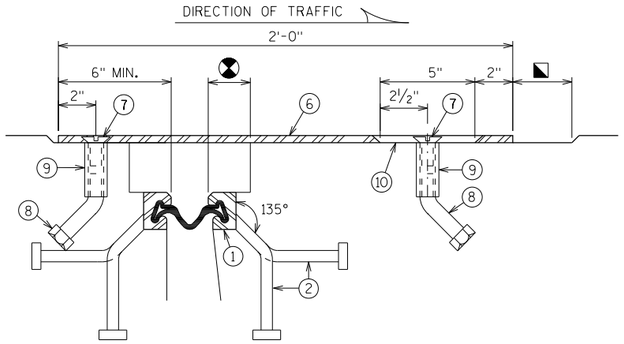
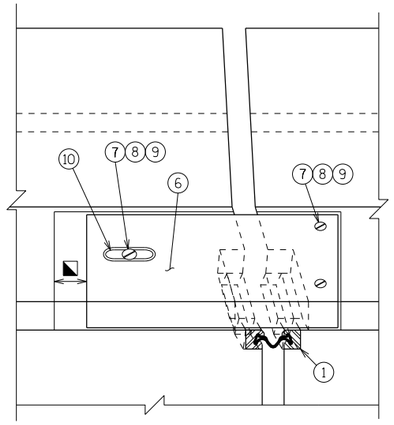


SECTION A-A

* TOP OF OVERLAY @ 1"± ABOVE TOP OF ORIGINAL DECK.



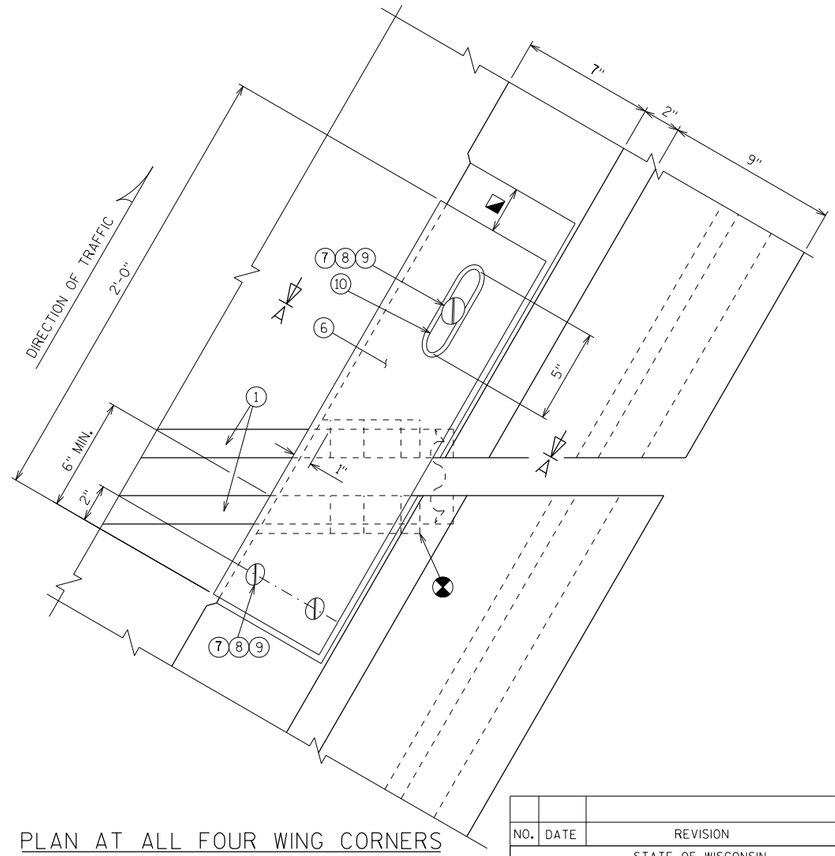
SECTION B-B



VIEW OF PARAPET PLATE FROM ROADWAY

LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
2. STUDS 5/8"ϕ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
6. GALVANIZED PLATE 3/8" X 1'-2" X 2'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. 3/4"ϕ X 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. 3/4"ϕ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. 3/4"ϕ X 2 1/4" GALVANIZED THREADED COUPLING.
10. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.



PLAN AT ALL FOUR WING CORNERS

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

STATE PROJECT NUMBER

1227-08-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-254

DRAWN BY YC | PLANS CK'D. VCP

COVER PLATE DETAILS

SHEET 6 OF 7

465

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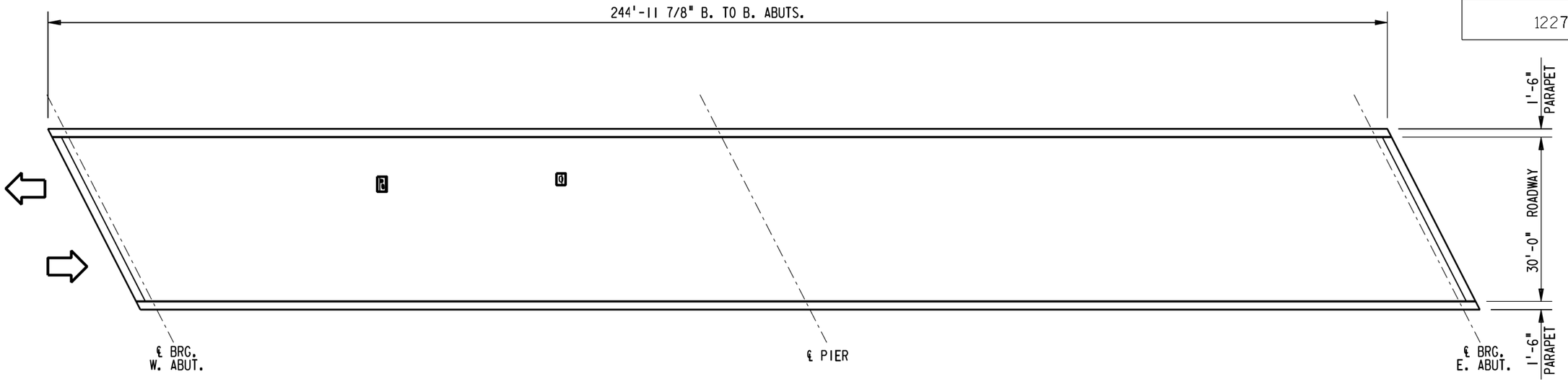
STATE PROJECT NUMBER
1227-08-71



PLAN

PROPOSED REHAB AREAS

FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-5-254	
ITEM	UNIT	QUANT.	%
TOTAL AREA	yd^2	812.0	
SHADE/DEBRIS	yd^2	0	
PREPARATION, DECKS, TYPE 1	yd^2	0.9	0.1
PREPARATION, DECKS, TYPE 2	yd^2	0.1	<0.1
FULL DEPTH DECK REPAIR	yd^2	1.0	0.1

LEGEND

- DECK PREPARATION AREA
- SHADE/DEBRIS
- DELAMINATION
- SPALL
- DEBOND
- ASPHALT PATCH
- CONCRETE PATCH

SCALE 0' 5' 10' 20'

NOTES

THIS SHEET PROVIDES THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS REPORTED BY AECOM IN AUGUST 2015. THE PROPOSED DECK REPAIRS ARE BASED ON THE INFRARED THRMOGRAPHIC DECK INSPECTION RESULTS.

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 7/28/15

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-254

DRAWN BY YC | PLANS CK'D. VCP

DECK REPAIR PLAN

SHEET 7 OF 7

466

FILENAME
SCALE

8

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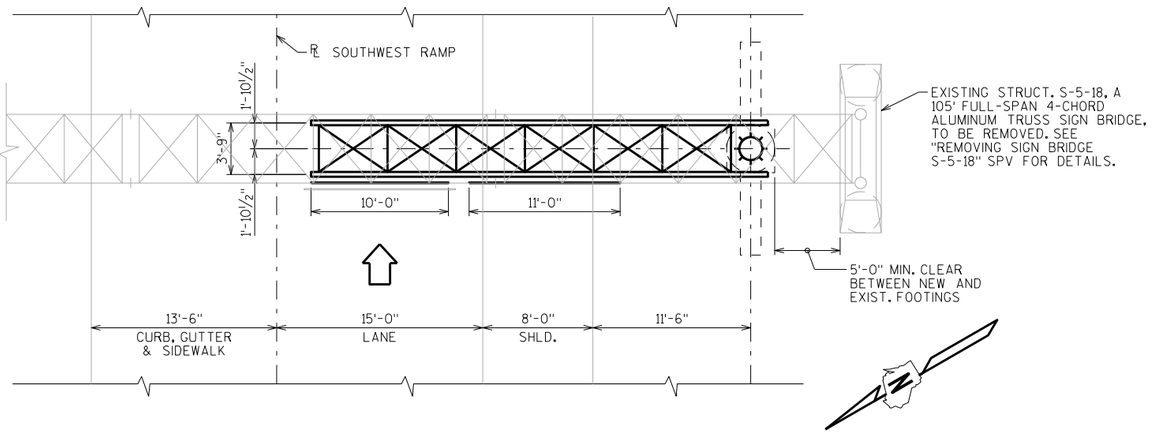
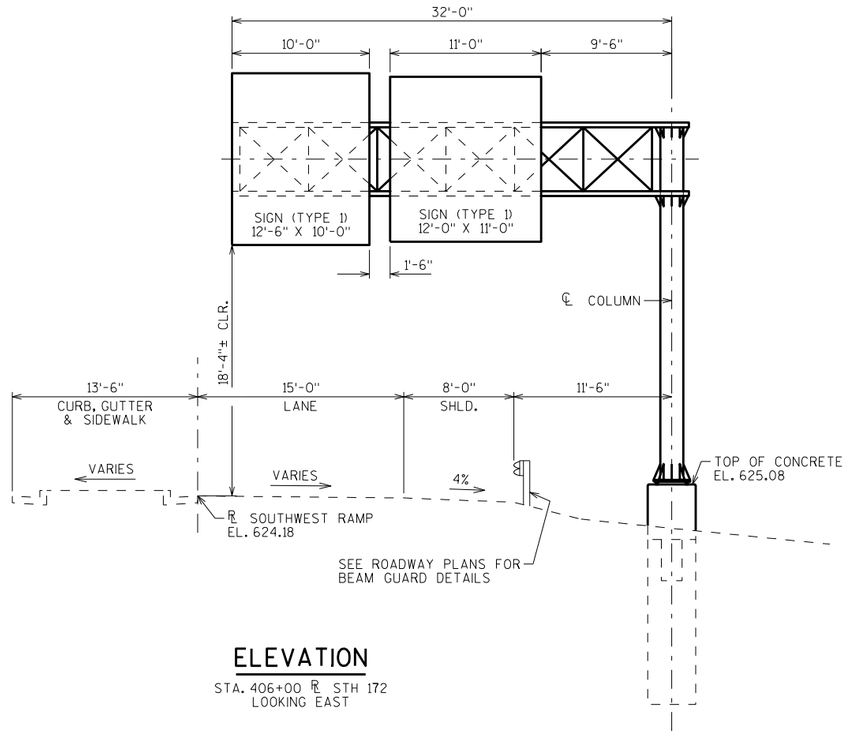


PLAN



ELEVATION

STA. 406+00 ℄ STH 172
LOOKING EAST

DESIGN DATA

SIGN BRIDGE	DESIGN SIGN AREA (SQ. FT.)	MAX. SIGN DEPTH
S-5-388	264	12'-6"

WIND VELOCITY = 90 MPH (3-SECOND GUST SPEED) TO SIGN AREA AND EXPOSED MEMBERS.

DEAD LOAD OF SIGNS IS 3 P.S.F.
DEAD LOAD - WEIGHT OF SIGNS AND SUPPORTING SIGN STRUCTURE. NO PROVISIONS HAVE BEEN MADE TO ALLOW FOR LIGHTS AND CATWALK.

ICE LOAD - 3 P.S.F. TO 1 FACE OF SIGNS AND AROUND SURFACE OF MEMBERS.

WIND COMPONENTS	NORMAL	TRANSVERSE
COMBINATION 1	1.0	0.2
COMBINATION 2	0.6	0.3

GROUP LOADS	% OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD + WIND	133
3. DEAD + ICE + ½ (WIND *)	133

*MIN. VALUE OF 25 P.S.F. FOR GR. 3

MATERIAL PROPERTIES

CONCRETE MASONRY	f'c = 3,500 PSI
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy = 60,000 PSI
STEEL COLUMN AND CHORD PIPES, A.P.I. 5L X 42	fy = 42,000 PSI **
PLATES, BARS & STRUCTURAL ANGLES, ASTM A709 GRADE 36	fy = 36,000 PSI
ANCHOR BOLTS ASTM F1554	fy = 55,000 PSI
HIGH STRENGTH BOLTS - A325	fy = 92,000 PSI
STRUCTURAL MEMBERS GALVANIZED A123 HARDWARE GALVANIZED	A153 CLASS C

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

STEEL ANCHOR RODS SHALL MEET THE REQUIREMENTS OF ASTM F1554 GRADE 55, ASTM A536A HEAVY HEX NUTS, AND ASTM F436 WASHERS.

ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" Φ A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

ALL STRUCTURAL STEEL MEMBERS, PLATES, ANCHOR RODS, H.S. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED PER SECTION 641 OF THE WISDOT STANDARD SPECIFICATIONS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS WHERE ALLOWED IN THE PLANS, IF UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

EXACT LOCATION OF SIGN BRIDGE SHALL BE DETERMINED BY THE REGION TRAFFIC ENGINEER.

SEE SIGN PLATE NO. A4-6 OF THE SIGN PLATE MANUAL FOR INSTRUCTION ON CENTERING SIGN VERTICALLY ON TRUSS.

** ALTERNATE MATERIAL FOR CHORD LESS THAN 10" DIAMETER MAY BE API SPEC. 5L GRADE X46 Fy = 46,000 PSI, AND GRADE X52 Fy = 52,000 PSI, ASTM A500 GRADE B Fy = 42,000 PSI, GRADE C Fy = 46,000 PSI, OR ASTM A53 GRADE B Fy = 35,000 PSI. (ASTM A 53 GRADE B REQUIRES FULL ANALYSIS OF THE STRUCTURE).

DESIGNED ACCORDING TO THE 4TH EDITION AND INTERIM REVISIONS OF AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMIAIRES, AND TRAFFIC SIGNALS."

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	8
636.1500	SIGN SUPPORTS STEEL COATED REINFORCEMENT HS	LB	990
641.1200	SIGN BRIDGE CANTILEVERED S-5-388	LS	1
SPV.0105	REMOVING SIGN BRIDGE S-5-18	LS	1

LIST OF DRAWINGS

1. SIGN BRIDGE LAYOUT
2. GALVANIZED STEEL CANTILEVER SIGN TRUSS
3. GALVANIZED STEEL CANTILEVER SIGN TRUSS DETAILS
4. CANTILEVER TRUSS FOOTING

STATE PROJECT NUMBER

1227-08-71

STRUCTURE DESIGN CONTACTS:
MICAH BROOKS (608) 266-5080
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

Plans Prepared By **WISDOT**
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS — CHIEF STRUCTURES DESIGN ENGINEER — 8/5/16 DATE

STRUCTURE S-5-388

STH 172 EB RAMP TO WEBSTER AVE/STH 57

COUNTY BROWN — ~~TOWN/CITY~~/VILLAGE ALLOUEZ

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
MWB	ARC	MWB	ARC

SIGN BRIDGE LAYOUT

SHEET 1 OF 4

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I.D. 1227-08-00D

DATE: MAY 2016

SCALE = 5.333

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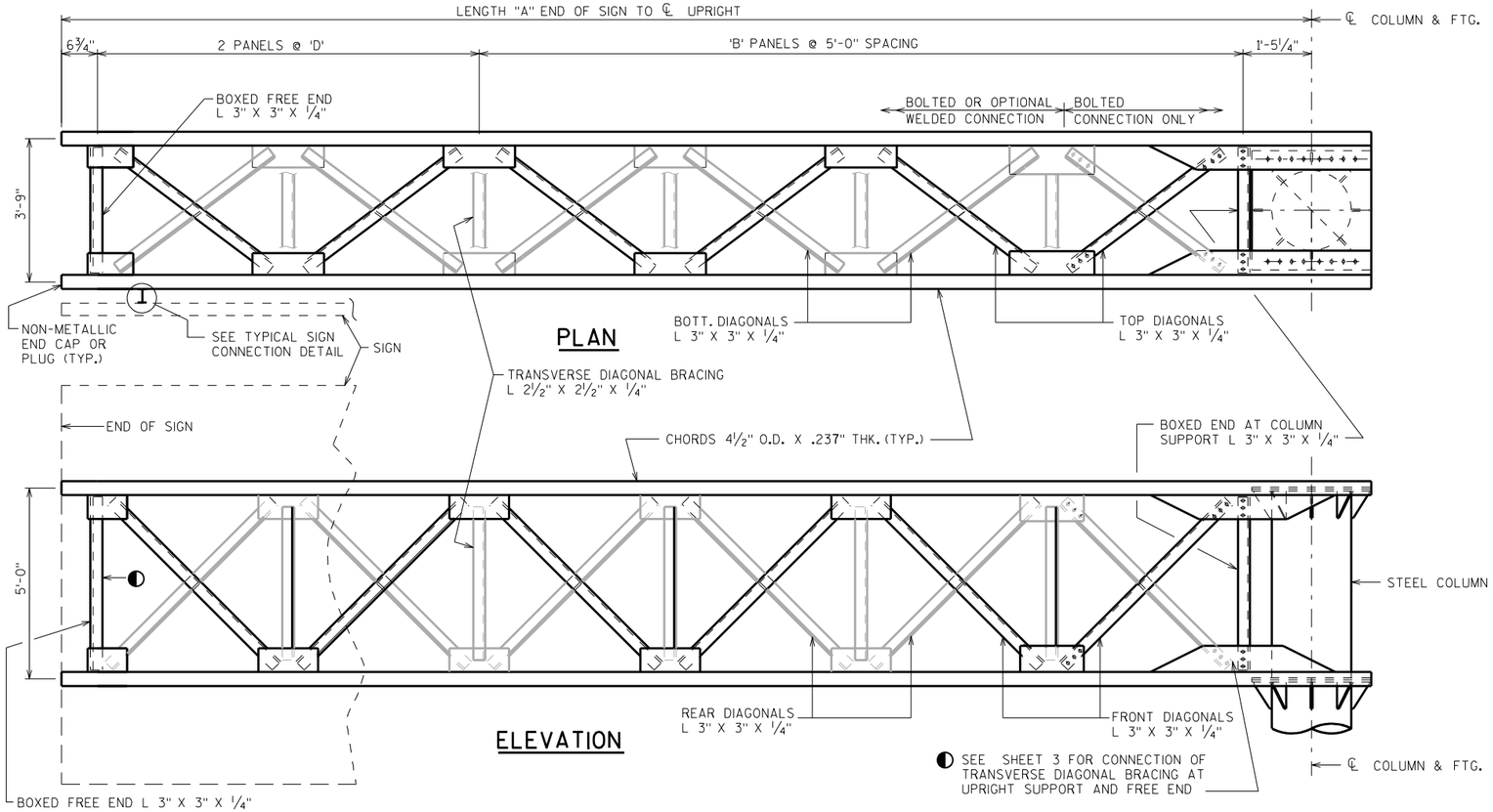
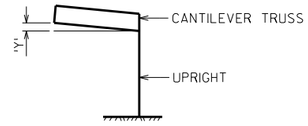
STATE PROJECT NUMBER
1227-08-71

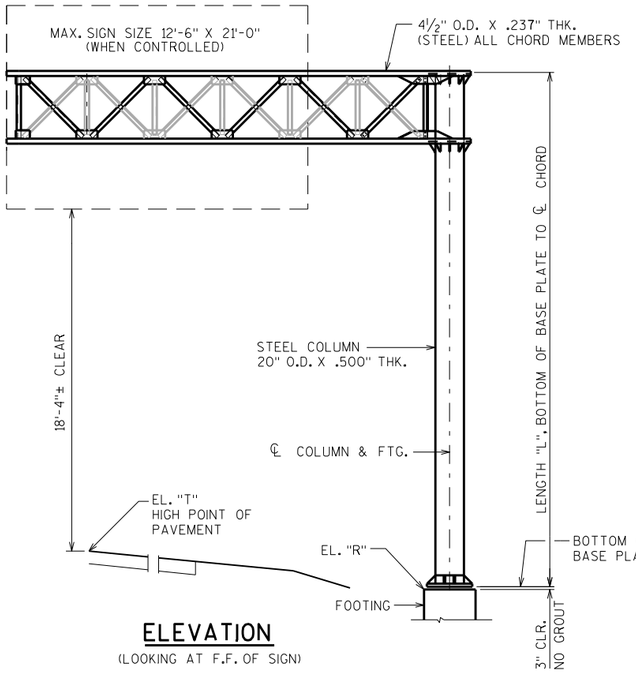




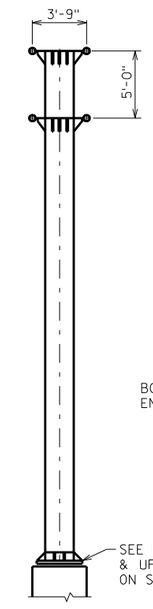
CAMBER DIAGRAM

PREFABRICATE CAMBER INTO THE HORIZONTAL SUPPORT PROVIDING AN AMOUNT "Y" AT END OF TRUSS SHOWN IN "CAMBER DIAGRAM". DO NOT RAKE VERTICAL UPRIGHT BY ADJUSTMENT OF LEVELING NUTS.

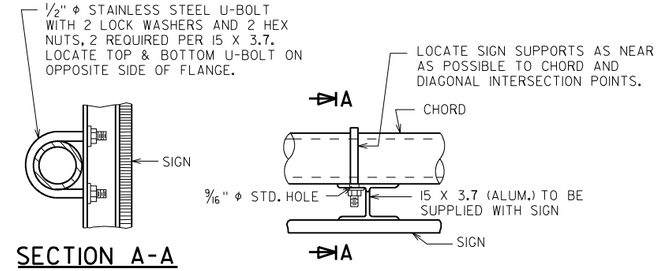
STRUCTURE	EL. "R"	EL. "T"	"A"	"L"	"B"	"D"	"Y"
S-5-388	625.08	624.18	32'-0"	26'-0"	4	5'-0"	2⅝"



ELEVATION
(LOOKING AT F.F. OF SIGN)

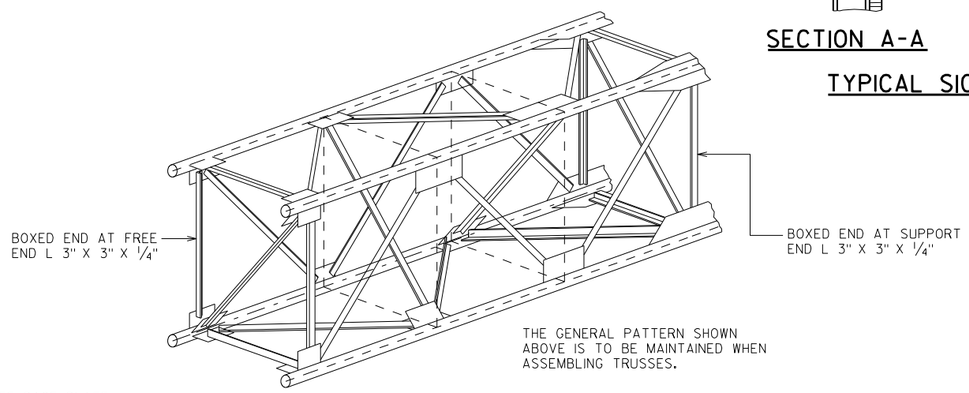


END VIEW



SECTION A-A

TYPICAL SIGN CONNECTION



THE GENERAL PATTERN SHOWN ABOVE IS TO BE MAINTAINED WHEN ASSEMBLING TRUSSES.

TYPICAL TRUSS SECTION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-5-388

DRAWN BY MWB | PLANS CK'D. ARC

GALVANIZED STEEL CANTILEVER SIGN TRUSS

SHEET 2

468

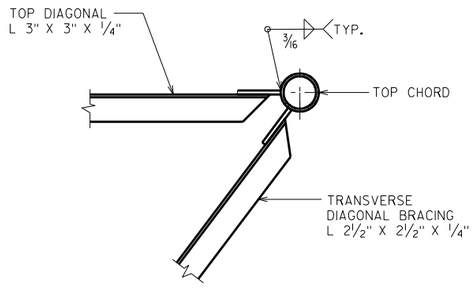
SCALE = 2.25

8

8

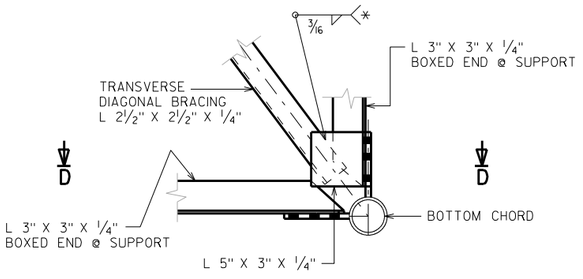
STATE PROJECT NUMBER

1227-08-71

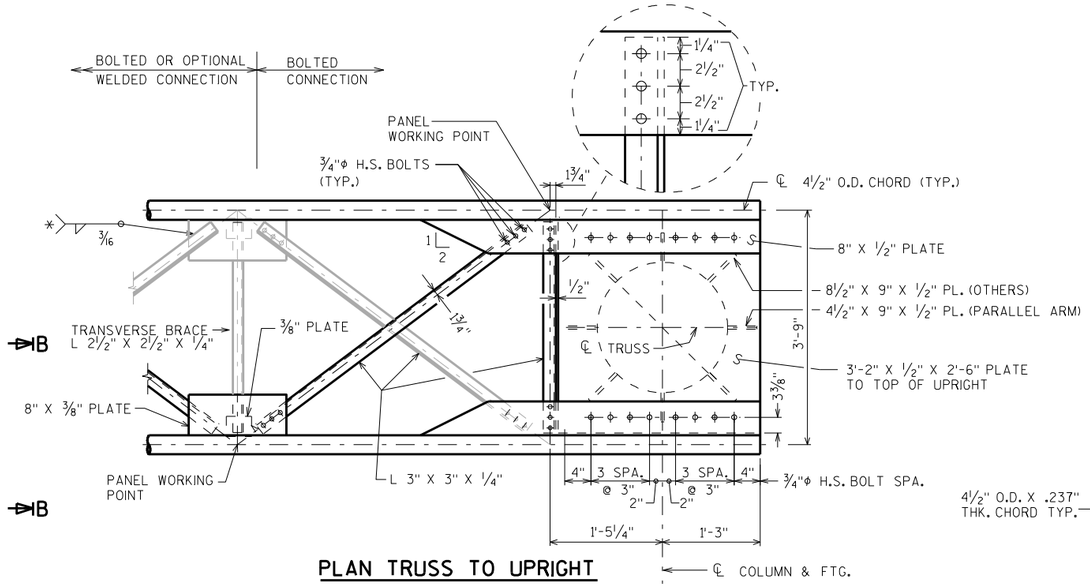


SECTION B-B

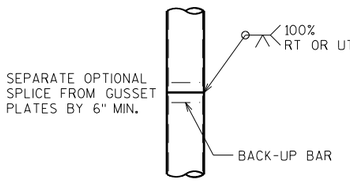
* ANGLE	WELD LENGTH (MIN.)
L 2 1/2" X 2 1/2" X 1/4"	7"
L 3" X 3" X 1/4"	8"



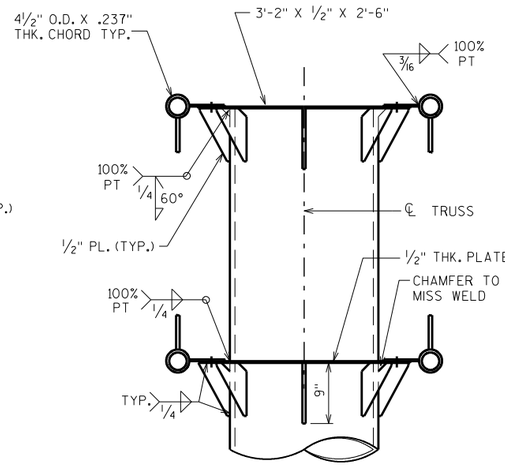
SECTION C-C



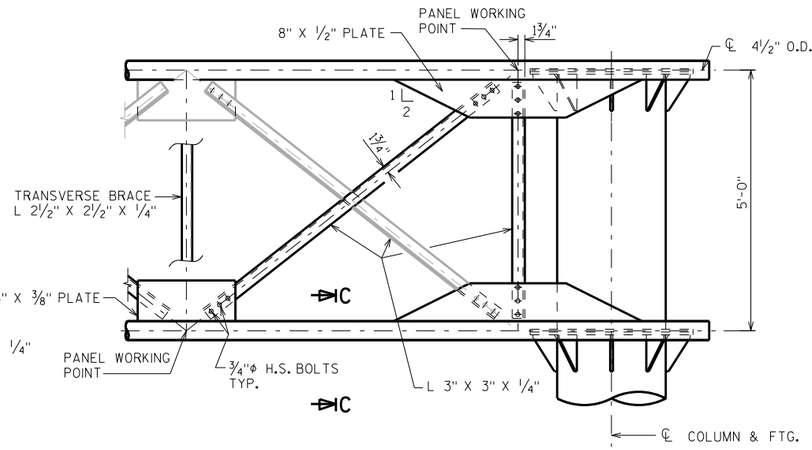
PLAN TRUSS TO UPRIGHT



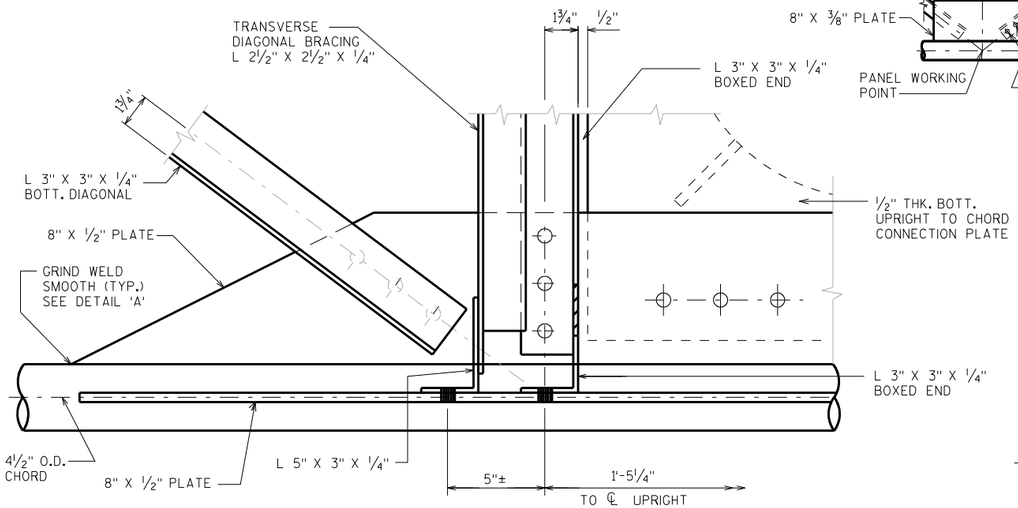
OPTIONAL COLUMN OR CHORD SPLICE DETAIL



END VIEW TRUSS TO UPRIGHT

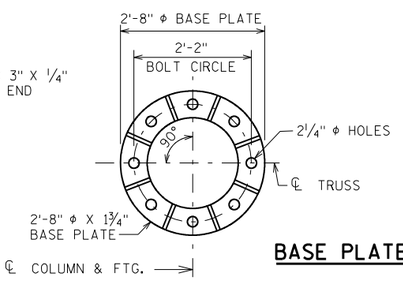


ELEVATION TRUSS TO UPRIGHT

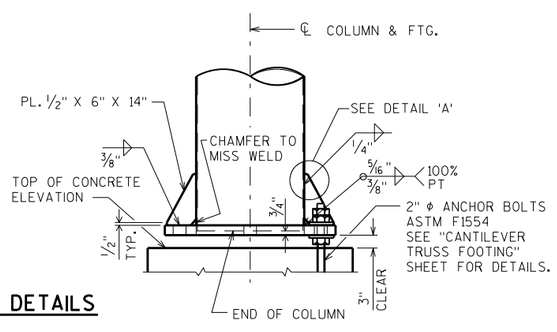


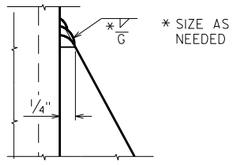
SECTION D-D

(LOOKING DOWN @ BOTT. HORIZ. PLANE @ FRONT CHORD)



BASE PLATE DETAILS





DETAIL 'A'

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-5-388

DRAWN BY MWB | PLANS CK'D. ARC

GALVANIZED STEEL CANTILEVER SIGN TRUSS DETAILS

SHEET 3

469

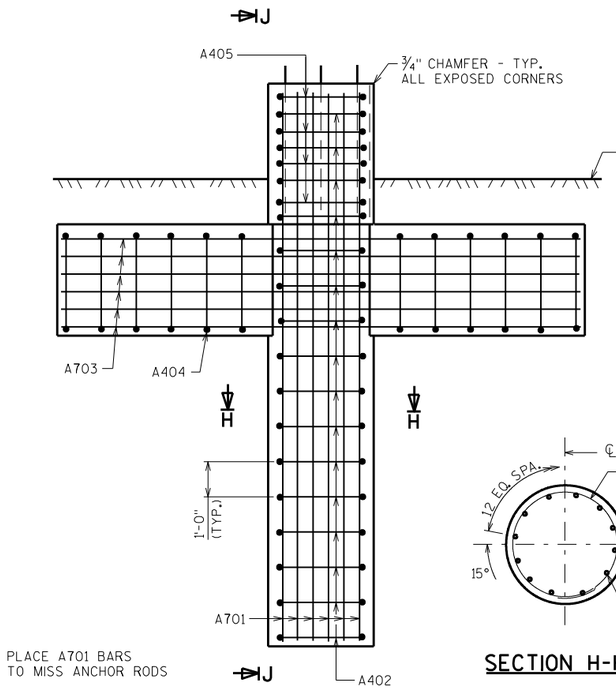
SCALE = 2.25

8

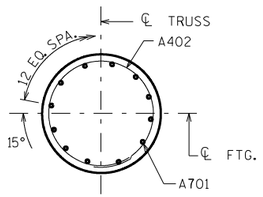
8

STATE PROJECT NUMBER

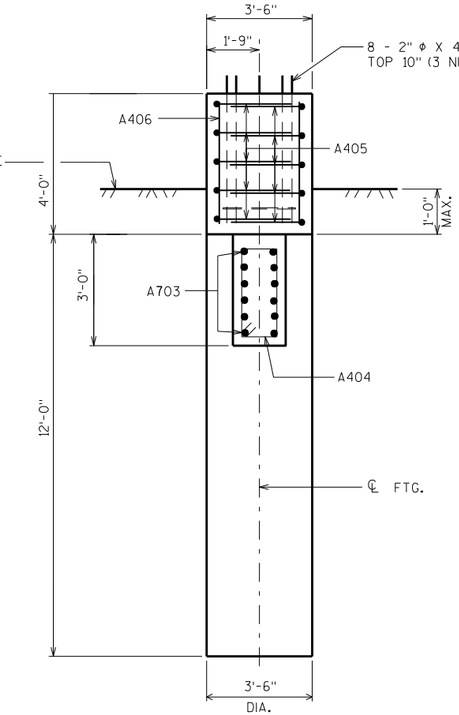
1227-08-71



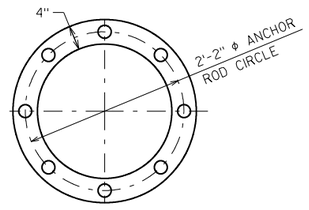
ELEVATION



SECTION H-H



SECTION J-J
(SHOWING WING AND CAP STEEL ONLY)



TOP VIEW OF TOP & BOTTOM TEMPLATES

GENERAL NOTES

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

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 3" CLEAR UNLESS DETAILED OTHERWISE.

BENDING DIMENSIONS ARE OUT TO OUT OF BAR.

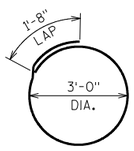
CENTER ANCHOR ROD ASSEMBLY TO MISS BAR STEEL REINFORCEMENT AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE FOOTING AS DETAILED ON PLAN. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURE IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHOR ROD.

FOUNDATION DATA

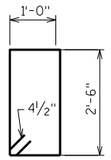
ALLOWABLE SOIL BEARING PRESSURE = 2T/SF

BILL OF BARS

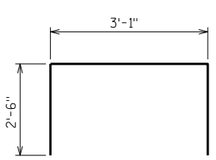
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
A701	X	12	15'-6"		FOOTING - COLUMN/TOP
A402	X	16	11'-2"	X	FOOTING - COLUMN/TOP
A703	X	12	15'-0"		FOOTING - WINGS
A404	X	12	7'-6"	X	FOOTING - WINGS
A405	X	10	7'-11"	X	FOOTING - TOP
A406	X	4	3'-6"		FOOTING - TOP - COLUMNS



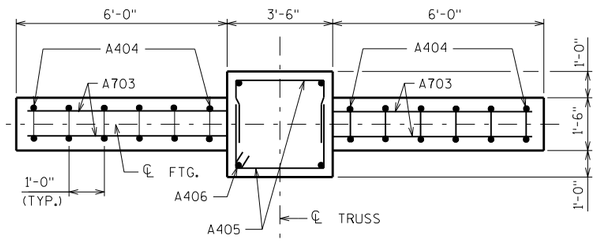
A402



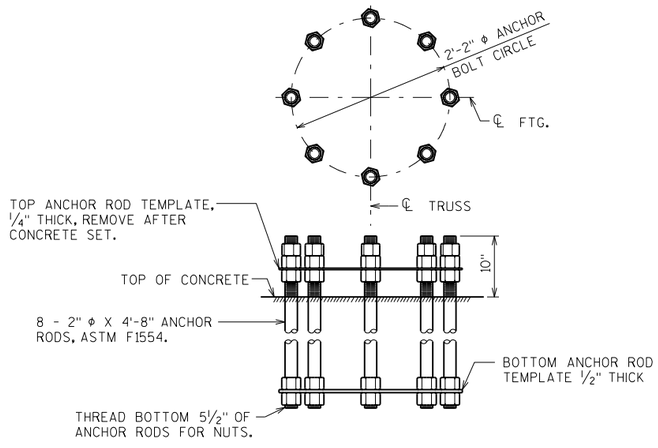
A404
(STIRRUP)



A405



PLAN



ANCHOR ROD DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-5-388

DRAWN BY MWB | PLANS CK'D. ARC

CANTILEVER TRUSS FOOTING

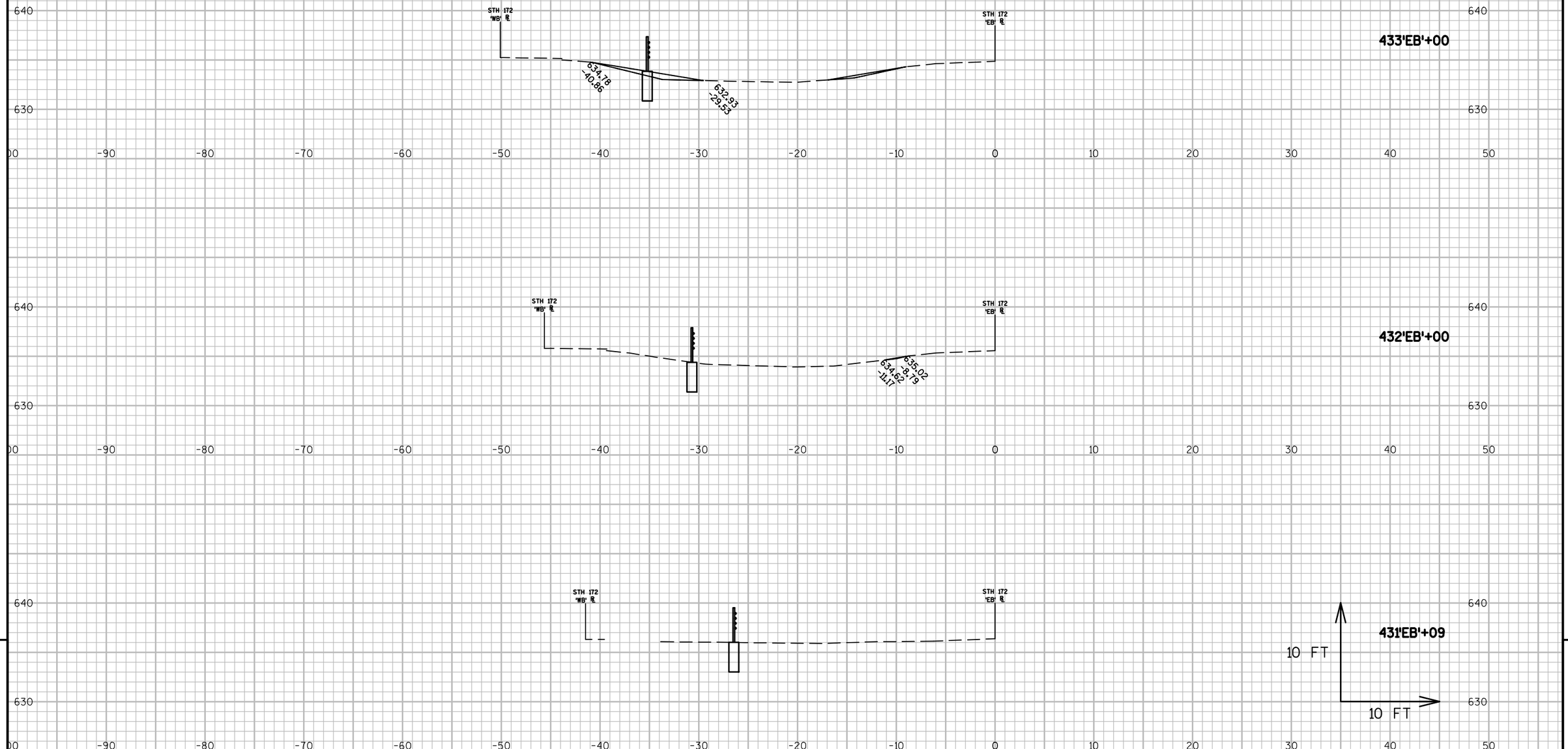
SHEET 4

470

SCALE = 1

8

8



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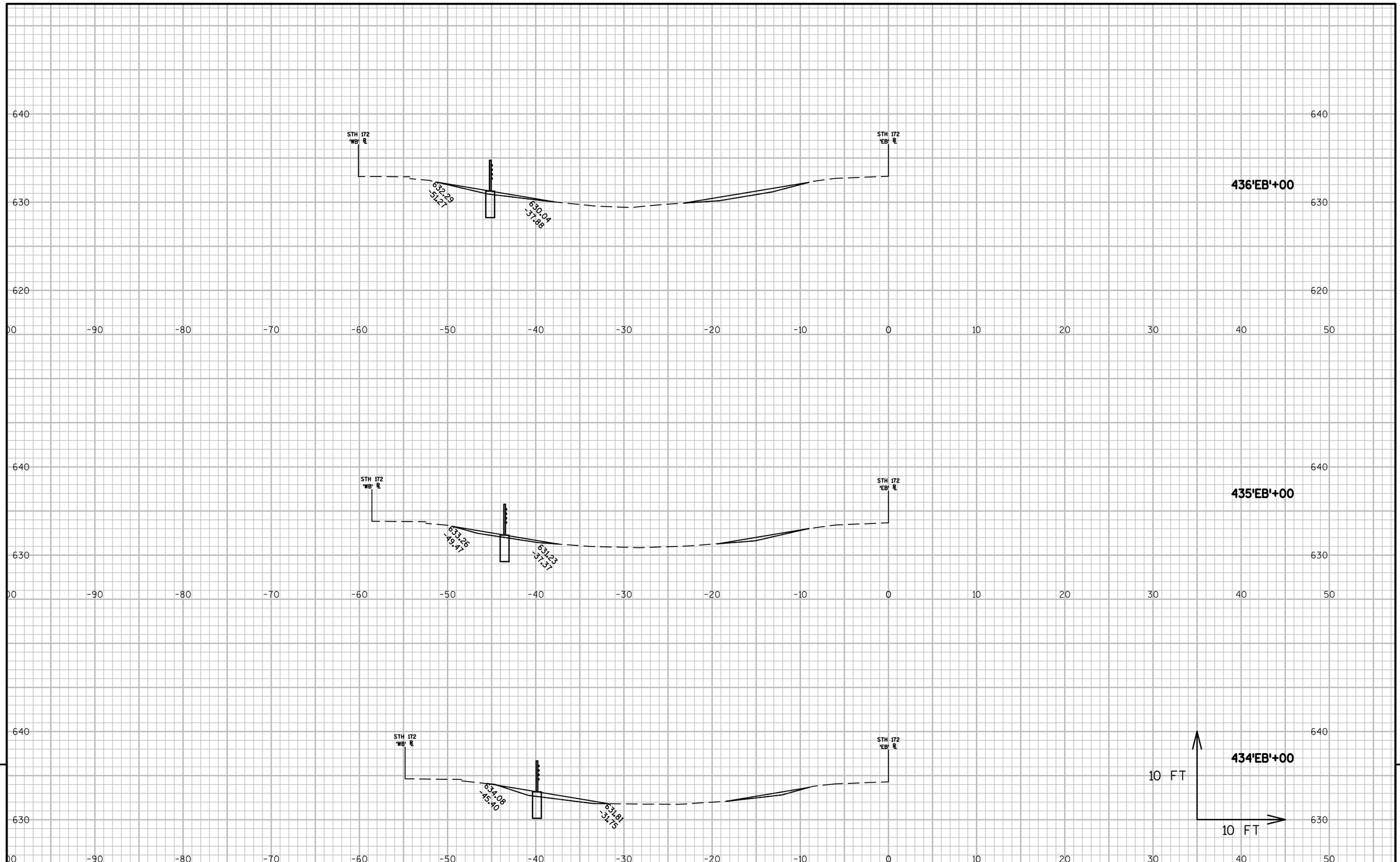
9

PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 471	E



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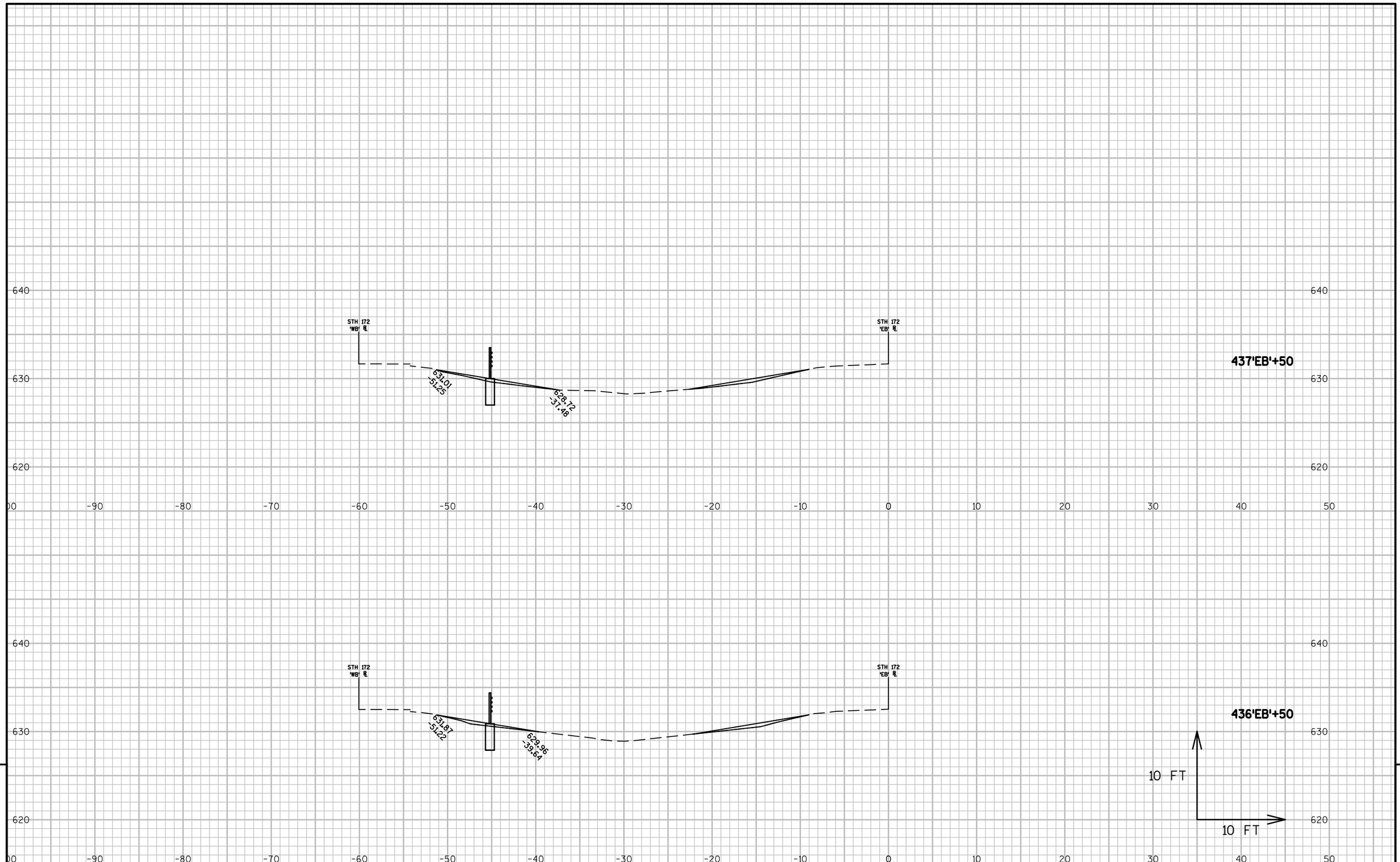
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 472	E

9

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090202_XS

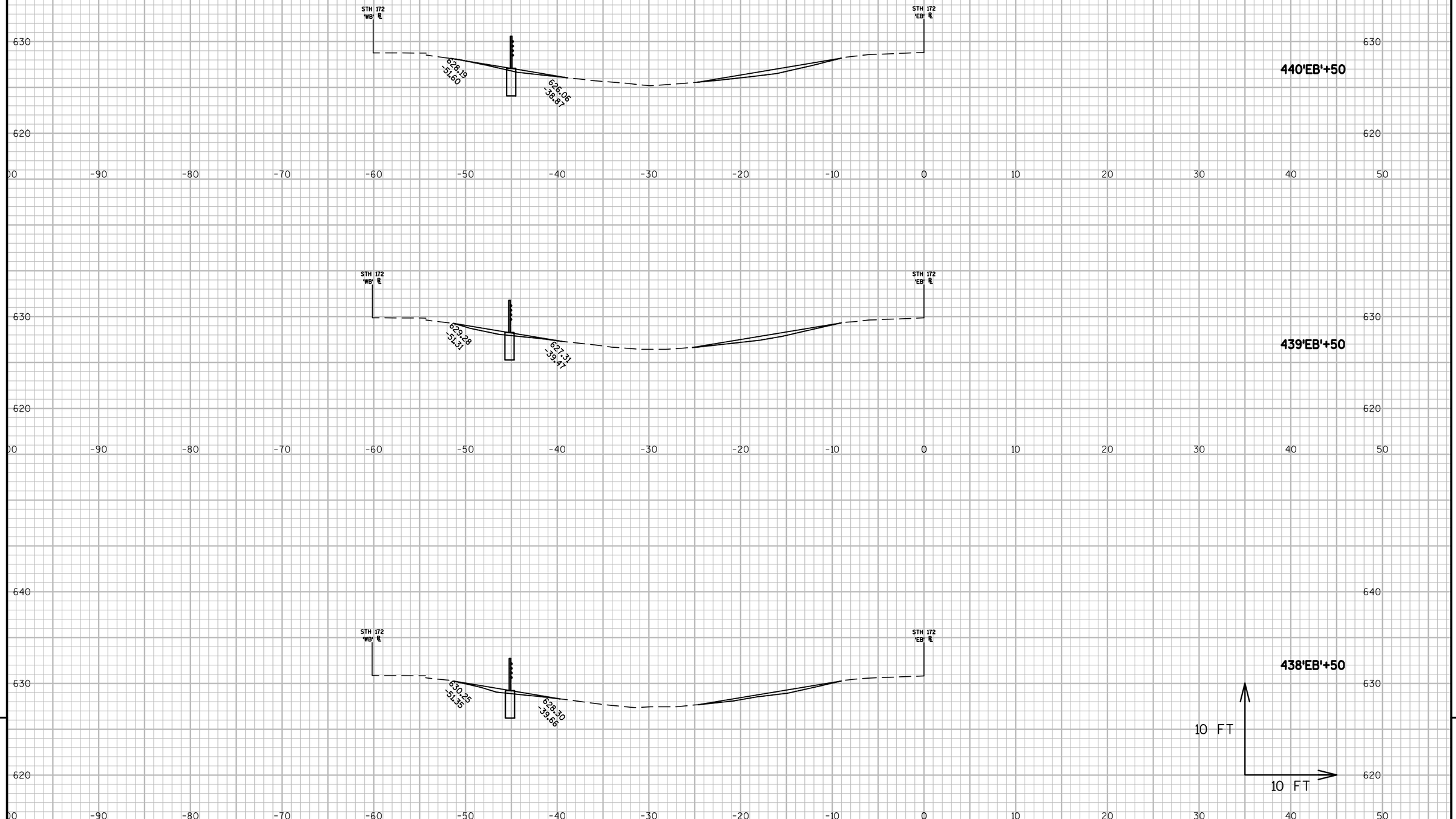
PLOT DATE : 5/10/2016 7:16 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 473	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090203_XS

PLOT DATE : 5/10/2016 7:16 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 474	E

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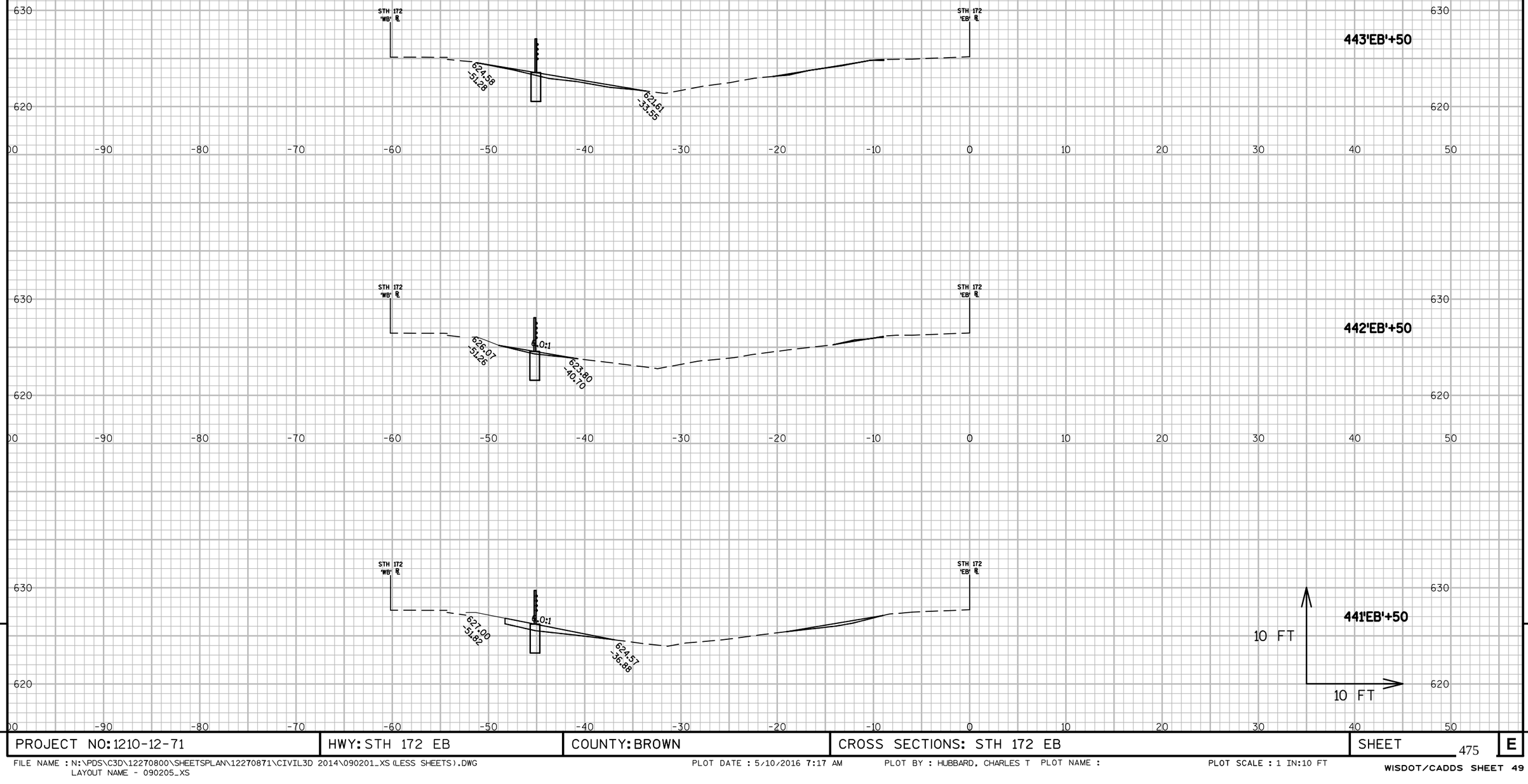
LAYOUT NAME - 090204_XS

PLOT DATE : 5/10/2016 7:16 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

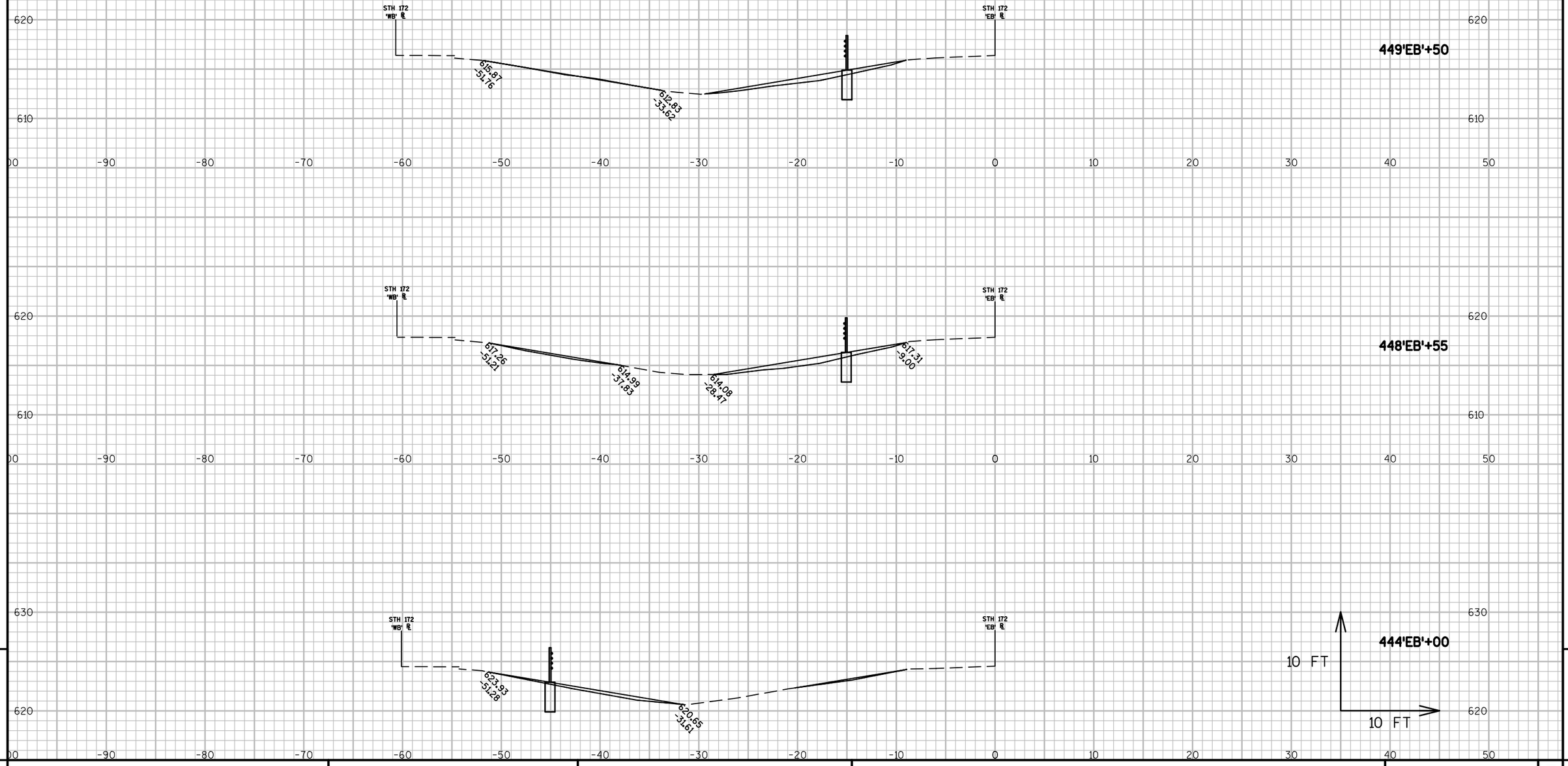


PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 475	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090205_XS

PLOT DATE : 5/10/2016 7:17 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

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PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 476	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090206_XS
PLOT DATE : 5/10/2016 7:17 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

9

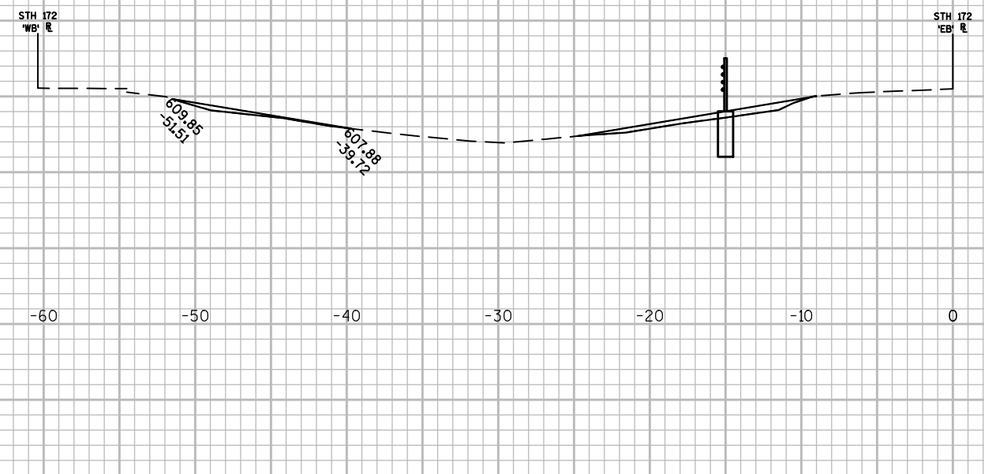
9

PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 477	E

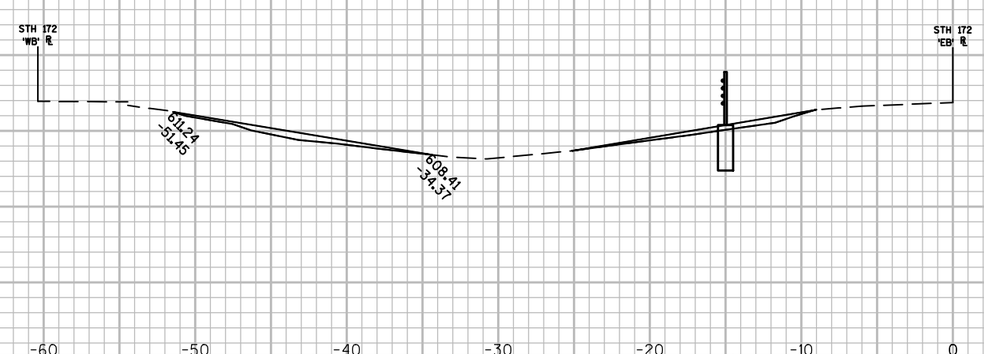
FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090207_XS

PLOT DATE : 5/10/2016 7:17 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

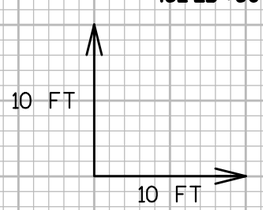
WISDOT/CADDS SHEET 49



453'EB'+50



452'EB'+50

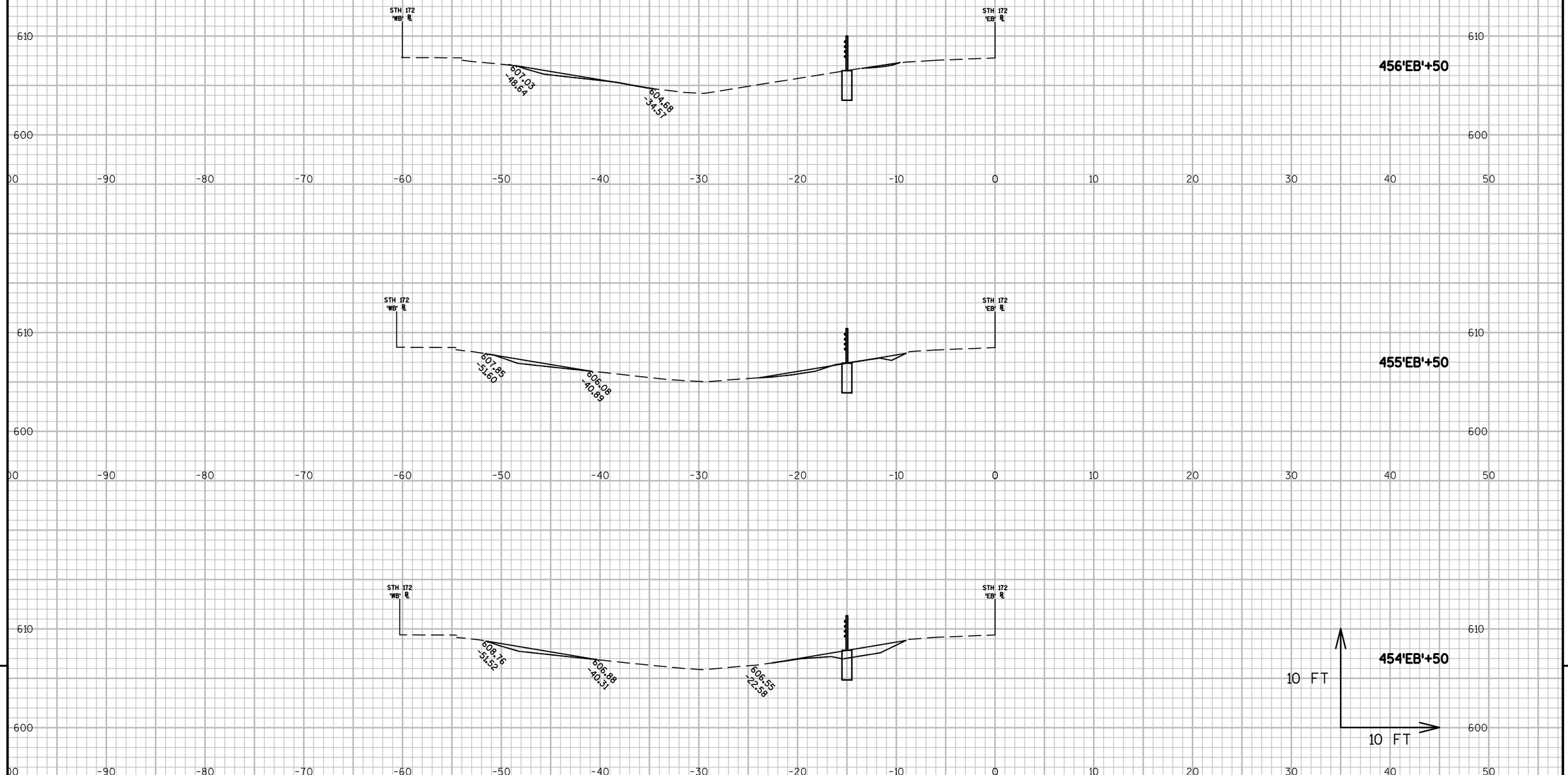


PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 478 E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090208_XS

PLOT DATE : 5/10/2016 7:17 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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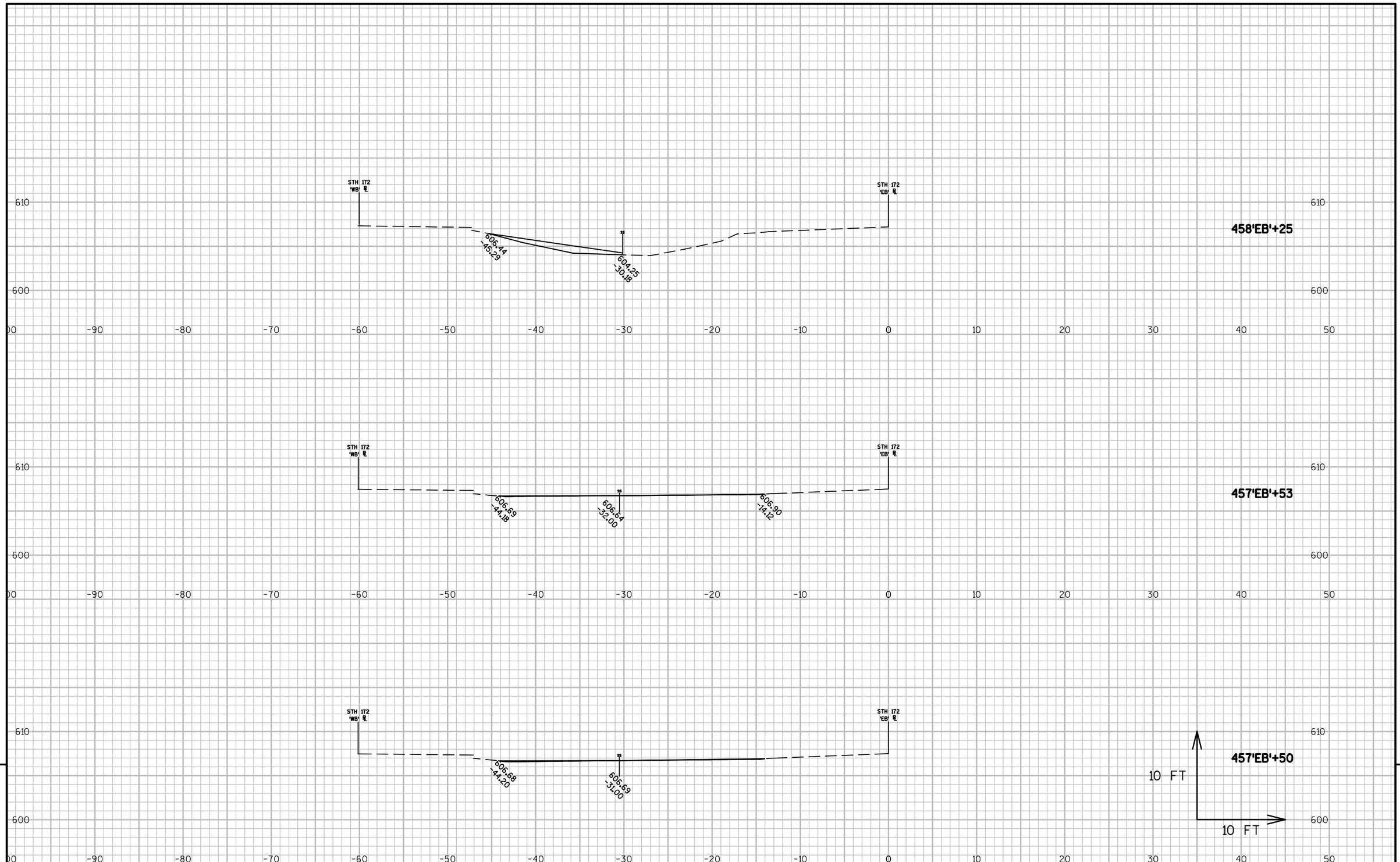
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 479 E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090209_XS

PLOT DATE : 5/10/2016 7:18 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 480	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090210_XS

PLOT DATE : 5/10/2016 7:18 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

9

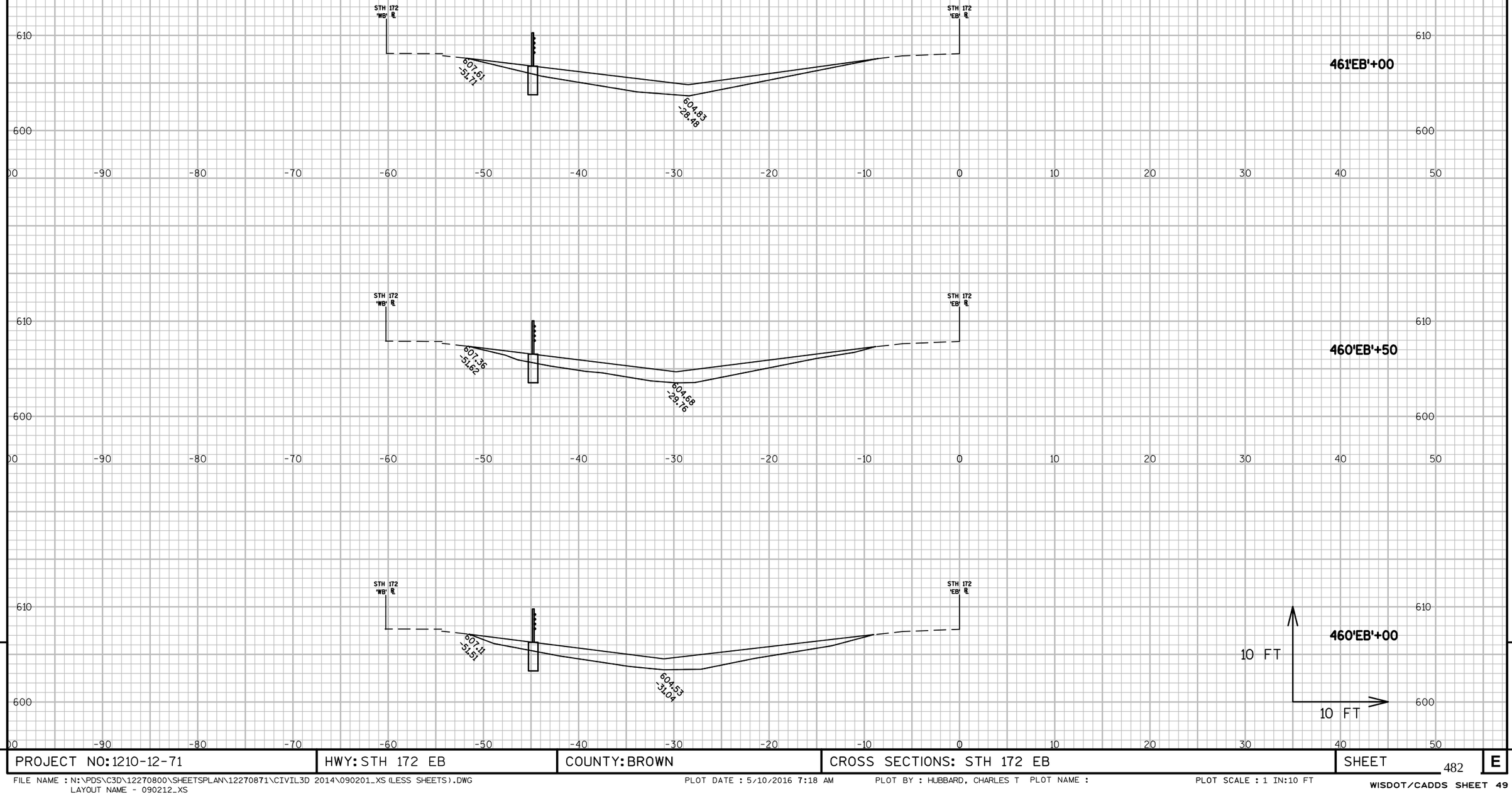
9

PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 481	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090211_XS

PLOT DATE : 5/10/2016 7:18 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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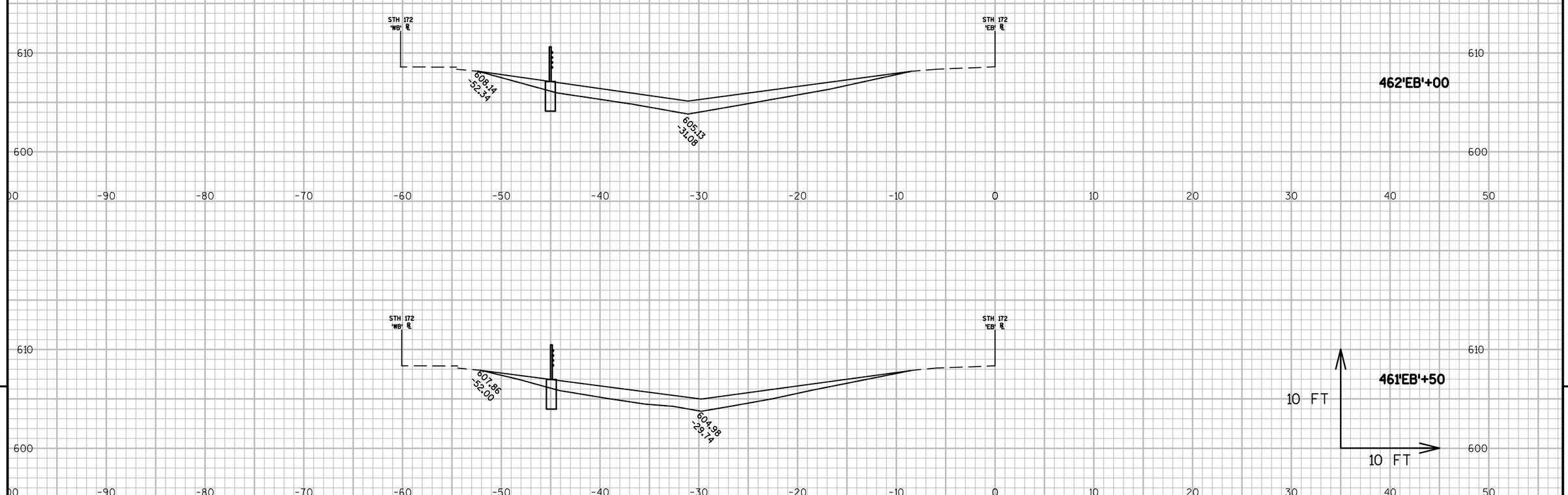
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 482	E



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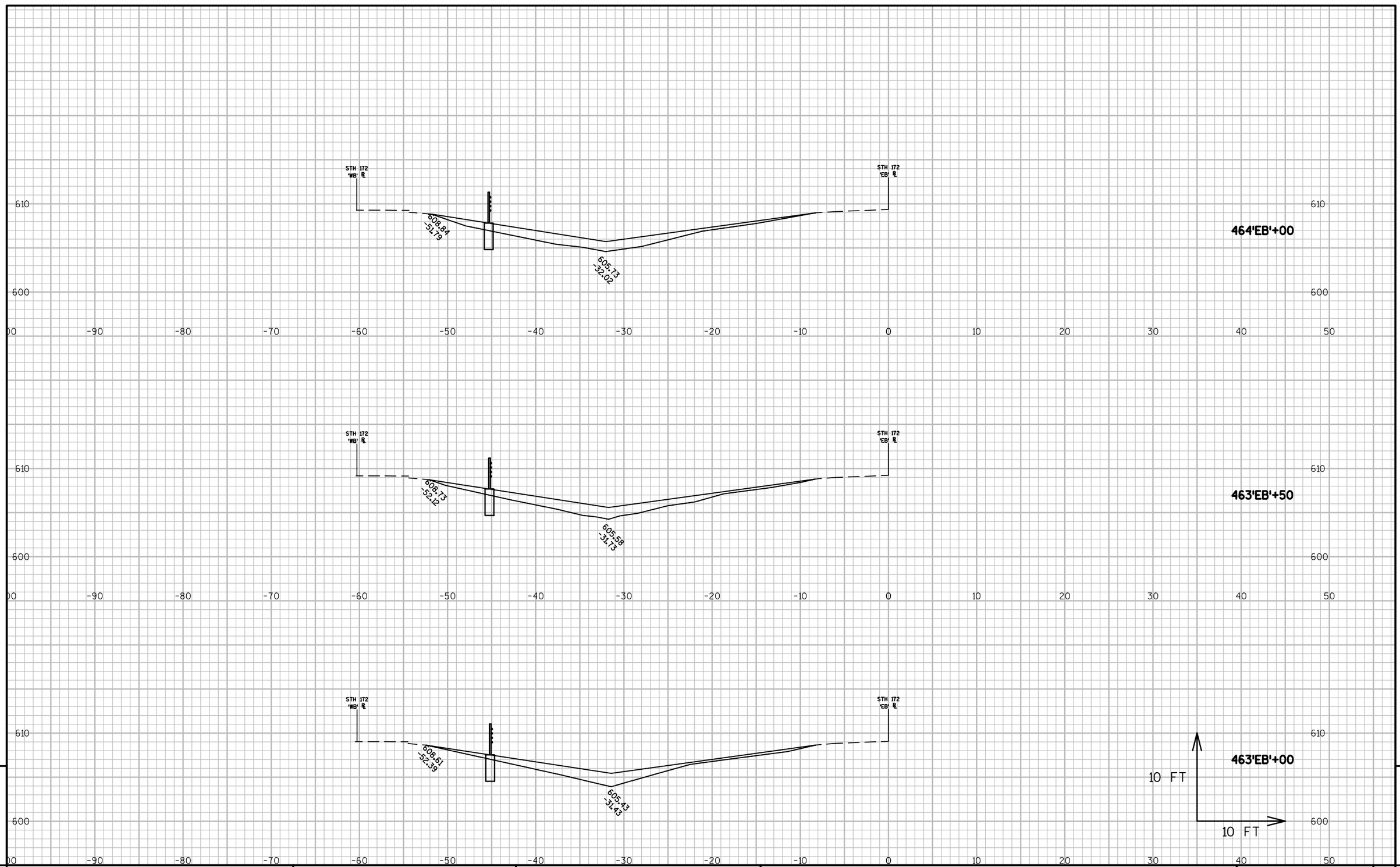
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 483	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090213_XS

PLOT DATE : 5/10/2016 7:19 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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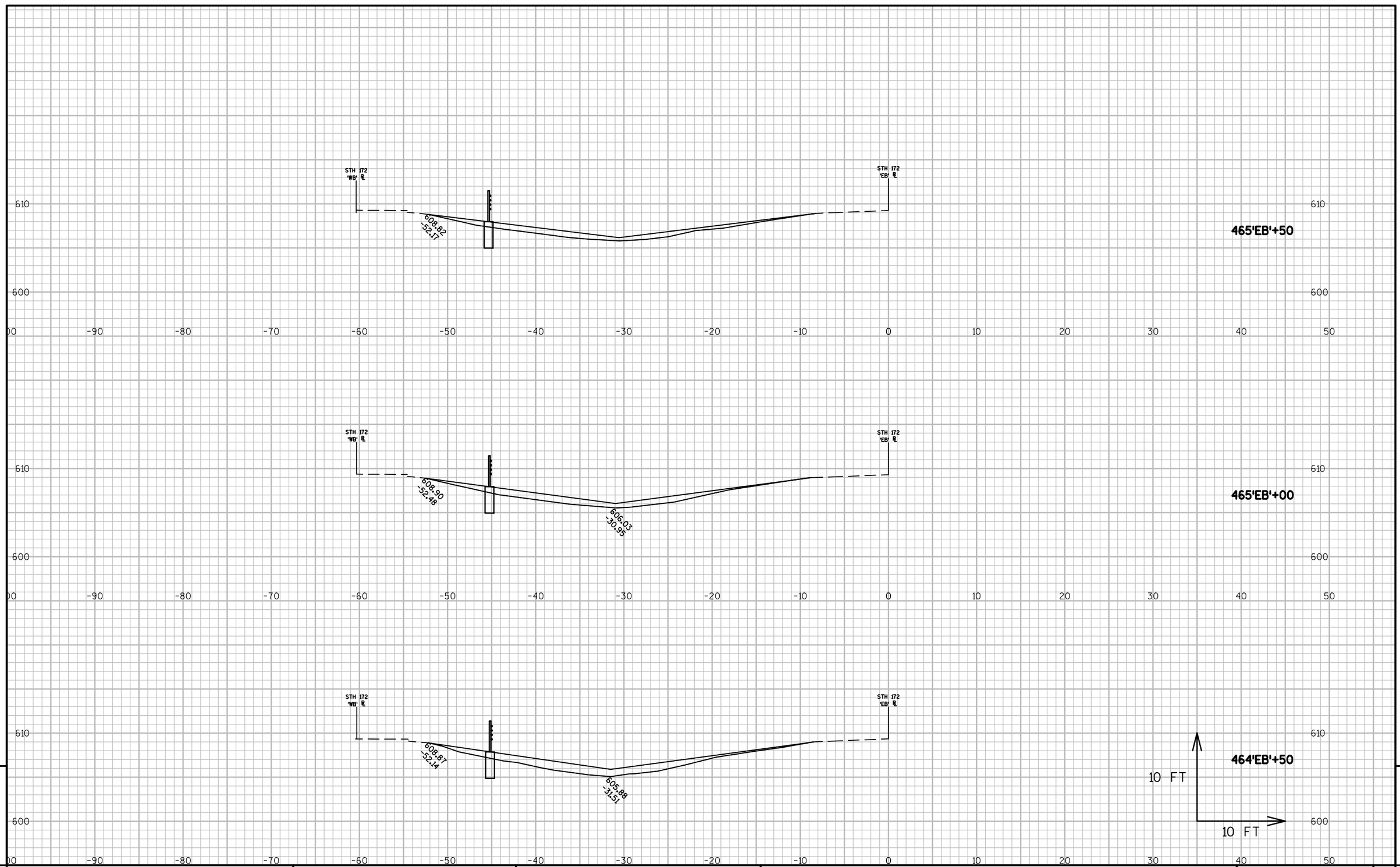
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 484	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090214_XS
PLOT DATE : 5/10/2016 7:19 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



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PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 485	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090215_XS

PLOT DATE : 5/10/2016 7:19 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

9

9

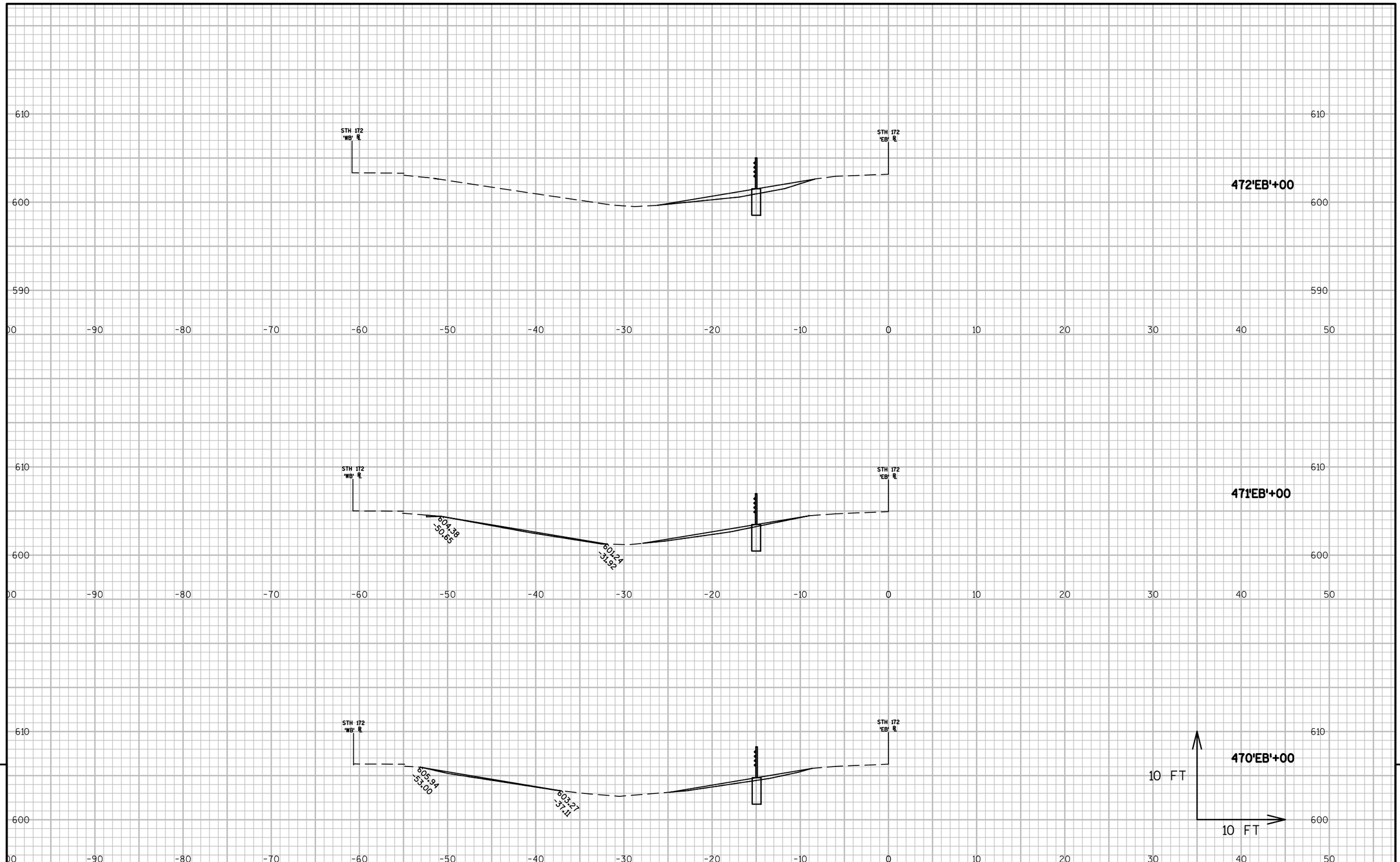
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 486	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090216_XS

PLOT DATE : 5/10/2016 7:19 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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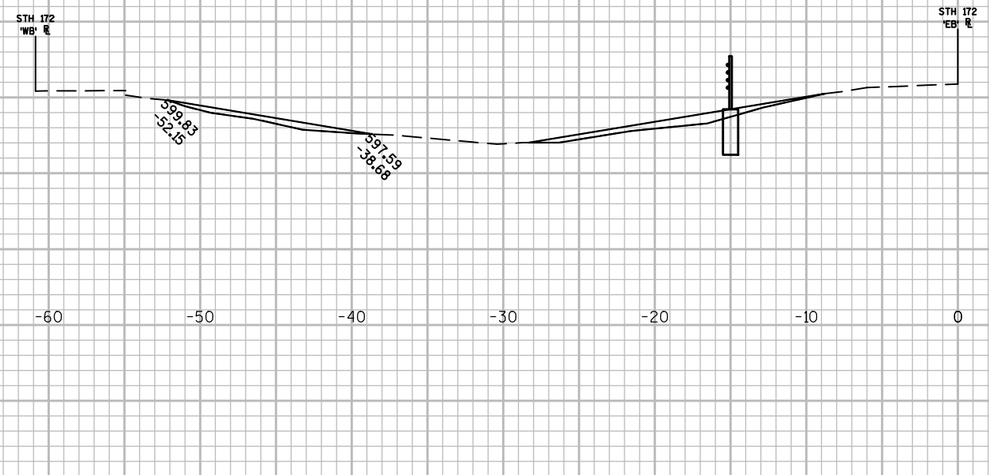
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 487	E

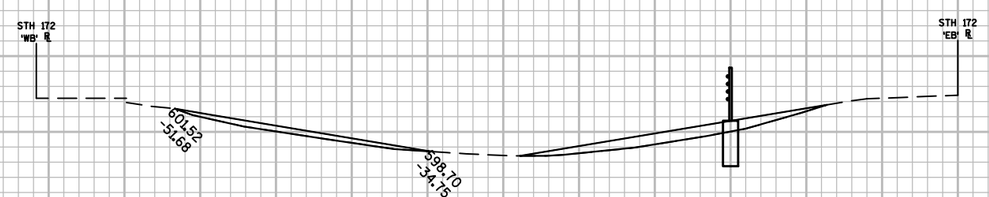
FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090217_XS

PLOT DATE : 5/10/2016 7:20 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



473'EB'+50



472'EB'+50

10 FT

10 FT

9

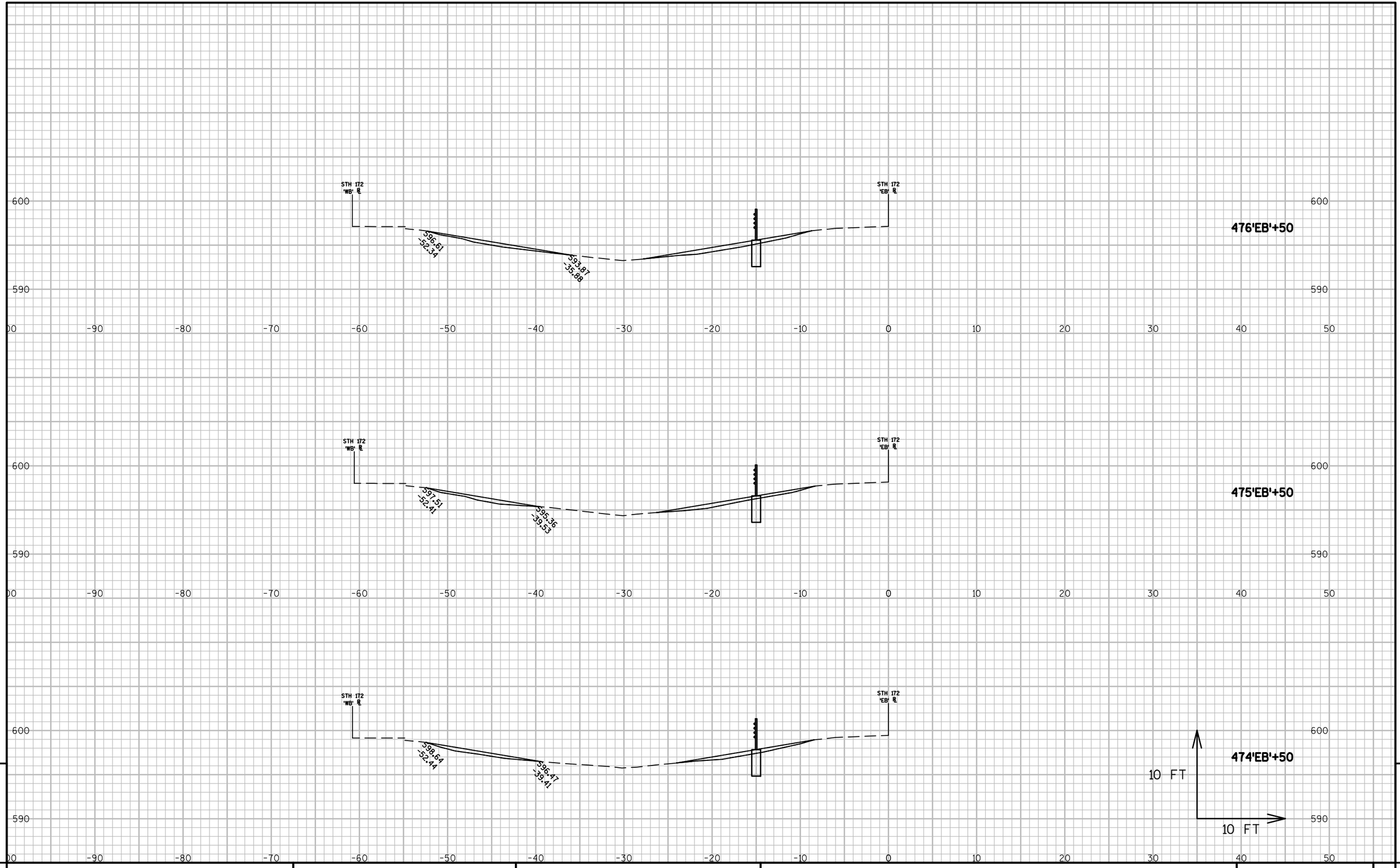
9

PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 488	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090218_XS

PLOT DATE : 5/10/2016 7:20 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 489	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090219_XS

PLOT DATE : 5/10/2016 7:20 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

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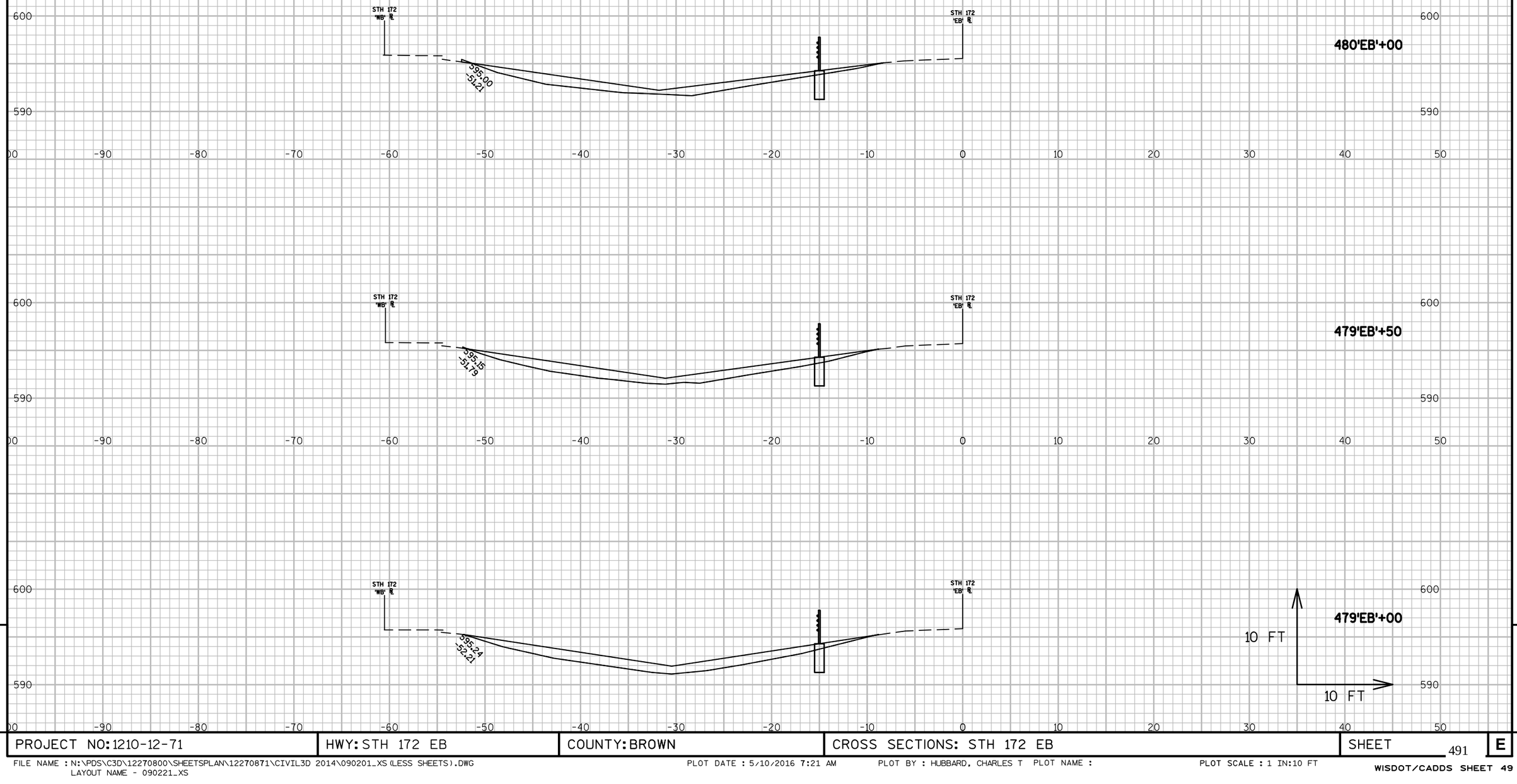
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 490 E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090220_XS

PLOT DATE : 5/10/2016 7:20 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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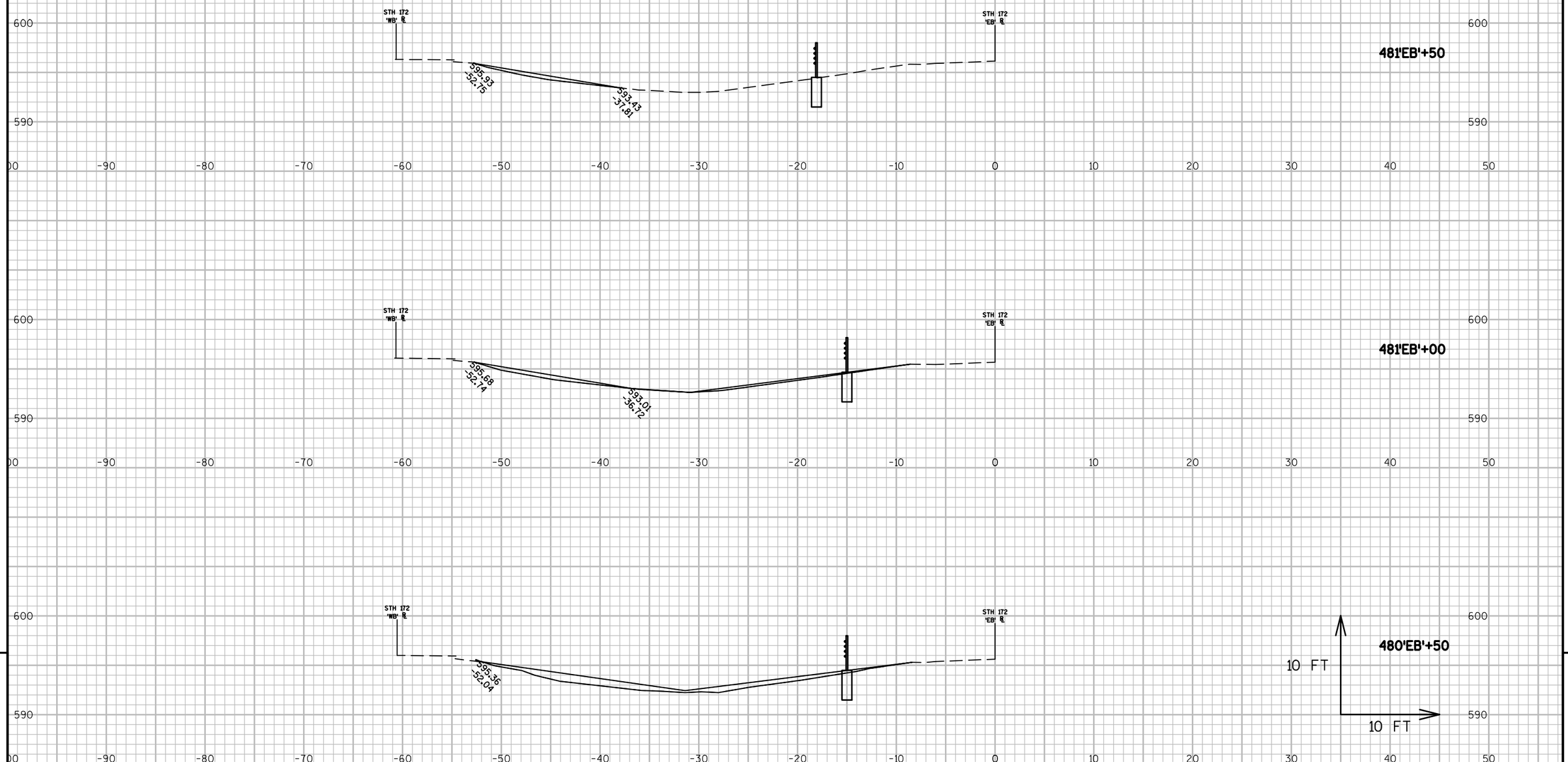
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 491	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090221_XS
PLOT DATE : 5/10/2016 7:21 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :
PLOT SCALE : 1 IN:10 FT



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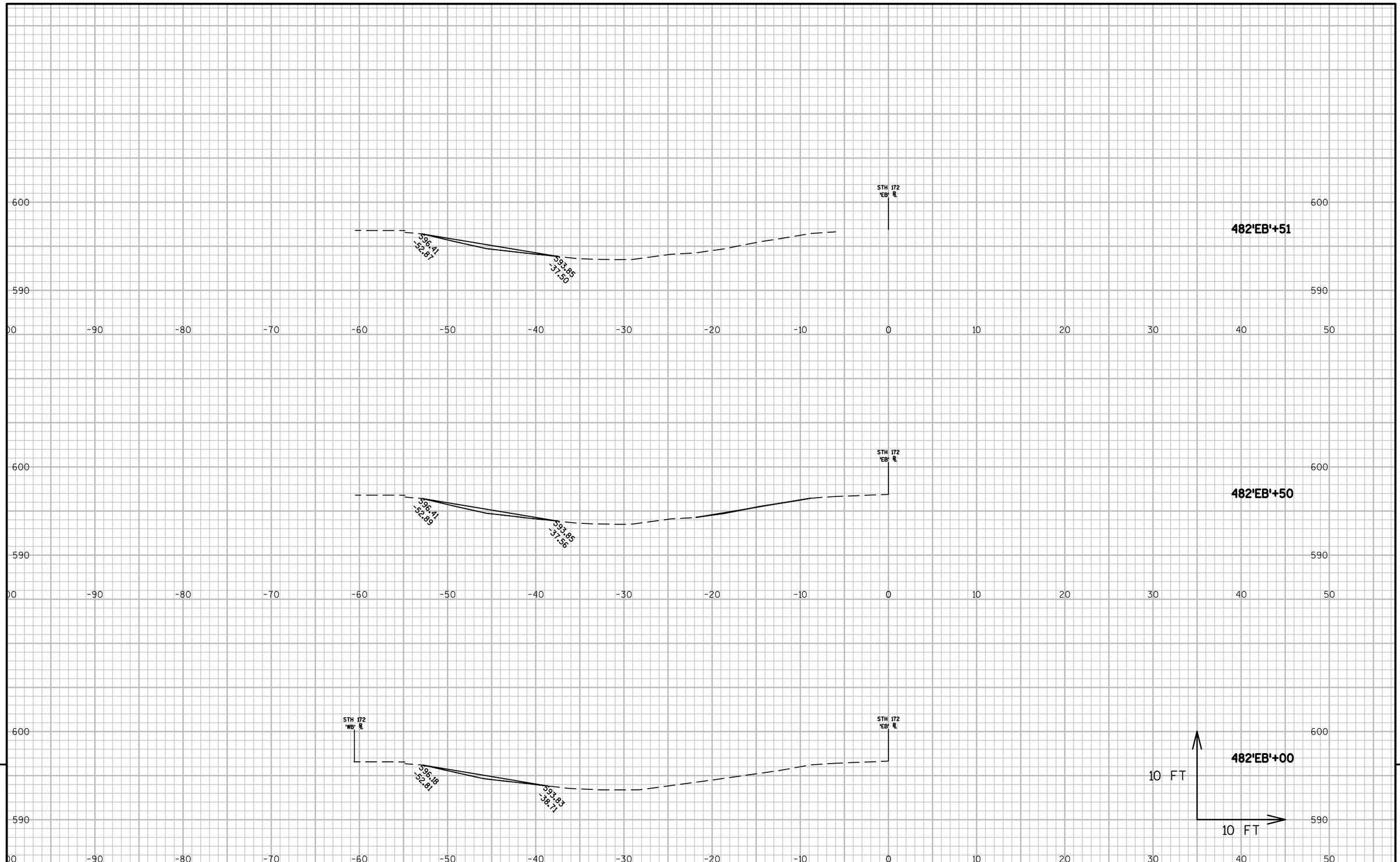
9

PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 492	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090222_XS

PLOT DATE : 5/10/2016 7:21 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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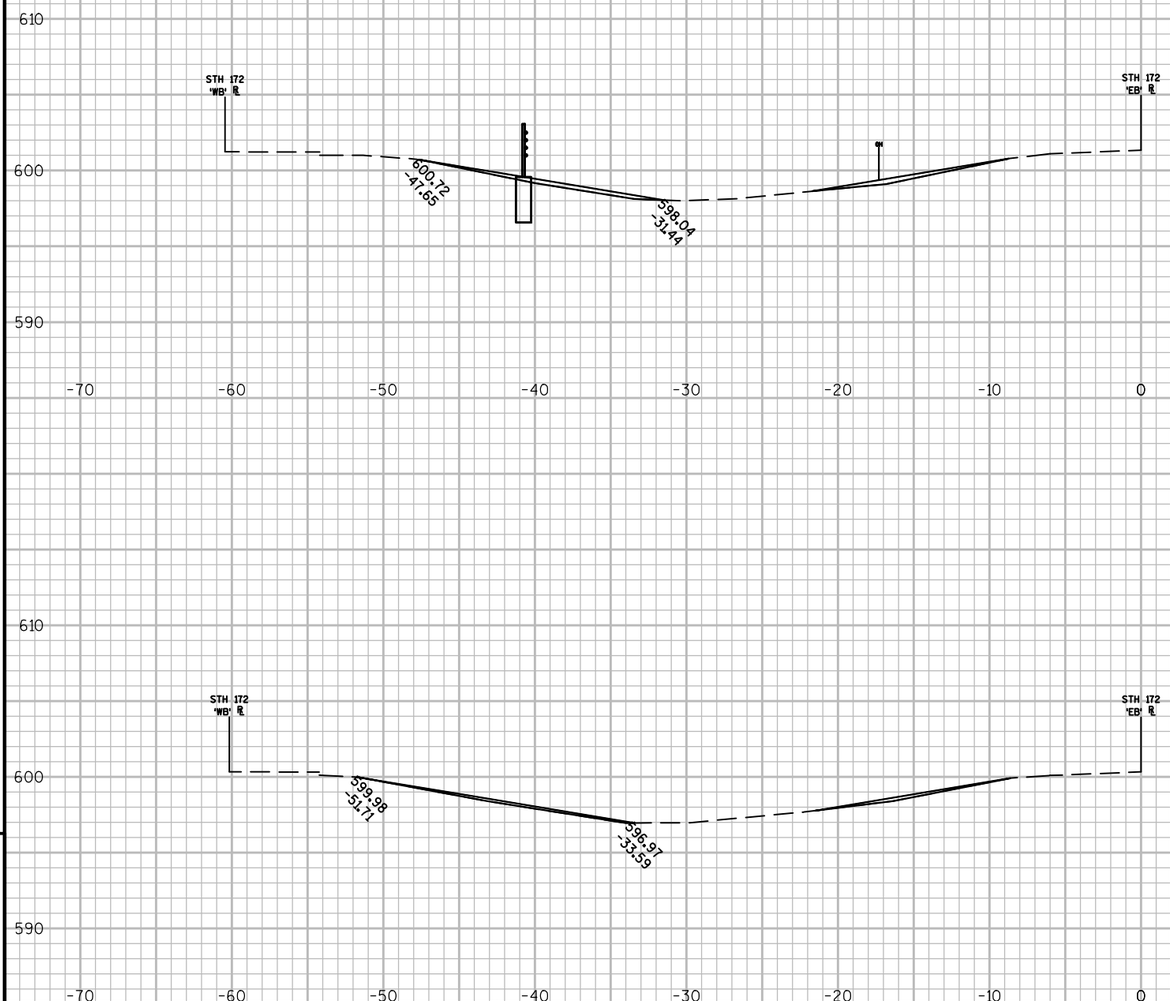
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 493 E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090201_XS (LESS SHEETS).DWG
LAYOUT NAME - 090223_XS

PLOT DATE : 5/10/2016 7:21 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



490'EB'+00

489'EB'+00

10 FT

10 FT

9

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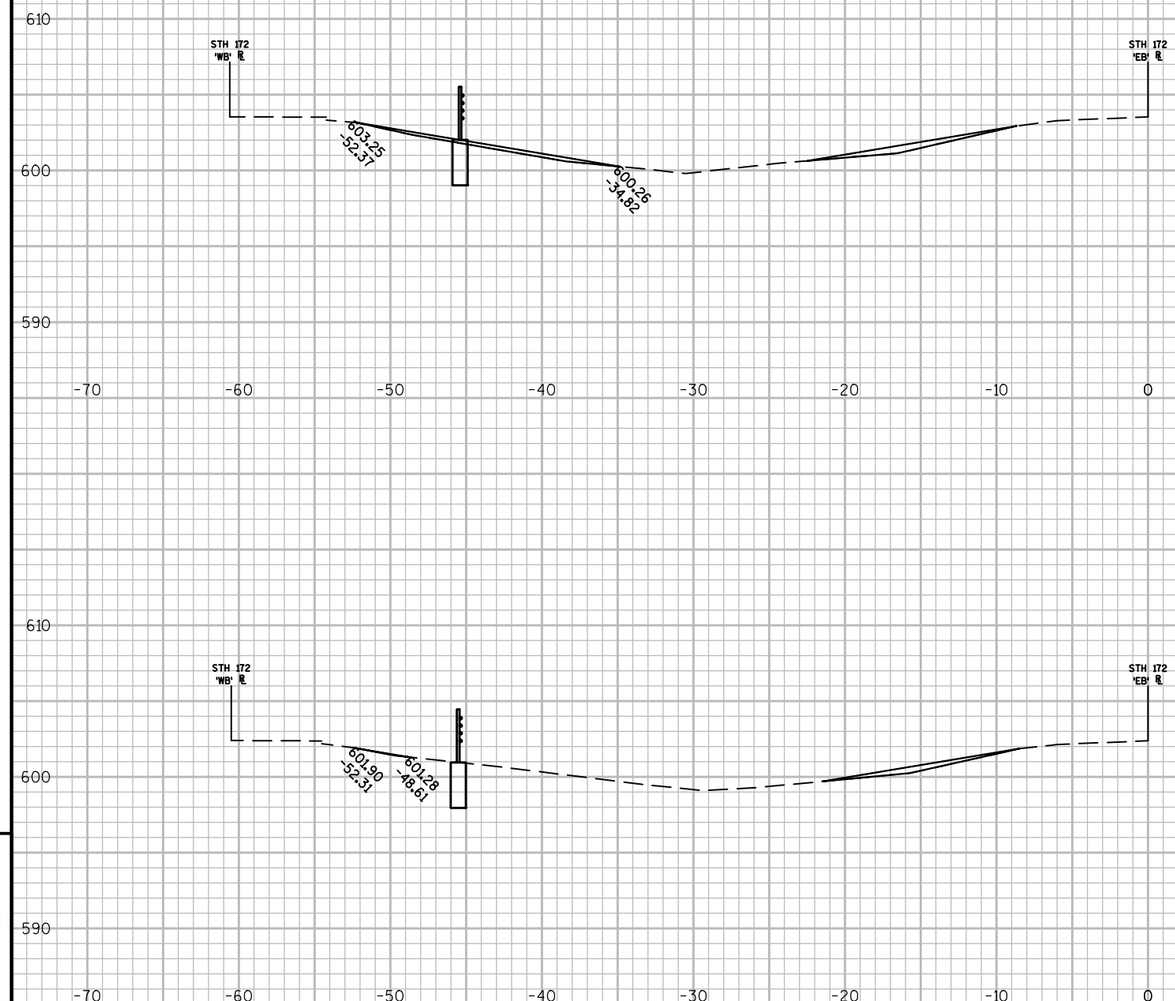
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 494	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090202_XS (LESS SHEETS).DWG
LAYOUT NAME - 090224_XS

PLOT DATE : 5/10/2016 7:25 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



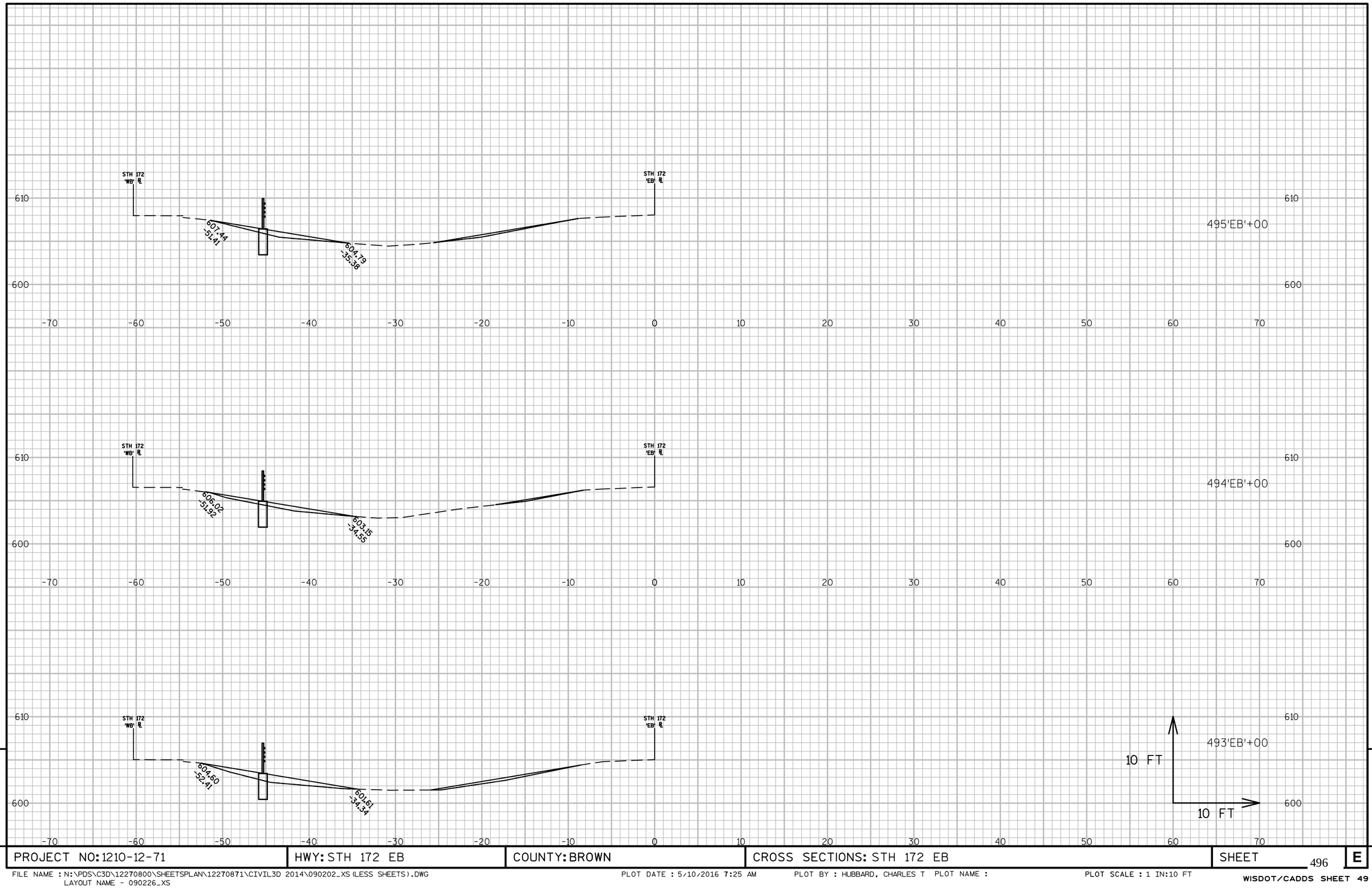
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 495	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090202_XS (LESS SHEETS).DWG
LAYOUT NAME - 090225_XS

PLOT DATE : 5/10/2016 7:25 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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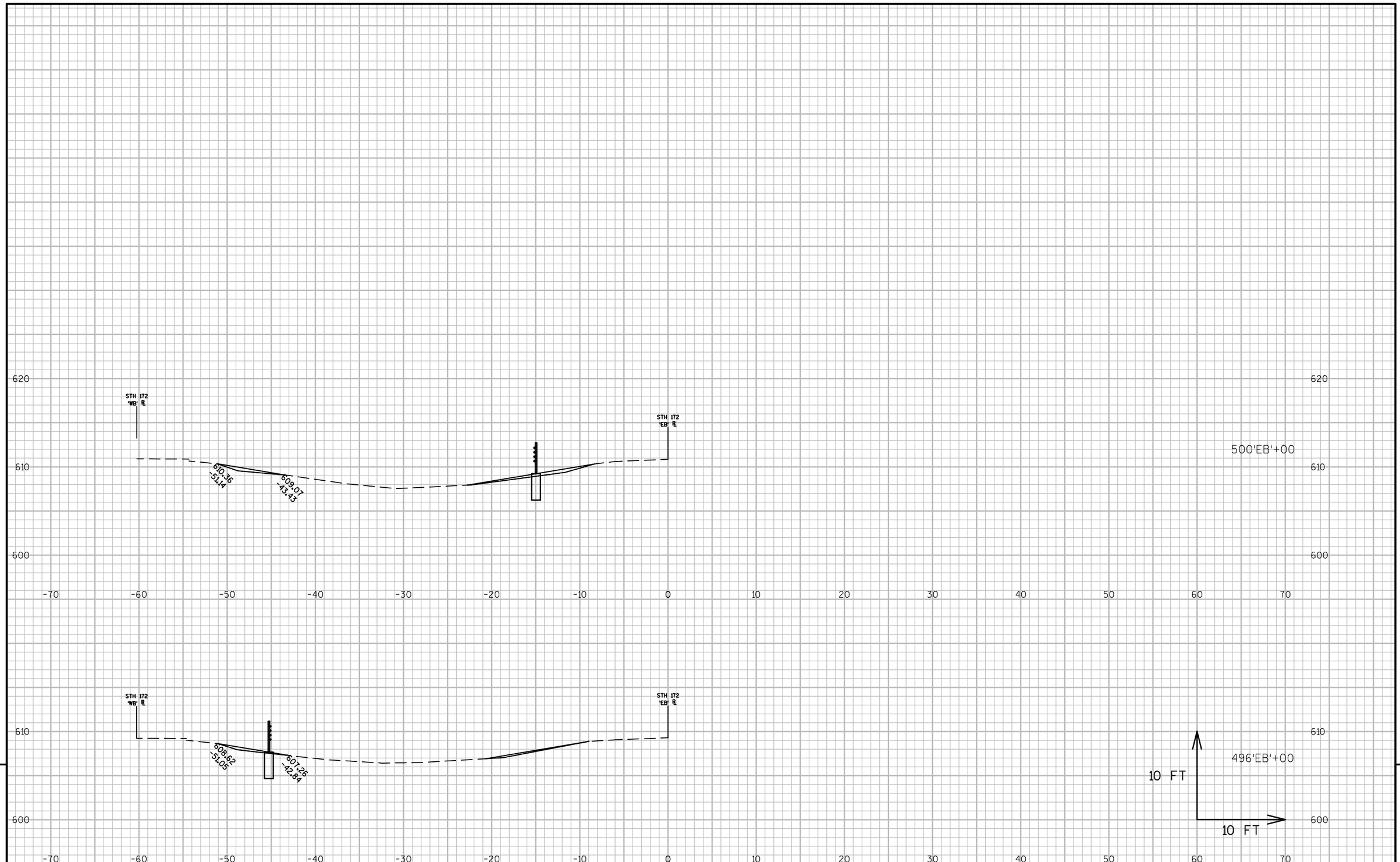
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 496	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090202_XS (LESS SHEETS).DWG
LAYOUT NAME - 090226_XS
PLOT DATE : 5/10/2016 7:25 AM
PLOT BY : HUBBARD, CHARLES T PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



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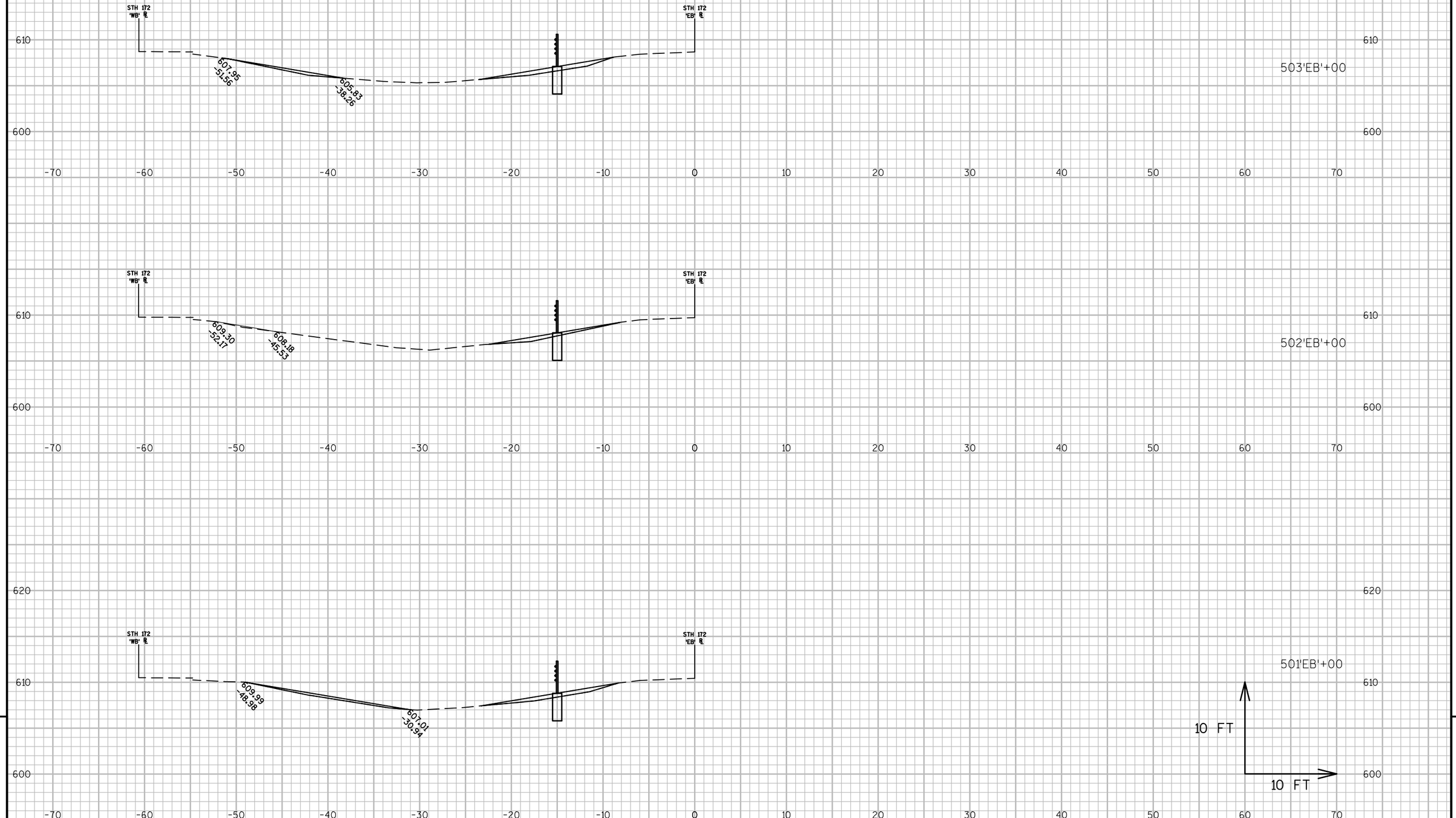
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 497	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090202_XS (LESS SHEETS).DWG
LAYOUT NAME - 090227_XS

PLOT DATE : 5/10/2016 7:25 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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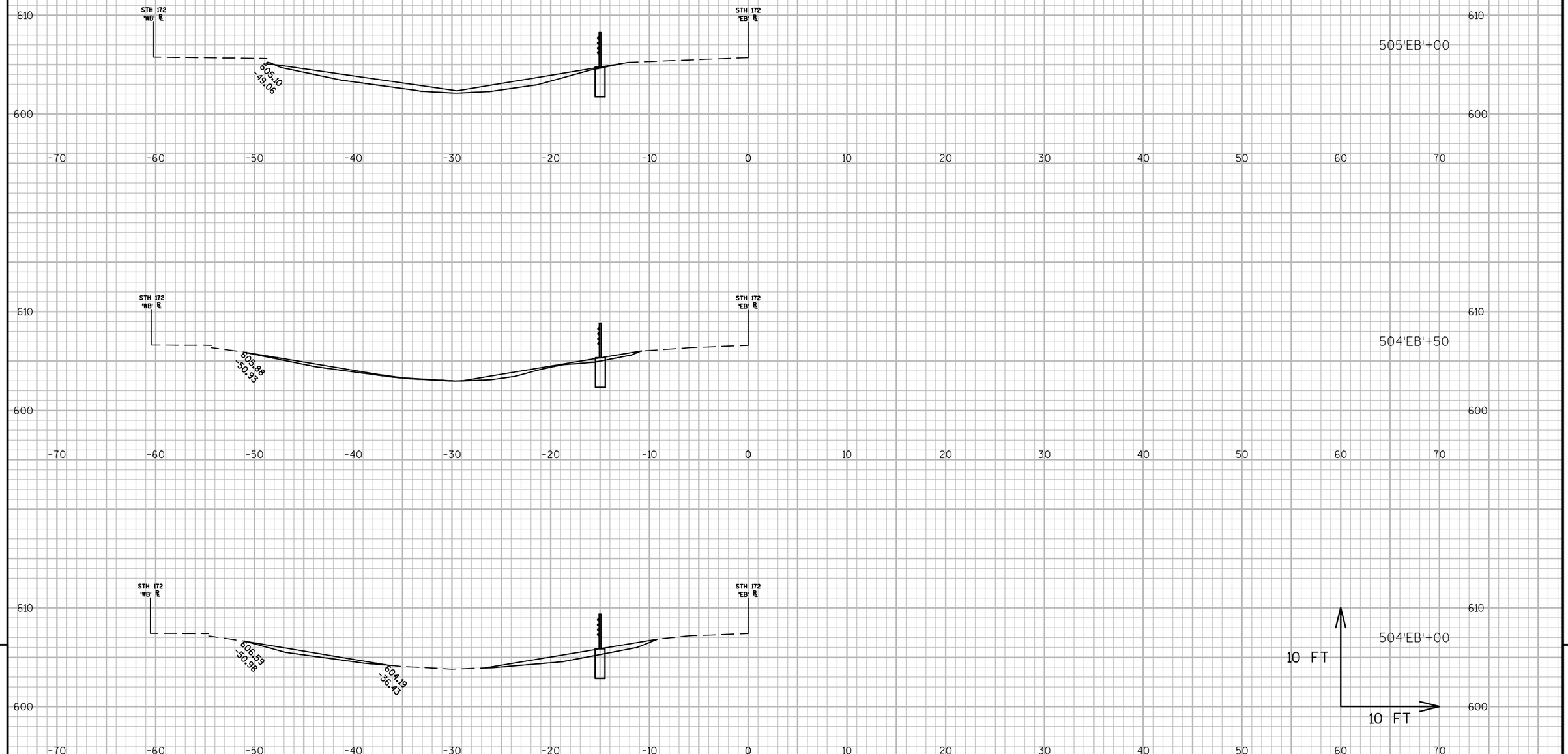
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 498	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090202_XS (LESS SHEETS).DWG
LAYOUT NAME - 090228_XS

PLOT DATE : 5/10/2016 7:25 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT



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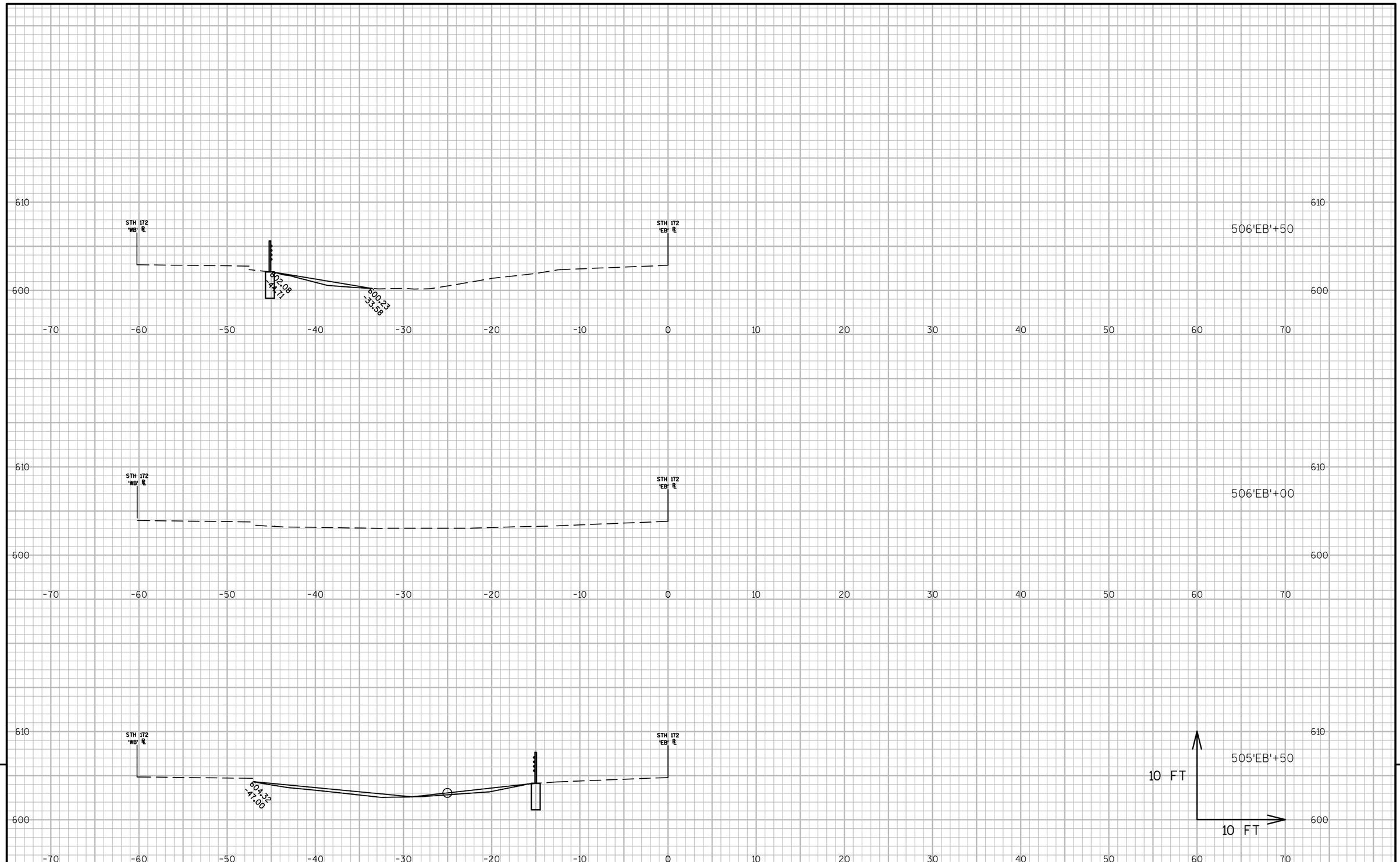
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 499	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090202_XS (LESS SHEETS).DWG
LAYOUT NAME - 090229_XS

PLOT DATE : 5/10/2016 7:26 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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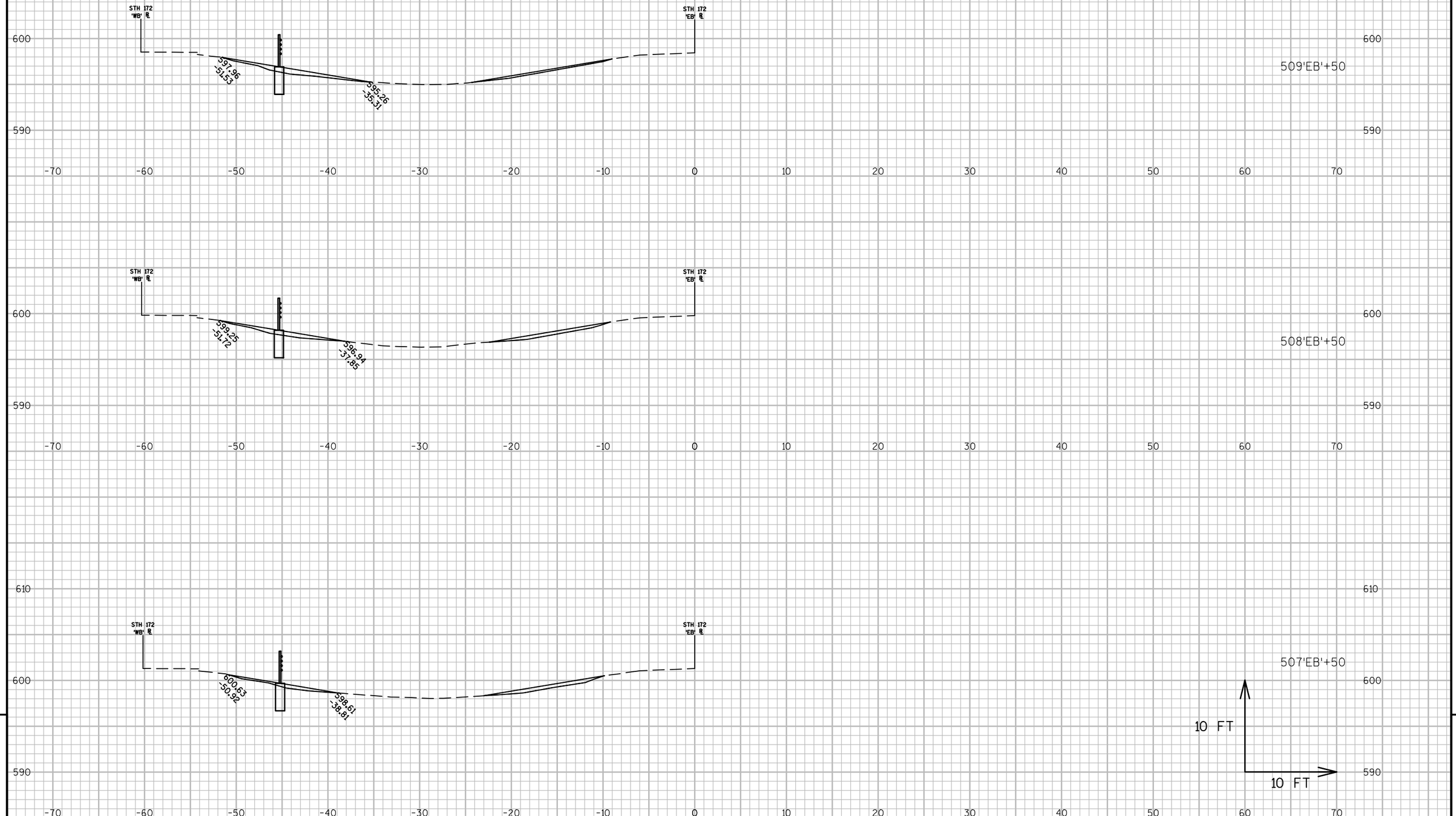
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 500	E



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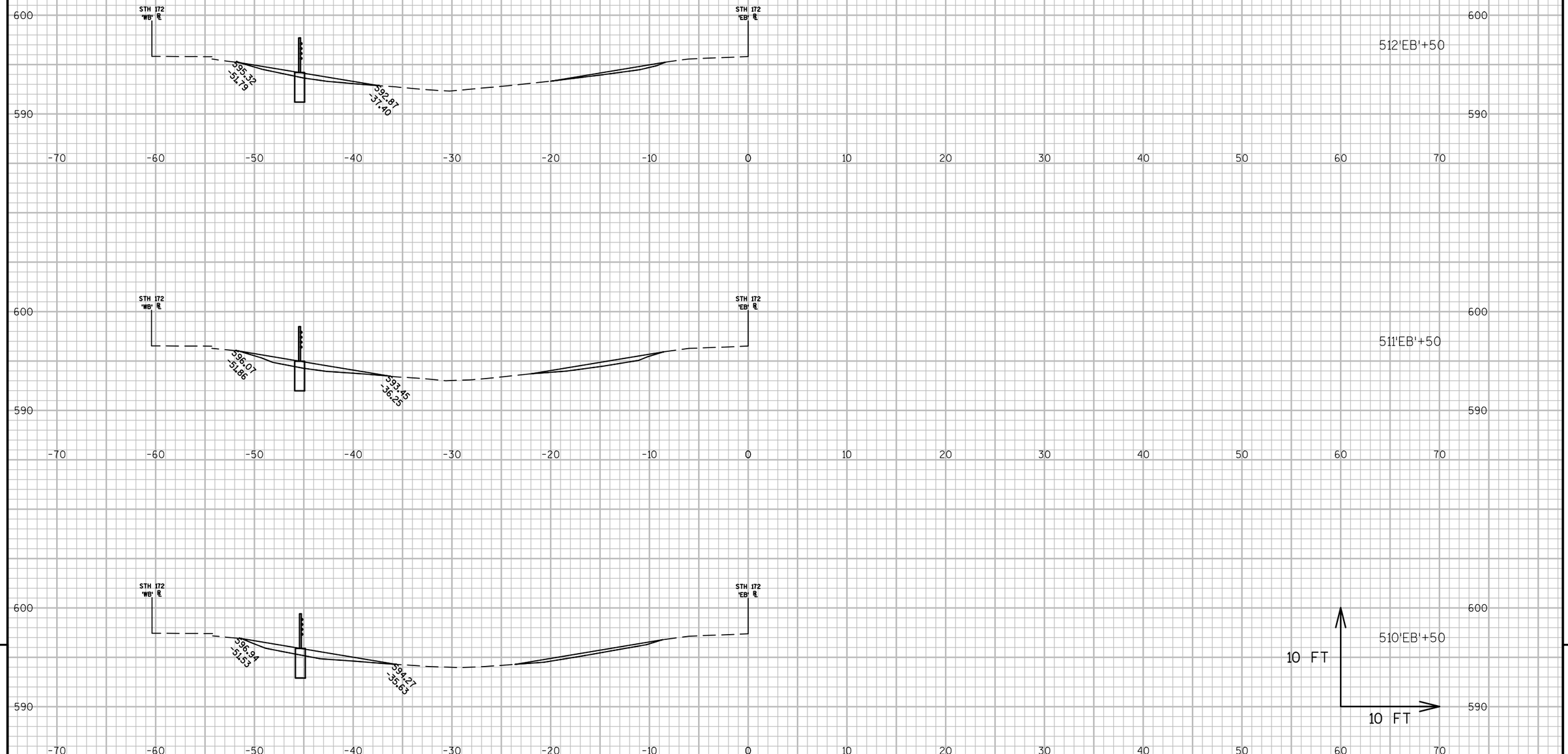
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 501	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090202_XS (LESS SHEETS).DWG
LAYOUT NAME - 090231_XS
PLOT DATE : 5/10/2016 7:26 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :
PLOT SCALE : 1 IN:10 FT



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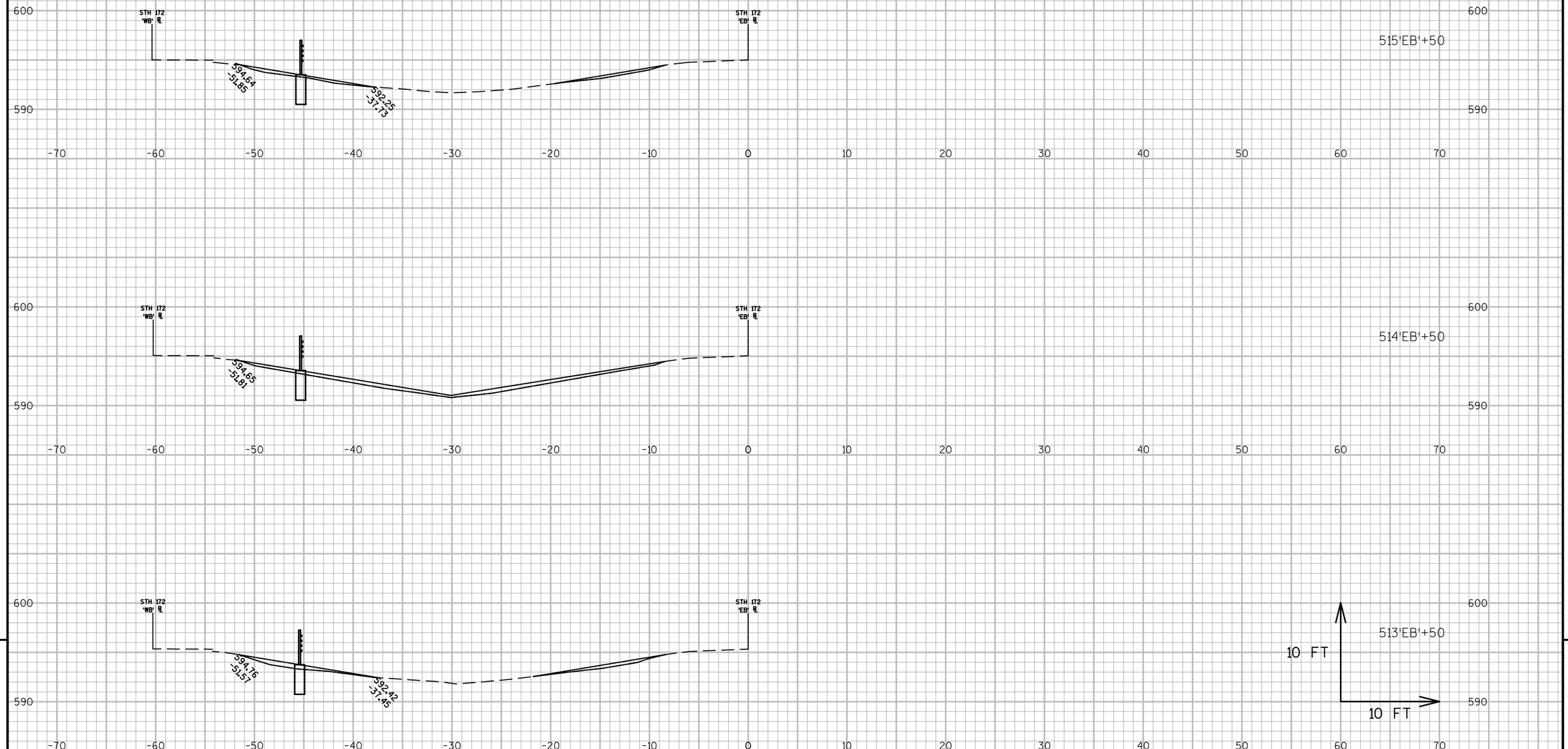
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 502	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090202_XS (LESS SHEETS).DWG
LAYOUT NAME - 090232_XS

PLOT DATE : 5/10/2016 7:26 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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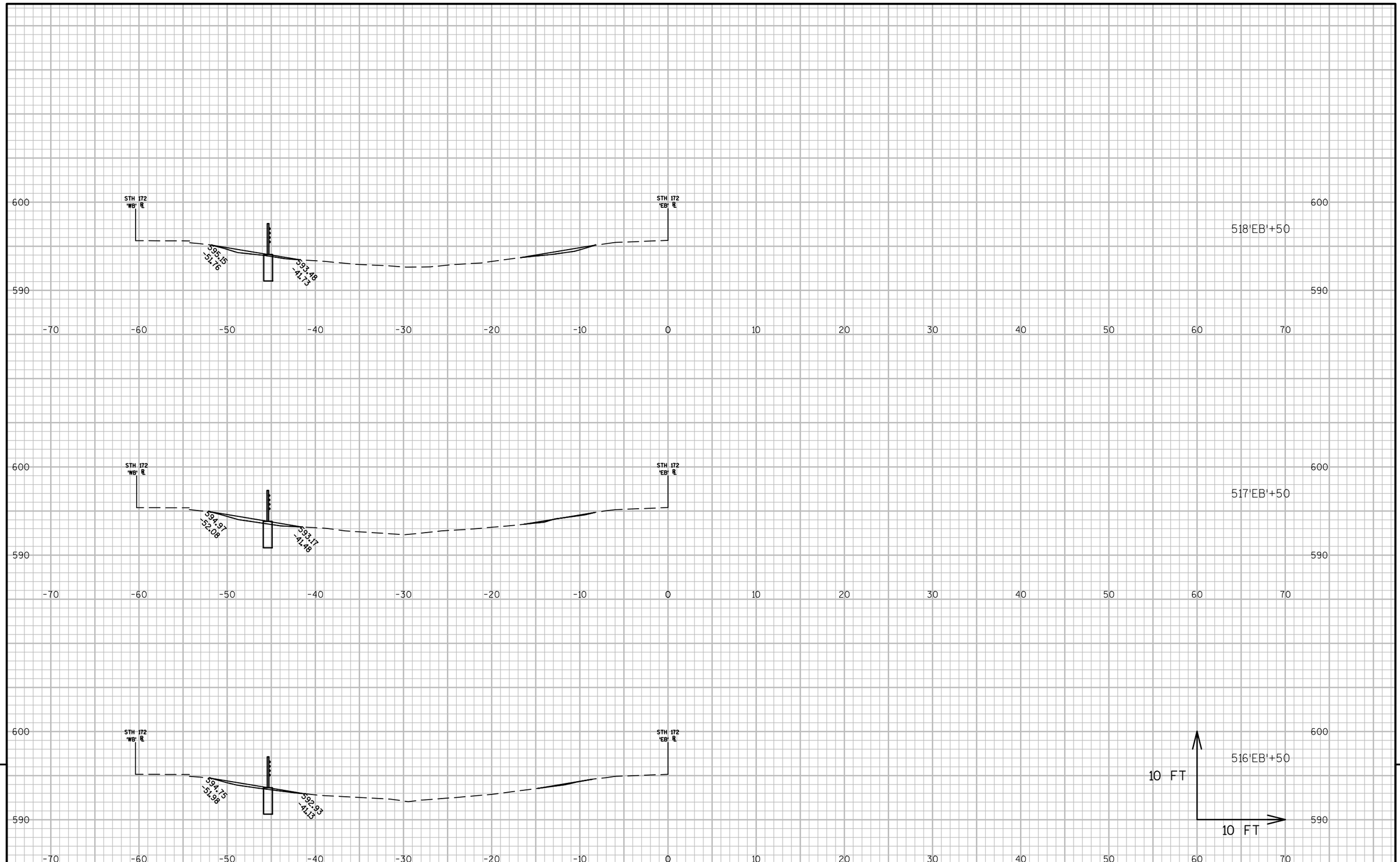
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 503	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090202_XS (LESS SHEETS).DWG
LAYOUT NAME - 090233_XS

PLOT DATE : 5/10/2016 7:26 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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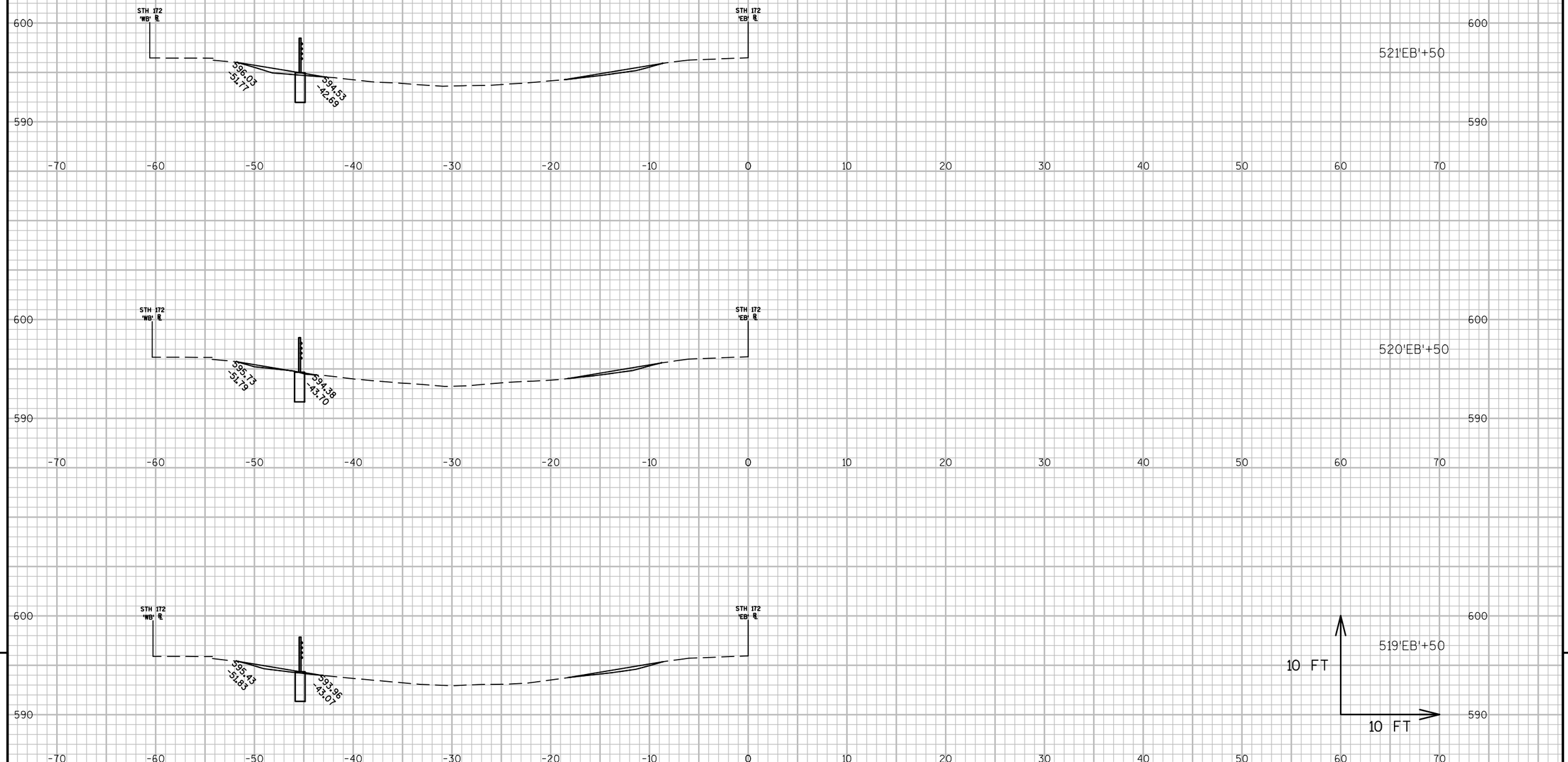
9

PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 504	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090202_XS (LESS SHEETS).DWG
LAYOUT NAME - 090234_XS

PLOT DATE : 5/10/2016 7:26 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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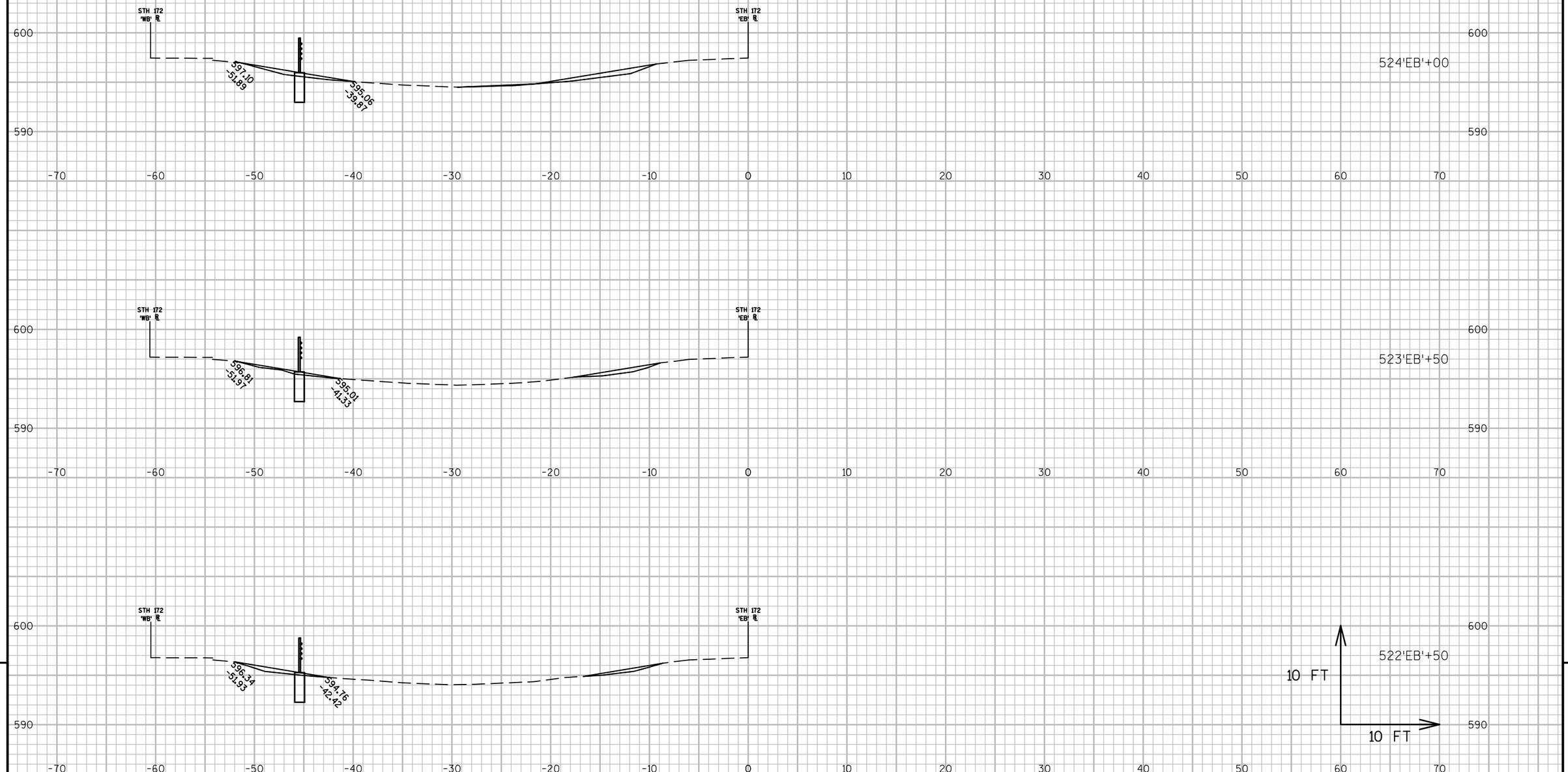
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 505	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090202_XS (LESS SHEETS).DWG
LAYOUT NAME - 090235_XS

PLOT DATE : 5/10/2016 7:26 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 506	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090202_XS (LESS SHEETS).DWG
LAYOUT NAME - 090236_XS
PLOT DATE : 5/10/2016 7:26 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

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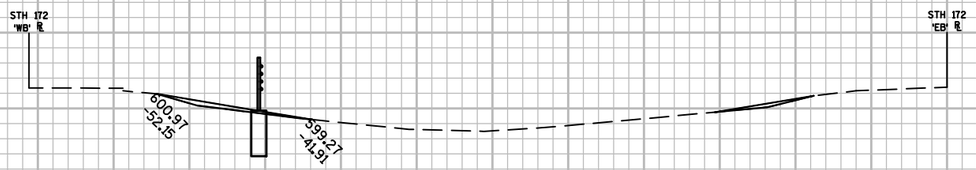
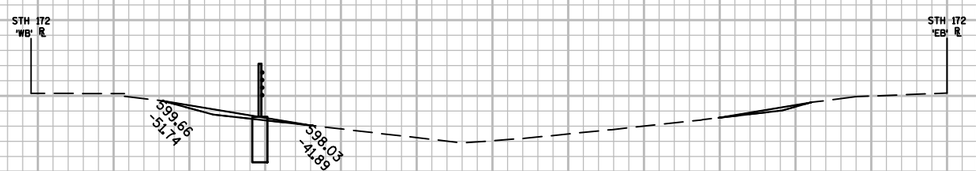
9

PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 507	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090202_XS (LESS SHEETS).DWG
LAYOUT NAME - 090237_XS
PLOT DATE : 5/10/2016 7:26 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



528'EB'+00



527'EB'+00

10 FT

10 FT

9

9

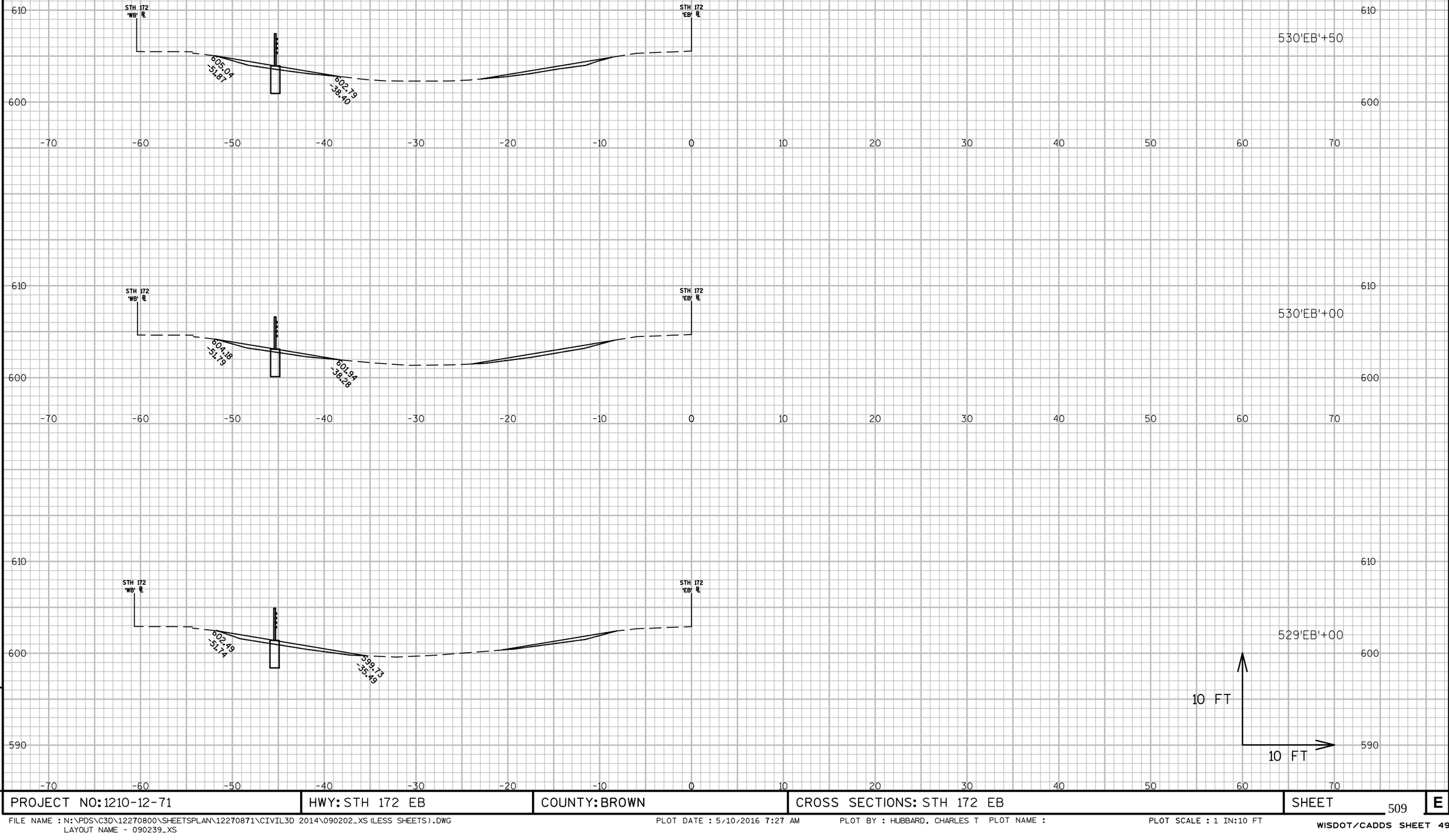
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 508	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090202_XS (LESS SHEETS).DWG
LAYOUT NAME - 090238_XS

PLOT DATE : 5/10/2016 7:27 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 509	E

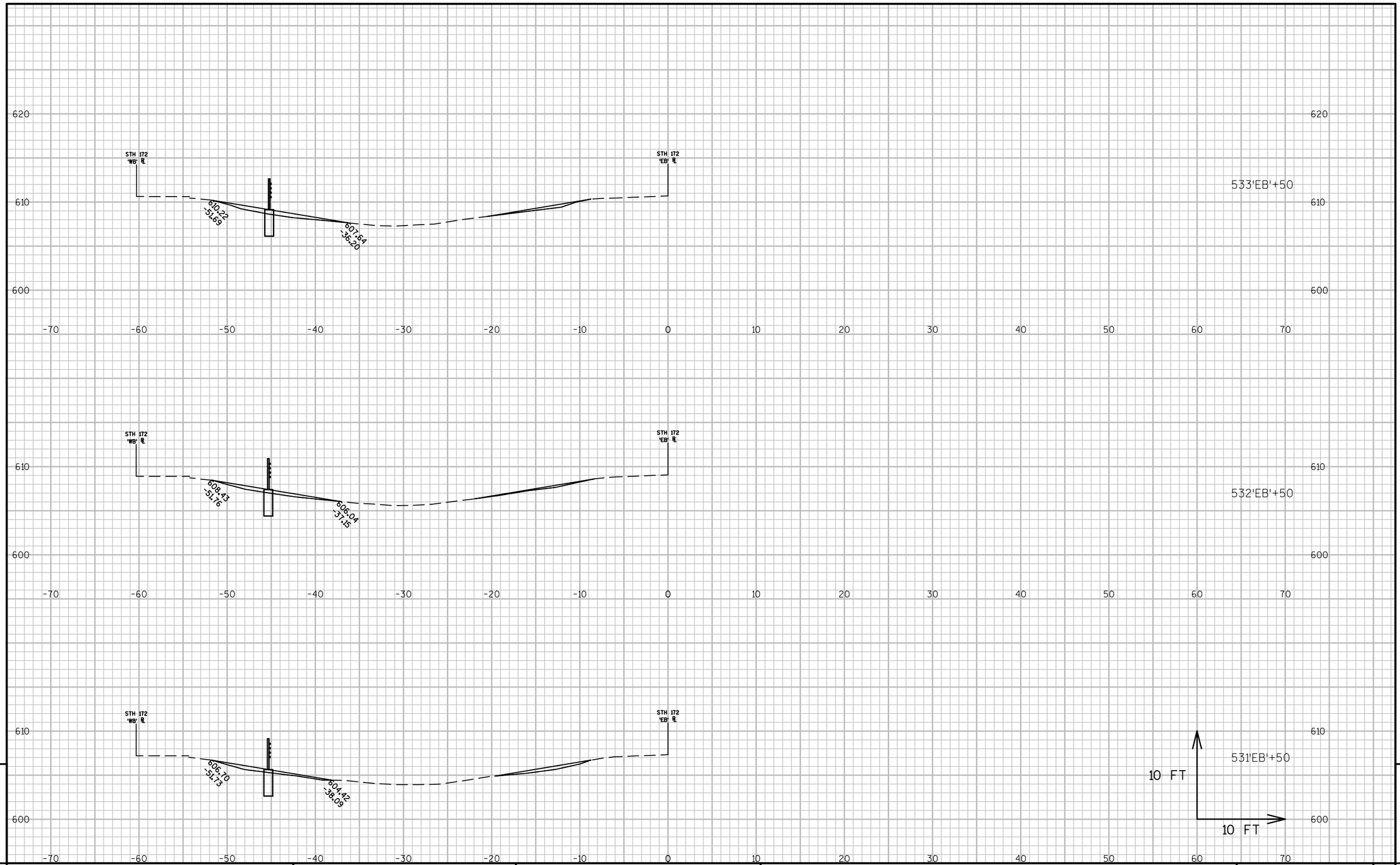
9

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090202_XS (LESS SHEETS).DWG
LAYOUT NAME - 090239_XS

PLOT DATE : 5/10/2016 7:27 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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9

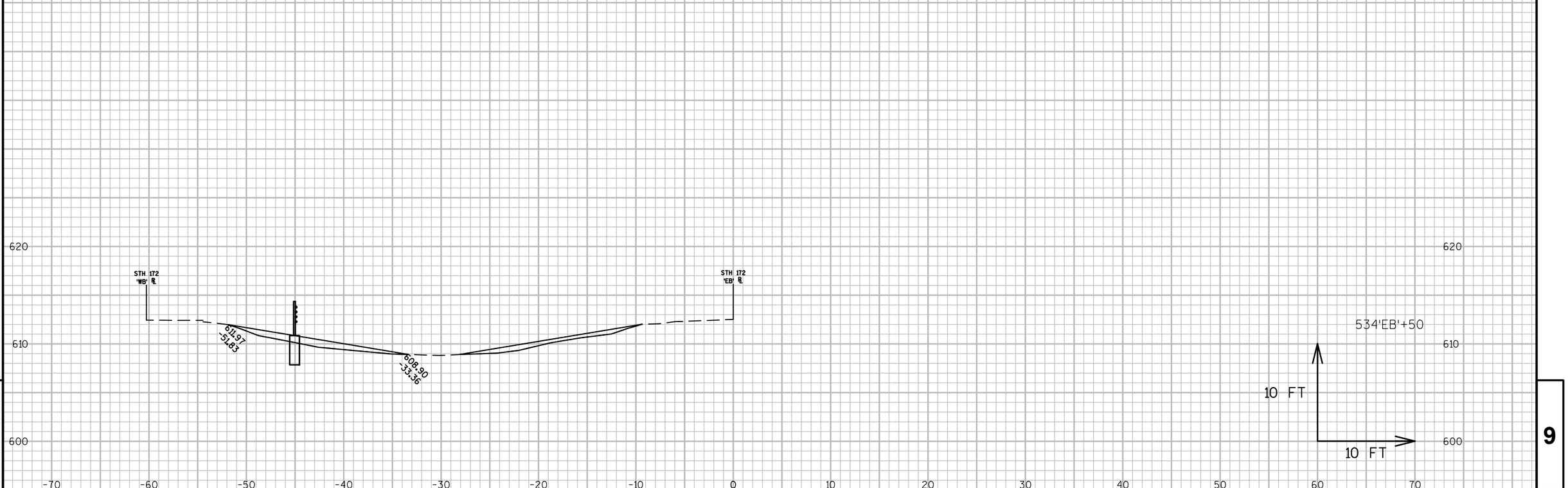
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: 090224_XS	SHEET 510	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090202_XS (LESS SHEETS).DWG
LAYOUT NAME - 090240_XS

PLOT DATE : 5/10/2016 7:27 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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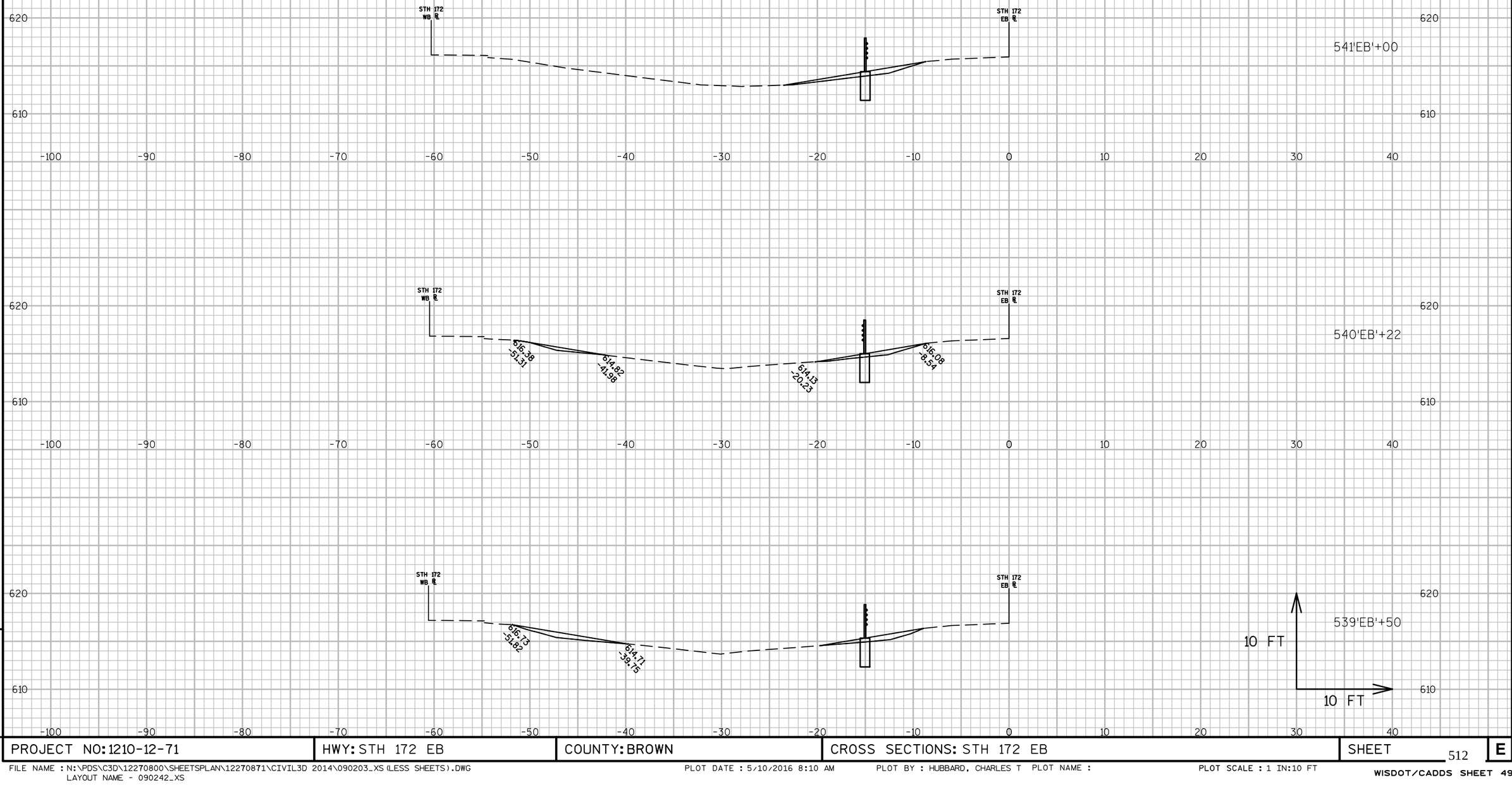
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 511	E



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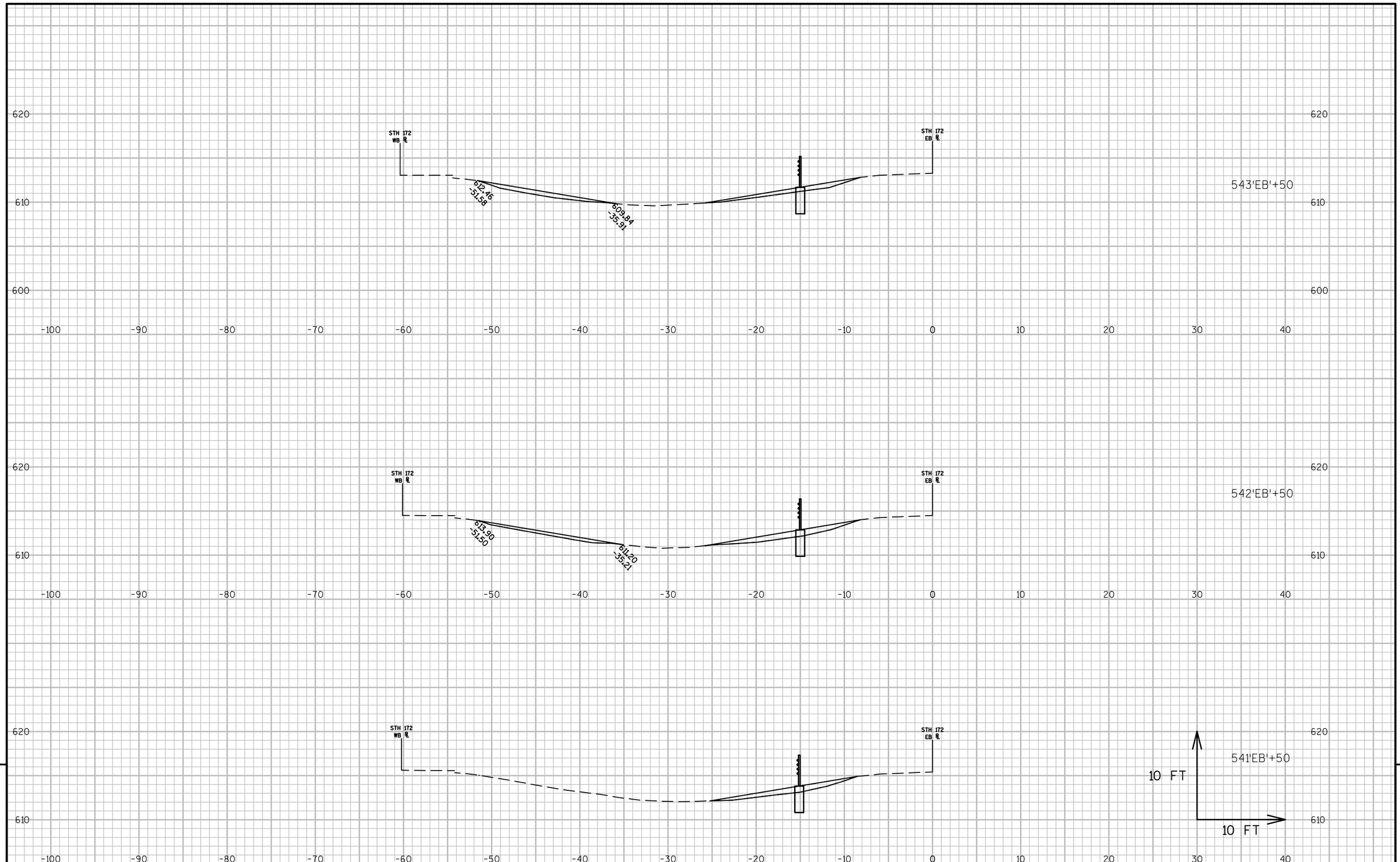
9

PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 512	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090242_XS

PLOT DATE : 5/10/2016 8:10 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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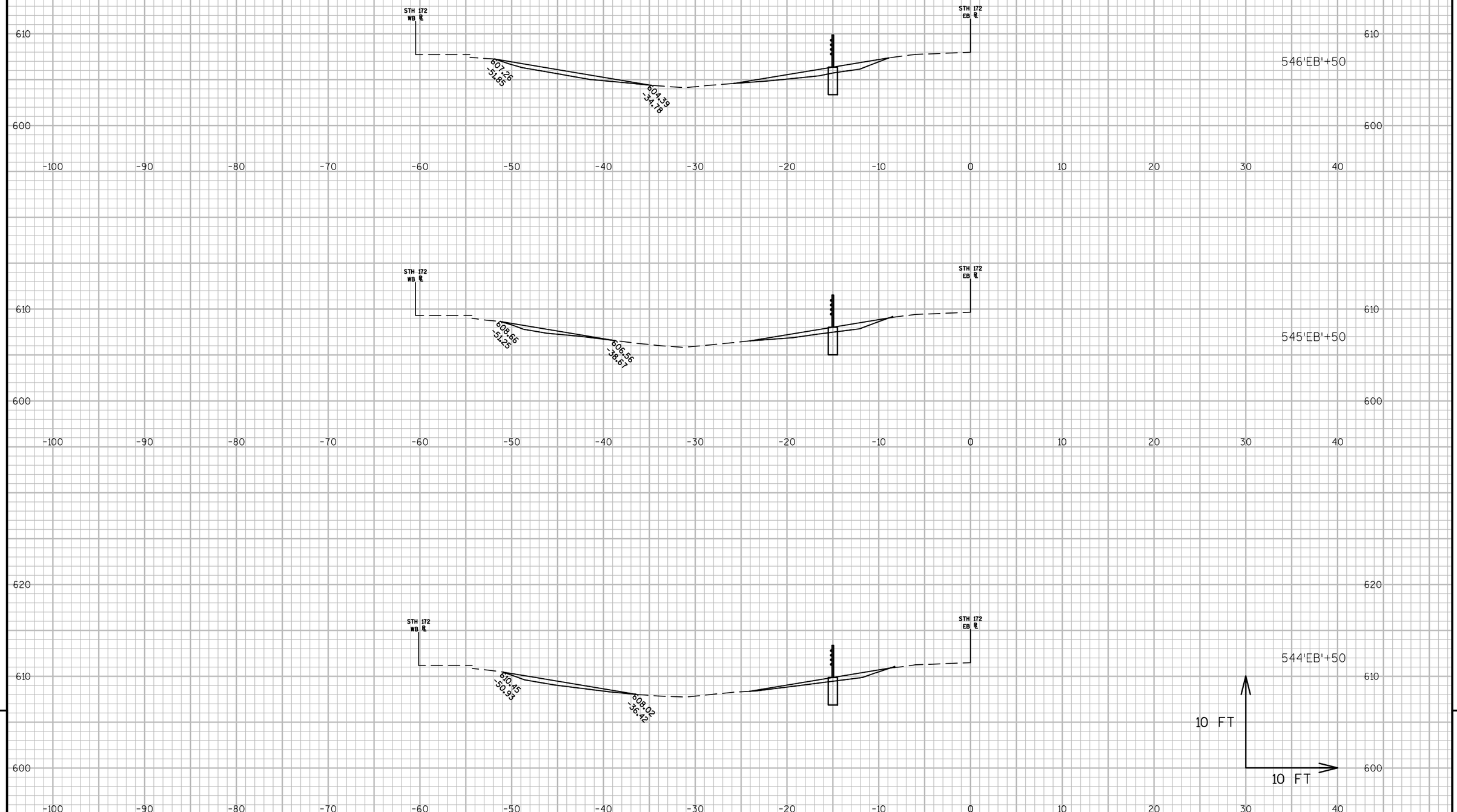
9

PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 513	E

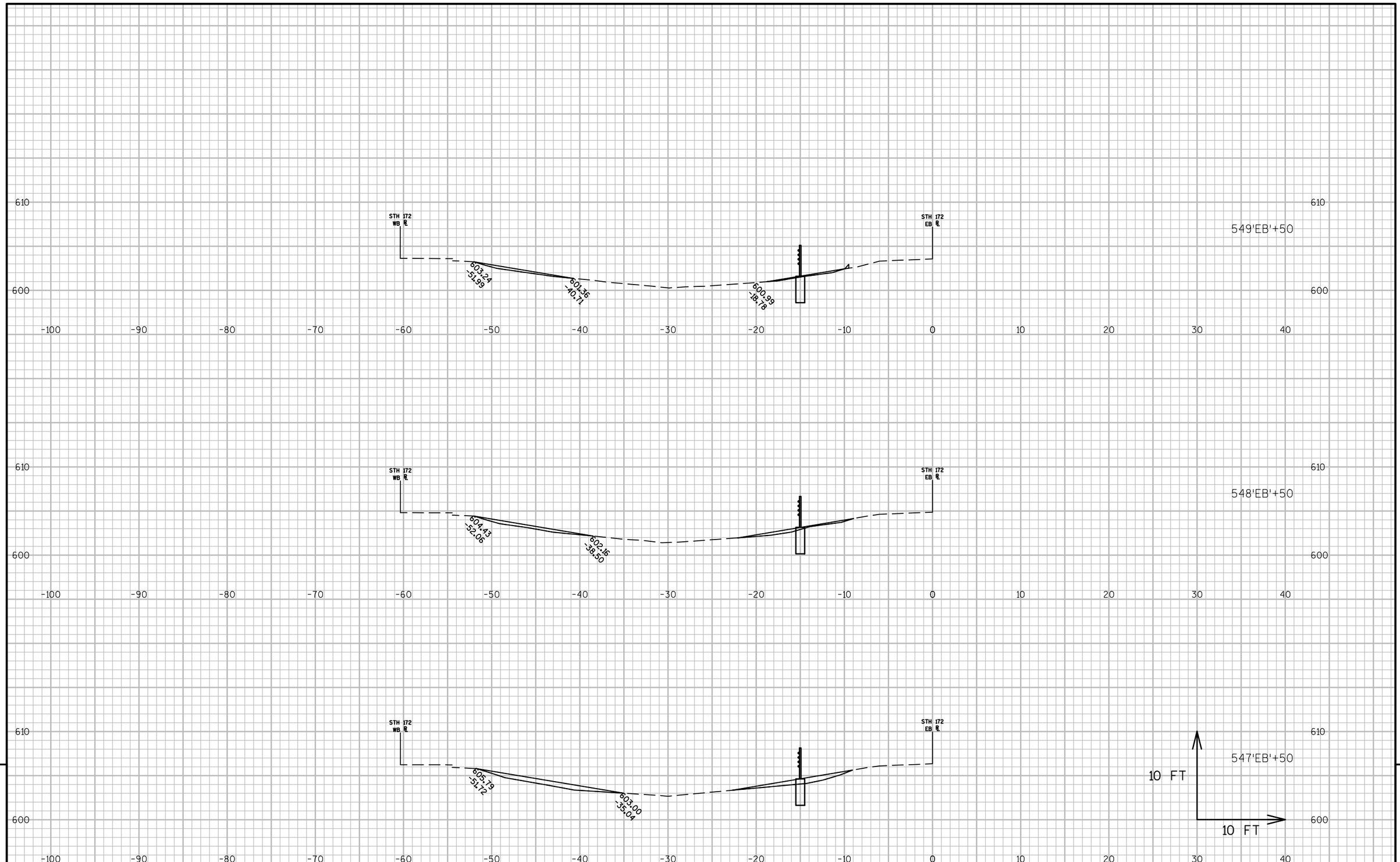
FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090243_XS

PLOT DATE : 5/10/2016 8:11 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 514	E



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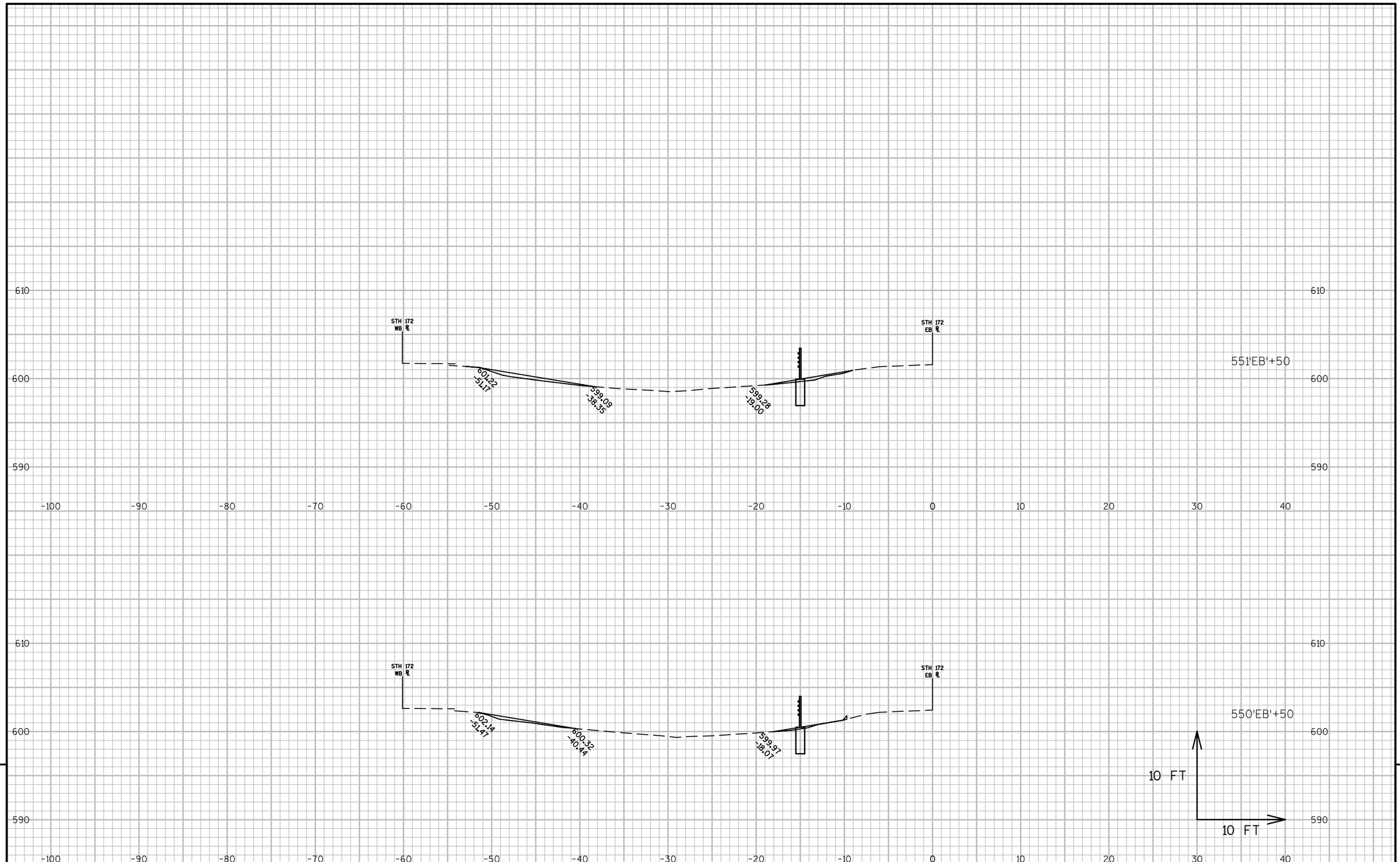
9

PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 515	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090245_XS

PLOT DATE : 5/10/2016 8:11 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



9

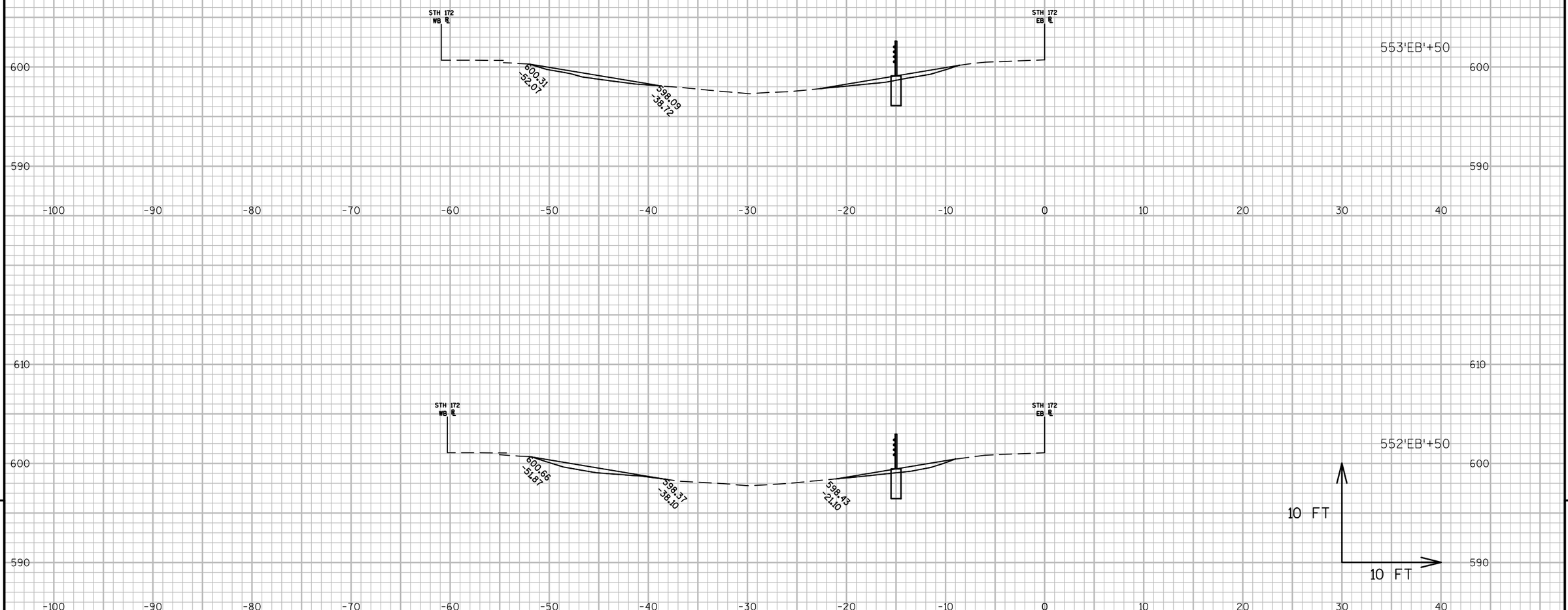
9

PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 516	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090246_XS

PLOT DATE : 5/10/2016 8:11 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT



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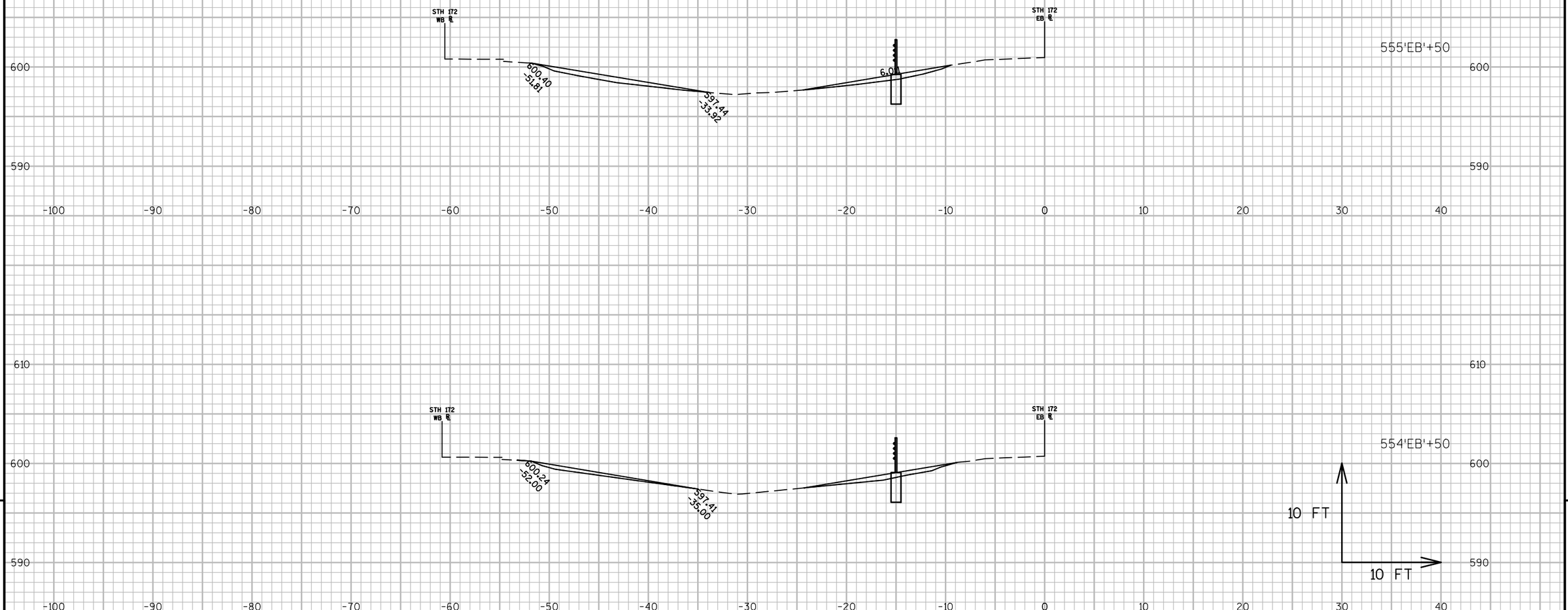
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 517	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090247_XS

PLOT DATE : 5/10/2016 8:11 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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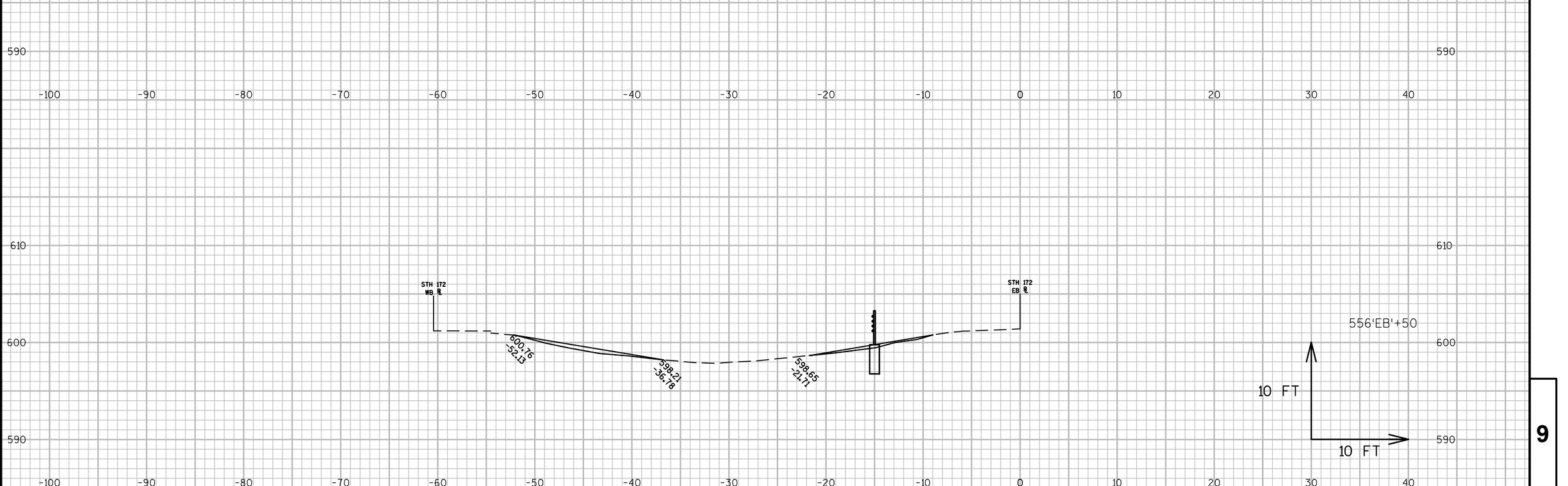
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 518	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090248_XS

PLOT DATE : 5/10/2016 8:11 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 519	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090249_XS

PLOT DATE : 5/10/2016 8:11 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

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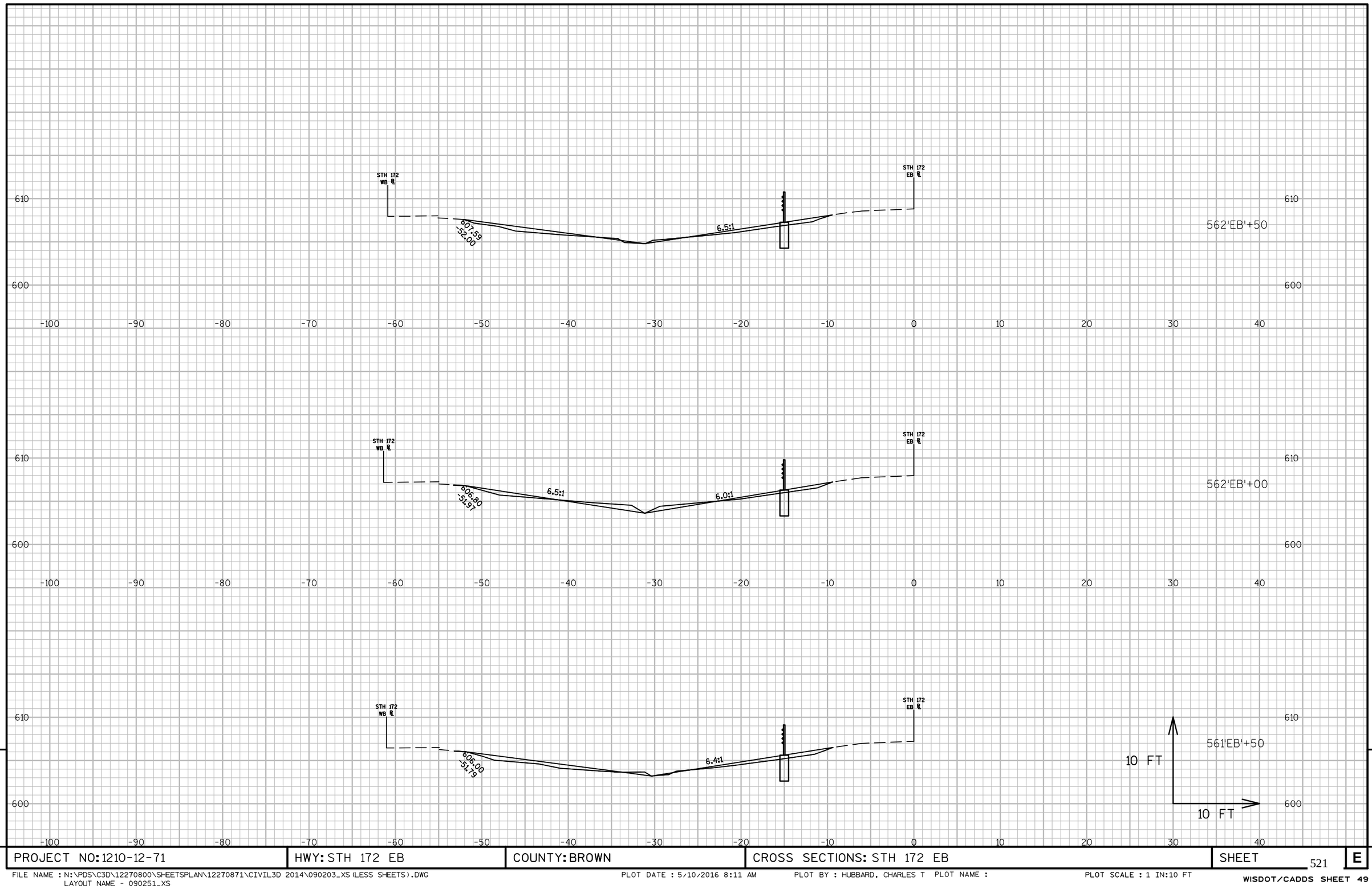
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 520	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090250_XS

PLOT DATE : 5/10/2016 8:11 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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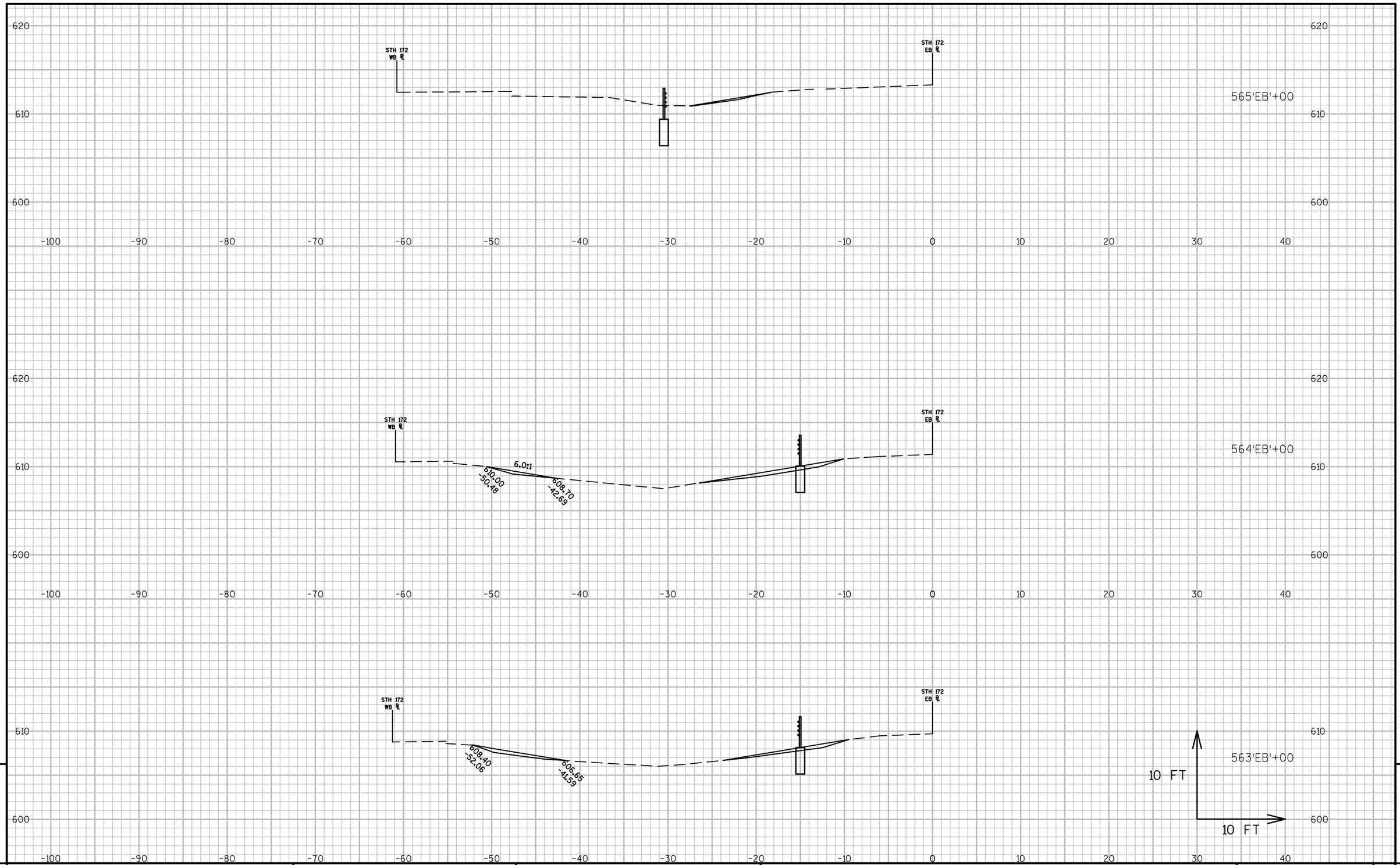
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 521	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090251_XS

PLOT DATE : 5/10/2016 8:11 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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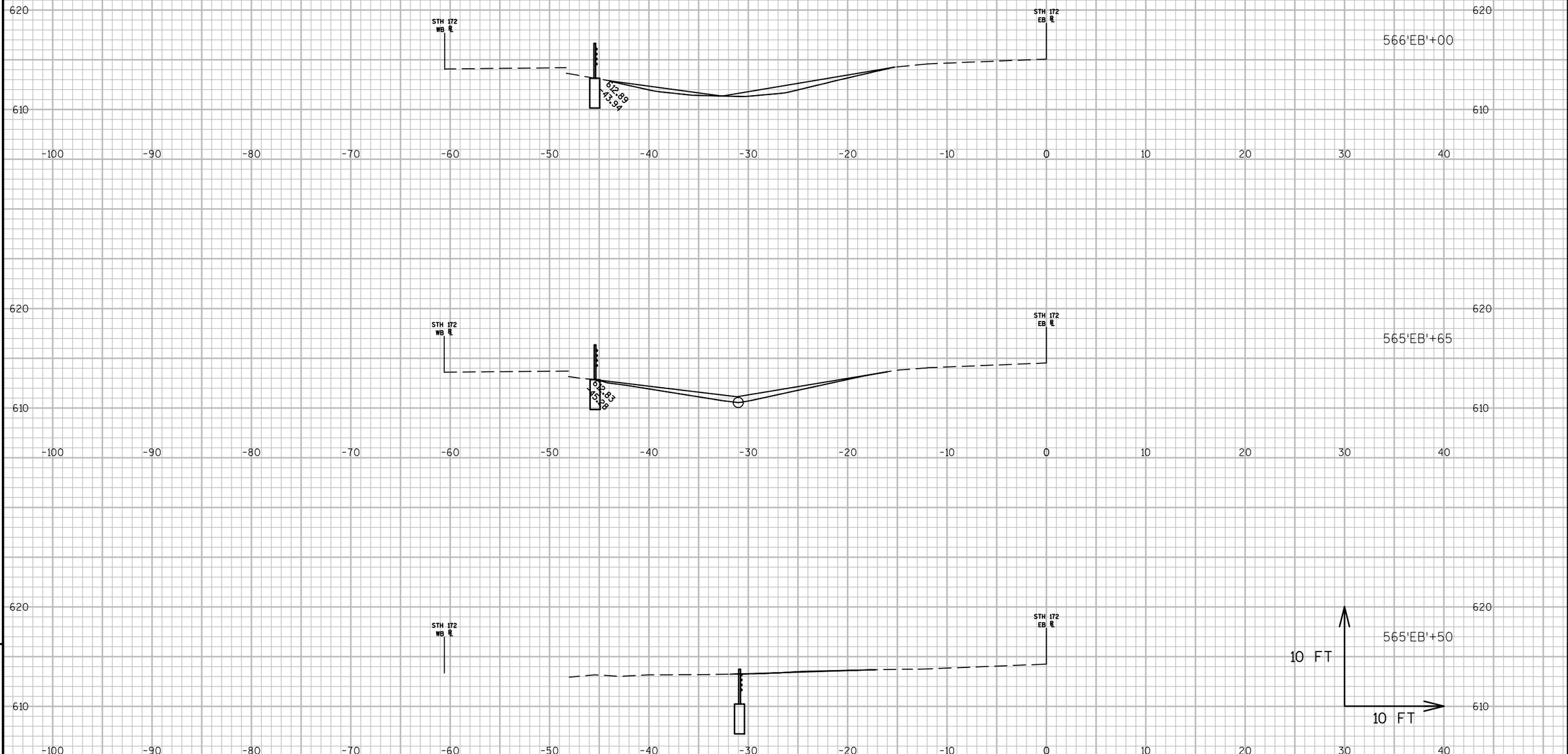
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 522	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090252_XS
PLOT DATE : 5/10/2016 8:12 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :
PLOT SCALE : 1 IN:10 FT



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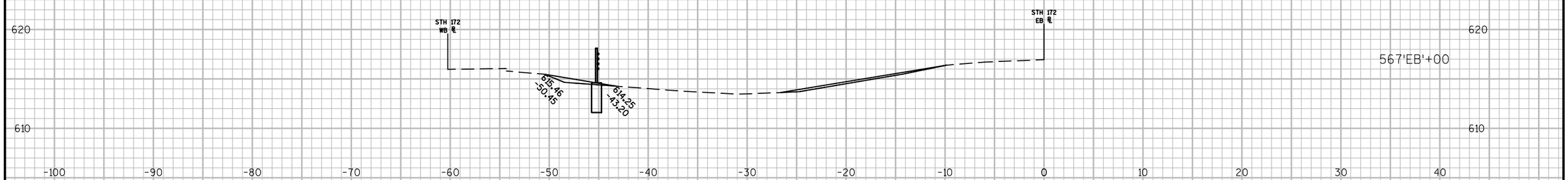
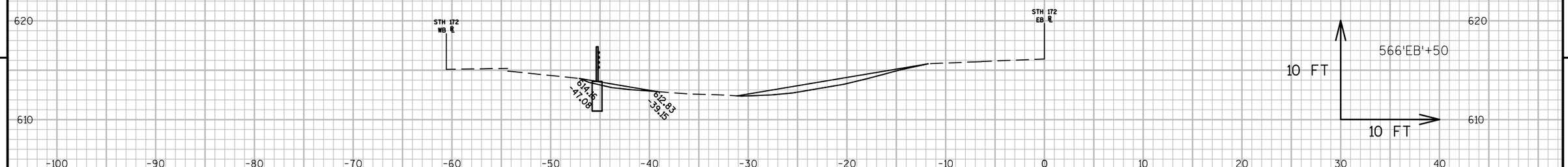
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 523	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090253_XS

PLOT DATE : 5/10/2016 8:12 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49





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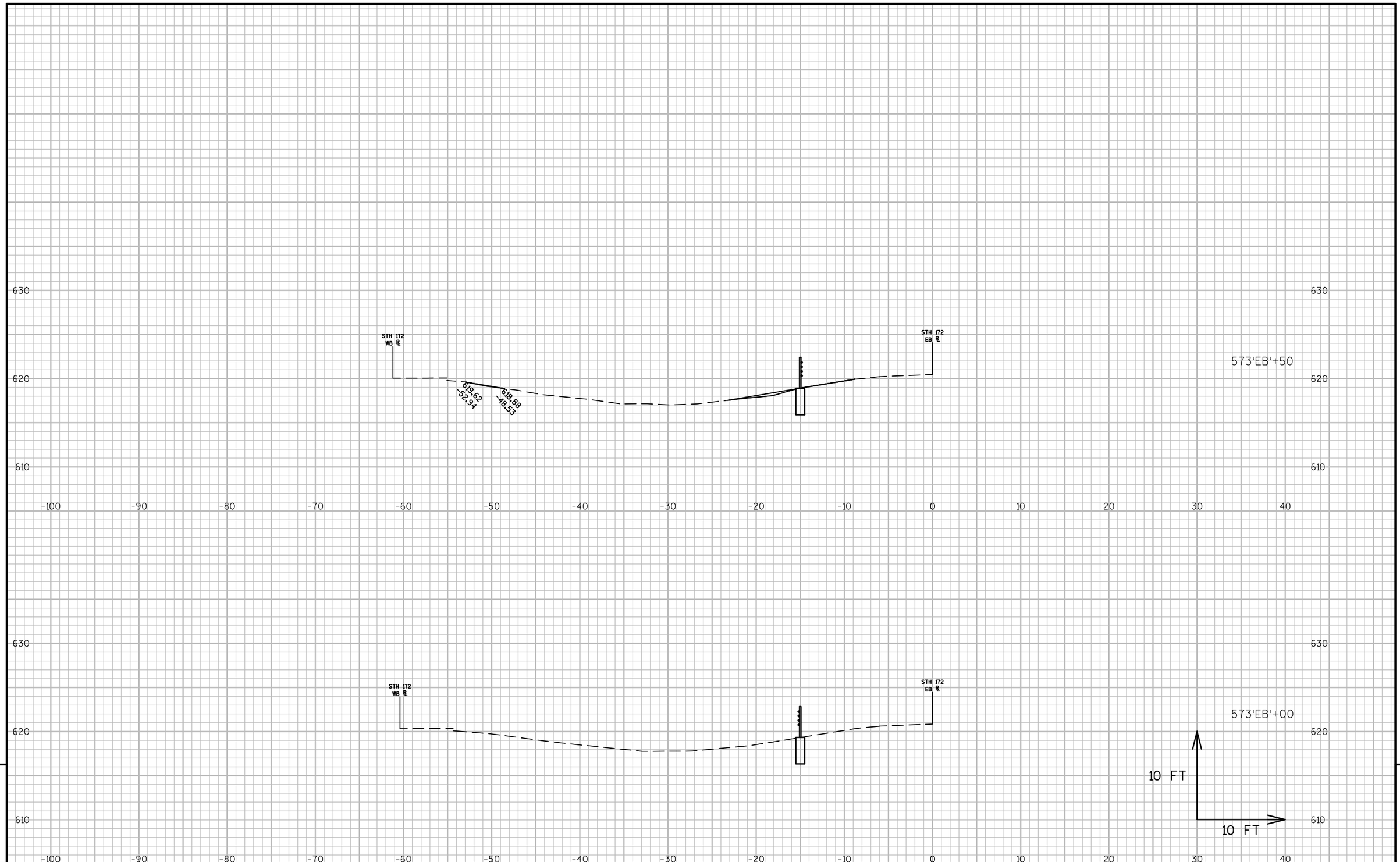
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 524	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090254_XS

PLOT DATE : 5/10/2016 8:12 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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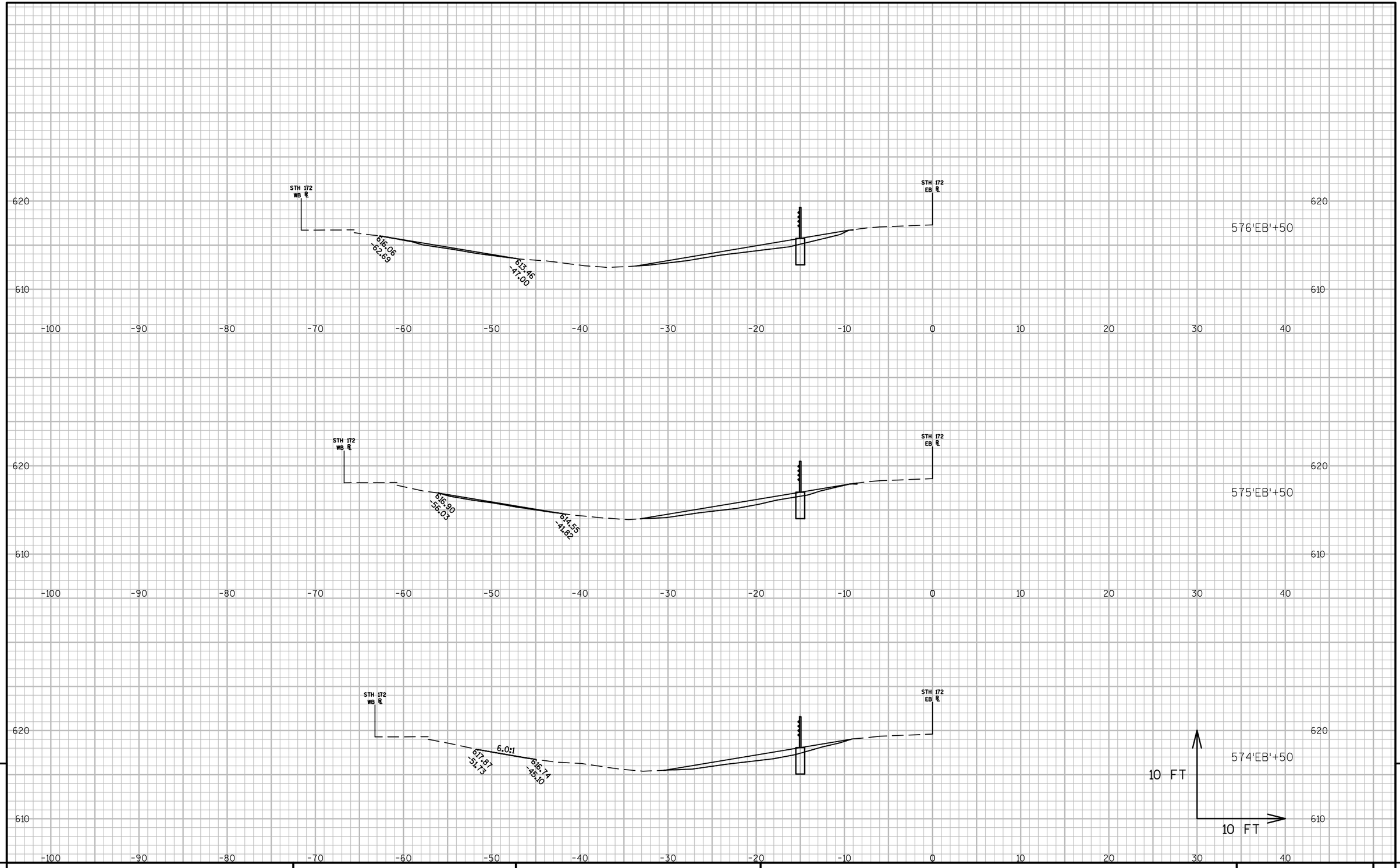
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 525	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090255_XS

PLOT DATE : 5/10/2016 8:12 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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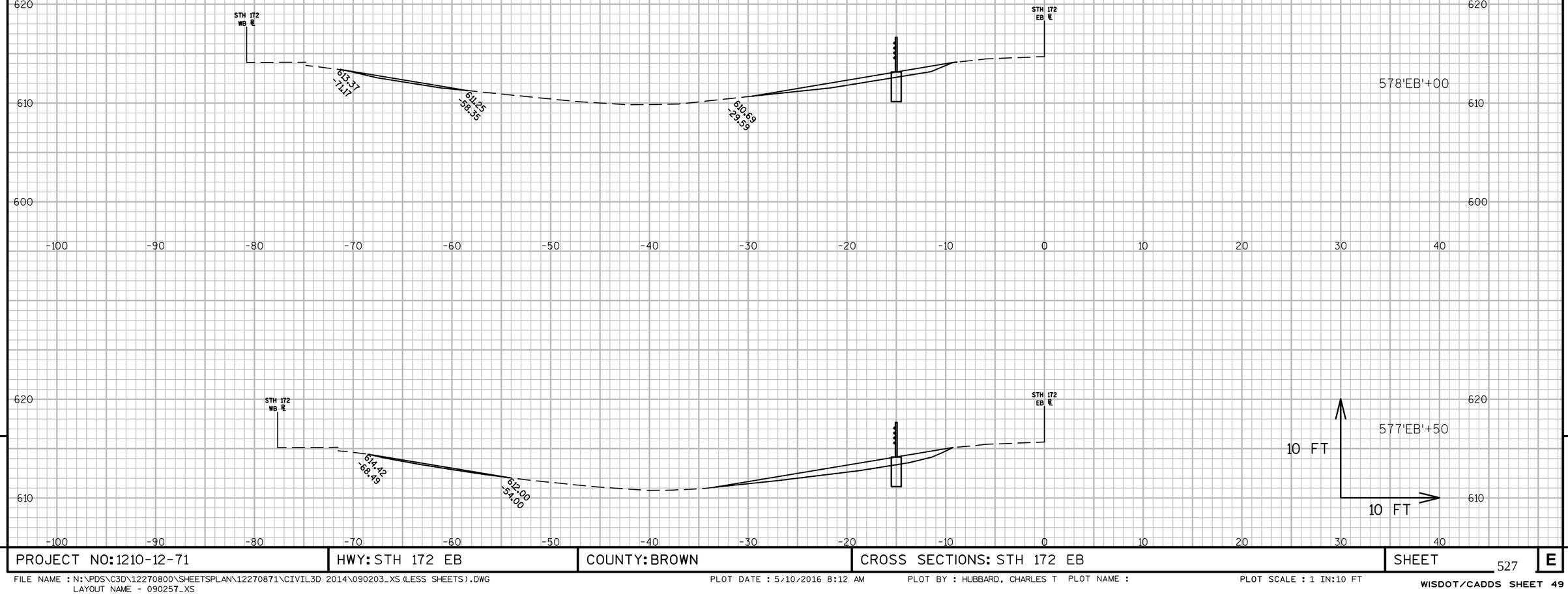
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 526	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090256_XS

PLOT DATE : 5/10/2016 8:12 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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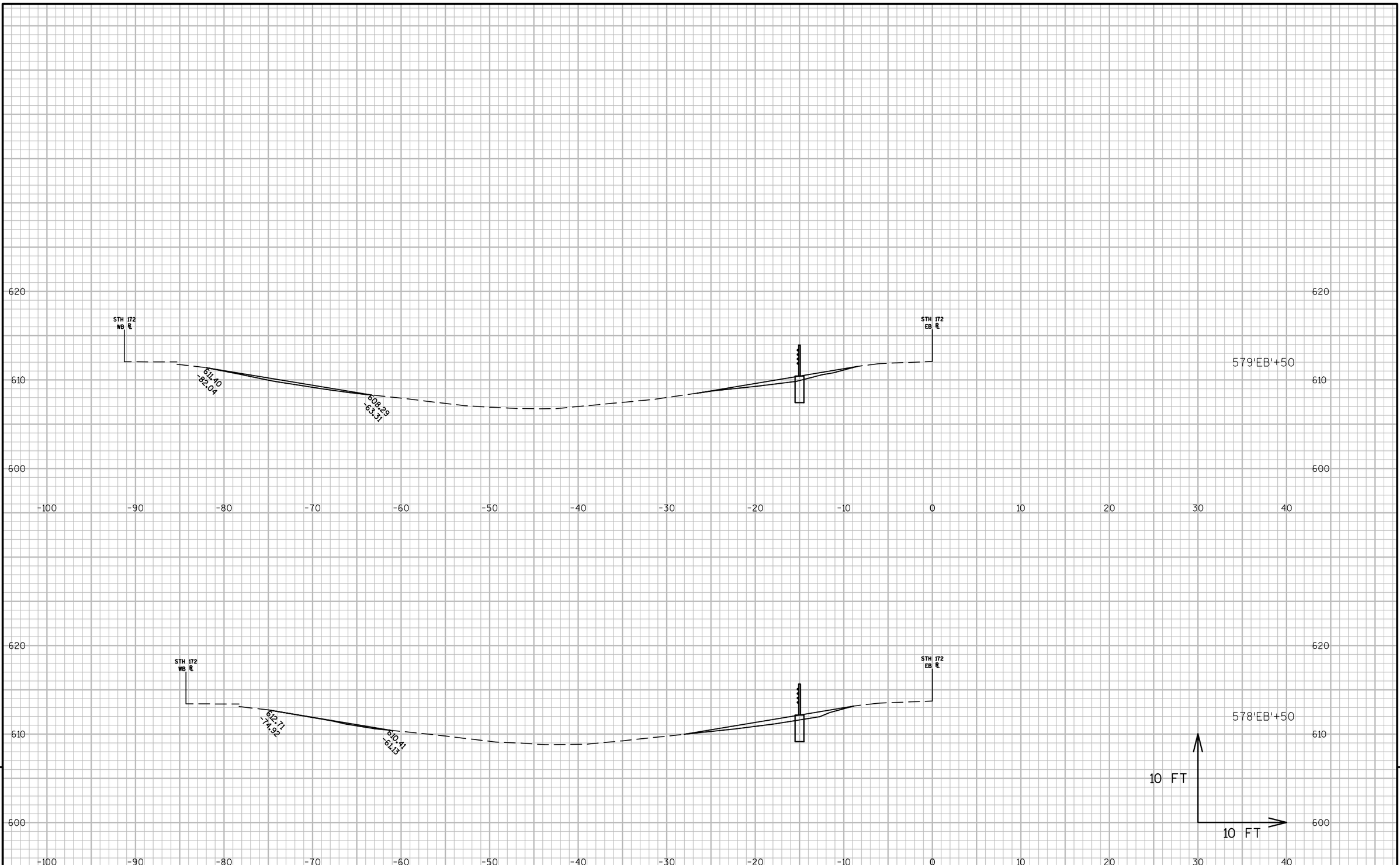
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 527	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090257_XS
PLOT DATE : 5/10/2016 8:12 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :
PLOT SCALE : 1 IN:10 FT



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PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 528	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090258_XS

PLOT DATE : 5/10/2016 8:12 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

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9

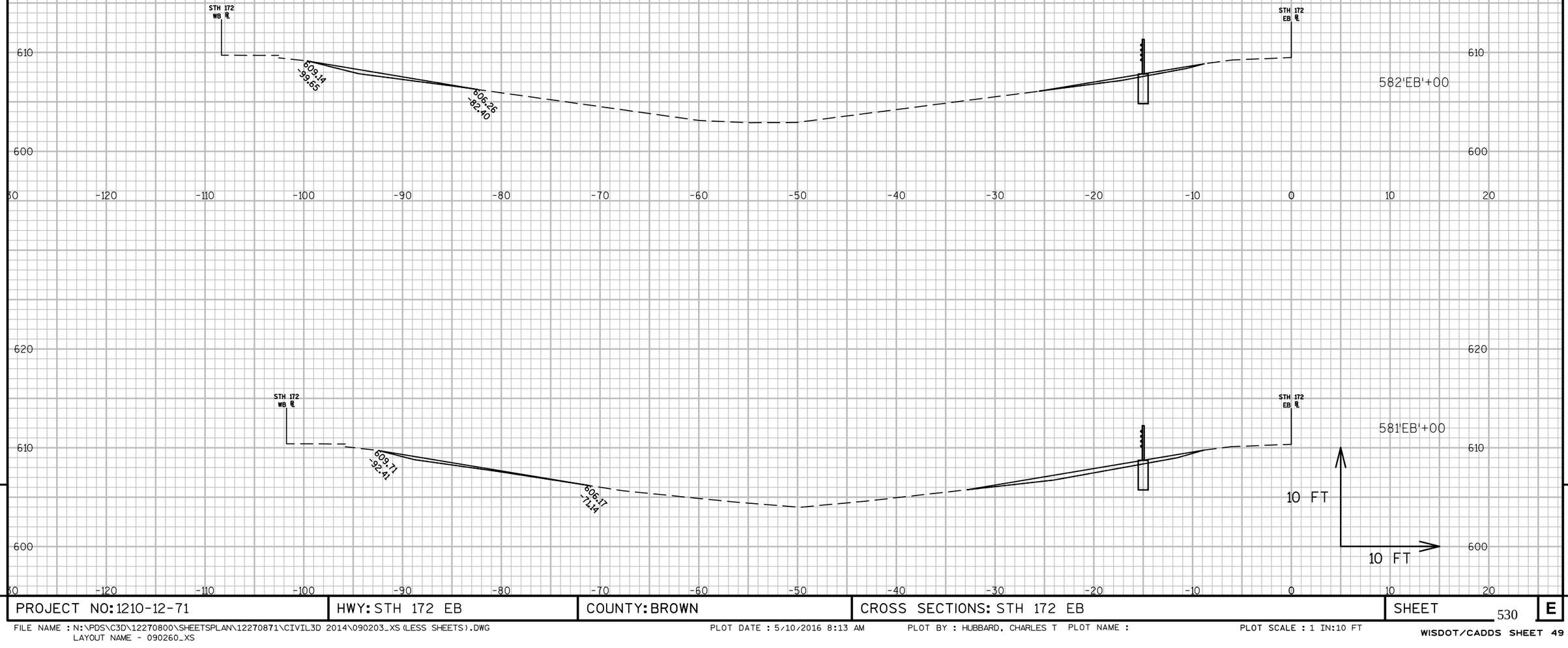
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 529	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090259_XS

PLOT DATE : 5/10/2016 8:12 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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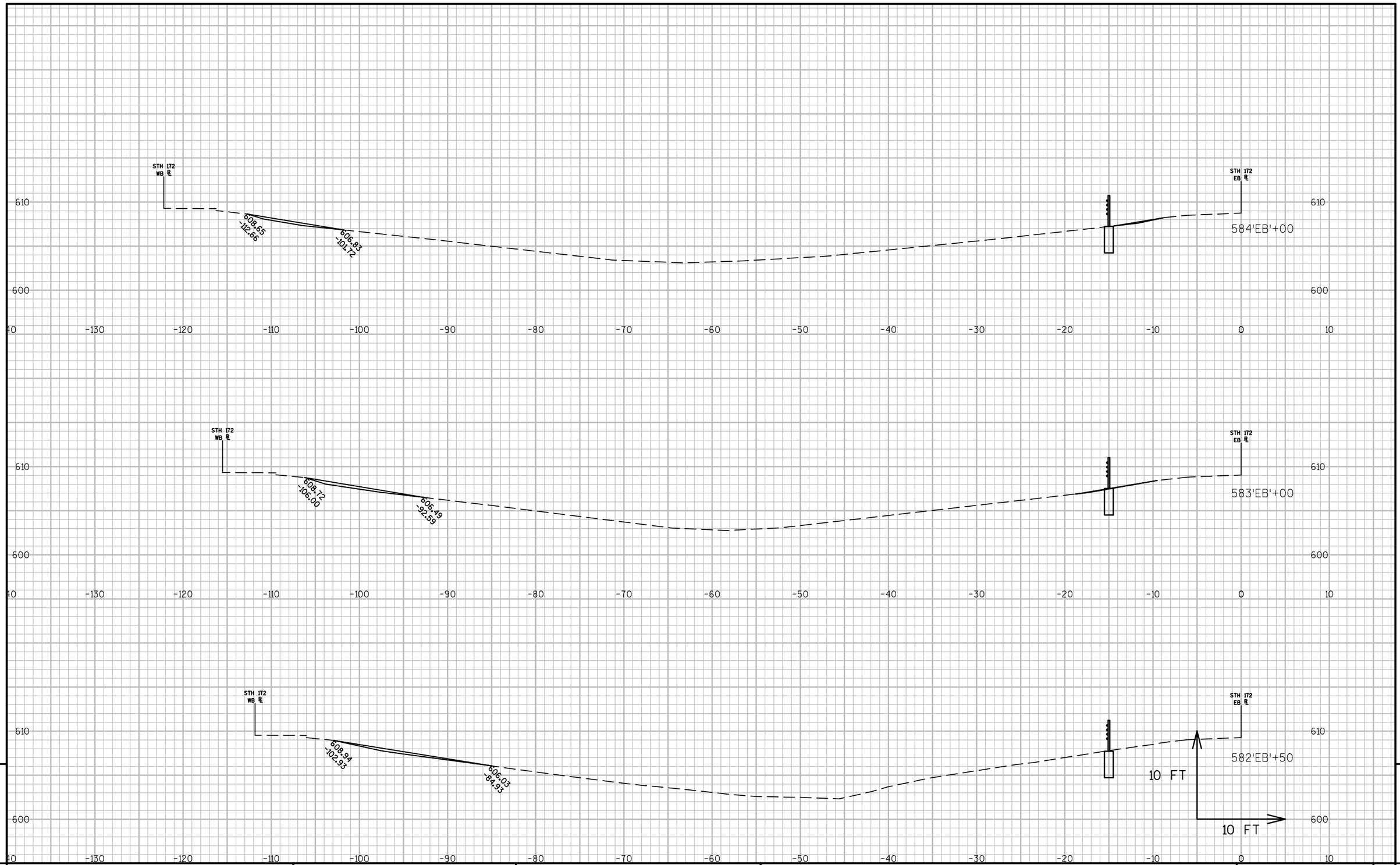
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 530	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090260_XS

PLOT DATE : 5/10/2016 8:13 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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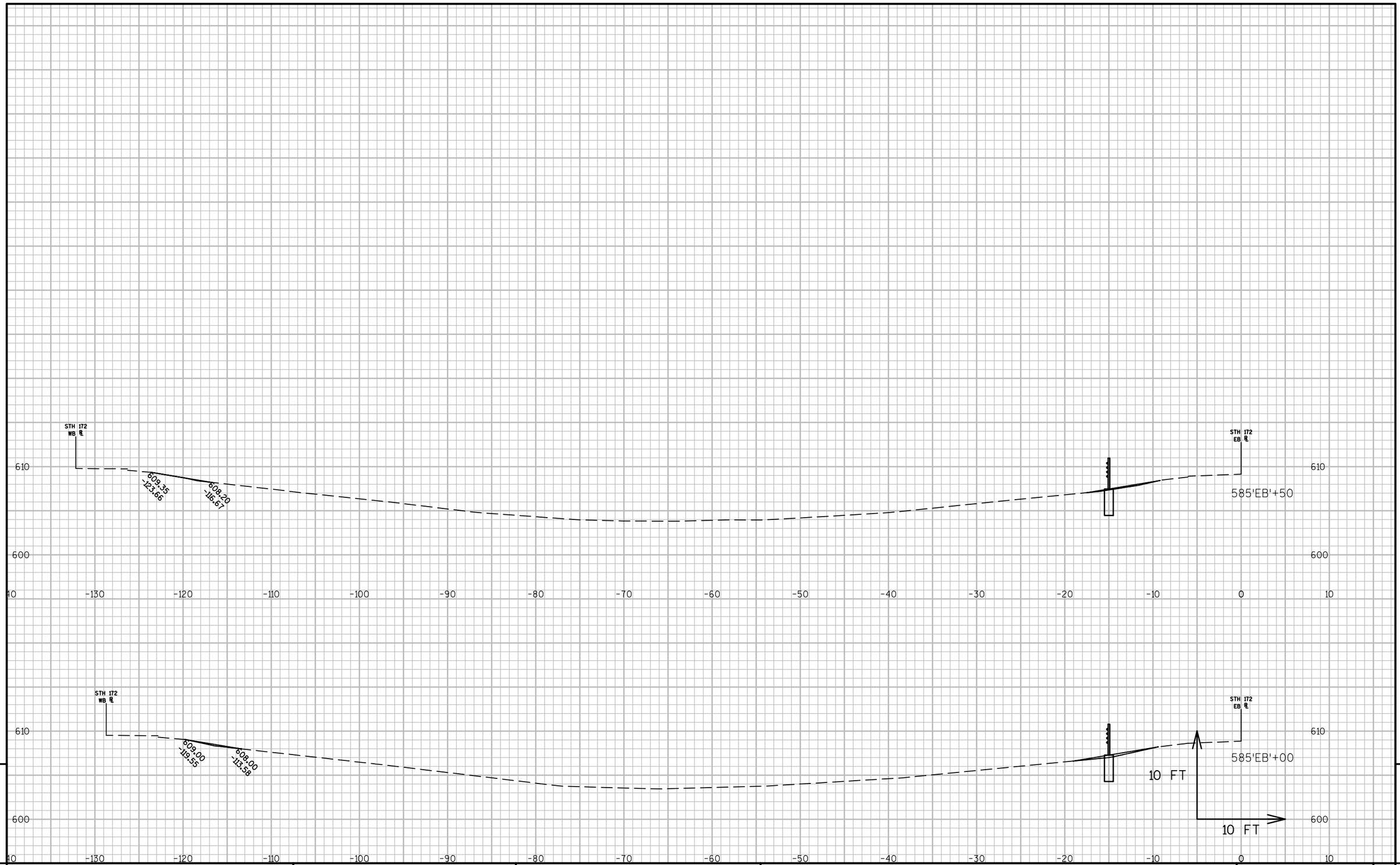
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 531	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090261_XS

PLOT DATE : 5/10/2016 8:13 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT



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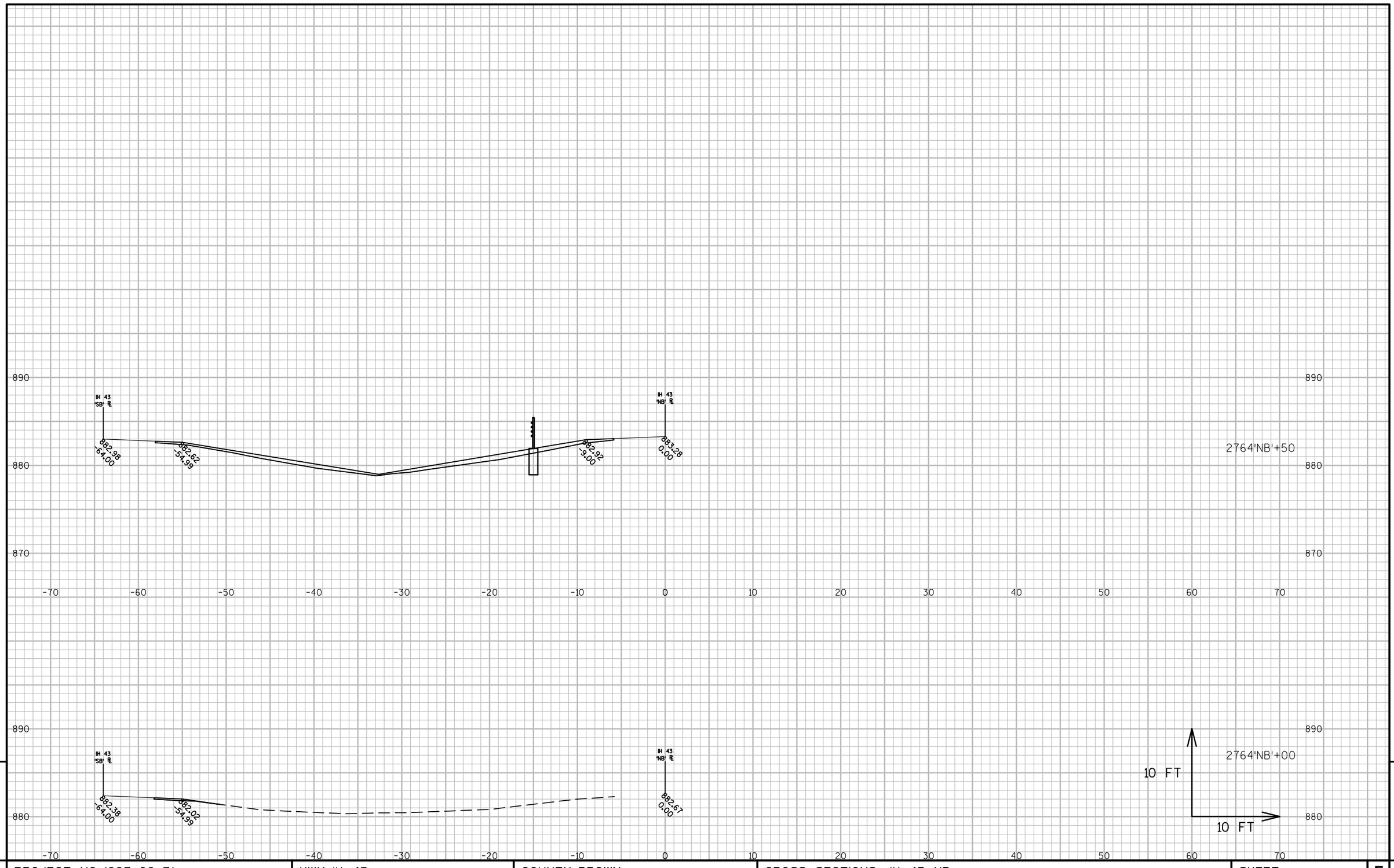
PROJECT NO: 1210-12-71	HWY: STH 172 EB	COUNTY: BROWN	CROSS SECTIONS: STH 172 EB	SHEET 532	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090203_XS (LESS SHEETS).DWG
LAYOUT NAME - 090262_XS

PLOT DATE : 5/10/2016 8:13 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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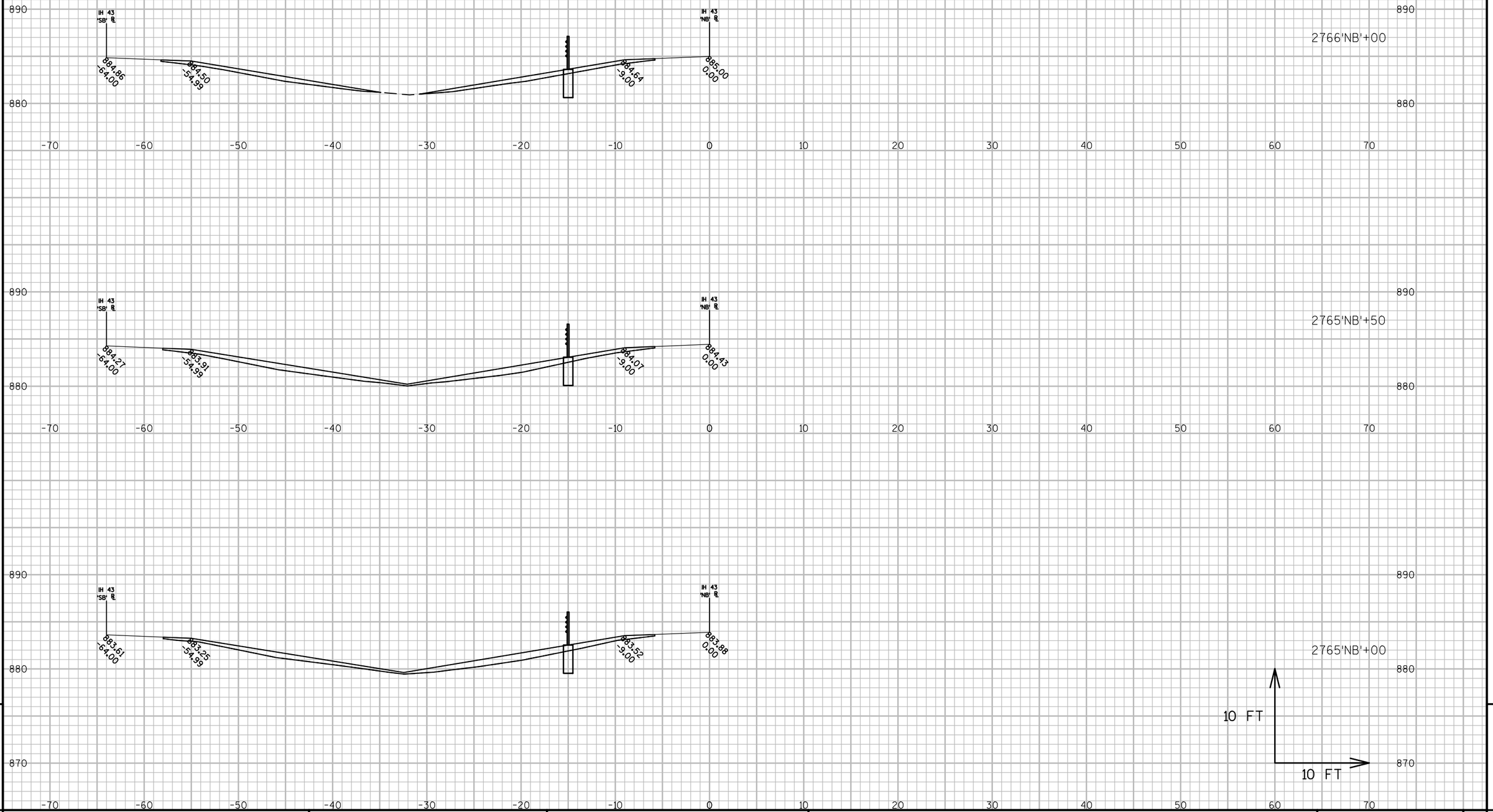
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 533	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090263_XS

PLOT DATE : 5/10/2016 8:15 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



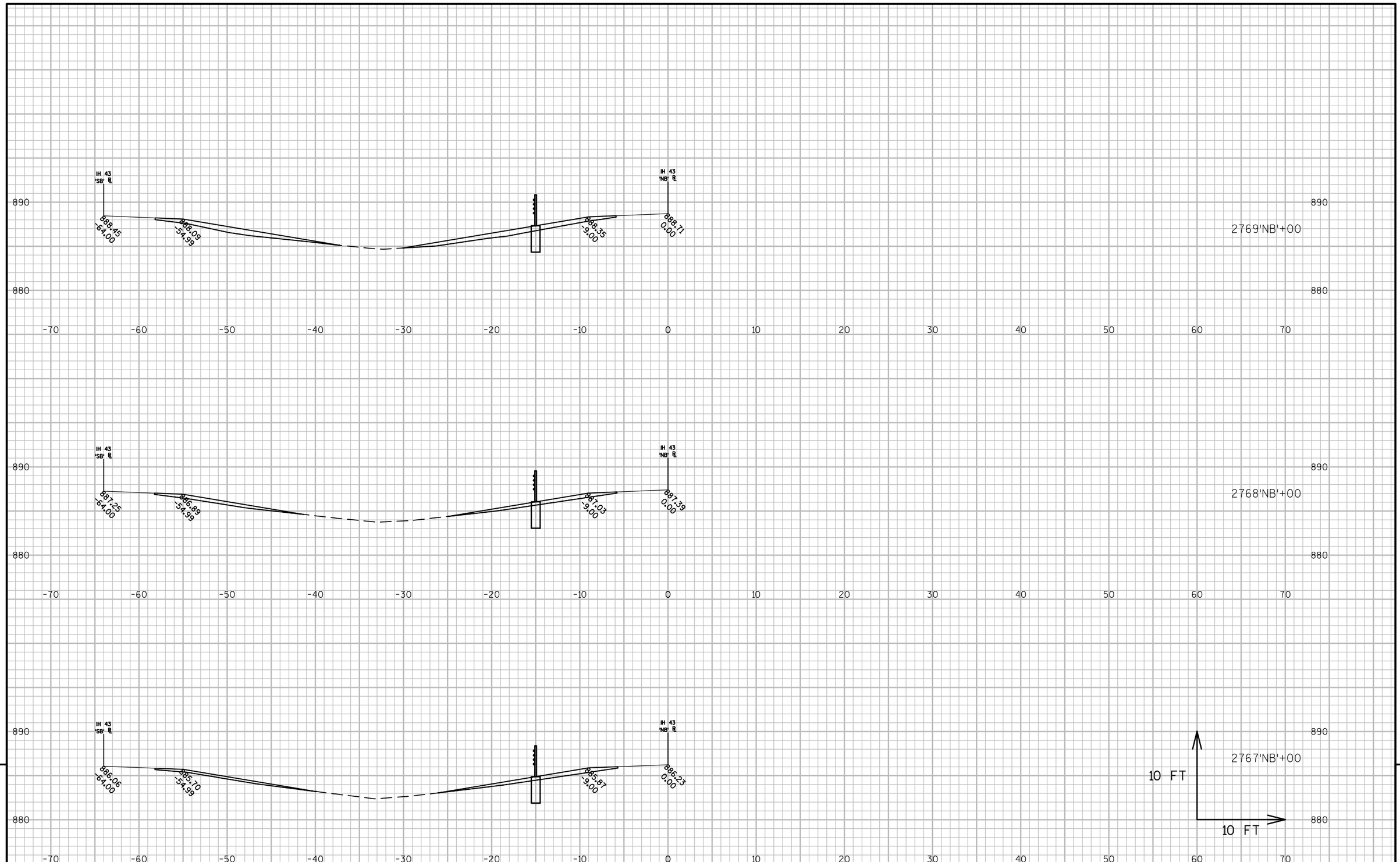
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 534	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090264_XS

PLOT DATE : 5/10/2016 8:15 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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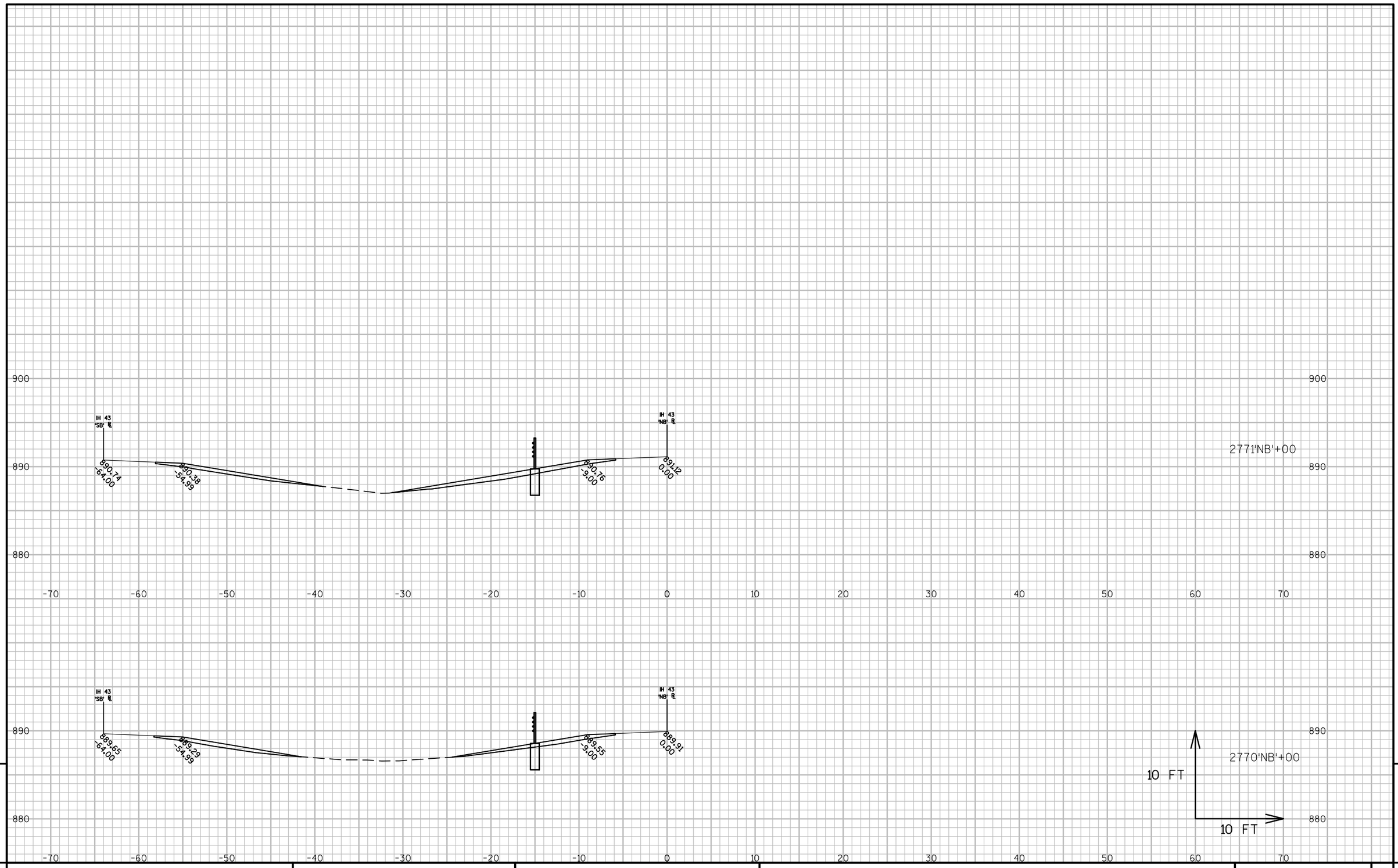
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 535	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090265_XS

PLOT DATE : 5/10/2016 8:16 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

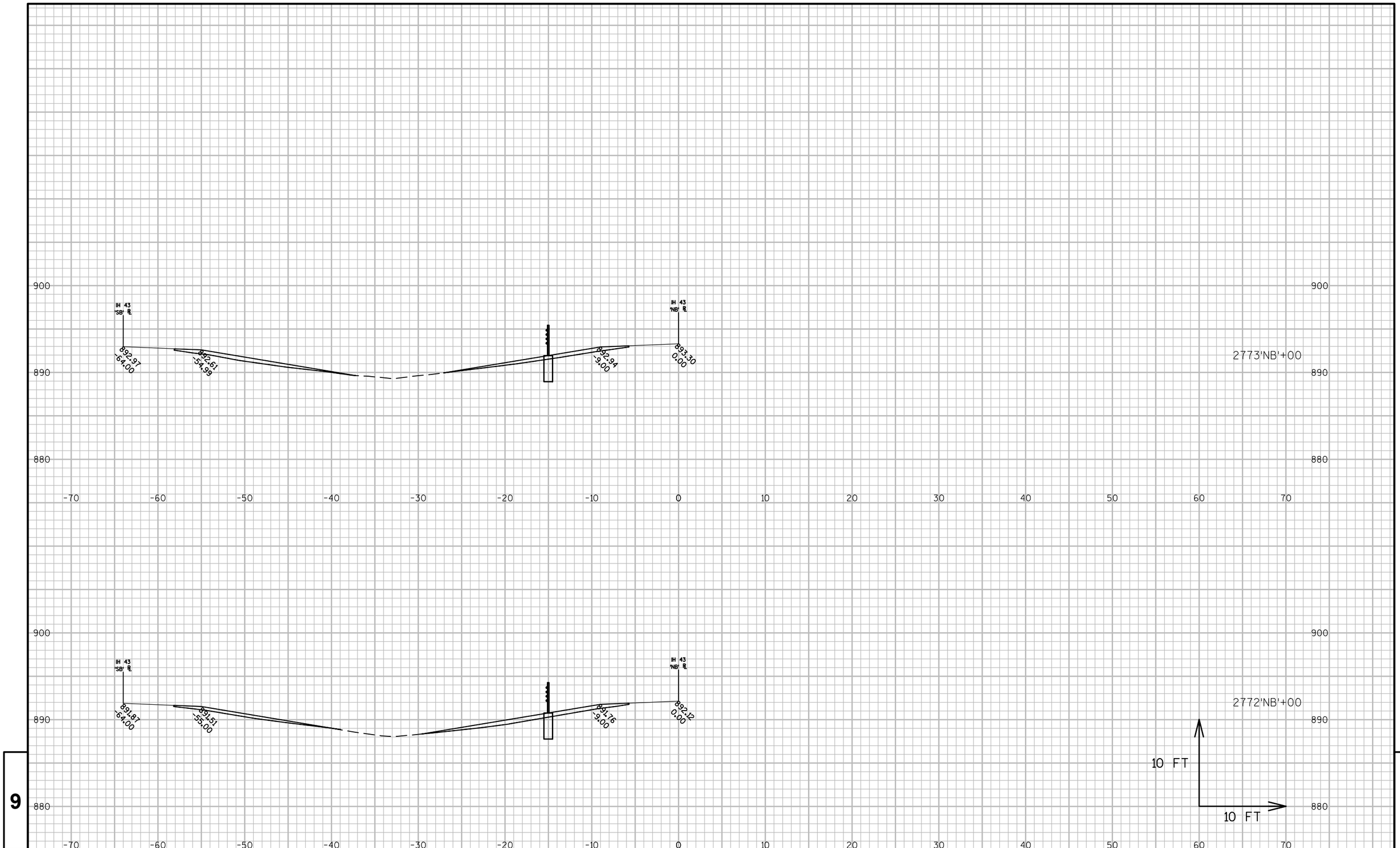


PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 536	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090266_XS

PLOT DATE : 5/10/2016 8:16 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



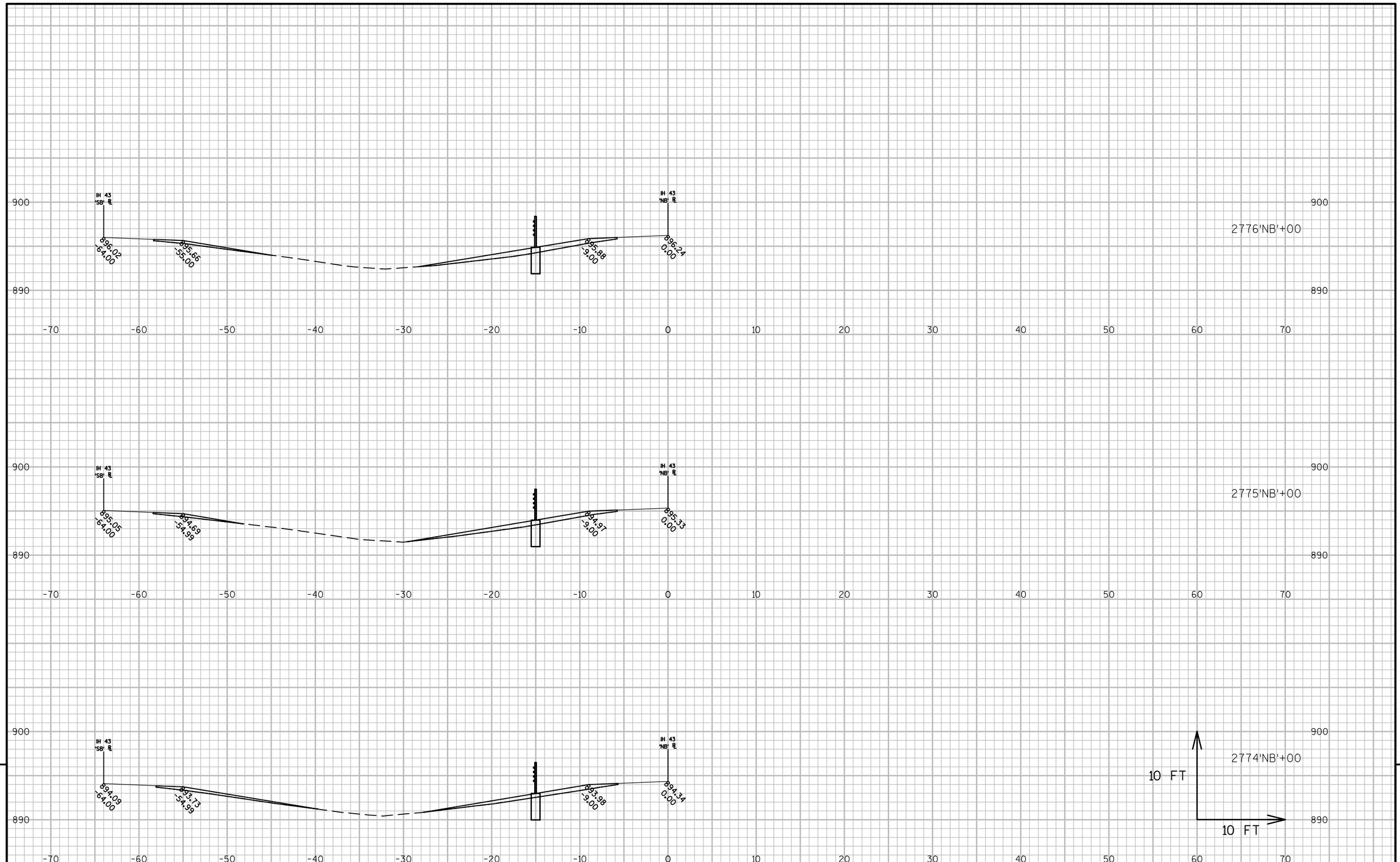
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 537	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090267_XS

PLOT DATE : 5/10/2016 8:16 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 538	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090268_XS

PLOT DATE : 5/10/2016 8:16 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

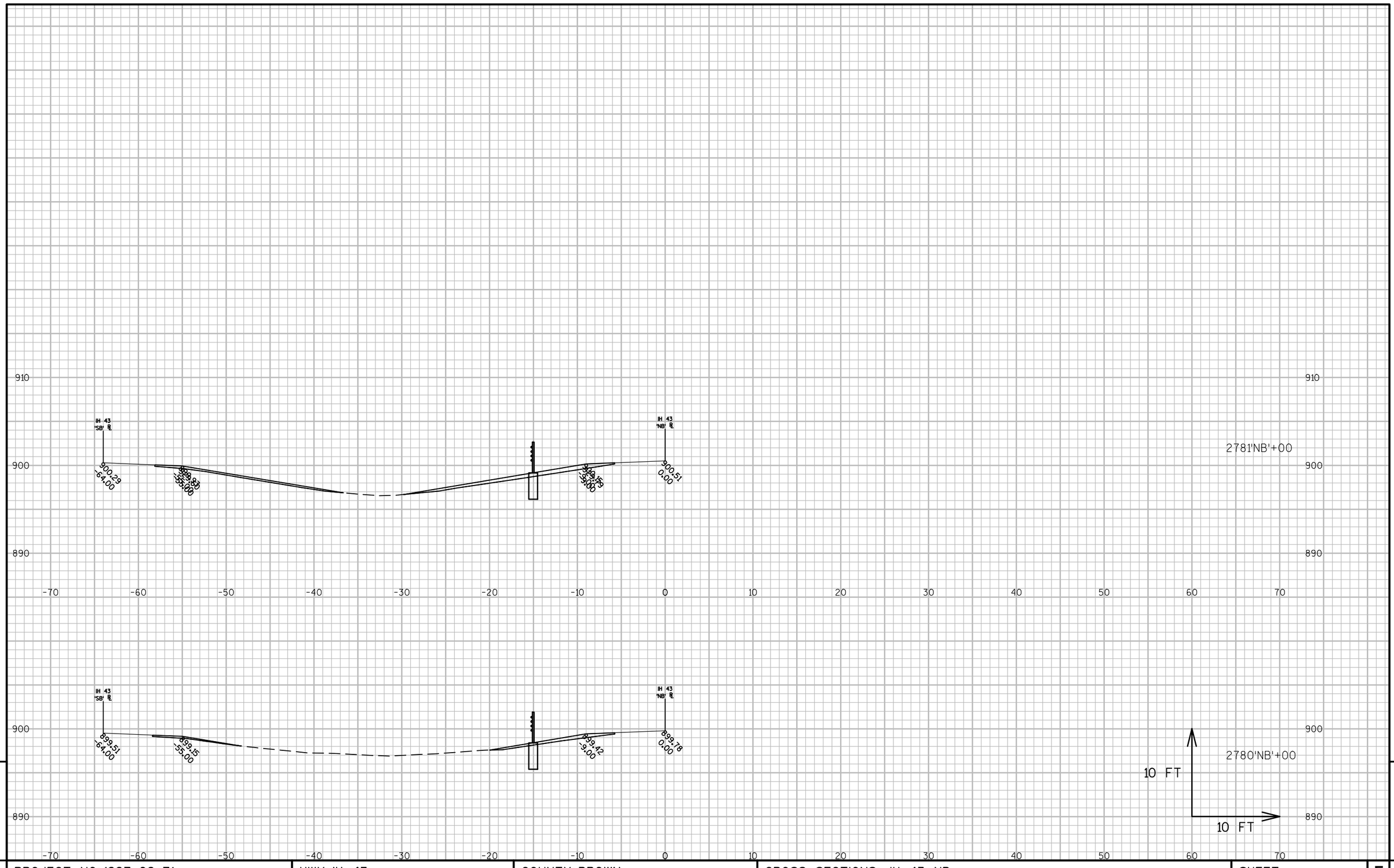
WISDOT/CADDS SHEET 49

PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 539	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090269_XS

PLOT DATE : 5/10/2016 8:16 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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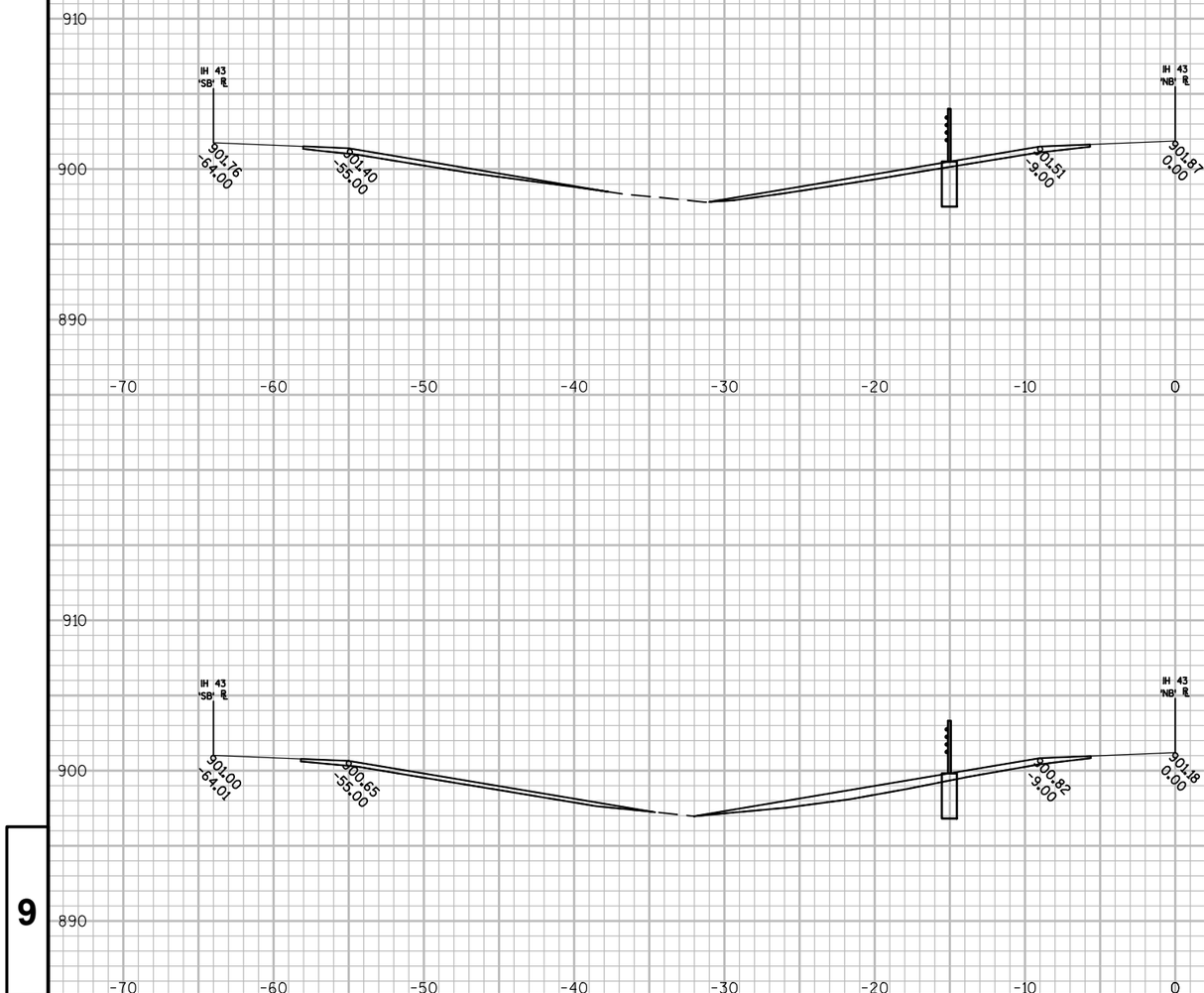
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 540	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090270_XS

PLOT DATE : 5/10/2016 8:17 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

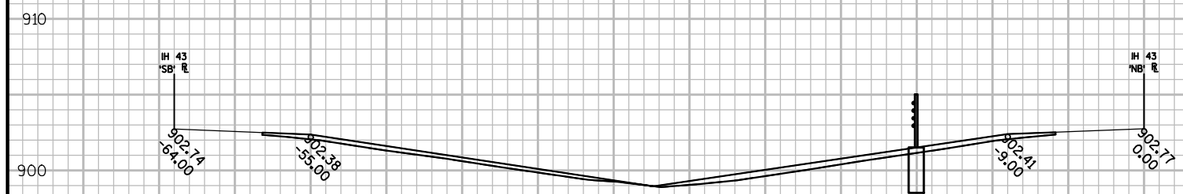


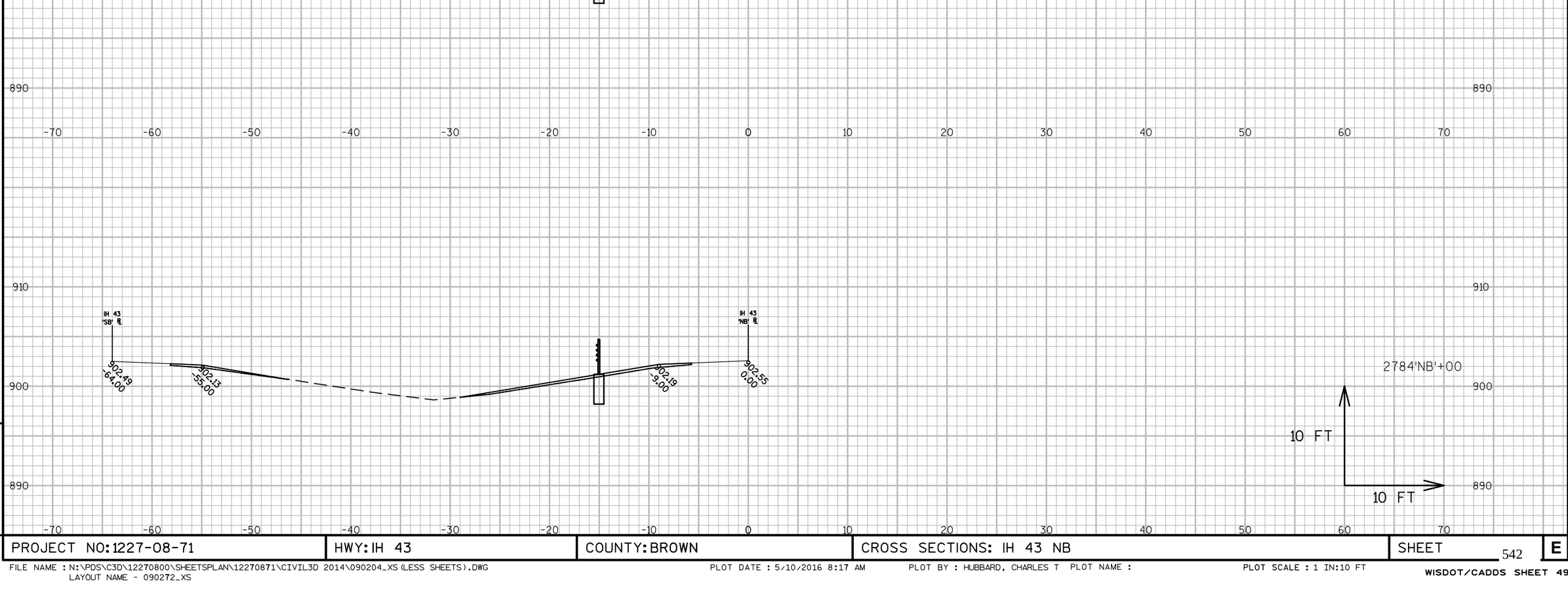
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 541	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090271_XS

PLOT DATE : 5/10/2016 8:17 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT



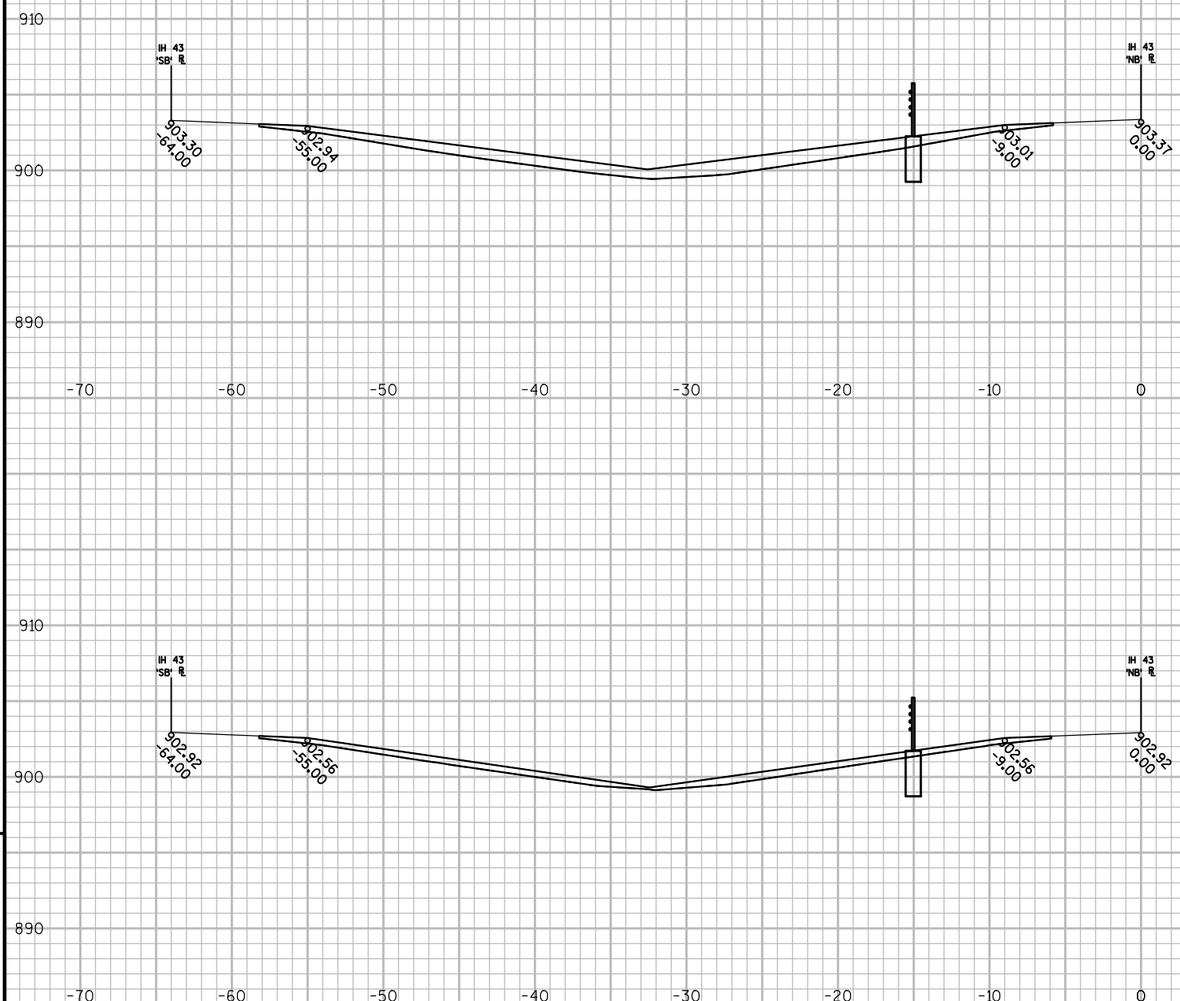


PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 542	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090272_XS

PLOT DATE : 5/10/2016 8:17 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



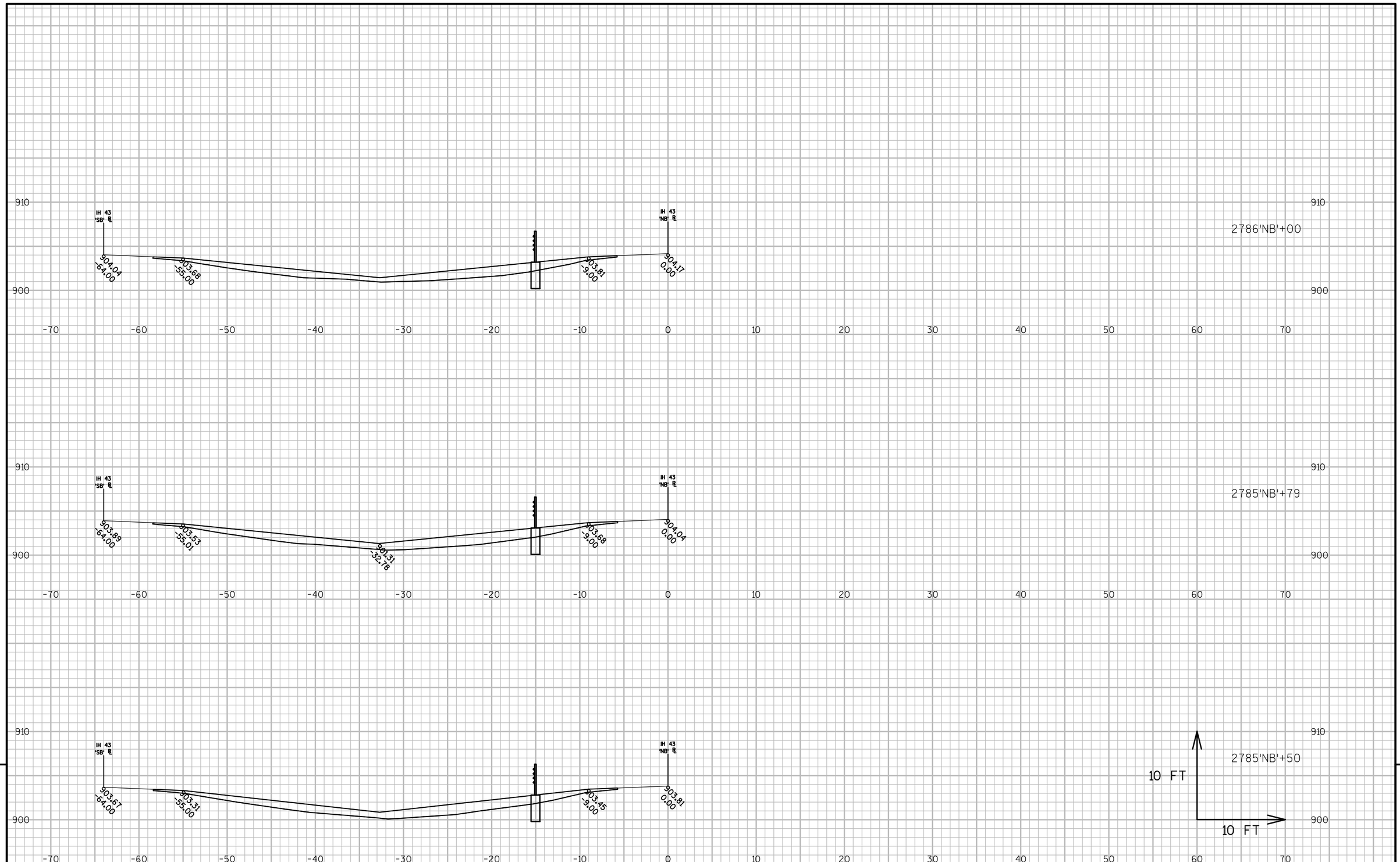
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 543	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090273_XS

PLOT DATE : 5/10/2016 8:17 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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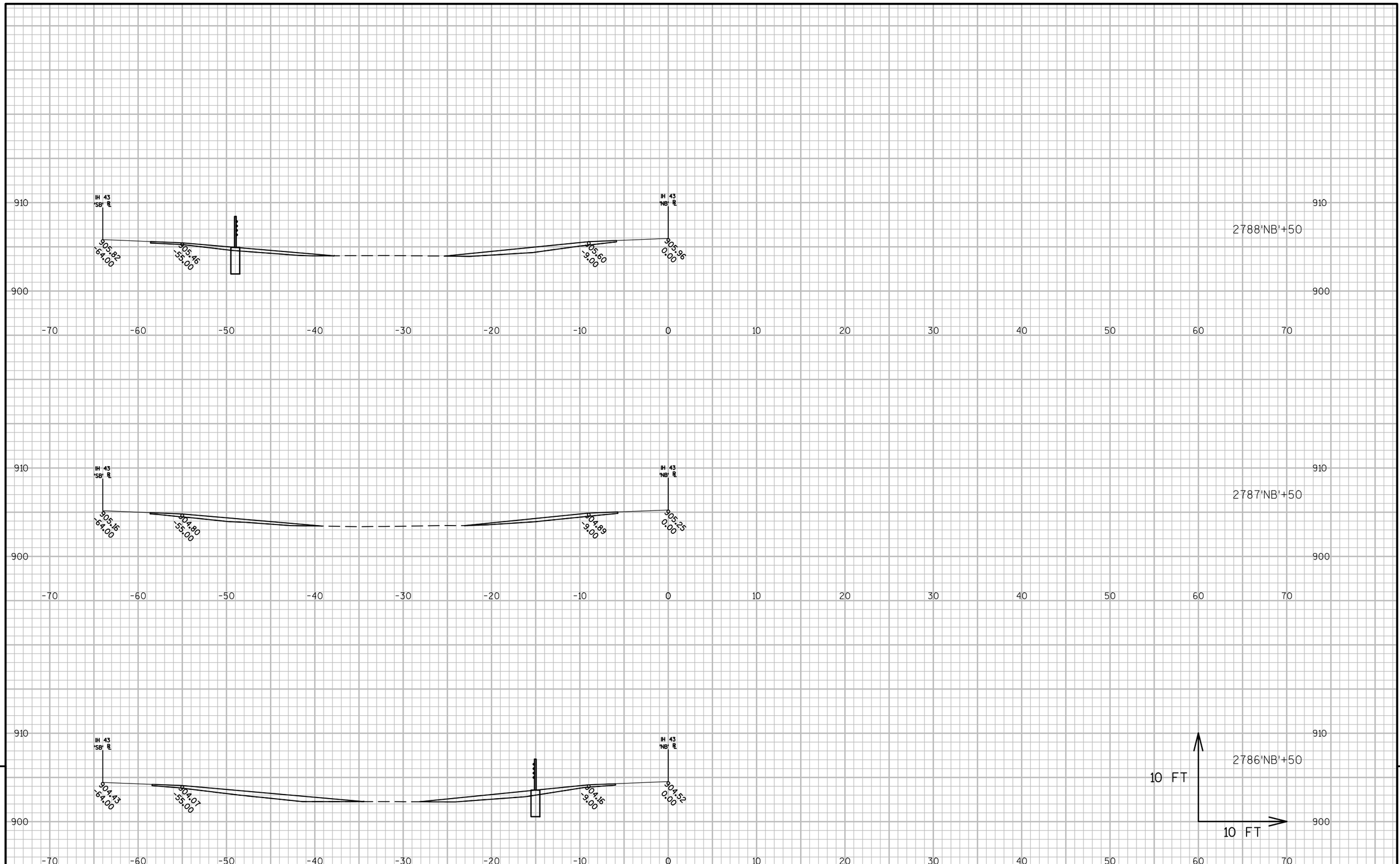
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 544	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090274_XS

PLOT DATE : 5/10/2016 8:17 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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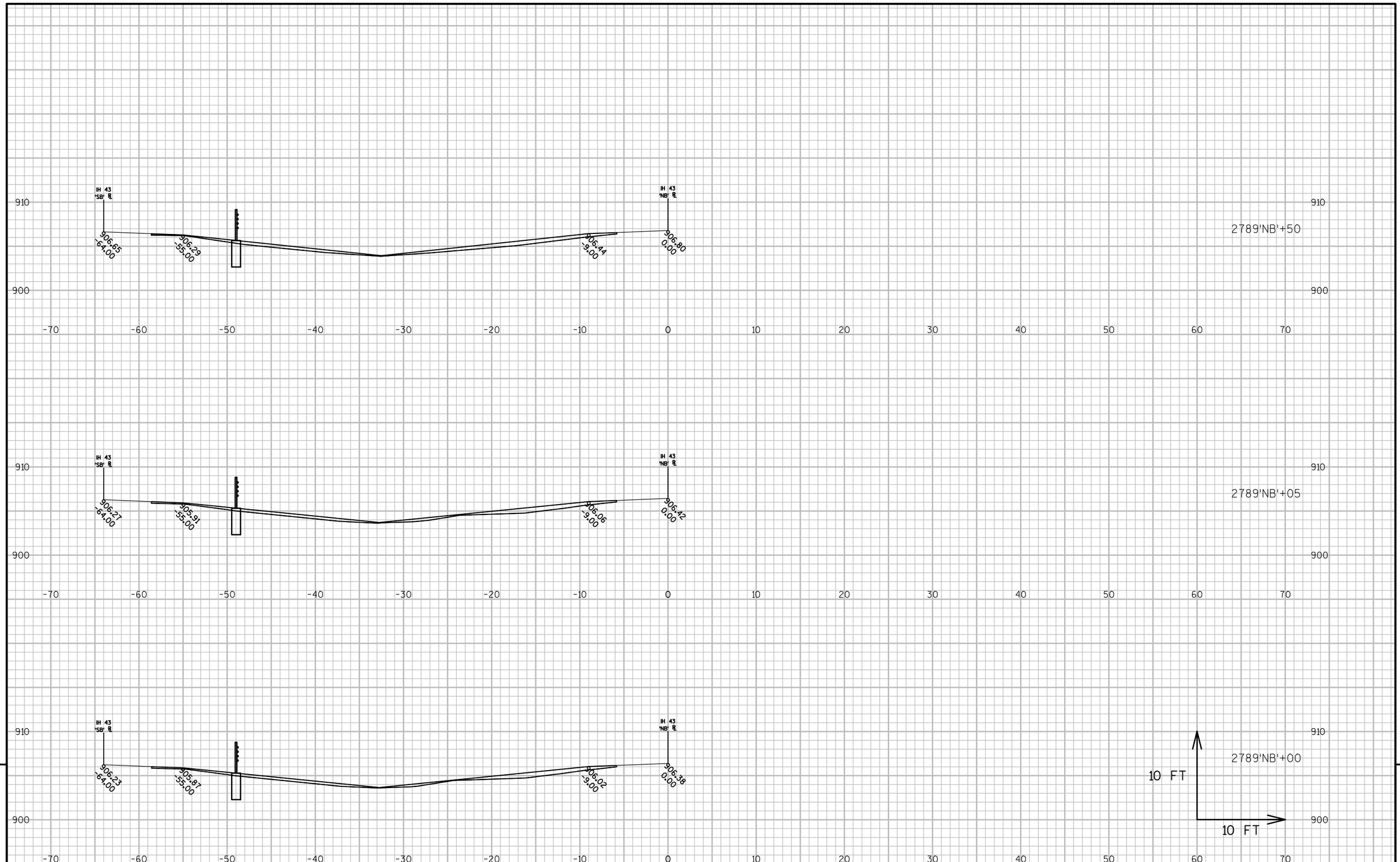
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 545	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090275_XS

PLOT DATE : 5/10/2016 8:18 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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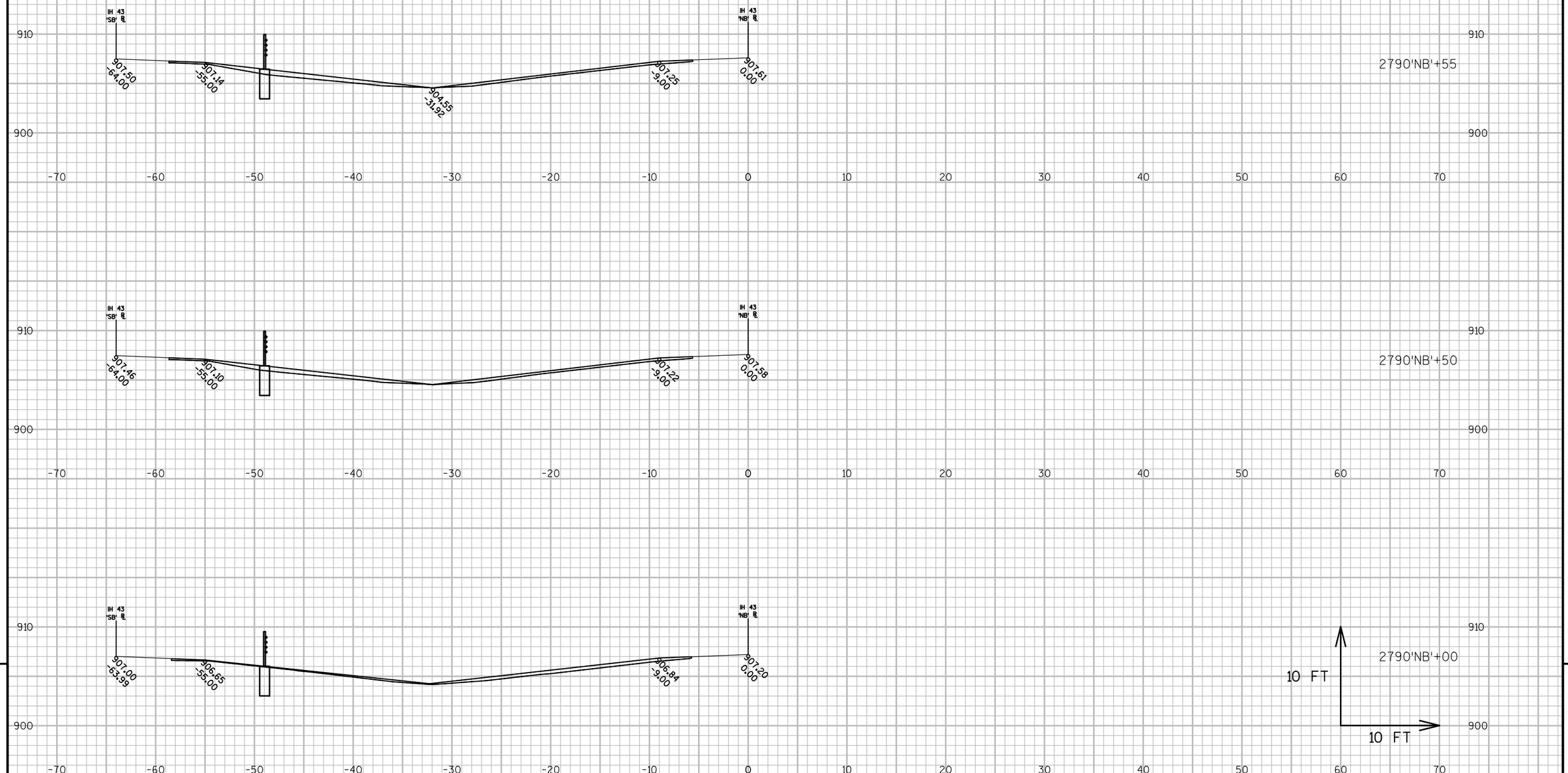
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 546	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090276_XS

PLOT DATE : 5/10/2016 8:18 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 547	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090277_XS

PLOT DATE : 5/10/2016 8:18 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

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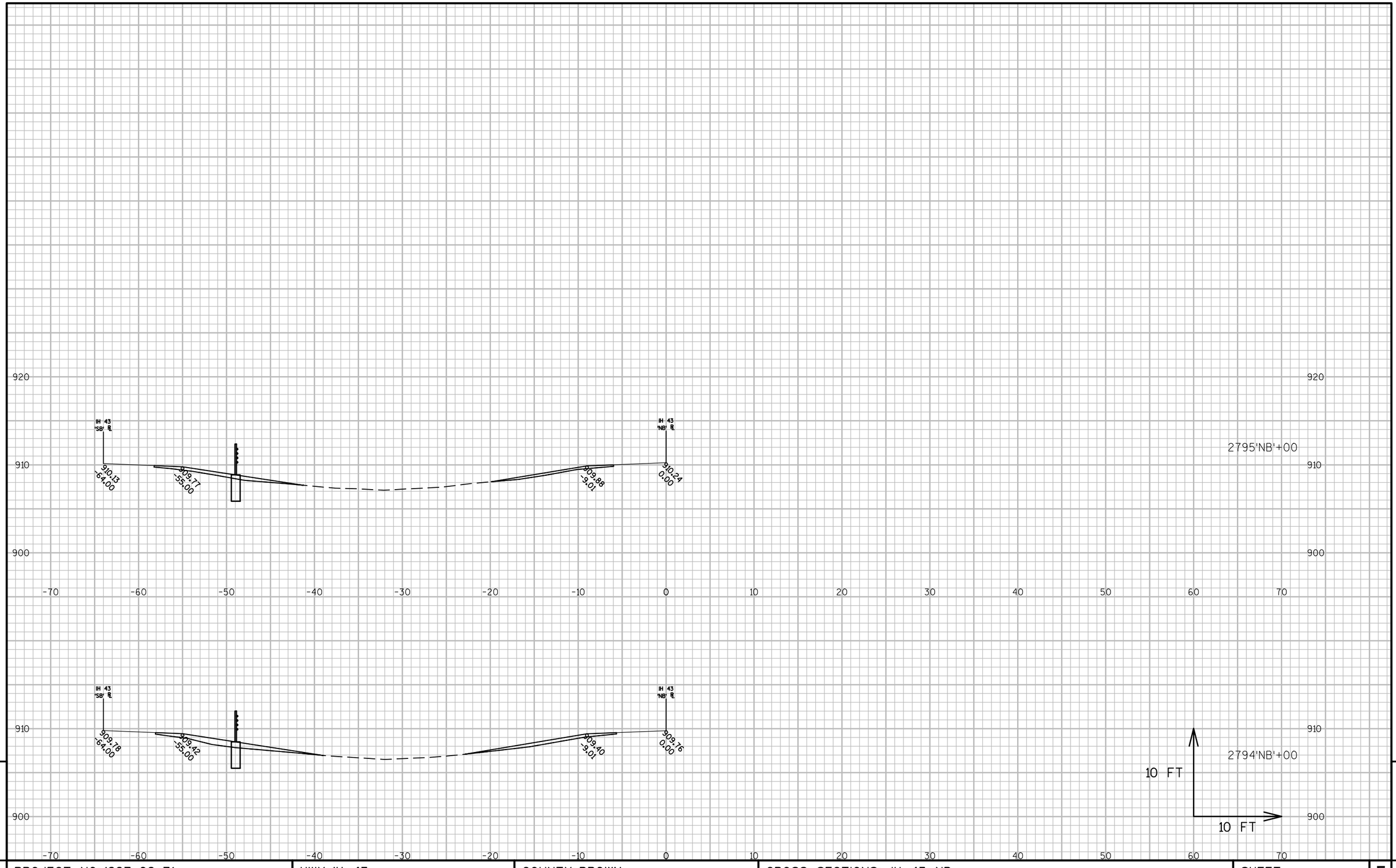
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 548	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090278_XS

PLOT DATE : 5/10/2016 8:18 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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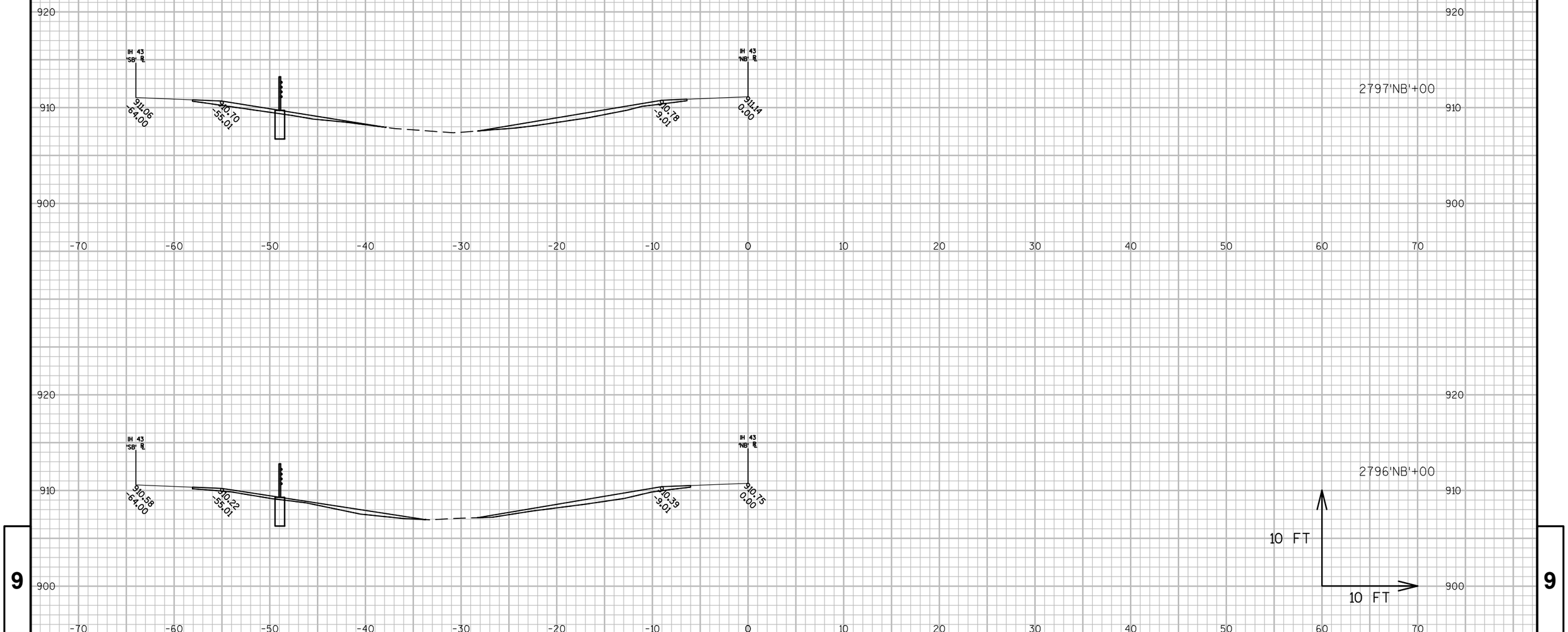
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 549	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090279_XS

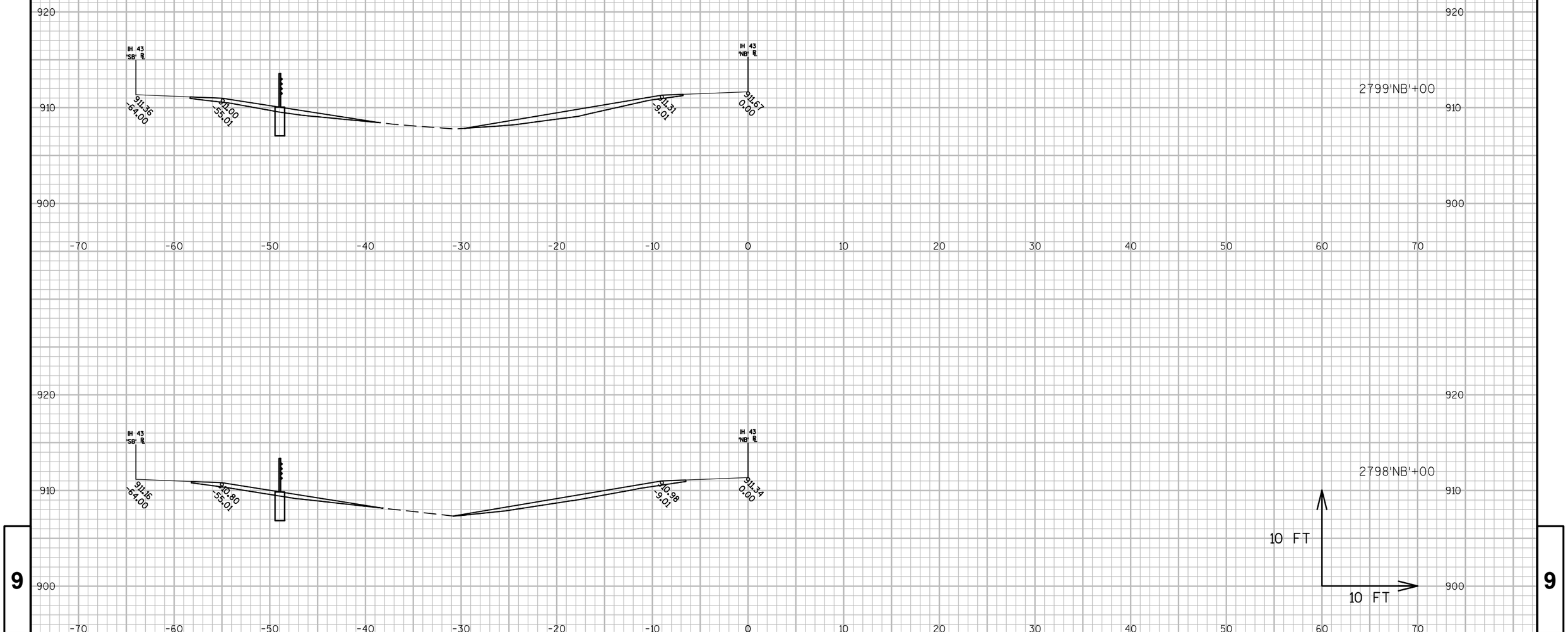
PLOT DATE : 5/10/2016 8:18 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 550	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090280_XS

PLOT DATE : 5/10/2016 8:18 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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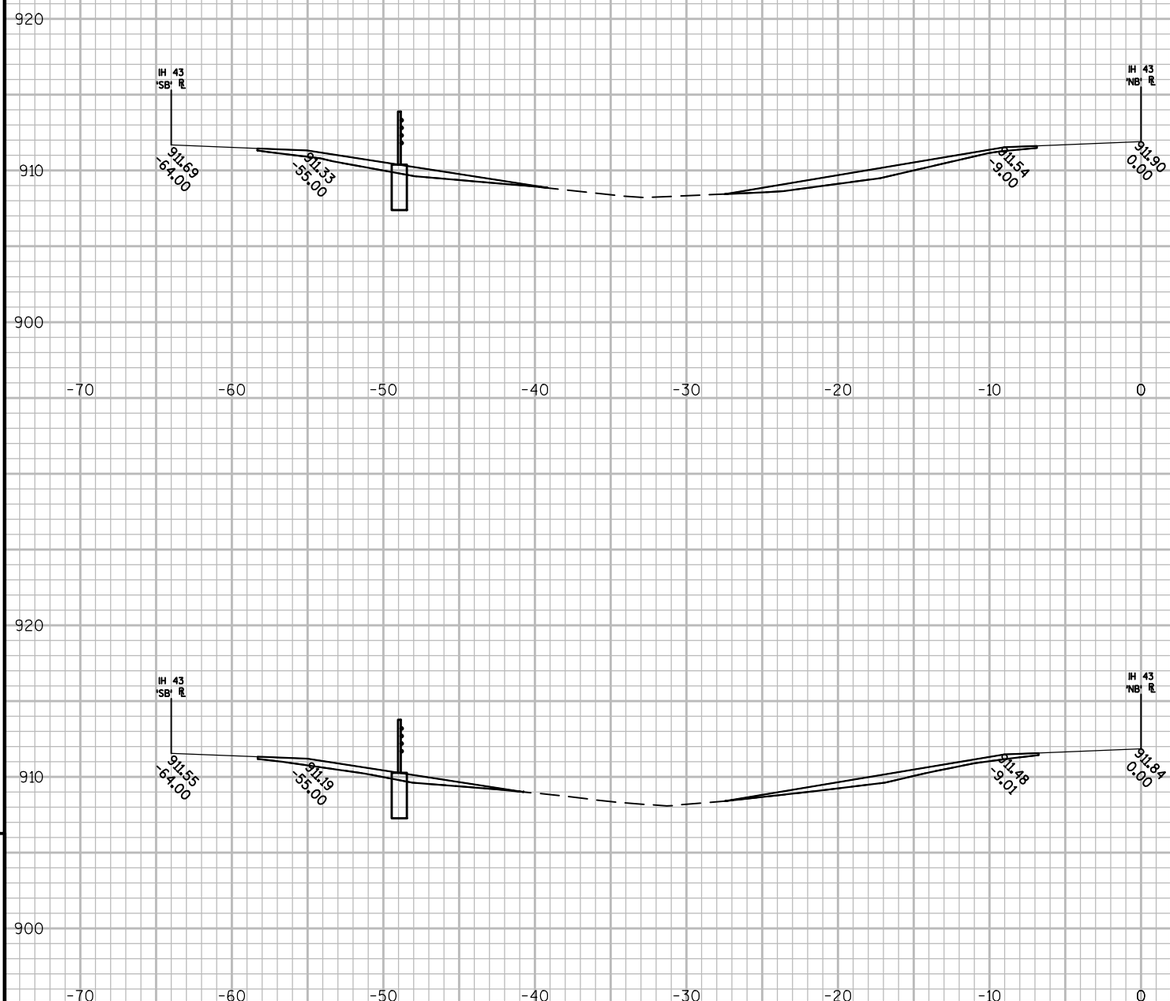
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 551	E

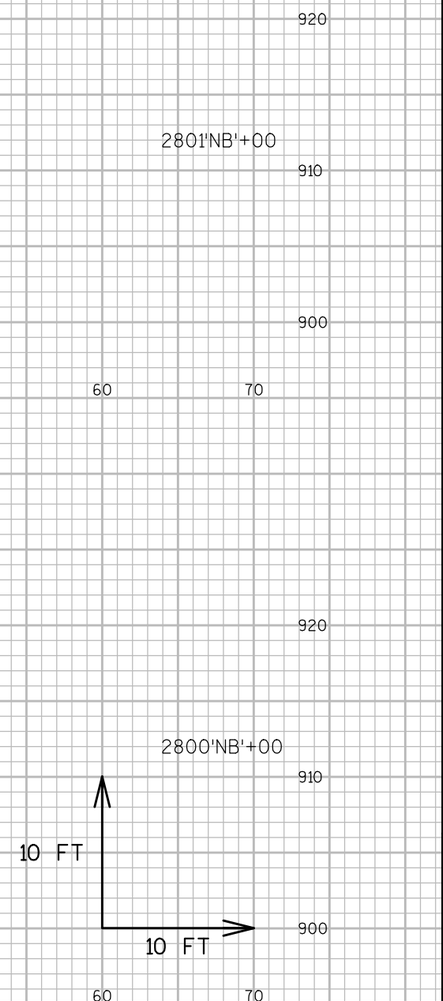
FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090281_XS

PLOT DATE : 5/10/2016 8:19 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49





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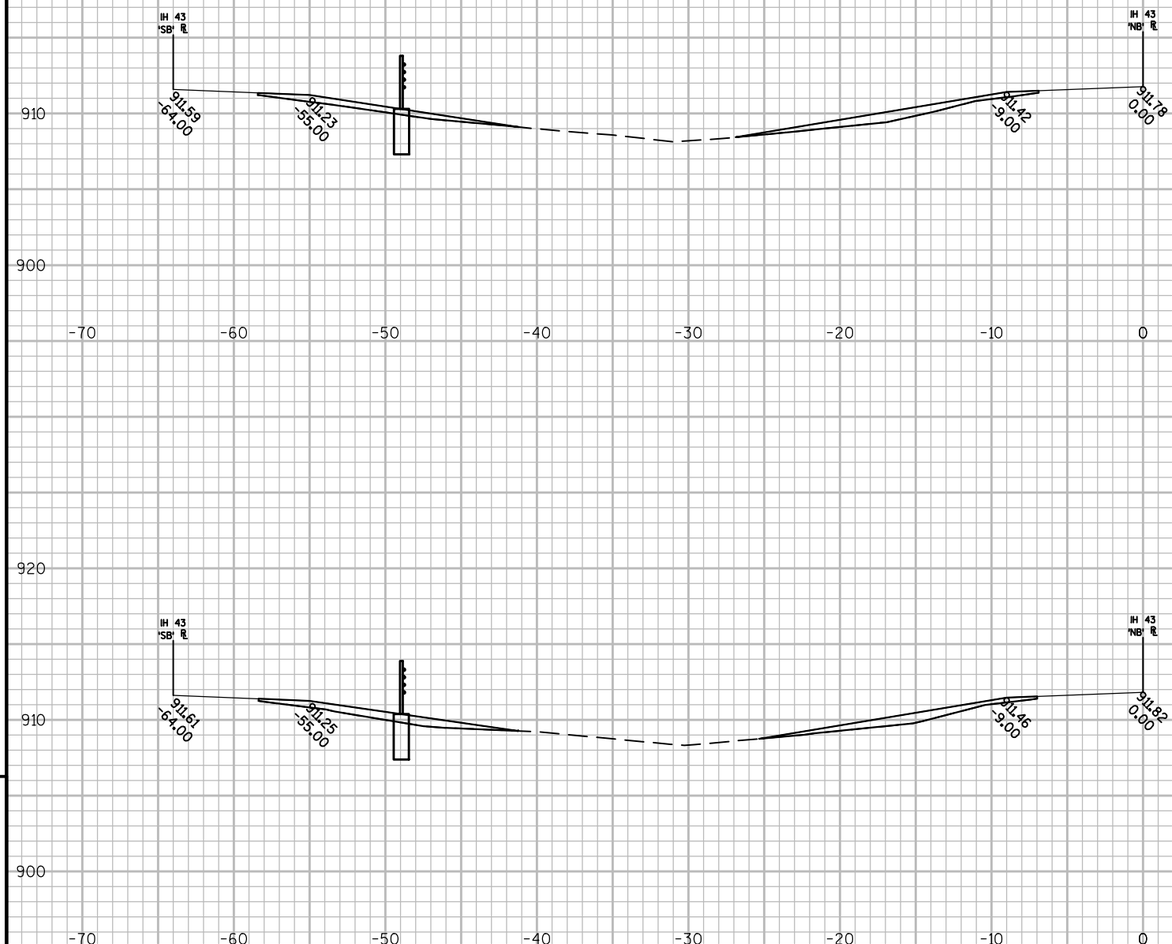
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 552	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090282_XS

PLOT DATE : 5/10/2016 8:19 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



2803'NB'+00

2802'NB'+00

10 FT

10 FT

9

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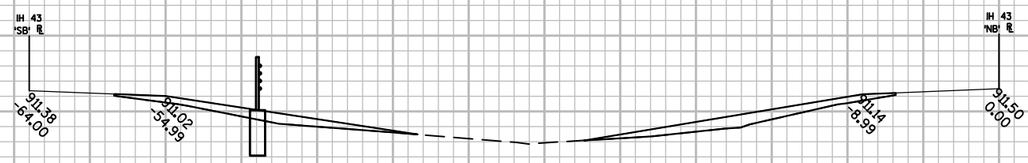
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 553	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090283_XS

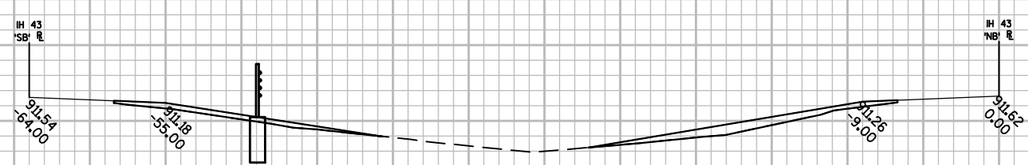
PLOT DATE : 5/10/2016 8:19 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



2805'NB'+00



2804'NB'+00

10 FT

10 FT

9

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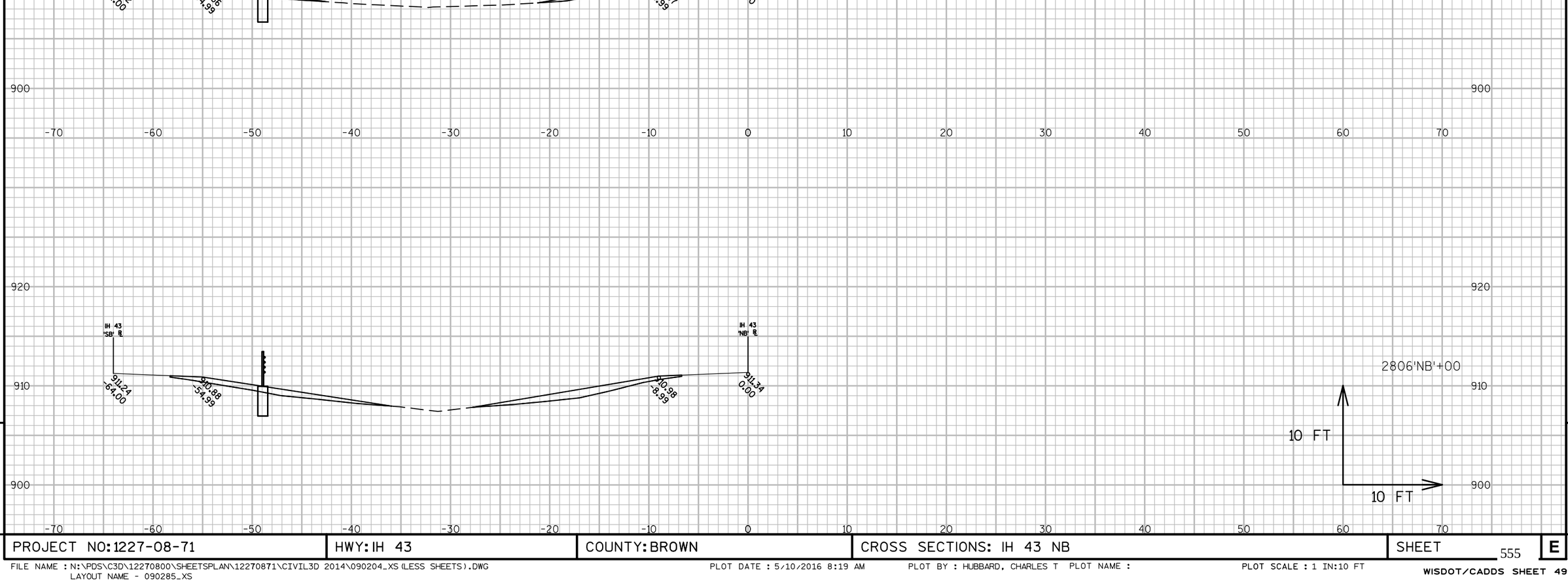
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 554	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090284_XS

PLOT DATE : 5/10/2016 8:19 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



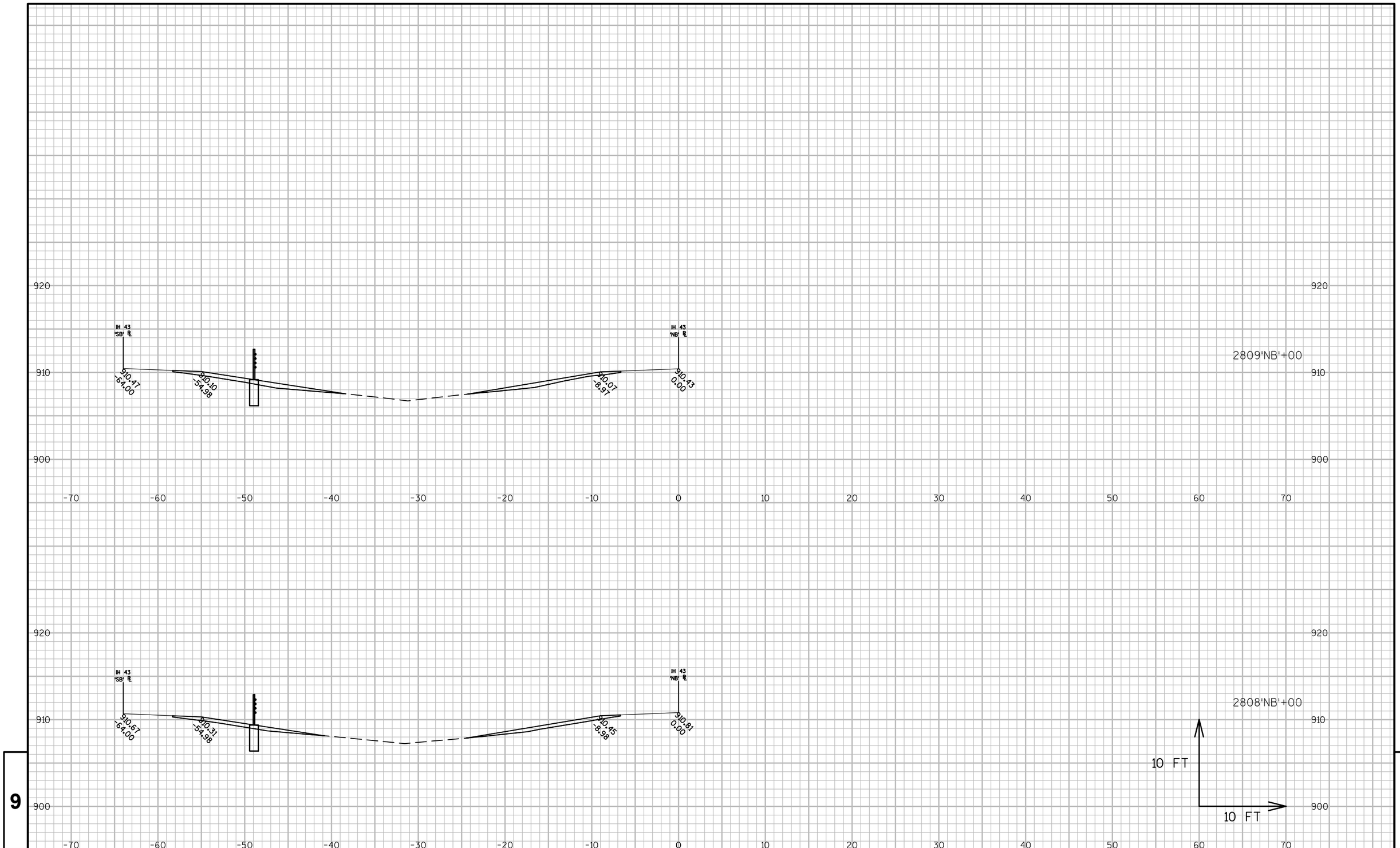
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 555	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090285_XS

PLOT DATE : 5/10/2016 8:19 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

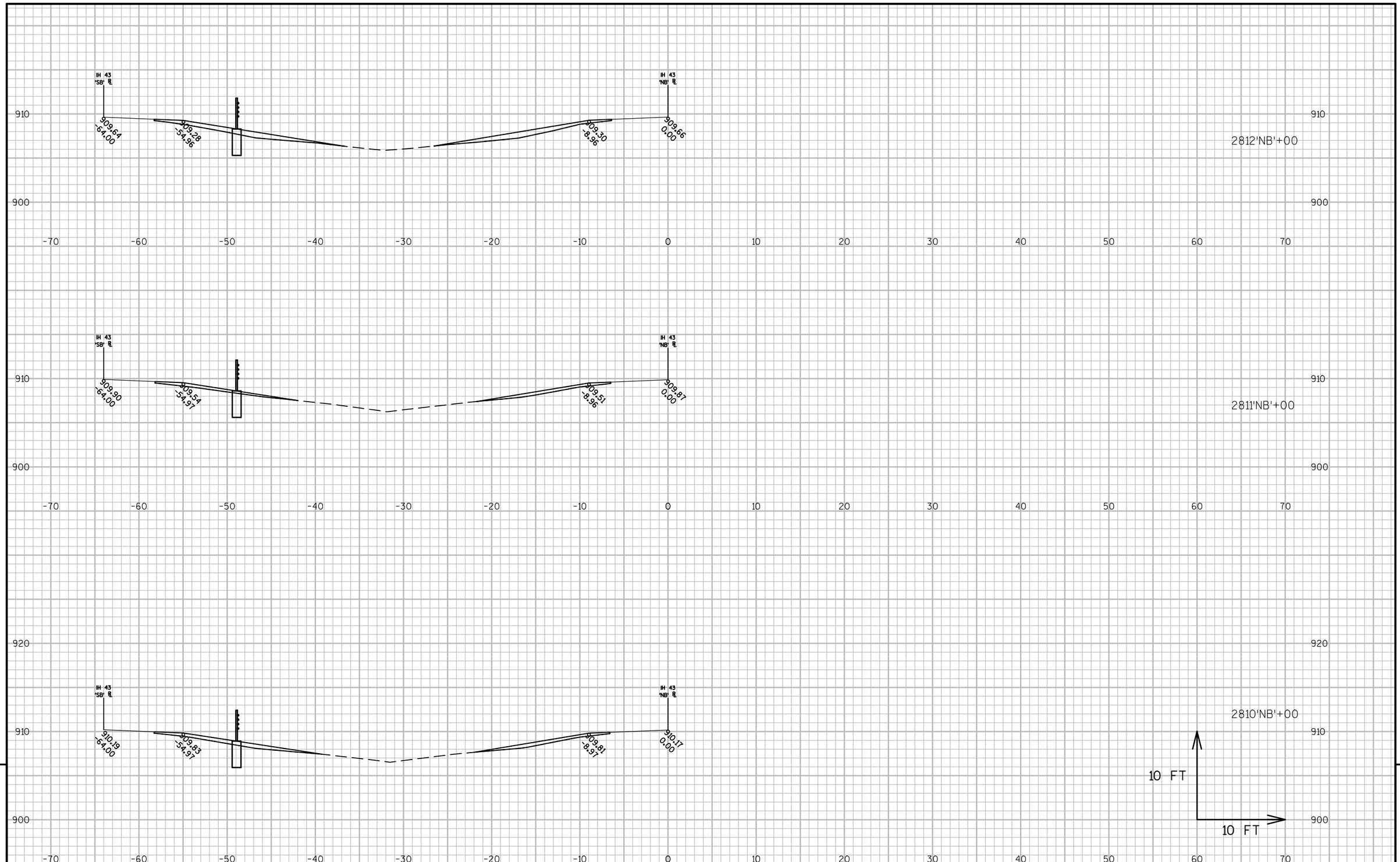


PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 556	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090286_XS

PLOT DATE : 5/10/2016 8:20 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT



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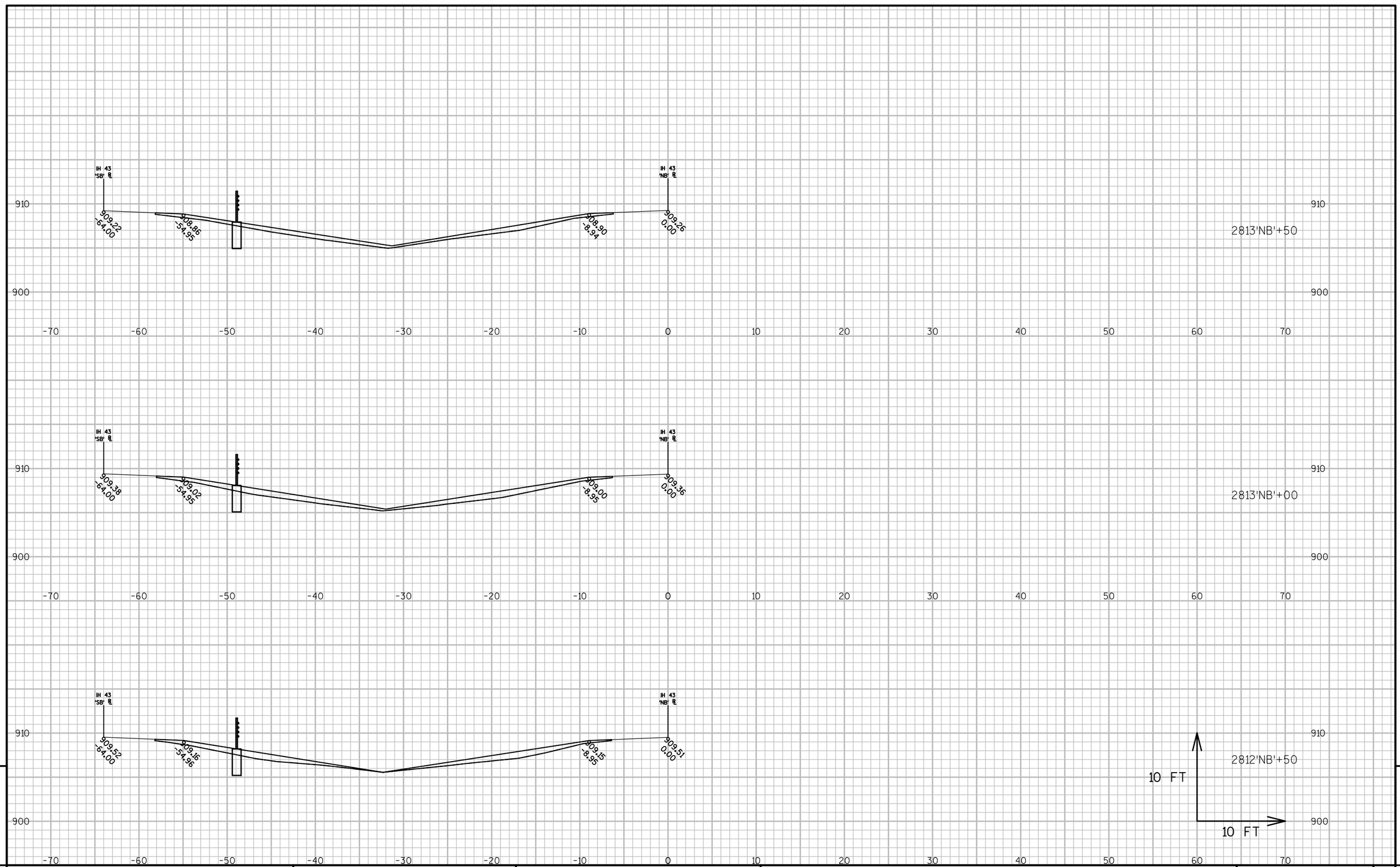
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 557	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090287_XS

PLOT DATE : 5/10/2016 8:20 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT



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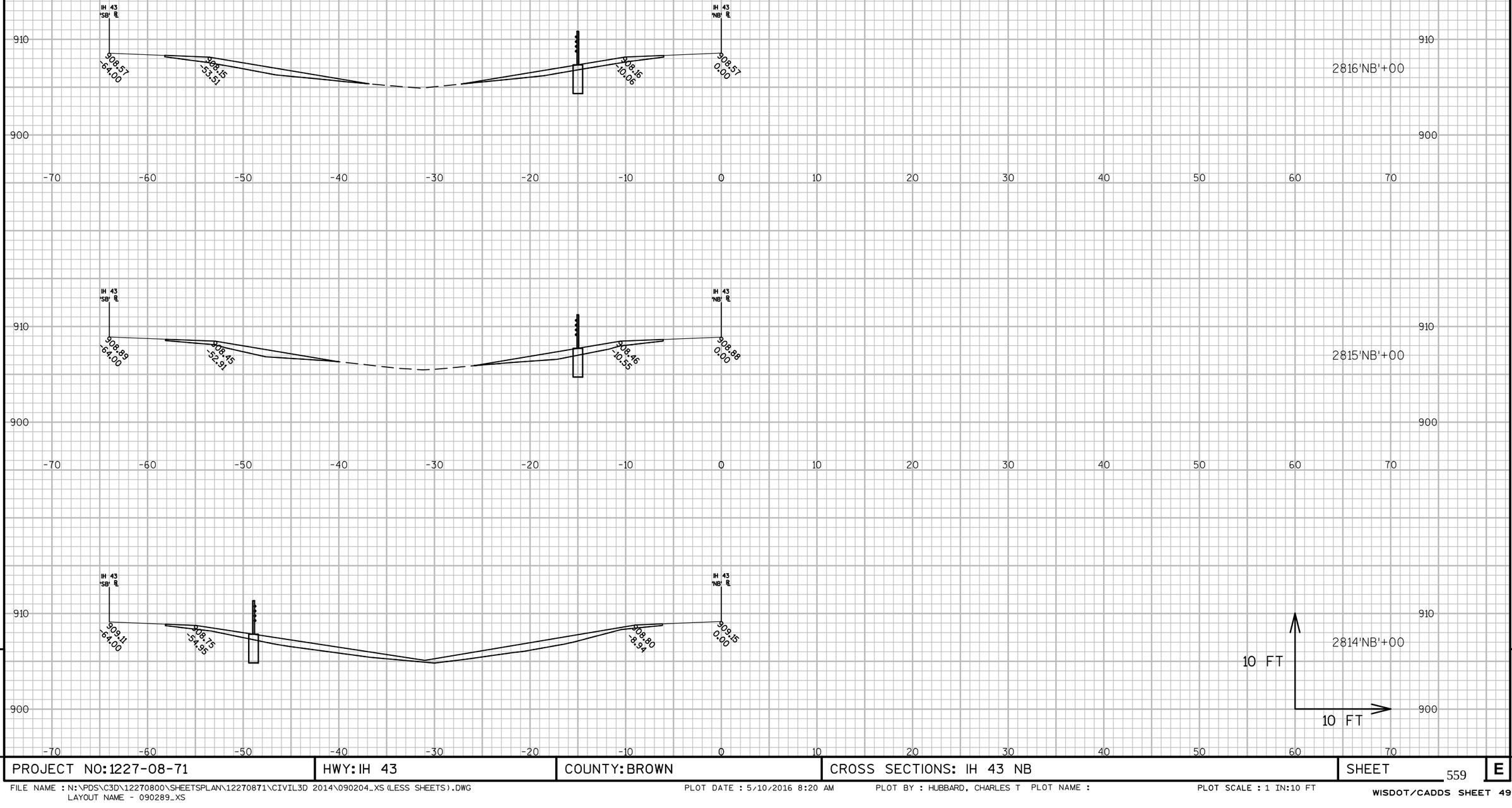
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 558	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090288_XS

PLOT DATE : 5/10/2016 8:20 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 559	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090289_XS

PLOT DATE : 5/10/2016 8:20 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

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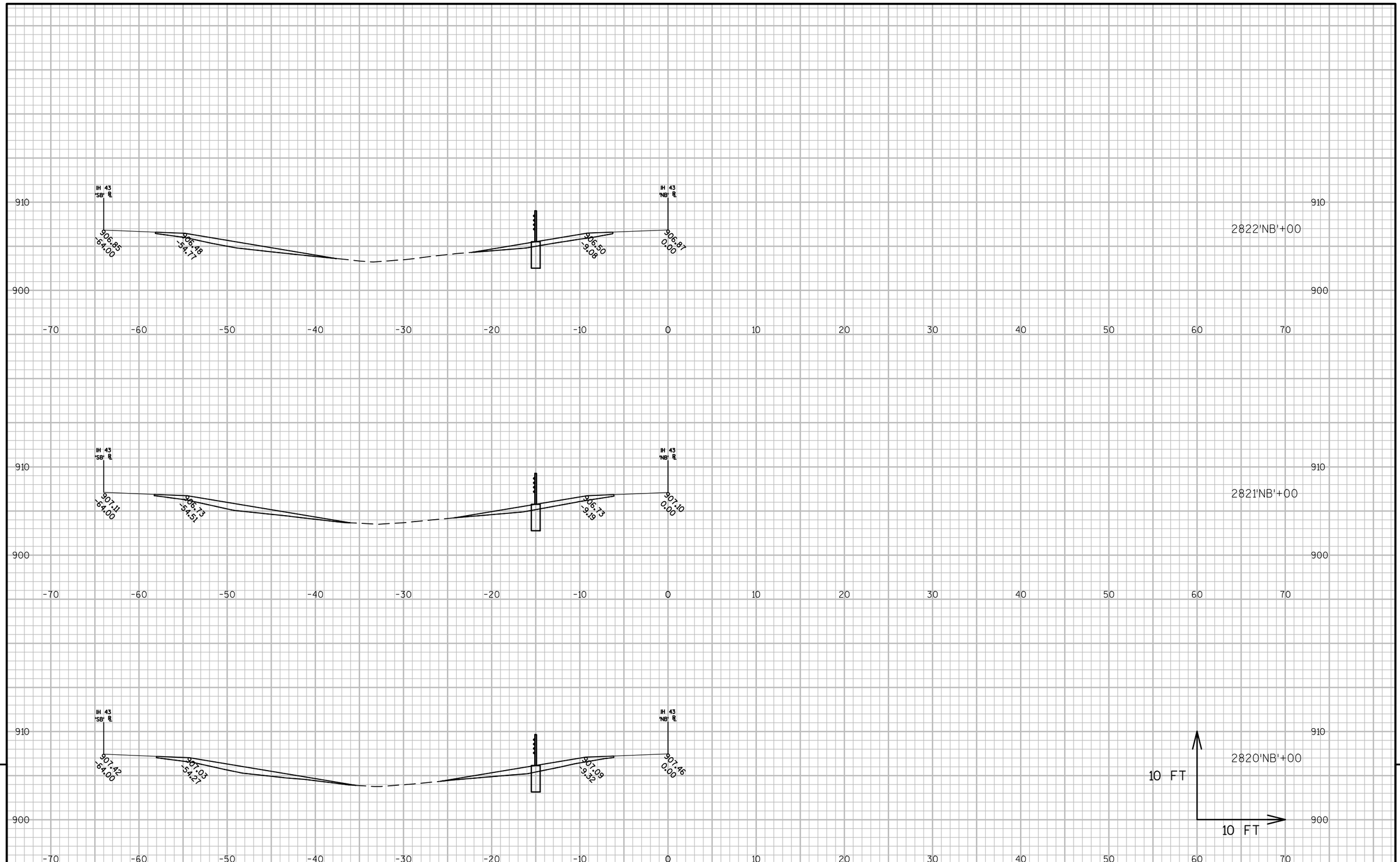
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 560	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090290_XS

PLOT DATE : 5/10/2016 8:20 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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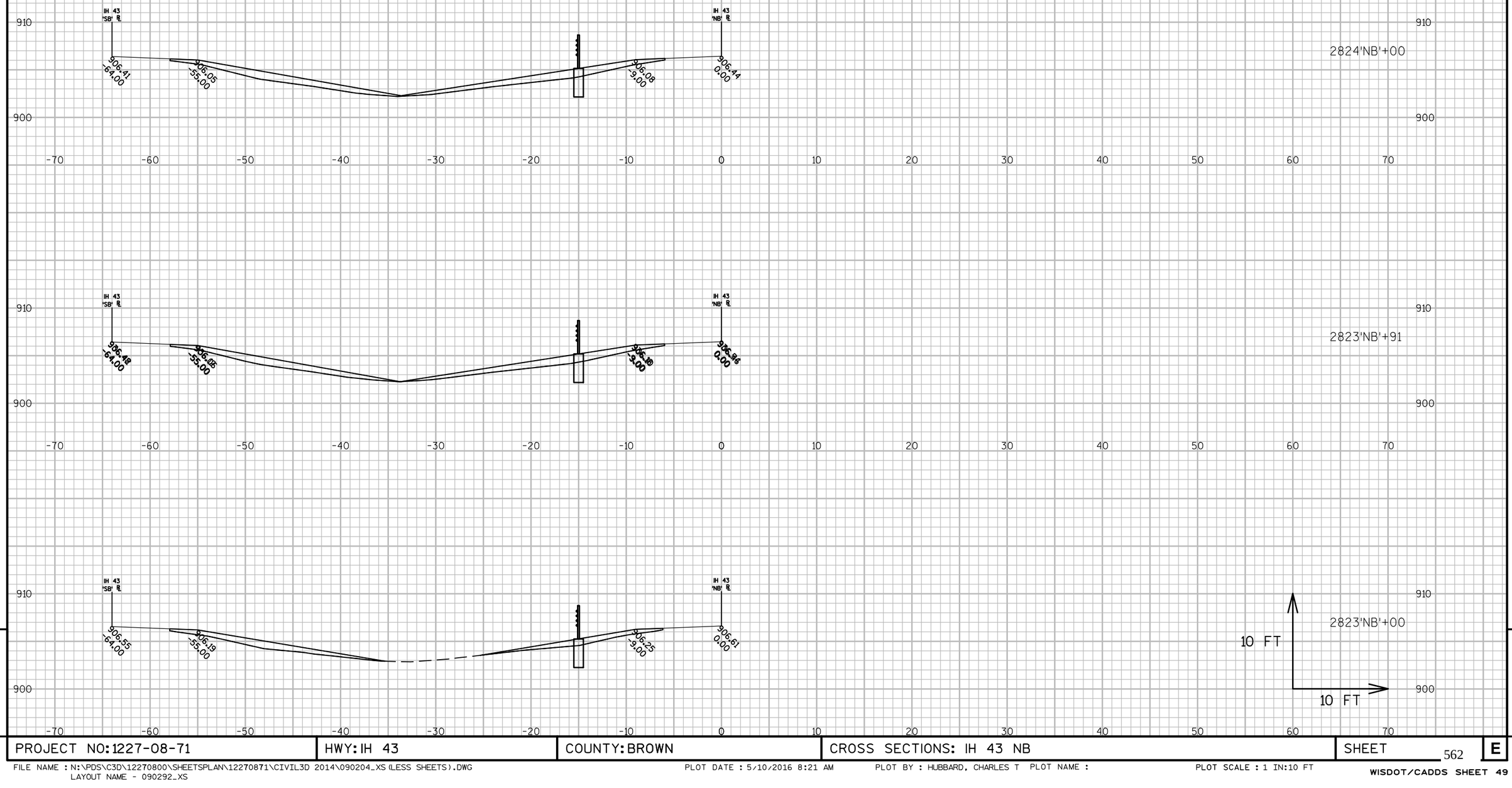
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 561	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090291_XS

PLOT DATE : 5/10/2016 8:20 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

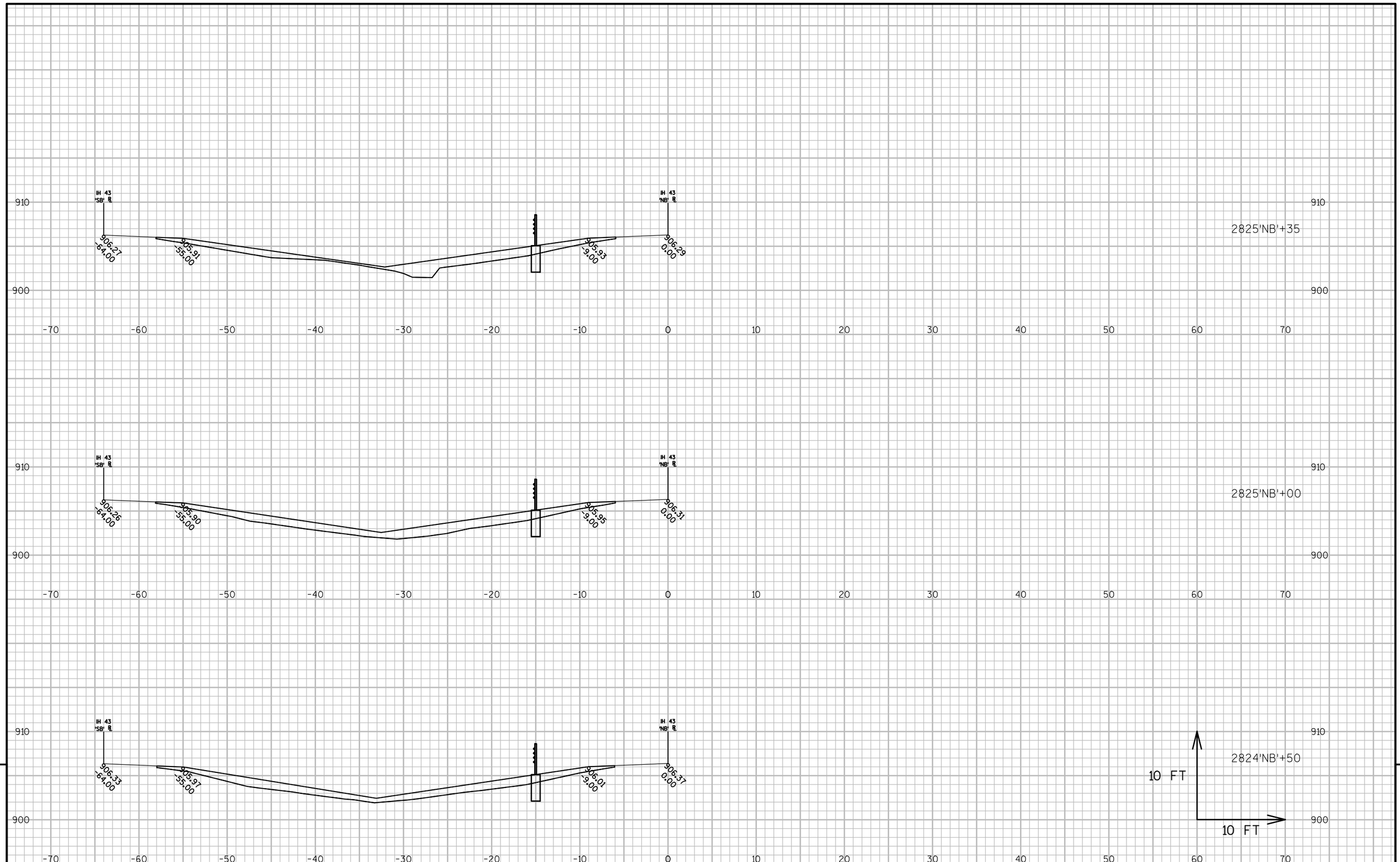


PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 562	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090292_XS

PLOT DATE : 5/10/2016 8:21 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

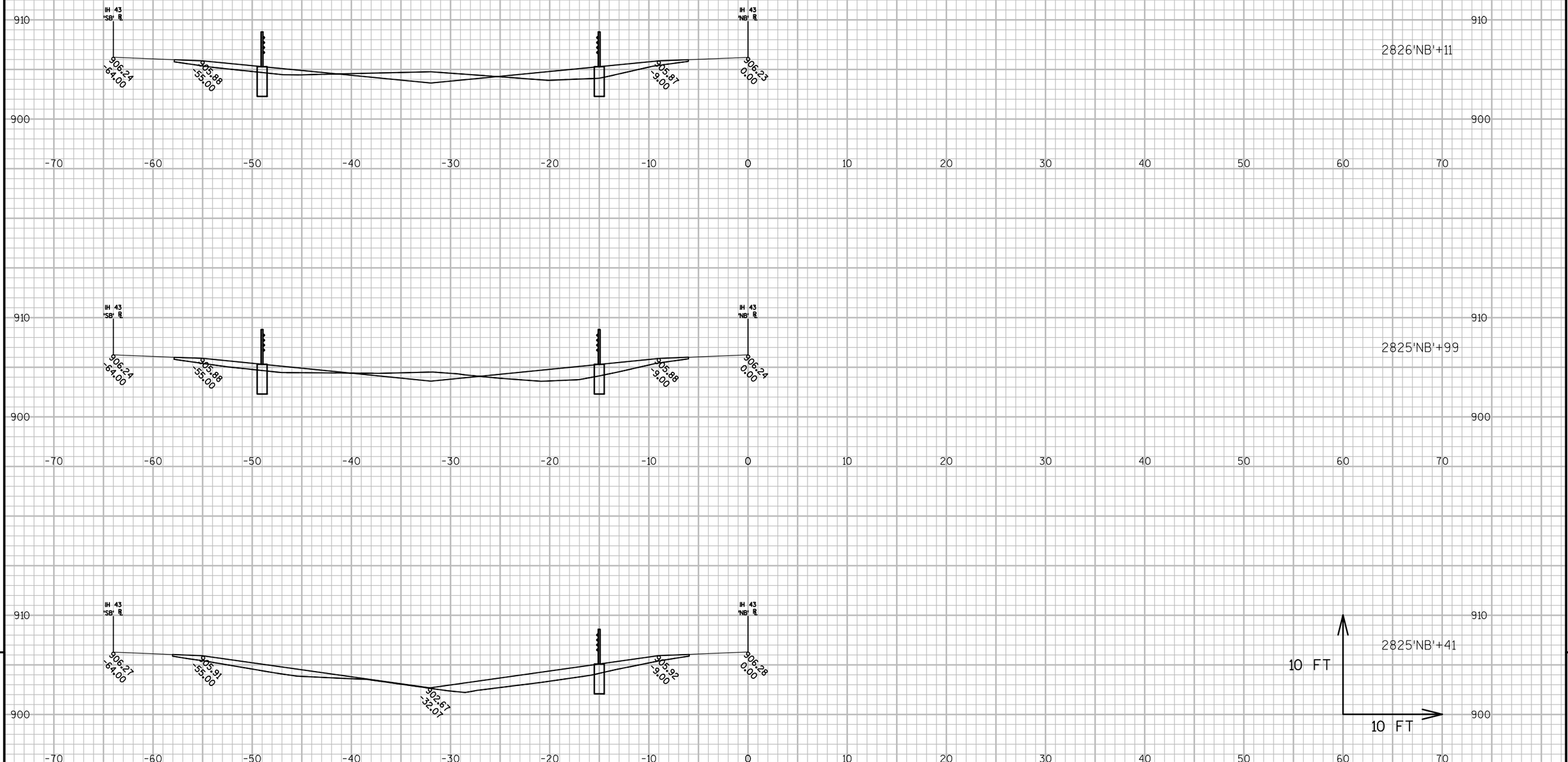
WISDOT/CADDS SHEET 49



PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 563	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090293_XS

PLOT DATE : 5/10/2016 8:21 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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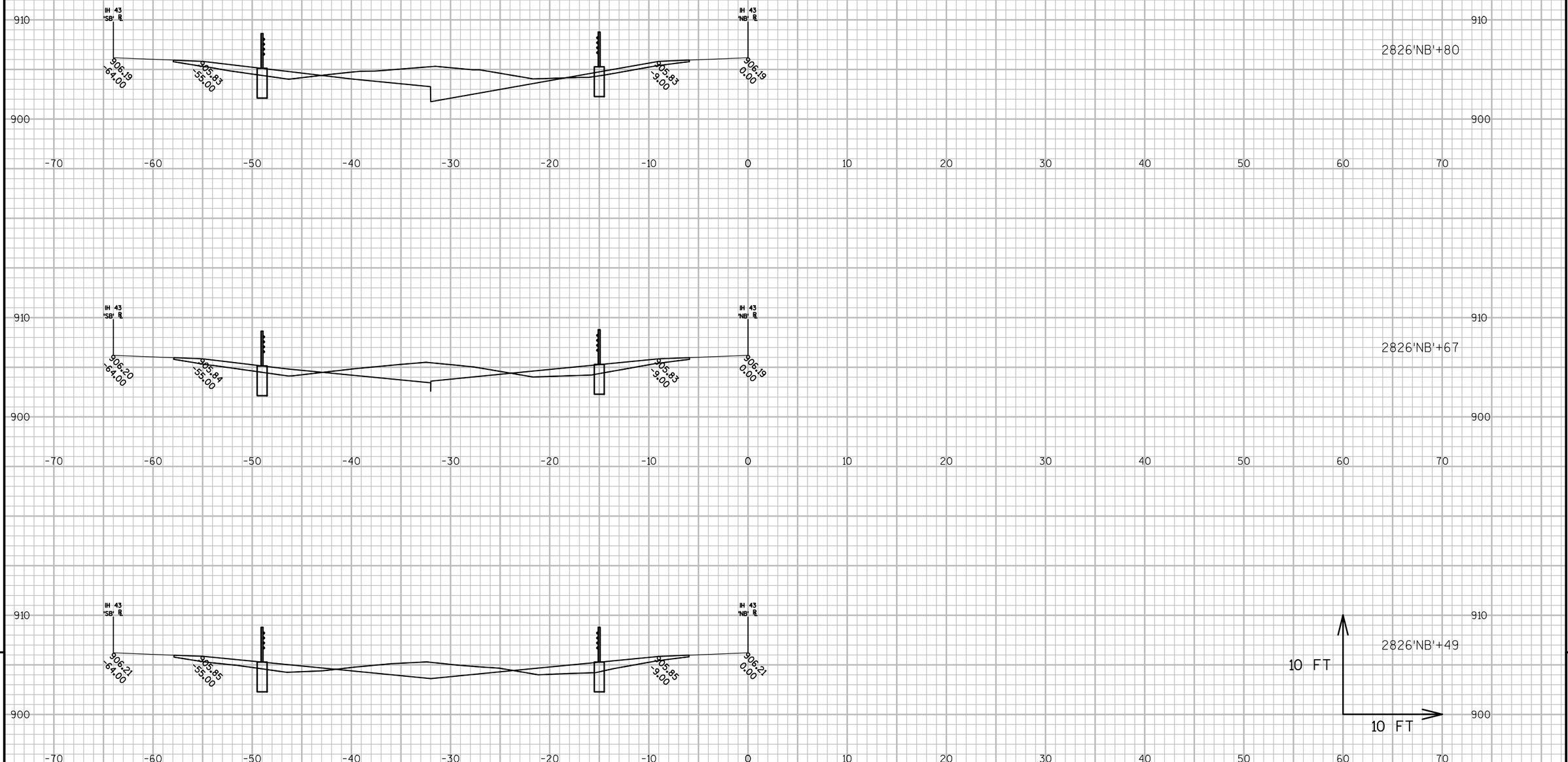
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 564	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090294_XS

PLOT DATE : 5/10/2016 8:21 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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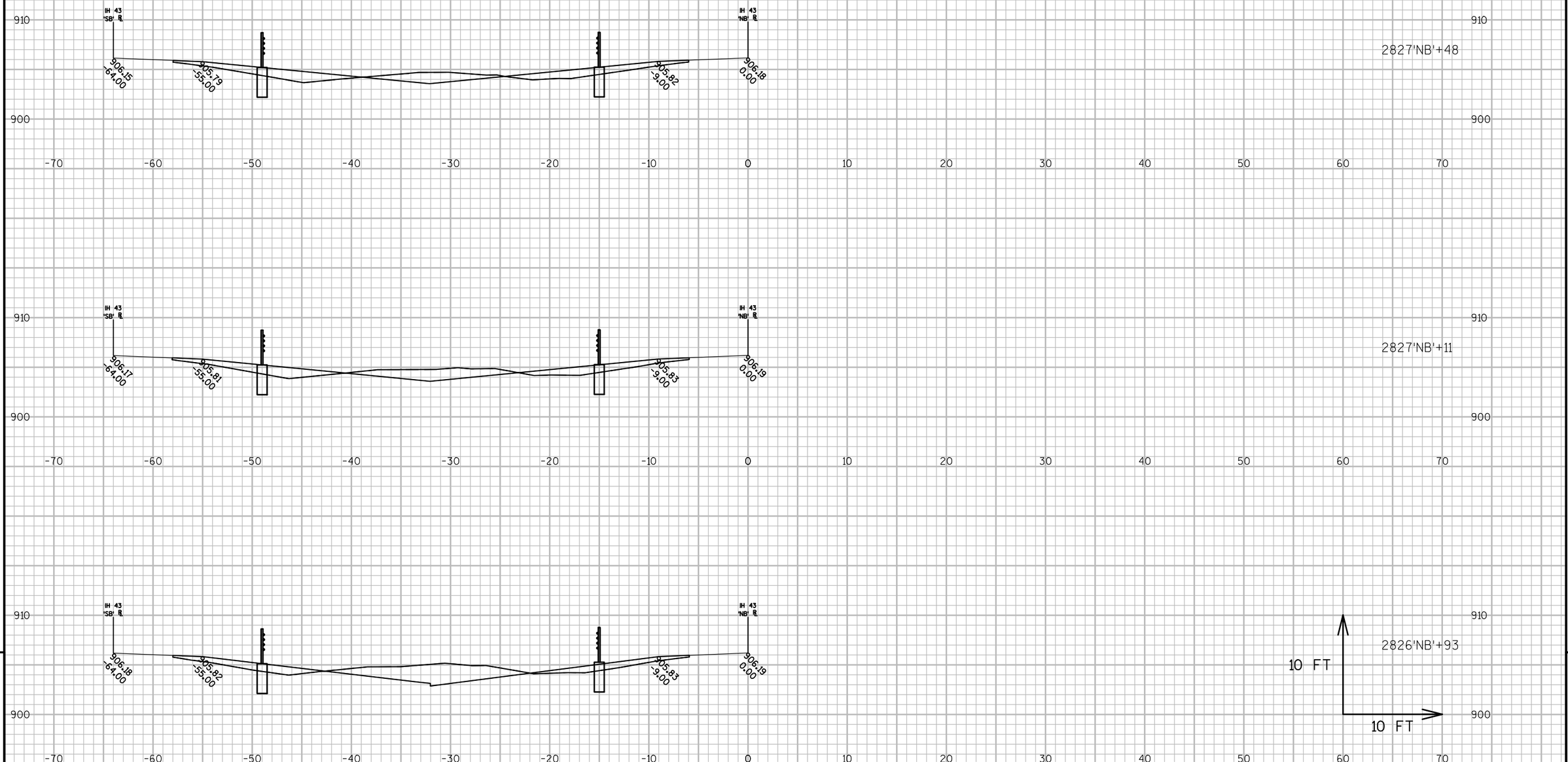
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 565	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090295_XS

PLOT DATE : 5/10/2016 8:21 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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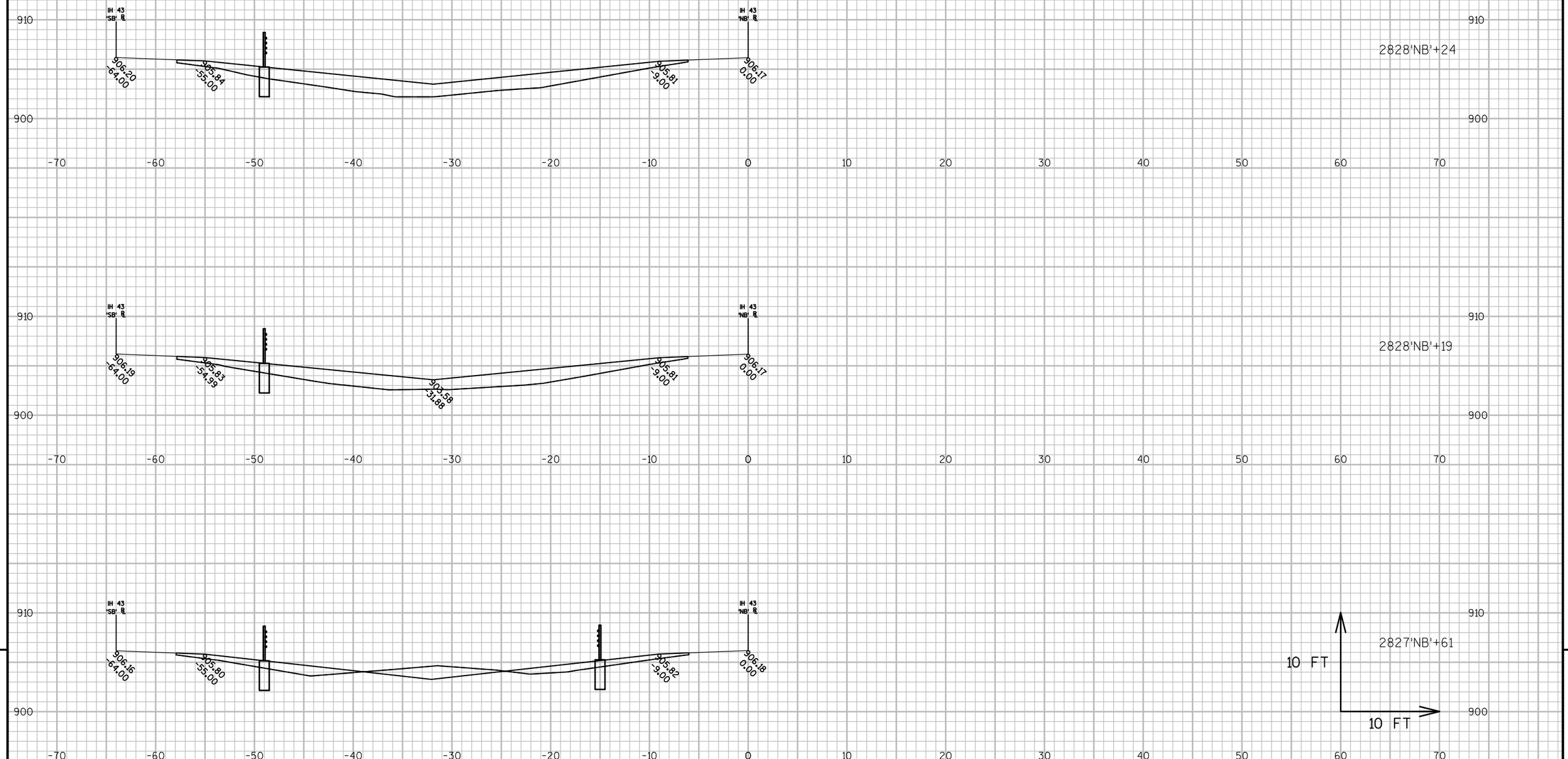
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 566	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090296_XS

PLOT DATE : 5/10/2016 8:21 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

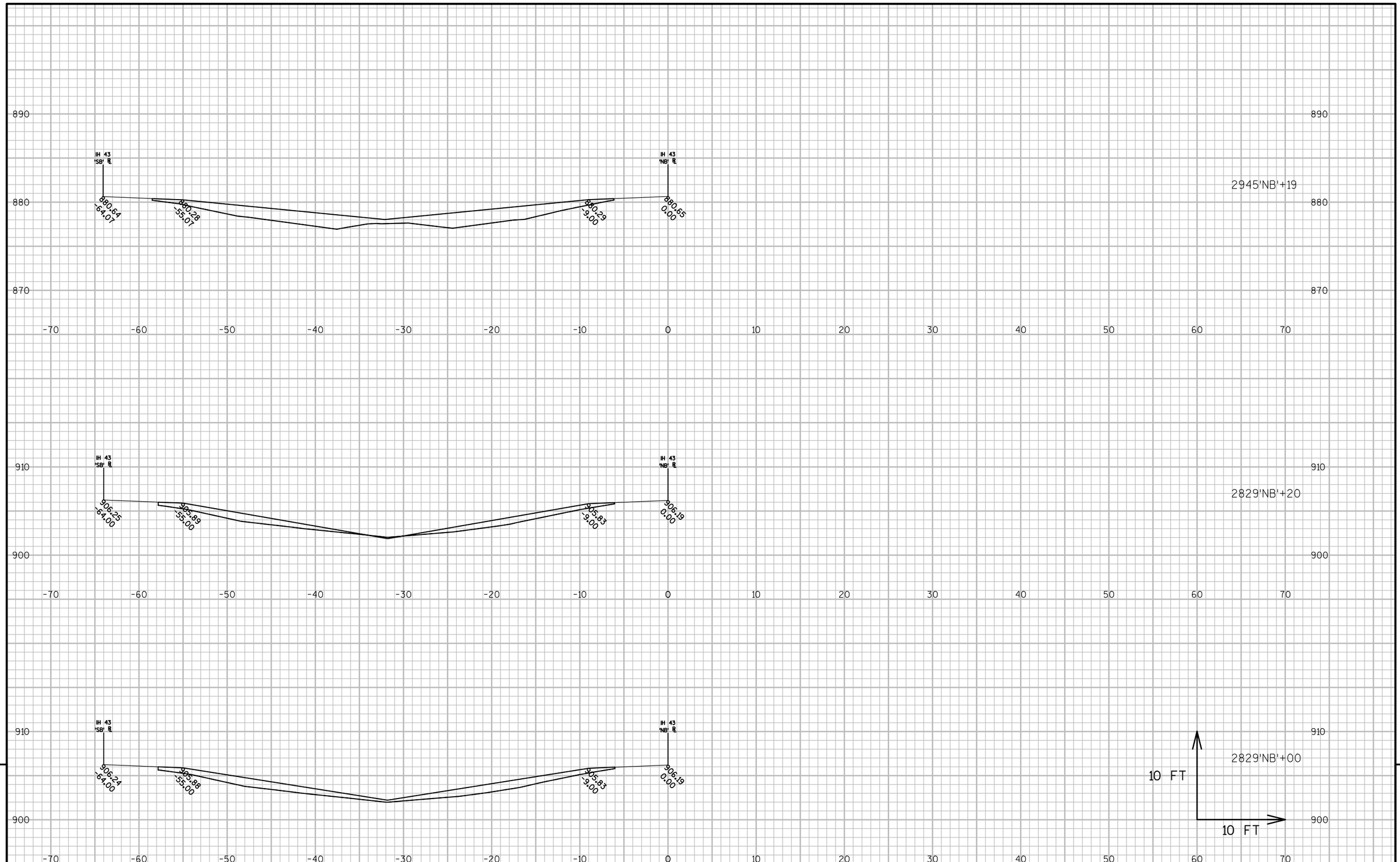


PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 567	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090297_XS

PLOT DATE : 5/10/2016 8:21 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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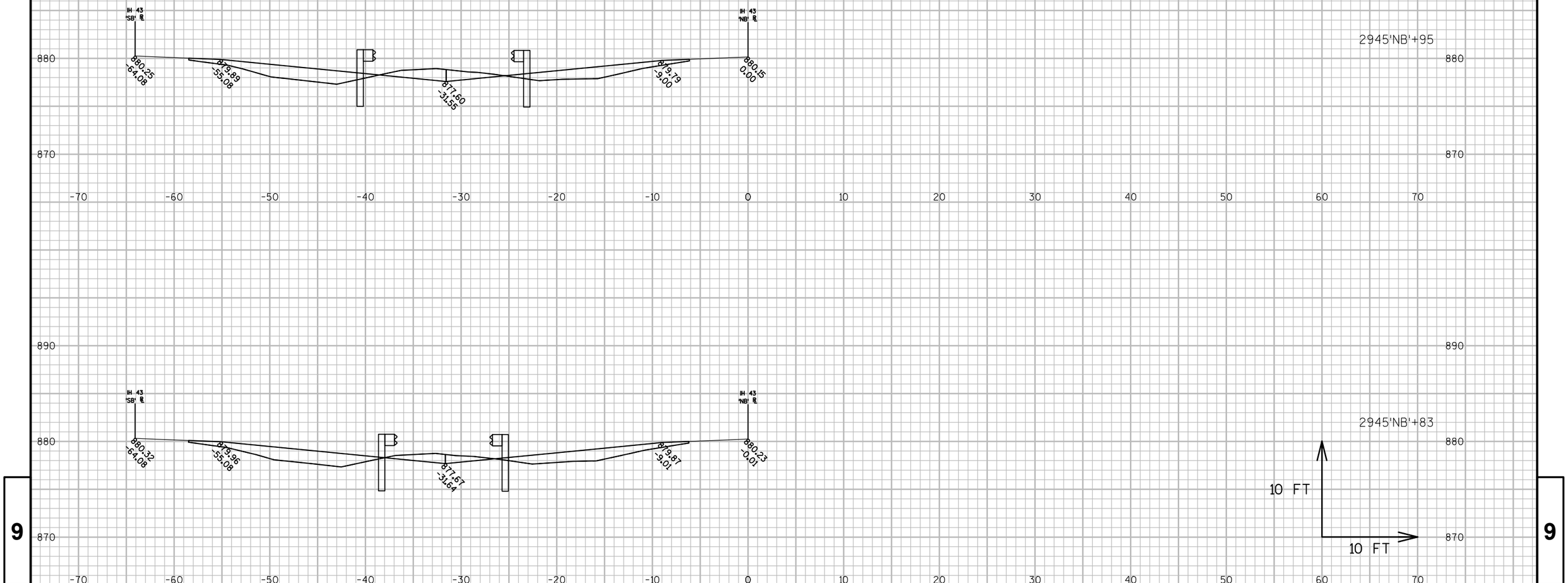
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 568	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090298_XS

PLOT DATE : 5/10/2016 8:22 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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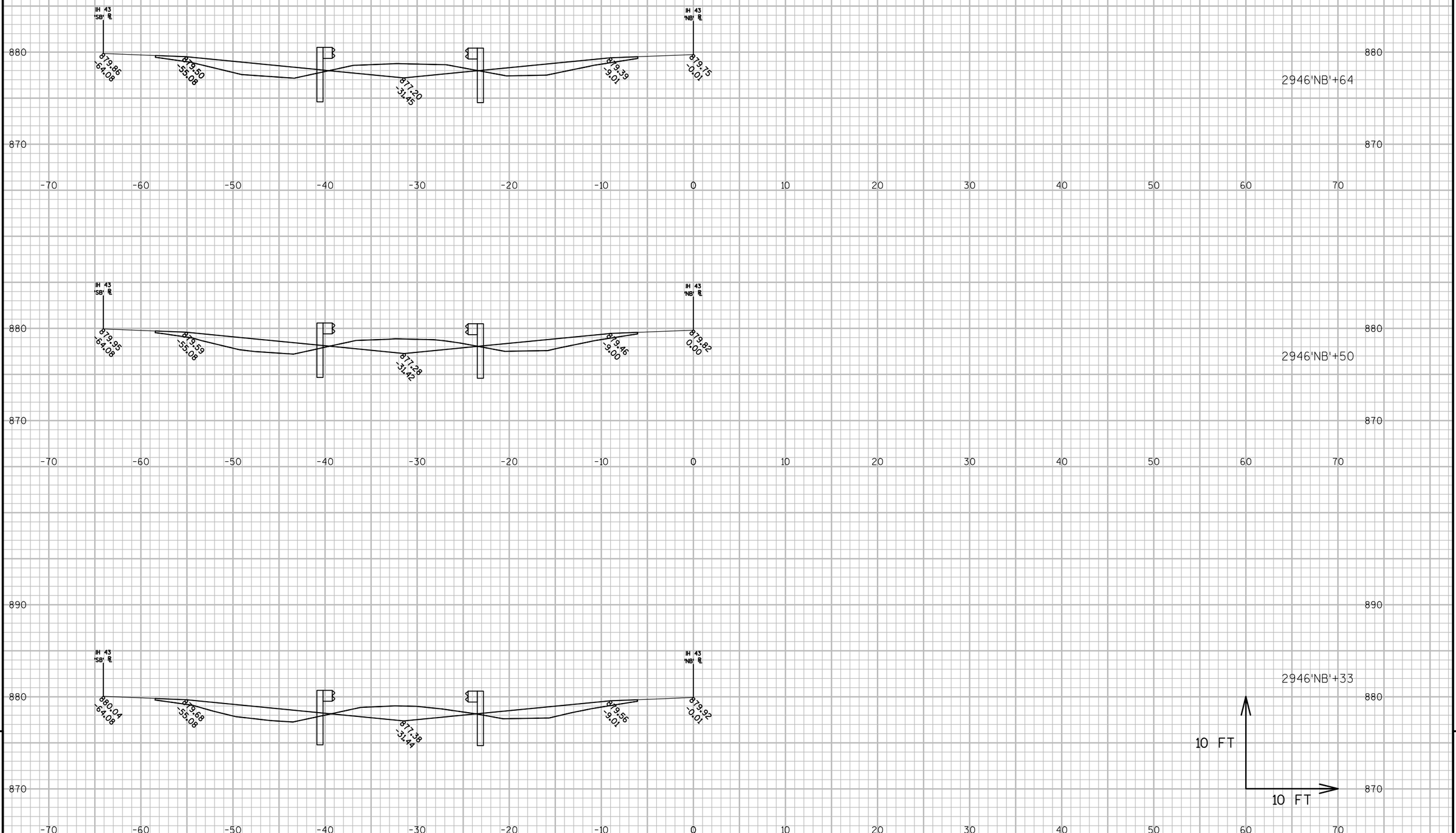
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 569	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 090299_XS

PLOT DATE : 5/10/2016 8:22 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT



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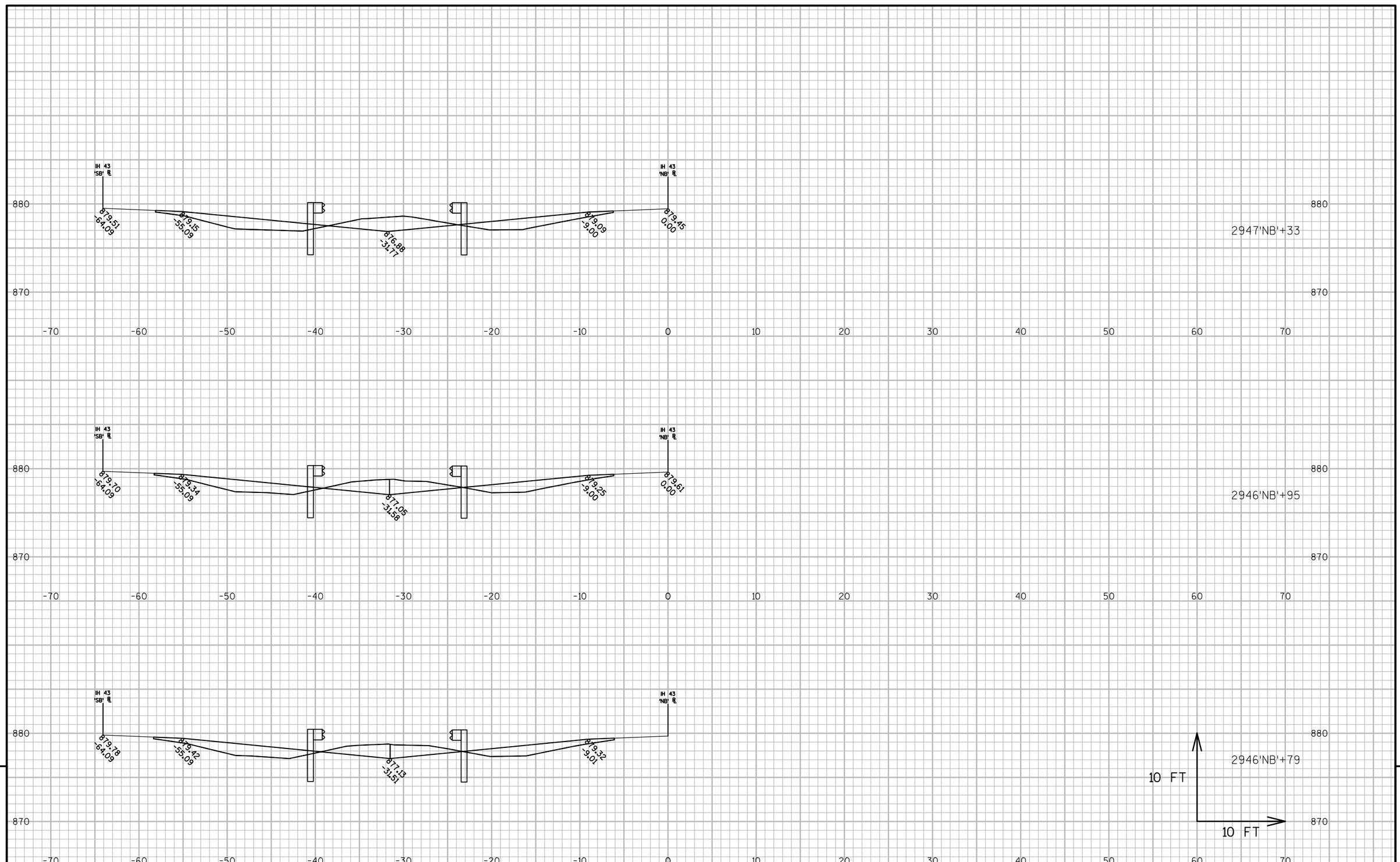
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 570	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 0902100_XS

PLOT DATE : 5/10/2016 8:22 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT



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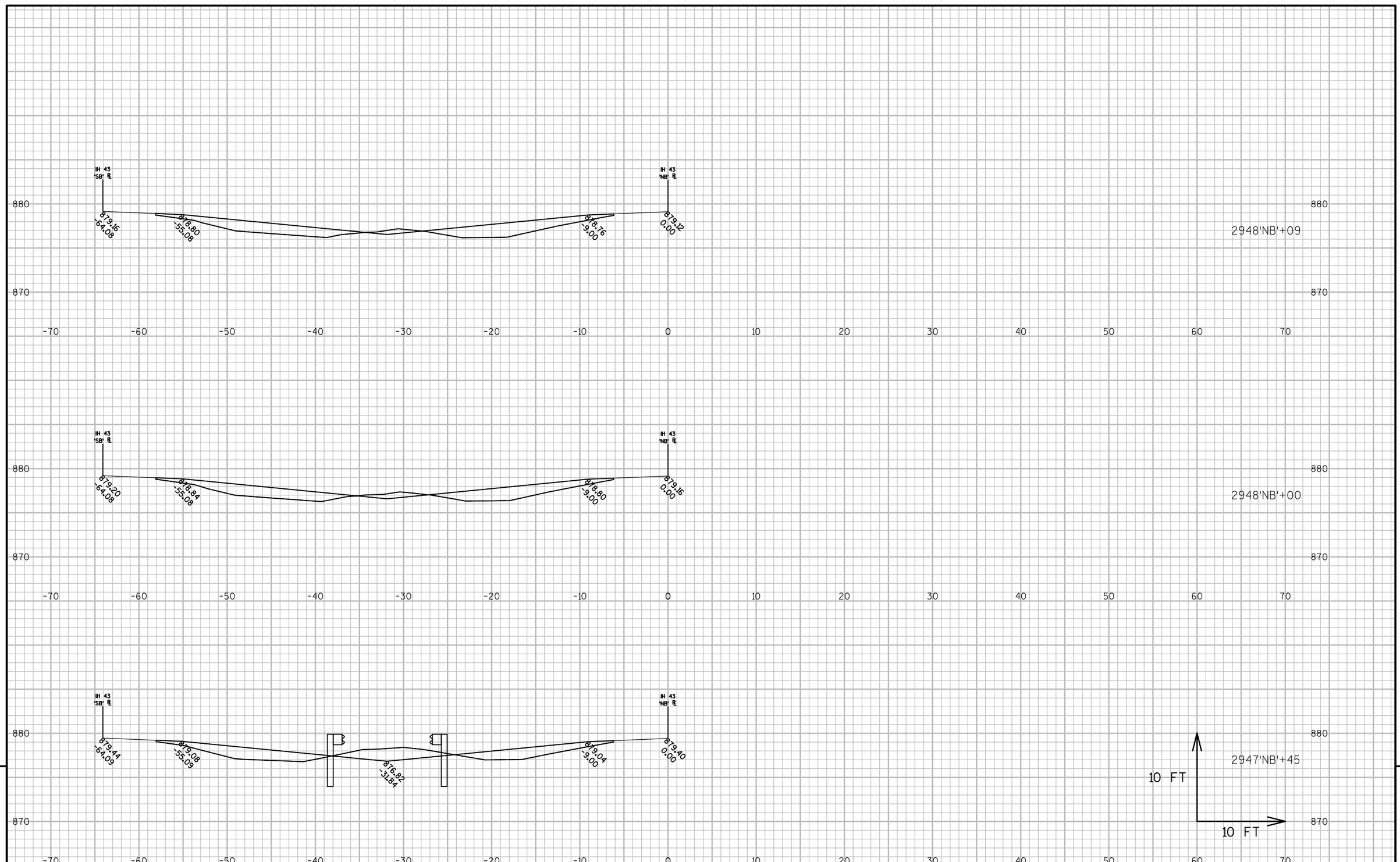
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 571	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 0902101_XS

PLOT DATE : 5/10/2016 8:22 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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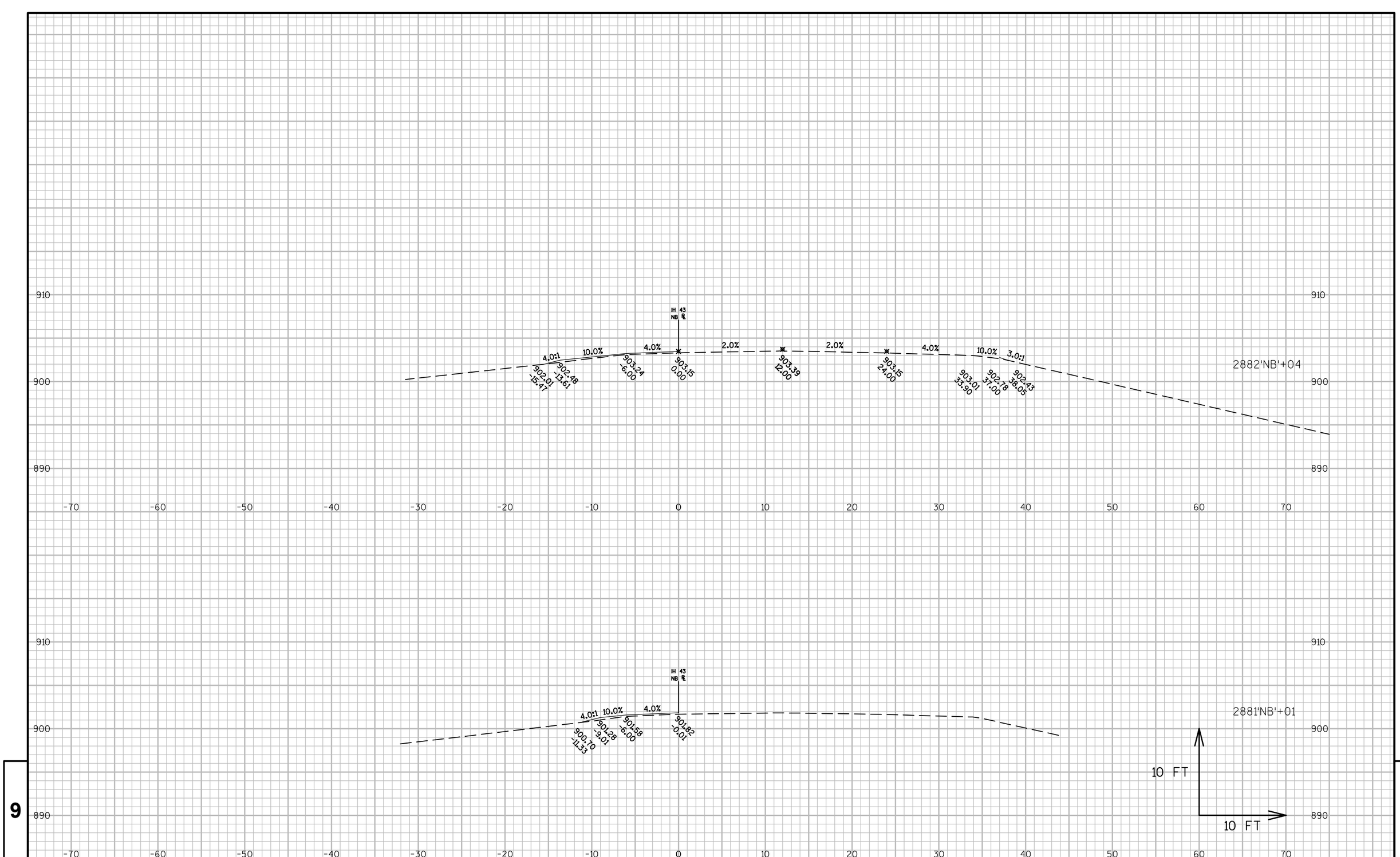
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 572	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090204_XS (LESS SHEETS).DWG
LAYOUT NAME - 0902102_XS

PLOT DATE : 5/10/2016 8:22 AM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT



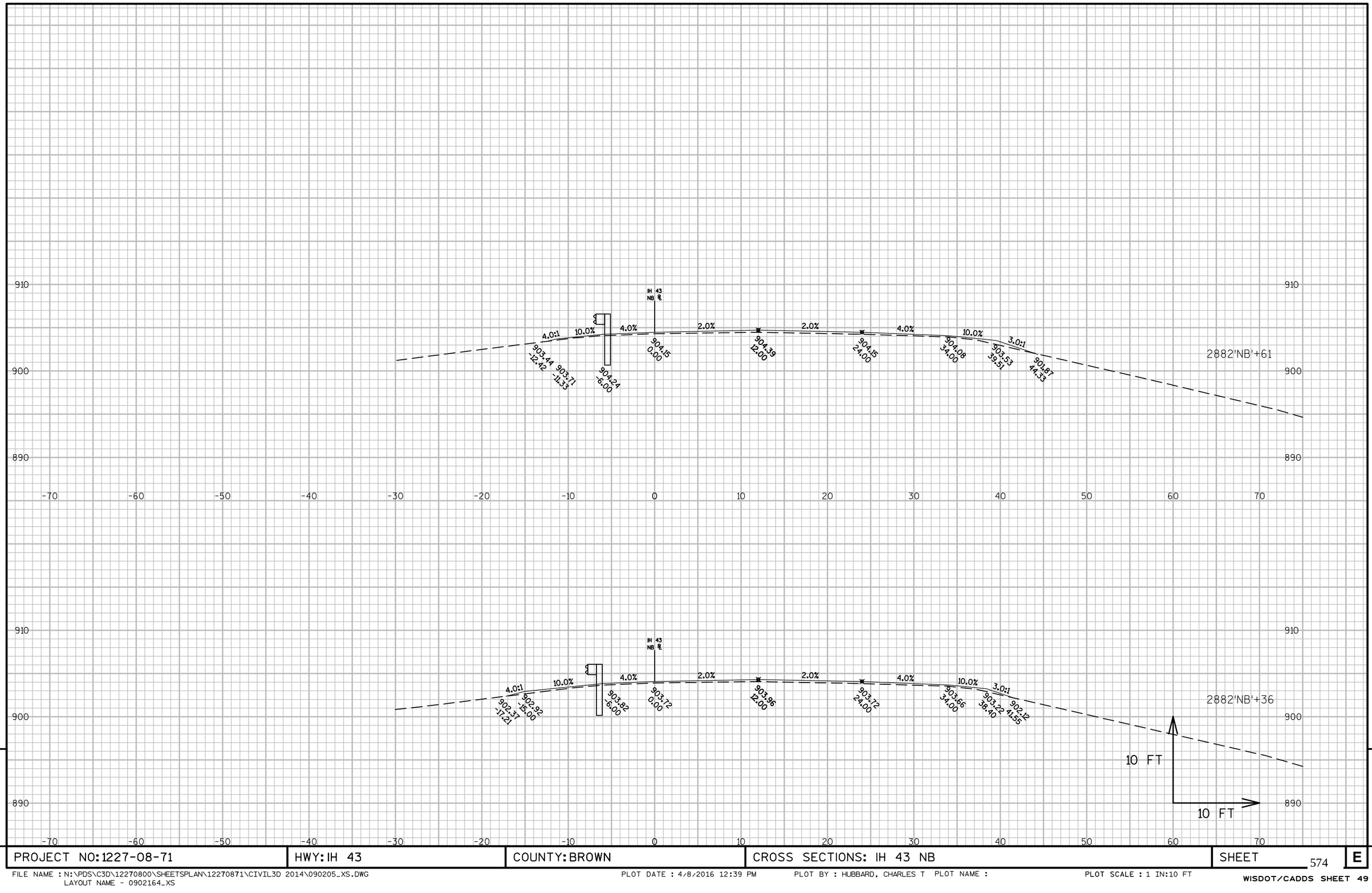
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 573	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902163_XS

PLOT DATE : 4/8/2016 12:38 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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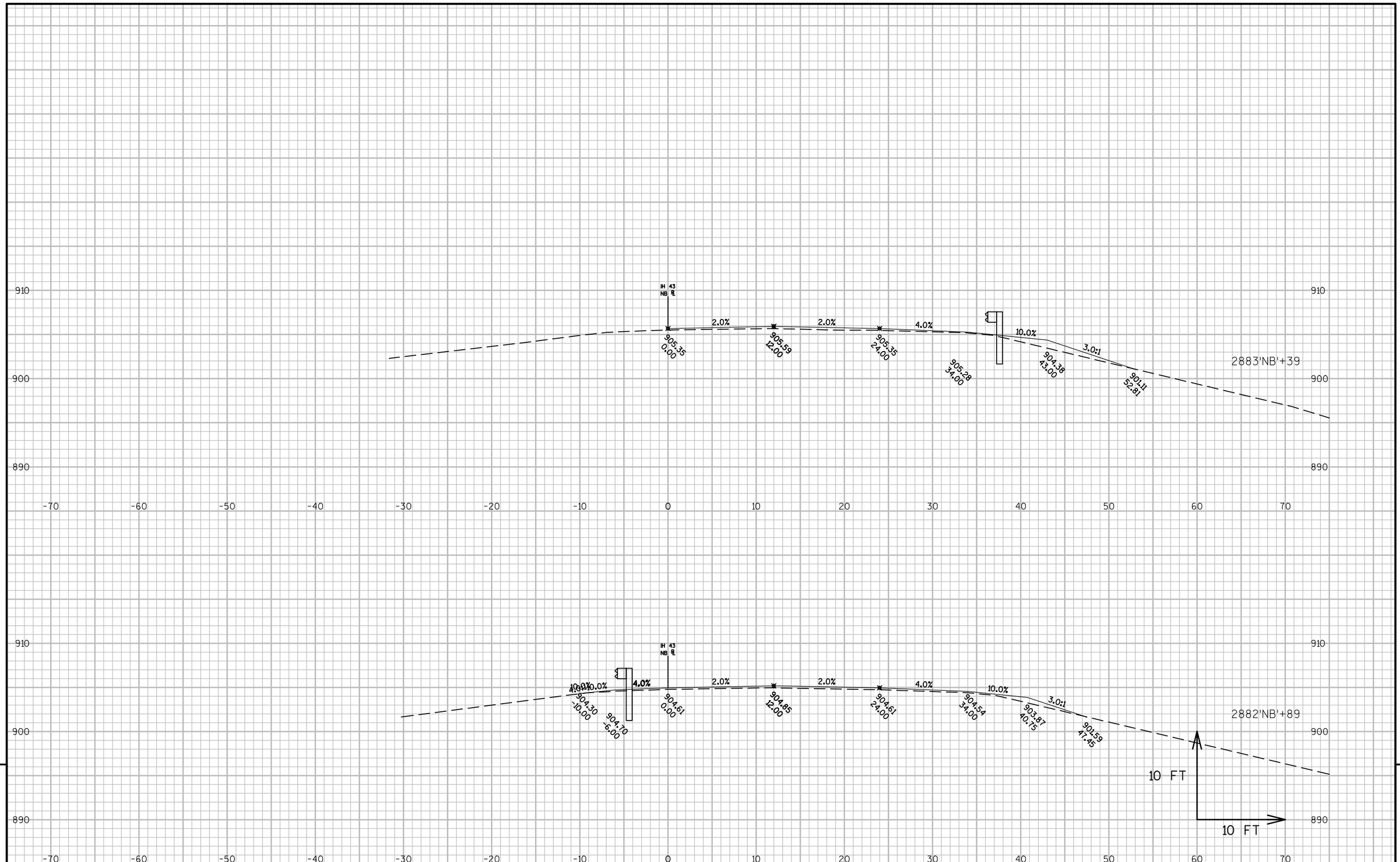
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 574	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902164_XS

PLOT DATE : 4/8/2016 12:39 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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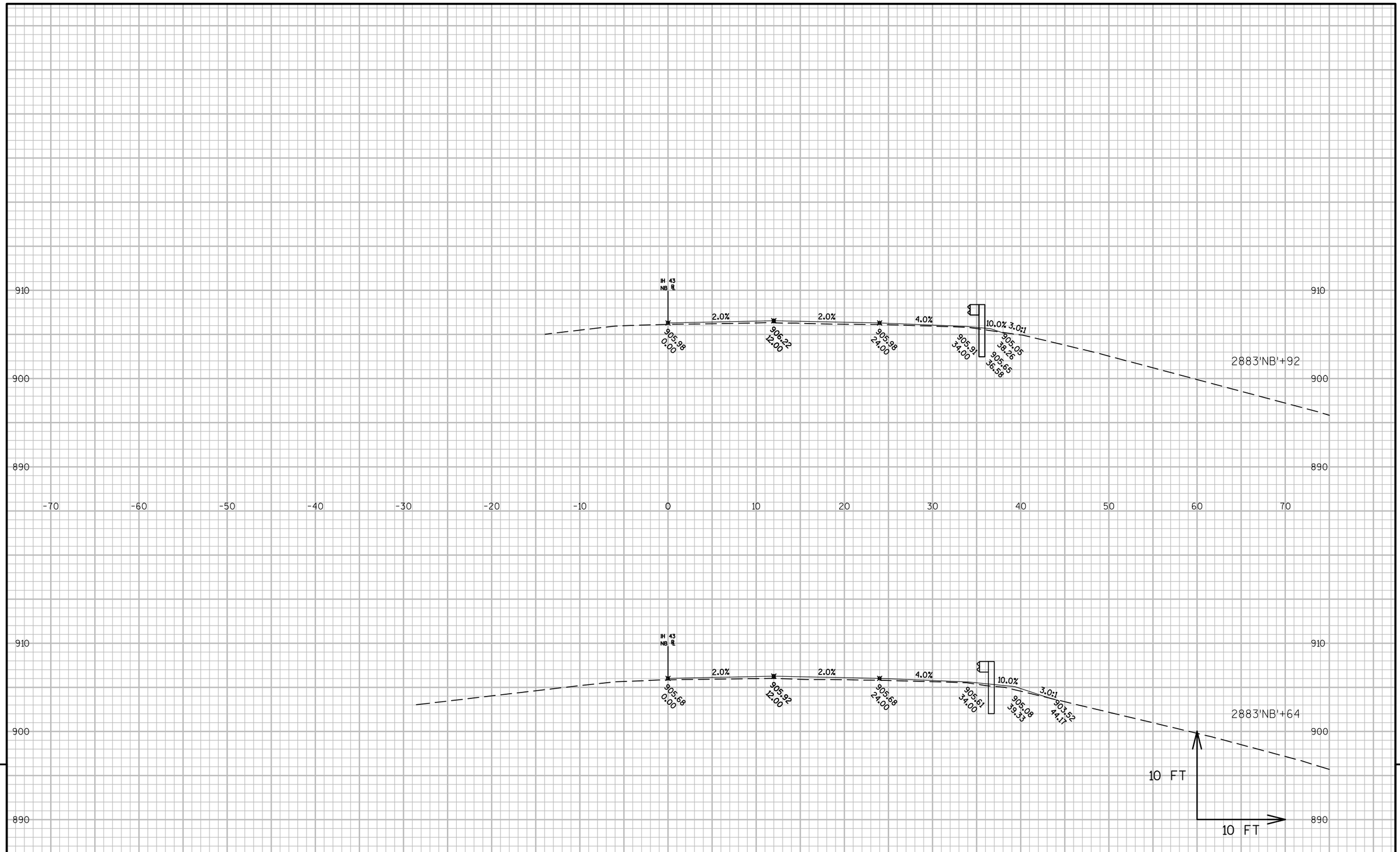
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 575	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902165_XS

PLOT DATE : 4/8/2016 12:39 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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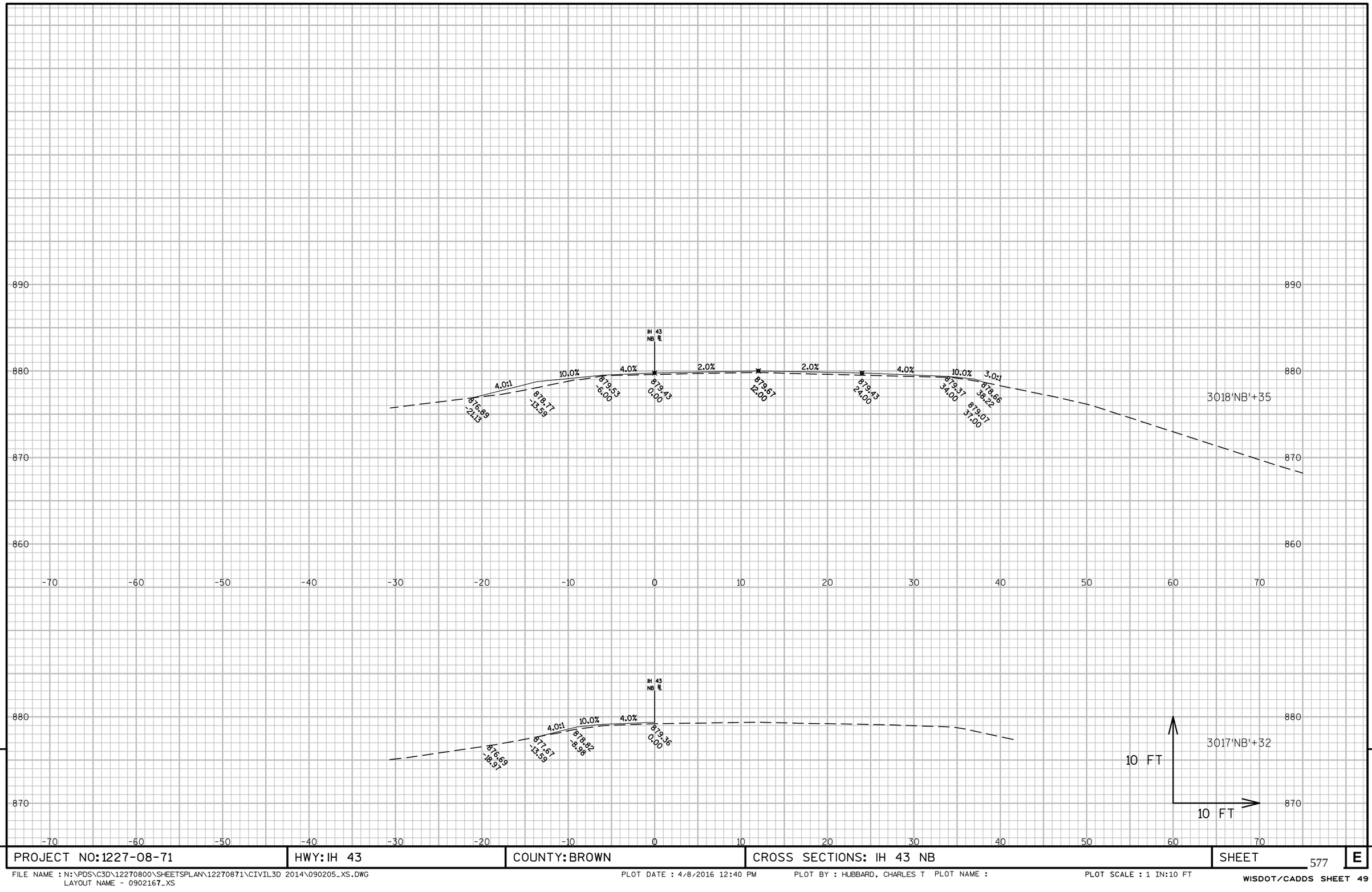
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 576	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902166_XS

PLOT DATE : 4/8/2016 12:40 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

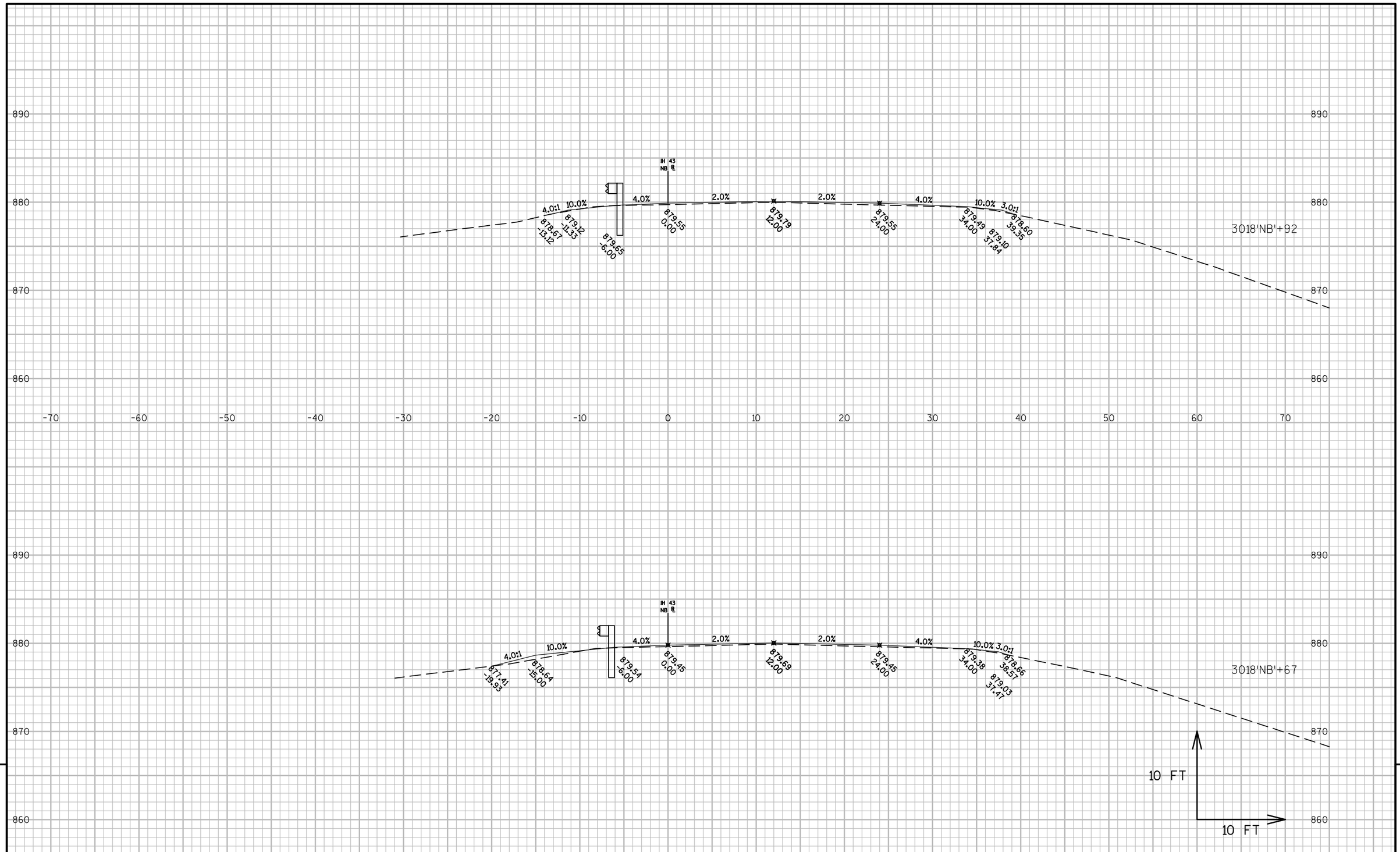


PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 577	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902167_XS

PLOT DATE : 4/8/2016 12:40 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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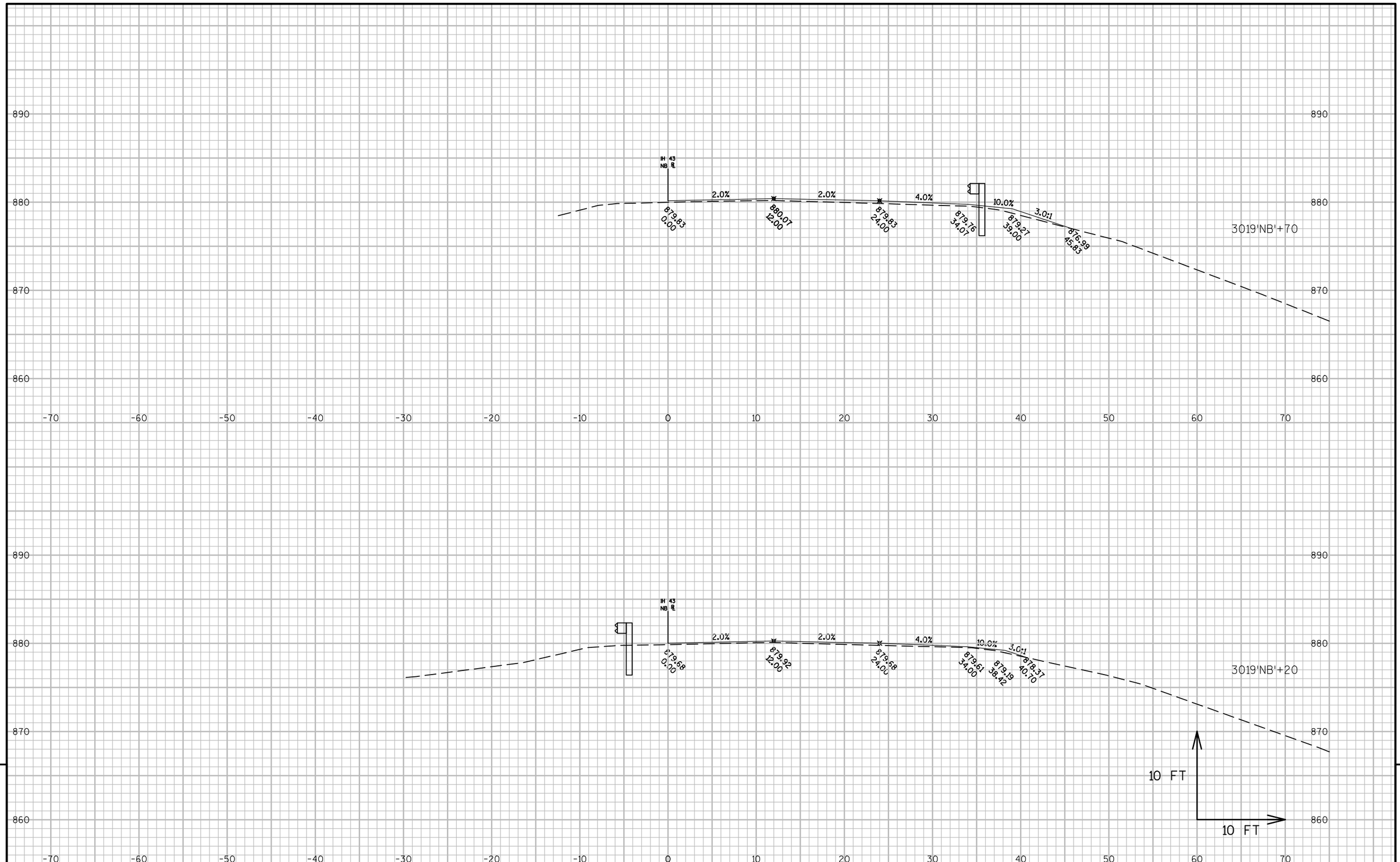
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 578	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902168_XS

PLOT DATE : 4/8/2016 12:41 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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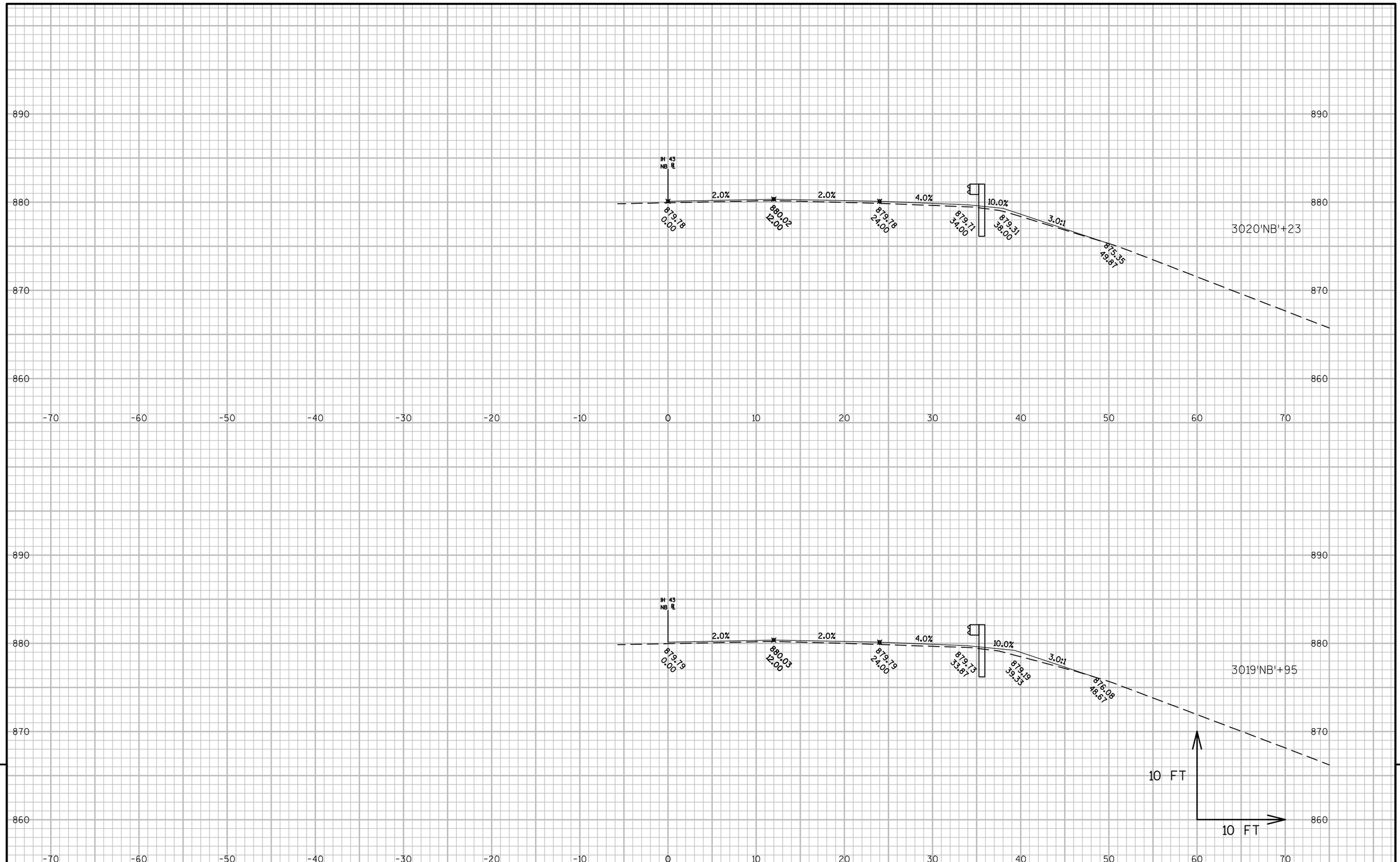
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 579	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902169_XS

PLOT DATE : 4/8/2016 12:41 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 580	E

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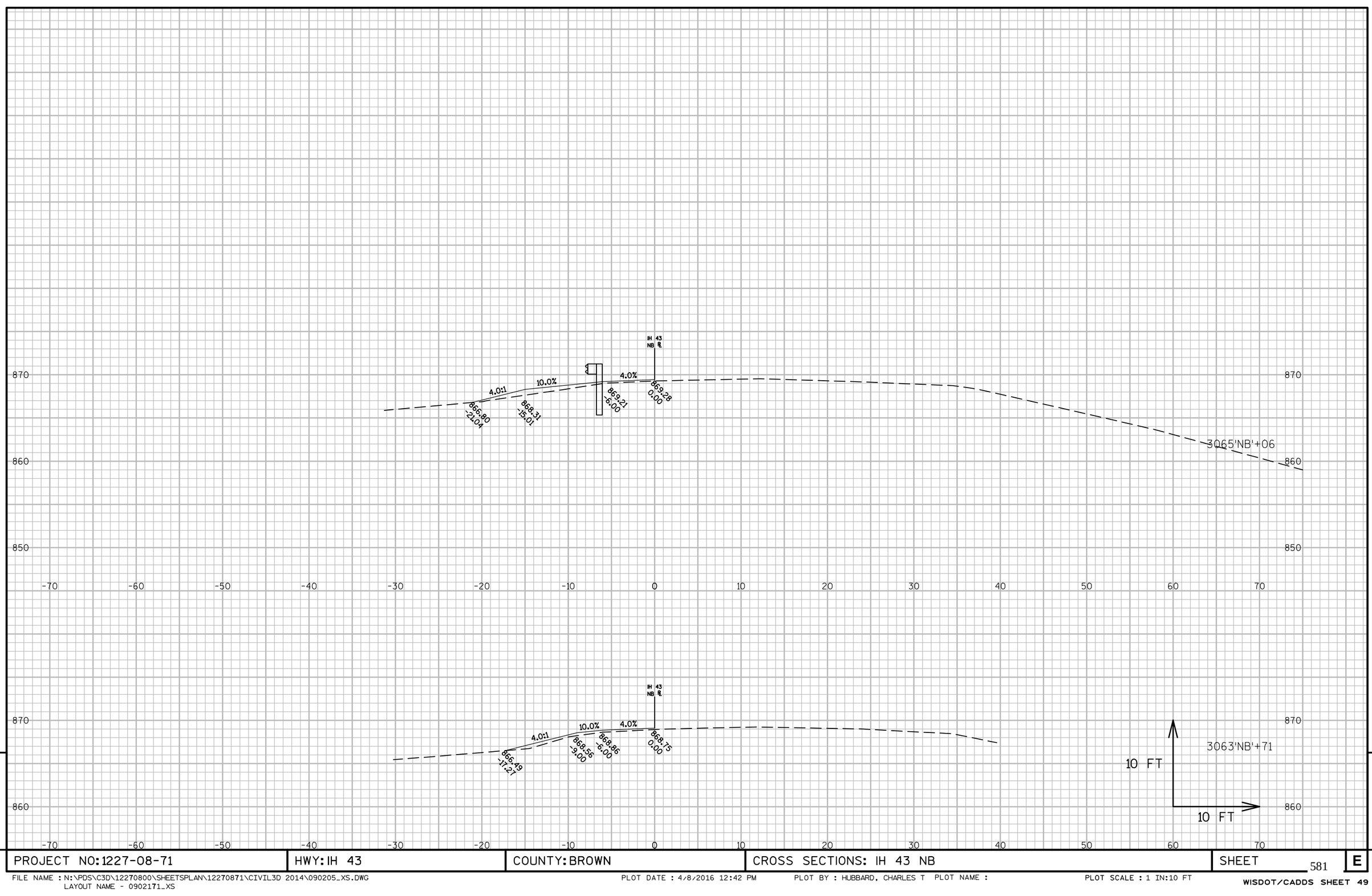
FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902170_XS

PLOT DATE : 4/8/2016 12:41 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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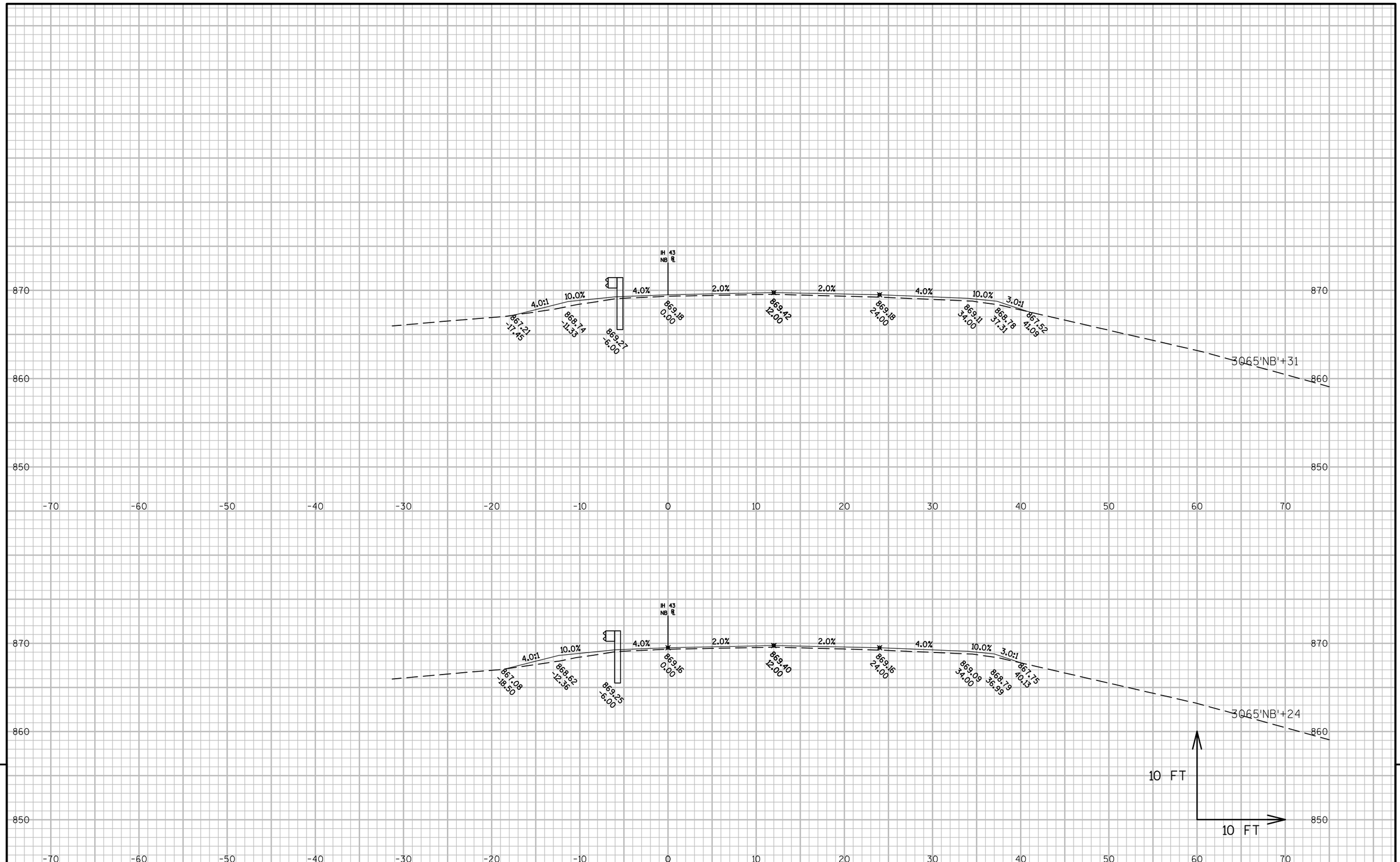
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 581	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902171_XS

PLOT DATE : 4/8/2016 12:42 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

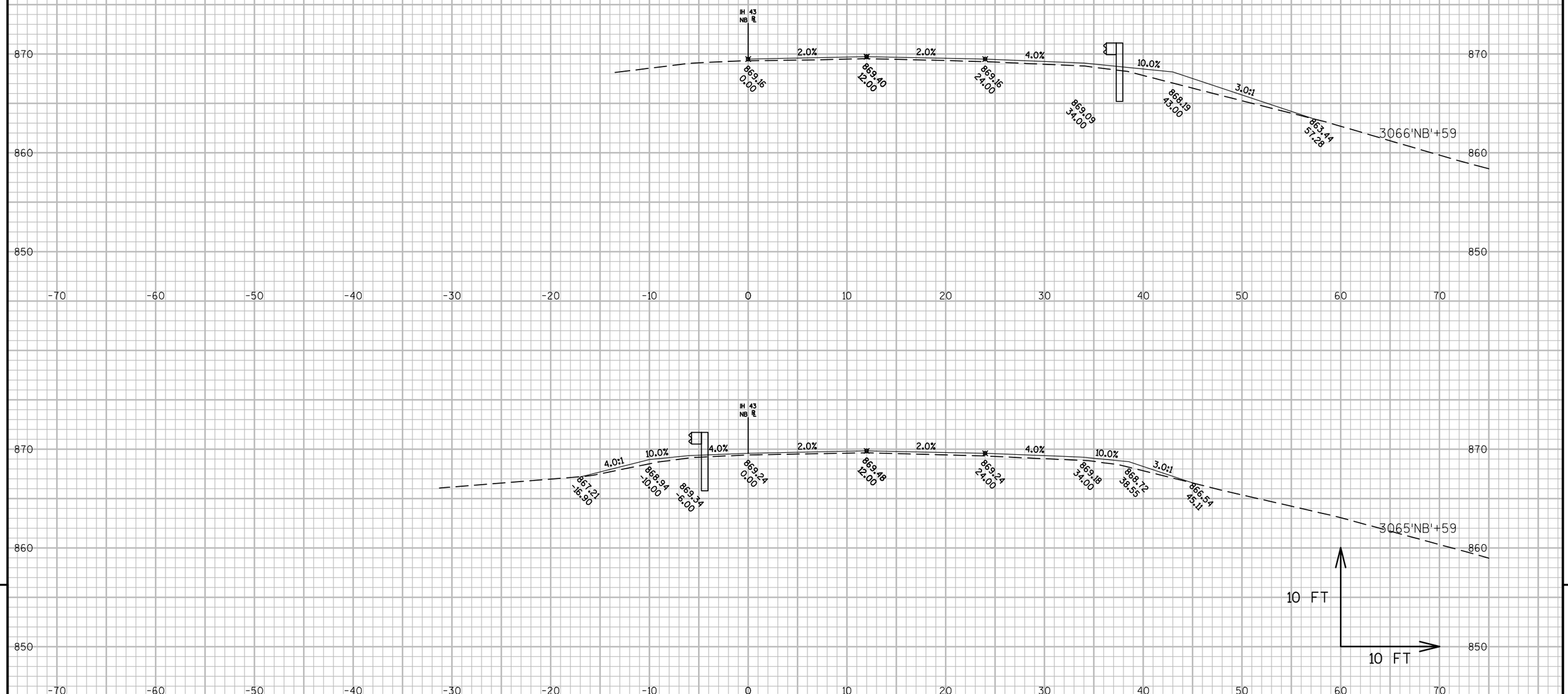


PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 582 E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902172_XS

PLOT DATE : 4/8/2016 12:42 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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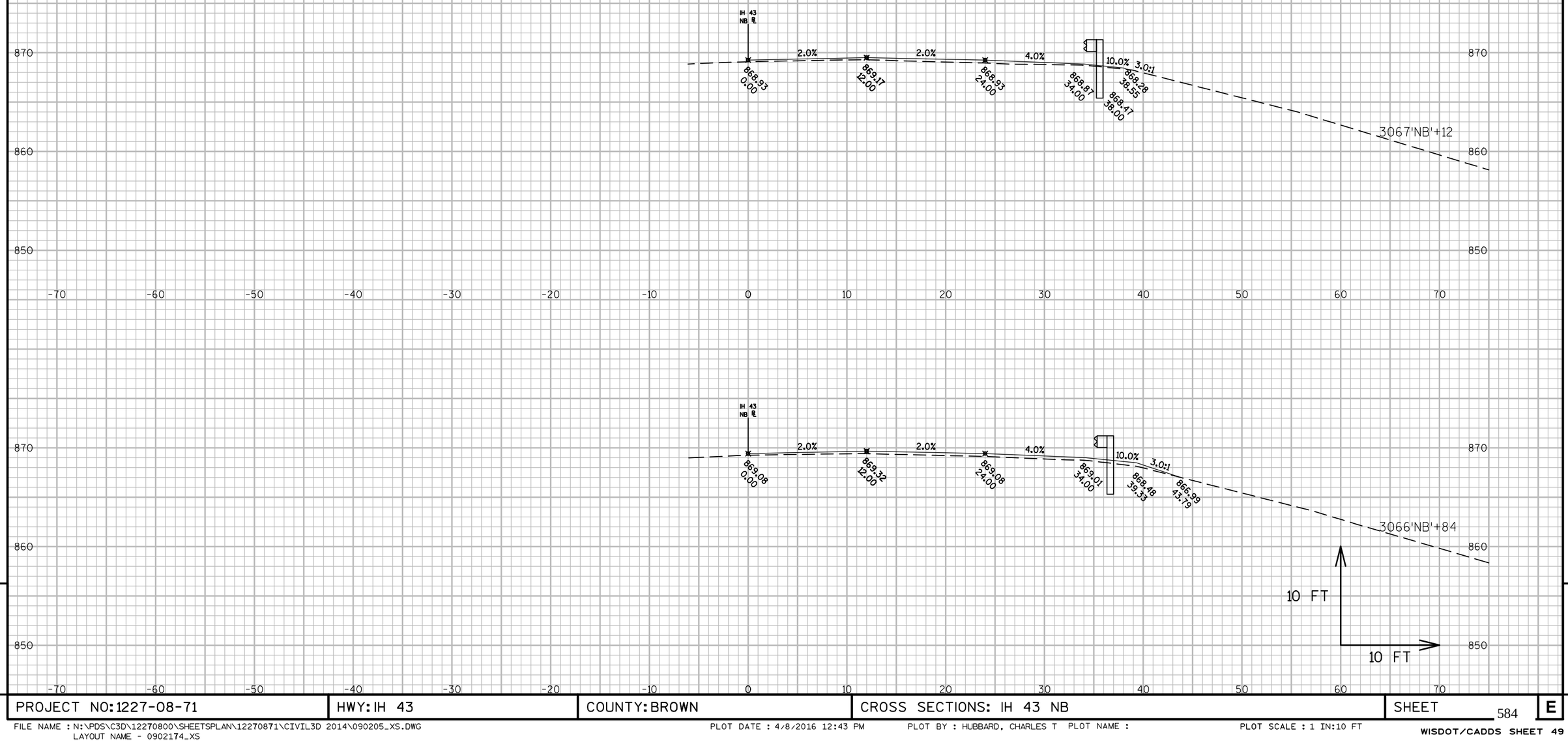
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 583	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902173_XS

PLOT DATE : 4/8/2016 12:43 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

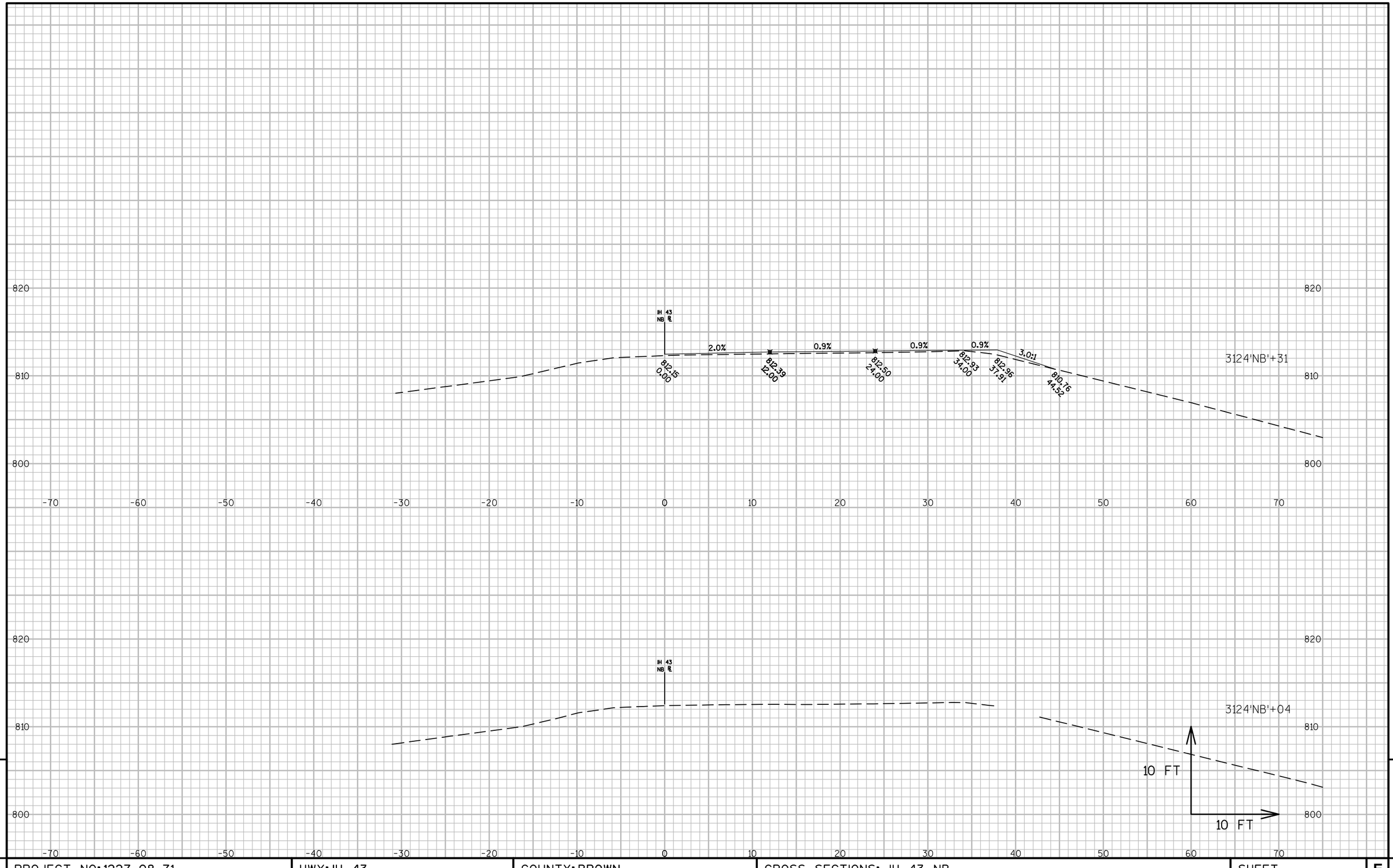


PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 584	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902174_XS

PLOT DATE : 4/8/2016 12:43 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

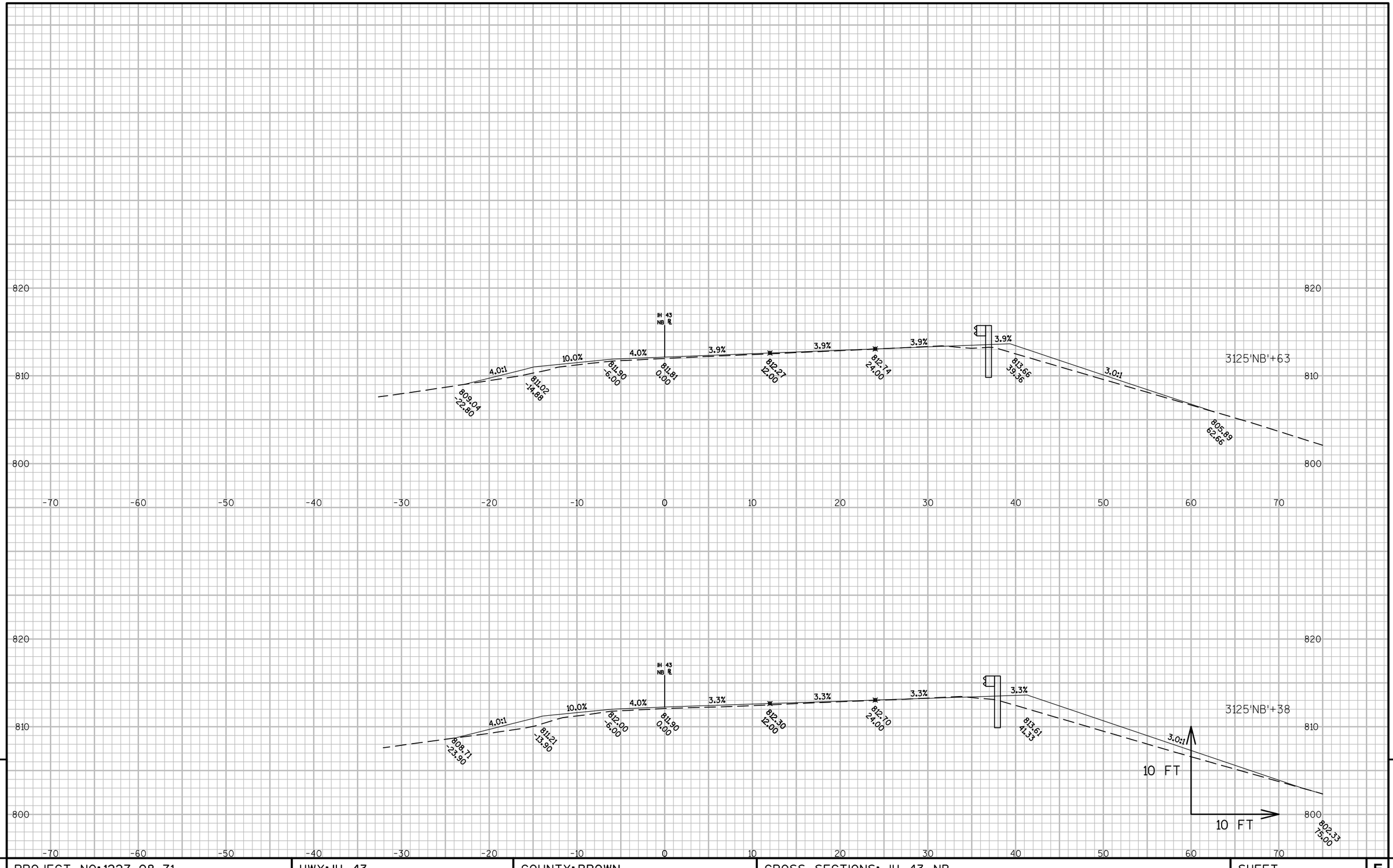


PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 585	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902175_XS

PLOT DATE : 4/8/2016 12:44 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

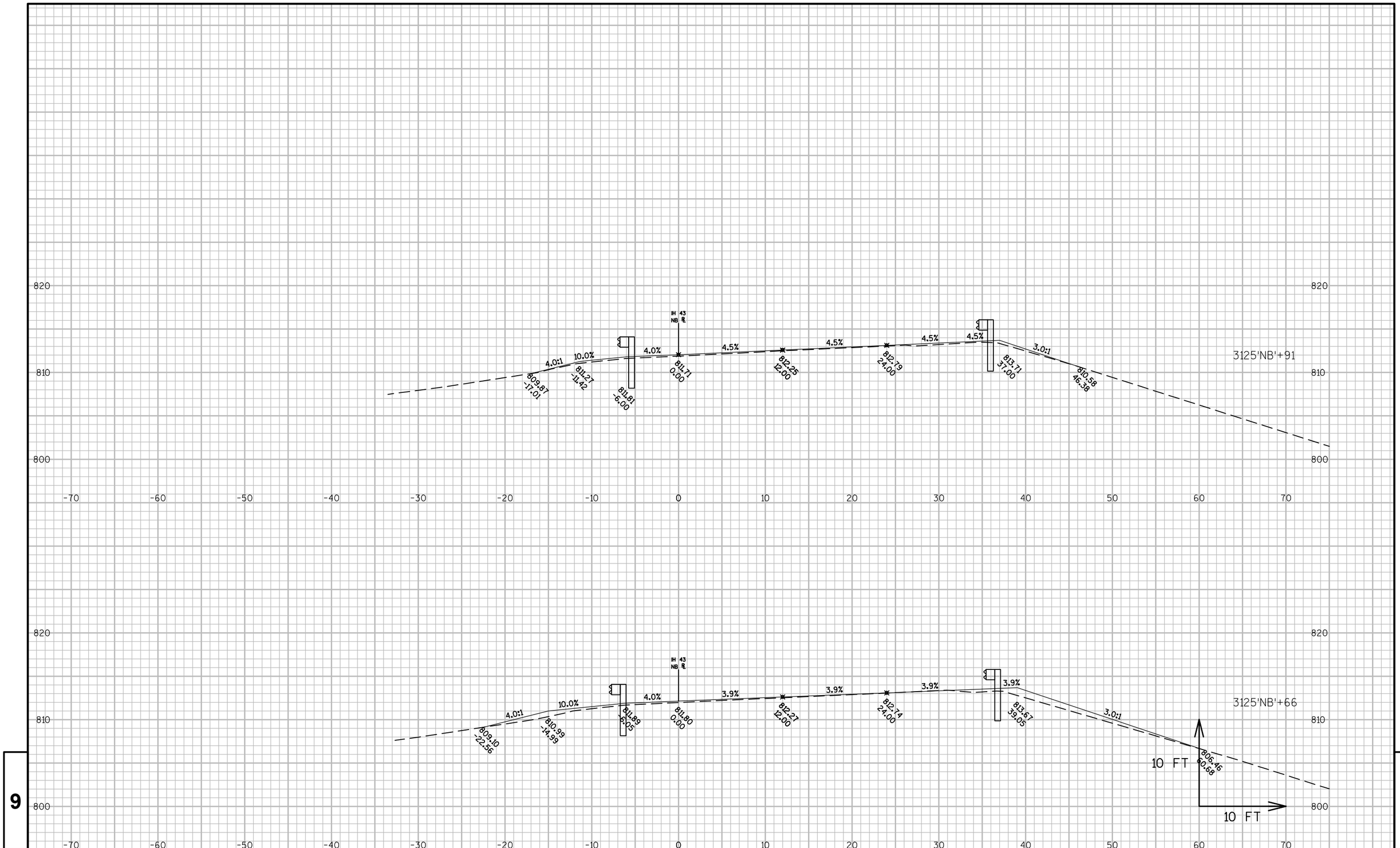


PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 586	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902176_XS

PLOT DATE : 4/8/2016 12:44 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

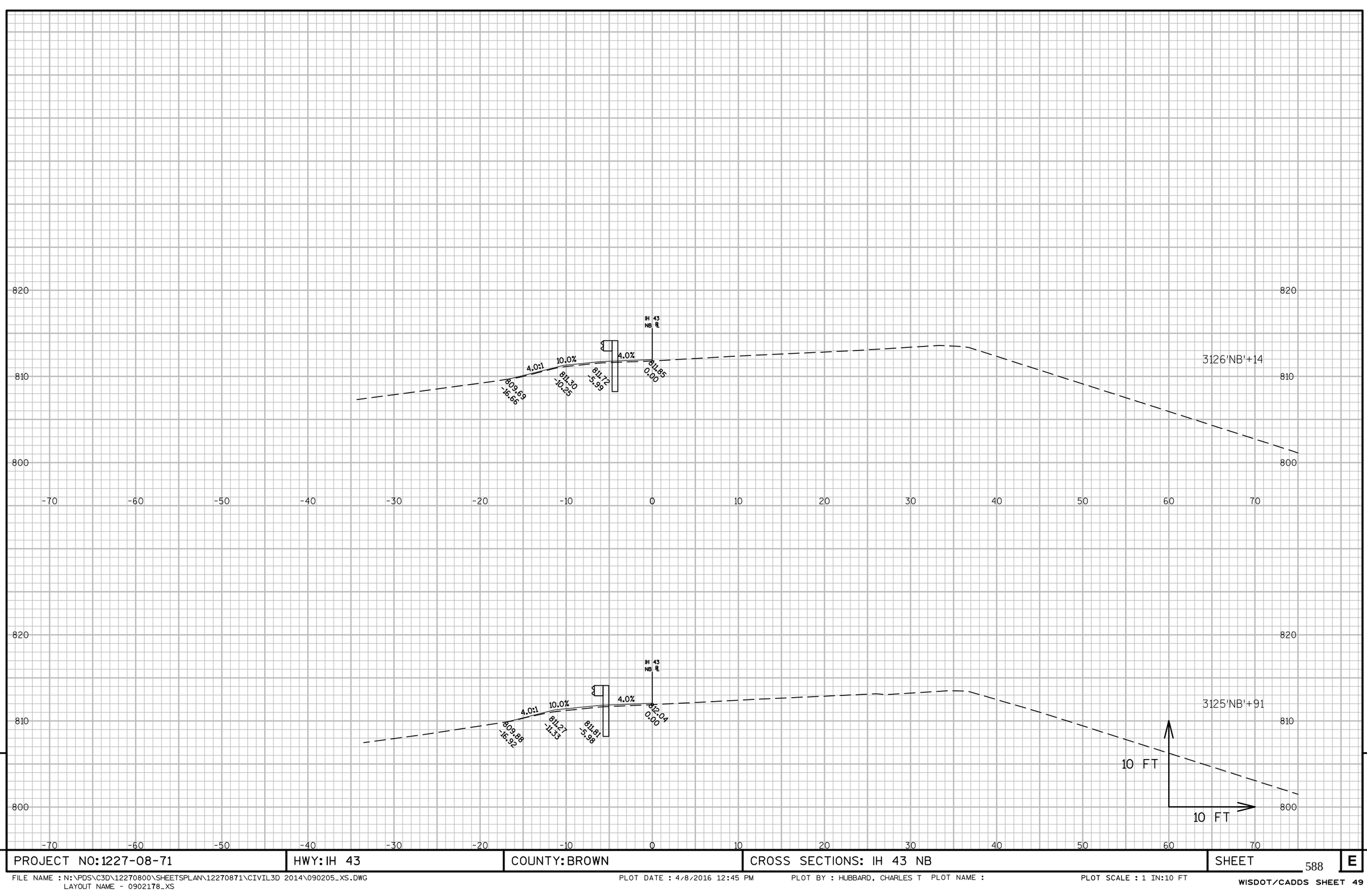


PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 587	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902177_XS

PLOT DATE : 4/8/2016 12:44 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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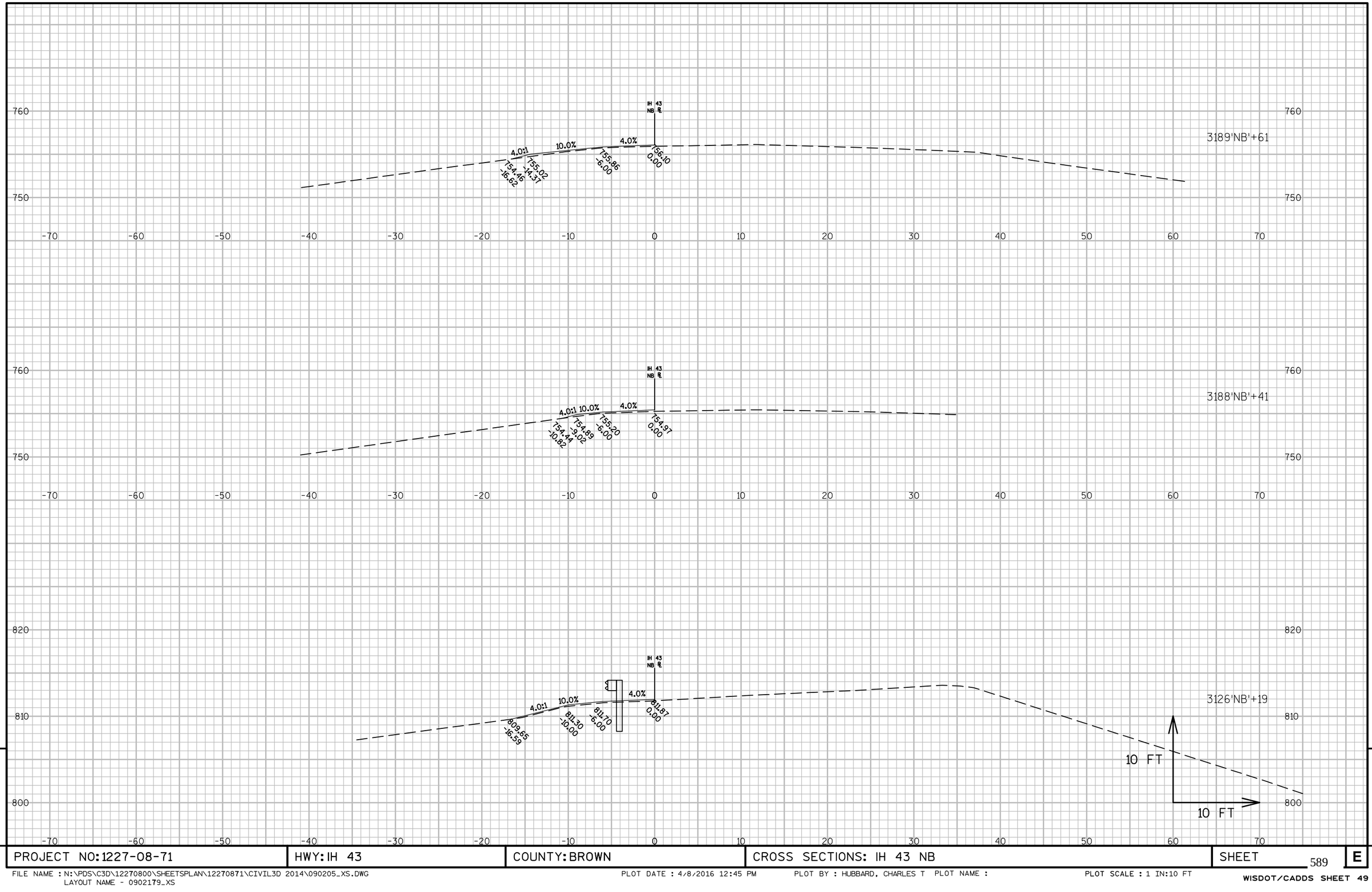
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 588	E

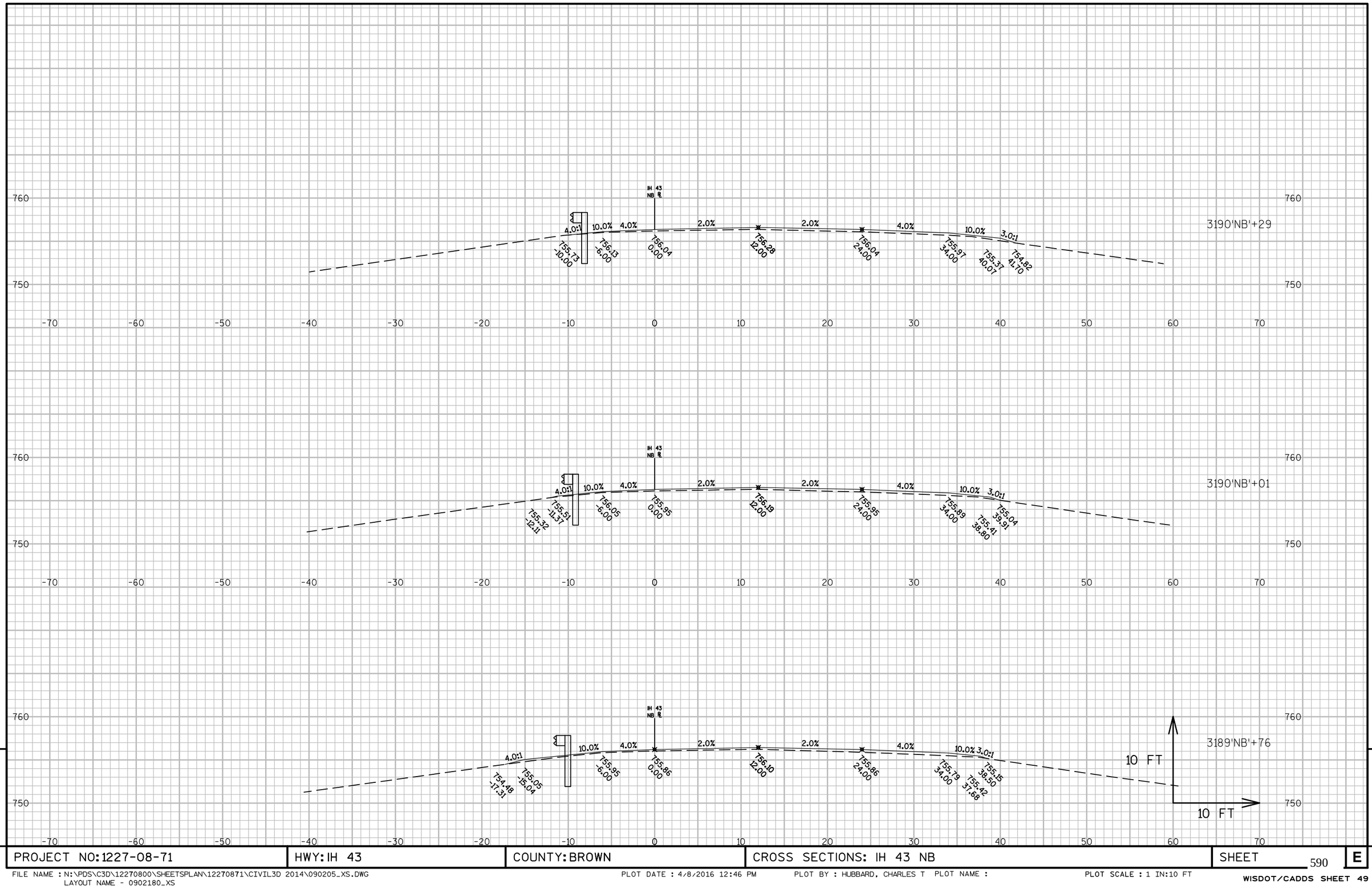


PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 589	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902179_XS

PLOT DATE : 4/8/2016 12:45 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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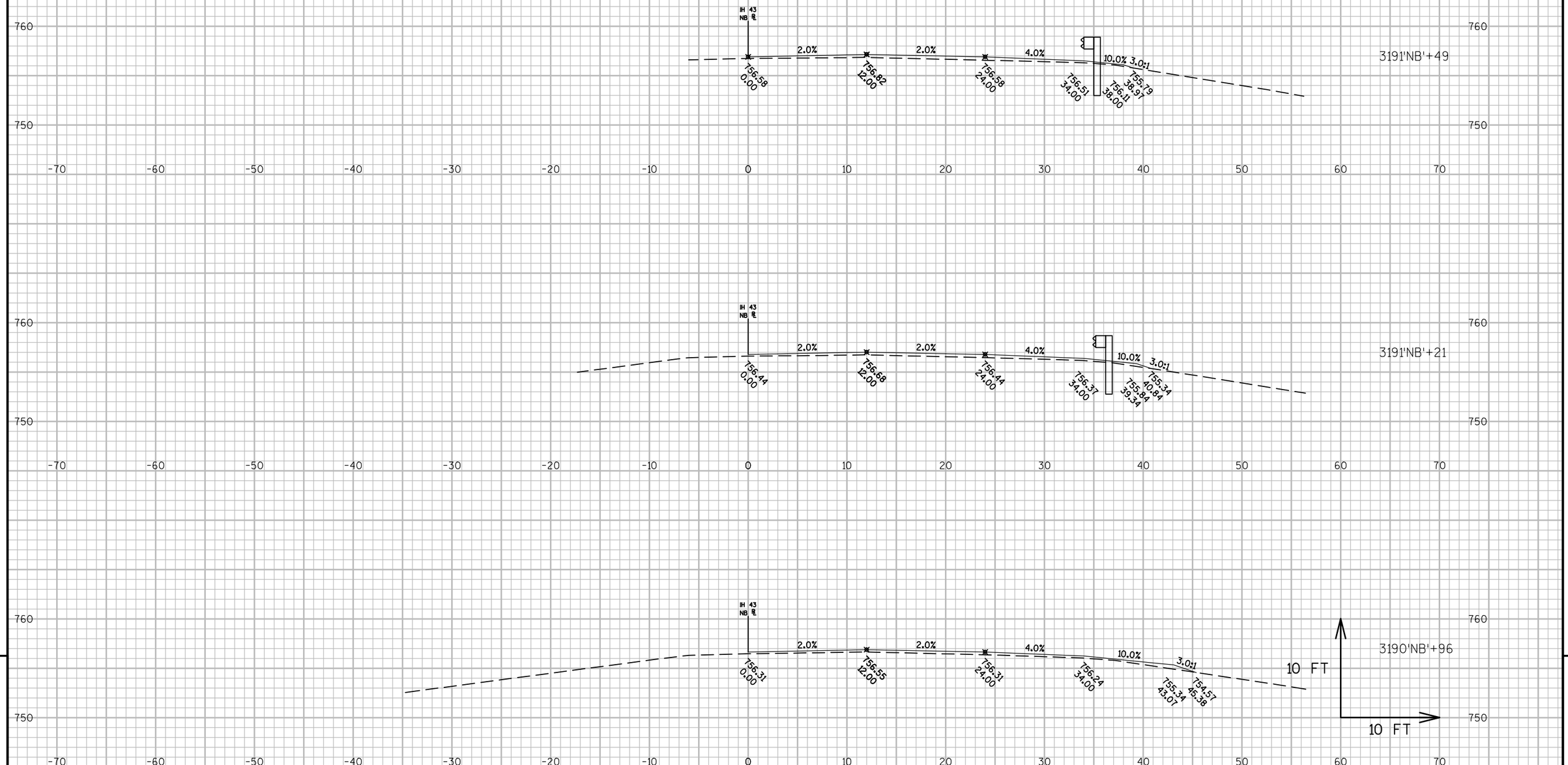
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 590	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902180_XS

PLOT DATE : 4/8/2016 12:46 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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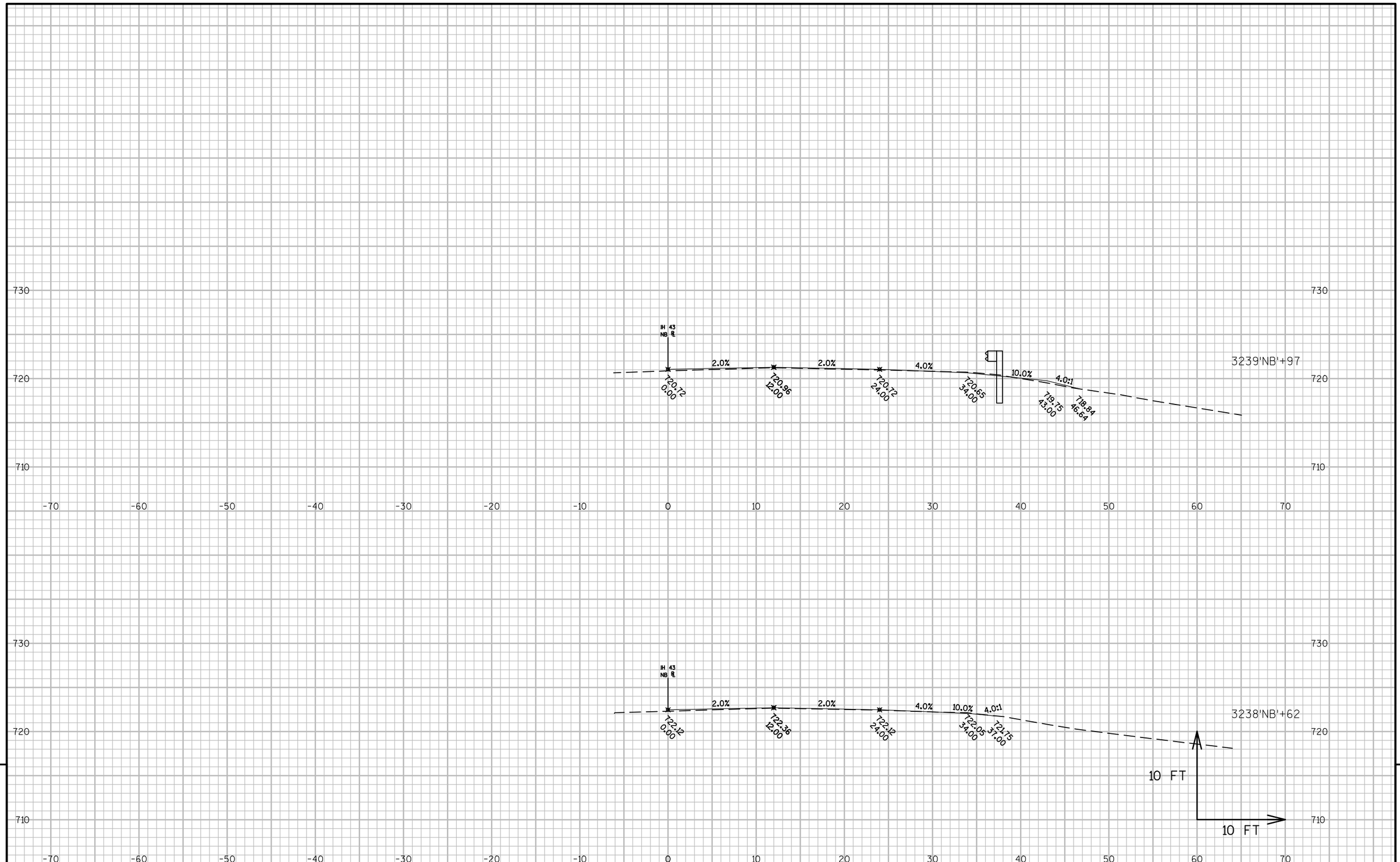
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 591	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902181_XS

PLOT DATE : 4/8/2016 12:46 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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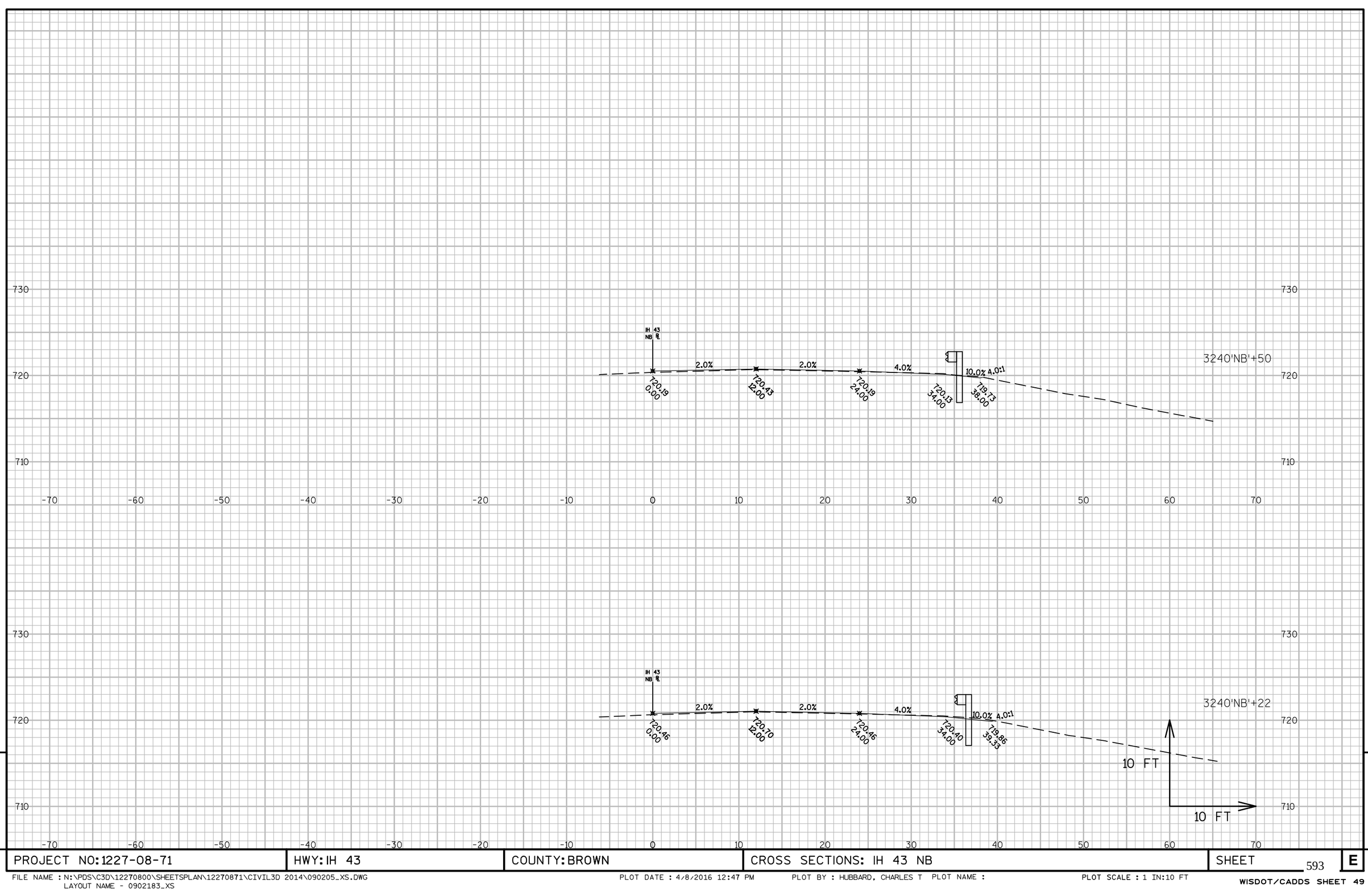
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 592	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902182_XS

PLOT DATE : 4/8/2016 12:47 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

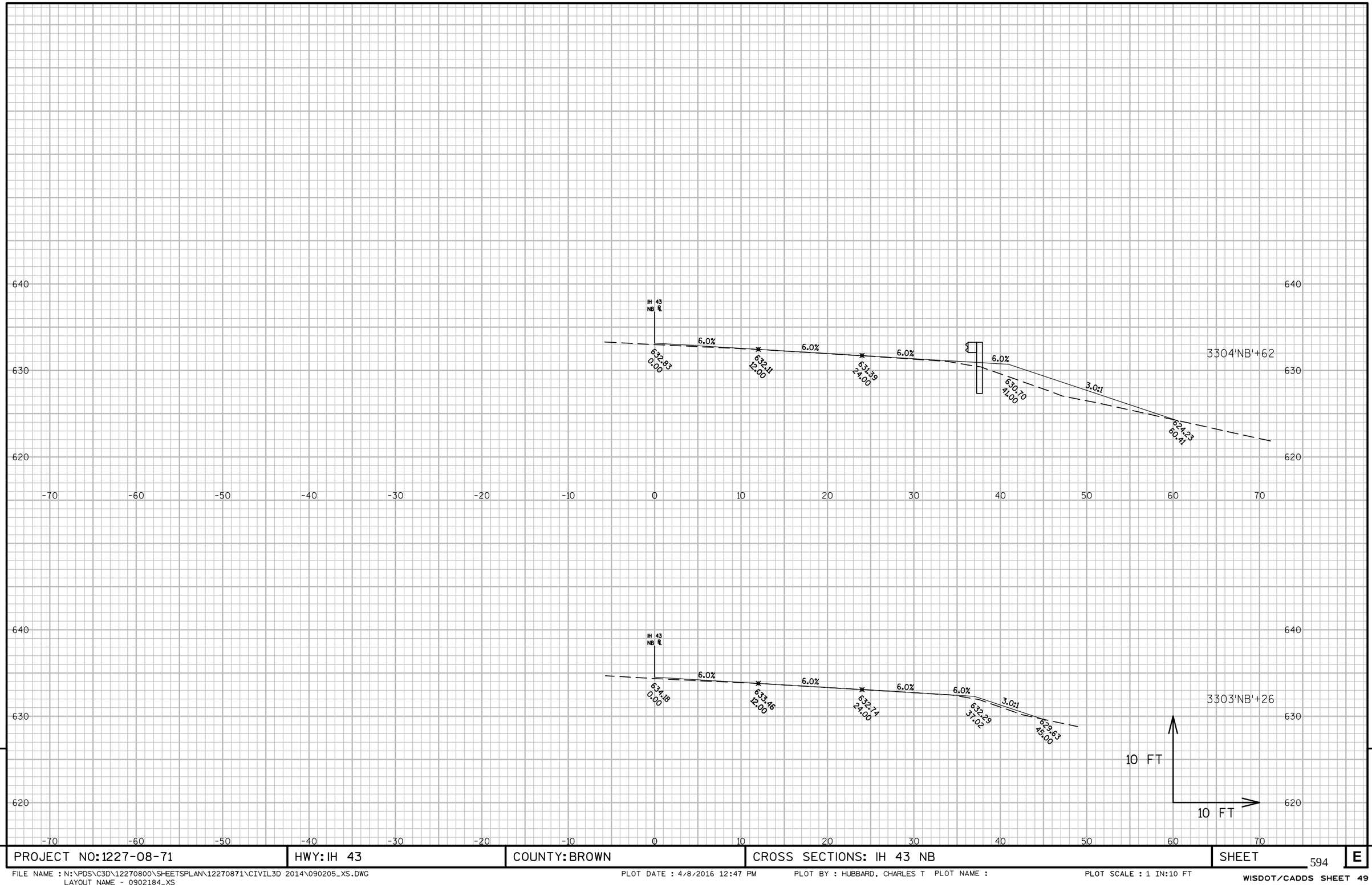


PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 593 E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902183_XS

PLOT DATE : 4/8/2016 12:47 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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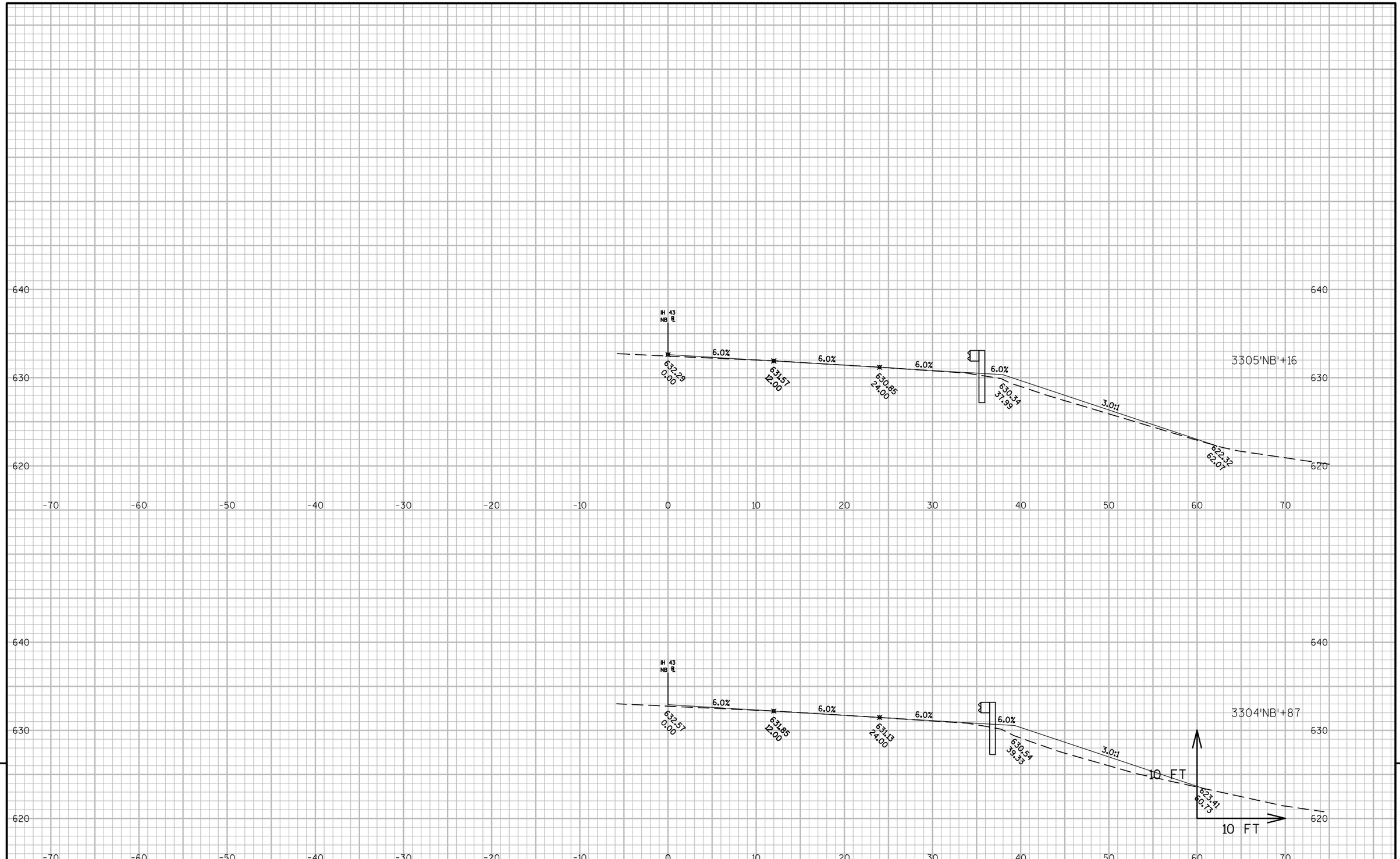
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 594	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902184_XS

PLOT DATE : 4/8/2016 12:47 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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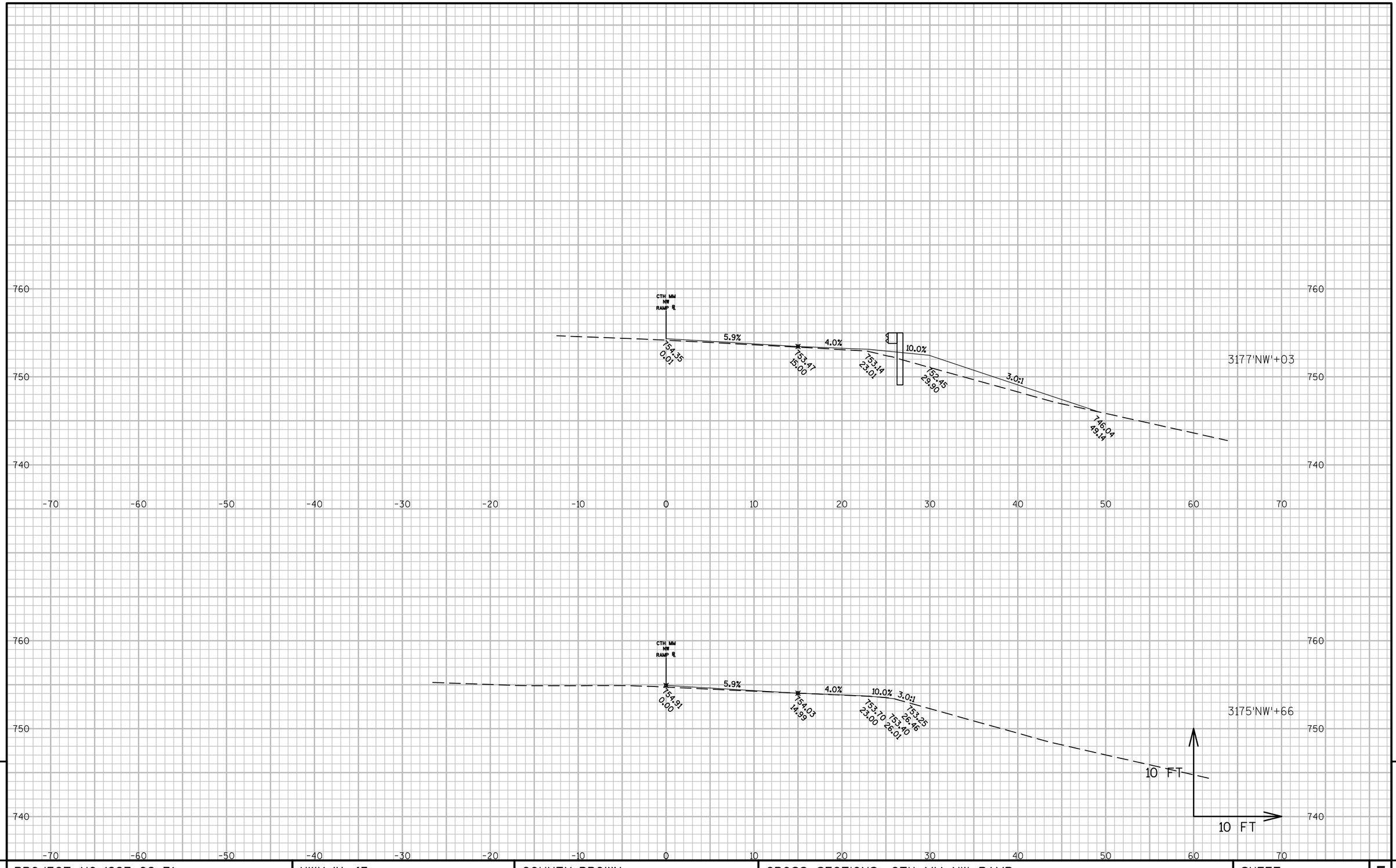
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 NB	SHEET 595	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902185_XS

PLOT DATE : 4/8/2016 12:48 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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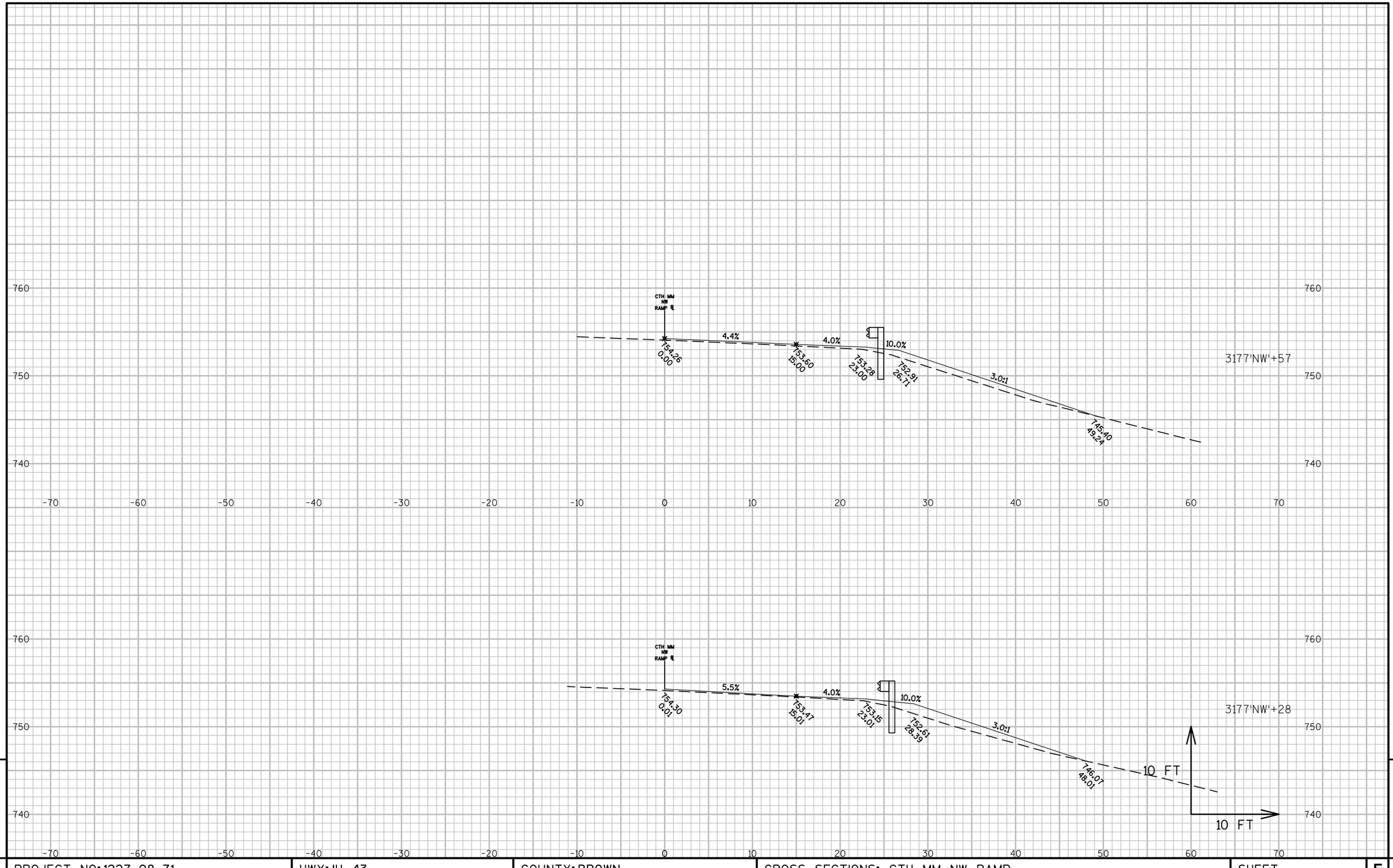
PROJECT NO:1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: CTH MM NW RAMP	SHEET 596	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902186_XS

PLOT DATE : 4/8/2016 12:48 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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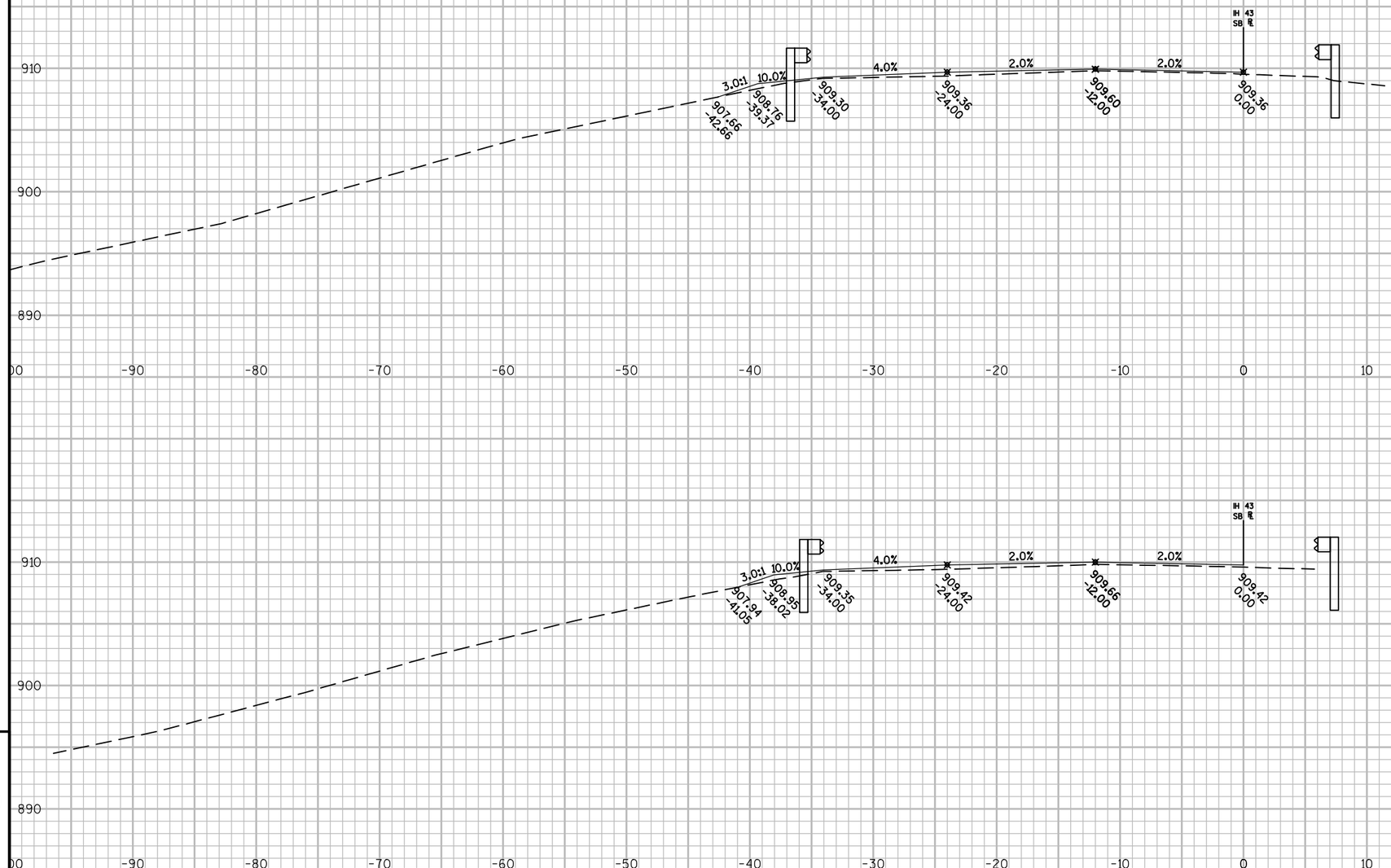
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: CTH MM NW RAMP	SHEET 597	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090205_XS.DWG
LAYOUT NAME - 0902187_XS

PLOT DATE : 4/8/2016 12:49 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



2890'SB'+44

2890'SB'+16

10 FT

10 FT

9

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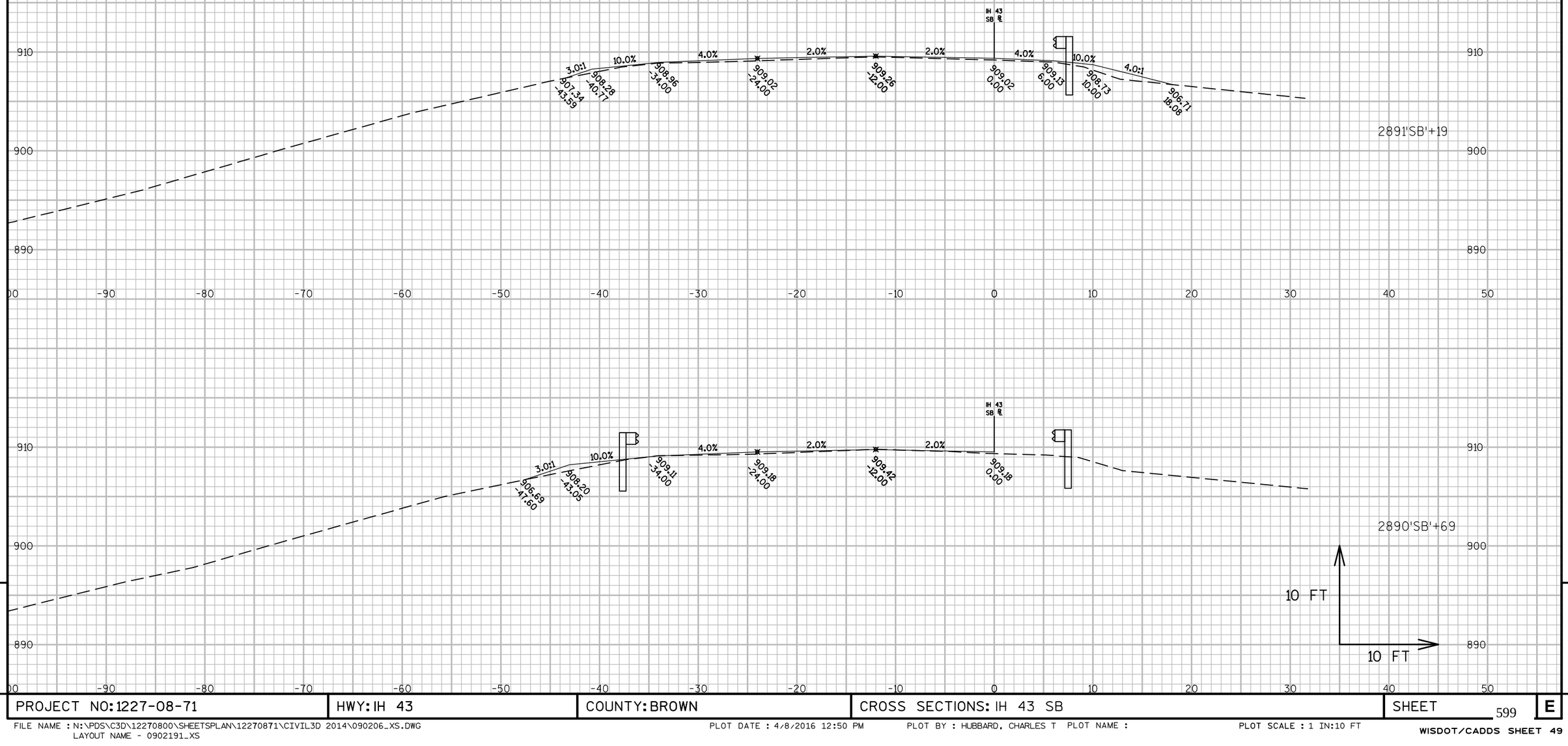
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 598	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902190_XS

PLOT DATE : 4/8/2016 12:50 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

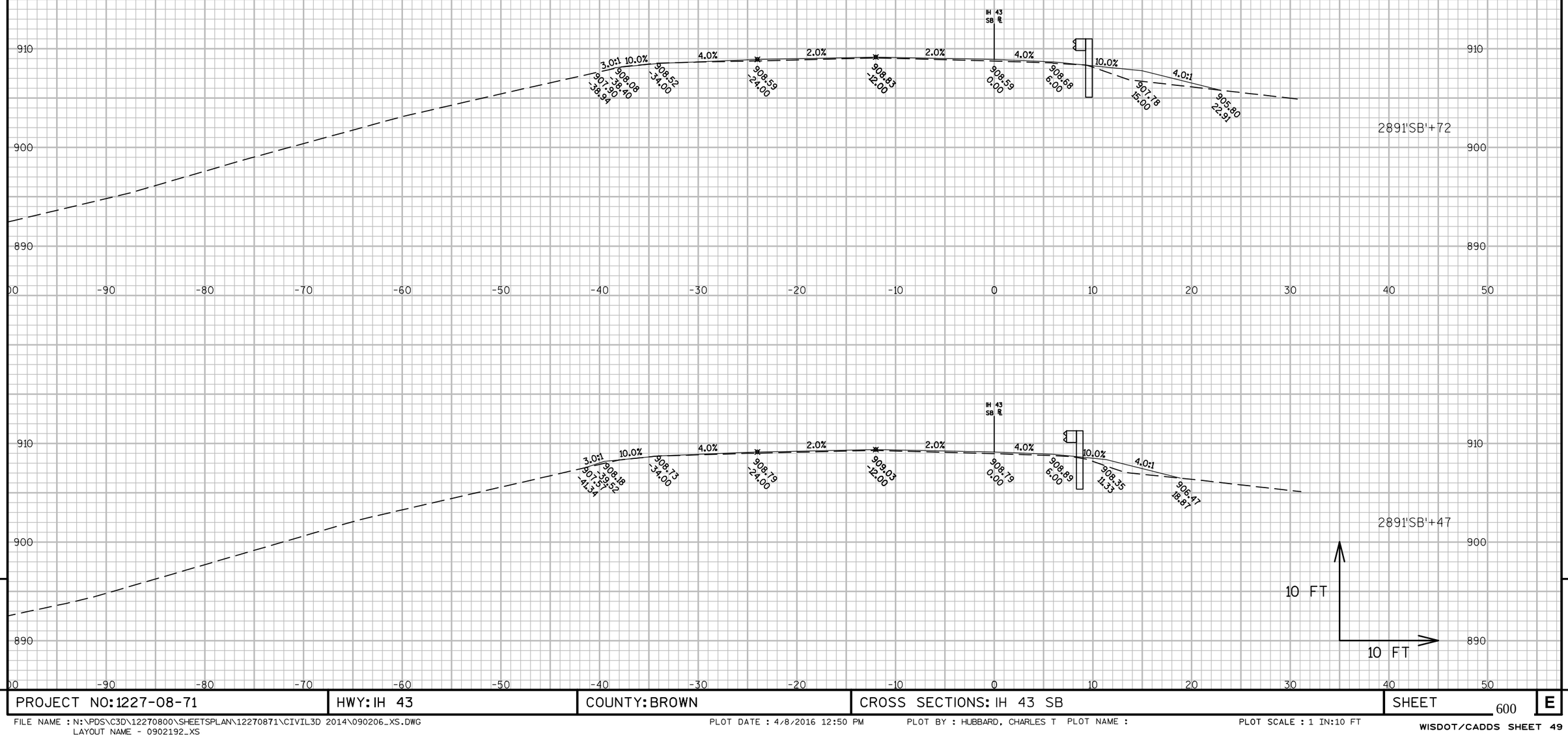
WISDOT/CADDS SHEET 49



PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 599	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902191_XS

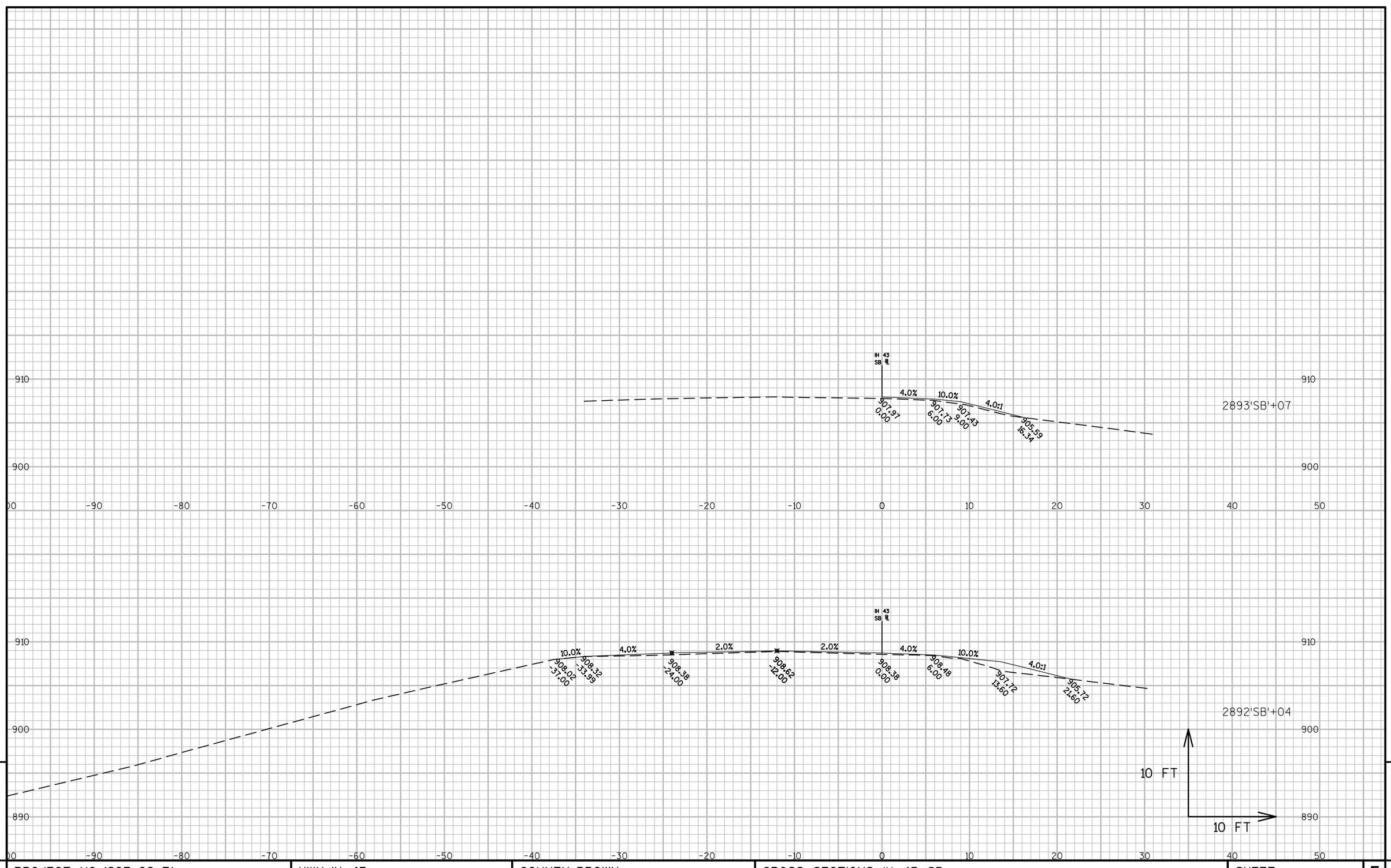
PLOT DATE : 4/8/2016 12:50 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 600	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902192_XS

PLOT DATE : 4/8/2016 12:50 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

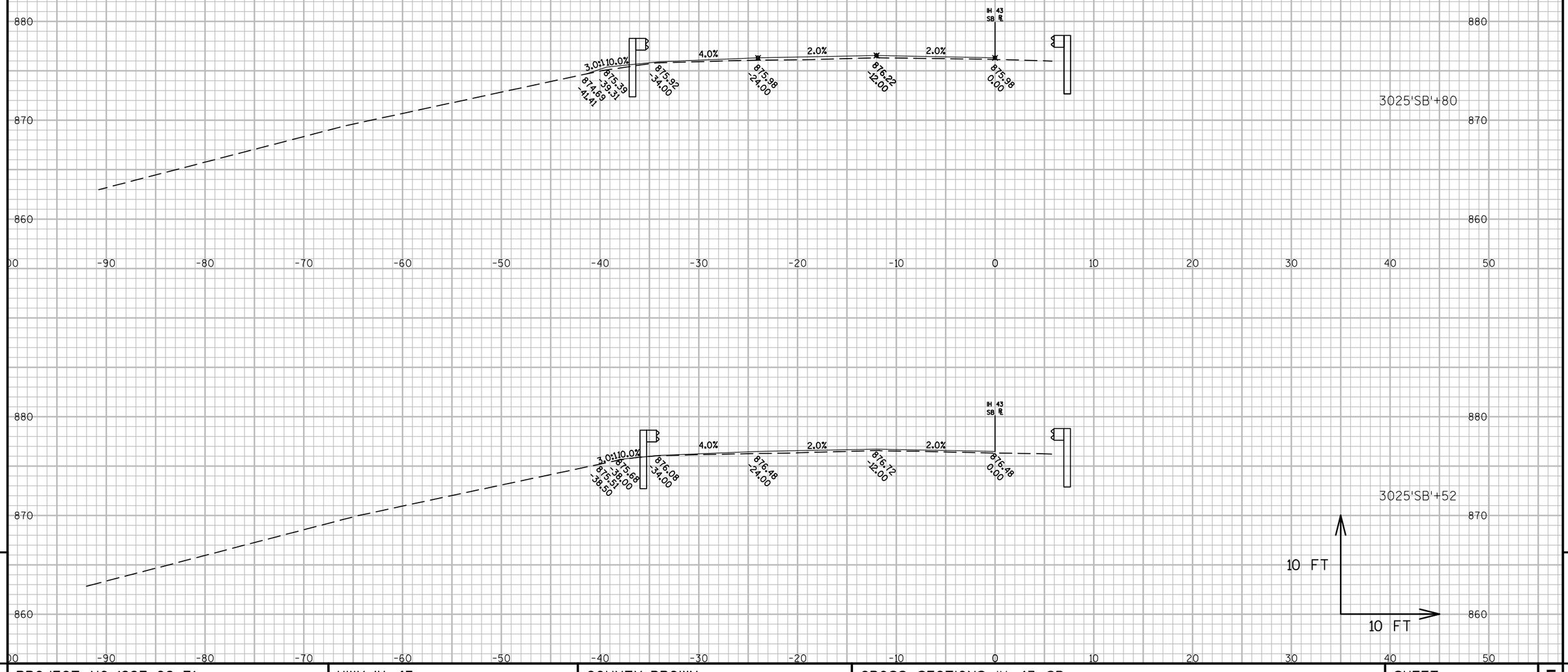


PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 601	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902193_XS

PLOT DATE : 4/8/2016 12:51 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

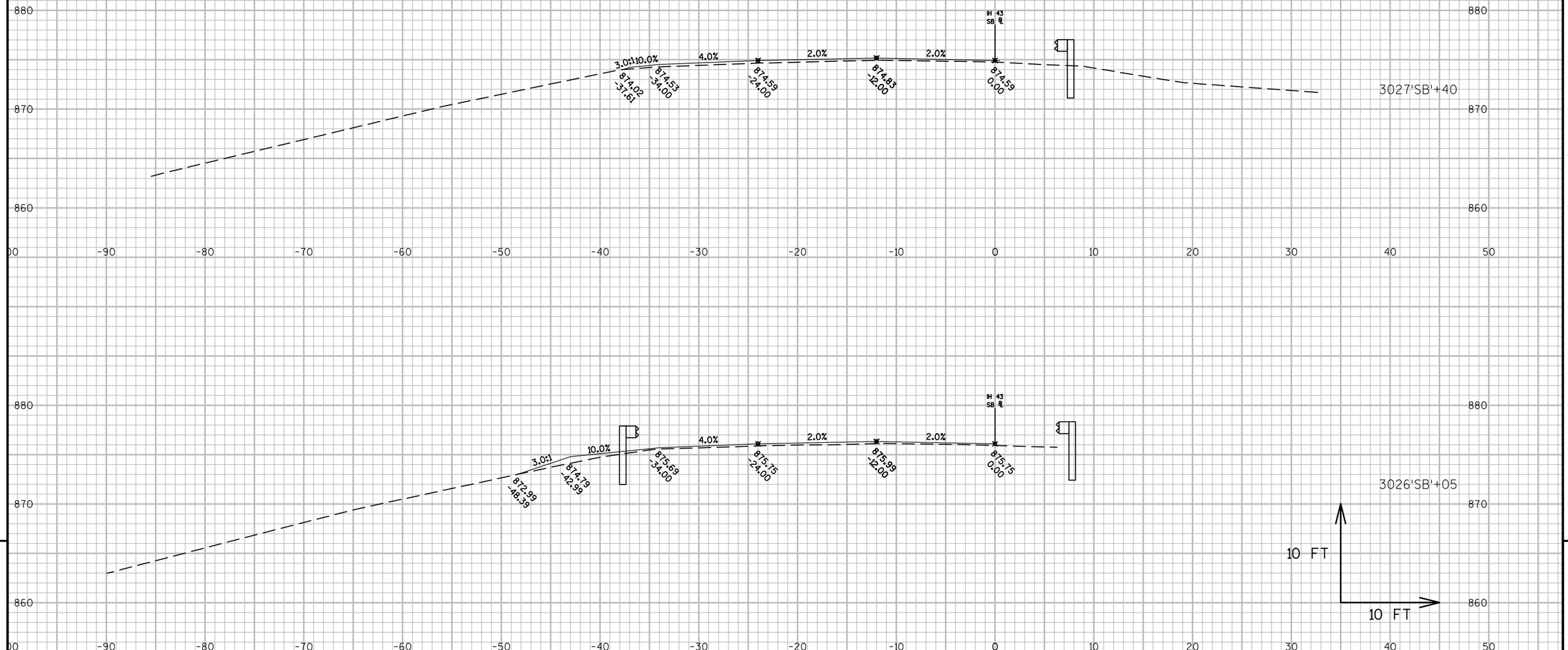


PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 602	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902194_XS

PLOT DATE : 4/8/2016 12:51 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

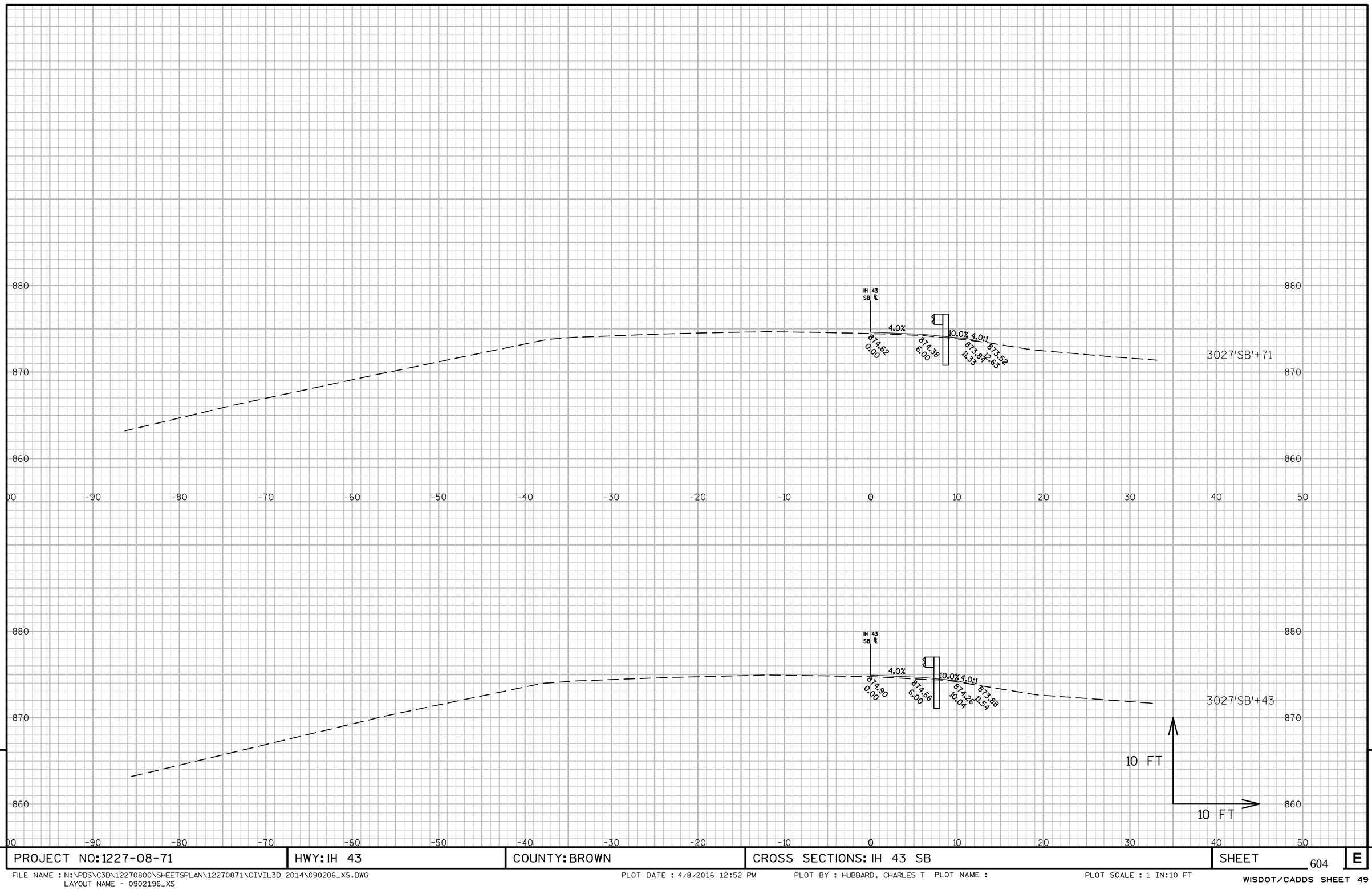
WISDOT/CADDS SHEET 49



PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 603	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902195_XS

PLOT DATE : 4/8/2016 12:52 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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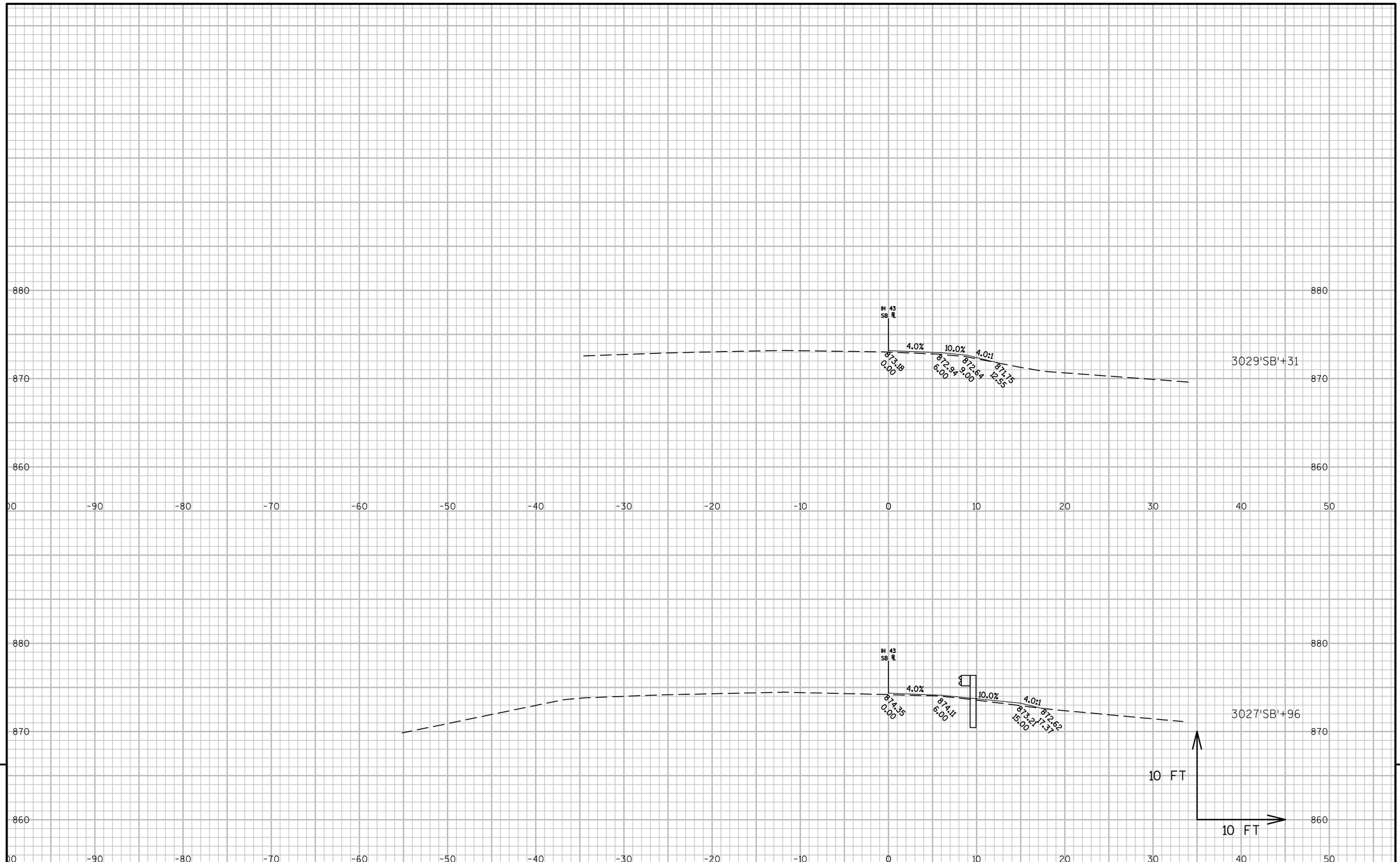
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 604	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902196_XS

PLOT DATE : 4/8/2016 12:52 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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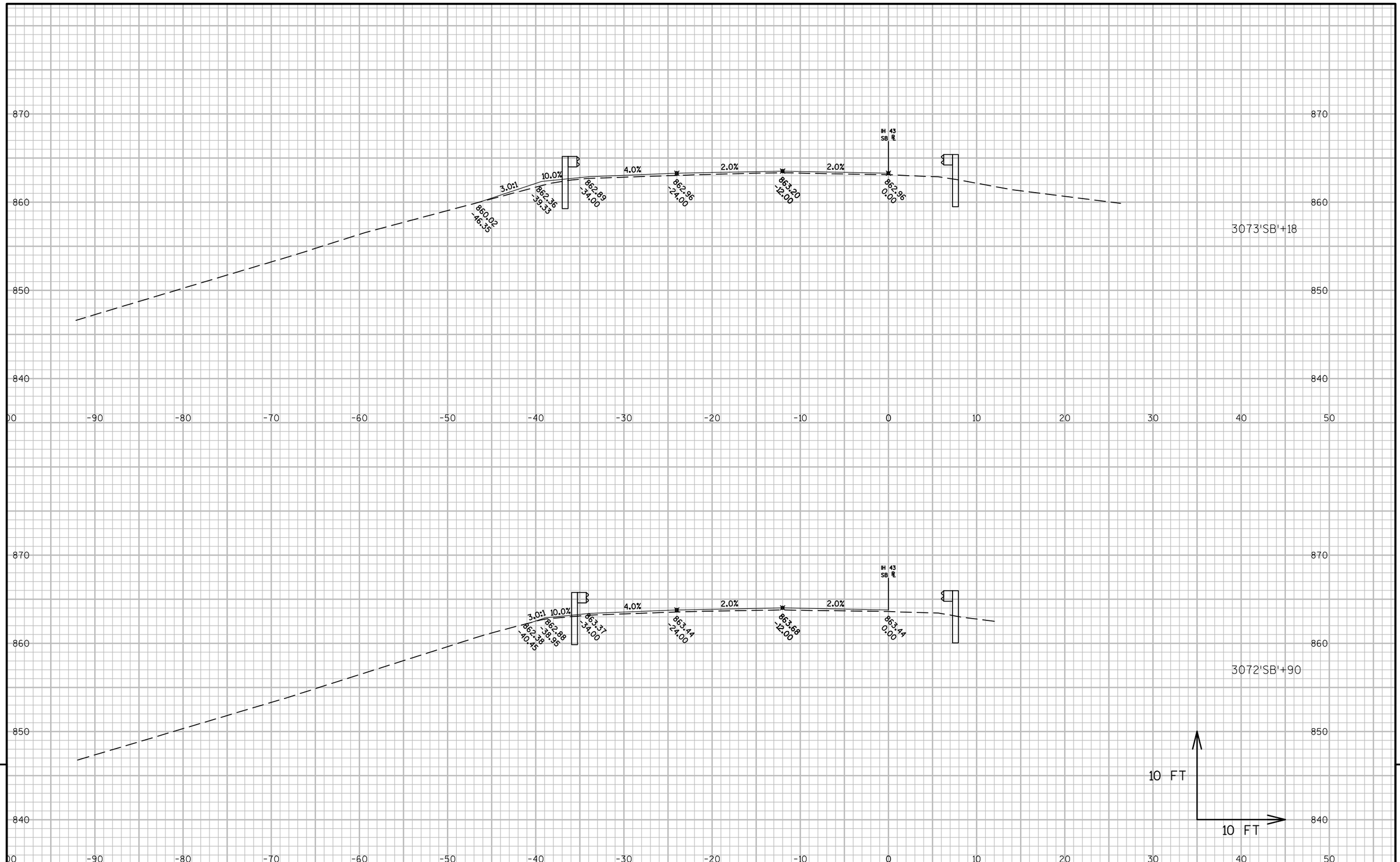
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 605	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902197_XS

PLOT DATE : 4/8/2016 12:53 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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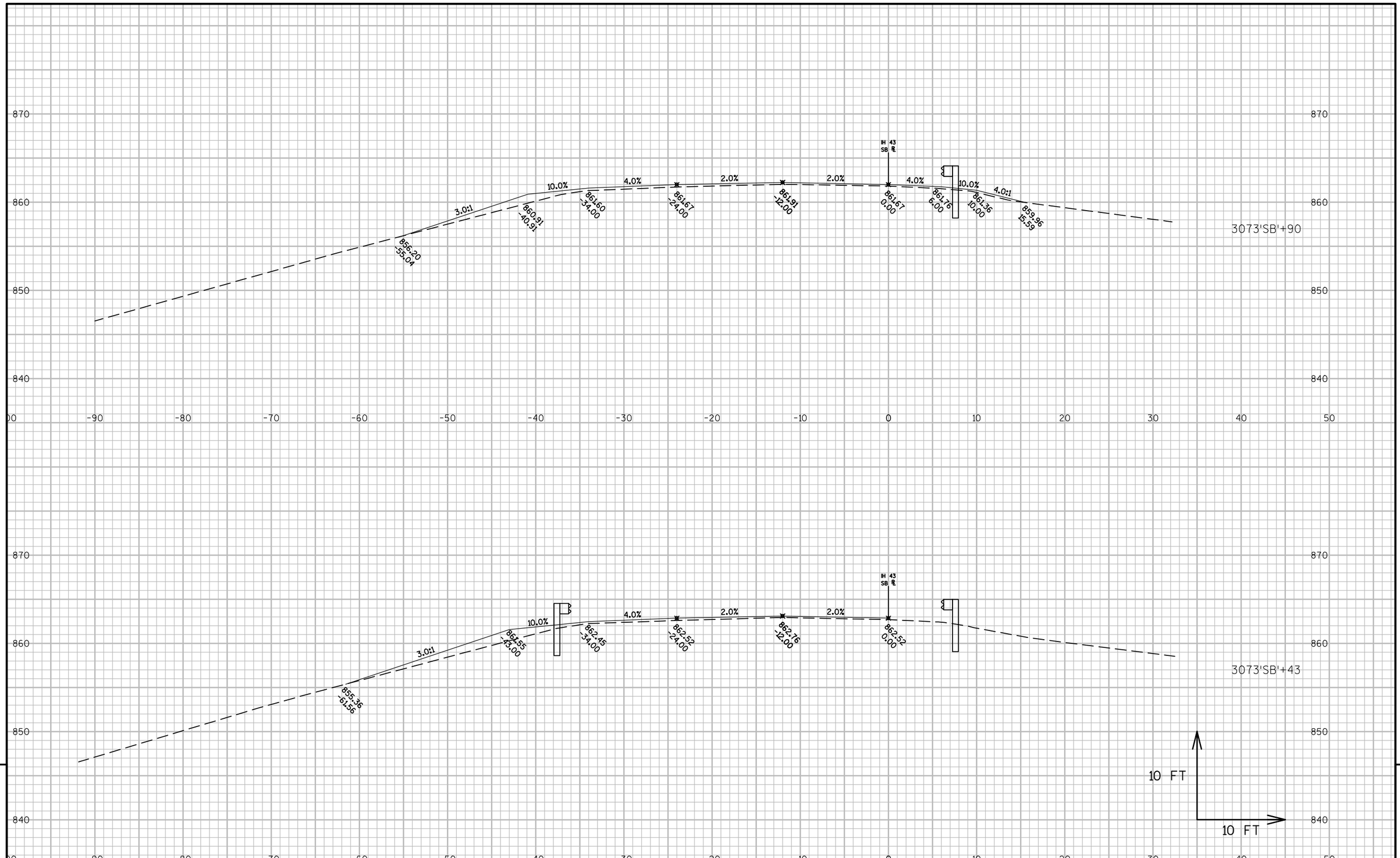
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 606	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902198_XS

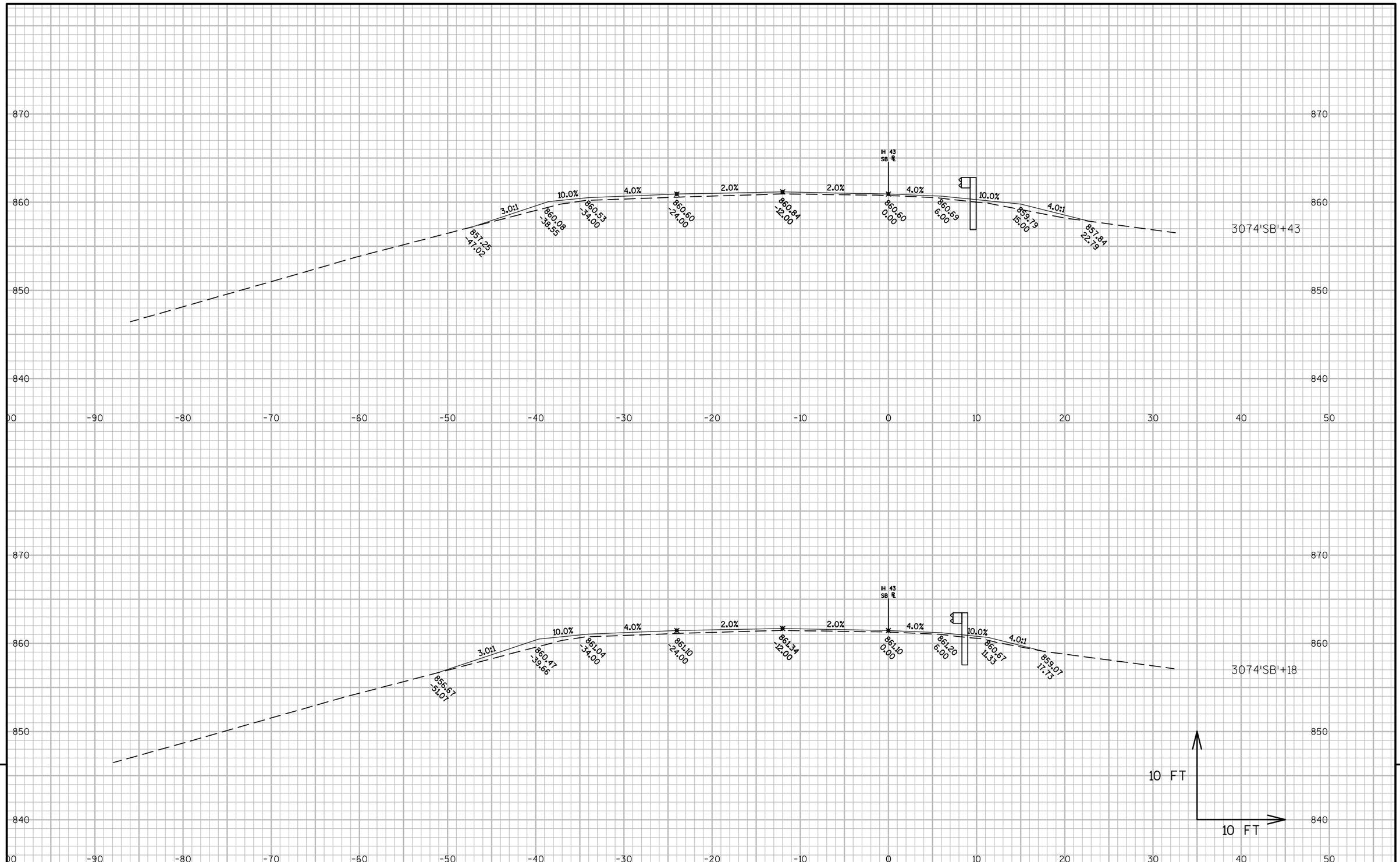
PLOT DATE : 4/8/2016 12:53 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 607	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902199_XS
PLOT DATE : 4/8/2016 12:53 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



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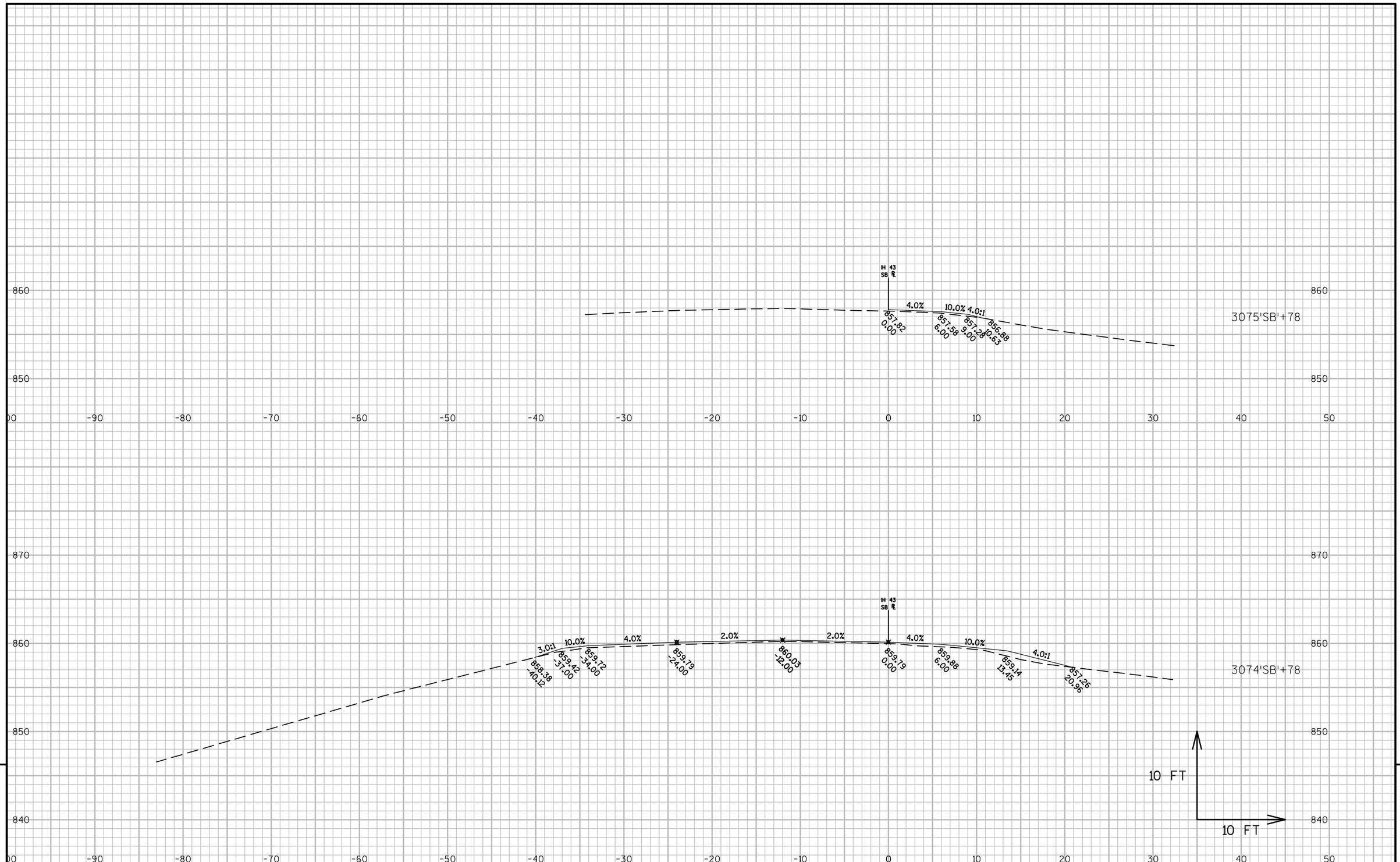
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 608 E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902200_XS
PLOT DATE : 4/8/2016 12:54 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



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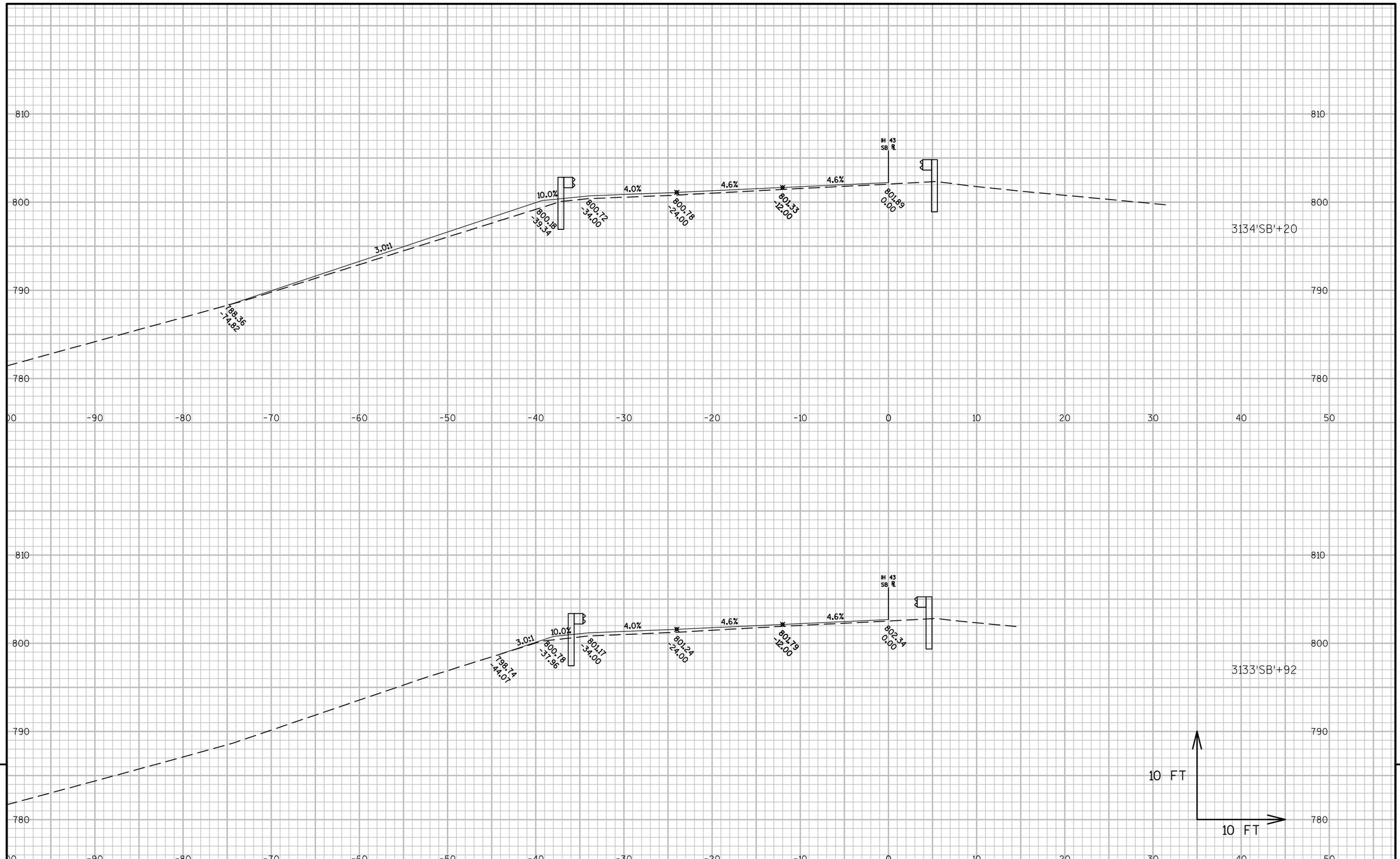
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 609	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902201_XS

PLOT DATE : 4/8/2016 12:54 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



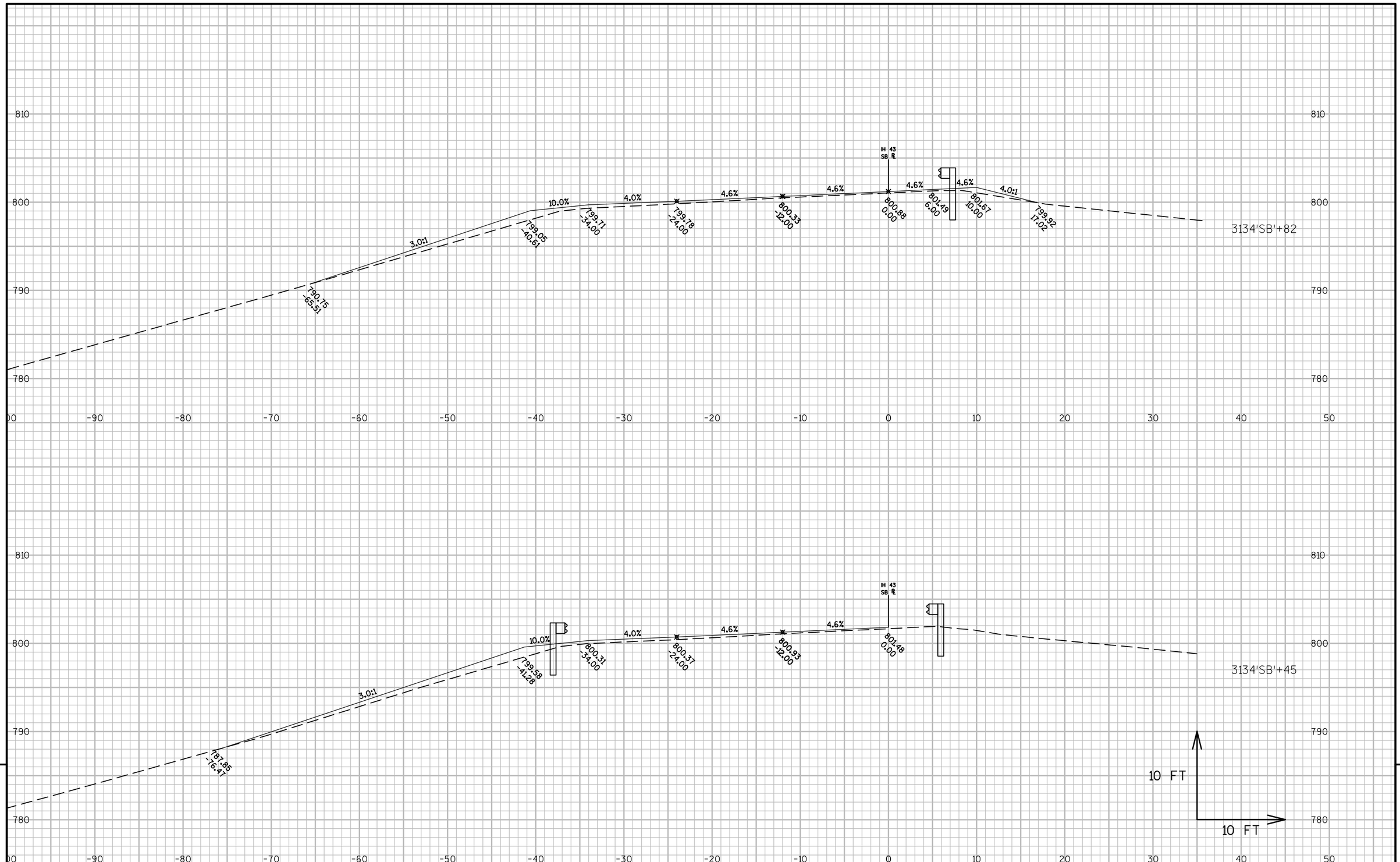
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 610	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902202_XS

PLOT DATE : 4/8/2016 12:55 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

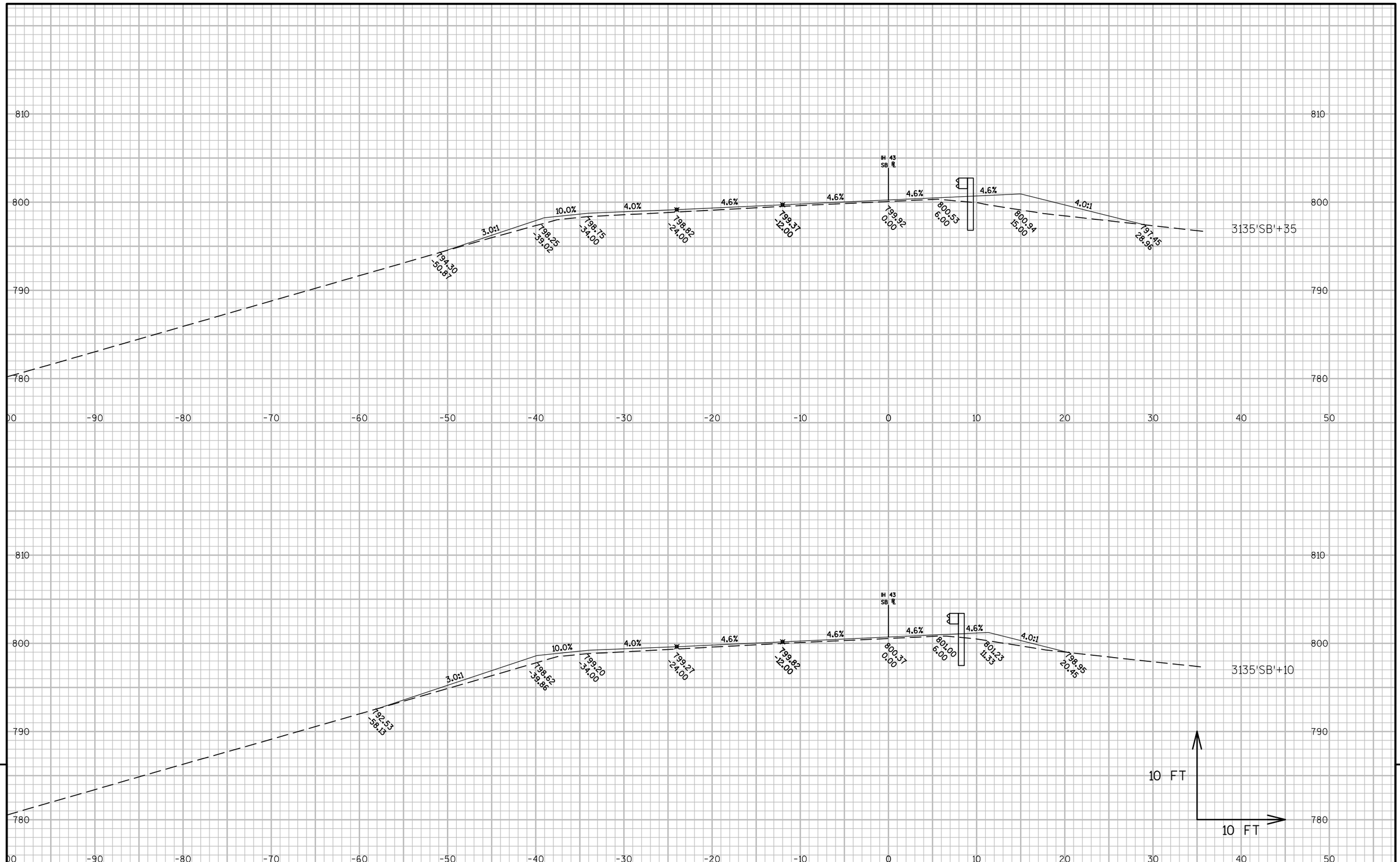


PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 611	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902203_XS

PLOT DATE : 4/8/2016 12:55 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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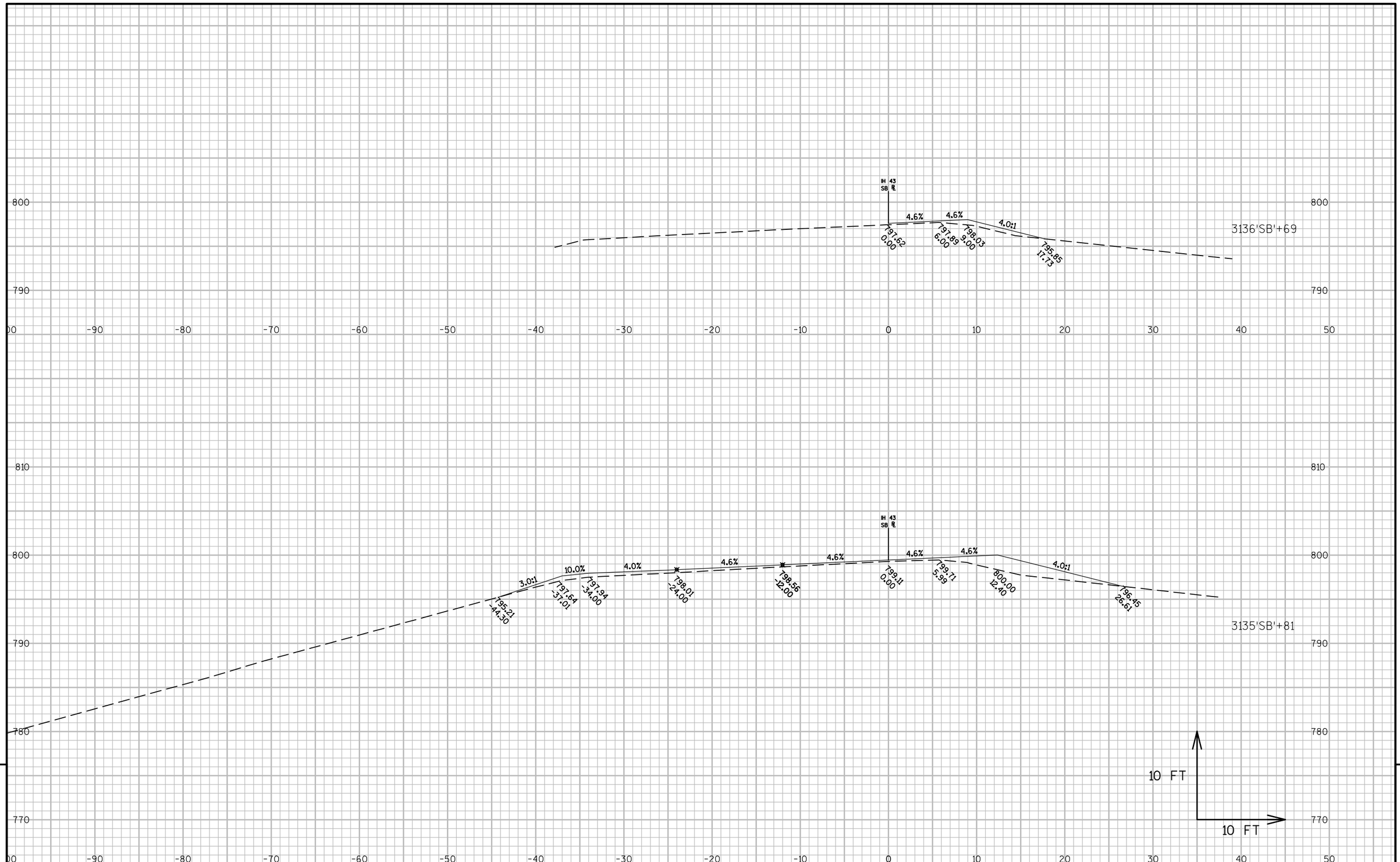
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 612	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902204_XS

PLOT DATE : 4/8/2016 12:55 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

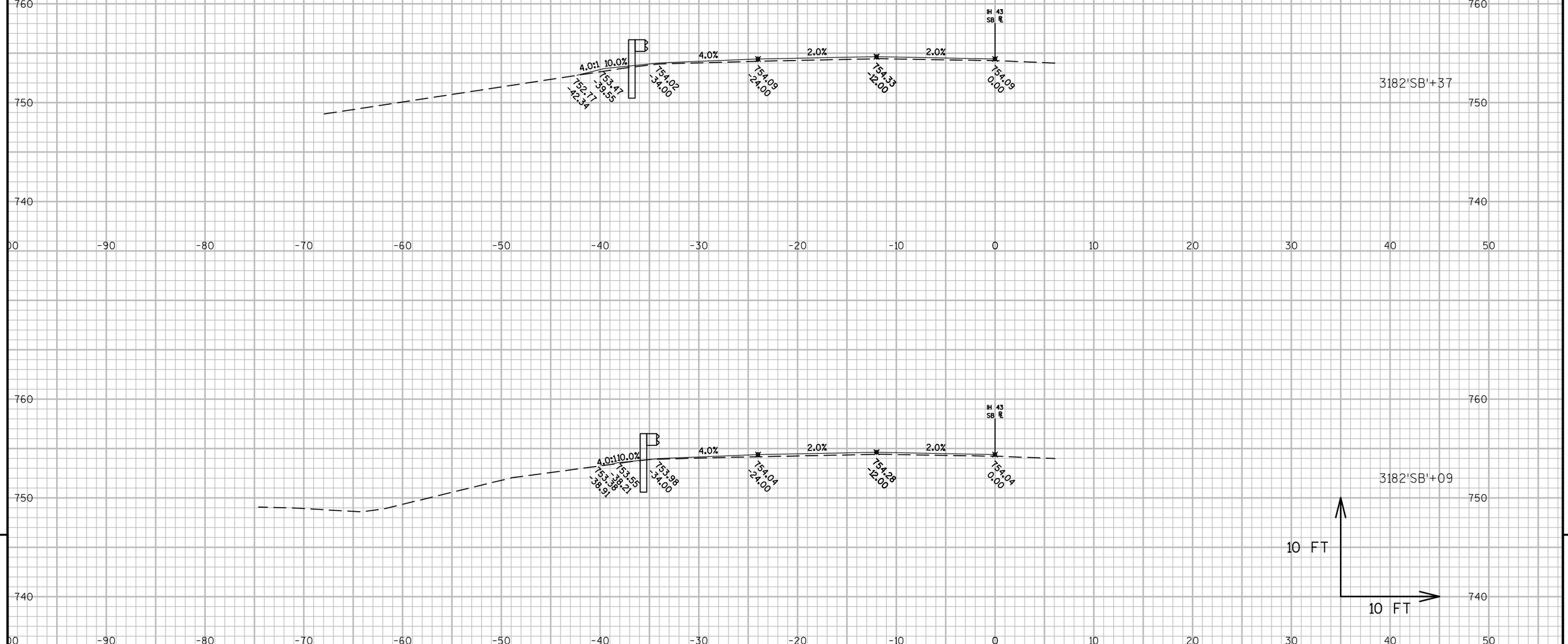


PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 613 E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902205_XS

PLOT DATE : 4/8/2016 12:56 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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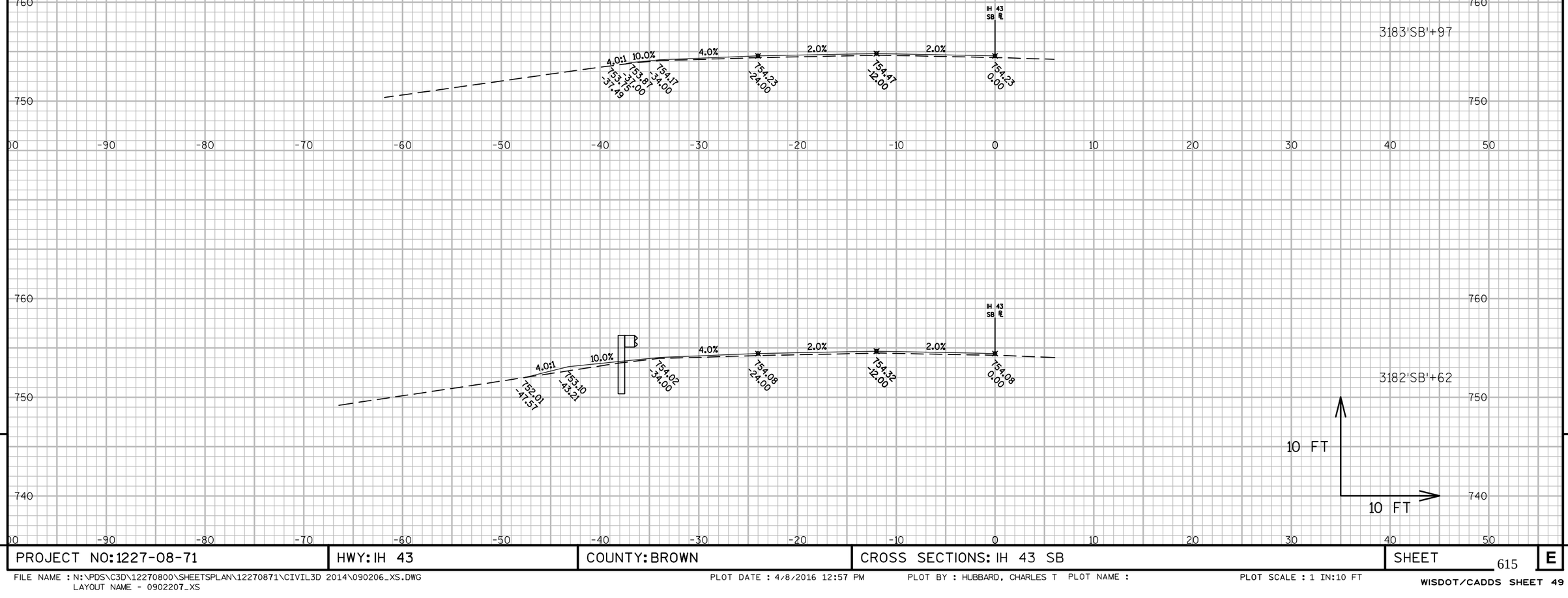
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 614	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902206_XS

PLOT DATE : 4/8/2016 12:56 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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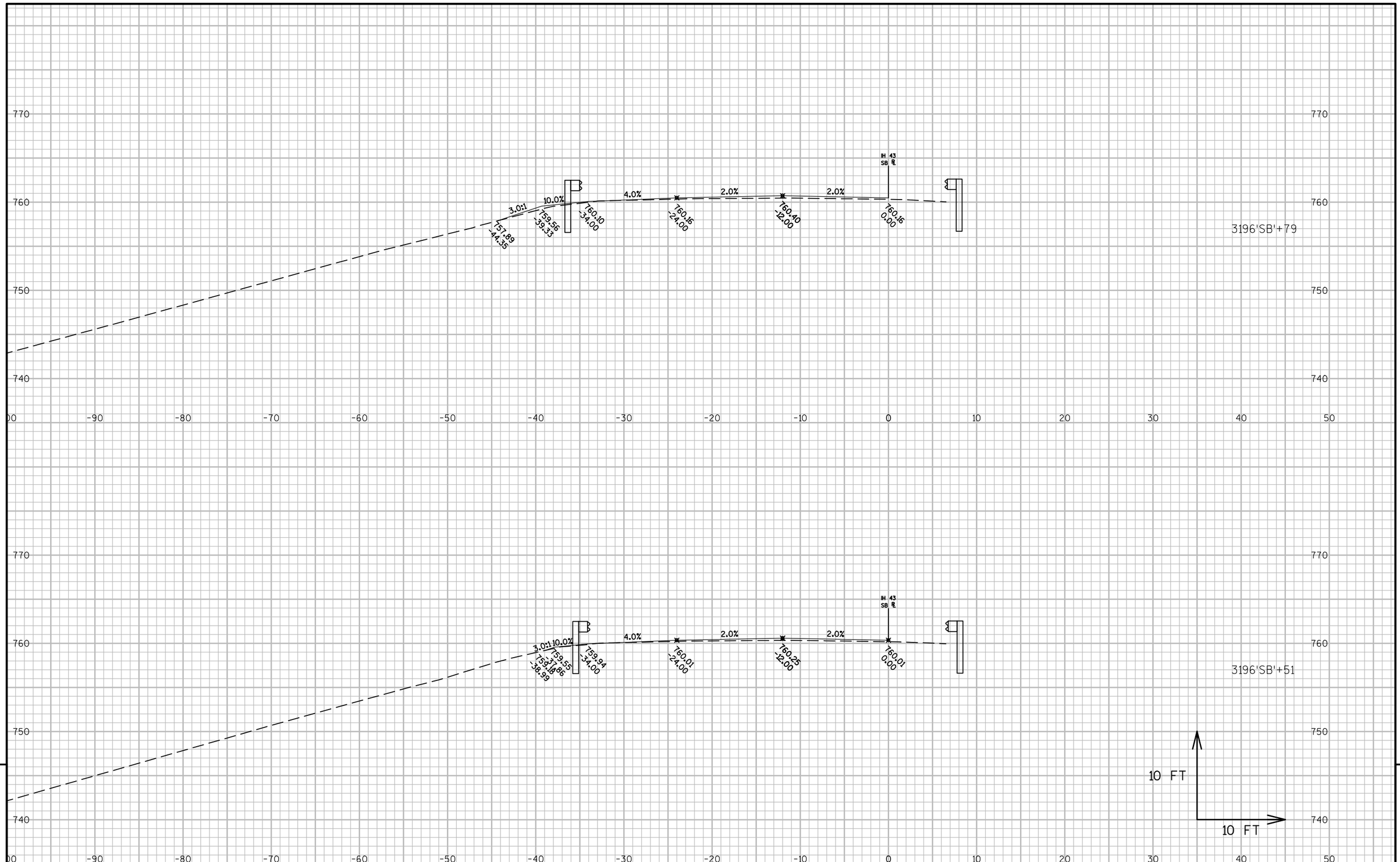
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 615	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902207_XS

PLOT DATE : 4/8/2016 12:57 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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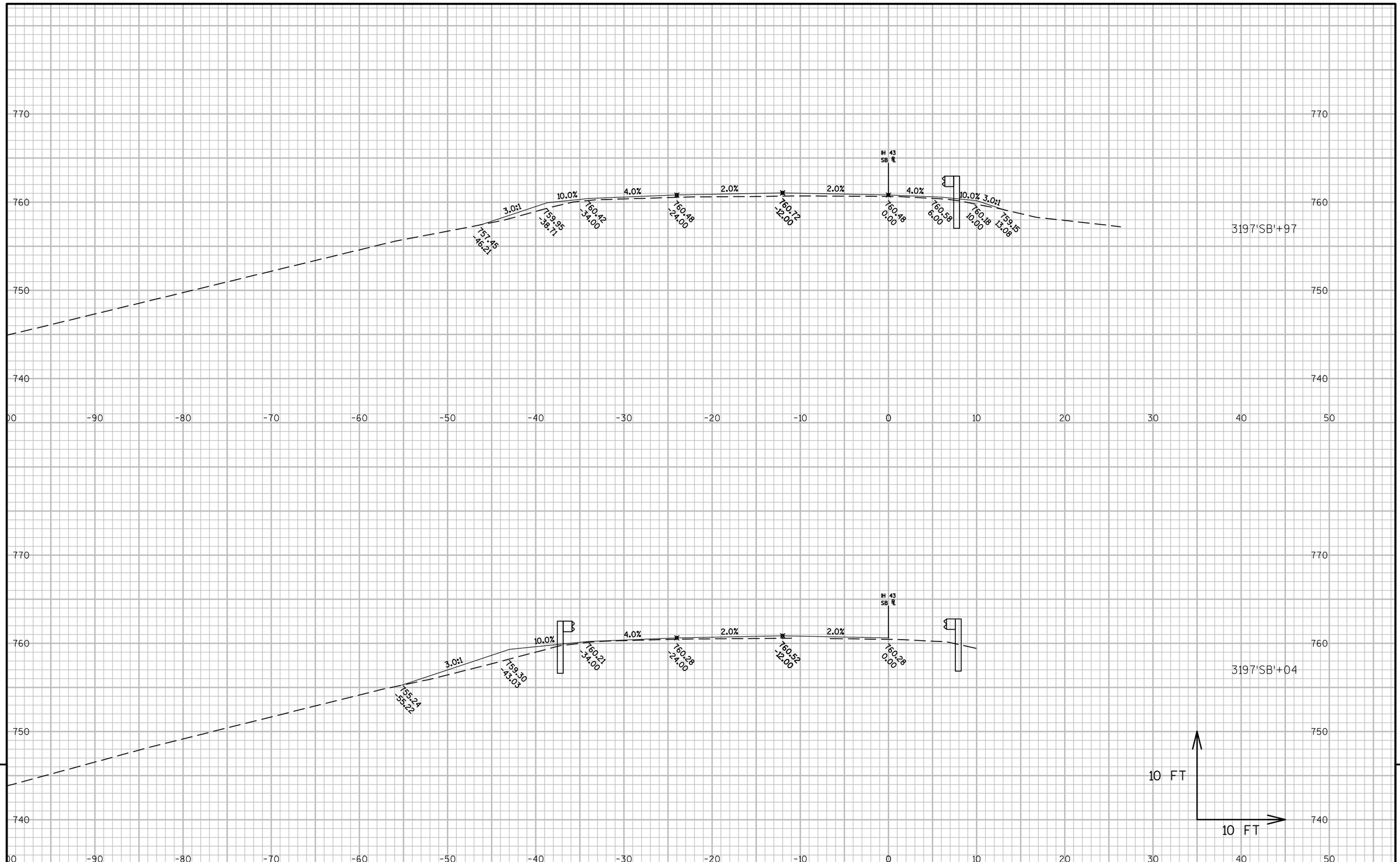
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 616	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902208_XS

PLOT DATE : 4/8/2016 12:57 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

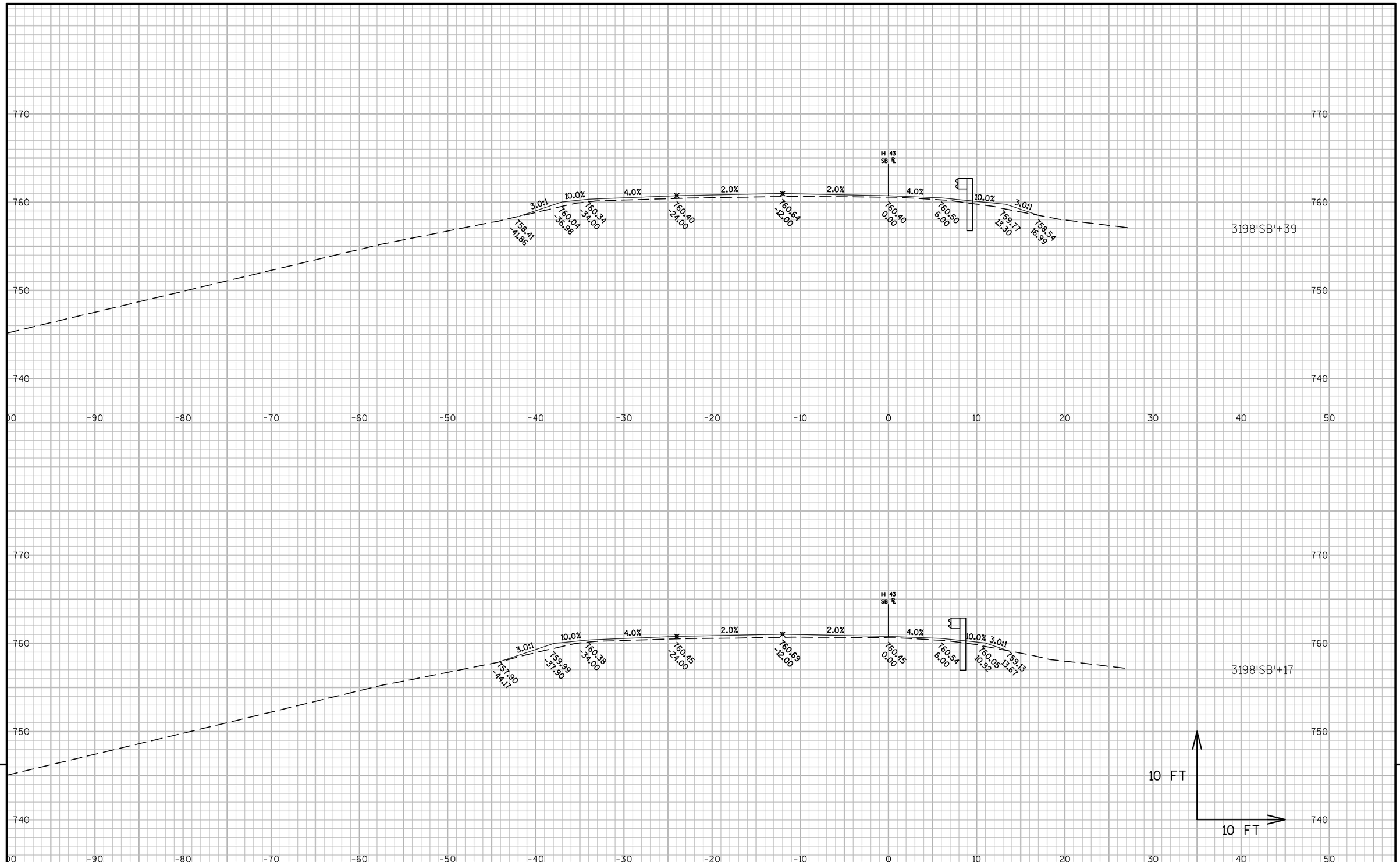


PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 617	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902209_XS

PLOT DATE : 4/8/2016 12:58 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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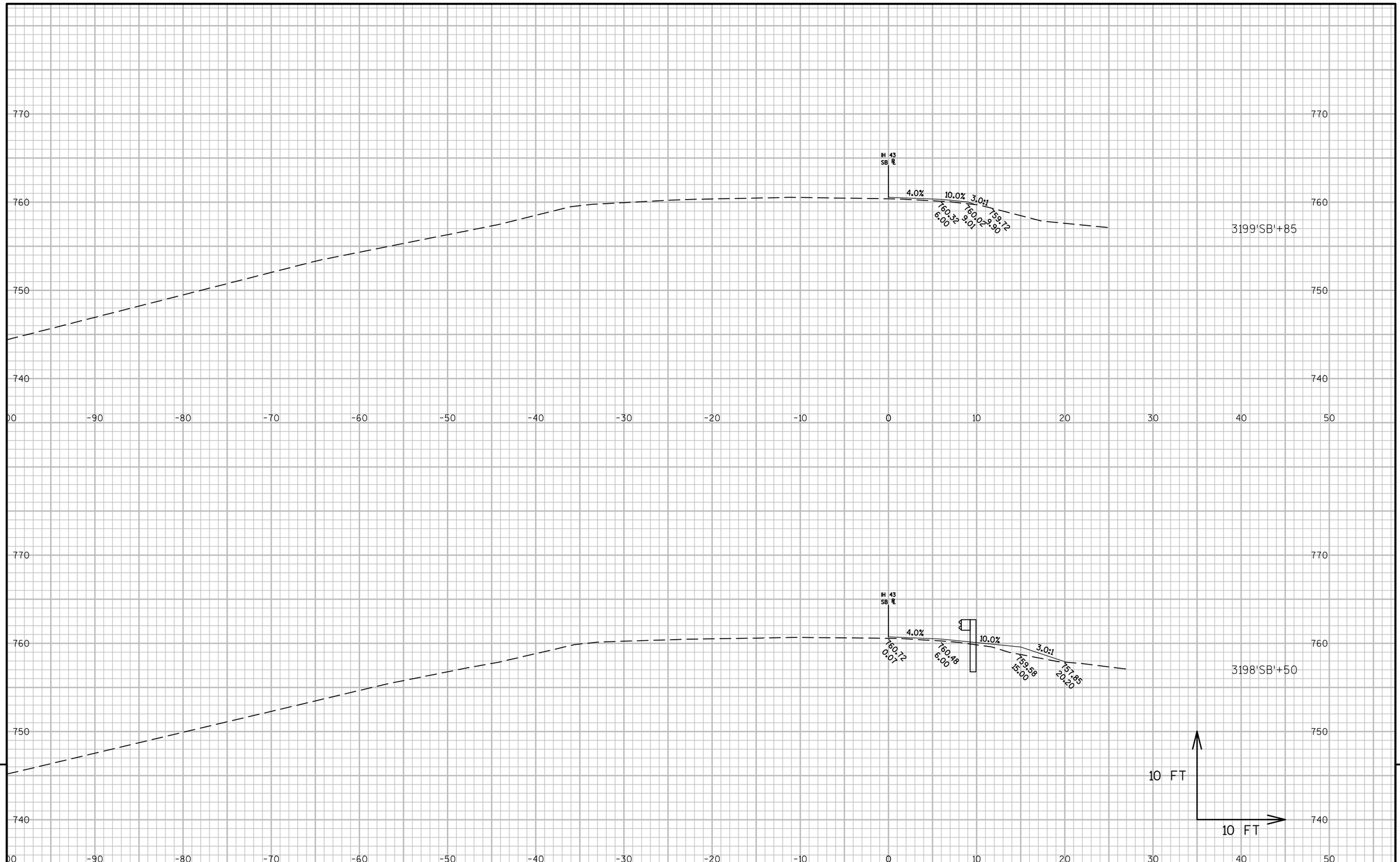
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 618	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902210_XS

PLOT DATE : 4/8/2016 12:58 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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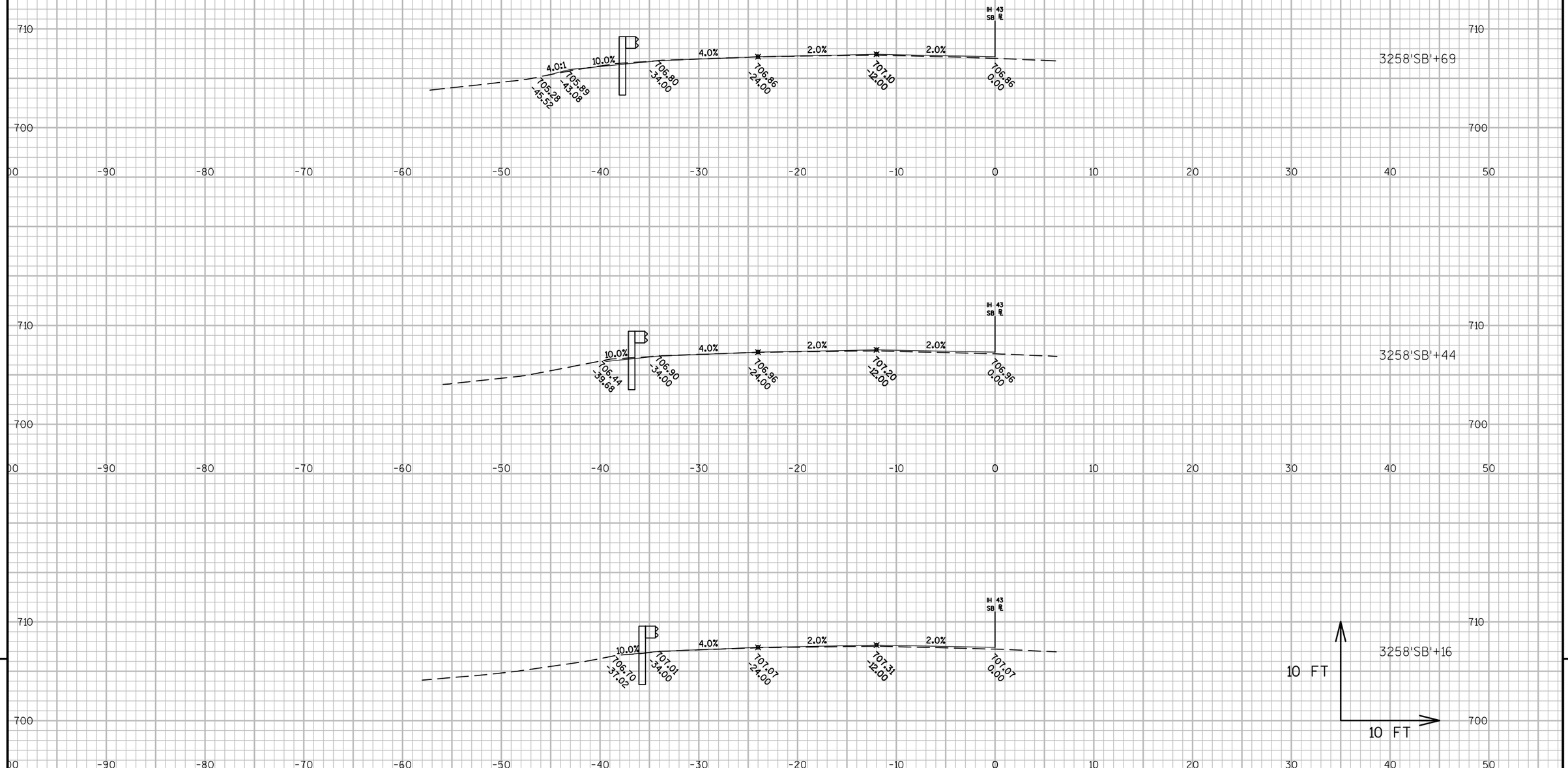
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 619	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902211_XS

PLOT DATE : 4/8/2016 12:58 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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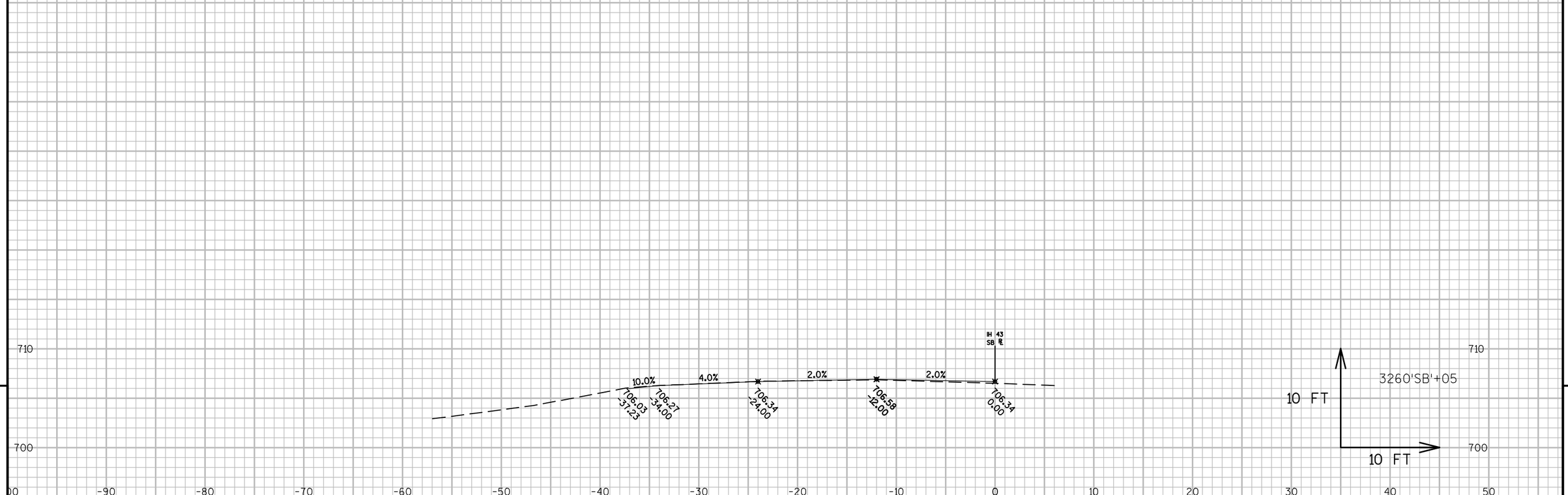
PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 620	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902212_XS

PLOT DATE : 4/8/2016 12:59 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT



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PROJECT NO: 1227-08-71	HWY: IH 43	COUNTY: BROWN	CROSS SECTIONS: IH 43 SB	SHEET 621	E

FILE NAME : N:\PDS\C3D\12270800\SHEETSPLAN\12270871\CIVIL3D 2014\090206_XS.DWG
LAYOUT NAME - 0902213_XS

PLOT DATE : 4/8/2016 12:59 PM PLOT BY : HUBBARD, CHARLES T PLOT NAME : PLOT SCALE : 1 IN:10 FT

Wisconsin Department of Transportation

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