LAX DECEMBER 2013

PROJECT ID: 5120-07-71, 5120-07-72

WITH: N/A

COUNTY: LA CROSSE

03

ORDER OF SHEETS

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

TOTAL SHEETS = 712

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5120-07-71	WISC 2013508	1
5120-07-72	WISC 2013509	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

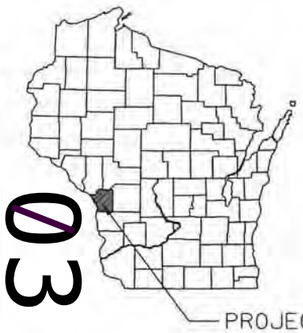
LA CROSSE - CASHTON

EAST CITY LIMITS - BOMA ROAD
STH 33
LA CROSSE COUNTY

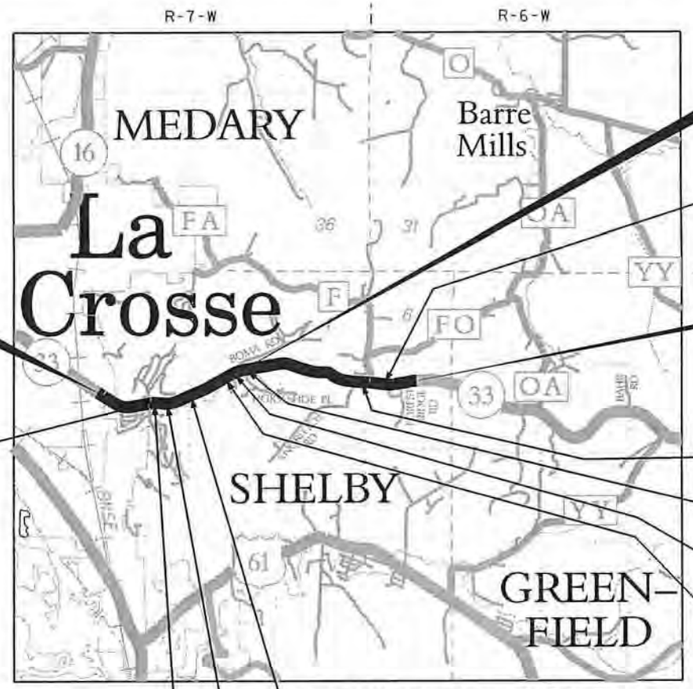
STATE PROJECT NUMBER
5120-07-71

BOMA ROAD - FOREST RIDGE DRIVE
STH 33
LA CROSSE COUNTY

STATE PROJECT NUMBER
5120-07-72



PROJECT LOCATION



END PROJECT
I.D. 5120-07-71
BEGIN PROJECT
I.D. 5120-07-72
STA 217+00.00
X = 125,803.79
Y = 464,526.43

EXISTING STRUCTURE C-32-73
STA 304+93.70

T-16-N

END PROJECT
I.D. 5120-07-72
STA 327+36.79
X = 125,391.09
Y = 475,292.06

T-15-N

RETAINING WALL R-32-51
STA 291+94.56 - STA 294+07.67

STRUCTURE B-32-71
STA 220+38.93

STRUCTURE B-32-227
STA 213+39.86

EXISTING STRUCTURE C-32-43
STA 207+54.80

BEGIN PROJECT
I.D. 5120-07-71
STA 132+50.00
X = 123,936.09
Y = 456,709.56

RETAINING WALL R-32-54
STA 146+47.56 - STA 11+18.97H

STRUCTURE C-32-32
STA 161+09.54

RETAINING WALL R-32-53
STA 180+51.92 - STA 181+71.37

RETAINING WALL R-32-52
STA 167+38.62 - STA 170+67.05

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 1.600 MI. - 5120-07-71
2.090 MI. - 5120-07-72

"COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), 'LA CROSSE' COUNTY."

DESIGN DESIGNATION

	5120-07-71	5120-07-72
A.A.D.T. 2013	= 9,800	5,000
A.A.D.T. 2033	= 11,800	6,000
D.H.V.	= 492	250
D.D.	= 58/42	58/42
T.	= 8.5%	8.5%
DESIGN SPEED	= 45 MPH	60 MPH
ESALS	= 1,292,100	1,292,100

CONVENTIONAL SYMBOLS

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

ORIGINAL PLANS PREPARED BY

MSA PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL • REDEVELOPMENT • DEVELOPMENT • ENVIRONMENTAL

1230 South Boulevard Baraboo, WI 53913
608-356-2771 Madison 608-362-4505 Fax 608-356-2770

WISCONSIN
LOREN T. KUGLER
E-25987
BARABOO
WI
PROFESSIONAL ENGINEER

DATE: 7/16/13
(Professional Engineer)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WIS DOT
Designer	MSA PROFESSIONAL SERVICES
Project Manager	TODD WALDO
Regional Examiner	
Regional Supervisor	STEPHEN FLOTTMEYER
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 07/31/13 Stephen A. Flottmeyer
(Signature)

E

FILE NAME : p:\90s\93\00093106\caddwdot\Planshts\Details\010101_ti.dgn

PLOT DATE : 7/16/2013

PLOT BY : $$...plotuser...$$ PLOT NAME :

PLOT SCALE : $$....,plotscale.....$$ WISDOT/CADDS SHEET 10

\Planshts\Details\010101_ti.dgn Jul 16, 2013 bmaxwell

GENERAL NOTES

MISCELLANEOUS

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.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE U.S.G.S DATUM NAVD 88 (1991)

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

REMOVALS

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

GRADING AND EROSION CONTROL

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, ARE TO BE FERTILIZED, PERMANENT SEEDED OR TEMPORARILY SEEDED AND MULCH OR EMAT PLACED AS DIRECTED BY THE ENGINEER.

EXCAVATION BELOW SUBGRADE (EBS) WHICH IS NOT INDICATED ON THE CROSS SECTIONS AND WHICH IS REQUIRED BY THE ENGINEER SHALL BE MEASURED AND PAID FOR AS COMMON EXCAVATION. EBS IS NOT USED TO BALANCE YARDAGE.

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

NO EQUIPMENT OR MATERIALS SHALL BE STORED UPLAND AND AWAY FROM ANY WETLANDS OR WATERWAYS.

FILL EXPANSION IS ESTIMATED AT 1.25, ROCK EXPANSION 1.10.

PAVING

CURVE DATA BASED ON ARC DEFINITION.

RADIUS DIMENSIONS FOR THE CURB AND GUTTER ARE TO THE FLAG LINE.

EXPANSION JOINTS SHALL BE CONSTRUCTED AT ALL RADIUS POINTS IN CURB AND GUTTER.

HMA WEIGHT CALCULATIONS BASED ON 113 LBS/SY/IN.

6" ASPHALTIC SURFACE TO BE PLACED IN 3 LAYERS, THE 12.5 MM GRADATION MAY BE USED IN ALL LAYERS.
2" & 3½" ASPHALTIC SURFACE TO BE PLACED IN 1 LAYER.

ALL CONCRETE DRIVEWAYS AND SIDEWALKS ACROSS DRIVEWAYS WILL BE 6" THICK AND WILL BE PAID FOR AS A CONCRETE DRIVEWAY 6-INCH AND CONCRETE SIDEWALK 6-INCH.

THE EXACT LOCATION OF ENTRANCES IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

UNLESS OTHERWISE SHOWN ON THE PLAN, ALL MATCHING DRIVEWAYS AND STREETS SHALL BE SAWCUT. COST OF CUTTING IS TO BE PAID FOR UNDER "SAWING ASPHALT" FOR ASPHALT PAVEMENT OR "SAWING CONCRETE" FOR CONCRETE PAVEMENT.

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

CONCRETE JOINT DESIGN AND FIELD LAYOUT TO BE PAID FOR UNDER "CONCRETE PAVEMENT JOINT LAYOUT".

THE CLEAR ZONE FROM STATION 132+50 TO STATION 214+00 IS 2.5 FEET FROM THE FACE OF THE CURB.
THE CLEAR ZONE FROM STATION 214+00 TO STATION 327+36.79 IS 18 FEET FROM THE EDGE OF THE TRAVELED WAY.
THE EXISTING CLEAR ZONE ON THE EASTBOUND LANES IS FROM THE DRIVING LANE NOT THE CLIMBING LANE.

STORM SEWER

INLET OFFSETS GIVEN TO THE CENTER OF THE STRUCTURE.

RIM ELEVATIONS SHOWN ON PLANS ARE TO THE FLOWLINE.

PLACE PIPE JOINT TIES ON ALL JOINTS ALONG MAIN TRUNK LINE FROM STATION 222+00 TO STATION 284+75.

WHERE TYING INTO EXISTING STRUCTURES OR PIPES, VERIFY EXISTING ELEVATIONS AND DIMENSIONS PRIOR TO ORDERING MATERIALS.

FIELD BORE 6" HOLE IN INLET STRUCTURES, FOR UNDERDRAIN CONNECTIONS.

ORDER OF TYPICAL SECTION & DETAIL SHEETS

1. GENERAL NOTES
2. PROJECT OVERVIEW
3. EXISTING TYPICAL SECTIONS
4. FINISHED TYPICAL SECTIONS
5. CONSTRUCTION DETAILS
6. PAVING DETAILS
7. EROSION CONTROL
8. STORM SEWER
9. PERMANENT SIGNING
10. PAVEMENT MARKING
11. TRAFFIC CONTROL
12. ALIGNMENT DIAGRAM
13. SUPERELEVATION DIAGRAM

UTILITIES

COMMUNICATION:
CENTURY TEL OF WISCONSIN LLC
ATTN: STEVE BLADO
333 N FRONT ST
LA CROSSE, WI 54601
608-796-5543
STEVE.BLADO@CENTURYTEL.COM

COMMUNICATION:
CHARTER COMMUNICATIONS
ATTN: MATT BROWN
2701 DANIELS ST
MADISON, WI 53718
608-274-3822
MATT.BROWN@CHARTERCOM.COM

COMMUNICATION:
KDL INC
ATTN: CAHIL HELTEMES
13623 89TH ST
OTSEGO, MN 55330
812-759-7997
CAHIL.HELTEMES@KDLINC.COM

COMMUNICATION:
MEDIACOM LLC WISCONSIN
ATTN: BOB FRAZER
207 W PEARL ST
DECORAH, IA 52101
563-387-6119
BFRAZER@MEDIACOMCC.COM

COMMUNICATION/GAS/ELECTRIC:
XCEL ENERGY
ATTN: NANCY DOTSON
1414 W HAMILTON AVE
P.O. BOX 8
EAU CLAIRE, WI 54702-0008
715-839-2574
NANCY.J.DOTSON@ECELENERGY.COM

ELECTRIC:
DAIRYLAND POWER COOPERATIVE
ATTN: KURT CHILDS
3200 EAST AVE S
P.O. BOX 817
LA CROSSE, WI 54602
608-788-4000
KDC@DAIRYNET.COM

ELECTRIC:
VERNON ELECTRIC COOPERATIVE
ATTN: CRAIG BUROS
110 N MAIN ST
WESTBY, WI 54667-1199
608-634-3121
CBUROS@VERNONELECTRIC.ORG

GAS:
NORTHERN NATURAL GAS COMPANY
ATTN: JIM CARLSON
STE F
8101 BIRCHWOOD CT
JOHNSTON, IA 50131
515-226-2016

GAS:
MIDWEST NATURAL GAS INCORPORATED
ATTN: TROY DAHLIN
3600 STH 157
P.O. BOX 429
LA CROSSE, WI 54602
608-781-1001
TROYD@MIDWESTNATURALGAS.COM

SEWER/WATER:
CITY OF LA CROSSE
LA CROSSE WATER UTILITY
ATTN: RANDY TURTENWALD
400 LA CROSSE ST
LA CROSSE, WI 54601
608-789-7505

SEWER/WATER:
SHELBY SEWER & WATER DEPARTMENT
ATTN: JEFF BRUDOS
2800 WARD AVE
LA CROSSE, WI 54601
608-788-1032

DIGGERS HOTLINE
Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

DNR LIAISON

WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
LA CROSSE OFFICE
ATTN: KAREN KALVELAGE
3550 MORMON COULEE RD
LA CROSSE, WI 54601
608-785-9115
KALVEK@DNR.STATE.WI.US

SOILS ENGINEER CONTACT

WISCONSIN DEPARTMENT OF TRANSPORTATION
SOUTHWEST REGION - LA CROSSE OFFICE
ATTN: RUSS FRANK
3550 MORMON COULEE RD
LA CROSSE, WI 54601
608-785-9047
RUSSELL.FRANK@DOT.WI.GOV

PAVEMENT DESIGN ENGINEER CONTACT

WISCONSIN DEPARTMENT OF TRANSPORTATION
SOUTHWEST REGION - MADISON OFFICE
ATTN: TIM MCCARTHY
2101 WRIGHT ST
MADISON, WI 53704-2583
608-246-5623
TIMOTHY.MCCARTHY@DOT.WI.GOV

MSA DESIGN CONTACT

MSA PROFESSIONAL SERVICES, INC.
ATTN: LOREN KUGLER
1230 SOUTH BOULEVARD
BARABOO, WI 53913
608-355-8894
LORENK@MSA-PS.COM

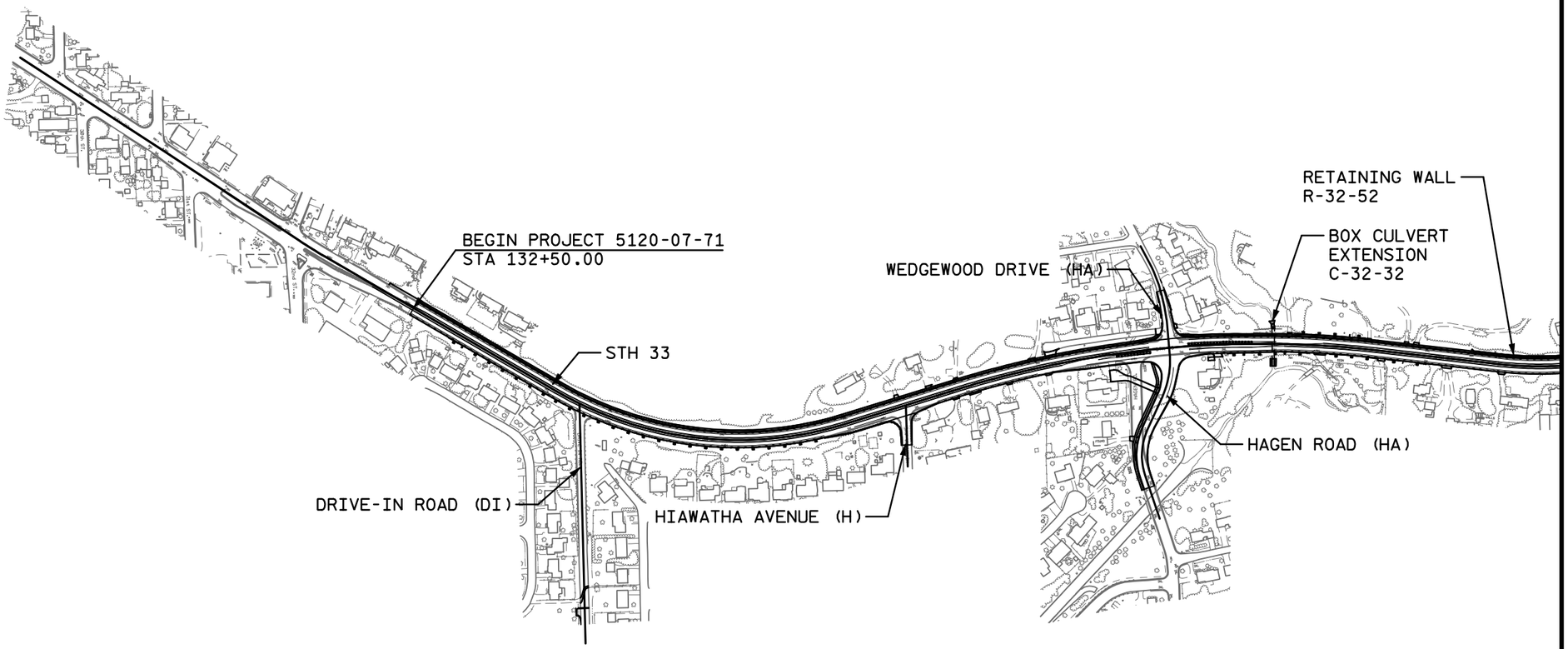
DOT DESIGN CONTACT

WISCONSIN DEPARTMENT OF TRANSPORTATION
ATTN: TODD WALDO
3550 MORMON COULEE RD
LA CROSSE, WI 54601
608-785-9462
TODD.WALDO@DOT.WI.GOV

2

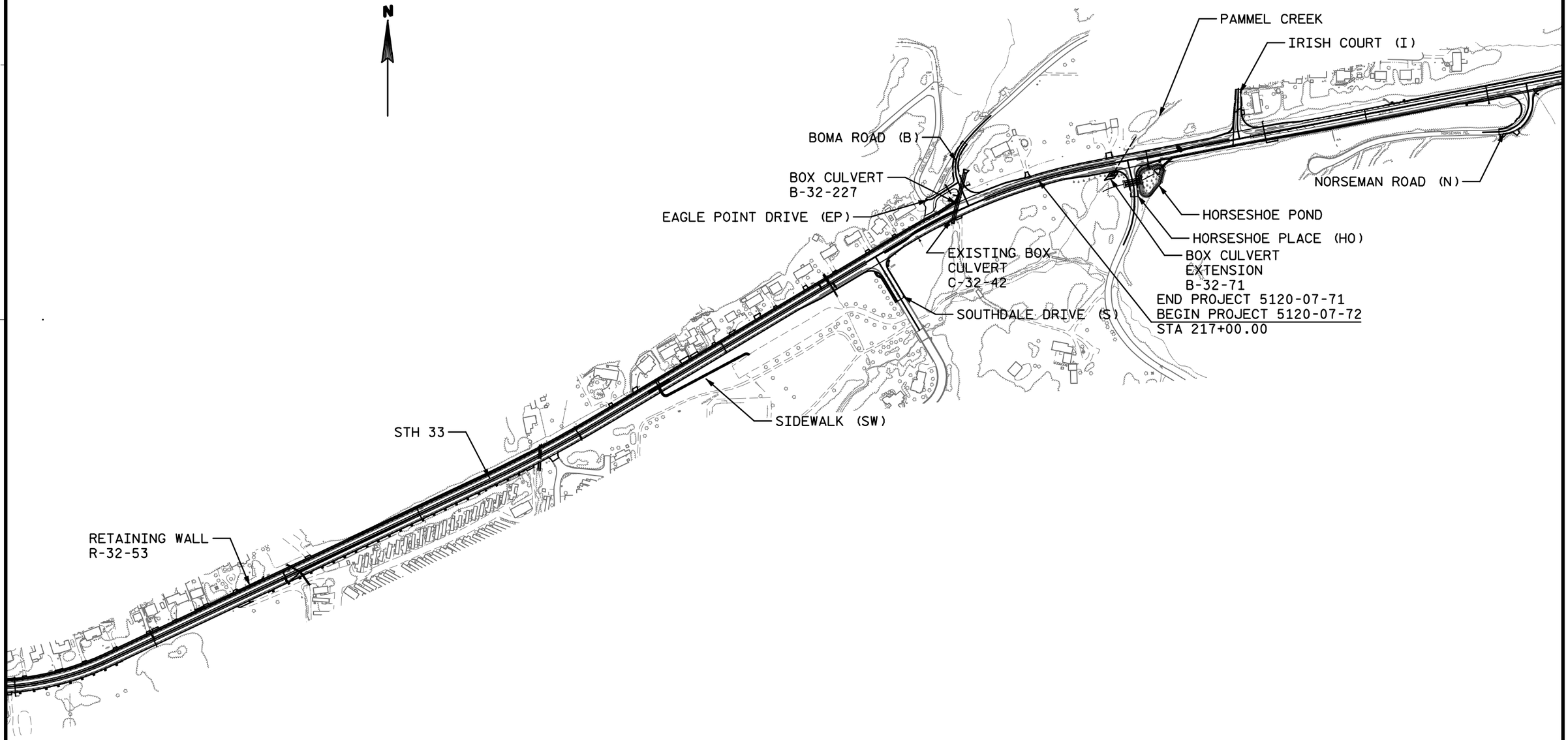
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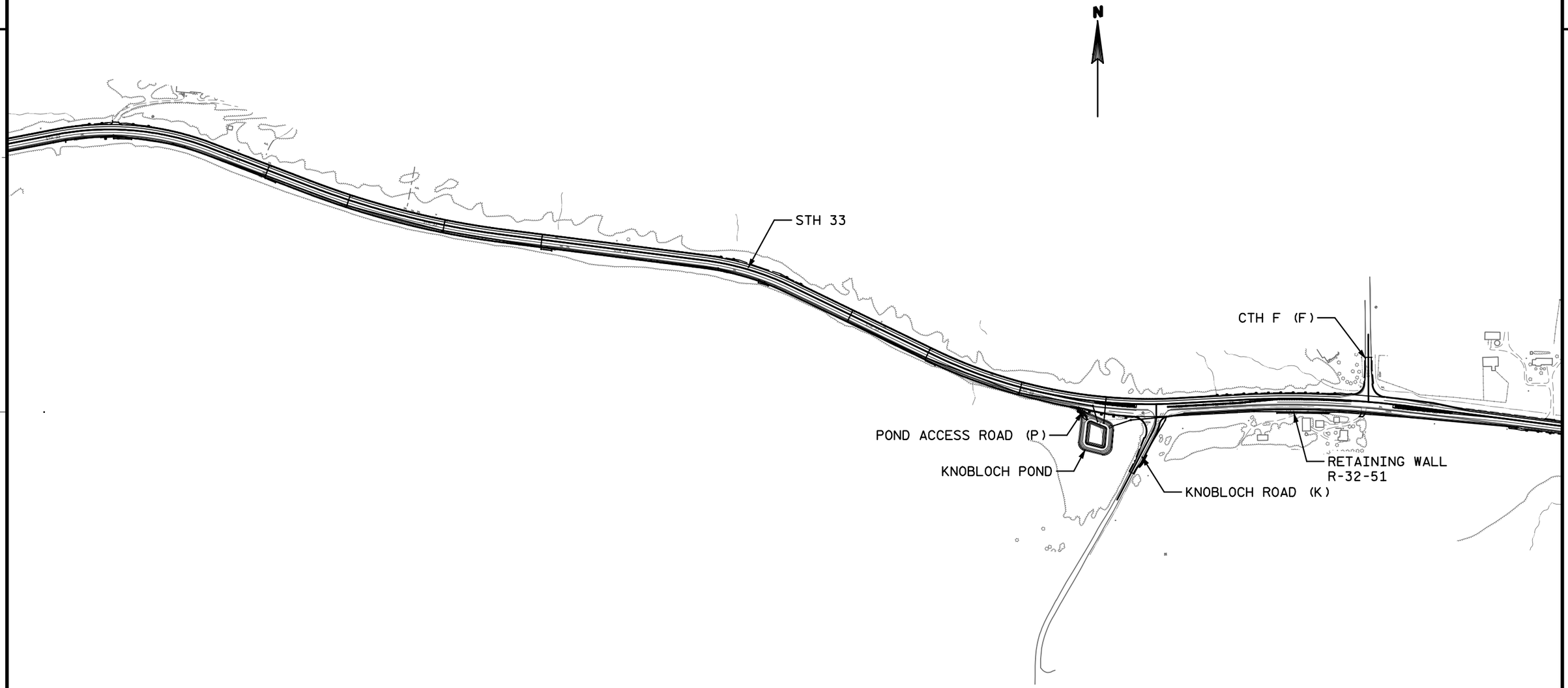
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PROJECT OVERVIEW	SHEET 3	E

2



PROJECT NO: 5120-07-71/72	HWY: STH 33	COUNTY: LA CROSSE	PROJECT OVERVIEW	SHEET 4	E

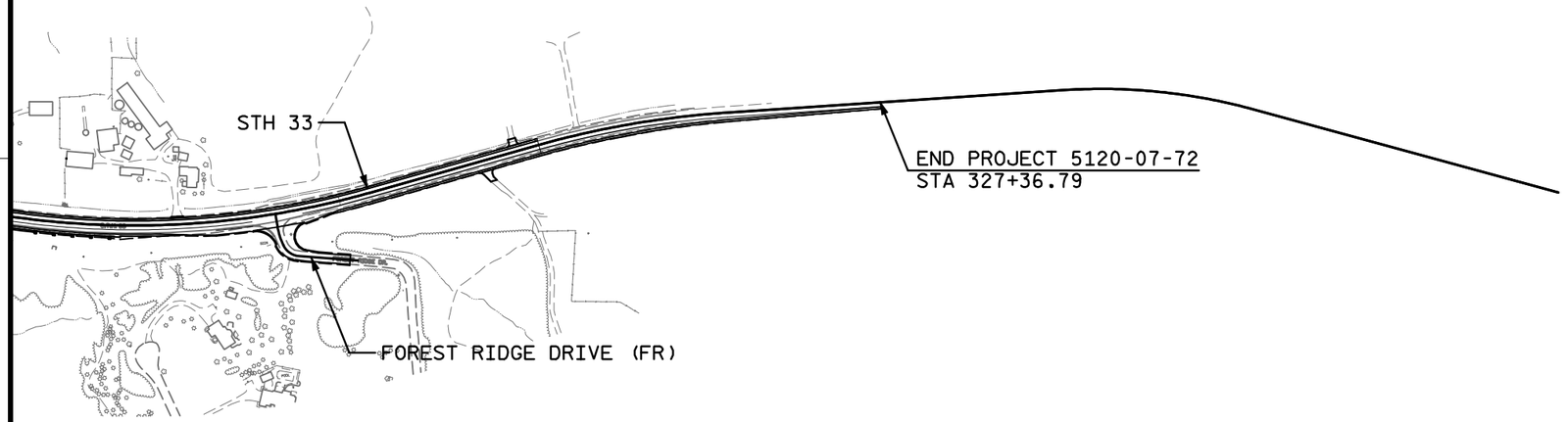
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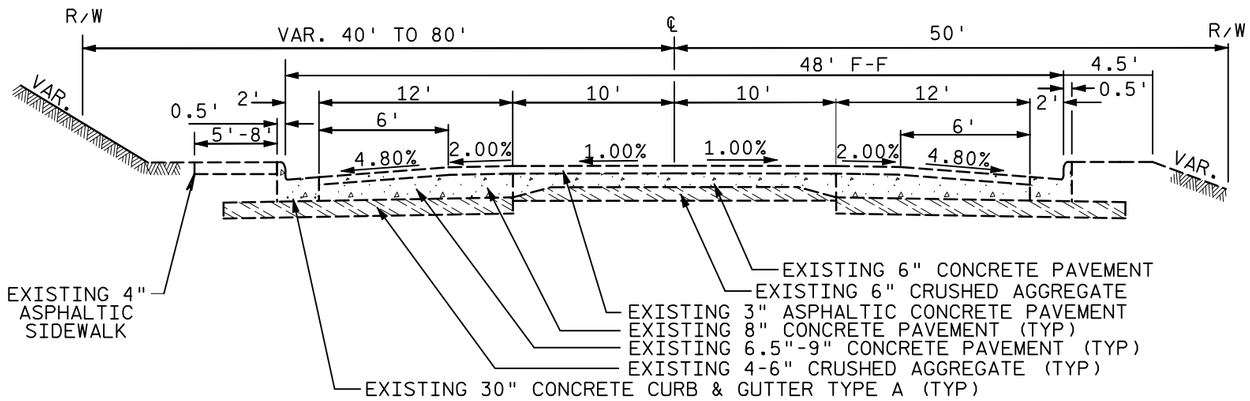
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2

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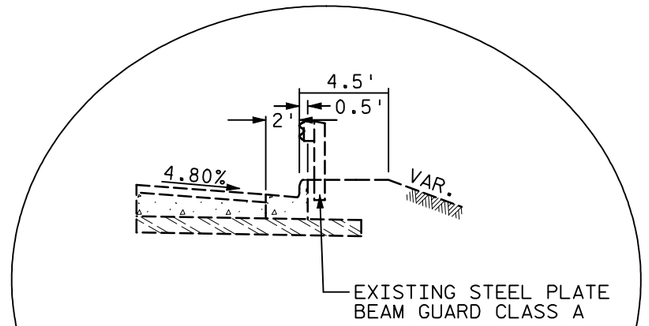


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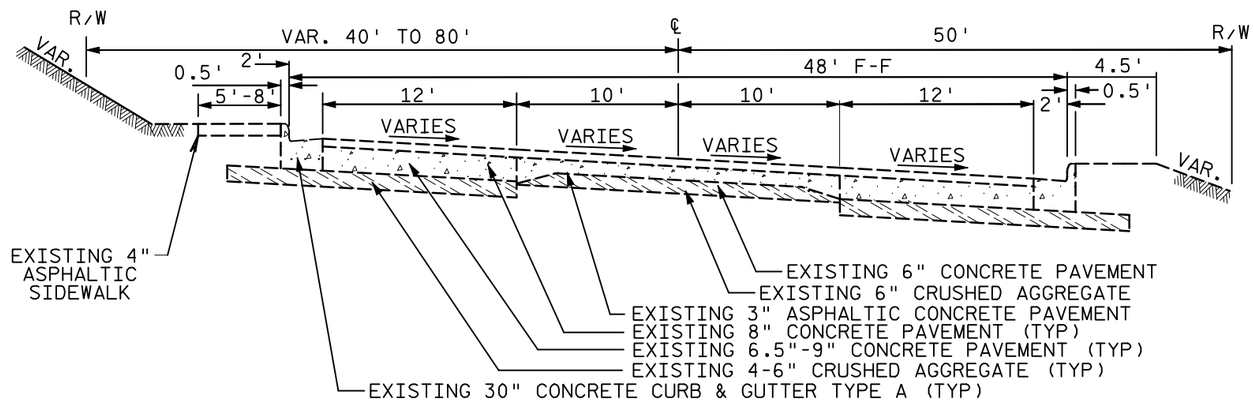
TYPICAL EXISTING SECTION

STA 132+50 TO 137+49
STA 146+95 TO 150+63



TYPICAL EXISTING SECTION WITH BEAMGUARD

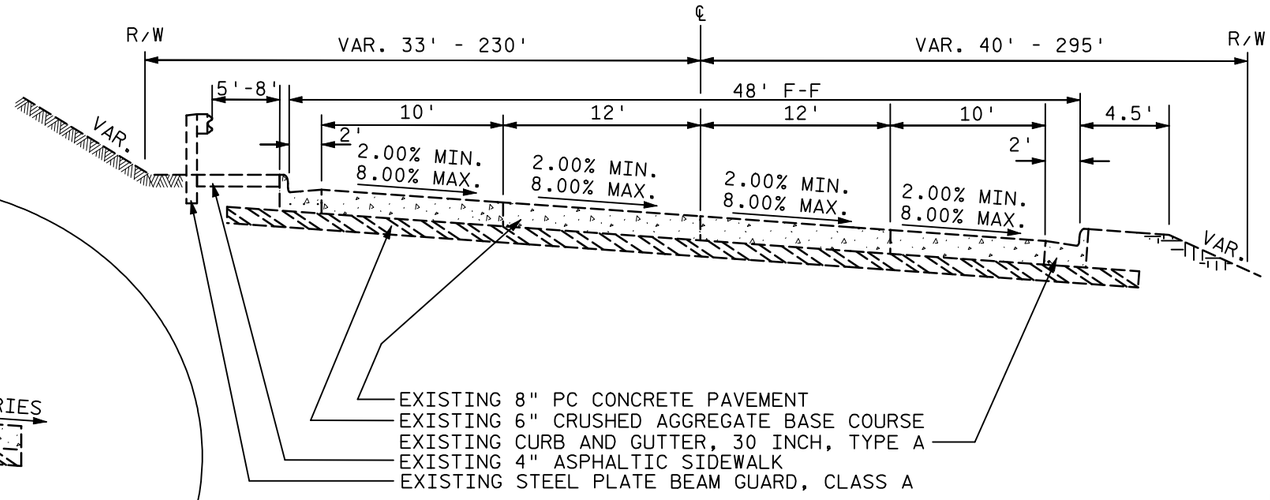
STA 134+12 TO 148+43



TYPICAL EXISTING SUPERELEVATED SECTION

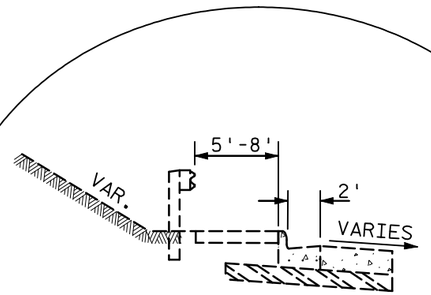
STA 137+49 TO STA 146+95
STA 150+63 TO STA 158+41

2



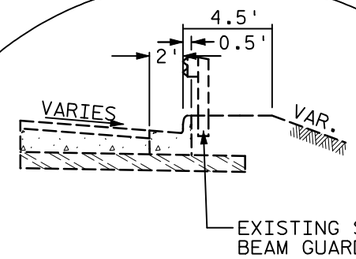
TYPICAL EXISTING SUPERELEVATED SECTION

STA 158+41 TO 164+14
STA 168+00 TO 174+35
STA 191+10 TO 196+77
STA 210+85 TO 213+50



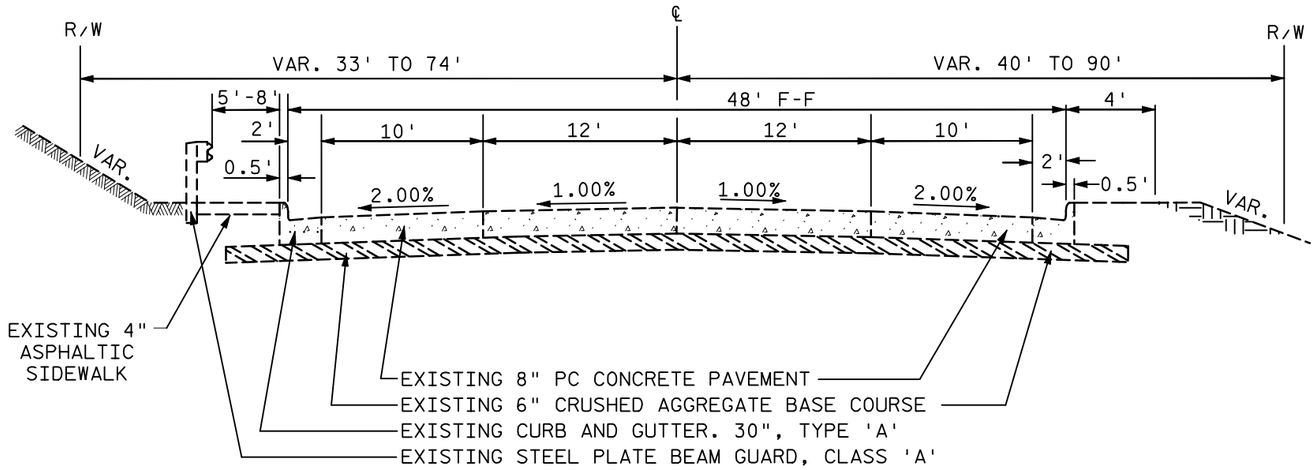
TYPICAL EXISTING SECTION

STA 160+49 TO 161+50
STA 161+70 TO 162+58



TYPICAL EXISTING SECTION

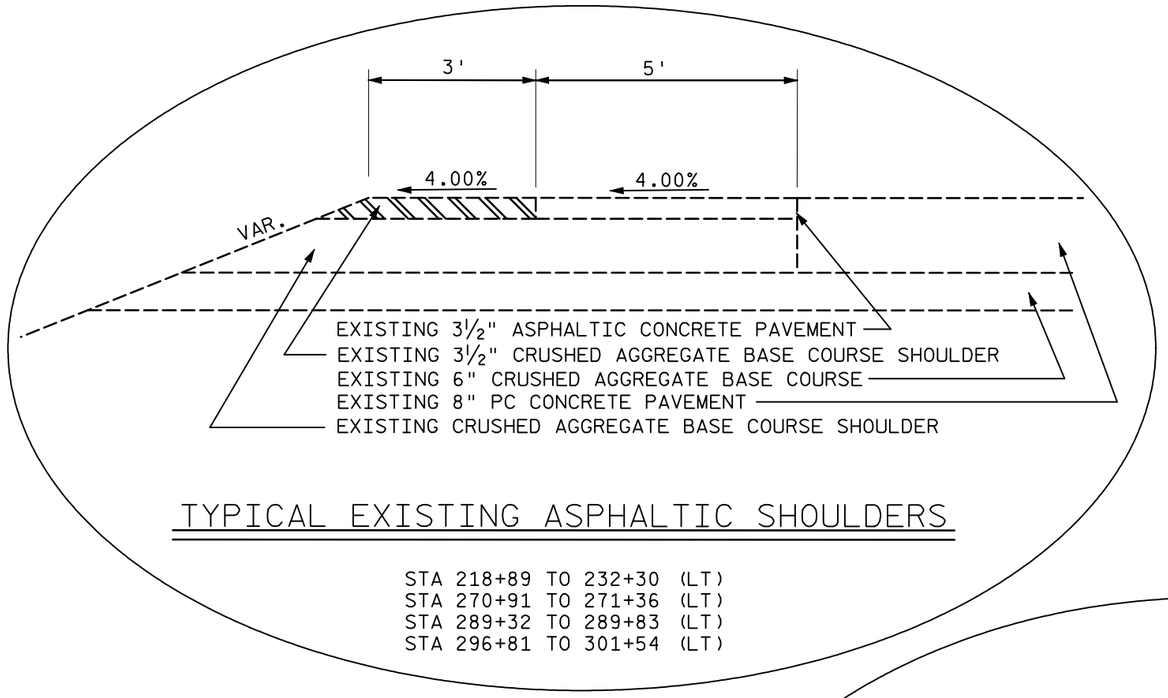
STA 159+50 TO 162+30
STA 170+58 TO 175+12
STA 181+60 TO 193+11
STA 212+55 TO 213+28



TYPICAL EXISTING SECTION

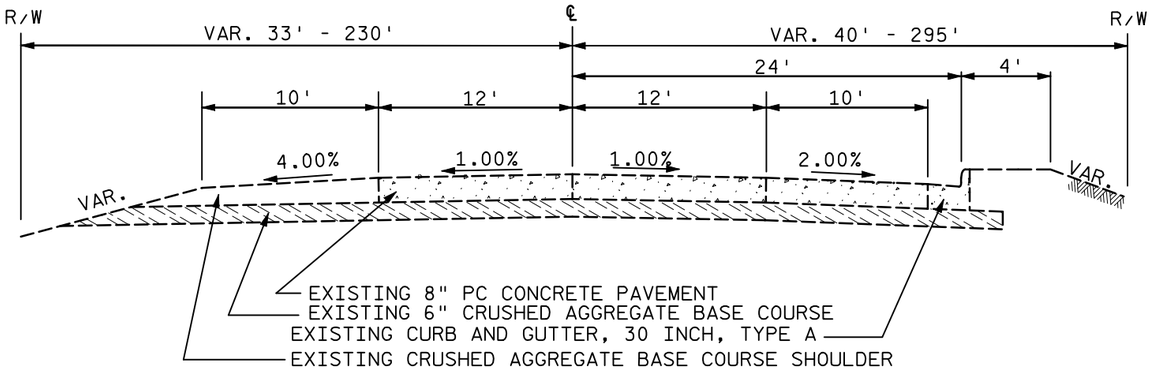
STA 164+14 TO 168+00
STA 174+35 TO 191+09
STA 196+77 TO 210+84

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	TYPICAL SECTIONS	SHEET 8	E



TYPICAL EXISTING ASPHALTIC SHOULDERS

STA 218+89 TO 232+30 (LT)
STA 270+91 TO 271+36 (LT)
STA 289+32 TO 289+83 (LT)
STA 296+81 TO 301+54 (LT)



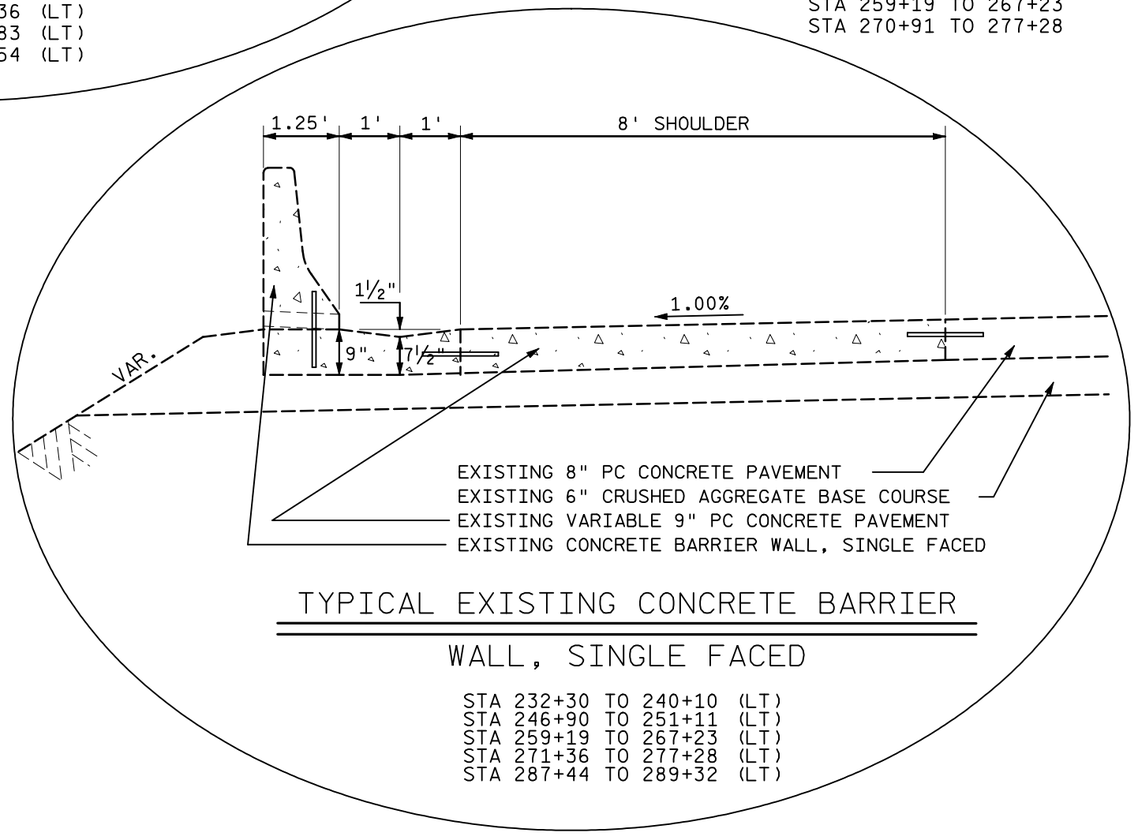
TYPICAL EXISTING SECTION

STA 218+89 TO 240+10
STA 246+90 TO 251+11
STA 259+19 TO 267+23
STA 270+91 TO 277+28

STA 287+44 TO 289+83
STA 296+81 TO 301+54

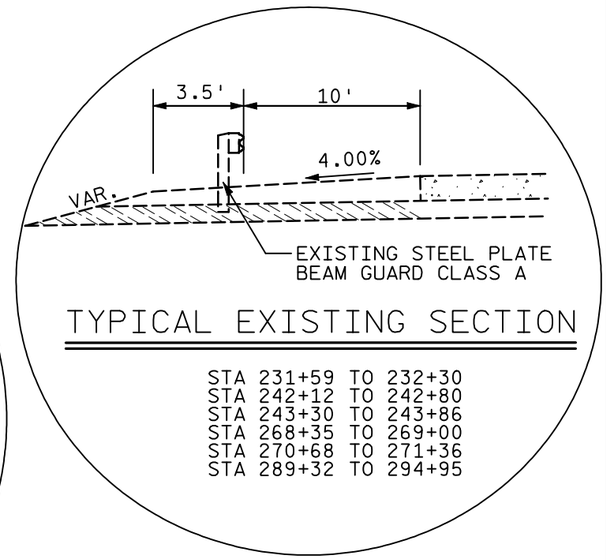
TYPICAL EXISTING SECTION

STA 219+50 TO 220+55



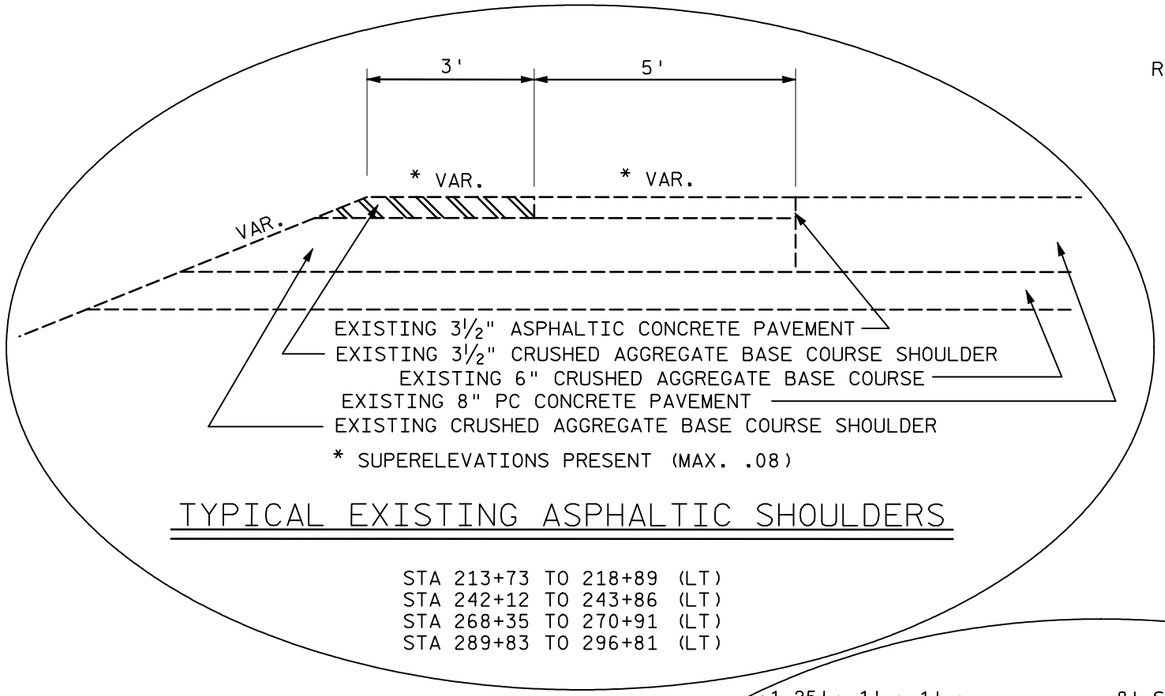
TYPICAL EXISTING CONCRETE BARRIER WALL, SINGLE FACED

STA 232+30 TO 240+10 (LT)
STA 246+90 TO 251+11 (LT)
STA 259+19 TO 267+23 (LT)
STA 271+36 TO 277+28 (LT)
STA 287+44 TO 289+32 (LT)



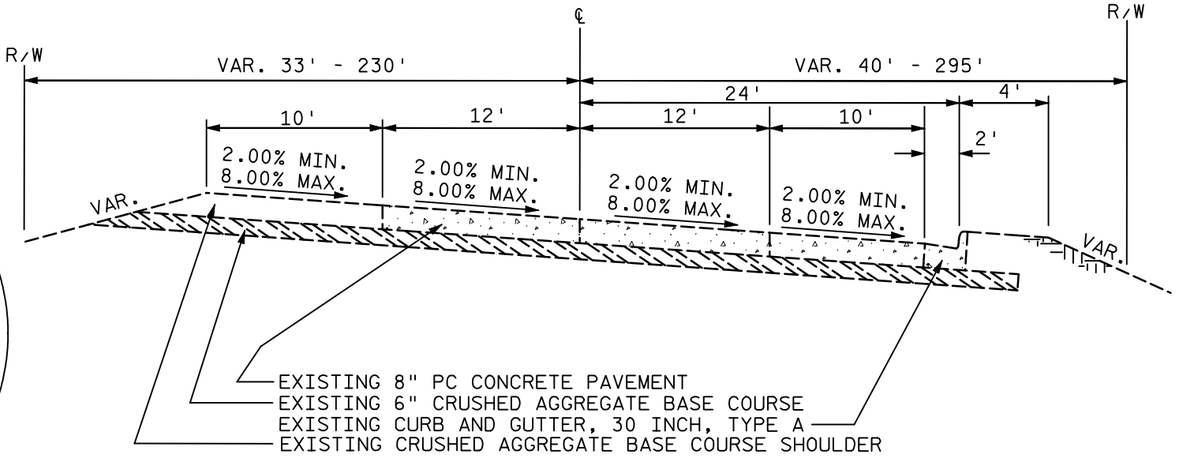
TYPICAL EXISTING SECTION

STA 231+59 TO 232+30
STA 242+12 TO 242+80
STA 243+30 TO 243+86
STA 268+35 TO 269+00
STA 270+68 TO 271+36
STA 289+32 TO 294+95



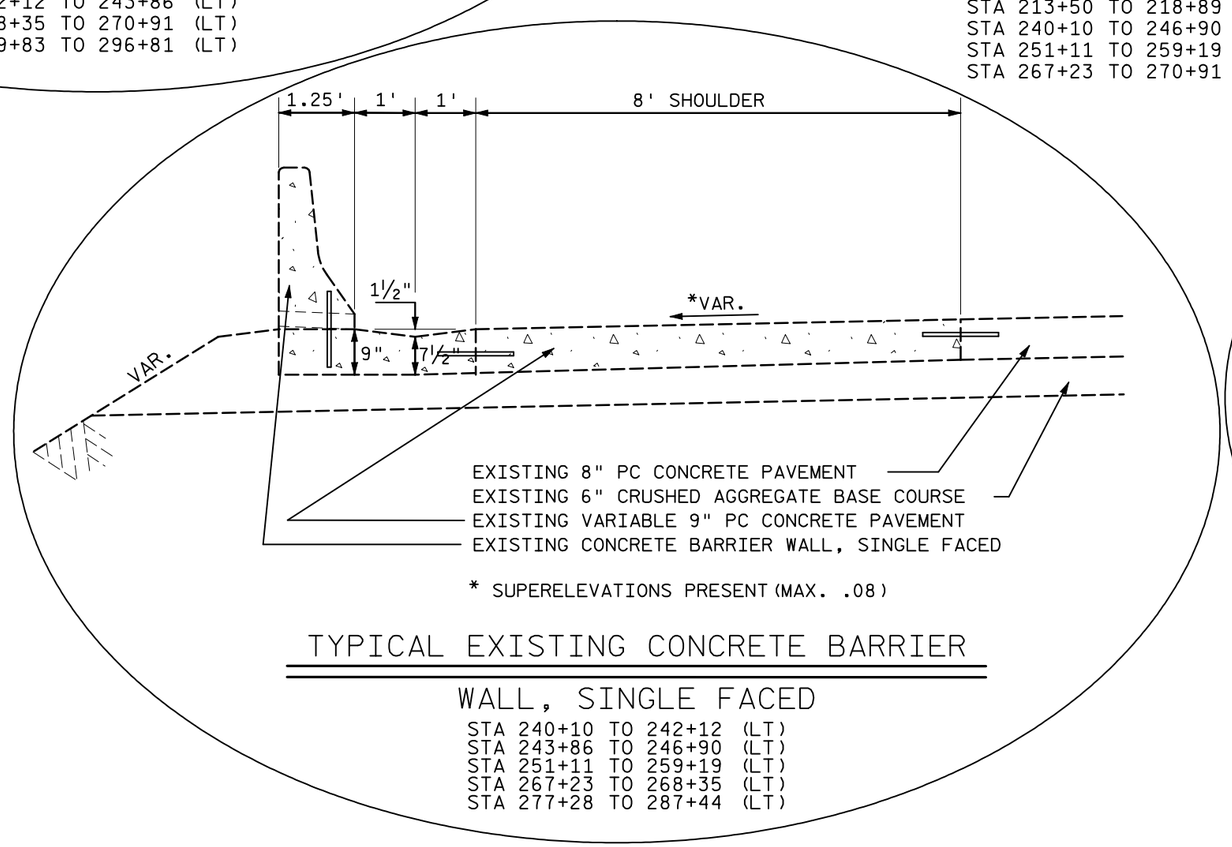
TYPICAL EXISTING ASPHALTIC SHOULDERS

STA 213+73 TO 218+89 (LT)
STA 242+12 TO 243+86 (LT)
STA 268+35 TO 270+91 (LT)
STA 289+83 TO 296+81 (LT)



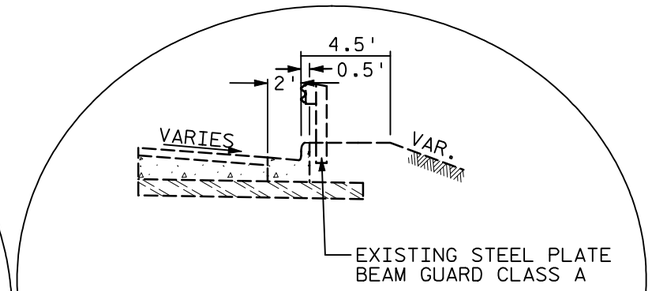
TYPICAL EXISTING SUPERELEVATED SECTION

STA 213+50 TO 218+89
STA 240+10 TO 246+90
STA 251+11 TO 259+19
STA 267+23 TO 270+91
STA 277+28 TO 287+44
STA 289+83 TO 296+81



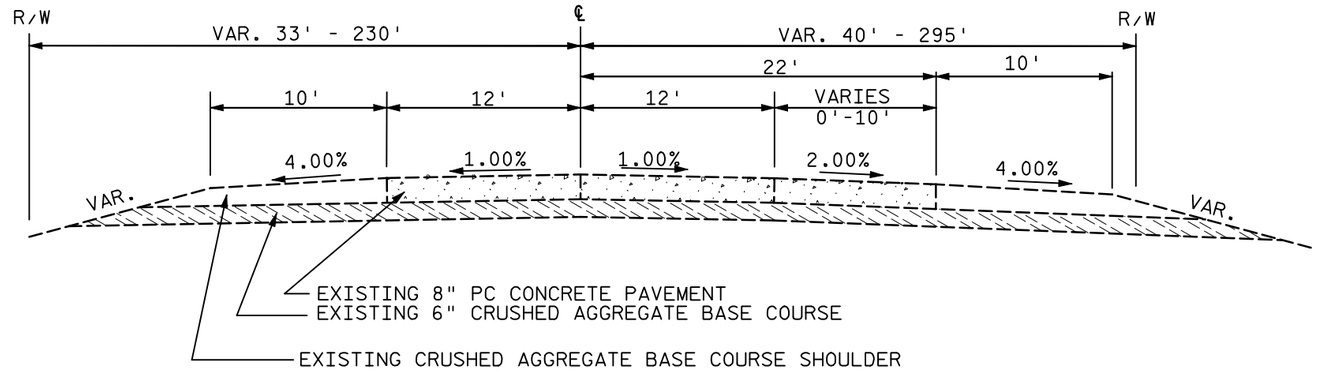
TYPICAL EXISTING CONCRETE BARRIER WALL, SINGLE FACED

STA 240+10 TO 242+12 (LT)
STA 243+86 TO 246+90 (LT)
STA 251+11 TO 259+19 (LT)
STA 267+23 TO 268+35 (LT)
STA 277+28 TO 287+44 (LT)



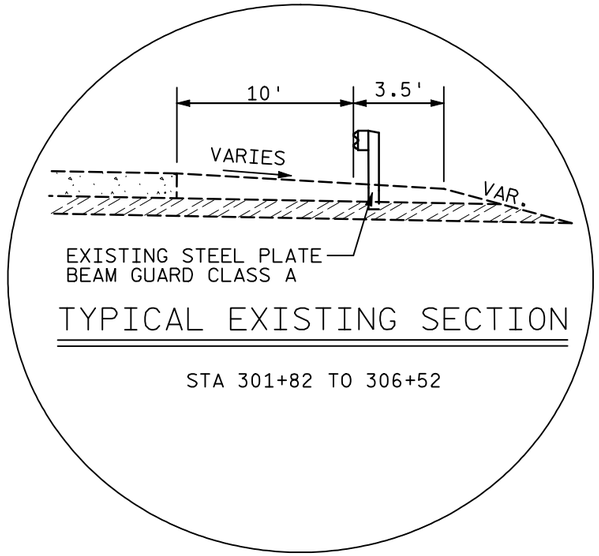
TYPICAL EXISTING SECTION

STA 301+82 TO 306+53



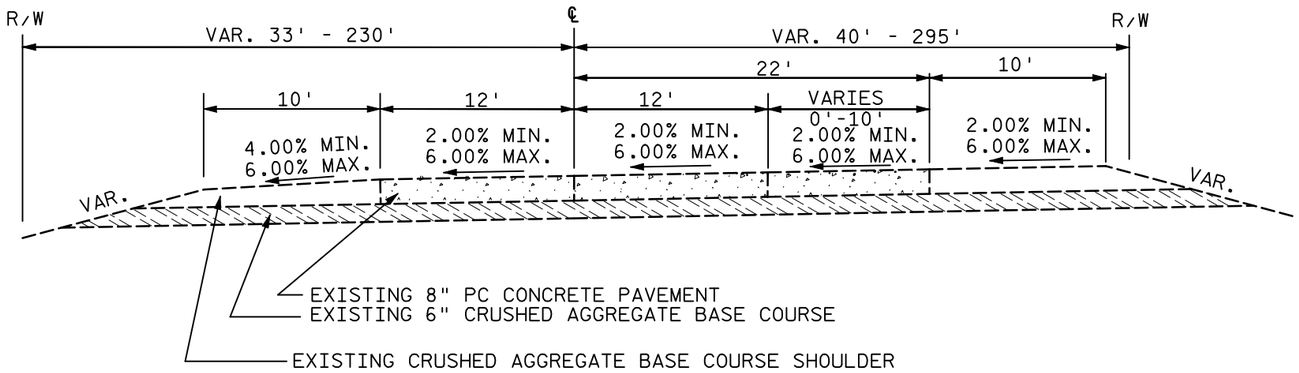
TYPICAL EXISTING SECTION

STA 301+54 TO 301+77.50



TYPICAL EXISTING SECTION

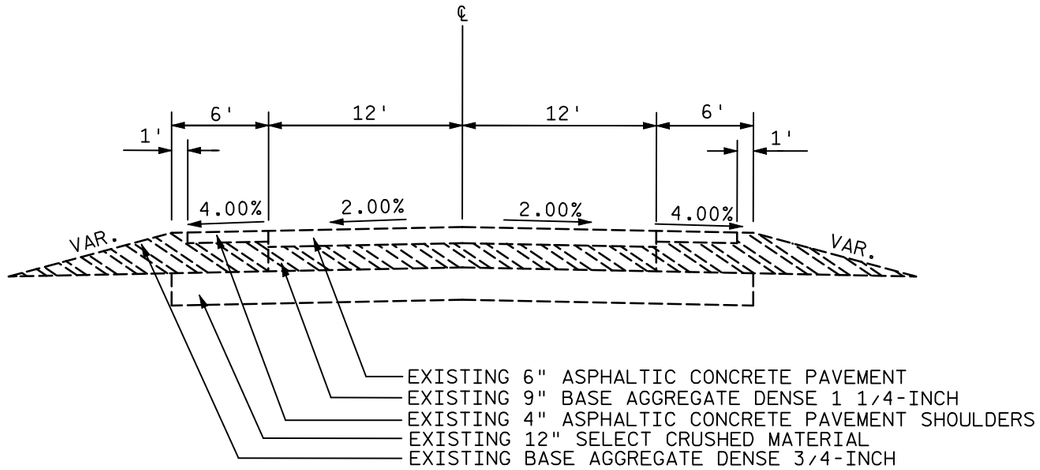
STA 301+82 TO 306+52



TYPICAL EXISTING SUPERELEVATED SECTION

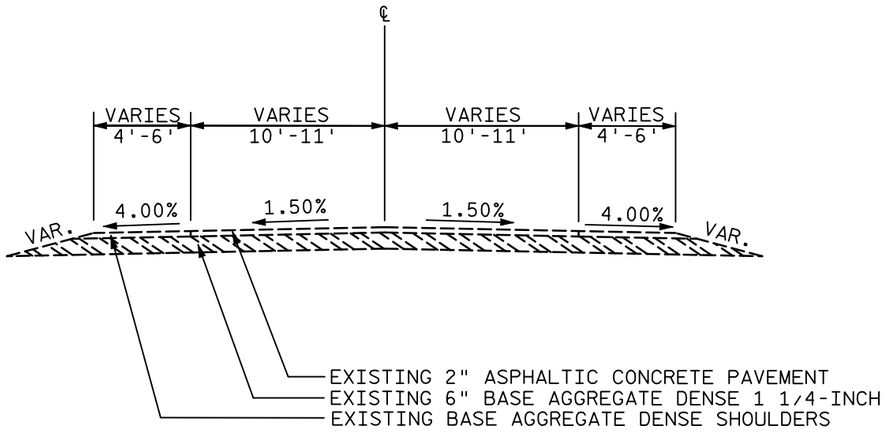
STA 301+77.50 TO 312+50

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	TYPICAL SECTIONS	SHEET 11	E



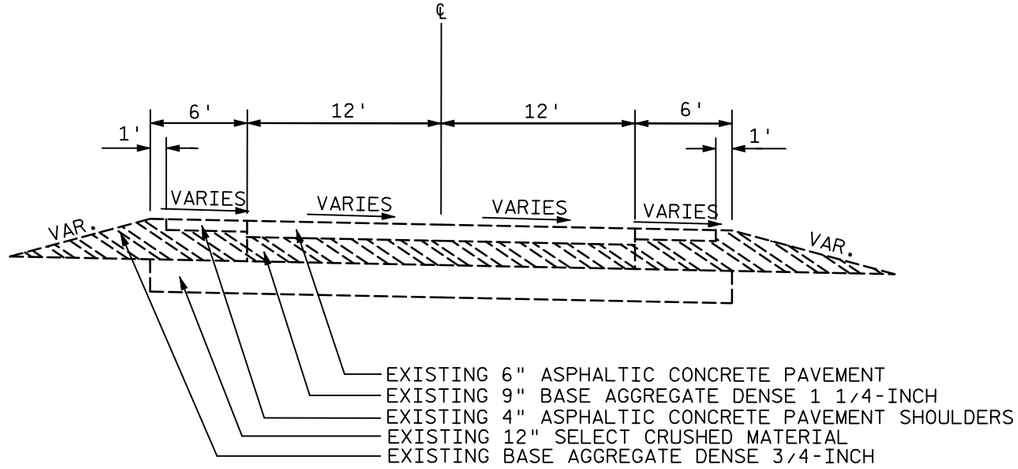
TYPICAL EXISTING SECTION

STA 315+49 TO 315+83



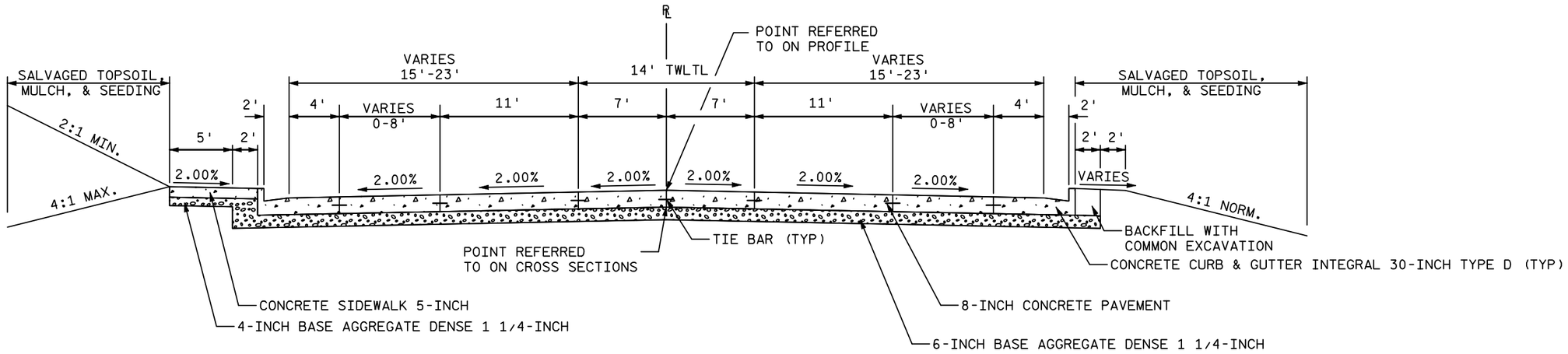
TYPICAL EXISTING SECTION FOR SIDEROADS

DRIVE-IN
HIAWATHA
HAGEN
SOUTHDALE
BOMA
HORSESHOE
IRISH COURT
NORSEMEN
KNOBLOCH
CTH F
FOREST RIDGE



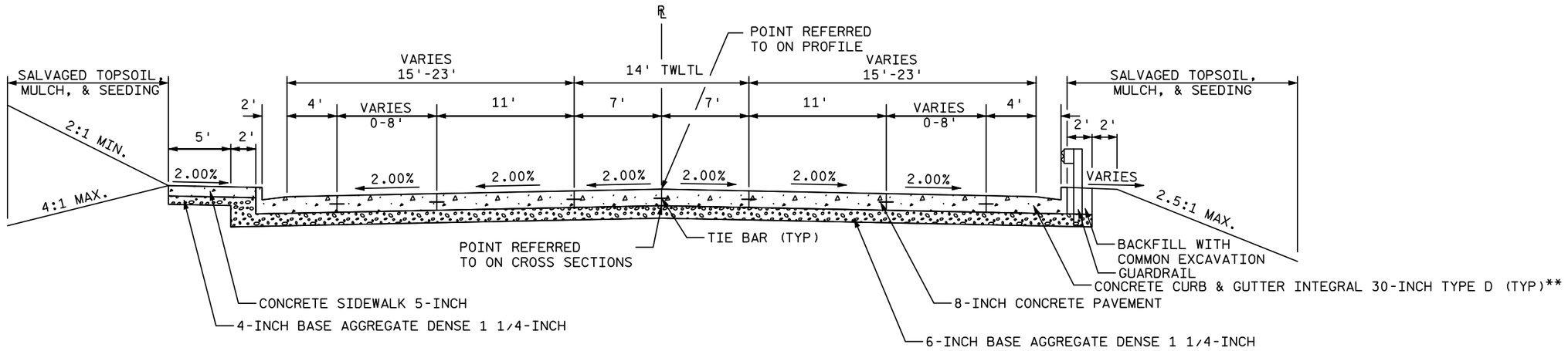
TYPICAL EXISTING SUPERELEVATED SECTION

STA 312+50 TO 315+49
STA 315+83 TO 320+36.47



TYPICAL FINISHED SECTION WITH TWLTL LANE

STA 132+50.00 - STA 133+92.92
STA 148+44.26 - STA 149+90.69
STA 208+00.01 - STA 208+80.87

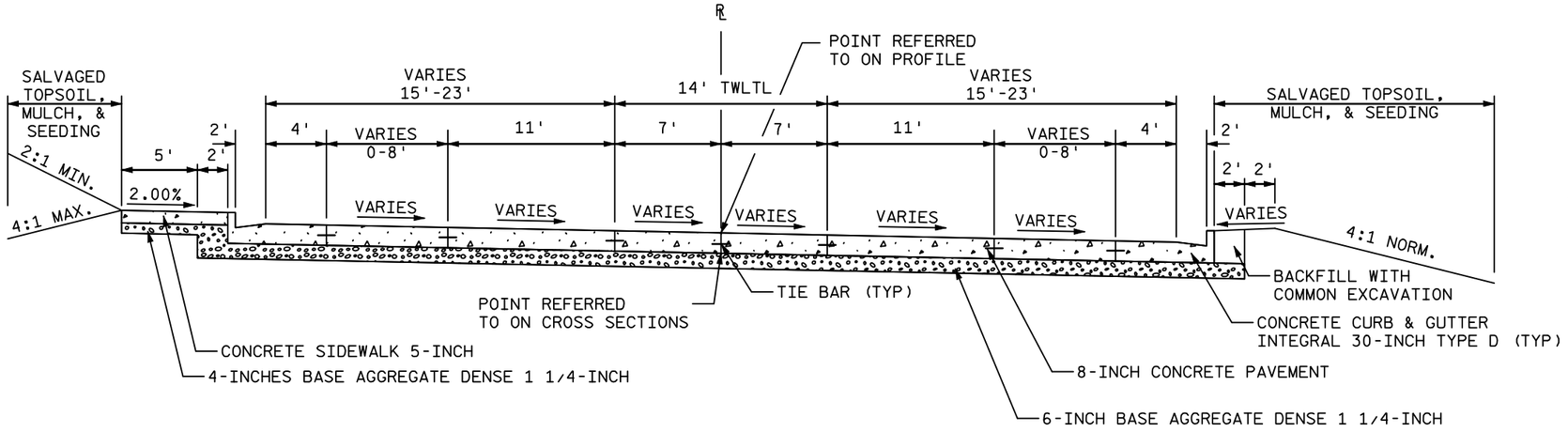


TYPICAL FINISHED SECTION WITH TWLTL LANE & GUARDRAIL

STA 133+92.92 - STA 136+48.98

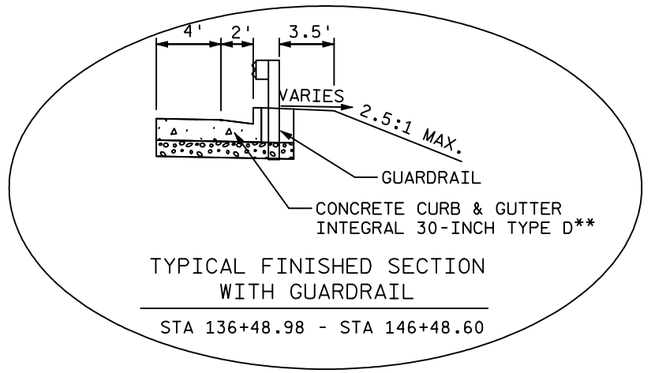
NOTE:

** AT BEAMGUARD TERMINALS WITH CURB AND GUTTER, PROVIDE DRIVEWAY CUT CURB FROM 3RD POST TO 30 FEET (I.D. 5120-07-71) OR 100 FEET (I.D. 5120-07-72) IN ADVANCE OF THE TERMINAL EXTRUDER HEAD.



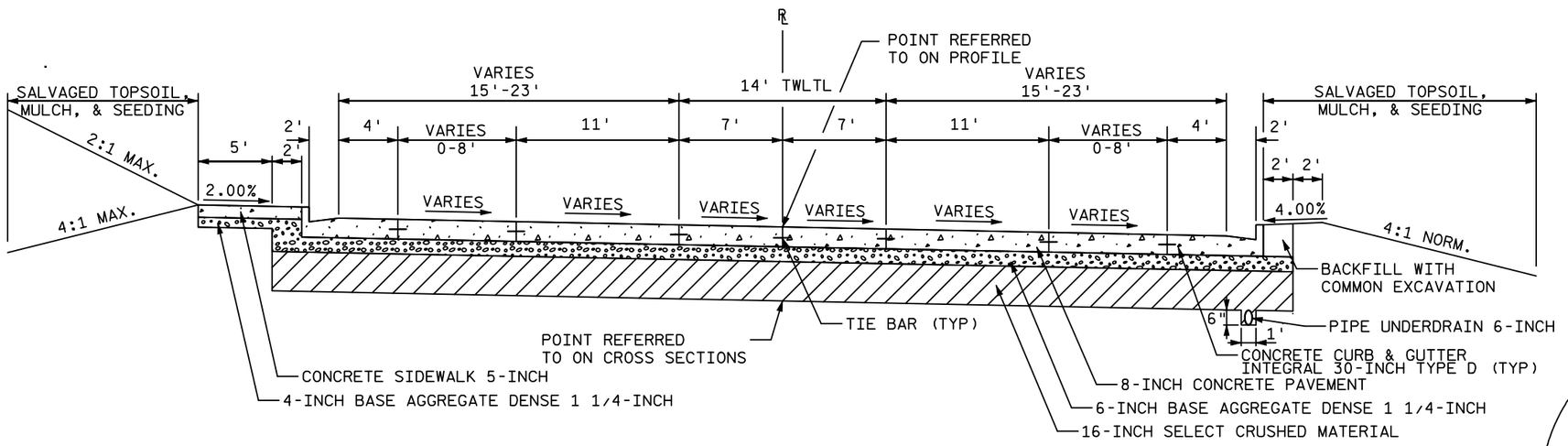
TYPICAL FINISHED SUPERELEVATED SECTION WITH TWLTL LANE

STA 136+48.98 - STA 148+44.26
STA 208+80.87 - STA 213+50.00



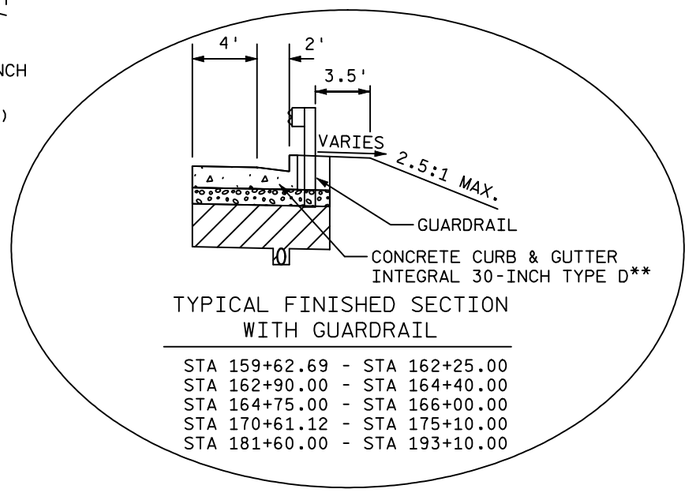
TYPICAL FINISHED SECTION
WITH GUARDRAIL

STA 136+48.98 - STA 146+48.60



TYPICAL FINISHED SUPERELEVATED SECTION WITH TWLTL LANE

STA 149+90.69 - STA 154+34.98
STA 162+68.44 - STA 165+37.74
STA 167+01.33 - STA 175+85.27
STA 190+37.44 - STA 197+89.12



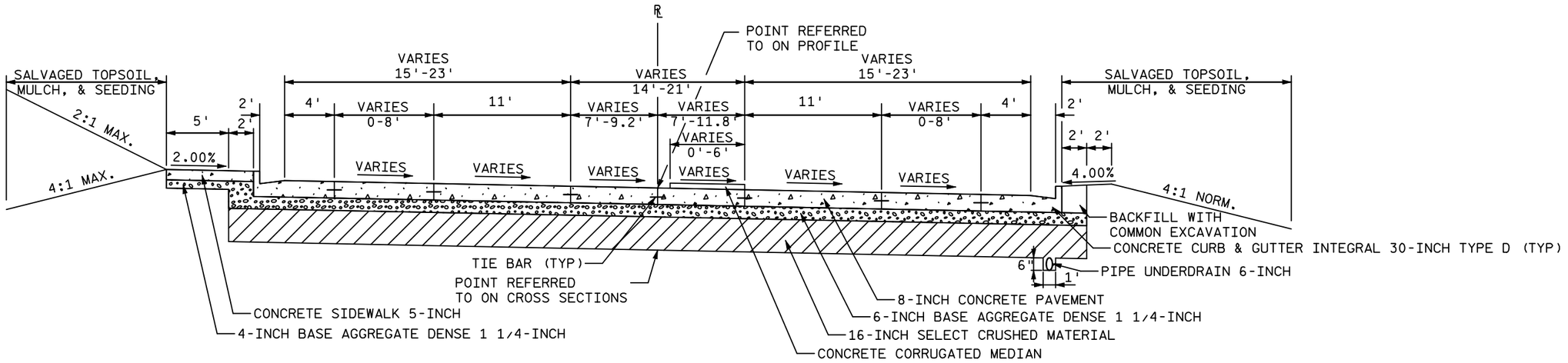
TYPICAL FINISHED SECTION
WITH GUARDRAIL

STA 159+62.69 - STA 162+25.00
STA 162+90.00 - STA 164+40.00
STA 164+75.00 - STA 166+00.00
STA 170+61.12 - STA 175+10.00
STA 181+60.00 - STA 193+10.00

NOTE:

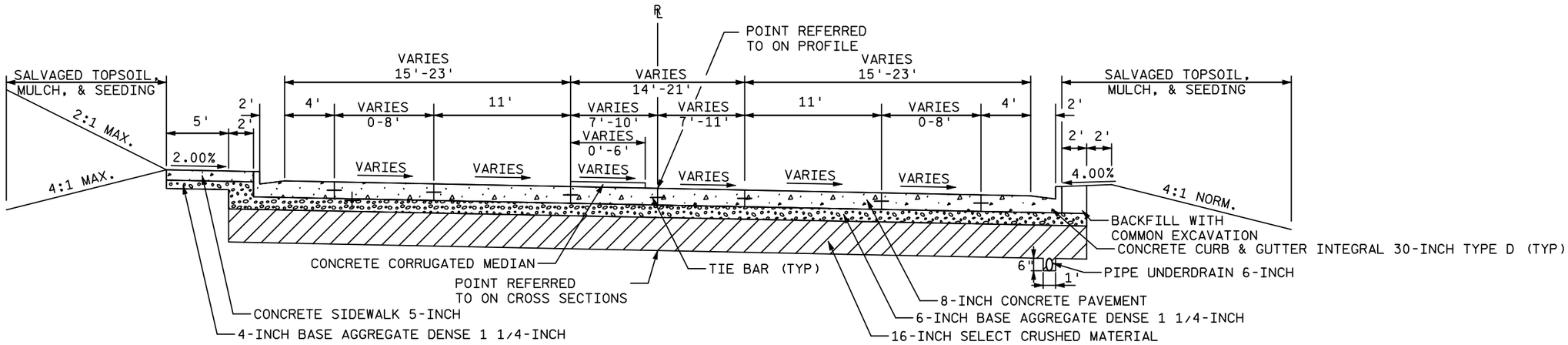
SEE STRUCTURE PLANS R-32-54, STA 11+15.00 H - STA 11+26.12 H

** AT BEAMGUARD TERMINALS WITH CURB AND GUTTER, PROVIDE DRIVEWAY CUT CURB FROM 3RD POST TO 30 FEET (I.D. 5120-07-71) OR 100 FEET (I.D. 5120-07-72) IN ADVANCE OF THE TERMINAL EXTRUDER HEAD.



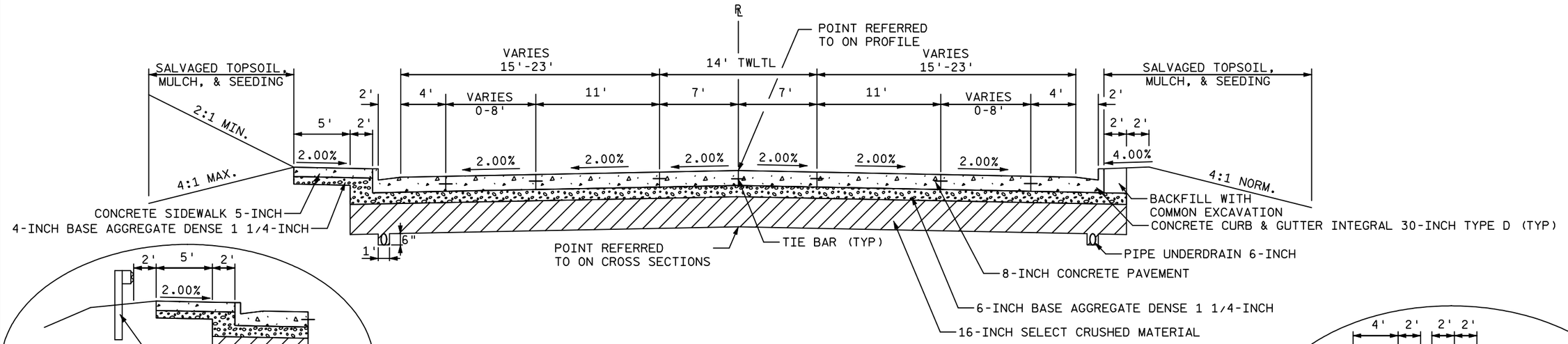
TYPICAL FINISHED SUPERELEVATED SECTION WITH OFFSET TURN LANE

STA 154+34.98 - STA 157+79.44



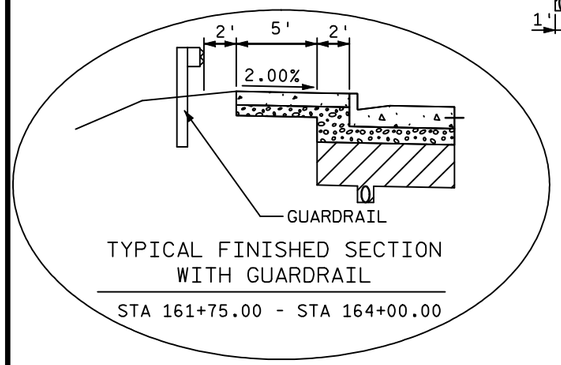
TYPICAL FINISHED SUPERELEVATED SECTION WITH OFFSET TURN LANE

STA 157+79.44 - STA 162+68.44



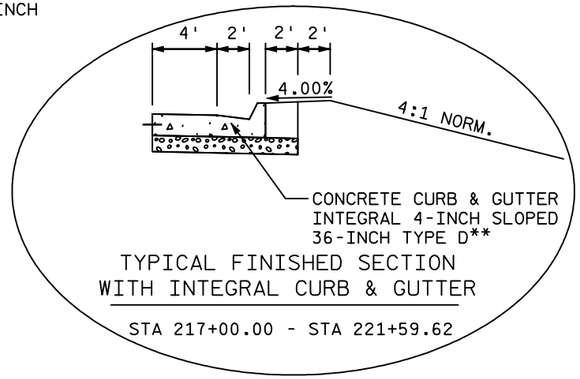
TYPICAL FINISHED SECTION WITH TWLTL LANE

STA 165+37.74 - STA 167+01.33
STA 175+85.27 - STA 190+37.44
STA 197+89.12 - STA 208+00.01



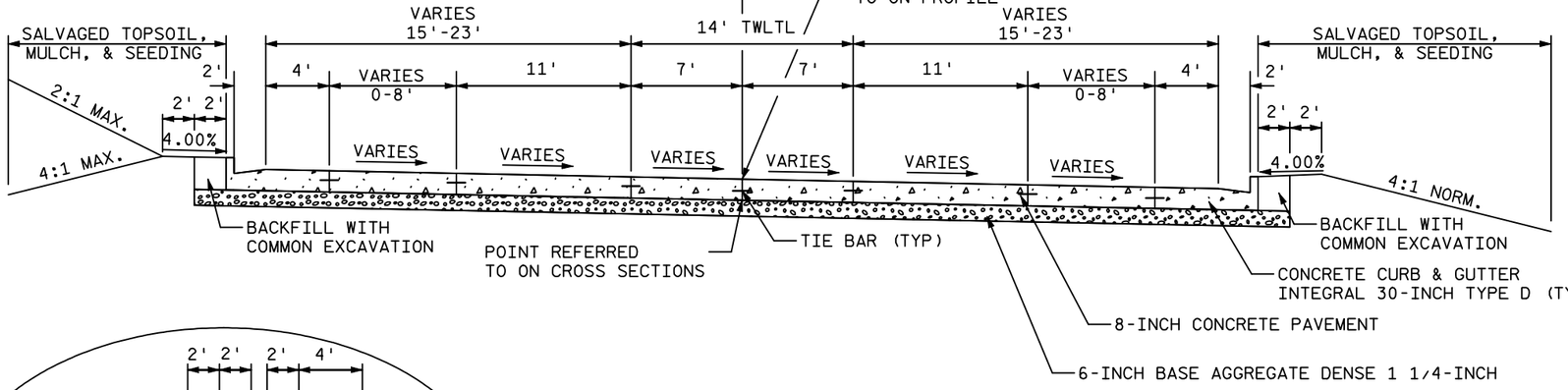
TYPICAL FINISHED SECTION
WITH GUARDRAIL

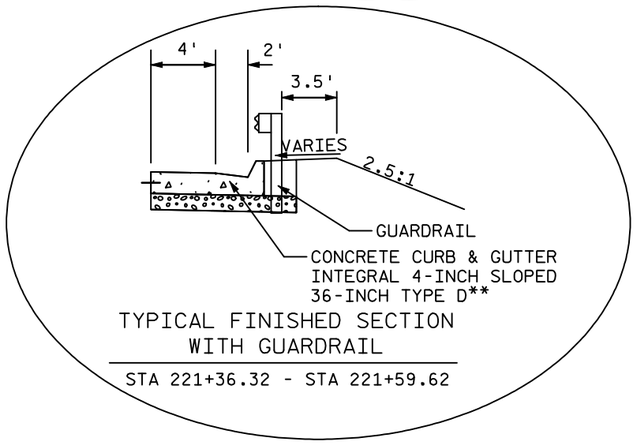
STA 161+75.00 - STA 164+00.00



TYPICAL FINISHED SECTION
WITH INTEGRAL CURB & GUTTER

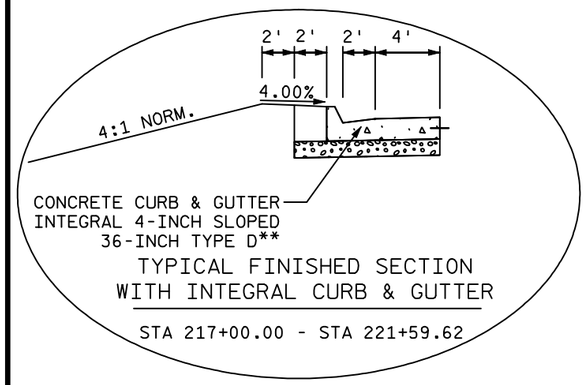
STA 217+00.00 - STA 221+59.62





TYPICAL FINISHED SECTION
WITH GUARDRAIL

STA 221+36.32 - STA 221+59.62



TYPICAL FINISHED SECTION
WITH INTEGRAL CURB & GUTTER

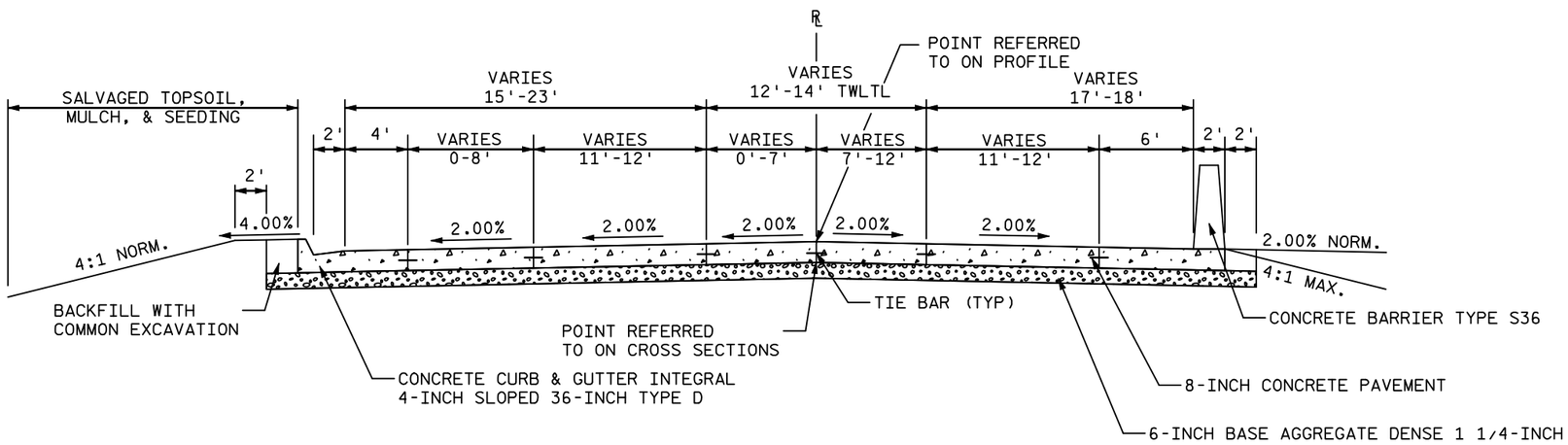
STA 217+00.00 - STA 221+59.62

TYPICAL FINISHED SUPERELEVATED SECTION
WITH TWLTL LANE, NO SIDEWALK

STA 213+50.00 - STA 221+59.62

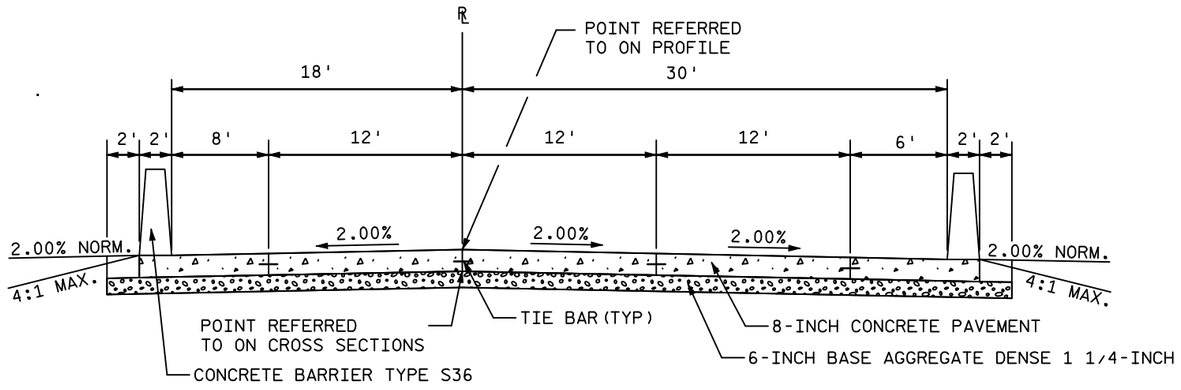
NOTE:

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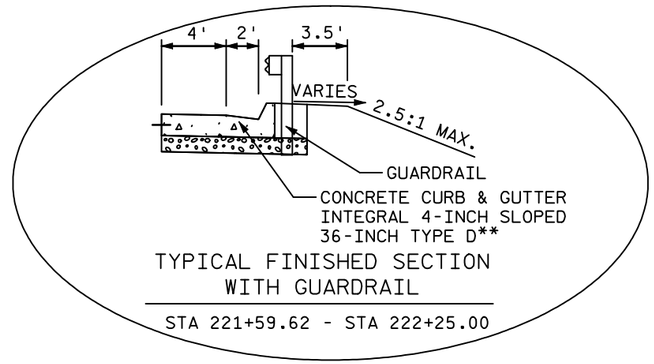
TYPICAL FINISHED SECTION WITH TWLTL LANE, BARRIER, & NO SIDEWALK

STA 221+59.62 - STA 229+60.00



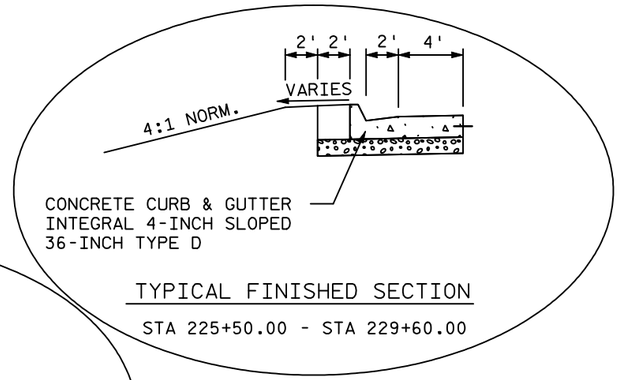
TYPICAL FINISHED SECTION WITH CONCRETE BARRIER

STA 229+60.00 - STA 237+71.42
STA 261+33.98 - STA 264+69.13



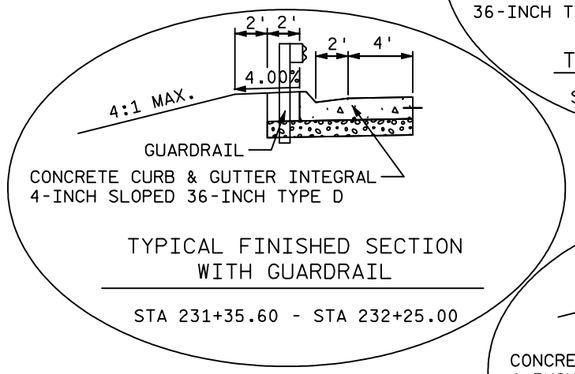
TYPICAL FINISHED SECTION
WITH GUARDRAIL

STA 221+59.62 - STA 222+25.00



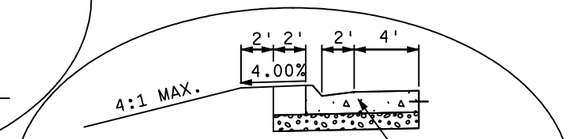
TYPICAL FINISHED SECTION

STA 225+50.00 - STA 229+60.00



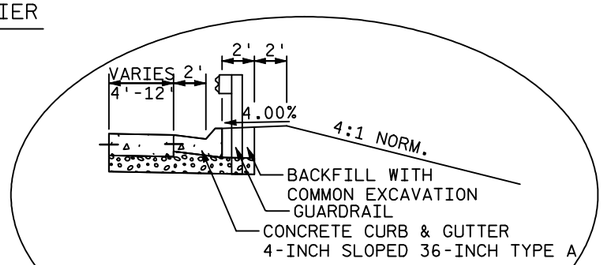
TYPICAL FINISHED SECTION
WITH GUARDRAIL

STA 231+35.60 - STA 232+25.00



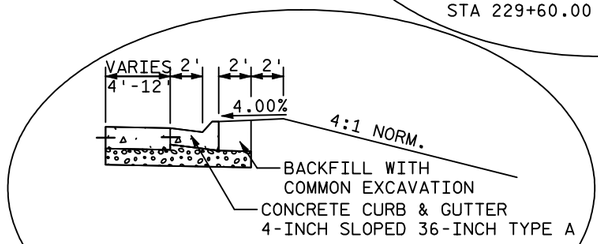
TYPICAL FINISHED SECTION
WITH INTEGRAL CURB & GUTTER

STA 229+60.00 - STA 231+35.60



TYPICAL FINISHED SECTION
WITH GUARDRAIL

STA 234+00.00 - STA 234+89.03



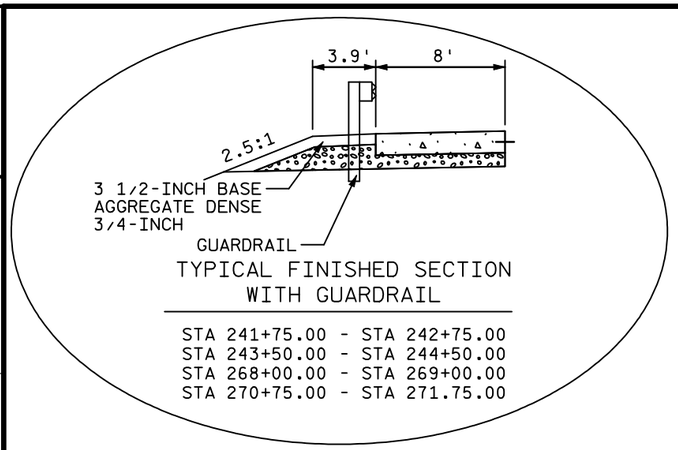
TYPICAL FINISHED SECTION
WITH CURB & GUTTER

STA 234+89.03 - STA 237+71.42

NOTE:

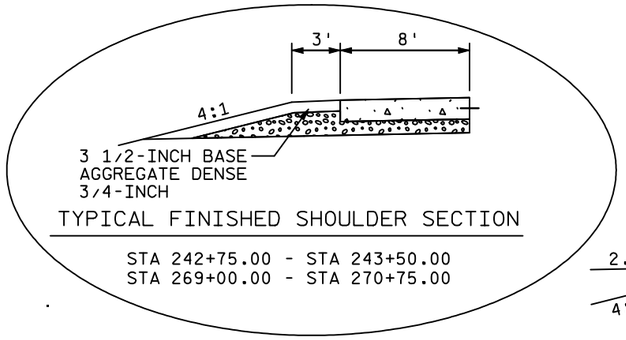
** AT BEAMGUARD TERMINALS WITH CURB AND GUTTER, PROVIDE DRIVEWAY CUT CURB FROM 3RD POST TO 30 FEET (I.D. 5120-07-71) OR 100 FEET (I.D. 5120-07-72) IN ADVANCE OF THE TERMINAL EXTRUDER HEAD.

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	TYPICAL SECTIONS	SHEET 17	E



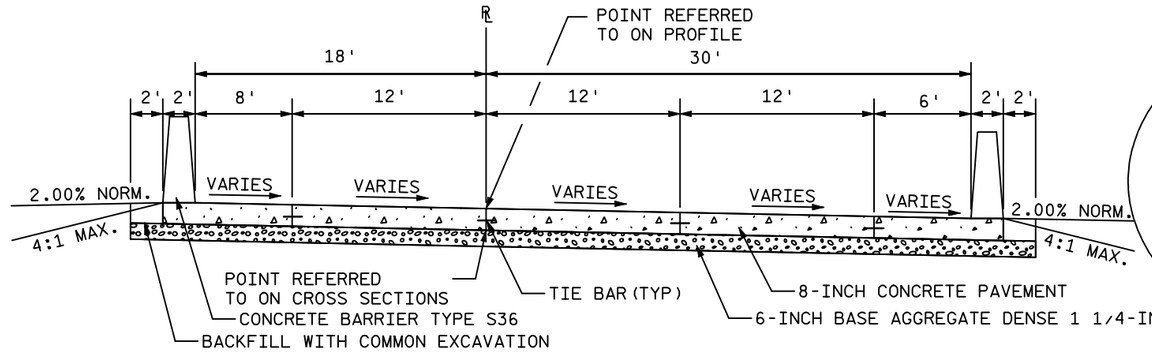
TYPICAL FINISHED SECTION
WITH GUARDRAIL

STA 241+75.00 - STA 242+75.00
STA 243+50.00 - STA 244+50.00
STA 268+00.00 - STA 269+00.00
STA 270+75.00 - STA 271.75.00



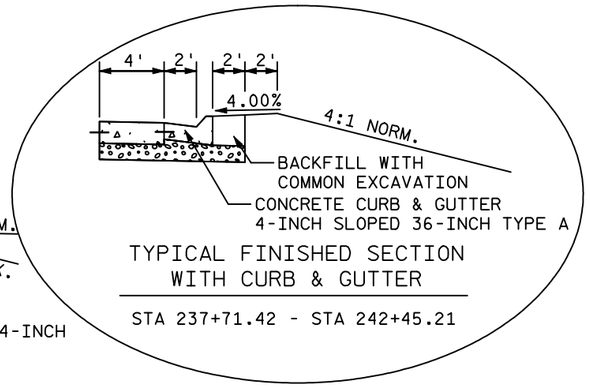
TYPICAL FINISHED SHOULDER SECTION

STA 242+75.00 - STA 243+50.00
STA 269+00.00 - STA 270+75.00



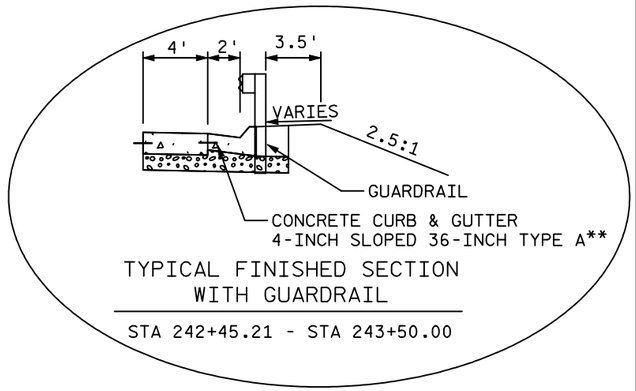
TYPICAL FINISHED SUPERELEVATED SECTION WITH CONCRETE BARRIER

STA 237+71.42 - STA 261+33.98
STA 264+69.13 - STA 270+74.12



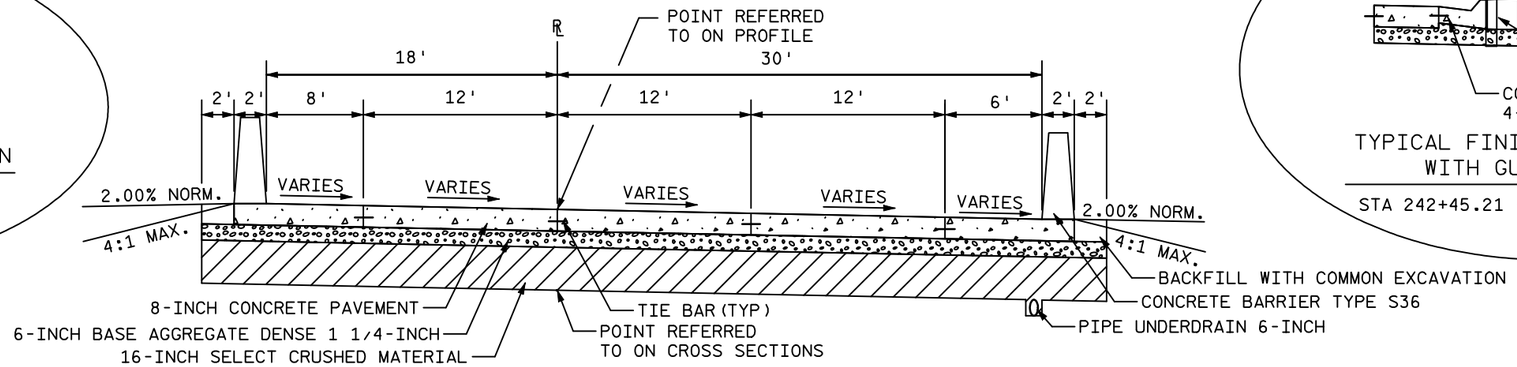
TYPICAL FINISHED SECTION
WITH CURB & GUTTER

STA 237+71.42 - STA 242+45.21



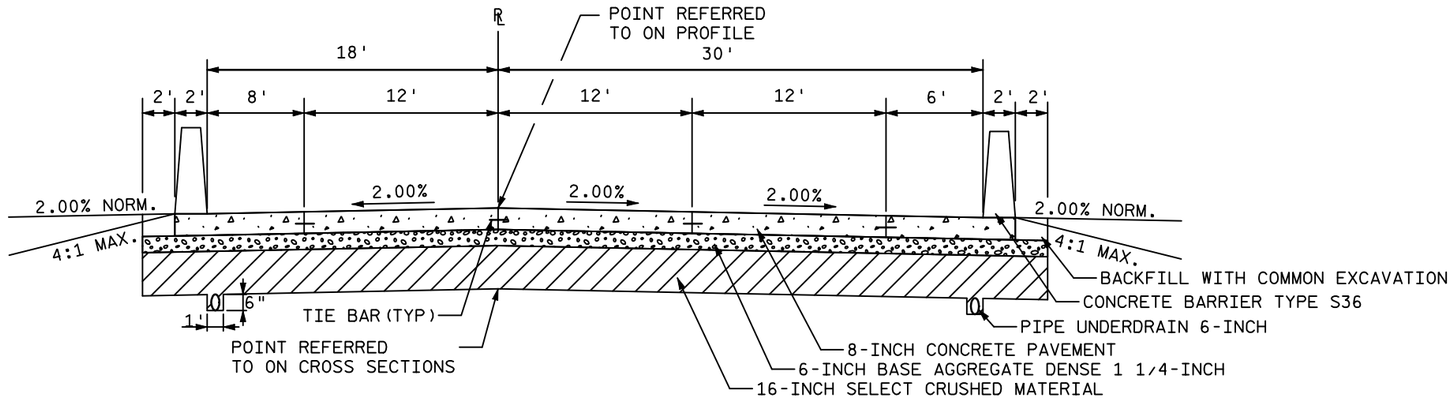
TYPICAL FINISHED SECTION
WITH GUARDRAIL

STA 242+45.21 - STA 243+50.00



TYPICAL FINISHED SUPERELEVATED SECTION WITH CONCRETE BARRIER

STA 270+74.12 - STA 274+26.89



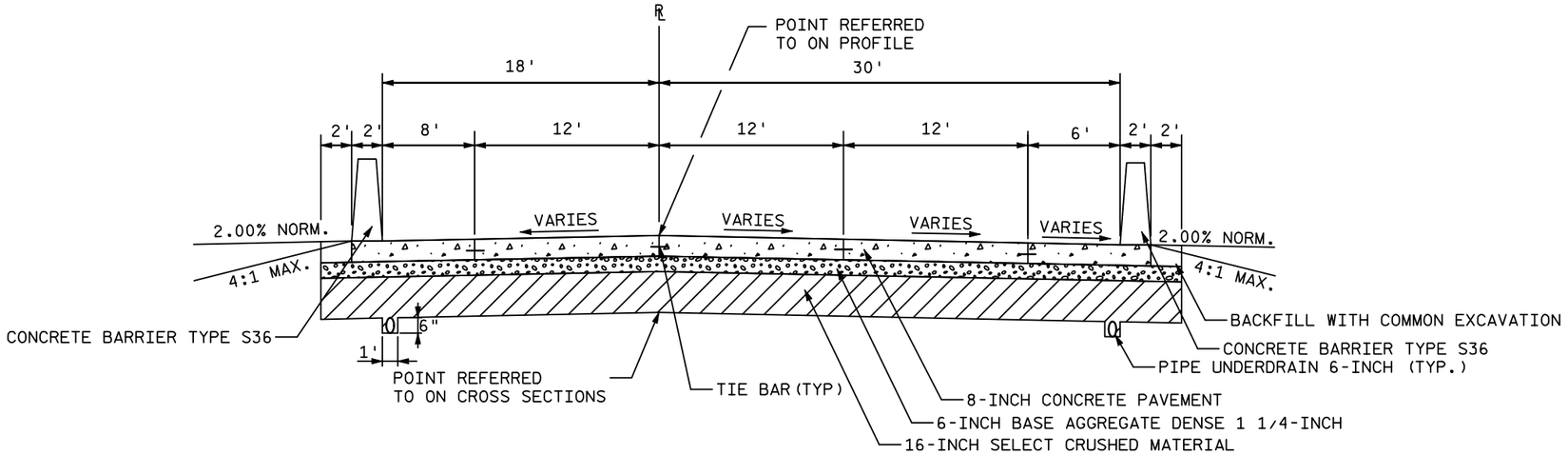
TYPICAL FINISHED SECTION WITH CONCRETE BARRIER WITH SELECT CRUSHED

STA 274+26.89 - STA 275+43.61

NOTE:

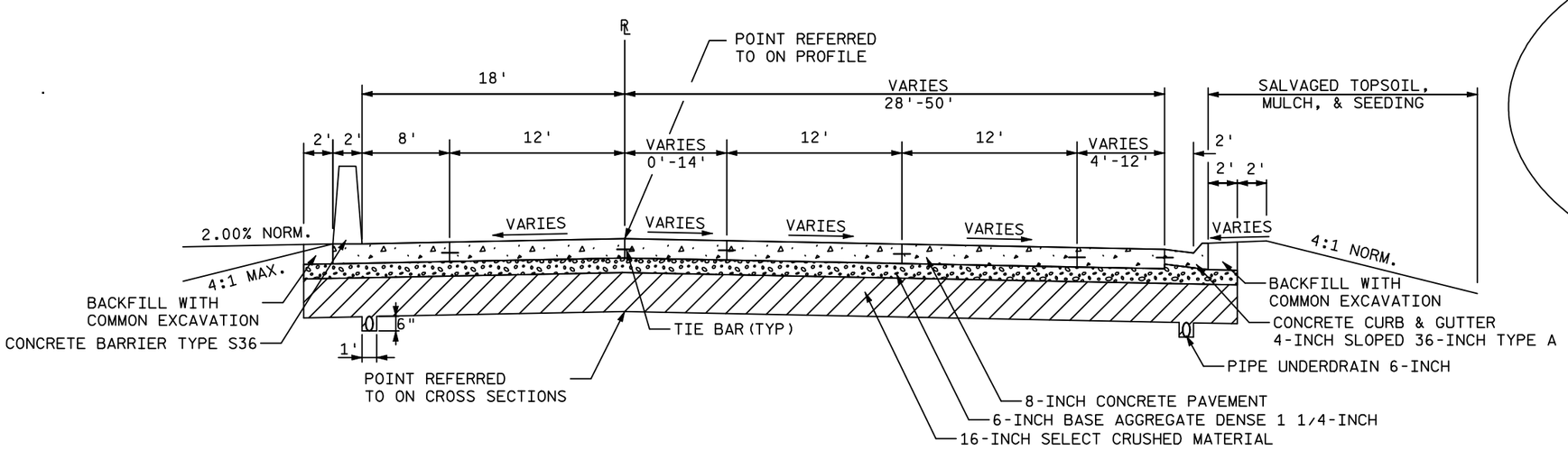
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2



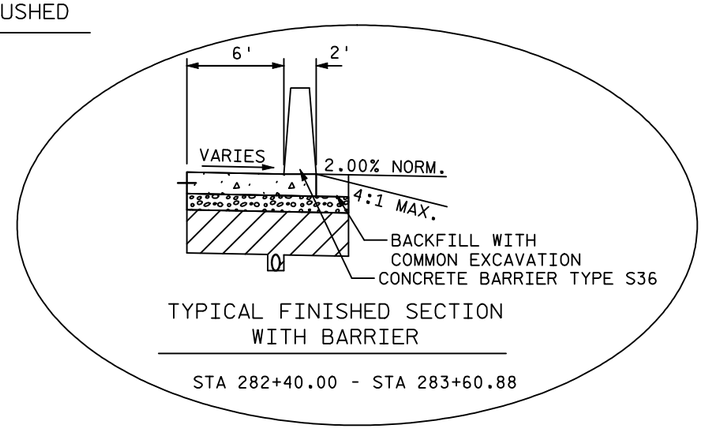
TYPICAL FINISHED SUPERELEVATED SECTION WITH CONCRETE BARRIER WITH SELECT CRUSHED

STA 275+43.61 - STA 282+40.00



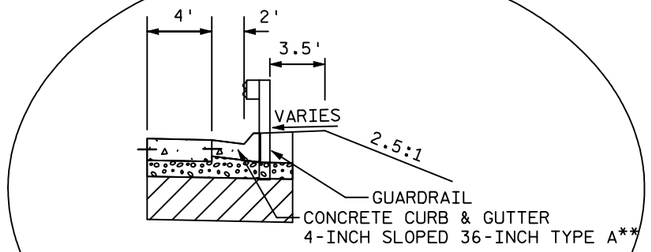
TYPICAL FINISHED SUPERELEVATED SECTION WITH CONCRETE BARRIER WITH SELECT CRUSHED

STA 282+40.00 - STA 289+25.00



TYPICAL FINISHED SECTION
WITH BARRIER

STA 282+40.00 - STA 283+60.88

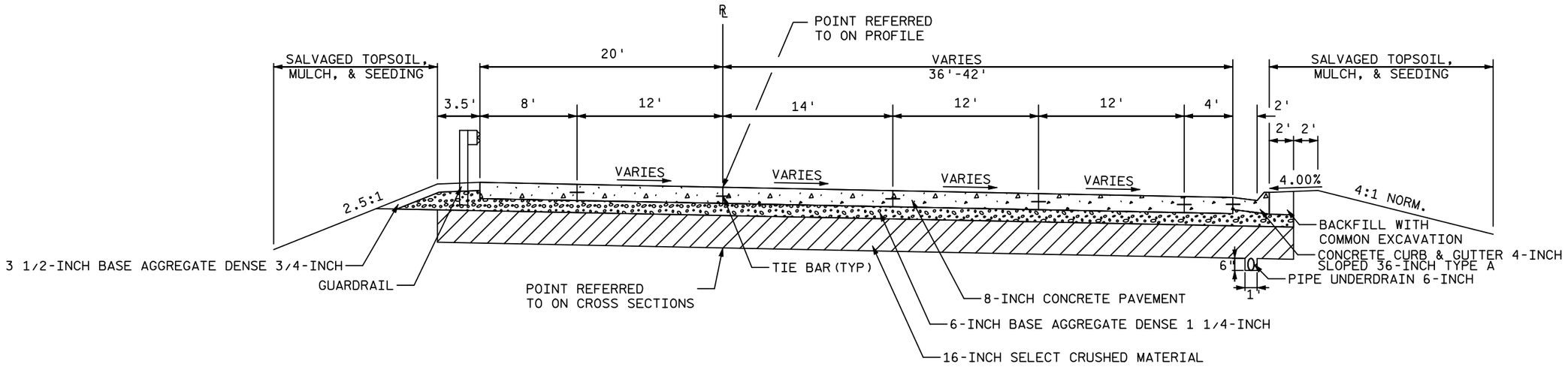


TYPICAL FINISHED SECTION
WITH GUARDRAIL

STA 283+60.88 - STA 286+13.31

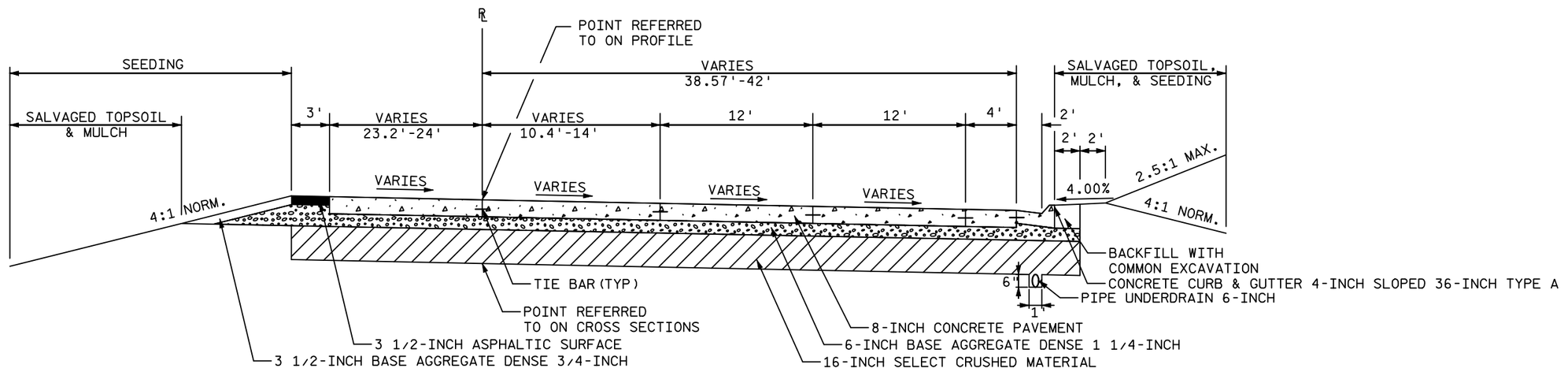
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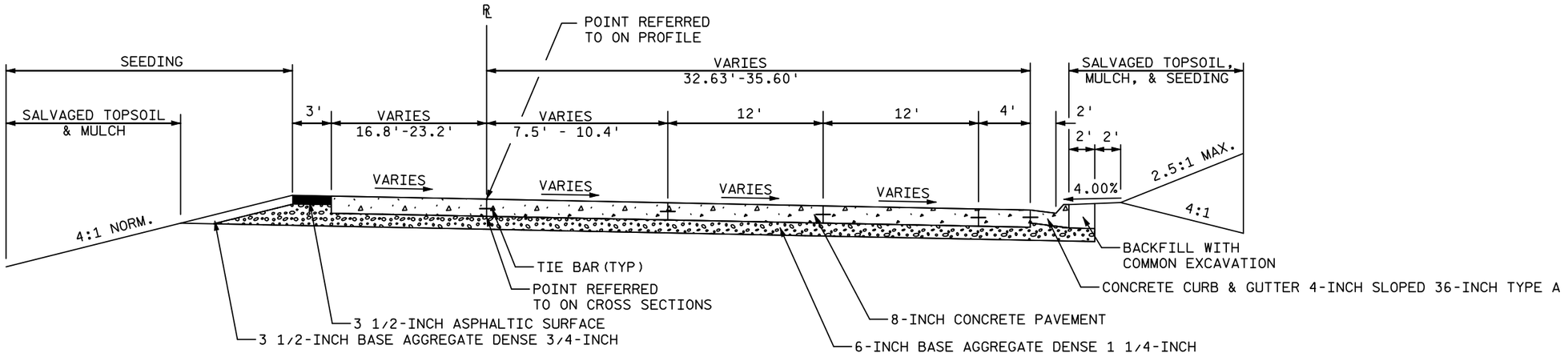
TYPICAL SUPERELEVATED FINISHED SECTION

STA 289+25.00 - STA 294+50.00



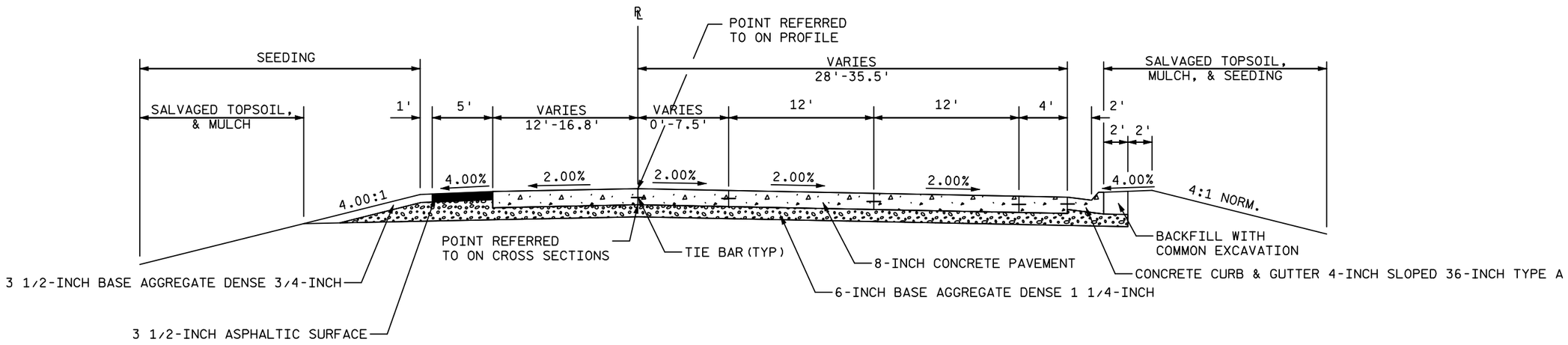
TYPICAL SUPERELEVATED FINISHED SECTION

STA 294+50.00 - STA 298+37.45



TYPICAL SUPERELEVATED FINISHED SECTION

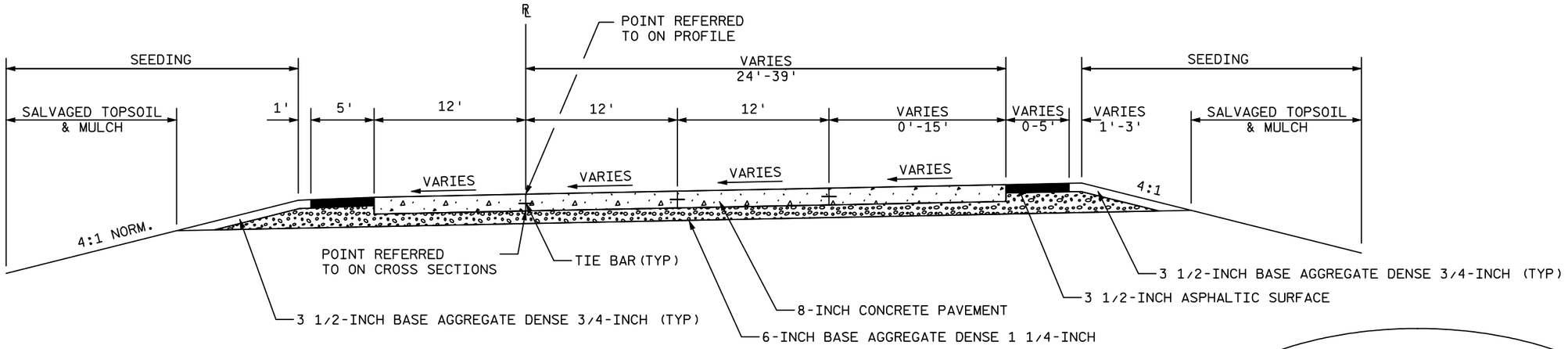
STA 298+37.45 - STA 299+17.44



TYPICAL FINISHED SECTION

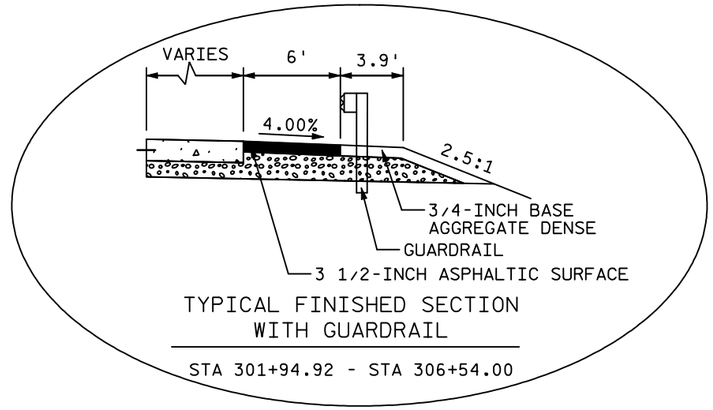
STA 299+17.44 - STA 301+75.00

2



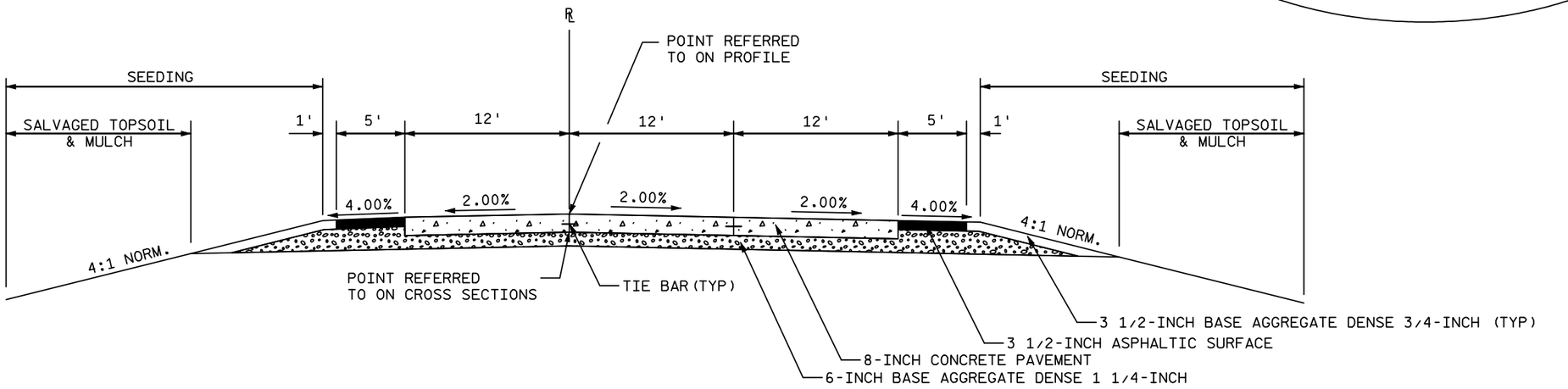
TYPICAL SUPERELEVATED FINISHED SECTION

STA 301+75.00 - STA 315+48.81



TYPICAL FINISHED SECTION
WITH GUARDRAIL

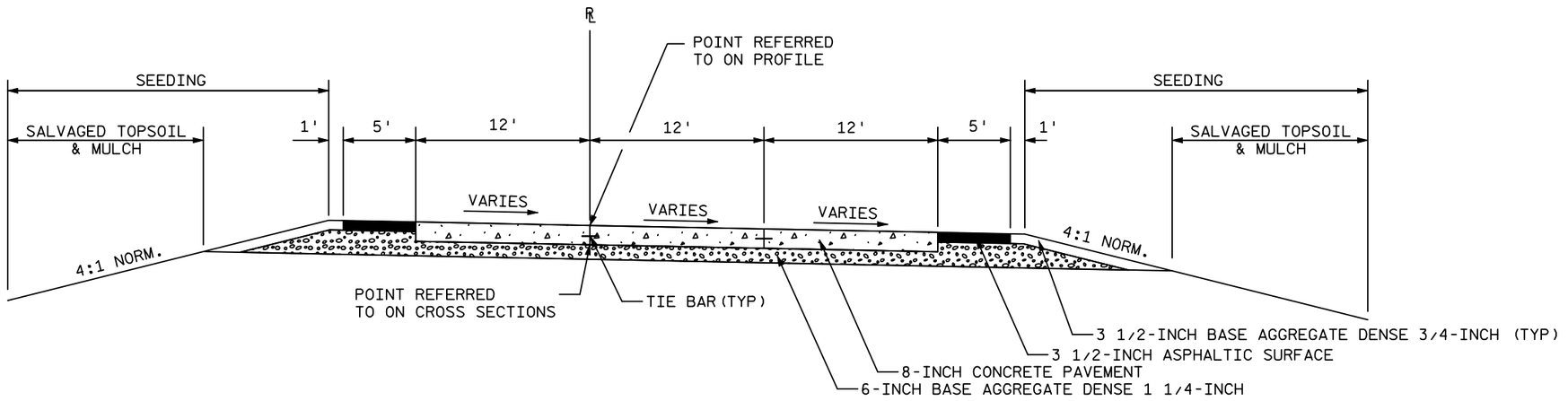
STA 301+94.92 - STA 306+54.00



TYPICAL FINISHED SECTION

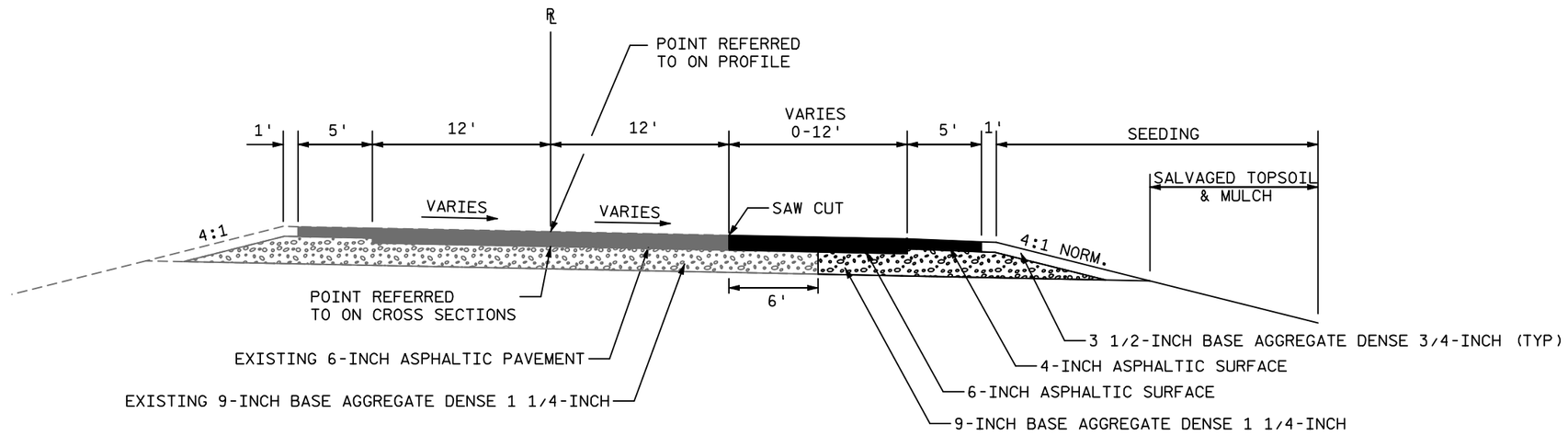
STA 315+48.81 - STA 315+85.51

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	TYPICAL SECTIONS	SHEET 22	E



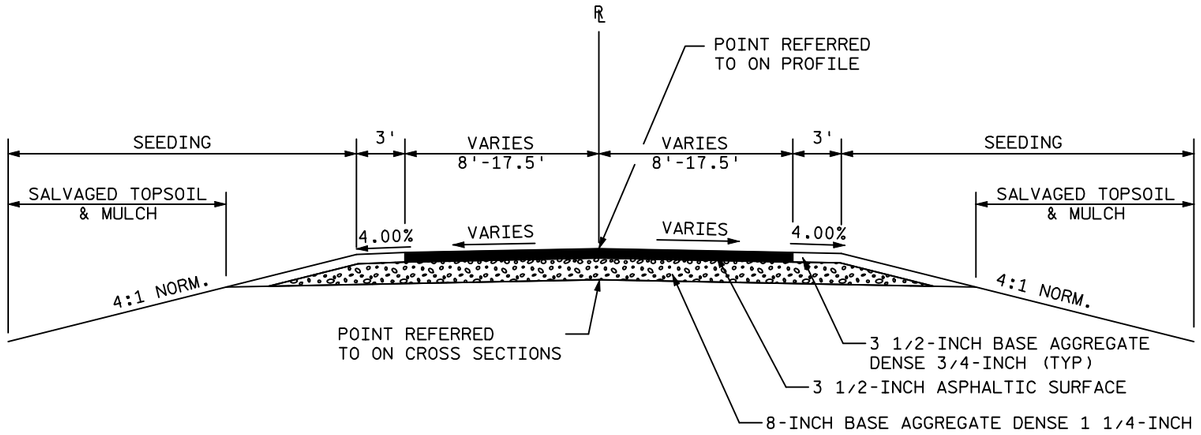
TYPICAL SUPERELEVATED FINISHED SECTION

STA 315+85.51 - STA 318+06.88



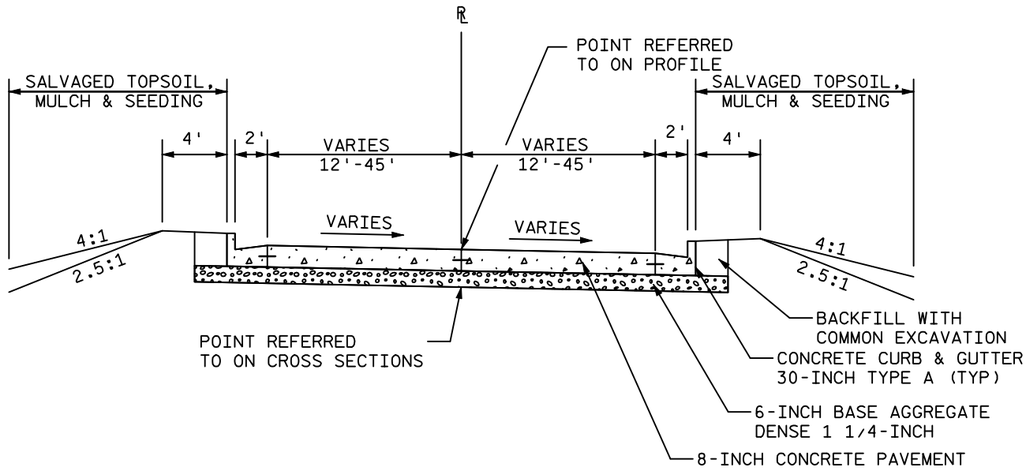
TYPICAL SUPERELEVATED FINISHED SECTION

STA 318+06.88 - STA 327+36.79



TYPICAL FINISHED SECTION FOR SIDE ROADS

STA 11+15.00 H - STA 11+26.12 H
STA 9+29.52 HA - STA 10+00.00 HA
STA 10+88.82 B - STA 12+75.00 B
STA 10+82.35 HO - STA 11+50.00 HO
STA 11+31.07 I - STA 12+00.00 I
STA 1+75.00 N - STA 2+65.13 N
STA 12+75.53 K - STA 13+00.00 K
STA 0+79.00 F - STA 1+80.67 F
STA 1+63.59 FR - STA 2+79.39 FR

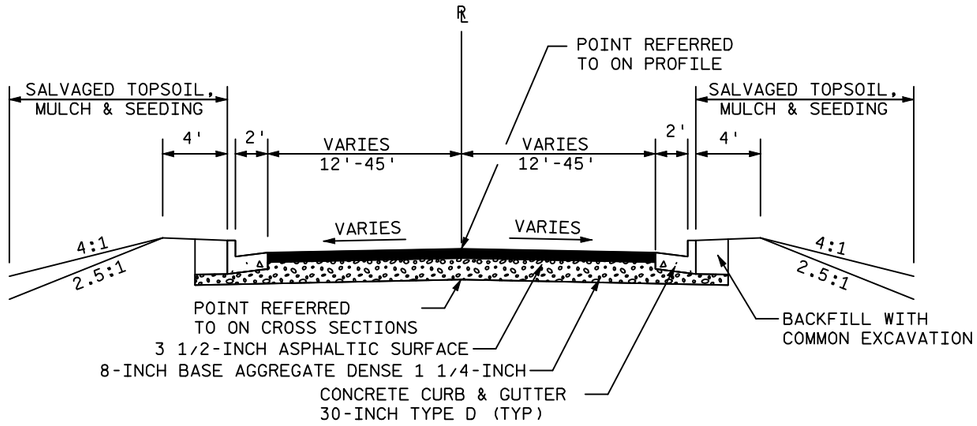


TYPICAL SUPERELEVATED FINISHED SECTION FOR SIDE ROADS

STA 11+46.22 HA - STA 15+75.00 HA

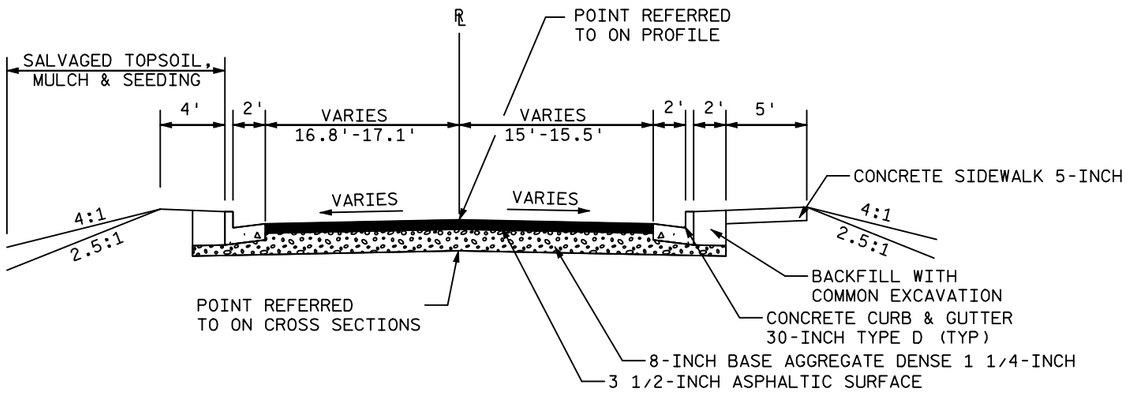
NOTE:

SEE STRUCTURE PLANS R-32-54,
FOR STA 10+25.00 H - STA 10+87.65 H,
AND STA 11+15.00 H - STA 11+26.12 H



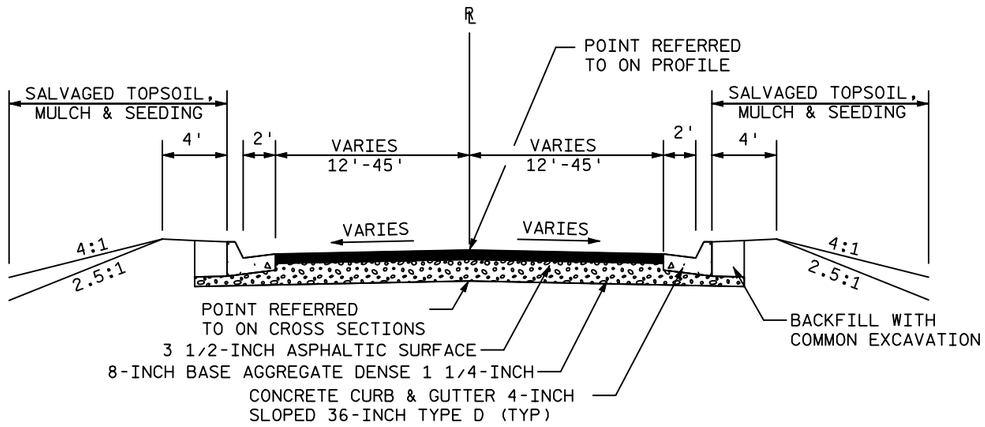
TYPICAL FINISHED SECTION FOR SIDE ROADS

STA 10+33.18 H - STA 11+15.00 H
STA 10+44.61 HA - STA 10+84.27 HA
STA 10+30.00 B - STA 10+69.68 B



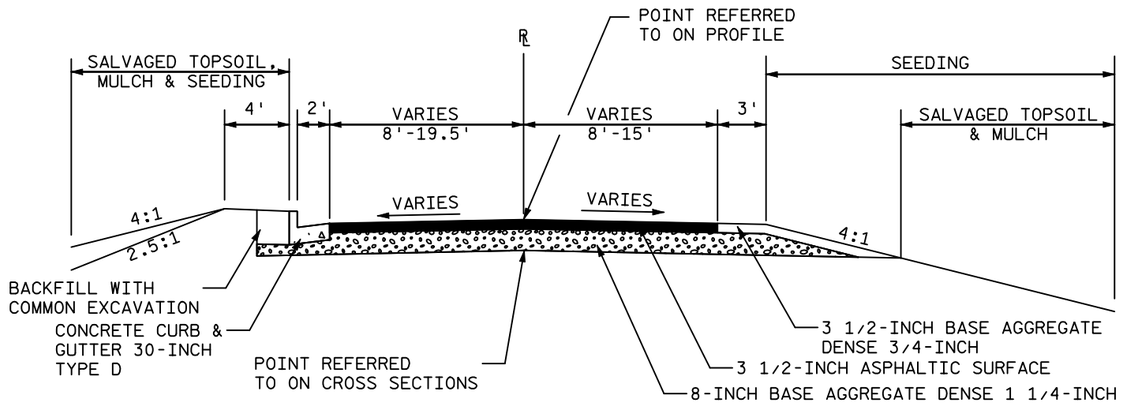
TYPICAL FINISHED SECTION FOR SIDE ROADS

STA 10+30.00 S - STA 12+00.00 S



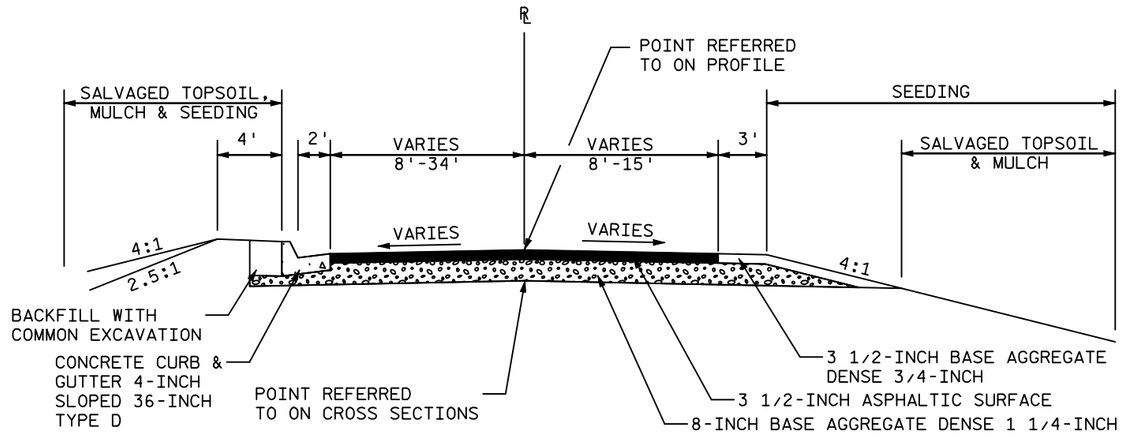
TYPICAL FINISHED SECTION FOR SIDE ROADS

STA 10+30.04 HO - STA 10+82.35 HO
STA 10+29.99 I - STA 11+25.00 I
STA 0+36.00 N - STA 1+58.61 N
STA 10+50.00 K - STA 11+49.47 K
STA 0+24.09 F - STA 0+72.63 F
STA 0+36.00 FR - STA 0+78.45 FR



TYPICAL FINISHED SECTION FOR SIDE ROADS

STA 10+00.00 HA - STA 10+44.61 HA
STA 10+69.68 B - STA 10+88.82 B (REVERSED)

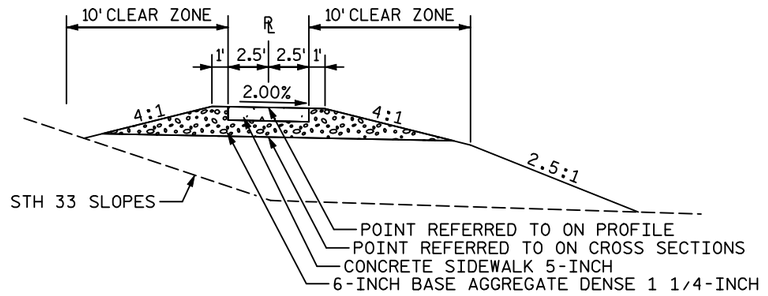


TYPICAL FINISHED SECTION FOR SIDE ROADS

STA 11+25.00 I - STA 11+31.07 I (REVERSED)
STA 1+58.61 N - STA 1+75.00 N
STA 11+49.47 K - STA 12+75.53 K
STA 0+72.63 F - STA 0+79.00 F
STA 0+78.45 FR - STA 1+63.59 FR

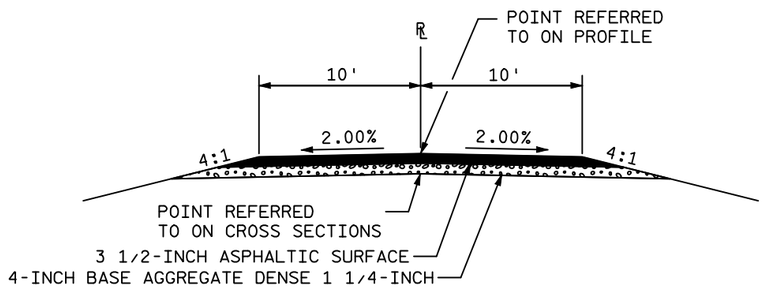
NOTE:

SEE STRUCTURE PLANS R-32-54,
FOR STA 10+87.65 H - STA 11+15.00 H



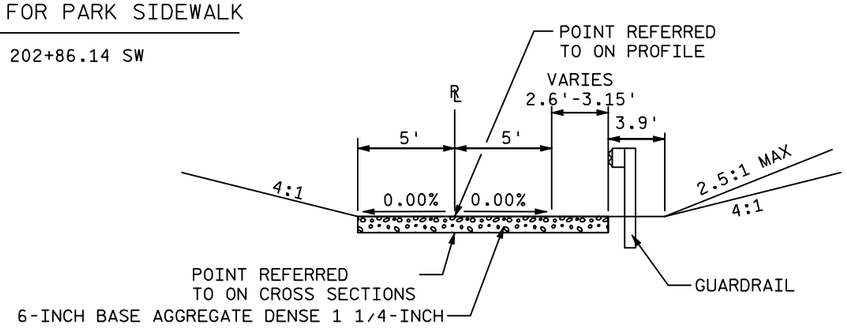
TYPICAL FINISHED SECTION FOR PARK SIDEWALK

STA 199+24.50 SW - STA 202+86.14 SW



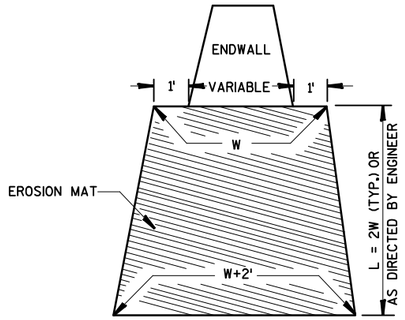
TYPICAL FINISHED SECTION FOR EAGLE POINT DRIVE

STA 20+00.00 EP - STA 21+36.09 EP

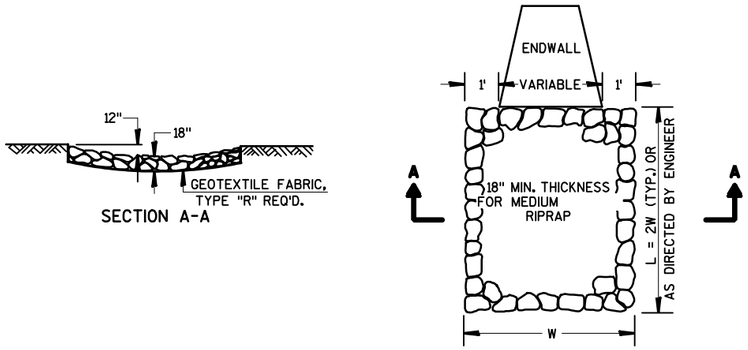


TYPICAL FINISHED SECTION FOR POND ACCESS ROAD

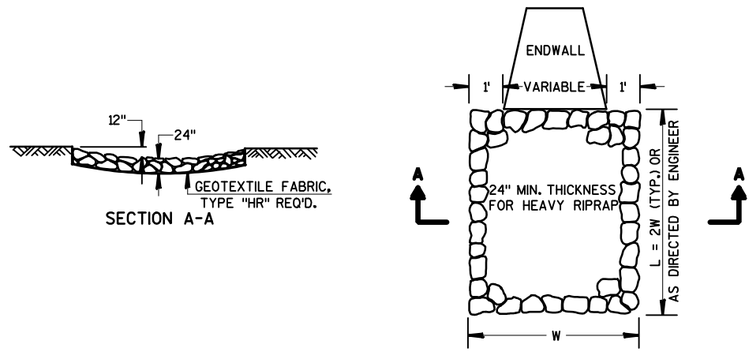
STA 20+00.00 P - STA 20+62.29 P



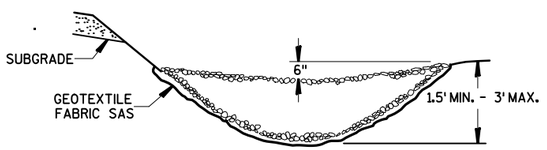
EROSION MAT TREATMENT AT CULVERTS



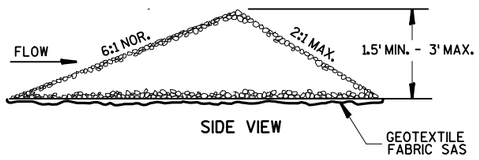
MEDIUM RIPRAP TREATMENT AT CULVERTS



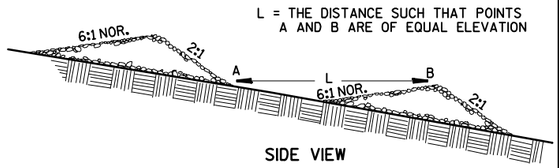
HEAVY RIPRAP TREATMENT AT CULVERTS



CROSS SECTIONAL VIEW

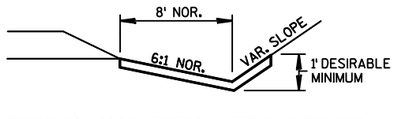


SIDE VIEW

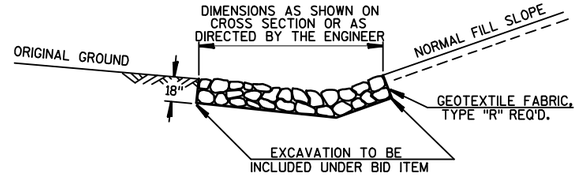


SIDE VIEW

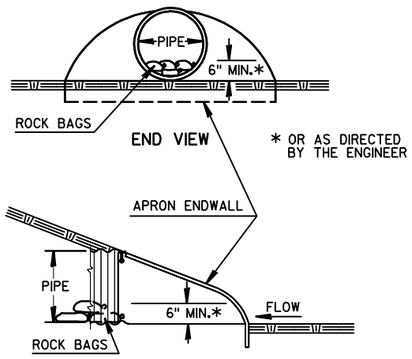
PERMANENT STONE DITCH CHECK



EROSION MAT DETAIL FOR DITCHES



DETAIL FOR MEDIUM RIPRAP IN DITCHES



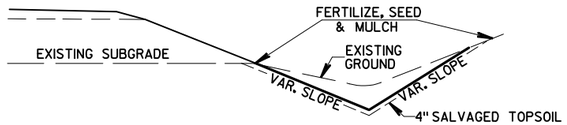
SIDE VIEW

CULVERT PIPE CHECK

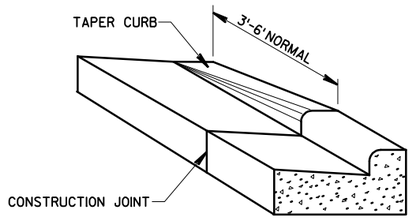
RUNOFF COEFFICIENT TABLE

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

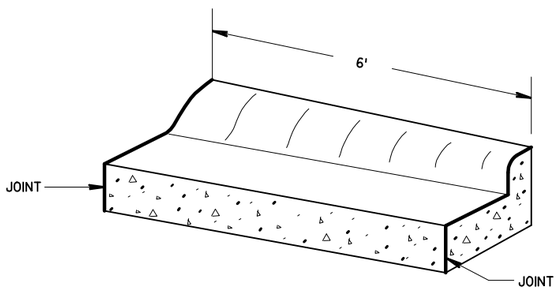
TOTAL PROJECT AREA = 38.4 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 38.4 ACRES



DITCH SHAPING DETAIL

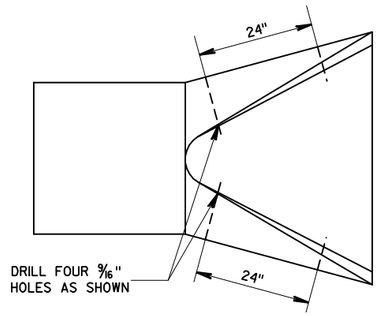


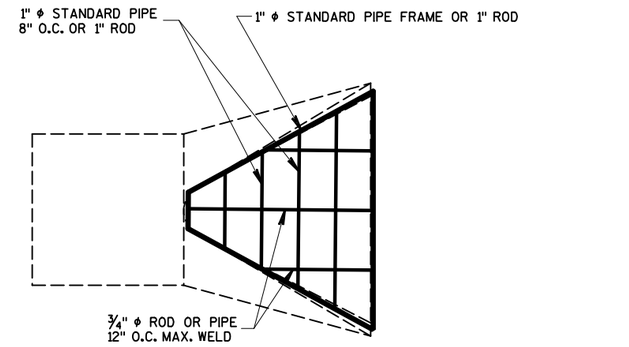
DETAIL OF CURB & GUTTER TERMINI



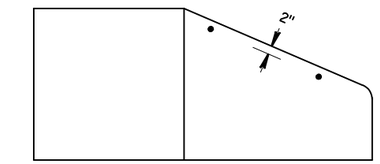
TRANSITION DETAIL

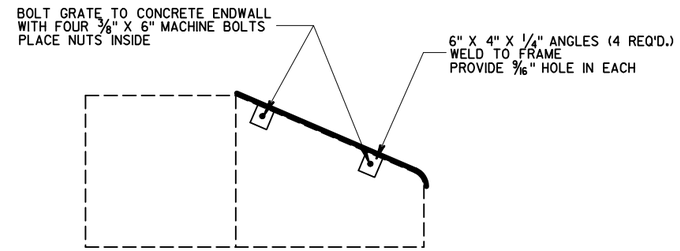
36" TYPE "D" CURB & GUTTER TO 30" TYPE "D" CURB & GUTTER
(TO BE MEASURED & PAID FOR AS 36" CONC. C&G)

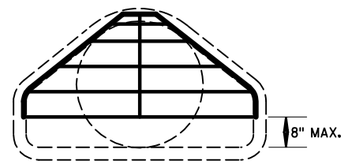




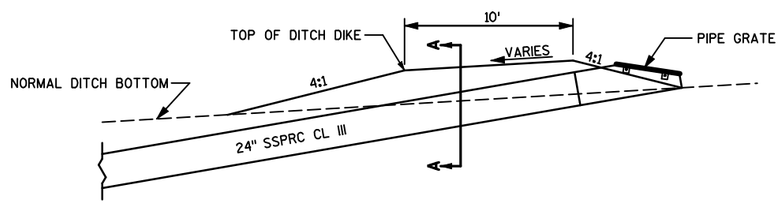
AT EACH PIPE

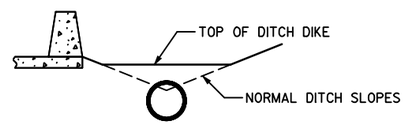






PIPE GRATE DETAIL





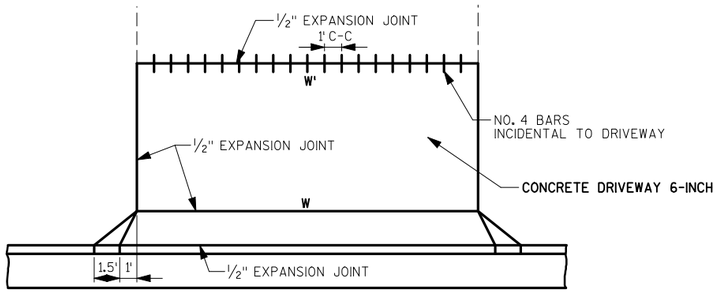
SECTION A-A

DETAIL FOR INLET PIPES BEHIND BARRIER WALL

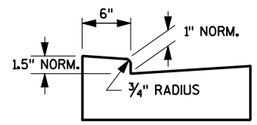
PROJECT NO: 5120-07-71/72	HWY: STH 33	COUNTY: LA CROSSE	CONSTRUCTION DETAILS	SHEET 28	E

W = WIDTH
W' = MATCH WIDTH

EXISTING WIDTH VARIES

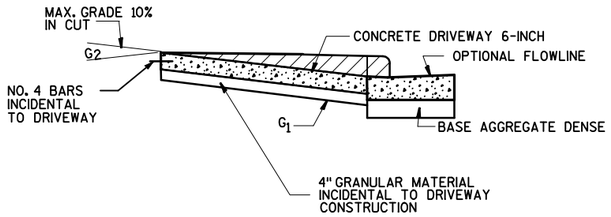


PLAN



METHOD FOR
CONCRETE GUTTER

NOTE: ALGEBRAIC DIFFERENCE BETWEEN
TANGENT GRADES G_1 & G_2
EXTENDED IN FILLS, MAX. 15%

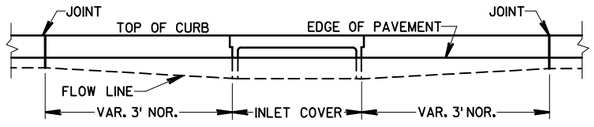


PROFILE

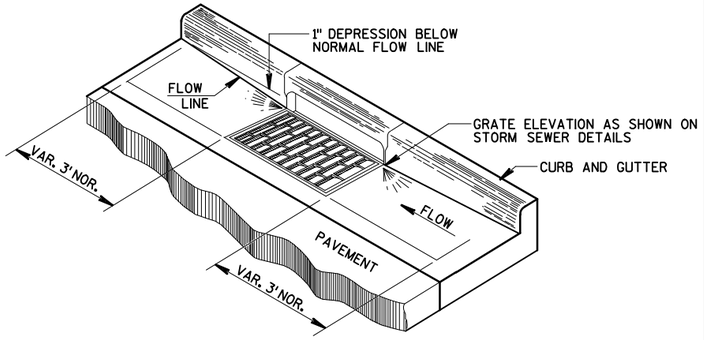
CONCRETE URBAN DRIVEWAY DETAIL

STA 216+63
STA 11+09.161

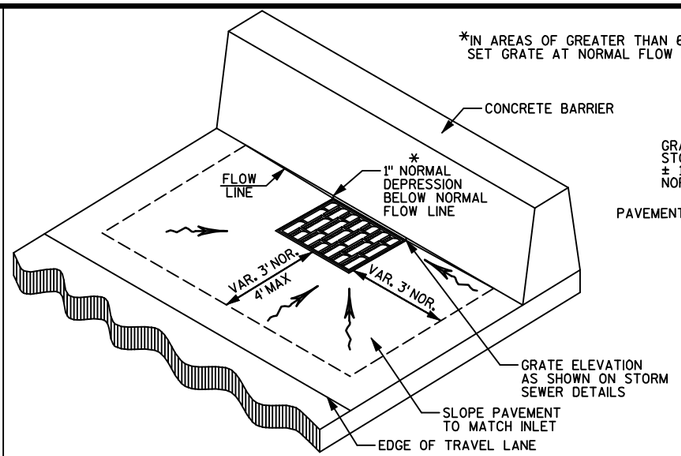
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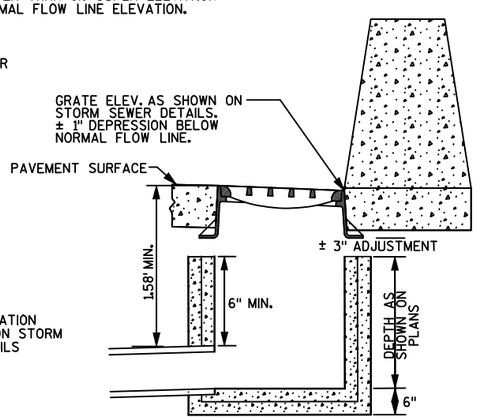


ELEVATION



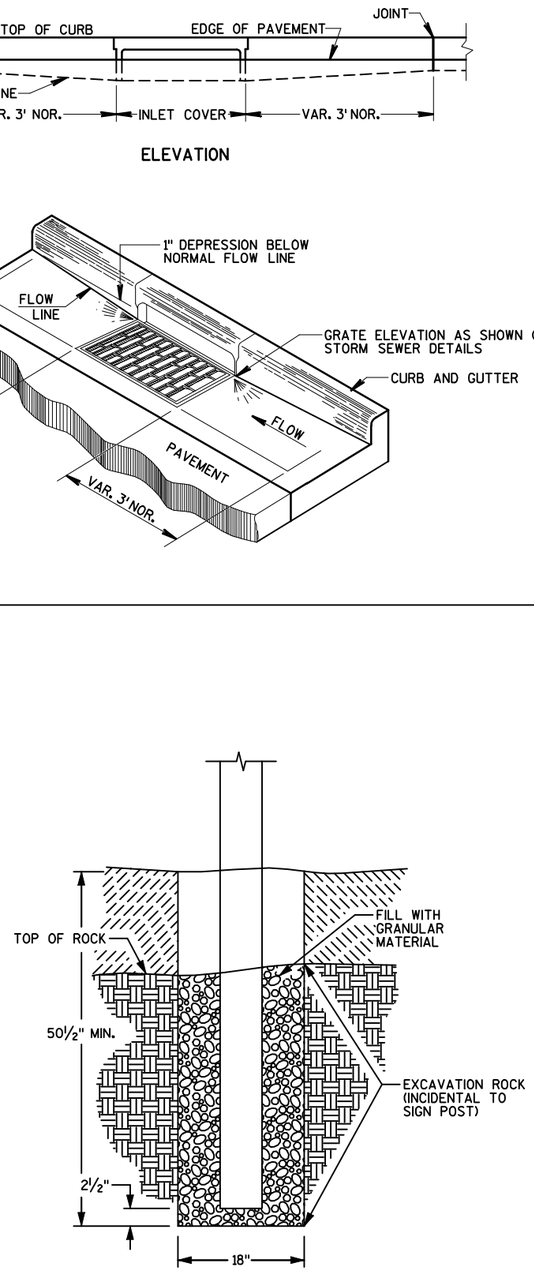
*IN AREAS OF GREATER THAN 6% SUPER ELEVATION' SET GRATE AT NORMAL FLOW LINE ELEVATION.



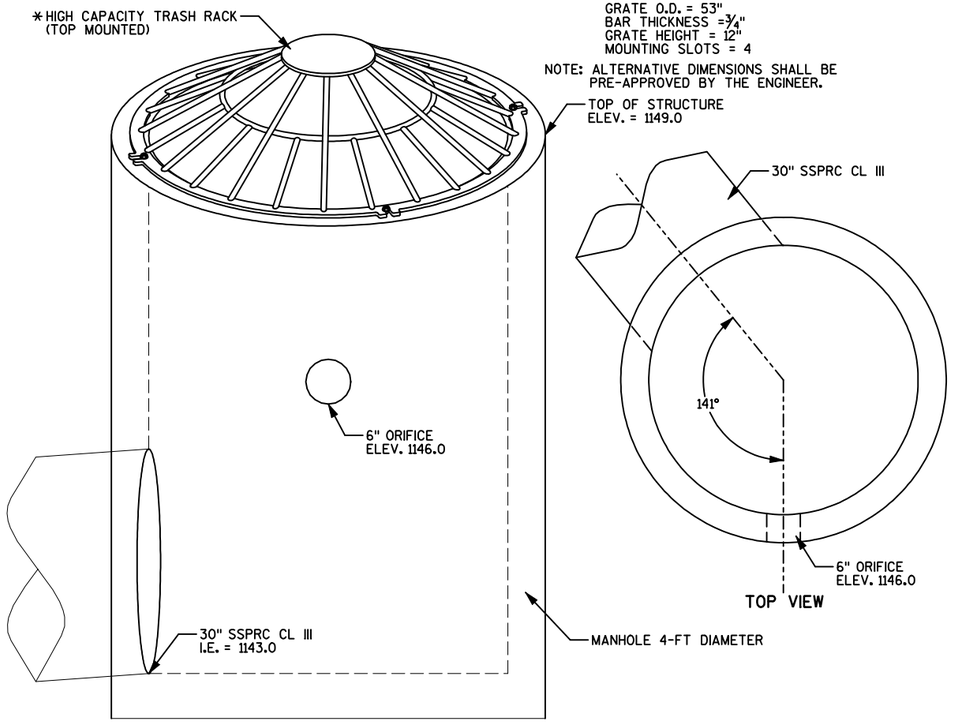


DETAIL FOR COMPUTING INLET ELEVATIONS

INLET COVERS - BW



SETTING SIGN POST IN ROCK



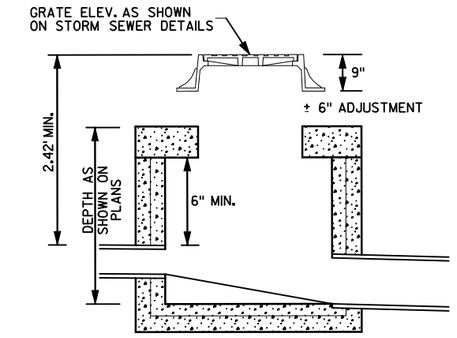
* TRASH RACK DIMENSIONS

GRATE O.D. = 53"
BAR THICKNESS = ¾"
GRATE HEIGHT = 12"
MOUNTING SLOTS = 4

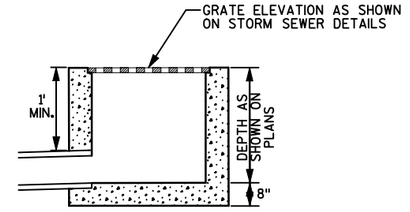
NOTE: ALTERNATIVE DIMENSIONS SHALL BE PRE-APPROVED BY THE ENGINEER.

POND OUTLET STRUCTURE WITH HIGH CAPACITY TRASH RACK (SPV.0060.02)

(AT KNOBLOCH ROAD)

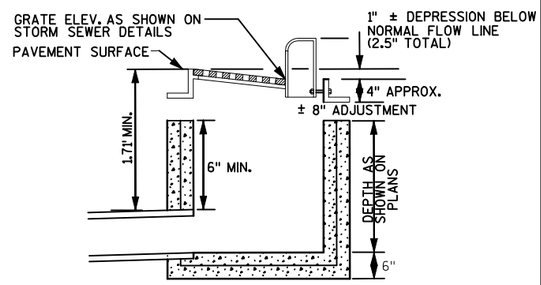


DETAIL FOR COMPUTING MANHOLE ELEVATIONS



INLETS MEDIAN 1 & 2 GRATES

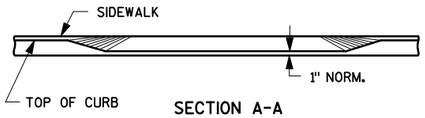
DETAIL FOR COMPUTING INLET ELEVATIONS



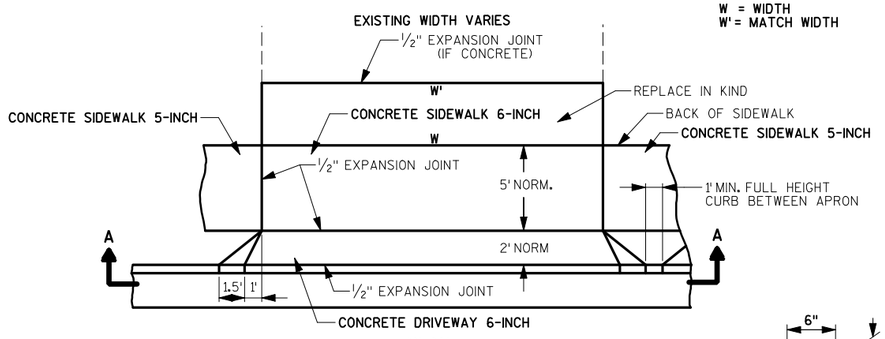
DETAIL FOR COMPUTING INLET ELEVATIONS

INLET COVERS - H & HM

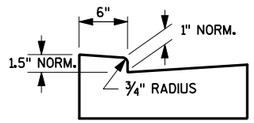
PROJECT NO: 5120-07-71/72	HWY: STH 33	COUNTY: LA CROSSE	CONSTRUCTION DETAILS	SHEET 30	E



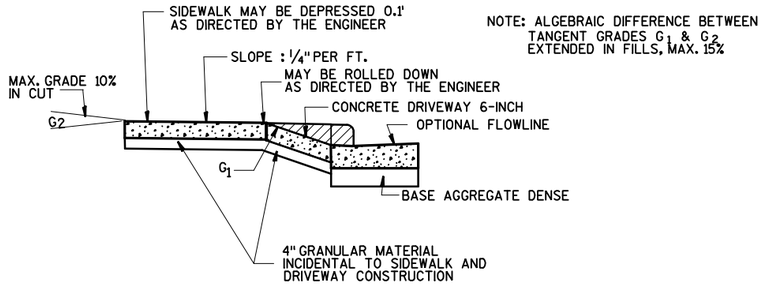
SECTION A-A



PLAN



METHOD FOR CONCRETE GUTTER

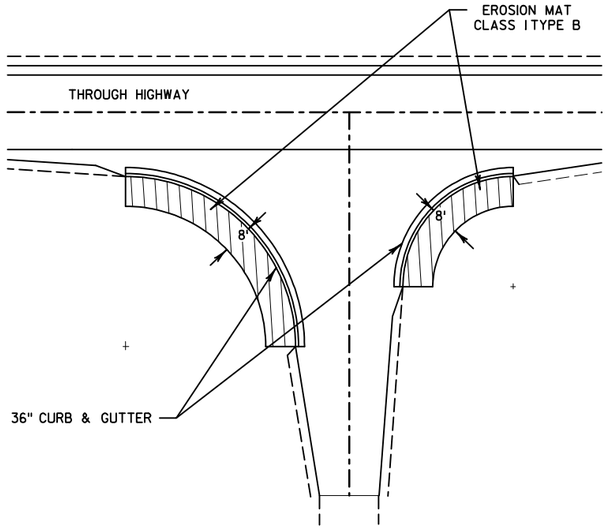


PROFILE

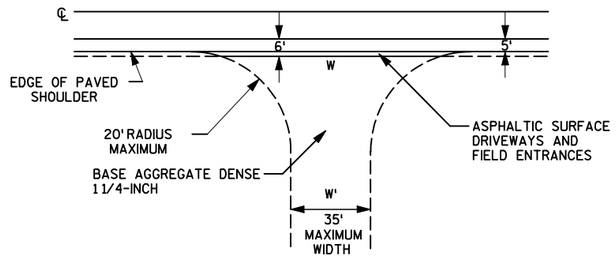
URBAN DRIVEWAY WITH SIDEWALK DETAIL

ALIGNMENT	STATION	LOCATION	TYPE	WIDTH	MATCH WIDTH	SURFACE
STH 33	149+00	LT	P.E.	16'	11.33'	HMA
	150+08	LT	P.E.	16'	21.44'	HMA
	150+80	RT	P.E.	20'	17.67'	HMA
	151+00	LT	P.E.	16'	12.03'	HMA
	151+50	RT	P.E.	36'	35.26'	HMA
	152+60	RT	P.E.	18'	15.39'	HMA
	153+47	LT	P.E.	24'	21.34'	HMA
	153+87	RT	P.E.	18'	15.56'	CONCRETE
	154+00	LT	VALLEY PARKWAY	34'	48.62'	HMA
	159+31	RT	P.E.	24'	25.93'	HMA
	161+60	LT	P.E.	16'	12.59'	HMA
	162+63	RT	P.E.	36'	33.82'	HMA
	164+10	LT	P.E.	16'	11.20'	HMA
	164+59	RT	P.E.	24'	20.99'	HMA
	165+29	LT	P.E.	16'	12.01'	HMA
	165+62	LT	P.E.	18'	15.53'	HMA
	166+67	RT	P.E.	32'	28.87'	HMA
	168+40	RT	P.E.	24'	17.97'	CONCRETE
	170+41	RT	P.E.	20'	16.47'	HMA
	171+08	LT	P.E.	20'	14.94'	HMA
	172+55	LT	P.E.	32'	31.17'	HMA
	173+66	LT	P.E.	20'	17.27'	HMA
	175+06	LT	P.E.	18'	15.30'	HMA
	176+55	LT	P.E.	18'	15.91'	HMA
	176+87	LT	P.E.	28'	26.99'	HMA
	177+73	LT	P.E.	20'	18.84'	HMA
	179+12	LT	P.E.	20'	20.04'	CONCRETE
	180+42	LT	P.E.	16'	12.98'	HMA
	180+52	RT	P.E.	48'	59.98'	HMA
	183+68	LT	C.E.	24'	21.65'	HMA
	193+31	RT	P.E.	34'	27.65'	HMA
	194+40	RT	P.E.	38'	30.47'	HMA
	194+75	LT	F.E.	24'	---	---
	197+44	LT	P.E.	16'	13.63'	HMA
	198+58	LT	P.E.	22'	21.72'	HMA
	200+93	LT	P.E.	34'	39.74'	HMA
	201+39	LT	P.E.	34'	32.39'	HMA
	202+29	LT	P.E.	16'	12.61'	CONCRETE
	203+15	LT	P.E.	26'	28.49'	HMA
	204+34	LT	P.E.	24'	27.68'	HMA
	205+17	LT	P.E.	16'	10.92'	CONCRETE
	206+63	LT	P.E.	18'	15.69'	HMA
	208+00	LT	P.E.	16'	14.80'	HMA
	209+54	LT	P.E.	16'	15.63'	HMA
	210+78	LT	P.E.	16'	13.40'	HMA
	213+42	RT	P.E.	28'	22.45'	HMA
	216+63	LT	P.E.	24'	11.61'	CONCRETE
	220+00	LT	P.E.	24'	22.10'	HMA
	243+07	LT	P.E.	50'	25.45'	HMA
	295+41	RT	P.E.	16'	14.70'	HMA
	301+50	RT	F.E.	38'	30'	BAD
	303+07	LT	P.E.	42'	37.56'	HMA/BAD
	308+07	LT	P.E.	36'	31.71'	HMA/BAD
	316+50	RT	F.E.	44'	16.41'	HMA/BAD
	316+75	LT	F.E.	40'	19.87'	HMA/BAD
HA LINE	10+43HA	LT	P.E.	16'	12.39'	HMA
	12+50HA	RT	P.E.	16'	16.90'	HMA
	14+25HA	RT	P.E.	16'	12.42'	HMA
I LINE	11+09.16I	RT	P.E.	20'	18.19'	CONCRETE
N LINE	2+00N	LT	P.E.	36'	15.69'	HMA
	2+50N	LT	P.E.	32'	15.95'	HMA

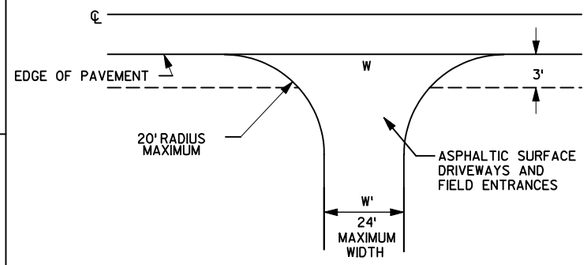
2



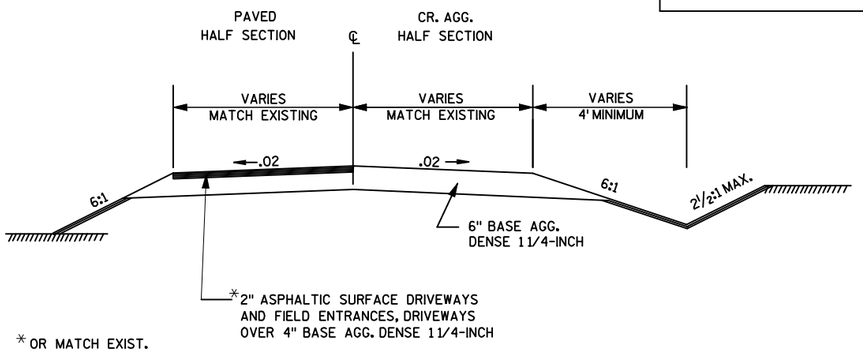
EROSION MAT DETAIL
AT RURAL INTERSECTIONS
(UNLESS OTHERWISE SHOWN ON EROSION CONTROL DETAIL SHEETS)



TYPICAL RURAL DRIVEWAY DETAIL
STH 33

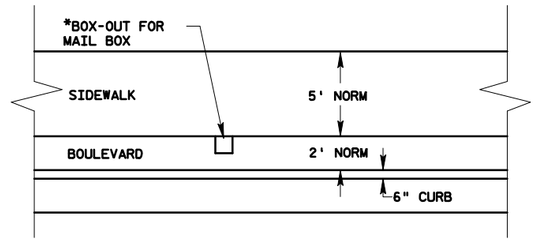


TYPICAL RURAL DRIVEWAY DETAIL
NORSEMAN ROAD



TYPICAL SECTION
FOR RURAL PRIVATE ENTRANCES

NOTE: PLACE LOW POINT OF DRIVEWAY PROFILE OVER DITCH FLOW LINE.



NOTES:

12" X 12" BOX-OUT FOR THE PLACEMENT OF MAIL BOXES IN CONCRETE BOULEVARD TO BE PLACED AT THE SAWCUT BETWEEN THE BOULEVARD AND SIDEWALK. POSITION THE BOX-OUT SO THE TOP OF THE BOX OUT IS FLUSH WITH THE CONCRETE SURFACE

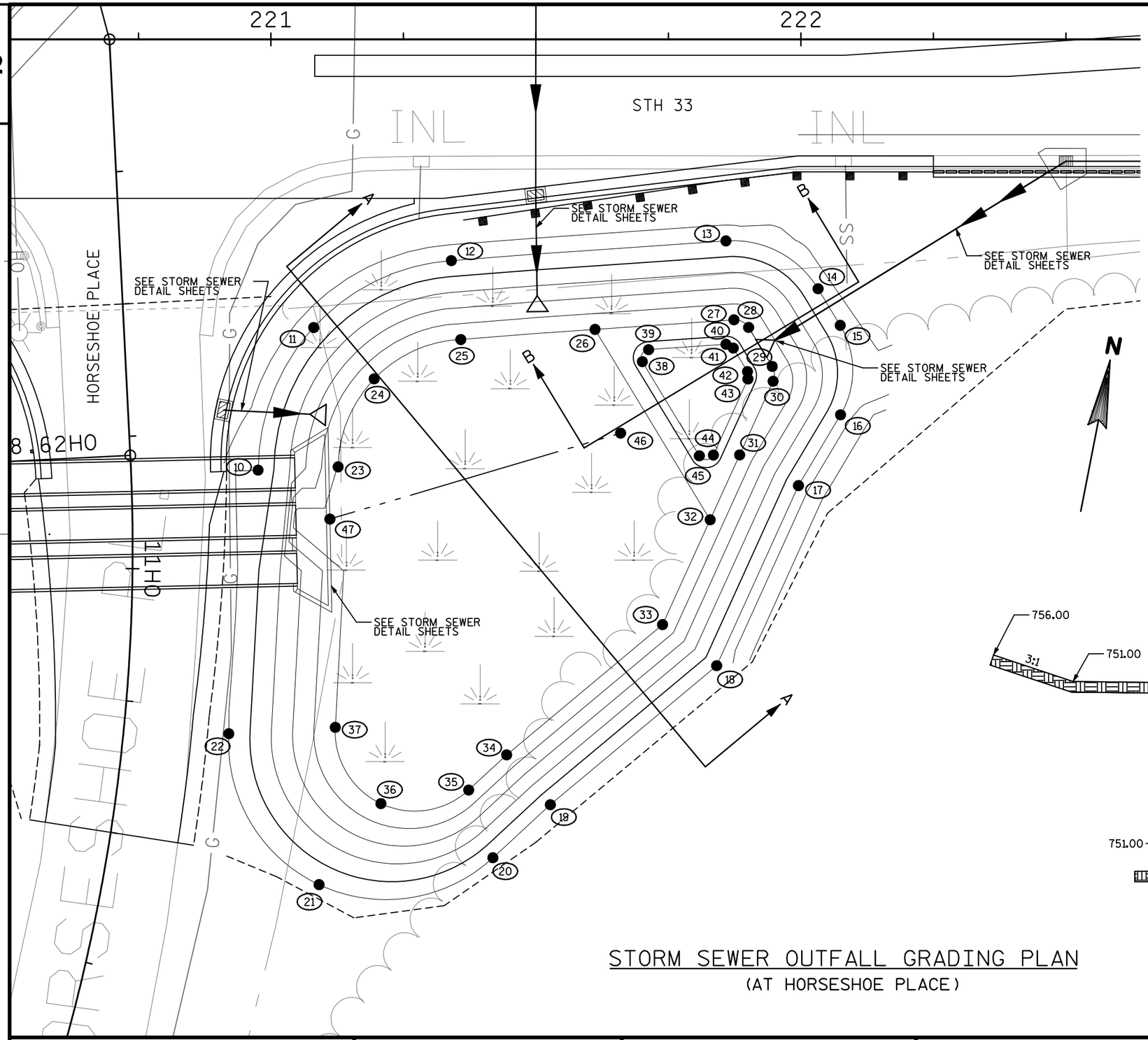
EXACT LOCATION MAY BE DETERMINED IN FIELD BY THE PROJECT ENGINEER.

MAILBOX BOX-OUT DETAIL

PAYMENT FOR BOX-OUT IS INCIDENTAL TO CONCRETE SIDEWALK 5-INCH

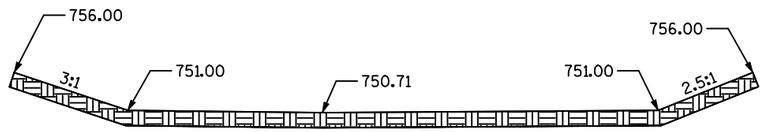
BOX-OUT LOCATIONS FOR MAIL BOXES

STATION	OFFSET	NOTES
148+90	LT	4097 STATE ROAD
149+95	LT	4109 STATE ROAD
150+85	LT	4121 STATE ROAD
153+21	LT	4131 STATE ROAD
161+75	LT	W5864 STATE ROAD 33
164+24	LT	W5848 STATE ROAD 33
165+17	LT	W5840 STATE ROAD 33
165+77	LT	W5836 STATE ROAD 33
171+20	LT	W5798 STATE ROAD 33
172+32	LT	W5796 STATE ROAD 33
172+78	LT	W5792 STATE ROAD 33
173+83	LT	W5778 STATE ROAD 33
176+37	LT	W5760 STATE ROAD 33
177+03	LT	W5756 STATE ROAD 33
177+86	LT	W5748 STATE ROAD 33
179+25	LT	W5740 STATE ROAD 33
180+55	LT	W5724 STATE ROAD 33
197+07	LT	W5604 & W5610 STATE ROAD 33 - TWO BOXES ON ONE POST
198+70	LT	W5596 STATE ROAD 33
201+14	LT	W5584 & W5578 STATE ROAD 33 - TWO BOXES ON ONE POST
202+42	LT	W5570 STATE ROAD 33
203+31	LT	W5562 STATE ROAD 33
204+47	LT	W5556 STATE ROAD 33
205+30	LT	W5550 STATE ROAD 33
206+75	LT	W5544 STATE ROAD 33
208+10	LT	W5536 STATE ROAD 33
209+68	LT	W5528 STATE ROAD 33
211+90	LT	W5520 STATE ROAD 33

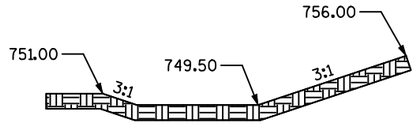


POINT	STATION	OFFSET	ELEV
10	220+97.57	81.29' RT	756.00
11	221+08.06	54.39' RT	756.00
12	221+34.03	41.76' RT	756.00
13	221+85.84	38.04' RT	756.00
14	222+03.22	47.06' RT	756.00
15	222+07.40	53.97' RT	756.00
16	222+07.47	70.86' RT	756.00
17	221+99.53	84.22' RT	756.00
18	221+84.09	118.22' RT	756.00
19	221+52.72	144.45' RT	756.00
20	221+41.88	154.47' RT	756.00
21	221+09.08	159.54' RT	756.00
22	220+92.04	131.05' RT	756.00
23	221+12.67	80.69' RT	751.00
24	221+19.47	64.07' RT	751.00
25	221+35.82	56.65' RT	751.00
26	221+61.14	54.74' RT	751.00
27	221+87.35	52.93' RT	751.00
28	221+90.13	54.37' RT	751.00
29	221+94.58	61.73' RT	751.00
30	221+94.75	64.52' RT	751.00
31	221+88.43	78.43' RT	751.00
32	221+82.87	90.68' RT	751.00
33	221+73.89	110.46' RT	751.00
34	221+44.46	135.06' RT	751.00
35	221+37.30	141.68' RT	751.00
36	221+20.74	144.24' RT	751.00
37	221+12.14	129.86' RT	751.00
38	221+70.07	60.83' RT	749.50
39	221+71.25	58.55' RT	749.50
40	221+85.84	57.54' RT	749.50
41	221+87.23	58.26' RT	749.50
42	221+89.91	62.71' RT	749.50
43	221+89.99	64.10' RT	749.50
44	221+83.48	78.45' RT	749.50
45	221+80.83	78.61' RT	749.50
46	221+65.96	74.32' RT	751.00
47	221+11.12	90.54' RT	750.46

NOTE: FOR RIPRAP & OTHER EROSION CONTROL, SEE THE EROSION CONTROL DETAIL SHEETS.



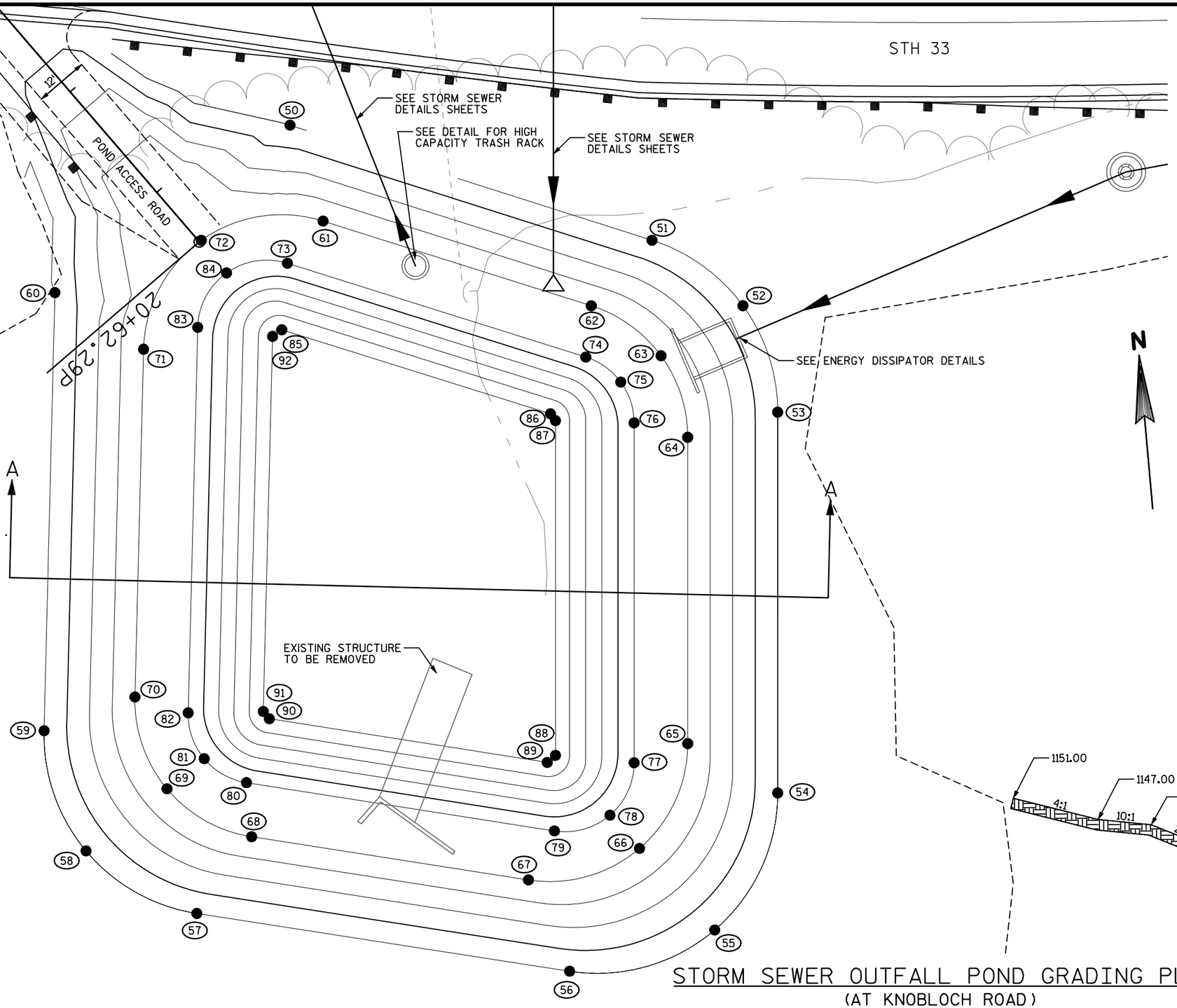
SECTION A-A



SECTION B-B

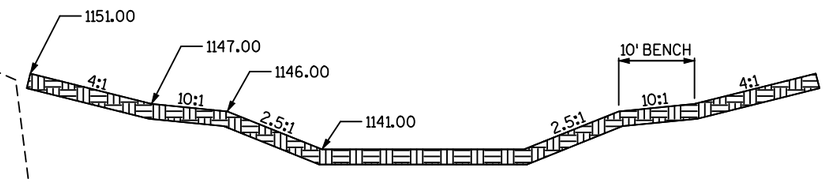
STORM SEWER OUTFALL GRADING PLAN
(AT HORSESHOE PLACE)

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CONSTRUCTION DETAILS	SHEET 33	E



POINT	STATION	OFFSET	ELEV
50	284+51.67	54.71' RT	1151.00
51	285+17.90	75.90' RT	1151.00
52	285+34.21	88.45' RT	1151.00
53	285+40.11	108.64' RT	1151.00
54	285+38.80	180.38' RT	1151.00
55	285+27.58	206.00' RT	1151.00
56	285+02.76	213.58' RT	1151.00
57	284+38.95	203.70' RT	1151.00
58	284+19.57	192.64' RT	1151.00
59	284+11.17	169.40' RT	1151.00
60	284+09.95	87.77' RT	1151.00
61	284+58.10	72.65' RT	1147.00
62	285+06.83	88.17' RT	1147.00
63	285+19.34	97.68' RT	1147.00
64	285+23.96	113.10' RT	1147.00
65	285+23.33	170.82' RT	1147.00
66	285+14.81	190.49' RT	1147.00
67	284+95.71	196.37' RT	1147.00
68	284+47.99	188.96' RT	1147.00
69	284+33.14	180.40' RT	1147.00
70	284+27.03	163.32' RT	1147.00
71	284+26.32	97.76' RT	1147.00
72	284+36.08	76.89' RT	1147.00
73	284+51.79	80.75' RT	1146.00
73	284+51.79	80.75' RT	1146.00
74	285+05.82	97.84' RT	1146.00
75	285+12.07	102.58' RT	1146.00
76	285+14.41	110.28' RT	1146.00
77	285+13.99	174.34' RT	1146.00
78	285+09.76	184.19' RT	1146.00
79	285+00.17	187.13' RT	1146.00
80	284+46.86	178.80' RT	1146.00
81	284+39.42	174.51' RT	1146.00
82	284+36.39	165.95' RT	1146.00
83	284+35.92	93.29' RT	1146.00
84	284+40.83	82.88' RT	1146.00
85	284+51.07	93.30' RT	1141.00
86	284+99.47	108.52' RT	1141.00
87	285+00.36	109.80' RT	1141.00
88	285+00.35	172.90' RT	1141.00
89	284+98.92	174.22' RT	1141.00
90	284+50.54	166.64' RT	1141.00
91	284+49.46	165.31' RT	1141.00
92	284+49.44	94.59' RT	1141.00

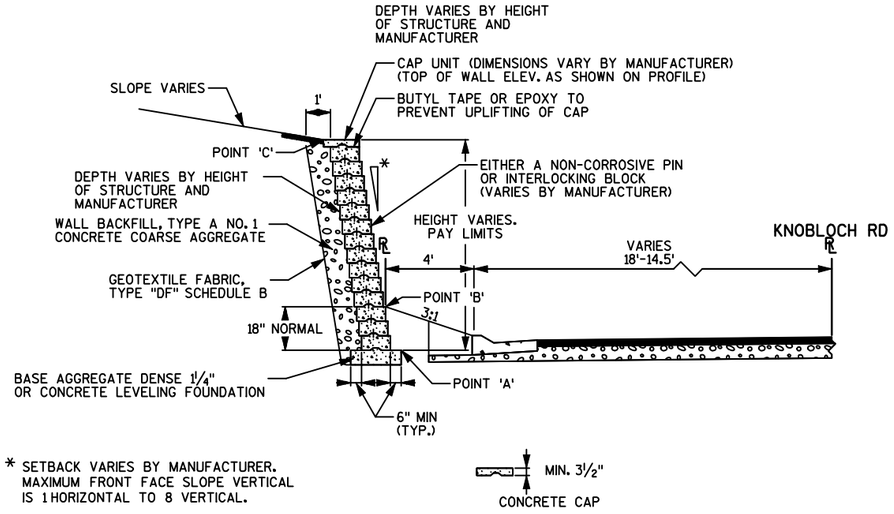
NOTE: FOR RIPRAP & OTHER EROSION CONTROL, SEE EROSION CONTROL DETAIL SHEETS.



SECTION A-A

STORM SEWER OUTFALL POND GRADING PLAN
(AT KNOBLOCH ROAD)

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CONSTRUCTION DETAILS	SHEET 34	E



TYPICAL SECTION WALL MODULAR BLOCK GRAVITY

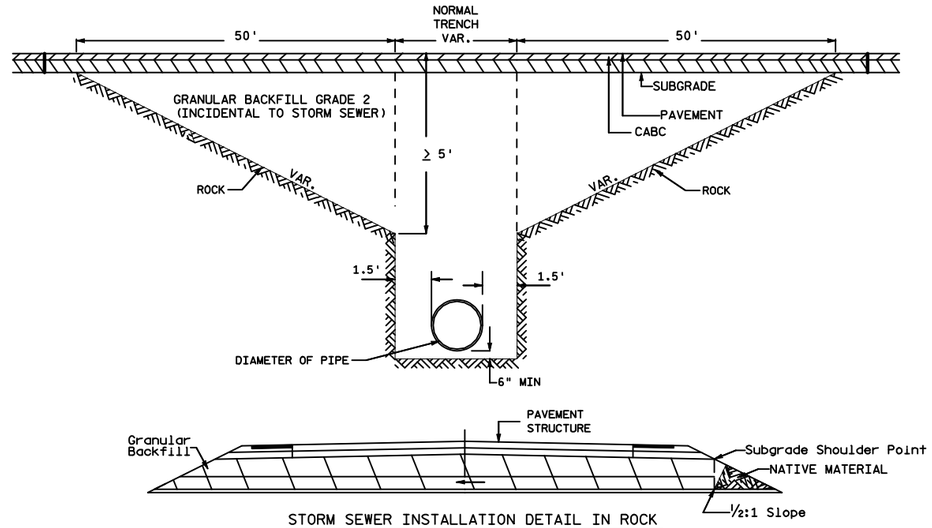
STA 12+10.00K - STA 12+65.57K

NOTES:

ELEVATIONS AND LENGTHS ARE APPROXIMATE.
CONSTRUCT TO FIT TERRAIN.

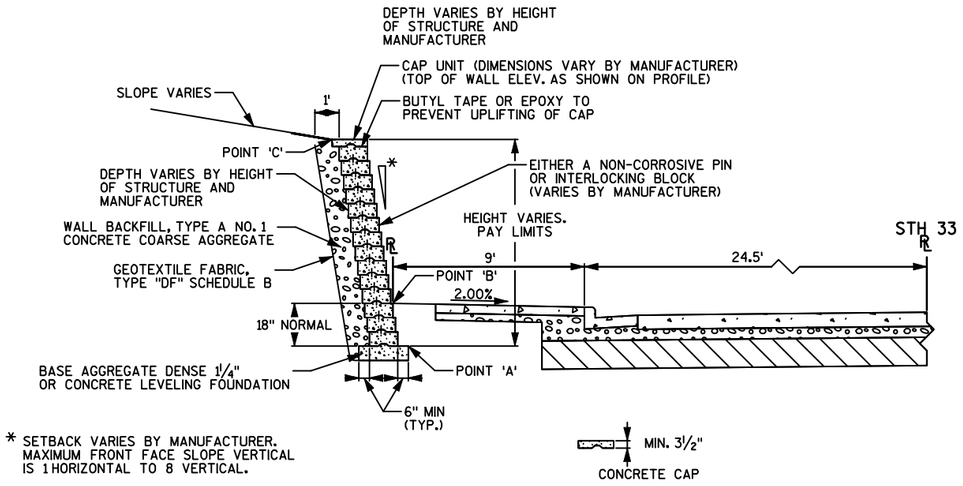
DRAWING NOT TO SCALE.

RETAINING WALL BLOCK DEPTH MIN. 8" - MAX. 12".



STORM SEWER INSTALLATION DETAIL IN ROCK

PAID AS STORM SEWER ROCK EXCAVATION



TYPICAL SECTION WALL MODULAR BLOCK GRAVITY

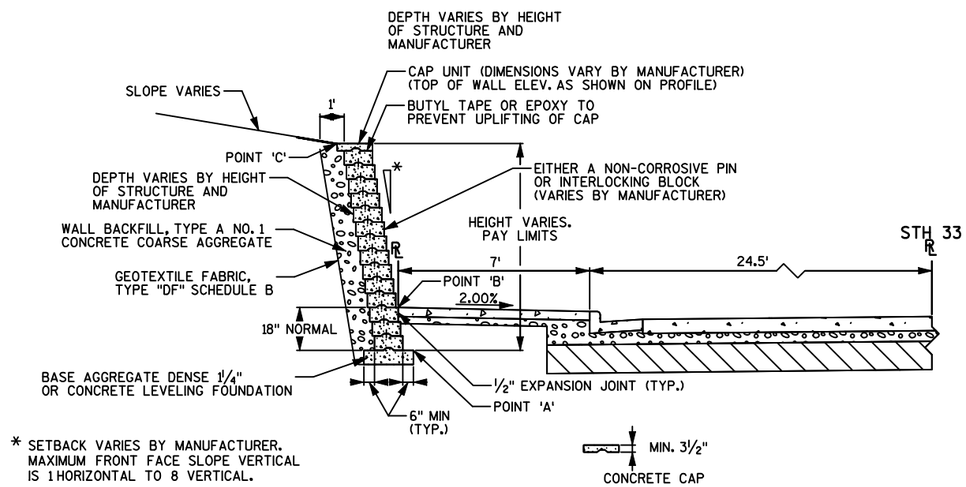
STA 178+63.41 - STA 179+01.53

NOTES:

ELEVATIONS AND LENGTHS ARE APPROXIMATE.
CONSTRUCT TO FIT TERRAIN.

DRAWING NOT TO SCALE.

RETAINING WALL BLOCK DEPTH MIN. 8" - MAX. 12".



TYPICAL SECTION WALL MODULAR BLOCK GRAVITY

STA 179+22.27 - STA 180+33.71
STA 185+50.00 - STA 193+50.00

NOTES:

ELEVATIONS AND LENGTHS ARE APPROXIMATE.
CONSTRUCT TO FIT TERRAIN.

DRAWING NOT TO SCALE.

RETAINING WALL BLOCK DEPTH MIN. 8" - MAX. 12".

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.

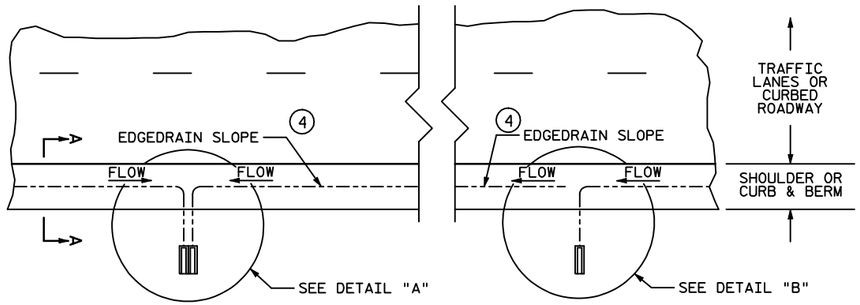
(1) UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF THE FOLLOWING SPECIFICATION:

POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

(2) MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECT BY THE ENGINEER.

(3) EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.

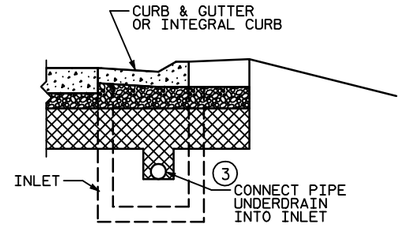
(4) EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



PLAN VIEW

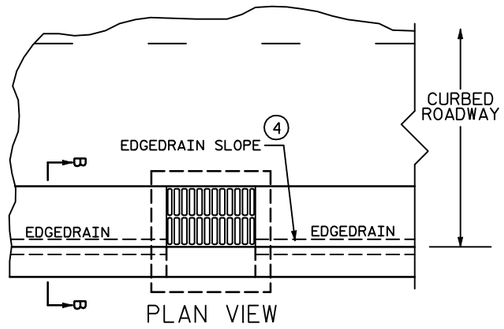
ROADWAY WITH SHOULDERS OR CURBS

(EDGEDRAIN OUTLETS TO ROADSIDE) (2)



SECTION B-B

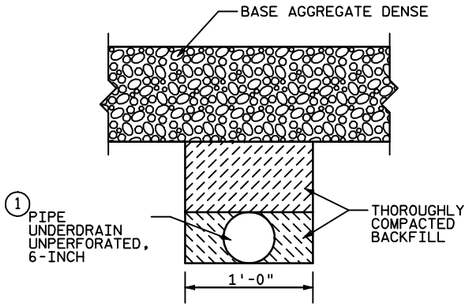
URBAN CROSS SECTION



PLAN VIEW

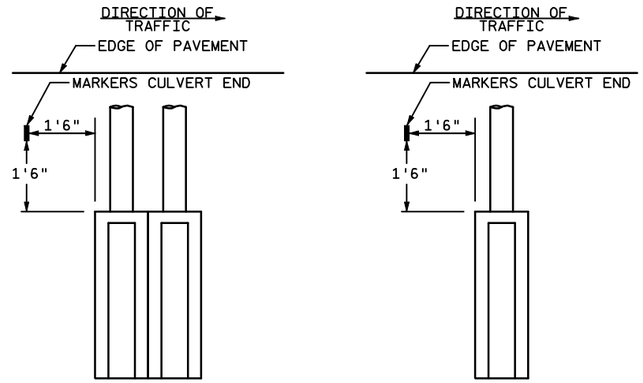
ROADWAY WITH CURBS

(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)



SECTION C-C

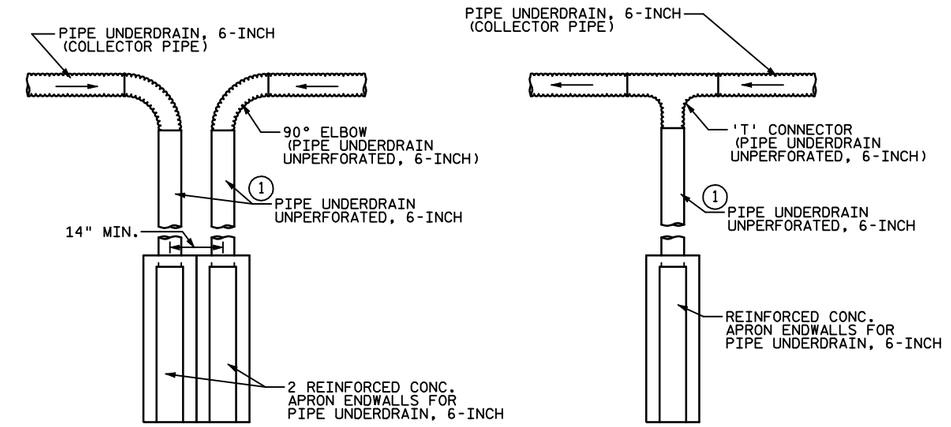
(TRENCH FOR OUTFALL PIPE)



LOW POINT LOCATIONS — INTERMEDIATE LOCATIONS

PLAN VIEW

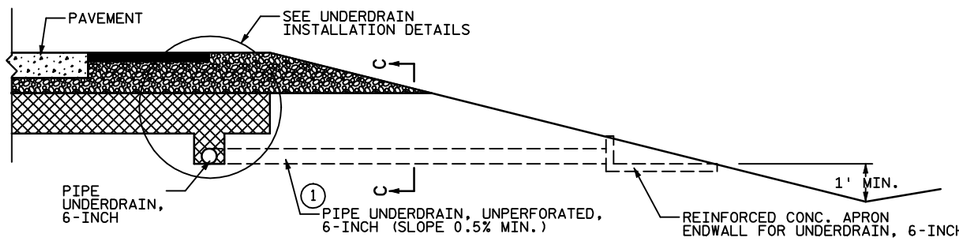
FLEXIBLE MARKER POST FOR OUTFALL END



DETAIL "A"
TO BE USED AT LOW POINT LOCATIONS

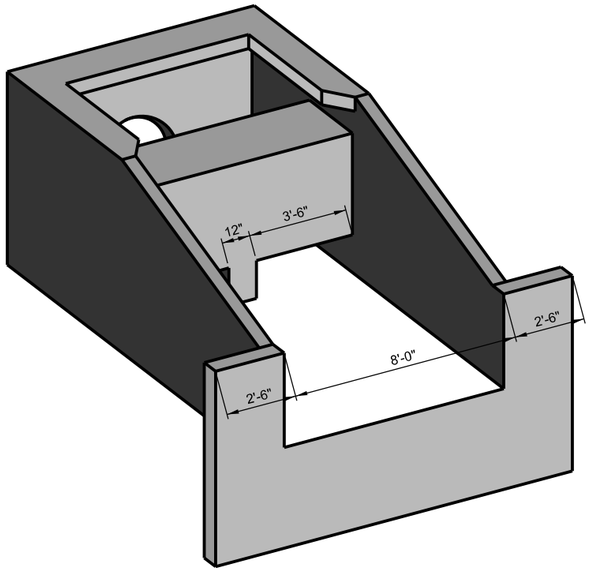
DETAIL "B"
TO BE USED AT INTERMEDIATE LOCATIONS

TYPICAL DRAIN OUT DETAILS

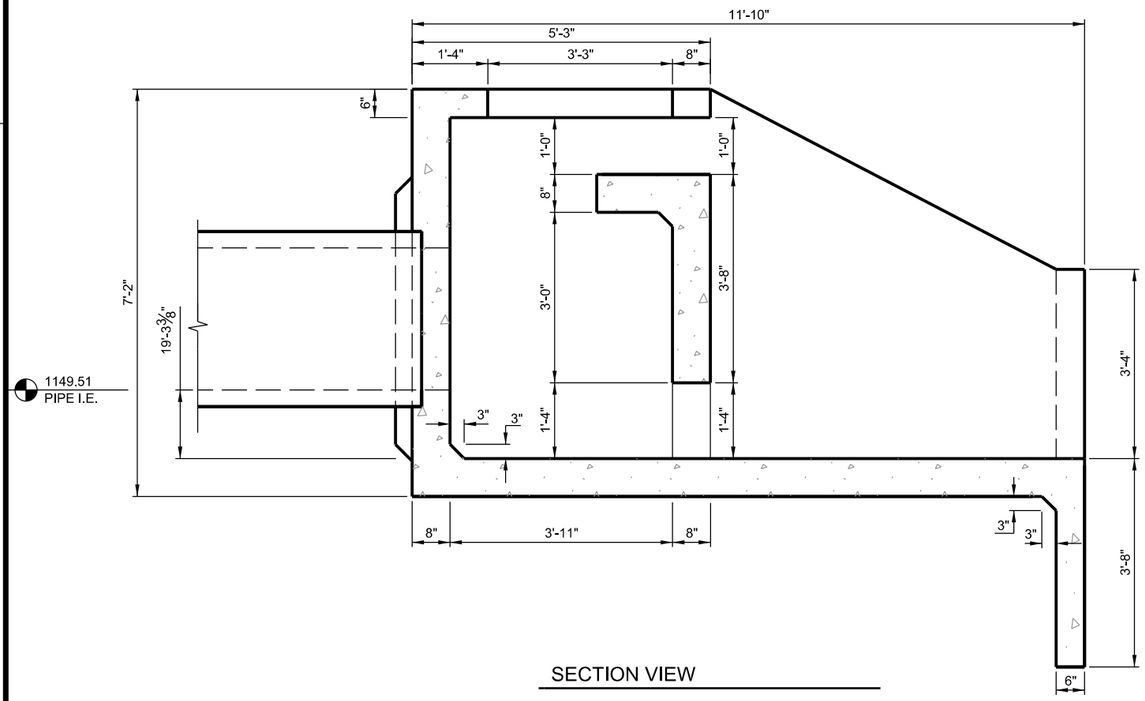


SECTION A-A

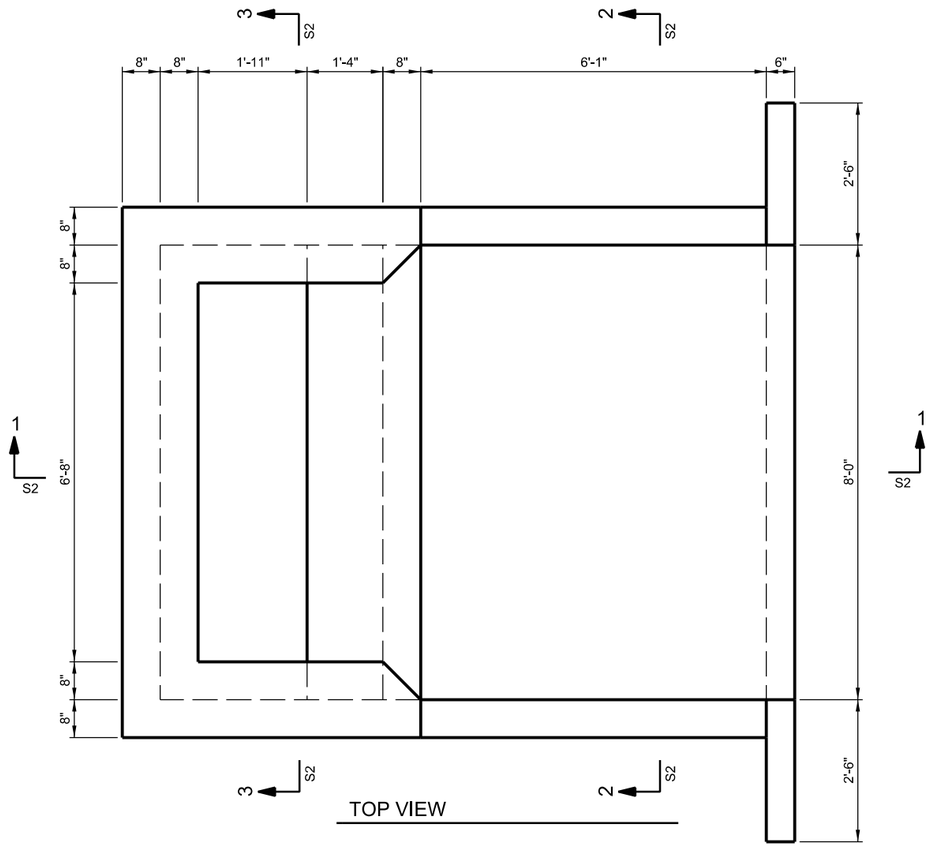
RURAL CROSS SECTION



ISOMETRIC VIEW
NOT TO SCALE



SECTION VIEW



TOP VIEW

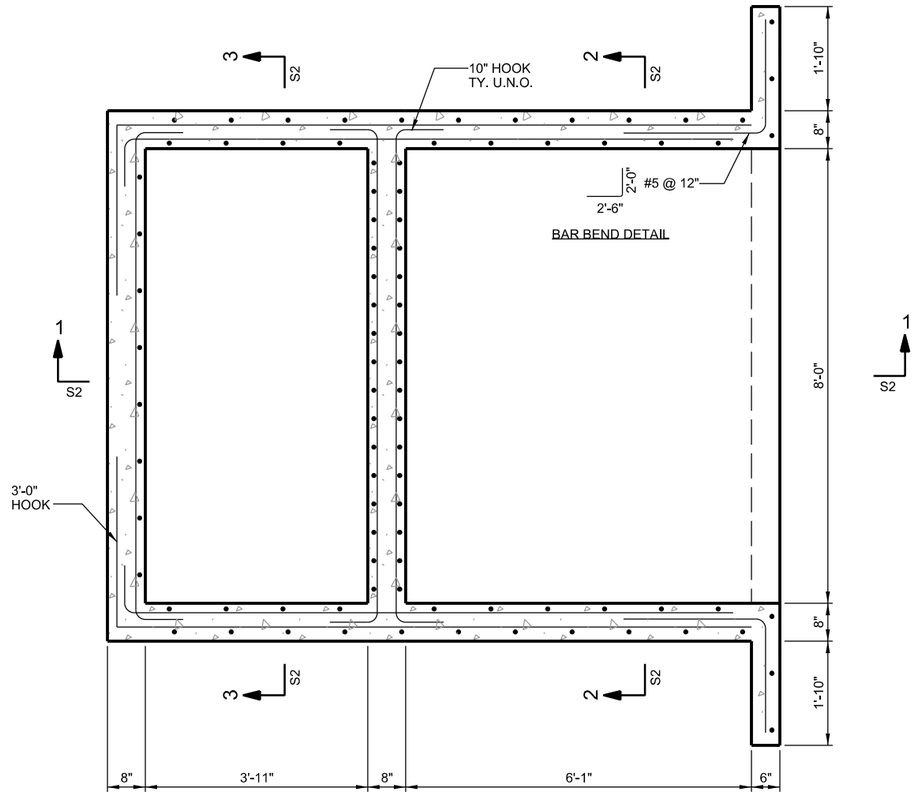
NOTES:
1. ALL WORK SHOWN ON THIS SHEET INCLUDING CONCRETE MASONRY AND BAR STEEL, INCLUDED IN BID ITEM "CONCRETE ENERGY DISSIPATOR".
2. CONFORM TO STANDARD SPECIFICATIONS SECTION 504 FOR CONCRETE MASONRY AND BAR STEEL MATERIAL REQUIREMENTS, AND CONSTRUCTION METHODS.
3. ALL BAR STEEL SHALL BE COATED.
4. EMBED ALL BAR STEEL 2 INCHES CLEAR UNLESS OTHERWISE SHOWN.
5. DO NOT SCALE DRAWINGS.

2

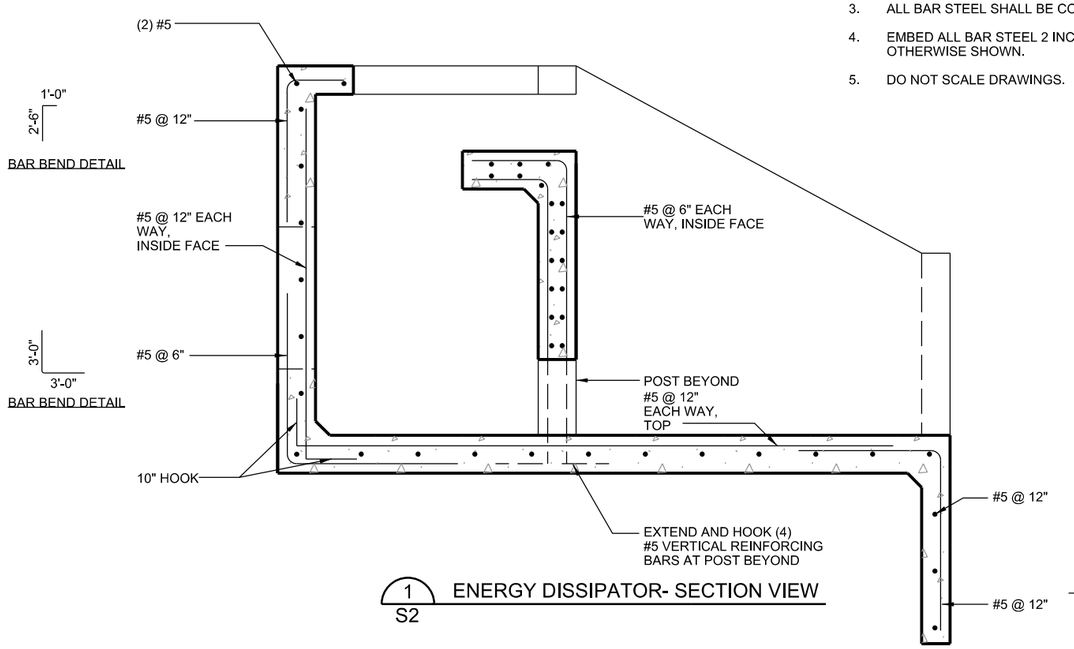
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CONSTRUCTIONS DETAILS - ENERGY DISSIPATOR, SHT 1 OF 2	SHEET	E

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00093106 base.dgn 6/17/2013 9:27:47 AM mwild

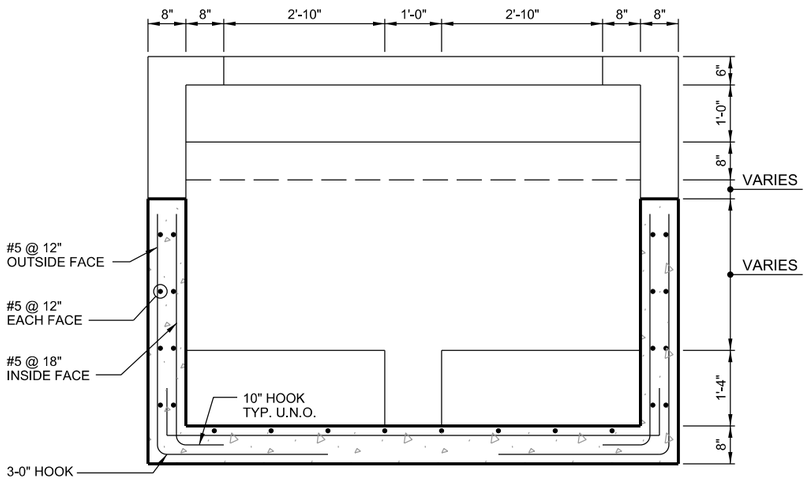


ENERGY DISSIPATOR- PLAN VIEW
S2

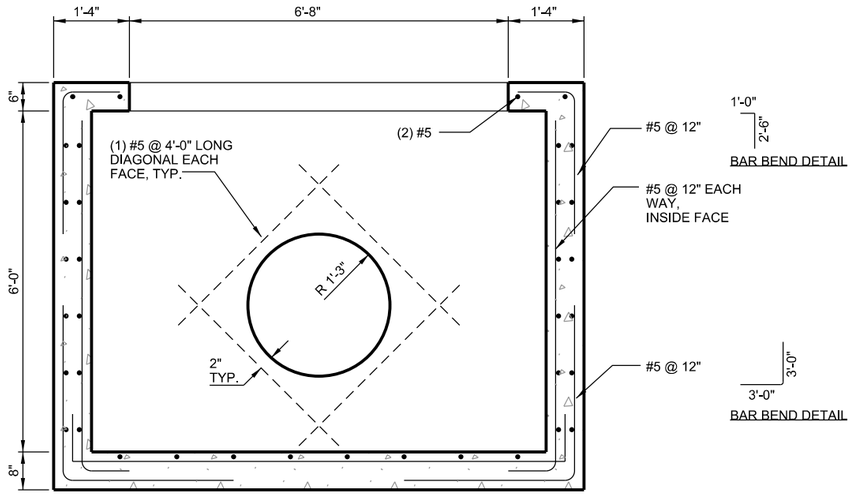


1 S2 ENERGY DISSIPATOR- SECTION VIEW

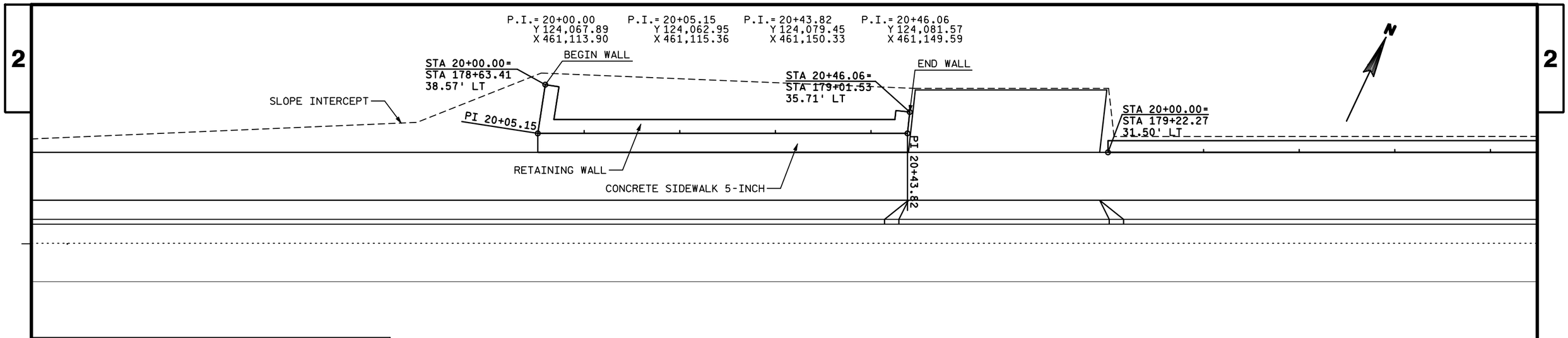
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5. DO NOT SCALE DRAWINGS.



2 S2 ENERGY DISSIPATOR- SECTION VIEW



3 S2 ENERGY DISSIPATOR- SECTION VIEW



DESIGN DATA

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

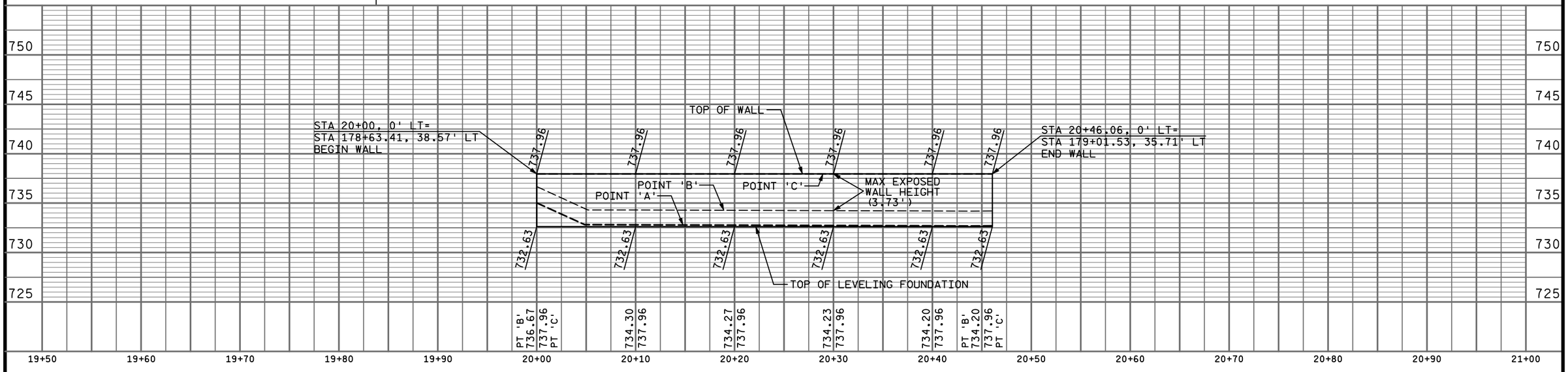
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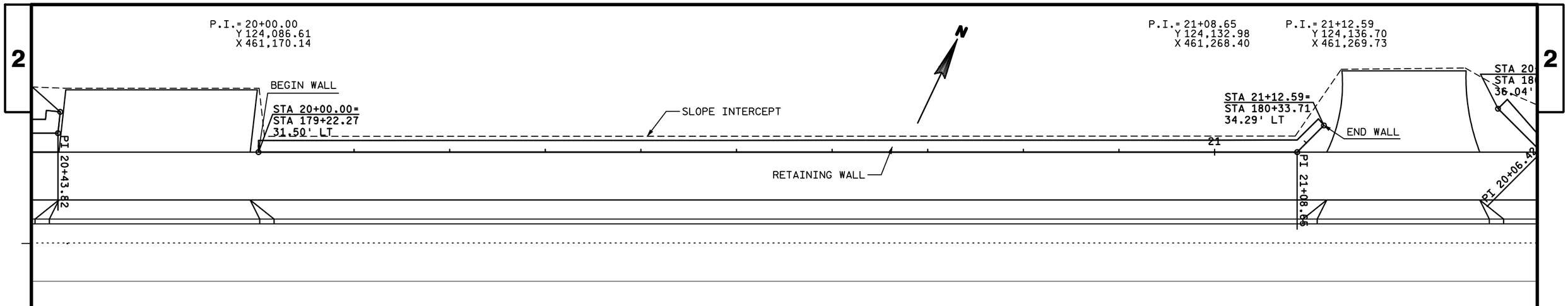
DESIGN FOR THE RETAINING WALL TO PROVIDE FOR THE FINISHED SLOPE BEHIND THE WALL AS SHOWN ON THE CROSS SECTIONS.

WALL TO HAVE SPLIT BLOCK APPEARANCE AND BE TAN IN COLORATION.

ALLOWABLE SOIL BEARING CAPACTIY = 1,000 PSF.



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CONSTRUCTION DETAILS - WALL STA 178+63 - 179+02	SHEET 39	E



DESIGN DATA

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

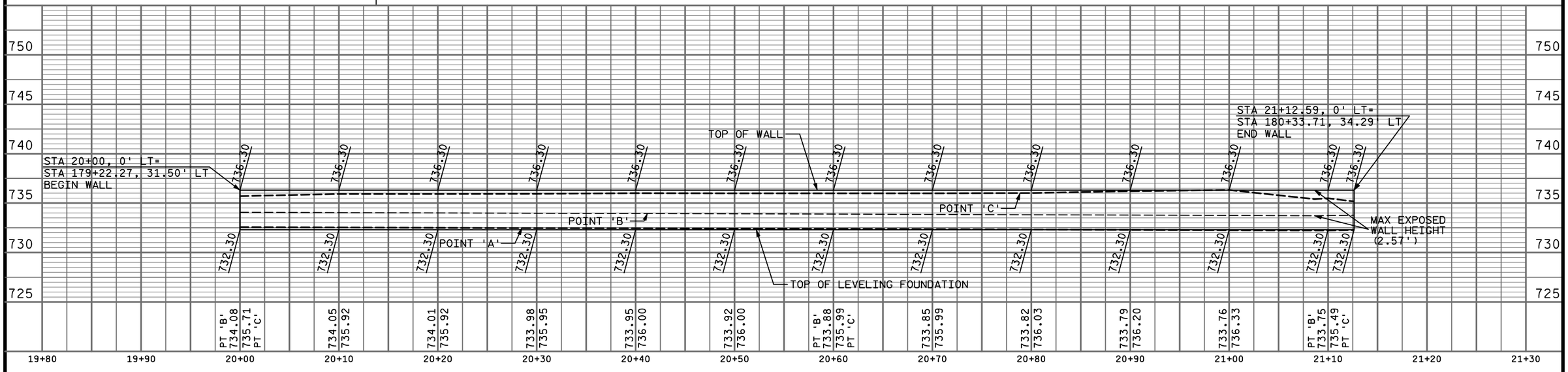
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THE RETAINING WALL IS TO BE DESIGNED USING THE GRADES PROVIDED ON THIS DETAIL.

DESIGN FOR THE RETAINING WALL TO PROVIDE FOR THE FINISHED SLOPE BEHIND THE WALL AS SHOWN ON THE CROSS SECTIONS.

WALL TO HAVE SPLIT BLOCK APPEARANCE AND BE TAN IN COLORATION.

ALLOWABLE SOIL BEARING CAPACTIY = 1,000 PSF.



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CONSTRUCTION DETAILS - WALL STA 179+22 - 180+34	SHEET 40	E

P.I.= 20+50.00
Y 124,354.50
X 461,737.84

STA 20+50.00=
STA 185+50.00
31.50' LT

BEGIN WALL

SLOPE INTERCEPT

21

RETAINING WALL

STH 33

186

DESIGN DATA

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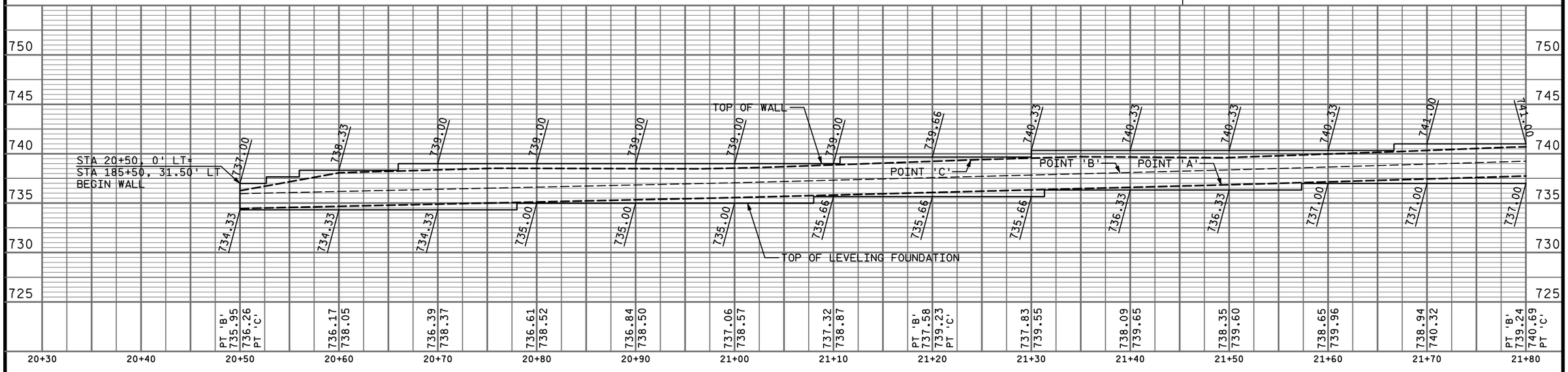
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WALL TO HAVE SPLIT BLOCK APPEARANCE AND BE TAN IN COLORATION.

ALLOWABLE SOIL BEARING CAPACTIY = 1,000 PSF.



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CONSTRUCTION DETAILS - WALL STA 185+50 - 193+50	SHEET	E

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WISDOT/CADDS SHEET 40

2

2

N

SLOPE INTERCEPT

22

23

RETAINING WALL

STH 33

187

DESIGN DATA

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

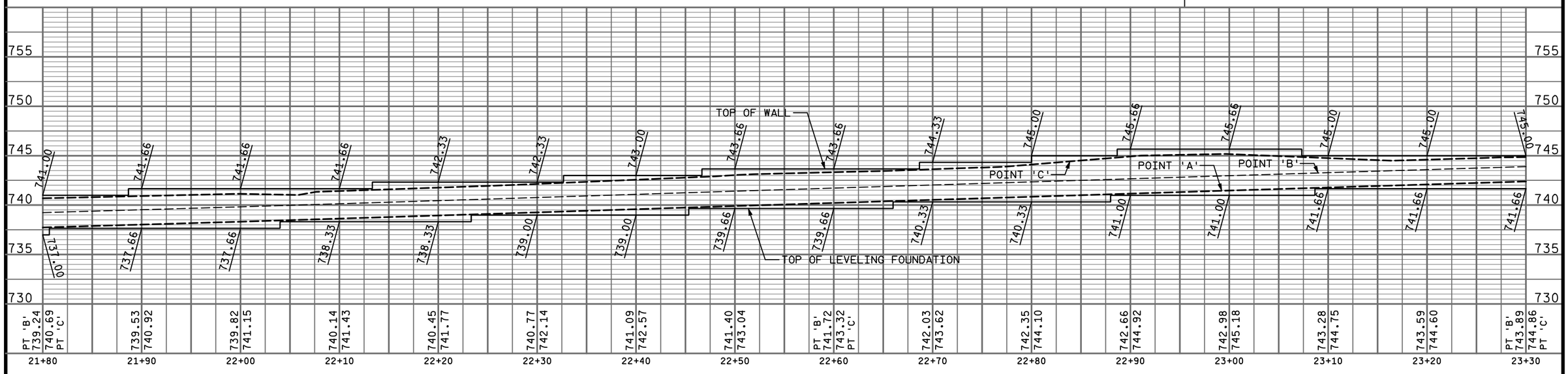
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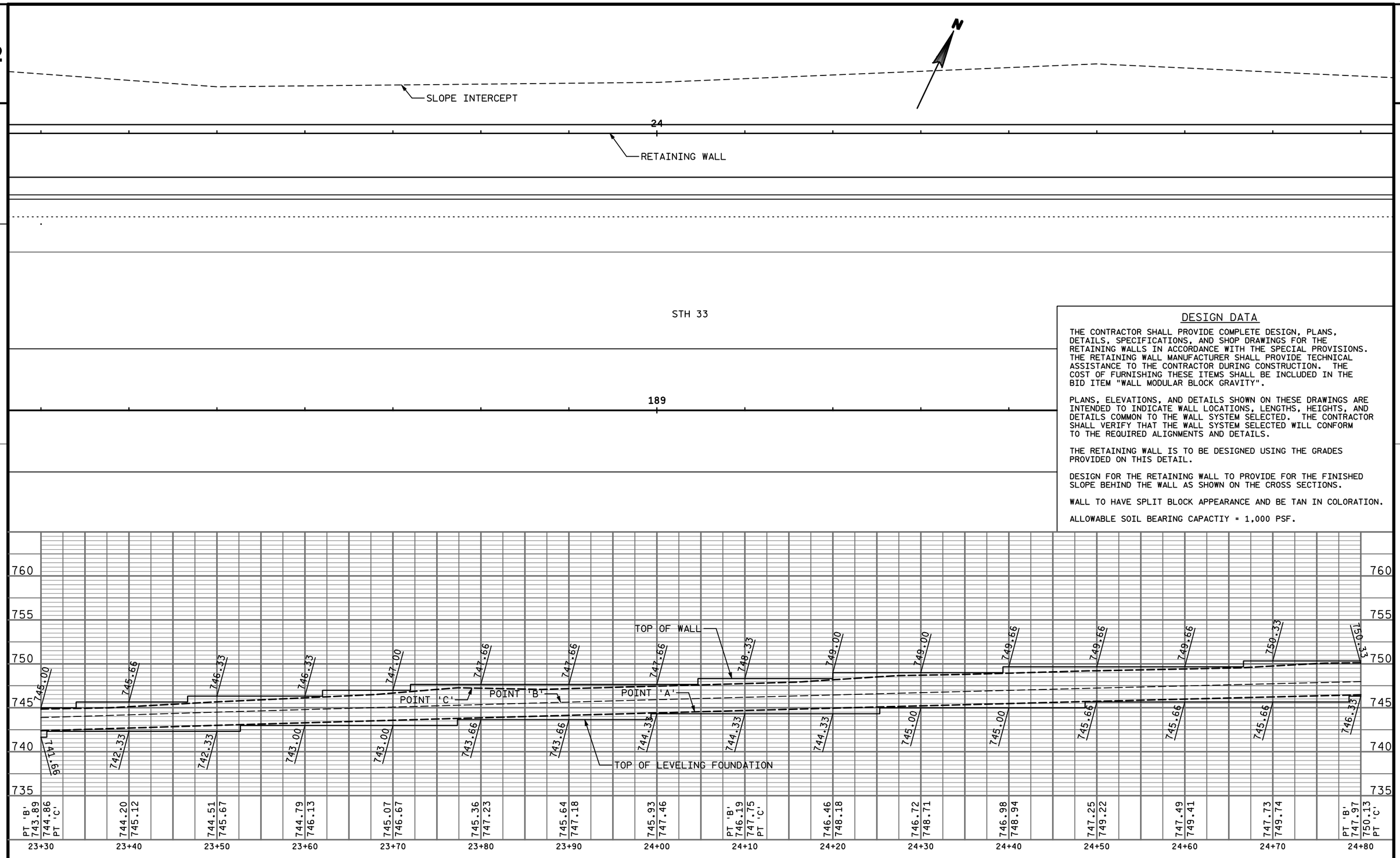
WALL TO HAVE SPLIT BLOCK APPEARANCE AND BE TAN IN COLORATION.

ALLOWABLE SOIL BEARING CAPACTIY = 1,000 PSF.



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CONSTRUCTION DETAILS - WALL STA 185+50 - 193+50	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Walls\STA 18550\050102_pp.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$
WISDOT/CADDS SHEET 40



DESIGN DATA

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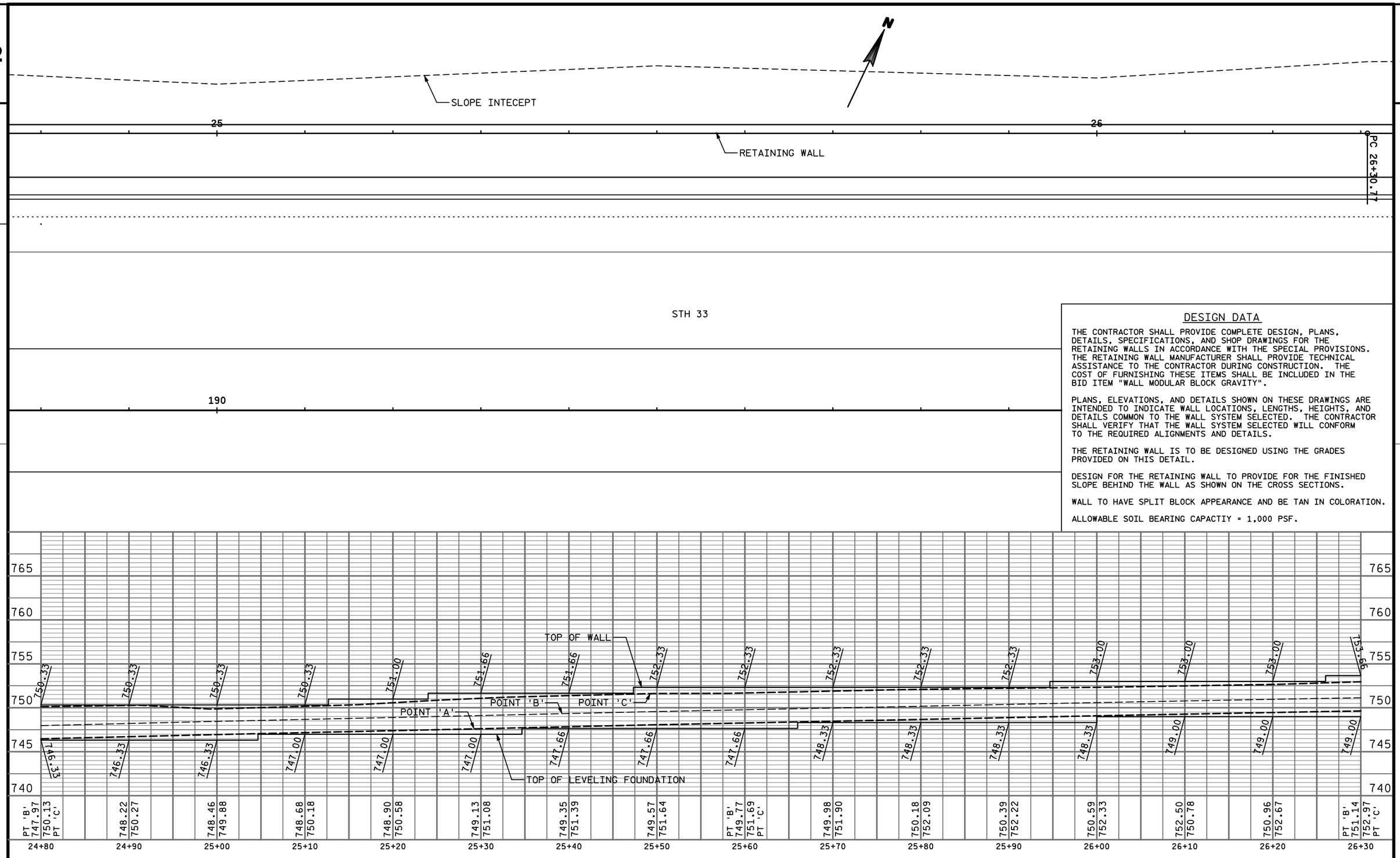
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DESIGN FOR THE RETAINING WALL TO PROVIDE FOR THE FINISHED SLOPE BEHIND THE WALL AS SHOWN ON THE CROSS SECTIONS.

WALL TO HAVE SPLIT BLOCK APPEARANCE AND BE TAN IN COLORATION.

ALLOWABLE SOIL BEARING CAPACTIY = 1,000 PSF.

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CONSTRUCTION DETAILS - WALL STA 185+50 - 193+50	SHEET 43	E



DESIGN DATA

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

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DESIGN FOR THE RETAINING WALL TO PROVIDE FOR THE FINISHED SLOPE BEHIND THE WALL AS SHOWN ON THE CROSS SECTIONS.

WALL TO HAVE SPLIT BLOCK APPEARANCE AND BE TAN IN COLORATION.

ALLOWABLE SOIL BEARING CAPACTIY = 1,000 PSF.

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CONSTRUCTION DETAILS - WALL STA 185+50 - 193+50	SHEET 44	E

P.I.= 27+52.23
Y 124,654.19
X 462,372.92
Δ. = 02°26'32" L
D. = 01°00'20"
T. = 121.46
L. = 242.89
E. = 1.29
R. = 5698.08
P.C.= 26+30.77
Y 124,602.35
X 462,263.07
P.T.= 28+73.66
Y 124,710.66
X 462.480.45

N

SLOPE INTECEPT

RETAINING WALL

27

PC 26+30.77

STH 33

192

PC 191+30.177

DESIGN DATA

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

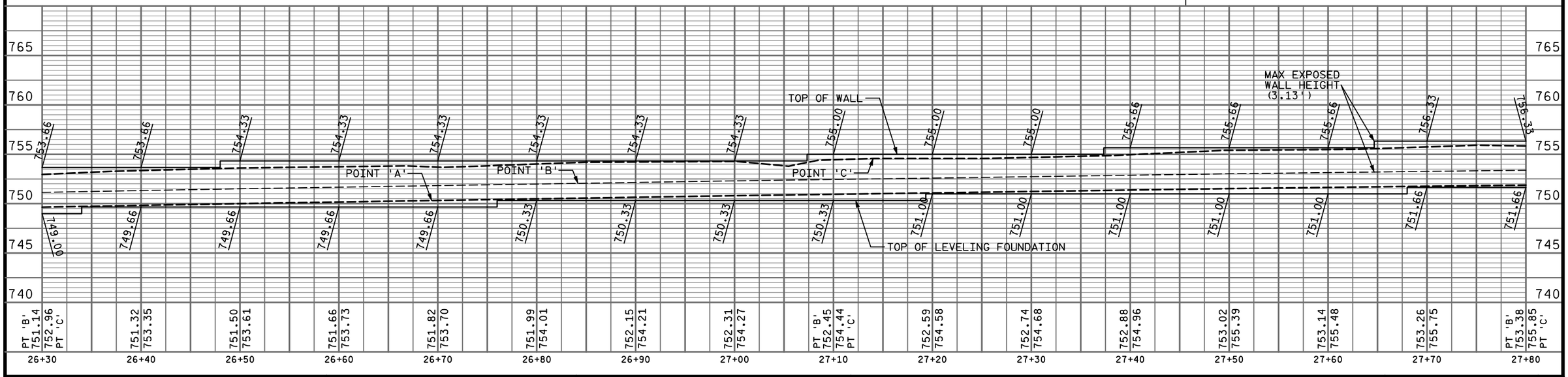
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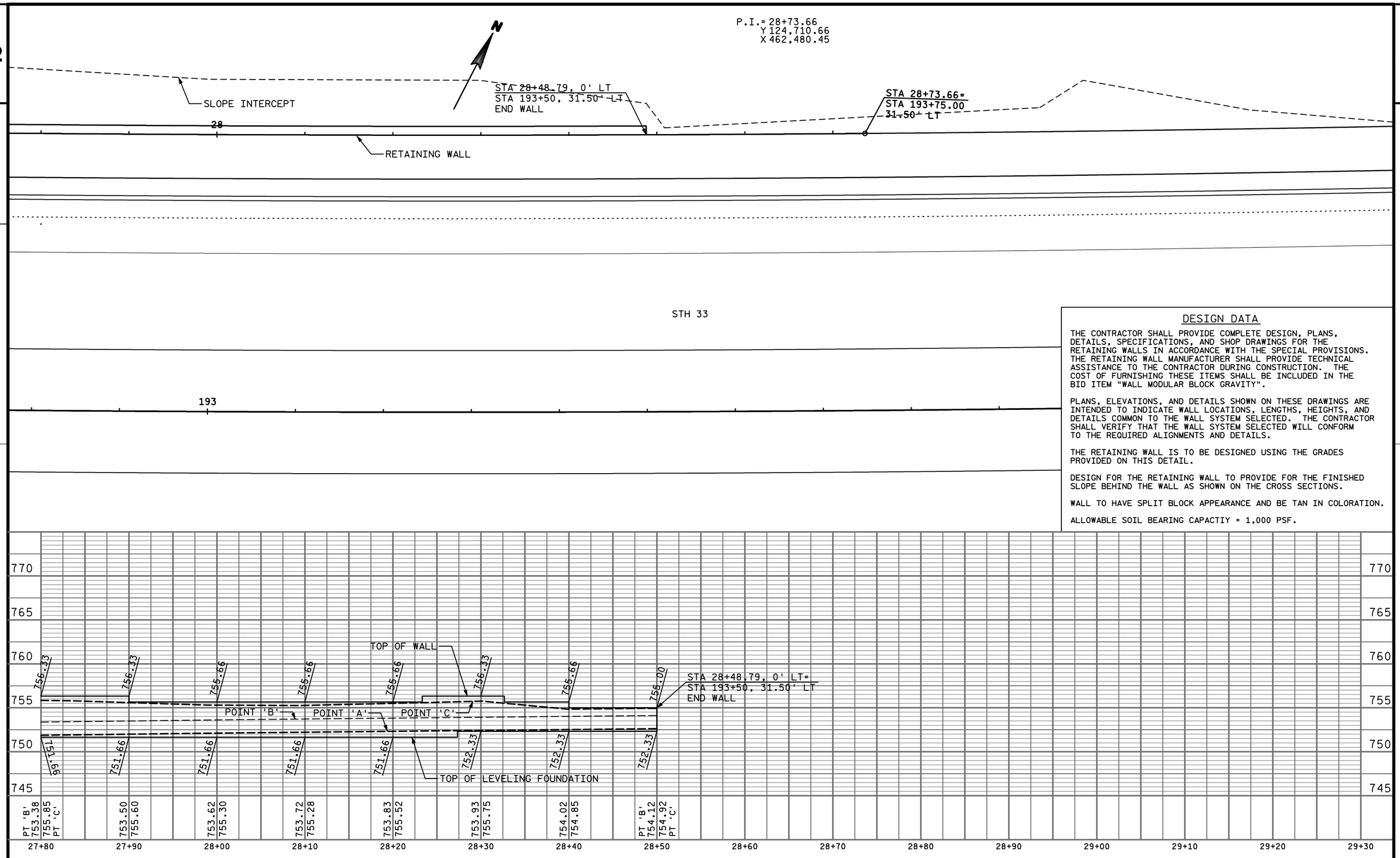
DESIGN FOR THE RETAINING WALL TO PROVIDE FOR THE FINISHED SLOPE BEHIND THE WALL AS SHOWN ON THE CROSS SECTIONS.

WALL TO HAVE SPLIT BLOCK APPEARANCE AND BE TAN IN COLORATION.

ALLOWABLE SOIL BEARING CAPACTIY = 1,000 PSF.



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CONSTRUCTION DETAILS - WALL STA 185+50 - 193+50	SHEET 45	E



DESIGN DATA

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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CONSTRUCTION DETAILS - WALL STA 185+50 - 193+50	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Walls\STA 18550\050106_pp.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$
WISDOT/CADDS SHEET 40

DESIGN DATA

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WALL TO HAVE SPLIT BLOCK APPEARANCE AND BE TAN IN COLORATION.

ALLOWABLE SOIL BEARING CAPACTIY = 1,000 PSF.

P.I.= 20+00.00
Y 124,964.53
X 471,264.60

P.I.= 20+40.48
Y 124,928.65
X 471,245.86

P.I.= 20+56.01
Y 124,916.96
X 471,235.64

N

SLOPE INTERCEPT

STA 20+00.00=
STA 12+10K
22.0' LT

PI 20+40.48

STA 20+56.01=
STA 12+65.57K
18.34' LT

KNOBLOCH RD

12K

13K

MAX EXPOSED WALL HEIGHT (3.93')

TOP OF WALL

POINT 'A'

POINT 'B'

POINT 'C'

TOP OF LEVELING FOUNDATION

STA 20+00, 0' LT=
STA 12+10K, 22' LT
BEGIN WALL

STA 20+56.01, 0' LT=
STA 12+65.57K, 18.34' LT
END WALL

1190.66
1192.00
1193.33
1194.66
1196.66
1196.00
1195.33
1188.00
1188.66
1189.33
1190.00
1190.66
1191.33
1192.00

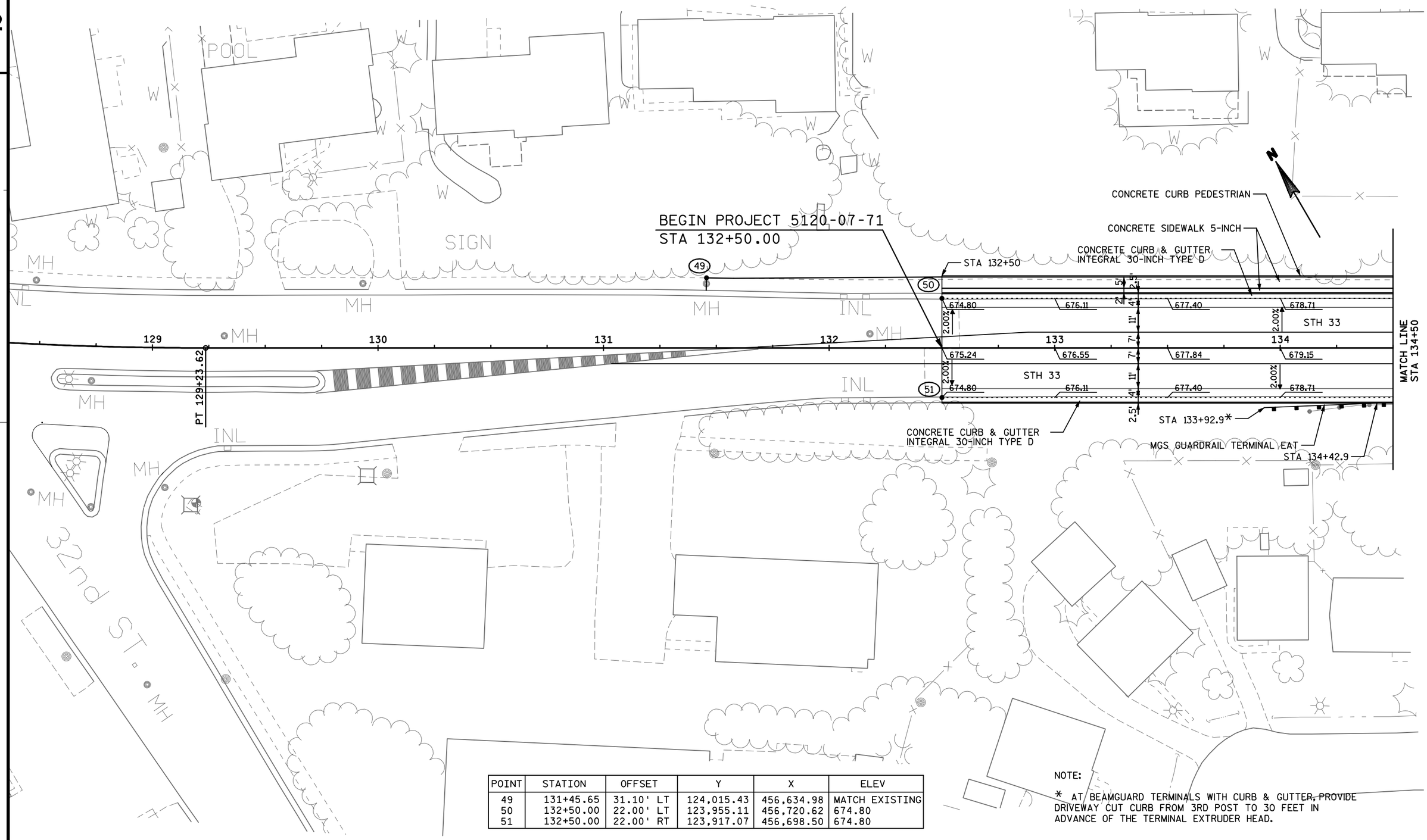
PT 'B' 1189.57 1190.07 PT 'C'
1190.38 1191.35
1191.21 1192.56
1192.03 1194.12
1192.85 1196.16
1193.68 1195.43
PT 'B' 1194.07 1195.04 PT 'C'

1205
1200
1195
1190
1185
1180

19+50 19+60 19+70 19+80 19+90 20+00 20+10 20+20 20+30 20+40 20+50 20+60 20+70 20+80 20+90 21+00

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CONSTRUCTION DETAILS - WALL STA 12+10.00K - 12+65.57K	SHEET 47	E

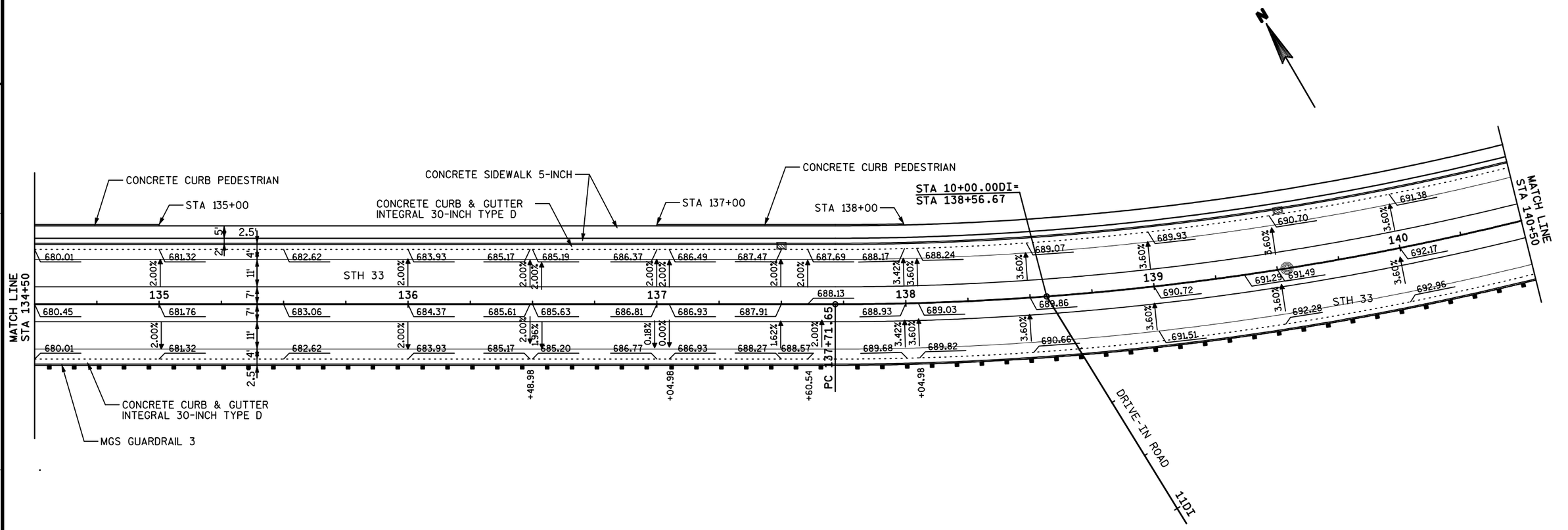
2



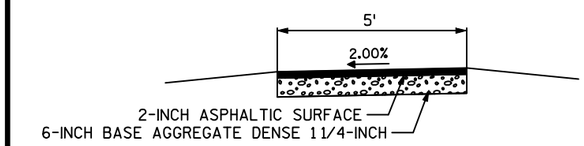
POINT	STATION	OFFSET	Y	X	ELEV
49	131+45.65	31.10' LT	124,015.43	456,634.98	MATCH EXISTING
50	132+50.00	22.00' LT	123,955.11	456,720.62	674.80
51	132+50.00	22.00' RT	123,917.07	456,698.50	674.80

NOTE:

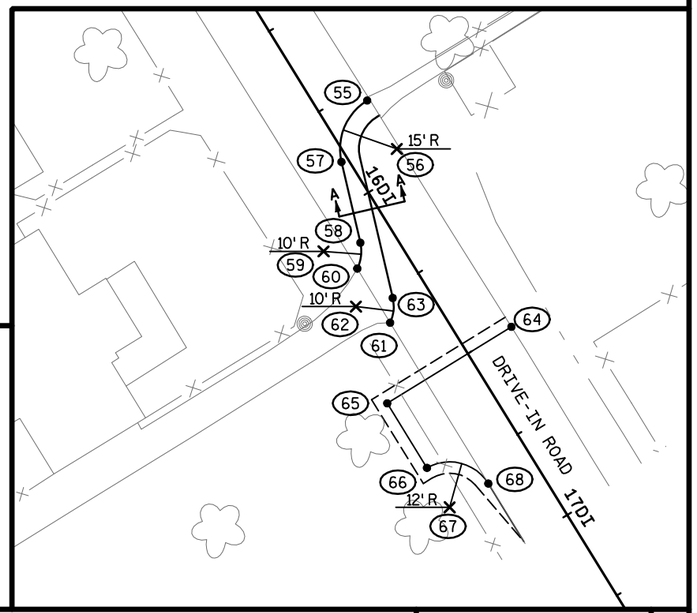
* AT BEAMGUARD TERMINALS WITH CURB & GUTTER, PROVIDE DRIVEWAY CUT CURB FROM 3RD POST TO 30 FEET IN ADVANCE OF THE TERMINAL EXTRUDER HEAD.



POINT	STATION	OFFSET	Y	X
55	15+79.16 DI	12.43' LT	123,055.24	457,262.76
56	15+94.16 DI	12.37' LT	123,040.24	457,263.09
57	15+89.41 DI	1.85' RT	123,044.63	457,248.75
58	16+10.19 DI	8.79' RT	123,023.68	457,242.34
59	16+07.02 DI	18.28' RT	123,026.61	457,232.78
60	16+15.55 DI	13.07' RT	123,018.21	457,238.21
61	16+32.27 DI	13.18' RT	123,001.49	457,238.52
62	16+23.90 DI	18.65' RT	123,009.72	457,232.84
63	16+27.07 DI	9.17' RT	123,006.79	457,242.40
64	16+50.00 DI	13.50' LT	122,984.45	457,265.65
65	16+50.00 DI	25.00' RT	122,983.47	457,227.16
66	16+70.01 DI	25.00' RT	122,963.47	457,227.67
67	16+82.00 DI	25.38' RT	122,951.47	457,227.59
68	16+82.03 DI	13.38' RT	122,951.74	457,239.59

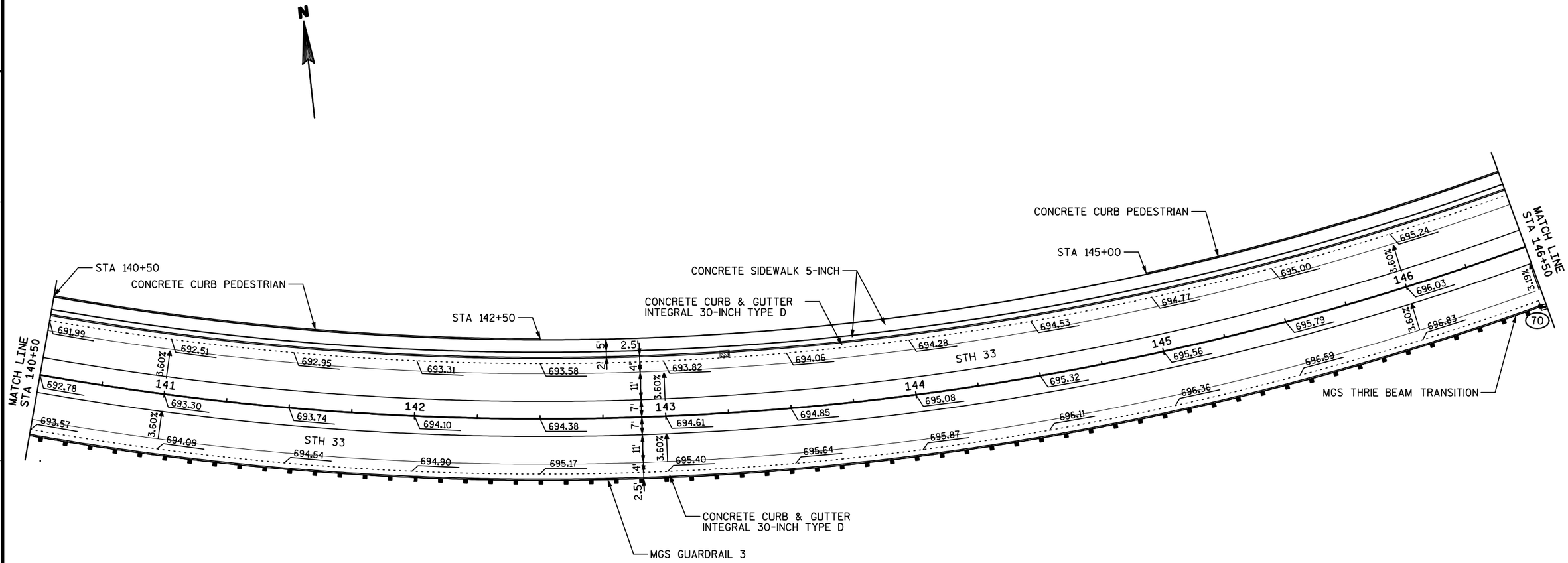


SECTION A-A

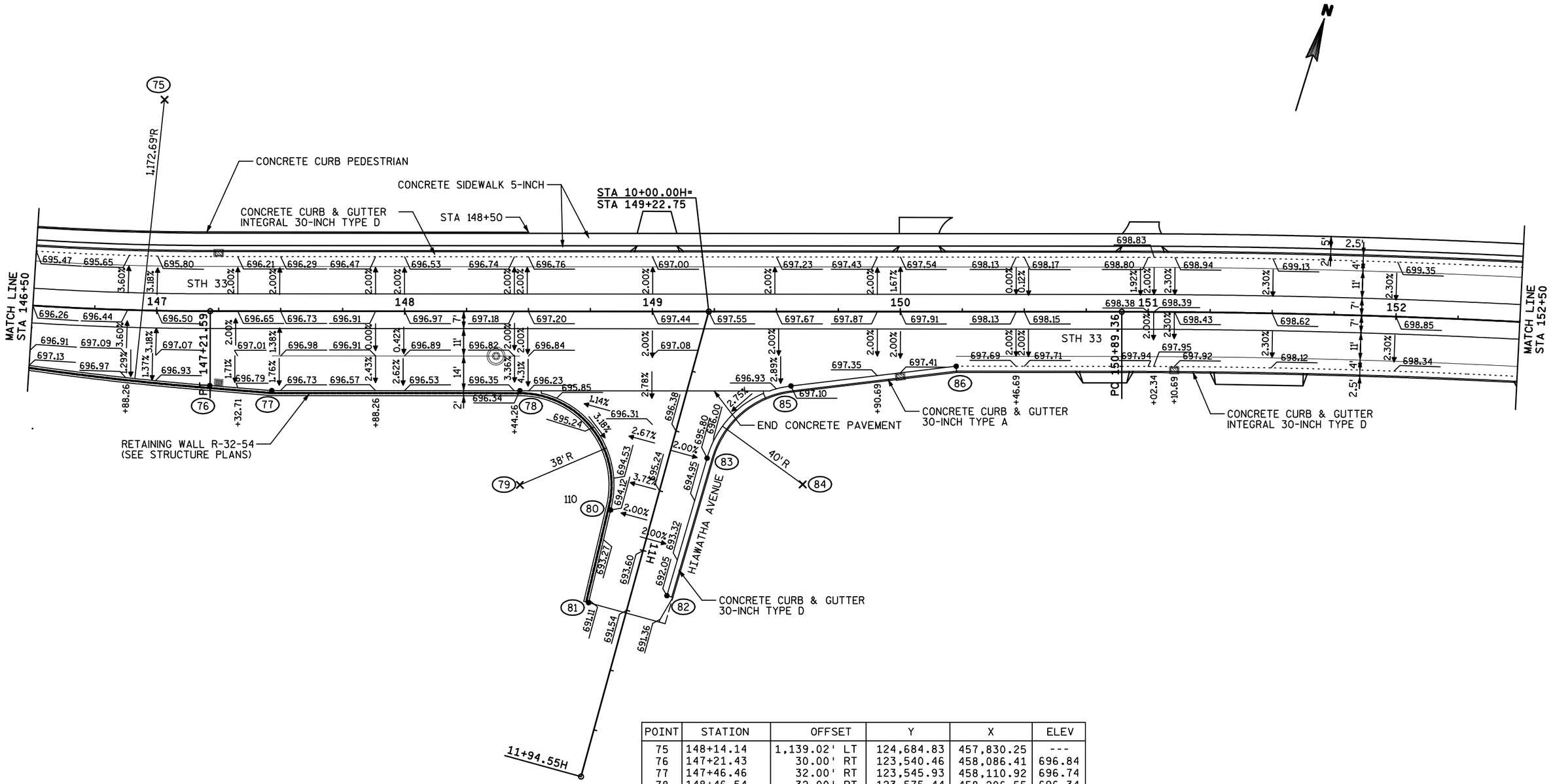


PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PAVING DETAILS	SHEET 49	E

2



POINT	STATION	OFFSET	Y	X	ELEV
70	146+47.65	24.00' RT	123,526.31	458,012.00	697.12



POINT	STATION	OFFSET	Y	X	ELEV
75	148+14.14	1,139.02' LT	124,684.83	457,830.25	---
76	147+21.43	30.00' RT	123,540.46	458,086.41	696.84
77	147+46.46	32.00' RT	123,545.93	458,110.92	696.74
78	148+46.54	32.00' RT	123,575.44	458,206.55	696.34
79	148+46.54	70.00' RT	123,539.13	458,217.75	---
80	148+83.18	80.08' RT	123,540.31	458,255.74	694.12
81	11+26.12 HI	15.66' RT	123,501.95	458,258.31	691.11
82	11+15.00 HI	14.07' LT	123,514.00	458,287.66	692.05
83	149+22.09	59.14' RT	123,571.79	458,286.75	695.80
84	149+60.67	69.72' RT	123,573.07	458,326.73	---
85	149+55.90	30.00' RT	123,609.61	458,310.46	697.10
86	150+22.57	22.00' RT	123,636.91	458,371.81	697.58

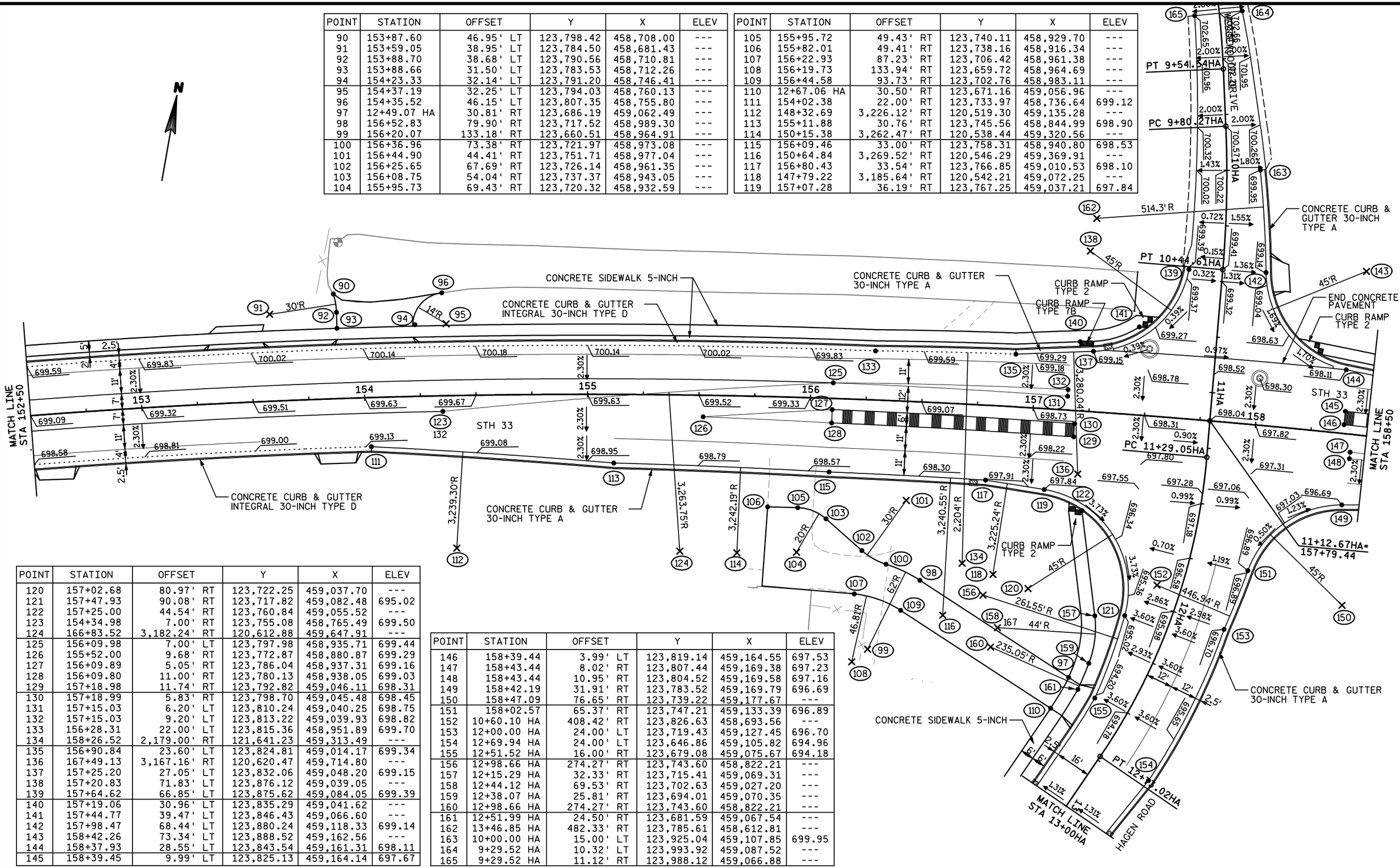
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PAVING DETAILS	SHEET 51	E

POINT	STATION	OFFSET	Y	X	ELEV
90	153+87.60	46.95' LT	123,798.42	458,708.00	---
91	153+59.05	38.95' LT	123,784.50	458,681.43	---
92	153+88.70	38.68' LT	123,790.56	458,710.81	---
93	153+88.66	31.50' LT	123,783.53	458,712.26	---
94	154+23.33	32.14' LT	123,791.20	458,746.41	---
95	154+37.19	32.25' LT	123,794.03	458,760.13	---
96	154+35.52	46.15' LT	123,807.35	458,755.80	---
97	12+49.07 HA	30.81' RT	123,686.19	459,062.49	---
98	156+52.83	79.90' RT	123,717.52	458,989.30	---
99	156+20.07	133.18' RT	123,660.51	458,964.91	---
100	156+36.96	73.38' RT	123,721.97	458,973.08	---
101	156+44.90	44.41' RT	123,751.71	458,977.04	---
102	156+25.65	67.69' RT	123,726.14	458,961.35	---
103	156+08.75	54.04' RT	123,737.37	458,943.05	---
104	155+95.73	69.43' RT	123,720.32	458,932.59	---

POINT	STATION	OFFSET	Y	X	ELEV
105	155+95.72	49.43' RT	123,740.11	458,929.70	---
106	155+82.01	49.41' RT	123,738.16	458,916.34	---
107	156+22.93	87.23' RT	123,706.42	458,961.38	---
108	156+19.73	133.94' RT	123,659.72	458,964.69	---
109	156+44.58	93.73' RT	123,702.76	458,983.11	---
110	12+67.06 HA	30.50' RT	123,671.16	459,056.96	---
111	154+02.38	22.00' RT	123,733.97	458,736.64	699.12
112	148+32.69	3,226.12' RT	120,519.30	459,135.28	---
113	155+11.88	30.76' RT	123,745.56	458,844.99	698.90
114	150+15.38	3,262.47' RT	120,538.44	459,320.56	---
115	156+09.46	33.00' RT	123,758.31	458,940.80	698.53
116	150+64.84	3,269.52' RT	120,546.29	459,369.91	---
117	156+80.43	33.54' RT	123,766.85	459,010.53	698.10
118	147+79.22	3,185.64' RT	120,542.21	459,072.25	---
119	157+07.28	36.19' RT	123,767.25	459,037.21	697.84

POINT	STATION	OFFSET	Y	X	ELEV
120	157+02.68	80.97' RT	123,722.25	459,037.70	---
121	157+47.93	90.08' RT	123,717.82	459,082.48	695.02
122	157+25.00	44.54' RT	123,760.84	459,055.52	---
123	154+34.98	7.00' RT	123,755.08	458,765.49	699.50
124	166+83.52	3,182.24' RT	120,612.88	459,647.91	---
125	156+09.98	7.00' LT	123,797.98	458,935.71	699.44
126	155+52.00	9.68' RT	123,772.87	458,880.87	699.29
127	156+09.89	5.05' RT	123,786.04	458,937.31	699.16
128	156+09.80	11.00' RT	123,780.13	458,938.05	699.03
129	157+18.98	11.74' RT	123,792.82	459,046.11	698.31
130	157+18.99	5.83' RT	123,798.70	459,045.48	698.45
131	157+15.03	6.20' LT	123,810.24	459,040.25	698.75
132	157+15.03	9.20' LT	123,813.22	459,039.93	698.82
133	156+28.31	22.00' LT	123,815.36	458,951.89	699.70
134	158+26.52	2,179.00' RT	121,641.23	459,313.49	---
135	156+90.84	23.60' LT	123,824.81	459,014.17	699.34
136	167+49.13	3,167.16' RT	120,620.47	459,714.80	---
137	157+25.20	27.05' LT	123,832.06	459,048.20	699.15
138	157+20.83	71.83' LT	123,876.12	459,039.05	---
139	157+64.62	66.85' LT	123,875.62	459,084.05	699.39
140	157+19.06	30.96' LT	123,835.29	459,041.62	---
141	157+44.77	39.47' LT	123,846.43	459,066.60	---
142	157+98.47	68.44' LT	123,880.24	459,118.33	699.14
143	158+42.26	73.34' LT	123,888.52	459,162.56	---
144	158+37.93	28.55' LT	123,843.54	459,161.31	698.11
145	158+39.45	9.99' LT	123,825.13	459,164.14	697.67

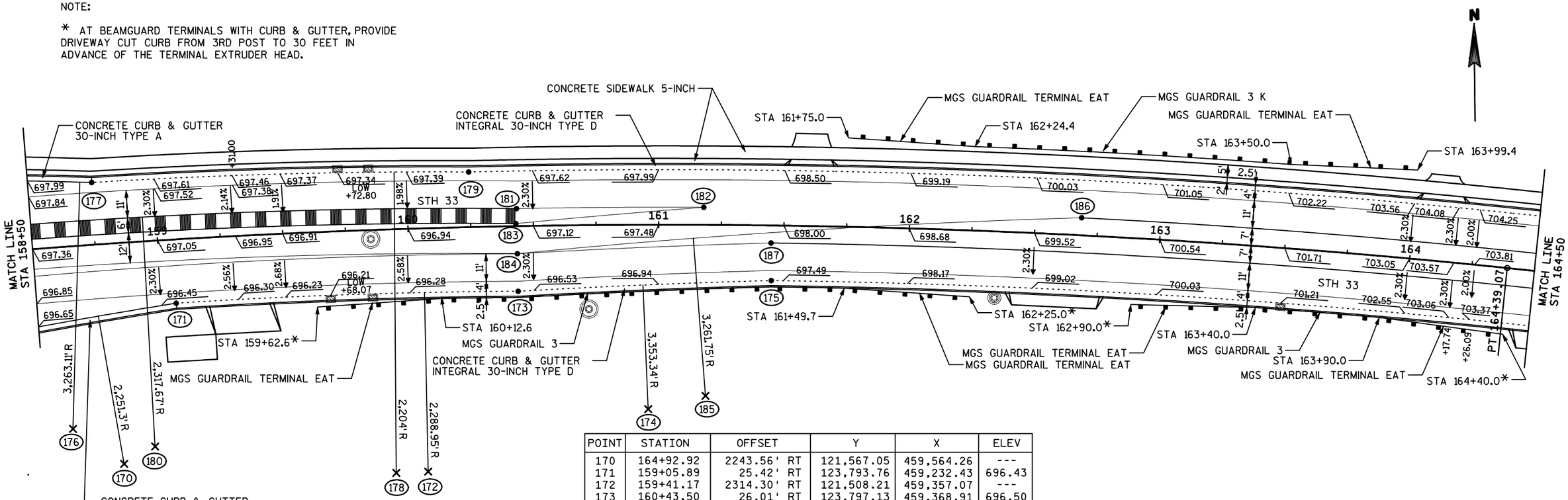
POINT	STATION	OFFSET	Y	X	ELEV
146	158+39.44	3.99' LT	123,819.14	459,164.55	697.53
147	158+43.44	8.02' RT	123,807.44	459,169.38	697.23
148	158+43.44	10.95' RT	123,804.52	459,169.58	697.16
149	158+42.19	31.91' RT	123,783.52	459,169.79	696.69
150	158+47.09	76.65' RT	123,739.22	459,177.67	---
151	158+02.57	65.37' RT	123,747.21	459,133.39	696.89
152	10+60.10 HA	408.42' RT	123,826.63	458,693.56	---
153	12+00.00 HA	24.00' LT	123,719.43	459,127.45	696.70
154	12+69.94 HA	24.00' LT	123,646.86	459,105.82	694.96
155	12+51.52 HA	16.00' RT	123,679.08	459,075.67	694.18
156	12+98.66 HA	274.27' RT	123,743.60	458,822.21	---
157	12+15.29 HA	32.33' RT	123,715.41	459,069.31	---
158	12+44.12 HA	69.53' RT	123,702.63	459,027.20	---
159	12+38.07 HA	25.81' RT	123,694.01	459,070.35	---
160	12+98.66 HA	274.27' RT	123,743.60	458,822.21	---
161	12+51.99 HA	24.50' RT	123,681.59	459,067.54	---
162	13+46.85 HA	482.33' RT	123,785.61	458,612.81	---
163	10+00.00 HA	15.00' LT	123,925.04	459,107.85	699.95
164	9+29.52 HA	10.32' LT	123,993.92	459,087.52	---
165	9+29.52 HA	11.12' RT	123,988.12	459,066.88	---



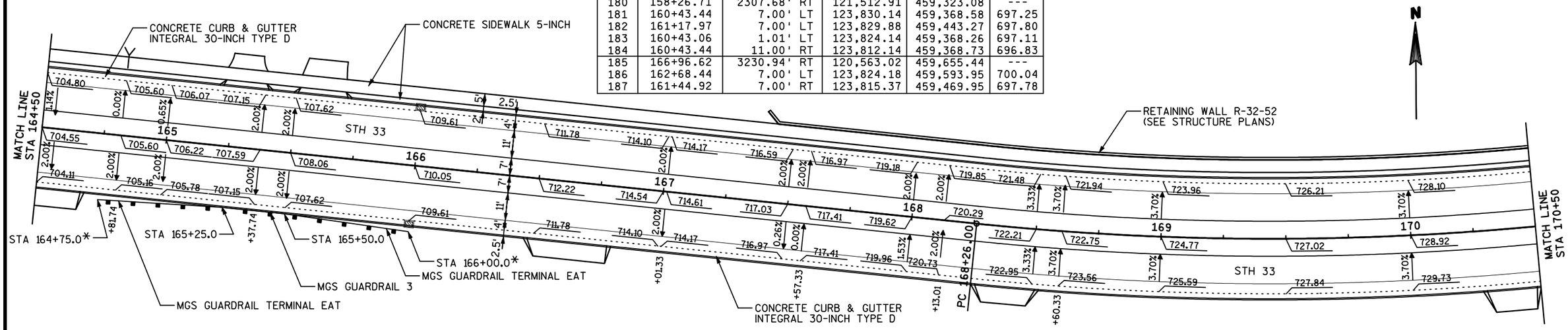
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PAVING DETAILS	SHEET 52	E

NOTE:

* AT BEAMGUARD TERMINALS WITH CURB & GUTTER, PROVIDE DRIVEWAY CUT CURB FROM 3RD POST TO 30 FEET IN ADVANCE OF THE TERMINAL EXTRUDER HEAD.



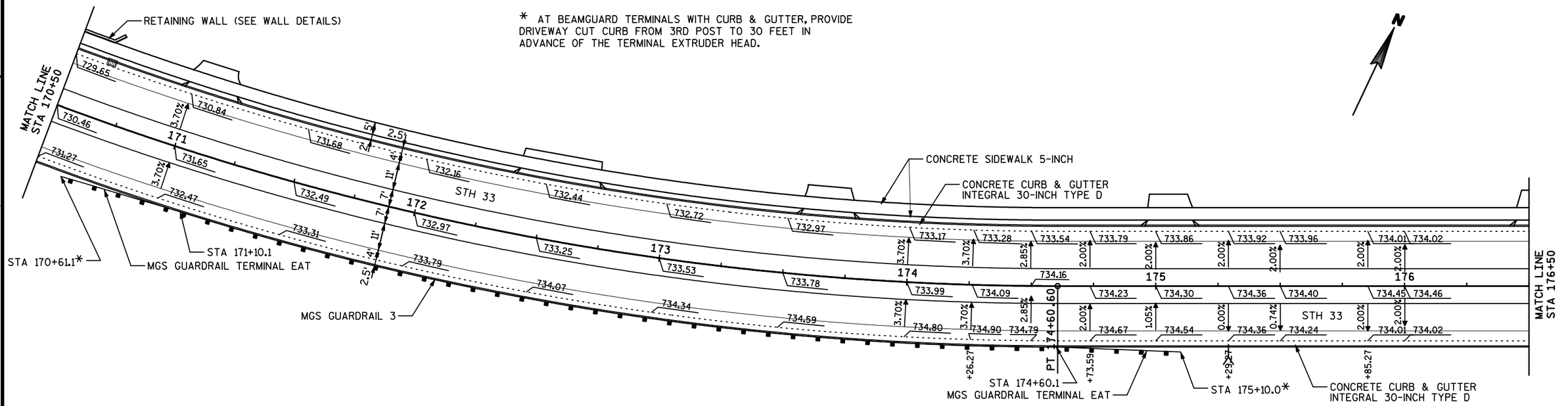
POINT	STATION	OFFSET	Y	X	ELEV
170	164+92.92	2243.56' RT	121,567.05	459,564.26	---
171	159+05.89	25.42' RT	123,793.76	459,232.43	696.43
172	159+41.17	2314.30' RT	121,508.21	459,357.07	---
173	160+43.50	26.01' RT	123,797.13	459,368.91	696.50
174	165+81.96	3360.17' RT	120,447.52	459,526.95	---
175	161+45.22	22.00' RT	123,800.37	459,469.90	697.43
176	147+89.26	3147.42' RT	120,581.69	459,070.57	---
177	158+75.36	24.82' LT	123,842.26	459,199.21	697.75
178	158+26.52	2179.00' RT	121,641.23	459,313.49	---
179	160+24.72	22.00' LT	123,844.93	459,349.62	697.48
180	158+26.71	2307.68' RT	121,512.91	459,323.08	---
181	160+43.44	7.00' LT	123,830.14	459,368.58	697.25
182	161+17.97	7.00' LT	123,829.88	459,443.27	697.80
183	160+43.06	1.01' LT	123,824.14	459,368.26	697.11
184	160+43.44	11.00' RT	123,812.14	459,368.73	696.83
185	166+96.62	3230.94' RT	120,563.02	459,655.44	---
186	162+68.44	7.00' LT	123,824.18	459,593.95	700.04
187	161+44.92	7.00' RT	123,815.37	459,469.95	697.78

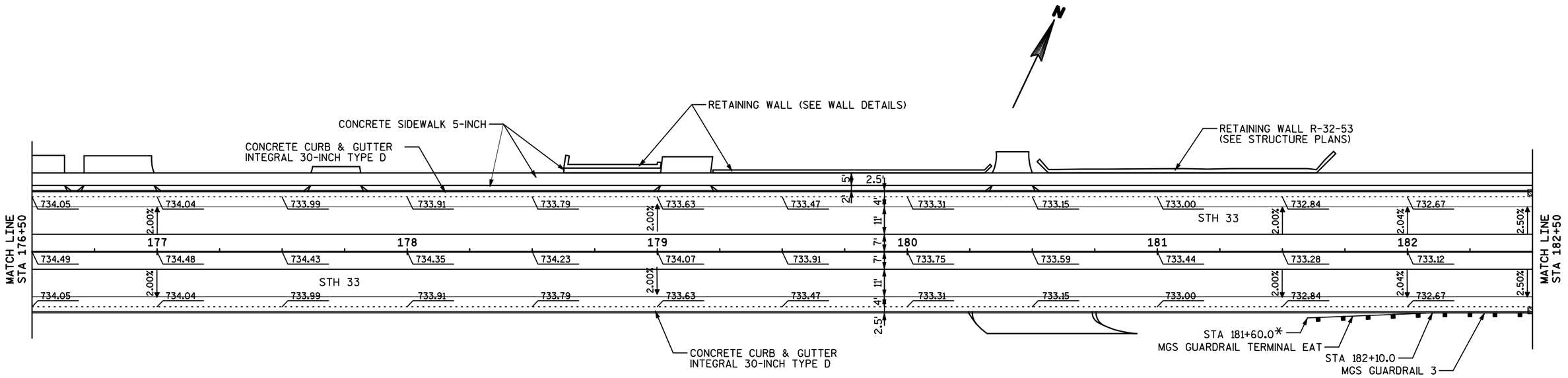


PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PAVING DETAILS	SHEET 53	E

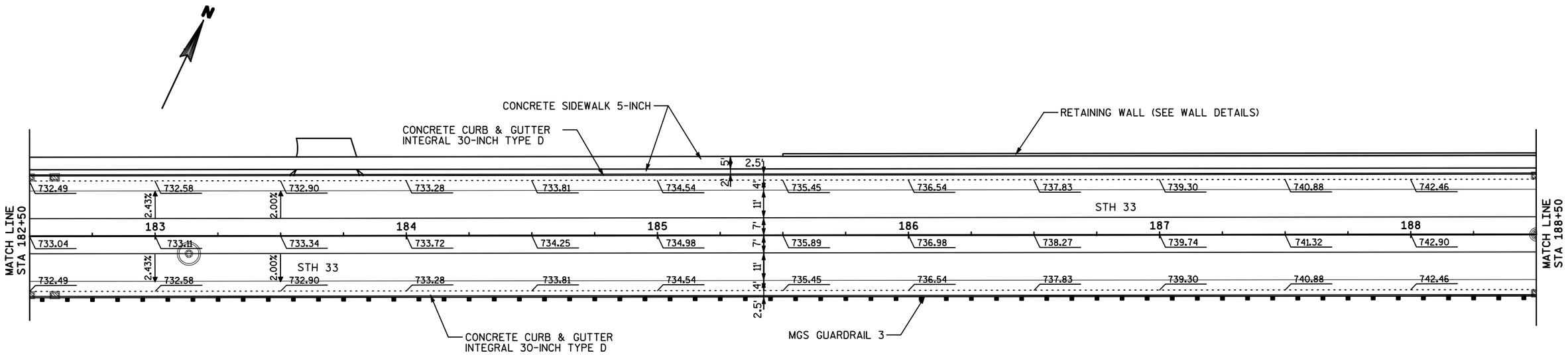
NOTE:

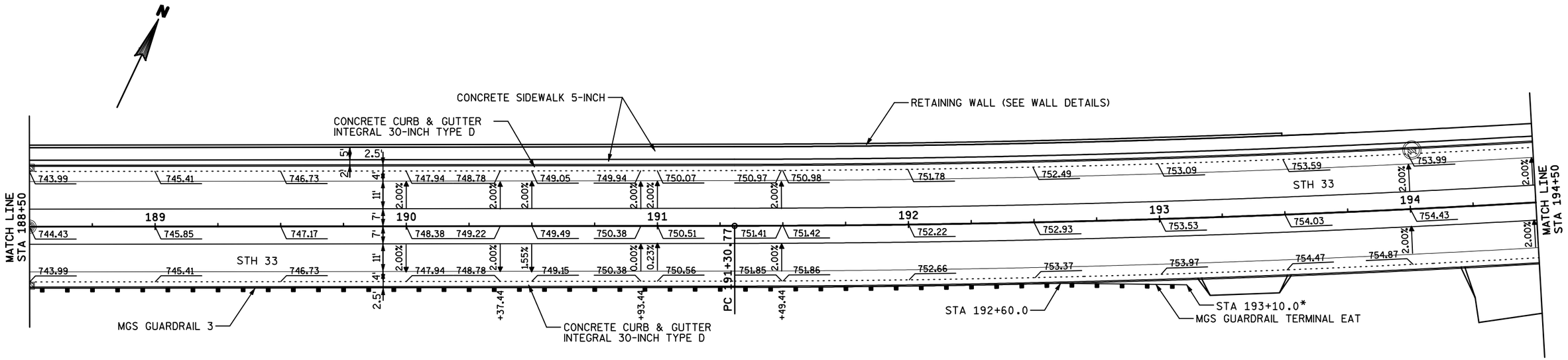
* AT BEAMGUARD TERMINALS WITH CURB & GUTTER, PROVIDE DRIVEWAY CUT CURB FROM 3RD POST TO 30 FEET IN ADVANCE OF THE TERMINAL EXTRUDER HEAD.





PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PAVING DETAILS	SHEET 54	E

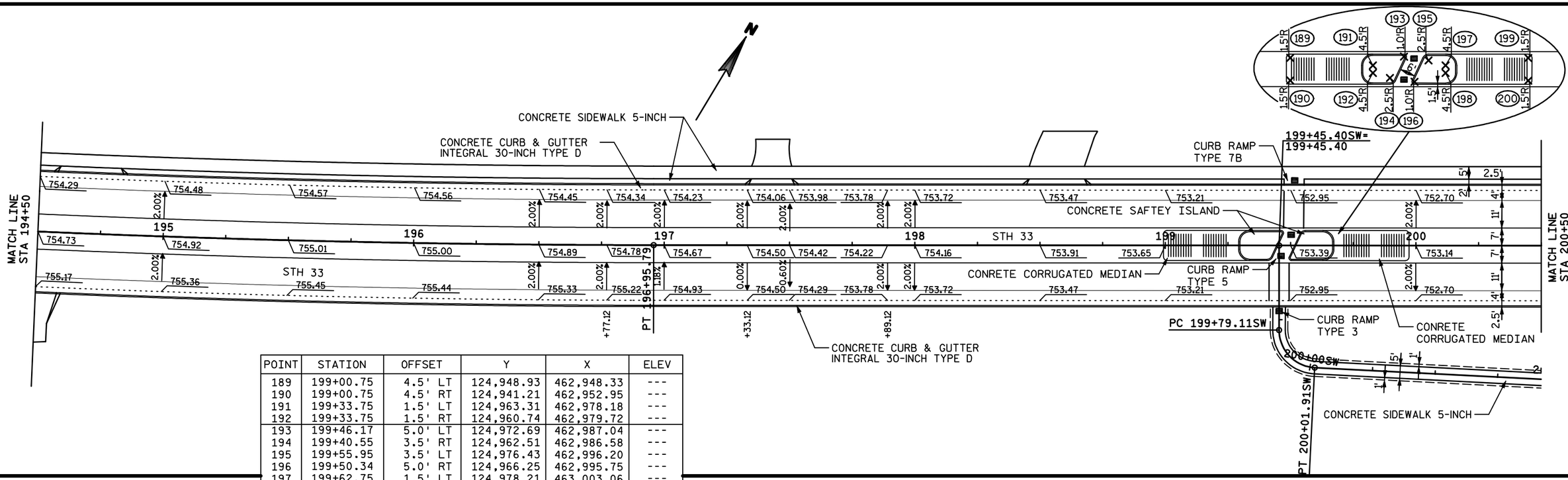




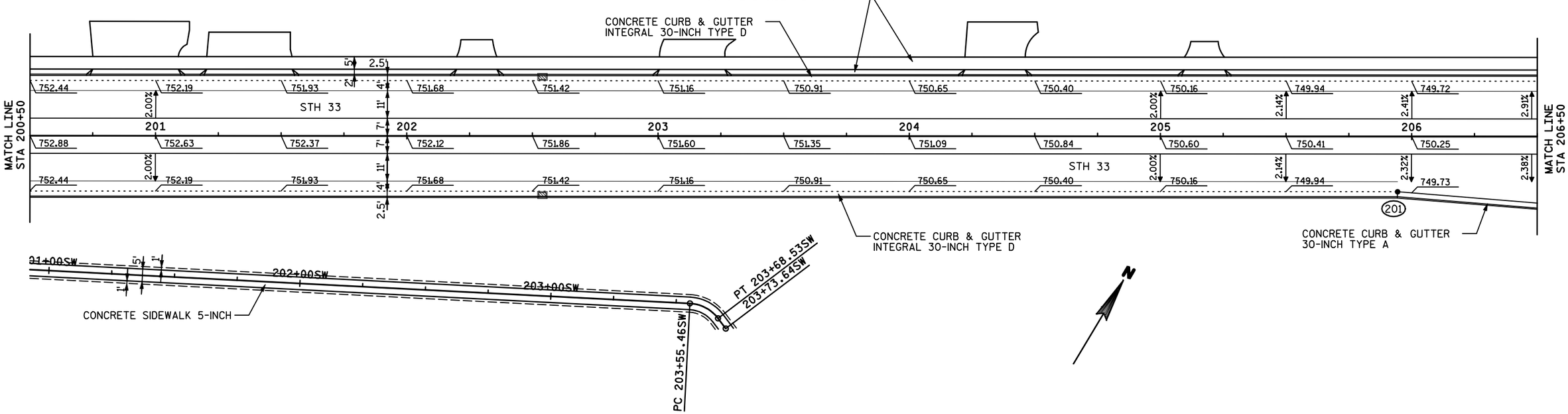
NOTE:

* AT BEAMGUARD TERMINALS WITH CURB & GUTTER, PROVIDE DRIVEWAY CUT CURB FROM 3RD POST TO 30 FEET IN ADVANCE OF THE TERMINAL EXTRUDER HEAD.

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PAVING DETAILS	SHEET 55	E



POINT	STATION	OFFSET	Y	X	ELEV
189	199+00.75	4.5' LT	124,948.93	462,948.33	---
190	199+00.75	4.5' RT	124,941.21	462,952.95	---
191	199+33.75	1.5' LT	124,963.31	462,978.18	---
192	199+33.75	1.5' RT	124,960.74	462,979.72	---
193	199+46.17	5.0' LT	124,972.69	462,987.04	---
194	199+40.55	3.5' RT	124,962.51	462,986.58	---
195	199+55.95	3.5' LT	124,976.43	462,996.20	---
196	199+50.34	5.0' RT	124,966.25	462,995.75	---
197	199+62.75	1.5' LT	124,978.21	463,003.06	---
198	199+62.75	1.5' RT	124,975.63	463,004.60	---
199	199+95.75	4.5' LT	124,997.74	463,029.83	---
200	199+95.75	4.5' RT	124,990.01	463,034.46	---
201	205+94.42	22.00' RT	125,282.55	463,557.07	749.88

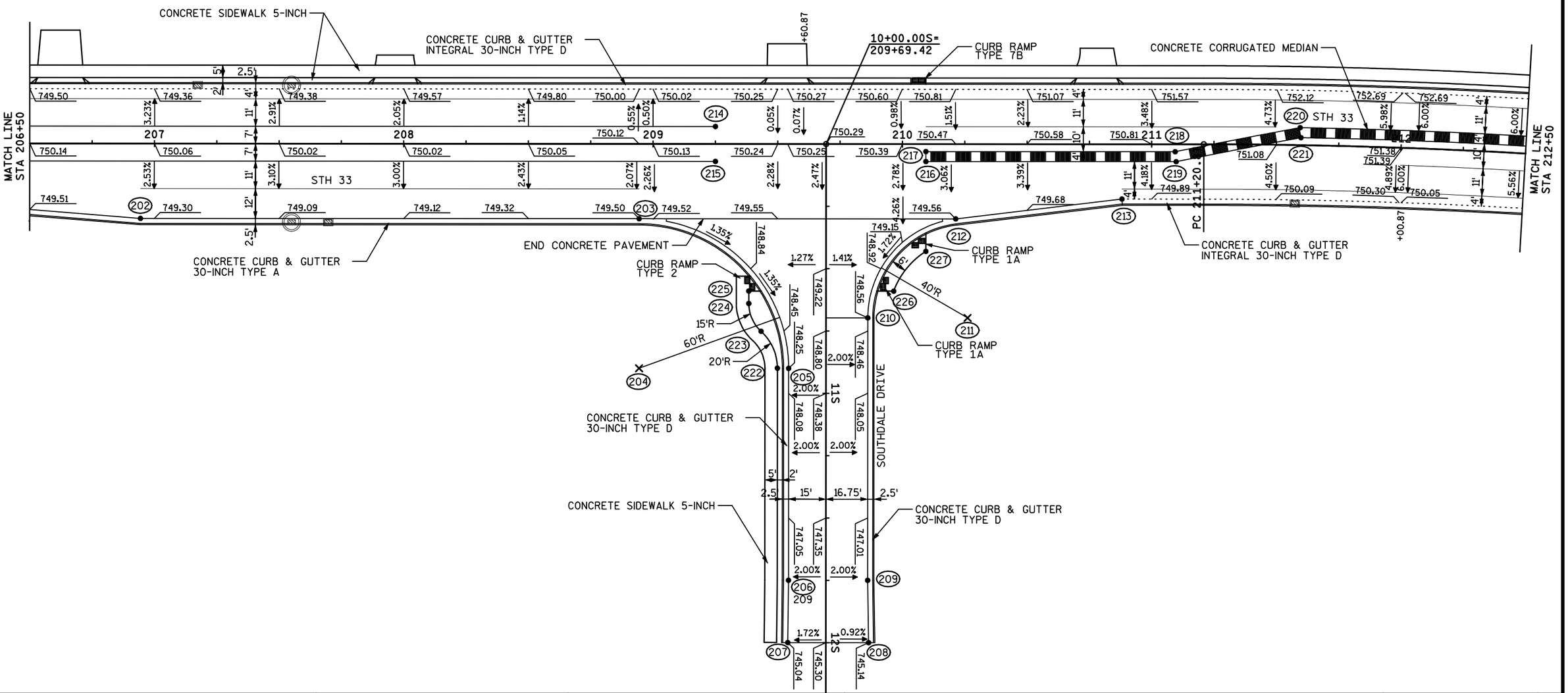


PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PAVING DETAILS	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\details\021212_pd.dgn PLOT DATE : 7/30/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

POINT	STATION	OFFSET	Y	X	ELEV
202	206+94.42	30.00' RT	125,327.06	463,646.98	749.24
203	208+94.42	30.00' RT	125,429.80	463,818.57	749.52
204	208+94.42	90.00' RT	125,378.32	463,849.39	---
205	209+54.42	90.00' RT	125,409.15	463,900.87	748.25
206	11+75.00 S	15.00' RT	125,336.22	463,944.54	746.12
207	12+00.00 S	15.28' RT	125,314.63	463,957.15	745.04
208	12+00.00 S	17.13' LT	125,331.28	463,984.95	745.14
209	11+75.00 S	16.75' LT	125,352.53	463,971.78	746.08
210	209+86.17	69.72' RT	125,442.86	463,917.69	748.56
211	210+26.17	69.72' RT	125,463.41	463,952.01	---
212	210+21.40	30.00' RT	125,495.04	463,927.52	749.56
213	210+88.07	22.00' RT	125,536.15	463,980.61	749.86
214	209+25.00	7.00' LT	125,477.26	463,825.80	750.16
215	209+25.00	7.00' RT	125,465.25	463,833.00	750.02
216	210+09.42	7.00' RT	125,508.61	463,905.42	750.22
217	210+09.42	3.00' RT	125,512.05	463,903.37	750.33
218	211+09.42	3.00' RT	125,563.42	463,989.16	750.73
219	211+09.82	7.00' RT	125,560.19	463,991.56	750.56
220	211+59.41	7.00' LT	125,597.46	464,027.19	751.48
221	211+59.80	3.00' LT	125,594.19	464,029.53	751.28

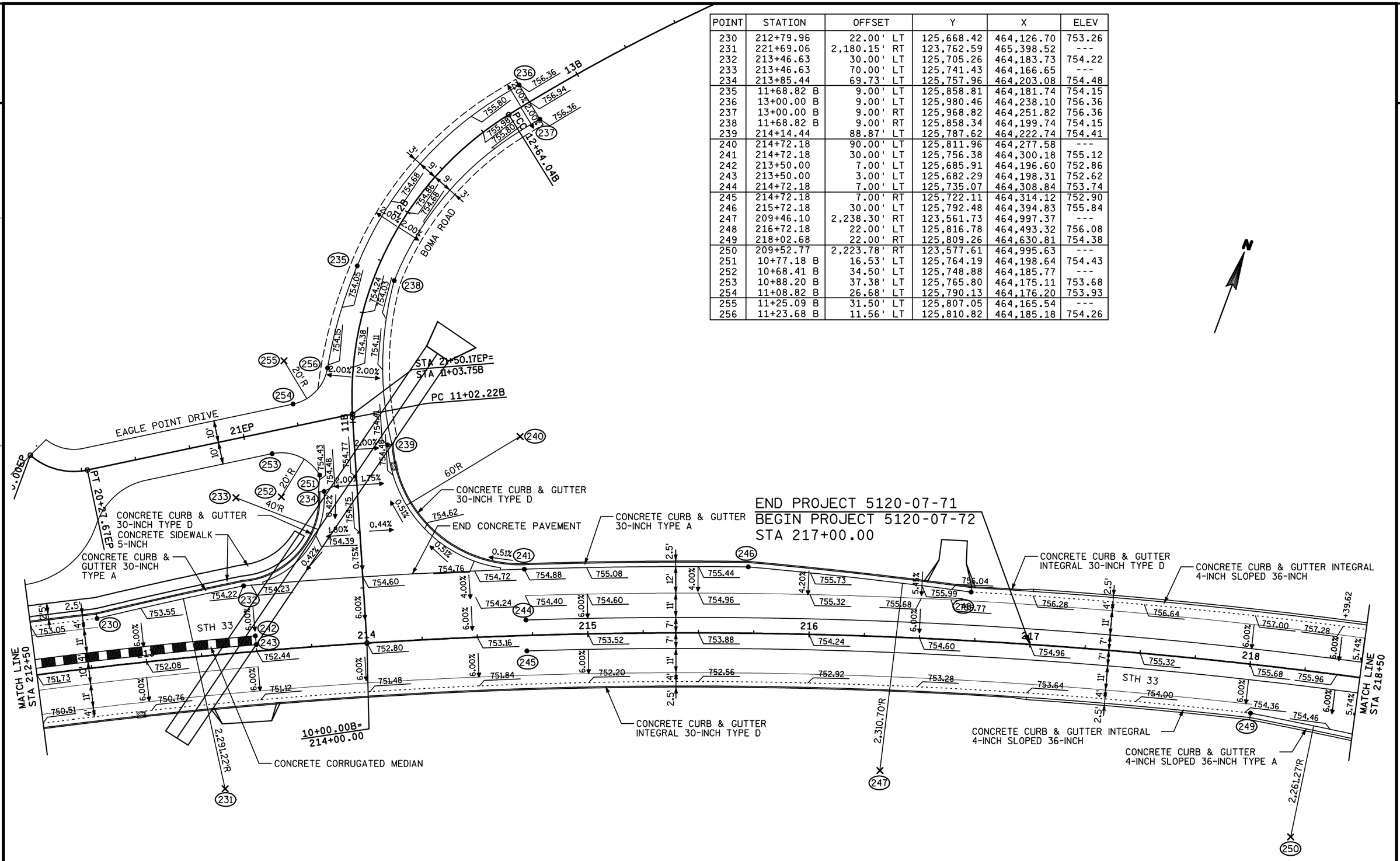
POINT	STATION	OFFSET	Y	X	ELEV
222	10+89.92 S	19.50' RT	125,406.90	463,896.97	---
223	10+75.11 S	26.07' RT	125,416.24	463,883.73	---
224	10+64.00 S	30.99' RT	125,423.24	463,873.80	---
224	10+59.00 S	30.99' RT	125,427.53	463,871.23	---
226	10+59.00 S	27.12' RT	125,457.39	463,921.09	---
227	210+09.42	43.04' RT	125,477.70	463,923.94	---



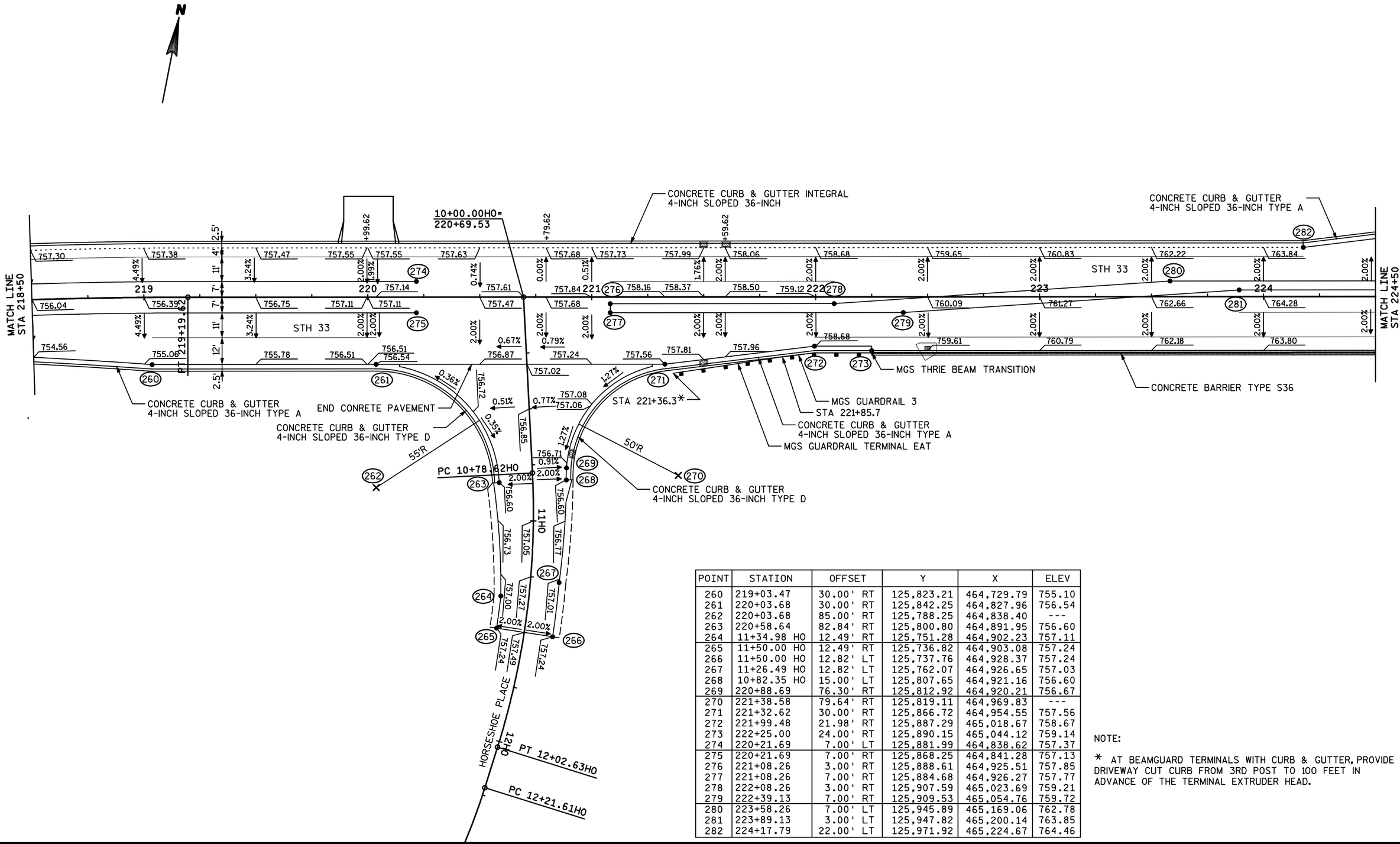
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PAVING DETAILS	SHEET 57	E

2

POINT	STATION	OFFSET	Y	X	ELEV
230	212+79.96	22.00' LT	125,668.42	464,126.70	753.26
231	221+69.06	2,180.15' RT	123,762.59	465,398.52	---
232	213+46.63	30.00' LT	125,705.26	464,183.73	754.22
233	213+46.63	70.00' LT	125,741.43	464,166.65	---
234	213+85.44	69.73' LT	125,757.96	464,203.08	754.48
235	11+68.82 B	9.00' LT	125,858.81	464,181.74	754.15
236	13+00.00 B	9.00' LT	125,980.46	464,238.10	756.36
237	13+00.00 B	9.00' RT	125,968.82	464,251.82	756.36
238	11+68.82 B	9.00' RT	125,858.34	464,199.74	754.15
239	214+14.44	88.87' LT	125,787.62	464,222.74	754.41
240	214+72.18	90.00' LT	125,811.96	464,277.58	---
241	214+72.18	30.00' LT	125,756.38	464,300.18	755.12
242	213+50.00	7.00' LT	125,685.91	464,196.60	752.86
243	213+50.00	3.00' LT	125,682.29	464,198.31	752.62
244	214+72.18	7.00' LT	125,735.07	464,308.84	753.74
245	214+72.18	7.00' RT	125,722.11	464,314.12	752.90
246	215+72.18	30.00' LT	125,792.48	464,394.83	755.84
247	209+46.10	2,238.30' RT	123,561.73	464,997.37	---
248	216+72.18	22.00' LT	125,816.78	464,493.32	756.08
249	218+02.68	22.00' RT	125,809.26	464,630.81	754.38
250	209+52.77	2,223.78' RT	123,577.61	464,995.63	---
251	10+77.18 B	16.53' LT	125,764.19	464,198.64	754.43
252	10+68.41 B	34.50' LT	125,748.88	464,185.77	---
253	10+88.20 B	37.38' LT	125,765.80	464,175.11	753.68
254	11+08.82 B	26.68' LT	125,790.13	464,176.20	753.93
255	11+25.09 B	31.50' LT	125,807.05	464,165.54	---
256	11+23.68 B	11.56' LT	125,810.82	464,185.18	754.26



PROJECT NO: 5120-07-71/72	HWY: STH 33	COUNTY: LA CROSSE	PAVING DETAILS	SHEET 58	E

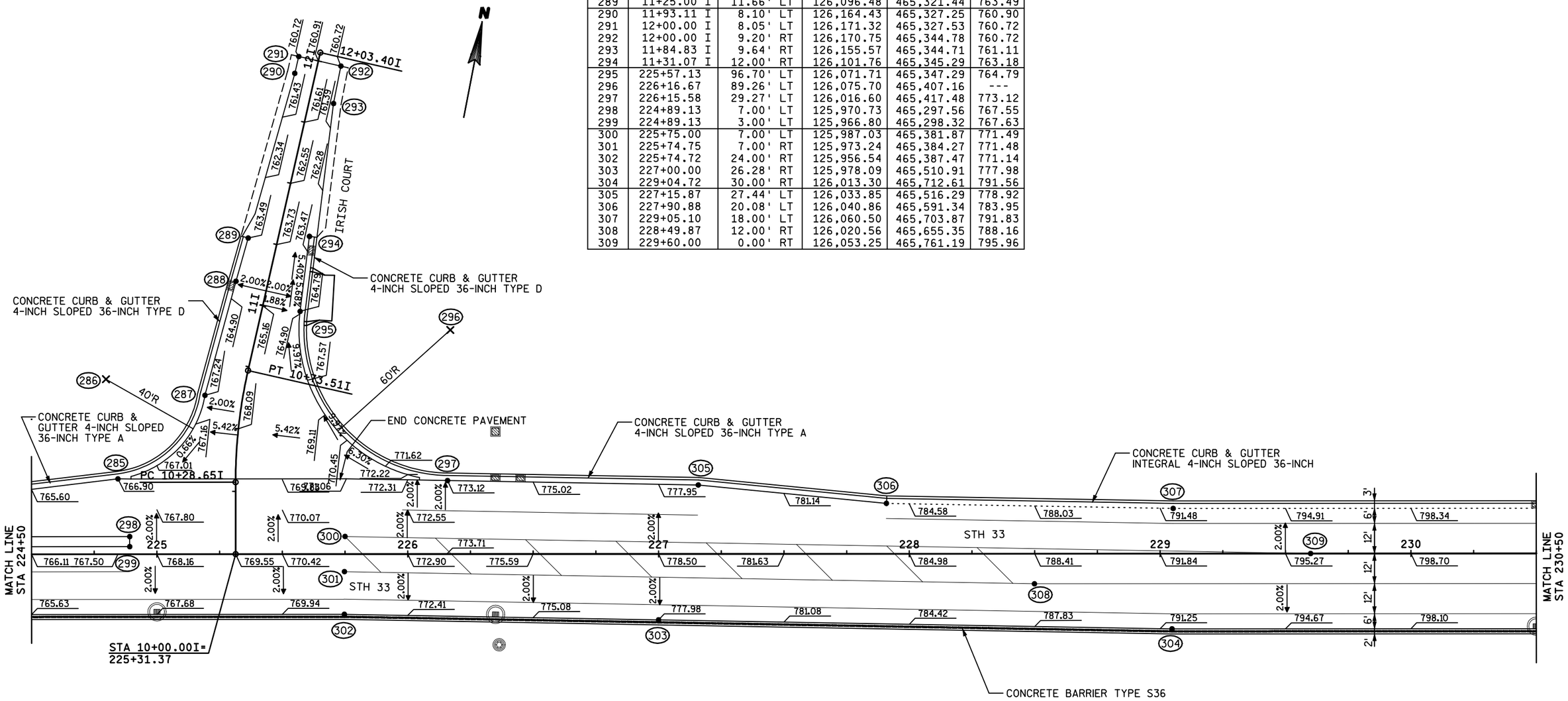


POINT	STATION	OFFSET	Y	X	ELEV
260	219+03.47	30.00' RT	125,823.21	464,729.79	755.10
261	220+03.68	30.00' RT	125,842.25	464,827.96	756.54
262	220+03.68	85.00' RT	125,788.25	464,838.40	---
263	220+58.64	82.84' RT	125,800.80	464,891.95	756.60
264	11+34.98 HO	12.49' RT	125,751.28	464,902.23	757.11
265	11+50.00 HO	12.49' RT	125,736.82	464,903.08	757.24
266	11+50.00 HO	12.82' LT	125,737.76	464,928.37	757.24
267	11+26.49 HO	12.82' LT	125,762.07	464,926.65	757.03
268	10+82.35 HO	15.00' LT	125,807.65	464,921.16	756.60
269	220+88.69	76.30' RT	125,812.92	464,920.21	756.67
270	221+38.58	79.64' RT	125,819.11	464,969.83	---
271	221+32.62	30.00' RT	125,866.72	464,954.55	757.56
272	221+99.48	21.98' RT	125,887.29	465,018.67	758.67
273	222+25.00	24.00' RT	125,890.15	465,044.12	759.14
274	220+21.69	7.00' LT	125,881.99	464,838.62	757.37
275	220+21.69	7.00' RT	125,868.25	464,841.28	757.13
276	221+08.26	3.00' RT	125,888.61	464,925.51	757.85
277	221+08.26	7.00' RT	125,884.68	464,926.27	757.77
278	222+08.26	3.00' RT	125,907.59	465,023.69	759.21
279	222+39.13	7.00' RT	125,909.53	465,054.76	759.72
280	223+58.26	7.00' LT	125,945.89	465,169.06	762.78
281	223+89.13	3.00' LT	125,947.82	465,200.14	763.85
282	224+17.79	22.00' LT	125,971.92	465,224.67	764.46

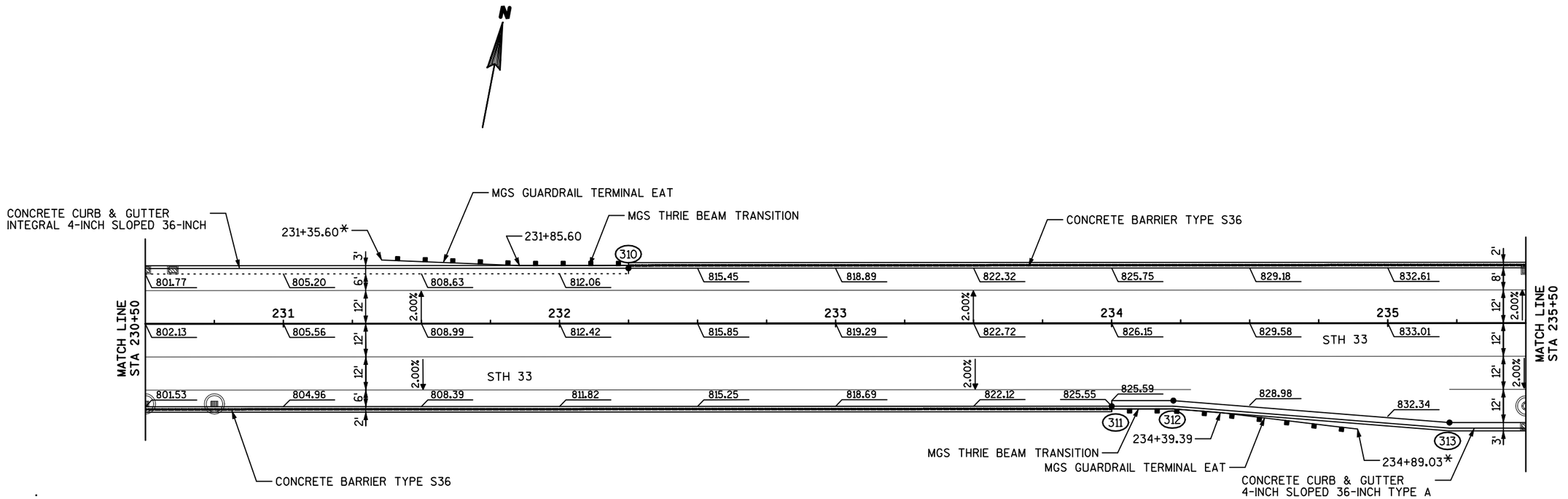
NOTE:

* AT BEAMGUARD TERMINALS WITH CURB & GUTTER, PROVIDE DRIVEWAY CUT CURB FROM 3RD POST TO 100 FEET IN ADVANCE OF THE TERMINAL EXTRUDER HEAD.

POINT	STATION	OFFSET	Y	X	ELEV
285	224+84.46	30.00' LT	125,992.43	465,288.61	766.90
286	224+79.69	69.72' LT	126,030.51	465,276.39	---
287	225+19.17	63.28' LT	126,031.69	465,316.37	767.24
288	11+07.14 I	12.59' LT	126,078.66	465,319.92	764.48
289	11+25.00 I	11.66' LT	126,096.48	465,321.44	763.49
290	11+93.11 I	8.10' LT	126,164.43	465,327.25	760.90
291	12+00.00 I	8.05' LT	126,171.32	465,327.53	760.72
292	12+00.00 I	9.20' RT	126,170.75	465,344.78	760.72
293	11+84.83 I	9.64' RT	126,155.57	465,344.71	761.11
294	11+31.07 I	12.00' RT	126,101.76	465,345.29	763.18
295	225+57.13	96.70' LT	126,071.71	465,347.29	764.79
296	226+16.67	89.26' LT	126,075.70	465,407.16	---
297	226+15.58	29.27' LT	126,016.60	465,417.48	773.12
298	224+89.13	7.00' LT	125,970.73	465,297.56	767.55
299	224+89.13	3.00' LT	125,966.80	465,298.32	767.63
300	225+75.00	7.00' LT	125,987.03	465,381.87	771.49
301	225+74.75	7.00' RT	125,973.24	465,384.27	771.48
302	225+74.72	24.00' RT	125,956.54	465,387.47	771.14
303	227+00.00	26.28' RT	125,978.09	465,510.91	777.98
304	229+04.72	30.00' RT	126,013.30	465,712.61	791.56
305	227+15.87	27.44' LT	126,033.85	465,516.29	778.92
306	227+90.88	20.08' LT	126,040.86	465,591.34	783.95
307	229+05.10	18.00' LT	126,060.50	465,703.87	791.83
308	228+49.87	12.00' RT	126,020.56	465,655.35	788.16
309	229+60.00	0.00' RT	126,053.25	465,761.19	795.96



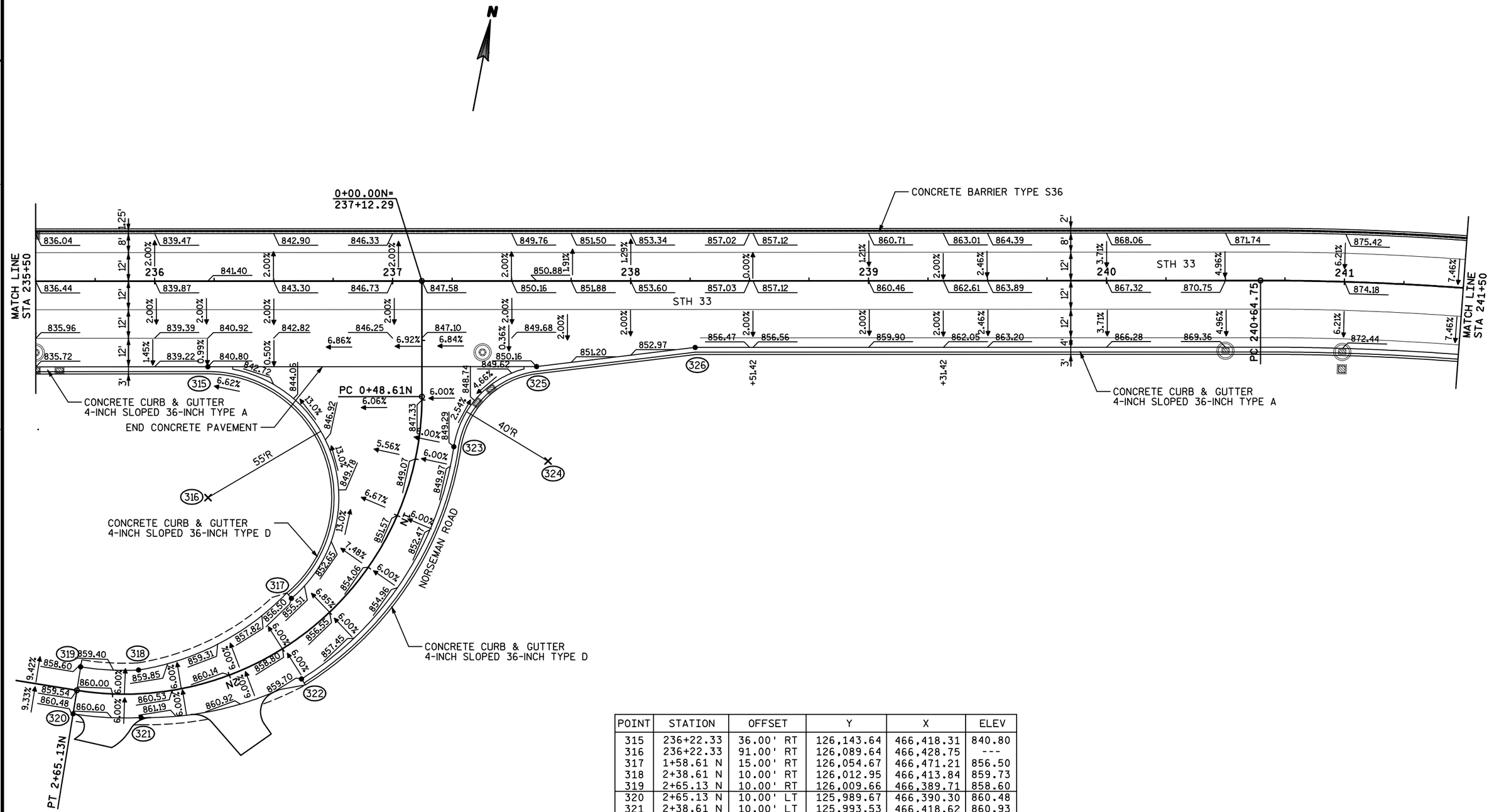
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PAVING DETAILS	SHEET 60	E



POINT	STATION	OFFSET	Y	X	ELEV
310	232+25.00	20.00' LT	126,123.19	466,017.58	813.74
311	234+00.00	30.00' RT	126,107.32	466,198.89	825.55
312	234+22.33	28.00' RT	126,113.53	466,220.43	827.12
313	235+22.33	36.00' RT	126,124.66	466,320.13	833.82

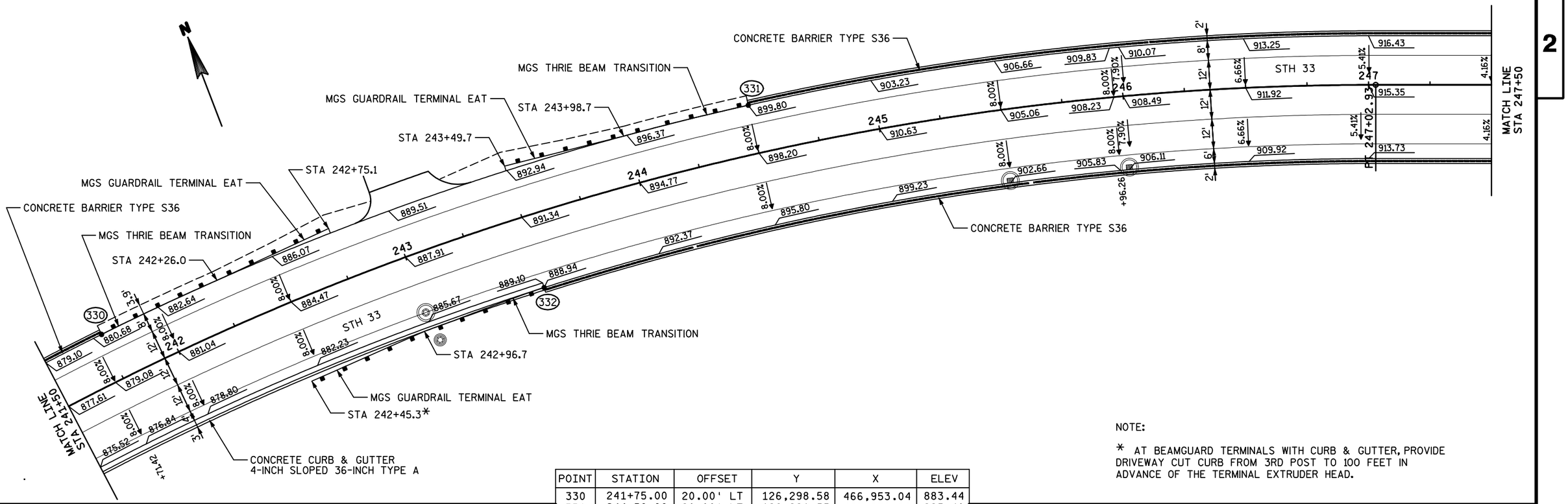
NOTE:

* AT BEAMGUARD TERMINALS WITH CURB & GUTTER, PROVIDE DRIVEWAY CUT CURB FROM 3RD POST TO 100 FEET IN ADVANCE OF THE TERMINAL EXTRUDER HEAD.



POINT	STATION	OFFSET	Y	X	ELEV
315	236+22.33	36.00' RT	126,143.64	466,418.31	840.80
316	236+22.33	91.00' RT	126,089.64	466,428.75	---
317	1+58.61 N	15.00' RT	126,054.67	466,471.21	856.50
318	2+38.61 N	10.00' RT	126,012.95	466,413.84	859.73
319	2+65.13 N	10.00' RT	126,009.66	466,389.71	858.60
320	2+65.13 N	10.00' LT	125,989.67	466,390.30	860.48
321	2+38.61 N	10.00' LT	125,993.53	466,418.62	860.93
322	1+75.00 N	15.00' LT	126,022.23	466,481.80	859.70
323	237+25.70	69.69' RT	126,130.18	466,526.19	849.29
324	237+65.24	75.72' RT	126,131.77	466,566.16	---
325	237+60.47	36.00' RT	126,169.86	466,553.94	850.16
326	238+27.14	28.00' RT	126,190.37	466,617.88	854.90

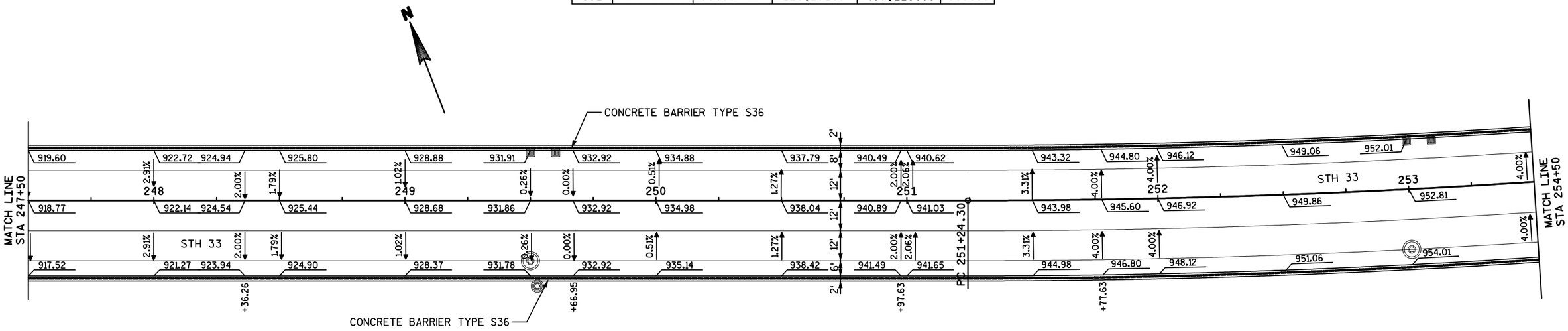
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PAVING DETAILS	SHEET 62	E



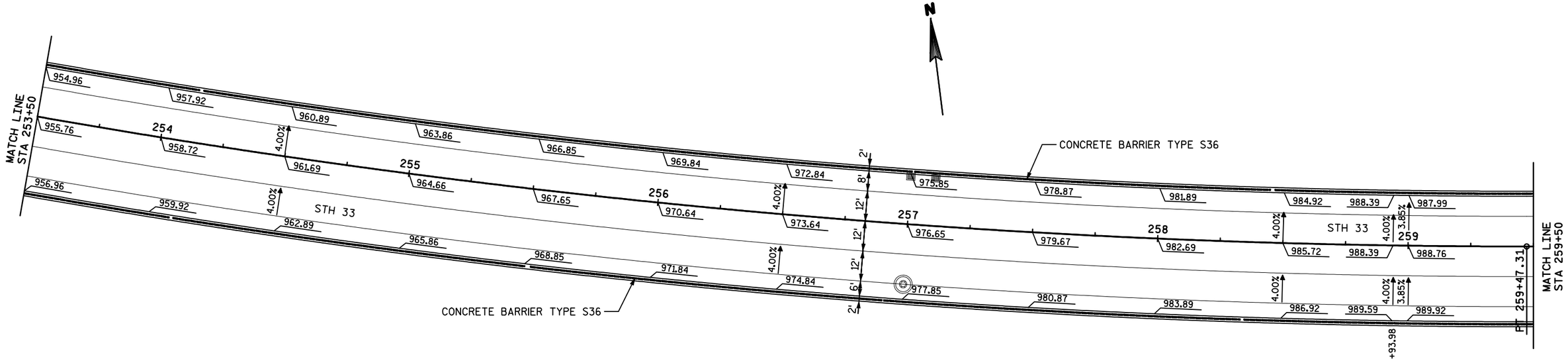
NOTE:

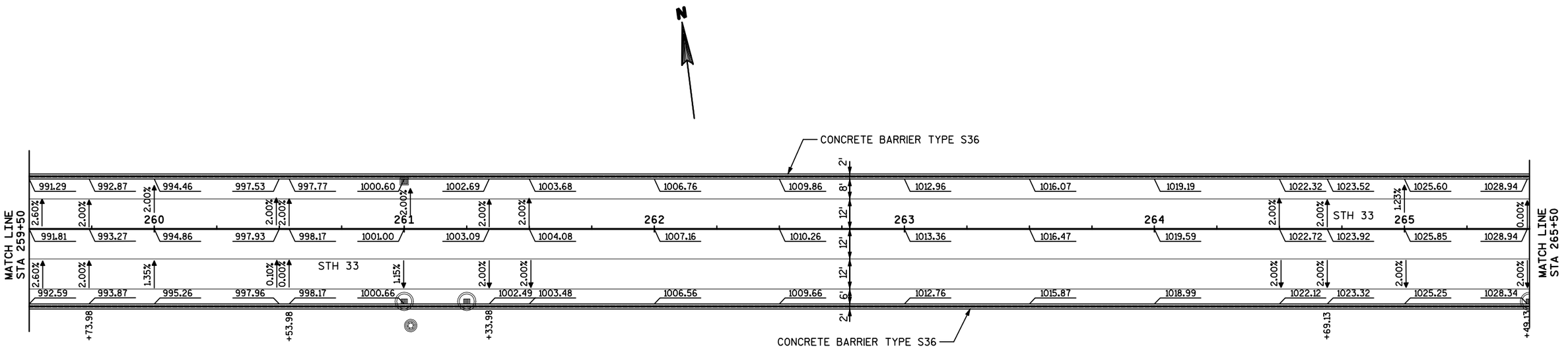
* AT BEAMGUARD TERMINALS WITH CURB & GUTTER, PROVIDE DRIVEWAY CUT CURB FROM 3RD POST TO 100 FEET IN ADVANCE OF THE TERMINAL EXTRUDER HEAD.

POINT	STATION	OFFSET	Y	X	ELEV
330	241+75.00	20.00' LT	126,298.58	466,953.04	883.44
331	244+50.00	20.00' LT	126,291.55	467,232.08	895.40
332	243+50.00	30.00' RT	126,251.94	467,128.00	888.86

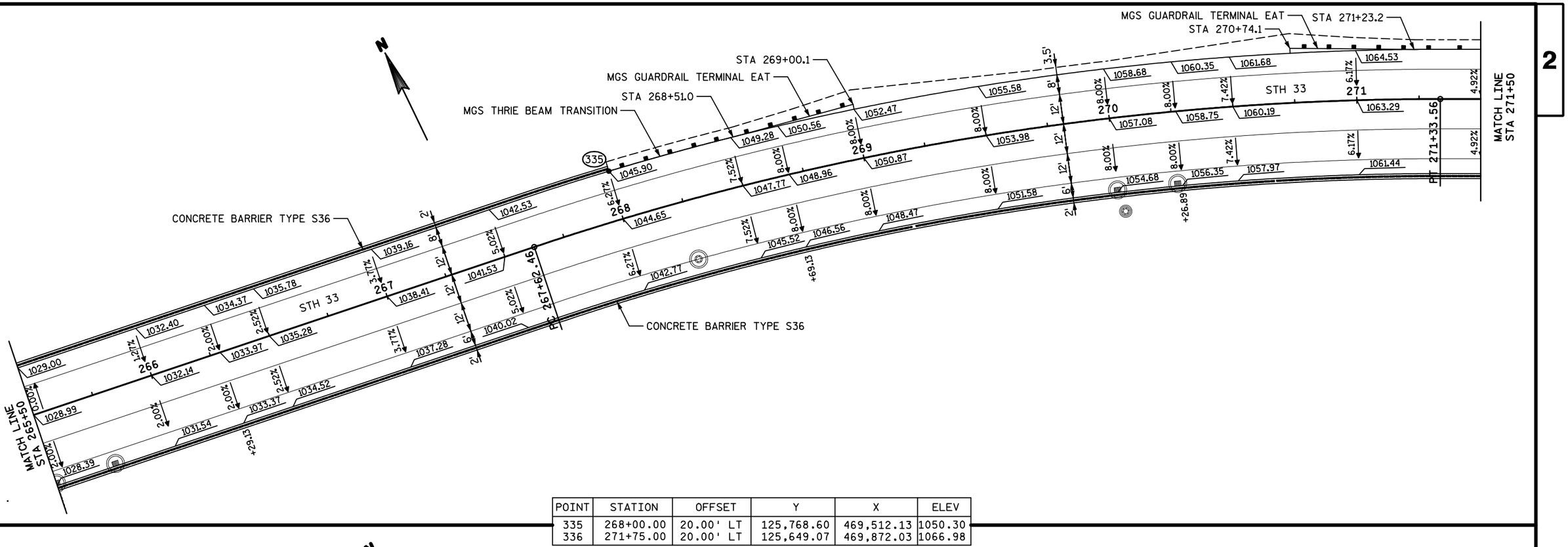


PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PAVING DETAILS	SHEET 63	E

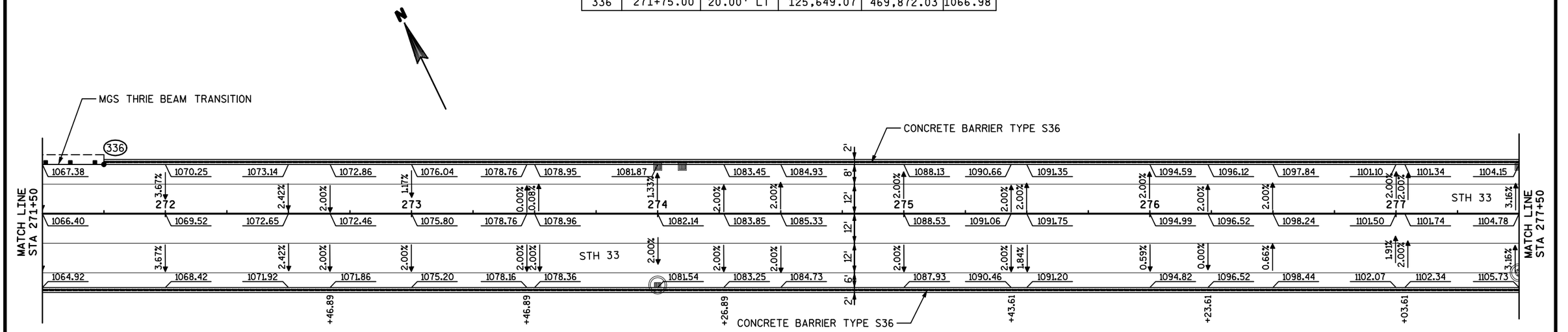




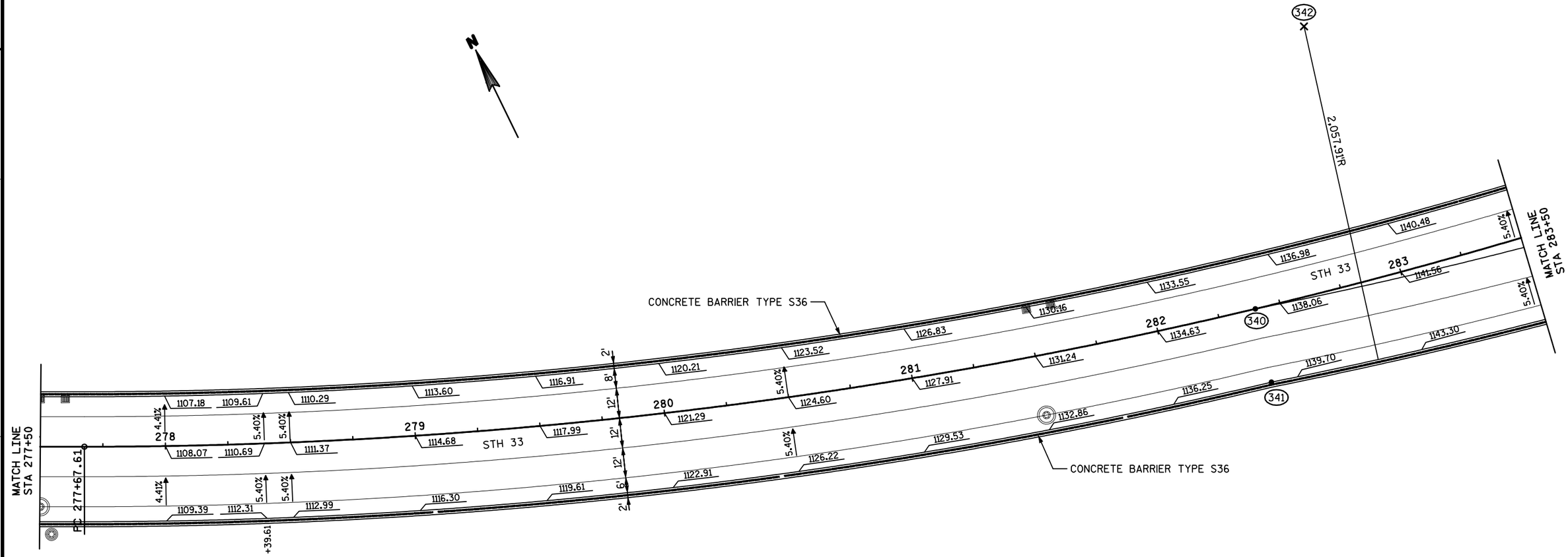
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PAVING DETAILS	SHEET 64	E



POINT	STATION	OFFSET	Y	X	ELEV
335	268+00.00	20.00' LT	125,768.60	469,512.13	1050.30
336	271+75.00	20.00' LT	125,649.07	469,872.03	1066.98

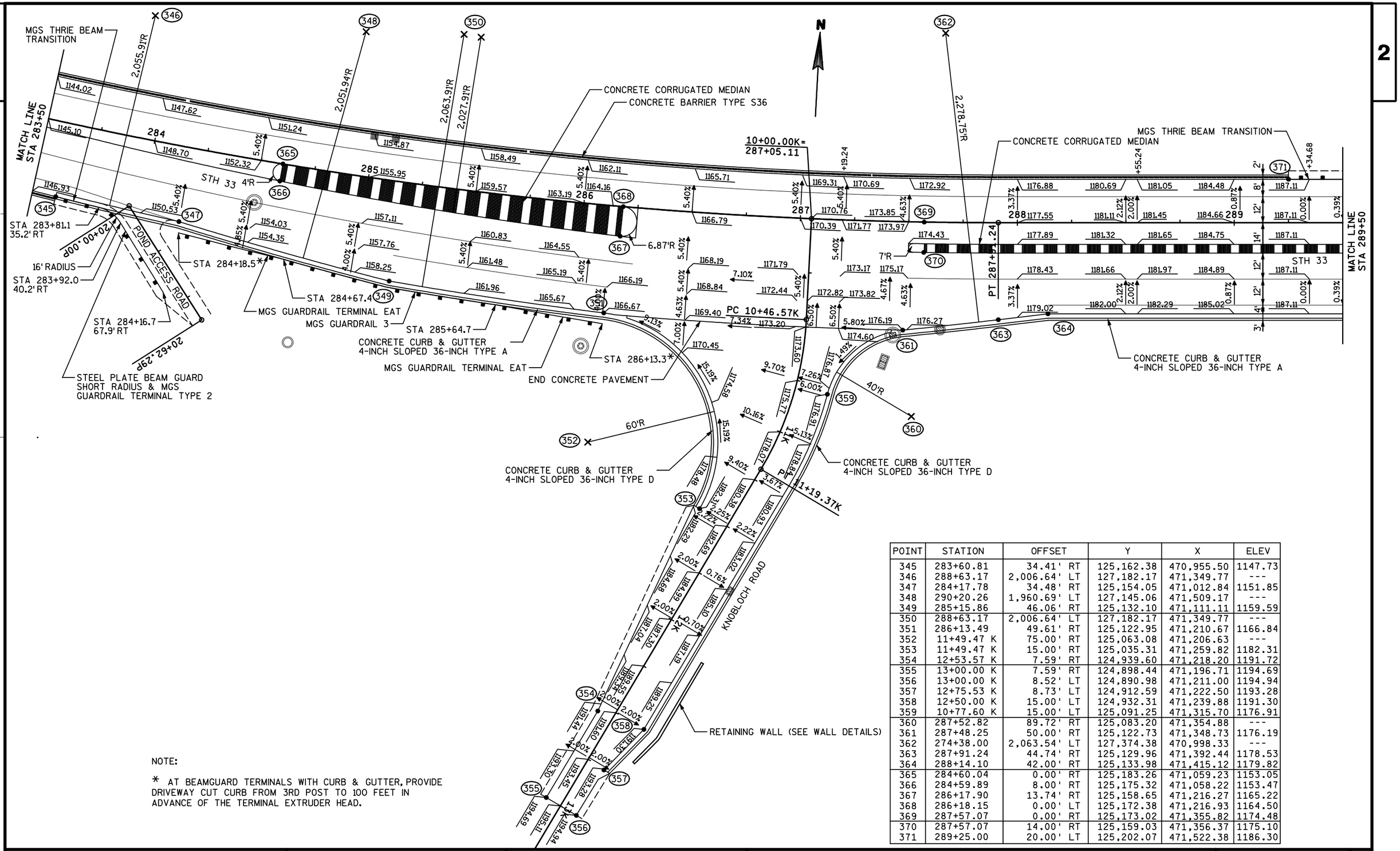


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POINT	STATION	OFFSET	Y	X	ELEV
340	282+40.00	0.00' LT	125,218.80	470,842.19	1137.37
341	282+39.46	30.00' RT	125,189.62	470,835.21	1138.95
342	288+63.17	2,006.64' LT	127,182.17	471,349.77	---

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PAVING DETAILS	SHEET 66	E

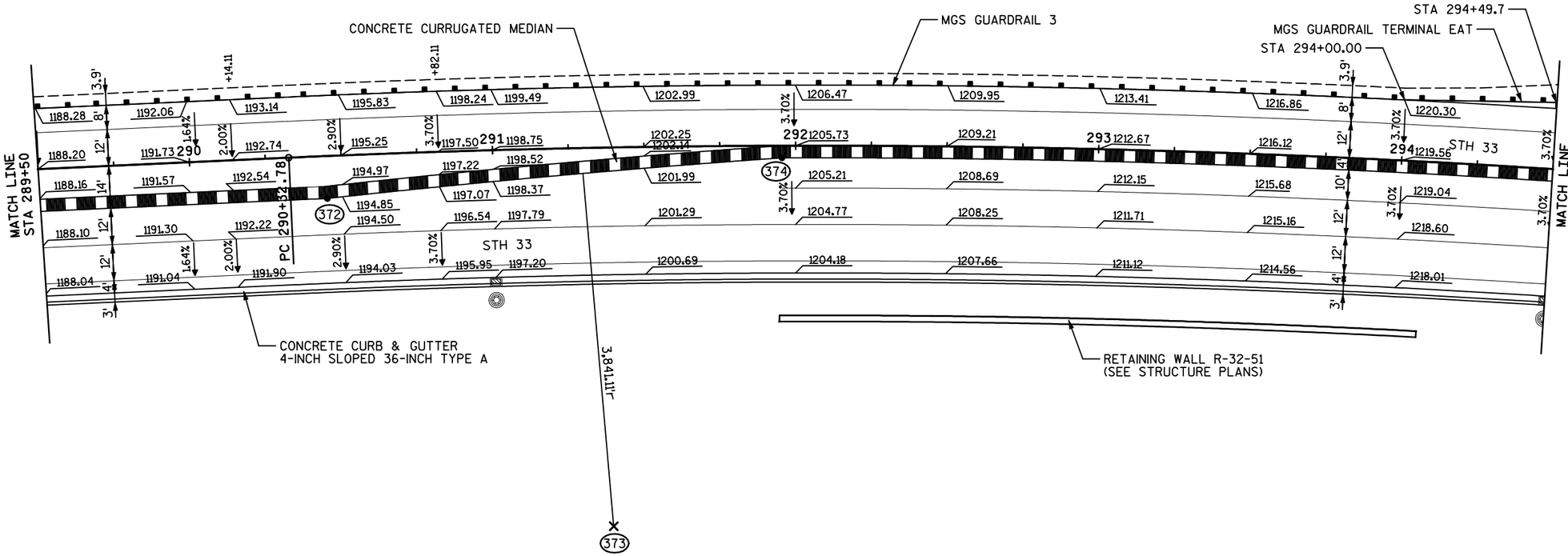


NOTE:

* AT BEAMGUARD TERMINALS WITH CURB & GUTTER, PROVIDE DRIVEWAY CUT CURB FROM 3RD POST TO 100 FEET IN ADVANCE OF THE TERMINAL EXTRUDER HEAD.

POINT	STATION	OFFSET	Y	X	ELEV
345	283+60.81	34.41' RT	125,162.38	470,955.50	1147.73
346	288+63.17	2,006.64' LT	127,182.17	471,349.77	---
347	284+17.78	34.48' RT	125,154.05	471,012.84	1151.85
348	290+20.26	1,960.69' LT	127,145.06	471,509.17	---
349	285+15.86	46.06' RT	125,132.10	471,111.11	1159.59
350	288+63.17	2,006.64' LT	127,182.17	471,349.77	---
351	286+13.49	49.61' RT	125,122.95	471,210.67	1166.84
352	11+49.47 K	75.00' RT	125,063.08	471,206.63	---
353	11+49.47 K	15.00' RT	125,035.31	471,259.82	1182.31
354	12+53.57 K	7.59' RT	124,939.60	471,218.20	1191.72
355	13+00.00 K	7.59' RT	124,898.44	471,196.71	1194.69
356	13+00.00 K	8.52' LT	124,890.98	471,211.00	1194.94
357	12+75.53 K	8.73' LT	124,912.59	471,222.50	1193.28
358	12+50.00 K	15.00' LT	124,932.31	471,239.88	1191.30
359	10+77.60 K	15.00' LT	125,091.25	471,315.70	1176.91
360	287+52.82	89.72' RT	125,083.20	471,354.88	---
361	287+48.25	50.00' RT	125,122.73	471,348.73	1176.19
362	274+38.00	2,063.54' LT	127,374.38	470,998.33	---
363	287+91.24	44.74' RT	125,129.96	471,392.44	1178.53
364	288+14.10	42.00' RT	125,133.98	471,415.12	1179.82
365	284+60.04	0.00' RT	125,183.26	471,059.23	1153.05
366	284+59.89	8.00' RT	125,175.32	471,058.22	1153.47
367	286+17.90	13.74' RT	125,158.65	471,216.27	1165.22
368	286+18.15	0.00' LT	125,172.38	471,216.93	1164.50
369	287+57.07	0.00' RT	125,173.02	471,355.82	1174.48
370	287+57.07	14.00' RT	125,159.03	471,356.37	1175.10
371	289+25.00	20.00' LT	125,202.07	471,522.38	1186.30

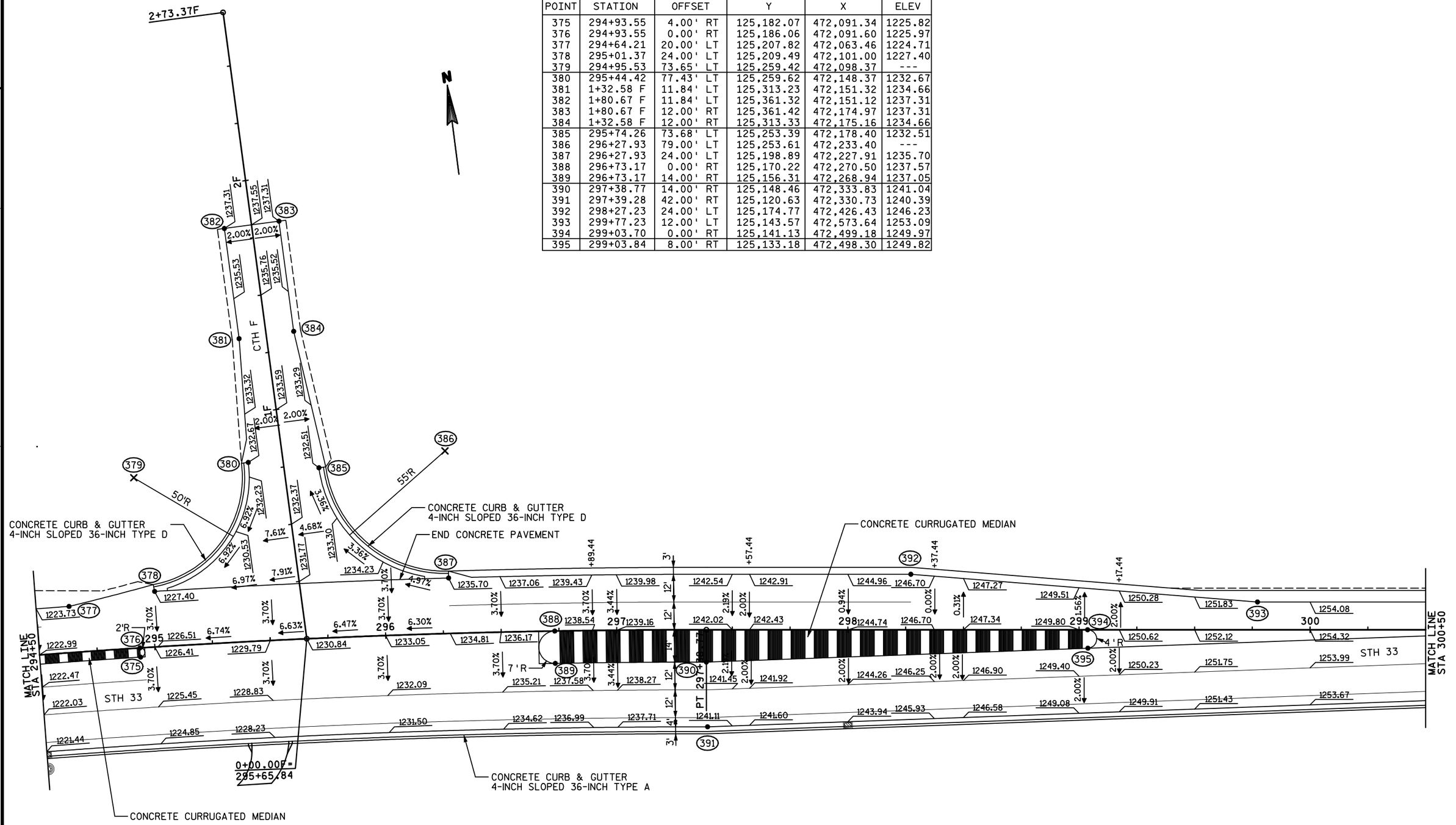
2



POINT	STATION	OFFSET	Y	X	ELEV
372	290+44.93	14.00' RT	125,174.80	471,643.98	1194.50
373	299+94.09	3,800.21' RT	121,360.86	472,100.02	---
374	291+95.52	4.00' RT	125,189.74	471,793.79	1205.27

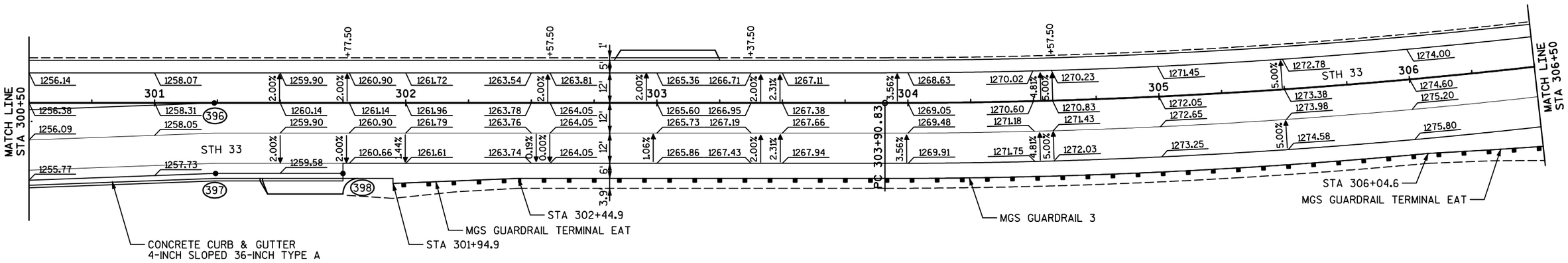
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PAVING DETAILS	SHEET 68	E

POINT	STATION	OFFSET	Y	X	ELEV
375	294+93.55	4.00' RT	125,182.07	472,091.34	1225.82
376	294+93.55	0.00' RT	125,186.06	472,091.60	1225.97
377	294+64.21	20.00' LT	125,207.82	472,063.46	1224.71
378	295+01.37	24.00' LT	125,209.49	472,101.00	1227.40
379	294+95.53	73.65' LT	125,259.42	472,098.37	---
380	295+44.42	77.43' LT	125,259.62	472,148.37	1232.67
381	1+32.58 F	11.84' LT	125,313.23	472,151.32	1234.66
382	1+80.67 F	11.84' LT	125,361.32	472,151.12	1237.31
383	1+80.67 F	12.00' RT	125,361.42	472,174.97	1237.31
384	1+32.58 F	12.00' RT	125,313.33	472,175.16	1234.66
385	295+74.26	73.68' LT	125,253.39	472,178.40	1232.51
386	296+27.93	79.00' LT	125,253.61	472,233.40	---
387	296+27.93	24.00' LT	125,198.89	472,227.91	1235.70
388	296+73.17	0.00' RT	125,170.22	472,270.50	1237.57
389	296+73.17	14.00' RT	125,156.31	472,268.94	1237.05
390	297+38.77	14.00' RT	125,148.46	472,333.83	1241.04
391	297+39.28	42.00' RT	125,120.63	472,330.73	1240.39
392	298+27.23	24.00' LT	125,174.77	472,426.43	1246.23
393	299+77.23	12.00' LT	125,143.57	472,573.64	1253.09
394	299+03.70	0.00' RT	125,141.13	472,499.18	1249.97
395	299+03.84	8.00' RT	125,133.18	472,498.30	1249.82

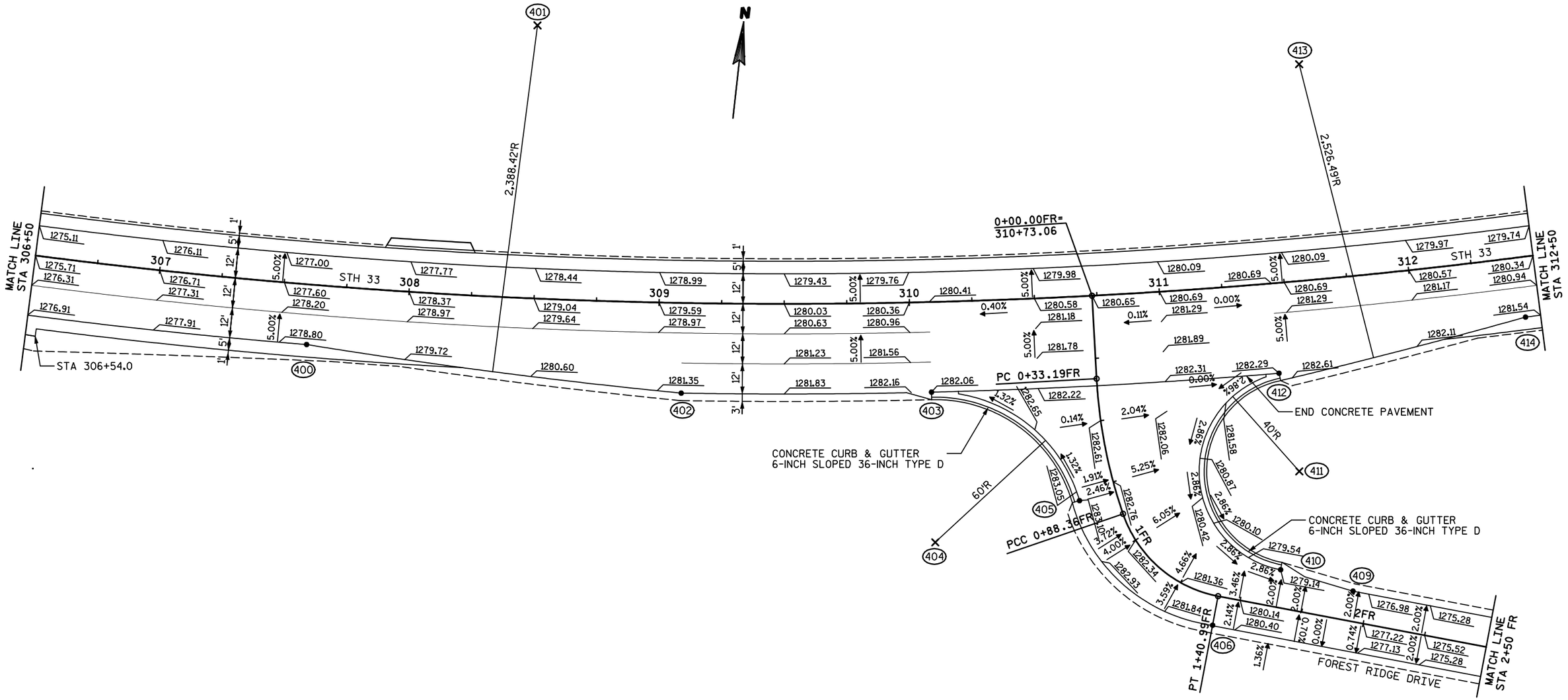


PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PAVING DETAILS	SHEET 69	E

2

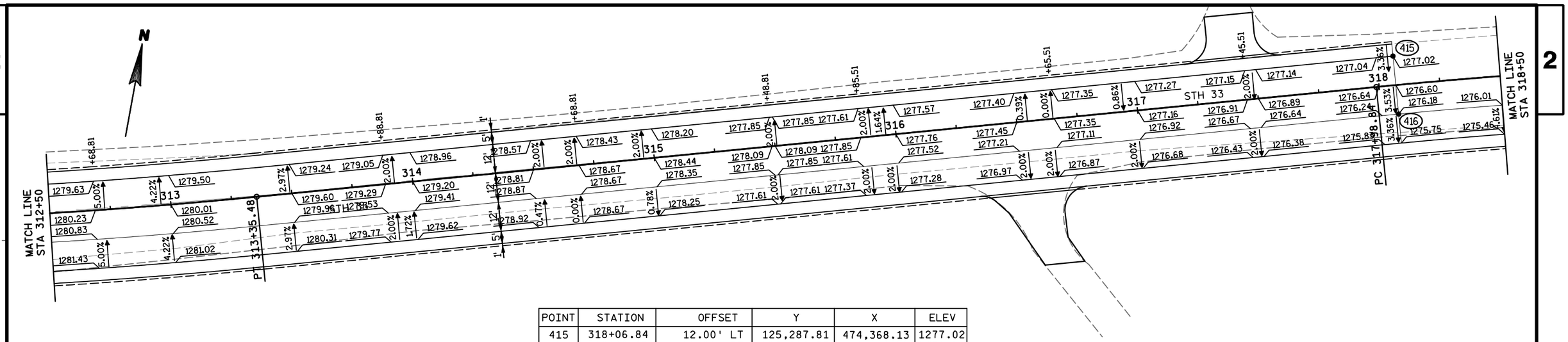


POINT	STATION	OFFSET	Y	X	ELEV
396	301+23.77	0.00' LT	125,112.82	472,717.43	1259.18
397	301+24.28	28.00' RT	125,084.99	472,714.33	1258.64
398	301+75.00	28.00' RT	125,078.47	472,764.63	1260.49

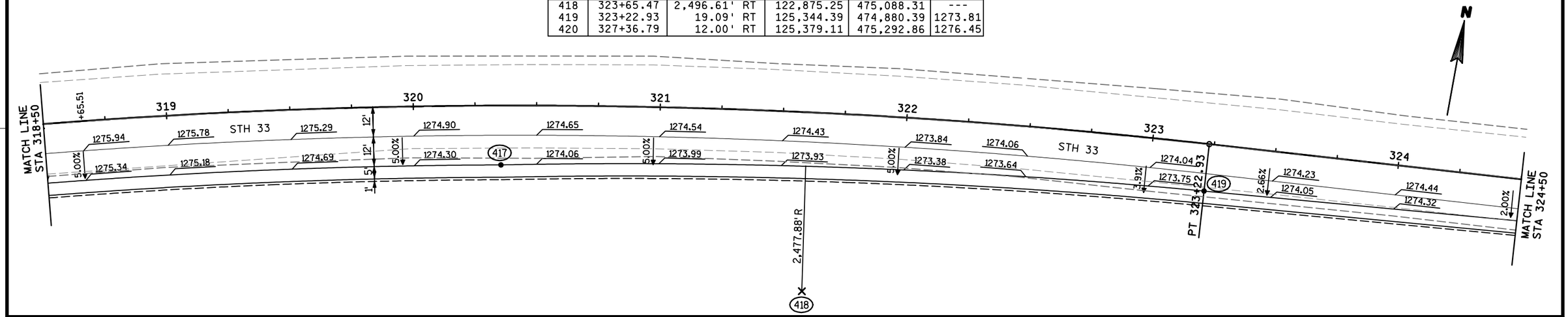


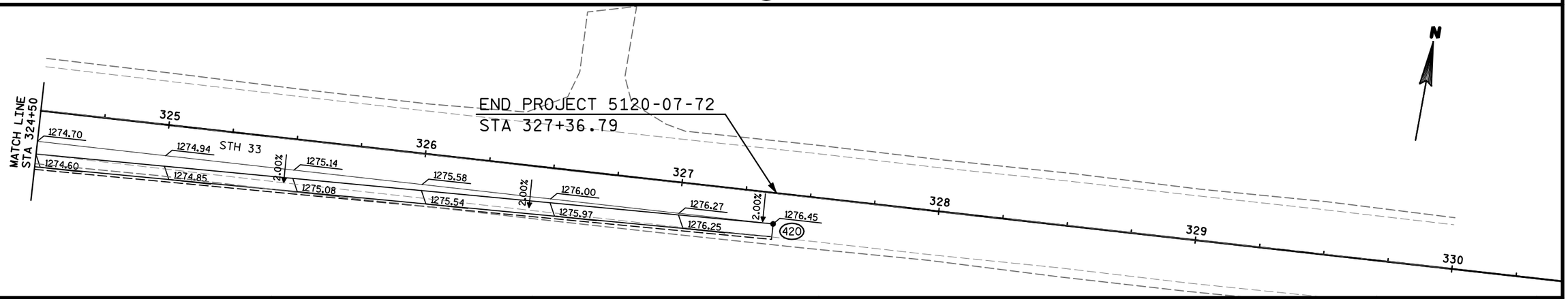
POINT	STATION	OFFSET	Y	X	ELEV
400	307+60.89	24.00' RT	125,036.17	473,352.20	1278.98
401	315+25.49	2,309.93' LT	127,421.67	473,470.17	---
402	309+09.46	36.00' RT	125,033.48	473,503.11	1281.48
403	310+07.97	36.00' RT	125,044.93	473,602.48	1282.06
404	310+07.97	96.00' RT	124,985.49	473,610.61	---
405	310+64.05	81.47' RT	125,008.44	473,666.04	1283.10
406	1+40.99 FR	12.00' RT	124,964.69	473,724.40	1280.91
407	2+79.39 FR	12.00' RT	124,954.18	473,862.40	1271.57
408	2+79.39 FR	12.00' LT	124,978.11	473,864.22	1271.57
409	1+93.59 FR	12.00' LT	124,984.62	473,778.67	1277.41
410	1+63.59 FR	15.00' LT	124,989.89	473,748.98	1279.14
411	311+49.57	75.72' RT	125,029.78	473,752.02	---
412	311+44.95	36.00' RT	125,067.82	473,739.66	1282.29
413	299+92.11	2,332.47' LT	127,442.85	472,886.88	---
414	312+43.96	24.00' RT	125,101.02	473,835.04	1281.58

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PAVING DETAILS	SHEET 71	E



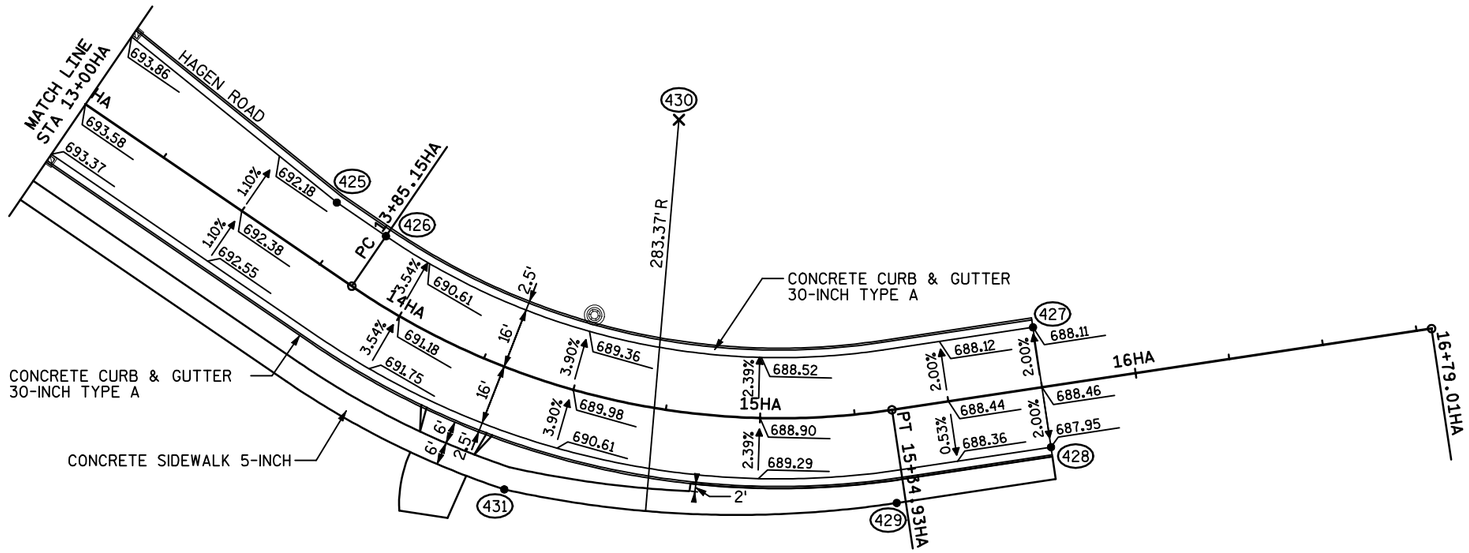
POINT	STATION	OFFSET	Y	X	ELEV
415	318+06.84	12.00' LT	125,287.81	474,368.13	1277.02
416	318+06.91	11.99' RT	125,264.73	474,374.68	1276.18
417	320+35.41	24.00' RT	125,304.20	474,598.32	1274.13
418	323+65.47	2,496.61' RT	122,875.25	475,088.31	---
419	323+22.93	19.09' RT	125,344.39	474,880.39	1273.81
420	327+36.79	12.00' RT	125,379.11	475,292.86	1276.45





PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PAVING DETAILS	SHEET 72	E

2



POINT	STATION	OFFSET	Y	X	ELEV
425	13+69.44 HA	16.00' LT	123,559.28	459,057.36	691.58
426	15+75.00 HA	16.00' LT	123,372.56	459,056.71	688.11
427	15+75.00 HA	16.00' RT	123,362.39	459,026.37	687.95
428	15+32.79 HA	24.51' RT	123,399.97	459,004.82	689.11
429	13+43.31 HA	241.48' LT	123,489.99	459,273.51	---
430	14+40.98 HA	30.50' RT	123,502.65	458,990.42	691.43

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PAVING DETAILS - HAGEN ROAD	SHEET 73	E

2

2

N

EXISTING R/W

STH 33

146 147 148 149 150 151

MATCH LINE
STA 152+00

HIAWATHA AVENUE

HI 33

R/W

EXISTING R/W

SIGN

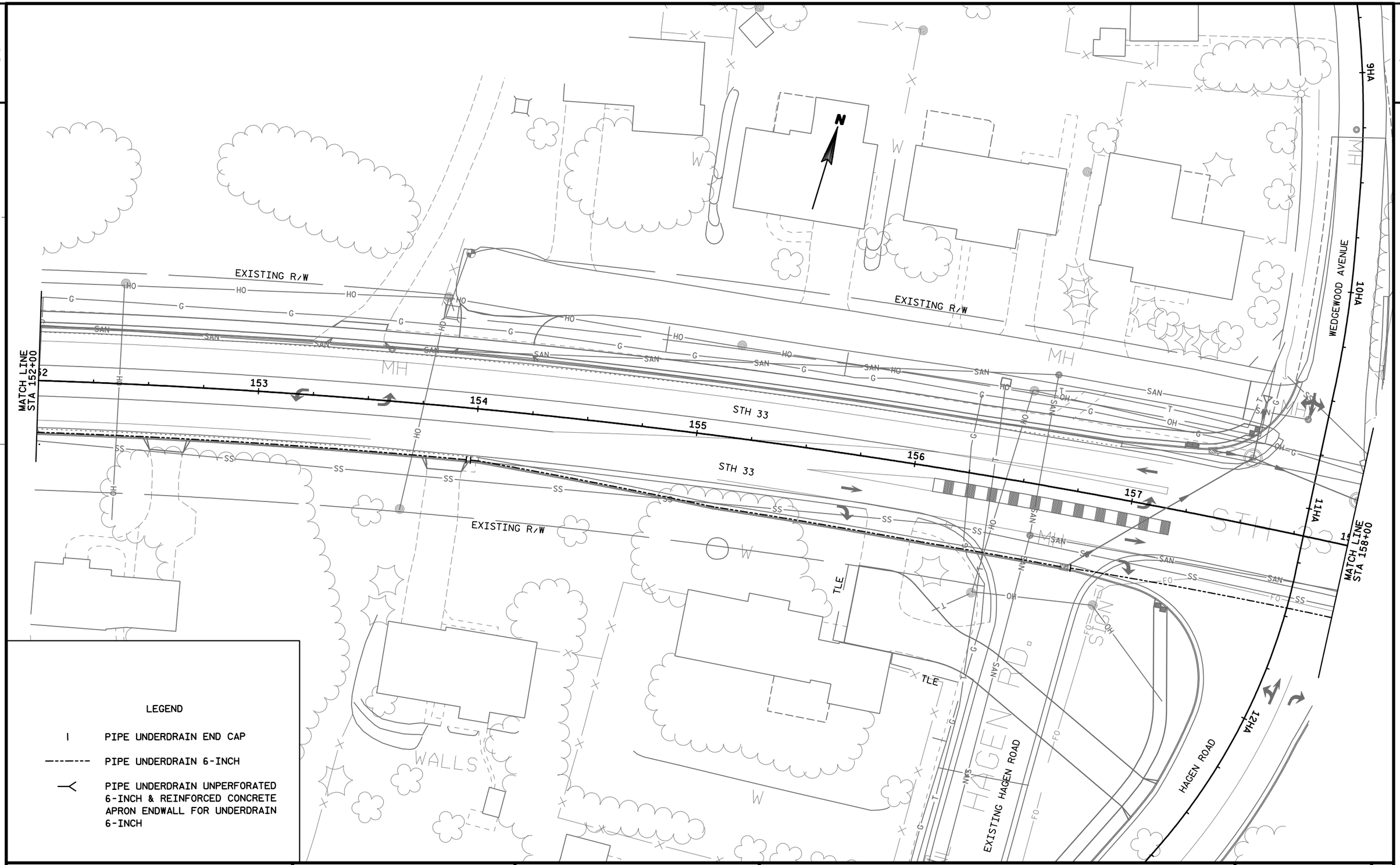
LEGEND

I	PIPE UNDERDRAIN END CAP
------	PIPE UNDERDRAIN 6-INCH
⊢	PIPE UNDERDRAIN UNPERFORATED 6-INCH & REINFORCED CONCRETE APRON ENDWALL FOR UNDERDRAIN 6-INCH

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PIPE UNDERDRAIN	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\Planshts\Underdrain\022602_pu.dgn PLOT DATE : 9/18/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2



LEGEND

I	PIPE UNDERDRAIN END CAP
-------	PIPE UNDERDRAIN 6-INCH
—≺	PIPE UNDERDRAIN UNPERFORATED 6-INCH & REINFORCED CONCRETE APRON ENDWALL FOR UNDERDRAIN 6-INCH

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PIPE UNDERDRAIN	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\underdrain\022603_pu.dgn PLOT DATE : 9/18/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

2

N

MATCH LINE STA 158+00

MATCH LINE STA 164+00

R/W

EXISTING R/W

TLE

STH 33

FOOTBRIDGE

SIGN

LEGEND

I	PIPE UNDERDRAIN END CAP
-------	PIPE UNDERDRAIN 6-INCH
—≺	PIPE UNDERDRAIN UNPERFORATED 6-INCH & REINFORCED CONCRETE APRON ENDWALL FOR UNDERDRAIN 6-INCH

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PIPE UNDERDRAIN	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\underdrain\022604_pu.dgn PLOT DATE : 9/18/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

2

N

EXISTING R/W

MATCH LINE STA 164+00

MATCH LINE STA 170+00

STH 33

STH 33

STH 33

EXISTING R/W

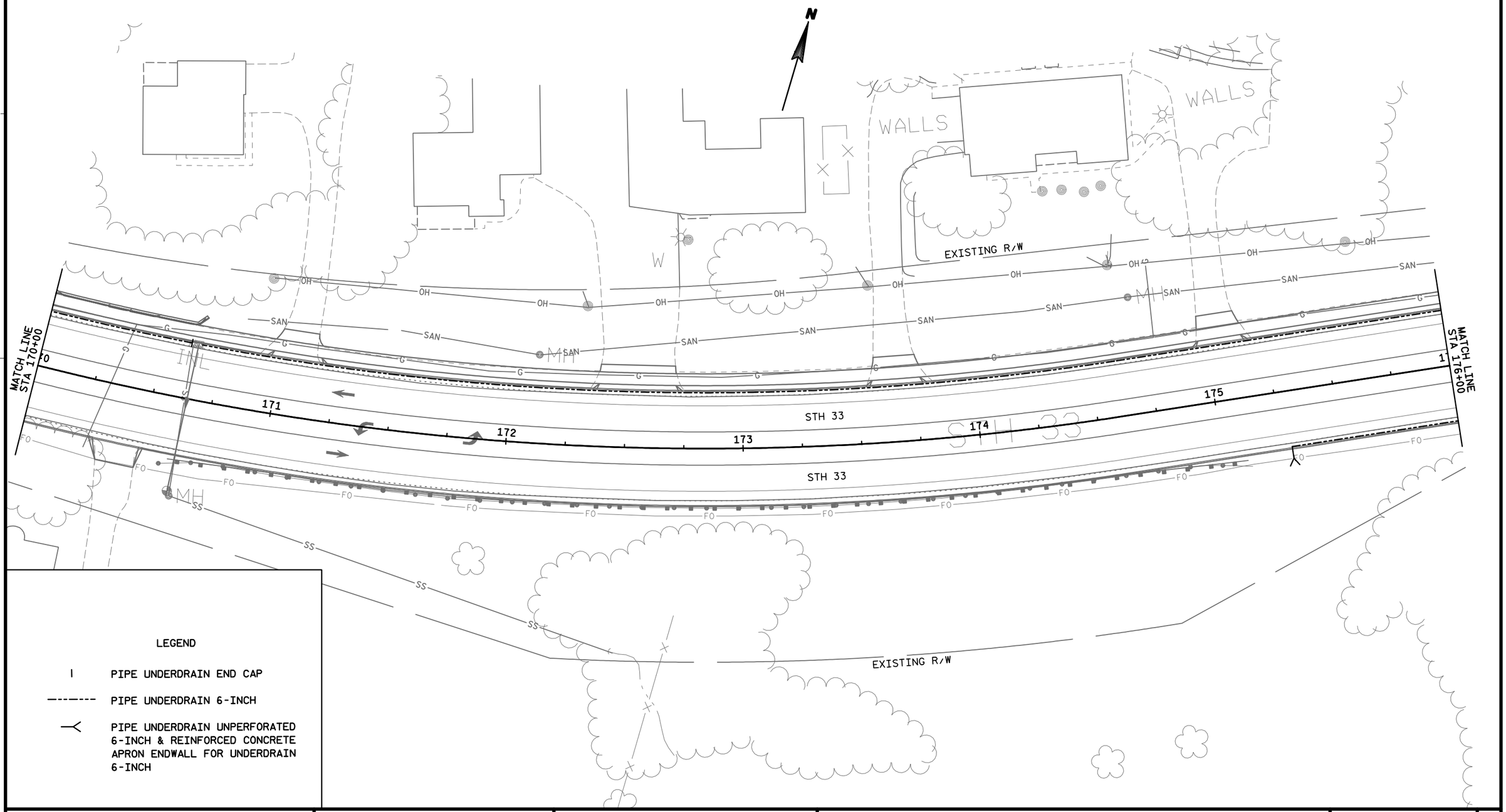
WALLS

LEGEND

I	PIPE UNDERDRAIN END CAP
-----	PIPE UNDERDRAIN 6-INCH
—≺	PIPE UNDERDRAIN UNPERFORATED 6-INCH & REINFORCED CONCRETE APRON ENDWALL FOR UNDERDRAIN 6-INCH

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PIPE UNDERDRAIN	SHEET 77 E

2

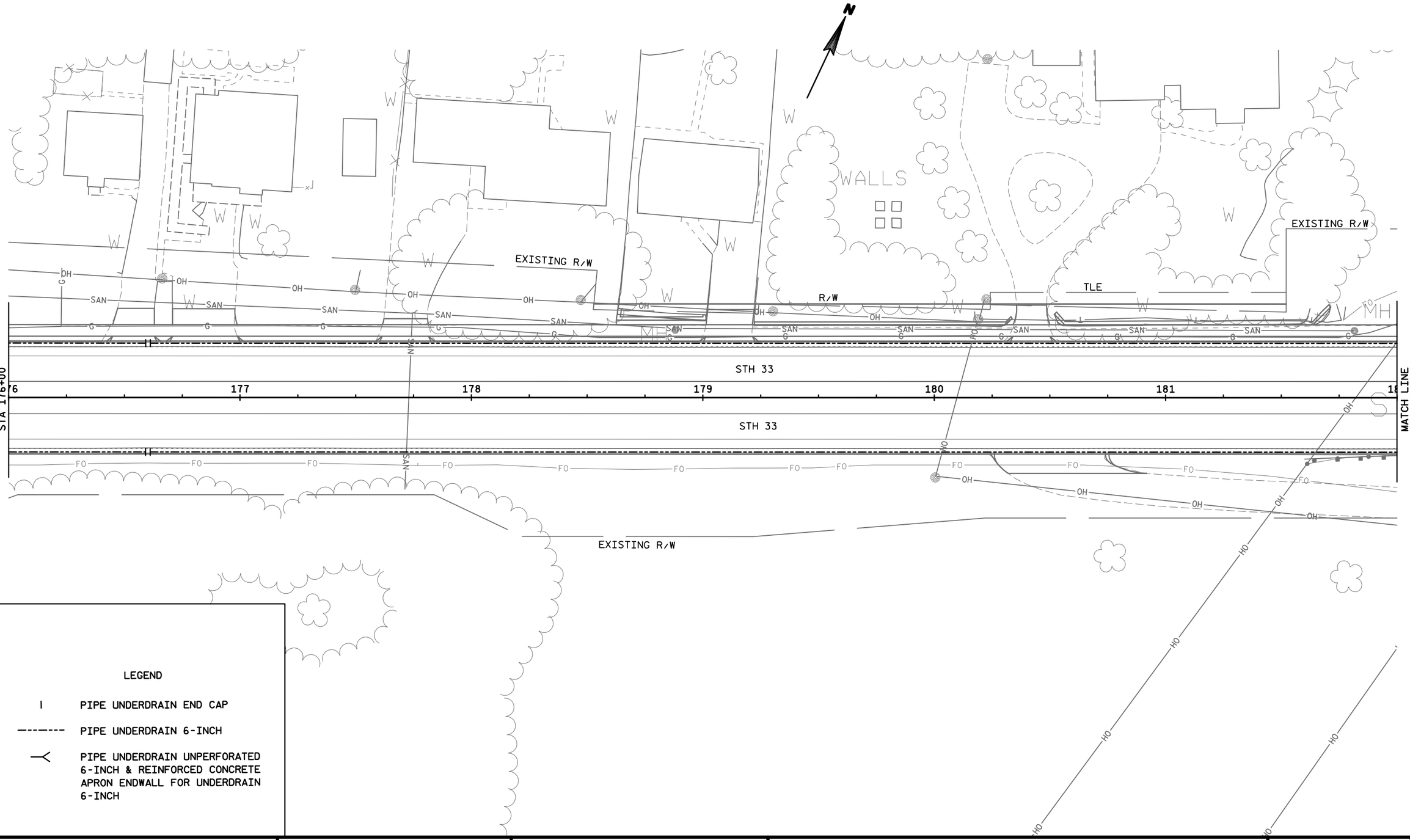


LEGEND

I	PIPE UNDERDRAIN END CAP
——-——-	PIPE UNDERDRAIN 6-INCH
—≺	PIPE UNDERDRAIN UNPERFORATED 6-INCH & REINFORCED CONCRETE APRON ENDWALL FOR UNDERDRAIN 6-INCH

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PIPE UNDERDRAIN	SHEET 78	E

2

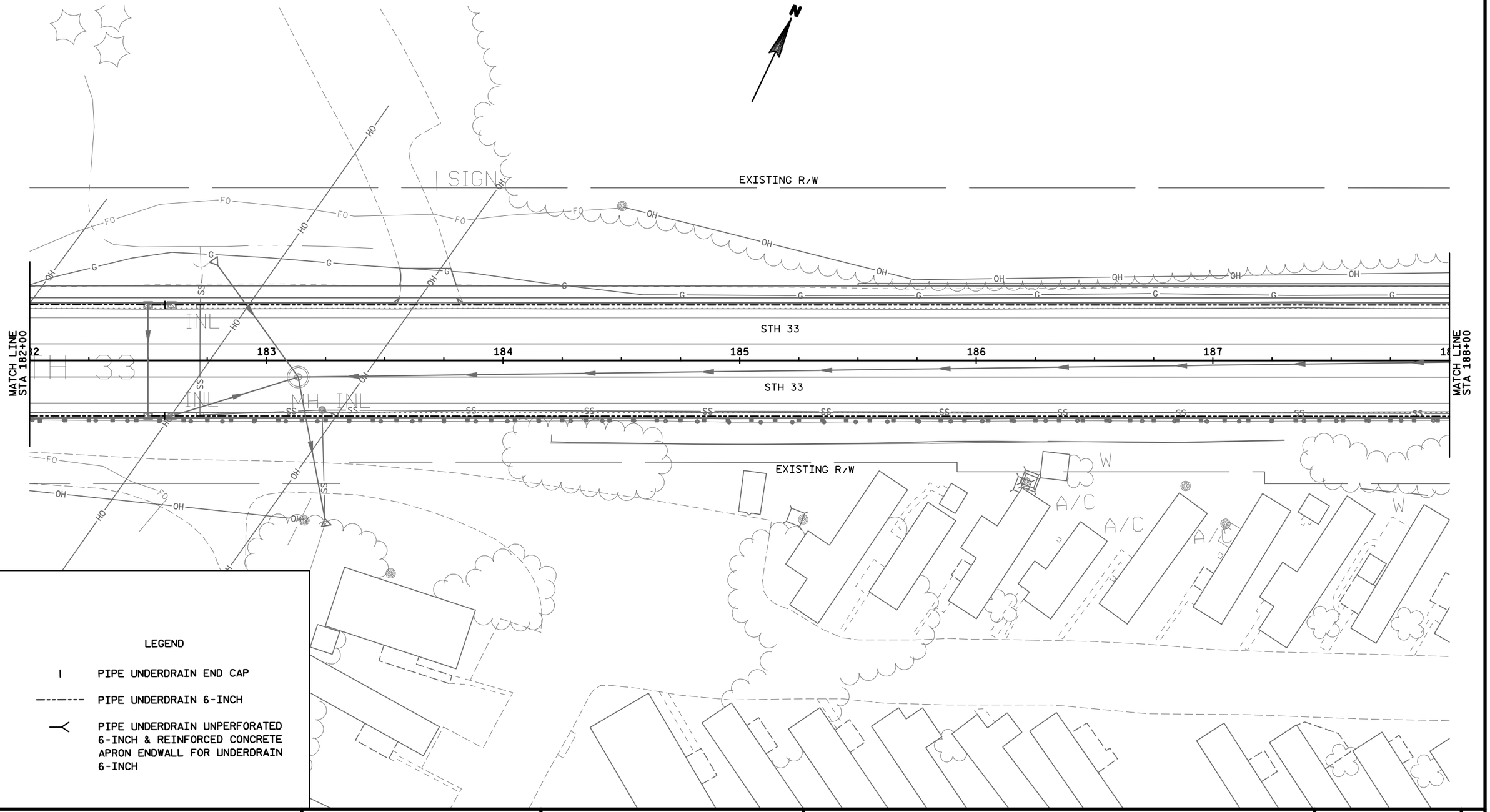


LEGEND

|	PIPE UNDERDRAIN END CAP
—---—	PIPE UNDERDRAIN 6-INCH
—<	PIPE UNDERDRAIN UNPERFORATED 6-INCH & REINFORCED CONCRETE APRON ENDWALL FOR UNDERDRAIN 6-INCH

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PIPE UNDERDRAIN	SHEET 79	E

2



LEGEND

I	PIPE UNDERDRAIN END CAP
----------	PIPE UNDERDRAIN 6-INCH
—≺	PIPE UNDERDRAIN UNPERFORATED 6-INCH & REINFORCED CONCRETE APRON ENDWALL FOR UNDERDRAIN 6-INCH

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PIPE UNDERDRAIN	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\underdrain\022608_pu.dgn PLOT DATE : 9/18/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

2

N

EXISTING R/W

OH

G

INL

SS

MATCH LINE
STA 188+00

STH 33

188

189

190

191

192

193

MATCH LINE
STA 194+00

W

A/C

EXISTING R/W

LEGEND

I	PIPE UNDERDRAIN END CAP
-------	PIPE UNDERDRAIN 6-INCH
—<	PIPE UNDERDRAIN UNPERFORATED 6-INCH & REINFORCED CONCRETE APRON ENDWALL FOR UNDERDRAIN 6-INCH

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PIPE UNDERDRAIN	SHEET 81	E

2

2

N

EXISTING R/W

STH 33

MATCH LINE
STA 194+00

MATCH LINE
STA 200+00

194

195

196

197

198

199

200

200+00SW

STH 33

EXISTING R/W

EXISTING R/W

LEGEND

I	PIPE UNDERDRAIN END CAP
-----------	PIPE UNDERDRAIN 6-INCH
—≺	PIPE UNDERDRAIN UNPERFORATED 6-INCH & REINFORCED CONCRETE APRON ENDWALL FOR UNDERDRAIN 6-INCH

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PIPE UNDERDRAIN	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\underdrain\022610_pu.dgn PLOT DATE : 9/18/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$
WISDOT/CADDS SHEET 42

2

WALLS

N

EXISTING R/W

MH

OH

SAN

G

W

X

INL

SS

STH 33

MATCH LINE STA 200+00

MATCH LINE STA 206+00

200

201

202

203

204

205

201+00SW

202+00SW

203+00SW

EXISTING R/W

EXISTING R/W

ELD

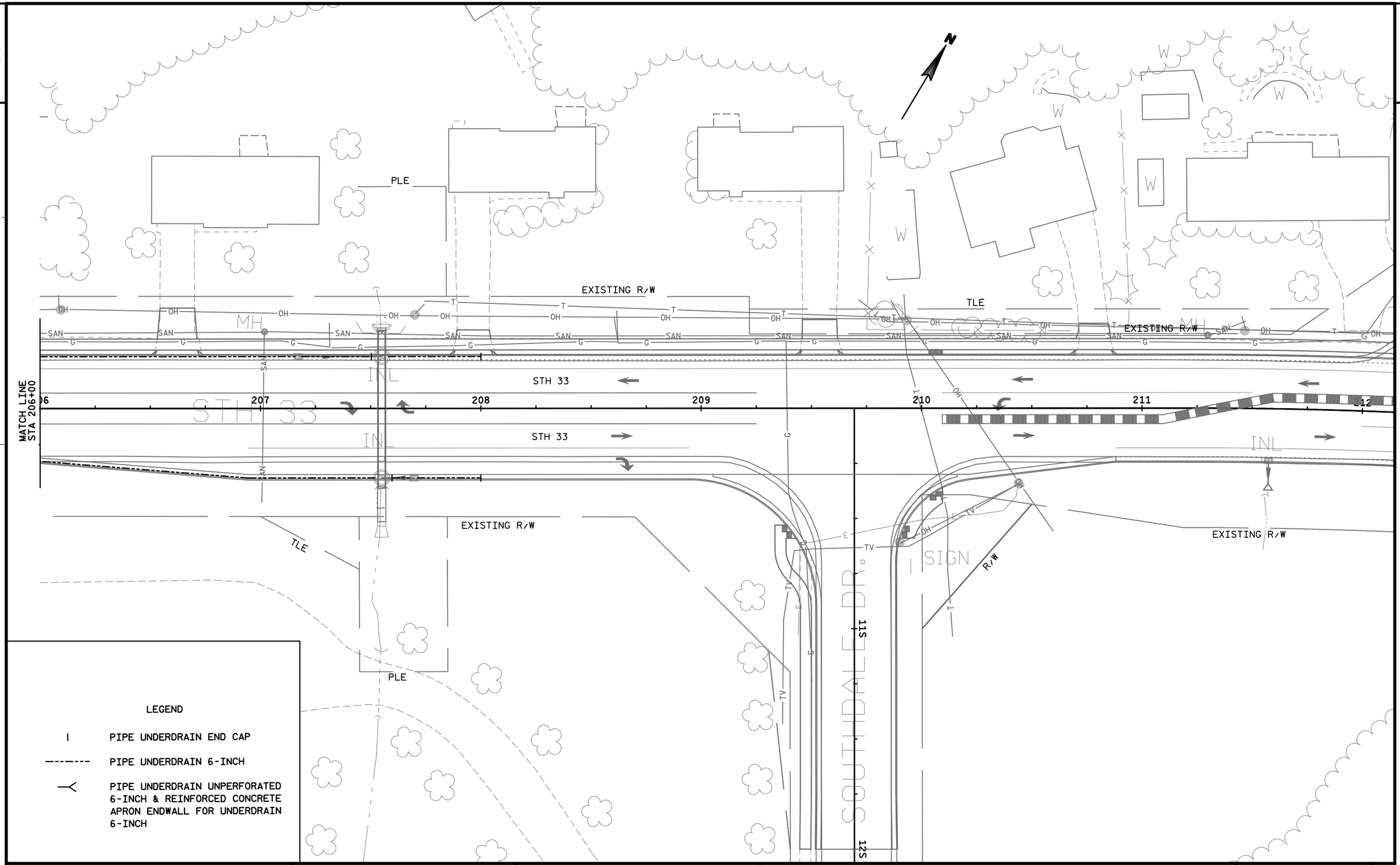
LEGEND

I	PIPE UNDERDRAIN END CAP
----------	PIPE UNDERDRAIN 6-INCH
—<	PIPE UNDERDRAIN UNPERFORATED 6-INCH & REINFORCED CONCRETE APRON ENDWALL FOR UNDERDRAIN 6-INCH

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PIPE UNDERDRAIN	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\underdrain\022611_pu.dgn PLOT DATE : 9/18/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PIPE UNDERDRAIN	SHEET 84	E

2

2

EXISTING R/W

N

SS

INL

INL

266

267

268

269

270

271

STH 33

MATCH LINE
STA 272+00

LEGEND

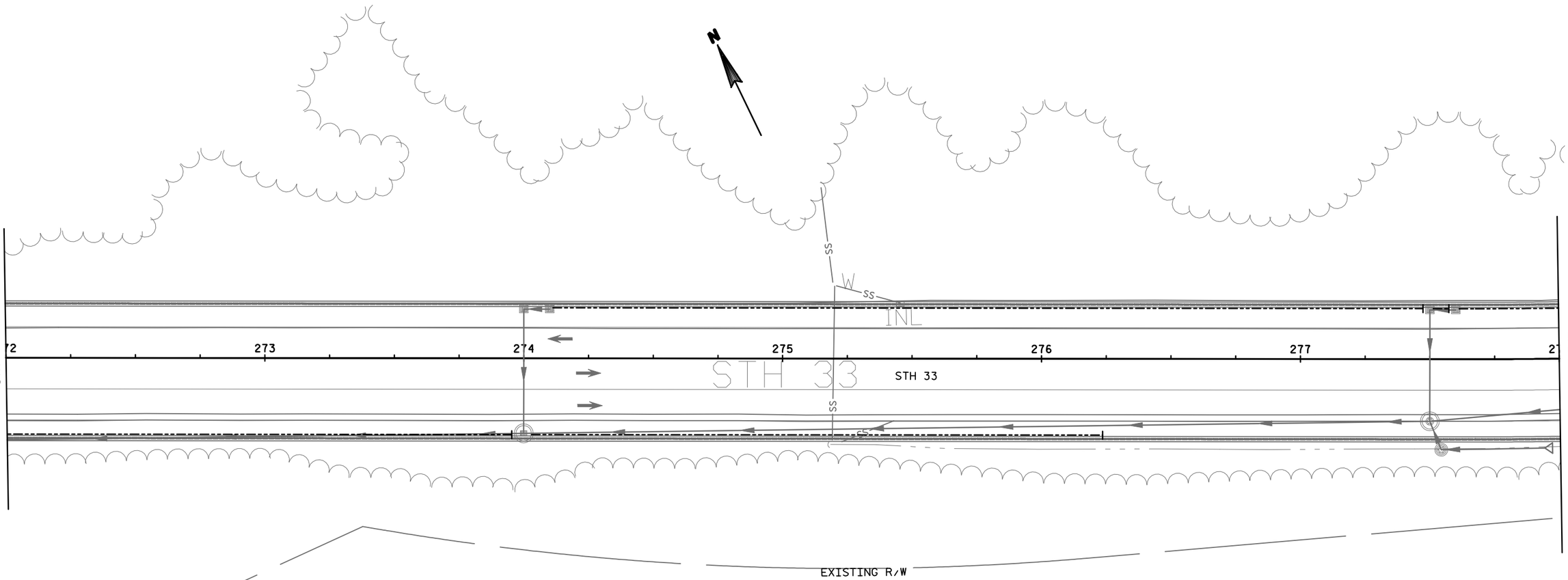
I	PIPE UNDERDRAIN END CAP
-------	PIPE UNDERDRAIN 6-INCH
—<	PIPE UNDERDRAIN UNPERFORATED 6-INCH & REINFORCED CONCRETE APRON ENDWALL FOR UNDERDRAIN 6-INCH

EXISTING R/W

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PIPE UNDERDRAIN	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\underdrain\022621_pu.dgn PLOT DATE : 9/18/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$
WISDOT/CADDS SHEET 42

2



LEGEND

I	PIPE UNDERDRAIN END CAP
—---—	PIPE UNDERDRAIN 6-INCH
—≺	PIPE UNDERDRAIN UNPERFORATED 6-INCH & REINFORCED CONCRETE APRON ENDWALL FOR UNDERDRAIN 6-INCH

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PIPE UNDERDRAIN	SHEET 86	E

2

2

N

MATCH LINE STA 278+00

MATCH LINE STA 284+00

278

279

280

281

282

283

INL

STH 33

STH 33

EXISTING R/W

EXISTING R/W

LEGEND

I	PIPE UNDERDRAIN END CAP
----------	PIPE UNDERDRAIN 6-INCH
—≺	PIPE UNDERDRAIN UNPERFORATED 6-INCH & REINFORCED CONCRETE APRON ENDWALL FOR UNDERDRAIN 6-INCH

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PIPE UNDERDRAIN	SHEET 87	E

2

2

N

EXISTING R/W

MATCH LINE
STA 284+00

MATCH LINE
STA 290+00

284

285

286

287

288

289

STH 33

INL

INL

SS

SS

EXISTING R/W

SIGN

EXISTING R/W

KNOBLOCH ROAD

KNOBLOCH

11K

12K

G

OH

T

HD

R/W

TLE

LEGEND

I	PIPE UNDERDRAIN END CAP
----------	PIPE UNDERDRAIN 6-INCH
—<	PIPE UNDERDRAIN UNPERFORATED 6-INCH & REINFORCED CONCRETE APRON ENDWALL FOR UNDERDRAIN 6-INCH

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PIPE UNDERDRAIN	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\underdrain\022624_pu.dgn PLOT DATE : 9/18/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

N

EXISTING R/W

MATCH LINE STA 290+00

291

292

293

STH 33

294

295

MATCH LINE STA 296+00

STH 33

EXISTING R/W

TLE

R/W

CTH F

1F

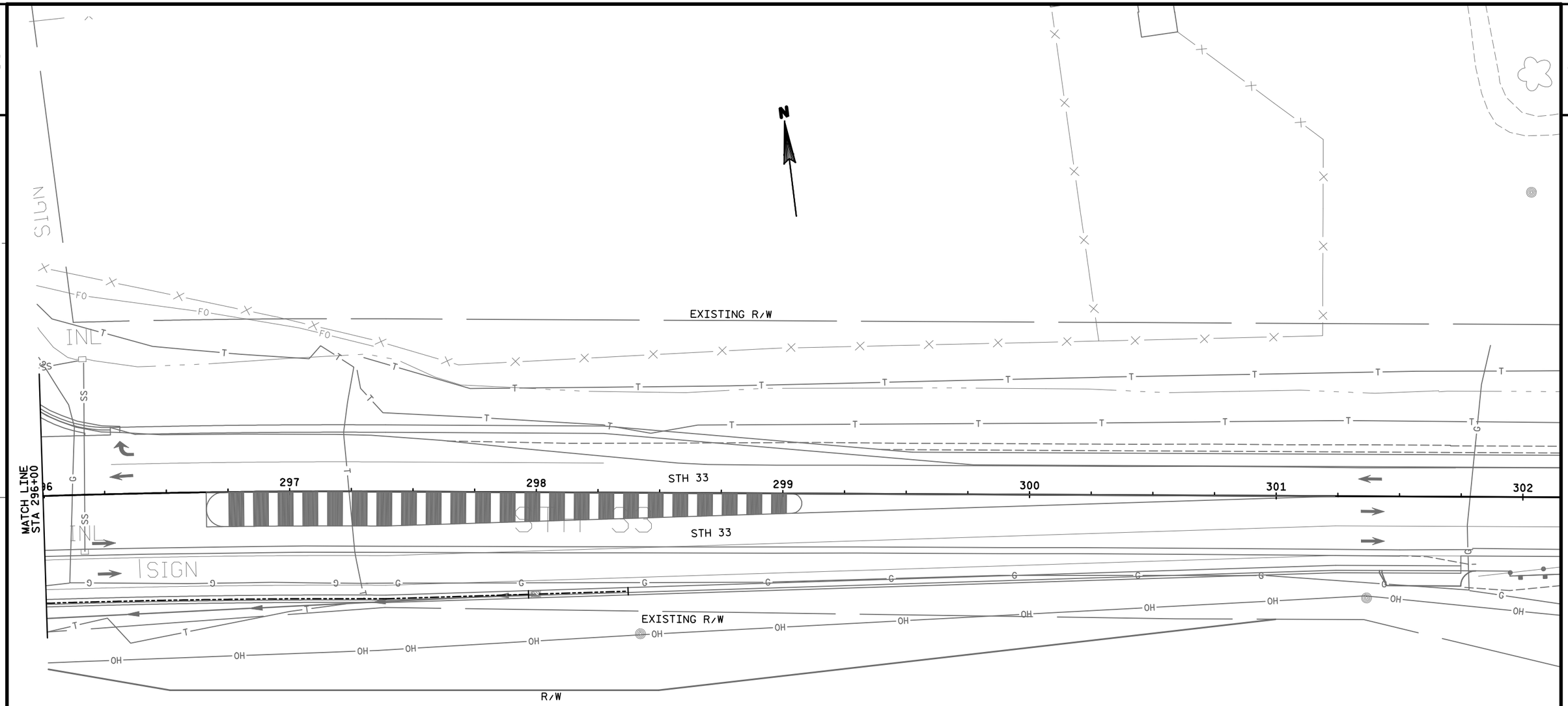
LEGEND

I	PIPE UNDERDRAIN END CAP
----------	PIPE UNDERDRAIN 6-INCH
—≺	PIPE UNDERDRAIN UNPERFORATED 6-INCH & REINFORCED CONCRETE APRON ENDWALL FOR UNDERDRAIN 6-INCH

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PIPE UNDERDRAIN	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\underdrain\022625_pu.dgn PLOT DATE : 9/18/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2



LEGEND

|	PIPE UNDERDRAIN END CAP
---|---	PIPE UNDERDRAIN 6-INCH
—≺	PIPE UNDERDRAIN UNPERFORATED 6-INCH & REINFORCED CONCRETE APRON ENDWALL FOR UNDERDRAIN 6-INCH

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PIPE UNDERDRAIN	SHEET 90	E

2

BEGIN PROJECT 5120-07-71
STA 132+50.00

EXISTING R/W

SLOPE INTERCEPTS

STH 33

MATCH LINE
STA 134+50

MATCH LINE
STA 140+50

SLOPE INTERCEPTS

EXISTING R/W

EXISTING R/W

SLOPE INTERCEPTS

STH 33

EXISTING R/W

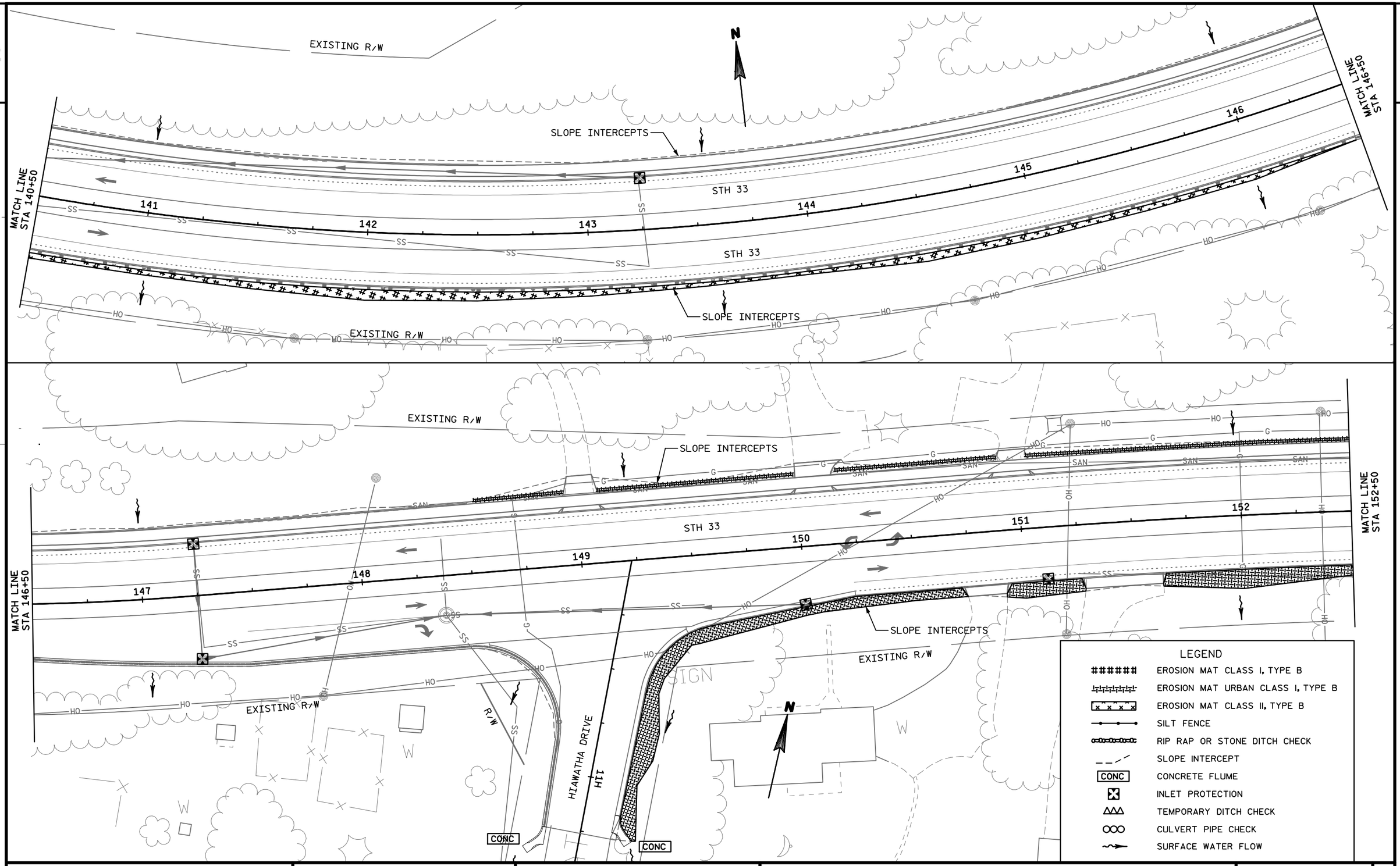
DRIVE-IN ROAD
1101

LEGEND

- ###### EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE B
- SILT FENCE
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- CONC CONCRETE FLUME
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\erosion control\022001_ec.dgn PLOT DATE : 9/18/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\erosion control\022002_ec.dgn PLOT DATE : 9/18/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N

EXISTING R/W

SLOPE INTERCEPTS

EXISTING R/W

STH 33

153 154 155 156 157 158

MATCH LINE STA 152+50

STH 33

EXISTING ROAD TO BE OBLITERATED TOPSOIL, SEED & FERTILIZE

SLOPE INTERCEPTS

EXISTING R/W

TLE

WEDGEWOOD DRIVE

10HA

11HA

EXISTING R/W

TLE

R/W

MATCH LINE STA 158+50

EXISTING ROAD TO BE OBLITERATED TOPSOIL, SEED & FERTILIZE

MATCH LINE STA 13+75HA

14HA

HAGEN ROAD

15HA

PAMMEL CREEK

EXISTING ROAD TO BE OBLITERATED TOPSOIL, SEED & FERTILIZE

EXISTING HAGEN ROAD

HAGEN ROAD

12HA

13HA

EXISTING R/W

R/W

MATCH LINE STA 13+75HA

LEGEND

######	EROSION MAT CLASS I, TYPE B
	EROSION MAT URBAN CLASS I, TYPE B
	EROSION MAT CLASS II, TYPE B
	SILT FENCE
	RIP RAP OR STONE DITCH CHECK
	SLOPE INTERCEPT
CONC	CONCRETE FLUME
	INLET PROTECTION
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	SURFACE WATER FLOW

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\erosion control\022003_ec.dgn PLOT DATE : 9/18/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2

STRUCTURE C-32-32
(SEE STRUCTURE PLANS)

SLOPE INTERCEPTS

TLE

R/W

PLE

EXISTING R/W

STH 33

MATCH LINE
STA 158+50

MATCH LINE
STA 164+50

153 160 161 162 163 164

SAN

FO

SS

OH

G

HO

W

MH

SIGN

FOOTBRIDGE

PAMMEL CREEK

N

LEGEND

######	EROSION MAT CLASS I, TYPE B
	EROSION MAT URBAN CLASS I, TYPE B
	EROSION MAT CLASS II, TYPE B
	SILT FENCE
	RIP RAP OR STONE DITCH CHECK
	SLOPE INTERCEPT
CONC	CONCRETE FLUME
	INLET PROTECTION
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	SURFACE WATER FLOW

RETAINING WALL R-32-52

MATCH LINE
STA 164+50

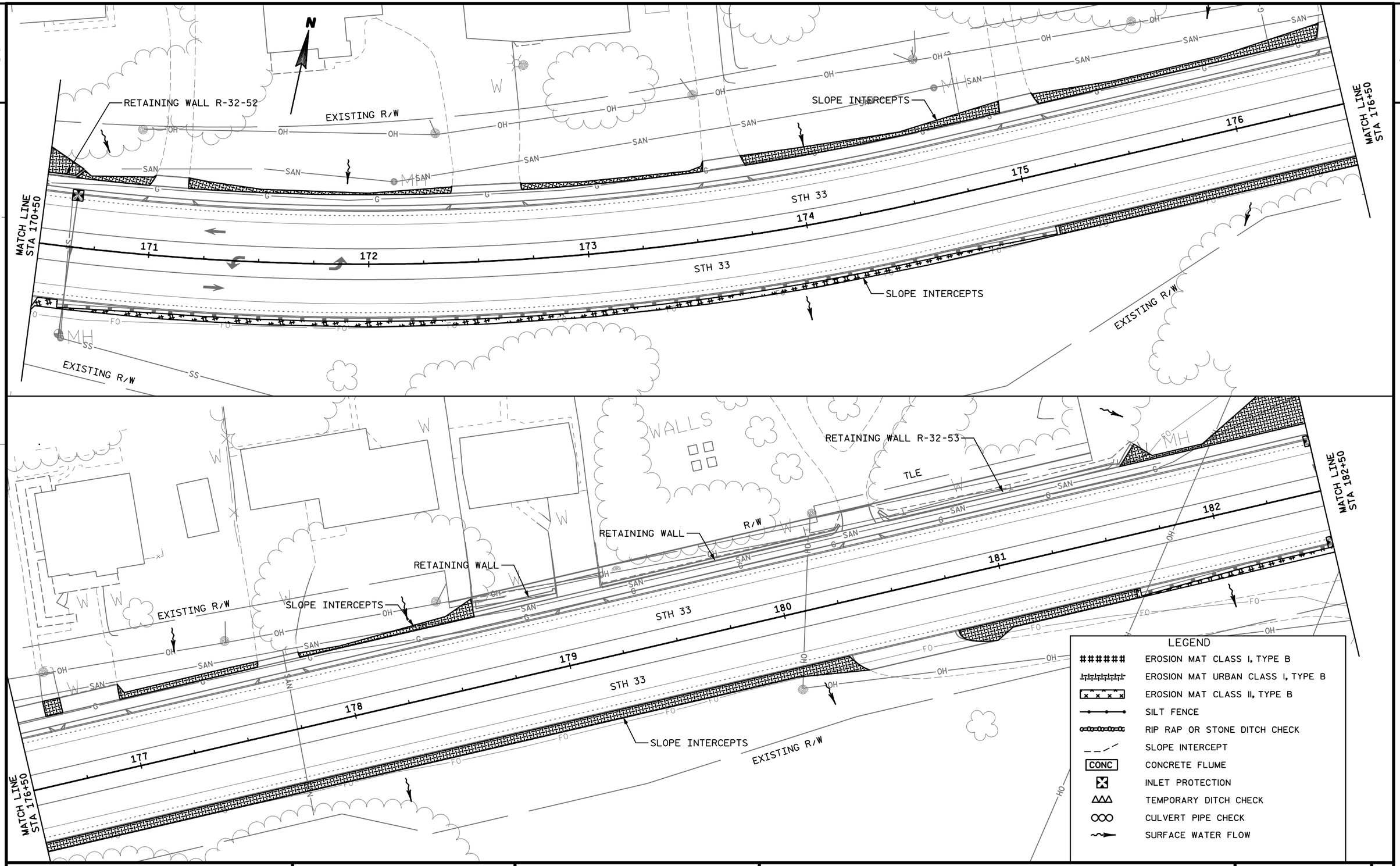
MATCH LINE
STA 170+50

165 166 167 168 169 170

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\erosion control\022004_ec.dgn PLOT DATE : 9/18/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

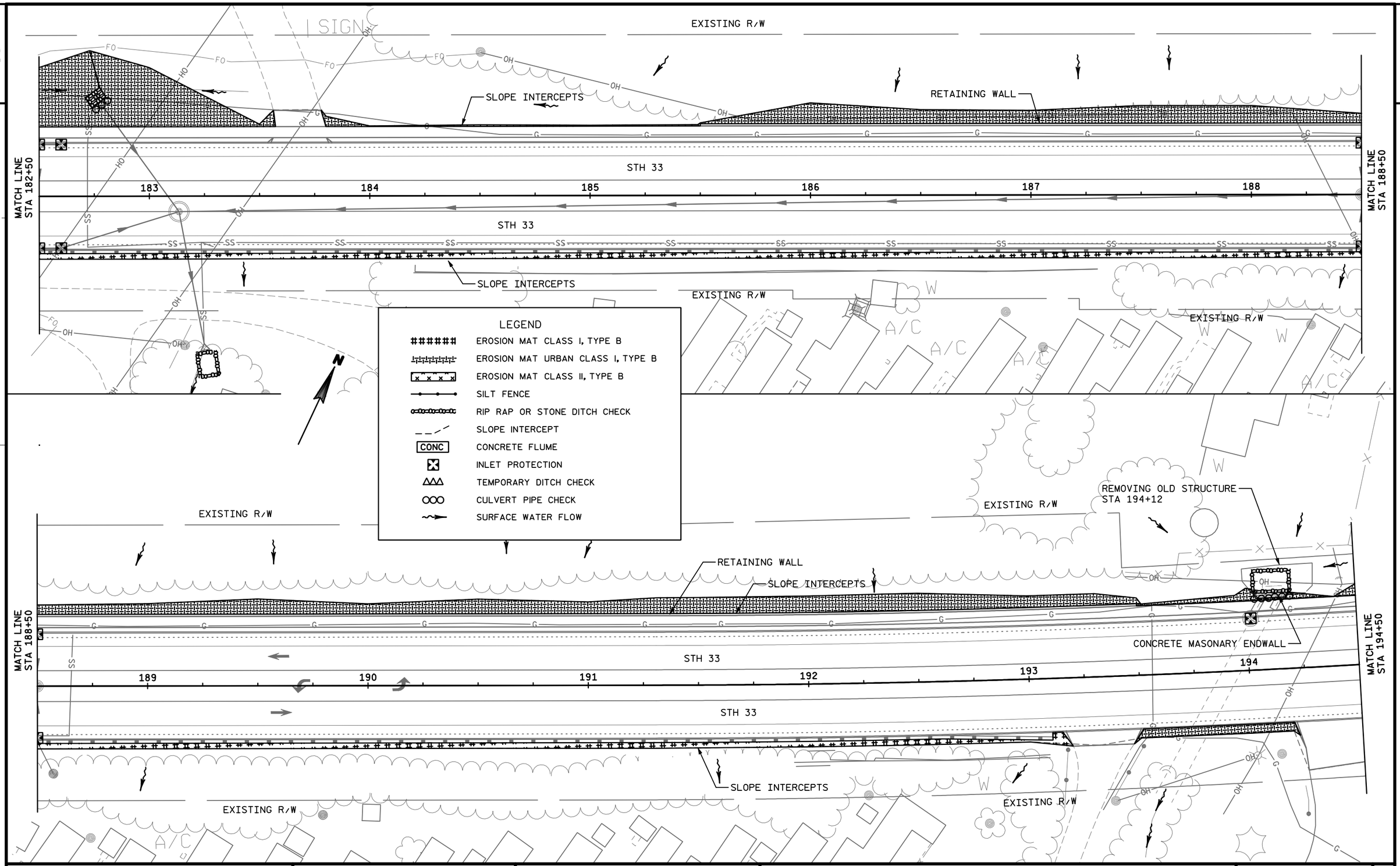


LEGEND

######	EROSION MAT CLASS I, TYPE B
	EROSION MAT URBAN CLASS I, TYPE B
	EROSION MAT CLASS II, TYPE B
	SILT FENCE
	RIP RAP OR STONE DITCH CHECK
	SLOPE INTERCEPT
CONC	CONCRETE FLUME
	INLET PROTECTION
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	SURFACE WATER FLOW

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\erosion control\022005_ec.dgn PLOT DATE : 9/18/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E

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2

MATCH LINE STA 194+50

EXISTING R/W

SLOPE INTERCEPTS

STH 33

195 196 197 198 199 200

STH 33

MATCH LINE STA 200+50

SLOPE INTERCEPTS

EXISTING R/W

200+00SW

EXISTING R/W

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE B
- SILT FENCE
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- CONC — CONCRETE FLUME
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

N

SLOPE INTERCEPTS

EXISTING R/W

MATCH LINE STA 200+50

STH 33

201 202 203 204 205 206

STH 33

MATCH LINE STA 206+50

SLOPE INTERCEPTS

EXISTING R/W

01+00SW 202+00SW 203+00SW

EXISTING R/W

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\erosion control\022007_ec.dgn PLOT DATE : 9/18/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

2

MATCH LINE STA 206+50

MATCH LINE STA 212+50

EXISTING R/W

TLE

SLOPE INTERCEPTS

EXISTING R/W

STH 33

207 208 209 210 211 212

STH 33

REMOVE EXISTING STRUCTURE

EXISTING R/W

TLE

207+50 75' RT

207+60 75' RT

EXISTING PLE

SOUTHDALE DRIVE

11S

12S

13S

EXISTING R/W

EXISTING R/W

SLOPE INTERCEPTS

EXISTING R/W

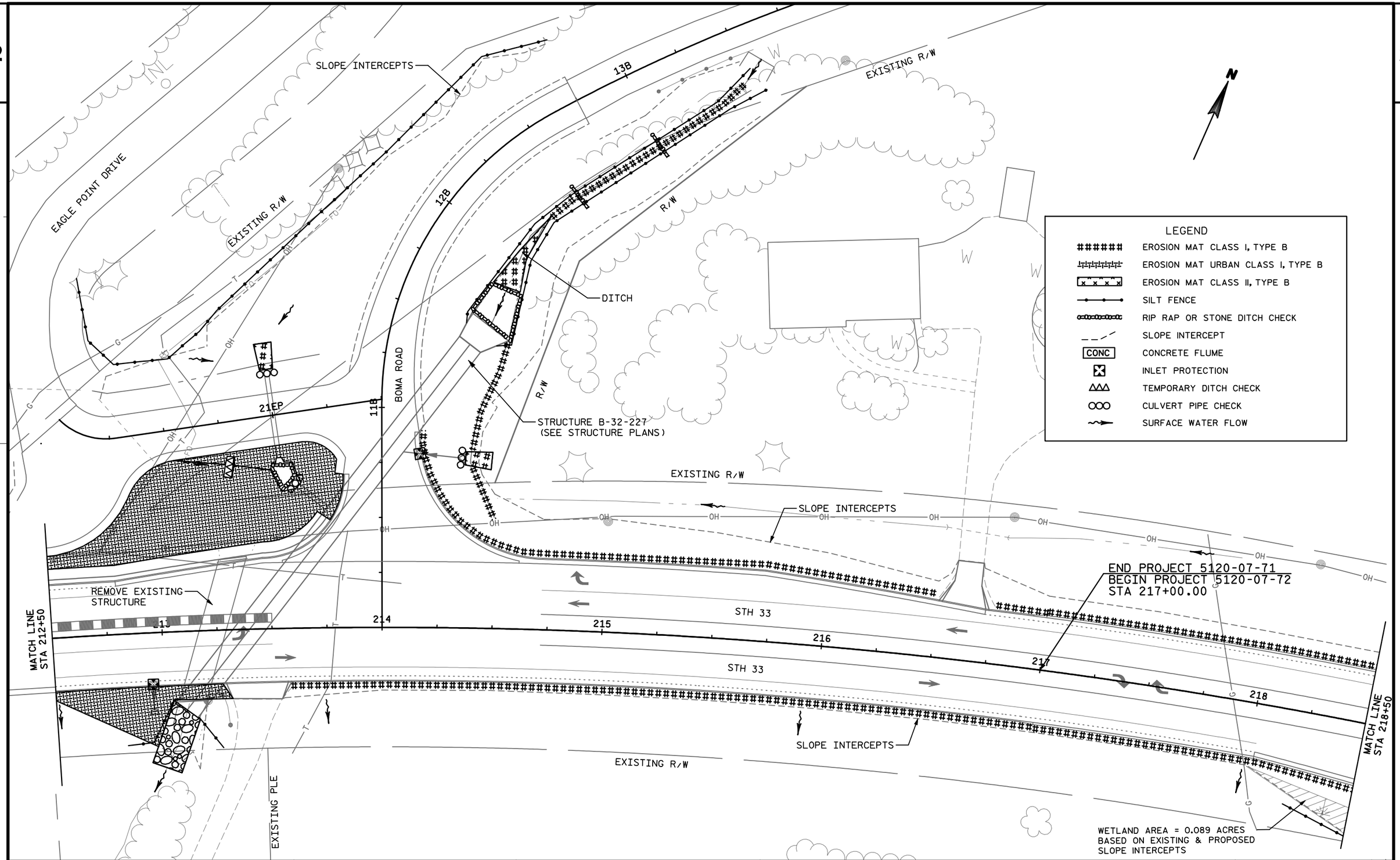
R/W

N

LEGEND

######	EROSION MAT CLASS I, TYPE B
	EROSION MAT URBAN CLASS I, TYPE B
	EROSION MAT CLASS II, TYPE B
	SILT FENCE
	RIP RAP OR STONE DITCH CHECK
	SLOPE INTERCEPT
CONC	CONCRETE FLUME
	INLET PROTECTION
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	SURFACE WATER FLOW

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	EROSION CONTROL	SHEET 98	E



PROJECT NO: 5120-07-71/72	HWY: STH 33	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E

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2

EXISTING R/W

OH

SLOPE INTERCEPTS

G

EXISTING R/W

MATCH LINE STA 218+50

219

220

221

222

223

224

MATCH LINE STA 224+50

STH 33

STH 33

STRUCTURE B-32-71
(SEE STRUCTURE PLANS)

EXISTING R/W

SLOPE INTERCEPTS

WETLAND AREA = 0.089 ACRES
BASED ON EXISTING & PROPOSED
SLOPE INTERCEPTS

SEE STRUCTURE PLANS
B-32-71 FOR OTHER
RIPRAP DETAILS

HEAVY RIPRAP WITH
GEOTEXTILE
FABRIC, TYPE HR

R/W

EXISTING PLE

PLE

12HO

SLOPE INTERCEPTS

RCHE APRON ENDWALL

HEAVY RIPRAP WITH GEOTEXTILE
FABRIC, TYPE HR

WETLAND AREA = 0.163 ACRES
BASED ON AN ELEVATION OF
754' & LOWER

MEDIUM RIPRAP WITH GEOTEXTILE
FABRIC, TYPE R

EXISTING R/W

R/W

N

STA 10+51HO
REMOVE EXISTING PIPE
1-36" X 62' CMP

PAMMEL CREEK

STA 10+82.59HO
1-43" X 68" X 63' CPRCHE CL HE-III
CONCRETE MASONRY ENDWALLS
INV (I) = 750.43
INV (E) = 750.15

STA 10+91.56HO
1-43" X 68" X 63' CPRCHE CL HE-III
CONCRETE MASONRY ENDWALLS
INV (I) = 750.43
INV (E) = 750.15

STA 11+00.64HO
1-43" X 68" X 63' CPRCHE CL HE-III
CONCRETE MASONRY ENDWALLS
INV (I) = 750.43
INV (E) = 750.15

EXISTING R/W

HORSESHOE PLACE

12HO

EXISTING R/W

STA 221+94
27' RT

STA 221+50
32' RT

45'

17'

STA 222+10
35' RT

HEAVY RIPRAP WITH
GEOTEXTILE FABRIC,
TYPE HR

STA 222+20
53' RT

STA 221+22
60' RT

45'

STA 221+11
69' RT

MEDIUM RIPRAP WITH
GEOTEXTILE FABRIC,
TYPE R

46'

42'

STA 222+05
93' RT

25'

65'

STA 221+79
100' RT

STA 221+89
112' RT

STA 221+13
120' RT

RIPRAP AREAS

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE B
- SILT FENCE
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- CONC — CONCRETE FLUME
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	EROSION CONTROL	SHEET 100	E

2

EXISTING R/W

EXISTING R/W

12I

11I

IRISH COURT

R/W

R/W

DITCH

TILE

POOL

A/C

N

EXISTING R/W

SLOPE INTERCEPTS

MATCH LINE STA 224+50

MATCH LINE STA 230+50

225 226 227 228 229 STH 33 230

STH 33

SLOPE INTERCEPTS

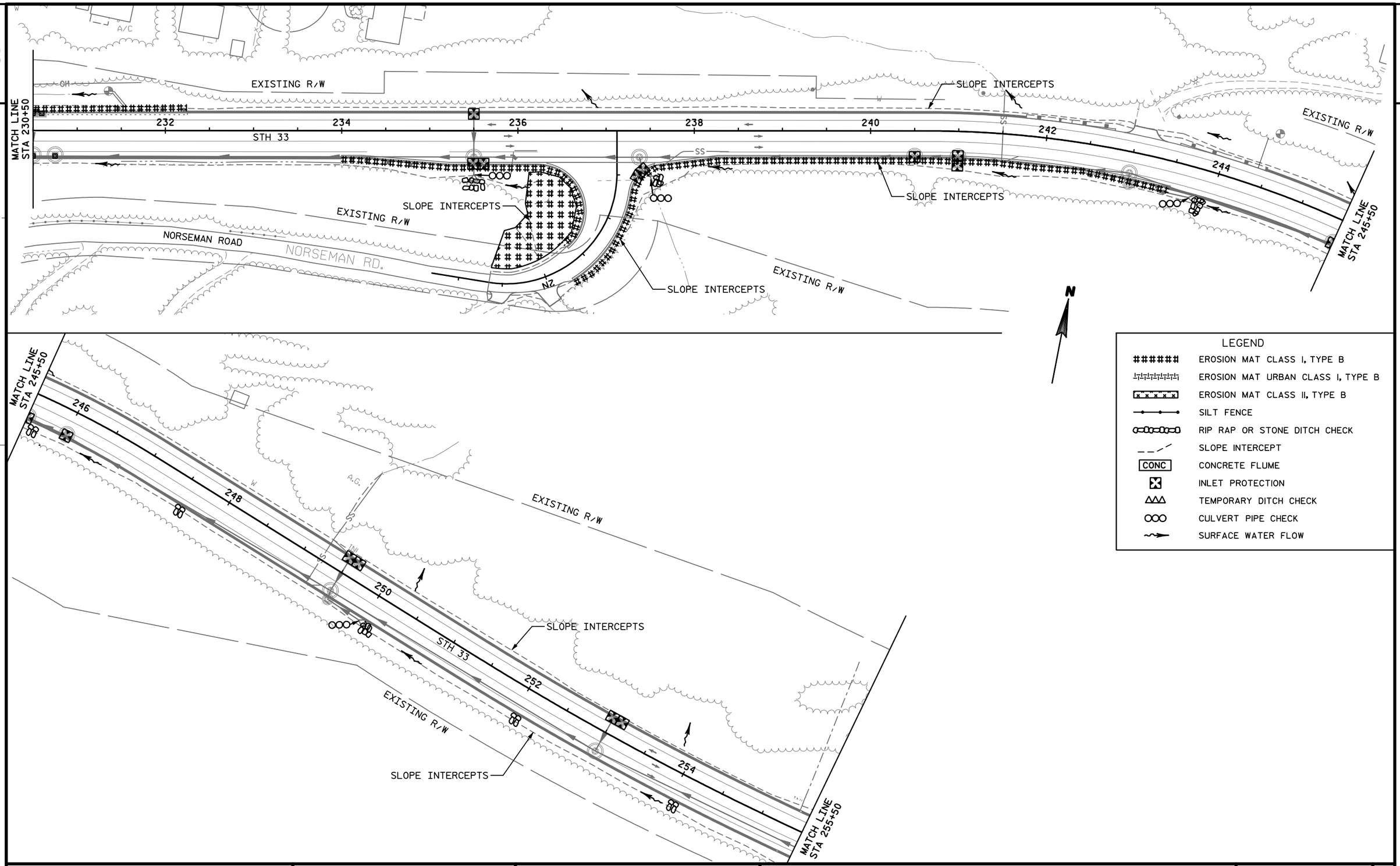
A.G.

EXISTING R/W

LEGEND

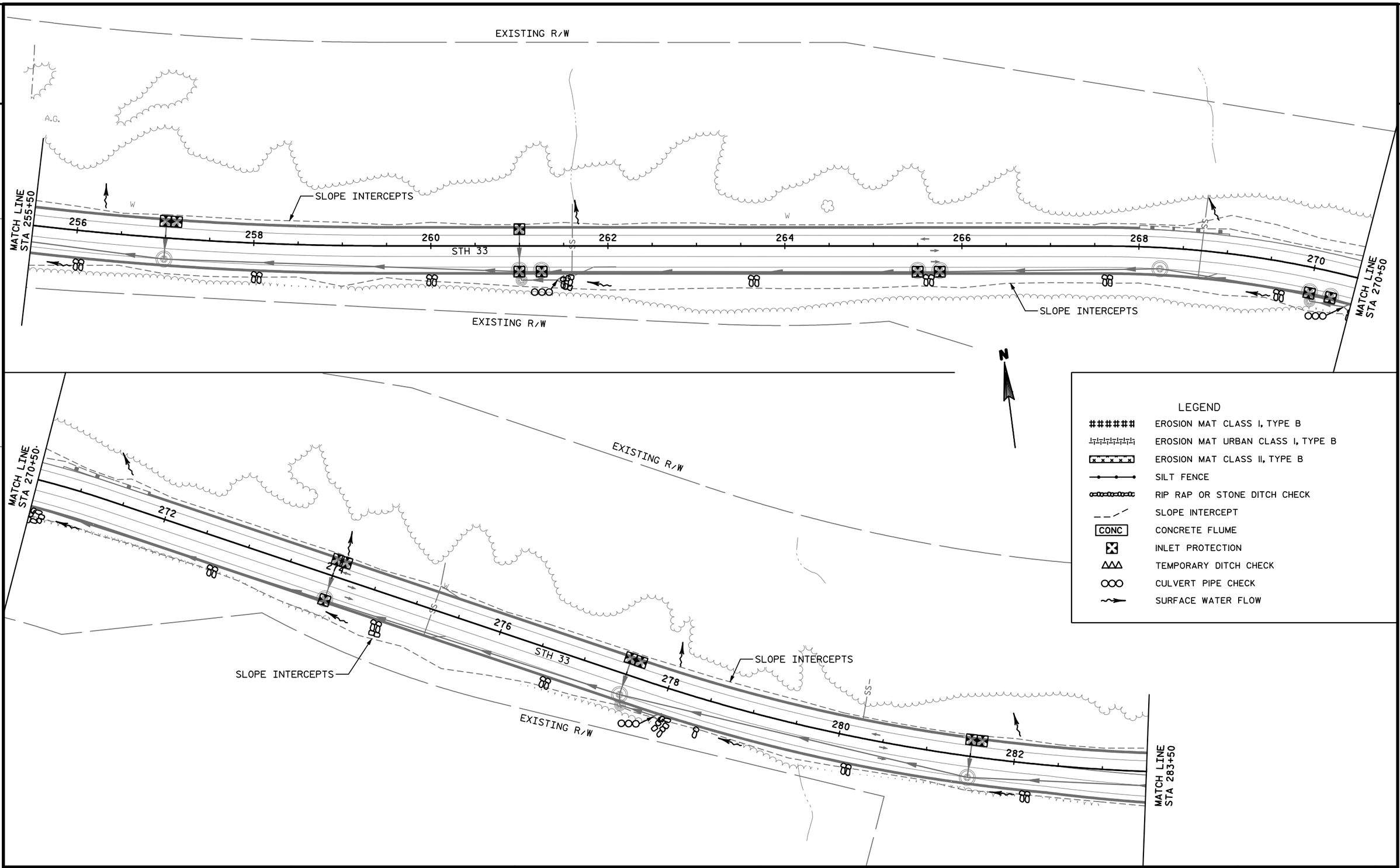
- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE B
- SILT FENCE
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- CONC — CONCRETE FLUME
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	EROSION CONTROL	SHEET 101	E



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	EROSION CONTROL	SHEET 102	E

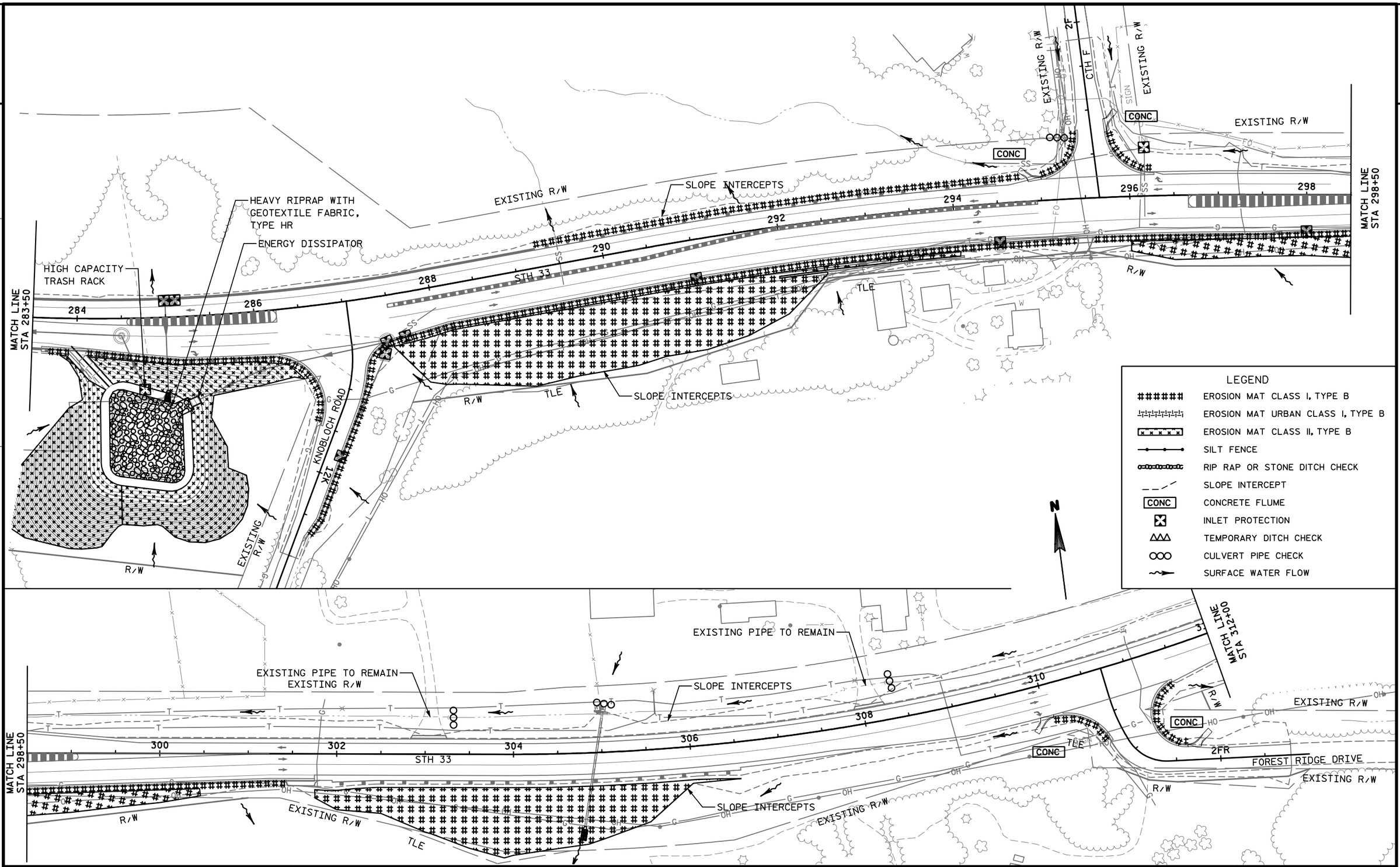
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2

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	EROSION CONTROL	SHEET 103	E

2



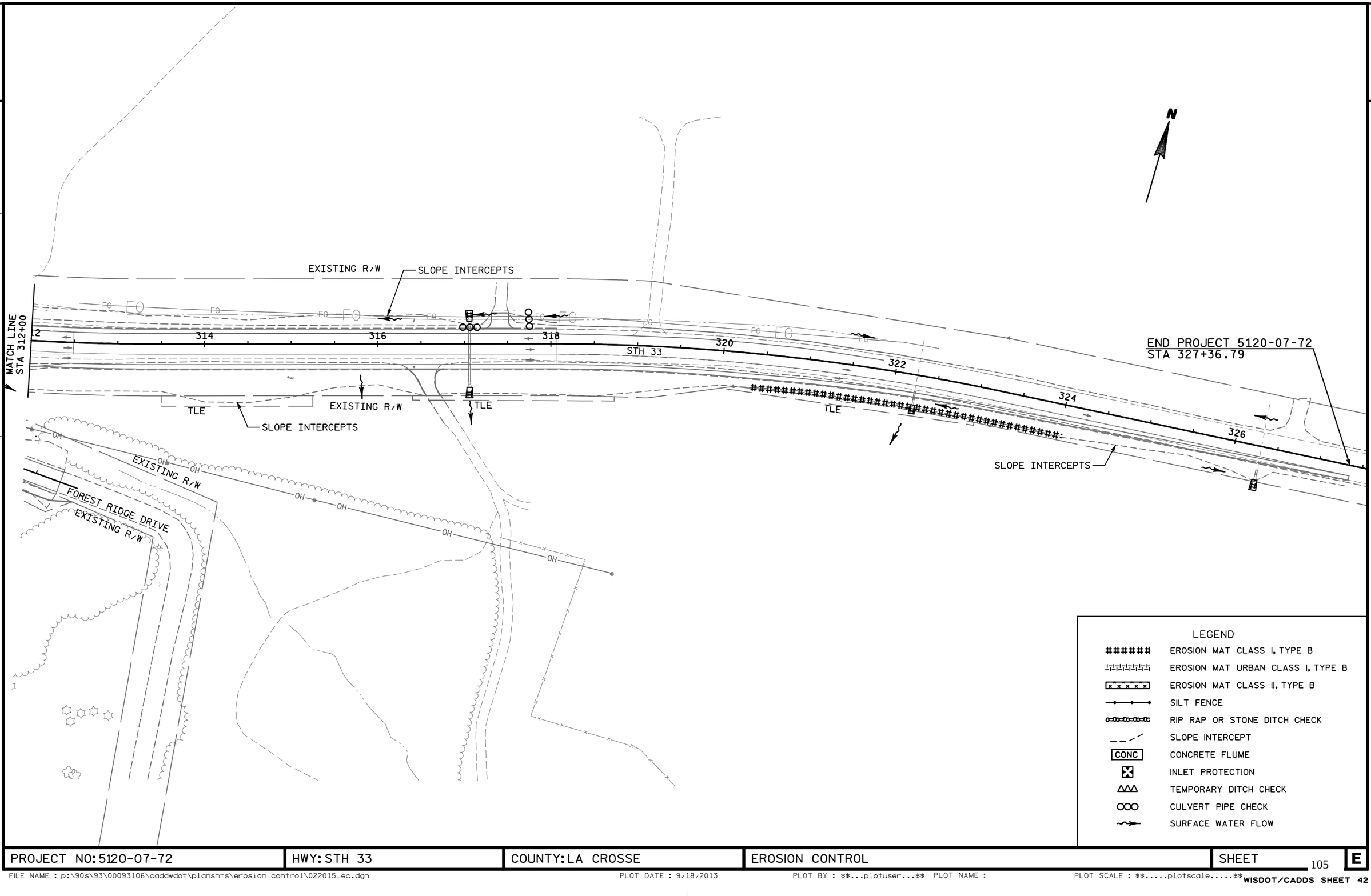
LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE B
- SILT FENCE
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- CONCRETE FLUME
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E

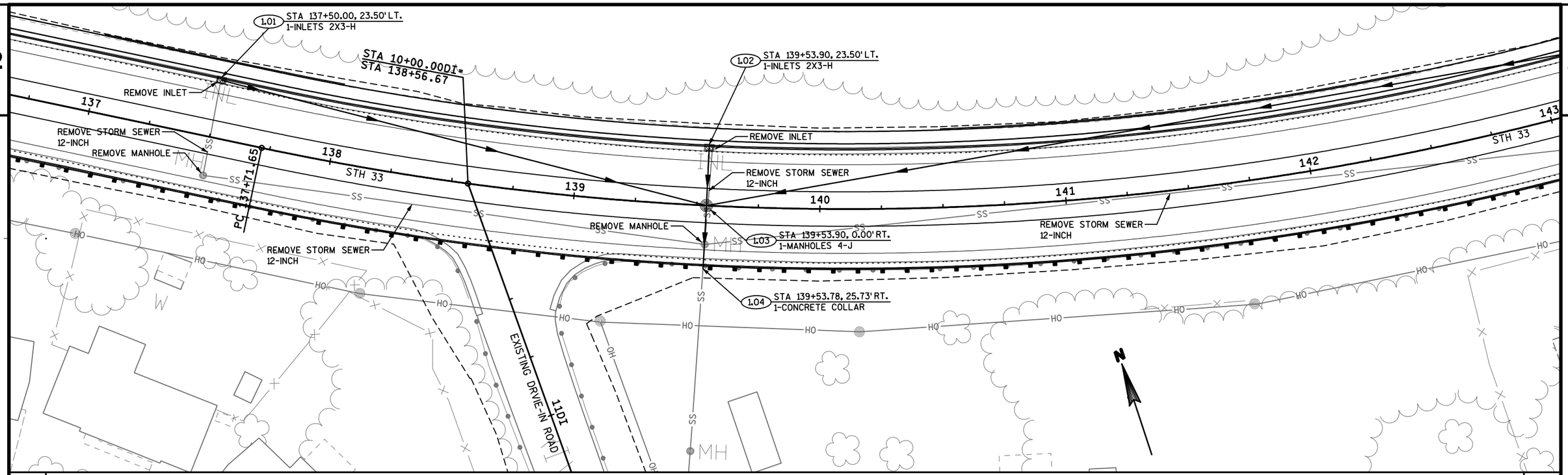
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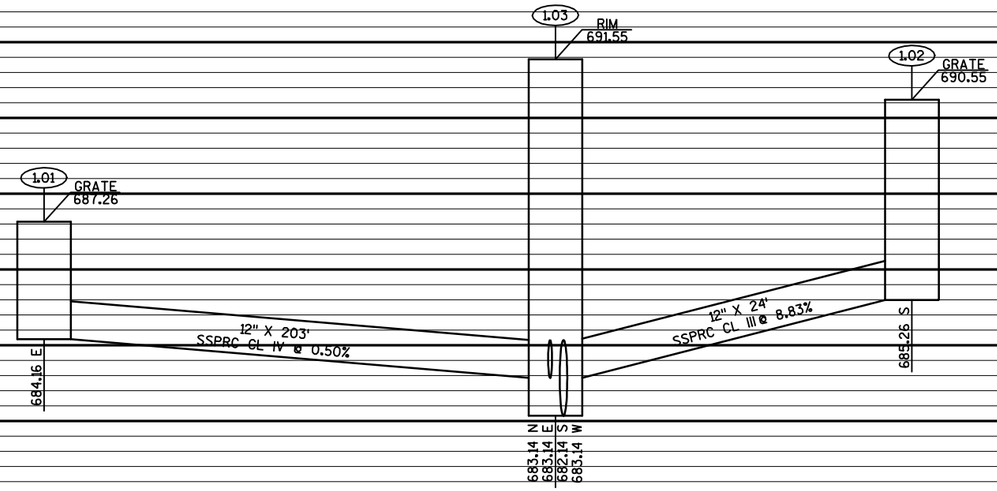
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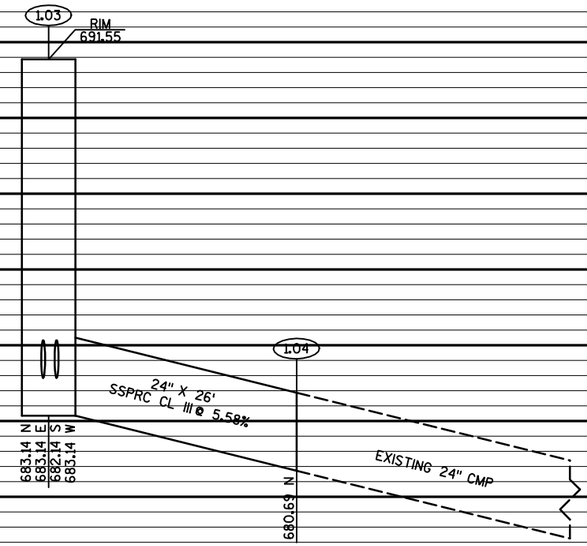


PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E

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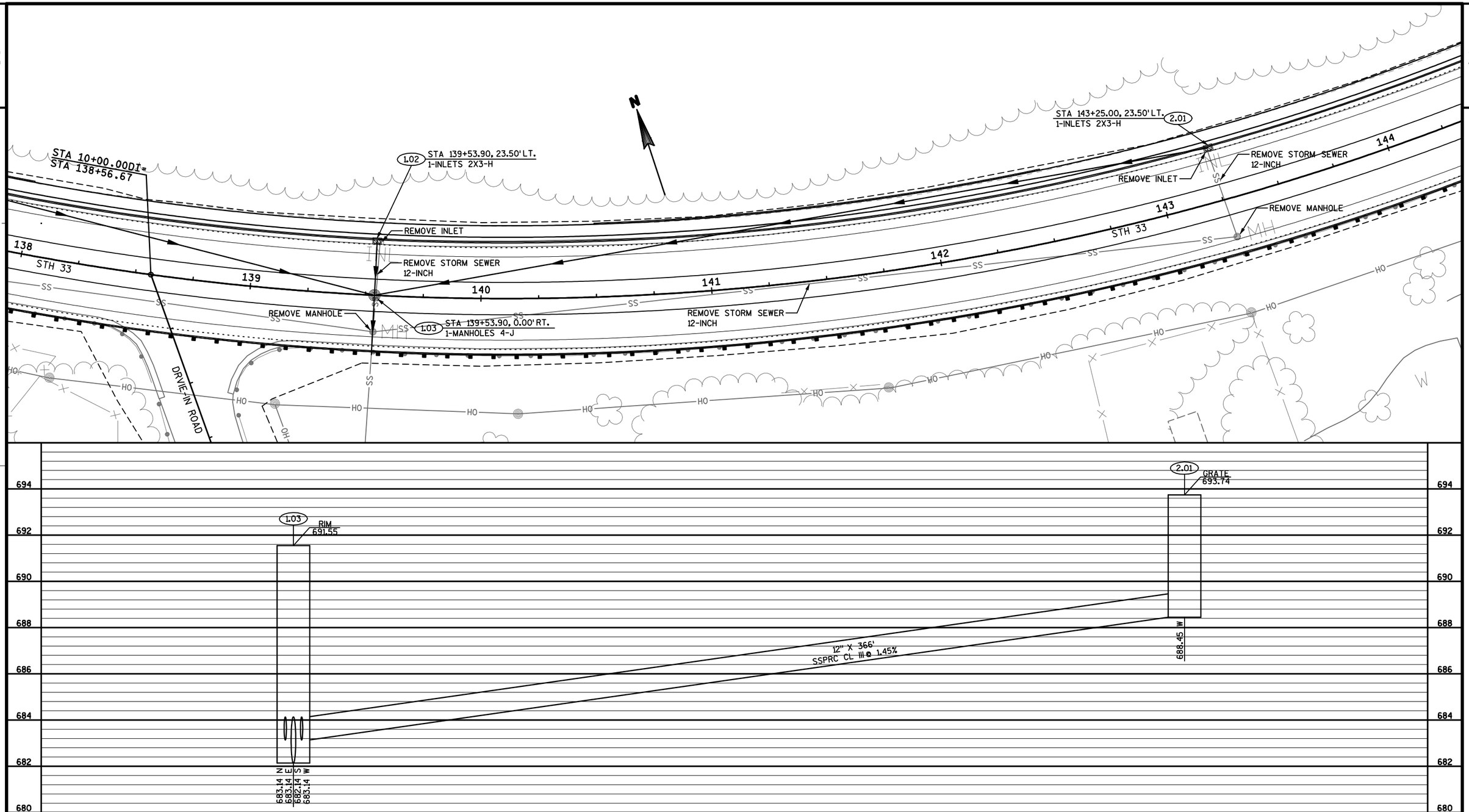


694 692 690 688 686 684 682 680 678 676

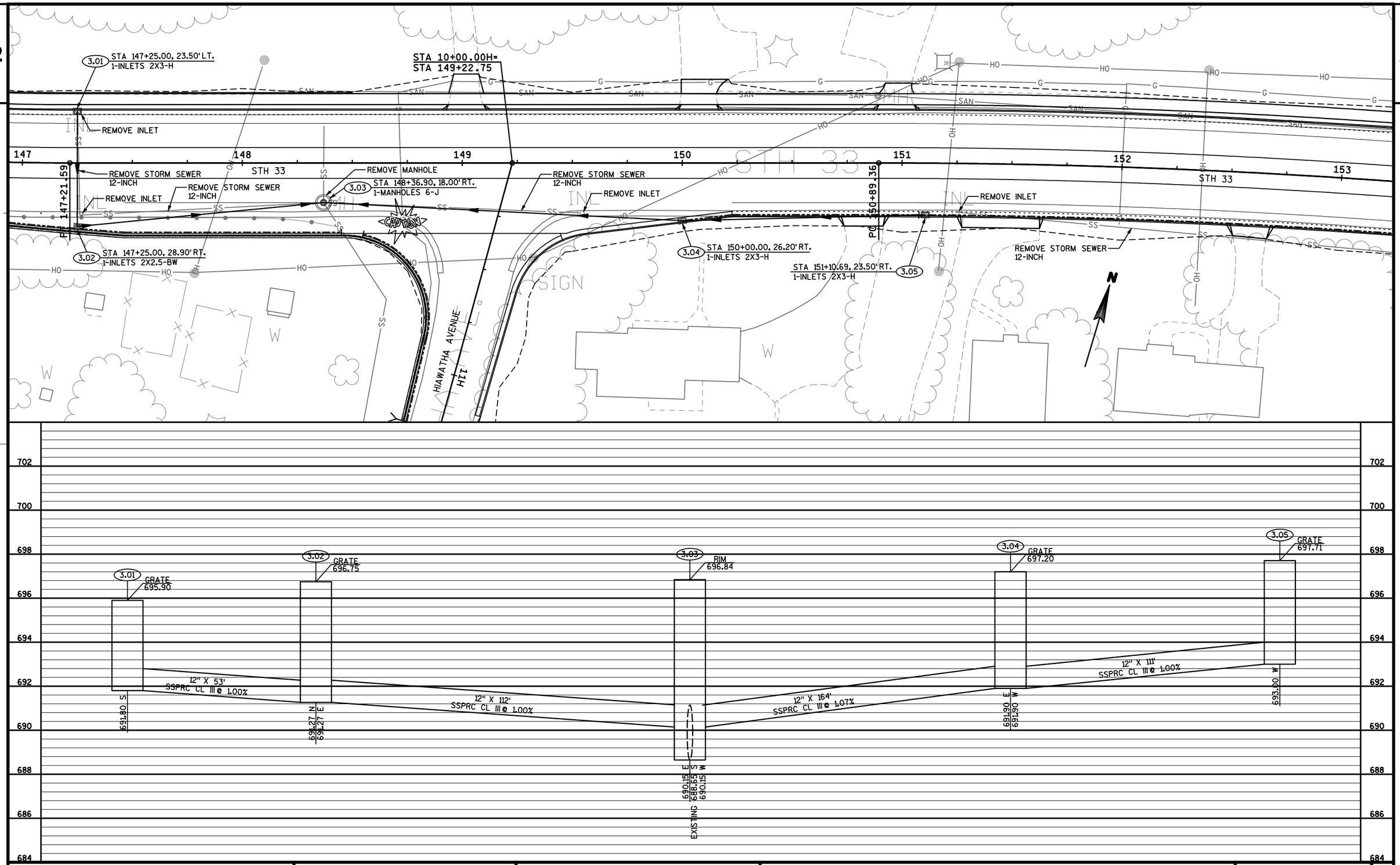
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Storm Sewer\022501_ss.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 107 E



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 108 E

2

REMOVE STORM SEWER
18 X 29-INCH

4.09 STA 10+33.00 HA, 27.20'LT.
1-RC APRON ENDWALL
1-PIPE GRATE

STA 10+57.10 HA, 29.10'RT. 4.07
1-RCHE APRON ENDWALL
1-PIPE GRATE

PT 10+44.61HA

WEDGEWOOD DRIVE

REMOVE STORM SEWER
15-INCH

REMOVE STORM SEWER
12-INCH

REMOVE MANHOLE

STA 159+72.80, 24.90'LT. 4.13
1-INLETS 2X3-H

STA 157+50.00, 30.00'LT. 4.02
1-MANHOLES 7-J

4.12 STA 159+85.00, 24.60'LT.
1-INLETS 2X3-H

STRUCTURE C-32-32
(SEE STRUCTURE PLANS)

REMOVE INLET

BACKFILL CONTROLLED LOW STRENGTH
STORM SEWER 24-INCH

REMOVE INLET

STA 157+31.60, 29.70'LT. 4.08
1-INLETS 2X3-H

11HA

158

157

156

159

160

161

4.03 STA 158+00.00, 21.00'LT.
1-MANHOLES 5-J

4.04 STA 159+85.00, 3.60'RT.
1-MANHOLES 6-J

STH 33

PC 11+29.05HA

REMOVE INLET

REMOVE INLET

REMOVE INLET

4.05 STA 160+71.90, 33.50'RT.
1-MANHOLES 5-J

REMOVE INLET

REMOVE STORM SEWER
18-INCH

REMOVE MANHOLE

11+12.67HA=
157+79.44

REMOVE
MANHOLE

4.10 STA 159+85.00, 27.00'RT.
1-INLETS 2X3-H

REMOVE MANHOLE

REMOVE STORM SEWER
30-INCH

STA 159+68.10, 26.90'RT. 4.11
1-INLETS 2X3-H

REMOVE STORM SEWER
30-INCH

REMOVE STORM SEWER
30-INCH

STA 161+05.96, 50.98'RT. 4.06
SET OUTFALL IN NEW
HOLE IN WING WALL

4.01 STA 156+75.00, 35.00'RT.
1-INLETS 2X3-H

HAGEN ROAD

12TH

FOOTBE

4.01 GRATE
697.92

4.02 RIM
699.02

4.03 RIM
698.30

4.04 RIM
696.81

4.05 RIM
695.48

4.06

12" X 99'
SSPRC CL III @ 0.50%

24" X 51'
SSPRC CL III @ 2.41%

30" X 187'
SSPRC CL III @ 2.39%

30" X 91'
SSPRC CL III @ 2.41%

30" X 38'
SSPRC CL III @ 2.43%

692.63 N

691.55 N
691.13 E
692.13 S
692.13 W

690.65 N
690.40 E
690.90 W

686.43 N
684.93 E
686.43 S
684.93 W

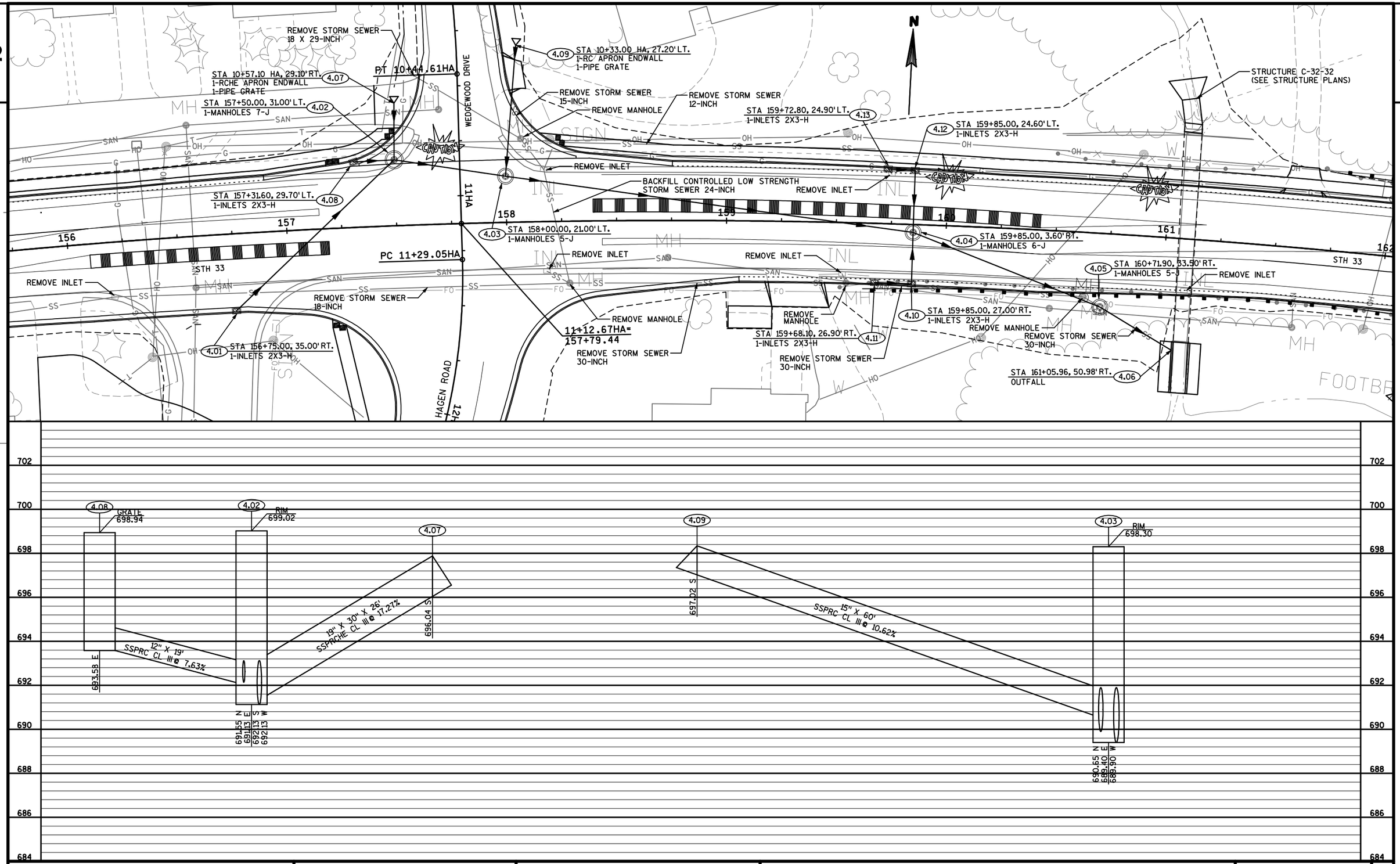
682.73 E
682.73 W

681.81 W

698
696
694
692
690
688
686
684
682
680

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 109 E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Storm Sewer\022505a_ss.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 41



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Storm Sewer\022505b_ss.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$
WISDOT/CADDS SHEET 41

2

REMOVE STORM SEWER
18 X 29-INCH

STA 10+57.10 HA, 29.10' RT.
1-RCHE APRON ENDWALL
1-PIPE GRATE
4.07

STA 157+50.00, 31.00' LT.
1-MANHOLES 7-J
4.02

PT 10+44.61HA

WEDGEWOOD DRIVE

11HA

STA 157+31.60, 29.70' LT.
1-INLETS 2X3-H
4.08

4.09 STA 10+33.00 HA, 27.20' LT.
1-RC APRON ENDWALL
1-PIPE GRATE

REMOVE STORM SEWER
15-INCH

REMOVE MANHOLE

REMOVE STORM SEWER
12-INCH

STA 159+72.80, 24.90' LT.
1-INLETS 2X3-H
4.13

REMOVE INLET

BACKFILL CONTROLLED LOW STRENGTH
STORM SEWER 24-INCH

REMOVE INLET

4.12 STA 159+85.00, 24.60' LT.
1-INLETS 2X3-H

STRUCTURE C-32-32
(SEE STRUCTURE PLANS)

156 157 158 159 160 161 162

4.03 STA 158+00.00, 21.00' LT.
1-MANHOLES 5-J

4.04 STA 159+85.00, 3.60' RT.
1-MANHOLES 6-J

STH 33

PC 11+29.05HA

REMOVE INLET

REMOVE INLET

REMOVE INLET

4.05 STA 160+71.90, 33.50' RT.
1-MANHOLES 5-J

REMOVE INLET

REMOVE STORM SEWER
18-INCH

REMOVE MANHOLE

11+12.67HA=
157+79.44

REMOVE STORM SEWER
30-INCH

REMOVE
MANHOLE

4.10 STA 159+85.00, 27.00' RT.
1-INLETS 2X3-H

REMOVE MANHOLE

REMOVE STORM SEWER
30-INCH

STA 159+68.10, 26.90' RT.
1-INLETS 2X3-H
4.11

REMOVE STORM SEWER
30-INCH

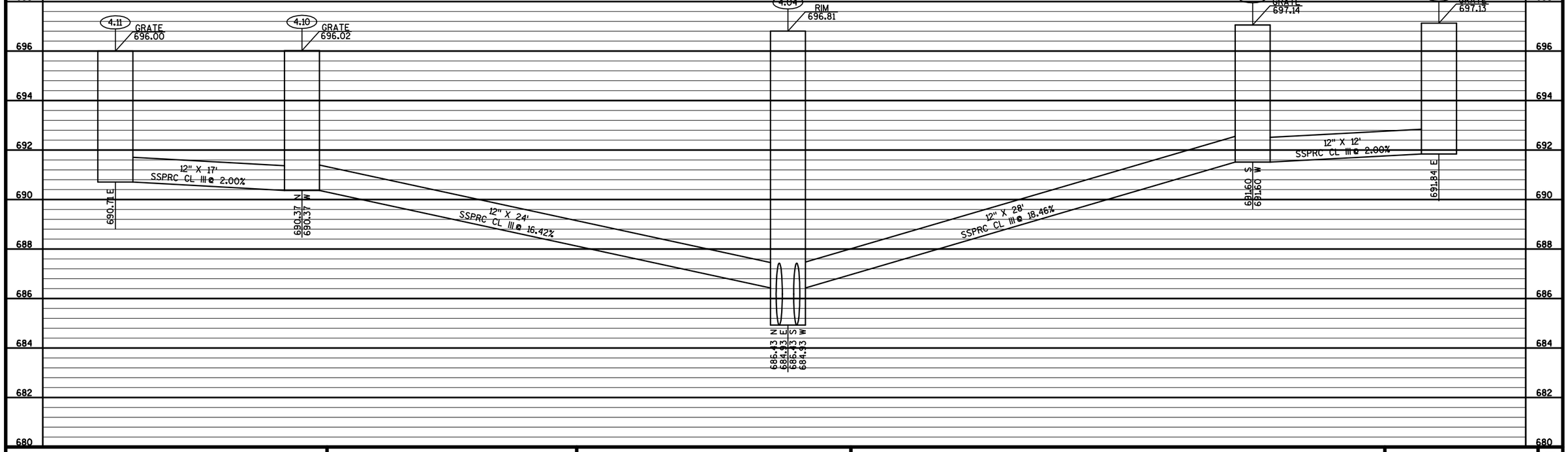
4.01 STA 156+75.00, 35.00' RT.
1-INLETS 2X3-H

STA 161+05.96, 50.98' RT.
OUTFALL
4.06

HAGEN ROAD

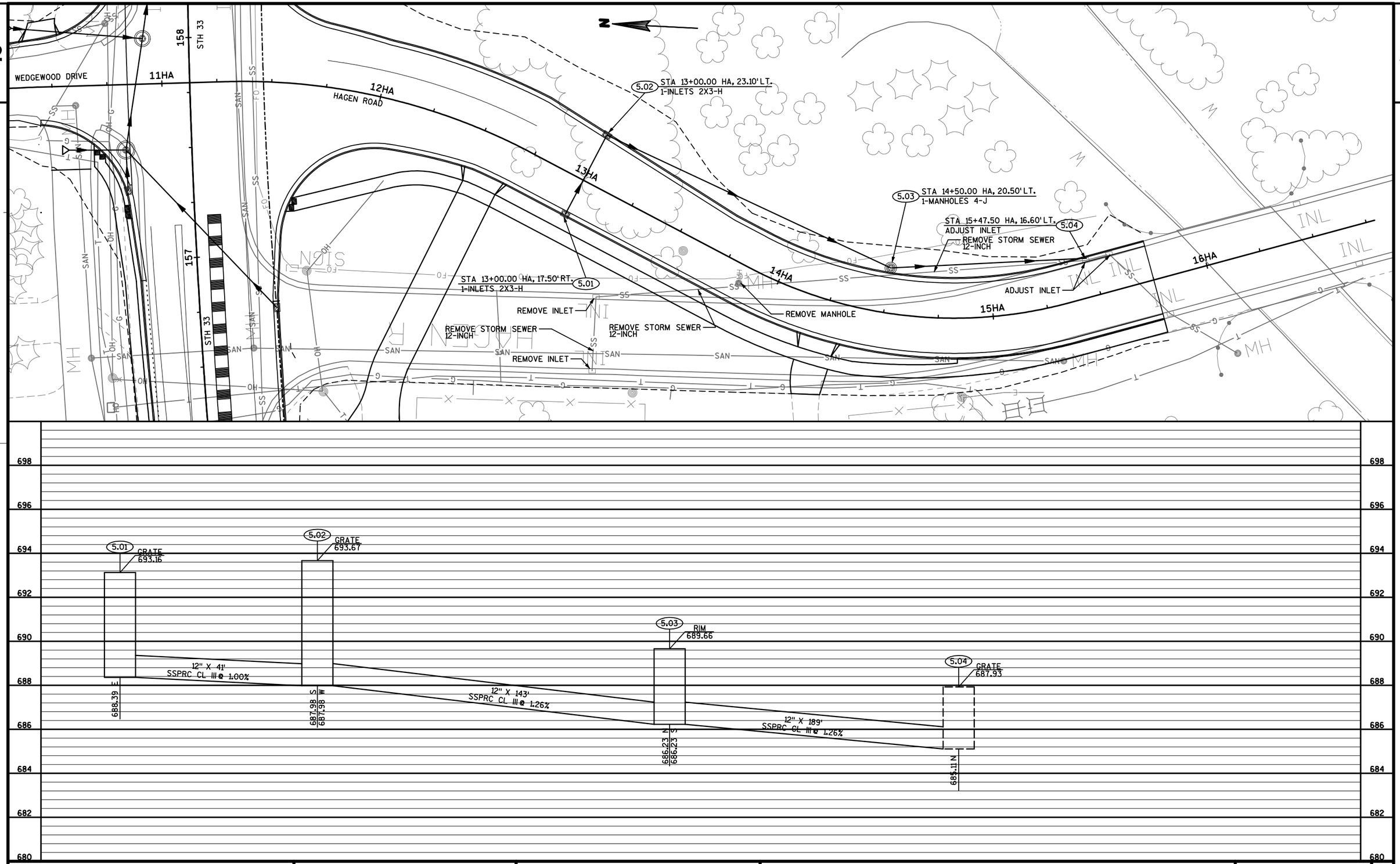
12TH

FOOTBR



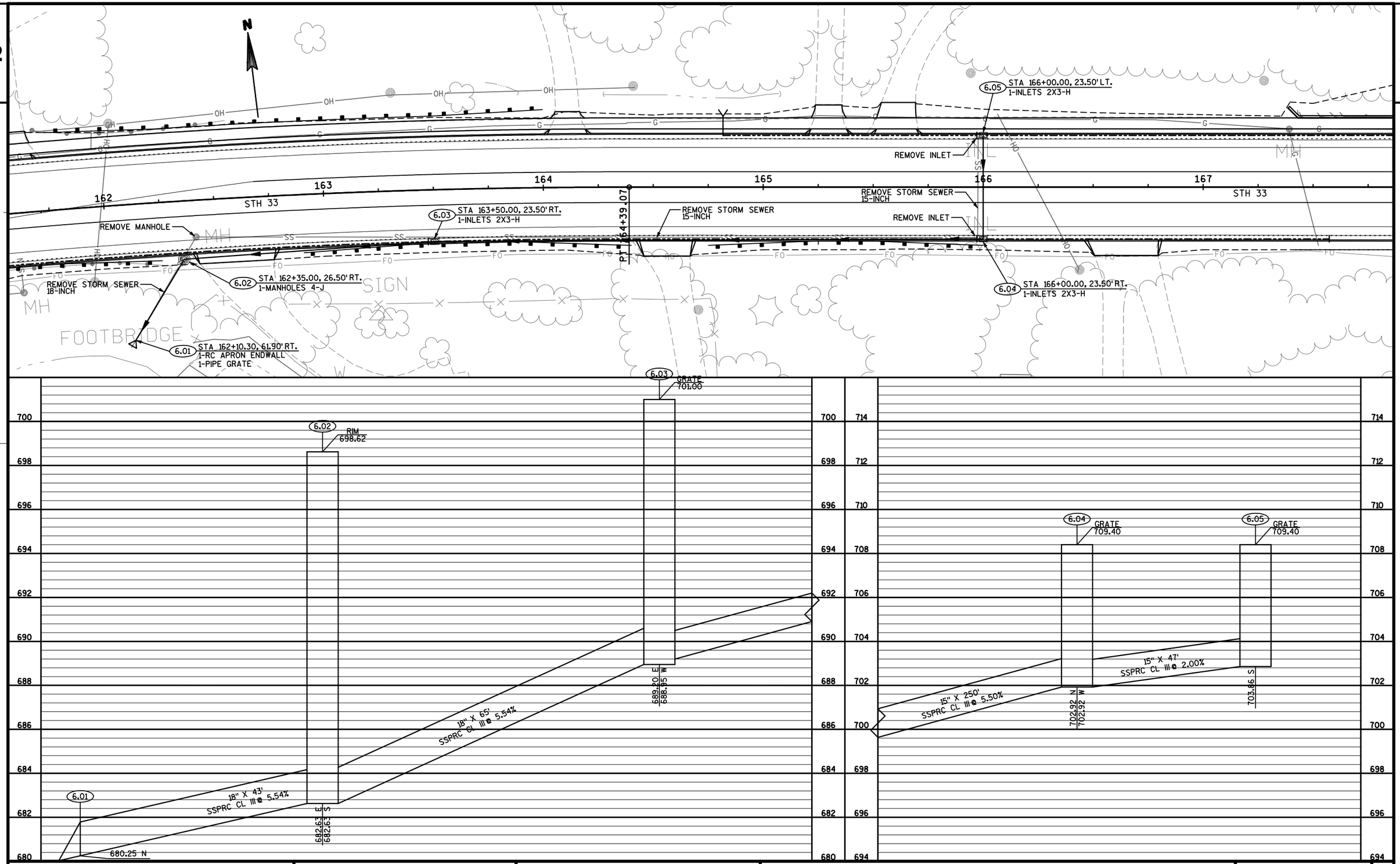
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Storm Sewer\022505c_ss.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 41

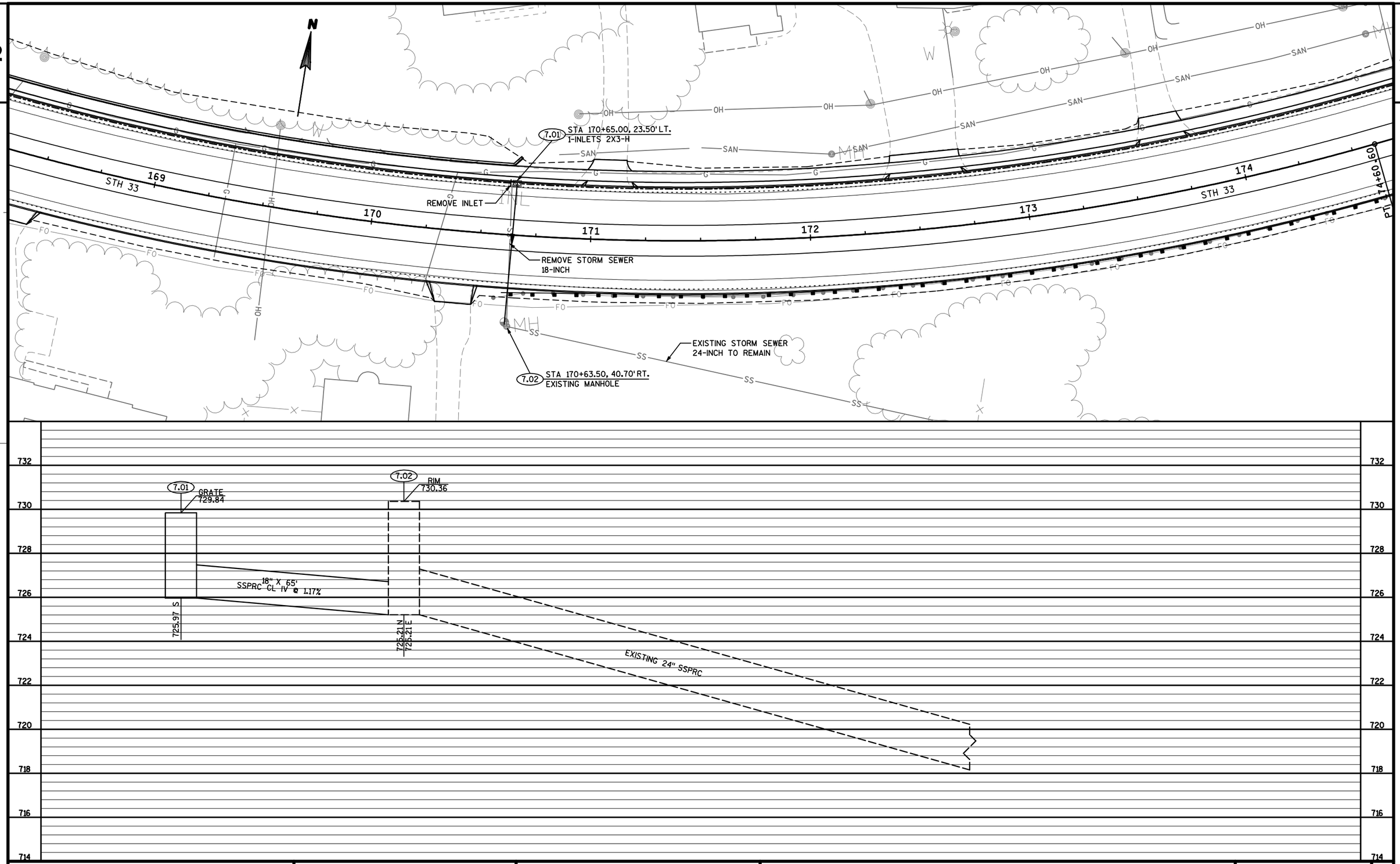


PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 112 E

2



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 113 E



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 114 E

2

REMOVE STORM SEWER
36-INCH

8.01 STA 182+60.00, 23.50'LT.
1-INLETS 2X3-H

8.02 STA 182+50.00, 23.50'LT.
1-INLETS 2X3-H

8.06 STA 182+79.40, 40.20'LT.
1-RC APRON ENDWALL
1-PIPE GRATE

CAUTION

REMOVE INLET

8.05 STA 183+13.44, 7.00'RT.
1-MANHOLES 8-J

REMOVE MANHOLE
REMOVE STORM SEWER
18-INCH
REMOVE INLET

BACKFILL CONTROLLED LOW STRENGTH
24-INCH STORM SEWER

REMOVE STORM SEWER
36-INCH

8.03 STA 182+50.00, 23.50'RT.
1-INLETS 2X3-H

8.04 STA 182+60.00, 23.50'RT.
1-INLETS 2X3-H

REMOVE STORM SEWER
36-INCH

REMOVE STORM SEWER
48-INCH

8.07 STA 183+24.74, 66.87'RT.
1-RC APRON ENDWALL
1-PIPE GRATE

STH 33

181 182 183 184 185 186

732 730 728 726 724 722 720 718 716 714

8.01 GRATE 732.30
8.02 GRATE 732.28
8.03 GRATE 732.28
8.04 GRATE 732.30
8.05 RIM 733.00

12" X 10' SSPRC CL III @ 2.00%
12" X 47' SSPRC CL III @ 2.00%
15" X 10' SSPRC CL III @ 2.00%
15" X 56' SSPRC CL III @ 6.20%
36" X 56' SSPRC CL III @ 11.58%
48" X 61' SSPRC CL III @ 7.97%

727.20 W
727.00 S
727.00 E
726.06 N
725.81 E
725.81 E
725.81 W
720.39 NW
721.99 E
721.99 S
722.14 W
727.13 SE
714.53 N

8.06

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Storm Sewer\022509a_ss.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 41

2

N

8.01 8.02 8.03 8.04 8.06 8.07

CAUTION

SIGN

FO OH HO G SS INL W A/C

8.05 STA 183+13.44, 7.00' RT.
1-MANHOLES 8-J

REMOVE MANHOLE
REMOVE STORM SEWER
18-INCH
REMOVE INLET

REMOVE STORM SEWER
48-INCH

183 STH 33 184 185 186 187 188 STH 33

BACKFILL CONTROLLED LOW STRENGH
24-INCH STORM SEWER

9.02 STA 188+50.00, 23.50' LT.
1-INLETS 2X3-H

REMOVE INLET

9.03 STA 188+50.00, 0.00' RT.
1-MANHOLES 4-J

REMOVE STORM SEWER
18-INCH

9.01 STA 188+50.00, 23.50' RT.
1-INLETS 2X3-H

REMOVE INLET

734 732 730 728 726 724 722 720 718 716

8.05 RIM 733.00

720.39 NW
721.39 E
718.39 S
722.14 W

24" X 537'
SSPRC CL III @ 2.91%

734 732 730 728 726 724 722 720 718 716

9.03 GRATE 744.43

737.53 N
737.53 S
737.03 W

748 746 744 742 740 738 736 734 732 730

9.01 GRATE 743.78

738.00 S

18" X 24'
SSPRC CL III @ 2.00%

9.03 GRATE 744.43

737.53 N
737.53 S
737.03 W

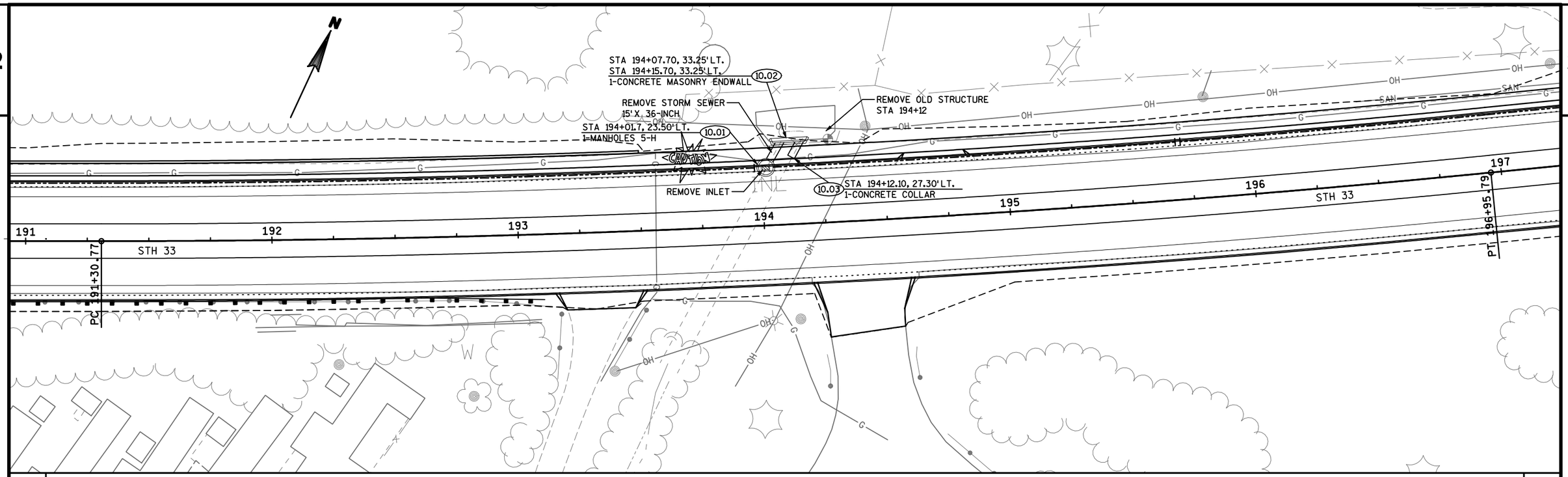
18" X 24'
SSPRC CL III @ 2.00%

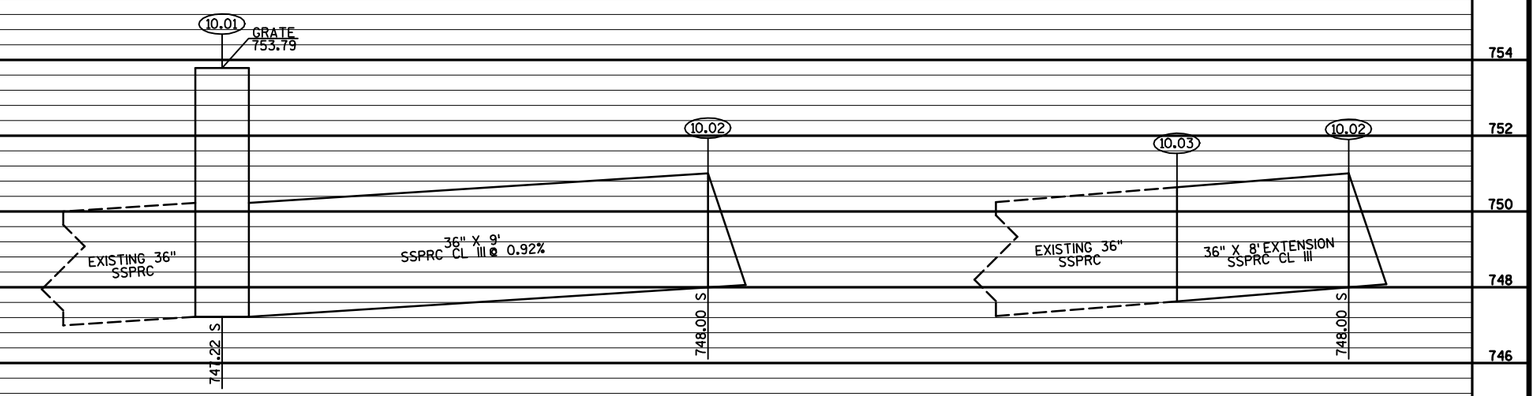
9.02 GRATE 743.78

738.00 N

748 746 744 742 740 738 736 734 732 730

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 116 E





PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 117	E

2

199+45.40SW=
199+45.40

STA 202+54.00, 23.50' LT.
1-INLETS 2X3-H
11.01

REMOVE STORM SEWER
18-INCH

REMOVE INLET

REMOVE INLET

STA 202+54.00, 23.50' RT.
1-INLETS 2X3-H
11.02

EXISTING STORM SEWER
18-INCH TO REMAIN

200 201 202 203 204 205

STH 33

STH 33

79.11SW

200+00SW

201+00SW

202+00SW

203+00SW

PT 200+01.91SW

PT 203+68.53SW
203+73.64SW

203+55.46SW

N

752 750 748 746 744 742 740 738 736 734

11.01 GRATE 751.19

11.02 GRATE 751.19

745.40 S

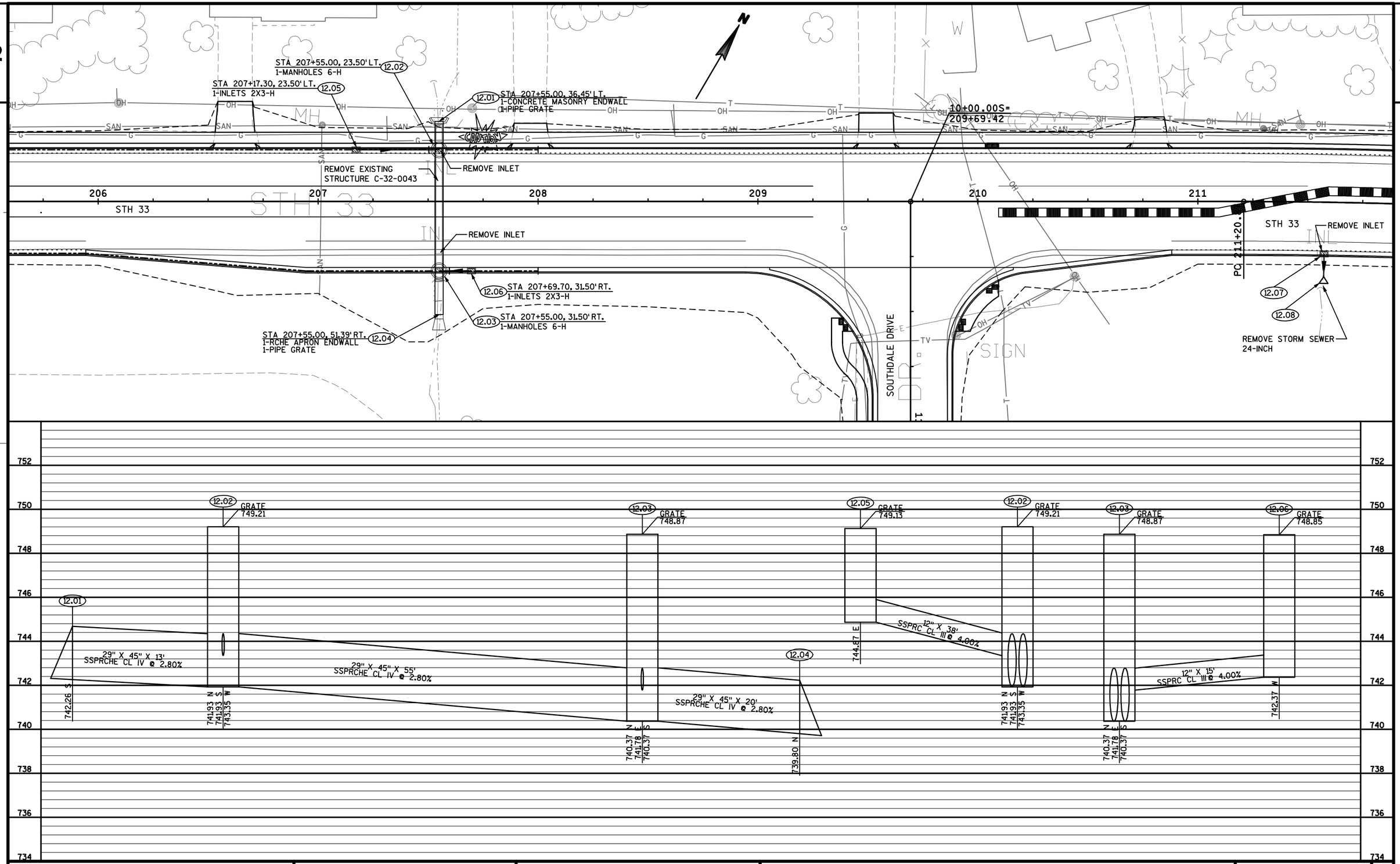
SSPRC 18" X 47'
CL III @ 10.34%

740.54 N
740.54 S

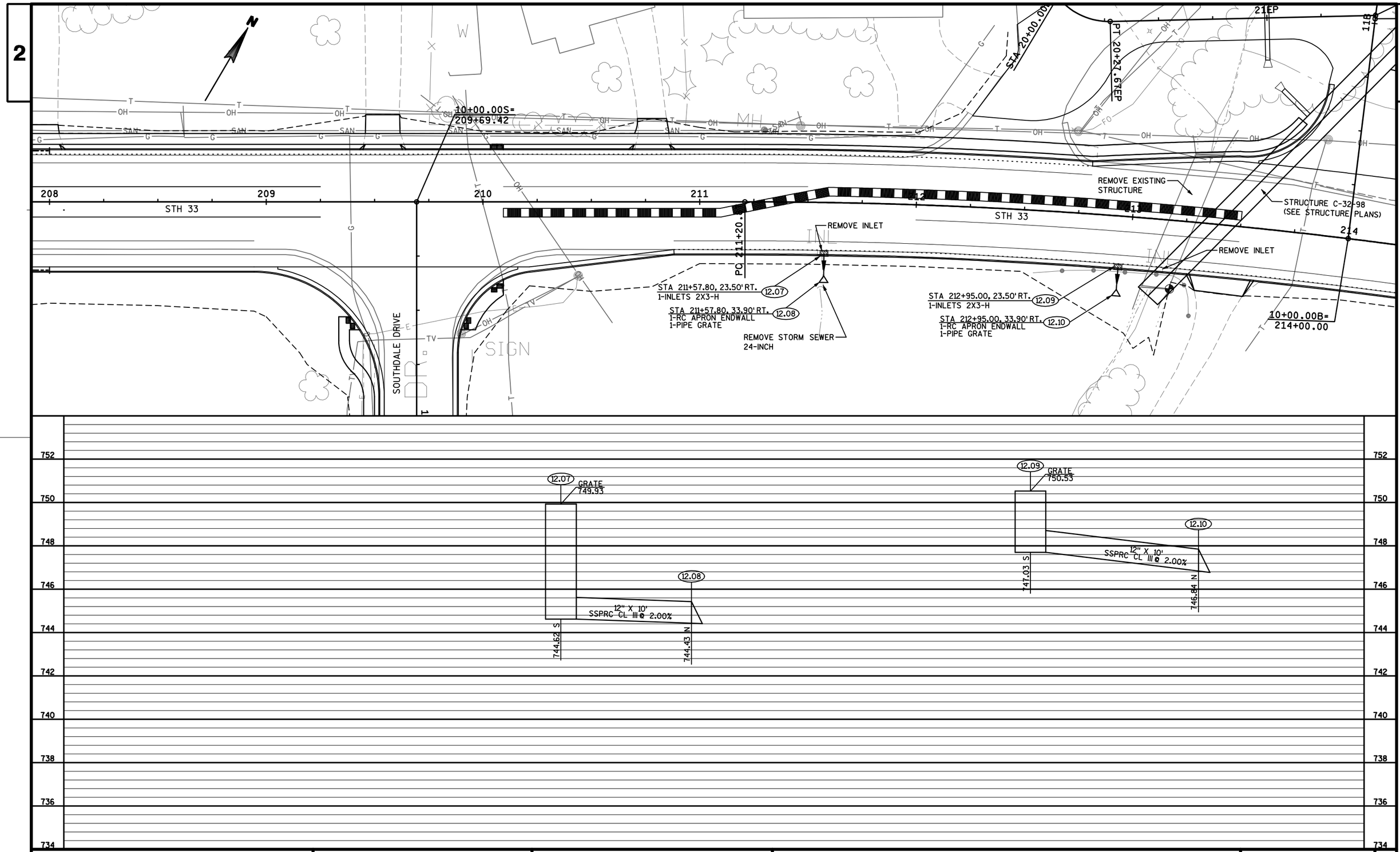
EXISTING 18" SSPRC

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET E

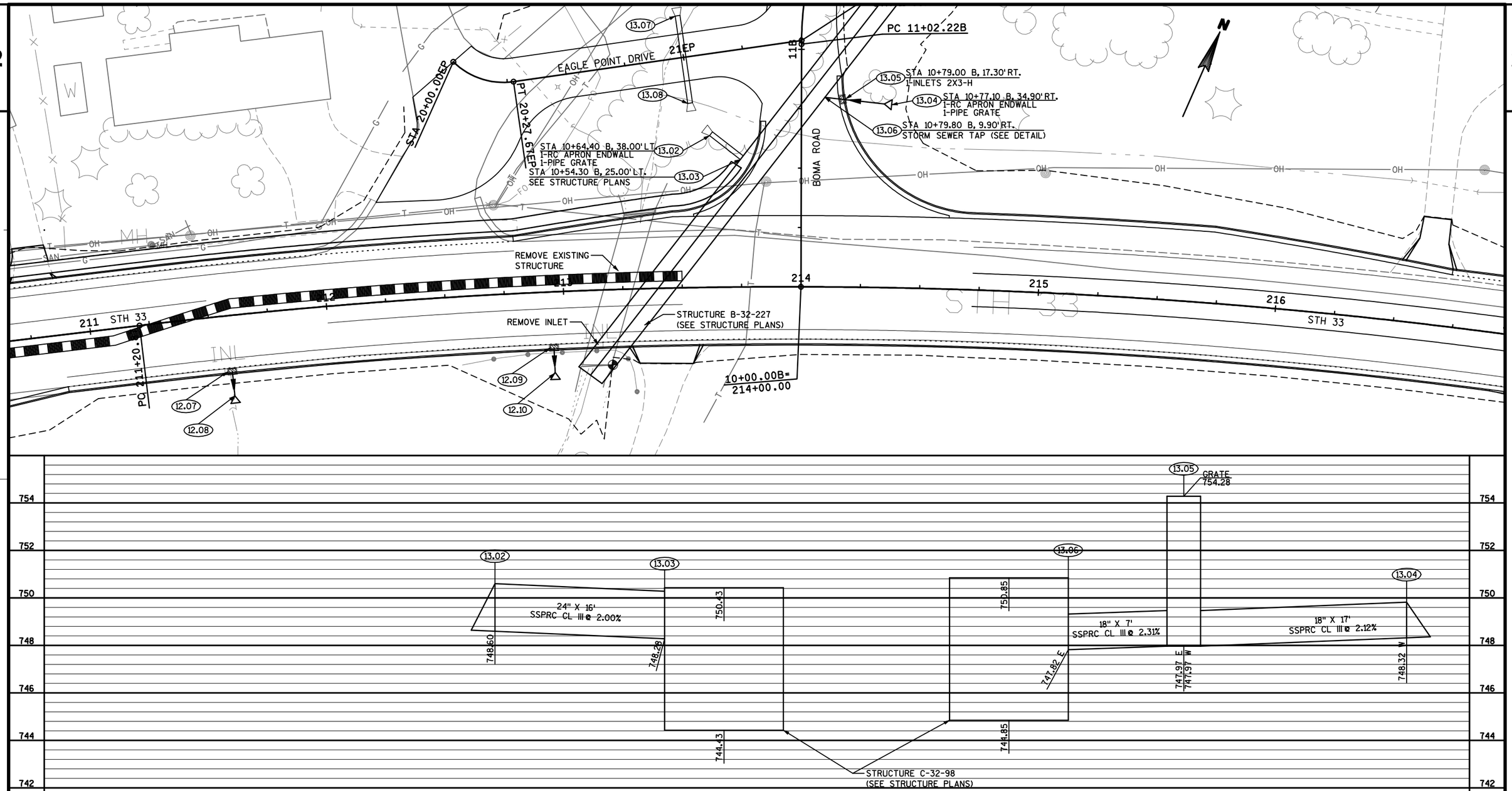
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WISDOT/CADDS SHEET 41



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 119 E

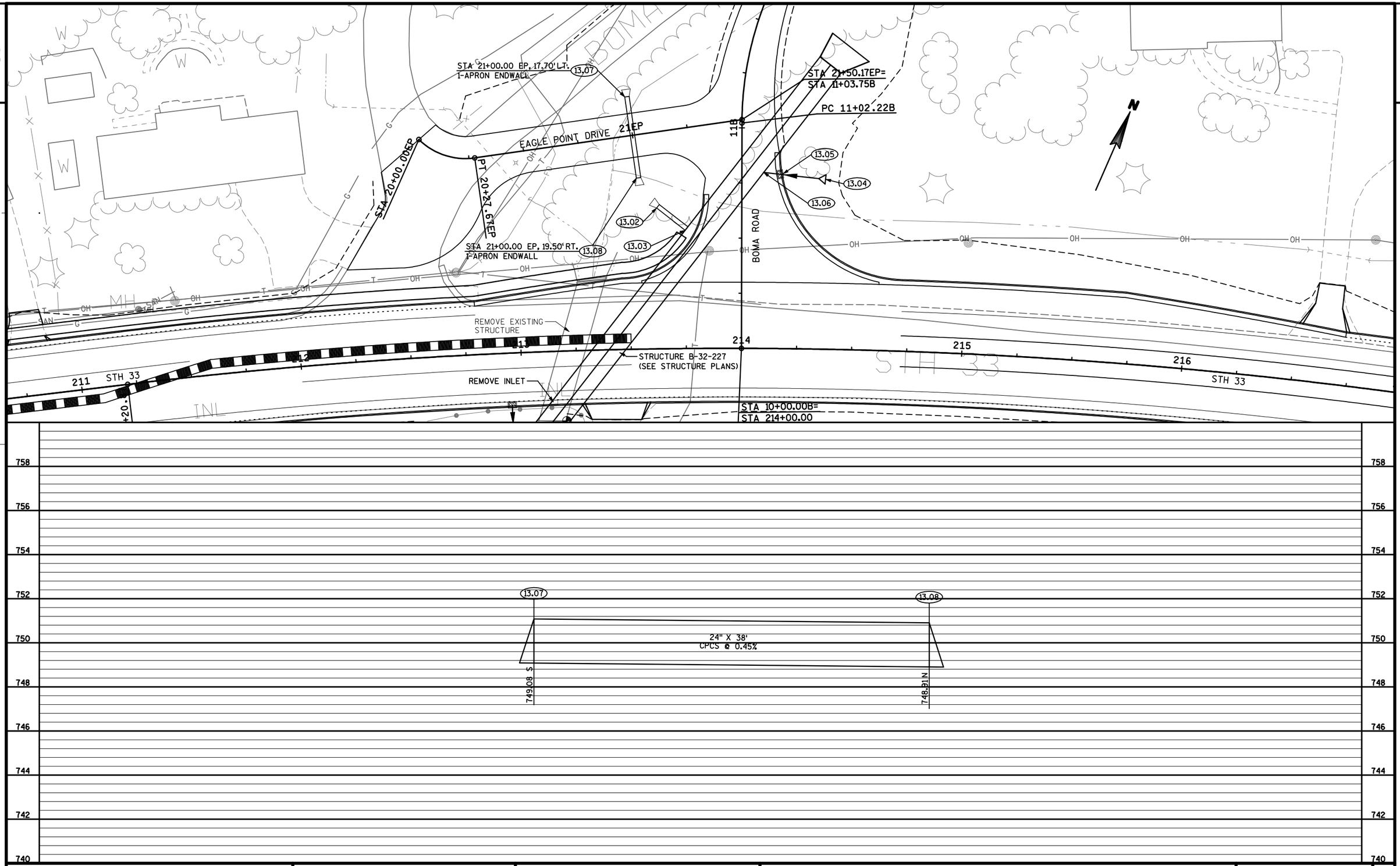


PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 120 E

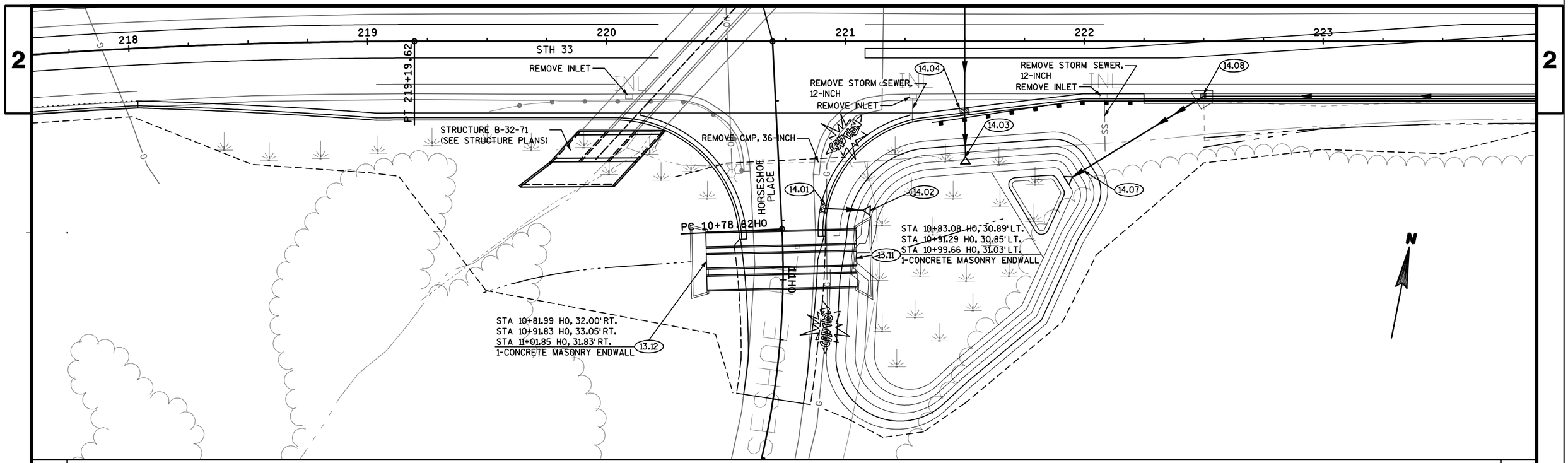


PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET E

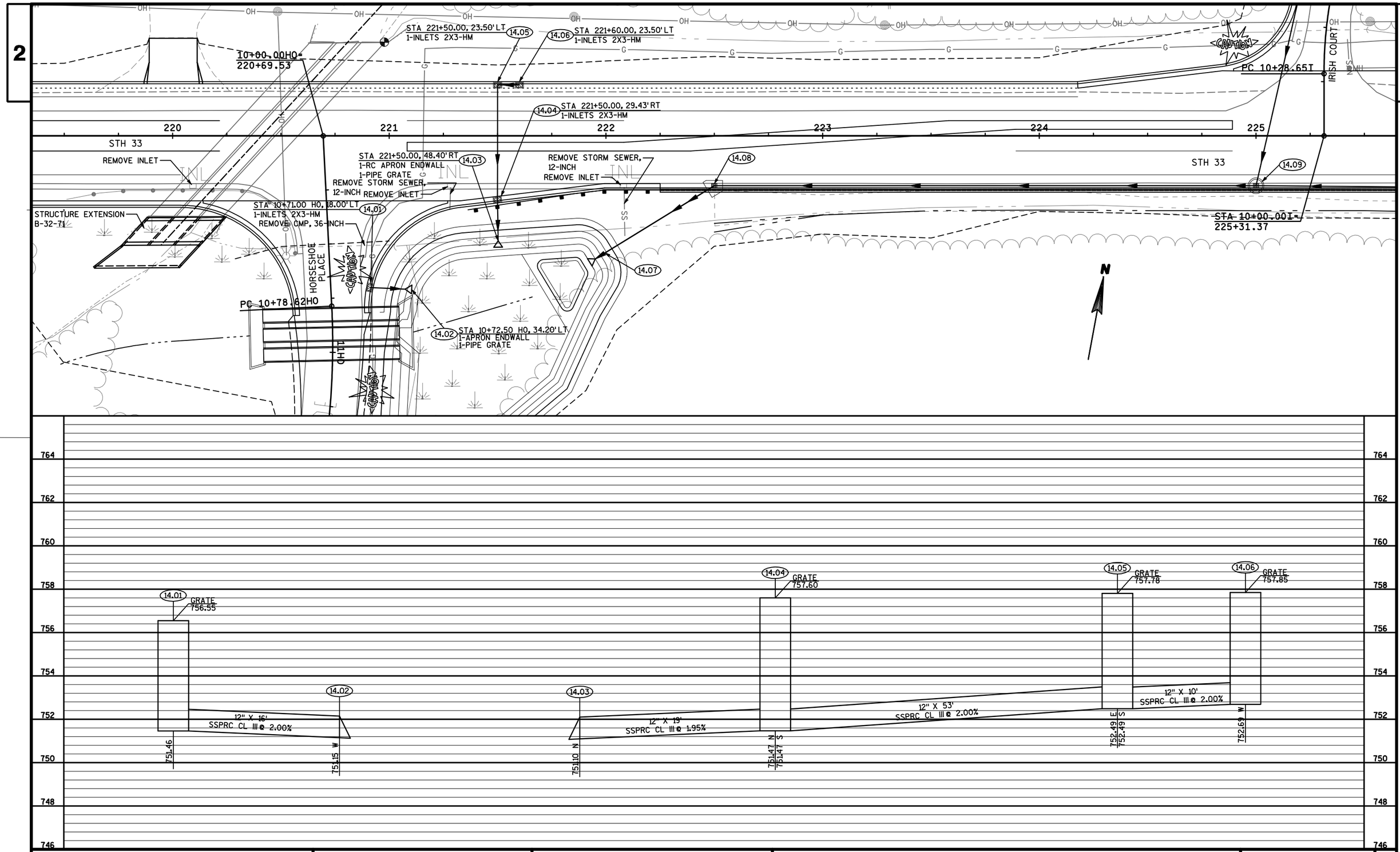
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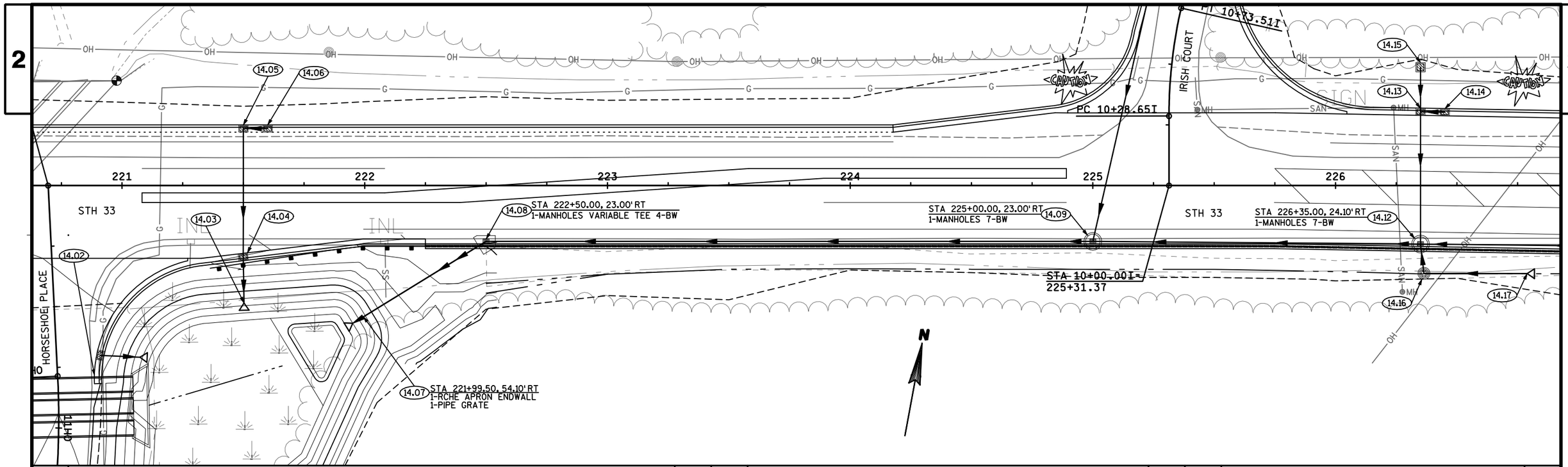
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 122 E



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 123 E

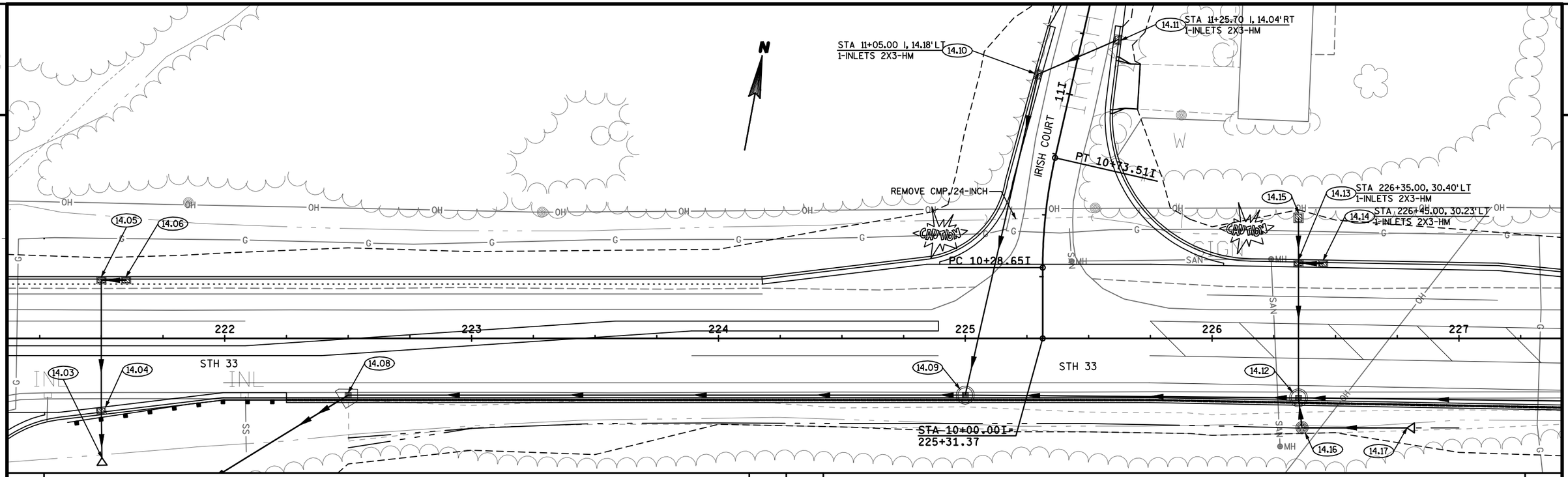


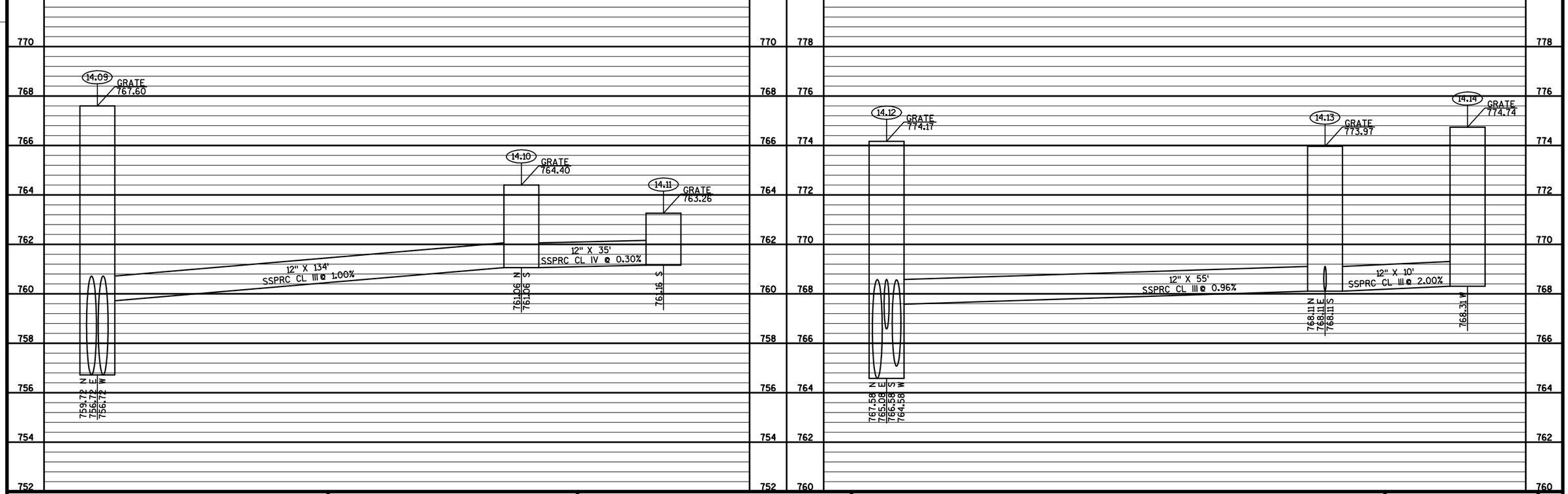
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 124 E



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET E

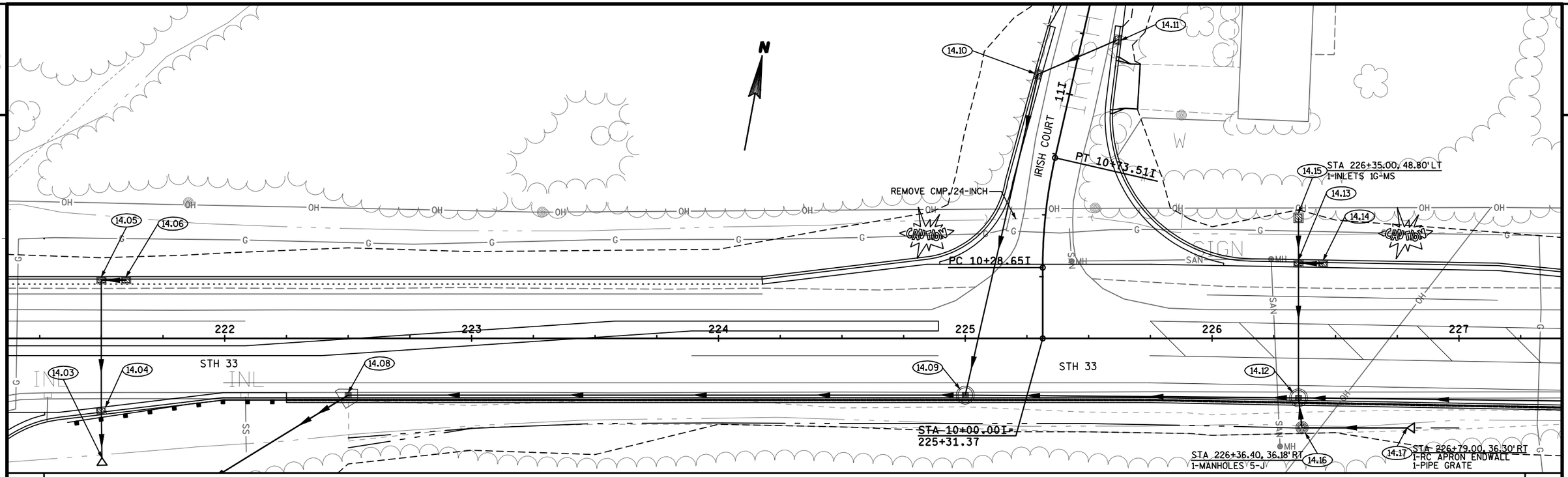
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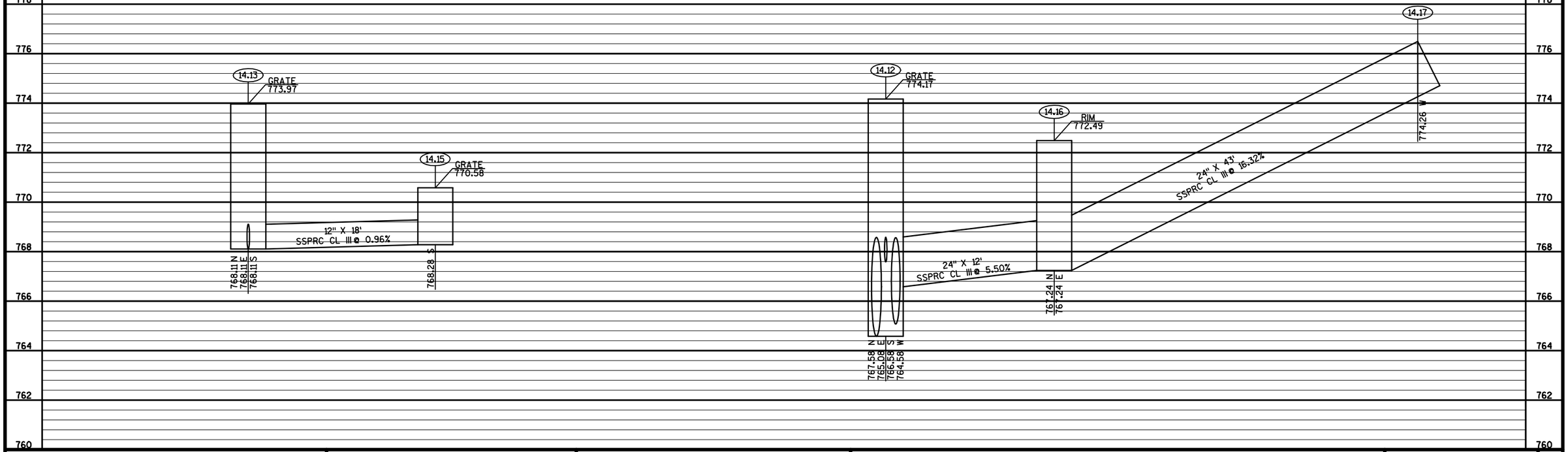




PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET E

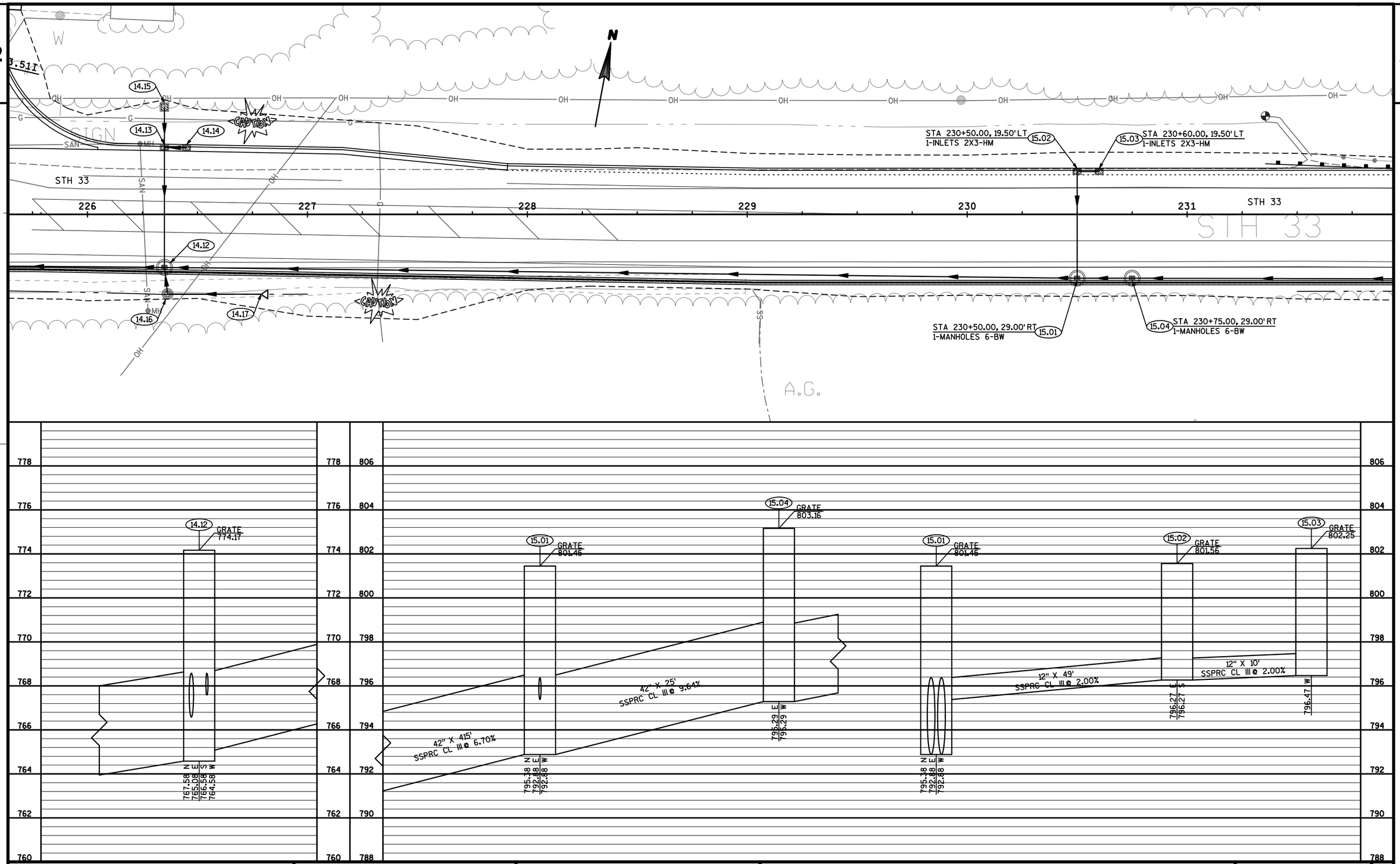
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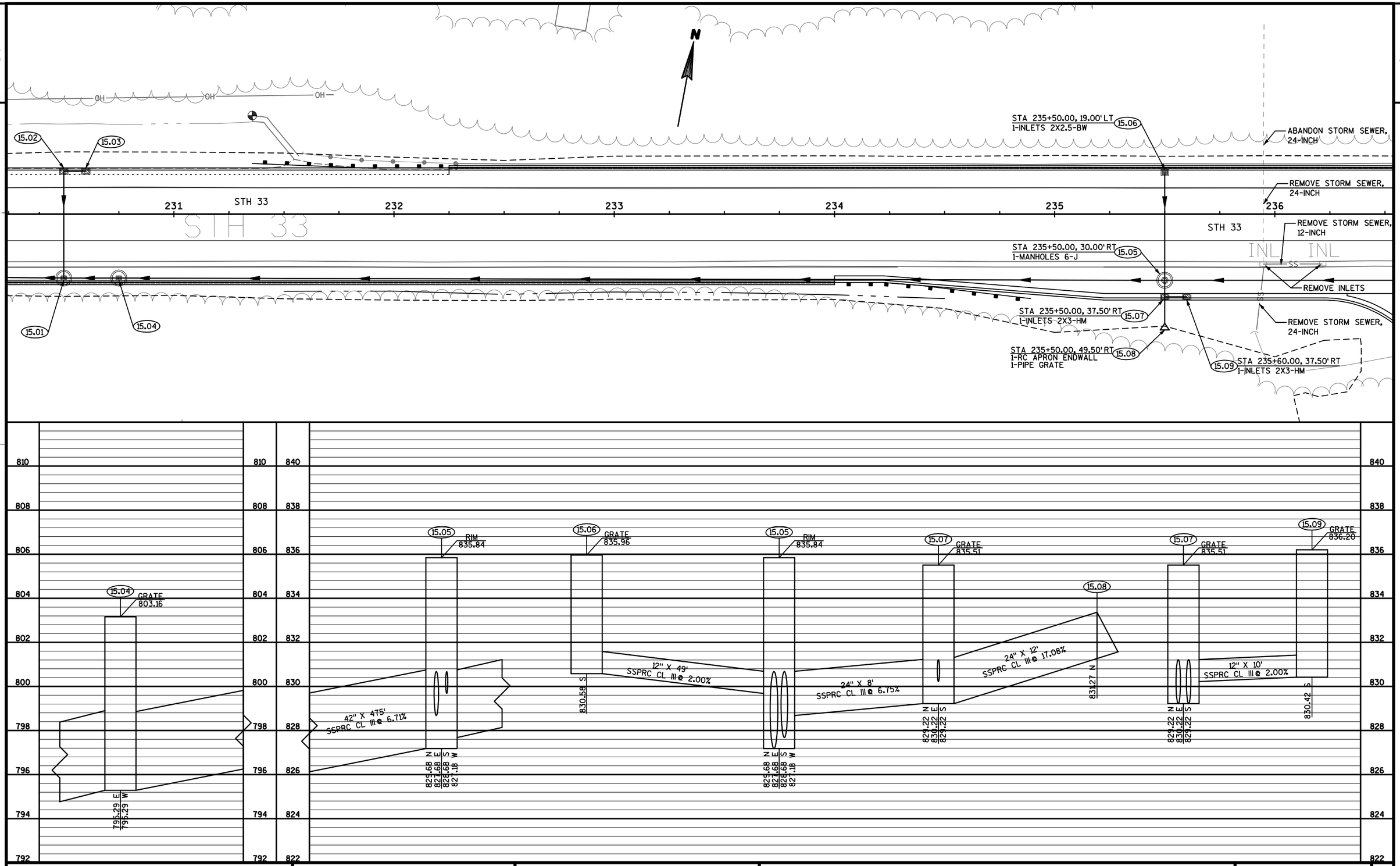
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET E

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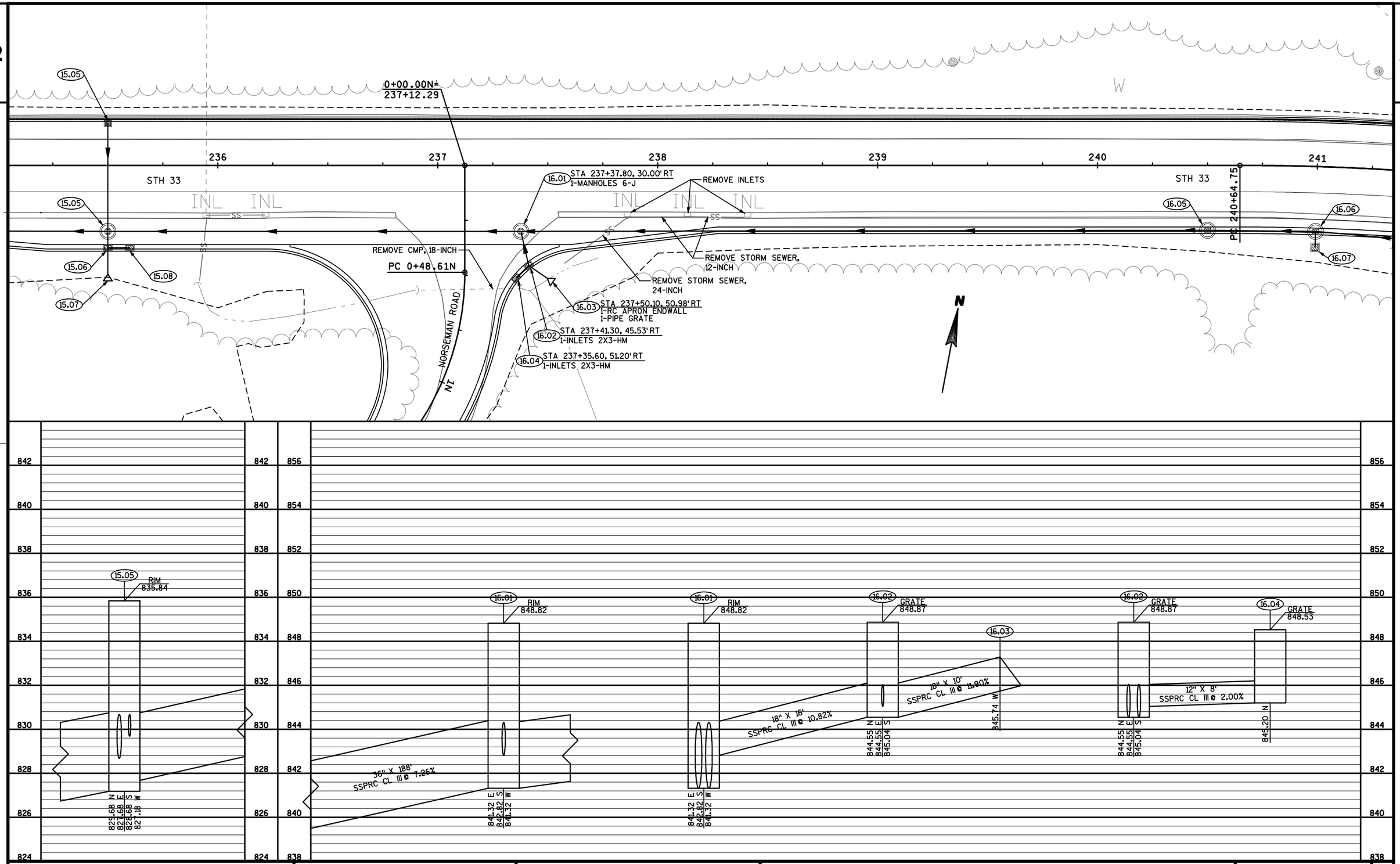
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET E

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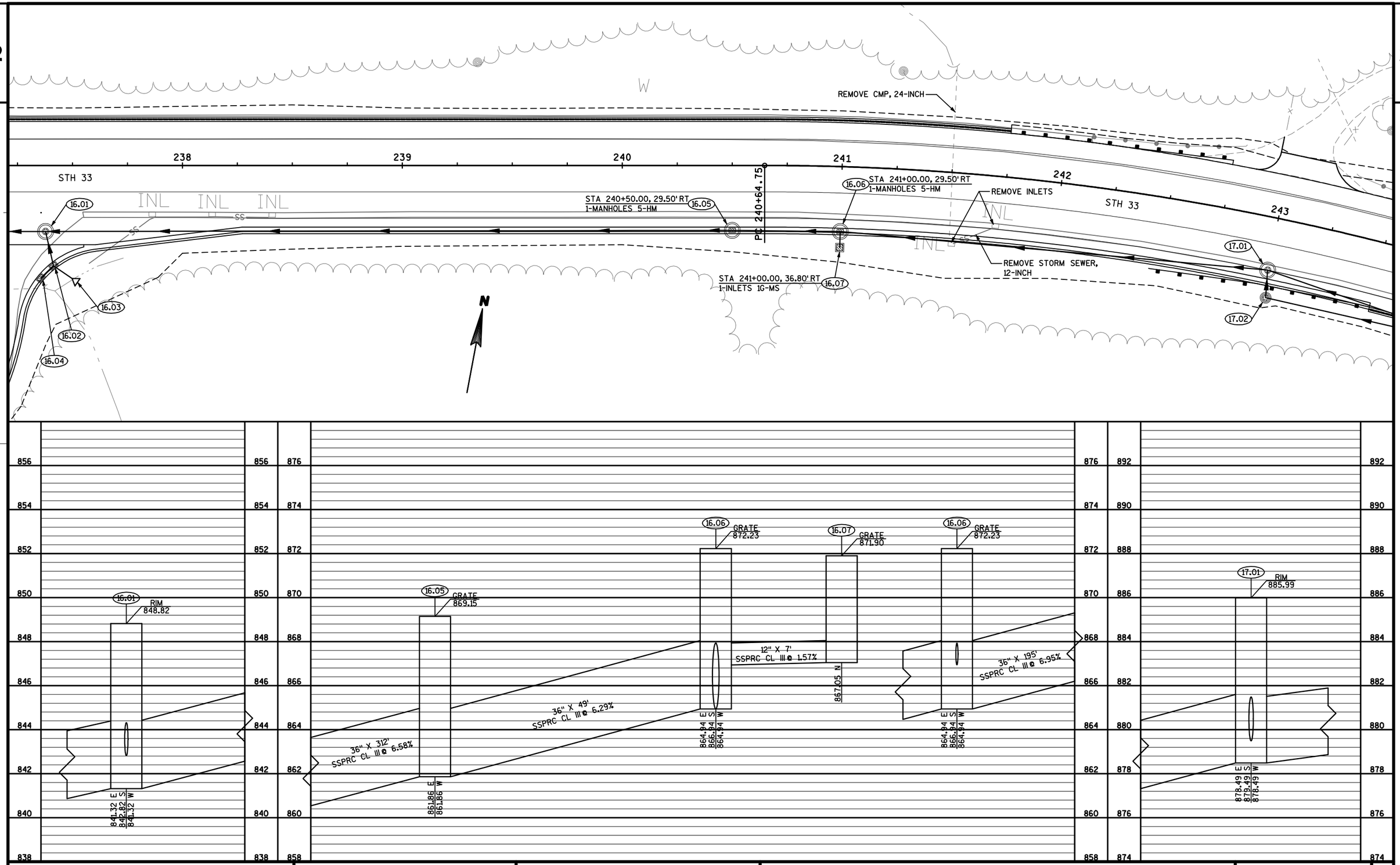


PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET E

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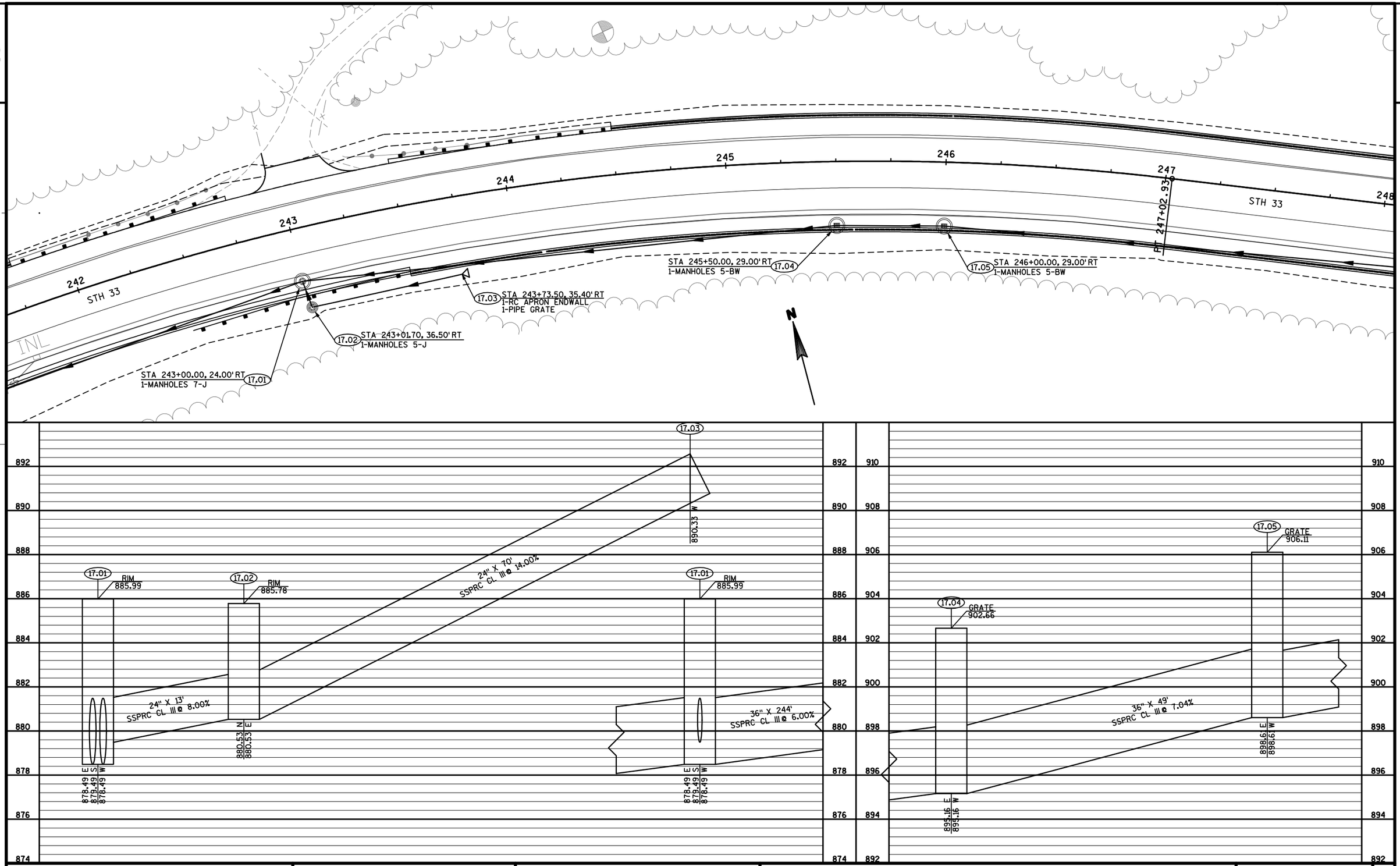


PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 130 E

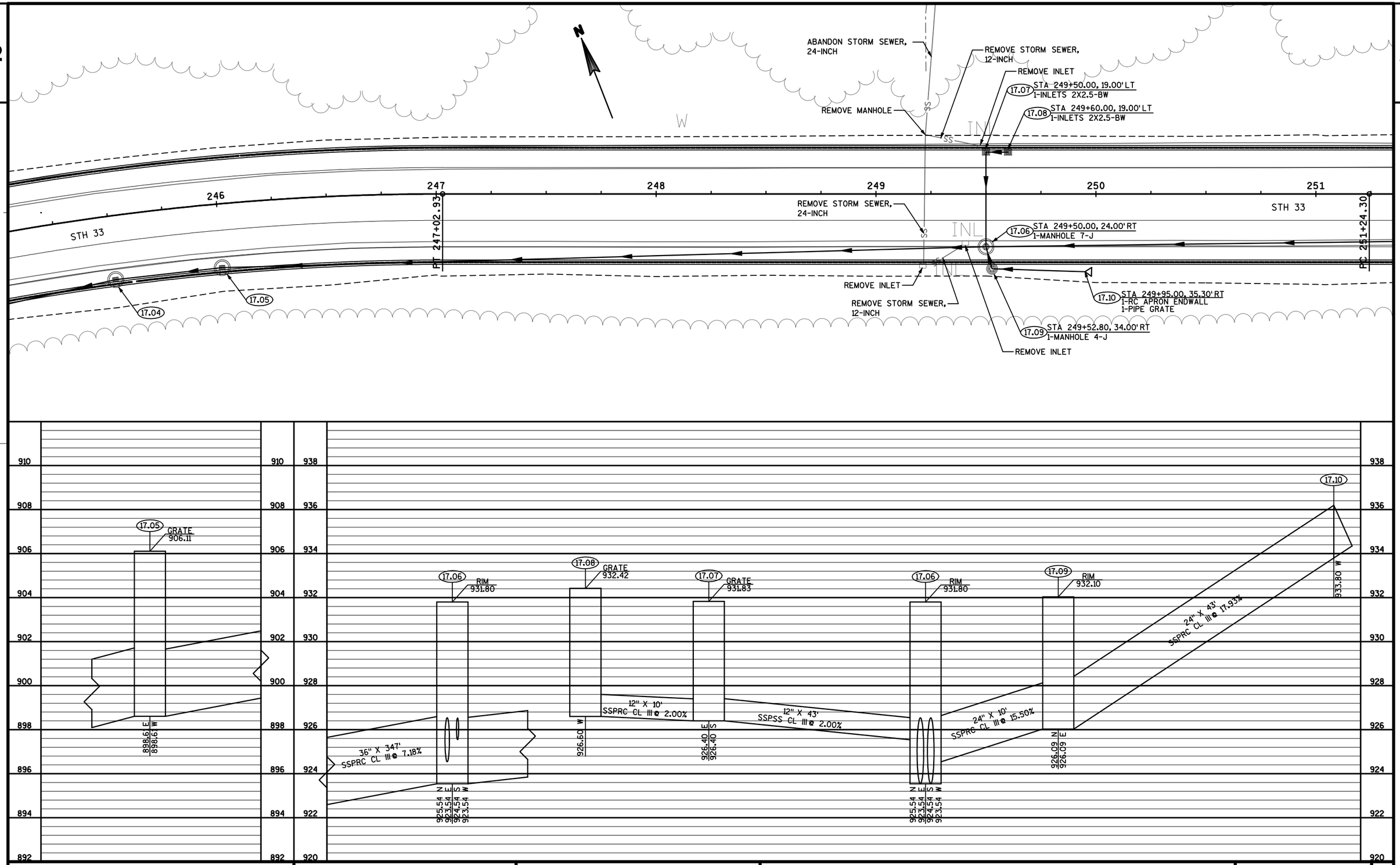


PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 131 E

2



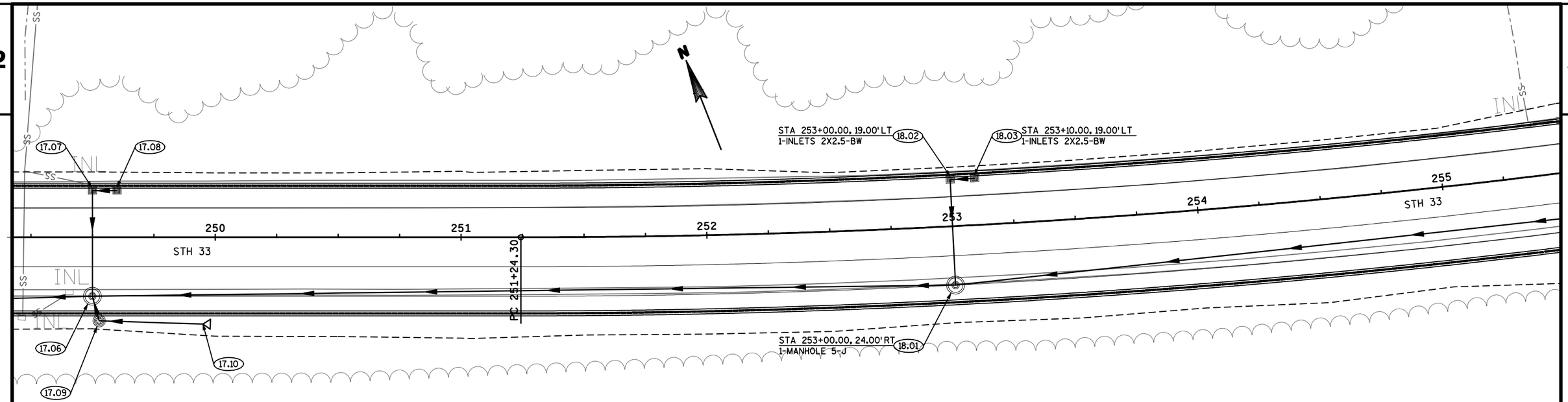
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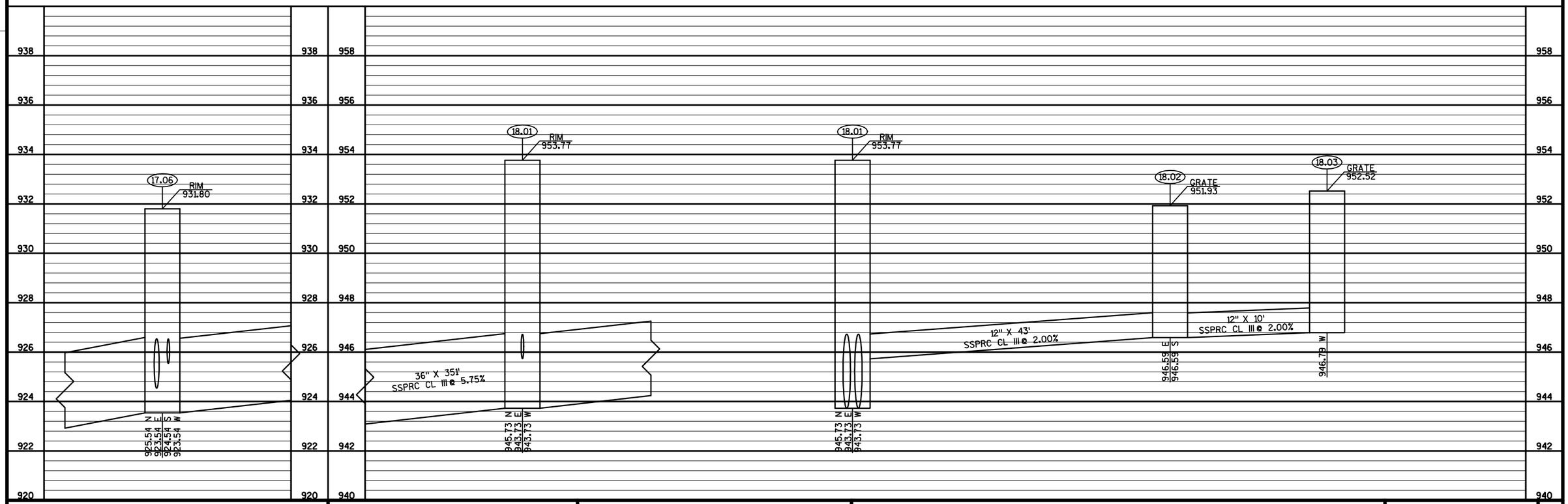


PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET	E

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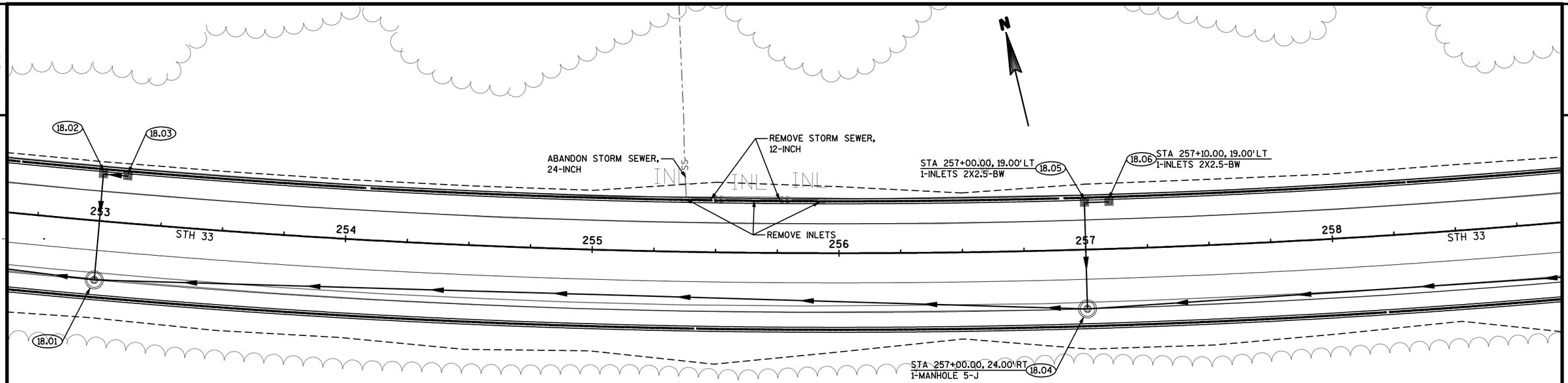
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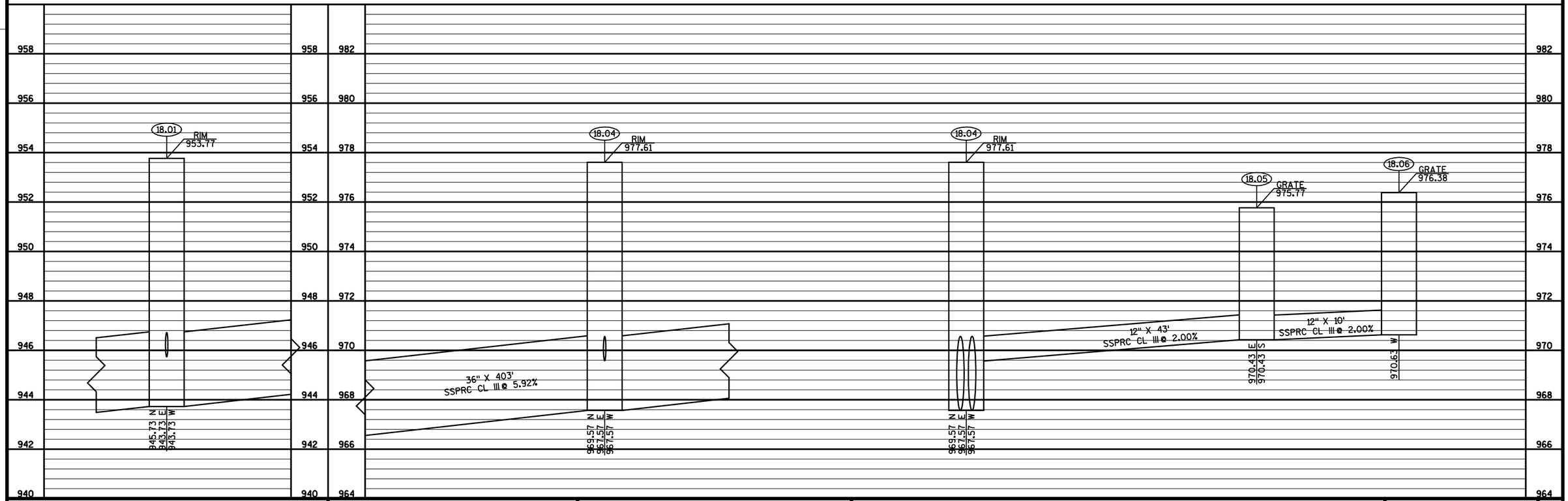




PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET	E

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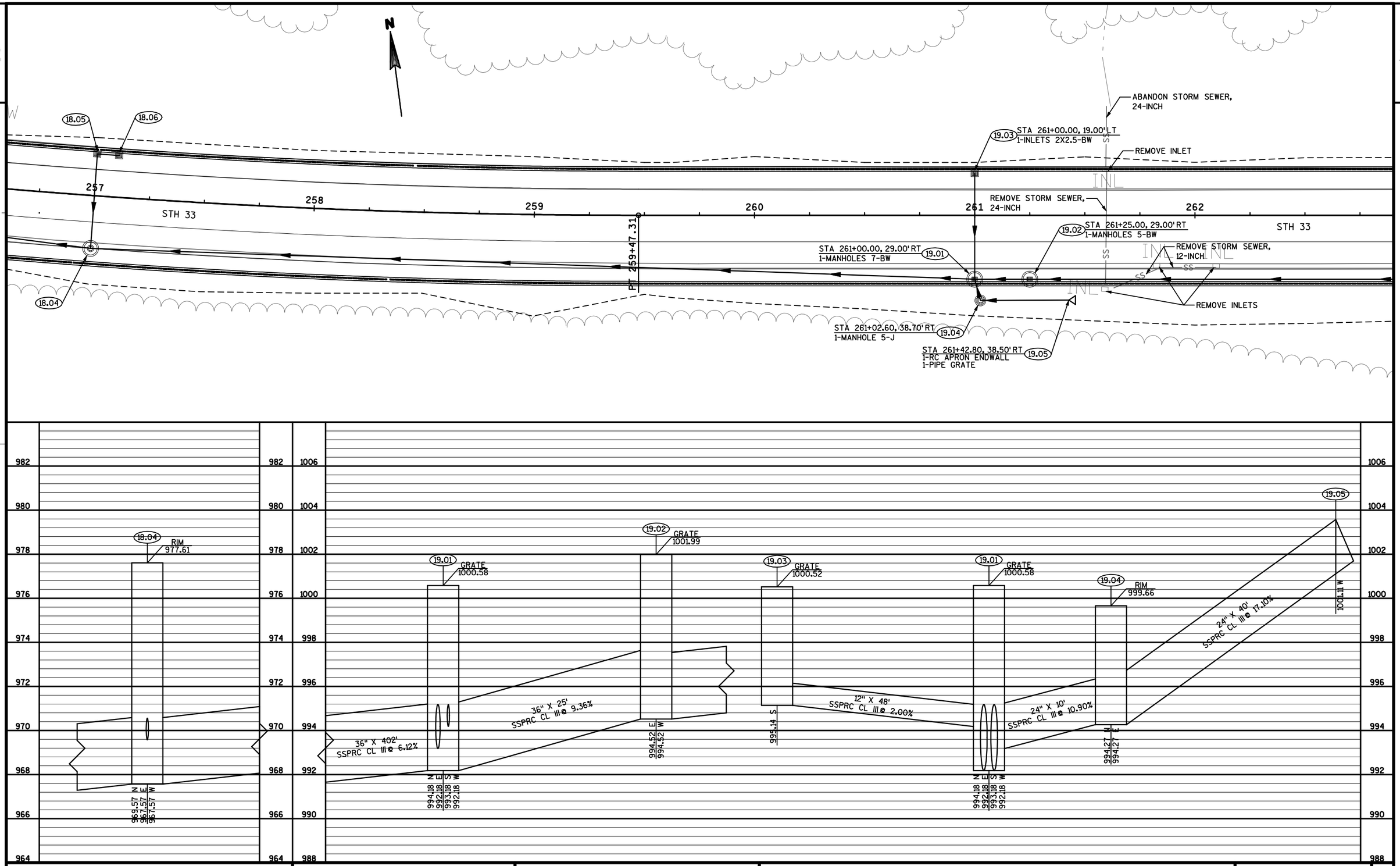




PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET E

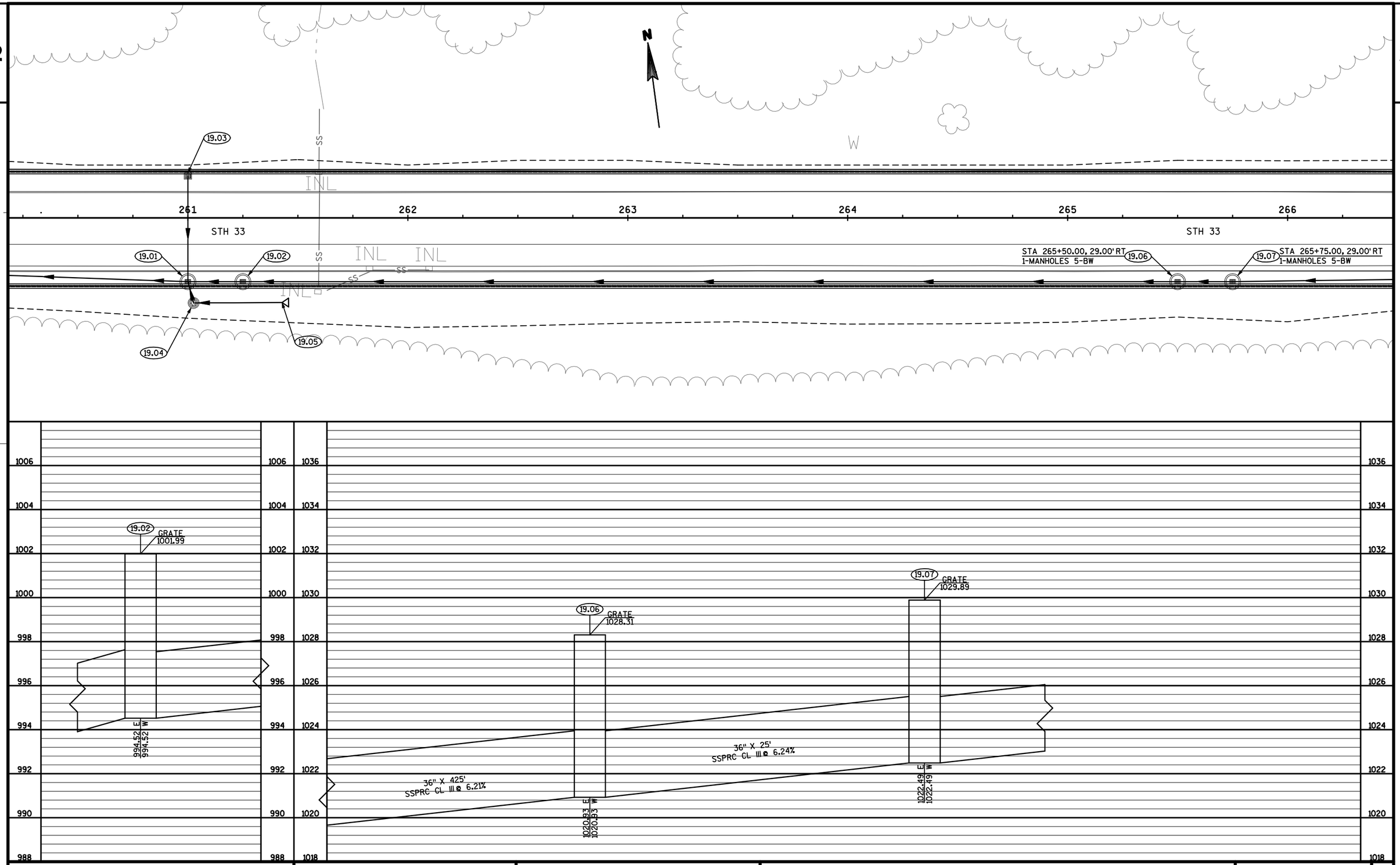
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2



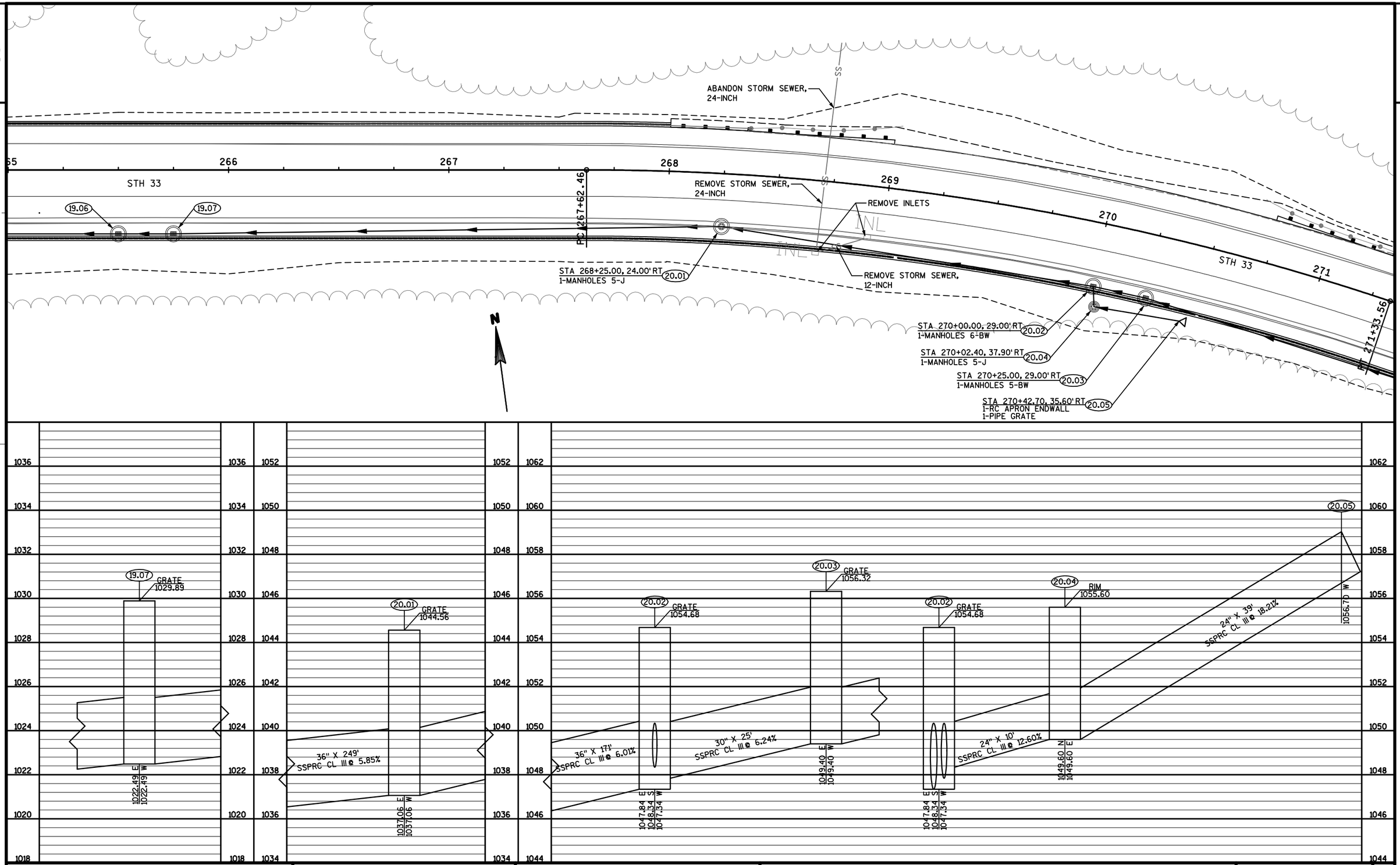
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET E

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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 137 E

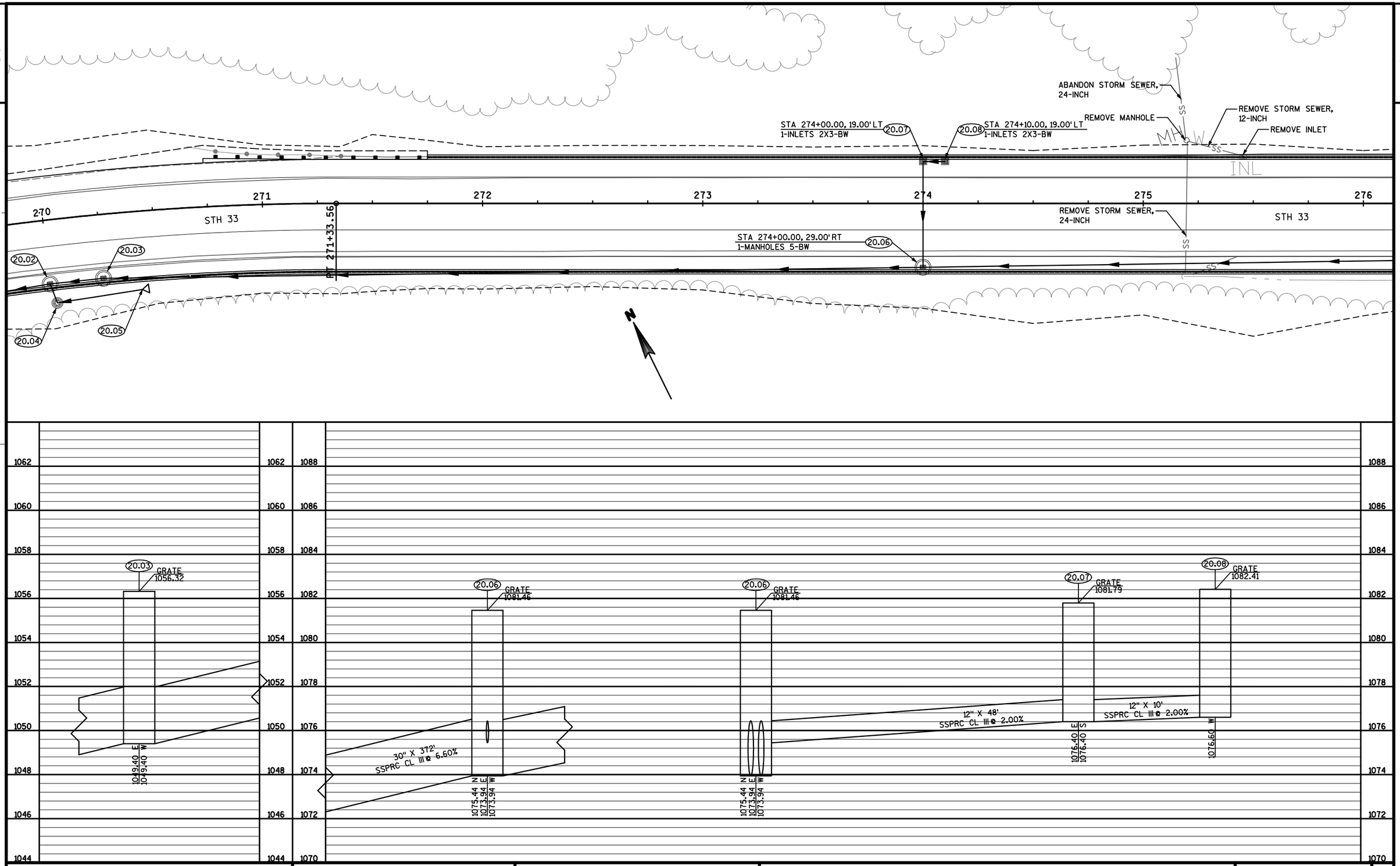
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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET E

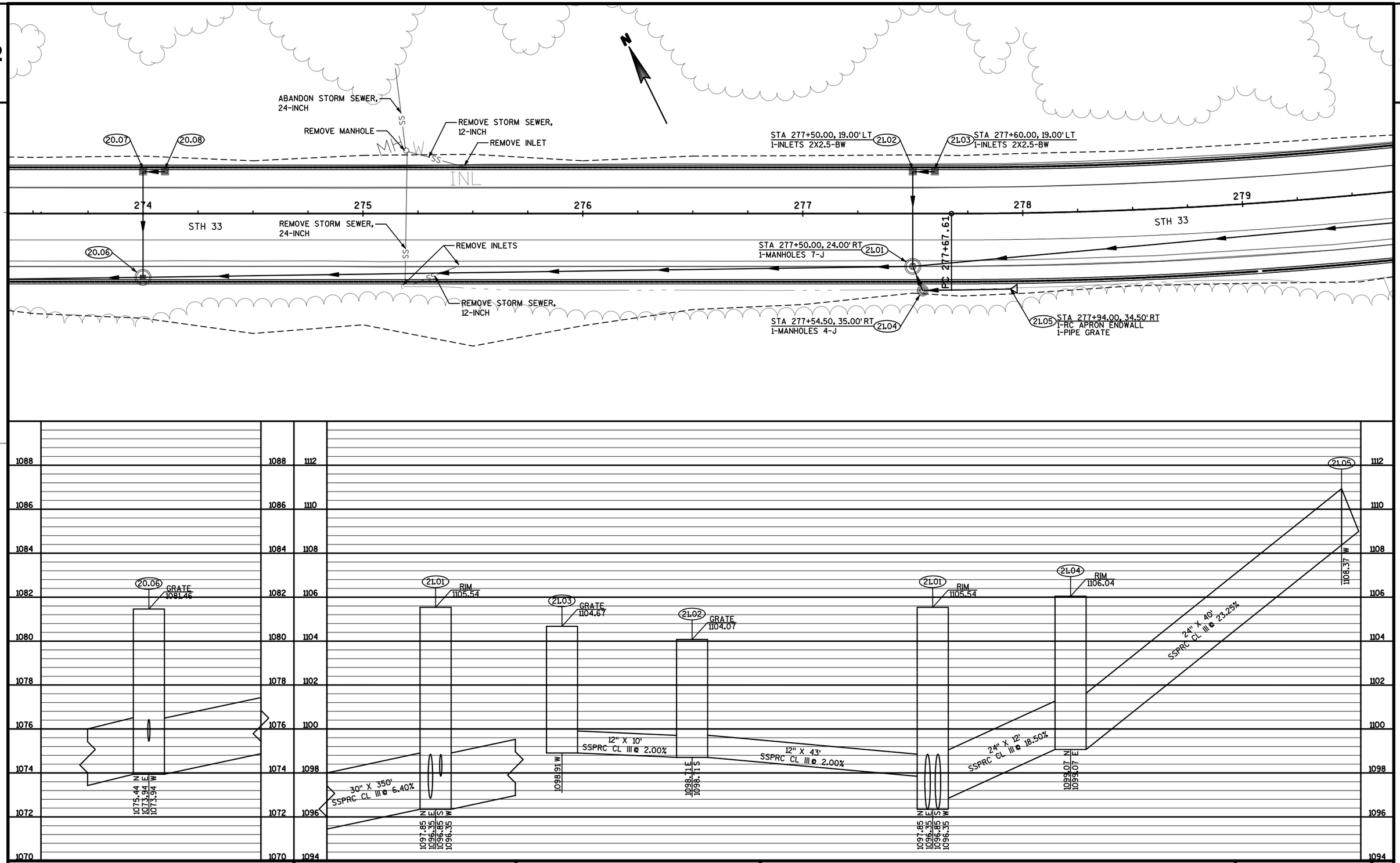
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2

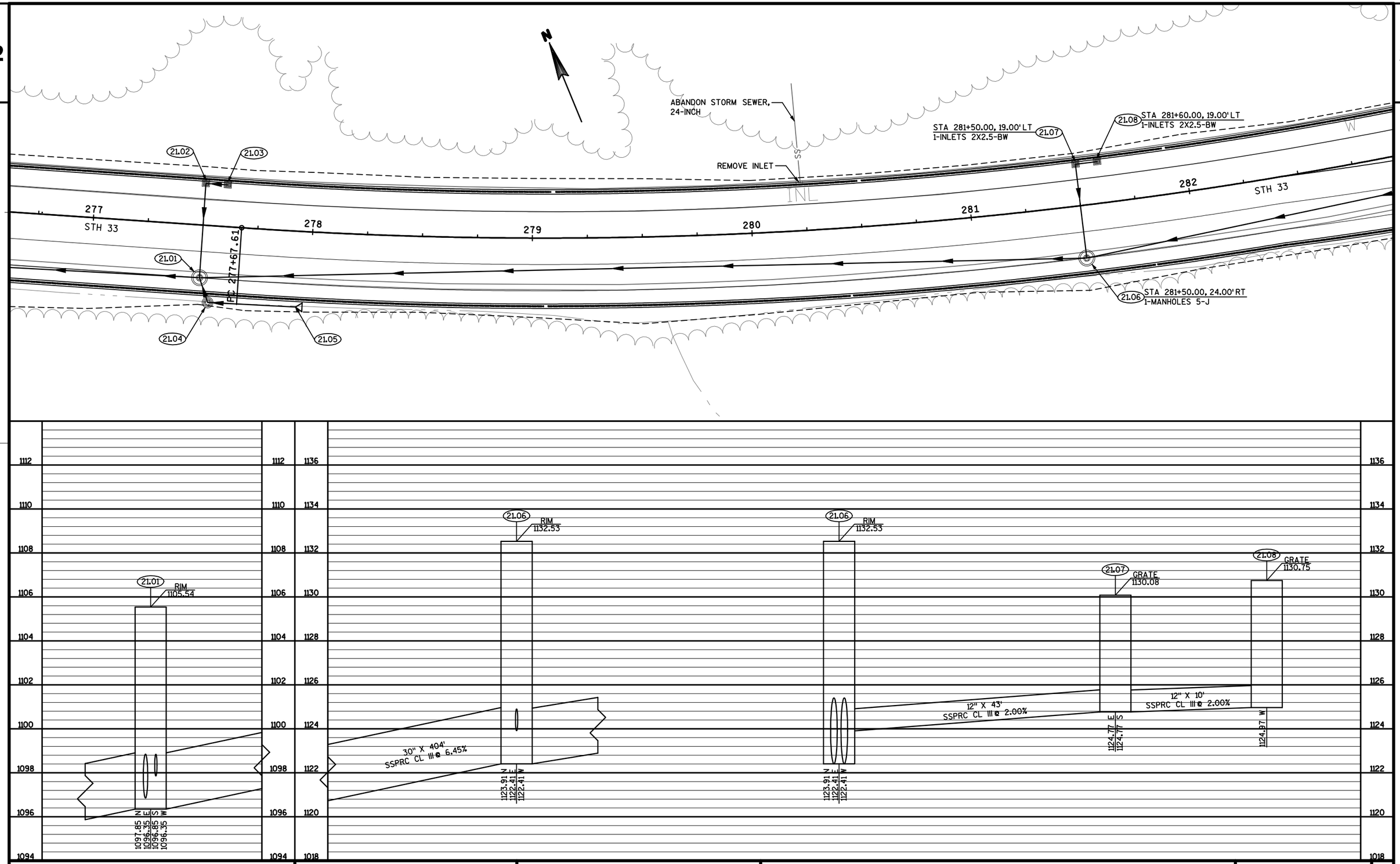


PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET	E

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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 140 E



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Storm Sewer\022521b_ss.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 41

2

10+00.00K=
287+05.11

21.07

21.08

ABANDON EXISTING CMP,
36-INCH

22.04 STA 285+00.00, 19.00'LT
1-INLETS 2X2.5-BW

22.03 STA 285+10.00, 19.00'LT
1-INLETS 2X2.5-BW

281

282
STH 33

283

284

285

286

287
STH 33

21.06

STA 284+50.00, 19.70'RT
1-MANHOLES 5-J

22.01

PC 10+46.57K

20+00.00P

N

SIGN

22.05 STA 285+00.00, 82.40'RT
1-RC APRON ENDWALL
1-PIPE GRATE

20+62.29P

STA 284+75.00, 80.80'RT
1-MANHOLES 4
1-HIGH CAPACITY TRASH RACK

22.02

REMOVE VERTICAL SECTION
OF THE EXISTING PIPE
(REMOVING OLD STRUCTURE STA 284+75)

KNOBLOCH ROAD

11K

RT

1136 1134 1132 1130 1128 1126 1124 1122 1120 1018

1136 1134 1132 1130 1128 1126 1124 1122 1120 1018

1156 1154 1152 1150 1148 1146 1144 1142 1140 1038

1156 1154 1152 1150 1148 1146 1144 1142 1140 1038

21.06 RIM
1132.53

1123.91 N
1122.41 E
1122.41 W

22.01 RIM
1153.38

1140.68 S
1140.68 W

22.03 GRATE
1155.51

22.04 GRATE
1154.79

22.02 T.O.S.
1149.00

1149.68 W

1149.48 E
1149.48 S

12" X 10'
SSPRC CL III @ 2.00%

12" X 102'
SSPRC CL III @ 3.41%

22.05

1146.00 N

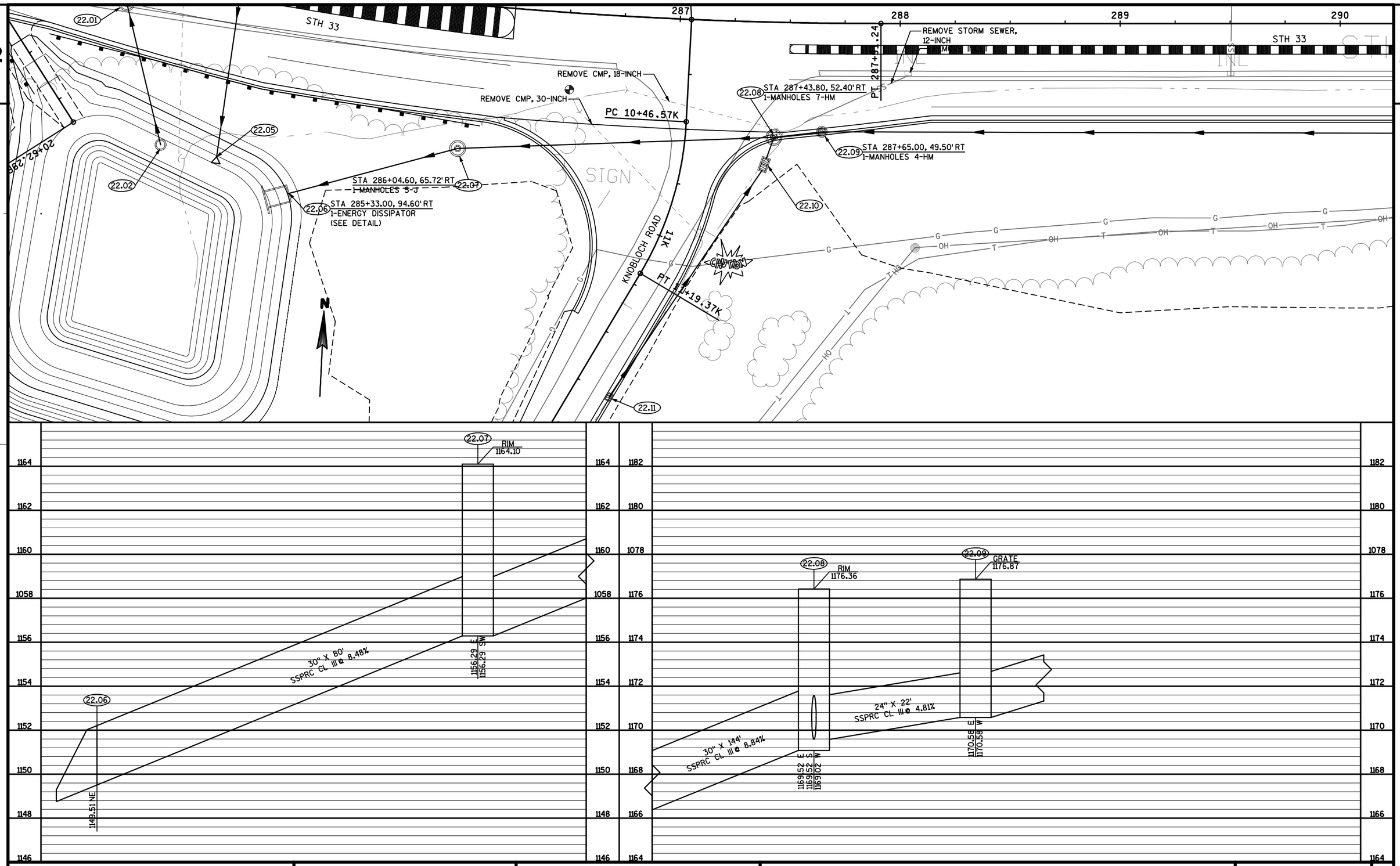
6-INCH CUTOUT AT
ELEV. 1146.00

30" X 66'
SSPRC CL III @ 3.52%

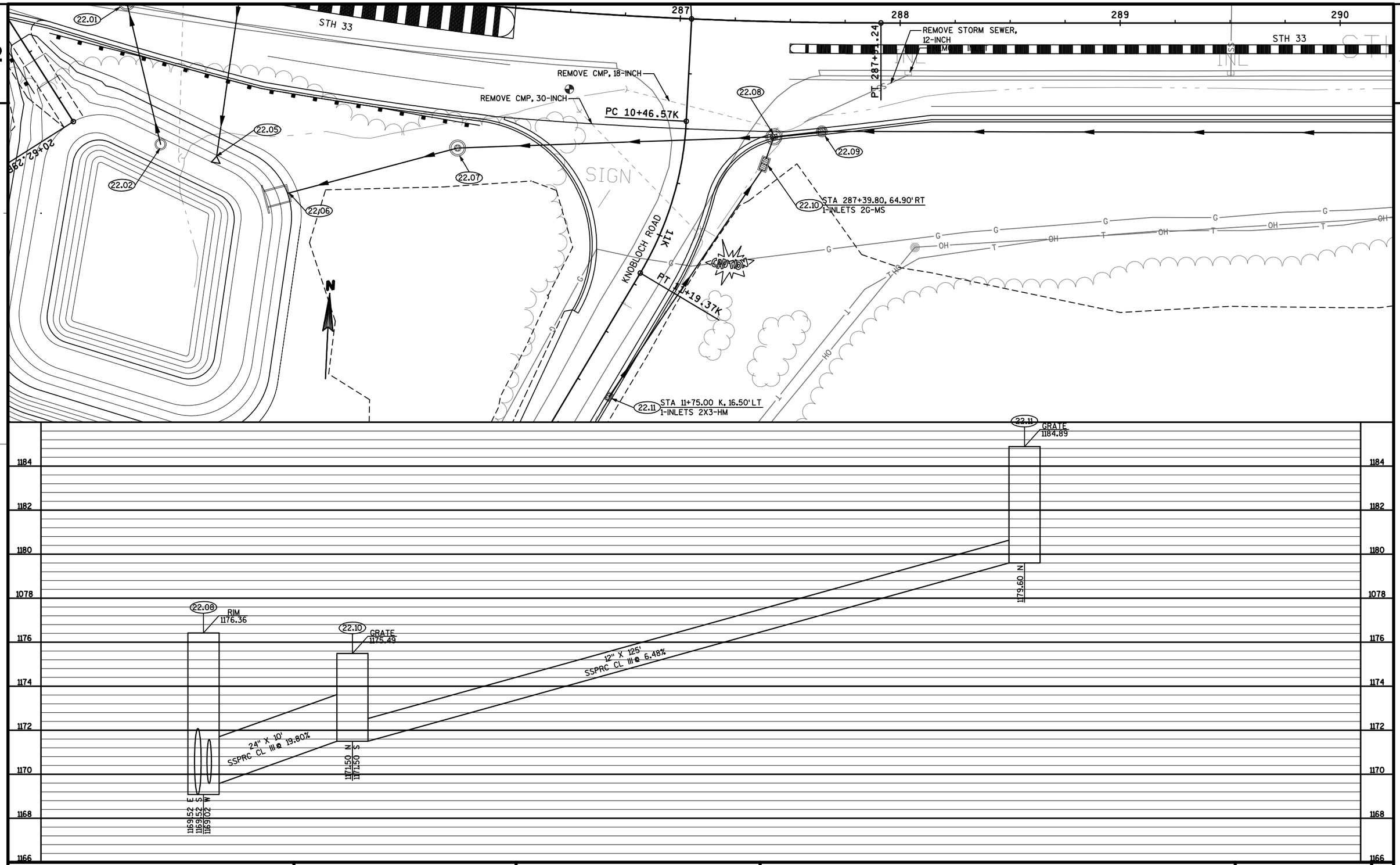
1143.00 N

30" X 303'
SSPRC CL III @ 6.00%

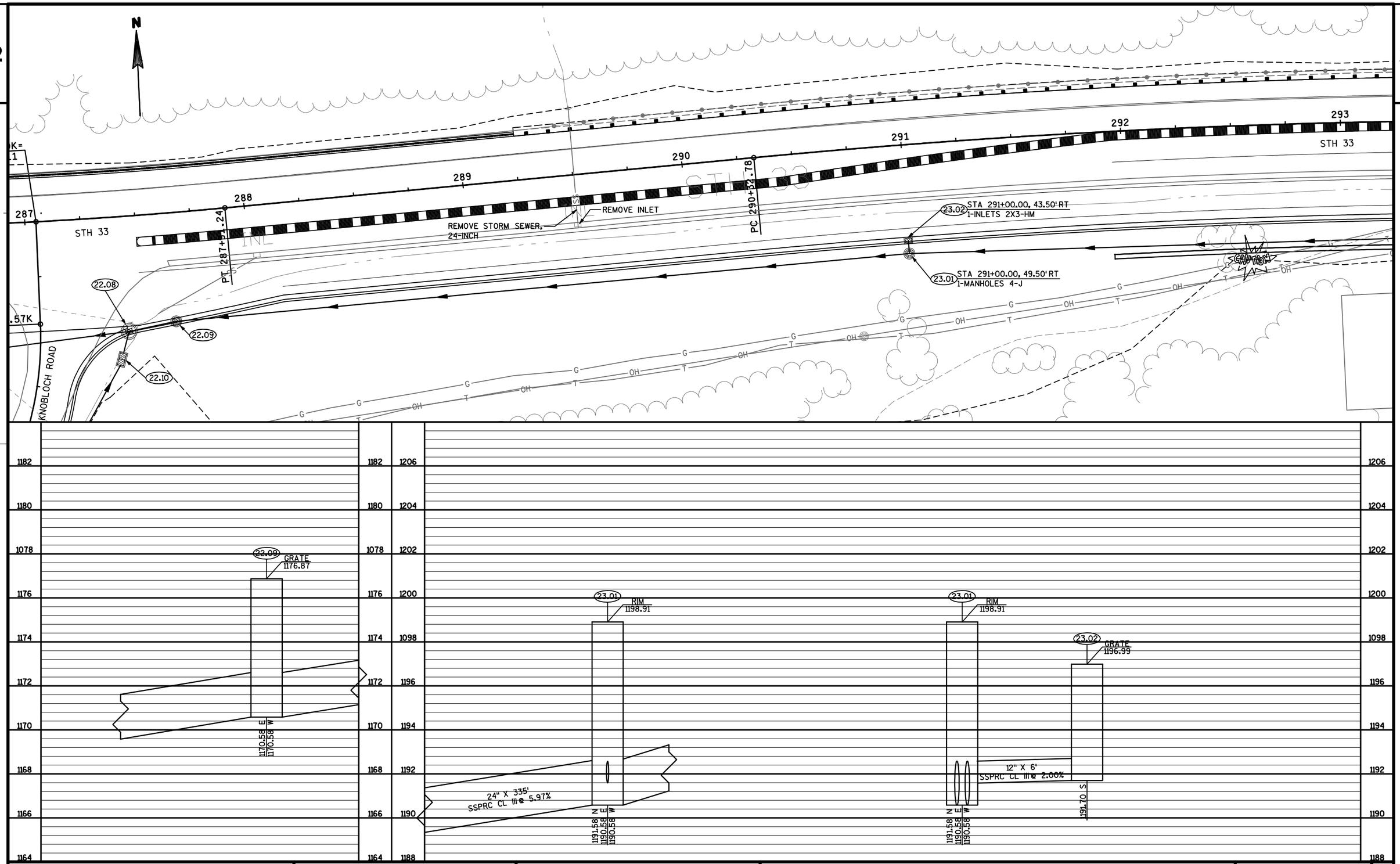
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 142 E



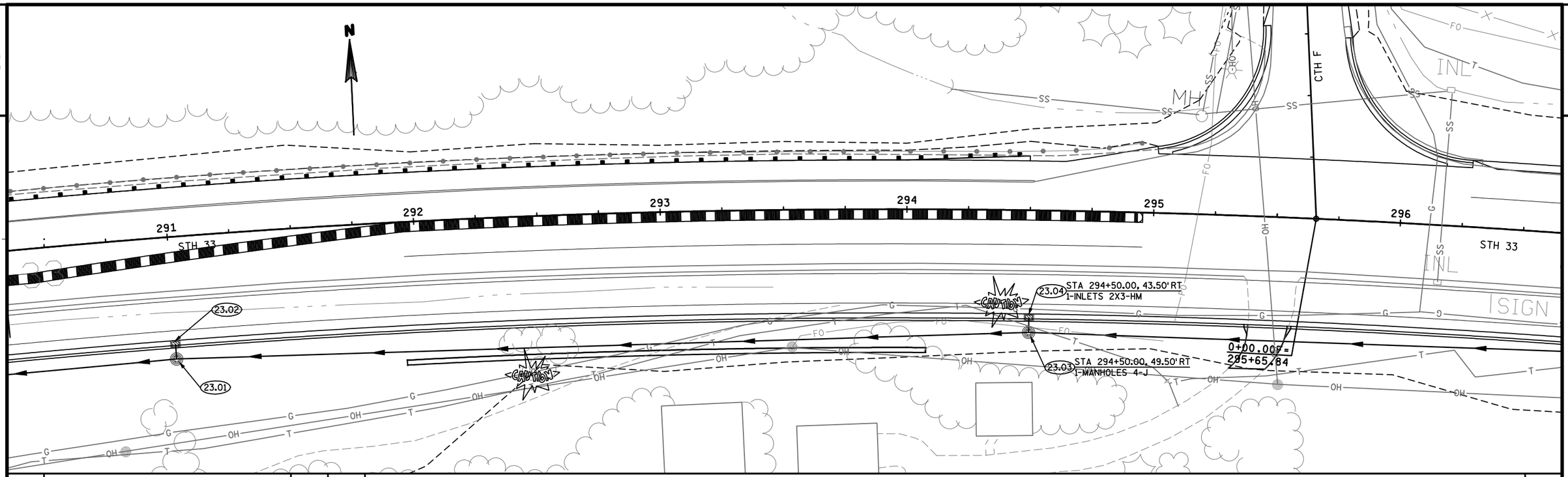
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 143 E

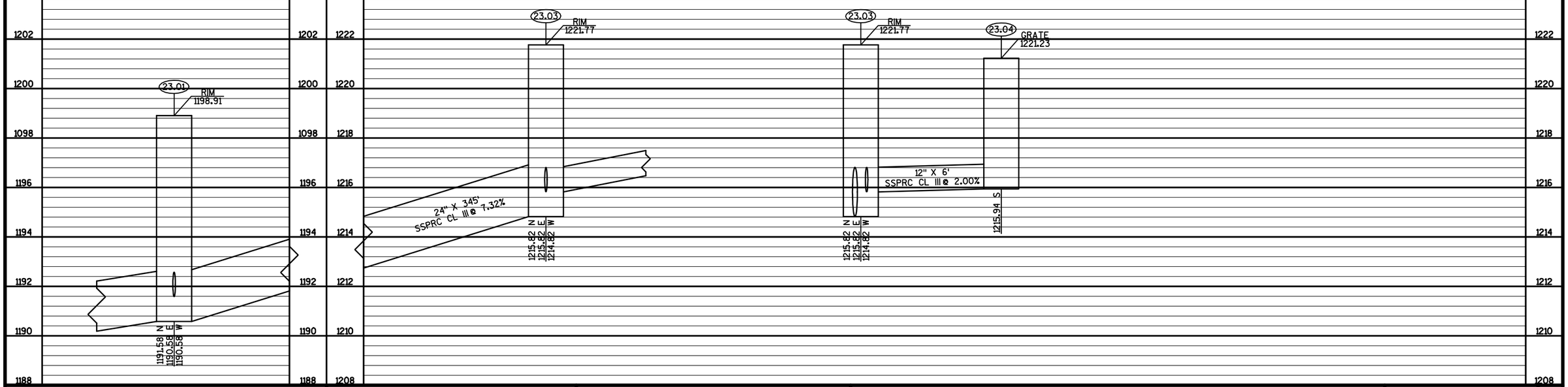


PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 144 E



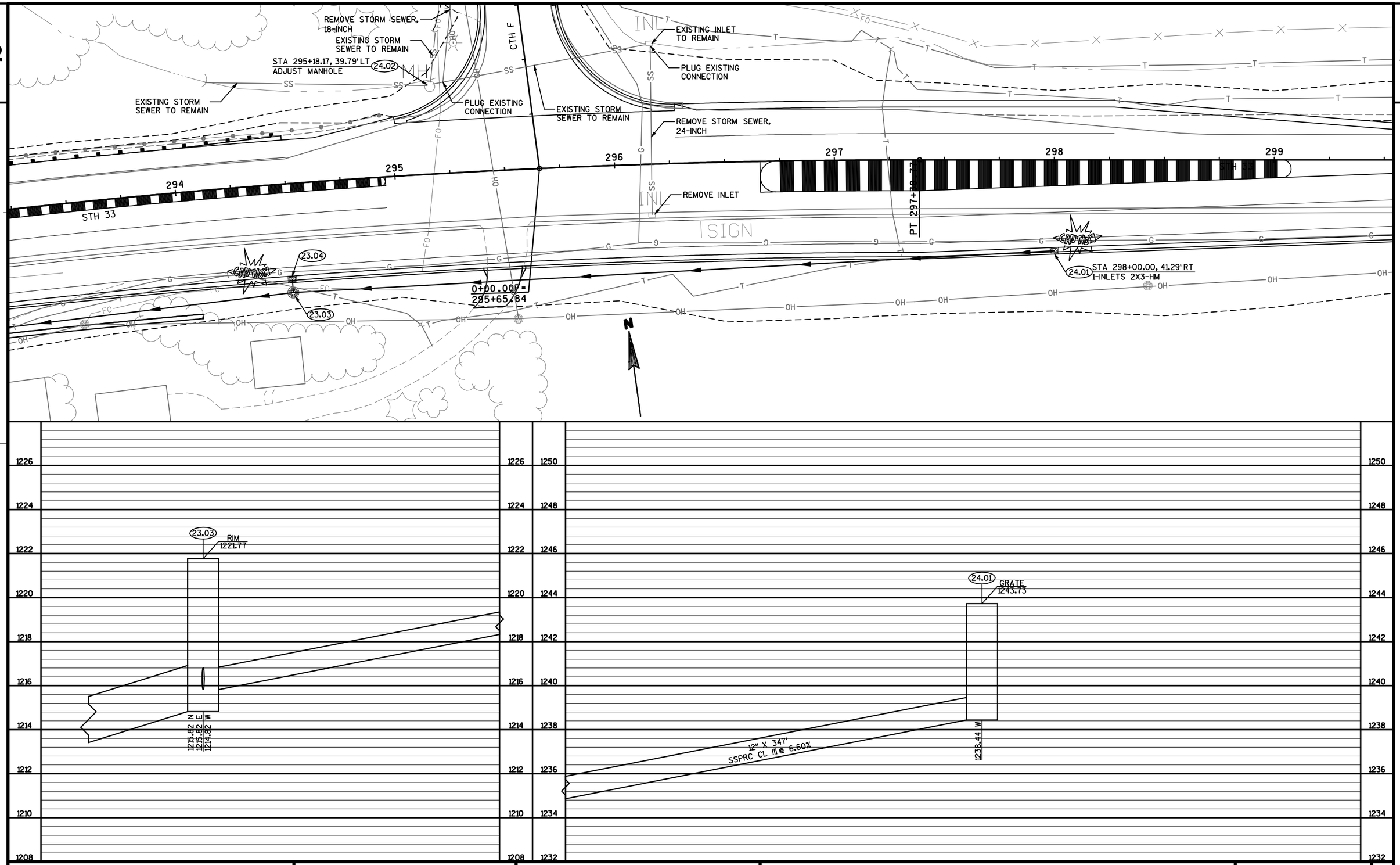
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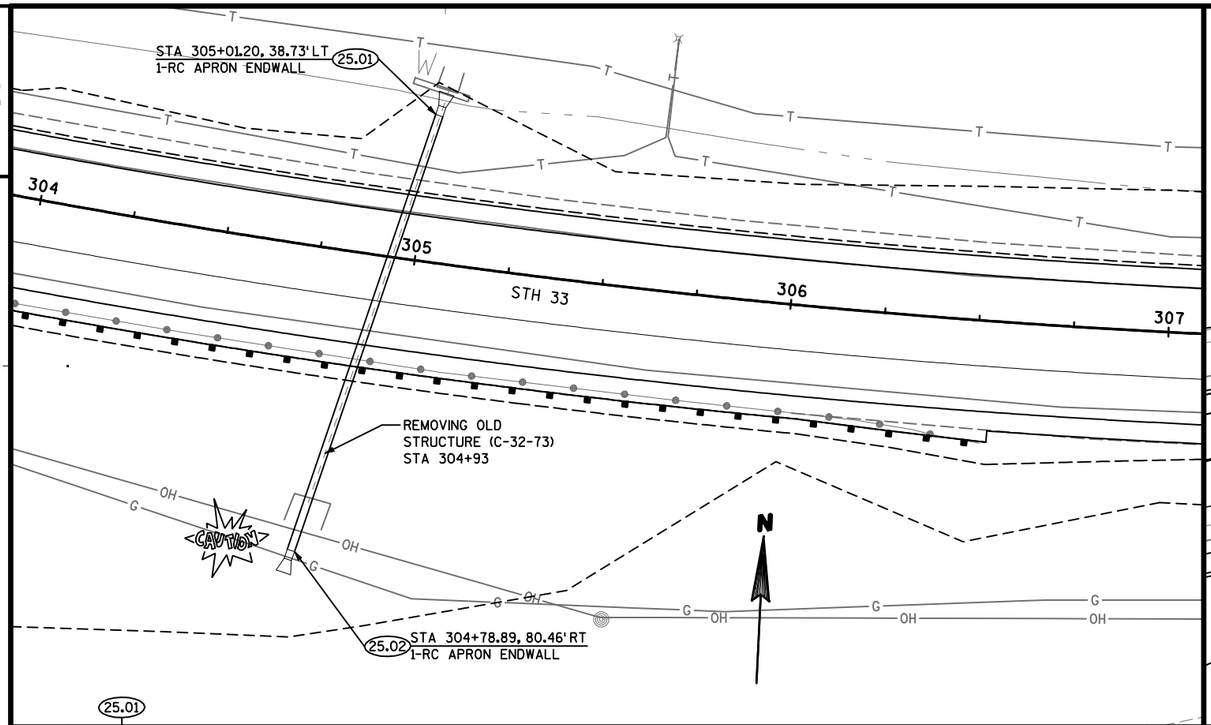


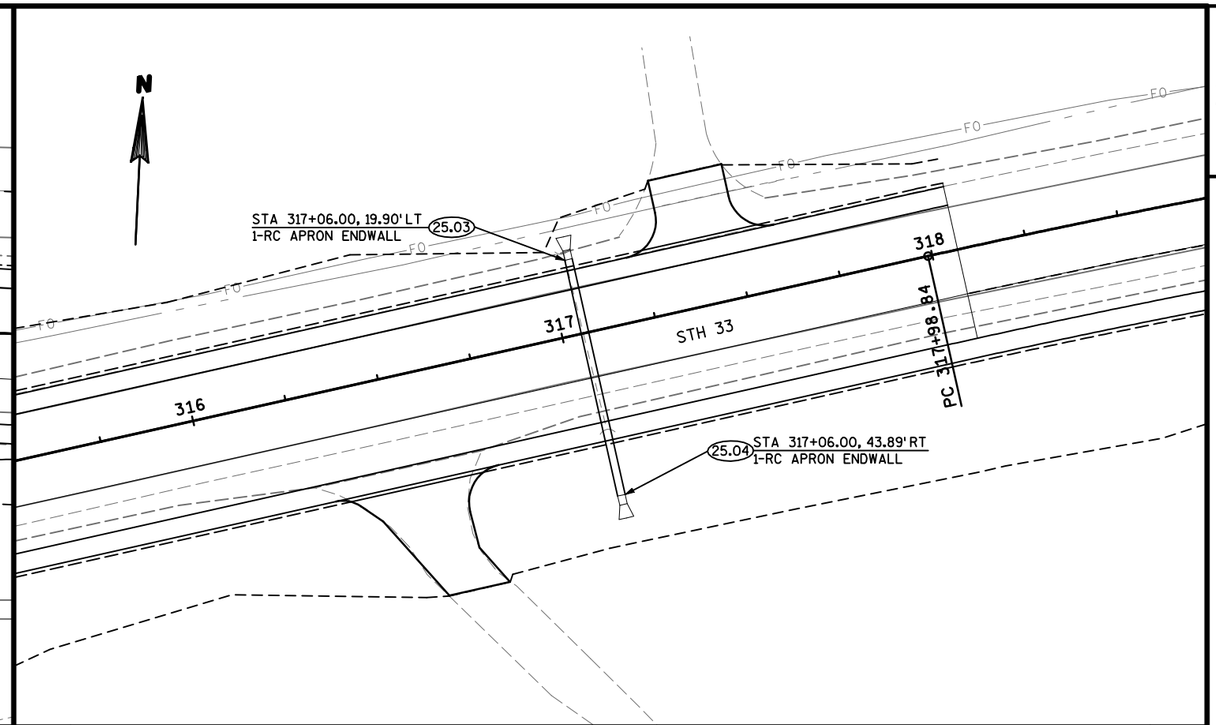


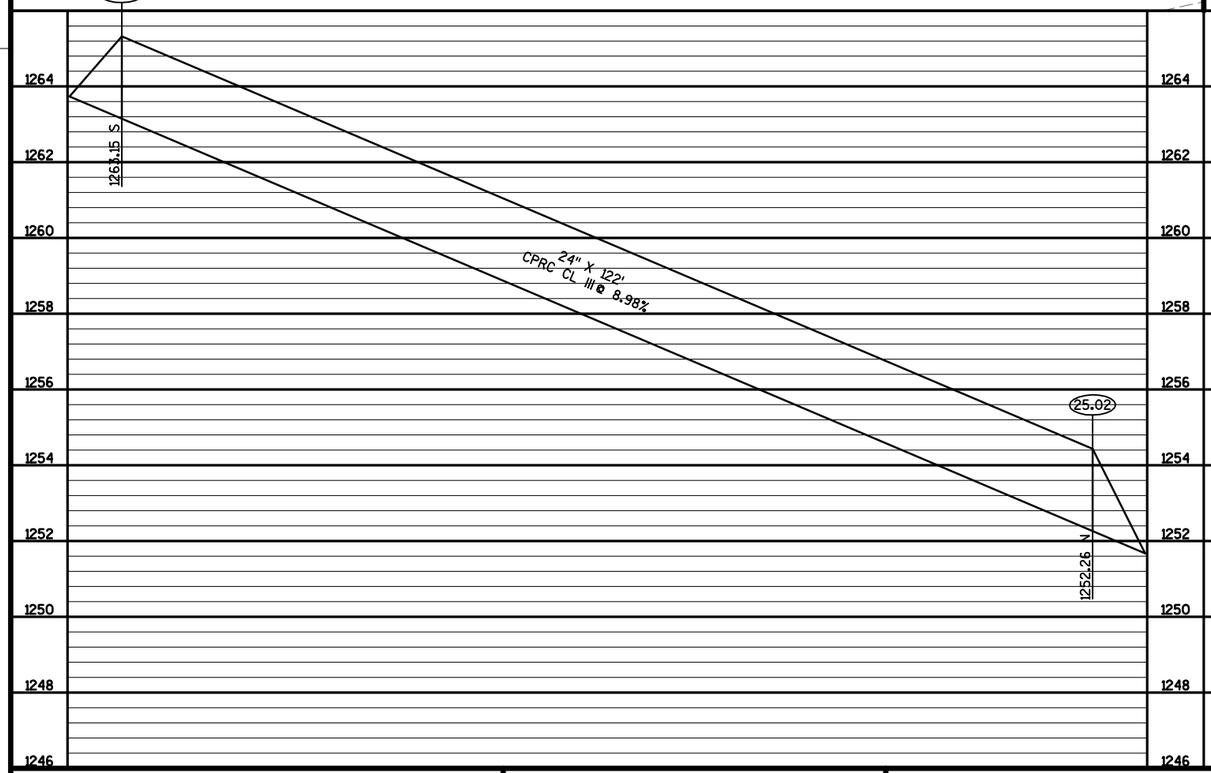
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET E

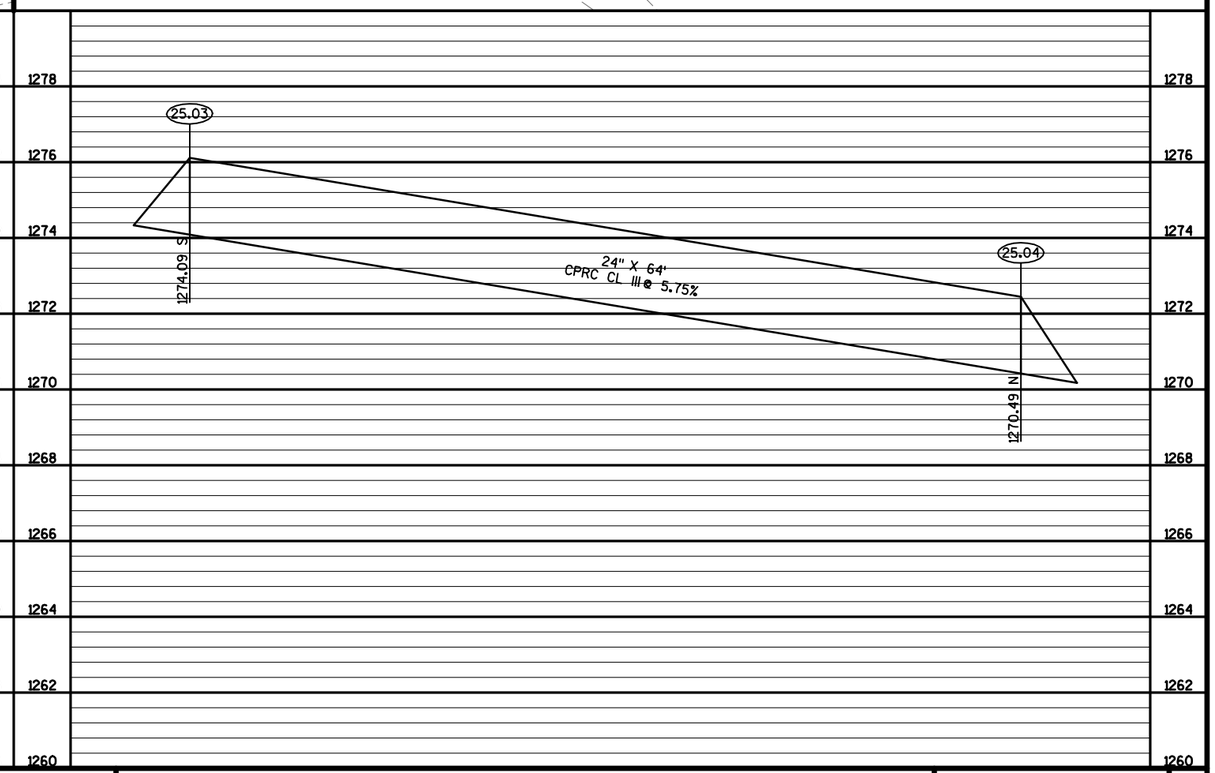
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REMOVE STORM SEWER, 18-INCH
EXISTING STORM SEWER TO REMAIN
STA 295+18.17, 39.79' LT
ADJUST MANHOLE
24.02
MH
EXISTING STORM SEWER TO REMAIN
PLUG EXISTING CONNECTION
CTH F
EXISTING STORM SEWER TO REMAIN
EXISTING INLET TO REMAIN
PLUG EXISTING CONNECTION
REMOVE STORM SEWER, 24-INCH
REMOVE INLET
294
295
296
297
298
299
STH 33
PT 297+70.77
SIGN
CAUTION
23.04
23.03
0+00.00 = 295+65.84
24.01
STA 298+00.00, 41.29' RT
1-INLETS 2X3-HM
N
23.03
RIM
1221.77
1215.82 N
1215.82 E
1214.82 W
24.01
GRATE
1243.73
1238.44 W
12" X 347'
SSPRC CL III @ 6.60%

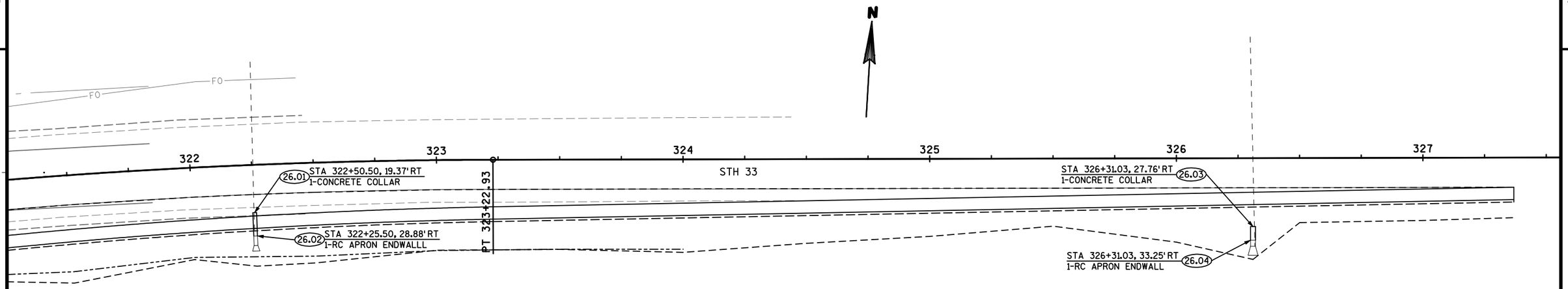


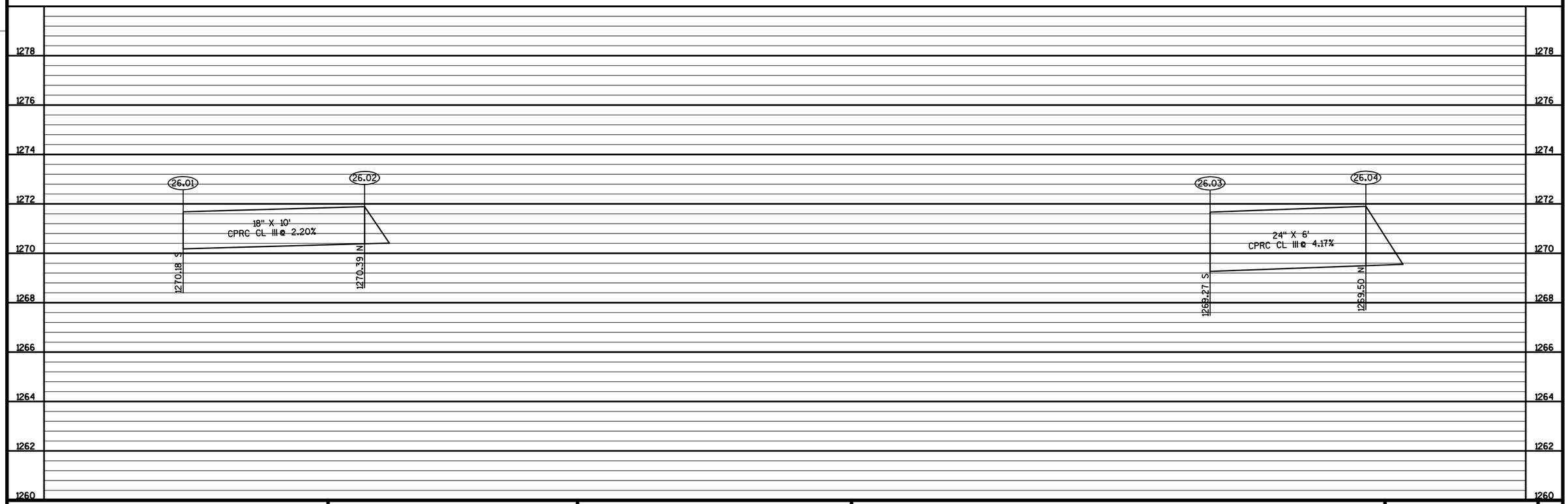






PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 148 E





PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	STORM SEWER SHEET	SHEET 149 E

2

2

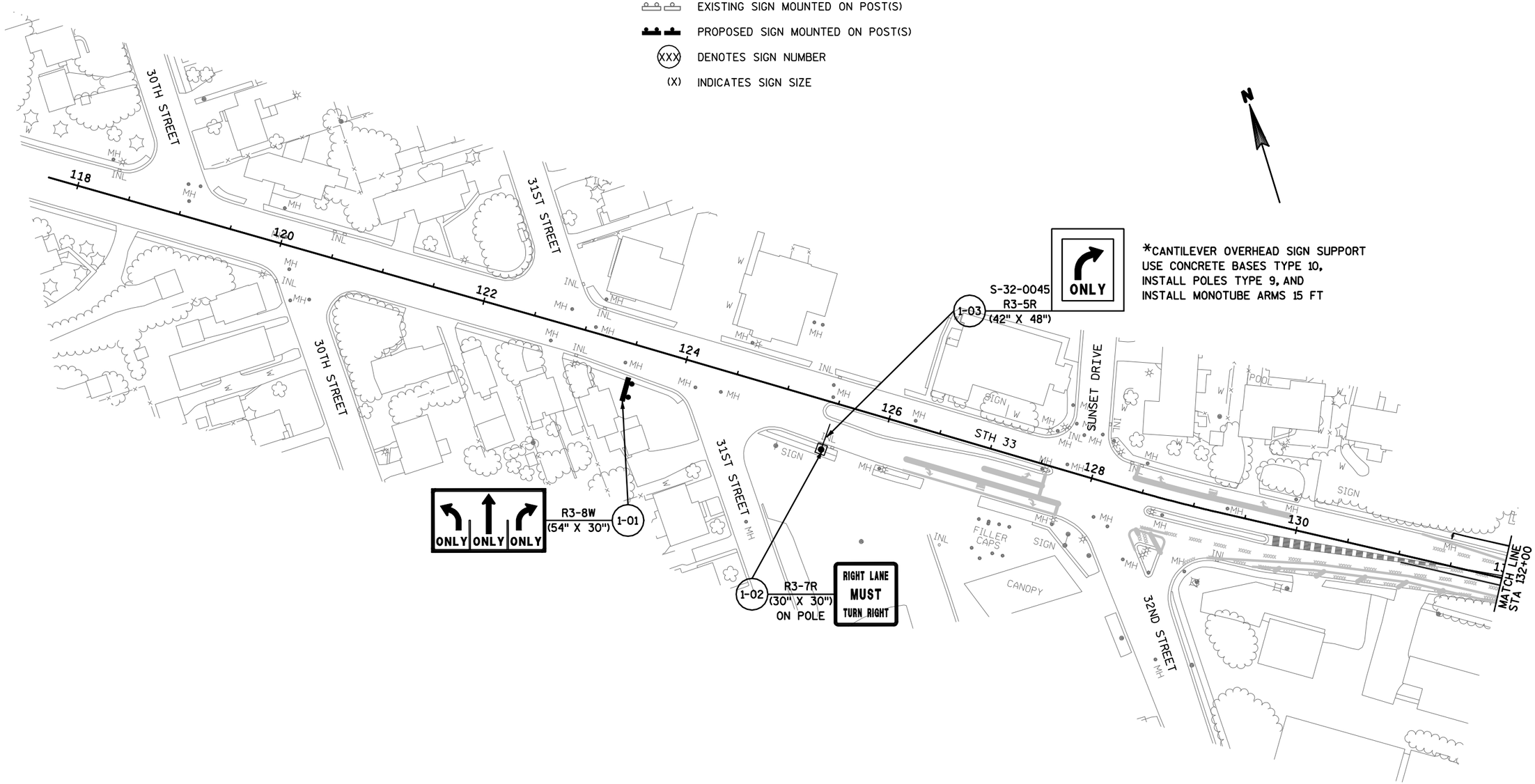
LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PERMANENT SIGNING	SHEET 150	E

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

N

END
CENTER LANE
ONLY
R3-9D (24" X 6") 1-11
R3-9B (24" X 36") 1-12

R1-02 REMOVE

NO PARKING ANY TIME REMOVE R1-01

1-04 R2-1 (24" X 30") SPEED LIMIT 25

SPEED LIMIT 25 REMOVE R1-05

BEGIN PROJECT 5120-07-71
STA 132+50.00

MATCH LINE STA 132+00

SPEED LIMIT 25 W3-5 (36" X 36") 1-06

SPEED LIMIT 40 REMOVE R1-08

NO PARKING ANY TIME REMOVE R1-09

MATCH LINE STA 146+50

134 136 138 140 142 144 146

STH 33

STH 33

EXISTING ADOPT-A-HIGHWAY SIGN RELOCATED BY OTHERS (TO STATION 136+00)

1-09 R3-9C (24" X 6") BEGIN
CENTER LANE
1-10 R3-9B (24" X 36") ONLY

1-05 R2-1 (24" X 30") SPEED LIMIT 40

1-08 R2-1 (24" X 30") SPEED LIMIT 40

R1-03 REMOVE SPEED LIMIT 40

R1-04 REMOVE NO PARKING ANY TIME

STOP REMOVE R1-06

SPEED LIMIT 25 REMOVE R1-07

SPEED LIMIT 40 REMOVE R1-10

NO PARKING ANY TIME REMOVE R1-11

DRIVE-IN ROAD

12DI

14DI

MH

MATCH LINE STA 14+00DI

MATCH LINE STA 14+00DI

R1-12 REMOVE

DRIVE-IN ROAD

1-13 W5-56A (18" X 18")

1-14 W5-56A (18" X 18")

1-15 W5-56A (18" X 18")

14DI

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PERMANENT SIGNING	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\signing\023201b_ps.dgn PLOT DATE : 7/31/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

N

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

XXX DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

MATCH LINE STA 146+50

MATCH LINE STA 161+50

STH 33

148 150 152 154 156 158 160

HIAWATHA AVENUE

WEDGEWOOD DRIVE

HAGEN ROAD

8HA 10HA 12HA 14HA 16HA

WEST 33 — REMOVE R2-01

SPEED LIMIT 40 — REMOVE R2-11

NO PARKING ANY TIME — REMOVE R2-12

SPEED LIMIT 40 — REMOVE R2-13

NO PARKING ANY TIME — REMOVE R2-14

SPEED LIMIT 40 — R2-1 (24" X 30") 2-14

END SCHOOL ZONE — S5-2 (24" X 30") 2-15

STOP — REMOVE R2-23

2-19 W5-56A (18" X 18")

2-20 W5-56A (18" X 18")

2-21 W5-56A (18" X 18")

SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT — REMOVE R2-24

SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT — 2-25 S4-51 (24" X 48")

2-01 R3-9B (24" X 36") CENTER LANE ONLY

2-02 S1-1 (36" X 36")

2-03 WF16-9P (30" X 18") AHEAD

2-04 R2-6P (24" X 18") FINES HIGHER

BEGIN CENTER LANE ONLY — R3-9C (24" X 6") 2-09; R3-9B (24" X 36") 2-10

S1-1 (36" X 36") 2-17

WF16-7L (30" X 18") 2-18

2-16 J4-1 (24" X 36")

WEST 33 — M3-4 (24" X 12") M1-6 (24" X 24")

REMOVE R2-21

REMOVE R2-22

SPEED LIMIT 40 — REMOVE R2-02

NO PARKING ANY TIME — REMOVE R2-03

NO PARKING ANY TIME — REMOVE R2-04

NO OUTLET — W14-2 (24" X 24") 2-05

SPEED LIMIT 25 — R2-1 (18" X 24") 2-06

SPEED LIMIT 25 — REMOVE R2-07

NO PARKING ANY TIME — REMOVE R2-05

NO OUTLET — REMOVE R2-06

2-08 S4-5 (36" X 36") SCHOOL SPEED LIMIT 20

SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT — REMOVE R2-15

END CENTER LANE ONLY — R3-9D (24" X 6") 2-11; R3-9B (24" X 36") 2-12

SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT — S4-51 (24" X 48") 2-13

REMOVE R2-09

REMOVE R2-10 AHEAD

REMOVE R2-08 STOP

2-07 R1-1 (30" X 30") STOP

REMOVE R2-16

REMOVE R2-17

S1-1 (36" X 36") 2-22

WF16-7L (30" X 18") 2-23

STOP — REMOVE R2-20

NO PARKING ANY TIME — REMOVE R2-19

SPEED LIMIT 25 — REMOVE R2-18

SPEED LIMIT 25 — R2-1 (18" X 24") 2-24

SPEED LIMIT 40 — REMOVE R2-25

NO PARKING ANY TIME — REMOVE R2-26

EAST 33 — REMOVE R2-27

M3-2 (24" X 12") M1-6 (24" X 24") EAST 33 — J4-1 (24" X 36") 2-28

SPEED LIMIT 40 — R2-1 (24" X 30") 2-26

END SCHOOL ZONE — S5-2 (24" X 30") 2-27

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PERMANENT SIGNING	SHEET	E

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2

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

(XXX) DENOTES SIGN NUMBER

( ) INDICATES SIGN SIZE

N

REMOVE R3-01

AHEAD REMOVE R3-02

REMOVE R3-05 — SPEED LIMIT 40

REMOVE R3-06 — NO PARKING ANY TIME

3-06 S1-1 (36" X 36")

3-07 WF16-9P (30" X 18") AHEAD

2-08 R2-6P (24" X 18") FINES HIGHER

END R3-9D (24" X 6") 3-01

CENTER LANE ONLY R3-9B (24" X 36") 3-02

3-05 S4-5 (36" X 36") SCHOOL SPEED LIMIT 20

3-09 W3-3 (36" X 36")

SPEED LIMIT 50 REMOVE R3-07

NO PARKING ANY TIME REMOVE R3-08

MATCH LINE STA 161+50

162 164 166 168 170 172 174 176

STH 33

MH

FOOTBRIDGE

WALLS

MATCH LINE STA 176+50

SPEED LIMIT 50 REMOVE R3-03

NO PARKING ANY TIME REMOVE R3-04

3-03 R3-9C (24" X 6") BEGIN CENTER LANE ONLY

3-04 R3-9B (24" X 36")

SPEED LIMIT 50 REMOVE R3-09

NO PARKING ANY TIME REMOVE R3-10

3-10 R4-51 (36" X 48") PASSING LANE AHEAD 1 MILE

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PERMANENT SIGNING	SHEET 153	E

2

2

LEGEND

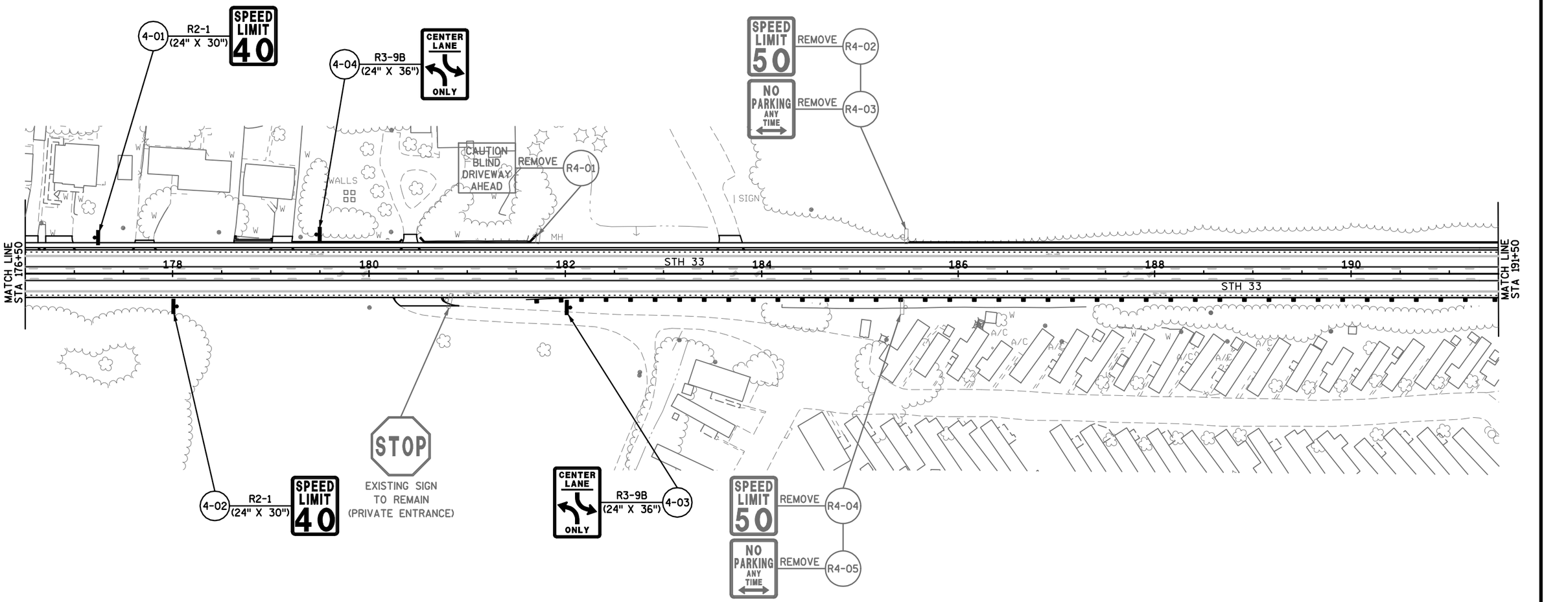
EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

XXX DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

N



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PERMANENT SIGNING	SHEET	E

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LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

XXX DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

N

W11-2 (30" X 30") 5-06

W16-7L (24" X 12") 5-07

SPEED LIMIT 50 REMOVE R5-01

NO PARKING ANY TIME REMOVE R5-02

5-08 R2-1 (24" X 30") SPEED LIMIT 40

5-10 W11-2 (30" X 30")

5-11 W16-9P (24" X 8") AHEAD

MATCH LINE STA 191+50

192 194 196 198 STH 33 200 202 204 206

STH 33

200SW 202SW

MATCH LINE STA 206+50

STOP

EXISTING SIGN TO REMAIN (PRIVATE ENTRANCE)

5-01 R2-1 (24" X 30") SPEED LIMIT 40

5-02 W11-2 (30" X 30")

5-03 W16-9P (24" X 8") AHEAD

STOP

EXISTING SIGN TO REMAIN (PRIVATE ENTRANCE)

W11-2 (30" X 30") 5-04

W16-7L (24" X 12") 5-05

SPEED LIMIT 50 REMOVE R5-03

NO PARKING ANY TIME REMOVE R5-04

5-09 R4-51 (36" X 48") PASSING LANE AHEAD 1/2 MILE

5-12 R2-1 (24" X 30") SPEED LIMIT 40

5-13 W11-2 (30" X 30")

5-14 W16-9P (24" X 8") AHEAD

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PERMANENT SIGNING	SHEET 155	E

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

N

6-14 W11-2 (30" X 30")

6-15 W16-9P (24" X 8") AHEAD

6-17 R1-1 (30" X 30") STOP

6-16 R1-1 (30" X 30") STOP

EAGLE POINT DR

BOMA ROAD

128

145

6-11 W11-2 (30" X 30")

6-12 W16-7L (24" X 12")

6-13 R2-1 (24" X 30") SPEED LIMIT 40

R6-07 REMOVE STOP

6-09 R3-9C (24" X 6") BEGIN CENTER LANE ONLY

6-10 R3-9B (24" X 36")

SPEED LIMIT 50 R6-05 REMOVE

NO PARKING ANY TIME R6-06 REMOVE

R6-08 REMOVE WEST 33

6-18 R3-9D (24" X 6") END CENTER LANE

6-19 R3-9B (24" X 36") ONLY

6-24 R3-9C (24" X 6") BEGIN CENTER LANE

6-25 R3-9B (24" X 36") ONLY

SPEED LIMIT 40 R2-1 (24" X 30") 6-22

R6-16 REMOVE EAST 33

R6-17 REMOVE NO PASSING ZONE

214

216

212

218

210

208

STH 33

220

MATCH LINE STA 206+50

MATCH LINE STA 221+50

EXISTING ADOPT-A-HIGHWAY SIGN RELOCATED BY OTHERS

EXISTING ADOPT-A-HIGHWAY SIGN RELOCATED BY OTHERS

END PROJECT 5120-07-71

BEGIN PROJECT 5120-07-72

STA 217+00.00

6-20 R3-9C (24" X 6") BEGIN CENTER LANE

6-21 R3-9B (24" X 36") ONLY

SPEED LIMIT 55 R2-1 (24" X 30") 6-23

6-26 R3-9D (24" X 6") END CENTER LANE

6-27 R3-9B (24" X 36") ONLY

SOUTHDALE DRIVE

112

6-01 R3-9D (24" X 6") END CENTER LANE

6-02 R3-9B (24" X 36") ONLY

SPEED LIMIT 25 R2-1 (24" X 30") 6-03

WEIGHT LIMIT 7 TONS R12-1 (24" X 30") 6-04

6-07 W11-2 (30" X 30")

6-08 W16-7L (24" X 12")

R6-04 REMOVE STOP

FOOTBRIDGE

6-06 R1-1 (30" X 30") STOP

6-05 W14-2 (24" X 24") NO OUTLET

R6-09 REMOVE SPEED LIMIT 55

R6-10 REMOVE NO PARKING ANY TIME

ST JOSEPH 8

CASHTON 26

R6-11 REMOVE

NO PARKING ANY TIME R6-12 REMOVE

6-28 * W14-3 (48" X 36") NO PASSING ZONE

SPEED LIMIT 25 R6-14 REMOVE

SPEED LIMIT 25 R2-1 (24" X 30") 6-29

NO OUTLET R6-13 REMOVE

6-31 R1-1 (30" X 30") STOP

R6-15 REMOVE STOP

SPEED LIMIT 25 R6-01 REMOVE

WEIGHT LIMIT 7 TONS R6-02 REMOVE

NO OUTLET R6-03 REMOVE

NO OUTLET 6-30 W14-2 (24" X 24")

HORSESHOE PLACE

12HO

* FINAL LOCATIONS OF W14-3 NO PASSING SIGNS TO BE DETERMINED AFTER LOCATING NO PASSING ZONES IS COMPLETED.

PROJECT NO: 5120-07-71/72	HWY: STH 33	COUNTY: LA CROSSE	PERMANENT SIGNING	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\signing\023206_ps.dgn PLOT DATE : 7/31/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

N

7-01 W3-5 (36" X 36") SPEED LIMIT 40

R7-01 REMOVE SPEED LIMIT 50

STOP R1-1 (30" X 30") 7-03

STOP REMOVE R7-02

IRISH COURT

POOL

A/C

SIGN

MATCH LINE STA 221+50

222 224 226 STH 33 228 230 232 234 236

MATCH LINE STA 236+50

STH 33

NO PARKING ANY TIME REMOVE R7-03

7-02 D2-2 (84" X 24")

St Joseph 8
Cashton 24

SLOWER TRAFFIC KEEP RIGHT R4-3 (24" X 30") 7-04

R7-04 REMOVE SLOWER TRAFFIC KEEP RIGHT

NORSEMAN ROAD

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PERMANENT SIGNING	SHEET 157	E

2

2

LEGEND

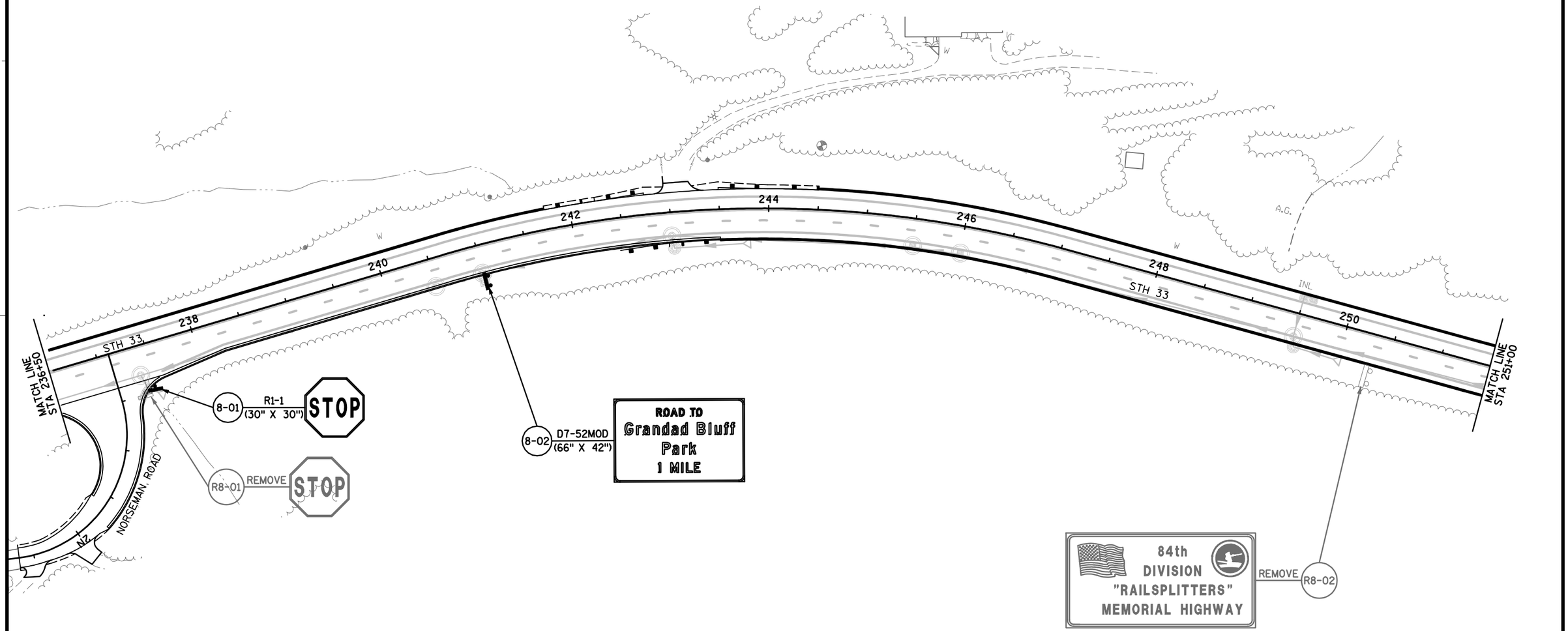
EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

N



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PERMANENT SIGNING	SHEET	E

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2

LEGEND

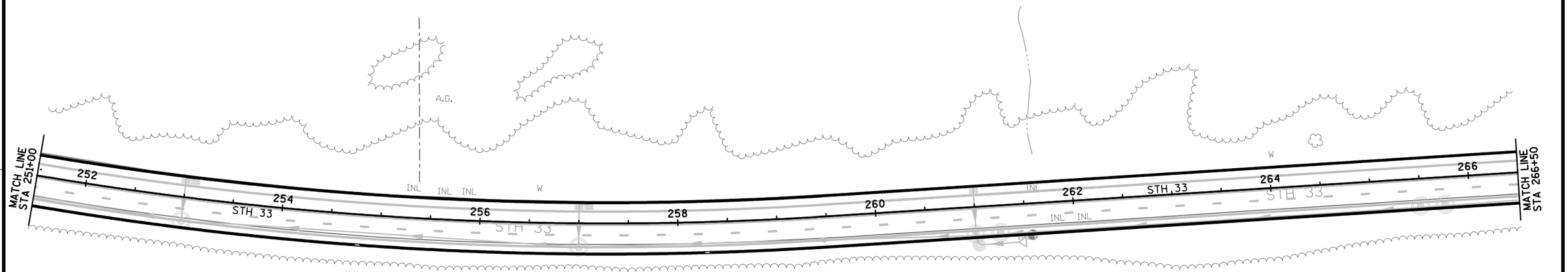
EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

N



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PERMANENT SIGNING	SHEET 159	E

2

2

LEGEND

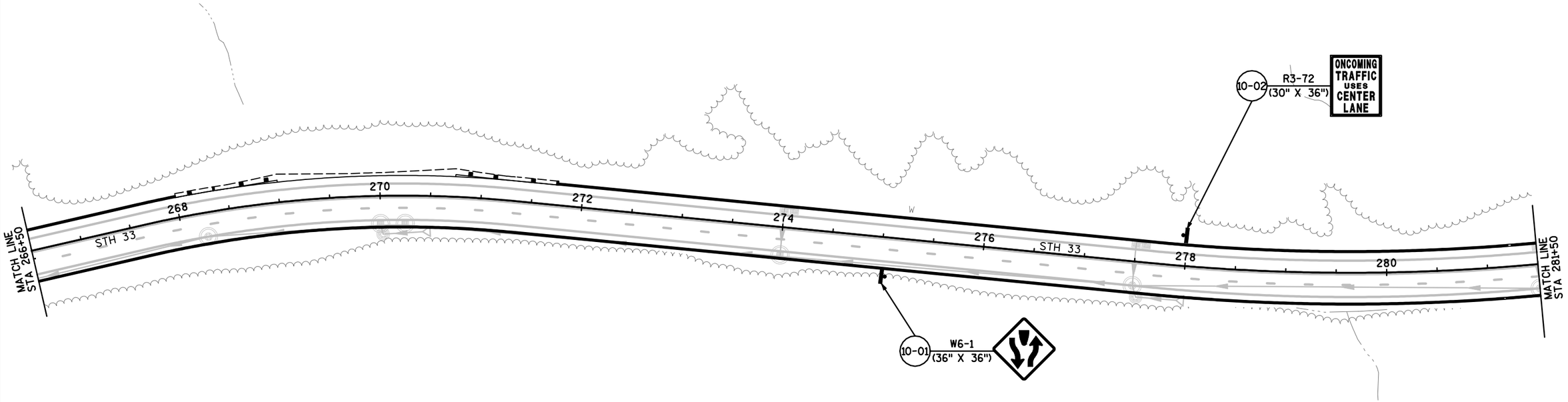
EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

N



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PERMANENT SIGNING	SHEET 160	E

N

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

XXX DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

11-01 W6-3 (36" X 36")

11-02 R4-7 (36" X 48")

11-03 W5-54 (18" X 18")

11-04 R5-1 (36" X 36") DO NOT ENTER

11-07 R4-7 (24" X 30")

11-08 R6-2L (24" X 30") ONE WAY

11-12 R5-1 (30" X 30") DO NOT ENTER

11-11 R4-7 (24" X 30")

11-13 W6-2 (36" X 36")

11-14 R5-1A (36" X 24") WRONG WAY

SPEED LIMIT 55 R2-1 (24" X 30") 11-16

M3-4 (24" X 12") WEST

M1-6 (24" X 24") 33

J4-1 (24" X 36") 11-18

M1-6 (24" X 24") 33

M6-4 (21" X 21")

J13-1 (24" X 45") 11-22

STOP REMOVE R11-09

33 REMOVE R11-08

STOP R1-1 (30" X 30") 11-23

DIVIDED HIGHWAY R6-3A (30" X 24") 11-24

COUNTY F REMOVE R11-11

COUNTY F M1-5A (24" X 24") 11-26

SPEED LIMIT 35 R2-1 (24" X 30") 11-25

SPEED LIMIT 35 REMOVE R11-10

2F

INL

CTH F

MATCH LINE STA 281+50

MATCH LINE STA 296+50

STH 33

282 284 286 288 290 292 294 296

KNOBLOCH ROAD

12X

JCT COUNTY F REMOVE R11-01

M2-1 (21" X 15")

M1-5A (24" X 24")

JCT COUNTY F J1-1 (24" X 39") 11-05

DO NOT ENTER R5-1 (36" X 36") 11-06

R11-03 REMOVE NO PASSING ZONE

R11-02 REMOVE STOP

11-09 R1-1 (30" X 30") STOP

11-10 R6-3A (30" X 24") DIVIDED HIGHWAY

WRONG WAY R5-1A (36" X 24") 11-17

RIGHT LANE ENDS REMOVE R11-05

11-15 D7-53L(MOD) (66" X 36") Grandad Bluff Park

R11-04 REMOVE Grandad Bluff

COUNTY F REMOVE R11-06

M1-5A (24" X 24")

COUNTY F

M6-1 (21" X 21")

J13-1 (24" X 45") 11-19

DO NOT ENTER R5-1 (30" X 30") 11-20

ONE WAY R6-2L (24" X 30") 11-21

COUNTY F REMOVE R11-07

2

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

XXX DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

N

12-01 R5-1 (30" X 30") DO NOT ENTER

COUNTY F M1-5A (24" X 24")

12-02 J13-1 (24" X 45") M6-1 (21" X 21")

REMOVE R12-01

EXISTING ADOPT-A-HIGHWAY SIGN RELOCATED BY OTHERS

R12-02 REMOVE Grandad Bluff

Grandad Bluff Park

12-10 D7-53R(MOD) (66" X 36")

12-06 R5-1A (36" X 24") WRONG WAY

R12-04 REMOVE ONCOMING TRAFFIC USES CENTER LANE

JCT COUNTY F M2-1 (21" X 15") M1-5A (24" X 24")

12-13 J1-1 (24" X 39")

JCT COUNTY F REMOVE R12-05

12-14 W6-1 (36" X 36")

MATCH LINE STA 296+50

298 300 302 304 306 308 310

STH 33

MATCH LINE STA 311+50

R12-03 REMOVE

12-05 W6-2 (36" X 36")

12-03 R4-7 (24" X 30")

12-04 J4-1 (24" X 36") EAST 33 M3-2 (24" X 12") M1-6 (24" X 24")

R4-7 (36" X 48") 12-07

W5-54 (18" X 18") 12-08

12-09 R5-1 (30" X 30") DO NOT ENTER

12-11 W6-3 (36" X 36")

12-12 R2-1 (24" X 30") SPEED LIMIT 55

EXISTING ADOPT-A-HIGHWAY SIGN RELOCATED BY OTHERS

RIGHT LANE ENDS W9-1R (36" X 36") 12-15

STOP REMOVE R12-06 FOREST RIDGE DRIVE

STOP R1-1 (30" X 30") 12-16

POOL

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PERMANENT SIGNING	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Signing\023212_ps.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

N

ONCOMING TRAFFIC USES CENTER LANE

R3-72 (30" X 36") 13-05

W7-1 (36" X 36") 13-03

7% GRADE

W7-3 (24" X 18") 13-04

REMOVE R13-01

7% GRADE

W4-2R (36" X 36") 13-01

W4-2R (36" X 36") 13-02

STH 33

312 314 316 318 320 322 324 326

MATCH LINE STA 314+50

END PROJECT 5120-07-72
STA 327+36.79

2FR

FOREST RIDGE DRIVE

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PERMANENT SIGNING	SHEET 163	E

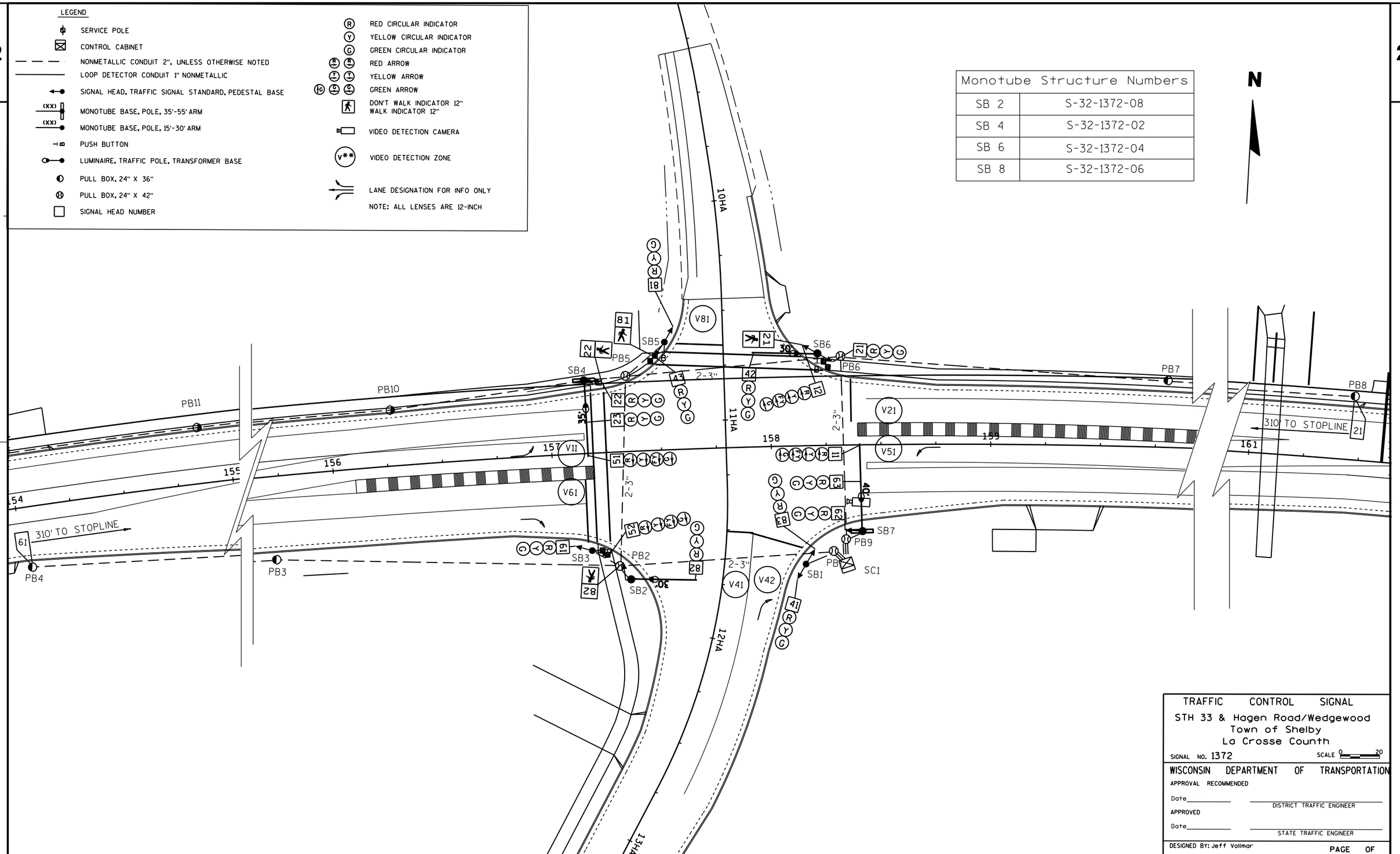
LEGEND

- SERVICE POLE
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- SIGNAL HEAD NUMBER

- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK INDICATOR 12" / WALK INDICATOR 12"
- VIDEO DETECTION CAMERA
- VIDEO DETECTION ZONE
- LANE DESIGNATION FOR INFO ONLY
- NOTE: ALL LENSES ARE 12-INCH

Monotube Structure Numbers	
SB 2	S-32-1372-08
SB 4	S-32-1372-02
SB 6	S-32-1372-04
SB 8	S-32-1372-06

N



TRAFFIC CONTROL SIGNAL

STH 33 & Hagen Road/Wedgewood
Town of Shelby
La Crosse Counth

SIGNAL NO. 1372 SCALE 0 20

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED

Date _____ DISTRICT TRAFFIC ENGINEER

APPROVED

Date _____ STATE TRAFFIC ENGINEER

DESIGNED BY: Jeff Vollmar PAGE OF

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	TRAFFIC SIGNAL PLAN	SHEET 164	E

FILE NAME : P:\State\s33\51200700\Traffic\Signal Design\Final\024001_sp.dgn PLOT DATE : 24-SEP-2013 12:38 PLOT BY : dotj8b PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

2

PB14

PB13

PB12

147 148 149 150 151 152 153

11H

LEGEND

NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED

PULL BOX, 24" X 36"

N

141 142 143 144 145 146 147

PB16

PB15

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	TRAFFIC SIGNAL INTERCONNECTION PLAN	SHEET 165	E

FILE NAME : P:\State\s33\51200700\Traffic\Signal Design\Final\024002_sp.dgn PLOT DATE : 24-SEP-2013 12:38 PLOT BY : dotj8b PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

2

PB18

PB17

136

137

138

139

140

141

N

LEGEND

NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED

PULL BOX, 24" X 36"

1101

EXPB3

EXPB2

EXPB1

PB20

PB19

EXPB4

129

130

131

132

133

134

135

INL

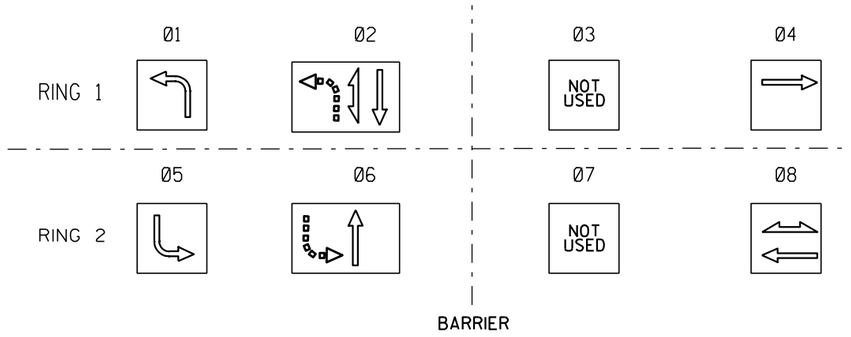
INL

MH

EXPB5

CONEND1

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	TRAFFIC SIGNAL INTERCONNECTION PLAN	SHEET 166	E



	HEAD NUMBERS	FLASH
Ø1	11,12	R
Ø2	21,22,23	R
Ø3		
Ø4	41,42,43	R
Ø5	51,52	R
Ø6	61,62,63	R
Ø7		
Ø8	81,82,83	R
Ø2P	21,22	
Ø4P		
Ø6P		
Ø8P	81,82	



TYPE OF PRE-EMPT	
NONE	x
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF INTERCONNECT COMMUNICATION	
NONE	x
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
FIBER OPTIC	
RADIO	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM #: SS- -	

DETECTOR LOGIC

VEHICLE DETECTOR #	3	1	7	5	11	9	15	13
PLAN LOOP #	21	61						
CALL OPTION Y/N	Y	Y						
DELAY TIME SECONDS	-	-						
EXT OPTION N/P/Q	P	P						
EXT TIME SECONDS	0	0						
USE ADDED INITIAL Y/N	N	N						
CROSS SWITCH PH ϕ	-	-						

19	17	23	21	27	25	31	29
V 11	V 21	V 41	V 51	V 61	V 81		
Y	Y	Y	Y	Y	Y		
-	-	3	-	-	10		
P	Q	P	P	Q	P		
0	0	0	0	0	0		
N	N	N	N	N	N		
6	-	-	2	-	-		

VEHICLE DETECTOR #	4	2	8	6	12	10	16	14
PLAN LOOP #								
CALL OPTION Y/N								
DELAY TIME SECONDS								
EXT OPTION N/P/Q								
EXT TIME SECONDS								
USE ADDED INITIAL Y/N								
CROSS SWITCH PH ϕ								

20	18	24	22	28	26	32	30
		V 42					
		Y					
		10					
		P					
		0					
		N					
		-					

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	x
IN SEPARATE DOT LIGHTING CABINET	

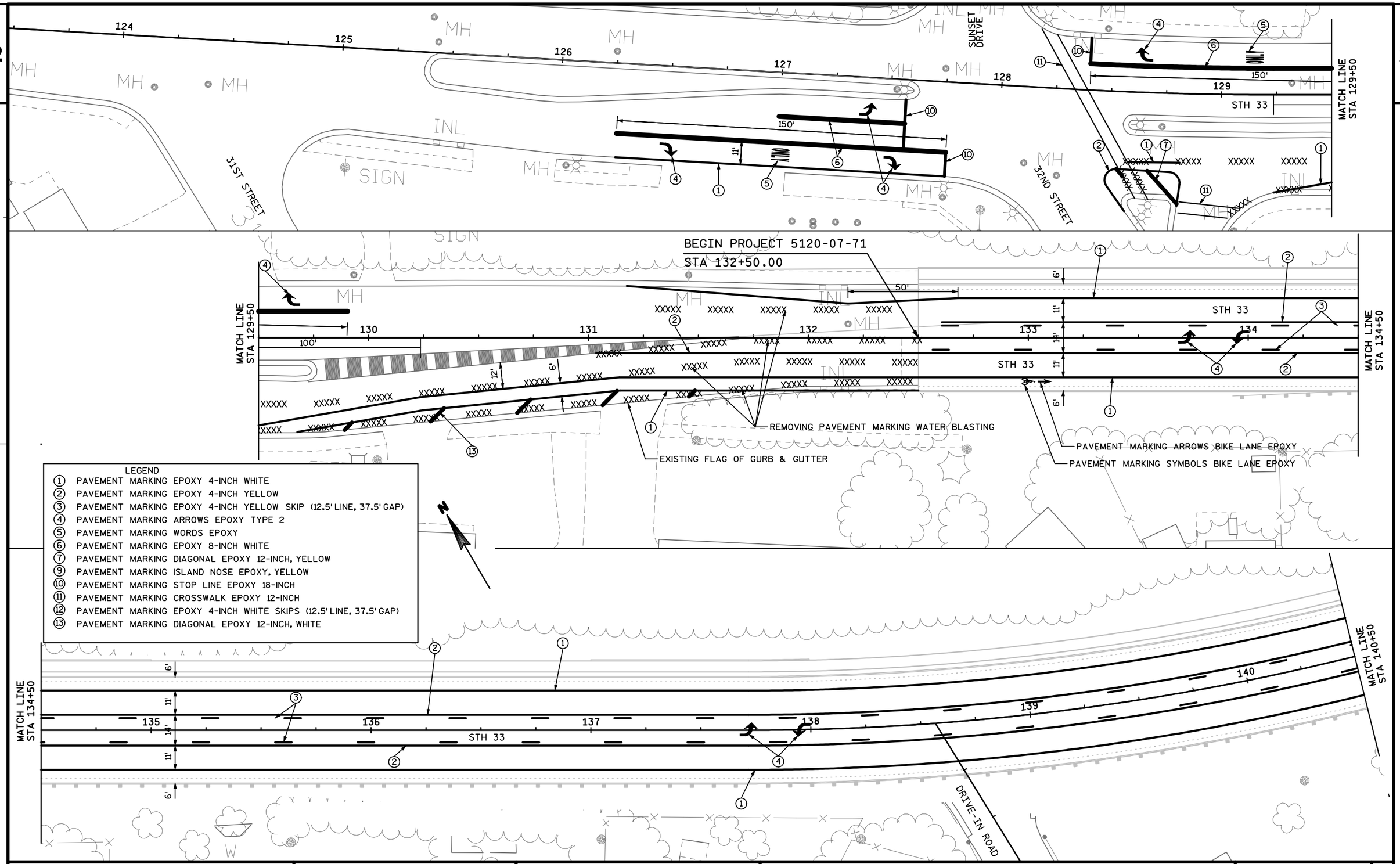
STH 33 & HAGEN ROAD

LA CROSSE COUNTY

SIGNAL NO. 1372

CONTROLLER TYPE: ECONOLITE

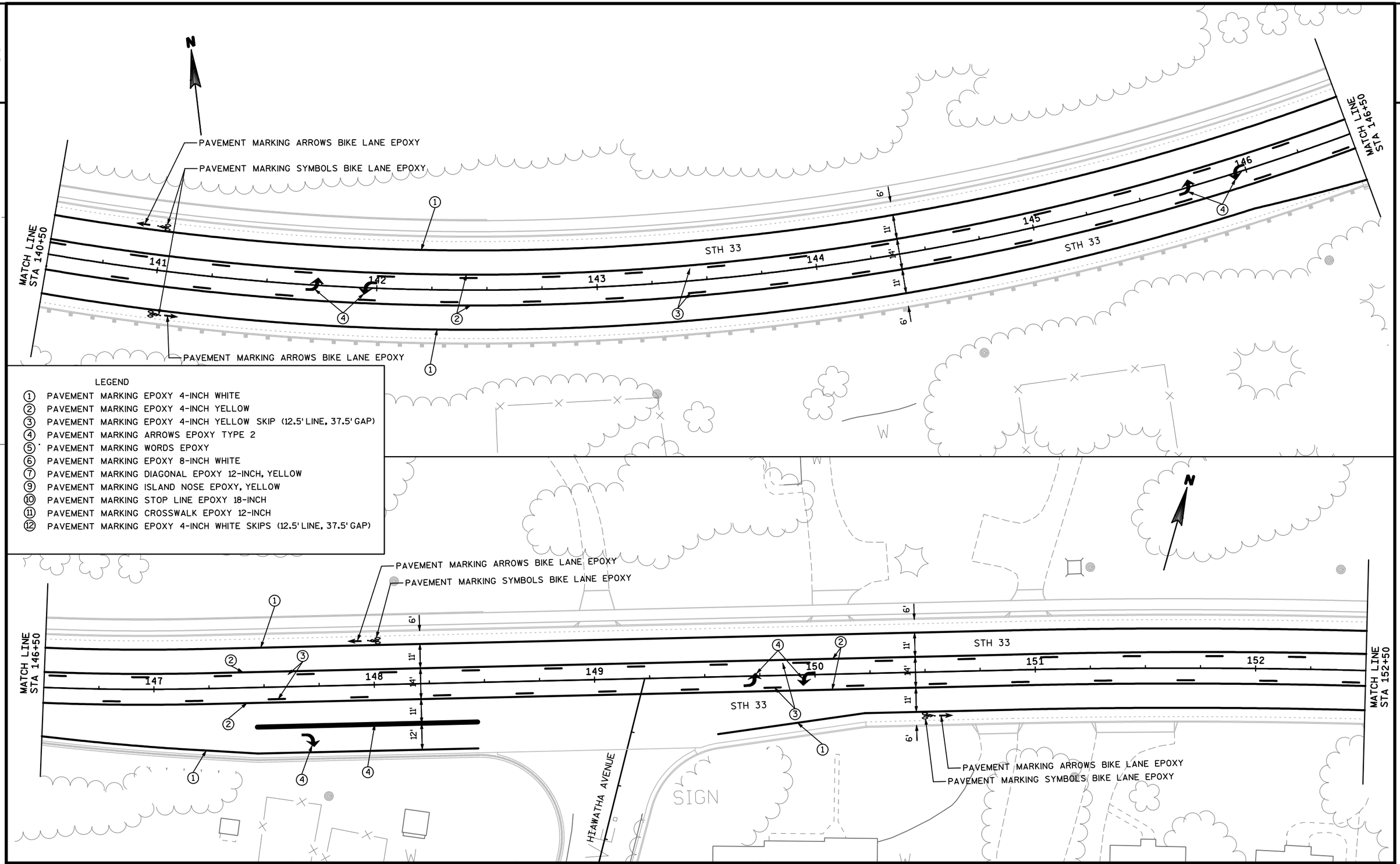
DATE PAGE NO. OF



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET	E

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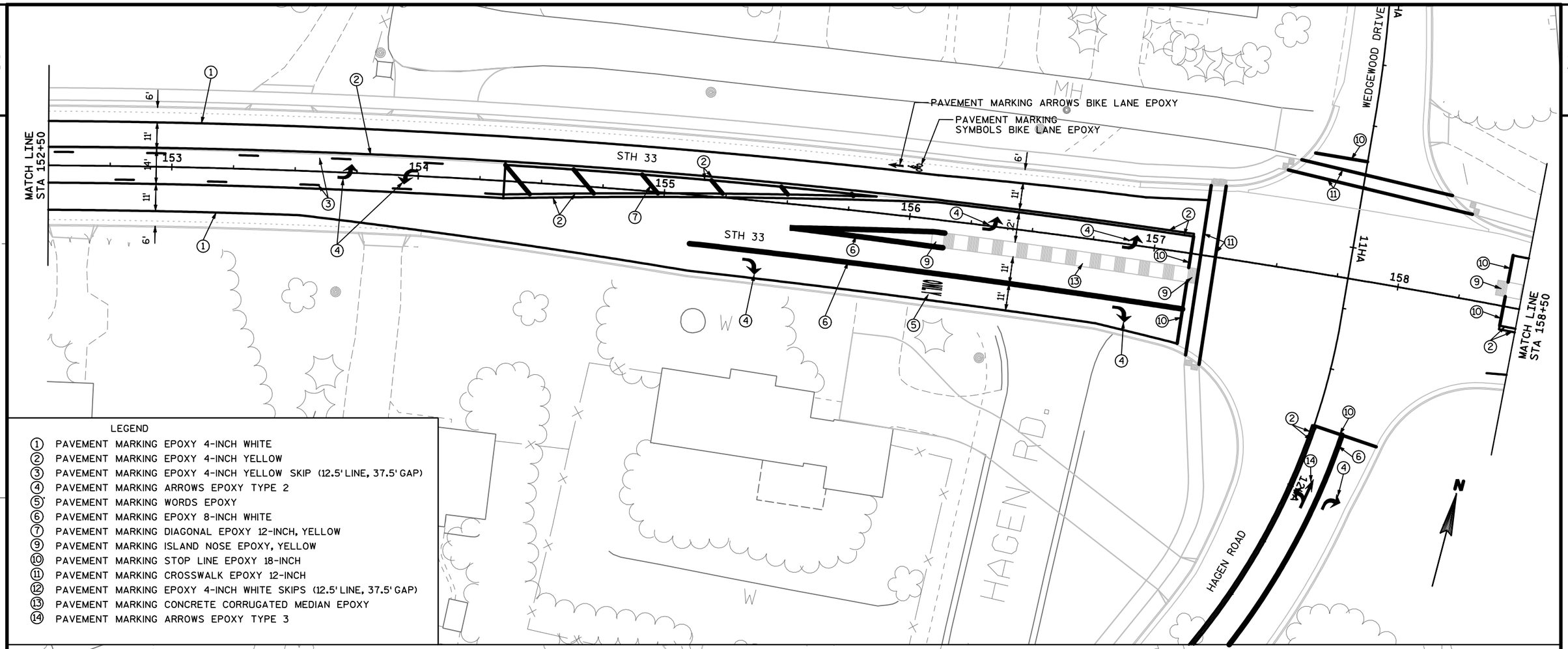


LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH WHITE
2. PAVEMENT MARKING EPOXY 4-INCH YELLOW
3. PAVEMENT MARKING EPOXY 4-INCH YELLOW SKIP (12.5' LINE, 37.5' GAP)
4. PAVEMENT MARKING ARROWS EPOXY TYPE 2
5. PAVEMENT MARKING WORDS EPOXY
6. PAVEMENT MARKING EPOXY 8-INCH WHITE
7. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, YELLOW
9. PAVEMENT MARKING ISLAND NOSE EPOXY, YELLOW
10. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
11. PAVEMENT MARKING CROSSWALK EPOXY 12-INCH
12. PAVEMENT MARKING EPOXY 4-INCH WHITE SKIPS (12.5' LINE, 37.5' GAP)

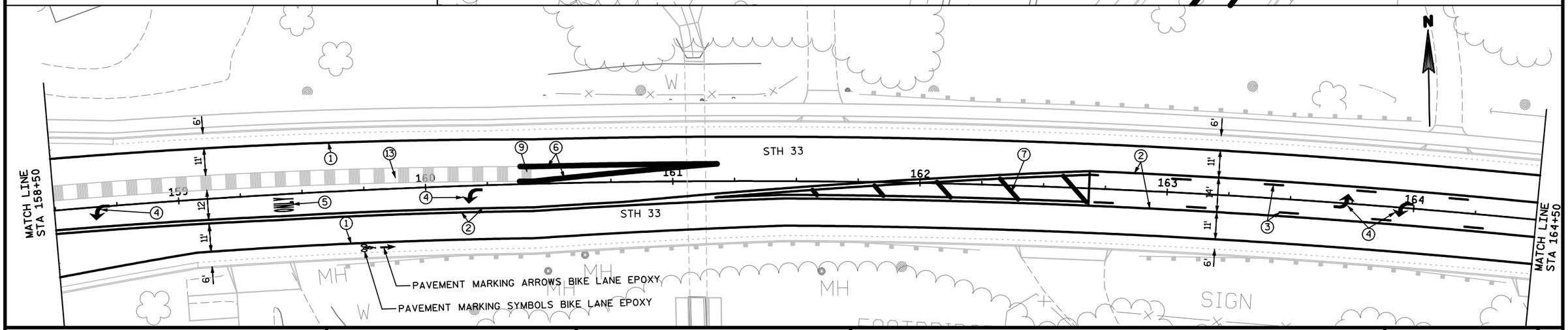
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET	E

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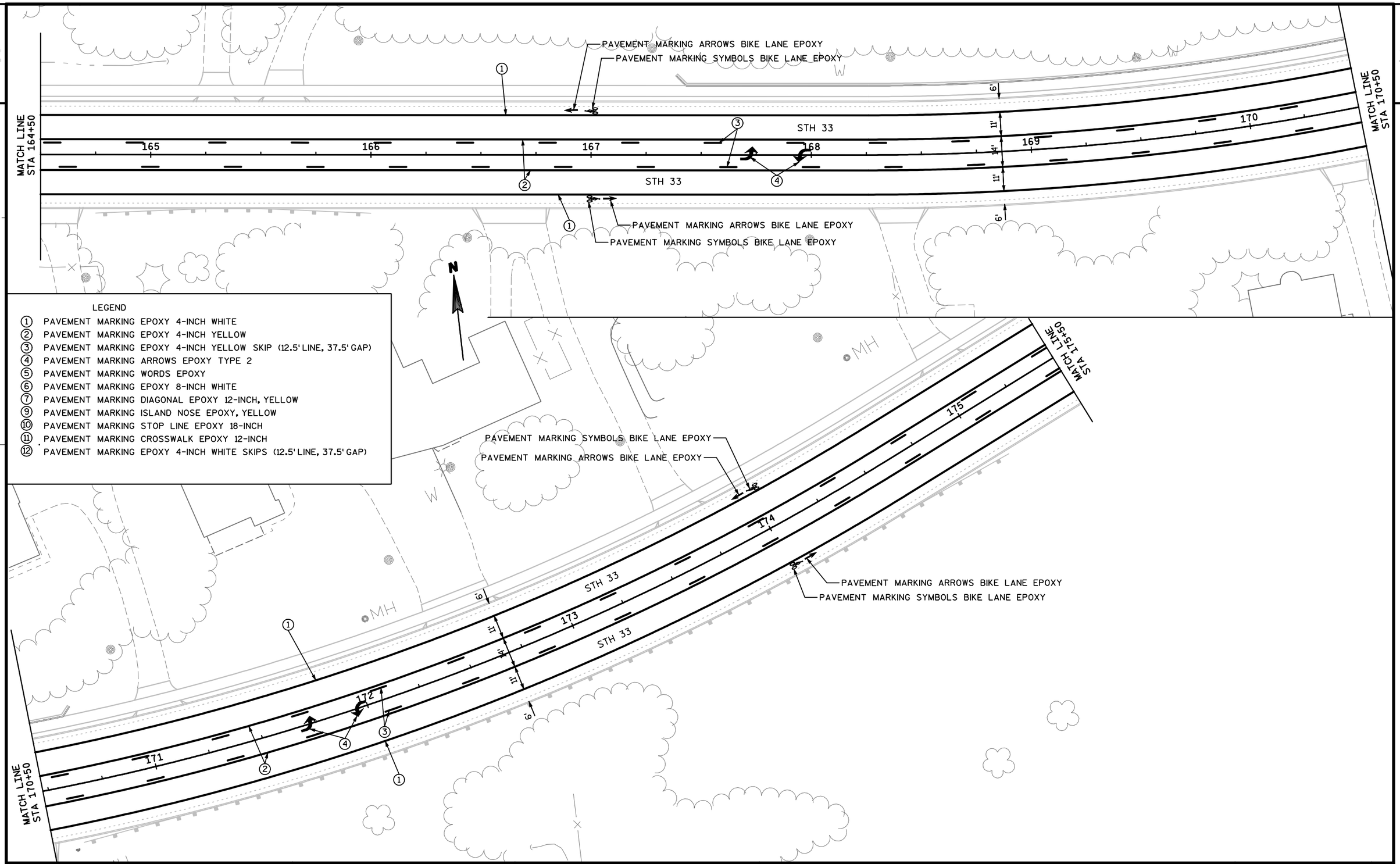
LEGEND

① PAVEMENT MARKING EPOXY 4-INCH WHITE
② PAVEMENT MARKING EPOXY 4-INCH YELLOW
③ PAVEMENT MARKING EPOXY 4-INCH YELLOW SKIP (12.5' LINE, 37.5' GAP)
④ PAVEMENT MARKING ARROWS EPOXY TYPE 2
⑤ PAVEMENT MARKING WORDS EPOXY
⑥ PAVEMENT MARKING EPOXY 8-INCH WHITE
⑦ PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, YELLOW
⑨ PAVEMENT MARKING ISLAND NOSE EPOXY, YELLOW
⑩ PAVEMENT MARKING STOP LINE EPOXY 18-INCH
⑪ PAVEMENT MARKING CROSSWALK EPOXY 12-INCH
⑫ PAVEMENT MARKING EPOXY 4-INCH WHITE SKIPS (12.5' LINE, 37.5' GAP)
⑬ PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY
⑭ PAVEMENT MARKING ARROWS EPOXY TYPE 3



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET 170	E

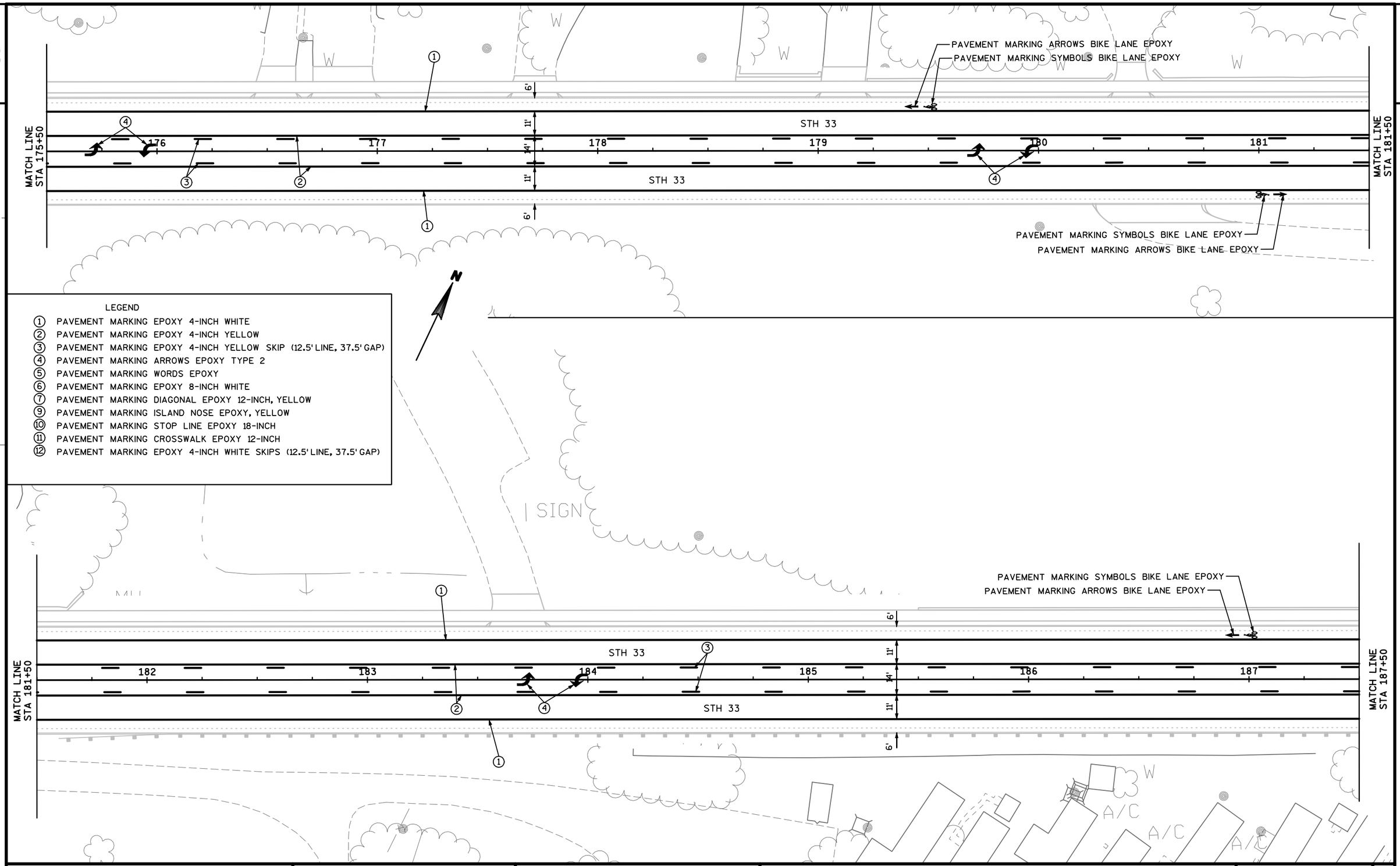
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LEGEND

① PAVEMENT MARKING EPOXY 4-INCH WHITE
② PAVEMENT MARKING EPOXY 4-INCH YELLOW
③ PAVEMENT MARKING EPOXY 4-INCH YELLOW SKIP (12.5' LINE, 37.5' GAP)
④ PAVEMENT MARKING ARROWS EPOXY TYPE 2
⑤ PAVEMENT MARKING WORDS EPOXY
⑥ PAVEMENT MARKING EPOXY 8-INCH WHITE
⑦ PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, YELLOW
⑨ PAVEMENT MARKING ISLAND NOSE EPOXY, YELLOW
⑩ PAVEMENT MARKING STOP LINE EPOXY 18-INCH
⑪ PAVEMENT MARKING CROSSWALK EPOXY 12-INCH
⑫ PAVEMENT MARKING EPOXY 4-INCH WHITE SKIPS (12.5' LINE, 37.5' GAP)

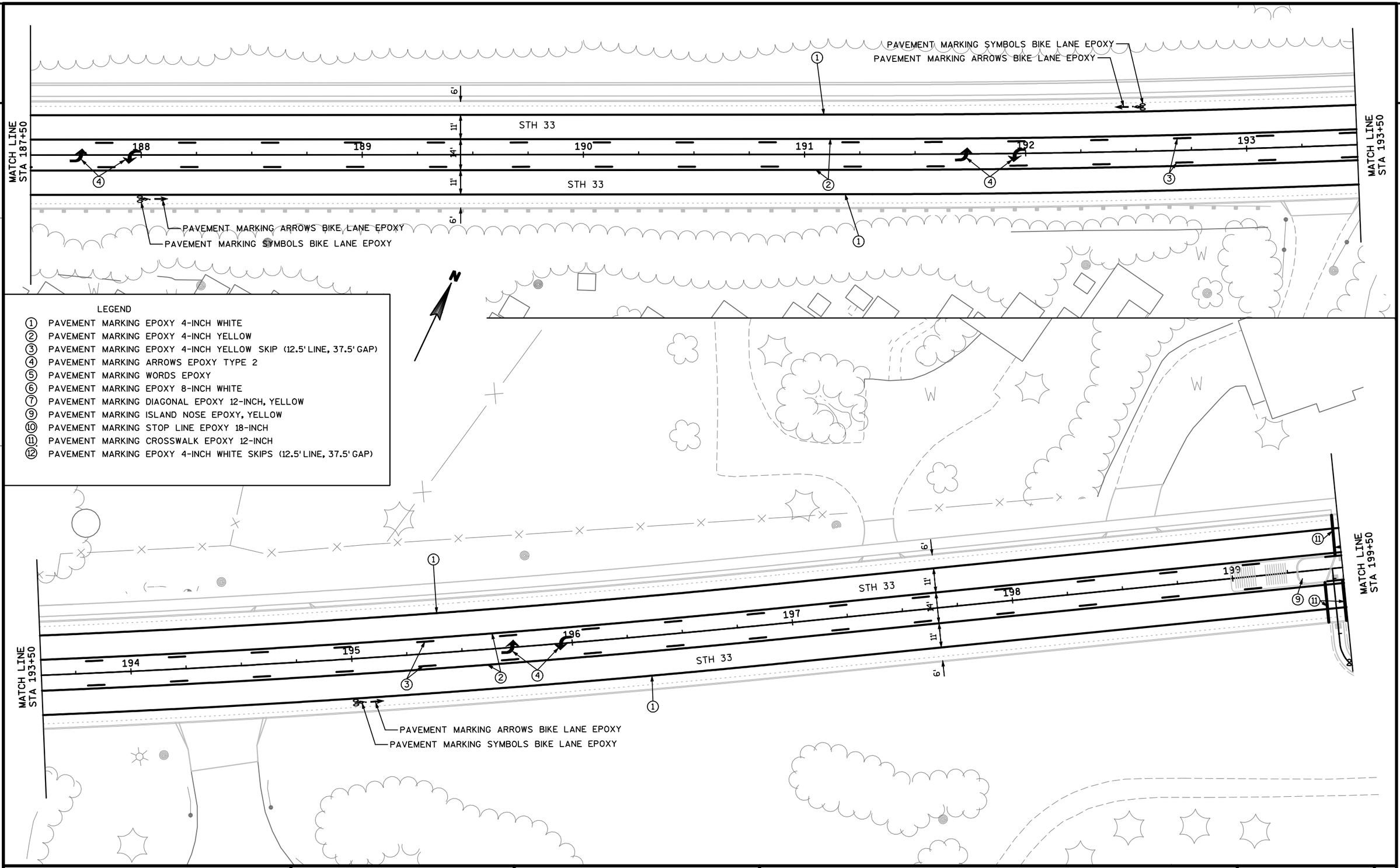
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET 171	E



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET	E

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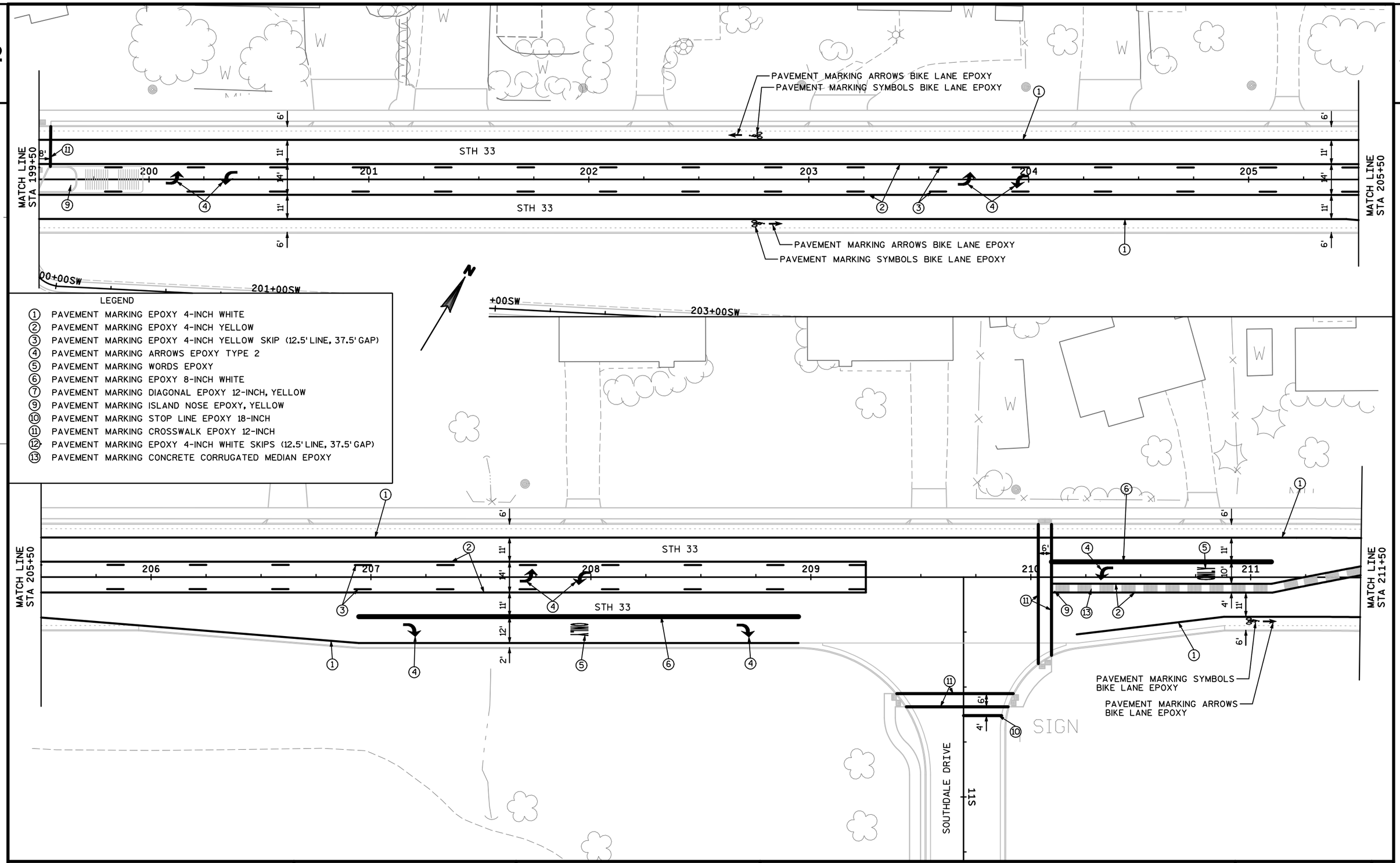
LEGEND

① PAVEMENT MARKING EPOXY 4-INCH WHITE
② PAVEMENT MARKING EPOXY 4-INCH YELLOW
③ PAVEMENT MARKING EPOXY 4-INCH YELLOW SKIP (12.5' LINE, 37.5' GAP)
④ PAVEMENT MARKING ARROWS EPOXY TYPE 2
⑤ PAVEMENT MARKING WORDS EPOXY
⑥ PAVEMENT MARKING EPOXY 8-INCH WHITE
⑦ PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, YELLOW
⑨ PAVEMENT MARKING ISLAND NOSE EPOXY, YELLOW
⑩ PAVEMENT MARKING STOP LINE EPOXY 18-INCH
⑪ PAVEMENT MARKING CROSSWALK EPOXY 12-INCH
⑫ PAVEMENT MARKING EPOXY 4-INCH WHITE SKIPS (12.5' LINE, 37.5' GAP)

2

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET	E

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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET	E

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2

END PROJECT 5120-07-71
BEGIN PROJECT 5120-07-72
STA 217+00.00

PAVEMENT MARKING ARROWS BIKE LANE EPOXY
PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY

BOMA ROAD

STH 33

MATCH LINE STA 211+50

MATCH LINE STA 217+50

MATCH LINE STA 217+50

MATCH LINE STA 223+50

HORSESHOE PLACE

11HO

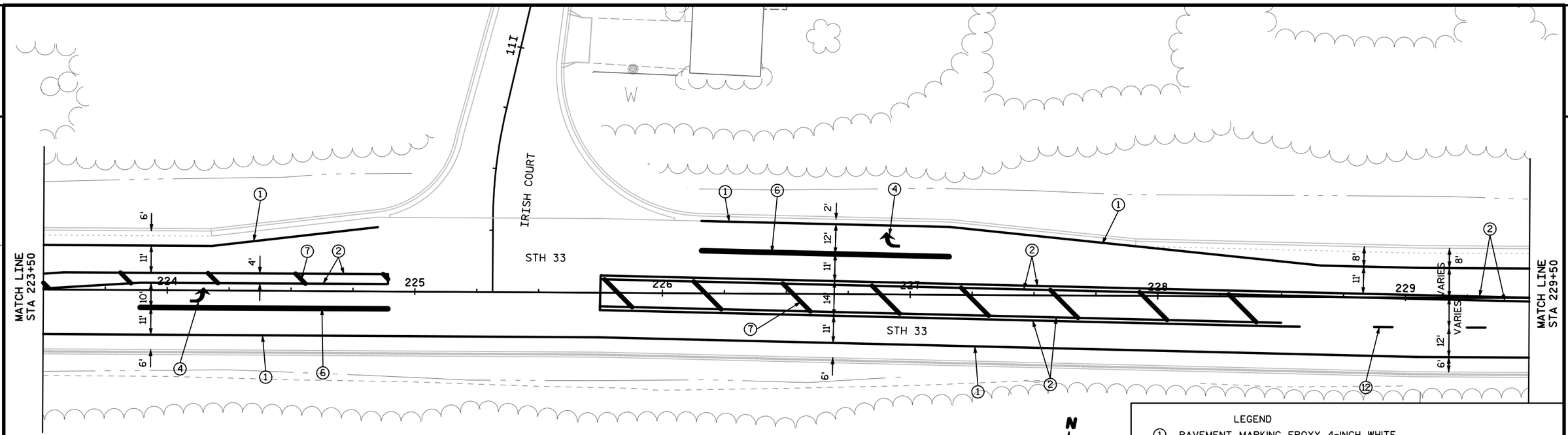
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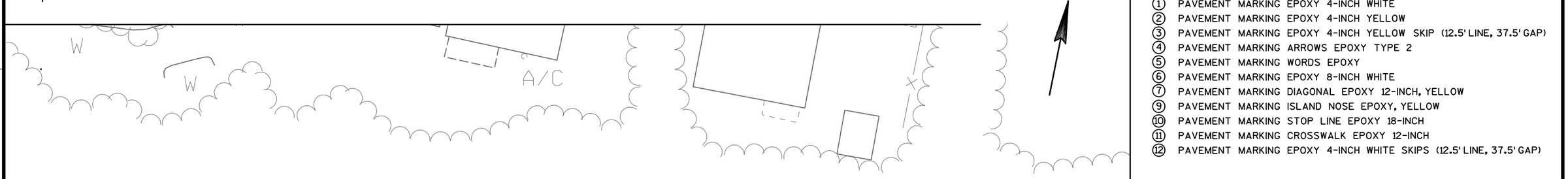
LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH WHITE
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3. PAVEMENT MARKING EPOXY 4-INCH YELLOW SKIP (12.5' LINE, 37.5' GAP)
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5. PAVEMENT MARKING WORDS EPOXY
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10. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
11. PAVEMENT MARKING CROSSWALK EPOXY 12-INCH
12. PAVEMENT MARKING EPOXY 4-INCH WHITE SKIPS (12.5' LINE, 37.5' GAP)
13. PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY

PROJECT NO: 5120-07-71/72	HWY: STH 33	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET	E

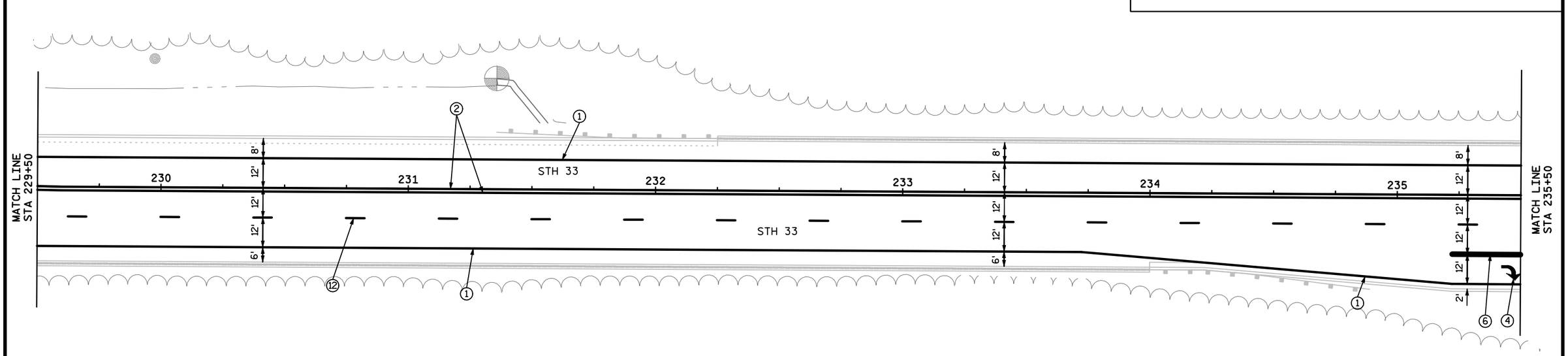
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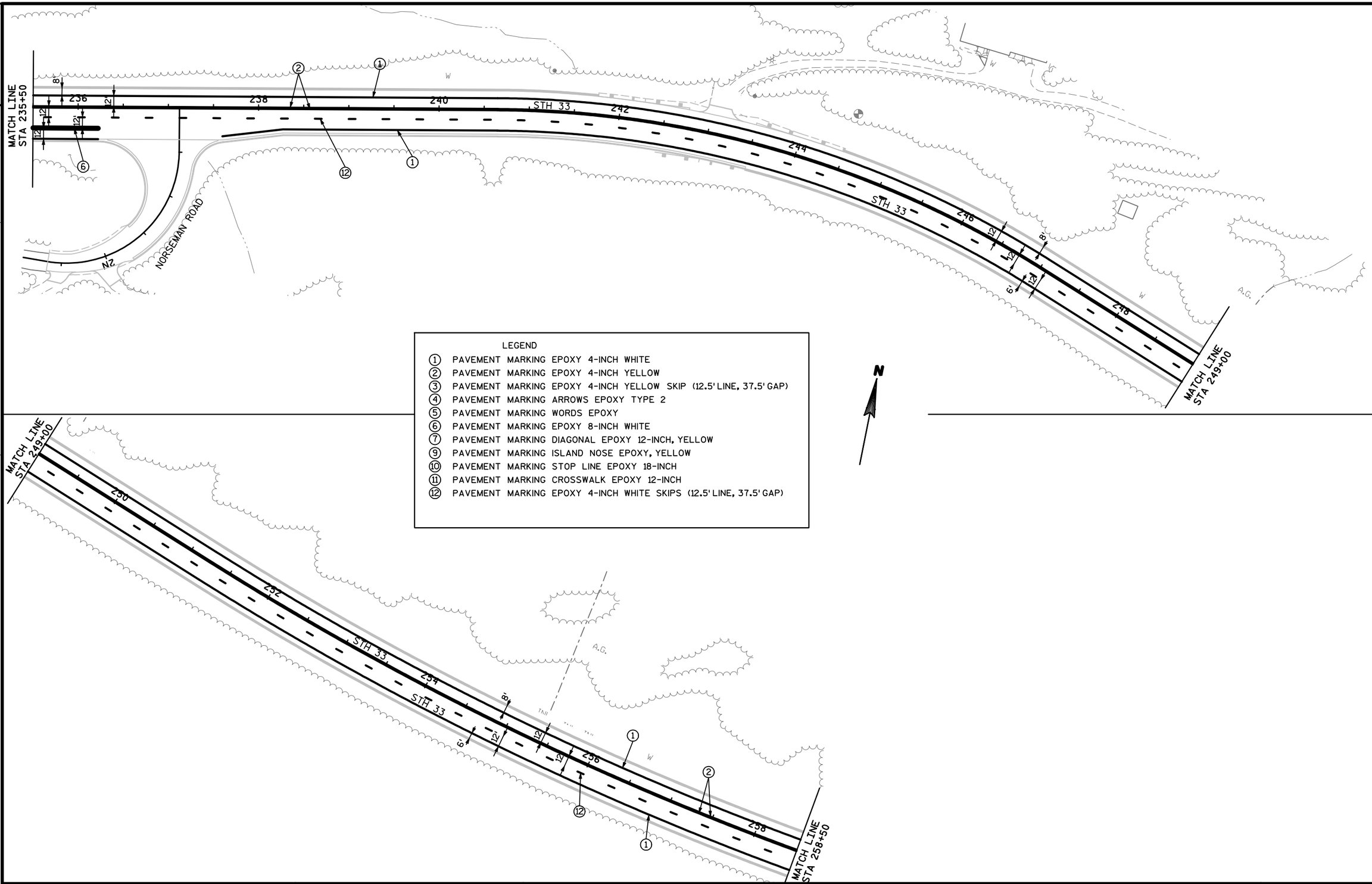
LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH WHITE
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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET	E

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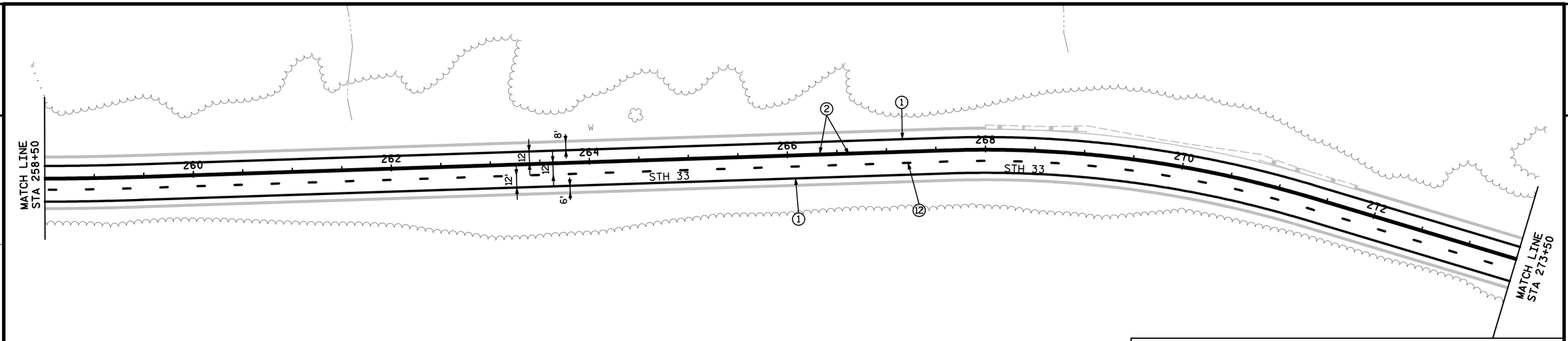


LEGEND

①	PAVEMENT MARKING EPOXY 4-INCH WHITE
②	PAVEMENT MARKING EPOXY 4-INCH YELLOW
③	PAVEMENT MARKING EPOXY 4-INCH YELLOW SKIP (12.5'LINE, 37.5'GAP)
④	PAVEMENT MARKING ARROWS EPOXY TYPE 2
⑤	PAVEMENT MARKING WORDS EPOXY
⑥	PAVEMENT MARKING EPOXY 8-INCH WHITE
⑦	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, YELLOW
⑨	PAVEMENT MARKING ISLAND NOSE EPOXY, YELLOW
⑩	PAVEMENT MARKING STOP LINE EPOXY 18-INCH
⑪	PAVEMENT MARKING CROSSWALK EPOXY 12-INCH
⑫	PAVEMENT MARKING EPOXY 4-INCH WHITE SKIPS (12.5'LINE, 37.5'GAP)

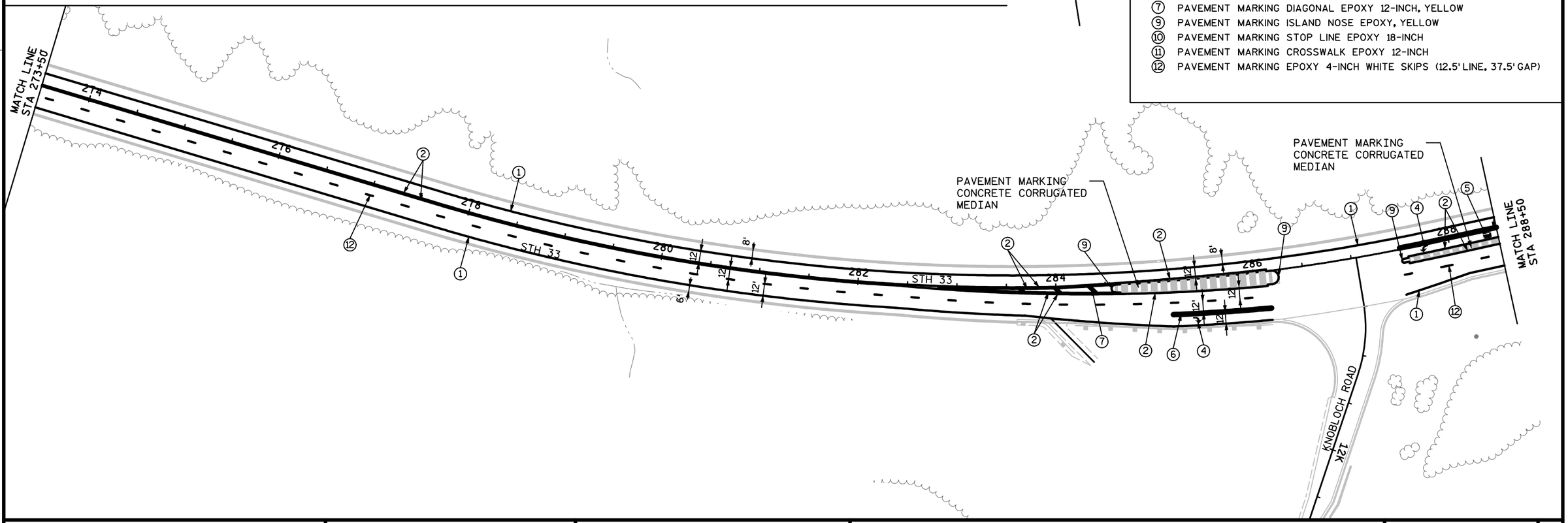
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2



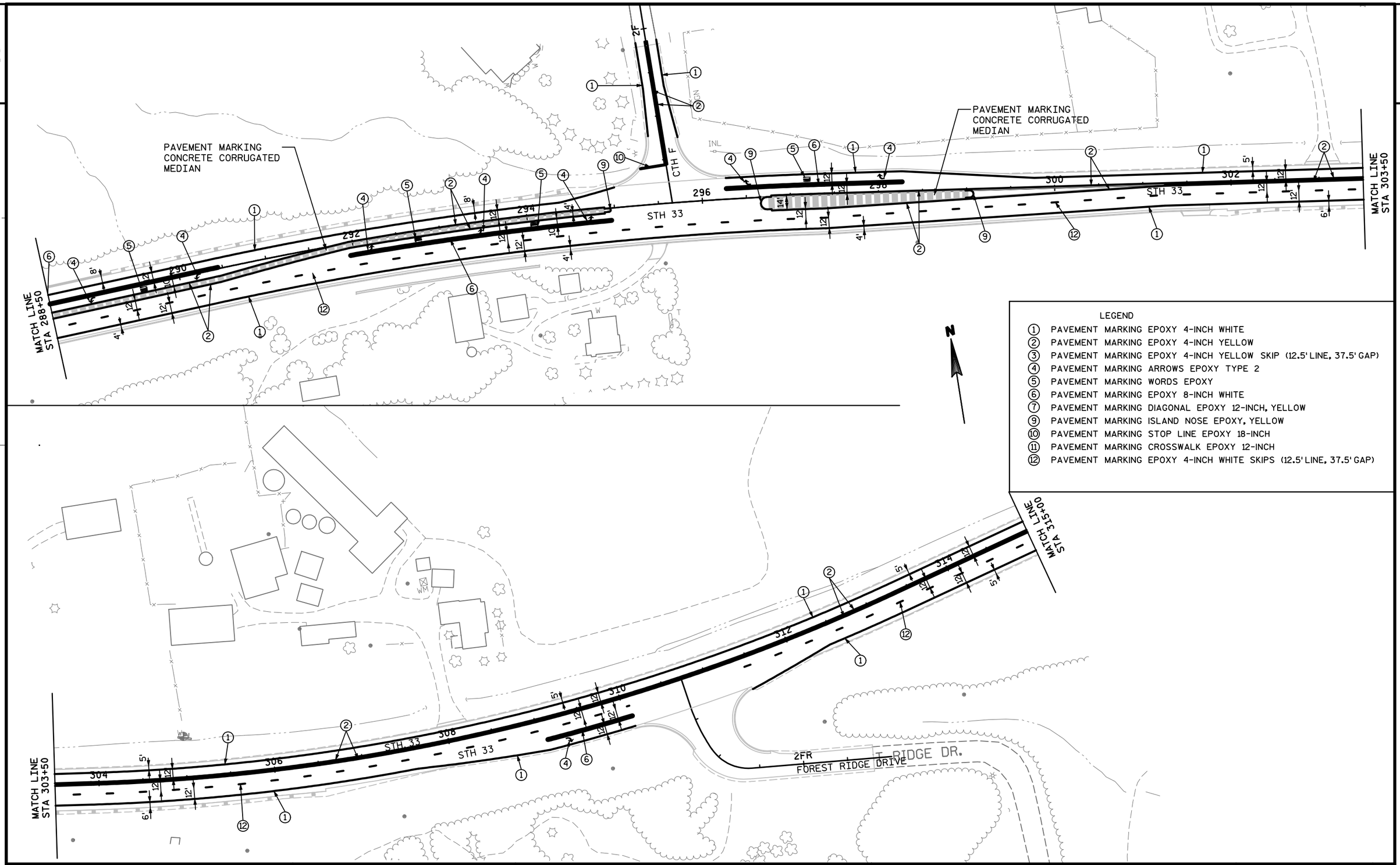
LEGEND

①	PAVEMENT MARKING EPOXY 4-INCH WHITE
②	PAVEMENT MARKING EPOXY 4-INCH YELLOW
③	PAVEMENT MARKING EPOXY 4-INCH YELLOW SKIP (12.5' LINE, 37.5' GAP)
④	PAVEMENT MARKING ARROWS EPOXY TYPE 2
⑤	PAVEMENT MARKING WORDS EPOXY
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⑦	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, YELLOW
⑨	PAVEMENT MARKING ISLAND NOSE EPOXY, YELLOW
⑩	PAVEMENT MARKING STOP LINE EPOXY 18-INCH
⑪	PAVEMENT MARKING CROSSWALK EPOXY 12-INCH
⑫	PAVEMENT MARKING EPOXY 4-INCH WHITE SKIPS (12.5' LINE, 37.5' GAP)



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET 178 E

2

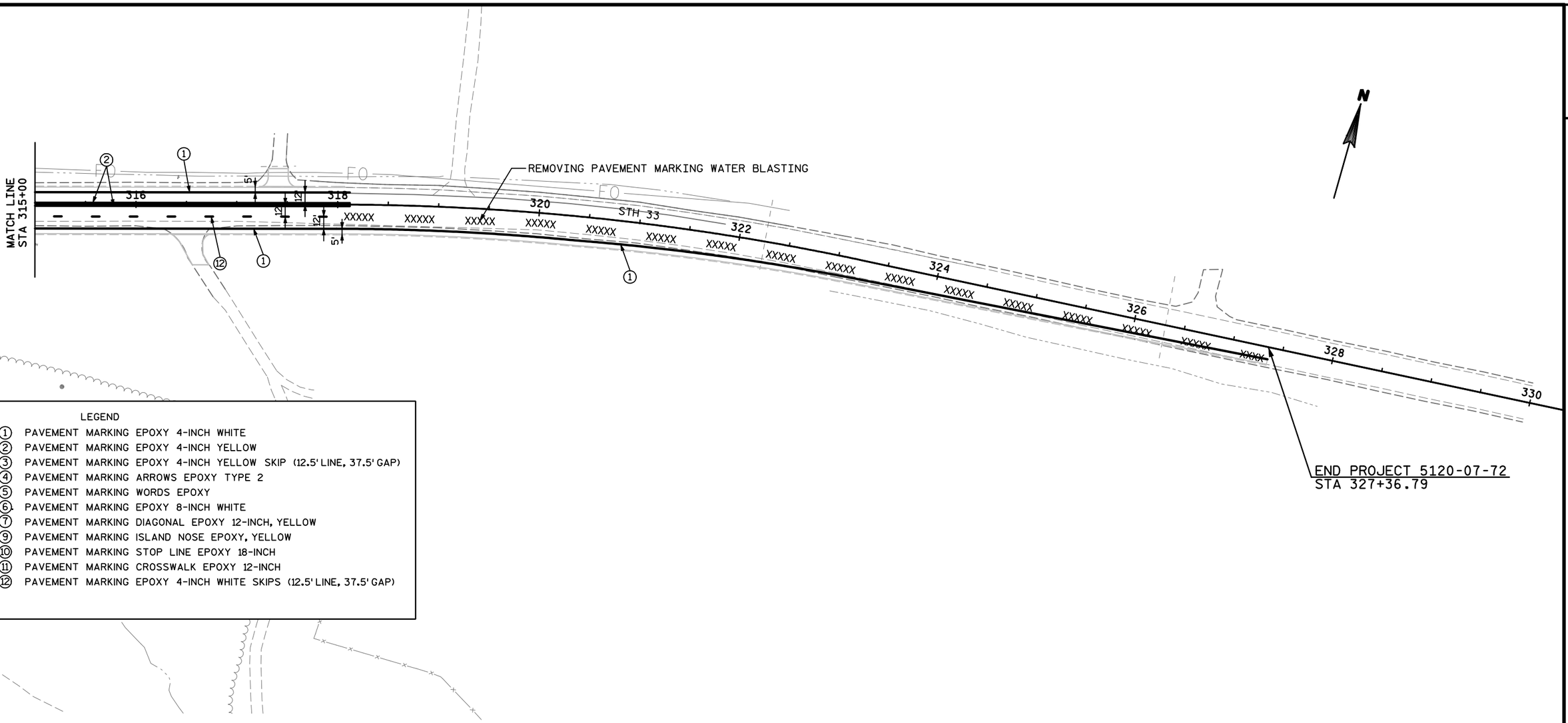


LEGEND

①	PAVEMENT MARKING EPOXY 4-INCH WHITE
②	PAVEMENT MARKING EPOXY 4-INCH YELLOW
③	PAVEMENT MARKING EPOXY 4-INCH YELLOW SKIP (12.5'LINE, 37.5'GAP)
④	PAVEMENT MARKING ARROWS EPOXY TYPE 2
⑤	PAVEMENT MARKING WORDS EPOXY
⑥	PAVEMENT MARKING EPOXY 8-INCH WHITE
⑦	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, YELLOW
⑨	PAVEMENT MARKING ISLAND NOSE EPOXY, YELLOW
⑩	PAVEMENT MARKING STOP LINE EPOXY 18-INCH
⑪	PAVEMENT MARKING CROSSWALK EPOXY 12-INCH
⑫	PAVEMENT MARKING EPOXY 4-INCH WHITE SKIPS (12.5'LINE, 37.5'GAP)

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\pavement marking\024512_pm.dgn PLOT DATE : 9/18/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

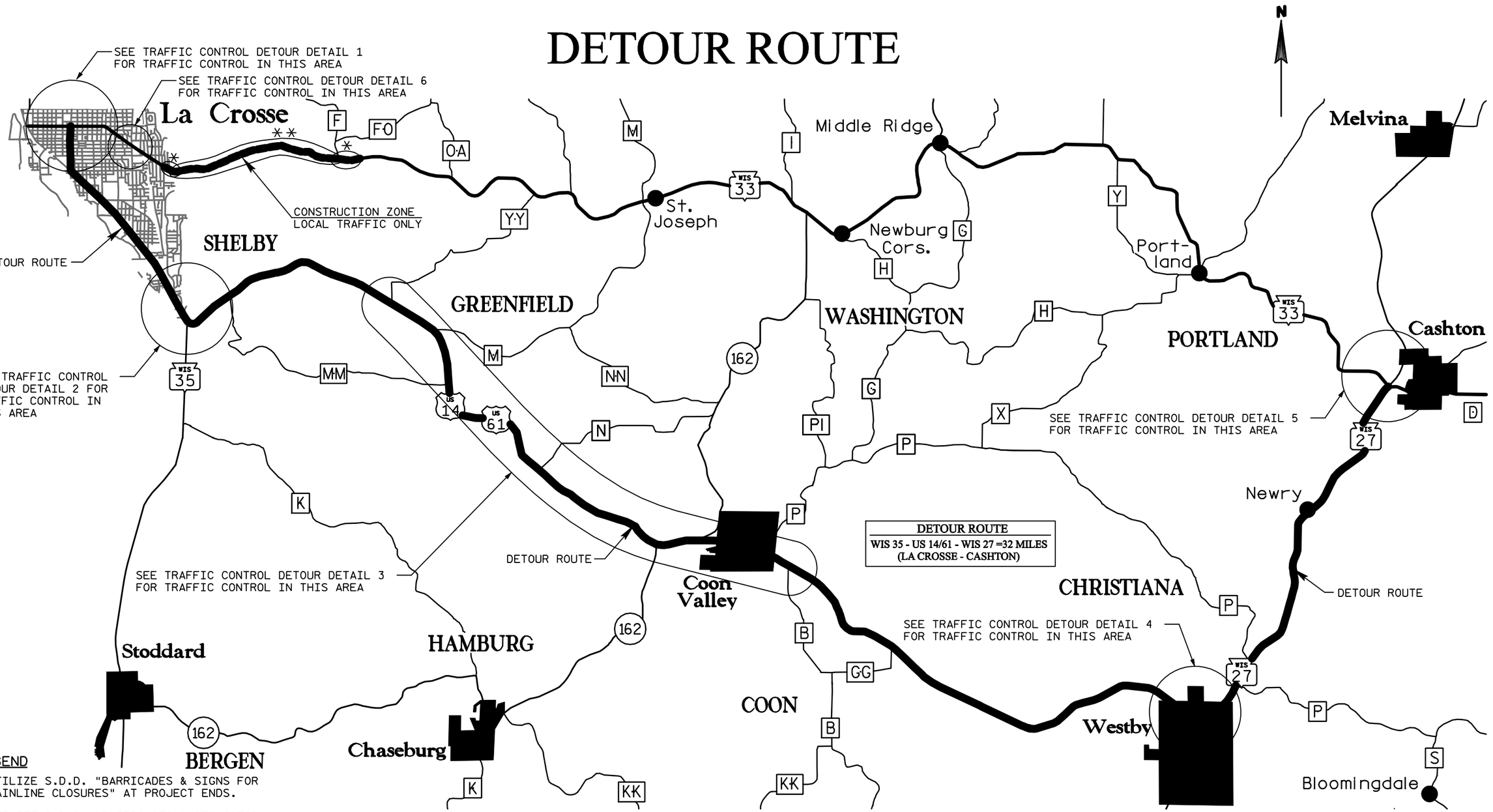


LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH WHITE
2. PAVEMENT MARKING EPOXY 4-INCH YELLOW
3. PAVEMENT MARKING EPOXY 4-INCH YELLOW SKIP (12.5'LINE, 37.5'GAP)
4. PAVEMENT MARKING ARROWS EPOXY TYPE 2
5. PAVEMENT MARKING WORDS EPOXY
6. PAVEMENT MARKING EPOXY 8-INCH WHITE
7. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, YELLOW
9. PAVEMENT MARKING ISLAND NOSE EPOXY, YELLOW
10. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
11. PAVEMENT MARKING CROSSWALK EPOXY 12-INCH
12. PAVEMENT MARKING EPOXY 4-INCH WHITE SKIPS (12.5'LINE, 37.5'GAP)

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET 180	E

DETOUR ROUTE



LEGEND

* UTILIZE S.D.D. "BARRICADES & SIGNS FOR MAINLINE CLOSURES" AT PROJECT ENDS.

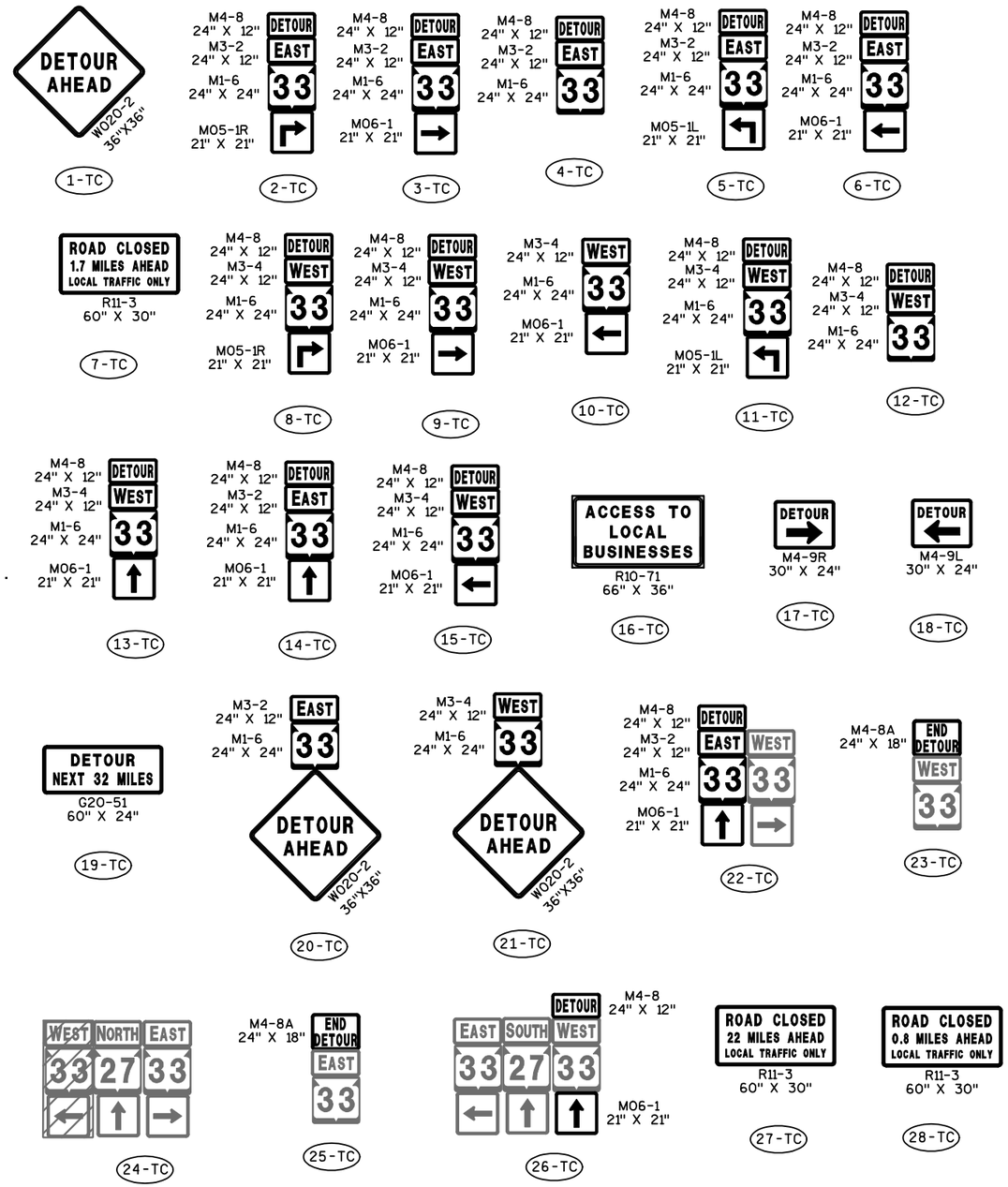
** UTILIZE S.D.D. "BARRICADES & SIGNS FOR SIDEROAD CLOSURES" AT SIDEROADS WITHIN PROJECT LIMITS.

NOTE: MAINTAIN ACCESS TO DRIVEWAYS, AND DEAD END SIDE ROADS AT ALL TIMES.

PROJECT NO: 5120-07-71/72	HWY: STH 33	COUNTY: LA CROSSE	TRAFFIC CONTROL DETOUR ROUTE	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Traffic Control\025001_tc.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

TRAFFIC CONTROL DETOUR SIGNS



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- (A) TYPE A WARNING LIGHT (FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- 33 EXISTING SIGN
- 33 EXISTING SIGN TO BE COVERED

TRAFFIC CONTROL SIGNING GENERAL NOTES

1. DRAWINGS SHOW TRAFFIC CONTROL DETOUR FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON SITE CONDITIONS AS DIRECTED BY THE ENGINEER. ALL CHANGES TO THE TRAFFIC CONTROL DETOUR PLAN SHALL BE REVIEWED WITH PROJECT ENGINEER.

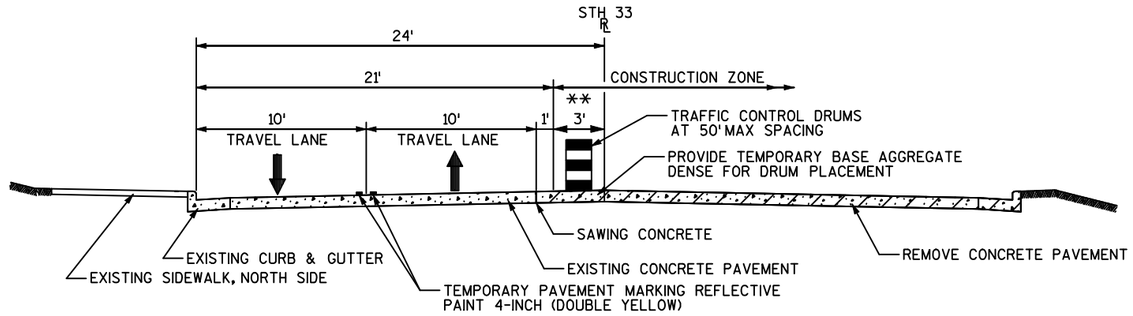
2. SIGN FACE LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS, UNLESS OTHERWISE NOTED.

3. TRAFFIC CONTROL PLANS ARE NOT TO SCALE.

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

5. COVER, REMOVE, OR ALTER ANY EXISTING SIGNS THAT DISPLAY A CONFLICTING MESSAGE WITH THE PROPOSED DETOUR ROUTE.

6. WITHIN PROJECT LIMITS REMOVE EXISTING SPEED LIMIT SIGNS AND REPLACE WITH ORANGE TWO WAY TRAFFIC SIGN (W06-3) AND ORANGE ADVISORY SPEED LIMIT SIGN (W013-1).



CONSTRUCTION ZONE TYPICAL SECTION

STAGED CONSTRUCTION FOR LOCAL TRAFFIC

"STAGE 1", I.D. 5120-07-71

NOTES:

EXISTING PAVEMENT TO REMAIN IN PLACE DURING STAGE 1.

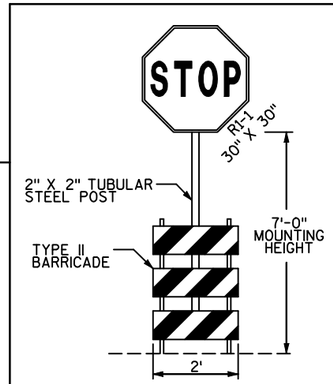
STH 33 WILL BE CLOSED TO THROUGH TRAFFIC. THE TYPICAL SECTION SHOWN IS FOR LOCAL TRAFFIC ONLY TO AND FROM THE DRIVEWAYS AND SIDE ROADS, MOST OF WHICH ARE DEAD-END.

STAGE 1 SHOWN. STAGE 2 CONSISTS OF SWITCHING TRAFFIC TO THE OPPOSITE SIDE ON THE NEWLY COMPLETED ROADWAY, USING SIMILAR TRAFFIC CONTROL DEVICES AS SHOWN.

CONTRACTOR MAY SWITCH WHICH SIDE IS INCLUDED UNDER STAGE 1 AND 2 VERSUS WHAT IS SHOWN.



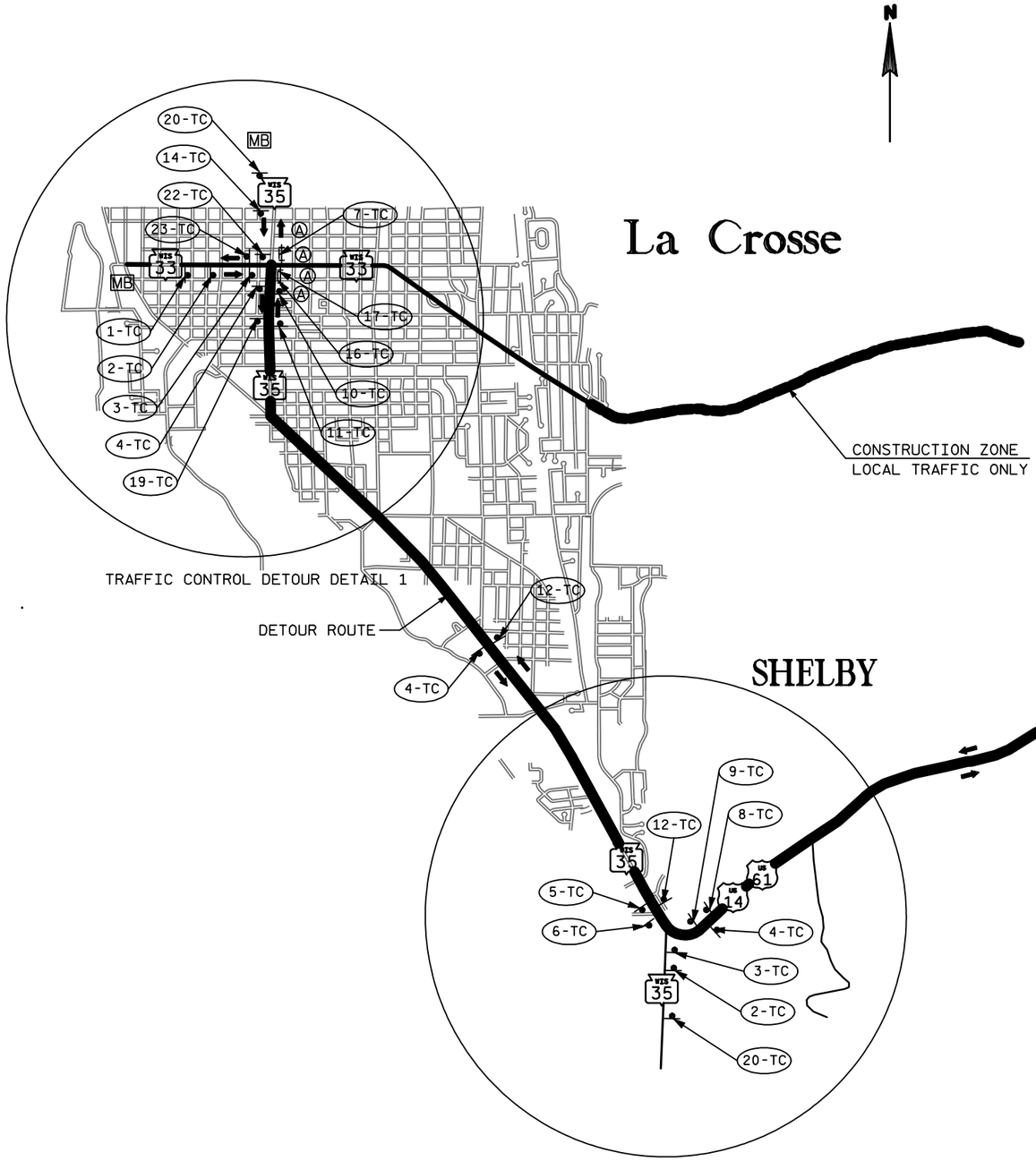
** REPLACE EXISTING SPEED LIMIT SIGNS WITH W06-3 AND W013-1



TEMPORARY MOUNTED TRAFFIC CONTROL SIGN

PROJECT NO: 5120-07-71/72	HWY: STH 33	COUNTY: LA CROSSE	TRAFFIC CONTROL DETOUR PLAN LEGEND, TYP. SECTION, & NOTES	SHEET 182	E

2



TRAFFIC CONTROL DETOUR DETAIL 1

TRAFFIC CONTROL DETOUR DETAIL 2

LEGEND

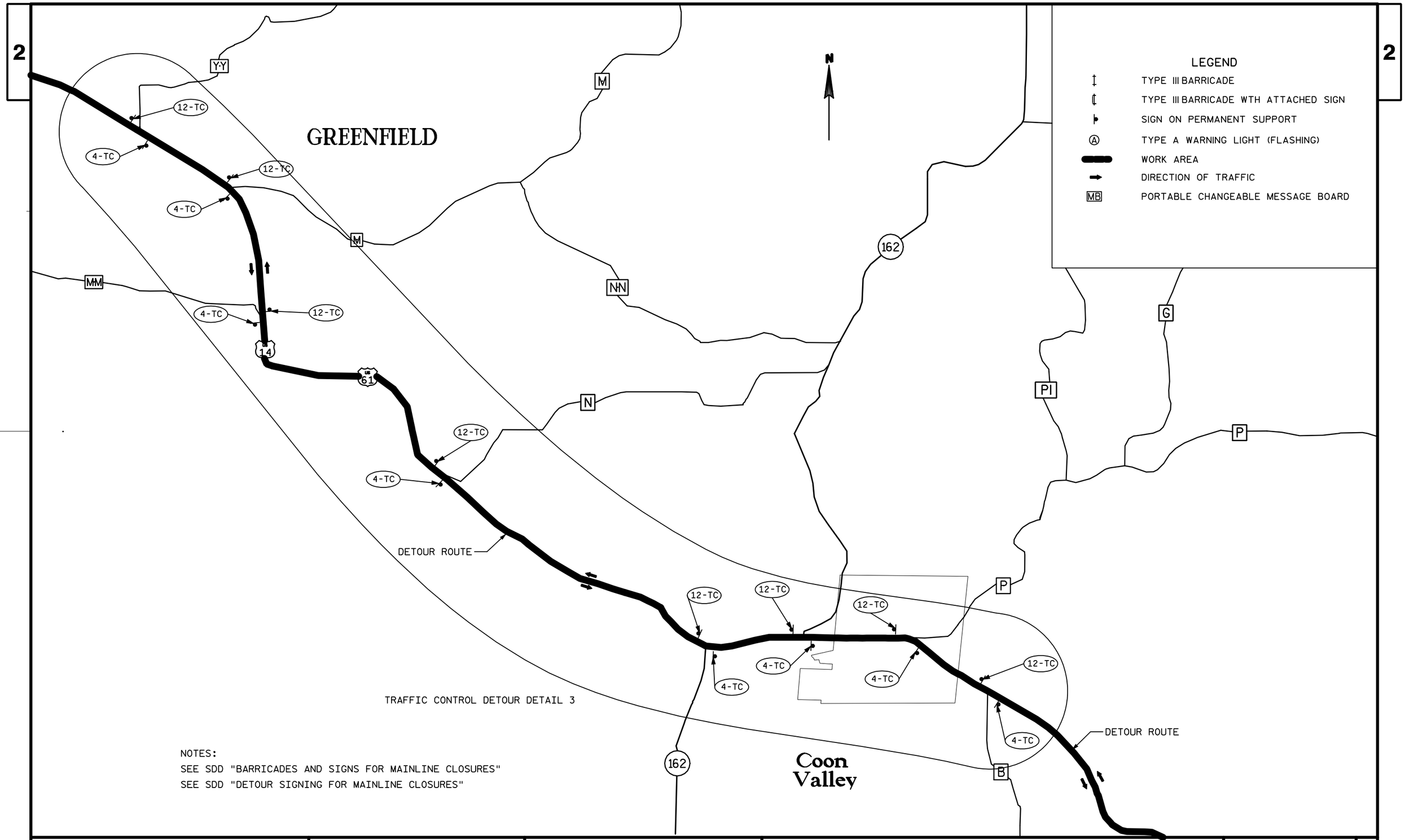
- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- Ⓐ TYPE A WARNING LIGHT (FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

NOTES:

SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

SEE SDD "DETOUR SIGNING FOR MAINLINE CLOSURES"

PROJECT NO: 5120-07-71/72	HWY: STH 33	COUNTY: LA CROSSE	TRAFFIC CONTROL DETOUR DETAILS 1 & 2	SHEET 183	E



TRAFFIC CONTROL DETOUR DETAIL 3

NOTES:
SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
SEE SDD "DETOUR SIGNING FOR MAINLINE CLOSURES"

PROJECT NO: 5120-07-71/72	HWY: STH 33	COUNTY: LA CROSSE	TRAFFIC CONTROL DETOUR DETAIL 3	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Traffic Control\025004_tc.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- (A) TYPE A WARNING LIGHT (FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

N

Newry

12-TC

4-TC

DETOUR ROUTE

CHRISTIANA

P

27

12-TC

12-TC

4-TC

GG

4-TC

9-TC

12-TC

8-TC

DETOUR ROUTE

14

61

5-TC

6-TC

4-TC

3-TC

2-TC

20-TC

P

Westby

S

Bloomingdale

TRAFFIC CONTROL DETOUR DETAIL4

NOTES:
SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
SEE SDD "DETOUR SIGNING FOR MAINLINE CLOSURES"

PROJECT NO: 5120-07-71/72	HWY: STH 33	COUNTY: LA CROSSE	TRAFFIC CONTROL DETOUR DETAIL 4	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Traffic Control\025005_tc.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

2

Melvina

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- (A) TYPE A WARNING LIGHT (FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

N

Port-
land

Y

X

X

WIS 33

PORTLAND

Cashton

U

D

21-TC
13-TC
26-TC
15-TC
11-TC
18-TC
16-TC
27-TC
1-TC
24-TC
25-TC
19-TC
2-TC

WIS 27

TRAFFIC CONTROL DETOUR DETAIL 5

12-TC

DETOUR ROUTE

Newry

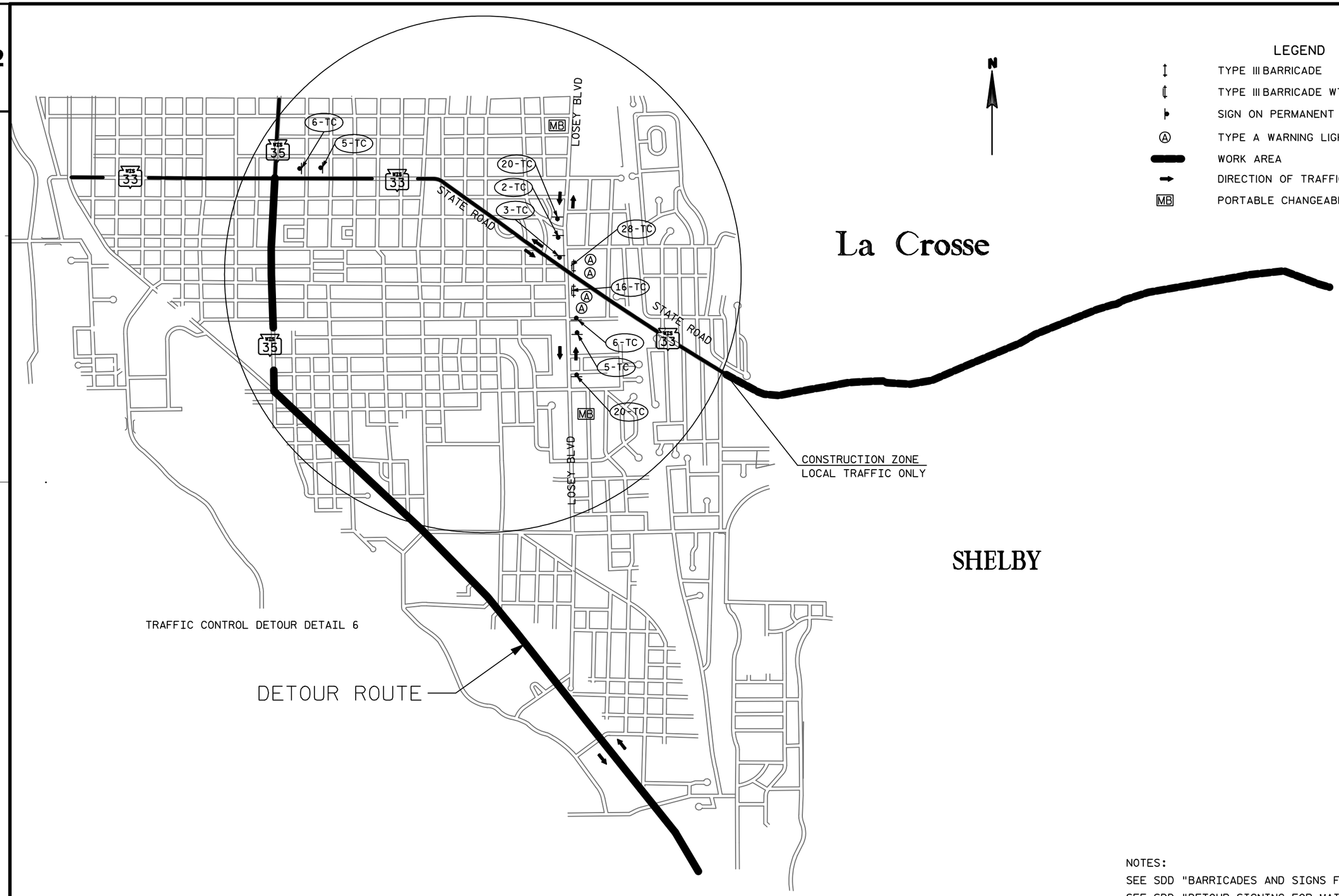
4-TC

NOTES:
SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
SEE SDD "DETOUR SIGNING FOR MAINLINE CLOSURES"

PROJECT NO: 5120-07-71/72	HWY: STH 33	COUNTY: LA CROSSE	TRAFFIC CONTROL DETOUR DETAIL 5	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Traffic Control\025006_tc.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$
WISDOT/CADDS SHEET 42

2



NOTES:
SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
SEE SDD "DETOUR SIGNING FOR MAINLINE CLOSURES"

PROJECT NO: 5120-07-71/72	HWY: STH 33	COUNTY: LA CROSSE	TRAFFIC CONTROL DETOUR DETAILS 6	SHEET 187	E

P.I.= 117+71.36
Y 124,729.67
X 455,462.37

P.I.= 123+13.57
Y 124,434.21
X 455,917.01

P.I.= 128+76.77
Y 124,123.71
X 456,386.88
Δ. = 03°16'51" L
D. = 03°30'00"
T. = 46.88
L. = 93.74
E. = 0.67
R. = 1,637.02
P.C.= 128+29.88
Y 124,149.56
X 456,347.77
P.T.= 129+23.62
Y 124,100.15
X 456,427.41

P.I.= 142+75.61
Y 123,420.55
X 457,596.18
Δ. = 47°19'42" L
D. = 04°58'56"
T. = 503.96
L. = 949.94
E. = 105.58
R. = 1,150.00
P.C.= 137+71.65
Y 123,673.87
X 457,160.52
P.T.= 147+21.59
Y 123,569.17
X 458,077.72

P.I.= 157+73.94
Y 123,879.52
X 459,083.27
Δ. = 23°37'11" R
D. = 01°45'00"
T. = 684.57
L. = 1,349.71
E. = 70.80
R. = 3,274.04
P.C.= 150+89.36
Y 123,677.63
X 458,429.14
P.T.= 164+39.07
Y 123,802.40
X 459,763.49

P.I.= 171+51.67
Y 123,722.13
X 460,471.55
Δ. = 31°43'48" L
D. = 05°00'00"
T. = 325.67
L. = 634.60
E. = 45.38
R. = 1,145.92
P.C.= 168+26.00
Y 123,758.81
X 460,147.96
P.T.= 174+60.60
Y 123,861.11
X 460,766.07

P.I.= 10+00.00 DI
Y 123,633.89
X 457,235.53

P.I.= 17+60.94 DI
Y 122,873.20
X 457,254.99

P.I.= 10+00.00 HI
Y 123,628.50
X 458,269.93

P.I.= 11+94.55 HI
Y 123,434.04
X 458,276.13

P.I.= 7+74.40 HA
Y 124,132.34
X 459,014.30

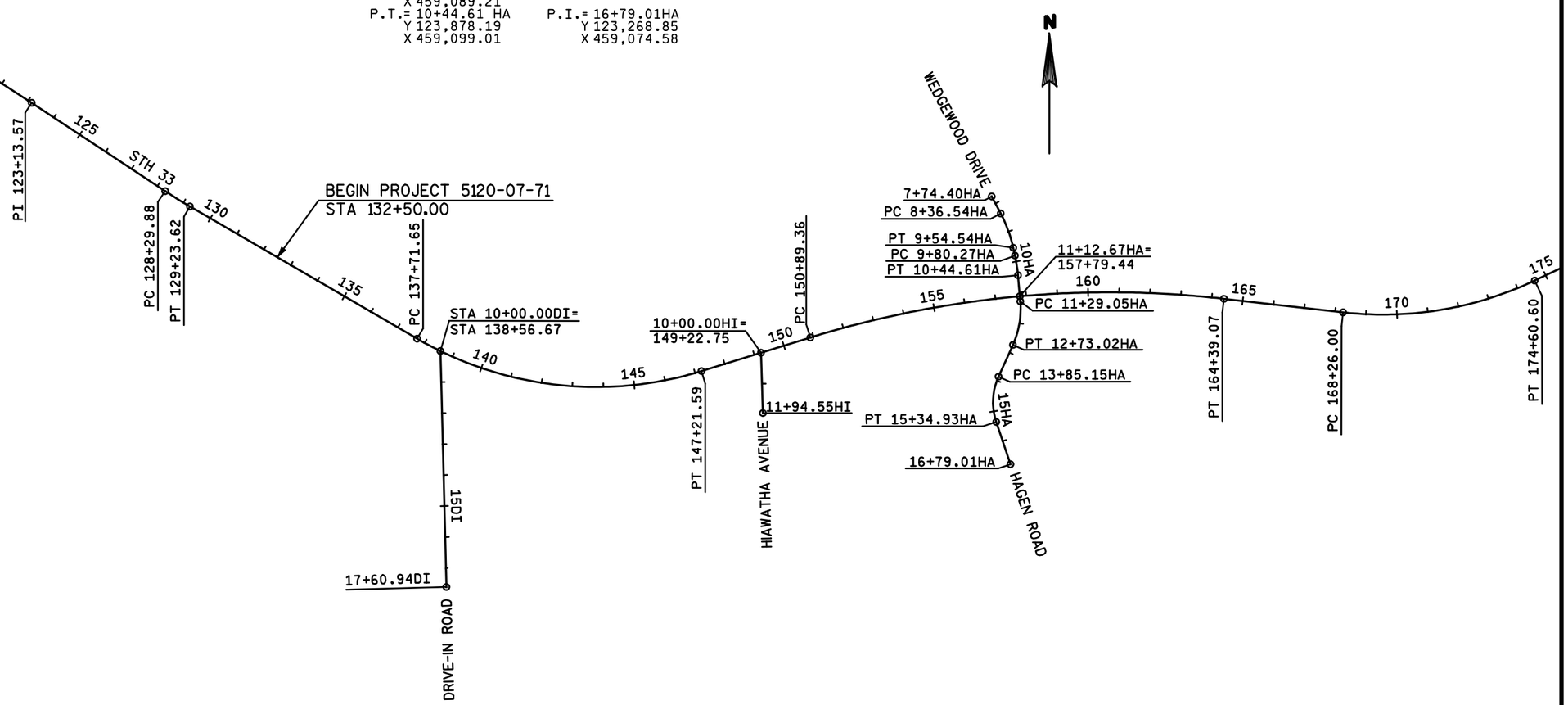
P.I.= 8+95.89 HA
Y 124,024.82
X 459,070.87
Δ. = 15°18'19" R
D. = 12°58'13"
T. = 59.35
L. = 118.00
E. = 3.97
R. = 441.75
P.C.= 8+36.54 HA
Y 124,077.35
X 459,043.23
P.T.= 9+54.54 HA
Y 123,966.86
X 459,083.67

P.I.= 10+12.49 HA
Y 123,910.27
X 459,096.16
Δ. = 07°22'22" R
D. = 11°27'33"
T. = 32.21
L. = 64.34
E. = 1.04
R. = 500.00
P.C.= 9+80.27 HA
Y 123,941.73
X 459,089.21
P.T.= 10+44.61 HA
Y 123,878.19
X 459,099.01

P.I.= 12+02.66 HA
Y 123,720.76
X 459,112.99
Δ. = 29°27'42" R
D. = 20°27'46"
T. = 73.62
L. = 143.98
E. = 9.52
R. = 280.00
P.C.= 11+29.05 HA
Y 123,794.08
X 459,106.48
P.T.= 12+73.02 HA
Y 123,653.71
X 459,082.59

P.I.= 14+63.75 HA
Y 123,480.00
X 459,003.84
Δ. = 42°54'30" L
D. = 28°38'52"
T. = 78.60
L. = 149.78
E. = 14.89
R. = 200.00
P.C.= 13+85.15 HA
Y 123,551.58
X 459,036.30
P.T.= 15+34.93 HA
Y 123,405.47
X 459,028.81

P.I.= 16+79.01HA
Y 123,268.85
X 459,074.58



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	ALIGNMENT DIAGRAM	SHEET 188	E

P.I.= 194+13.51
Y 124,694.52
X 462,532.21
Δ. = 05°39'01" L
D. = 01°00'00"
T. = 282.74
L. = 565.02
E. = 6.97
R. = 5,729.58
P.C.= 191+30.77
Y 124,573.86
X 462,276.51
P.T.= 196+95.79
Y 124,839.78
X 462,774.79

P.I.= 215+24.34
Y 125,779.15
X 464,343.61
Δ. = 19°58'07" R
D. = 02°30'00"
T. = 403.47
L. = 798.75
E. = 35.24
R. = 2,291.83
P.C.= 211+20.87
Y 125,571.88
X 463,997.45
P.T.= 219+19.62
Y 125,855.74
X 464,739.74

P.I.= 243+92.35
Y 126,325.17
X 467,167.50
Δ. = 31°54'33" R
D. = 05°00'00"
T. = 327.60
L. = 638.18
E. = 45.91
R. = 1,145.91
P.C.= 240+64.75
Y 126,262.98
X 466,845.85
P.T.= 247+02.93
Y 126,207.95
X 467,473.41

P.I.= 10+00.00 S
Y 125,494.07
X 463,867.51

P.I.= 13+46.04 S
Y 125,197.19
X 464,045.28

P.I.= 10+00.00 B
Y 125,700.35
X 464,245.06

P.I.= 11+92.01 B
Y 125,875.85
X 464,167.16
Δ. = 61°48'34" R
D. = 38°11'50"
T. = 89.79
L. = 161.82
E. = 24.82
R. = 150.00
P.C.= 11+02.22 B
Y 125,793.78
X 464,203.59
P.T.= 12+64.04 B
Y 125,946.73
X 464,222.29

P.I.= 13+40.02 B
Y 126,006.70
X 464,268.93
Δ. = 10°12'57" R
D. = 06°44'26"
T. = 75.98
L. = 151.56
E. = 3.39
R. = 850.00
P.C.= 12+64.04 B
Y 125,946.73
X 464,222.29
P.T.= 14+15.60 B
Y 126,057.45
X 464,325.48

P.I.= 14+27.27 B
Y 126,065.25
X 464,334.17

P.I.= 10+00.00 HO
Y 125,884.20
X 464,886.92

P.I.= 11+41.28 HO
Y 125,747.00
X 464,920.64
Δ. = 20°18'02" R
D. = 16°22'13"
T. = 62.66
L. = 124.01
E. = 5.56
R. = 350.00
P.C.= 10+78.62 HO
Y 125,807.85
X 464,905.68
P.T.= 12+02.63 HO
Y 125,684.74
X 464,913.55

P.I.= 12+62.48 HO
Y 125,625.28
X 464,906.79
Δ. = 16°54'19" R
D. = 20°50'05"
T. = 40.87
L. = 81.14
E. = 3.02
R. = 275.00
P.C.= 12+21.61 HO
Y 125,665.88
X 464,911.41
P.T.= 13+02.75 HO
Y 125,587.77
X 464,890.56

P.I.= 13+51.80 HO
Y 125,542.76
X 464,871.08

P.I.= 10+00.00 I
Y 125,971.88
X 465,340.36

P.I.= 10+51.17 I
Y 126,022.12
X 465,330.64
Δ. = 12°50'59" R
D. = 28°38'52"
T. = 22.52
L. = 44.85
E. = 1.26
R. = 200.00
P.C.= 10+28.65 I
Y 126,000.01
X 465,334.92
P.T.= 10+73.51 I
Y 126,044.63
X 465,331.39

P.I.= 12+03.40 I
Y 126,174.45
X 465,335.69

P.I.= 0+00.00 N
Y 126,196.06
X 466,499.80

P.I.= 1+95.60 N
Y 126,004.02
X 466,536.94
Δ. = 99°14'47" R
D. = 45°50'12"
T. = 146.99
L. = 216.52
E. = 67.96
R. = 125.00
P.C.= 0+48.61 N
Y 126,148.34
X 466,509.03
P.T.= 2+65.13 N
Y 125,999.67
X 466,390.01

P.I.= 3+30.68 N
Y 125,997.72
X 466,324.49

P.I.= 20+00.00 EP
Y 125,727.18
X 464,072.77

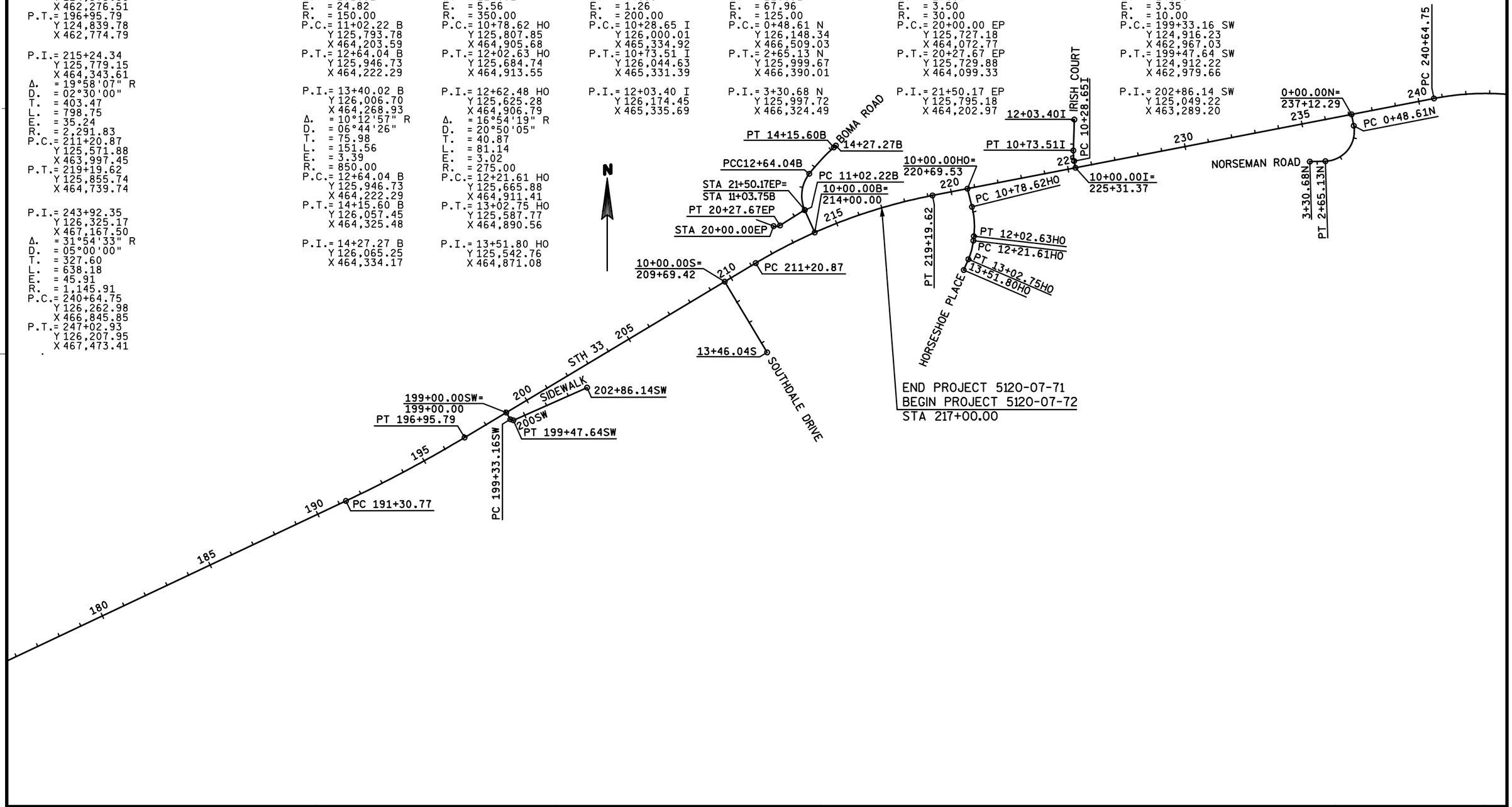
P.I.= 20+14.91 EP
Y 125,721.93
X 464,086.72
Δ. = 52°50'35" L
D. = 190°59'09"
T. = 14.91
L. = 27.67
E. = 3.50
R. = 30.00
P.C.= 20+00.00 EP
Y 125,727.18
X 464,072.77
P.T.= 20+27.67 EP
Y 125,729.88
X 464,099.33

P.I.= 21+50.17 EP
Y 125,795.18
X 464,202.97

P.I.= 199+00.00 SW
Y 124,944.68
X 462,949.99

P.I.= 199+42.01 SW
Y 124,908.65
X 462,971.57
Δ. = 82°57'38" L
D. = 570°41'53"
T. = 8.84
L. = 14.48
E. = 3.35
R. = 10.00
P.C.= 199+33.16 SW
Y 124,916.23
X 462,967.03
P.T.= 199+47.64 SW
Y 124,912.22
X 462,979.66

P.I.= 202+86.14 SW
Y 125,049.22
X 463,289.20



END PROJECT 5120-07-71
BEGIN PROJECT 5120-07-72
STA 217+00.00

PROJECT NO: 5120-07-71/72	HWY: STH 33	COUNTY: LA CROSSE	ALIGNMENT DIAGRAM	SHEET 189	E

P.I.= 255+37.78
Y 125,909.23
X 468,252.99
Δ. = 13°43'01" L
D. = 01°40'00"
T. = 413.48
L. = 823.01
E. = 24.78
R. = 3,437.75
P.C.= 251+24.30
Y 126,057.18
X 467,866.88
P.T.= 259+47.31
Y 125,857.06
X 468,663.17

P.I.= 269+49.65
Y 125,730.58
X 469,657.49
Δ. = 18°33'16" R
D. = 05°00'00"
T. = 187.18
L. = 371.09
E. = 15.19
R. = 1,145.93
P.C.= 267+62.46
Y 125,754.20
X 469,471.81
P.T.= 271+33.56
Y 125,649.11
X 469,826.02

P.I.= 282+90.64
Y 125,145.45
X 470,867.73
Δ. = 29°00'10" L
D. = 02°49'59"
T. = 523.03
L. = 1,023.63
E. = 66.54
R. = 2,022.20
P.C.= 277+67.61
Y 125,373.11
X 470,396.85
P.T.= 287+91.24
Y 125,174.64
X 471,389.94

P.I.= 293+86.79
Y 125,207.88
X 471,984.57
Δ. = 10°35'23" R
D. = 01°30'00"
T. = 354.00
L. = 705.99
E. = 16.37
R. = 3,819.72
P.C.= 290+32.78
Y 125,188.12
X 471,631.12
P.T.= 297+38.77
Y 125,162.34
X 472,335.63

P.I.= 10+00.00 K
Y 125,171.66
X 471,303.88

P.I.= 10+83.71 K
Y 125,087.96
X 471,304.23
Δ. = 27°48'30" R
D. = 38°11'50"
T. = 37.13
L. = 72.80
E. = 4.53
R. = 150.00
P.C.= 10+46.57 K
Y 125,125.09
X 471,304.07
P.T.= 11+19.37 K
Y 125,055.04
X 471,287.04

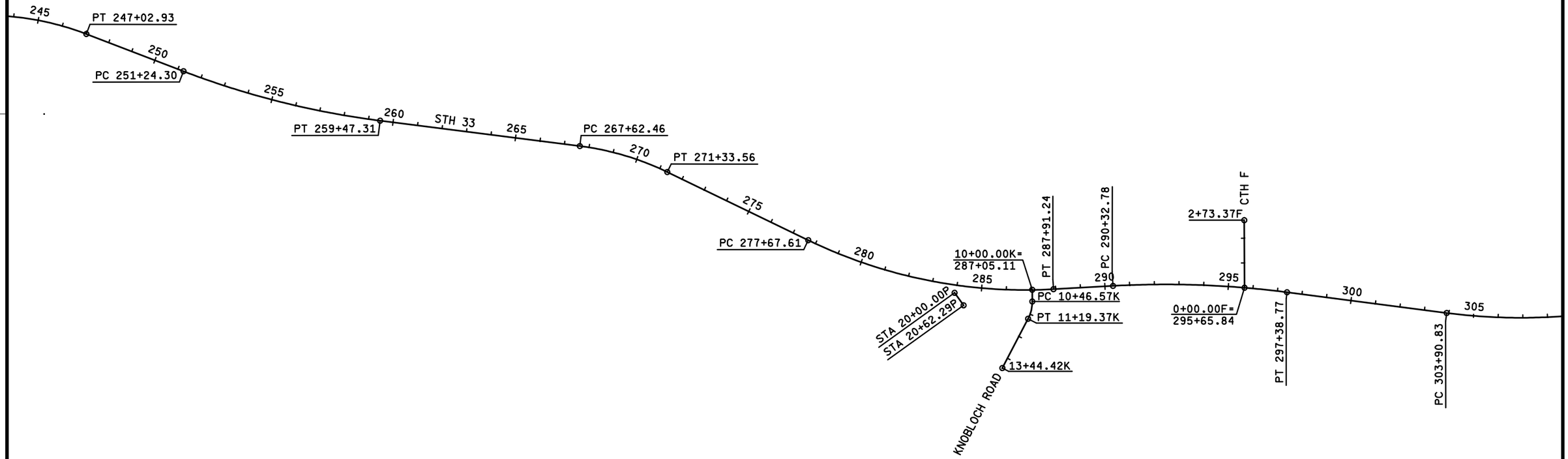
P.I.= 13+44.42 K
Y 124,855.55
X 471,182.88

P.I.= 20+00.00 P
Y 125,160.01
X 470,989.52

P.I.= 20+62.29 P
Y 125,109.40
X 471,025.83

P.I.= 0+00.00 F
Y 125,180.70
X 472,163.69

P.I.= 2+73.37 F
Y 125,454.07
X 472,162.60



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	ALIGNMENT DIAGRAM	SHEET 190	E

P.I.= 308+69.73
Y 125,016.87
X 473,457.19
Δ. = 23°13'53" L
D. = 02°27'33"
T. = 478.90
L. = 944.65
E. = 48.71
R. = 2,329.81
P.C.= 303+90.83
Y 125,078.47
X 472,982.27
P.T.= 313+35.48
Y 125,147.60
X 473,917.91

P.I.= 320+52.82
Y 125,343.41
X 474,608.01
Δ. = 11°41'31" R
D. = 02°22'56"
T. = 246.24
L. = 490.77
E. = 12.57
R. = 2,405.00
P.C.= 318+06.58
Y 125,276.20
X 474,371.12
P.T.= 322+97.35
Y 125,361.23
X 474,853.61

P.I.= 334+71.49
Y 125,446.18
X 476,024.67
Δ. = 19°24'37" R
D. = 03°41'47"
T. = 265.09
L. = 525.09
E. = 22.50
R. = 1,550.00
P.C.= 332+06.40
Y 125,427.00
X 475,760.27
P.T.= 337+31.50
Y 125,376.41
X 476,280.41

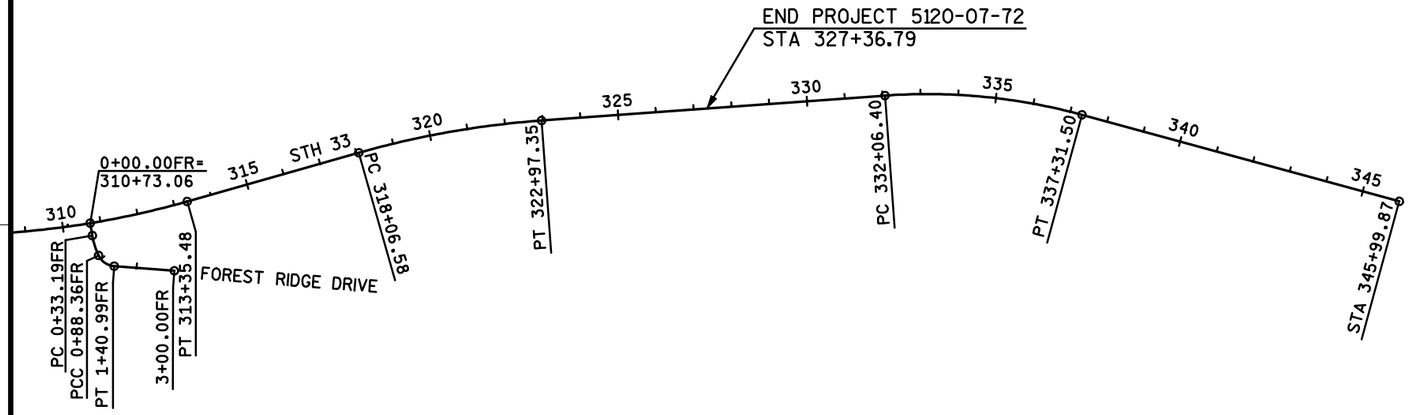
P.I.= 345+99.87
Y 125,147.84
X 477,118.16

P.I.= 0+00.00 FR
Y 125,090.32
X 473,661.96

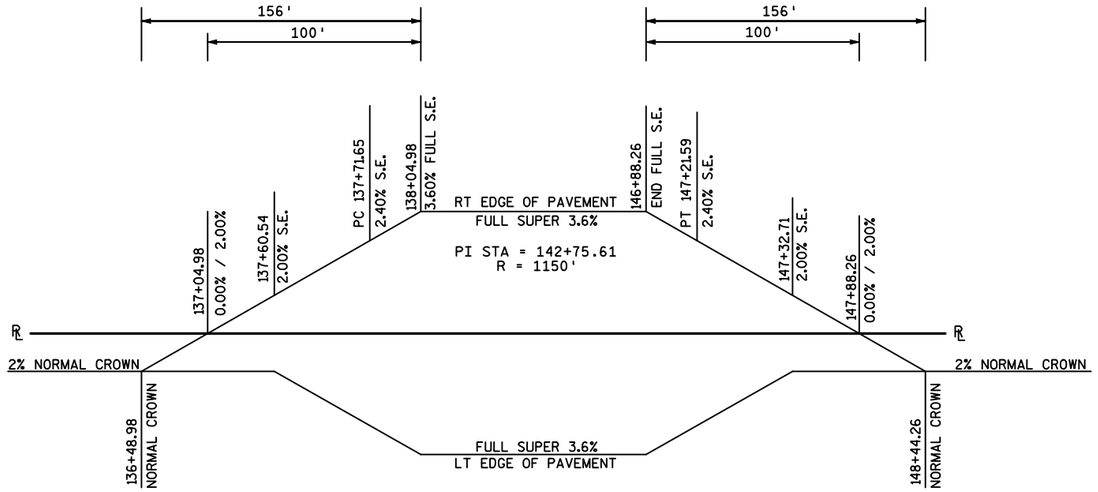
P.I.= 0+60.95 FR
Y 125,030.21
X 473,672.04
Δ. = 15°48'11" L
D. = 28°38'52"
T. = 27.76
L. = 55.16
E. = 1.92
R. = 200.00
P.C.= 0+33.19 FR
Y 125,057.59
X 473,667.45
P.T.= 0+88.36 FR
Y 125,005.12
X 473,683.92

P.I.= 1+17.41 FR
Y 124,978.86
X 473,696.34
Δ. = 60°19'81" L
D. = 114°35'30"
T. = 29.05
L. = 52.64
E. = 7.83
R. = 50.00
P.C.= 0+88.36 FR
Y 125,005.12
X 473,683.92
P.T.= 1+40.99 FR
Y 124,976.65
X 473,725.31

P.I.= 3+00.00 FR
Y 124,964.58
X 473,883.86



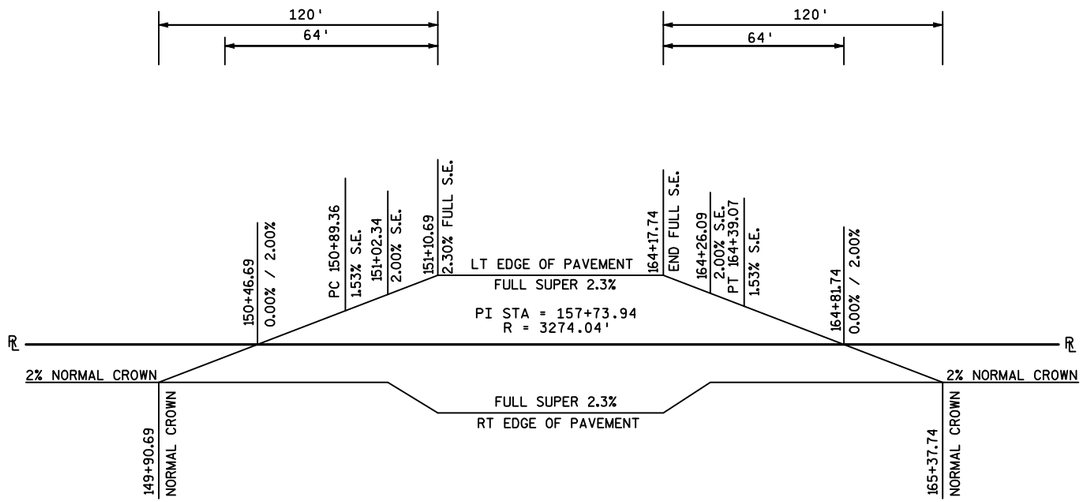
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	ALIGNMENT DIAGRAM	SHEET 191	E



STH 33
SUPERELEVATION DIAGRAM

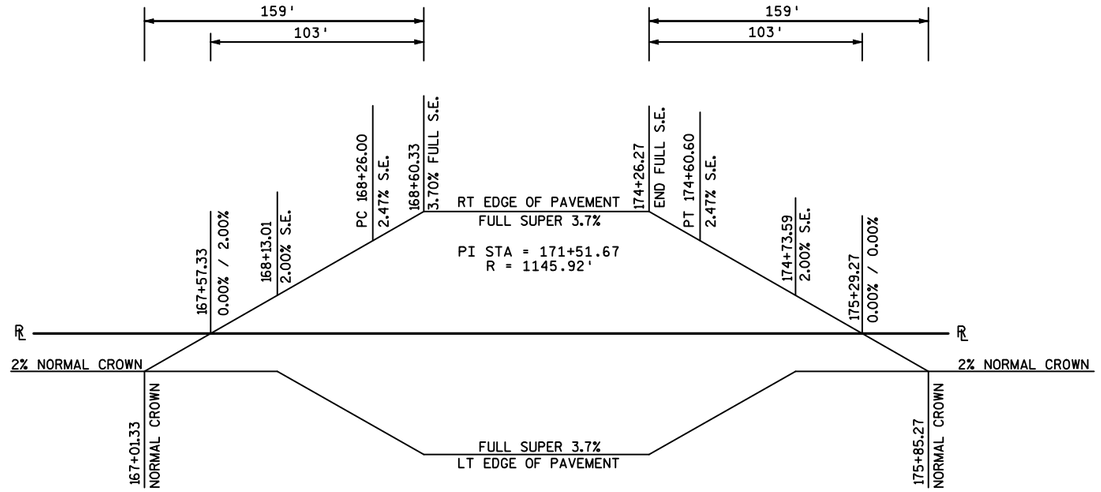
STATION	SUPERELEVATION RATE	
	STH 33	
	TO LT. EDGE	TO RT. EDGE
136+48.98	-2.00%	-2.00%
136+50.00	-2.00%	-1.96%
137+04.98	-2.00%	0.00%
137+50.00	-2.00%	+1.62%
137+60.54	-2.00%	+2.00%
138+00.00	-3.42%	+3.42%
138+04.98	-3.60%	+3.60%
146+88.26	-3.60%	+3.60%
147+00.00	-3.18%	+3.18%
147+32.71	-2.00%	+2.00%
147+50.00	-2.00%	+1.38%
147+88.26	-2.00%	0.00%
148+00.00	-2.00%	-0.42%
148+44.26	-2.00%	-2.00%

NOTE: SUPERELEVATION RATES ARE PROJECTED OUT FROM THE REFERENCE LINE LOOKING UP STATION



STH 33
SUPERELEVATION DIAGRAM

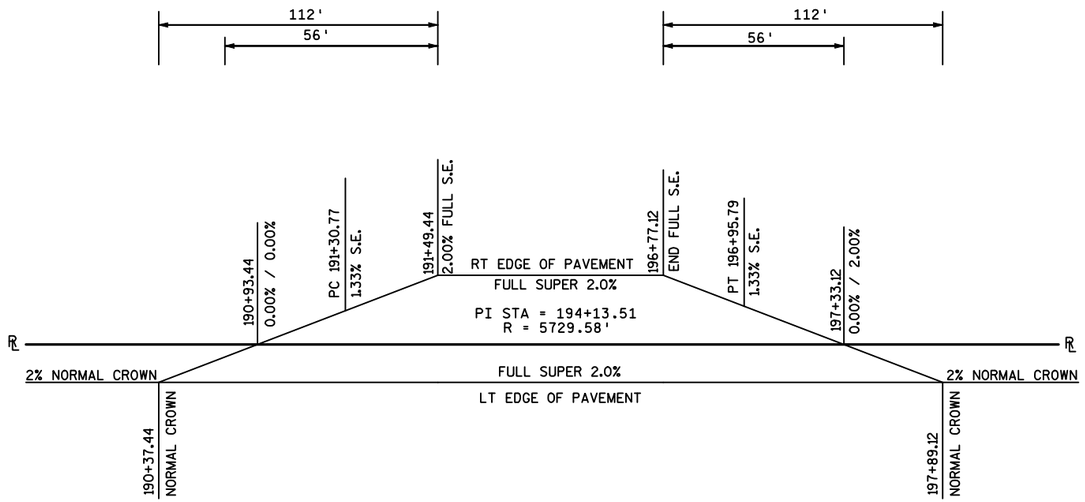
STATION	SUPERELEVATION RATE	
	STH 33	
	TO LT. EDGE	TO RT. EDGE
149+90.69	-2.00%	-2.00%
150+00.00	-1.67%	-2.00%
150+46.69	+0.00%	-2.00%
150+50.00	+0.12%	-2.00%
151+02.34	+2.00%	-2.00%
151+10.69	+2.30%	-2.30%
164+17.74	+2.30%	-2.30%
164+26.09	+2.00%	-2.00%
164+50.00	+1.14%	-2.00%
164+81.74	+0.00%	-2.00%
165+00.00	-0.65%	-2.00%
165+37.74	-2.00%	-2.00%



STH 33
SUPERELEVATION DIAGRAM

STATION	SUPERELEVATION RATE STH 33	
	TO LT. EDGE	TO RT. EDGE
167+01.33	-2.00%	-2.00%
167+50.00	-2.00%	-0.26%
167+57.33	-2.00%	0.00%
168+00.00	-2.00%	+1.53%
168+13.01	-2.00%	+2.00%
168+50.00	-3.33%	+3.33%
168+60.33	-3.70%	+3.70%
174+26.27	-3.70%	+3.70%
174+50.00	-2.85%	+2.85%
174+73.59	-2.00%	+2.00%
175+00.00	-2.00%	+1.05%
175+29.27	-2.00%	0.00%
175+50.00	-2.00%	-0.74%
175+85.27	-2.00%	-2.00%

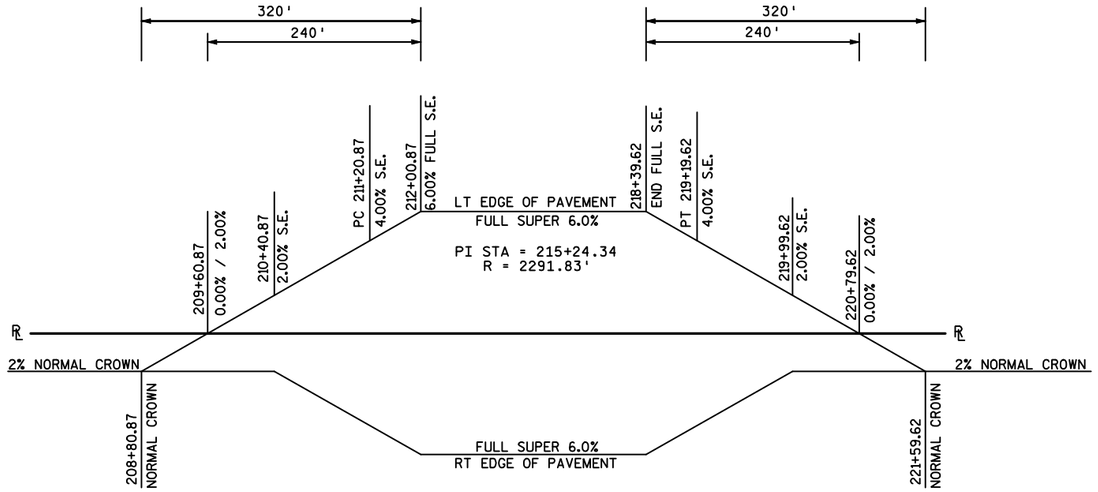
NOTE: SUPERELEVATION RATES ARE PROJECTED OUT FROM THE REFERENCE LINE LOOKING UP STATION



STH 33
SUPERELEVATION DIAGRAM

STATION	SUPERELEVATION RATE STH 33	
	TO LT. EDGE	TO RT. EDGE
190+37.44	-2.00%	-2.00%
190+50.00	-2.00%	-1.55%
190+93.44	-2.00%	-0.00%
191+00.00	-2.00%	+0.23%
191+49.44	-2.00%	+2.00%
196+77.12	-2.00%	+2.00%
197+00.00	-2.00%	+1.18%
197+33.12	-2.00%	-0.00%
197+50.00	-2.00%	-0.60%
197+89.12	-2.00%	-2.00%

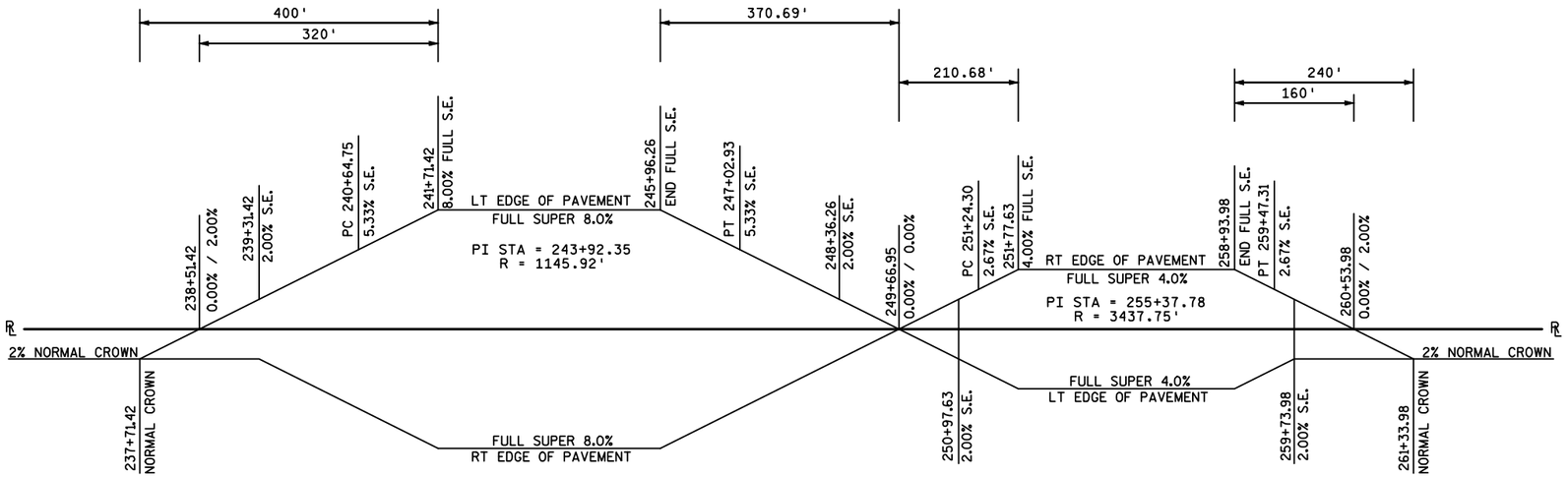
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	SUPERELEVATION DIAGRAM	SHEET 193	E



STH 33
SUPERELEVATION DIAGRAM

STATION	SUPERELEVATION RATE	
	STH 33	
	TO LT. EDGE	TO RT. EDGE
208+80.87	-2.00%	-2.00%
209+00.00	-1.52%	-2.00%
209+60.87	-0.00%	-2.00%
210+40.87	+2.00%	-2.00%
211+00.00	+3.48%	-3.48%
212+00.87	+6.00%	-6.00%
218+39.62	+6.00%	-6.00%
219+00.00	+4.49%	-4.49%
219+99.62	+2.00%	-2.00%
220+50.00	+0.74%	-2.00%
220+79.62	-0.00%	-2.00%
221+00.00	-0.51%	-2.00%
221+59.62	-2.00%	-2.00%

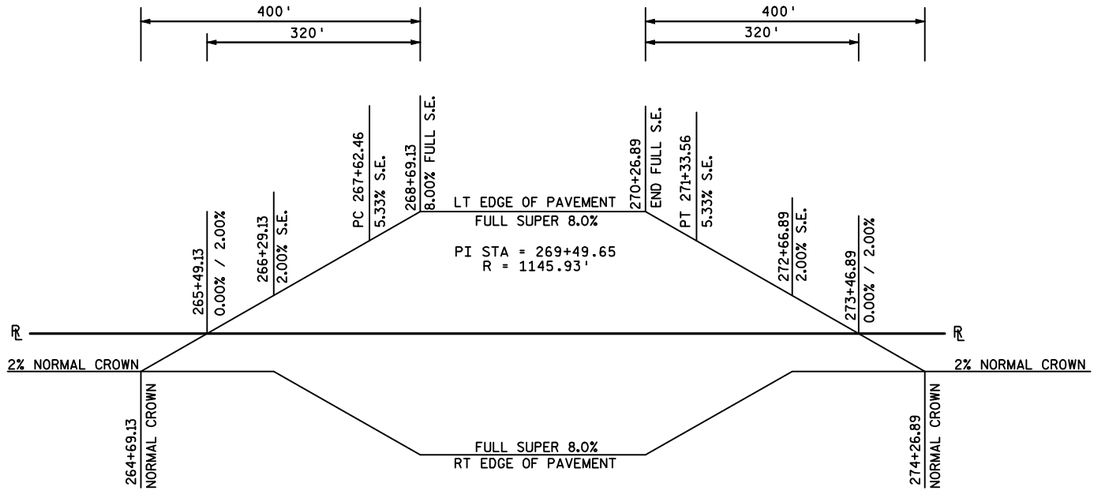
NOTE: SUPERELEVATION RATES ARE PROJECTED OUT FROM THE REFERENCE LINE LOOKING UP STATION



STH 33
SUPERELEVATION DIAGRAM

STATION	SUPERELEVATION RATE	
	STH 33	
	TO LT. EDGE	TO RT. EDGE
237+71.42	-2.00%	-2.00%
238+51.42	-0.00%	-2.00%
239+31.42	+2.00%	-2.00%
241+71.42	+8.00%	-8.00%
245+96.26	+8.00%	-8.00%
248+36.26	+2.00%	-2.00%
249+66.95	-0.00%	-0.00%
250+97.63	-2.00%	+2.00%
251+77.63	-4.00%	+4.00%
258+93.98	-4.00%	+4.00%
259+73.98	-2.00%	+2.00%
260+53.98	-2.00%	-0.00%
261+33.98	-2.00%	-2.00%

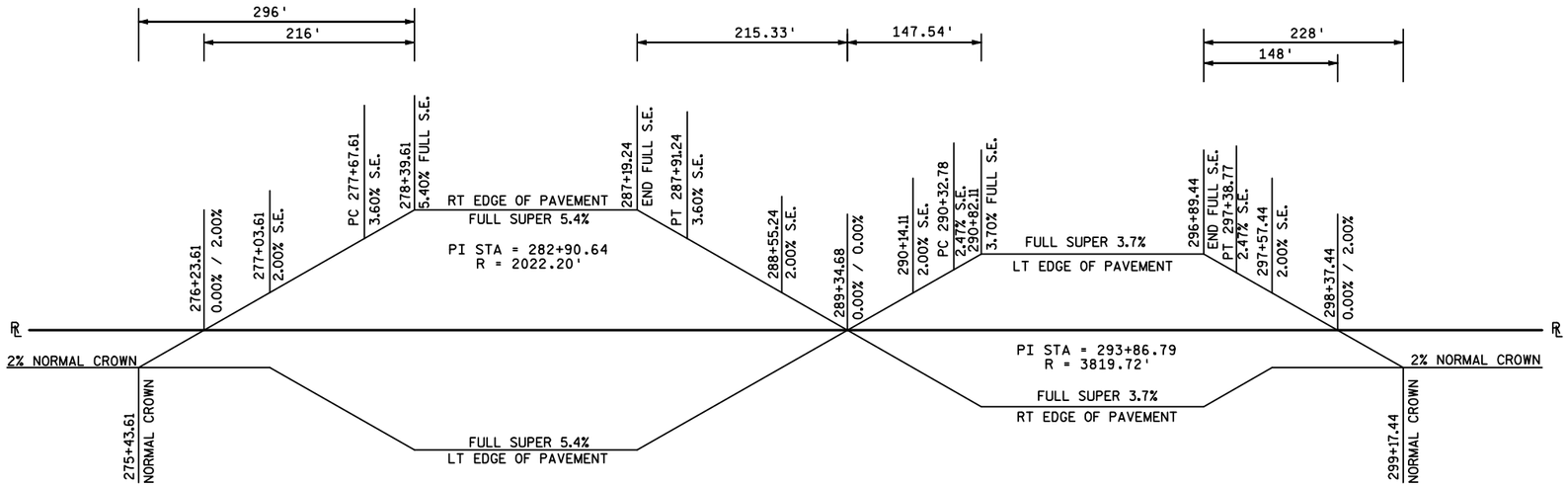
PROJECT NO: 5120-07-71/72	HWY: STH 33	COUNTY: LA CROSSE	SUPERELEVATION DIAGRAM	SHEET 194	E



STH 33
SUPERELEVATION DIAGRAM

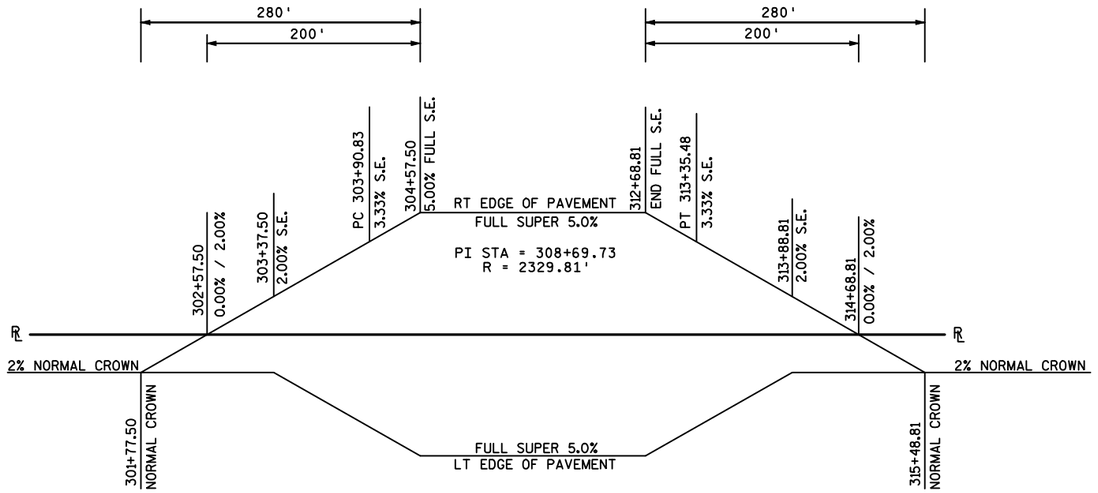
STATION	SUPERELEVATION RATE	
	STH 33	
	TO LT. EDGE	TO RT. EDGE
264+69.13	-2.00%	-2.00%
265+00.00	-1.23%	-2.00%
265+49.13	-0.00%	-2.00%
266+00.00	+1.27%	-2.00%
266+29.13	+2.00%	-2.00%
267+00.00	+3.77%	-3.77%
268+69.13	+8.00%	-8.00%
270+26.89	+8.00%	-8.00%
271+00.00	+6.17%	-6.17%
272+00.00	+4.33%	-4.33%
272+66.89	+2.00%	-2.00%
273+00.00	+1.17%	-2.00%
273+46.89	-0.00%	-2.00%
274+00.00	-1.33%	-2.00%
274+26.89	-2.00%	-2.00%

NOTE: SUPERELEVATION RATES ARE PROJECTED OUT FROM THE REFERENCE LINE LOOKING UP STATION



STH 33
SUPERELEVATION DIAGRAM

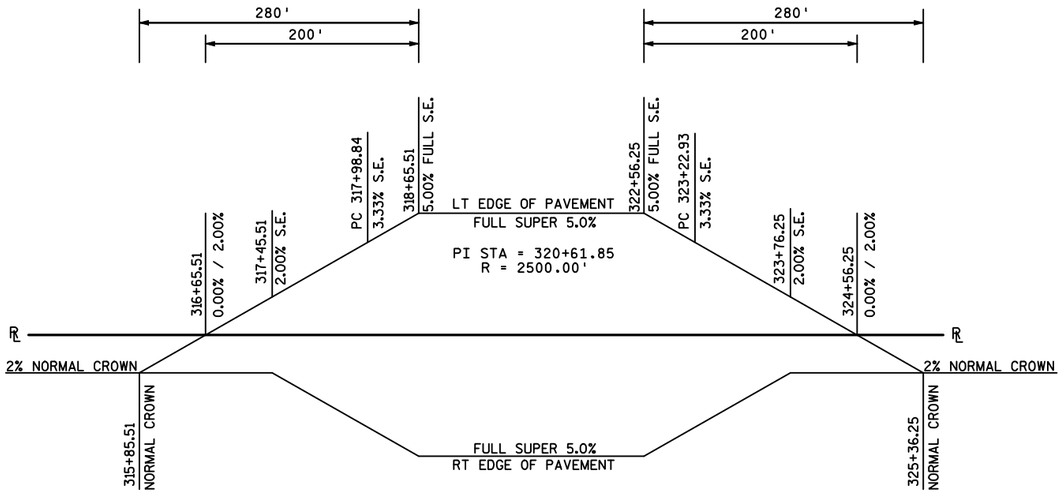
STATION	SUPERELEVATION RATE	
	STH 33	
	TO LT. EDGE	TO RT. EDGE
275+43.61	-2.00%	-2.00%
276+23.61	-2.00%	-0.00%
277+03.61	-2.00%	+2.00%
278+39.61	-5.40%	+5.40%
287+19.24	-5.40%	+5.40%
288+55.24	-2.00%	+2.00%
289+34.68	-0.00%	-0.00%
290+14.11	+2.00%	-2.00%
290+82.11	+3.70%	-3.70%
296+89.44	+3.70%	-3.70%
297+57.44	+2.00%	-2.00%
298+37.44	-0.00%	-2.00%
299+17.44	-2.00%	-2.00%



STH 33
SUPERELEVATION DIAGRAM

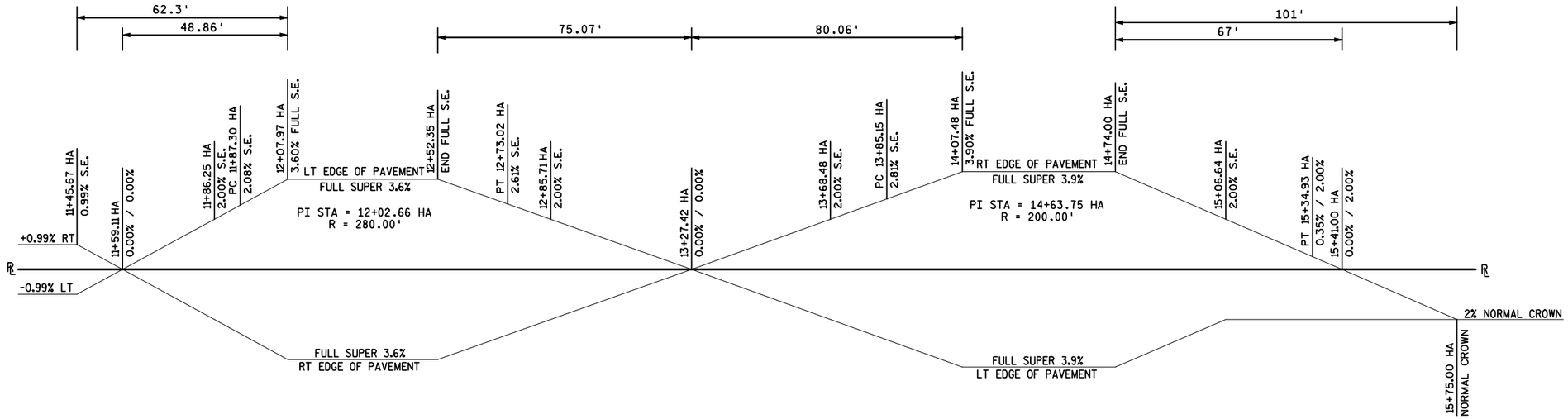
STATION	SUPERELEVATION RATE STH 33	
	TO LT. EDGE	TO RT. EDGE
301+77.50	-2.00%	-2.00%
302+00.00	-2.00%	-1.44%
302+57.50	-2.00%	-0.00%
303+00.00	-2.00%	+1.06%
303+37.50	-2.00%	+2.00%
304+00.00	-3.56%	+3.56%
304+57.50	-5.00%	+5.00%
312+68.81	-5.00%	+5.00%
313+00.00	-4.22%	+4.22%
313+88.81	-2.00%	+2.00%
314+00.00	-2.00%	+1.72%
314+68.81	-2.00%	-0.00%
315+00.00	-2.00%	-0.78%
315+48.81	-2.00%	-2.00%

NOTE: SUPERELEVATION RATES ARE PROJECTED OUT FROM THE REFERENCE LINE LOOKING UP STATION



STH 33
SUPERELEVATION DIAGRAM

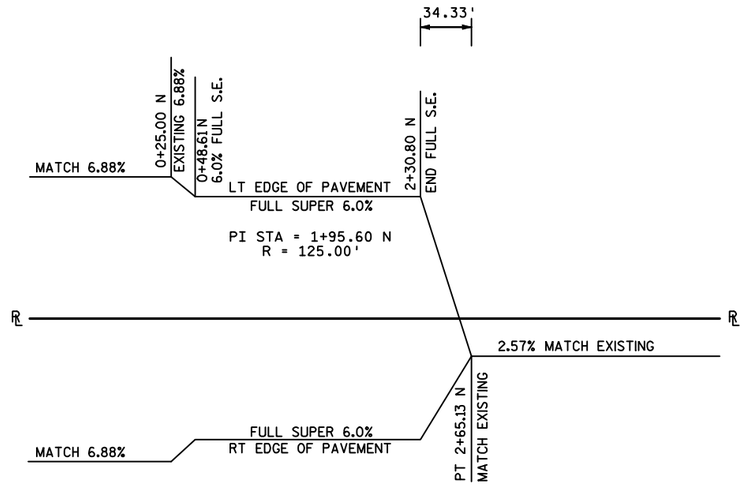
STATION	SUPERELEVATION RATE STH 33	
	TO LT. EDGE	TO RT. EDGE
315+85.51	-2.00%	-2.00%
316+00.00	-1.64%	-2.00%
316+65.51	-0.00%	-2.00%
317+00.00	+0.86%	-2.00%
317+45.51	+2.00%	-2.00%
317+98.84	+3.33%	-3.33%
318+00.00	+3.36%	-3.36%
318+65.51	+5.00%	-5.00%
322+56.25	+5.00%	-5.00%
323+00.00	+3.91%	-3.91%
323+22.93	+3.33%	-3.33%
323+76.25	+2.00%	-2.00%
324+00.00	+1.41%	-2.00%
324+56.25	-0.00%	-2.00%
325+00.00	-1.09%	-2.00%
325+36.25	-2.00%	-2.00%



HAGEN ROAD
SUPERELEVATION DIAGRAM

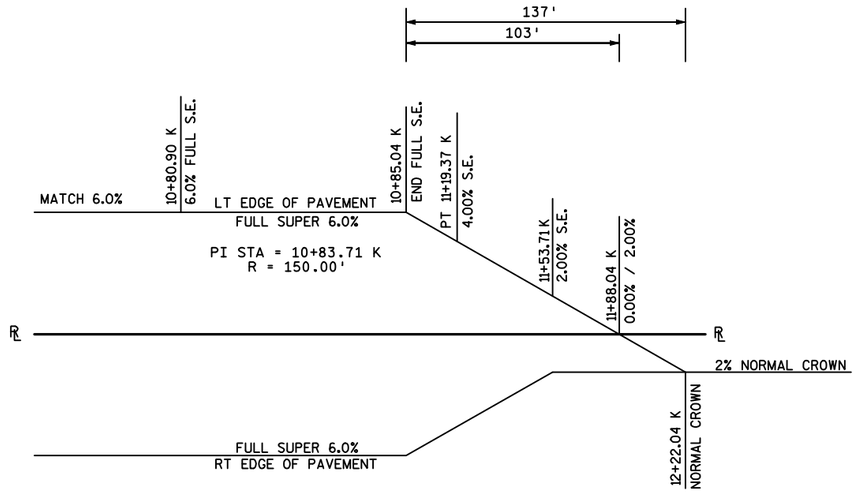
STATION	SUPERELEVATION RATE HAGEN ROAD	
	TO LT. EDGE	TO RT. EDGE
11+45.67 HA	-0.99%	+0.99%
11+50.00 HA	-0.67%	+0.67%
11+59.11 HA	-0.00%	-0.00%
11+86.25 HA	+2.00%	-2.00%
12+00.00 HA	+3.01%	-3.01%
12+07.97 HA	+3.60%	-3.60%
12+52.35 HA	+3.60%	-3.60%
12+85.71 HA	+2.00%	-2.00%
13+00.00 HA	+1.31%	-1.31%
13+27.42 HA	-0.00%	-0.00%
13+50.00 HA	-1.10%	+1.10%
13+68.48 HA	-2.00%	+2.00%
14+00.00 HA	-3.54%	+3.54%
14+07.48 HA	-3.90%	+3.90%
14+74.00 HA	-3.90%	+3.90%
15+00.00 HA	-2.39%	+2.39%
15+06.64 HA	-2.00%	+2.00%
15+41.00 HA	-2.00%	-0.00%
15+50.00 HA	-2.00%	-0.53%
15+75.00 HA	-2.00%	-2.00%

NOTE: SUPERELEVATION RATES ARE PROJECTED OUT FROM THE REFERENCE LINE LOOKING UP STATION



NORSEMEN DRIVE
SUPERELEVATION DIAGRAM

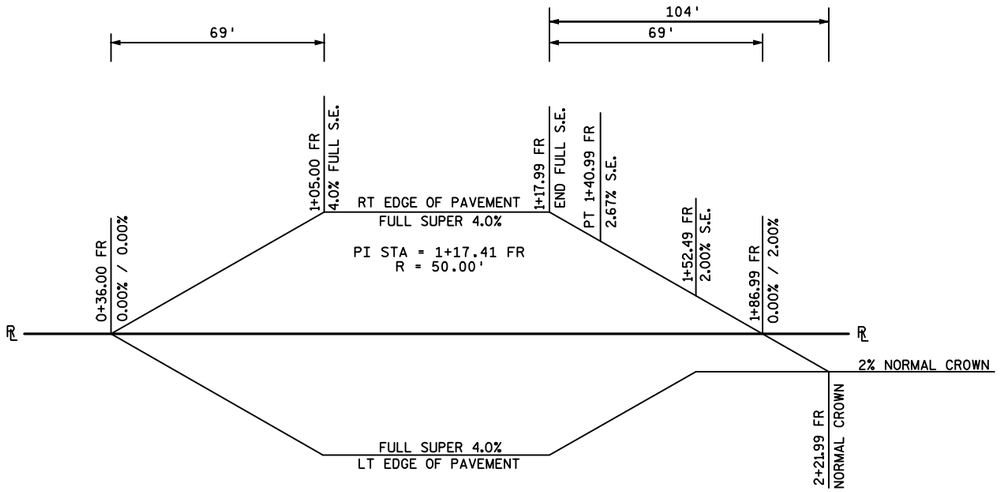
STATION	SUPERELEVATION RATE NORSEMEN DRIVE	
	TO LT. EDGE	TO RT. EDGE
0+50.00 N	+6.00%	-6.06%
1+00.00 N	+6.00%	-6.00%
1+50.00 N	+6.00%	-6.00%
2+00.00 N	+6.00%	-6.00%
2+30.80 N	+6.00%	-6.00%
2+50.00 N	-1.21%	-6.00%
2+65.13 N	-2.57%	-7.03%



KNOBLOCH ROAD
SUPERELEVATION DIAGRAM

STATION	SUPERELEVATION RATE KNOBLOCH ROAD	
	TO LT. EDGE	TO RT. EDGE
10+80.90 K	+6.00%	-6.00%
10+85.04 K	+6.00%	-6.00%
11+00.00 K	+5.13%	-5.13%
11+53.71 K	+2.00%	-2.00%
11+88.04 K	-0.00%	-2.00%
12+00.00 K	-0.70%	-2.00%
12+22.04 K	-2.00%	-2.00%

NOTE: SUPERELEVATION RATES ARE PROJECTED OUT FROM THE REFERENCE LINE LOOKING UP STATION



FOREST RIDGE DRIVE
SUPERELEVATION DIAGRAM

STATION	SUPERELEVATION RATE FOREST RIDGE DRIVE	
	TO LT. EDGE	TO RT. EDGE
0+36.00 FR	-0.00%	0.00%
0+50.00 FR	-0.81%	+2.00%
0+75.00 FR	-2.26%	+2.26%
1+00.00 FR	-3.71%	+3.71%
1+05.00 FR	-4.00%	+4.00%
1+17.99 FR	-4.00%	+4.00%
1+50.00 FR	-2.14%	+2.14%
1+52.49 FR	-2.00%	+2.00%
1+86.99 FR	-2.00%	-0.00%
2+00.00 FR	-2.00%	-0.74%
2+21.99 FR	-2.00%	-2.00%

DATE 04OCT13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5120-07-71 QUANTITY	5120-07-72 QUANTITY
0010	201.0105	CLEARING	STA	45.000	21.000	24.000
0020	201.0205	GRUBBING	STA	45.000	21.000	24.000
0030	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	7.000	1.000	6.000
0040	203.0200	REMOVING OLD STRUCTURE (STATION) 01. 194+12	LS	1.000	1.000	
0050	203.0200	REMOVING OLD STRUCTURE (STATION) 02. 207+55	LS	1.000	1.000	
0060	203.0200	REMOVING OLD STRUCTURE (STATION) 03. 284+75	LS	1.000		1.000
0070	203.0200	REMOVING OLD STRUCTURE (STATION) 04. 304+93	LS	1.000		1.000
0080	203.0200	REMOVING OLD STRUCTURE (STATION) 05. 220+25	LS	1.000		1.000
0090	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 01. 161+09.54	LS	1.000	1.000	
0100	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 02. 213+22	LS	1.000	1.000	
0110	204.0100	REMOVING PAVEMENT	SY	89,900.000	45,632.000	44,268.000
0120	204.0150	REMOVING CURB & GUTTER	LF	1,651.000	1,283.000	368.000
0130	204.0155	REMOVING CONCRETE SIDEWALK	SY	385.000	385.000	
0140	204.0157	REMOVING CONCRETE BARRIER	LF	5,220.000		5,220.000
0150	204.0165	REMOVING GUARDRAIL	LF	5,896.000	4,388.000	1,508.000
0160	204.0170	REMOVING FENCE	LF	500.000	484.000	16.000
0170	204.0210	REMOVING MANHOLES	EACH	13.000	11.000	2.000
0180	204.0220	REMOVING INLETS	EACH	59.000	30.000	29.000
0190	204.0245	REMOVING STORM SEWER (SIZE) 01. 12-INCH	LF	2,268.000	1,900.000	368.000
0200	204.0245	REMOVING STORM SEWER (SIZE) 02. 15-INCH	LF	448.000	448.000	
0210	204.0245	REMOVING STORM SEWER (SIZE) 03. 18-INCH	LF	566.000	445.000	121.000
0220	204.0245	REMOVING STORM SEWER (SIZE) 04. 24-INCH	LF	546.000	22.000	524.000
0230	204.0245	REMOVING STORM SEWER (SIZE) 05. 30-INCH	LF	281.000	281.000	
0240	204.0245	REMOVING STORM SEWER (SIZE) 06. 36-INCH	LF	112.000	112.000	
0250	204.0245	REMOVING STORM SEWER (SIZE) 07. 19X30-INCH	LF	59.000	59.000	
0260	204.0270	ABANDONING CULVERT PIPES	EACH	8.000		8.000
0270	204.9165.S	REMOVING (ITEM DESCRIPTION) 01. MODULAR BLOCK RETAINING WALL	SF	3,700.000	3,700.000	
0280	205.0100	EXCAVATION COMMON	CY	104,310.000	48,774.000	55,536.000
0290	205.0200	EXCAVATION ROCK	CY	3,759.000		3,759.000
0300	206.2000	EXCAVATION FOR STRUCTURES CULVERTS (STRUCTURE) 01. C-32-0032	LS	1.000	1.000	
0310	206.2000	EXCAVATION FOR STRUCTURES CULVERTS (STRUCTURE) 02. B-32-0227	LS	1.000	1.000	
0320	206.2000	EXCAVATION FOR STRUCTURES CULVERTS (STRUCTURE) 03. B-32-0071	LS	1.000		1.000
0330	206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS (STRUCTURE) 01. R-32-0054	LS	1.000	1.000	
0340	206.6000.S	TEMPORARY SHORING	SF	1,250.000	1,250.000	
0350	209.0200.S	BACKFILL CONTROLLED LOW STRENGTH	CY	547.000	547.000	
0360	210.0100	BACKFILL STRUCTURE	CY	2,405.000	2,280.000	125.000
0370	213.0100	FINISHING ROADWAY (PROJECT) 01. 5120-07-71	EACH	1.000	1.000	
0380	213.0100	FINISHING ROADWAY (PROJECT) 02. 5120-07-72	EACH	1.000		1.000
0390	214.0100	OBLITERATING OLD ROAD	STA	2.500	2.500	
0400	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	1,327.000	89.000	1,238.000

3

DATE 04OCT13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5120-07-71 QUANTITY	5120-07-72 QUANTITY
0410	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	57,655.000	26,037.000	31,618.000
0420	311.0115	BREAKER RUN	CY	545.000	500.000	45.000
0430	312.0110	SELECT CRUSHED MATERIAL	TON	60,308.000	38,318.000	21,990.000
0440	415.0080	CONCRETE PAVEMENT 8-INCH	SY	101,079.000	44,865.000	56,214.000
0450	415.0210	CONCRETE PAVEMENT GAPS	EACH	18.000	11.000	7.000
0460	416.0160	CONCRETE DRIVEWAY 6-INCH	SY	298.000	278.000	20.000
0470	416.0620	DRILLED DOWEL BARS	EACH	17.000	17.000	
0480	416.1010	CONCRETE SURFACE DRAINS	CY	9.000	1.000	8.000
0490	440.4410.S	INCENTIVE IRI RIDE	DOL	14,383.000	6,726.000	7,657.000
0500	465.0105	ASPHALTIC SURFACE	TON	2,564.000	744.000	1,820.000
0510	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	158.000	138.000	20.000
0520	465.0125	ASPHALTIC SURFACE TEMPORARY	TON	200.000	150.000	50.000
0530	502.3200	PROTECTIVE SURFACE TREATMENT	SY	125.000	125.000	
0540	502.6105	MASONRY ANCHORS TYPE S 5/8-INCH	EACH	132.000	83.000	49.000
0550	504.0100	CONCRETE MASONRY CULVERTS	CY	635.000	567.000	68.000
0560	504.0500	CONCRETE MASONRY RETAINING WALLS	CY	227.000	227.000	
0570	504.0900	CONCRETE MASONRY ENDWALLS	CY	16.480	3.480	13.000
0580	505.0410	BAR STEEL REINFORCEMENT HS CULVERTS	LB	69,790.000	61,100.000	8,690.000
0590	505.0415	BAR STEEL REINFORCEMENT HS RETAINING WALLS	LB	9,990.000	9,990.000	
0600	505.0610	BAR STEEL REINFORCEMENT HS COATED CULVERTS	LB	2,805.000	2,330.000	475.000
0610	505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	16,290.000	16,290.000	
0620	509.2000	FULL-DEPTH DECK REPAIR	SY	12.000	4.000	8.000
0630	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	113.000	97.000	16.000
0640	520.8000	CONCRETE COLLARS FOR PIPE	EACH	2.000		2.000
0650	521.0124	CULVERT PIPE CORRUGATED STEEL 24-INCH	LF	38.000	38.000	
0660	521.1024	APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH	EACH	2.000	2.000	
0670	522.0118	CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	10.000		10.000
0680	522.0124	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	192.000		192.000
0690	522.1012	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH	EACH	5.000	2.000	3.000
0700	522.1015	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH	EACH	1.000	1.000	
0710	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	4.000	2.000	2.000
0720	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	13.000	1.000	12.000
0730	522.1036	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH	EACH	1.000	1.000	
0740	522.1048	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 48-INCH	EACH	1.000	1.000	
0750	523.0143	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 43X68-INCH	LF	189.000		189.000
0760	523.0519	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH	EACH	1.000	1.000	
0770	523.0529	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 29X45-INCH	EACH	1.000	1.000	

3

DATE 04OCT13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5120-07-71 QUANTITY	5120-07-72 QUANTITY
0780	523.0553	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 53X83-INCH	EACH	1.000		1.000
0790	532.0200.S	WALL MODULAR BLOCK GRAVITY	SF	4,177.000	3,945.000	232.000
0800	550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	225.000	225.000	
0810	601.0409	CONCRETE CURB & GUTTER 30-INCH TYPE A	LF	2,084.000	1,704.000	380.000
0820	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	991.000	745.000	246.000
0830	601.0452	CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D	LF	16,220.000	15,398.000	822.000
0840	601.0501	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH	LF	434.000		434.000
0850	601.0551	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A	LF	2,700.000		2,700.000
0860	601.0553	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D	LF	1,084.000		1,084.000
0870	601.0600	CONCRETE CURB PEDESTRIAN	LF	900.000	900.000	
0880	602.0410	CONCRETE SIDEWALK 5-INCH	SF	57,403.000	57,403.000	
0890	602.0415	CONCRETE SIDEWALK 6-INCH	SF	3,522.000	3,522.000	
0900	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	114.000	114.000	
0910	603.1136	CONCRETE BARRIER TYPE S36	LF	10,225.000		10,225.000
0920	606.0200	RIPRAP MEDIUM	CY	270.000	103.000	167.000
0930	606.0300	RIPRAP HEAVY	CY	1,496.000	105.000	1,391.000
0940	606.0400	RIPRAP EXTRA-HEAVY	CY	265.000		265.000
0950	607.5000	STORM SEWER ROCK EXCAVATION	CY	3,635.000		3,635.000
0960	608.0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	2,948.000	1,533.000	1,415.000
0970	608.0315	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH	LF	423.000	423.000	
0980	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	302.000	276.000	26.000
0990	608.0324	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	1,704.000	630.000	1,074.000
1000	608.0330	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH	LF	2,060.000	316.000	1,744.000
1010	608.0336	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH	LF	3,510.000	75.000	3,435.000
1020	608.0342	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 42-INCH	LF	915.000		915.000
1030	608.0348	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 48-INCH	LF	446.000	61.000	385.000
1040	608.0412	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	LF	238.000	203.000	35.000
1050	608.0418	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	LF	65.000	65.000	
1060	610.0119	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 19X30-INCH	LF	26.000	26.000	
1070	610.0153	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 53X83-INCH	LF	59.000		59.000
1080	610.0429	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 29X45-INCH	LF	88.000	88.000	
1090	611.0530	MANHOLE COVERS TYPE J	EACH	29.000	10.000	19.000
1100	611.0610	INLET COVERS TYPE BW	EACH	31.000	1.000	30.000
1110	611.0624	INLET COVERS TYPE H	EACH	34.000	34.000	

3

DATE 04OCT13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5120-07-71 QUANTITY	5120-07-72 QUANTITY
1120	611.0627	INLET COVERS TYPE HM	EACH	22.000		22.000
1130	611.0642	INLET COVERS TYPE MS	EACH	4.000		4.000
1140	611.2004	MANHOLES 4-FT DIAMETER	EACH	10.000	4.000	6.000
1150	611.2005	MANHOLES 5-FT DIAMETER	EACH	22.000	3.000	19.000
1160	611.2006	MANHOLES 6-FT DIAMETER	EACH	9.000	4.000	5.000
1170	611.2007	MANHOLES 7-FT DIAMETER	EACH	8.000	1.000	7.000
1180	611.2008	MANHOLES 8-FT DIAMETER	EACH	1.000	1.000	
1190	611.2504	MANHOLES VARIABLE TEE 4-FT DIAMETER	EACH	1.000		1.000
1200	611.3225	INLETS 2X2.5-FT	EACH	17.000	1.000	16.000
1210	611.3230	INLETS 2X3-FT	EACH	49.000	31.000	18.000
1220	611.3901	INLETS MEDIAN 1 GRATE	EACH	2.000		2.000
1230	611.3902	INLETS MEDIAN 2 GRATE	EACH	1.000		1.000
1240	611.8110	ADJUSTING MANHOLE COVERS	EACH	11.000	9.000	2.000
1250	611.8115	ADJUSTING INLET COVERS	EACH	2.000	1.000	1.000
1260	611.8120.S	COVER PLATES TEMPORARY	EACH	20.000	14.000	6.000
1270	611.9800.S	PIPE GRATES	EACH	25.000	11.000	14.000
1280	612.0106	PIPE UNDERDRAIN 6-INCH	LF	11,703.000	8,577.000	3,126.000
1290	612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	15.000	15.000	
1300	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	1,065.000	835.000	230.000
1310	612.0806	APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH	EACH	2.000	2.000	
1320	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2.000	2.000	
1330	614.0200	STEEL THRIE BEAM STRUCTURE APPROACH	LF	20.650		20.650
1340	614.0345	STEEL PLATE BEAM GUARD SHORT RADIUS	LF	37.500		37.500
1350	614.0390	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL	EACH	1.000		1.000
1360	614.2300	MGS GUARDRAIL 3	LF	3,795.000	2,832.500	962.500
1370	614.2330	MGS GUARDRAIL 3 K	LF	125.000	125.000	
1380	614.2500	MGS THRIE BEAM TRANSITION	LF	394.000	39.400	354.600
1390	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	26.000	13.000	13.000
1400	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 5120-07-71	EACH	1.000	1.000	
1410	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 02. 5120-07-72	EACH	1.000		1.000
1420	619.1000	MOBILIZATION	EACH	1.000	0.430	0.570
1430	620.0100	CONCRETE CORRUGATED MEDIAN	SF	11,618.000	3,982.000	7,636.000
1440	623.0200	DUST CONTROL SURFACE TREATMENT	SY	46,971.000	24,664.000	22,307.000
1450	624.0100	WATER	MGAL	3,243.000	1,485.000	1,758.000
1460	625.0500	SALVAGED TOPSOIL	SY	60,496.000	22,356.000	38,140.000
1470	627.0200	MULCHING	SY	26,132.000	8,231.000	17,901.000
1480	628.1504	SILT FENCE	LF	2,318.000	1,878.000	440.000
1490	628.1520	SILT FENCE MAINTENANCE	LF	2,318.000	1,878.000	440.000
1500	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	6.000	3.000	3.000
1510	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	4.000	2.000	2.000
1520	628.2004	EROSION MAT CLASS I TYPE B	SY	19,246.000	2,464.000	16,782.000
1530	628.2008	EROSION MAT URBAN CLASS I TYPE B	SY	11,122.000	11,122.000	
1540	628.2023	EROSION MAT CLASS II TYPE B	SY	4,850.000	454.000	4,396.000
1550	628.7005	INLET PROTECTION TYPE A	EACH	5.000		5.000
1560	628.7010	INLET PROTECTION TYPE B	EACH	31.000	1.000	30.000
1570	628.7015	INLET PROTECTION TYPE C	EACH	63.000	41.000	22.000
1580	628.7504	TEMPORARY DITCH CHECKS	LF	48.000	48.000	
1590	628.7555	CULVERT PIPE CHECKS	EACH	198.000	88.000	110.000
1600	628.7560.S	STONE OR ROCK DITCH CHECKS	CY	126.000	84.000	42.000

3

DATE 04OCT13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5120-07-71 QUANTITY	5120-07-72 QUANTITY
1610	629.0210	FERTILIZER TYPE B	CWT	40.500	14.500	26.000
1620	630.0120	SEEDING MIXTURE NO. 20	LB	1,748.000	623.000	1,125.000
1630	630.0200	SEEDING TEMPORARY	LB	1,748.000	623.000	1,125.000
1640	631.0300	SOD WATER	MGAL	0.700	0.200	0.500
1650	631.1000	SOD LAWN	SY	32.000	11.000	21.000
1660	633.0500	DELINEATOR REFLECTORS	EACH	205.000		205.000
1670	633.1000	DELINEATOR BRACKETS	EACH	205.000		205.000
1680	633.5100	MARKERS ROW	EACH	132.000	39.000	93.000
1690	633.5200	MARKERS CULVERT END	EACH	26.000	14.000	12.000
1700	634.0612	POSTS WOOD 4X6-INCH X 12-FT	EACH	32.000	32.000	
1710	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	73.000	34.000	39.000
1720	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	29.000	15.000	14.000
1730	634.0811	POSTS TUBULAR STEEL 2X2-INCH X 11-FT	EACH	15.000	15.000	
1740	634.0812	POSTS TUBULAR STEEL 2X2-INCH X 12-FT	EACH	15.000	15.000	
1750	634.0814	POSTS TUBULAR STEEL 2X2-INCH X 14-FT	EACH	7.000	7.000	
1760	637.2210	SIGNS TYPE II REFLECTIVE H	SF	755.070	443.170	311.900
1770	637.2230	SIGNS TYPE II REFLECTIVE F	SF	190.260	101.760	88.500
1780	638.2602	REMOVING SIGNS TYPE II	EACH	109.000	71.000	38.000
1790	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	74.000	45.000	29.000
1800	642.5201	FIELD OFFICE TYPE C	EACH	1.000	1.000	
1810	643.0100	TRAFFIC CONTROL (PROJECT) 01. 5120-07-71	EACH	1.000	1.000	
1820	643.0100	TRAFFIC CONTROL (PROJECT) 02. 5120-07-72	EACH	1.000		1.000
1830	643.0300	TRAFFIC CONTROL DRUMS	DAY	93,690.000	63,549.000	30,141.000
1840	643.0410	TRAFFIC CONTROL BARRICADES TYPE II	DAY	2,484.000	1,242.000	1,242.000
1850	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	44,055.000	27,324.000	16,731.000
1860	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	79,848.000	50,094.000	29,754.000
1870	643.0900	TRAFFIC CONTROL SIGNS	DAY	21,636.000	13,662.000	7,974.000
1880	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	3.000	3.000	
1890	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	1,242.000	1,242.000	
1900	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 01. 5120-07-71	EACH	1.000	1.000	
1910	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	50,508.000	50,508.000	
1920	645.0105	GEOTEXTILE FABRIC TYPE C	SY	1,035.000	880.000	155.000
1930	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	3,110.000	215.000	2,895.000
1940	645.0130	GEOTEXTILE FABRIC TYPE R	SY	714.000	290.000	424.000
1950	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	81,691.000	38,304.000	43,387.000
1960	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	3,028.000	1,633.000	1,395.000
1970	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2	EACH	74.000	58.000	16.000
1980	647.0176	PAVEMENT MARKING ARROWS EPOXY TYPE 3	EACH	1.000	1.000	
1990	647.0206	PAVEMENT MARKING ARROWS BIKE LANE EPOXY	EACH	21.000	21.000	
2000	647.0306	PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY	EACH	21.000	21.000	
2010	647.0356	PAVEMENT MARKING WORDS EPOXY	EACH	12.000	7.000	5.000
2020	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	203.000	173.000	30.000
2030	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY	EACH	14.000	8.000	6.000
2040	647.0726	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	LF	406.000	182.000	224.000
2050	647.0776	PAVEMENT MARKING CROSSWALK EPOXY 12-INCH	LF	806.000	806.000	
2060	647.0856	PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY	SF	4,225.000	1,290.000	2,935.000
2070	649.0200	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH	LF	55,532.000	36,800.000	18,732.000
2080	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	148.000	58.000	90.000
2090	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	22,146.000	9,878.000	12,268.000
2100	650.5000	CONSTRUCTION STAKING BASE	LF	3,589.000	1,428.000	2,161.000

3

DATE 04OCT13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5120-07-71 QUANTITY	5120-07-72 QUANTITY
2110	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	24,413.000	18,747.000	5,666.000
2120	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	8.000	1.000	7.000
2130	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. R-32-0052	LS	1.000	1.000	
2140	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 02. R-32-0053	LS	1.000	1.000	
2150	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 03. R-32-0054	LS	1.000	1.000	
2160	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 04. B-32-0227	LS	1.000	1.000	
2170	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 05. C-32-0032	LS	1.000	1.000	
2180	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 06. B-32-0071	LS	1.000		1.000
2190	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 07. R-32-0051	LS	1.000		1.000
2200	650.7000	CONSTRUCTION STAKING CONCRETE PAVEMENT	LF	18,985.000	8,878.000	10,107.000
2210	650.7500	CONSTRUCTION STAKING CONCRETE BARRIER	LF	10,225.000		10,225.000
2220	650.8500	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 01. 5120-07-71	LS	1.000	1.000	
2230	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 5120-07-71	LS	1.000	1.000	
2240	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 02. 5120-07-72	LS	1.000		1.000
2250	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	22,996.000	10,728.000	12,268.000
2260	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	3,339.000	3,339.000	
2270	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	LF	805.000	805.000	
2280	652.0800	CONDUIT LOOP DETECTOR	LF	80.000	80.000	
2290	653.0135	PULL BOXES STEEL 24X36-INCH	EACH	15.000	15.000	
2300	653.0140	PULL BOXES STEEL 24X42-INCH	EACH	5.000	5.000	
2310	654.0101	CONCRETE BASES TYPE 1	EACH	3.000	3.000	
2320	654.0110	CONCRETE BASES TYPE 10	EACH	3.000	3.000	
2330	654.0113	CONCRETE BASES TYPE 13	EACH	2.000	2.000	
2340	654.0217	CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL	EACH	1.000	1.000	
2350	655.0210	CABLE TRAFFIC SIGNAL 3-14 AWG	LF	60.000	60.000	
2360	655.0230	CABLE TRAFFIC SIGNAL 5-14 AWG	LF	411.000	411.000	
2370	655.0240	CABLE TRAFFIC SIGNAL 7-14 AWG	LF	143.000	143.000	
2380	655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	LF	963.000	963.000	
2390	655.0270	CABLE TRAFFIC SIGNAL 15-14 AWG	LF	129.000	129.000	
2400	655.0310	CABLE TYPE UF 2-12 AWG	LF	557.000	557.000	
2410	655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	LF	846.000	846.000	
2420	655.0610	ELECTRICAL WIRE LIGHTING 12 AWG	LF	636.000	636.000	
2430	655.0700	LOOP DETECTOR LEAD IN CABLE	LF	912.000	912.000	
2440	655.0800	LOOP DETECTOR WIRE	LF	260.000	260.000	
2450	657.1345	INSTALL POLES TYPE 9	EACH	1.000	1.000	
2460	657.1350	INSTALL POLES TYPE 10	EACH	2.000	2.000	
2470	657.1360	INSTALL POLES TYPE 13	EACH	2.000	2.000	
2480	657.1515	INSTALL MONOTUBE ARMS 15-FT	EACH	1.000	1.000	
2490	657.1530	INSTALL MONOTUBE ARMS 30-FT	EACH	2.000	2.000	
2500	657.1535	INSTALL MONOTUBE ARMS 35-FT	EACH	1.000	1.000	
2510	657.1540	INSTALL MONOTUBE ARMS 40-FT	EACH	1.000	1.000	
2520	657.1815	INSTALL LUMINAIRE ARMS STEEL 15-FT	EACH	4.000	4.000	

3

DATE 04OCT13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5120-07-71 QUANTITY	5120-07-72 QUANTITY
2530	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 01. STH 33 & HAGEN RD.	LS	1.000	1.000	
2540	678.0036	INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 36-CT	LF	3,363.000	3,363.000	
2550	678.0200	FIBER OPTIC SPLICE ENCLOSURE	EACH	2.000	2.000	
2560	678.0300	FIBER OPTIC SPLICE	EACH	16.000	16.000	
2570	678.0400	FIBER OPTIC TERMINATION	EACH	2.000	2.000	
2580	678.0500	COMMUNICATION SYSTEM TESTING	LS	1.000	1.000	
2590	690.0150	SAWING ASPHALT	LF	2,587.000	1,193.000	1,394.000
2600	690.0250	SAWING CONCRETE	LF	14,943.000	9,275.000	5,668.000
2610	715.0415	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	6,739.000	2,991.000	3,748.000
2620	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	4,090.000	3,590.000	500.000
2630	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5.00/HR	HRS	2,500.000	2,500.000	
2640	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	3,500.000	3,500.000	
2650	SPV.0060	SPECIAL 01. ADJUSTING WATER VALVES	EACH	7.000	4.000	3.000
2660	SPV.0060	SPECIAL 02. HIGH CAPACITY TRASH RACK	EACH	1.000		1.000
2670	SPV.0060	SPECIAL 03. JOINT TIES	EACH	2,016.000	60.000	1,956.000
2680	SPV.0060	SPECIAL 04. ENERGY DISSIPATOR	EACH	1.000		1.000
2690	SPV.0060	SPECIAL 05. 8-COUNT FIBER OPTIC CONNECTOR 100-FEET	EACH	2.000	2.000	
2700	SPV.0060	SPECIAL 06. CONTRACTOR SUPPLIED HIGH STRENGTH BOLT ASSEMBLIES FOR MONTUBE ARM (9/10)	EACH	2.000	2.000	
2710	SPV.0060	SPECIAL 07. CONTRACTOR SUPPLIED HIGH STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARM (12/13)	EACH	2.000	2.000	
2720	SPV.0090	SPECIAL 01. REMOVING PAVEMENT MARKINGS WATER BLASTING	LF	1,987.000	1,057.000	930.000
2730	SPV.0090	SPECIAL 02. FENCE CHAIN LINK POLYMER-COATED 6-FT	LF	210.000		210.000
2740	SPV.0105	SPECIAL 01. CONCRETE PAVEMENT JOINT LAYOUT	LS	1.000	0.430	0.570
2750	SPV.0105	SPECIAL 02. TRAFFIC SIGNALS (STH 33 & HAGEN ROAD /WEDGEWOOD DRIVE)	LS	1.000	1.000	
2760	SPV.0165	SPECIAL 01. WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD	SF	6,090.000	4,540.000	1,550.000

3

CLEARING AND GRUBBING

CATEGORY	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
0010	12+00HA - 14+00HA	LT & RT	2	2
	160+00 - 161+00	LT & RT	1	1
	167+50 - 170+50	LT	3	3
	180+50 - 181+50	LT	1	1
	182+50 - 183+50	RT	1	1
	185+50 - 193+50	LT	8	8
	10+50B - 13+50B	LT & RT	3	3
	UNDISTRIBUTED		2	2
	TOTAL PROJECT 5120-07-71		21	21

CATEGORY	STATION	LOCATION	STA	STA
0010	219+00 - 220+00	RT	1	1
	221+00 - 223+00	RT	2	2
	10+00I - 12+00I	LT & RT	2	2
	227+00 - 228+00	RT	1	1
	0+00N - 3+00N	RT	3	3
	274+00 - 276+00	RT	2	2
	283+00 - 286+00	RT	3	3
	10+00K - 11+00K	RT	1	1
	288+00 - 294+00	RT	6	6
	2+00FR - 3+00FR	LT	1	1
	UNDISTRIBUTED		2	2
	TOTAL PROJECT 5120-07-72		24	24

REMOVING SMALL PIPE CULVERTS

CATEGORY	STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	204.0270 ABANDONING CULVERT PIPES EACH	REMARKS
0010	20+35EP	CROSS	1	---	24" CMP
	TOTAL PROJECT 5120-07-71		1	0	

CATEGORY	STATION	LOCATION	EACH	EACH	REMARKS
0010	10+51HO	CROSS	1	---	36" CMP
	10+49I	CROSS	1	---	24" CMP
	0+56N	CROSS	1	---	18" CMP
	235+95	LT	---	1	24" CMP
	249+22	LT	---	1	24" CMP
	255+36	LT	---	1	24" CMP
	261+59	LT	---	1	24" CMP
	268+70	LT	---	1	24" CMP
	275+50	LT	---	1	24" CMP
	280+22	LT	---	1	24" CMP
	284+74	CROSS	---	1	36" CMP
	10+40K	CROSS	1	---	18" CMP
	10+85K	CROSS	1	---	30" CMP
	317+06	CROSS	1	---	24" CMP
	TOTAL PROJECT 5120-07-72		6	8	

REMOVING STRUCTURES

CATEGORY	STATION	LOCATION	203.0200.01 REMOVING OLD STRUCTURE STA 194+12 LS	203.0200.02 REMOVING OLD STRUCTURE STA 207+55 LS	203.0200.03 REMOVING OLD STRUCTURE STA 284+75 LS	203.0200.04 REMOVING OLD STRUCTURE STA 304+94 LS	REMARKS
0010	194+12	LT	1	---	---	---	CONCRETE APRON, BASES
	207+55	CROSS	---	1	---	---	3.5' X 5' X 45' BOX
	TOTAL PROJECT 5120-07-71		1	1	0	0	

CATEGORY	STATION	LOCATION	LS	LS	LS	LS	REMARKS
0010	284+75	RT	---	---	1	---	
	304+93	CROSS	---	---	---	1	CATTLE PASS
	TOTAL PROJECT 5120-07-72		0	0	1	1	

REMOVING PAVEMENT

CATEGORY	STATION	LOCATION	204.0100 REMOVING PAVEMENT SY
0010	132+50 - 217+00	ROADWAY	41,107
	132+50 - 157+61	LT C & G	696
	132+50 - 138+70	RT C & G	177
	138+95 - 148+91	RT C & G	289
	149+22 - 156+48	RT C & G	196
	156+81 - 209+54	RT C & G	1,452
	157+97 - 212+24	LT C & G	1,501
	209+86 - 217+00	RT C & G	187
	212+65 - 213+72	LT C & G	27
	TOTAL PROJECT 5120-07-71		45,632

CATEGORY	STATION	LOCATION	SY
0010	217+00 - 312+49.02	ROADWAY	41,938
	217+00 - 220+60	RT C & G	95
	220+86 - 301+61	RT C & G	2,236
	TOTAL PROJECT 5120-07-72		44,268

REMOVING CURB & GUTTER

CATEGORY	STATION	LOCATION	204.0150 REMOVING CURB & GUTTER LF
0010	11+81HA - 15+75HA	RT	429
	11+69HA - 15+75HA	LT	419
	10+62S - 12+00S	RT	190
	10+59S - 12+00S	LT	193
	212+06 - 212+24	LT	30
	212+65 - 212+75	LT	22
	TOTAL PROJECT 5120-07-71		1,283

CATEGORY	STATION	LOCATION	LF
0010	10+23HO - 10+54HO	RT	36
	10+25HO - 10+57HO	LT	40
	231+56 - 232+28	LT	72
	295+06 - 295+45	LT	64
	295+75 - 296+31	LT	87
	310+08 - 310+61	RT	69
	TOTAL PROJECT 5120-07-72		368

REMOVING SIDEWALK

CATEGORY	STATION	LOCATION	204.0155 REMOVING CONCRETE SIDEWALK SY
0010	156+04 - 156+34	RT	42
	156+34 - 156+39	LT	3
	157+45 - 157+52	LT	4
	158+05 - 158+22	LT	10
	12+50HA - 15+75HA	RT	231
	10+46S - 12+00S	RT	83
	211+95 - 212+11	LT	7
	212+71 - 212+82	LT	6
	TOTAL PROJECT 5120-07-71		385

REMOVING ROADWAY BARRIER ITEMS

CATEGORY	STATION	LOCATION	204.0157 REMOVING CONCRETE BARRIER LF	204.0165 REMOVING GUARDRAIL LF
0010	134+12 - 138+63	RT	---	464
	10+53DI - 14+55DI	RT	---	402
	10+70DI - 14+46DI	LT	---	376
	138+98 - 148+44	RT	---	975
	159+51 - 162+29	RT	---	276
	160+49 - 161+49	LT	---	102
	161+70 - 162+58	LT	---	90
	170+57 - 175+12	RT	---	464
	181+60 - 193+11	RT	---	1152
	212+55 - 213+30	RT	---	87
	TOTAL PROJECT 5120-07-71		0	4,388

CONTINUED IN NEXT COLUMN

CONTINUED FROM PREVIOUS COLUMN

REMOVING ROADWAY BARRIER ITEMS

CATEGORY	STATION	LOCATION	204.0157 REMOVING CONCRETE BARRIER LF	204.0165 REMOVING GUARDRAIL LF
0010	232+28 - 242+11	LT	986	---
	243+86 - 268+35	LT	2451	---
	271+37 - 289+31	LT	1783	---
	219+51 - 220+57	RT	---	123
	231+58 - 232+29	LT	---	71
	242+11 - 242+80	LT	---	71
	243+30 - 243+86	LT	---	58
	268+35 - 269+04	LT	---	71
	270+68 - 271+37	LT	---	72
	289+31 - 294+96	LT	---	568
	301+82 - 306+53	RT	---	474
	TOTAL PROJECT 5120-07-72		5,220	1,508

REMOVING FENCE

CATEGORY	STATION	LOCATION	204.0170 REMOVING FENCE LF
0010	13+10DI - 14+83DI	RT	209
	16+34DI - 17+00DI	RT	67
	160+54 - 161+50	LT	100
	194+00 - 194+32	LT	38
	207+43 - 207+66	LT	27
	213+20 - 213+46	LT	26
	20+15EP - 20+30EP	LT	17
	TOTAL PROJECT 5120-07-71		484

CATEGORY	STATION	LOCATION	LF
0010	10+90K - 10+99K	LT	16
	TOTAL PROJECT 5120-07-72		16

REMOVING INLETS

CATEGORY	STATION	LOCATION	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH
0010	137+50	23' LT	---	1
	137+51	16' RT	1	---
	139+55	23' LT	---	1
	139+54	16' RT	1	---
	143+24	23' LT	---	1
	143+27	17' RT	1	---
	147+25	23' LT	---	1
	147+26	24' RT	---	1
	148+37	18' RT	1	---
	149+54	23' RT	---	1
	151+24	22' RT	---	1
	156+20	25' RT	---	1
	13+30HA	44' RT	---	1
	13+44HA	75' RT	---	1
	13+84HA	8' RT	1	---
	158+07	38' LT	1	---
	158+17	24' LT	---	1
	158+18	23' RT	---	1
	158+28	28' RT	1	---
	159+53	23' RT	---	1
	159+55	27' RT	1	---
	159+75	23' LT	---	1
	160+64	29' RT	1	---
	161+10	23' RT	---	1
	162+40	17' RT	1	---
	165+98	23' LT	---	1
	165+98	23' RT	---	1
	170+62	23' LT	---	1
	182+72	23' LT	---	1
	182+72	23' RT	---	1
	183+24	21' RT	1	---
	183+29	23' RT	---	1
	188+66	23' LT	---	1
	188+64	23' RT	---	1
	194+00	23' LT	---	1
	202+54	23' LT	---	1
	202+53	23' RT	---	1
	207+55	23' LT	---	1
	207+55	23' RT	---	1
	211+56	23' RT	---	1
	213+14	23' RT	---	1
	TOTAL PROJECT 5120-07-71		11	30

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REMOVING INLETS

CATEGORY	STATION	LOCATION	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH
0010	220+09	23' RT	---	1
	221+28	23' RT	---	1
	222+08	23' RT	---	1
	235+95	23' RT	---	1
	236+21	23' RT	---	1
	237+86	23' RT	---	1
	238+13	23' RT	---	1
	238+41	23' RT	---	1
	241+52	34' RT	---	1
	241+70	23' RT	---	1
	249+21	33' RT	---	1
	249+40	23' RT	---	1
	249+22	27' LT	1	---
	249+48	22' LT	---	1
	255+36	21' LT	---	1
	255+65	21' LT	---	1
	255+92	21' LT	---	1
	261+59	21' LT	---	1
	261+59	33' RT	---	1
	261+83	23' RT	---	1
	262+09	23' RT	---	1
	268+69	33' RT	---	1
	268+92	23' RT	---	1
	275+20	28' LT	1	---
	275+45	21' LT	---	1
	275+20	33' RT	---	1
	275+45	23' RT	---	1
	280+22	21' LT	---	1
	288+03	23' RT	---	1
	289+50	23' RT	---	1
	296+16	23' RT	---	1
	TOTAL PROJECT 5120-07-72		2	29

REMOVING STORM SEWER

CATEGORY	STATION - STATION	LOCATION	204.0245.01 REMOVING STORM SEWER 12-INCH LF	204.0245.02 REMOVING STORM SEWER 15-INCH LF	204.0245.03 REMOVING STORM SEWER 18-INCH LF	204.0245.04 REMOVING STORM SEWER 24-INCH LF	204.0245.05 REMOVING STORM SEWER 30-INCH LF	204.0245.06 REMOVING STORM SEWER 36-INCH LF	204.0245.07 REMOVING STORM SEWER 19 X 30-INCH LF	209.0200.S BACKFILL CONTROLLED LOW STRENGTH CY
0010	137+50	CROSS	39	---	---	---	---	---	---	---
	137+50 - 139+54	RT	206	---	---	---	---	---	---	---
	139+54	CROSS	39	---	---	---	---	---	---	---
	139+54	RT	---	---	---	10	---	---	---	---
	139+54 - 143+27	RT	376	---	---	---	---	---	---	---
	143+26	CROSS	40	---	---	---	---	---	---	---
	147+26	CROSS	47	---	---	---	---	---	---	---
	147+26 - 148+37	RT	111	---	---	---	---	---	---	---
	148+37 - 149+54	RT	117	---	---	---	---	---	---	---
	151+24 - 156+20	RT	491	---	---	---	---	---	---	---
	156+20 - 158+28	RT	---	---	207	---	---	---	---	---
	13+30HA - 13+44HA	RT	34	---	---	---	---	---	---	---
	13+44HA - 13+84HA	RT	65	---	---	---	---	---	---	---
	13+84HA - 15+47HA	LT	158	---	---	---	---	---	---	---
	10+57HA	CROSS	---	---	---	---	---	---	59	---
	10+30HA - 10+75HA	LT	---	47	---	---	---	---	---	---
	158+07 - 158+17	LT	---	---	18	---	---	---	---	---
	158+22	CROSS	---	---	---	---	---	---	---	6
	158+17 - 159+75	LT	160	---	---	---	---	---	---	---
	158+18 - 158+28	RT	12	---	---	---	---	---	---	---
	158+28 - 159+55	RT	---	---	---	---	126	---	---	---
	159+53 - 159+55	RT	5	---	---	---	---	---	---	---
	159+55 - 160+64	RT	---	---	---	---	108	---	---	---
	160+64 - 161+05	RT	---	---	---	---	47	---	---	---
	162+08 - 162+40	RT	---	---	58	---	---	---	---	---
	162+40 - 165+98	RT	---	355	---	---	---	---	---	---
	165+98	CROSS	---	46	---	---	---	---	---	---
	170+63	CROSS	---	---	64	---	---	---	---	---
	182+72	CROSS	---	---	---	---	---	60	---	---
	182+72 - 183+24	RT	---	---	---	---	---	52	---	---
	183+24 - 183+29	RT	---	---	6	---	---	---	---	---
	183+24 - 188+64	RT	---	---	---	---	---	---	---	541
	188+65	CROSS	---	---	46	---	---	---	---	---
	202+53	CROSS	---	---	46	---	---	---	---	---
	211+56	RT	---	---	---	12	---	---	---	---
	TOTAL PROJECT 5120-07-71		1900	448	445	22	281	112	59	547

CATEGORY	STATION - STATION	LOCATION	LF	LF	LF	LF	LF	LF	LF	LF
0010	221+28	RT	20	---	---	---	---	---	---	---
	222+08	RT	20	---	---	---	---	---	---	---
	235+95	CROSS	---	---	---	48	---	---	---	---
	235+95	RT	---	---	---	28	---	---	---	---
	235+95 - 236+21	RT	27	---	---	---	---	---	---	---
	237+57 - 237+86	RT	---	---	36	---	---	---	---	---
	237+86 - 238+13	RT	---	---	27	---	---	---	---	---
	238+13 - 238+41	RT	27	---	---	---	---	---	---	---
	241+50	CROSS	---	---	---	80	---	---	---	---
	241+52 - 241+70	RT	24	---	---	---	---	---	---	---
	249+22	CROSS	---	---	---	58	---	---	---	---
	249+21 - 249+40	RT	24	---	---	---	---	---	---	---
	249+22 - 249+48	LT	24	---	---	---	---	---	---	---
	255+36 - 255+65	LT	28	---	---	---	---	---	---	---
	255+65 - 255+92	LT	26	---	---	---	---	---	---	---
	261+59	CROSS	---	---	---	54	---	---	---	---
	261+59 - 261+83	RT	26	---	---	---	---	---	---	---
	261+83 - 262+09	RT	27	---	---	---	---	---	---	---
	268+70	CROSS	---	---	---	64	---	---	---	---
	268+69 - 268+92	RT	25	---	---	---	---	---	---	---
	275+20	CROSS	---	---	---	62	---	---	---	---
	275+20 - 275+45	LT	27	---	---	---	---	---	---	---
	275+20 - 275+45	RT	27	---	---	---	---	---	---	---
	287+60 - 288+03	RT	16	---	---	---	---	---	---	---
	289+50	CROSS	---	---	---	52	---	---	---	---
	296+16	CROSS	---	---	---	78	---	---	---	---
	0+45F - 1+00F	LT	---	---	58	---	---	---	---	---
	TOTAL PROJECT 5120-07-72		368	0	121	524	0	0	0	0

REMOVING MODULAR BLOCK RETAINING WALL

CATEGORY	STATION	LOCATION	204.9165.S.01 REMOVING MODULAR BLOCK RETAINING WALL SF
0010	160+51 - 161+37	LT	495
	167+43 - 170+66	LT	1,940
	178+63 - 179+02	LT	145
	179+22 - 180+33	LT	380
	180+52 - 181+71	LT	740
	TOTAL PROJECT 5120-07-71		3,700

OBLITERATE ROAD

CATEGORY	STATION - STATION	LOCATION	214.0100 OBLITERATING OLD ROAD STA
0010	11+67HA - 12+41HA	RT	0.5
	12+67HA - 14+15HA	RT	2
	TOTAL PROJECT 5120-07-71		2.5

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Quantities\030201_mq.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$
WISDOT/CADDS SHEET 43

EXCAVATION & BORROW

Division	From/To Station	Location	Common Excavation (1)	(ITEM # 205.0100)	Salvaged/Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (6)	Mass Ordinate +/- (7)	Waste	Borrow	Comment:
			Cut (2)	EBS Excavation (3)				Factor 1.30			(ITEM # 208.0100)	
1	132+50 - 217+00	STH 33 MAINLINE	40,884	---	10338	30546	2,106	2,738	27808	27808	0	
	10+50DI - 12+50DI	DRIVE-IN	3,508	---	102	3405	2	3	31211	3402	0	
	10+50H - 11+26.12H	HIAWATHA	225	---	21	204	1	1	31414	203	0	
	9+29.52HA - 15+63.29HA	HAGEN	2,668	---	152	2516	1,167	1,517	32412	999	0	
	199+25.00SW - 202+86.14SW	SIDEWALK	9	---	0	9	1,331	1,731	30690	-1722	0	
	10+30S - 12+00S	SOUTHDALE	394	---	52	341	14	18	31014	324	0	
	10+50B - 13+50B	BOMA	935	---	48	887	1,052	1,368	30533	-480	0	
	20+00EP - 21+75EP	EAGLE POINT	152	---	3	149	258	296	30387	-147	0	
Division 1 Subtotal			48774	0	10716	38058	5932	7672	30387	30387	0	
Grand Total Project 5120-07-71			48774	0	10716	38058	5932	7672	30387	30387	0	
PROJECT 5120-07-71 Total Common Exc			48.774									

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Select Crushed material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
6) Expanded Fill. Factor = 1.30
7) 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.

EXCAVATION & BORROW

Division	From/To Station	Location	Common Excavation (1)	(ITEM # 205.0100)	Salvaged/Unusable Pavement Material (4)	Available Material (5)	Rock Excavation (6)	Reduced EBS in Fill	Expanded EBS Backfill	Expanded Rock (7)	Unexpanded Fill	Expanded Fill (8)	Mass Ordinate +/- (9)	Waste	Borrow	Comment:
			Cut (2)	EBS Excavation (3)			(ITEM #205.0200)	Factor 0.80	Factor 1.30	Factor 1.10		Factor 1.30			(ITEM # 208.0100)	
1	217+00 - 327+36.79	STH 33 MAINLINE	53,125	---	10420	42705	3759	---	---	4135	7,400	4,245	38460	38460		
	10+50HO - 12+73.83HO	HORSESHOE	595	---	21	574	---	---	---	---	200	260	38773	314	0	
	10+25I - 12+00I	IRISH CT	102	---	31	71	---	---	---	---	140	181	38663	-110	0	
	0+50N - 2+65.13N	NORSEMAN	311	---	46	266	---	---	---	---	1,120	1,456	37474	-1190	0	
	10+00P - 12+37.03P	POND ACCESS ROAD	164	---	0	164	---	---	---	---	11	14	37624	150	0	
	10+50K - 13+00K	KNOBLOCH	658	---	39	620	---	---	---	---	5	7	38236	613	0	
	0+25F - 1+80.67F	CTH F	136	---	56	80	---	---	---	---	14	18	38298	62	0	
	0+50FR - 2+79.39FR	FOREST RIDGE	445	---	44	401	---	---	---	---	31	40	38659	361	0	
Division 1 Subtotal			55536	0	10657	44879	3759			4135	8919	6220	38659	38659	0	
Grand Total Project 5120-07-72			55536	0	10657	44879	3759	0	0	4135	8919	6220	38659	38659	0	
PROJECT 5120-07-72 Total Common Exc			55.536													

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
6) Rock Excavation item number 205.0200
7) Expanded Rock - Factor = 1.1.
8) Expanded Fill. Factor = 1.30
Depending on selections: Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh - Reduced EBS) * Fill Factor
Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor) * Fill Factor
9) 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.

BASE AGGREGATE ITEMS

CATEGORY	STATION - STATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	623.0200 DUST CONTROL SURFACE TREATMENT SY	** 624.0100 WATER MGAL	650.5000 CONSTRUCTION STAKING BASE LF
0010	132+50 - 217+00	---	19,306	---	20,554	290	---
	10+75DI - 17+00DI	6	48	---	---	1	200
	10+33.18H - 11+26.12H	---	125	---	---	2	93
	9+29.52HA - 15+75.00HA	20	1,352	---	---	21	155
	199+45.40SW - 203+73.64SW	---	---	---	---	3	430
	10+30S - 12+00S	---	271	---	---	4	170
	10+30B - 12+75B	48	363	---	---	6	245
	20+00.00EP - 21+35EP	---	69	---	---	1	135
	149+90.69 - 208+00.01	---	---	31,932	---	479	---
	UNDISTRIBUTED	15	4,307	6,386	4,111	161	---
	TOTAL CATEGORY 0010	89	25,841	38,318	24,664	967	1,428
CATEGORY	STATION - STATION	TON	TON	TON	SY	MGAL	LF
0080	199+45.40SW - 203+73.64SW	---	196	---	---	---	---
	TOTAL CATEGORY 0080	0	196	0	0	0	0
	TOTAL PROJECT 5120-07-71	89	26,037	38,318	24,664	967	1,428
CATEGORY	STATION - STATION	TON	TON	TON	SY	MGAL	LF
0010	217+00 - 327+36.79	895	24,231	---	18,589	377	---
	318+06.88 - 327+36.79	---	---	---	---	0	930
	10+30HO - 11+50HO	18	181	---	---	3	120
	10+30I - 12+00I	18	243	---	---	4	170
	0+30N - 2+65.13N	23	648	---	---	10	235
	20+07.00P - 20+62.29P	---	19	---	---	0	55
	10+50K - 13+00K	10	299	---	---	5	250
	0+30F - 1+80.67F	32	225	---	---	4	151
	0+30FR - 2+79.39FR	36	460	---	---	7	250
	270+74.12 - 298+37.45	---	---	18,325	---	275	---
	DRIVEWAYS	---	51	---	---	1	---
	UNDISTRIBUTED	206	5,261	3,665	3,718	137	---
	TOTAL PROJECT 5120-07-72	1,238	31,618	21,990	22,307	823	2,161

NOTE: BASE AGGREGATE DENSE (3/4-INCH & 1 1/4-INCH) WERE CALCULATED USING 2.0 TONS/CY.
**ADDITIONAL QUANTITIES LISTED ELSEWHERE

CONCRETE PAVEMENT ITEMS

CATEGORY	STATION - STATION	415.0080 CONCRETE PAVEMENT 8-INCH SY	416.0620 DRILLED DOWEL BARS EACH	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF
0010	132+50.00 - 217+00.00	43,022	---	8,450
	132+50.00	---	17	---
	11+47.29HA - 15+75.00HA	1,844	---	428
	TOTAL PROJECT 5120-07-71	44,865	17	8,878
CATEGORY	STATION - STATION	SY	EACH	LF
0010	217+00.00 - 318+06.88	56,214	---	10,107
	TOTAL PROJECT 5120-07-72	56,214	0	10,107

CONCRETE PAVEMENT GAPS

CATEGORY	STATION - STATION	415.0210 CONCRETE PAVEMENT GAPS EACH
0010	HIAWATHA AVE.	1
	HAGEN ROAD	1
	WEDGEWOOD DRIVE	1
	180+50, RT	1
	183+70, LT	1
	194+40, RT	1
	SOUTHDALE DRIVE	1
	BOMA ROAD	1
	UNDISTRIBUTED	3
	TOTAL PROJECT 5120-07-71	11

CATEGORY	STATION - STATION	EACH
0010	HORSESHOE PLACE	1
	IRISH COURT	1
	NORSEMAN ROAD	1
	KNOBLOCH ROAD	1
	CTH F	1
	FOREST RIDGE	1
	UNDISTRIBUTED	1
	TOTAL PROJECT 5120-07-72	7

CONCRETE DRIVEWAY

CATEGORY	STATION	LOCATION	416.0160 CONCRETE DRIVEWAY 6-INCH SY
0010	149+00	LT	4
	150+08	LT	4
	151+00	LT	4
	153+47	LT	6
	153+87	RT	9
	154+00	LT	8
	12+50HA	RT	13
	14+25HA	RT	12
	161+60	LT	4
	164+10	LT	4
	165+29	LT	4
	165+62	LT	5
	168+40	RT	16
	171+08	LT	5
	172+55	LT	8
	173+66	LT	5
	175+06	LT	5
	176.55	LT	5
	176+87	LT	7
	177+73	LT	5
	179+12	LT	20
	180+42	LT	4
	183+68	LT	6
	194+71	LT	6
	197+44	LT	4

CONTINUED IN NEXT COLUMN

CONTINUED FROM PREVIOUS COLUMN

CONCRETE DRIVEWAY

CATEGORY	STATION	LOCATION	416.0160 CONCRETE DRIVEWAY 6-INCH SY
	198+58	LT	5
	200+93	LT	8
	201+39	LT	8
	202+29	LT	15
	203+15	LT	6
	204+34	LT	6
	205+17	LT	13
	206+63	LT	5
	208+00	LT	4
	209+54	LT	4
	210+78	LT	4
	216+63	LT	33
	TOTAL PROJECT 5120-07-71		278
CATEGORY	STATION	LOCATION	SY
0010	11+09.16I	RT	20
	TOTAL PROJECT 5120-07-72		20

ASPHALTIC DRIVEWAYS

CATEGORY	STATION	LOCATION	ASPHALTIC THICKNESS INCHES	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
0010	149+00	DRIVEWAY LT	2	1.5
	150+08	DRIVEWAY LT	2	1.4
	150+80	DRIVEWAY RT	2	1.0
	151+00	DRIVEWAY LT	2	0.8
	151+50	DRIVEWAY RT	2	2.1
	152+60	DRIVEWAY RT	2	1.1
	153+47	DRIVEWAY LT	2	0.8
	154+00	VALLEY PARKWAY	3.5	9.5
	10+43HA	DRIVEWAY LT	2	1.4
	12+50HA	DRIVEWAY RT	2	37.6
	14+25HA	DRIVEWAY RT	2	2.5
	159+31	DRIVEWAY RT	2	5.9
	161+60	DRIVEWAY LT	2	0.9
	162+63	DRIVEWAY RT	2	2.0
	164+10	DRIVEWAY LT	2	0.5
	164+59	DRIVEWAY RT	2	2.0
	165+29	DRIVEWAY LT	2	1.0
	165+62	DRIVEWAY LT	2	1.4
	166+67	DRIVEWAY RT	2	2.6
	170+41	DRIVEWAY RT	2	2.0
	171+08	DRIVEWAY LT	2	1.0
	172+55	DRIVEWAY LT	2	1.3
	173+66	DRIVEWAY LT	2	1.1
	175+06	DRIVEWAY LT	2	1.1
	176+55	DRIVEWAY LT	2	1.5
	176+87	DRIVEWAY LT	2	2.3
	177+73	DRIVEWAY LT	2	0.6
	180+42	DRIVEWAY RT	2	1.4
	180+52	DRIVEWAY RT	2	5.2
	183+68	DRIVEWAY LT	2	2.0
	193+31	DRIVEWAY RT	2	2.6
	194+40	DRIVEWAY RT	2	8.5
	197+44	DRIVEWAY LT	2	1.8
	198+58	DRIVEWAY LT	2	3.7
	200+93	DRIVEWAY LT	2	6.4
	201+39	DRIVEWAY LT	2	3.9
	203+15	DRIVEWAY LT	2	2.3
	204+34	DRIVEWAY LT	2	4.5
	206+63	DRIVEWAY LT	2	2.9
	208+00	DRIVEWAY LT	2	0.8
	209+54	DRIVEWAY LT	2	1.7
	210+78	DRIVEWAY LT	2	1.2
	213+42	DRIVEWAY RT	2	2.3
	TOTAL PROJECT 5120-07-71			138

CONTINUED IN NEXT COLUMN

CONTINUED FROM PREVIOUS COLUMN

ASPHALTIC DRIVEWAYS

CATEGORY	STATION	LOCATION	ASPHALTIC THICKNESS INCHES	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
0010	220+00	DRIVEWAY LT	2	5.7
	2+00N	DRIVEWAY LT	2	4.5
	2+50N	DRIVEWAY LT	2	2.8
	243+07	DRIVEWAY LT	2	3.8
	295+41	DRIVEWAY RT	2	3.1
	TOTAL PROJECT 5120-07-72			20

ASPHALT PAVEMENT ITEMS

CATEGORY	STATION - STATION	LOCATION	465.0105 ASPHALTIC SURFACE TON	*** 465.0125 ASPHALTIC SURFACE TEMPORARY TON
0010	15+79DI - 16+32DI	DRIVE-IN PATH	10	---
	16+50DI - 16+82DI	DRIVE-IN TURNAROUND	10	---
	10+33.18H - 11+26.12H	HIAWATHA	80	---
	9+29.52HA - 10+84.27HA	HAGEN	120	---
	10+30.00S - 12+00.00S	SOUTHDALE	140	---
	10+30.00B - 12+75.00B	BOMA	150	---
	20+00.00EP - 21+36.09EP	EAGLE POINT	110	---
	UNDISTRIBUTED		124	150
	TOTAL PROJECT 5120-07-71		744	150

CATEGORY	STATION - STATION	LOCATION	TON	
0010	10+30.04HO - 11+50.00HO	HORSESHOE	100	---
	10+29.99I - 12+00.00I	IRISH COURT	130	---
	0+36.00N - 2+65.13N	NORSEMAN	190	---
	242+26 - 242+75	LT SHLD	0.90	---
	243+50 - 243+99	LT SHLD	0.90	---
	268+51 - 269+00	LT SHLD	0.90	---
	270+74 - 271+23	LT SHLD	0.90	---
	10+50.00K - 13+00.00K	KNOBLOCH	190	---
	294+00 - 294+50	RT SHLD	1.08	---
	0+24.09F - 1+80.67F	CTH F	120	---
	301+75 - 308+24	RT SHLD	80	---
	0+36.00FR - 2+79.39FR	FOREST RIDGE	190	---
	299+15.00 - 318+06.88	LT SHLD	210	---
	312+11.00 - 318+06.88	RT SHLD	60	---
	318+06.88 - 327+36.79	RT SHLD	120	---
	318+06.88 - 327+36.79	MAINLINE	260	---
	UNDISTRIBUTED		165	50
	TOTAL PROJECT 5120-07-72		1,820	50

*** UNDISTRIBUTED QUANTITY TO BE USED FOR AREAS OF CONCRETE REMOVED FOR UTILITIES FOR FULL LANE WIDTH UTILITY AND STORM SEWER WORK.

CONCRETE FLUMES

CATEGORY	STATION	LOCATION	416.1010 CONCRETE SURFACE DRAIN CY	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY
0010	11+30H	RT	0.6	0.1	5.3
	11+19H	LT	0.7	0.1	5.3
	TOTAL PROJECT 5120-07-71		1	0.2	11
CATEGORY	STATION	LOCATION	CY	MGAL	SY
0010	294+94	LT	1.9	0.1	5.3
	0+80F	RT	1.9	0.1	5.3
	310+00	RT	1.9	0.1	5.3
	1+70FR	LT	2.2	0.1	5.3
	TOTAL PROJECT 5120-07-72		8	0.5	21

CONCRETE MASONRY ENDWALLS

CATEGORY	STATION - STATION	LOCATION	INVERT	504.0900 CONCRETE MASONRY ENDWALLS CY	** 611.9800.S PIPE GRATES EACH	** 650.4000 CONSTRUCTION STAKING STORM SEWER EACH
0010	194+04 - 194+19	LT	748.00	2.37	1	1
	207+55	LT	742.26	1.11	---	1
		TOTAL PROJECT 5120-07-71		3.48	1	2
CATEGORY	STATION - STATION	LOCATION	INVERT	CY	EACH	EACH
0010	10+76HO - 11+07HO	LT	750.43	6.94	1	1
	10+75HO - 11+08HO	RT	750.15	6.45	1	1
		TOTAL PROJECT 5120-07-72		13	2	2

** ADDITIONAL QUANTITIES LISTED ELSEWHERE

STORM SEWER ENDWALLS

CATEGORY	STRUCTURE NO.	STATION	LOCATION	INVERT ELEV.	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	522.1015 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH EACH	** 522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	** 522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1036 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH EACH	522.1048 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 48-INCH EACH	523.0519 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19 X 30-INCH EACH	523.0529 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 29 X 45-INCH EACH	523.0553 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 53 X 83-INCH EACH	** 611.9800.S PIPE GRATES EACH	** 633.5200 MARKERS CULVERT END EACH	** 650.4000 CONSTRUCTION STAKING STORM SEWER EACH	** SPV.0060.03 JOINT TIES EACH
0010	4.07	10+57.10HA	29.10' RT	696.04	---	---	---	---	---	---	1	---	---	1	1	1	6
	4.09	10+33.00HA	27.20' LT	697.02	---	1	---	---	---	---	---	---	---	1	1	1	6
	6.01	162+10.30	61.90' RT	680.25	---	---	1	---	---	---	---	---	---	1	1	1	6
	8.06	182+79.40	40.20' LT	727.13	---	---	---	---	1	---	---	---	---	1	1	1	6
	8.07	183+24.74	66.87' RT	714.53	---	---	---	---	---	1	---	---	---	1	1	1	6
	12.04	207+55.00	51.39' RT	739.80	---	---	---	---	---	---	---	1	---	1	1	1	6
	12.08	211+57.80	33.90' RT	744.43	1	---	---	---	---	---	---	---	---	1	1	1	6
	12.10	212+95.00	33.90' RT	746.84	1	---	---	---	---	---	---	---	---	1	1	1	6
	13.02	10+64.40B	38.00' LT	748.60	---	---	---	1	---	---	---	---	---	1	1	1	6
	13.04	10+77.10B	34.90' RT	748.32	---	---	1	---	---	---	---	---	---	1	1	1	6
		TOTAL PROJECT 5120-07-71			2	1	2	1	1	1	1	1	0	10	10	10	60
CATEGORY	NO.	STATION	LOCATION	ELEV.	EACH	EACH	EACH	EACH	EACH		EACH	EACH	EACH	EACH	EACH		EACH
0010	14.02	10+72.50HO	34.20' LT	751.15	1	---	---	---	---	---	---	---	---	1	1	1	6
	14.03	221+50.00	48.40' RT	751.10	1	---	---	---	---	---	---	---	---	1	1	1	6
	14.07	221+99.50	54.10' RT	751.12	---	---	---	---	---	---	---	---	1	1	1	1	6
	14.17	226+79.00	36.30' RT	774.26	---	---	---	1	---	---	---	---	---	1	1	1	6
	15.08	235+50.00	49.50' RT	831.27	---	---	---	1	---	---	---	---	---	1	1	1	6
	16.03	237+50.10	50.98' RT	845.74	---	---	1	---	---	---	---	---	---	1	1	1	6
	17.03	243+73.50	35.40' RT	890.33	---	---	---	1	---	---	---	---	---	1	1	1	6
	17.10	249+95.00	35.30' RT	933.80	---	---	---	1	---	---	---	---	---	1	1	1	6
	19.05	261+42.80	38.50' RT	1001.11	---	---	---	1	---	---	---	---	---	1	1	1	6
	20.05	270+42.70	35.60' RT	1056.70	---	---	---	1	---	---	---	---	---	1	1	1	6
	21.05	277+94.00	34.50' RT	1108.37	---	---	---	1	---	---	---	---	---	1	1	1	6
	22.05	285+00.00	82.40' RT	1146.00	1	---	---	---	---	---	---	---	---	1	1	1	6
		TOTAL PROJECT 5120-07-72			3	0	1	7	0	0	0	0	1	12	12	12	72

NOTE: TIE THE LAST THREE SECTIONS OF PIPE AND APRON ENDWALL.
** ADDITIONAL QUANTITIES LISTED ELSEWHERE

CULVERT SUMMARY

CATEGORY	STATION	LOCATION	INVERT ELEV.	521.0124 CULVERT PIPE CORRUGATED STEEL 24-INCH LF	521.1024 APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH EACH	522.0118 CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-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	523.0143 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 43x68-INCH LF	** 633.5200 MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	520.8000 CONCRETE COLLARS FOR PIPE EACH	** SPV.0060.03 JOINT TIES EACH
0010	21+00EP	17.70' LT	749.08	38	1	---	---	---	---	---	1	1	---	---
	21+00EP	19.50' RT	748.91	---	1	---	---	---	---	---	1	---	---	---
	TOTAL PROJECT 5120-07-71			38	2	0	0	0	0	0	2	1	0	0

CATEGORY	STATION	LOCATION	ELEV.	LF	EACH	LF	LF	EACH	EACH	LF	EACH	EACH	EACH	EACH
0010	10+82.56HO	30.90' LT	750.43	---	---	---	---	---	---	63	---	1	---	---
	10+81.37HO	31.99' RT	750.15	---	---	---	---	---	---	---	---	---	---	---
	10+91.29HO	30.85' LT	750.43	---	---	---	---	---	---	63	---	1	---	---
	10+91.83HO	33.05' RT	750.15	---	---	---	---	---	---	---	---	---	---	---
	11+00.02HO	31.04' LT	750.43	---	---	---	---	---	---	63	---	1	---	---
	11+02.28 HO	31.82' RT	750.15	---	---	---	---	---	---	---	---	---	---	---
	304+78.89	80.46' RT	1252.26	---	---	---	122	---	1	---	---	1	---	6
	305+01.20	38.73' LT	1263.15	---	---	---	---	---	1	---	---	---	---	6
	317+06	19.90' LT	1274.09	---	---	---	64	---	1	---	---	1	---	6
	317+06	43.89' RT	1270.42	---	---	---	---	---	1	---	---	---	---	6
	322+25.50	19.37' RT	1270.18	---	---	10	---	---	---	---	---	1	1	---
	322+25.50	28.88' RT	1270.39	---	---	---	---	1	---	---	---	---	---	4
	326+31.03	27.76' RT	1269.27	---	---	---	6	---	---	---	---	1	1	---
	326+31.03	33.25' RT	1269.50	---	---	---	---	---	1	---	---	---	---	4
	TOTAL PROJECT 5120-07-72			0	0	10	192	1	5	189	0	7	2	32

NOTE: TIE THE LAST THREE SECTIONS OF PIPE AND APRON ENDWALL.
** ADDITIONAL QUANTITIES LISTED ELSEWHERE

MODULAR BLOCK WALL

CATEGORY	STATION - STATION	LOCATION	532.0200.S.01 WALL MODULAR BLOCK GRAVITY SF
0010	178+62.63 - 179+01.53	LT	246
	179+22.27 - 180+33.71	LT	451
	185+50.00 - 193+50.00	LT	3,248
	TOTAL PROJECT 5120-07-71		3,945

CATEGORY	STATION - STATION	LOCATION	SF
0010	12+10.00K - 12+65.57K	LT	232
	TOTAL PROJECT 5120-07-72		232

CURB AND GUTTER

CATEGORY	STATION - STATION	LOCATION	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0452 CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D LF	601.0501 CONCRETE CURB & GUTTER INTEGRAL 4-INCH SLOPED 36-INCH LF	601.0551 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE A LF	601.0553 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LF	601.0600 CONCRETE CURB PEDESTRIAN LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF
0010	132+50 - 135+00	LT	---	---	---	---	---	---	250	250
	137+00 - 138+00	LT	---	---	---	---	---	---	100	100
	140+50 - 142+50	LT	---	---	---	---	---	---	200	200
	145+00 - 148+50	LT	---	---	---	---	---	---	350	350
	132+50 - 156+91	LT	---	---	2425	---	---	---	---	2425
	132+50 - 146+48	RT	---	---	1416	---	---	---	---	1416
	10+28H - 11+15H	LT	---	94	---	---	---	---	---	94
	149+46 - 150+23	RT	78	---	---	---	---	---	---	78
	150+23 - 154+02	RT	---	---	377	---	---	---	---	377
	154+02 - 157+07	RT	302	---	---	---	---	---	---	302
	156+91 - 157+34	LT	44	---	---	---	---	---	---	44
	10+44HA - 10+82HA	RT	---	51	---	---	---	---	---	51
	11+59HA - 15+75HA	RT	447	---	---	---	---	---	---	447
	11+74HA - 15+75HA	LT	---	---	397	---	---	---	---	397
	10+00HA - 10+82HA	LT	---	99	---	---	---	---	---	99
	158+32 - 158+75	LT	44	---	---	---	---	---	---	44
	158+05 - 159+06	RT	116	---	---	---	---	---	---	116
	158+75 - 212+80	LT	---	---	5395	---	---	---	---	5395
	159+06 - 205+94	RT	---	---	4700	---	---	---	---	4700
	205+94 - 209+05	RT	311	---	---	---	---	---	---	311
	10+33S - 12+00S	RT	---	191	---	---	---	---	---	191
	10+33S - 12+00S	LT	---	180	---	---	---	---	---	180
	210+17 - 210+88	RT	72	---	---	---	---	---	---	72
	212+80 - 213+55	LT	77	---	---	---	---	---	---	77
	10+33B - 10+70B	LT	---	51	---	---	---	---	---	51
	10+32B - 10+89B	RT	---	79	---	---	---	---	---	79
	214+62 - 216+72	LT	213	---	---	---	---	---	---	213
	210+88 - 217+00	RT	---	---	606	---	---	---	---	606
	216+72 - 217+00	LT	---	---	82	---	---	---	---	82
	TOTAL PROJECT 5120-07-71		1,704	745	15,398	0	0	0	900	18,747

CATEGORY	STATION - STATION	LOCATION	LF	LF	LF	LF	LF	LF	LF	LF
0010	217+00 - 224+18	LT	---	---	720	---	---	---	---	720
	217+00 - 218+03	RT	---	---	102	---	---	---	---	102
	218+03 - 220+14	RT	210	---	---	---	---	---	---	210
	10+30HO - 10+82HO	RT	---	71	---	---	---	---	---	71
	10+36HO - 10+82HO	LT	---	66	---	---	---	---	---	66
	221+27 - 222+25	RT	98	---	---	---	---	---	---	98
	224+18 - 224+89	LT	72	---	---	---	---	---	---	72
	10+32I - 11+25I	LT	---	109	---	---	---	---	---	109
	10+35I - 11+31I	RT	---	---	---	---	---	117	---	117
	226+05 - 227+91	LT	---	---	---	---	186	---	---	186
	227+91 - 232+25	LT	---	---	---	434	---	---	---	434
	234+00 - 236+32	RT	---	---	---	---	233	---	---	233
	0+39N - 1+59N	RT	---	---	---	---	---	120	---	120
	0+39N - 1+75N	LT	---	---	---	---	---	166	---	166
	237+56 - 243+50	RT	---	---	---	---	587	---	---	587
	283+61 - 286+24	RT	---	---	---	---	269	---	---	269
	10+59K - 11+50K	RT	---	---	---	---	---	105	---	105
	10+51K - 12+76K	LT	---	---	---	---	---	244	---	244
	287+44 - 301+75	RT	---	---	---	---	1,425	---	---	1,425
	0+31F - 0+79F	LT	---	---	---	---	---	73	---	73
	0+20F - 0+73F	RT	---	---	---	---	---	78	---	78
	0+36FR - 0+78FR	RT	---	---	---	---	---	76	---	76
	0+39FR - 1+64FR	LT	---	---	---	---	---	105	---	105
	TOTAL PROJECT 5120-07-72		380	246	822	434	2,700	1,084	0	5,666

CONCRETE SIDEWALK

CATEGORY	STATION	LOCATION	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0415 CONCRETE SIDEWALK 6-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
0010	132+50 - 157+53	LT	17,303	530	---
	157+22	LT	---	---	10
	157+22	RT	---	---	10
	157+48	LT	---	---	8
	158+25	LT	---	---	8
	158+16 - 213+73	LT	34,772	2,801	---
	11+59HA - 15+75HA	RT	2,389	191	---
	199+00	RT	---	---	18
	199+00	LT	---	---	20
	210+06	RT	---	---	10
	210+06	LT	---	---	10
	10+56S	RT	---	---	10
	10+56S	LT	---	---	10
	10+53S - 12+00S	RT	765	---	---
	10+35S - 10+59S	LT	155	---	---
	TOTAL CATEGORY 0010		55,384	3,522	114
CATEGORY	STATION	LOCATION	SF	SF	SF
0080	199+24SW - 202+86SW	RT & LT	2,019	---	---
	TOTAL CATEGORY 0080		2,019	0	0
	TOTAL PROJECT 5120-07-71		57,403	3,522	114

CONCRETE BARRIER & DELINEATORS

CATEGORY	STATION - STATION	LOCATION	603.1136 CONCRETE BARRIER TYPE S36 LF	633.0500 DELINEATOR REFLECTORS WHITE EACH	633.1000 DELINEATOR BRACKETS EACH	650.7500 CONSTRUCTION STAKING CONCRETE BARRIER LF
0010	222+25 - 234+00	RT	1,175	24	24	1,175
	232+25 - 241+75	LT	952	19	19	952
	243+50 - 283+61	RT	4,008	80	80	4,008
	244+50 - 268+00	LT	2,350	47	47	2,350
	271+75 - 289+25	LT	1,740	35	35	1,740
	TOTAL PROJECT 5120-07-72		10,225	205	205	10,225

STORM SEWER ROCK EXCAVATION

CATEGORY	STATION	607.5000 STORM SEWER ROCK EXCAVATION CY
0010	227+50 - 292+50	3,635
	TOTAL PROJECT 5120-07-72	3,635

RIPRAP ITEMS

CATEGORY	STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	606.0300 RIPRAP HEAVY CY	** 645.0120 GEOTEXTILE FABRIC TYPE HR SY	645.0130 GEOTEXTILE FABRIC TYPE R SY
0010	161+05	LT	22	---	---	58
	162+06	RT	3	---	---	11
	182+75	LT	7	---	---	22
	183+26	RT	9	---	---	27
	194+11	LT	9	---	---	28
	207+55	RT	7	---	---	22
	213+10	RT	22	---	---	58
	10+70B	LT	6	---	---	17
	11+60B	RT	18	---	---	47
	TOTAL PROJECT 5120-07-71		103	0	0	290
CATEGORY	STATION	LOCATION	CY			SY
0010	10+90HO	RT	---	492	946	---
	221+40	RT	133	---	---	299
	221+75	RT	---	311	571	---
	235+50	RT	4	---	---	14
	237+50	RT	3	---	---	11
	243+75	RT	4	---	---	14
	250+00	RT	4	---	---	14
	261+50	RT	4	---	---	14
	270+50	RT	4	---	---	14
	278+00	RT	4	---	---	14
	284+75	POND RT	---	588	962	---
	285+00	RT	3	---	---	12
	304+80	CATTLE PASS RT	4	---	---	20
	TOTAL PROJECT 5120-07-72		167	1,391	2,480	424

** ADDITIONAL QUANTITIES LISTED ELSEWHERE

STORM SEWER PIPES

CATEGORY	STRUCTURE TO STRUCTURE	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH LF	608.0336 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH LF	608.0342 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 42-INCH LF	608.0348 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 48-INCH LF	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	610.0119 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE III 19 X 30-INCH LF	610.0153 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE III 53 X 83-INCH LF	610.0429 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE IV 29 X 45-INCH LF	** SPV.0060.03 JOINT TIES EACH
0010	1.01 - 1.03	---	---	---	---	---	---	---	---	203	---	---	---	---	---
	1.02 - 1.03	24	---	---	---	---	---	---	---	---	---	---	---	---	---
	1.03 - 1.04	---	---	---	26	---	---	---	---	---	---	---	---	---	---
	1.03 - 2.01	366	---	---	---	---	---	---	---	---	---	---	---	---	---
	3.01 - 3.02	53	---	---	---	---	---	---	---	---	---	---	---	---	---
	3.02 - 3.03	112	---	---	---	---	---	---	---	---	---	---	---	---	---
	3.03 - 3.04	164	---	---	---	---	---	---	---	---	---	---	---	---	---
	3.04 - 3.05	111	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.01 - 4.02	100	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.02 - 4.03	---	---	---	51	---	---	---	---	---	---	---	---	---	---
	4.03 - 4.04	---	---	---	---	187	---	---	---	---	---	---	---	---	---
	4.04 - 4.05	---	---	---	---	91	---	---	---	---	---	---	---	---	---
	4.05 - 4.06	---	---	---	---	38	---	---	---	---	---	---	---	---	---
	4.02 - 4.07	---	---	---	---	---	---	---	---	---	---	26	---	---	---
	4.02 - 4.08	19	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.03 - 4.09	---	60	---	---	---	---	---	---	---	---	---	---	---	---
	4.10 - 4.11	17	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.04 - 4.10	24	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.04 - 4.12	28	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.12 - 4.13	12	---	---	---	---	---	---	---	---	---	---	---	---	---
	5.01 - 5.02	41	---	---	---	---	---	---	---	---	---	---	---	---	---
	5.02 - 5.03	143	---	---	---	---	---	---	---	---	---	---	---	---	---
	5.03 - 5.04	189	---	---	---	---	---	---	---	---	---	---	---	---	---
	6.01 - 6.02	---	---	43	---	---	---	---	---	---	---	---	---	---	---
	6.02 - 6.03	---	---	114	---	---	---	---	---	---	---	---	---	---	---
	6.03 - 6.04	---	250	---	---	---	---	---	---	---	---	---	---	---	---
	6.04 - 6.05	---	47	---	---	---	---	---	---	---	---	---	---	---	---
	7.01 - 7.02	---	---	---	---	---	---	---	---	---	65	---	---	---	---
	8.01 - 8.02	10	---	---	---	---	---	---	---	---	---	---	---	---	---
	8.02 - 8.03	47	---	---	---	---	---	---	---	---	---	---	---	---	---
	8.03 - 8.04	---	10	---	---	---	---	---	---	---	---	---	---	---	---
	8.04 - 8.05	---	56	---	---	---	---	---	---	---	---	---	---	---	---
	8.05 - 8.06	---	---	---	---	---	58	---	---	---	---	---	---	---	---
	8.06 - 8.07	---	---	---	---	---	---	---	61	---	---	---	---	---	---
	8.05 - 9.03	---	---	---	537	---	---	---	---	---	---	---	---	---	---
	9.01 - 9.03	---	---	24	---	---	---	---	---	---	---	---	---	---	---
	9.02 - 9.03	---	---	24	---	---	---	---	---	---	---	---	---	---	---
	10.01 - 10.02	---	---	---	---	---	9	---	---	---	---	---	---	---	---
	10.02 - 10.03	---	---	---	---	---	8	---	---	---	---	---	---	---	---
	11.01 - 11.02	---	---	47	---	---	---	---	---	---	---	---	---	---	---
	12.01 - 12.02	---	---	---	---	---	---	---	---	---	---	---	---	13	---
	12.02 - 12.03	---	---	---	---	---	---	---	---	---	---	---	---	55	---
	12.03 - 12.04	---	---	---	---	---	---	---	---	---	---	---	---	20	---
	12.02 - 12.05	38	---	---	---	---	---	---	---	---	---	---	---	---	---
	12.03 - 12.06	15	---	---	---	---	---	---	---	---	---	---	---	---	---
	12.07 - 12.08	10	---	---	---	---	---	---	---	---	---	---	---	---	---
	12.09 - 12.10	10	---	---	---	---	---	---	---	---	---	---	---	---	---
	13.02 - 13.03	---	---	---	16	---	---	---	---	---	---	---	---	---	---
	13.04 - 13.05	---	---	17	---	---	---	---	---	---	---	---	---	---	---
	13.05 - 13.06	---	---	7	---	---	---	---	---	---	---	---	---	---	---
	TOTAL PROJECT 5120-07-71	1533	423	276	630	316	75	0	61	203	65	26	0	88	0

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STORM SEWER PIPES

CATEGORY	STRUCTURE TO STRUCTURE	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH LF	608.0336 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH LF	608.0342 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 42-INCH LF	608.0348 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 48-INCH LF	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	610.0119 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE III 19 X 30-INCH LF	610.0153 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE III 53 X 83-INCH LF	610.0429 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE IV 29 X 45-INCH LF	** SPV.0060.03 JOINT TIES EACH
0010	14.01 - 14.02	16	---	---	---	---	---	---	---	---	---	---	---	---	---
	14.03 - 14.04	19	---	---	---	---	---	---	---	---	---	---	---	---	---
	14.04 - 14.05	53	---	---	---	---	---	---	---	---	---	---	---	---	---
	14.05 - 14.06	10	---	---	---	---	---	---	---	---	---	---	---	---	---
	14.07 - 14.08	---	---	---	---	---	---	---	---	---	---	---	59	---	8
	14.08 - 14.09	---	---	---	---	---	---	---	250	---	---	---	---	---	60
	14.09 - 14.12	---	---	---	---	---	---	---	135	---	---	---	---	---	32
	14.09 - 14.10	134	---	---	---	---	---	---	---	---	---	---	---	---	---
	14.10 - 14.11	---	---	---	---	---	---	---	---	35	---	---	---	---	---
	14.12 - 14.13	55	---	---	---	---	---	---	---	---	---	---	---	---	---
	14.13 - 14.14	10	---	---	---	---	---	---	---	---	---	---	---	---	---
	14.13 - 14.15	18	---	---	---	---	---	---	---	---	---	---	---	---	---
	14.12 - 14.16	---	---	---	12	---	---	---	---	---	---	---	---	---	---
	14.16 - 14.17	---	---	---	43	---	---	---	---	---	---	---	---	---	4
	14.12 - 15.01	---	---	---	---	---	---	415	---	---	---	---	---	---	102
	15.01 - 15.02	49	---	---	---	---	---	---	---	---	---	---	---	---	---
	15.02 - 15.03	10	---	---	---	---	---	---	---	---	---	---	---	---	---
	15.01 - 15.04	---	---	---	---	---	---	25	---	---	---	---	---	---	4
	15.04 - 15.05	---	---	---	---	---	---	475	---	---	---	---	---	---	116
	15.05 - 15.06	49	---	---	---	---	---	---	---	---	---	---	---	---	---
	15.05 - 15.07	---	---	---	8	---	---	---	---	---	---	---	---	---	---
	15.07 - 15.08	---	---	---	12	---	---	---	---	---	---	---	---	---	---
	15.07 - 15.09	10	---	---	---	---	---	---	---	---	---	---	---	---	---
	15.05 - 16.01	---	---	---	---	---	188	---	---	---	---	---	---	---	44
	16.01 - 16.02	---	---	16	---	---	---	---	---	---	---	---	---	---	---
	16.02 - 16.03	---	---	10	---	---	---	---	---	---	---	---	---	---	---
	16.02 - 16.04	8	---	---	---	---	---	---	---	---	---	---	---	---	---
	16.01 - 16.05	---	---	---	---	---	312	---	---	---	---	---	---	---	76
	16.05 - 16.06	---	---	---	---	---	49	---	---	---	---	---	---	---	10
	16.06 - 16.07	7	---	---	---	---	---	---	---	---	---	---	---	---	---
	16.06 - 17.01	---	---	---	---	---	195	---	---	---	---	---	---	---	46
	17.01 - 17.02	---	---	---	13	---	---	---	---	---	---	---	---	---	---
	17.02 - 17.03	---	---	---	70	---	---	---	---	---	---	---	---	---	12
	17.01 - 17.04	---	---	---	---	---	244	---	---	---	---	---	---	---	58
	17.04 - 17.05	---	---	---	---	---	49	---	---	---	---	---	---	---	10
	17.05 - 17.06	---	---	---	---	---	347	---	---	---	---	---	---	---	84
	17.06 - 17.07	43	---	---	---	---	---	---	---	---	---	---	---	---	---
	17.07 - 17.08	10	---	---	---	---	---	---	---	---	---	---	---	---	---
	17.06 - 17.09	---	---	---	10	---	---	---	---	---	---	---	---	---	---
	17.09 - 17.10	---	---	---	43	---	---	---	---	---	---	---	---	---	4
	17.06 - 18.01	---	---	---	---	---	351	---	---	---	---	---	---	---	86
	18.01 - 18.02	43	---	---	---	---	---	---	---	---	---	---	---	---	---
	18.02 - 18.03	10	---	---	---	---	---	---	---	---	---	---	---	---	---
	18.01 - 18.04	---	---	---	---	---	403	---	---	---	---	---	---	---	98
	18.04 - 18.05	43	---	---	---	---	---	---	---	---	---	---	---	---	---
	18.05 - 18.06	10	---	---	---	---	---	---	---	---	---	---	---	---	---
	18.04 - 19.01	---	---	---	---	---	402	---	---	---	---	---	---	---	98
	19.01 - 19.02	---	---	---	---	---	25	---	---	---	---	---	---	---	4
	19.01 - 19.03	48	---	---	---	---	---	---	---	---	---	---	---	---	---
	19.01 - 19.04	---	---	---	10	---	---	---	---	---	---	---	---	---	---
	19.04 - 19.05	---	---	---	40	---	---	---	---	---	---	---	---	---	4
	19.02 - 19.06	---	---	---	---	---	425	---	---	---	---	---	---	---	104
	19.06 - 19.07	---	---	---	---	---	25	---	---	---	---	---	---	---	4
	19.07 - 20.01	---	---	---	---	---	249	---	---	---	---	---	---	---	60
	20.01 - 20.02	---	---	---	---	---	171	---	---	---	---	---	---	---	40
	20.02 - 20.03	---	---	---	---	25	---	---	---	---	---	---	---	---	4
	20.02 - 20.04	---	---	---	10	---	---	---	---	---	---	---	---	---	---
	20.04 - 20.05	---	---	---	39	---	---	---	---	---	---	---	---	---	4
	20.03 - 20.06	---	---	---	---	372	---	---	---	---	---	---	---	---	90
	20.06 - 20.07	48	---	---	---	---	---	---	---	---	---	---	---	---	---
	20.07 - 20.08	10	---	---	---	---	---	---	---	---	---	---	---	---	---
	20.06 - 21.01	---	---	---	---	350	---	---	---	---	---	---	---	---	86
	21.01 - 21.02	43	---	---	---	---	---	---	---	---	---	---	---	---	---
	21.02 - 21.03	10	---	---	---	---	---	---	---	---	---	---	---	---	---
	21.01 - 21.04	---	---	---	12	---	---	---	---	---	---	---	---	---	---
	21.04 - 21.05	---	---	---	40	---	---	---	---	---	---	---	---	---	4
	21.01 - 21.06	---	---	---	---	404	---	---	---	---	---	---	---	---	98
	21.06 - 21.07	43	---	---	---	---	---	---	---	---	---	---	---	---	---
	21.07 - 21.08	10	---	---	---	---	---	---	---	---	---	---	---	---	---
	21.06 - 22.01	---	---	---	---	303	---	---	---	---	---	---	---	---	74
	22.01 - 22.02	---	---	---	---	66	---	---	---	---	---	---	---	---	14
	22.03 - 22.04	10	---	---	---	---	---	---	---	---	---	---	---	---	---
	22.04 - 22.05	102	---	---	---	---	---	---	---	---	---	---	---	---	---
	22.06 - 22.07	---	---	---	---	80	---	---	---	---	---	---	---	---	18
	22.07 - 22.08	---	---	---	---	144	---	---	---	---	---	---	---	---	34
	22.08 - 22.09	---	---	---	22	---	---	---	---	---	---	---	---	---	4
	22.08 - 22.10	---	---	---	10	---	---	---	---	---	---	---	---	---	---
	22.10 - 22.11	125	---	---	---	---	---	---	---	---	---	---	---	---	---
	22.09 - 23.01	---	---	---	335	---	---	---	---	---	---	---	---	---	82
	23.01 - 23.02	6	---	---	---	---	---	---	---	---	---	---	---	---	---
	23.01 - 23.03	---	---	---	345	---	---	---	---	---	---	---	---	---	86
	23.03 - 23.04	6	---	---	---	---	---	---	---	---	---	---	---	---	---
	23.03 - 24.01	347	---	---	---	---	---	---	---	---	---	---	---	---	86
	TOTAL PROJECT 5120-07-72	1415	0	26	1074	1744	3435	915	385	35	0	0	59	0	1852

** ADDITIONAL QUANTITIES LISTED ELSEWHERE
NOTE: TIE THE LAST THREE SECTIONS OF PIPE AND APRON ENDWALL.
PROJECT I.D. 5120-07-72, TIE ALL SECTIONS OF MAIN TRUNK LINE FROM STA 222+00 - STA 298+00

STORM SEWER STRUCTURES

CATEGORY	STRUCTURE NO.	STATION	LOCATION	GRATE ELEV.	TOP OF STRUCTURE ELEV.	INVERT ELEV.	STRUCTURE DEPTH	611.0530 MANHOLE COVERS TYPE J EACH	611.0610 INLET COVERS TYPE BW EACH	611.0624 INLET COVERS TYPE H EACH	611.0627 INLET COVERS TYPE HM EACH	611.0642 INLET COVERS TYPE MS EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.2007 MANHOLES 7-FT DIAMETER EACH	611.2008 MANHOLES 8-FT DIAMETER EACH	611.2504 MANHOLES VARIABLE TEE 4-FT DIAMETER EACH	611.3225 INLETS 2X2.5-FT EACH	611.3230 INLETS 2X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	** 650.4000 CONSTRUCTION STAKING STORM SEWER EACH	SPV.0060.02 HIGH CAPACITY TRASH RACK EACH
0010	1.01	137+50.00	23.50' LT	687.26	686.26	684.16	2.10	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	1.02	139+53.90	23.50' LT	690.55	689.55	685.26	4.29	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	1.03	139+53.90	0.00' RT	691.55	690.30	682.14	8.16	1	---	---	---	---	1	---	---	---	---	---	---	---	---	---	1	---
	2.01	143+25.00	23.50' LT	693.74	692.74	688.45	4.29	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	3.01	147+25.00	23.50' LT	695.90	694.90	691.80	3.10	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	3.02	147+25.00	28.90' RT	969.75	695.67	691.27	4.40	---	1	---	---	---	---	---	---	---	---	---	1	---	---	---	1	---
	3.03	148+36.90	18.00' RT	696.84	695.59	688.65	6.94	1	---	---	---	---	---	---	1	---	---	---	---	---	---	---	1	---
	3.04	150+00.00	26.20' RT	697.20	696.20	691.90	4.30	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	3.05	151+10.69	23.50' RT	697.71	696.71	693.00	3.71	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	4.01	156+75.00	35.00' RT	697.92	696.92	692.63	4.29	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	4.02	157+50.00	30.00' LT	699.02	697.77	691.13	6.64	1	---	---	---	---	---	---	---	1	---	---	---	---	---	---	1	---
	4.03	158+00.00	21.00' LT	698.30	697.05	689.40	7.65	1	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	4.04	159+85.00	3.60' RT	696.81	695.56	684.93	10.63	1	---	---	---	---	---	---	1	---	---	---	---	---	---	---	1	---
	4.05	160+71.90	33.50' RT	695.48	694.23	682.73	11.50	1	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	4.08	157+31.60	29.70' LT	698.94	697.94	693.58	4.36	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	4.10	159+85.00	27.00' RT	696.02	695.02	690.37	4.65	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	4.11	159+68.10	26.90' RT	696.00	695.00	690.71	4.29	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	4.12	159+85.00	24.60' LT	697.14	696.14	691.60	4.54	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	4.13	159+72.80	24.90' LT	697.13	696.13	691.84	4.29	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	5.01	13+00.00HA	17.50' RT	693.16	692.16	688.39	3.77	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	5.02	13+00.00HA	23.10' LT	693.67	692.67	687.98	4.69	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	5.03	14+50.00HA	20.50' LT	689.66	688.41	686.23	2.18	1	---	---	---	---	1	---	---	---	---	---	---	---	---	---	1	---
	5.04	15+47.50HA	16.60' LT	687.93	---	685.11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---
	6.02	162+35.00	26.50' RT	698.62	697.37	682.63	14.74	1	---	---	---	---	1	---	---	---	---	---	---	---	---	---	1	---
	6.03	163+50.00	23.50' RT	701.00	699.00	688.95	10.05	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	6.04	166+00.00	23.50' RT	709.40	708.40	702.92	5.48	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	6.05	166+00.00	23.50' LT	709.40	708.40	703.86	4.54	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	7.01	170+65.00	23.50' LT	729.84	728.84	725.97	2.87	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	8.01	182+60.00	23.50' LT	732.30	731.30	727.20	4.10	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	8.02	182+50.00	23.50' LT	732.28	731.28	727.00	4.28	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	8.03	182+50.00	23.50' RT	732.28	731.28	725.81	5.47	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	8.04	182+60.00	23.50' RT	732.30	731.30	725.61	5.69	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	8.05	183.13+44	7.00' RT	733.00	731.75	719.39	12.36	1	---	---	---	---	---	---	---	---	1	---	---	---	---	---	1	---
	9.01	188+50.00	23.50' RT	743.78	742.78	738.00	4.78	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	9.02	188+50.00	23.50' LT	743.78	742.78	738.00	4.78	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	9.03	188+50.00	0.00' RT	744.43	743.17	737.03	6.14	1	---	---	---	---	1	---	---	---	---	---	---	---	---	---	1	---
	10.01	194+01.70	23.50' LT	753.79	752.79	747.22	5.57	---	---	1	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	11.01	202+54.00	23.50' LT	751.19	750.19	745.40	4.79	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	11.02	202+54.00	23.50' RT	751.19	750.19	740.54	9.65	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	12.02	207+55.00	23.50' LT	749.21	748.21	741.93	6.28	---	---	1	---	---	---	---	1	---	---	---	---	---	---	---	1	---
	12.03	207+55.00	31.50' RT	748.87	747.87	740.37	7.50	---	---	1	---	---	---	---	1	---	---	---	---	---	---	---	1	---
	12.05	207+17.30	23.50' LT	749.13	748.13	744.87	3.26	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	12.06	207+69.70	31.50' RT	748.85	747.85	742.37	5.48	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	12.07	211+57.80	23.50' RT	749.93	748.93	744.62	4.31	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	12.09	212+95.00	23.50' RT	750.53	749.53	747.03	2.50	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	13.05	10+79.00B	17.30' RT	754.28	753.28	747.97	5.31	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	1	---
			TOTAL PROJECT 5120-07-71					10	1	34	0	0	4	3	4	1	1	0	1	31	0	0	46	0

CATEGORY	NO.	STATION	LOCATION	ELEV.	ELEV.	ELEV.	DEPTH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
0010	14.01	10+71.00HO	18.00' LT	756.55	755.55	751.46	4.09	---	---	---	1	---	---	---	---	---	---	---	---	1	---	---	1	---
	14.04	221+50.00	29.43' RT	757.60	756.60	751.47	5.13	---	---	---	1	---	---	---	---	---	---	---	---	1	---	---	1	---
	14.05	221+50.00	23.50' LT	757.78	756.78	752.49	4.29	---	---	---	1	---	---	---	---	---	---	---	---	1	---	---	1	---
	14.06	221+60.00	23.50' LT	757.85	756.85	752.69	4.16	---	---	---	1	---	---	---	---	---	---	---	---	1	---	---	1	---
	14.08	222+50.00	23.00' RT	759.53	758.45	751.92	6.53	---	1	---	---	---	---	---	---	---	---	1	---	---	---	---	1	---
	14.09	225+00.00	23.00' RT	767.60	766.52	756.72	9.80	---	1	---	---	---	---	---	---	1	---	---	---	---	---	---	1	---
	14.10	11+05.00I	14.18' LT	764.40	763.40	761.06	2.34	---	---	---	1	---	---	---	---	---	---	---	---	1	---	---	1	---
	14.11	11+25.70I	14.04' RT	763.26	762.26	761.16	1.10	---	---	---	1	---	---	---	---	---	---	---	---	1	---	---	1	---
	14.12	226+35.00	24.10' RT	774.17	773.09	764.58	8.51	---	1	---	---	---	---	---	---	1	---	---	---	---	---	---	1	---
	14.13	226+35.00	30.40' LT	773.97	772.97	768.11	4.86	---	---	---	1	---	---	---	---	---	---	---	---	1	---	---	1	---
	14.14	226+45.00	30.23' LT	774.74	773.74	768.31	5.43	---	---	---	1	---	---	---	---	---	---	---	---	1	---	---	1	---
	14.15	226+35.00	48.80' LT	770.58	770.58	768.28	2.30	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---	1	---
	14.16	226+36.40	36.18' RT	772.49	771.24	767.24	4.00	1	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	15.01	230+50.00	29.00' RT	801.45	800.37	792.88	7.49	---	1	---	---	---	---	---	1	---	---	---	---	---	---	---	1	---
	15.02	230+50.00	19.50' LT	801.56	800.56	796.27	4.29	---	---	---	1	---	---	---	---	---	---	---	---	1	---	---	1	---
	15.03	230+60.00	19.50' LT	802.25	801.25	796.47	4.78	---	---	---	1	---	---	---	---	---	---	---	---	1	---	---	1	---
	15.04	230+75.00	29.00' RT	803.16	802.08	795.29	6.79	---	1	---	---	---	---	---	1	---	---	---	---	---	---	---	1	---
	15.05	235+50.00	30.00' RT	835.84	834.59	827.18	7.41	1	---	---	---	---	---	---	1	---	---	---	---	---	---	---	1	---
	15.06	235+50.00	19.00' LT	835.96	834.88	830.58	4.30	---	1	---	---	---	---	---	---	---	---	---	1	---	---	---	1	---
	15.07	235+50.00	37.50' RT	835.51	834.51	829.22	5.29	---	---	---	1	---	---	---	---	---	---	---	---	1	---	---	1	---
	15.09	235+60.00	37.50' RT	836.20	835.20	830.42	4.78	---	---	---	1	---	---	---	---	---	---	---	---	1	---	---	1	---
	16.01	237+37.80	30.00' RT	848.82	847.57	841.32	6.25	1	---	---	---	---	---	---	1	---	---	---	---	---	---	---	1	---
	16.02	237+41.30	45.53' RT	848.87	847.87	844.55	3.32	---	---	---	1	---	---	---	---	---	---	---	---	1	---	---	1	---
	16.04	237+35.60	51.20' RT	848.53	847.53	845.20	2.33	---	---	---	1	---	---	---	---	---	---	---	---	1	---	---	1	---
	16.05	240+50.00	29.50' RT	869.15	868.15	861.86	6.29	---	---	---	1	---	---	1	---	---	---	---	---	---	---	---	1	---
	16.06	241+00.00	29.50' RT	872.23	871.23	864.94	6.29	---	---	---	1	---	---	1	---	---	---	---	---	---	---	---	1	---
	16.07	241+00.00	36.80' RT	871.90	871.90	867.05	4.85	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---	1	---
	17.01	243+00.00	24.00' RT	885.99	884.74	878.49	6.25	1	---	---	---	---	---	---	---	---	1	---	---	---	---	---	1	---
	17.02	243+01.70	36.50' RT	885.78	884.53	880.53	4.00	1	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	17.04	245+50.00	29.00' RT	902.66	901.58	895.16	6.42	---	1	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	17.05	246+00.00	29.00' RT	906.11	905.03	898.61	6.42	---	1	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	17.06	249+50.00	24.00' RT	931.80	930.55	923.54	7.01	1	---	---	---	---	---	---	---	1	---	---	---	---	---	---	1	---
	17.07	249+50.00	19.00' LT	931.83	930.75	926.40	4.35	---	1	---	---	---	---	---	---	---	---	---	1	---	---	---	1	---
	17.08	249+60.00	19.00' LT	932.42	931.34	926.60	4.74	---	1	---	---	---	---	---	---	---	---	---	1	---	---	---	1	---
	17.09	249+52.80	34.00' RT	932.10	930.85	926.09	4.76	1	---	---	---	---	1	---	---	---	---	---	---	---	---	---	1	---
	18.01	253+00.00	24.00' RT	953.77	952.52	943.73	8.79	1	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	18.02	253+00.00	19.00' LT	951.93	950.85	946.59	4.26	---	1	---	---	---	---	---	---	---	---	---	1	---	---	---	1	---
	18.03	253+10.00	19.00' LT	952.52	951.44	946.79	4.65	---	1	---	---	---	---	---	---	---	---	---	1	--	---	---	1	---
	18.04	257+00.00	24.00' RT	977.61	976.36	967.57	8.79	1	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	18.05	257+00.00	19.00' LT	975.77	974.69	970.43	4.26	---	1	---	---	---	---	---	---	---	---	---	1	---	---	---	1	---

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STORM SEWER STRUCTURES

CATEGORY	STRUCTURE NO.	STATION	LOCATION	GRATE ELEV.	TOP OF STRUCTURE ELEV.	INVERT ELEV.	STRUCTURE DEPTH	611.0530 MANHOLE COVERS TYPE J EACH	611.0610 INLET COVERS TYPE BW EACH	611.0624 INLET COVERS TYPE H EACH	611.0627 INLET COVERS TYPE HM EACH	611.0642 INLET COVERS TYPE MS EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.2007 MANHOLES 7-FT DIAMETER EACH	611.2008 MANHOLES 8-FT DIAMETER EACH	611.2504 MANHOLES VARIABLE TEE 4-FT DIAMETER EACH	611.3225 INLETS 2X2.5-FT EACH	611.3230 INLETS 2X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	** 650.4000 CONSTRUCTION STAKING STORM SEWER EACH	SPV.0060.02 HIGH CAPACITY TRASH RACK EACH
	18.06	257+10.00	19.00' LT	976.38	975.30	970.63	4.67	---	1	---	---	---	---	---	---	---	---	---	1	---	---	---	1	---
	19.01	261+00.00	29.00' RT	1000.58	999.50	992.18	7.32	---	1	---	---	---	---	---	---	1	---	---	---	---	---	---	1	---
	19.02	261+25.00	29.00' RT	1001.99	1000.91	994.52	6.39	---	1	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	19.03	261+00.00	19.00' LT	1000.52	999.44	995.14	4.30	---	1	---	---	---	---	---	---	---	---	---	1	---	---	---	1	---
	19.04	261+02.60	38.70' RT	999.66	998.41	994.27	4.14	1	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	19.06	265+50.00	29.00' RT	1028.31	1027.23	1020.93	6.30	---	1	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	19.07	265+75.00	29.00' RT	1029.89	1028.81	1022.49	6.32	---	1	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	20.01	268+25.00	24.00' RT	1044.56	1043.31	1037.06	6.25	1	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	20.02	270+00.00	29.00' RT	1054.68	1053.60	1047.34	6.26	---	1	---	---	---	---	---	1	---	---	---	---	---	---	---	1	---
	20.03	270+25.00	29.00' RT	1056.32	1055.24	1049.40	5.84	---	1	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	20.04	270.02.40	37.90' RT	1055.60	1054.35	1049.60	4.75	1	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	20.06	274+00.00	29.00' RT	1081.46	1080.38	1073.94	6.44	---	1	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	20.07	274+00.00	19.00' LT	1081.79	1080.71	1076.40	4.31	---	1	---	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	20.08	274+10.00	19.00' LT	1082.41	1081.33	1076.60	4.73	---	1	---	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	21.01	277+50.00	24.00' RT	1105.54	1104.29	1096.35	7.94	1	---	---	---	---	---	---	---	1	---	---	---	---	---	---	1	---
	21.02	277+50.00	19.00' LT	1104.07	1102.99	1098.71	4.28	---	1	---	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	21.03	277+60.00	19.00' LT	1104.67	1103.59	1098.91	4.68	---	1	---	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	21.04	277+54.50	35.00' RT	1106.04	1104.79	1099.07	5.72	1	---	---	---	---	1	---	---	---	---	---	---	---	---	---	1	---
	21.06	281+50.00	24.00' RT	1132.53	1131.28	1122.41	8.87	1	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	21.07	281+50.00	19.00' LT	1130.08	1129.00	1124.77	4.23	---	1	---	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	21.08	281+60.00	19.00' LT	1130.75	1129.67	1124.97	4.70	---	1	---	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	22.01	284+50.00	19.70' RT	1153.38	1152.13	1140.68	11.45	1	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	22.02	284+75.00	80.80' RT	1149.00	1149.00	1143.00	6.00	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	1	1
	22.03	285+10.00	19.00' LT	1155.51	1154.43	1149.68	4.75	---	1	---	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	22.04	285+00.00	19.00' LT	1154.79	1153.71	1149.48	4.23	---	1	---	---	---	---	---	---	---	---	---	---	1	---	---	1	---
	22.07	286+04.60	65.72' RT	1164.10	1162.85	1156.29	6.56	1	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---
	22.08	287+43.80	52.40' RT	1176.36	1175.36	1169.02	6.34	---	---	---	1	---	---	---	---	1	---	---	---	---	---	---	1	---
	22.09	287+65.00	49.50' RT	1176.87	1175.87	1170.58	5.29	---	---	---	1	---	1	---	---	---	---	---	---	---	---	---	1	---
	22.10	287+39.80	64.90' RT	1175.49	1175.49	1171.50	3.99	---	---	---	---	2	---	---	---	---	---	---	---	---	---	1	1	---
	22.11	11+75.00K	16.50' LT	1184.89	1183.89	1179.60	4.29	---	---	---	1	---	---	---	---	---	---	---	---	---	1	---	1	---
	23.01	291+00.00	49.50' RT	1198.91	1197.66	1190.58	7.08	1	---	---	---	---	1	---	---	---	---	---	---	---	---	---	1	---
	23.02	291+00.00	43.50' RT	1196.99	1195.99	1191.70	4.29	---	---	---	1	---	---	---	---	---	---	---	---	---	1	---	1	---
	23.03	294+50.00	49.50' RT	1221.77	1220.52	1214.82	5.70	1	---	---	---	---	1	---	---	---	---	---	---	---	---	---	1	---
	23.04	294+50.00	43.50' RT	1221.23	1220.23	1215.94	4.29	---	---	---	1	---	---	---	---	---	---	---	---	---	1	---	1	---
	24.01	298+00.00	41.29' RT	1243.73	1242.73	1238.44	4.29	---	---	---	1	---	---	---	---	---	---	---	---	---	1	---	1	---
			TOTAL PROJECT 5120-07-72					19	30	0	22	4	6	19	5	7	0	1	16	18	2	1	75	1

NOTE: TIE THE LAST THREE SECTIONS OF PIPE AND APRON ENDWALL.
** ADDITIONAL QUANTITIES LISTED ELSEWHERE
*** NON-BID ITEM, FOR INFORMATION ONLY

ADJUSTING STRUCTURES

CATEGORY	STRUCTURE NO.	STATION	LOCATION	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115 ADJUSTING INLET COVERS EACH	611.8120.S COVER PLATES TEMPORARY EACH	SPV.0060.01 ADJUSTING WATER VALVES EACH
0010	5.04	15+47.50HA	16.60' LT	---	1	1	---
TOTAL CATEGORY 0010 PROJECT 5120-07-71				0	1	1	0
CATEGORY							
0070	---	150+89.00	30.00' LT	1	---	1	---
	---	153+59.00	23.00' LT	1	---	1	---
	---	156+57.00	23.00' RT	1	---	1	---
	---	157+71.00	52.00' LT	1	---	1	---
	---	158+73.00	17.00' RT	1	---	1	---
	---	160+49.00	35.00' RT	1	---	1	---
	---	15+27.00HA	25.00' RT	1	---	1	---
	---	178+88.00	29.00' LT	1	---	1	---
	---	181+81.00	29.00' LT	1	---	1	---
		UNDISTRIBUTED		---	---	4	4
TOTAL CATEGORY 0070 PROJECT 5120-07-71				9	0	13	4

CATEGORY	NO.	STATION	LOCATION	EACH	EACH	EACH	EACH
0010	24.02	295+18.17	39.79' LT	---	1	1	---
TOTAL CATEGORY 0010 PROJECT 5120-07-72				0	1	1	0
0040	---	225+43.00	31.00' LT	1	---	1	---
	---	226+24.00	32.00' LT	1	---	1	---
		UNDISTRIBUTED		---	---	3	3
TOTAL CATEGORY 0040 PROJECT 5120-07-72				2	0	5	3

PIPE UNDERDRAIN SUMMARY

CATEGORY	STATION - STATION	LOCATION	612.0106 PIPE UNDERDRAIN 6-INCH LF	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH LF	612.0806 APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH EACH	** 633.5200 MARKERS CULVERT END EACH
0010	150+01 - 151+08	RT	106	---	---	---
	150+12 - 153+97	RT	283	---	---	---
	153+99 - 156+73	RT	272	---	---	---
	156+78 - 159+67	RT	286	---	---	---
	159+70 - 159+82	RT	12	---	---	---
	159+87 - 160+71	RT	83	---	---	---
	160+73 - 163+47	RT	275	---	---	---
	160+52 - 165+97	RT	245	---	---	---
	164+82 - 165+97	LT	115	10	1	1
	166+02 - 170+62	LT	456	---	---	---
	166+02 - 167+57	RT	156	---	---	---
	170+67 - 176+59	LT	585	---	---	---
	175+29 - 176+59	RT	130	5	1	1
	176+61 - 182+49	RT & LT	1,174	---	---	---
	182+52 - 182+57	RT & LT	12	---	---	---
	182+62 - 188+47	RT & LT	1,172	---	---	---
	188+52 - 193+97	LT	544	---	---	---
	188+52 - 190+93	RT	242	---	---	---
	194+05 - 195+69	LT	163	---	---	---
	195+71 - 202+52	LT	681	---	---	---
	197+33 - 202+52	RT	519	---	---	---
	202+57 - 207+16	LT	459	---	---	---
	202+57 - 207+52	RT	495	---	---	---
	207+19 - 207+50	LT	32	---	---	---
	207+58 - 208+00	LT	42	---	---	---
	207+60 - 207+68	RT	9	---	---	---
	207+71 - 208+00	RT	29	---	---	---
	TOTAL PROJECT 5120-07-71		8,577	15	2	2
CATEGORY	STATION - STATION	LOCATION	LF	LF	EACH	EACH
0010	270+28 - 273+95	RT	365	---	---	---
	274+03 - 276+24	RT	221	---	---	---
	274+11 - 277+47	LT	336	---	---	---
	277+51 - 277+57	LT	6	---	---	---
	277+61 - 281+47	LT	382	---	---	---

CONTINUED IN NEXT COLUMN

CONTINUED FROM PREVIOUS COLUMN

PIPE UNDERDRAIN SUMMARY

CATEGORY	STATION - STATION	LOCATION	612.0106 PIPE UNDERDRAIN 6-INCH LF	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH LF	612.0806 APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH EACH	** 633.5200 MARKERS CULVERT END EACH
	281+51 - 281+57	LT	6	---	---	---
	281+61 - 284+97	LT	333	---	---	---
	285+01 - 285+07	LT	6	---	---	---
	285+11 - 289+35	LT	421	---	---	---
	287+67 - 290+97	RT	330	---	---	---
	291+02 - 294+47	RT	342	---	---	---
	294+52 - 297+97	RT	342	---	---	---
	298+02 - 298+37	RT	36	---	---	---
TOTAL PROJECT 5120-07-72			3,126	0	0	0

** ADDITIONAL QUANTITIES LISTED ELSEWHERE

3

ROADWAY BARRIER ITEMS

CATEGORY	STATION - STATION	LOCATION	614.0200 STEEL THRIE BEAM STRUCTURE APPROACH LF	614.0345 STEEL PLATE BEAM GUARD SHORT RADIUS LF	614.0390 STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL EACH	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3 K LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
0010	133+93 - 146+50	RT	---	---	---	1187.5	---	39.40	1
	159+63 - 162+25	RT	---	---	---	162.5	---	---	2
	161+75 - 164+00	LT	---	---	---	---	125.0	---	2
	162+90 - 164+40	RT	---	---	---	50.0	---	---	2
	164+75 - 166+00	RT	---	---	---	25.0	---	---	2
	170+61 - 175+10	RT	---	---	---	357.5	---	---	2
	181+60 - 193+10	RT	---	---	---	1050.0	---	---	2
	TOTAL PROJECT 5120-07-71		0	0	0	2832.5	125.0	39.40	13
CATEGORY	STATION - STATION	LOCATION	LF	LF	EACH	LF		LF	EACH
0010	221+36 - 222+50	RT	---	---	---	---	---	39.40	1
	231+36 - 232+25	LT	---	---	---	---	---	39.40	1
	234+00 - 234+89	RT	---	---	---	---	---	39.40	1
	241+75 - 242+75	LT	---	---	---	12.5	---	39.40	1
	242+45 - 243+50	RT	---	---	---	12.5	---	39.40	1
	243+50 - 244+50	LT	---	---	---	12.5	---	39.40	1
	268+00 - 269+00	LT	---	---	---	12.5	---	39.40	1
	270+75 - 271+75	LT	---	---	---	12.5	---	39.40	1
	283+62 - 20+42P	RT	20.65	37.50	1	---	---	---	---
	284+19 - 286+14	RT	---	---	---	100.0	---	---	2
	289+25 - 294+50	LT	---	---	---	437.5	---	39.40	1
	301+95 - 306+54	RT	---	---	---	362.5	---	---	2
	TOTAL PROJECT 5120-07-72		20.65	37.50	1	962.5	0.0	354.60	13

NOTE: AT BEAMGUARD TERMINALS WITH CURB & GUTTER, PROVIDE DRIVEWAY CUT CURB FROM 3RD POST TO 30 FEET I.D. 5120-07-71 OR 100 FEET I.D. 5120-07-72 IN ADVANCE OF THE TERMINAL EXTRUDER HEAD.

CORRUGATED MEDIAN

CATEGORY	STATION	LOCATION	620.0100 CONCRETE CORRUGATED MEDIAN SF
0010	156+10 - 157+19	RT	653
	158+40 - 160+43	LT	1,225
	198+99 - 199+34	RT & LT	368
	199+63 - 199+97	RT & LT	368
	210+09 - 213+50	RT & LT	1,368
	TOTAL PROJECT 5120-07-71		3,982

CATEGORY	STATION	LOCATION	SF
0010	284+56 - 286+25	RT	1,824
	287+50 - 294+96	RT	2,979
	296+66 - 299+08	RT	2,833
	TOTAL PROJECT 5120-07-72		7,636

RESTORATION ITEMS

CATEGORY	STATION - STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE #20 LB	630.0200 SEEDING TEMPORARY LB	** 624.0100 WATER MGAL
0010	132+50 - 148+47	RT	1,151	272	0.7	31	31	25.9
	132+50 - 148+96	LT	188	166	0.1	5	5	4.2
	10+75DI - 17+00DI	RT & LT	3,063	3,063	1.9	83	83	68.8
	10+52H - 11+26H	RT	56	56	0.0	2	2	1.3
	10+27H - 11+26H	LT	77	0	0.0	2	2	1.7
	149+48 - 156+62	RT	418	0	0.3	11	11	9.4
	149+08 - 157+62	LT	216	0	0.1	6	6	4.9
	9+30HA - 10+50HA	RT	86	32	0.1	4	4	3.0
	8+97HA - 10+41HA	LT	111	40	0.1	4	4	3.5
	11+57HA - 15+75HA	RT	1,764	1,326	1.1	48	48	39.6
	11+56HA - 15+75HA	LT	582	0	0.4	16	16	13.1
	158+04 - 213+84	LT	3,605	154	2.3	97	97	81.0
	158+18 - 209+00	RT	2,948	0	1.9	80	80	66.2
	199+74SW - 203+74SW	LT	438	0	0.4	16	16	13.1
	199+74SW - 203+74SW	RT	971	0	0.7	31	31	25.8
	10+33S - 12+00S	RT	237	0	0.1	6	6	5.3
	10+50S - 12+00S	LT	70	0	0.0	2	2	1.6
	209+94 - 217+00	RT	460	18	0.3	12	12	10.3
	11+00B - 12+75B	LT	781	772	0.6	24	24	19.9
	10+56B - 13+50B	RT	976	763	0.7	28	28	23.6
	214+27 - 217+00	LT	432	198	0.3	12	12	9.7
	UNDISTRIBUTED		3,726	1,372	2.4	104	104	86
	TOTAL PROJECT 5120-07-71		22,356	8,231	14.5	623	623	518
CATEGORY	STATION - STATION	LOCATION	SY	SY	CWT	LB	LB	MGAL
0010	217+00 - 220+45	RT	501	304	0.3	14	14	11.2
	217+00 - 219+89	LT	286	30	0.2	8	8	6.4
	220+11 - 225+12	LT	634	189	0.4	17	17	14.2
	10+51HO - 11+50HO	RT	9	9	0.0	1	1	0.5
	10+52HO - 11+50HO	LT	634	0	0.4	18	18	14.9
	10+50I - 12+00I	LT	221	209	0.2	7	7	5.7
	10+54I - 12+00I	RT	110	65	0.1	4	4	3.1
	221+00 - 236+53	RT	1,811	805	1.1	49	49	40.7
	225+77 - 242+95	LT	1,078	571	0.7	30	30	25.0
	0+50N - 2+65N	RT	597	0	0.4	17	17	14.3
	0+58I - 2+50I	LT	138	30	0.1	4	4	3.6
	237+33 - 286+55	RT	8,996	4,674	5.7	244	244	203.1
	243+20 - 295+33	LT	2,047	1,855	1.6	67	67	55.7
	10+93K - 13+00K	RT	146	90	0.1	6	6	4.6
	10+57K - 13+00K	LT	189	36	0.1	5	5	4.4
	287+26 - 295+39	RT	4,329	163	2.7	117	117	97.2
	0+45F - 1+81F	LT	107	74	0.1	4	4	3.4
	0+50F - 1+81F	RT	97	78	0.1	4	4	3.3
	295+47 - 301+45	RT	1,401	63	0.9	38	38	31.5
	295+85 - 302+88	LT	972	931	0.8	34	34	28.3
	301+75 - 310+44	RT	2,669	345	1.9	82	82	68.2
	303+23 - 307+92	LT	514	514	0.5	19	19	16.1
	308+23 - 318+07	LT	1,367	1,367	1.1	48	48	40.0
	0+49FR - 2+79FR	RT	98	64	0.1	5	5	4.3
	0+53FR - 2+79FR	LT	218	160	0.2	7	7	6.0
	311+25 - 327+37	RT	2,614	2,292	2.1	89	89	73.9
	UNDISTRIBUTED		6,357	2,984	4.4	187	187	155.9
	TOTAL PROJECT 5120-07-72		38,140	17,901	26	1,125	1,125	935

** ADDITIONAL QUANTITIES LISTED ELSEWHERE

3

EROSION CONTROL ITEMS

CATEGORY	STATION - STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I TYPE B SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.2023 EROSION MAT CLASS II TYPE B SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7560.S STONE OR ROCK DITCH CHECKS CY
0010	132+50 - 133+92	RT	---	---	---	64	---	---	---	---
	133+92 - 146+48	RT	---	---	602	---	---	---	---	---
	148+50 - 156+50	LT	---	---	---	619	---	---	---	---
	149+08 - 157+20	RT	---	---	---	557	---	---	---	---
	156+50 - 157+63	LT	---	---	---	83	---	---	---	---
	9+72HA - 10+45HA	RT	---	---	43	---	---	---	---	---
	9+43HA - 10+41HA	LT	---	---	74	---	---	---	---	---
	10+33HA	LT	---	---	---	---	---	---	4	---
	10+57HA	RT	---	---	---	---	---	---	5	---
	12+50HA	DRIVEWAY	---	---	---	263	---	---	---	---
	11+61HA - 14+84HA	RT	---	---	---	209	---	---	---	---
	11+56HA - 15+75HA	LT	170	170	---	564	---	---	---	---
	158+17 - 159+19	RT	---	---	---	94	---	---	---	---
	158+04 - 161+54	LT	---	---	---	635	---	---	---	---
	159+52 - 161+53	LT	234	234	---	---	---	---	---	---
	159+47 - 161+05	RT	---	---	---	---	378	---	---	---
	159+59 - 162+44	RT	305	305	---	---	---	---	---	---
	161+05 - 166+50	RT	---	---	139	---	---	---	---	---
	161+67 - 166+50	LT	---	---	---	132	---	---	---	---
	166+79 - 170+32	RT	---	---	---	157	---	---	---	---
	170+48 - 175+12	RT	---	---	118	---	---	---	---	---
	167+40 - 178+64	LT	---	---	---	611	---	---	---	---
	175+12 - 181+58	RT	---	---	---	278	---	---	---	---
	181+58 - 193+19	RT	---	---	315	---	---	---	---	---
	181+64 - 193+50	LT	---	---	---	915	---	---	---	---
	182+77	LT	---	---	---	---	---	---	10	---
	193+50 - 213+85	LT	---	---	---	1,059	---	---	---	---
	194+10	LT	---	---	---	---	---	---	20	---
	199+28SW - 203+73SW	RT	---	---	---	975	---	---	---	---
	199+28SW - 203+73SW	LT	---	---	---	417	---	---	---	---
	200+50SW	LT	---	---	---	---	---	12	---	---
	201+00SW	LT	---	---	---	---	---	12	---	---
	207+55	LT	---	---	---	---	---	---	15	---
	193+47 - 209+07	RT	143	143	---	1,080	---	---	---	---
	10+34S - 12+00S	RT	---	---	---	196	---	---	---	---
	10+45S - 12+00S	LT	---	---	---	70	---	---	---	---
	210+10 - 213+31	RT	53	53	---	291	---	---	---	---
	20+77EP	RT	---	---	---	---	---	16	---	---
	21+00EP	LT	---	---	9	---	---	---	7	---
	21+06EP	RT	---	---	---	---	---	---	7	---
	20+00EP - 12+75B	LT	300	300	---	---	---	---	---	---
	11+76B - 13+50B	RT	---	---	117	---	---	---	---	70
	10+83B - 13+58B	RT	360	360	---	---	---	---	---	---
	10+73B	RT	---	---	9	---	---	---	5	---
	10+50B - 11+46B	RT	---	---	68	---	---	---	---	---
	214+18 - 217+00	LT	---	---	258	---	---	---	---	---
	213+58 - 217+00	RT	---	---	300	---	---	---	---	---
	UNDISTRIBUTED		313	313	411	1,854	76	8	15	14
	TOTAL PROJECT 5120-07-71		1,878	1,878	2,464	11,122	454	48	88	84

CONTINUED IN NEXT COLUMN

CONTINUED FROM PREVIOUS COLUMN

EROSION CONTROL ITEMS

CATEGORY	STATION - STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I TYPE B SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.2023 EROSION MAT CLASS II TYPE B SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7560.S STONE OR ROCK DITCH CHECKS CY
0010	217+00 - 225+16	LT	112	112	701	---	---	---	---	---
	217+00 - 220+55	RT	255	255	337	---	---	---	---	---
	220+93 - 223+26	RT	---	---	996	---	---	---	---	---
	223+26 - 227+00	RT	---	---	384	---	---	---	7	---
	11+20I - 12+00I	RT	---	---	71	---	---	---	---	---
	225+60 - 232+25	LT	---	---	623	---	---	---	---	---
	234+00 - 2+65N	RT	---	---	974	---	---	---	7	---
	1+75N - 243+75	RT	---	---	668	---	---	---	14	---
	245+60	RT	---	---	---	---	---	---	---	2
	247+50	RT	---	---	---	---	---	---	---	2
	249+95	RT	---	---	---	---	---	---	7	---
	252+00	RT	---	---	---	---	---	---	---	2
	254+00	RT	---	---	---	---	---	---	---	2
	256+00	RT	---	---	---	---	---	---	---	2
	258+00	RT	---	---	---	---	---	---	---	2
	260+00	RT	---	---	---	---	---	---	---	2
	261+43	RT	---	---	---	---	---	---	7	---
	263+64	RT	---	---	---	---	---	---	---	2
	265+64	RT	---	---	---	---	---	---	---	2
	267+64	RT	---	---	---	---	---	---	---	2
	269+64	RT	---	---	---	---	---	---	---	2
	270+43	RT	---	---	---	---	---	---	7	---
	272+70	RT	---	---	---	---	---	---	---	2
	274+70	RT	---	---	---	---	---	---	---	3
	276+70	RT	---	---	---	---	---	---	---	2
	278+10	RT	---	---	---	---	---	---	7	---
	278+44	RT	---	---	---	---	---	---	---	2
	280+15	RT	---	---	---	---	---	---	---	2
	282+15	RT	---	---	---	---	---	---	---	2
	283+00 - 286+65	RT	---	---	300	---	3,664	---	---	---
	10+57K - 12+75K	LT	---	---	203	---	---	---	---	---
	287+39 - 306+54	RT	---	---	8,100	---	---	---	---	---
	289+25 - 0+79F	LT	---	---	60	---	---	---	7	---
	0+20F - 0+73F	RT	---	---	64	---	---	---	---	---
	303+30	LT	---	---	---	---	---	---	5	---
	305+00	LT	---	---	---	---	---	---	7	---
	308+30	LT	---	---	---	---	---	---	5	---
	0+38FR - 0+78FR	RT	---	---	64	---	---	---	---	---
	0+37FR - 1+64FR	LT	---	---	84	---	---	---	---	---
	317+06	LT & RT	---	---	19	---	---	---	7	---
	317+75	LT	---	---	---	---	---	---	5	---
	320+35 - 324+00	RT	---	---	323	---	---	---	---	---
	322+25	RT	---	---	7	---	---	---	---	---
	326+31	RT	---	---	9	---	---	---	---	---
	UNDISTRIBUTED		73	73	2,797	0	733	0	18	7
	TOTAL PROJECT 5120-07-72		440	440	16,782	0	4,396	0	110	42

INLET PROTECTION

CATEGORY	STATION	LOCATION	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH
0010	132+07	LT & RT	---	---	2
	132+17	LT & RT	---	---	2
	137+50	LT	---	---	1
	139+54	LT	---	---	1
	143+25	LT	---	---	1
	147+25	LT & RT	---	1	1
	150+00	RT	---	---	1
	151+10	RT	---	---	1
	156+75	RT	---	---	1
	157+32	LT	---	---	1
	13+00HA	LT & RT	---	---	2
	15+48HA	LT	---	---	1
	15+58HA	LT	---	---	1
	15+78HA	RT	---	---	1
	159+68	RT	---	---	1
	159+73	LT	---	---	1
	159+85	LT & RT	---	---	2
	163+50	RT	---	---	1
	166+00	LT & RT	---	---	2
	170+65	LT	---	---	1
	182+50	LT & RT	---	---	2
	182+60	LT & RT	---	---	2
	188+50	LT & RT	---	---	2
	194+02	LT	---	---	1
	202+54	LT & RT	---	---	2
	207+17	LT	---	---	1
	207+55	LT & RT	---	---	2
	207+70	RT	---	---	1
	211+58	RT	---	---	1
	212+88	RT	---	---	1
	10+79B	RT	---	---	1
TOTAL PROJECT 5120-07-71			0	1	41

CATEGORY	STATION	LOCATION	EACH	EACH	EACH
0010	10+71HO	LT	---	---	1
	221+50	LT & RT	---	---	2
	221+60	LT	---	---	1
	222+50	RT	---	1	---
	225+00	RT	---	1	---
	11+05I	LT	---	---	1
	11+26I	RT	---	---	1
	226+35	LT & RT	1	1	1
	226+45	LT	---	---	1
	230+50	LT & RT	---	1	1
	230+60	LT	---	---	1
	230+75	RT	---	1	---
	235+50	LT & RT	---	1	1
	235+60	RT	---	---	1
	237+36	RT	---	---	1
	237+41	RT	---	---	1
	240+50	RT	---	---	1
	241+00	RT	1	---	1
	245+50	RT	---	1	---
	246+00	RT	---	1	---
	249+50	LT	---	1	---
	249+60	LT	---	1	---
	253+00	LT	---	1	---
	253+10	LT	---	1	---
	257+00	LT	---	1	---
	257+10	LT	---	1	---
	261+00	LT & RT	---	2	---
	261+25	RT	---	1	---
	265+50	RT	---	1	---
	265+75	RT	---	1	---
	270+02	RT	---	1	---
	270+25	RT	---	1	---
	274+00	LT & RT	---	2	---
	274+10	LT	---	1	---
	277+50	LT	---	1	---
	277+60	LT	---	1	---
	281+50	LT	---	1	---
	281+60	LT	---	1	---
	284+75	RT	1	---	---
	285+00	LT	---	1	---
	285+10	LT	---	1	---
	11+75K	LT	---	---	1
	287+40	RT	1	---	---
	287+44	RT	---	---	1
	287+65	RT	---	---	1
	291+00	RT	---	---	1
	294+50	RT	---	---	1
	296+18	LT	1	---	---
	298+00	RT	---	---	1
TOTAL PROJECT 5120-07-72			5	30	22

RIGHT OF WAY MARKER POSTS

CATEGORY	STATION	LOCATION	R/W POINT NO.	633.5100 MARKERS ROW EACH
0010	131+25.75	69.79' LT	104	1
	136+11.82	70.51' LT	105	1
	136+25.75	70.53' LT	106	1
	137+76.37	80.74' LT	107	1
	142+26.07	79.92' LT	108	1
	143+76.07	149.78' LT	109	1
	144+75.99	149.73' LT	110	1
	145+87.90	79.70' LT	111	1
	160+85.31	84.90' LT	207	1
	164+42.02	50.24' LT	211	1
	165+49.05	50.14' LT	212	1
	166+49.00	60.05' LT	213	1
	168+24.80	59.88' LT	214	1
	169+41.35	59.90' LT	215	1
	169+41.80	50.15' LT	216	1
	180+21.91	52.00' RT	225	1
	179+21.91	60.00' RT	226	1
	178+21.91	60.00' RT	227	1
	177+83.91	42.00' RT	228	1
	176+03.91	42.00' RT	229	1
	174+96.17	81.18' RT	230	1
	174+71.91	90.00' RT	231	1
	174+60.42	90.00' RT	232	1
	172+23.43	90.05' RT	233	1
	162+33.51	49.75' RT	237	1
	162+33.50	79.75' RT	238	1
	160+48.52	79.74' RT	239	1
	160+48.52	49.74' RT	240	1
	191+30.90	72.99' LT	301	1
	193+43.91	73.99' LT	302	1
	193+43.91	48.99' LT	303	1
	12+32.18B	44.43' LT	309	1
	12+46.80B	45.67' LT	310	1
	13+75.00B	36.91' RT	311	1
	12+25.00B	62.00' RT	312	1
	212+96.12	54.26' RT	316	1
	211+18.90	54.20' RT	317	1
	210+50.00	43.59' RT	318	1
	210+00.22	100.00' RT	319	1
TOTAL PROJECT 5120-07-71				39

CATEGORY	STATION	LOCATION	POINT NO.	EACH
0010	221+41.51	53.55' LT	103	1
	224+01.33	53.31' LT	104	1
	224+50.00	54.00' LT	105	1
	11+50.00I	31.16' LT	106	1
	226+25.00	59.90' LT	108	1
	227+18.74	66.39' LT	109	1
	228+24.23	81.09' LT	110	1
	229+28.04	88.04' LT	111	1
	230+79.42	78.37' LT	112	1
	232+66.43	44.15' LT	113	1
	234+48.19	42.23' LT	114	1
	234+48.45	67.23' LT	115	1
	239+38.42	62.06' LT	116	1
	239+38.16	37.07' LT	117	1
	240+83.48	35.68' LT	118	1
	237+58.74	102.22' RT	120	1
	236+93.08	95.53' RT	121	1
	236+37.56	138.49' RT	122	1
	232+99.68	86.66' RT	123	1
	231+27.95	75.74' RT	124	1
	230+01.32	90.12' RT	125	1
	228+38.22	129.61' RT	126	1
	227+59.50	160.67' RT	127	1
	223+71.57	159.14' RT	128	1
	222+10.00	109.98' RT	129	1
	12+00.00HO	35.05' LT	130	1
	11+30.00HO	32.54' RT	131	1
	219+18.57	54.49' RT	132	1
	244+69.32	90.41' LT	200	1
	246+94.04	89.70' LT	201	1
	253+95.44	229.72' LT	202	1
	259+47.31	230.00' LT	203	1
	264+67.77	230.00' LT	204	1
	268+14.80	173.99' LT	205	1
	268+73.26	160.08' RT	206	1
	267+61.65	160.00' RT	207	1
	265+17.77	85.00' RT	208	1
	263+17.77	88.00' RT	209	1
	259+47.31	70.00' RT	210	1
	256+17.77	67.98' RT	211	1
	250+20.19	80.00' RT	212	1
	247+02.93	200.00' RT	213	1
	240+64.89	200.04' RT	214	1
	274+17.41	229.92' LT	301	1
	277+67.59	229.94' LT	302	1
	286+17.39	229.99' LT	303	1
	287+91.24	70.00' LT	304	1
	290+32.78	70.00' LT	305	1
	295+50.75	60.00' RT	308	1
	292+50.00	65.00' RT	310	1

CONTINUED IN NEXT COLUMN

CONTINUED FROM PREVIOUS COLUMN

RIGHT OF WAY MARKER POSTS

CATEGORY	STATION	LOCATION	R/W POINT NO.	633.5100 MARKERS ROW EACH
	292+00.00	115.00' RT	311	1
	290+25.00	140.00' RT	312	1
	287+60.53	124.31' RT	313	1
	11+88.94K	69.71' LT	314	1
	12+88.24K	26.09' LT	315	1
	13+39.54K	40.75' RT	316	1
	283+29.35	263.52' RT	317	1
	283+11.52	150.03' RT	318	1
	280+56.12	150.04' RT	319	1
	280+62.42	60.04' RT	320	1
	276+17.43	77.07' RT	321	1
	273+37.88	65.06' RT	322	1
	271+30.66	160.26' RT	323	1
	296+14.22	70.00' LT	401	1
	297+38.77	70.00' LT	402	1
	303+90.83	70.00' LT	403	1
	304+60.79	75.02' LT	404	1
	313+43.55	74.99' LT	405	1
	317+86.05	75.18' LT	406	1
	318+54.84	75.01' LT	407	1
	319+13.83	75.03' LT	408	1
	323+19.44	61.68' LT	409	1
	323+19.36	41.72' RT	410	1
	320+13.75	40.32' RT	411	1
	319+14.08	59.97' RT	412	1
	318+22.11	59.92' RT	413	1
	317+86.10	59.82' RT	414	1
	313+43.61	60.01' RT	415	1
	311+72.77	59.60' RT	416	1
	1+90.86FR	55.35' LT	417	1
	3+00.00FR	16.71' RT	418	1
	2+75.00FR	24.00' RT	419	1
	1+50.00FR	24.00' RT	420	1
	1+25.00FR	24.00' RT	421	1
	1+00.00FR	30.35' RT	422	1
	0+90.27FR	51.03' RT	423	1
	310+40.54	60.86' RT	424	1
	306+38.98	109.78' RT	425	1
	303+90.83	110.00' RT	426	1
	301+35.83	50.00' RT	427	1
	301+00.00	50.00' RT	428	1
	298+50.00	80.00' RT	429	1
	296+50.00	80.00' RT	430	1
TOTAL PROJECT 5120-07-72				93

PERMANENT SIGNING

CATEGORY	SIGN NO.	STATION	SIGN CODE	SIGN SIZE IN X IN	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	POSTS WOOD 634.0612 4X6 INCH 12 FT EACH	POSTS WOOD 634.0614 4X6 INCH 14 FT EACH	POSTS WOOD 634.0616 4X6 INCH 16 FT EACH	POSTS TUBULAR STEEL 634.0811 2X2 INCH 11-FT EACH	POSTS TUBULAR STEEL 634.0812 2X2 INCH 12-FT EACH	POSTS TUBULAR STEEL 634.0814 2X2 INCH 14-FT EACH	MESSAGE	REMARKS
0010	1-01	123+50	R3-8W	54 X 30	11.25	---	---	---	---	2	---	---	LANE DESIGNATION	
	1-02	125+45	R3-7R	30 X 30	6.25	---	---	---	---	---	---	---	RIGHT LANE MUST TURN RIGHT	ON POLE
	1-03	125+45	R3-5R	42 X 48	14	---	---	---	---	---	---	---	RIGHT TURN ONLY	ON POLE
	1-04	134+00	R2-1	24 X 30	5	---	---	1	---	---	---	---	SPEED LIMIT 25 MPH	
	1-05	134+00	R2-1	24 X 30	5	---	---	1	---	---	---	---	SPEED LIMIT 40 MPH	
	1-06	138+50	W3-5	36 X 36	---	9	---	---	---	---	1	---	REDUCED SPEED LIMIT 25 MPH	
	1-08	141+00	R2-1	24 X 30	5	---	---	1	---	---	---	---	SPEED LIMIT 40 MPH	
	1-09	132+50	R3-9C	24 X 6	1	---	---	---	---	---	---	---	BEGIN	SAME POST AS 1-09
	1-10	132+50	R3-9B	24 X 36	6	---	---	1	---	---	---	---	CENTER LANE ONLY	
	1-11	132+50	R3-9D	24 X 6	1	---	---	---	---	---	---	---	END	SAME POST AS 1-11
	1-12	132+50	R3-9B	24 X 36	6	---	---	---	---	---	---	---	CENTER LANE ONLY	
	1-13	16+40DI	W5-56A	18 X 18	2.25	---	1	---	---	---	---	---	END OF ROAD MARKER	
	1-14	16+40DI	W5-56A	18 X 18	2.25	---	1	---	---	---	---	---	END OF ROAD MARKER	
	1-15	16+40DI	W5-56A	18 X 18	2.25	---	1	---	---	---	---	---	END OF ROAD MARKER	
	2-01	147+00	R3-9B	24 X 36	6	---	---	---	---	---	---	1	CENTER LANE ONLY	
	2-02	148+00	S1-1	36 X 36	9	---	---	---	---	1	---	---	SCHOOL CROSSING	
	2-03	148+00	WF16-9P	30 X 18	---	3.75	---	---	---	---	---	---	AHEAD	SAME POST AS 2-02
	2-04	148+00	R2-6P	24 X 18	3	---	---	---	---	---	---	---	FINES HIGHER	SAME POST AS 2-02
	2-05	11+17H	W14-2	24 X 24	---	4	---	---	---	---	---	---	NO OUTLET	
	2-06	10+98H	R2-1	18 X 24	3	---	---	1	---	---	---	---	SPEED LIMIT 25 MPH	
	2-07	10+48H	R1-1	30 X 30	5.18	---	---	1	---	---	---	---	STOP	
	2-08	150+00	S4-5	36 X 36	9	---	---	---	1	---	---	---	SCHOOL SPEED LIMIT AHEAD	
	2-09	153+00	R3-9C	24 X 6	1	---	---	---	---	---	---	---	BEGIN	SAME POST AS 2-10
	2-10	153+00	R3-9B	24 X 36	6	---	---	---	---	---	---	1	CENTER LANE ONLY	
	2-11	153+50	R3-9D	24 X 6	1	---	---	---	---	---	---	---	END	SAME POST AS 2-12
	2-12	153+50	R3-9B	24 X 36	6	---	---	1	---	---	---	---	CENTER LANE ONLY	
	2-13	154+50	S4-51	24 X 48	8	---	---	---	1	---	---	---	SCHOOL SPEED LIMIT 20 MPH	
	2-14	154+50	R2-1	24 X 30	5	---	---	---	---	---	1	---	SPEED LIMIT 40 MPH	
	2-15	154+50	S5-2	24 X 30	5	---	---	---	---	---	---	---	END SCHOOL ZONE	SAME POST AS 2-14
	2-16	156+50	J4-1	24 X 36	6	---	---	---	---	---	1	---	WEST STH 33	
	2-17	157+08	S1-1	36 X 36	9	---	---	---	---	---	---	1	SCHOOL CROSSING	
	2-18	157+08	WF16-7L	30 X 18	---	3.75	---	---	---	---	---	---	LEFT ARROW	SAME POST AS 2-17
	2-19	157+45	W5-56A	18 X 18	2.25	---	1	---	---	---	---	---	END OF ROAD MARKER	
	2-20	157+45	W5-56A	18 X 18	2.25	---	1	---	---	---	---	---	END OF ROAD MARKER	
	2-21	157+45	W5-56A	18 X 18	2.25	---	1	---	---	---	---	---	END OF ROAD MARKER	
	2-22	157+00	S1-1	36 X 36	9	---	---	---	1	---	---	---	SCHOOL CROSSING	
	2-23	157+00	WF16-7L	30 X 18	---	3.75	---	---	---	---	---	---	LEFT ARROW	SAME POST AS 2-22
	2-24	13+50HA	R2-1	18 X 24	3	---	---	1	---	---	---	---	SPEED LIMIT 25 MPH	
	2-25	160+00	S4-51	24 X 48	8	---	---	---	---	---	---	1	SCHOOL SPEED LIMIT 20 MPH	
	2-26	160+02	R2-1	24 X 30	5	---	---	---	1	---	---	---	SPEED LIMIT 40 MPH	
	2-27	160+02	S5-2	24 X 30	5	---	---	---	---	---	---	---	END SCHOOL ZONE	SAME POST AS 2-26
	2-28	160+02	J4-1	24 X 36	6	---	---	---	1	---	---	---	EAST STH 33	
	3-01	162+70	R3-9D	24 X 6	1	---	---	---	---	---	---	---	END	SAME POST AS 3-02
	3-02	162+70	R3-9B	24 X 36	6	---	---	---	---	---	---	1	CENTER LANE ONLY	
	3-03	163+35	R3-9C	24 X 6	1	---	---	---	---	---	---	---	BEGIN	SAME POST AS 3-04
	3-04	163+35	R3-9B	24 X 36	6	---	---	1	---	---	---	---	CENTER LANE ONLY	
	3-05	164+44	S4-5	36 X 36	9	---	---	---	---	1	---	---	SCHOOL SPEED LIMIT AHEAD	
	3-06	166+50	S1-1	30 X 30	4.69	---	---	---	---	---	1	---	SCHOOL CROSSING	
	3-07	166+50	WF16-9P	30 X 18	---	3.75	---	---	---	---	---	---	AHEAD	SAME POST AS 3-06
	3-08	166+50	R2-6P	24 X 18	3	---	---	---	---	---	---	---	FINES HIGHER	SAME POST AS 3-06
	3-09	168+50	W3-3	36 X 36	---	9	---	---	---	---	1	---	SIGNAL AHEAD	
	3-10	175+50	R4-51	36 X 48	12	---	---	---	1	---	---	---	PASSING LANE AHEAD 1 MILE	
	4-01	177+25	R2-1	24 X 30	5	---	---	---	---	1	---	---	SPEED LIMIT 40 MPH	
	4-02	178+00	R2-1	24 X 30	5	---	---	1	---	---	---	---	SPEED LIMIT 40 MPH	
	4-03	182+00	R3-9B	24 X 36	6	---	---	1	---	---	---	---	CENTER LANE ONLY	
	4-04	179+50	R3-9B	24 X 36	6	---	---	---	---	---	---	1	CENTER LANE ONLY	
	5-01	192+00	R2-1	24 X 30	5	---	---	1	---	---	---	---	SPEED LIMIT 40 MPH	
	5-02	194+00	W11-2	30 X 30	---	5.18	---	1	---	---	---	---	PEDISTRIAN CROSSING	
	5-03	194+00	W16-9P	24 X 8	---	1.33	---	---	---	---	---	---	AHEAD	SAME POST AS 5-02
	5-04	198+90	W11-2	30 X 30	---	5.18	---	1	---	---	---	---	PEDISTRIAN CROSSING	
	5-05	198+90	W16-7L	24 X 12	---	2	---	---	---	---	---	---	ARROW	SAME POST AS 5-04
	5-06	199+10	W11-2	30 X 30	---	5.18	---	---	---	---	1	---	PEDISTRIAN CROSSING	
	5-07	199+10	W16-7L	24 X 12	---	2	---	---	---	---	---	---	ARROW	SAME POST AS 5-06
	5-08	200+00	R2-1	24 X 30	5	---	---	---	---	1	---	---	SPEED LIMIT 40 MPH	
	5-09	202+00	R4-51	36 X 48	12	---	---	---	1	---	---	---	PASSING LANE AHEAD 1/2 MILE	
	5-10	202+50	W11-2	30 X 30	---	5.18	---	---	---	---	1	---	PEDISTRIAN CROSSING	
	5-11	202+50	W16-9P	24 X 8	---	1.33	---	---	---	---	---	---	AHEAD	SAME POST AS 5-10
	5-12	204+00	R2-1	24 X 30	5	---	---	1	---	---	---	---	SPEED LIMIT 40 MPH	
	5-13	206+40	W11-2	30 X 30	---	5.18	---	1	---	---	---	---	PEDISTRIAN CROSSING	
	5-14	206+40	W16-9P	24 X 8	---	1.33	---	---	---	---	---	---	AHEAD	SAME POST AS 5-13
	6-01	208+78	R3-9D	24 X 6	1	---	---	---	---	---	---	---	END	SAME POST AS 6-02
	6-02	208+78	R3-9B	24 X 36	6	---	---	1	---	---	---	---	CENTER LANE ONLY	
	6-03	11+34S	R2-1	24 X 30	5	---	---	---	1	---	---	---	SPEED LIMIT 25 MPH	
	6-04	11+34S	R12-1	24 X 30	5	---	---	---	---	---	---	---	WEIGHT LIMIT 7 TONS	SAME POST AS 6-03
	6-05	11+72S	W14-2	24 X 24	---	4	---	1	---	---	---	---	NO OUTLET	
	6-06	10+78S	R1-1	30 X 30	5.18	---	---	1	---	---	---	---	STOP	
	6-07	210+10	W11-2	30 X 30	---	5.18	---	1	---	---	---	---	PEDISTRIAN CROSSING	
	6-08	210+10	W16-7L	24 X 12	---	2	---	---	---	---	---	---	ARROW	SAME POST AS 6-07
	6-09	209+00	R3-9C	24 X 6	1	---	---	---	---	---	---	---	BEGIN	SAME POST AS 6-10
	6-10	209+00	R3-9B	24 X 36	6	---	---	---	---	---	---	1	CENTER LANE ONLY	
	6-11	210+10	W11-2	30 X 30	---	5.18	---	---	---	---	1	---	PEDISTRIAN CROSSING	
	6-12	210+10	W16-7L	24 X 12	---	2	---	---	---	---	---	---	ARROW	SAME POST AS 6-11
	6-13	211+83	R2-1	24 X 30	5	---	---	---	---	1	---	---	SPEED LIMIT 40 MPH	
	6-14	213+00	W11-2	30 X 30	---	5.18	---	1	---	---	---	---	PEDISTRIAN CROSSING	
	6-15	213+00	W16-9P	24 X 8	---	1.33	---	---	---	---	---	---	AHEAD	SAME POST AS 6-14
	6-16	21+12EP	R1-1	30 X 30	5.18	---	---	1	---	---	---	---	STOP	
	6-17	10+53B	R1-1	30 X 30	5.18	---	---	1	---	---	---	---	STOP	
	6-18	214+75	R3-9D	24 X 6	1	---	---	---	---	---	---	---	END	SAME POST AS 6-19
	6-19	214+75	R3-9B	24 X 36	6	---	---	1	---	---	---	---	CENTER LANE ONLY	
	6-20	215+00	R3-9C	24 X 6	1	---	---	---	---	---	---	---	BEGIN	SAME POST AS 6-21
	6-21	215+00	R3-9B	24 X 36	6	---	---	1	---	---	---	---	CENTER LANE ONLY	
	6-22	218+00	R2-1	24 X 30	5	---	---	1	---	---	---	---	SPEED LIMIT 40 MPH	
	TOTAL PROJECT 5120-07-71				443.17	101.76	32	34	15	15	15	7		

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PERMANENT SIGNING

CATEGORY	SIGN NO.	STATION	SIGN CODE	SIGN SIZE IN X IN	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	POSTS WOOD 634.0612 4X6 INCH 12 FT EACH	POSTS WOOD 634.0614 4X6 INCH 14 FT EACH	POSTS WOOD 634.0616 4X6 INCH 16 FT EACH	POSTS TUBULAR STEEL 634.0811 2X2 INCH 11-FT EACH	POSTS TUBULAR STEEL 634.0812 2X2 INCH 12-FT EACH	POSTS TUBULAR STEEL 634.0814 2X2 INCH 14-FT EACH	MESSAGE	REMARKS
0010	6-23	218+00	R2-1	24 X 30	5	---	---	1	---	---	---	---	SPEED LIMIT 55 MPH	
	6-24	219+50	R3-9C	24 X 6	1	---	---	---	---	---	---	---	BEGIN	SAME POST AS 6-25
	6-25	219+50	R3-9B	24 X 36	6	---	---	1	---	---	---	---	CENTER LANE ONLY	
	6-26	219+40	R3-9D	24 X 6	1	---	---	---	---	---	---	---	END	SAME POST AS 6-27
	6-27	219+40	R3-9B	24 X 36	6	---	---	1	---	---	---	---	CENTER LANE ONLY	
	6-28	219+75	W14-3	48 X 36	---	6	---	---	1	---	---	---	NO PASSING ZONE	
	6-29	11+12HO	R2-1	24 X 30	5	---	---	1	---	---	---	---	SPEED LIMIT 25 MPH	
	6-30	11+50HO	W14-2	24 X 24	---	4	---	1	---	---	---	---	NO OUTLET	
	6-31	10+50HO	R1-1	30 X 30	5.18	---	---	1	---	---	---	---	STOP	
	7-01	222+00	W3-5	36 X 36	---	9	---	---	1	---	---	---	REDUCED SPEED LIMIT 40 MPH	
	7-02	218+00	D2-2	84 X 24	14	---	---	2	---	---	---	---	ST JOSEPH, CASHTON	
	7-03	10+53I	R1-1	30 X 30	5.18	---	---	1	---	---	---	---	STOP	
	7-03	228+50	R4-3	36 X 48	12	---	---	---	1	---	---	---	SLOWER TRAFFIC KEEP RIGHT	
	8-01	0+64N	R1-1	30 X 30	5.18	---	---	1	---	---	---	---	STOP	
	8-02	241+00	D7-52MOD	66 X 42	19.25	---	---	2	---	---	---	---	ROAD TO GRANDAD BLUFF 1 MILE	
	10-01	275+00	W6-1	36 X 36	9	---	---	1	---	---	---	---	DIVIDED HIGHWAY AHEAD	
	10-02	278+00	R3-72	30 X 36	7.5	---	---	1	---	---	---	---	ONCOMING TRAFFIC USES CENTER	
	11-01	282+50	W6-3	36 X 36	---	9	---	1	---	---	---	---	TWO WAY TRAFFIC	
	11-02	284+60	R4-7	36 X 48	12	---	---	---	1	---	---	---	KEEP RIGHT	
	11-03	284+60	W5-54	18 X 18	---	2.25	---	---	---	---	---	---	CLEARANCE MARKER YELLOW	SAME POST AS 11-02
	11-04	284+60	R5-1	36 X 36	9	---	---	1	---	---	---	---	DO NOT ENTER	
	11-05	285+00	J1-1	24 X 39	6.5	---	---	---	---	---	---	---	JCT CTH F	
	11-06	286+20	R5-1	30 X 30	6.25	---	---	1	---	---	---	---	DO NOT ENTER	
	11-07	286+20	R4-7	24 X 30	5	---	---	1	---	---	---	---	KEEP RIGHT	
	11-08	287+00	R6-2L	24 X 30	5	---	---	1	---	---	---	---	ONE WAY	
	11-09	10+75K	R1-1	30 X 30	5.18	---	---	---	1	---	---	---	STOP	
	11-10	10+75K	R6-3A	30 X 24	5	---	---	---	---	---	---	---	DIVIDED HIGHWAY	SAME POST AS 11-09
	11-11	287+50	R4-7	24 X 30	5	---	---	1	---	---	---	---	KEEP RIGHT	
	11-12	287+50	R5-1	30 X 30	6.25	---	---	1	---	---	---	---	DO NOT ENTER	
	11-13	288+50	W6-2	36 X 36	---	9	---	1	---	---	---	---	DIVIDED HIGHWAY ENDS	
	11-14	289+50	R5-1A	36 X 24	6	---	---	1	---	---	---	---	WRONG WAY	
	11-15	290+00	D7-53L	66 X 36	16.5	---	---	2	---	---	---	---	GRANDAD BLUFF	
	11-16	292+00	R2-1	24 X 30	5	---	---	1	---	---	---	---	SPEED LIMIT 55 MPH	
	11-17	293+00	R5-1A	36 X 24	6	---	---	1	---	---	---	---	WRONG WAY	
	11-18	294+00	J4-1	24 X 36	6	---	---	1	---	---	---	---	WEST STH 33	
	11-19	295+00	J13-1	24 X 45	7.5	---	---	---	1	---	---	---	CTH F, ARROW	
	11-20	295+00	R5-1	30 X 30	6.25	---	---	1	---	---	---	---	DO NOT ENTER	
	11-21	295+75	R6-2L	24 X 30	5	---	---	1	---	---	---	---	ONE WAY	
	11-22	0+64F	J13-1	24 X 45	7.5	---	---	---	1	---	---	---	STH 33, ARROWS	
	11-23	0+64F	R1-1	30 X 30	5.18	---	---	---	1	---	---	---	STOP	
	11-24	0+64F	R6-3A	30 X 24	5	---	---	---	---	---	---	---	DIVIDED HIGHWAY	CONTINUED FROM PREVIOUS COLUMN SAME POST AS 11-23
	11-25	0+92F	R2-1	24 X 30	5	---	---	1	---	---	---	---	SPEED LIMIT 35 MPH	
	11-26	0+92F	M1-5A	24 X 24	4	---	---	1	---	---	---	---	CTH F	
	12-01	296+75	R5-1	30 X 30	6.25	---	---	1	---	---	---	---	DO NOT ENTER	
	12-02	296+75	J13-1	24 X 45	7.5	---	---	---	1	---	---	---	CTH F, ARROW	
	12-03	296+75	R4-7	24 X 30	5	---	---	1	---	---	---	---	KEEP RIGHT	
	12-04	296+75	J4-1	24 X 36	6	---	---	1	---	---	---	---	EAST STH 33	
	12-05	297+75	W6-2	36 X 36	---	9	---	1	---	---	---	---	DIVIDED HIGHWAY ENDS	
	12-06	298+75	R5-1A	36 X 24	6	---	---	1	---	---	---	---	WRONG WAY	
	12-07	299+05	R4-7	36 X 48	12	---	---	---	1	---	---	---	KEEP RIGHT	
	12-08	299+05	W5-54	18 X 18	---	2.25	---	---	---	---	---	---	CLEARANCE MARKER YELLOW	SAME POST AS 12-07
	12-09	299+05	R5-1	30 X 30	6.25	---	---	1	---	---	---	---	DO NOT ENTER	
	12-10	300+00	D7-53R(MOD)	66 X 36	16.5	---	---	2	---	---	---	---	GRANDAD BLUFF	
	12-11	301+00	W6-3	36 X 36	---	9	---	1	---	---	---	---	TWO WAY TRAFFIC	
	12-12	303+50	R2-1	24 X 30	5	---	---	1	---	---	---	---	SPEED LIMIT 55 MPH	
	12-13	307+50	J1-1	24 X 39	6.5	---	---	1	1	---	---	---	JCT CTH F	
	12-14	308+50	W6-1	36 X 36	---	9	---	1	---	---	---	---	DIVIDED HIGHWAY AHEAD	
	12-15	309+50	W9-1R	36 X 36	---	9	---	---	1	---	---	---	RIGHT LANE ENDS	
	12-16	0+80FR	R1-1	30 X 30	5.18	---	---	1	---	---	---	---	STOP	
	13-01	314+50	W4-2R	36 X 36	---	9	---	---	1	---	---	---	RIGHT LANE ENDS MERGE LEFT	
	13-02	314+50	W4-2R	36 X 36	---	9	---	---	1	---	---	---	RIGHT LANE ENDS MERGE LEFT	
	13-03	318+50	W7-1	36 X 36	---	9	---	---	1	---	---	---	HILL SYMBOL	
	13-04	318+50	W7-3	24 X 18	---	3	---	---	---	---	---	---	% GRADE	SAME POST AS 13-03
	13-05	327+36	R3-72	30 X 36	7.5	---	---	---	1	---	---	---	ONCOMING TRAFFIC USES CENTER	
	TOTAL PROJECT 5120-07-72				311.9	88.5	0	39	14	0	0	0		

REMOVING SIGNS

CATEGORY	SIGN NO.	STATION	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	MESSAGE	REMARKS
0010	R1-01	132+46	1	1	NO PARKING ANYTIME	
	R1-02	132+95	1	1	SIGNAL AHEAD	
	R1-03	133+30	1	1	SPEED LIMIT 40 MPH	
	R1-04	133+30	1	---	NO PARKING ANYTIME	SAME POST AS R1-03
	R1-05	135+96	1	1	REDUCED SPEED AHEAD 25 MPH	
	R1-06	10+43DI	1	1	STOP	
	R1-07	12+44DI	1	1	SPEED LIMIT 25 MPH	
	R1-08	140+97	1	1	SPEED LIMIT 40 MPH	
	R1-09	140+97	1	---	NO PARKING ANYTIME	SAME POST AS R1-08
	R1-10	140+95	1	1	SPEED LIMIT 40 MPH	
	R1-11	140+95	1	---	NO PARKING ANYTIME	
	R1-12	15+25DI	1	1	PEDESTRIAN CROSSING	
	R2-01	148+12	2	1	WEST STH 33	
	R2-02	148+38	1	1	SPEED LIMIT 40 MPH	
	R2-03	148+38	1	---	NO PARKING ANYTIME	SAME POST AS R2-02
	R2-04	10+73H	1	1	NO PARKING ANYTIME	
	R2-05	11+18H	1	1	NO PARKING ANYTIME	
	R2-06	11+18H	1	---	NO OUTLET	
	R2-07	11+00H	1	1	SPEED LIMIT 25 MPH	
	R2-08	10+33H	1	1	STOP	
	R2-09	149+46	1	1	PEDESTRIAN CROSSING	
	R2-10	149+46	1	---	AHEAD	SAME POST AS R2-09
	R2-11	149+12	1	1	SPEED LIMIT 40 MPH	
	R2-12	149+12	1	---	NO PARKING ANYTIME	SAME POST AS R2-11
	R2-13	153+77	1	1	SPEED LIMIT 40 MPH	
	R2-14	153+77	1	---	NO PARKING ANYTIME	SAME POST AS R2-13
	R2-15	153+44	1	1	SCHOOL SPEED LIMIT 20 MPH	
	R2-16	156+06	1	1	PEDESTRIAN CROSSING	
	R2-17	156+06	1	---	ARROW	SAME POST AS R2-16
	R2-18	13+62HA	1	1	SPEED LIMIT 25 MPH	
	R2-19	13+31HA	1	1	NO PARKING ANYTIME	
	R2-20	156+92	1	1	STOP	
	R2-21	156+12	1	1	PEDESTRIAN CROSSING	
	R2-22	156+12	1	---	ARROW	SAME POST AS R2-22
	R2-23	10+72HA	1	1	STOP	
	R2-24	159+53	1	1	SCHOOL SPEED LIMIT 20 MPH	
	R2-25	158+32	1	1	SPEED LIMIT 40 MPH	
	R2-26	158+32	1	---	NO PARKING ANYTIME	SAME POST AS R2-25
	R2-27	161+33	2	1	EAST STH 33	
	R3-01	163+27	1	1	PEDESTRIAN CROSSING	
	R3-02	163+27	1	---	AHEAD	SAME POST AS R3-02
	R3-03	163+26	1	1	SPEED LIMIT 50 MPH	
	R3-04	163+26	1	---	NO PARKING ANYTIME	SAME POST AS R3-03
	R3-05	164+40	1	1	SPEED LIMIT 40 MPH	
	R3-06	164+40	1	---	NO PARKING ANYTIME	SAME POST AS R3-05
	R3-07	171+32	1	1	SPEED LIMIT 50 MPH	
	R3-08	171+32	1	---	NO PARKING ANYTIME	SAME POST AS R3-07
	R3-09	171+32	1	1	SPEED LIMIT 50 MPH	
	R3-10	171+32	1	---	NO PARKING ANYTIME	SAME POST AS R3-09
	R4-01	181+70	1	1	CAUTION BLIND DRIVEWAY	
	R4-02	185+47	1	1	SPEED LIMIT 50 MPH	
	R4-03	185+47	1	---	NO PARKING ANYTIME	SAME POST AS R4-02
	R4-04	185+44	1	1	SPEED LIMIT 50 MPH	
	R4-05	185+44	1	---	NO PARKING ANYTIME	SAME POST AS R4-04
	R5-01	199+98	1	1	SPEED LIMIT 50 MPH	
	R5-02	199+98	1	---	NO PARKING ANYTIME	SAME POST AS R5-01
	R5-03	199+98	1	1	SPEED LIMIT 50 MPH	
	R5-04	199+98	1	---	NO PARKING ANYTIME	SAME POST AS R5-03
	R6-01	11+38S	1	1	SPEED LIMIT 25 MPH	
	R6-02	11+38S	1	---	WEIGHT LIMIT 7 TONS	SAME POST AS R6-01
	R6-03	11+59S	1	1	NO OUTLET	
	R6-04	10+66S	1	1	STOP	
	R6-05	211+77	1	1	SPEED LIMIT 50 MPH	
	R6-06	211+77	1	---	NO PARKING ANYTIME	SAME POST AS R6-06
	R6-07	212+08	1	1	STOP	
	R6-08	214+49	2	1	WEST STH 33	
	R6-09	212+32	1	1	SPEED LIMIT 55 MPH	
	R6-10	212+32	1	---	NO PARKING ANYTIME	SAME POST AS R6-09
TOTAL PROJECT 5120-07-71			71	45		

CATEGORY	SIGN NO.	STATION	EACH	EACH	MESSAGE	REMARKS
0010	R6-11	218+03	1	1	ST JOSEPH, CASHTON	
	R6-12	218+03	1	---	NO PARKING ANYTIME	SAME POST AS R6-11
	R6-13	11+28HO	1	1	NO OUTLET	
	R6-14	11+00HO	1	1	SPEED LIMIT 25 MPH	
	R6-15	10+46HO	1	1	STOP	
	R6-16	219+84	2	1	EAST STH 33	
	R6-17	219+84	1	---	NO PASSING ZONE	SAME POST AS R6-16
	R7-01	222+04	1	1	REDUCED SPEED AHEAD 50 MPH	
	R7-02	10+31I	1	1	STOP	
	R7-03	225+24	1	1	NO PARKING ANYTIME	
	R7-04	229+18	1	1	SLOWER TRAFFIC KEEP RIGHT	
	R8-01	0+50N	1	1	STOP	
	R8-02	250+30	1	2	84TH DIVISION RAILSPLITTERS MEMORIAL HIGHWAY	
	R11-01	284+99	2	1	JCT CTH F	
	R11-02	287+62	1	1	STOP	
	R11-03	287+77	1	1	NO PASSING ZONE	
	R11-04	289+83	1	1	GRANDAD BLUFF	
	R11-05	294+48	1	1	RIGHT LANE ENDS	
	R11-06	295+27	2	1	CTH F, LEFT ARROW	
	R11-07	296+30	2	1	CTH F, RIGHT ARROW	

CONTINUED IN NEXT COLUMN

CONTINUED FROM PREVIOUS COLUMN

REMOVING SIGNS

CATEGORY	SIGN NO.	STATION	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	MESSAGE	REMARKS
	R11-08	0+53F	2	1	STH 33, ARROWS	
	R11-09	0+55F	1	1	STOP	
	R11-10	0+85F	1	1	SPEED LIMIT 35 MPH	
	R11-11	0+85F	1	1	CTH F	
	R12-01	298+49	1	1	RIGHT LANE ENDS, MERGE LEFT	
	R12-02	298+49	1	---	GRANDAD BLUFF	SAME POST AS R12-01
	R12-03	298+54	1	1	RIGHT LANE ENDS, MERGE LEFT	
	R12-04	300+98	1	1	ONCOMING TRAFFIC USES CENTER LANE	
	R12-05	306+72	2	1	JCT CTH F	
	R12-06	0+45FR	1	1	STOP	
	R13-01	316+40	2	1	TRUCK DECLINE, 7% GRADE	
TOTAL PROJECT 5120-07-72			38	29		

TRAFFIC CONTROL ITEMS

CATEGORY	STATION	DAYS	643.0300 TRAFFIC CONTROL DRUMS EACH	643.0300 TRAFFIC CONTROL DRUMS DAYS	643.0410 TRAFFIC CONTROL BARRICADES TYPE II EACH	643.0410 TRAFFIC CONTROL BARRICADES TYPE II DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	649.0200 TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH LF
0010	TRAFFIC CONTROL DETAIL 1	207	---	---	---	---	2	414	4	828	---
	TRAFFIC CONTROL DETAIL 5	207	---	---	---	---	2	414	4	828	---
	TRAFFIC CONTROL DETAIL 6	207	---	---	---	---	2	414	4	828	---
	128+30	207	7	1,449	---	---	8	1,656	8	1,656	---
	DRIVE-IN ROAD	207	---	---	---	---	2	414	2	414	---
	HIAWATHA AVE.	207	---	---	1	207	2	414	2	414	---
	HAGEN ROAD	207	---	---	1	207	2	414	2	414	---
	WEDGEWOOD	207	---	---	1	207	2	414	2	414	---
	SOUTHDALE DRIVE	207	---	---	1	207	2	414	2	414	---
	BOMA ROAD	207	---	---	1	207	2	414	2	414	---
	EAGLE POINT DRIVE	207	---	---	1	207	2	414	2	414	---
	132+50 - 217+00 STAGE 1	207	125	25,875	---	---	42	8,694	84	17,388	16,900
	132+50 - 217+00 STAGE 2	207	125	25,875	---	---	42	8,694	84	17,388	16,900
	UNDISTRIBUTED	207	50	10,350	---	---	20	4,140	40	8,280	3,000
TOTAL PROJECT 5120-07-71				63,549		1,242		27,324		50,094	36,800

CATEGORY	STATION	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	LF
0010	327+85 STAGE 1	54	---	---	---	---	2	108	4	216	---
	LOST RIDGE ROAD	54	---	---	---	---	1	54	2	108	---
	295+66 STAGE 2	153	7	1,071	---	---	8	1,224	8	1,224	---
	HORSESHOE PLACE	207	---	---	1	207	2	414	2	414	---
	IRISH COURT	207	---	---	1	207	2	414	2	414	---
	NORSEMAN ROAD	207	---	---	1	207	2	414	2	414	---
	KNOBLOCH ROAD	207	---	---	1	207	2	414	2	414	---
	CTH F	207	---	---	1	207	2	414	2	414	---
	FOREST RIDGE DRIVE	207	---	---	1	207	2	414	2	414	---
	217+00 - 243+00 STAGE 1	207	45	9,315	---	---	24	4,968	48	9,936	5,200
	217+00 - 243+00 STAGE 2	207	45	9,315	---	---	24	4,968	48	9,936	5,200
	287+00 - 312+50 STAGE 1	54	60	3,240	---	---	18	972	36	1,944	5,100
	287+00 - 295+66 STAGE 2	153	20	3,060	---	---	6	918	12	1,836	1,732
	UNDISTRIBUTED	207	20	4,140	---	---	5	1,035	10	2,070	1,500
TOTAL PROJECT 5120-07-72				30,141		1,242		16,731		29,754	18,732

TRAFFIC CONTROL SIGNS

CATEGORY	STATION	LOCATION	DAYS	TRAFFIC CONTROL SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAYS	TRAFFIC CONTROL DETOUR SIGNS EACH	643.3000 TRAFFIC CONTROL DETOUR SIGNS DAYS	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	TRAFFIC CONTROL SIGNS PCMS EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS DAYS
0010		TRAFFIC CONTROL DETAIL 1	207	---	---	35	7,245	---	2	414
	WIS 35	BETWEEN DETAIL 1 & 2	207	---	---	6	1,242	---	---	---
		TRAFFIC CONTROL DETAIL 2	207	---	---	33	6,831	---	---	---
	US 14/US 61	TRAFFIC CONTROL DETAIL 3	207	---	---	48	9,936	---	---	---
	US 14/US 61	NEAR CTH GG	207	---	---	6	1,242	---	---	---
		TRAFFIC CONTROL DETAIL 4	207	---	---	39	8,073	---	---	---
	WIS 27	WESTBY - NEWRY	207	---	---	12	2,484	---	---	---
	WIS 27	NORTH OF NEWRY	207	---	---	6	1,242	---	---	---
		TRAFFIC CONTROL DETAIL 5	207	---	---	27	5,589	3	---	---
		TRAFFIC CONTROL DETAIL 6	207	---	---	32	6,624	---	2	414
	113+80 - 123+80	BEGINNING OF PROJECT	207	3	621	---	---	---	---	---
	128+30	BEGINNING OF PROJECT	207	2	414	---	---	---	---	---
		DRIVE-IN ROAD	207	3	621	---	---	---	---	---
		HIAWATHA AVE.	207	4	828	---	---	---	---	---
		HAGEN ROAD	207	4	828	---	---	---	---	---
		WEDGEWOOD	207	4	828	---	---	---	---	---
		SOUTHDALE DRIVE	207	4	828	---	---	---	---	---
		BOMA ROAD	207	4	828	---	---	---	---	---
		EAGLE POINT DRIVE	207	4	828	---	---	---	---	---
		W06-3 & W013-1 SIGNS	207	18	3,726	---	---	---	---	---
		UNDISTRIBUTED	207	16	3,312	---	---	---	2	414
		TOTAL PROJECT 5120-07-71			13,662		50,508	3		1,242

CATEGORY	STATION	LOCATION	DAYS	EACH	DAYS	EACH	DAYS	EACH	EACH	DAYS
0010	327+85	END PROJECT - STAGE 1	54	1	54	---	---	---	---	---
	332+80	END PROJECT - STAGE 1	54	1	54	---	---	---	---	---
	337+83	END PROJECT - STAGE 1	54	1	54	---	---	---	---	---
		LOST RIDGE ROAD	54	2	108	---	---	---	---	---
		HORSESHOE PLACE	207	4	828	---	---	---	---	---
		IRISH COURT	207	4	828	---	---	---	---	---
		NORSEMAN ROAD	207	4	828	---	---	---	---	---
		KNOBLOCH ROAD	207	4	828	---	---	---	---	---
		CTH F	207	4	828	---	---	---	---	---
		FOREST RIDGE DRIVE	207	4	828	---	---	---	---	---
	295+66	END PROJECT - STAGE 2	153	3	459	---	---	---	---	---
		ORANGE SPEED LIMIT SIGNS	207	3	621	---	---	---	---	---
		UNDISTRIBUTED	207	8	1,656	---	---	---	---	---
		TOTAL PROJECT 5120-07-72			7,974		0	0		0

TRAFFIC CONTROL DETOUR

CATEGORY		LOCATION	643.2000 TRAFFIC CONTROL DETOUR 5120-07-71 EACH
0010	STH 33	US 14/US 61 TO WIS 27	1
		TOTAL PROJECT 5120-07-71	1

PAVEMENT MARKING

CATEGORY	STATION - STATION	LOCATION	646.0106 PAVEMENT MARKING EPOXY 4-INCH WHITE LF	646.0106 PAVEMENT MARKING EPOXY 4-INCH YELLOW LF	646.0126 PAVEMENT MARKING EPOXY 8-INCH WHITE LF	647.0166 PAVEMENT MARKING ARROWS EPOXY TYPE 2 EACH	647.0176 PAVEMENT MARKING ARROWS EPOXY TYPE 3 EACH	647.0356 PAVEMENT MARKING WORDS EPOXY EACH	647.0566 PAVEMENT MARKING STOP LINE EPOXY 18-INCH WHITE LF	647.0606 PAVEMENT MARKING ISLAND EPOXY NOSE YELLOW EACH	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH YELLOW LF	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH WHITE LF	647.0776 PAVEMENT MARKING CROSSWALK EPOXY 12-INCH LF	647.0856 PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY SF
0010	126+26 - 127+76	RT	150	---	150	2	---	1	11	---	---	---	---	---
	127+00 - 127+57	RT	---	---	57	1	---	---	23	---	---	---	---	---
	128+48 - 128+82	RT	24	68	---	---	---	---	---	---	35	---	224	---
	129+23 - 148+46	RT EDGELINE	2,208	---	---	---	---	---	---	---	---	32	---	---
	128+40 - 129+90	LT	---	---	150	2	---	1	12	---	---	---	---	---
	131+03 - 157+15	MEDIAN	---	5,398	---	---	---	---	---	---	---	---	---	---
	132+50 - 154+35	MEDIAN SKIPS	---	1,088	---	---	---	---	---	---	---	---	---	---
	131+17 - 157+19	LT EDGELINE	2,605	---	---	---	---	---	---	---	---	---	---	---
	133+85	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	137+85	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	141+85	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	145+85	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	147+46 - 148+46	RT TURN LANE	---	---	100	1	---	---	---	---	---	---	---	---
	149+55 - 157+15	RT EDGELINE	756	---	---	---	---	---	---	---	---	---	---	---
	149+85	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	153+85	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	154+35 - 155+80	MEDIAN	---	---	---	---	---	---	---	---	60	---	---	---
	155+12 - 157+15	RT TURN LANE	---	---	200	2	---	1	---	---	---	---	---	---
	155+52 - 156+15	LT TURN LANE	---	---	126	---	---	---	---	---	---	---	---	---
	156+32	LT TURN LANE	---	---	---	1	---	---	---	---	---	---	---	---
	156+90	LT TURN LANE	---	---	---	1	---	---	---	---	---	---	---	---
	156+11	MEDIAN	---	---	---	---	---	---	---	1	---	---	---	---
	156+11 - 157+18	MEDIAN	---	---	---	---	---	---	---	---	---	---	---	260
	157+18	MEDIAN	---	---	---	---	---	---	---	1	---	---	---	---
	157+15	RT & LT	---	---	---	---	---	---	37	---	---	---	---	---
	157+22	RT & LT	---	---	---	---	---	---	---	---	---	---	145	---
	10+65HA	RT	---	---	---	---	---	---	22	---	---	---	---	---
	10+72HA	RT & LT	---	---	---	---	---	---	---	---	---	---	140	---
	10+74HA	LT	---	---	---	---	---	---	27	---	---	---	---	---
	10+74HA - 12+70HA	RT TURN LANE	---	---	100	---	---	---	---	---	---	---	---	---
	10+74HA - 13+00HA	CENTERLINE	---	452	---	---	---	---	---	---	---	---	---	---
	12+00HA	LT	---	---	---	1	1	---	---	---	---	---	---	---
	158+40	MEDIAN	---	---	---	---	---	---	---	1	---	---	---	---
	160+42	MEDIAN	---	---	---	---	---	---	---	1	---	---	---	---
	158+40 - 160+42	MEDIAN	---	---	---	---	---	---	---	---	---	---	---	490
	158+42 - 208+94	RT EDGELINE	5,062	---	---	---	---	---	---	---	---	---	---	---
	158+44 - 213+47	LT EDGELINE	5,498	---	---	---	---	---	---	---	---	---	---	---
	158+44 - 209+25	MEDIAN	---	10,496	---	---	---	---	---	---	---	---	---	---
	158+44	RT & LT	---	---	---	---	---	---	23	---	---	---	---	---
	158+44 - 162+68	MEDIAN	---	---	---	---	---	---	---	---	55	---	---	---
	158+67 - 160+20	LT TURN LANE	---	---	---	2	---	1	---	---	---	---	---	---
	160+38 - 161+18	LT TURN LANE	---	---	160	---	---	---	---	---	---	---	---	---
	162+68 - 209+25	MEDIAN SKIPS	---	2,325	---	---	---	---	---	---	---	---	---	---
	163+85	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	167+85	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	171+85	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	175+85	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	179+85	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	183+85	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	187+85	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	191+85	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	195+85	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	199+30	RT & LT	---	---	---	---	---	---	---	1	---	---	---	---
	199+47	RT & LT	---	---	---	---	---	---	---	---	---	---	72	---
	199+65	RT & LT	---	---	---	---	---	---	---	1	---	---	---	---
	200+50	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	203+85	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	207+85	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	206+94 - 208+94	RT TURN LANE	---	---	200	2	---	1	---	---	---	---	---	---
	10+56S	RT & LT	---	---	---	---	---	---	---	---	---	---	100	---
	10+63S	LT	---	---	---	---	---	---	18	---	---	---	---	---
	210+06	RT & LT	---	---	---	---	---	---	---	---	---	---	125	---
	210+09 - 211+50	LT TURN LANE	---	---	140	2	---	1	---	---	---	---	---	---
	210+09 - 213+50	MEDIAN	---	684	---	---	---	---	---	2	---	---	---	540
	212+00 - 213+50	LT TURN LANE	---	---	150	2	---	1	---	---	---	---	---	---
	210+21 - 217+00	RT EDGELINE	675	---	---	---	---	---	---	---	---	---	---	---
	214+72 - 215+72	RT TURN LANE	---	---	100	1	---	---	---	---	---	---	---	---
	215+50	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	214+72 - 217+00	LT EDGELINE	231	---	---	---	---	---	---	---	---	---	---	---
	214+72 - 217+00	MEDIAN	---	470	---	---	---	---	---	---	---	---	---	---
	214+72 - 217+00	MEDIAN SKIPS	---	114	---	---	---	---	---	---	---	---	---	---
		SUB-TOTALS	17,209	21,095	1,633	58	1	7	173	8	150	32	806	1,290
	TOTAL PROJECT 5120-07-71		38,304		1,633	58	1	7	173	8	182		806	1,290

CATEGORY	STATION - STATION	LOCATION	LF	LF	LF	EACH	EACH	EACH	LF	EACH	LF	LF	LF	SF
0010	219+50	MEDIAN	---	---	---	2	---	---	---	---	---	---	---	---
	219+04 - 220+04	RT TURN LANE	---	---	100	1	---	---	---	---	---	---	---	---
	217+00 - 224+85	LT EDGELINE	787	---	---	---	---	---	---	---	---	---	---	---
	217+00 - 220+04	RT EDGELINE	302	---	---	---	---	---	---	---	---	---	---	---
	217+00 - 220+22	MEDIAN	---	658	---	---	---	---	---	---	---	---	---	---
	217+00 - 220+22	MEDIAN SKIPS	---	161	---	---	---	---	---	---	---	---	---	---
	221+08 - 222+08	LT TURN LANE	---	---	100	1	---	---	---	---	---	---	---	---
	221+08 - 224+89	MEDIAN	---	771	---	---	---	---	---	---	76	---	---	---
	221+32 - 236+22	RT EDGELINE	1,492	---	---	---	---	---	---	---	---	---	---	---
	223+89 - 224+89	LT TURN LANE	---	---	100	1	---	---	---	---	---	---	---	---
	225+75 - 228+50	MEDIAN	---	1,115	---	---	---	---	---	---	127	---	---	---
	226+16 - 227+16	RT TURN LANE	---	---	100	1	---	---	---	---	---	---	---	---
	226+16 - 295+02	LT EDGELINE	6,888	---	---	---	---	---	---	---	---	---	---	---
	228+50 - 286+25	MEDIAN	---	11,908	---	---	---	---	---	---	21	---	---	---
	228+50 - 286+25	SKIPS	1,445	---	---	---	---	---	---	---	---	---	---	---

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PAVEMENT MARKING FOR BIKE LANES

CATEGORY	STATION	LOCATION	647.0206 PAVEMENT MARKING ARROWS BIKE LANE EPOXY EACH	647.0306 PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY EACH
0080	133+00	RT	---	1
	133+06	RT	1	---
	140+94	LT	1	---
	141+00	RT & LT	---	2
	141+06	RT	1	---
	147+94	LT	1	---
	148+00	LT	---	1
	150+50	RT	---	1
	150+56	RT	1	---
	155+94	LT	1	---
	156+00	LT	---	1
	159+75	RT	---	1
	159+81	RT	1	---
	166+94	LT	1	---
	167+00	RT & LT	---	2
	167+06	RT	1	---
	173+94	LT	1	---
	174+00	RT & LT	---	2
	174+06	RT	1	---
	179+44	LT	1	---
	179+50	LT	---	1
	181+00	RT	---	1
	181+06	RT	1	---
	186+94	LT	1	---
	187+00	LT	---	1
	188+00	RT	---	1
	188+06	RT	1	---
	192+44	LT	1	---
	192+50	LT	---	1
	195+00	RT	---	1
	195+06	RT	1	---
	202+69	LT	1	---
	202+75	RT & LT	---	2
	202+81	RT	1	---
	211+00	RT	---	1
	211+06	RT	1	---
	211+94	LT	1	---
	212+00	LT	---	1
TOTAL CATEGORY 0080 PROJECT 5120-07-71			21	21

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PAVEMENT MARKING

CATEGORY	STATION - STATION	LOCATION	646.0106 PAVEMENT MARKING EPOXY 4-INCH WHITE LF	646.0106 PAVEMENT MARKING EPOXY 4-INCH YELLOW LF	646.0126 PAVEMENT MARKING EPOXY 8-INCH WHITE LF	647.0166 PAVEMENT MARKING ARROWS EPOXY TYPE 2 EACH	647.0176 PAVEMENT MARKING ARROWS EPOXY TYPE 3 EACH	647.0356 PAVEMENT MARKING WORDS EPOXY EACH	647.0566 PAVEMENT MARKING STOP LINE EPOXY 18-INCH WHITE LF	647.0606 PAVEMENT MARKING ISLAND EPOXY NOSE YELLOW EACH	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH YELLOW LF	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH WHITE LF	647.0776 PAVEMENT MARKING CROSSWALK EPOXY 12-INCH LF	647.0856 PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY SF
	284+56	MEDIAN	---	---	---	---	---	---	---	1	---	---	---	---
	284+63 - 286+16	MEDIAN	---	---	---	---	---	---	---	---	---	---	---	700
	286+25	MEDIAN	---	---	---	---	---	---	---	1	---	---	---	---
	235+22 - 236+22	RT TURN LANE	---	---	100	1	---	---	---	---	---	---	---	---
	237+60 - 286+14	RT EDGELINE	4,855	---	---	---	---	---	---	---	---	---	---	---
	287+48 - 310+08	RT EDGELINE	2,262	---	---	---	---	---	---	---	---	---	---	---
	287+50 - 294+89	MEDIAN	---	1,465	---	---	---	---	---	---	---	---	---	---
	287+50	MEDIAN	---	---	---	---	---	---	---	1	---	---	---	---
	287+58 - 294+82	MEDIAN	---	---	---	---	---	---	---	---	---	---	---	1,185
	294+96	MEDIAN	---	---	---	---	---	---	---	1	---	---	---	---
	287+50 - 290+45	LT TURN LANE	---	---	295	3	---	2	---	---	---	---	---	---
	287+50 - 310+08	SKIPS	565	---	---	---	---	---	---	---	---	---	---	---
	291+96 - 294+96	LT TURN LANE	---	---	300	3	---	2	---	---	---	---	---	---
	0+44F	LT	---	---	---	---	---	---	30	---	---	---	---	---
	0+44F - 1+86F	CENTERLINE	---	284	---	---	---	---	---	---	---	---	---	---
	0+73F - 1+86F	RT EDGELINE	114	---	---	---	---	---	---	---	---	---	---	---
	0+79F - 1+86F	LT EDGELINE	107	---	---	---	---	---	---	---	---	---	---	---
	296+28 - 318+12	LT EDGELINE	2,184	---	---	---	---	---	---	---	---	---	---	---
	296+28 - 298+27	RT TURN LANE	---	---	200	2	---	1	---	---	---	---	---	---
	296+66	MEDIAN	---	---	---	---	---	---	---	1	---	---	---	---
	296+81 - 298+95	MEDIAN	---	---	---	---	---	---	---	---	---	---	---	1,050
	296+78 - 318+12	MEDIAN	---	4,270	---	---	---	---	---	---	---	---	---	---
	299+08	MEDIAN	---	---	---	---	---	---	---	1	---	---	---	---
	309+09 - 310+08	RT TURN LANE	---	---	100	1	---	---	---	---	---	---	---	---
	311+45 - 317+93	SKIPS	162	---	---	---	---	---	---	---	---	---	---	---
	311+45 - 327+37	RT EDGELINE	1,592	---	---	---	---	---	---	---	---	---	---	---
		SUB-TOTALS	22,755	20,632	1,395	16	0	5	30	6	224	0	0	2,935
	TOTAL PROJECT 5120-07-72		43,387		1,395	16	0	5	30	6	224	0	0	2935

**ADDITIONAL QUANTITIES LISTED ELSEWHERE

CONSTRUCTION STAKING

CATEGORY	STATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	132+50 - 217+00	8,450	8,450
	10+75DI - 17+00I	200	625
	10+33.18H - 11+26.12H	93	93
	9+29.52HA - 15+75.00HA	155	580
	199+45.40SW - 203+73.64SW	430	430
	10+30S - 12+00S	170	170
	10+30B - 12+75B	245	245
	20+00EP - 21+35EP	135	135
	TOTAL PROJECT 5120-07-71	9,878	10,728

CATEGORY	STATION	LF	LF
0010	217+00 - 327+36.79	11,037	11,037
	10+30HO - 11+50HO	120	120
	10+30I - 12+00I	170	170
	0+30N - 2+65.13N	235	235
	20+07P - 20+62P	55	55
	10+50K - 13+00K	250	250
	0+30F - 1+80.67F	151	151
	0+30FR - 2+79.39FR	250	250
	TOTAL PROJECT 5120-07-72	12,268	12,268

OVERHEAD SIGN

CATEGORY	STATION	** 654.0110 CONCRETE BASES TYPE 10 EACH	657.1345 INSTALL POLES TYPE 9 EACH	657.1515 INSTALL MONOTUBE ARMS 15-FT EACH	DESCRIPTION
0010	125+50	1	1	1	S-32-0045
TOTAL PROJECT 5120-07-71		1	1	1	

** ADDITIONAL QUANTITIES LISTED ELSEWHERE

ENERGY DISSIPATOR

CATEGORY	STATION	LOCATION	SPV.0060.04 ENERGY DISSIPATOR EACH	** 650.4000 CONSTRUCTION STAKING STORM SEWER EACH
0010	285+25	RT	1	1
	TOTAL PROJECT 5120-07-72		1	1

** ADDITIONAL QUANTITIES LISTED ELSEWHERE

REMOVING PAVEMENT MARKING

CATEGORY	STATION	LOCATION	SPV.0090.01 REMOVING PAVEMENT MARKINGS WATER BLASTING LF
0010	128+53.82 - 132+50.00	RT	932
	131+25 - 132+50	LT	125
	TOTAL PROJECT 5120-07-71		1057

CATEGORY	STATION	LOCATION	LF
0010	318+06.88 - 327+36.79	EDGELINE	930
	TOTAL PROJECT 5120-07-72		930

SAWING PAVEMENT ITEMS

CATEGORY	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
0010	131+46	SIDEWALK LT	6	---
	132+50	BEGINNING OF PROJECT	---	44
	16+50DI	ROADWAY	27	---
	11+26H	ROADWAY	28	---
	149+00	DRIVEWAY LT	12	---
	150+08	DRIVEWAY LT	22	---
	150+80	DRIVEWAY RT	18	---
	151+00	DRIVEWAY LT	12	---
	151+50	DRIVEWAY RT	35	---
	152+60	DRIVEWAY RT	16	---
	153+47	DRIVEWAY LT	22	---
	153+87	DRIVEWAY RT	---	16
	9+30HA	ROADWAY	22	---
	10+43HA	DRIVEWAY LT	13	---
	10+58HA	VALLEY PARKWAY	18	---
	15+75HA	ROADWAY	32	---
	15+75HA	SIDEWALK RT	---	6
	159+31	DRIVEWAY RT	31	---
	161+60	DRIVEWAY LT	13	---
	162+63	DRIVEWAY RT	34	---
	164+10	DRIVEWAY LT	12	---
	164+59	DRIVEWAY RT	21	---
	165+29	DRIVEWAY LT	12	---
	165+62	DRIVEWAY LT	16	---
	166+67	DRIVEWAY RT	29	---
	168+40	DRIVEWAY RT	---	18
	170+41	DRIVEWAY RT	17	---
	171+08	DRIVEWAY LT	15	---
	172+55	DRIVEWAY LT	32	---
	173+66	DRIVEWAY LT	18	---
	175+06	DRIVEWAY LT	16	---
	176+55	DRIVEWAY LT	16	---
	176+87	DRIVEWAY LT	27	---
	177+73	DRIVEWAY LT	19	---
	180+42	DRIVEWAY LT	13	---
	180+52	DRIVEWAY RT	60	---
	183+68	DRIVEWAY LT	22	---
	193+31	DRIVEWAY RT	28	---
	194+40	DRIVEWAY RT	30	---
	197+44	DRIVEWAY LT	14	---
	198+58	DRIVEWAY LT	22	---
	200+93	DRIVEWAY LT	40	---
	201+39	DRIVEWAY LT	33	---
	202+29	DRIVEWAY LT	---	13
	203+15	DRIVEWAY LT	29	---
	204+34	DRIVEWAY LT	28	---
	205+17	DRIVEWAY LT	---	11
	206+63	DRIVEWAY LT	16	---
	208+00	DRIVEWAY LT	15	---
	209+54	DRIVEWAY LT	16	---
	12+00S	ROADWAY	32	---
	12+00S	SIDEWALK RT	---	5
	210+78	DRIVEWAY LT	14	---
	213+42	DRIVEWAY RT	23	---
	20+00EP	ROADWAY	33	---
	12+75B	ROADWAY	20	---
	216+63	DRIVEWAY LT	---	12
	132+50 - 217+00	TRAFFIC CONTROL	---	8400
	UNDISTRIBUTED	STORM SEWER	---	600
	UNDISTRIBUTED		100	150
	TOTAL PROJECT 5120-07-71		1,193	9,275

CATEGORY	STATION	LOCATION	LF	LF
0010	220+00	DRIVEWAY LT	22	---
	11+50HO	ROADWAY	26	---
	12+00I	ROADWAY	18	---
	11+09.16I	DRIVEWAY RT	---	18
	2+65.13N	ROADWAY	21	---
	2+00N	DRIVEWAY LT	16	---
	2+50N	DRIVEWAY LT	16	---
	243+07	DRIVEWAY LT	33	---
	13+00K	ROADWAY	16	---
	295+41	DRIVEWAY RT	15	---
	1+80.67F	ROADWAY	24	---
	2+79.39FR	ROADWAY	25	---
	318+06.88	ROADWAY	29	---
	318+06.88 - 327+36.7	ALONG EDGELINE	928	---
	327+36.79	SHOULDER	5	---
	217+00 - 243+00	TRAFFIC CONTROL	---	2600
	287+00 - 312+50	TRAFFIC CONTROL	---	2550
	UNDISTRIBUTED		200	500
	TOTAL PROJECT 5120-07-72		1,394	5,668

Pull Boxes

Category	Station	Dir	Location	653.0135 Pull Boxes Steel 24"x36 EACH	653.0140 Pull Boxes Steel 24"x42" EACH	Description
0010	158 + 27	RIGHT	48		1.0	PB1
0010	157 + 29	RIGHT	52		1.0	PB2
0010	155 + 70	RIGHT	38	1.0		PB3
0010	154 + 4	RIGHT	28	1.0		PB4
0010	157 + 35	LEFT	35		1.0	PB5
0010	158 + 32	LEFT	41		1.0	PB6
0010	159 + 79	LEFT	30	1.0		PB7
0010	161 + 47	LEFT	29	1.0		PB8
0010	158 + 33	RIGHT	43		1.0	PB9
0010	156 + 28	LEFT	26	1.0		PB10
0010	154 + 87	LEFT	26	1.0		PB11
0010	152 + 38	LEFT	26	1.0		PB12
0010	149 + 89	LEFT	26	1.0		PB13
0010	147 + 39	LEFT	26	1.0		PB14
0010	144 + 91	LEFT	26	1.0		PB15
0010	142 + 42	LEFT	26	1.0		PB16
0010	139 + 94	LEFT	26	1.0		PB17
0010	137 + 45	LEFT	26	1.0		PB18
0010	134 + 95	LEFT	26	1.0		PB19
0010	132 + 49	LEFT	26	1.0		PB20
			Total	**15**	**5**	

Signal Bases

Category	Station	Dir	Location	654.0101 Concrete Bases Type 1 EACH	654.0110 Concrete Bases Type 10 EACH	654.0113 Concrete Bases Type 13 EACH	Description
0010	158 + 15	RIGHT	54	1			SB1
0010	157 + 34	RIGHT	58		1		SB2
0010	157 + 16	RIGHT	44	1			SB3
0010	157 + 16	LEFT	34			1	SB4
0010	157 + 53	LEFT	49	1			SB5
0010	158 + 22	LEFT	42		1		SB6
0010	158 + 41	RIGHT	39			1	SB7
			Total	**3**	**2**	**2**	

Electrical Conduit

Category	Station	to	Station	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch LF	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch LF	652.0800 Conduit Loop Detector LF	Description
0010	161 + 47					42	LOOP 21 - PB8
0010	154 + 4					38	LOOP 61 - PB4
0010	158 + 27	to	158 000 + 15	14			PB1 to SB1
0010	157 + 29	to	157 000 + 34	8			PB2 to SB2
0010	157 + 29	to	155 000 + 70	160			PB2 to PB3
0010	155 + 70	to	154 000 + 04	167			PB3 to PB4
0010	157 + 29	to	157 000 + 16	15			PB2 to SB3
0010	157 + 35	to	157 000 + 16	20			PB5 to SB4
0010	157 + 35	to	157 000 + 53	24			PB5 to SB5
0010	158 + 32	to	158 000 + 22	11			PB6 to SB6
0010	158 + 32	to	159 000 + 79	148			PB6 to PB7
0010	159 + 79	to	161 000 + 47	168			PB7 to PB8
0010	158 + 33	to	158 000 + 41	9			PB9 to SB7
0010	158 + 39	to	158 000 + 27		38		SC1 to PB1
0010	158 + 27	to	157 000 + 29		197		PB1 to PB2
0010	157 + 29	to	157 000 + 35		174		PB2 to PB5
0010	157 + 35	to	158 000 + 32		195		PB5 to PB6
0010	158 + 32	to	158 000 + 33		168		PB6 to PB9
0010	158 + 33	to	158 000 + 39		33		PB9 to SC1
0010	157 + 35	to	156 000 + 28	108			PB5 to PB10
0010	156 + 28	to	154 000 + 87	142			PB10 to PB11
0010	154 + 87	to	152 000 + 38	249			PB11 to PB12
0010	152 + 38	to	149 000 + 89	250			PB12 to PB13
0010	149 + 89	to	147 000 + 39	250			PB13 to PB14
0010	147 + 39	to	144 000 + 91	249			PB14 to PB15
0010	144 + 91	to	142 000 + 42	250			PB15 to PB16
0010	142 + 42	to	139 000 + 94	248			PB16 to PB17
0010	139 + 94	to	137 000 + 45	249			PB17 to PB18
0010	137 + 45	to	134 000 + 95	250			PB18 to PB19
0010	134 + 95	to	132 000 + 49	246			PB19 to PB20
0010	132 + 49	to	131 000 + 46	104			PB20 to Existing PB1
			Total	**3339.0**	**805.0**	**80.0**	

State Supplied Poles, Arms & Equipment | **FOR INFORMATION ONLY**

Category	Station	Dir	Location	657.1350 Install Poles Type 10 EACH	657.1360 Install Poles Type 13 EACH	SPV.0060.06 Contractor Provided High-Strength Bolt Assemblies for Monotube Arms (Pole Type 9/10) EACH	SPV.0060.07 Contractor Provided High-Strength Bolt Assemblies for Monotube Arms (Pole Type 9/10) EACH	657.1530 Install Monotube Arms 30-FT EACH	657.1535 Install Monotube Arms 35-FT EACH	657.1540 Install Monotube Arms 40-FT EACH	657.1815 Install Luminarie Arms Steel 15-FT EACH	Supplied Pedestal Bases EACH	Supplied Traffic Signal Standard Aluminum 13' EACH	Supplied Traffic Signal Face 3-12 Inch Vertical EACH	Supplied Traffic Signal Face 4-12 Inch Vertical EACH	Supplied Backplates Signal Face 3 section 12-inch EACH	Supplied Backplates Signal Face 4 section 12-inch EACH	Supplied Pedestrian Push Button EACH	Supplied LED Modules Pedestrian Coutdown Timer 16-inch EACH	Supplied Luminaries Utility HPS 250 Watts EACH	Desc
0010	158 + 15	RIGHT	54									1	1	2		2					SB1
0010	157 + 34	RIGHT	58	1		1		1			1			1		1			1	1	SB2
0010	157 + 16	RIGHT	44									1	1	1	1	1	1	1			SB3
0010	157 + 16	LEFT	34		1		1		1		1			2	1	2	1	1	1	1	SB4
0010	157 + 53	LEFT	49									1	1	2		2		1	1		SB5
0010	158 + 22	LEFT	42	1		1		1			1			2	1	2	1	1	1	1	SB6
0010	158 + 41	RIGHT	39		1		1			1	1			2	1	2	1			1	SB7
			Total	**2**	**2**	**2**	**2**	**2**	**1**	**1**	**4**	**3**	**3**	**12**	**4**	**12**	**4**	**4**	**4**	**4**	

Signal Wire

Category	Station	to	Station	655.0210 Cable Traffic Signal 3-14 AWG LF	655.0230 Cable Traffic Signal 5-14 AWG LF	655.0240 Cable Traffic Signal 7-14 AWG LF	655.0260 Cable Traffic Signal 12-14 AWG LF	655.0270 Cable Traffic Signal 15-14 AWG LF	655.0310 Cable Type UF 2-12 AWG LF	655.0515 Elecrtrical Wire Traffic Signals 10 AWG LF	655.0610 Elecrtrical Wire Traffic Lighting 12 AWG LF	655.0700 Loop Dectector Lead in Cable LF	655.0800 Loop Detector Wire LF	Description
0010	161 + 47												136	LOOP 21
0010	154 + 4												124	LOOP 61
0010	158 + 15				36									SB1 - Up Pole
0010	157 + 34			15	58						159			SB2 - Up Pole
0010	157 + 16				36									SB3 - Up Pole
0010	157 + 16			15	71						159			SB4 - Up Pole
0010	157 + 53			15	36									SB5 - Up Pole
0010	158 + 22			15	98						159			SB6 - Up Pole
0010	158 + 41				76						159			SB7 - Up Pole
0010	158 + 39	to	158 + 15				44							SC1 to SB1
0010	158 + 39	to	157 + 34			143								SC1 to SB2
0010	158 + 39	to	157 + 16				150							SC1 to SB3
0010	158 + 39	to	157 + 16				248							SC1 to SB4
0010	158 + 39	to	157 + 35				484							SC1 to PB5
0010	158 + 39	to	158 + 41				37							SC1 to SB7
0010	158 + 39	to	158 + 22					129						SC1 to SB6
0010	158 + 39	to	157 + 34						143					SC1 to SB2
0010	158 + 39	to	157 + 16						248					SC1 to SB4
0010	158 + 39	to	158 + 41						37					SC1 to SB7
0010	158 + 39	to	158 + 22						129					SC1 to SB6
0010	158 + 39	to	158 + 15							44				SC1 to SB1 Grounding Conductor
0010	158 + 39	to	158 + 22							517				SC1 to SB6 Grounding Conductor
0010	158 + 39	to	158 + 41							37				SC1 to SB7 Grounding Conductor
0010	158 + 39	to	158 + 22							129				SC1 to SB6 Grounding Conductor
0010	158 + 27	to	158 + 39							26				PB1 to SC1 Grounding Conductor
0010	157 + 29	to	157 + 34							18				PB2 to SB2 Grounding Conductor
0010	157 + 35	to	157 + 16							30				PB5 to SB4 Grounding Conductor
0010	158 + 32	to	158 + 22							21				PB6 to SB6 Grounding Conductor
0010	158 + 33	to	158 + 39							24				PB9 to SC1 Grounding Conductor
0010	158 + 39	to	154 + 4									470		SC1 to PB4
0010	158 + 39	to	161 + 47									442		SC1 to PB8
0010	158 + 39	to	134 + 95											SC1 to PB19
0010	134 + 95	to	000 + 0											PB19 to Existing SC1
			Total	**60.0**	**411.0**	**143.0**	**963.0**	**129.0**	**557.0**	**846.0**	**636.0**	**912.0**	**260.0**	

Electrical items

Category	Station	Dir	Location	650.8500 Construction Staking Electrical Installations 5120-07-00 LS	658.5069 Signal Mounting Hardware LS	654.0217 Concrete Control Cabinet Bases Type 9 S EACH	Description
0010	158 + 39	RIGHT	52		1	1	SC1
0010	158 + 39	RIGHT	52	1			Project
			Total	**1.0**	**1.0**	**1.0**	

3

Fiber Optic Communicatio

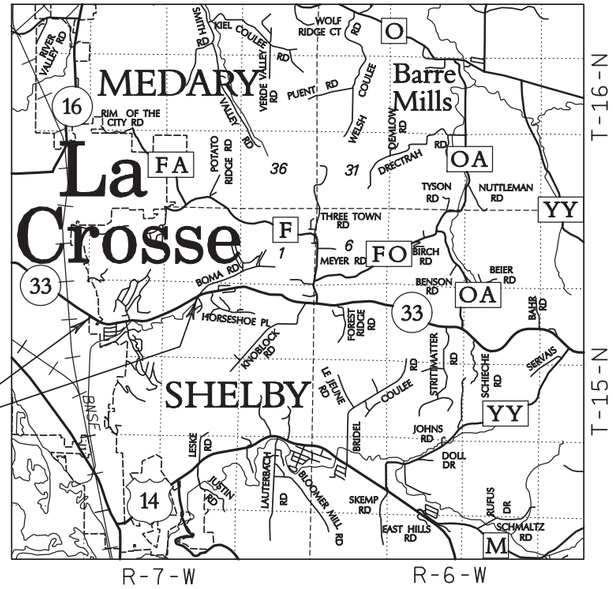
Category	Station	to	Station	678.0200 Fiber Obtic Splice Enclosure EACH	678.0300 Fiber Obtic Splice EACH	SPV.0060.058 - Count Fiber Optic Connector 100-Feet Each	678.0500 Communication System Testing LS	Description
0010	158 + 39	to	134 + 95					SC1 to PB19
0010	134 + 95	to	000 + 0					PB19 to Existing SC1
0010	158 + 39			1	8	1		SC1
0010				1	8	1		Existing SC1
0010	Project						1	Project
			Total	**2.0**	**16.0**	**2.0**	**1.0**	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

TRANSPORTATION PROJECT PLAT TITLE SHEET

PROJECT NO. 5120-07-20
LA CROSSE - CASHTON
32ND STREET - BOMA ROAD
STH 33
LA CROSSE COUNTY





PROJECT LOCATION

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, LA CROSSE COUNTY ZONE, NAD83 (1991) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

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

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

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

N

LAYOUT
SCALE 0 1 MI.

CONVENTIONAL ABBREVIATIONS

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

CURVE DATA

POINT OF INTERSECTION	PI
POINT OF CURVE	PC
POINT OF TANGENCY	PT
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	Δ
LENGTH OF CURVE	L
TANGENT	T
LONG CHORD	LC
LONG CHORD BEARING	LCB

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	⌖ (1" UNLESS NOTED)	PROPOSED R/W LINE	———
		EXISTING R/W LINE	—— —— –
R/W MONUMENT	○ ●(SET)	PROPERTY LINE	——.P.L.——
R/W STANDARD	△ ▲(SET)	EASEMENT LINES	— — — —
SIGN	SIGN	LOT & TIE LINES	--------
SECTION CORNER MONUMENT	◍	CORPORATE LIMITS	
SECTION CORNER SYMBOL		ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)	●●●●●●●●
FEE (HATCH VARIES)		ACCESS RESTRICTED (BY ACQUISITION)	
TEMPORARY LIMITED EASEMENT (TLE)		NO ACCESS (BY STATUTORY AUTHORITY)	●●●●●●●●●●●●
PERMANENT LIMITED EASEMENT (PLE)		SECTION LINE	
R/W POINT MONUMENT	●	QUARTER LINE	
R/W POINT NON-MONUMENTED	○	SIXTEENTH LINE	
R/W BOUNDARY POINT	101	EXISTING CENTERLINE	
PARCEL NUMBER	10	PROPOSED REFERENCE LINE	
UTILITY PARCEL NUMBER	92	PARALLEL OFFSET	
SIGN NUMBER (OFF PREMISE)	21		
BUILDING			
BUILDING TO BE RAZED			

CONVENTIONAL UTILITY SYMBOLS

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

HIGHWAY DESIGNATIONS

COUNTY TRUNK HIGHWAY	#
STATE TRUNK HIGHWAY	#
UNITED STATES HIGHWAY	#
INTERSTATE HIGHWAY	#

PROJECT NUMBER 5120-07-20 - 4.01
SHEET 2 OF 2 OF DOC #1602926
229

FILE NAME : k:\planshts\right of way\5120-07-20\040102_rw.dgn PLOT DATE : 8/6/2012 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

TITLE

TRANSPORTATION PROJECT PLAT NO: 5120-07-20 - 4.01

LA CROSSE - CASHTON

32ND STREET - BOMA ROAD

PART OF LOT 1 OF BLOCK 4 OF THE SHELBY HEIGHTS ADDITION; LOT 2 OF BLOCK 1 OF THE OHLSUN ADDITION TO THE CITY OF LA CROSSE; LOTS 1-3 OF THE GAS HUT ADDITION TO THE TOWN OF SHELBY, IN AND INCLUDING PART OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4; ALSO PART OF LOT 12 OF BLOCK 1 OF THE WEDGEWOOD TERRACE ADDITION; LOTS 7 & 12 OF BLOCK 7 OF THE FIRST ADDITION OF THE WEDGEWOOD TERRACE ADDITION TO THE TOWN OF SHELBY, IN AND INCLUDING THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4; ALSO PART OF LOT 1 OF CSM NO. 148; LOTS 1 & 2 OF BLOCK 1 OF THE WEDGEWOOD TERRACE ADDITION TO THE TOWN OF SHELBY, IN AND INCLUDING PART OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4; ALSO PART OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF THE TOWN OF SHELBY, ALL BEING IN SECTION 10, TOWN 15 NORTH, RANGE 7 WEST, IN LA CROSSE COUNTY, WISCONSIN.

RELOCATION ORDER STH 33, LA CROSSE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

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

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

EXISTING HIGHWAY RIGHT OF WAY BASED ON RIGHT OF WAY PLATS NO. 5358, NO. 5121-1-21 & NO. 5120-03-21, ASSESSOR'S PLATS OF THE TOWN OF SHELBY, FILED PLATS OF SURVEY, AND CERTIFIED SURVEY MAPS OF RECORD AND EXISTING IRONS LOCATED IN THE FIELD.

TLE POINT TABLE

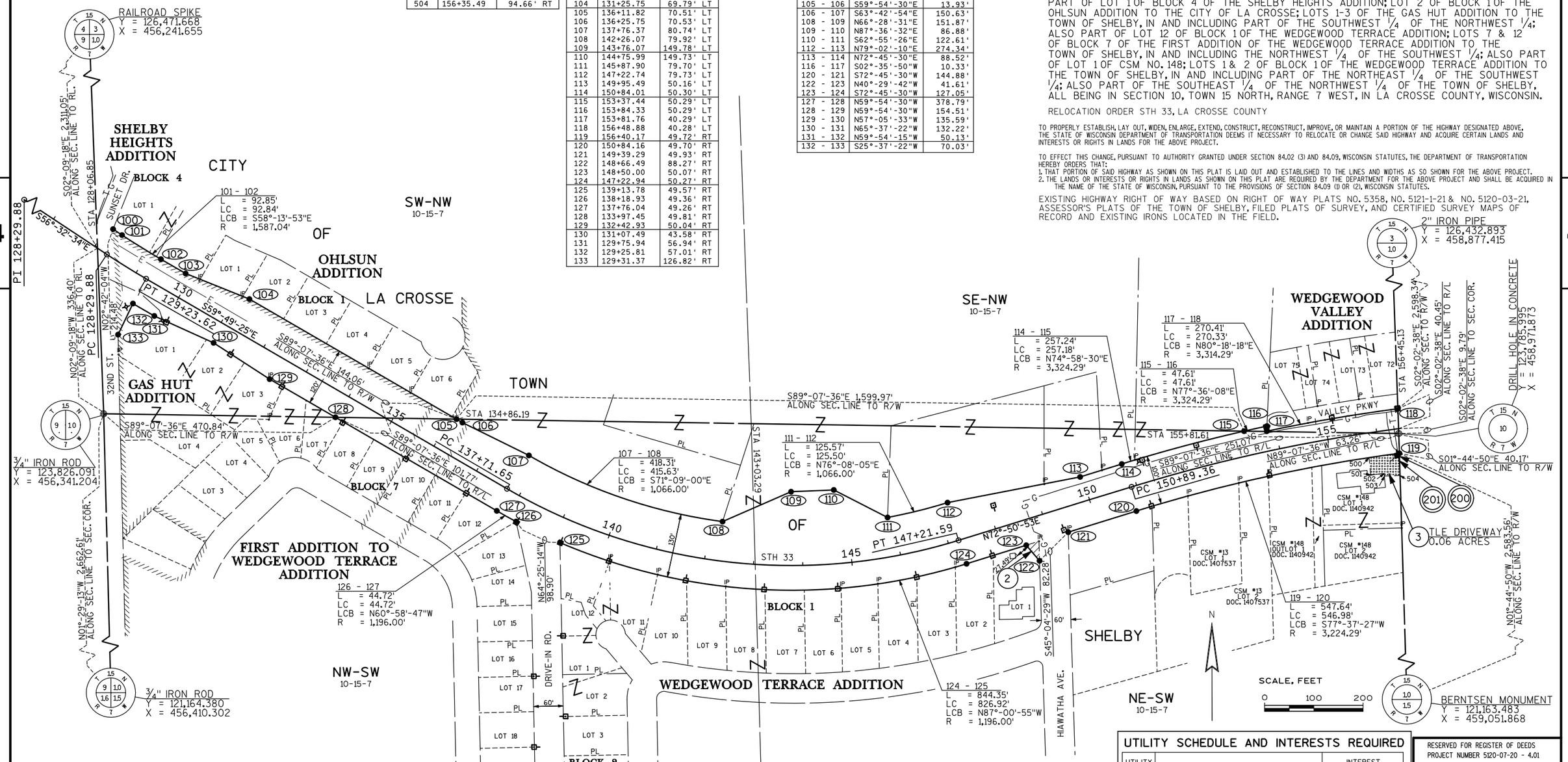
PT. NO.	STATION	OFFSET
500	155+77.00	49.72' RT
501	155+75.00	84.65' RT
502	156+03.59	86.27' RT
503	156+03.38	91.31' RT
504	156+35.49	94.66' RT

R/W POINT TABLE

PT. NO.	STATION	OFFSET
100	128+12.01	49.69' LT
101	128+34.01	49.70' LT
102	129+29.57	49.49' LT
103	129+87.60	49.58' LT
104	131+25.75	69.79' LT
105	136+11.82	70.51' LT
106	136+25.75	70.53' LT
107	137+76.37	80.74' LT
108	142+26.07	79.92' LT
109	143+76.07	149.78' LT
110	144+75.99	149.73' LT
111	145+87.90	79.70' LT
112	147+22.74	79.73' LT
113	149+95.49	50.16' LT
114	150+84.01	50.30' LT
115	153+37.44	50.29' LT
116	153+84.33	50.29' LT
117	153+81.76	40.29' LT
118	156+48.88	40.28' LT
119	156+40.17	49.72' RT
120	150+84.16	49.70' RT
121	149+39.29	49.93' RT
122	148+66.49	88.27' RT
123	148+50.00	50.07' RT
124	147+22.94	50.27' RT
125	139+13.78	49.57' RT
126	138+18.93	49.36' RT
127	137+76.04	49.26' RT
128	133+97.45	49.81' RT
129	132+42.93	50.04' RT
130	131+07.49	43.58' RT
131	129+75.94	56.94' RT
132	129+25.81	57.01' RT
133	129+31.37	126.82' RT

R/W COURSE TABLE

COURSE	BEARING	DISTANCE
100 - 101	S56°-33'-25"E	21.87'
102 - 103	S59°-54'-31"E	58.03'
103 - 104	S68°-08'-48"E	139.62'
104 - 105	S59°-54'-30"E	486.07'
105 - 106	S59°-54'-30"E	13.93'
106 - 107	S63°-42'-54"E	150.63'
108 - 109	N66°-28'-31"E	151.87'
109 - 110	N87°-36'-32"E	86.88'
110 - 111	S62°-55'-26"E	122.61'
112 - 113	N79°-02'-10"E	274.34'
113 - 114	N72°-45'-30"E	88.52'
116 - 117	S02°-35'-50"W	10.33'
120 - 121	S72°-45'-30"W	144.88'
122 - 123	N40°-29'-42"W	41.61'
123 - 124	S72°-45'-30"W	127.05'
127 - 128	N59°-54'-30"W	378.79'
128 - 129	N59°-54'-30"W	154.51'
129 - 130	N57°-05'-33"W	135.59'
130 - 131	N65°-37'-22"W	132.22'
131 - 132	N59°-54'-15"W	50.13'
132 - 133	S25°-37'-22"W	70.03'



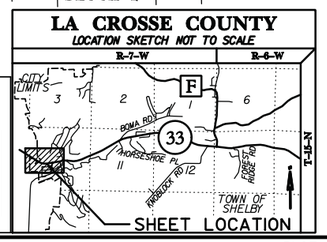
PI = 123+13.57
Y = 124,434.21
X = 455,917.01

PI = 128+76.77
Y = 124,123.71
X = 456,386.88
△ = 03°16'51" L
D = 03°30'00"
T = 46.88'
R = 1,637.02'
L = 93.74'
PC = 128+29.88
PT = 129+23.62

PI = 142+75.61
Y = 123,420.55
X = 457,596.18
△ = 47°19'42" L
D = 04°58'56"
T = 503.96'
R = 1,150.00'
L = 949.94'
PC = 137+71.65
PT = 147+21.59

PI = 157+73.94
Y = 123,879.52
X = 459,083.27
△ = 23°37'11" R
D = 01°45'00"
T = 684.58'
R = 3,274.04'
L = 1,349.71'
PC = 150+89.36
PT = 164+39.07

LA CROSSE COUNTY
LOCATION SKETCH NOT TO SCALE



SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES OR S.F. REQUIRED			TLE ACRES OR S.F.
			NEW	EXISTING	TOTAL	
2	KENNETH V. & MARGIE E. ALLEN REVOCABLE TRUST	FEE	0.01 AC.	---	0.01 AC.	---
3	GERALD S. HANOSKI REVOCABLE TRUST	TLE	---	---	---	0.06 AC.

ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED

UTILITY SCHEDULE AND INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNERS	INTEREST REQUIRED
200	XCEL ENERGY - ELECTRIC	RELEASE OF RIGHTS
201	CENTURY LINK	RELEASE OF RIGHTS

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

JOSEPH W. ROX — PRINTED NAME — SIGNATURE — AUG. 6, 2012 — DATE

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

JAMES R. KUEHN — PRINTED NAME — SIGNATURE — AUG. 9, 2012 — DATE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5120-07-20 - 4.01
SHEET 1 OF 2

DOCUMENT #1602926

ACCEPTED FOR RECORDING IN THE OFFICE OF THE REGISTER OF DEEDS IN LA CROSSE COUNTY, WISCONSIN AT 1:29 P.M. ON AUGUST 15, 2012.
FILED IN TPP CAB., PG. 27B.

THE ORIGINAL DOCUMENT WAS SIGNED BY CHERYL A. MCBRIDE, R.O.D.

FILE NAME : K:\Planshts\Right of Way\5120-07-20\040101_rw.dgn PLOT DATE : 8/6/2012 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

4.01

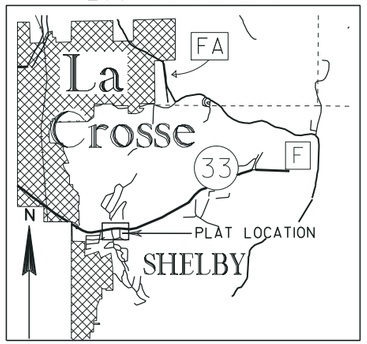
RIGHT OF WAY PLAT NO: 5120-07-20 - ADVANCED AQUISITION

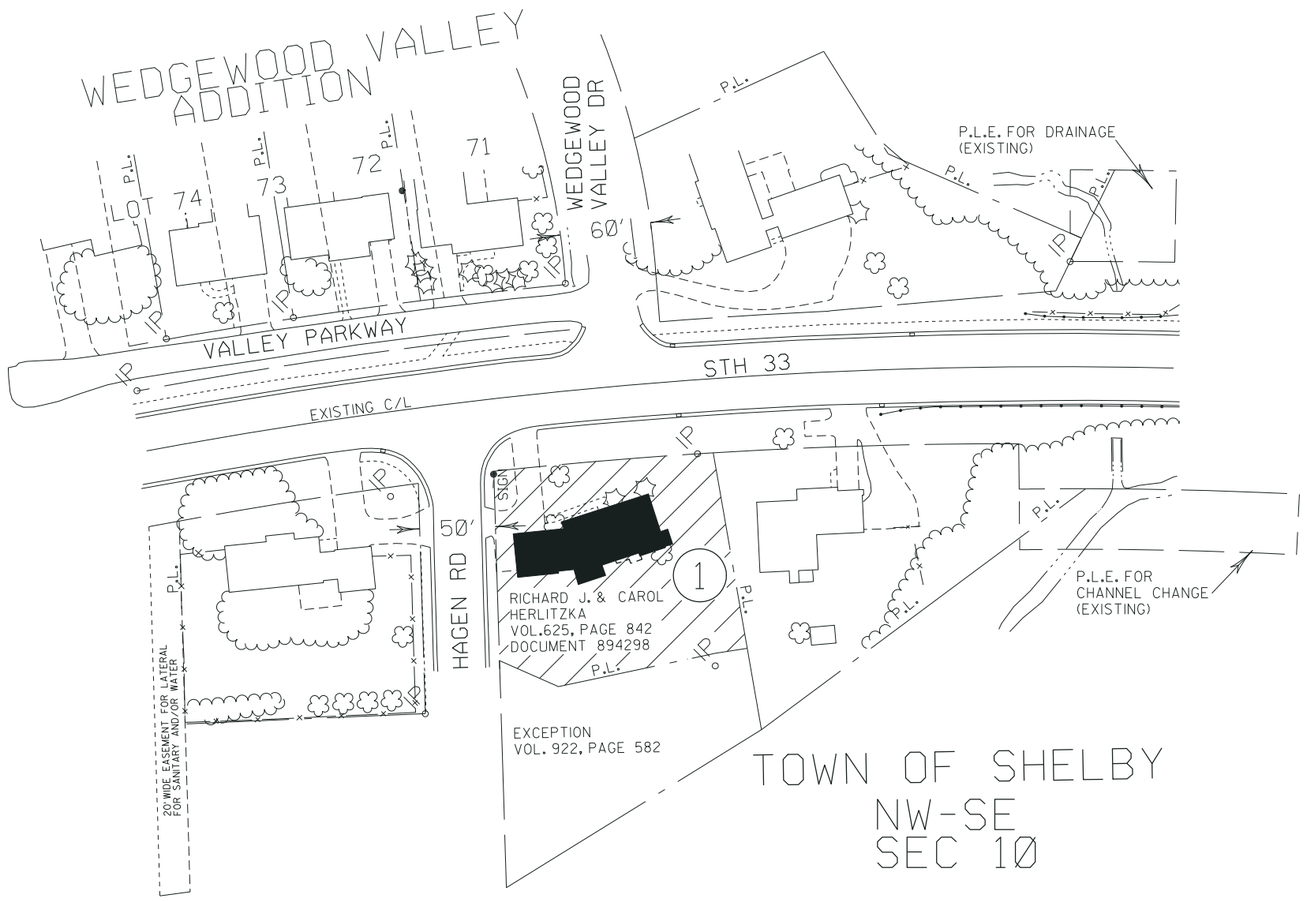
PART OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 10, TOWNSHIP 15 NORTH, RANGE 7 WEST, TOWN OF SHELBY, LA CROSSE COUNTY, WISCONSIN.

RELOCATION ORDER STH 33 LA CROSSE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.
TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

LOCATION SKETCH





SCHEDULE OF LANDS AND INTERESTS REQUIRED
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LANDS TO THE DEPARTMENT

PARCEL NUMBER	OWNER	INTEREST REQUIRED	ACREAGE REQUIRED
1	RICHARD J. & CAROL HERLITZKA	FEE	0.50

THIS ADVANCED AQUISITION PLAT IS TO BE INCORPORATED INTO A TRANSPORTATION PROJECT PLAT WITH THE PROJECT NUMBER 5120-07-20.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

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

SCALE, FEET
0 100

REVISION DATE	STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
	APPROVED FOR THE DEPARTMENT DATE: 9/16/2010 James R Kuehn JAMES KUEHN

FILE NAME : P:\State\s33\51200700\Cad\RWplat\Advance_landline.dgn PLOT DATE : 20-SEP-2010 14:48 PLOT BY : dotjwr PLOT NAME : PLOT SCALE : 50.000000:1.000000

TRANSPORTATION PROJECT PLAT NO: 5120-07-20 - 4.02

LA CROSSE - CASHTON

32ND STREET - BOMA ROAD

PART OF LOT 1 OF CSM 92, V.4, DOC. 1023652 AND LOT 2 OF CSM 143, V.4, DOC. 1037430, IN AND INCLUDING PART OF THE NW1/4-SE1/4; ALSO PART OF LOTS 1, 2, 71, & 76 OF THE WEDGEWOOD VALLEY ADDITION, IN AND INCLUDING PART OF THE SW1/4-NE1/4; ALSO PART OF SE1/4-NE1/4 & THE NE1/4-SE1/4, ALL BEING IN SECTION 10, T15N, R7W, IN THE TOWN OF SHELBY, LA CROSSE COUNTY, WISCONSIN.

RELOCATION ORDER STH 33, LA CROSSE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

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EXISTING HIGHWAY RIGHT OF WAY BASED ON RIGHT OF WAY PLATS NO. 5358, NO. 5121-1-21 & NO. 5120-03-21, ASSESSOR'S PLATS OF THE TOWN OF SHELBY, FILED PLATS OF SURVEY, AND CERTIFIED SURVEY MAPS OF RECORD AND EXISTING IRONS LOCATED IN THE FIELD.

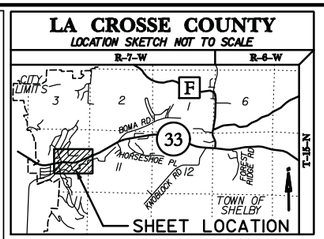
FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN LA CROSSE COUNTY AS SHEET 2 OF 2 OF DOCUMENT #1602926 AND FILED IN CAB. 27B.

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES OR S.F. REQUIRED			PLE ACRES OR S.F.	TLE ACRES OR S.F.
			NEW	EXISTING	TOTAL		
4	DOUGLAS J. & BARBARA A. RAMSEY	TLE	---	---	---	---	0.01 AC.
6	EDWARD W. & VICKI G. MALSON	TLE	---	---	---	---	0.01 AC.
7	TOWN OF SHELBY	FEE & TLE	0.22 AC.	---	0.22 AC.	---	0.02 AC.
8	TODD G. GUENTNER	FEE & TLE	0.05 AC.	---	0.05 AC.	---	0.06 AC.
9	THOMAS J. & GRETCHEN C. COLEMAN	FEE & PLE	0.03 AC.	---	0.03 AC.	0.03 AC.	---
11	JAMES V. & PATRICIA J. PEDRETTI	TLE	---	---	---	---	0.01 AC.
12	R & L WENDORF TRUST	FEE	0.01 AC.	---	0.01 AC.	---	---
13	DENNIS H. & AMY J. LOVE	FEE	0.01 AC.	---	0.01 AC.	---	---
14	SPENCER TRUST	FEE & TLE	0.01 AC.	---	0.01 AC.	---	0.02 AC.

ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED

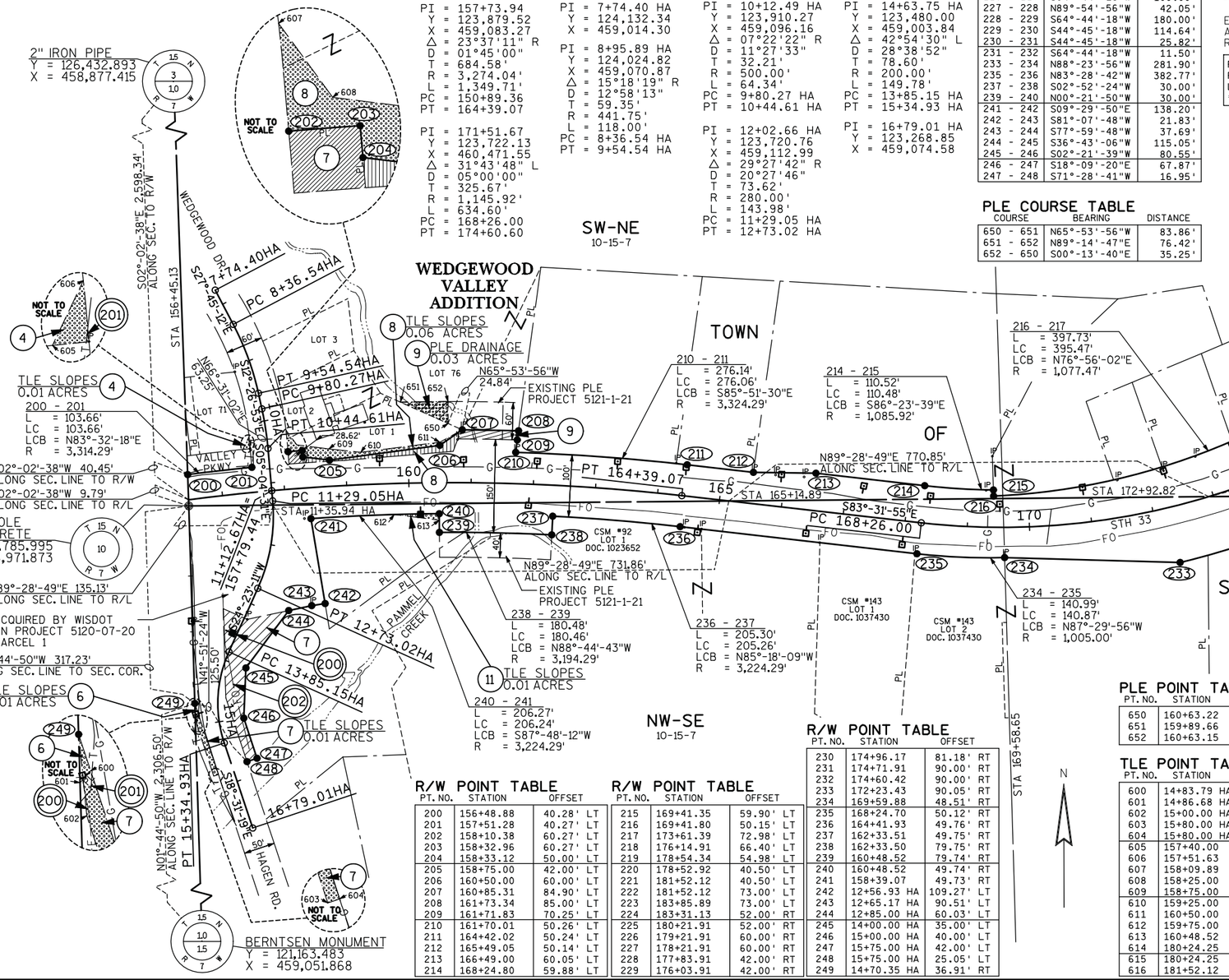


R/W COURSE TABLE

COURSE	BEARING	DISTANCE
202 - 203	N85°-39'-58"E	23.00'
203 - 204	S05°-02'-49"E	10.27'
204 - 205	S83°-06'-03"E	43.21'
205 - 206	N82°-20'-47"E	178.61'
206 - 207	N55°-21'-48"E	43.84'
207 - 208	S89°-00'-57"E	90.32'
208 - 209	S07°-47'-15"W	14.82'
209 - 210	S07°-04'-52"W	20.09'
211 - 212	S83°-28'-42"E	107.03'
212 - 213	S89°-11'-33"E	100.44'
213 - 214	S83°-28'-42"E	175.80'
215 - 216	S01°-49'-31"E	9.76'
217 - 218	N67°-11'-40"E	247.31'
218 - 219	N67°-28'-09"E	239.70'
219 - 220	S19°-40'-51"E	14.55'
220 - 221	N64°-44'-17"E	299.20'
221 - 222	N25°-15'-42"W	32.50'
222 - 223	N64°-44'-18"E	233.76'
224 - 225	S64°-44'-18"W	309.22'
225 - 226	S60°-09'-51"W	100.32'
226 - 227	S64°-44'-18"W	100.00'
227 - 228	N89°-54'-56"W	42.05'
228 - 229	S64°-44'-18"W	180.00'
229 - 230	S44°-45'-18"W	114.64'
230 - 231	S44°-45'-18"W	25.82'
231 - 232	S64°-44'-18"W	11.50'
233 - 234	N88°-23'-56"W	281.90'
235 - 236	N83°-28'-42"W	382.77'
237 - 238	S02°-52'-24"W	30.00'
239 - 240	N00°-21'-50"W	30.00'
241 - 242	S09°-29'-50"E	138.20'
242 - 243	S81°-07'-48"W	21.83'
243 - 244	S77°-59'-48"W	37.69'
244 - 245	S36°-43'-06"W	115.05'
245 - 246	S02°-21'-39"W	80.55'
246 - 247	S18°-09'-20"E	67.87'
247 - 248	S71°-28'-41"W	16.95'

PLE COURSE TABLE

COURSE	BEARING	DISTANCE
650 - 651	N65°-53'-56"W	83.86'
651 - 652	N89°-14'-47"E	76.42'
652 - 650	S00°-13'-40"E	35.25'



R/W POINT TABLE

PT. NO.	STATION	OFFSET
200	156+48.88	40.28' LT
201	157+51.28	40.27' LT
202	158+10.38	60.27' LT
203	158+32.96	60.27' LT
204	158+33.12	50.00' LT
205	158+75.00	42.00' LT
206	160+50.00	60.00' LT
207	160+85.31	84.90' LT
208	161+73.34	85.00' LT
209	161+71.83	70.25' LT
210	161+70.01	50.26' LT
211	164+42.02	50.24' LT
212	165+49.05	50.14' LT
213	166+49.00	50.05' LT
214	168+24.80	59.88' LT

R/W POINT TABLE

PT. NO.	STATION	OFFSET
215	169+41.35	59.90' LT
216	169+41.80	50.15' LT
217	173+61.39	72.98' LT
218	176+14.91	66.40' LT
219	178+54.34	54.98' LT
220	178+52.92	40.50' LT
221	181+52.12	40.50' LT
222	181+52.12	73.00' LT
223	183+85.89	73.00' LT
224	183+31.13	52.00' RT
225	180+21.91	52.00' RT
226	179+21.91	60.00' RT
227	178+21.91	60.00' RT
228	177+83.91	42.00' RT
229	176+03.91	42.00' RT

R/W POINT TABLE

PT. NO.	STATION	OFFSET
230	174+96.17	81.18' RT
231	174+71.91	90.00' RT
232	174+60.42	90.00' RT
233	172+23.43	90.05' RT
234	169+59.88	48.51' RT
235	168+24.70	50.12' RT
236	164+41.93	49.76' RT
237	162+33.51	49.75' RT
238	162+33.50	79.75' RT
239	160+48.52	79.74' RT
240	160+48.52	49.74' RT
241	158+39.07	49.73' RT
242	12+56.93 HA	109.27' LT
243	12+65.17 HA	90.51' LT
244	12+85.00 HA	60.03' LT
245	14+00.00 HA	35.00' LT
246	15+00.00 HA	40.00' LT
247	15+75.00 HA	42.00' LT
248	15+75.00 HA	25.05' LT
249	14+70.35 HA	36.91' RT

PLE POINT TABLE

PT. NO.	STATION	OFFSET
650	160+63.22	95.01' LT
651	159+89.66	130.26' LT
652	160+63.15	130.26' LT

TLE POINT TABLE

PT. NO.	STATION	OFFSET
600	14+83.79 HA	32.26' RT
601	14+86.68 HA	35.76' RT
602	15+00.00 HA	36.00' RT
603	15+80.00 HA	33.00' RT
604	15+80.00 HA	24.96' RT
605	157+40.00	70.27' LT
606	157+51.63	90.00' LT
607	158+09.89	95.00' LT
608	158+25.00	70.00' LT
609	158+75.00	60.00' LT
610	159+25.00	52.00' LT
611	160+50.00	65.00' LT
612	159+75.00	49.74' RT
613	160+48.52	60.00' RT
614	180+24.25	40.50' LT
615	180+24.25	45.50' LT
616	181+52.12	45.50' LT

UTILITY SCHEDULE AND INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNERS	INTEREST REQUIRED
200	XCEL ENERGY - ELECTRIC	RELEASE OF RIGHTS
201	CENTURY LINK	RELEASE OF RIGHTS
202	CHARTER COMMUNICATIONS	RELEASE OF RIGHTS

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

JOSEPH W. ROX — PRINTED NAME — SIGNATURE — 8/21/12 DATE

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

JAMES R. KUEHN — PRINTED NAME — SIGNATURE — 8/24/12 DATE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5120-07-20 - 4.02

DOCUMENT #1604535

ACCEPTED FOR RECORDING IN THE OFFICE OF THE REGISTER OF DEEDS IN LA CROSSE COUNTY, WI AT 2:29 P.M. ON SEPT. 5, 2012 FILED IN TPP CAB., PAGE 28B.

THE ORIGINAL DOCUMENT WAS SIGNED BY LINDA L. OPLAND, DEPUTY R.O.D.

FILE NAME : K:\Planshts\Right of Way\5120-07-20\040103_rw.dgn PLOT DATE : 8/21/2012 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

TRANSPORTATION PROJECT PLAT NO: 5120-07-20 - 4.03

LA CROSSE - CASHTON

32ND STREET - BOMA ROAD

PART OF LOT 3 OF CSM 207, V.2, DOC. 955231, IN AND INCLUDING PART OF THE NW1/4-NW1/4; ALSO PART OF LOT 2 OF CSM 123, V. 1, DOC. 899996 AND LOT 1 OF CSM 39, V.2, DOC. 932862, IN AND INCLUDING PART OF THE NE1/4-NW1/4; ALSO PART OF THE SE1/4-NW1/4 AND THE SW1/4-NW1/4, ALL BEING IN SECTION 11, T15N, R7W, IN THE TOWN OF SHELBY, LA CROSSE COUNTY, WISCONSIN.

RELOCATION ORDER STH 33, LA CROSSE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

EXISTING HIGHWAY RIGHT OF WAY BASED ON RIGHT OF WAY PLATS NO. 5358, NO. 5121-1-21 & NO. 5120-03-21, ASSESSOR'S PLATS OF THE TOWN OF SHELBY, FILED PLATS OF SURVEY, AND CERTIFIED SURVEY MAPS OF RECORD AND EXISTING IRONS LOCATED IN THE FIELD.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN LA CROSSE COUNTY AS SHEET 2 OF 2 OF DOCUMENT #1602926 AND FILED IN TPP CAB. 27B.

R/W POINT TABLE

PT. NO.	STATION	OFFSET
300	183+85.89	73.00' LT
301	191+30.90	72.99' LT
302	193+43.91	73.99' LT
303	193+43.91	48.99' LT
304	196+99.09	51.48' LT
305	209+21.88	50.68' LT
306	209+21.89	33.68' LT
307	211+18.85	33.80' LT
308	211+66.90	33.78' LT
309	12+32.18 B	44.43' LT
310	12+46.80 B	45.67' LT
311	13+75.00 B	36.91' RT
312	12+25.00 B	62.00' RT
313	214+50.00	66.26' LT
314	217+00.00	73.61' LT
315	217+00.00	54.40' RT
316	212+96.12	54.26' RT
317	211+18.90	54.20' RT
318	210+50.00	43.59' RT
319	210+00.22	100.00' RT
320	209+40.24	119.62' RT
321	208+69.87	49.24' RT
322	204+21.93	48.60' RT
323	203+21.95	69.66' RT
324	197+74.47	69.98' RT
325	197+86.52	48.47' RT
326	196+99.14	48.52' RT
327	191+30.90	52.01' RT
328	187+21.91	52.00' RT
329	187+21.91	47.00' LT
330	185+91.91	47.00' RT
331	185+91.91	43.00' RT
332	183+35.07	43.00' RT

R/W COURSE TABLE

COURSE	BEARING	DISTANCE
300 - 301	N64°-44'-18"E	745.01'
301 - 302	N63°-24'-03"E	210.27'
302 - 303	S27°-23'-31"E	25.00'
304 - 305	N59°-07'-31"E	1,222.79'
305 - 306	S30°-56'-42"E	17.00'
306 - 307	N59°-03'-18"E	196.96'
308 - 309	N24°-45'-57"E	346.38'
309 - 310	N24°-45'-57"E	19.05'
311 - 312	S28°-32'-02"W	130.21'
312 - 313	S03°-03'-41"E	107.86'
317 - 318	S67°-50'-56"W	69.71'
318 - 319	S10°-30'-45"W	75.24'
320 - 321	N75°-54'-45"W	99.53'
321 - 322	S59°-10'-10"W	447.93'
322 - 323	S47°-11'-42"W	102.18'
323 - 324	S59°-03'-18"W	547.48'
324 - 325	N01°-39'-10"W	24.65'
325 - 326	S59°-03'-18"W	87.37'
327 - 328	S64°-44'-19"W	408.99'
328 - 329	N25°-15'-42"W	5.00'
329 - 330	S64°-44'-18"W	130.00'
330 - 331	N25°-15'-42"W	4.00'
331 - 332	S64°-44'-18"W	256.83'

TLE POINT TABLE

PT. NO.	STATION	OFFSET
700	207+00.00	49.00' RT
701	207+44.82	73.00' RT
702	209+30.62	110.00' RT
703	209+40.32	200.00' RT
704	209+21.88	45.00' LT
705	209+73.86	45.00' LT
706	209+73.87	33.71' LT
707	210+88.86	45.00' LT
708	210+88.87	33.78' LT
709	211+83.45	45.87' LT

TRIANGULAR FIELD STONE
Y = 126,390.616
X = 464,152.109

3/4" IRON ROD
Y = 126,452.518
X = 461,511.964

1" IRON PIPE
Y = 123,740.263
X = 464,230.717

COMPUTED POSITION
Y = 123,809.704
X = 461,586.084

PI = 194+13.51
Y = 124,694.52
X = 462,532.21
Δ = 05°39'01" L
D = 01°00'00"
T = 282.74'
R = 5,729.58'
L = 565.02'
PC = 191+30.77
PT = 196+95.79

PI = 215+24.34
Y = 125,779.15
X = 464,343.61
Δ = 19°58'07" R
D = 02°30'00"
T = 403.47'
R = 2,291.83
L = 798.75'
PC = 211+20.87
PT = 219+19.62

PI = 10+00.00 B
Y = 125,700.35
X = 464,245.06

PI = 11+92.01 B
Y = 125,875.85
X = 464,167.16
Δ = 61°48'34" R
D = 38°11'49"
T = 89.79'
R = 150.00'
L = 161.82'
PC = 11+02.22 B
PT = 12+64.04 B

PI = 13+40.02 B
Y = 126,006.70
X = 464,268.94
Δ = 10°12'57" R
D = 06°44'26"
T = 75.98'
R = 850.00'
L = 151.56'
PC = 12+64.04 B
PT = 14+15.60 B

303 - 304
L = 352.07'
LC = 352.04'
LCB = N60°-25'-31"E
R = 7,756.25'

326 - 327
L = 573.26'
LC = 572.98'
LCB = S61°-32'-51"W
R = 5,342.58'

307 - 308
L = 48.73'
LC = 48.73'
LCB = N59°-39'-19"E
R = 2,324.83'

313 - 314
L = 257.87'
LC = 257.60'
LCB = N68°-48'-31"E
R = 1,656.46'

315 - 316
L = 394.30'
LC = 393.79'
LCB = S68°-32'-17"W
R = 2,236.83'

316 - 317
L = 173.08'
LC = 173.03'
LCB = S61°-16'-17"W
R = 2,236.83'

NE-NW 11-15-7
SE-NW 11-15-7
SW-NW 11-15-7
NW-NE 11-15-7

TOWN OF SHELBY

EXISTING PLE PROJECT 5121-1-21

PCC12+64.04B
PC 11+02.22B
PT 196+95.79
PC 191+30.77
PC 211+20.87
STA 183+53.91
STA 198+13.67
STA 201+83.25
STA 213+21.17
STA 10+00.00B = STA 214+00.00

N59°-05'-16"E STH 33
N64°-44'-17"E
S16°-26'-03"E 128.01'
S23°-56'-02"W
S40°-58'-38"W 65.11'
N72°-23'-19"E 155.68'
S01°-41'-56"E 451.85' ALONG SEC. LINE TO R/W
S01°-41'-56"E 271.95' ALONG SEC. LINE TO R/L
S01°-41'-56"E 59.64' ALONG SEC. LINE TO R/L
N01°-41'-56"W 1,868.08' ALONG SEC. LINE TO R/W
S01°-36'-23"E 2,131.36' ALONG SEC. LINE TO R/W
N01°-36'-23"W 79.69' ALONG SEC. LINE TO R/W
N01°-36'-23"W 46.95' ALONG SEC. LINE TO R/L
N01°-36'-23"W 385.85' ALONG SEC. LINE TO R/W

66' INGRESS AND EGRESS EASEMENT

CSM #207 LOT 3 DOC. 955231
CSM #39 LOT 1 DOC. 923862
CSM #123 LOT 2 DOC. 899996

BOMA RD.
SOUTHDALE DR.
PAMMEL CREEK
FOREST RIDGE RD
FIRESIDE PL
FIRECREST RD
HEATHER PL

TLE SLOPES 0.02 ACRES
TLE SLOPES 0.03 ACRES
TLE SLOPES 0.01 ACRES

SCALE, FEET
0 100 200

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES OR S.F. REQUIRED			TLE ACRES OR S.F.
			NEW	EXISTING	TOTAL	
17	TOWN OF SHELBY	FEE & TLE	0.04 AC.	---	0.04 AC.	0.02 AC.
18	DONNA J. BORNHEIMER	TLE	---	---	---	0.01 AC.
19	LARRY J. RINGGENBERG & INGRID L. PETERSON	TLE	---	---	---	0.03 AC.
21	EVERETT J. & KATHRYN J. ASHLAND REVOCABLE TRUST	TLE	---	---	---	0.02 AC.
23	DANIEL CRAIG	FEE	0.03 AC.	---	0.03 AC.	---
24	SCOTT & SARA WROBEL	FEE	0.27 AC.	---	0.27 AC.	---

ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED

LA CROSSE COUNTY
LOCATION SKETCH NOT TO SCALE
R-7-W R-6-W
T-15-N
SHEET LOCATION

UTILITY SCHEDULE AND INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNERS	INTEREST REQUIRED
200	XCEL ENERGY - ELECTRIC	RELEASE OF RIGHTS
201	CENTURY LINK	RELEASE OF RIGHTS

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

JOSEPH W. ROX — PRINTED NAME — SIGNATURE — 8/21/12 DATE

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

JAMES R. KUEHN — PRINTED NAME — SIGNATURE — 8/24/12 DATE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5120-07-20 - 4.03

DOCUMENT #1604536

ACCEPTED FOR RECORDING IN THE OFFICE OF THE REGISTER OF DEEDS IN LA CROSSE COUNTY, WI AT 2:29 P.M. ON SEPT. 5, 2012 FILED IN TPP CAB., PAGE 29A.

THE ORIGINAL DOCUMENT WAS SIGNED BY LINDA L. OPLAND, DEPUTY R.O.D.

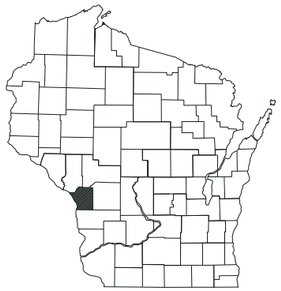
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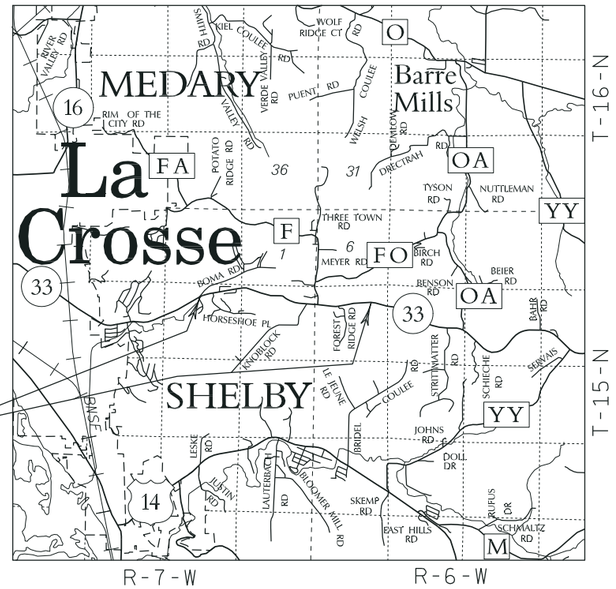
4.03

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

TRANSPORTATION PROJECT PLAT TITLE SHEET

PROJECT NO. 5120-07-21
LA CROSSE - CASHTON
BOMA ROAD - FOREST RIDGE DRIVE
STH 33
LA CROSSE COUNTY





PROJECT LOCATION

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, LA CROSSE COUNTY ZONE, NAD83 (1991) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

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

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

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

N

LAYOUT
SCALE 0 1 MI.

CONVENTIONAL ABBREVIATIONS

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

CURVE DATA

POINT OF INTERSECTION	PI
POINT OF CURVE	PC
POINT OF TANGENCY	PT
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	Δ
LENGTH OF CURVE	L
TANGENT	T
LONG CHORD	LCH
LONG CHORD BEARING	LCB

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	⌀ (1" UNLESS NOTED)	PROPOSED R/W LINE	
		EXISTING R/W LINE	
R/W MONUMENT	○ ●(SET)	PROPERTY LINE	P.L.
R/W STANDARD	△ ▲(SET)	EASEMENT LINES	
SIGN	SIGN	LOT & TIE LINES	
SECTION CORNER MONUMENT		CORPORATE LIMITS	
SECTION CORNER SYMBOL		ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)	
FEE (HATCH VARIES)		ACCESS RESTRICTED (BY ACQUISITION)	
TEMPORARY LIMITED EASEMENT (TLE)		NO ACCESS (BY STATUTORY AUTHORITY)	
PERMANENT LIMITED EASEMENT (PLE)		SECTION LINE	
R/W POINT MONUMENT	●	QUARTER LINE	
R/W POINT NON-MONUMENTED	○	SIXTEENTH LINE	
R/W BOUNDARY POINT	101	EXISTING CENTERLINE	
PARCEL NUMBER	10	PROPOSED REFERENCE LINE	
UTILITY PARCEL NUMBER	92	PARALLEL OFFSET	
SIGN NUMBER (OFF PREMISE)	21-1		
BUILDING			
BUILDING TO BE RAZED			

CONVENTIONAL UTILITY SYMBOLS

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

HIGHWAY DESIGNATIONS

COUNTY TRUNK HIGHWAY	#
STATE TRUNK HIGHWAY	#
UNITED STATES HIGHWAY	#
INTERSTATE HIGHWAY	#

PROJECT NUMBER 5120-07-21-4.01
SHEET 2 OF 2

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PLOT BY : dotjwr
PLOT NAME :
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TITLE

PI = 215+24.34
Y = 125,779.15
X = 464,343.61
△ = 19°58'07" R
D = 02°30'00"
T = 403.47'
R = 2,291.83'
L = 798.75'
PC = 211+20.87
PT = 219+19.62

PI = 243+92.35
Y = 126,325.17
X = 467,167.50
△ = 31°54'33" R
D = 05°00'00"
T = 327.60'
R = 1,145.92'
L = 638.19'
PC = 240+64.75
PT = 247+02.93

PI = 10+00.00 HO
Y = 125,884.20
X = 464,886.92

PI = 11+41.28 HO
Y = 125,747.00
X = 464,920.64
△ = 20°18'02" R
D = 16°22'12"
T = 62.66'
R = 350.00'
L = 124.01'
PC = 10+78.62 HO
PT = 12+02.63 HO

PI = 12+12.48 HO
Y = 125,674.96
X = 464,912.44

PI = 10+00.00 I
Y = 125,971.88
X = 465,340.36

PI = 10+51.17 I
Y = 126,022.12
X = 465,330.64
△ = 12°50'59" R
D = 28°38'52"
T = 22.52'
R = 200.00'
L = 44.85'
PC = 10+28.65 I
PT = 10+73.51 I

PI = 12+03.40 I
Y = 126,174.45
X = 465,335.69

R/W POINT TABLE

PT. NO.	STATION	OFFSET
100	217+00.00	73.61' LT
101	217+81.49	73.40' LT
102	220+06.98	78.01' LT
103	221+41.51	53.55' LT
104	224+01.33	53.31' LT
105	224+50.00	54.00' LT
106	11+50.00 I	31.16' LT
107	11+00.00 I	29.40' RT
108	226+25.00	59.90' LT
109	227+18.74	66.39' LT
110	228+24.23	81.09' LT
111	229+28.04	88.04' LT
112	230+79.42	78.37' LT
113	232+66.43	44.15' LT
114	234+48.19	42.23' LT
115	234+48.45	67.23' LT
116	239+38.42	62.06' LT
117	239+38.16	37.07' LT
118	240+83.48	35.68' LT
119	240+40.95	192.40' RT
120	237+58.74	102.22' RT
121	236+93.08	95.53' RT
122	236+37.56	138.49' RT
123	232+99.68	86.66' RT
124	231+27.95	75.74' RT
125	230+01.32	90.12' RT
126	228+38.22	129.61' RT
127	227+59.50	160.67' RT
128	223+71.57	159.14' RT
129	222+10.00	109.98' RT
130	12+00.00 HO	35.05' LT
131	11+30.00 HO	32.54' RT
132	219+18.57	54.49' RT
133	217+00.00	54.40' RT

PLE POINT TABLE

PT. NO.	STATION	OFFSET
550	11+73.75 HO	195.77' RT
551	11+95.53 HO	193.24' RT
552	11+44.16 HO	32.17' RT
553	11+33.10 HO	32.46' RT

TLE POINT TABLE

PT. NO.	STATION	OFFSET
500	10+98.00 I	35.49' RT
501	11+75.00 I	35.00' RT
502	11+75.00 I	28.57' RT

R/W COURSE TABLE

COURSE	BEARING	DISTANCE
101 - 102	N76°-50'-15"E	230.00'
102 - 103	N89°-21'-45"E	136.73'
103 - 104	N79°-06'-37"E	259.83'
104 - 105	N78°-14'-37"E	48.67'
105 - 106	N25°-00'-45"E	124.32'
107 - 108	S69°-54'-47"E	63.10'
108 - 109	N75°-05'-37"E	93.97'
109 - 110	N71°-07'-37"E	106.51'
110 - 111	N75°-13'-37"E	104.04'
111 - 112	N82°-42'-37"E	151.69'
112 - 113	N89°-25'-37"E	190.11'
113 - 114	N79°-39'-37"E	181.77'
114 - 115	N10°-20'-23"W	25.00'
115 - 116	N79°-39'-37"E	490.00'
116 - 117	S10°-20'-23"E	25.00'
117 - 118	N79°-39'-37"E	145.91'
119 - 120	N83°-13'-22"W	296.27'
120 - 121	S84°-52'-36"W	66.00'
122 - 123	S87°-46'-37"W	341.84'
123 - 124	S82°-41'-36"W	172.07'
125 - 126	S65°-26'-36"W	167.81'
127 - 128	S79°-16'-54"W	387.94'
128 - 129	N84°-01'-09"W	168.88'
129 - 130	S39°-08'-00"W	153.72'
131 - 132	N70°-10'-23"W	141.14'

PLE COURSE TABLE

COURSE	BEARING	DISTANCE
552 - 551	S78°-54'-11"W	164.37
551 - 550	N11°-05'-49"W	10.00
550 - 553	N78°-54'-11"E	165.32

TRANSPORTATION PROJECT PLAT NO: 5120-07-21 - 4.01

LA CROSSE - CASHTON

BOMA ROAD - FOREST RIDGE DRIVE

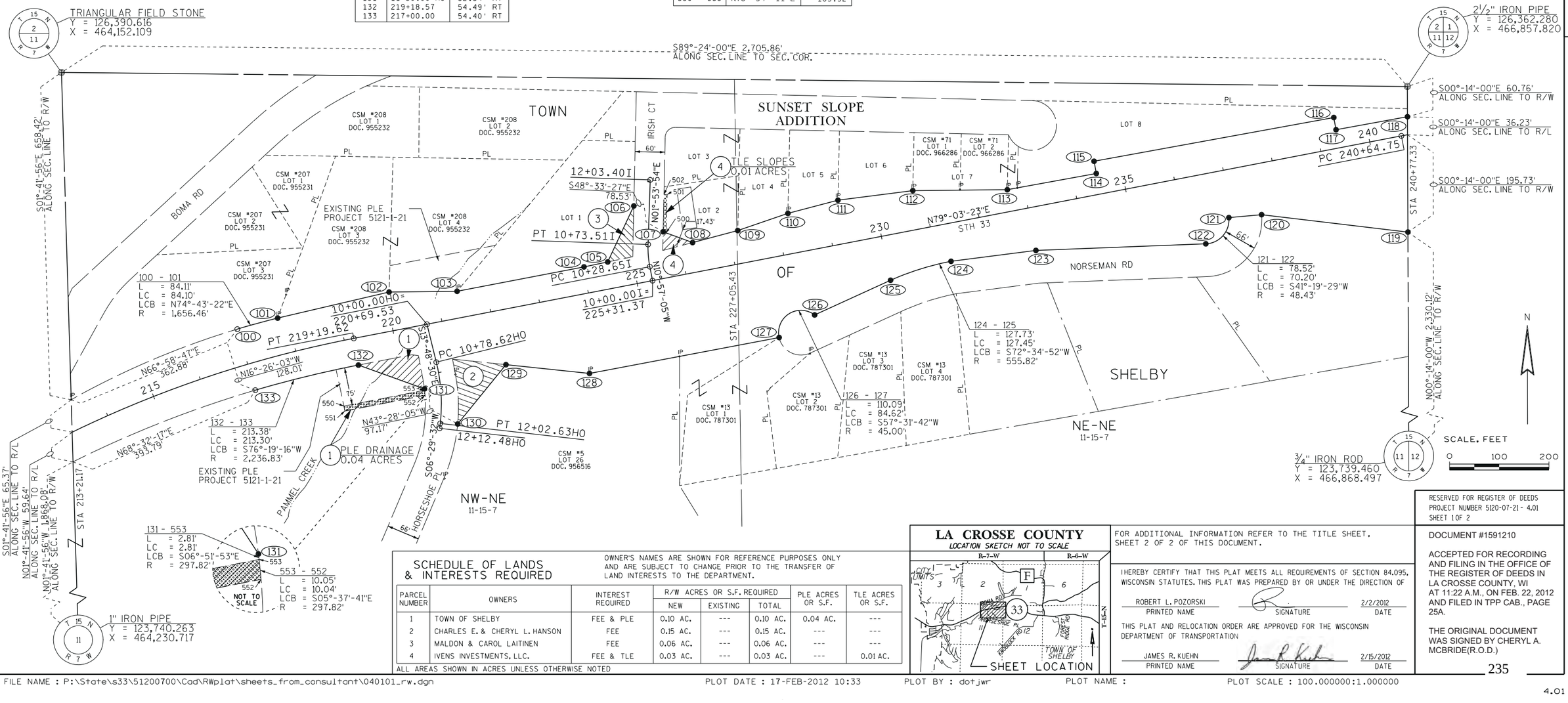
PART OF LOT 3 OF CSM NO. 207; LOTS 3 & 4 OF CSM NO. 208; LOTS 1 & 2 OF SUNSET SLOPE ADDITION TO THE TOWN OF SHELBY; LOT 26 OF CSM NO. 5, IN AND INCLUDING PART OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4; ALSO PART OF LOTS 4 -8 OF THE SUNSET SLOPE ADDITION TO THE TOWN OF SHELBY; LOT 1 OF CSM NO. 13, IN AND INCLUDING PART OF THE NORTHEAST 1/4 OF THE NORTHEAST 1/4, ALL BEING IN SECTION 11, TOWN 15 NORTH, RANGE 7 WEST, IN THE TOWN OF SHELBY, LA CROSSE COUNTY, WISCONSIN.

RELOCATION ORDER STH 33, LA CROSSE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

EXISTING HIGHWAY RIGHT OF WAY BASED ON RIGHT OF WAY PLATS NO. 5358, NO. 5121-1-21 & NO. 5120-03-21, ASSESSOR'S PLATS OF THE TOWN OF SHELBY, FILED PLATS OF SURVEY, AND CERTIFIED SURVEY MAPS OF RECORD AND EXISTING IRONS LOCATED IN THE FIELD.



SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES OR S.F. REQUIRED			PLE ACRES OR S.F.	TLE ACRES OR S.F.
			NEW	EXISTING	TOTAL		
1	TOWN OF SHELBY	FEE & PLE	0.10 AC.	---	0.10 AC.	0.04 AC.	---
2	CHARLES E. & CHERYL L. HANSON	FEE	0.15 AC.	---	0.15 AC.	---	---
3	MALDON & CAROL LAITINEN	FEE	0.06 AC.	---	0.06 AC.	---	---
4	IVENS INVESTMENTS, LLC.	FEE & TLE	0.03 AC.	---	0.03 AC.	---	0.01 AC.

ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED

LA CROSSE COUNTY
LOCATION SKETCH NOT TO SCALE

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, SHEET 2 OF 2 OF THIS DOCUMENT.

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

ROBERT L. POZORSKI — PRINTED NAME — SIGNATURE — 2/2/2012 DATE

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

JAMES R. KUEHN — PRINTED NAME — SIGNATURE — 2/15/2012 DATE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5120-07-21 - 4.01
SHEET 1 OF 2

DOCUMENT #1591210

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN LA CROSSE COUNTY, WI AT 11:22 A.M., ON FEB. 22, 2012 AND FILED IN TPP CAB., PAGE 25A.

THE ORIGINAL DOCUMENT WAS SIGNED BY CHERYL A. MCBRIDE(R.O.D.)

FILE NAME : P:\State\s33\51200700\Cad\RWplat\sheets_from_consultant\040101_rw.dgn
PLOT DATE : 17-FEB-2012 10:33
PLOT BY : dotjwr
PLOT NAME :
PLOT SCALE : 100.000000:1.000000

PI = 243+92.35
Y = 126,325.17
X = 467,167.50
△ = 31°54'33" R
D = 05°00'00"
T = 327.60'
R = 1,145.92'
L = 638.19'
PC = 240+64.75
PT = 247+02.93

PI = 269+49.65
Y = 125,730.58
X = 469,657.49
△ = 18°33'16" R
D = 04°59'59"
T = 187.18'
R = 1,145.93'
L = 371.09'
PC = 267+62.46
PT = 271+33.56

PI = 255+37.78
Y = 125,909.23
X = 468,252.99
△ = 13°43'01" L
D = 01°39'59"
T = 413.48'
R = 3,437.75'
L = 823.01'
PC = 251+24.30
PT = 259+47.31

R/W COURSE TABLE

COURSE	BEARING	DISTANCE
201 - 202	S81°-24'-38"E	699.98'
203 - 204	S82°-45'-04"E	520.46'
204 - 205	S73°-34'-06"E	359.57'
207 - 208	N65°-39'-25"W	255.15'
209 - 210	N79°-58'-10"W	370.90'
210 - 211	N79°-39'-42"W	336.03'
212 - 213	N89°-45'-10"W	339.20'
214 - 215	N83°-13'-22"W	25.11'

R/W POINT TABLE

PT. NO.	STATION	OFFSET
200	244+69.32	90.41' LT
201	246+94.04	89.70' LT
202	253+95.44	229.72' LT
203	259+47.31	230.00' LT
204	264+67.77	230.00' LT
205	268+14.80	173.99' LT
206	268+73.26	160.08' RT
207	267+61.65	160.00' RT
208	265+17.77	85.00' RT
209	263+17.77	88.00' RT
210	259+47.31	70.00' RT
211	256+17.77	67.98' RT
212	250+20.19	80.00' RT
213	247+02.93	200.00' RT
214	240+64.89	200.04' RT
215	240+40.95	192.40' RT
216	240+93.00	95.60' LT

TRANSPORTATION PROJECT PLAT NO: 5120-07-21 - 4.02

LA CROSSE - CASHTON

BOMA ROAD - FOREST RIDGE DRIVE

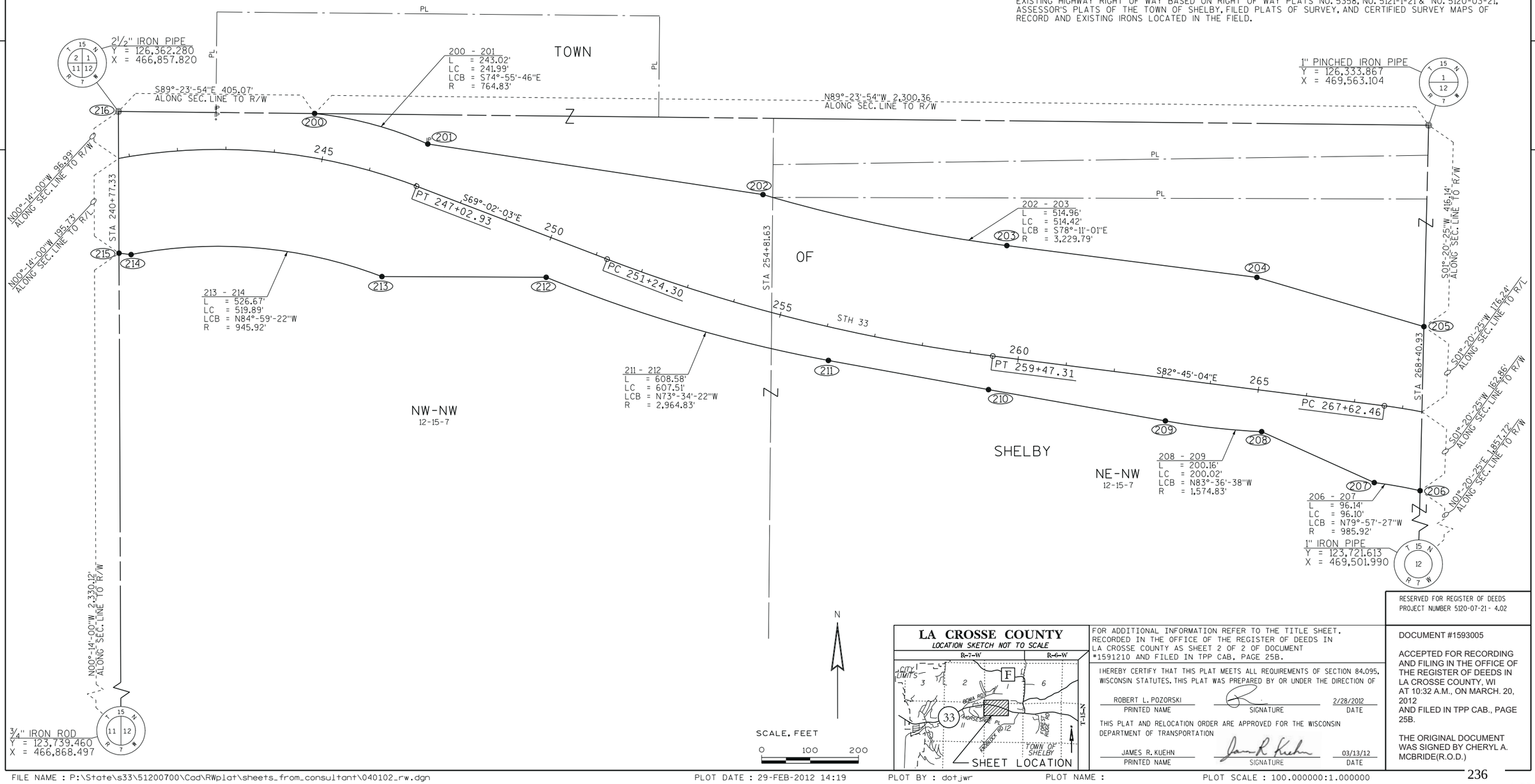
PART OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4, AND THE NORTHEAST 1/4 OF THE NORTHWEST 1/4, ALL BEING IN SECTION 12, TOWN 15 NORTH, RANGE 7 WEST, IN THE TOWN OF SHELBY, LA CROSSE COUNTY, WISCONSIN.

RELOCATION ORDER STH 33, LA CROSSE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

EXISTING HIGHWAY RIGHT OF WAY BASED ON RIGHT OF WAY PLATS NO. 5358, NO. 5121-1-21 & NO. 5120-03-21, ASSESSOR'S PLATS OF THE TOWN OF SHELBY, FILED PLATS OF SURVEY, AND CERTIFIED SURVEY MAPS OF RECORD AND EXISTING IRONS LOCATED IN THE FIELD.



LA CROSSE COUNTY
LOCATION SKETCH NOT TO SCALE

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN LA CROSSE COUNTY AS SHEET 2 OF 2 OF DOCUMENT #1591210 AND FILED IN TPP CAB. PAGE 25B.

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

ROBERT L. POZORSKI — PRINTED NAME
SIGNATURE
2/28/2012 — DATE

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

JAMES R. KUEHN — PRINTED NAME
SIGNATURE
03/13/12 — DATE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5120-07-21 - 4.02

DOCUMENT #1593005

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN LA CROSSE COUNTY, WI AT 10:32 A.M., ON MARCH. 20, 2012 AND FILED IN TPP CAB., PAGE 25B.

THE ORIGINAL DOCUMENT WAS SIGNED BY CHERYL A. MCBRIDE(R.O.D.)

TRANSPORTATION PROJECT PLAT NO: 5120-07-21 - 4.03

LA CROSSE - CASHTON

BOMA ROAD - FOREST RIDGE DRIVE

PART OF LOT 2 OF CSM NO. 179, IN AND INCLUDING PART OF THE NORTHEAST 1/4 OF THE NORTHEAST 1/4, THE NORTHWEST 1/4 OF THE NORTHEAST 1/4, AND THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4, ALL BEING IN SECTION 12, TOWN 15 NORTH, RANGE 7 WEST, IN THE TOWN OF SHELBY, LA CROSSE COUNTY, WISCONSIN.

RELOCATION ORDER STH 33, LA CROSSE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

EXISTING HIGHWAY RIGHT OF WAY BASED ON RIGHT OF WAY PLATS NO. 5358, NO. 5121-1-21 & NO. 5120-03-21, ASSESSOR'S PLATS OF THE TOWN OF SHELBY, FILED PLATS OF SURVEY, AND CERTIFIED SURVEY MAPS OF RECORD AND EXISTING IRONS LOCATED IN THE FIELD.

1" PINCHED IRON PIPE
Y = 126,333.867
X = 469,563.104

PI = 269+49.65
Y = 125,730.58
X = 469,657.49
△ = 18°33'16" R
D = 04°59'59"
T = 187.18'
R = 1,145.93'
L = 371.09'
PC = 267+62.46
PT = 271+33.56

PI = 282+90.64
Y = 125,145.45
X = 470,867.73
△ = 29°00'10" L
D = 02°50'00"
T = 523.03'
R = 2,022.20'
L = 1,023.63'
PC = 277+67.61
PT = 287+91.24

PI = 293+86.79
Y = 125,207.88
X = 471,984.57
△ = 10°35'23" R
D = 01°30'00"
T = 354.00'
R = 3,819.72'
L = 705.99'
PC = 290+32.78
PT = 297+38.77

PI = 10+00.00 K
Y = 125,171.67
X = 471,303.88

PI = 10+83.71 K
Y = 125,087.96
X = 471,304.23
△ = 27°48'30" R
D = 38°11'50"
T = 37.13'
R = 150.00'
L = 72.80'
PC = 10+46.57 K
PT = 11+19.37 K

PI = 14+24.54 K
Y = 124,784.54
X = 471,145.80

R/W POINT TABLE

PT. NO.	STATION	OFFSET	
300	268+14.80	173.99'	LT
301	274+17.41	229.92'	LT
302	277+67.59	229.94'	LT
303	286+17.39	229.99'	LT
304	287+91.24	70.00'	LT
305	290+32.78	70.00'	LT
306	295+27.44	70.00'	LT
307	295+41.32	69.87'	LT
308	295+50.75	60.00'	RT
309	294+00.00	65.00'	RT
310	292+50.00	65.00'	RT
311	292+00.00	115.00'	RT
312	290+25.00	140.00'	RT
313	287+60.53	124.31'	RT
314	11+88.94 K	69.71'	LT
315	12+88.24 K	26.09'	LT
316	13+39.54 K	40.75'	RT
317	283+29.35	263.52'	RT
318	283+11.52	150.03'	RT
319	280+56.12	150.04'	RT
320	280+62.42	60.04'	RT
321	276+17.43	77.07'	RT
322	273+37.88	65.06'	RT
323	271+30.66	160.26'	RT
324	268+73.26	160.08'	RT

R/W COURSE TABLE

COURSE	BEARING	DISTANCE
300 - 301	S73°-34'-06"E	655.03'
301 - 302	S64°-11'-58"E	350.18'
303 - 304	S45°-55'-33"E	226.80'
304 - 305	N86°-48'-02"E	241.55'
308 - 309	N88°-29'-30"W	148.36'
309 - 310	N88°-48'-59"W	147.44'
310 - 311	S44°-00'-04"W	69.88'
311 - 312	S79°-36'-19"W	171.26'
312 - 313	N89°-46'-29"W	266.83'
313 - 314	S28°-30'-02"W	99.95'
314 - 315	S51°-16'-58"W	108.46'
316 - 317	N76°-33'-40"W	271.86'
317 - 318	N00°-18'-54"E	115.18'
319 - 320	N21°-44'-48"E	90.24'
320 - 321	N69°-08'-06"W	454.36'
322 - 323	N88°-54'-50"W	227.67'

TLE POINT TABLE

PT. NO.	STATION	OFFSET	
700	288+50.00	129.53'	RT
701	289+00.00	138.00'	RT
702	289+50.00	135.51'	RT
703	292+45.00	70.09'	RT
704	294+00.00	70.00'	RT
705	294+50.00	63.99'	RT
706	295+00.00	62.34'	RT
707	295+25.00	65.00'	RT
708	295+51.14	65.15'	RT
709	295+20.00	70.00'	LT
710	295+25.00	101.14'	LT

1" IRON PIPE
Y = 126,331.193
X = 472,151.766

1" IRON PIPE
Y = 123,721.613
X = 469,501.990

11/4" IRON ROD
Y = 123,703.766
X = 472,135.484

N01°-20'-25"W 416.14' ALONG SEC. LINE TO R/W
N01°-20'-25"W 176.24' ALONG SEC. LINE TO R/W
N01°-20'-25"W 162.86' ALONG SEC. LINE TO R/L
N01°-20'-25"W 1,857.72' ALONG SEC. LINE TO R/W
S00°-20'-19"W 1,078.88' ALONG SEC. LINE TO R/W
S00°-20'-19"W 70.05' ALONG SEC. LINE TO R/L
S00°-20'-19"W 60.16' ALONG SEC. LINE TO R/W
N00°-20'-19"E 1,418.38' ALONG SEC. LINE TO R/W

NW-NE 12-15-7
NE-NE 12-15-7
SW-NE 12-15-7
SE-NE 12-15-7
TOWN OF SHELBY

NOT TO SCALE

TLE SLOPES 0.01 ACRES (8)
TLE SLOPES 0.01 ACRES (7)
TLE SLOPES 0.02 ACRES (7)
TLE SLOPES 0.01 ACRES (7)

CSM #179 LOT 2 DOC. 1183229

323 - 324
L = 221.42'
LC = 220.95'
LCB = N70°-43'-49"W
R = 985.92'

321 - 322
L = 280.59'
LC = 279.81'
LCB = N61°-44'-17"W
R = 1,083.89'

318 - 319
L = 274.34'
LC = 274.16'
LCB = N75°-59'-33"W
R = 2,172.00'

302 - 303
L = 753.16'
LC = 747.63'
LCB = S76°-14'-19"E
R = 1,792.20'

305 - 306
L = 503.72'
LC = 503.37'
LCB = S89°-29'-23"E
R = 3,889.72'

PC 277+67.61
PT 271+33.56
PC 10+46.57K
PT 11+19.37K
PC 14+24.54K
PT 287+91.24
PC 290+32.78
10+00.00K = 287+05.11
STA 268+40.93
STA 282+38.55
STA 295+46.31
STH 33
S64°-11'-48"E
N86°-48'-02"E
S27°-34'-14"W KNOBLOCH RD
S80°-07'-52"W 66.26'
S85°-07'-44"E 14.13'
66'
5.73'
15.71'

UTILITY SCHEDULE AND INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNERS	INTEREST REQUIRED
200	CENTURY LINK	RELEASE OF RIGHTS
201	CHARTER COMMUNICATIONS	RELEASE OF RIGHTS
202	VERNON ELECTRIC COOPERATIVE	RELEASE OF RIGHTS
203	XCEL ENERGY - GAS	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES OR S.F. REQUIRED			TLE ACRES OR S.F.
			NEW	EXISTING	TOTAL	
6	D & G SERVAIS JOINT REVOCABLE TRUST	FEE	1.28 AC.	---	1.28 AC.	---
7	RONALD W. MUELLER	FEE & TLE	0.87 AC.	---	0.87 AC.	0.04 AC.
8	DONALD J. DIONNE & FAYE GOLDSMITH	TLE	---	---	---	0.01 AC.

ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED

LA CROSSE COUNTY
LOCATION SKETCH NOT TO SCALE
R-7-W R-6-W
CITY LIMITS
BOMA RD
HORSESHOE PL
FOREST RIDGE DR
STH 33
TOWN OF SHELBY
SHEET LOCATION

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN LA CROSSE COUNTY AS SHEET 2 OF 2 OF DOCUMENT #1591210 AND FILED IN TPP CAB, PAGE 25B.

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

ROBERT L. POZORSKI — PRINTED NAME — SIGNATURE — 2/28/2012 DATE

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

JAMES R. KUEHN — PRINTED NAME — SIGNATURE — 3/13/12 DATE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5120-07-21 - 4.03

DOCUMENT #1593006

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN LA CROSSE COUNTY, WI AT 11:22 A.M., ON MARCH. 20, 2012 AND FILED IN TPP CAB., PAGE 26A.

THE ORIGINAL DOCUMENT WAS SIGNED BY CHERYL A. MCBRIDE(R.O.D.)

SCALE, FEET
0 100 200

FILE NAME : P:\State\s33\51200700\Cad\RWplat\sheets_from_consultant\040103_rw.dgn PLOT DATE : 16-MAR-2012 11:03 PLOT BY : dotjwr PLOT NAME : PLOT SCALE : 100.000000:1.000000

TRANSPORTATION PROJECT PLAT NO: 5120-07-21 - 4.04

LA CROSSE - CASHTON

BOMA ROAD - FOREST RIDGE DRIVE

PART OF LOT 1 OF CSM NO. 56, IN AND INCLUDING PART OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4; ALSO PART OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4, THE NORTHWEST 1/4 OF THE NORTHWEST 1/4, THE NORTHEAST 1/4 OF THE NORTHWEST 1/4, AND THE NORTHWEST 1/4 OF THE NORTHEAST 1/4, ALL BEING IN SECTION 7, TOWN 15 NORTH, RANGE 6 WEST, IN THE TOWN OF SHELBY, LA CROSSE COUNTY, WISCONSIN.

RELOCATION ORDER STH 33, LA CROSSE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

EXISTING HIGHWAY RIGHT OF WAY BASED ON RIGHT OF WAY PLATS NO. 5358, NO. 5121-1-21 & NO. 5120-03-21, ASSESSOR'S PLATS OF THE TOWN OF SHELBY, FILED PLATS OF SURVEY, AND CERTIFIED SURVEY MAPS OF RECORD AND EXISTING IRONS LOCATED IN THE FIELD.

1" IRON PIPE
Y = 126,331.193
X = 472,151.766

PI = 293+86.79
Y = 125,207.88
X = 471,984.57
△ = 10°35'23" R
D = 01°30'00"
T = 354.00'
R = 3,819.72'
L = 705.99'
PC = 290+32.78
PT = 297+38.77

PI = 308+69.73
Y = 125,016.87
X = 473,457.19
△ = 23°13'53" L
D = 02°27'33"
T = 478.90'
R = 2,329.81'
L = 944.65'
PC = 303+90.83
PT = 313+35.48

PI = 320+61.85
Y = 125,345.88
X = 474,616.70
△ = 12°00'41" R
D = 02°17'30"
T = 263.01'
R = 2,500.00'
L = 524.09'
PC = 317+98.84
PT = 323+22.93

PI = 334+88.90
Y = 125,441.32
X = 476,042.48

PI = 0+00.00 FR
Y = 125,090.32
X = 473,661.96

PI = 0+60.95 FR
Y = 125,030.21
X = 473,672.04
△ = 15°48'11" L
D = 28°38'52"
T = 27.76'
R = 200.00'
L = 55.16'
PC = 0+33.19 FR
PT = 0+88.36 FR

PI = 1+17.41 FR
Y = 124,978.86
X = 473,696.34
△ = 60°19'10" L
D = 114°35'30"
T = 29.05'
R = 50.00'
L = 52.64'
PC = 0+88.36 FR
PT = 1+40.99 FR

PI = 2+79.39 FR
Y = 124,966.14
X = 473,863.31

R/W POINT TABLE

PT. NO.	STATION	OFFSET
400	295+41.32	69.87' LT
401	296+14.22	70.00' LT
402	297+38.77	70.00' LT
403	303+90.83	70.00' LT
404	304+60.79	75.02' LT
405	313+43.55	74.99' LT
406	317+86.05	75.18' LT
407	318+54.84	75.01' LT
408	319+13.83	75.03' LT
409	323+19.44	61.68' LT
410	323+19.36	41.72' RT
411	320+13.75	40.32' RT
412	319+14.08	59.97' RT
413	318+22.11	59.92' RT
414	317+86.10	59.82' RT
415	313+43.61	60.01' RT
416	311+72.77	59.60' RT
417	1+90.86 FR	55.35' LT
418	3+00.00 FR	16.71' RT
419	2+75.00 FR	24.00' RT
420	1+50.00 FR	24.00' RT
421	1+25.00 FR	24.00' RT
422	1+00.00 FR	30.35' RT
423	0+90.27 FR	51.03' RT
424	310+40.54	60.86' RT
425	306+38.98	109.78' RT
426	303+90.83	110.00' RT
427	301+35.83	50.00' RT
428	301+00.00	50.00' RT
429	298+50.00	80.00' RT
430	296+50.00	80.00' RT
431	295+50.75	60.00' RT

R/W COURSE TABLE

COURSE	BEARING	DISTANCE
402 - 403	S82°-36'-35"E	652.06'
403 - 404	S87°-42'-11"E	67.97'
405 - 406	N74°-08'-04"E	442.49'
408 - 409	N83°-16'-21"E	416.45'
411 - 412	S66°-33'-56"W	99.62'
414 - 415	S74°-08'-04"W	442.49'
416 - 417	S17°-33'-35"E	23.39'
418 - 419	S78°-05'-35"W	26.04'
419 - 420	N85°-38'-40"W	125.00'
420 - 421	N79°-00'-36"W	32.49'
421 - 422	N62°-08'-36"W	38.68'
422 - 423	N82°-31'-12"W	27.10'
423 - 424	N00°-44'-12"W	45.23'
424 - 425	S79°-39'-48"W	418.59'
426 - 427	N69°-22'-08"W	261.96'
427 - 428	N82°-36'-36"W	35.83'
428 - 429	N89°-27'-10"W	251.79'
429 - 430	N82°-54'-06"W	198.14'
430 - 431	N73°-05'-10"W	99.46'

TLE POINT TABLE

PT. NO.	STATION	OFFSET
800	295+51.14	65.15' RT
801	295+75.00	65.14' RT
802	302+71.02	81.81' RT
803	303+82.09	123.58' RT
804	304+61.98	109.98' RT
805	310+17.00	61.72' RT
806	310+39.00	72.35' RT
807	2+75.00 FR	38.00' RT
808	313+50.00	60.01' RT
809	313+50.00	72.00' RT
810	315+25.00	72.00' RT
811	315+25.00	59.93' RT
812	316+40.00	59.88' RT
813	316+40.00	65.00' RT
814	318+75.00	65.00' RT
815	318+75.00	60.00' RT
816	320+00.00	43.28' RT
817	323+00.00	45.00' RT
818	323+00.00	41.67' RT

NW-NW
7-15-6

TOWN

SW-NW
7-15-6

SHELBY

SE-NW
7-15-6

NE-NW
7-15-6

NW-NE
7-15-6

SW-NE
7-15-6

S00°-20'-19"W 1,078.88' ALONG SEC. LINE TO R/W

CTH F

S85°-07'-44"E 14.24'

401 - 402
L = 126.83'
LC = 126.82'
LCB = S83°-32'-38"E
R = 3,889.72'

N00°-20'-19"E 70.05' ALONG SEC. LINE TO R/W

N00°-20'-19"E 60.16' ALONG SEC. LINE TO R/L

PT 297+38.77

300

S82°-36'-35"E

PC 303+90.83

305

OF

STH 33

120'

STA 295+46.31

TLE SLOPES
0.01 ACRES

TLE SLOPES
0.03 ACRES

423 - 424
L = 259.86'
LC = 259.74'
LCB = N85°-42'-33"W
R = 2,401.83'

STA 304+96.77

TLE SLOPES
0.01 ACRES

404 - 405
L = 854.44'
LC = 849.50'
LCB = N84°-48'-52"E
R = 2,291.93'

0+00.00FR = 310+73.06

310

S05°-37'-18"E

PC 0+33.19FR

S52°-12'-42"E 130.78'

PCC 0+88.36FR

PT 1+40.99FR

3+00.00FR

S85°-38'-40"E

65'

FOREST RIDGE DR

TLE SLOPES
0.02 ACRES

CSM #56
LOT 1
DOC. 1012857

N00°-20'-19"E 1,418.38' ALONG SEC. LINE TO R/W

1 1/4" IRON ROD
Y = 123,703.766
X = 472,135.484

NOT TO SCALE

IRON BAR WITH ALUMINUM CAP
Y = 126,368.772
X = 474,376.755

S01°-15'-26"E 1,007.65' ALONG SEC. LINE TO R/W

STA 318+37.10

406 - 407
L = 70.48'
LC = 70.47'
LCB = N74°-49'-17"E
R = 2,939.79'

407 - 408
L = 60.76'
LC = 60.76'
LCB = N76°-06'-00"E
R = 2,939.79'

S03°-52'-13"E 103.40'

N86°-10'-13"E

PT 323+22.93

PI 334+88.90

S01°-15'-26"E 77.12' ALONG SEC. LINE TO R/L

N74°-09'-32"E

PC 317+98.84

315

S01°-15'-26"E 61.75' ALONG SEC. LINE TO R/L

412 - 413
L = 89.76'
LC = 89.76'
LCB = S75°-46'-31"W
R = 2,804.79'

410 - 411
L = 300.59'
LC = 300.42'
LCB = S82°-51'-09"W
R = 2,549.21'

413 - 414
L = 35.45'
LC = 35.45'
LCB = S74°-29'-47"W
R = 2,804.79'

PT 313+35.48

TLE SLOPES
0.04 ACRES

TLE SLOPES
0.05 ACRES

415 - 416
L = 175.02'
LC = 174.98'
LCB = S76°-12'-02"W
R = 2,426.93'

TLE SLOPES
0.03 ACRES

S01°-15'-26"W 1,465.40' ALONG SEC. LINE TO R/W

COMPUTED POSITION
Y = 123,757.482
X = 474,434.059

SCALE, FEET
0 100 200

UTILITY SCHEDULE AND INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNERS	INTEREST REQUIRED
200	CENTURY LINK	RELEASE OF RIGHTS
202	VERNON ELECTRIC COOPERATIVE	RELEASE OF RIGHTS
203	XCEL ENERGY - GAS	RELEASE OF RIGHTS

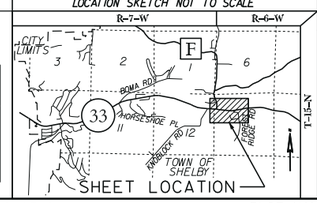
SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES OR S.F. REQUIRED			TLE ACRES OR S.F.
			NEW	EXISTING	TOTAL	
9	KATHLEEN KNOBLOCH	FEE & TLE	0.27 AC.	---	0.27 AC.	0.04 AC.
11	JOHN J. & MARY P. PERSHING	FEE & TLE	0.05 AC.	---	0.05 AC.	0.03 AC.
12	JOHN C. & JENNIFER L. BURELBACH REVOCABLE TRUST	FEE	0.02 AC.	---	0.02 AC.	---
13	ALVIN KNOBLOCH	TLE	---	---	---	0.12 AC.

ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED

LA CROSSE COUNTY
LOCATION SKETCH NOT TO SCALE



FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET. RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN LA CROSSE COUNTY AS SHEET 2 OF 2 OF DOCUMENT #1591210 AND FILED IN TPP CAB., PAGE 25B.

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

ROBERT L. POZORSKI — PRINTED NAME
SIGNATURE
2/28/2012 — DATE

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

JAMES R. KUEHN — PRINTED NAME
SIGNATURE
03/13/12 — DATE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5120-07-21 - 4.04

DOCUMENT #1593007

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN LA CROSSE COUNTY, WI
AT 11:32 A.M., ON MARCH. 22, 2012
AND FILED IN TPP CAB., PAGE 26B.

THE ORIGINAL DOCUMENT WAS SIGNED BY CHERYL A. MCBRIDE (R.O.D.)

BEGIN PROJECT 5120-07-71
STA 132+50.00

REMOVE EXISTING SIDEWALK
SAWING ASPHALT
ELECTRIC
BEGIN CONCRETE SIDEWALK 5-INCH
STA 131+46

SALEM & ARDEN MARKOS FAMILY TRUST
WILLIAM E. & CHRISTINE R. WEHRS
HEATHER L. CHRISTENSEN
EXISTING R/W

STA 132+50 - STA 135+00
CONCRETE CURB PEDESTRIAN, LT.

SLOPE INTERCEPTS
SAWING CONCRETE

STH 33
44'
MATCH LINE STA 134+50

SLOPE INTERCEPTS
REMOVE EXISTING GUARDRAIL

PT 129+23.62

COMMUNICATION
ELECTRIC

GOODHART - STACY REVOCABLE TRUST
DOROTHY OPFER IR-REVOCABLE TRUST
RODNEY A. & JULIET F. STEIGER
MICHAEL G. KRUSE

BM 1001

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1001	129+20, 69' RT	BRASS SURVEY MARKER ON CONC. BASS FOR SIGNAL CONTROL BOX. SE QUAD. STH 33 & 32ND ST.	667.17

BOP STA = 132+50.00
BOP EL = 675.24
2.61%
FINISHED PROFILE
ORIGINAL GROUND

680 678 676 674 672 670 668 666

667.46 667.90 668.30 668.70 669.09 669.47 670.04 670.60 671.13 671.65 672.30 672.95 673.68 674.41 674.76 675.24 675.24 675.89 675.85 676.54 676.59 677.19 677.23 677.84 677.87 678.50 678.54 679.15 679.20 679.80 679.85 680.45 680.49

128+50 129+00 129+50 130+00 130+50 131+00 131+50 132+00 132+50 133+00 133+50 134+00 134+50

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET 239	E

HEATHER L. CHRISTENSEN

JUNE I MIKKELSON &
LAWRENCE A. DAELLENBACH

CITY OF LA CROSSE

EXISTING R/W

STA 132+50 - STA 135+00
CONCRETE CURB PEDESTRIAN, LT.

STA 137+00 - STA 138+00
CONCRETE CURB PEDESTRIAN, LT.

SLOPE INTERCEPTS

STA 10+00.00DI=
STA 138+56.67

MATCH LINE
STA 134+50

MATCH LINE
STA 140+50

135 136 137 138 139 140

STH 33

PC = 137+71.65

SLOPE INTERCEPTS

REMOVE EXISTING GUARDRAIL

EXISTING R/W

ELECTRIC

REMOVE EXISTING GUARDRAIL

CAUTION

EXISTING DRIVE-IN ROAD

11DI

REMOVE EXISTING GUARDRAIL

STEVEN W. &
KATHERIN R.
HEISER

TOWN OF
SHELBY

MICHAEL G. KRUSE

THOMAS E. &
CAROL A. ABRAHAM

PAMELA A. ANDERSEN

CHARLES B. & JUDITH
E. PAPANEK SMITH

BRADLEY S. &
VICKI L. ALDERMAN

STACY DANIEL

VPI STA = 139+25.00
VPI EL = 692.85
CURVE LEN = 650.00
K = 303.96

ORIGINAL GROUND

FINISHED PROFILE

2.61%

VPC STA = 136+00.00
VPC EL = 684.37

692 690 688 686 684 682 680 678

680.45	681.11	681.76	682.41	683.06	683.72	684.37	685.01	685.63	686.23	686.81	687.37	687.91	688.43	688.93	689.41	689.86	690.30	690.72	691.11	691.49	691.84	692.17	692.49	692.78
680.49	681.14	681.79	682.45	683.10	683.79	684.44	685.52	685.75	686.88	687.09	688.21	688.33	689.43	689.55	690.09	690.58	691.08	691.52	691.91	692.29	692.65	693.01	693.35	693.70

134+50 135+00 135+50 136+00 136+50 137+00 137+50 138+00 138+50 139+00 139+50 140+00 140+50

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET 240	E

CITY OF LA CROSSE

TOWN OF SHELBY

N

EXISTING R/W

STA 140+50 - STA 142+50
CONCRETE CURB PEDESTRIAN, LT.

STA 145+00 - STA 148+50
CONCRETE CURB PEDESTRIAN, LT.

MATCH LINE
STA 140+50

MATCH LINE
STA 146+50

SLOPE INTERCEPTS

STH 33

141 142 143 144 145 146

INL

MH

SS

HO

REMOVE EXISTING GUARDRAIL

SLOPE INTERCEPTS

ELECTRIC

EXISTING R/W

BEGIN R-32-54
STA 146+47.56

JOHN R. &
JENNY R.
SCHROEDER

STEVEN W. &
KATHERIN R. HEISER

DAVID J. & MISTY G. PIRO

GEORGE P. SNYDER, II &
KARON M. SNYDER

WILLIAM R. & KATHLEEN M.
HALASKA REVOCABLE TRUST

LOENA JULIEN

SARAH M BRYE

ZOLTAN G. JR. &
NICHOLE E. CSETE

BEVERLY J. DROOG,
LIVING TRUST

5

5

ORIGINAL GROUND

FINISHED PROFILE

0.47%

VPT STA = 142+50.00
VPT EL = 694.38

| | | |

JEFFREY M. SEXHAUER

LONE APPLE TREE, LLC

RUTH E. SNODGRASS

EBNER JOINT REVOCABLE TRUST

EXISTING R/W

STA 149+00
ASPHALT P.E., LT

STA 150+08
ASPHALT P.E., LT

STA 151+00
ASPHALT P.E., LT

STA 145+00 - STA 148+50
CONCRETE CURB PEDESTRIAN, LT.

SLOPE INTERCEPTS

SAWING ASPHALT

STA 10+00.00H=
STA 149+22.75

SAWING ASPHALT

SAWING ASPHALT

GAS

ELECTRIC

SANITARY SEWER

MATCH LINE
STA 146+50

STH 33

ADJUST MANHOLE

MATCH LINE
STA 152+50

147

148

149

150

151

152

CAUTION

REMOVE EXISTING SS

PI 147+21.59

REMOVE EXISTING GUARDRAIL

PC 150+89.36

SAWING ASPHALT

STA 150+80
ASPHALT P.E., RT

SLOPE INTERCEPTS

EXISTING R/W

STA 151+50
ASPHALT P.E., RT

STRUCTURE R-32-54
SEE STRUCTURE PLANS

HIAWATHA AVENUE

R/W

JOHN R. & JENNY R.
SCHROEDER

GLENDON W. & JOAN V. FISCHER

KENNETH V. & MARGIE E.
ALLEN REVOCABLE TRUST

FRANKLIN & LYDIA WALTERS

MICHAEL W. & DEBRA
RANDALL ANDERSON

CHRIS R. & ANNE M. BLAYLOCK

5

5

704
702
700
698
696
694
692
690

ORIGINAL GROUND

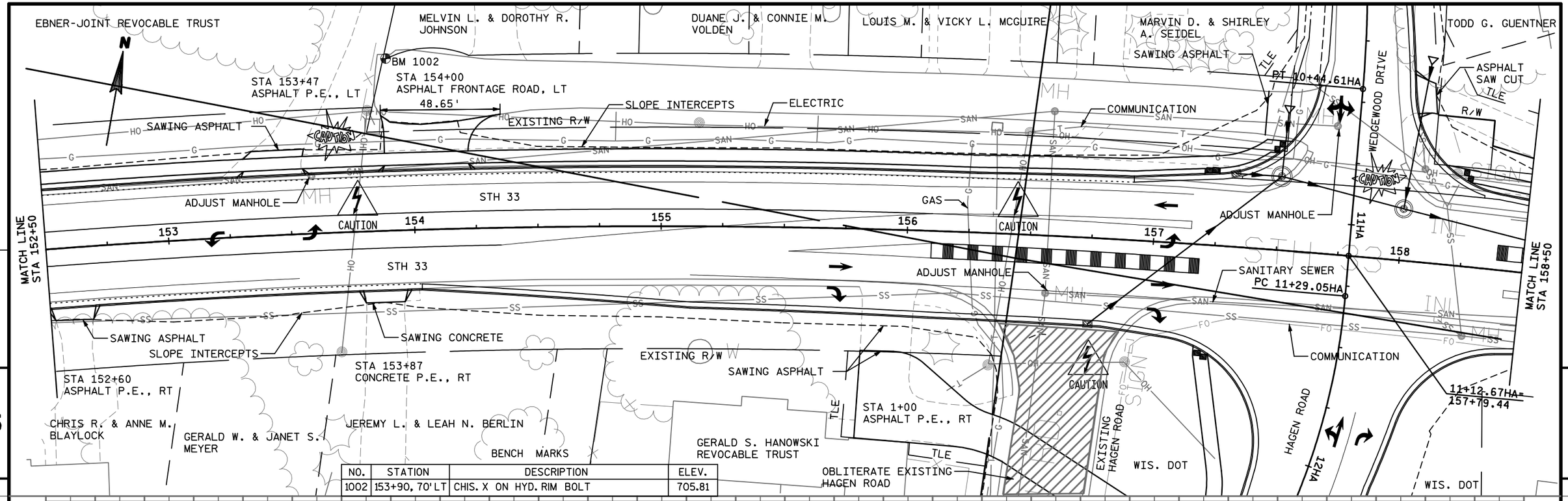
0.47%

FINISHED PROFILE

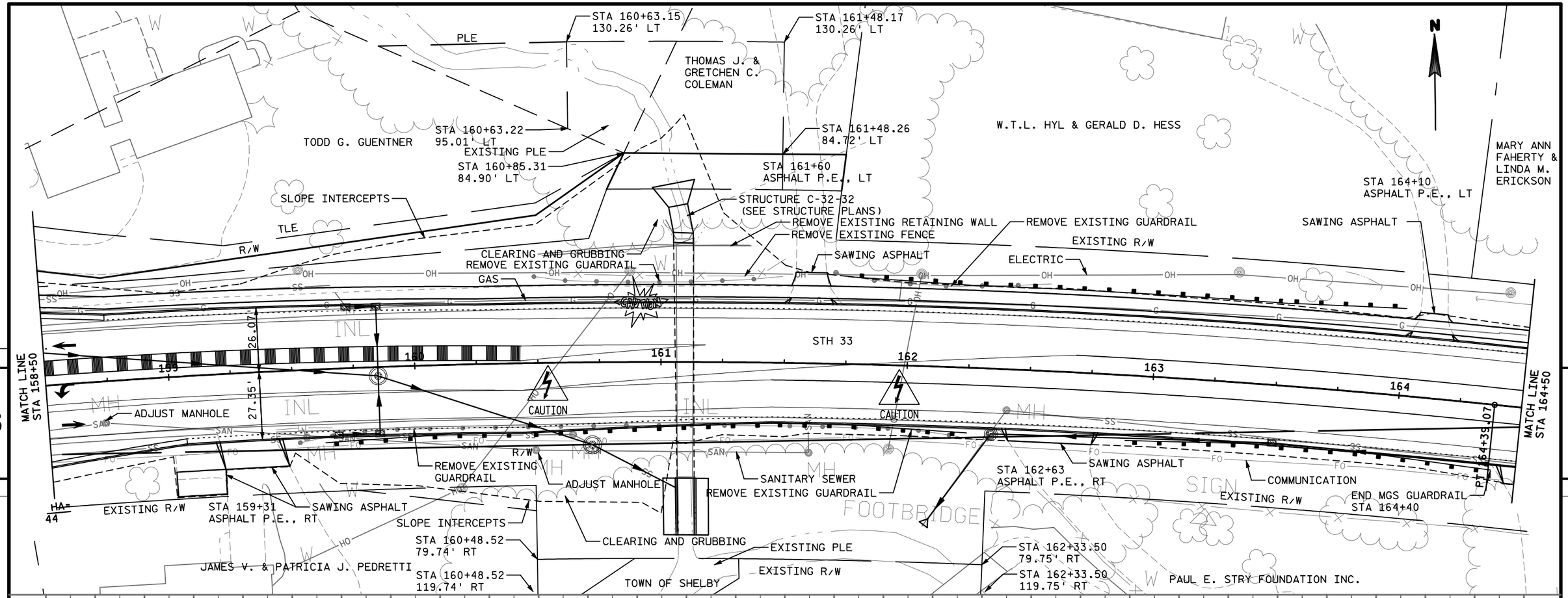
146+50	147+00	147+50	148+00	148+50	149+00	149+50	150+00	150+50	151+00	151+50	152+00	152+50
696.26 / 696.84	696.38 / 696.95	696.50 / 697.06	696.62 / 697.20	696.73 / 697.32	696.85 / 697.43	696.97 / 697.53	697.09 / 697.54	697.20 / 697.73	697.32 / 697.85	697.44 / 697.96	697.56 / 698.09	697.67 / 698.21	697.79 / 698.32	697.91 / 698.44	698.03 / 698.54	698.15 / 698.65	698.26 / 698.76	698.38 / 698.87	698.50 / 698.97	698.62 / 699.08	698.73 / 699.18	698.85 / 699.29	698.97 / 699.42	699.09 / 699.54

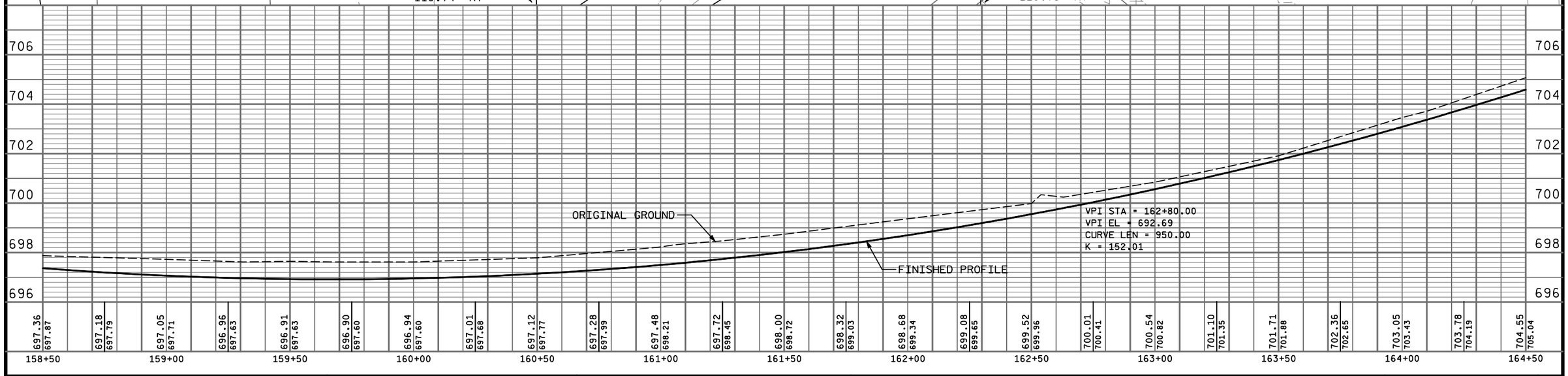
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Plan & Profiles\050104_pp.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

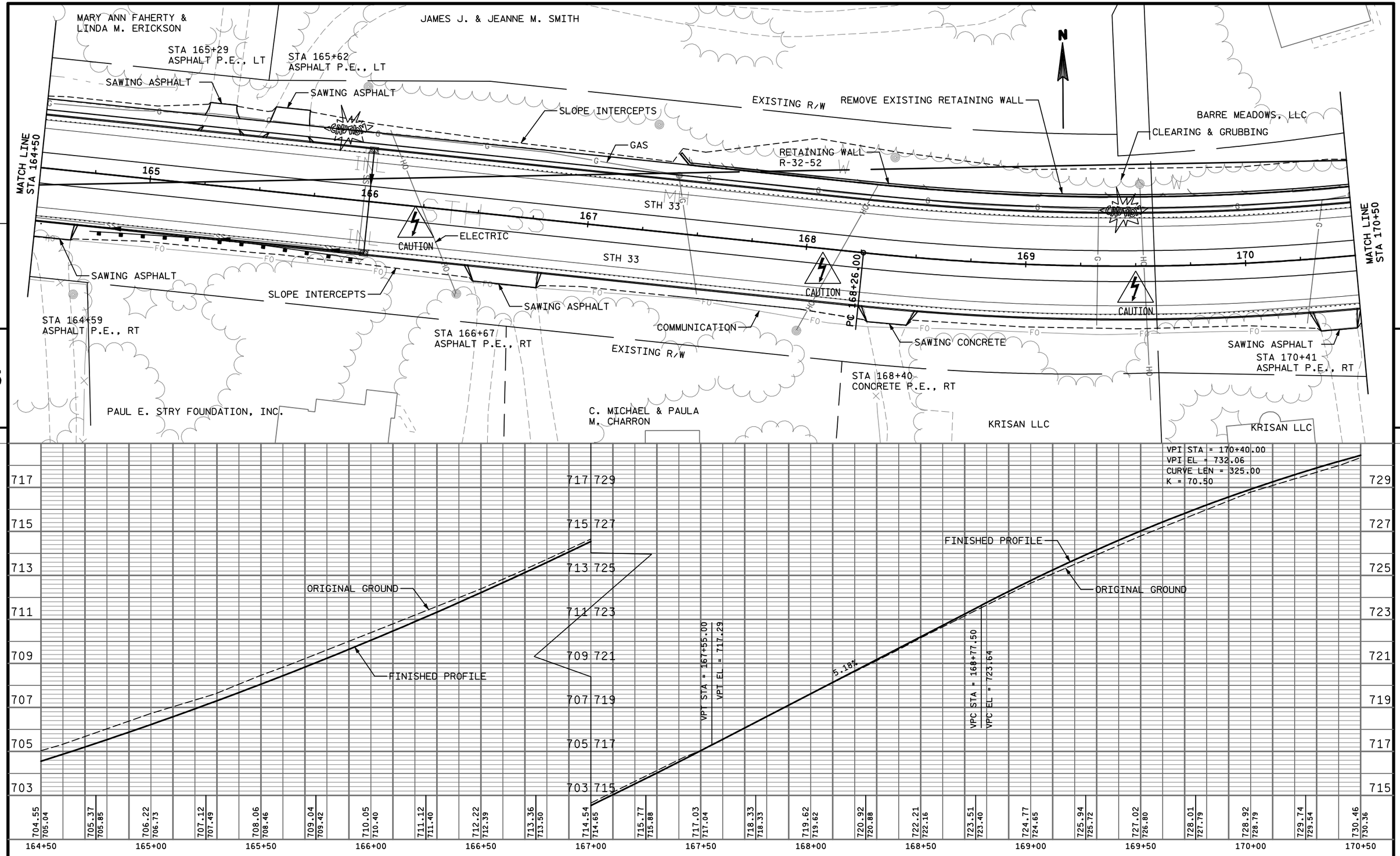


PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET 243 E





PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET 244 E



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Plan & Profiles\050107_pp.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

HEIDI HOLLER

WAYNE M. HOLLER

RICHARD & BARBARA ANDRES

BARRE MEADOWS, LLC

REMOVE EXISTING RETAINING WALL

RETAINING WALL R-32-52

EXISTING R/W

ELECTRIC

STA 171+08
ASPHALT P.E., LT

SAWING ASPHALT

SANITARY SEWER

STA 172+55
GRAVEL P.E., LT

ASPHALT APRON

GAS

STA 173+66
ASPHALT P.E., LT

SAWING ASPHALT

ADJUST MANHOLE

SLOPE INTERCEPTS

STA 175+06
ASPHALT P.E., LT

SAWING ASPHALT

ADJUST MANHOLE

SAWING ASPHALT

STA 176+55
ASPHALT P.E., LT

MATCH LINE
STA 170+50

MATCH LINE
STA 176+50

STH 33

171 172 173 174 175 176

PT 174+60.60

SLOPE INTERCEPTS

BM 1003

COMMUNICATION

REMOVE EXISTING GUARDRAIL

KRISAN LLC

EXISTING R/W

FIVE PINES FARM, LLC

EXISTING R/W

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1003	170+65, 40' RT	CHIS. SQUARE ON STORM SEWER MANHOLE RIM	730.36

740
738
736
734
732
730
728
726

ORIGINAL GROUND

FINISHED PROFILE

0.57%

VPI STA = 175+75.00
VPI EL = 735.10
CURVE LEN = 600.00
K = 675.93

VPT STA = 172+02.50
VPT EL = 732.98

VPC STA = 172+75.00
VPC EL = 733.39

730.46 / 730.36	731.10 / 730.99	731.65 / 731.64	732.11 / 732.17	732.49 / 732.65	732.77 / 733.02	732.97 / 733.39	733.11 / 733.63	733.25 / 733.87	733.39 / 733.95	733.53 / 734.00	733.66 / 734.10	733.78 / 734.20	733.89 / 734.27	733.99 / 734.34	734.08 / 734.39	734.16 / 734.45	734.24 / 734.50	734.30 / 734.56	734.36 / 734.60	734.40 / 734.64	734.44 / 734.69	734.46 / 734.75	734.48 / 734.74	734.49 / 734.73
170+50	171+00	171+50	172+00	172+50	173+00	173+50	174+00	174+50	175+00	175+50	176+00	176+50												

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET 246 E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Plan & Profiles\050108_pp.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 40

STEVEN L. HOWARD

YVONNE T. STEVENSON

R & L WENDORF TRUST

DENNIS H. & AMY J. LOVE

SPENCER TRUST

WALLS

STA 176+55
ASPHALT P.E., LT

STA 176+87
ASPHALT P.E., LT

SAWING ASPHALT

GAS

CAUTION

STA 177+73
ASPHALT P.E., LT

EXISTING R/W

SAWING ASPHALT

SLOPE INTERCEPTS

REMOVE EXISTING RETAINING WALL

STA 179+12
EXISTING BRICK PAVERS TO REMAIN P.E., LT

RETAINING WALLS

CONCRETE DRIVEWAY MATCH INTO PAVERS

R/W

ADJUST MANHOLE

STH 33

REMOVE EXISTING RETAINING WALL

RETAINING WALLS

STA 180+42
ASPHALT P.E., LT

SAWING ASPHALT

TLE
R/W

REMOVE EXISTING RETAINING WALL

RETAINING WALL R-32-53

EXISTING R/W

CLEARING AND GRUBBING

COMMUNICATIONS

CAUTION

SANITARY SEWER

ADJUST MANHOLE

MATCH LINE
STA 176+50

MATCH LINE
STA 182+50

177 178 179 180 181 182

CAUTION

ELECTRIC

CAUTION

STH 33

CONCRETE SIDEWALK 5-INCH
(IN FRONT OF WALL)

COMMUNICATIONS

SLOPE INTERCEPTS

SAWING ASPHALT

STA 180+52
ASPHALT P.E., RT

REMOVE EXISTING GUARDRAIL

EXISTING R/W

FIVE PINES FARM, LLC

5

5

740 738 736 734 732 730 728 726

ORIGINAL GROUND

FINISHED PROFILE

-0.32%

VPI STA = 178+75.00
VPI EL = 734.15

VPC STA = 182+00.00
VPC EL = 733.12

176+50	177+00	177+50	178+00	178+50	179+00	179+50	180+00	180+50	181+00	181+50	182+00	182+50
734.49 / 734.73	734.49 / 734.72	734.48 / 734.66	734.46 / 734.59	734.43 / 734.52	734.39 / 734.41	734.35 / 734.40	734.29 / 734.32	734.23 / 734.23	734.15 / 734.14	734.07 / 734.05	733.99 / 733.98	733.91 / 733.93	733.83 / 733.86	733.75 / 733.78	733.67 / 733.75	733.59 / 733.64	733.51 / 733.58	733.44 / 733.52	733.36 / 733.42	733.28 / 733.31	733.20 / 733.23	733.12 / 733.15	733.06 / 733.15	733.04 / 733.14

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Plan & Profiles\050109_pp.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

SPENCER TRUST

EXISTING R/W

STA 183+68
ASPHALT C.E., LT
SAWING ASPHALT

COMMUNICATION

SLOPE INTERCEPTS

ELECTRIC

GAS

CLEARING AND GRUBBING

RETAINING WALL

MATCH LINE
STA 182+50

MATCH LINE
STA 188+50

CAUTION

STH 33

183 184 185 186 187 188

STH 33

REMOVE EXISTING GUARDRAIL

EXISTING WALL TO REMAIN

SLOPE INTERCEPTS

EXISTING R/W

EXISTING R/W

CLEARING AND GRUBBING

THE GARY STEELE REVOCABLE TRUST

5

5

744 742 740 738 736 734 732 730

VPT STA = 184+00.00
VPT EL = 733.72

0

92%

VPC STA = 184+05.00
VPC EL = 733.76

FINISHED PROFILE

ORIGINAL GROUND

VPI STA = 185+55.00
VPI EL = 735.14
CURVE LEN = 300.00
K = 133.41

VPT STA = 187+05.00
VPT EL = 739.90

3.17%

VPC STA = 187+95.00
VPC EL = 742.75

VPI STA = 183+00.00
VPI EL = 732.80
CURVE LEN = 200.00
K = 161.69

182+50	183+00	183+50	184+00	184+50	185+00	185+50	186+00	186+50	187+00	187+50	188+00	188+50
733.04 / 733.14	733.05 / 733.16	733.11 / 733.19	733.20 / 733.23	733.34 / 733.27	733.51 / 733.39	733.72 / 733.60	733.96 / 733.90	734.25 / 734.21	734.59 / 734.55	734.98 / 734.89	735.41 / 735.34	735.89 / 735.80	736.41 / 736.38	736.98 / 736.97	737.60 / 737.59	738.27 / 738.21	738.98 / 738.94	739.74 / 739.68	740.53 / 740.46	741.32 / 741.25	742.11 / 742.02	742.90 / 742.79	743.68 / 743.54	744.43 / 744.29

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Plan & Profiles\050110_pp.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

SHEDESKY FAMILY LLC

EXISTING R/W

CLEARING AND GRUBBING

SLOPE INTERCEPTS

RETAINING WALL

GAS

MATCH LINE STA 188+50

STH 33

189 190 191 192 193 194

PC 191+30.17

REMOVE EXISTING GUARDRAIL

SLOPE INTERCEPTS

EXISTING R/W

THE GARY STEELE REVOCABLE TRUST

STA 194+46.91
69.99' LT

EXISTING PLE

STA 194+06.91
69.99' LT

REMOVE EXISTING FENCE

STA 194+09.91
49.86' LT

STA 194+46.91
50.31' LT

REMOVING OLD STRUCTURE
STA 194+12

BM 1004

ELECTRIC

MATCH LINE STA 194+50

CAUTION

SAWING ASPHALT

STA 193+31
ASPHALT P.E., RT.

STA 193+44.7
51.24' RT

SAWING ASPHALT
STA 193+86.91
51.01' RT

EXISTNG PLE

STA 194+40
ASPHALT P.E., RT.

STA 193+28.03
90.01' RT

STA 193+71.91
90.01' RT

COACHLITE ESTATES, INC.

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1004	194+27.34'LT	CHIS. X NE CORNER OF NORTH HEADWALLACROSS FROM EAST TRAILER COURT ENTRANCE	753.61

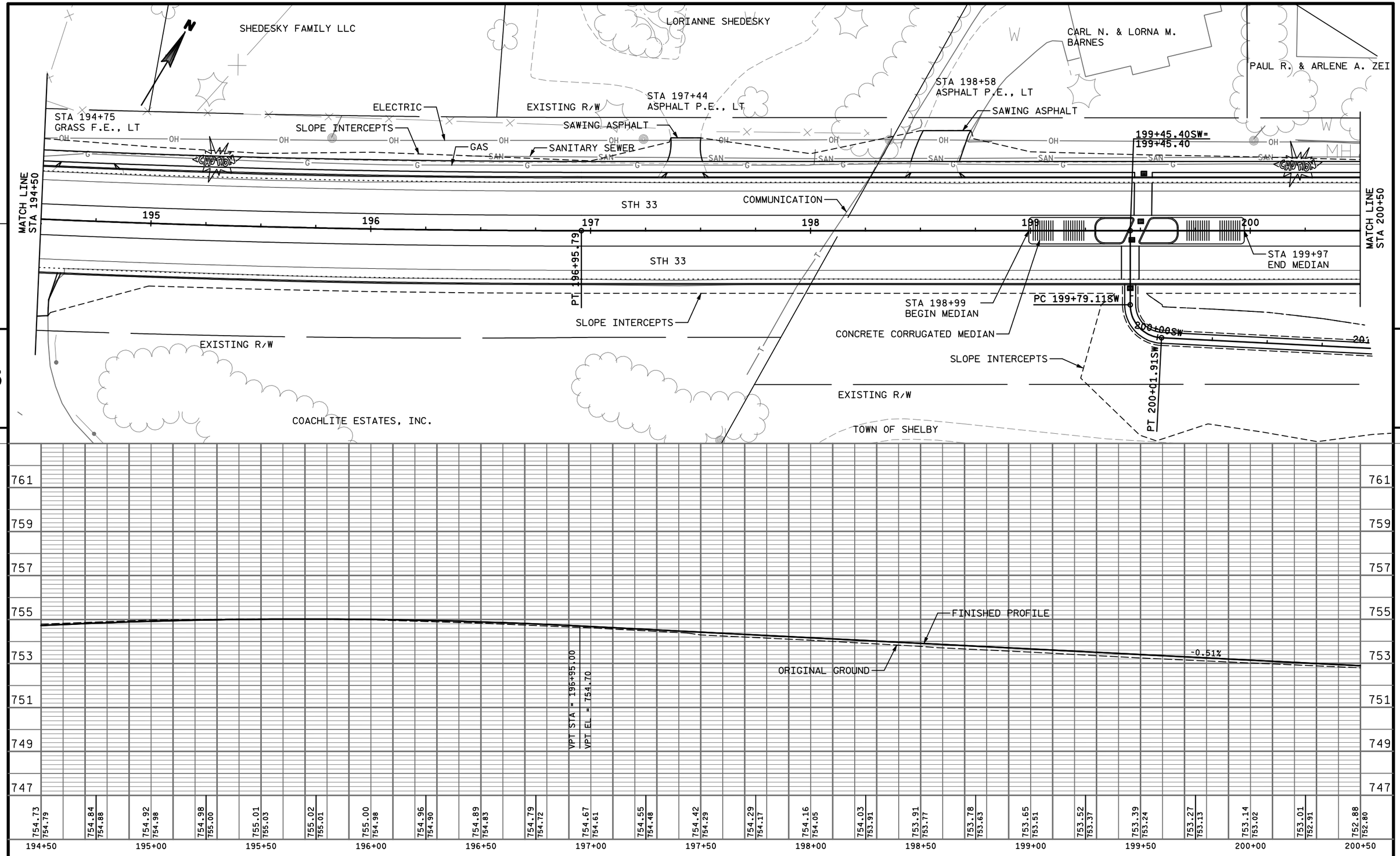
VPI STA = 192+45.00
VPI EL = 757.00
CURVE LEN = 900.00
K = 244.61

ORIGINAL GROUND

FINISHED PROFILE

744.43	744.29	745.15	745.04	745.85	745.79	746.52	746.48	747.17	747.17	747.79	747.77	748.38	748.37	748.95	748.92	749.49	749.47	750.01	750.01	750.51	750.55	750.97	750.99	751.42	751.46	751.83	751.89	752.22	752.33	752.59	752.71	752.93	753.08	753.24	753.37	753.53	753.65	753.79	753.89	754.03	754.13	754.24	754.28	754.43	754.42	754.59	754.61	754.73	754.79
188+50		189+00		189+50		190+00		190+50		191+00		191+50		192+00		192+50		193+00		193+50		194+00		194+50	

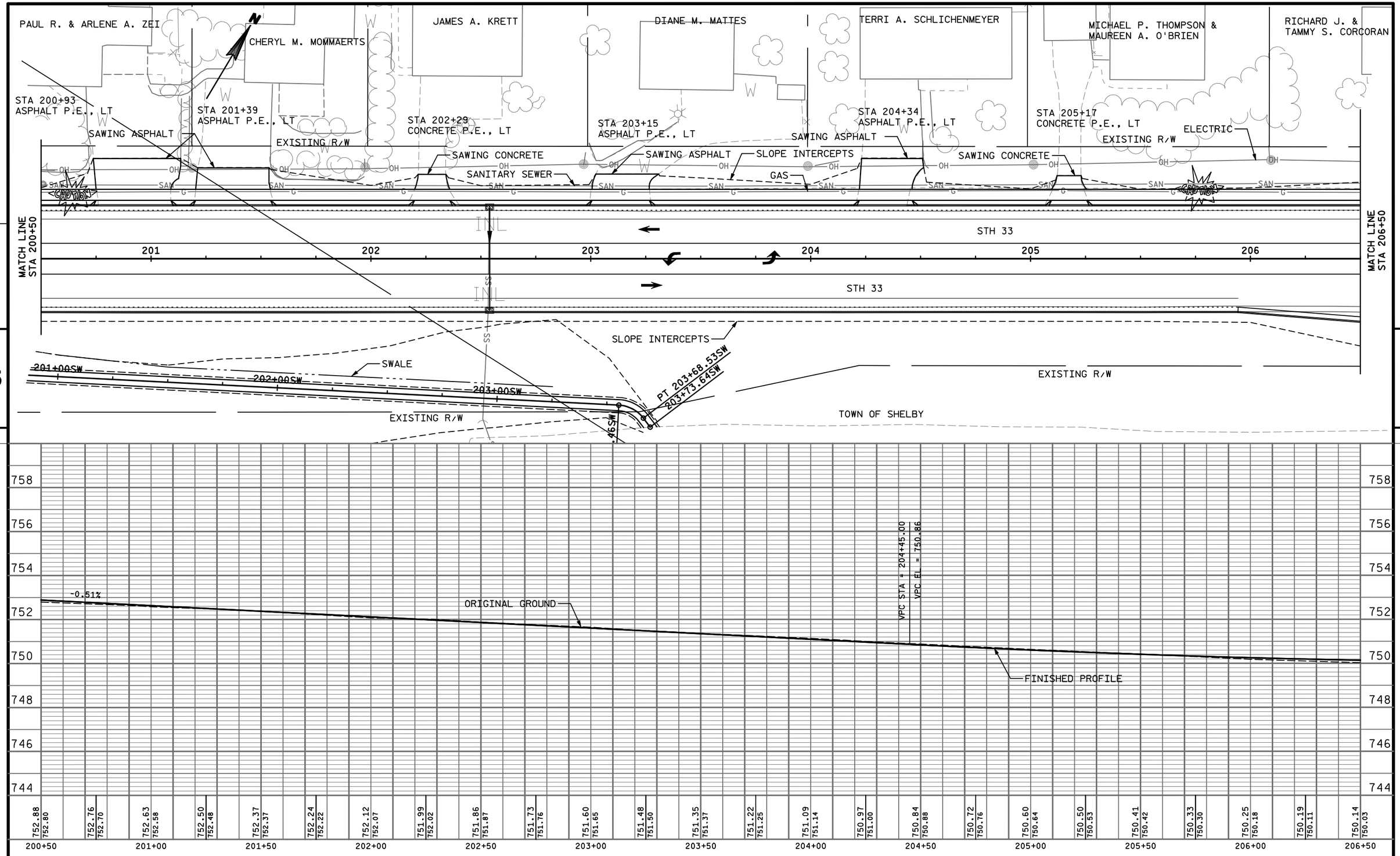
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET 249	E



5

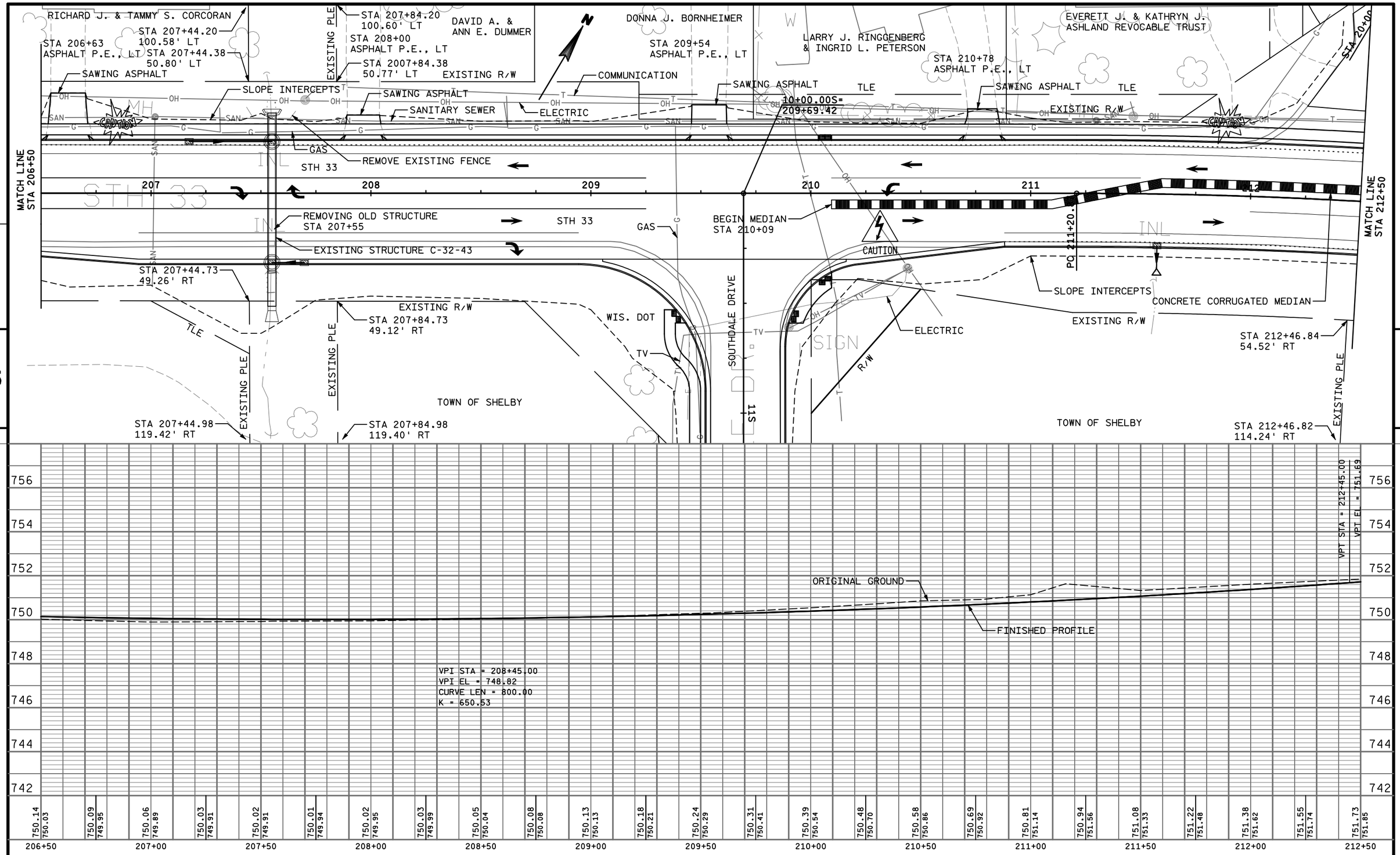
5

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET 250 E

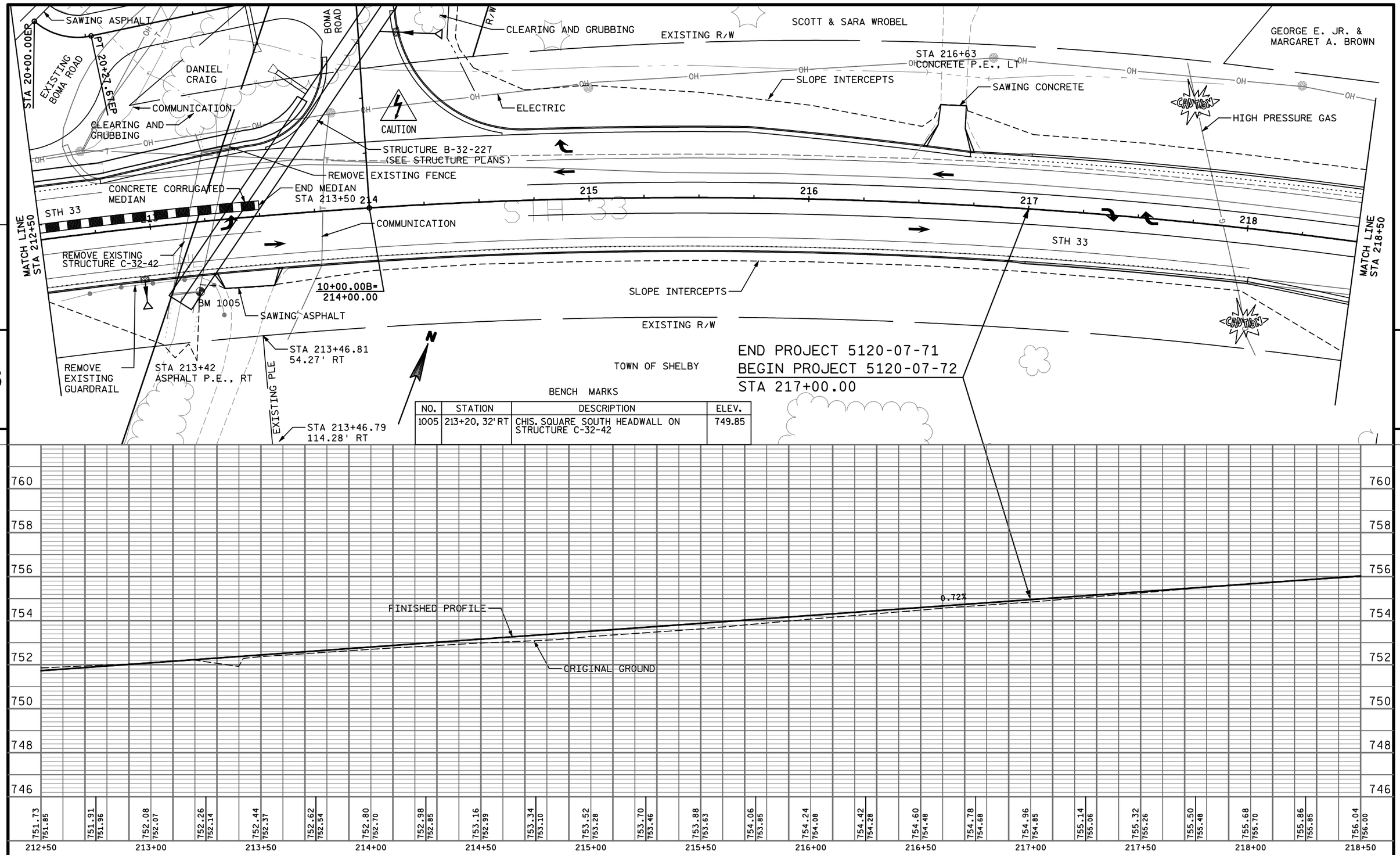


PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET 251 E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Plan & Profiles\050113_pp.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

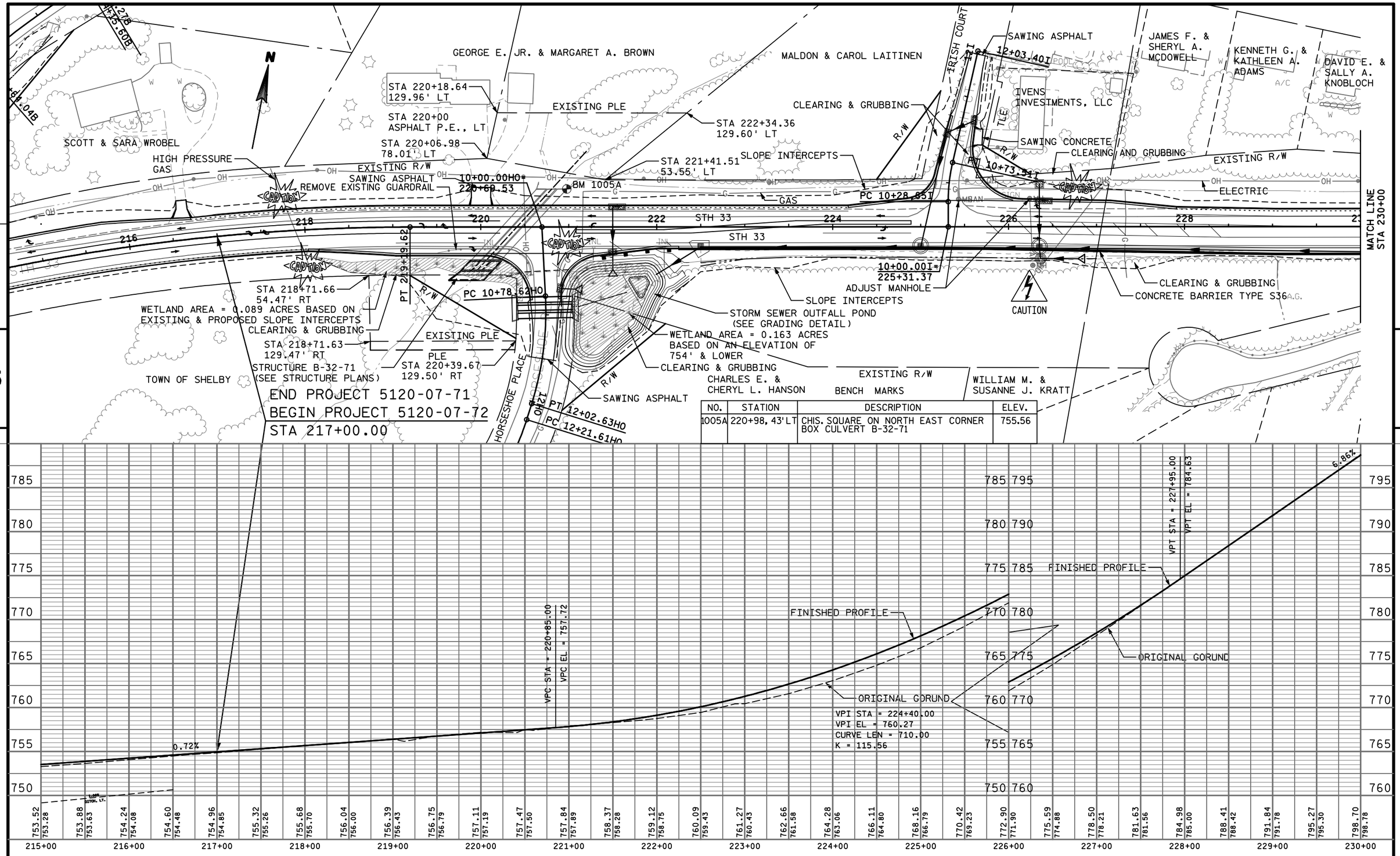


PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET 252	E



PROJECT NO: 5120-07-71/72	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET 253	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Plan & Profiles\050115_pp.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40



PROJECT NO: 5120-07-71/72	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET 254 E

DAVID E. & SALLY A. KNOBLOCH

JEREMY I. & MICHELLE M. OLSON

DAVID A & LORI L.BUSCH

RICHARD C. & MARY MEYER

PETER J. JANSSON & MARY E. TEMP

RUDOLPH J. & MARY E. SCHMIDT REVOACABLE TRUST

REMOVE EXISTING GUARDRAIL

REMOVE EXISTING CONCRETE BARRIER

EXISTING R/W

STA 243+07
ASPHALT P.E., LT

SLOPE INTERCEPTS

R/W

OH
ELECTRIC

BM 1006

0+00.00N=
237+12.29

CONCRETE BARRIER TYPE S36

SAWING ASPHALT

BM 1007

REMOVE EXISTING GUARDRAIL

MATCH LINE
STA 230+00

232 234 236 238 240 242 244

STH 33

INL INL INL INL INL INL

SS

CONCRETE BARRIER TYPE S36

PC 0+48.61N

PC 240+64.75

CLEARING AND GRUBBING

SLOPE INTERCEPTS

NORSEMAN ROAD NORSEMAN RD.

SAWING ASPHALT

CONCRETE BARRIER TYPE S36

REMOVE EXISTING CONCRETE BARRIER

MATCH LINE
STA 245+00

N

N2

3+30.68N

PT 2+65.13N

SAWING ASPHALT

SAWING ASPHALT

KEITH W. & GERALYN M. GUNTER

EXISTING R/W

KENNETH K. & LINDA L. KEMPF

DAVID B. SERVAIS

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1006	231+36, 45'LT	BRASS SURVEY MARKER ON TOP OF CURB OF CONCRETE FLUME ON THE NORTH SIDE OF STH 33	803.98
1007	244+50, 65'LT	RAILROAD SPIKE IN 42" COTTONWOOD TREE, EAST OF W5290 ENTRANCE	897.84

835 830 825 820 815 810 805 800

875 870 865 860 855 850 845 840

905 900 895 890 885 880 875 870

FINISHED PROFILE

ORIGINAL GROUND

6.85%

FINISHED PROFILE

ORIGINAL GROUND

6.86%

FINISHED PROFILE

ORIGINAL GROUND

6.85%

798.70 798.78 802.13 802.20 805.56 805.69 808.99 809.08 812.42 812.49 815.85 815.92 819.29 819.38 822.72 822.74 826.15 826.16 829.58 829.65 833.01 833.01 836.44 836.39 839.87 839.72 843.30 843.23 846.73 846.64 850.16 850.14 853.60 853.55 857.03 856.93 860.46 860.34 863.89 863.79 867.32 867.20 870.75 870.78 874.18 874.21 877.61 877.48 881.04 881.03 884.47 884.41 887.91 887.74 891.34 891.09 894.77 894.49 898.20 898.01 901.63 901.38

230+00 231+00 232+00 233+00 234+00 235+00 236+00 237+00 238+00 239+00 240+00 241+00 242+00 243+00 244+00 245+00

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET 255	E

RUDOLPH J. & MARY E. SCHMIDT REVOCABLE TRUST

RUDOLPH J. & MARY E. SCHMIDT REVOCABLE TRUST

ARTHUR A. & JENNIFER SEXAUER

EXISTING R/W

A.G.

REMOVE EXISTING CONCRETE BARRIER

SLOPE INTERCEPTS

CONCRETE BARRIER TYPE S36

MATCH LINE STA 245+00

MATCH LINE STA 260+00

246 248 250 252 254 256 258

STH 33

PT 247+42.93

PC 251+24.30

PT 259+40.31

SLOPE INTERCEPTS

CONCRETE BARRIER TYPE S36

EXISTING R/W

EXISTING R/W

DAVID B. SERVAIS

DAVID B. SERVAIS

5

5

VPI STA = 249+20.00
VPI EL = 930.45
CURVE LEN = 400.00
K = 408.18

FINISHED PROFILE

ORIGINAL GROUND

6.96%

VPC STA = 247+20.00
VPC EL = 916.73

VPC STA = 252+50.00
VPC EL = 949.86

FINISHED PROFILE

ORIGINAL GROUND

5.88%

VPT STA = 251+20.00
VPT EL = 942.21

VPI STA = 259+00.00
VPI EL = 988.09
CURVE LEN = 1300.00
K = 3168.54

FINISHED PROFILE

ORIGINAL GROUND

935 930 925 920 915 910 905 900

965 960 955 950 945 940 935 930

995 990 985 980 975 970 965 960

901.63 901.38 | 905.06 904.94 | 908.49 908.41 | 911.92 911.92 | 915.35 915.38 | 918.77 918.66 | 922.14 922.16 | 925.44 925.41 | 928.68 928.86 | 931.86 931.87 | 934.98 934.96 | 938.04 938.01 | 941.03 940.97 | 943.98 943.80 | 946.92 946.80 | 949.86 949.70 | 952.81 952.73 | 955.76 955.74 | 958.72 958.77 | 961.69 961.69 | 964.66 964.74 | 967.65 967.84 | 970.64 970.72 | 973.64 973.75 | 976.65 976.71 | 979.67 979.78 | 982.69 982.74 | 985.72 985.70 | 988.76 988.78 | 991.81 991.62 | 994.86 994.77

245+00 246+00 247+00 248+00 249+00 250+00 251+00 252+00 253+00 254+00 255+00 256+00 257+00 258+00 259+00 260+00

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET 256	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Plan & Profiles\050118_pp.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ARTHUR A. & JENNIFER SEXAUER

EXISTING R/W

N

REMOVE EXISTING GUARDRAIL

CONCRETE BARRIER TYPE S36

REMOVE EXISTING CONCRETE BARRIER

STH 33

MATCH LINE STA 260+00

BM 1008

PC 267+63.46

SLOPE INTERCEPTS

PT 271+73.56

CONCRETE BARRIER TYPE S36

CLEARING AND GRUBBING

MATCH LINE STA 275+00

EXISTING R/W

ARTHUR A. & JENNIFER SEXAUER

EXISTING R/W

SLOPE INTERCEPTS

REMOVE EXISTING GUARDRAIL

REMOVE EXISTING CONCRETE BARRIER

CONCRETE BARRIER TYPE S36

STH 33

5

5

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1008	261+57, 32' RT	CHIS. SQUARE NORTHWEST CORNER OF INLET LOCATED ON SOUTH SIDE OF STH 33	1004.37

DAVID B. SERVAIS

DAVID B. SERVAIS

FINISHED PROFILE

ORIGINAL GROUND

VPT STA = 265+50.00

VPT EL = 1028.99

6.39%

VPC STA = 265+55.00

VPC EL = 1029.31

VPI STA = 267+30.00

VPI EL = 1040.32

CURVE LEN = 350.00

K = 4197.05

ORIGINAL GROUND

FINISHED PROFILE

6.21%

VPT STA = 269+05.00

VPT EL = 1051.19

VPC STA = 271+25.00

VPC EL = 1064.85

6.21%

FINISHED PROFILE

ORIGINAL GROUND

994.86 994.77 | 997.93 997.84 | 1001.00 1000.87 | 1004.08 1003.90 | 1007.16 1006.84 | 1010.26 1010.02 | 1013.36 1013.20 | 1016.47 1016.37 | 1019.59 1019.49 | 1022.72 1022.64 | 1025.85 1025.75 | 1028.99 1028.92 | 1032.14 1032.12 | 1035.28 1035.29 | 1038.41 1038.43 | 1041.53 1041.52 | 1044.65 1044.81 | 1047.77 1047.84 | 1050.87 1050.87 | 1053.98 1053.88 | 1057.08 1057.12 | 1060.19 1060.19 | 1063.29 1063.39 | 1066.40 1066.47 | 1069.52 1069.50 | 1072.65 1072.61 | 1075.80 1075.65 | 1078.96 1078.80 | 1082.14 1081.75 | 1085.33 1085.15 | 1088.53 1088.33

260+00 261+00 262+00 263+00 264+00 265+00 266+00 267+00 268+00 269+00 270+00 271+00 272+00 273+00 274+00 275+00

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET 257	E

MATCH LINE STA 275+00

REMOVE EXISTING CONCRETE BARRIER

CLEARING AND GRUBBING

PC 277+61.61

CONCRETE BARRIER TYPE S36

SLOPE INTERCEPTS

EXISTING R/W

CONCRETE BARRIER TYPE S36 SLOPE INTERCEPTS

POND ACCESS ROAD

CLEARING AND GRUBBING

DAVID B. SERVAIS

STORM SEWER OUTFALL POND (SEE GRADING DETAIL)

STEVEN C. SCHLACK

EXISTING R/W

REMOVE EXISTING GUARDRAIL

CLEARING AND GRUBBING

10+00.00K= 287+05.11

STH 33

BM 1010

PC 10+46.57K

EXISTING R/W

GAS

CLEARING AND GRUBBING

CAUTION

EXISTING R/W

R/W

TLE

11+19.37K

ROBERT W. MUELLER

ELECTRIC

COMMUNICATION

RETAINING WALL

MATCH LINE STA 290+00

REMOVING OLD STRUCTURE STA 284+75

KNOBLOCH ROAD

12K

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1010	286+52, 35' RT	CHIS. SQUARE NORTHEAST CORNER OF CONCRETE FLUME SOUTH OF KNOBLOCH ROAD INTERSECTION	1166.69

VPI STA = 274+75.00
VPI EL = 1086.58
CURVE LEN = 700.00
K = 1732.97

VPT STA = 278+25.00
VPT EL = 1109.72

6.61%

ORIGINAL GROUND

FINISHED PROFILE

VPC STA = 281+00.00
VPC EL = 1127.91

VPI STA = 282+50.00
VPI EL = 1137.83
CURVE LEN = 300.00
K = 472.42

FINISHED PROFILE

ORIGINAL GROUND

VPT STA = 284+00.00
VPT EL = 1148.70

7.25%

VPC STA = 285+45.00
VPC EL = 1159.21

FINISHED PROFILE

ORIGINAL GROUND

1125 1120 1115 1110 1105 1100 1095 1090

1165 1160 1155 1150 1145 1140 1135 1130

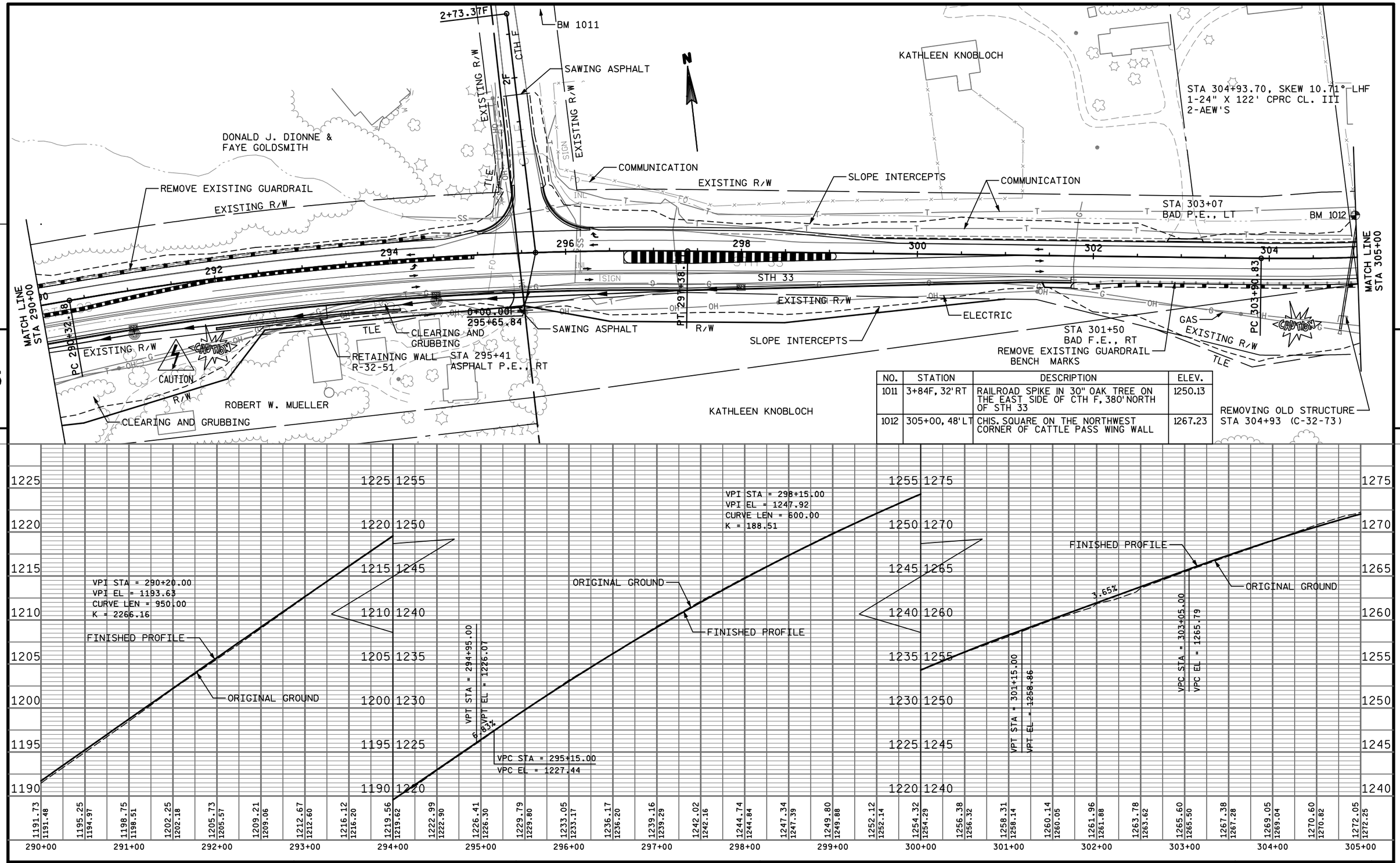
1195 1190 1185 1180 1175 1170 1165 1160

275+00	276+00	277+00	278+00	279+00	280+00	281+00	282+00	283+00	284+00	285+00	286+00	287+00	288+00	289+00	290+00
1088.53 / 1088.33	1091.75 / 1091.62	1094.99 / 1095.00	1098.24 / 1098.24	1101.50 / 1101.66	1104.78 / 1104.93	1108.07 / 1108.24	1111.37 / 1111.44	1114.68 / 1114.73	1117.99 / 1117.86	1121.29 / 1121.22	1124.60 / 1124.56	1127.91 / 1127.90	1131.24 / 1131.09	1134.63 / 1134.42	1138.06 / 1137.91	1141.56 / 1141.58	1145.10 / 1145.12	1148.70 / 1148.64	1152.32 / 1152.27	1155.95 / 1155.86	1159.57 / 1159.50	1163.19 / 1163.11	1166.79 / 1166.88	1170.39 / 1170.57	1173.97 / 1173.98	1177.55 / 1177.27	1181.11 / 1180.78	1184.66 / 1184.37	1188.20 / 1187.91	1191.73 / 1191.48

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET 258	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Plan & Profiles\050120_pp.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 40



NO.	STATION	DESCRIPTION	ELEV.
1011	3+84F, 32'RT	RAILROAD SPIKE IN 30" OAK TREE ON THE EAST SIDE OF CTH F, 380' NORTH OF STH 33	1250.13
1012	305+00, 48'LT	CHIS. SQUARE ON THE NORTHWEST CORNER OF CATTLE PASS WING WALL	1267.23

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Plan & Profiles\050121_pp.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

STA 304+93.70, SKEW 10.71° LHF
1-24" X 122' CPRC CL. III
2-AEW'S

ALVIN KNOBLOCH

MATCH LINE STA 305+00

STA 308+07
BAD P.E., LT

COMMUNICATION

EXISTING R/W

SLOPE INTERCEPTS

EXISTING CONCRETE JOINT

0+00.00FR
310+73.06

STA 317+06
REMOVE EXISTING 24" CMP

STA 317+06
1-24" CPRC CL III
2-AEW'S

STA 316+75
BAD F.E., LT

COMMUNICATION

SAWING ASPHALT

STH 33

MATCH LINE STA 320+00

306 308 310 312 314 316 318

GAS

PC 0+33.19FR

STH 33

PT 313+36.48

PC 317+96.84

SAWING ASPHALT

TLE

EXISTING R/W

REMOVE EXISTING GUARDRAIL

EXISTING R/W

ELECTRIC

CAUTION

BM 1013

PCC 0+88.36FR

R/W

CAUTION

STA 316+50
BAD F.E., RT

SLOPE INTERCEPTS

CLEARING AND GRUBBING

EXISTING R/W

2FR

SAWING ASPHALT

FOREST RIDGE DRIVE

JOHN J. & MARY P. PERSHING

PT 1+40.99FR

TLE

R/W

EXISTING R/W

3+00.00FR

JOHN C. & JENNIFER L. BURELACH REVOCABLE TRUST

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1013	310+32, 82' RT	BLUE LEE MARK ON CORNER OF EAST COLUMN OF FOREST RIDGE ESTATES SIGN	1284.17

VPI STA = 308+05.00
VPI EL = 1284.02
CURVE LEN = 1000.00
K = 224.44

ORIGINAL GROUND

FINISHED PROFILE

RIGHT DITCH

-0.81%

VPC STA = 313+90.00
VPC EL = 1279.28

VPT STA = 313+05.00
VPT EL = 1279.97

VPT STA = 317+90.00
VPT EL = 1276.69

-0.49%

VPI STA = 315+90.00
VPI EL = 1277.66
CURVE LEN = 400.00
K = 1238.33

1295 1290 1285 1280 1275 1270 1265 1260

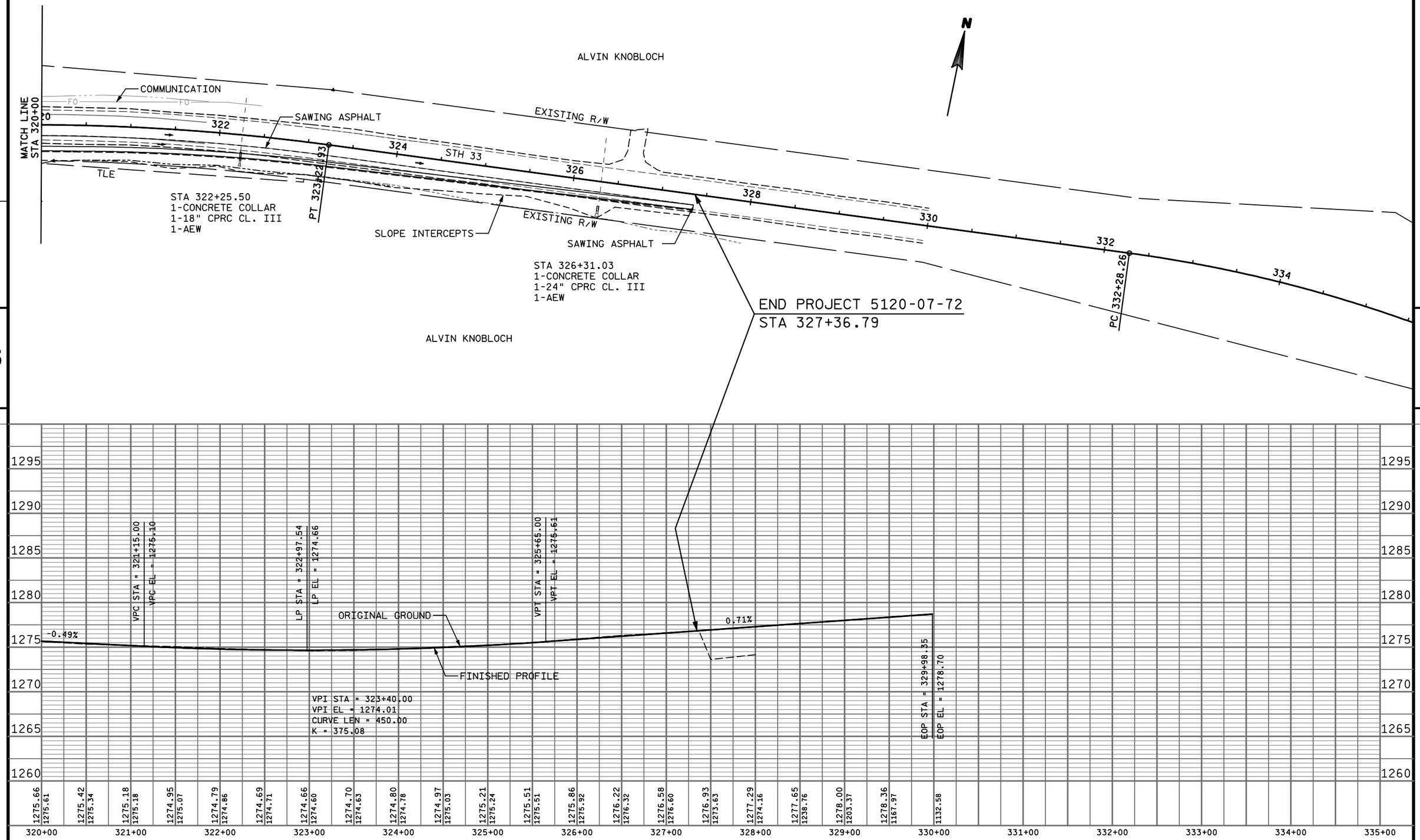
1272.05	1273.38	1274.60	1275.71	1276.71	1277.60	1278.37	1279.04	1279.59	1280.03	1280.36	1280.58	1280.69	1280.69	1280.57	1280.34	1280.01	1279.60	1279.20	1278.81	1278.44	1278.09	1277.76	1277.45	1277.16	1276.89	1276.64	1276.39	1276.15	1275.91	1275.66
1272.25	1273.80	1275.19	1276.36	1277.47	1278.44	1279.34	1279.86	1280.27	1280.63	1280.81	1280.95	1280.92	1280.70	1280.44	1280.20	1280.03	1279.59	1279.15	1278.72	1278.39	1278.12	1277.78	1277.40	1277.08	1276.88	1276.65	1276.43	1276.24	1275.96	1275.61

305+00 306+00 307+00 308+00 309+00 310+00 311+00 312+00 313+00 314+00 315+00 316+00 317+00 318+00 319+00 320+00

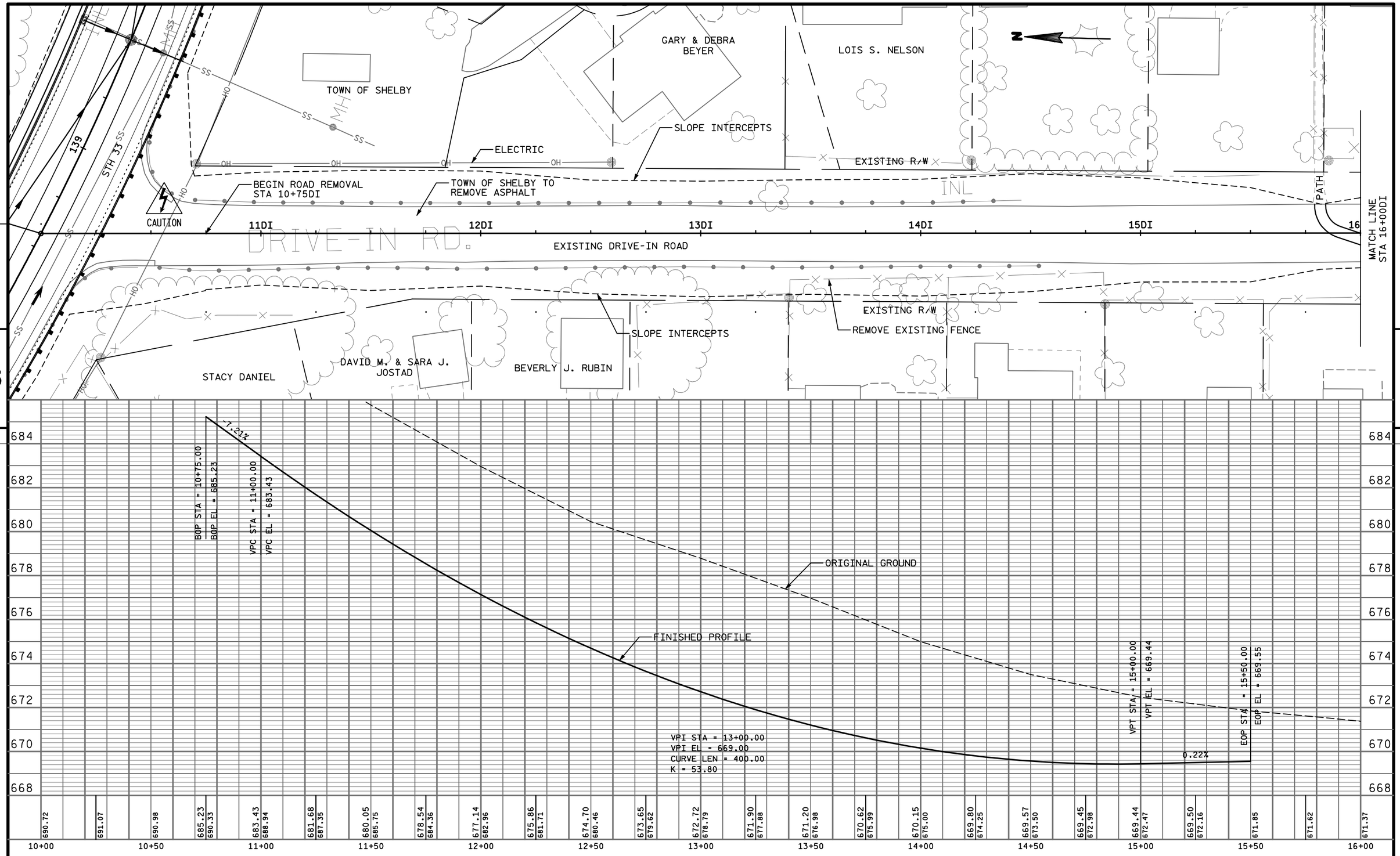
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET 260	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Plan & Profiles\050122_pp.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

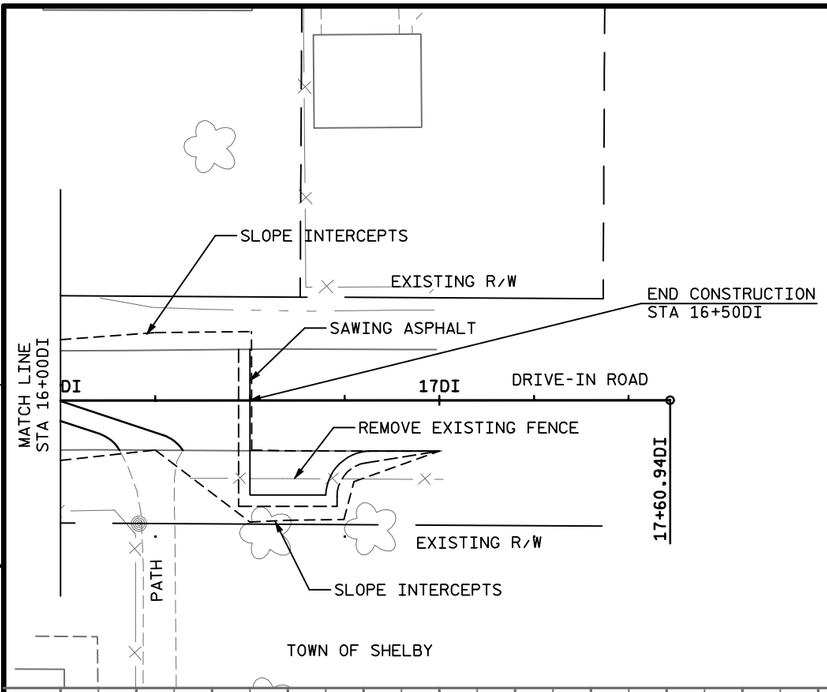
WISDOT/CADDS SHEET 40

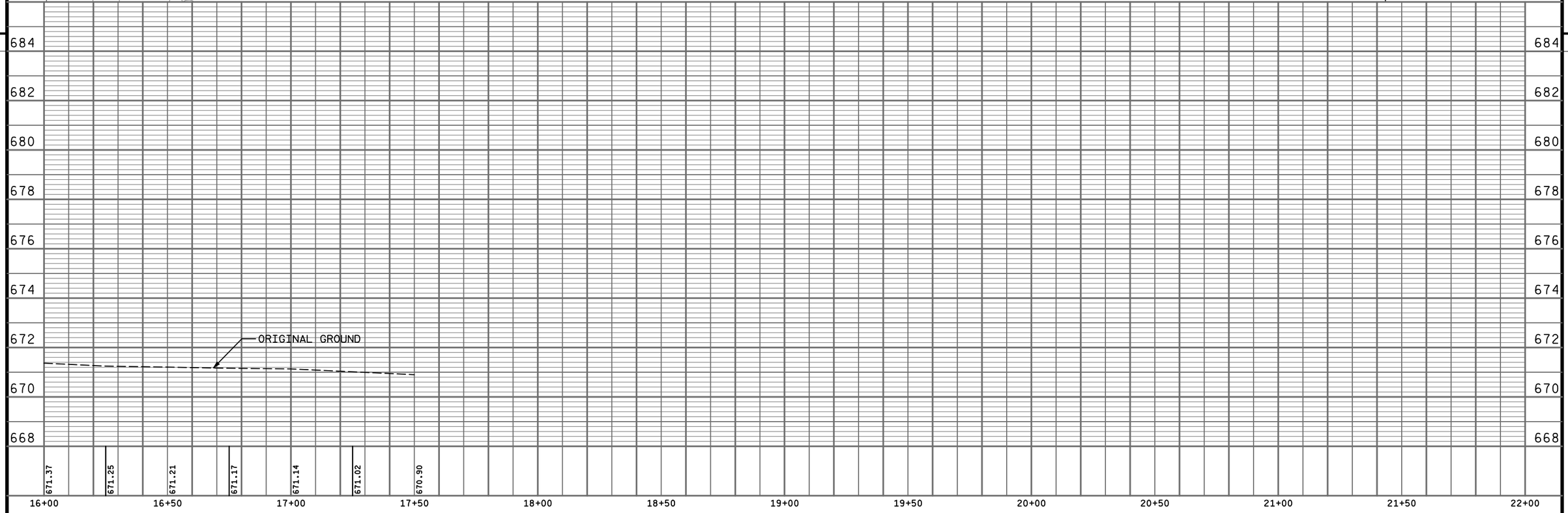


PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - STH 33	SHEET 261	E

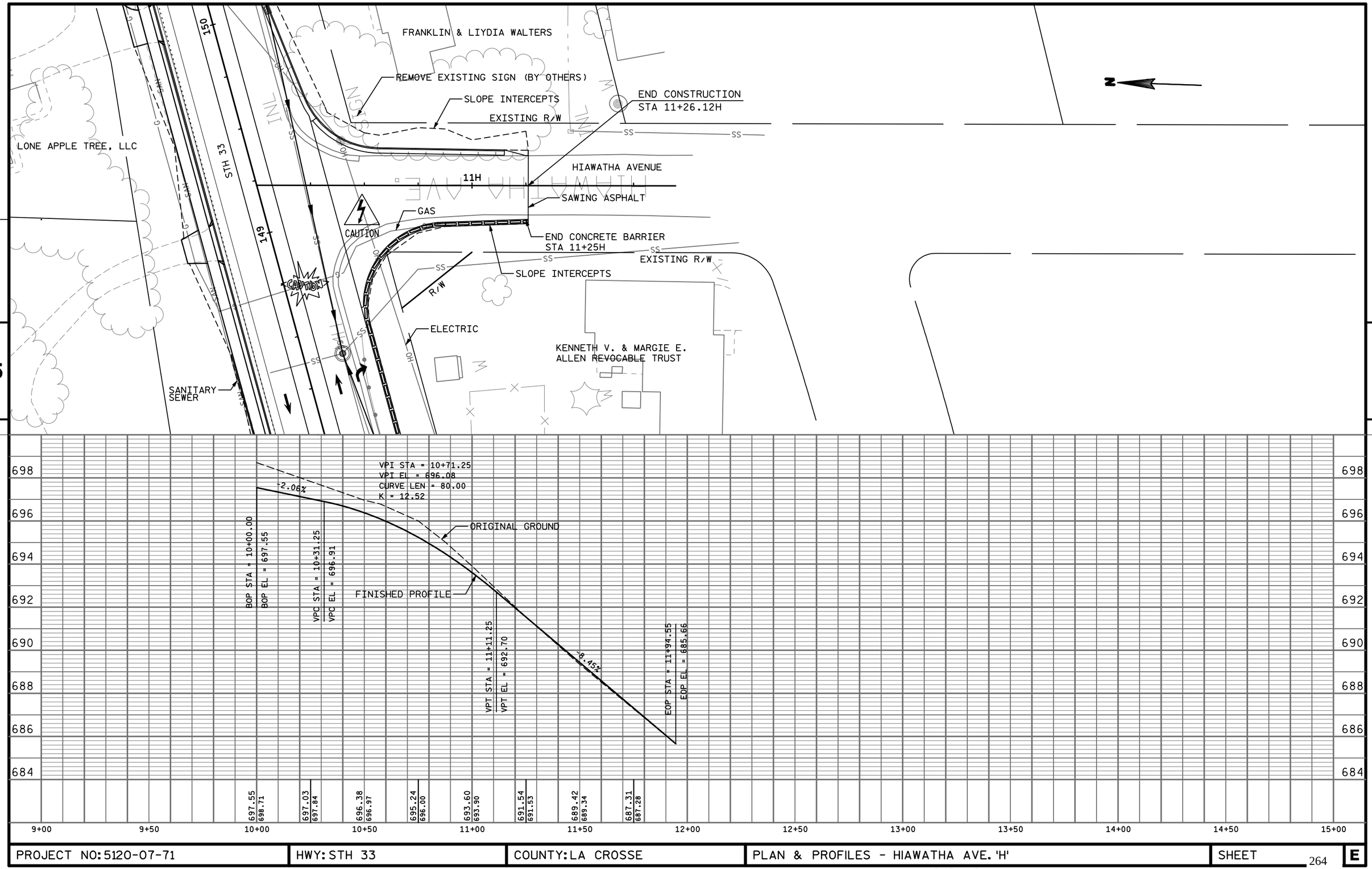


PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - DRIVE-IN ROAD 'DI'	SHEET 262 E





PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - DRIVE-IN ROAD 'DI'	SHEET 263	E



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - HIAWATHA AVE. 'H'	SHEET 264 E

TODD G. GUENTNER
REMOVE EXISTING SIGN (BY OTHERS)
SAWING ASPHALT
SLOPE INTERCEPTS
T/LE
R/W
TOWN OF SHELBY
CAUTION
158
11HA
12HA
WIS. DOT
SLOPE INTERCEPTS
CLEARING AND GRUBBING
HAGEN ROAD
PC 11+29.05HA
MATCH LINE STA 12+50HA
10HA
SAWING ASPHALT
9HA
WEDGEWOOD DRIVE
P/T 9+54.54HA
PC 9+80.27HA
P/T 10+44.61HA
T/LE
SAWING ASPHALT
SLOPE INTERCEPTS
8HA
PC 8+36.54HA
7+74.40HA
BEGIN CONSTRUCTION
STA 9+29.52HA
COMMUNICATION
MARVIN D. & SHIRLEY A. SEIDEL
STH 33
157
WIS. DOT
ELECTRIC
COMMUNICATION
OBLITERATE EXISTING HAGEN ROAD
CAUTION
SANITARY SEWER
GAS

5

5

N

VPC STA = 9+42.77
VPC EL = 702.27
VPT STA = 10+17.77
VPT EL = 699.90
BOP STA = 9+29.52
BOP EL = 702.87
-4.53%
VPI STA = 9+80.27
VPI EL = 700.57
CURVE LEN = 75.00
K = 27.52
-1.80%
VPI STA = 10+83.66
VPI EL = 698.71
-2.31%
-2.30%
VPI STA = 11+45.67
VPI EL = 697.28
FINISHED PROFILE
VPI STA = 11+12.67
VPI EL = 698.04
ORIGINAL GROUND
-2.40%

704
702
700
698
696
694
692
690

7+50	8+00	8+50	9+00	9+50	10+00	10+50	11+00	11+50	12+00	12+50	13+00	13+50
				701.95 702.2	701.00 700.9	700.28 700.2	699.77 699.7	699.32 699.3	698.87 698.8	698.33 698.4	697.76 697.9	697.18 696.0	696.58 694.9	695.98 693.7	695.38 695.1	694.78 692.0	694.18 691.1	693.58 689.6	692.98 688.4	692.38 691.9

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - HAGEN ROAD 'HA'	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Plan & Profiles\050126_pp.dgn
PLOT DATE : 7/16/2013
PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$
WISDOT/CADDS SHEET 40

MATCH LINE STA 12+50HA

PT 12+13.0

13HA

CLEARING AND GRUBBING

TOWN OF SHELBY

R/W

SLOPE INTERCEPTS

COMMUNICATION

PC 13+85.15HA

14HA

CLEARING AND GRUBBING

15HA

END CONSTRUCTION
STA 15+75HA

EXISTING R/W

HAGEN ROAD

16HA

16+79.01HA

SAWING ASPHALT

EXISTING R/W

PT 15+54.93HA

OBLITERATE EXISTING
HAGEN ROAD

SANITARY SEWER

CAUTION

GAS

COMMUNICATION

TLE

ADJUST MANHOLE

MATCH EXISTING
SIDEWALK

SLOPE INTERCEPTS

GERALD S. HANOSKI

NICHOLAS W. JENKS

EDWARD W. & VICKI G. MALSON

TOWN OF SHELBY

5

5

698
696
694
692
690
688
686
684

FINISHED PROFILE

-2.40%

ORIGINAL GROUND

VPC STA = 14+70.00
VPC EL = 689.50

VPT STA = 15+70.00
VPT EL = 688.45

0.30%

VPI STA = 15+20.00
VPI EL = 688.30
CURVE LEN = 100.00
K = 37.05

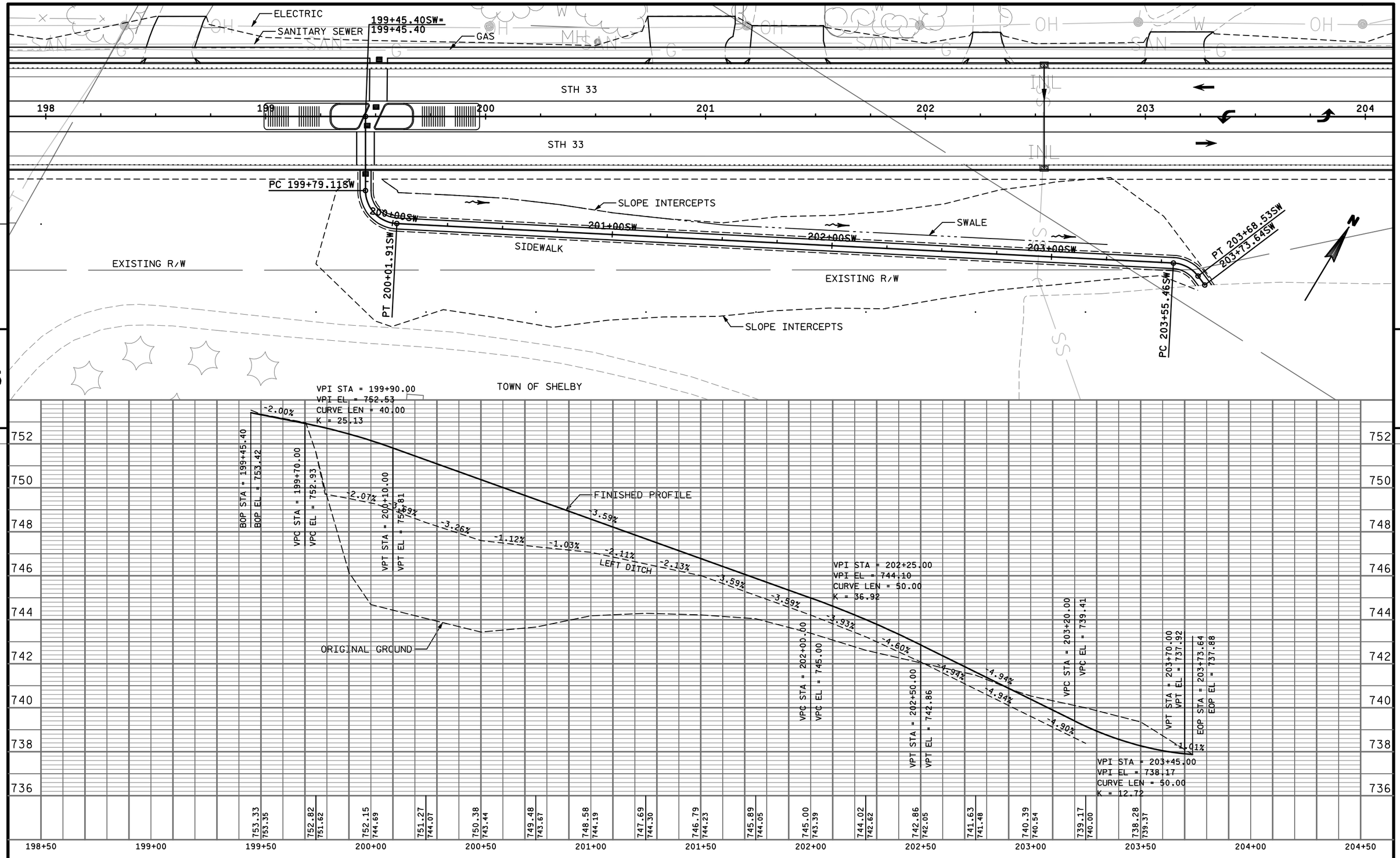
EOP STA = 15+75.00
EOP EL = 688.46

694.78	694.18	693.58	692.98	692.38	691.78	691.18	690.58	689.98	689.38	688.90	688.59	688.44	688.5
692.0	691.1	689.6	688.4	691.9	691.9	690.6	690.1	689.2	688.9	688.7	688.6	688.5	

12+50 13+00 13+50 14+00 14+50 15+00 15+50 16+00 16+50 17+00 17+50 18+00 18+50

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - HAGEN ROAD 'HA'	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Plan & Profiles\050127_pp.dgn PLOT DATE : 7/16/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - PARK SIDEWALK 'SW'	SHEET 267	E

LARRY J. RINGGENBERG
& INGRID L. PETERSON

DONNA J. BORNHEIMER

TOWN OF SHELBY

TOWN OF SHELBY

WIS. DOT

STH 33

210

209

TLE

10+00.00S
209+69.42

R/W

EXISTING SIGN TO BE REMOVED (BY OTHERS)

COMMUNICATION

SLOPE INTERCEPTS

ELECTRIC

CAUTION

ELECTRIC

GAS

CAUTION

TV

TLE

SLOPE INTERCEPTS

EXISTING R/W

END CONSTRUCTION
STA 12+00S

SOUTHDALE DRIVE

SOUTHDALE DR

11S

12S

13S

SAWING ASPHALT

13+46.04S

EXISTING R/W

MATCH EXISTING SIDEWALK

5

5

754
752
750
748
746
744
742
740

ORIGINAL GROUND

FINISHED PROFILE

-2.47%

-1.67%

-4.51%

BOP STA = 10+00.00
BOP EL = 750.29

VPI STA = 10+30.00
VPI EL = 749.55

VPC STA = 11+22.50
VPC EL = 748.01

VPI STA = 11+50.00
VPI EL = 747.55
CURVE LEN = 55.00
K = 19.35

VPT STA = 11+77.50
VPT EL = 746.31

EOP STA = 12+00.00
EOP EL = 745.30

750.29 750.72
749.67 750.17
749.22 749.82
748.80 749.47
748.38 749.09
747.97 748.42
747.35 747.52
746.42 746.41
745.30
744.43
743.56

9+00 9+50 10+00 10+50 11+00 11+50 12+00 12+50 13+00 13+50 14+00 14+50 15+00

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - SOUTHDALE DRIVE 'S'	SHEET 268	E

EVERETT J. & KATHRYN J. ASHLAND REVOCABLE TRUST

EXISTING BOMA ROAD

STA 20+00.

PT 20+21.61EP

EAGLE POINT ROAD

21EP

STH 33

DANIEL CRAIG

COMMUNICATION

ELECTRIC

CLEARING AND GRUBBING

SLOPE INTERCEPTS

EXISTING R/W

SAWING ASHLAND

END CONSTRUCTION

STA 12+75B

12B

13B

BOMA ROAD

PCC 12+64.04B

EXISTING R/W

DITCH

14B

PT 14+15.60B

14+21.21B

11B

STA 2+50.11EP=

STA 11+03.75B

PC 11+02.22B

R/W

SLOPE INTERCEPTS

SCOTT & SARA WROBEL

CLEARING AND GRUBBING

EXISTING R/W

STRUCTURE B-32-227 (SEE STRUCTURE PLANS)

CAUTION

SAWING ASPHALT

TOWN OF SHELBY

10+00.00B= 214+00.00

214

EXISTING R/W

5

5

760
758
756
754
752
750
748
746

BOP STA = 10+00.00
BOP EL = 752.80

6.00%

1.00%

VPI STA = 10+30.00
VPI EL = 754.60

VPI STA = 10+65.00
VPI EL = 754.95
CURVE LEN = 70.00
K = 35.83

-0.95%

VPC STA = 11+30.14
VPC EL = 754.33

VPT STA = 11+95.14
VPT EL = 754.75

2.24%

FINISHED PROFILE

VPC STA = 10+30.00
VPC EL = 754.60

VPT STA = 11+00.00
VPT EL = 754.62

VPI STA = 11+62.64
VPI EL = 754.02
CURVE LEN = 65.00
K = 20.34

ORIGINAL GROUND

EOP STA = 12+75.00
EOP EL = 756.54

| | | |

CLEARING AND GRUBBING
EXISTING R/W
COMMUNICATION
SLOPE INTERCEPT
STA 21+00EP
1-24" CPCS
2-AEW'S
BOMA ROAD
EXISTING R/W
DITCH
SCOTT & SARA WROBEL
STA 21+50.17EP=
STA 11+03.75B
PC 11+02.22B
R/W
CAUTION
REMOVE FENCE
EAGLE POINT ROAD 21EP
SAWING ASPHALT
EVERETT J. & KATHRYN J.
ASHLAND REVOCABLE TRUST
STA 20+00.00EP
PT 20+27.67EP
EXISTING BOMA ROAD
DANIEL CRAIG
SLOPE INTERCEPT
CLEARING AND GRUBBING
EXISTING R/W
GAS
TLE
ELECTRIC
EXISTING R/W
STH 33
REMOVE EXISTING STRUCTURE C-32-42
REMOVE FENCE
STRUCTURE B-32-227
(SEE STRUCTURE PLANS)
118
211
212
214
215
5
5

VPC STA = 20+15.44
VPC EL = 753.27
VPT STA = 20+65.44
VPT EL = 753.03
2.81%
1.86%
FINISHED PROFILE
BOP STA = 20+00.00
BOP EL = 753.70
VPI STA = 20+40.44
VPI EL = 752.56
CURVE LEN = 50.00
K = 10.72
EOP STA = 21+36.07
EOP EL = 754.34
ORIGINAL GROUND

760 758 756 754 752 750 748 746

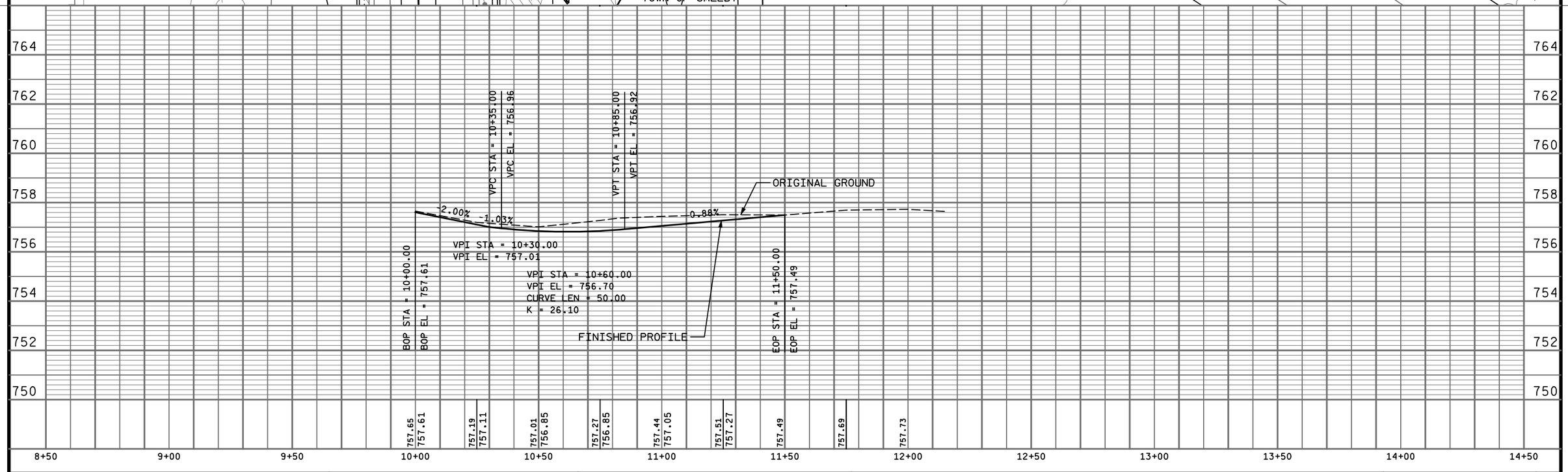
753.70 753.7 | 753.04 753.048 | 752.85 752.836 | 753.21 753.523 | 753.67 748.3 | 754.14 748.9 | 751.2

18+50 19+00 19+50 20+00 20+50 21+00 21+50 22+00 22+50 23+00 23+50 24+00 24+50

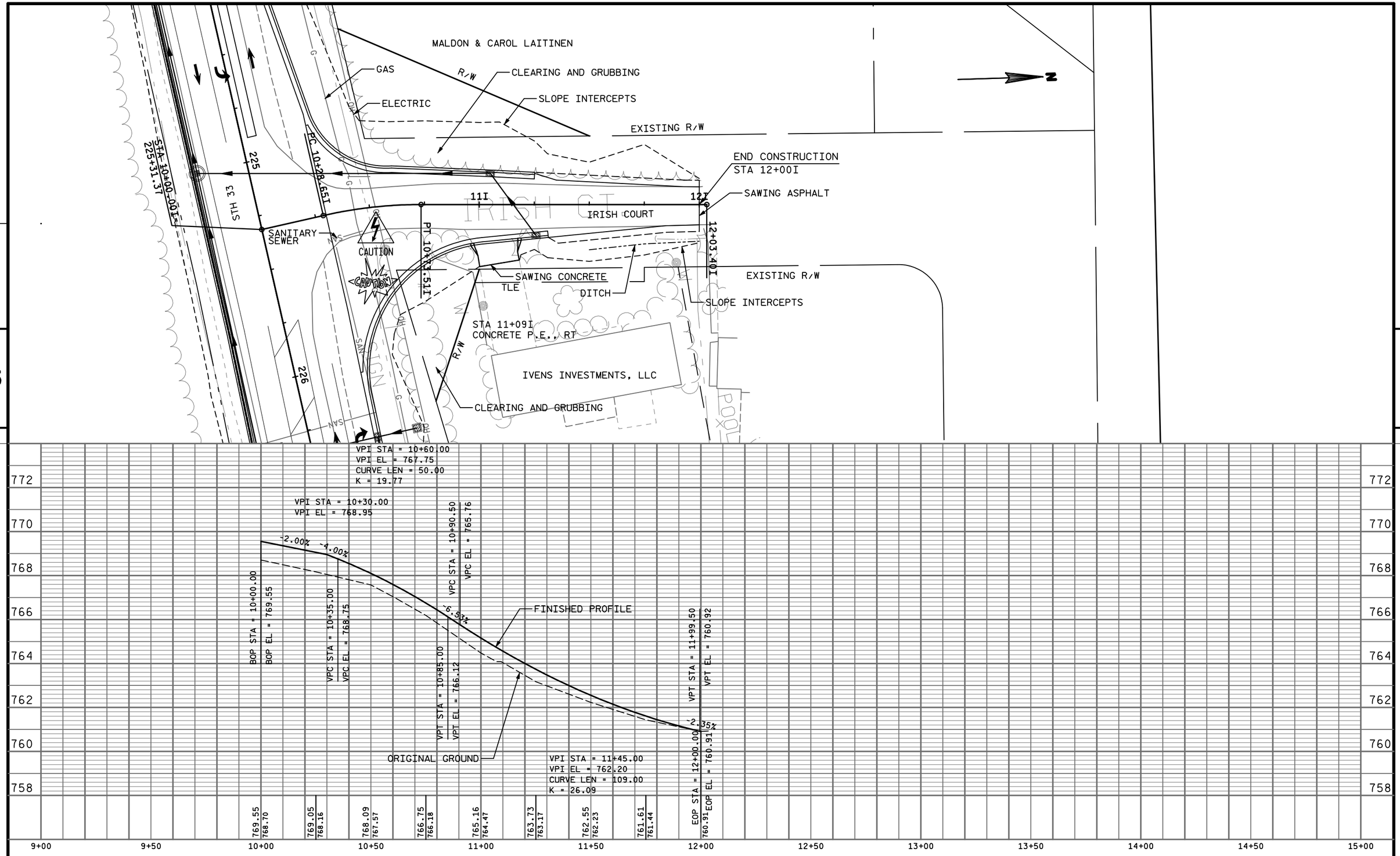
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - EAGLE POINT 'EP'	SHEET 270	E

CLEARING AND GRUBBING
WETLAND AREA = 0.163 ACRES BASED ON AN ELEVATION OF 754' & LOWER
DITCH
SLOPE INTERCEPTS
STORM SEWER OUTFALL POND (SEE GRADING DETAIL)
CHARLES E. & CHERYL L. HANSON
SAWING ASPHALT
GEORGE E. JR. & MARGARET A. BROWN
STH 33
221
220
11HO
12HO
PT 12+02.53HO
PC 12+21.61HO
EXISTING R/W
GAS
ELECTRIC
HORSESHOE PLACE
END CONSTRUCTION
STA 11+50H
PC 10+78.12HO
10+60.00HO=
220+69.53
PT 13+02.75HO
13+51.80HO
EXISTING R/W
STRUCTURE B-32-71 (SEE STRUCTURE PLANS)
SLOPE INTERCEPTS
STA 10+82.59
1-43" X 68" SSPRCHE CL HE-III CONCRETE MASONRY ENDWALLS
STA 10+91.56
1-43" X 68" SSPRCHE CL HE-III CONCRETE MASONRY ENDWALLS
SAWING ASPHALT
WETLAND AREA = 0.089 ACRES BASED ON EXISTING & PROPOSED SLOPE INTERCEPTS
CLEARING AND GRUBBING
STA 11+00.64
1-43" X 68" SSPRCHE CL HE-III CONCRETE MASONRY ENDWALLS
TOWN OF SHELBY
R/W
PLE

5



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - HORSESHOE PLACE 'HO'	SHEET 271	E



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - IRISH COURT 'I'	SHEET 272 E

KEITH W. & GERALYN M. GUNTER

EXISTING R/W

STH 33

SLOPE INTERCEPTS

1N

NORSEMAN ROAD

STA 2+00N
ASPHALT P.E., LT

SAWING ASPHALT

2N

EXISTING R/W

0+00.00N
237+12.29

237

PC 0+48.61N

STH 33

SLOPE INTERCEPTS

RICHARD C. & MARY MEYER

KENNETH K. & LINDA L. KEMPF

CLEARING
AND
GRUBBING

EXISTING R/W

STA 2+50N
ASPHALT P.E., LT

SAWING ASPHALT

PT 2+65.13N

236

END CONSTRUCTION
STA 2+65.13N

SAWING ASPHALT

5

5

860
858
856
854
852
850
848
846

ORIGINAL GROUND

FINISHED PROFILE

VPI STA = 0+50.00
VPI EL = 846.58
CURVE LEN = 50.00
K = 4.17

VPI STA = 1+25.00
VPI EL = 854.06

VPI STA = 2+00.00
VPI EL = 861.52
CURVE LEN = 85.00
K = 6.55

-2.00%

9.84%

-9.96%

-3.04%

BOP STA = 0+00.00
BOP EL = 847.58

VPC STA = 0+25.00
VPC EL = 847.08

VPT STA = 0+75.00
VPT EL = 849.07

VPC STA = 1+57.50
VPC EL = 857.29

VPT STA = 2+42.50
VPT EL = 860.23

EOP STA = 2+65.13
EOP EL = 859.54

847.58
848.02

847.08
847.83

847.33
848.42

849.07
850.02

851.57
851.86

854.06
854.10

856.55
856.24

858.80
858.54

860.14
860.24

860.53
860.50

860.00
860.04

859.37

858.96

-1+00 -0+50 0+00 0+50 1+00 1+50 2+00 2+50 3+00 3+50 4+00 4+50 5+00

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - NORSEMAN DRIVE 'N'	SHEET 273	E

CONCRETE CORRUGATED MEDIAN

SLOPE INTERCEPT

285

284

283

STH 33

EXISTING R/W

EXISTING R/W

KNOBLOCH ROAD

12K

11K

13+44.42K

EXISTING R/W

POND ACCESS ROAD

20+00.00P

20+62.29P

REMOVING OLD STRUCTURE STA 284+75

SLOPE INTERCEPT

STORM SEWER OUTFALL POND (SEE GRADING DETAIL)

R/W

5

5

VPI STA = 20+05.61
VPI EL = 1150.30
VPI STA = 20+15.61
VPI EL = 1150.30
CURVE LEN = 20.00
K = 2.11

BOF STA = 20+00.00
BOF EL = 1149.81
VPC STA = 20+05.61
VPC EL = 1150.30
VPT STA = 20+25.61
VPT EL = 1149.35
VPC STA = 20+32.29
VPC EL = 1148.72
VPT STA = 20+62.29
VPT EL = 1147.00
EOP STA = 20+62.29
EOP EL = 1147.00

ORIGINAL GROUND

FINISHED PROFILE

VPI STA = 20+47.29
VPI EL = 1147.30
CURVE LEN = 30.00
K = 4.02

1149.81
1149.6
1149.41
1150.9
1147.43
1151.4

1154 1152 1150 1148 1146 1144 1142

18+00 18+50 19+00 19+50 20+00 20+50 21+00 21+50 22+00 22+50 23+00 23+50 24+00

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - POND ACCESS ROAD 'P'	SHEET 274	E

ROBERT W. MUELLER

EXISTING R/W

ELECTRIC

COMMUNICATIONS

END CONSTRUCTION
STA 13+00K

RETAINING WALL
SLOPE INTERCEPTS

PT 11+19.37K

13+44.42K

KNOBLOCH ROAD

CONCRETE
CORRUGATED
MEDIAN

REMOVE FENCE

SAWING ASPHALT

GAS

SLOPE INTERCEPTS

EXISTING R/W

CLEARING AND GRUBBING

STORM SEWER OUTFALL POND
(SEE GRADING DETAIL)

R/W

DAVID B. SERVAIS

REMOVE EXISTING SIGN
(BY OTHERS)

EXISTING R/W

STH 33

PC 10+46.51K

PT 287+12.24

10+00.00K = 287+05.11

288

287

11K

12K

13K

FINISHED PROFILE

ORIGINAL GROUND

5.23%

5.10%

5.44%

BOP STA = 10+00.00
BOP EL = 1170.76

VPC STA = 10+35.00
VPC EL = 1172.65

VPI STA = 10+65.00
VPT EL = 1174.84

VPI STA = 10+50.00
VPI EL = 1173.46
CURVE LEN = 30.00
K = 7.84

VPC STA = 12+05.00
VPC EL = 1187.76

EOP STA = 13+25.00
EOP EL = 1196.56

VPI STA = 12+65.00
VPI EL = 1193.30
CURVE LEN = 120.00
K = 31.69

VPI STA = 13+25.00
VPT EL = 1196.56

1170.76 1170.79 | 1172.11 1171.70 | 1173.60 1174.31 | 1175.77 1176.99 | 1178.07 1179.22 | 1180.38 1181.34 | 1182.69 1183.64 | 1184.99 1185.83 | 1187.30 1188.00 | 1189.55 1190.11 | 1191.60 1191.96 | 1193.45 1193.63 | 1195.11 1195.10 | 1196.56 1196.56

9+00 9+50 10+00 10+50 11+00 11+50 12+00 12+50 13+00 13+50 14+00 14+50 15+00

1170 1172 1174 1176 1178 1180 1182 1184

1184 1186 1188 1190 1192 1194 1196 1198

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - KNOBLOCH ROAD 'K'	SHEET 275	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Plan & Profiles\050134_pp.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 40

CONCRETE CORRUGATED MEDIAN

EXISTING R/W

DONALD J. DIONNE &
FAYE GOLDSMITH

ROBERT W. MUELLER

N

END CONSTRUCTION
STA 1+80.67F

ELECTRIC

SLOPE INTERCEPTS

EXISTING R/W

TLE

SAWING ASPHALT

0+00.00 = 2+65.68

STH 33

295

2+73.37F

1F

2F

CTH F

CTH F

SAWING ASPHALT

GAS

SLOPE INTERCEPTS

R/W

296

CAUTION

SIGN

EXISTING R/W

COMMUNICATIONS

KATHLEEN KNOBLOCH

5

5

VPI STA = 0+40.00
VPI EL = 1232.20
CURVE LEN = 30.00
K = 25.71

VPI STA = 0+25.00
VPI EL = 1231.77

BOP STA = 0+00.00
BOP EL = 1230.84

VPC STA = 0+25.00
VPC EL = 1231.77

VPT STA = 0+55.00
VPT EL = 1232.46

VPC STA = 0+57.00
VPC EL = 1232.49

FINISHED PROFILE

ORIGINAL GROUND

VPI STA = 1+15.00
VPI EL = 1233.50
CURVE LEN = 116.00
K = 26.17

VPI STA = 1+73.00
VPI EL = 1237.08

EOP STA = 2+00.00
EOP EL = 1238.74

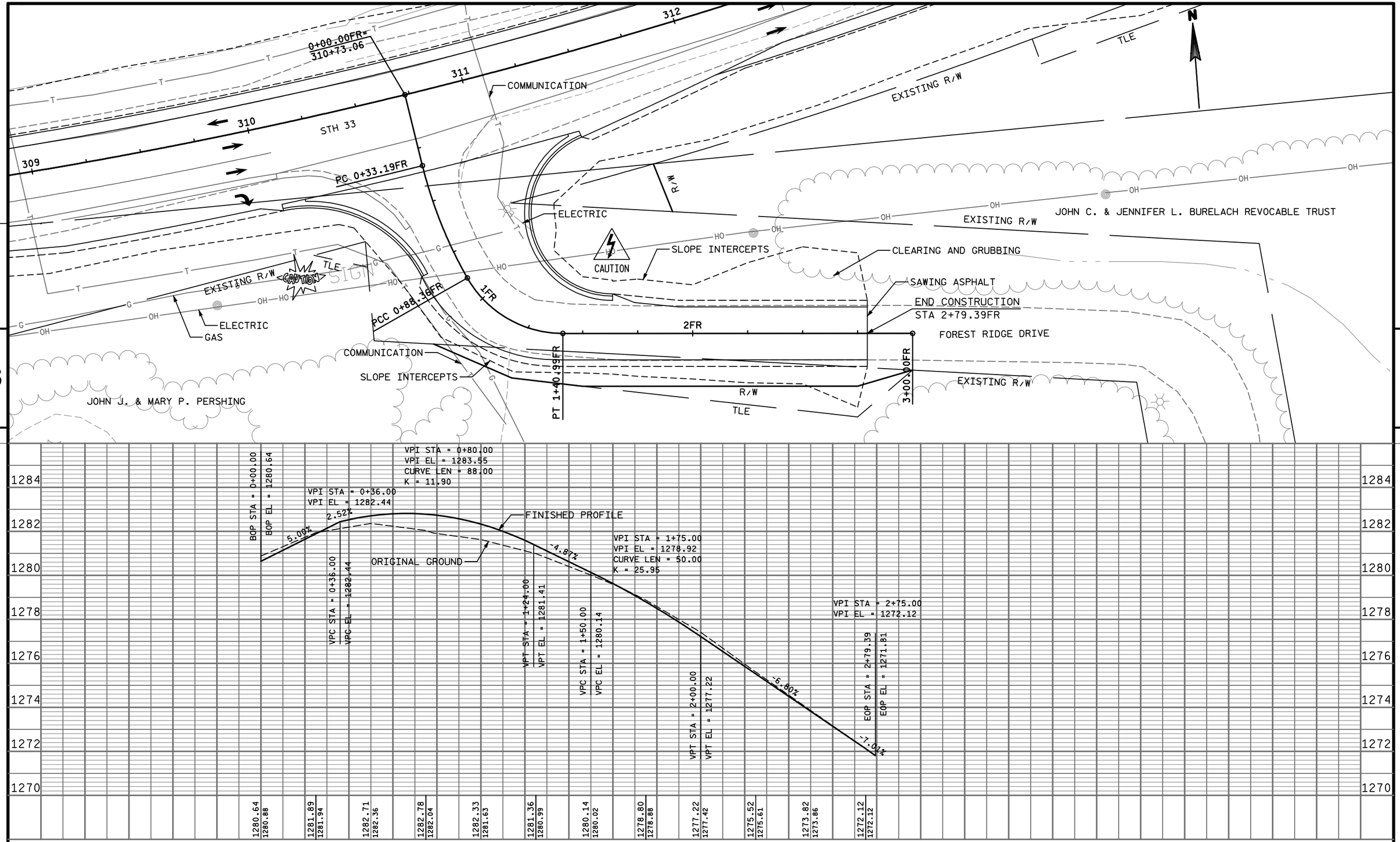
3.70%
2.90%
1.73%
6.17%

1240
1238
1236
1234
1232
1230
1228
1226

1230.84 1230.68
1231.77 1231.53
1232.37 1231.84
1232.87 1232.37
1233.59 1233.14
1234.56 1234.24
1235.76 1235.63
1237.20 1237.12
1238.74
1240.28
1241.71

-1+50 -1+00 -0+50 0+00 0+50 1+00 1+50 2+00 2+50 3+00 3+50 4+00 4+50

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - CTH F 'F'	SHEET 276	E



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	PLAN & PROFILES - FOREST RIDGE DRIVE 'FR'	SHEET 277	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Plan & Profiles\050136_pp.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 40

Standard Detail Drawing List

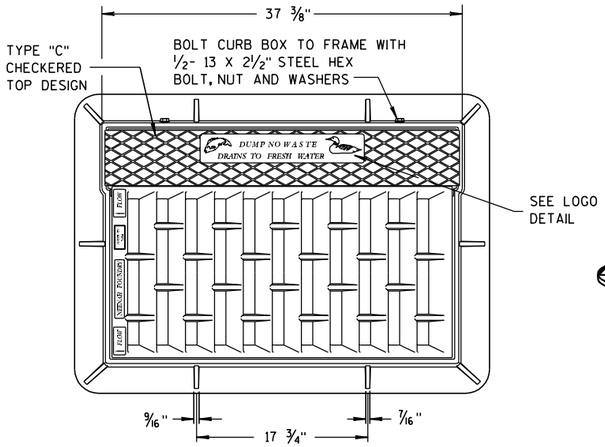
08A05-18A	INLET COVERS TYPE A, H, A-S, & H-S
08A05-18B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-18C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-18D	INLET COVER, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08B11-01	MANHOLES VARIABLE TEE AND SPECIAL 4-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-15A	CURB RAMPS TYPES 1 AND 1-A
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
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
08F10-01	CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09B02-07	CONDUIT
09B04-10	PULL BOX
09C02-06	CONCRETE BASES, TYPES 1, 2 & 5
09C06-05	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C11-03	CONCRETE BASE TYPE 10
09C12-03A	CONCRETE BASE TYPE 13
09C12-03B	CONCRETE BASE TYPE 13
09E01-12G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E08-04A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-04B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-04D	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-04E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09F15-03A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
11B01-05	CONCRETE CORRUGATED MEDIAN
12A03-10	NAME PLATE (STRUCTURES)
13C01-16	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
13C16-02A	DETAIL FOR RIGHT TURN LANE/TEE INTERSECTION BYPASS LANE ON A CONRETE ROADWAY
13C16-02B	DETAIL FOR RIGHT TURN LANE/TEE INTERSECTION BYPASS LANE ON A CONRETE ROADWAY
13C18-02A	CONCRETE PAVEMENT JOINTING
13C18-02B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-02C	CONCRETE PAVEMENT JOINT TIES
13C18-02D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14B20-11A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-11G	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL
14B20-11H	STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B29-01	SAFETY EDGE
14B32-01A	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-01B	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-01C	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-01D	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B33-01A	CONCRETE BARRIER SINGLE SLOPE 32" THRIE BEAM ANCHOR
14B33-01B	CONCRETE BARRIER SINGLE SLOPE 32" THRIE BEAM ANCHOR
14B33-01C	CONCRETE BARRIER SINGLE SLOPE 32" THRIE BEAM ANCHOR
14B33-01D	CONCRETE BARRIER SINGLE SLOPE 36" THRIE BEAM ANCHOR
14B33-01E	CONCRETE BARRIER SINGLE SLOPE 36" THRIE BEAM ANCHOR
14B33-01F	CONCRETE BARRIER SINGLE SLOPE 36" THRIE BEAM ANCHOR
14B33-01G	CONCRETE BARRIER SINGLE SLOPE 42" THRIE BEAM ANCHOR
14B33-01H	CONCRETE BARRIER SINGLE SLOPE 42" THRIE BEAM ANCHOR
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

6

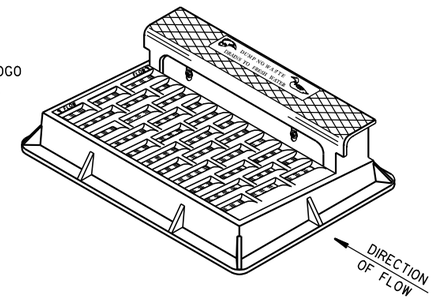
Standard Detail Drawing List

14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A01-11	MARKER POST FOR RIGHT-OF-WAY
15A02-07	DELINEATOR POST, DELINEATOR BRACKET AND DELINEATOR
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-04A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-01	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16C	PAVEMENT MARKING (CLIMBING LANE & PASSING LANE)
15C08-16D	PAVEMENT MARKING (CLIMBING LANE & PASSING LANE)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C18-03	MEDIAN ISLAND MARKING
15C26-02	END-OF-ROADWAY SIGNING
15C29-03E	PAVEMENT MARKING FOR BIKE LANES
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE

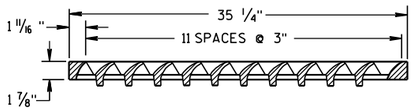
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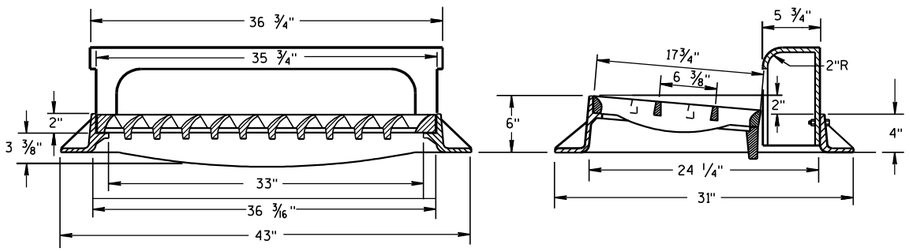


NOTE:
GRATE IS REVERSIBLE.



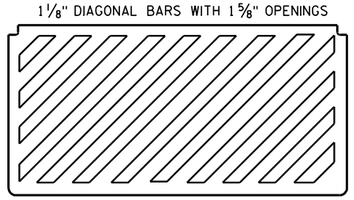
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"





TYPE "H"

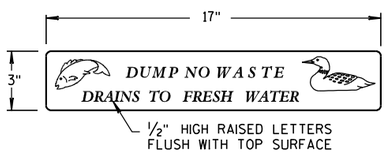
(APPROXIMATE WEIGHT 441 LBS.)
FRAME..... 181 LBS.
GRATE..... 146 LBS.
CURB BOX..... 114 LBS.



SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")
(APPROXIMATE WEIGHT 159 LBS.)
GRATE..... 159 LBS.

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL

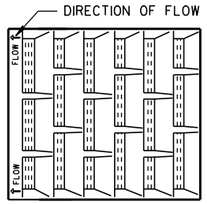
GENERAL NOTES

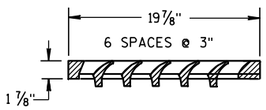
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

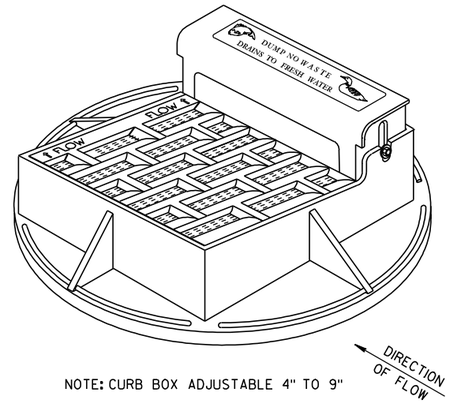
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

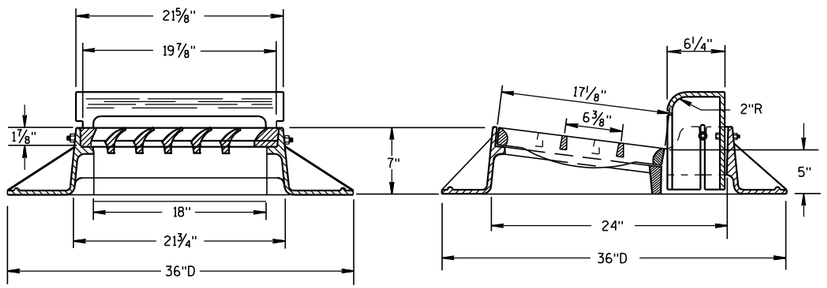
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





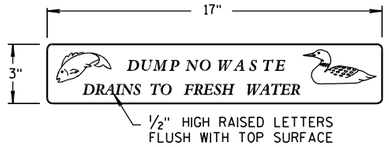


NOTE: CURB BOX ADJUSTABLE 4" TO 9"



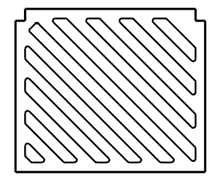
TYPE "A"

(APPROXIMATE WEIGHT 340 LBS.)
FRAME..... 185 LBS.
GRATE..... 71 LBS.
CURB BOX..... 84 LBS.



LOGO DETAIL

NOTE:
GRATE IS REVERSIBLE.



SPECIAL GRATE FOR TYPE "A" COVER

(MEASURES 19 3/4" X 17" X 1 7/8"
GRATE..... 84 LBS.

(NOTED AS TYPE A-S ON DRAINAGE TABLE)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

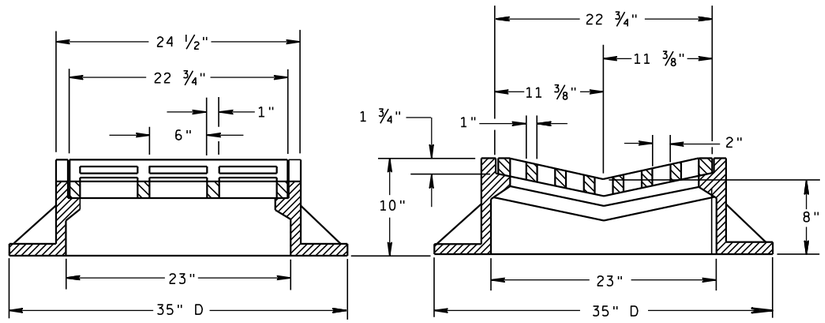
APPROVED
6/5/2012 DATE
/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
280
[illegible]IENT
FHWA

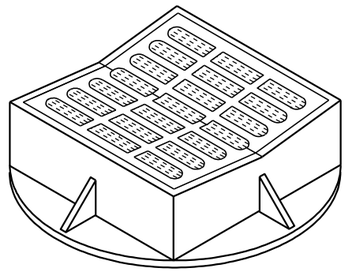
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S.D.D. 8 A 5-18a

6

S.D.D. 8 A 5-18a

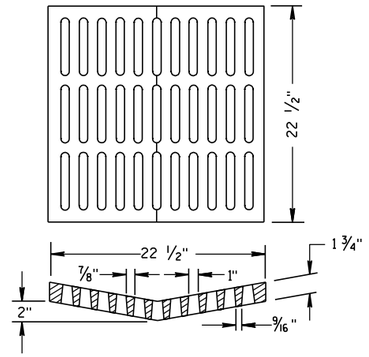




TYPE "B"

(APPROXIMATE WEIGHT 405 LBS.)

FRAME..... 294 LBS.
GRATE..... 111 LBS.

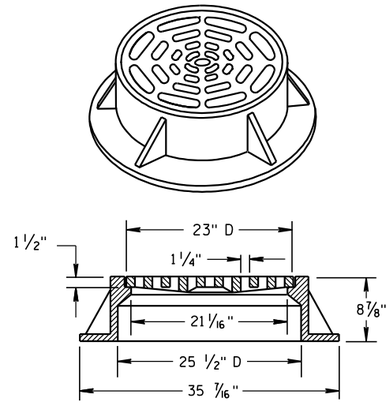


ALTERNATIVE GRATE FOR TYPE "B" COVER

(APPROXIMATE GRATE WEIGHT 134 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.

NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

(APPROXIMATE WEIGHT 259 LBS.)

FRAME..... 152 LBS.
GRATE..... 107 LBS.

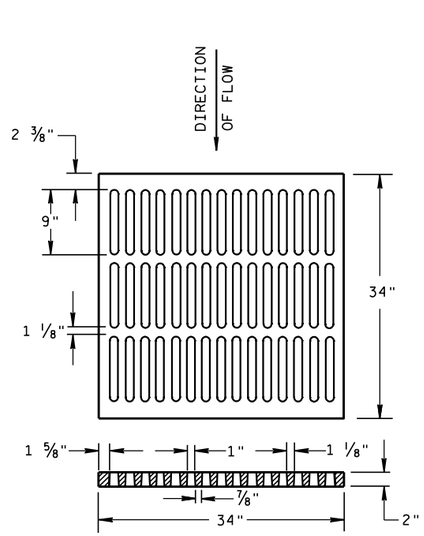
GENERAL NOTES

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.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

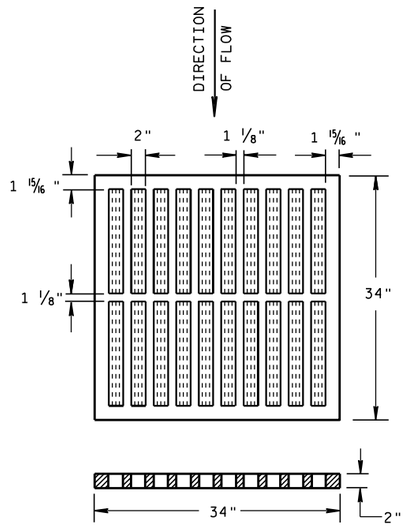


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 329 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

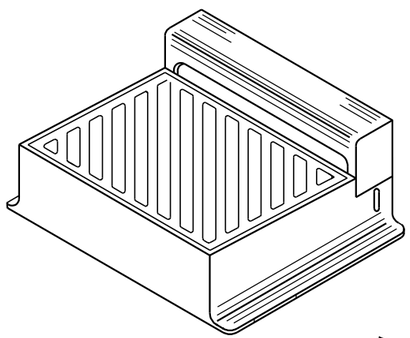


TYPE "MS"

(APPROXIMATE GRATE WEIGHT 268 LBS.)

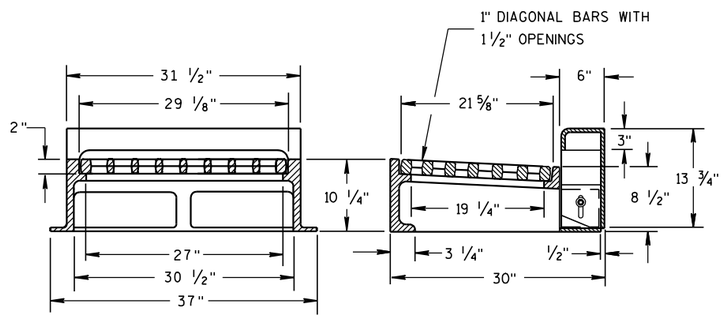
USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE



DIRECTION OF FLOW

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"

(APPROXIMATE WEIGHT 648 LBS.)

FRAME..... 355 LBS.
GRATE..... 156 LBS.
CURB BOX..... 137 LBS.

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zaas
ROADWAY STANDARDS ENGINEER

281

ENT

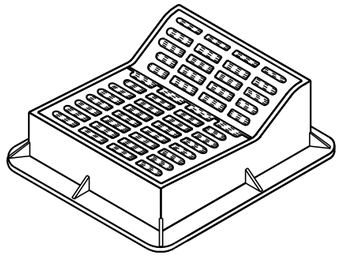
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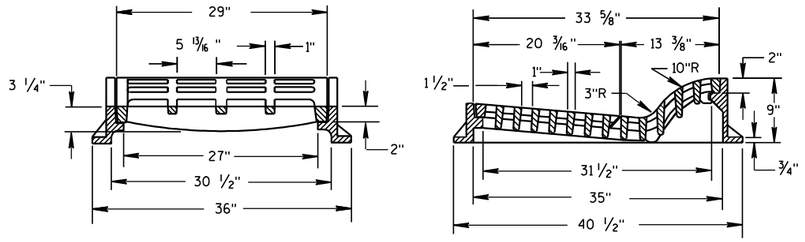
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S.D.D. 8 A 5-18b

6

S.D.D. 8 A 5-18b



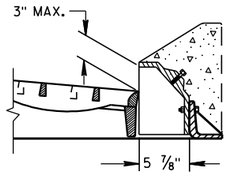


TYPE "F"

(APPROXIMATE WEIGHT 644 LBS.)

FRAME.....302 LBS.
GRATE.....160 LBS.
GRATE.....182 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

(APPROXIMATE WEIGHT CURB BOX 68 LBS.)

USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

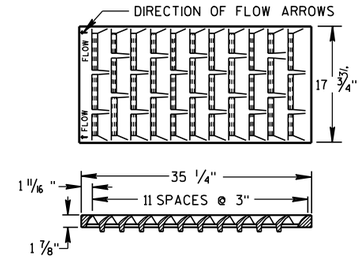
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

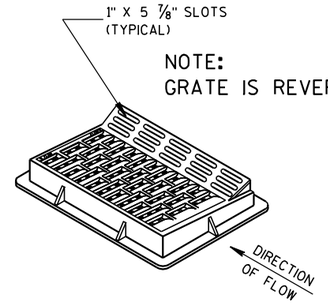
GENERAL NOTES

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

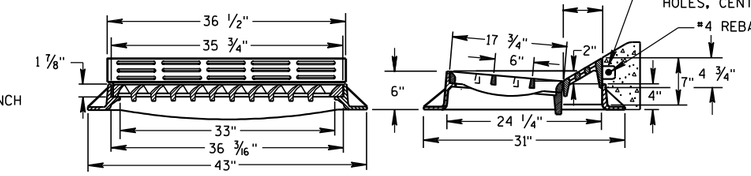
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





NOTE:
GRATE IS REVERSIBLE.

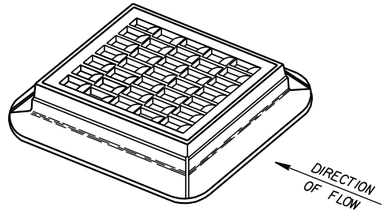


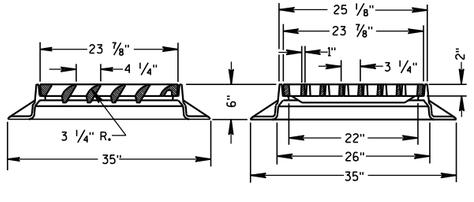
TYPE "HM"

(APPROXIMATE WEIGHT 414 LBS.)
FRAME..... 181 LBS.
GRATE..... 159 LBS.
CURB BOX..... 74 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE

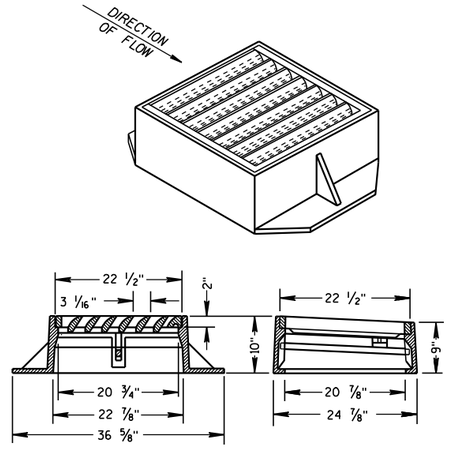




TYPE "S"

(APPROXIMATE WEIGHT 333 LBS.)

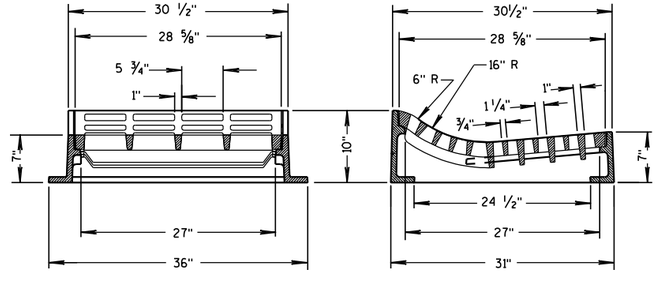
FRAME.....164 LBS.
GRATE..... 169 LBS.



TYPE "V"

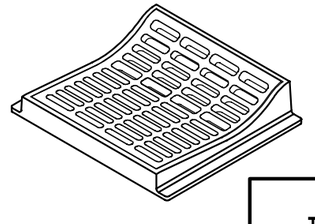
(APPROXIMATE WEIGHT 410 LBS.)

FRAME..... 269 LBS.
GRATE..... 136 LBS.
SAFETY BAR..... 5 LBS.



TYPE "T"

(APPROXIMATE WEIGHT 530 LBS.)
FRAME.....270 LBS.
GRATE.....260 LBS.
USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

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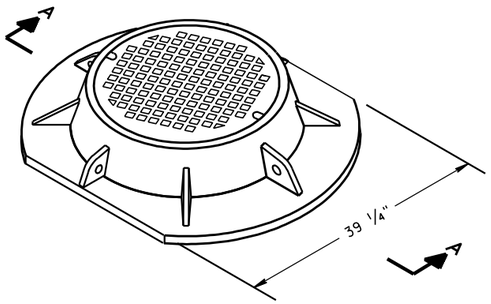
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

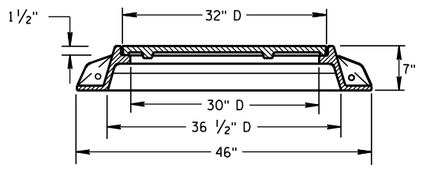
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S.D.D. 8 A 5-18c

6

S.D.D. 8 A 5-18c



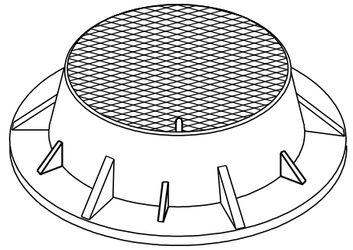


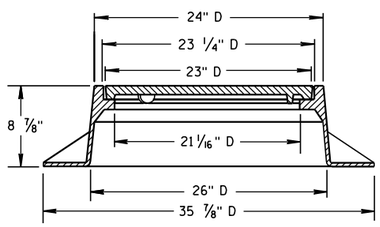
SECTION A-A

TYPE "K"

(APPROXIMATE WEIGHT 439 LBS.)

FRAME.....216 LBS.
LID.....223 LBS.

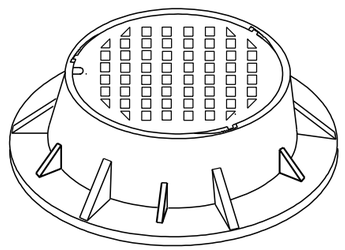


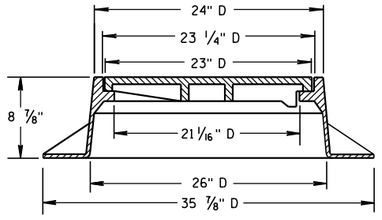


TYPE "J"

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....152 LBS.
LID.....115 LBS.





TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....158 LBS.
LID.....109 LBS.

(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

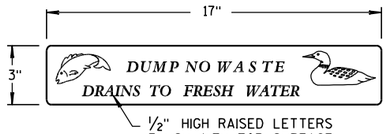
GENERAL NOTES

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

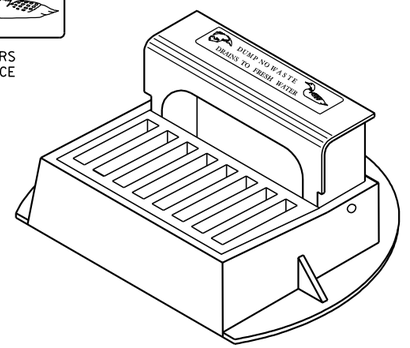
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

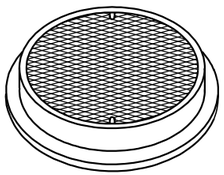
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

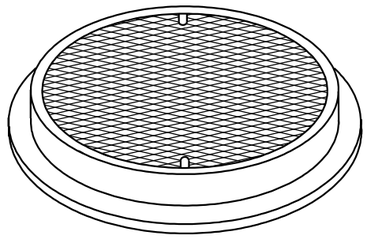
THE ACTUAL WEIGHT OF COVERS MAY VARY WITH 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

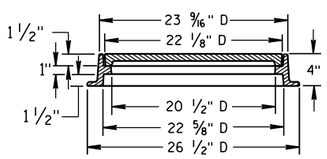


LOGO DETAIL





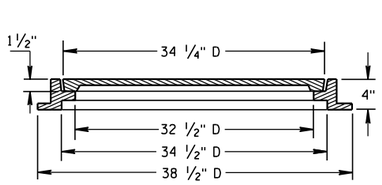




TYPE "L"

(APPROXIMATE WEIGHT 158 LBS.)

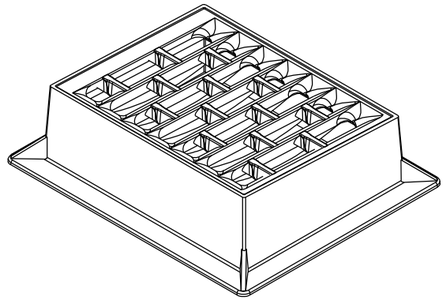
FRAME.....81 LBS.
LID.....77 LBS.

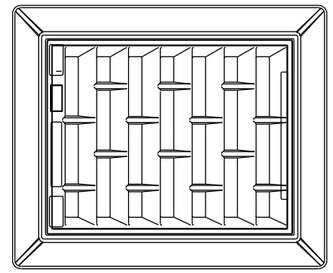


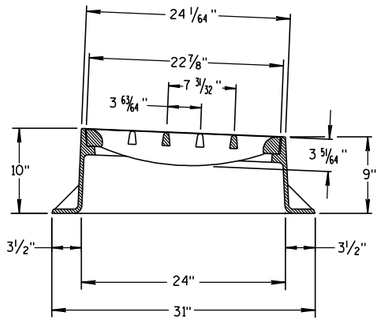
TYPE "M"

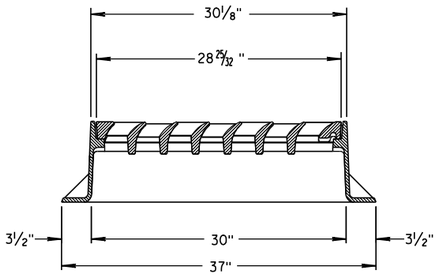
(APPROXIMATE WEIGHT 377 LBS.)

FRAME..... 125 LBS.
LID..... 252 LBS.

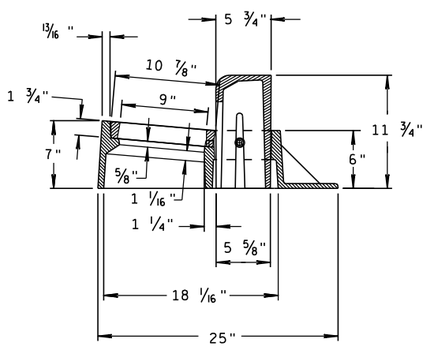


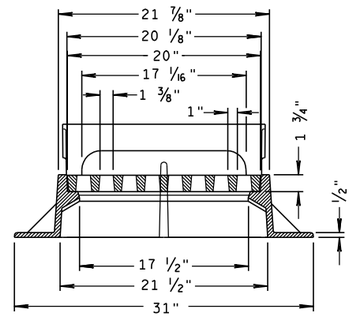






INLET COVER TYPE "BW"





INLET COVER TYPE "Z"

(APPROXIMATE WEIGHT 344 LBS.)

FRAME.....206 LBS.
GRATE..... 46 LBS.
CURB BOX..... 92 LBS.

INLET COVERS, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

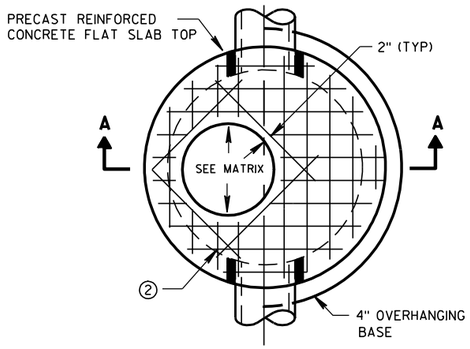
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

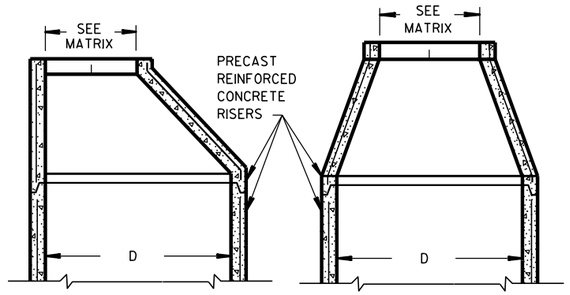
NT

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S.D.D. 8 A 5-18d

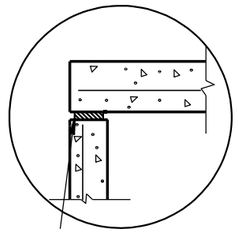


PLAN VIEW CIRCULAR OPENING



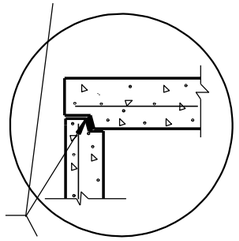
OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

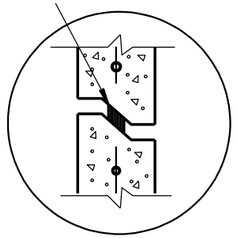


TOP WITH PLAIN END JOINT

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

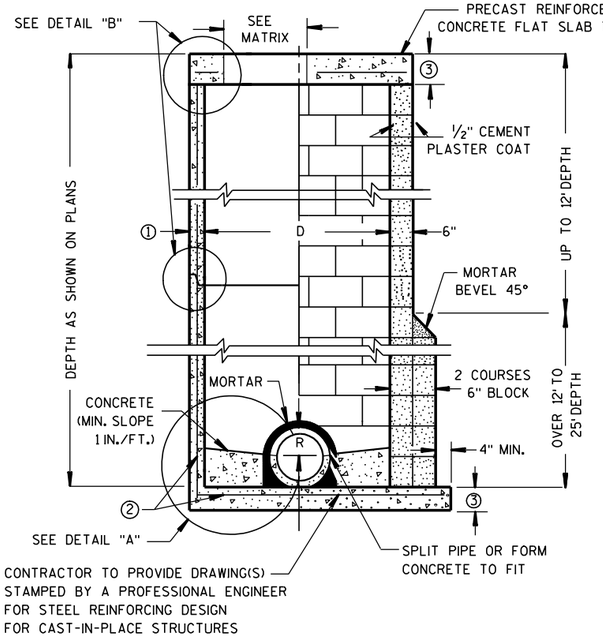


TOP WITH TONGUE AND GROOVE JOINT



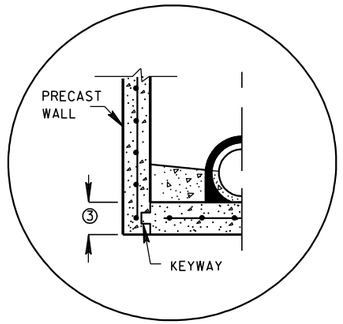
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

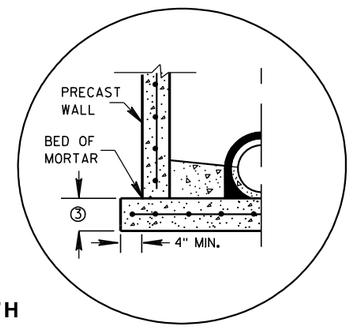


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

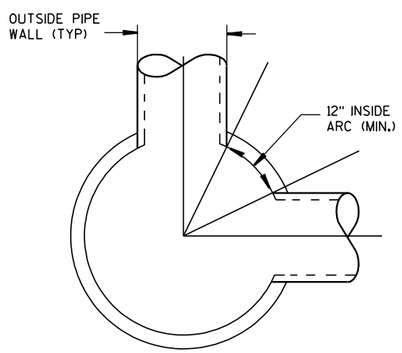


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "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.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

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

PIPE MATRIX

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

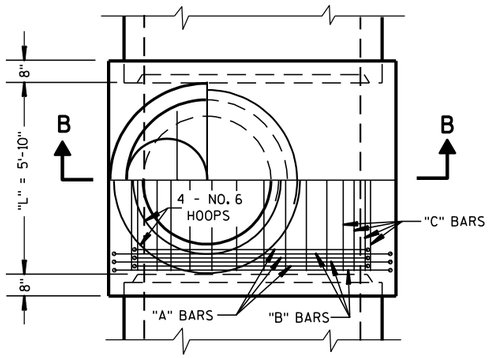
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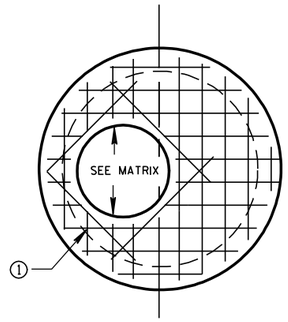
S.D.D. 8 B 9-1

6

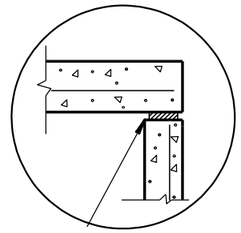
S.D.D. 8 B 9-1



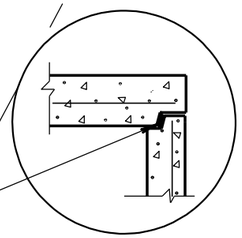
HALF SECTION A-A



PLAN VIEW PRECAST REINFORCED CONCRETE FLAT SLAB TOP WITH ECCENTRIC OPENING

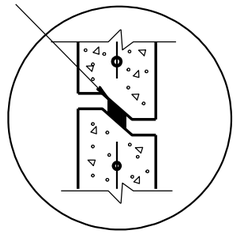


TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "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.

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

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

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 4T-L", "MANHOLES 4S-M", ETC. THE VARIABLE TEE IS DENOTED BY 4T AND THE VARIABLE SPECIAL IS DENOTED BY 4S. THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF $\frac{1}{2}$ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

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

PRECAST SECTIONS SHALL BE INSTALLED ON A BED OF MORTAR.

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

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

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

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

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

① FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE WITH AASHTO M 199.

MANHOLE COVER OPENING MATRIX

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

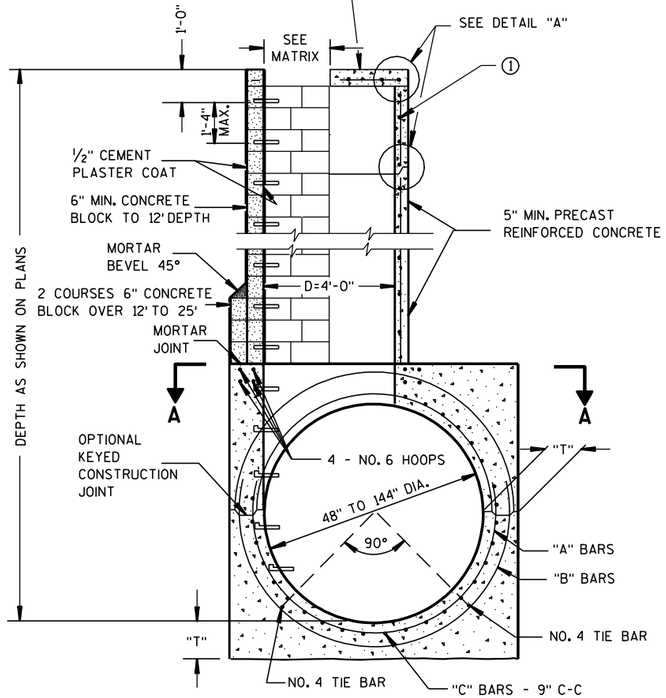
NOTES FOR MANHOLE VARIABLE SPECIAL 4-FT DIAMETER

NOTE: ALL "A", "B", AND "C" BAR STEEL REINFORCING IS THE SAME DIAMETER WHICH VARIES WITH DEPTH.
NO. 5 BARS TO 20' DEPTH
NO. 6 BARS OVER 20' TO 30' DEPTH
NO. 7 BARS OVER 30' TO 40' DEPTH

THE "A" AND "B" BARS MAY BE PLACED IN ONE OR TWO SEGMENTS, AND SHALL LAP 24 BAR DIAMETERS.

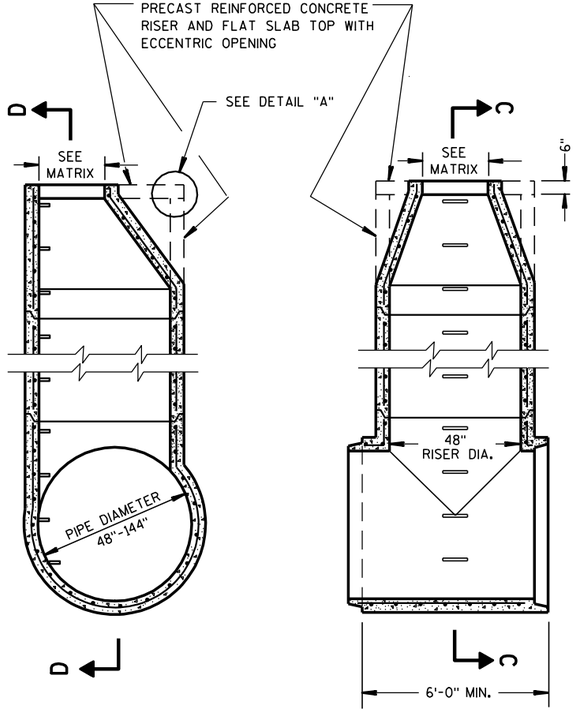
"C" BARS SHALL HAVE STANDARD HOOKED ENDS.

NOTE: "T" THROUGHOUT LENGTH "L" SHALL BE 13" FOR PIPE DIAMETER 48" TO 84" AND 15" FOR PIPE DIAMETER GREATER THAN 84".



SECTION B-B

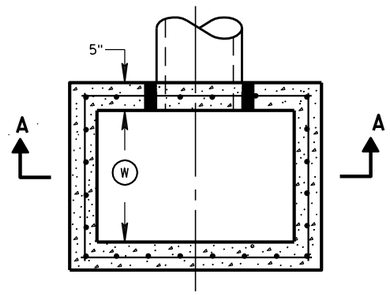
MANHOLE VARIABLE SPECIAL 4-FT DIAMETER



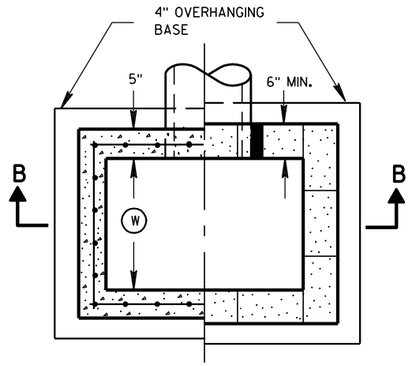
SECTION C-C SECTION D-D

MANHOLE VARIABLE TEE 4-FT DIAMETER

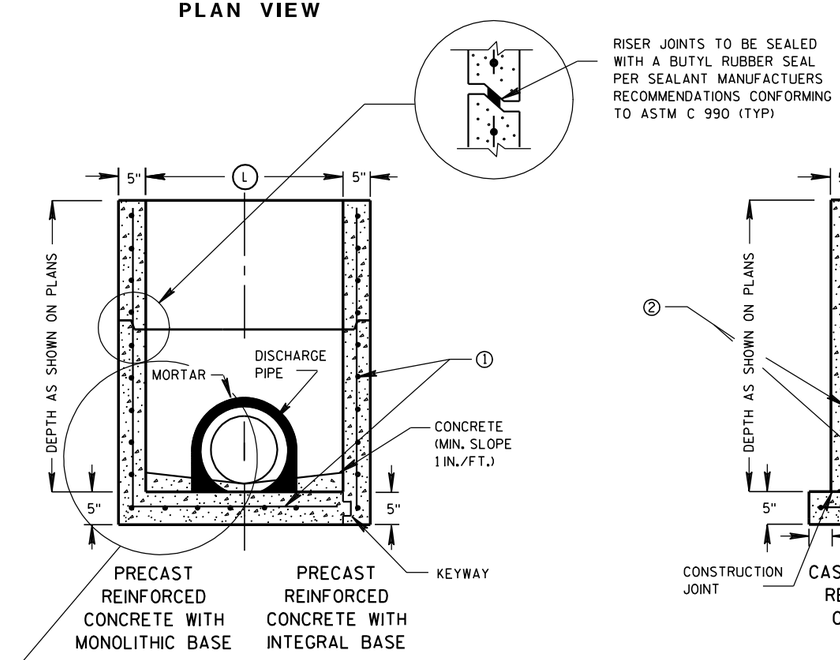
MANHOLE VARIABLE TEE AND SPECIAL 4-FT DIAMETER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/5/2012 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS ENGINEER
FHWA	285



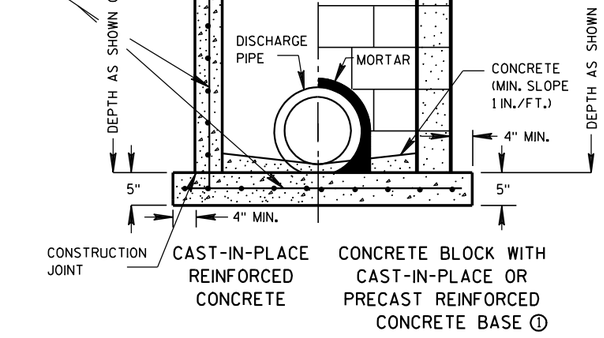
PLAN VIEW



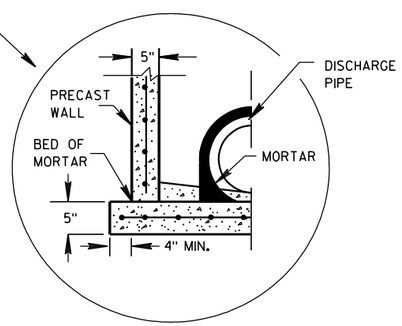
PLAN VIEW



SECTION A-A



SECTION B-B



SEPERATE 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 SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

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

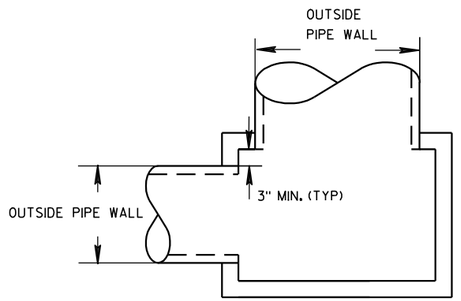
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

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

PIPE MATRIX

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



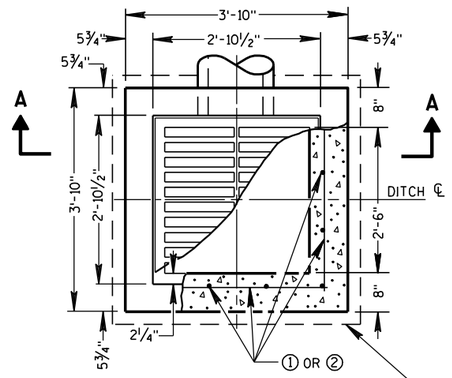
DETAIL "A"

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

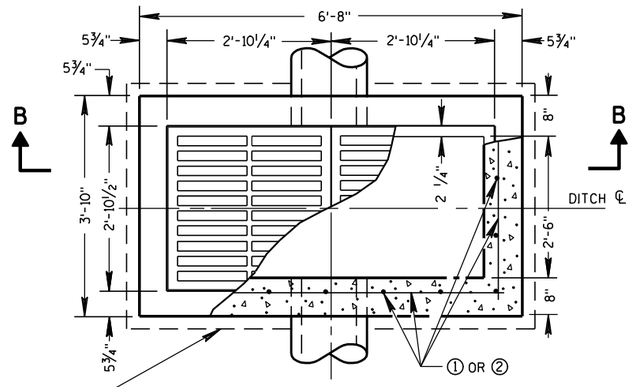
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS D ENGINEER
FHWA

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S.D.D. 8 C 7-1

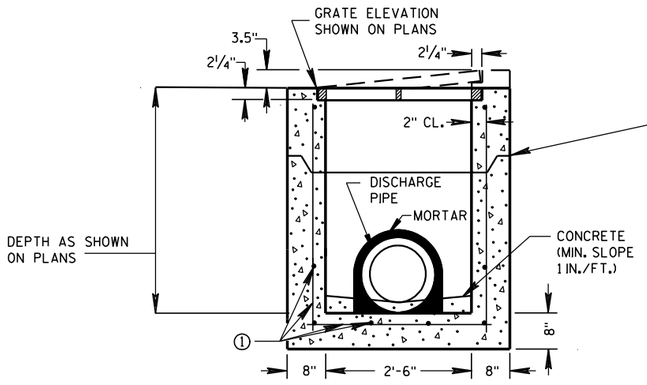


PLAN VIEW

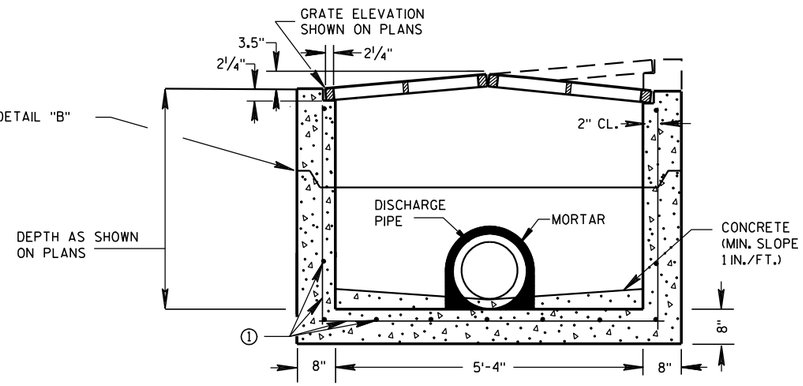


PLAN VIEW

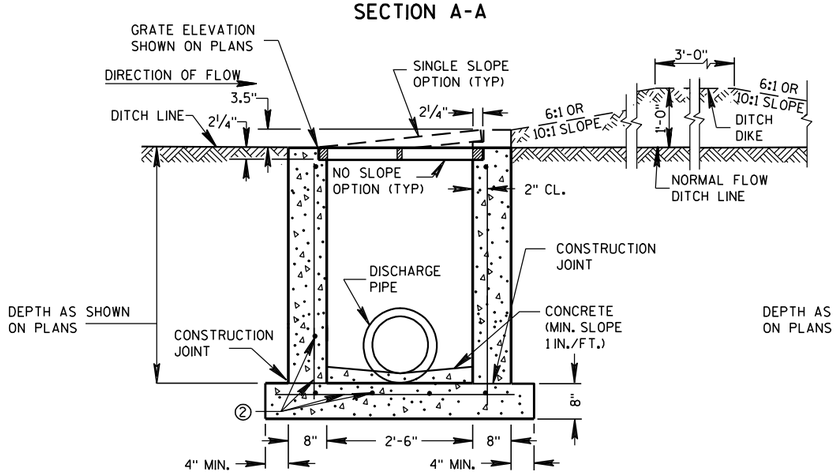
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



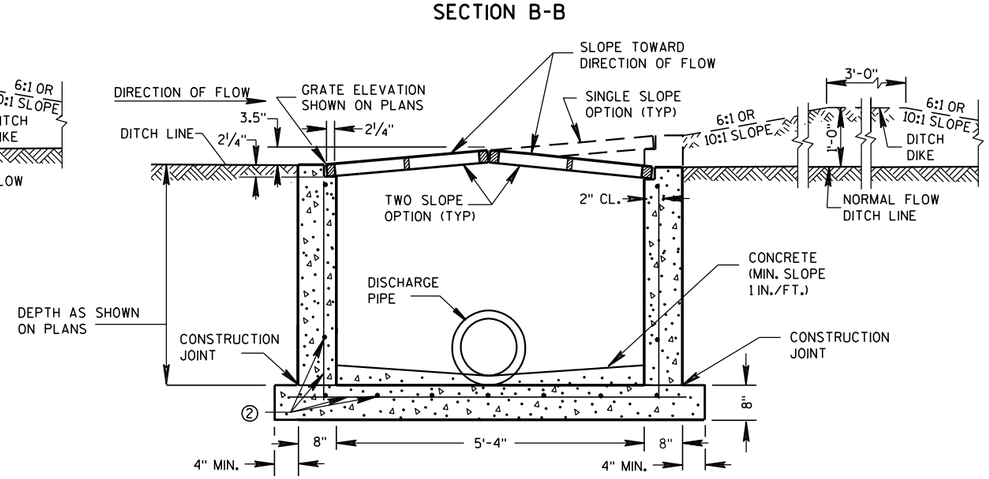
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

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.

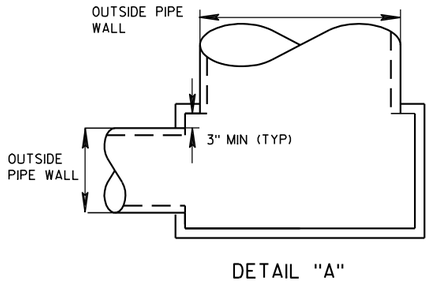
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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.

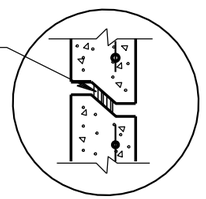
PIPE MATRIX

	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 GRATE

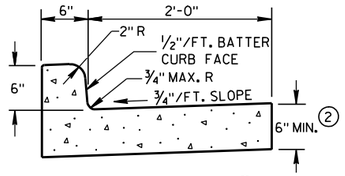
INLETS MEDIAN 2 GRATE

INLETS MEDIAN 1 AND 2 GRATE

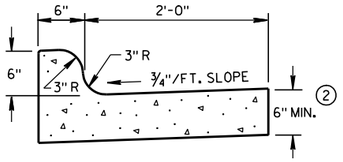
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

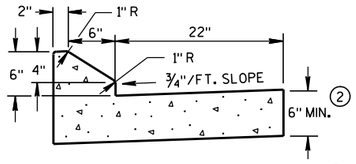
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S.D.D. 8 C 8-1



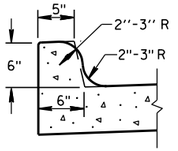
TYPES A & D (1)



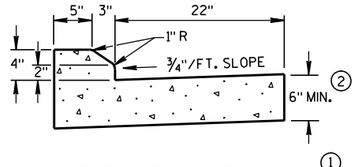
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

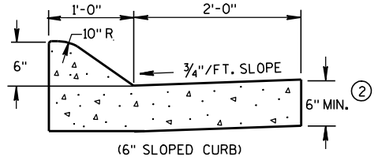


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

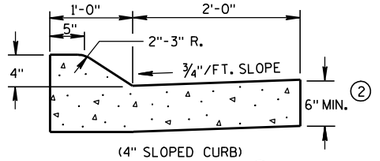


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

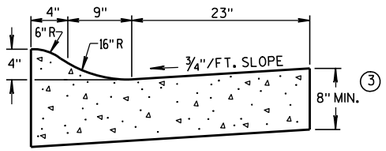


(6" SLOPED CURB)



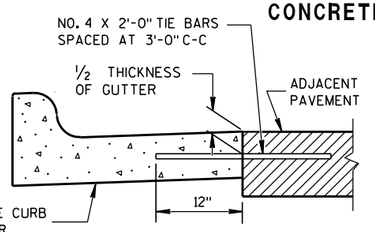
(4" SLOPED CURB)

TYPES A & D (1)



4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION (1)

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

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.

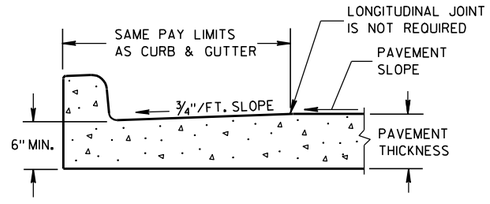
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(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.

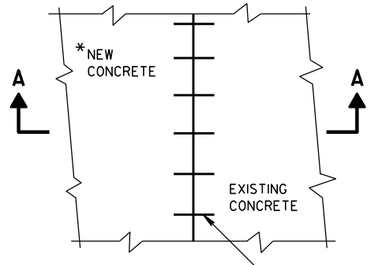
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(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.

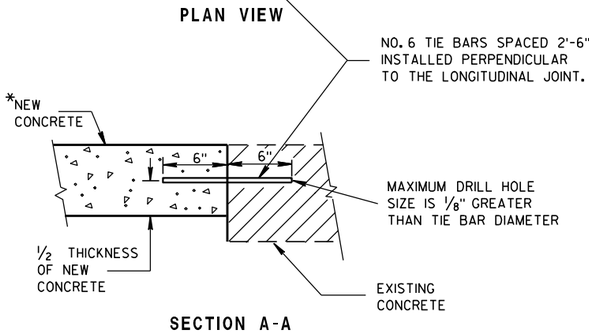


PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



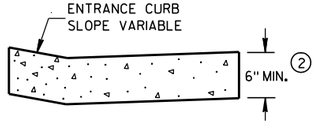
*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

PLAN VIEW

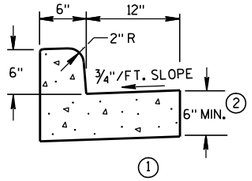


SECTION A-A

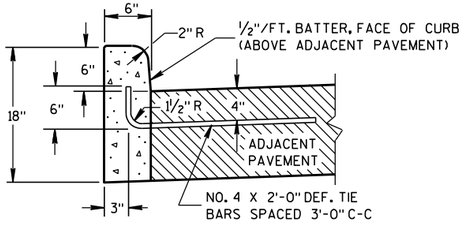
TIE BARS DRILLED INTO EXISTING PAVEMENT



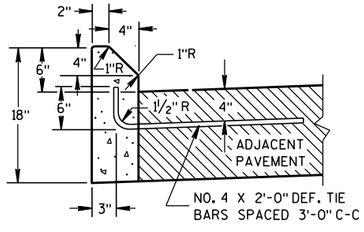
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



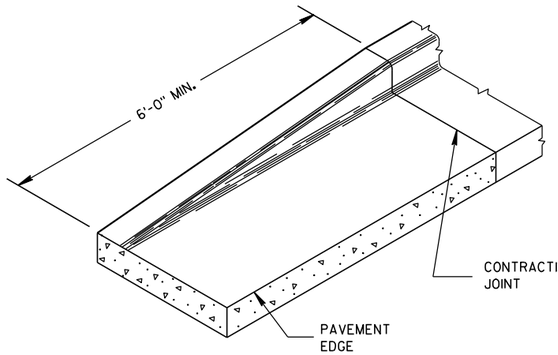
(1)
TYPES A & D
CONCRETE CURB & GUTTER 18"



(1)
TYPES A & D



(1)
TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
288
FHWA
ENT

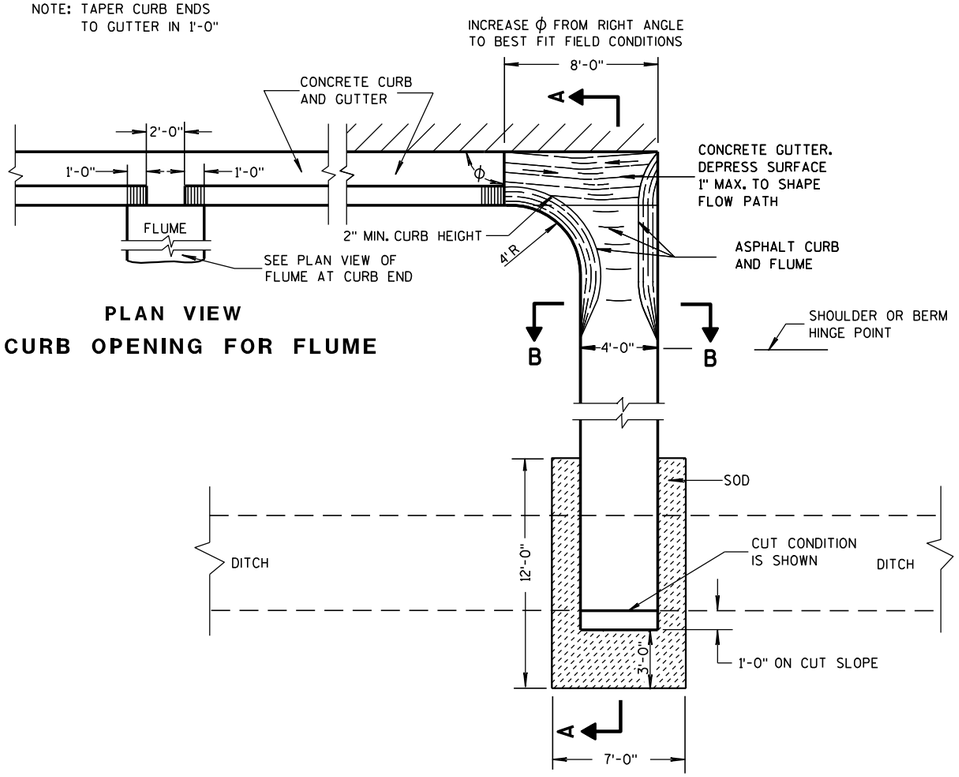
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S.D.D. 8 D 1-17

6

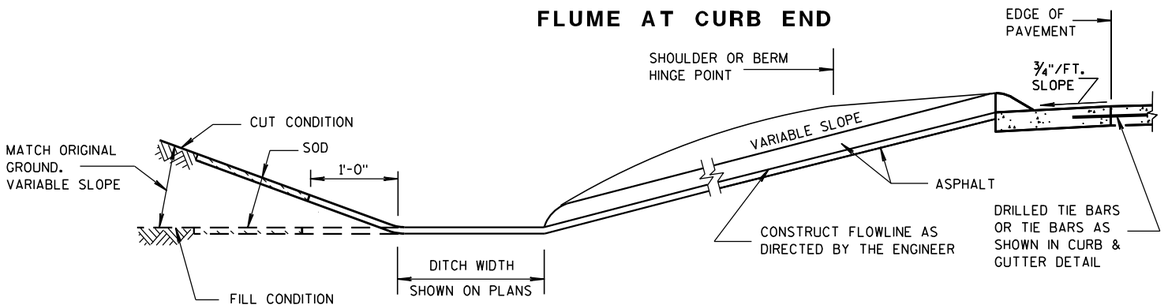
S.D.D. 8 D 1-17

ASPHALTIC FLUME

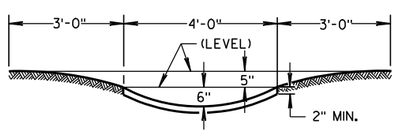


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

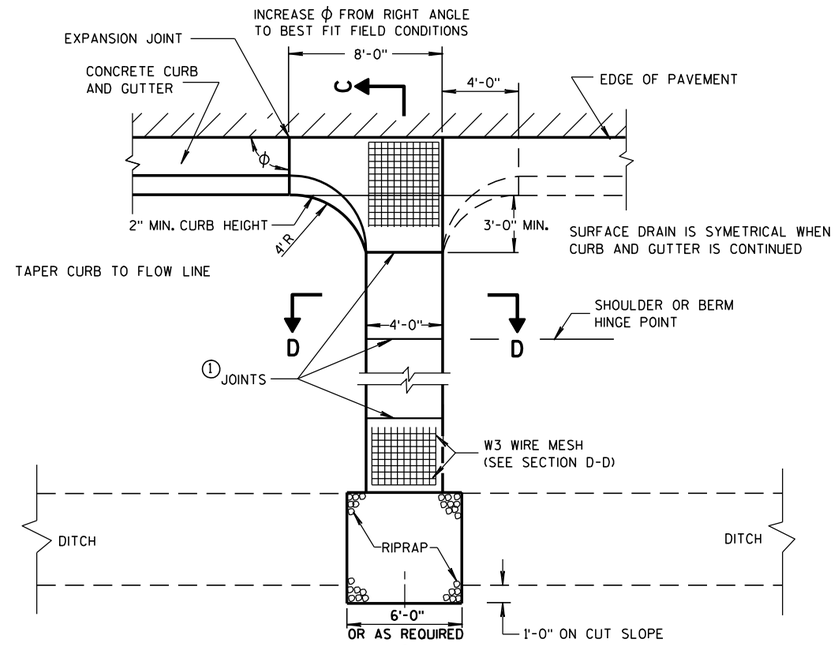
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE ⅛ TO ¼ INCH WIDE BY 1½ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

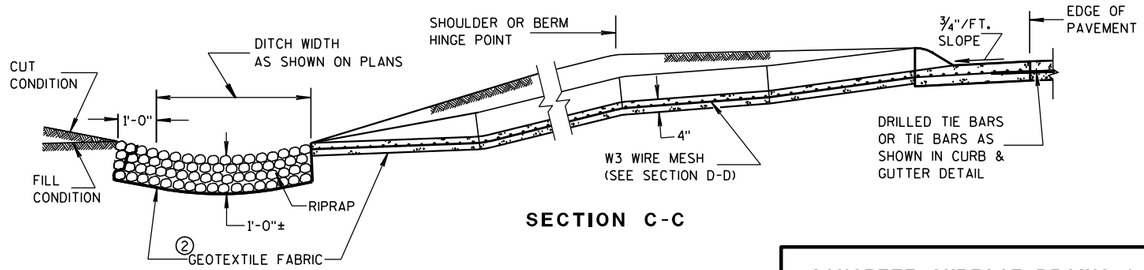
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

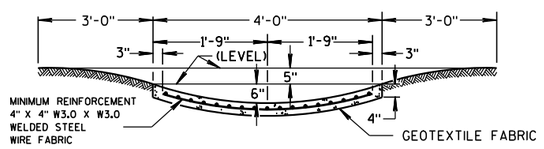
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

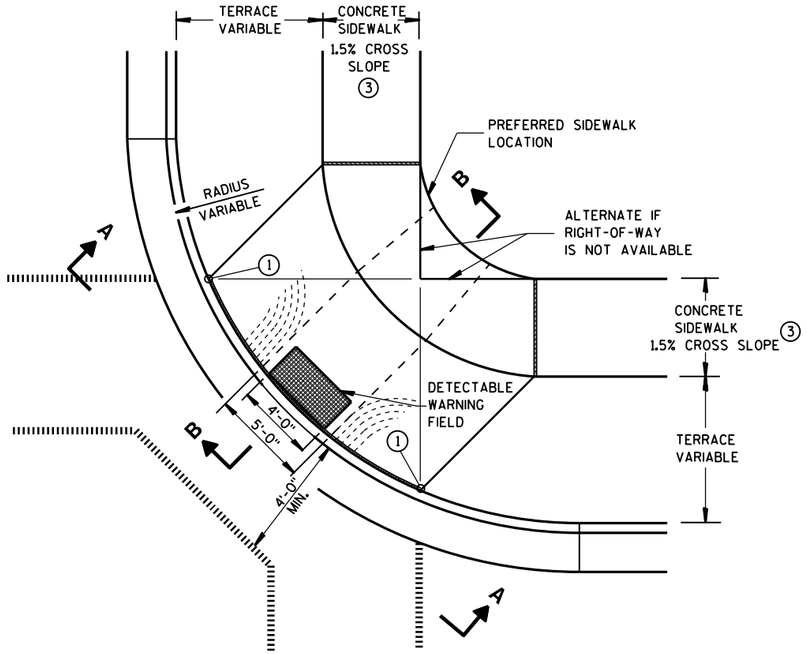
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
289
MENT
FHWA

6

S.D.D. 8 D 4-5

6

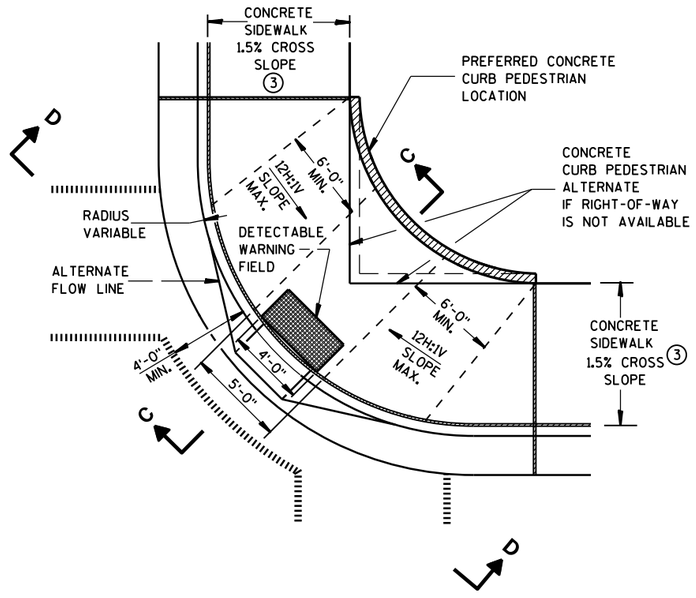
S.D.D. 8 D 4-5



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

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.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

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

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

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

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

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

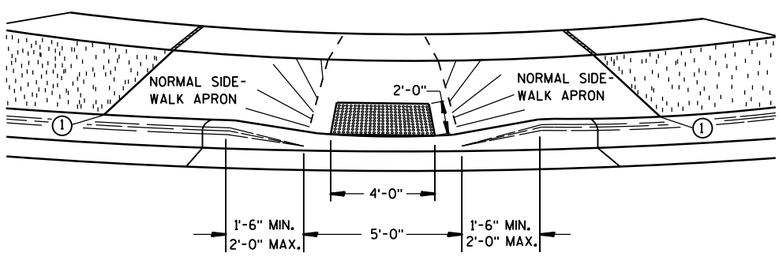
① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

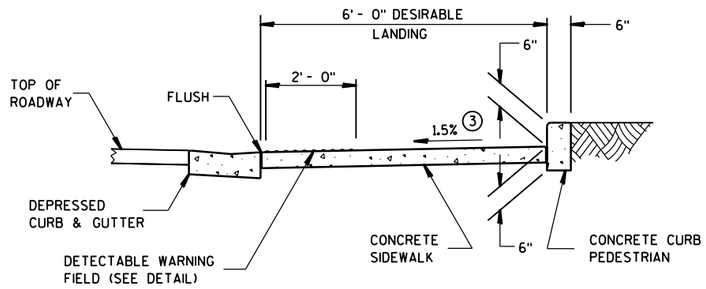
③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

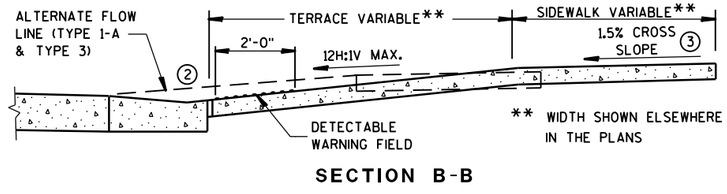
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



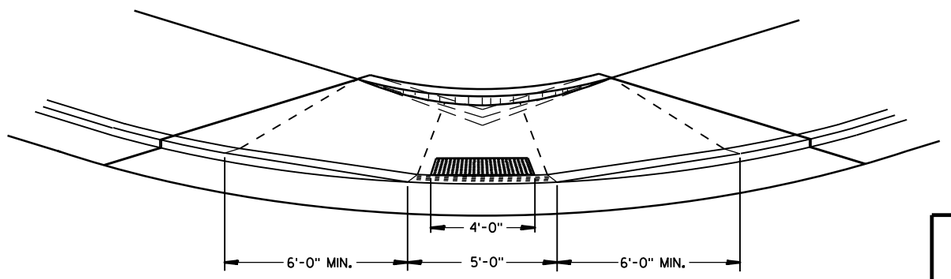
VIEW A-A



SECTION C-C



SECTION B-B



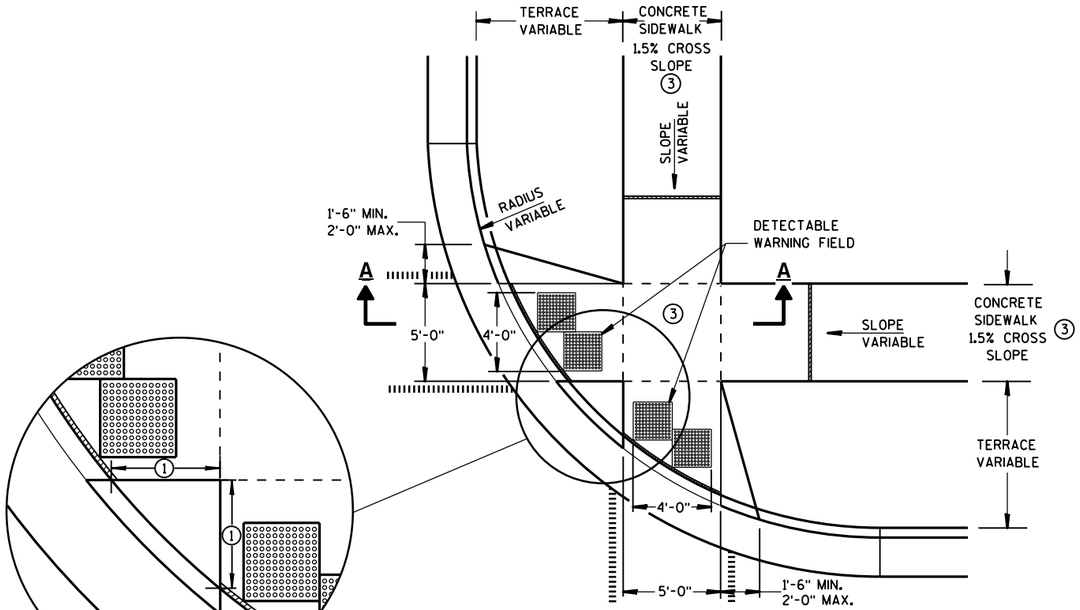
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

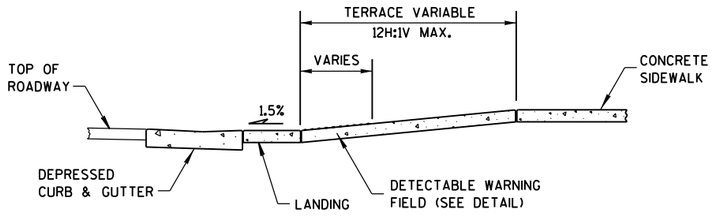
S.D.D. 8 D 5-15a



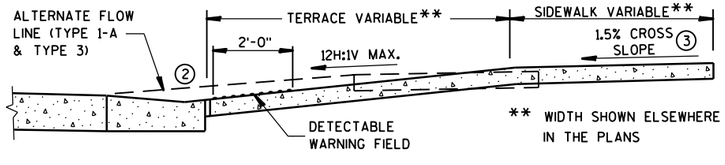
PLAN VIEW

TYPE 2 RAMP

(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

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

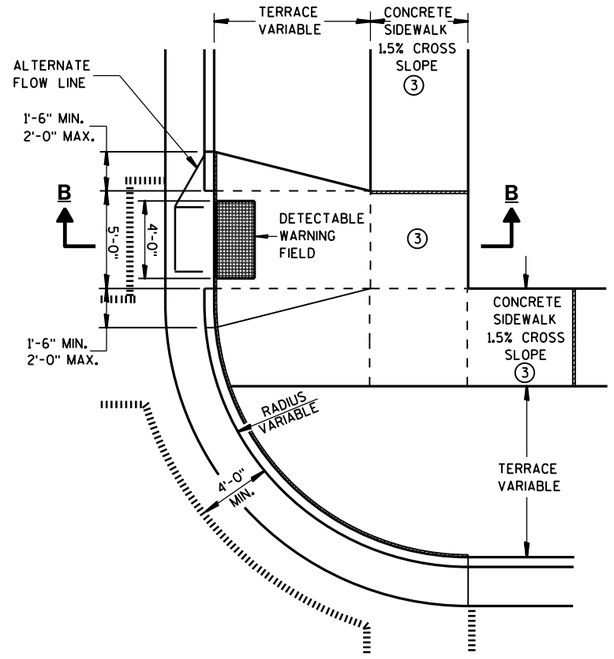
① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

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



PLAN VIEW

TYPE 3 RAMP

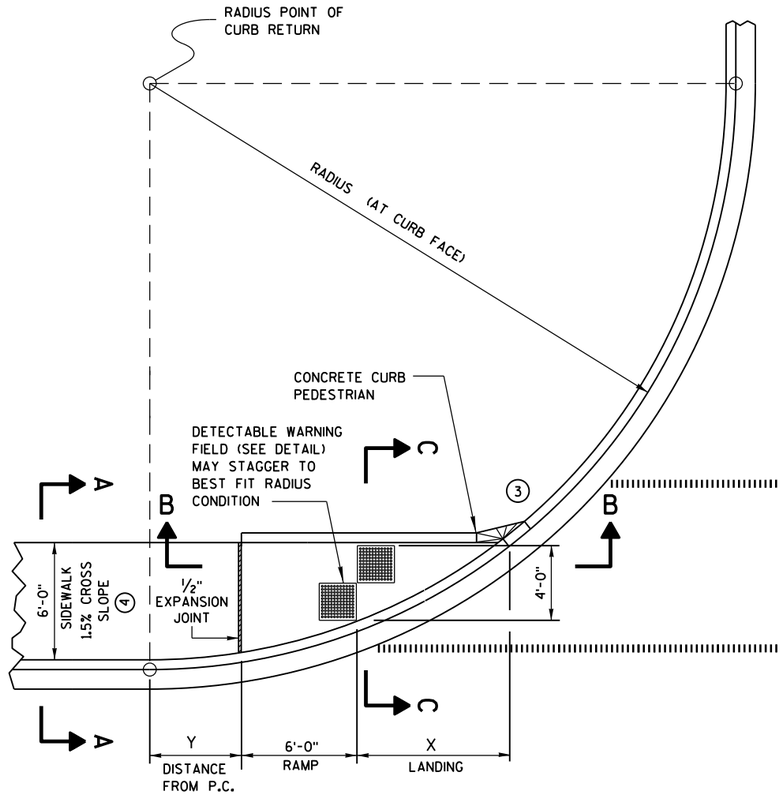
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

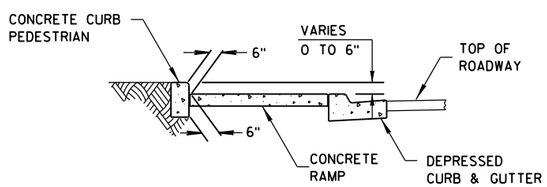
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

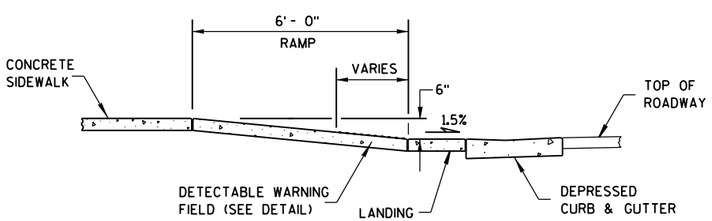
S.D.D. 8 D 5-15b



CURB RAMP TYPE 4A
PLAN VIEW



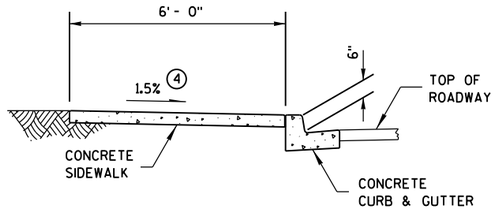
SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

GENERAL NOTES

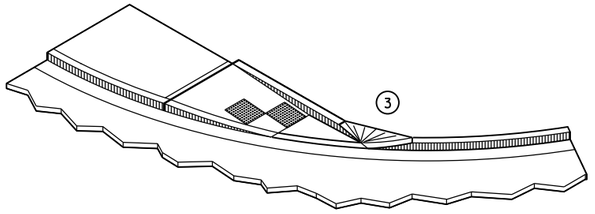
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

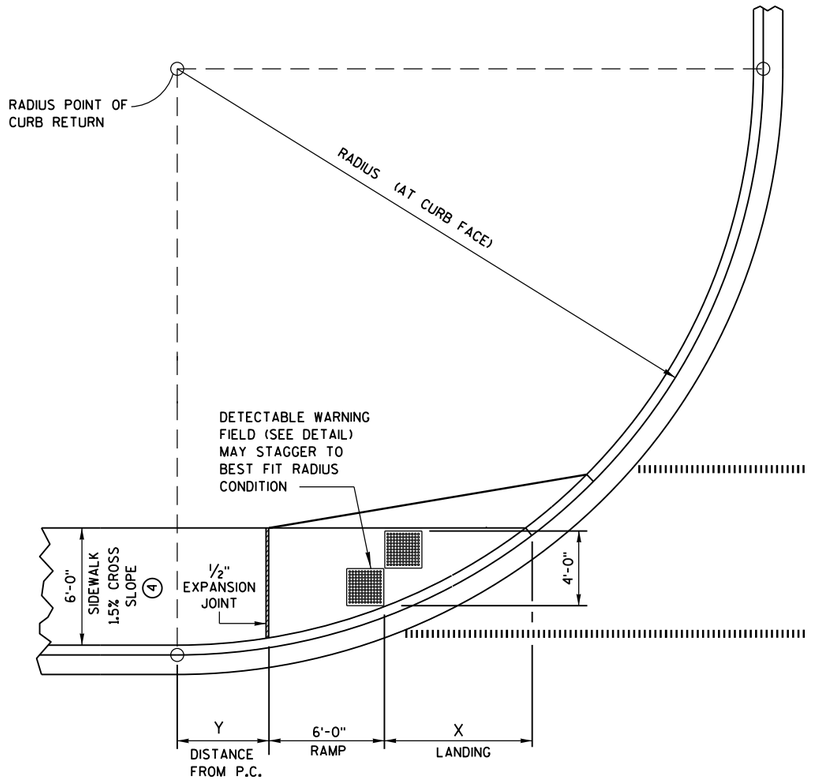
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

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

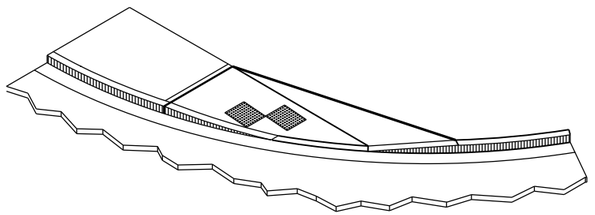
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

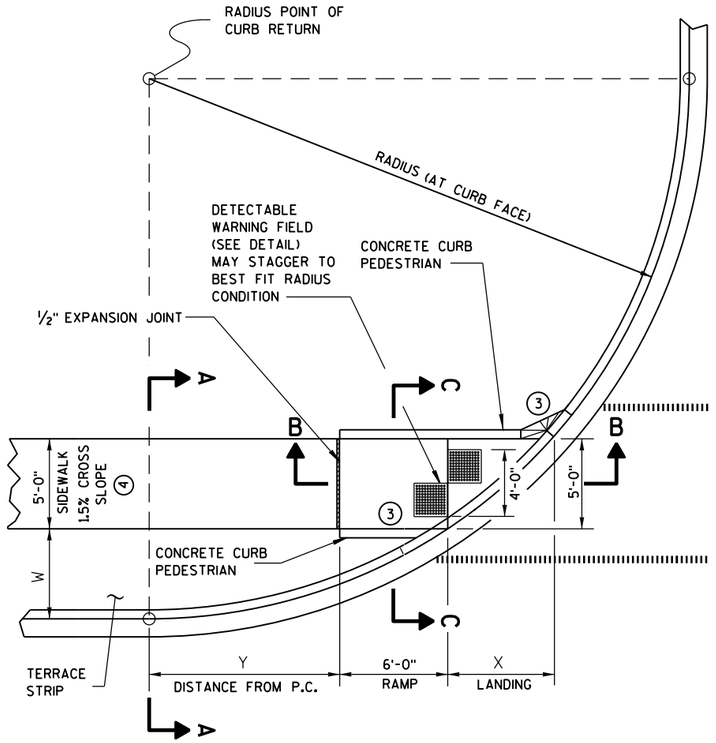
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPES 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-15c



CURB RAMP TYPE 4B
PLAN VIEW

LEGEND

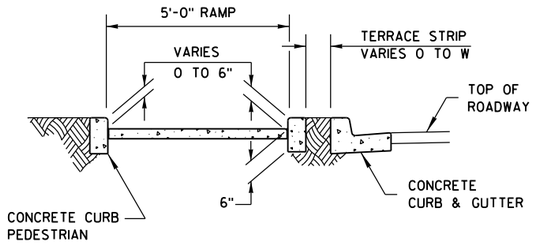
½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION C-C FOR TYPE 4B

GENERAL NOTES

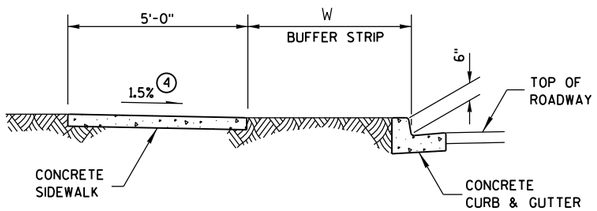
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

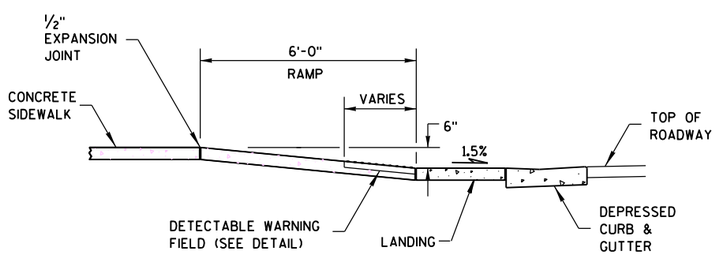
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

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

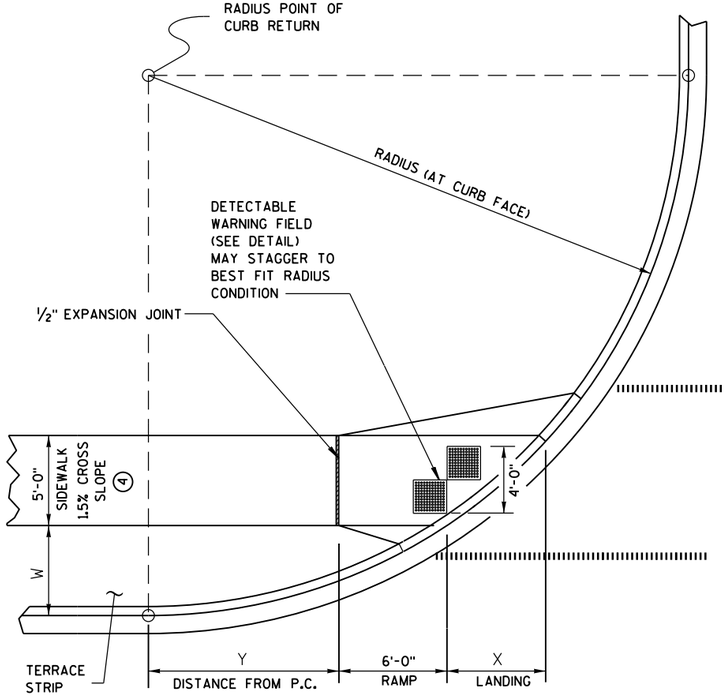
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



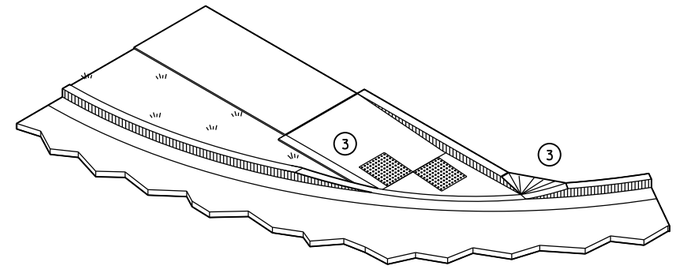
SECTION A-A FOR TYPE 4B



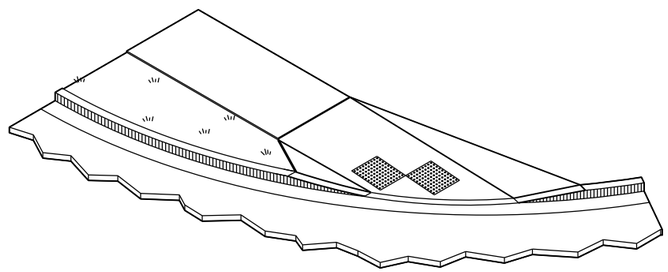
SECTION B-B FOR TYPE 4B



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B

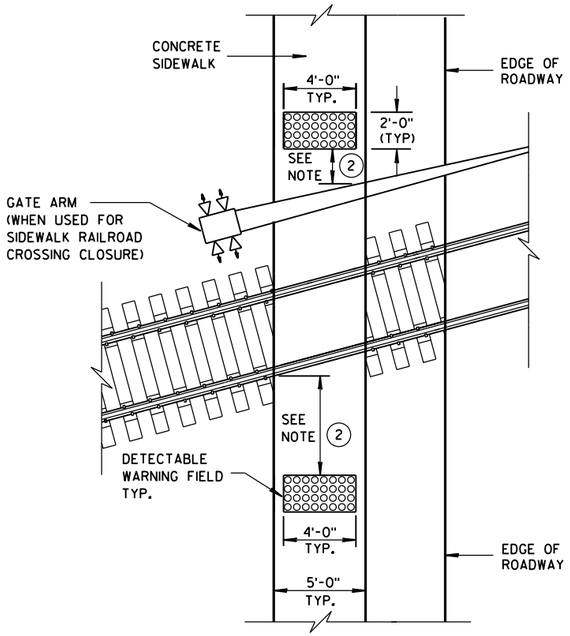


ISOMETRIC VIEW FOR TYPE 4B1

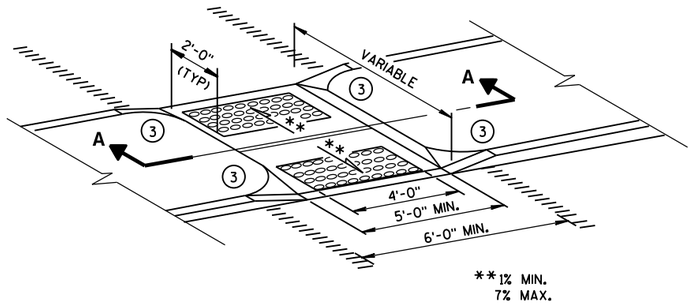
CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 8 D 5-15d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

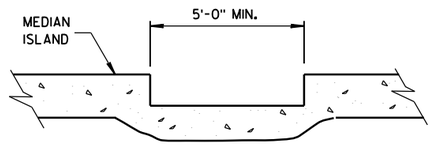
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

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

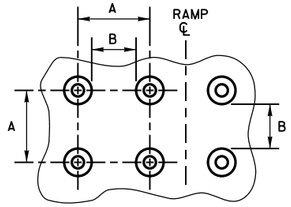
(2) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

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

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



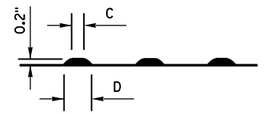
SECTION A-A



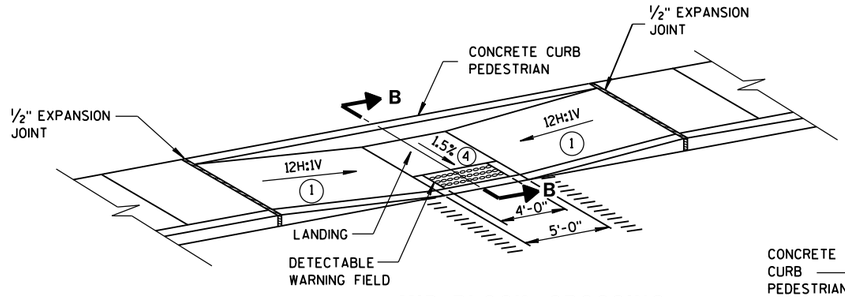
PLAN VIEW

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

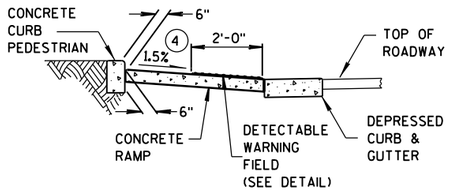
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

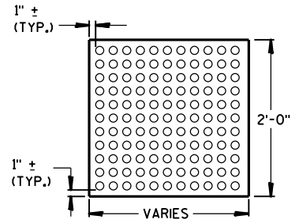


MID-BLOCK CROSSING
TYPE 7A



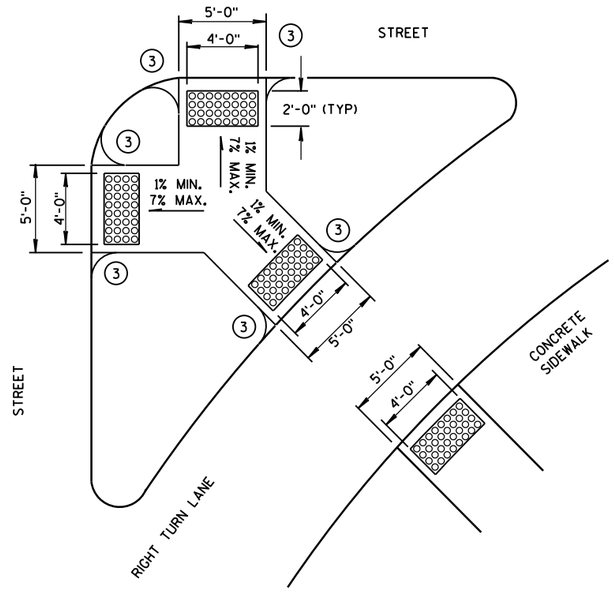
SECTION B-B

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

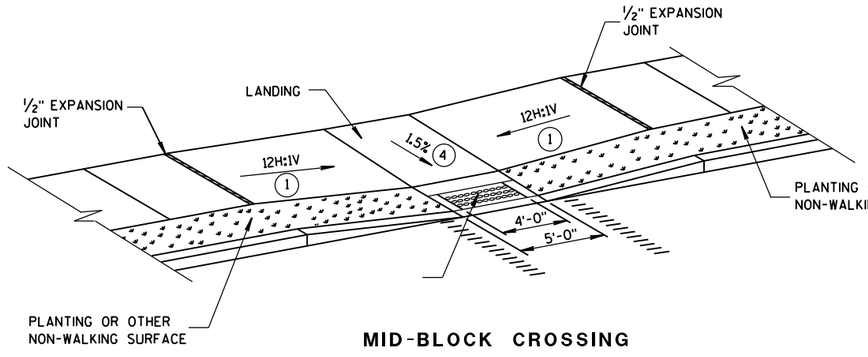


PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

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

LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

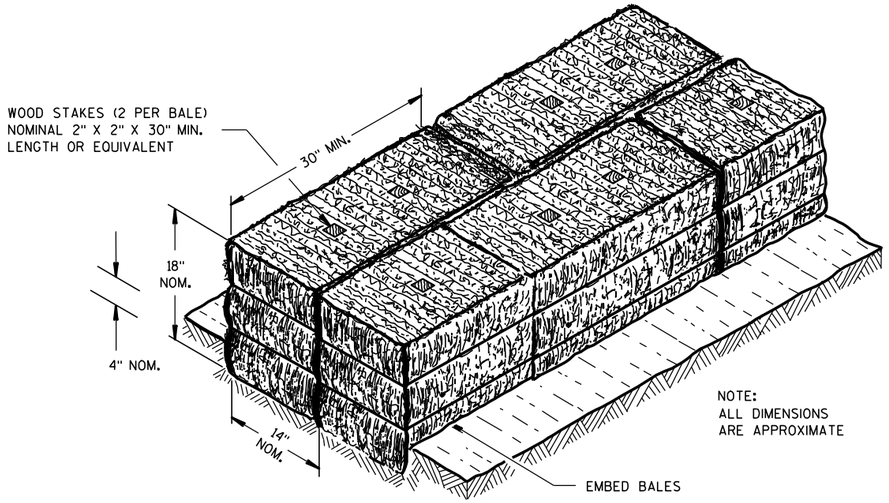
APPROVED
2-6-2013 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

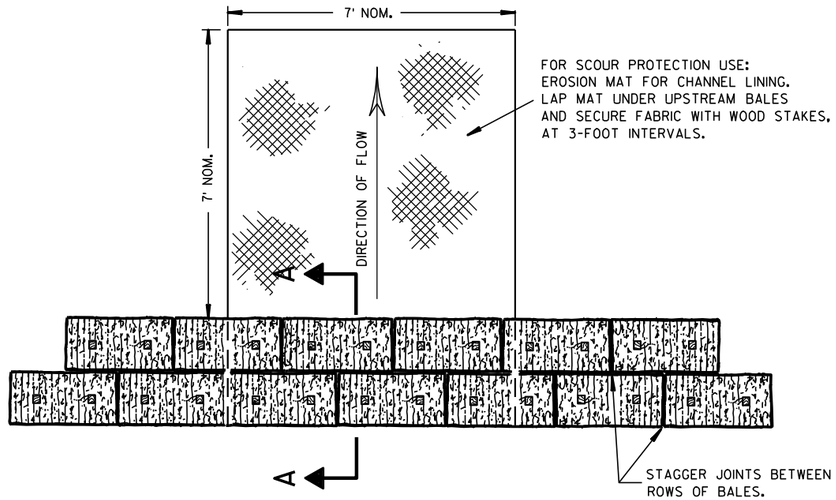
S.D.D. 8 D 5-15e

6

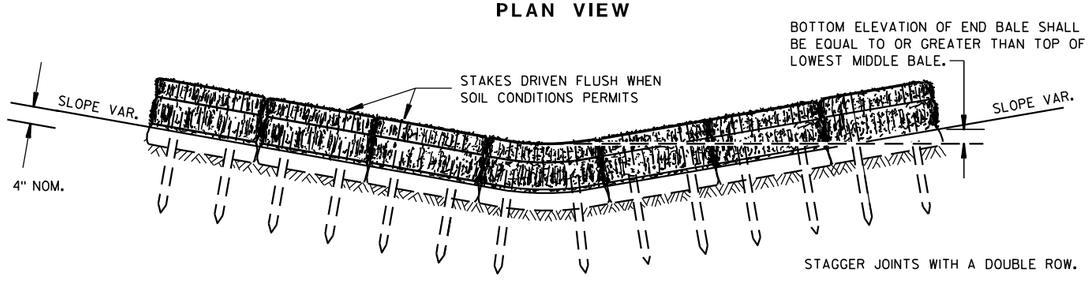
S.D.D. 8 D 5-15e



SECTION A-A



PLAN VIEW



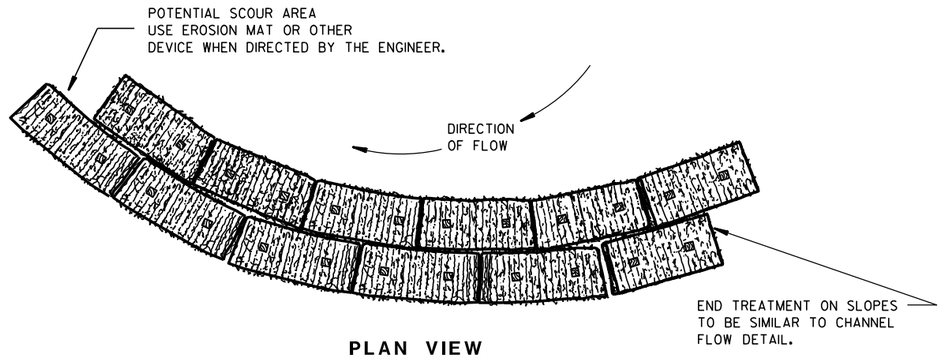
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

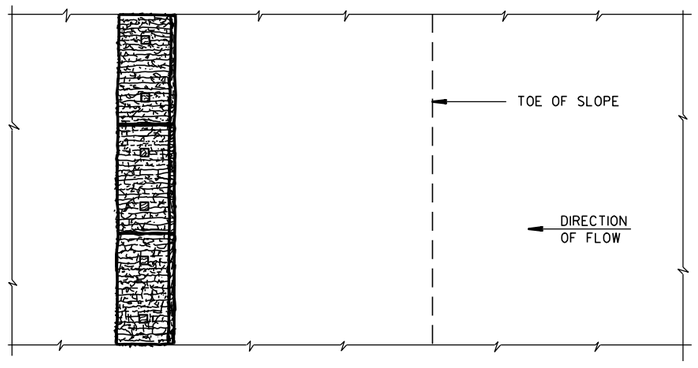
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

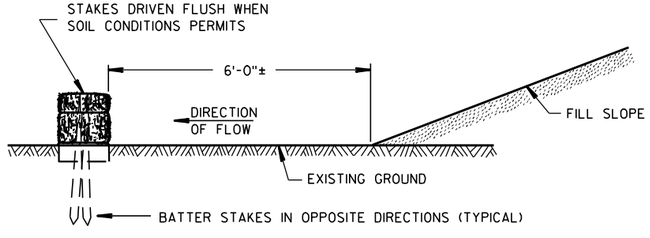


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

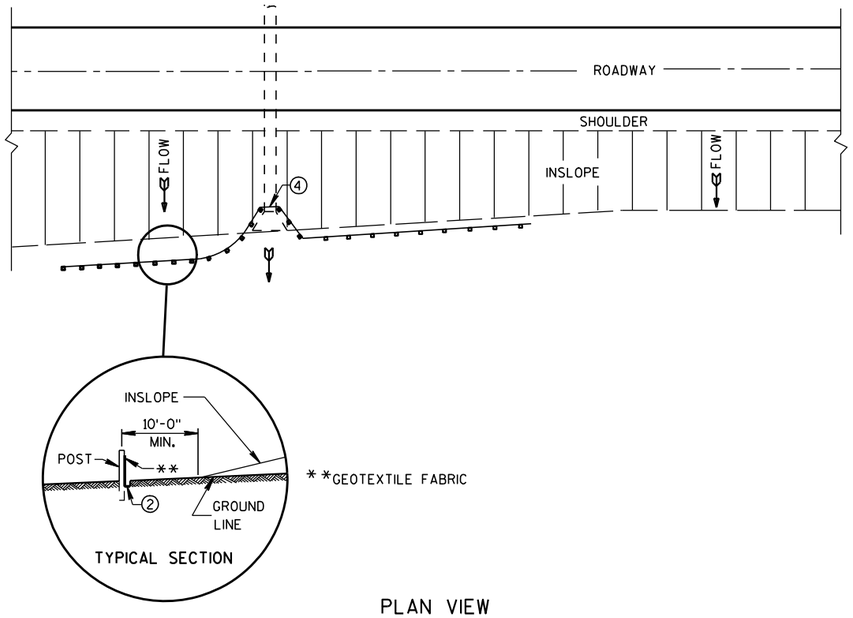
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

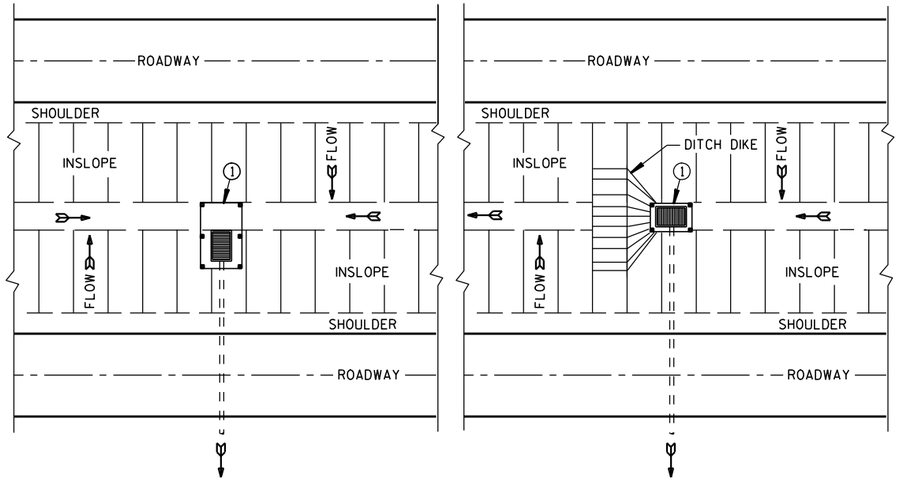
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

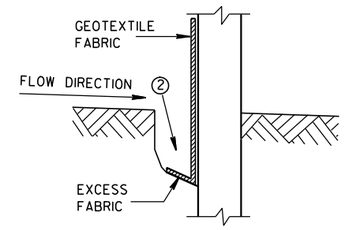
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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

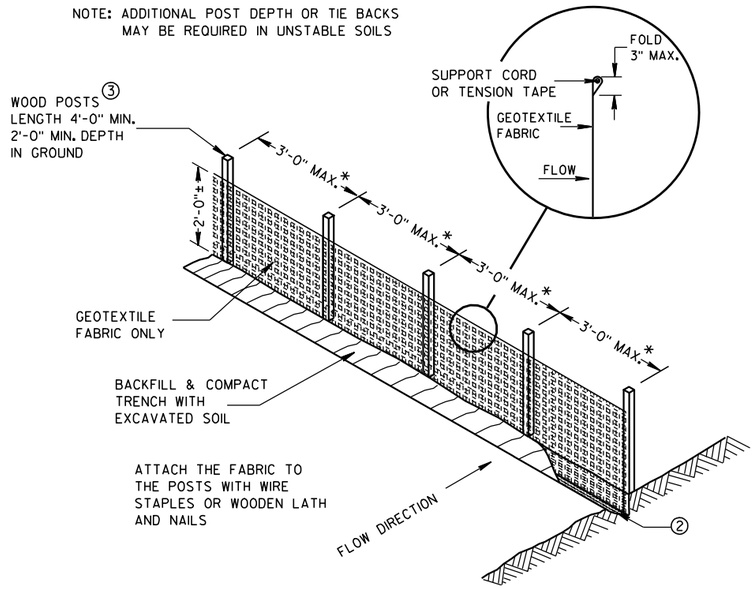
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

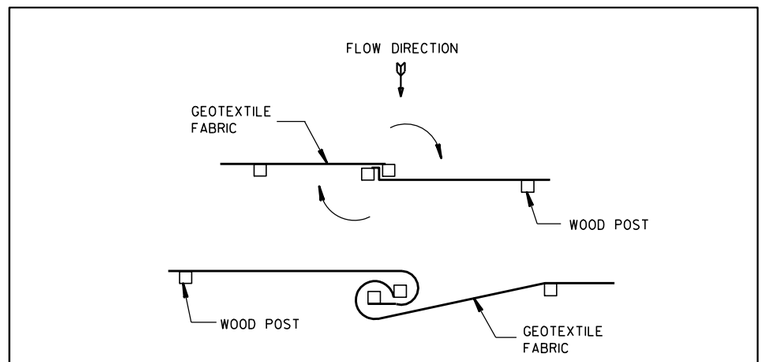
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



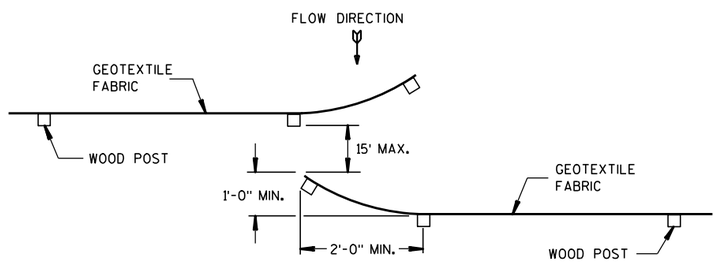
TRENCH DETAIL



SILT FENCE

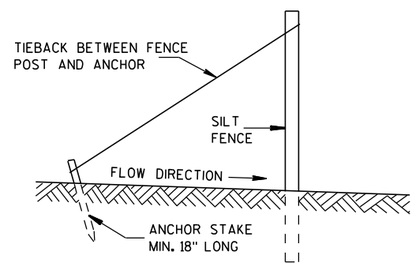


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

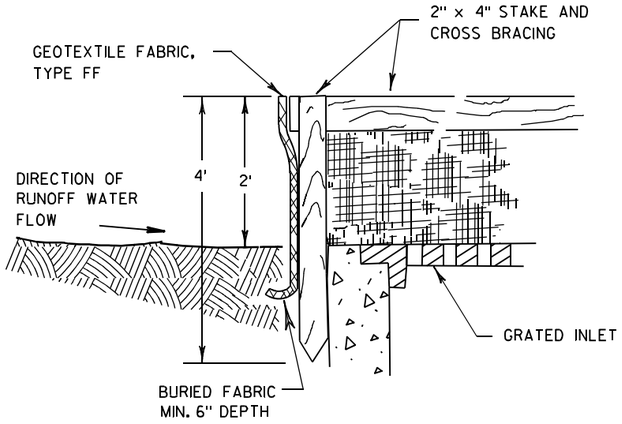
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

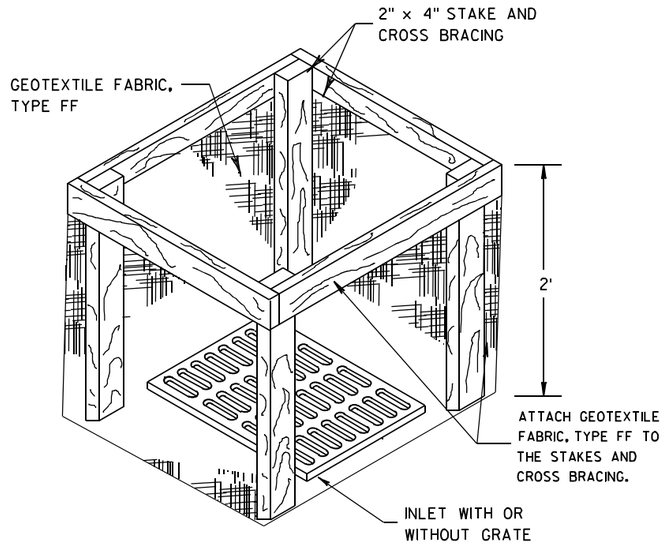
6

S.D.D. 8 E 9-6

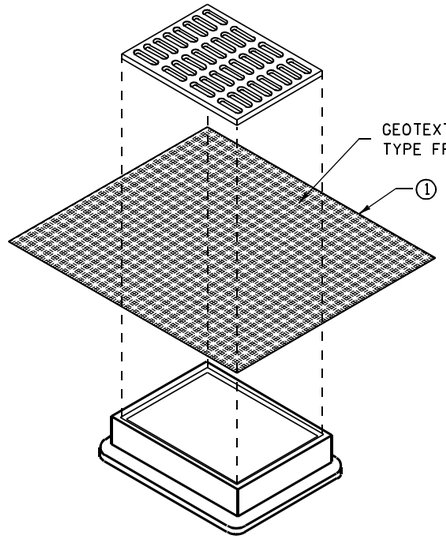
6

S.D.D. 8 E 9-6



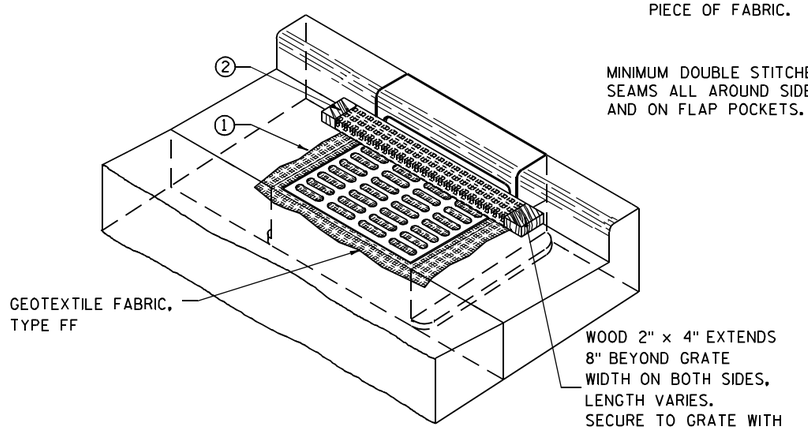


INLET PROTECTION, TYPE A

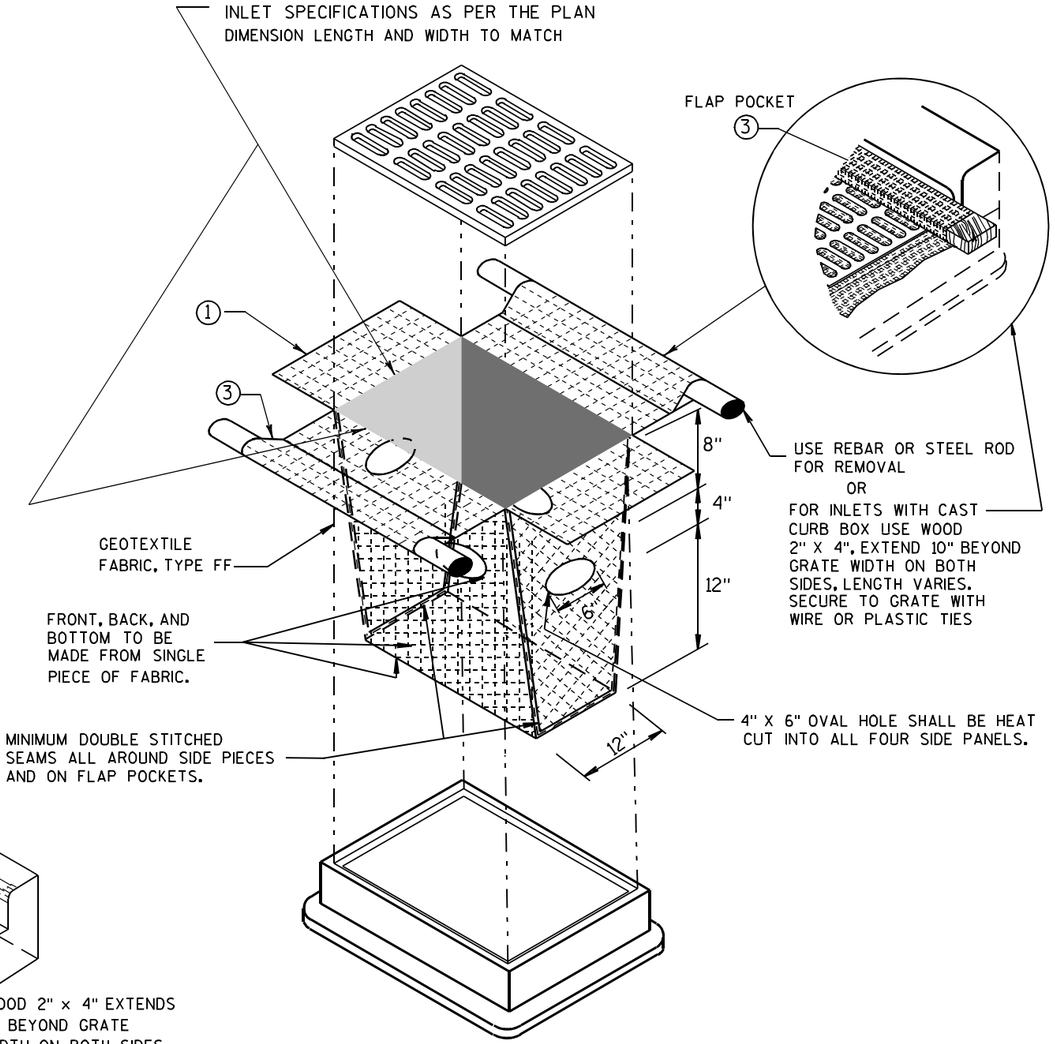


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2

METAL APRON ENDWALLS

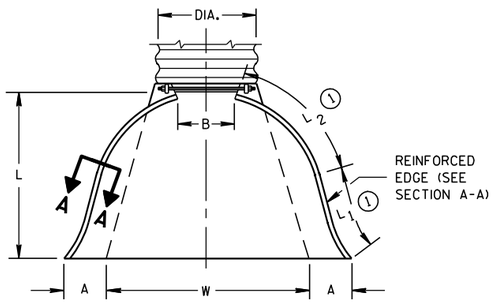
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

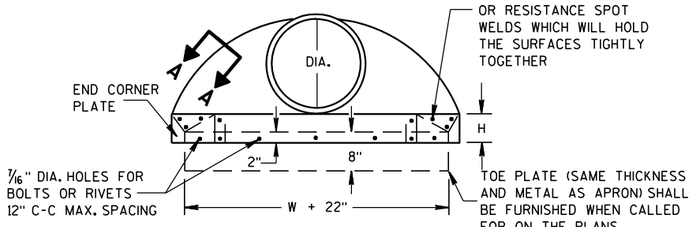
REINFORCED CONCRETE APRON ENDWALLS

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

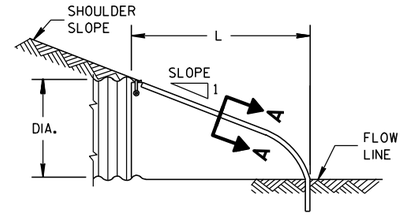
*MINIMUM
**MAXIMUM



PLAN VIEW

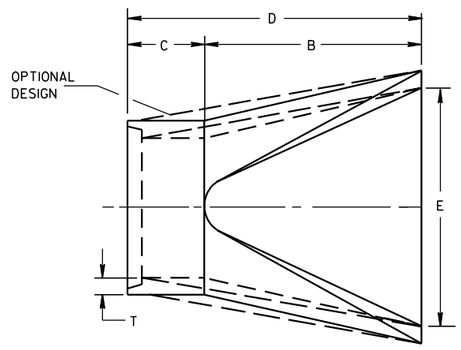


END VIEW

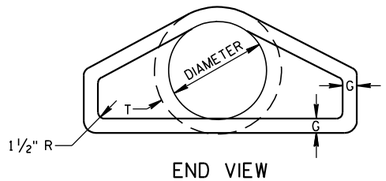


SIDE ELEVATION

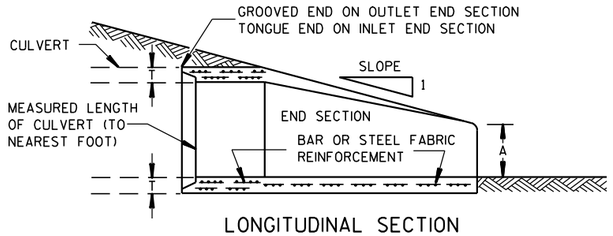
METAL ENDWALLS



PLAN

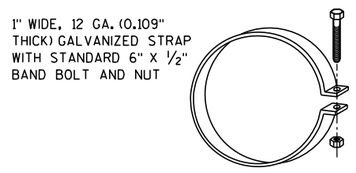


END VIEW



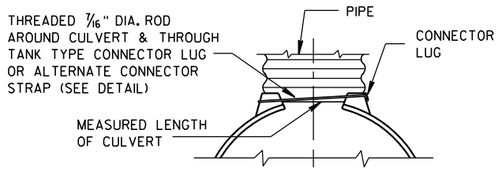
LONGITUDINAL SECTION

CONCRETE ENDWALLS

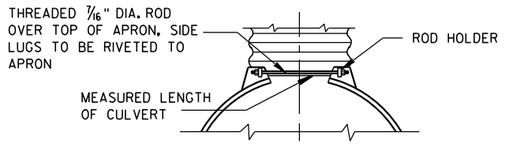


ALTERNATE FOR TYPE 1 CONNECTION

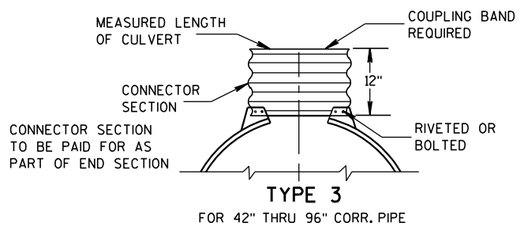
END SECTION CONNECTOR STRAP



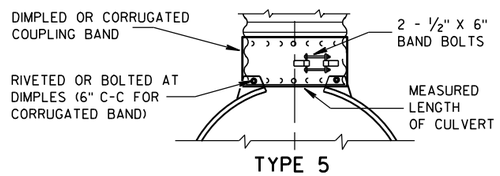
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

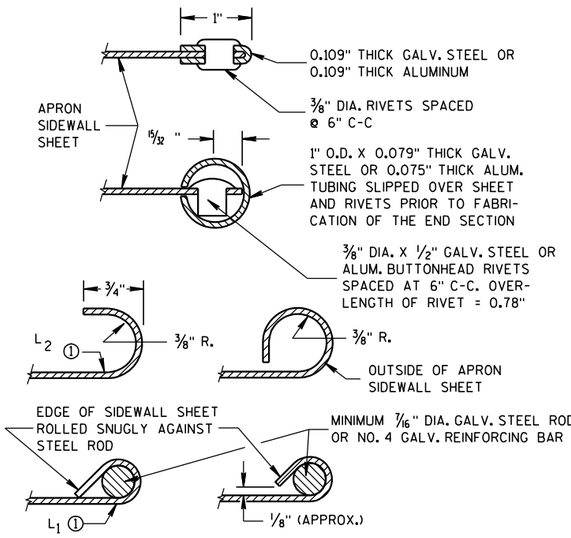
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

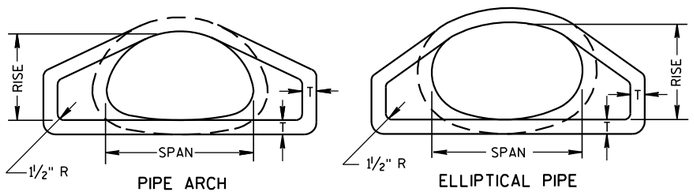
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

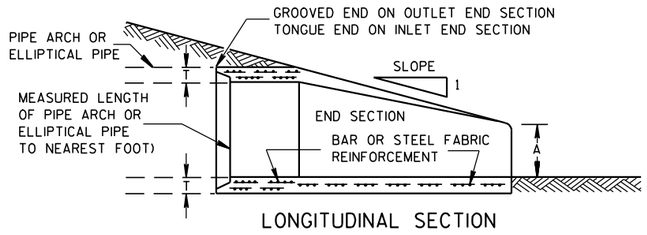
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

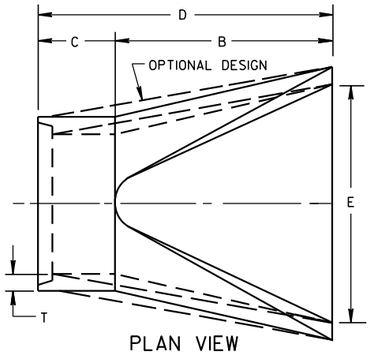
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



END VIEW

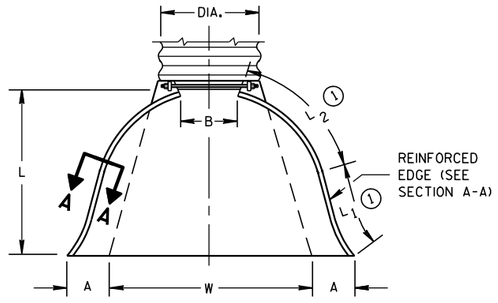


LONGITUDINAL SECTION

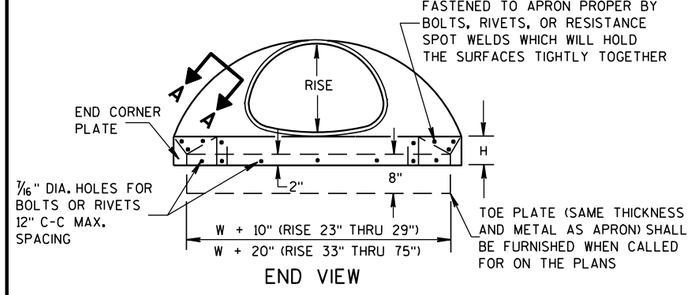


PLAN VIEW

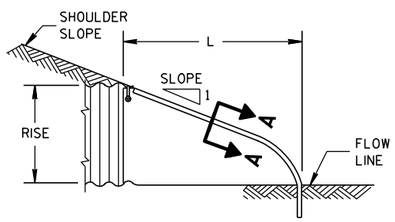
CONCRETE ENDWALLS



PLAN VIEW

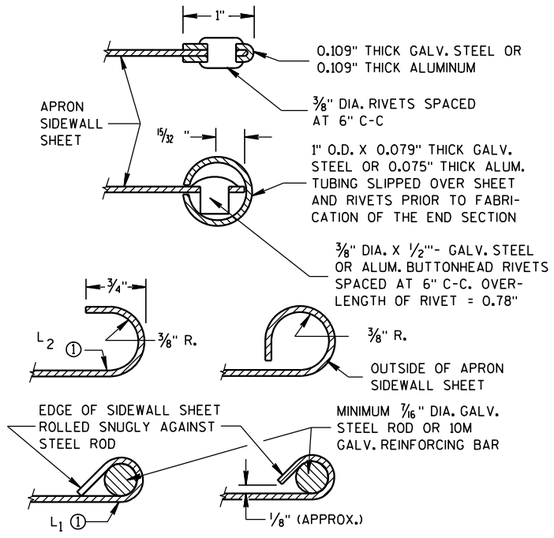


END VIEW



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

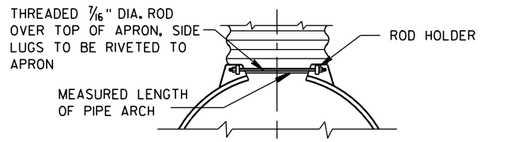
REINFORCED CONCRETE PIPE ARCH

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

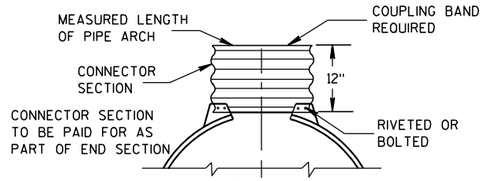
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48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

**NOMINAL SIZE



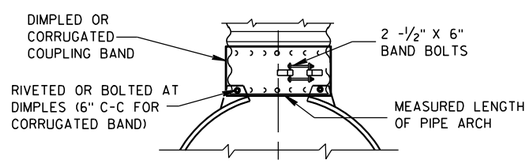
TYPE 2

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

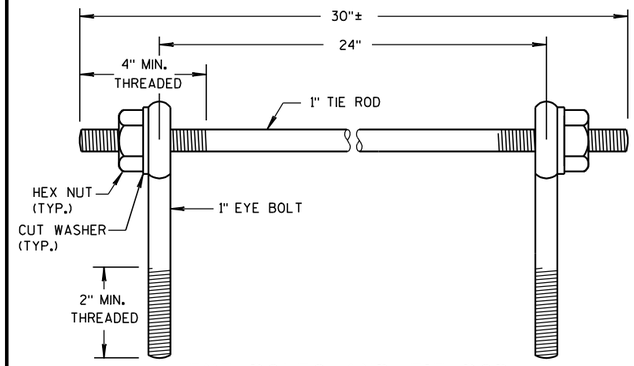
FHWA

6

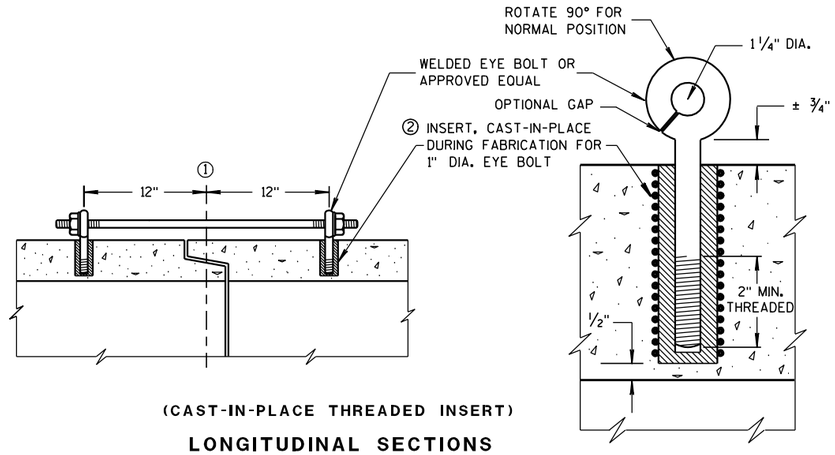
S.D.D. 8 F 2-1

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.

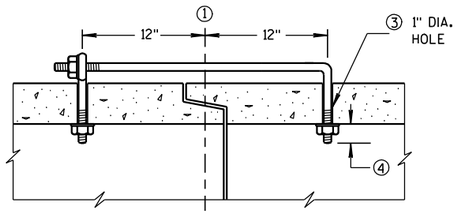
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

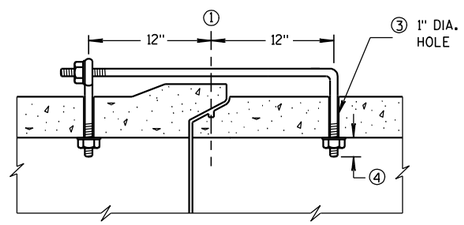
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

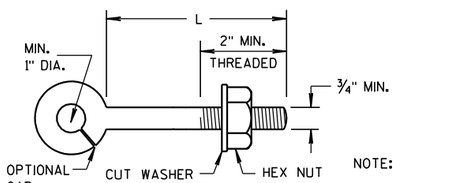


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

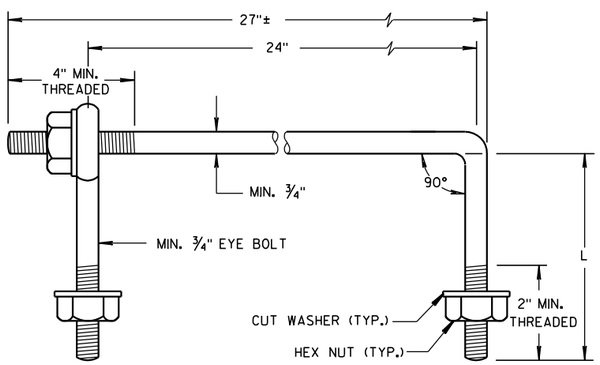
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



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

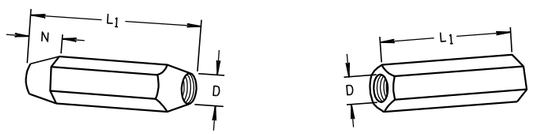
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

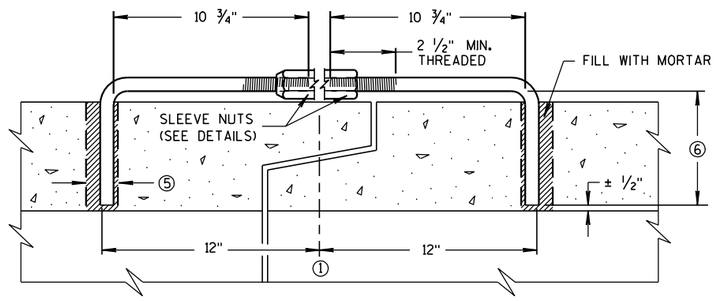
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

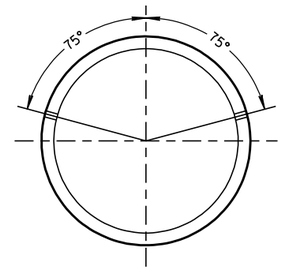
SLEEVE NUTS



LONGITUDINAL SECTION

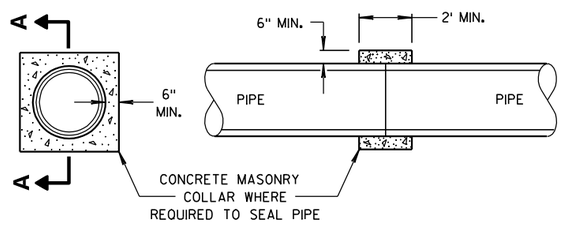
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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
300 MENT
FHWA

6

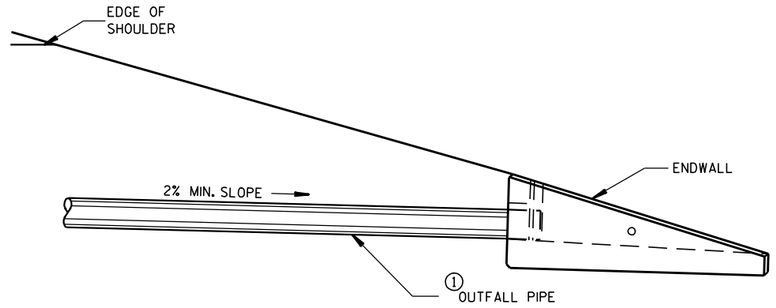
S.D.D. 8 F 4-7

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.

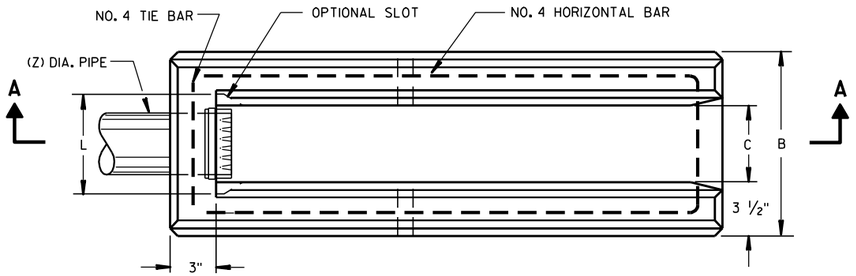
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

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.

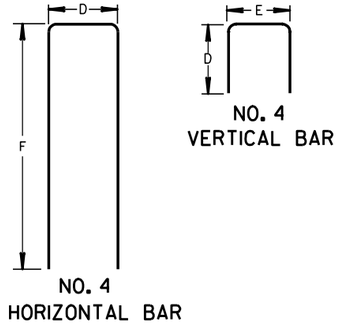
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE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

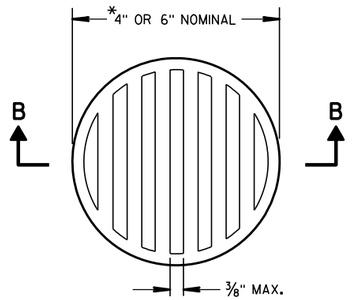
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL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

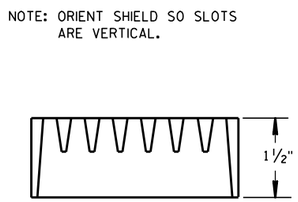


PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS

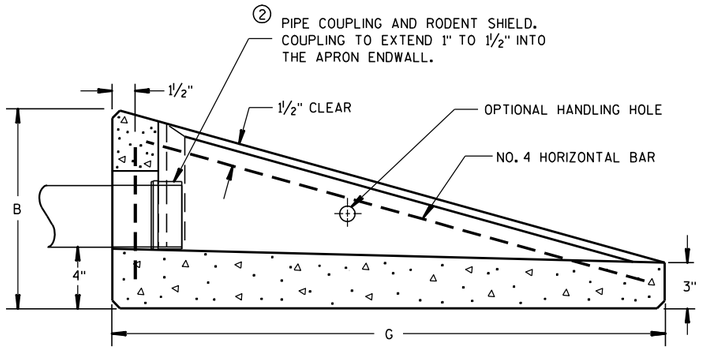




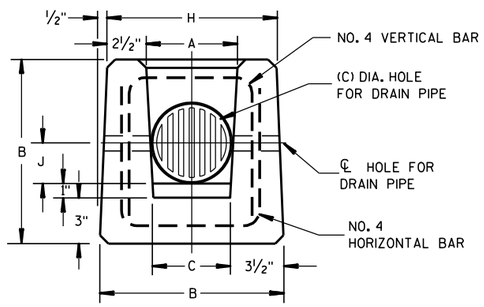
SECTION B-B

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

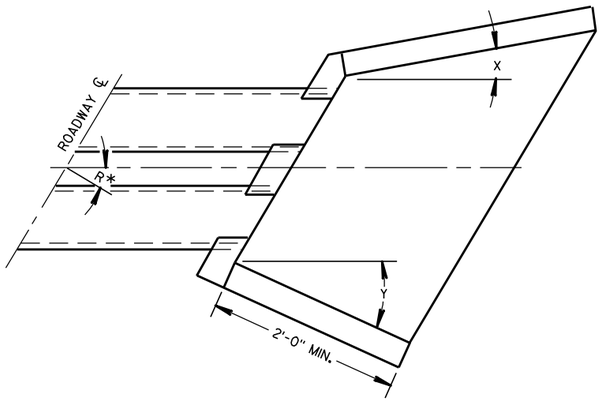
3/10/98 DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 8 F 6-4



WINGWALL ANGLE DETAILS

INLET			OUTLET		
R*	X	Y	R*	X	Y
0 - 7°	30°	30°	0 - 15°	15°	15°
8 - 22°	25°	"	16 - 45°	10°	"
23 - 37°	20°	"	46 - 75°	5°	"
38 - 52°	15°	"	OVER 75°	0°	"
53 - 67°	10°	"			
68 - 82°	5°	"			
OVER 82°	0°	"			

*R = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD

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.

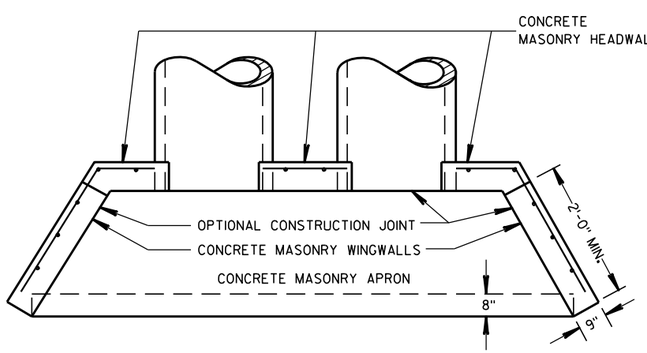
FILL SLOPES FLATTER THAN 2 ½:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

ALL STEEL REINFORCEMENT AND WELDED STEEL WIRE FABRIC SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

(1) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C-C IN BOTH DIRECTIONS.

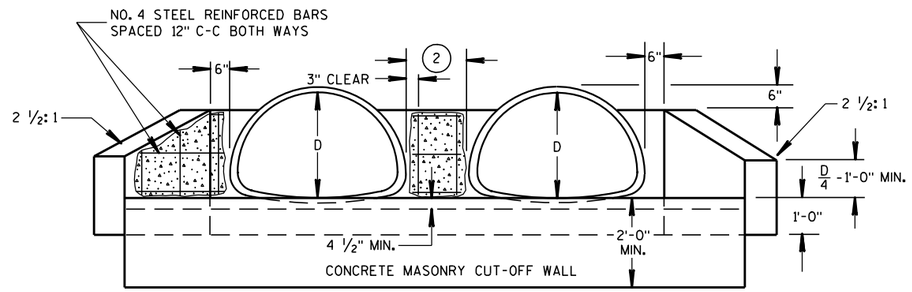
(2) THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2'-0"
OVER 48" TO 72"	½ DIA. OR SPAN
OVER 72"	3'-0"



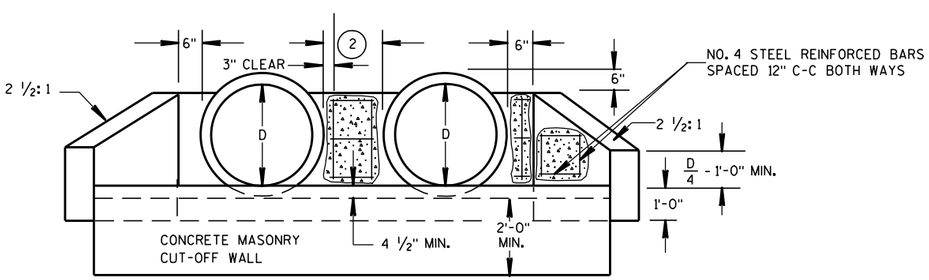
PLAN VIEW

CULVERT PIPE AND PIPE ARCH



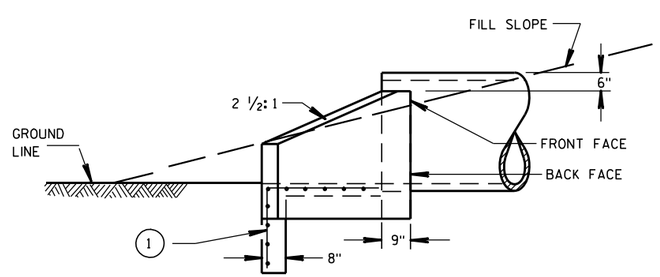
END ELEVATION

PIPE ARCH



END ELEVATION

CULVERT PIPE



SIDE ELEVATION

CULVERT PIPE AND PIPE ARCH

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

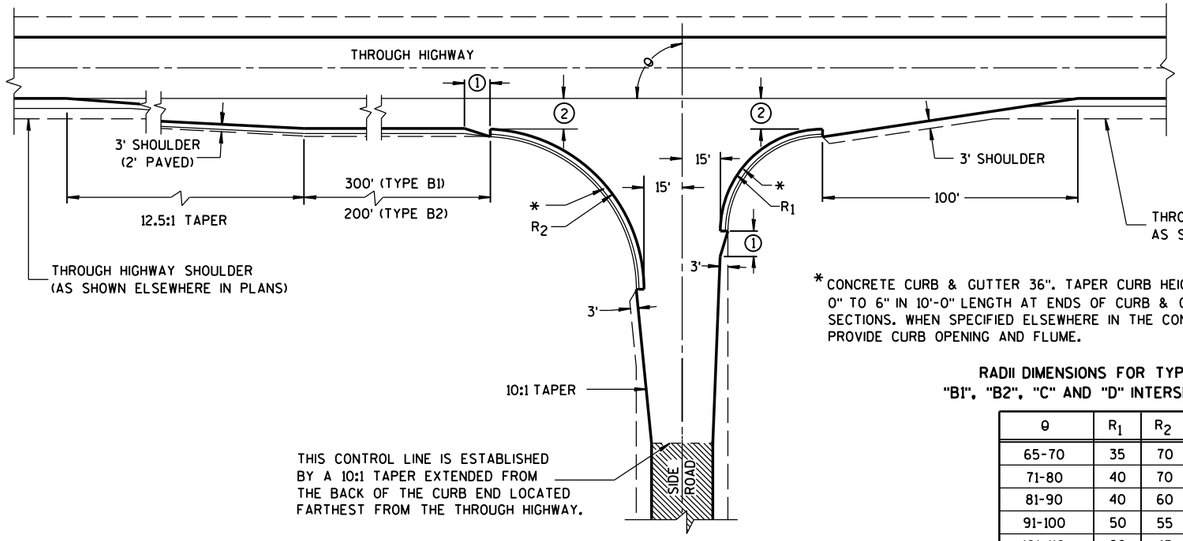
APPROVED
9/14/98 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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S.D.D. 8 F 10-1

6

S.D.D. 8 F 10-1

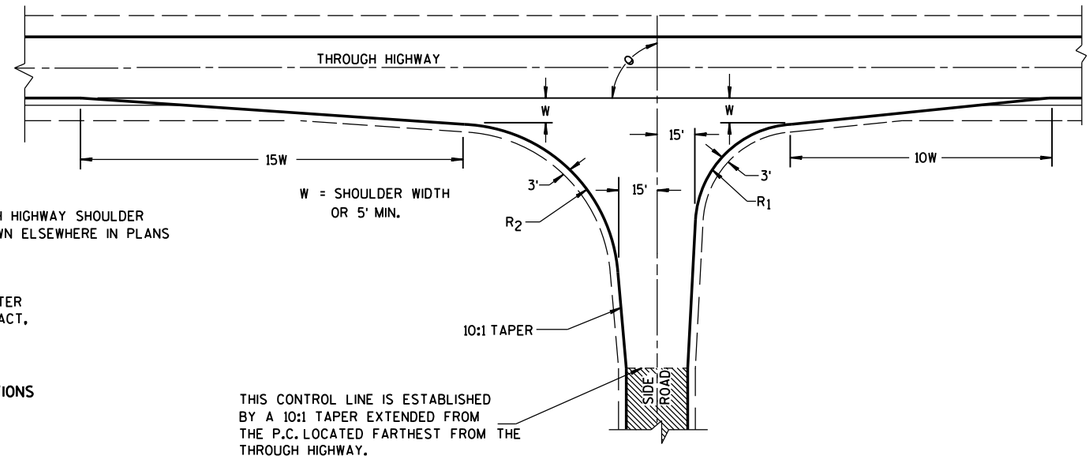


TYPE "B1" AND "B2"

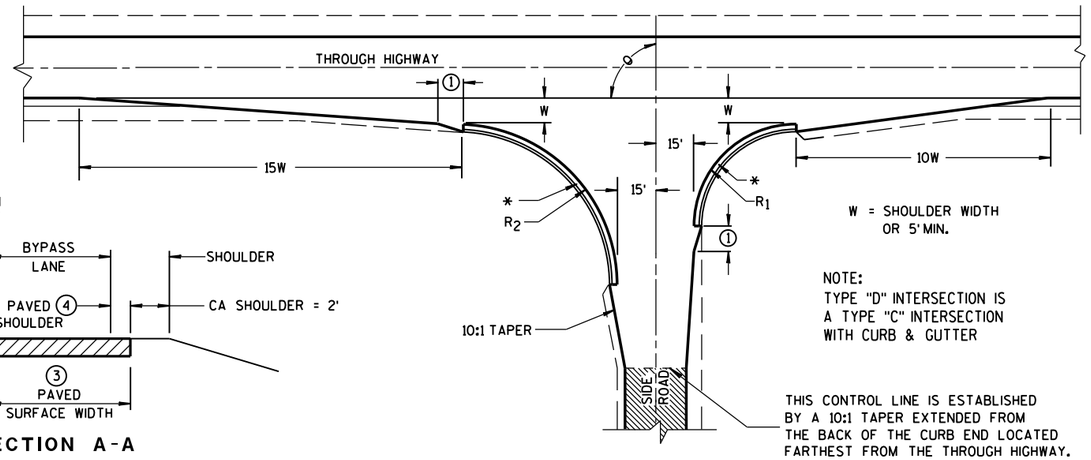
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45



TYPE "C"



TYPE "D"

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

BYPASS LANE

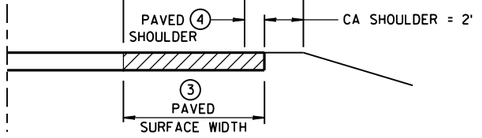
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

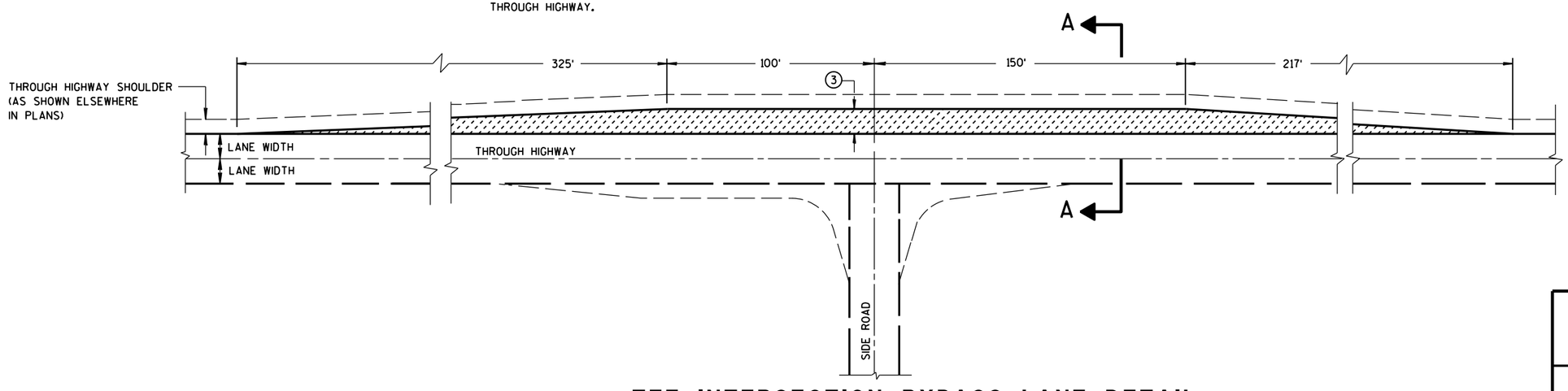
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.

(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



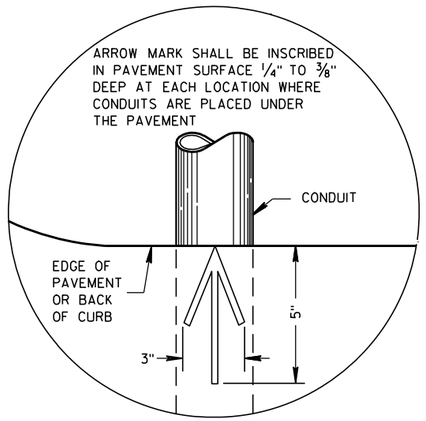
TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

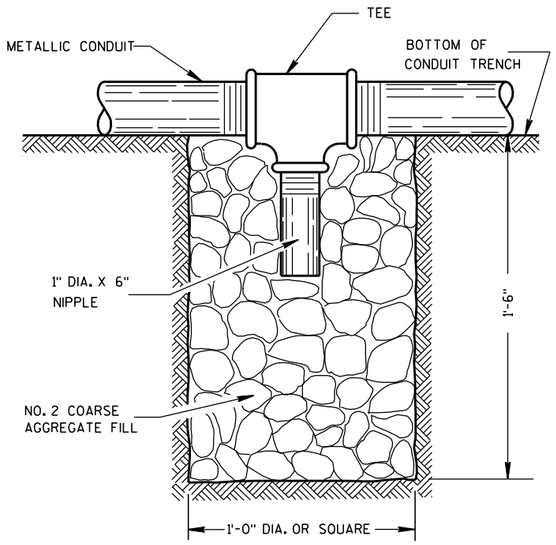
6

S.D.D. 9 A 1-13a



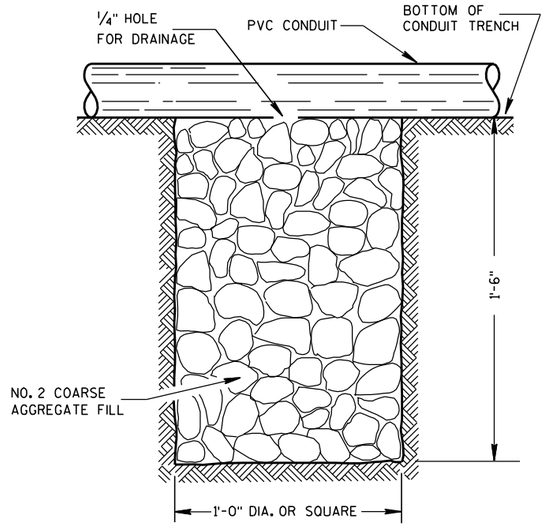
PLAN VIEW

ARROW MARK



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

DRAIN SUMP FOR METALLIC CONDUIT



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

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

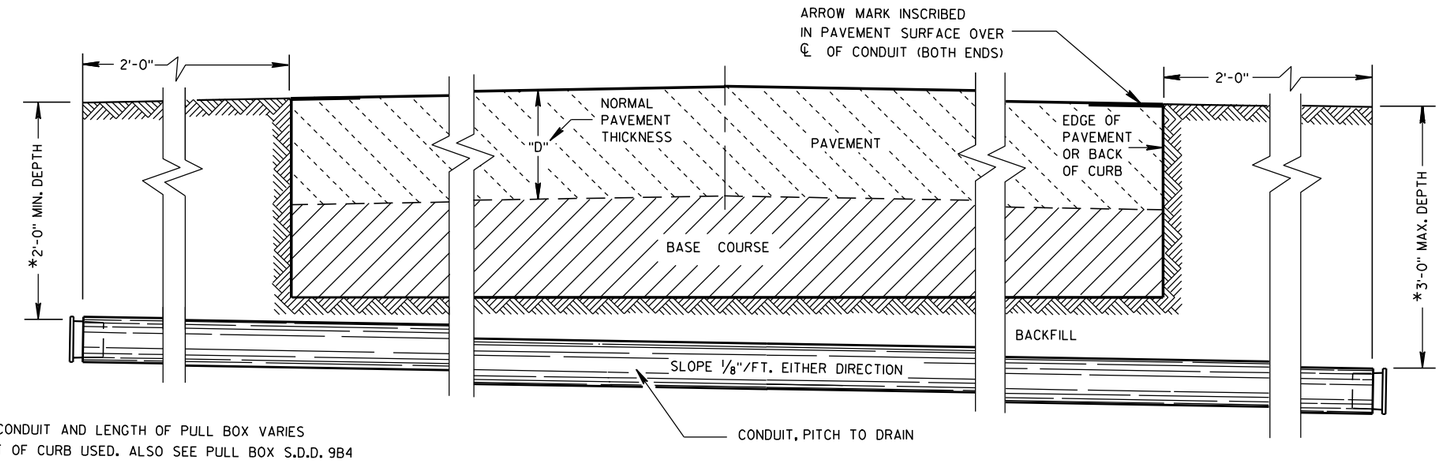
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

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

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

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



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/23/03 DATE

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI

304

HWYS

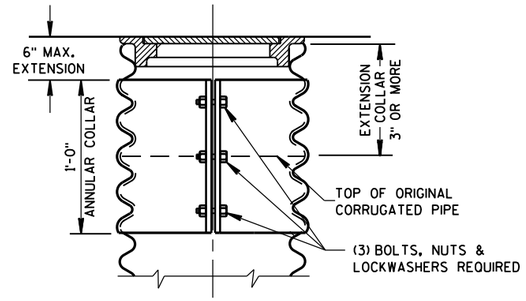
FHWA

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

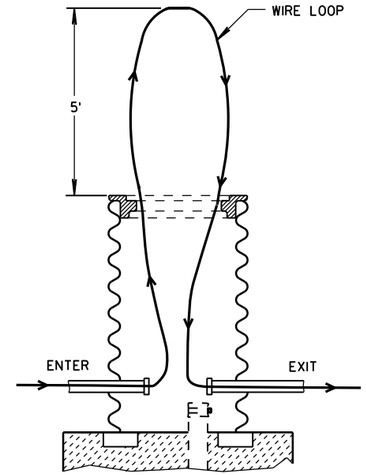
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

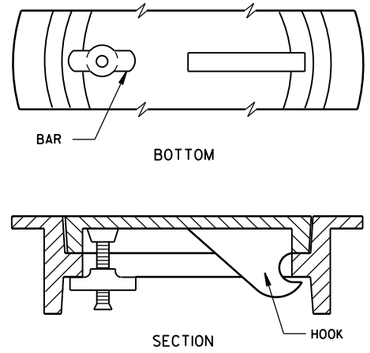
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

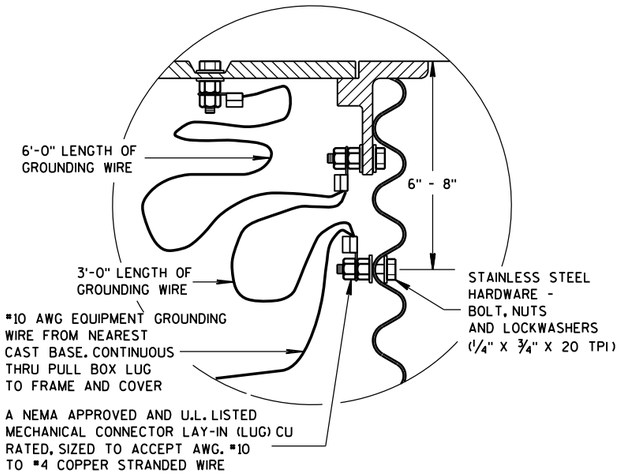


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

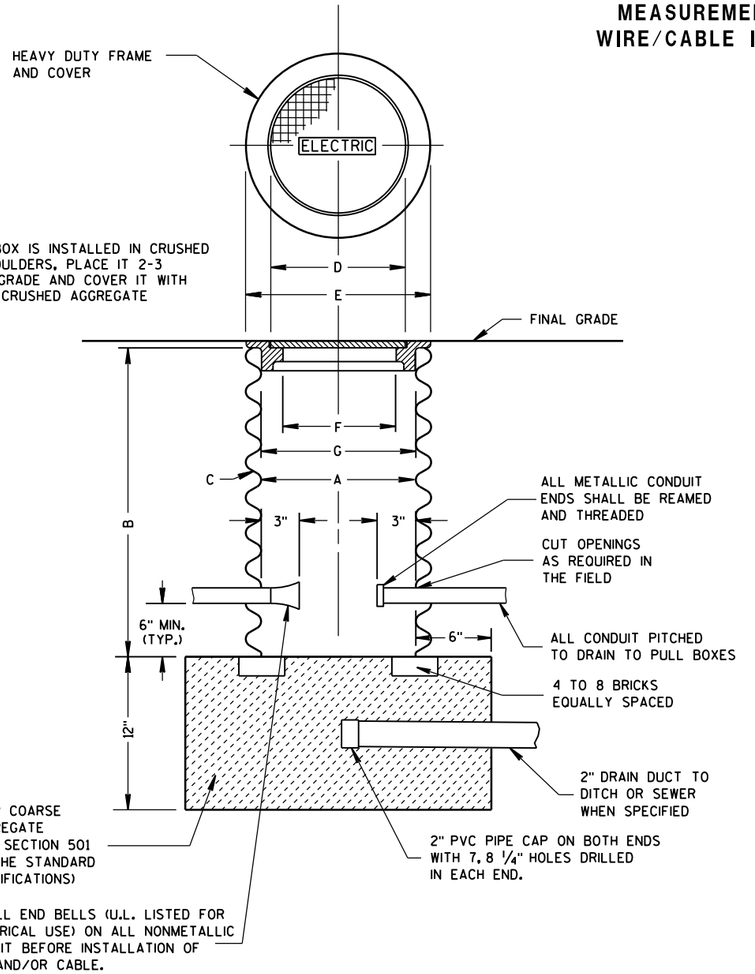


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

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

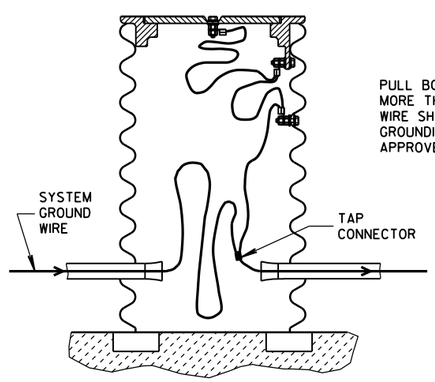
GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

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

S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2-7-2013
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

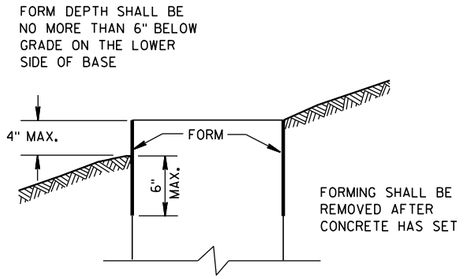
FHWA

6

S.D.D. 9 B 4-10

6

S.D.D. 9 B 4-10



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

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

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

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

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2 AND TYPE 5 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-449, OR ASTM A-687 (GRADE 105).

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

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

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

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

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

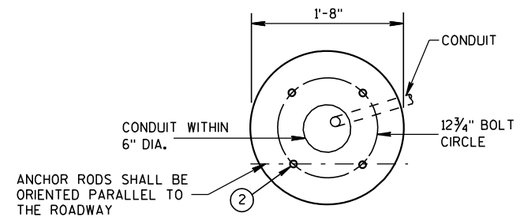
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

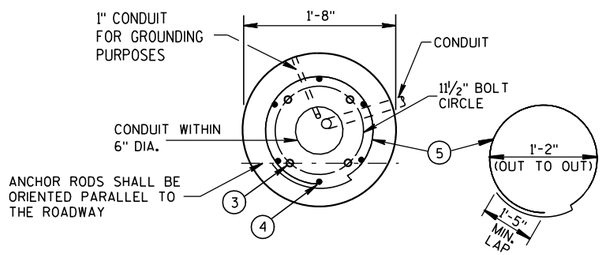
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

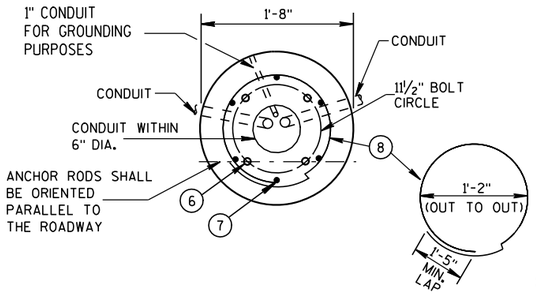
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

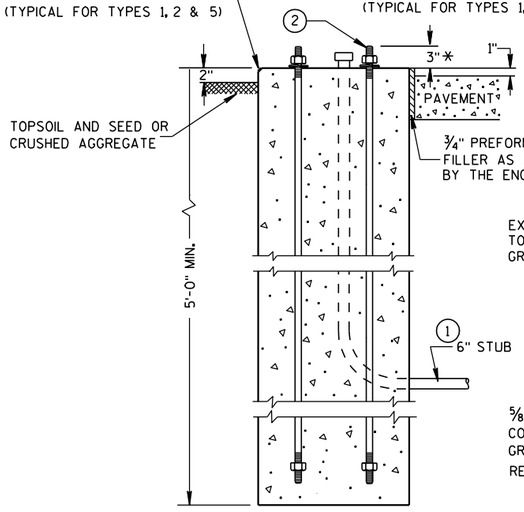






FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

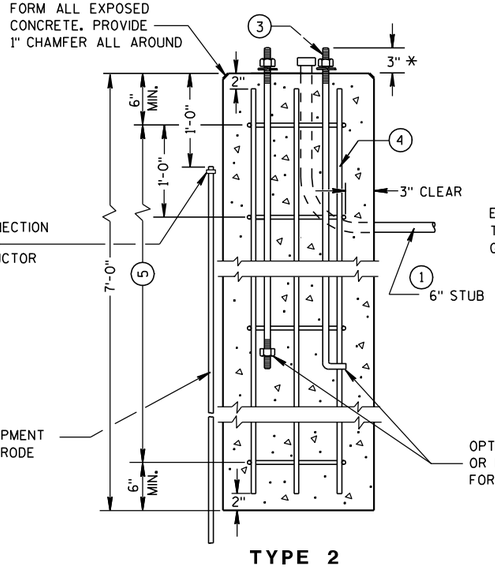
HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2 & 5)



HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2 & 5)

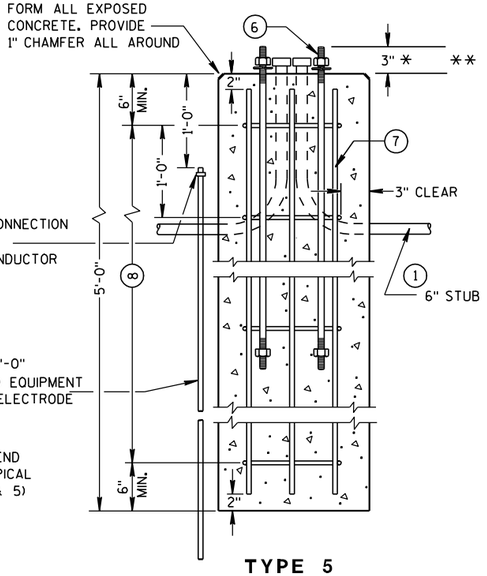
TYPE 1

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



TYPE 2

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



TYPE 5

OPTIONAL 4" L BEND OR HEX NUT (TYPICAL FOR TYPES 1, 2 & 5)

CONCRETE BASES

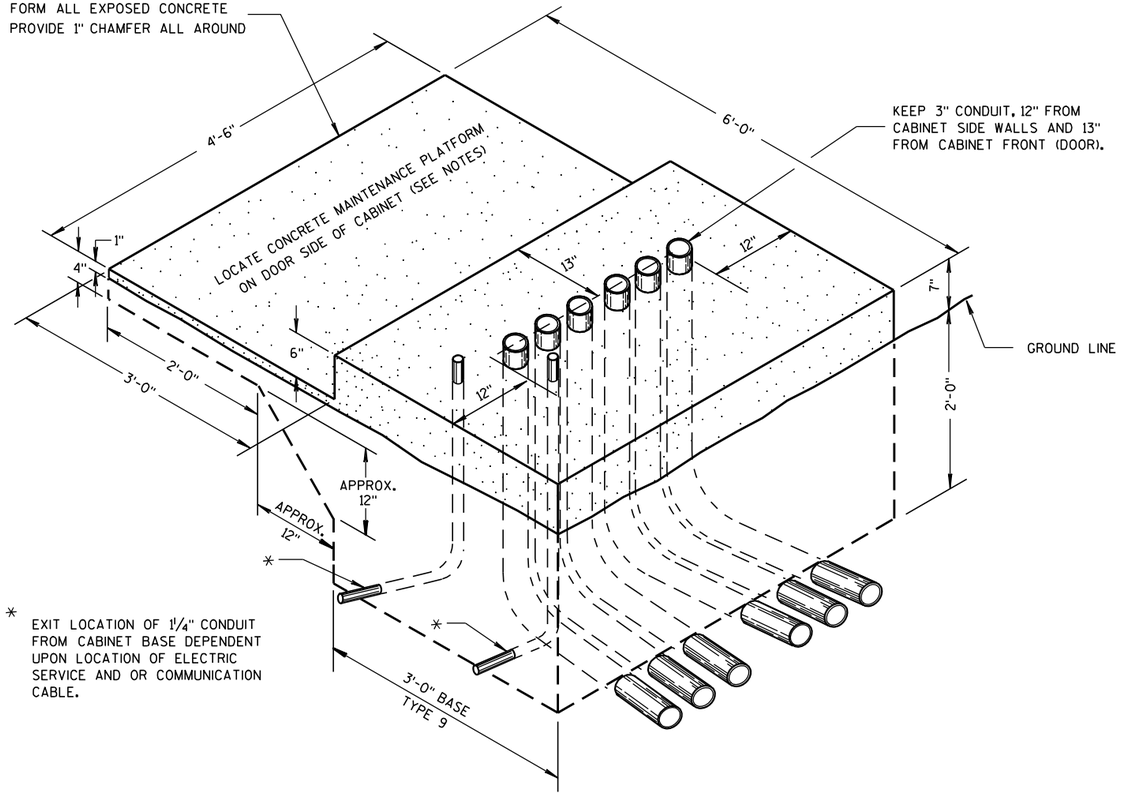
* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2 & 5

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/3/10 — DATE
/S/ Joanna L. Rush — STATE ELECTRICAL ENGI
306 — HWYS
FHWA

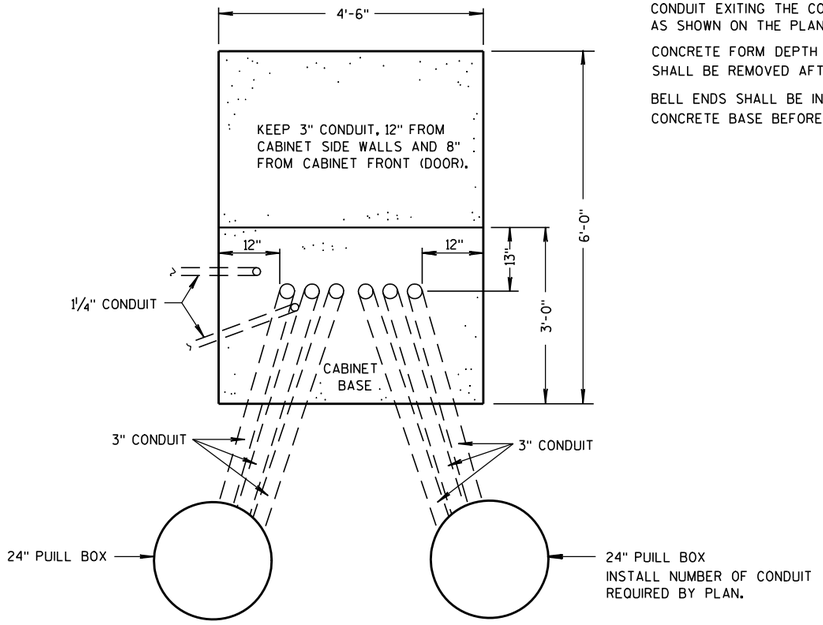


* EXIT LOCATION OF 1¼" CONDUIT FROM CABINET BASE DEPENDENT UPON LOCATION OF ELECTRIC SERVICE AND OR COMMUNICATION CABLE.

ISOMETRIC VIEW

TYPE 9, SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

GENERAL NOTES

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

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

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

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

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

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

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

CONDUIT EXITING THE CONCRETE BASE (SIX THREE INCH) SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

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

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/27/07 — DATE

/S/ Balu Ananthapadmanabhan — STATE ELECTRICAL ENGI 307 HWYS

FHWA

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

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

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

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

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

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

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

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

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

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

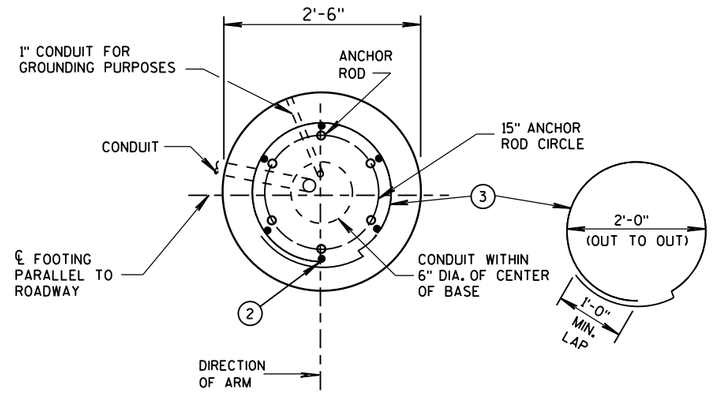
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

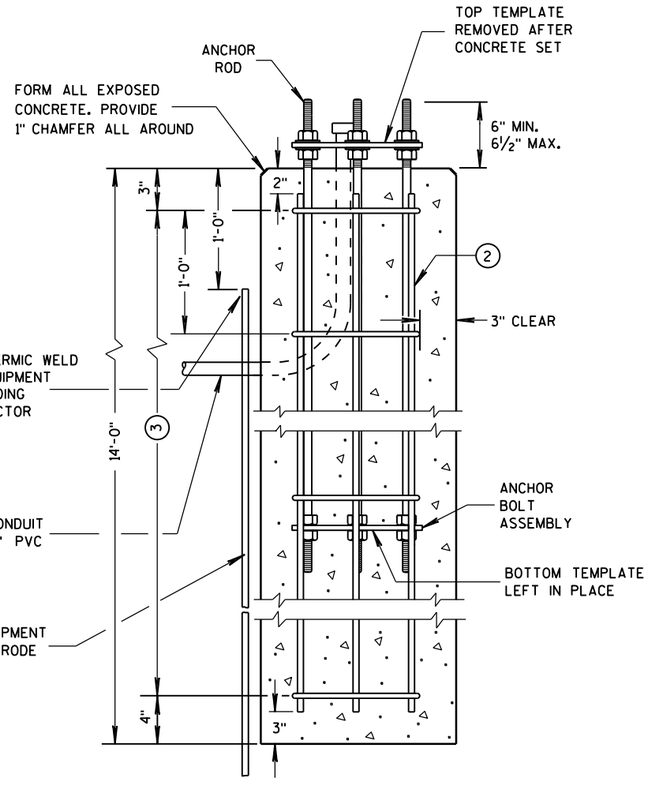
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (6) NO. 6 X 13'-7" BAR STEEL REINFORCEMENT.

(3) (15) NO. 4 X 7'-4" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

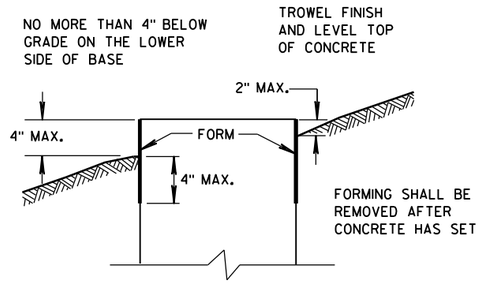
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



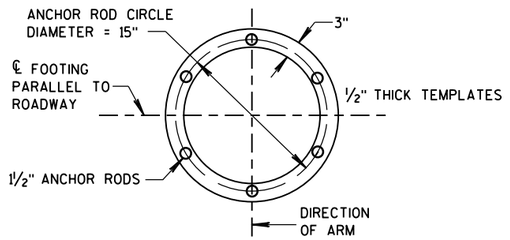


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

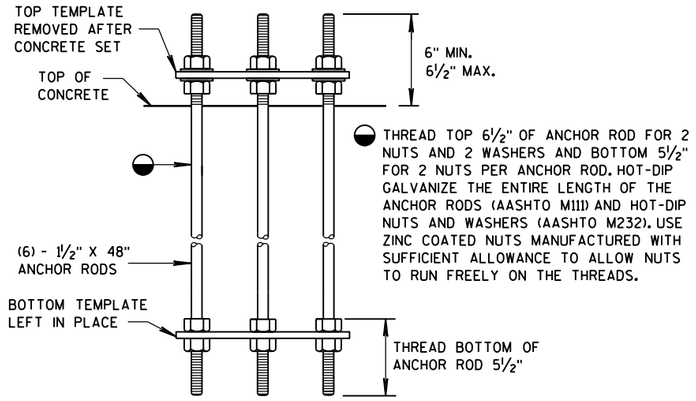
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	69
LBS. OF VERTICAL BAR STEEL	122

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

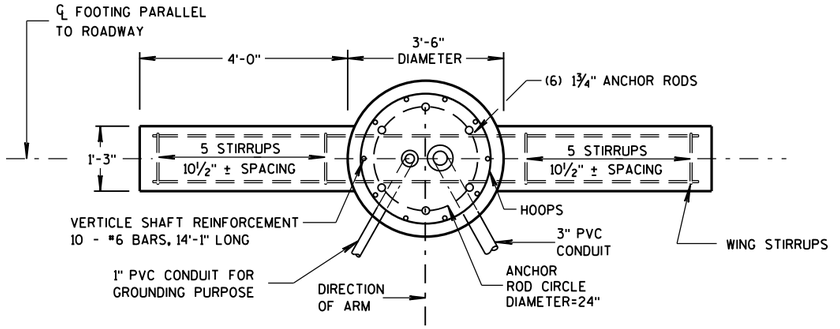
1-16-2013 DATE

/S/ Ahmet Demirbilek STATE ELECTRICAL

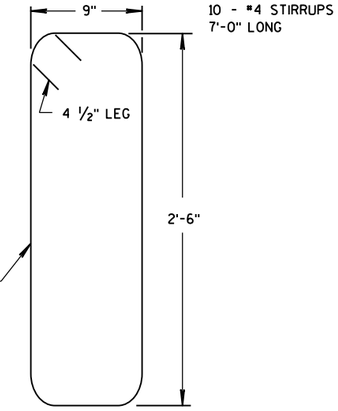
FHWA

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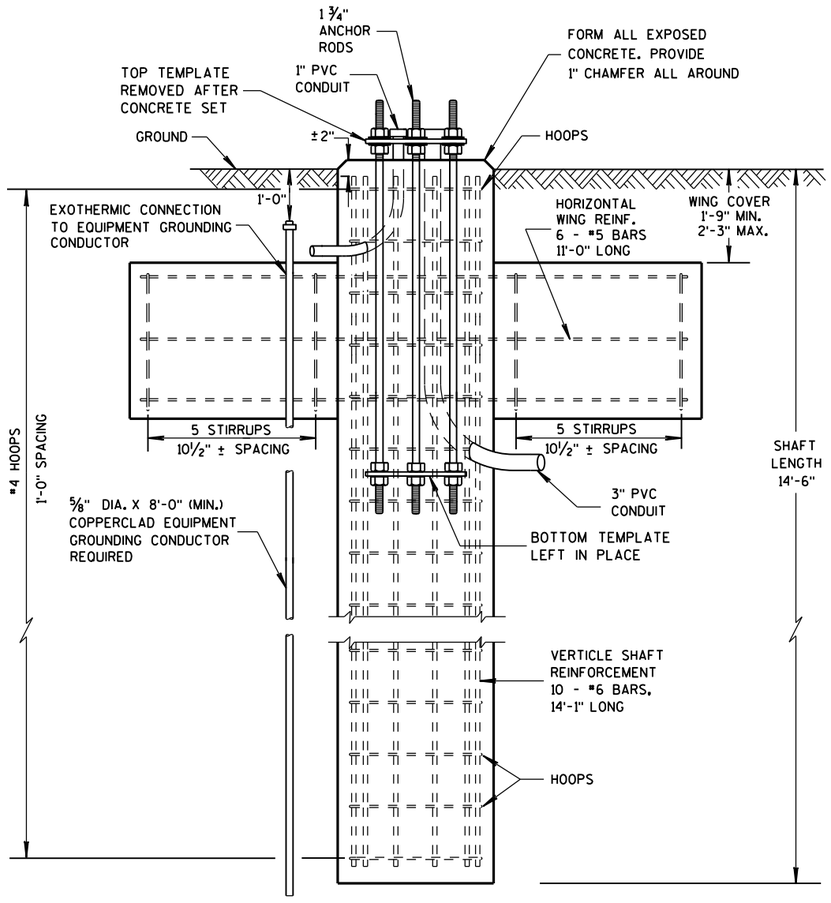
S.D.D. 9 C 11-3



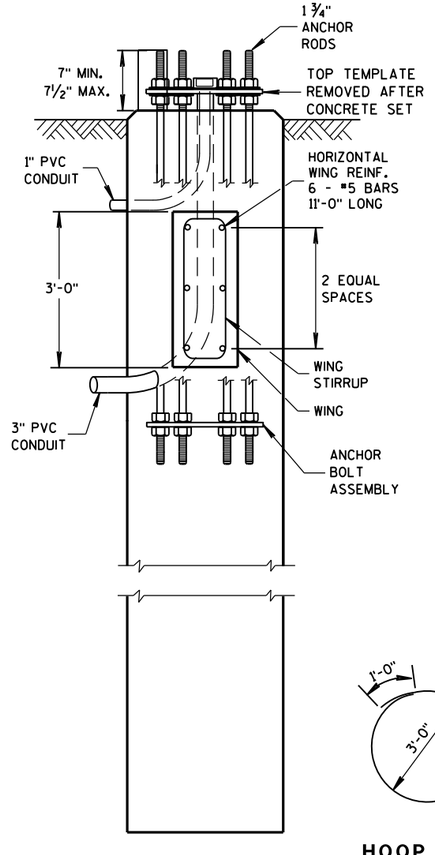
PLAN VIEW



WING STIRRUP

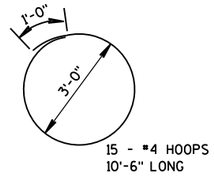


ELEVATION VIEW



SIDE VIEW

DOES NOT SHOW HOOPS OR VERTICAL SHAFT REINFORCEMENT



HOOP DETAIL

GENERAL NOTES

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

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

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

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

BASES (SHAFT), BELOW THE WING, 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 BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

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

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

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

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

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

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

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL WAY SHALL BE 24-INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36-INCHES, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

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

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 POLES)

CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 433 LBS.

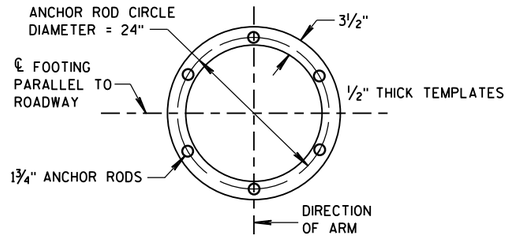
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 13

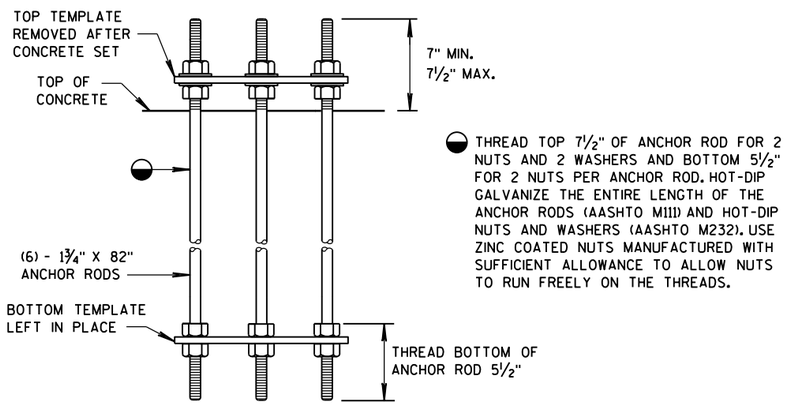
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 9 C 12-3a

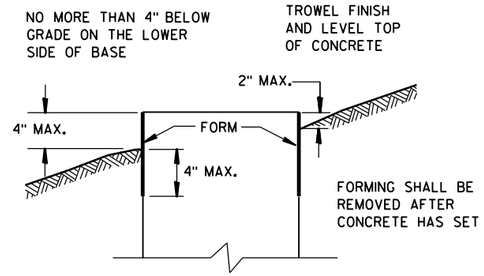


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY

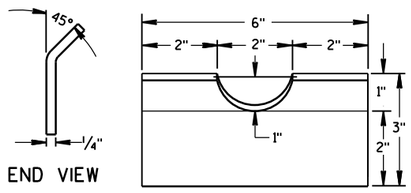


FORMING DETAIL

CONCRETE BASE TYPE 13	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 1-16-2013 DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL

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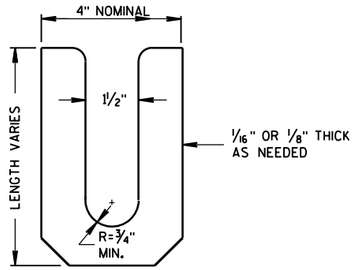
S.D.D. 9 C 12-3b



FRONT VIEW

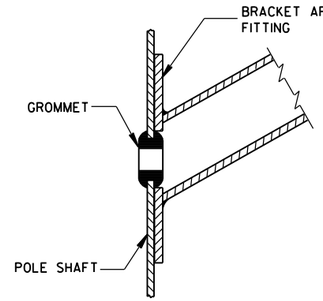
RECTANGULAR CLAMP SHIM

(4 TO A SET)

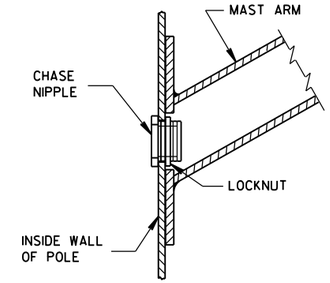


LEVELING SHIM (15)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

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

(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

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

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

(13) OUTSIDE SHIM DIAMETER - (4.5" O.D. FOR LUMINAIRE MAST ARM)
(6.625" O.D. FOR TROMBONE MAST ARM)

(14) VARIABLE SHIM THICKNESS - (0.10", 0.25", 0.35", 0.53" OR 0.70")

SHIM THICKNESS FOR TROMBONE MAST ARMS MAY BE TYPICALLY 0.25", 0.35", 0.53" OR 0.70".

SHIM THICKNESS FOR LUMINAIRE MAST ARMS MAY BE TYPICALLY 0.10", 0.25" OR 0.35".

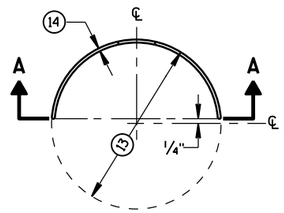
SHIM MATERIAL SHALL BE ALUMINUM ALLOY.

SHIM THICKNESS SHALL BE IMPRESSED INTO EACH SHIM. NUMERALS SHALL BE 1/4" HIGH AND LEGIBLE.

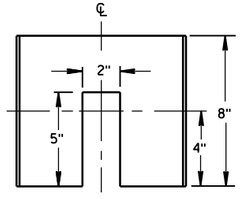
THE CONTRACTOR SHALL SUBMIT TWO COPIES OF ALL SHIM SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.

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

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



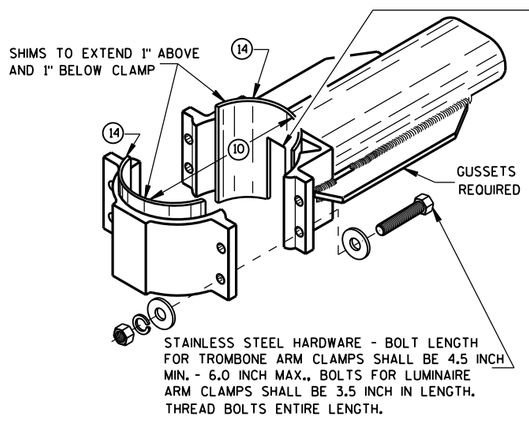
PLAN VIEW



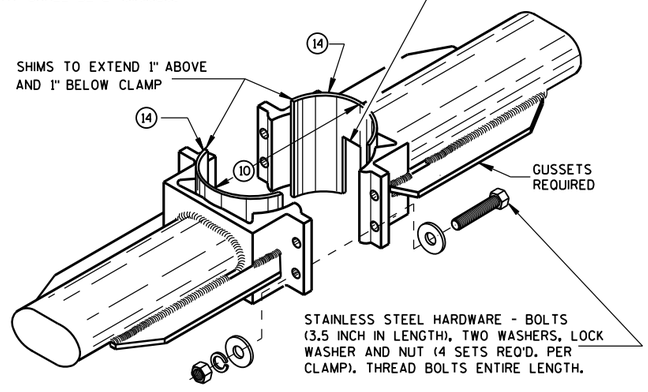
SECTION A-A

CIRCULAR CLAMP SHIM

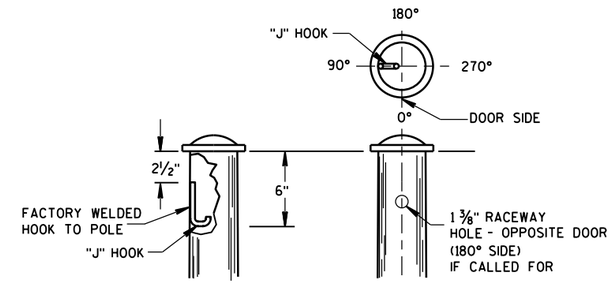
(2 TO A SET)



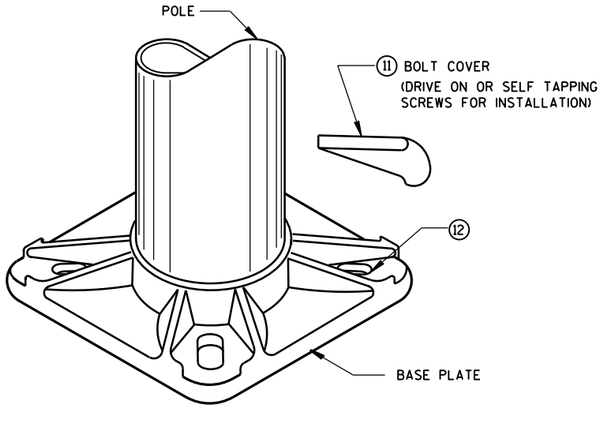
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



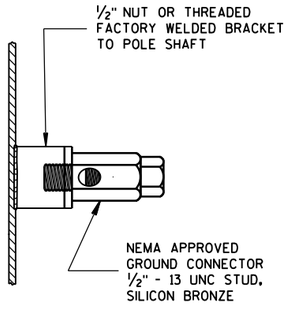
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

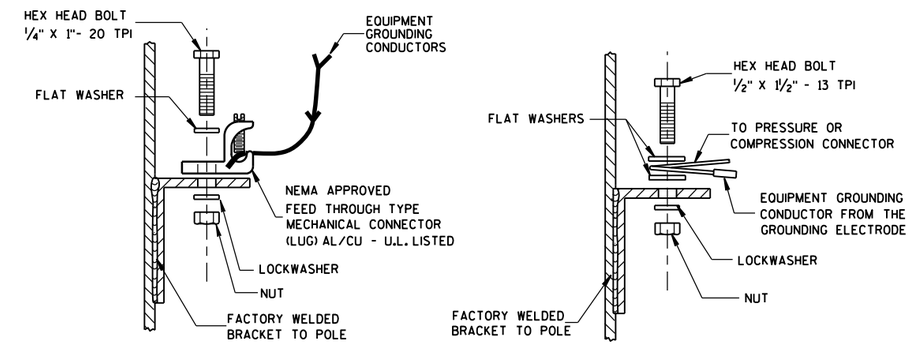


TYPICAL "J" HOOK LOCATION



BASE PLATE





TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

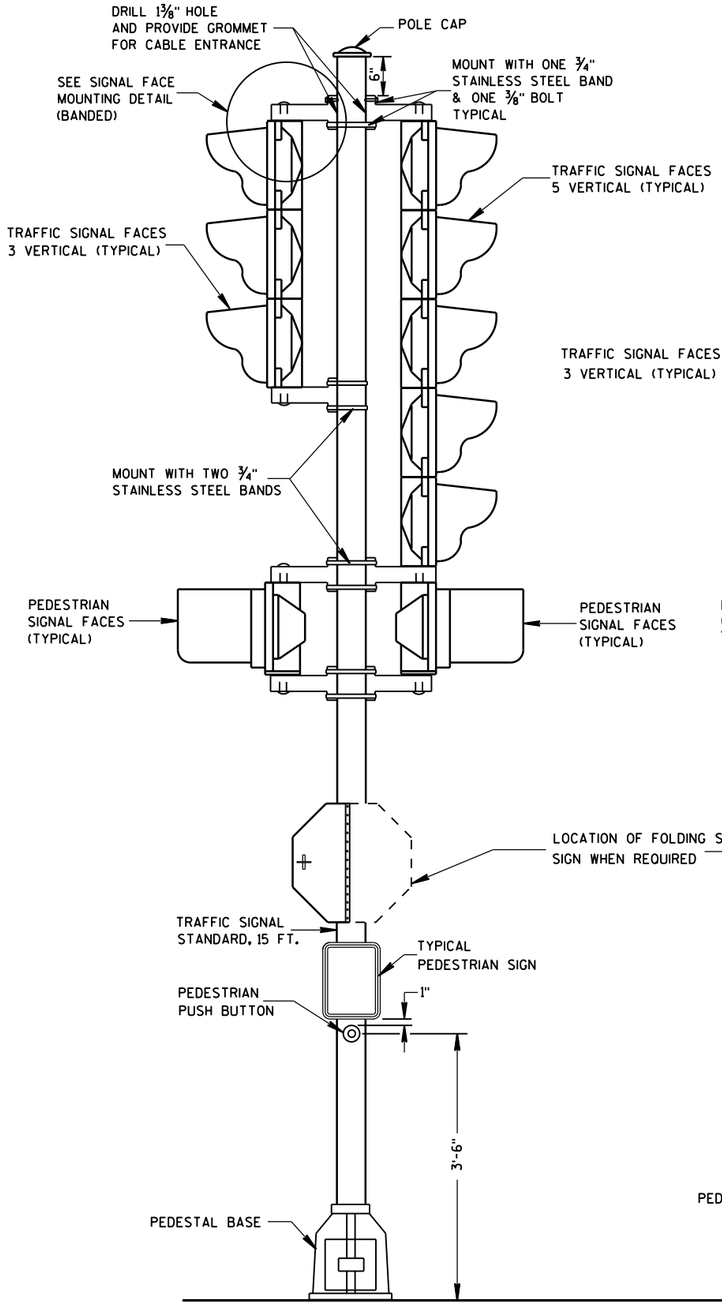
HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

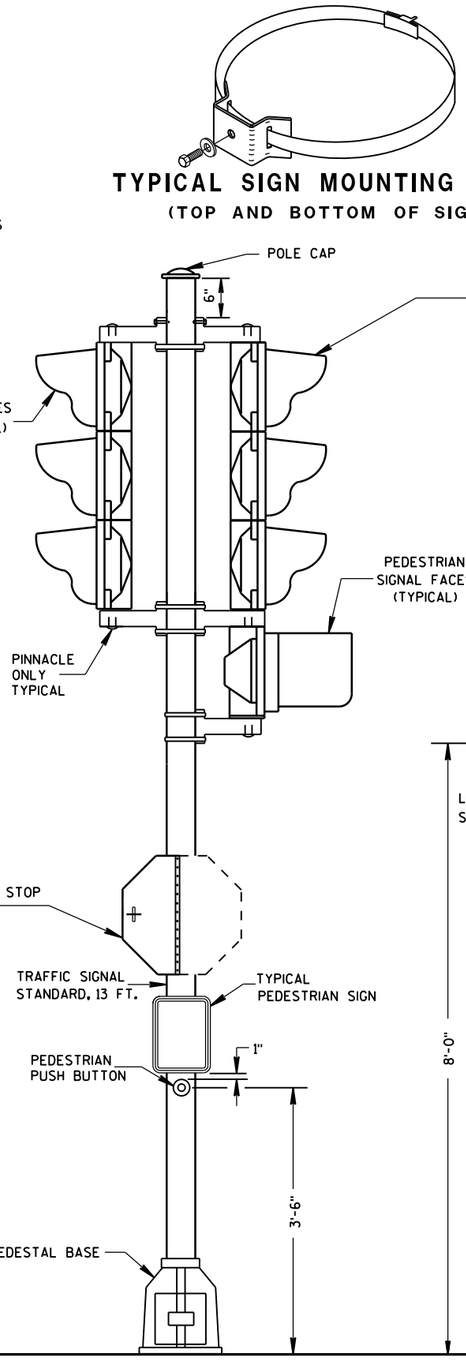
APPROVED
2/7/2013 DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
FHWA

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S.D.D. 9 E 1-12g

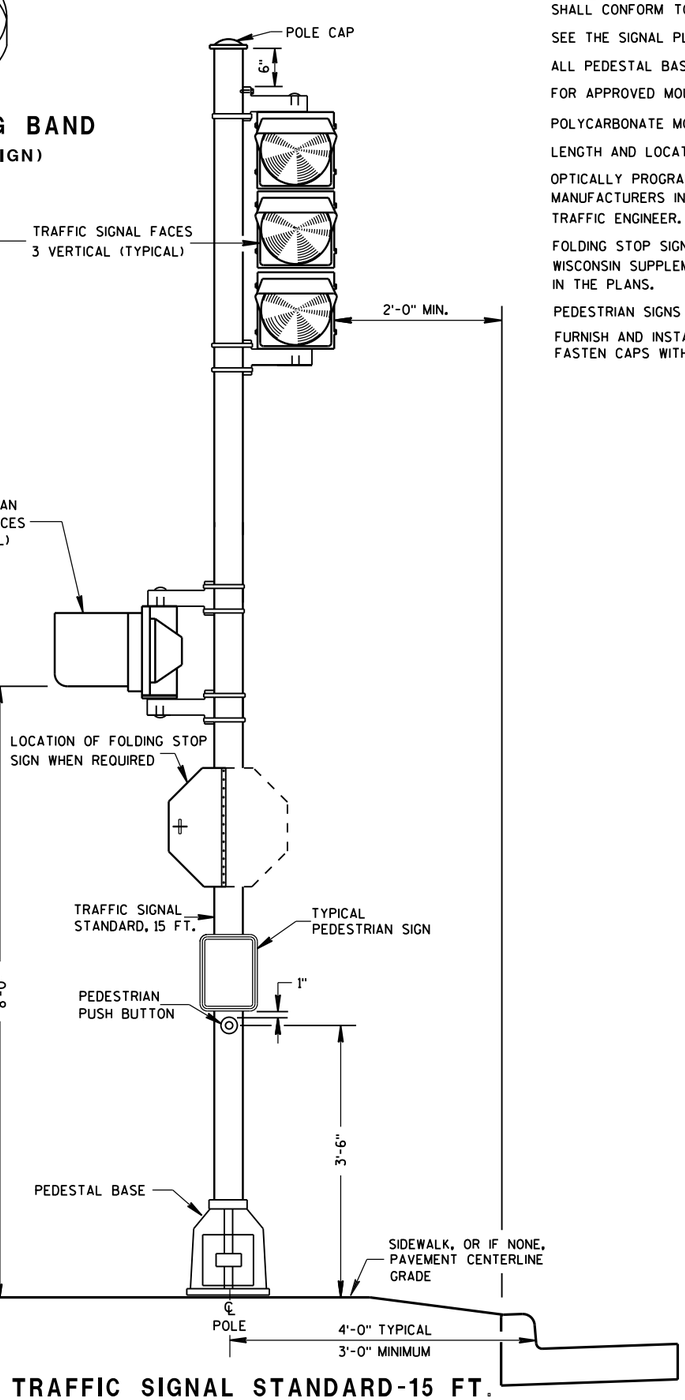


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

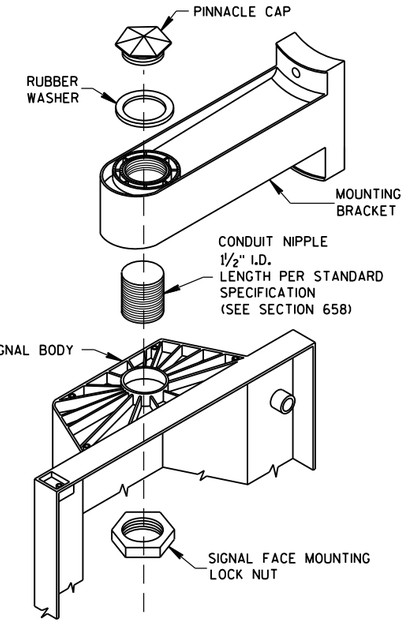
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL
(BANDED)

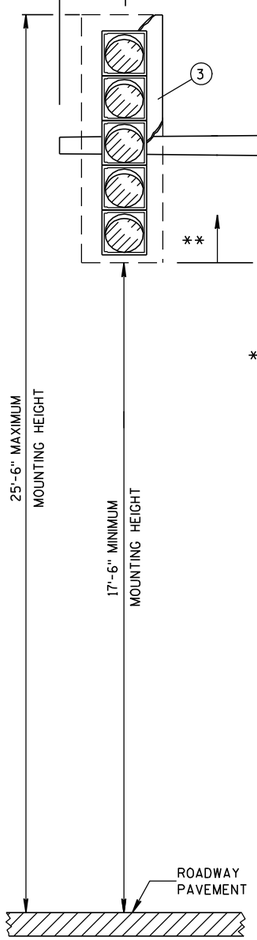
TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

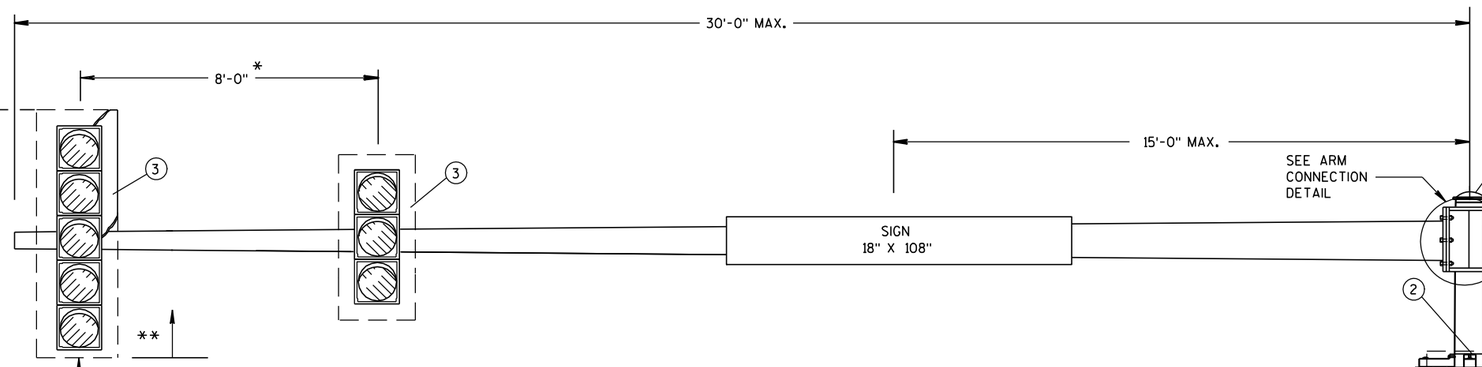
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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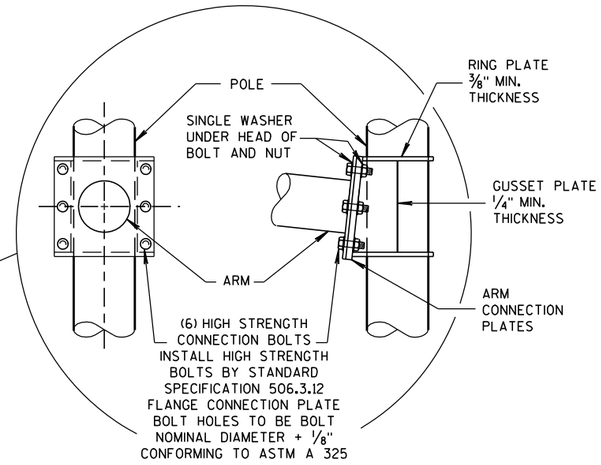
S.D.D. 9 E 6-5



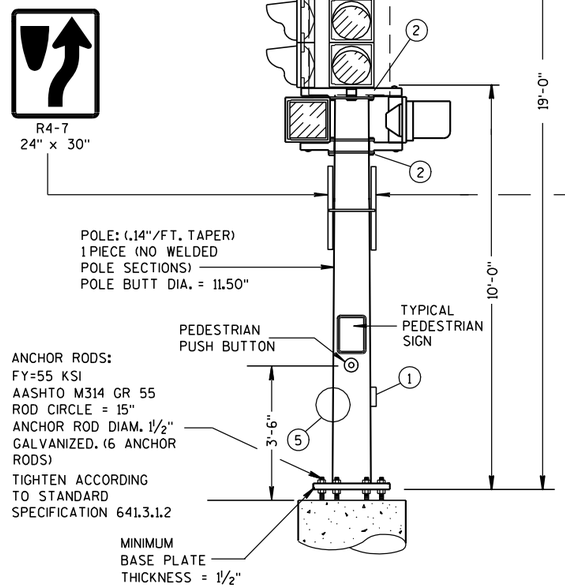


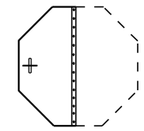
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY. NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

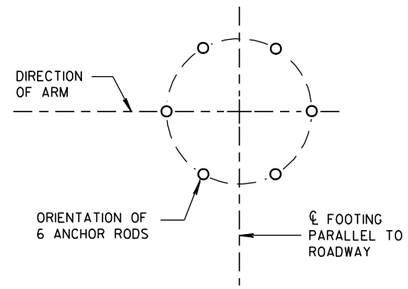
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL







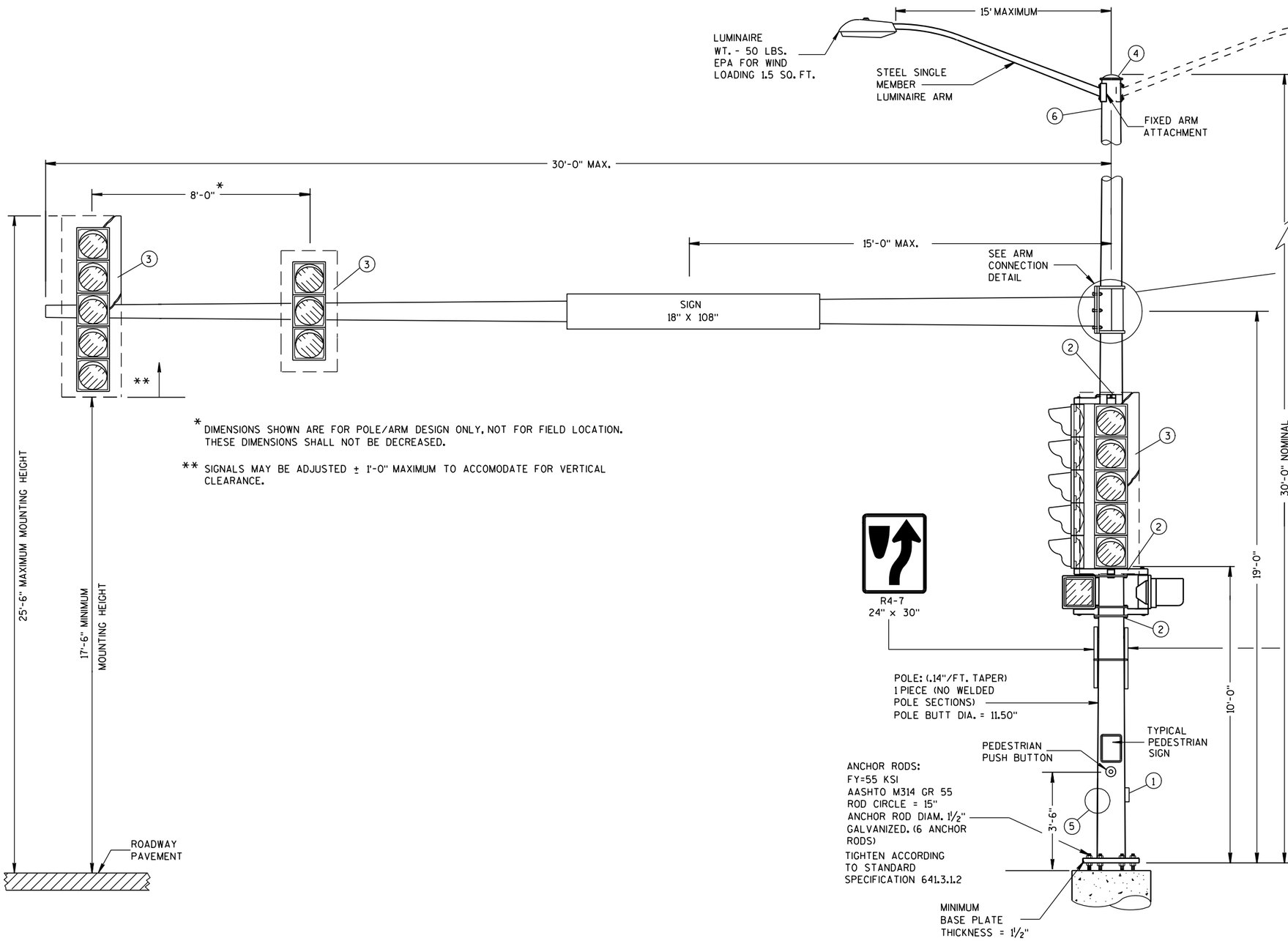
ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 9 POLE 15'- 30' MONOTUBE ARM

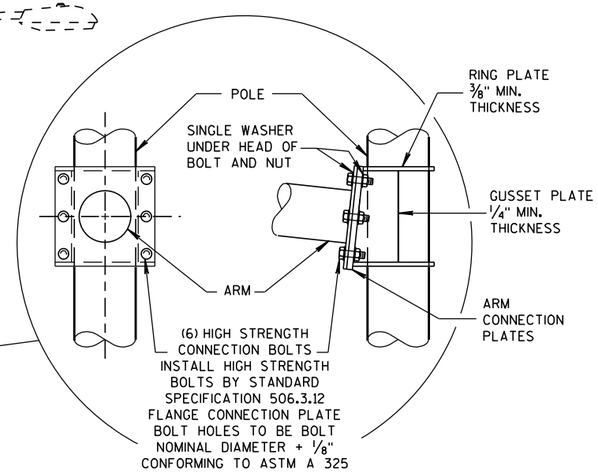
TYPE 9 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/2/2011 DATE	/S/ Thomas J. Corrigan STATE ELECTRICAL ENGI 313 HWYS
FHWA	

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S.D.D. 9 E 8-4a

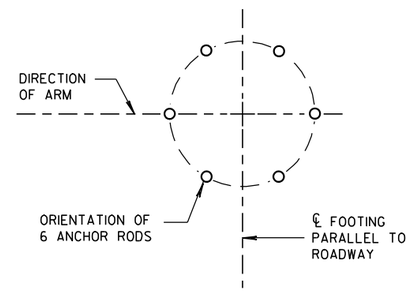


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION

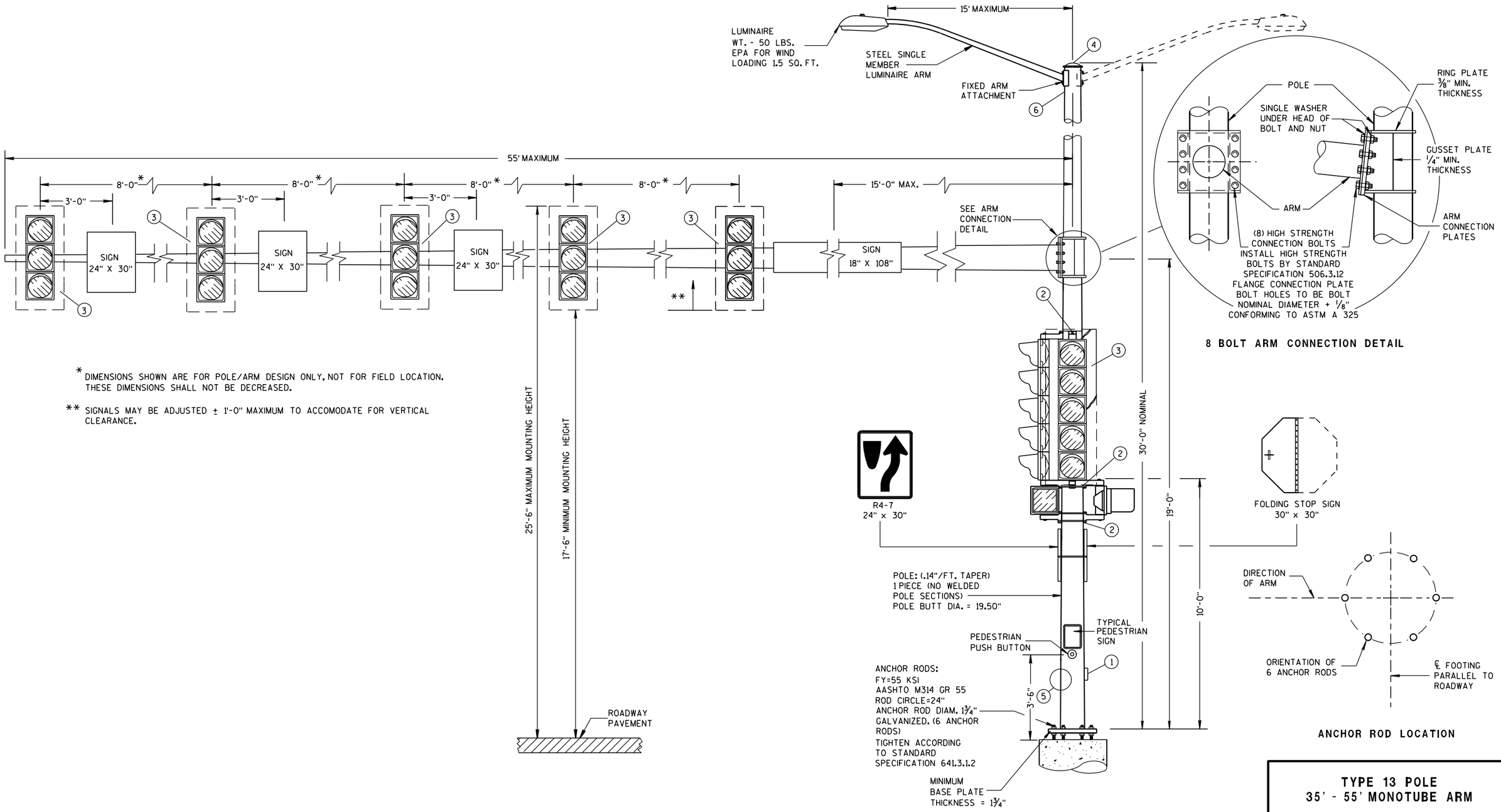
(MAXIMUM LOAD)

TYPE 10 POLE
15'- 30' MONOTUBE ARM

TYPE 10 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/2/2011 DATE	/S/ Thomas J. Corrigan STATE ELECTRICAL ENGI 314 HWYS
FHWA	

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S.D.D. 9 E 8-4b



* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

8 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 — DATE

/S/ Thomas J. Corrigan — STATE ELECTRICAL ENGI

315 — HWYS

FHWA

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S.D.D. 9 E 8-4d

GENERAL NOTES

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

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

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

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE LATEST AASHTO AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

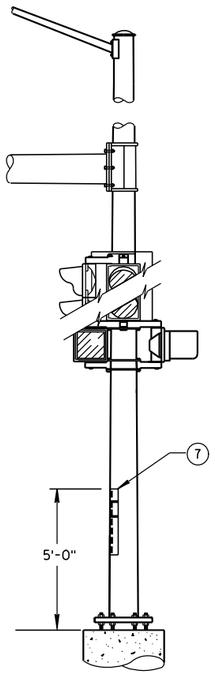
(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

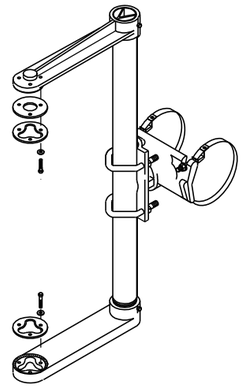
(7) INSTALL DEPARTMENT PROVIDED STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

MOUNTING HEIGHT SHALL BE 5'-0" ABOVE THE CURB OR SHOULDER . ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

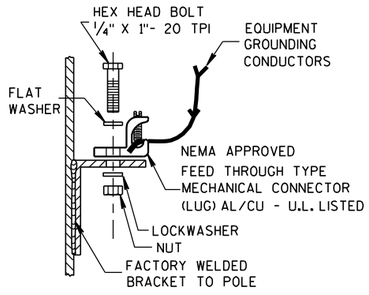


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



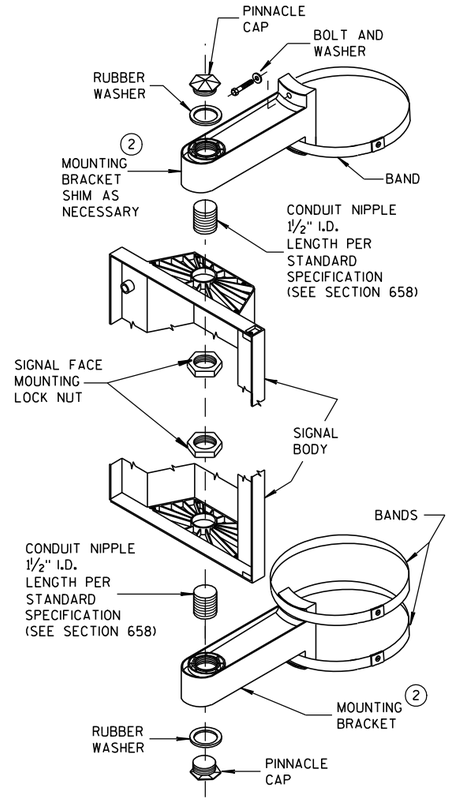
SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANUFACTURER'S RECOMMENDATION)

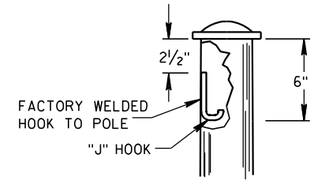


TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 DATE

/S/ Thomas J. Corrigan
STATE ELECTRICAL ENGI

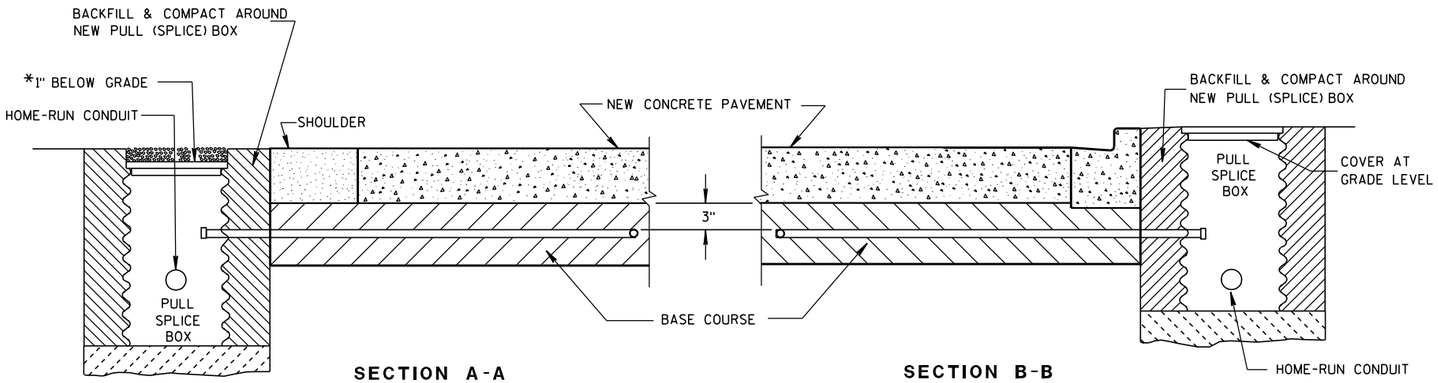
316

HWYS

FHWA

6

S.D.D. 9 E 8-4e



SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

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

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

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

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

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

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

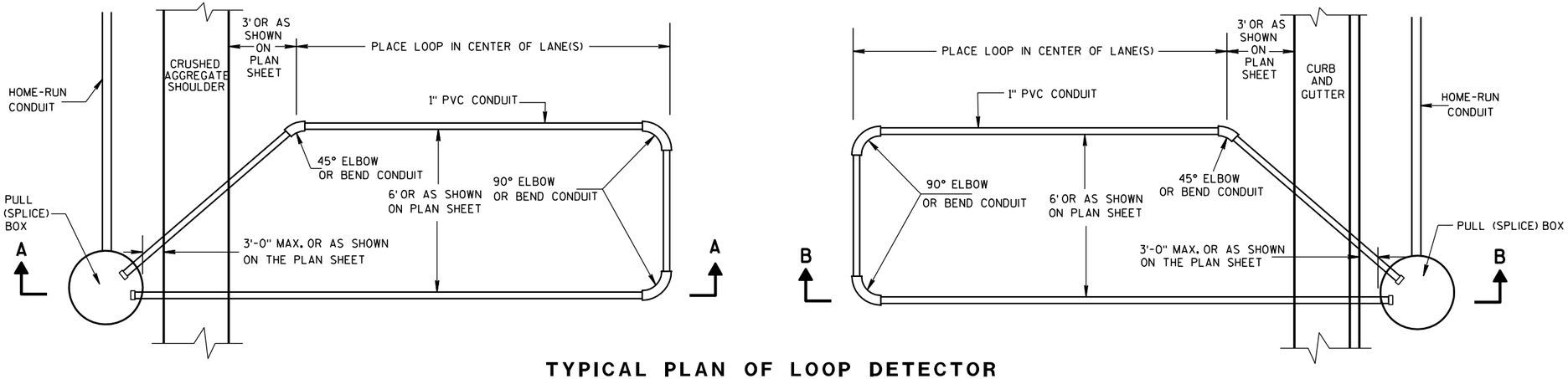
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

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

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

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

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



TYPICAL PLAN OF LOOP DETECTOR WITH 18" OR 24" PULL (SPLICE) BOX

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

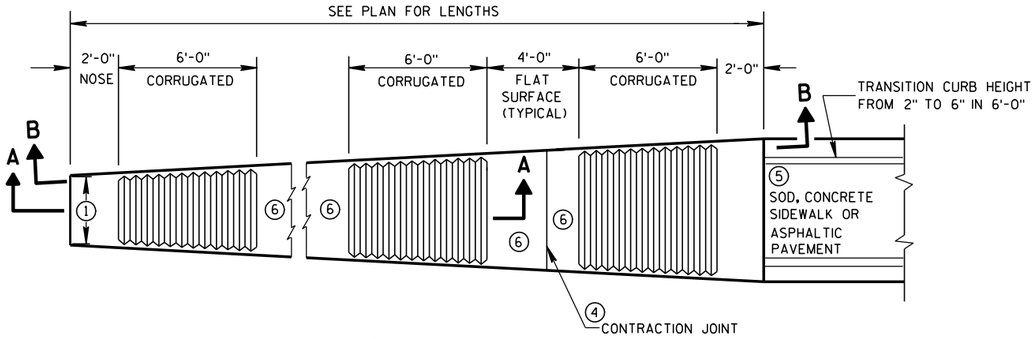
APPROVED
6/7/06 — DATE
/S/ Balu Aganthangarayanan — STATE ELECTRICAL ENGI
317 HWYS
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S.D.D. 9 F 15-3a

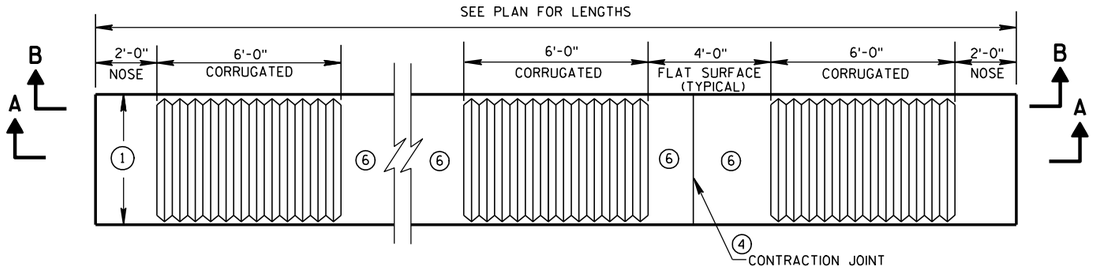
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S.D.D. 9 F 15-3a



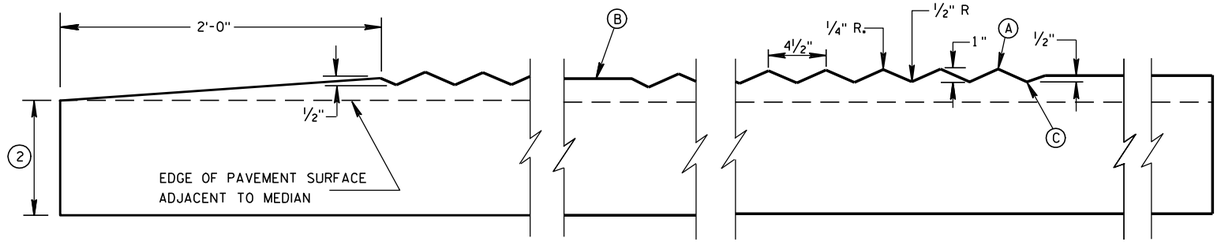
PLAN VIEW

VARIABLE WIDTH CONCRETE CORRUGATED MEDIAN



PLAN VIEW

UNIFORM WIDTH CONCRETE CORRUGATED MEDIAN



SECTION A-A

LONGITUDINAL SECTION

GENERAL NOTES

(1) SEE PLANS FOR CONSTANT OR VARIABLE WIDTH.

(2) THE DEPTH OF THE CONCRETE CORRUGATED MEDIAN SHALL BE 9-INCHES UNLESS SHOWN OTHERWISE IN THE PLAN.

ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN IN THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

(2) ASPHALTIC CONCRETE OVER NEW OR EXISTING CONCRETE BASE COURSE, OR PAVEMENT.

(3) ASPHALTIC PAVEMENT OVER BASE AGGREGATE DENSE.

(3) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

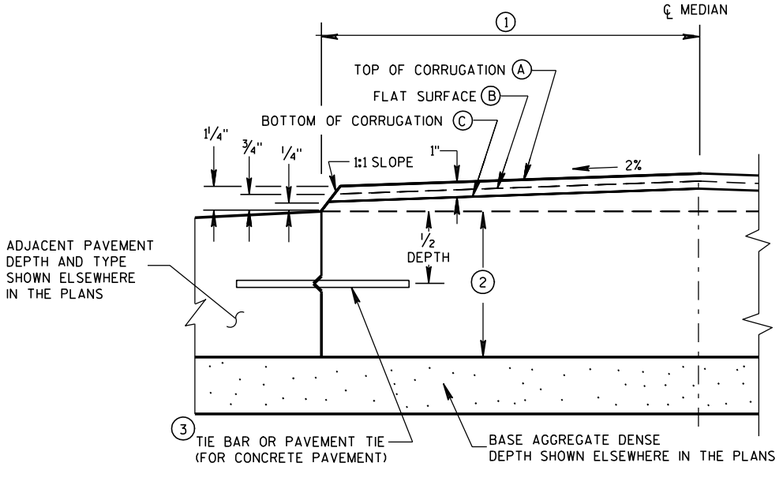
INSTALL TIE BARS TO MAINTAIN A MINIMUM OF 3-INCHES OF COVER BETWEEN THE TIE BAR AND THE CONCRETE SURFACE (BOTTOM AND TOP).

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE PAVEMENT OR CONCRETE BASE COURSE, PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(4) CONCRETE CORRUGATED MEDIAN CONTRACTION JOINTS SHALL BE CONSTRUCTED TO MATCH THE JOINTS IN ADJACENT CONCRETE PAVEMENT. WHERE ADJACENT PAVEMENT IS ASPHALT WITH BASE AGGREGATE DENSE. TRANSVERSE CONTRACTION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS.

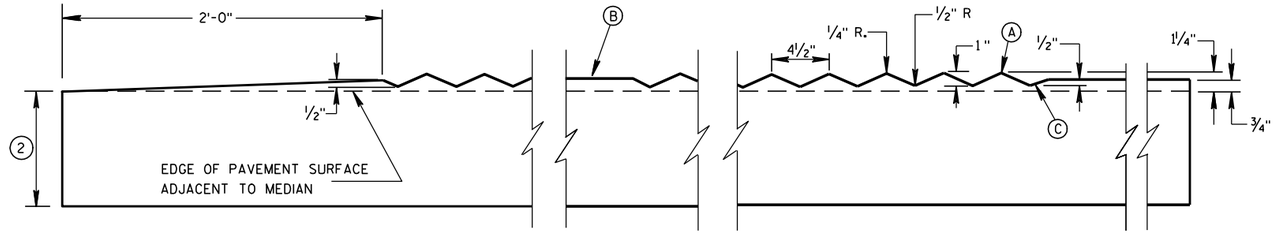
(5) SURFACE TYPE AND DETAILS ARE DEFINED ELSEWHERE IN THE PLAN.

(6) YELLOW MARKING ON FLAT SURFACE WHEN MEDIAN SEPARATES OPPOSING TRAFFIC.



HALF CROSS SECTION

(2) CONCRETE CORRUGATED MEDIAN AND ADJACENT PAVEMENT



SECTION B-B

LONGITUDINAL SECTION

CONCRETE CORRUGATED MEDIAN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/07
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

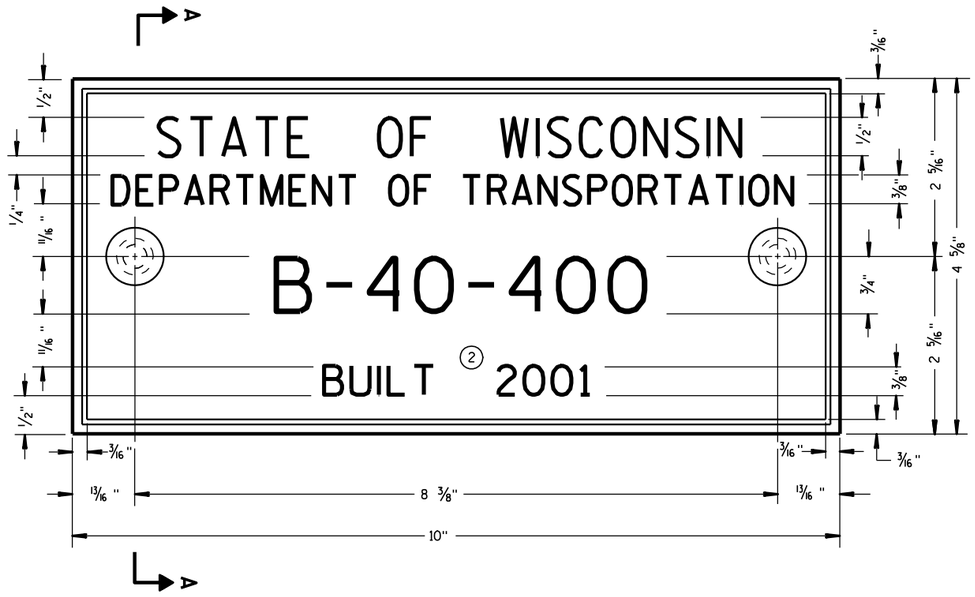
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S.D.D. 11 B 1-5

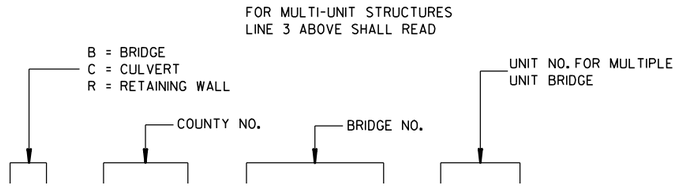
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S.D.D. 11 B 1-5



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

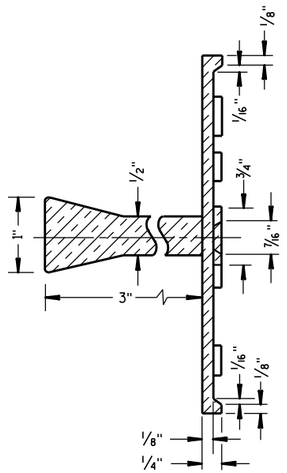
GENERAL NOTES

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

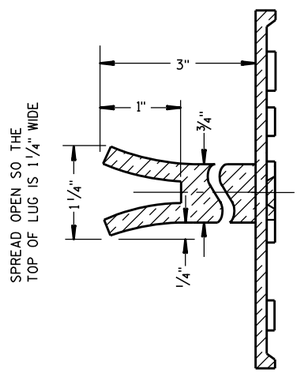
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

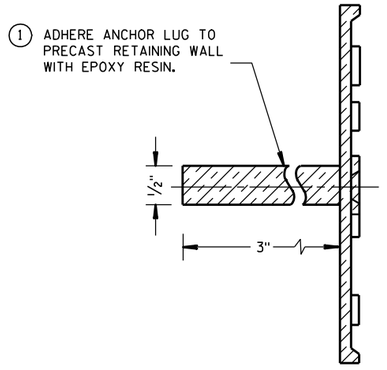
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

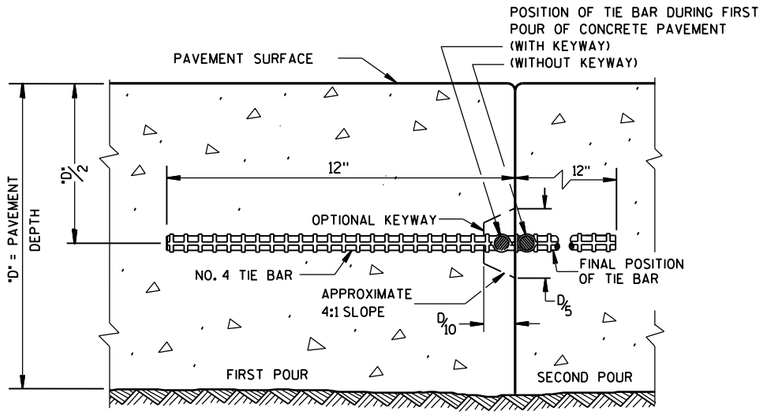
APPROVED

3/26/10 DATE — /S/ Scot Beck — CHIEF STRUCTURAL DEVELOPMENT ENGINEER

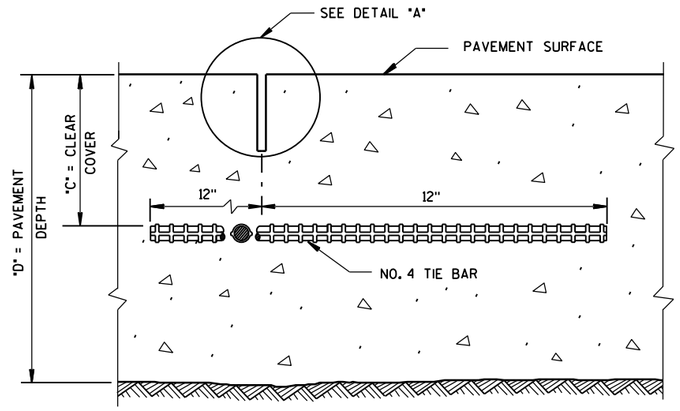
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S.D.D. 12 A 3-10



CONSTRUCTION JOINT



SAWED JOINT

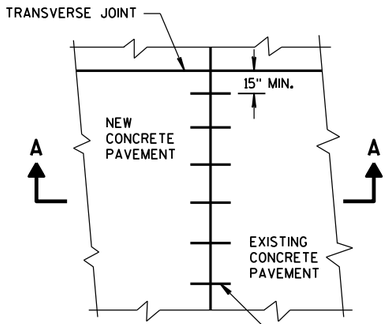
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

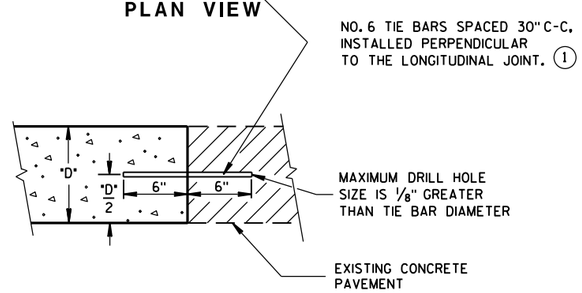
CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

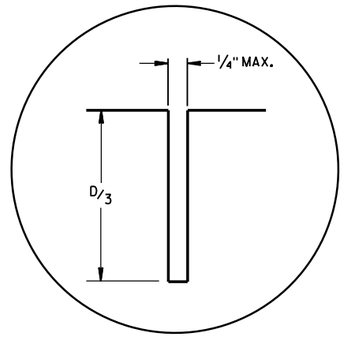


PLAN VIEW



SECTION A-A

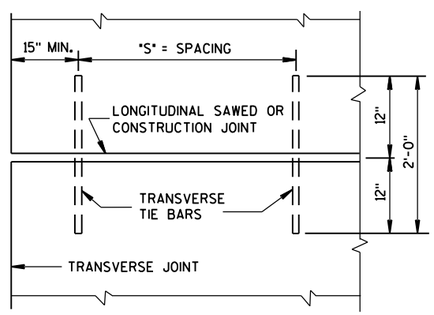
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"

TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 1/2"	3"±1/2"	48"	42"
7, 7 1/2"	3 1/4"±1"	45"	36"
8, 8 1/2"	3 3/4"±1"	39"	30"
9, 9 1/2"	4 1/4"±1"	33"	27"
10, 10 1/2"	4 3/4"±1"	30"	24"
11, 11 1/2"	5 1/4"±1"	27"	21"
12"	5 3/4"±1"	24"	21"



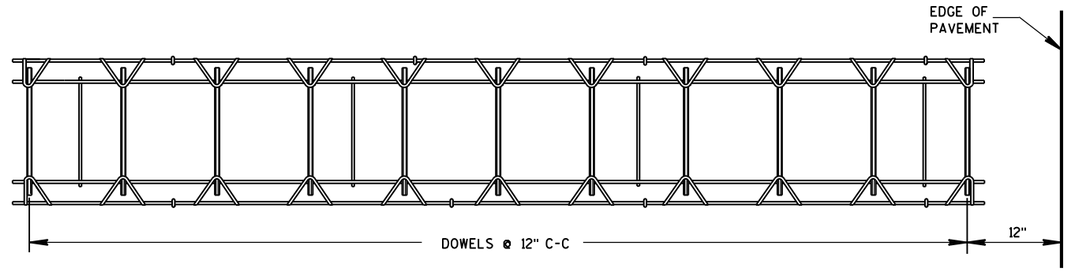
PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-3-2013 DATE
/S/ Deb Bischoff PAVEMENT POLICY & DE ...NEER
FHWA

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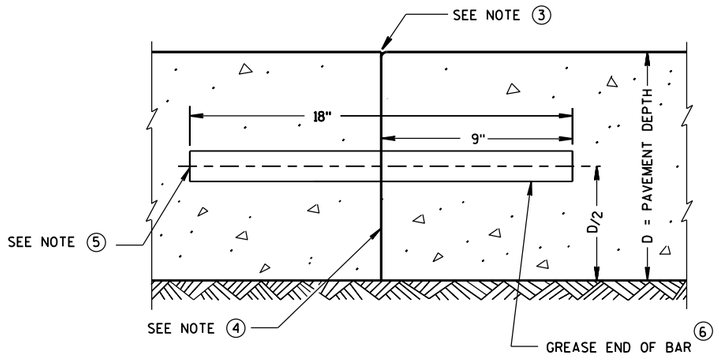


PLAN VIEW

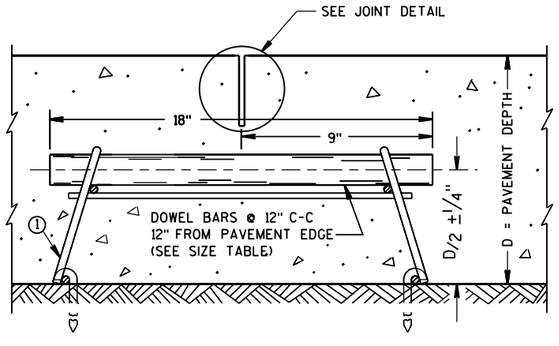


SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



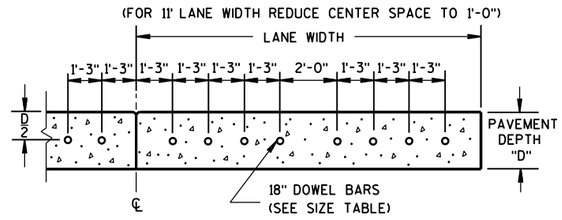
TRANSVERSE CONSTRUCTION JOINT



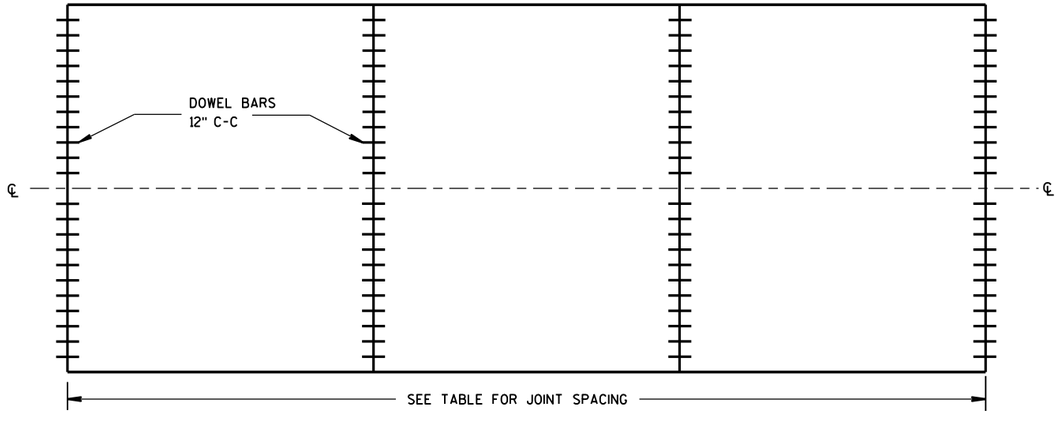
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① **OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.**

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

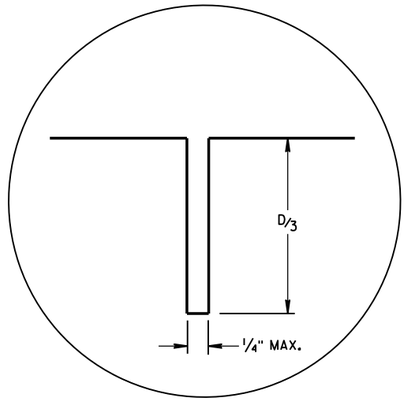
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/3/2013 DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DESIGNER
FHWA

6

S.D.D. 13 C 13-8

GENERAL NOTES

PCCP = PORTLAND CEMENT CONCRETE PAVEMENT.

SHLDR = SHOULDER.

CONTINUE SAW CUT CONTRACTION JOINT ACROSS TURN LANE, EXIT TAPER AND PASSING LANE.

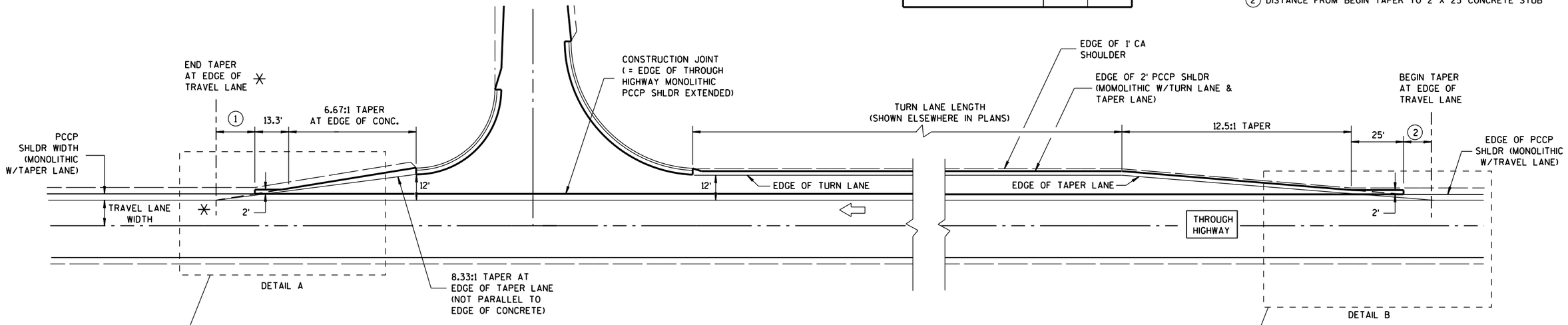
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

THROUGH HIGHWAY LANE WIDTH AND PCCP SHOULDER WIDTH ARE SHOWN ELSEWHERE IN PLANS

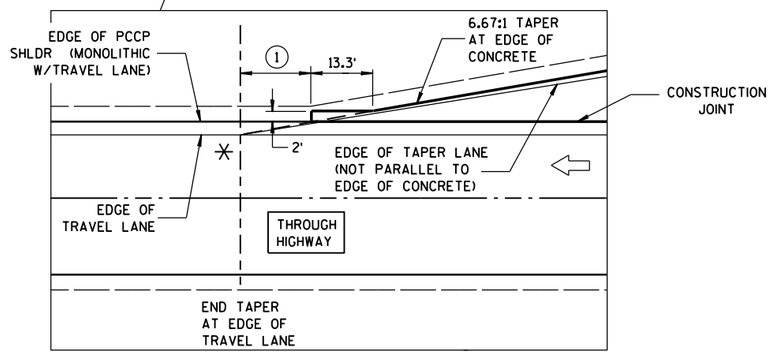
(1) DISTANCE FROM END TAPER TO 2' X 13.3' CONCRETE STUB

(2) DISTANCE FROM BEGIN TAPER TO 2' X 25' CONCRETE STUB

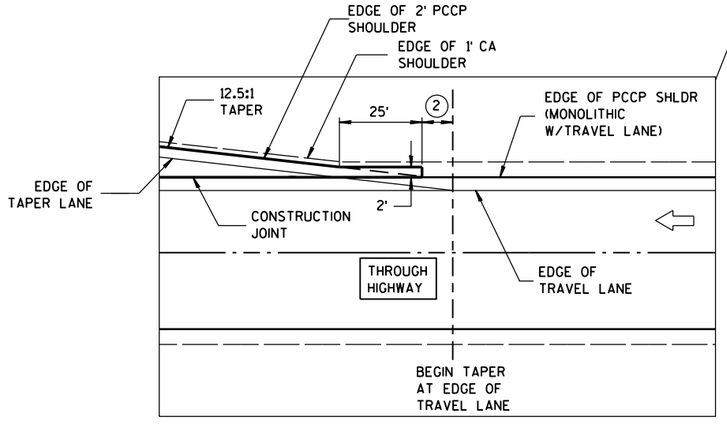
THROUGH HIGHWAY MONOLITHIC PCCP SHOULDER WIDTH (FEET)	DISTANCE (FEET)	
	(1)	(2)
2	13.3	0.0
3	20.0	12.5
TAPER RATE : 1	6.67	12.5



NOTE: EDGE OF CONCRETE TAPER (EXTENDED) & EDGE OF TAPER LANE CONVERGE



DETAIL A



DETAIL B

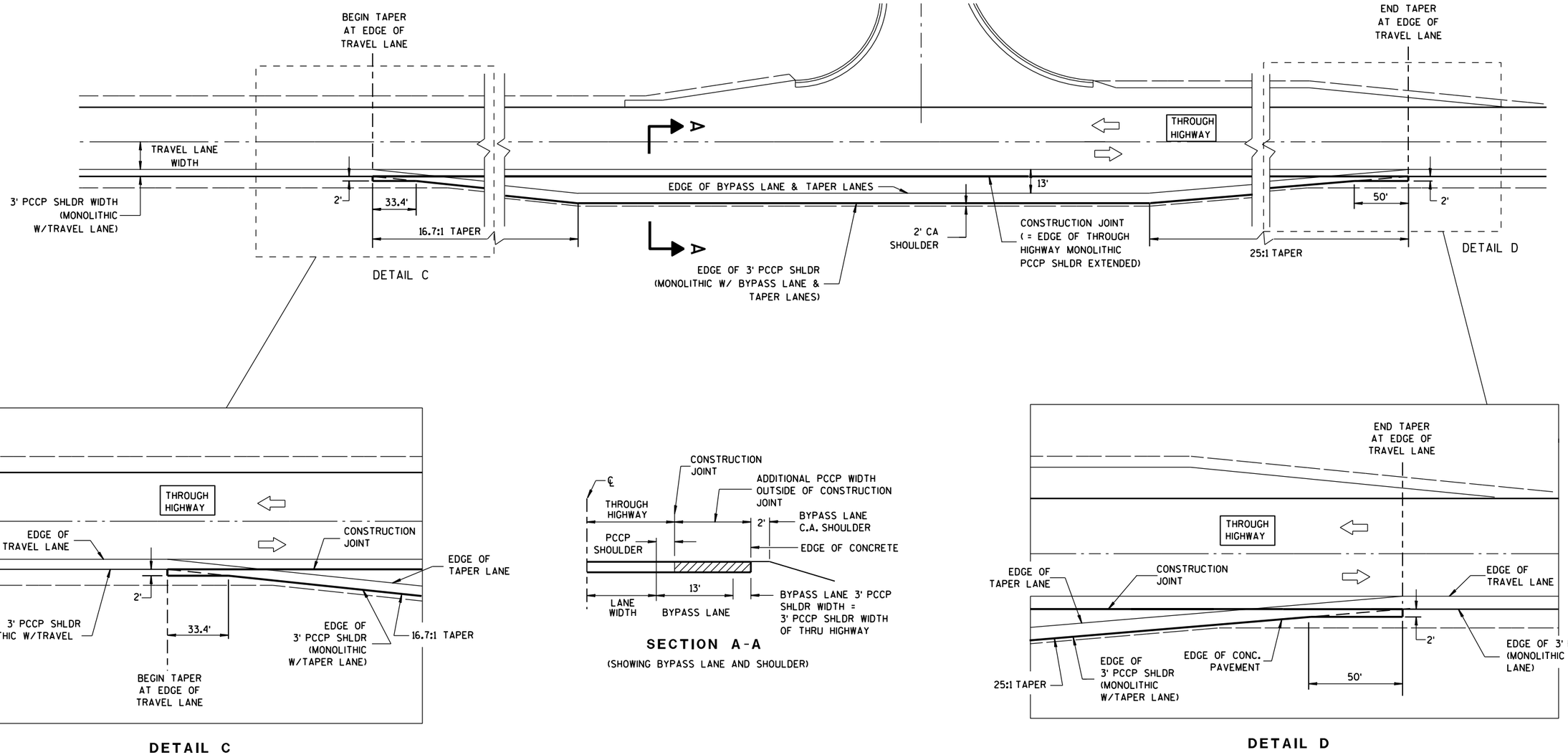
RIGHT TURN LANE AND EXIT TAPER

DETAIL FOR RIGHT TURN LANE/ TEE INTERSECTION BYPASS LANE ON A CONCRETE ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

S.D.D. 13 C 16-2a



TWO LANE UNDIVIDED HIGHWAY TEE INTERSECTION BYPASS LANE

DETAIL FOR RIGHT TURN LANE/
TEE INTERSECTION BYPASS LANE
ON A CONCRETE ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/18/12
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

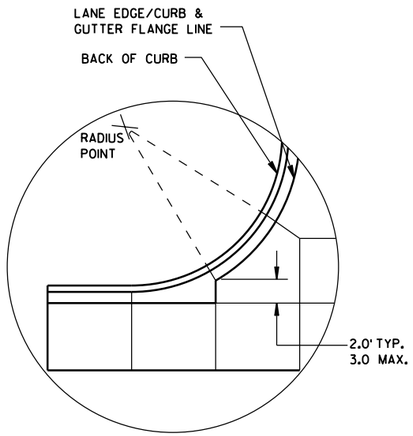
FHWA

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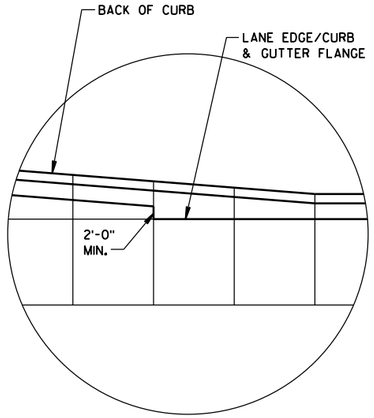
S.D.D. 13 C 16-2b

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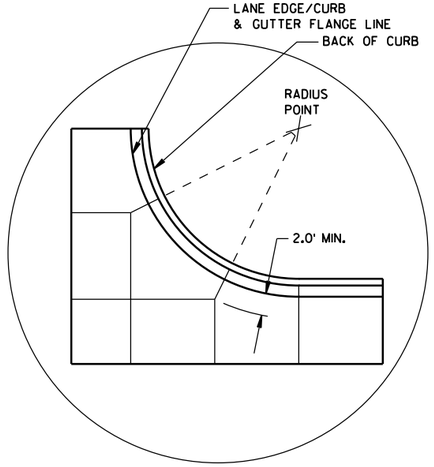
S.D.D. 13 C 16-2b



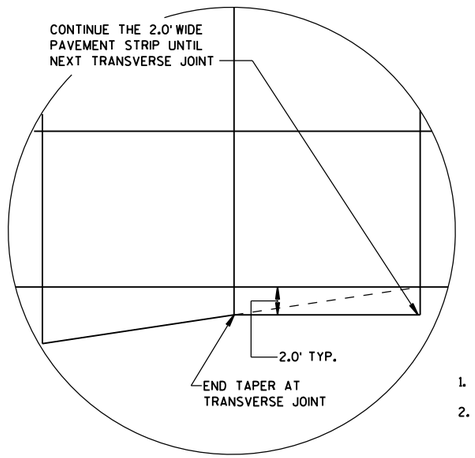
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

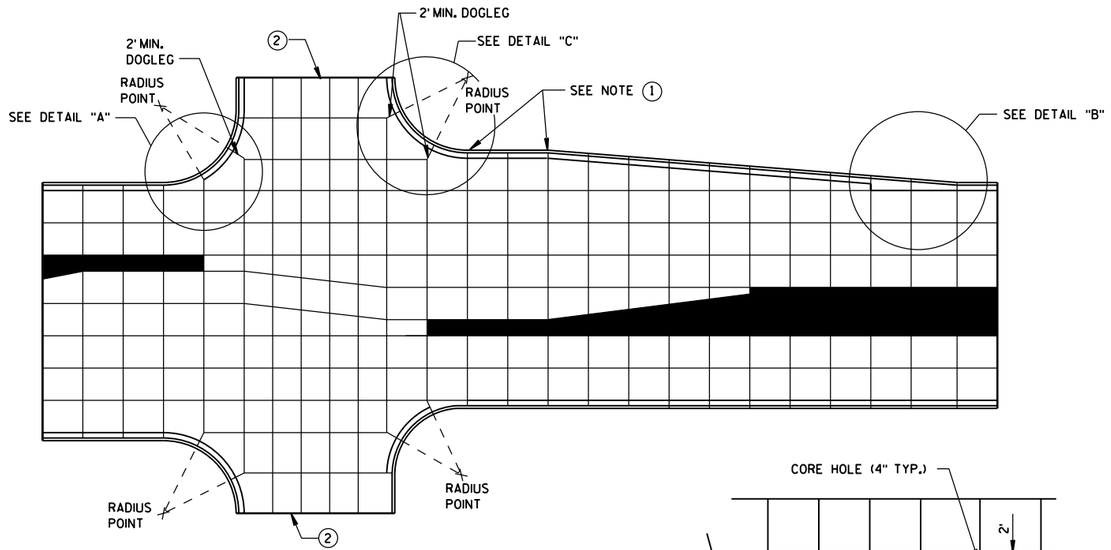
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

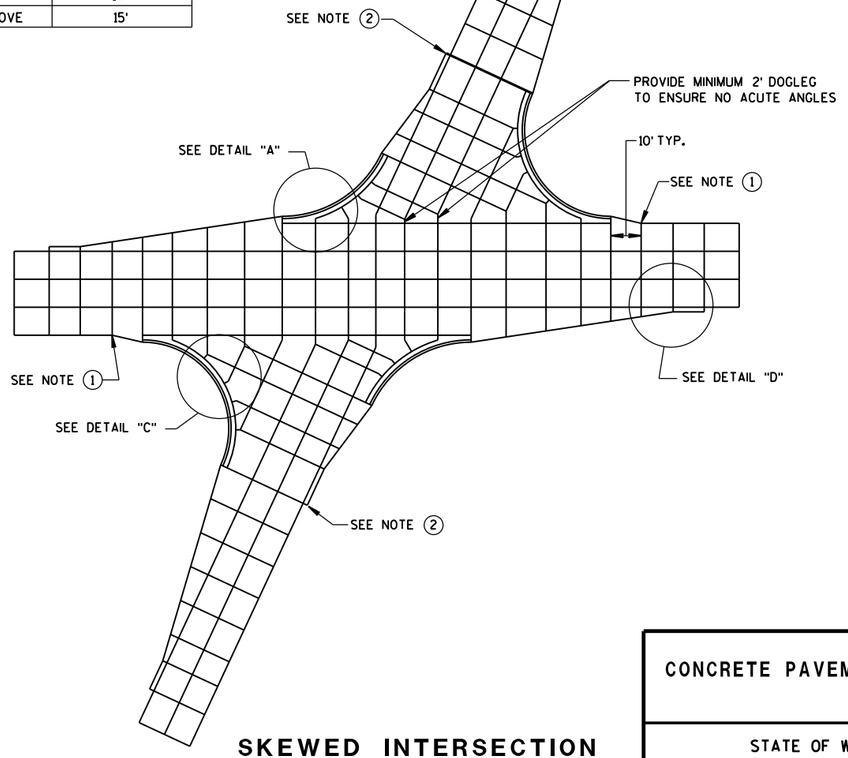
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



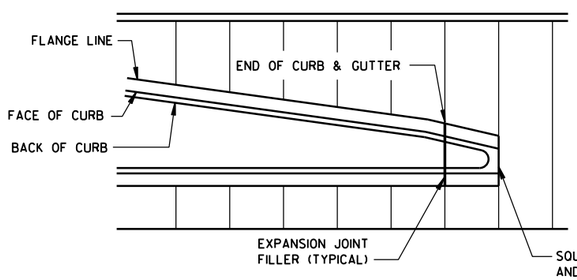
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

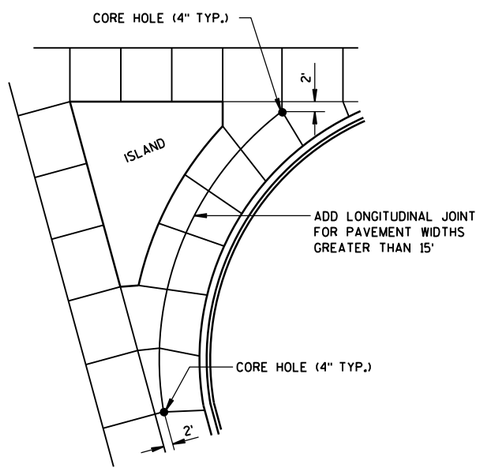
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

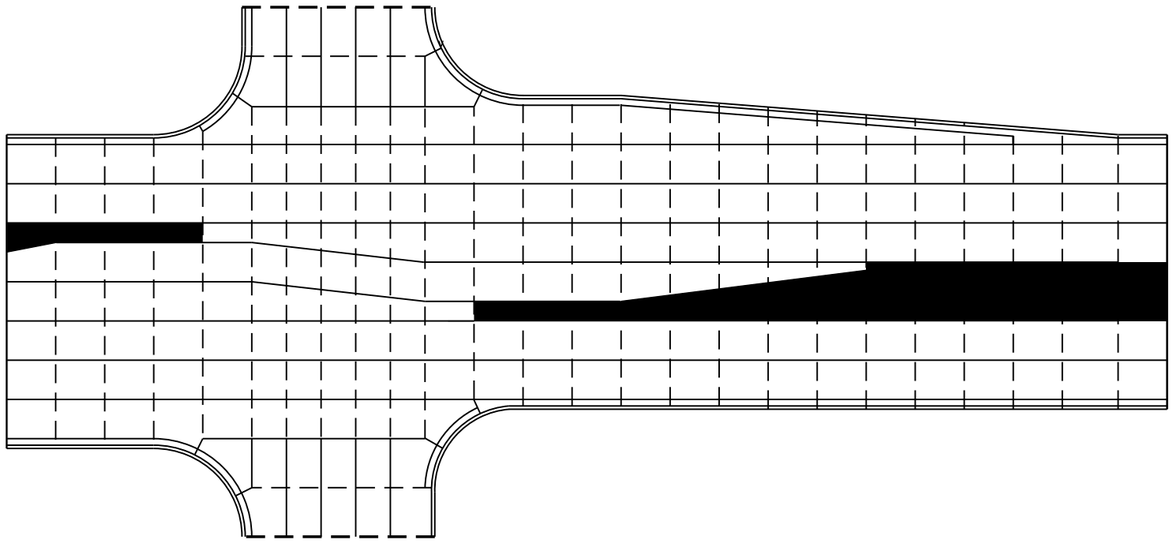
6
S.D.D. 13 C 18-2a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

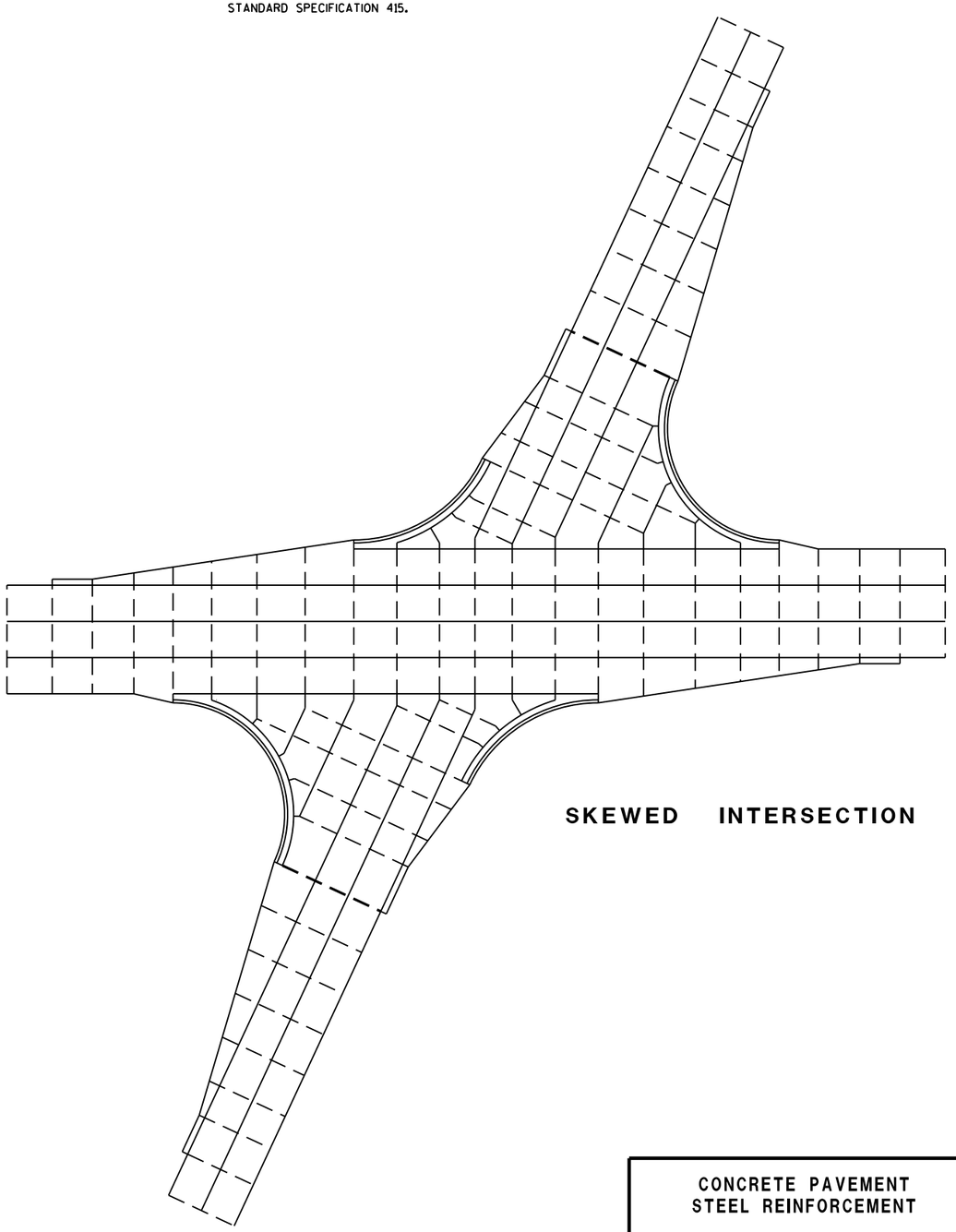
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

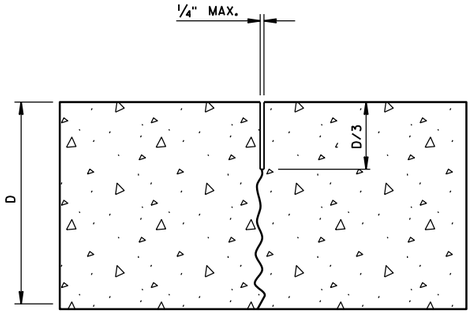
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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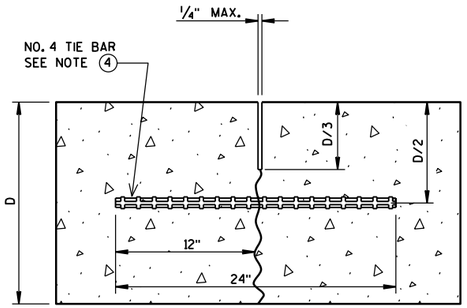
S.D.D. 13 C 18-2b

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S.D.D. 13 C 18-2b



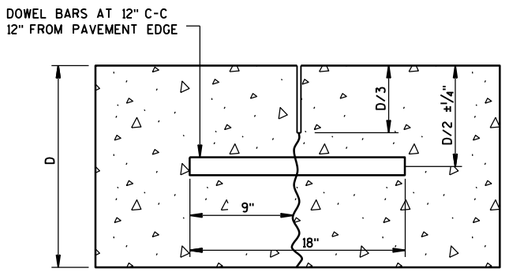
UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

GENERAL NOTES

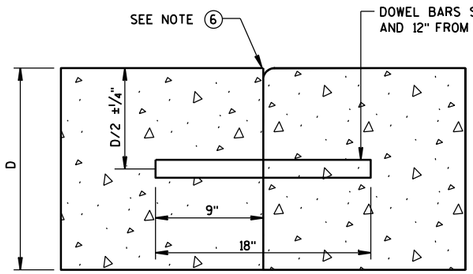
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. SPACE TIE BARS AT LONGITUDINAL CONSTRUCTION OR CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C1.
5. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
6. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.



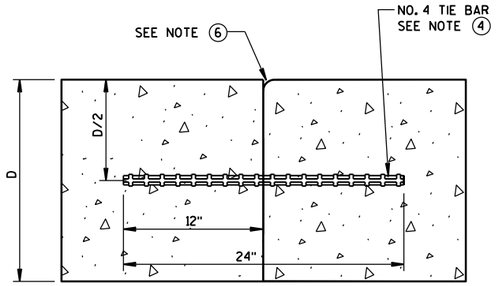
DOWELED-TRANSVERSE

CONTRACTION JOINTS

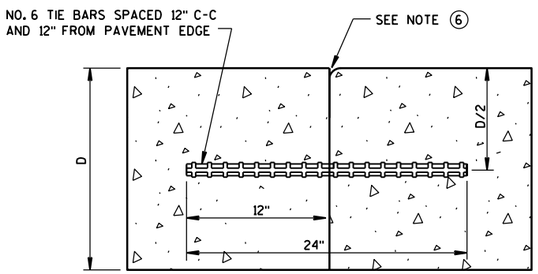
SEE NOTE (2)



DOWELED TRANSVERSE

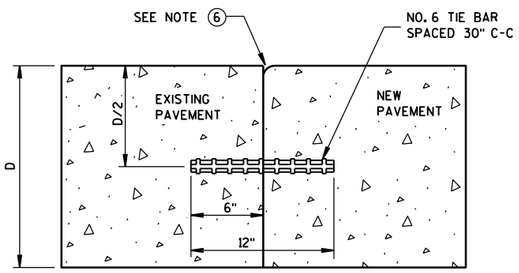


TIED LONGITUDINAL



TIED TRANSVERSE

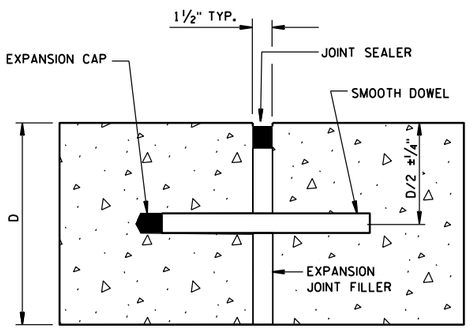
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

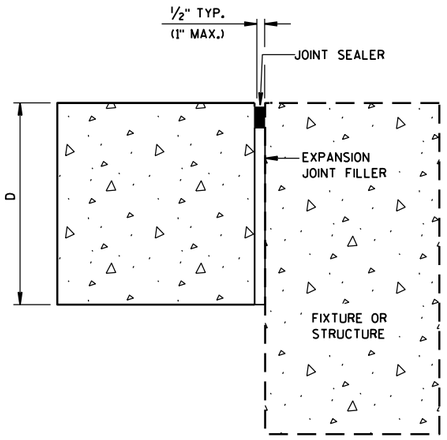
CONSTRUCTION JOINTS

SEE NOTE (5)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

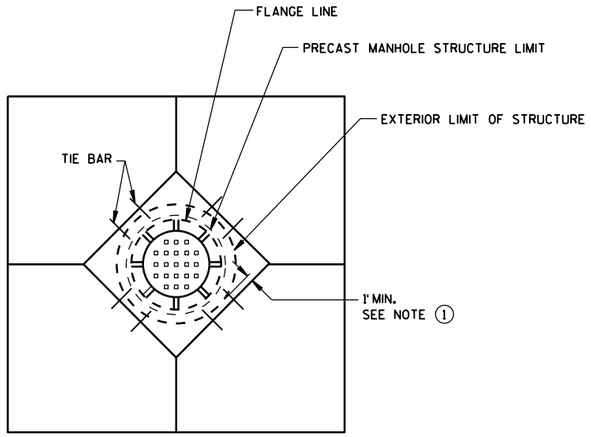
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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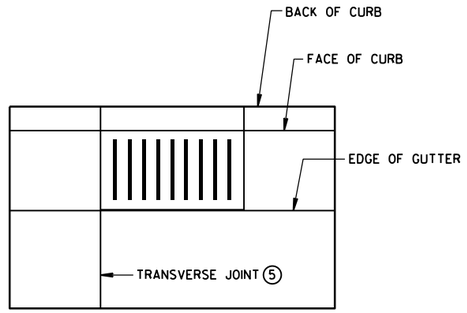
S.D.D. 13 C 18-2c

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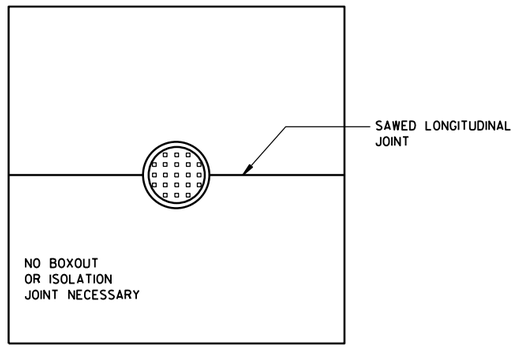
S.D.D. 13 C 18-2c



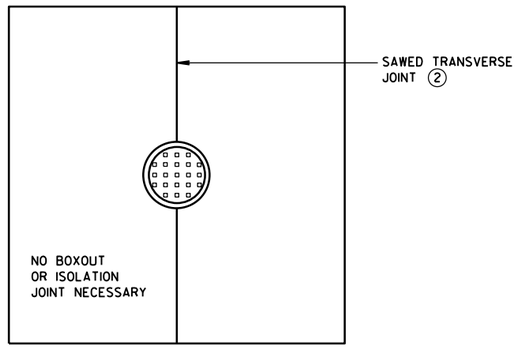
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



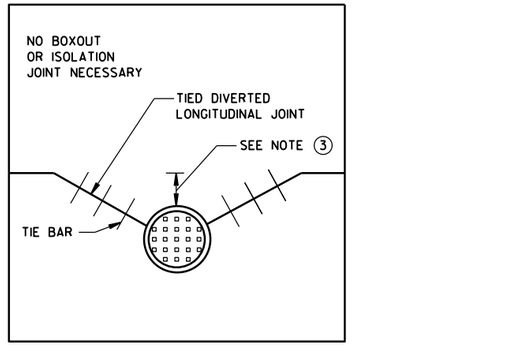
INLET WITH TRANSVERSE JOINT



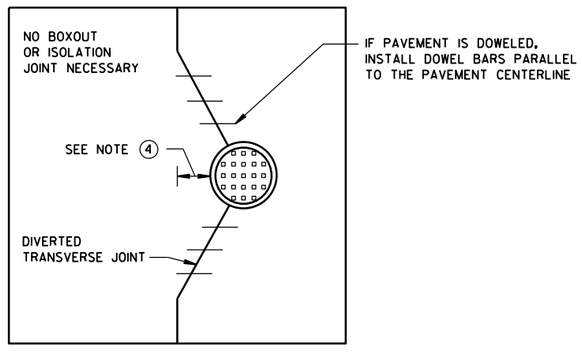
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-3-2013 — DATE

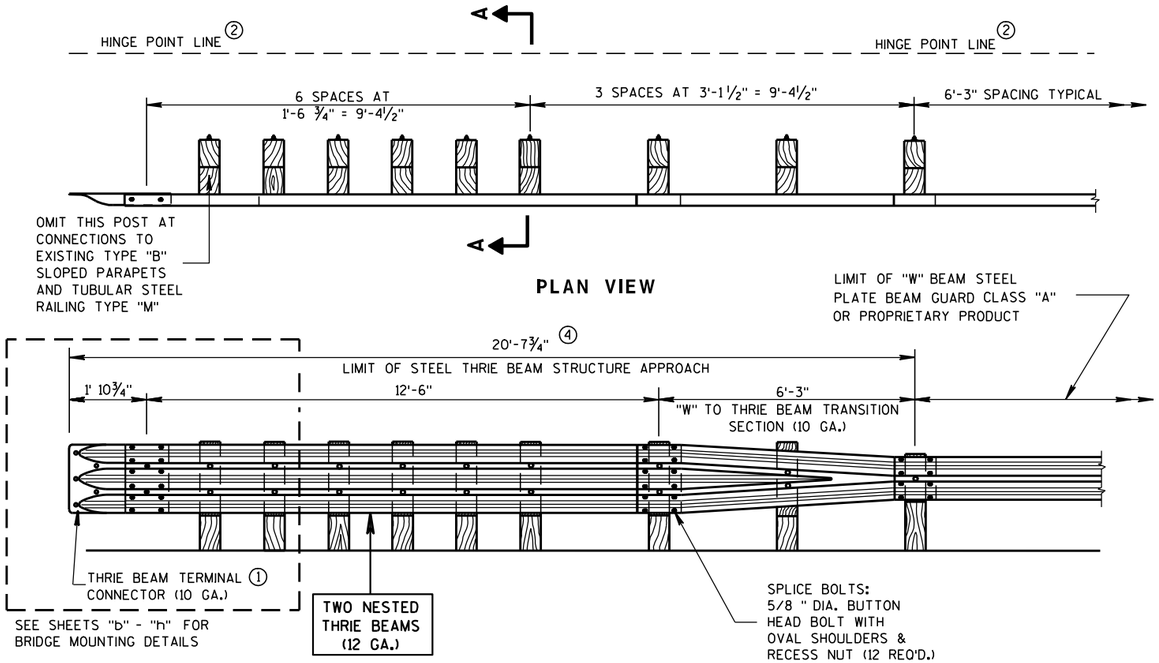
/S/ Deb Bischoff — PAVEMENT POLICY & DE

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S.D.D. 13 C 18-2d



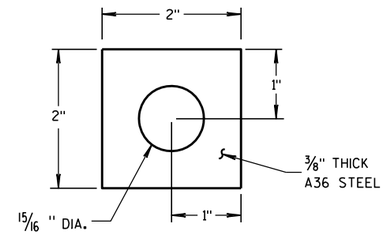


PLATE WASHER DETAIL

GENERAL NOTES

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

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

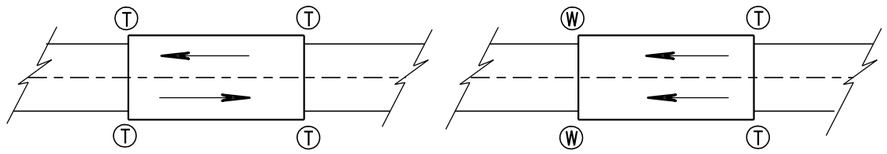
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

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

② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.

③ POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

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



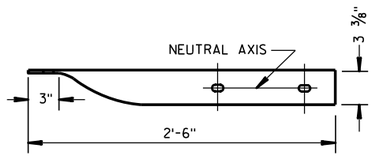
TWO WAY TRAFFIC

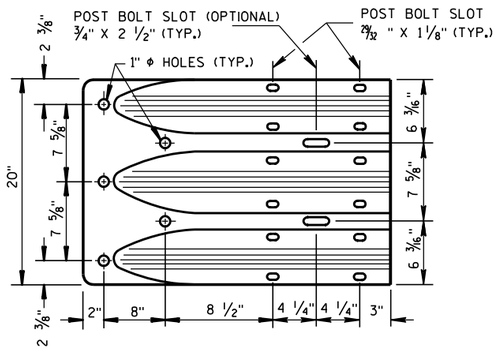
ONE WAY TRAFFIC

T THRIE BEAM CONNECTION

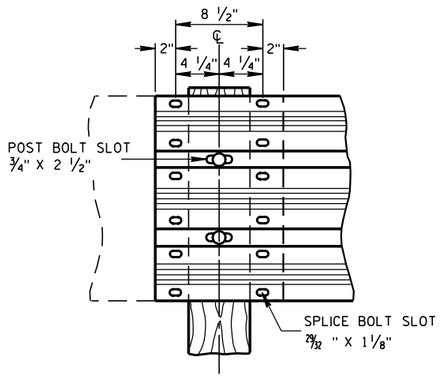
W W-BEAM CONNECTION WHEN REQUIRED

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

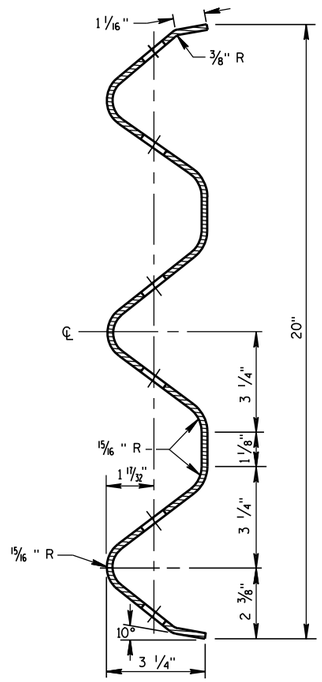




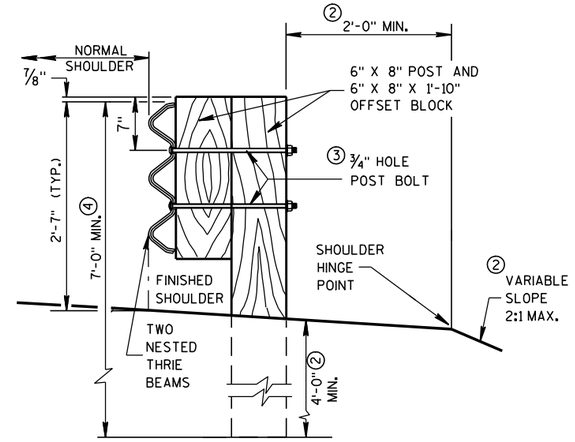
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION A-A

STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

6
S.D.D. 14 B 20-11a

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.

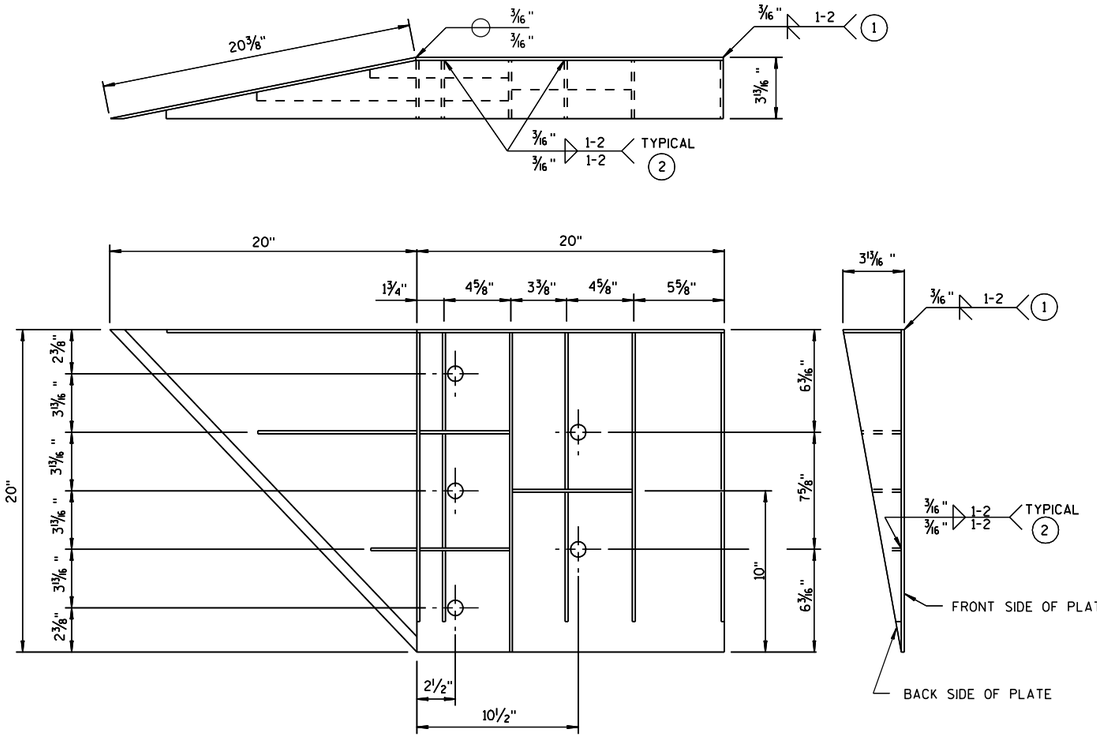
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) 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.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

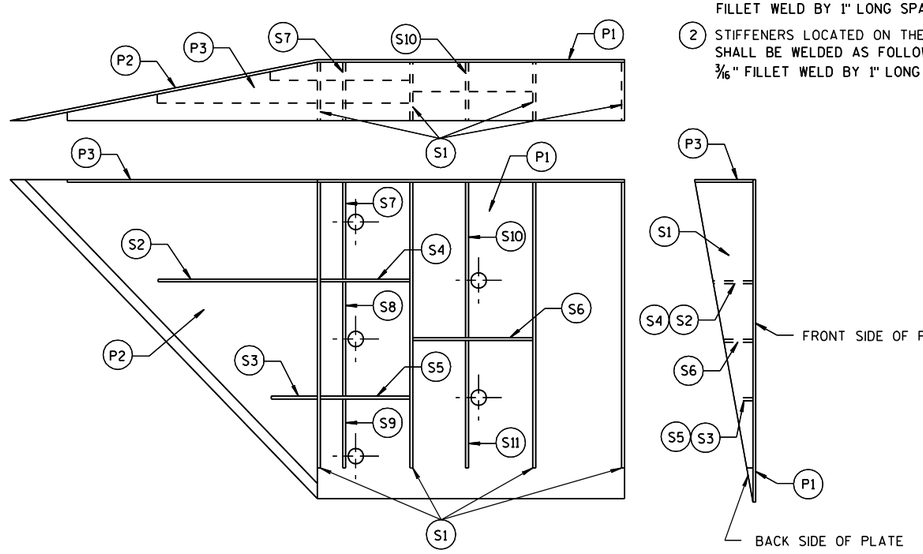


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

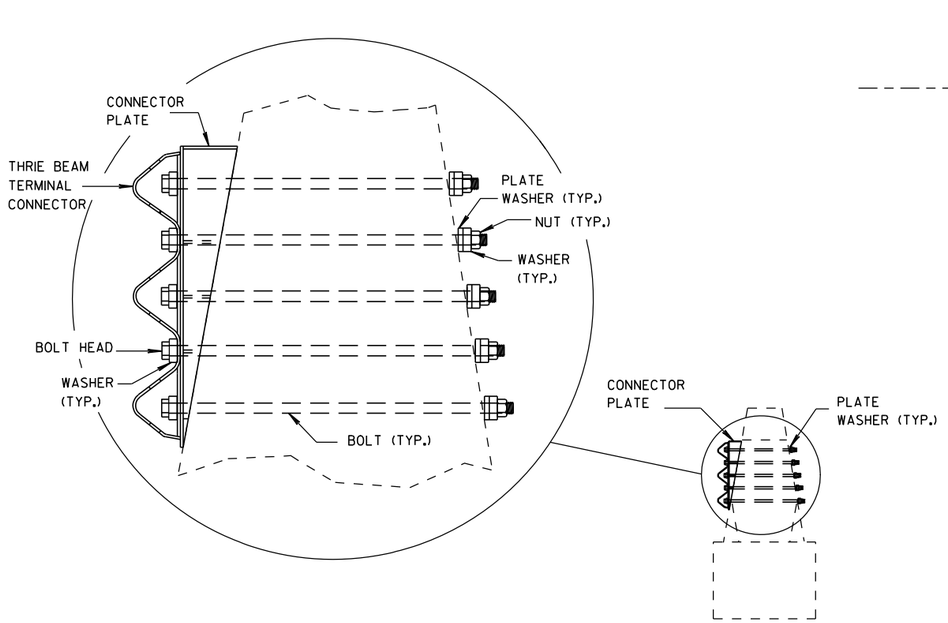
STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL

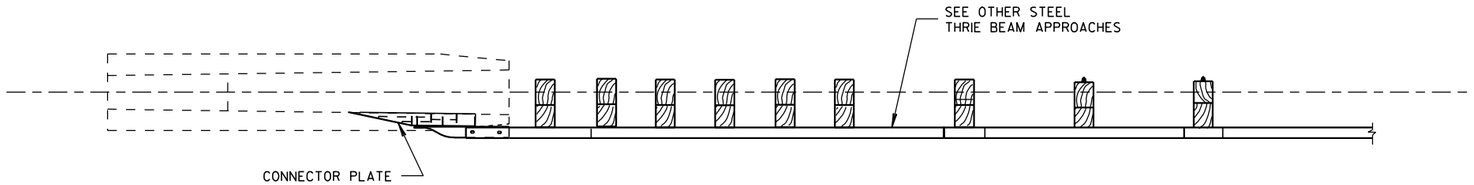
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

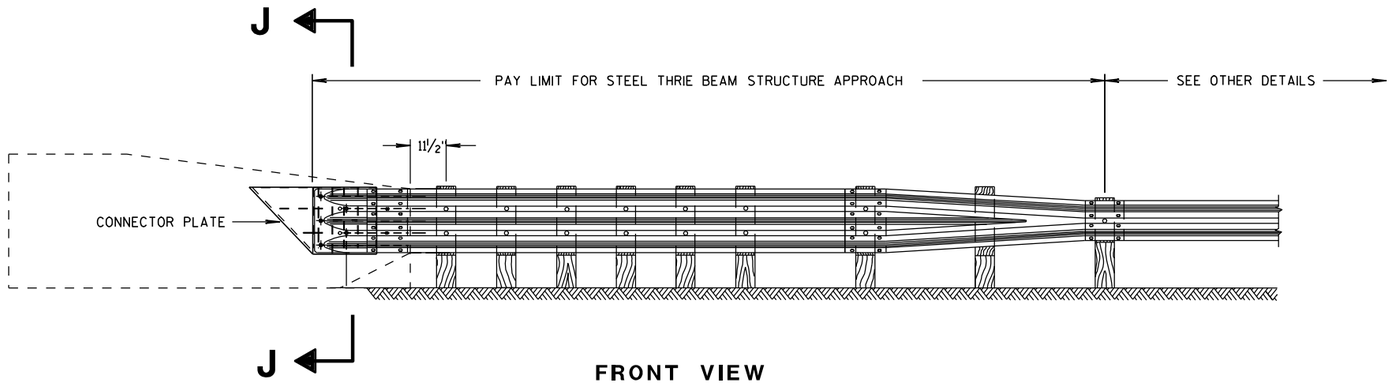
6
S.D.D. 14 B 20-11g



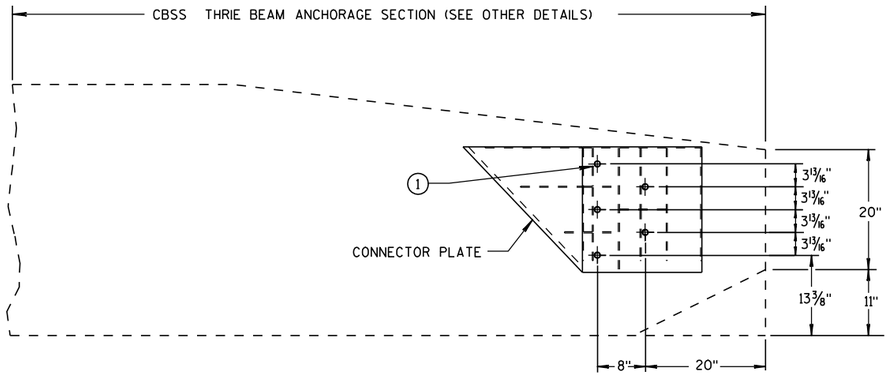
SECTION J-J



PLAN VIEW



FRONT VIEW



CONNECTOR PLATE LOCATION

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 614.

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

(1) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

330

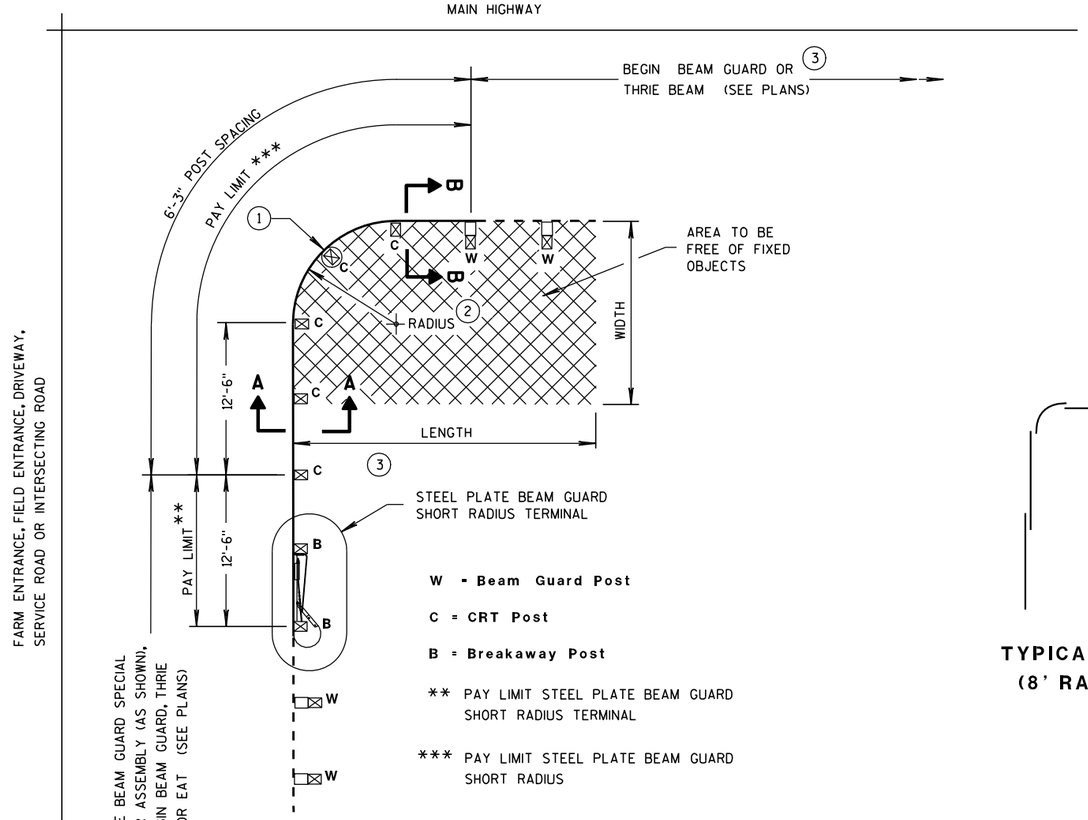
FHWA

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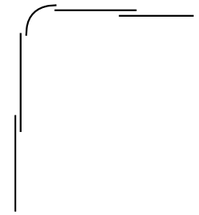
S.D.D. 14 B 20-11h

6

S.D.D. 14 B 20-11h



TYPICAL LAYOUT
(8' RADIUS SHOWN)



TYPICAL LAP SPLICES
(8' RADIUS SHOWN)

GENERAL NOTES

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

SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

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

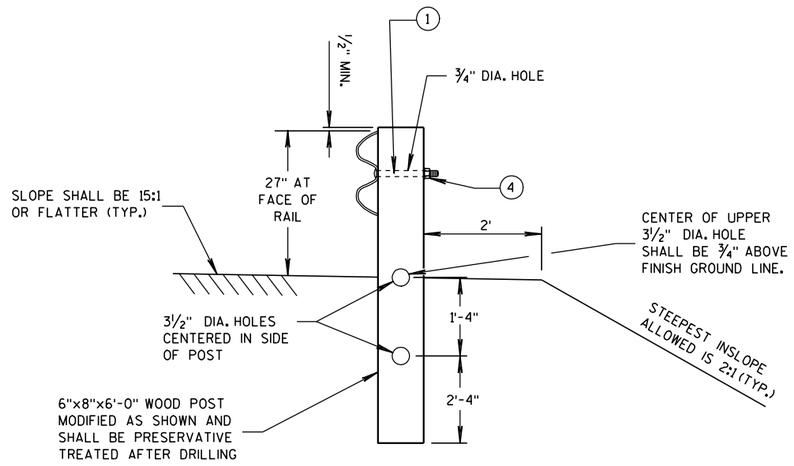
(2) RADIUS FROM 8' - 36'. SEE PLAN.

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

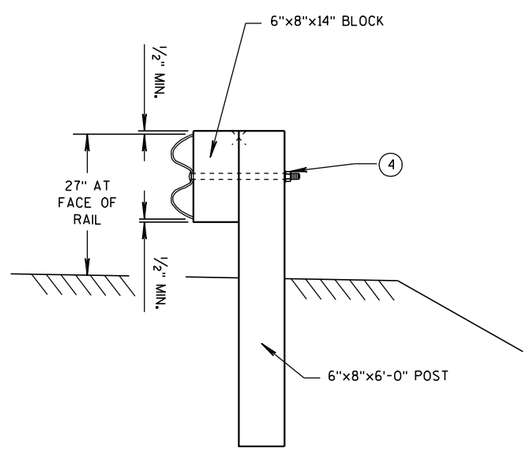
(4) 5/8" ø X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

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

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



SECTION A-A
(CRT POST)



SECTION B-B
(BEAM GUARD POST)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

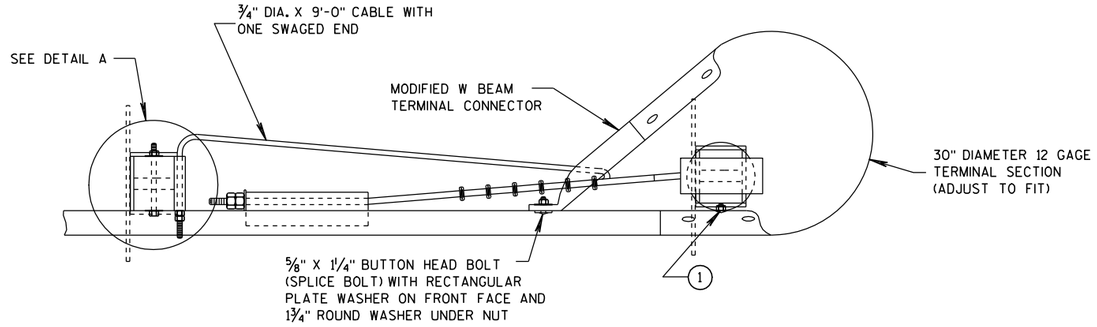
STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	331

6

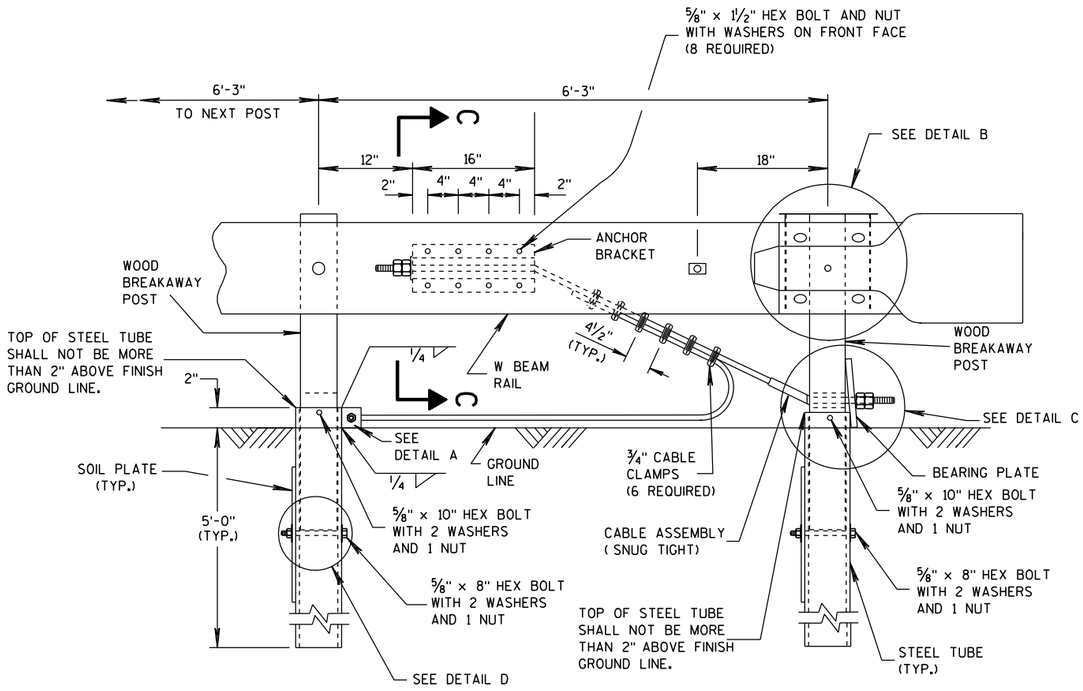
S.D.D. 14 B 27-1a

6

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



PLAN VIEW



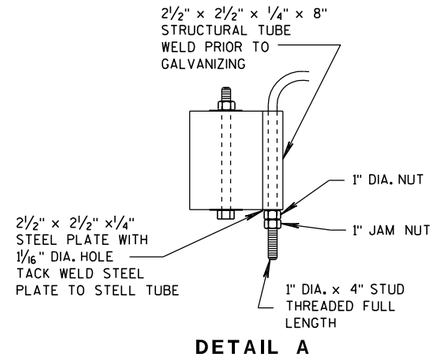
ELEVATION VIEW

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

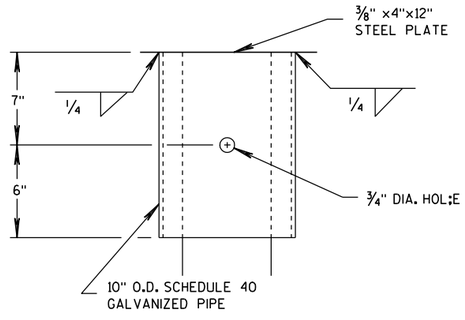
GENERAL NOTES

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

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



DETAIL A



DETAIL B

(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

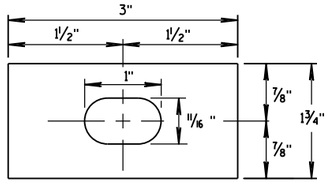
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

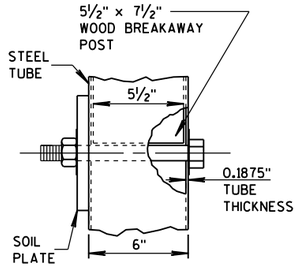
S.D.D. 14 B 27-1b

6

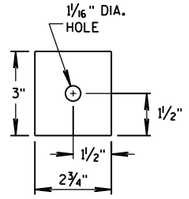
S.D.D. 14 B 27-1b



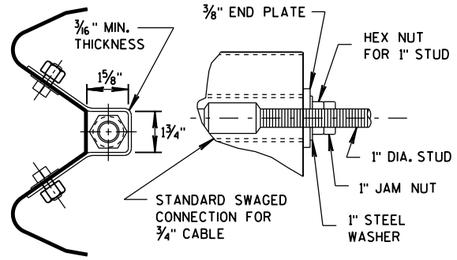
RECTANGULAR PLATE WASHER



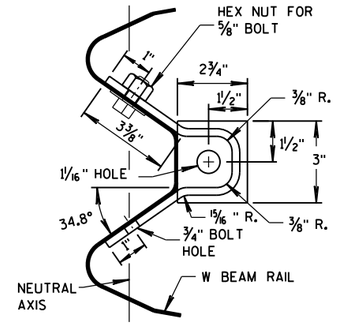
DETAIL D



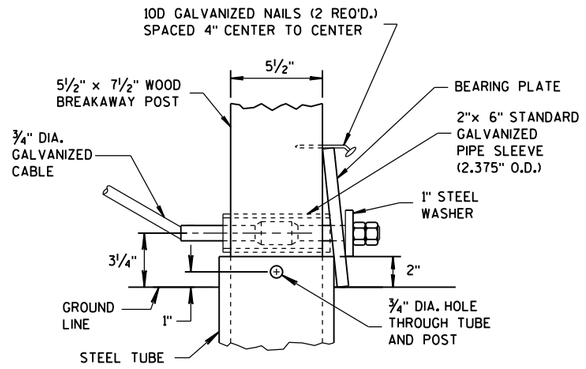
END PLATE



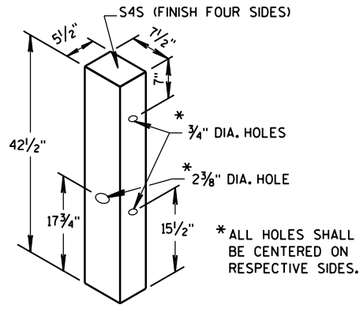
SECTION C-C
(END PLATE REMOVED)



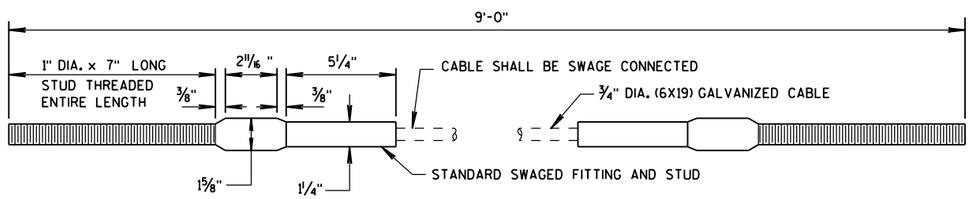
ANCHOR BRACKET



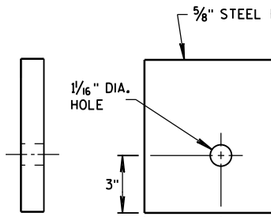
DETAIL C



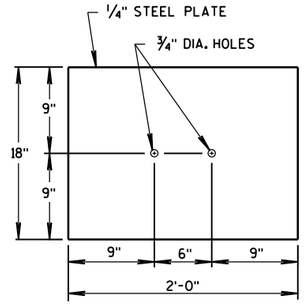
WOOD BREAKAWAY POST



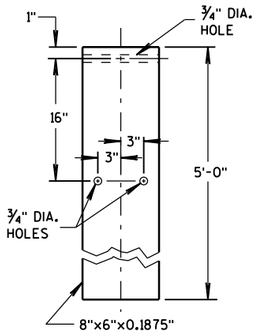
CABLE ASSEMBLY



BEARING PLATE



SOIL PLATE



STEEL TUBE

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

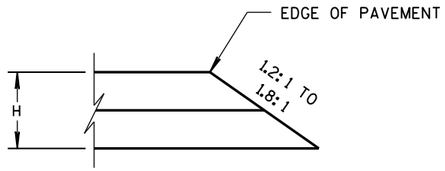
APPROVED
12/18/08 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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S.D.D. 14 B 27-1c

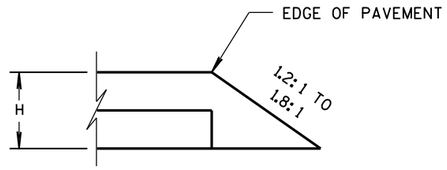
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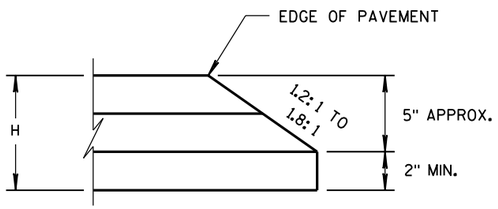
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



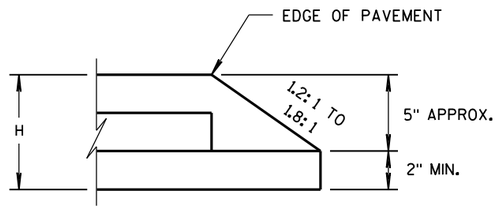
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

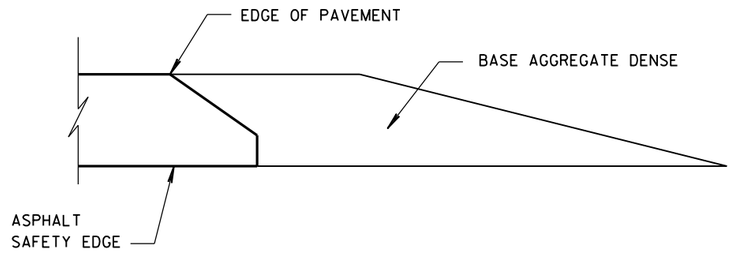
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

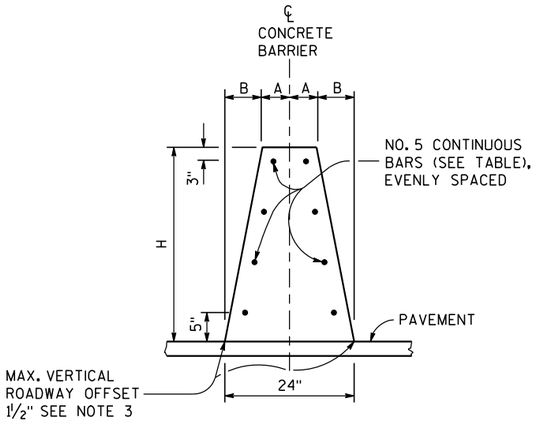
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

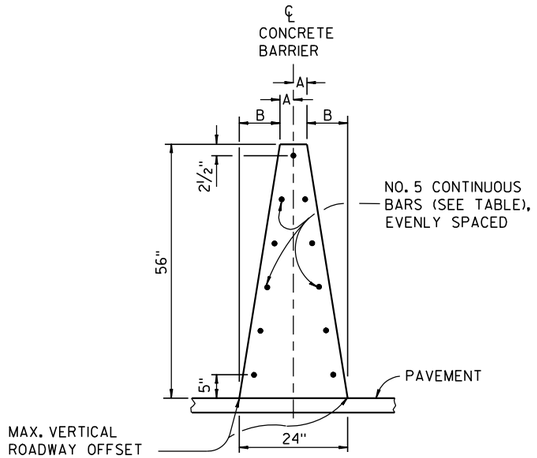
11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

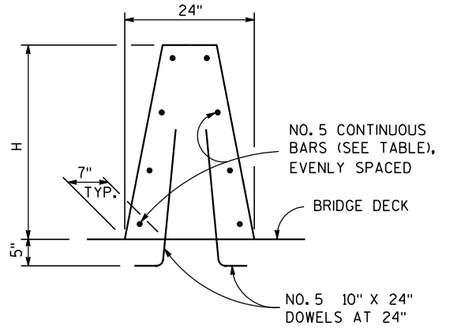
FHWA



32-INCH, 36-INCH OR 42-INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S32, TYPE S36, AND TYPE S42)



56-INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S56)



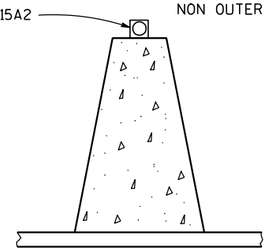
SINGLE SLOPE CONCRETE BARRIER ON BRIDGE

NON OUTER PARAPET APPLICATION

GENERAL NOTES

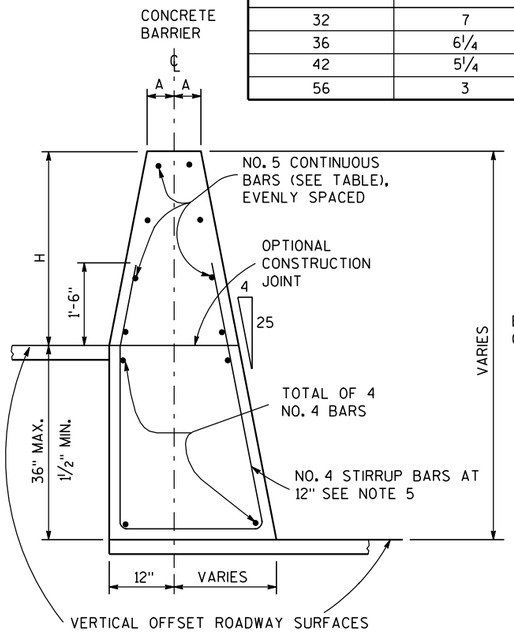
1. WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.
2. EXPANSION JOINTS IN CONCRETE BARRIER SHALL BE LOCATED AT ALL DECK, PAVEMENT AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL SHALL BE THE SAME SIZE AS JOINT OR ½" MINIMUM.
3. WHERE VERTICAL ROADWAY OFFSET IS GREATER THAN 1½", USE TYPE A
4. PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.
5. EXCEPT IN ANCHORS, VERTICAL REINFORCING STIRRUP NOT REQUIRED FOR ROADWAY OFFSETS LESS THAN 1'-0".
6. FOR TYPE S32, TYPE S36, TYPE S42, AND S56 MONOLITHIC FOOTING OR DOWELED FOOTING WITH 2-#8 x 8" @ 2'-0".
7. STAGGER LAPPING OF LONGITUDINAL STEEL. MINIMUM OVERLAP OF STEEL 2 FEET. BARS AT LAPS TO BE FIRMLY TIED OR CONNECTED.
8. 4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATION 501.
9. WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. EXPOSED STEEL INTO NEXT POURS REINFORCEMENT. LAPS TO BE FIRMLY TIED.
10. USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.
11. 2" CLEAR COVER TYPICAL.
12. COLD-JOINTS MAY BE USED BETWEEN ANCHOR INSTALLATIONS. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED. LAPS TO BE FIRMLY TIED
13. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 NO ADDITIONAL VERTICAL STEEL NEEDED. IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A REQUIRES VERTICAL STEEL. SEE OTHER DETAIL
14. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 DEPTH OF FOOTING 10". IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A MATCH TOTAL HEIGHT OF SINGLE SLOPE BARRIER RETAINING WALL.
15. FOR ALL BARRIER TYPES SHOWN, ANCHOR IS REQUIRED AT CONCRETE BARRIER ENDS AND AT INTERRUPTIONS IN CONCRETE BARRIER. ANCHOR MAY BE AS SHOWN ON DRAWING OR DETAILS SHOWN ON S.D.D. 14B33. ANCHORS INCIDENTAL TO CBSS.

SEE STANDARD DETAIL DRAWING 15A2 FOR DELINEATOR DETAILS



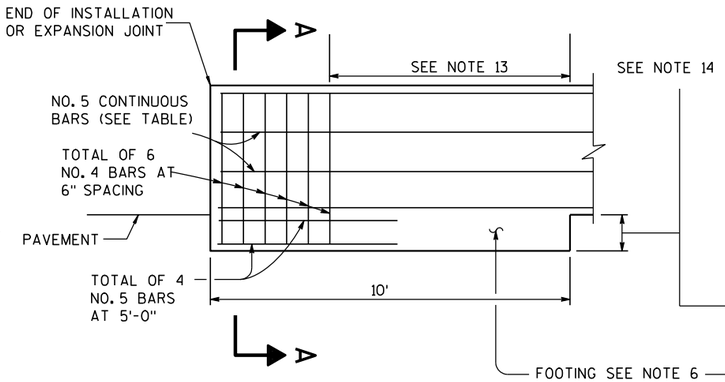
DELINEATION

BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
32	7	5	8
36	6¼	5¾	8
42	5¼	6¾	10
56	3	9	11



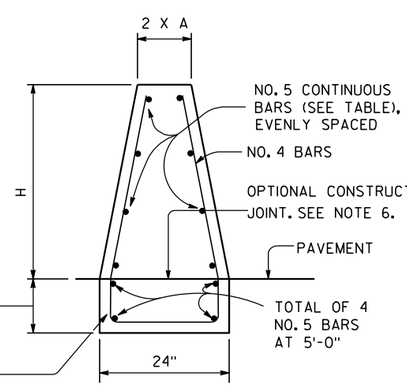
SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL (TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)

(BETWEEN ADJACENT ROADWAYS)



END ANCHOR SINGLE SLOPE CONCRETE BARRIER

AT CONSTRUCTION JOINT



SECTION A-A

DELINEATOR SPACING ON HORIZONTAL CURVES

RADIUS OF CURVE	APPROXIMATE SPACING ON CURVE
50 FEET	20 FEET
115 FEET	25 FEET
180 FEET	35 FEET
250 FEET	40 FEET
300 FEET	50 FEET
400 FEET	55 FEET
500 FEET	65 FEET
600 FEET	70 FEET
700 FEET	75 FEET
800 FEET	80 FEET
900 FEET	85 FEET
1000 FEET	90 FEET

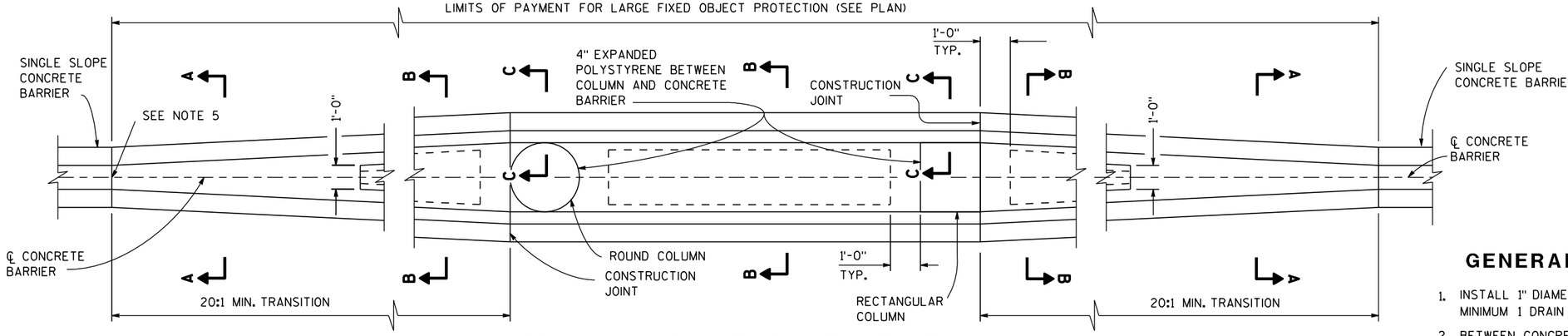
DELINEATOR SPACING ON RADIUS GREATER THAN 1000 FEET OR TANGENT SECTIONS

	LENGTH OF BARRIER	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2	

CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

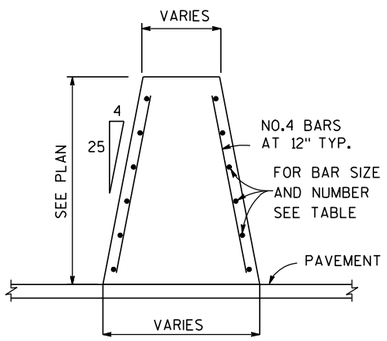
6
S.D.D. 14 B 32-1a



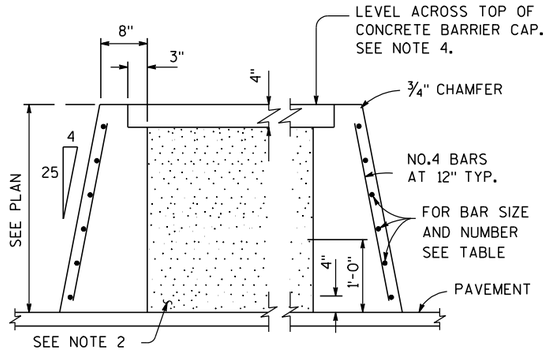
LARGE FIXED OBJECTS PROTECTION
TYPE S32, TYPE S36, TYPE S42, TYPE S56

GENERAL NOTES

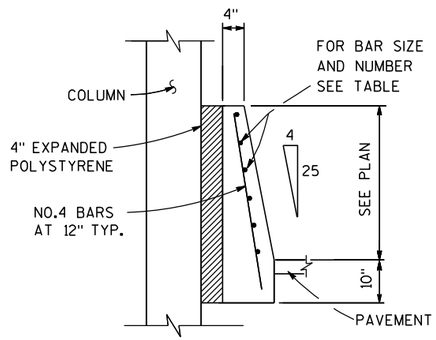
1. INSTALL 1" DIAMETER DRAIN PIPE EVERY 20' OF CROSS SECTION B-B. MINIMUM 1 DRAIN PER CAVITY.
2. BETWEEN CONCRETE BARRIER WALLS FILL WITH GRANULAR BACKFILL GRADE 2
3. REINFORCING STEEL SHALL EXTEND CONTINUOUS THROUGH CONSTRUCTION JOINTS.
4. ADJUST HEIGHT OF CONCRETE BARRIER WALL ON LOW SIDE OF OFFSET OR SUPERELEVATED ROADWAYS TO PROVIDE LEVEL GRADE ACROSS TOP OF CONCRETE CAP.
5. IF FIXED OBJECT PROTECTION IS INSTALLED FIRST, USE COLD JOINTS. IF CBSS PLACED FIRST, USE EXPANSION JOINT.



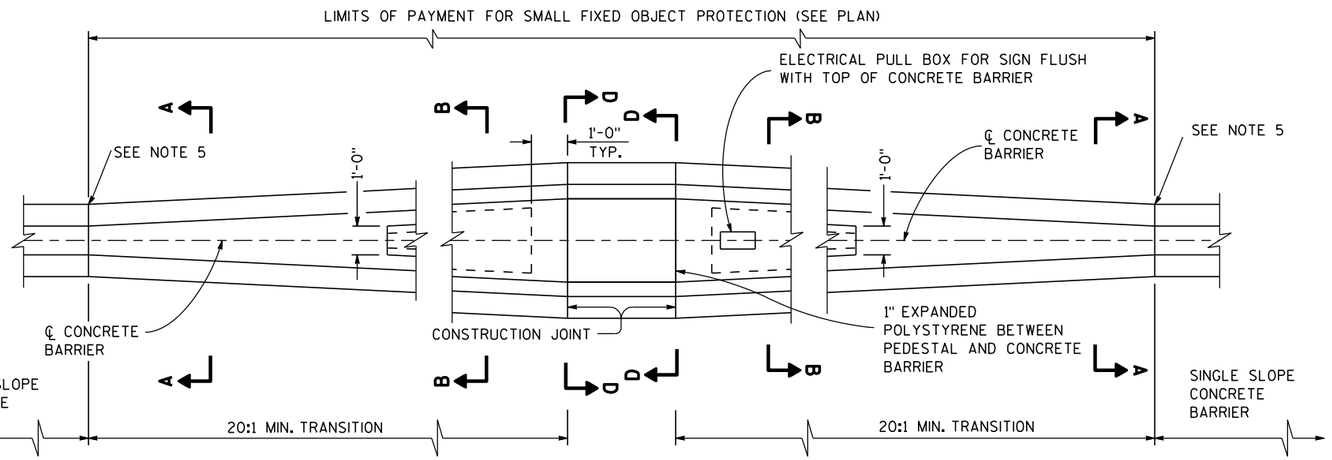
SECTION A-A



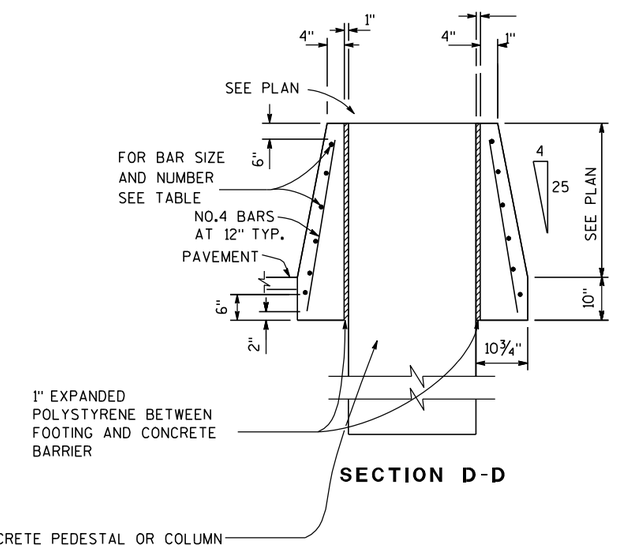
SECTION B-B



SECTION C-C



SMALL FIXED OBJECTS PROTECTION
TYPE S32, TYPE S36, TYPE S42, TYPE S56



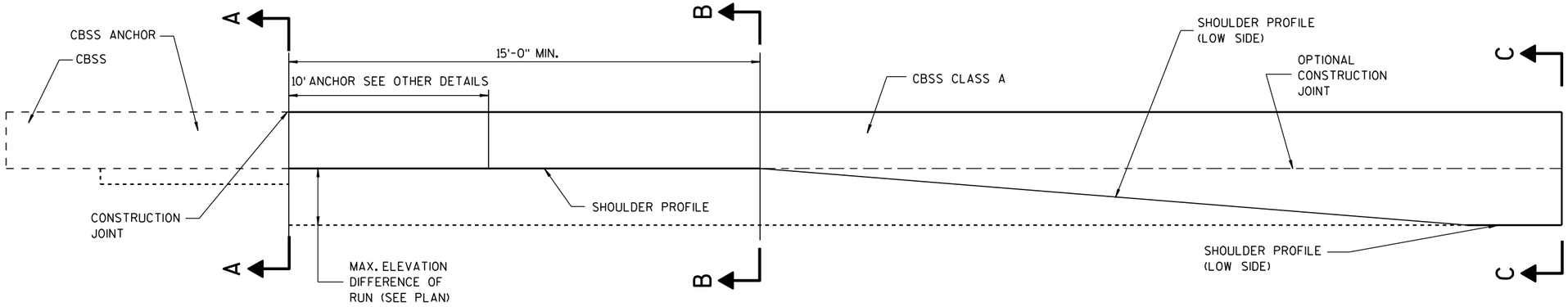
SECTION D-D

BARRIER HEIGHT H INCHES	BAR SIZE	NUMBER OF BARS EACH
32	4	6
36	4	6
42	5	6
56	5	9

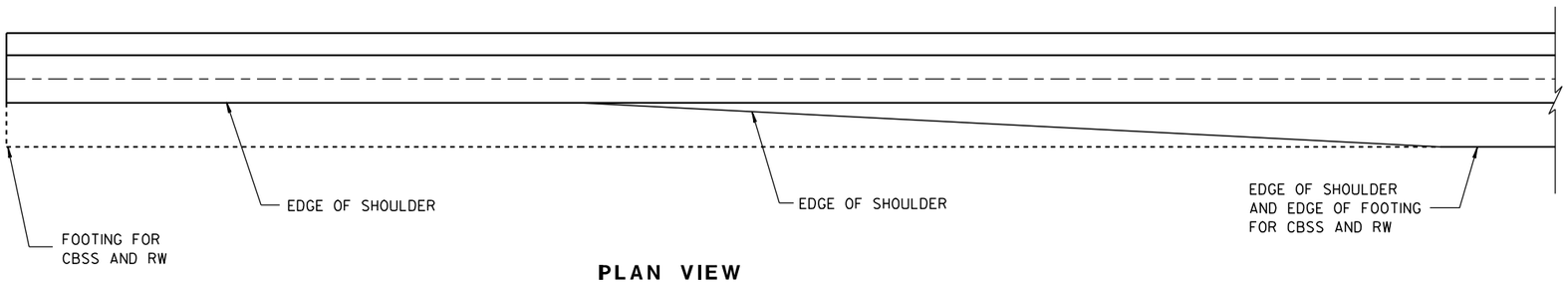
CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

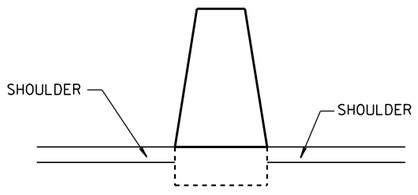
6
S.D.D. 14 B 32-1b



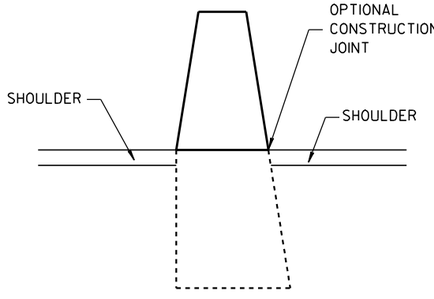
ELEVATION VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)



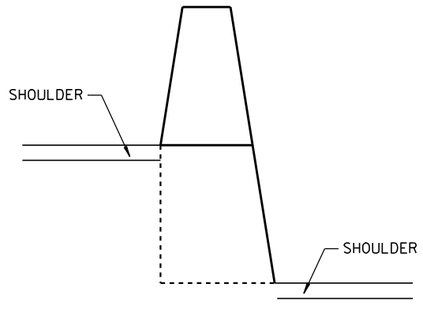
PLAN VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)



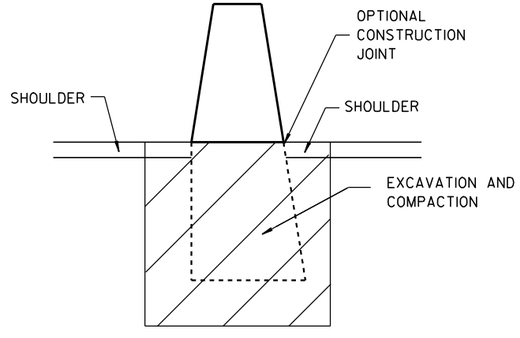
SECTION A-A



SECTION B-B



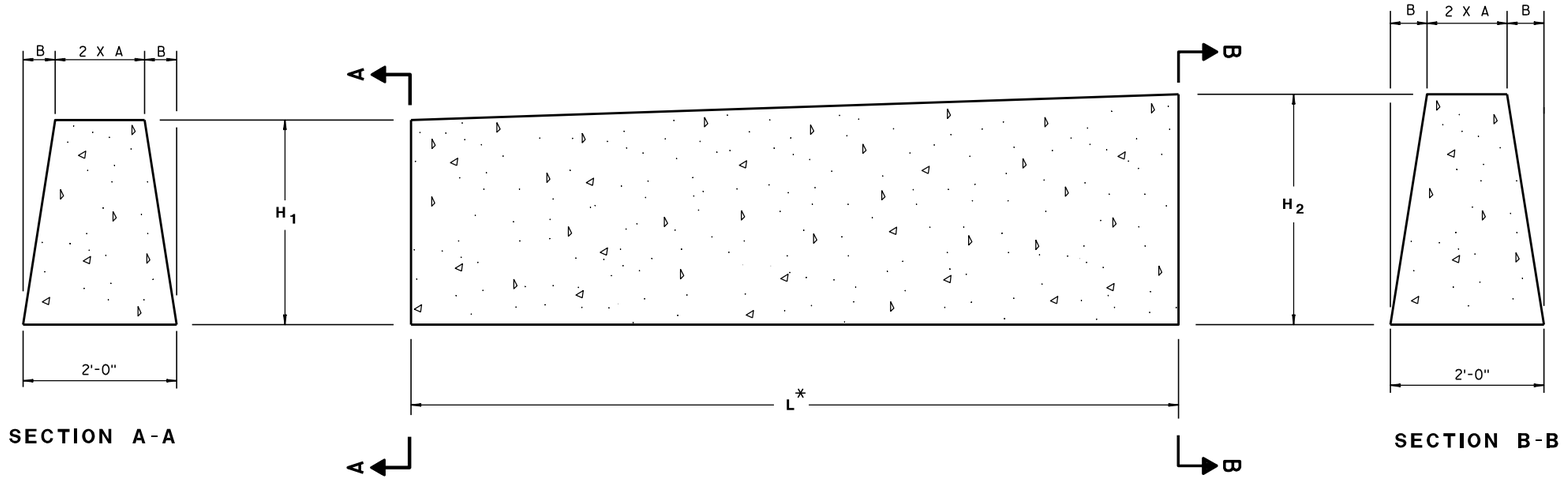
SECTION C-C



CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 32-1c



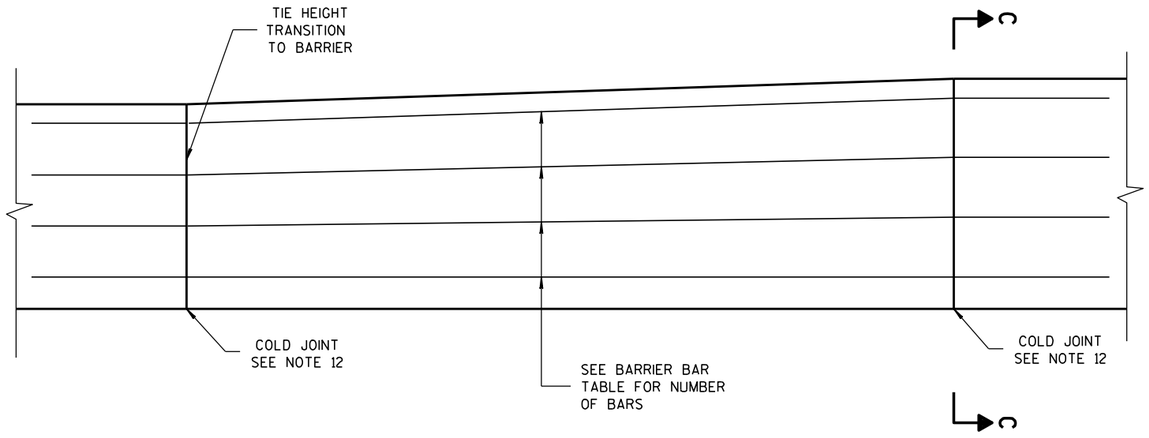
DOUBLE COLD JOINT HEIGHT TRANSITION

BARRIER DIMENSIONS

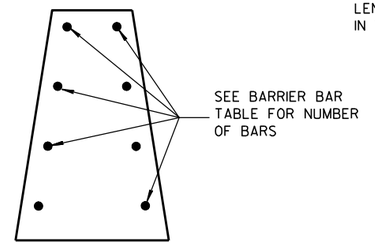
BARRIER HEIGHT INCHES	A INCHES	B INCHES
32	7	5
36	6 1/4	5 3/4
42	5 1/4	6 3/4
56	3	9

MULTIPLE HEIGHT TRANSITIONS MAY BE USED IN SEQUENCE TO GET TO APPROPRIATE HEIGHT.

USE COLD JOINT TO CONNECT MULTIPLE HEIGHT TRANSITIONS.



STEEL REINFORCEMENT DETAIL



SECTION C-C

BARRIER BARS

H_1	H_2	L*	NUMBER OF NO. 5 BARS
32"	36"	10'-0"	8
36"	42"	10'-6"	10
42"	56"	24'-6"	11

* LENGTH OF DOUBLE COLD JOINT INCLUDED IN THE TOTAL LENGTH OF CBSS.

CONCRETE BARRIER SINGLE SLOPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6-3-2010
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

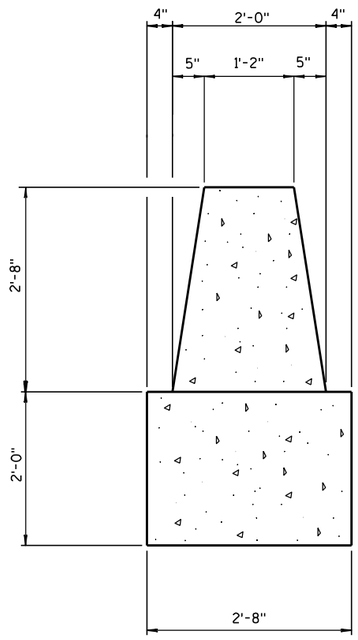
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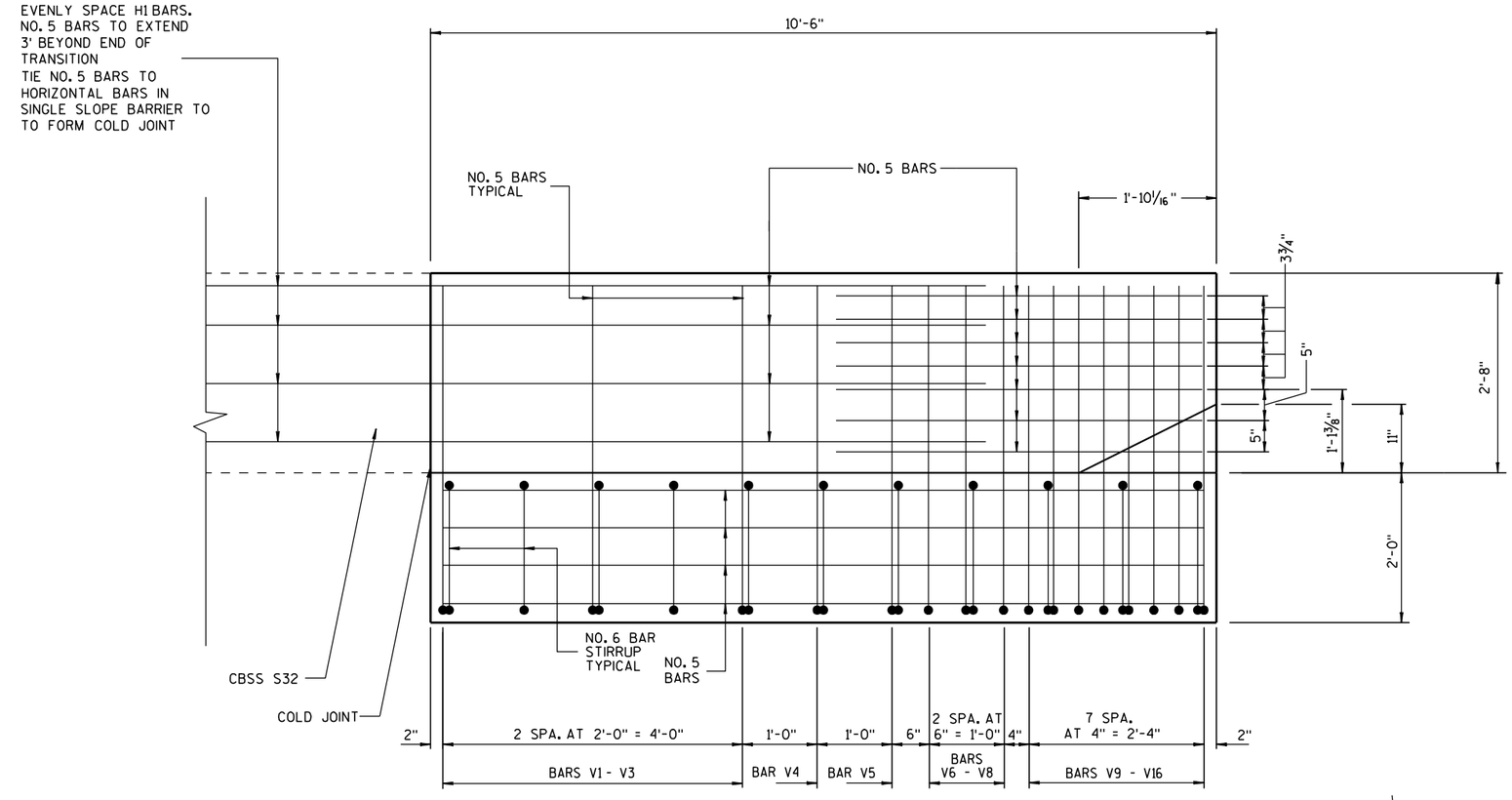
FHWA

6

S.D.D. 14 B 32-1d

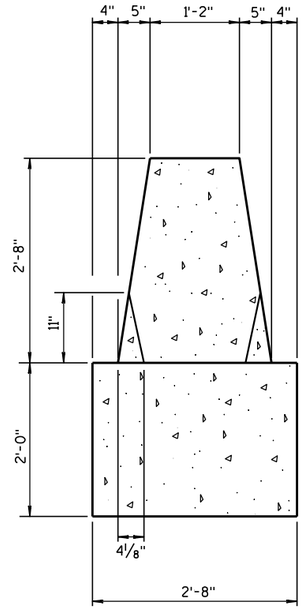


SECTION A-A

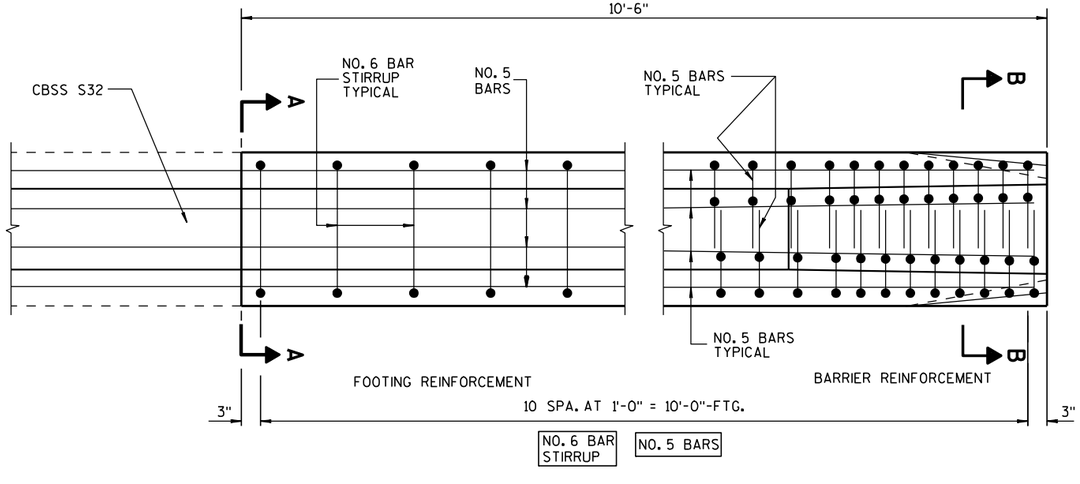


SEE SECTIONS (1) THRU (16)

ELEVATION VIEW



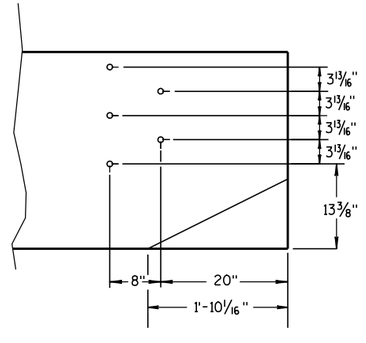
SECTION B-B



FOOTING REINFORCEMENT

BARRIER REINFORCEMENT

PLAN VIEW



PVC PIPE LOCATIONS

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

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

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.

USE 3/4" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

THRIE BEAM ANCHOR INCIDENTAL TO CONCRETE BARRIER ITEM.

INSTALL SCHEDULE 40 PVC PIPE 1" DIAMETER AT LOCATIONS INDICATED.

EXTEND PVC PIPE COMPLETELY THROUGH BARRIER.

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

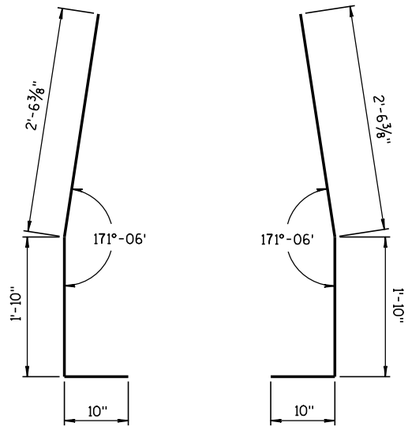
THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

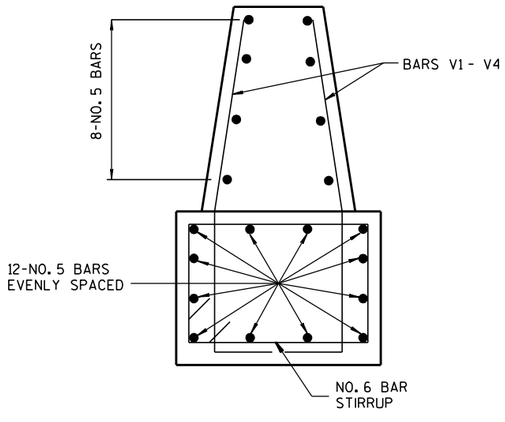
CONCRETE BARRIER
SINGLE SLOPE 32"
THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

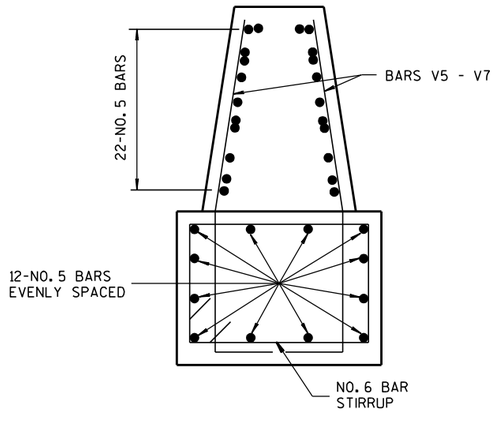
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S.D.D. 14 B 33-1a



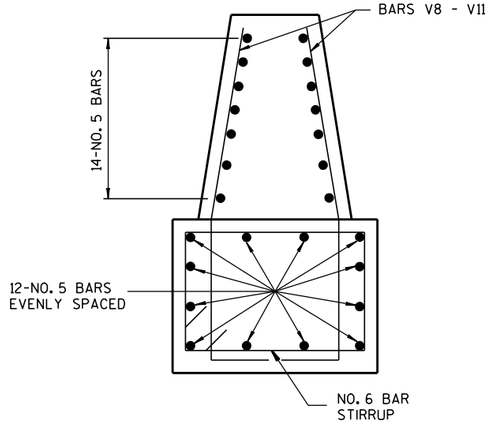
BAR BENDING DETAIL
FOR BARS V1 - V11



BAR DETAIL
SECTIONS 1 - 4



BAR DETAIL
SECTIONS 5 - 7



BAR DETAIL
SECTIONS 8 - 11

CONCRETE BARRIER
SINGLE SLOPE 32"
THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

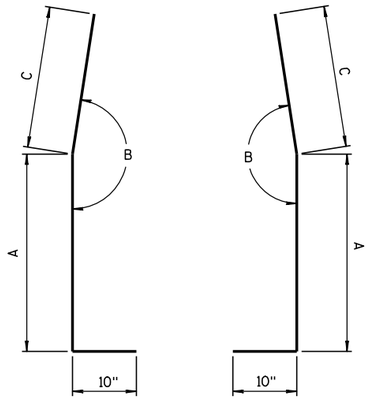
S.D.D. 14 B 33-1b

6

S.D.D. 14 B 33-1b

BAR CHART
SECTIONS V12 - V13

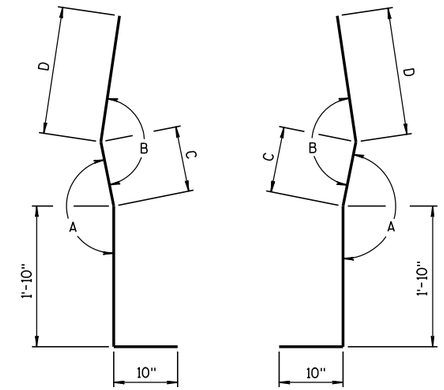
BAR	A	B	C
V12	2'-2"	171°-15'	2'-1 3/4"
V13	2'-7"	171°-05'	1'-9 3/8"



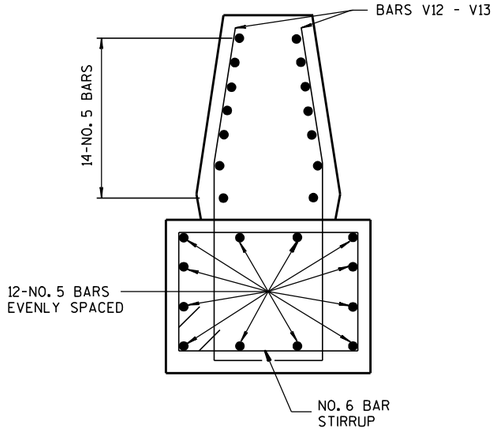
BAR BENDING DETAIL
FOR BARS V12 - V13

BAR CHART
SECTIONS V14 - V16

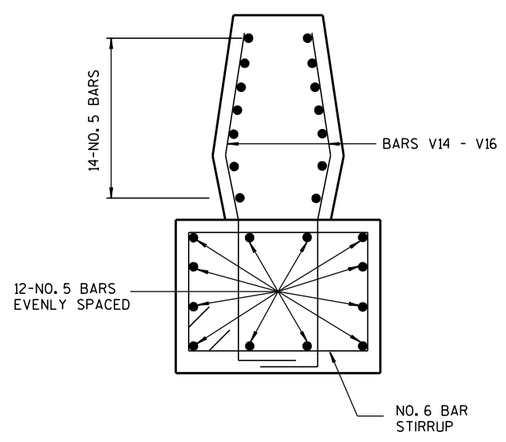
BAR	A	B	C	D
V14	168°-15'	159°-15'	6"	2'-0"
V15	169°-20'	161°-00'	8"	1'-10"
V16	168°-40'	160°-10'	10"	1'-8"



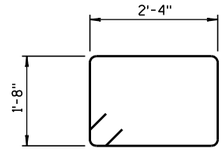
BAR BENDING DETAIL
FOR BARS V14 - V16



BAR DETAIL
SECTIONS 12 - 13



BAR DETAIL
SECTIONS 14 - 16



STIRRUP BAR
BENDING DETAIL

CONCRETE BARRIER
SINGLE SLOPE 32"
THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

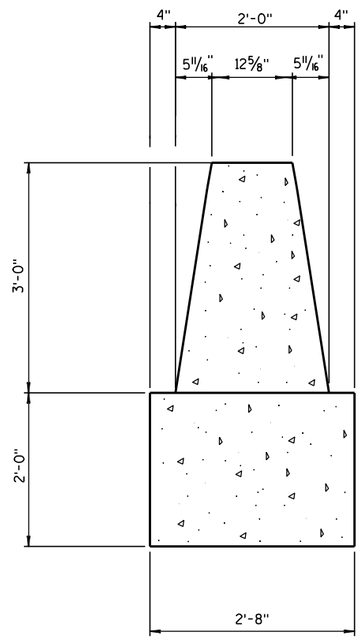
APPROVED

6-3-2010
DATE

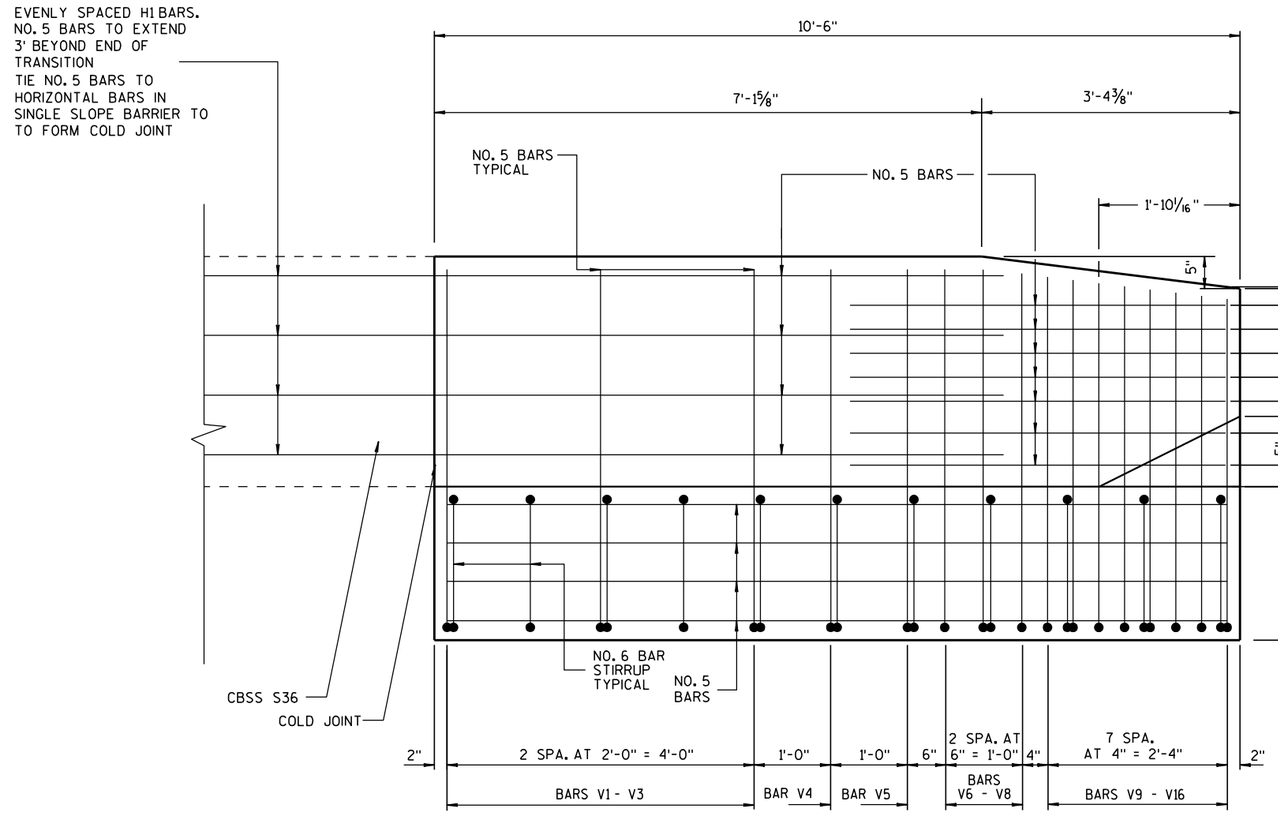
/S/ Jerry H. Zoss
ROADWAY STANDARDS ENGINEER

FHWA

6
S.D.D. 14 B 33-1c

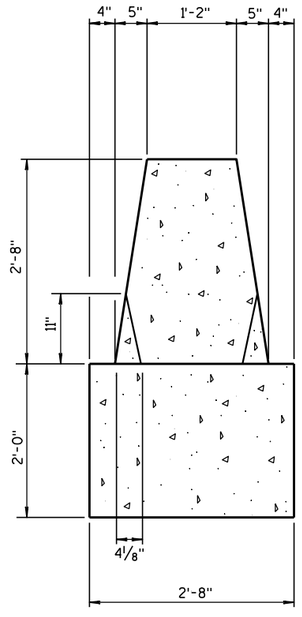


SECTION A-A

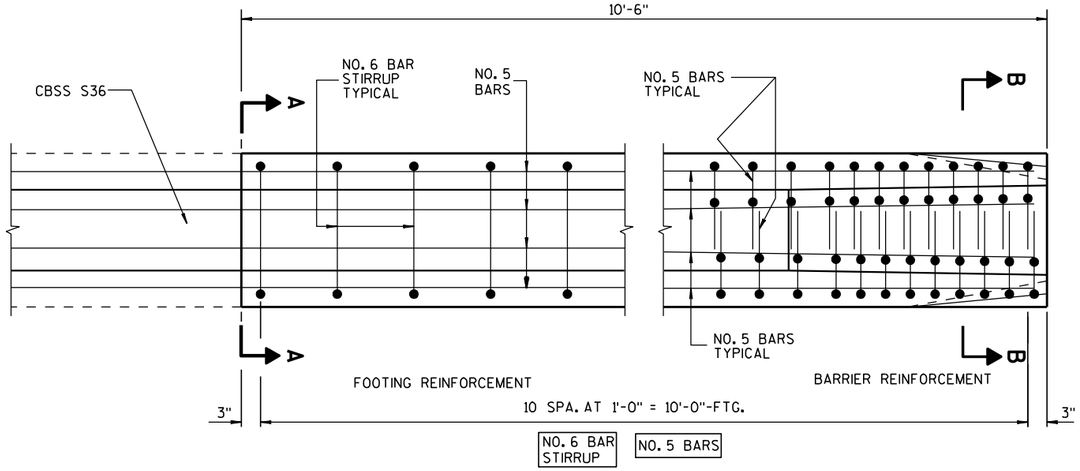


SEE SECTIONS (1) THRU (16)

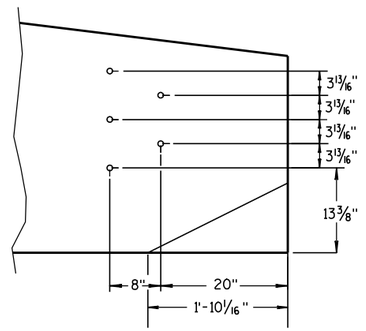
ELEVATION VIEW



SECTION B-B



PLAN VIEW



PVC PIPE LOCATIONS

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

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INSTALL SCHEDULE 40 PVC PIPE 1" DIAMETER AT LOCATIONS INDICATED.

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

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

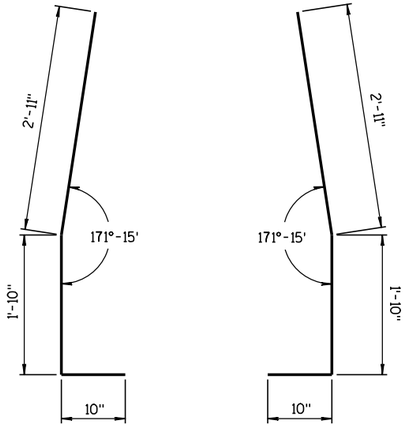
2" CLEAR COVER TYPICAL.

CONCRETE BARRIER SINGLE SLOPE 36" THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

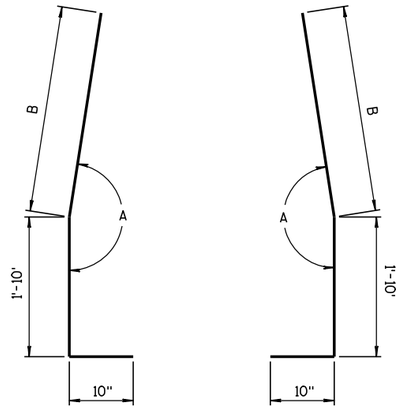
S.D.D. 14 B 33-1d



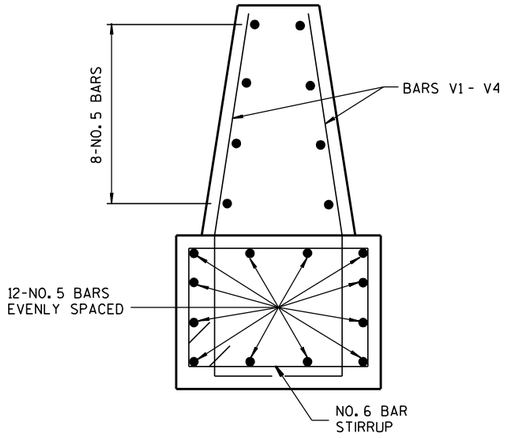
BAR BENDING DETAIL
FOR BARS V1 - V6

BAR CHART
SECTIONS V7 - V11

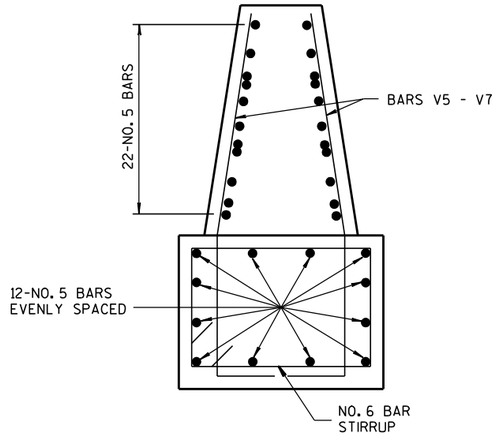
BAR	A	B
V7	171°-20'	2'-10½"
V8	171°-10'	2'-9½"
V9	171°-10'	2'-9"
V10	171°-05'	2'-8½"
V11	171°-10'	2'-8"



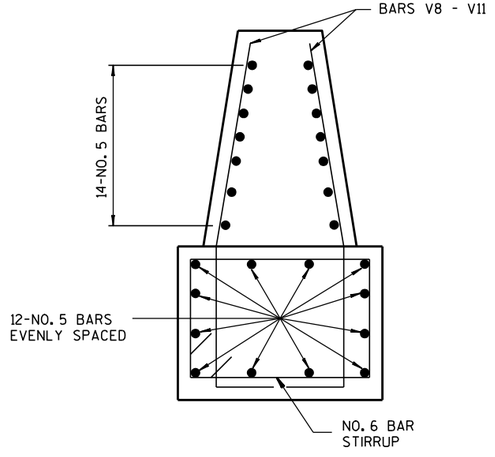
BAR BENDING DETAIL
FOR BARS V7 - V11



BAR DETAIL
SECTIONS 1 - 4



BAR DETAIL
SECTIONS 5 - 7



BAR DETAIL
SECTIONS 8 - 11

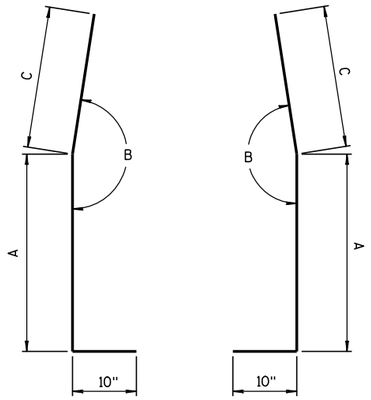
CONCRETE BARRIER
SINGLE SLOPE 36"
THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6
S.D.D. 14 B 33-1e

BAR CHART
SECTIONS V12 - V13

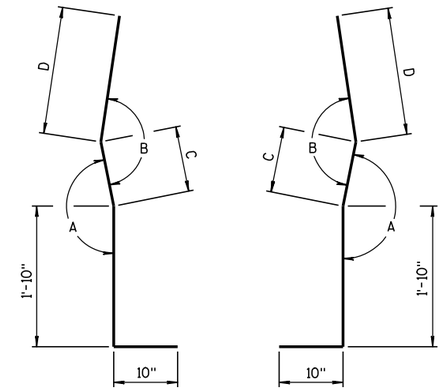
BAR	A	B	C
V12	2'-2"	171°-15'	2'-3½"
V13	2'-7"	171°-05'	1'-10"



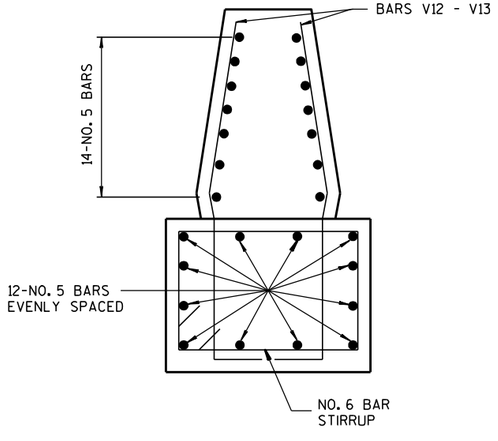
BAR BENDING DETAIL
FOR BARS V12 - V13

BAR CHART
SECTIONS V14 - V16

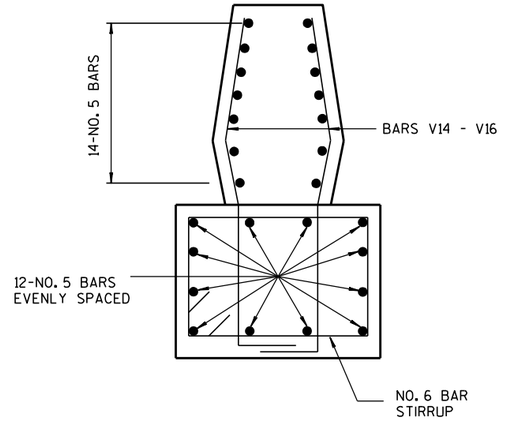
BAR	A	B	C	D
V14	168°-15'	159°-15'	6"	2'-0"
V15	169°-20'	161°-00'	8"	1'-10"
V16	168°-40'	160°-10'	10"	1'-8"



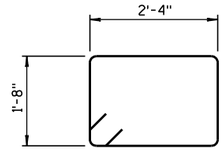
BAR BENDING DETAIL
FOR BARS V14 - V16



BAR DETAIL
SECTIONS 12 - 13



BAR DETAIL
SECTIONS 14 - 16



STIRRUP BAR
BENDING DETAIL

CONCRETE BARRIER
SINGLE SLOPE 36"
THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

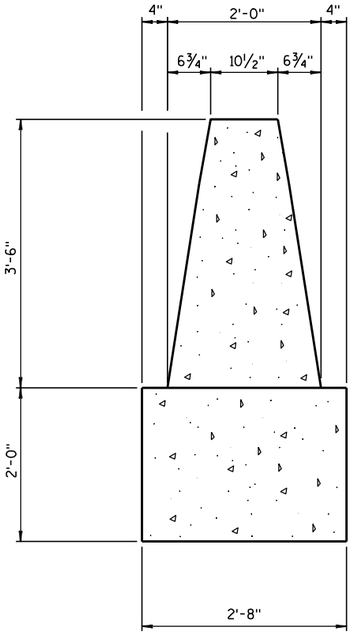
6-3-2010
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

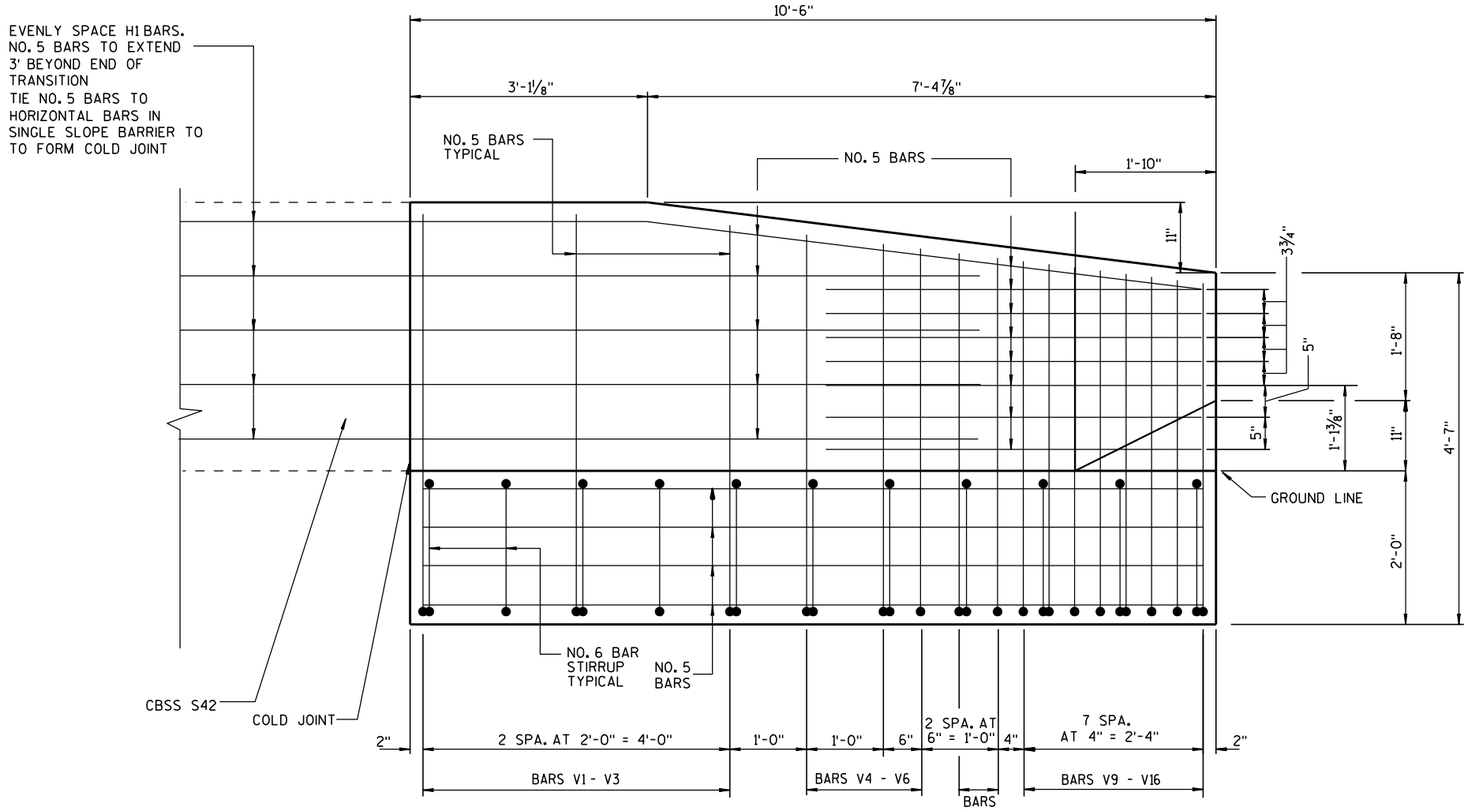
FHWA

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S.D.D. 14 B 33-1f

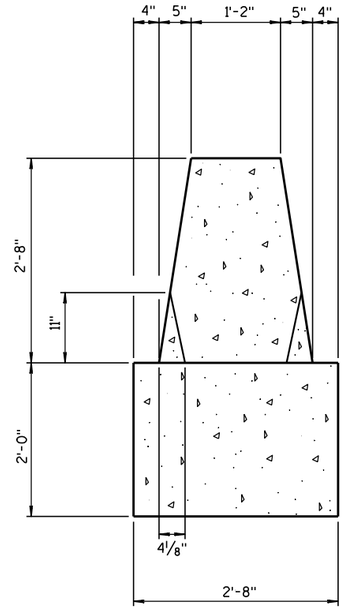


SECTION A-A

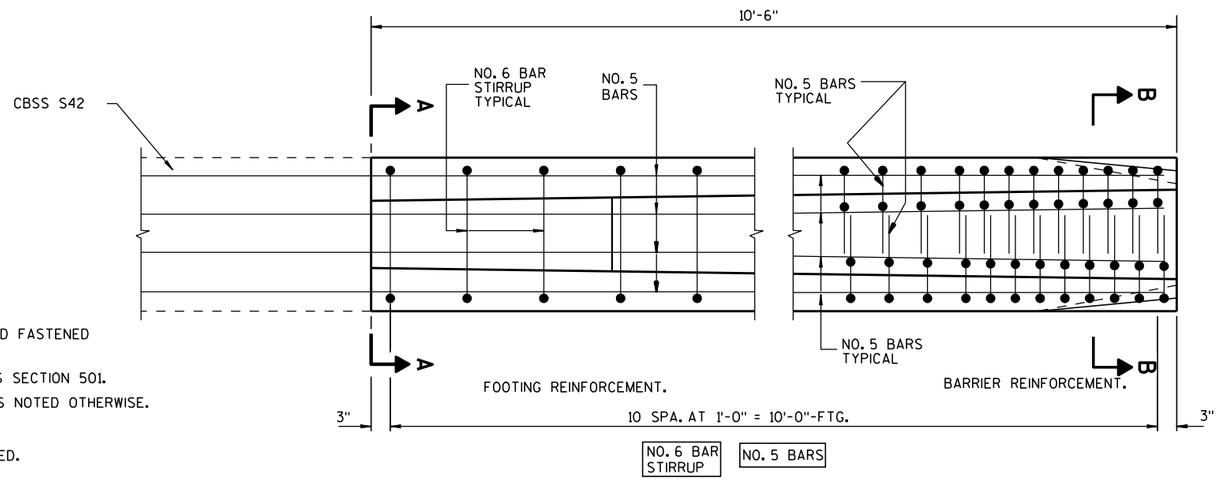


SEE SECTIONS ① THRU ⑯

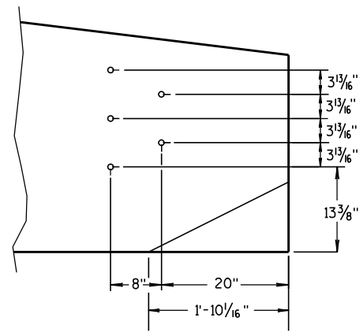
ELEVATION VIEW



SECTION B-B



PLAN VIEW



PVC PIPE LOCATIONS

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

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

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.

USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

THRIE BEAM ANCHOR INCIDENTAL TO CONCRETE BARRIER ITEM.

INSTALL SCHEDULE 40 PVC PIPE 1" DIAMETER AT LOCATIONS INDICATED.

EXTEND PVC PIPE COMPLETELY THROUGH BARRIER.

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

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

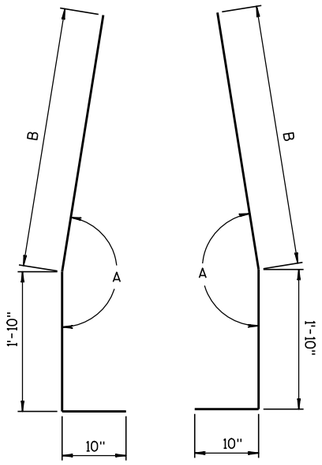
CONCRETE BARRIER SINGLE SLOPE 42" THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 33-1g

BAR CHART
SECTIONS V1 - V11

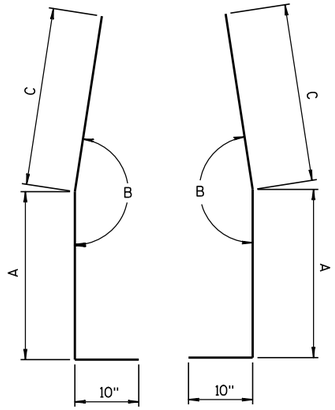
BAR	A	B
V1	170°-50'	3'-4½"
V2	171°-20'	3'-4½"
V3	171°-30'	3'-2½"
V4	171°-25'	3'-1½"
V5	171°-15'	3'-0"
V6	171°-15'	2'-11"
V7	171°-20'	2'-10½"
V8	171°-10'	2'-9½"
V9	171°-10'	2'-9"
V10	171°-05'	2'-8½"
V11	171°-10'	2'-8"



BAR BENDING DETAIL
FOR BARS V1 - V11

BAR CHART
SECTIONS V12 - V13

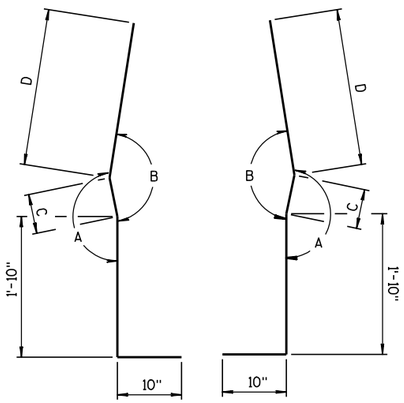
BAR	A	B	C
V12	2'-2"	171°-15'	2'-3½"
V13	2'-7"	171°-05'	1'-10"



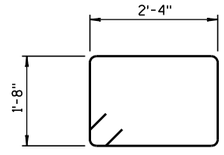
BAR BENDING DETAIL
FOR BARS V12 - V13

BAR CHART
SECTIONS V14 - V16

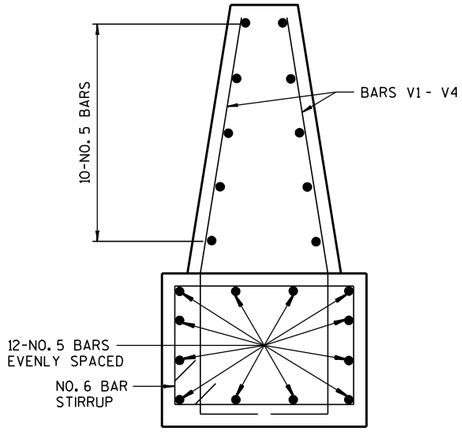
BAR	A	B	C	D
V14	168°-15'	159°-15'	6"	2'-0"
V15	169°-20'	161°-00'	8"	1'-10"
V16	168°-40'	160°-10'	10"	1'-8"



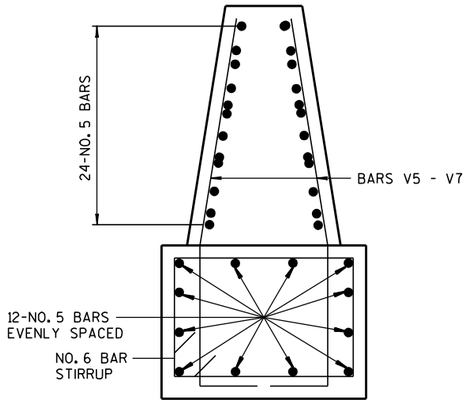
BAR BENDING DETAIL
FOR BARS V14 - V16



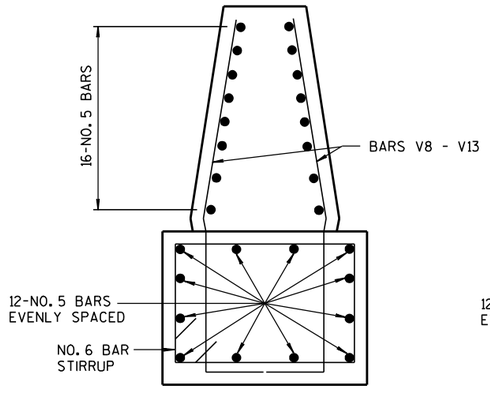
STIRRUP BAR
BENDING DETAIL



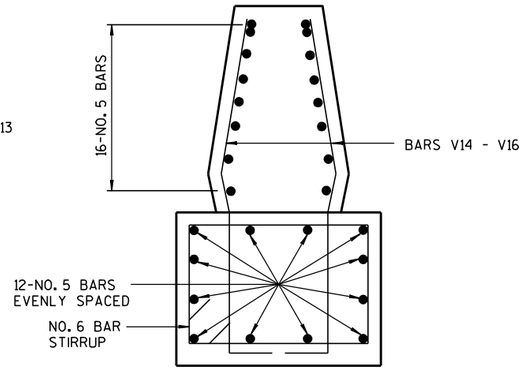
BAR DETAIL
SECTIONS V1 - V4



BAR DETAIL
SECTIONS V5 - V7



BAR DETAIL
SECTIONS V8 - V13



BAR DETAIL
SECTIONS V14 - V16

CONCRETE BARRIER
SINGLE SLOPE 42"
THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6-3-2010 DATE
/S/ Jerry H. Z--- ROADWAY STANDARDS ENGINEER
FHWA

6
S.D.D. 14 B 33-1h

GENERAL NOTES

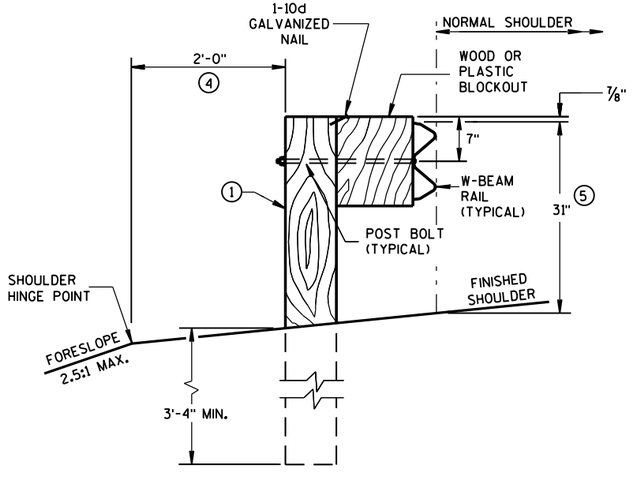
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

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 2½INCHES 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.

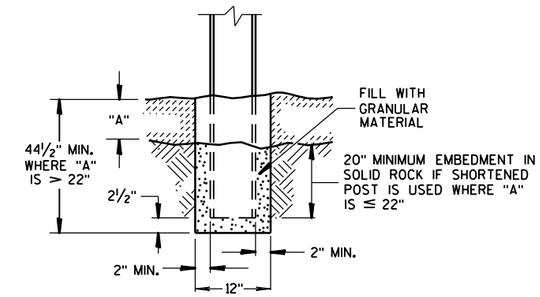
4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

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".



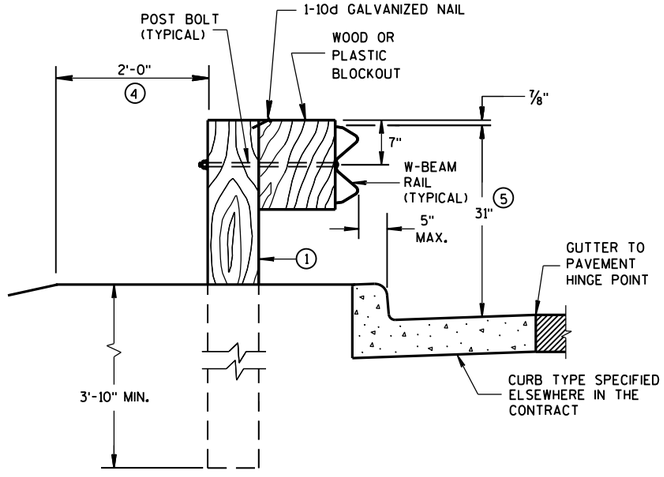
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



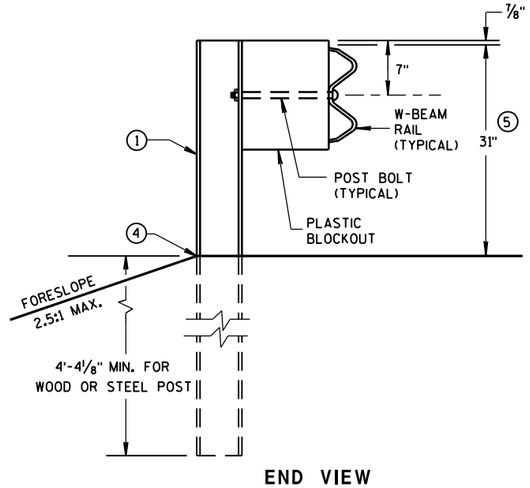
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



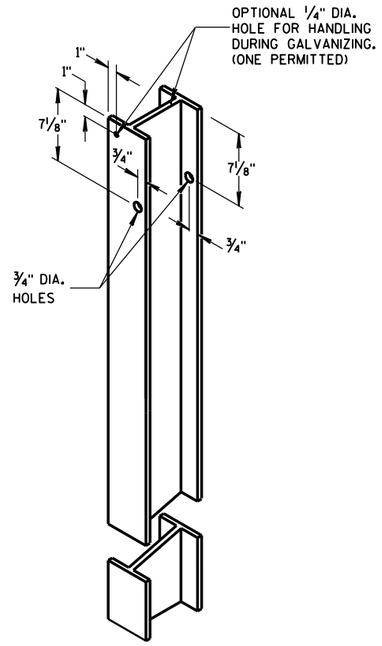
END VIEW

LOCATED ALONG A CURBED ROADWAY

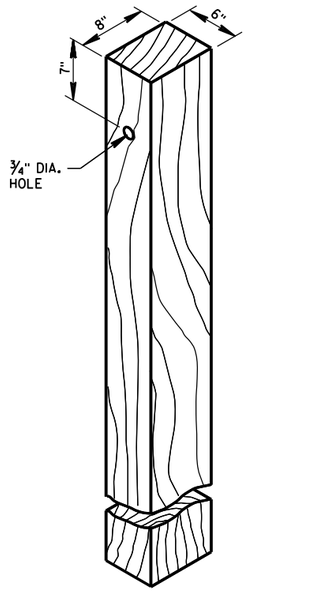


END VIEW

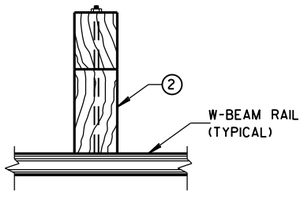
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



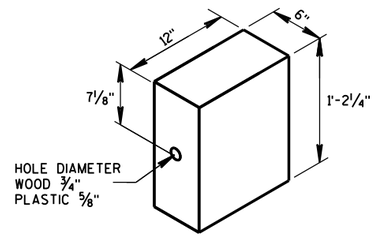
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



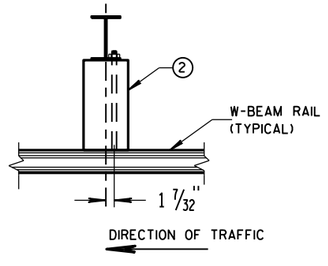
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

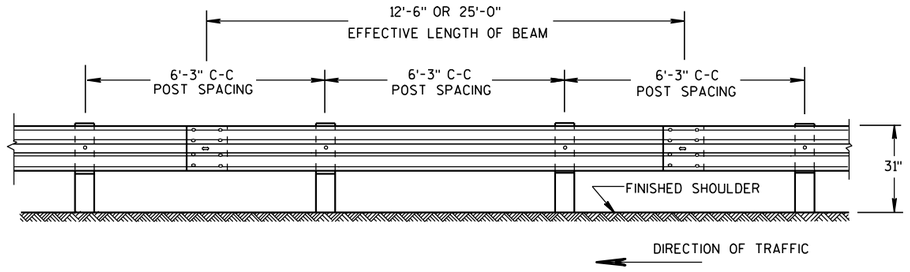


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

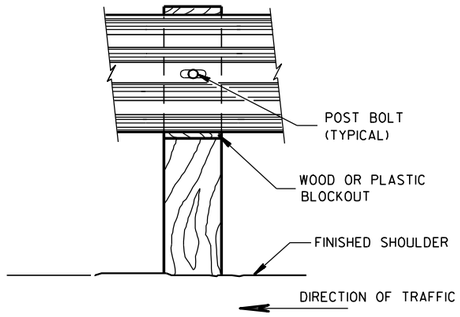
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 42-2a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



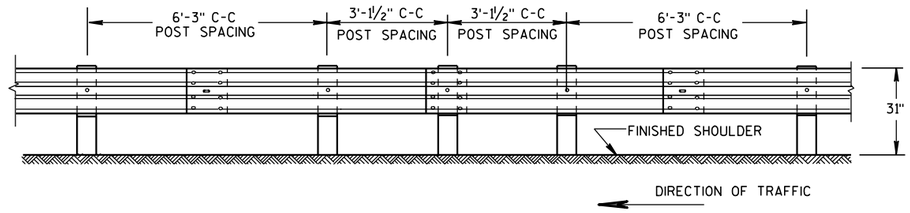
FRONT VIEW AT WOOD POST

GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. 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.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

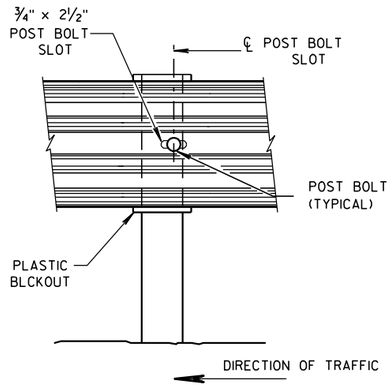
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

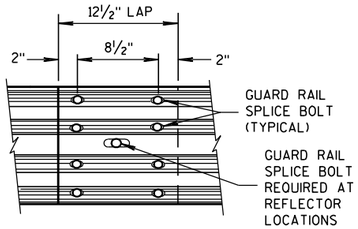


FRONT VIEW

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

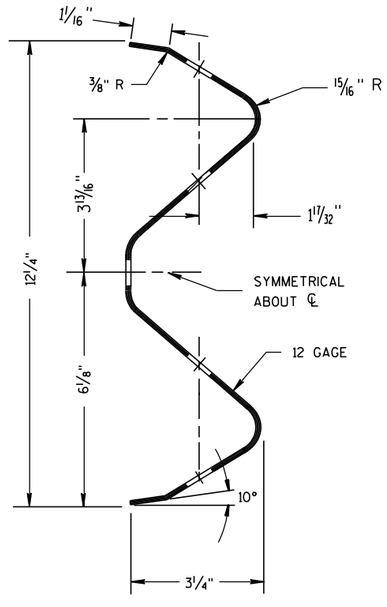


FRONT VIEW AT STEEL POST

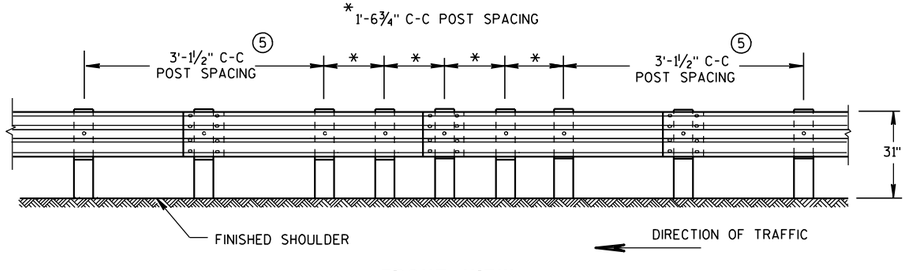


FRONT VIEW

MID-SPAN BEAM SPLICE

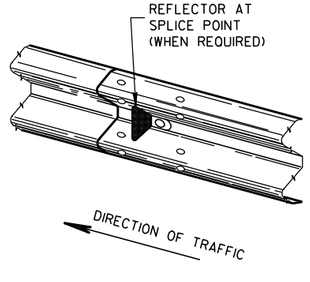


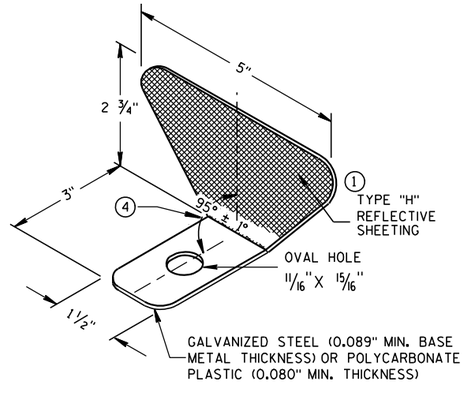
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①

REFLECTOR SPACING ②

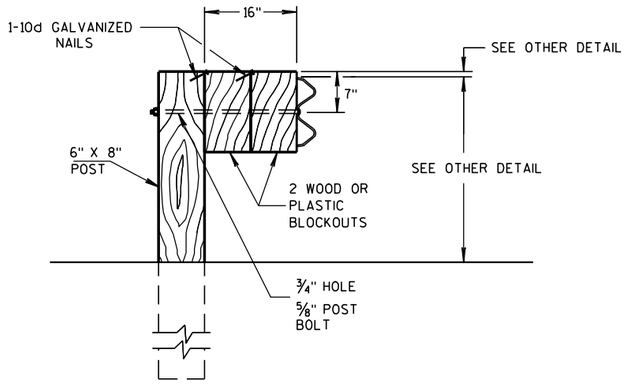
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 ③ 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 ④ 2	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

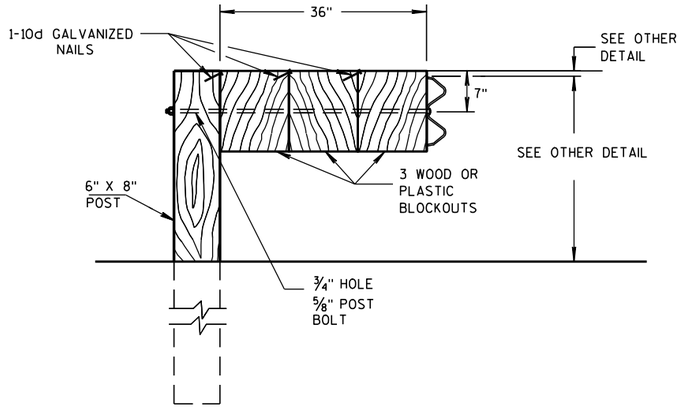
S.D.D. 14 B 42-2b

S.D.D. 14 B 42-2b



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.

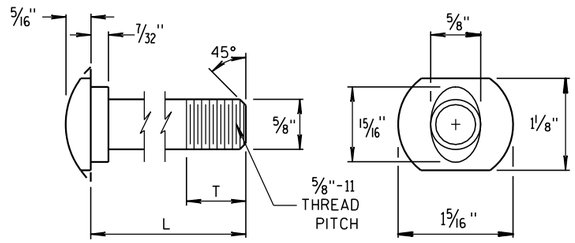


DETAIL FOR 36" BLOCKOUT DEPTH

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.

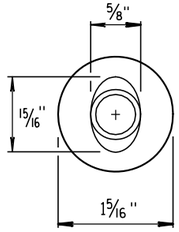
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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.

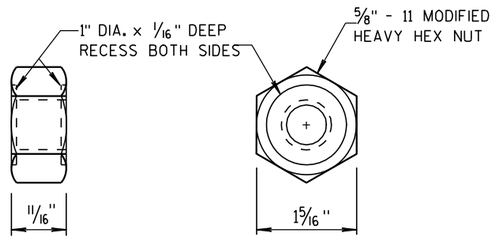


POST BOLT TABLE

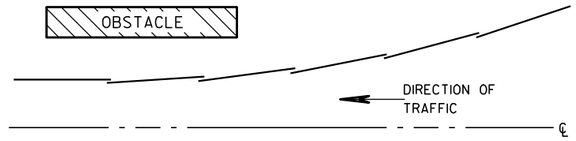
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

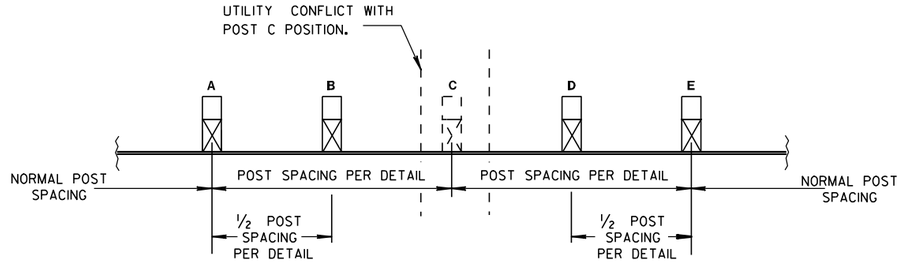


POST BOLT AND RECESS NUT

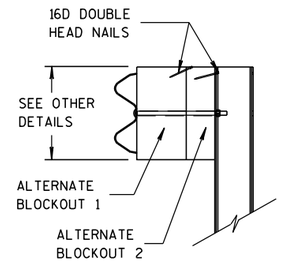


PLAN VIEW

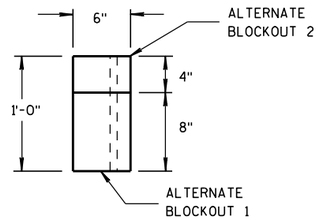
BEAM LAPPING DETAIL



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

11/15/2011
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

ENT

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), 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) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

(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.

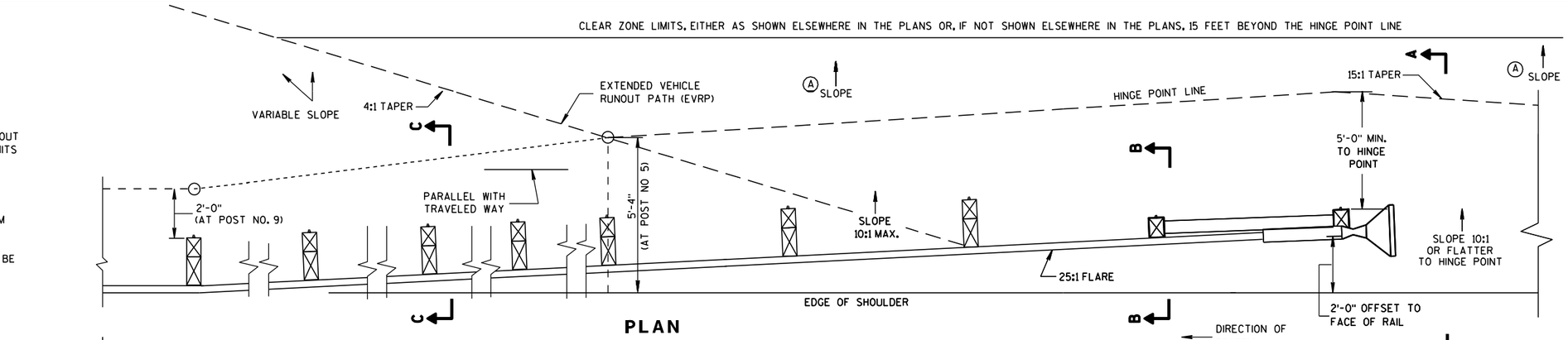
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

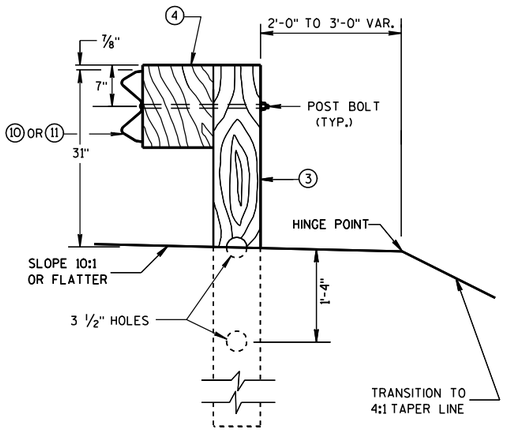
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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.

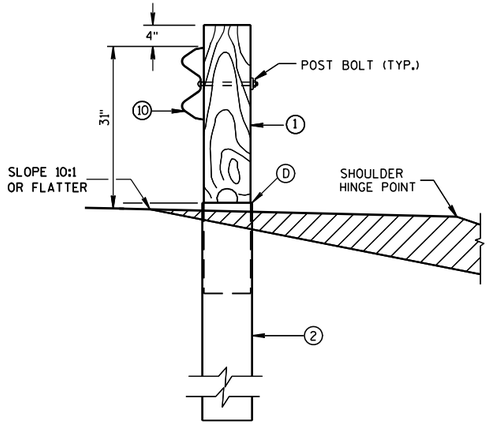
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

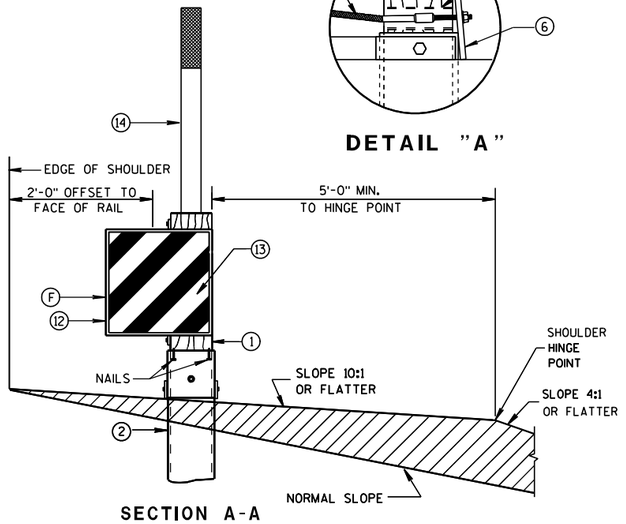




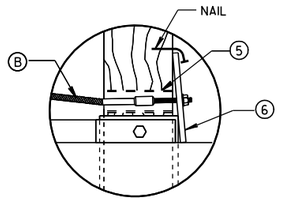
SECTION C-C
TYPICAL AT POST NOS. 3-9



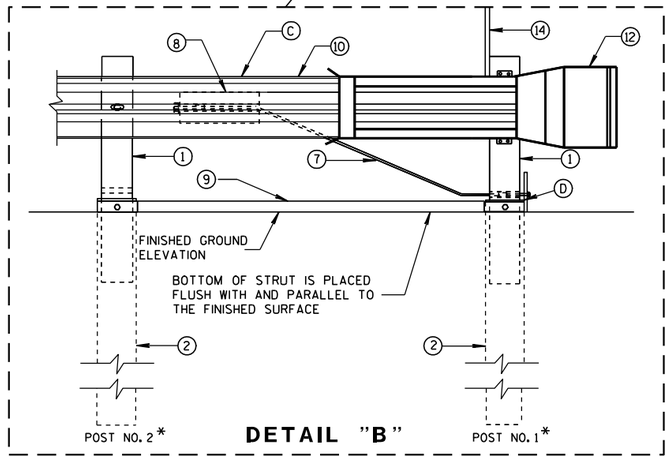
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



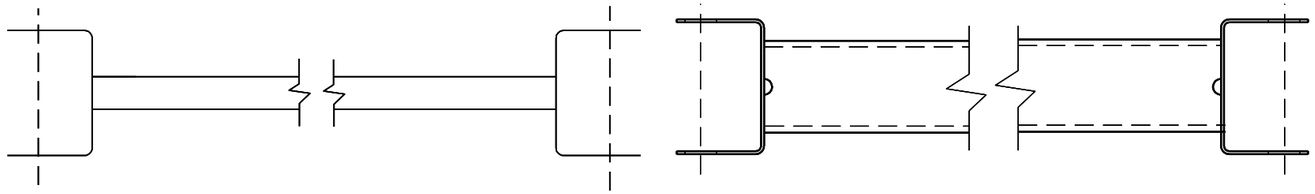
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 14 B 44-1a

6

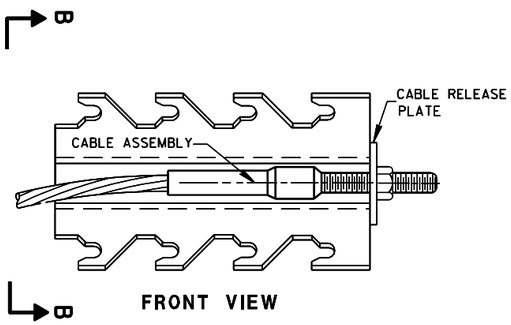


(9) (H)

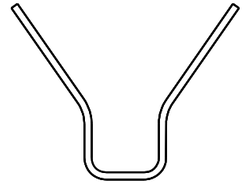
GENERIC GROUND STRUT

BILL OF MATERIALS

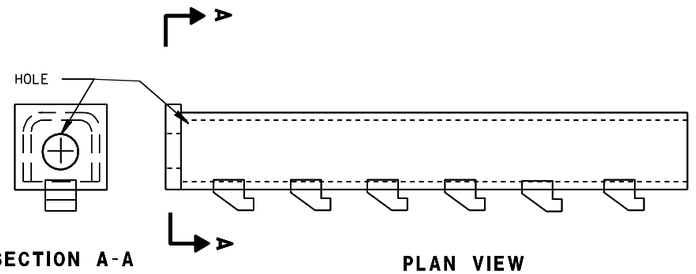
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR 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 H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



FRONT VIEW



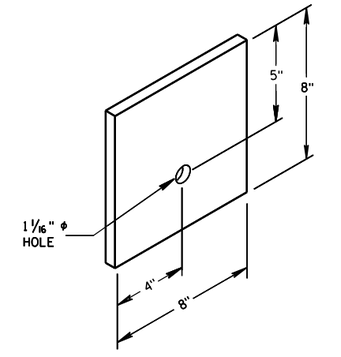
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)

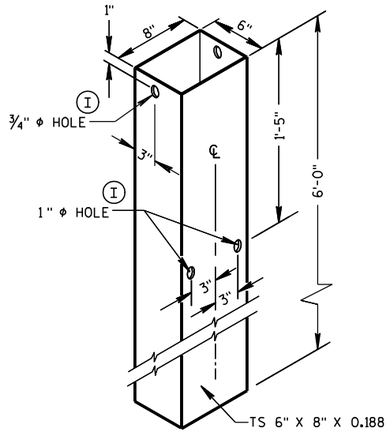


BEARING PLATE (6)

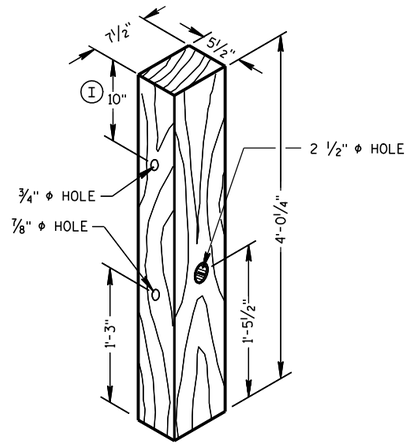
MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 44-1b

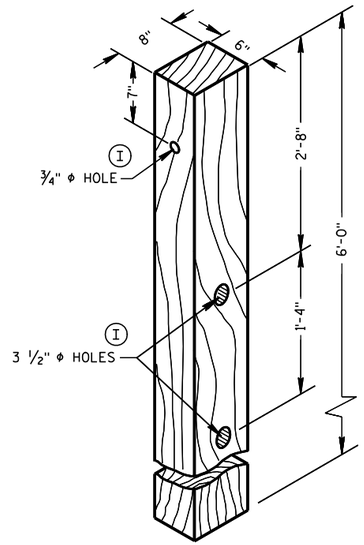


FOUNDATION TUBE (2)



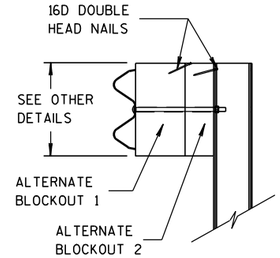
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

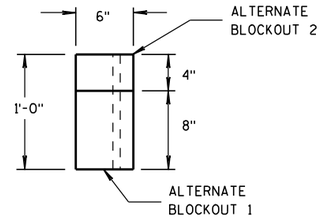


POSTS NUMBER 3-9

WOOD CRT POST (3)

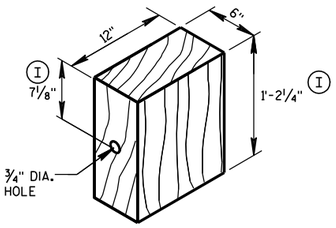


SIDE VIEW



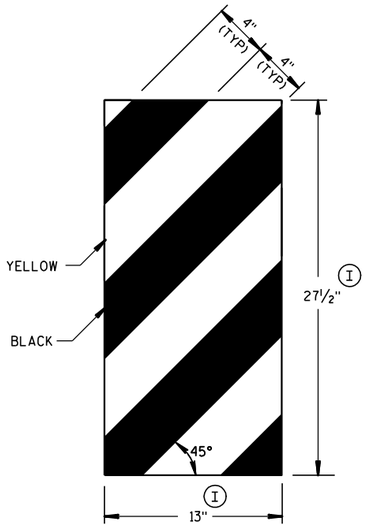
TOP VIEW

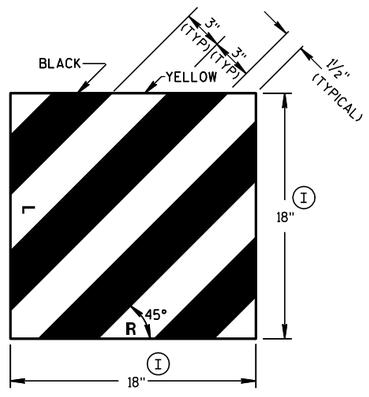
ALTERNATE WOOD BLOCKOUT DETAIL



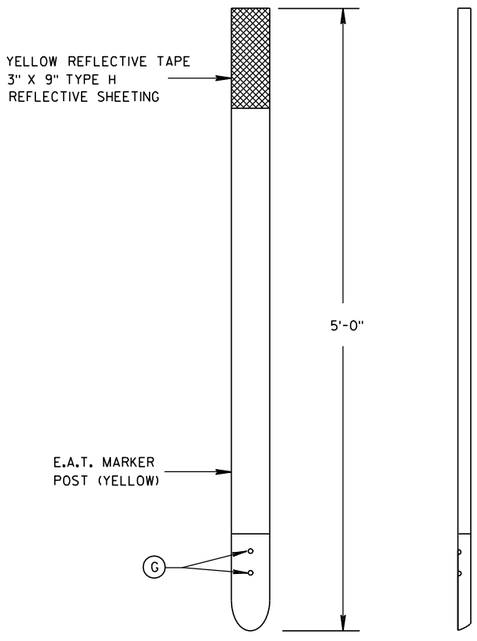
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





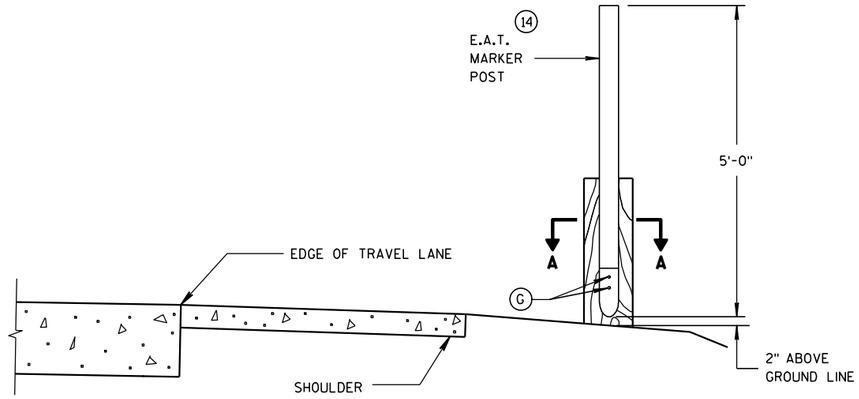
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

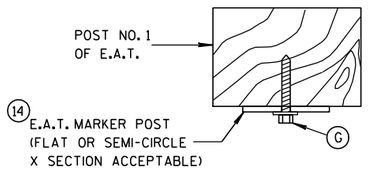
SIDE VIEW

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

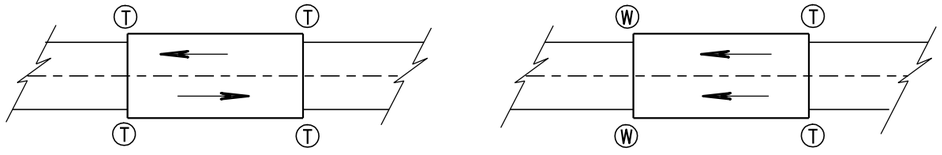
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2011
DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS 352 ENGINEER
FHWA

6

S.D.D. 14 B 44-1c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

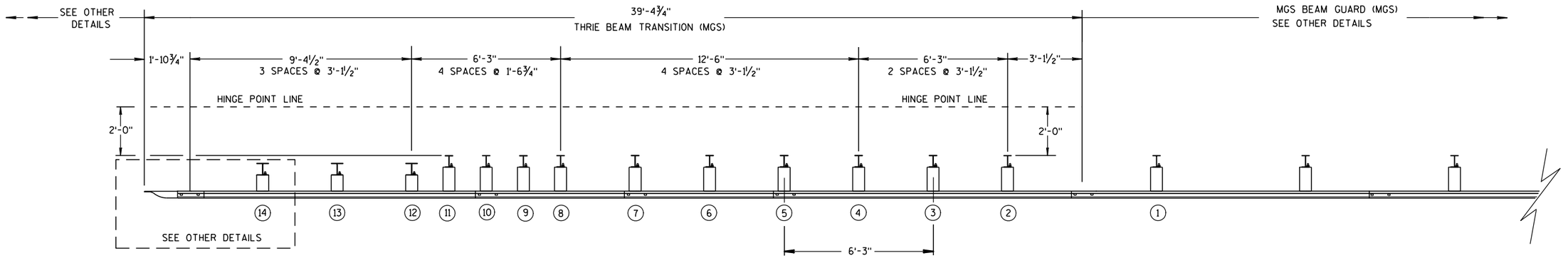
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

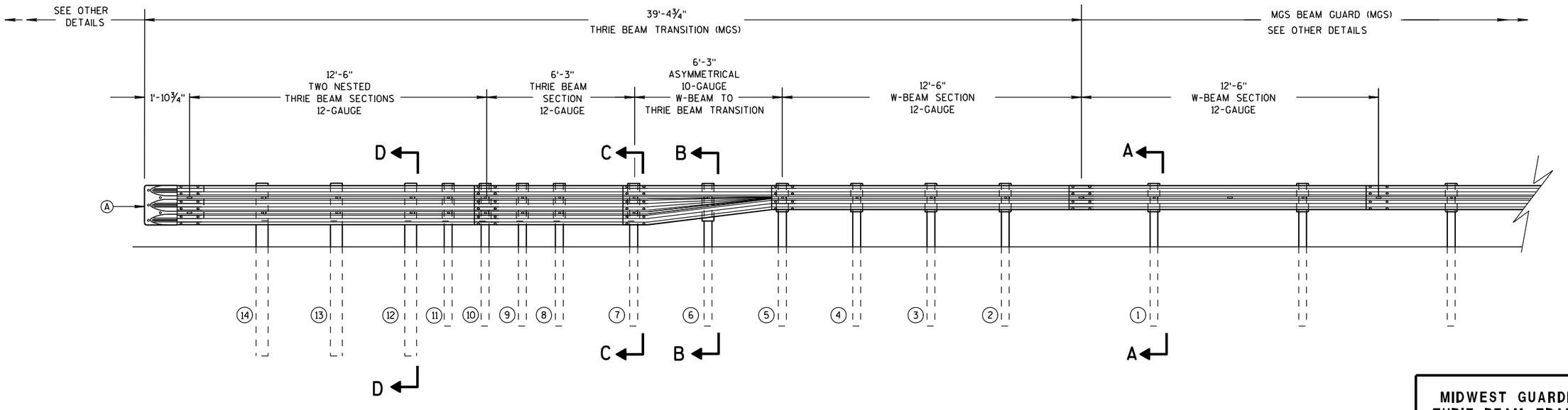
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	353

6

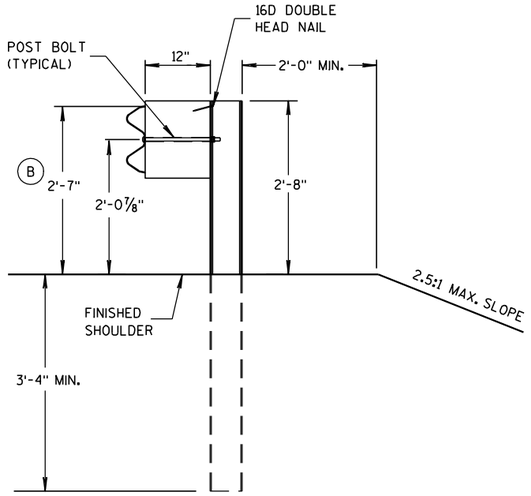
S.D.D. 14 B 45-3a

6

S.D.D. 14 B 45-3a

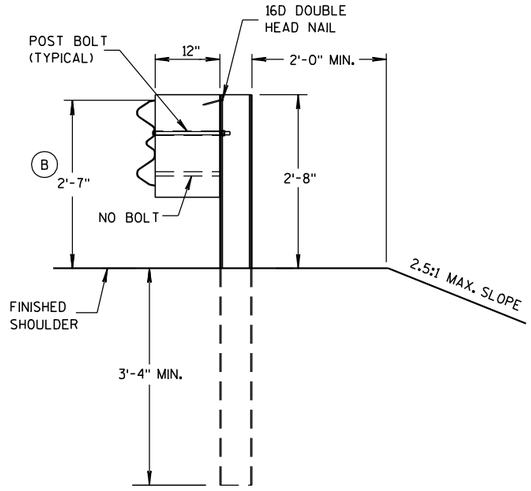
GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



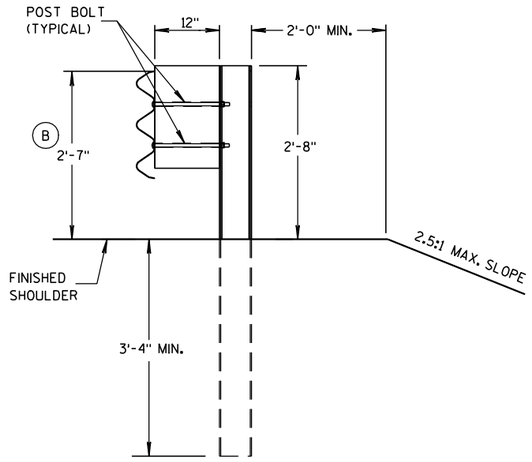
SECTION A-A

POSTS 1-5



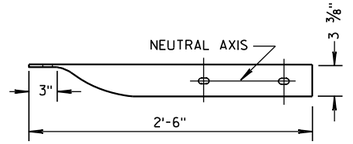
SECTION B-B

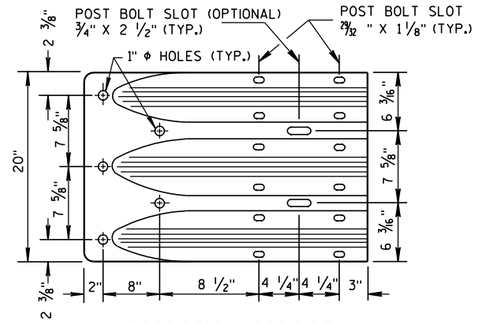
POST 6



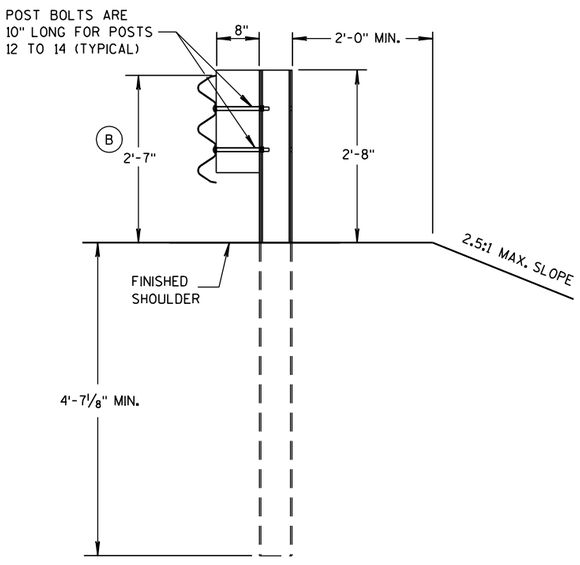
SECTION C-C

POSTS 7-11





THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-14

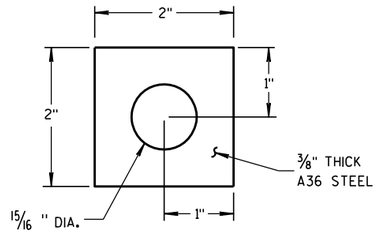
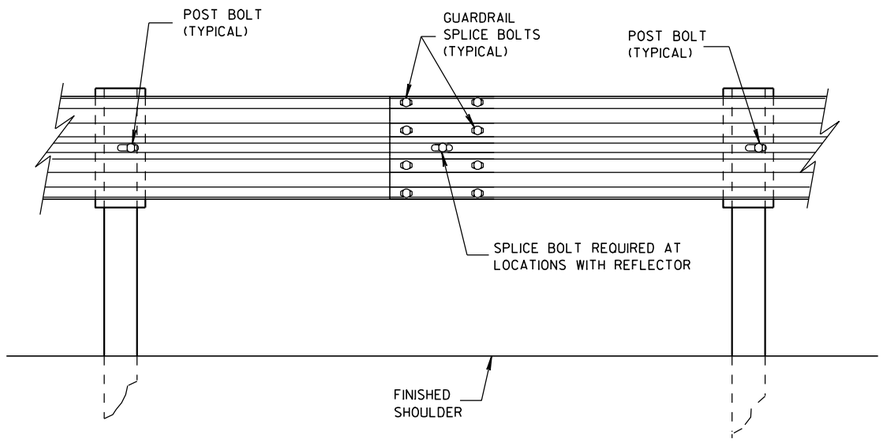
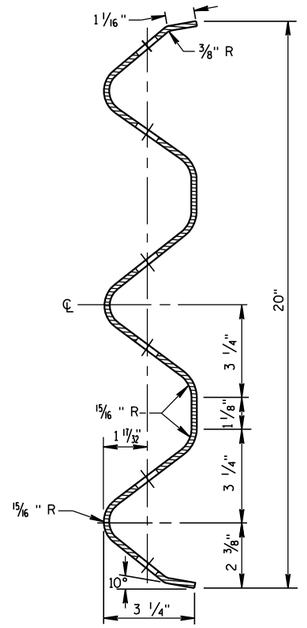


PLATE WASHER DETAIL



SPLICE DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

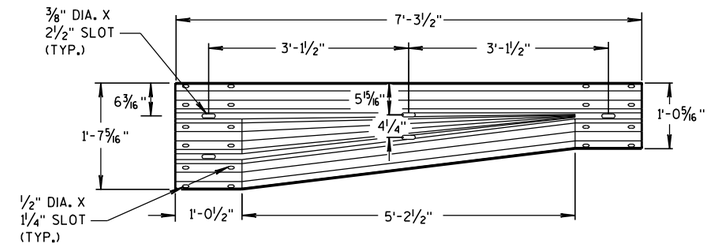
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

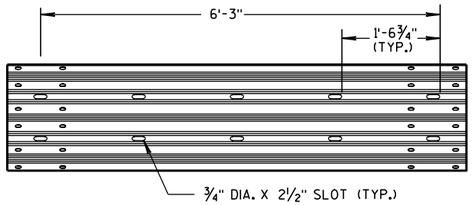
S.D.D. 14 B 45-3b

6

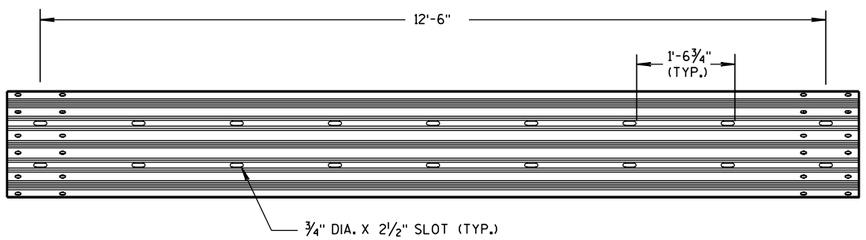
S.D.D. 14 B 45-3b



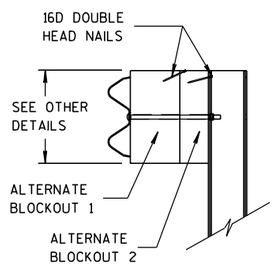
W-BEAM TO THRIE BEAM TRANSITION SECTION



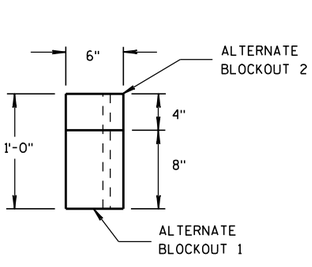
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

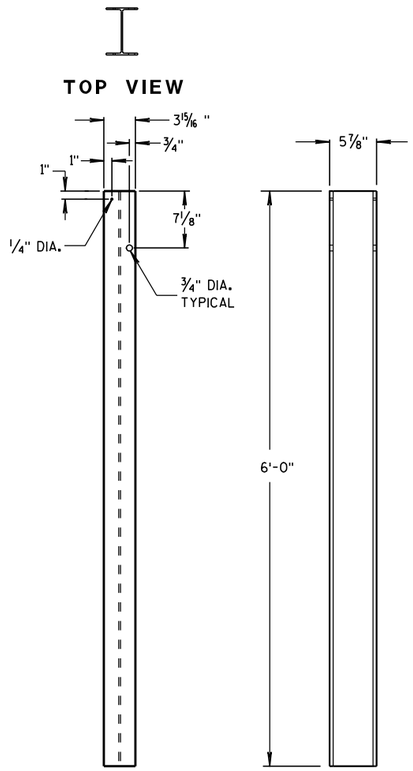


SIDE VIEW

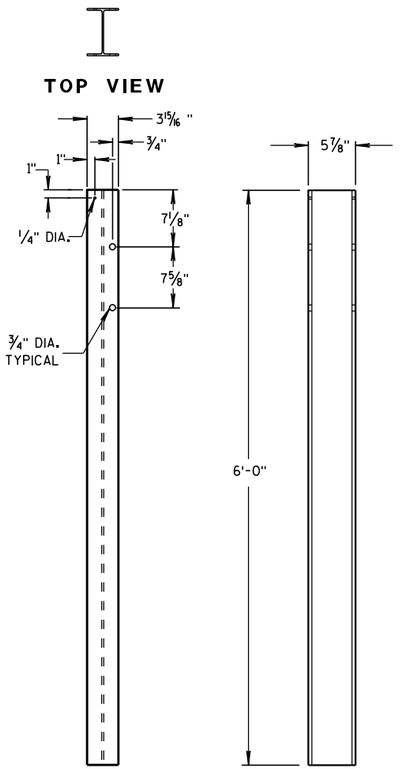


TOP VIEW

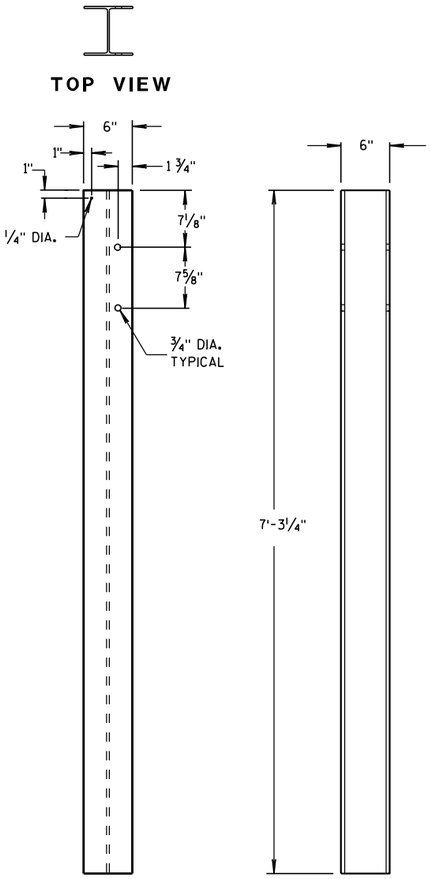
ALTERNATE WOOD BLOCKOUT DETAIL



STEEL POSTS 1-5

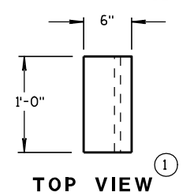


STEEL POSTS 6-11

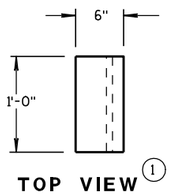


STEEL POSTS 12-14

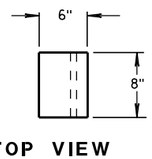
(1) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



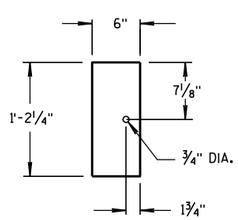
TOP VIEW (1)



TOP VIEW (1)

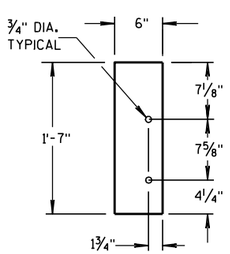


TOP VIEW



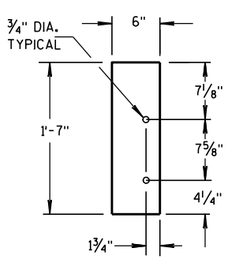
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

BLOCKOUT POSTS 12-14

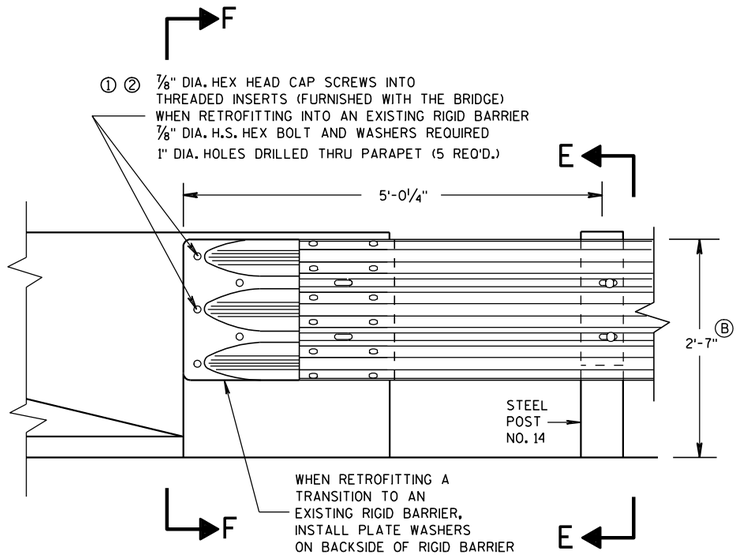
STEEL POST SIZES

POST NUMBER	SECTION TYPE	LENGTH
1	W6x9	72"
2	W6x9	72"
3	W6x9	72"
4	W6x9	72"
5	W6x9	72"
6	W6x9	72"
7	W6x9	72"
8	W6x9	72"
9	W6x9	72"
10	W6x9	72"
11	W6x9	72"
12	W6x15	87 1/8"
13	W6x15	87 1/8"
14	W6x15	87 1/8"

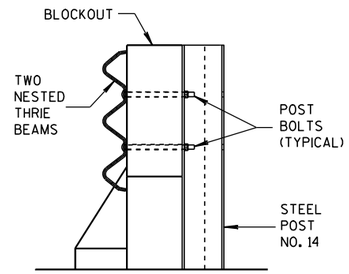
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 45-3c



FRONT VIEW



SECTION E-E

GENERAL NOTES

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

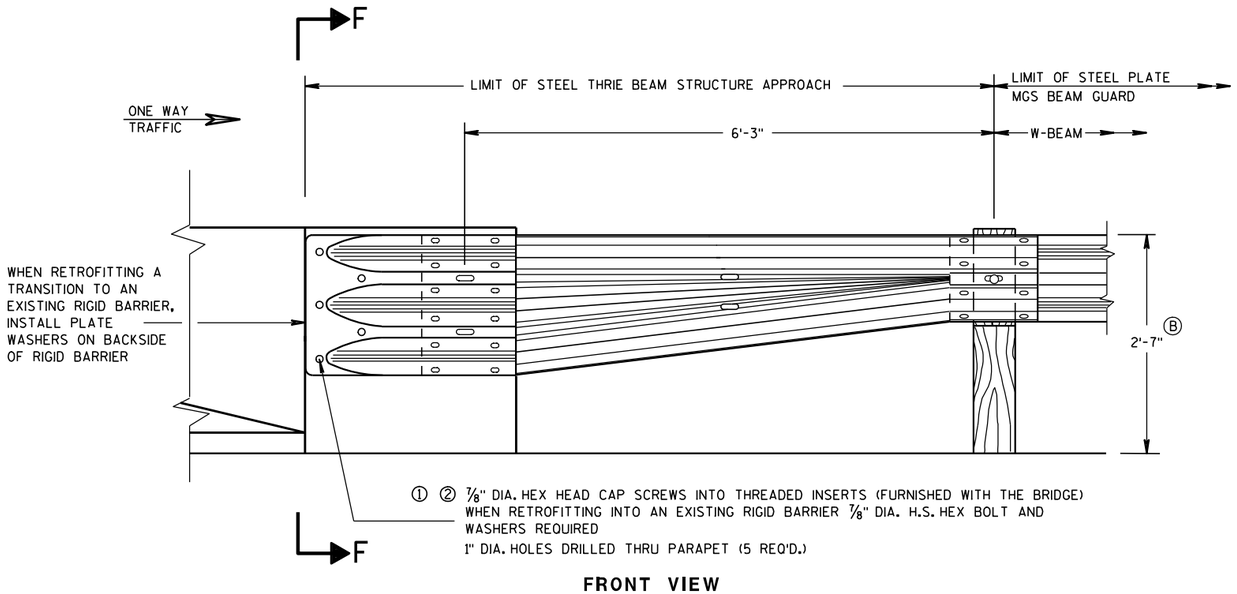
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② 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.

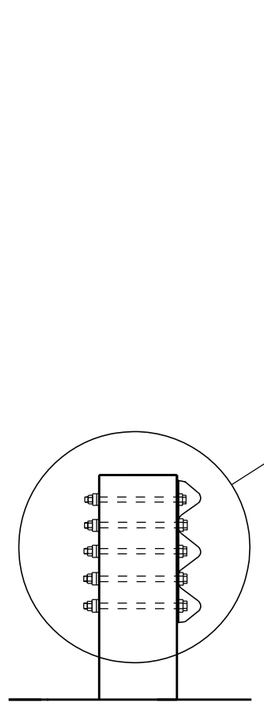
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

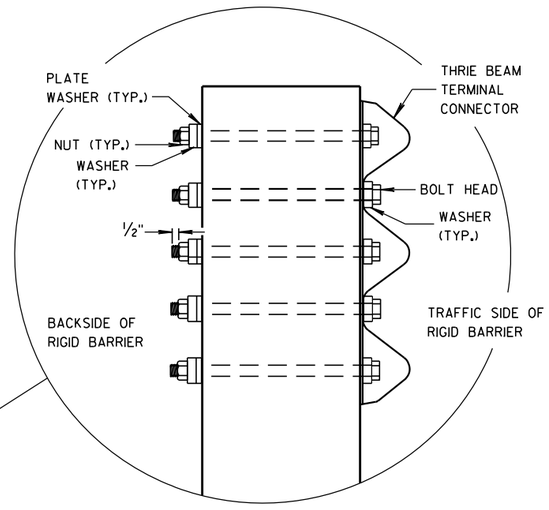
THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW



SECTION F-F



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

8/31/2012
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS [illegible]356 [illegible]ENT
ENGINEER

FHWA

6

S.D.D. 14 B 45-3d

6

S.D.D. 14 B 45-3d

GENERAL NOTES

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

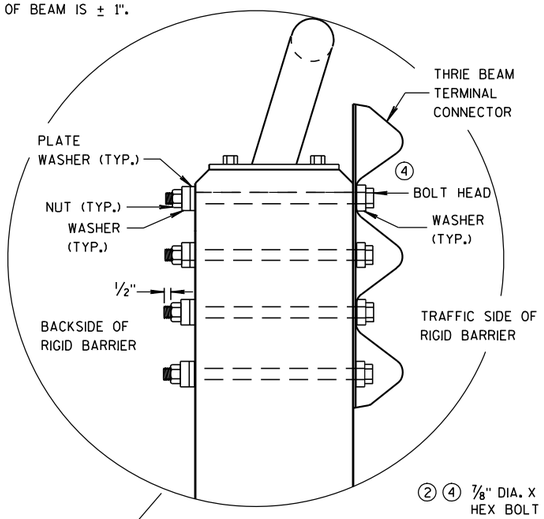
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

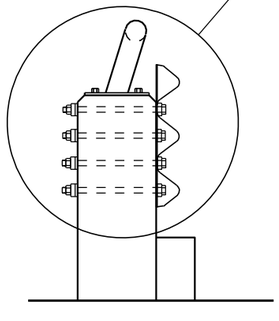
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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.

③ 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". BLOCK IS INCIDENTAL TO THE CONTRACT.

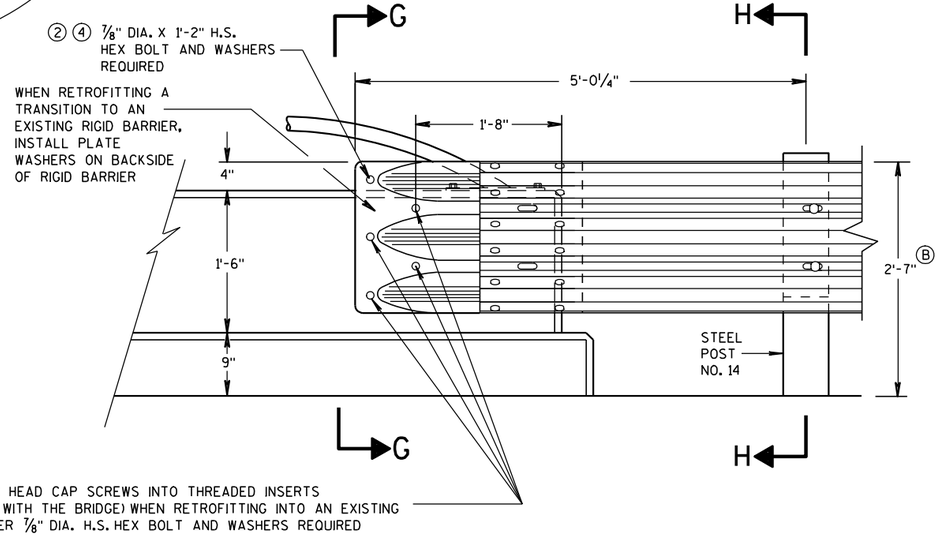
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

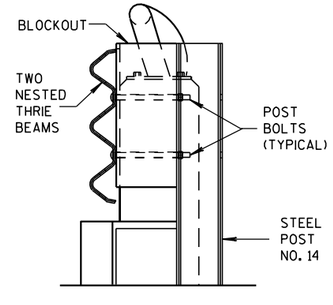




SECTION G-G

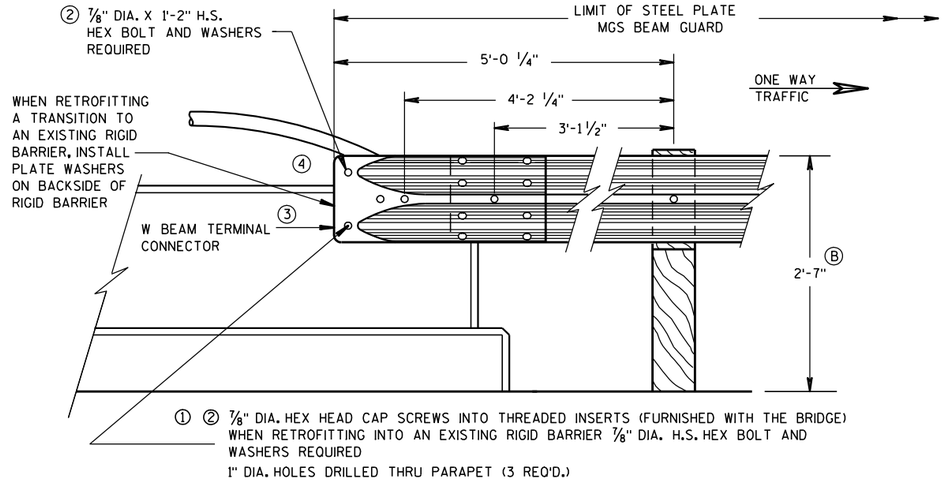


FRONT VIEW



SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

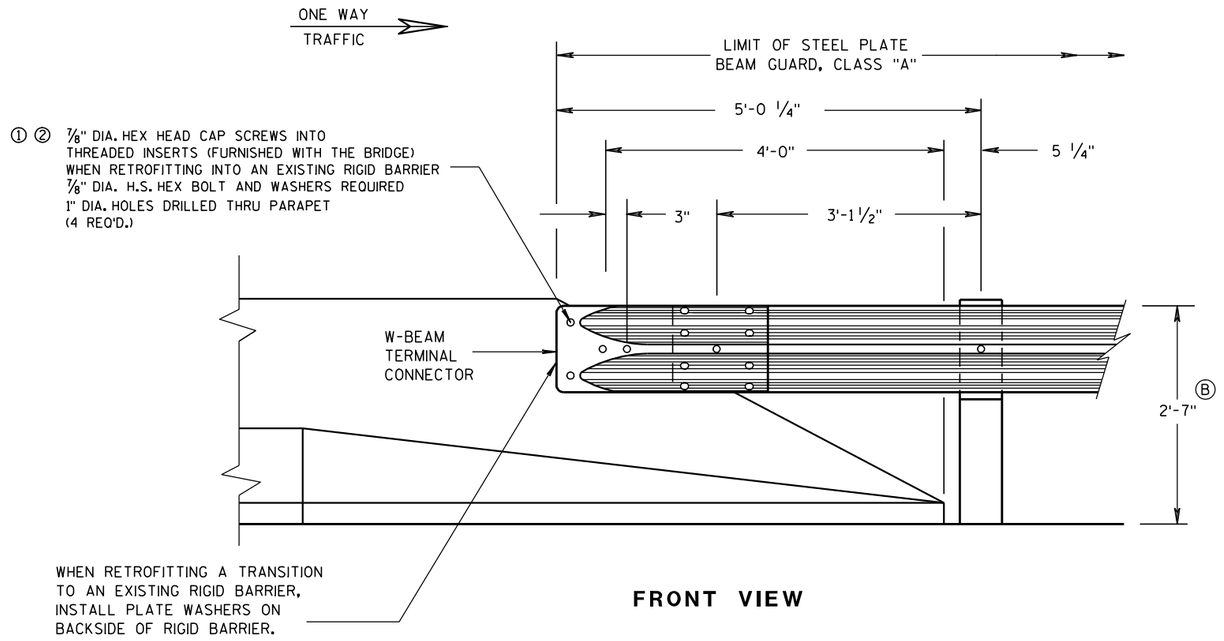


FRONT VIEW

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	
8-31-2012 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

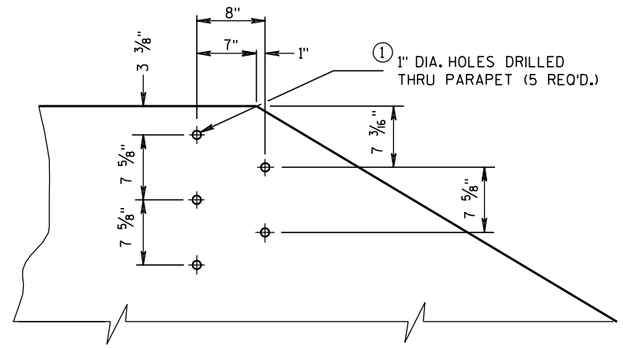
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

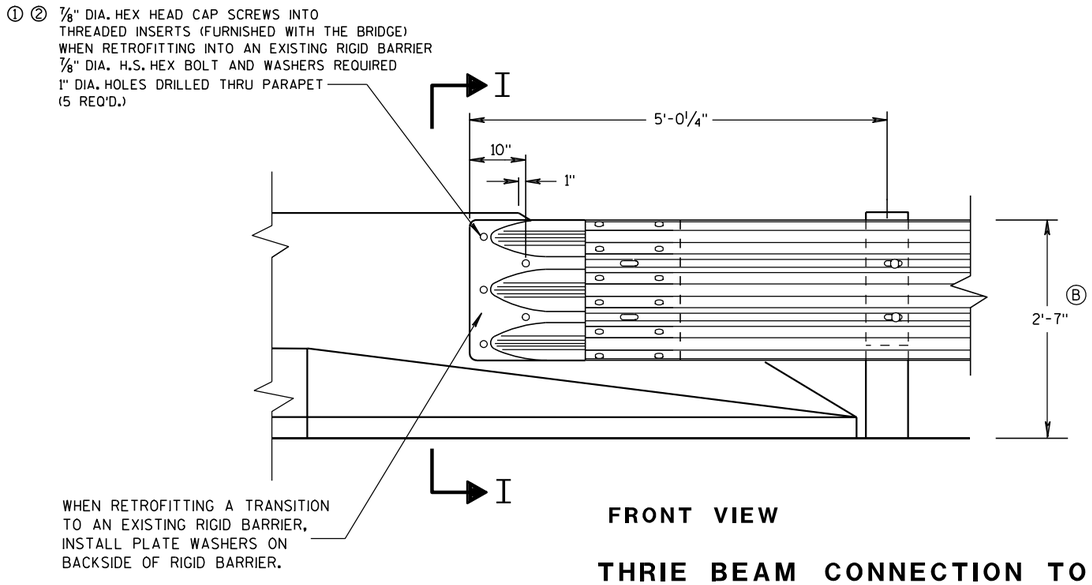
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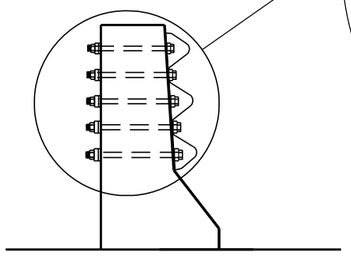
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



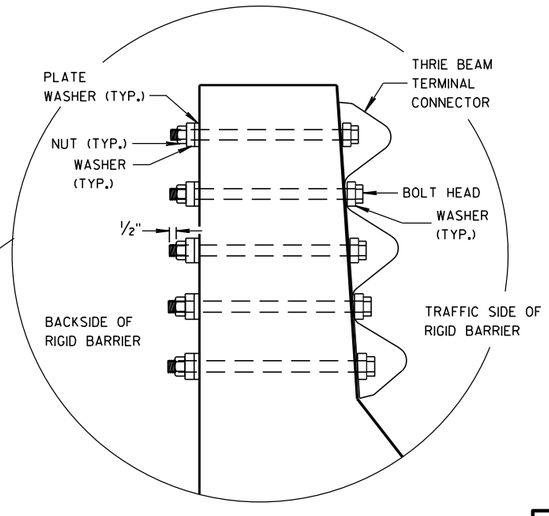
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



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

APPROVED

8/31/2012 DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

358

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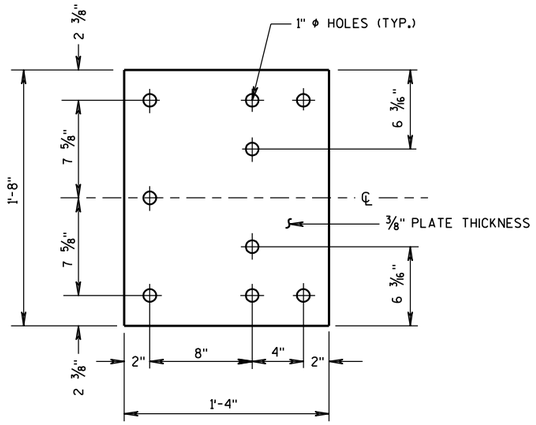
FHWA

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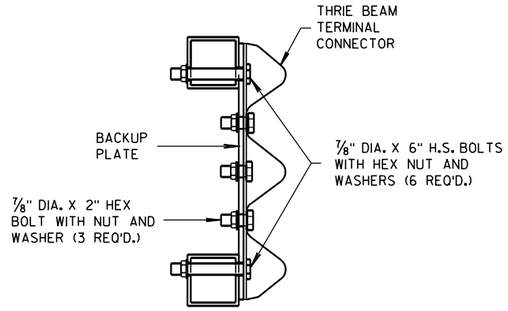
S.D.D. 14 B 45-3f

6

S.D.D. 14 B 45-3f



BACK-UP PLATE DETAIL

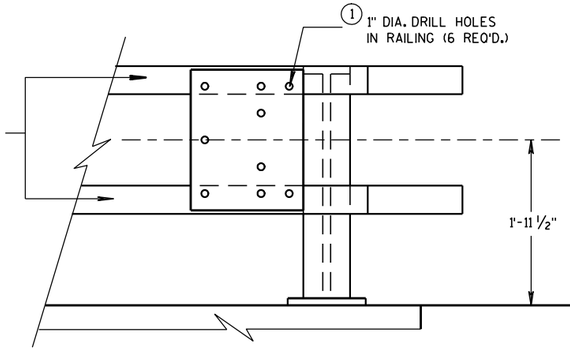


SECTION J-J

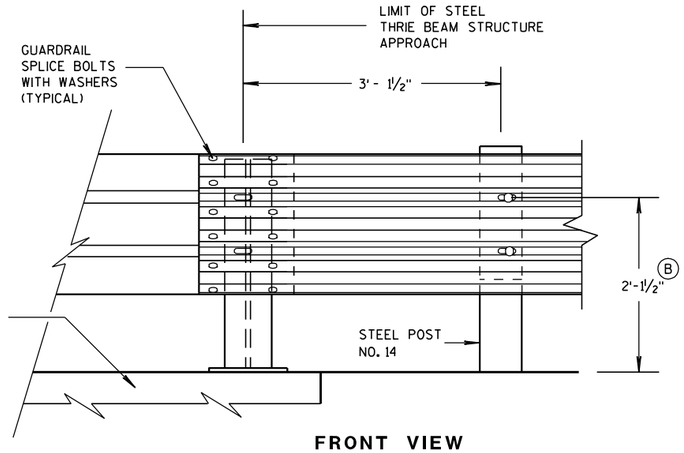
GENERAL NOTES

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

(B) TOLERANCE FOR TOP OF BEAM IS ± 1".

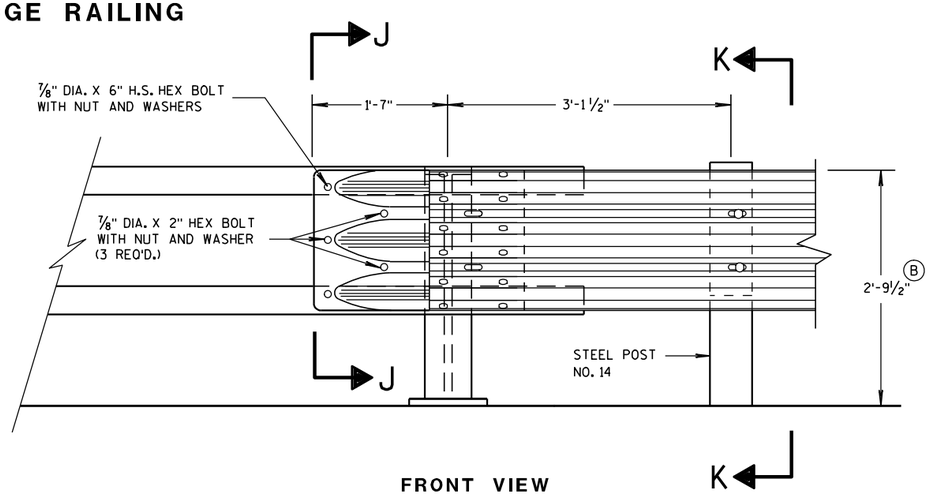


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

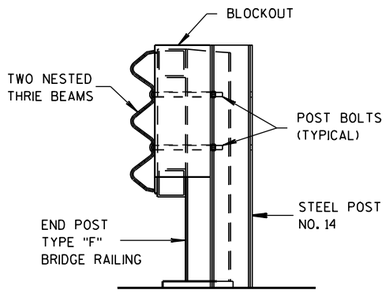


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

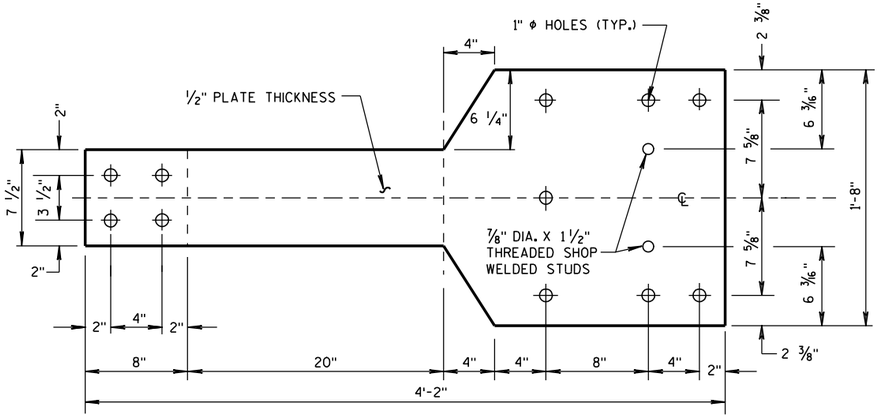
S.D.D. 14 B 45-3g

6

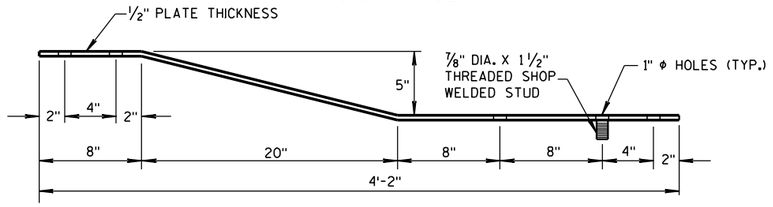
S.D.D. 14 B 45-3g

GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

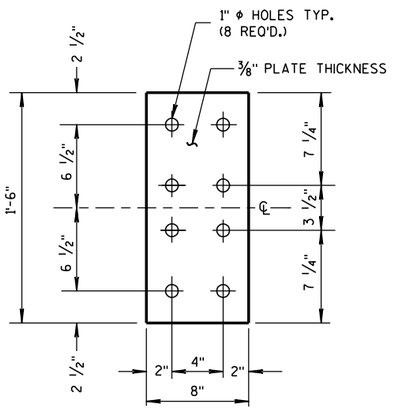


FRONT VIEW



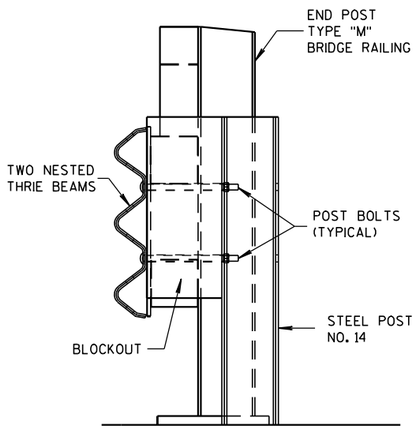
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

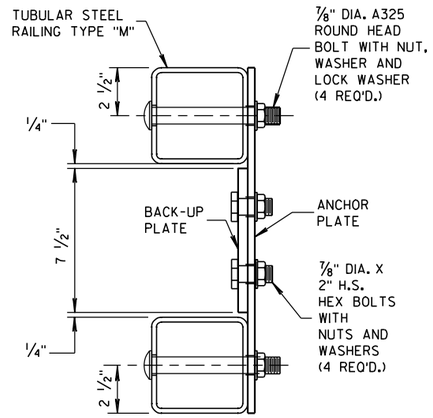


FRONT VIEW

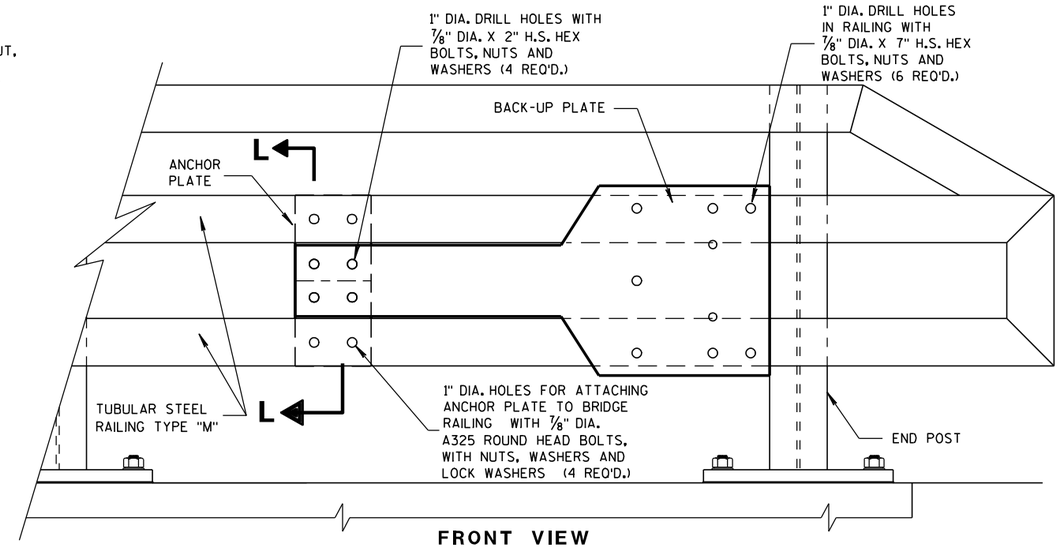
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

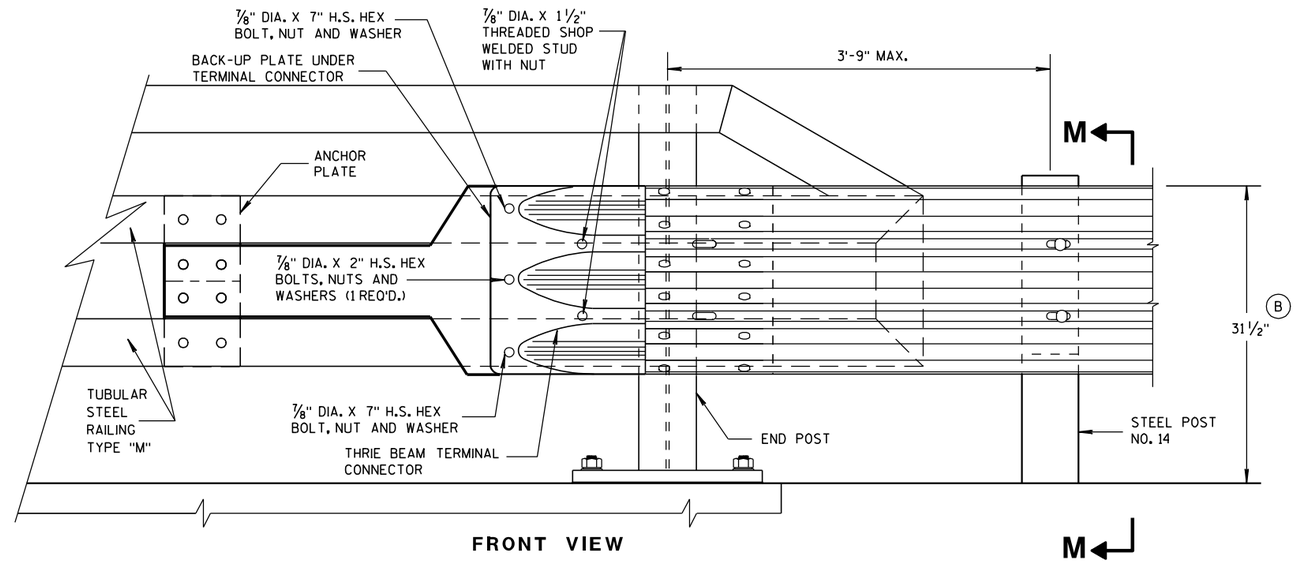


SECTION L-L

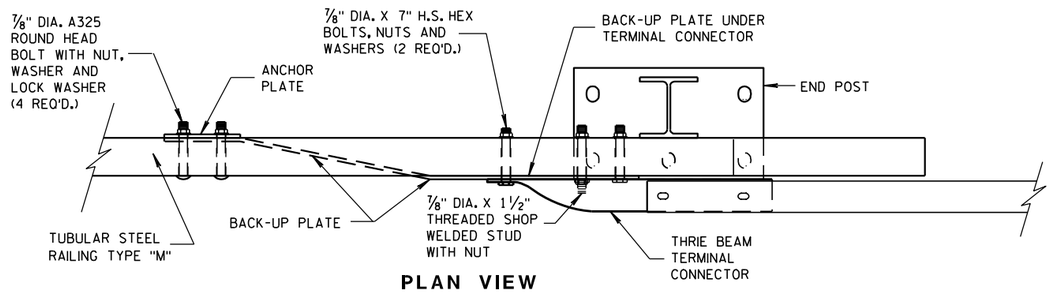


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-31-2012 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
360 ENT
FHWA

6
S.D.D. 14 B 45-3h

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.

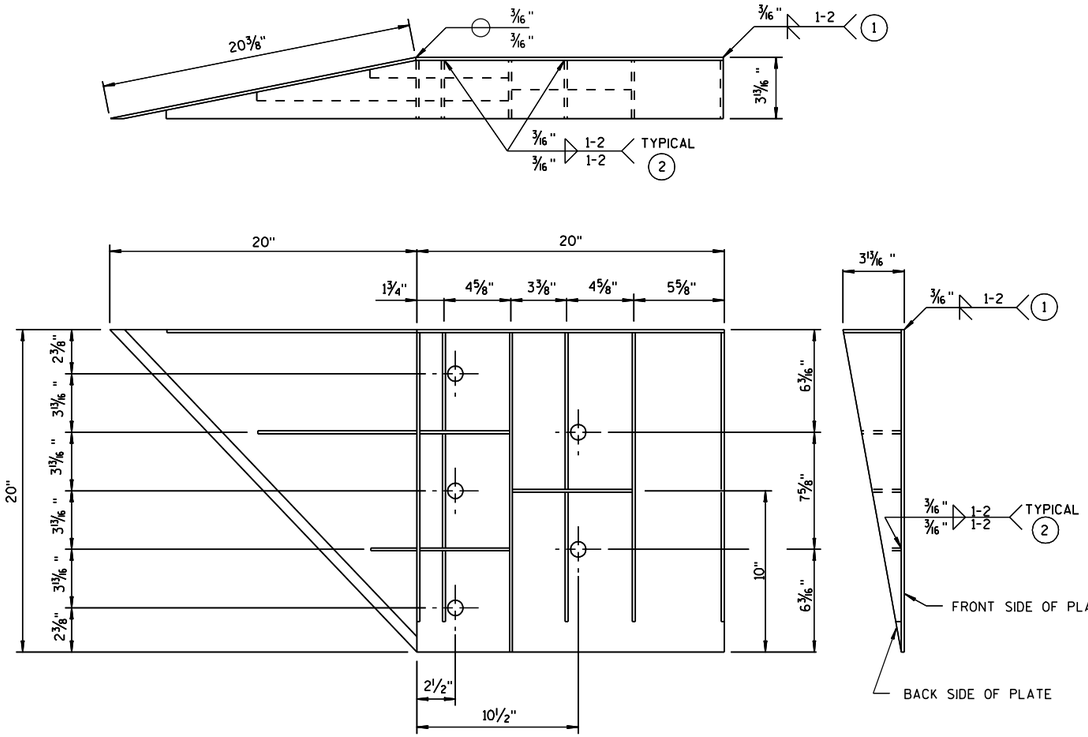
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) 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.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

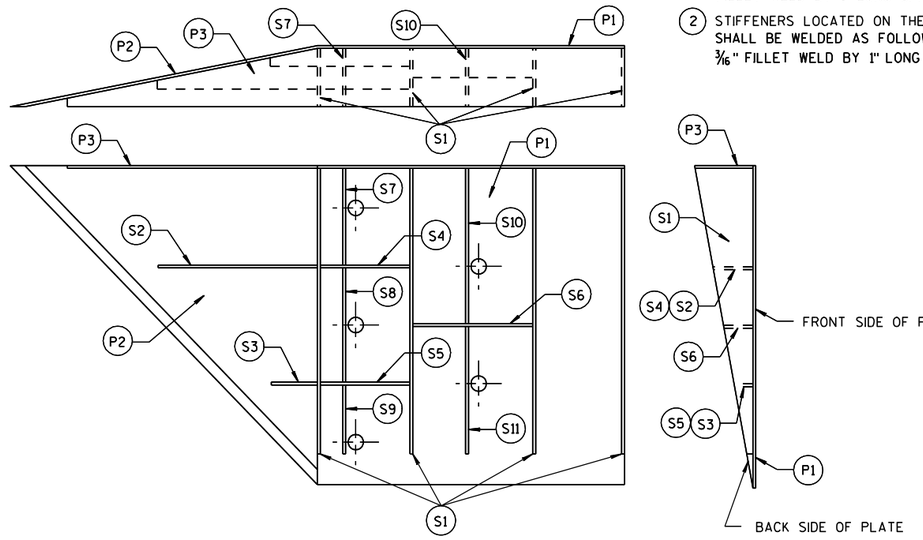


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

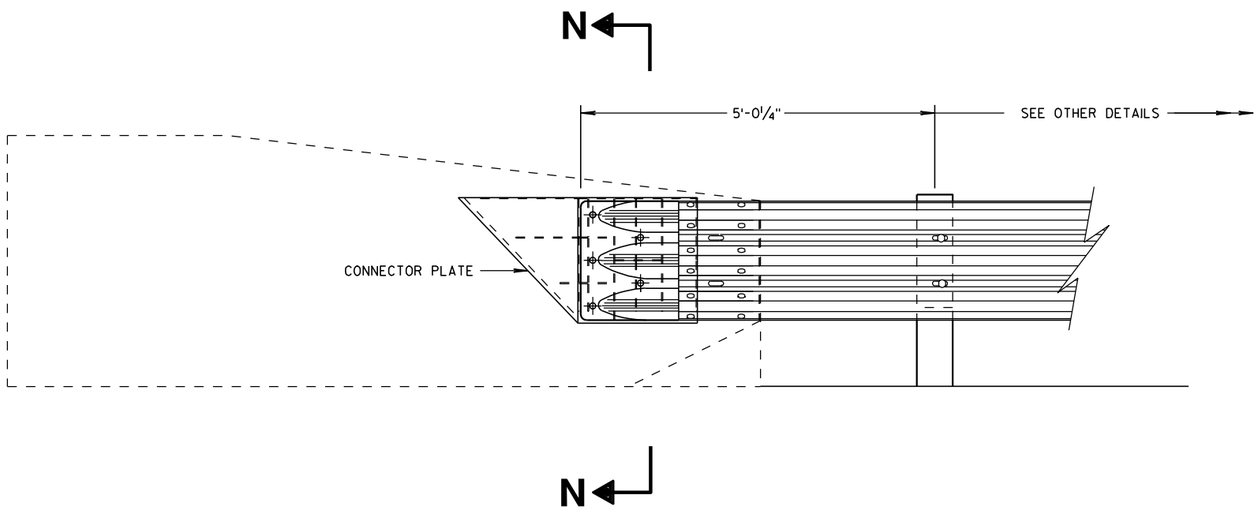
APPROVED
8/31/2012
DATE
/S/ Jerry H ...
ROADWAY STANDARDS ENGINEER
361
...MENT
FHWA

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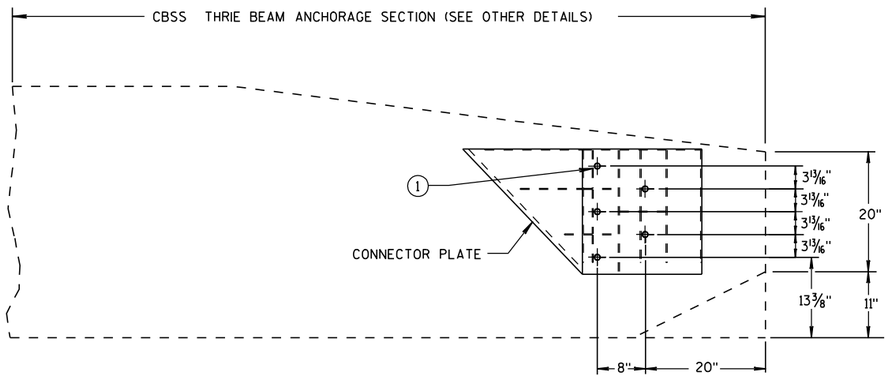
S.D.D. 14 B 45-3i

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S.D.D. 14 B 45-3i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

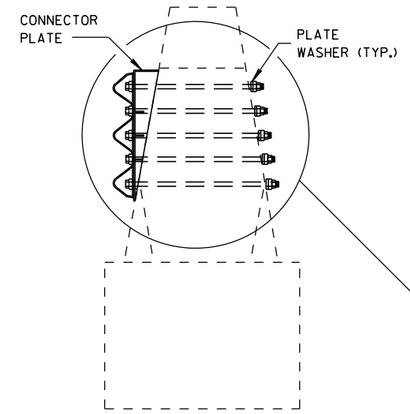


SINGLE SLOPE CONNECTION PLATE PLACEMENT

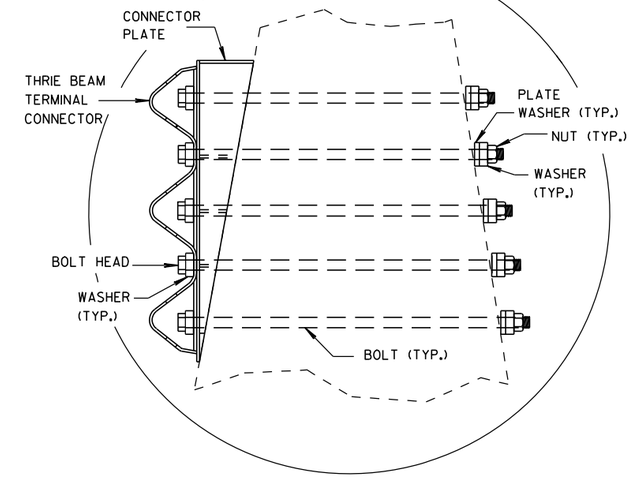
GENERAL NOTES

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

(1) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM 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 ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

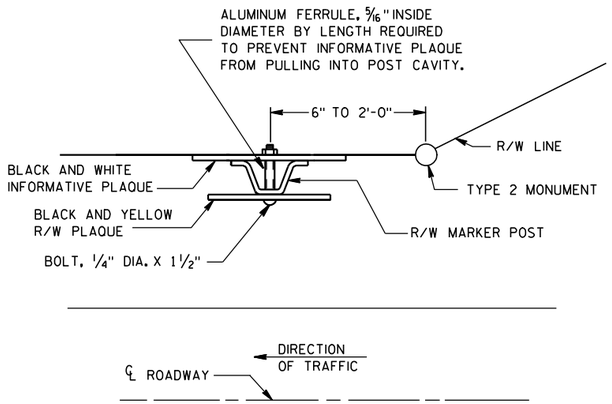
APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

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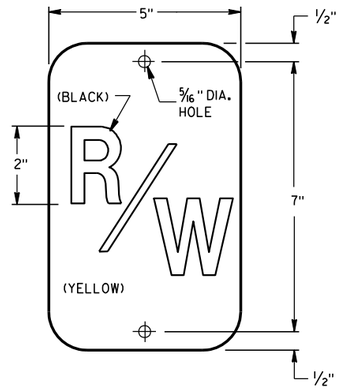
S.D.D. 14 B 45-3j

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S.D.D. 14 B 45-3j

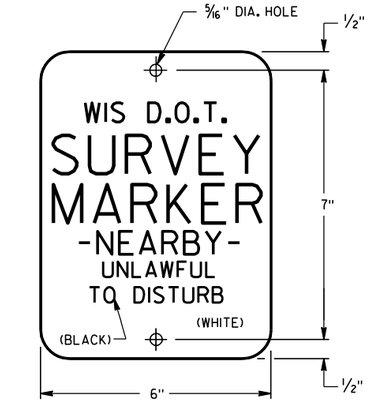


PLAN VIEW



R/W PLAQUE

THE RIGHT-OF-WAY PLAQUE AND INFORMATIVE PLAQUE WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



INFORMATIVE PLAQUE

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.

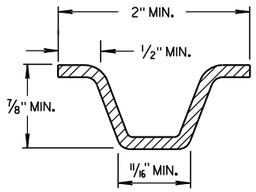
A STEEL MARKER POST FOR RIGHT-OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY, WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. R/W AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE DEPARTMENT OF TRANSPORTATION.

STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

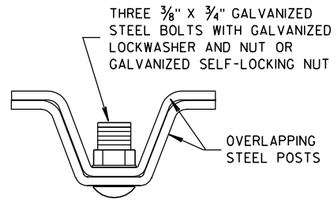
(1) IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK TO A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR.

FILL THE BORE HOLE WITH CEMENT GROUT, OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.

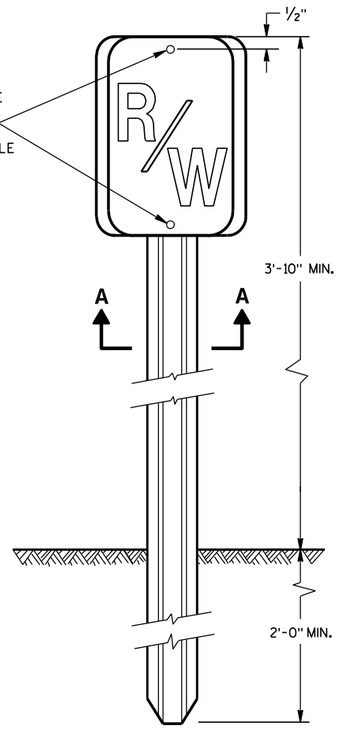


MIN. WEIGHT 1.12 LB./FT.

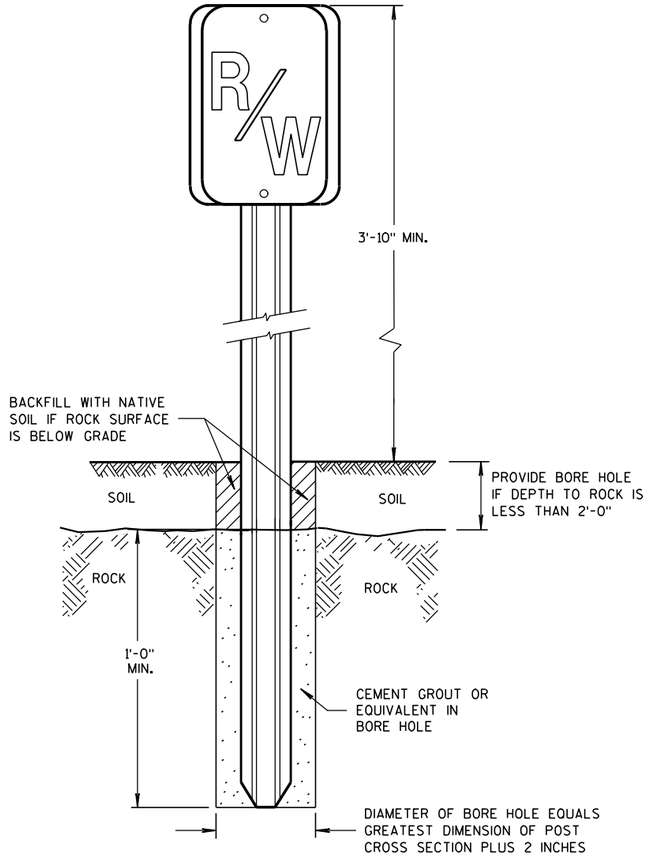
SECTION A-A



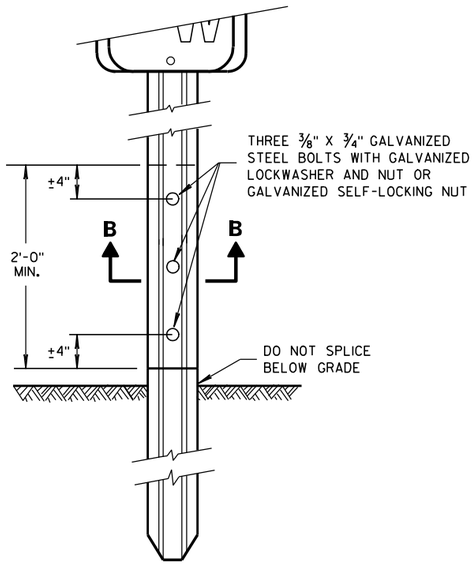
SECTION B-B



FRONT VIEW
STEEL MARKER POST



FRONT VIEW
ROCK INSTALLATION (1)



FRONT VIEW
SPLICE DETAIL

MARKER POST FOR RIGHT-OF-WAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

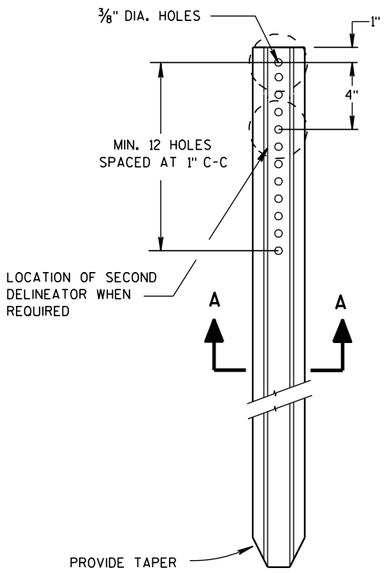
APPROVED
4/27/09 — DATE
/S/ Ray Kumapayi — CHIEF SURVEYING AND MAPPING ENGINEER
FHWA

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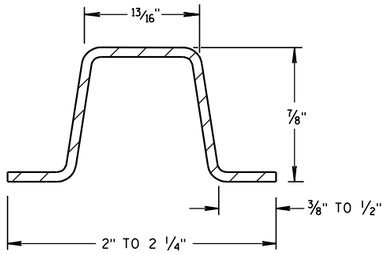
S.D.D. 15 A 1-11

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S.D.D. 15 A 1-11

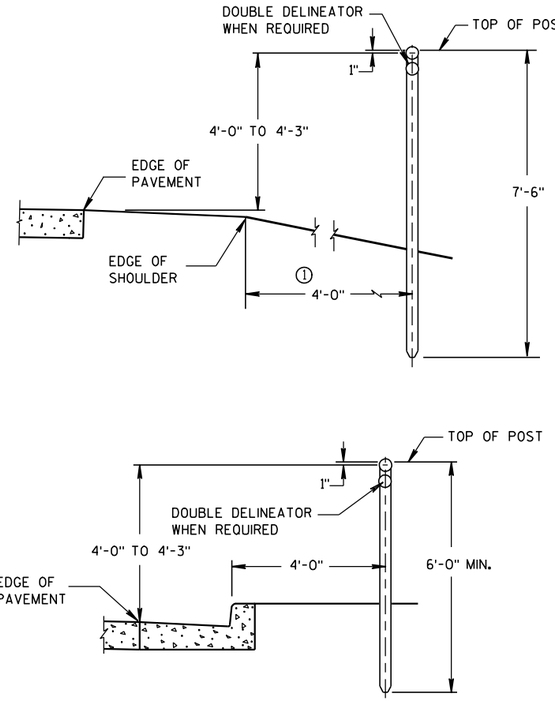


DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

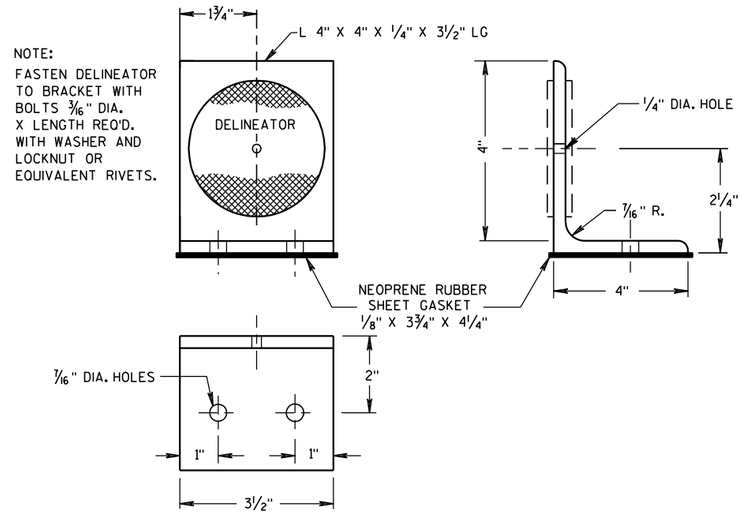


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

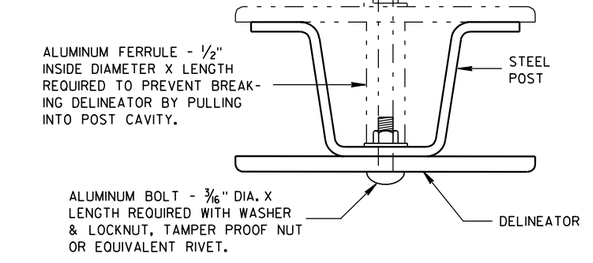
GENERAL NOTES

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

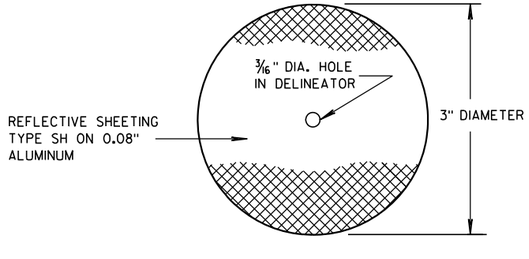
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



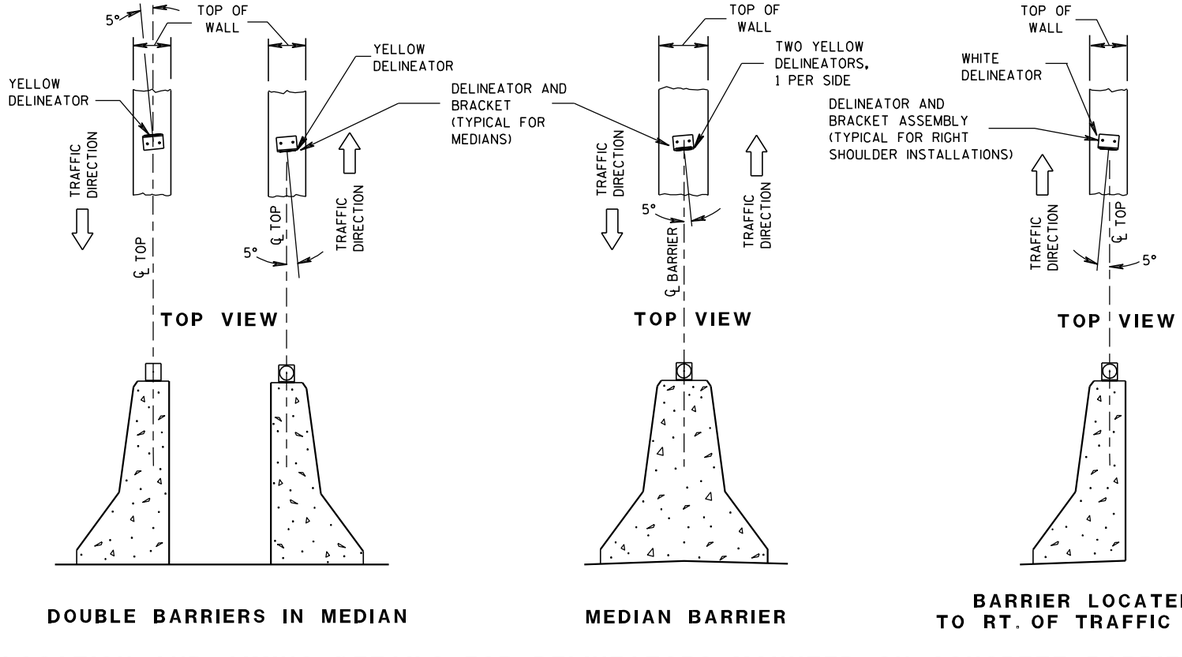
DELINEATOR BRACKET



MOUNTING DETAIL FOR DELINEATOR



DELINEATOR

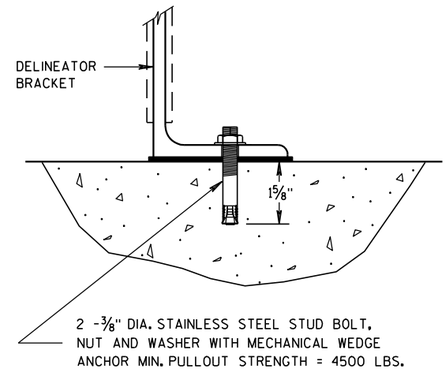


DOUBLE BARRIERS IN MEDIAN

MEDIAN BARRIER

BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATORS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR BRACKET AND DELINEATOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

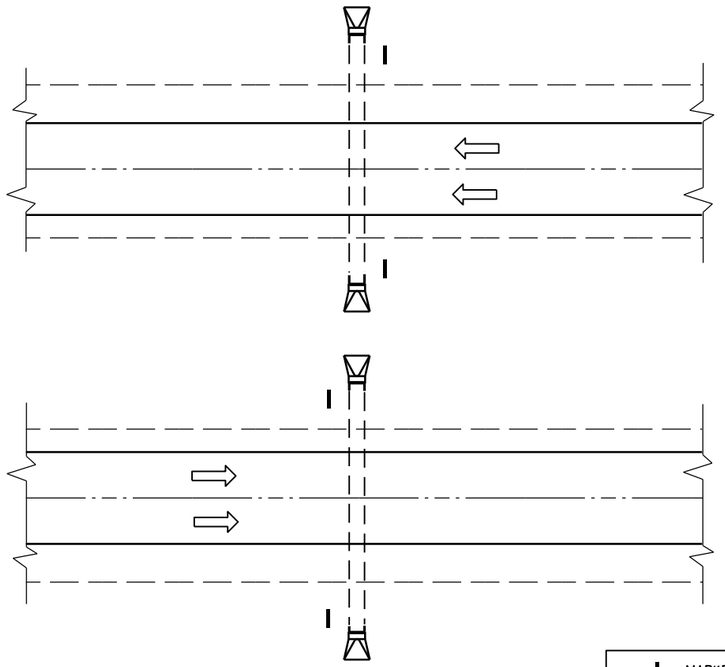
APPROVED
1/25/2011
DATE
/S/ Thomas N. Nothdurft
STATE TRAFFIC ENGINEER
DESIGN
FHWA

6

S.D.D. 15 A 2-7

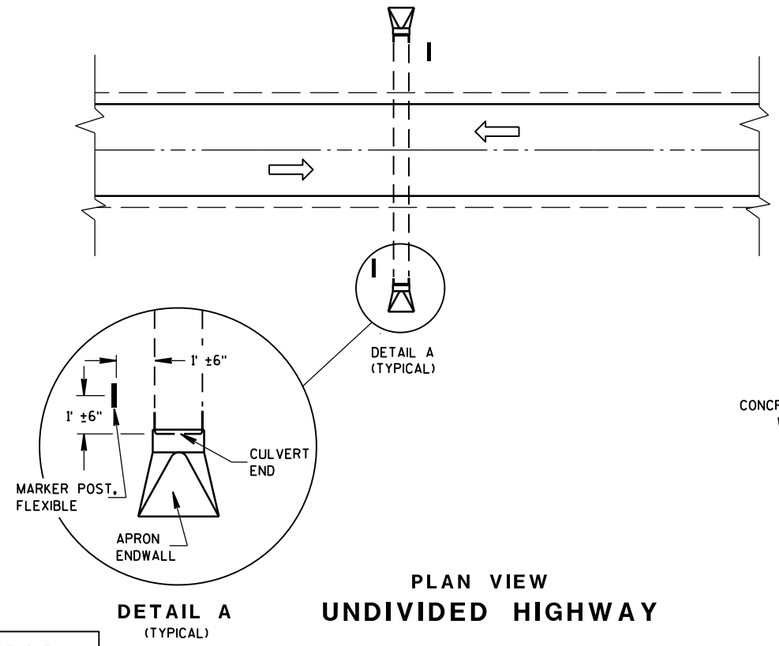
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S.D.D. 15 A 2-7



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

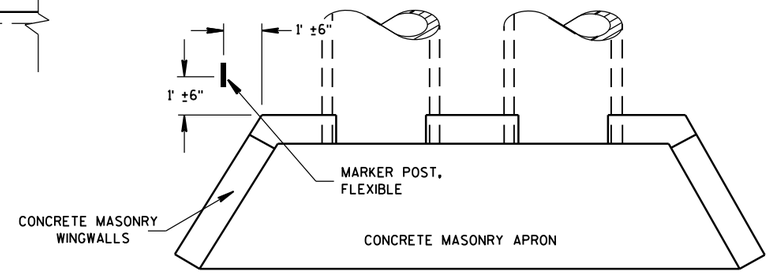
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

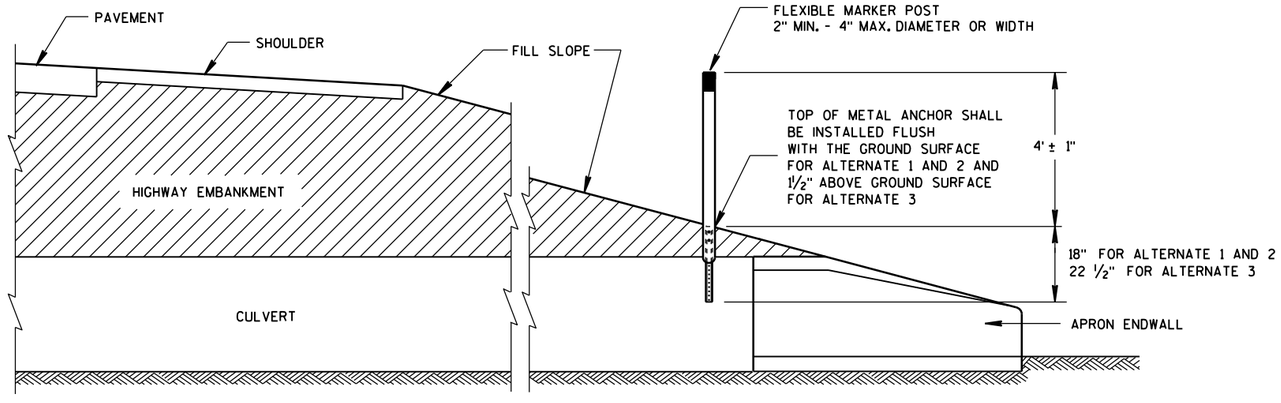
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



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

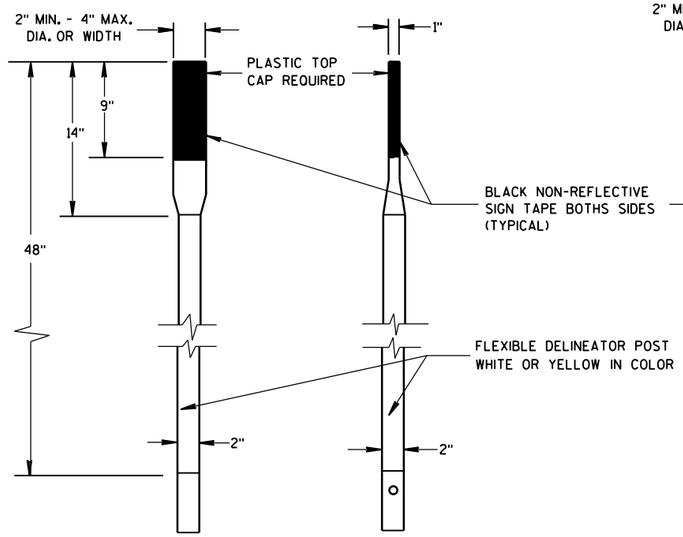
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

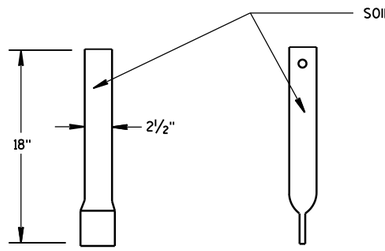
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S.D.D. 15 A 3-2a

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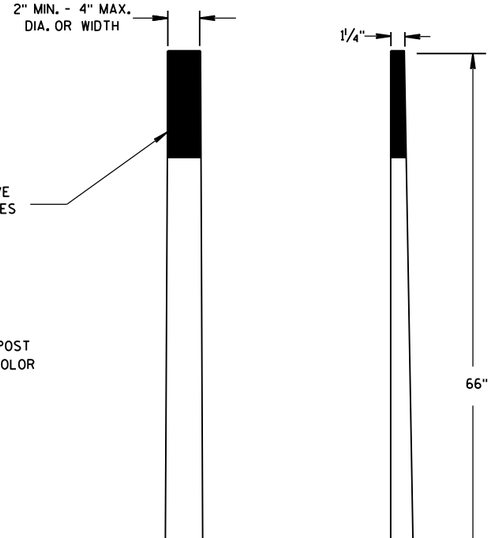
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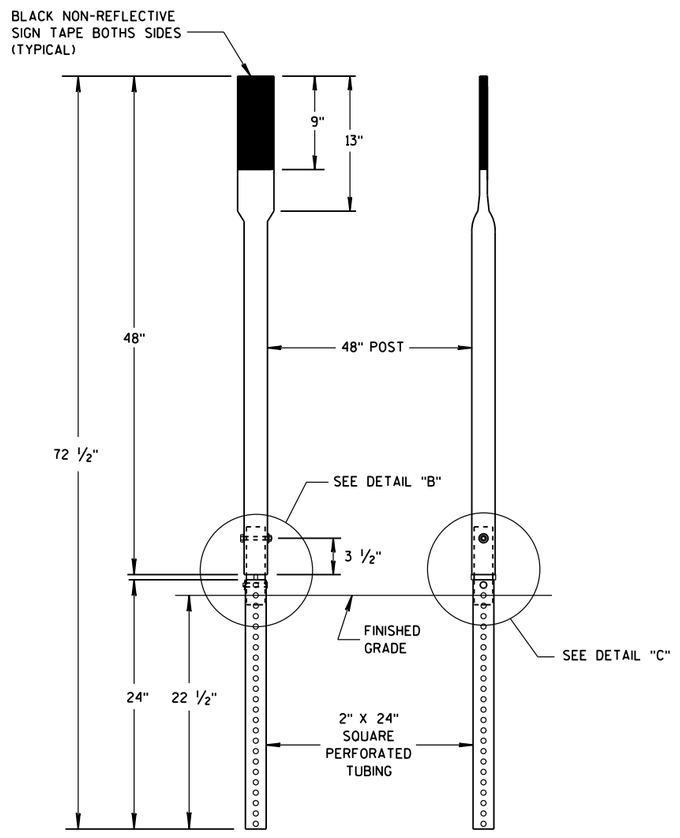
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

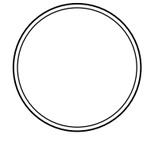
ALTERNATE 2



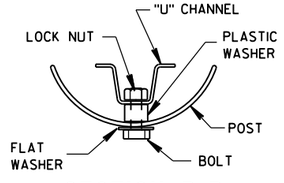
FRONT VIEW SIDE VIEW

ALTERNATE 3

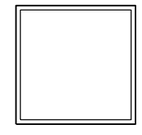
FLEXIBLE MARKER POSTS



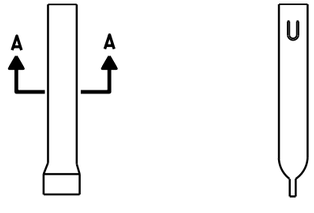
SECTION A-A



SECTION B-B

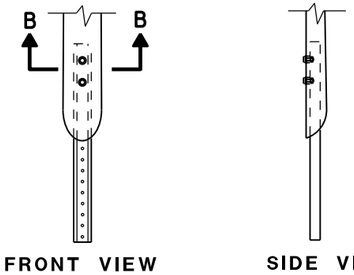


SECTION C-C



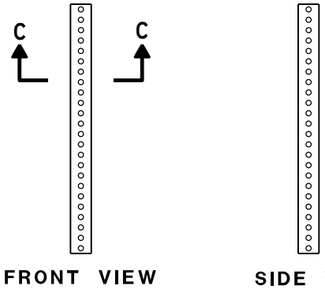
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

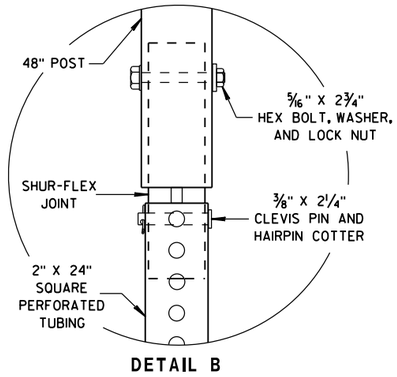
ALTERNATE 2



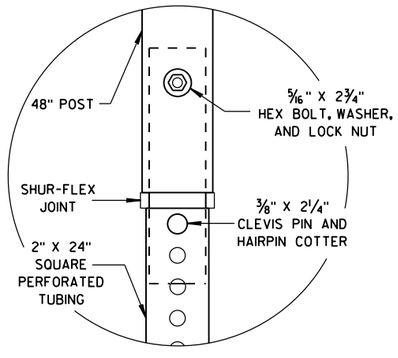
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

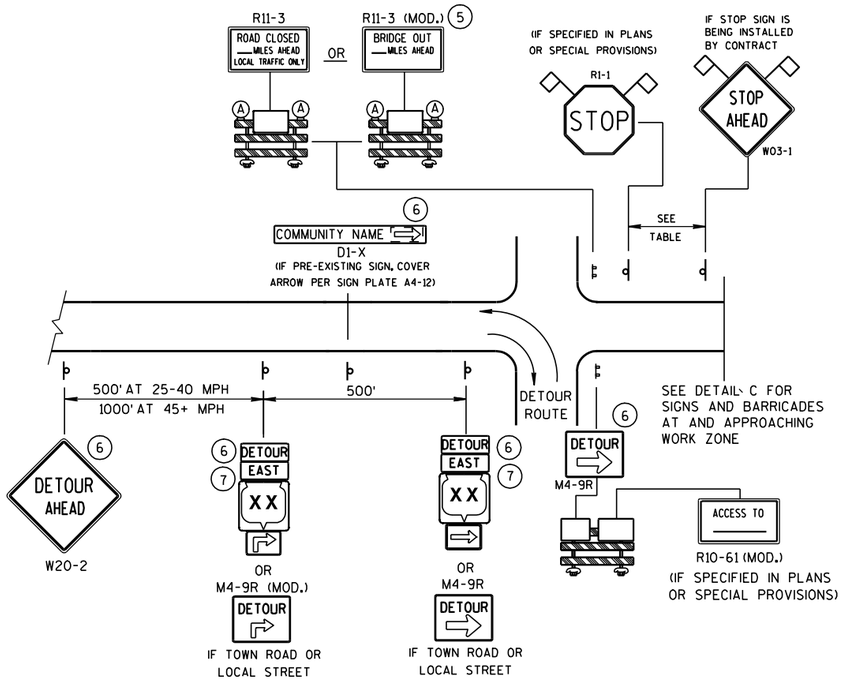
APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 A 3-2b

6

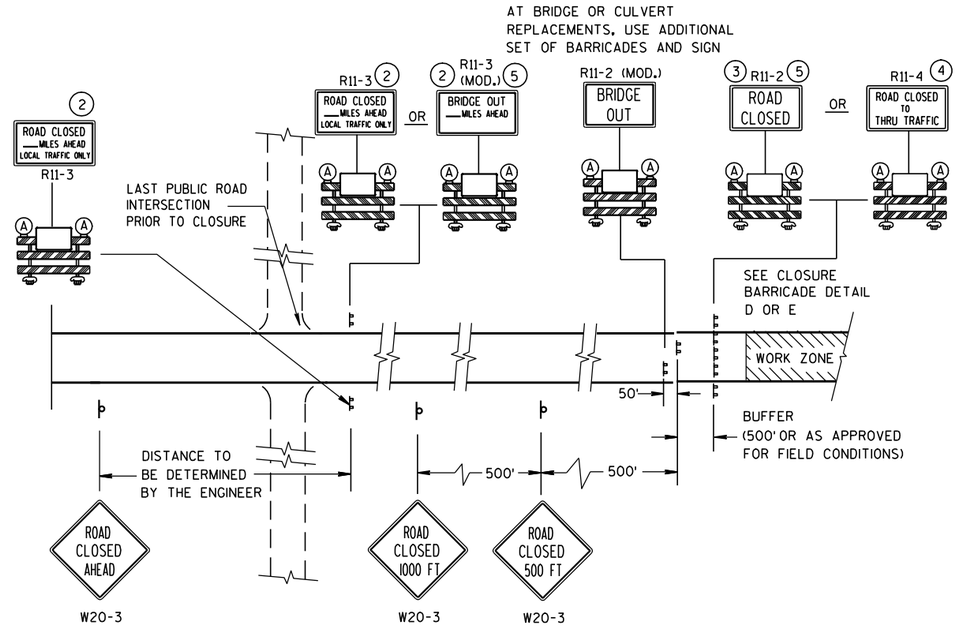
S.D.D. 15 A 3-2b



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

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

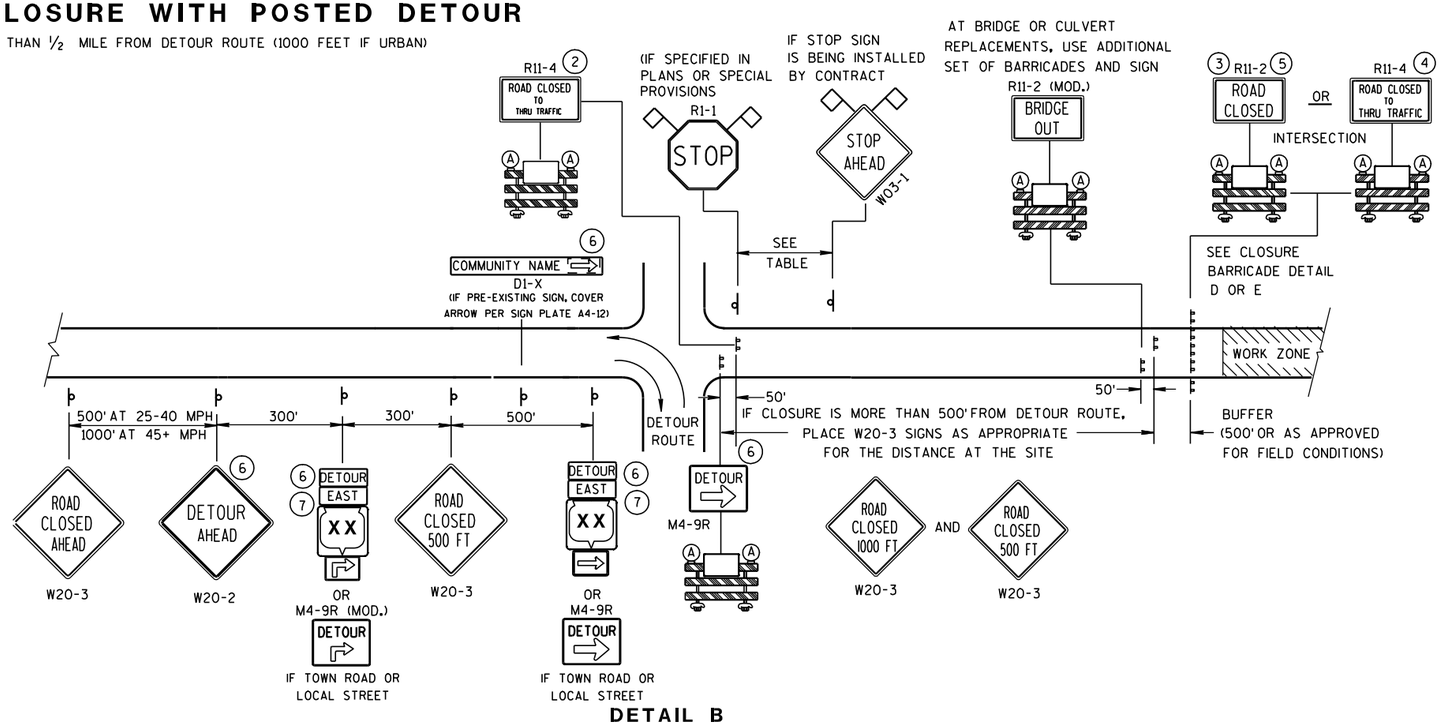


DETAIL C

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 15C2-4b
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

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

LEGEND

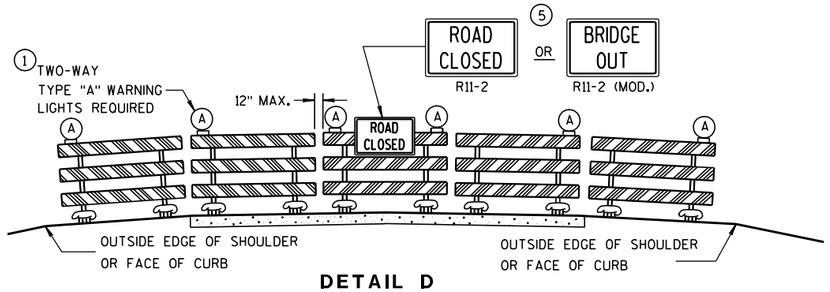
- POST MOUNTED SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK ZONE
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

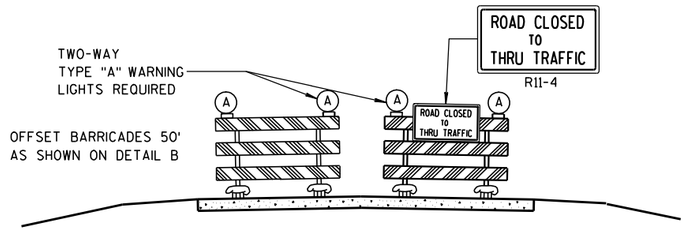
S.D.D. 15 C 2-4a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-4a 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.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3, R11-4, R10-61 AND R1-1 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

"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 AND 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

APPROVED

9/16/03
DATE

/S/ Thomas N. N[illegible]
CHIEF SIGNS AND MARKINGS ENGINEER

FHWA

6

S.D.D. 15 C 2-4b

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

GENERAL NOTES

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

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

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

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

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

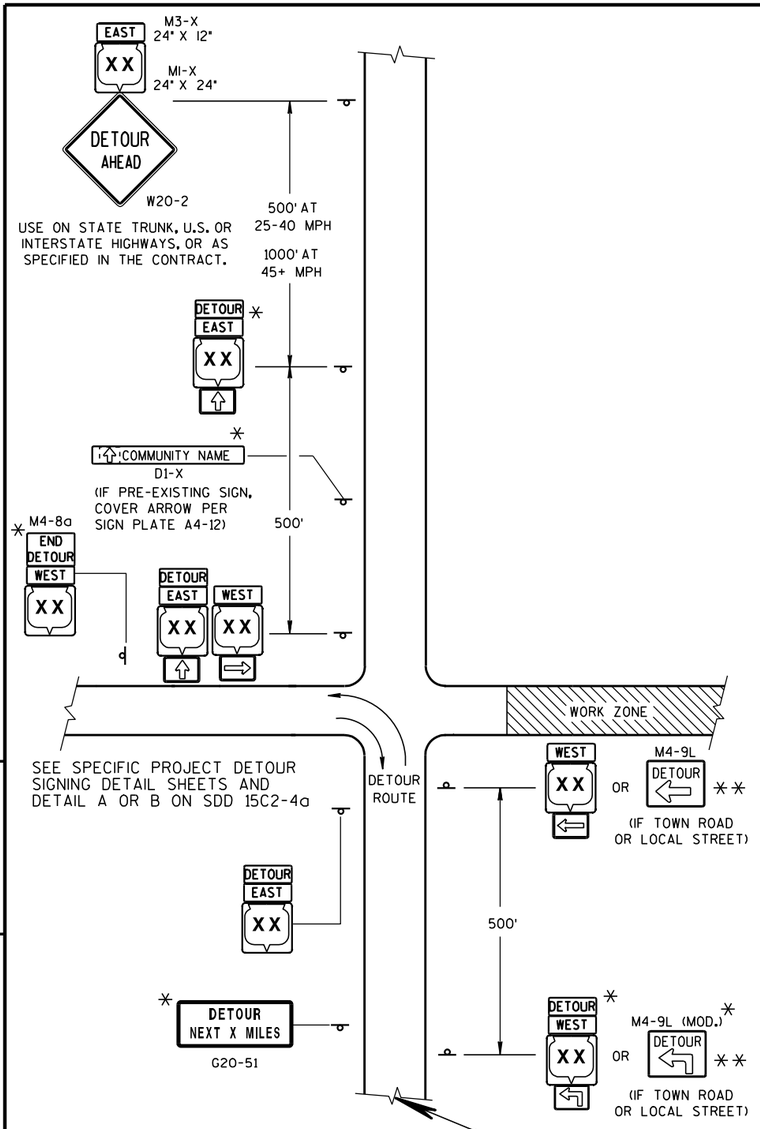
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

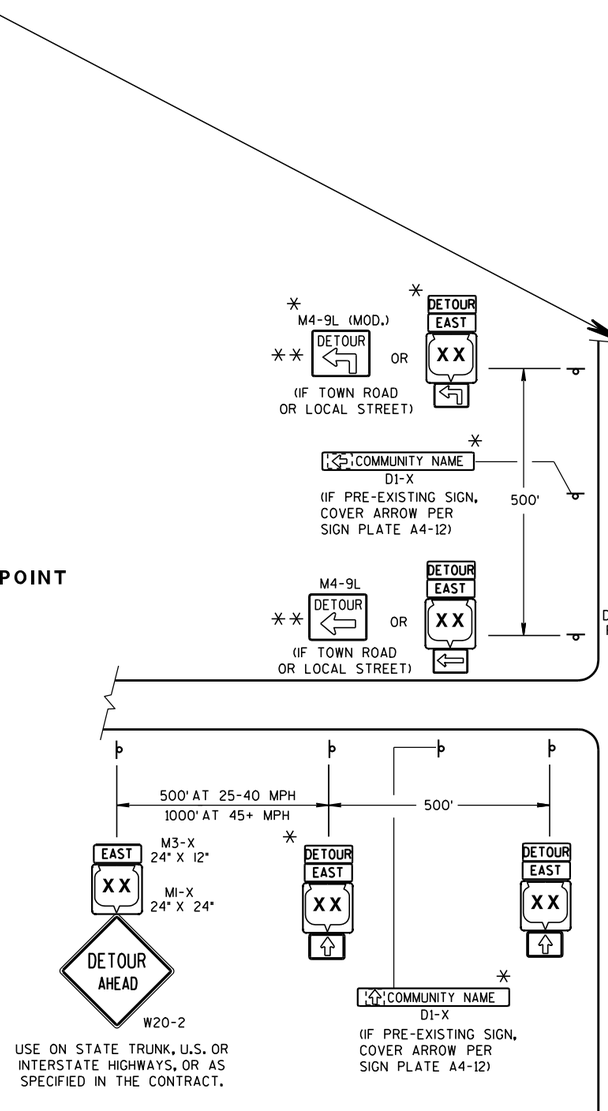
M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
M4-9 SHALL BE 30" X 24".
M4-8a SHALL BE 24" X 18".
G20-51 SHALL BE 60" X 24".
W20-2 SHALL BE 48" X 48".
D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

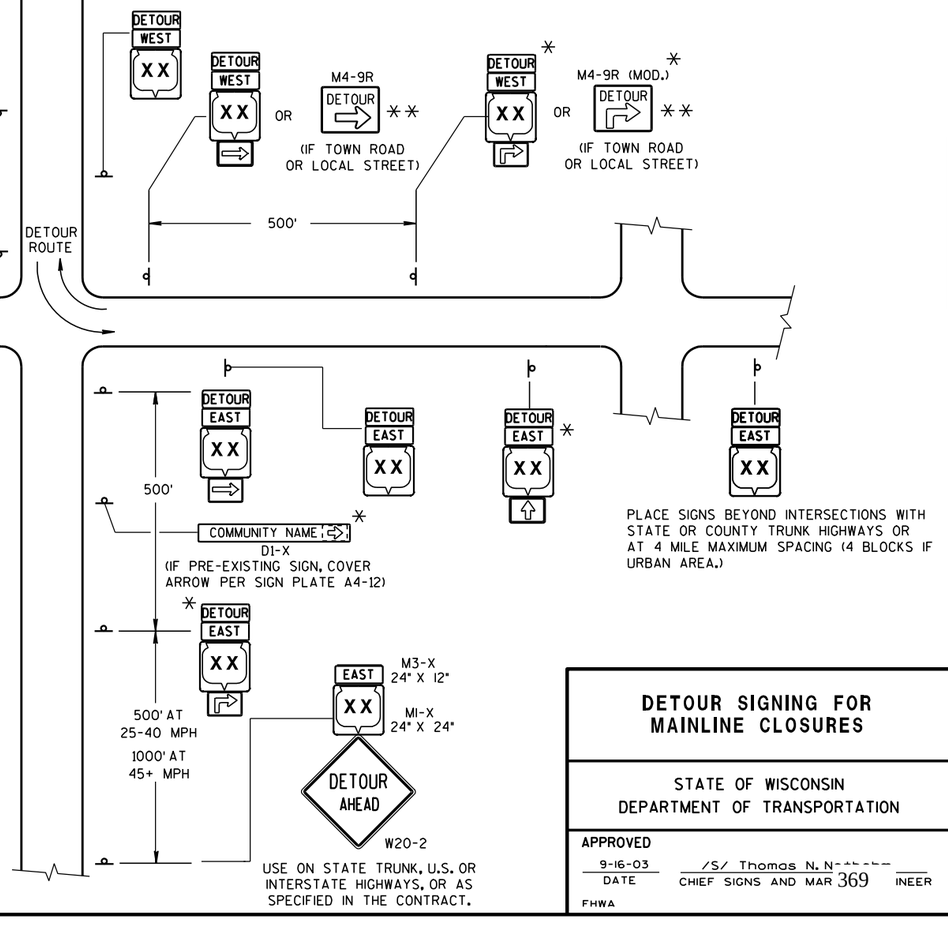
* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



MATCH POINT





LEGEND

- POST MOUNTED SIGN
- WORK ZONE
- DETOUR EAST — M4-8 / M3-X
- XX OR COUNTY XX OR XX — M1-4 / M1-5A / M1-6
- MO5-1 OR MO6-1 OR MO6-1

DETAIL F

DETOUR SIGNING

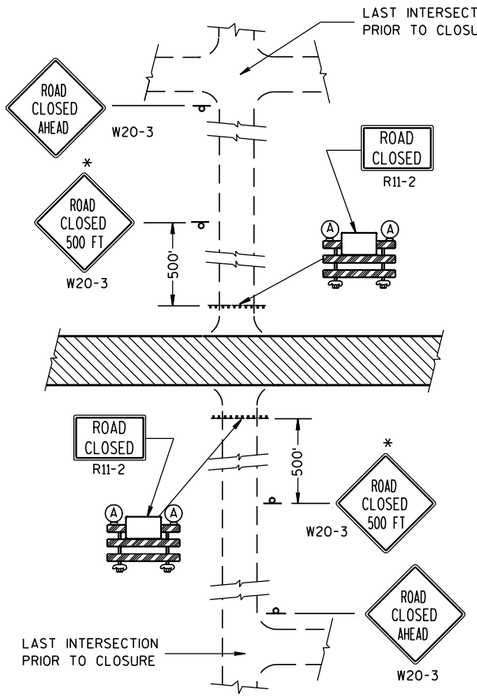
DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-16-03 DATE
/S/ Thomas N. [illegible] CHIEF SIGNS AND MAR[illegible]INEER
FHWA

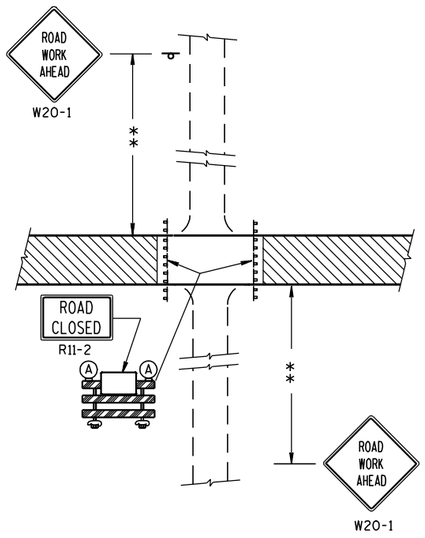
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S.D.D. 15 C 2-4c



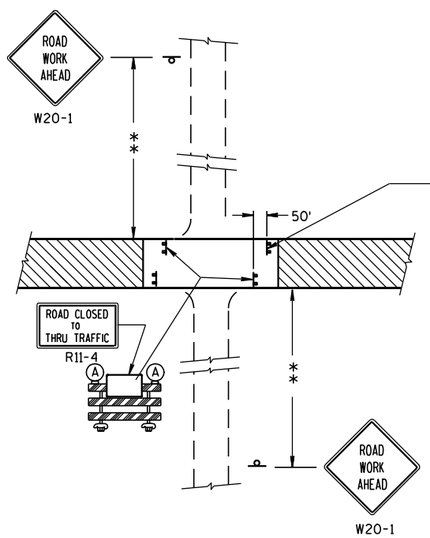
DETAIL 1

(NO ACCESS TO PROJECT)



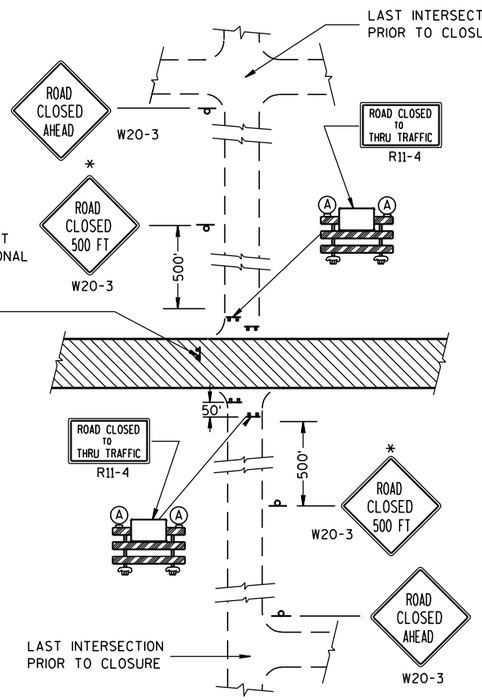
DETAIL 2

(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.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3 AND R11-4 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

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

- POST MOUNTED WARNING SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-16-03
DATE

/S/ Thomas N. N-[illegible]
CHIEF SIGNS AND MAR 370 INEER

FHWA

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S.D.D. 15 C 3-1

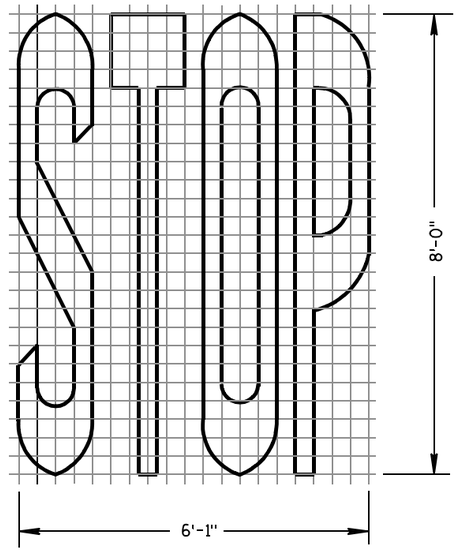
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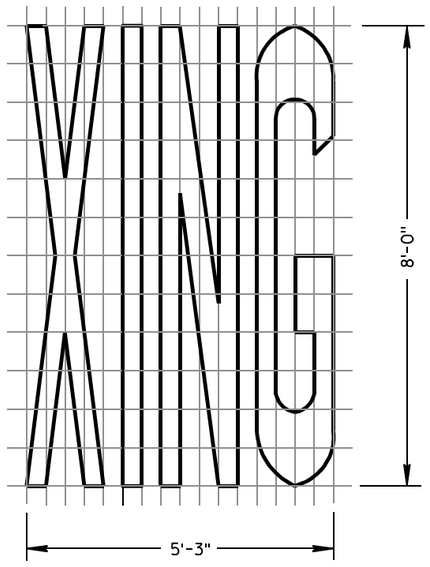
S.D.D. 15 C 3-1

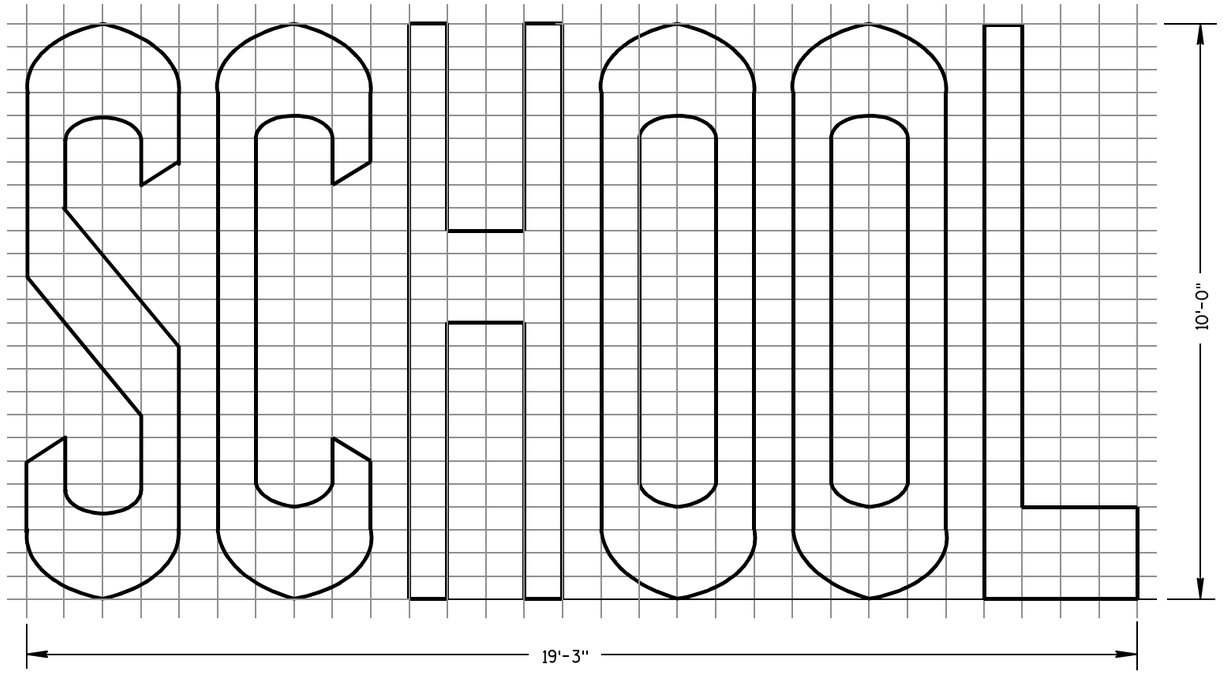
GENERAL NOTES

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

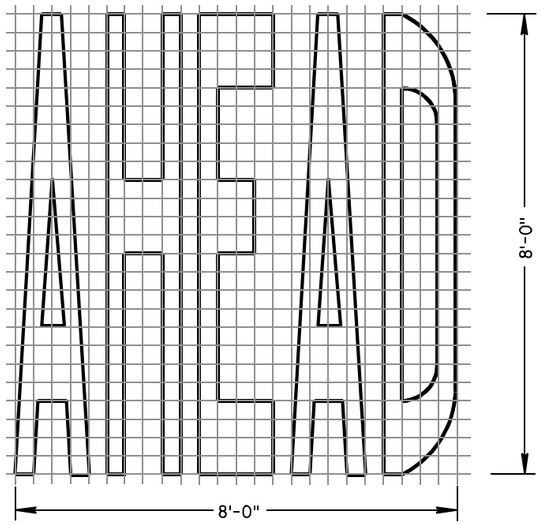
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

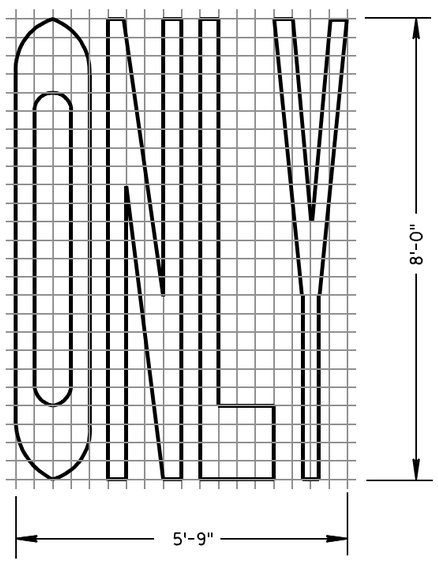


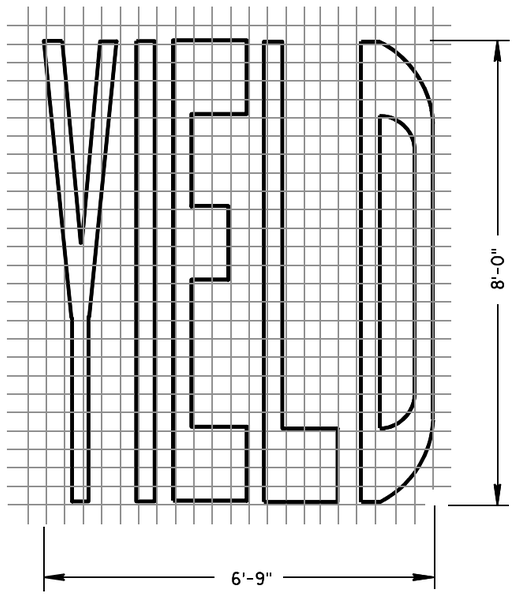


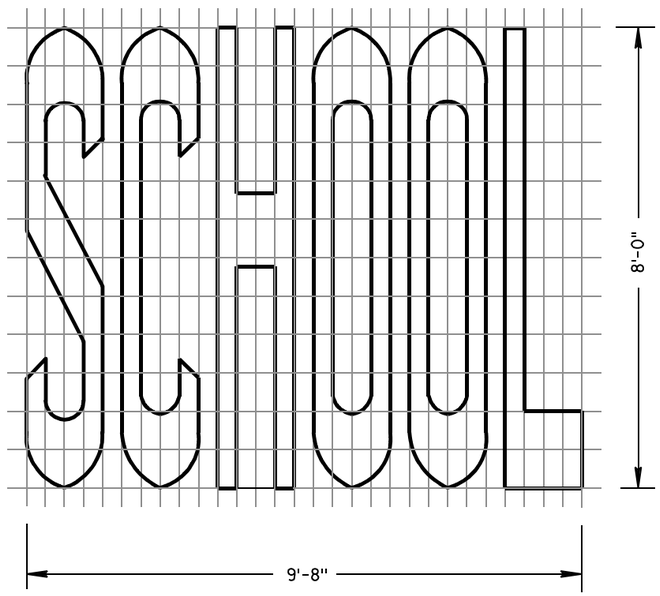


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 C 7-12b

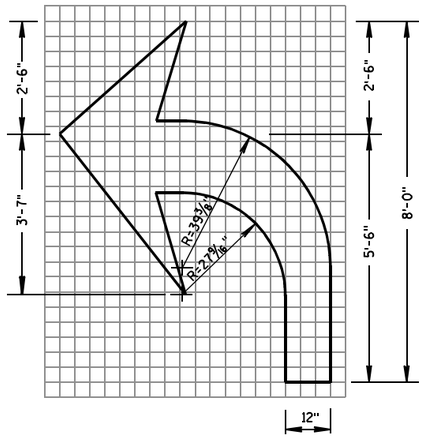
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S.D.D. 15 C 7-12b

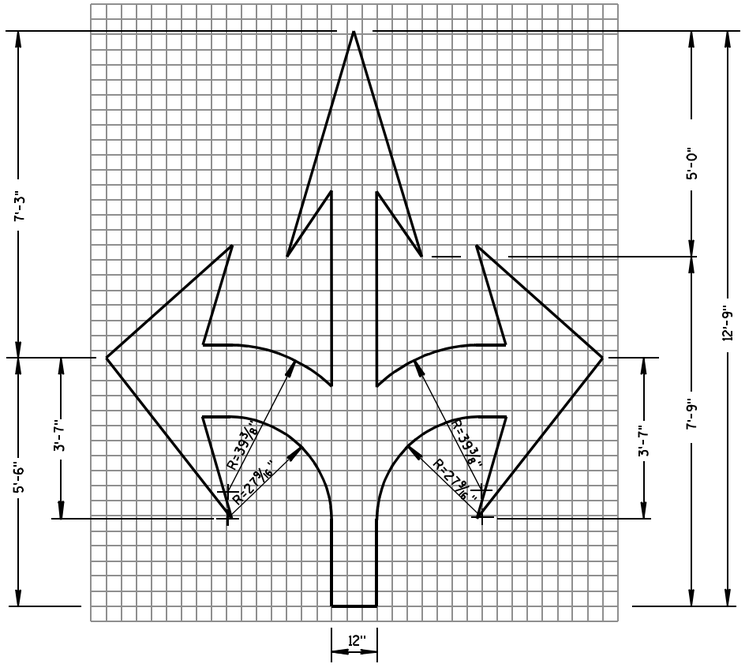
GENERAL NOTES

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

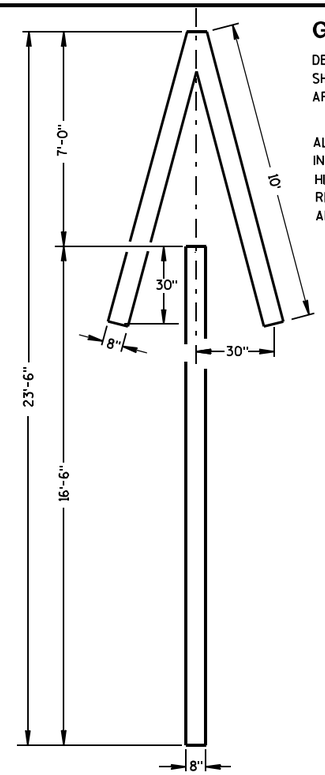
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



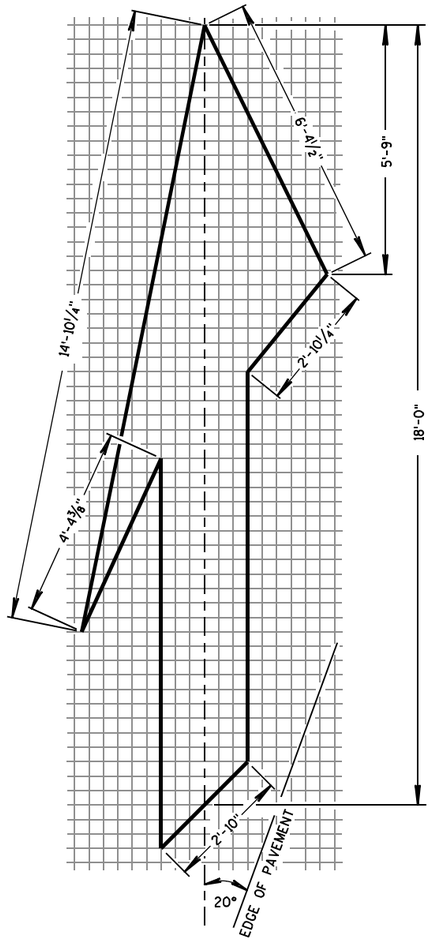
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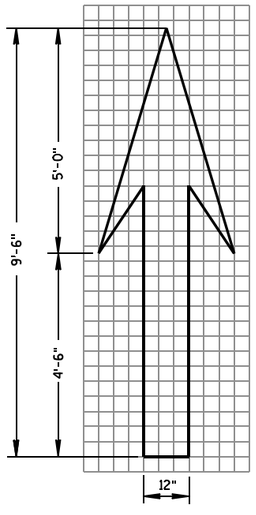
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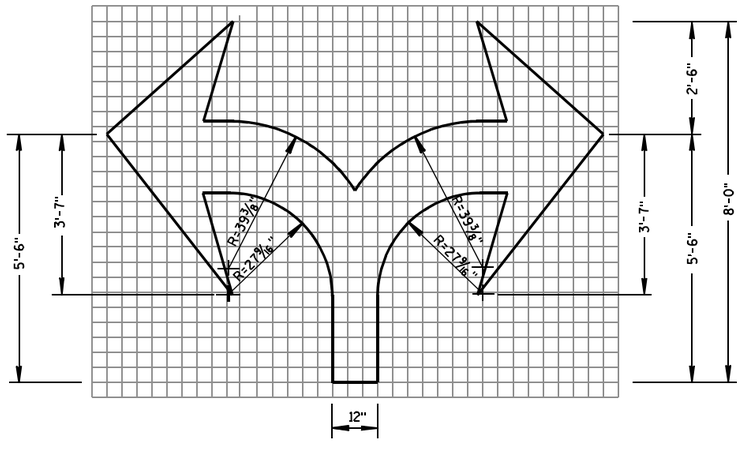
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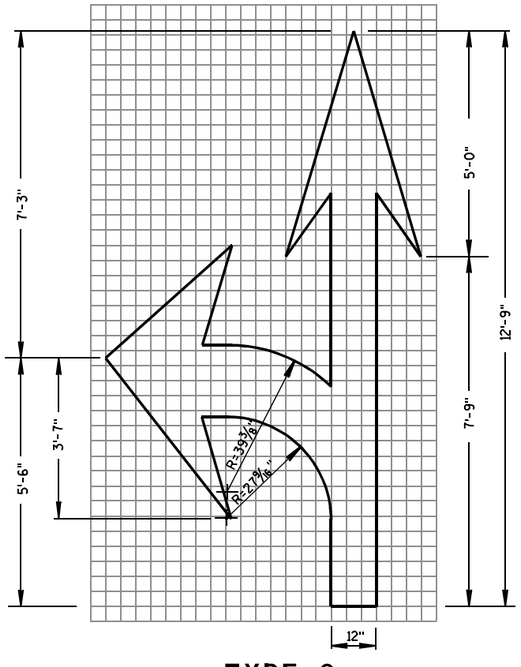
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

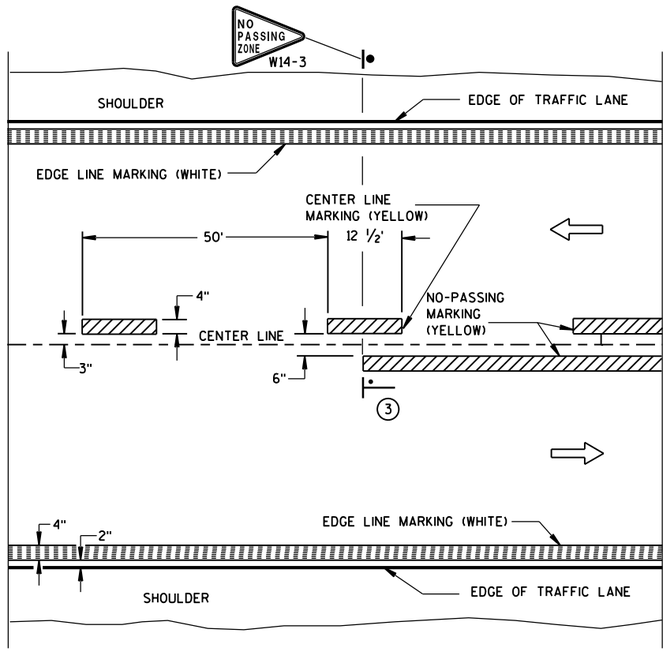
FHWA

6

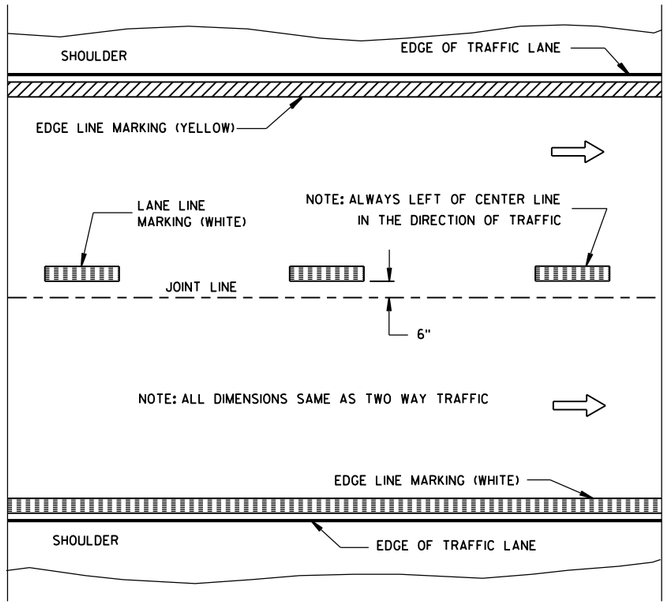
S.D.D. 15 C 7-12c

6

S.D.D. 15 C 7-12c

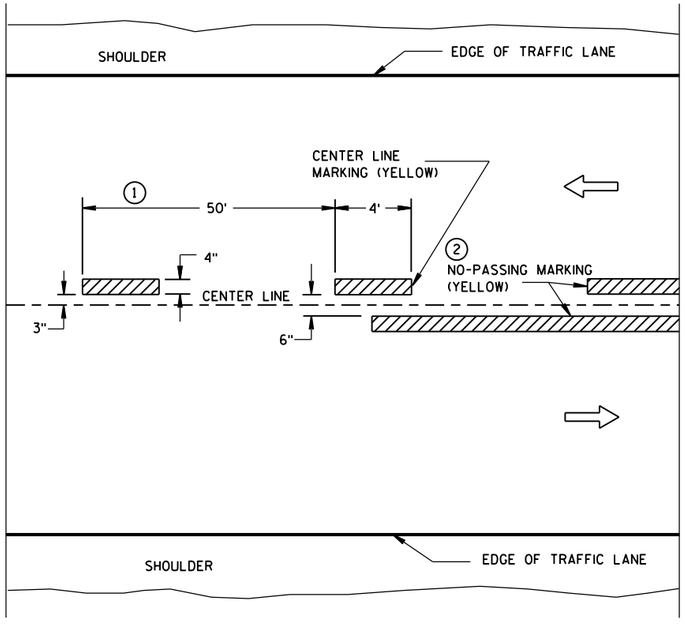


TWO WAY TRAFFIC

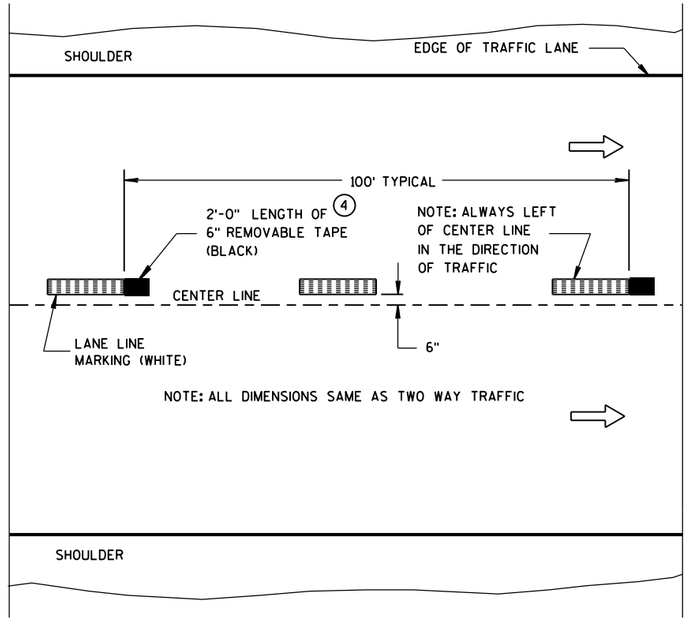


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

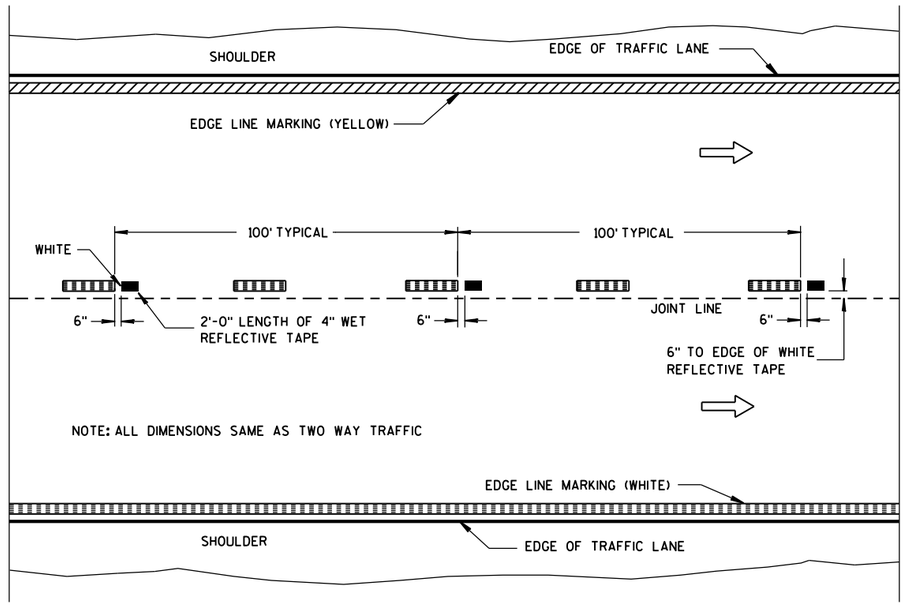
GENERAL NOTES

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

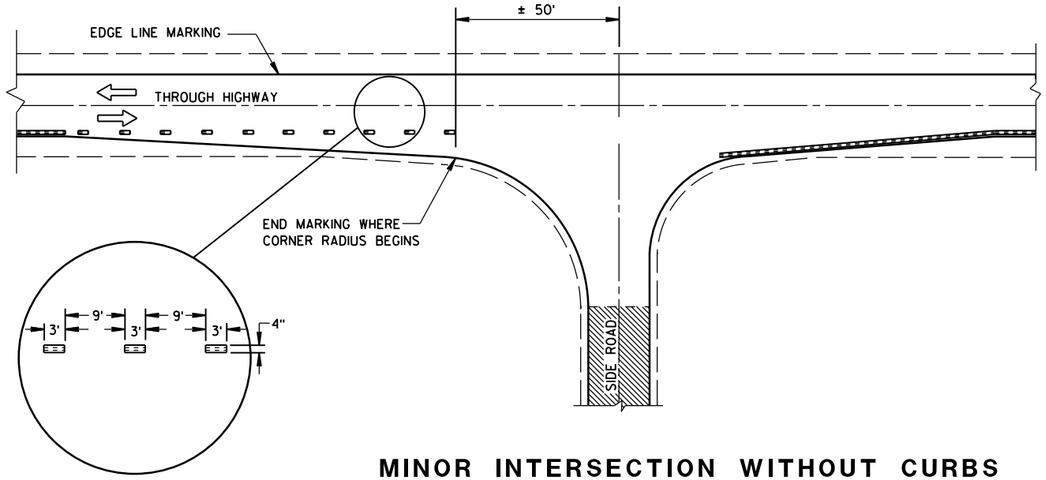
APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

6

S.D.D. 15 C 8-16a

6

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.

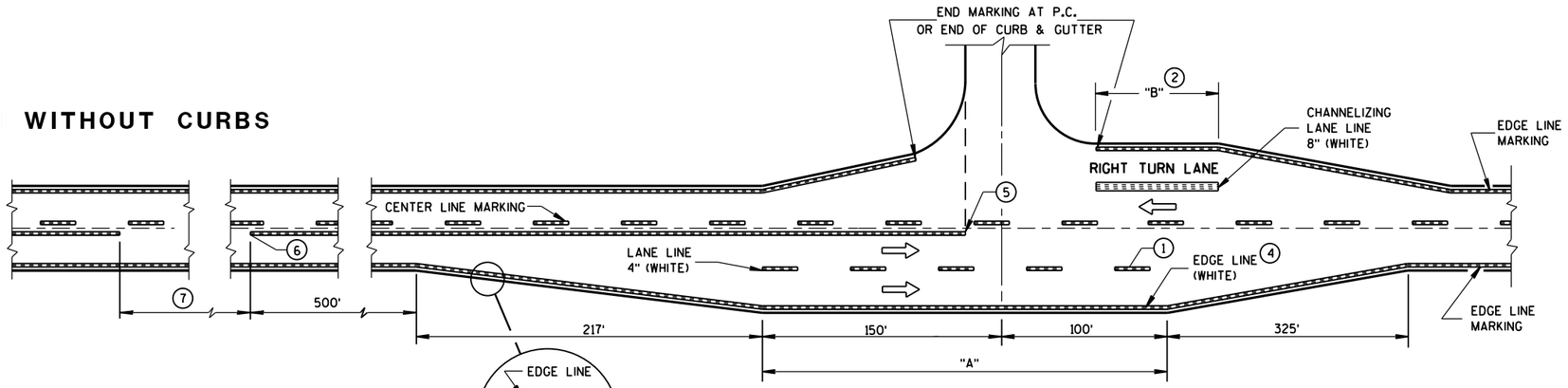
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

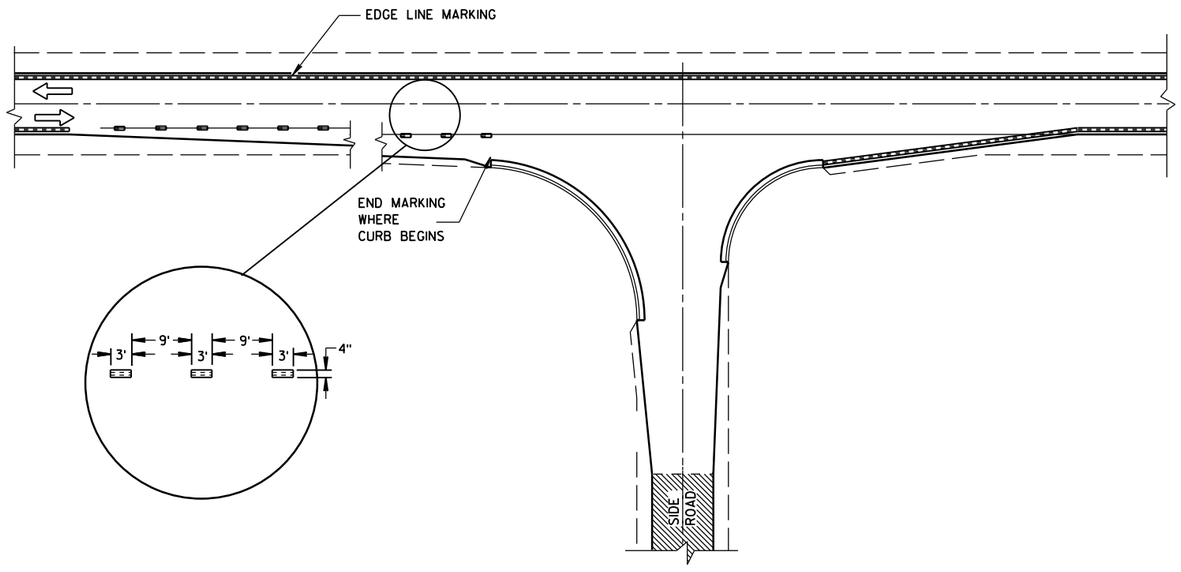
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



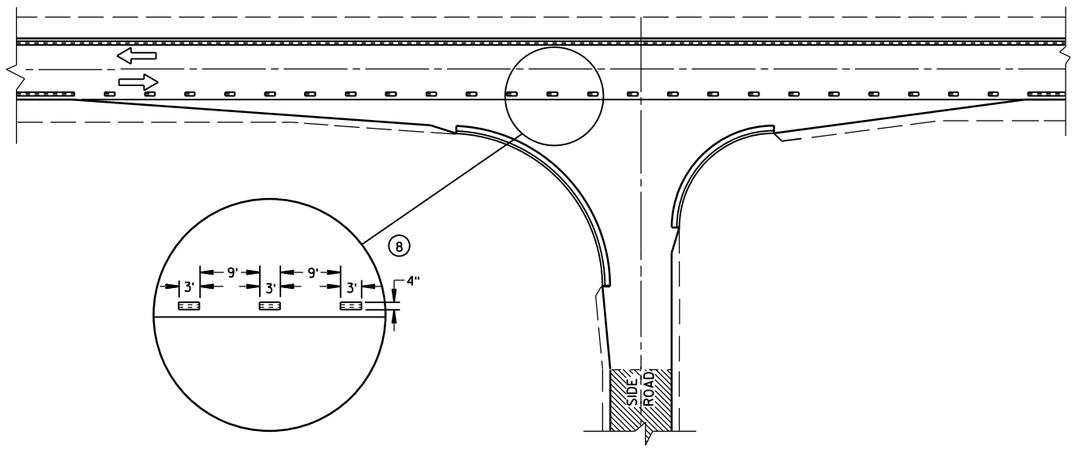
MAJOR INTERSECTIONS

(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)

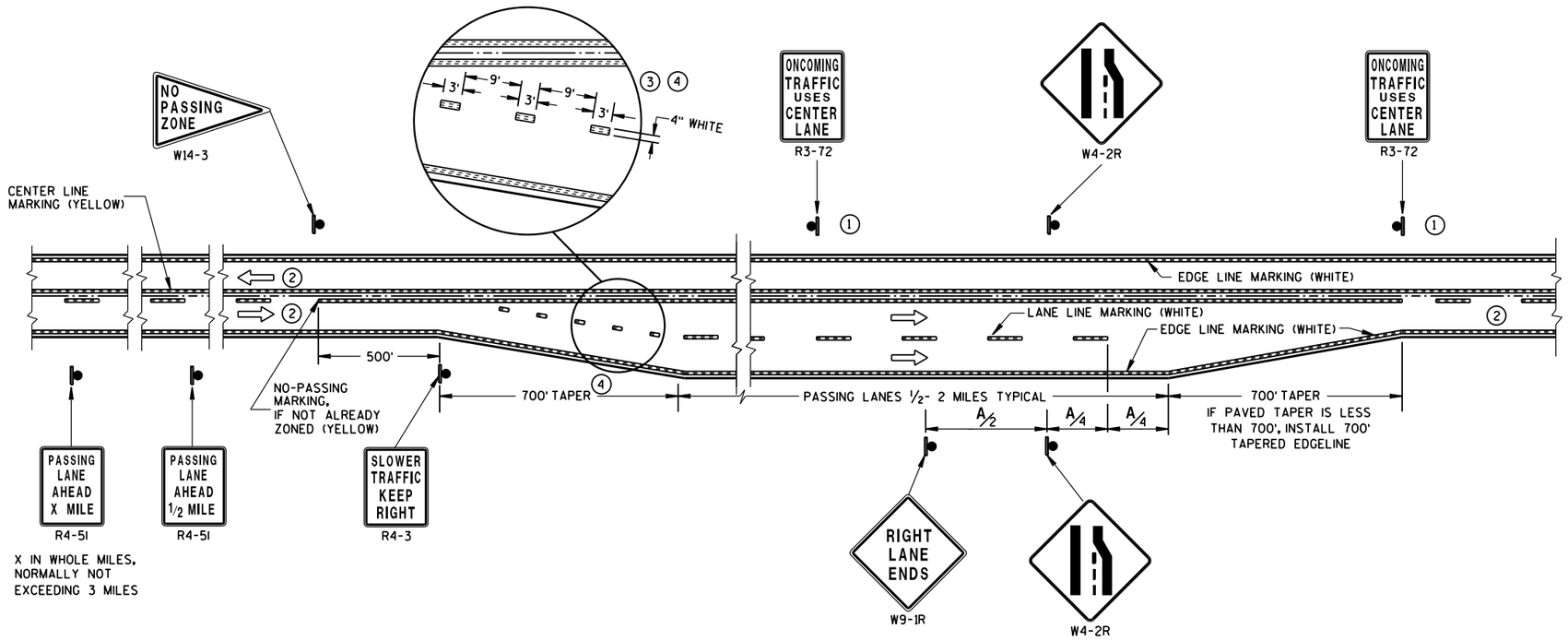
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 374

6

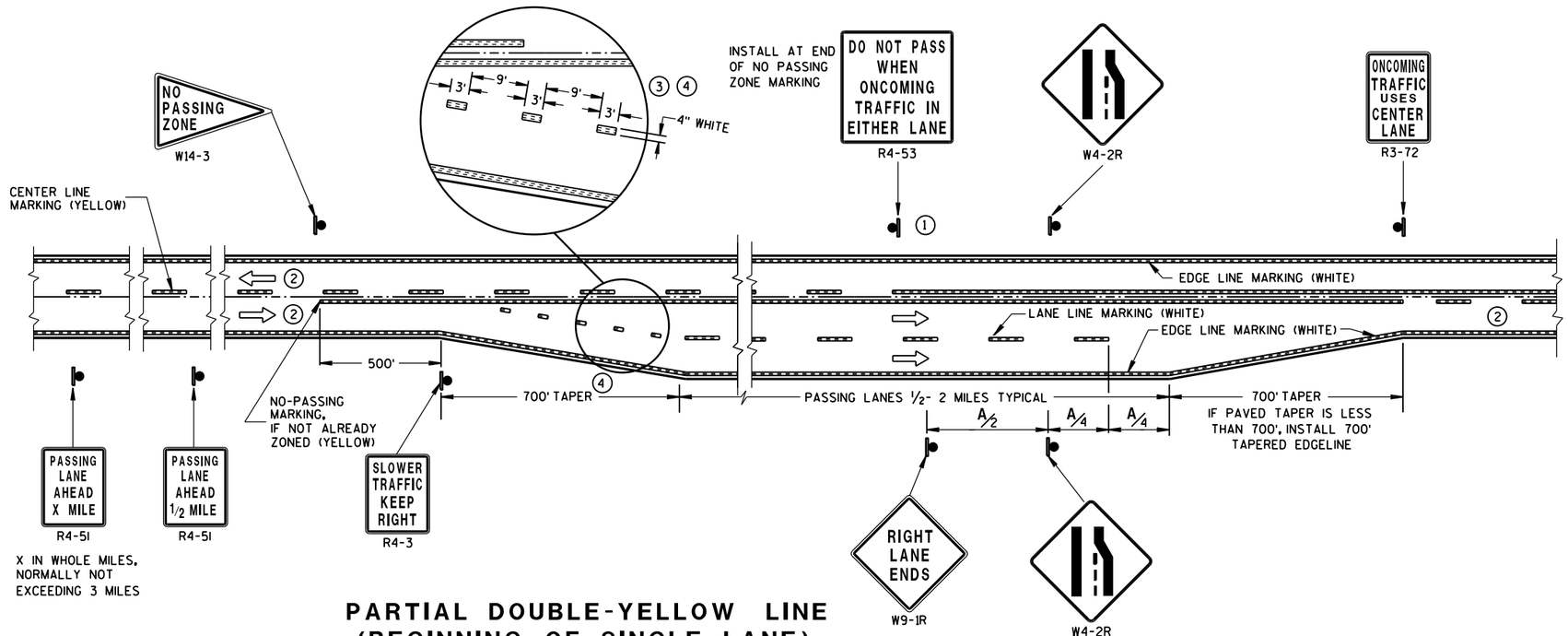
S.D.D. 15 C 8-16b

6

S.D.D. 15 C 8-16b



SOLID DOUBLE-YELLOW LINE
(THROUGHOUT ENTIRE PASSING/CLIMBING LANE)



PARTIAL DOUBLE-YELLOW LINE
(BEGINNING OF SINGLE LANE)

GENERAL NOTES

1. SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
2. THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
3. THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3'LINE 9'GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
4. WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING/CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

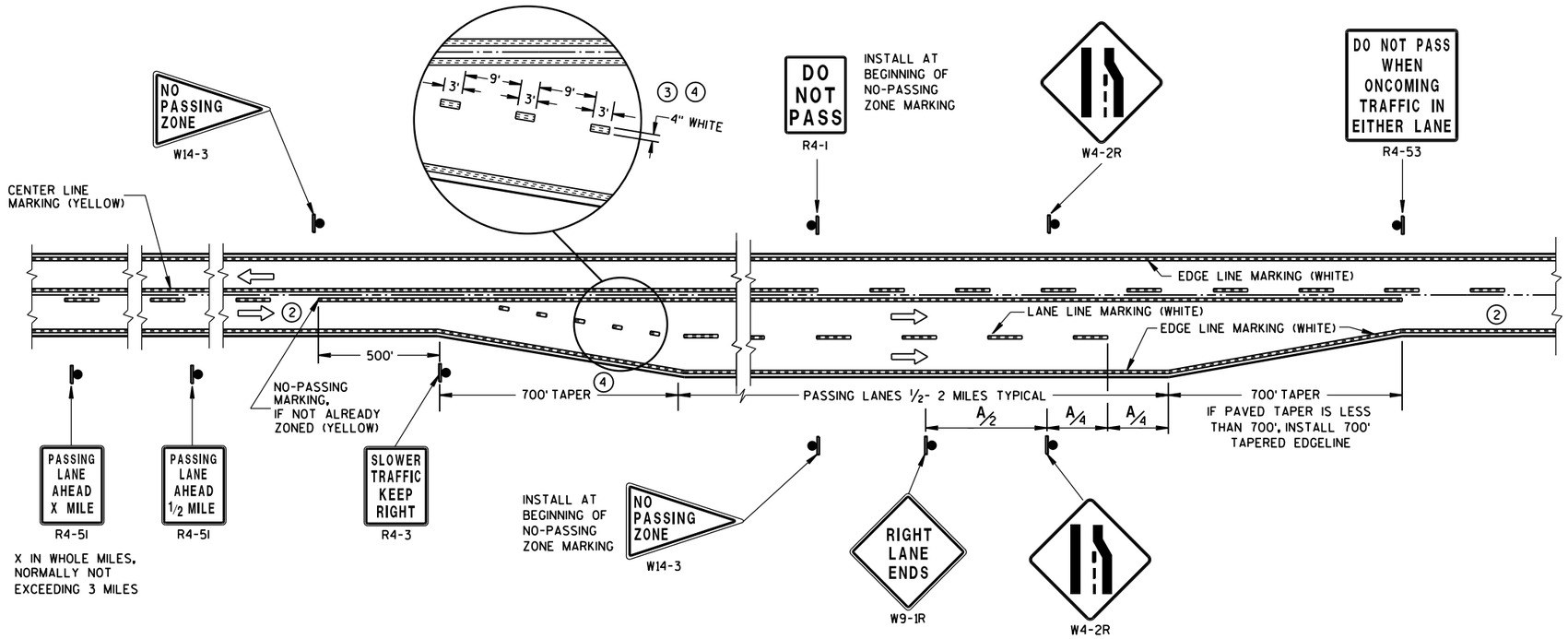
POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	750
50	850
55	950

PAVEMENT MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

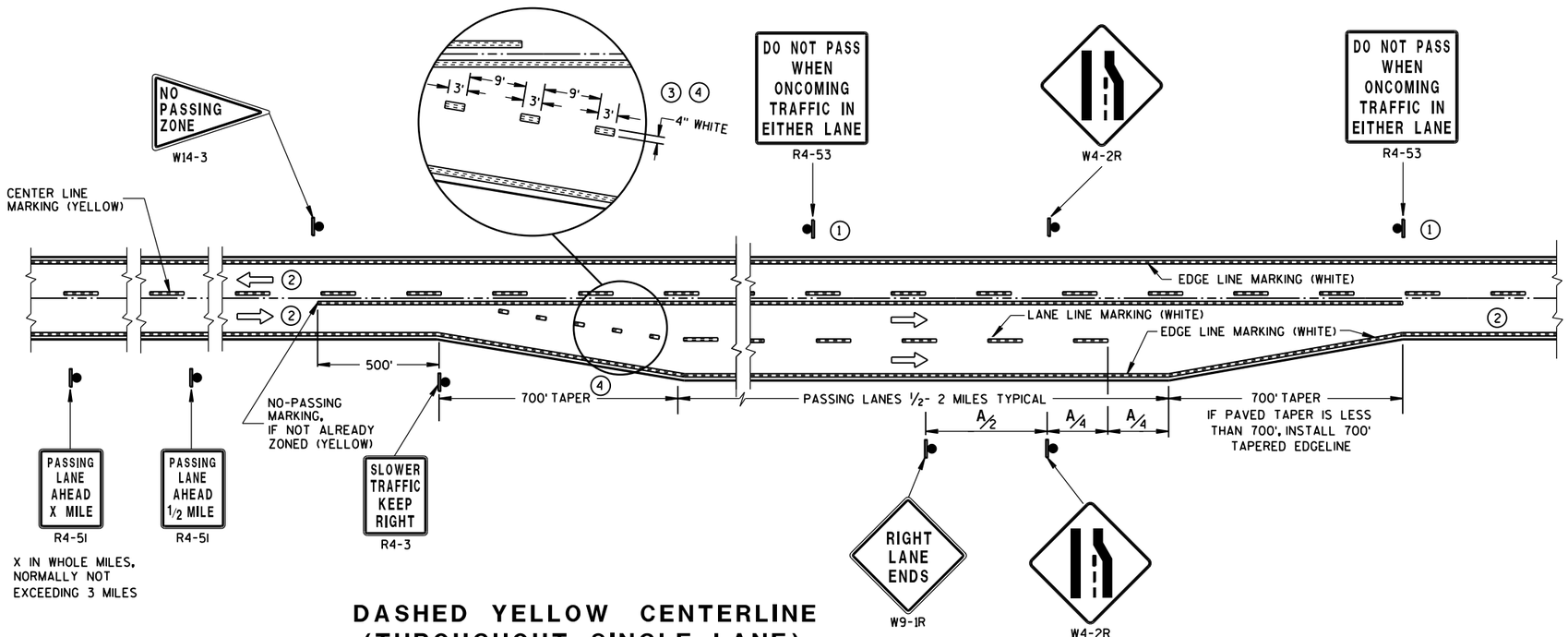
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 C 8-16c



SOLID DOUBLE-YELLOW LINE (END OF SINGLE LANE)



DASHED YELLOW CENTERLINE (THROUGHOUT SINGLE LANE)

GENERAL NOTES

1. SIGN SHALL BE REPEATED AT 1/2 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
2. THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
3. THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3'LINE 9'GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
4. WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING/CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

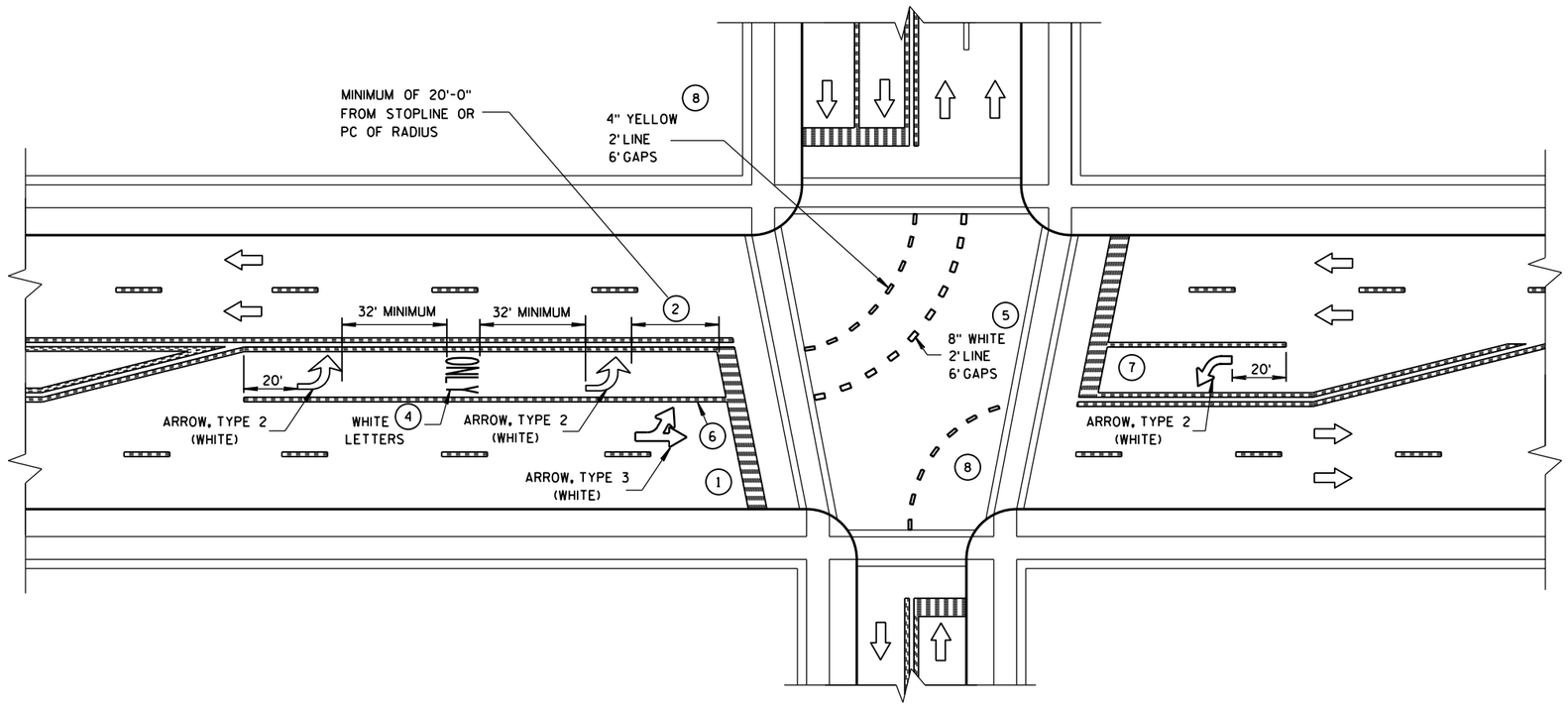
POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	750
50	850
55	950

PAVEMENT MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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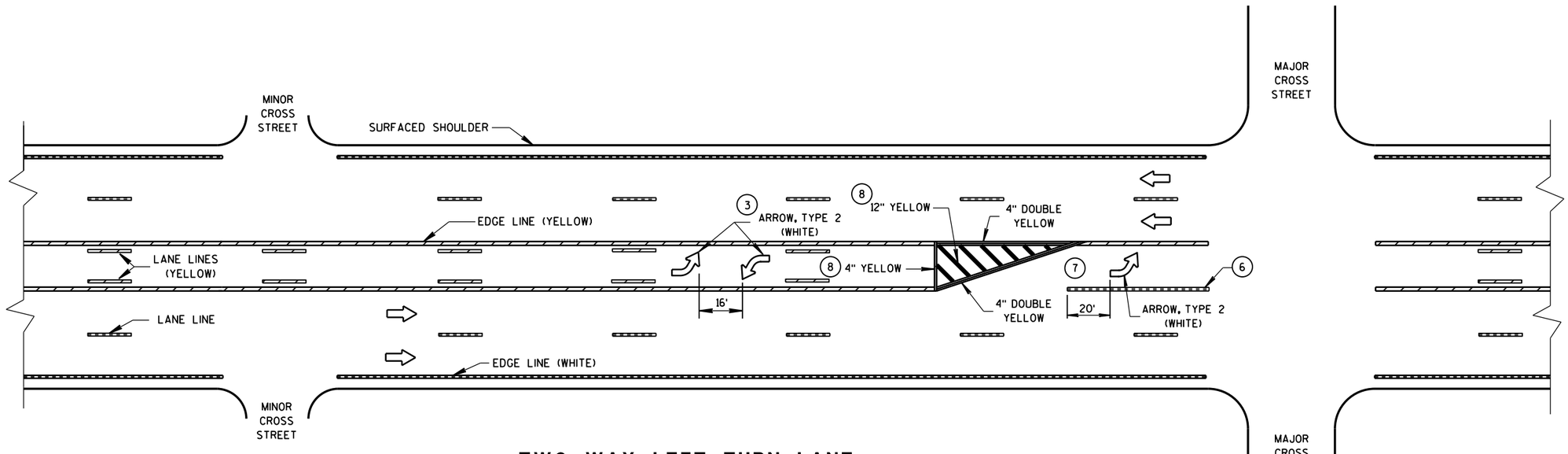
S.D.D. 15 C 8-16d



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

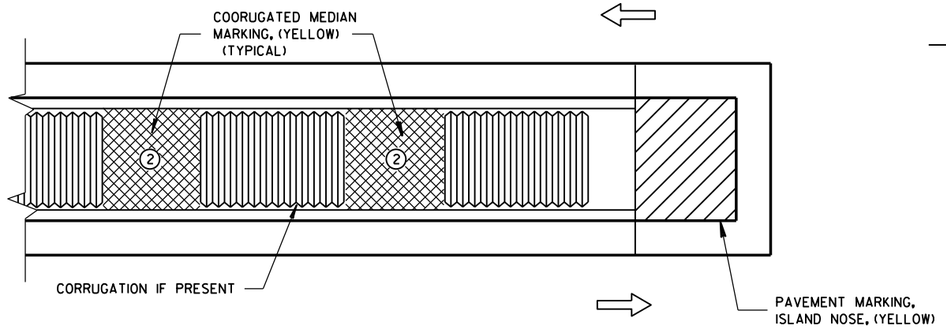
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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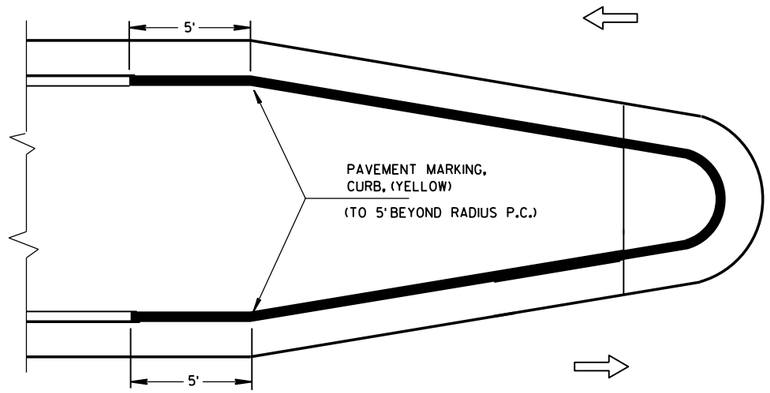
S.D.D. 15 C 8-16e

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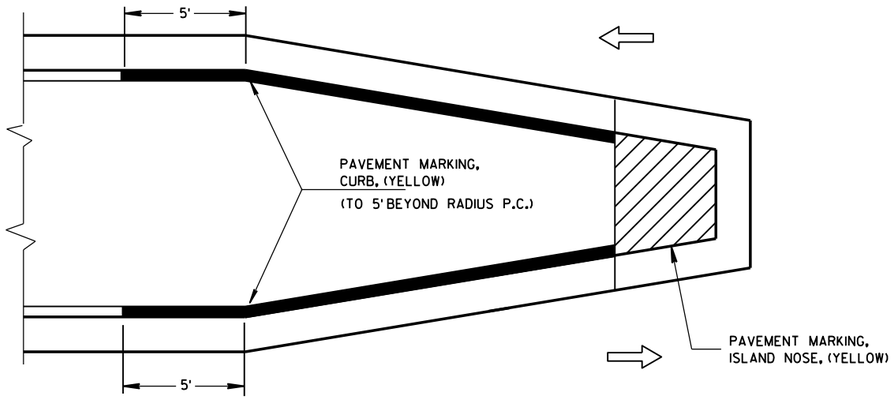
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

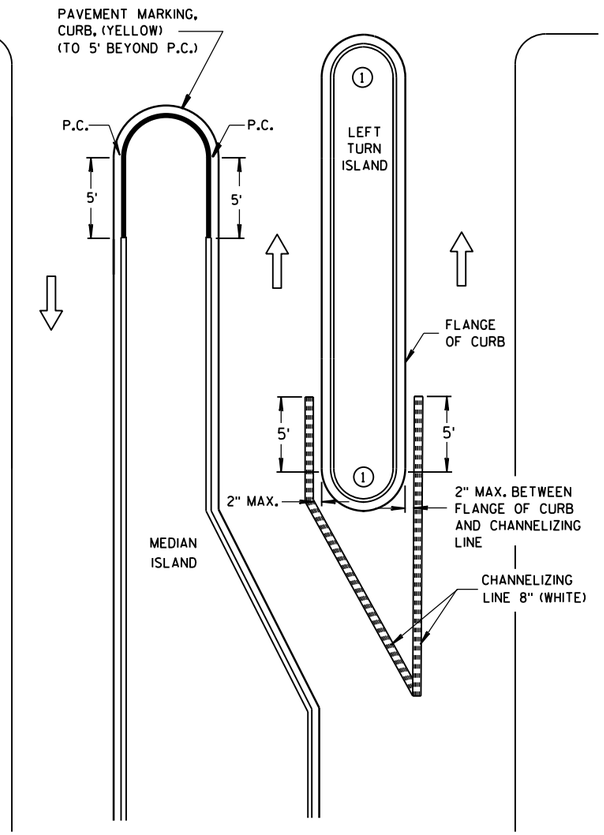


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

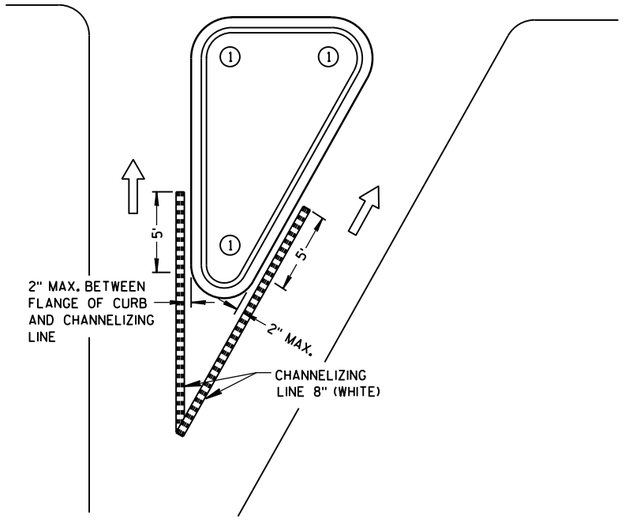


LEFT TURN & MEDIAN ISLAND

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)

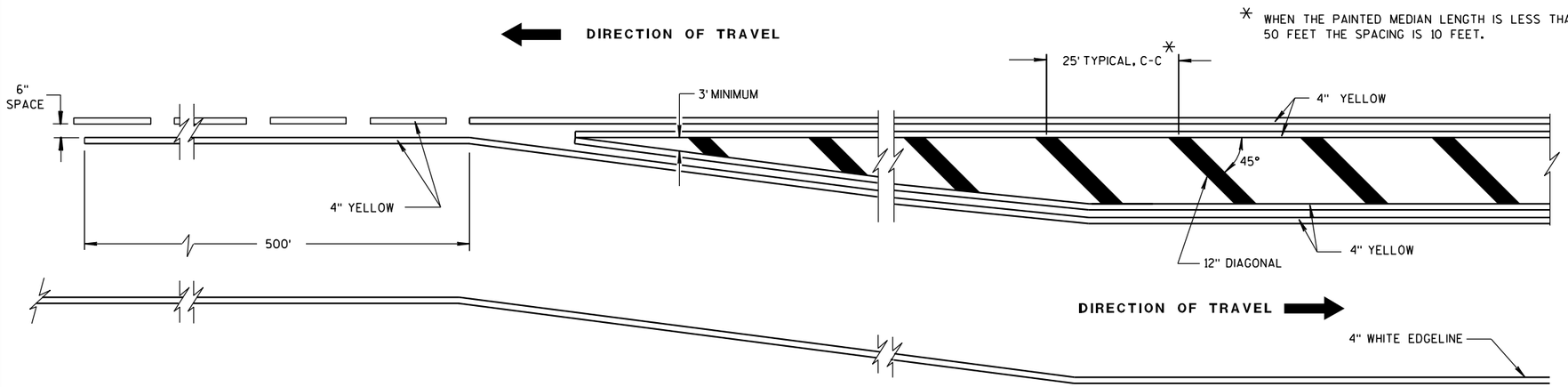
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 C 8-16f

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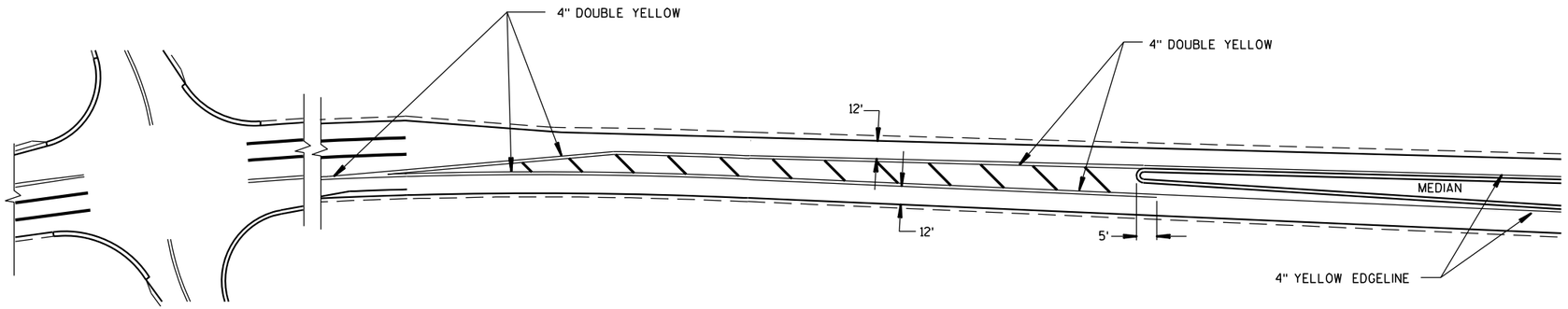
S.D.D. 15 C 8-16f



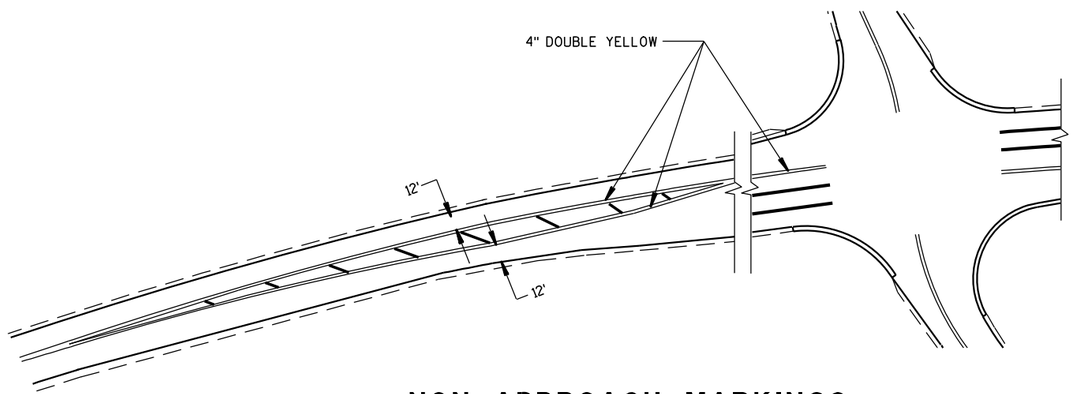
MEDIAN ISLAND DETAIL

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 379 IGN
FHWA	

6

S.D.D. 15 C 18-3

6

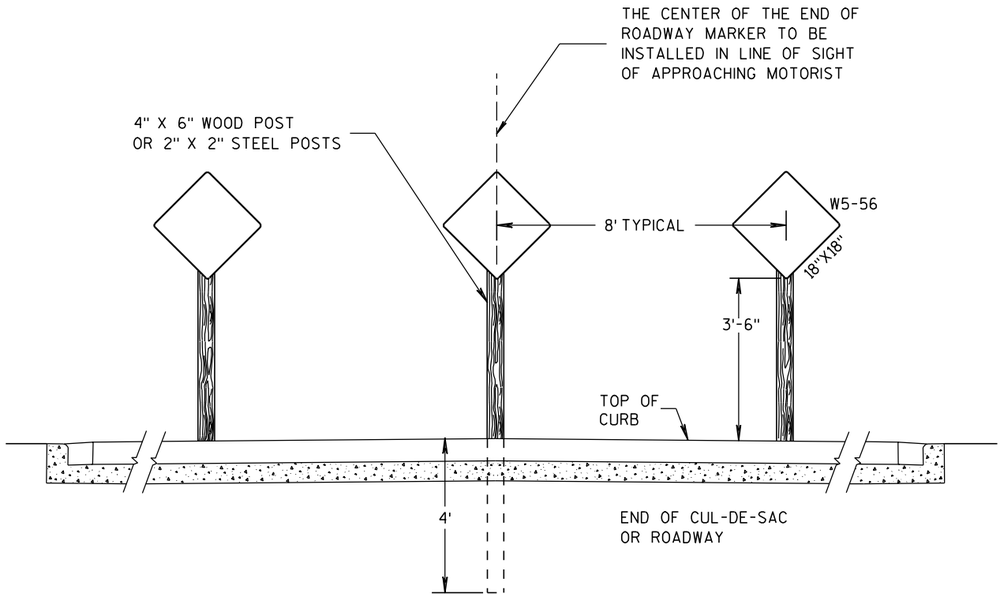
S.D.D. 15 C 18-3

GENERAL NOTES

SIGN LOCATIONS SHOWN ARE TYPICAL PLACEMENT AND MAY BE ADJUSTED BY THE ENGINEER AS FIELD CONDITIONS DICTATE.

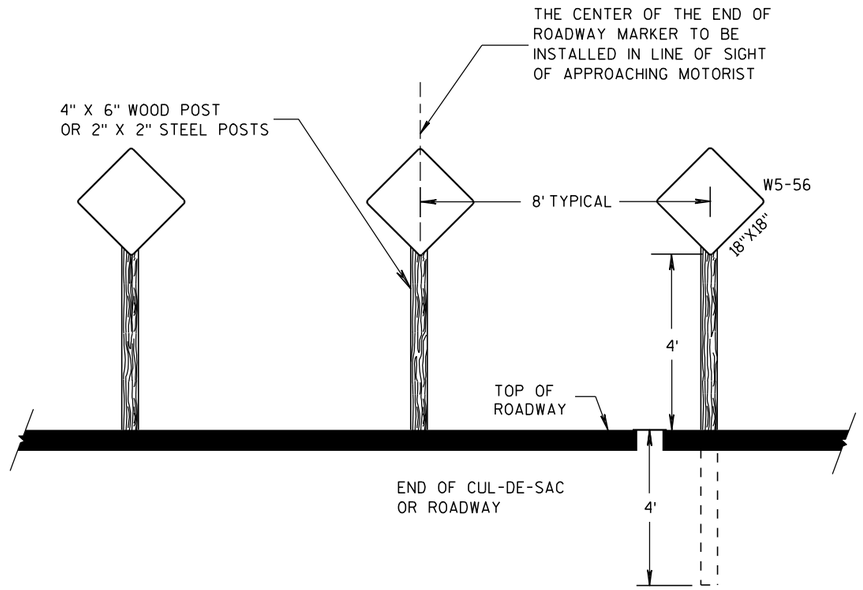
THE MINIMUM NUMBER OF END-OF-ROADWAY SIGNS ARE THREE (AS SHOWN). ADDITIONAL END-OF-ROADWAY SIGNS MAY BE INSTALLED AS FIELD CONDITIONS DICTATE. (SEE SIGNING PLAN).

WHEN BEAMGUARD IS REQUIRED, PLACE END-OF-ROADWAY SIGNING BEHIND BEAMGUARD.



TYPICAL URBAN SIGN INSTALLATION

(WITH CURB & GUTTER)



TYPICAL RURAL SIGN INSTALLATION

(WITHOUT CURB & GUTTER)

6

S.D.D. 15 C 26-2

END-OF-ROADWAY SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/1/2011 — DATE

/S/ Thomas N. Nothohm — STATE TRAFFIC ENGINEER

380 — SIGN

FHWA

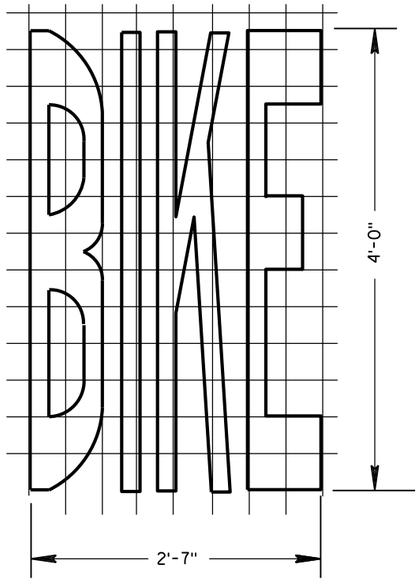
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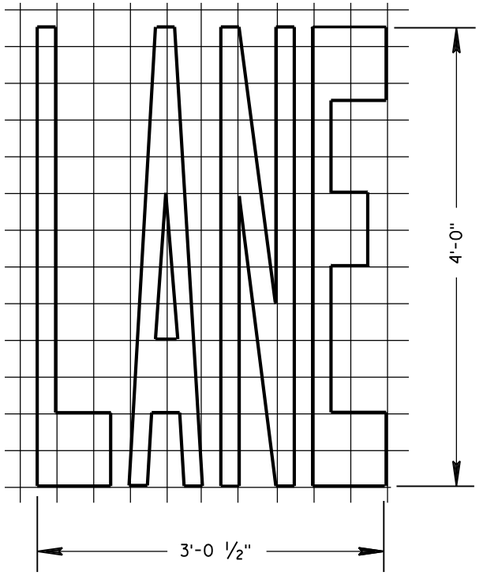
S.D.D. 15 C 26-2

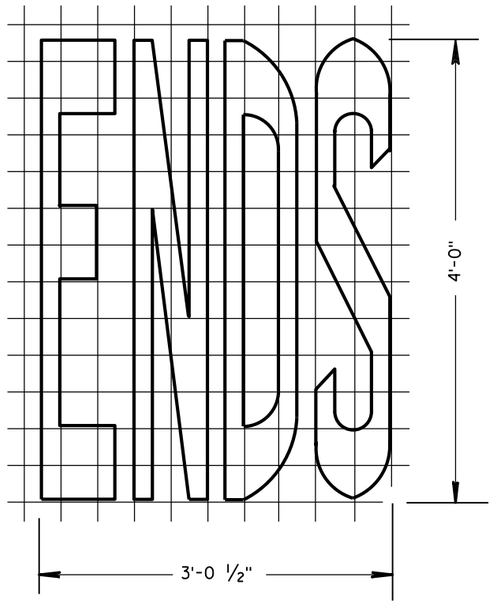
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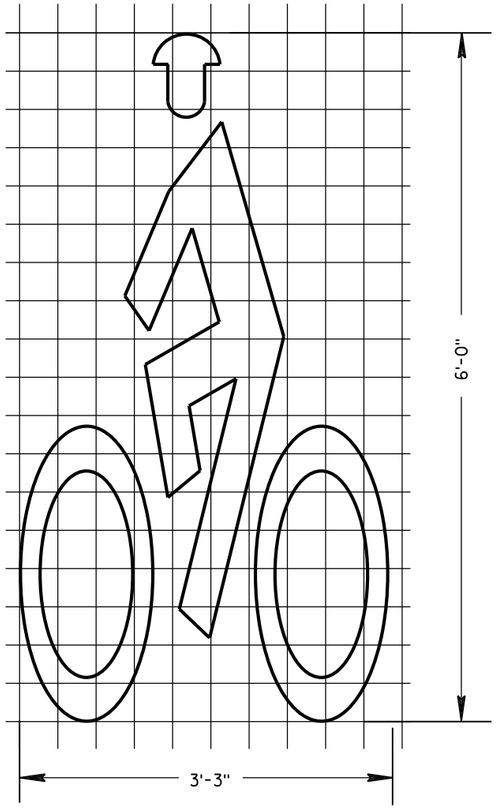
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



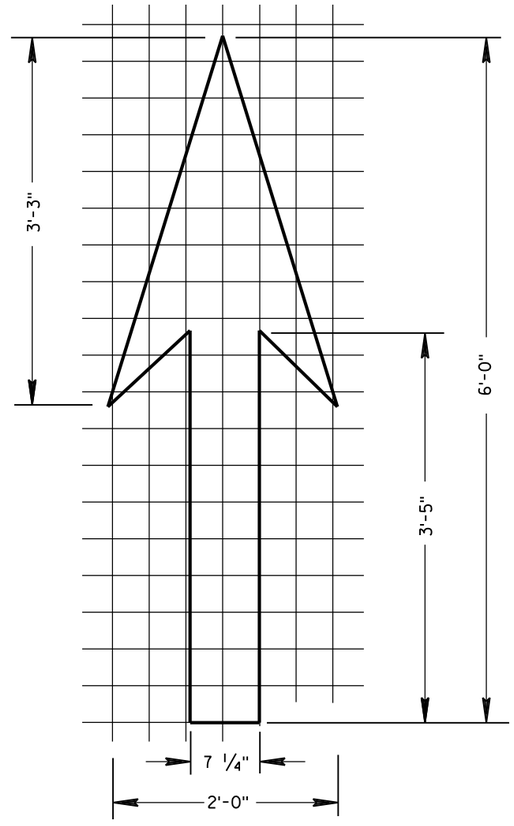




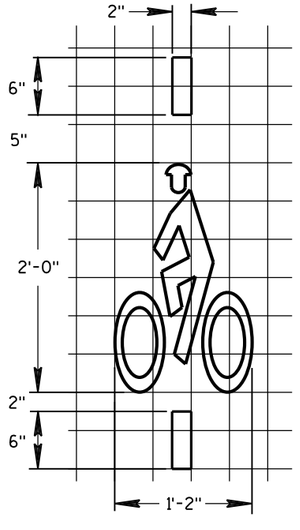
BIKE LANE WORDS



BIKE LANE SYMBOL



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-30-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC EN

FHWA

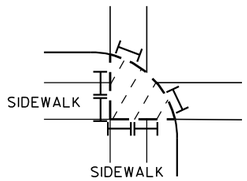
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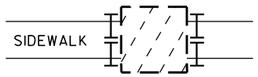
S.D.D. 15 C 29-3e

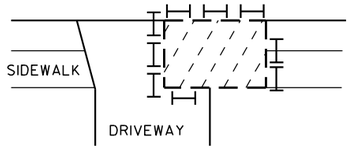
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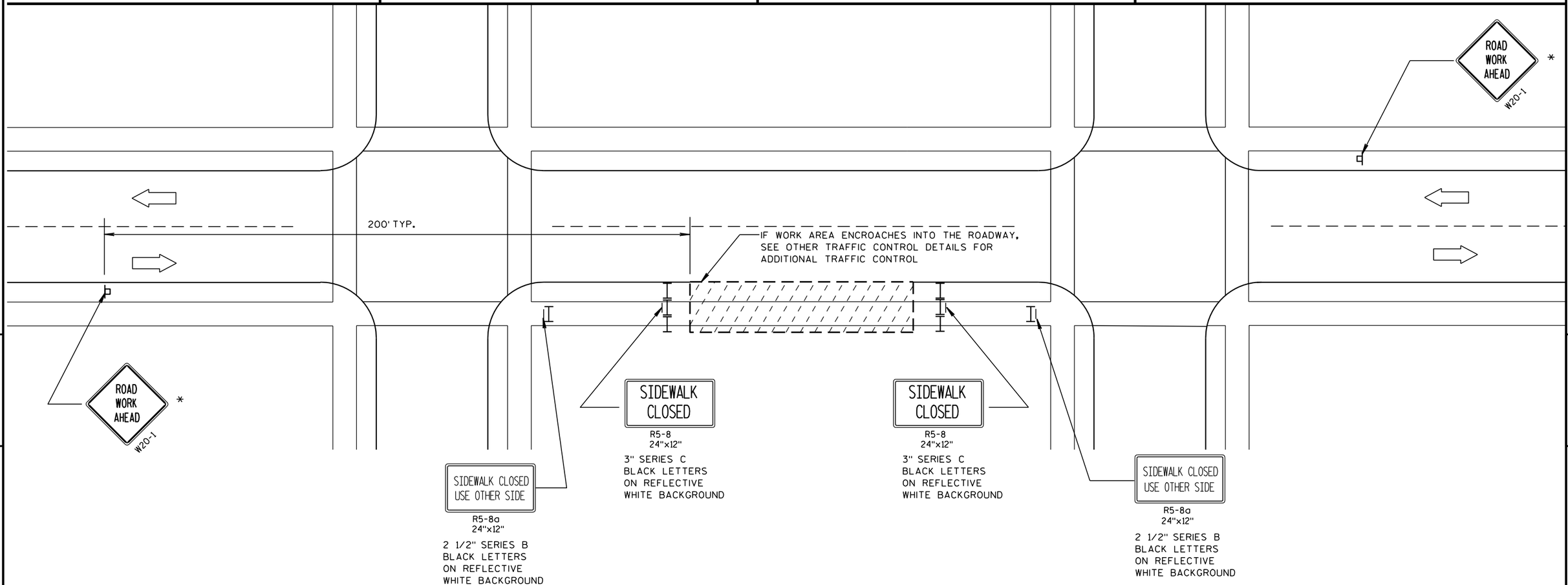
S.D.D. 15 C 29-3e

WARNING OF LOCALIZED SIDEWALK WORK AREAS









LEGEND

- POST MOUNTED SIGN
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC FLOW

GENERAL NOTES :

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, IF APPROVED BY DISTRICT TRAFFIC UNIT.

THE EXACT LOCATION AND PLACEMENT OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

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

* "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

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

TRAFFIC CONTROL, SIDEWALK CLOSURE

TRAFFIC CONTROL, SIDEWALK CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

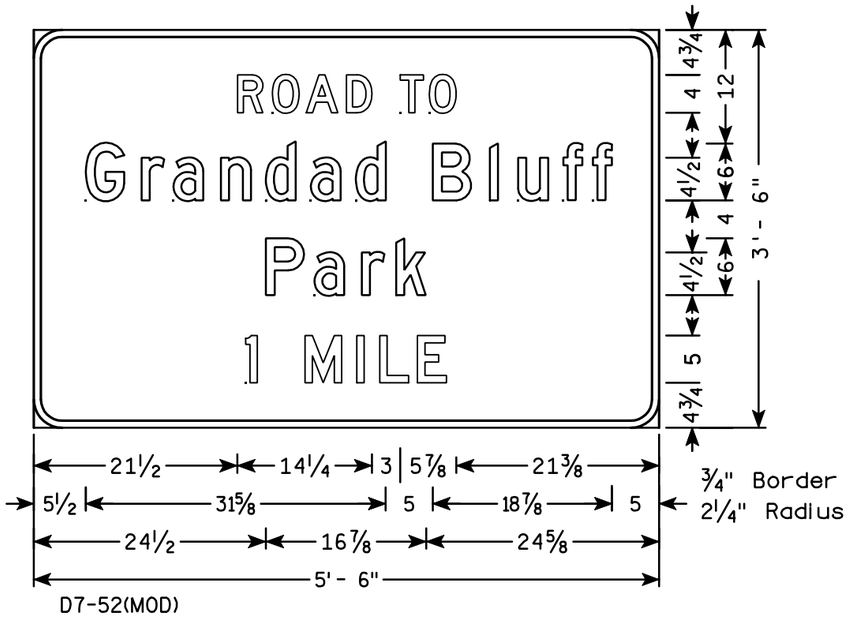
APPROVED
5/23/2000 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible] ENGINEER
FHWA

6

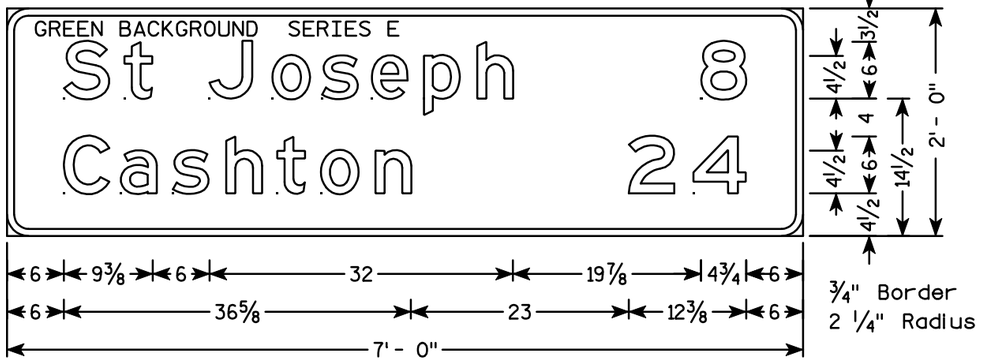
S.D.D. 15 D 30-1

NOTES

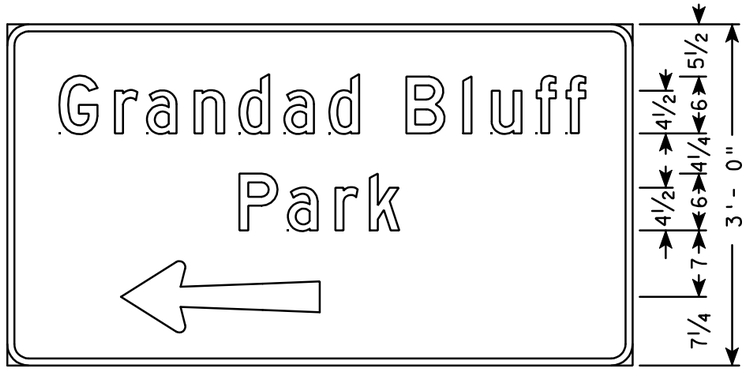
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Brown except as Shown
   Message - White
3. Message Series - D except as Shown



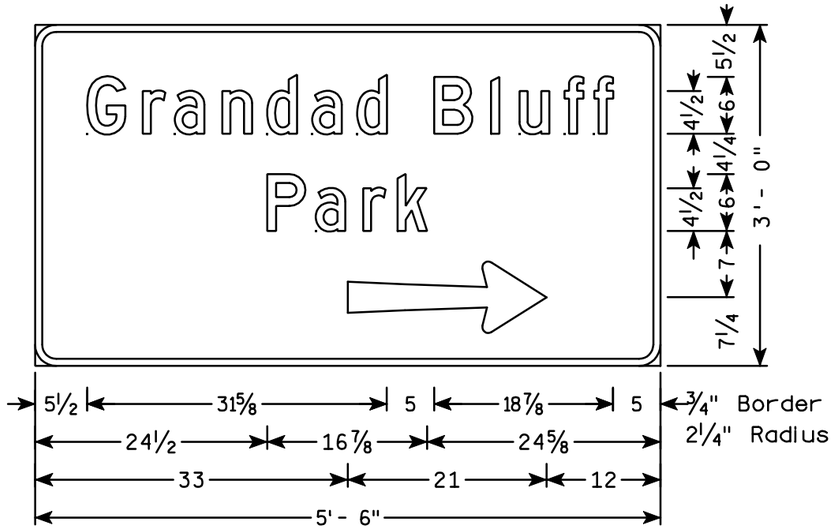
D7-52(MOD)



D2-2



D7-53L(MOD)



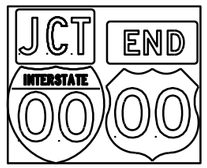
D7-53R(MOD)

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	SIGN DETAILS	SHEET NO: 383	E

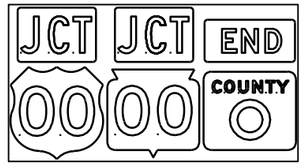
TYPICAL ASSEMBLIES



J1-1



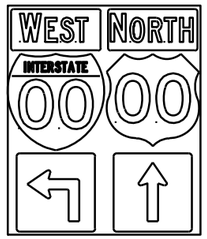
J1-2



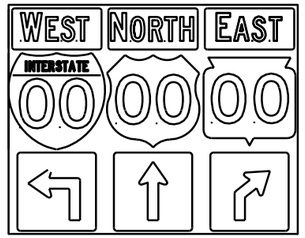
J1-3



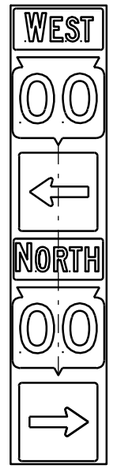
J2-1



J2-2

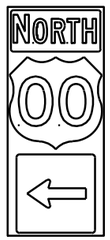


J2-3

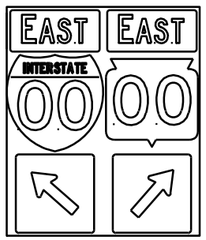


JV

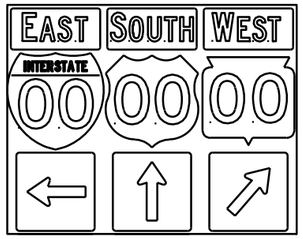
(Typical Vertical J-Assembly
See Note 10 and 11)



J3-1



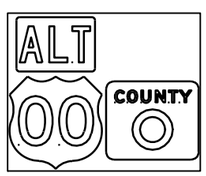
J3-2



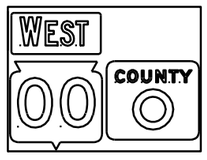
J3-3



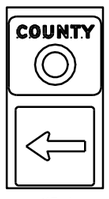
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

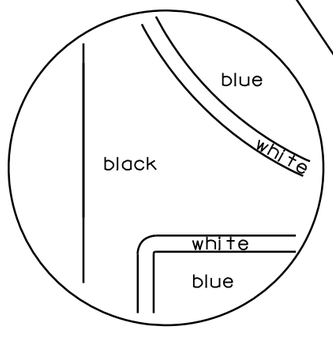


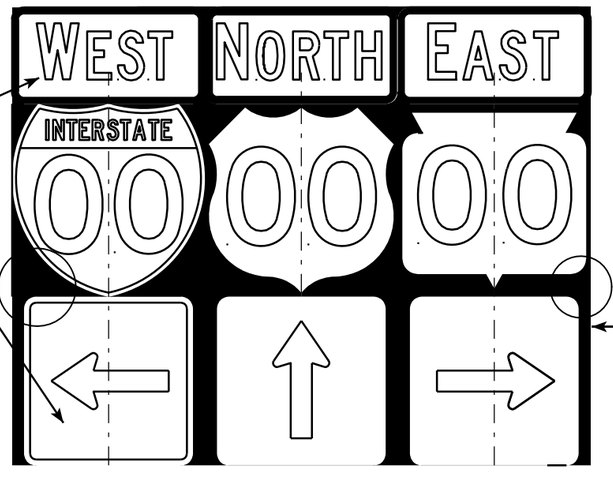
J23-1

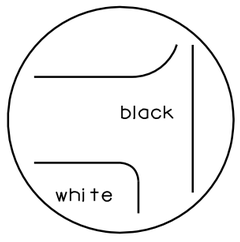


J22-1

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

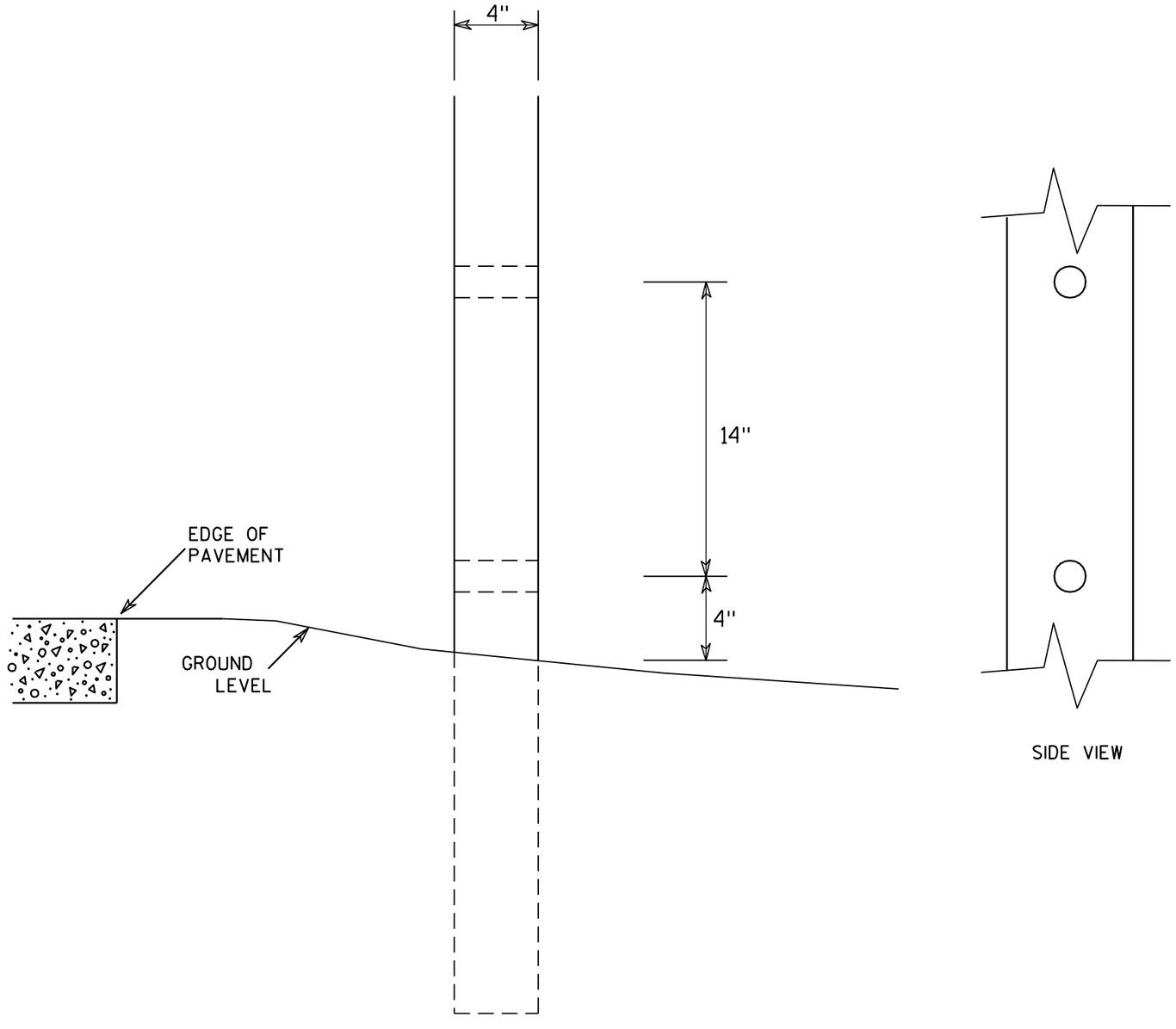
DATE 3/25/13 PLATE NO. A2-1S.7

7

7

PROJECT NO:

SHEET NO: 384 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

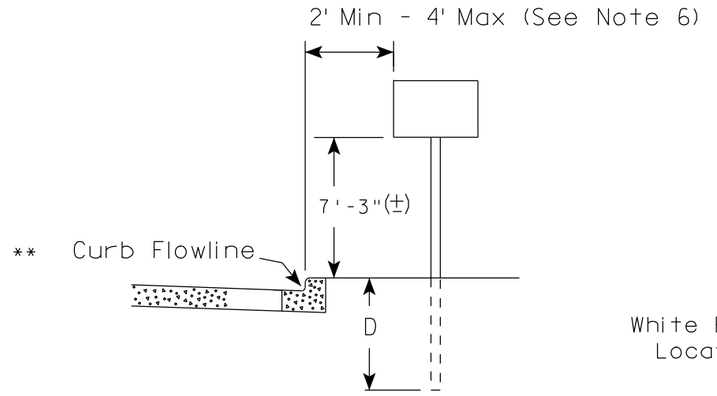
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

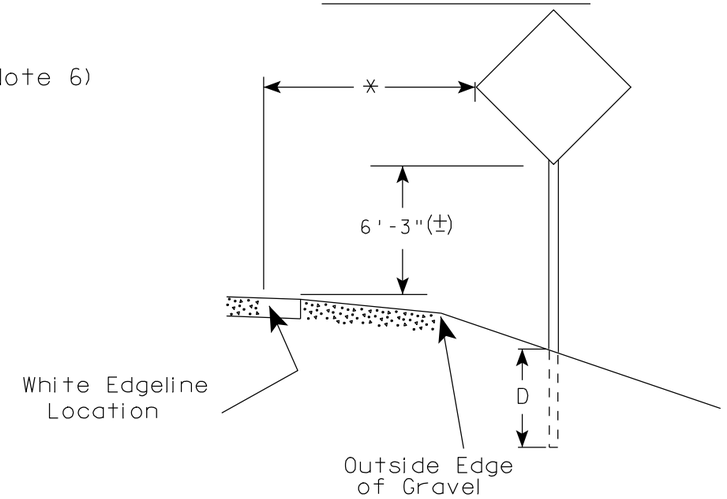
DATE 3/27/97 PLATE NO. A4-11.2

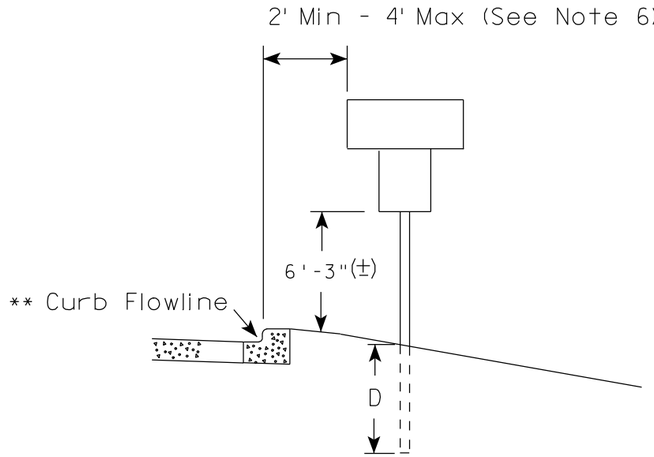
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 385	E

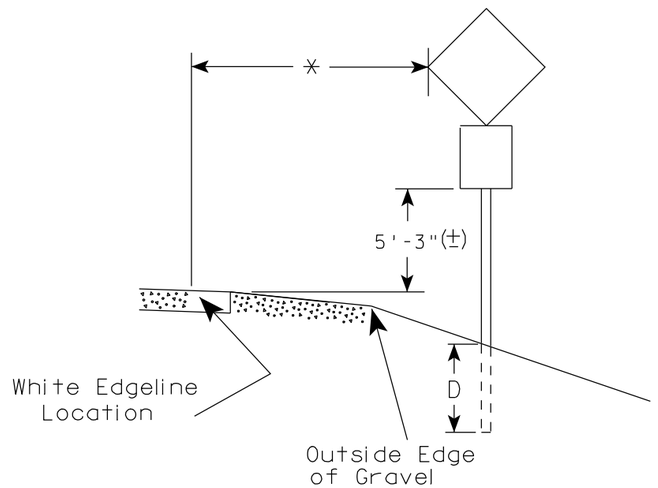
URBAN AREA



RURAL AREA (See Note 2)







GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. 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 (A4-5) 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 stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed 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) & End of Rod Markers (W5-56 & W5-56A) 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

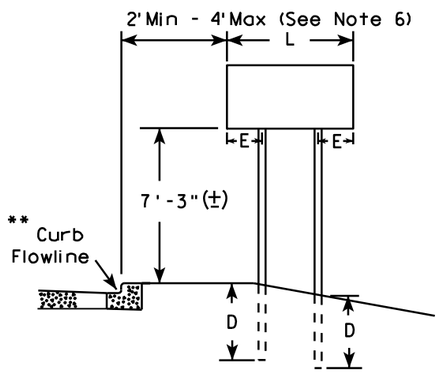
DATE 5/24/2013 PLATE NO. A4-3.17

7

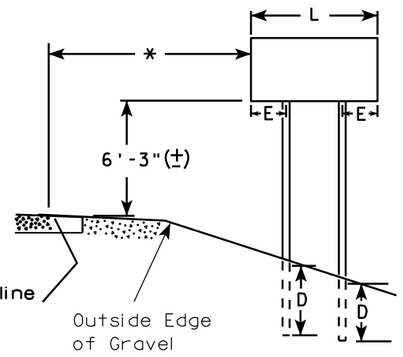
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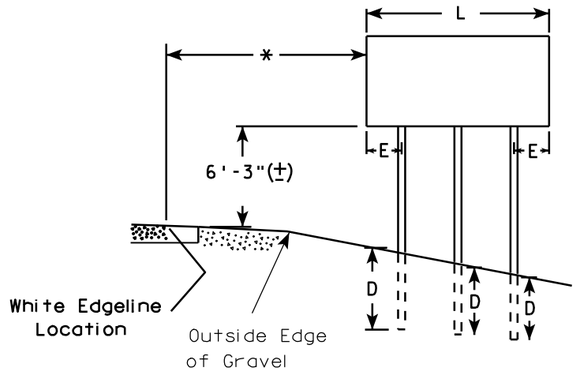
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 386	E

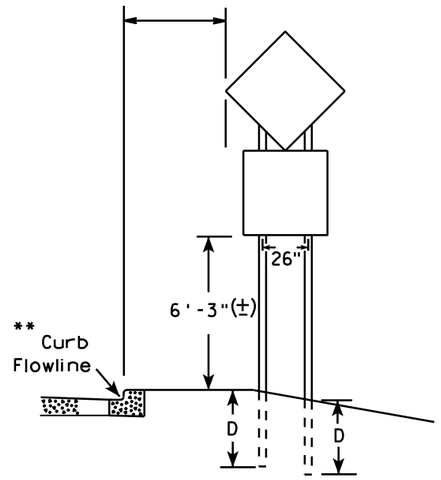
URBAN AREA



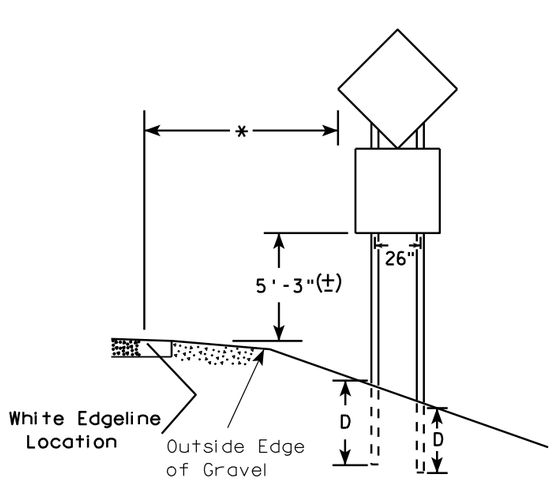
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

GENERAL NOTES

1. For multiple 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 (A4-5) 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 stop signs (R1-1F) 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) & End of Road Markers (W5-56 & W5-56A) 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 or 20 S.F. or less in area.

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

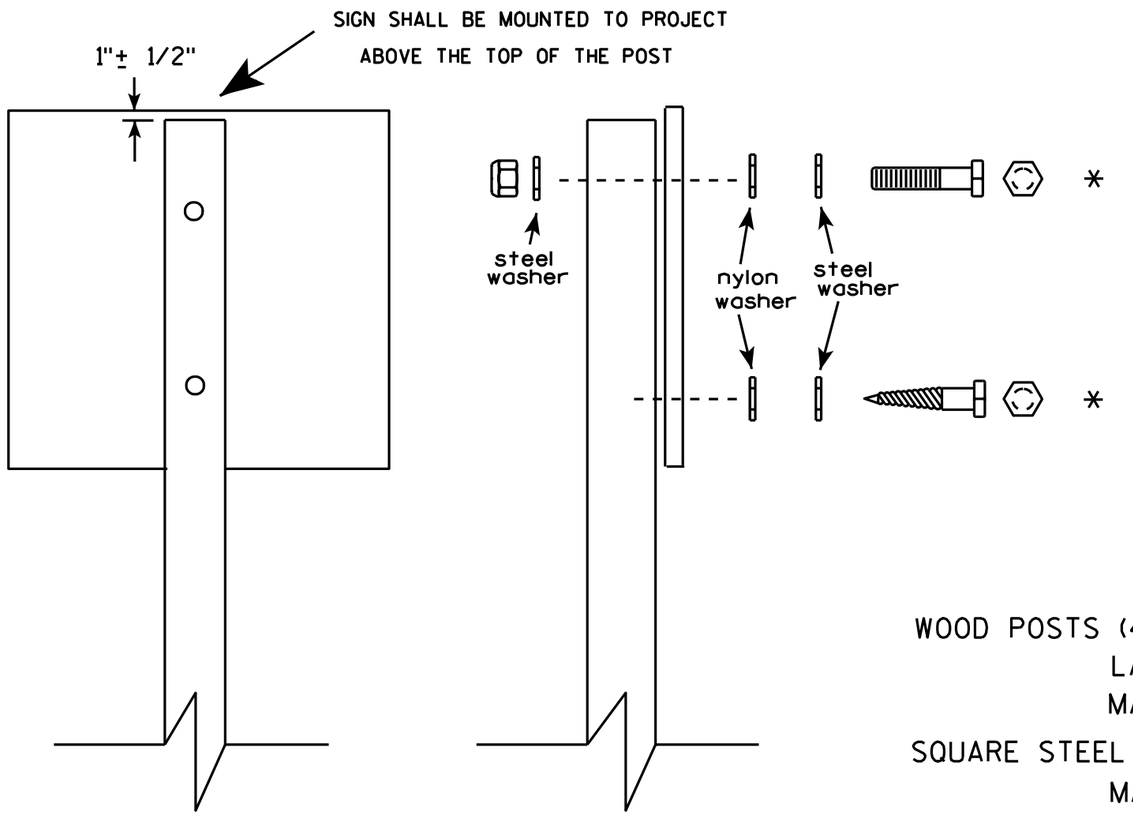
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 387	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\A44.DGN PLOT DATE : 21-SEP-2011 13:36 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 109.249131:1.000000 WISDOT/CADDS SHEET 42



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

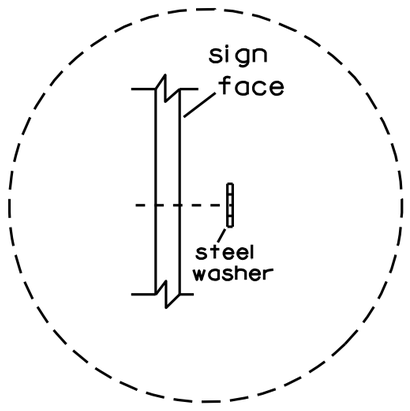
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* 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 3/23/10 PLATE NO. A4-8.7

7

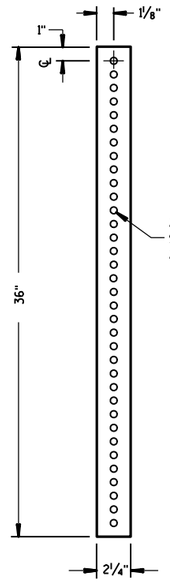
7

PROJECT NO:

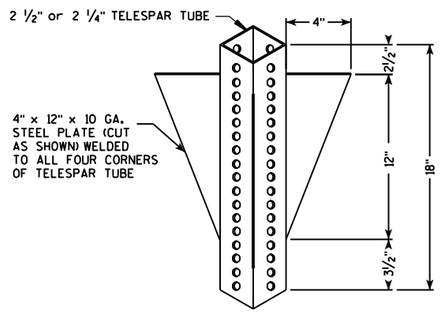
SHEET NO: 388 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

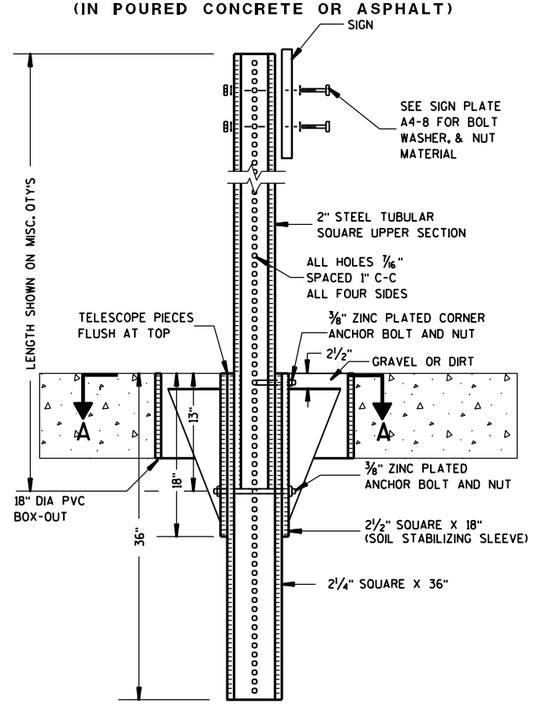
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



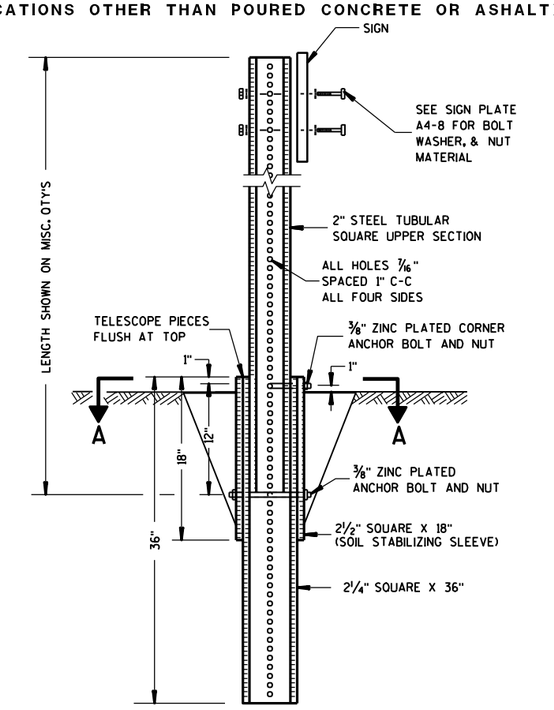
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

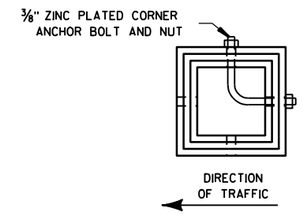


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASHALT)





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).

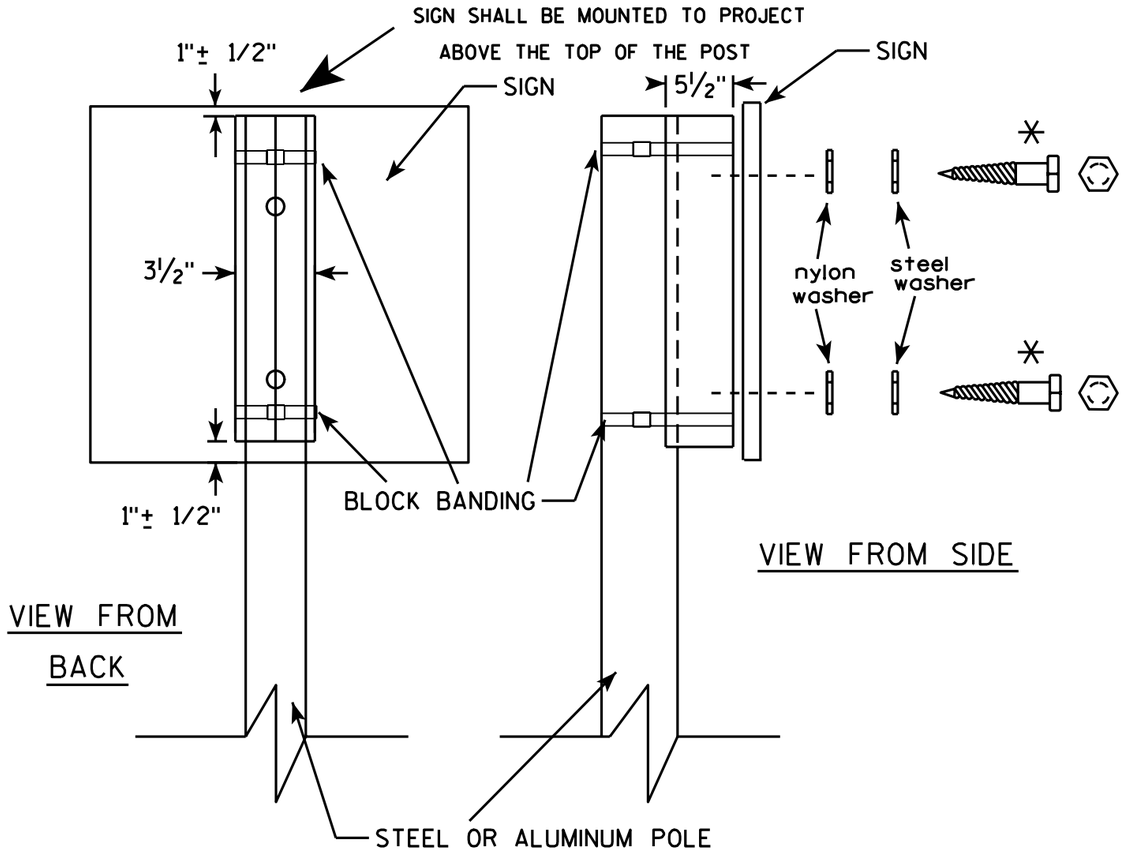
TUBULAR STEEL SIGN POST A4-9

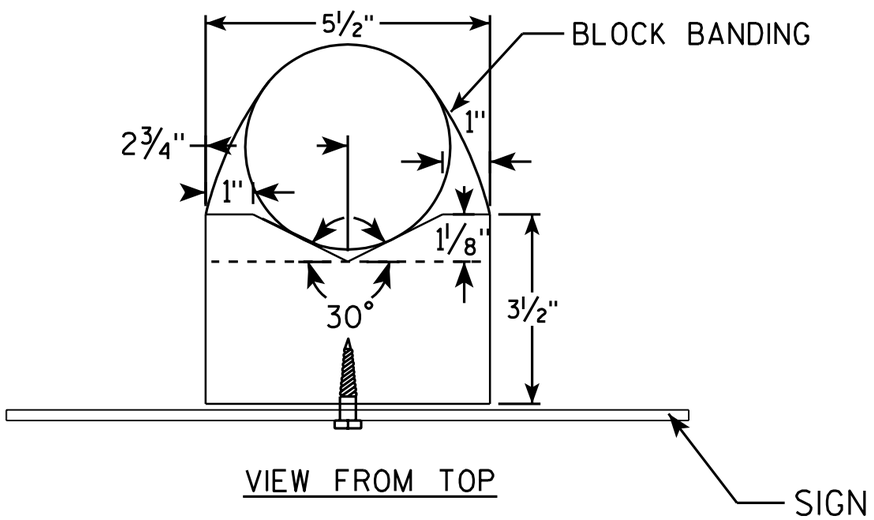
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/30/12 PLATE NO. A4-9.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 389	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

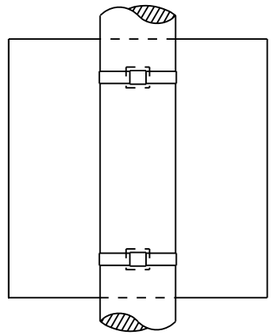
SHEET NO: 390 E

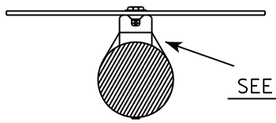
FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

WISDOT/CADDS SHEET 42

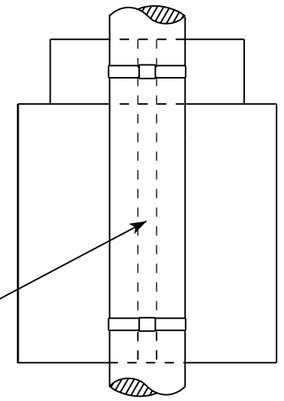
BANDING

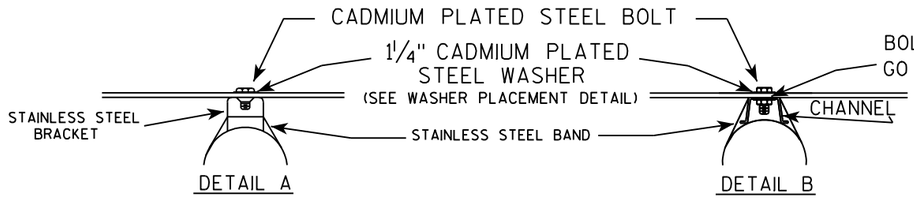
SINGLE SIGN



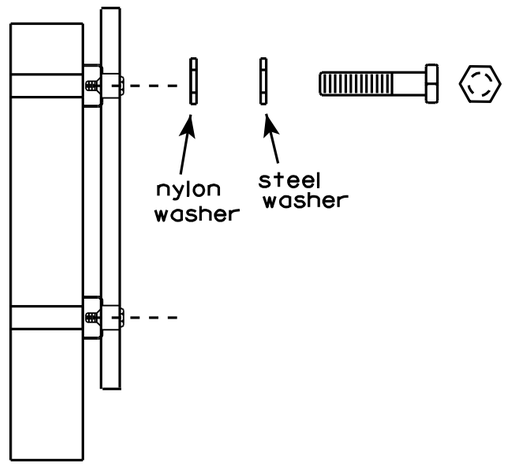


"J" ASSEMBLY





WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.

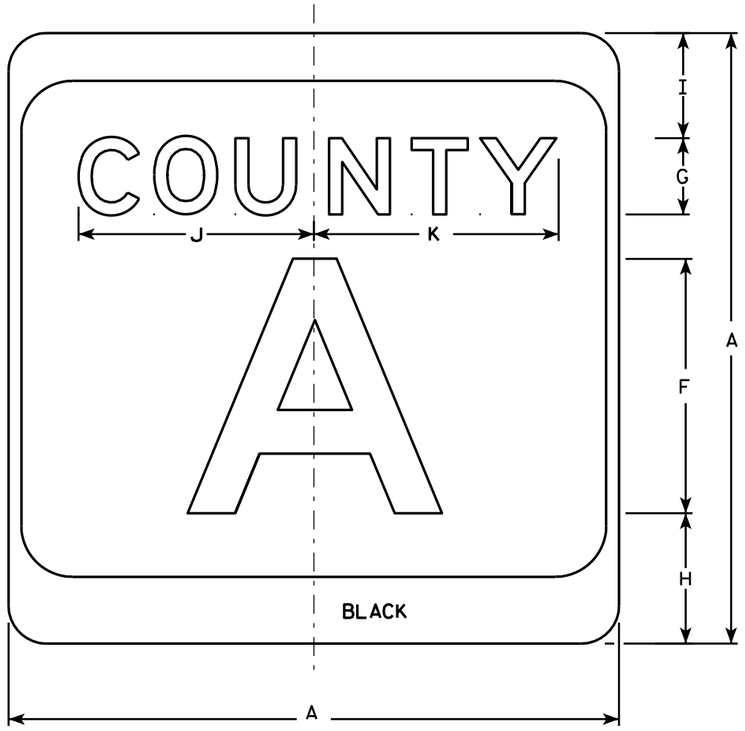
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

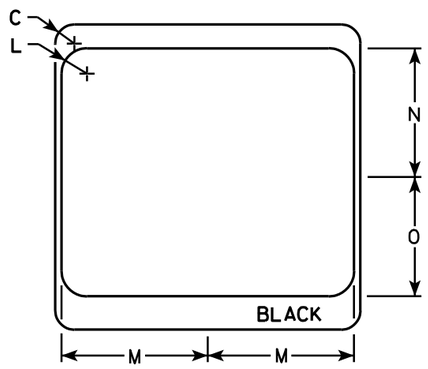
APPROVED Matthew R Rauch
for State Traffic Engineer

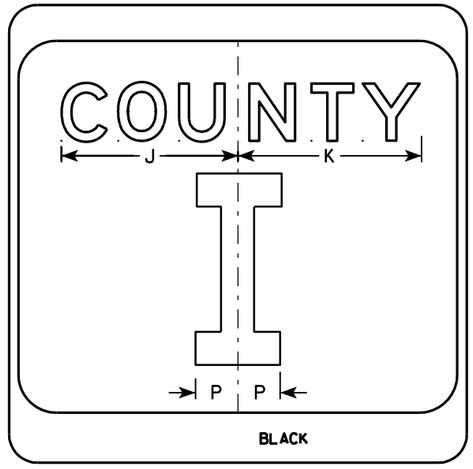
DATE 8/16/13 PLATE NO. A5-9.3

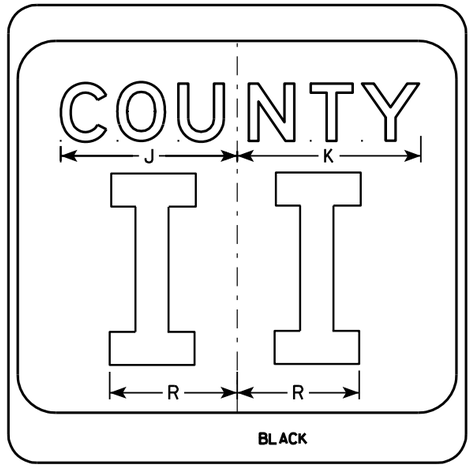
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 391	E



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

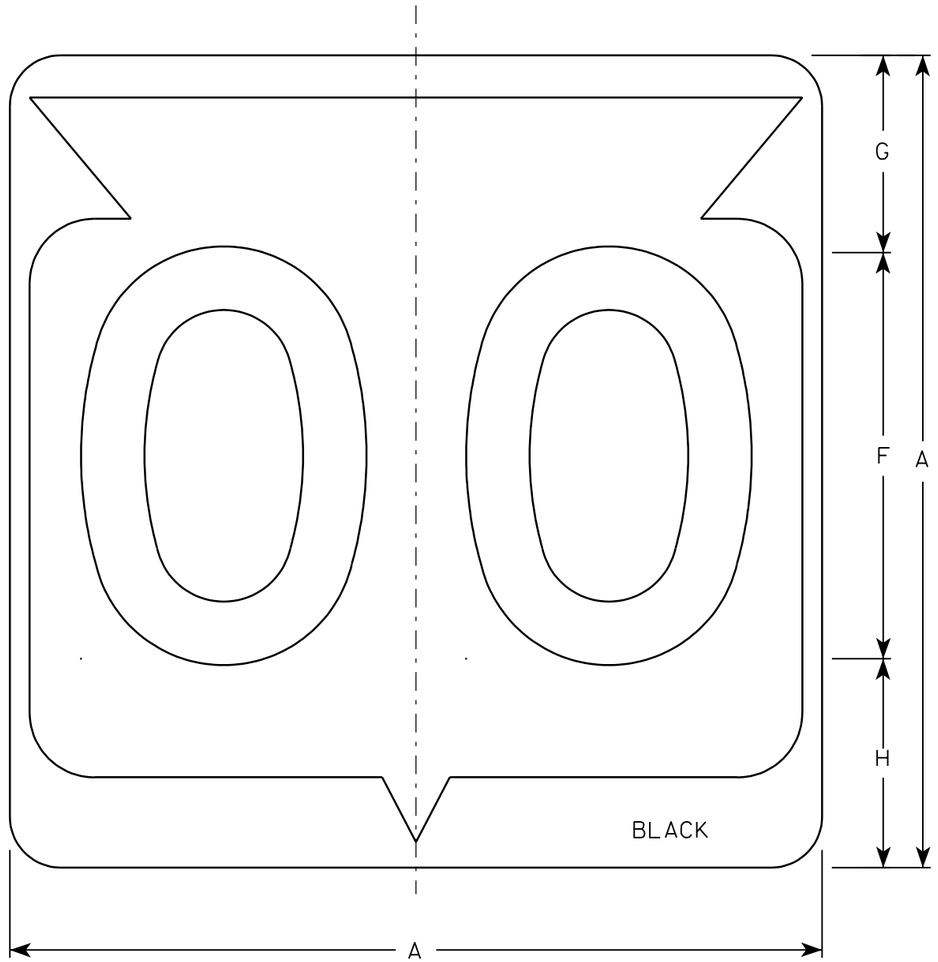
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

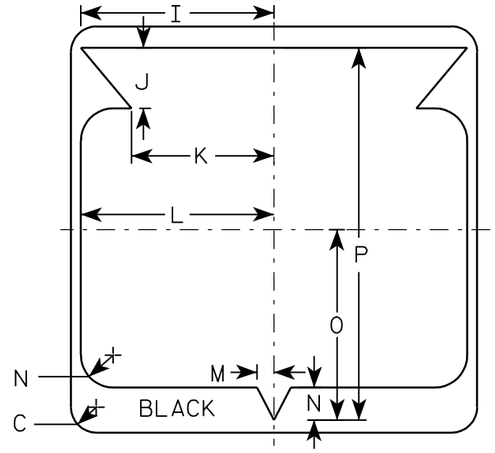
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 392 | E



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

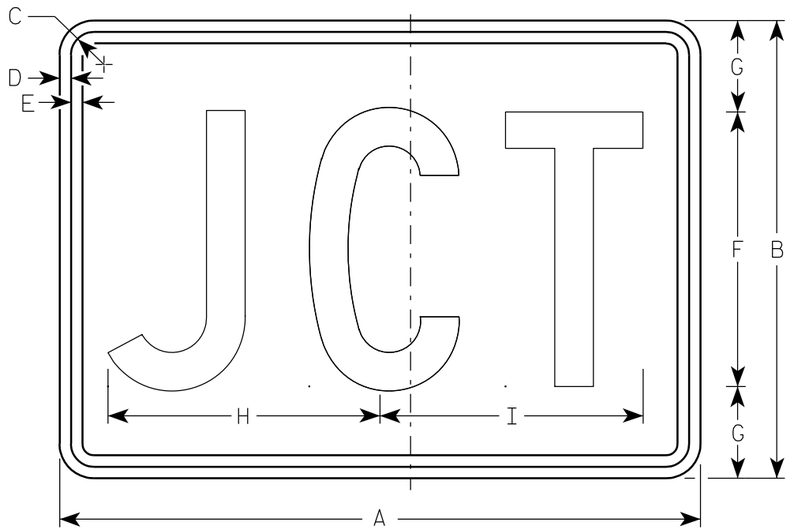
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

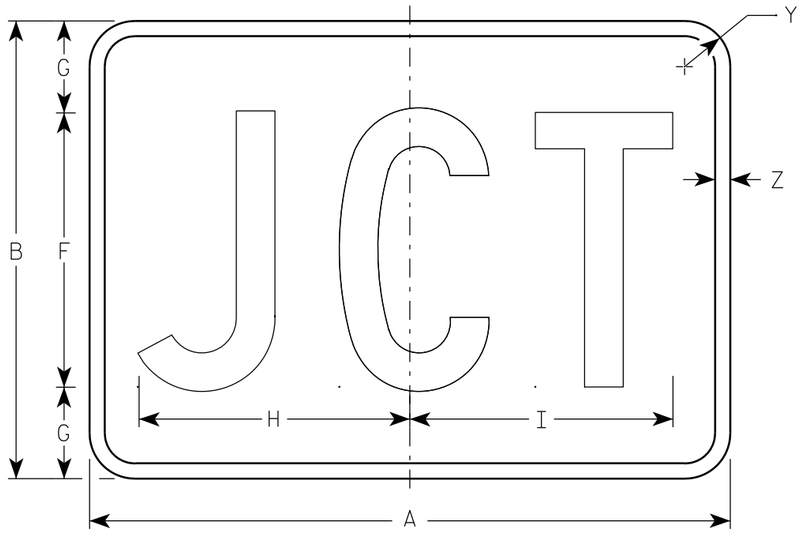
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 393	E



M2-1
MK2-1
MM2-1
MR2-1



MB2-1
MG2-1
MN2-1

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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 - Type H Reflective
   (Detour or temporary Signs - Reflective)
   Message - Black
   MB2-1 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   MG2-1 Background - Green
   Message - White - Type H Reflective
   MK2-1 Background - Green
   Message - White - Type H Reflective
   MM2-1 Background - White - Type H Reflective
   Message - Green
   MN2-1 Background - Brown
   Message - White - Type H Reflective
   MR2-1 Background - Brown
   Message - Yellow - Type H Reflective

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 375 mm
3	750 mm X 525 mm
4	750 mm X 525 mm
5	750 mm X 525 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	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
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	0.20
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	0.20
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	0.20

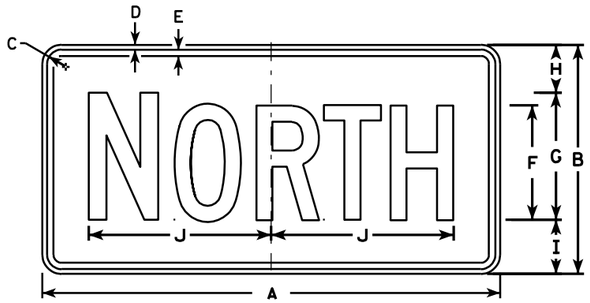
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

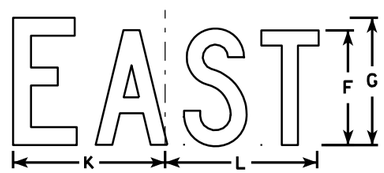
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M2-1.10

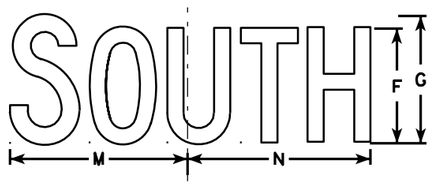
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 394	E



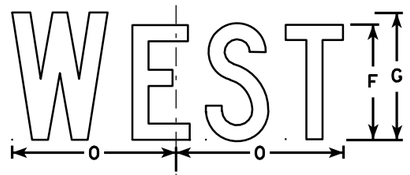
M3-1
MK3-1
MO3-1



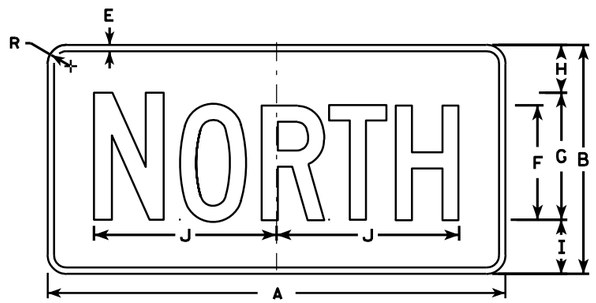
M3-2
MK3-2
MO3-2



M3-3
MK3-3
MO3-3



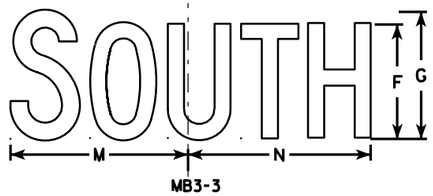
M3-4
MK3-4
MO3-4



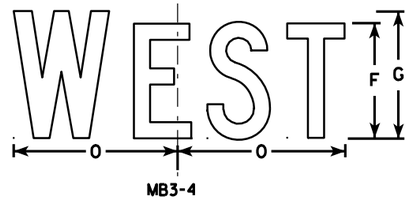
MB3-1
MG3-1
MM3-1
MN3-1



MB3-2
MG3-2
MM3-2
MN3-2



MB3-3
MG3-3
MM3-3
MN3-3



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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 - Type H Reflective
   (Detour or temporary signs - Reflective)
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary signs - Reflective)
   MG3-1 thru MG3-4 Background - Green
   Message - White - Type H Reflective
   MK3-1 thru MK3-4 Background - Green
   Message - White - Type H Reflective
   MM3-1 thru MM3-4 Background - White - Type H Reflective
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White - Type H Reflective
   M03-1 thru M03-4 Background - Orange - Reflective
   Message - Black
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

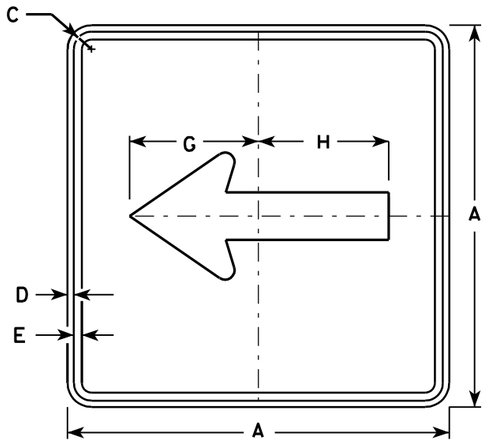
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

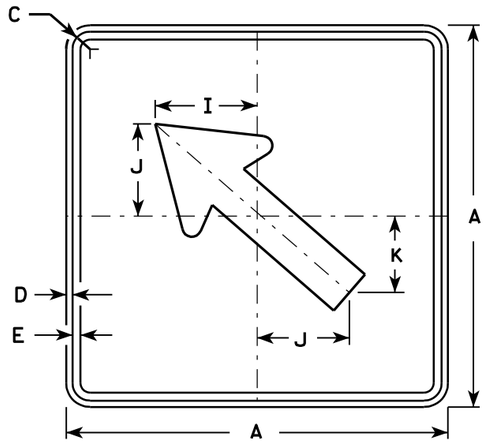
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/10/10 PLATE NO. M3-1.12

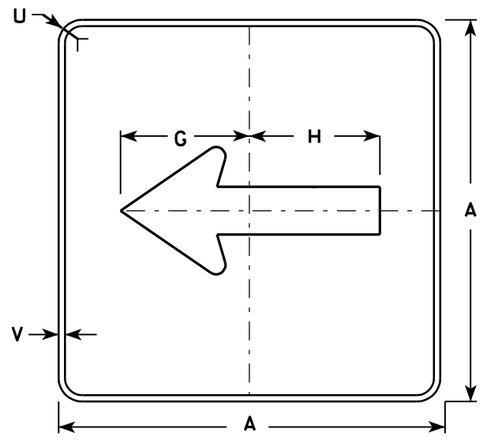
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 395	E



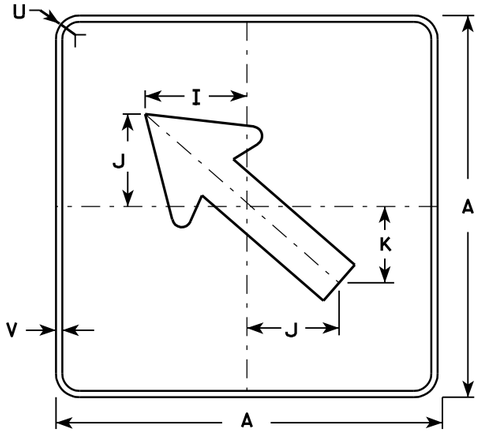
M6-1
MK6-1
MM6-1
MO6-1
MP6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MP6-2
MR6-2



MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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 - Type H Reflective
   Message - Black

   MB6-1 and MB6-2 Background - Blue
   Message - White - Type H Reflective

   MG6-1 and MG6-2 Background - Green
   Message - White - Type H Reflective

   MK6-1 and MK6-2 Background - Green
   Message - White - Type H Reflective

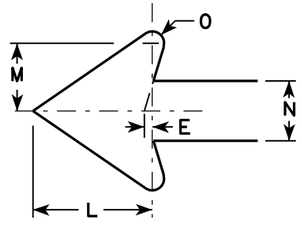
   MM6-1 and MM6-2 Background - White - Type H Reflective
   Message - Green

   MN6-1 and MN6-2 Background - Brown
   Message - White - Type H Reflective

   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black

   MP6-1 and MP6-2 Background - White - Type H Reflective
   Message - Blue

   MR6-1 and MR6-2 Background - Brown
   Message - White - Type H 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	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

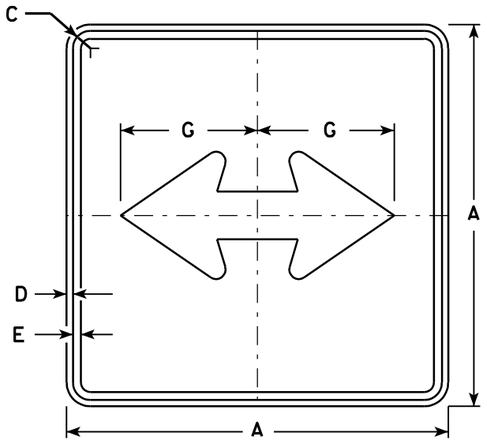
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

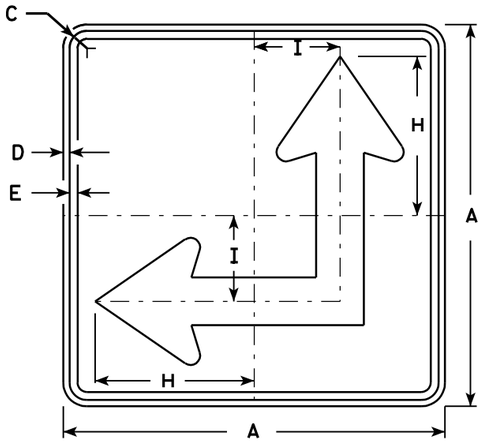
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-1.13

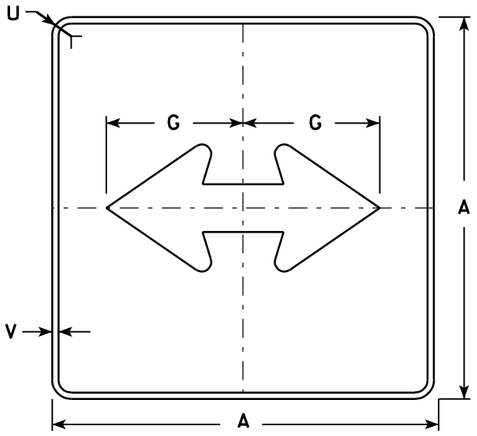
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 396	E



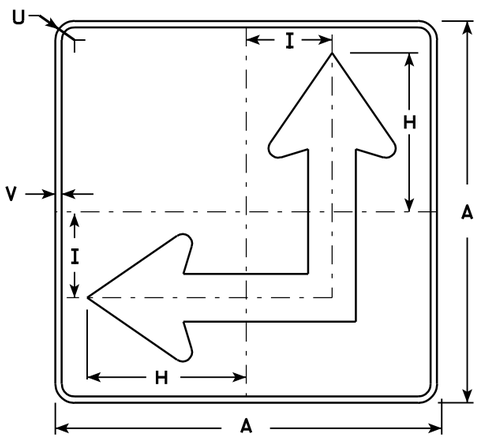
M6-4
MK6-4
MM6-4
MO6-4
MP6-4
MR6-4



M6-6
MK6-6
MM6-6
MO6-6
MP6-6
MR6-6



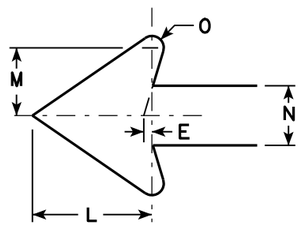
MB6-4
MG6-4
MN6-4



MB6-6
MG6-6
MN6-6

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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 - Type H Reflective
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White - Type H Reflective
   MG6-4 and MG6-6 Background - Green
   Message - White - Type H Reflective
   MK6-4 and MK6-6 Background - Green
   Message - White - Type H Reflective
   MM6-4 and MM6-6 Background - White - Type H Reflective
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White - Type H Reflective
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White - Type H Reflective
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow - Type H Reflective
5. M6-6R same as M6-6L except arrow points ahead and 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 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

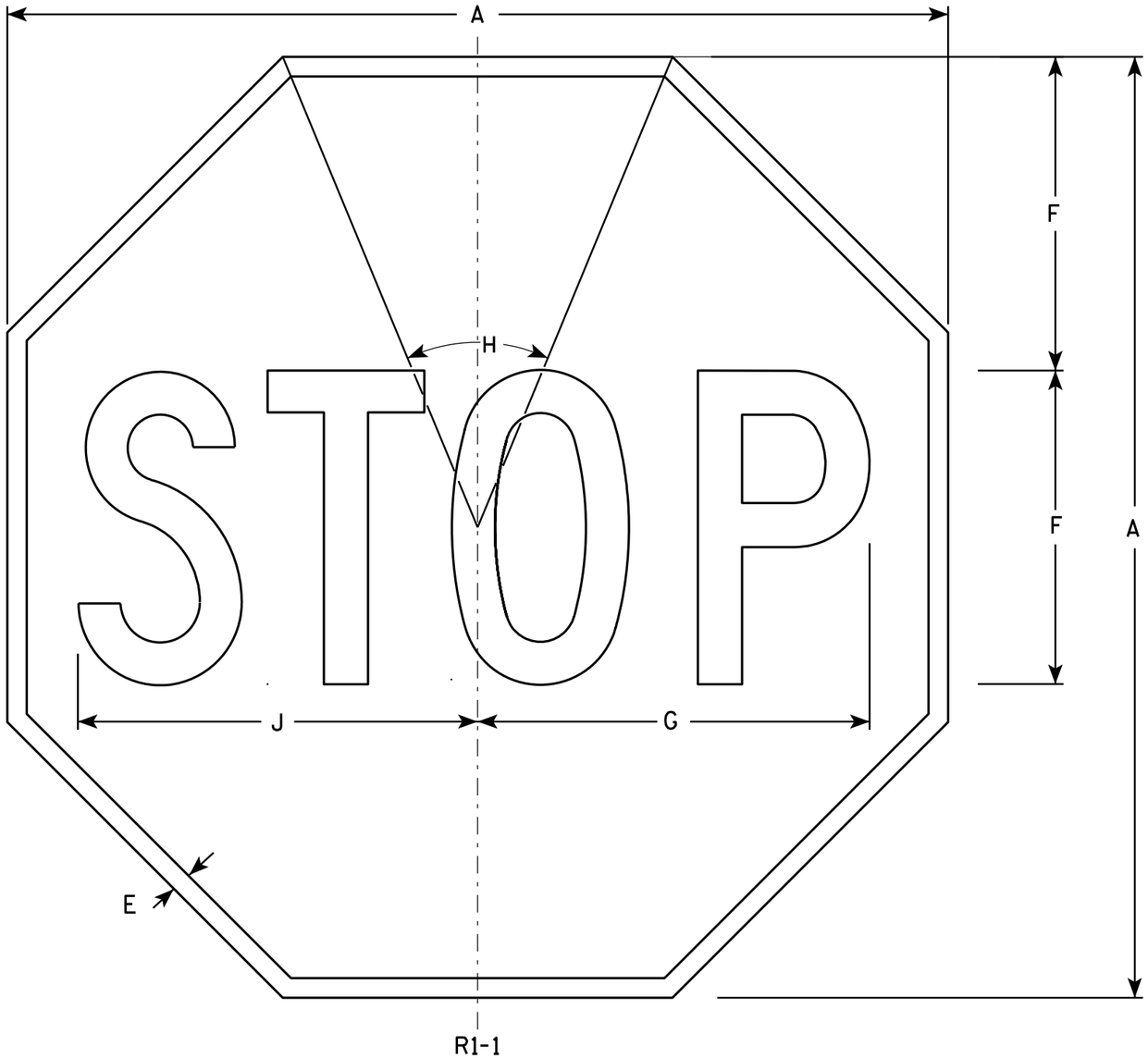
STANDARD SIGN M6-4 & M6-6 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-4.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 397 | E



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	24				3/8	8	10	45°		10 1/4																	3.31
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

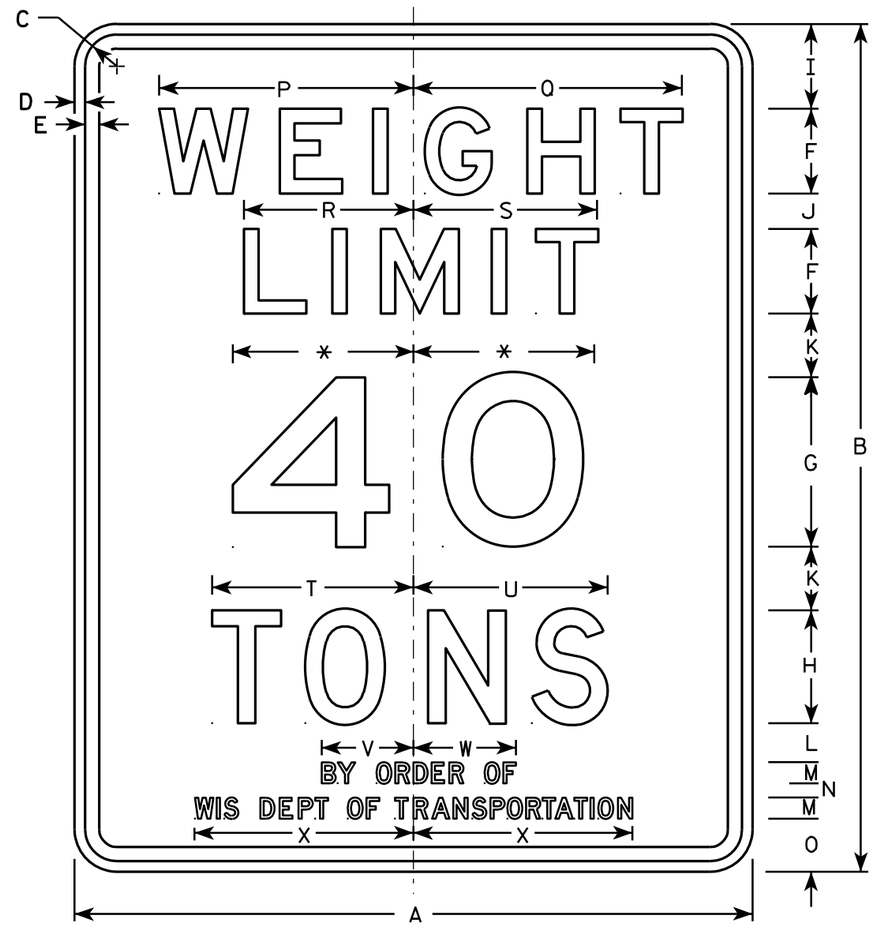
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 398	E



R12-1

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 - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 2 & 3 are series E
   Lines 4, 5, & 6 are series D.
6. Substitute appropriate numeral and optically adjust spacing to achieve proper balance.
7. Substitute name of county or town on County Trunk and Town Highways respectively. Community name on City or Village Streets including Connecting Highways is optional.

* Varies (see note 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	24	30	1 1/8	3/8	1/2	3	6	4	3	1 1/4	2 1/4	1 3/8	3/4	1/2	1 7/8	9	9 1/2	6	6 1/2	7 1/8	6 7/8	3 1/4	3 5/8	7 3/4			5.0
2S	24	30	1 1/8	3/8	1/2	3	6	4	3	1 1/4	2 1/4	1 3/8	3/4	1/2	1 7/8	9	9 1/2	6	6 1/2	7 1/8	6 7/8	3 1/4	3 5/8	7 3/4			5.0
2M	24	30	1 1/8	3/8	1/2	3	6	4	3	1 1/4	2 1/4	1 3/8	3/4	1/2	1 7/8	9	9 1/2	6	6 1/2	7 1/8	6 7/8	3 1/4	3 5/8	7 3/4			5.0
3	36	48	1 3/8	1/2	5/8	6	10	8	4 1/2	2 1/2	2 1/4	1 1/2	3/4	1/2	3	13 1/2	14 1/4	9	9 3/4	10 5/8	10 1/4	3 1/4	3 5/8	7 3/4			12.0
4	48	60	2 1/4	3/4	1	6	12	8	6	2 1/2	4 1/2	2 3/4	1 1/2	1	3 3/4	18	19	12	13	14 1/4	13 3/4	6 1/2	7 1/4	15 1/2			20.0
5																											

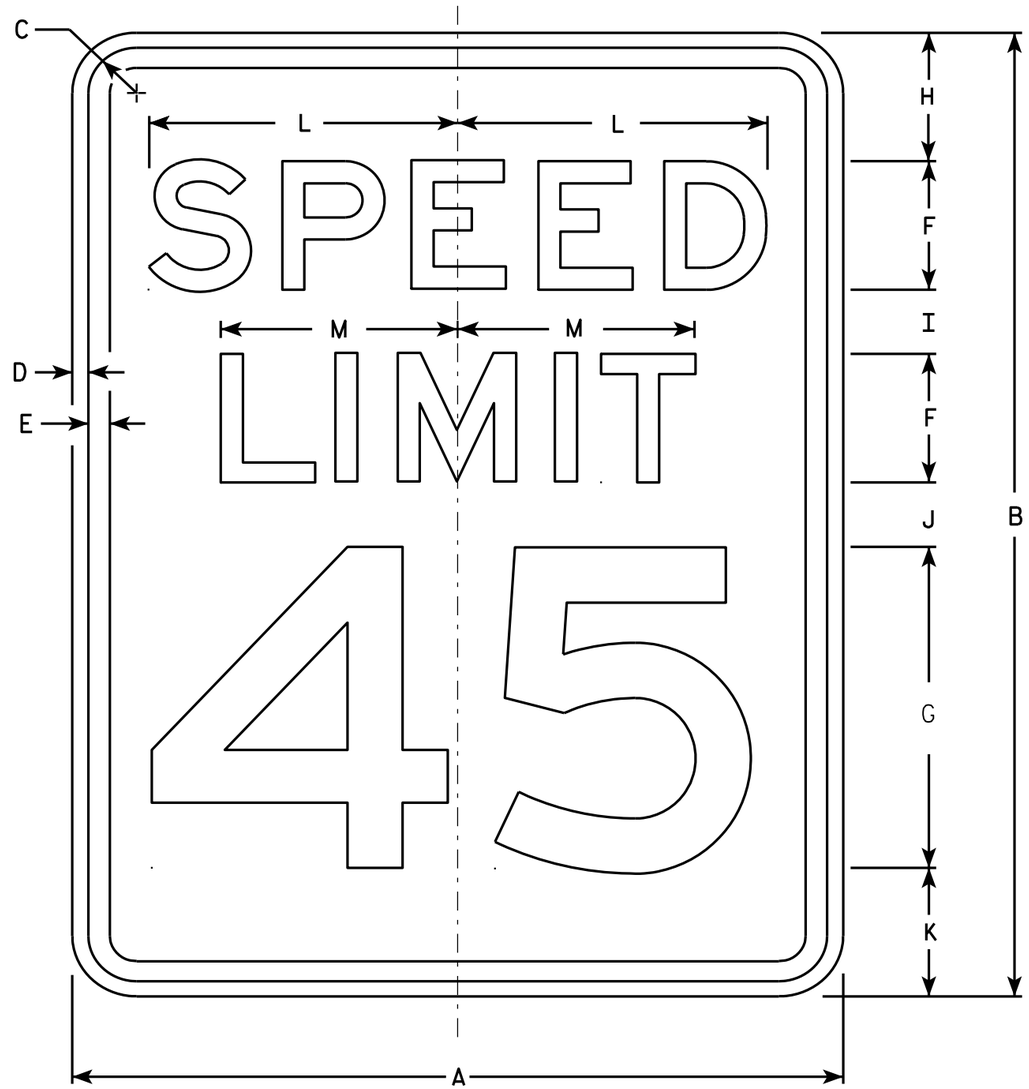
STANDARD SIGN
R12-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 4/1/11 PLATE NO. R12-1.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 399 | E



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

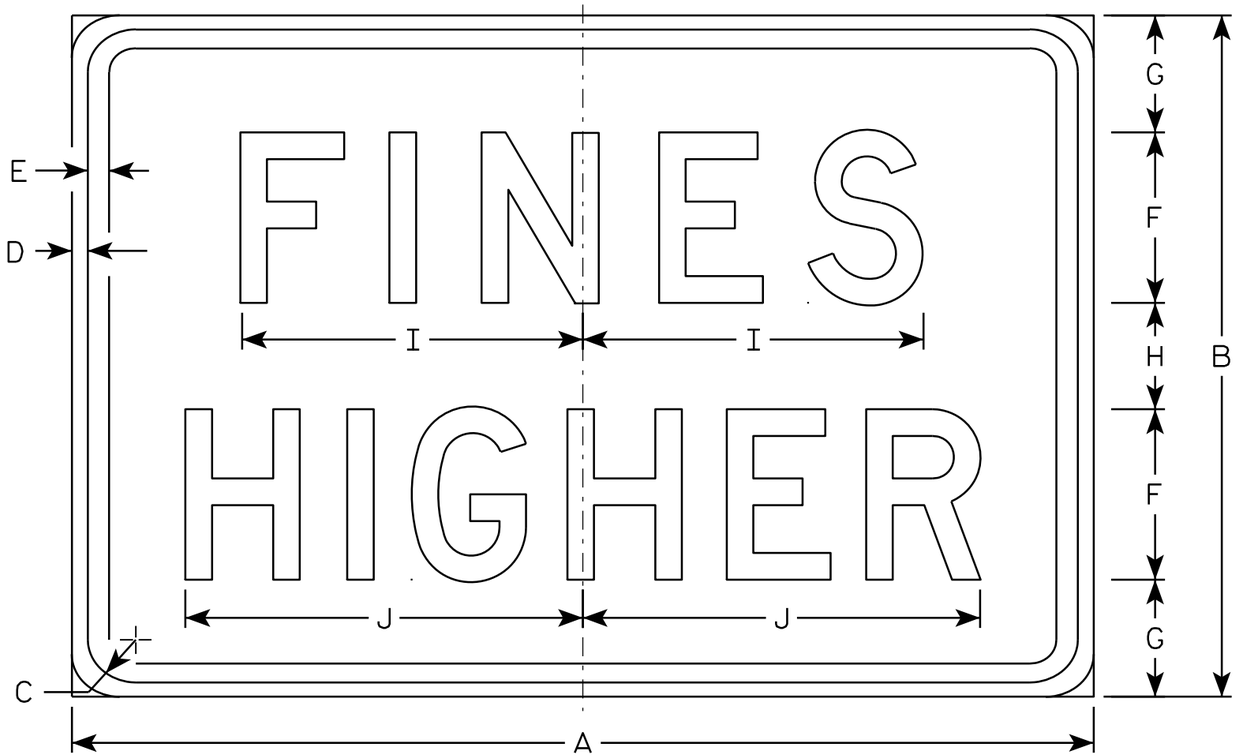
STANDARD SIGN
R2-1

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: 400	E



R2-6P

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	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
2M	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
3	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
4	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
5	48	36	1 3/8	1/2	5/8	8	7	6	15 1/8	19																	12.0

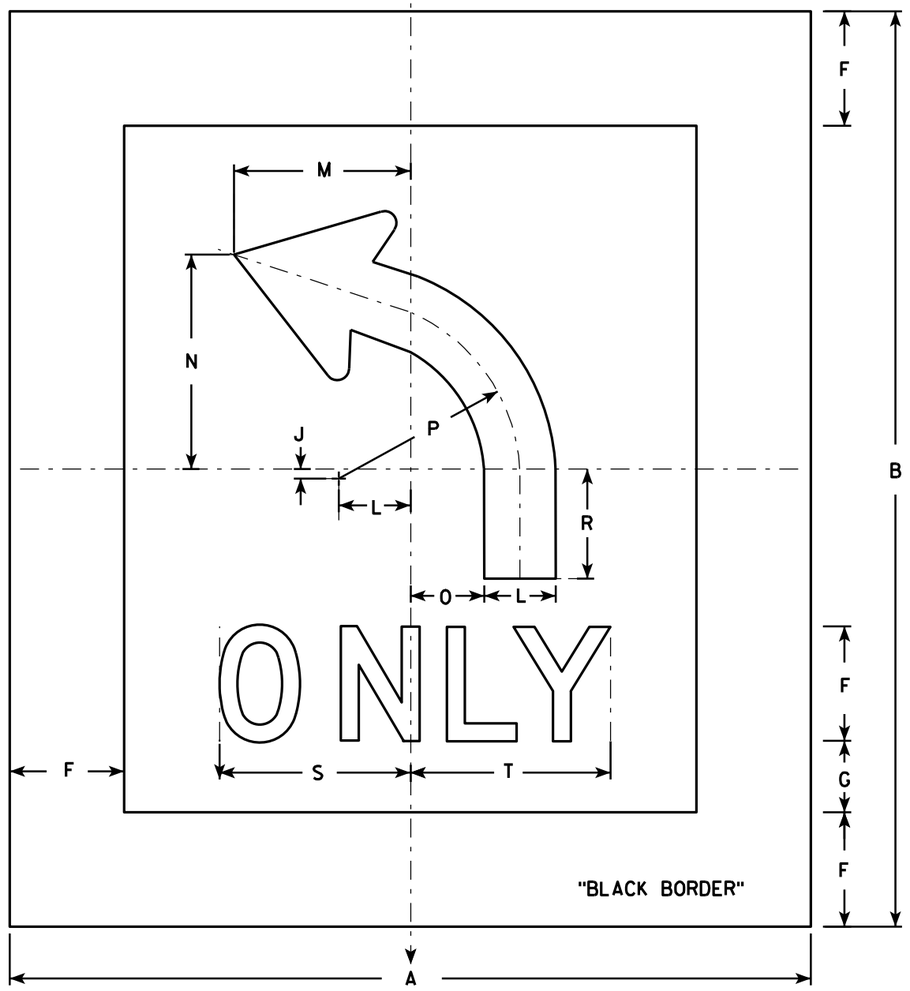
STANDARD SIGN
R2-6P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/20/10 PLATE NO. R2-6P.2

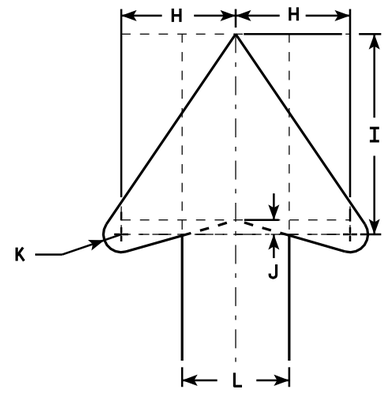
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 401 | E



R3-5L

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. When base material is metal, the corners shall be rounded.
5. R3-5R is the same as R3-5L except curved portion of arrow points right.
6. The 6" border is non-reflective black.



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	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
2M	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
3																											
4																											
5																											

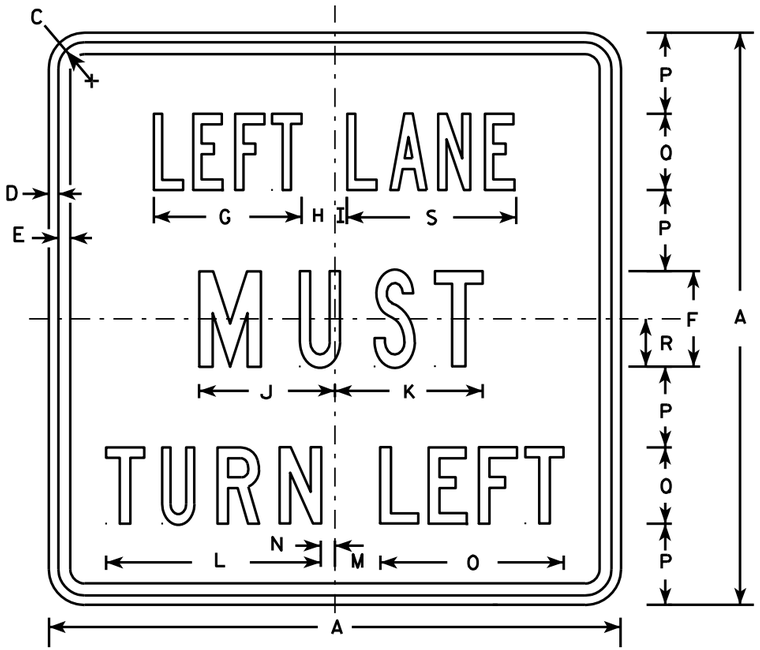
STANDARD SIGN
R3-5

WISCONSIN DEPT OF TRANSPORTATION

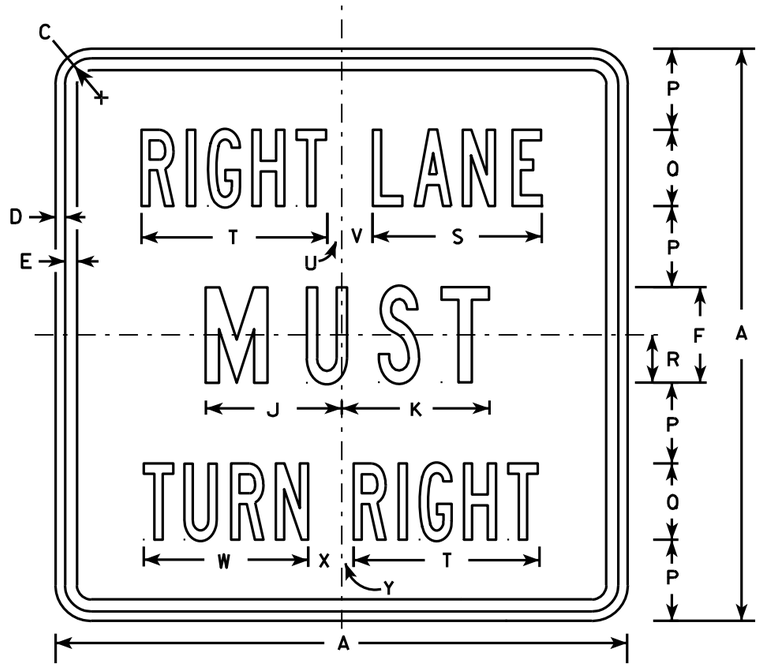
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/24/11 PLATE NO. R3-5.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 402	E



R3-7L



R3-7R

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 - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	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	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

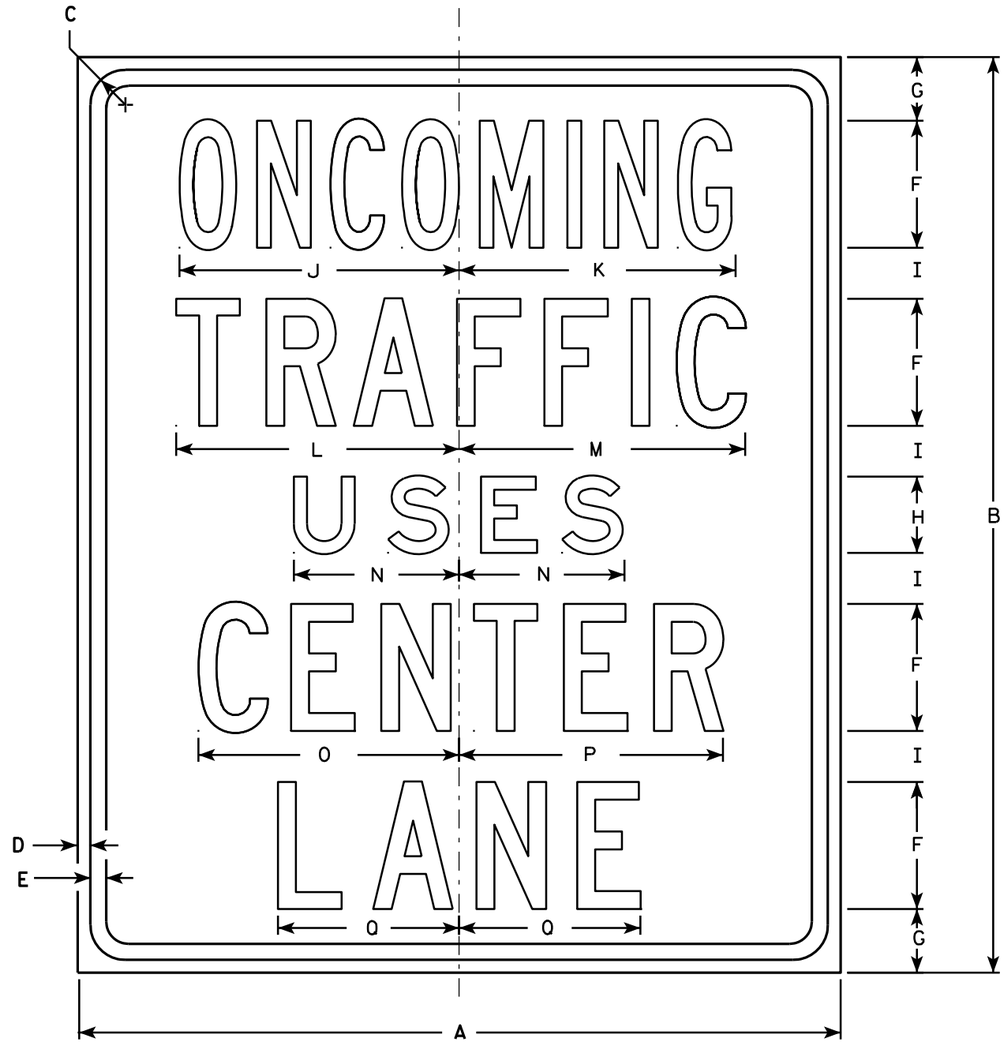
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 403	E



R3-72

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 - Line 1 is Series B, Lines 2, 4 and 5 are Series C, and Line 3 is 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.

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	36	1 3/8	1/2	5/8	5	2 1/2	3	2	11	10 7/8	11 1/8	11 1/4	6 1/2	10 1/4	10 3/8	7 1/8										7.50
2S	30	36	1 3/8	1/2	5/8	5	2 1/2	3	2	11	10 7/8	11 1/8	11 1/4	6 1/2	10 1/4	10 3/8	7 1/8										7.50
2M	30	36	1 3/8	1/2	5/8	5	2 1/2	3	2	11	10 7/8	11 1/8	11 1/4	6 1/2	10 1/4	10 3/8	7 1/8										7.50
3																											
4																											
5																											

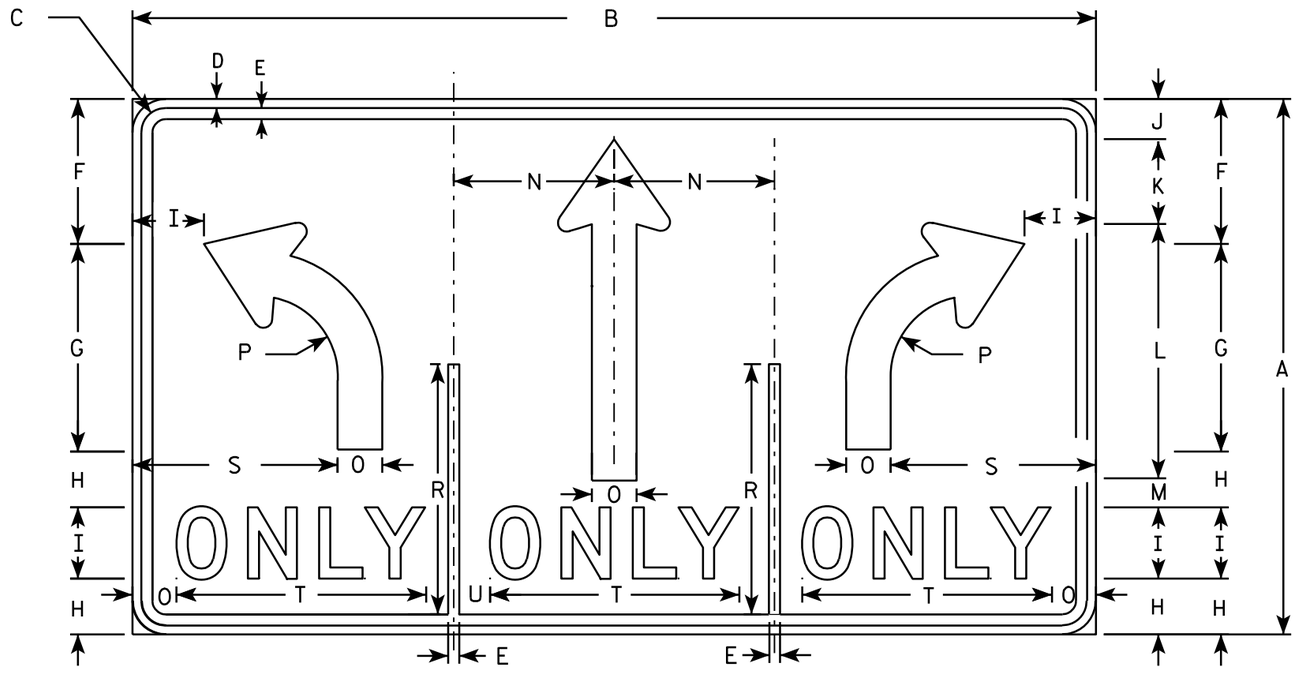
STANDARD SIGN
R3-72

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R3-72.5

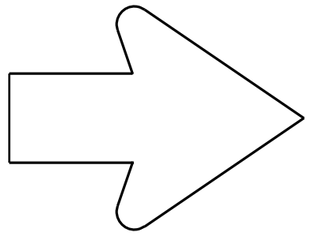
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 404	E



R3-8W

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.



SEE R3-8 FOR ARROW DETAIL

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	Area sq. ft.
1																											
2S	30	54	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	9	2 1/2	4 1/2		14	11 1/2	14	2						11.25
2M	30	54	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	9	2 1/2	4 1/2		14	11 1/2	14	2						11.25
3																											
4	48	84	2 1/4	3/4	1	13	18 1/2	5 1/4	6	3 3/4	7	29 1/8	2 3/8	14	3 3/4	7 1/4		22 3/8	17 1/4	20 1/2	3 1/4						28.0
5	48	84	2 1/4	3/4	1	13	18 1/2	5 1/4	6	3 3/4	7	29 1/8	2 7/8	14	3 3/4	7 1/4		22 3/8	17 1/4	20 1/2	3 1/4						28.0

STANDARD SIGN
R3-8W

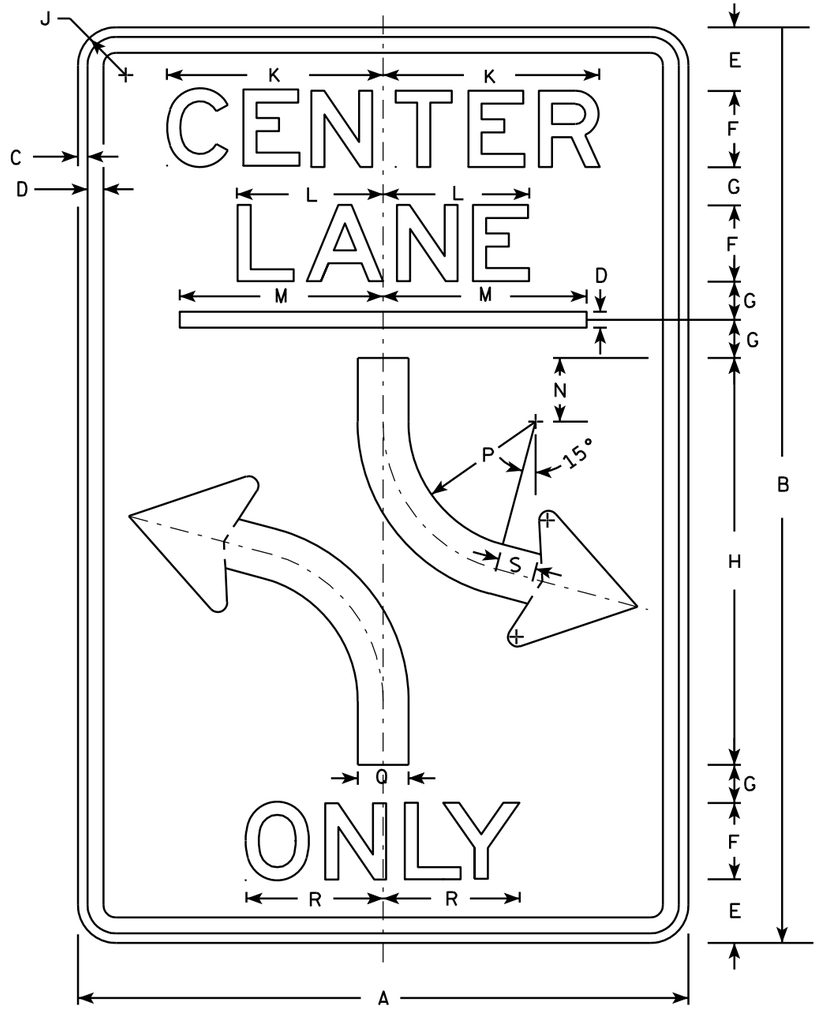
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-8W.4

PROJECT NO:

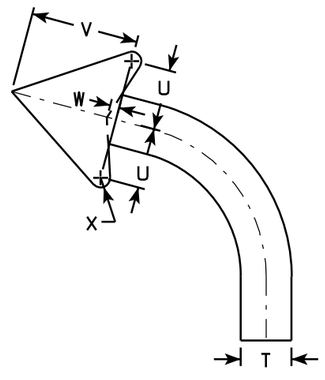
SHEET NO: 405 E



R3-9B

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.



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	36	3/8	1/2	2 1/2	3	1 1/2	16		1 1/2	8 1/2	5 3/4	8	2 1/2		6	2	5 1/8	1 1/2		2 3/8	4 3/8	3/8				6.0
2M	24	36	3/8	1/2	2 1/2	3	1 1/2	16		1 1/2	8 1/2	5 3/4	8	2 1/2		6	2	5 1/8	1 1/2		2 3/8	4 3/8	3/8				6.0
3	36	48	5/8	7/8	3 1/2	5	1 1/2	20		2 1/4	14 1/8	9 1/2	12	3		4	3	9 7/8	2		3 1/2	6 1/8	1/2				12.0
4																											
5																											

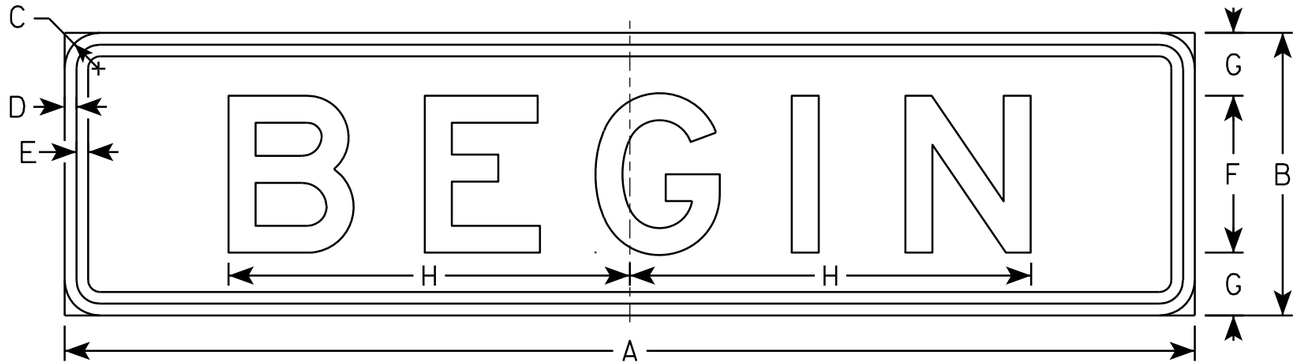
STANDARD SIGN
R3-9B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-9B.5

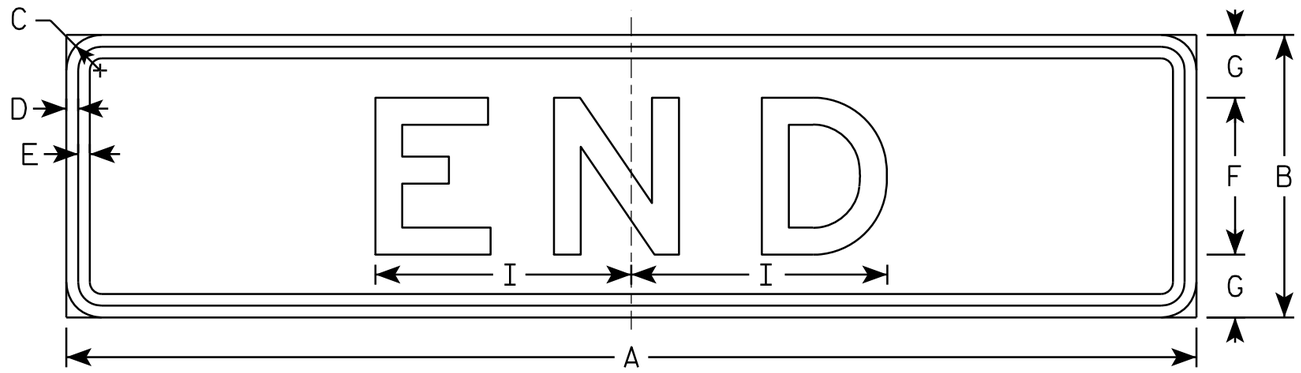
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 406 | E



R3-9C

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.



R3-9D

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	6	1 1/8	3/8	3/8	3	1 1/2	7 3/4	4 7/8																		1.0
2M	24	6	1 1/8	3/8	3/8	3	1 1/2	7 3/4	4 7/8																		1.0
3	36	9	1 1/8	3/8	3/8	5	2	12 3/4	8 1/8																		1.86
4																											
5																											

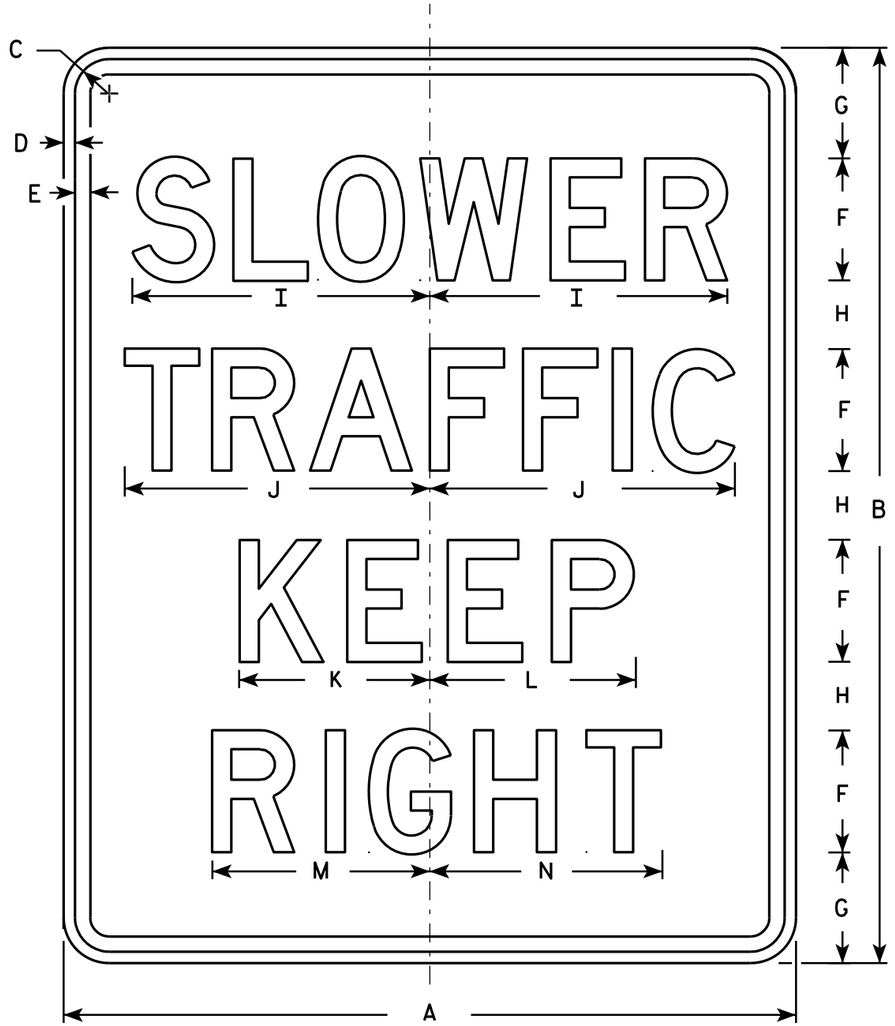
STANDARD SIGN
R3-9C & R3-9D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-9C.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 407	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:

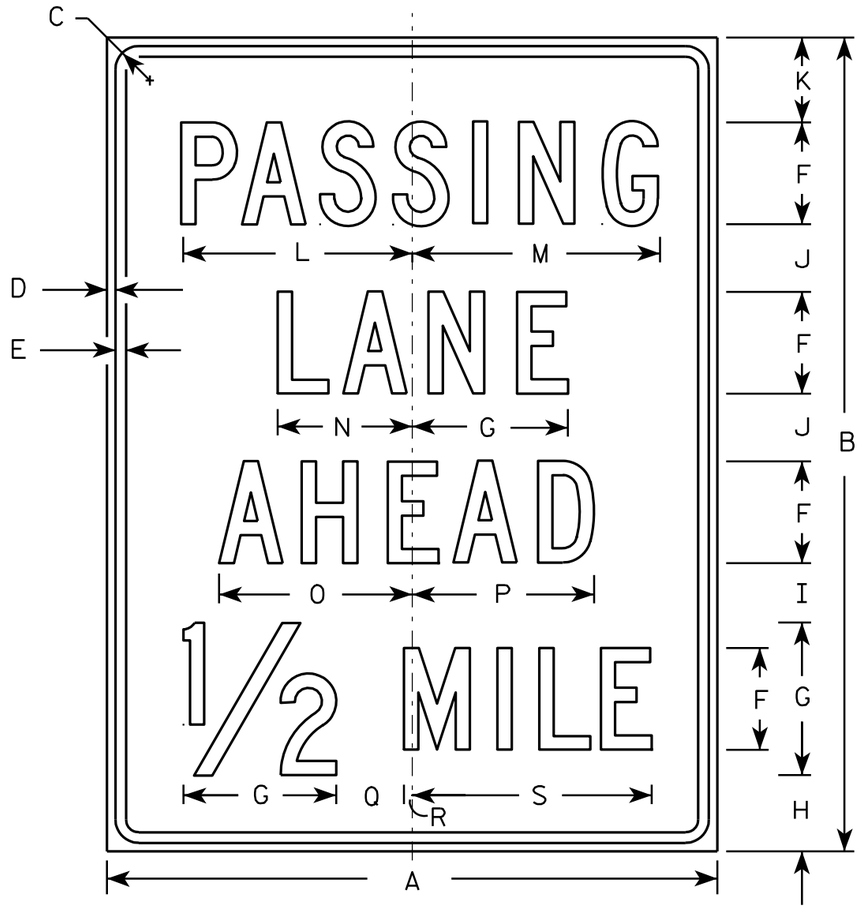
SHEET NO: 408 E

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



R4-51

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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	48	1 3/8	1/2	5/8	6	9	4 1/2	3 1/2	4	5	13 5/8	14 1/2	8	11 3/8	10 3/4	4	1/2	14 1/8								12.0
2M	36	48	1 3/8	1/2	5/8	6	9	4 1/2	3 1/2	4	5	13 5/8	14 1/2	8	11 3/8	10 3/4	4	1/2	14 1/8								12.0
3																											
4																											
5																											

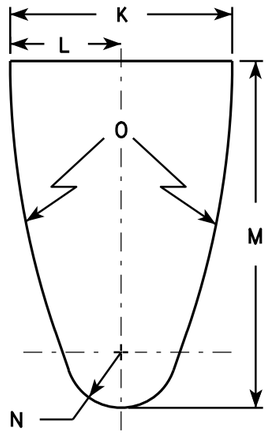
STANDARD SIGN
R4-51

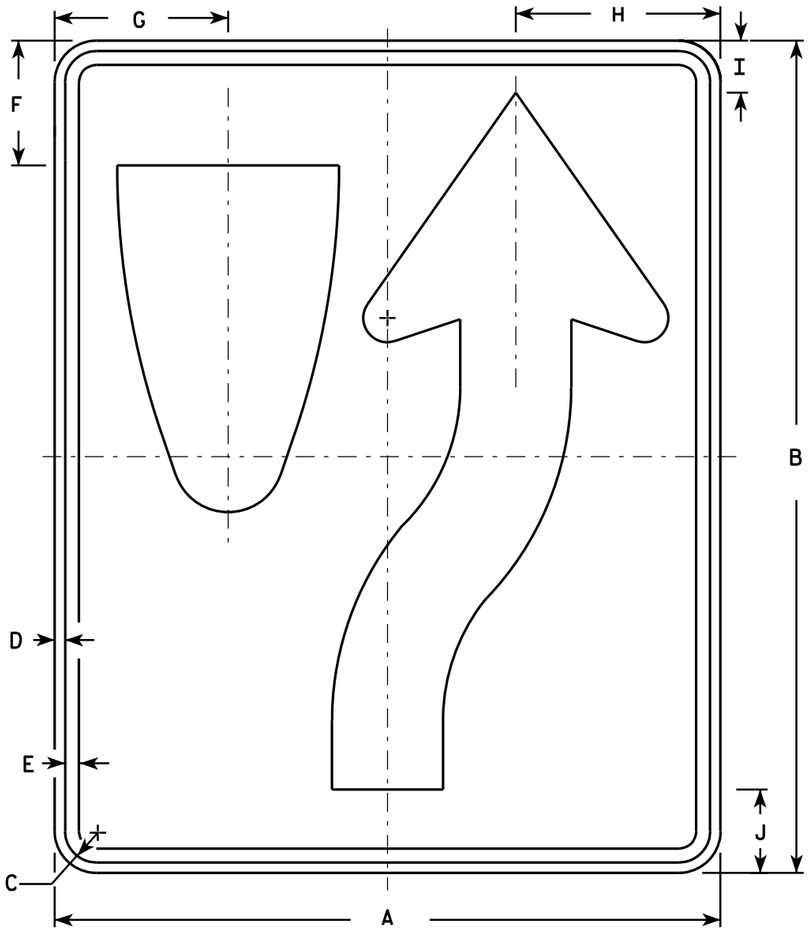
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R4-51.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 409 | E

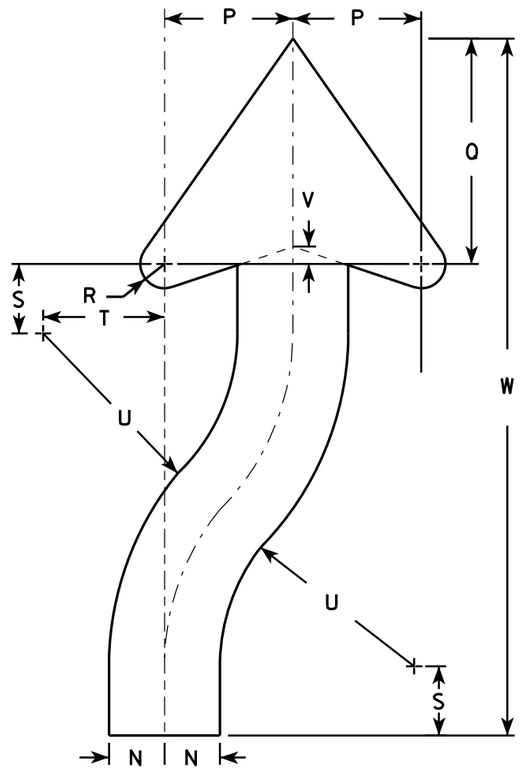




R4-7

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

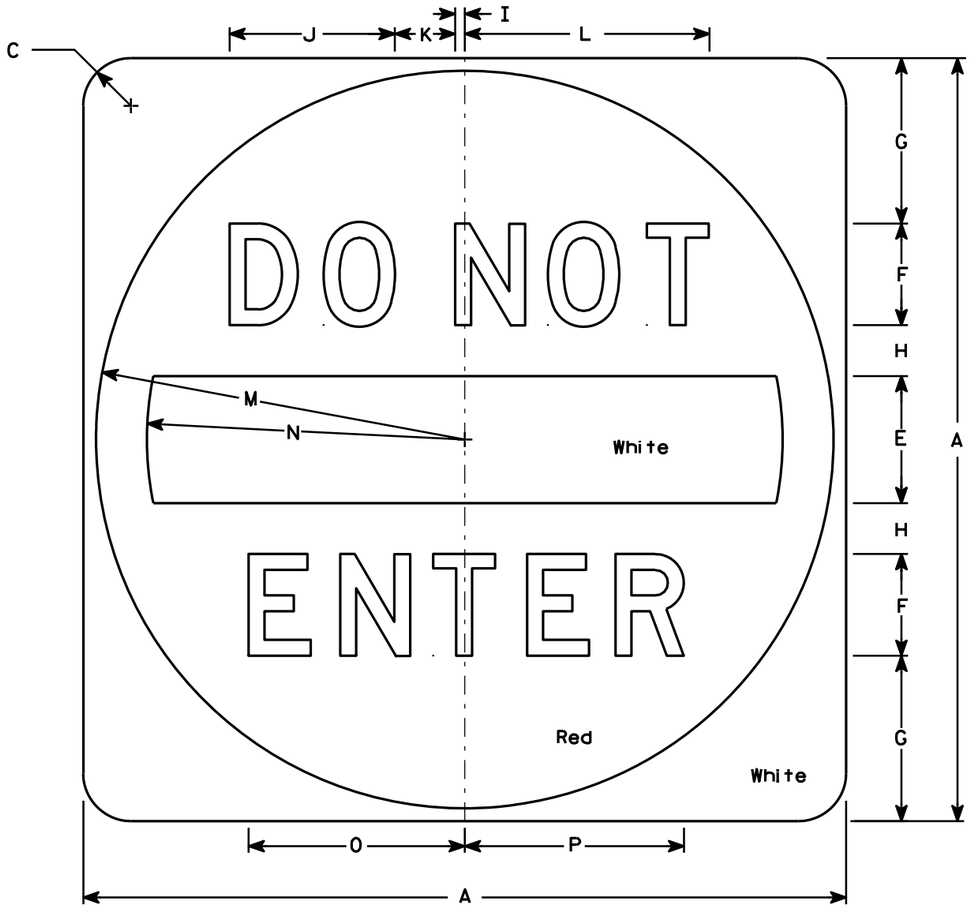
STANDARD SIGN
R4-7 & R4-8

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: 410	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

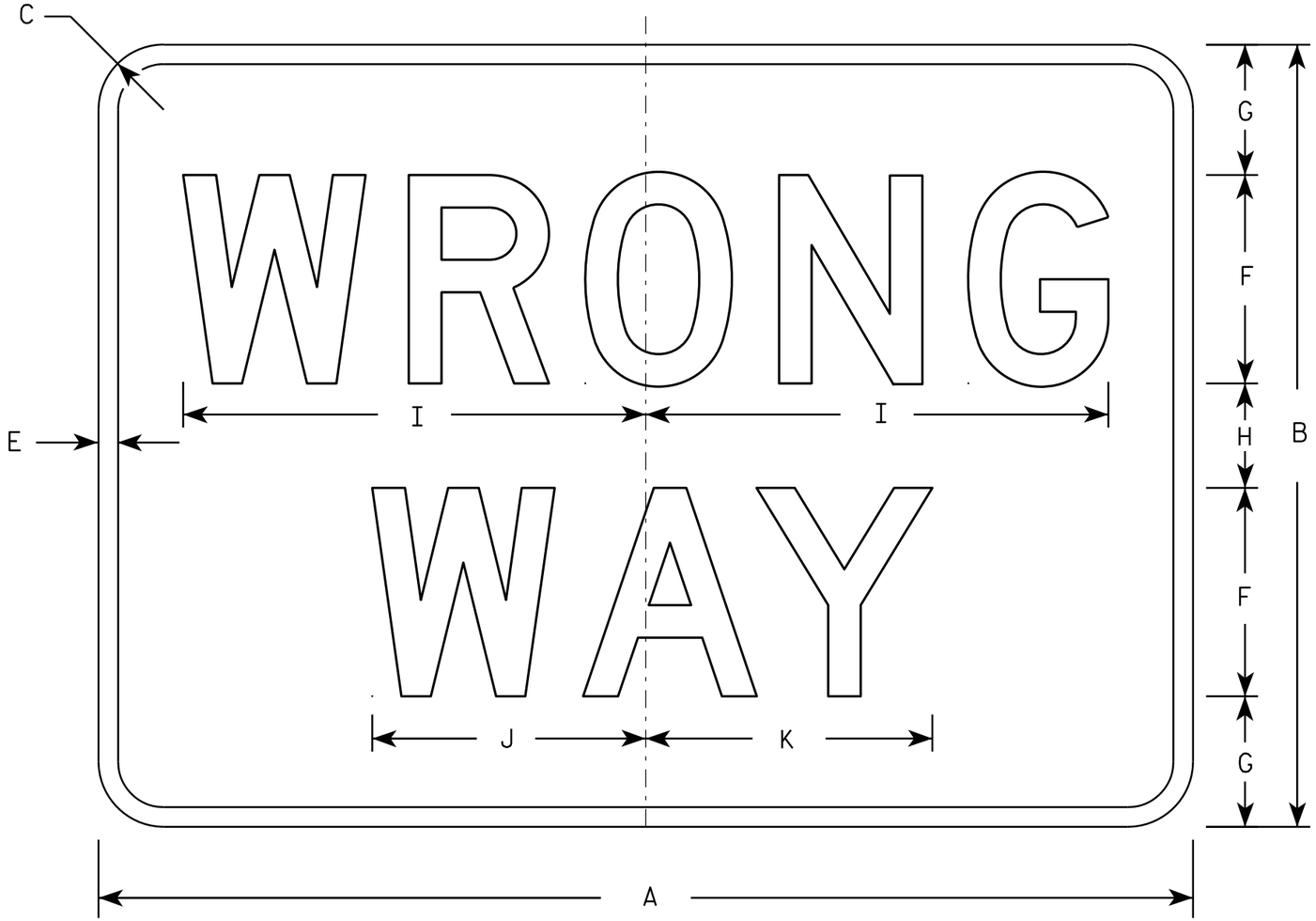
STANDARD SIGN
R5-1

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: 411 | 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

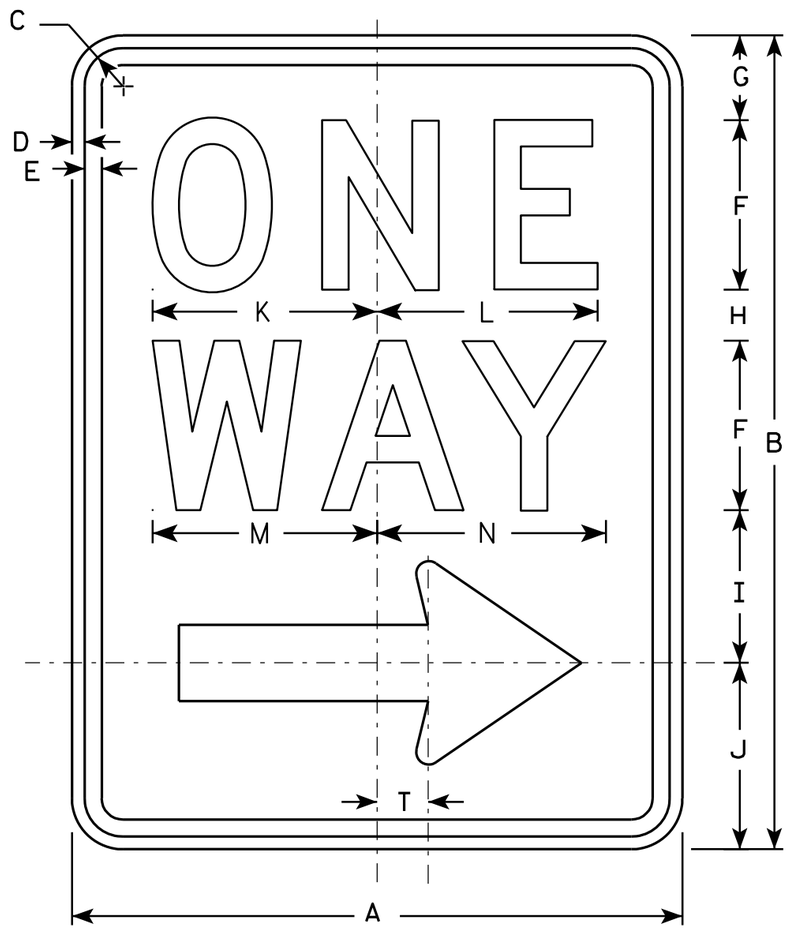
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

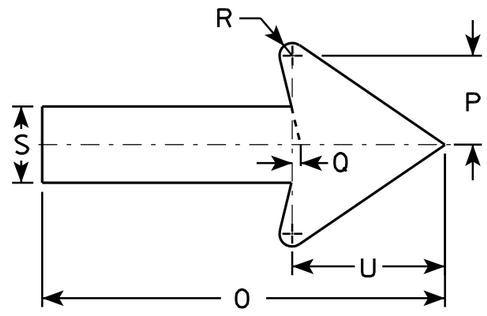
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 412 | E



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																										

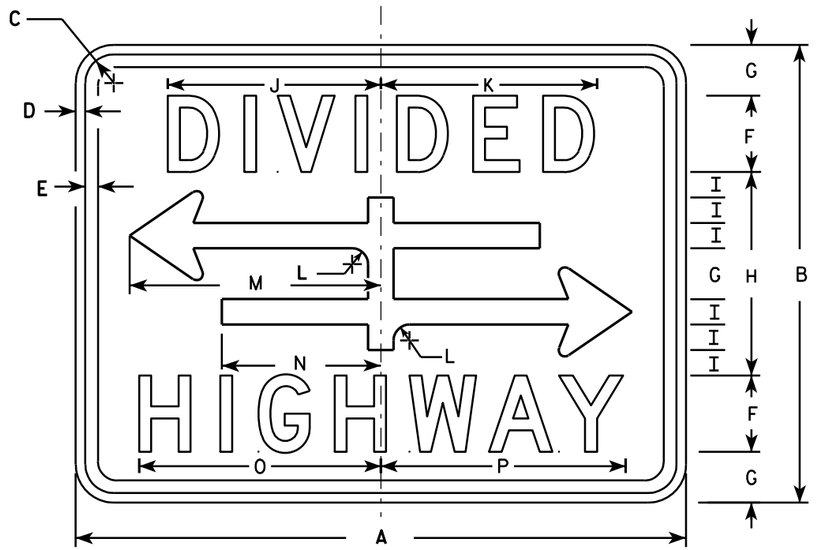
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

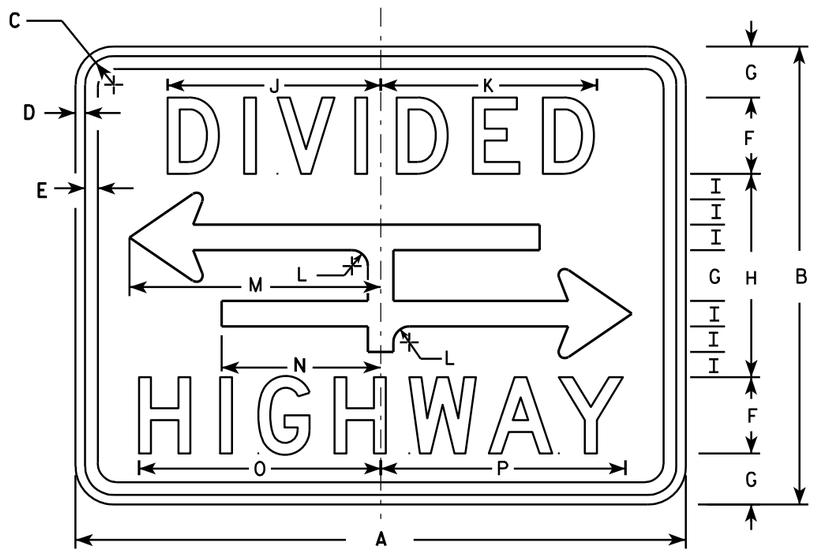
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 413	E



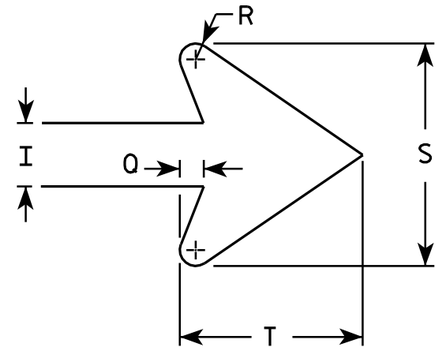
R6-3

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

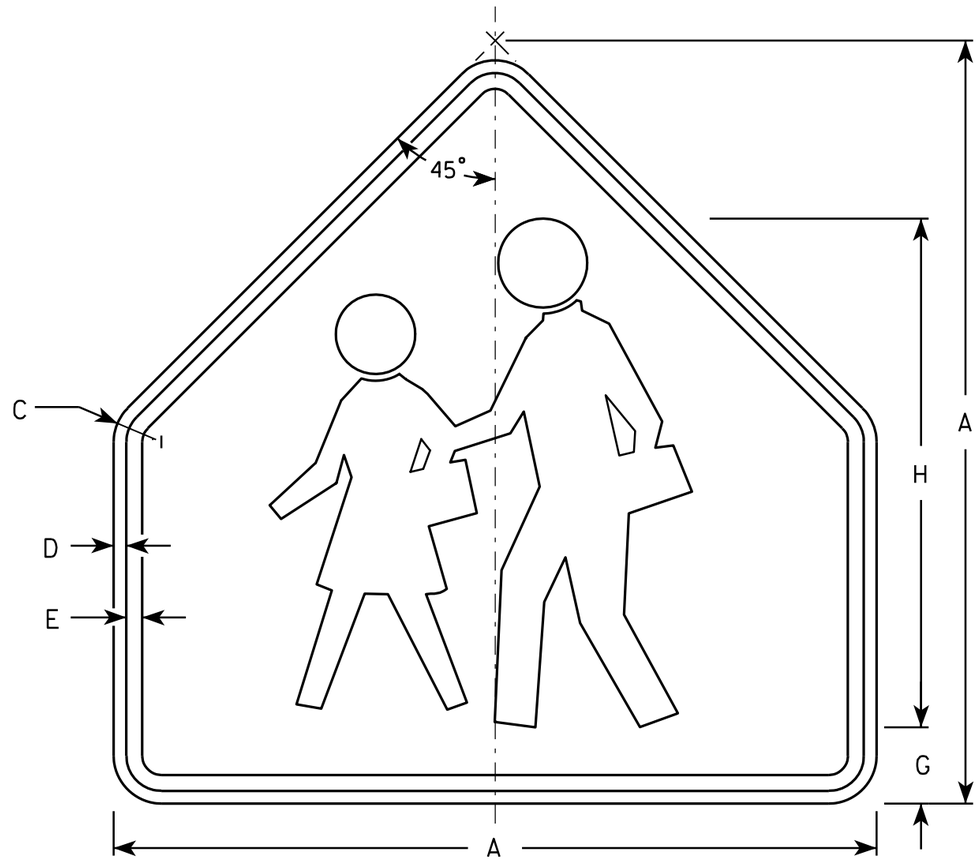
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

SHEET NO: 414 E



S1-1

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-Green
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3	20																			4.69
2	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
3	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
4	48		2 1/4	3/4	1		4 3/4	32																			12
5																											

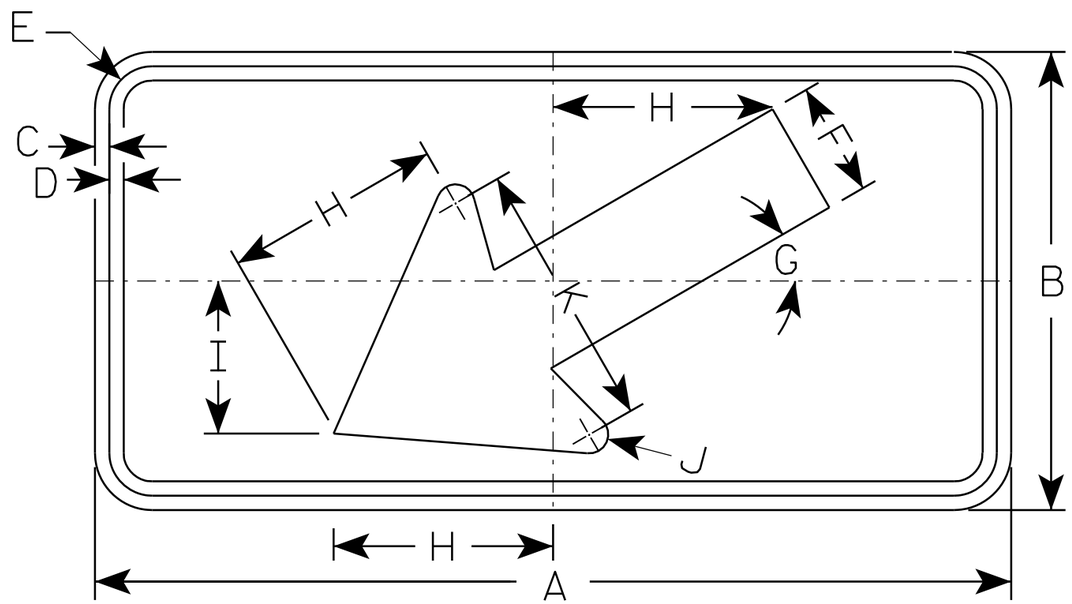
STANDARD SIGN
S1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/05 PLATE NO. S1-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 415	E



S16-7L

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-Green
   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. S16-7R are the same as S16-7L 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	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2S	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4	48	24	1/2	5/8	1 3/8	6	30°	11 1/2	8	1	14																8.0
5																											

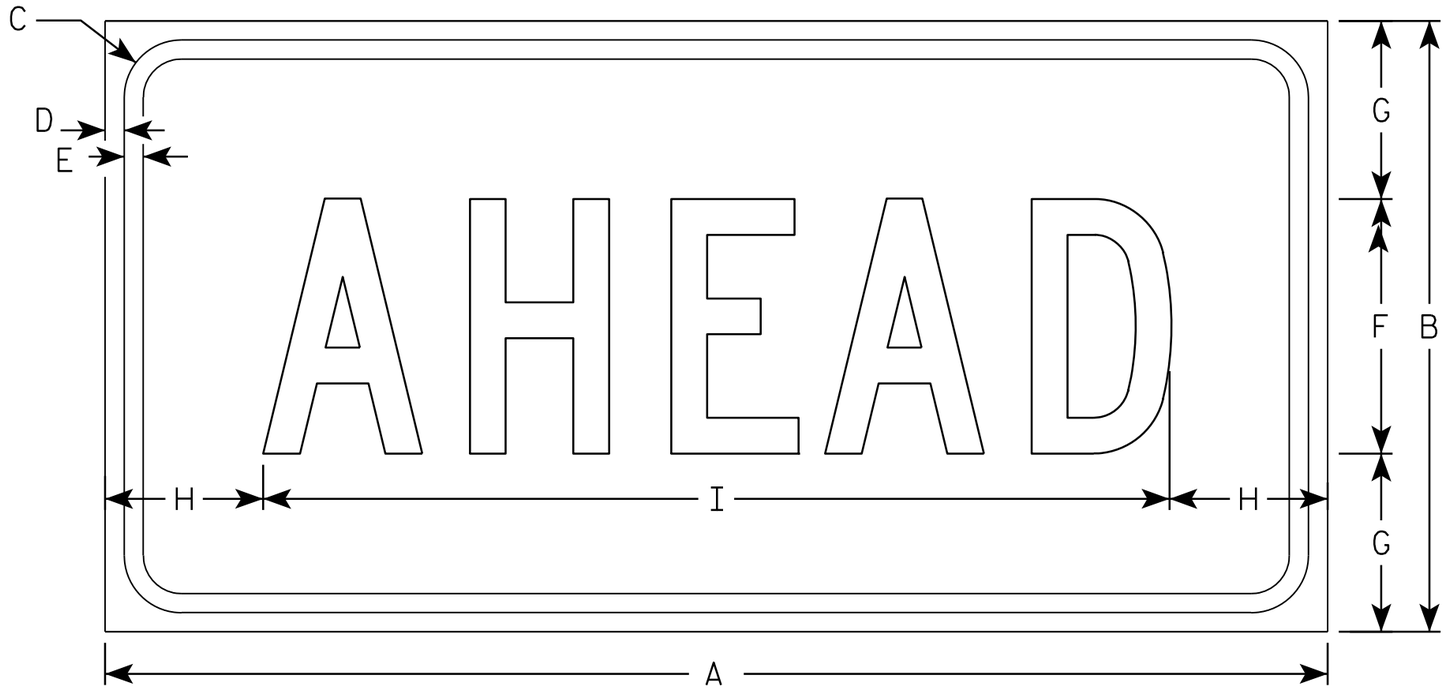
STANDARD SIGN
S16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-7.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 416 | E



S16-9P

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-Green
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2S	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

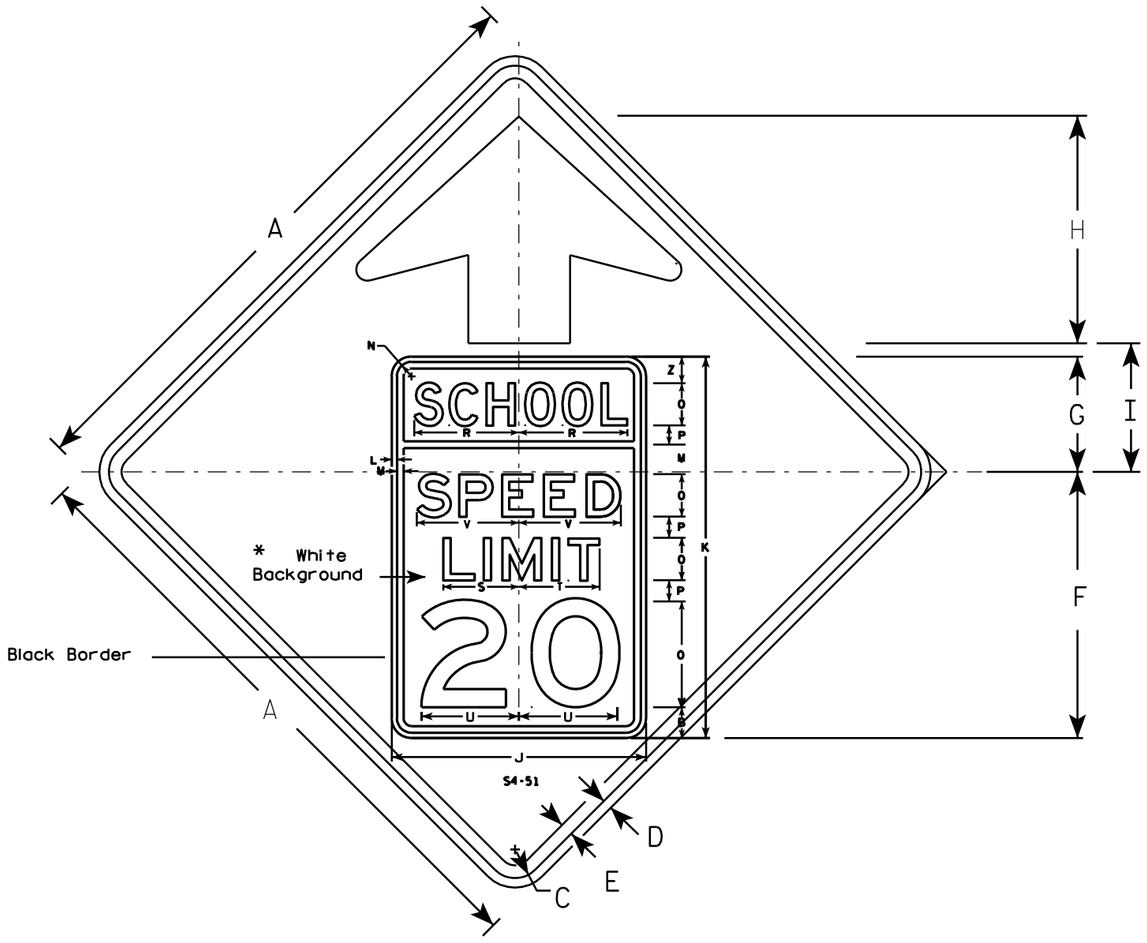
STANDARD SIGN
S16-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-9P.1

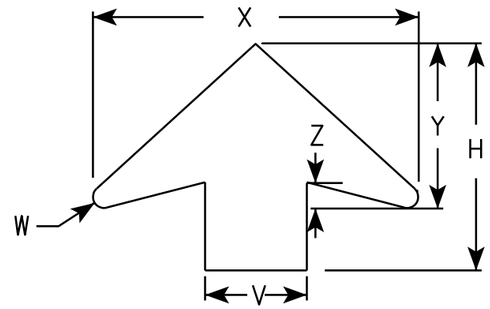
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 417 | E



S4-5

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: See Note 5
   Background - Flourescent Yellow Green
   Message - BLACK
3. Message Series - See note 6
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance
5. SCHOOL background - Yellow Green -Type F Reflective.
   Speed Limit panel background - White -Type H Reflective.
6. From top to bottom:
   School is series D
   All other lines are series E
7. 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	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	36	1 7/8	1 5/8	5/8	3/4	15 3/4	6 3/4	13 3/8	7 5/8	15	22 1/2	1/4	3/8	7/8	6 1/4	1 1/4	2 1/2	6 3/8	4 1/2	4 3/4	5 3/4	6	5/8	19 1/4	9 3/4	1 5/8	9.0
3	48	2 3/8	2 1/4	3/4	1	18 3/4	10 1/8	17 7/8	10 1/8	20	30	3/8	1/2	1 1/8	8 3/8	1 5/8	3 3/8	8 1/2	5 7/8	6 3/8	7 3/4	8	7/8	25 5/8	13	2	16.0
4	48	2 3/8	2 1/4	3/4	1	18 3/4	10 1/8	17 7/8	10 1/8	20	30	3/8	1/2	1 1/8	8 3/8	1 5/8	3 3/8	8 1/2	5 7/8	6 3/8	7 3/4	8	7/8	25 5/8	13	2	16.0
5																											

STANDARD SIGN
S4-5

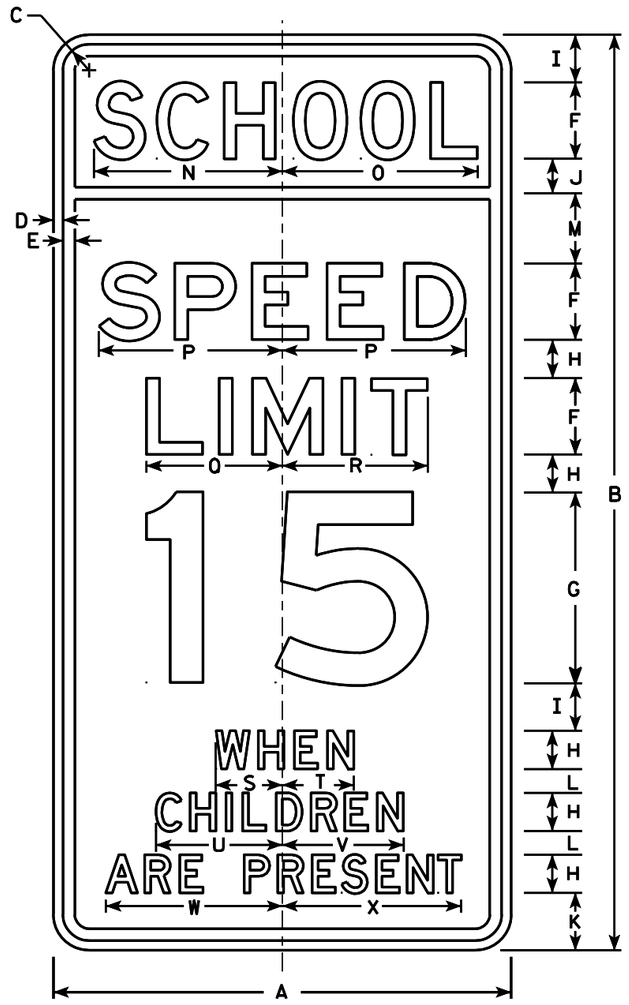
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/21/10 PLATE NO. S4-5.3

PROJECT NO:

SHEET NO: 418 E



S4-51

NOTES

1. Sign is Type II - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. (See note 5).
2. Color:
   Background - See note 5
   Message - Black
3. Message Series - See note 6
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. Top panel (SCHOOL) background - Yellow Green -Type F Reflective.
   Lower panel background - White -Type H Reflective.
6. From top to bottom:
   Lines 1, 5, 6 & 7 are series D
   Lines 2, 3 & 4 are series E
7. Line 4 substitute appropriate numerals and adjust spacing to achieve proper balance.

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 1200 mm
3	900 mm X 1800 mm
4	
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.	Area m2
1																												
2	24	48	1 3/8	1/2	5/8	4	10	2	2 1/2	1 3/4	3	1 1/4	3 3/4	9 7/8	10 1/4	9 5/8	7 1/8	7 5/8	3 1/2	3 3/8	6 5/8	6 3/8	9 1/4	9 3/8			8.00	0.72
3	36	72	2 1/4	3/4	1	6	15	3	3 3/4	2 3/4	4 1/2	1 7/8	5 1/2	15	15 1/4	14 1/2	11 1/4	11 1/2	5 1/2	5 3/4	10	9 3/4	14	14 1/8			18.00	1.62
4																												
5																												

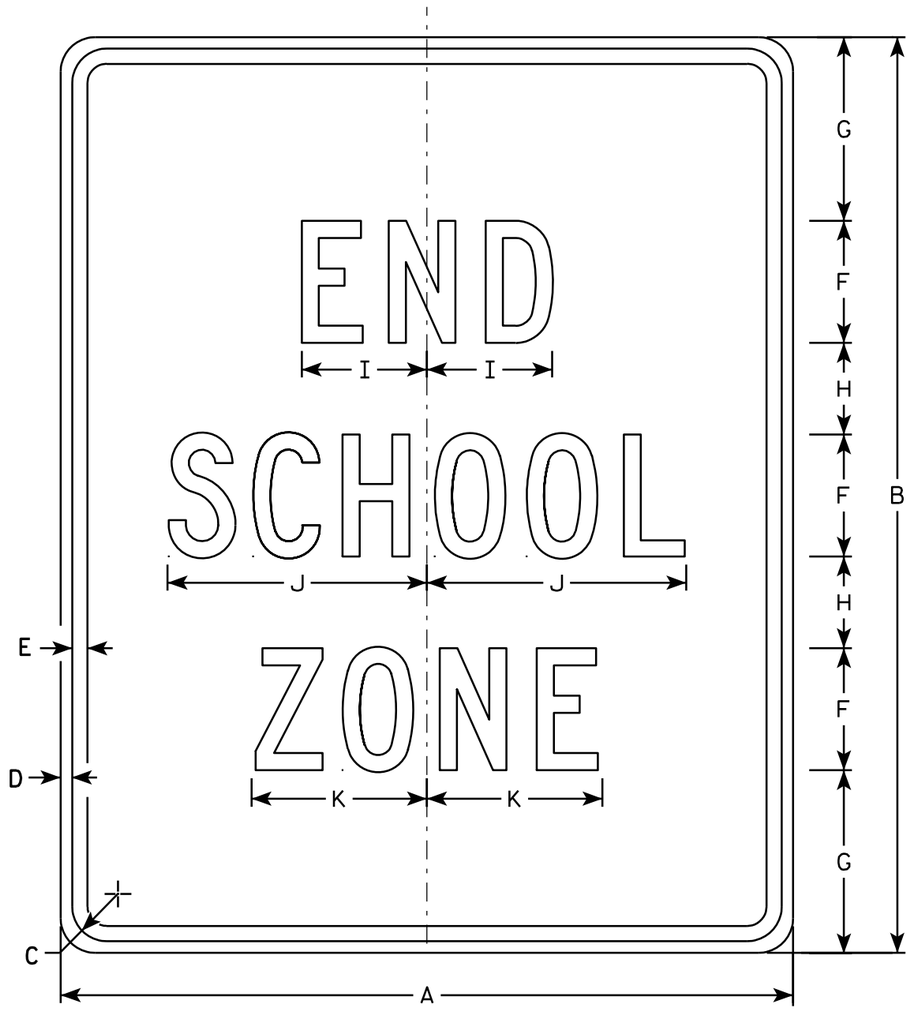
STANDARD SIGN
S4-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/26/10 PLATE NO. S4-51.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 419	E



S5-2

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 - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	30	1 1/8	3/8	1/2	4	6	3	4 1/8	8 1/2	5 3/4																5.0
3	36	42	1 5/8	5/8	3/4	6	7	5	6 1/8	12 5/8	8 5/8																10.5
4																											
5																											

STANDARD SIGN
S5-2

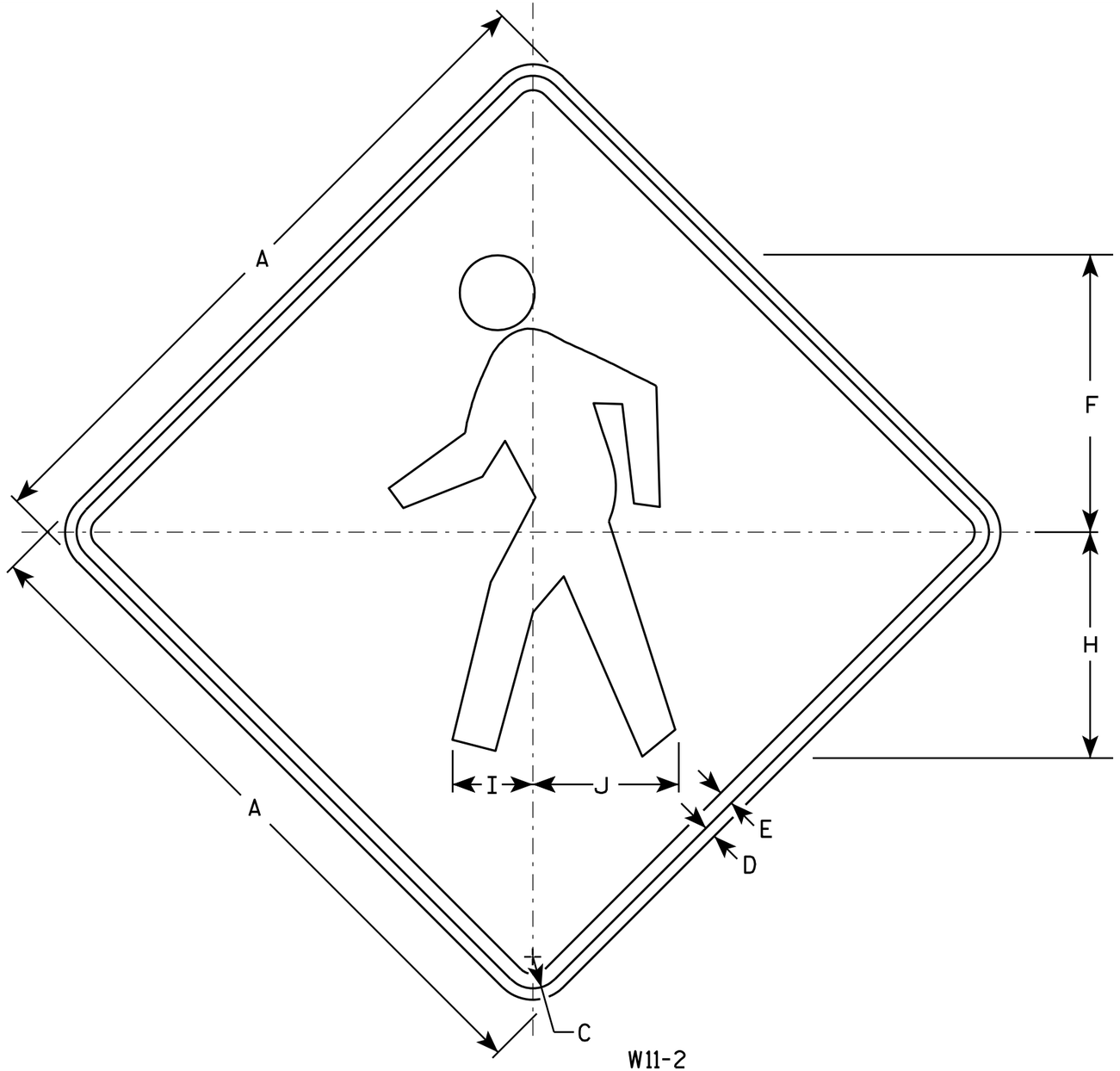
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/8/11 PLATE NO. S5-2.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 420 | E

7



W11-2

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.

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	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

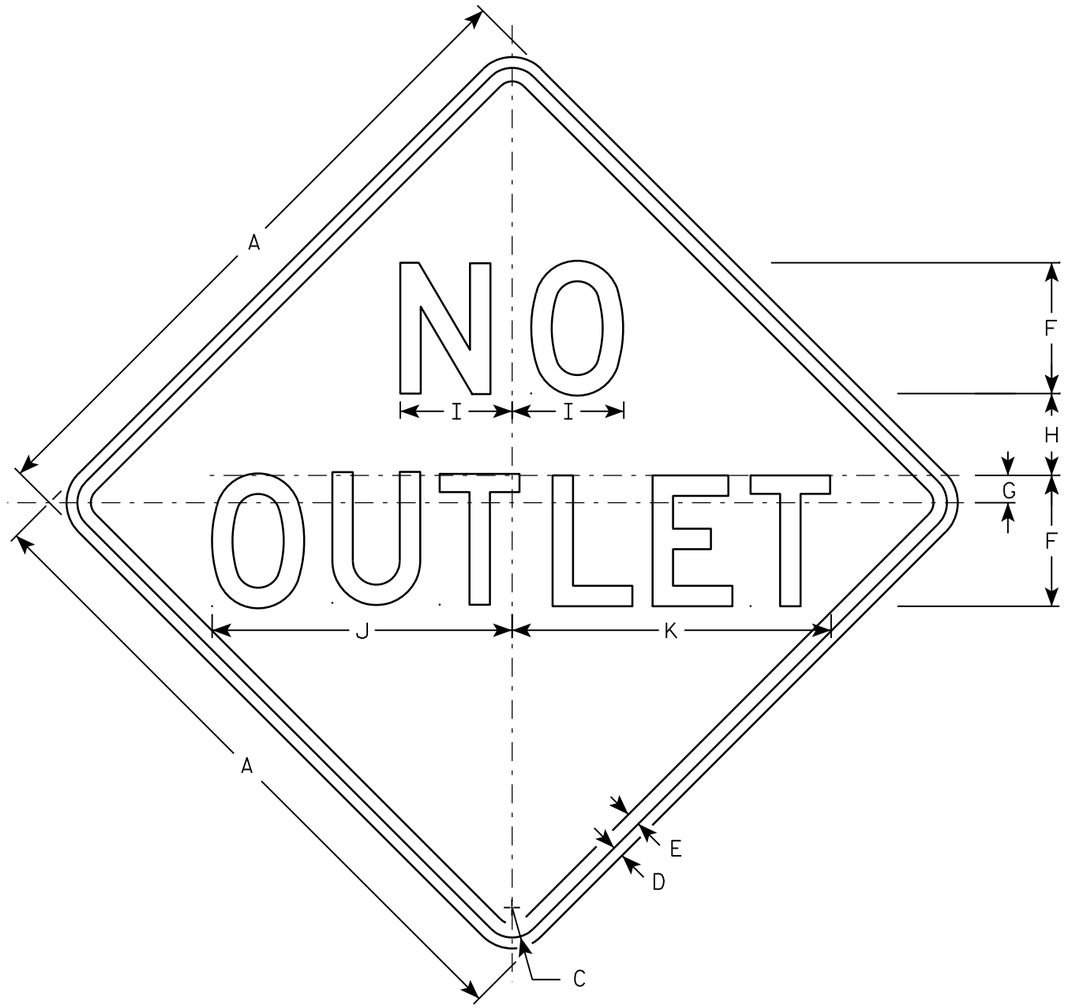
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W11-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 421	E



W14-2

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 - 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	24		1 1/8	3/8	1/2	5	1	2 3/4	4 1/8	11 3/4	12 3/8																4.0
2S	30		1 3/8	1/2	5/8	6	1 1/4	3 3/4	5 1/8	13 3/4	14 5/8																6.25
2M	30		1 3/8	1/2	5/8	6	1 1/4	3 3/4	5 1/8	13 3/4	14 5/8																6.25
3	36		1 5/8	5/8	3/4	7	1 3/8	4 5/8	6	16 1/8	17 1/8																9.0
4																											
5																											

STANDARD SIGN
W14-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

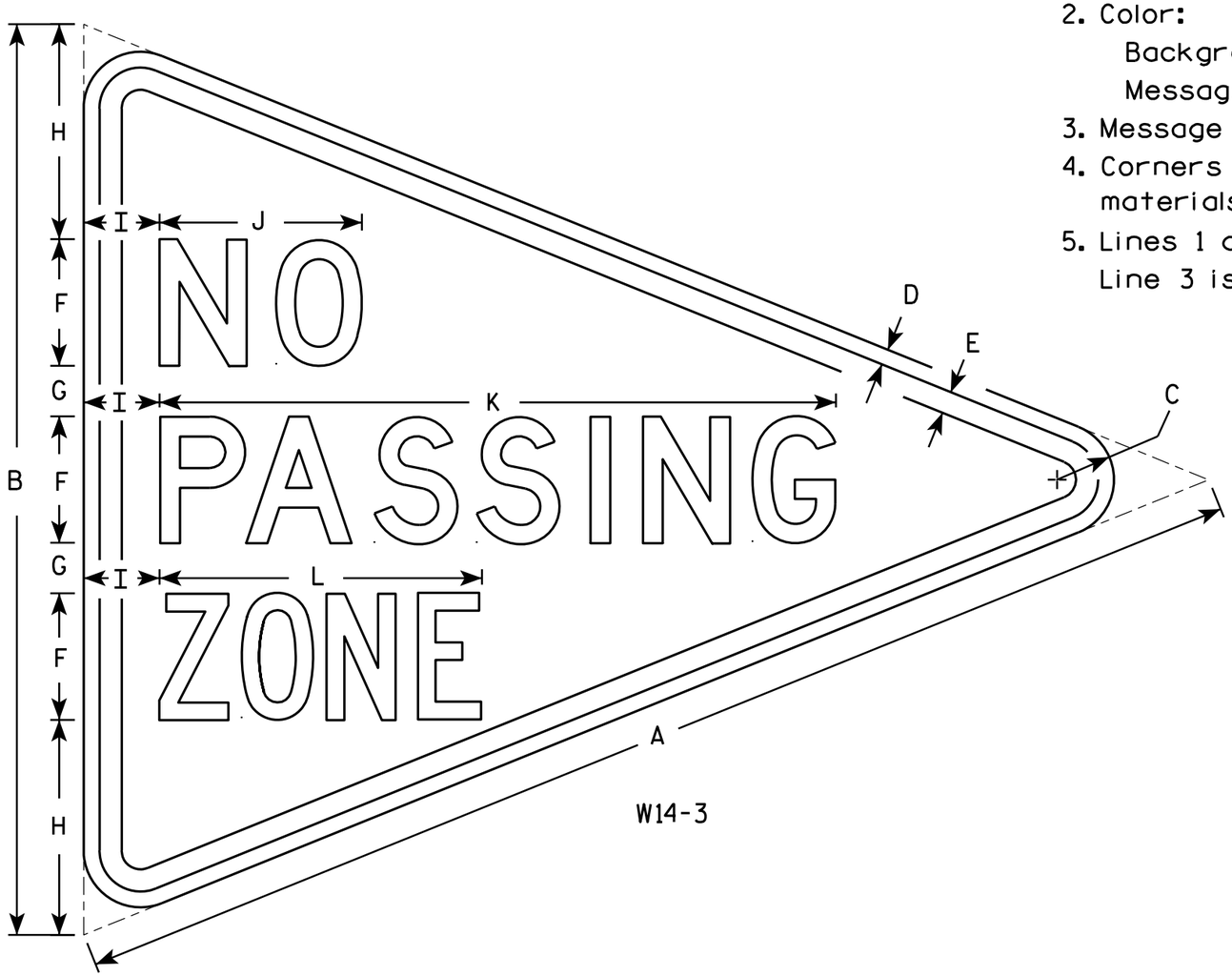
DATE 3/13/13 PLATE NO. W14-2.3

PROJECT NO:

SHEET NO: 422 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. Message Series - See note 5
4. Corners and borders shall be rounded on all base materials for this sign.
5. Lines 1 and 2 are Series D.
   Line 3 is series C.



W14-3

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	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

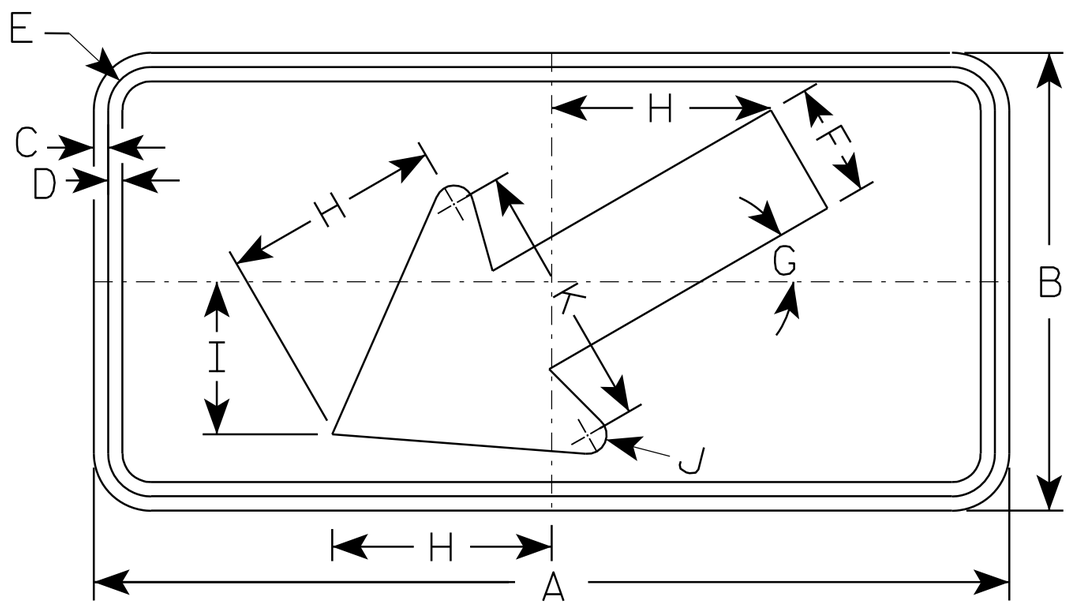
STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W14-3.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 423	E



W16-7L

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. W16-7R is the same as W16-L 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																											
2S	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4																											8
5																											8

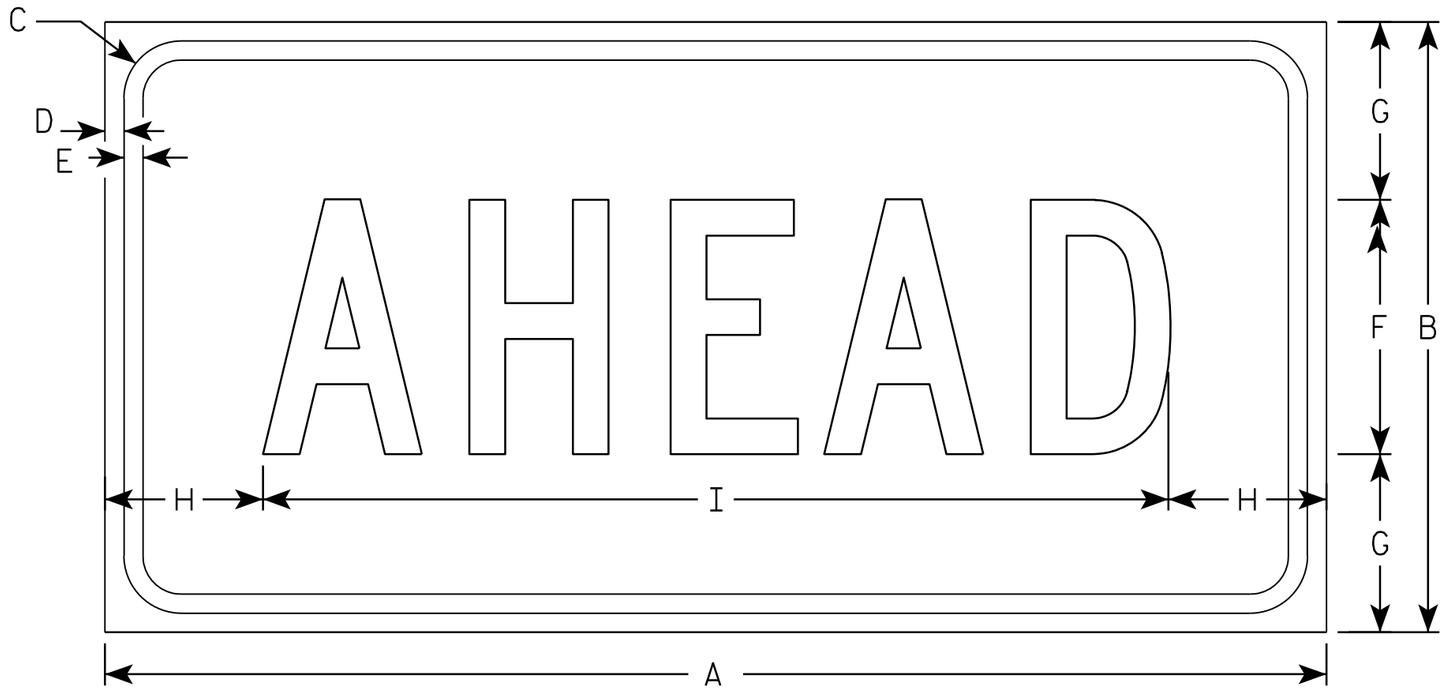
STANDARD SIGN
W16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. W16-7.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 424	E



W16-9P

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
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	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN
W16-9P

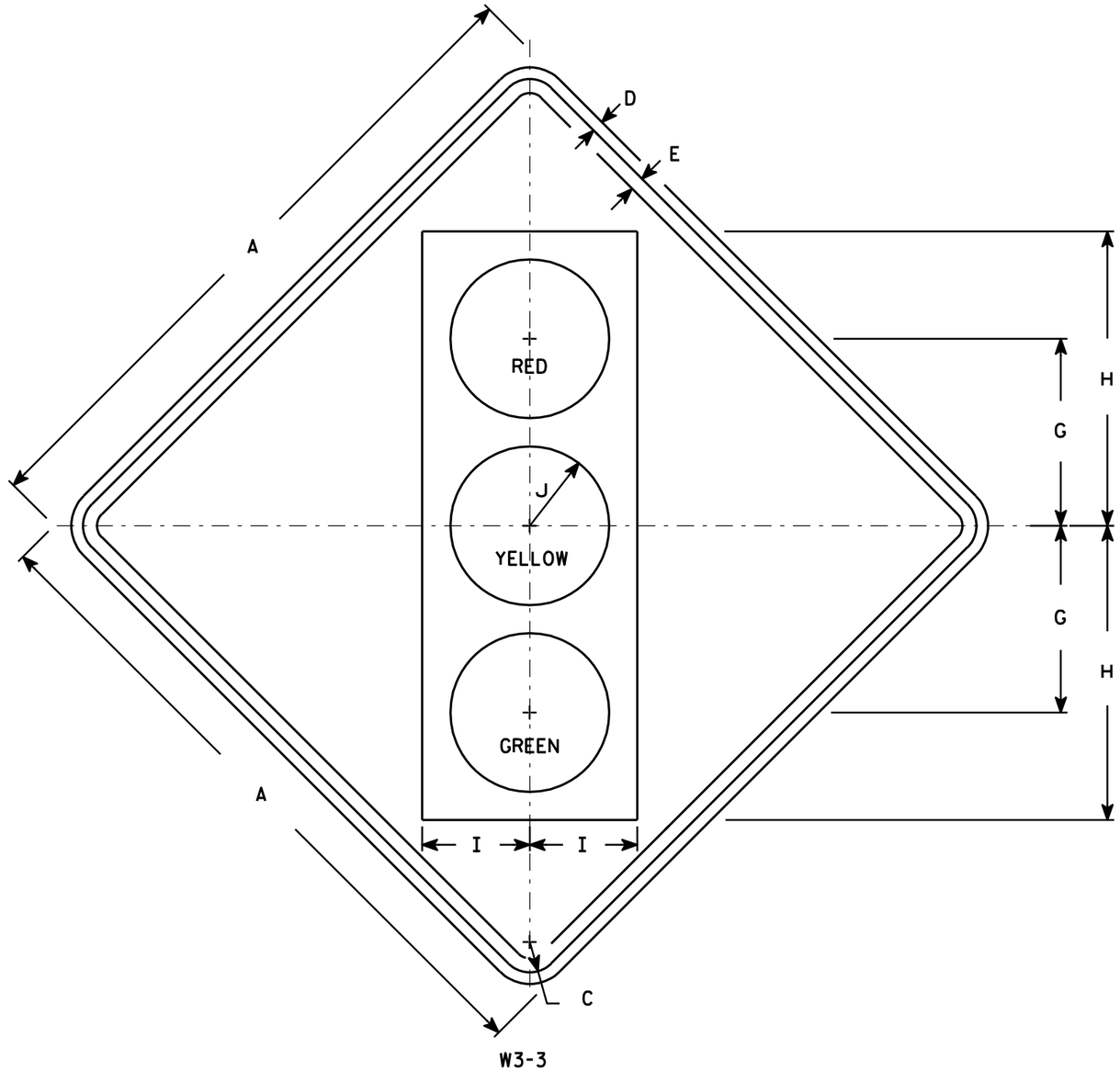
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/28/10 PLATE NO. W16-9P.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 425 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W169P.DGN PLOT DATE : 28-DEC-2010 13:39 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 2.979524:1.000000
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 - 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. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

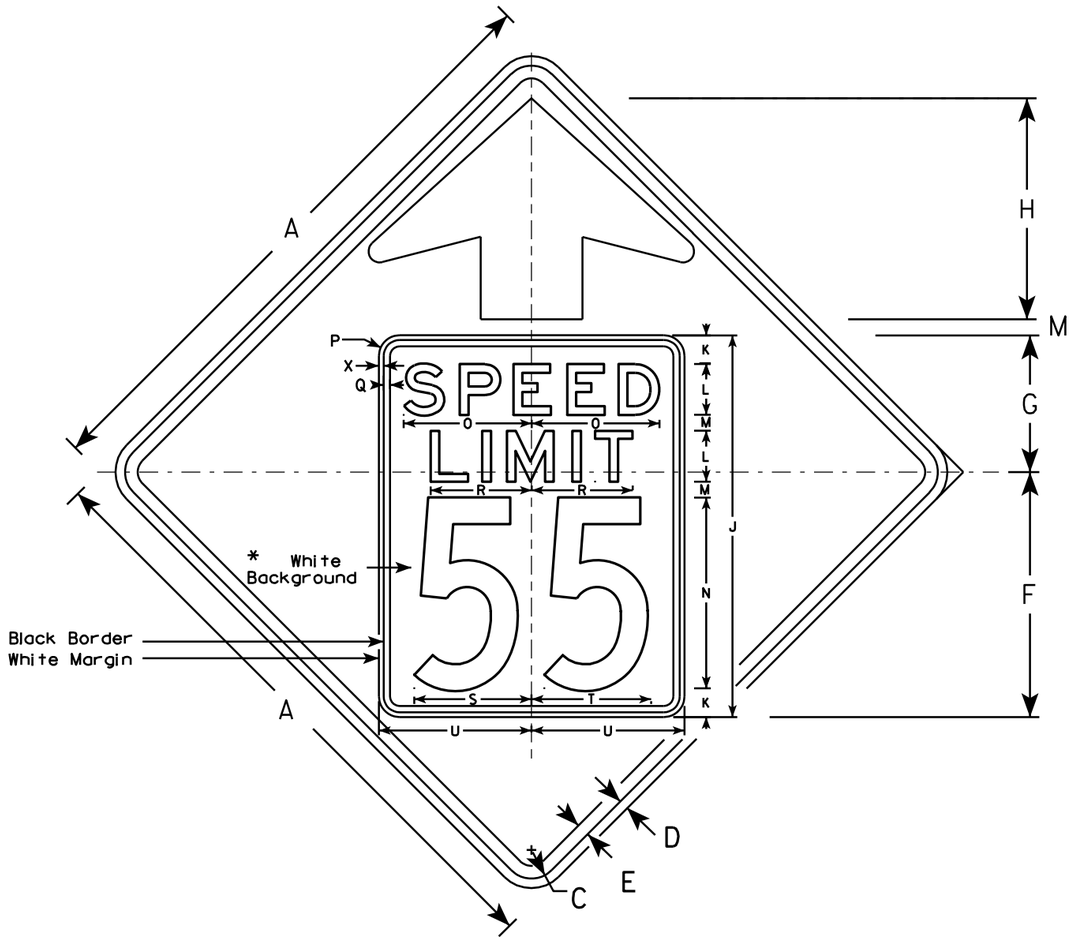
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 426 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W33.DGN PLOT DATE : 07-JUN-2010 13:07 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 7.448805:1.000000
WISDOT/CADDS SHEET 42

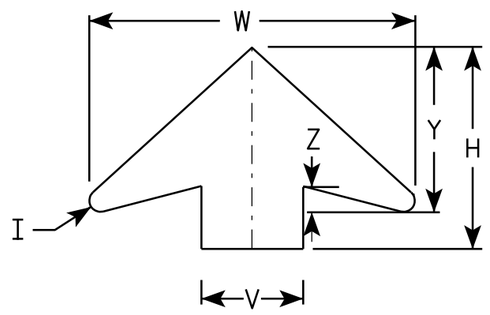


W3-5

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

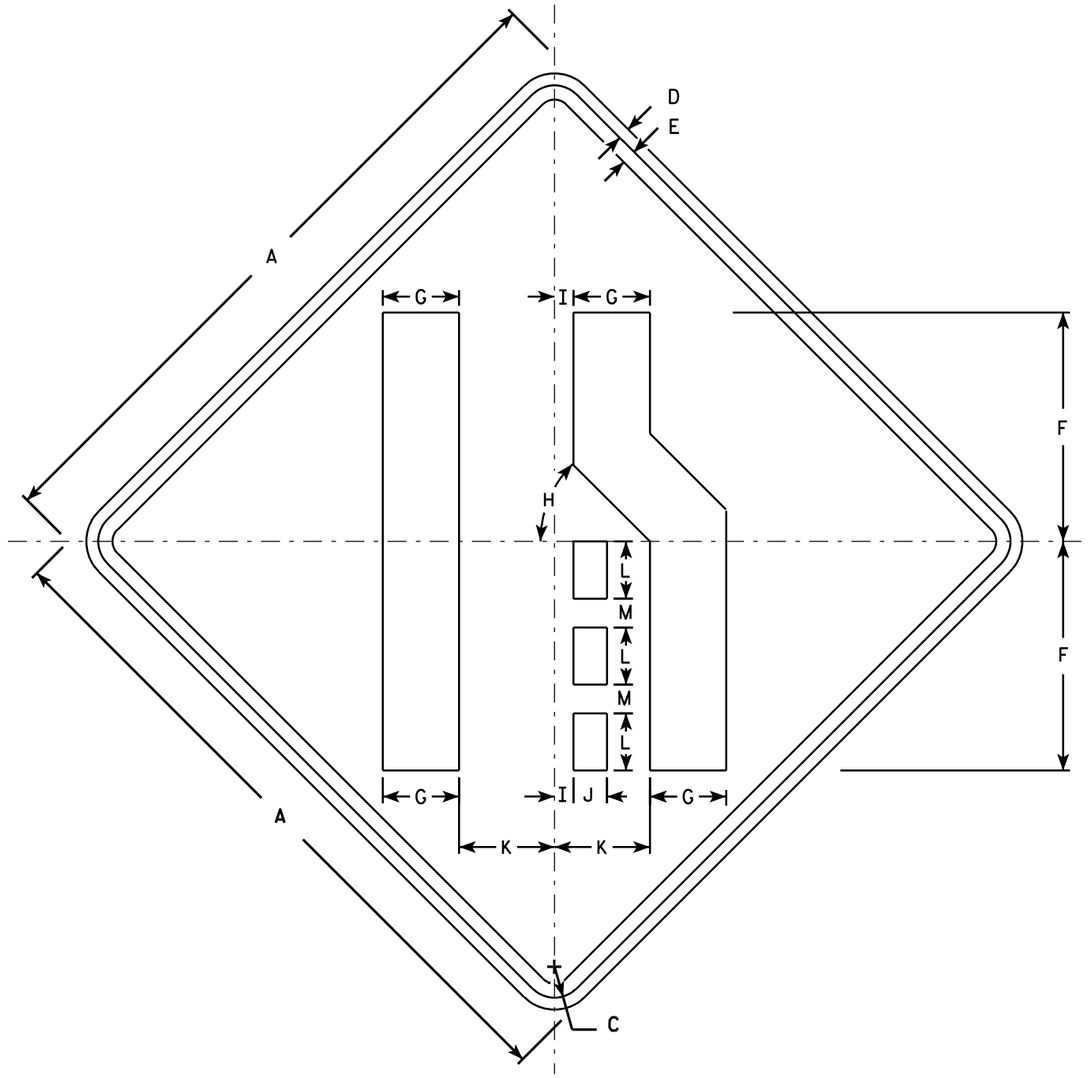
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 427 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

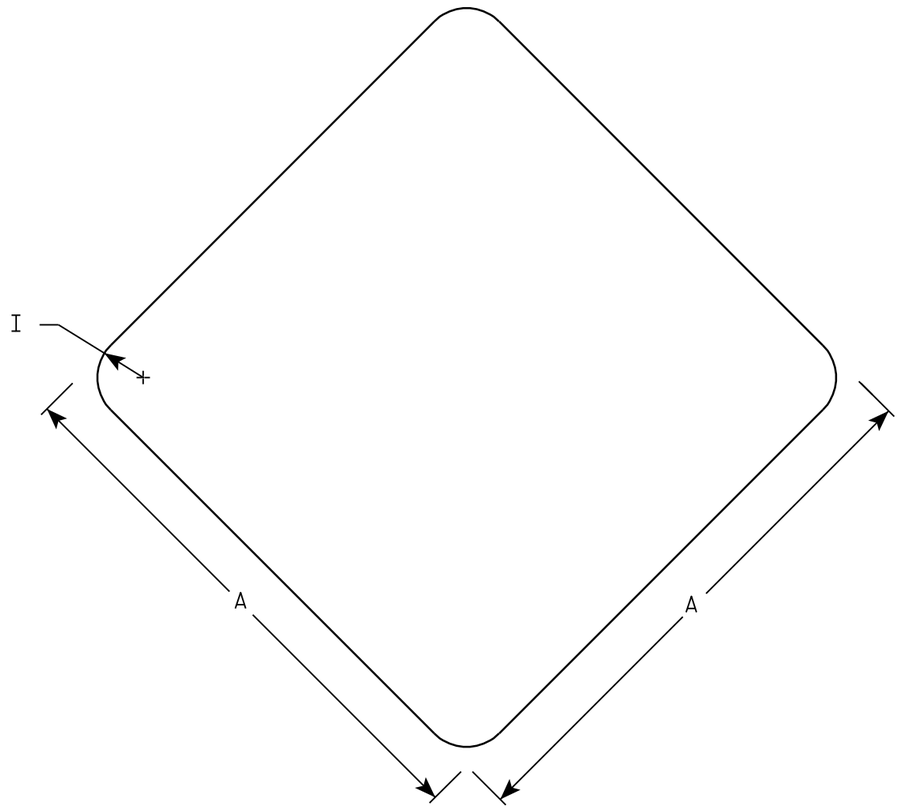
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO: 428 E



W5-54

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
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners 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	12								1																		1.0
2S	18								1 ½																		2.25
2M	18								1 ½																		2.25
3																											
4																											
5																											

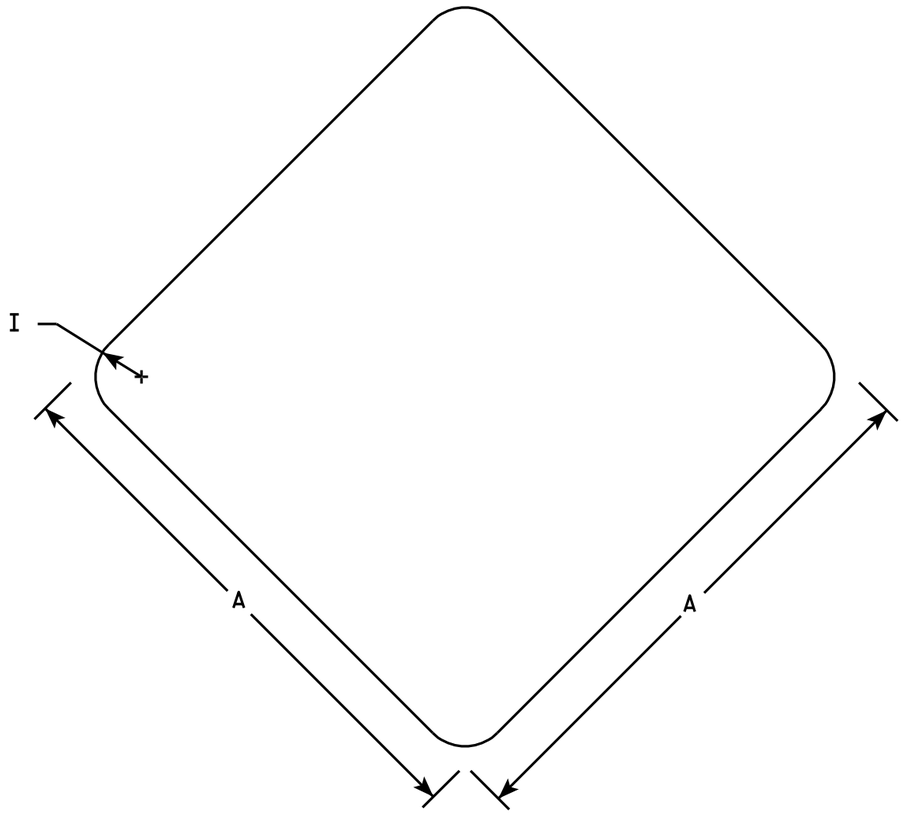
STANDARD SIGN
W5-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/3/10 PLATE NO. W5-54.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 429 | E



W5-56

NOTES

1. Sign is Type II - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners 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	12								1																		1.0
2S	18								1 ½																		2.25
2M	18								1 ½																		2.25
3																											
4																											
5																											

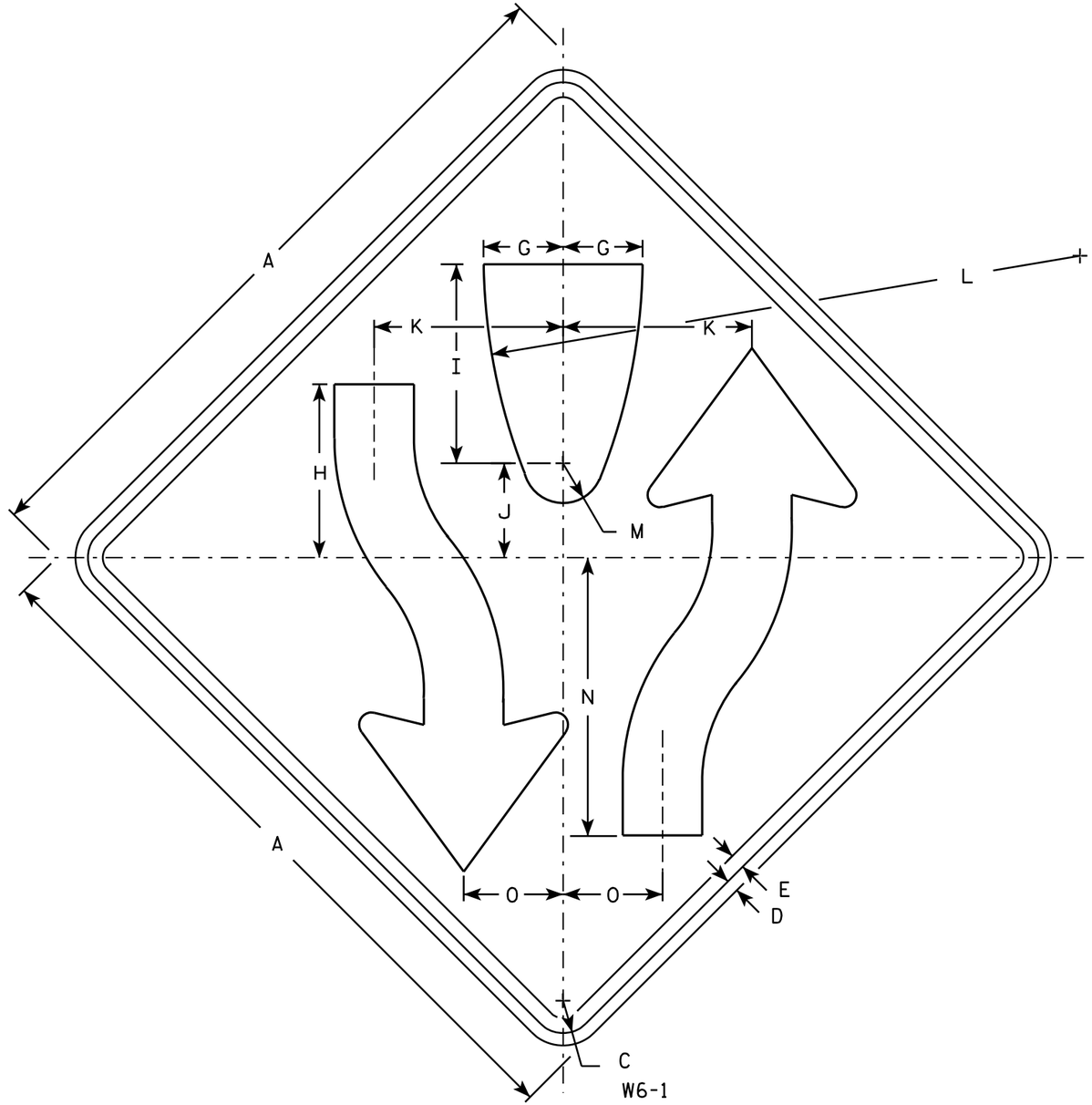
STANDARD SIGN
W5-56

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

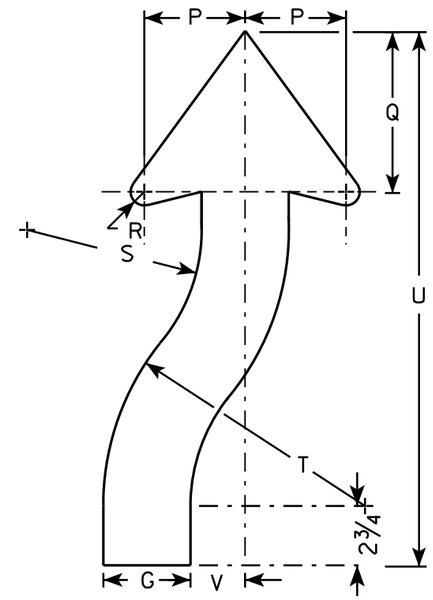
DATE 11/2/10 PLATE NO. W5-56.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 430	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

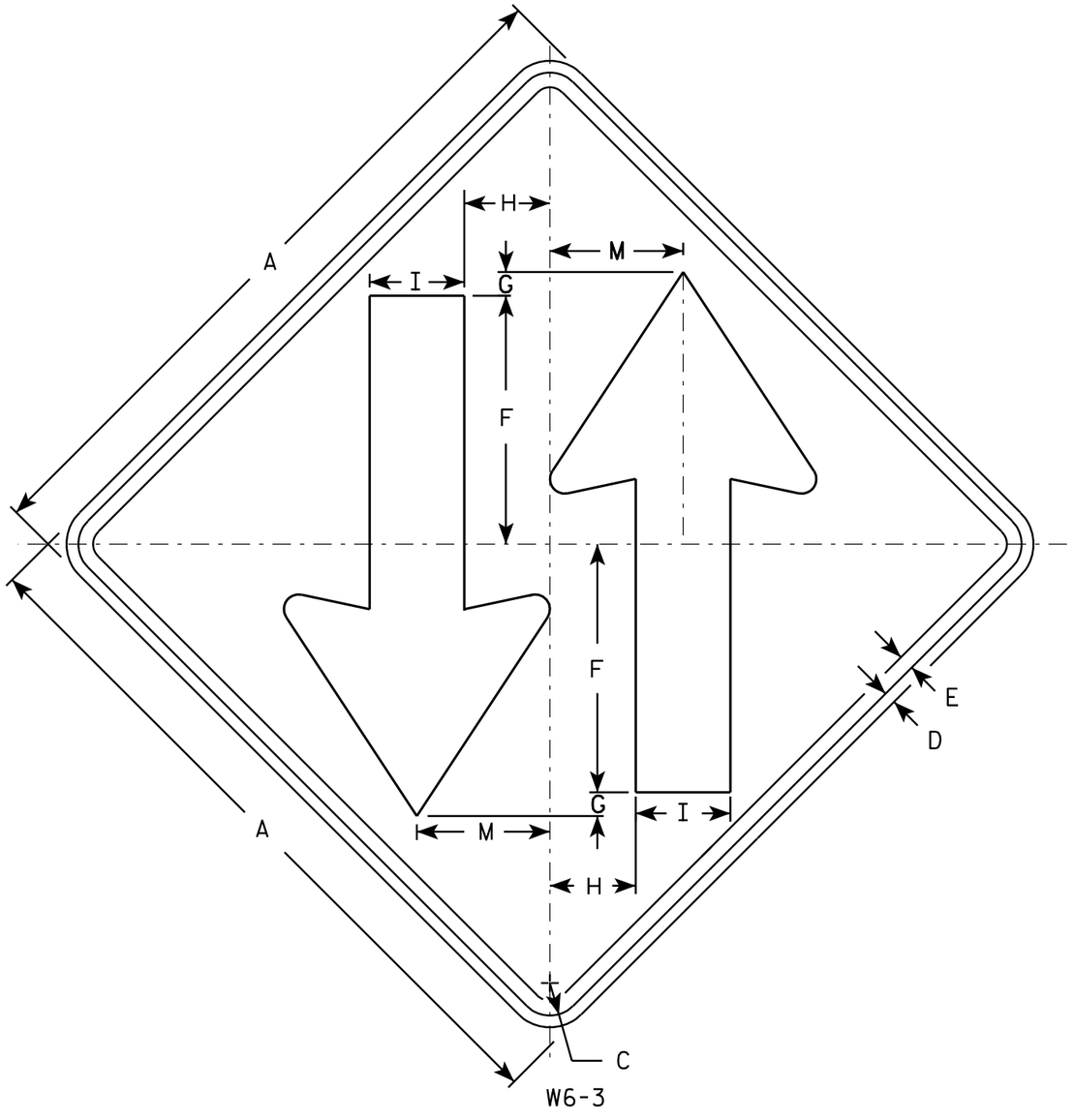
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 431	E

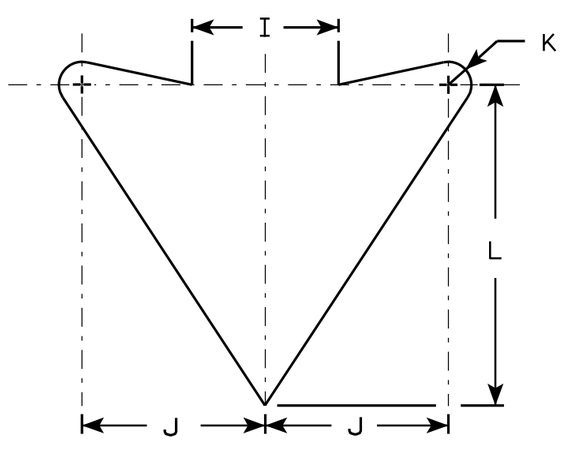
7

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



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	10 1/2	1	3 5/8	4	5	5/8	8 3/4	5 5/8														6.25
2S	36		1 5/8	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
2M	36		1 5/8	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
3																											
4	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
5	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0

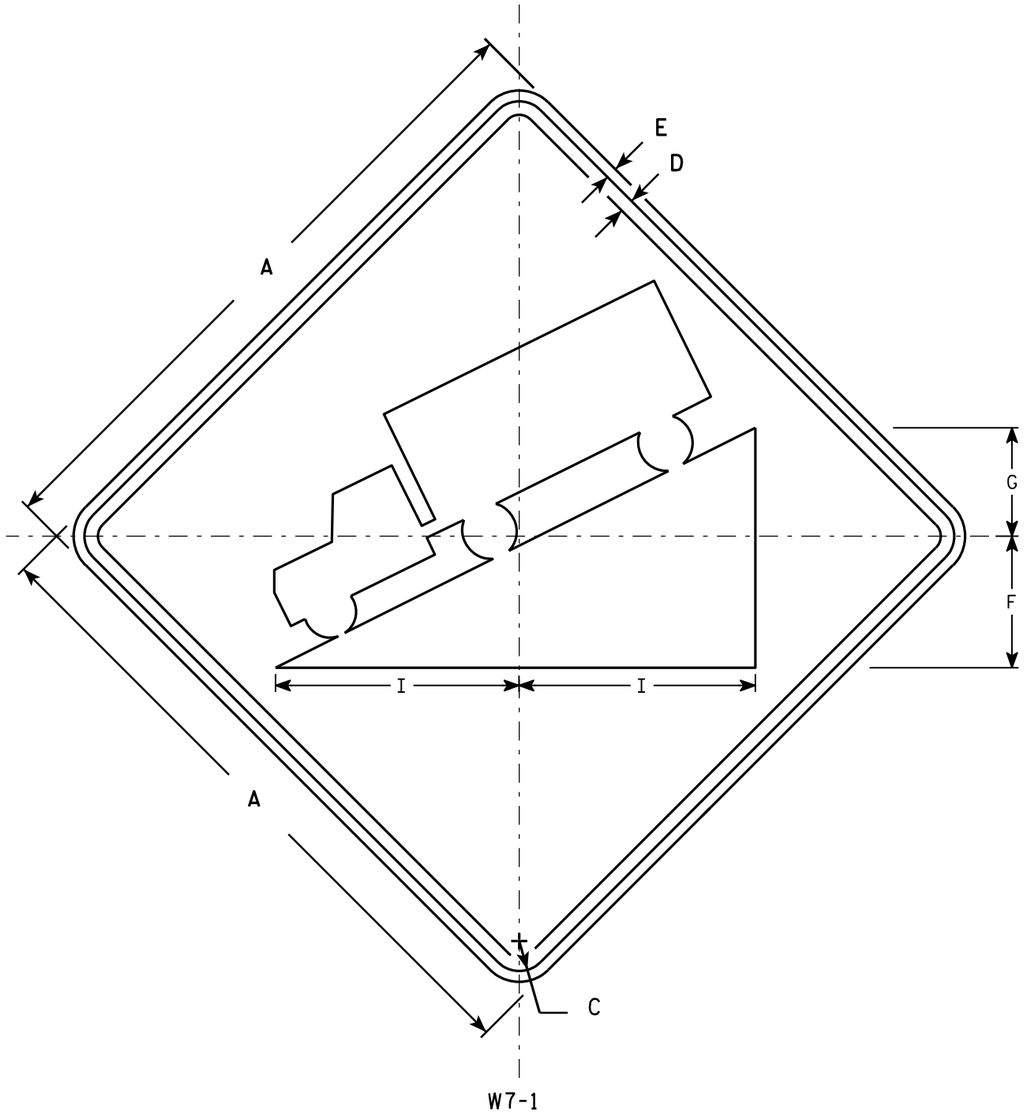
STANDARD SIGN
W6-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-3.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 432	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. 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	24		1 1/8	3/8	3/8	5	4		8 3/4																		4.0
2S	30		1 3/8	1/2	5/8	6	5		11																		6.25
2M	36		1 5/8	5/8	3/4	7 1/4	6		13 1/4																		9.0
3	36		1 5/8	5/8	3/4	7 1/4	6		13 1/4																		9.0
4	36		1 5/8	5/8	3/4	7 1/4	6		13 1/4																		9.0
5	48		2 1/4	3/4	1	9 3/4	8		17 1/2																		16.0

STANDARD SIGN
W7-1

WISCONSIN DEPT OF TRANSPORTATION

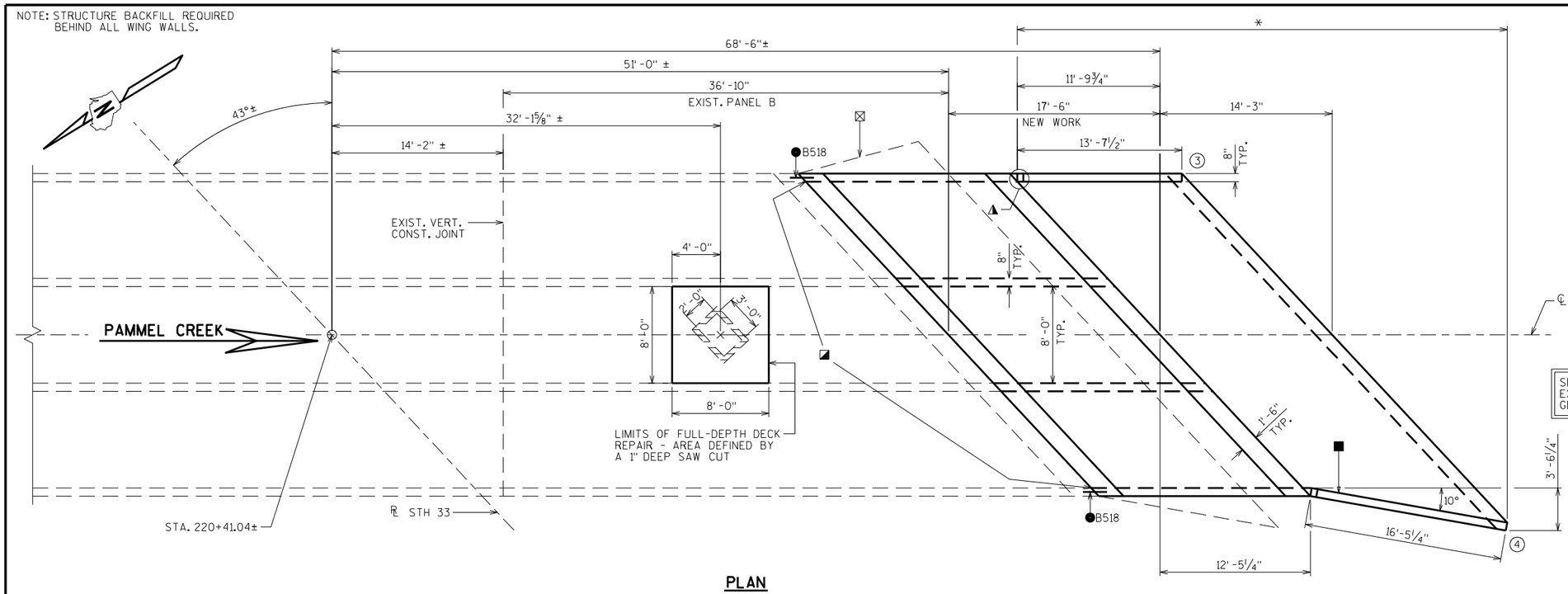
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W7-1.13

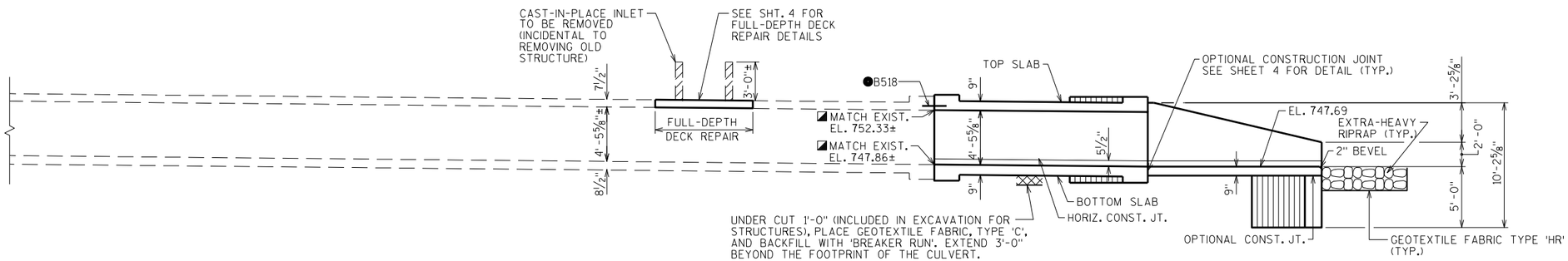
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 433	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W71.DGN PLOT DATE : 12-MAR-2013 14:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.946657:1.000000
WISDOT/CADDS SHEET 42

NOTE: STRUCTURE BACKFILL REQUIRED BEHIND ALL WING WALLS.



PLAN



OUTLET

ELEVATION

(INTERIOR WALLS NOT SHOWN)

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF=1.05
OPERATING RATING FACTOR: RF=1.35
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 255 (KIPS)

EARTHLOAD: DESIGNED FOR 3.0 FT. - 4.0 FT. OF FILL.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY, GRADE A-FA ——— f'_c = 3500 P.S.I.
HIGH STRENGTH BAR STEEL REINFORCEMENT — f_y = 60000 P.S.I.

TRAFFIC VOLUME

STH 33
A.D.T. = 6000 (2032)
R.D.S. = 60 M.P.H.

HYDRAULIC DATA

100 YEAR FREQUENCY
Q_{100} = 1372 C.F.S.
VEL. = 14.5 F.P.S.
HW. = EL. 759.5
DRAINAGE AREA = 1.3 SQ. MI.
OVERTOPPING RDWY. = 100 YR.
SCOUR CRITICAL CODE = 8

2 YEAR FREQUENCY
Q_2 = 428 C.F.S.
HW_2 = EL. 754.1

TOTAL ESTIMATED QUANTITIES

BID ITEMS

	203.0200	REMOVING OLD STRUCTURE STA. 220+25	1	LS
◐	206.2000	EXCAVATION FOR STRUCTURES CULVERTS B-32-71	1	LS
	210.0100	BACKFILL STRUCTURE	125	CY
	311.0115	BREAKER RUN	45	CY
	502.6105	MASONRY ANCHORS TYPE S 5/8-INCH	49	EACH
☆	504.0100	CONCRETE MASONRY CULVERTS	68	CY
	505.0410	BAR STEEL REINFORCEMENT HS CULVERTS	8690	LB
	505.0610	BAR STEEL REINFORCEMENT HS COATED CULVERTS	475	LB
	509.2000	FULL-DEPTH DECK REPAIR	8	SY
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	16	SY
	606.0400	RIPRAP EXTRA-HEAVY	265	CY
	645.0105	GEOTEXTILE FABRIC TYPE C	155	SY
	645.0120	GEOTEXTILE FABRIC TYPE HR	415	SY

NON-BID ITEMS

	FILLER	3/4"	SIZE

☆ INCLUDES CONCRETE QUANTITY FOR FULL-DEPTH DECK REPAIR

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES SHALL BE THE EXISTING GROUNDLINE.

ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE TOP OF THE BOX WITHIN THE LENGTH OF THE CULVERT.

THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

PLACE A 18" (MIN.) WIDE SHEET OF 'RUBBERIZED MEMBRANE WATERPROOFING' ON TOP SLAB OVER ALL CONSTRUCTION JOINTS AND EXTEND DOWN TO BOTTOM OF OUTSIDE WALLS.

CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE FIELD ENGINEER, IN LIEU OF THE BREAKER RUN, TO BE UTILIZED AS A CONSTRUCTION PLATFORM FOR THE BOX. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL.

◐ REMOVE INLET APRON DEBRIS/SEDIMENT AS DIRECTED BY THE FIELD ENGINEER. WORK SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

STATE PROJECT NUMBER

5120-07-72

- ◭ SEE CORNER DETAILS (SHT 4)
- ■ NAME PLATE LOCATION (SEE SHT 4)
- * BUILD APRON AND END OF BOX LEVEL
- ◪ INSIDE WALLS TO MATCH EXISTING (TYP.)
- ⊠ REMOVE EXISTING APRON AND WINGS. EXTEND EXISTING BAR STEEL REINFORCEMENT IN BOTTOM SLAB 2'-0" INTO NEW WORK.
- ◯— INDICATES WING NUMBER
- ● CONCRETE MASONRY ANCHORS, TYPE S (EPOXY ANCHORED), 5/8-INCH , EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" CENTERS. (TYP. IN ALL WALLS AND TOP SLAB).

SEE SHEET 4 FOR LIMITS OF EXTRA-HEAVY RIPRAP AND GEOTEXTILE FABRIC TYPE 'HR'

LIST OF DRAWINGS

1. LAYOUT
2. EXTENSION DETAILS
3. APRON DETAILS
4. DETAILS
5. SUBSURFACE EXPLORATION

STRUCTURE DESIGN CONTACT:
NICK RICE (608) 266-5092
DAVE KIEKBUSCH (608) 266-5084

NO.	DATE	REVISION	BY

Plans Prepared By WISDOT
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS — 10/1/13
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-32-71

STH 33 OVER PAMMEL CREEK

COUNTY: LA CROSSE — TOWN/~~CITY/VILLAGE~~: SHELBY

DESIGN SPEC.: AASHTO LRFD DESIGN SPEC.

DESIGNED BY	NAR	DESIGN CK'D.	DFD	DRAWN BY	NAR	PLANS CK'D.	DFD

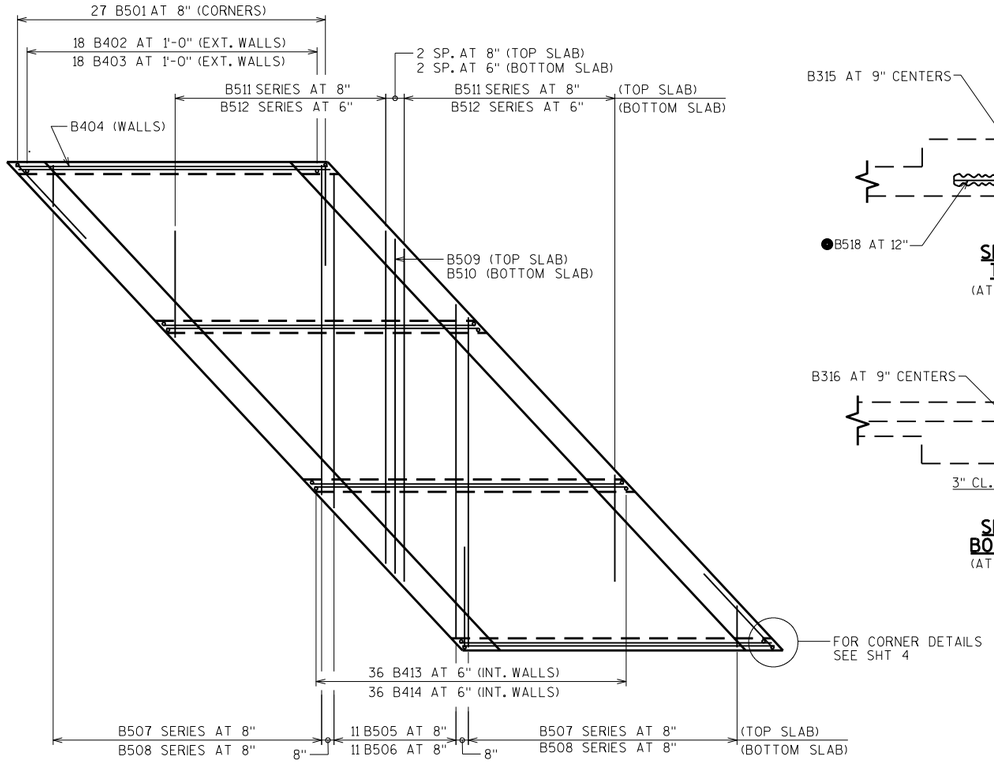
LAYOUT — SHEET 1 OF 5 — 434

I.D. 5120-07-00A — DATE: APR. 2013

SCALE = 5

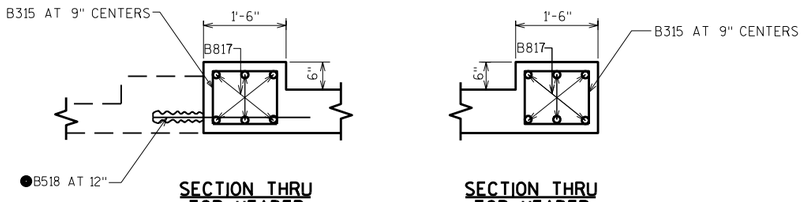
STATE PROJECT NUMBER

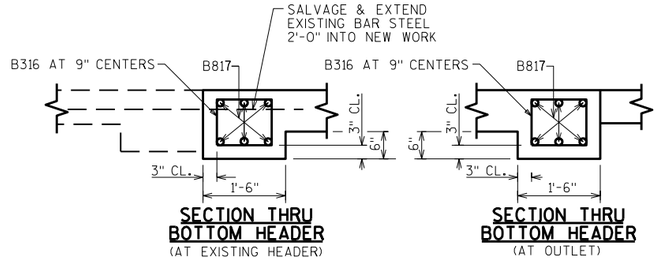
5120-07-72



PLAN VIEW OF OUTLET EXTENSION

LONGITUDINAL BARS IN TOP AND BOTTOM SLAB NOT SHOWN FOR CLARITY





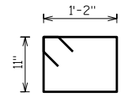
BILL OF BARS

THE FIRST OR FIRST AND SECOND DIGIT OF THE MARK SIGNIFIES THE BAR SIZE.

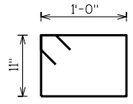
THE DIMENSION IN THE BENT COLUMN IS THE OUT TO OUT HORIZONTAL LEG OF A "L" SHAPED BAR. LONGER BARS OF THE SAME SIZE MAY BE SUBSTITUTED FOR SHORTER BARS. PAYMENT BASED ON BAR LENGTHS AS DETAILED.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		108	9-1	5-6	NO	CORNERS
B402		36	4-7	NO	NO	EXT. WALLS VERT.
B403		36	2-1	NO	NO	EXT. WALLS-DOWELS VERT.
B404		89	17-0	NO	NO	TOP SLAB, BOTTOM SLAB, & WALLS LONGIT.
B505		11	18-3	NO	NO	TOP SLAB TRANS.
B506		11	18-3	NO	NO	BOTTOM SLAB TRANS.
B507		46	10-2	NO	YES	TOP SLAB TRANS. ⚠
B508		46	10-2	NO	YES	BOTTOM SLAB TRANS. ⚠
B509		1	18-3	NO	NO	TOP SLAB TRANS.
B510		1	18-3	NO	NO	BOTTOM SLAB TRANS.
B511		36	11-11	NO	YES	TOP SLAB TRANS. ⚠
B512		48	12-0	NO	YES	BOTTOM SLAB TRANS. ⚠
B413		144	5-6	1-0	NO	INT. WALLS VERT.
B414		144	2-1	NO	NO	INT. WALLS-DOWELS VERT.
B315		98	4-7	YES	NO	HEADER STIRRUPS VERT.
B316		98	4-3	YES	NO	HEADER STIRRUPS VERT.
B817		24	36-0	NO	NO	HEADERS HORIZ.
B518		49	2-6	NO	NO	VERT. CONST. JOINT

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



B315

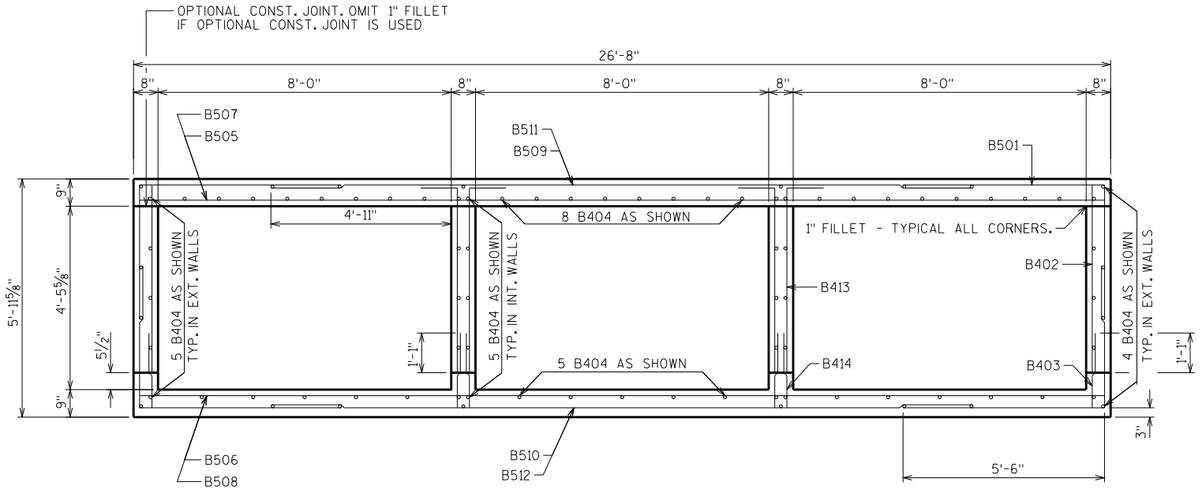


B316

BAR SERIES TABLE

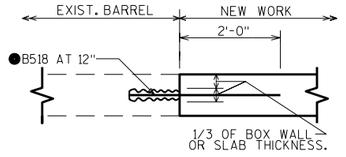
MARK	NO. REQD.	LENGTH
B507	2 SERIES OF 23	2-3 TO 18-0
B508	2 SERIES OF 23	2-3 TO 18-0
B511	2 SERIES OF 18	5-10 TO 18-0
B512	2 SERIES OF 24	5-10 TO 18-2

BUNDLE AND TAG EACH SERIES SEPARATELY.



TYPICAL SECTION THRU BOX

ALL LONGITUDINAL BARS NOT IDENTIFIED ARE B404 AS SHOWN.



VERTICAL CONSTRUCTION JOINT

● CONCRETE MASONRY ANCHORS, TYPE S (EPOXY ANCHORED), 5/8-INCH , EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" CENTERS. (TYP. IN ALL WALLS AND TOP SLAB).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-32-71

DRAWN BY NAR | PLANS CK'D. DFD

EXTENSION DETAILS

SHEET 2

435

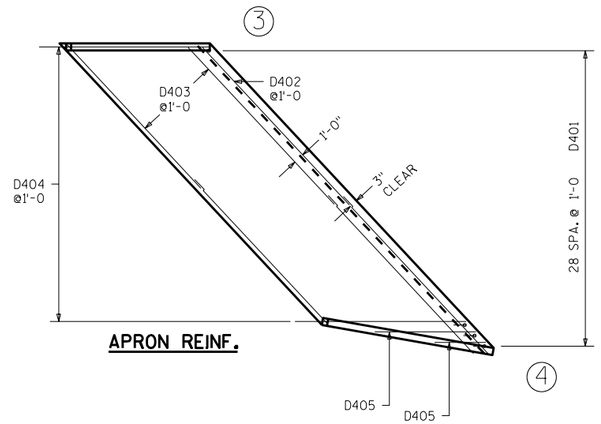
SCALE = 4

8

8

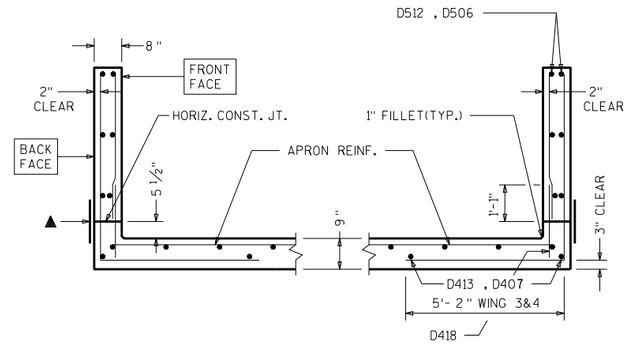
STATE PROJECT NUMBER

5120-07-72



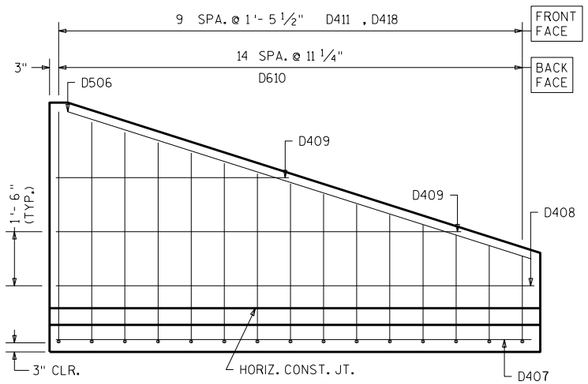
APRON REINF.

▲ 18" RUBBERIZED MEMBRANE WATER-PROOFING. PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE WING LENGTH (TYP.).

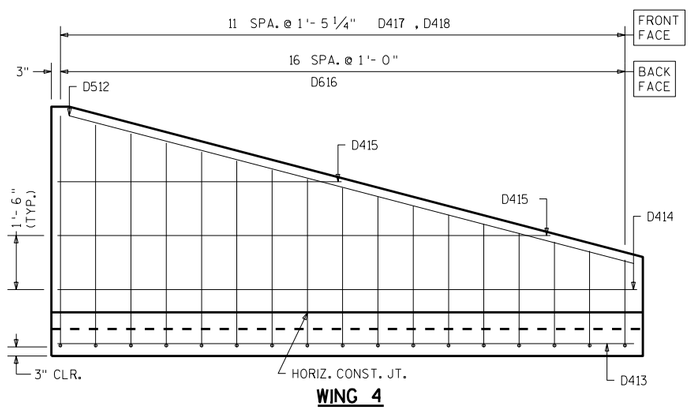


SECTION THRU WINGS

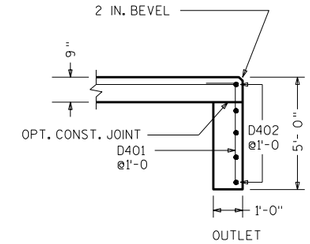
AT RIGHT ANGLES TO WING WALLS



WING 3

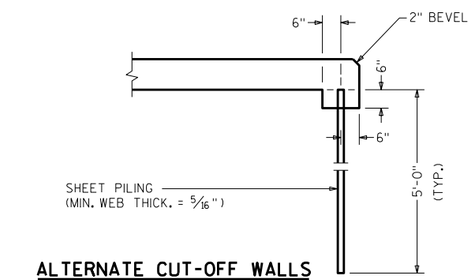


WING 4



CUT-OFF WALLS

SECTION THRU THE WALLS



ALTERNATE CUT-OFF WALLS

THE ABOVE ALT. MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONC. CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONC. CUT-OFF WALLS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-32-71

DRAWN BY NAR | PLANS CK'D. DFD

APRON DETAILS

SHEET 3

436

SCALE = 4

8

8

STATE PROJECT NUMBER

5120-07-72

BILL OF BARS

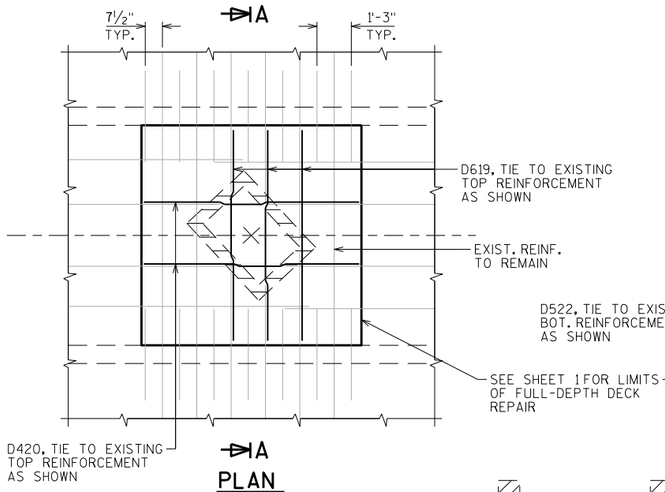
THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.
THE DIMENSION IN THE BENT COLUMN IS THE OUT TO OUT HORIZONTAL LEG OF AN L - SHAPED BAR.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
D401		29	5 - 6	1 - 0		OUTLET APRON AND CUTOFF WALL
D402		10	20 - 3			OUTLET APRON AND CUTOFF WALL
D403		20	19 - 5		*	" APRON
D404		27	16 - 2			" APRON
D405		2	7 - 5		*	" APRON
D506		2	13 - 4			WING 3 -HORIZONTAL - BOTH FACES
D407		2	13 - 3			WING "-HORIZONTAL -APRON BOTT. SLAB
D408		2	13 - 3			WING "-HORIZONTAL - BOTH FACES
D409		4	7 - 8		*	WING "-HORIZONTAL - BOTH FACES
D610	X	15	8 - 11	5 - 2	*	WING "-VERTICAL - BACK FACE
D411		10	3 - 0		*	WING "-VERTICAL - FRONT FACE
D512		2	16 - 1			WING 4 -HORIZONTAL - BOTH FACES
D413		2	16 - 1			WING "-HORIZONTAL -APRON BOTT. SLAB
D414		2	16 - 1			WING "-HORIZONTAL - BOTH FACES
D415		4	9 - 3		*	WING "-HORIZONTAL - BOTH FACES
D616	X	17	8 - 11	5 - 2	*	WING "-VERTICAL - BACK FACE
D417		12	3 - 0		*	WING "-VERTICAL - FRONT FACE
D418	X	22	2 - 1			WINGS 3 AND 4 - DOWELS - FRONT FACE
D619		3	7 - 8			FULL-DEPTH DECK REPAIR - TOP - TRANS.
D420		2	7 - 8			FULL-DEPTH DECK REPAIR - TOP - LONGIT.
D421		7	7 - 8			FULL-DEPTH DECK REPAIR - BOT. - TRANS.
D522		3	7 - 8			FULL-DEPTH DECK REPAIR - BOT. - TRANS.
D423		3	7 - 8			FULL-DEPTH DECK REPAIR - BOT. - LONGIT.

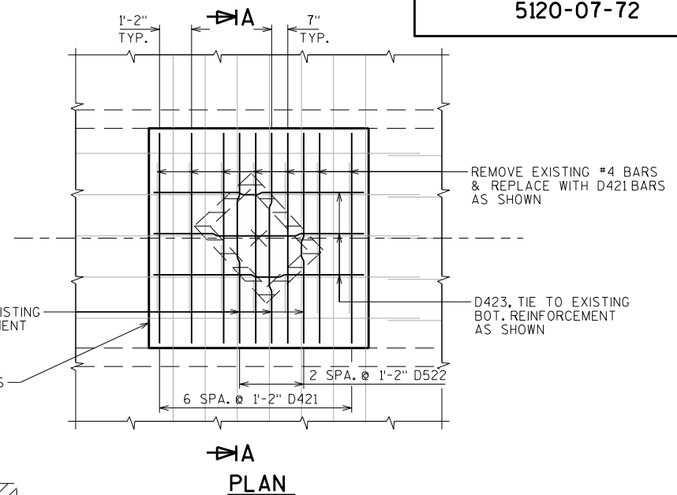
* LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE --- BUNDLE AND TAG EACH SERIES SEPARATELY

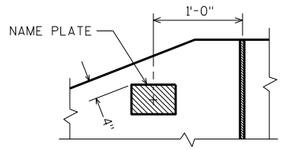
BAR MARK	NO. REQ'D.	LENGTHS FOR EACH SERIES
D403	2 SERIES OF 10	18 - 6 TO 20 - 4
D405	1 SERIES OF 2	5 - 0 TO 9 - 9
D409	2 SERIES OF 2	4 - 7 TO 10 - 8
D610	1 SERIES OF 15	7 - 4 TO 10 - 6
D411	1 SERIES OF 10	1 - 5 TO 4 - 7
D415	2 SERIES OF 2	5 - 6 TO 12 - 11
D616	1 SERIES OF 17	7 - 4 TO 10 - 6
D417	1 SERIES OF 12	1 - 5 TO 4 - 7



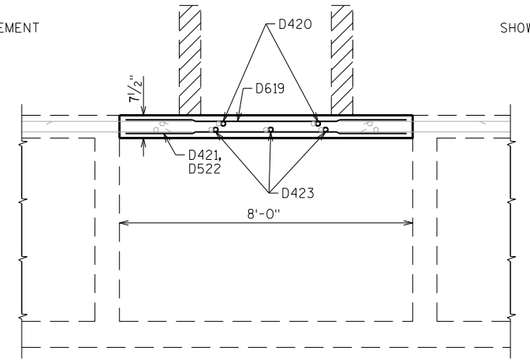
PLAN
SHOWING TOP REINFORCEMENT



PLAN
SHOWING BOT. REINFORCEMENT



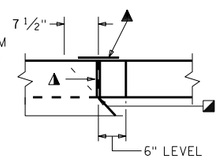
NAME PLATE LOCATION
WING 4



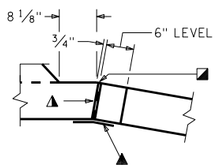
SECTION A-A

FULL-DEPTH DECK REPAIR DETAILS

▲ ¾" FILLER TYPICAL. EXTEND FILLER FROM HORIZ. CONST. JT. TO TOP OF WING.
◪ 1" BEVEL TYPICAL
▲ 18" RUBBERIZED MEMBRANE WATER-PROOFING. EXTEND FROM HORIZ. CONST. JT. TO TOP OF WALL.

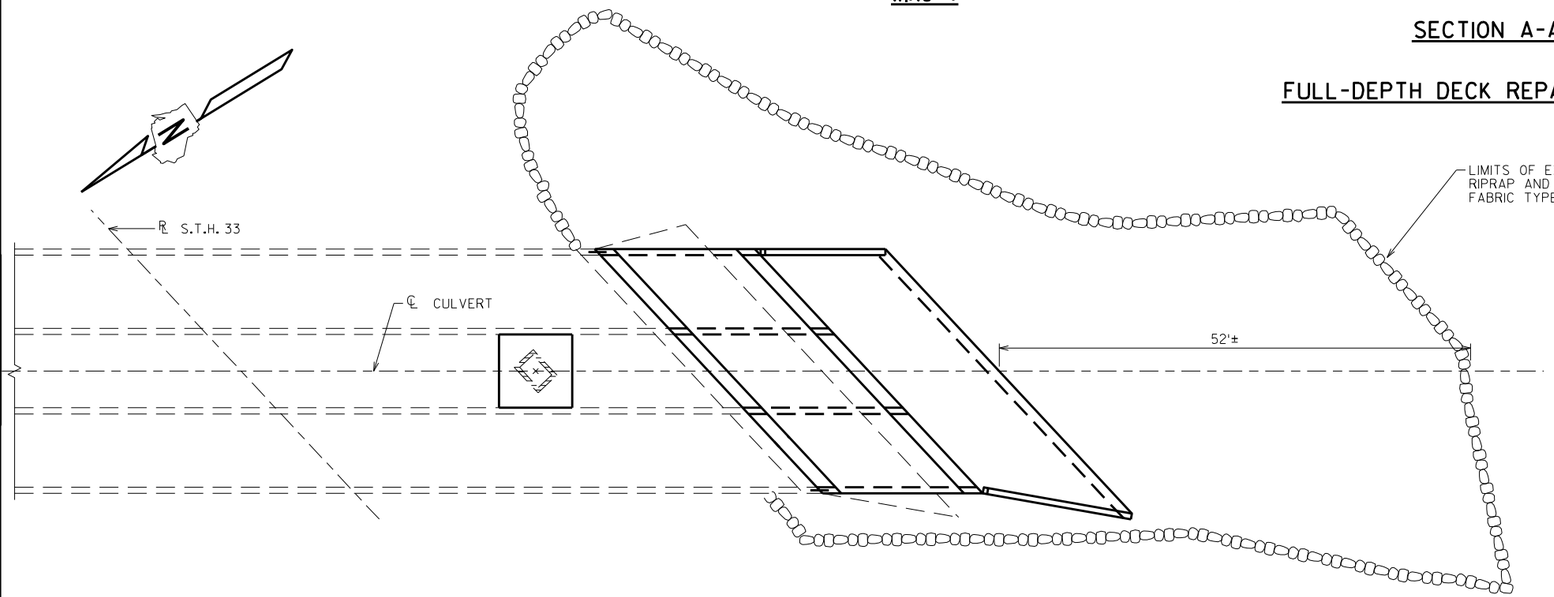


CORNER 3



CORNER 4

CORNER DETAILS



RIPRAP LAYOUT

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-32-71

DRAWN BY NAR | PLANS CK'D. DFD

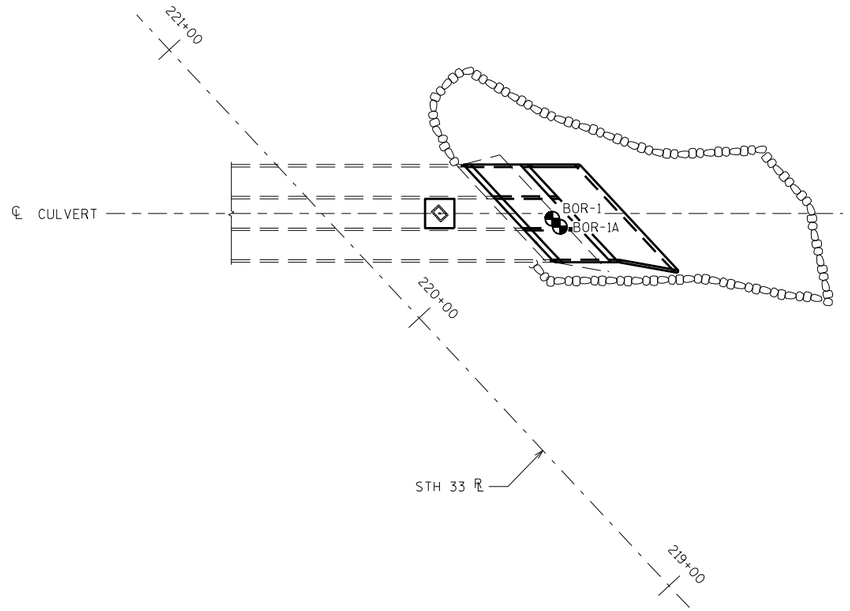
DETAILS

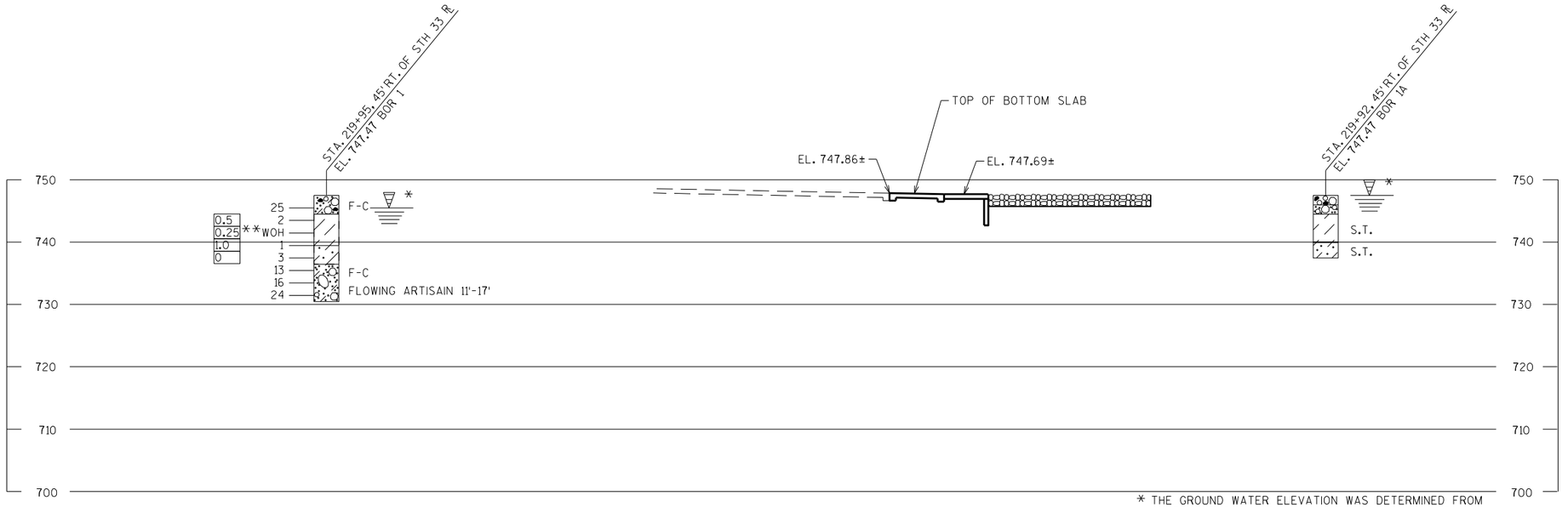
SHEET 4

437

SCALE = 4

LA CROSSE - CASHTON
LA CROSSE CITY LIMITS TO FOREST DRIVE





* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

** WOH = WEIGHT OF HAMMER

STATE PROJECT NUMBER

5120-07-72

ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING

PROBING NO.
STA.
ELEVATION
7 AVERAGE BLOWS PER FOOT
REFUSAL 95/6

95/6=95 BLOWS FOR 6" PENETRATION
PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

LEGEND OF BORING

BORING NO.
ELEV. STA.
UNCONFINED STRENGTH → 7.7 7
BLOWS PER FT. USING 140# WT. FALLING 30"
WASH SAMPLE
SHELBY TUBE — S.T.
GROUND WATER ELEVATION
NO GROUND WATER OBSERVED ABOVE THIS ELEVATION
SANDY GRAVEL
F. BOULDERS OR COBBLES
SAND
SILTY CLAY
SO LIMESTONE

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-32-71

DRAWN BY PR/NAR | PLANS CK'D. DFD

SUBSURFACE EXPLORATION

SHEET 5

438

SCALE = 10

8

8

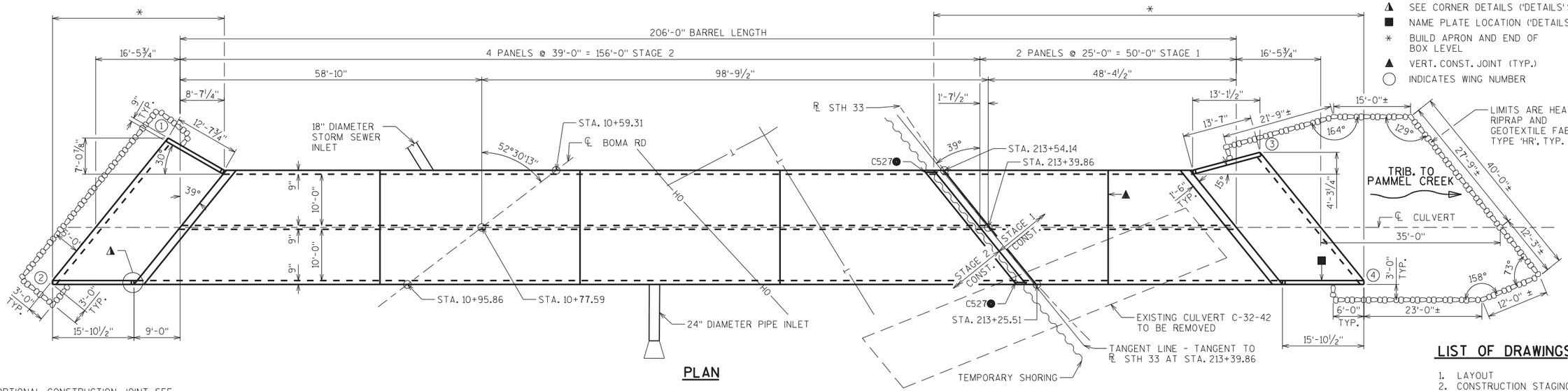
NOTE: STRUCTURE BACKFILL REQUIRED BEHIND ALL WING WALLS.

● CONCRETE MASONRY ANCHORS, TYPE S (EPOXY ANCHORED), 5/8-INCH , EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" CENTERS. (TYP. IN ALL WALLS AND TOP SLAB).

STATE PROJECT NUMBER

5120-07-71

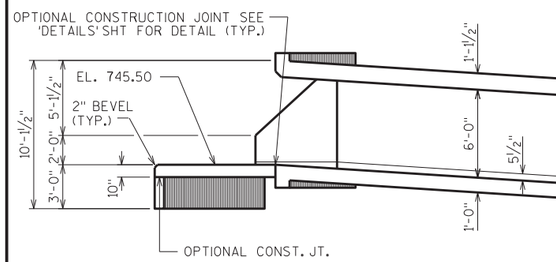
▲ SEE CORNER DETAILS ('DETAILS' SHT)
■ NAME PLATE LOCATION ('DETAILS' SHT)
* BUILD APRON AND END OF BOX LEVEL
▲ VERT. CONST. JOINT (TYP.)
◯ INDICATES WING NUMBER



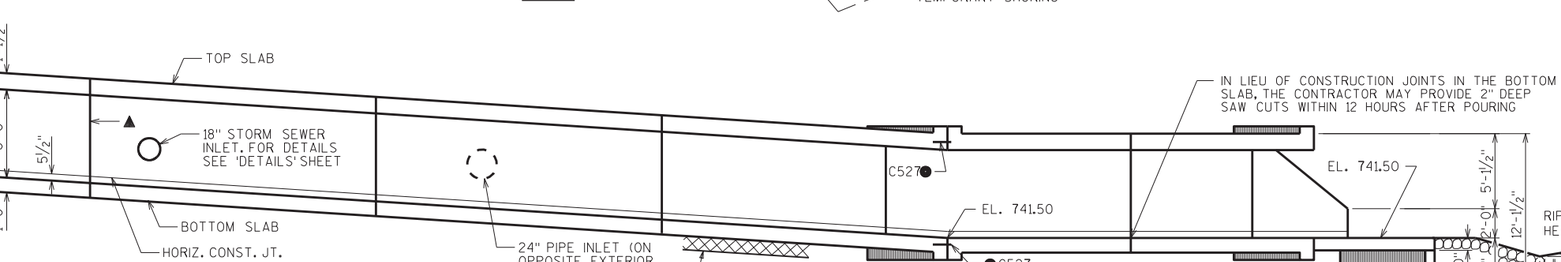
PLAN

LIST OF DRAWINGS

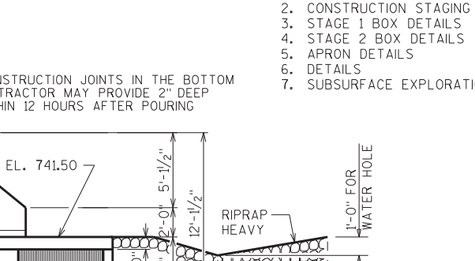
1. LAYOUT
2. CONSTRUCTION STAGING
3. STAGE 1 BOX DETAILS
4. STAGE 2 BOX DETAILS
5. APRON DETAILS
6. DETAILS
7. SUBSURFACE EXPLORATION



INLET



ELEVATION
(INTERIOR WALL NOT SHOWN)



OUTLET

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF=1.05
OPERATING RATING FACTOR: RF=1.35
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 255 (KIPS)

EARTHLOAD: DESIGNED FOR 2.0 - 5.0 FT. OF FILL.

ULTIMATE DESIGN STRESSES:
CONCRETE MASONRY, GRADE A-FA — f'_c = 3500 P.S.I.
HIGH STRENGTH BAR STEEL REINFORCEMENT — f_y = 60000 P.S.I.

HYDRAULIC DATA

100 YEAR FREQUENCY
Q_{100} = 956 C.F.S.
VEL. = 19.2 F.P.S.
HW. = EL. 752.3
2 YEAR FREQUENCY
Q_2 = 110 C.F.S.
$HW._2$ = EL. 747.0
DRAINAGE AREA = 1.3 SQ. MI.
OVERTOPPING RDWY. = N.A.
SCOUR CODE = 8

TRAFFIC VOLUME

STH 33
A.D.T. = 11,800 (2033)
R.D.S. = 45 M.P.H.

CURVE DATA

STH 33
P.I. = 215+24.34
Δ = 19°-58'-08"
D = 2°-30'-00"
T = 403.47'
L = 798.75'
R = 2291.83'
S.E. = 6.00%
P.C. = 211+20.87
P.T. = 219+19.62

TOTAL ESTIMATED QUANTITIES

BID ITEMS

203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 213+22	1	LS
206.2000	EXCAVATION FOR STRUCTURES CULVERTS B-32-227	1	LS
206.6000.S	TEMPORARY SHORING	860	SF
210.0100	BACKFILL STRUCTURE	1465	CY
311.0115	BREAKER RUN	500	CY
502.6105	MASONRY ANCHORS TYPE S 5/8-INCH	62	EACH
504.0100	CONCRETE MASONRY CULVERTS	514	CY
505.0410	BAR STEEL REINFORCEMENT HS CULVERTS	55,880	LB
505.0610	BAR STEEL REINFORCEMENT HS COATED CULVERTS	910	LB
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	50	SY
606.0300	RIPRAP HEAVY	105	CY
645.0105	GEOTEXTILE FABRIC TYPE C	880	SY
645.0120	GEOTEXTILE FABRIC TYPE HR	215	SY

NON-BID ITEMS

FILLER	3/4"	SIZE

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS B-32-227" SHALL BE THE EXISTING GROUNDLINE.

ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE TOP OF THE BOX WITHIN THE LENGTH OF THE CULVERT.

THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

PLACE A 18" (MIN.) WIDE SHEET OF 'RUBBERIZED MEMBRANE WATERPROOFING' ON TOP SLAB OVER ALL CONSTRUCTION JOINTS AND EXTEND DOWN TO BOTTOM OF OUTSIDE WALLS.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST- IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 36 STANDARDS OF THE CURRENT WISC. DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE FIELD ENGINEER, IN LIEU OF THE BREAKER RUN, TO BE UTILIZED AS A CONSTRUCTION PLATFORM FOR THE BOX. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL.

STRUCTURE DESIGN CONTACT:
DANIELLE DE TENNIS (608) 266-8689
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

Plans Prepared By WISDOT
BUREAU OF STRUCTURES
ACCEPTED William C. Dreher LLS 10/1/13
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-32-227

STH 33 OVER TRIB. TO PAMMEL CREEK

COUNTY: LA CROSSE
TOWN/~~CITY/VILLAGE~~: SHELBY
DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DFD	DESIGN CK'D.	NAR	DRAWN BY	DFD	PLANS CK'D.

LAYOUT

SHEET 1 OF 7

439

I.D. 5120-07-00

DATE: JUNE 2013

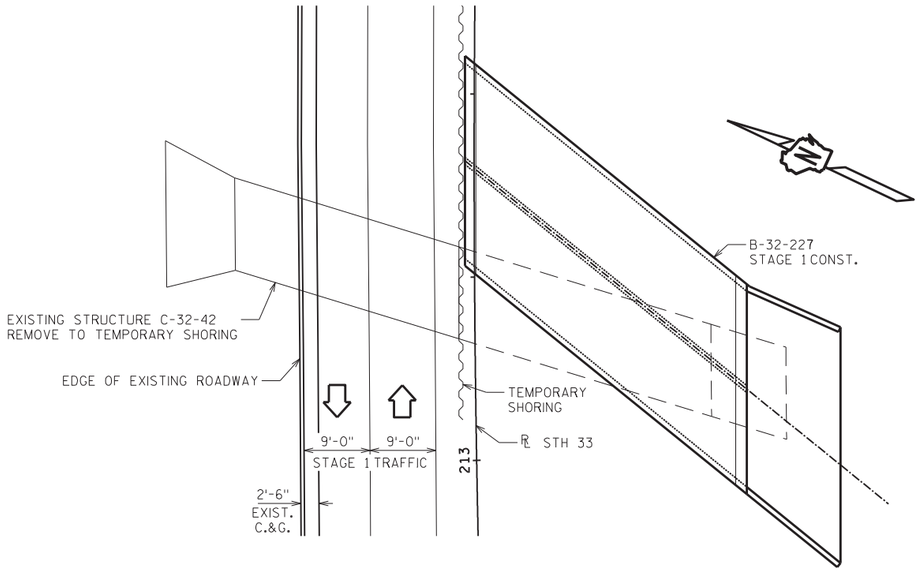
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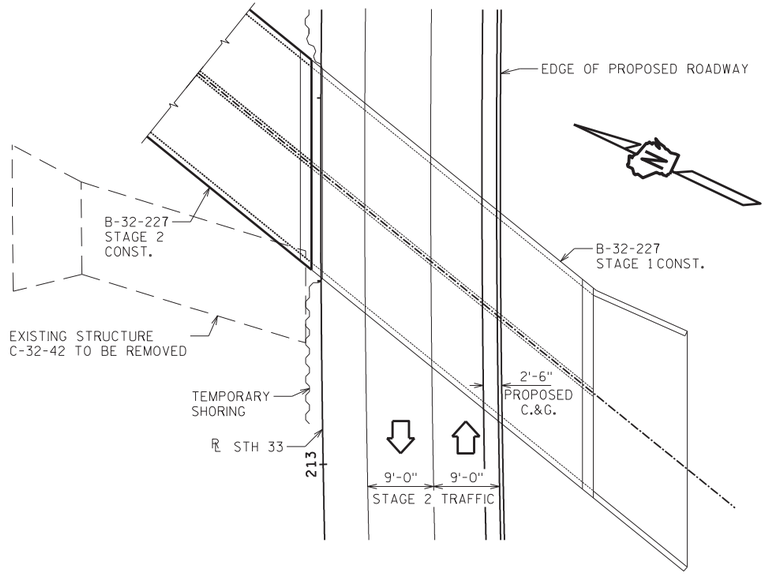
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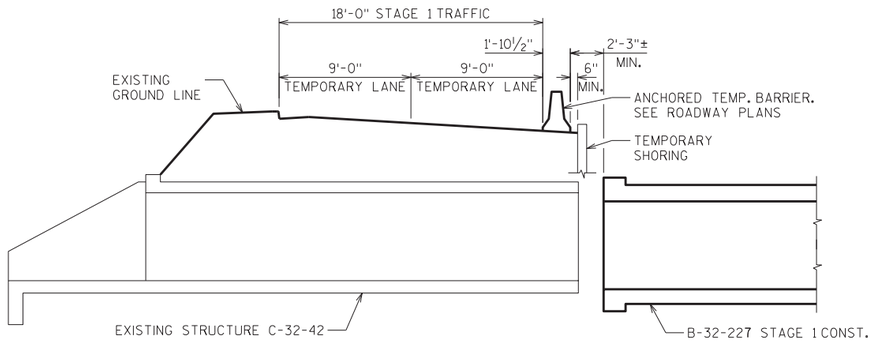
5120-07-71



STAGE 1 PLAN

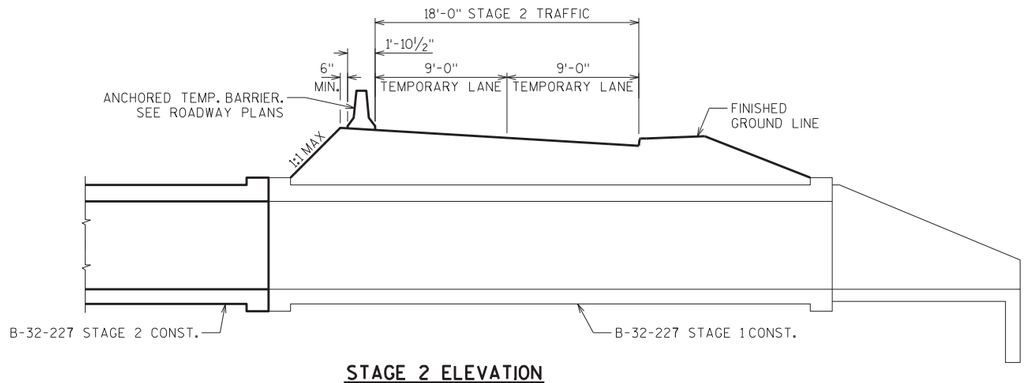


STAGE 2 PLAN



STAGE 1 ELEVATION

LOOKING UPSTATION NORMAL TO ROADWAY



STAGE 2 ELEVATION

LOOKING UPSTATION NORMAL TO ROADWAY

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-32-227

DRAWN BY DFD | PLANS CK'D.

CONSTRUCTION STAGING

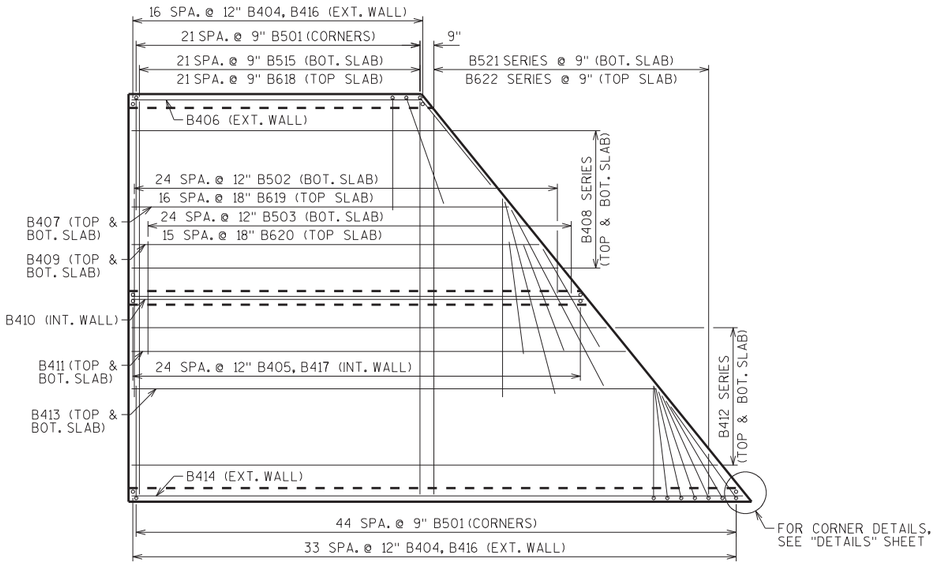
SHEET 2

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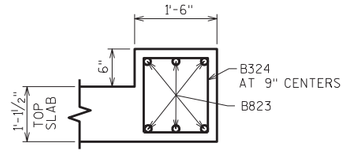
STATE PROJECT NUMBER

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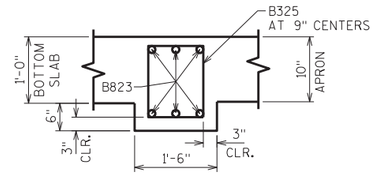
PLAN VIEW OF OUTLET PANEL

APRON AND HEADER NOT SHOWN FOR CLARITY
INTERIOR PANEL SIMILAR



SECTION THRU TOP HEADER

OUTLET HEADER SHOWN, HEADER AT STAGED CONST. JT. SIMILAR



SECTION THRU BOTTOM HEADER

OUTLET HEADER SHOWN, HEADER AT STAGED CONST. JT. SIMILAR

BILL OF BARS

THE FIRST OR FIRST AND SECOND DIGIT OF THE MARK SIGNIFIES THE BAR SIZE. THE DIMENSION IN THE BENT COLUMN IS THE OUT TO OUT HORIZONTAL LEG OF A "L" SHAPED BAR. LONGER BARS OF THE SAME SIZE MAY BE SUBSTITUTED FOR SHORTER BARS. PAYMENT BASED ON BAR LENGTHS AS DETAILED.

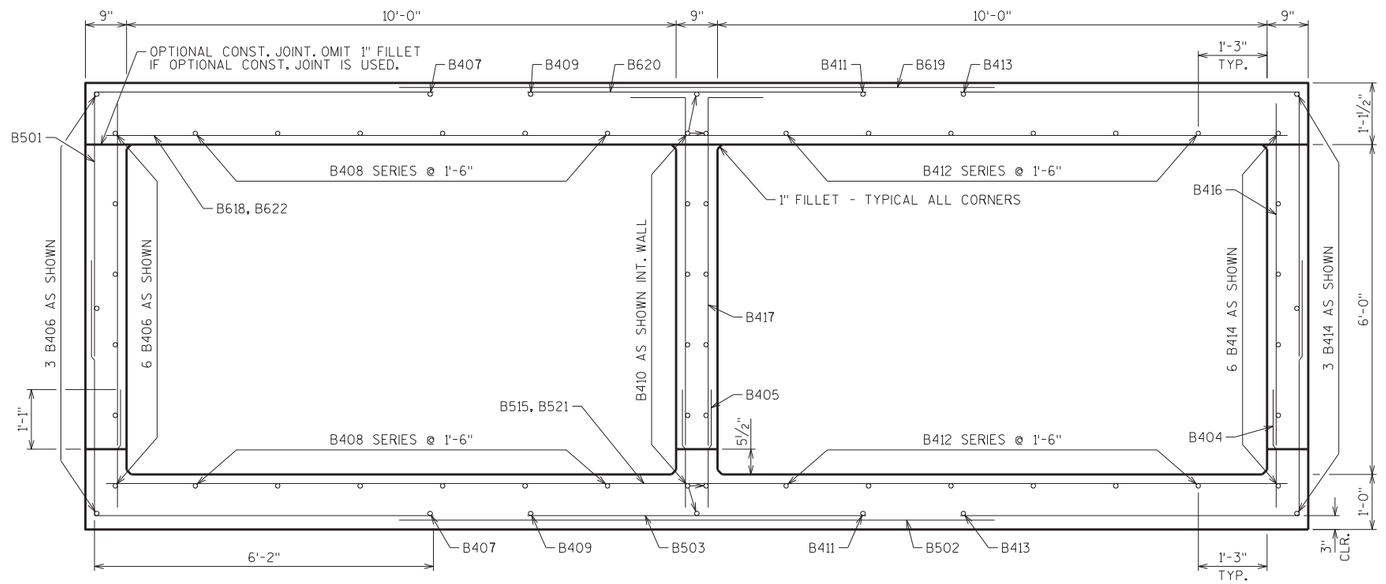
MARK	NUMBER REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501	268	10-9	6-2		CORNERS
B502	50	10-10			BOT. SLAB TRANS.
B503	50	6-2			BOT. SLAB TRANS.
B404	102	2-4			EXT. WALL DOWEL
B405	100	2-4			INT. WALL DOWEL
B406	18	15-9			EXT. WALL LONGIT.
B407	4	20-9			TOP&BOT. SLAB LONGIT.
B408	24	20-3		*	TOP&BOT. SLAB LONGIT.
B409	4	22-1			TOP&BOT. SLAB LONGIT.
B410	28	24-5			INT. WALL LONGIT.
B411	4	27-1			TOP&BOT. SLAB LONGIT.
B412	24	29-0		*	TOP&BOT. SLAB LONGIT.
B413	4	28-6			TOP&BOT. SLAB LONGIT.
B414	18	33-2			EXT. WALL LONGIT.
B515	44	21-6			BOT. SLAB TRANS
B416	102	6-6			EXT. WALLS VERTICAL
B417	100	7-5	1-0		INT. WALLS VERTICAL
B618	44	21-6			TOP SLAB TRANS.
B619	34	10-10			TOP SLAB TRANS.
B620	32	6-2			TOP SLAB TRANS.
B521	42	11-6		*	BOT. SLAB TRANS.
B622	42	11-6		*	TOP SLAB TRANS.
B823	24	28-2			HEADERS HORIZ.
B324	78	5-3	YES		TOP HEADER STIRRUPS
B325	78	4-7	YES		BOT. HEADER STIRRUPS
B526	62	4-0			VERTICAL CONSTRUCTION JOINT

* LENGTH SHOWN FOR BAR SERIES IN "BILL OF BARS" IS AVERAGE LENGTH.

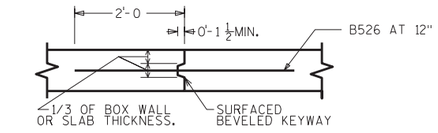
BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
B408	4 SERIES OF 6	17-2 TO 23-3
B412	4 SERIES OF 6	25-11 TO 32-0
B521	2 SERIES OF 21	2-3 TO 20-9
B622	2 SERIES OF 21	2-3 TO 20-9

BUNDLE AND TAG EACH SERIES SEPARATELY

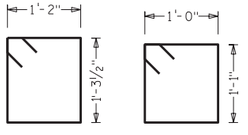


TYPICAL SECTION THRU BOX



VERTICAL CONSTRUCTION JOINT

2" DEEP SAW CUT WITHIN 12 HOURS AFTER POURING MAY BE USED IN LIEU OF CONST. JT. IN BOTTOM SLAB.



B324 B325

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-32-227

DRAWN BY DFD | PLANS CK'D.

STAGE 1
BOX DETAILS

SHEET 3

441

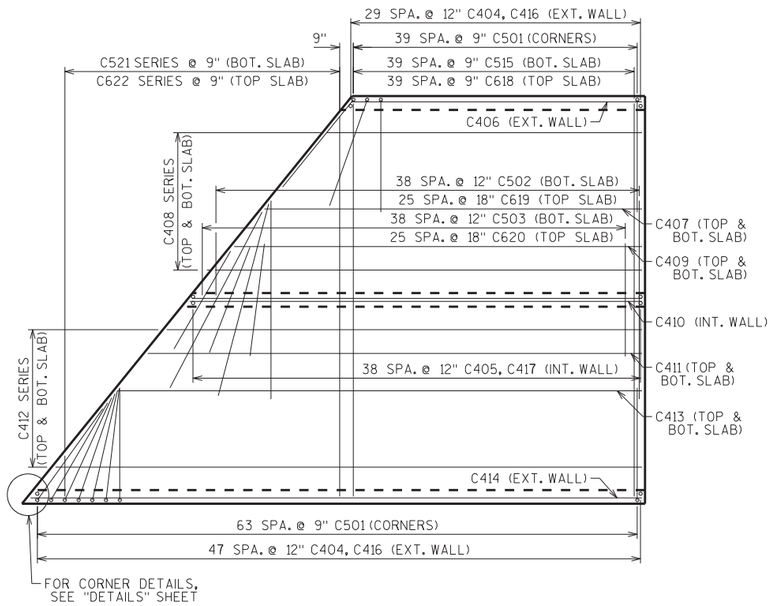
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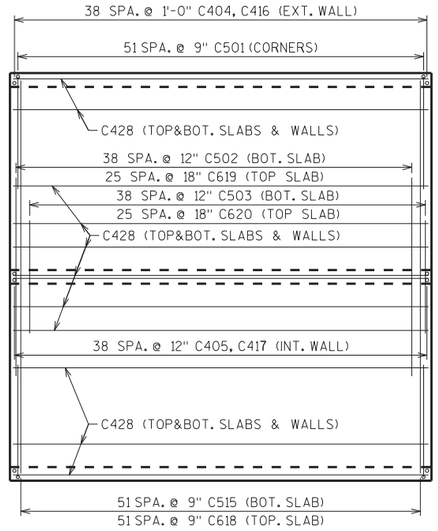
STATE PROJECT NUMBER

5120-07-71

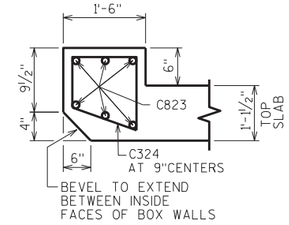


PLAN VIEW OF INLET PANEL

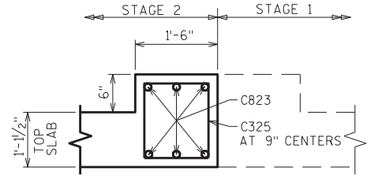
APRON AND HEADER NOT SHOWN FOR CLARITY
PANEL AT STAGED CONST. JT. MIRRORED



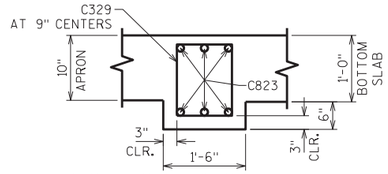
PLAN VIEW OF INTERIOR PANEL



SECTION THRU TOP HEADER AT INLET



SECTION THRU TOP HEADER AT STAGED CONSTRUCTION JOINT



SECTION THRU BOTTOM HEADER

INLET HEADER SHOWN, HEADER
AT STAGED CONST. JT. SIMILAR

BILL OF BARS

THE FIRST OR FIRST AND SECOND DIGIT OF THE MARK SIGNIFIES THE BAR SIZE. THE DIMENSION IN THE BENT COLUMN IS THE OUT TO OUT HORIZONTAL LEG OF A "L" SHAPED BAR. LONGER BARS OF THE SAME SIZE MAY BE SUBSTITUTED FOR SHORTER BARS. PAYMENT BASED ON BAR LENGTHS AS DETAILED.

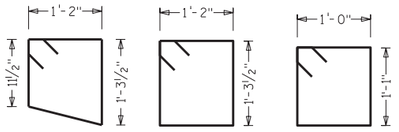
MARK	NUMBER REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
C501	832	10-9	6-2		CORNERS
C502	156	10-10			BOT. SLAB TRANS.
C503	156	6-2			BOT. SLAB TRANS.
C404	312	2-4			EXT. WALL DOWEL
C405	312	2-4			INT. WALL DOWEL
C406	18	29-9			EXT. WALL LONGIT.
C407	4	34-7			TOP&BOT. SLAB LONGIT.
C408	24	34-3		*	TOP&BOT. SLAB LONGIT.
C409	4	36-3			TOP&BOT. SLAB LONGIT.
C410	28	38-5			INT. WALL LONGIT.
C411	4	40-11			TOP&BOT. SLAB LONGIT.
C412	24	43-0		*	TOP&BOT. SLAB LONGIT.
C413	4	42-7			TOP&BOT. SLAB LONGIT.
C414	18	47-1			EXT. WALL LONGIT.
C515	184	21-6			BOT. SLAB TRANS
C416	312	6-6			EXT. WALLS VERTICAL
C417	312	7-5	1-0		INT. WALLS VERTICAL
C618	184	21-6			TOP SLAB TRANS.
C619	104	10-10			TOP SLAB TRANS.
C620	104	6-2			TOP SLAB TRANS.
C521	44	11-8		*	BOT. SLAB TRANS.
C622	44	11-8		*	TOP SLAB TRANS.
C823	24	28-2			HEADERS HORIZ.
C324	39	5-1	YES		INLET TOP HEADER STIRRUPS
C325	39	5-3	YES		JOINT TOP HEADER STIRRUPS
C526	186	4-0			VERTICAL CONSTRUCTION JOINT
● C527	62	2-6			STAGED CONSTRUCTION JOINT
C428	128	38-6			LONGIT. BARS INTERIOR PANELS
C329	78	4-7	YES		BOT. HEADER STIRRUPS

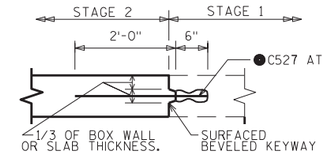
* LENGTH SHOWN FOR BAR SERIES IN "BILL OF BARS" IS AVERAGE LENGTH.

BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
C408	4 SERIES OF 6	31-2 TO 37-3
C412	4 SERIES OF 6	39-11 TO 46-0
C521	2 SERIES OF 22	1-11 TO 21-4
C622	2 SERIES OF 22	1-11 TO 21-4

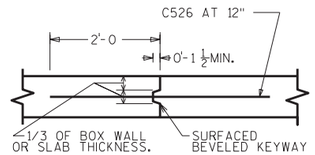
BUNDLE AND TAG EACH SERIES SEPARATELY





STAGED CONSTRUCTION JOINT

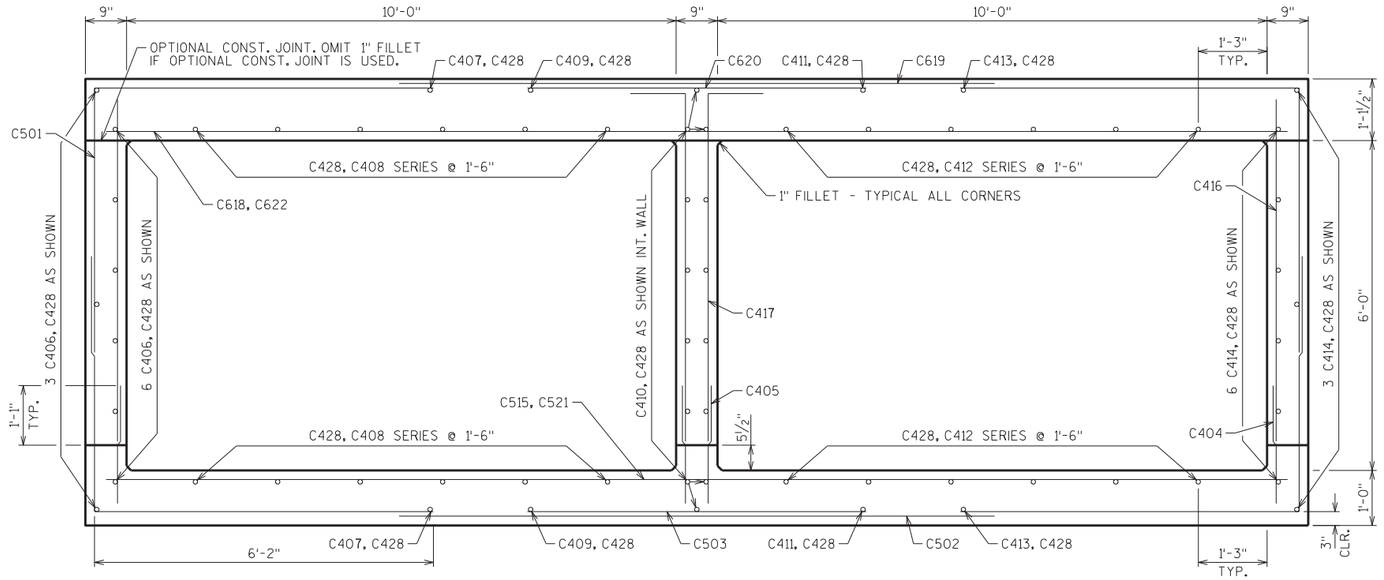
TYP. WALLS AND SLABS



VERTICAL CONSTRUCTION JOINT

2" DEEP SAW CUT WITHIN 12 HOURS AFTER POURING MAY BE USED IN LIEU OF CONST. JT. IN BOTTOM SLAB.

● CONCRETE MASONRY ANCHORS, TYPE S (EPOXY ANCHORED), 5/8-INCH , EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" CENTERS. (TYP. IN ALL WALLS AND TOP SLAB).



TYPICAL SECTION THRU BOX

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-32-227

DRAWN BY DFD | PLANS CK'D.

STAGE 2 BOX DETAILS

SHEET 4

442

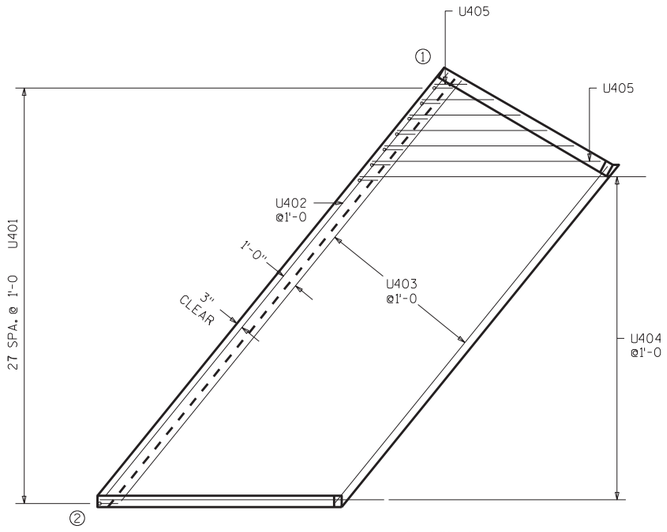
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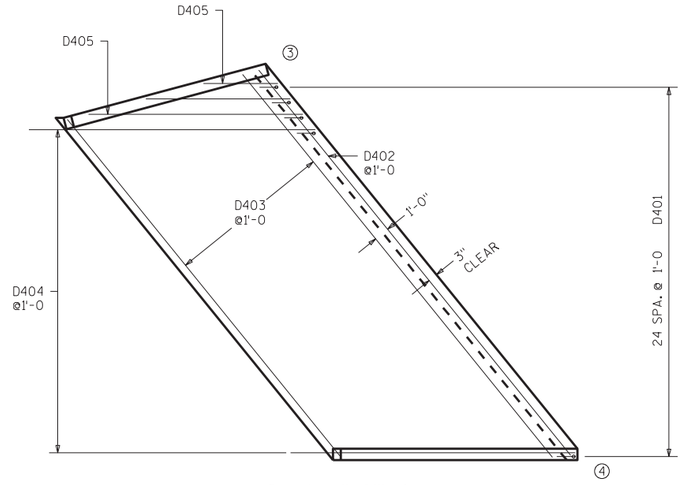
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STATE PROJECT NUMBER

5120-07-71



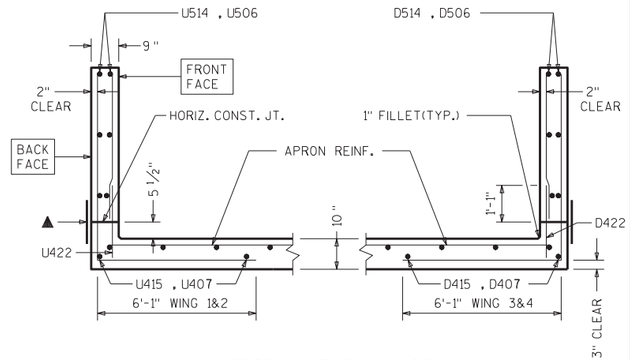
INLET - STAGE 2



OUTLET STAGE 1

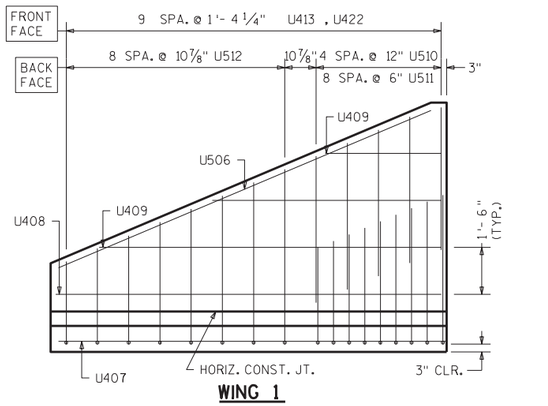
APRON REINF.

▲ 18" RUBBERIZED MEMBRANE WATER-PROOFING. PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE WING LENGTH (TYP.).

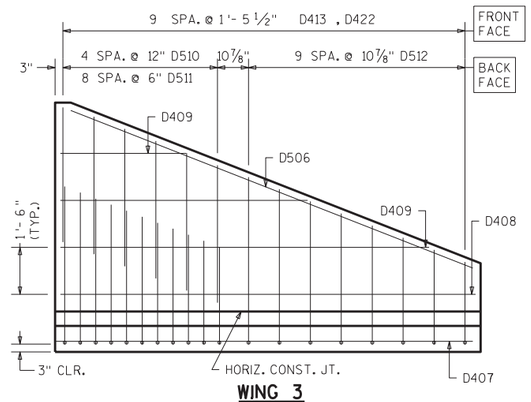


SECTION THRU WINGS

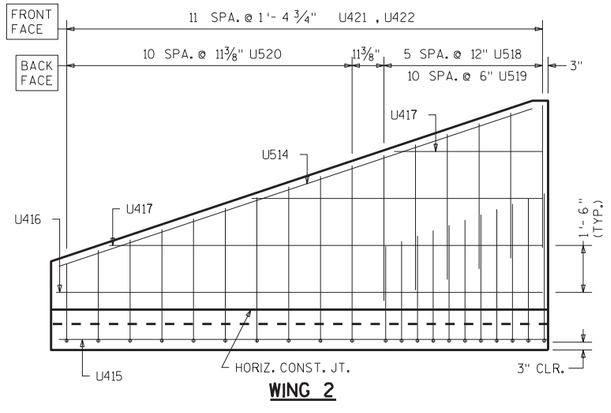
AT RIGHT ANGLES TO WING WALLS



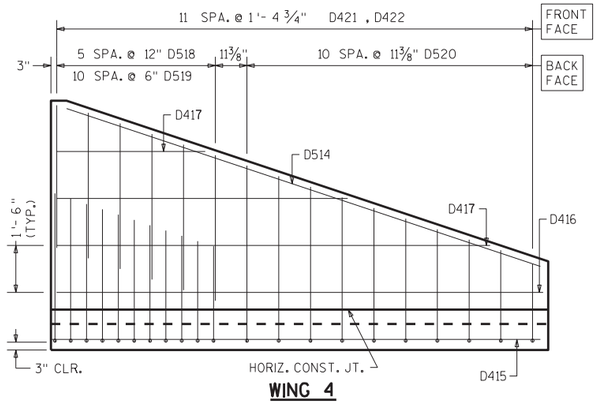
WING 1



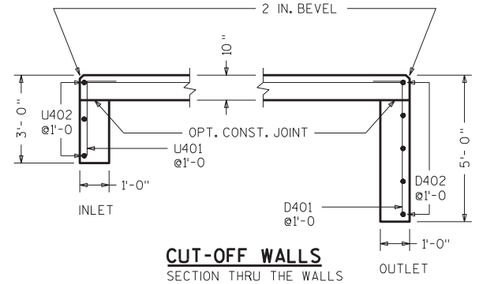
WING 3



WING 2

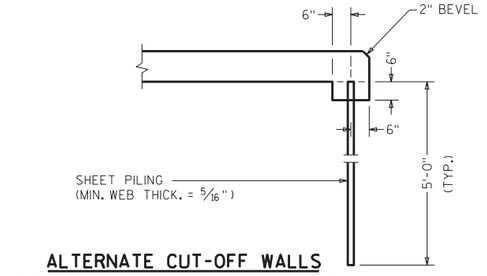


WING 4



CUT-OFF WALLS

SECTION THRU THE WALLS



ALTERNATE CUT-OFF WALLS

THE ABOVE ALT. MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONC. CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONC. CUT-OFF WALLS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-32-227

DRAWN BY DFD | PLANS CK'D.

APRON DETAILS

SHEET 5

443

SCALE = 4

8

8

STATE PROJECT NUMBER

5120-07-71

BILL OF BARS

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.
THE DIMENSION IN THE BENT COLUMN IS THE OUT TO OUT HORIZONTAL LEG OF AN L - SHAPED BAR.

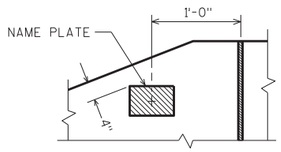
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
U401		27	3 - 6	1 - 0		INLET APRON AND CUTOFF WALL
U402		3	35 - 6			INLET APRON AND CUTOFF WALL
U403		12	31 - 11		*	" APRON
U404		22	18 - 6			" APRON
U405		6	9 - 3		*	" APRON
U506		2	13 - 2			WING 1 -HORIZONTAL - BOTH FACES
U407		2	12 - 2			WING "-HORIZONTAL -APRON BOTT. SLAB
U408		2	12 - 2			WING "-HORIZONTAL - BOTH FACES
U409		6	7 - 6		*	WING "-HORIZONTAL - BOTH FACES
U510		5	4 - 6			WING "-VERTICAL - BACK FACE
U511	X	9	10 - 0	6 - 1	*	WING "-VERTICAL - BACK FACE
U512	X	9	10 - 0	6 - 1	*	WING "-VERTICAL - BACK FACE
U413		10	4 - 0		*	WING "-VERTICAL - FRONT FACE
U514		2	16 - 3			WING 2 -HORIZONTAL - BOTH FACES
U415		2	15 - 5			WING "-HORIZONTAL -APRON BOTT. SLAB
U416		2	15 - 5			WING "-HORIZONTAL - BOTH FACES
U417		6	9 - 5		*	WING "-HORIZONTAL - BOTH FACES
U518		6	4 - 6			WING "-VERTICAL - BACK FACE
U519	X	11	10 - 0	6 - 1	*	WING "-VERTICAL - BACK FACE
U520	X	11	10 - 0	6 - 1	*	WING "-VERTICAL - BACK FACE
U421		12	4 - 0		*	WING "-VERTICAL - FRONT FACE
U422	X	22	2 - 2			WINGS 1 AND 2 - DOWELS - FRONT FACE
D401		25	5 - 6	1 - 0		OUTLET APRON AND CUTOFF WALL
D402		5	31 - 11			OUTLET APRON AND CUTOFF WALL
D403		12	30 - 3		*	" APRON
D404		22	18 - 6			" APRON
D405		3	10 - 11		*	" APRON
D506		2	14 - 1			WING 3 -HORIZONTAL - BOTH FACES
D407		2	13 - 2			WING "-HORIZONTAL -APRON BOTT. SLAB
D408		2	13 - 2			WING "-HORIZONTAL - BOTH FACES
D409		6	8 - 0		*	WING "-HORIZONTAL - BOTH FACES
D510		5	4 - 6			WING "-VERTICAL - BACK FACE
D511	X	9	10 - 0	6 - 1	*	WING "-VERTICAL - BACK FACE
D512	X	10	10 - 0	6 - 1	*	WING "-VERTICAL - BACK FACE
D413		10	4 - 0		*	WING "-VERTICAL - FRONT FACE
D514		2	16 - 3			WING 4 -HORIZONTAL - BOTH FACES
D415		2	15 - 5			WING "-HORIZONTAL -APRON BOTT. SLAB
D416		2	15 - 5			WING "-HORIZONTAL - BOTH FACES
D417		6	9 - 5		*	WING "-HORIZONTAL - BOTH FACES
D518		6	4 - 6			WING "-VERTICAL - BACK FACE
D519	X	11	10 - 0	6 - 1	*	WING "-VERTICAL - BACK FACE
D520	X	11	10 - 0	6 - 1	*	WING "-VERTICAL - BACK FACE
D421		12	4 - 0		*	WING "-VERTICAL - FRONT FACE
D422	X	22	2 - 2			WINGS 3 AND 4 - DOWELS - FRONT FACE
P401		8	3 - 0			CULVERT INLET OPENING HORIZ.
P402		8	4 - 0			CULVERT INLET OPENING DIAGONAL
P403		8	4 - 2			CULVERT INLET OPENING VERT. INSIDE FACE
P504		8	4 - 2			CULVERT INLET OPENING VERT. OUTSIDE FACE

* LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

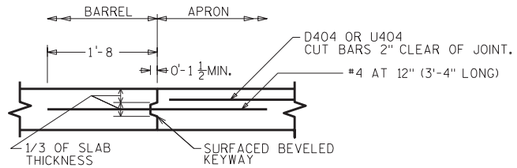
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY

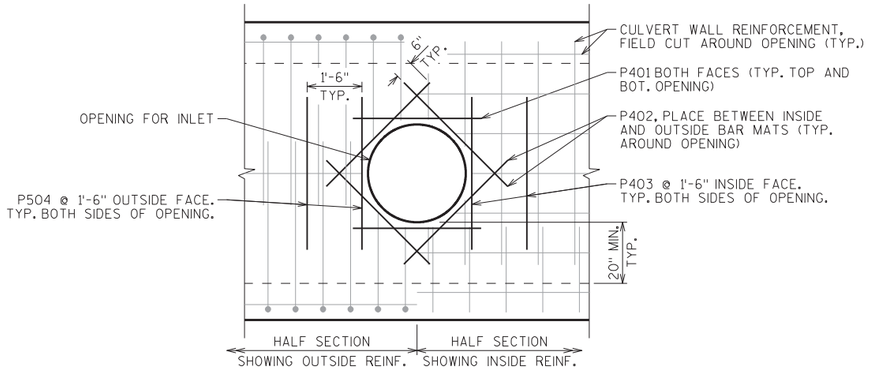
BAR MARK	NO. REQ'D.	LENGTHS FOR EACH SERIES
U403	1 SERIES OF 12	28 - 4 TO 35 - 6
U405	1 SERIES OF 6	2 - 11 TO 15 - 7
U409	2 SERIES OF 3	3 - 11 TO 11 - 0
U511	1 SERIES OF 9	9 - 2 TO 10 - 9
U512	1 SERIES OF 9	8 - 5 TO 11 - 6
U413	1 SERIES OF 10	1 - 5 TO 6 - 5
U417	2 SERIES OF 3	4 - 11 TO 13 - 11
U519	1 SERIES OF 11	9 - 2 TO 10 - 9
U520	1 SERIES OF 11	8 - 5 TO 11 - 7
U421	1 SERIES OF 12	1 - 5 TO 6 - 6
D403	1 SERIES OF 12	28 - 3 TO 32 - 3
D405	1 SERIES OF 3	6 - 3 TO 15 - 4
D409	2 SERIES OF 3	4 - 2 TO 11 - 10
D511	1 SERIES OF 9	9 - 2 TO 10 - 9
D512	1 SERIES OF 10	8 - 5 TO 11 - 7
D413	1 SERIES OF 10	1 - 5 TO 6 - 6
D417	2 SERIES OF 3	4 - 11 TO 13 - 1
D519	1 SERIES OF 11	9 - 2 TO 10 - 9
D520	1 SERIES OF 11	8 - 5 TO 11 - 7
D421	1 SERIES OF 12	1 - 5 TO 6 - 6



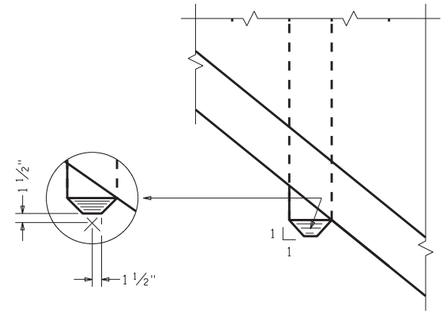
NAME PLATE LOCATION
WING 4



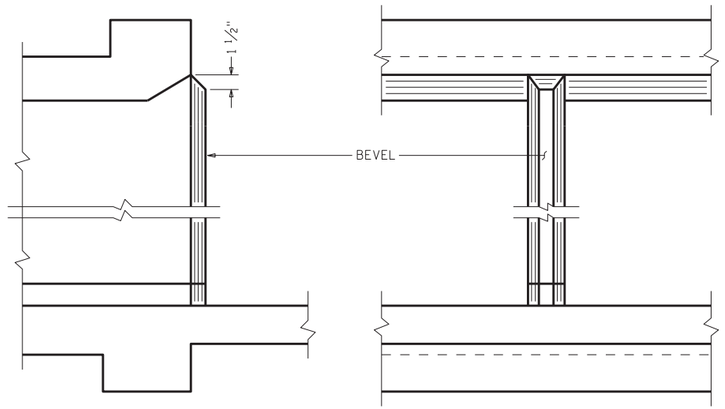
OPTIONAL CONSTRUCTION JOINT
2" DEEP SAW CUT WITHIN 12 HOURS AFTER POURING MAY BE USED IN LIEU OF CONST. JT. IN BOTTOM SLAB.



PIPE OPENING IN CULVERT WALL
OPENING FOR 24" DIAMETER PIPE INLET SHOWN. 18" DIAMETER INLET SIMILAR.

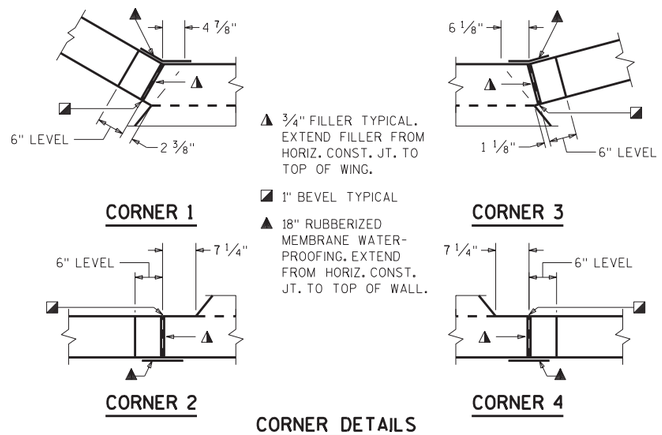


PLAN



SECTION ELEVATION

INLET NOSE DETAILS



▲ ¾" FILLER TYPICAL. EXTEND FILLER FROM HORIZ. CONST. JT. TO TOP OF WING.

◪ 1" BEVEL TYPICAL

▲ 18" RUBBERIZED MEMBRANE WATER-PROOFING. EXTEND FROM HORIZ. CONST. JT. TO TOP OF WALL.

CORNER DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-32-227

DRAWN BY DFD | PLANS CK'D.

DETAILS

SHEET 6

444

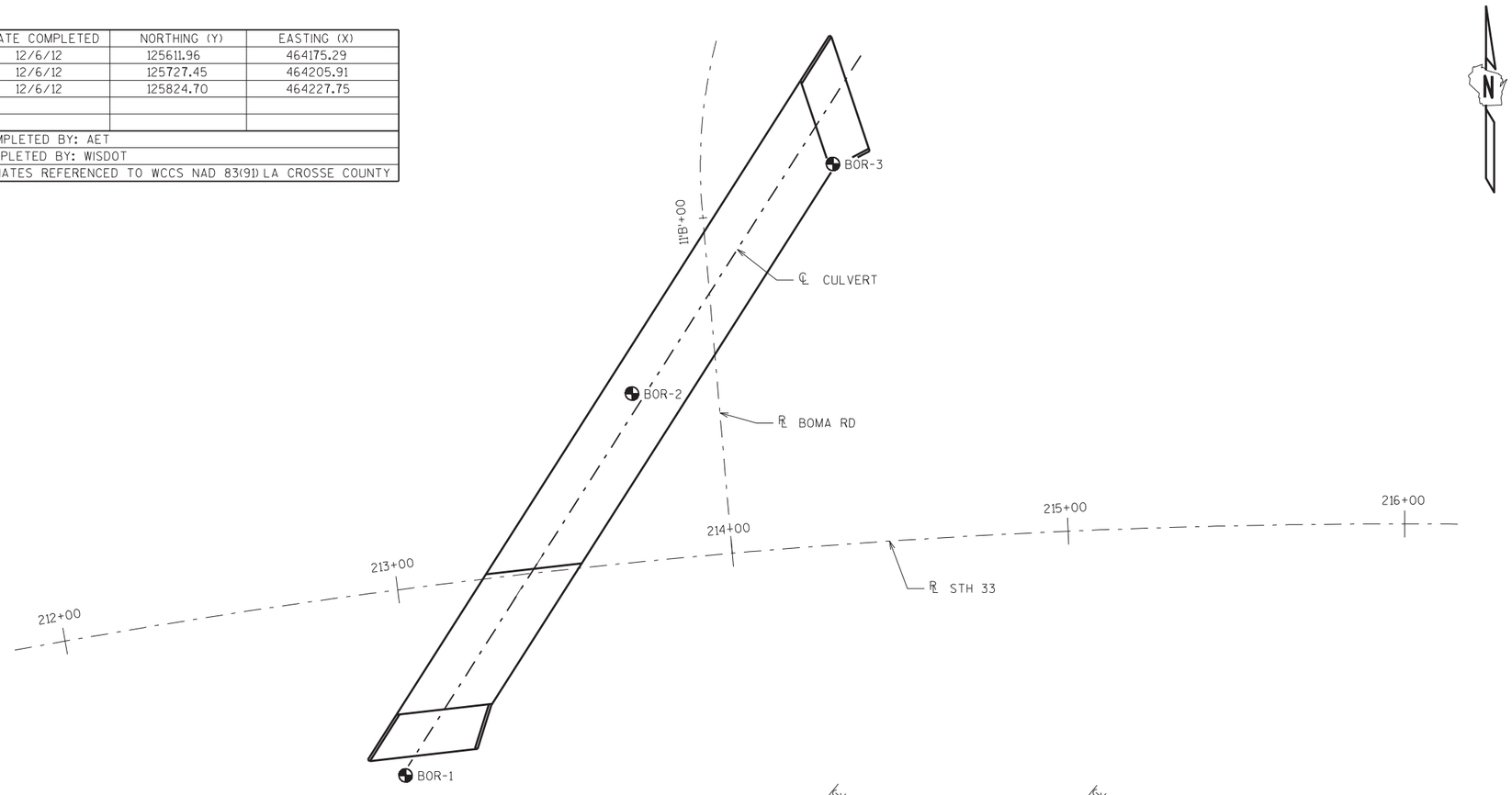
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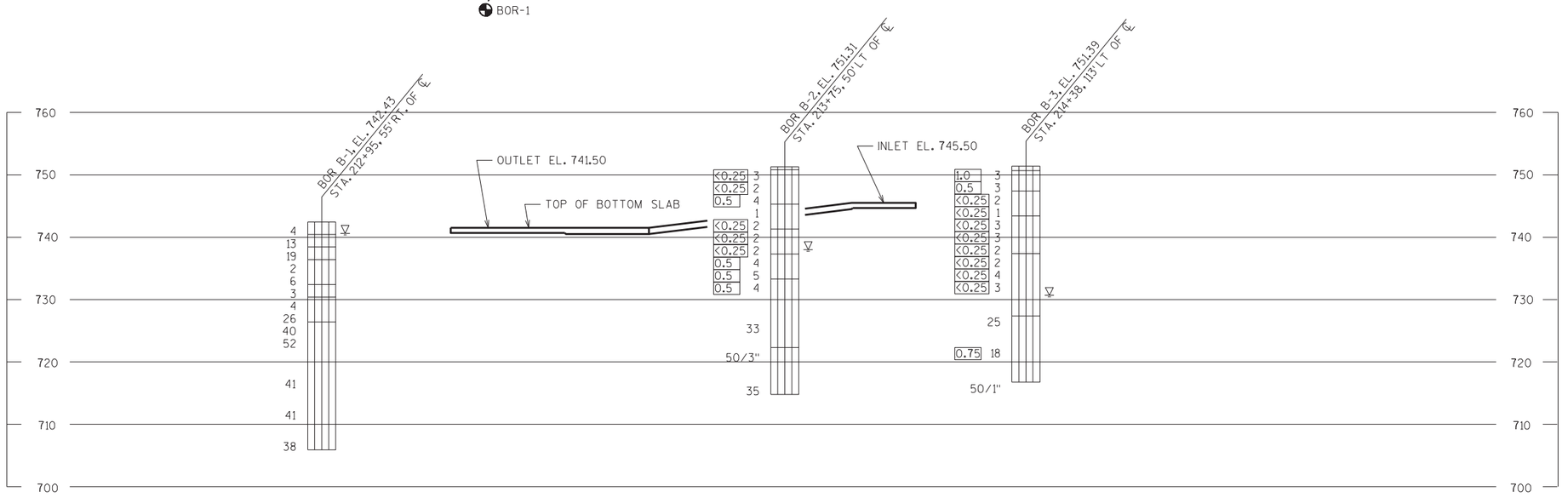
8

8

LA CROSSE - CASHTON
LA CROSSE - CITY LIMITS TO FOREST RIDGE DR

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	12/6/12	125611.96	464175.29
2	12/6/12	125727.45	464205.91
3	12/6/12	125824.70	464227.75
BORINGS COMPLETED BY: AET			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) LA CROSSE COUNTY			





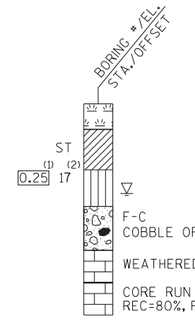
STATE PROJECT NUMBER

5120-07-71

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

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

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-32-227

DRAWN BY PR/DFD | PLANS CK'D.

SUBSURFACE EXPLORATION

SHEET 7

445

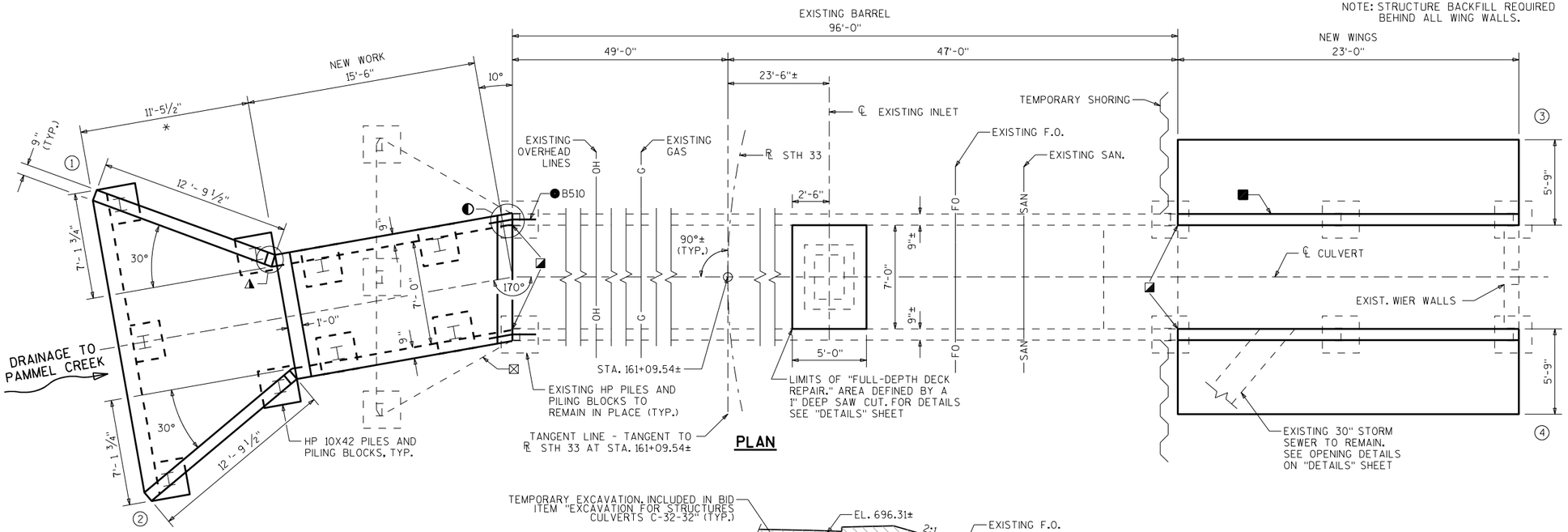
SCALE =

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8

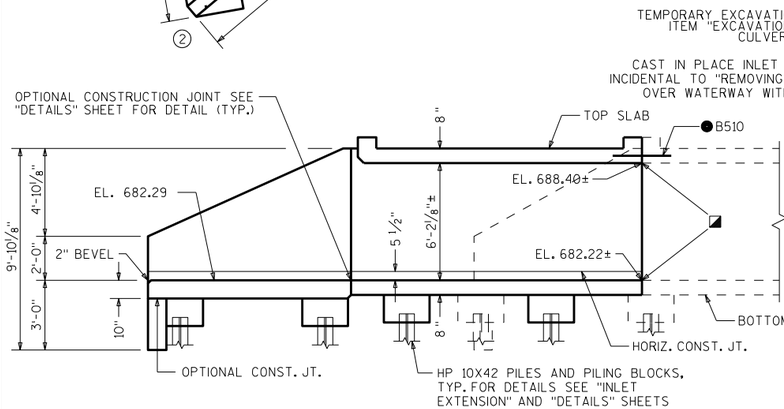
STATE PROJECT NUMBER

5120-07-71

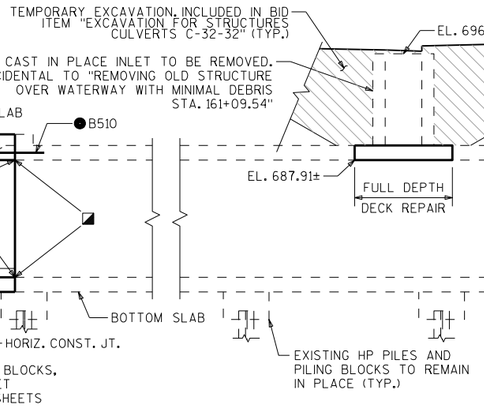


- ▲ FOR WING CORNER DETAILS SEE "DETAILS" SHEET
- ◐ FOR EXTENSION CORNER DETAILS SEE "INLET EXTENSION" SHEET
- ✳ BUILD APRON AND END OF BOX LEVEL
- ◪ INSIDE WALLS TO MATCH EXISTING (TYP.)
- ⊠ REMOVE EXISTING APRON AND WINGS. EXTEND EXISTING BAR STEEL REINFORCEMENT IN BOTTOM SLAB 2'-0" INTO NEW WORK
- ■ REMOVE EXISTING WINGS TO HORIZ. CONST. JT. EXTEND EXISTING BAR STEEL REINFORCEMENT IN WALL 1'-0" INTO NEW WORK. (TYP. WINGS 3&4)
- ◯ INDICATES WING NUMBER
- ● CONCRETE MASONRY ANCHORS, TYPE S (EPOXY ANCHORED), 5/8-INCH , EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" CENTERS. (TYP. IN ALL WALLS AND TOP SLAB).

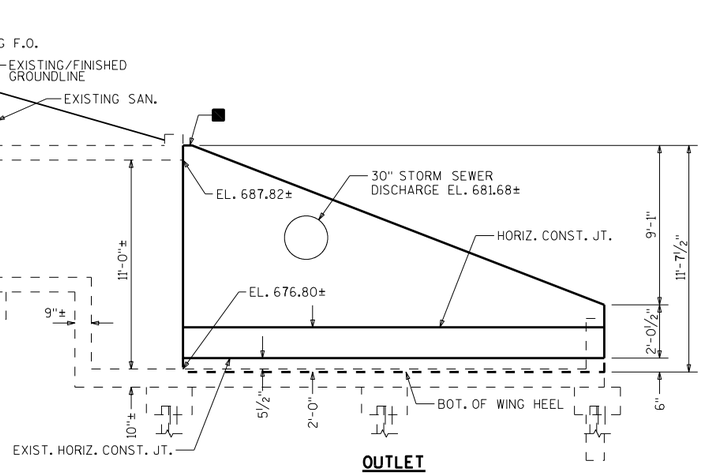




INLET



ELEVATION



OUTLET

LIST OF DRAWINGS

1. LAYOUT
2. INLET EXTENSION
3. APRON DETAILS
4. DETAILS
5. SUBSURFACE EXPLORATION

STRUCTURE DESIGN CONTACT:

DANIELLE DE TENNIS (608) 266-8689

LAURA SHADEWALD (608) 267-9592

DESIGN DATA

LIVE LOAD:

DESIGN LOADING; HL-93
INVENTORY RATING FACTOR: RF=1.05
OPERATING RATING FACTOR: RF=1.35
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 255 (KIPS)

EARTHLOAD: DESIGNED FOR 11.0 FT. OF FILL.

STRENGTH DESIGN METHOD:

CONCRETE MASONRY — f'_c = 3500 P.S.I.

HIGH STRENGTH BAR STEEL REINFORCEMENT — f_y = 60000 P.S.I.

TRAFFIC VOLUME

STH 33

A.D.T. = 10700 (2032)
R.D.S. = 40 M.P.H.

FOUNDATION DATA

EXTENSION TO BE SUPPORTED ON HP 10X42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 70 TONS ✱✱ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 25'LONG.

✱✱ THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TOTAL ESTIMATED QUANTITIES

BID ITEMS

203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 161+09.54	1	LS
206.2000	EXCAVATION FOR STRUCTURES CULVERTS C-32-32	1	LS
206.6000.S	TEMPORARY SHORING	390	SF
210.0100	BACKFILL STRUCTURE	345	CY
502.6105	MASONRY ANCHORS TYPE S 5/8-INCH	21	EACH
504.0100	CONCRETE MASONRY CULVERTS	53	CY
505.0410	BAR STEEL REINFORCEMENT HS CULVERTS	5,220	LB
505.0610	BAR STEEL REINFORCEMENT HS COATED CULVERTS	1,420	LB
509.2000	FULL-DEPTH DECK REPAIR	4	SY
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	23	SY
550.1100	PILING STEEL HP 10-INCH X 42 LB	225	LF

NON-BID ITEMS

FILLER	3/4"	SIZE

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-32-32" SHALL BE THE EXISTING GROUNDLINE.

ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE TOP OF THE BOX WITHIN THE LENGTH OF THE CULVERT.

THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

PLACE A 18" (MIN.) WIDE SHEET OF 'RUBBERIZED MEMBRANE WATERPROOFING' ON TOP SLAB OVER ALL CONSTRUCTION JOINTS AND EXTEND DOWN TO BOTTOM OF OUTSIDE WALLS.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST- IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 36 STANDARDS OF THE CURRENT WISC. DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE FIELD ENGINEER, IN LIEU OF THE BREAKER RUN, TO BE UTILIZED AS A CONSTRUCTION PLATFORM FOR THE BOX. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL.

NO.	DATE	REVISION	BY

Plans Prepared By WISDOT
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 9/17/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE C-32-32

STH 33 OVER DRAINAGE TO PAMMEL CREEK

COUNTY: LA CROSSE	TOWN/~~CITY/VILLAGE~~: SHELBY

DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
DFD	NAR	DFD	NAR

LAYOUT

SHEET 1 OF 5

446

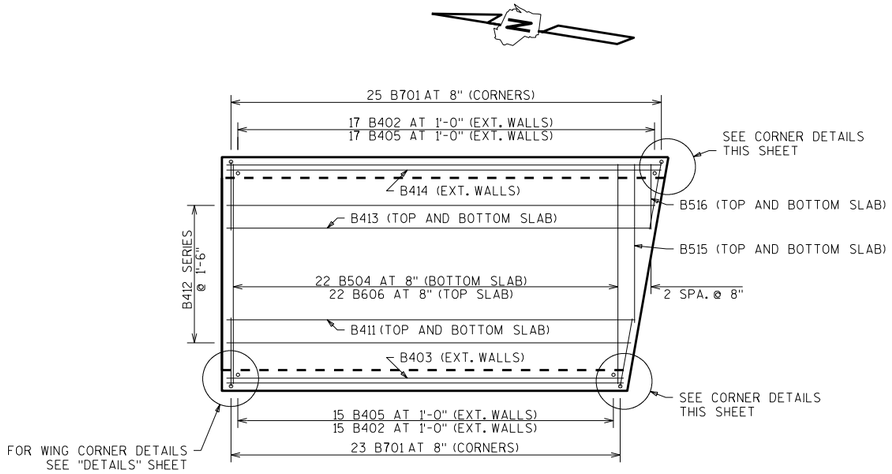
I.D. 5120-07-00

DATE: APRIL 2013

SCALE = 4.0

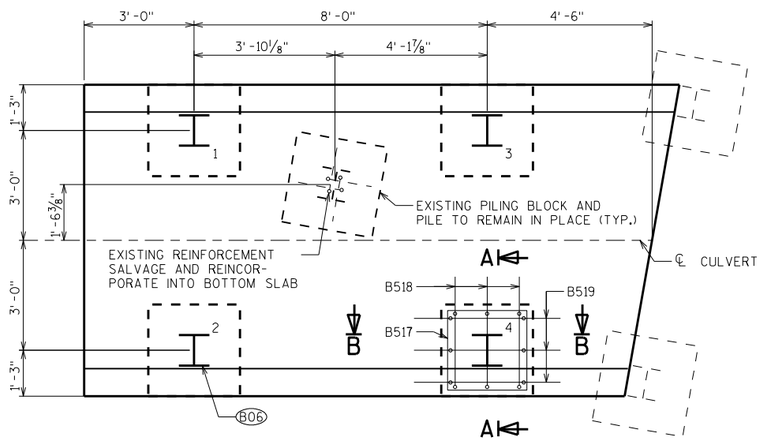
STATE PROJECT NUMBER

5120-07-71



PLAN VIEW OF INLET EXTENSION

APRON AND HEADER ARE NOT SHOWN.



PILE PLAN

ARPON NOT SHOWN

BILL OF BARS

THE FIRST OR FIRST AND SECOND DIGIT OF THE MARK SIGNIFIES THE BAR SIZE. THE DIMENSION IN THE BENT COLUMN IS THE OUT TO OUT HORIZONTAL LEG OF A "L" SHAPED BAR. LONGER BARS OF THE SAME SIZE MAY BE SUBSTITUTED FOR SHORTER BARS. PAYMENT BASED ON BAR LENGTHS AS DETAILED.

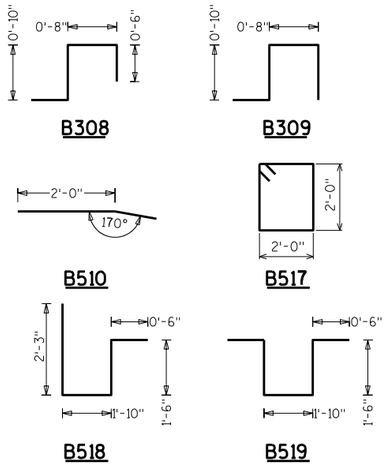
MARK	NUMBER REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B701	96	7-3	2-6	NO	CORNERS
B402	32	2-0	NO	NO	WALLS-DOWELS VERT.
B403	9	14-5	NO	NO	TOP&BOTTOM SLAB & WALL
B504	22	8-0	NO	NO	BOTTOM SLAB TRANS.
B405	32	6-2	NO	NO	WALLS VERT.
B606	22	8-0	NO	NO	TOP SLAB TRANS.
B407	4	8-0	NO	NO	HEADERS HORIZ.
B308	12	2-4	YES	NO	INLET HEADER STIRRUPS VERT.
B309	12	2-8	YES	NO	INTERIOR HEADER STIRRUPS VERT.
● B510	21	2-6	NO	NO	VERT. CONST. JOINT
B411	2	14-10	NO	NO	TOP&BOTTOM SLAB & WALL
⚠ B412	8	15-2	NO	YES	TOP&BOTTOM SLAB & WALL
B413	2	15-5	NO	NO	TOP&BOTTOM SLAB & WALL
B414	9	15-10	NO	NO	TOP&BOTTOM SLAB & WALL
B515	2	6-10	NO	NO	TOP & BOT. SLAB TRANS.
B516	2	3-1	NO	NO	TOP & BOT. SLAB TRANS.
B517	4	8-8	YES	NO	PILING BLOCK STIRRUPS
B518	12	5-9	YES	NO	PILING BLOCK STIRRUPS VERTICAL
B519	12	5-4	YES	NO	PILING BLOCK STIRRUPS VERTICAL

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

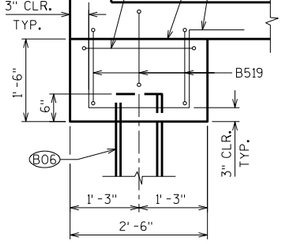
BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
B412	2 SERIES OF 4	14-9 TO 15-6

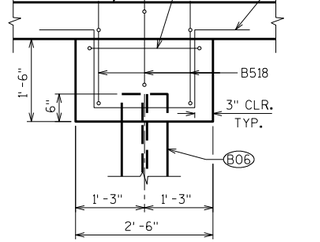
BUNDLE AND TAG EACH SERIES SEPARATELY.



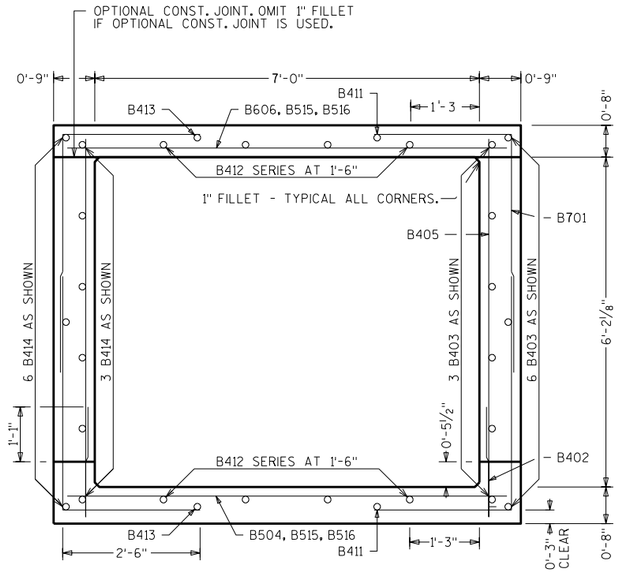
B06 SUPPORT INLET EXTENSION ON HP 10X42 STEEL PILING EST. 25'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 70 TONS/PILE



SECTION A-A

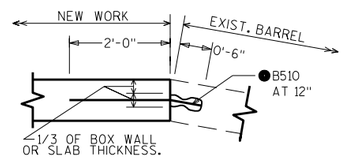


SECTION B-B



TYPICAL SECTION THRU BOX

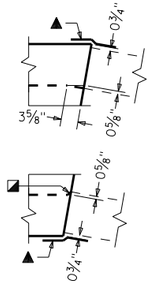
PILING BLOCKS NOT SHOWN



VERTICAL CONSTRUCTION JOINT

TYP. EXT. WALLS AND TOP SLAB

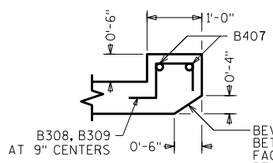
●CONCRETE MASONRY ANCHORS, TYPE S (EPOXY ANCHORED), 5/8-INCH , EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" CENTERS. (TYP. IN ALL WALLS AND TOP SLAB).



CORNER DETAILS

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING

◪ 1" BEVEL TYPICAL



SECTION THRU TOP HEADER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-32-32

DRAWN BY DFD | PLANS CK'D. NAR

INLET EXTENSION

SHEET 2

447

SCALE = 4.0

8

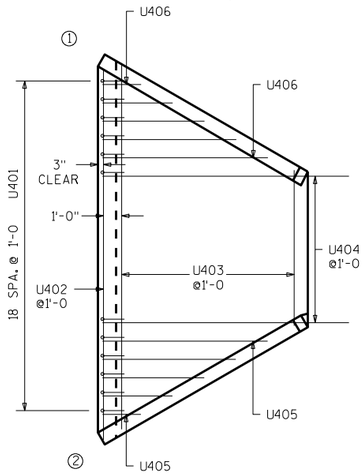
8

STATE PROJECT NUMBER

5120-07-71

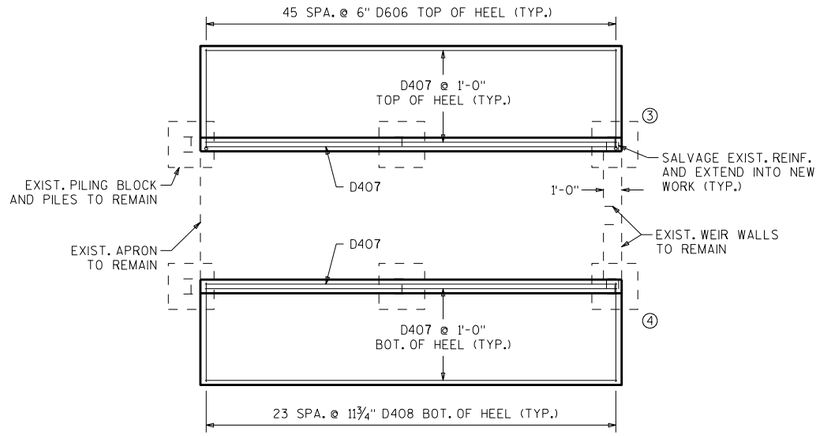
▲ 18" RUBBERIZED MEMBRANE WATER-PROOFING. PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE WING LENGTH (TYP.)

▲ HORIZ. CONST. JOINT KEYWAY FORMED BY A SURFACED, BEVELED 2"X4"

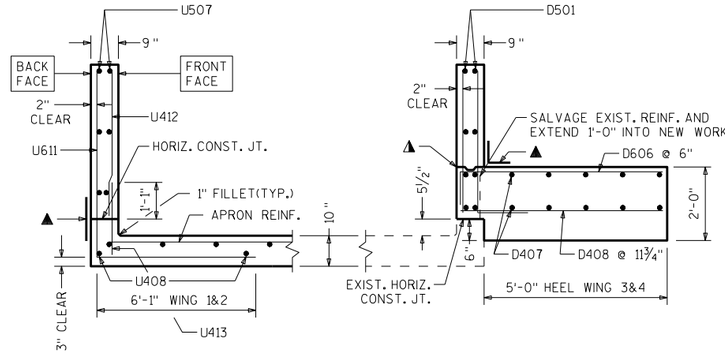


INLET

PILING BLOCK AND PILES NOT SHOWN FOR CLARITY



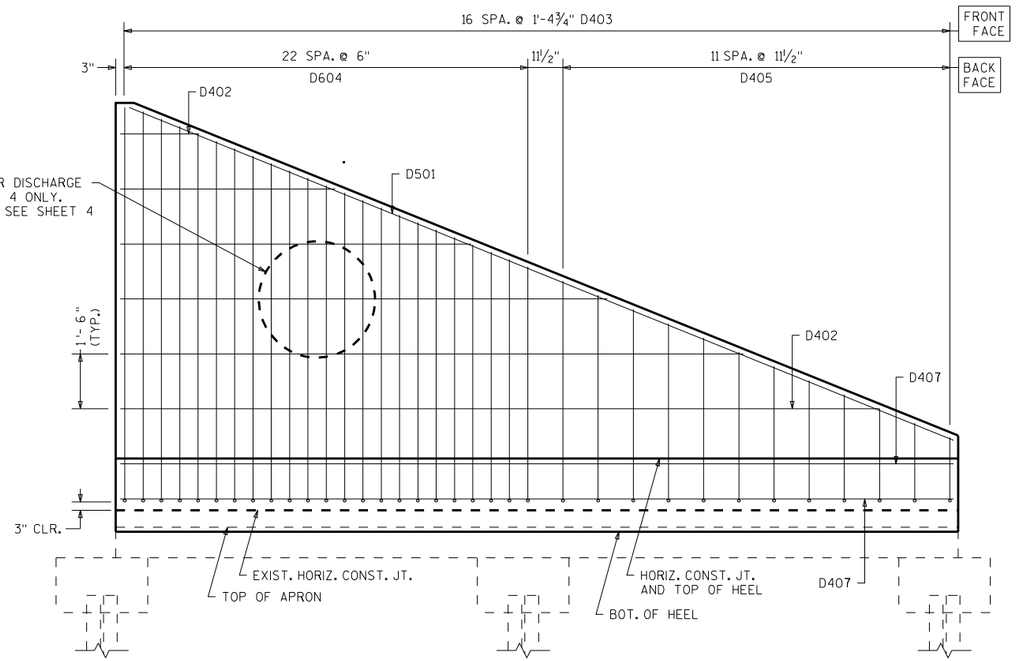
OUTLET



SECTION THRU WINGS

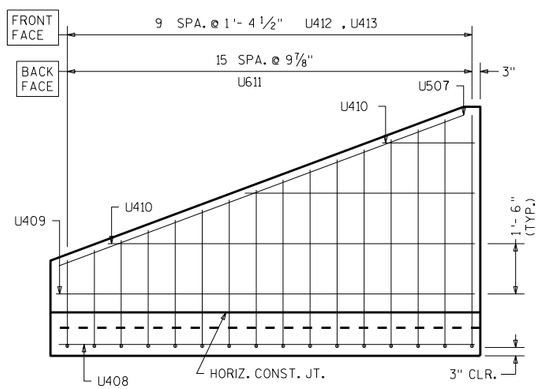
AT RIGHT ANGLES TO WING WALLS
PILING BLOCKS AND PILES NOT SHOWN FOR CLARITY

APRON REINF.

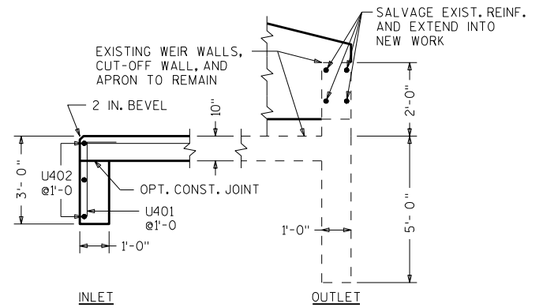


WINGS 3 & 4

D606 & D408 NOT SHOWN FOR CLARITY.

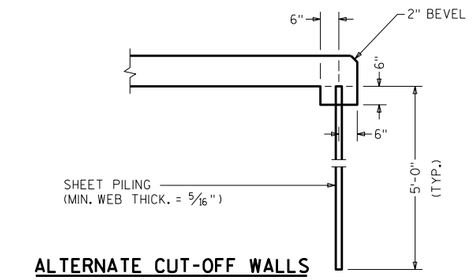


WINGS 1 & 2



CUT-OFF WALLS

SECTION THRU THE WALLS



ALTERNATE CUT-OFF WALLS

THE ABOVE ALT. MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONC. CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONC. CUT-OFF WALLS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-32-32

DRAWN BY DFD | PLANS CK'D. NAR

APRON DETAILS

SHEET 3

448

8

8

SCALE = 4.0

STATE PROJECT NUMBER

5120-07-71

BILL OF BARS

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.
THE DIMENSION IN THE BENT COLUMN IS THE OUT TO OUT HORIZONTAL LEG OF AN L - SHAPED BAR.

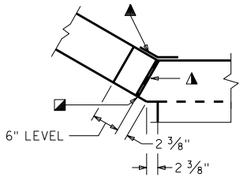
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
U401		19	3 - 6	YES		INLET APRON AND CUTOFF WALL
U402		3	20 - 0			INLET APRON AND CUTOFF WALL
U403		11	14 - 1		*	" APRON
U404		9	13 - 6			" APRON
U405		5	6 - 1		*	" APRON
U406		5	6 - 1		*	" APRON
U507		4	13 - 1			WINGS 1 AND 2 -HORIZONTAL -BOTH FACES
U408		4	12 - 4			WINGS " -HORIZONTAL -APRON BOTT. SLAB
U409		4	12 - 4			WINGS " -HORIZONTAL - BOTH FACES
U410		12	7 - 3		*	WINGS " -HORIZONTAL - BOTH FACES
U611	X	32	10 - 9	YES	*	WINGS " -VERTICAL - BACK FACE
U412		20	3 - 9		*	WINGS " -VERTICAL - FRONT FACE
U413	X	20	2 - 2			WINGS " -DOWELS - FRONT FACE
U514		9	8 - 8	YES		PILING BLOCK STIRRUPS
U515		16	3 - 2	YES		PILING BLOCK DOWELS
U516		3	5 - 0	YES		PILING BLOCK STIRRUPS VERTICAL
U517		3	5 - 6	YES		PILING BLOCK STIRRUPS VERTICAL
D501		4	24 - 1			WINGS 3 AND 4 -HORIZONTAL -BOTH FACES
D402		24	11 - 2		*	WINGS " -HORIZONTAL - BOTH FACES
D403	X	34	6 - 4		*	WINGS " -VERTICAL FRONT FACE
D604	X	46	9 - 5	YES	*	WINGS " -VERTICAL BACK FACE
D405	X	24	4 - 6	YES	*	WINGS " -VERTICAL BACK FACE
D606		92	6 - 3	YES		WINGS " -HEEL
D407		28	22 - 6			WINGS " -HEEL
D408		48	5 - 5			WINGS " -HEEL
D409		4	4 - 8			WING 4 OPENING VERTICAL FRONT FACE
D810		4	4 - 8			WING 4 OPENING VERTICAL BACK FACE
D411		4	4 - 0			WING 4 OPENING HORIZONTAL
D412		4	4 - 6			WING 4 OPENING DIAGONAL
D513		5	6 - 8			DECK REPAIR TRANSVERSE
D414		4	4 - 8			DECK REPAIR LONGITUDINAL

* LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

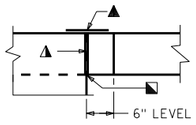
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY

BAR MARK	NO. REQ'D.	LENGTHS FOR EACH SERIES
U403	1 SERIES OF 11	8 - 4 TO 19 - 10
U405	1 SERIES OF 5	2 - 7 TO 9 - 7
U406	1 SERIES OF 5	2 - 7 TO 9 - 7
U410	4 SERIES OF 3	3 - 4 TO 11 - 1
U611	2 SERIES OF 16	8 - 4 TO 13 - 11
U412	2 SERIES OF 10	1 - 5 TO 6 - 1
D402	4 SERIES OF 6	1 - 10 TO 20 - 5
D403	2 SERIES OF 17	1 - 10 TO 10 - 9
D604	2 SERIES OF 23	7 - 2 TO 11 - 7
D405	2 SERIES OF 12	2 - 4 TO 6 - 7



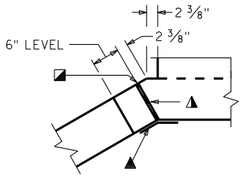
CORNER 1



CORNER 3

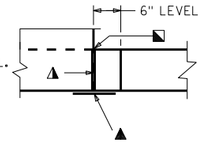
◭ 3/4" FILLER TYPICAL. EXTEND FILLER FROM HORIZ. CONST. JT. TO TOP OF WING.

◪ 1" BEVEL TYPICAL



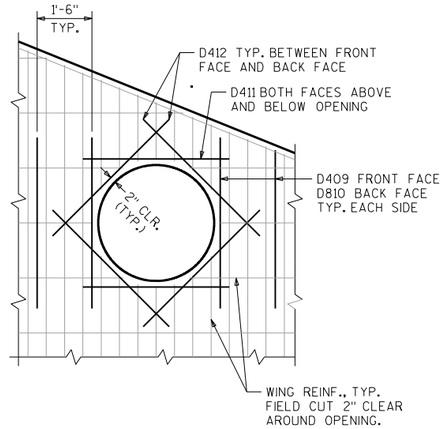
CORNER 2

▲ 18" RUBBERIZED MEMBRANE WATER-PROOFING. EXTEND FROM HORIZ. CONST. JT. TO TOP OF WALL.



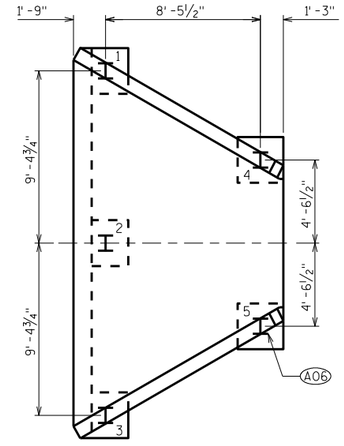
CORNER 4

WING CORNER DETAILS

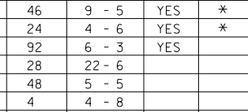


WING 4 OPENING DETAIL

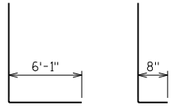
(A06) SUPPORT INLET APRON ON HP 10X42 STEEL PILING EST. 25'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 70 TONS/PILE



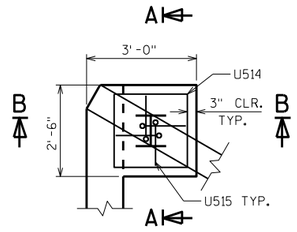
INLET APRON PILE PLAN



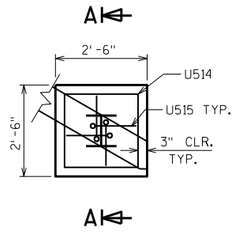
U401, D604, D606



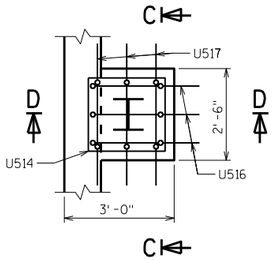
U611 D405



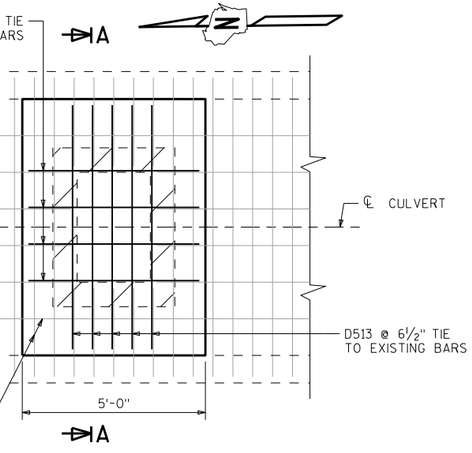
PILING BLOCK PLAN
SHOWING PILE 1, PILE 3 SIMILAR



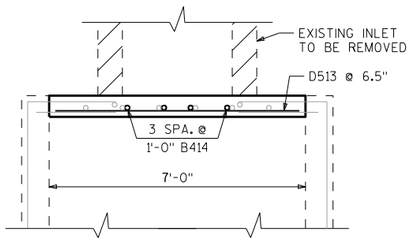
PILING BLOCK PLAN
SHOWING PILE 4, PILE 5 SIMILAR



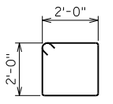
PILING BLOCK PLAN
SHOWING PILE 2



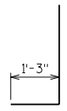
PLAN OF FULL DEPTH DECK REPAIR
SHOWING BOT. REINFORCEMENT



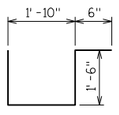
SECTION A-A THRU FULL DEPTH DECK REPAIR



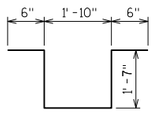
U514



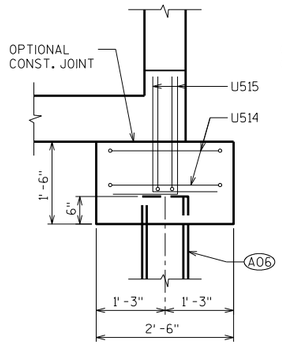
U515



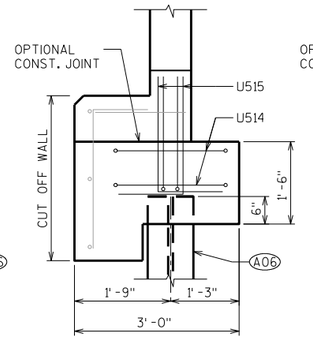
U516



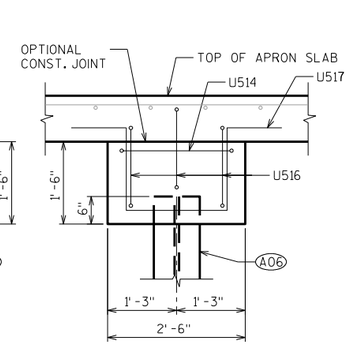
U517



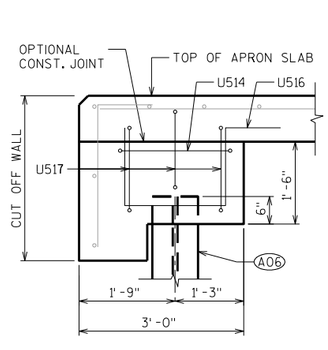
SECTION A-A
SHOWING PILES 1, 3, 4, AND 5



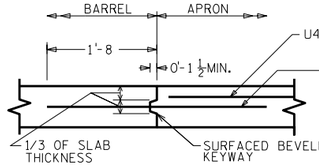
SECTION B-B
SHOWING PILE 1, PILE 3 SIMILAR



SECTION C-C
SHOWING PILE 2



SECTION D-D
SHOWING PILE 2



OPTIONAL CONSTRUCTION JOINT

2" DEEP SAW CUT WITHIN 12 HOURS AFTER POURING MAY BE USED IN LIEU OF CONST. JT. IN BOTTOM SLAB.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-32-32

DRAWN BY DFD | PLANS CK'D. NAR

DETAILS

SHEET 4

449

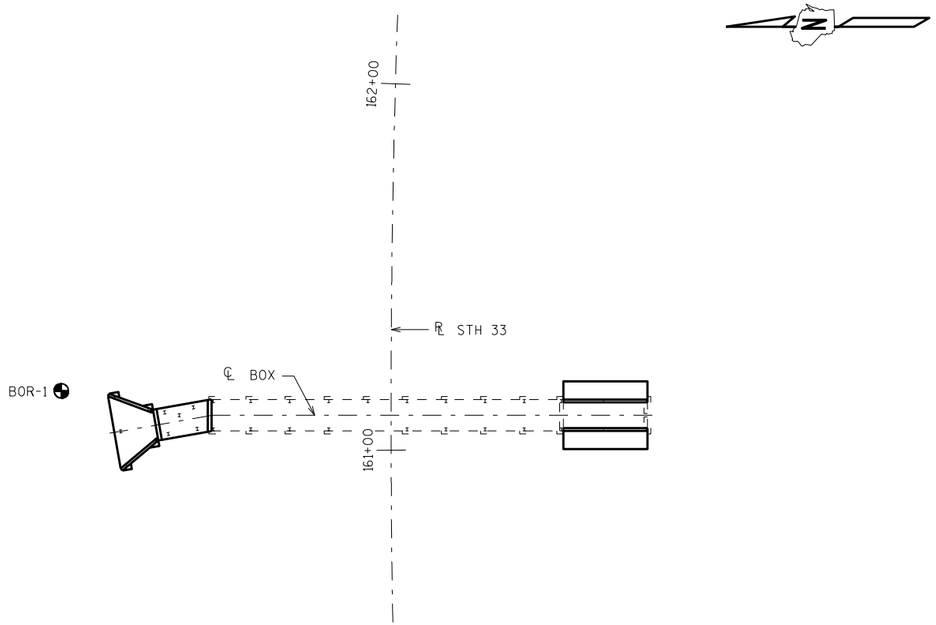
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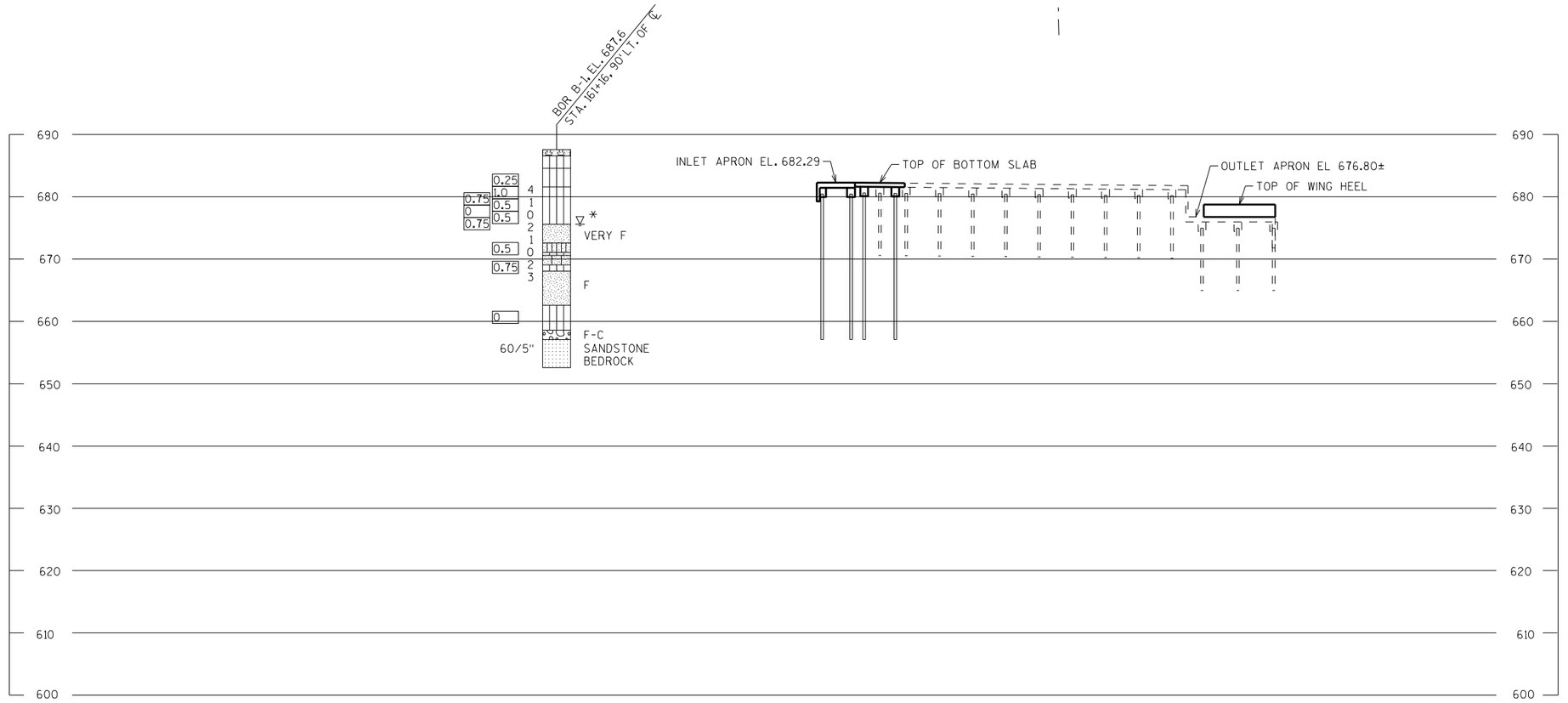
8

8

LACROSSE - CASHTON

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	5/1/2013	123921.136	459444.756
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) LACROSSE COUNTY			





* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

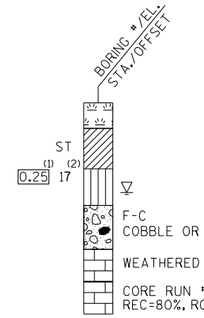
STATE PROJECT NUMBER

5120-07-71

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

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

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-32-32

DRAWN BY PR/DFD | PLANS CK'D. NAR

SUBSURFACE EXPLORATION

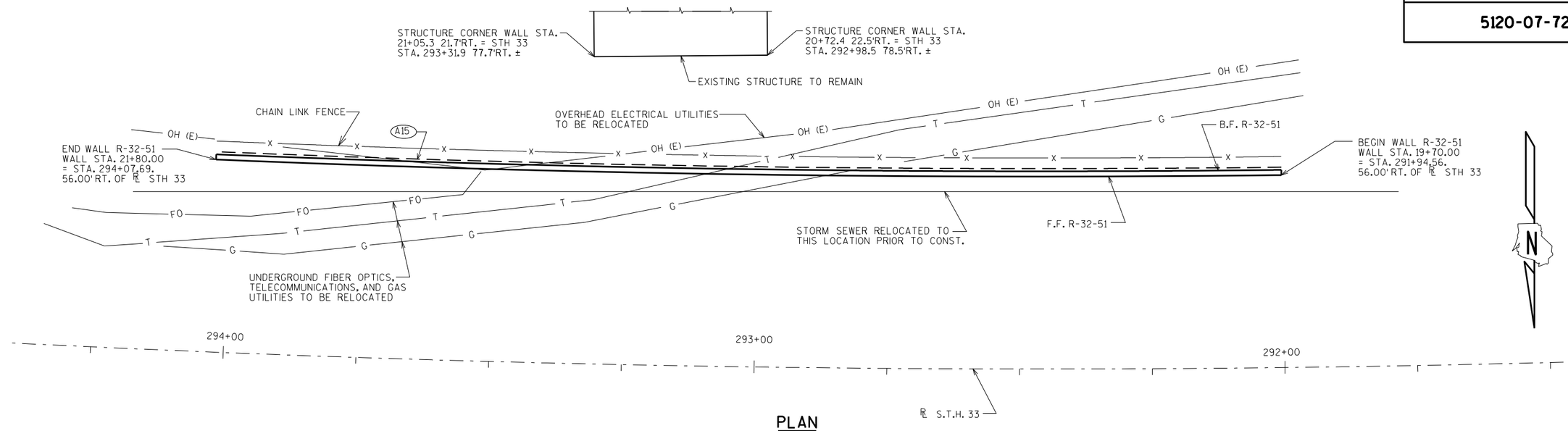
SHEET 5

450

SCALE =

STATE PROJECT NUMBER

5120-07-72



PLAN

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

SOIL PARAMETERS

SOIL DESCRIPTION	FRICTION ANGLE (DEGREES)	COHESION (PSF)	UNIT WEIGHT (PCF)
GRANULAR BACKFILL WITHIN THE WALL IN THE REINFORCING ZONE	30	0	120
FILL BEHIND AND BELOW THE REINFORCING ZONE	31	0	120
BOR-1, STA. 292+35			
SILT, AND CLAY, RED TO BROWN, SOME SAND ELEVATION 1209.7 FT. TO ELEVATION 1204.5 FT.	0	2,000	120
SILT, BROWN, SOME SAND. LITTLE CLAY ELEVATION 1204.5 FT. TO ELEVATION 1202.5 FT.	0	1,500	115
GRAVEL ELEVATION 1202.5 FT. TO ELEVATION 1201.5 FT.	34	0	130
SILT, BROWN, SOME CLAY. TRACE SAND AND GRAVEL ELEVATION 1201.5 FT. TO ELEVATION 1195.5 FT.	0	1,500	115
BOR-2, STA. 293+60			
FILL, GRANULAR ELEVATION 1216.7 FT. TO ELEVATION 1215.6 FT.	31	0	120
SILT, BROWN, TRACE CLAY. ELEVATION 1215.6 FT. TO ELEVATION 1211.6 FT.	0	1,500	115
CLAY, BROWN, SOME SILT, TRACE GRAVEL ELEVATION 1211.6 FT. TO ELEVATION 1201.6 FT.	0	1,250	115
SILT, BROWN, LITTLE CLAY ELEVATION 1201.6 FT. TO ELEVATION 1198.6 FT.	0	1,000	110
SAND, LIGHT BROWN, FINE TO MEDIUM. SOME GRAVEL ELEVATION 1198.6 FT. TO ELEVATION 1195.6 FT.	32	0	120

NOTES:

THE TYPICAL WALL SECTION USED IN THE ANALYSES HAD AN EXPOSED HEIGHT THAT VARIES FROM 4.8 FEET TO 8.5 FEET. THE FOLLOWING ASSUMPTIONS ARE ALSO INCLUDED IN THE ANALYSES:

1. THE SLOPE IN FRONT THE WALL IS 3H:1V.
2. THE SLOPE IN BACK OF THE WALL RANGES FROM 5.5H:1V TO 2.5H:1V.
3. THE GROUNDWATER WAS NOT OBSERVED IN THE BORINGS.
4. THE GRANULAR BACKFILL IS FREE DRAINING AND WILL NOT BECOME SATURATED.
5. THE MINIMUM EMBEDMENT DEPTH IS 1.5 FEET.
6. THE WIDTH OF THE MODULAR BLOCK IS 12-INCHES.
7. A SURCHARGE LOAD OF 240 PSF IS INCLUDED TO MODEL PEDESTRIN AND LIGHTWEIGHT CONSTRUCTION EQUIPMENT.
8. GLOBAL STABILITY FACTOR OF SAFETY WAS DETERMINED BY THE COMPUTER PROGRAM XSTABL.
9. BEARING RESISTANCE IS DETERMINED BY TERZAGHI'S BEARING CAPACITY EQUATION.
10. SETTLEMENT OF THE FOUNDATION ON COHESIONLESS SOIL IS BASED UPON METHODS DESCRIBED IN THE FHWA SOILS AND FOUNDATIONS MANUAL.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	QUANTITY
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	230
SPV.0090	FENCE CHAIN LINK POLYMER-COATED 6-FT	LF	210
SPV.0165	WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD	SF	1550

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS			
WALL HEIGHT (FEET)[1]	6.1	10.0	6.3
EXPOSED WALL HEIGHT (FEET)	4.6	8.5	4.8
LENGTH OF REINFORCEMENT (FEET)[2]	8.0	8.0	8.0
LENGTH OF REINFORCEMENT/WALL HEIGHT	NA[3]	NA[3]	NA[3]
WALL STATION	19+90	20+20	21+20
BORING USED	B-1	B-1	B-2
CAPACITY TO DEMAND RATIO (CDR)			
SLIDING (CDR > 1.0)	1.0	1.3	1.3
ECCENTRICITY (CDR > 1.0)	2.5	1.2	3.5
GLOBAL STABILITY (CDR > 1.0)	NA	2.6	2.3
BEARING CAPACITY (CDR > 1.0)	3.8	2.5	4.0
REQUIRED BEARING RESISTANCE (PSF)	6,000	6,400	6,000

NOTES:
1. THE WALL HEIGHT INCLUDES AN EMBEDMENT OF 1.5 FEET.
2. THE LENGTH OF REINFORCEMENT IS THE MINIMUM REQUIRED LENGTH.
3. NA = THE MINIMUM RENIFORCEMENT LENGTH OF 8 FT. WAS USED.
4. CDR REQUIREMENTS AND LOAD AND RESISTANCE FACTORS ARE PRESENTED IN CHAPTER 14 OF THE BRIDGE MANUAL.

NOTES:

1. THE MSE WALL WITH MODULAR BLOCKS WILL ACHIEVE THE EXTERNAL STABILITY REQUIREMENTS IF THE SLIDING AND BEARING RESISTANCE REQUIEMENTS ARE MET. TABLE 3 PRESENTS THE MINIMUM LENGTH OF THE REINFORCEMENT.
2. THE CONTRCTOR SHOULD REMOVE THE TOPSOIL AND REPLACE THE EXCAVATED SOIL WITH GRANULAR FILL.
3. THE BACKFILL BEHIND THE MSE WALL WITH PRECAST CONCRETE FACING SHOULD BE GRANULAR AND FREE DRAINING.
4. THE SOUTHWEST REGION, LACROSSE OFFICE SOILS ENGINEER SHOULD REVIEW THE SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION OF THE WALL.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

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

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

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF

TEMPORARY SHORING INCIDENTAL TO SPV.0165 "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD"

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

ALLOWABLE WALL SYSTEMS

WALL MODULAR BLOCK M.S.E. LRFD

CURVE DATA

P.I. = STA. 20+75.71
Δ = 03°-03'-16" R.
D = 01°-31'-20"
T = 100.35'
L = 200.65'
R = 3763.72
P.C. = STA. 19+75.36
P.T. = STA. 21+76.01

LIST OF DRAWINGS

1. M.S.E. MODULAR BLOCK WALL
2. WALL DETAILS & ELEVATIONS
3. CHAIN LINK FENCE DETAILS
4. SUBSURFACE EXPLORATION

STRUCTURE DESIGN CONTACTS:

DANIELLE DE TENNIS (608) 266-8689
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

Plans Prepared By **WISDOT**
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 9/17/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-32-51

S. SIDE OF S.T.H. 33

COUNTY	TOWN
LA CROSSE	SHELBY

DESIGN SPEC. AASHTO LRFD DESIGN SPEC. 5th EDITION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
DFD	RAK	CRJ	JDL

M.S.E. MODULAR BLOCK WALL

SHEET 1 OF 4

451

SCALE = 10

8

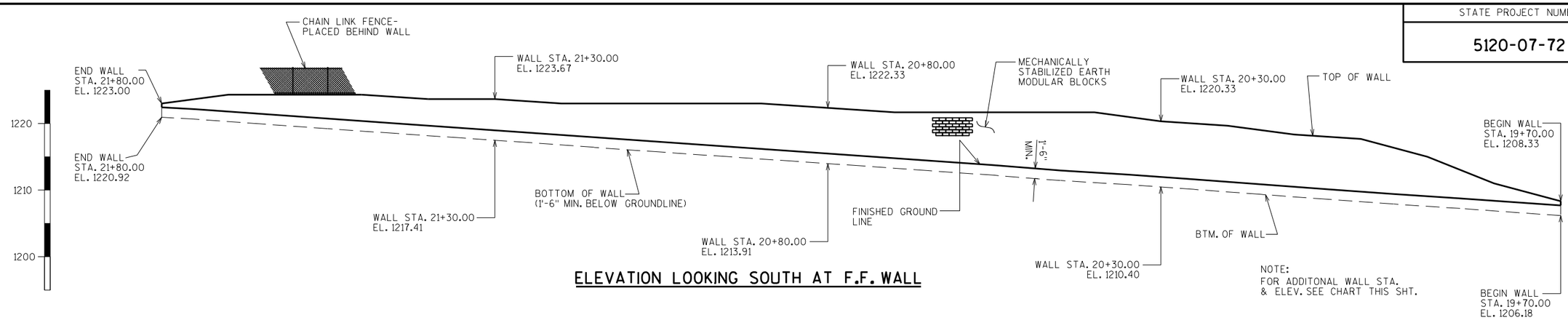
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I.D. 5120-07-00

DATE: JULY '12

STATE PROJECT NUMBER

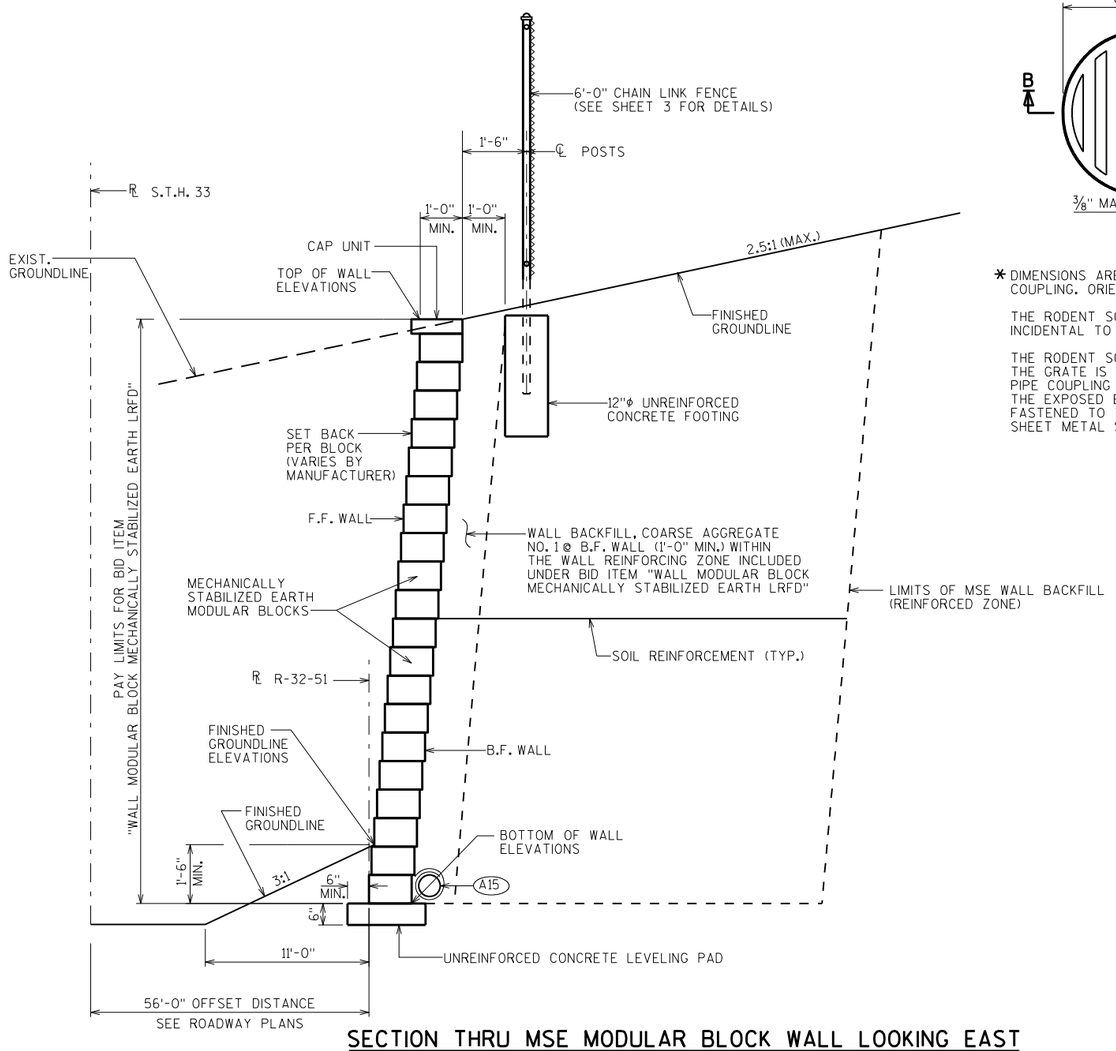
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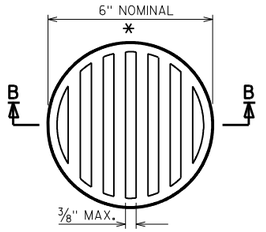
ELEVATION LOOKING SOUTH AT F.F. WALL

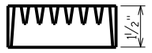
GEOMETRY TABLE

STATIONS (STATIONING ALONG ℄ S.T.H. 33)	℄ OFFSET TO ℄ R-32-51	WALL STATIONS	FINISHED GROUNDLINE ELEVATIONS	BOTTOM OF WALL ELEVATIONS	TOP OF WALL ELEVATIONS
BEGIN WALL 291+94.56	56' RT	19+70.00	1207.68	1207.18	1208.33
292+04.71	56' RT	19+80.00	1208.38	1206.88	1211.00
292+14.85	56' RT	19+90.00	1208.97	1207.47	1215.00
292+25.00	56' RT	20+00.00	1209.70	1208.20	1217.67
292+35.15	56' RT	20+10.00	1210.44	1208.94	1218.33
292+45.30	56' RT	20+20.00	1211.19	1209.69	1219.67
292+55.45	56' RT	20+30.00	1211.90	1210.40	1220.33
292+65.60	56' RT	20+40.00	1212.59	1211.09	1221.67
292+75.75	56' RT	20+50.00	1213.30	1211.80	1221.67
292+85.90	56' RT	20+60.00	1214.00	1212.50	1221.67
292+96.05	56' RT	20+70.00	1214.71	1213.21	1221.67
293+06.20	56' RT	20+80.00	1215.41	1213.91	1222.33
293+16.34	56' RT	20+90.00	1216.10	1214.60	1223.00
293+26.49	56' RT	21+00.00	1216.79	1215.29	1223.00
293+36.64	56' RT	21+10.00	1217.50	1216.00	1223.00
293+46.79	56' RT	21+20.00	1218.21	1216.71	1223.00
293+56.94	56' RT	21+30.00	1218.91	1217.41	1223.67
293+67.09	56' RT	21+40.00	1219.59	1218.09	1223.67
293+77.24	56' RT	21+50.00	1220.29	1218.79	1224.33
293+87.39	56' RT	21+60.00	1221.00	1219.50	1224.33
293+97.53	56' RT	21+70.00	1221.71	1220.21	1224.33
END WALL 294+07.69	56' RT	21+80.00	1222.42	1220.92	1223.00



SECTION THRU MSE MODULAR BLOCK WALL LOOKING EAST





SECTION B-B

RODENT SCREEN DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT 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 SHEET METAL SCREWS.

(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-32-51

DRAWN BY CRJ | PLANS CK'D. JDL

WALL DETAILS & ELEVATIONS

SHEET 2

452

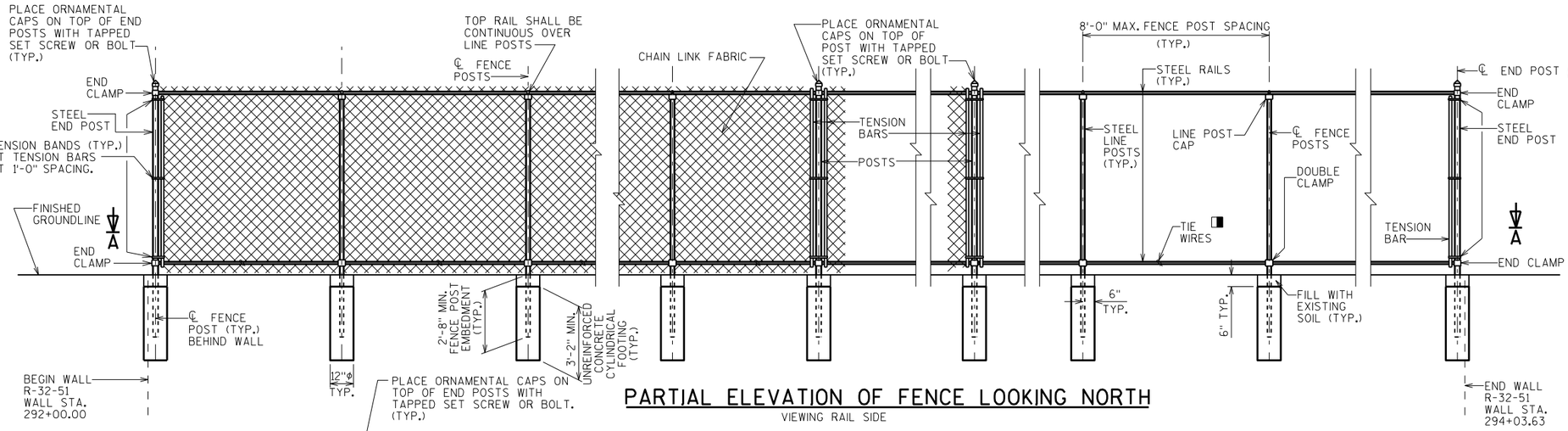
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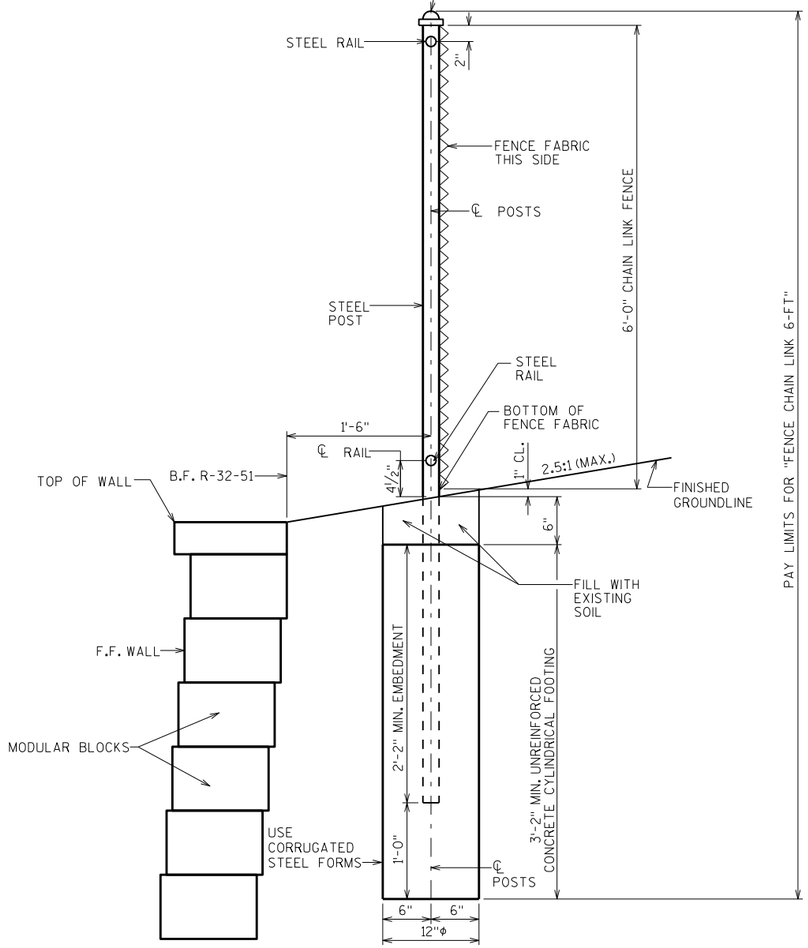
STATE PROJECT NUMBER

5120-07-72



PARTIAL ELEVATION OF FENCE LOOKING NORTH

VIEWING RAIL SIDE

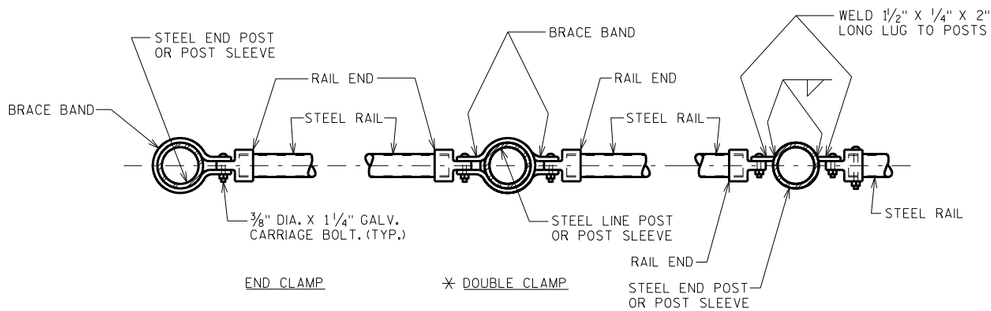


SECTION THRU FENCE LOOKING EAST

NOTE:
THE CONCRETE FOR THE FOOTINGS AND ALL WORK INCLUDED TO MAKE EACH FOOTING SHALL BE INCIDENTAL TO THE BID ITEM "FENCE CHAIN LINK 6-FT"

FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
LINE POST	2.375	3.65



END CLAMP ✳ DOUBLE CLAMP

SECTION A-A

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

GENERAL NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL WITH A COLORED POLYMER-COATING ON THE OUTSIDE.

FABRIC SHALL CONFORM TO ASTM F668, CLASS 2B. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. SEE THE "BRIDGE SPECIAL PROVISIONS" FOR ADDITIONAL DETAILS.

THE COLOR OF POLYMER-COATING FOR THIS STRUCTURE SHALL BE BLACK IN ACCORDANCE WITH ASTM F934.

THE BID ITEM SHALL BE "FENCE CHAIN LINK POLYMER-COATED 6- FT.", LF.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

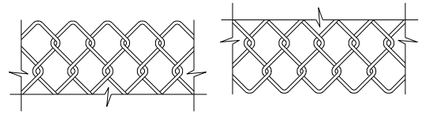
BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

✳ ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR ¼ POINT OF POST SPACING.

◨ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".



TOP DETAIL BOTTOM DETAIL

FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-32-51

DRAWN BY CRJ | PLANS CK'D. JDL

CHAIN LINK FENCE DETAILS

SHEET 3

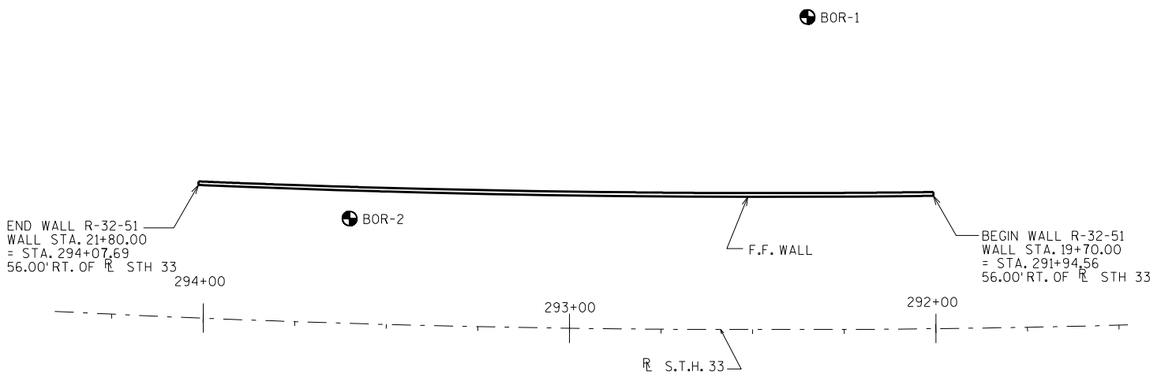
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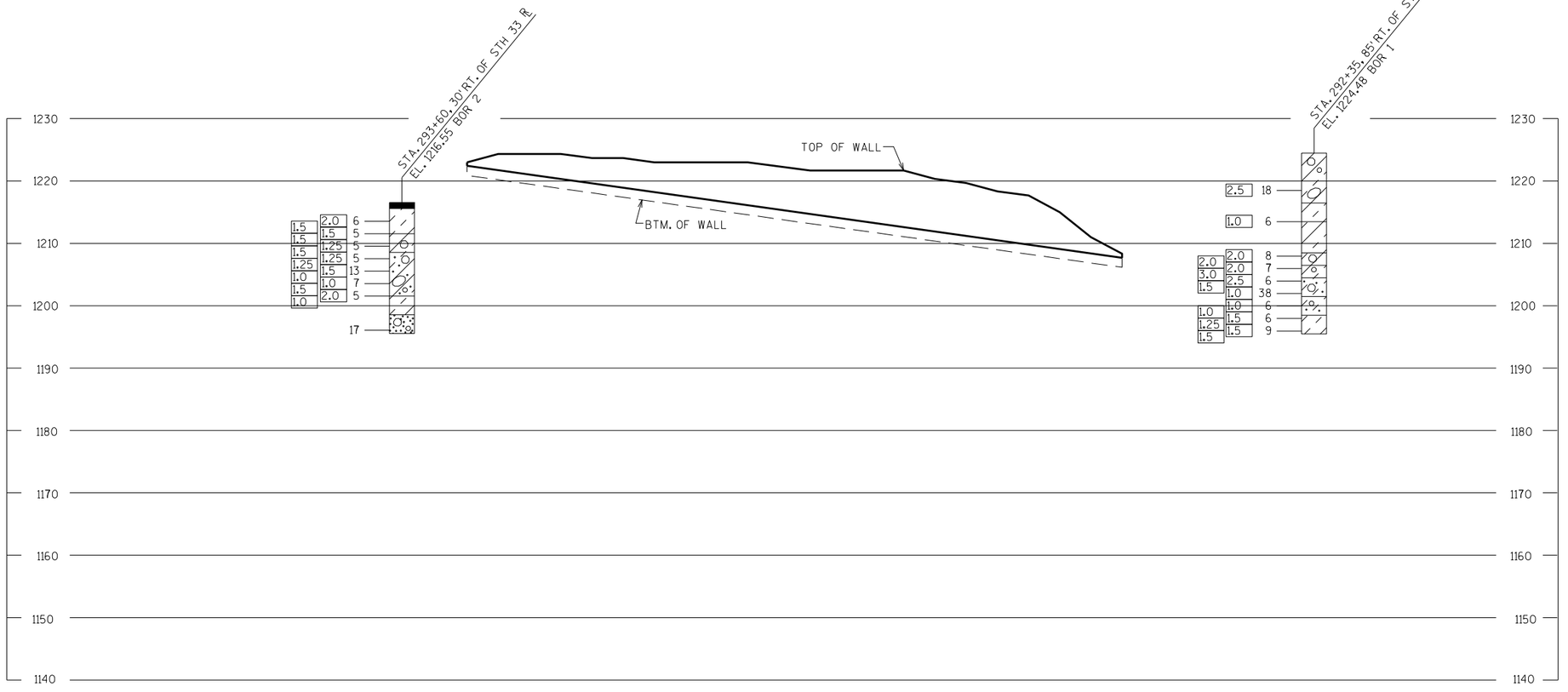
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STATE PROJECT NUMBER

5120-07-72

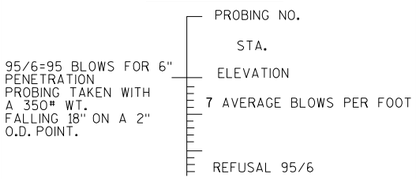
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

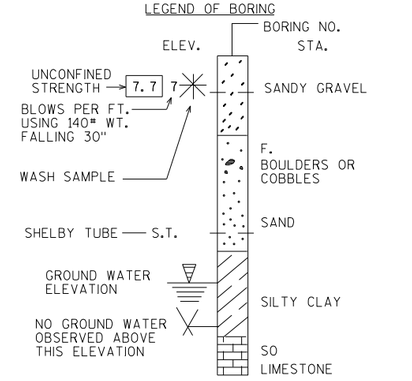
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-32-51

DRAWN BY CRJ | PLANS CK'D. JDL

SUBSURFACE EXPLORATION

SHEET 4

454

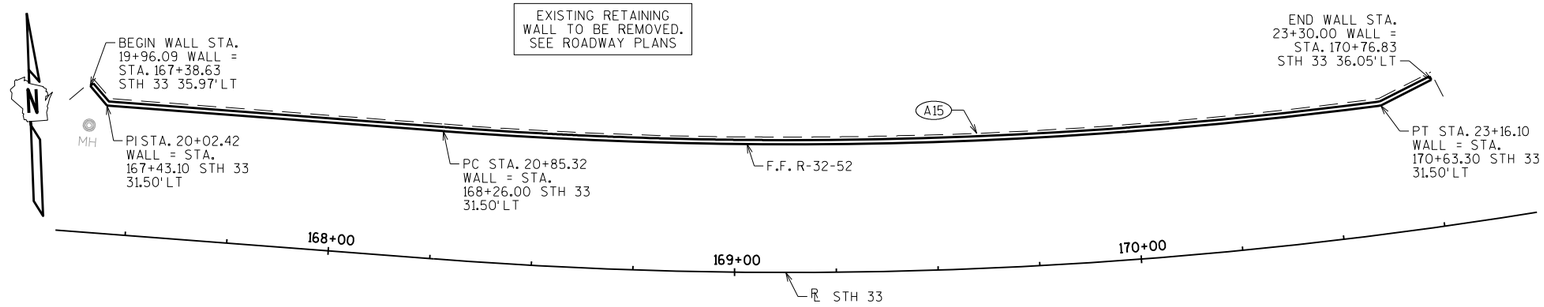
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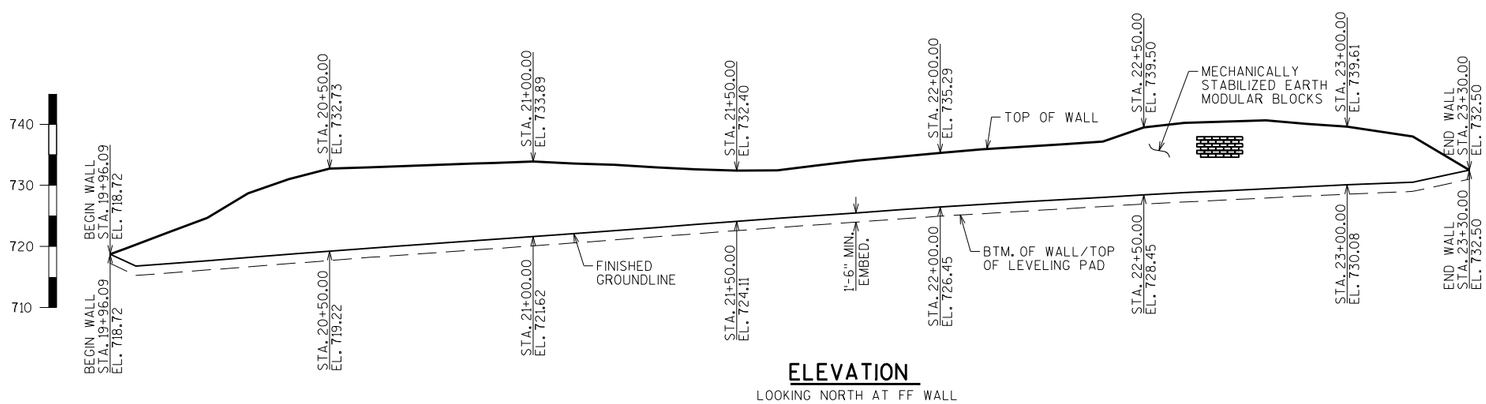
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STATE PROJECT NUMBER

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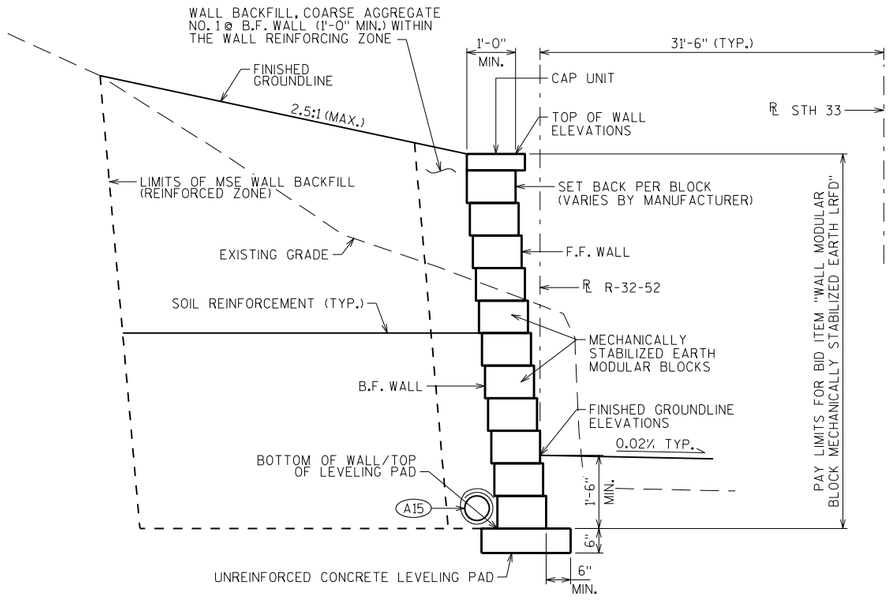


PLAN



ELEVATION

LOOKING NORTH AT FF WALL



SECTION THRU M.S.E. MODULAR BLOCK WALL

LOOKING EAST

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

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

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

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 100 PSF

THE PLAN QUANTITY FOR THE BID ITEM "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF WALL TO A CONSTANT DEPTH OF 1.5' BELOW FINISHED GRADE

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

ALLOWABLE WALL SYSTEMS

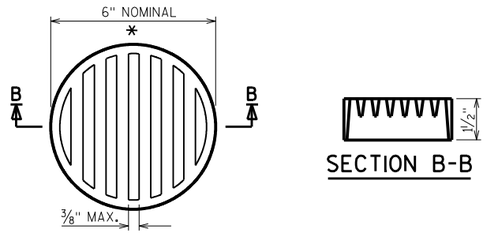
WALL MODULAR BLOCK M.S.E. LRFD

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	QUANTITY
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	360
SPV.0165	WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD	SF	3720

CURVE DATA

P.I. = STA. 22+01.12
Δ = 11°-51'-53" L.
D = 05°-08'-29"
T = 115.81'
L = 230.78'
R = 1114.42'
P.C. = STA. 20+85.32
P.T. = STA. 23+16.10



RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

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

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

A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

LIST OF DRAWINGS

1. M.S.E. MODULAR BLOCK WALL
2. WALL DETAILS & ELEVATIONS
3. SUBSURFACE EXPLORATION

STRUCTURE DESIGN CONTACTS:

DANIELLE DE TENNIS (608) 266-8689
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

Plans Prepared By **WISDOT**
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 9/17/13
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE R-32-52

RETAINING WALL ALONG N. SIDE OF STH 33

COUNTY: LA CROSSE — TOWN/~~CITY/VILLAGE~~: SHELBY

DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DFD	DESIGN CK'D.	JDL	DRAWN BY	DFD	PLANS CK'D.	JDL

M.S.E MODULAR BLOCK WALL

SHEET 1 OF 3

455

I.D. 5120-07-00C

DATE: **APRIL 2013**

SCALE = 18.0

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8

STATE PROJECT NUMBER

5120-07-71

SOIL PARAMETERS

SOIL DESCRIPTION	FRICTION ANGLE (DEGREES)	COHESION (PSF)	UNIT WEIGHT (PCF)
GRANULAR BACKFILL WITHIN THE WALL IN THE REINFORCING ZONE	30	0	120
F-M SAND SOME SILT BEHIND REINFORCEMENT ZONE	31	0	110
BOR-1, STA. 167+26			
FILL ELEVATION 717.7 FT TO ELEVATION 714.0 FT	30	0	115
STIFF-VERY STIFF SILT, SOME SAND, LITTLE GRAVEL ELEVATION 714.0 FT TO ELEVATION 711.5 FT	0	2,125	115
LOOSE TO FIRM FINE SILTY SAND, TRACE-LITTLE GRAVEL, A FEW SILT SEAMS ELEVATION 711.5 FT TO ELEVATION 705.0 FT	30	0	110
STIFF SILT, LITTLE SAND ELEVATION 705.0 FT TO ELEVATION 703.0 FT	0	1,250	110
LOOSE-FIRM FINE SILTY SAND, TRACE OF GRAVEL A FEW SILT SEAMS ELEVATION 703.0FT TO ELEVATION 697.0 FT	31	0	110
SOFT TO MEDIUM F-M SANDY SILT ELEVATION 697.0 FT TO ELEVATION 689.5 FT	0	667	105
BOR-2, STA. 170+55			
FIRM FINE SILTY SAND ELEVATION 727.3 FT TO ELEVATION 726.3 FT	31	0	110
MEDIUM FINE SANDY SILT ELEVATION 726.3 FT TO ELEVATION 722.3 FT	0	750	105
LOOSE FINE SILTY SAND ELEVATION 722.3 FT TO ELEVATION 719.8 FT	30	0	110
FIRM F-M SILTY SANDY, SOME GRAVEL ELEVATION 719.8 FT TO ELEVATION 708.3 FT	32	0	120
VERY STIFF SILT, SOME SAND ELEVATION 708.3 FT TO ELEVATION 705.3 FT	0	2,000	115
FIRM F-M SILTY SAND, SOME GRAVEL ELEVATION 705.3 FT TO ELEVATION 702.8 FT	31	0	115
BOR-3, STA. 169+56			
FILL ELEVATION 727.0 FT TO ELEVATION 724.0 FT	30	0	115
FIRM F-M SILTY SAND, SOME GRAVEL ELEVATION 724.0 FT TO ELEVATION 699.0 FT	32	0	120
BOR-4, STA. 168+50			
FIRM F-M SILTY SANDY, SOME GRAVEL ELEVATION 719.4 FT TO ELEVATION 694.9 FT	32	0	120

NOTES:

THE TYPICAL WALL SECTION USED IN THE ANALYSES HAD AN EXPOSED HEIGHT THAT VARIES FROM 5.0 FEET TO 13.5 FEET. THE FOLLOWING ASSUMPTIONS ARE ALSO INCLUDED IN THE ANALYSES:

1. THE SLOPE BEHIND THE WALL VARIES RANGES FROM 2H:1V TO 8H:1V.
2. THE SLOPE IN FRONT OF THE WALL IS HORIZONTAL
3. THE GROUNDWATER ELEVATION WAS BELOW THE INVESTIGATED DEPTH.
4. THE GRANULAR BACKFILL IS FREE DRAINING AND WILL NOT BECOME SATURATED.
5. THE MINIMUM EMBEDMENT DEPTH IS 1.5 FEET.
6. 1.5 FEET WAS ADDED TO THE EXPOSED HEIGHTS TO ARRIVE AT THE DESIGN HEIGHTS (TOTAL HEIGHTS).
7. THE THICKNESS OF THE CONCRETE MODULAR BLOCK IS 12.0 INCHES.
8. A SURCHARGE LOAD OF 100 PSF IS INCLUDED TO MODEL LIGHTWEIGHT CONSTRUCTION EQUIPMENT.
9. GLOBAL STABILITY IS DETERMINED BY THE COMPUTER PROGRAM XSTABL.
10. BEARING RESISTANCE IS DETERMINED BY TERZAGHI'S BEARING CAPACITY EQUATION.
11. SETTLEMENT OF THE FOUNDATION ON COHESIONLESS SOIL IS BASED UPON METHODS DESCRIBED IN THE FHWA SOILS AND FOUNDATIONS MANUAL.
12. DESIGN COMPLETED USING LOAD RESISTANCE FACTOR DESIGN (LRFD) METHOD.

ELEVATION TABLE

℄ STH 33 STATION	℄ STH 33 OFFSET TO FF WALL	WALL STATION	TOP OF WALL EL.	FINISHED GROUNDLINE EL.
167+38.63	35.97' LT	19+96.09	718.72'	718.72'
167+41.39	33.21' LT	20+00.00	719.70'	717.51'
167+43.10	31.50' LT	20+02.42	720.30'	716.76'
167+50.68	31.50' LT	20+10.00	722.18'	717.15'
167+60.68	31.50' LT	20+20.00	724.67'	717.66'
167+70.68	31.50' LT	20+30.00	728.71'	718.18'
167+80.68	31.50' LT	20+40.00	731.03'	718.70'
167+90.68	31.50' LT	20+50.00	732.73'	719.22'
168+00.68	31.50' LT	20+60.00	732.96'	719.73'
168+10.68	31.50' LT	20+70.00	733.20'	720.20'
168+20.68	31.50' LT	20+80.00	733.43'	720.68'
168+26.00	31.50' LT	20+85.32	733.55'	720.93'
168+30.81	31.50' LT	20+90.00	733.66'	721.15'
168+41.09	31.50' LT	21+00.00	733.89'	721.62'
168+51.38	31.50' LT	21+10.00	733.58'	722.07'
168+61.66	31.50' LT	21+20.00	733.34'	722.57'
168+71.94	31.50' LT	21+30.00	732.96'	723.08'
168+82.22	31.50' LT	21+40.00	732.63'	723.59'
168+92.51	31.50' LT	21+50.00	732.40'	724.11'
169+02.79	31.50' LT	21+60.00	732.47'	724.60'
169+13.07	31.50' LT	21+70.00	732.55'	725.06'
169+23.35	31.50' LT	21+80.00	734.07'	725.52'
169+33.64	31.50' LT	21+90.00	734.68'	725.99'
169+43.92	31.50' LT	22+00.00	735.29'	726.45'
169+54.20	31.50' LT	22+10.00	735.90'	726.89'
169+64.48	31.50' LT	22+20.00	736.32'	727.27'
169+74.77	31.50' LT	22+30.00	736.73'	727.66'
169+85.05	31.50' LT	22+40.00	737.15'	728.05'
169+95.33	31.50' LT	22+50.00	739.50'	728.45'
170+05.62	31.50' LT	22+60.00	740.22'	728.80'
170+15.90	31.50' LT	22+70.00	740.44'	729.12'
170+26.18	31.50' LT	22+80.00	740.66'	729.45'
170+36.46	31.50' LT	22+90.00	740.08'	729.77'
170+46.75	31.50' LT	23+00.00	739.61'	730.08'
170+57.03	31.50' LT	23+10.00	739.13'	730.35'
170+63.30	31.50' LT	23+16.10	738.00'	730.08'
170+67.09	32.79' LT	23+20.00	736.46'	730.76'
170+76.83	36.05' LT	23+30.00	732.50'	732.50'

NOTE: ALL WALL STATIONING & OFFSETS ARE GIVEN AT THE FRONT FACE OF THE WALL

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS								
WALL HEIGHT (FEET)[1]	6.5	15.0	14.1	10.5	10.1	10.6	12.9	10.3
EXPOSED WALL HEIGHT (FEET)	5.0	13.5	12.6	9.0	8.6	9.1	11.4	8.8
LENGTH OF REINFORCEMENT (FEET)[3]	8.0	14.0	10.0	11.7	10.5	8.0	13.6	10.5
LENGTH OF REINFORCEMENT/WALL HEIGHT	NA	0.93	0.70	1.02	1.03	NA	1.06	1.02
WALL STATION	20+10	20+50	20+85	21+40	21+80	22+60	22+60	23+10
BORING USED	B-1	B-1	B-4	B-4	B-3	B-3	B-2	B-2
CAPACITY TO DEMAND RATIO (CDR)[2,4]								
SLIDING (CDR > 1.0)	1.30	1.01	1.10	1.01	1.01	1.20	1.01	1.01
ECCENTRICITY (CDR > 1.0)	22	37	27	29	28	22	35	25
GLOBAL STABILITY (CDR > 1.0)	NA[5]	1.10	NA[5]	1.03	NA[5]	1.20	1.10	NA[5]
BEARING RESISTANCE (CDR > 1.0)	3.8	1.9	1.6	2.5	2.6	2.2	2.0	2.5
FACTORED BEARING RESISTANCE (PSF)	7,000	8,000	7,000	7,000	7,000	6,000	7,000	7,000

NOTES:

1. THE WALL HEIGHT INCLUDES AN EMBEDMENT OF 1.5 FEET.
2. THE WALL STABILITY EVALUATION INCLUDED A SURCHARGE LOAD OF 100 PSF.
3. THE LENGTH OF REINFORCEMENT RANGES BETWEEN 8 FEET AND 14 FEET WHICH IS THE MINIMUM REQUIRED LENGTH.
4. CDR VALUES ARE PRESENTED IN CHAPTER 14 OF THE BRIDGE MANUAL.
5. NA = NOT APPLICABLE, GLOBAL SLOPE STABILITY WAS EVALUATED AT THE CRITICAL WALL LOCATION.

NOTES:

1. THE WALL EMBEDMENT DEPTH SHOULD BE 1.5 FEET (MINIMUM).
2. THE MSE WALL WITH MODULAR BLOCK FACING WILL ACHIEVE THE EXTERNAL STABILITY CDR VALUES SHOWN IN THE ABOVE TABLE. THE ABOVE TABLE ALSO PRESENTS THE MINIMUM REQUIRED LENGTH OF THE REINFORCEMENT AT SPECIFIC LOCATIONS.
3. THE SETTLEMENT OF THE FOUNDATION WAS ESTIMATED TO BE LESS THAN 1.0 INCH AND SHOULD OCCUR WITHIN WEEKS OF LOADING OF THE WALL. THE SUBSURFACE SOILS ARE RELATIVELY UNIFORM; THEREFORE, DIFFERENTIAL SETTLEMENT SHOULD NOT BE AN ISSUE.
4. ALTHOUGH IT IS NOT EXPECTED, THE CONTRACTOR SHOULD REMOVE THE TOPSOIL OR ANY SOFT MATERIAL BELOW THE WALL BASE AND REPLACE IT WITH GRANULAR FILL.
5. THE SOUTHWEST REGION (LA CROSSE OFFICE) SOILS ENGINEER SHOULD REVIEW THE SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION OF THE WALLS TO DETERMINE IF THE SOILS HAVE ADEQUATE STRENGTH TO SUPPORT THE MSE WALLS.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-32-52

DRAWN BY DFD | PLANS CK'D. JDL

WALL DETAILS & ELEVATIONS

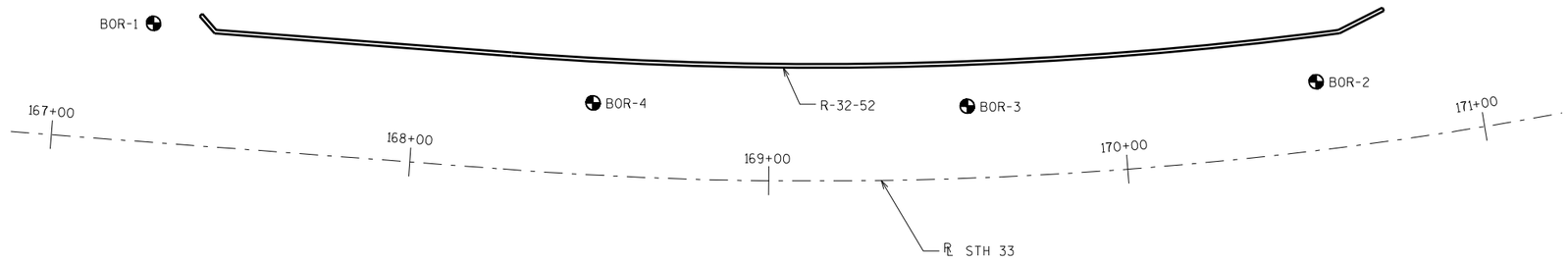
SHEET 2

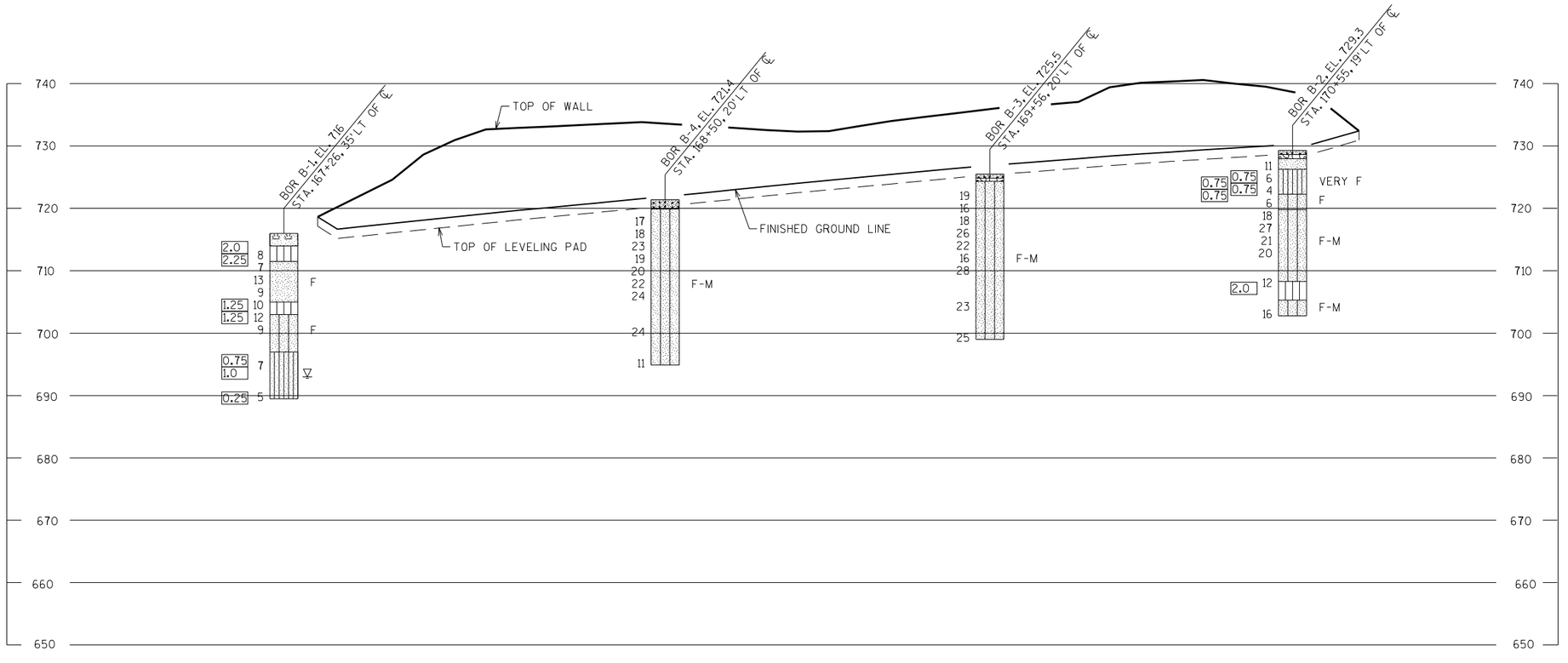
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SCALE = 1.5

LACROSSE - CASHTON

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	4/30/2013	123809.860	460058.98
2	4/30/2013	123779.169	460378.461
3	4/30/2013	123777.244	460279.542
4	5/6/2013	123779.076	460175.494
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) LACROSSE COUNTY			





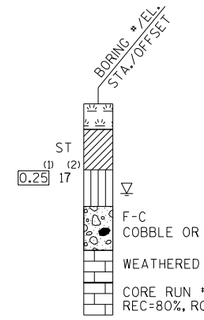
STATE PROJECT NUMBER

5120-07-71

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

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

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-32-52

DRAWN BY PR/DFD | PLANS CK'D. JDL

SUBSURFACE EXPLORATION

SHEET 3

457

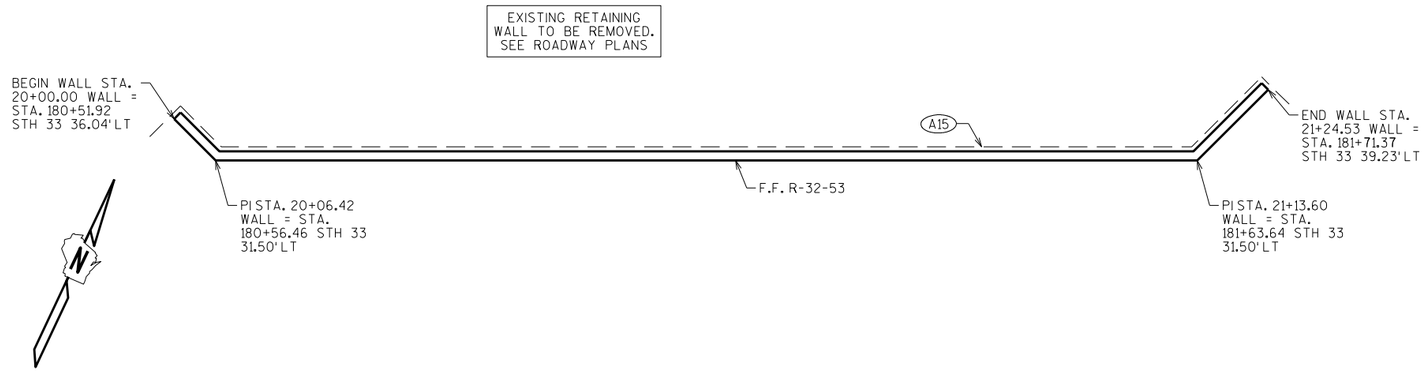
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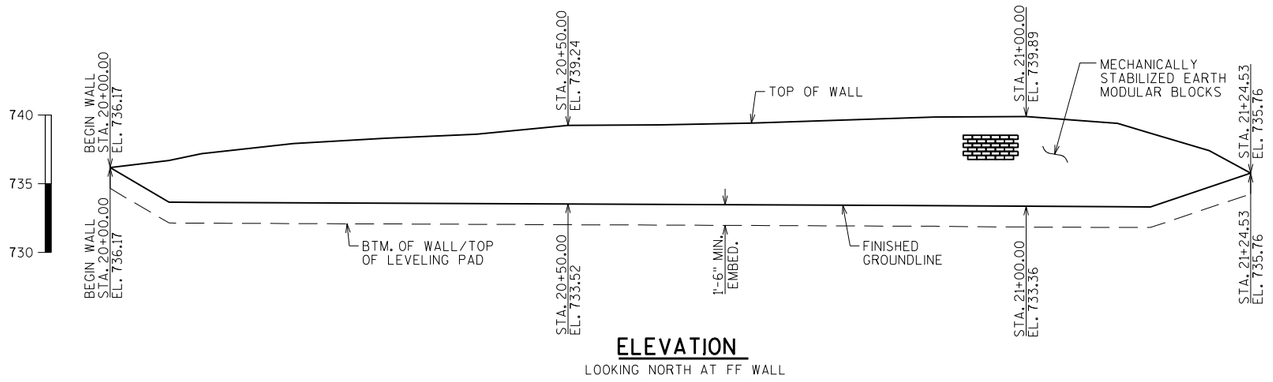
SCALE =

STATE PROJECT NUMBER

5120-07-71



PLAN



ELEVATION

LOOKING NORTH AT FF WALL

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

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

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

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 100 PSF

THE PLAN QUANTITY FOR THE BID ITEM "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF WALL TO A CONSTANT DEPTH OF 1.5' BELOW FINISHED GRADE

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

ALLOWABLE WALL SYSTEMS

WALL MODULAR BLOCK M.S.E. LRFD

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	QUANTITY
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	145
SPV.0165	WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD	SF	820

LIST OF DRAWINGS

1. M.S.E. MODULAR BLOCK WALL
2. WALL DETAILS & ELEVATIONS
3. SUBSURFACE EXPLORATION

STRUCTURE DESIGN CONTACTS:

DANIELLE DE TENNIS (608) 266-8689
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

Plans Prepared By **WISDOT**
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LES 9/17/13
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE R-32-53

RETAINING WALL ALONG NW SIDE OF STH 33

COUNTY: LA CROSSE — TOWN/~~CITY/VILLAGE~~: SHELBY

DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
DFD	JDL	DFD	JDL

M.S.E. MODULAR BLOCK WALL

SHEET 1 OF 3

458

A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

I.D. 5120-07-00D

DATE: APRIL 2013

SCALE = 8.0

8

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STATE PROJECT NUMBER
5120-07-71

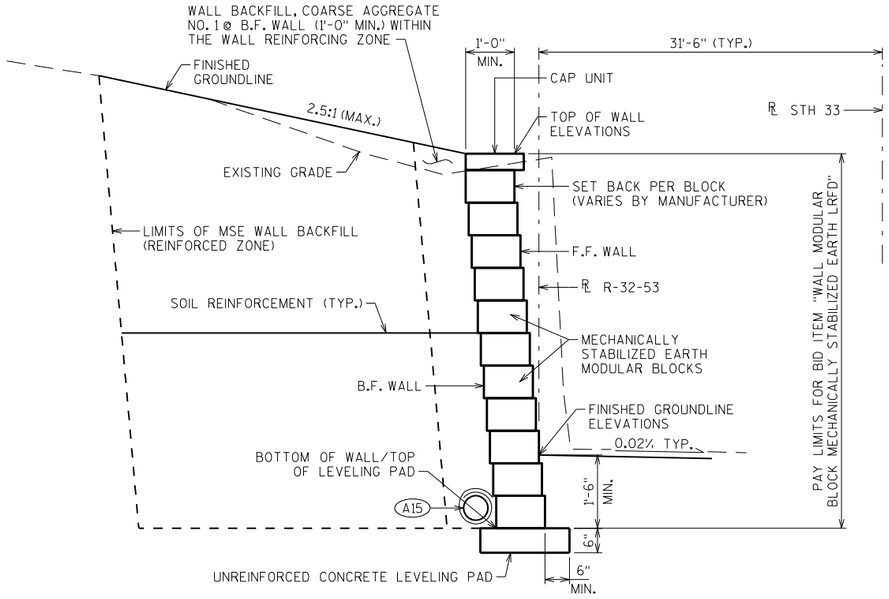
SOIL PARAMETERS

SOIL DESCRIPTION	FRICTION ANGLE (DEGREES)	COHESION (PSF)	UNIT WEIGHT (PCF)
GRANULAR BACKFILL WITHIN THE WALL IN THE REINFORCING ZONE	30	0	120
F-M SAND SOME SILT BEHIND REINFORCEMENT ZONE	31	0	110
BOR-1, STA. 181+83			
FILL (GRANULAR SOIL) ELEVATION 717.7 FT TO ELEVATION 714.0 FT	30	0	115
MEDIUM SILT, TRACE OF CLAY ELEVATION 714.0 FT TO ELEVATION 711.5 FT	0	560	105
FIRM F-M SILTY SAND & F-C GRAVEL ELEVATION 711.5 FT TO ELEVATION 705.0 FT	32	0	115
BOR-2, STA. 180+56			
FILL (GRANULAR SOIL) ELEVATION 727.3 FT TO ELEVATION 726.3 FT	30	0	115
SOFT SILT, SOME CLAY ELEVATION 726.3 FT TO ELEVATION 722.3 FT	0	250	105
LOOSE FINE SILTY SAND ELEVATION 722.3 FT TO ELEVATION 719.8 FT	30	0	110
FIRM-DENSE F-M SAND AND F-C GRAVEL, LITTLE SILT ELEVATION 719.8 FT TO ELEVATION 708.3 FT	34	0	125

NOTES:

THE TYPICAL WALL SECTION USED IN THE ANALYSES HAD AN EXPOSED HEIGHT THAT VARIES FROM 4.7 FEET TO 6.5 FEET. THE FOLLOWING ASSUMPTIONS ARE ALSO INCLUDED IN THE ANALYSES:

1. THE SLOPE BEHIND THE WALL VARIES RANGES FROM 4.5H:1V TO 16H:1V.
2. THE SLOPE IN FRONT OF THE WALL IS HORIZONTAL
3. THE GROUNDWATER ELEVATION WAS BELOW THE INVESTIGATED DEPTH.
4. THE GRANULAR BACKFILL IS FREE DRAINING AND WILL NOT BECOME SATURATED.
5. THE MINIMUM EMBEDMENT DEPTH IS 1.5 FEET.
6. 1.5 FEET WAS ADDED TO THE EXPOSED HEIGHTS TO ARRIVE AT THE DESIGN HEIGHTS (TOTAL HEIGHTS).
7. THE THICKNESS (FRONT TO BACK) OF THE CONCRETE MODULAR BLOCK IS 12.0 INCHES.
8. A SURCHARGE LOAD OF 100 PSF IS INCLUDED TO MODEL LIGHTWEIGHT CONSTRUCTION EQUIPMENT.
9. GLOBAL STABILITY IS DETERMINED BY THE COMPUTER PROGRAM XSTABL.
10. BEARING RESISTANCE IS DETERMINED BY TERZAGHI'S BEARING CAPACITY EQUATION.
11. SETTLEMENT OF THE FOUNDATION ON COHESIONLESS SOIL IS BASED UPON METHODS DESCRIBED IN THE FHWA SOILS AND FOUNDATIONS MANUAL.
12. DESIGN COMPLETED USING LOAD RESISTANCE FACTOR DESIGN (LRFD) METHOD.



SECTION THRU M.S.E. MODULAR BLOCK WALL

LOOKING EAST

ELEVATION TABLE

℄ STH 33 STATION	℄ STH 33 OFFSET TO FF WALL	WALL STATION	TOP OF WALL EL.	FINISHED GROUNDLINE EL.
180+51.92	36.04' LT	20+00.00	736.17'	736.17'
180+56.46	31.50' LT	20+06.42	736.68'	733.65'
180+60.04	31.50' LT	20+10.00	737.18'	733.64'
180+70.04	31.50' LT	20+20.00	737.92'	733.61'
180+80.04	31.50' LT	20+30.00	738.31'	733.58'
180+90.04	31.50' LT	20+40.00	738.59'	733.55'
181+00.04	31.50' LT	20+50.00	739.24'	733.52'
181+10.04	31.50' LT	20+60.00	739.27'	733.49'
181+20.04	31.50' LT	20+70.00	739.40'	733.46'
181+30.04	31.50' LT	20+80.00	739.63'	733.43'
181+40.04	31.50' LT	20+90.00	739.85'	733.40'
181+50.04	31.50' LT	21+00.00	739.89'	733.36'
181+60.04	31.50' LT	21+10.00	739.39'	733.33'
181+63.64	31.50' LT	21+13.60	738.68'	733.31'
181+68.16	36.03' LT	21+20.00	737.41'	734.75'
181+71.37	39.23' LT	21+24.53	735.76'	735.76'

NOTE: ALL WALL STATIONING & OFFSETS ARE GIVEN AT THE FRONT FACE OF THE WALL

WALL EXTERNAL STABILITY EVALUATION

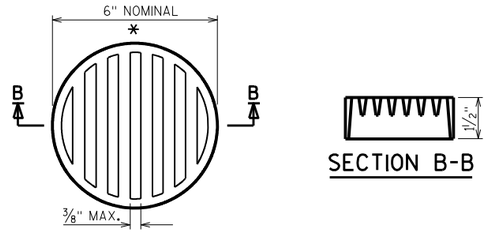
DIMENSIONS					
WALL HEIGHT (FEET)[1]	6.2	7.3	7.7	8.0	6.9
EXPOSED WALL HEIGHT (FEET)	4.7	5.8	6.2	6.5	5.4
LENGTH OF REINFORCEMENT (FEET)[3]	8.0	8.0	8.0	8.0	8.0
LENGTH OF REINFORCEMENT/WALL HEIGHT	NA	NA	NA	NA	NA
WALL STATION	20+30	20+60	20+80	21+00	21+13
BORING USED	B-2	B-2	B-1	B-1	B-1
CAPACITY TO DEMAND RATIO (CDR)[2,4]					
SLIDING (CDR > 1.0)	2.0	1.4	1.3	1.3	1.2
ECCENTRICITY (CDR > 1.0)	20	20	22	22	22
GLOBAL STABILITY (CDR > 1.0)	NA[5]	2.0	NA[5]	1.4	NA[5]
BEARING RESISTANCE (CDR > 1.0)	1.5	1.2	1.1	1.1	1.3
FACTORED BEARING RESISTANCE (PSF)	2,000	2,000	2,000	2,000	2,000

NOTES:

1. THE WALL HEIGHT INCLUDES AN EMBEDMENT OF 1.5 FEET.
2. THE WALL STABILITY EVALUATION INCLUDED A SURCHARGE LOAD OF 100 PSF.
3. THE LENGTH OF REINFORCEMENT IS 8 FEET WHICH IS THE MINIMUM REQUIRED LENGTH.
4. CDR VALUES ARE PRESENTED IN CHAPTER 14 OF THE BRIDGE MANUAL.
5. NA = NOT APPLICABLE. GLOBAL SLOPE STABILITY WAS EVALUATED AT THE CRITICAL WALL LOCATION.

NOTES:

1. THE WALL EMBEDMENT DEPTH SHOULD BE 1.5 FEET (MINIMUM).
2. THE MSE WALL WITH MODULAR BLOCK FACING WILL ACHIEVE THE EXTERNAL STABILITY CDR VALUES SHOWN IN THE ABOVE TABLE. THE ABOVE TABLE ALSO PRESENTS THE MINIMUM REQUIRED LENGTH OF THE REINFORCEMENT AT SPECIFIC LOCATIONS.
3. THE SETTLEMENT OF THE FOUNDATION WAS ESTIMATED TO BE LESS THAN 1.0 INCH AND SHOULD OCCUR WITHIN WEEKS OF LOADING OF THE WALL. THE SUBSURFACE SOILS ARE RELATIVELY UNIFORM; THEREFORE, DIFFERENTIAL SETTLEMENT SHOULD NOT BE AN ISSUE.
4. ALTHOUGH IT IS NOT EXPECTED, THE CONTRACTOR SHOULD REMOVE THE TOPSOIL OR ANY SOFT MATERIAL BELOW THE WALL BASE AND REPLACE IT WITH GRANULAR FILL.
5. THE SOUTHWEST REGION (LA CROSSE OFFICE) SOILS ENGINEER SHOULD REVIEW THE SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION OF THE WALLS TO DETERMINE IF THE SOILS HAVE ADEQUATE STRENGTH TO SUPPORT THE MSE WALLS.



SECTION B-B

RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

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

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

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-32-53

DRAWN BY DFD | PLANS CK'D. JDL

WALL DETAILS & ELEVATIONS

SHEET 2

459

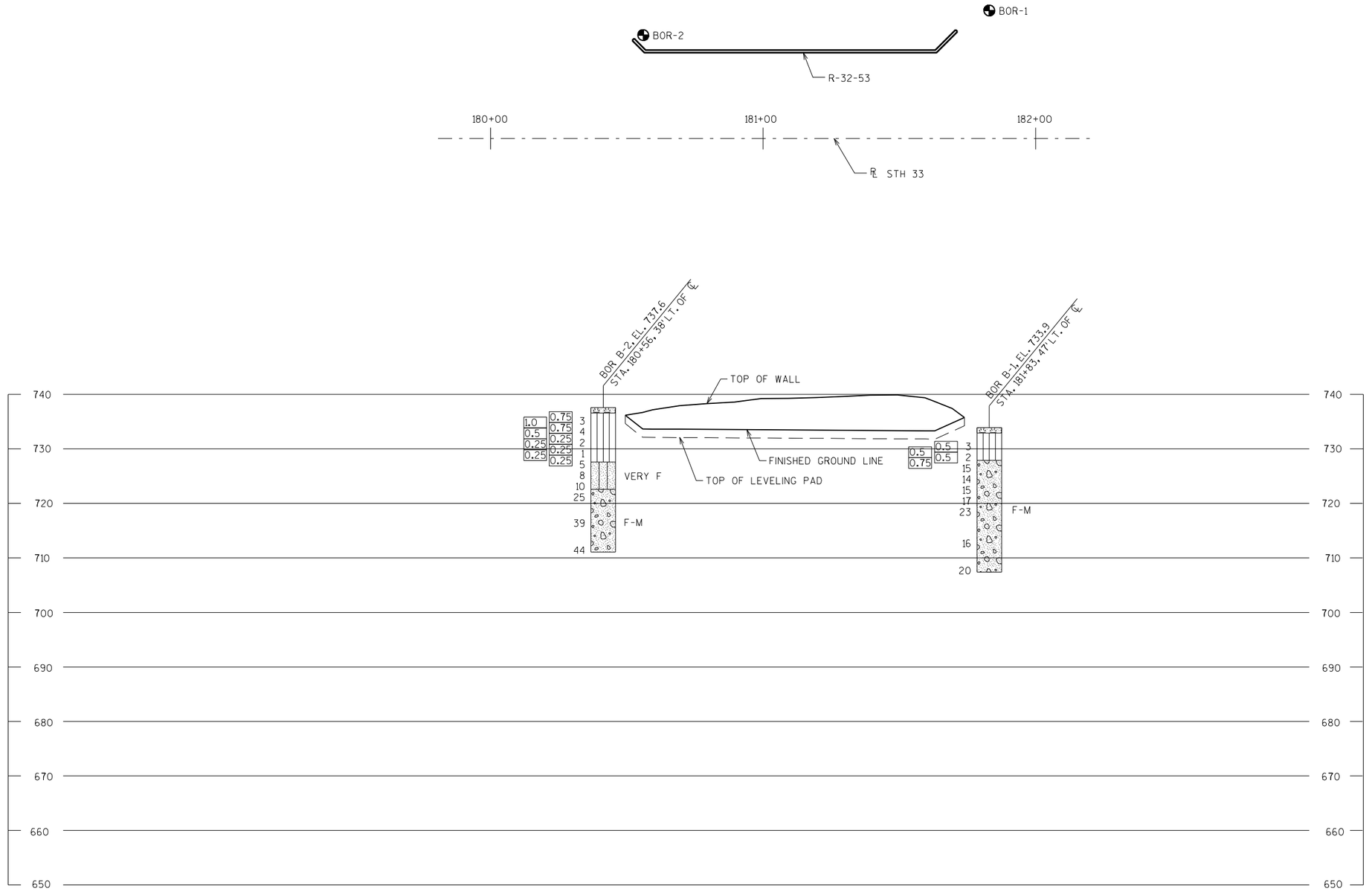
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8

LACROSSE - CASHTON

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	4/25/2013	124215.915	461398.001
2	4/25/2013	124159.008	461294.084
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) LACROSSE COUNTY			



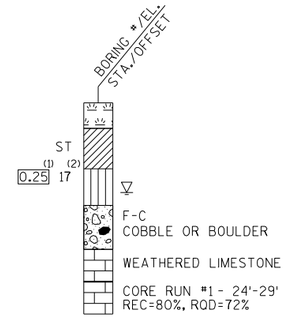
STATE PROJECT NUMBER

5120-07-71

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

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

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-32-53

DRAWN BY PR/DFD | PLANS CK'D. JDL

SUBSURFACE EXPLORATION

SHEET 3

460

8

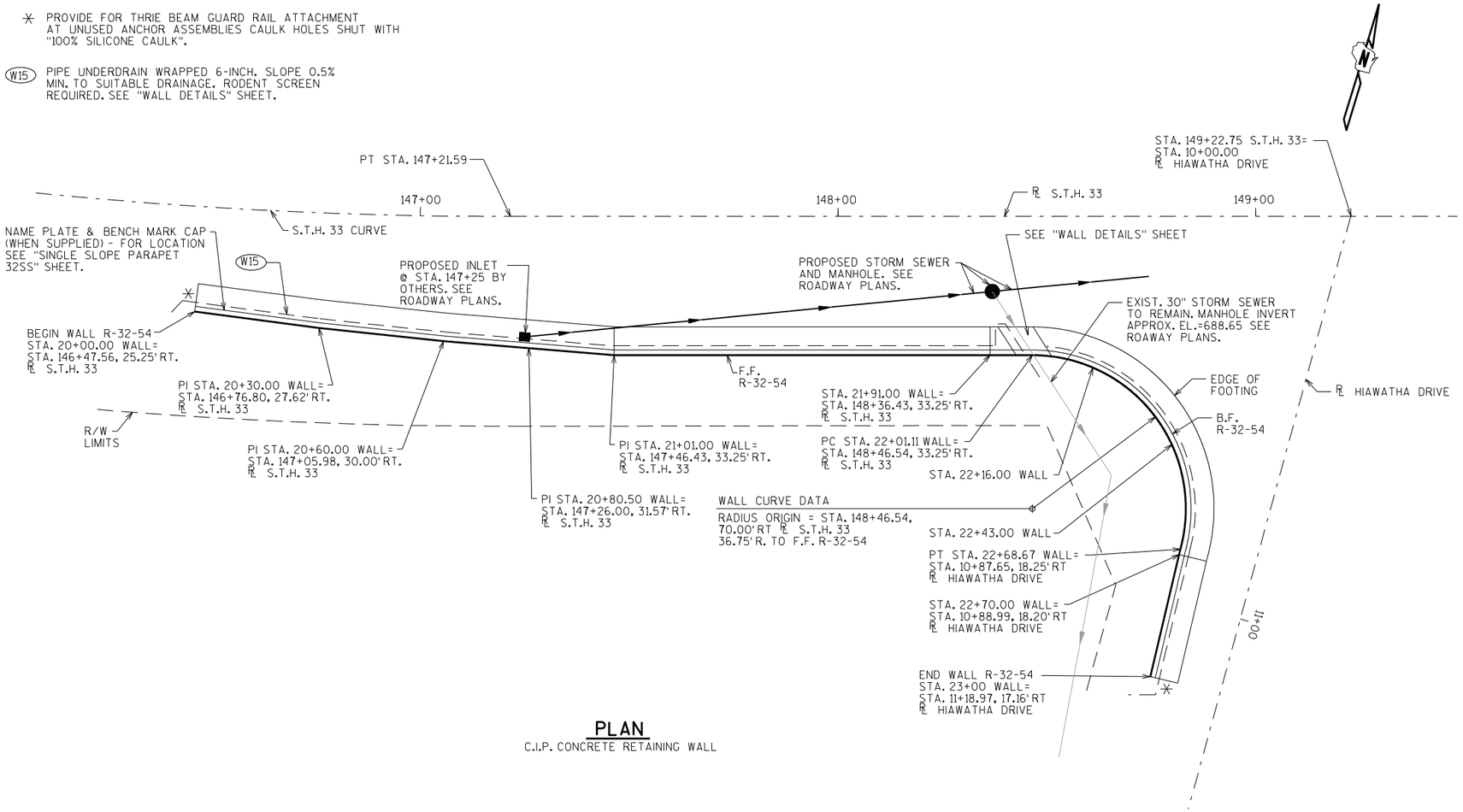
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SCALE =

STATE PROJECT NUMBER
5120-07-71

✳ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".

(W15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. SEE "WALL DETAILS" SHEET.



PLAN
C.I.P. CONCRETE RETAINING WALL

DESIGN DATA

UNIT WEIGHT OF SOIL	= 120 PCF
LIVE LOAD SURCHARGE	= 240 PSF
LATERAL EARTH PRESSURE	= 40 PCF

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY (CAST-IN-PLACE WALL)	f'c =	3,500 P.S.I.
CONCRETE MASONRY (PARAPET)	f'c =	4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60	fy =	60,000 P.S.I.

FOUNDATION DATA

WALL FOOTINGS TO BE SUPPORTED BY UNDERLYING NATIVE SOILS WITH A REQUIRED FACTORED BEARING RESISTANCE OF 2500 PSF ***. A GEOTECHNICAL ENGINEER WILL DETERMINE THE FACTORED BEARING RESISTANCE BY VISUAL INSPECTION PRIOR TO CONSTRUCTION OF THE WALL FOOTING.

***THE FACTORED BEARING RESISTANCE IS THE VALUE USED FOR DESIGN.

THE SOUTHWEST REGION, LA CROSSE OFFICE, SOILS ENGINEER SHOULD REVIEW THE FILL SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION OF THE WALL.

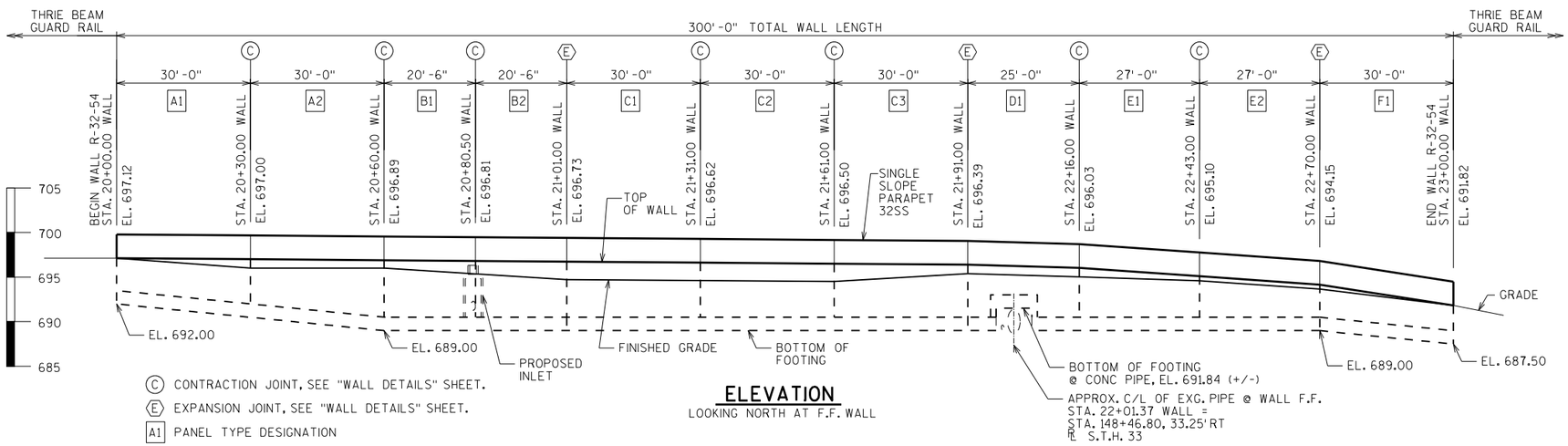
CURVE DATA

S.T.H 33

P.I. = 142+75.61
Δ = 47°19'42" L
D = 04°58'56"
T = 503.96'
L = 949.94'
R = 1150.00'
S.E. = NA
P.C. = 137+71.65
P.T. = 147+21.59

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. QUANTITIES & ELEVATIONS
3. WALL ELEVATION & SECTION
4. WALL DETAILS
5. SINGLE SLOPE PARAPET 32SS



ELEVATION
LOOKING NORTH AT F.F. WALL

STRUCTURE DESIGN CONTACTS:

JAMES LUEBKE	(608) 266-5098
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 — 9/17/13 DATE

STRUCTURE R-32-54

RETAINING WALL FOR S.T.H. 33

COUNTY	TOWN/~~CITY/VILLAGE~~
LA CROSSE	SHELBY

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JDL	ARC	JDL	ARC

GENERAL PLAN & ELEVATION

SHEET 1 OF 5

461

I.D. 5120-07-00

DATE: JUNE '13

SCALE = 15

8

8

STATE PROJECT NUMBER

5120-07-71

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS R-32-54	LS	1
210.0100	BACKFILL STRUCTURE	CY	470
502.3200	PROTECTIVE SURFACE TREATMENT	SY	125
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	227
505.0415	BAR STEEL REINFORCEMENT HS RETAINING WALLS	LB	9990
505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	16,290
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	24
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	330
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2
	NON-BID ITEMS		
	PRE-FORMED JOINT FILLER	SIZE	3/4"
	NON-BITUMINOUS JOINT SEALER	—	—

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER UNLESS OTHERWISE SHOWN OR NOTED.

ALL WALL STATIONING AND OFFSETS ARE GIVEN AT THE FRONT FACE OF THE WALL (R-32-54).

THE EXISTING GROUND LINE IS THE UPPER LIMIT OF EXCAVATION FOR STRUCTURES.

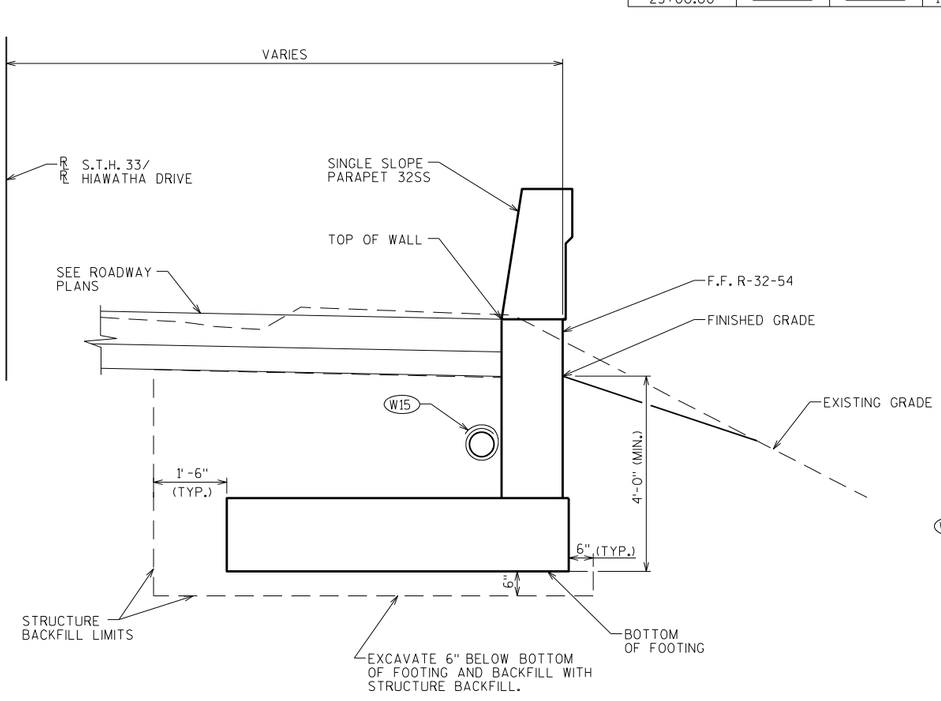
BACKFILL ALL SPACES EXCAVATED AT THE BACKFACE AND NOT OCCUPIED BY THE NEW STRUCTURE WITH STRUCTURE BACKFILL.

BACKFILL THE FRONT FACE BEFORE THE BACK FACE.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE FRONT FACE AND TOP OF THE PARAPETS.

GEOMETRY TABLE

WALL STATION	℄ S.T.H 33		℄ HIAWATHA DRIVE		TOP OF WALL ELEV.	FINISHED GRADE ELEV. @ F.F. WALL
	STATION	OFFSET TO F.F. WALL	STATION	OFFSET TO F.F. WALL		
20+00.00	146+47.56	25.25' RT	———	———	697.12	697.12
20+30.00	146+76.80	27.62' RT	———	———	697.00	696.00
20+60.00	147+05.98	30.00' RT	———	———	696.89	695.89
20+80.50	147+26.00	31.57' RT	———	———	696.81	694.81
21+01.00	147+46.43	33.25' RT	———	———	696.73	694.73
21+31.00	147+76.43	33.25' RT	———	———	696.62	694.62
21+61.00	148+06.43	33.25' RT	———	———	696.50	694.50
21+91.00	148+36.43	33.25' RT	———	———	696.39	695.39
22+01.11	148+46.54	33.25' RT	———	———	696.34	695.34
22+16.00	148+61.03	36.23' RT	10+51.25	49.95' RT	696.03	695.03
22+43.00	148+79.93	54.65' RT	10+64.03	26.85' RT	695.10	694.60
22+68.67	———	———	10+87.65	18.25' RT	694.20	693.70
22+70.00	———	———	10+88.99	18.20' RT	694.15	693.65
23+00.00	———	———	11+18.97	17.16' RT	691.82	691.82



TYPICAL SECTION

W15 PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. SEE SHEET 4 FOR DETAIL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-32-54

DRAWN BY JDL | PLANS CK'D. ARC

QUANTITIES & ELEVATIONS

SHEET 2

462

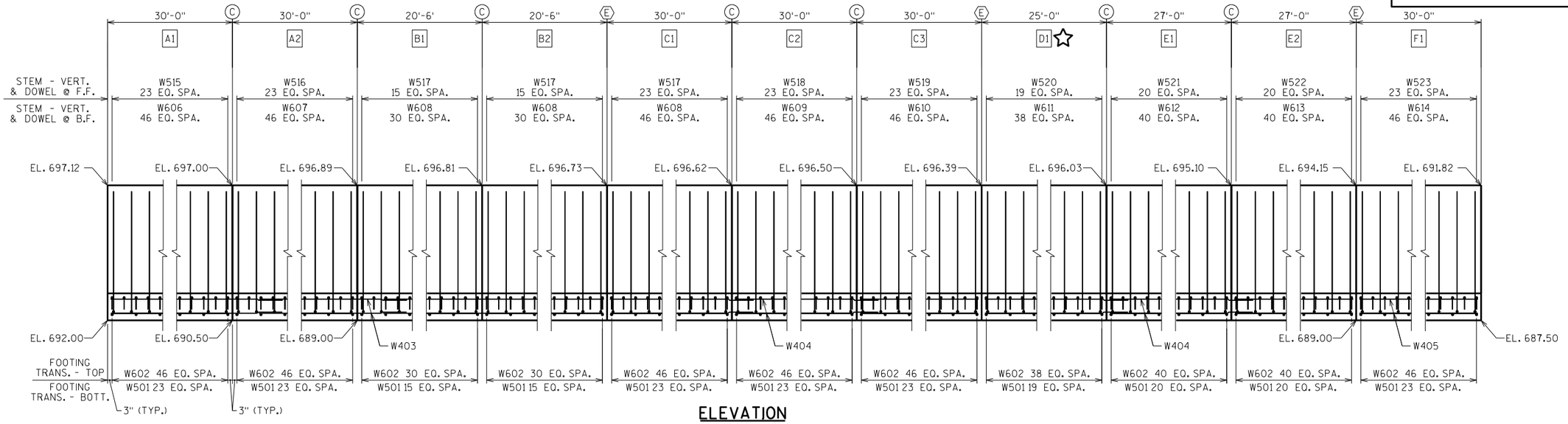
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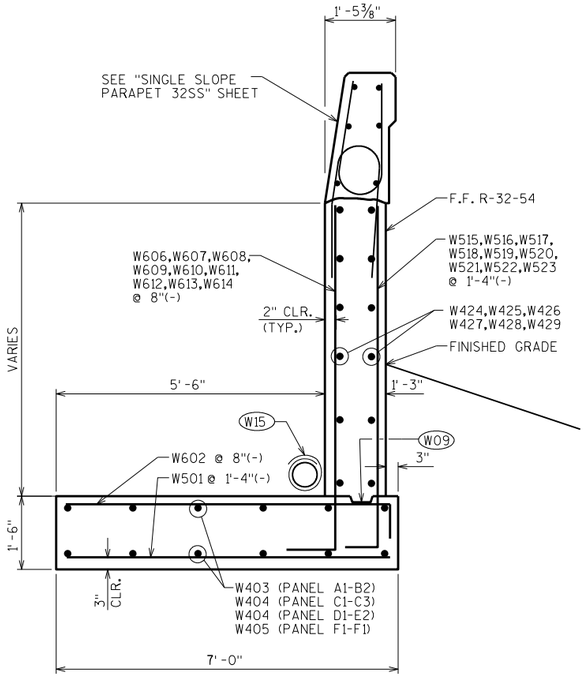
STATE PROJECT NUMBER

5120-07-71



ELEVATION

LOOKING NORTH AT F.F. OF WALL



PANEL SECTION

BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH DIM. "A"
W606	1 SERIES OF 47	4'-8" TO 6'-0"
W607	1 SERIES OF 47	6'-0" TO 7'-4"
W611	1 SERIES OF 39	6'-6" TO 6'-11"
W612	1 SERIES OF 41	5'-7" TO 6'-6"
W613	1 SERIES OF 41	4'-8" TO 5'-7"
W614	1 SERIES OF 47	3'-10" TO 4'-8"
W515	1 SERIES OF 24	4'-8" TO 6'-0"
W516	1 SERIES OF 24	6'-0" TO 7'-4"
W520	1 SERIES OF 20	6'-6" TO 6'-11"
W521	1 SERIES OF 21	5'-7" TO 6'-6"
W522	1 SERIES OF 21	4'-8" TO 5'-7"
W523	1 SERIES OF 24	3'-10" TO 4'-8"

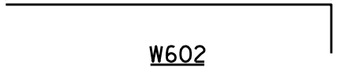
BUNDLE AND TAG EACH SERIES SEPARATELY.
DIM. "A" REFERS TO THE VERTICAL LEG OF BAR BEND. SEE W608 AND W517 BAR BEND DETAIL.

- ■ DISPLACE, FIELD CUT OR FIELD BEND AS REQUIRED FOR FOOTING DETAIL @ EXIST. PIPE. SEE "WALL DETAILS" SHT. FOR DETAILS.
- (C) CONTRACTION JOINT
- (E) EXPANSION JOINT
- A1 PANEL TYPE DESIGNATION
- ☆ SEE WALL DETAILS SHEET FOR ADDITIONAL REINFORCEMENT @ EXIST. PIPE
- (W09) KEYED CONSTRUCTION JOINT-FORMED BY BEVELED 2 x 6 BETWEEN WALL STEM AND FOOTING.
- (W15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

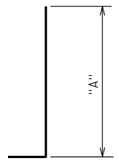
BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
W501		238	6'-8"			FOOTING - TRANS. - BOTT.
W602		465	7'-6"	X		FOOTING - TRANS. - TOP
W403		36	35'-0"			FOOTING - LONG - TOP & BOTT. - PANEL A1-B2
■ W404		72	31'-6"			FOOTING - LONG - TOP & BOTT. - PANEL C1-C3,D1-E2
W405		12	29'-8"			FOOTING - LONG - TOP & BOTT. - PANEL F1-F1
W606	X	47	6'-2"	X	⚠	FOOTING DOWEL/VERT. - B.F. - PANEL A1
W607	X	47	7'-6"	X	⚠	FOOTING DOWEL/VERT. - B.F. - PANEL A2
W608	X	109	8'-0"	X		FOOTING DOWEL/VERT. - B.F. - PANEL B1,B2,C1
W609	X	47	7'-11"	X		FOOTING DOWEL/VERT. - B.F. - PANEL C2
W610	X	47	7'-10"	X		FOOTING DOWEL/VERT. - B.F. - PANEL C3
■ W611	X	39	7'-7"	X	⚠	FOOTING DOWEL/VERT. - B.F. - PANEL D1
W612	X	41	6'-11"	X	⚠	FOOTING DOWEL/VERT. - B.F. - PANEL E1
W613	X	41	6'-0"	X	⚠	FOOTING DOWEL/VERT. - B.F. - PANEL E2
W614	X	47	5'-1"	X	⚠	FOOTING DOWEL/VERT. - B.F. - PANEL F1
W515	X	24	6'-1"	X	⚠	FOOTING DOWEL/VERT. - F.F. - PANEL A1
W516	X	24	7'-5"	X	⚠	FOOTING DOWEL/VERT. - F.F. - PANEL A2
W517	X	56	7'-11"	X		FOOTING DOWEL/VERT. - F.F. - PANEL B1,B2,C1
W518	X	24	7'-10"	X		FOOTING DOWEL/VERT. - F.F. - PANEL C2
W519	X	24	7'-9"	X		FOOTING DOWEL/VERT. - F.F. - PANEL C3
■ W520	X	20	7'-5"	X	⚠	FOOTING DOWEL/VERT. - F.F. - PANEL D1
W521	X	21	6'-9"	X	⚠	FOOTING DOWEL/VERT. - F.F. - PANEL E1
W522	X	21	5'-10"	X	⚠	FOOTING DOWEL/VERT. - F.F. - PANEL E2
W523	X	24	5'-0"	X	⚠	FOOTING DOWEL/VERT. - F.F. - PANEL F1
W424	X	24	29'-8"			STEM - HORIZ. - F.F. & B.F. PANEL A
W425	X	24	20'-2"			STEM - HORIZ. - F.F. & B.F. PANEL B
W426	X	36	29'-8"			STEM - HORIZ. - F.F. & B.F. PANEL C
■ W427	X	12	24'-8"			STEM - HORIZ. - F.F. & B.F. PANEL D
W428	X	24	26'-8"			STEM - HORIZ. - F.F. & B.F. PANEL E
W429	X	12	29'-8"			STEM - HORIZ. - F.F. & B.F. PANEL F
W530		12	7'-8"	X		FOOTING - VERT. - PANEL D
W531		24	5'-6"			FOOTING - LONG. - PANEL D
W532		32	8'-0"			FOOTING - TRANS. - PANEL D

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

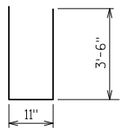


W602



BAR MARK	DIM. "A"
W608	7'-2"
W609	7'-1"
W610	7'-0"
W517	7'-2"
W518	7'-1"
W519	7'-0"

W608,W609,W610, W517,W518,W519



W530

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-32-54

DRAWN BY JDL | PLANS CK'D. ARC

WALL ELEVATION & SECTION

SHEET 3

463

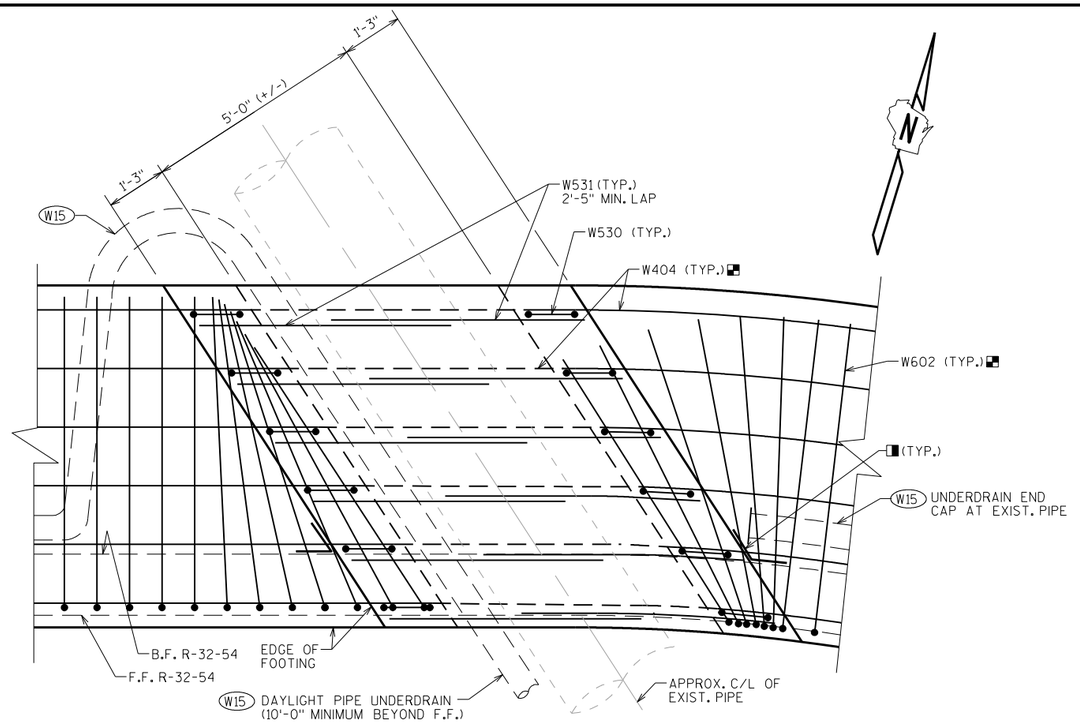
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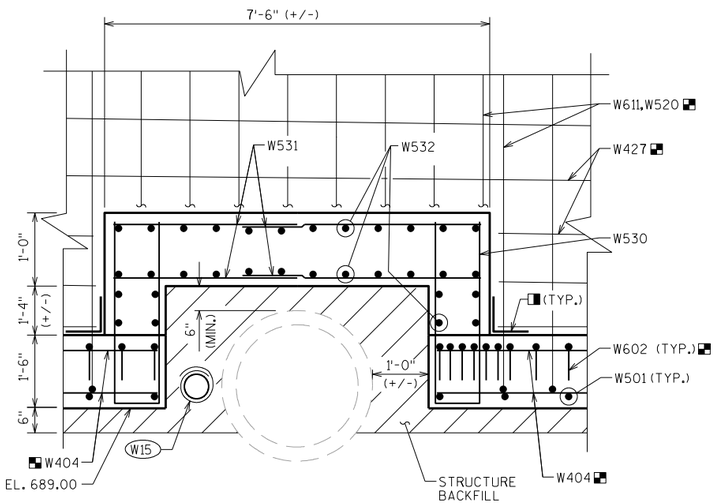
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STATE PROJECT NUMBER

5120-07-71



PART. FOOTING PLAN @ EXG. PIPE

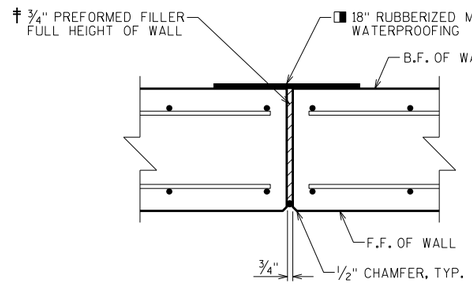


FOOTING ELEVATION @ EXIST. PIPE

LOOKING AT F.F. OF WALL ALONG ℄ OF EXIST. PIPE

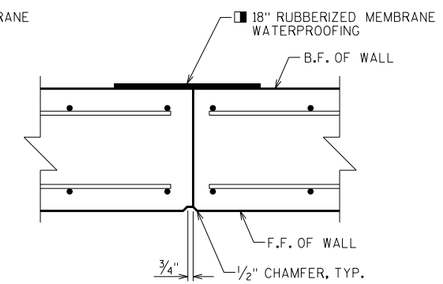
■ DISPLACE, FIELD CUT OR FIELD BEND AS REQUIRED FOR FOOTING ELEVATION @ EXIST. PIPE.

(W15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.



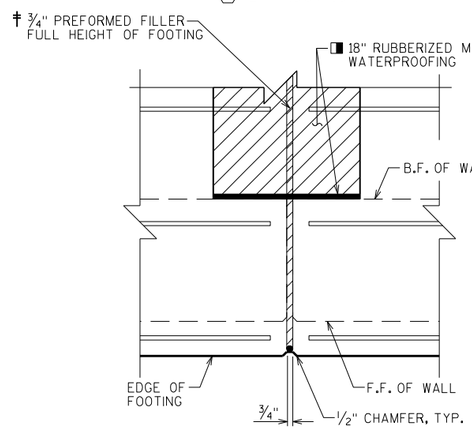
PARAPET & WALL STEM EXPANSION JOINT

(E) EXPANSION JOINT



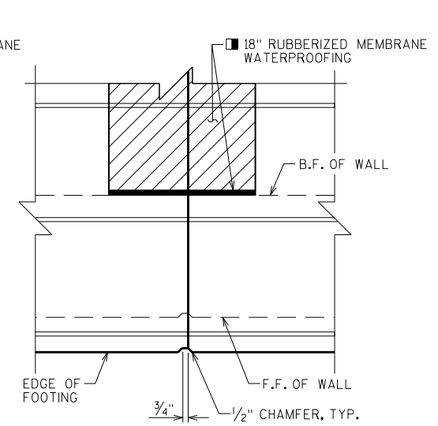
PARAPET AND WALL STEM CONTRACTION JOINT

(C) CONTRACTION JOINT



WALL FOOTING EXPANSION JOINT

(E) EXPANSION JOINT

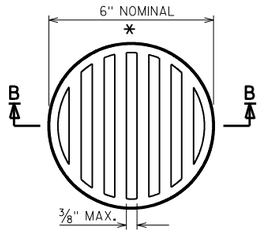


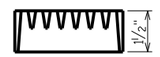
WALL FOOTING CONTRACTION JOINT

(C) CONTRACTION JOINT

■ 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT WALL BACKFACE.

‡ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)





SECTION B-B

RODENT SCREEN DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT 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 SHEET METAL SCREWS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-32-54

DRAWN BY JDL | PLANS CK'D. ARC

WALL DETAILS

SHEET 4

464

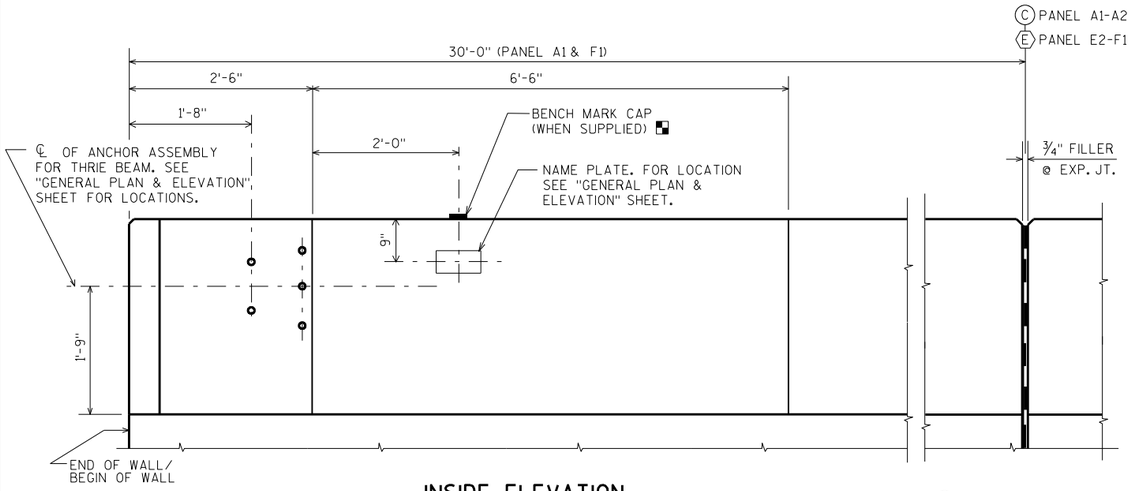
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8

8

STATE PROJECT NUMBER

5120-07-71

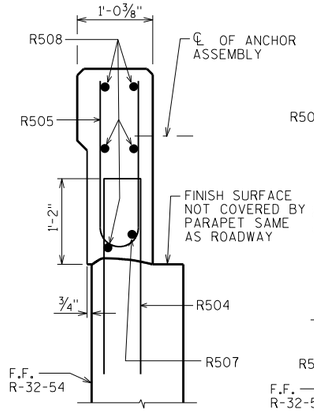


INSIDE ELEVATION

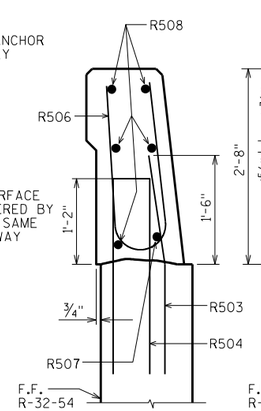
Ⓒ CONTRACTION JOINT

Ⓔ EXPANSION JOINT

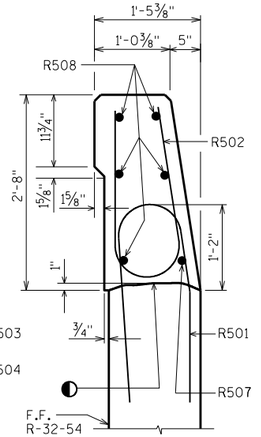
AVOID PLACING A BENCH MARK CAP BELOW A RAIL OR FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.



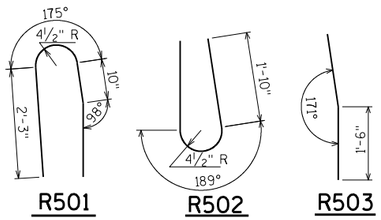
SECTION A

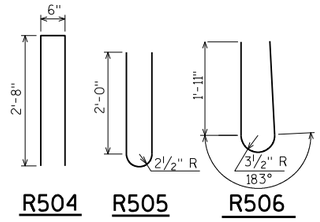


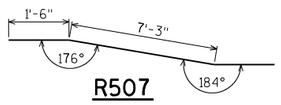
SECTION B



SECTION C

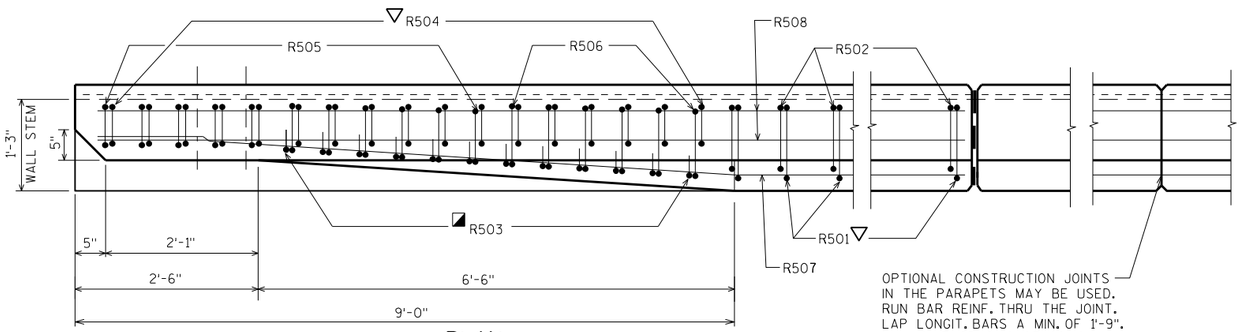






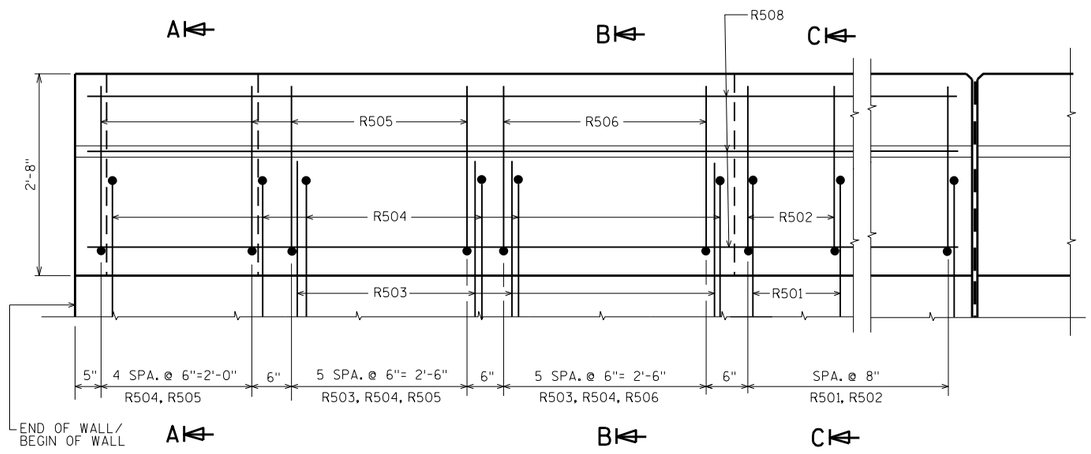
BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
R501	X	432	5'-10"	X	PARAPET - VERT.
R502	X	432	5'-0"	X	PARAPET - VERT.
R503	X	24	3'-0"	X	PARAPET - VERT. - PANEL A1,F1
R504	X	34	5'-7"	X	PARAPET - VERT. - PANEL A1,F1
R505	X	22	4'-9"	X	PARAPET - VERT. - PANEL A1,F1
R506	X	12	4'-10"	X	PARAPET - VERT. - PANEL A1,F1
R507	X	2	29'-8"	X	PARAPET - HORIZ. - PANEL A1,F1
R508	X	16	29"-8"		PARAPET - HORIZ. - PANEL A1,A2,F1
R509	X	12	20'-2"		PARAPET - HORIZ. - PANEL B1,B2
R510	X	18	29'-8"		PARAPET - HORIZ. - PANEL C1,C2,C3
R511	X	6	24'-10"		PARAPET - HORIZ. - PANEL D1
R512	X	12	26'-10"		PARAPET - HORIZ. - PANEL E1,E2

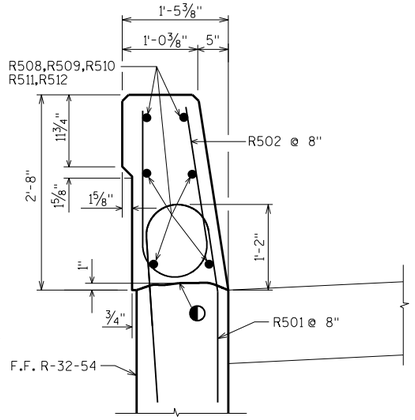


PLAN

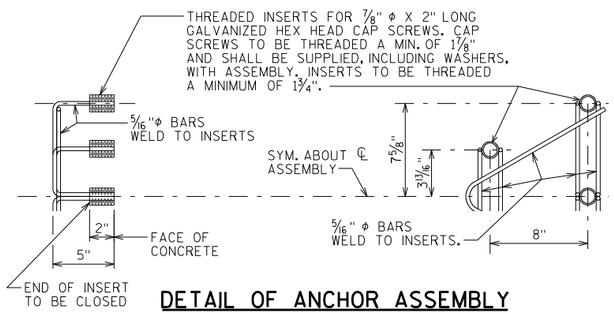
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



OUTSIDE ELEVATION



SECTION THRU PARAPET ON WALL



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◪ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-32-54

DRAWN BY JDL | PLANS CK'D. ARC

SINGLE SLOPE PARAPET 32SS

SHEET 5

465

SCALE = 1

8 12 6 1 2 3 4

STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	ROCK EXCAVATION SF	ROCK EXCAVATION CY	ADJ. CY	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
132+50.00		65	0	0							
	50.00				0	0	126	0	126	0	125
133+00.00		71	0	0							
	50.00				0	0	155	0	281	0	281
133+50.00		97	0	0							
	50.00				0	0	155	0	435	0	435
134+00.00		70	0	0							
	50.00				0	0	130	0	565	0	564
134+50.00		70	0	0							
	50.00				0	0	129	1	693	1	692
135+00.00		69	1	0							
	50.00				0	0	124	3	817	4	813
135+50.00		64	2	0							
	50.00				0	0	122	4	939	8	931
136+00.00		67	1	0							
	50.00				0	0	128	3	1067	11	1057
136+50.00		71	1	0							
	50.00				0	0	132	2	1199	13	1186
137+00.00		71	1	0							
	50.00				0	0	132	2	1331	15	1316
137+50.00		72	0	0							
	50.00				0	0	141	1	1472	16	1456
138+00.00		81	1	0							
	30.74				0	0	93	1	1566	17	1549
138+30.74		84	0	0							
	19.26				0	0	83	1	1648	17	1631
138+50.00		149	1	0							
	17.28				0	0	139	1	1788	18	1770
138+67.28		287	1	0							
	32.72				0	0	281	1	2069	19	2049
139+00.00		177	1	0							
	50.00				0	0	246	2	2315	22	2293
139+50.00		89	1	0							
	50.00				0	0	169	1	2484	22	2462
140+00.00		94	0	0							
	50.00				0	0	175	0	2659	23	2636
140+50.00		94	0	0							
	50.00				0	0	174	0	2833	23	2810
141+00.00		94	0	0							
	50.00				0	0	171	0	3004	23	2981
141+50.00		91	0	0							
	50.00				0	0	168	0	3172	23	3149
142+00.00		91	0	0							
	50.00				0	0	164	0	3336	23	3313
142+50.00		86	0	0							
	50.00				0	0	156	0	3492	24	3468
143+00.00		82	0	0							
	50.00				0	0	149	0	3640	24	3616
143+50.00		79	0	0							
	50.00				0	0	147	0	3787	24	3763
144+00.00		80	0	0							
	50.00				0	0	151	0	3938	24	3914
144+50.00		83	0	0							
	50.00				0	0	155	0	4092	24	4068
145+00.00		84	0	0							
	50.00				0	0	156	0	4248	24	4224
145+50.00		84	0	0							
	50.00				0	0	152	0	4400	24	4376
146+00.00		80	0	0							
	47.72				0	0	145	0	4545	24	4521
146+47.72		84	0	0							
	2.28				0	0	7	0	4552	24	4528
146+50.00		88	0	0							
	25.00				0	0	83	0	4635	24	4611
146+75.00		92	0	0							
	25.00				0	0	85	0	4720	24	4696
147+00.00		91	0	0							
	25.00				0	0	85	0	4805	24	4781
147+25.00		92	0	0							
	21.54				0	0	76	0	4881	24	4857
147+46.54		97	0	0							
	3.46				0	0	12	0	4893	24	4869
147+50.00		97	0	0							
	25.00				0	0	92	0	4985	24	4961
147+75.00		100	0	0							
	25.00				0	0	94	0	5079	24	5054
148+00.00		102	0	0							
	25.00				0	0	98	0	5177	24	5153
148+25.00		110	0	0							
	21.54				0	0	89	0	5266	24	5241
148+46.54		112	0	0							
	3.46				0	0	15	0	5280	24	5256
148+50.00		118	0	0							
	50.00				0	0	233	0	5513	24	5489
149+00.00		134	0	0							
	50.00				0	0	226	0	5739	24	5715
149+50.00		110	0	0							
	50.00				0	0	260	0	5999	24	5975
150+00.00		171	0	0							
	8.00				0	0	50	0	6049	24	6025
150+08.00		166	0	0							
	42.00				0	0	247	0	6296	25	6272
150+50.00		152	0	0							
	30.00				0	0	166	0	6463	25	6438
150+80.00		147	0	0							
	20.00				0	0	109	1	6571	26	6546
151+00.00		146	2	0							
	50.00				0	0	268	3	6839	28	6811
151+50.00		144	1	0							
	50.00				0	0	267	4	7107	32	7074
152+00.00		145	3	0							
	50.00				0	0	269	3	7376	36	7340
152+50.00		146	0	0							
	10.00				0	0	54	0	7430	36	7394
152+60.00		144	0	0							
	40.00				0	0	212	3	7642	38	7603
153+00.00		142	3	0							
	47.00				0	0	244	5	7886	43	7843
153+47.00		139	1	0							
	3.00				0	0	15	0	7901	43	7858
153+50.00		138	2	0							
	37.00				0	0	188	2	8089	45	8045
153+87.00		136	0	0							
	13.00				0	0	66	0	8155	45	8110
154+00.00		137	1	0							
	50.00				0	0	262	4	8417	49	8369
154+50.00		147	2	0							
	50.00				0	0	284	2	8701	51	8650
155+00.00		160	0	0							
	50.00				0	0	303	0	9004	51	8953
155+50.00		167	0	0							
	50.00				0	0	305	0	9309	51	9258
156+00.00		162	0	0							
	50.00				0	0	291	6	9600	57	9543
156+50.00		152	5	0							
	50.00				0	0	298	9	9898	66	9832
157+00.00		170	3	0							
	50.00				0	0	388	3	10286	69	10217
157+50.00		249	0	0							
	50.00				0	0	485	0	10771	69	10702
158+00.00		274	0	0							
	50.00				0	0	428	2	11199	71	11128
158+50.00		189	2	0							
	50.00				0	0	343	2	11542	73	11469
159+00.00		182	0	0							
	31.00				0	0	209	0	11751	73	11678
159+31.00		182	0	0							
	19.00				0	0	128	1	11880	74	11805
159+50.00		183	2	0							
	17.64				0	0	121	5	12001	79	11922
159+67.64		188	9	0							
	32.36				0	0	218	38	12219	117	12102
160+00.00		177	40	0							
	50.00				0	0	323	124	12542	241	12301
160+50.00		172	62	0							
	42.00				0	0	305	111	12847	352	12494
160+92.00		220	48	0							
	8.00				0	0	61	30	12908	382	12526
161+00.00		192	106	0							
	5.00				0	0	36	28	12944	410	12534
161+05.00		202	131	0							
	4.00				0	0	33	27	12977	437	12540
161+09.00		242	149	0							
	16.00				0	0	127	66	13104	503	12601
161+25.00		186	22	0							
	25.00				0	0	165	13	13269	516	12753
161+50.00		171	0	0							
	10.00				0	0	62	0	13332	516	12816
161+60.00		166	0	0							
	40.00				0	0	243	0	13575	516	13058
162+00.00		162	0	0							
	50.00				0	0	296	0	13871	516	13354
162+50.00		158	0	0							
	13.00				0	0	75	0	13946	516	13429

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PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : $$....plotscale....$$
WISDOT/CADDS SHEET 49

CONTINUED FROM PREVIOUS PAGE

STATION	DISTANCE	AREA (SF)		ROCK EXCAVATION		ADJ.	INCREMENTAL VOL (CY)		CUMULATIVE VOL (CY)		MASS HAUL
	FEET	COMMON	FILL	SF	CY	CY	COMMON	FILL *	COMMON	FILL	
162+63.00		155	0	0							
	37.00				0	0	207	0	14153	517	13636
163+00.00		146	0	0							
	50.00				0	0	268	0	14421	517	13904
163+50.00		143	0	0							
	50.00				0	0	273	0	14694	517	14177
164+00.00		152	0	0							
	10.00				0	0	56	0	14750	517	14233
164+10.00		149	0	0							
	40.00				0	0	231	0	14980	517	14463
164+50.00		162	0	0							
	9.00				0	0	54	0	15035	517	14518
164+59.00		164	0	0							
	41.00				0	0	255	0	15290	517	14773
165+00.00		172	0	0							
	29.00				0	0	184	0	15473	517	14956
165+29.00		170	0	0							
	21.00				0	0	131	0	15605	517	15088
165+50.00		168	0	0							
	12.00				0	0	75	0	15680	517	15163
165+62.00		170	0	0							
	38.00				0	0	234	0	15913	517	15396
166+00.00		162	0	0							
	50.00				0	0	293	0	16207	517	15690
166+50.00		155	0	0							
	17.00				0	0	97	0	16304	517	15787
166+67.00		154	0	0							
	33.00				0	0	186	0	16490	517	15973
167+00.00		150	0	0							
	42.00				0	0	231	9	16720	526	16194
167+42.00		146	9	0							
	8.00				0	0	44	3	16764	529	16235
167+50.00		149	5	0							
	50.00				0	0	277	88	17041	617	16424
168+00.00		151	69	0							
	40.00				0	0	219	112	17260	730	16530
168+40.00		144	48	0							
	10.00				0	0	53	21	17313	751	16562
168+50.00		143	41	0							
	50.00				0	0	254	76	17568	827	16740
169+00.00		131	23	0							
	50.00				0	0	244	62	17811	890	16922
169+50.00		132	29	0							
	50.00				0	0	249	67	18060	957	17104
170+00.00		137	27	0							
	41.00				0	0	207	58	18267	1014	17253
170+41.00		135	31	0							
	9.00				0	0	45	13	18312	1027	17285
170+50.00		134	27	0							
	17.00				0	0	82	11	18394	1038	17356
170+67.00		126	0	0							
	33.00				0	0	158	0	18552	1038	17514
171+00.00		133	0	0							
	8.00				0	0	40	0	18592	1038	17554
171+08.00		136	0	0							
	42.00				0	0	217	0	18809	1038	17771
171+50.00		142	0	0							
	50.00				0	0	278	0	19087	1038	18049
172+00.00		158	0	0							
	50.00				0	0	302	0	19389	1038	18351
172+50.00		168	0	0							
	5.00				0	0	31	0	19420	1038	18382
172+55.00		168	0	0							
	45.00				0	0	276	0	19697	1038	18658
173+00.00		164	0	0							
	50.00				0	0	302	0	19999	1038	18960
173+50.00		162	0	0							
	16.00				0	0	96	0	20095	1038	19057
173+66.00		162	0	0							
	34.00				0	0	204	0	20299	1038	19260
174+00.00		161	0	0							
	50.00				0	0	293	0	20592	1038	19553
174+50.00		155	0	0							
	50.00				0	0	284	0	20876	1038	19837
175+00.00		152	0	0							
	6.00				0	0	34	0	20909	1038	19871
175+06.00		152	0	0							
	44.00				0	0	251	0	21160	1038	20122
175+50.00		155	0	0							
	50.00				0	0	291	0	21451	1038	20413
176+00.00		159	0	0							
	50.00				0	0	290	0	21741	1038	20703
176+50.00		154	0	0							
	5.00				0	0	29	0	21770	1038	20731
176+55.00		156	0	0							
	32.00				0	0	184	0	21953	1038	20915
176+87.00		154	0	0							
	13.00				0	0	74	0	22028	1038	20989
177+00.00		154	0	0							
	50.00				0	0	280	0	22308	1038	21270
177+50.00		149	0	0							
	23.00				0	0	124	0	22432	1038	21394
177+73.00		143	0	0							
	27.00				0	0	143	0	22576	1038	21537
178+00.00		144	0	0							
	50.00				0	0	265	0	22841	1038	21802
178+50.00		142	0	0							
	13.00				0	0	69	3	22910	1041	21868
178+63.00		143	9	0							
	37.00				0	0	196	9	23105	1050	22055
179+00.00		142	1	0							
	1.00				0	0	5	0	23111	1050	22060
179+01.00		142	1	0							
	11.00				0	0	58	0	23169	1051	22118
179+12.00		143	0	0							
	11.00				0	0	59	0	23228	1051	22177
179+23.00		148	0	0							
	27.00				0	0	148	0	23376	1051	22326
179+50.00		149	0	0							
	50.00				0	0	278	0	23654	1051	22603
180+00.00		150	0	0							
	32.00				0	0	177	0	23831	1051	22780
180+32.00		148	0	0							
	10.00				0	0	55	0	23886	1051	22836
180+42.00		151	0	0							
	8.00				0	0	44	0	23930	1051	22880
180+50.00		147	0	0							
	2.00				0	0	11	0	23941	1051	22890
180+52.00		148	4	0							
	6.00				0	0	34	1	23975	1051	22924
180+58.00		156	0	0							
	42.00				0	0	246	0	24221	1051	23170
181+00.00		160	0	0							
	50.00				0	0	294	0	24515	1051	23464
181+50.00		158	0	0							
	11.00				0	0	64	0	24579	1051	23527
181+61.00		155	0	0							
	39.00				0	0	216	0	24794	1051	23743
182+00.00		143	0	0							
	50.00				0	0	273	11	25067	1062	24005
182+50.00		151	9	0							
	23.00				0	0	132	6	25200	1068	24131
182+73.00		160	2	0							
	27.00				0	0	154	6	25354	1074	24280
183+00.00		149	7	0							
	50.00				0	0	262	9	25616	1083	24533
183+50.00		135	0	0							
	18.00				0	0	88	0	25704	1083	24621
183+68.00		129	0	0							
	32.00				0	0	155	0	25859	1083	24776
184+00.00		133	0	0							
	50.00				0	0	250	0	26109	1083	25026
184+50.00		137	0	0							
	50.00				0	0	250	0	26359	1084	25275
185+00.00		133	0	0							
	50.00				0	0	252	0	26611	1084	25527
185+50.00		139	0	0							
	50.00				0	0	259	26	26870	1110	25759
186+00.00		140	22	0							
	50.00				0	0	256	33	27125	1144	25982
186+50.00		136	6	0							
	50.00				0	0	253	15	27379	1158	26220
187+00.00		138	6	0							
	50.00				0	0	258	23	27637	1181	26456
187+50.00		141	13	0							
	50.00				0	0	262	28	27899	1209	26689
188+00.00		142	11	0							
	50.00				0	0	260	15	28159	1224	26934
188+50.00		139	2	0							
	50.00				0	0	263	4	28421	1229	27193
189+00.00		145	1	0							
	50.00				0	0	271	10	28693	1239	27454

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PLOT DATE : 7/15/2013
PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : $$....plotscale....$$
WISDOT/CADDS SHEET 49

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STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	ROCK EXCAVATION SF	ROCK EXCAVATION CY	ADJ. CY	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
189+50.00		149	7	0							
	50.00				0	0	277	11	28970	1249	27720
190+00.00		150	2	0							
	50.00				0	0	279	10	29248	1259	27989
190+50.00		151	6	0							
	50.00				0	0	274	11	29523	1270	28252
191+00.00		146	4	0							
	30.77				0	0	166	9	29688	1280	28409
191+30.77		145	9	0							
	19.23				0	0	102	7	29791	1287	28504
191+50.00		143	7	0							
	50.00				0	0	266	19	30057	1306	28751
192+00.00		145	8	0							
	50.00				0	0	269	22	30326	1328	28998
192+50.00		146	10	0							
	50.00				0	0	266	21	30592	1348	29243
193+00.00		142	7	0							
	31.00				0	0	166	6	30757	1355	29403
193+31.00		147	2	0							
	19.00				0	0	102	1	30860	1356	29504
193+50.00		144	0	0							
	45.00				0	0	232	1	31092	1357	29735
193+95.00		135	1	0							
	5.00				0	0	25	0	31117	1357	29760
194+00.00		136	1	0							
	19.00				0	0	96	0	31212	1357	29855
194+19.00		136	0	0							
	21.12				0	0	111	0	31228	1357	29966
194+40.12		147	0	0							
	9.88				0	0	54	0	31282	1357	30020
194+50.00		148	1	0							
	50.00				0	0	264	1	31546	1358	30283
195+00.00		137	0	0							
	50.00				0	0	253	1	31799	1359	30535
195+50.00		136	0	0							
	50.00				0	0	250	0	32049	1359	30785
196+00.00		134	0	0							
	50.00				0	0	245	1	32294	1360	31029
196+50.00		130	0	0							
	50.00				0	0	244	0	32538	1360	31273
197+00.00		133	0	0							
	44.00				0	0	224	0	32762	1360	31497
197+44.00		142	0	0							
	6.00				0	0	31	0	32793	1360	31528
197+50.00		139	0	0							
	50.00				0	0	258	0	33051	1360	31786
198+00.00		140	0	0							
	50.00				0	0	260	0	33311	1360	32045
198+50.00		141	0	0							
	8.00				0	0	42	0	33352	1360	32087
198+58.00		141	0	0							
	42.00				0	0	216	0	33568	1360	32303
199+00.00		137	0	0							
	50.00				0	0	251	0	33819	1360	32554
199+50.00		134	0	0							
	50.00				0	0	250	0	34069	1360	32804
200+00.00		136	0	0							
	50.00				0	0	253	0	34322	1360	33057
200+50.00		137	0	0							
	43.00				0	0	224	0	34546	1361	33281
200+93.00		144	0	0							
	7.00				0	0	37	0	34583	1361	33318
201+00.00		144	0	0							
	39.00				0	0	205	0	34788	1361	33523
201+39.00		140	0	0							
	11.00				0	0	57	0	34846	1361	33580
201+50.00		141	0	0							
	50.00				0	0	257	0	35102	1361	33837
202+00.00		137	0	0							
	29.00				0	0	149	0	35251	1361	33985
202+29.00		140	0	0							
	21.00				0	0	108	0	35359	1361	34093
202+50.00		138	0	0							
	50.00				0	0	257	0	35616	1361	34350
203+00.00		139	0	0							
	15.00				0	0	78	0	35694	1361	34428
203+15.00		141	0	0							
	35.00				0	0	184	0	35877	1361	34611
203+50.00		142	0	0							
	50.00				0	0	264	0	36141	1362	34874
204+00.00		143	0	0							
	34.00				0	0	183	0	36324	1362	35057
204+34.00		148	0	0							
	16.00				0	0	86	0	36410	1362	35144
204+50.00		143	0	0							
	50.00				0	0	265	0	36675	1362	35408
205+00.00		142	0	0							
	17.00				0	0	90	0	36765	1362	35499
205+17.00		144	0	0							
	33.00				0	0	176	0	36941	1362	35674
205+50.00		143	0	0							
	50.00				0	0	266	0	37206	1362	35940
206+00.00		144	0	0							
	50.00				0	0	278	4	37484	1366	36213
206+50.00		156	4	0							
	13.00				0	0	77	3	37561	1369	36287
206+63.00		162	7	0							
	37.00				0	0	218	10	37779	1379	36495
207+00.00		157	4	0							
	41.00				0	0	243	76	38022	1455	36662
207+41.00		163	73	0							
	9.00				0	0	54	31	38076	1486	36685
207+50.00		164	73	0							
	5.00				0	0	30	22	38106	1508	36693
207+55.00		159	110	0							
	20.00				0	0	119	61	38226	1570	36751
207+75.00		163	18	0							
	25.00				0	0	150	18	38376	1588	36883
208+00.00		161	12	0							
	50.00				0	0	220	34	38596	1621	37070
208+50.00		77	15	0							
	44.42				0	0	122	35	38718	1657	37157
208+94.42		71	17	0							
	5.58				0	0	15	5	38733	1662	37166
209+00.00		74	22	0							
	50.00				0	0	165	26	38898	1688	37306
209+50.00		105	0	0							
	4.00				0	0	16	0	38914	1688	37321
209+54.00		107	0	0							
	46.00				0	0	180	0	39094	1688	37502
210+00.00		104	0	0							
	21.40				0	0	79	0	39173	1688	37580
210+21.40		94	1	0							
	28.60				0	0	97	9	39270	1697	37668
210+50.00		88	12	0							
	28.00				0	0	90	14	39360	1711	37743
210+78.00		86	9	0							
	22.00				0	0	69	5	39429	1716	37808
211+00.00		83	0	0							
	15.96				0	0	50	0	39479	1716	37858
211+15.96		86	0	0							
	34.04				0	0	102	0	39581	1716	37960
211+50.00		76	0	0							
	50.00				0	0	138	0	39719	1716	38097
212+00.00		72	0	0							
	50.00				0	0	128	0	39847	1716	38226
212+50.00		66	0	0							
	50.00				0	0	127	112	39974	1828	38241
213+00.00		71	93	0							
	5.00				0	0	14	21	39988	1849	38235
213+05.00		82	81	0							
	7.00				0	0	19	45	40008	1894	38209
213+12.00		68	185	0							
	3.00				0	0	8	27	40016	1921	38190
213+15.00		77	193	0							
	5.00				0	0	13	45	40029	1966	38159
213+20.00		66	179	0							
	22.00				0	0	53	239	40082	2204	37973
213+42.00		63	272	0							
	8.00				0	0	19	80	40101	2285	37911
213+50.00		66	145	0							
	50.00				0	0	110	210	40211	2494	37812
214+00.00		53	29	0							
	50.00				0	0	96	89	40307	2583	37820
214+50.00		51	44	0							
	22.18				0	0	42	35	40350	2618	37827
214+72.18		51	21	0							
	12.82				0	0	24	14	40374	2632	37837
214+85.00		50	23	0							
	15.00				0	0	28	17	40402	2649	37848
215+00.00		50	23	0							
	50.00				0	0	89	45	40490	2694	37891

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STH 33

STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	ROCK EXCAVATION SF	ROCK EXCAVATION CY	ADJ. CY	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
215+50.00		46	14	0							
	50.00				0	0	93	27	40583	2721	37958
216+00.00		54	8	0							
	50.00				0	0	102	13	40685	2734	38046
216+50.00		55	3	0							
	13.00				0	0	27	1	40712	2735	38073
216+63.00		58	0	0							
	37.00				0	0	77	3	40789	2738	38146
217+00.00		54	3	0							
	8450				0	0	40,884	2,738			

* INCLUDES 1.3 EXPANSION FACTOR

DRIVE-IN ROAD

STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
10+75.00		201	0					
	25.00			194	0	194	0	194
11+00.00		219	0					
	50.00			428	0	623	0	623
11+50.00		244	0					
	50.00			443	0	1066	0	1066
12+00.00		235	0					
	50.00			428	0	1494	0	1494
12+50.00		227	0					
	50.00			427	0	1920	0	1920
13+00.00		234	0					
	50.00			414	0	2334	0	2334
13+50.00		213	0					
	50.00			369	0	2703	0	2703
14+00.00		186	0					
	50.00			312	0	3015	0	3015
14+50.00		151	0					
	50.00			238	0	3254	0	3254
15+00.00		106	0					
	50.00			165	0	3419	0	3419
15+50.00		72	0					
	32.00			51	0	3470	0	3470
15+82.00		14	0					
	18.00			8	0	3477	0	3477
16+00.00		9	0					
	25.00			12	0	3489	0	3489
16+25.00		16	0					
	25.00			10	2	3499	2	3497
16+50.00		5	3					
	10.00			2	1	3501	3	3498
16+60.00		6	2					
	15.00			4	1	3505	3	3501
16+75.00		7	0					
	25.00			3	0	3508	3	3505
17+00.00		0	0					
	625			3,508	3			

* INCLUDES 1.3 EXPANSION FACTOR

HIAWATHA DRIVE

STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
10+50.00		133	0					
	7.20			34	0	34	0	34
10+57.20		119	0					
	17.80			70	0	103	0	103
10+75.00		93	0					
	12.64			40	0	143	0	143
10+87.64		78	0					
	12.36			31	0	175	0	175
11+00.00		59	0					
	25.00			48	1	223	1	222
11+25.00		46	1					
	1.12			2	0	225	1	224
11+26.12		32	0					
	76			225	1			

* INCLUDES 1.3 EXPANSION FACTOR

HAGEN ROAD

STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
9+29.52		24	0					
	20.48			26	0	26	0	26
9+50.00		46	0					
	30.27			46	0	46	0	45
9+80.27		35	0					
	19.73			25	3	25	3	21
10+00.00		32	7					
	25.00			32	7	57	10	47
10+25.00		37	4					
	19.61			33	5	90	15	75
10+44.61		54	7					
	5.39			11	1	100	16	84
10+50.00		52	1					
	25.00			24	0	124	17	108
10+75.00		0	0					
	25.00			0	0	124	17	108
11+00.00		0	0					
	25.00			0	0	124	17	108
11+25.00		0	0					
	25.00			0	0	124	17	108
11+50.00		0	0					
	24.03			35	16	159	33	127
11+74.03		79	28					
	0.97			2	2	162	35	127
11+75.00		40	69					
	25.00			40	108	202	143	59
12+00.00		47	111					
	9.67			29	37	231	180	51
12+09.67		115	48					
	15.33			75	30	306	210	95
12+25.00		149	34					
	25.00			104	121	410	331	79
12+50.00		77	167					
	25.00			49	241	460	572	-112
12+75.00		30	233					
	25.00			19	302	479	874	-395
13+00.00		12	269					
	25.00			6	317	485	1191	-706
13+25.00		0	258					
	25.00			13	164	498	1355	-858
13+50.00		28	14					
	25.00			32	22	530	1377	-848
13+75.00		42	22					
	25.00			25	29	555	1407	-852
14+00.00		13	26					
	25.00			10	27	565	1434	-869
14+25.00		9	19					
	25.00			10	29	574	1463	-889
14+50.00		12	30					
	25.00			958	29	1532	1492	40
14+75.00		2057	19					
	25.00			964	15	2496	1508	989
15+00.00		26	6					
	25.00			28	5	2525	1512	1012
15+25.00		35	1					
	25.00			34	2	2559	1514	1045
15+50.00		39	1					
	13.29			19	2	2578	1516	1062
15+63.29		39	5					
	11.71			18	1	2596	1517	1079
15+75.00		45	0					
	645			2,668	1,517			

* INCLUDES 1.3 EXPANSION FACTOR

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SIDEWALK

STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
199+25.00		7	0					
	12.09			2	20	2	20	-18
199+37.09		0	68					
	6.91			0	48	0	48	-48
199+44.00		0	185					
	6.00			0	57	0	57	-57
199+50.00		0	222					
	25.00			0	258	0	307	-307
199+75.00		0	208					
	25.00			0	236	0	543	-543
200+00.00		0	185					
	25.00			0	201	0	744	-744
200+25.00		0	150					
	25.00			0	185	0	929	-929
200+50.00		0	158					
	25.00			0	191	0	1121	-1121
200+75.00		0	161					
	25.00			0	169	0	1289	-1289
201+00.00		0	119					
	25.00			0	125	0	1414	-1414
201+25.00		0	88					
	25.00			0	88	0	1503	-1502
201+50.00		0	58					
	25.00			0	56	1	1559	-1558
201+75.00		1	35					
	25.00			1	39	1	1598	-1597
202+00.00		1	29					
	25.00			0	32	2	1629	-1628
202+25.00		1	24					
	25.00			1	19	3	1649	-1646
202+50.00		2	9					
	25.00			2	5	5	1654	-1649
202+75.00		4	0					
	11.14			2	0	7	1654	-1647
202+86.14		7	0					
	361			9	1,731			

* INCLUDES 1.3 EXPANSION FACTOR

SOUTHDALE DRIVE

STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
10+50.00		112	3					
	19.72			75	9	75	9	66
10+69.72		93	16					
	5.28			18	4	93	13	80
10+75.00		91	14					
	15.00			51	5	143	18	126
10+90.00		92	0					
	0.01			0	0	0	0	126
10+90.01		84	0					
	9.99			31	0	31	0	157
11+00.00		82	0					
	25.00			70	0	101	0	226
11+25.00		69	0					
	25.00			58	0	158	0	284
11+50.00		56	0					
	50.00			92	0	92	0	376
12+00.00		44	0					
	150			394	18			

* INCLUDES 1.3 EXPANSION FACTOR

BOMA ROAD

STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
10+50.00		0	312					
	19.36			1	264	1	264	-263
10+69.36		2	254					
	0.01			0	0	1	264	-263
10+69.37		2	255					
	5.63			1	64	1	328	-326
10+75.00		4	218					
	13.82			3	122	4	450	-446
10+88.82		6	150					
	0.01			0	0	4	450	-446
10+88.83		6	152					
	11.17			4	86	8	536	-528
11+00.00		14	167					
	2.22			1	18	9	554	-544
11+02.22		11	166					
	22.78			52	202	61	755	-694
11+25.00		112	202					
	25.00			176	223	237	978	-741
11+50.00		269	169					
	25.00			232	170	469	1149	-679
11+75.00		233	114					
	25.00			167	92	636	1241	-605
12+00.00		127	40					
	25.00			90	30	726	1271	-545
12+25.00		68	11					
	25.00			62	10	788	1281	-493
12+50.00		66	5					
	14.04			33	5	821	1286	-465
12+64.04		63	10					
	10.96			28	6	849	1292	-442
12+75.00		76	12					
	25.00			41	16	891	1307	-417
13+00.00		13	14					
	25.00			20	26	911	1333	-423
13+25.00		30	29					
	25.00			24	34	935	1368	-433
13+50.00		23	28					
	300			935	1,368			

* INCLUDES 1.3 EXPANSION FACTOR

EAGLE POINT

STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
20+17.00		32	0					
	8.00			12	0	12	0	12
20+25.00		50	0					
	25.00			46	7	59	7	51
20+50.00		49	12					
	25.00			45	0	103	7	96
20+75.00		47	54					
	25.00			38	122	141	129	12
21+00.00		36	149					
	16.49			11	166	152	296	-144
21+16.49		0	271					
	99			152	296			

* INCLUDES 1.3 EXPANSION FACTOR

STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	ROCK EXCAVATION · SF	ROCK EXCAVATION · CY	ADJ. CY	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
217+00.00		54	3	0							
	50.00				0	0	101	9	101	9	92
217+50.00		56	4	0							
	50.00				0	0	106	9	207	18	189
218+00.00		59	3	0							
	50.00				0	0	115	47	322	65	257
218+50.00		65	36	0							
	50.00				0	0	123	108	445	173	272
219+00.00		68	54	0							
	12.88				0	0	31	35	476	208	268
219+12.88		63	59	0							
	37.12				0	0	89	73	565	281	284
219+50.00		66	22	0							
	50.00				0	0	118	178	683	459	224
220+00.00		61	126	0							
	50.00				0	0	131	158	814	616	197
220+50.00		80	5	0							
	50.00				0	0	150	14	964	630	334
221+00.00		82	6	0							
	50.00				0	0	347	57	1311	687	623
221+50.00		293	41	0							
	33.00				0	0	387	45	1698	732	966
221+83.00		341	15	0							
	17.00				0	0	158	8	1856	740	1116
222+00.00		162	5	0							
	50.00				0	0	188	20	2044	760	1284
222+50.00		41	12	0							
	50.00				0	0	63	27	2107	787	1320
223+00.00		27	11	0							
	50.00				0	0	38	27	2145	814	1332
223+50.00		14	12	0							
	50.00				0	0	15	33	2160	847	1314
224+00.00		2	16	0							
	50.00				0	0	4	47	2165	894	1270
224+50.00		2	24	0							
	50.00				0	0	8	65	2173	960	1213
225+00.00		7	31	0							
	50.00				0	0	13	49	2186	1009	1177
225+50.00		7	10	0							
	41.11				0	0	19	36	2205	1046	1159
225+91.11		17	26	0							
	8.89				0	0	6	10	2211	1056	1155
226+00.00		17	21	0							
	35.00				0	0	35	31	2246	1086	1160
226+35.00		37	15	0							
	15.00				0	0	22	11	2267	1097	1170
226+50.00		40	15	0							
	50.00				0	0	105	31	2372	1128	1244
227+00.00		73	11	0							
	50.00				0	0	149	18	2521	1146	1375
227+50.00		88	4	0							
	50.00				0	0	151	6	2672	1152	1520
228+00.00		75	2	0							
	28.22				0	0	76	2	2749	1155	1594
228+28.22		71	2	0							
	21.78				0	0	57	2	2806	1157	1649
228+50.00		71	3	0							
	50.00				0	0	130	5	2936	1163	1773
229+00.00		69	2	0							
	50.00				33	36	129	4	3065	1167	1898
229+50.00		71	2	36							
	50.00				33	36	145	3	3210	1170	2040
230+00.00		86	1	0							
	50.00				0	0	157	4	3367	1174	2193
230+50.00		84	2	0							
	50.00				0	0	158	5	3526	1180	2346
231+00.00		87	2	0							
	50.00				0	0	162	5	3687	1184	2503
231+50.00		87	2	0							
	50.00				0	0	164	2	3851	1186	2665
232+00.00		89	0	0							
	50.00				0	0	161	0	4012	1186	2826
232+50.00		85	0	0							
	50.00				0	0	159	0	4171	1186	2985
233+00.00		87	0	0							
	50.00				0	0	162	0	4333	1187	3146
233+50.00		88	0	0							
	50.00				0	0	157	1	4490	1187	3303
234+00.00		82	0	0							
	50.00				0	0	158	1	4648	1188	3461
234+50.00		88	0	0							
	50.00				0	0	161	1	4810	1188	3621
235+00.00		86	1	0							
	50.00				0	0	156	7	4965	1195	3770
235+50.00		82	5	0							
	50.00				0	0	146	27	5111	1222	3889
236+00.00		75	17	0							
	22.33				0	0	62	16	5173	1238	3935
236+22.33		75	12	0							
	27.67				0	0	78	10	5251	1248	4003
236+50.00		77	3	0							
	50.00				0	0	164	4	5415	1252	4163
237+00.00		100	0	0							
	12.29				0	0	46	0	5460	1252	4208
237+12.29		100	0	0							
	37.71				0	0	137	10	5597	1262	4335
237+50.00		95	11	0							
	25.00				0	0	87	7	5683	1269	4414
237+75.00		92	1	0							
	25.00				0	0	77	0	5761	1270	4491
238+00.00		75	0	0							
	50.00				0	0	135	1	5895	1270	4625
238+50.00		70	0	0							
	50.00				0	0	127	1	6023	1271	4752
239+00.00		68	0	0							
	50.00				0	0	124	0	6147	1271	4876
239+50.00		66	0	0							
	50.00				0	0	125	1	6272	1272	5000
240+00.00		69	0	0							
	50.00				0	0	139	1	6411	1272	5139
240+50.00		81	0	0							
	50.00				0	0	160	0	6571	1273	5299
241+00.00		92	0	0							
	50.00				0	0	156	0	6727	1273	5455
241+50.00		77	0	0							
	50.00				0	0	147	0	6874	1273	5601
242+00.00		82	0	0							
	26.02				0	0	74	0	6949	1273	5675
242+26.02		72	0	0							
	23.98				0	0	65	0	7014	1274	5740
242+50.00		75	0	0							
	25.09				0	0	70	1	7084	1275	5809
242+75.09		75	1	0							
	14.91				0	0	42	1	7126	1275	5851
242+90.00		76	0	0							
	10.00				0	0	28	0	7154	1275	5879
243+00.00		75	0	0							
	7.00				0	0	19	0	7173	1275	5897
243+07.00		70	0	0							
	43.00				0	0	116	2	7289	1277	6011
243+50.00		75	2	0							
	24.53				0	0	76	2	7364	1279	6085
243+74.53		92	1	0							
	24.46				0	0	77	1	7441	1280	6161
243+98.99		78	1	0							
	1.01				0	0	3	0	7444	1280	6164
244+00.00		76	1	0							
	50.00				0	0	137	1	7581	1282	6300
244+50.00		72	0	0							
	50.00				0	0	136	0	7718	1282	6436
245+00.00		75	0	0							
	50.00				0	0	139	1	7857	1283	6574
245+50.00		76	0	0							
	50.00				0	0	146	1	8003	1283	6720
246+00.00		82	0	0							
	50.00				0	0	152	1	8155	1284	6871
246+50.00		81	0	0							
	50.00				0	0	146	1	8300	1284	7016
247+00.00		76	0	0							
	2.25				0	0	7	0	8307	1284	7022
247+02.25		80	0	0							
	47.75				0	0	136	0	8443	1285	7158
247+50.00		73	0	0							
	50.00				0	0	138	1	8581	1286	7295
248+00.00		76	0	0							
	50.00				0	0	131	1	8712	1287	7425
248+50.00		66	0	0							
	50.00				0	0	132	1	8843	1288	7556
249+00.00		76	0	0							
	50.00				0	0	127	2	8971	1290	7680
249+50.00		61	2	0							
	50.00				0	0	118	3	9088	1293	7795

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PLOT DATE : 7/15/2013
PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : $$....plotscale....$$
WISDOT/CADDS SHEET 49

STH 33

STATION	DISTANCE	AREA (SF)		ROCK EXCAVATION		ADJ.	INCREMENTAL VOL (CY)		CUMULATIVE VOL (CY)		MASS HAUL
	FEET	COMMON	FILL	SF	CY	CY	COMMON	FILL *	COMMON	FILL	
	50.00				0	0	118	3	9088	1293	7795
250+00.00		66	1	0							
	50.00				0	0	120	1	9208	1294	7914
250+50.00		64	0	0							
	50.00				0	0	121	1	9329	1295	8034
251+00.00		66	0	0							
	4.49				0	0	11	0	9340	1295	8045
251+04.49		66	0	0							
	45.51				0	0	107	1	9448	1296	8152
251+50.00		62	0	0							
	50.00				0	0	116	1	9563	1296	8267
252+00.00		63	0	0							
	50.00				0	0	116	0	9679	1297	8382
252+50.00		62	0	0							
	50.00				0	0	118	0	9797	1297	8500
253+00.00		66	0	0							
	50.00				0	0	124	0	9921	1297	8624
253+50.00		68	0	0							
	50.00				0	0	129	0	10050	1297	8753
254+00.00		72	0	0							
	50.00				0	0	137	0	10187	1297	8890
254+50.00		76	0	0							
	50.00				0	0	143	0	10330	1297	9033
255+00.00		78	0	0							
	50.00				0	0	153	0	10483	1297	9186
255+50.00		87	0	0							
	50.00				0	0	151	0	10635	1297	9338
256+00.00		76	0	0							
	50.00				0	0	139	0	10773	1297	9476
256+50.00		74	0	0							
	50.00				0	0	140	0	10914	1297	9616
257+00.00		78	0	0							
	50.00				0	0	142	0	11056	1298	9758
257+50.00		76	0	0							
	50.00				0	0	134	1	11190	1298	9892
258+00.00		69	0	0							
	50.00				0	0	127	1	11317	1299	10018
258+50.00		68	0	0							
	50.00				0	0	134	1	11451	1299	10152
259+00.00		77	0	0							
	50.00				0	0	128	0	11580	1300	10280
259+50.00		62	0	0							
	13.20				0	0	30	0	11610	1300	10311
259+63.20		63	0	0							
	36.80				0	0	89	0	11699	1300	10399
260+00.00		67	0	0							
	50.00				0	0	128	0	11827	1301	10527
260+50.00		71	0	0							
	50.00				0	0	141	0	11968	1301	10668
261+00.00		81	0	0							
	50.00				0	0	165	0	12133	1301	10833
261+50.00		97	0	0							
	50.00				0	0	172	0	12305	1301	11005
262+00.00		88	0	0							
	50.00				0	0	167	0	12472	1301	11171
262+50.00		92	0	0							
	50.00				0	0	167	1	12639	1302	11338
263+00.00		89	0	0							
	50.00				0	0	165	0	12804	1302	11503
263+50.00		89	0	0							
	50.00				0	0	170	0	12974	1302	11672
264+00.00		94	0	0							
	50.00				0	0	176	0	13150	1302	11848
264+50.00		97	0	0							
	50.00				0	0	171	0	13322	1302	12020
265+00.00		88	0	0							
	50.00				0	0	161	0	13483	1302	12181
265+50.00		86	0	0							
	50.00				0	0	159	0	13641	1302	12339
266+00.00		86	0	0							
	50.00				0	0	153	1	13794	1303	12491
266+50.00		79	0	0							
	50.00				0	0	154	1	13948	1304	12644
267+00.00		87	0	0							
	50.00				3	3	163	0	14110	1304	12806
267+50.00		88	0	2							
	7.03				1	1	23	0	14133	1304	12829
267+57.03		88	0	3							
	42.97				6	6	146	0	14280	1304	12975
268+00.00		96	0	4							
	0.01				0	0	0	0	14280	1304	12975
268+00.01		91	0	4							
	49.99				10	11	169	1	14449	1305	13144
268+50.00		92	0	7							
	1.01				0	0	3	0	14452	1305	13147
268+51.01		93	1	7							
	24.47				7	7	76	1	14529	1306	13223
268+75.48		76	1	8							
	24.52				7	7	75	4	14603	1310	13294
269+00.00		89	5	7							
	50.00				11	12	161	15	14764	1325	13439
269+50.00		84	7	5							
	50.00				13	14	152	12	14916	1337	13579
270+00.00		80	3	9							
	50.00				19	21	154	7	15070	1344	13726
270+50.00		86	3	12							
	24.12				26	29	98	2	15168	1347	13821
270+74.12		134	1	47							
	24.59				44	48	120	1	15288	1347	13941
270+98.71		129	0	49							
	1.29				2	3	6	0	15294	1347	13947
271+00.00		138	0	48							
	23.19				43	47	112	0	15407	1347	14059
271+23.19		123	0	52							
	12.27				23	26	56	0	15463	1347	14116
271+35.46		126	0	51							
	14.54				28	31	69	1	15532	1348	14184
271+50.00		130	2	53							
	24.99				50	55	118	1	15650	1350	14301
271+74.99		126	1	56							
	0.01				0	0	0	0	15650	1350	14301
271+75.00		126	0	56							
	25.00				54	59	116	0	15767	1350	14417
272+00.00		125	0	61							
	50.00				57	62	257	1	16023	1351	14673
272+50.00		152	0	0							
	50.00				0	0	276	1	16299	1351	14948
273+00.00		145	0	0							
	50.00				0	0	277	0	16576	1352	15224
273+50.00		153	0	0							
	50.00				0	0	285	0	16862	1352	15510
274+00.00		155	0	0							
	50.00				0	0	300	0	17162	1352	15809
274+50.00		169	0	0							
	50.00				0	0	314	0	17476	1352	16123
275+00.00		170	0	0							
	50.00				0	0	343	0	17818	1352	16466
275+50.00		200	0	0							
	50.00				0	0	345	0	18163	1352	16810
276+00.00		172	0	0							
	50.00				18	20	304	0	18467	1352	17115
276+50.00		157	0	19							
	50.00				128	141	208	1	18675	1353	17322
277+00.00		68	1	119							
	50.00				137	151	193	2	18868	1355	17513
277+50.00		140	1	29							
	21.71				14	15	119	1	18987	1356	17631
277+71.71		155	0	6							
	28.29				3	4	159	1	19145	1357	17788
278+00.00		149	2	0							
	50.00				0	0	273	2	19418	1359	18059
278+50.00		146	0	0							
	50.00				0	0	272	2	19690	1361	18329
279+00.00		148	1	0							
	50.00				0	0	271	2	19961	1364	18597
279+50.00		145	1	0							
	50.00				0	0	263	3	20224	1367	18857
280+00.00		140	2	0							
	50.00				0	0	261	3	20485	1370	19115
280+50.00		142	0	0							
	50.00				4	5	267	0	20753	1371	19382
281+00.00		146	0	5							
	50.00				27	30	251	2	21004	1373	19630
281+50.00		125	2	25							
	50.00				23	25	238	4	21242	1377	19865
282+00.00		132	1	0							
	50.00				0	0	251	1	21493	1378	20115
282+50.00		139	0	0							
	50.00				0	0	266	0	21760	1379	20381
283+00.00		148	0	0							
	50.00				0	0	554	1	22313	1379	20934

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PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : $$....plotscale....$$
WISDOT/CADDS SHEET 49

CONTINUED FROM PREVIOUS PAGE

STH 33

STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	ROCK EXCAVATION SF	ROCK EXCAVATION CY	ADJ. CY	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
	50.00				0	0	554	1	22313	1379	20934
283+50.00		450	1	0							
	50.00				0	0	1953	13	24267	1392	22875
284+00.00		1660	10	0							
	25.00				85	94	1608	8	25875	1400	24475
284+25.00		1814	3	184							
	10.00				104	114	577	2	26452	1402	25050
284+35.00		1301	6	375							
	15.00				358	393	576	4	27028	1405	25623
284+50.00		774	5	912							
	50.00				1265	1391	1333	724	28361	2130	26232
285+00.00		666	597	454							
	50.00				420	462	1262	1421	29623	3550	26073
285+50.00		697	583	0							
	50.00				0	0	767	992	30390	4543	25848
286+00.00		132	241	0							
	50.00				0	0	289	298	30680	4841	25839
286+50.00		180	7	0							
	50.00				0	0	437	8	31117	4849	26268
287+00.00		292	0	0							
	50.00				0	0	426	5	31544	4854	26690
287+50.00		168	4	0							
	32.89				0	0	317	3	31861	4857	27004
287+82.89		353	0	0							
	17.11				0	0	234	0	32095	4857	27237
288+00.00		385	0	0							
	14.10				0	0	190	0	32285	4857	27427
288+14.10		343	0	0							
	35.90				0	0	492	0	32776	4858	27919
288+50.00		397	0	0							
	50.00				73	80	865	0	33641	4858	28783
289+00.00		537	0	79							
	25.00				42	46	531	1	34171	4859	29313
289+25.00		609	1	11							
	0.01				0	0	0	0	34172	4859	29313
289+25.01		569	1	14							
	24.99				23	25	548	1	34719	4860	29860
289+50.00		614	1	35							
	50.00				36	39	1141	6	35860	4865	30995
290+00.00		617	3	3							
	18.13				3	4	415	2	36275	4867	31408
290+18.13		619	0	7							
	31.87				14	15	706	1	36981	4868	32113
290+50.00		577	1	17							
	50.00				41	45	1102	3	38082	4871	33211
291+00.00		612	2	27							
	50.00				102	112	1003	4	39085	4875	34210
291+50.00		471	2	83							
	50.00				224	246	701	2	39786	4877	34909
292+00.00		286	0	159							
	50.00				147	162	550	0	40336	4878	35459
292+50.00		308	0	0							
	50.00				0	0	584	5	40921	4883	36038
293+00.00		323	4	0							
	50.00				0	0	550	6	41471	4889	36582
293+50.00		271	1	0							
	50.00				0	0	459	1	41930	4890	37039
294+00.00		224	0	0							
	24.85				0	0	196	8	42126	4899	37227
294+24.85		203	14	0							
	25.15				0	0	201	9	42327	4907	37420
294+50.00		230	1	0							
	50.00				0	0	413	1	42740	4908	37832
295+00.00		216	0	0							
	41.00				0	0	370	0	43110	4908	38202
295+41.00		272	0	0							
	9.00				0	0	89	0	43199	4908	38291
295+50.00		264	0	0							
	50.00				0	0	467	14	43667	4922	38744
296+00.00		241	12	0							
	50.00				0	0	503	15	44170	4937	39233
296+50.00		303	0	0							
	50.00				0	0	602	8	44772	4945	39827
297+00.00		348	6	0							
	19.37				0	0	245	4	45017	4949	40069
297+19.37		336	2	0							
	30.63				0	0	366	2	45383	4951	40432
297+50.00		309	1	0							
	50.00				0	0	578	1	45961	4952	41009
298+00.00		315	0	0							
	50.00				0	0	505	0	46466	4952	41513
298+50.00		230	0	0							
	50.00				0	0	417	0	46883	4952	41931
299+00.00		221	0	0							
	50.00				0	0	377	0	47260	4952	42308
299+50.00		187	0	0							
	50.00				0	0	322	0	47582	4952	42630
300+00.00		161	0	0							
	50.00				0	0	254	0	47836	4952	42884
300+50.00		113	0	0							
	50.00				0	0	181	0	48018	4952	43065
301+00.00		83	0	0							
	50.00				0	0	148	0	48166	4952	43214
301+50.00		78	0	0							
	44.92				0	0	115	60	48281	5012	43268
301+94.92		60	56	0							
	5.08				0	0	12	15	48293	5027	43266
302+00.00		66	64	0							
	19.88				0	0	46	65	48339	5092	43247
302+19.88		59	71	0							
	25.00				0	0	51	97	48390	5189	43201
302+44.88		53	90	0							
	5.12				0	0	11	21	48401	5209	43192
302+50.00		61	77	0							
	50.00				0	0	98	264	48499	5473	43026
303+00.00		45	142	0							
	7.00				0	0	11	53	48510	5526	42985
303+07.00		44	170	0							
	43.00				0	0	77	446	48588	5971	42616
303+50.00		54	261	0							
	39.98				0	0	84	552	48671	6523	42148
303+89.98		59	313	0							
	10.02				0	0	22	144	48694	6667	42027
304+00.00		62	282	0							
	50.00				0	0	122	578	48815	7245	41570
304+50.00		70	198	0							
	31.50				0	0	84	317	48899	7562	41337
304+81.50		74	220	0							
	18.50				0	0	51	152	48950	7715	41235
305+00.00		74	122	0							
	50.00				0	0	148	196	49098	7911	41187
305+50.00		86	41	0							
	50.00				0	0	173	51	49270	7962	41309
306+00.00		100	1	0							
	4.69				0	0	17	0	49287	7962	41325
306+04.69		96	1	0							
	24.62				0	0	91	1	49378	7963	41415
306+29.31		103	1	0							
	20.69				0	0	81	5	49459	7968	41491
306+50.00		109	9	0							
	3.99				0	0	16	1	49475	7969	41506
306+53.99		108	4	0							
	46.01				0	0	196	4	49671	7973	41698
307+00.00		123	0	0							
	50.00				0	0	239	0	49910	7973	41937
307+50.00		136	0	0							
	50.00				0	0	231	0	50141	7973	42168
308+00.00		114	0	0							
	7.00				0	0	29	0	50170	7973	42197
308+07.00		110	0	0							
	43.00				0	0	196	0	50366	7973	42393
308+50.00		135	0	0							
	50.00				0	0	242	1	50608	7974	42633
309+00.00		126	1	0							
	50.00				0	0	227	3	50835	7977	42858
309+50.00		119	1	0							
	50.00				0	0	209	1	51044	7978	43066
310+00.00		107	0	0							
	50.00				0	0	208	0	51252	7978	43274
310+50.00		118	0	0							
	50.00				0	0	209	0	51462	7978	43484
311+00.00		108	0	0							
	50.00				0	0	158	18	51620	7997	43623
311+50.00		63	15	0							
	50.00				0	0	107	53	51727	8049	43678
312+00.00		53	28	0							
	50.00				0	0	97	73	51824	8122	43702
312+50.00		52	32	0							
	50.00				0	0	101	75	51926	8198	43728
313+00.00		57	30	0							
	32.20				0	0	65	52	51991	8250	43741
313+32.20		52	37	0							
	17.80				0	0	34	32	52024	8282	43742

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PLOT SCALE : $$....plotscale....$$
WISDOT/CADDS SHEET 49

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STH 33

STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	ROCK EXCAVATION SF	ROCK EXCAVATION CY	ADJ. CY	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
313+50.00		50	39	0							
	50.00				0	0	89	133	52114	8415	43699
314+00.00		46	71	0							
	50.00				0	0	87	180	52201	8595	43606
314+50.00		48	78	0							
	50.00				0	0	91	156	52292	8751	43541
315+00.00		51	51	0							
	50.00				0	0	100	89	52391	8840	43551
315+50.00		57	23	0							
	50.00				0	0	100	50	52491	8890	43602
316+00.00		51	18	0							
	50.00				0	0	94	30	52585	8920	43665
316+50.00		50	7	0							
	50.00				0	0	80	48	52665	8968	43697
317+00.00		37	33	0							
	6.00				0	0	8	10	52673	8977	43696
317+06.00		38	34	0							
	44.00				0	0	61	81	52734	9058	43676
317+50.00		37	43	0							
	50.00				0	0	71	105	52805	9163	43642
318+00.00		40	45	0							
	6.88				0	0	10	15	52816	9178	43637
318+06.88		41	45	0							
	43.12				0	0	39	104	52855	9282	43573
318+50.00		8	55	0							
	50.00				0	0	15	108	52869	9389	43480
319+00.00		8	35	0							
	50.00				0	0	14	63	52884	9452	43431
319+50.00		8	18	0							
	50.00				0	0	13	31	52897	9483	43414
320+00.00		6	8	0							
	35.41				0	0	9	12	52905	9495	43410
320+35.41		7	7	0							
	14.59				0	0	4	5	52909	9500	43409
320+50.00		7	6	0							
	50.00				0	0	13	15	52922	9515	43406
321+00.00		7	7	0							
	50.00				0	0	15	20	52936	9535	43401
321+50.00		9	10	0							
	50.00				0	0	16	17	52953	9552	43400
322+00.00		8	4	0							
	25.50				0	0	8	9	52960	9561	43399
322+25.50		8	11	0							
	24.50				0	0	9	8	52969	9570	43399
322+50.00		11	3	0							
	50.00				0	0	18	7	52987	9576	43411
323+00.00		9	2	0							
	50.00				0	0	14	11	53001	9587	43414
323+50.00		6	7	0							
	50.00				0	0	13	12	53013	9599	43414
324+00.00		7	3	0							
	50.00				0	0	14	7	53027	9606	43422
324+50.00		8	2	0							
	50.00				0	0	15	5	53042	9611	43431
325+00.00		8	2	0							
	50.00				0	0	16	2	53058	9613	43445
325+50.00		9	0	0							
	50.00				0	0	16	3	53074	9616	43458
326+00.00		8	3	0							
	31.03				0	0	12	3	53086	9619	43467
326+31.03		13	2	0							
	18.97				0	0	8	1	53094	9620	43474
326+50.00		9	0	0							
	50.00				0	0	19	0	53113	9620	43493
327+00.00		11	0	0							
	36.79				0	0	12	0	53125	9620	43505
327+36.79		7	0	0							
	11037				3,759	4,135	53,125	9,620			

* INCLUDES 1.3 EXPANSION FACTOR

HORSESHOE PLACE

STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
10+50.00		55	356					
	25.00			122	220	122	220	-98
10+75.00		209	10					
	7.31			58	3	180	223	-43
10+82.31		220	6					
	0.05			0	0	181	223	-42
10+82.36		227	1					
	17.64			153	0	334	223	111
11+00.00		243	0					
	9.00			74	0	408	223	185
11+09.00		203	1					
	16.00			106	0	514	224	290
11+25.00		154	0					
	25.00			81	36	595	260	335
11+50.00		20	60					
	100			595	260			

* INCLUDES 1.3 EXPANSION FACTOR

IRISH COURT

STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
10+50.00		6.46	84.72					
	11.00			4	32	4	32	-28
10+61.00		14.23	36.87					
	0.01			0	0	4	32	-28
10+61.01		8.13	39.25					
	13.99			3	44	8	76	-68
10+75.00		4.75	90.60					
	25.00			6	71	14	147	-134
11+00.00		8.81	28.15					
	9.16			4	12	18	159	-141
11+09.16		16.36	24.73					
	15.84			8	17	26	176	-150
11+25.00		11.25	19.20					
	0.01			0	0	26	176	-150
11+25.01		11.1	13.32					
	6.06			3	3	29	178	-149
11+31.07		17.62	4.46					
	0.01			0	0	29	178	-149
11+31.08		18.13	4.51					
	18.93			15	2	45	181	-136
11+50.00		25.36	0.90					
	25.00			29	1	74	181	-108
11+75.00		37.43	0.00					
	25.00			29	0	102	181	-79
12+00.00		24.63	0.00					
	150			102	181			

* INCLUDES 1.3 EXPANSION FACTOR

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PLOT DATE : 7/15/2013
PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : $$....plotscale....$$
WISDOT/CADDS SHEET 49

NORSEMEN DRIVE

STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
0+50.00		90	95					
	17.50			52	113	52	113	-61
0+67.50		70	173					
	7.50			19	63	71	176	-105
0+75.00		66	176					
	24.99			50	215	121	391	-271
0+99.99		42	182					
	0.01			0	0	121	391	-271
1+00.00		35	187					
	25.00			31	256	152	648	-496
1+25.00		32	239					
	25.00			29	331	181	978	-798
1+50.00		30	310					
	8.61			9	130	189	1108	-919
1+58.61		26	315					
	0.01			0	0	189	1108	-919
1+58.62		26	265					
	16.38			15	154	205	1262	-1058
1+75.00		24	125					
	0.01			0	0	205	1262	-1058
1+75.01		25	125					
	24.99			32	77	237	1339	-1102
2+00.00		45	3					
	25.00			33	29	270	1368	-1098
2+25.00		26	45					
	25.00			26	65	296	1433	-1137
2+50.00		30	63					
	15.13			16	23	311	1456	-1144
2+65.13		25	0					
	215			311	1,456			

* INCLUDES 1.3 EXPANSION FACTOR

POND ACCESS ROAD

STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
20+20.00		23	0					
	10.00			14	0	14	0	14
20+30.00		55	0					
	10.00			29	0	43	0	43
20+40.00		101	1					
	10.00			44	0	88	0	87
20+50.00		138	0					
	10.00			60	8	148	9	139
20+60.00		185	33					
	2.29			16	5	164	14	150
20+62.29		188	61					
	42			164	14			

* INCLUDES 1.3 EXPANSION FACTOR

KNOBLOCH ROAD

STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
10+75.00		190	0					
	2.60			18	0	18	0	18
10+77.60		192	0					
	0.01			0	0	18	0	18
10+77.61		176	0					
	22.39			133	1	152	1	151
11+00.00		146	2					
	25.00			114	1	266	3	263
11+25.00		100	0					
	24.47			77	0	343	3	340
11+49.47		71	0					
	0.01			0	0	343	3	340
11+49.48		77	0					
	0.52			1	0	345	3	342
11+50.00		73	0					
	25.00			65	1	409	3	406
11+75.00		67	1					
	25.00			60	1	470	4	466
12+00.00		64	1					
	5.00			12	0	481	4	477
12+05.00		61	0					
	5.00			11	0	493	4	489
12+10.00		62	1					
	5.00			11	0	504	4	500
12+15.00		62	0					
	5.00			11	0	516	4	511
12+20.00		62	0					
	5.00			12	0	527	4	523
12+25.00		63	0					
	25.00			60	0	588	5	583
12+50.00		67	0					
	5.00			12	0	599	5	594
12+55.00		58	2					
	5.00			10	1	609	6	603
12+60.00		50	4					
	5.00			9	0	618	6	611
12+65.00		42	0					
	5.00			7	0	625	6	619
12+70.00		37	1					
	5.00			6	0	631	6	625
12+75.00		33	1					
	25.00			27	0	658	7	652
13+00.00		25	0					
	225			658	7			

* INCLUDES 1.3 EXPANSION FACTOR

CTH F

STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
0+50.00		38	27					
	22.63			31	17	31	17	14
0+72.63		36	4					
	0.01			0	0	31	17	14
0+72.64		44	3					
	2.36			4	0	35	17	17
0+75.00		37	4					
	3.99			5	1	40	18	22
0+78.99		31	4					
	0.01			0	0	40	18	22
0+79.00		25	0					
	21.00			18	0	57	18	39
1+00.00		20	0					
	25.00			21	0	78	18	59
1+25.00		24	0					
	25.00			24	0	102	18	84
1+50.00		28	0					
	25.00			27	0	130	18	111
1+75.00		31	0					
	5.67			6	0	136	18	118
1+80.67		29	0					
		131		136	18			

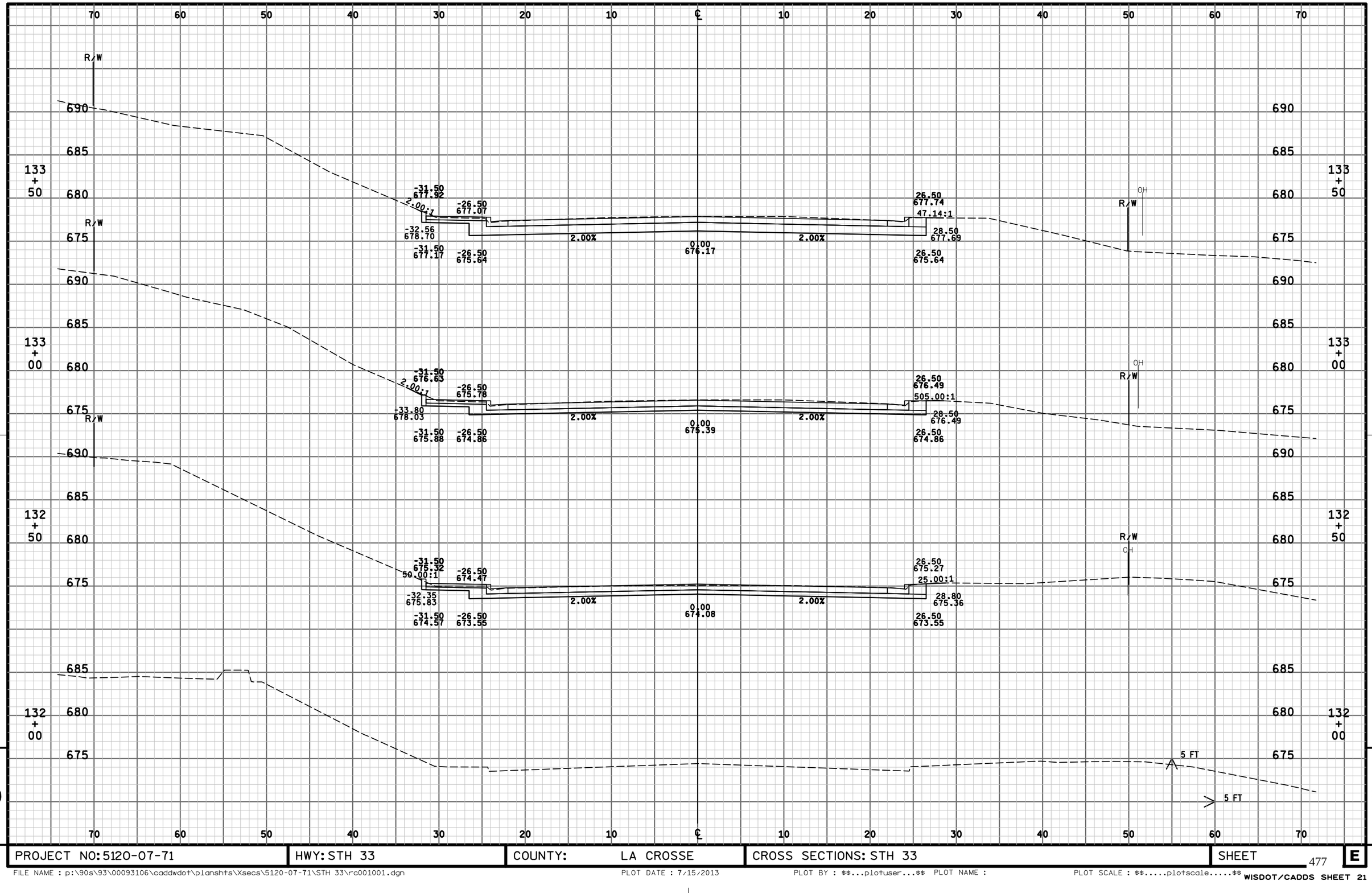
* INCLUDES 1.3 EXPANSION FACTOR

FOREST RIDGE DRIVE

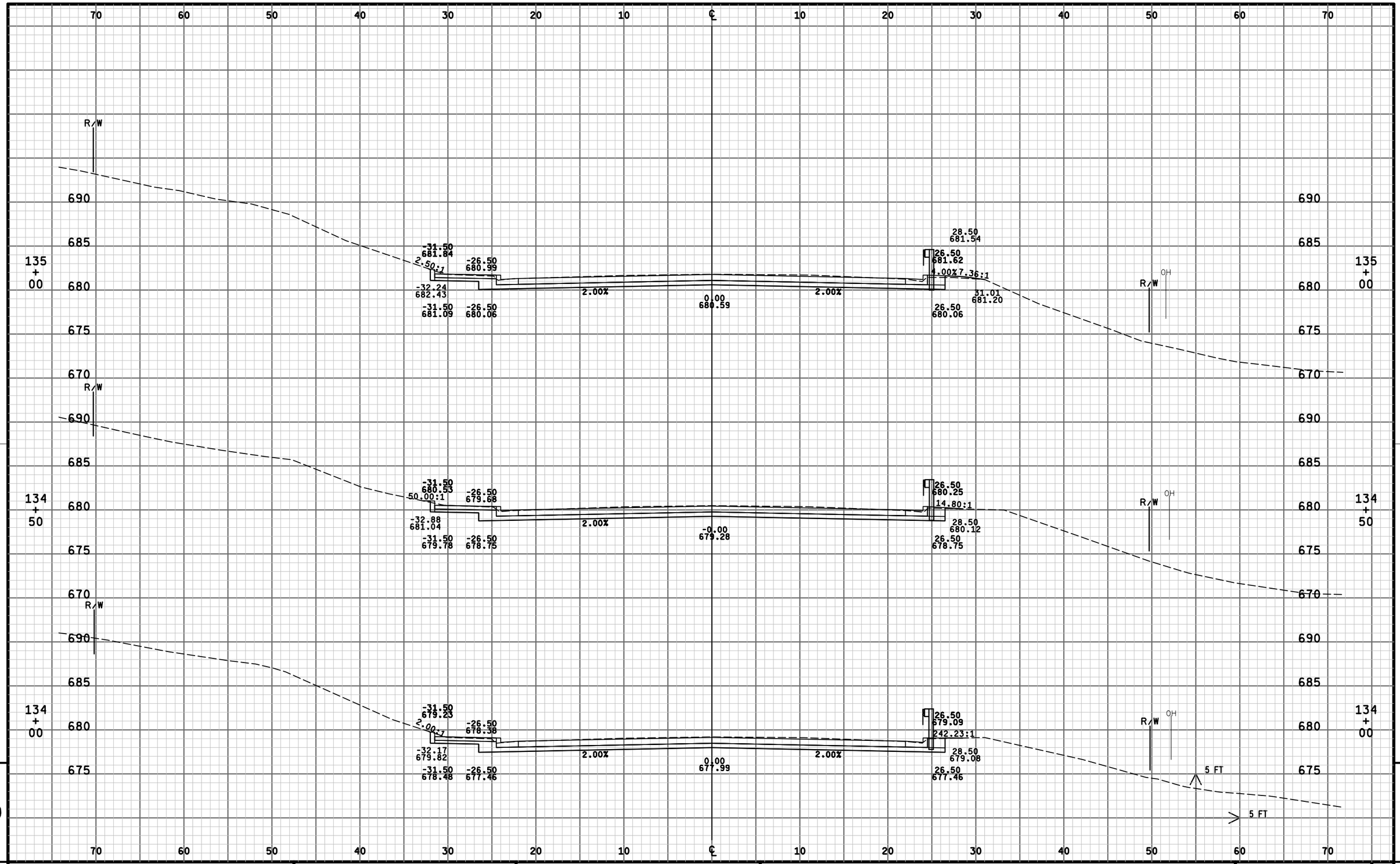
STATION	DISTANCE FEET	AREA (SF) COMMON	AREA (SF) FILL	INCREMENTAL VOL (CY) COMMON	INCREMENTAL VOL (CY) FILL *	CUMULATIVE VOL (CY) COMMON	CUMULATIVE VOL (CY) FILL	MASS HAUL
0+50.00		108	31					
	25.00			90	23	90	23	67
0+75.00		87	7					
	3.45			11	1	101	24	77
0+78.45		80	7					
	0.01			0	0	101	24	77
0+78.46		68	6					
	21.54			47	8	148	32	117
1+00.00		51	9					
	25.00			44	6	192	38	155
1+25.00		44	1					
	25.00			37	1	229	39	190
1+50.00		36	1					
	13.59			17	0	247	39	207
1+63.59		32	1					
	0.01			0	0	247	39	207
1+63.60		30	1					
	11.40			14	0	261	40	221
1+75.00		38	0					
	25.00			37	0	298	40	259
2+00.00		42	0					
	25.00			44	0	342	40	302
2+25.00		52	0					
	25.00			47	0	389	40	349
2+50.00		48	0					
	25.00			49	0	438	40	398
2+75.00		58	0					
	4.39			7	0	445	40	406
2+79.39		29	0					
		229		445	40			

* INCLUDES 1.3 EXPANSION FACTOR

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WISDOT/CADDS SHEET 49

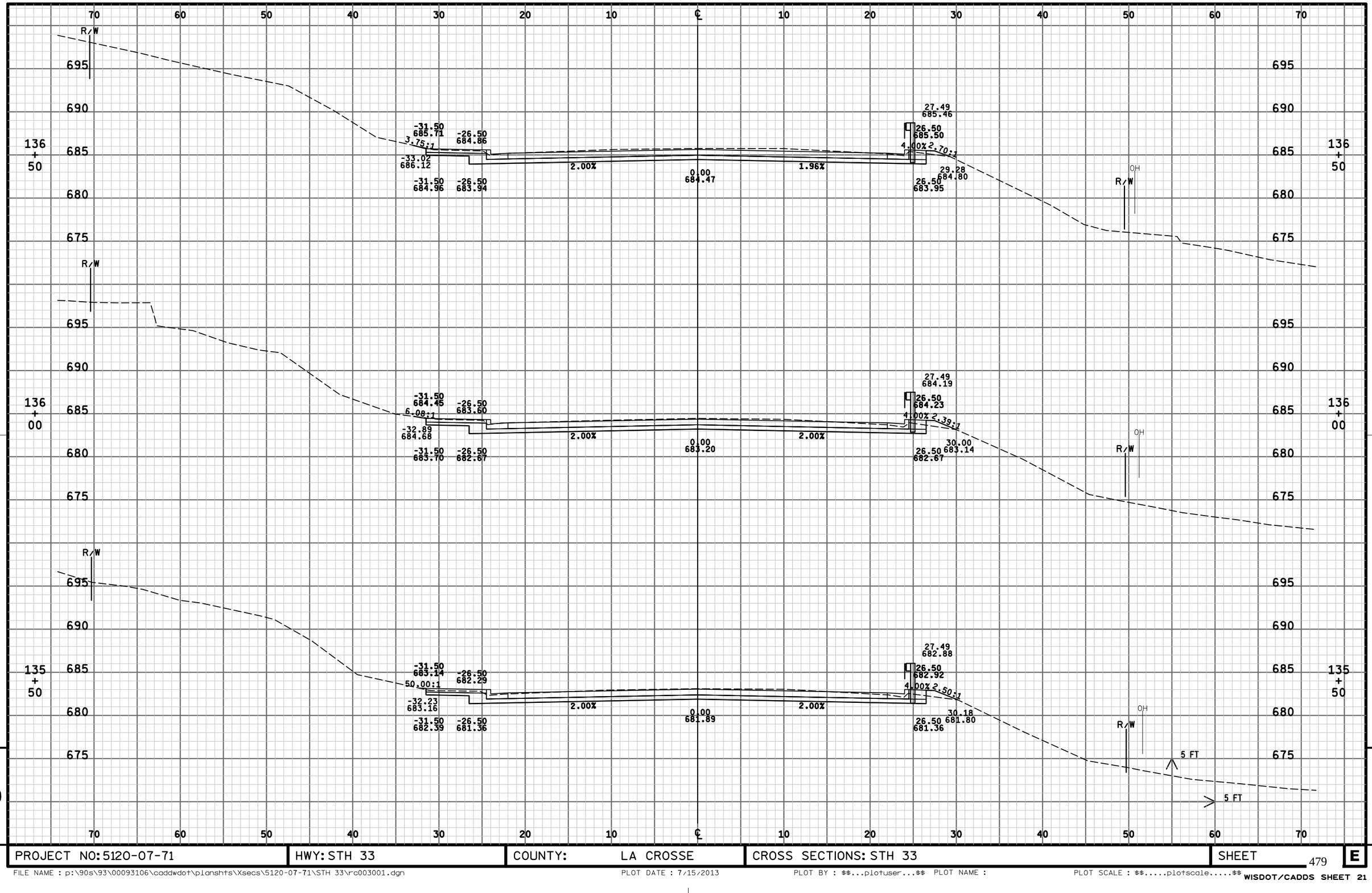


PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 477 E



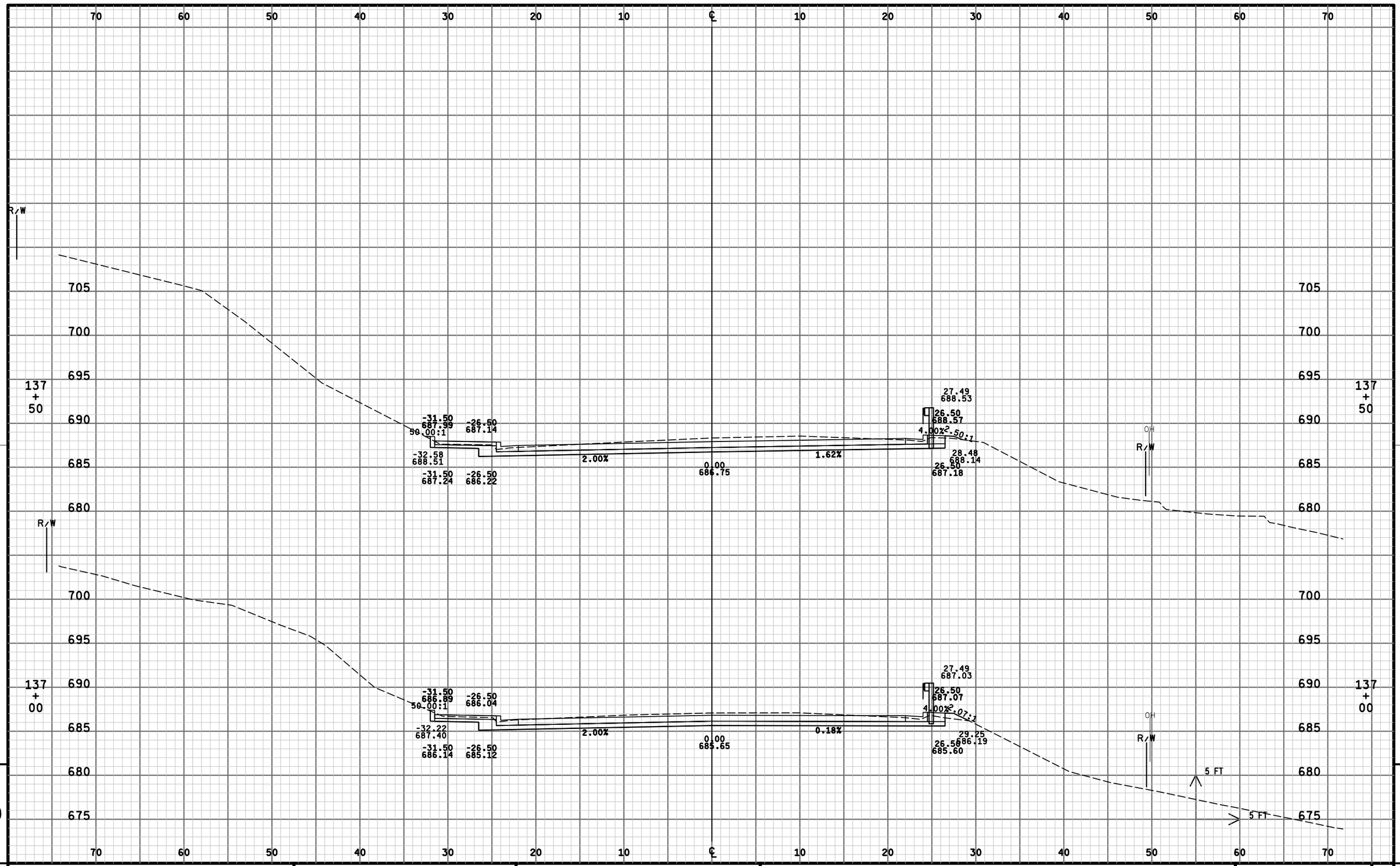
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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

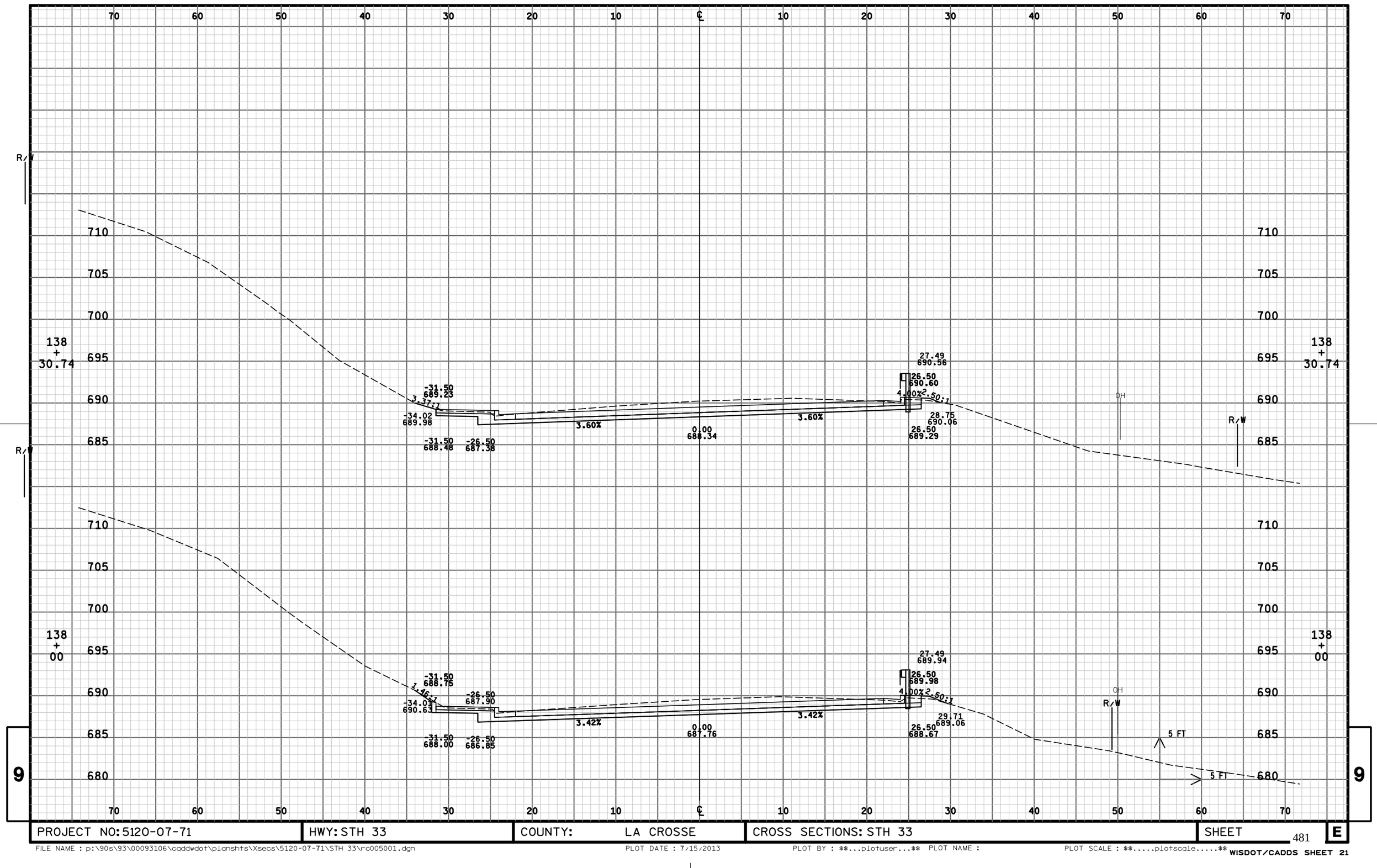
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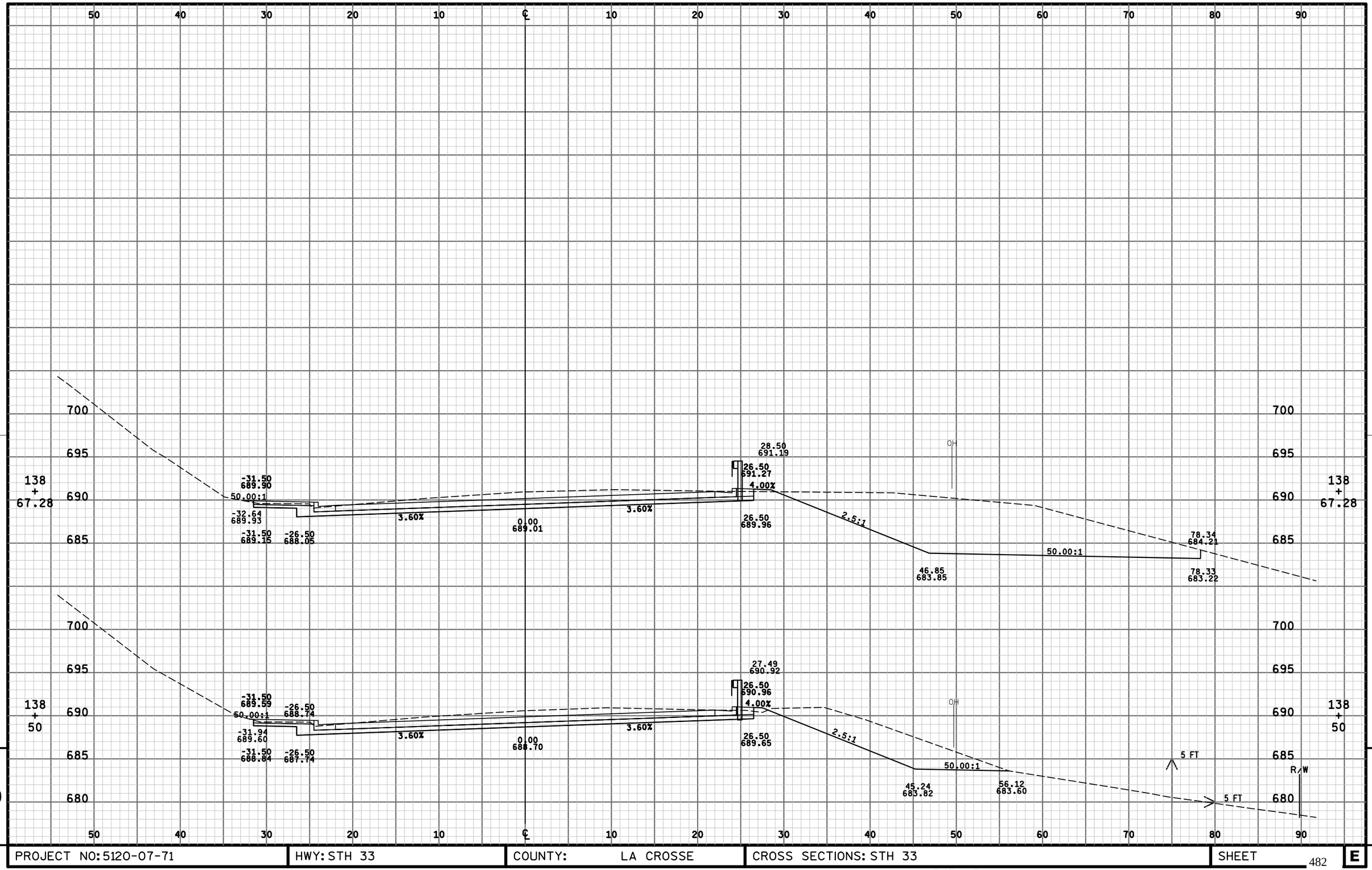
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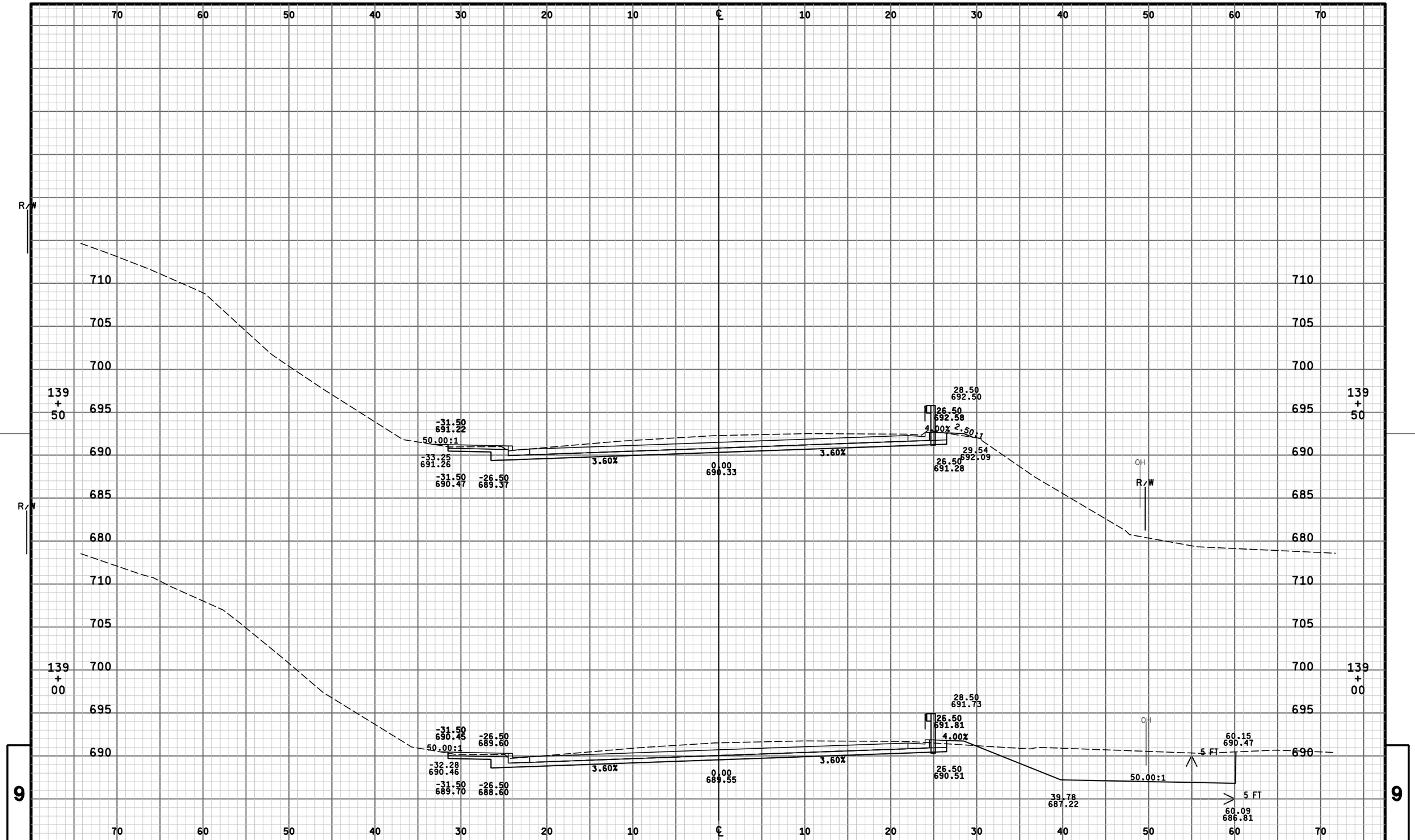
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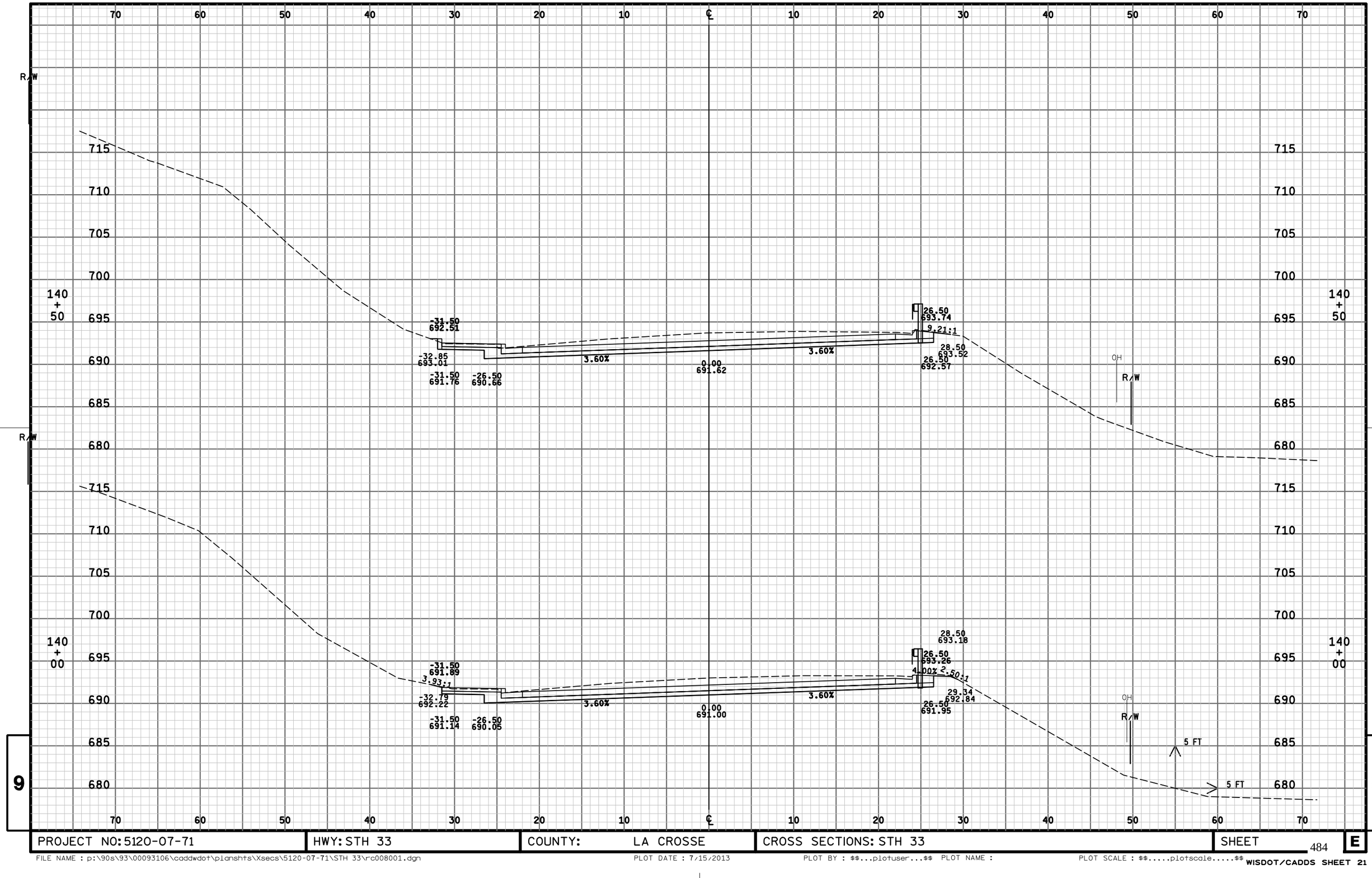
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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

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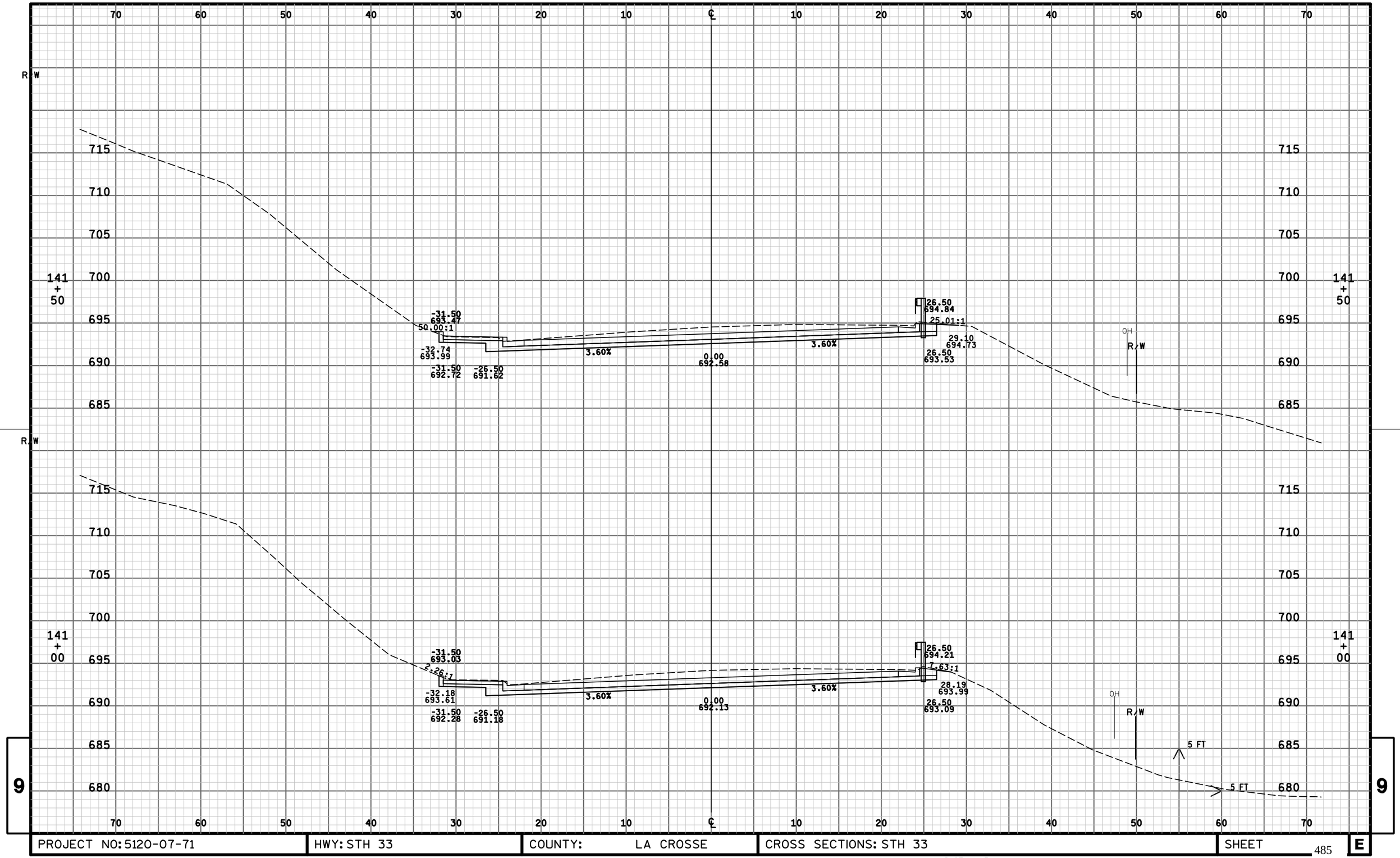
WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 484 E

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WISDOT/CADDS SHEET 21

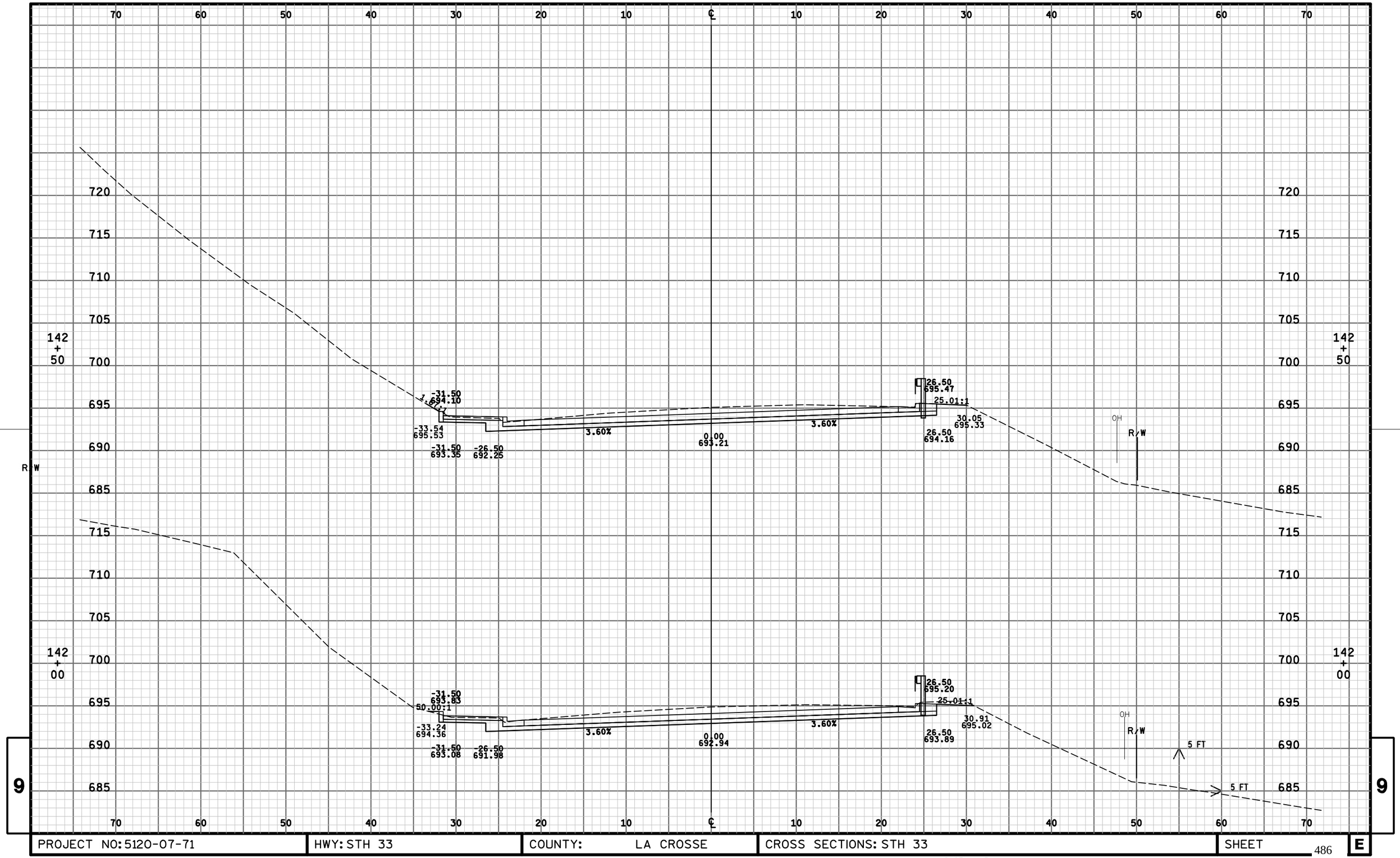


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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

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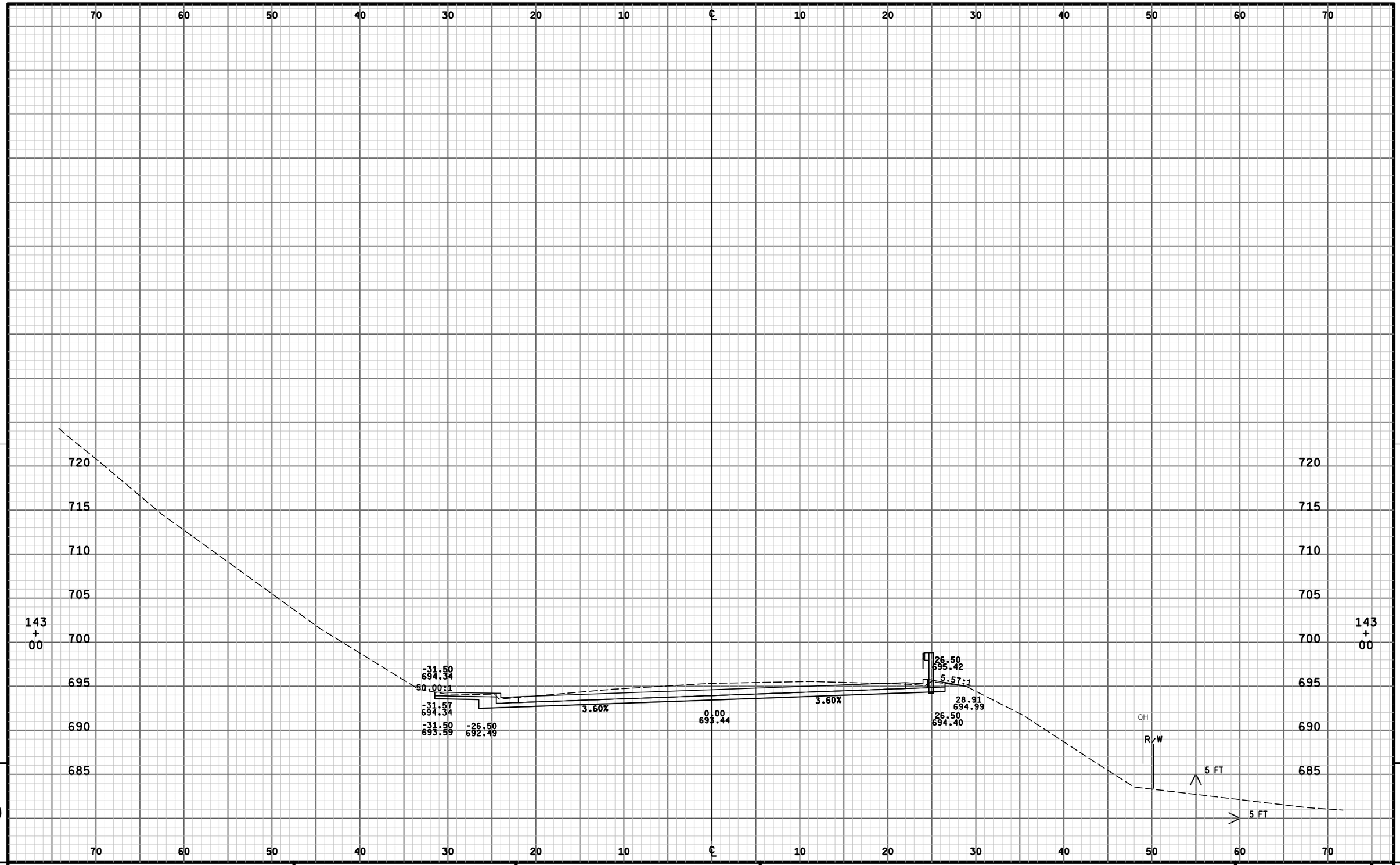
WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

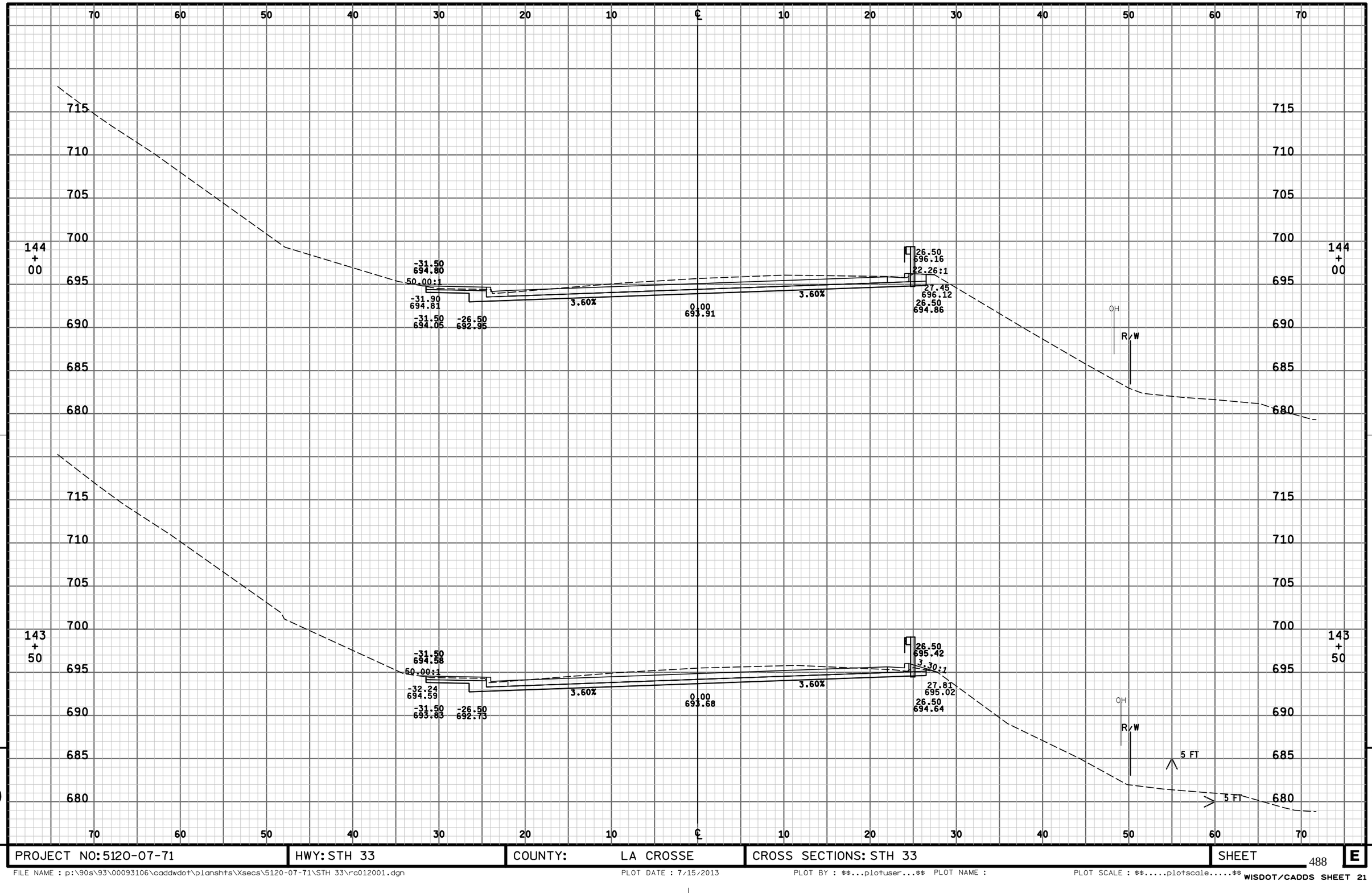
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WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

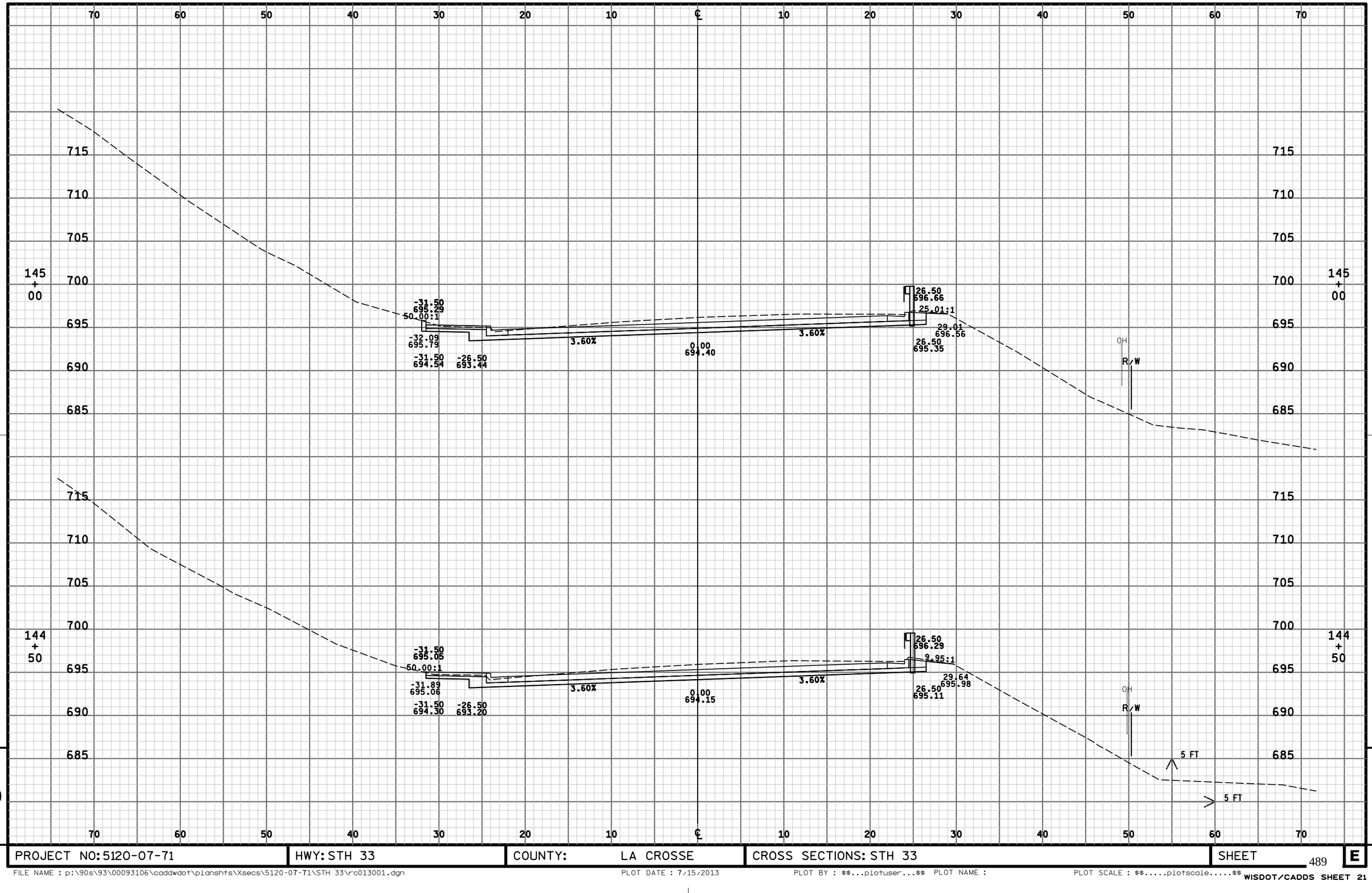
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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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WISDOT/CADDS SHEET 21

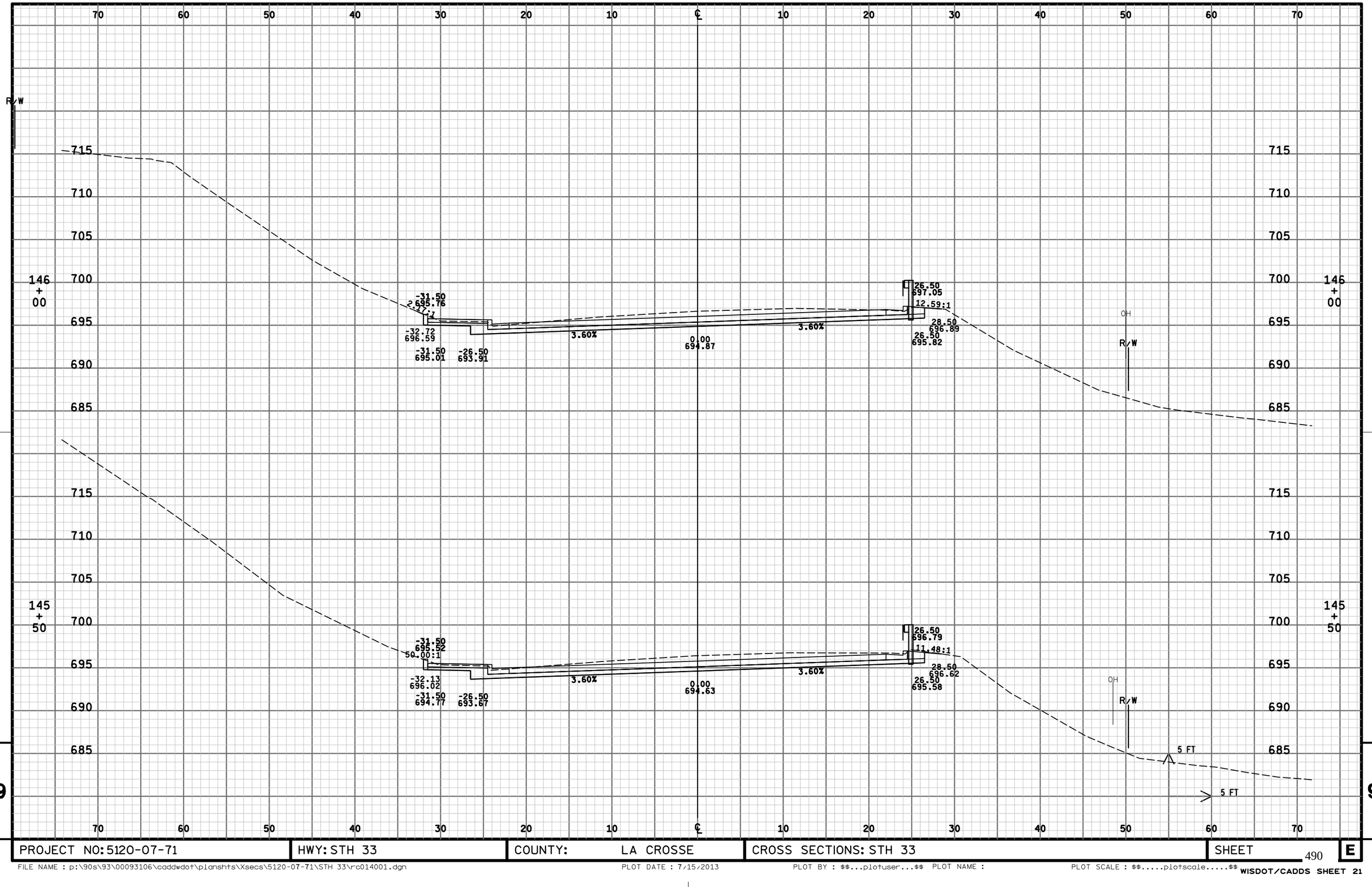


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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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WISDOT/CADDS SHEET 21

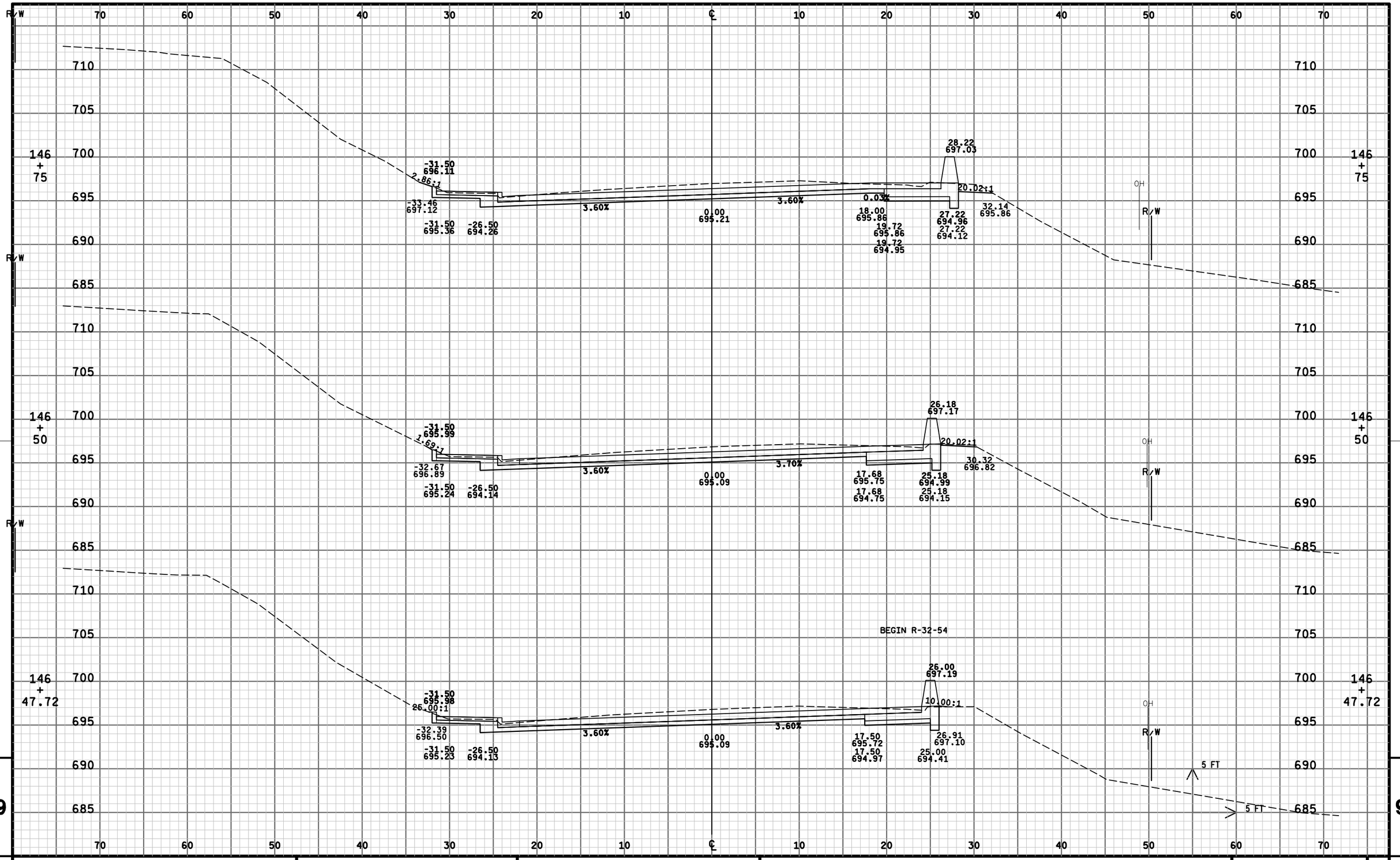


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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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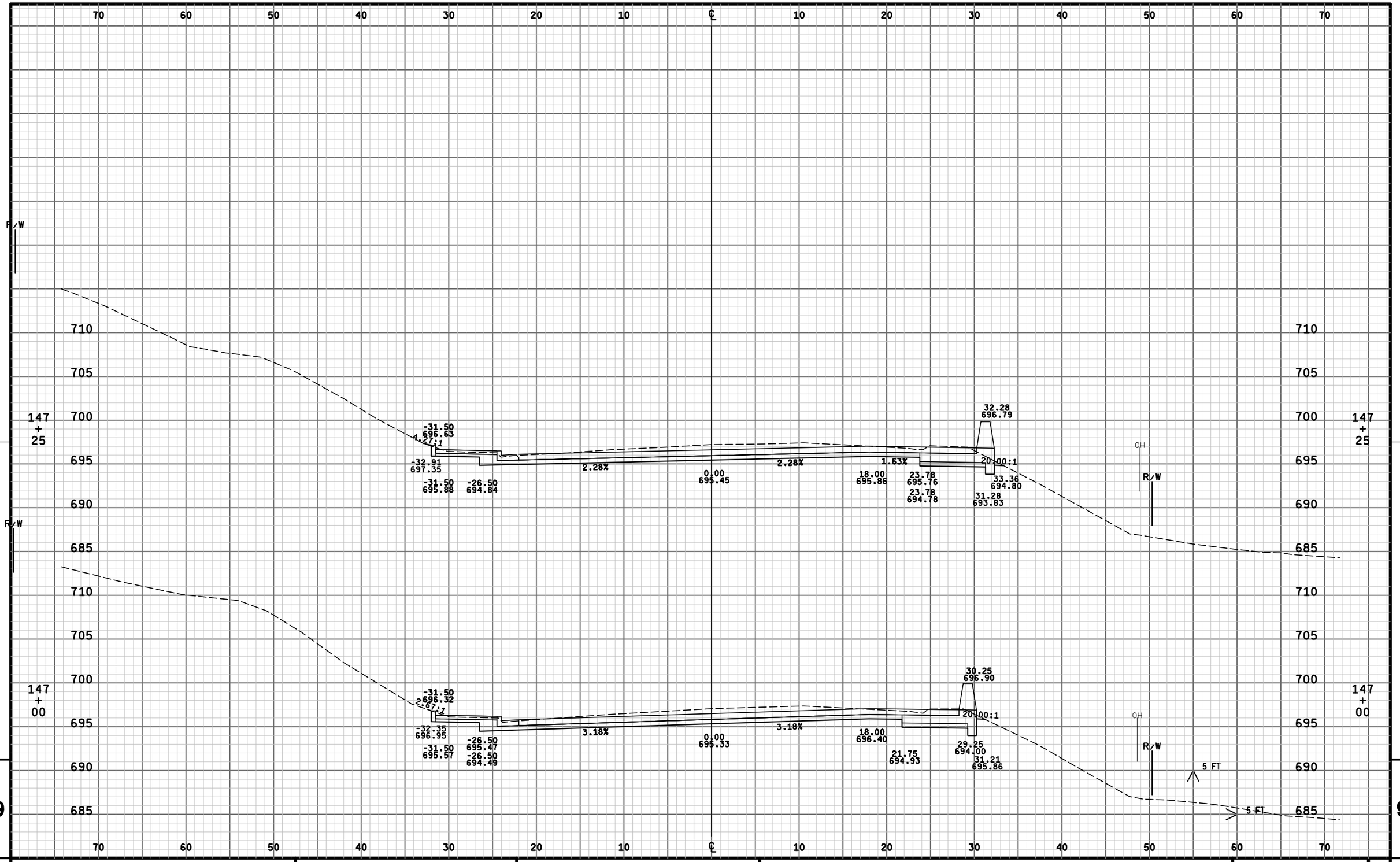
WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

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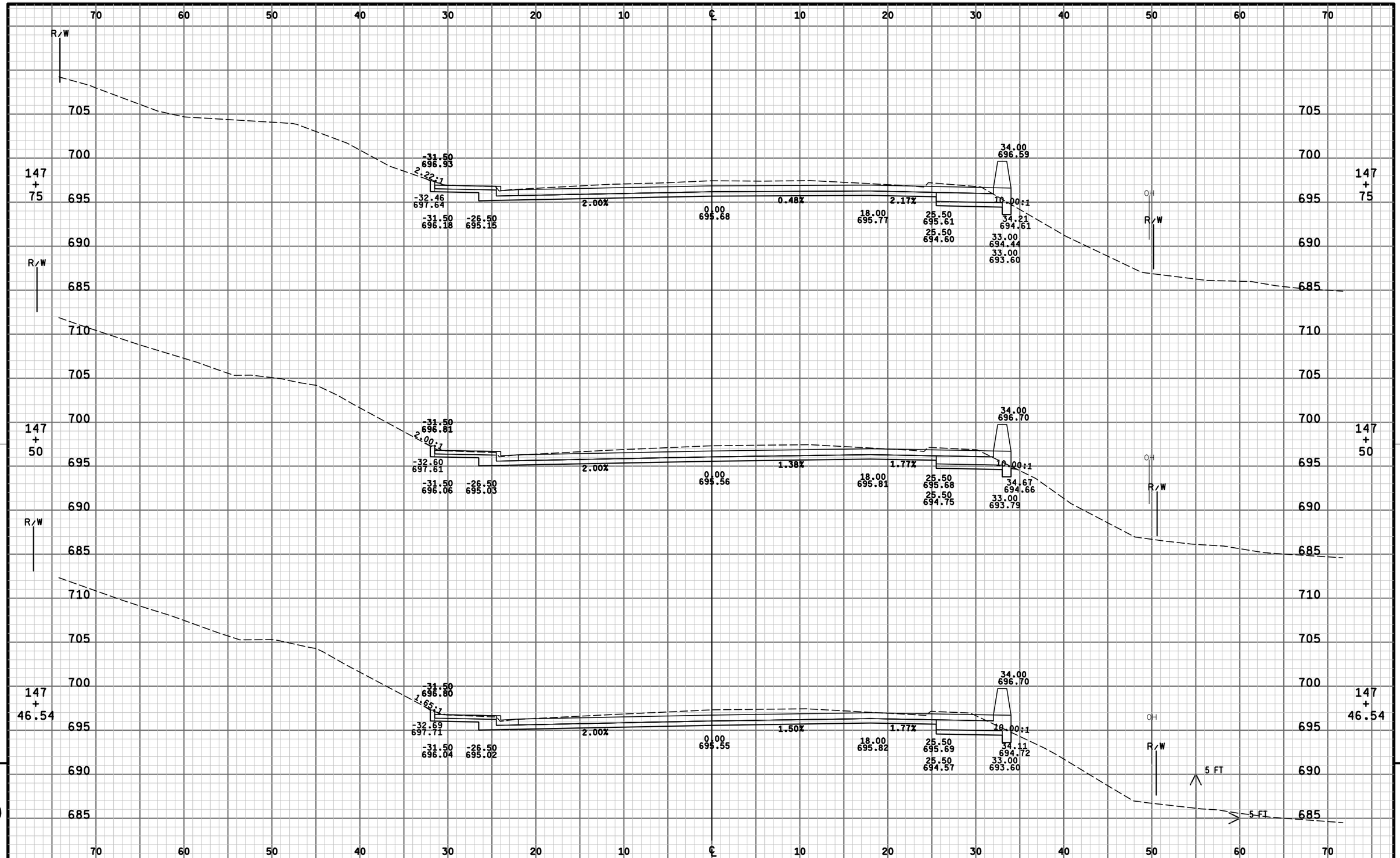
WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

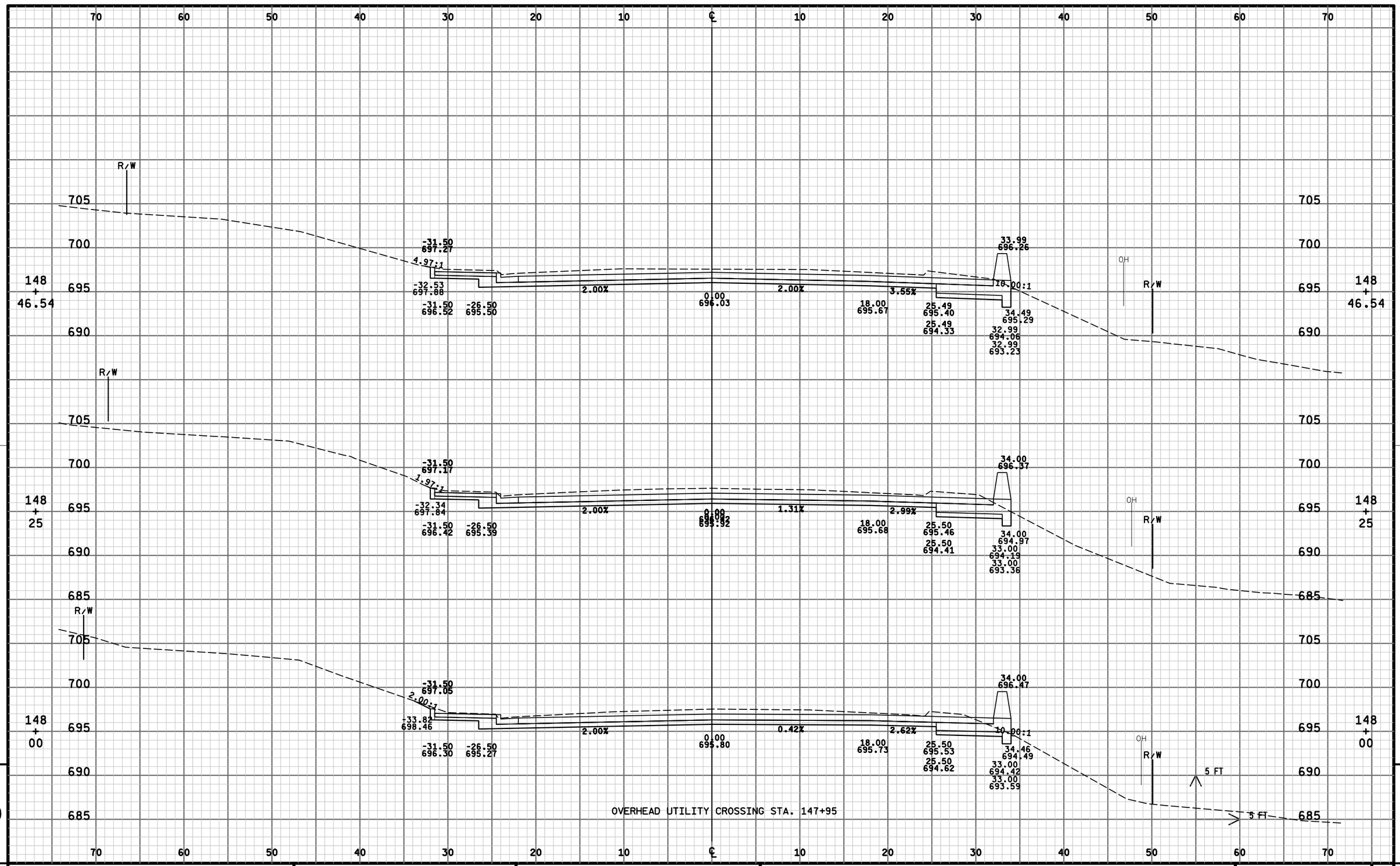
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WISDOT/CADDS SHEET 21



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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 493	E

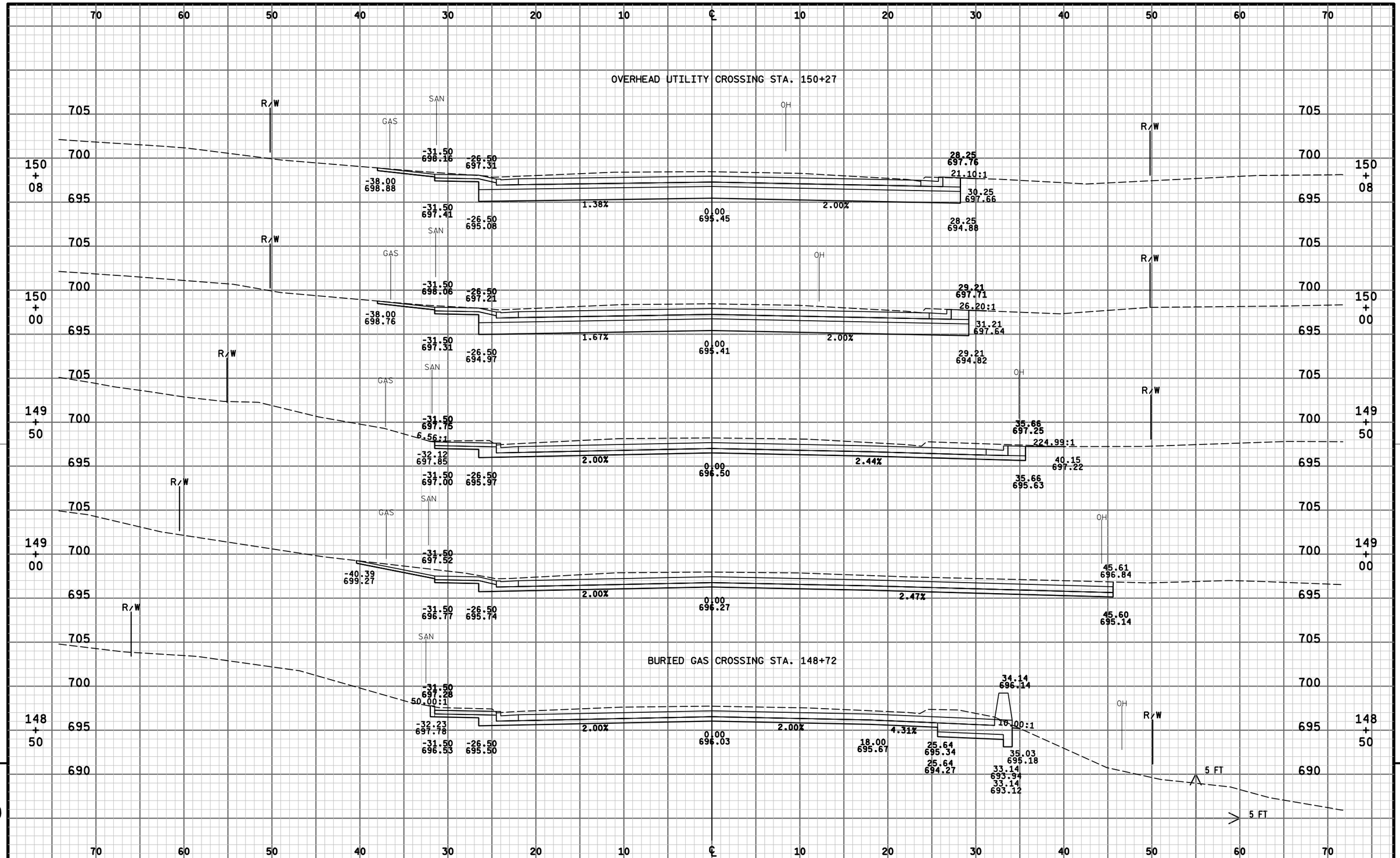


PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

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OVERHEAD UTILITY CROSSING STA. 150+27

BURIED GAS CROSSING STA. 148+72

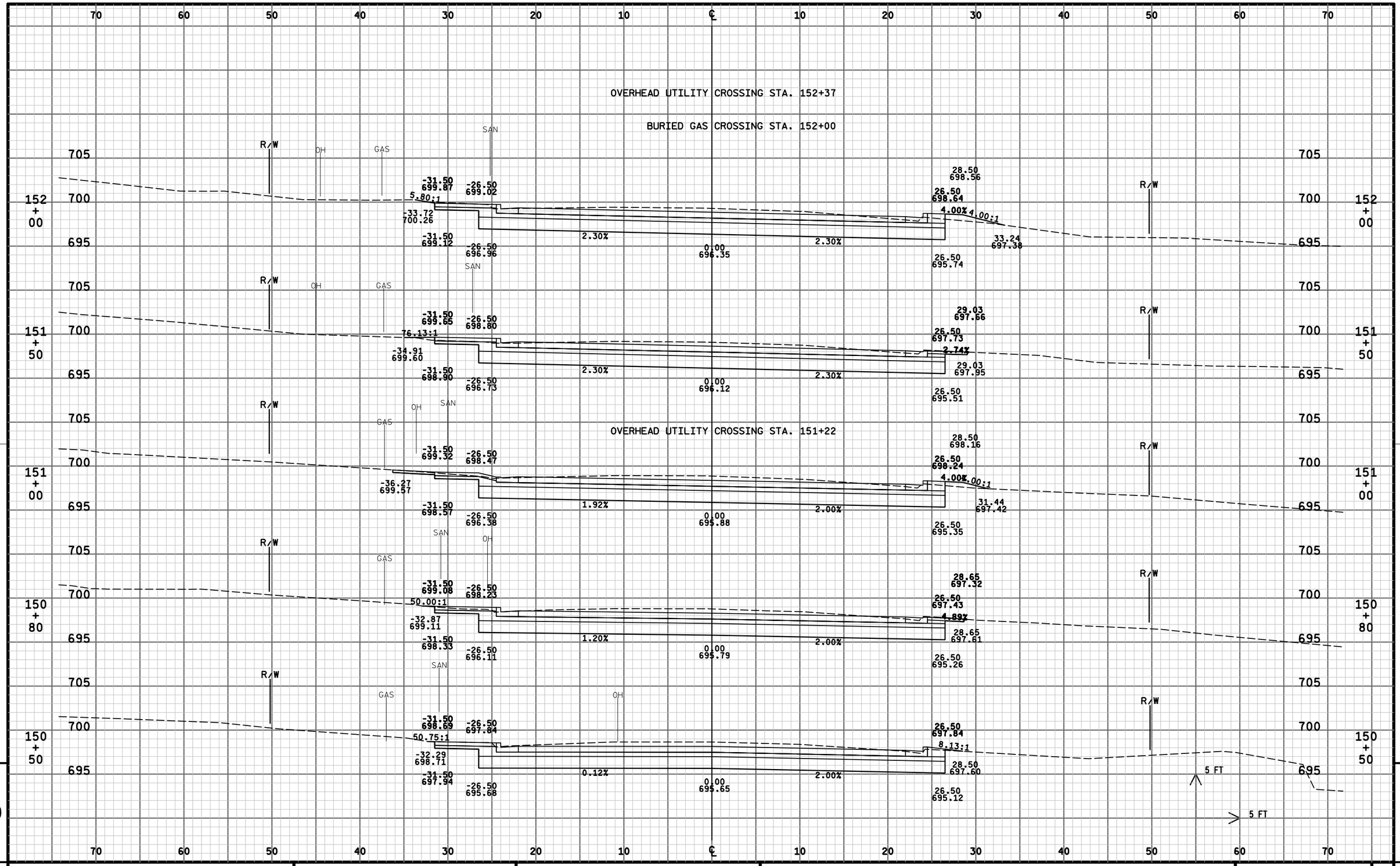


PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 495 E

OVERHEAD UTILITY CROSSING STA. 152+37

BURIED GAS CROSSING STA. 152+00

OVERHEAD UTILITY CROSSING STA. 151+22



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

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OVERHEAD UTILITY CROSSING STA. 153+75

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

705 700 695

R/W OH GAS SAN

153 + 87

-31.50 700.63 -26.50 699.78 50.00:1 -33.07 700.66 -31.50 699.88 -26.50 697.71 2.30% 0.00 697.10 2.30% 29.03 698.88 29.03 699.07 26.50 696.49

153 + 50

-31.50 700.54 -26.50 699.69 -34.45 700.77 -31.50 699.79 -26.50 697.62 2.30% 0.00 697.01 2.30% 28.50 699.22 26.50 699.30 4.00% 7.07:1 32.16 698.71 26.50 696.40

153 + 47

-31.50 700.53 -26.50 699.68 -34.45 700.70 -31.50 699.78 -26.50 697.61 2.30% 0.00 697.00 2.30% 28.50 699.22 26.50 699.30 4.00% 7.60:1 32.77 698.66 26.50 696.39

153 + 00

-31.50 700.35 -26.50 699.50 50.00:1 -33.26 700.39 -31.50 699.60 -26.50 697.43 2.30% 0.00 696.82 2.30% 28.50 699.04 26.50 699.12 4.00% 4.00:1 32.96 697.92 26.50 696.21

152 + 60

-31.50 700.15 -26.50 699.30 26.49:1 -32.34 700.18 -31.50 699.40 -26.50 697.24 2.30% 0.00 696.63 2.30% 29.17 697.98 26.50 698.16 6.69% 29.17 698.27 26.50 696.02

152 + 50

-31.50 700.11 -26.50 699.26 9.22:1 -32.49 700.22 -31.50 699.36 -26.50 697.20 2.30% 0.00 696.59 2.30% 29.03 697.88 26.50 698.09 8.19% 29.03 698.17 26.50 695.98 5 FT 5 FT

9

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

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SANITARY SEWER CROSSING STA. 156+57

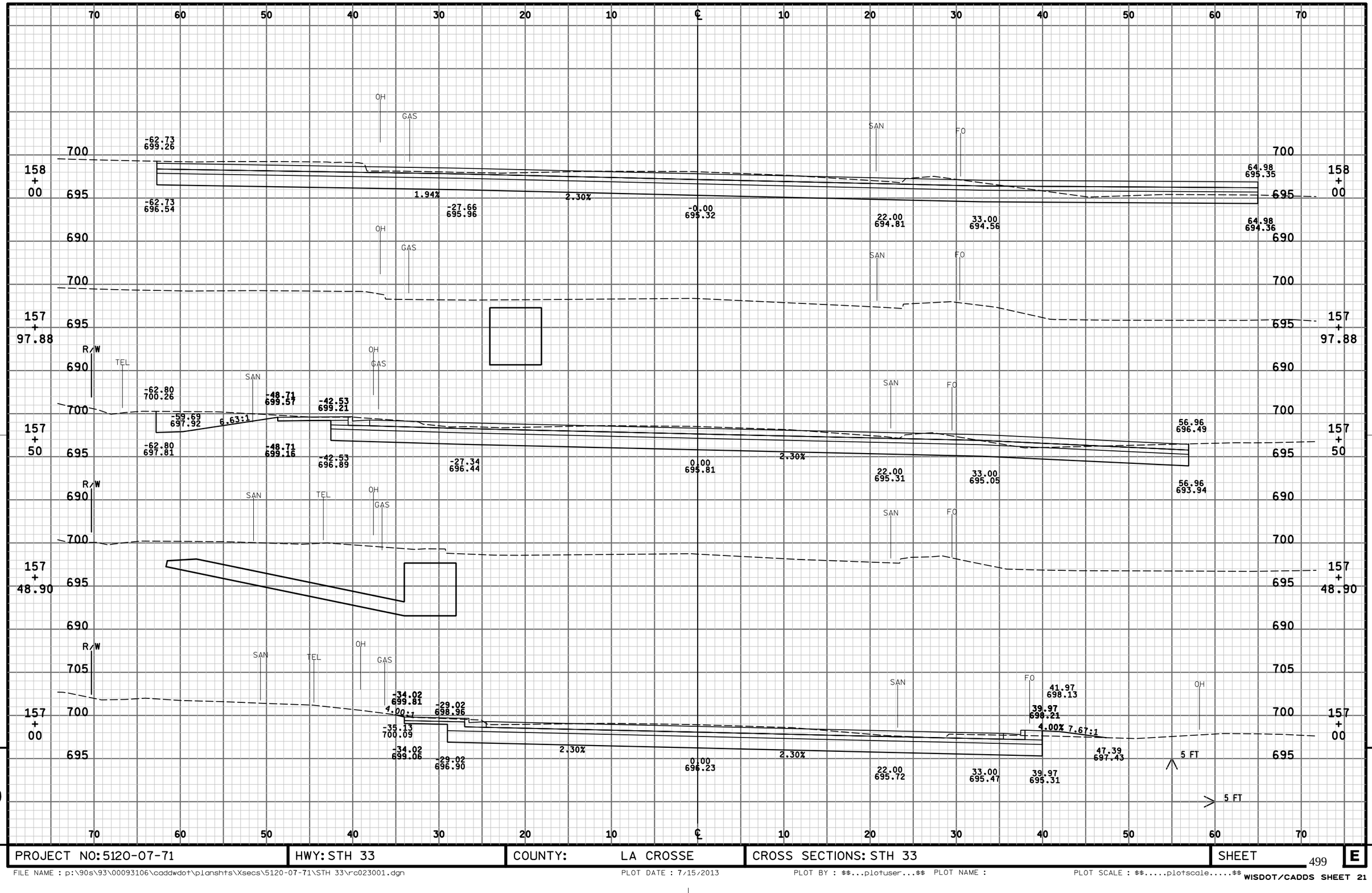
OVERHEAD UTILITY CROSSING STA. 156+42

BURIED TELEPHONE CROSSING STA. 156+36

BURIED GAS CROSSING STA. 156+25

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

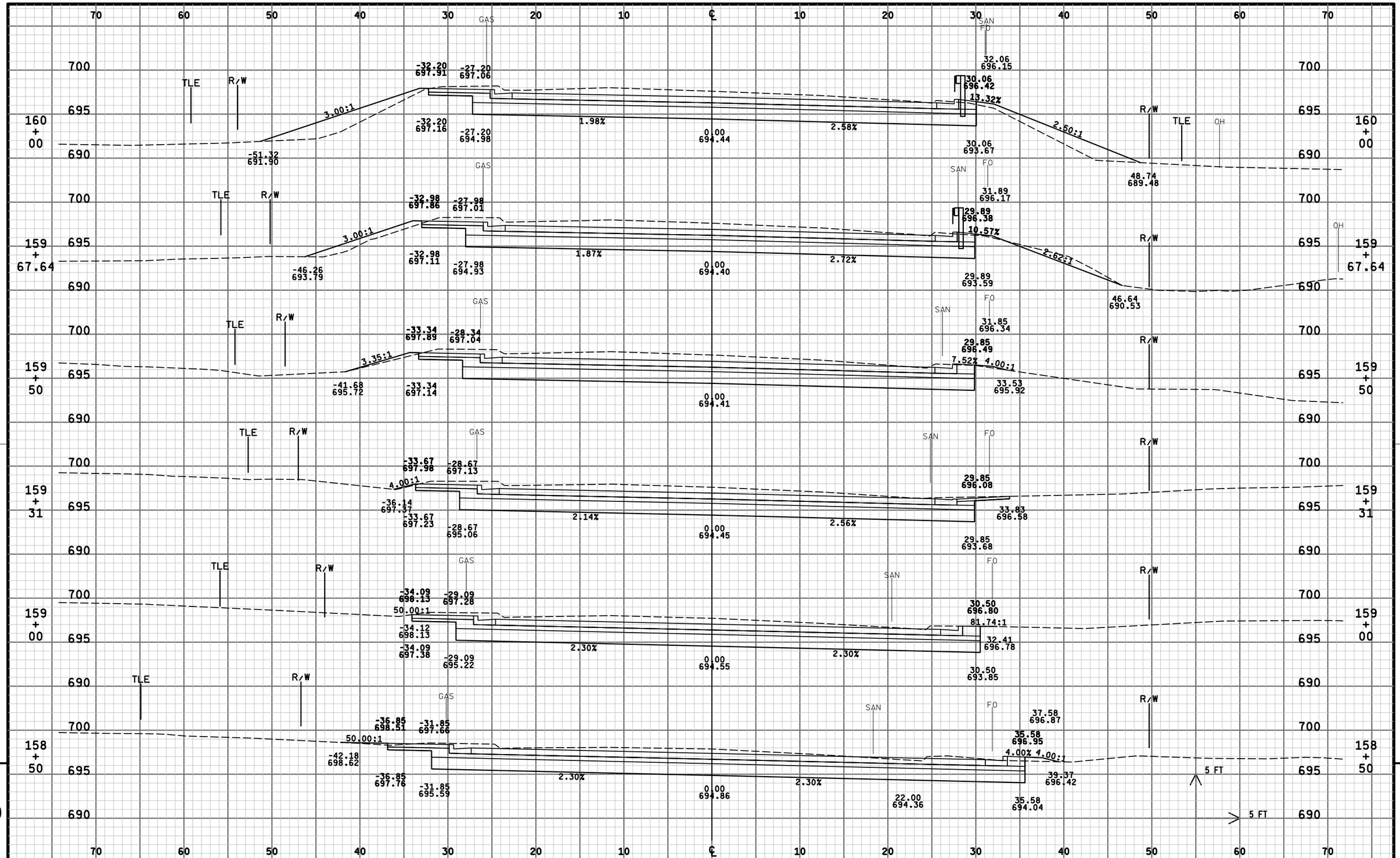
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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

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WISDOT/CADDS SHEET 21



9

9

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 500	E

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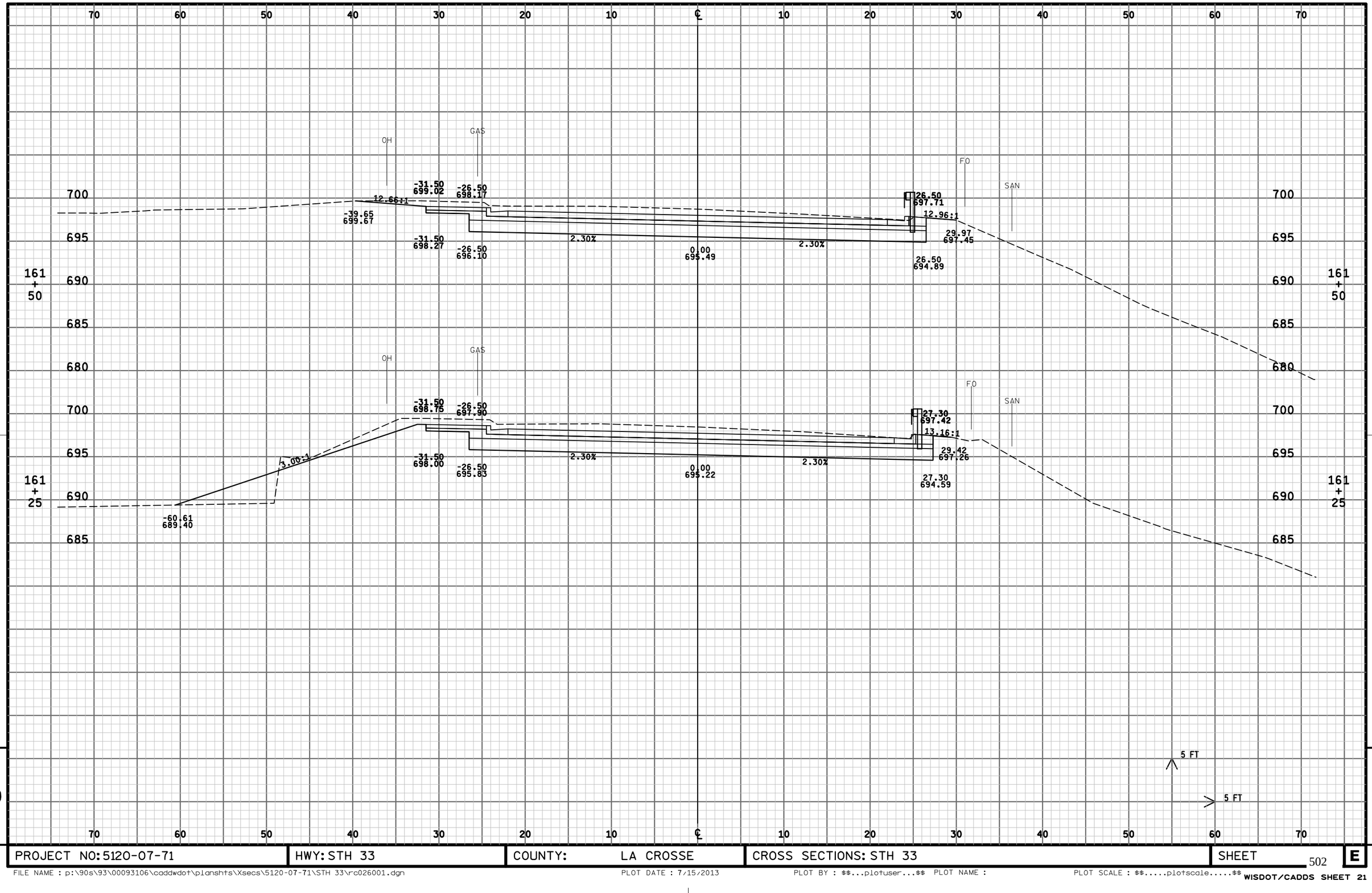
WISDOT/CADDS SHEET 21

STRUCTURE C-32-32
SEE STRUCTURE PLANS

OVERHEAD UTILITY CROSSING STA. 160+58

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc025001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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WISDOT/CADDS SHEET 21

OVERHEAD UTILITY CROSSING STA. 161+99

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33

SHEET 503 E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc027001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

R/W OH GAS FO

705 700 695 690

164 + 10

-31.50 704.37 | -26.50 703.52 | -34.45 704.25 | -31.50 703.62 | -26.50 701.45 | 2.30% | 0.00 700.84 | 2.30% | 26.50 702.76 | 4.44:1 | 28.50 702.31 | 26.50 700.23

164 + 00

-31.50 704.08 | -26.50 703.23 | 50.00:1 | -31.62 704.08 | -31.50 703.33 | -26.50 701.16 | 2.30% | 0.00 700.55 | 2.30% | 26.50 702.53 | 5.09:1 | 28.50 702.14 | 26.50 699.94

163 + 50

-31.50 702.74 | -26.50 701.89 | 5.07:1 | -32.93 702.46 | -31.50 701.99 | -26.50 699.82 | 2.30% | 0.00 699.21 | 2.30% | 26.50 701.15 | 4.56:1 | 28.50 700.71 | 26.50 698.60

163 + 00

-31.50 701.57 | -26.50 700.72 | 7.69:1 | -33.13 701.36 | -31.50 700.82 | -26.50 698.65 | 2.30% | 0.00 698.04 | 2.30% | 26.50 700.21 | 9.96:1 | 28.50 700.01 | 26.50 697.43

162 + 63

-31.50 700.80 | -26.50 699.95 | 50.00:1 | -33.96 700.85 | -31.50 700.05 | -26.50 697.88 | 2.30% | 0.00 697.27 | 2.30% | 29.03 698.91 | 26.50 698.93 | 0.53% | 29.03 699.20 | 26.50 696.66

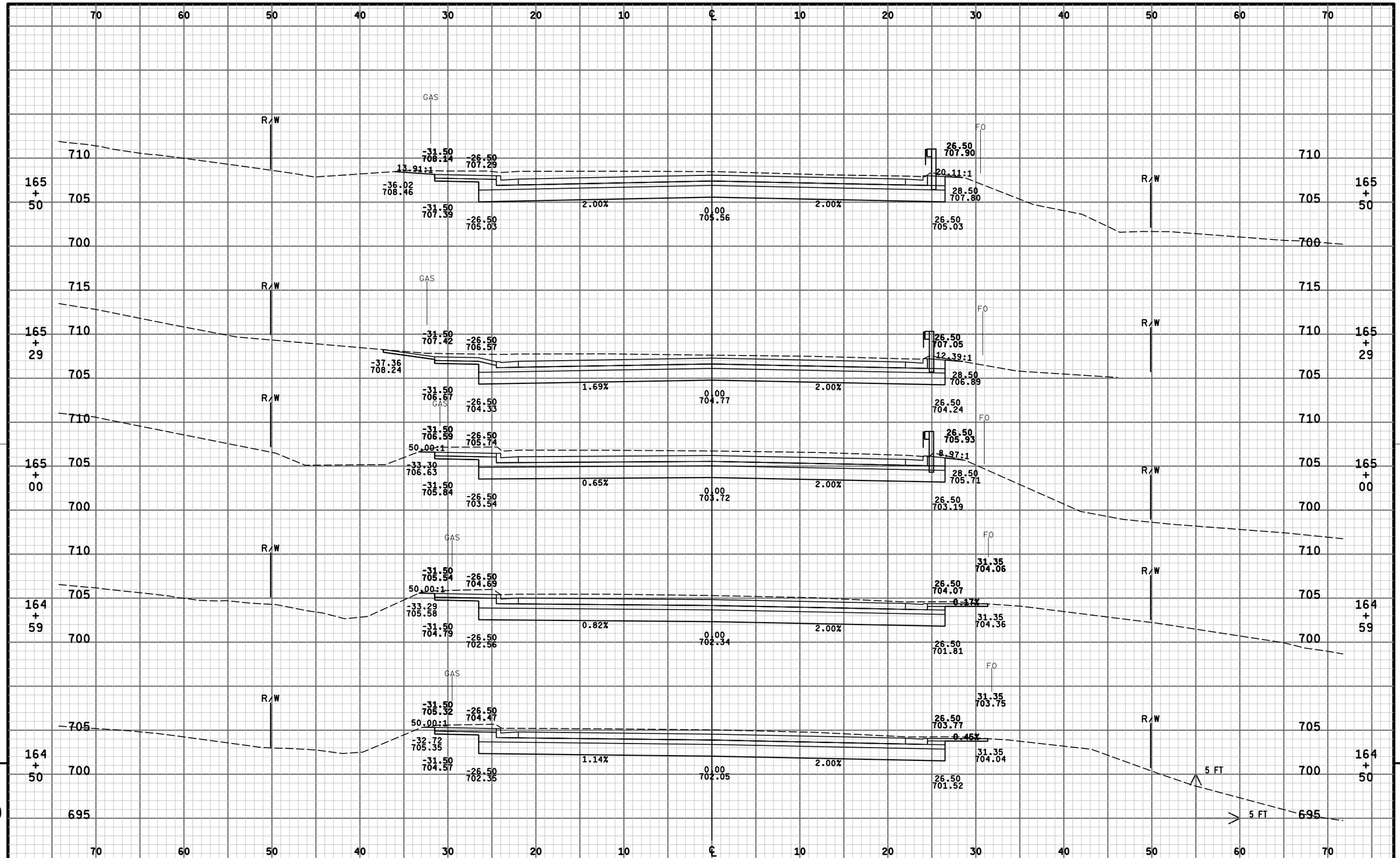
5 FT

5 FT

9

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc028001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

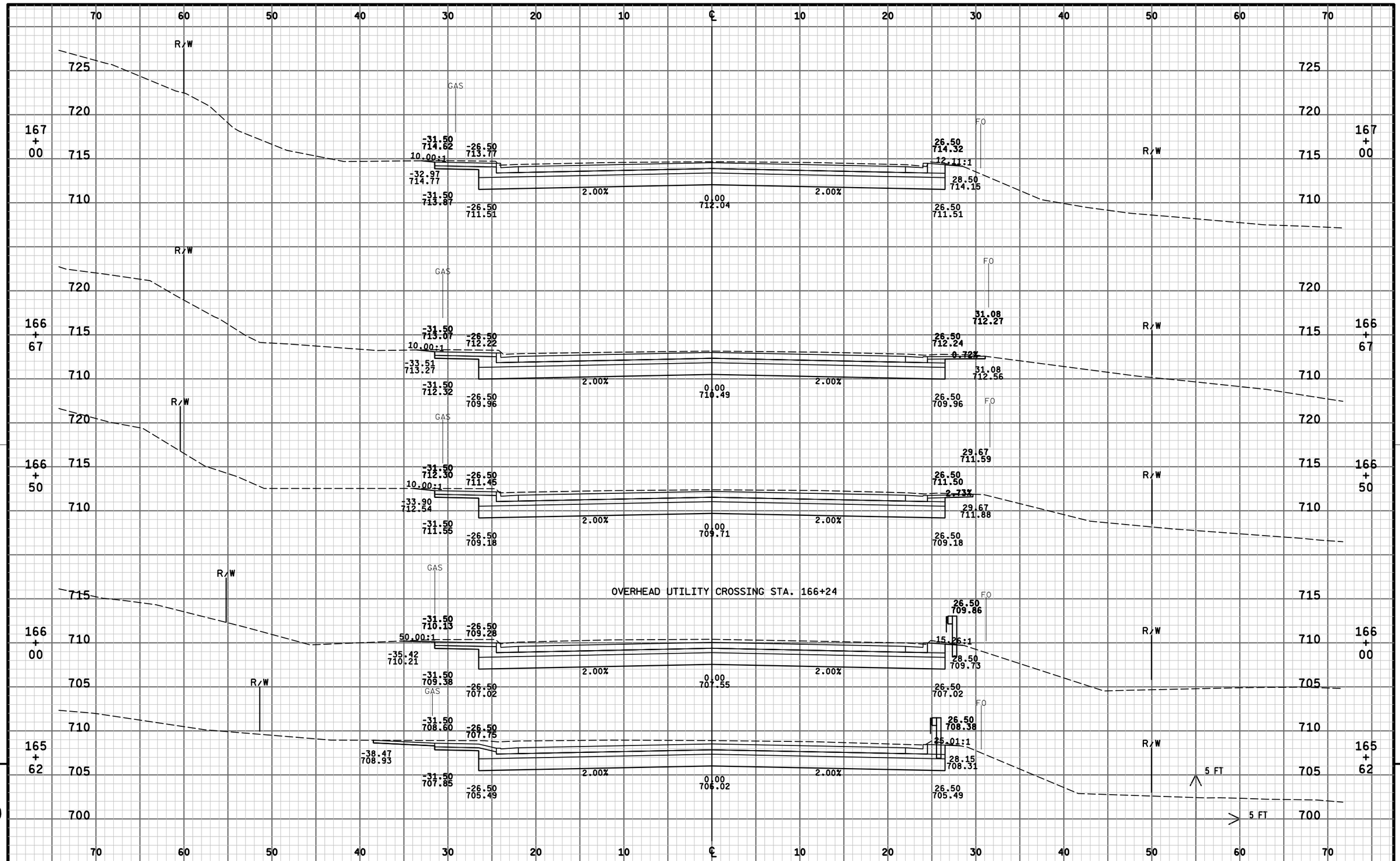


9

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc029001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 506	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc030001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

R/W

735 730 725 720 715 710

167 + 50

GAS

FO

-31.50
717.11

4.00:1

-38.09
720.77

-26.50
716.26

-31.31
715.60

-26.50
714.00

2.00%

0.00
714.53

0.26%

26.50
717.08

7.34:1

28.50
716.80

26.50
714.46

R/W

735 730 725 720 715 710

167 + 50

R/W

BURIED GAS CROSSING STA. 167+46

735 730 725 720 715 710

167 + 42

GAS

FO

-31.50
716.71

4.00:1

-38.69
718.47

-26.50
715.86

-31.31
715.21

-26.50
713.60

2.00%

0.00
714.13

0.55%

26.50
716.62

7.34:1

28.50
716.34

26.50
713.98

R/W

5 FT

5 FT

735 730 725 720 715 710

167 + 42

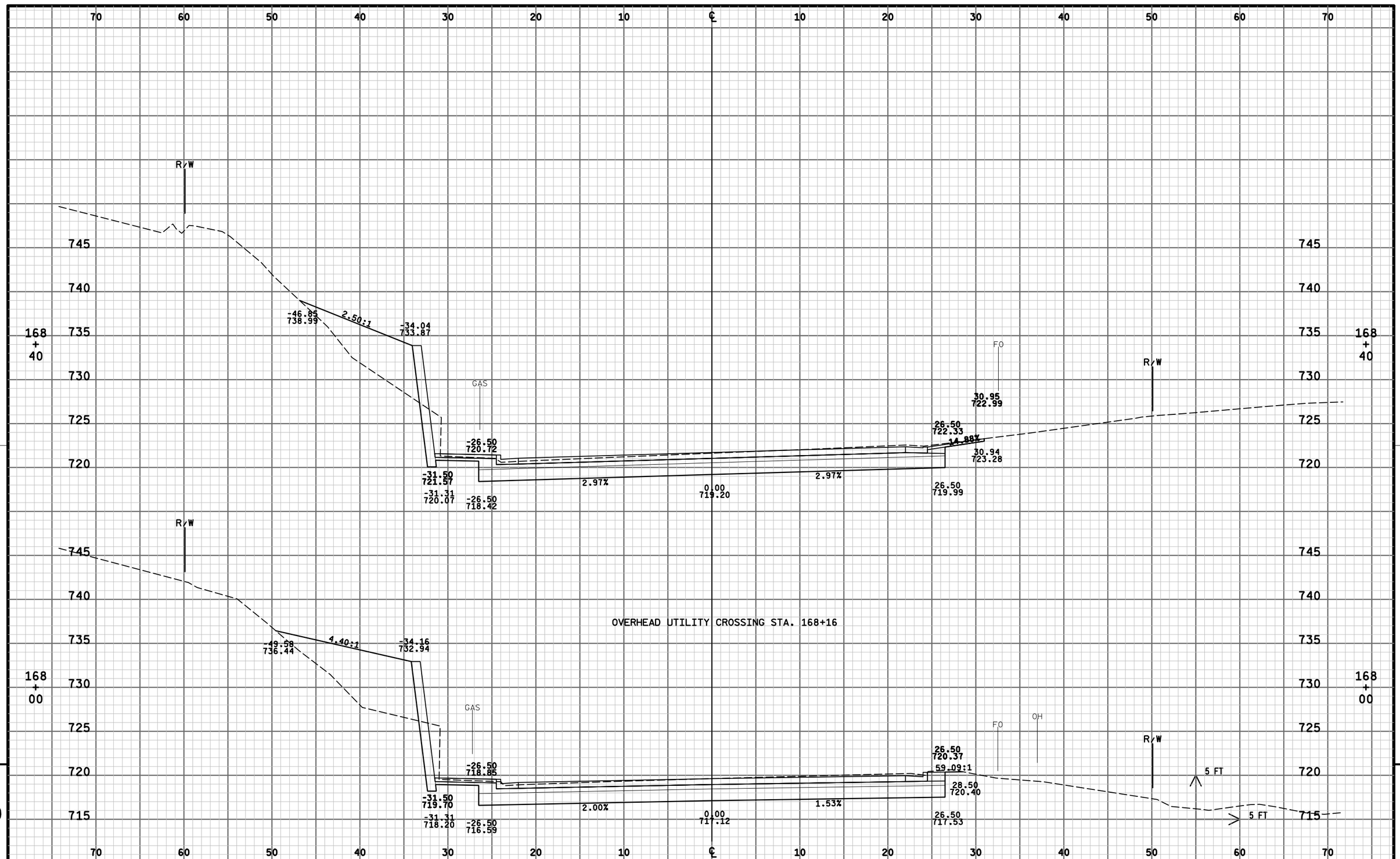
9

9

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc031001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 508	E

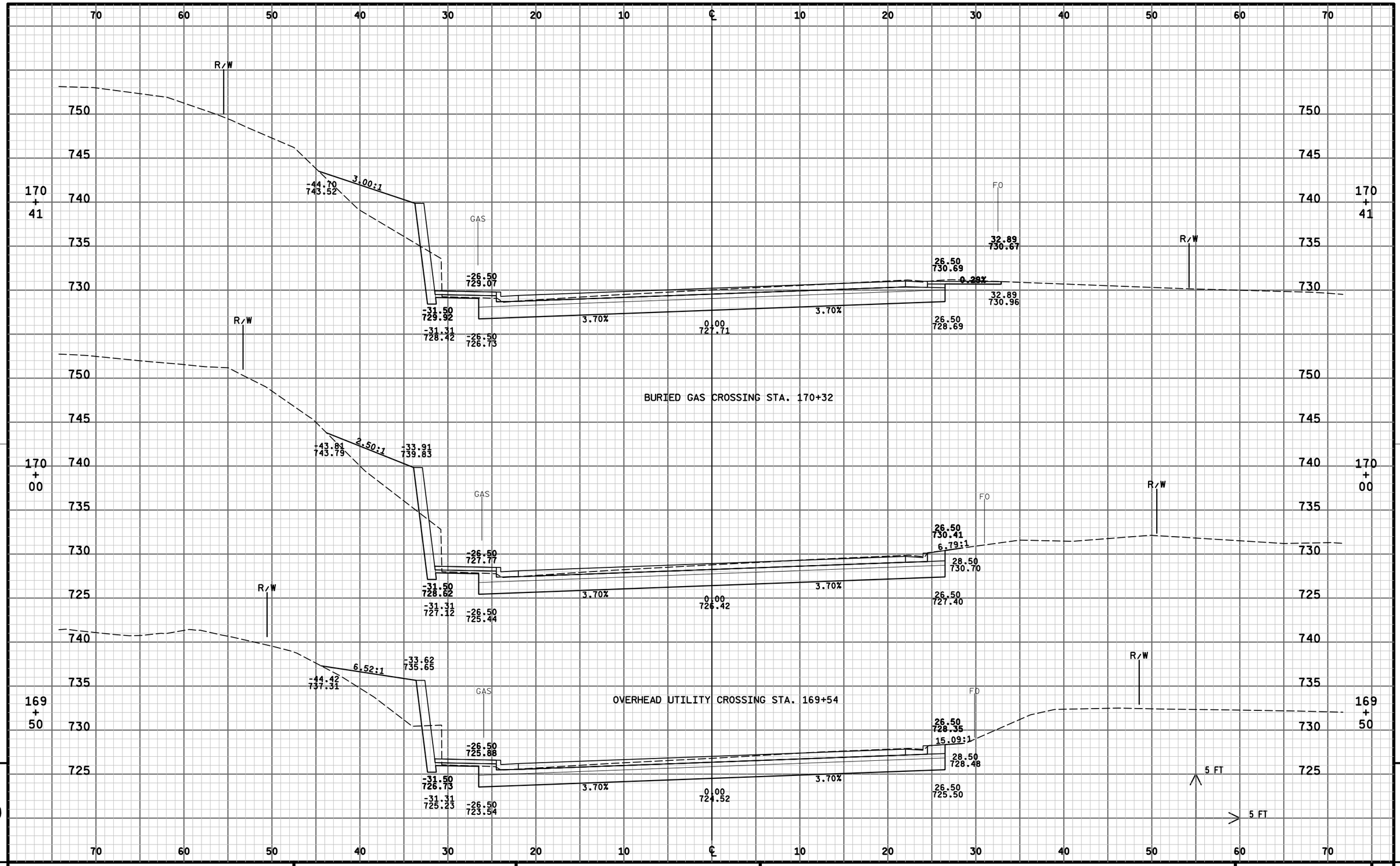
BURIED GAS CROSSING STA. 169+33

R/W
GAS
FO
10.00:1
-31.50
724.48
-43.08
733.41
-26.50
723.63
-31.31
722.98
-26.50
721.29
3.70%
0.00
722.27
26.50
726.14
11.39:1
28.50
726.32
3.70%
26.50
723.25
169
+
00
750
745
740
735
730
725
720
70
60
50
40
30
20
10
℄

R/W
GAS
FO
-46.53
738.65
2.50:1
-33.96
733.62
-26.50
721.14
-31.50
721.99
-31.31
720.48
-26.50
718.83
3.33%
0.00
719.71
26.50
723.45
15.56:1
28.50
723.58
3.33%
26.50
720.60
5 FT
5 FT
168
+
50
9

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

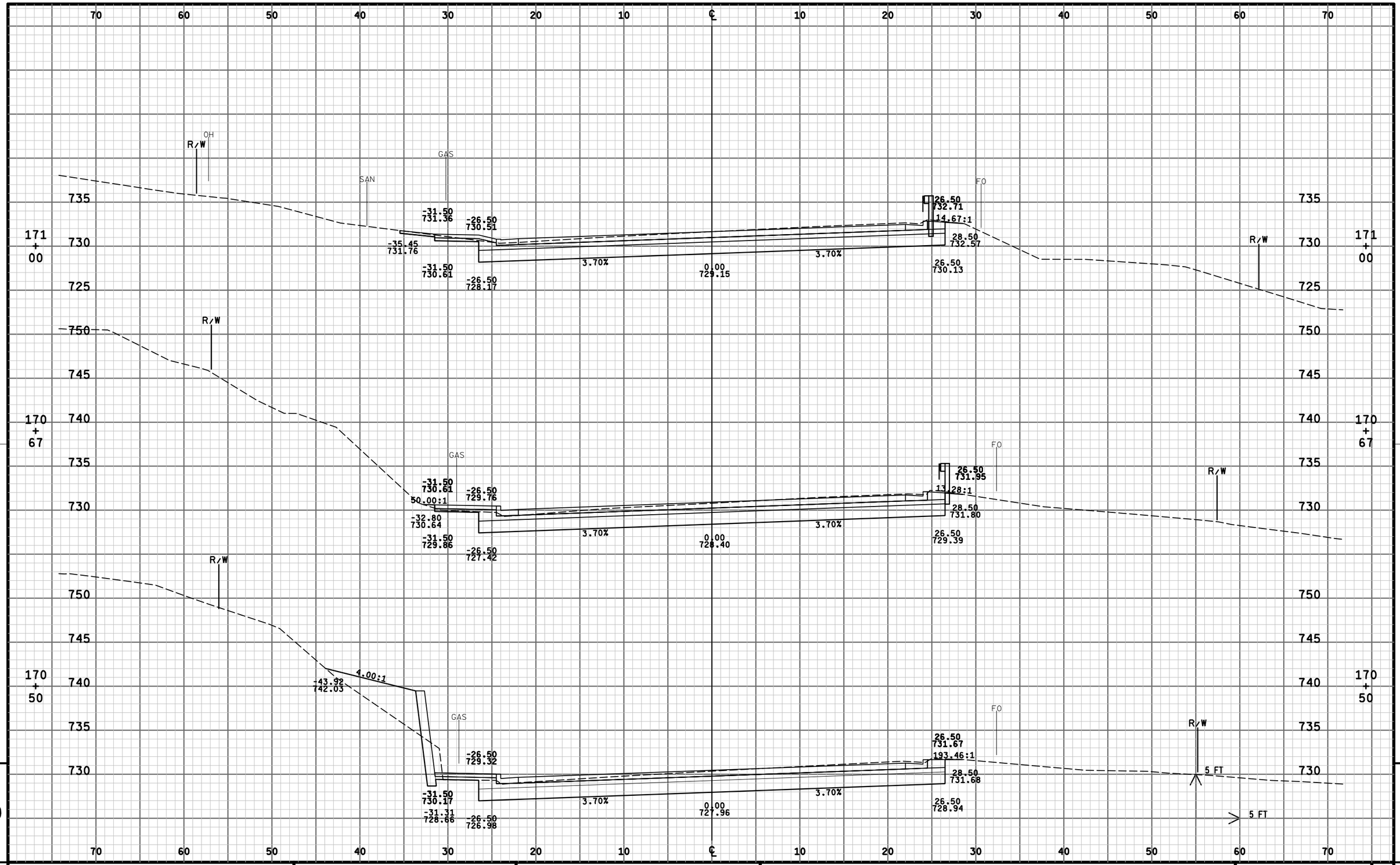
FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc033001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc034001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

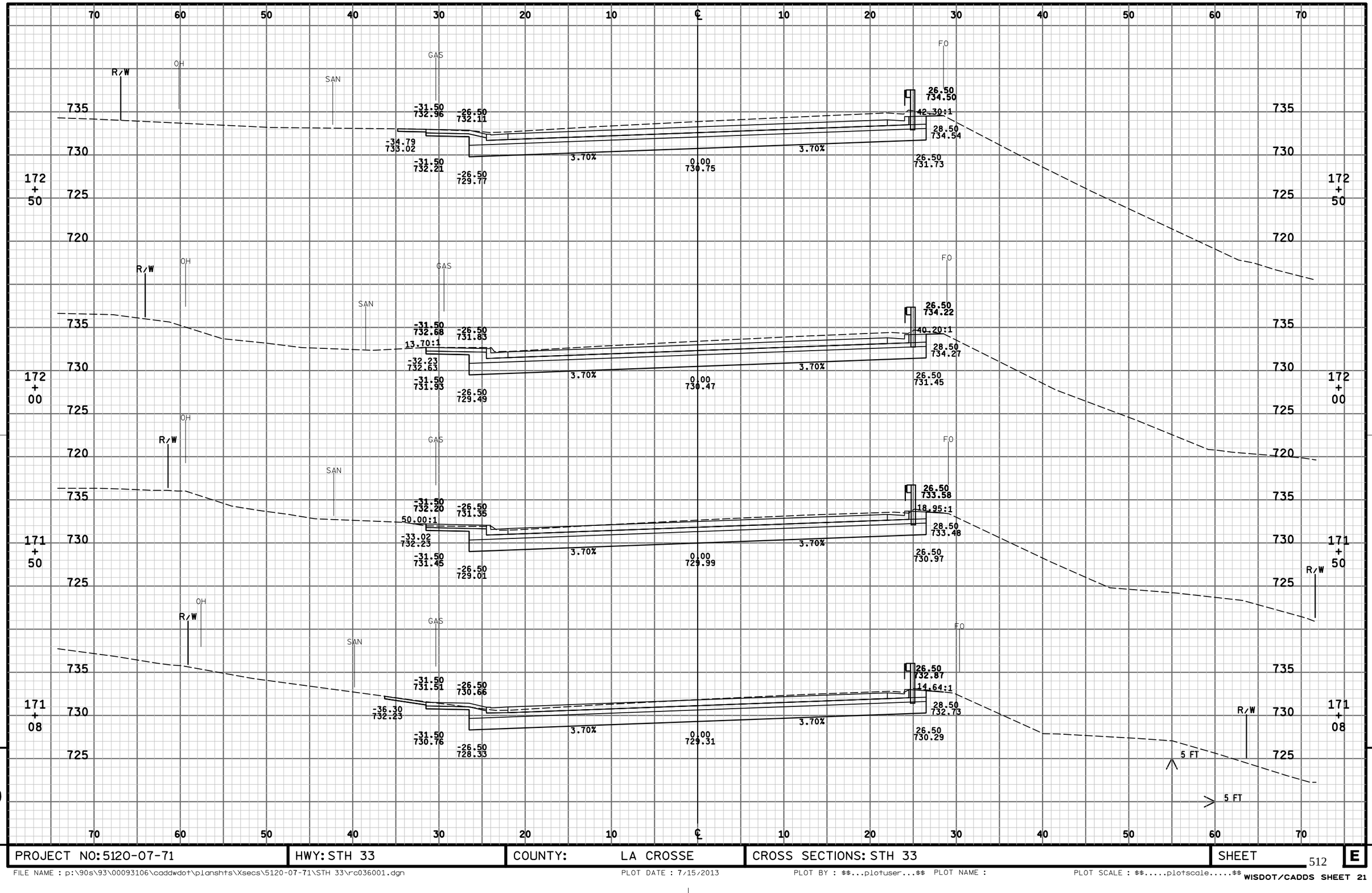
WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc035001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc036001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

R/W OH SAN GAS

735 730 725 720 715

173 + 50

-31.50 733.49 -26.50 732.64 29.00:1 -32.55 733.45 -31.50 732.74 -26.50 730.30 3.70% 0.00 731.28 3.70% 26.50 735.12 13.60:1 28.50 735.27 26.50 732.26

R/W OH SAN GAS

735 730 725 720

173 + 00

-31.50 733.24 -26.50 732.39 15.03:1 -33.07 733.34 -31.50 732.49 -26.50 730.05 3.70% 0.00 731.03 3.70% 26.50 734.63 21.51:1 28.50 734.54 26.50 732.01

R/W OH SAN GAS

735 730 725 720 715

172 + 55

-31.50 732.99 -26.50 732.14 -34.80 733.05 -31.50 732.24 -26.50 729.80 3.70% 0.00 730.78 3.70% 26.50 734.45 53.23:1 28.50 734.41 26.50 731.76

5 FT 5 FT

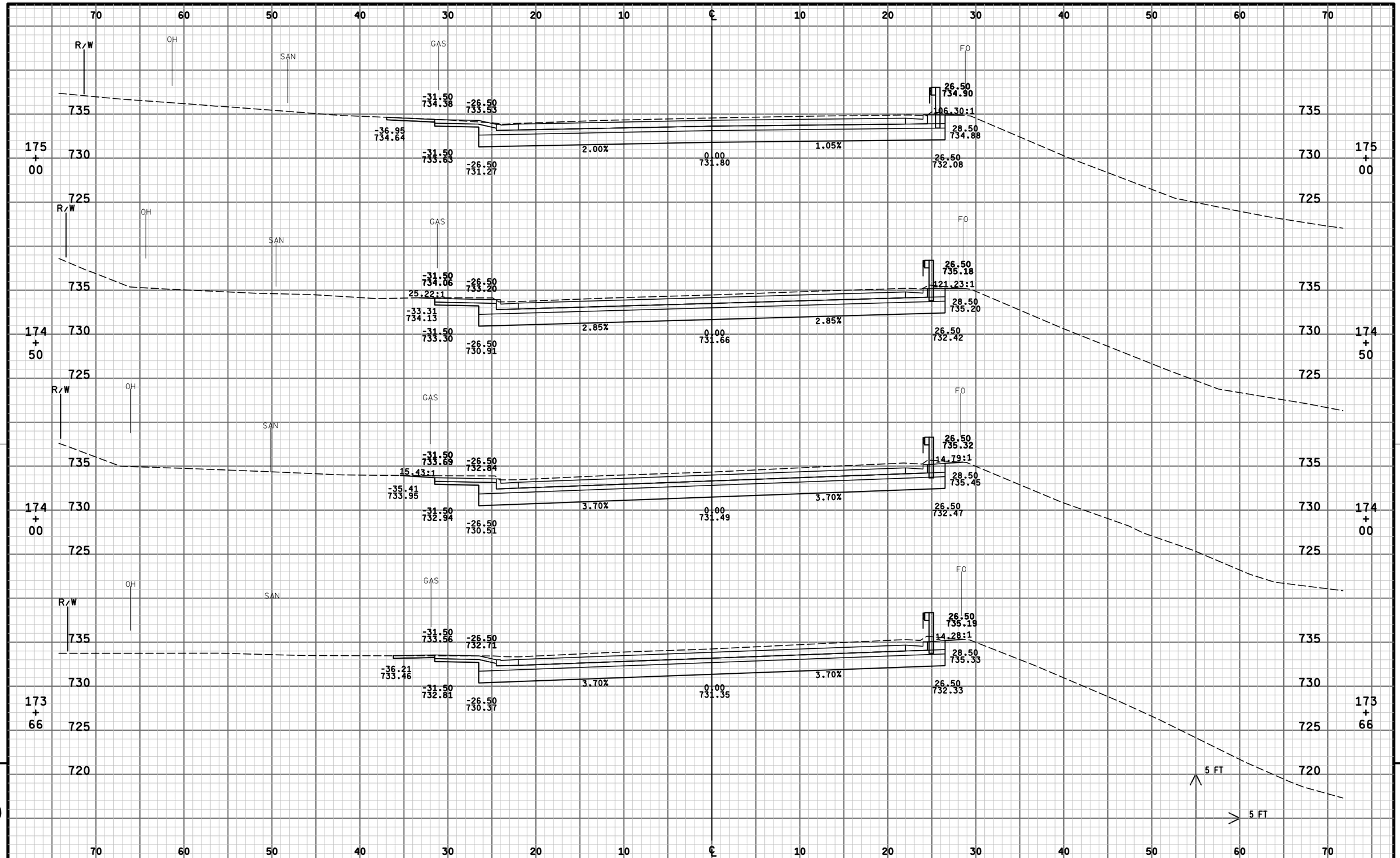
9 9

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc037001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc038001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

740 735 730 725

R/W OH SAN GAS FO

176 + 55

-31.50 734.57 -26.50 733.72 -38.54 734.46 -31.50 733.82 -26.50 731.46 2.00% 0.00 731.99 2.00% 26.50 734.38 39.50:1 28.50 734.33 26.50 731.46

176 + 50

-31.50 734.57 -26.50 733.72 -38.54 734.40 -31.50 733.82 -26.50 731.46 2.00% 0.00 731.99 2.00% 26.50 734.28 13.43:1 28.50 734.13 26.50 731.46

176 + 00

-31.50 734.54 -26.50 733.69 14.75:1 -33.96 734.71 -31.50 733.79 -26.50 731.43 2.00% 0.00 731.96 2.00% 26.50 734.40 1789.92:1 28.50 734.40 26.50 731.43

175 + 50

-31.50 734.48 -26.50 733.63 20.71:1 -33.89 734.60 -31.50 733.73 -26.50 731.37 2.00% 0.00 731.90 0.74% 26.50 734.57 44.74:1 28.50 734.53 26.50 731.71

175 + 06

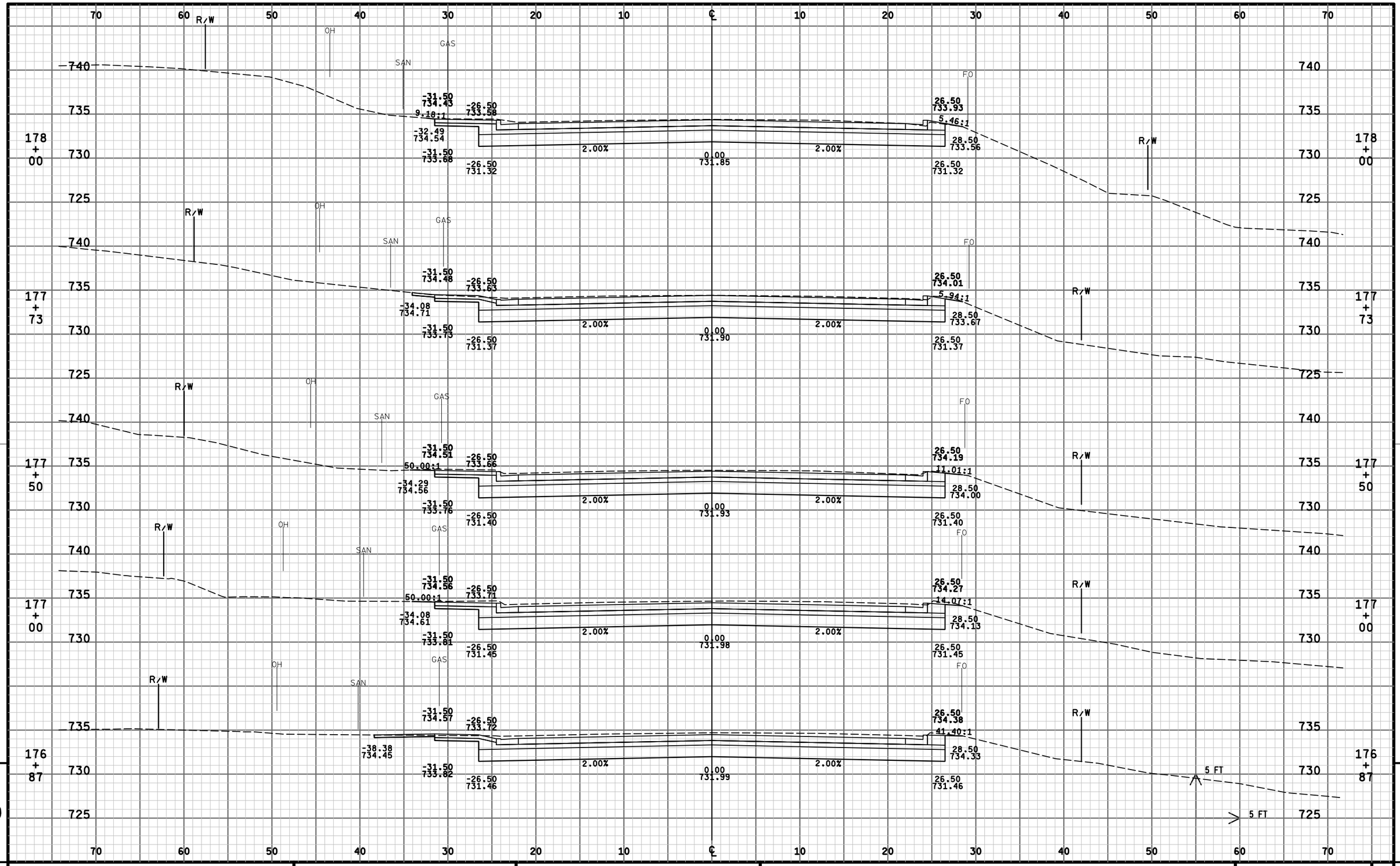
-31.50 734.40 -26.50 733.55 -36.95 734.61 -31.50 733.65 -26.50 731.29 2.00% 0.00 731.82 0.84% 26.50 734.72 12.45:1 28.50 734.56 26.50 732.04

5 FT 5 FT

9 9

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

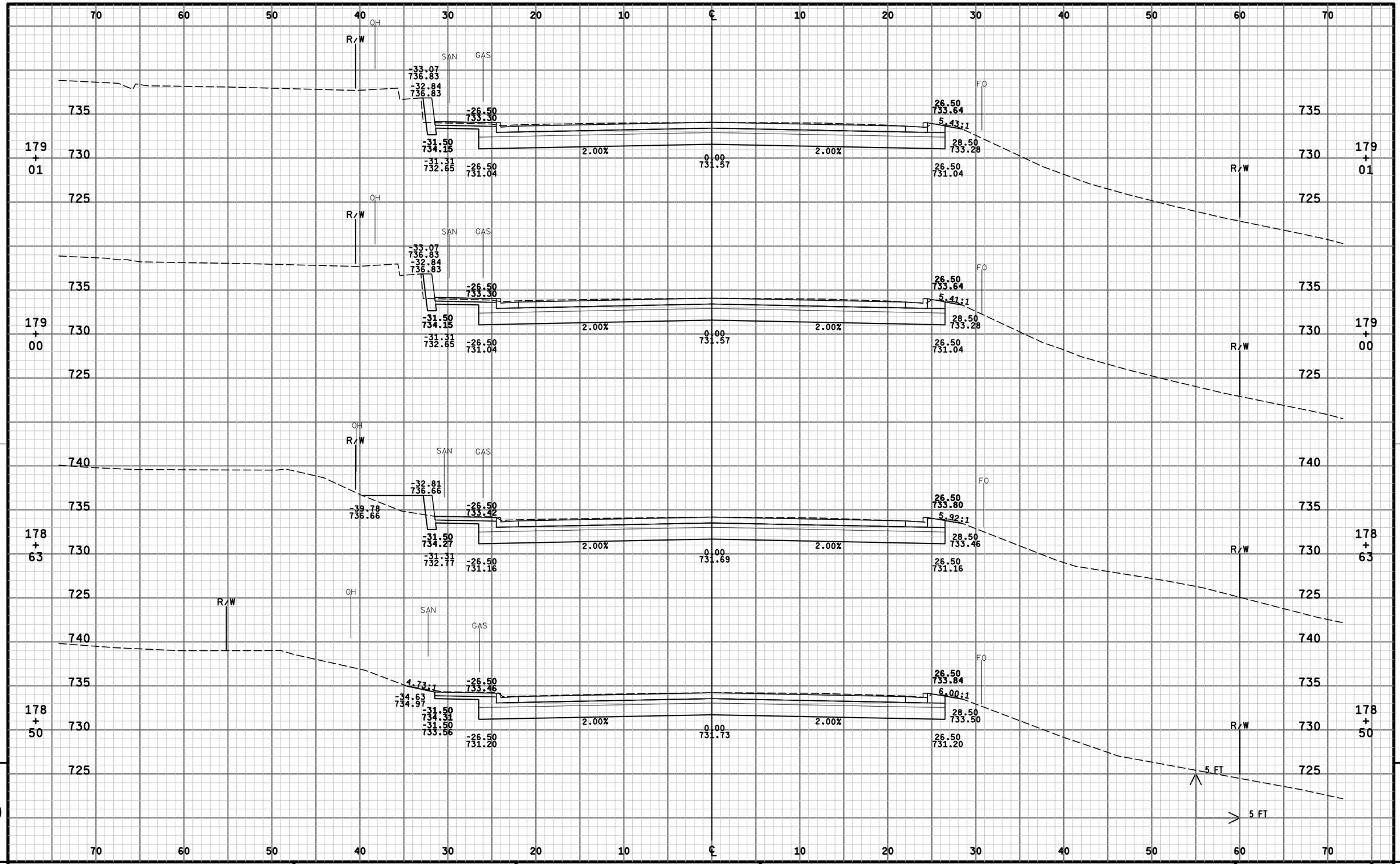
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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc040001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc041001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

OVERHEAD UTILITY CROSSING STA. 180+10

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

735 730 725 720

180 + 32 | 180 + 00 | 179 + 50 | 179 + 23 | 179 + 12

TLE R/W TEL SAN GAS OH FO

-32.61 734.53 | -26.50 732.88 | 12:1 | -31.50 733.73 | -31.31 732.23 | -26.50 730.62

2.00% 0.00 731.15 2.00%

26.50 732.85 | 32.73 733.06 | 26.50 730.62

-32.78 735.98 | -26.50 732.98 | 9.22:1 | -31.50 733.83 | -31.31 732.33 | -26.50 730.72

2.00% 0.00 731.25 2.00%

26.50 733.47 | 28.50 733.26 | 26.50 730.72

-32.75 735.93 | -26.50 733.14 | 10.07:1 | -31.50 733.99 | -31.31 732.49 | -26.50 730.88

2.00% 0.00 731.41 2.00%

26.50 733.65 | 28.50 733.45 | 26.50 730.88

-32.74 735.91 | -26.50 733.23 | 8.66:1 | -31.50 734.08 | -31.31 732.58 | -26.50 730.97

2.00% 0.00 731.50 2.00%

26.50 733.71 | 28.50 733.48 | 26.50 730.97

-38.02 734.23 | -26.50 733.26 | 6.44:1 | -31.50 734.11 | -31.50 733.36 | -26.50 731.00

2.00% 0.00 731.53 2.00%

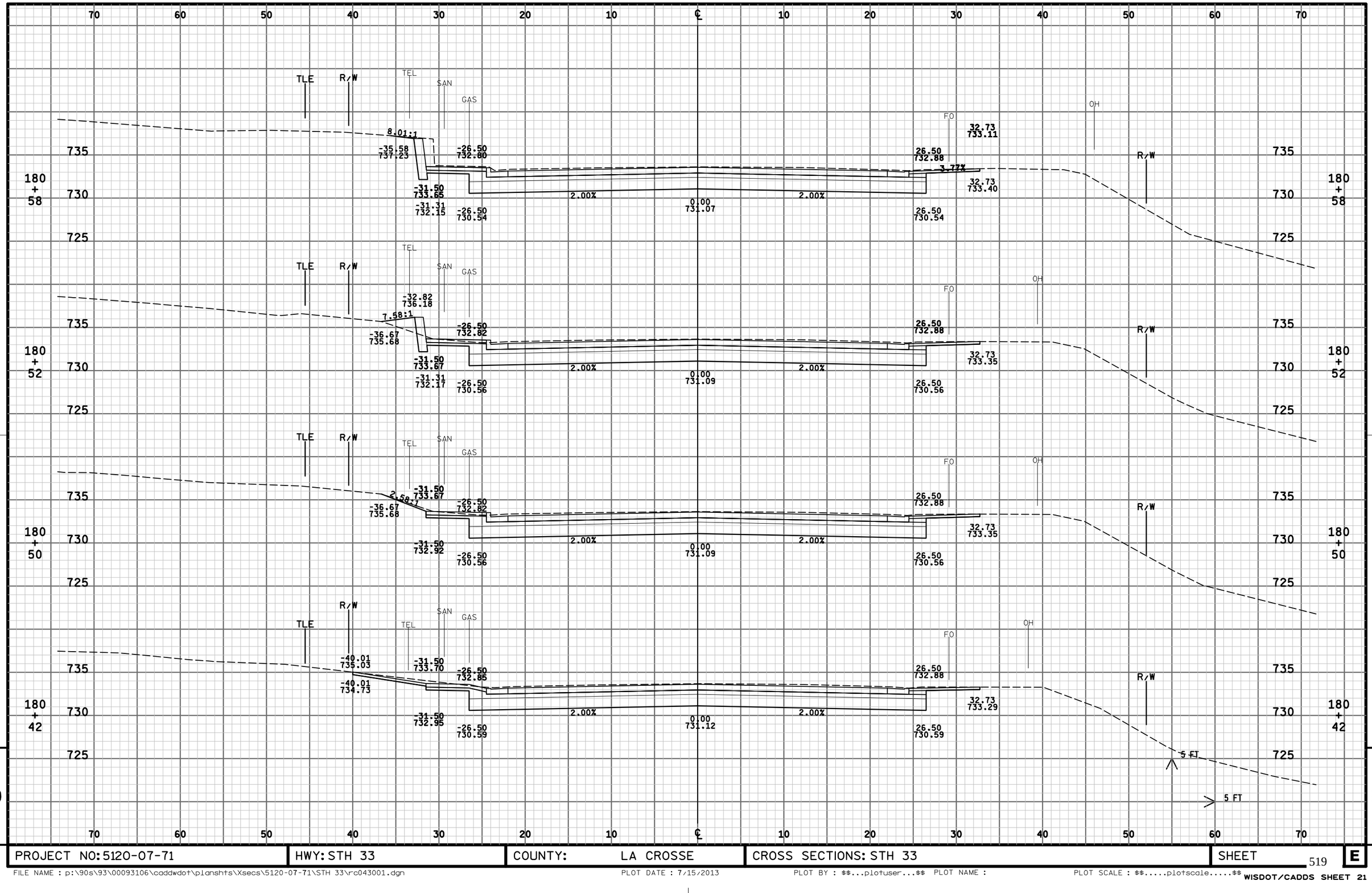
26.50 733.66 | 28.50 733.35 | 26.50 731.00

5 FT 5 FT

9 9

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc042001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc043001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

OVERHEAD UTILITY CROSSING STA. 181+82

70 60 50 40 GAS 30 OH 20 10 ℄ 10 20 30 40 50 60 70

R/W FO -31.50 733.19 -26.50 732.34 50.00:1 -31.67 733.19 -31.50 732.44 -26.50 730.08 2.04% 0.00 730.62 2.04% 26.50 732.48 3.49:1 28.50 731.90 26.50 730.08 FO R/W OH

182 + 00

R/W TEL SAN GAS 4.00:1 -36.21 738.46 -31.50 733.32 -31.31 731.82 -26.50 732.47 -26.50 730.21 2.00% 0.00 730.74 2.00% OH 26.50 732.85 6.03:1 28.50 732.52 26.50 730.21 FO OH R/W

181 + 61

TLE R/W TEL SAN GAS 3.00:1 -35.78 740.71 -31.50 733.36 -31.31 731.86 -26.50 732.51 -26.50 730.25 2.00% 0.00 730.78 2.00% 26.50 733.01 9.24:1 28.50 732.79 26.50 730.25 FO OH OH R/W

181 + 50

TLE R/W TEL SAN GAS 8.01:1 -34.66 739.41 -31.50 733.62 -31.31 732.02 -26.50 732.67 -26.50 730.41 2.00% 0.00 730.94 2.00% 26.50 733.39 406.39:1 28.50 733.39 26.50 730.41 FO OH R/W 5 FT 5 FT

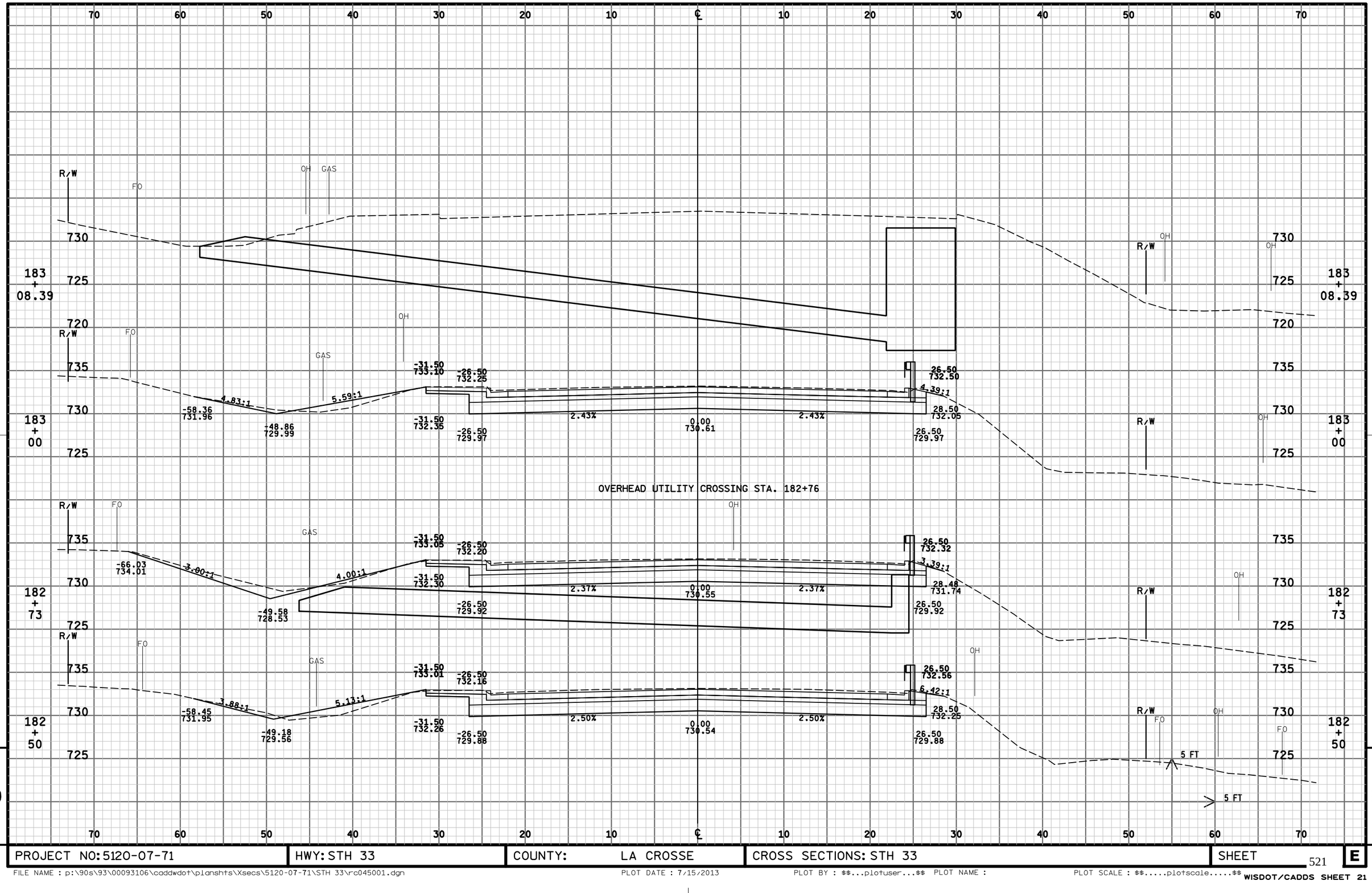
181 + 00

9

PROJECT NO: 5120-07-71 | HWY: STH 33 | COUNTY: LA CROSSE | CROSS SECTIONS: STH 33 | SHEET E

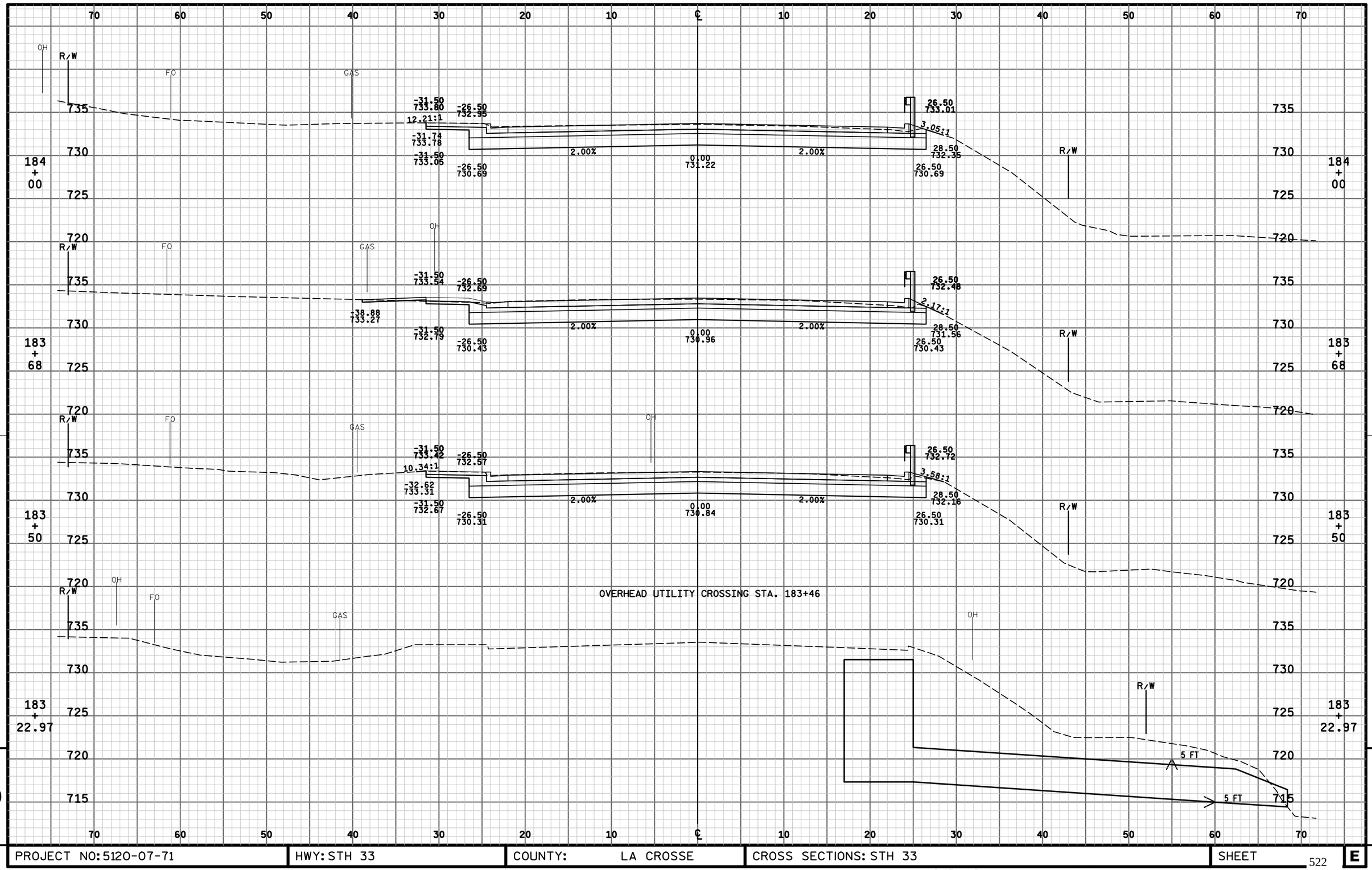
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OVERHEAD UTILITY CROSSING STA. 182+76



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

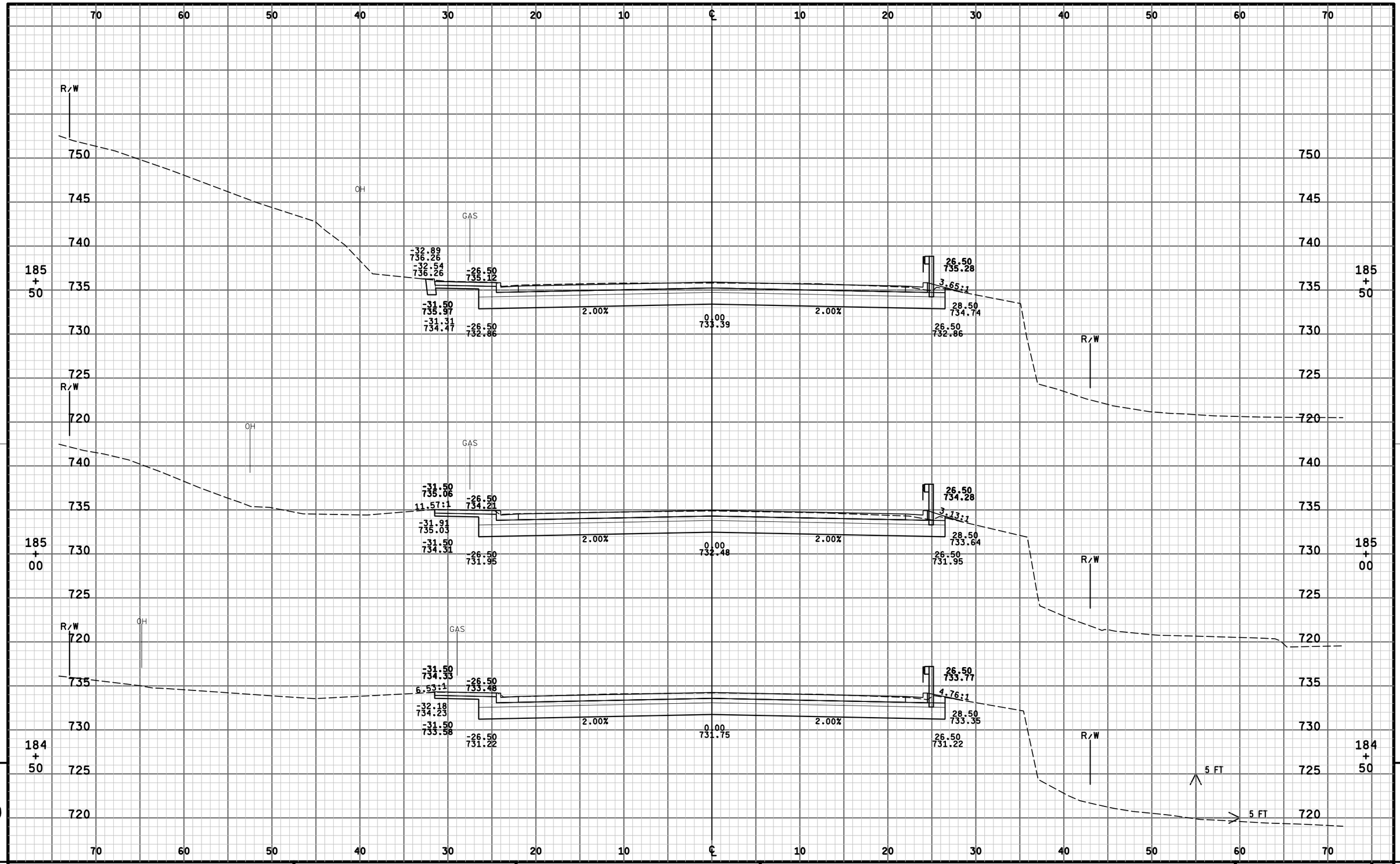
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9

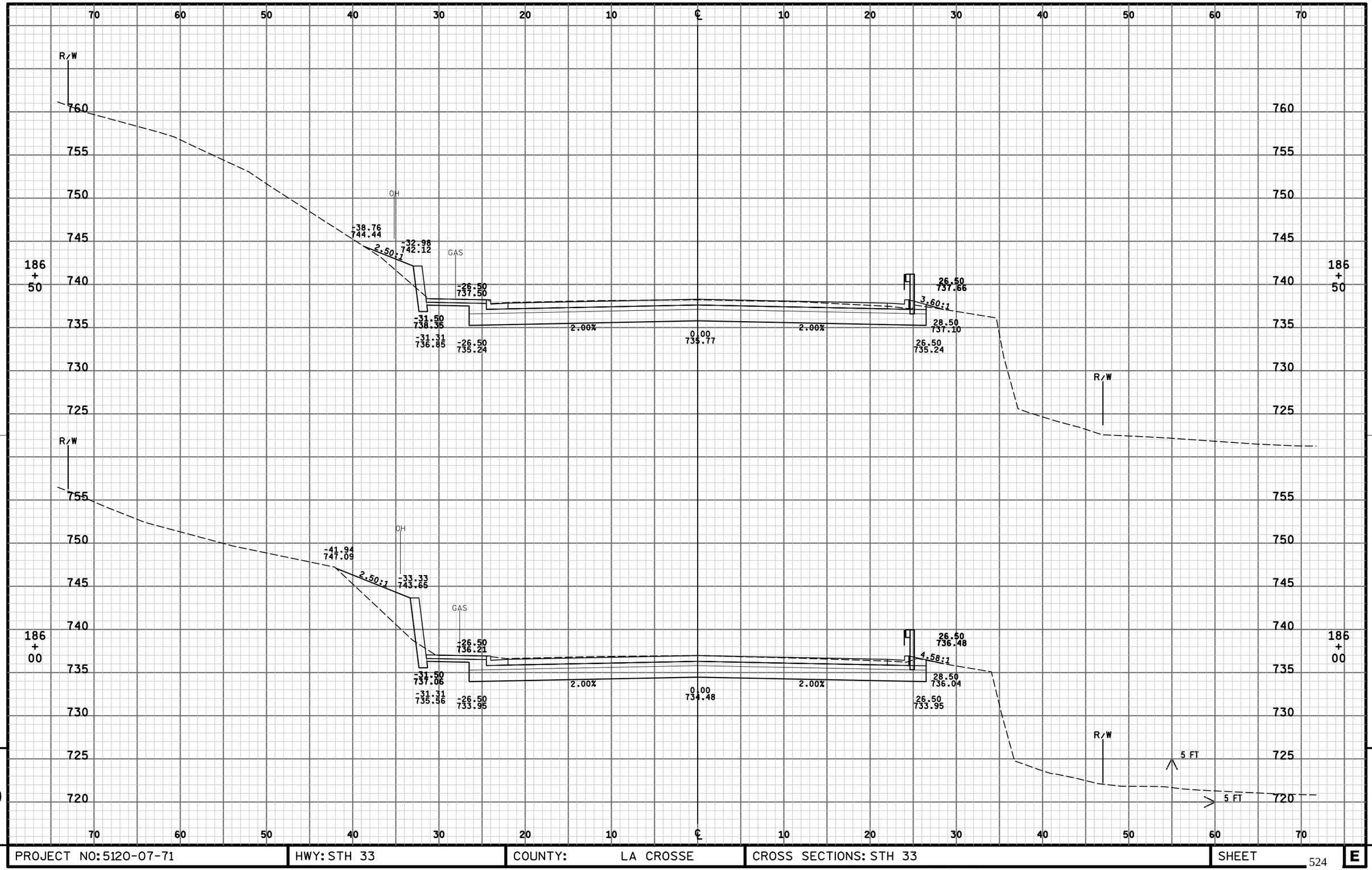
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc046001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



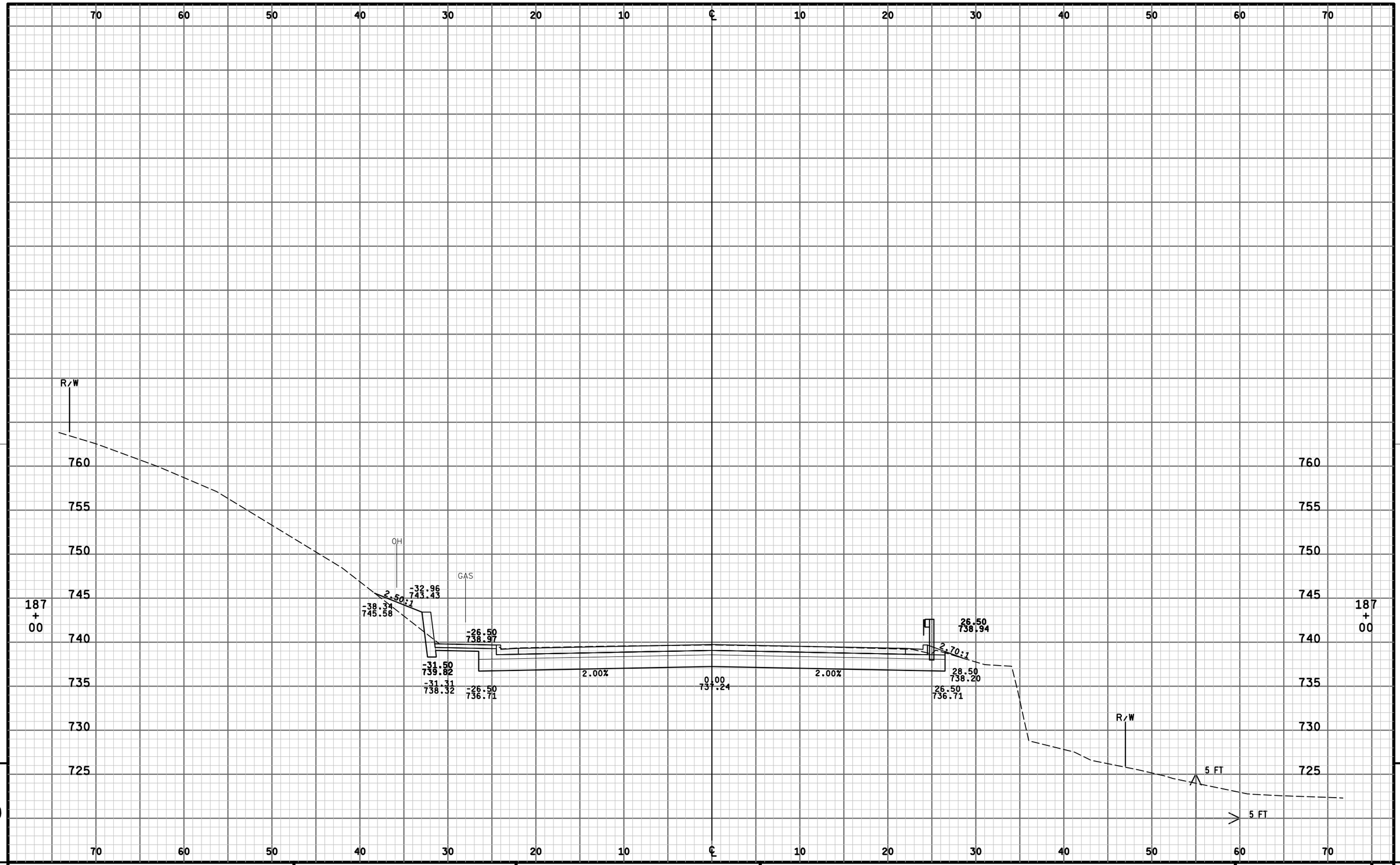
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc047001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



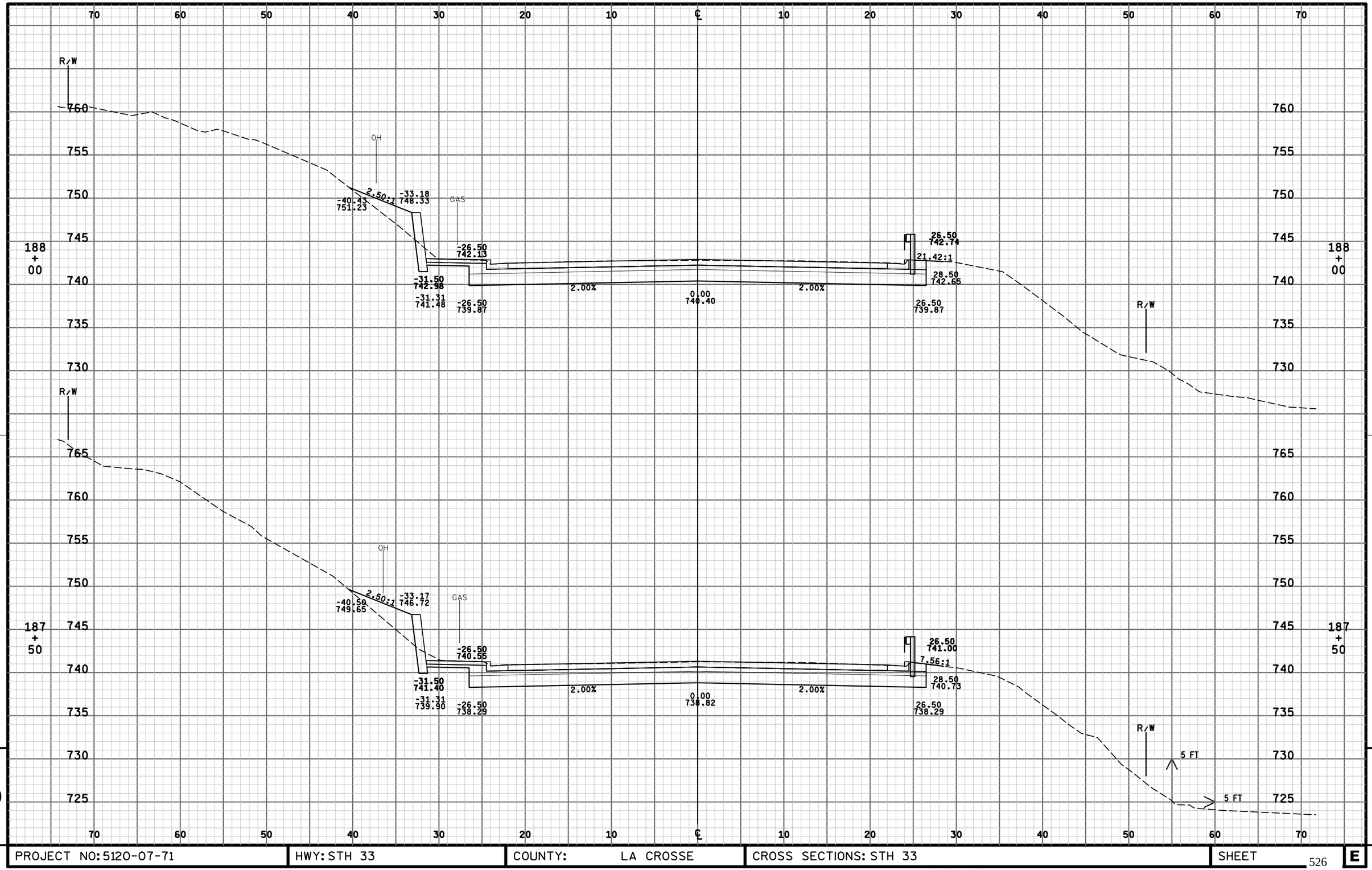
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc048001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

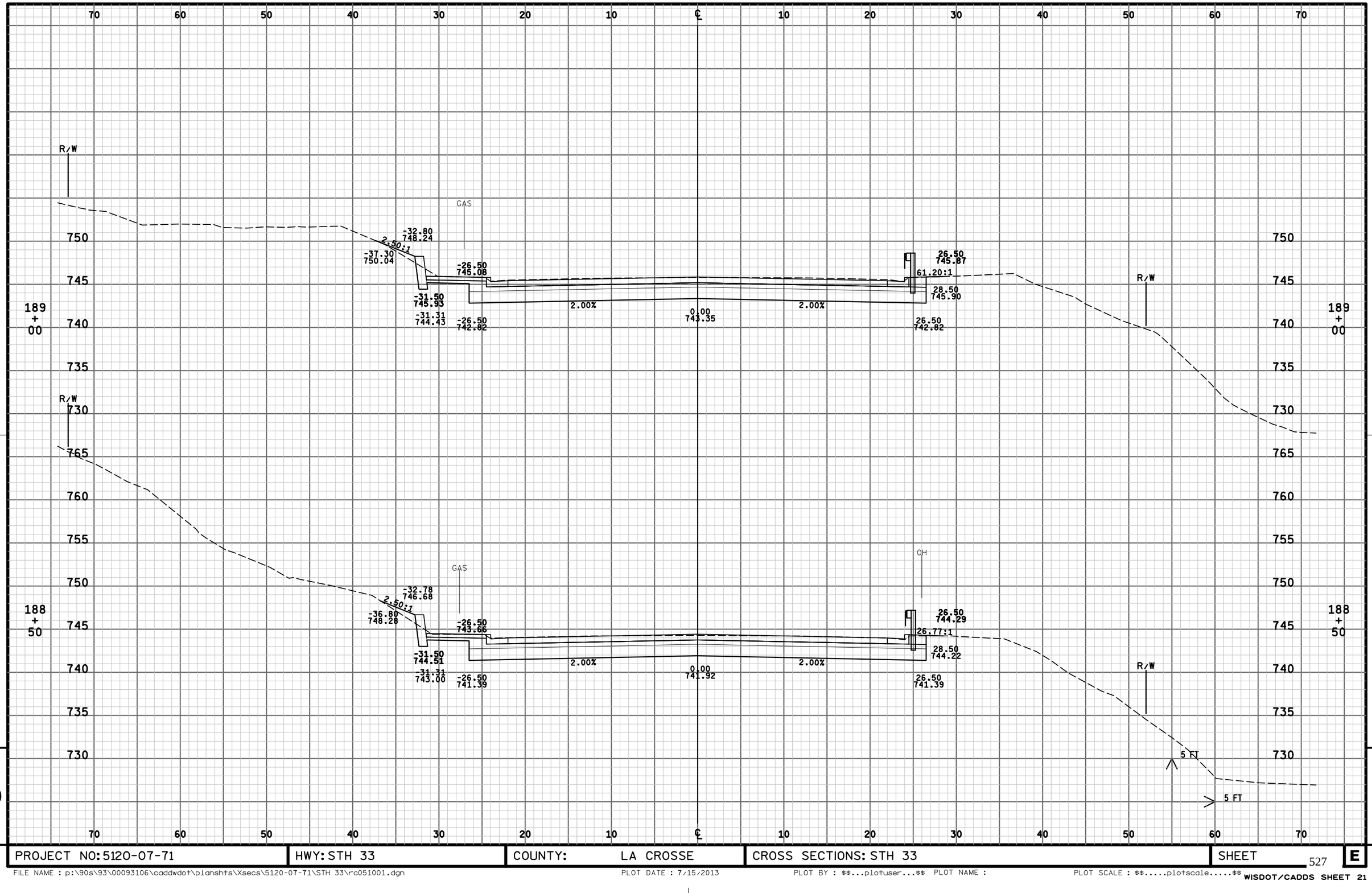
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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc050001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

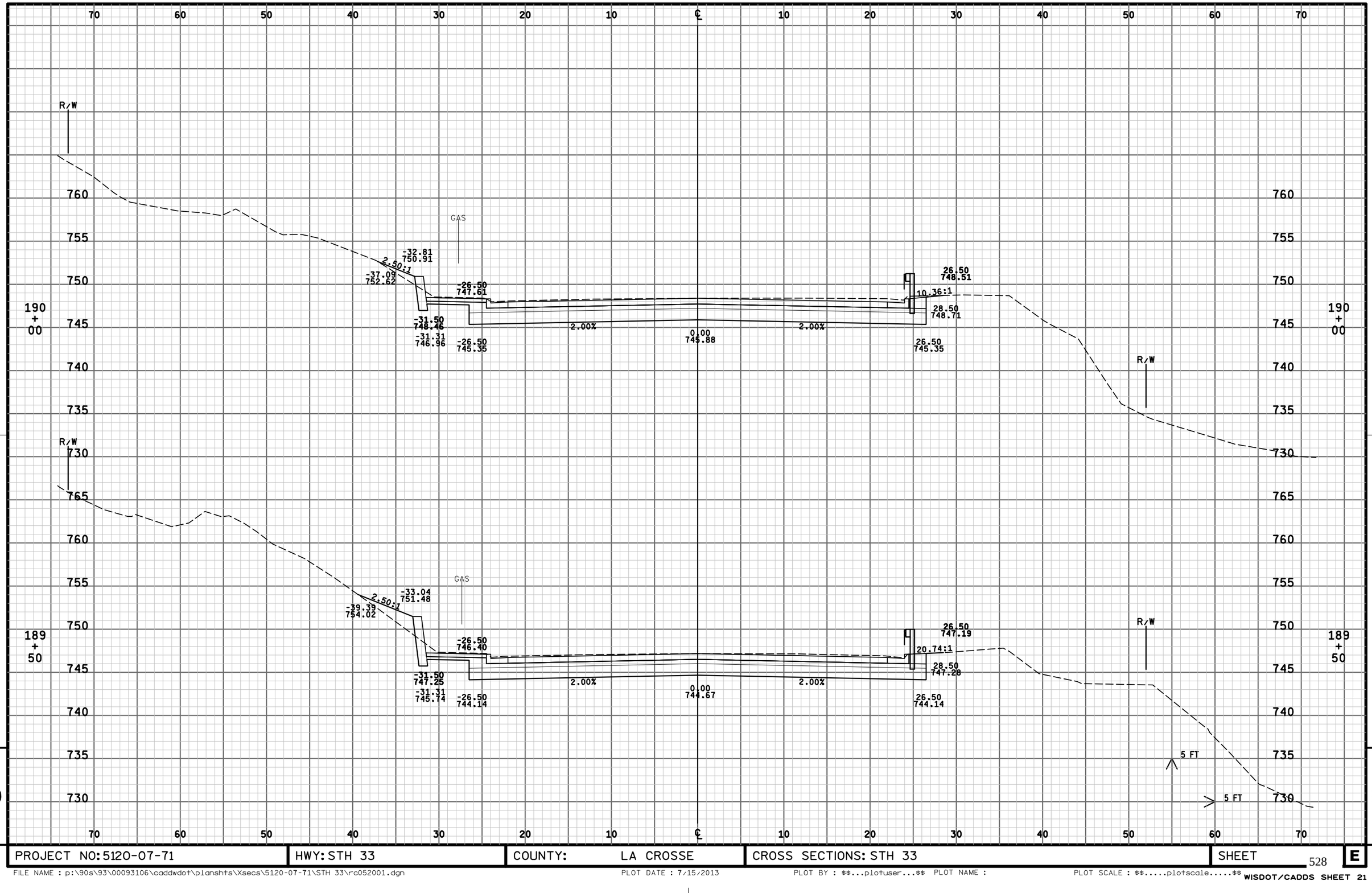
WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

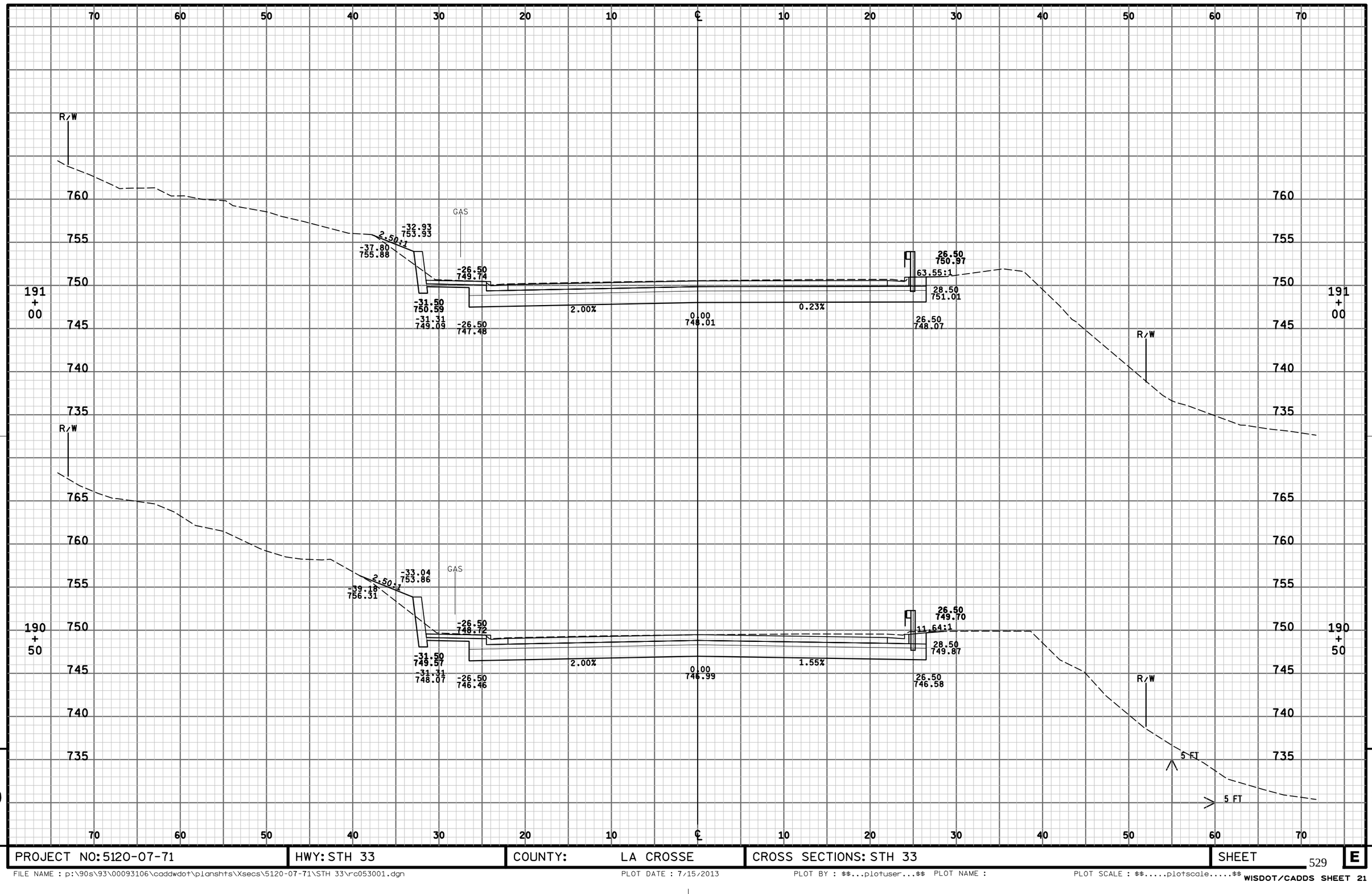
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WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET

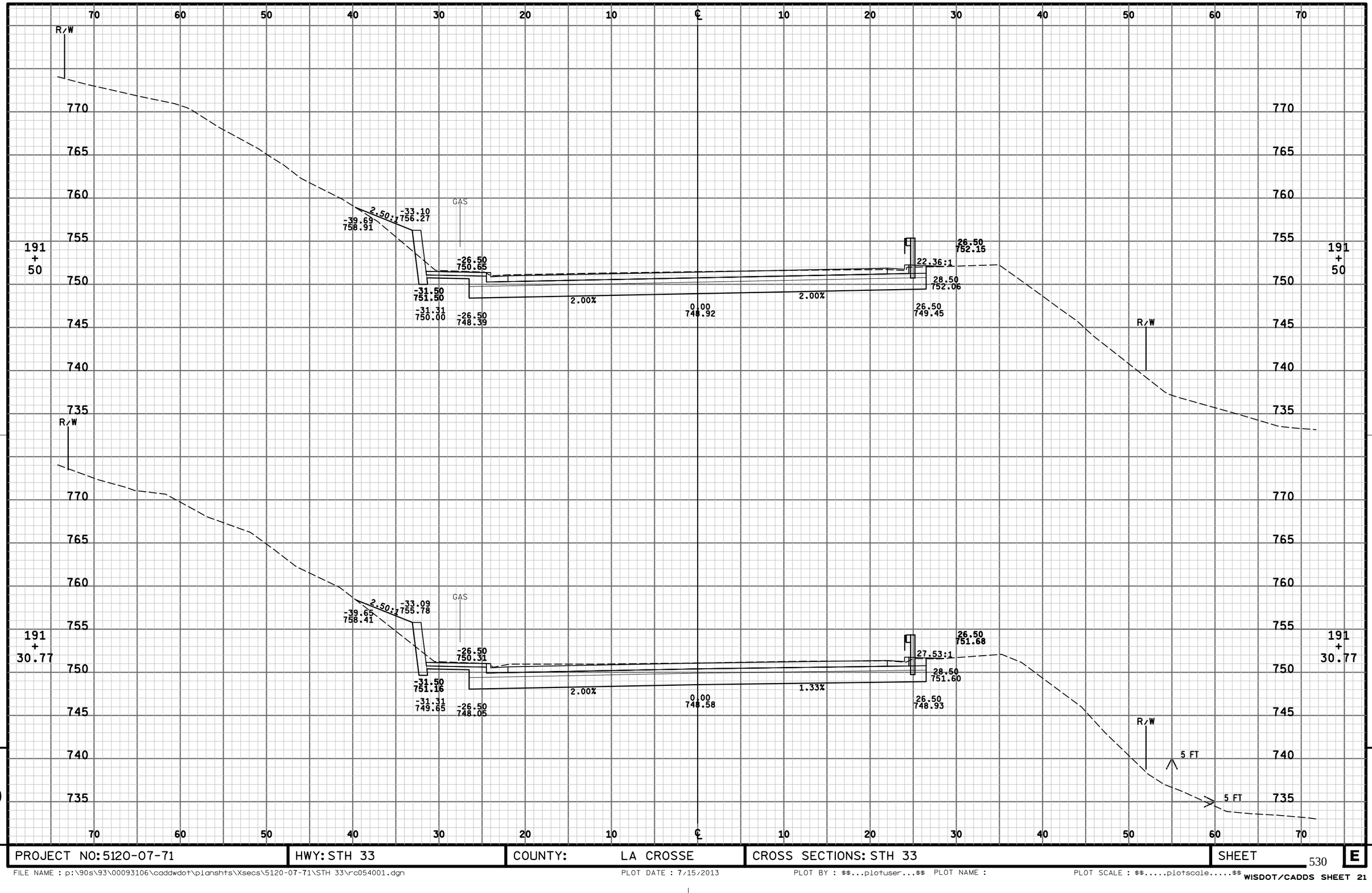
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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

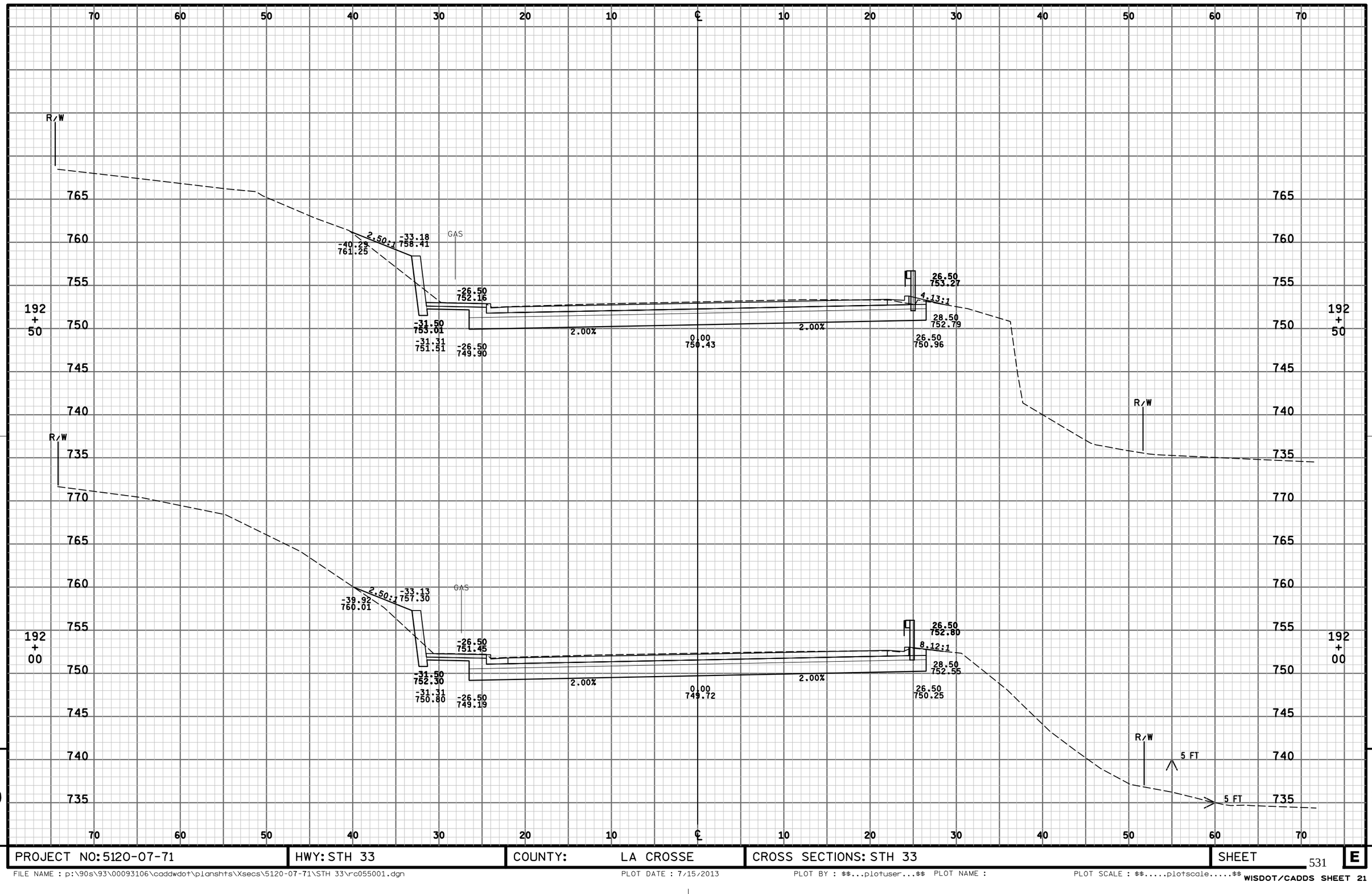
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WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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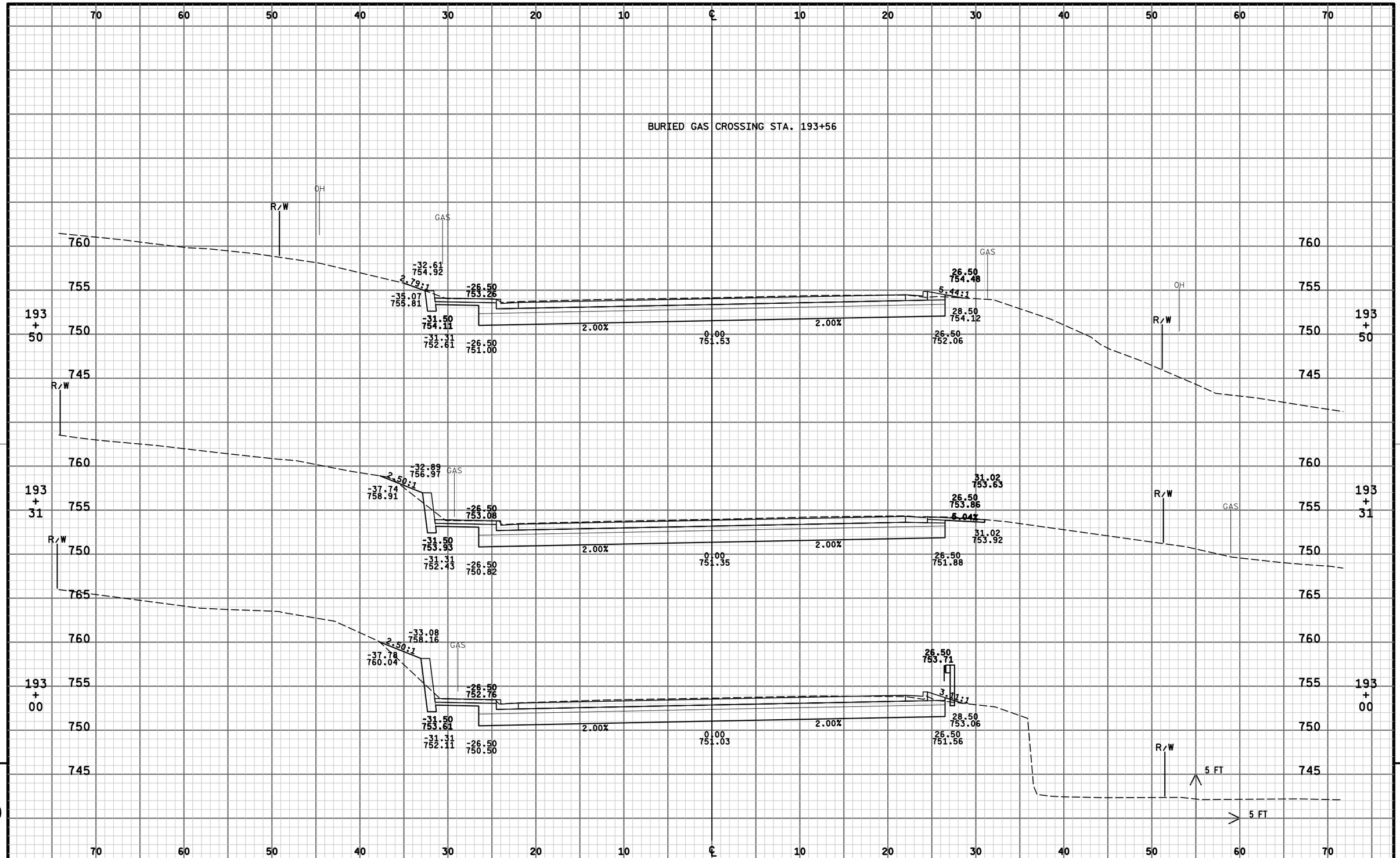


PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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WISDOT/CADDS SHEET 21

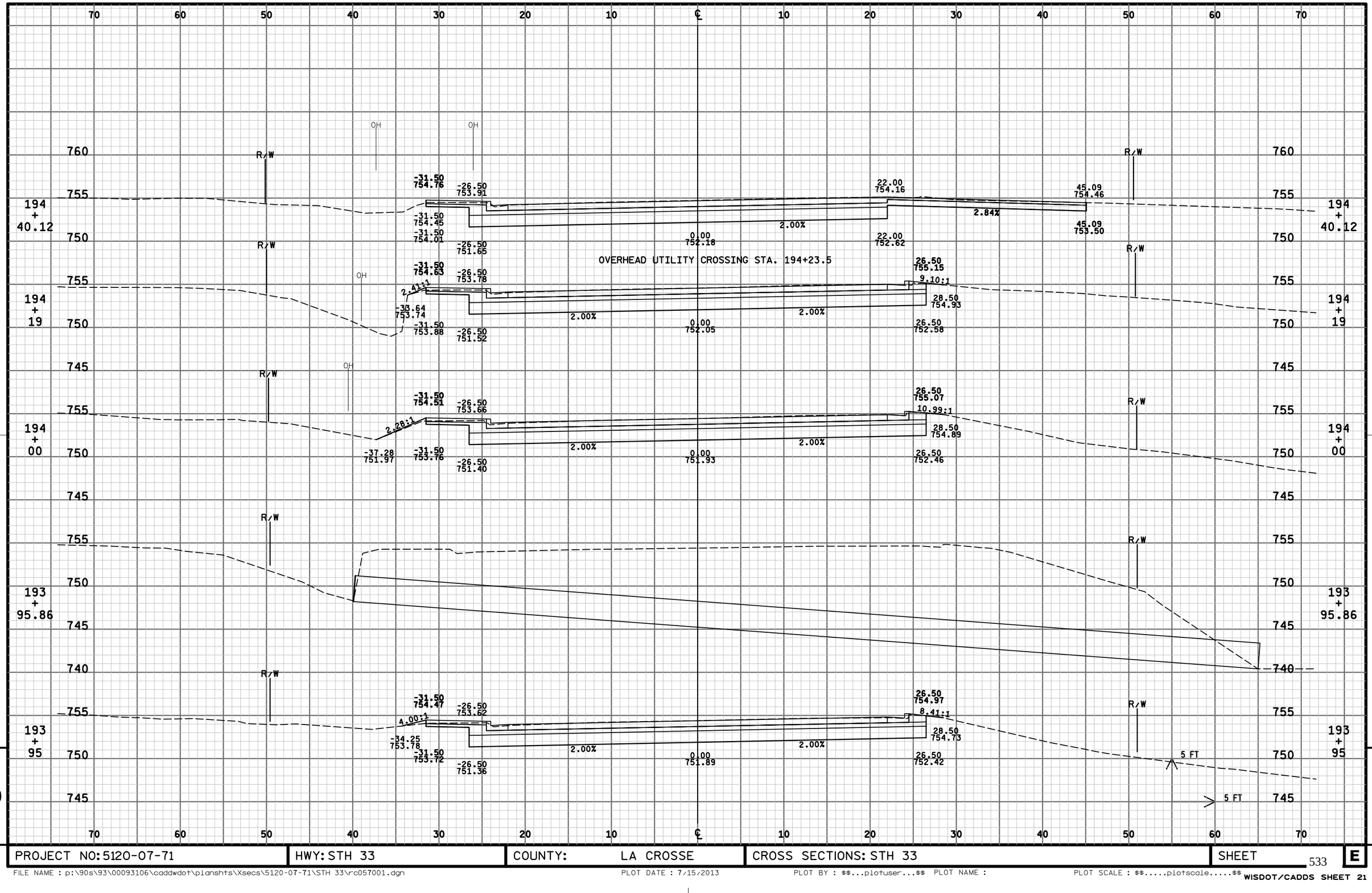
BURIED GAS CROSSING STA. 193+56



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

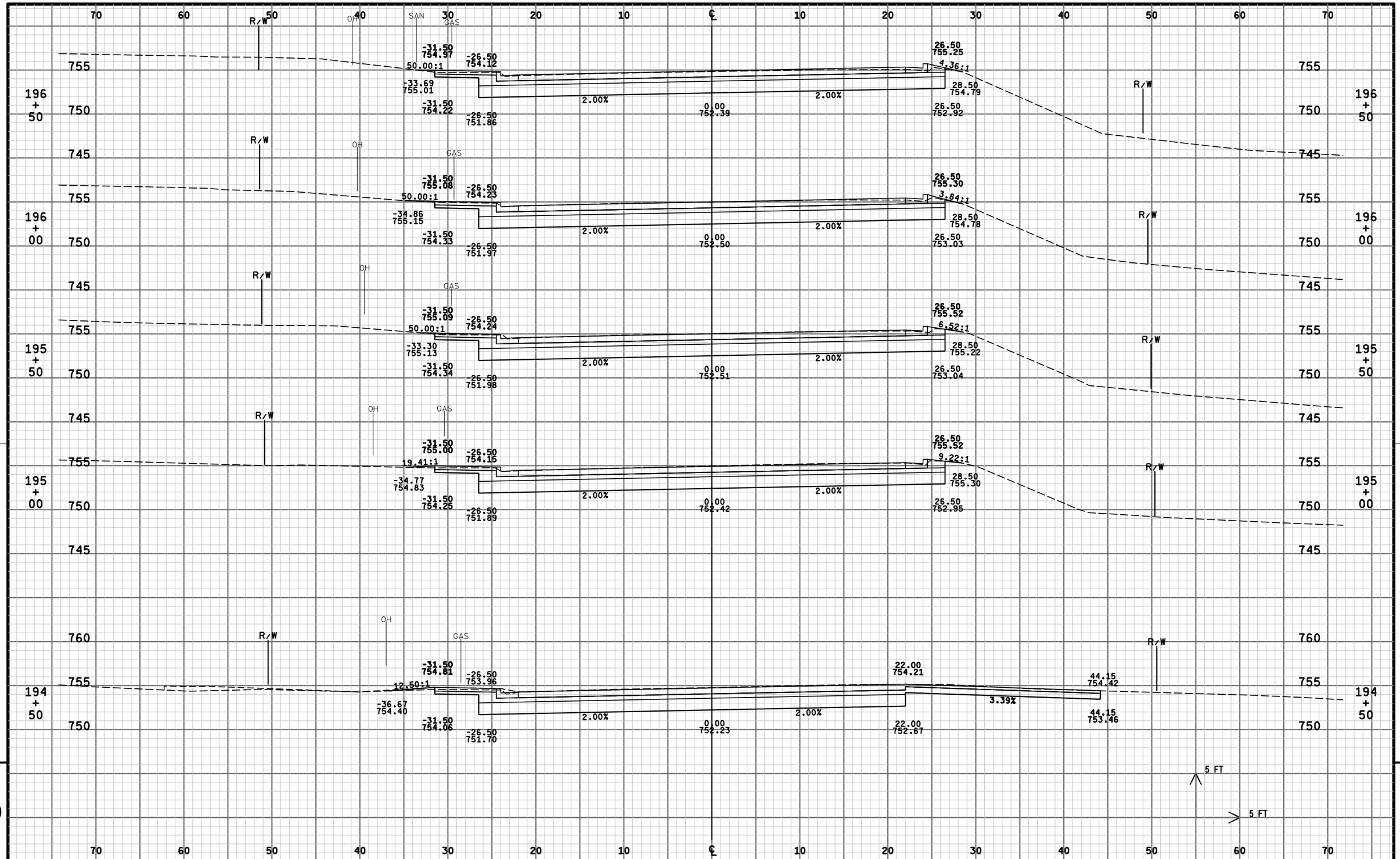
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WISDOT/CADDS SHEET 21



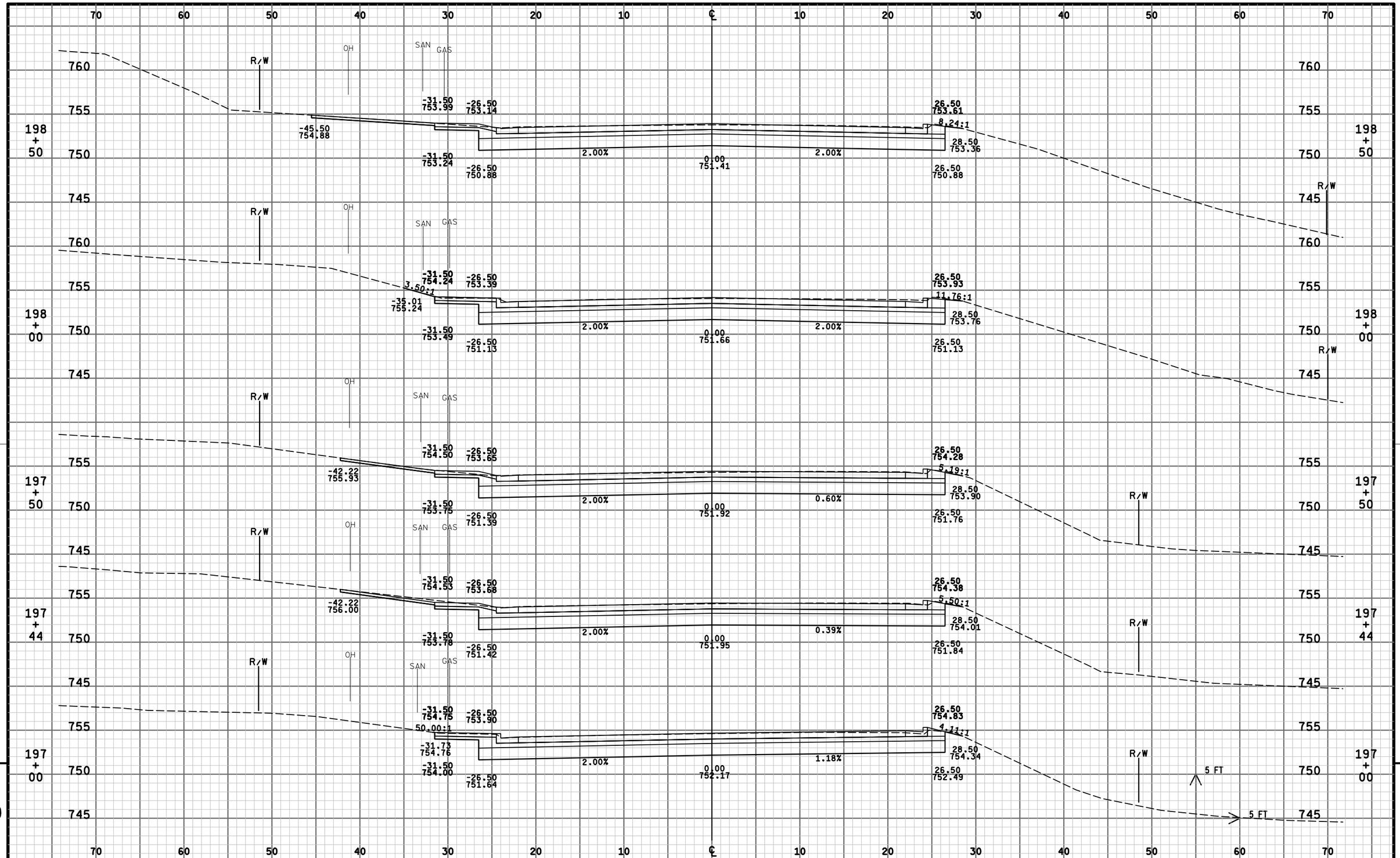
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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 534	E

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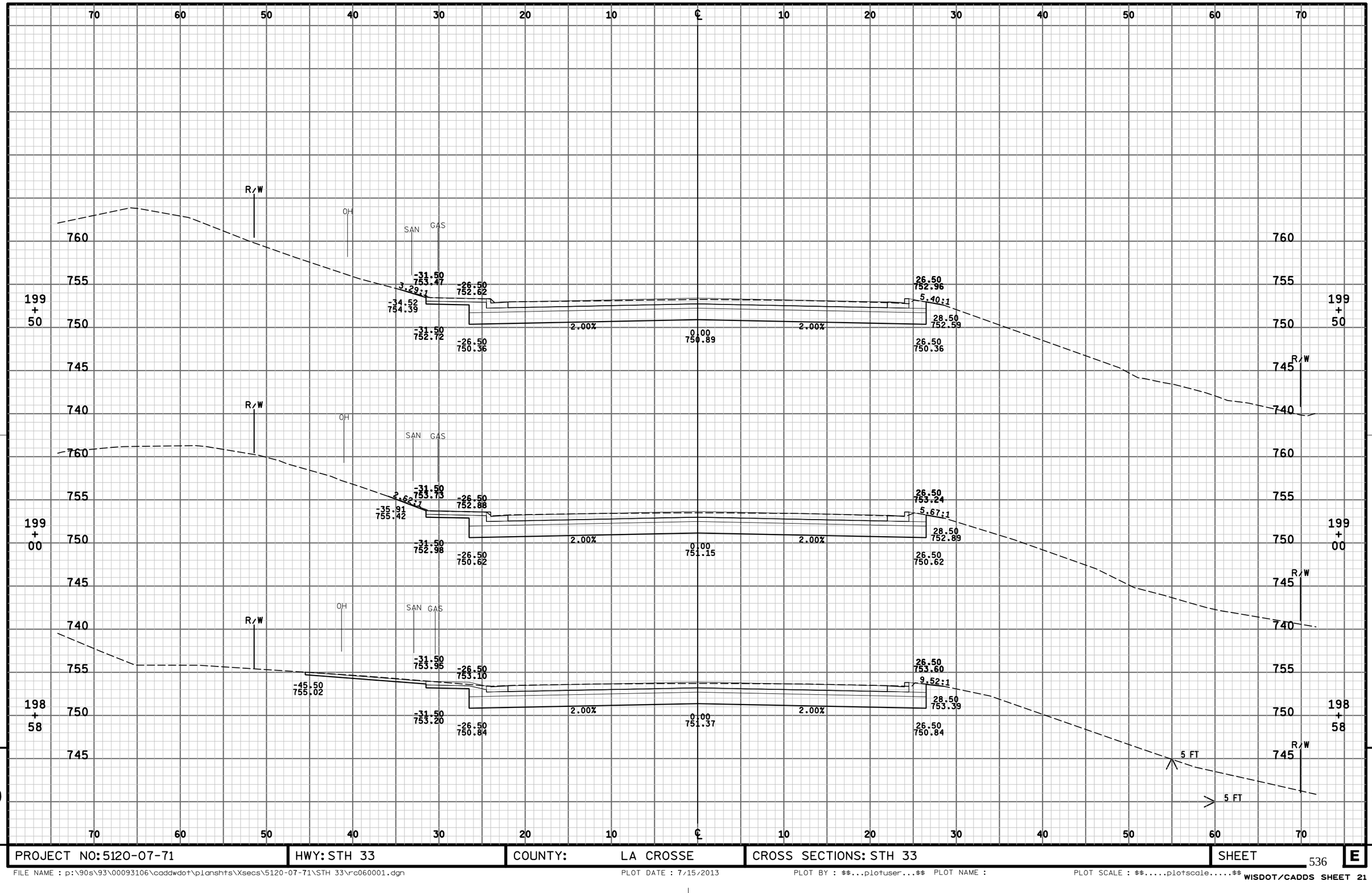


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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

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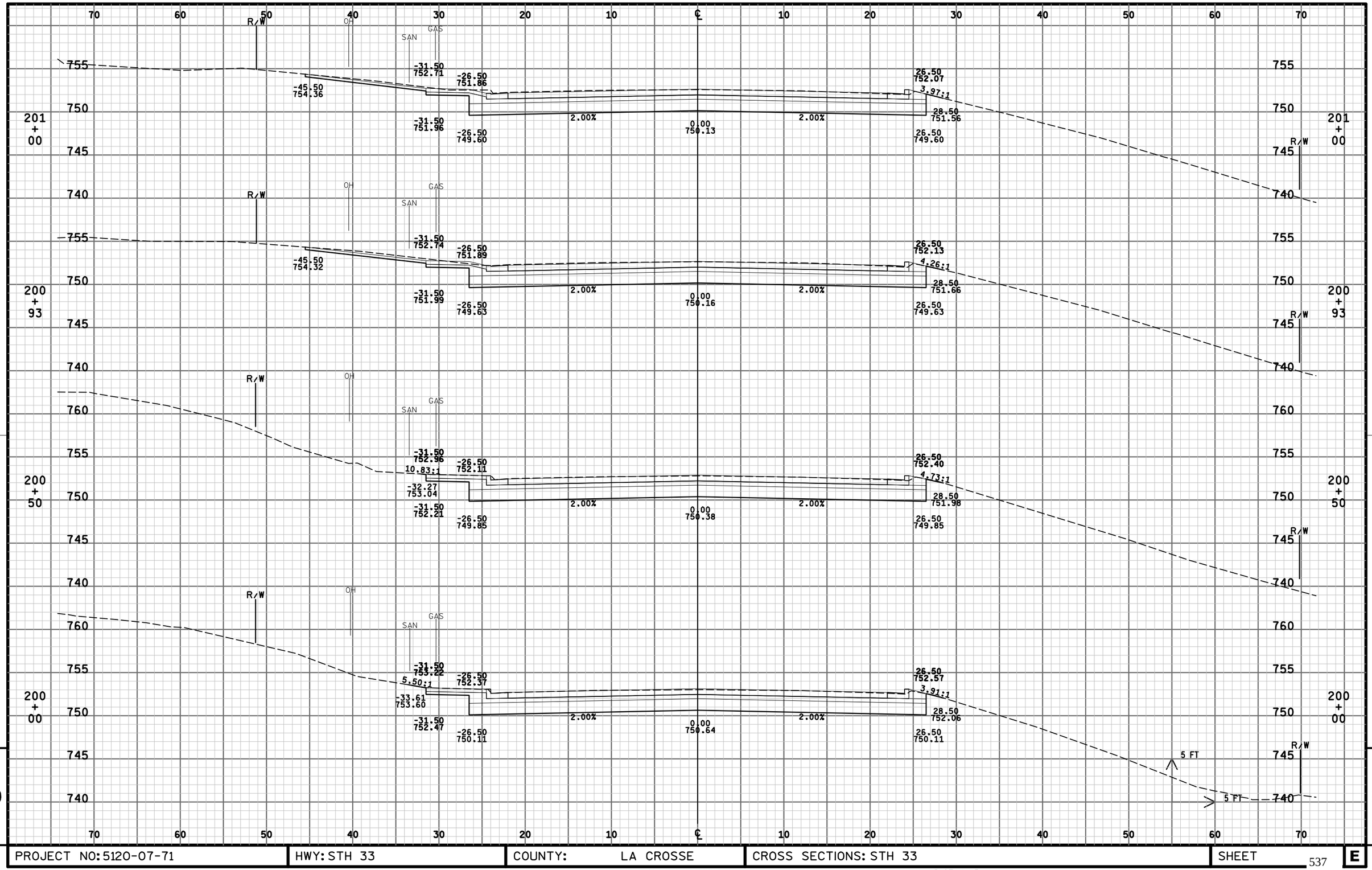
WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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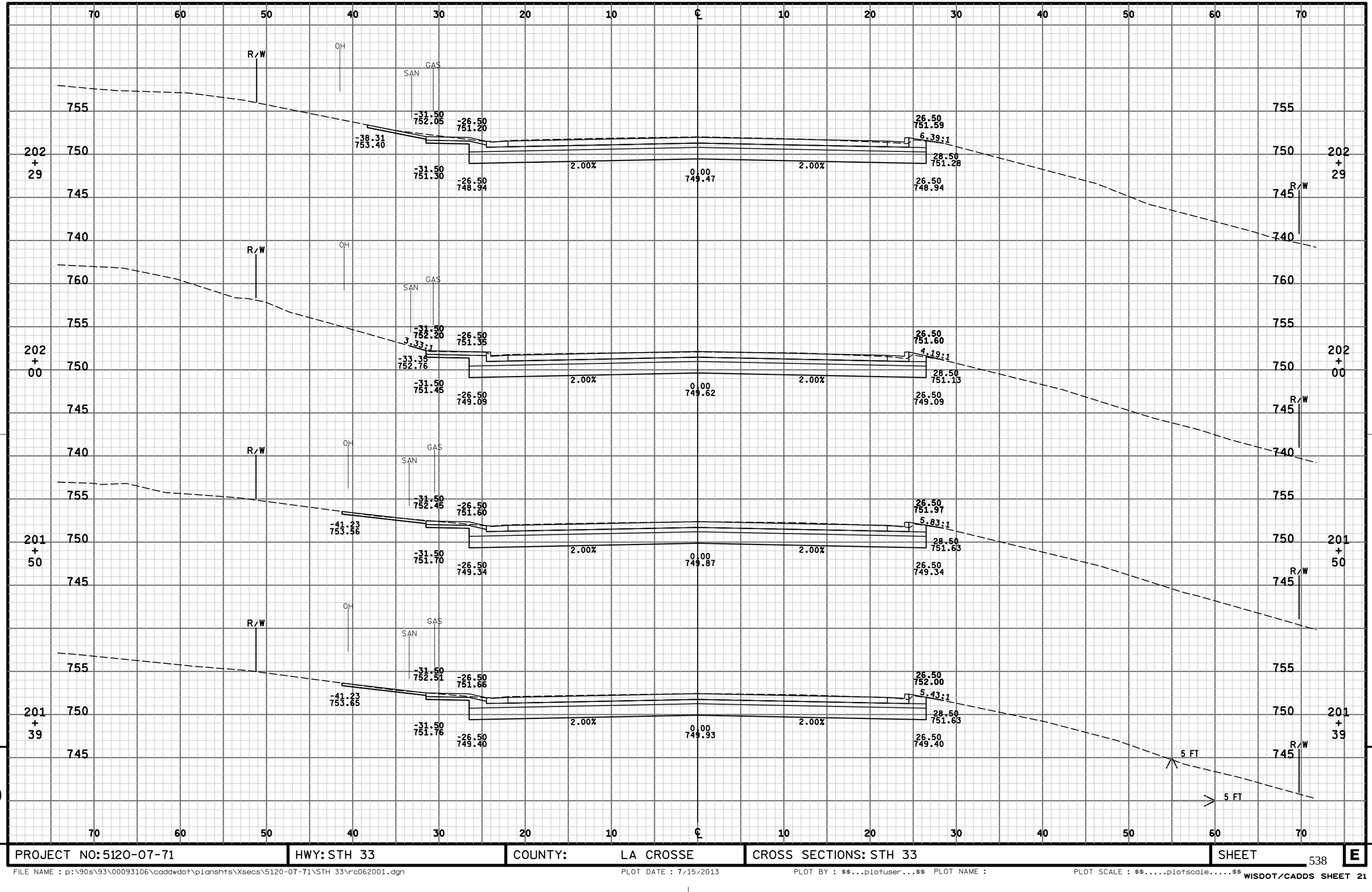
WISDOT/CADDS SHEET 21



9 9

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc061001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

760 755 750 745 740

R/W OH SAN GAS

203 + 15

-31.50 751.61
-26.50 750.76
-38.48 752.22
-31.50 750.86
-26.50 748.50
2.00%
0.00 749.03
2.00%
26.50 750.96
3.88:1
28.50 750.44
26.50 748.50

203 + 15

R/W OH SAN GAS

203 + 00

-31.50 751.68
-26.50 750.83
50.00:1
-33.70 751.73
-31.50 750.93
-26.50 748.57
2.00%
0.00 749.10
2.00%
26.50 751.01
3.75:1
28.50 750.47
26.50 748.57

R/W OH SAN GAS

202 + 50

-31.50 751.94
-26.50 751.08
4.06:1
-33.17 752.35
-31.50 751.18
-26.50 748.82
2.00%
0.00 749.35
2.00%
26.50 751.37
4.76:1
28.50 750.95
26.50 748.82

5 FT
5 FT

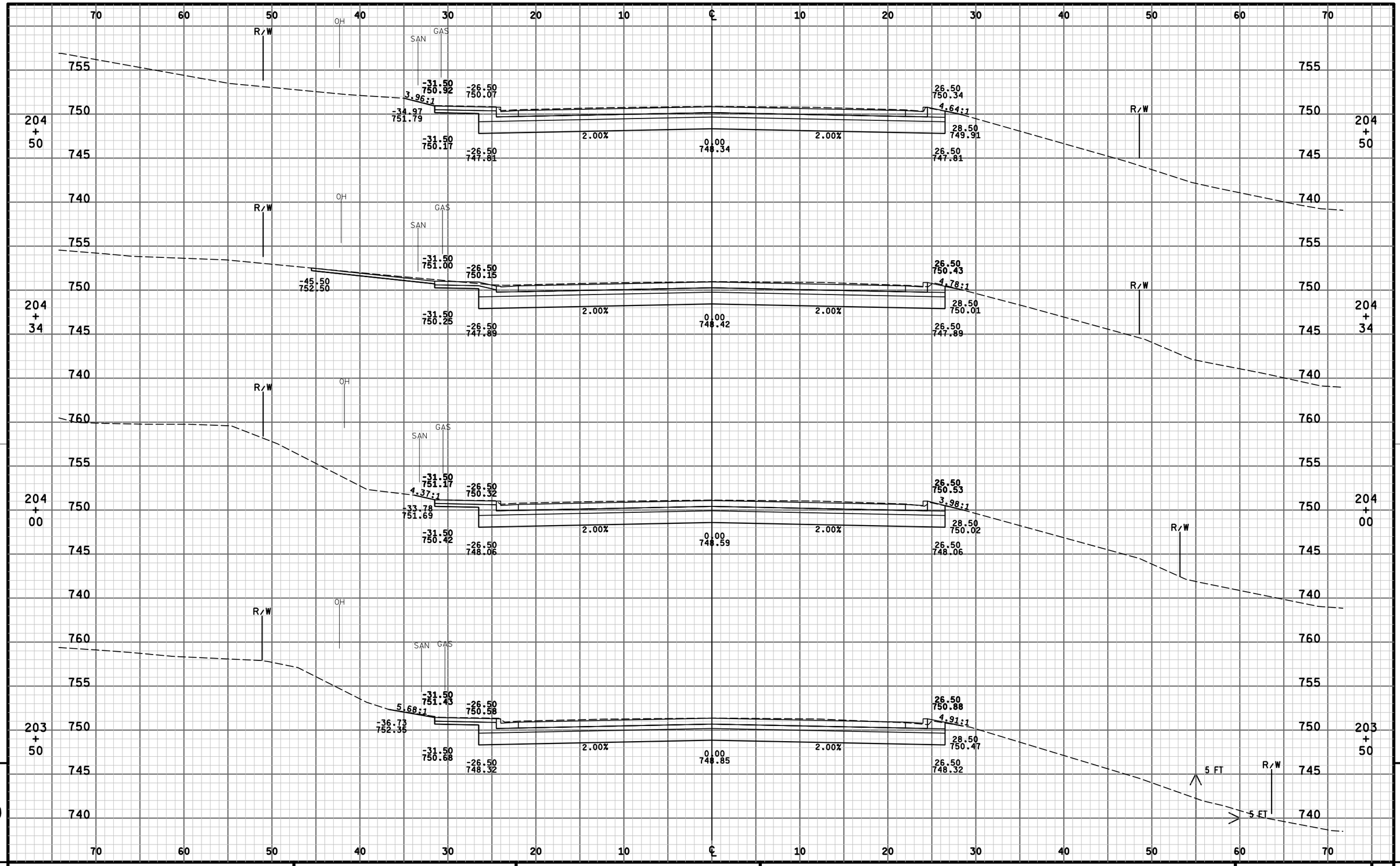
R/W

9 9

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

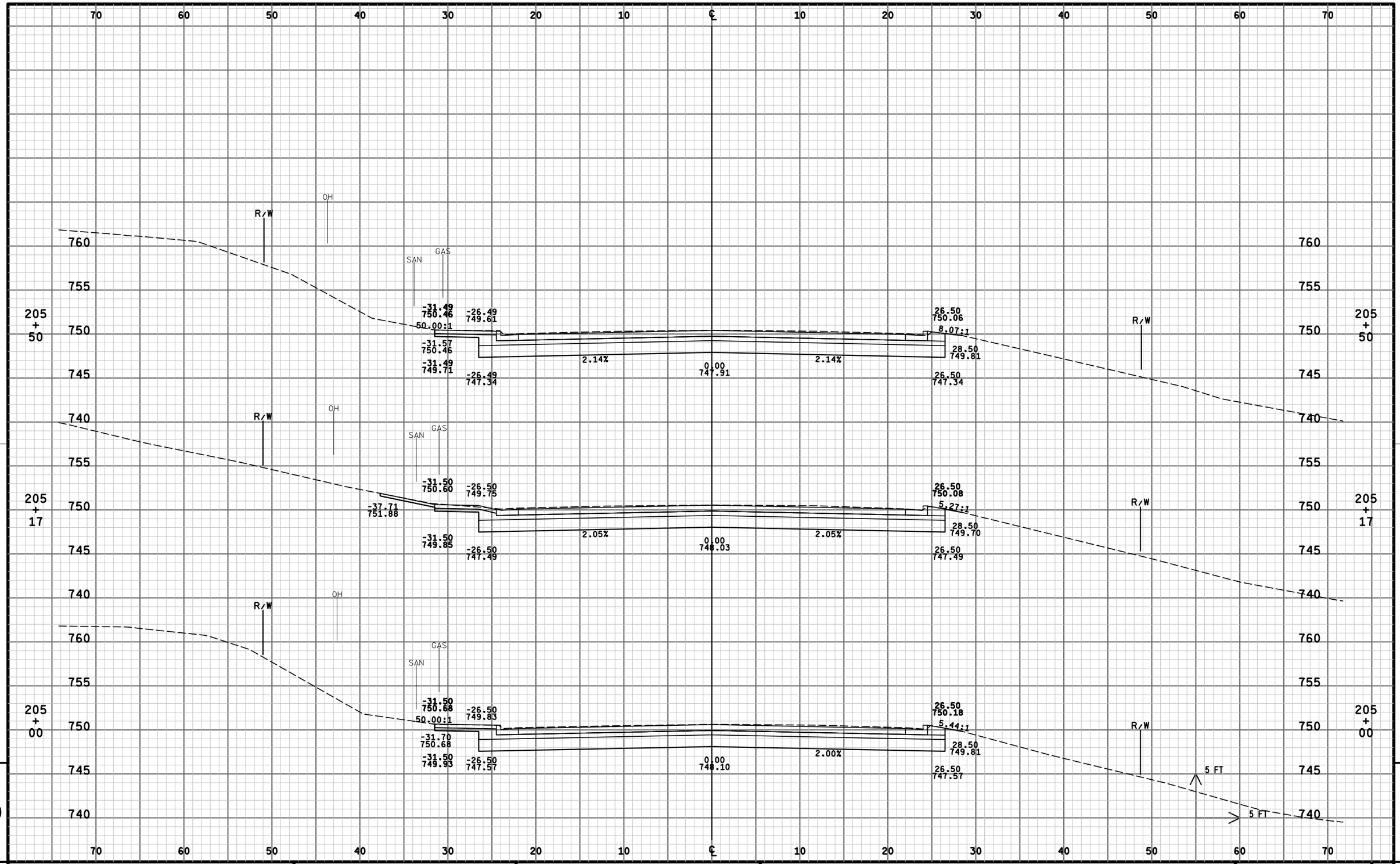
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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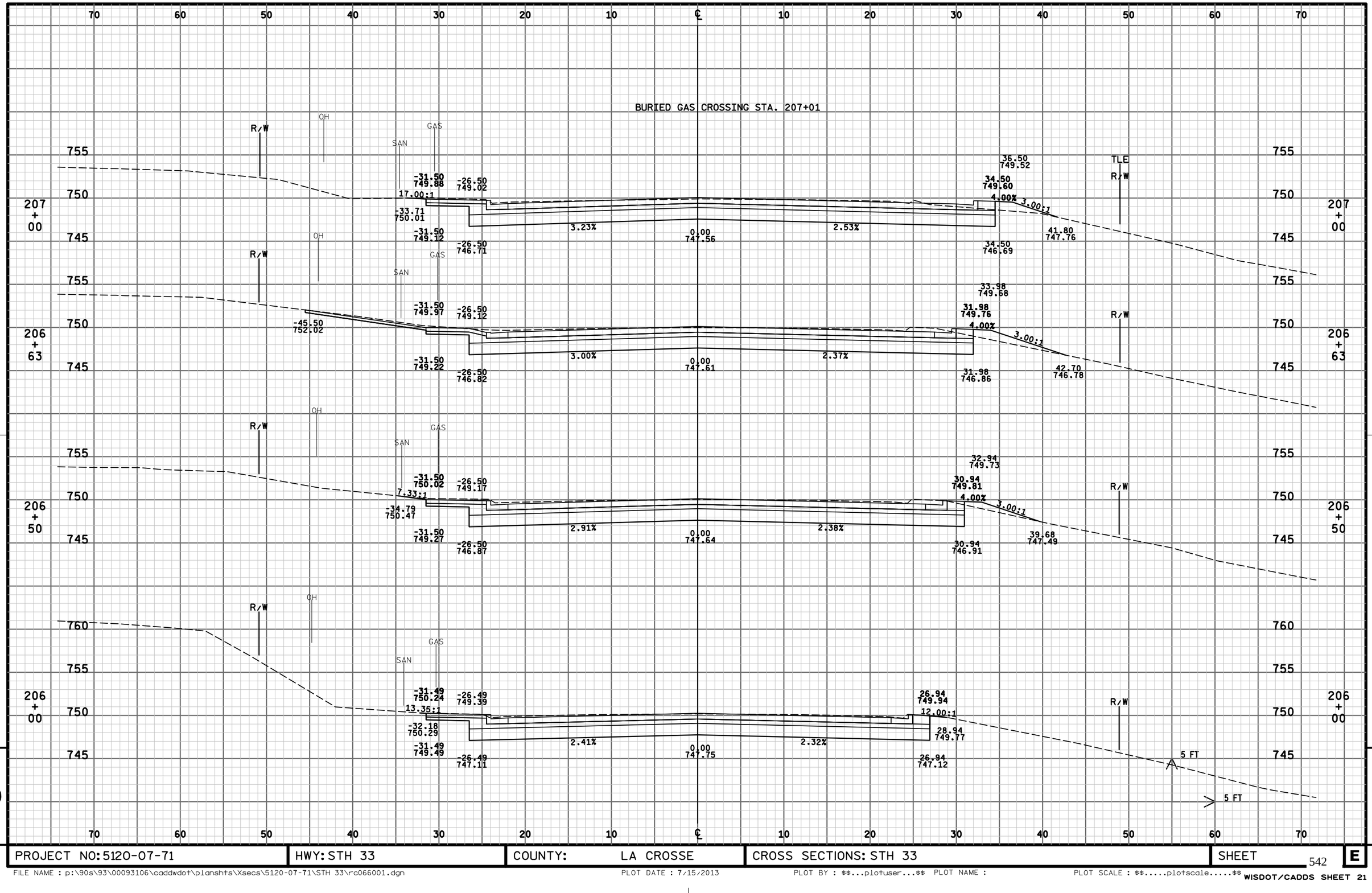
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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 540	E



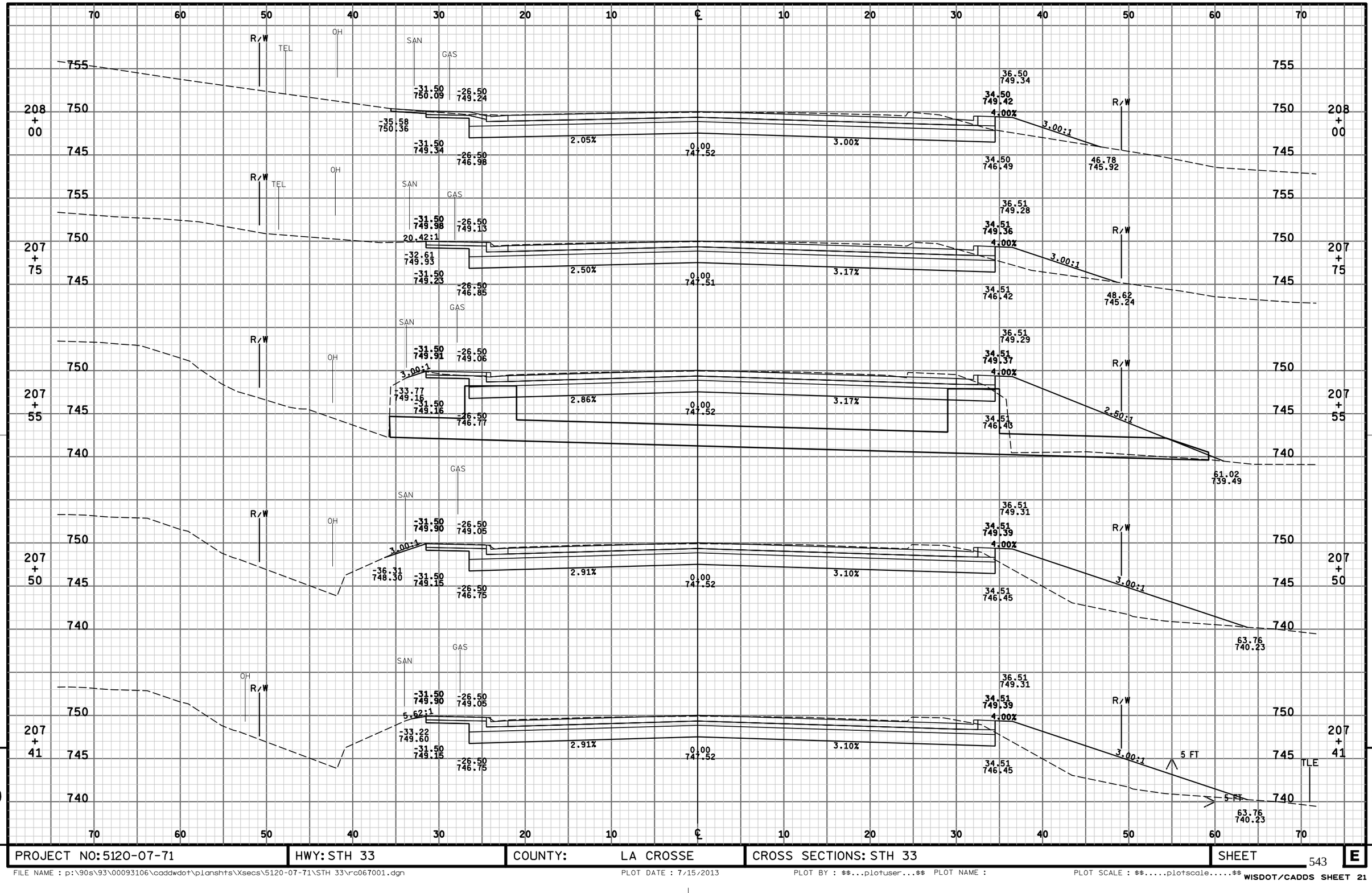
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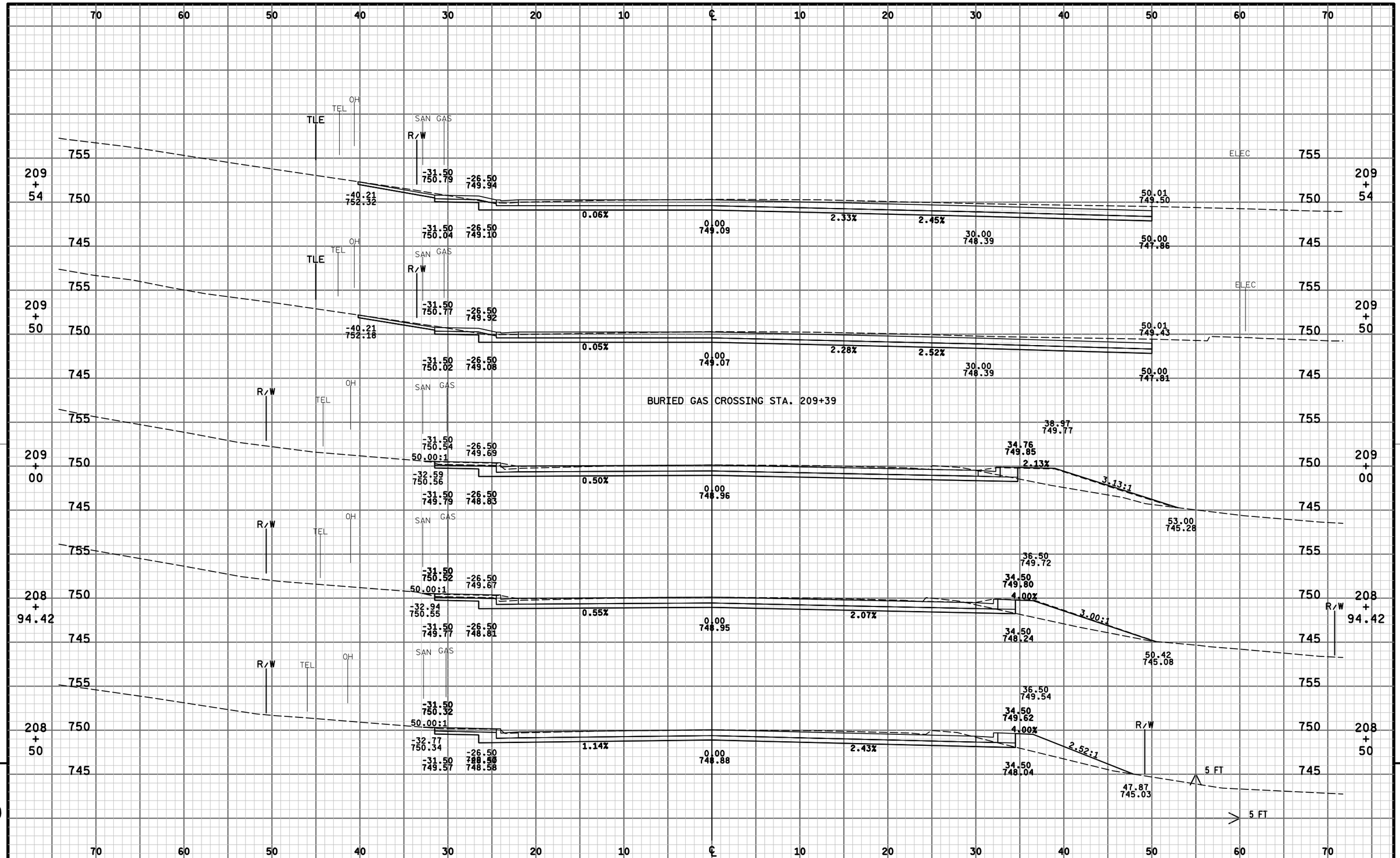
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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

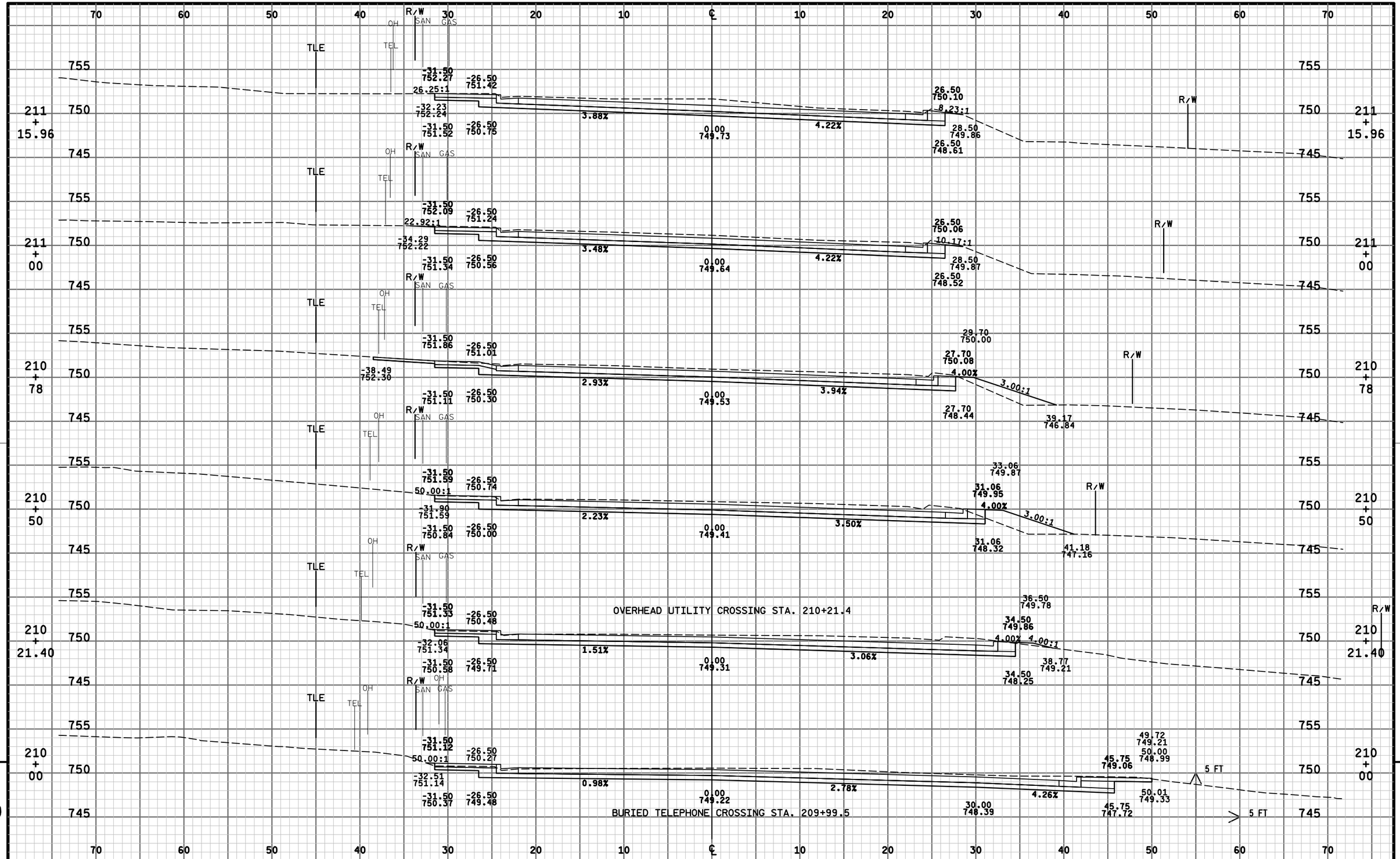
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9

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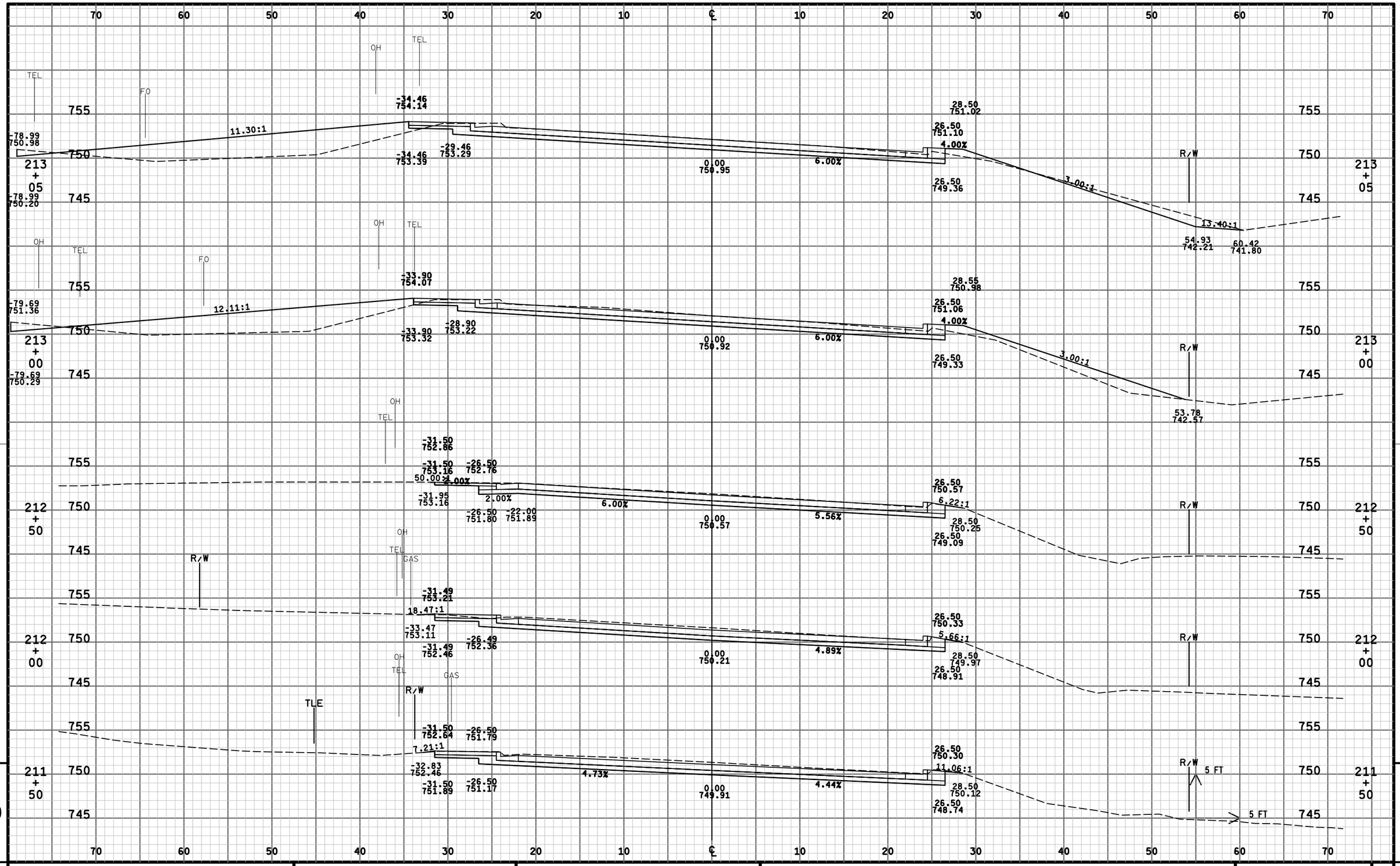
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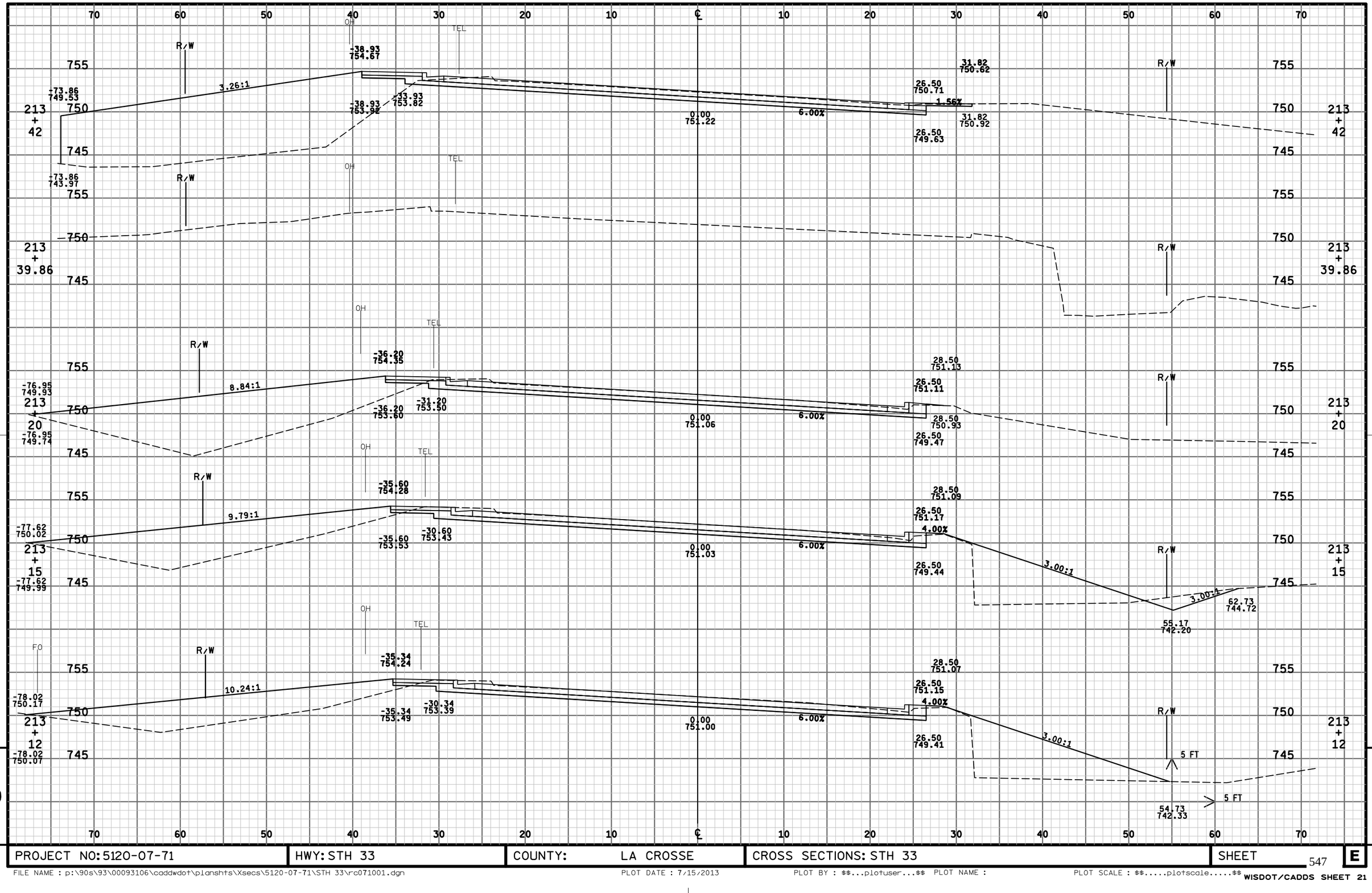
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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 547 E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc071001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

OH

-36.50
755.10

-34.50
755.18

4.00%

R/W

755

214
+
72.18

750

745

3.00:1

-34.50
753.89

-49.02
750.93

5.04%

0.00
752.15

6.00%

26.50
752.15

8.59:1

28.50
751.92

26.50
750.56

R/W

755

214
+
72.18

750

745

OH

-41.67
754.95

-38.99
755.06

4.00%

R/W

755

214
+
50

750

745

-61.10
749.93

4.47:1

3.52:1

-38.99
753.63

0.88%

-30.00
753.55

5.20%

0.00
752.00

6.00%

26.50
751.94

7.06:1

28.19
751.70

26.50
750.41

-60.12
749.71

R/W

755

214
+
50

750

745

OH

TEL

-50.00
753.59

R/W

755

214
+
00

750

745

0.75%

-30.00
753.44

6.00%

0.00
751.64

6.00%

26.50
751.49

5.42:1

28.50
751.12

26.50
750.05

-50.00
750.63

R/W

755

214
+
00

750

745

OH

TEL

BURIED TELEPHONE CROSSING STA. 213+79

-39.64
754.75

-34.64
753.90

R/W

755

213
+
50

750

745

-72.79
749.36

3.23:1

6.00%

-39.64
754.00

-34.64
752.74

-30.00
753.08

0.00
751.28

6.00%

31.82
750.59

26.50
750.74

2.72%

31.82
750.88

26.50
749.69

R/W

755

213
+
50

750

745

-72.79
744.50

5 FT

5 FT

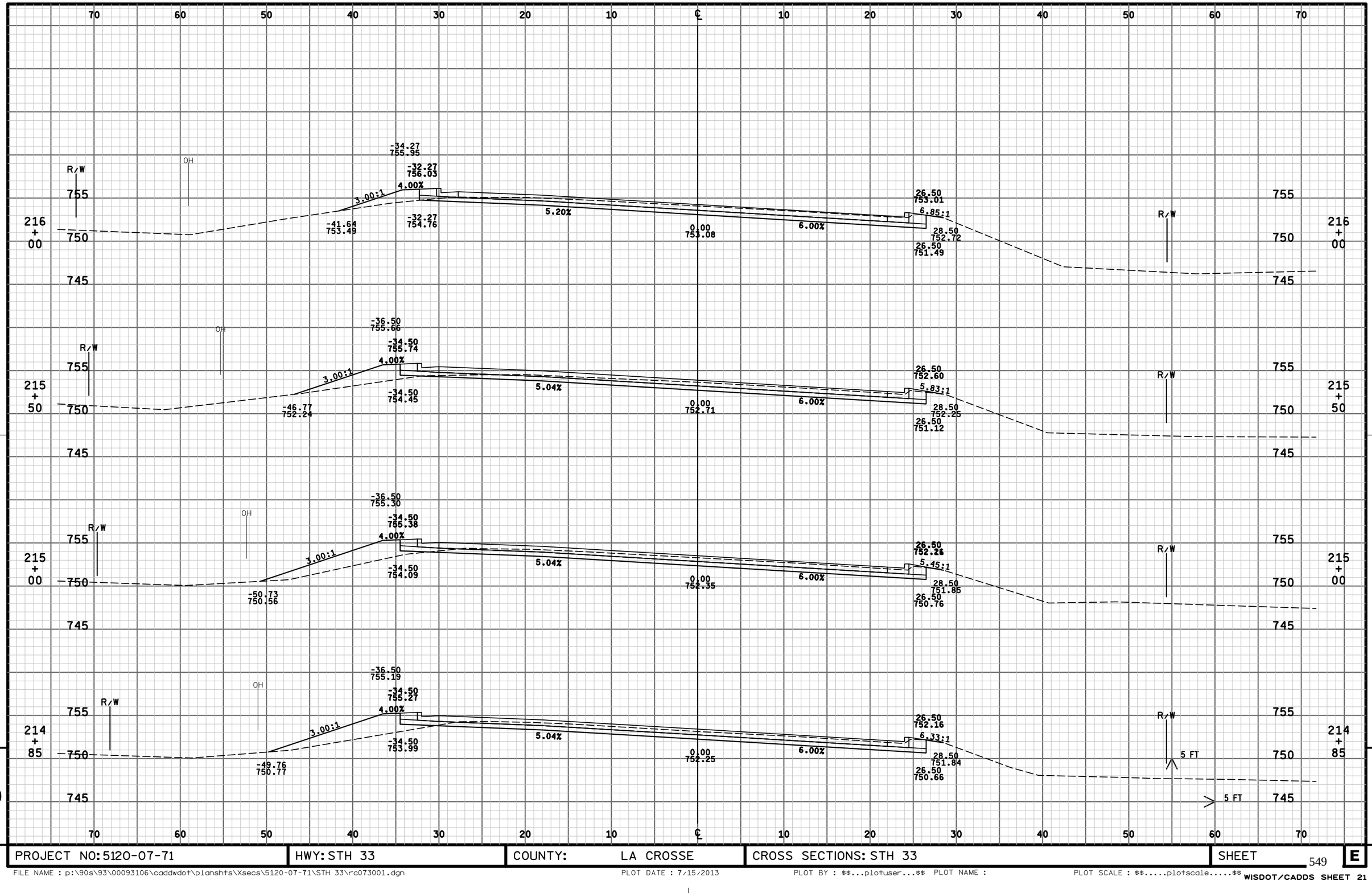
70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

9

9

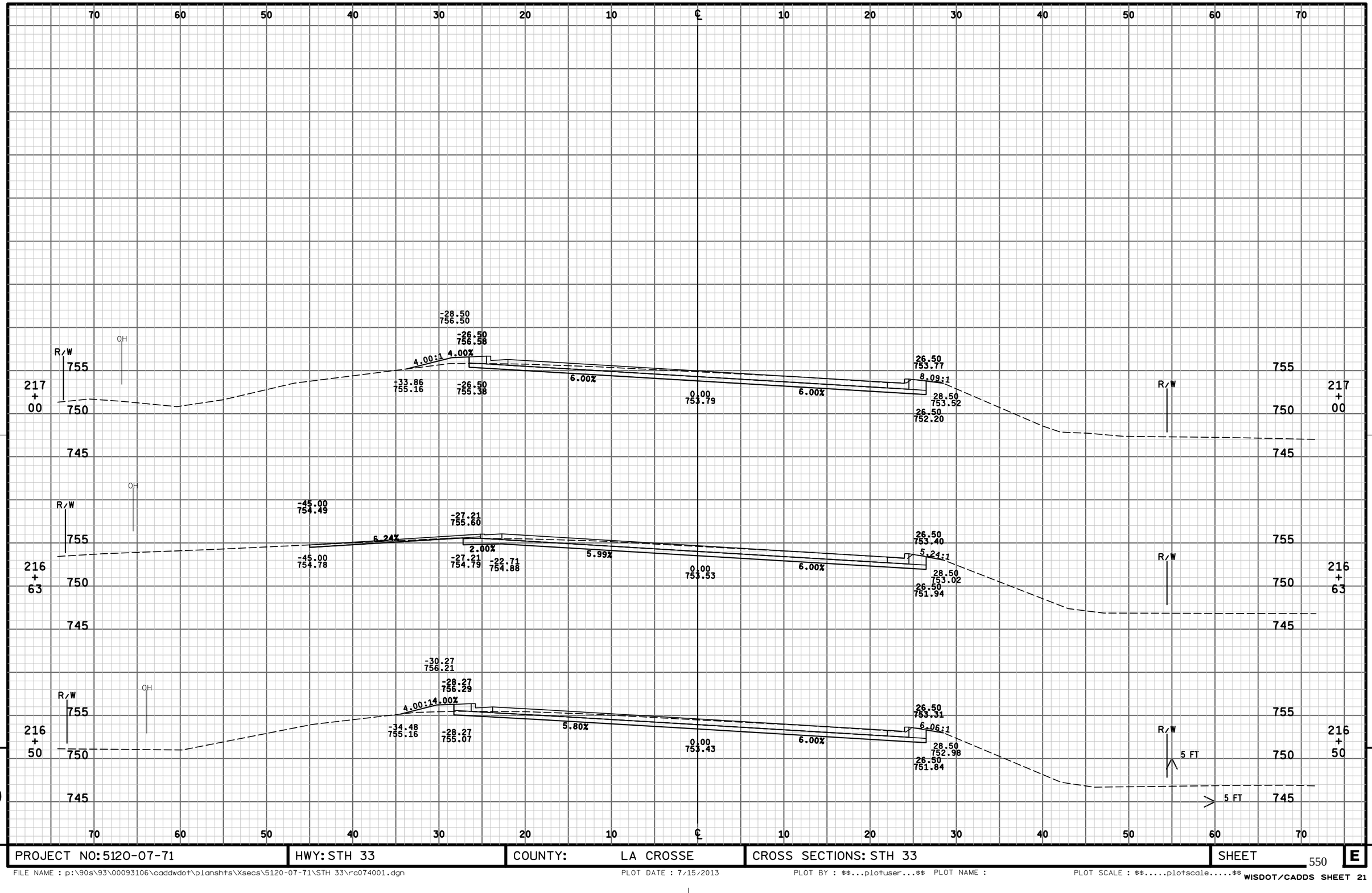
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc072001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

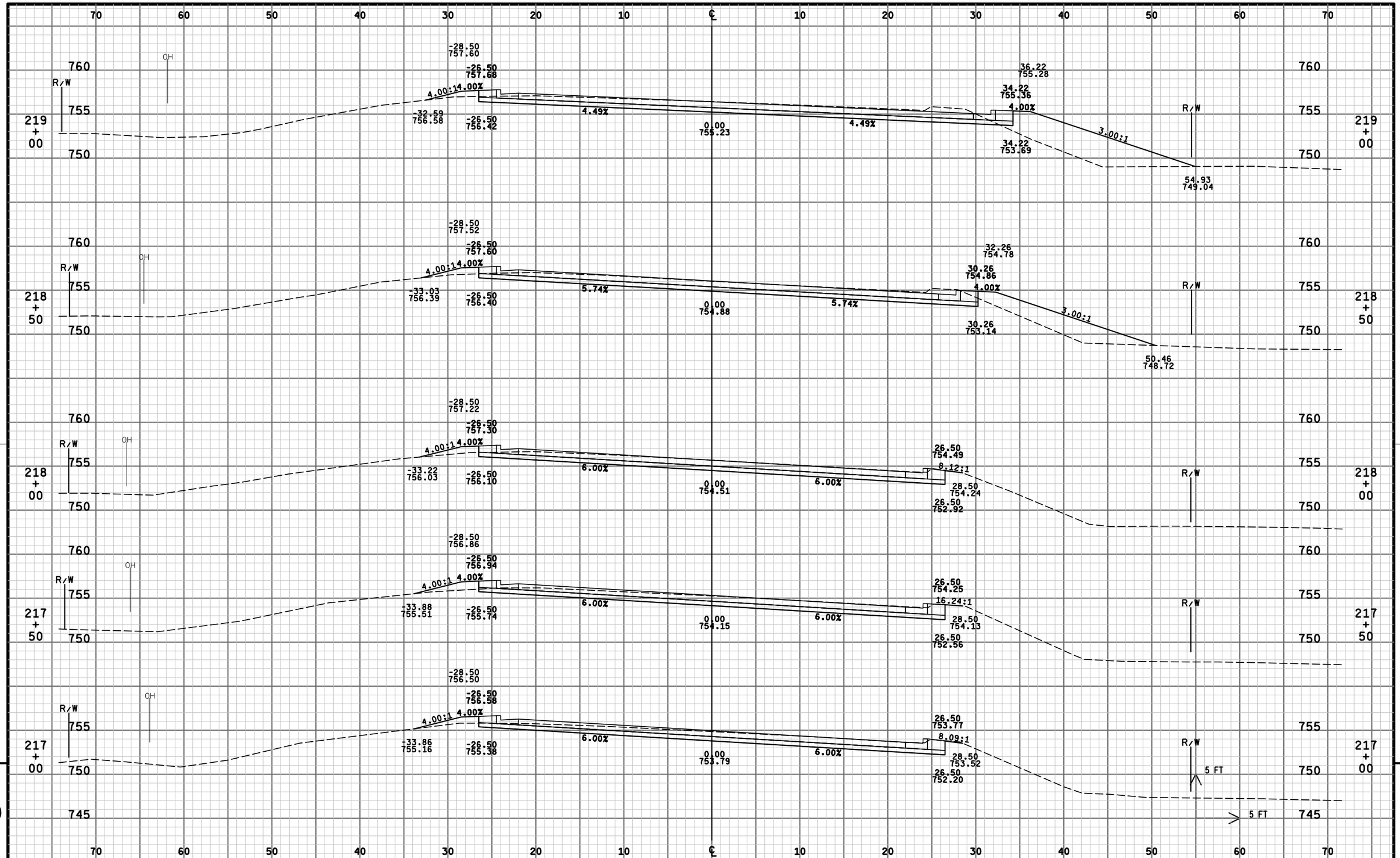
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PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\STH 33\rc074001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

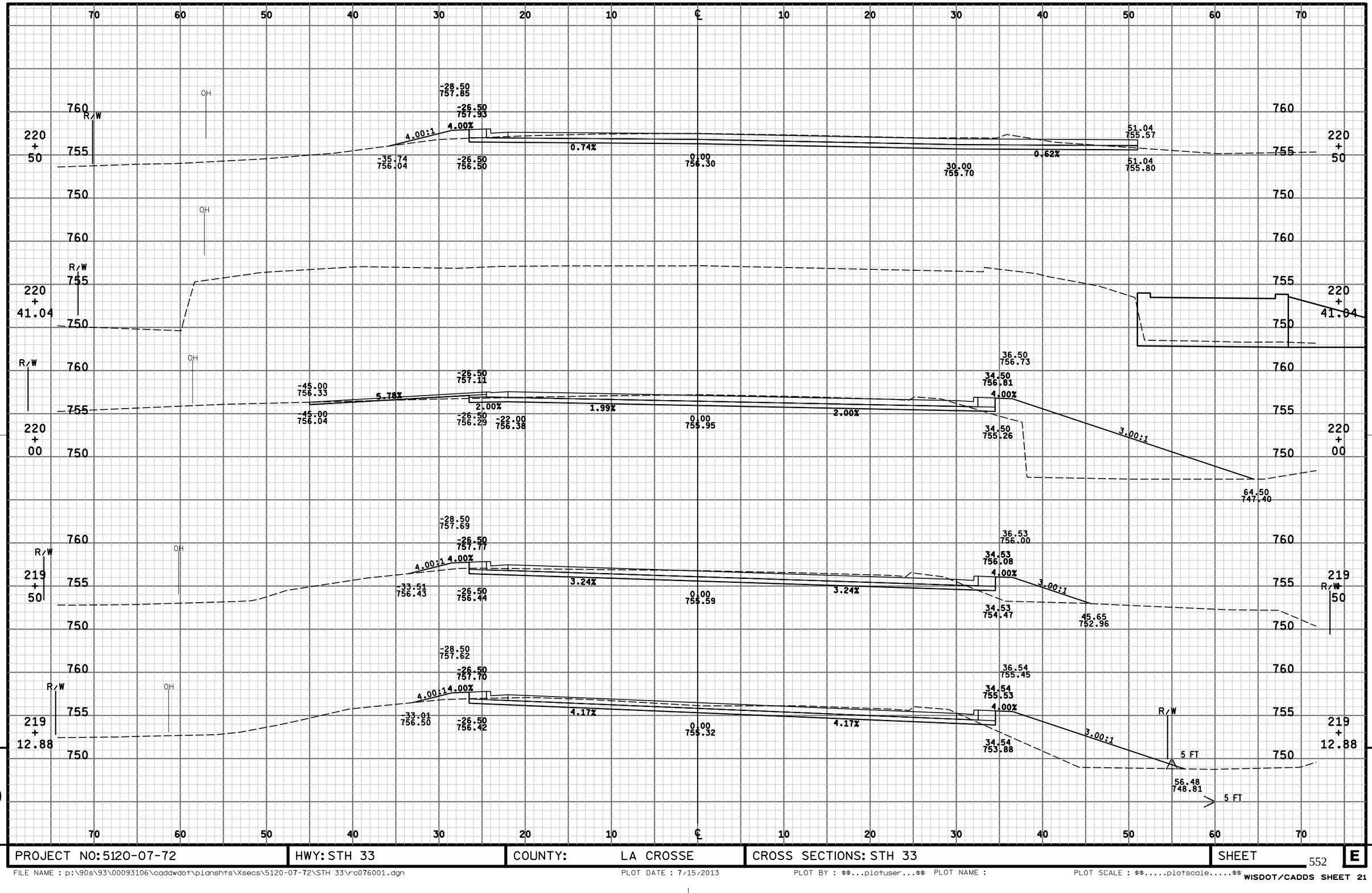
WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 551 E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc075001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21



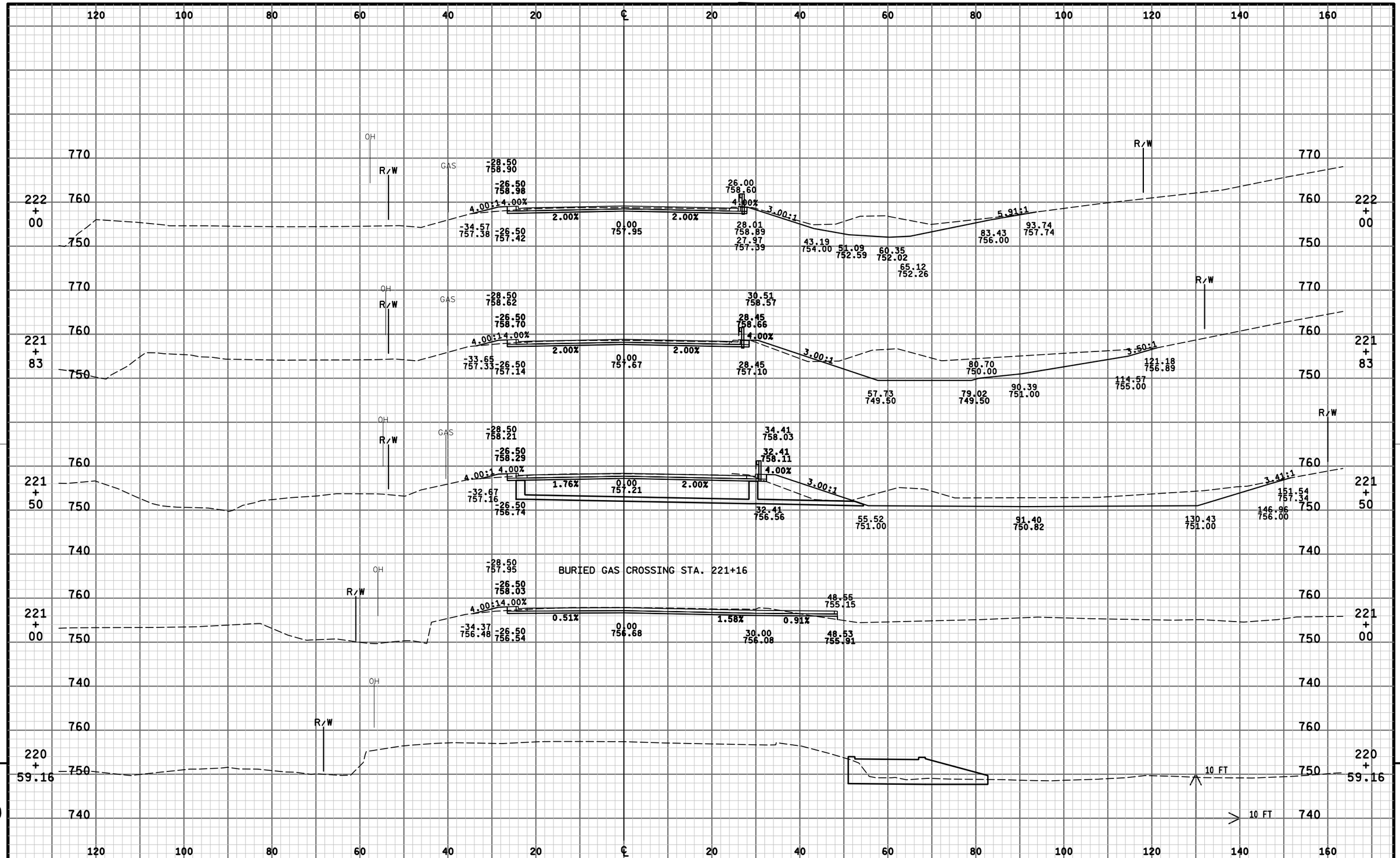
9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

552

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc076001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

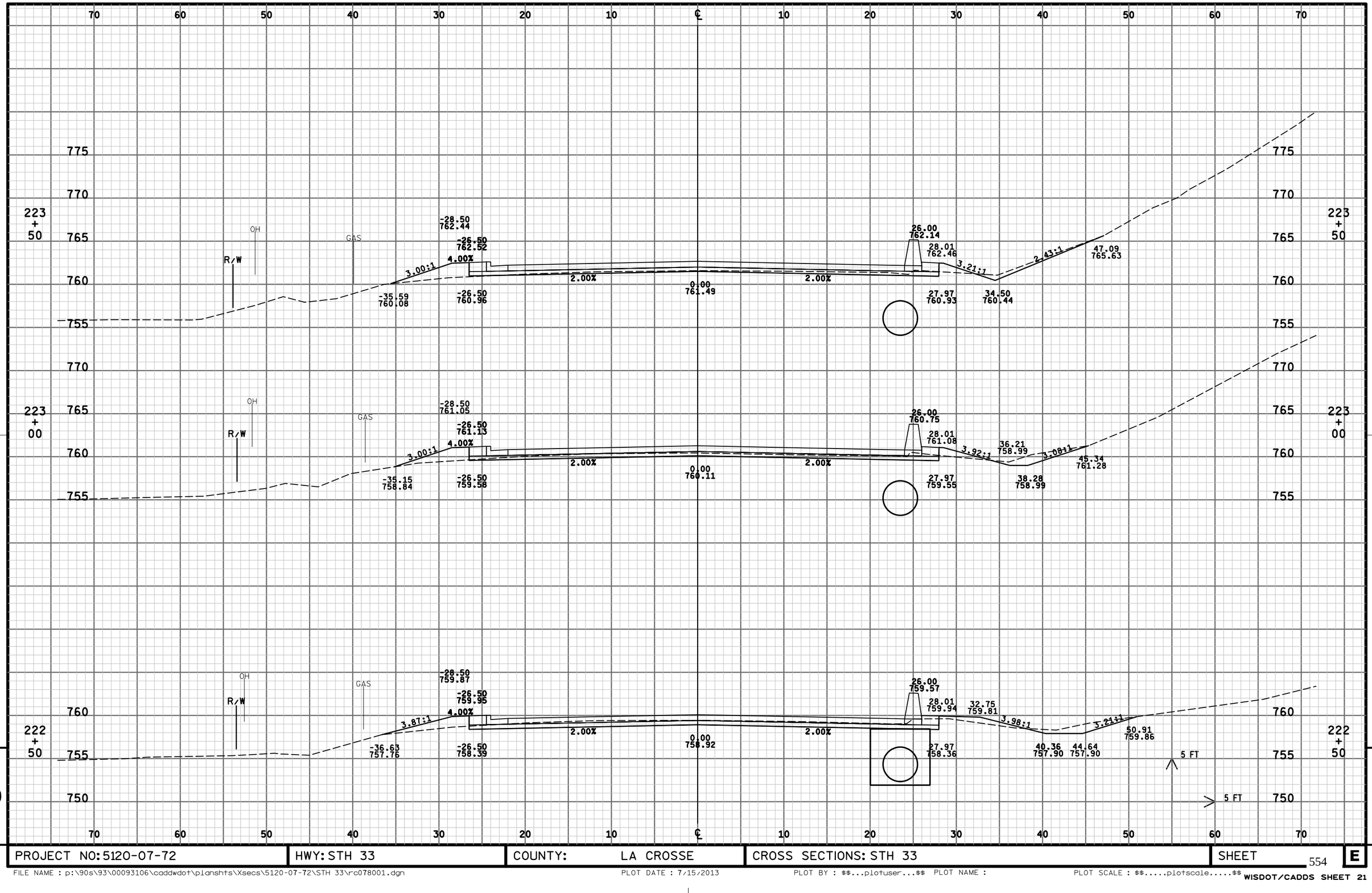
WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 553	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc077001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

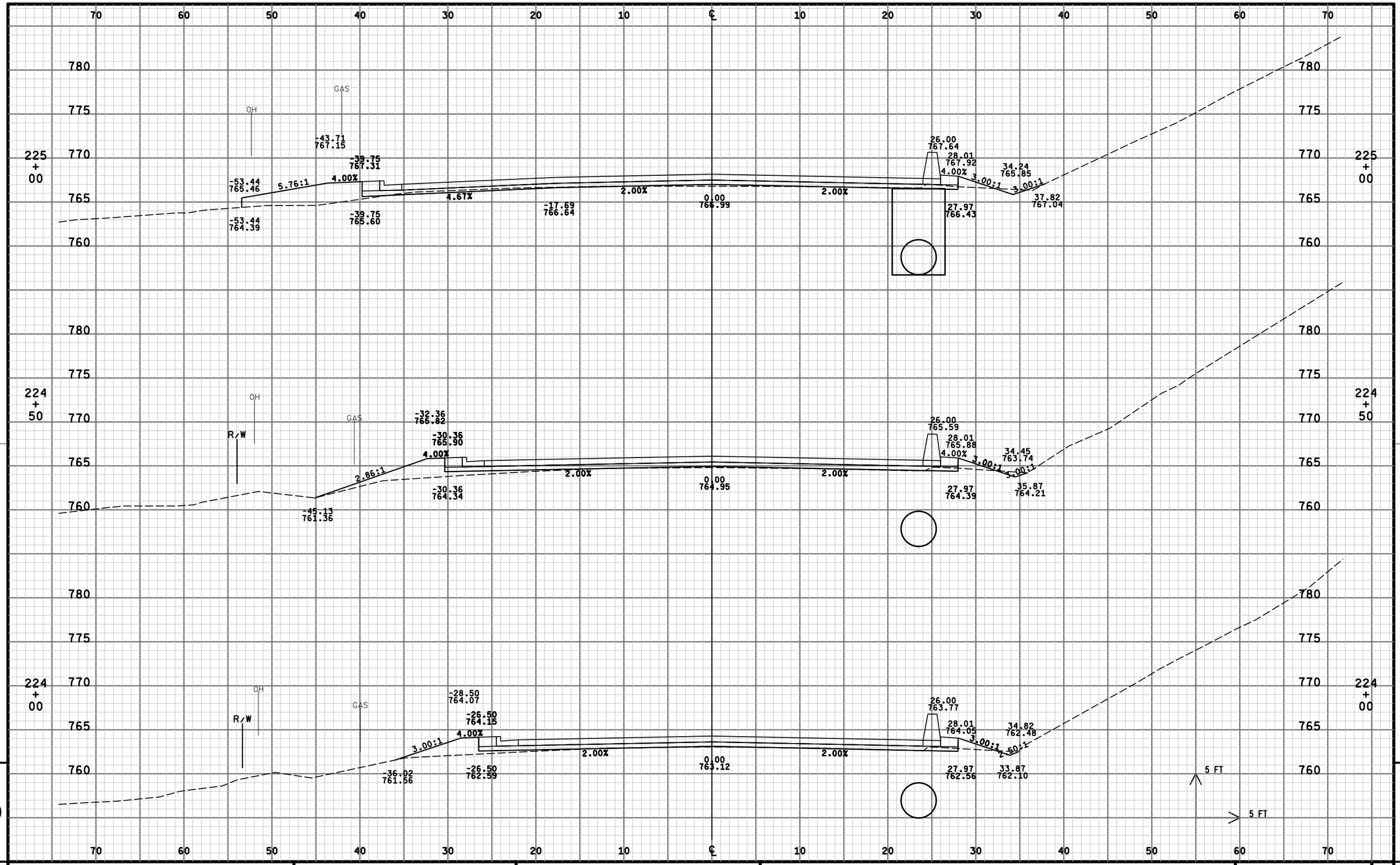
WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 554 E

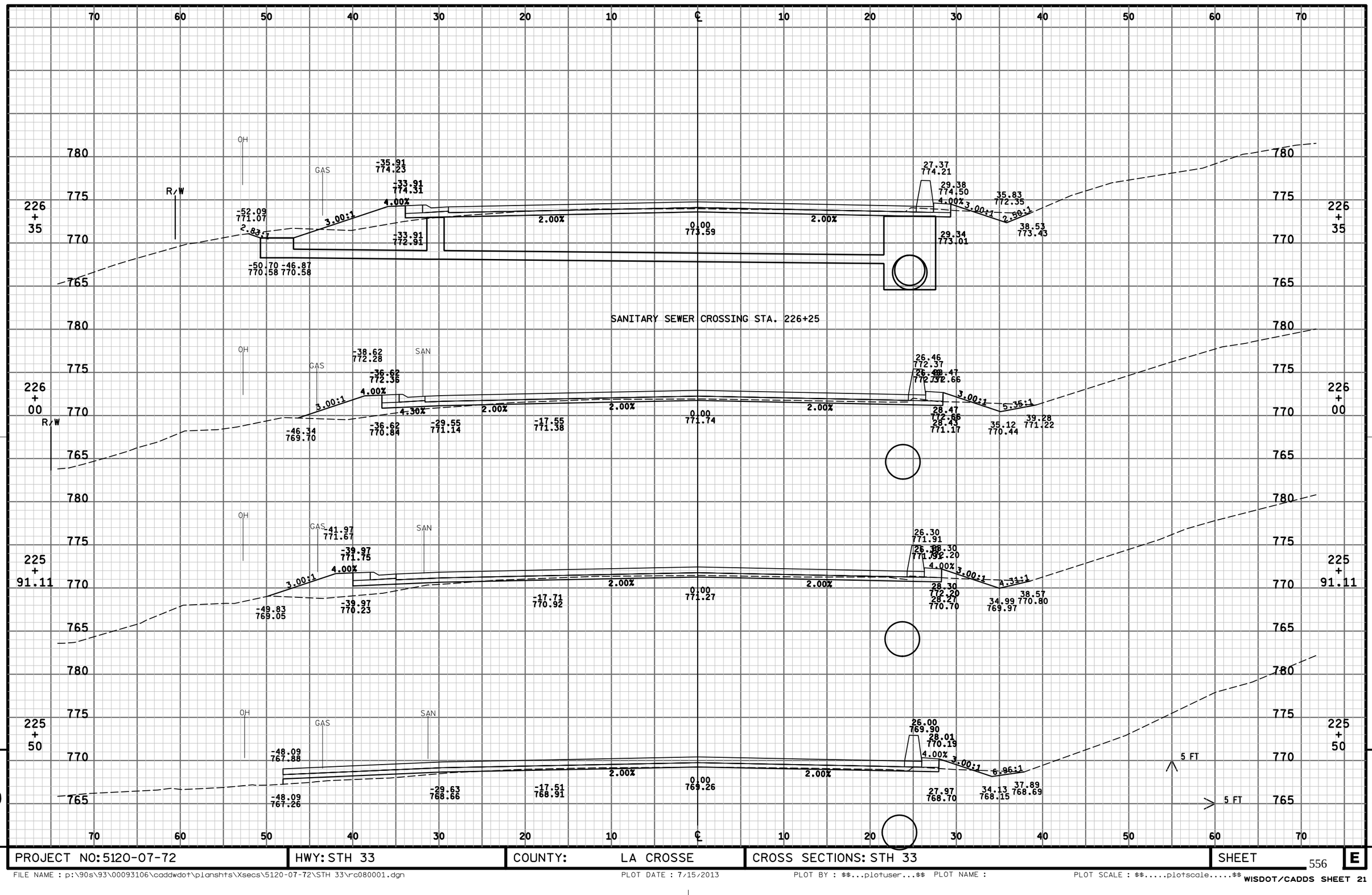
FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc078001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 555	E

SANITARY SEWER CROSSING STA. 226+25



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc080001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

795 790 785 780 775 770

227 + 50

R/W

-40.21 779.50
3.00:1
-38.19 778.83
-31.09 781.20
-29.09 781.28
4.00%
-29.09 779.88
2.00%
0.00 780.46
2.00%
29.19 781.04
31.19 781.36
31.16 779.84
37.19 779.36
3.00:1
1.72:1
47.80 785.53
ROCK

BURIED GAS CROSSING STA. 227+33

227 + 00

R/W
OH
GAS
OH

-44.19 775.66
3.00:1
-42.97 775.25
-34.73 778.00
-32.73 778.08
4.00%
-32.73 776.68
2.00%
0.00 777.33
2.00%
28.28 777.94
30.28 778.22
30.25 776.73
36.28 776.22
3.00:1
1.85:1
46.23 781.61
ROCK

OVERHEAD UTILITY CROSSING STA. 226+72

226 + 50

R/W
OH
GAS
OH

-47.90 772.53
3.81:1
3.00:1
-45.31 771.85
-35.64 775.07
-33.64 775.15
4.00%
-33.64 773.75
2.00%
0.00 774.42
2.00%
27.37 775.04
29.38 775.33
29.34 773.84
35.45 773.30
3.00:1
2.56:1
38.20 774.40
5 FT
5 FT
EXCAVATION ROCK

9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc081001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

805 800 795 790 785 780

228 + 50

OH

-26.00 788.09
-24.00 788.17
3.00:1 4.00%
2.00%
0.00 787.25
2.00%
31.00 787.79
33.01 787.94
-30.36 786.63
-24.00 786.77
ROCK
32.98 786.59

228 + 28.22

OH

-26.40 786.58
-24.40 786.66
3.00:1 4.00%
2.00%
0.00 785.75
2.00%
30.61 786.30
32.61 786.44
-29.71 785.47
-24.40 785.26
ROCK
32.58 785.10

228 + 00

R/W

OH

-26.91 784.63
-24.91 784.71
3.00:1 4.00%
2.00%
0.00 783.81
2.00%
30.09 784.38
32.10 784.70
21.56:1
34.41 784.60
-29.67 783.71
-24.91 783.31
ROCK
32.07 783.17
5 FT
5 FT
EXCAVATION ROCK

9

9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc082001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

820 815 810 805 800 795 790 785

230 + 00

OH

-25.00
798.40
-23.00
798.48
3.00:1 4.00%
2.00%
-26.93
797.76
-23.00
797.08
0.00
797.54
ROCK
2.00%
32.00
798.06
34.01
798.38
2.37:1
36.73
799.53
33.97
796.86

229 + 50

OH

-25.00
794.97
-23.00
795.05
3.00:1 4.00%
2.00%
-27.12
794.26
-23.00
793.65
0.00
794.11
ROCK
2.00%
32.00
794.63
34.01
794.95
25.01:1
2.52:1
37.36
795.70
35.35
794.90
33.97
793.43

229 + 00

OH

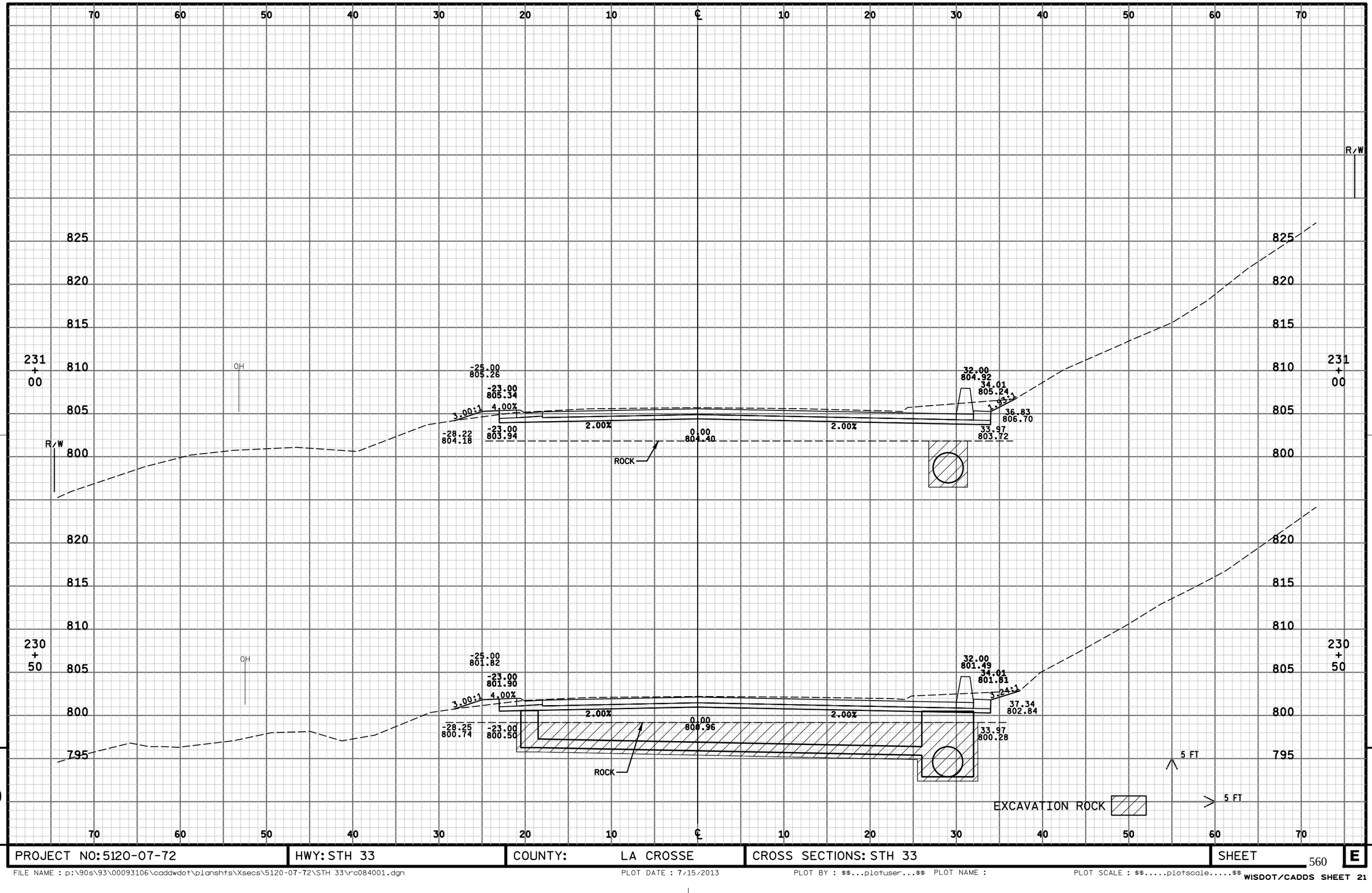
-25.09
791.53
-23.09
791.61
3.00:1 4.00%
2.00%
-27.76
790.64
-23.09
790.21
0.00
790.68
ROCK
2.00%
31.91
791.21
33.92
791.39
33.88
790.00

5 FT
5 FT
EXCAVATION ROCK

9

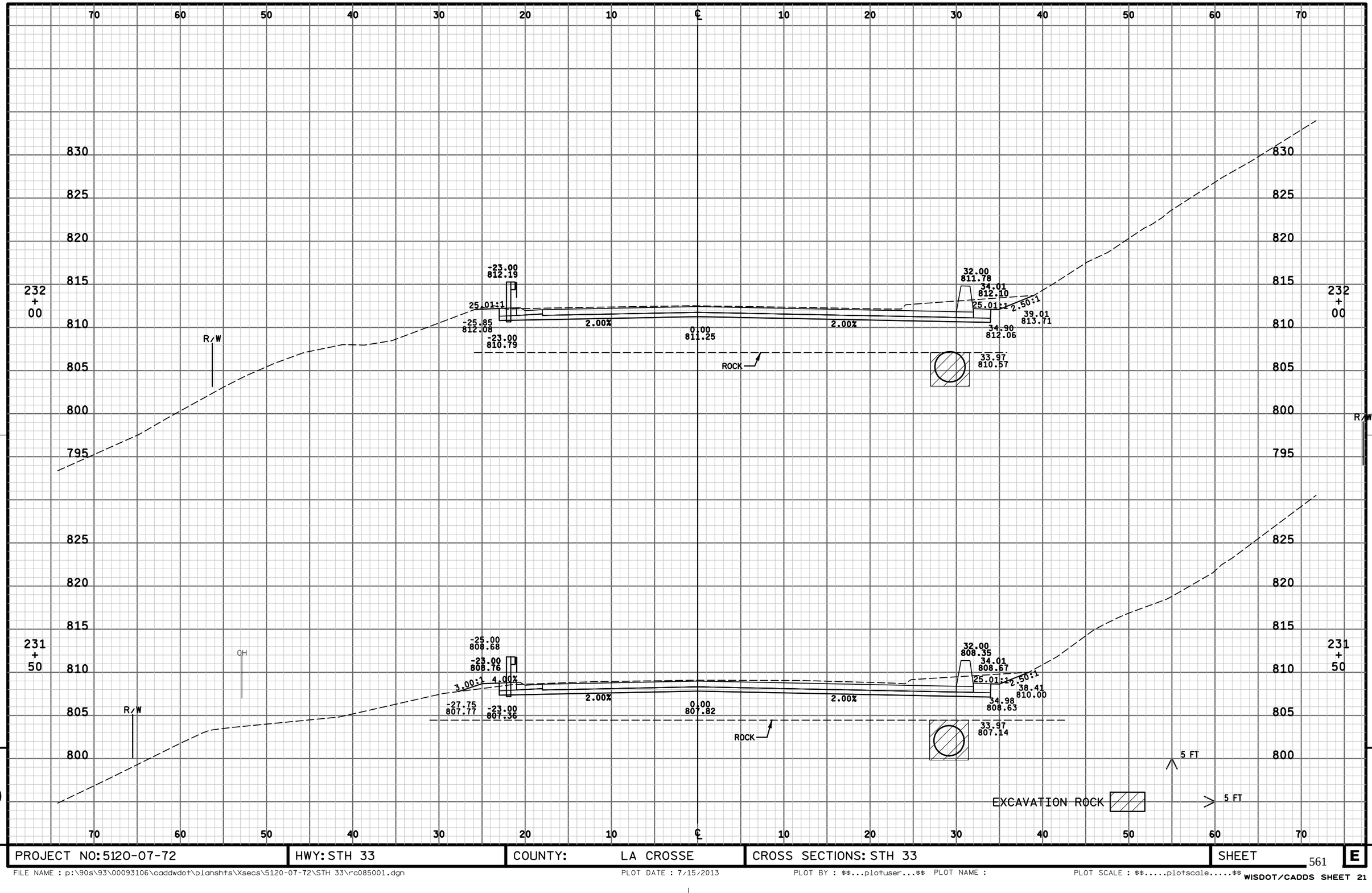
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc083001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$
WISDOT/CADDS SHEET 21



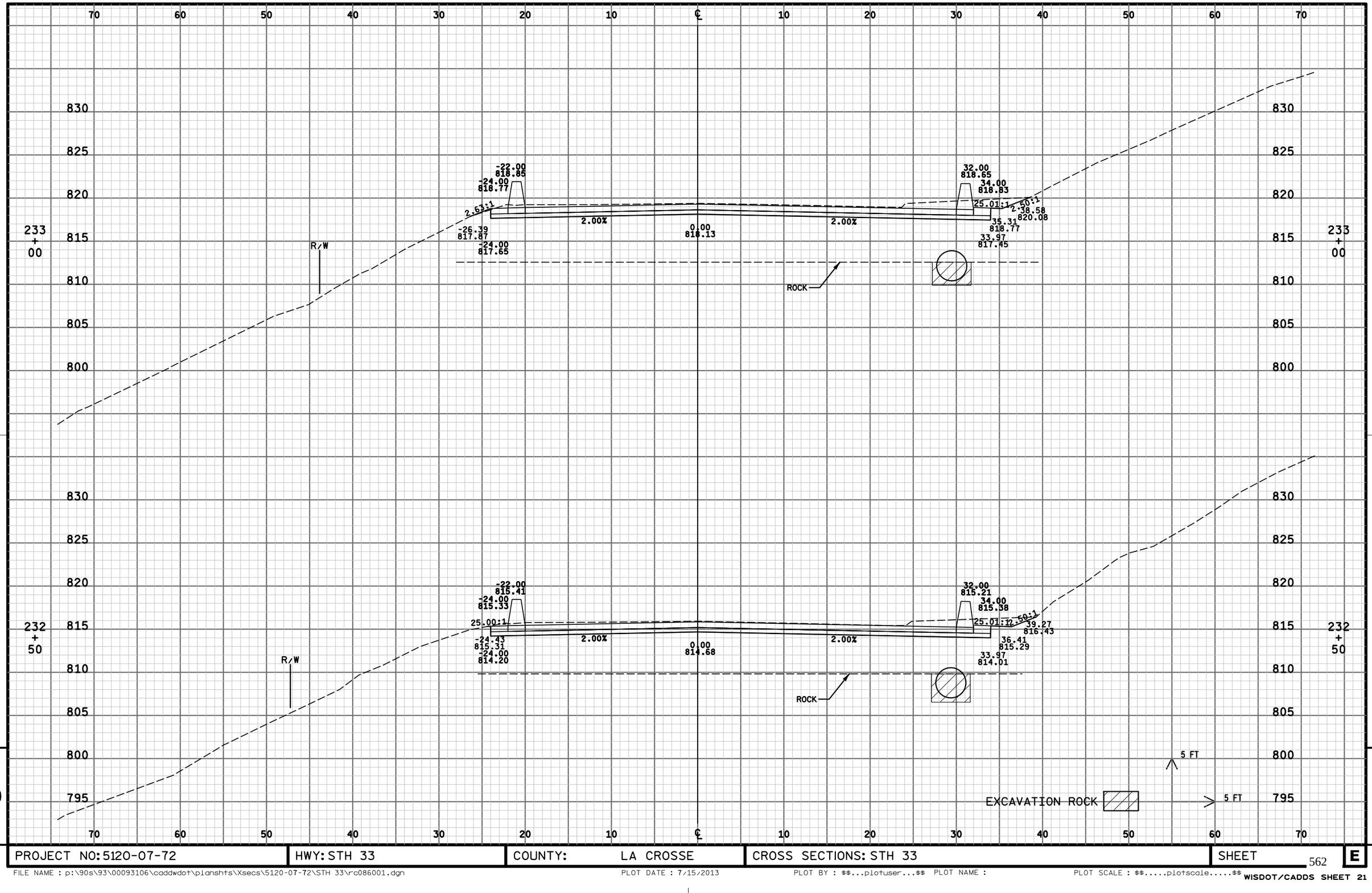
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc084001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc085001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

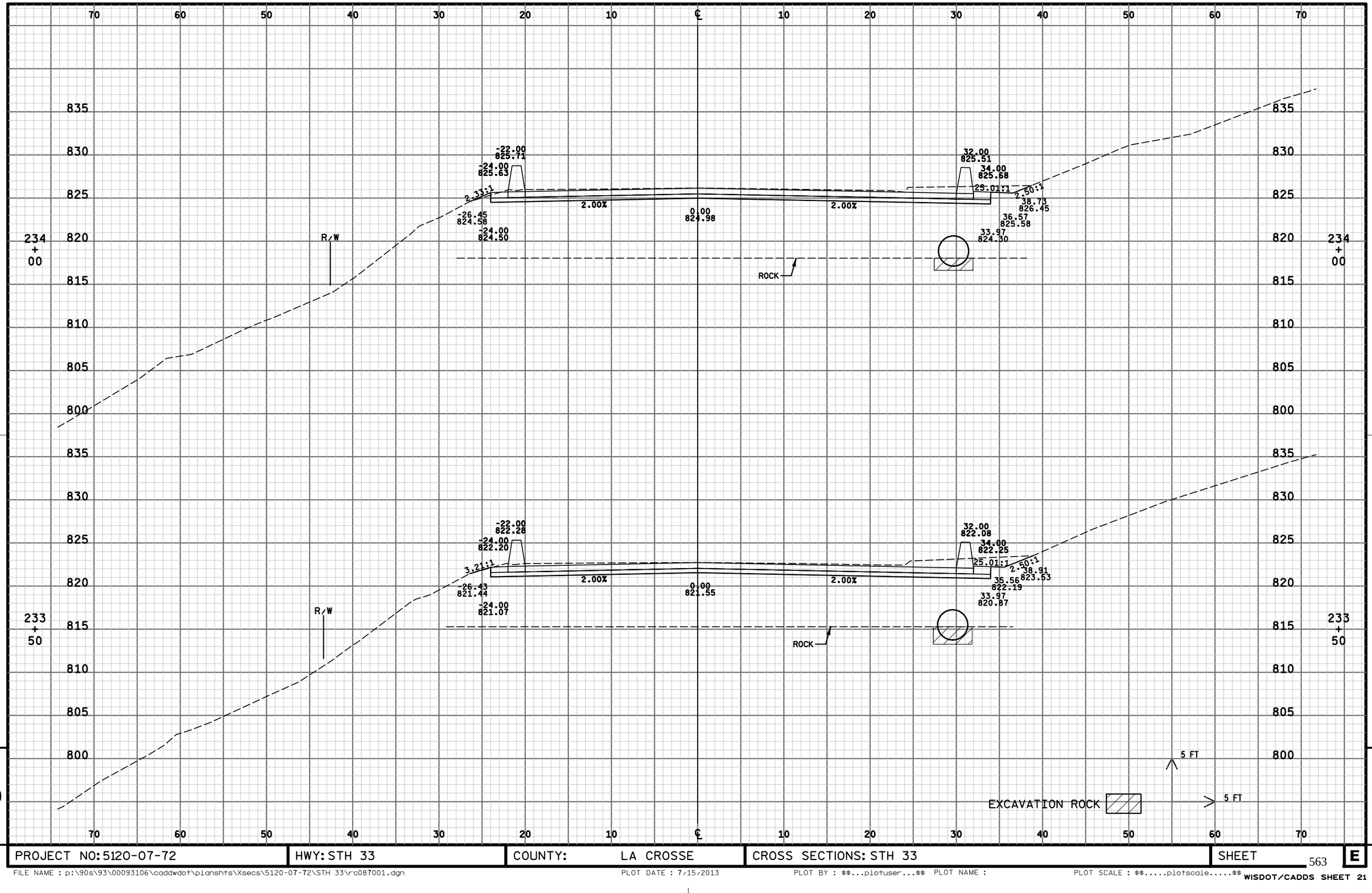


9 9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc086001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

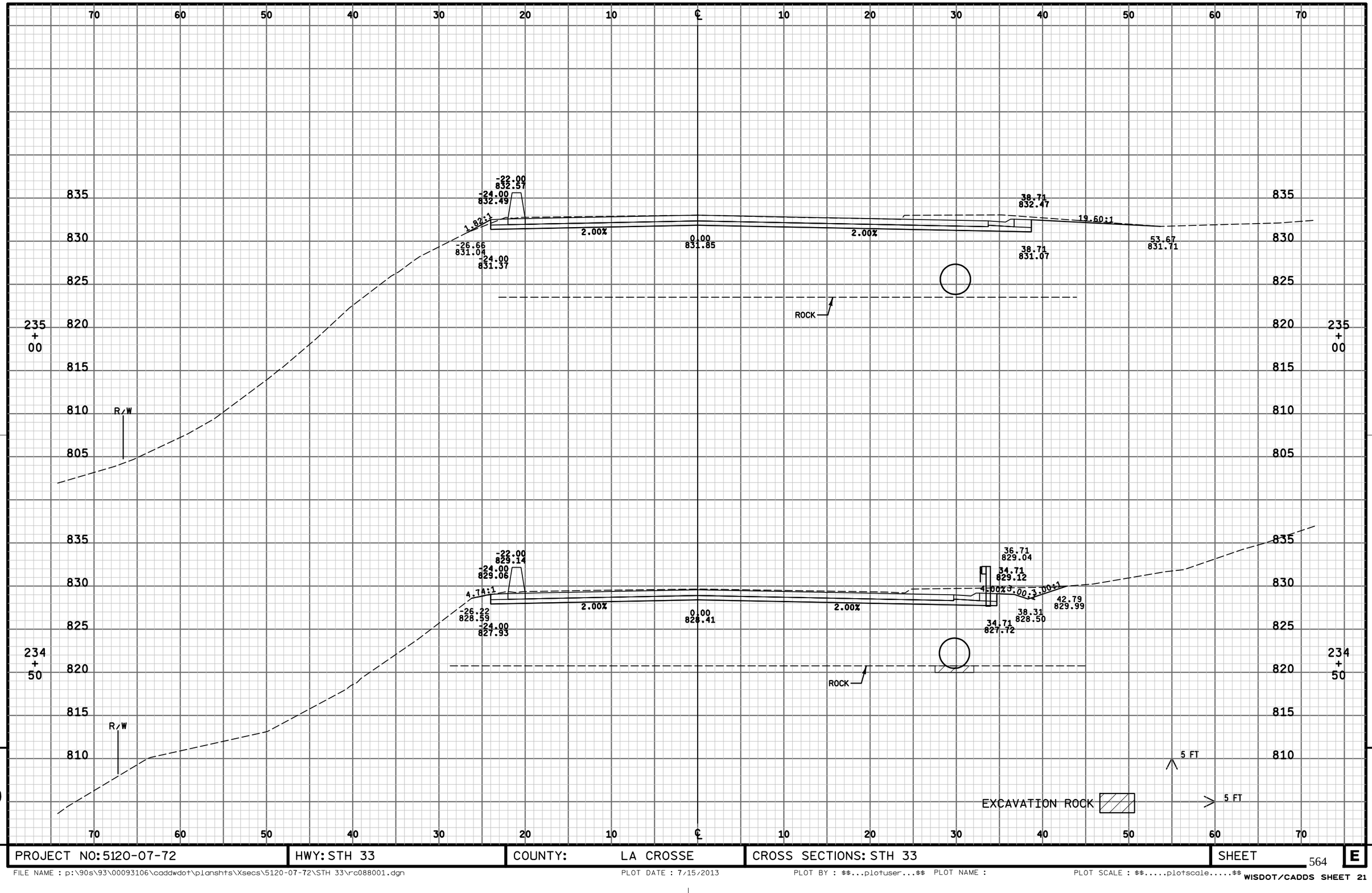
WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

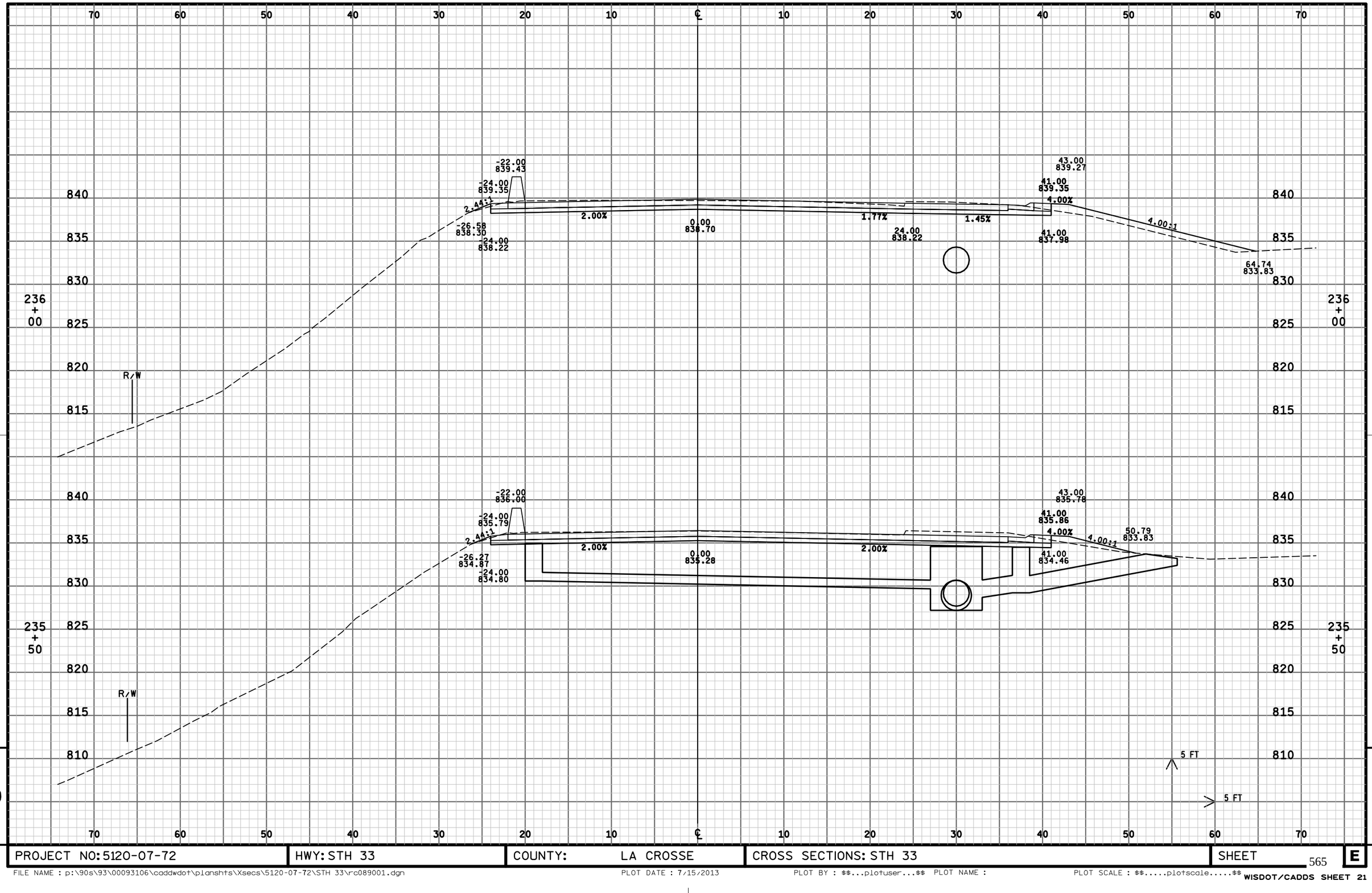
FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc087001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21



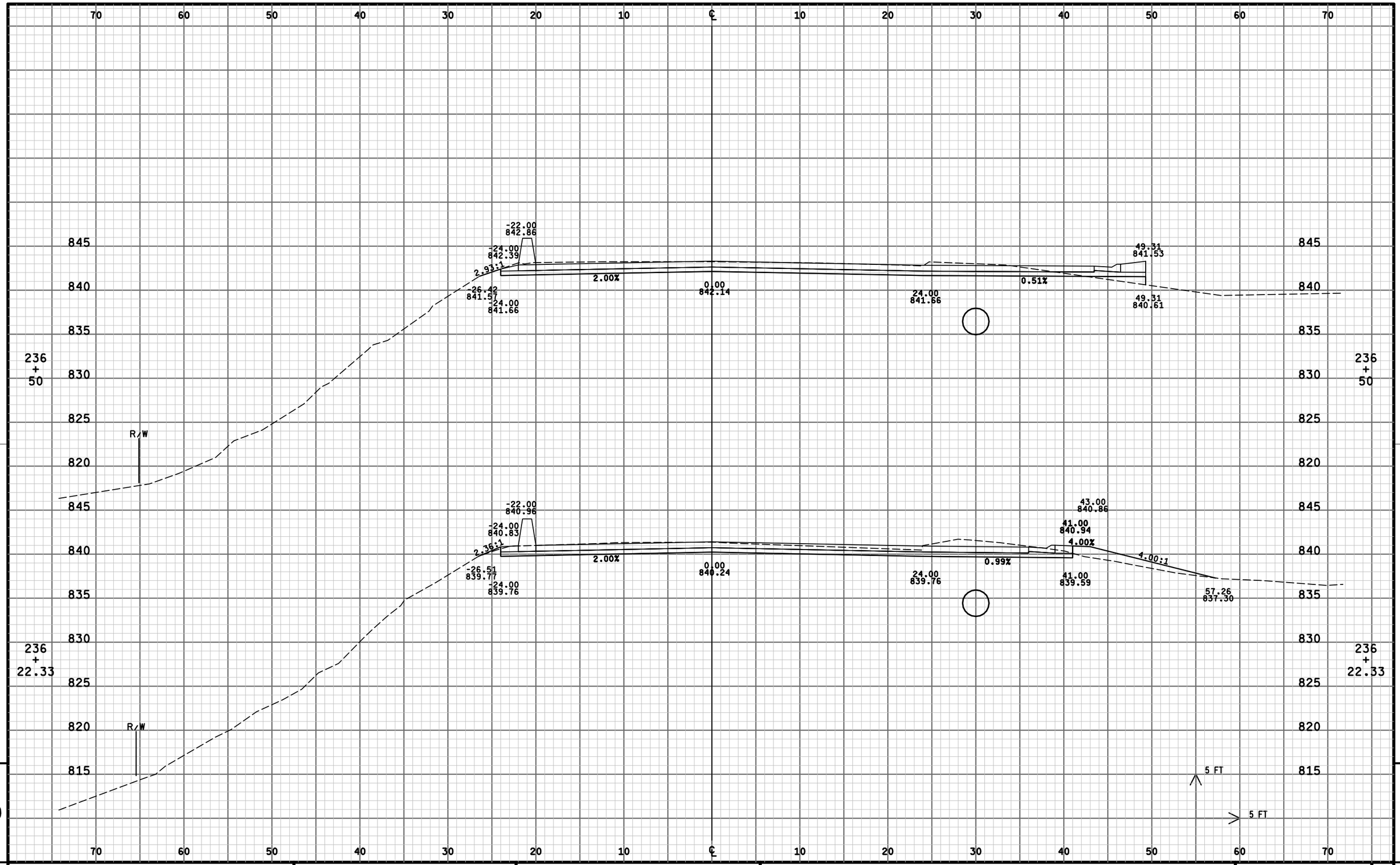
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc088001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



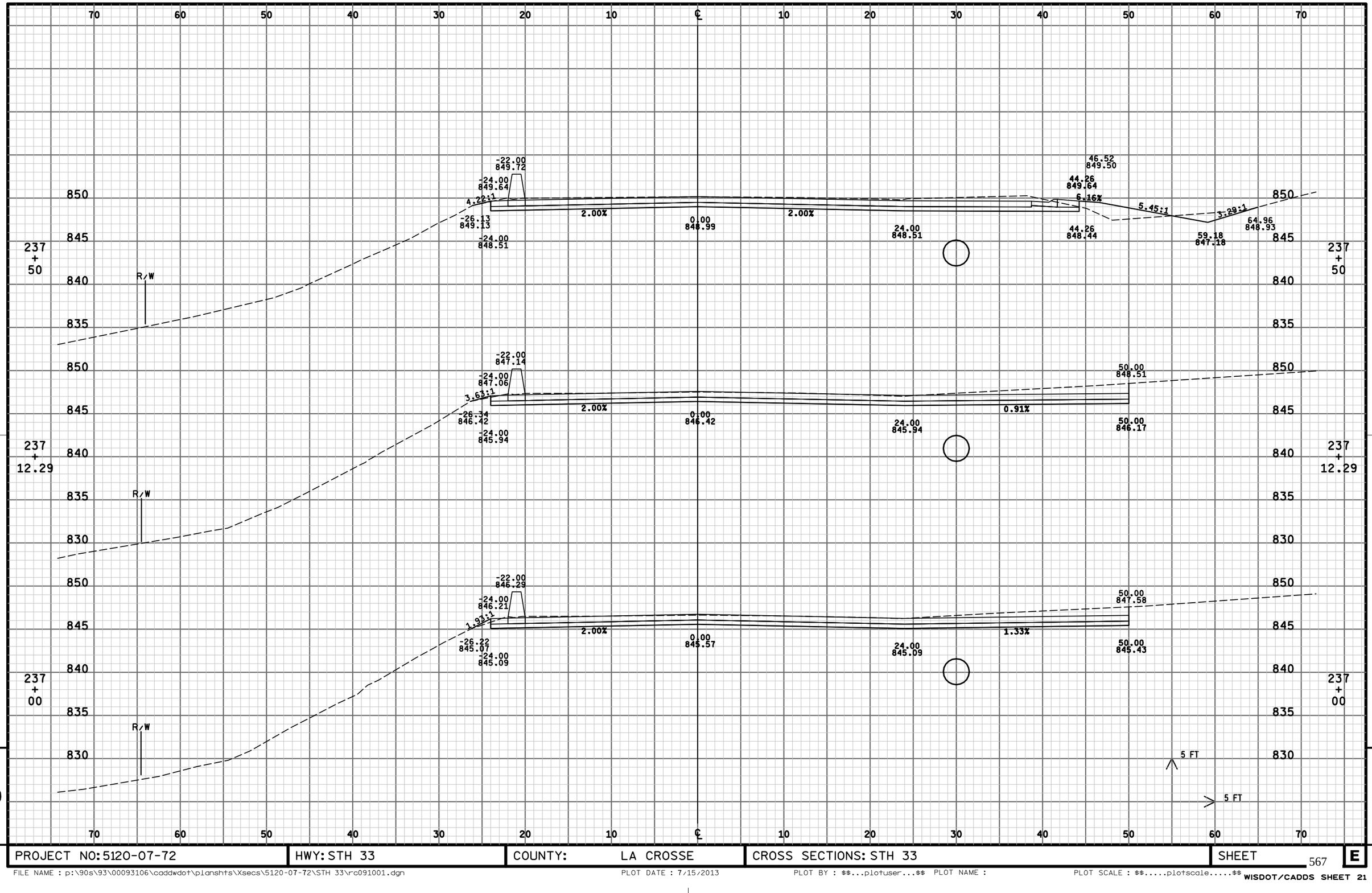
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc089001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc090001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc091001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

865 860 855 850 845 840

238 + 50

R/W

-22.00
857.02
-24.00
856.95
5.37:1
-27.52
856.29
-24.00
855.85
0.04%
0.00
855.86
2.00%
35.37
856.51
33.00
856.60
4.00%
5.00:1
37.98
857.38
33.00
855.20

ROCK

238 + 00

R/W

-22.00
853.32
-24.00
853.24
4.20:1
-26.88
852.55
-24.00
852.12
1.29%
0.00
852.43
2.00%
38.23
853.03
36.26
853.11
4.00%
3.68:1
39.90
853.48
36.26
851.71

ROCK

237 + 75

R/W

-22.00
851.46
-24.00
851.38
6.41:1
-26.43
851.01
-24.00
850.26
1.91%
0.00
850.72
2.00%
41.26
851.57
39.26
851.49
4.00%
4.33:1
2.50:1
53.63
851.66
48.96
849.79
39.26
849.93

5 FT

EXCAVATION ROCK

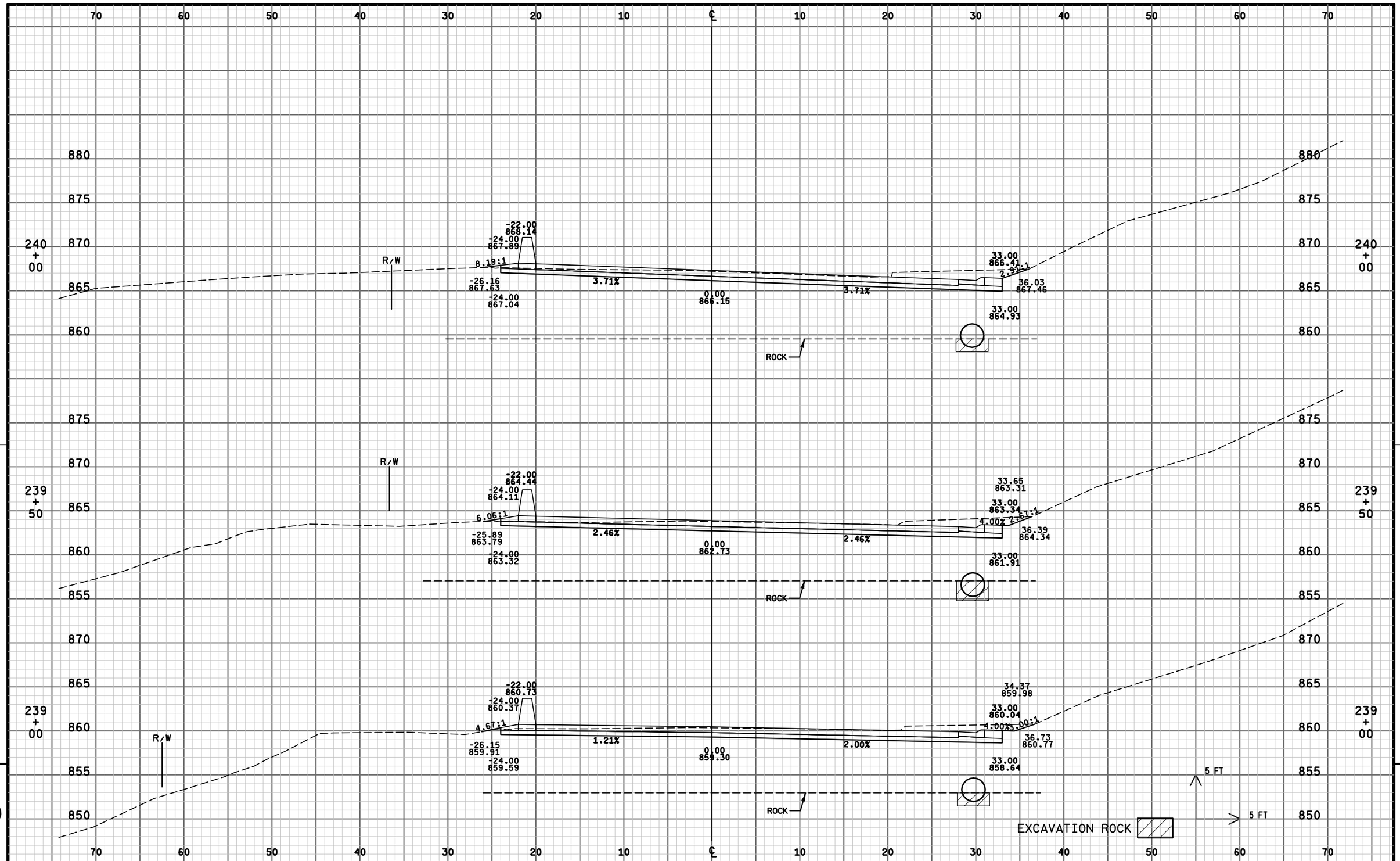
5 FT

9

9

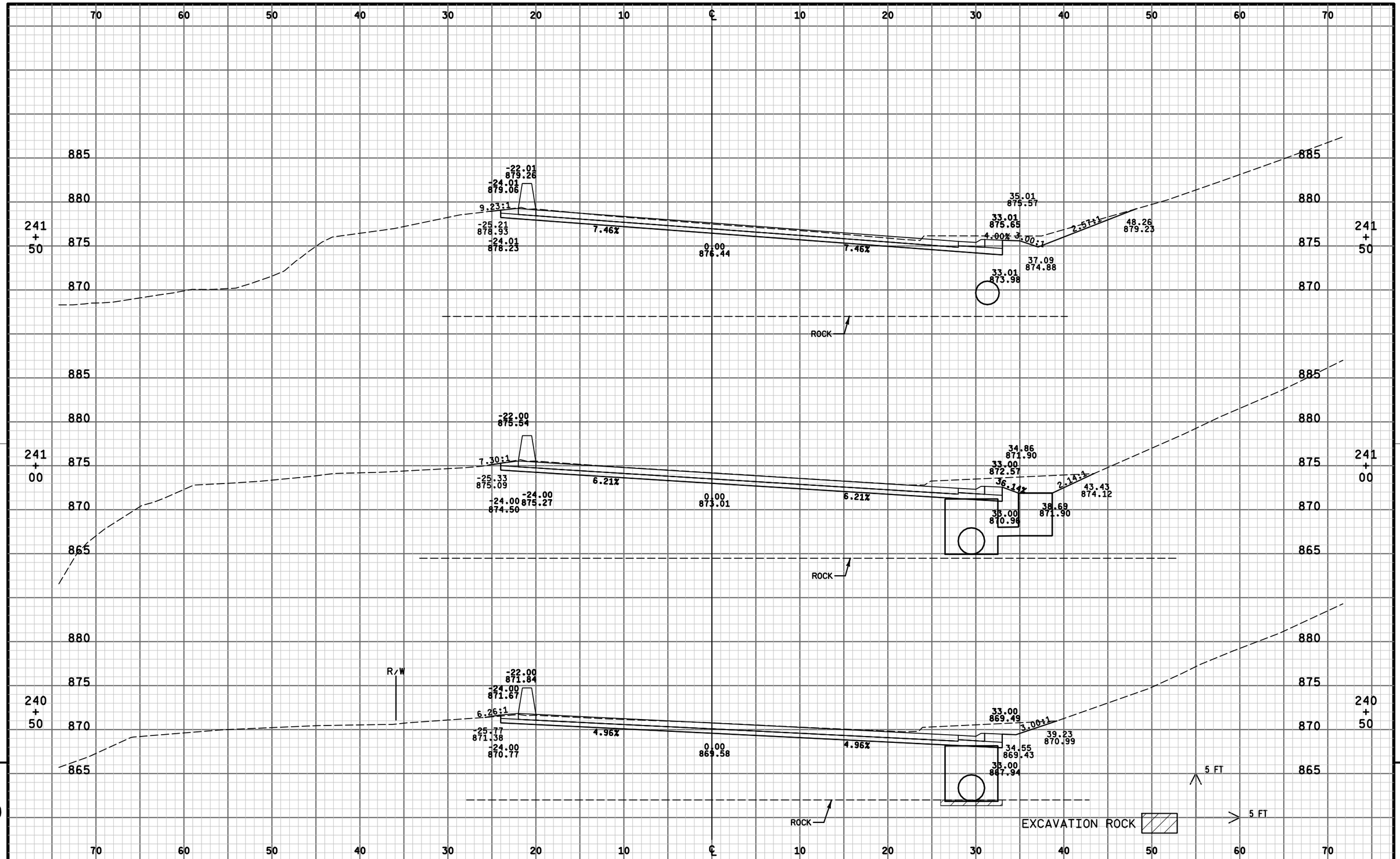
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc092001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



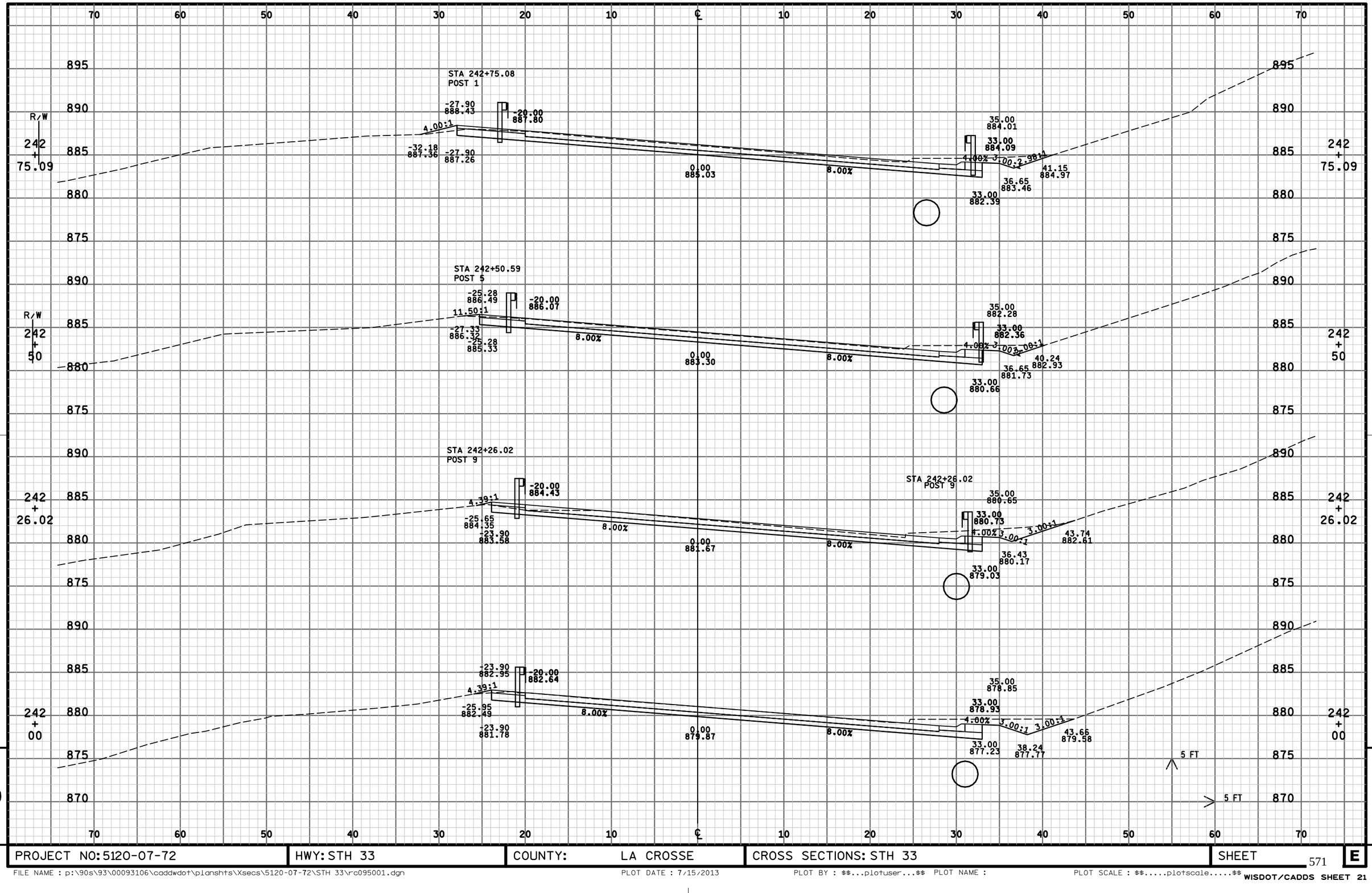
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc093001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc094001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc095001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

STA 243+49.65
POST 1

243 + 50
R/W
-27.94
893.58
4.00:1
-33.38
892.22
-27.94
892.41
8.00%
0.00
890.17
8.00%
32.00
888.90
36.50
889.42
34.00
889.42
0.00%
2.00:1
39.45
890.90
34.00
887.45

R/W
243 + 07
-29.81
889.69
-23.50
889.67
-29.81
890.03
-23.50
889.10
8.00%
0.00
887.22
8.00%
34.81
886.21
33.00
886.28
4.00%
3.37:1
39.19
887.51
33.00
884.58

R/W
243 + 00
-29.81
889.23
-23.50
889.20
-29.81
889.56
-23.50
888.63
8.00%
0.00
886.75
8.00%
37.30
885.64
33.00
885.81
4.00%
3.00:1
41.59
887.07
33.00
884.11

R/W
242 + 90
-26.65
888.93
20.68:1
-33.00
888.62
-26.65
888.18
0.00
886.05
8.00%
35.00
885.03
33.00
885.11
4.00%
3.00:2.74:1
41.47
886.24
36.65
884.48
33.00
883.41
5 FT
5 FT

9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc096001.dgn
PLOT DATE : 7/15/2013
PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$
WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

910 905 900 895 890

244 + 50

-22.00
899.96
-24.00
899.81
13.64:1
-26.62
899.62
-24.00
898.95
8.00%
0.00
897.03
8.00%
35.00
896.01
32.00
895.76
34.00
896.05
4.00%
4.57:1
37.41
897.54
34.00
894.31

244 + 00

-23.90
896.68
4.00:1
-26.70
895.98
-23.90
895.52
8.00%
0.00
893.60
8.00%
35.00
892.58
32.00
892.33
34.00
892.62
4.00%
2.10:1
40.62
895.26
34.00
890.88

STA 243+98.99
POST 9

243 + 98.99

-20.00
896.30
4.00:1
-26.02
896.08
-23.90
895.44
8.00%
-0.00
893.53
35.00
892.51
32.00
892.26
34.00
892.55
4.00%
2.00:1
44.51
897.26
34.00
890.81

STA 243+74.53
POST 5

243 + 74.53

-20.00
894.62
4.00:1
-28.06
894.36
-25.33
893.88
8.00%
-0.00
891.85
36.50
891.10
32.00
890.58
34.00
891.10
0.00%
1.97:1
47.69
896.78
5 FT
5 FT
34.00
889.13

9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc097001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

925 920 915 910 905 920 915

246 + 00

-22.00
910.23
-24.00
910.17
3.37:1
-25.61
909.69
-24.00
909.22
7.91%
0.00
907.32
35.00
906.32
32.00
906.07
34.00
906.36
4.00%
7.00:1
39.73
908.70
34.00
904.63

925 920 915 910 905 920 915

246 + 00

915 910 905 900 895 915 910

245 + 50

-22.00
906.82
-24.00
906.64
6.34:1
-25.88
906.34
-24.00
905.82
8.00%
0.00
903.90
8.00%
35.00
902.88
32.00
902.62
34.00
902.92
4.00%
1.78:1
41.78
906.68
34.00
901.18

915 910 905 900 895 915 910

245 + 50

910 905 900 915 910

245 + 00

-22.00
903.39
-24.00
903.26
15.43:1
-27.41
903.04
-24.00
902.38
8.00%
0.00
900.46
8.00%
35.00
899.44
32.00
899.19
34.00
899.48
4.00%
1.68:1
39.42
902.07
34.00
897.74
5 FT
5 FT

910 905 900 915 910

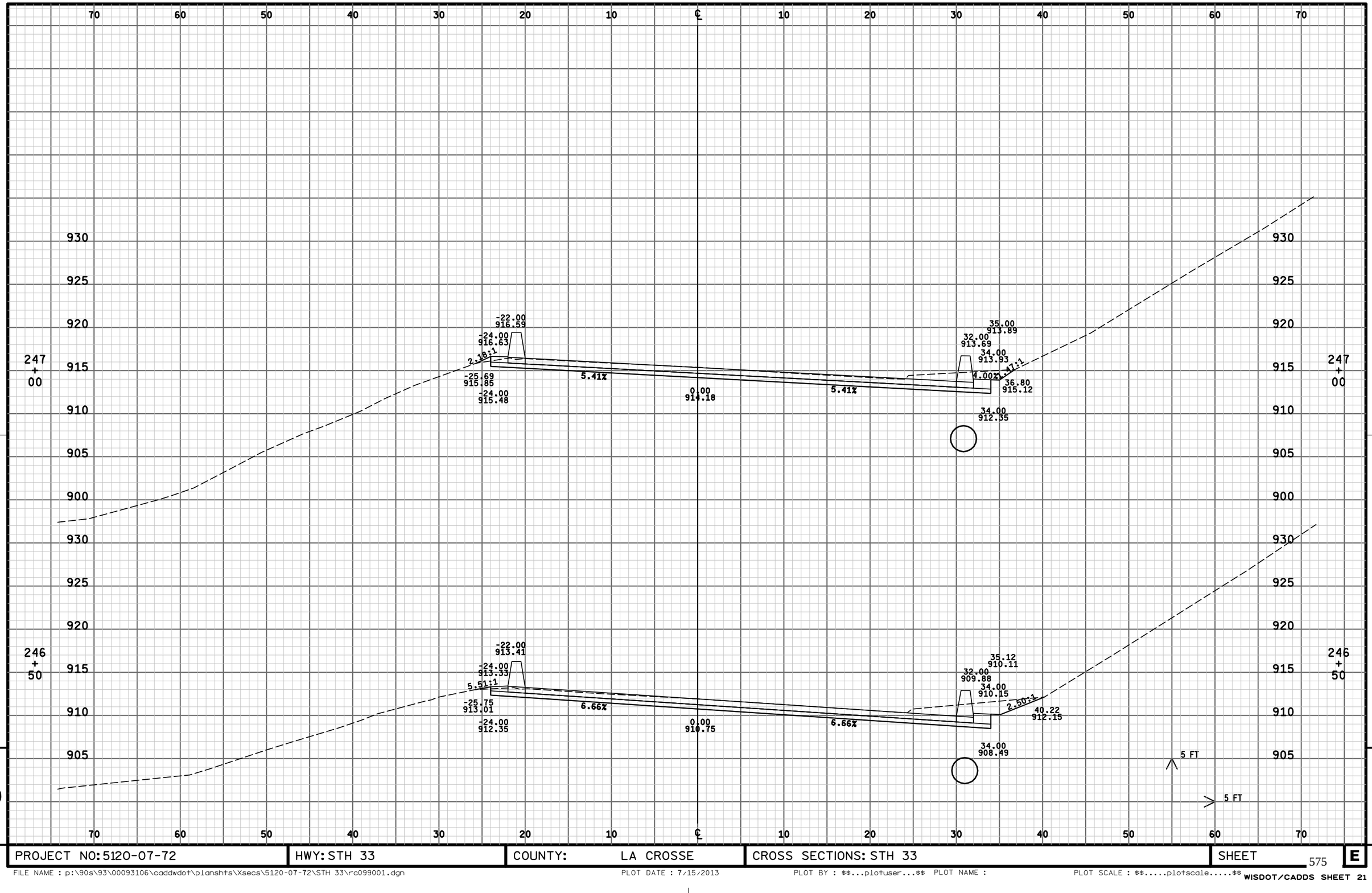
245 + 00

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

9 9

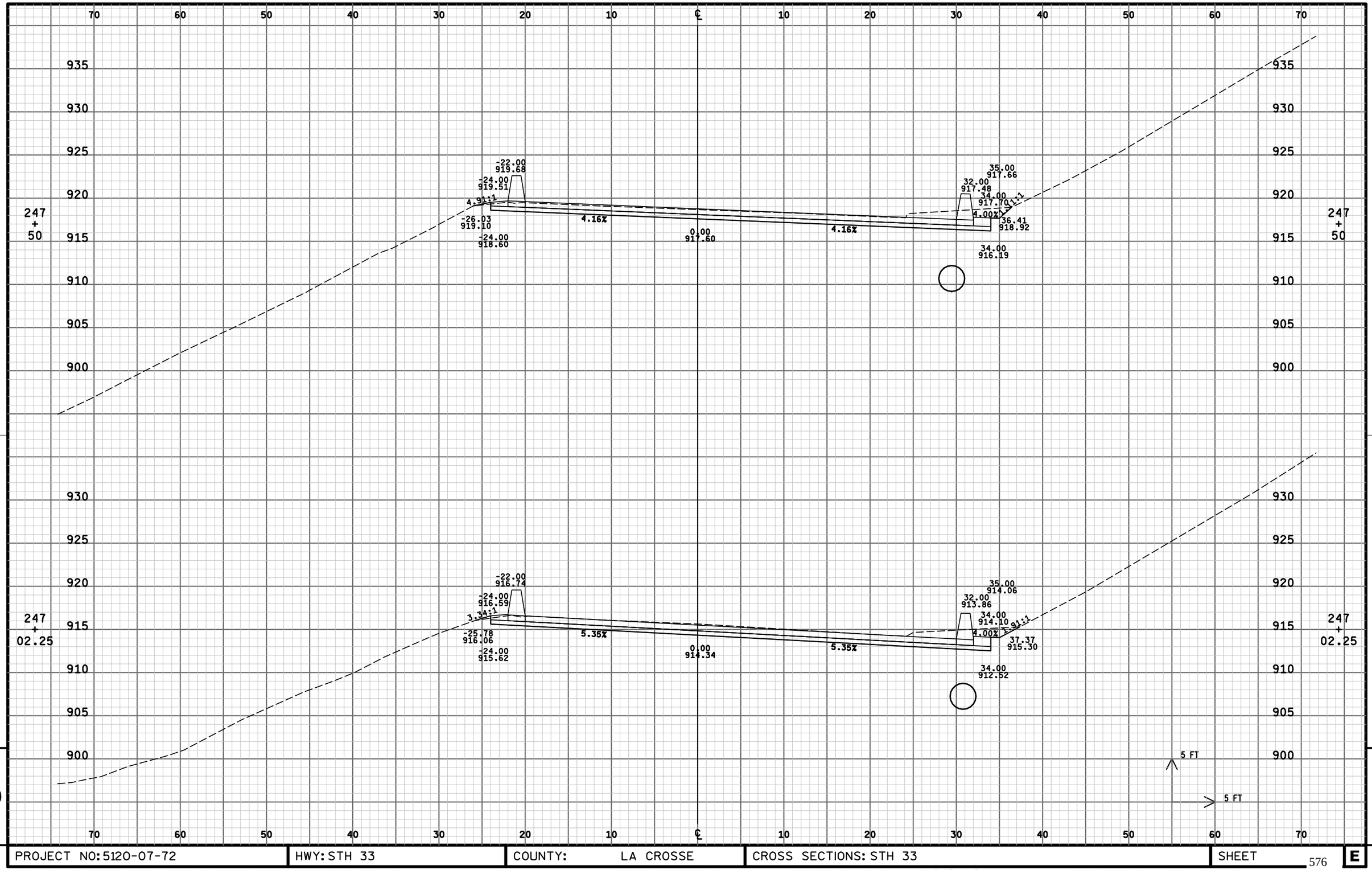
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

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WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

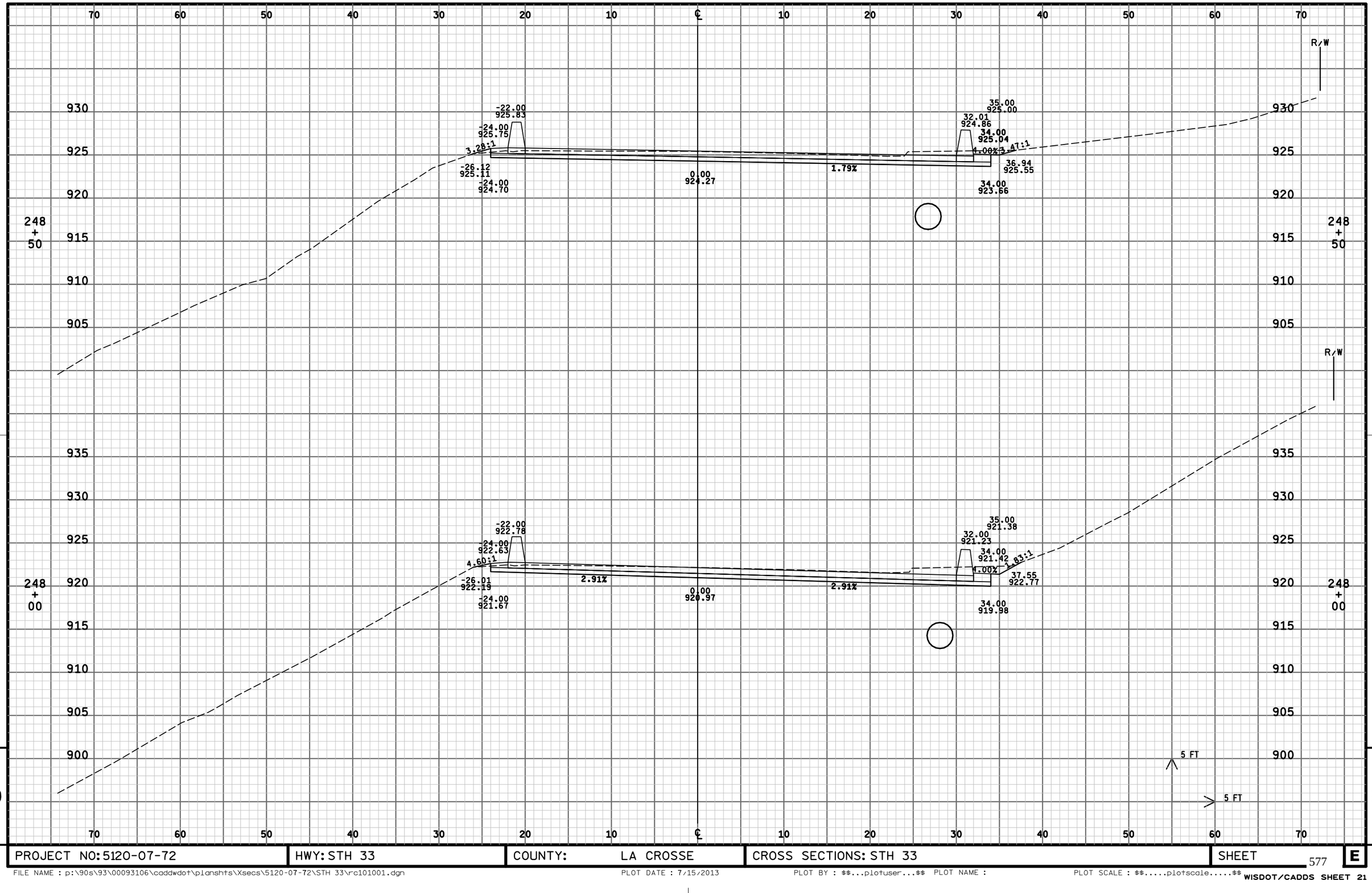
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9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

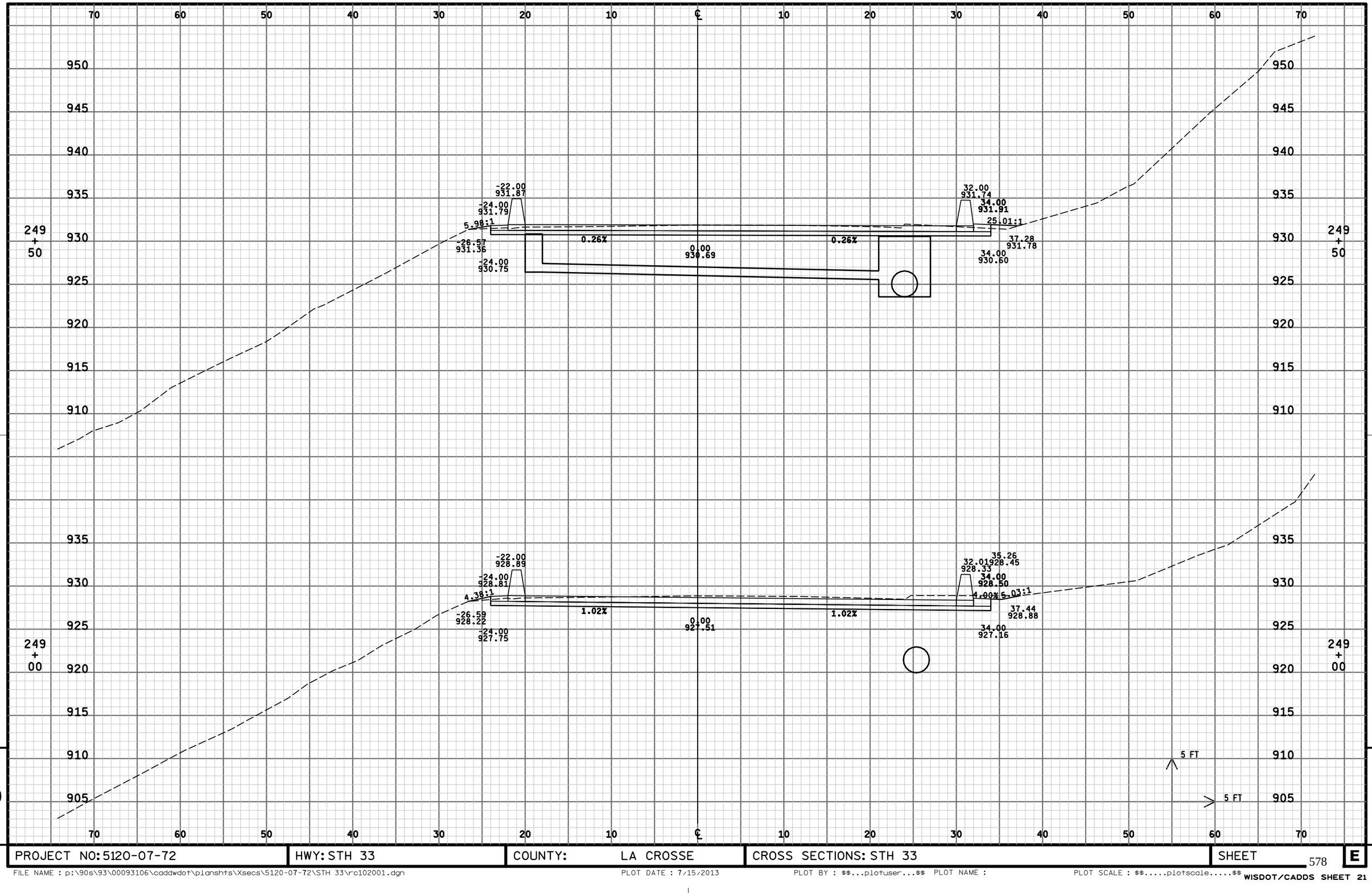
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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 577 E

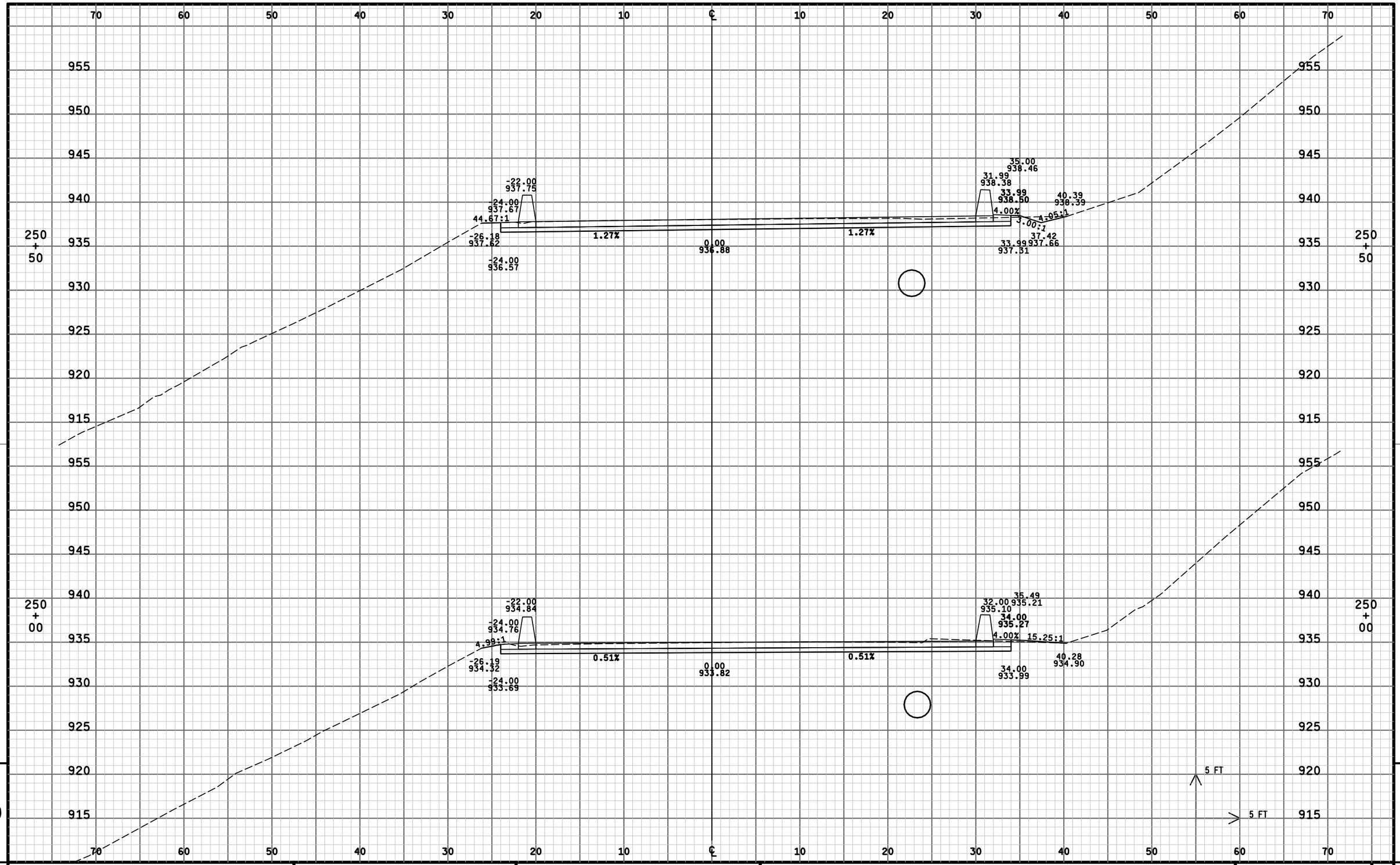
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WISDOT/CADDS SHEET 21



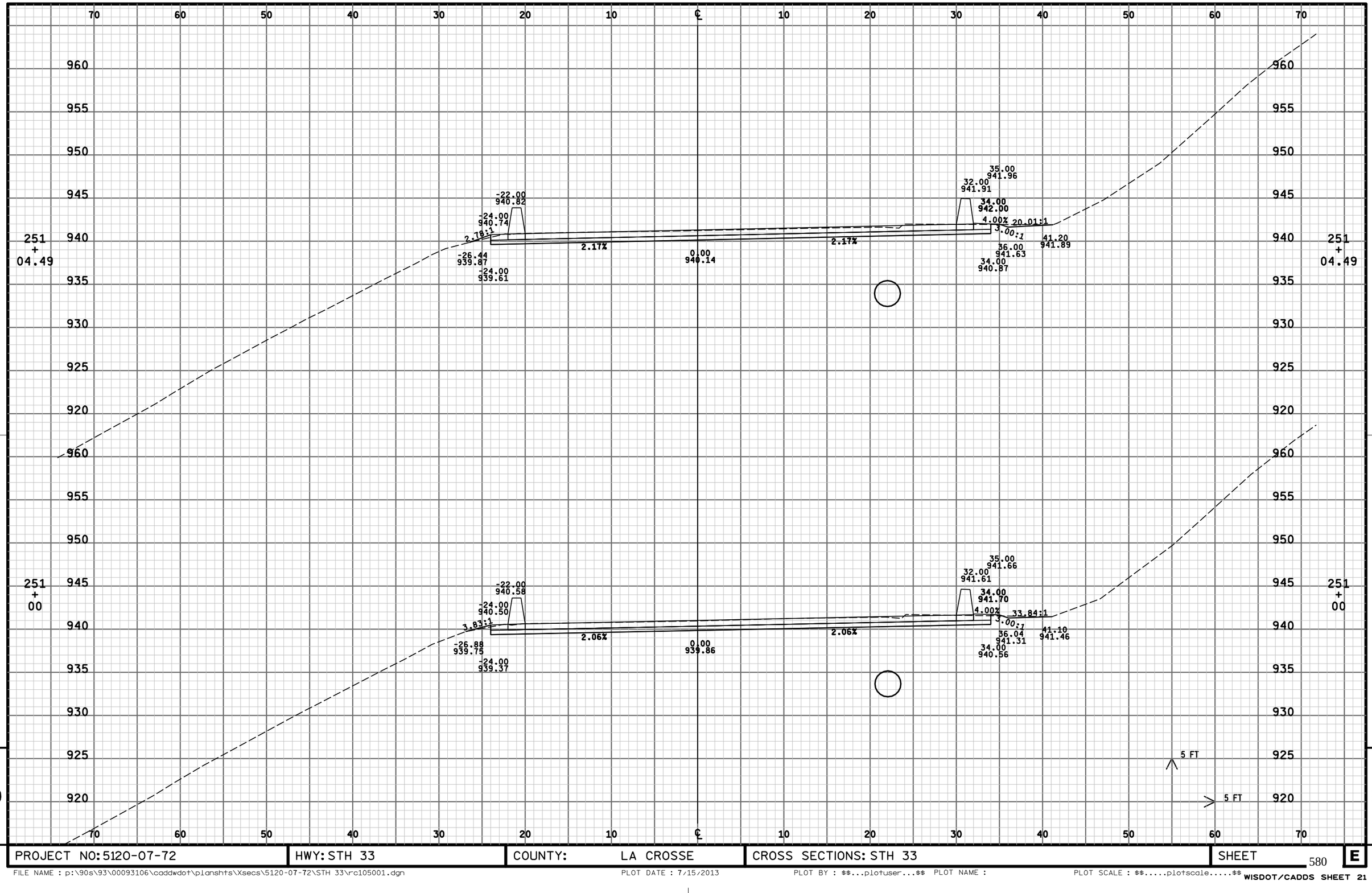
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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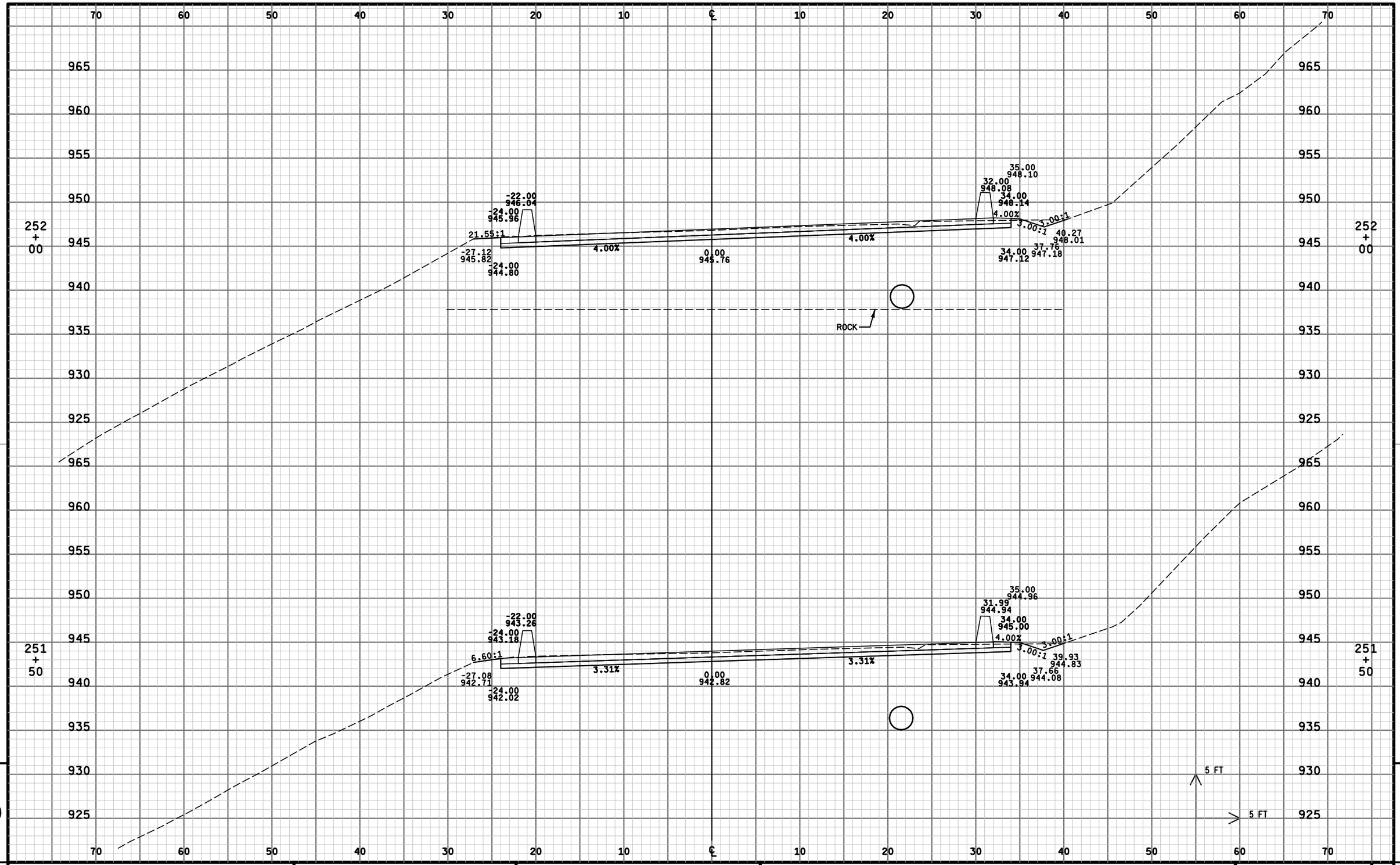
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc103001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



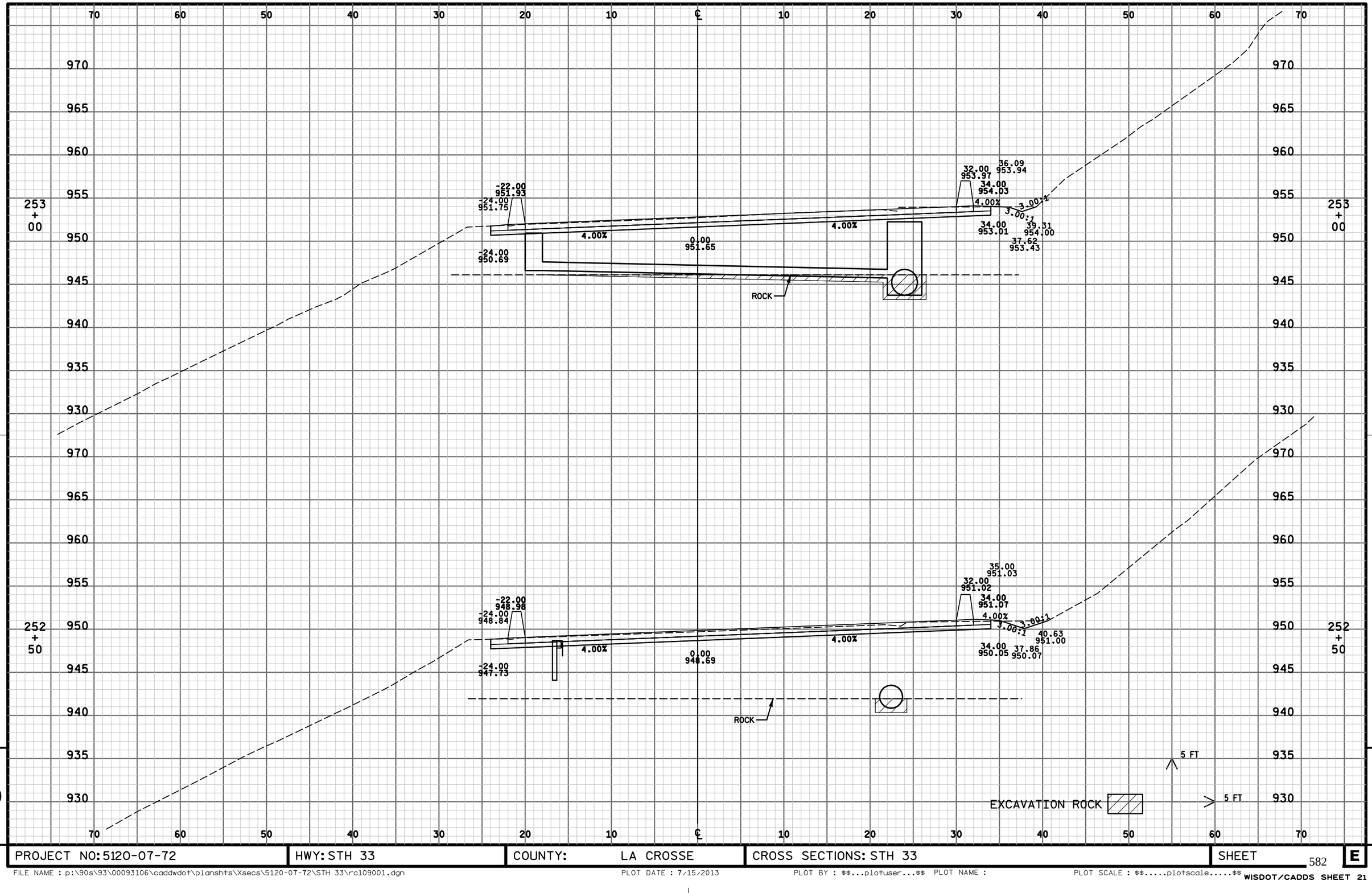
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

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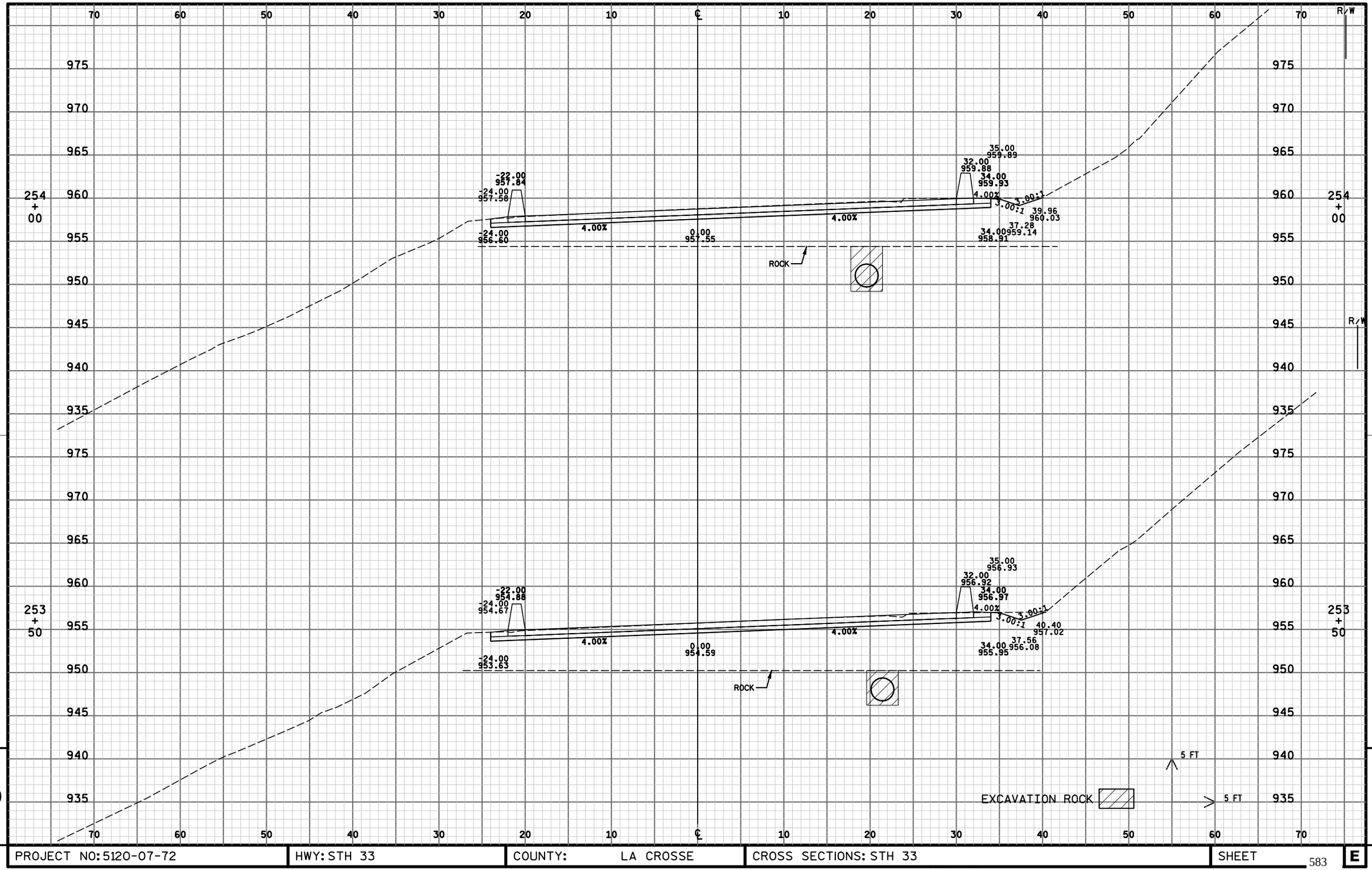
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FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc107001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



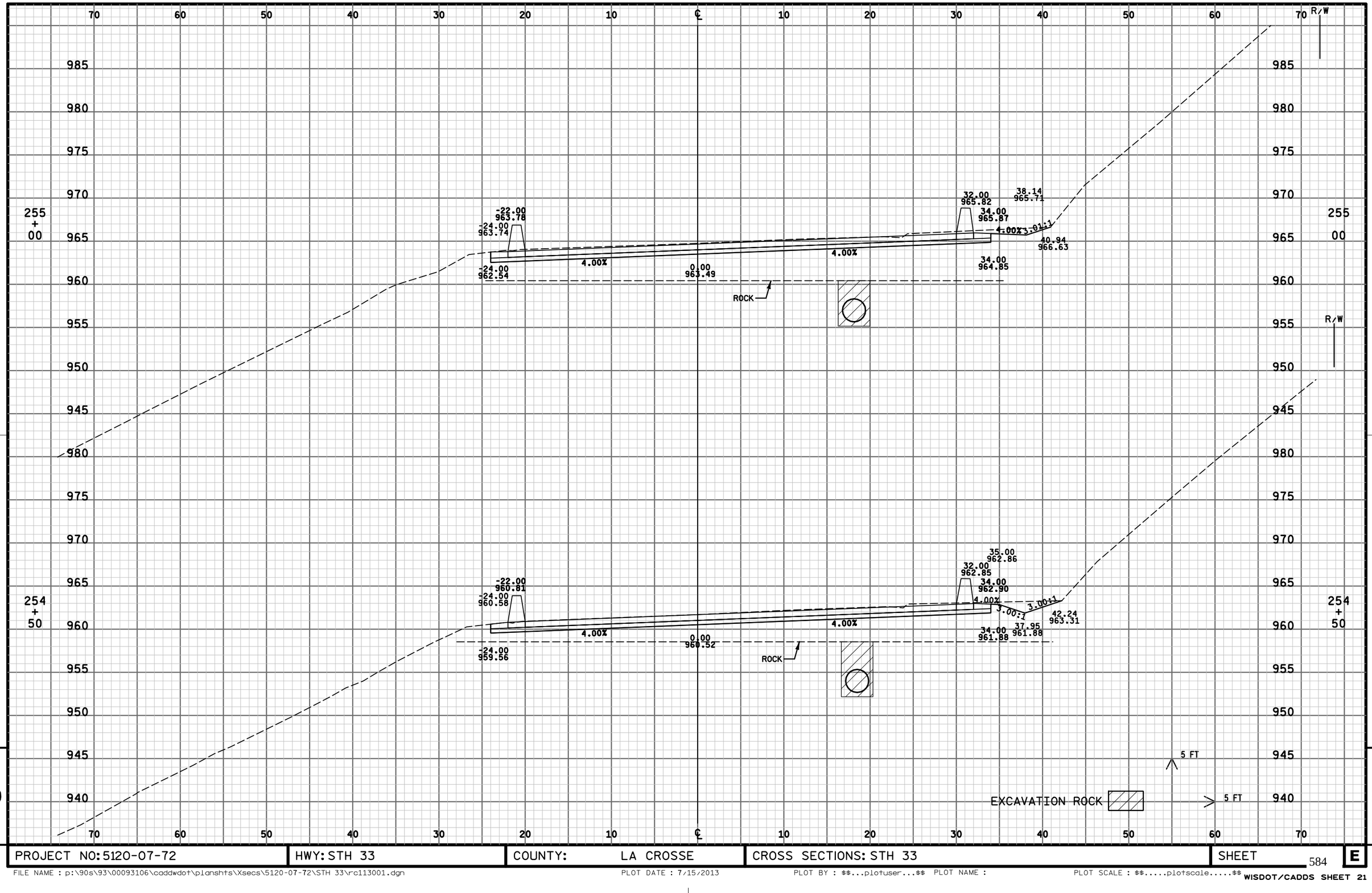
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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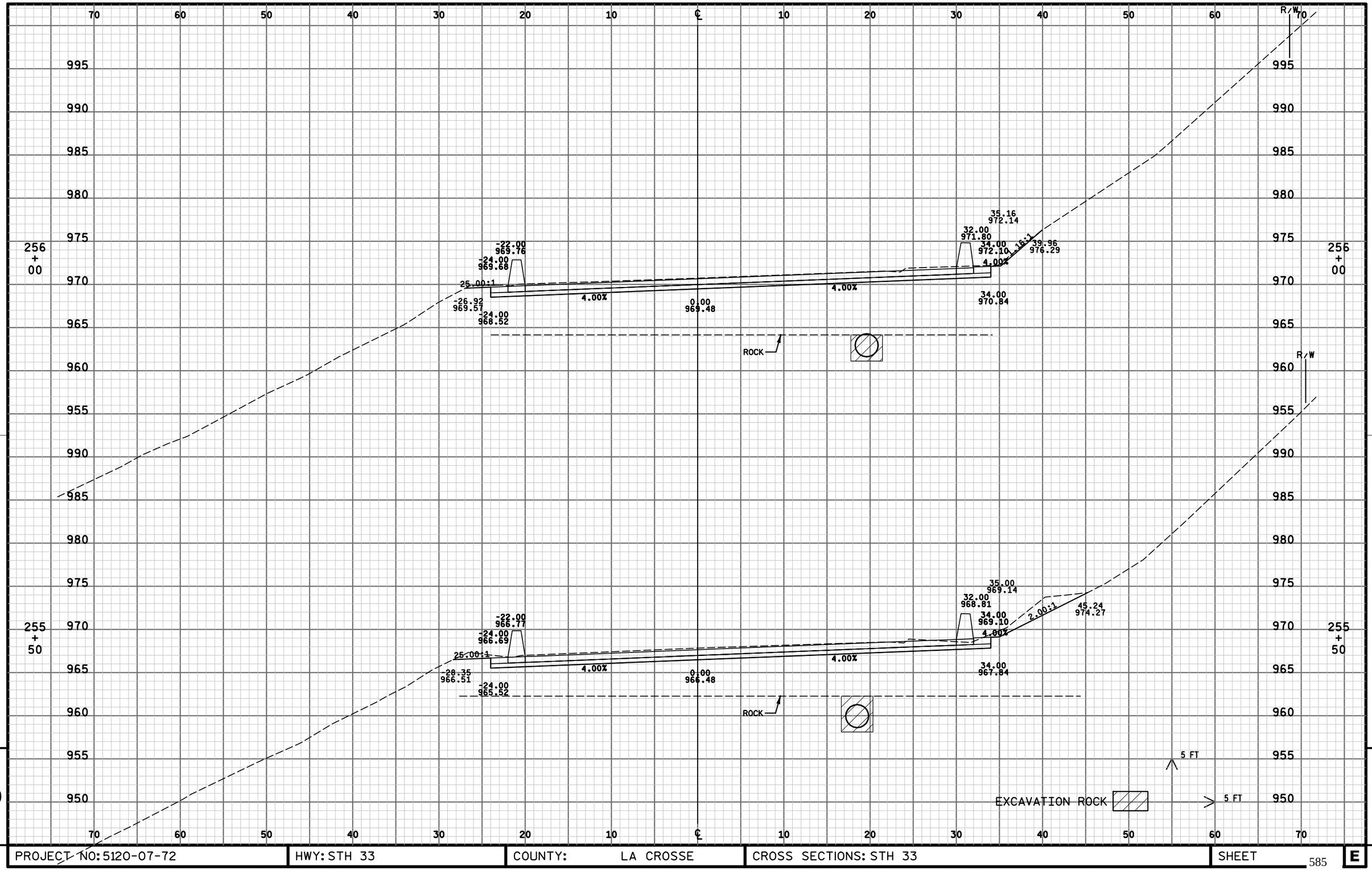


PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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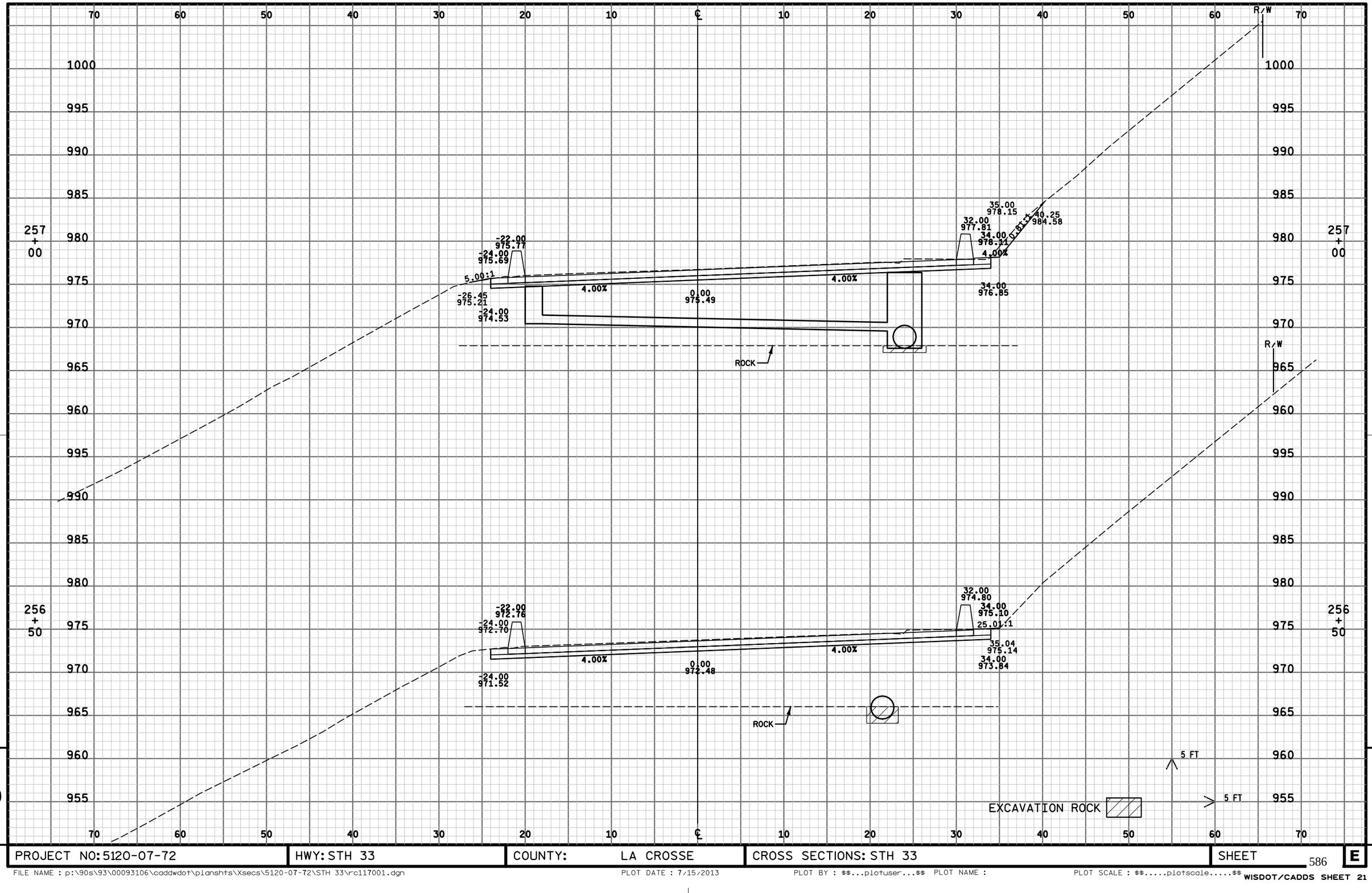


PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 584 E



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

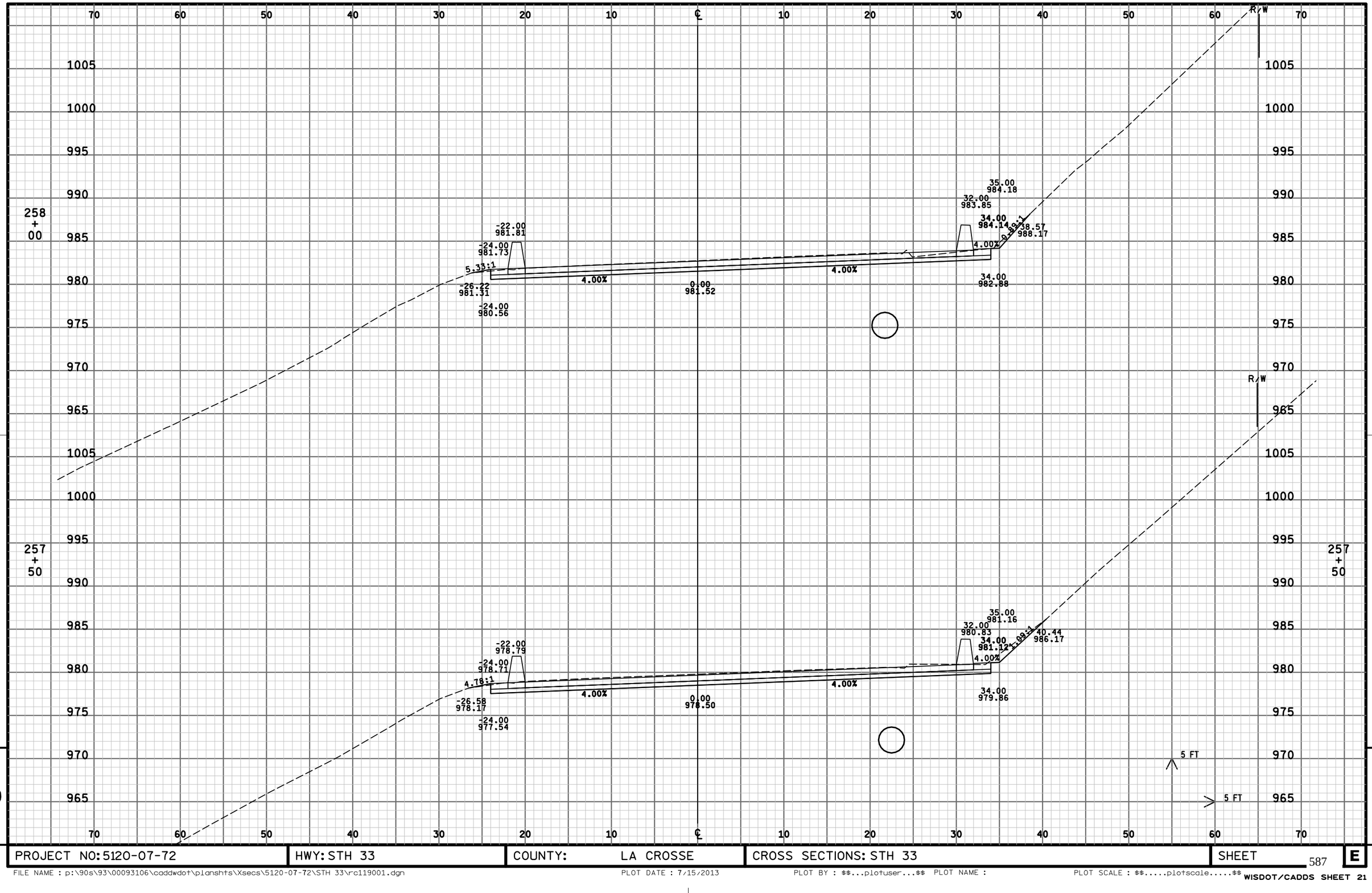
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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

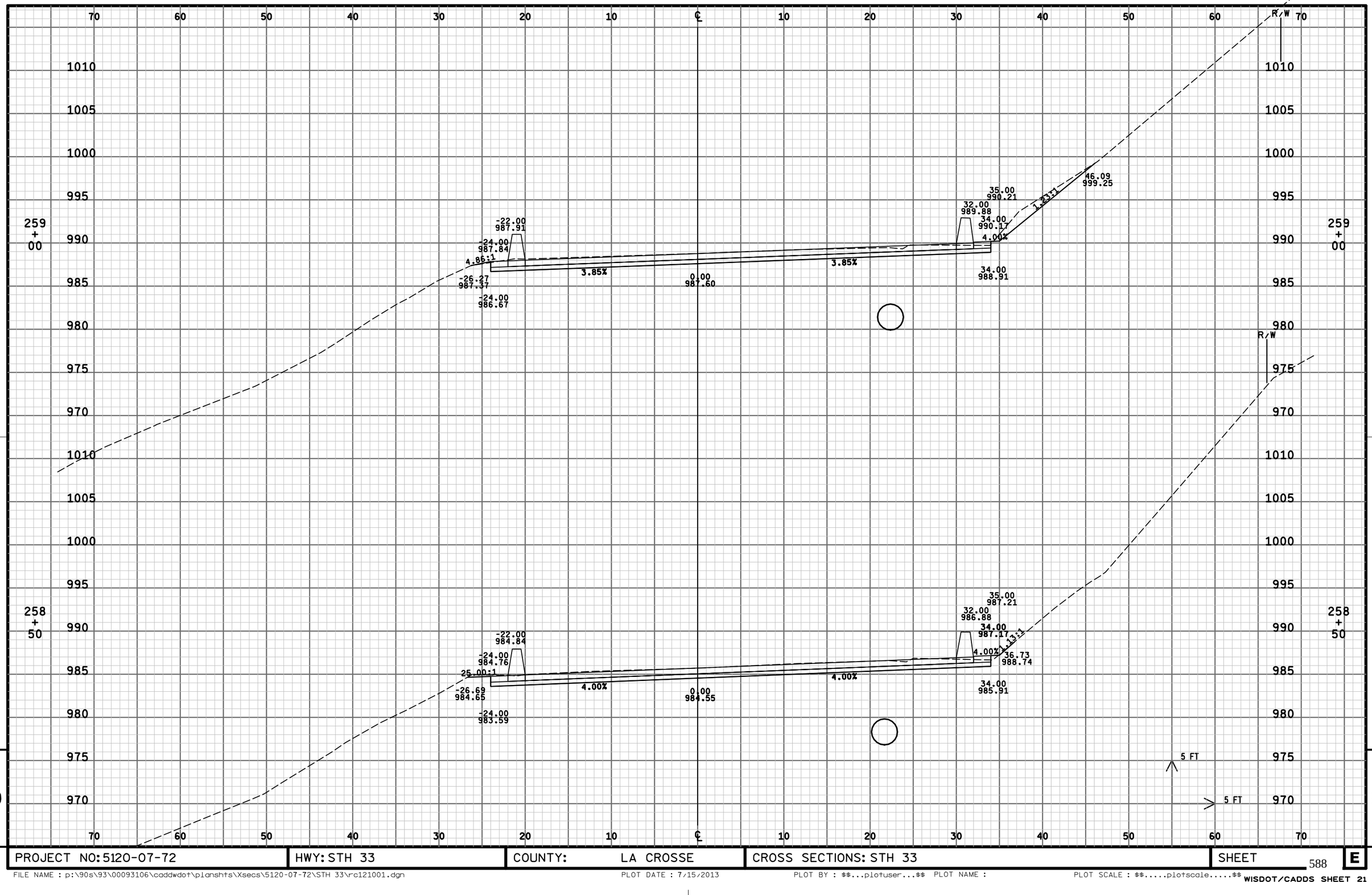
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WISDOT/CADDS SHEET 21



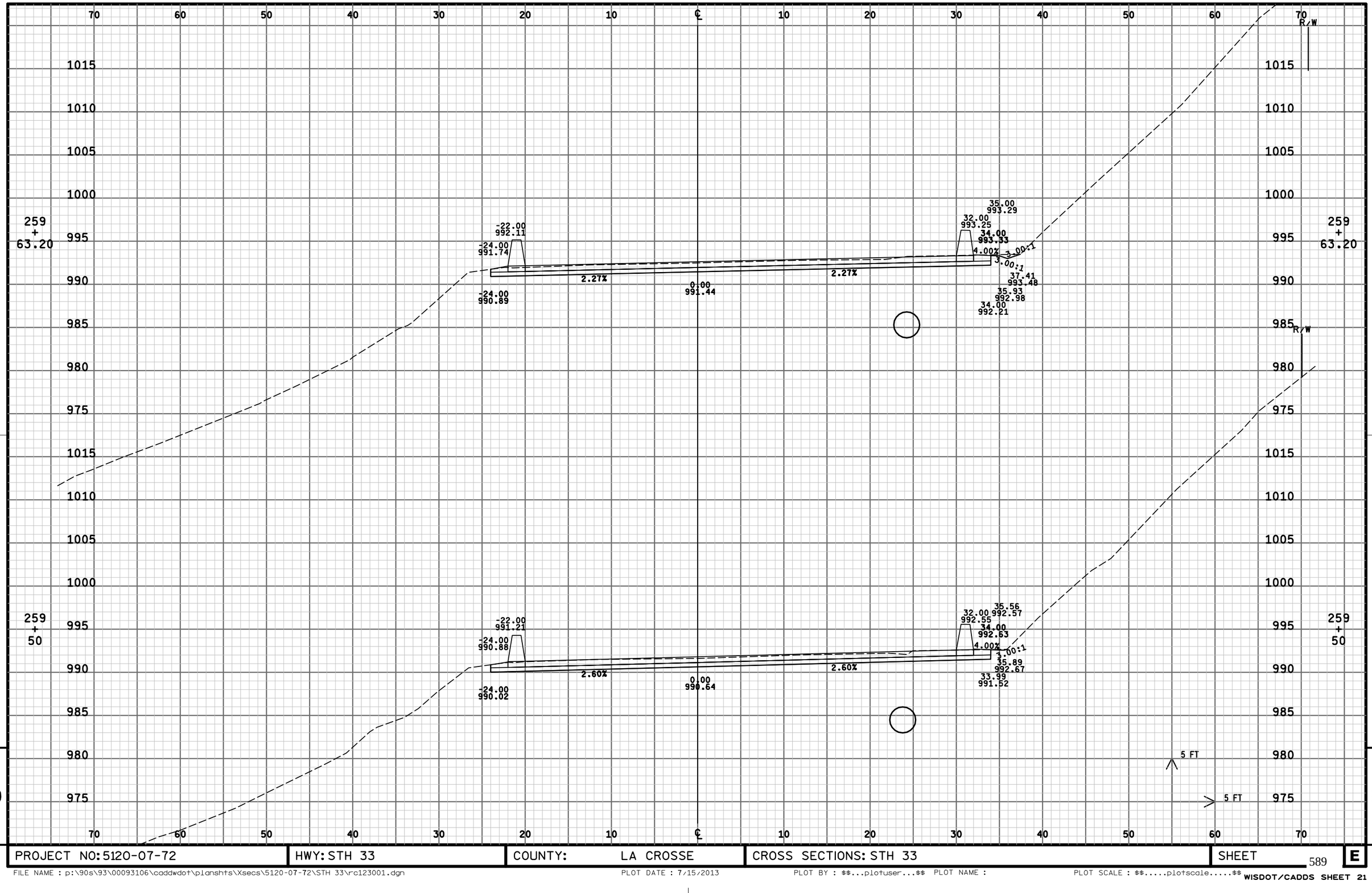
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 587 E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc119001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



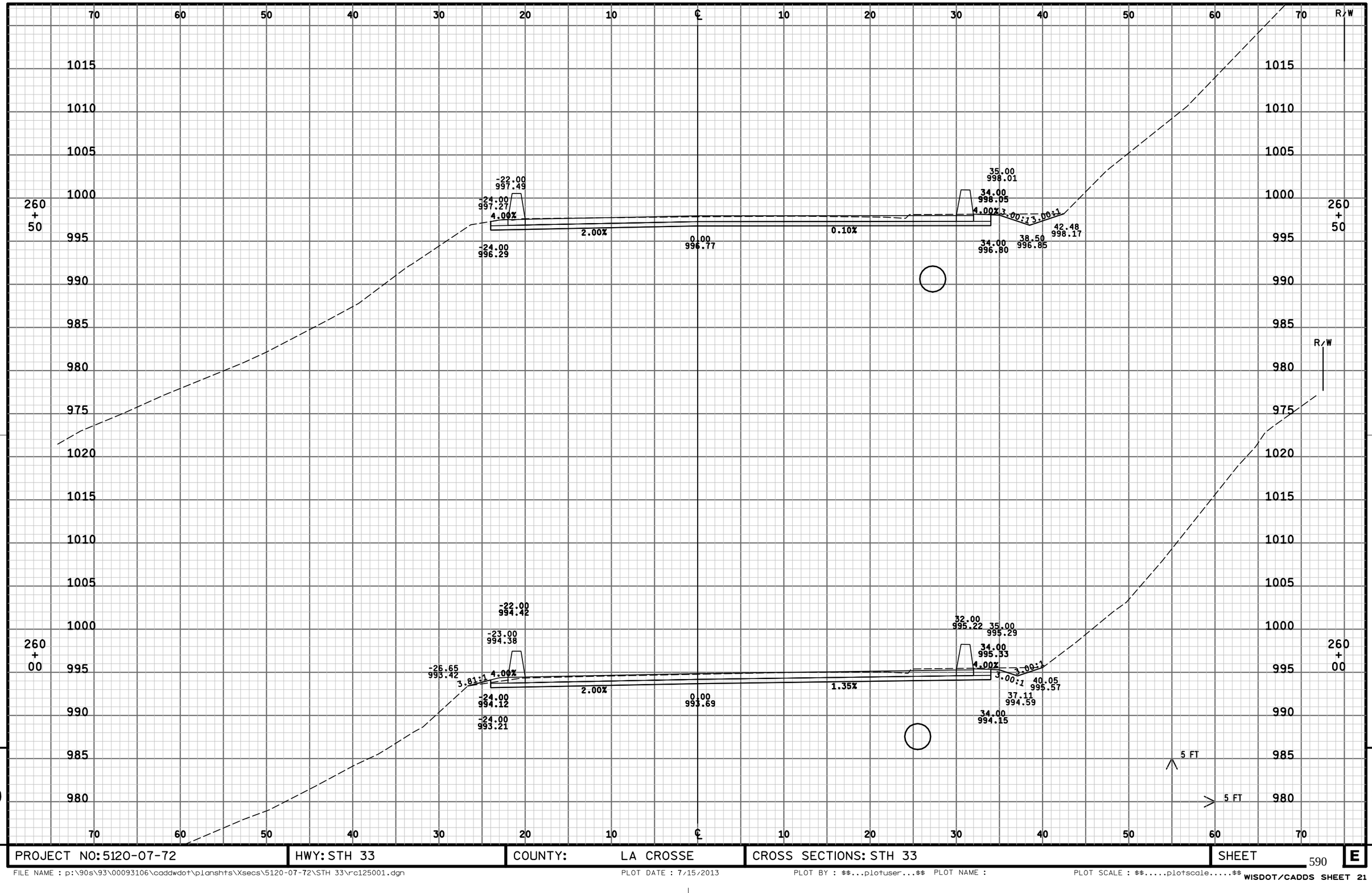
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

1020 1015 1010 1005 1000 995 990 985 980

261 + 50

-22.00
1003.64
-24.00
1003.61
16.84:1
-26.49
1003.46
-24.00
1002.43
2.00%
0.00
1002.91
2.00%
35.00
1003.57
34.00
1003.61
4.00%
3.00:1
3.00:1
47.75
1005.50
34.00
1002.23
38.48
1002.41

261 + 00

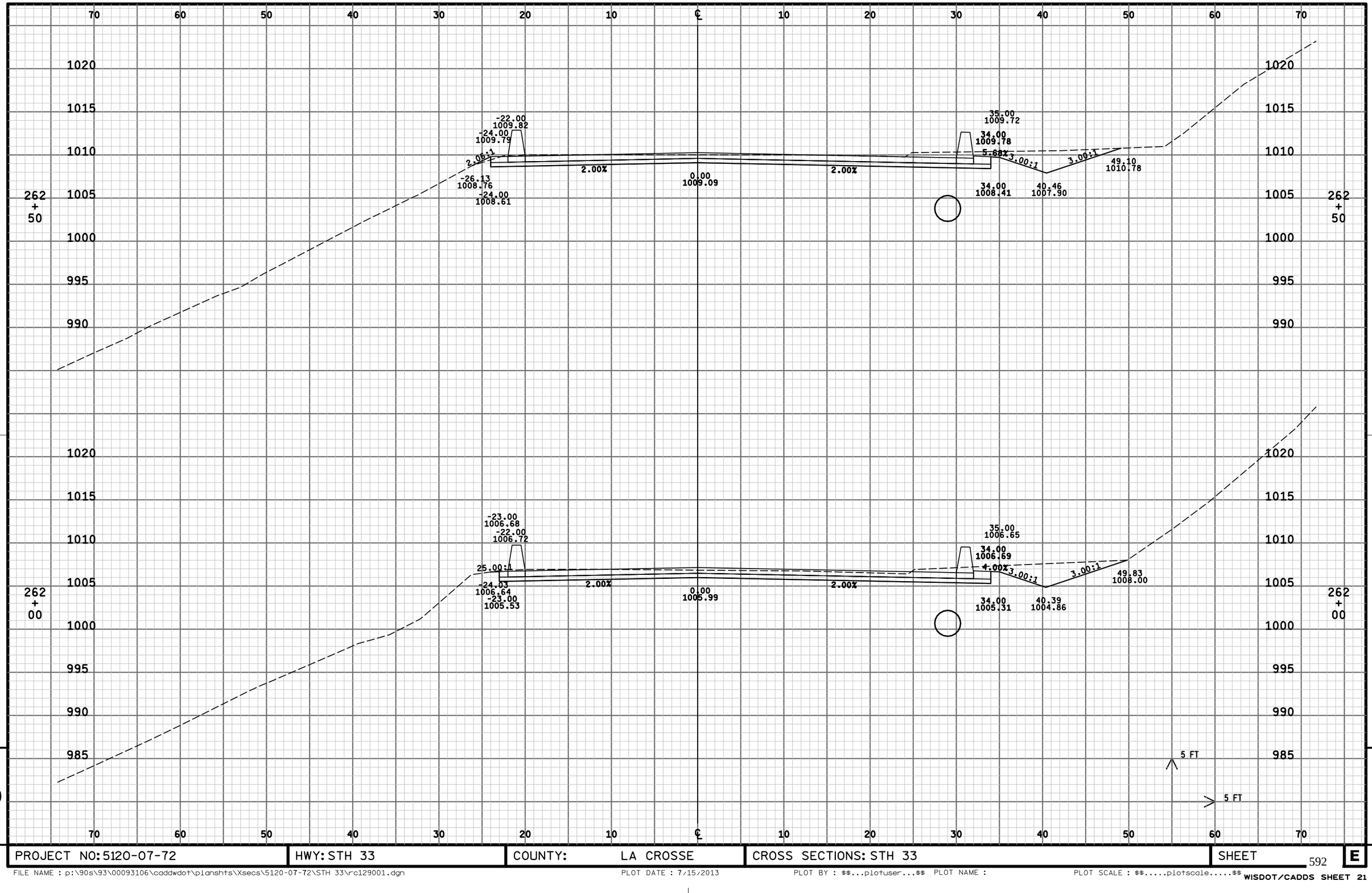
-22.00
1000.56
-24.00
1000.39
-24.00
999.35
2.00%
0.00
999.83
1.15%
35.00
1000.73
34.00
1000.77
4.00%
3.00:1
3.00:1
45.60
1001.16
34.00
999.44
39.66
999.18

5 FT
5 FT

9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

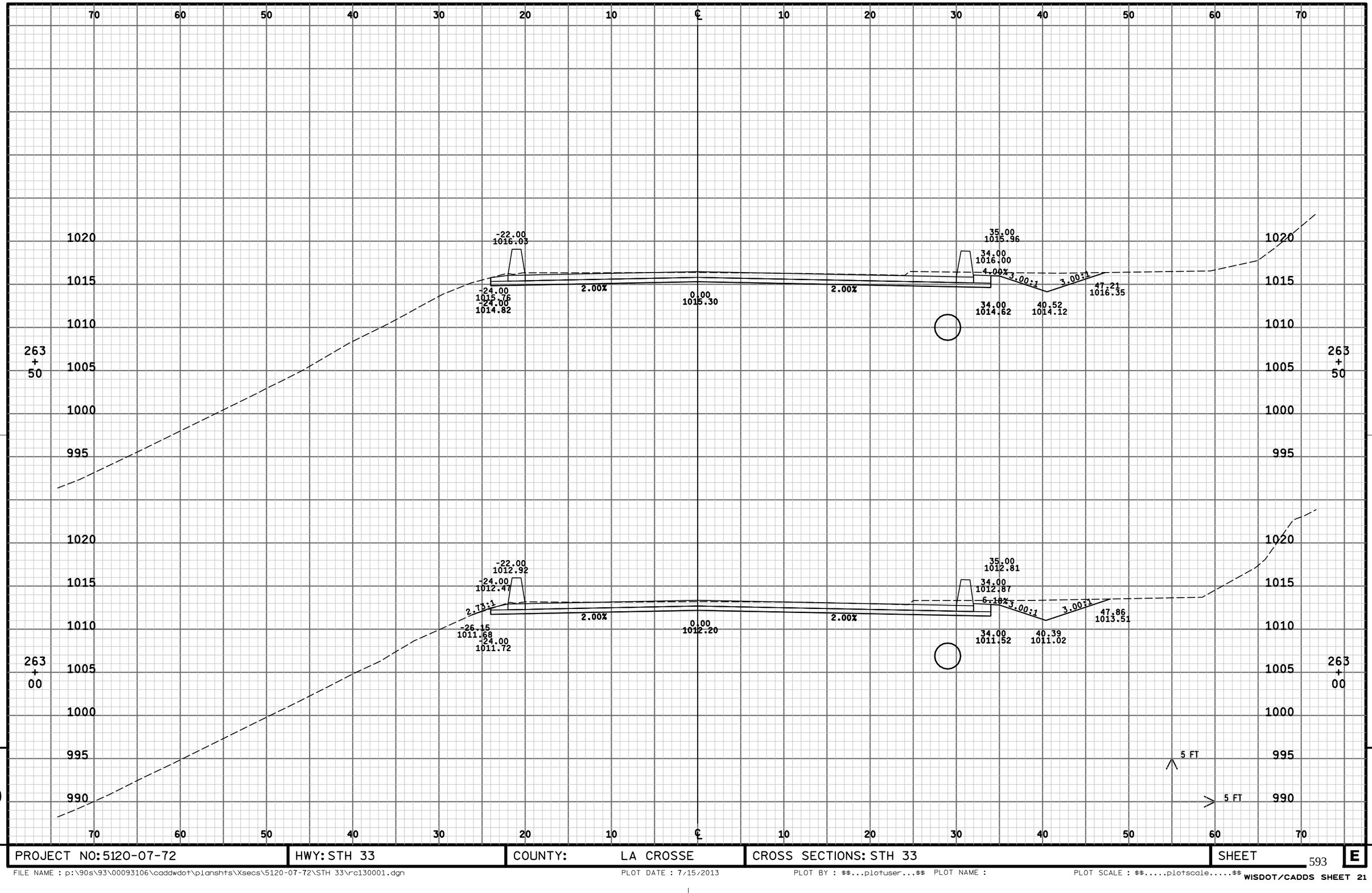
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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

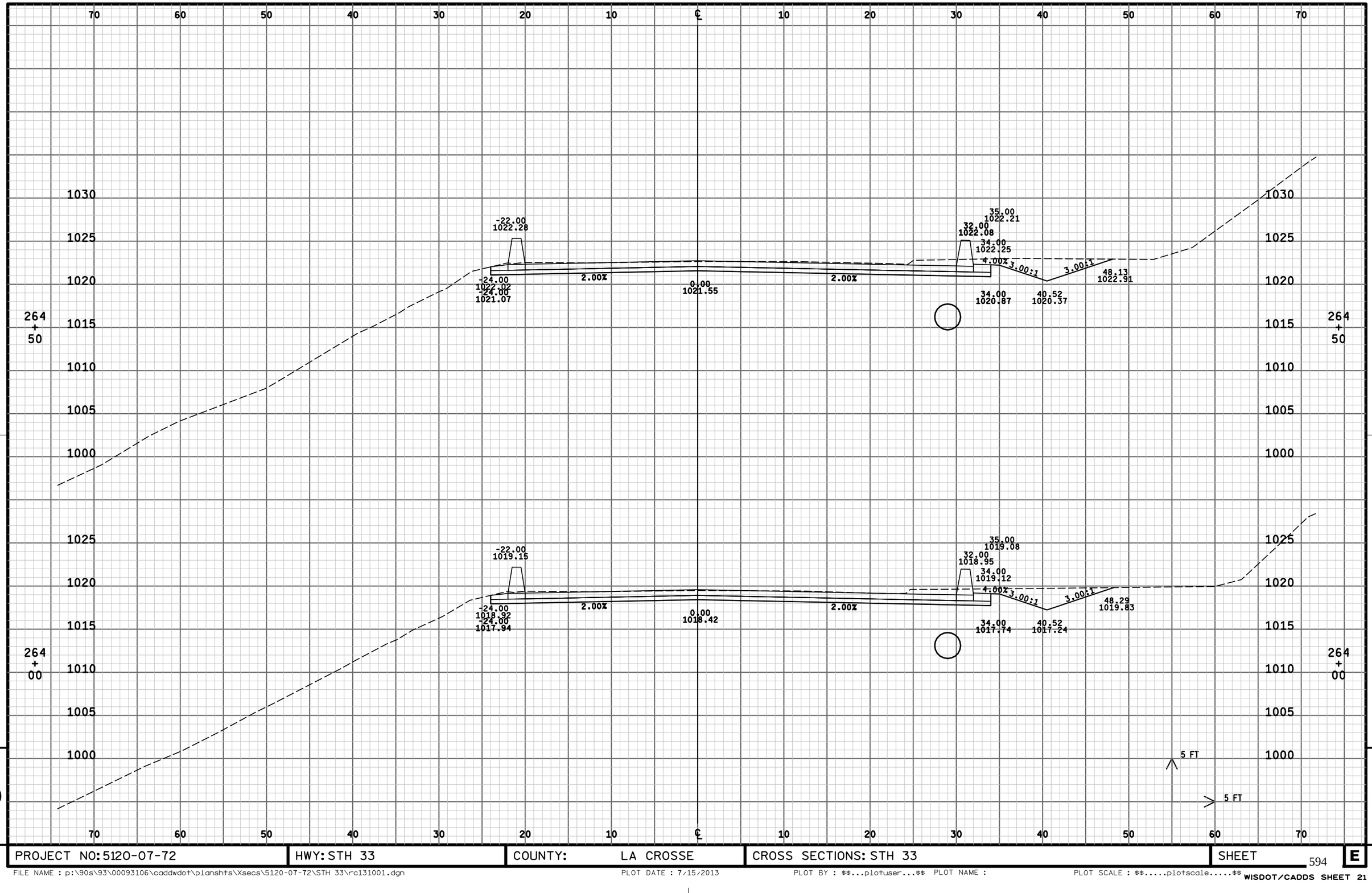
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WISDOT/CADDS SHEET 21



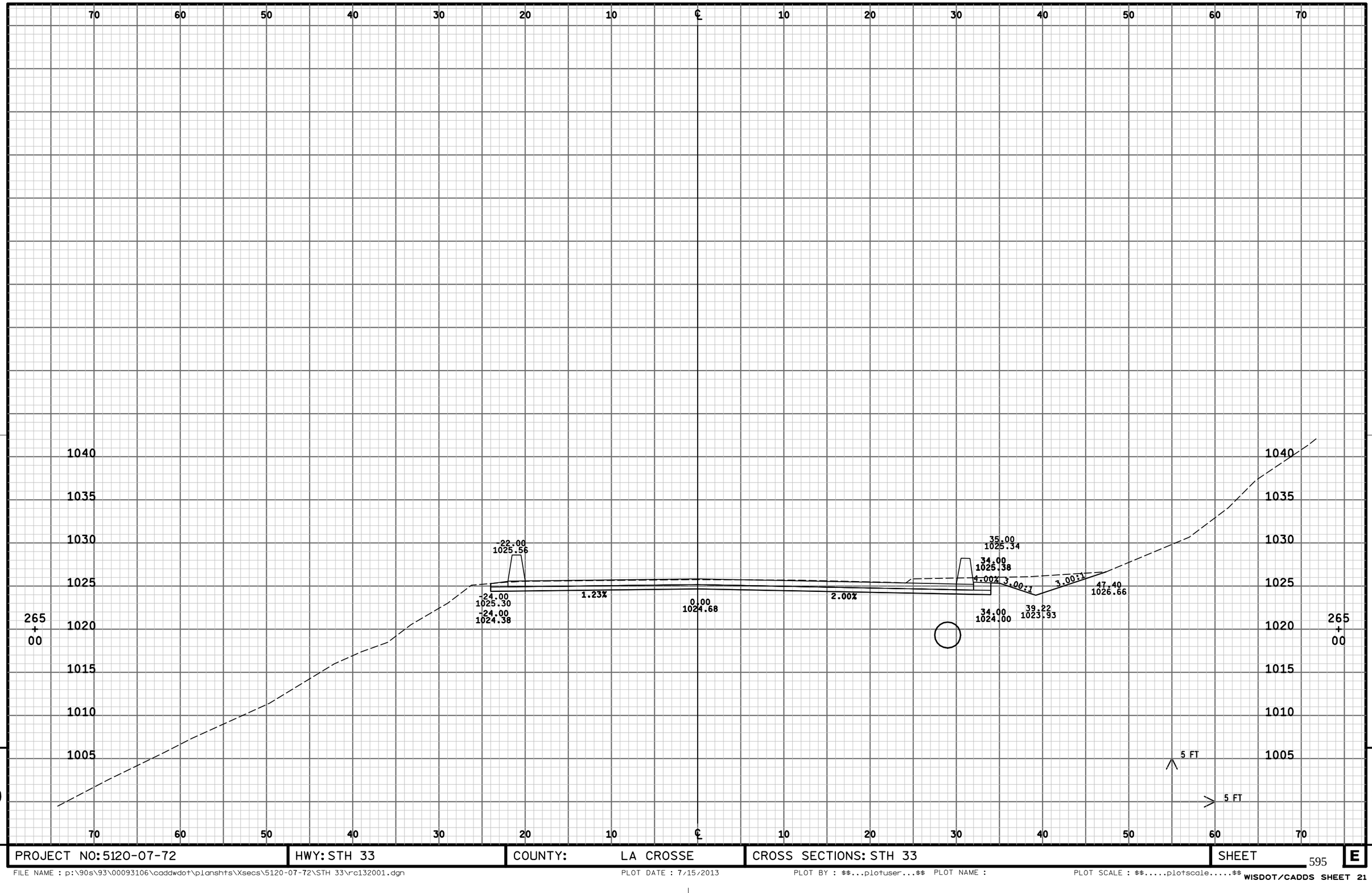
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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9

9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc132001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

1045 1040 1035 1030 1025 1020 1015 1010 1005

265 + 50

-22.00
1029.00

-26.13
1028.05

4.36:1

-24.00
1028.54

-24.00
1027.83

0.02%

0.00
1027.83

2.00%

35.00
1028.49

34.00
1028.53

4.00%

3.00:1

3.00:1

45.10
1029.93

37.89

34.00 1027.53

1027.15

ROCK

5 FT

5 FT

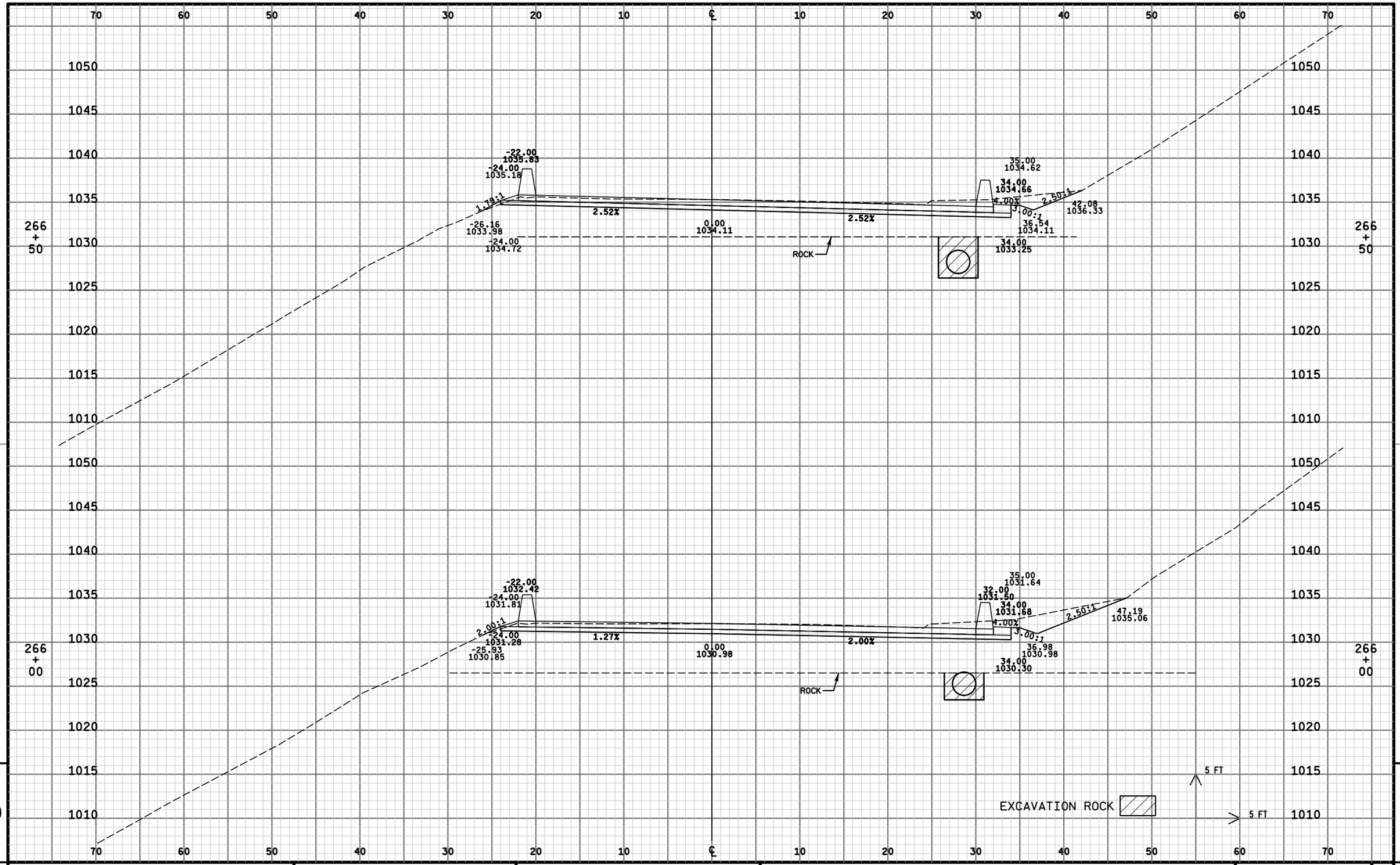
EXCAVATION ROCK

9

9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc133001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

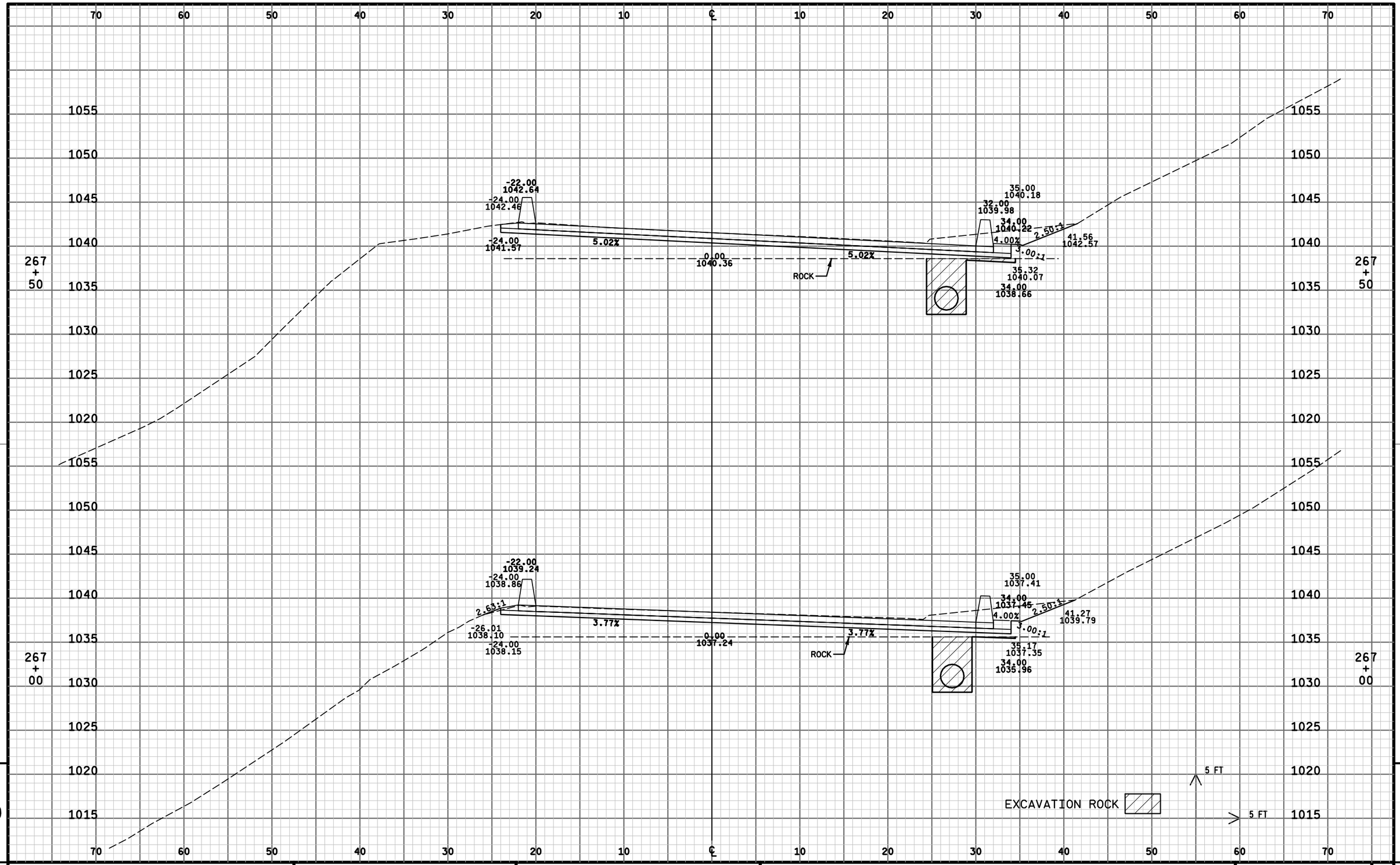


9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

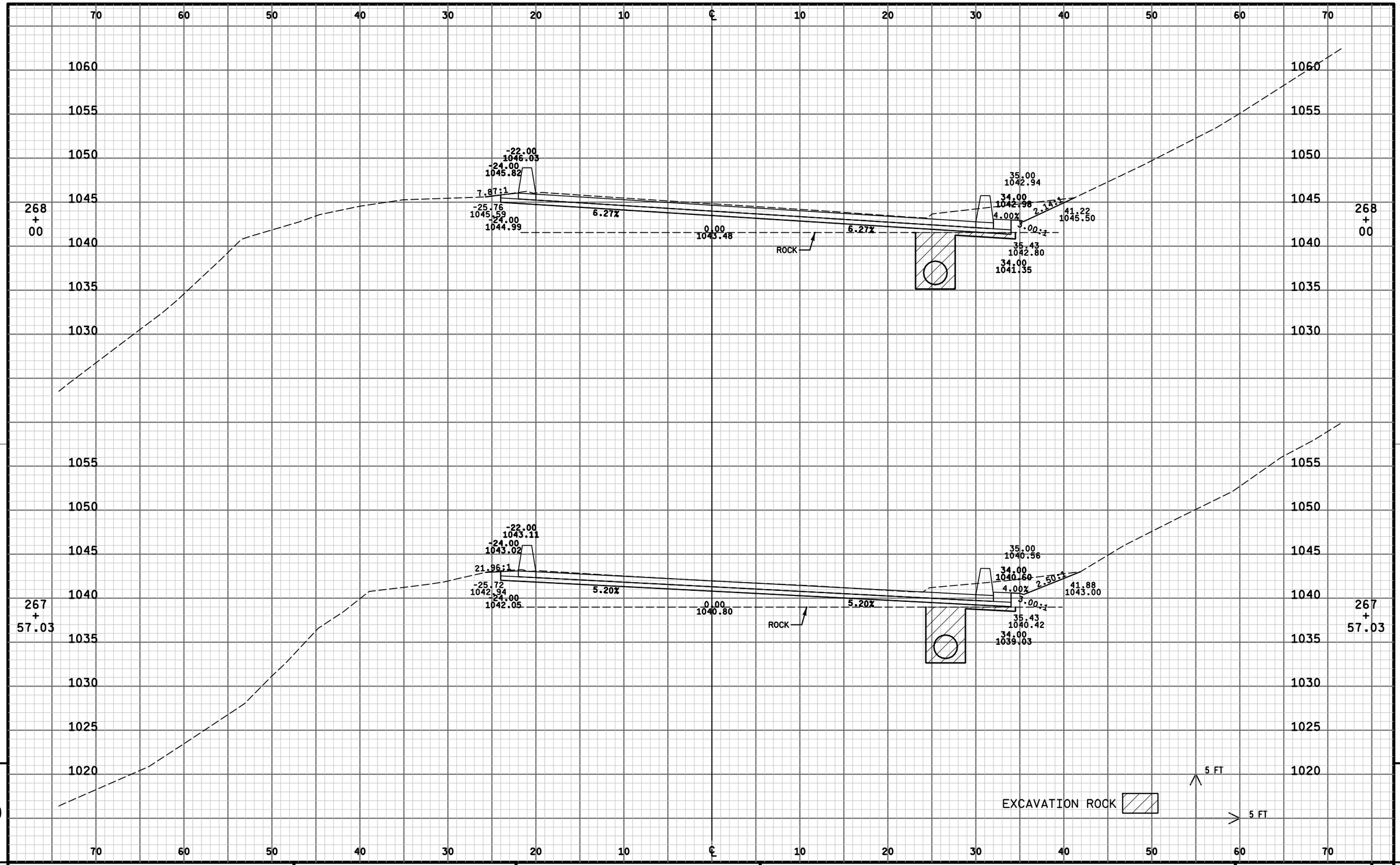
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WISDOT/CADDS SHEET 21



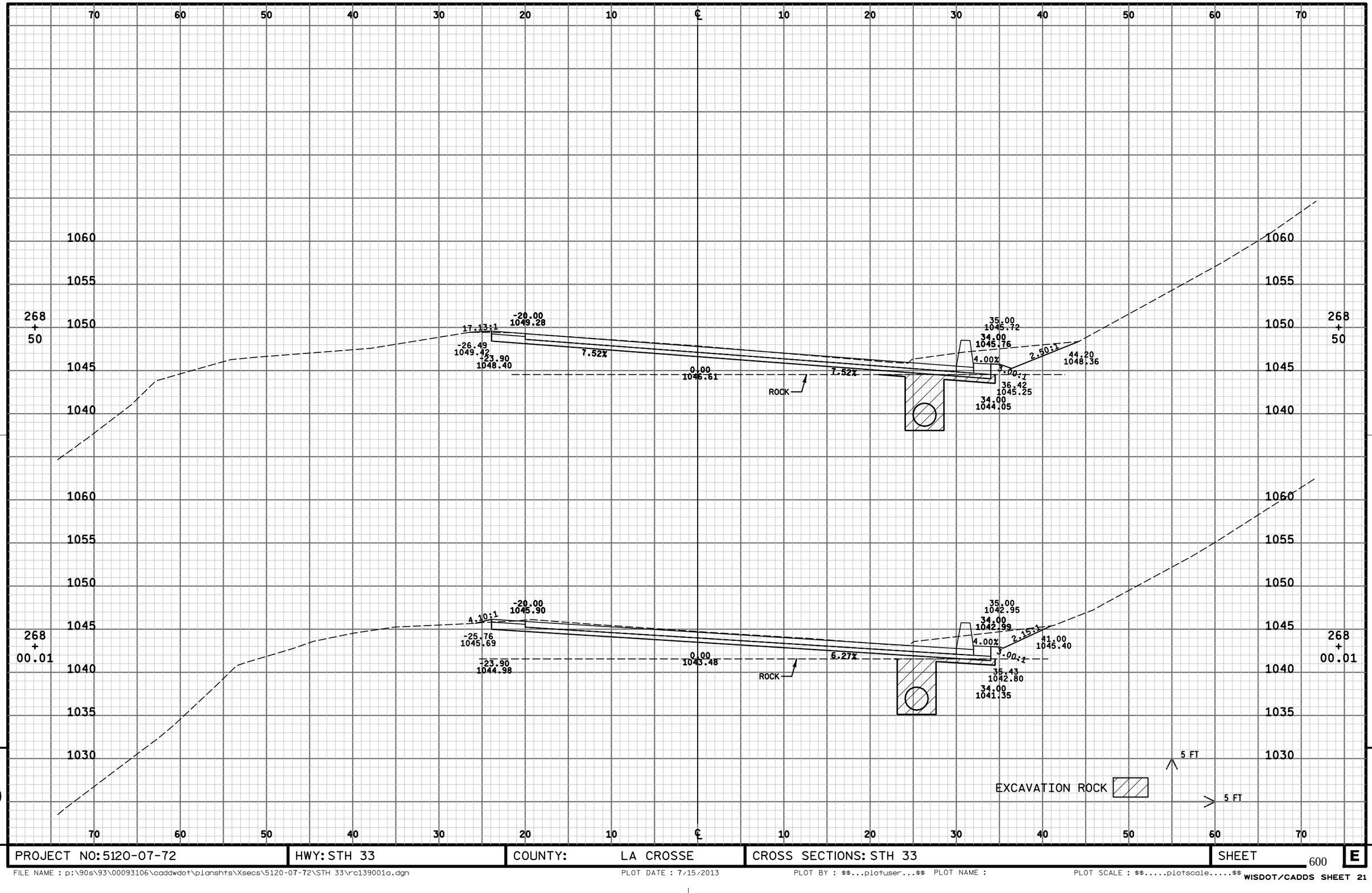
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc138001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



9

9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc139001a.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

1060 1055 1050 1045 1040

268 + 75.48

STA 268+75.48
POST 5

-20.00
1050.95

6.41:1

-29.70
1050.70

-25.33
1050.21

8.00%

0.00
1048.18

ROCK

8.00%

35.00
1047.16

34.00
1047.20

4.00%

3.00:1

2.50:1

44.33
1049.63

36.73
1046.59

34.00
1045.46

268 + 75.48

268 + 51.01

STA 268+51.01
POST 9

-20.00
1049.34

9.10:1

-28.16
1049.17

-23.90
1048.47

7.55%

0.00
1046.66

ROCK

7.55%

35.00
1045.77

34.00
1045.81

4.00%

3.00:1

2.13:1

43.50
1048.62

36.42
1045.30

34.00
1044.10

5 FT

5 FT

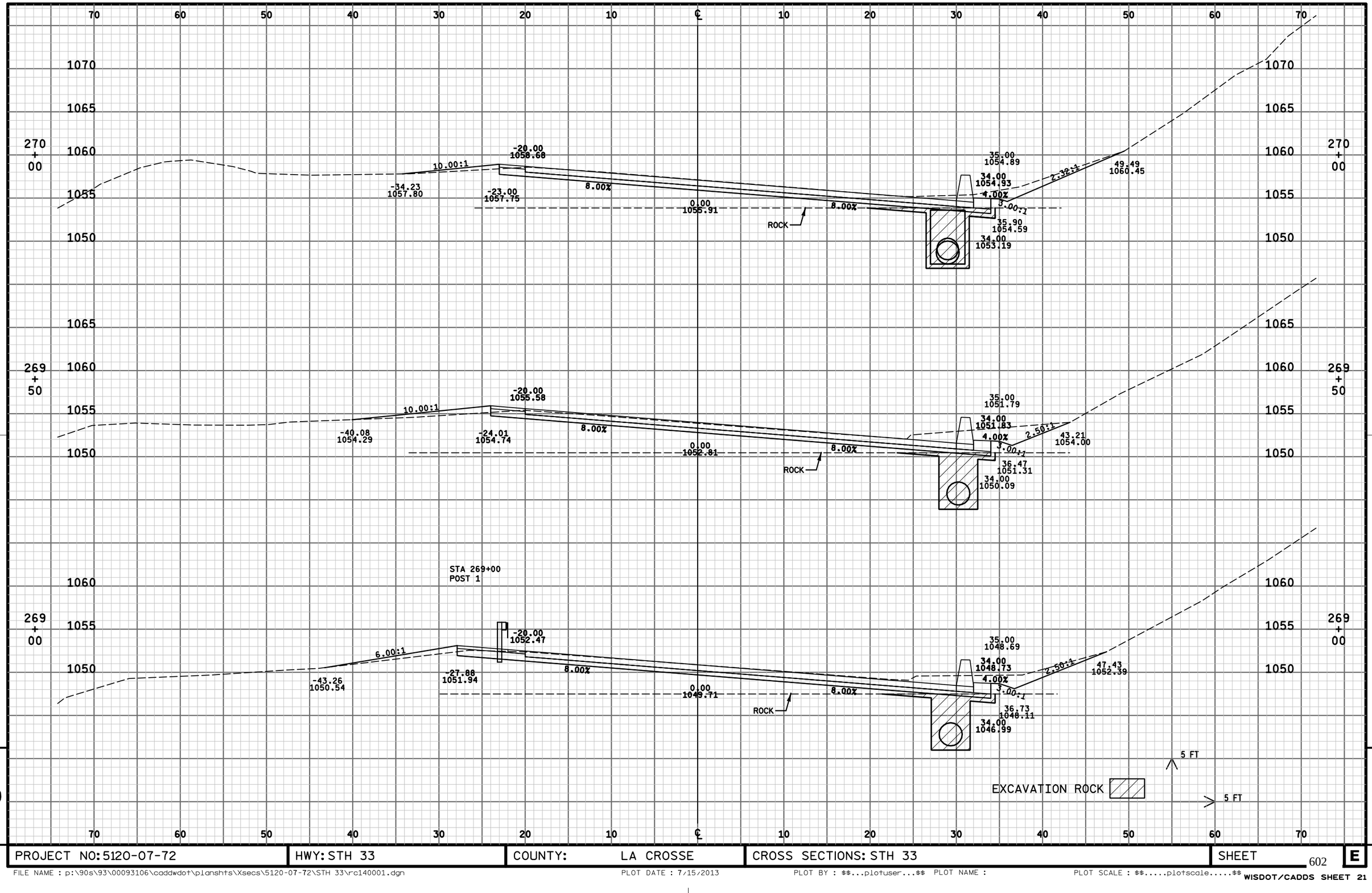
EXCAVATION ROCK

268 + 51.01

9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

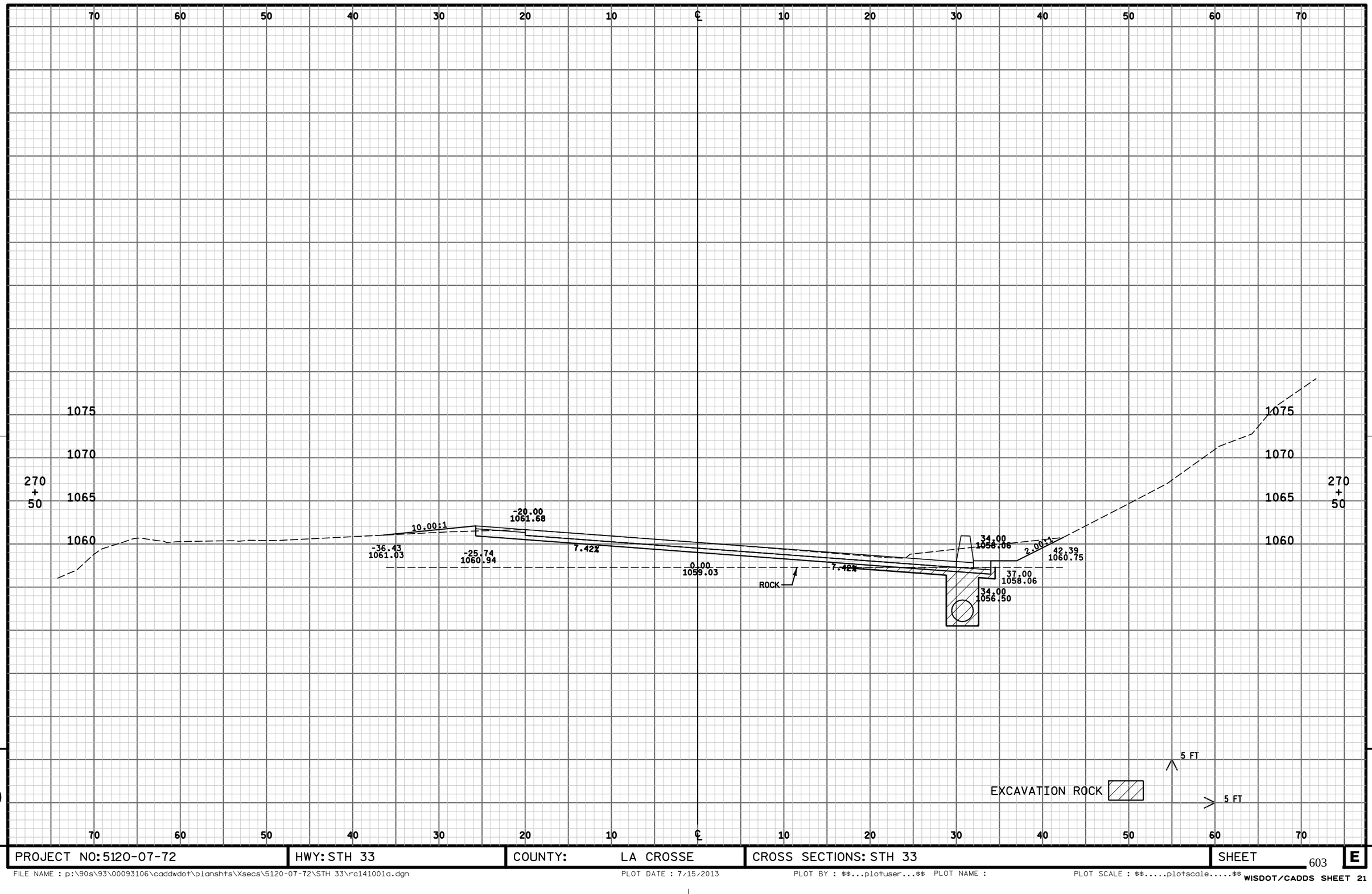
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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc140001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

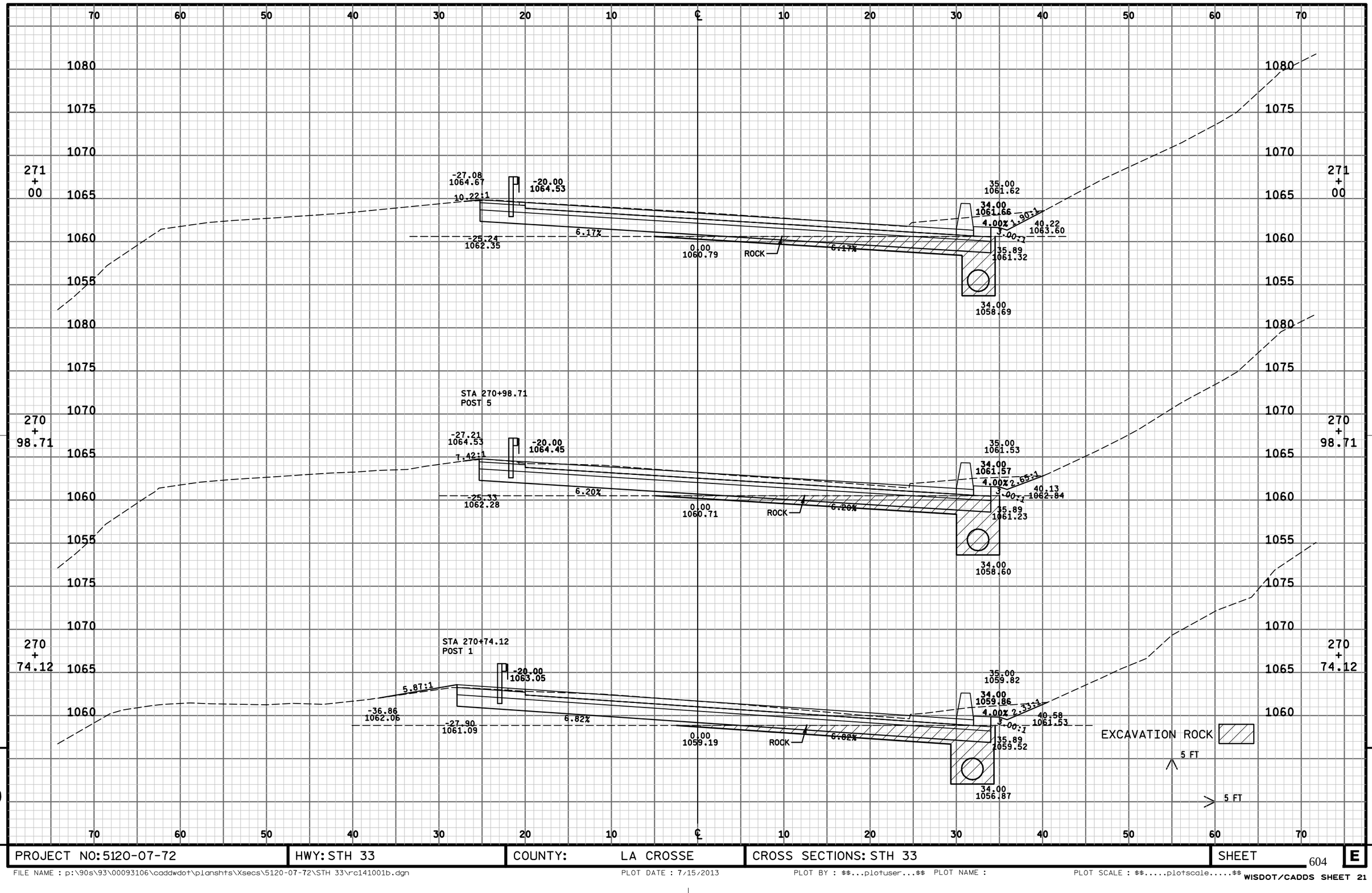


9

9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc141001b.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

1085 1080 1075 1070 1065 1060 1055

271 + 50

7.89:1
-31.26
1066.64
-23.90
1065.08
4.92%
0.00
1063.90
ROCK
4.92%
35.07
1065.07
34.00
1065.12
4.00%
2.50:1
39.94
1067.02
34.00
1062.23

271 + 35.46

-25.78
1066.53
8.36:1
-23.90
1064.25
5.29%
0.00
1062.99
ROCK
5.29%
35.00
1064.06
34.00
1064.10
4.00%
2.40:1
41.00
1066.46
3.00:1
34.00
1061.19
35.15
1064.01

STA 271+23.19
POST 9

271 + 23.19

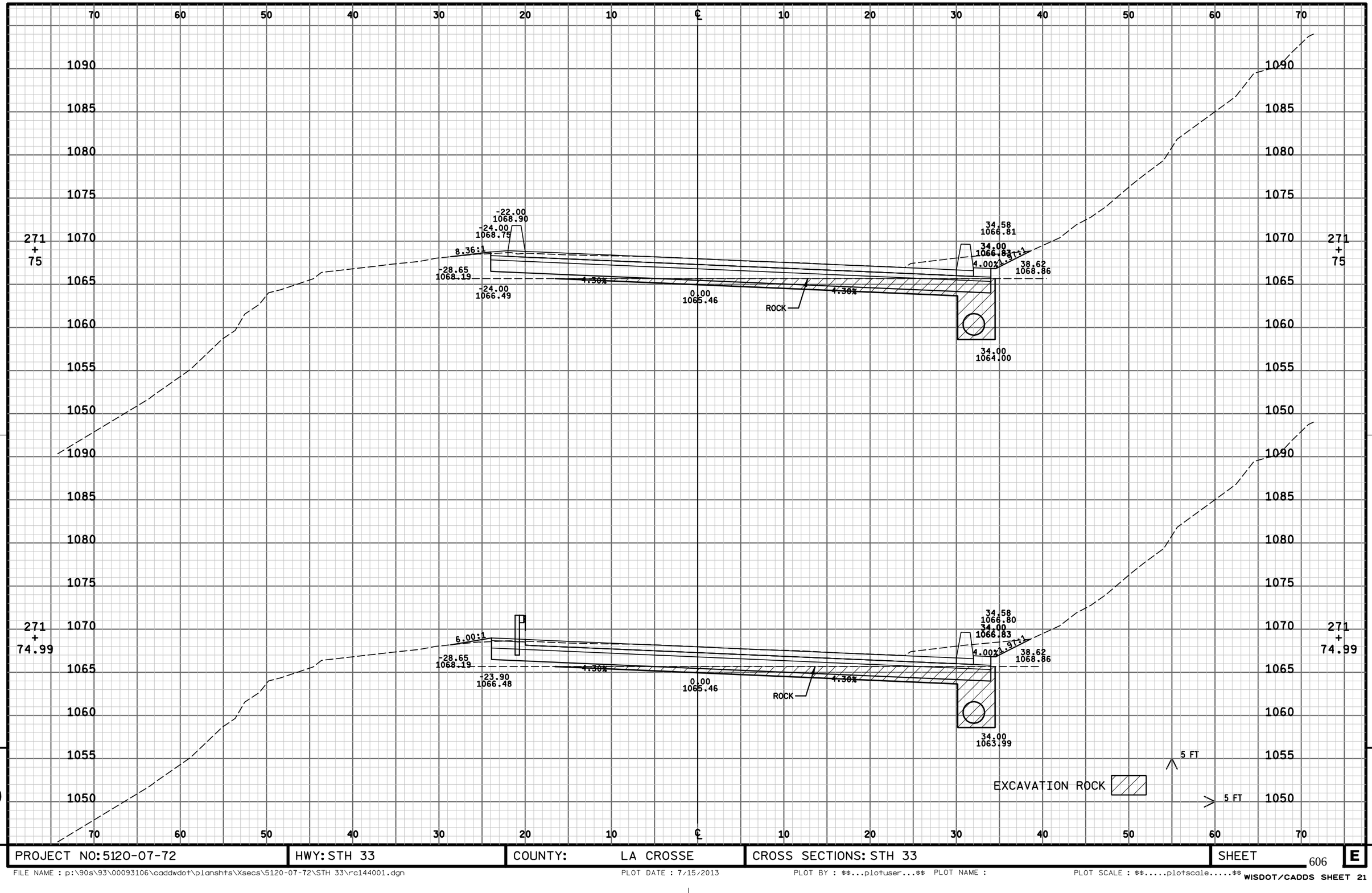
9.46:1
-26.47
1065.80
-23.90
1063.57
5.59%
0.00
1062.23
ROCK
5.59%
35.00
1063.21
34.00
1063.25
4.00%
2.08:1
39.58
1064.61
3.00:1
34.00
1060.33
35.15
1063.16

EXCAVATION ROCK
5 FT
5 FT

9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

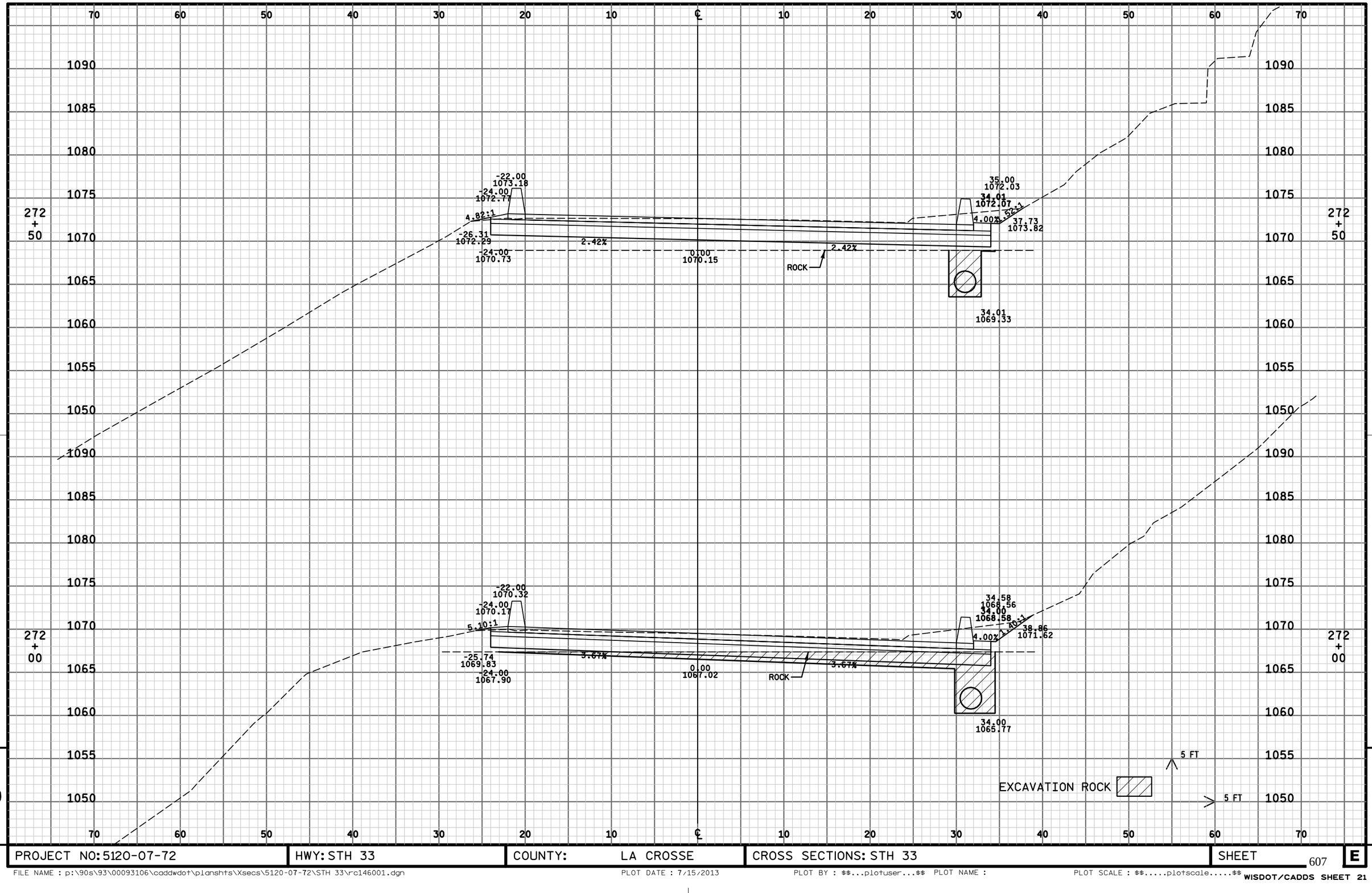
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WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

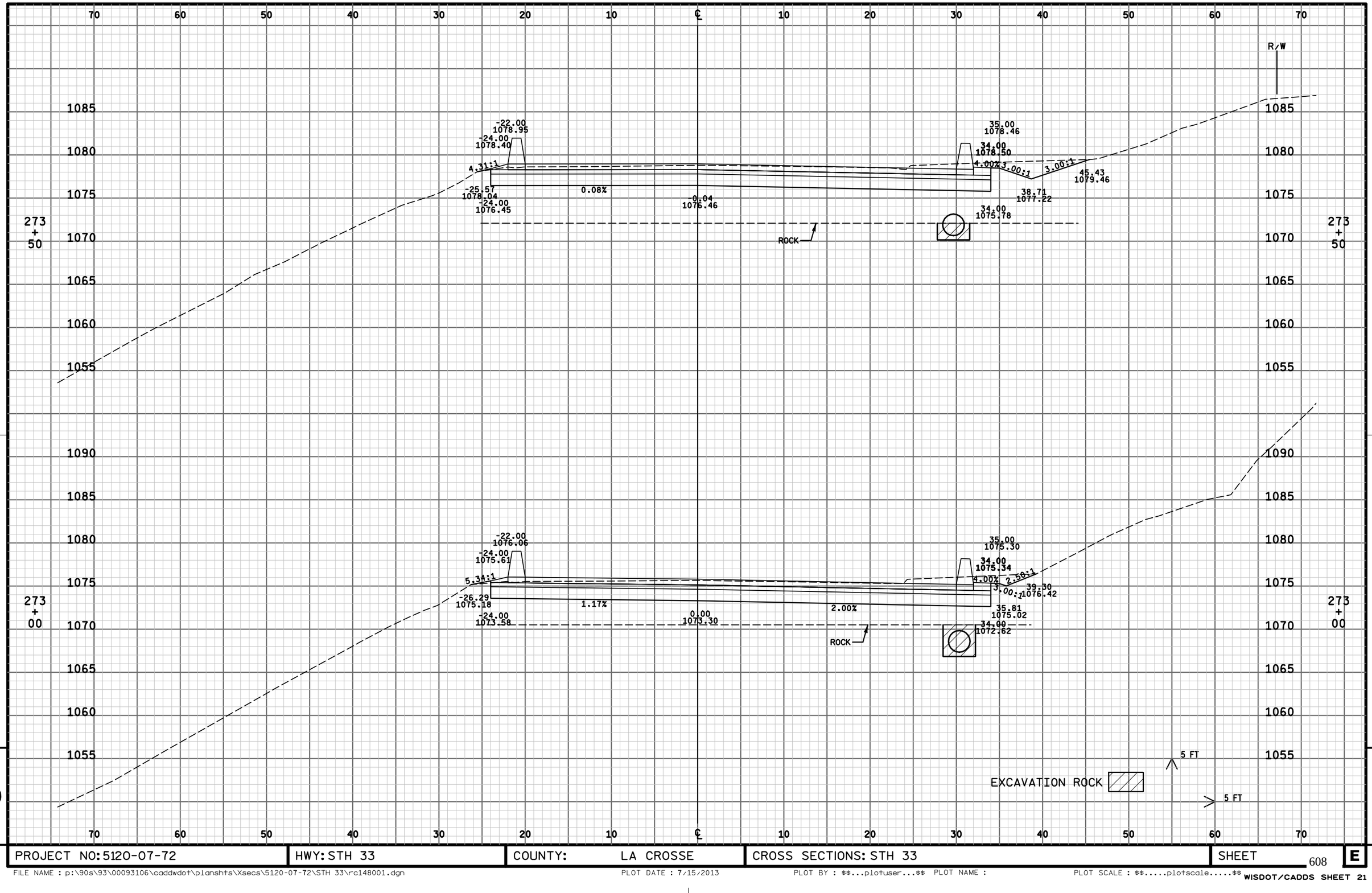
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WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc148001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

1085 1080 1075 1070 1065 1090 1085 1080 1075 1070 1065 1060

274 + 50

-22.00
1084.89
-24.00
1084.81
2.00%
-24.00
1082.35
0.00
1082.83
2.00%
35.00
1084.82
34.00
1084.86
4.00%
3.00:1
3.00:1
54.50
1088.40
39.39
1083.36
34.00
1082.15
ROCK

274 + 00

-22.00
1081.85
-24.00
1081.70
5.20:1
-26.20
1081.28
-24.00
1079.32
1.33%
0.00
1079.64
2.00%
35.00
1081.63
34.00
1081.67
4.00%
3.00:1
3.00:1
47.60
1082.56
39.91
1080.00
34.00
1078.96
ROCK

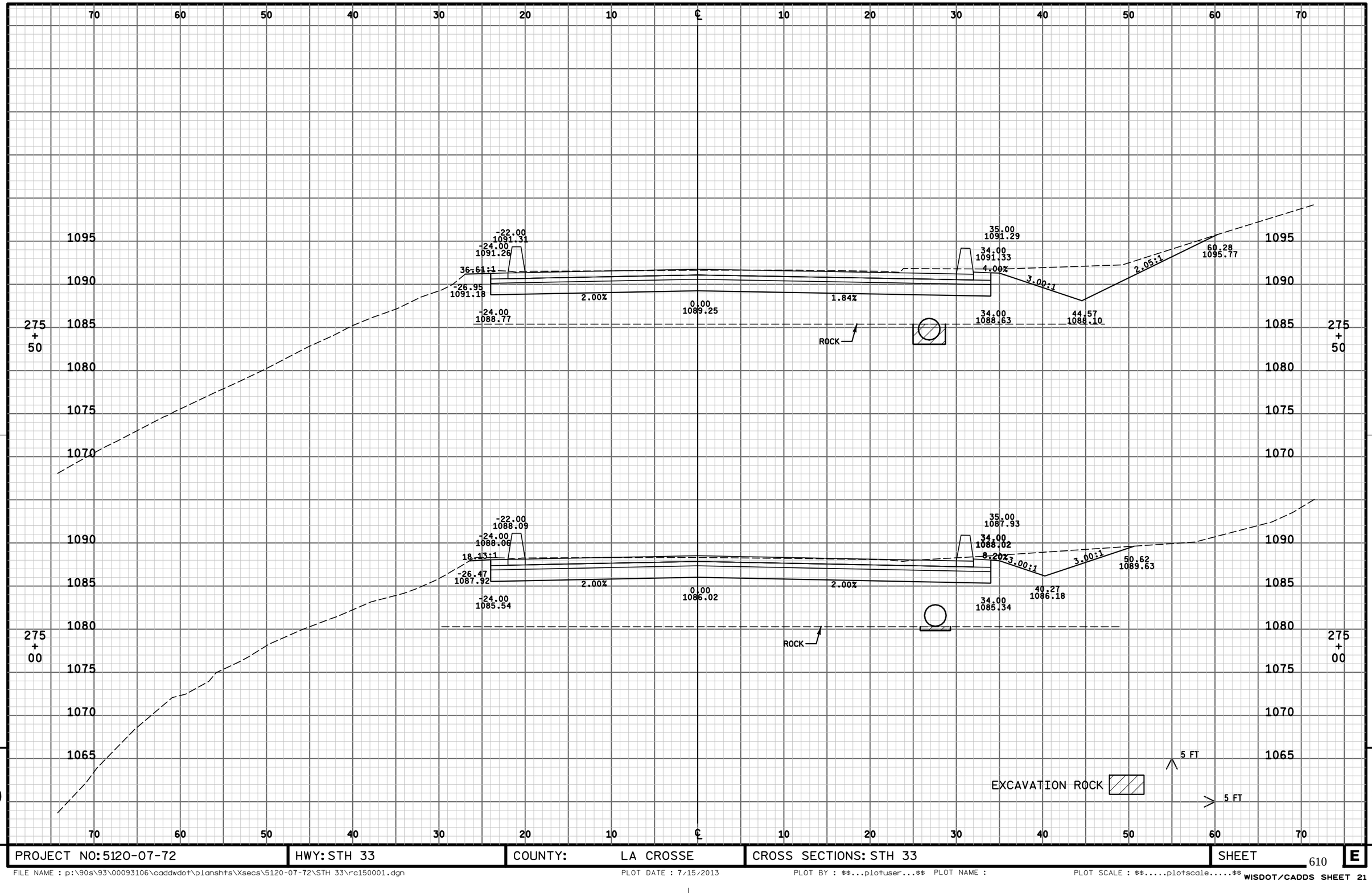
R/W

EXCAVATION ROCK
5 FT
5 FT

9 9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

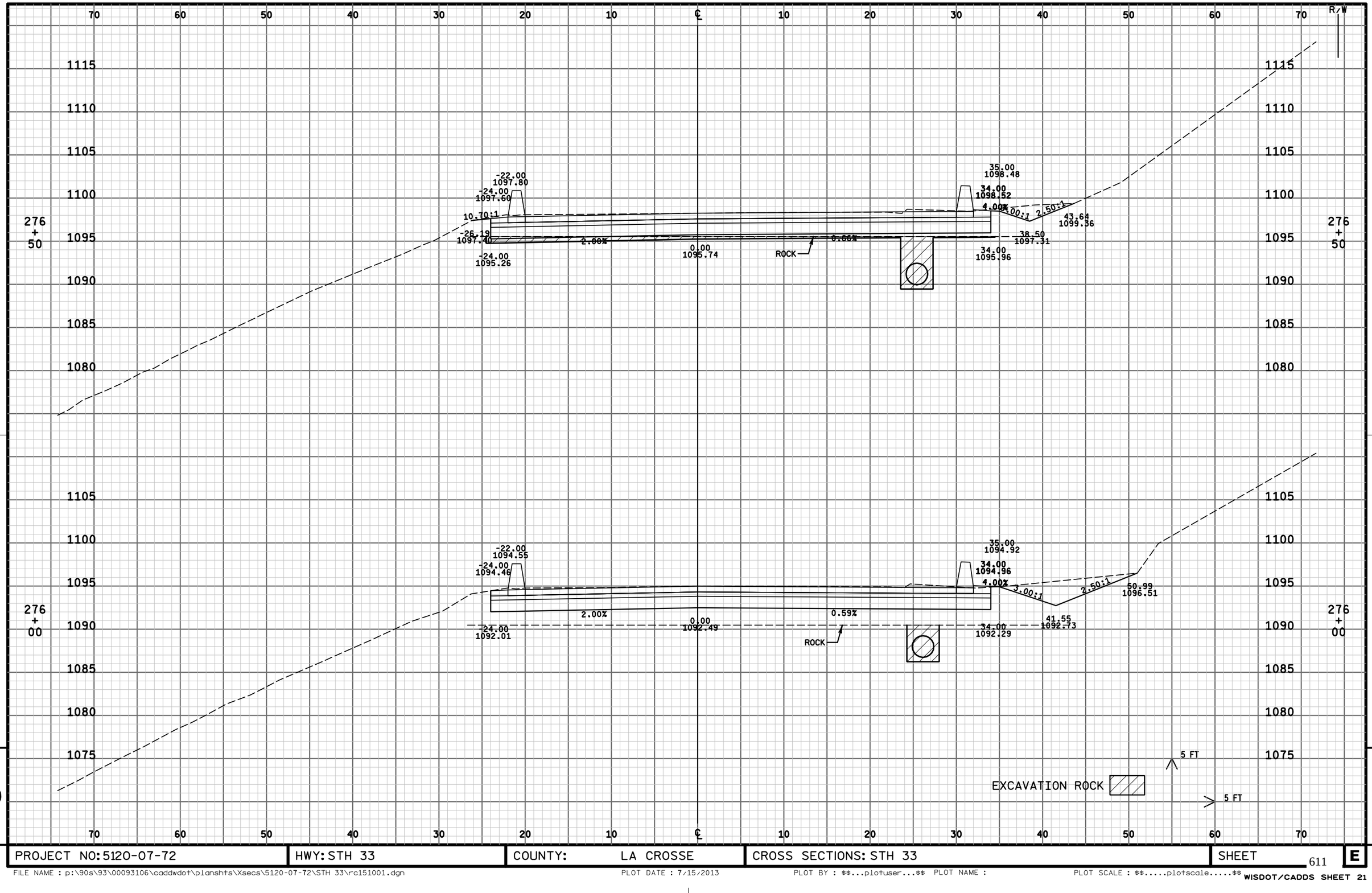
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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

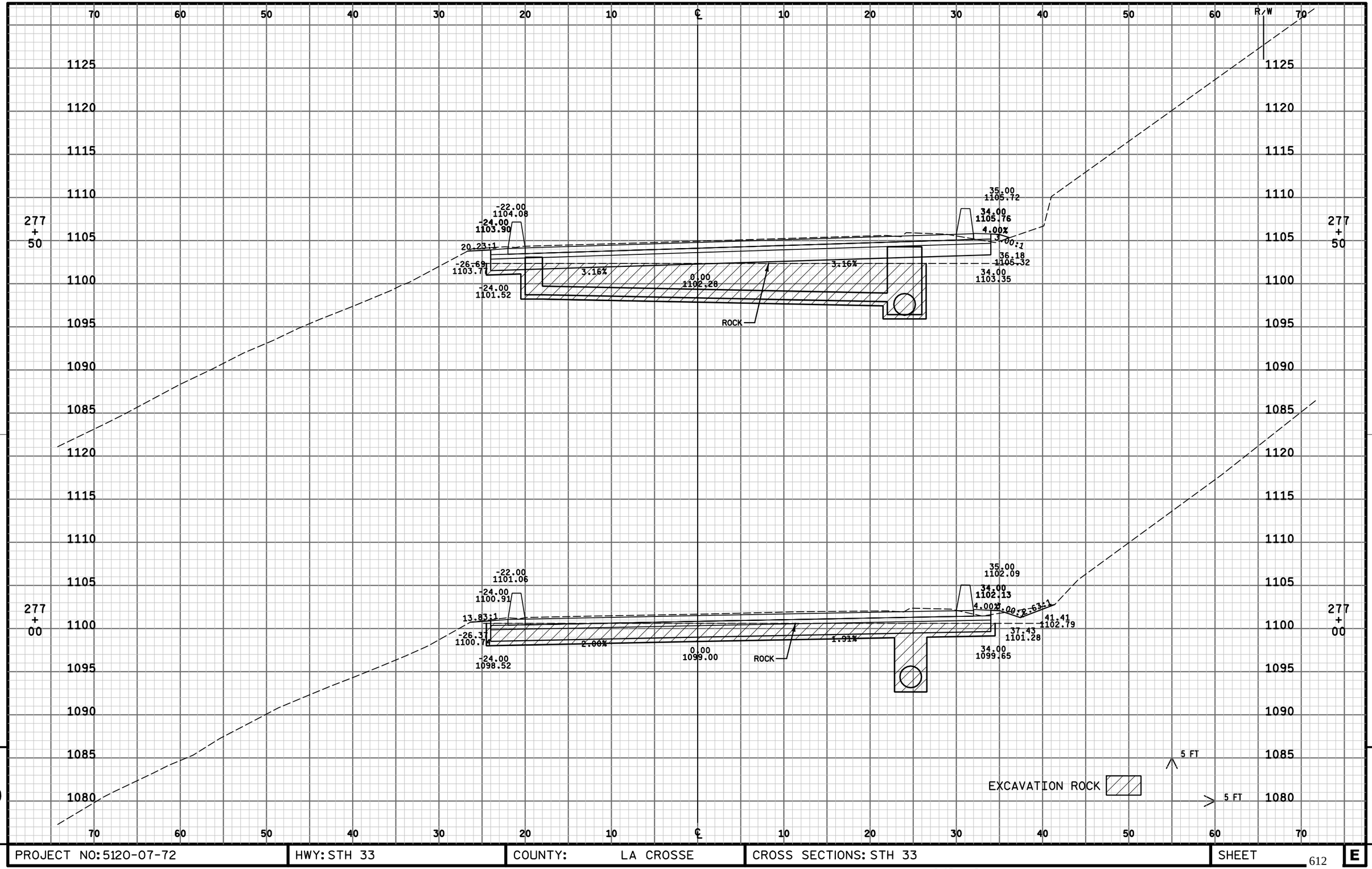
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WISDOT/CADDS SHEET 21



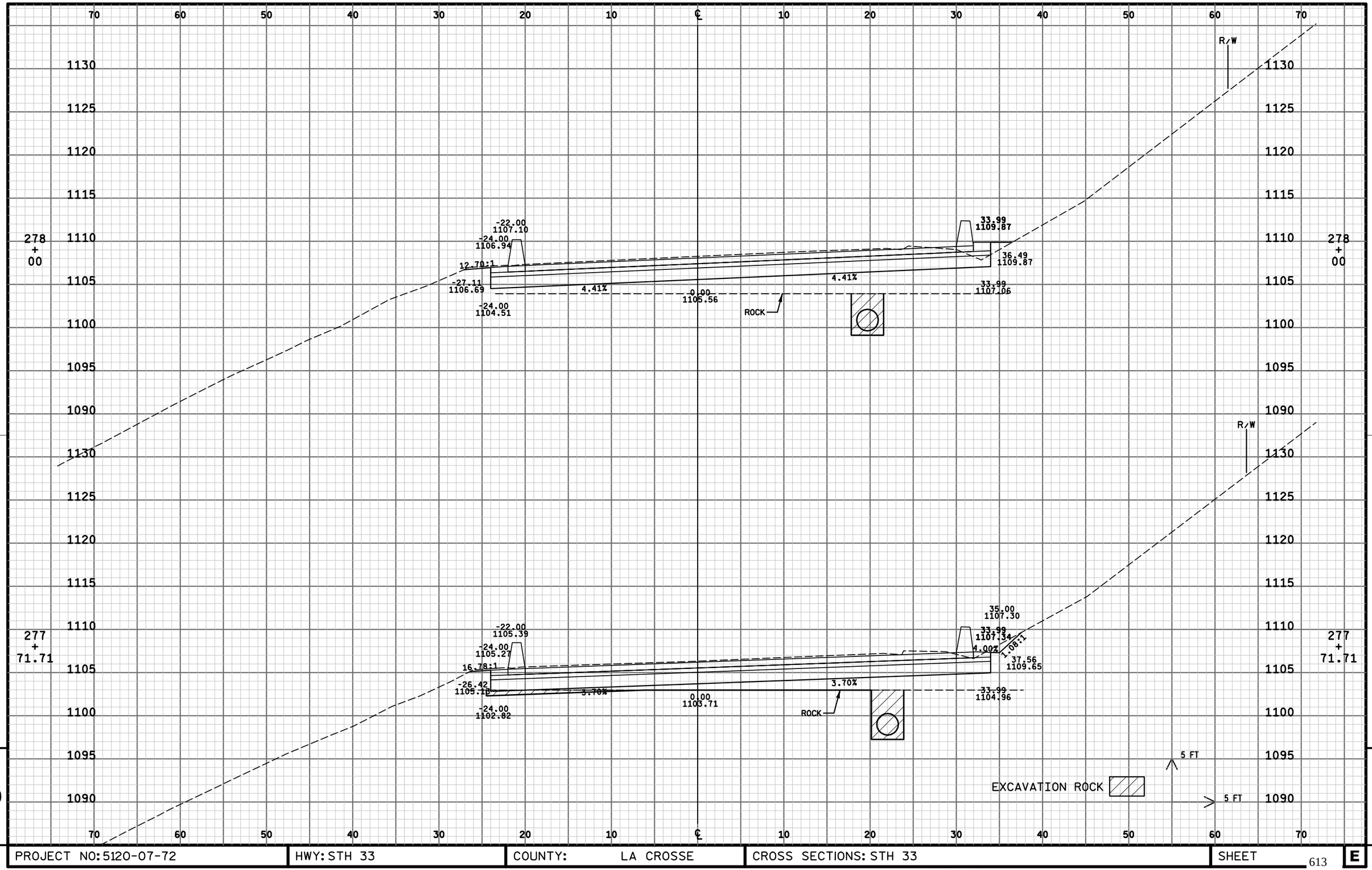
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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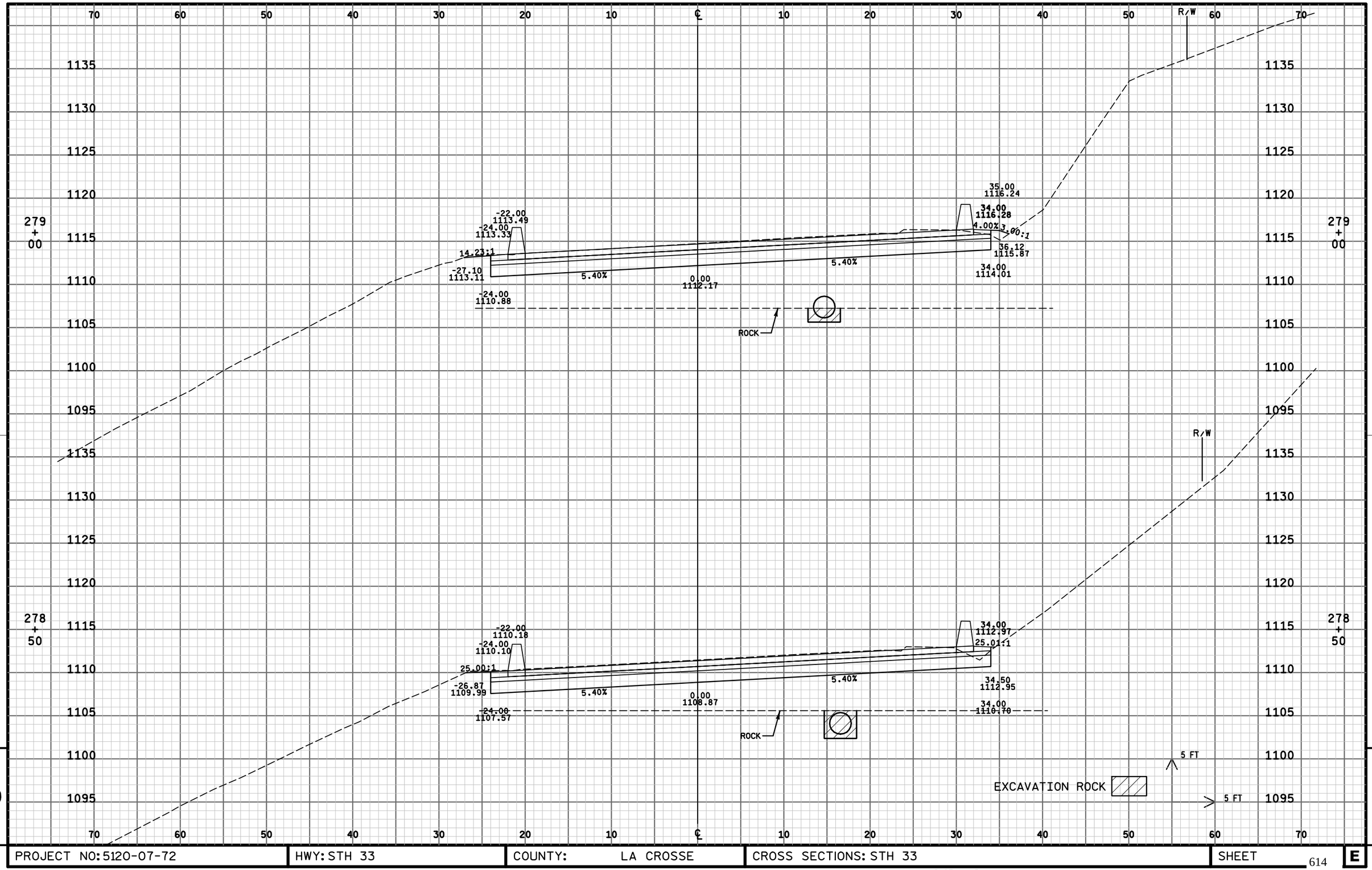
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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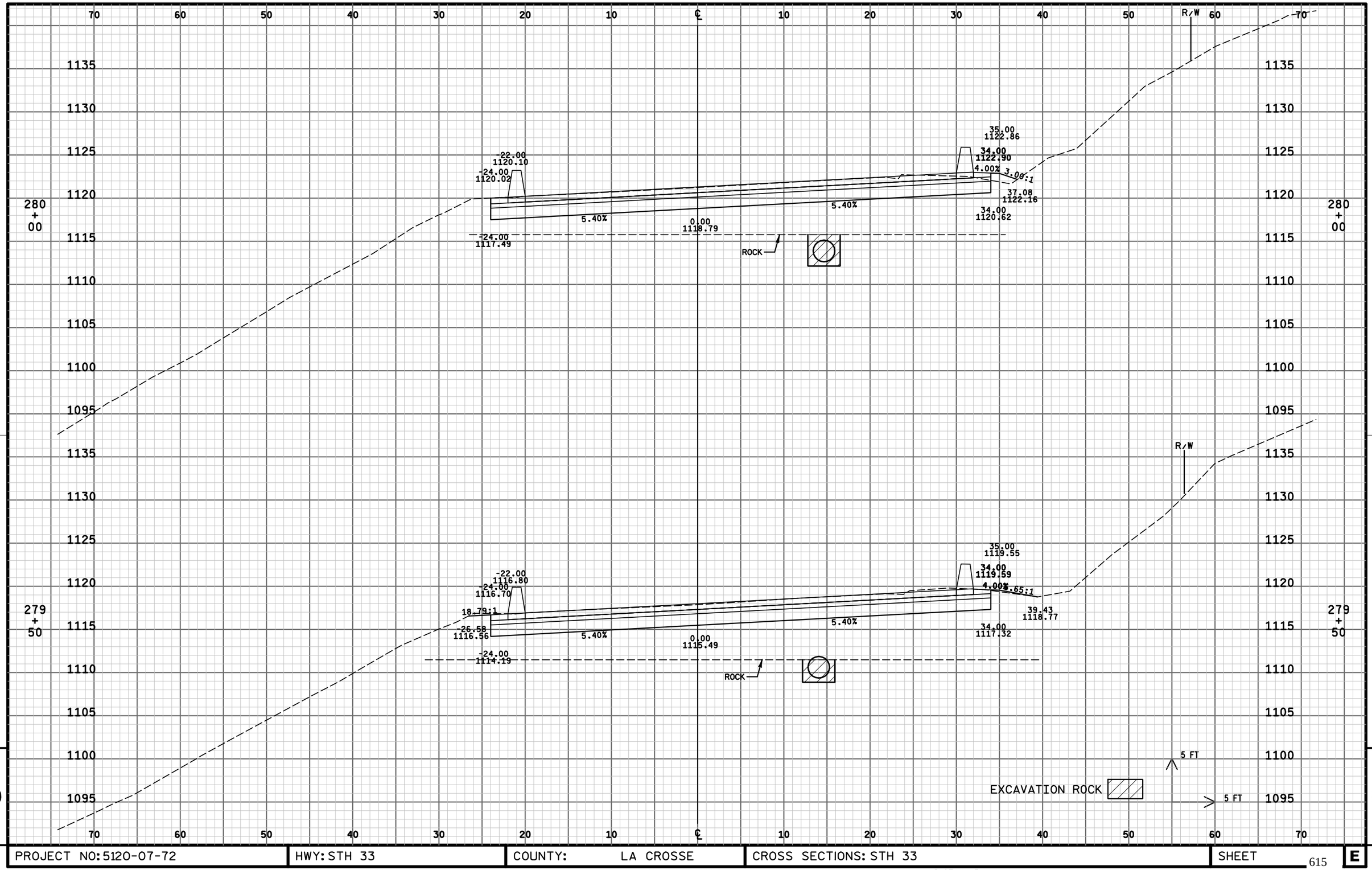
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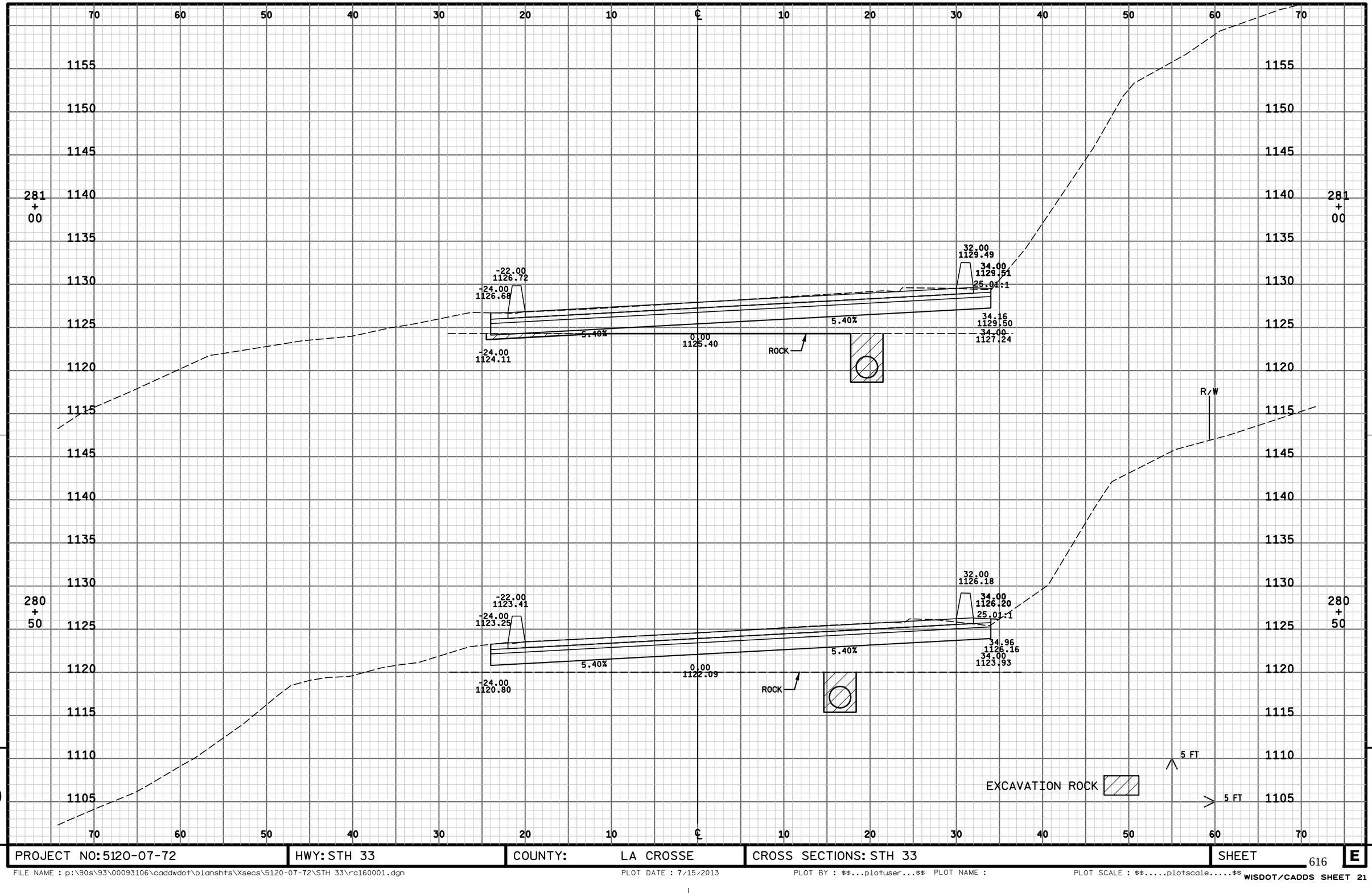
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

1170 1165 1160 1155 1150 1145 1140 1135 1130 1125

282 + 00

281 + 50

-22.00
1133.44

4.10:1

-26.17
1132.57

-24.00
1130.83

5.40%

0.00
1132.12

ROCK

5.40%

32.00
1136.21

34.00
1136.23

25.01:1

35.76
1136.16

34.00
1133.96

-22.00
1130.05

-24.00
1129.00

5.40%

0.00
1128.73

-24.00
1127.44

ROCK

32.00
1132.82

34.00
1132.84

25.01:1

38.74
1132.65

34.00
1130.57

5 FT

EXCAVATION ROCK

5 FT

9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc162001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

1175 1170 1165 1160 1155 1150 1145 1140 1135 1170

283 + 00

-22.00
1140.37
-24.00
1140.31
5.40%
0.00
1139.06
-24.00
1137.76
ROCK
5.40%
34.20
1143.26
36.76
1143.26
25.01:1
36.20
1141.01

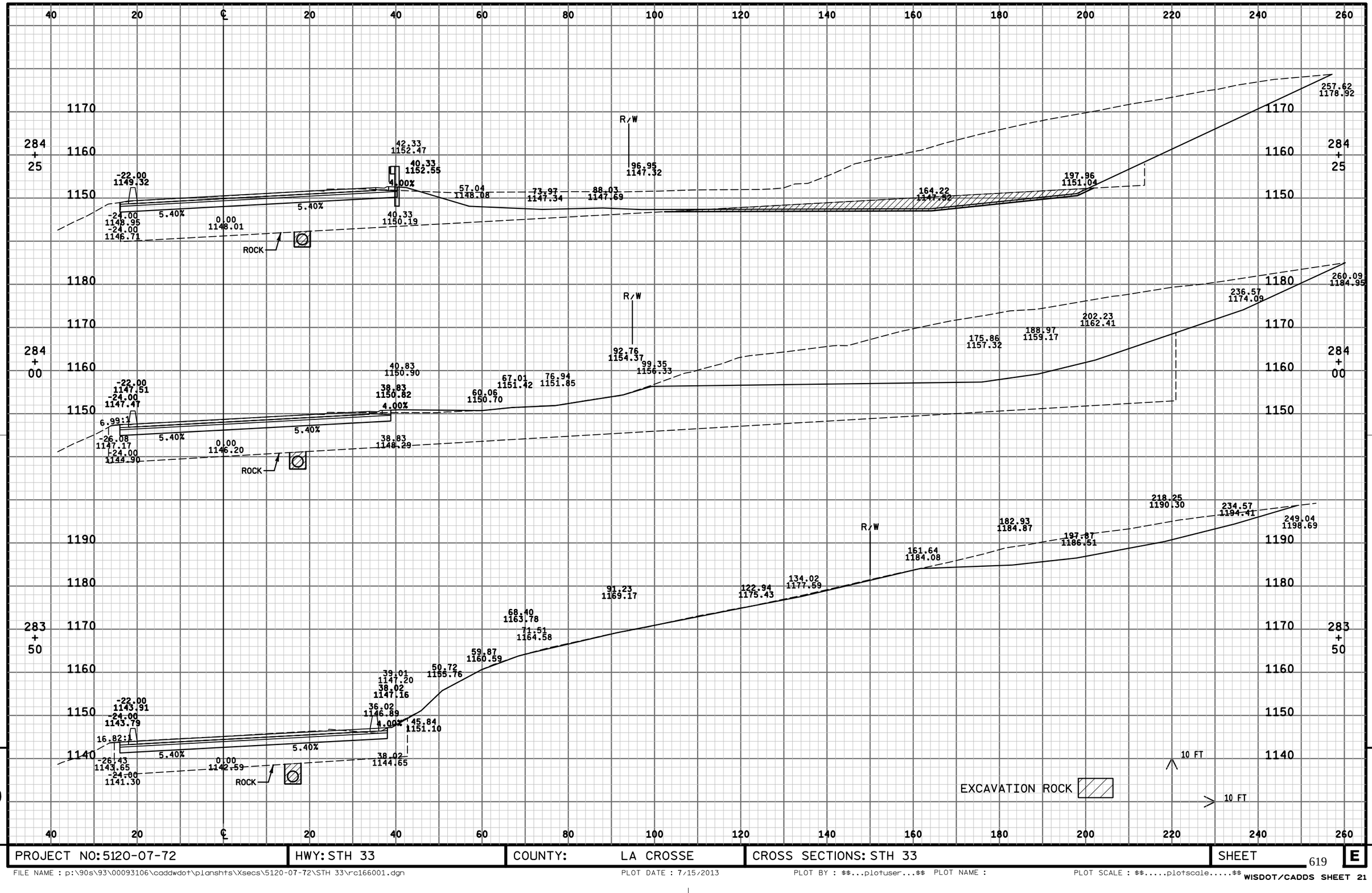
282 + 50

-22.00
1136.87
-24.00
1136.64
5.40%
0.00
1135.56
-24.00
1134.26
ROCK
5.40%
32.38
1139.66
34.38
1139.68
25.01:1
35.91
1139.62
34.38
1137.41
5 FT
5 FT
EXCAVATION ROCK

9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

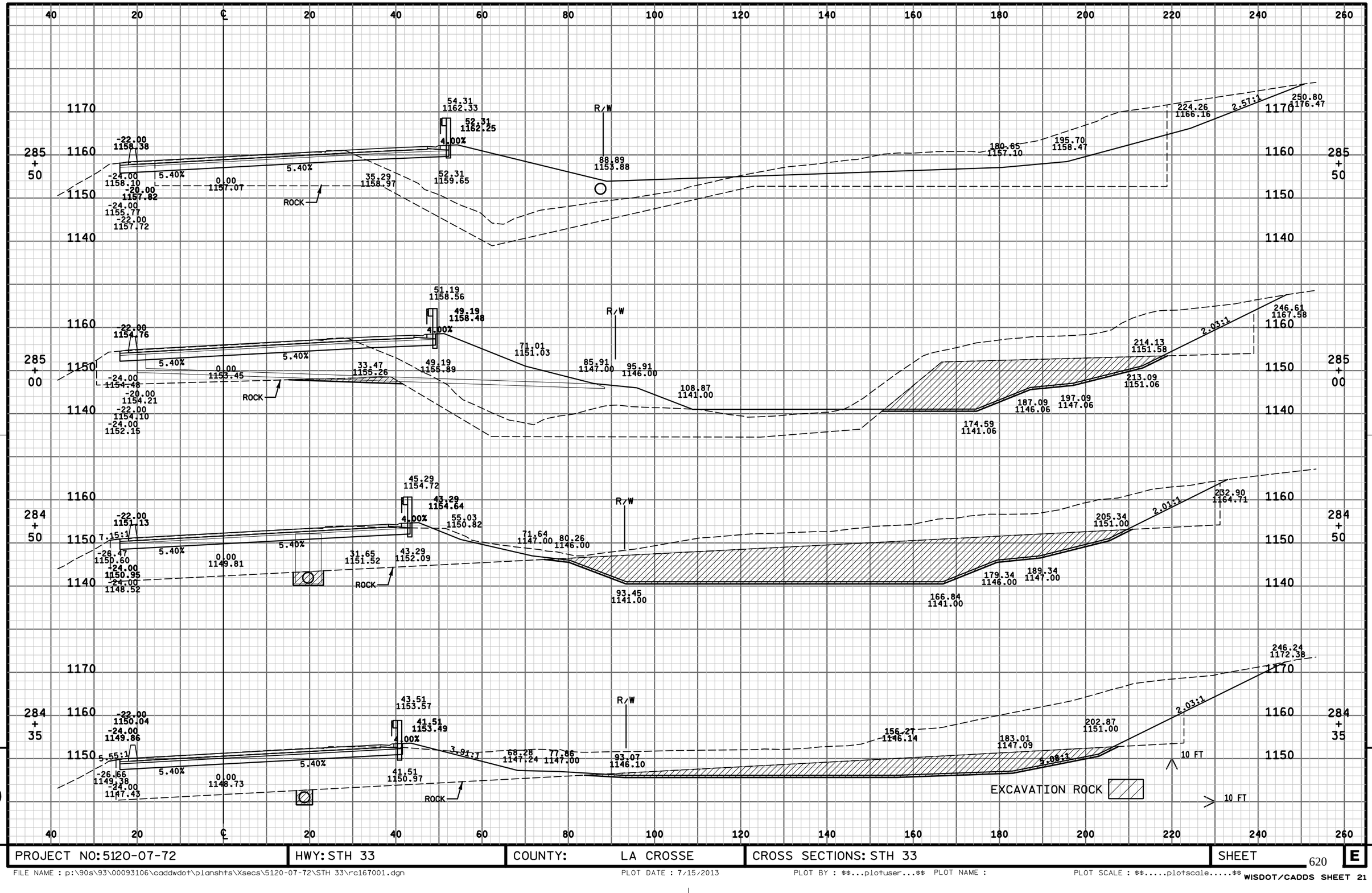
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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

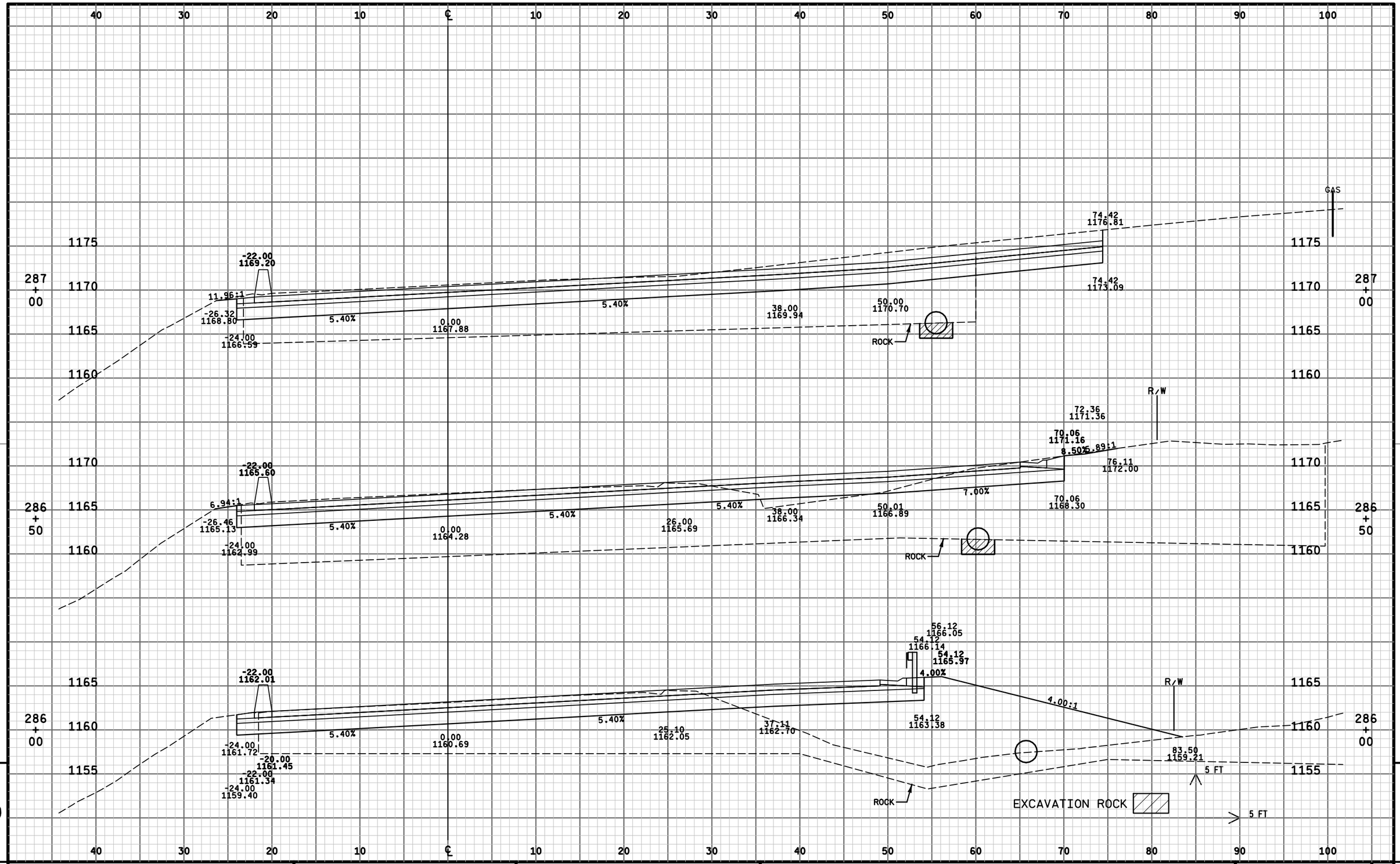
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WISDOT/CADDS SHEET 21



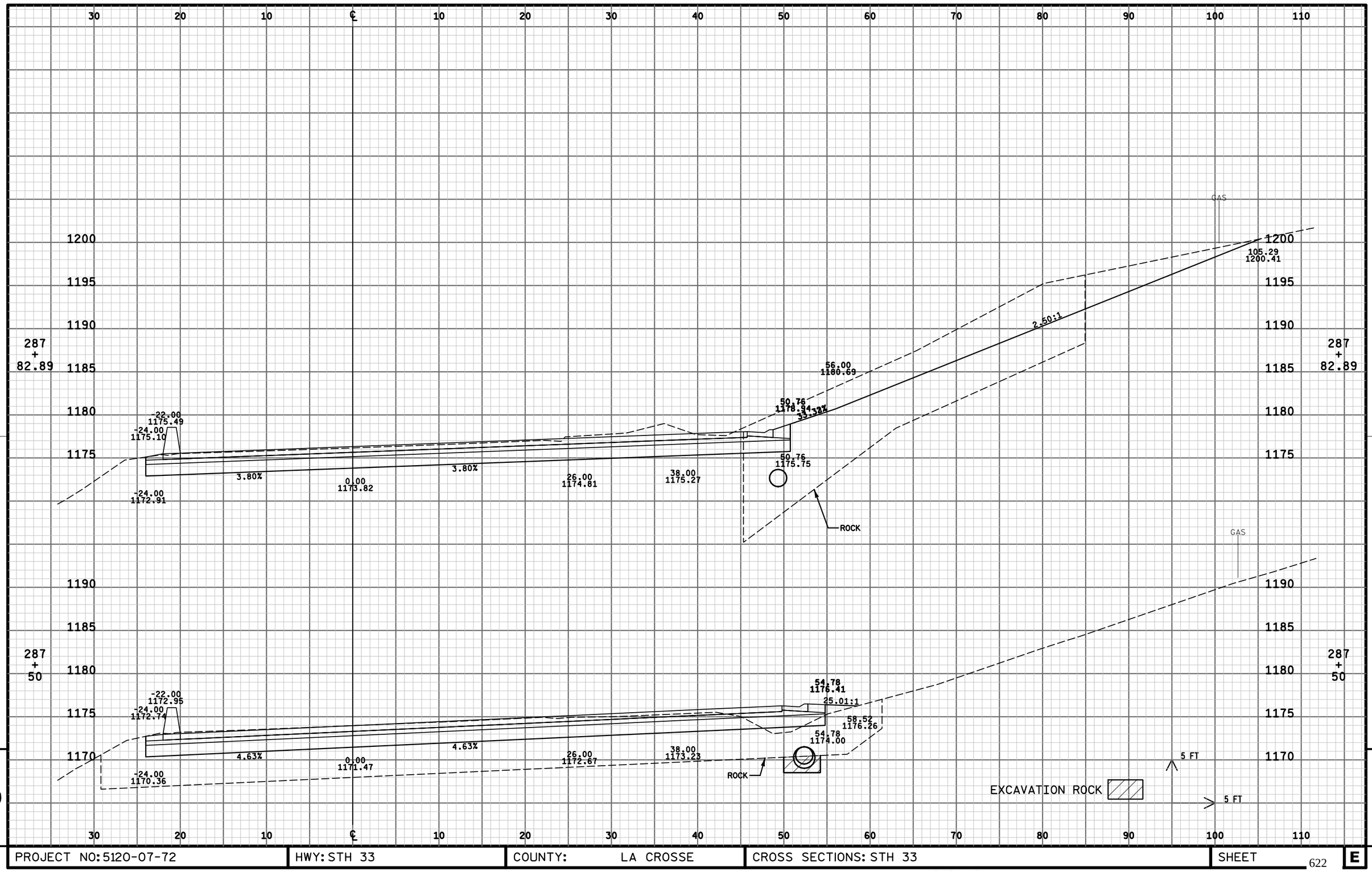
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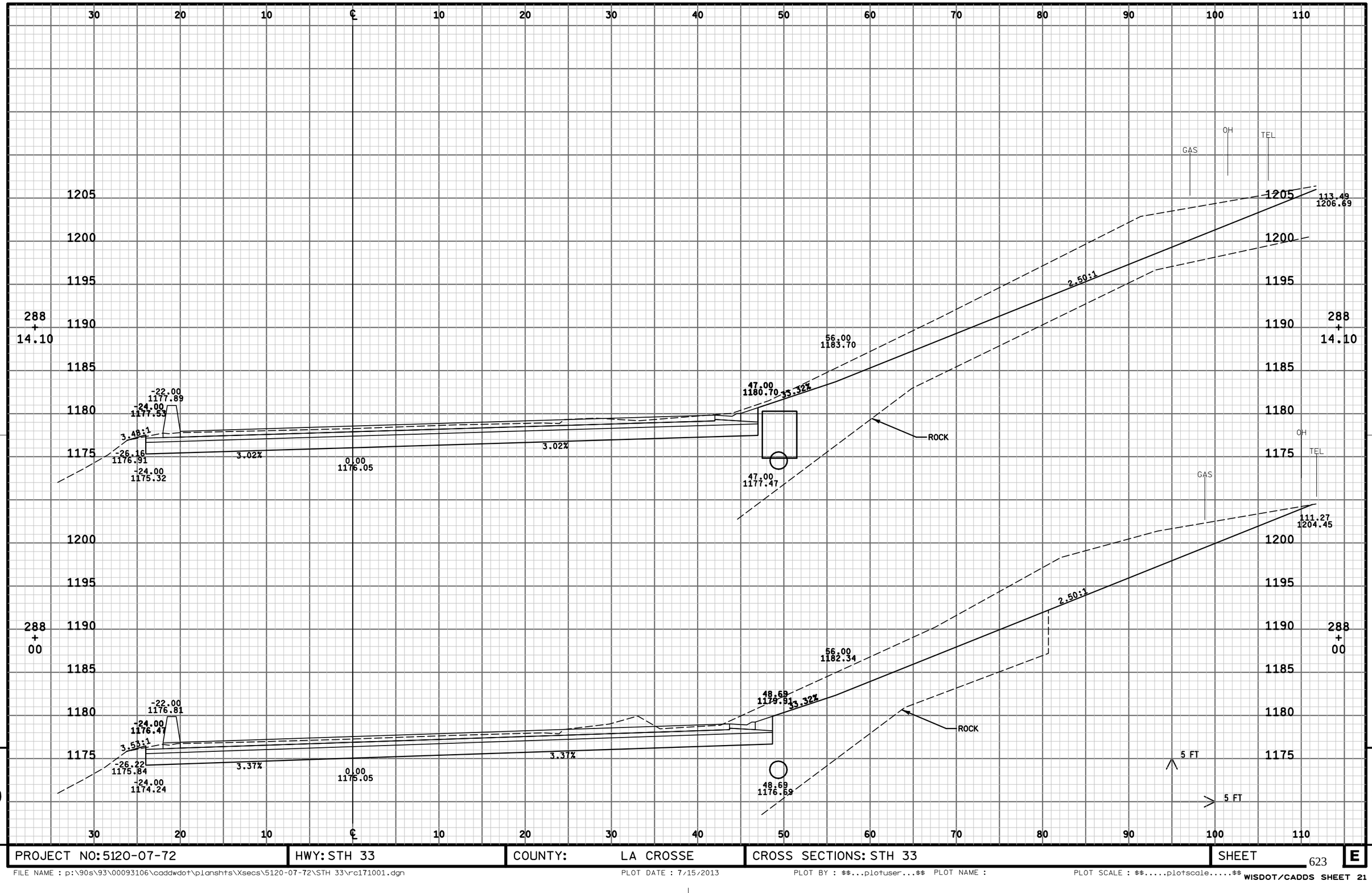
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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

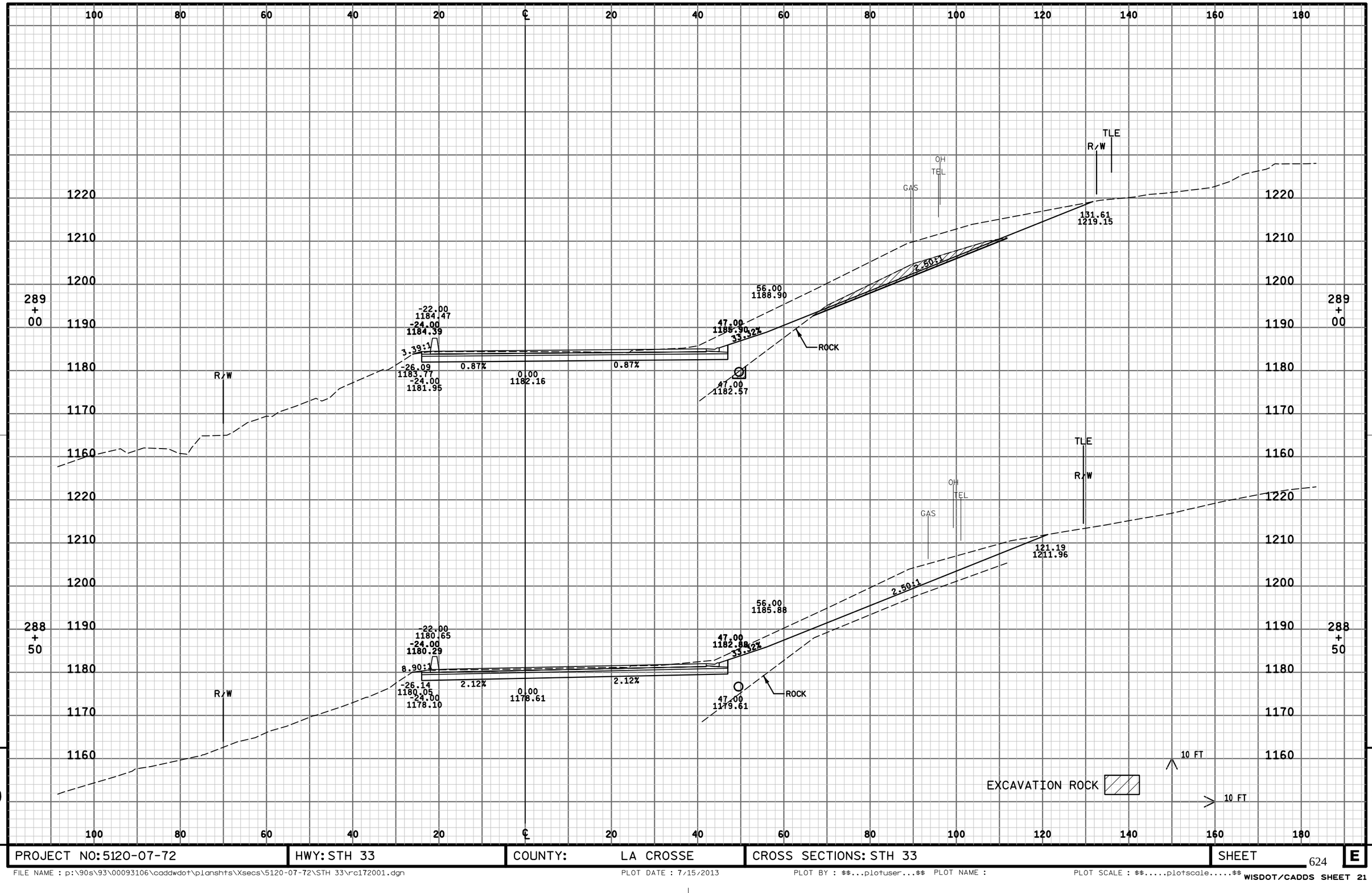
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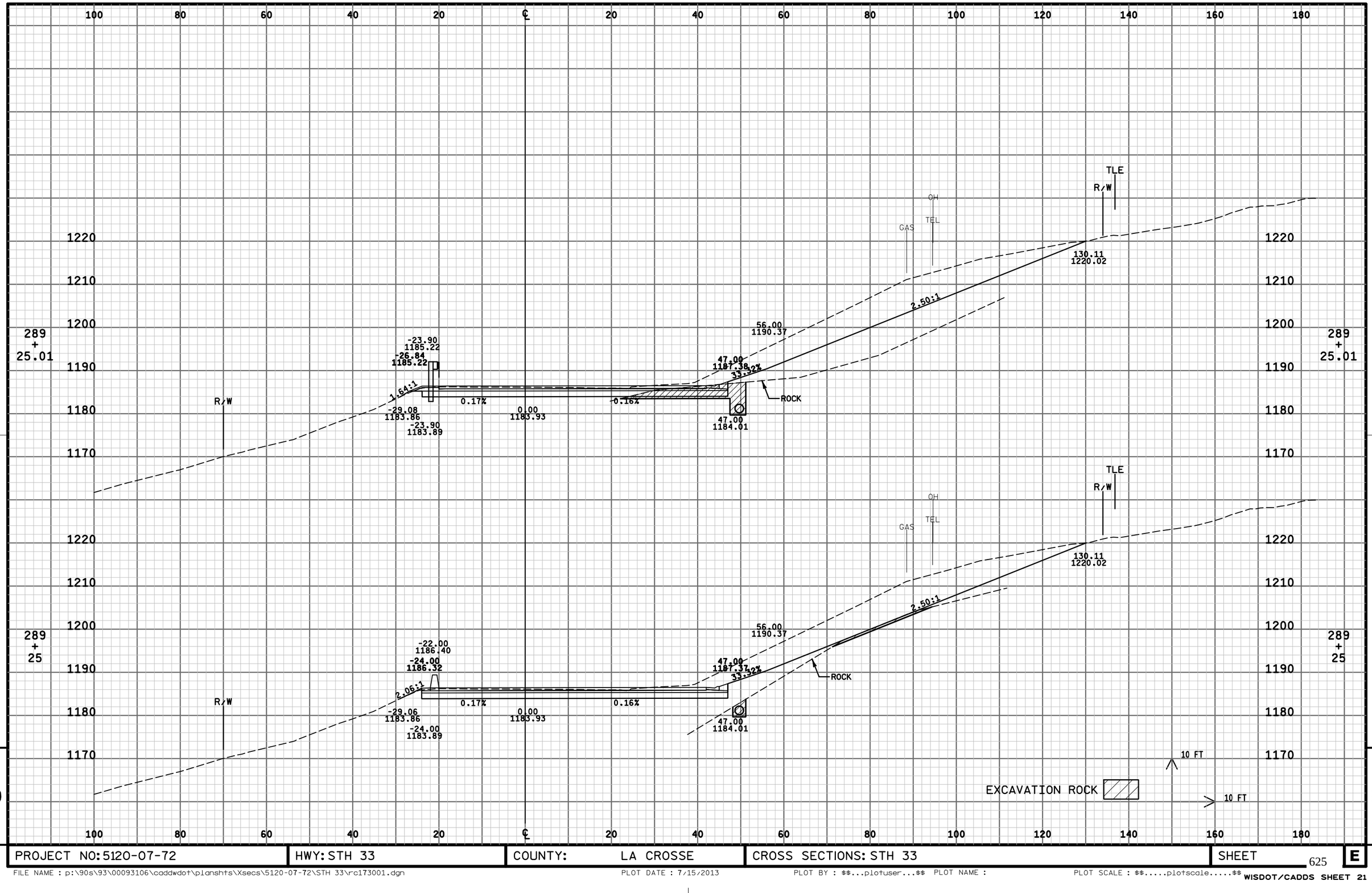
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

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WISDOT/CADDS SHEET 21

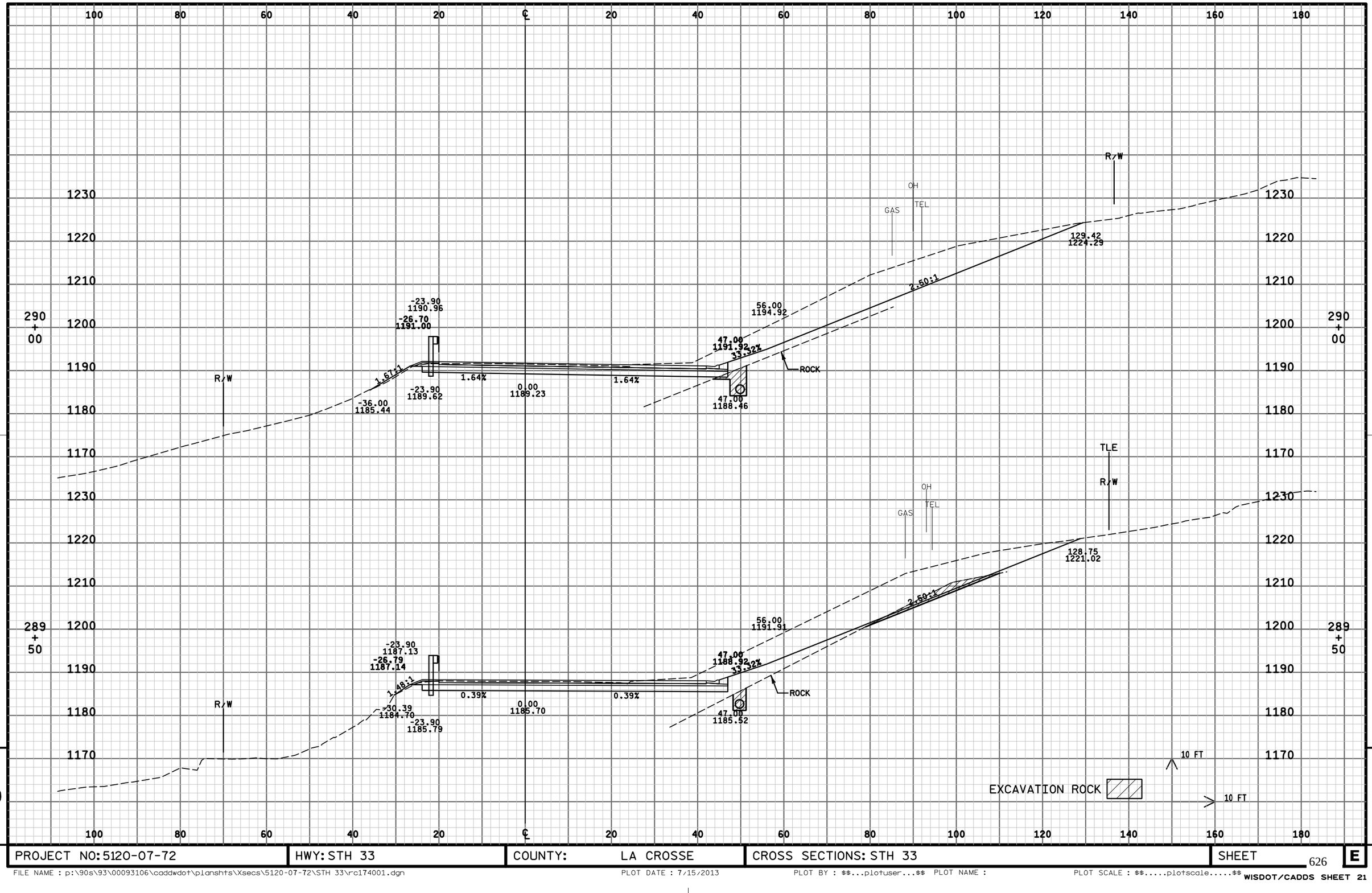


PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 624 E



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

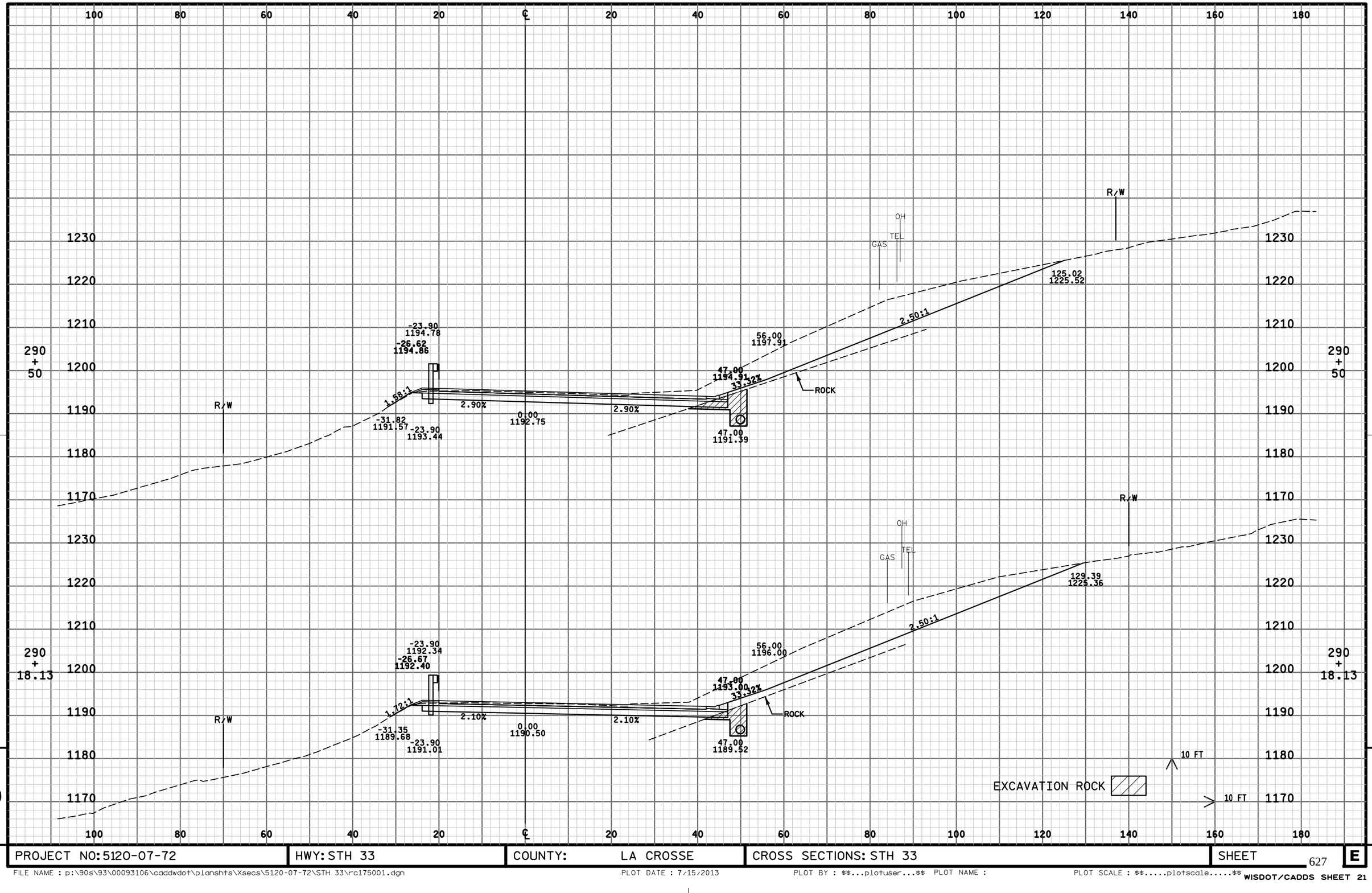
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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

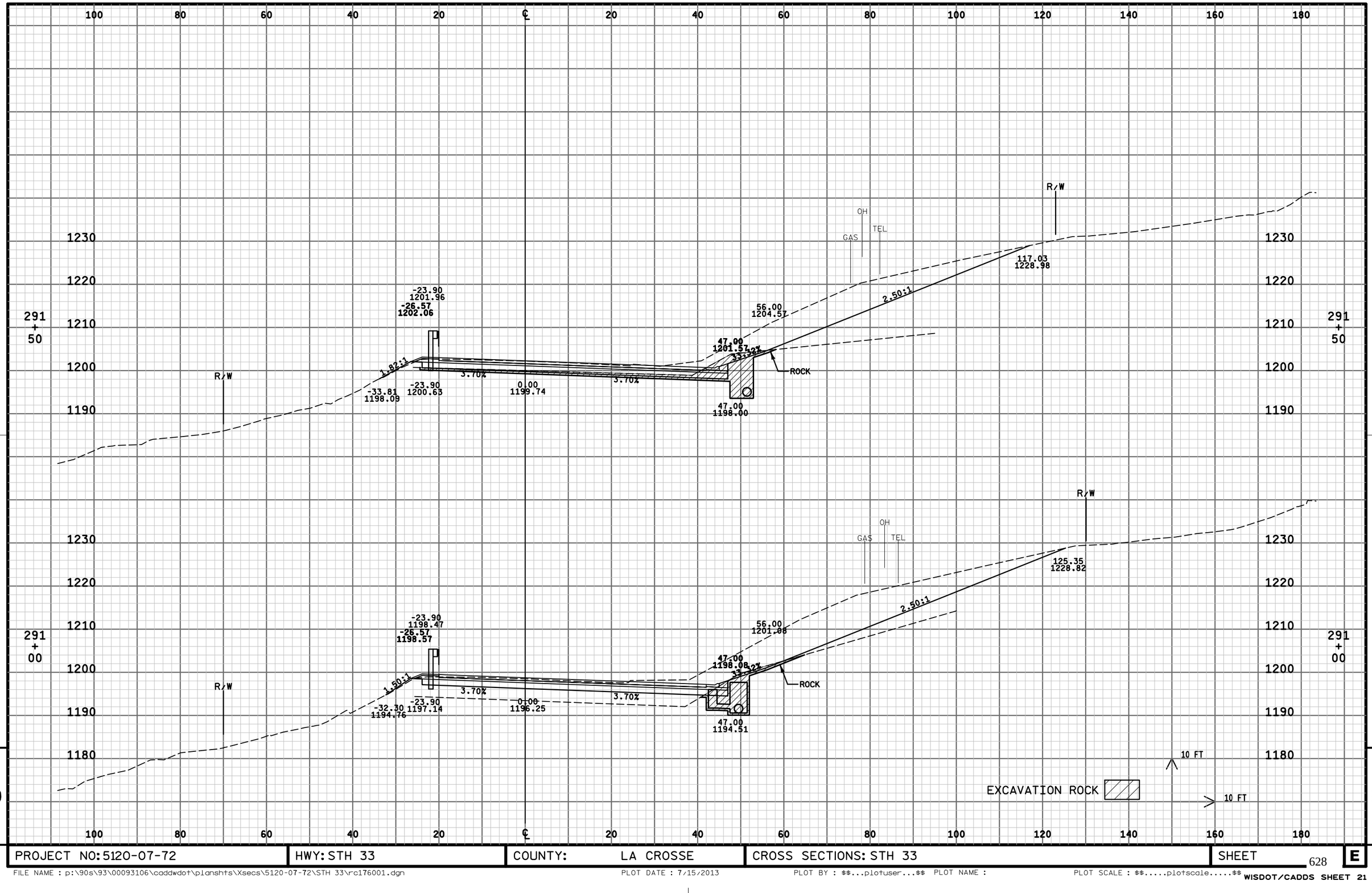
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WISDOT/CADDS SHEET 21



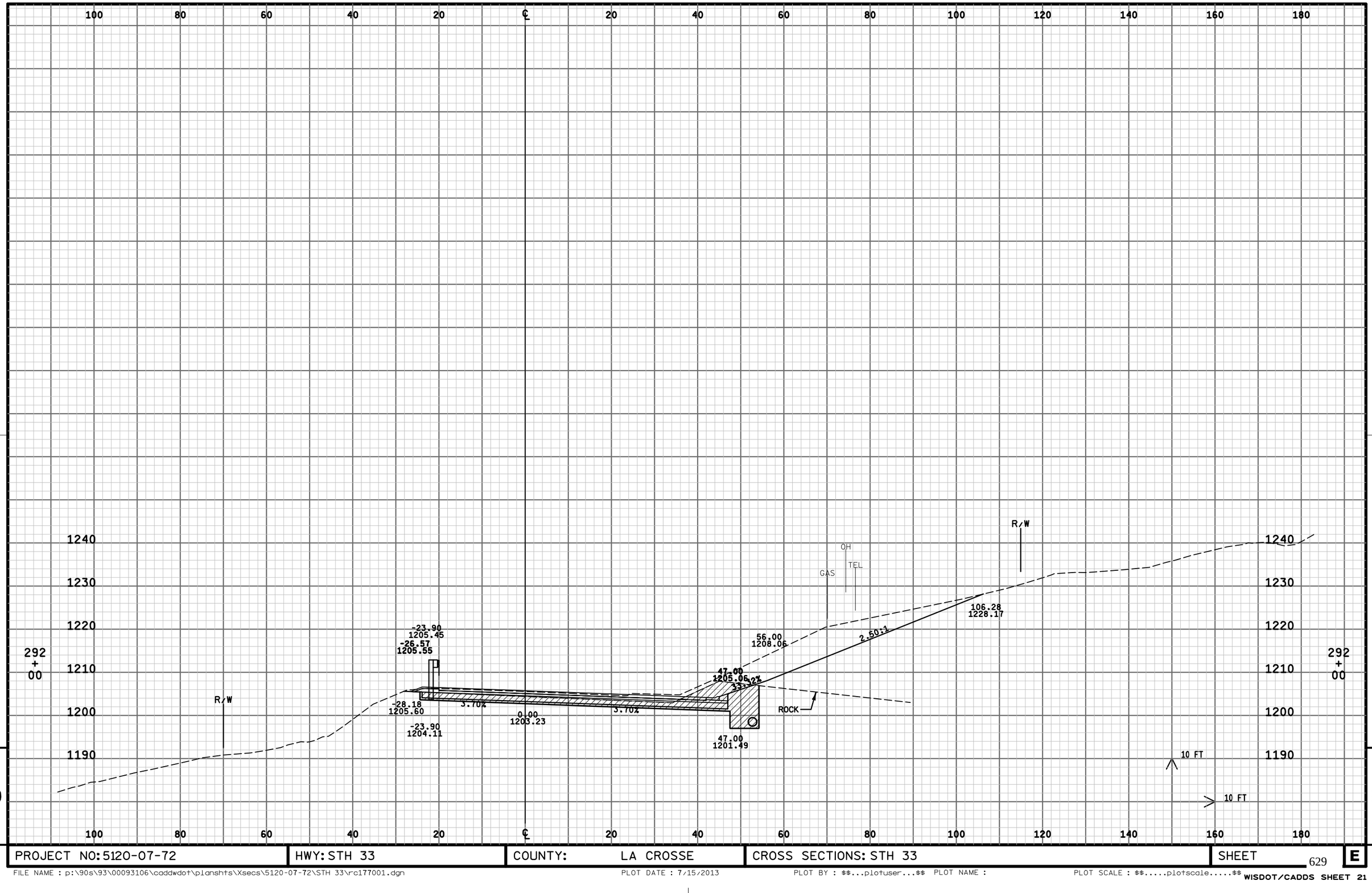
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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

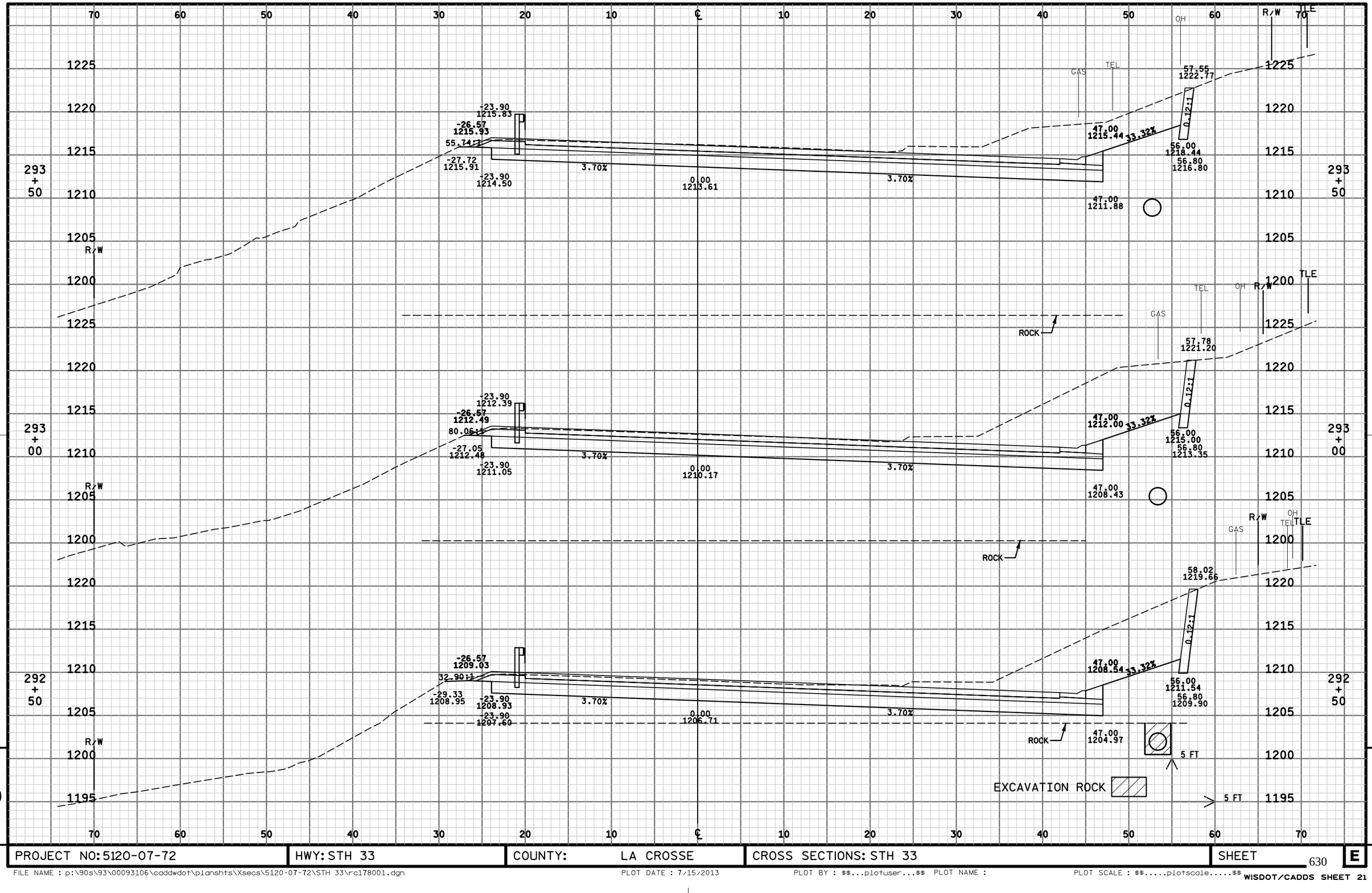
FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc176001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



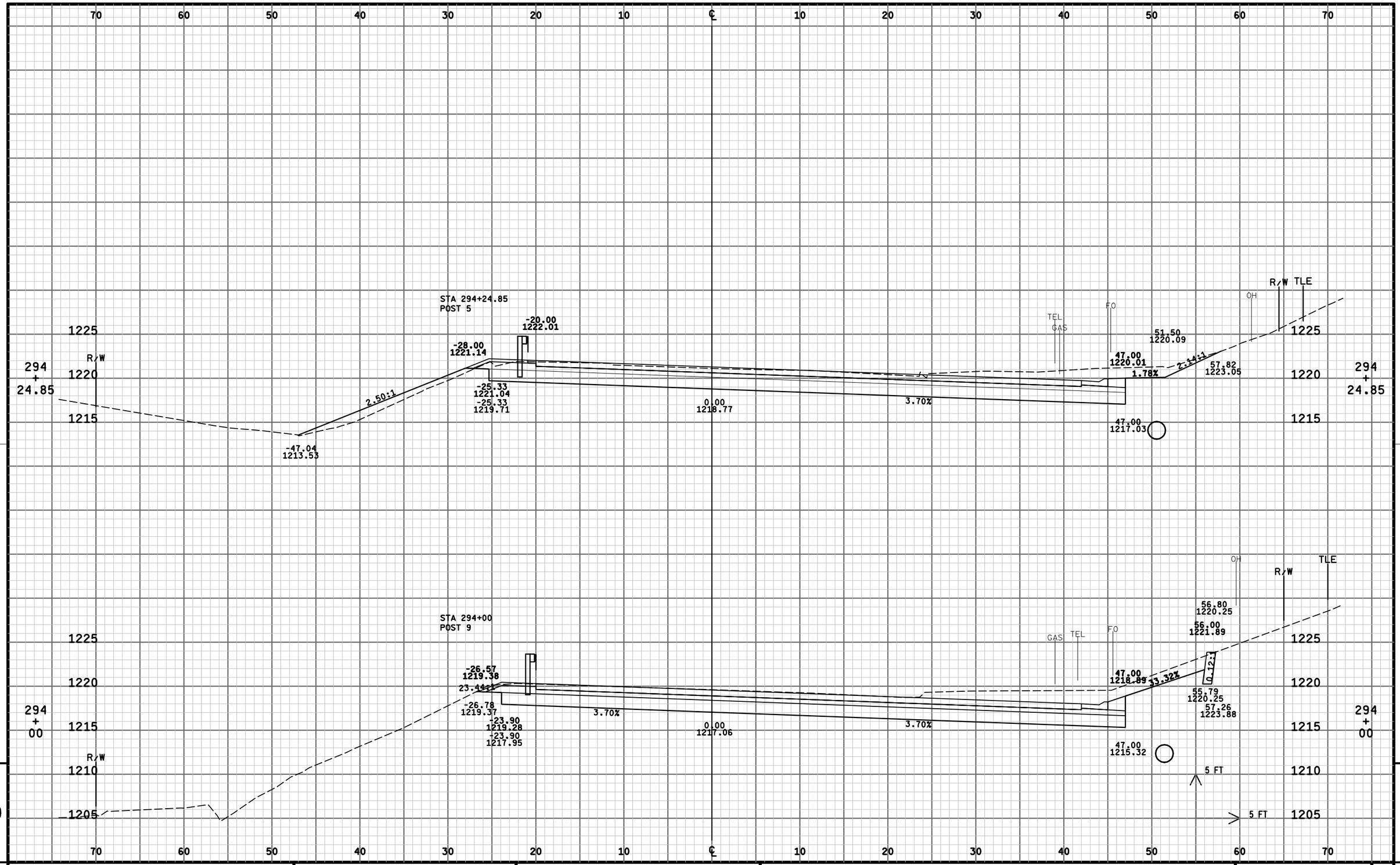
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 629

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc177001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 630 E



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc179001a.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

OVERHEAD UTILITY CROSSING STA. 295+45

1235
1230
1225
295 + 41

-48.06 1230.59
-48.06 1228.29
3.32%
-24.00 1227.58
-12.00 1227.13
3.70%
0.00 1226.69
3.70%
47.00 1227.52
10.92%
61.88 1229.44
47.00 1224.95

R/W
TLE
OH
TEL
61.88 1229.15
GAS

BURIED FIBER OPTIC CROSSING STA. 295+18

R/W
1235
1230
1225
295 + 00

-31.30 1226.40
60.09:1
-36.49 1226.31
-27.23 1226.25
-27.23 1224.91
3.70%
-12.00 1224.35
3.70%
0.00 1223.91
3.70%
47.00 1225.15
4.00%
4.00:1
55.05 1226.74
47.00 1222.17

GAS
FO
49.00 1225.23
TLE
OH
TEL
R/W

R/W
1225
1220
1215
294 + 50

STA 294+49.67
POST 1
-30.55 1222.95
2.50:1
-32.98 1221.98
-27.88 1222.86
-27.88 1221.52
3.70%
0.00 1220.49
3.70%
47.00 1221.73
1.78%
2.71:1
57.10 1223.88
51.50 1221.81
47.00 1218.75
5 FT
5 FT

GAS
FO
TEL
TLE
OH
R/W

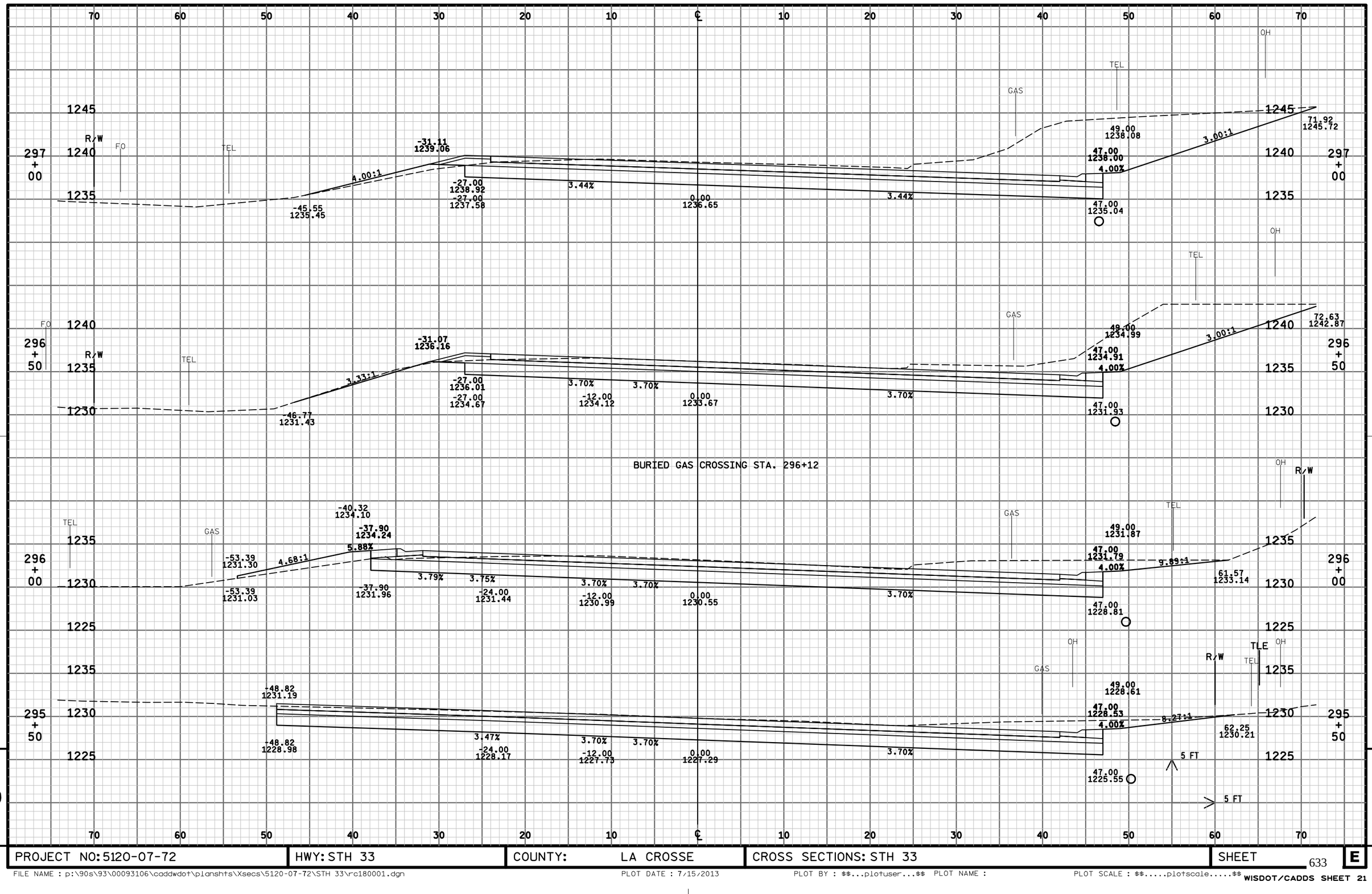
70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

9 9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 632	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc179001b.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

BURIED GAS CROSSING STA. 296+12



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 633	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc180001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

1255 R/W 1250 1245 1240

298 + 50

TEL TEL

-29.46 1246.08

15.95:1

-34.58 1245.76

0.00 1246.17

2.00%

GAS

44.97 1246.95

42.97 1246.87

4.00%

3.00:1

70.81 1255.56

OH

42.97 1245.31

68.69 1251.61

1255 1250 1245 1240

298 + 50

1250 R/W 1245 1240

298 + 00

TEL TEL

-30.93 1243.86

4.91:1

-31.54 1243.73

-27.00 1243.82

-27.00 1242.49

0.94%

0.00 1242.23

2.00%

GAS

46.79 1244.31

44.79 1244.23

4.00%

3.00:1

44.79 1241.34

OH

68.69 1250.96

1250 1245 1240

298 + 00

1250 1245 R/W 1240 1235

297 + 50

TEL TEL

-30.72 1241.52

4.00:1

-34.83 1240.49

-27.00 1240.11

2.19%

0.00 1239.52

2.19%

GAS

48.61 1241.48

46.61 1241.40

4.00%

3.00:1

69.77 1248.53

46.61 1238.50

OH

1250 1245 1240

297 + 50

BURIED TELEPHONE CROSSING STA. 297+24

1245 1240 R/W 1235

297 + 19.37

FO TEL

-31.18 1240.04

4.00:1

-36.23 1238.77

-27.00 1239.91

-27.00 1238.58

2.95%

0.00 1237.78

2.95%

TEL

GAS

49.00 1239.42

47.00 1239.34

4.00%

3.00:1

70.96 1246.74

47.00 1236.40

5 FT

5 FT

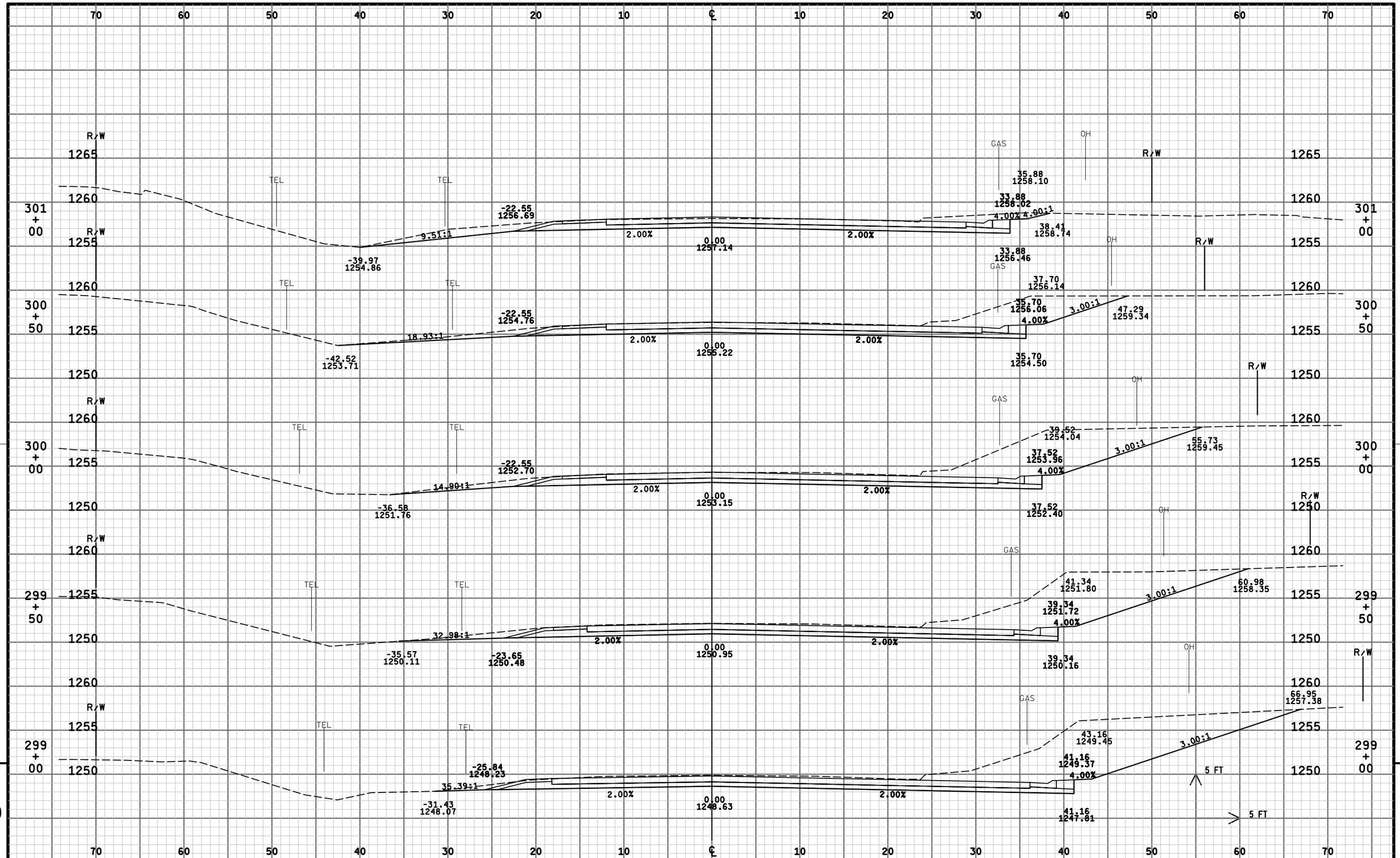
1245 1240 1235

297 + 19.37

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

9 9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 634	E



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 635 E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc182001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

R/W TEL TEL GAS OH R/W

1265 1260 1255

302 + 00

-22.55 1260.34
26.25:1
-37.08 1259.78
2.00%
0.00 1260.79
1.44%
42.32 1260.18
3.00:1
63.18 1253.23

302 + 00

R/W TEL TEL GAS OH R/W

1265 1260 1255

301 + 94.92

-22.55 1260.16
18.03:1
-37.94 1259.30
2.00%
0.00 1260.61
2.00%
42.88 1259.94
3.00:1
61.29 1253.80

301 + 94.92

STA 301+94.92
POST 1

BURIED GAS CROSSING STA. 301+79

R/W TEL TEL GAS OH R/W

1265 1260 1255

301 + 50

-22.55 1258.52
10.12:1
-39.74 1256.82
2.00%
0.00 1258.97
2.00%
36.16 1258.91
33.00 1258.92
0.47%
36.16 1259.51
33.00 1258.31
5 FT
5 FT

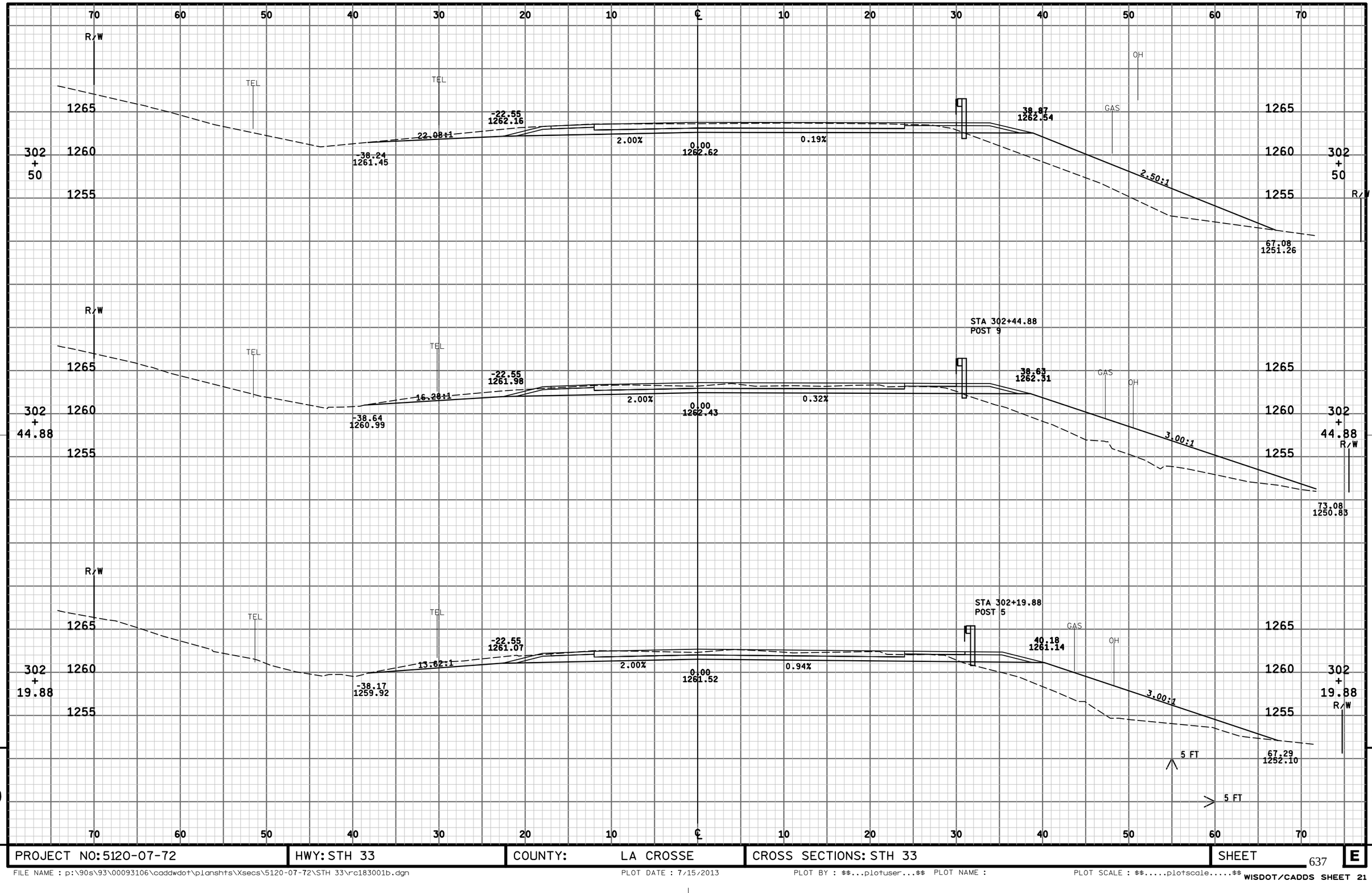
301 + 50

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

9 9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

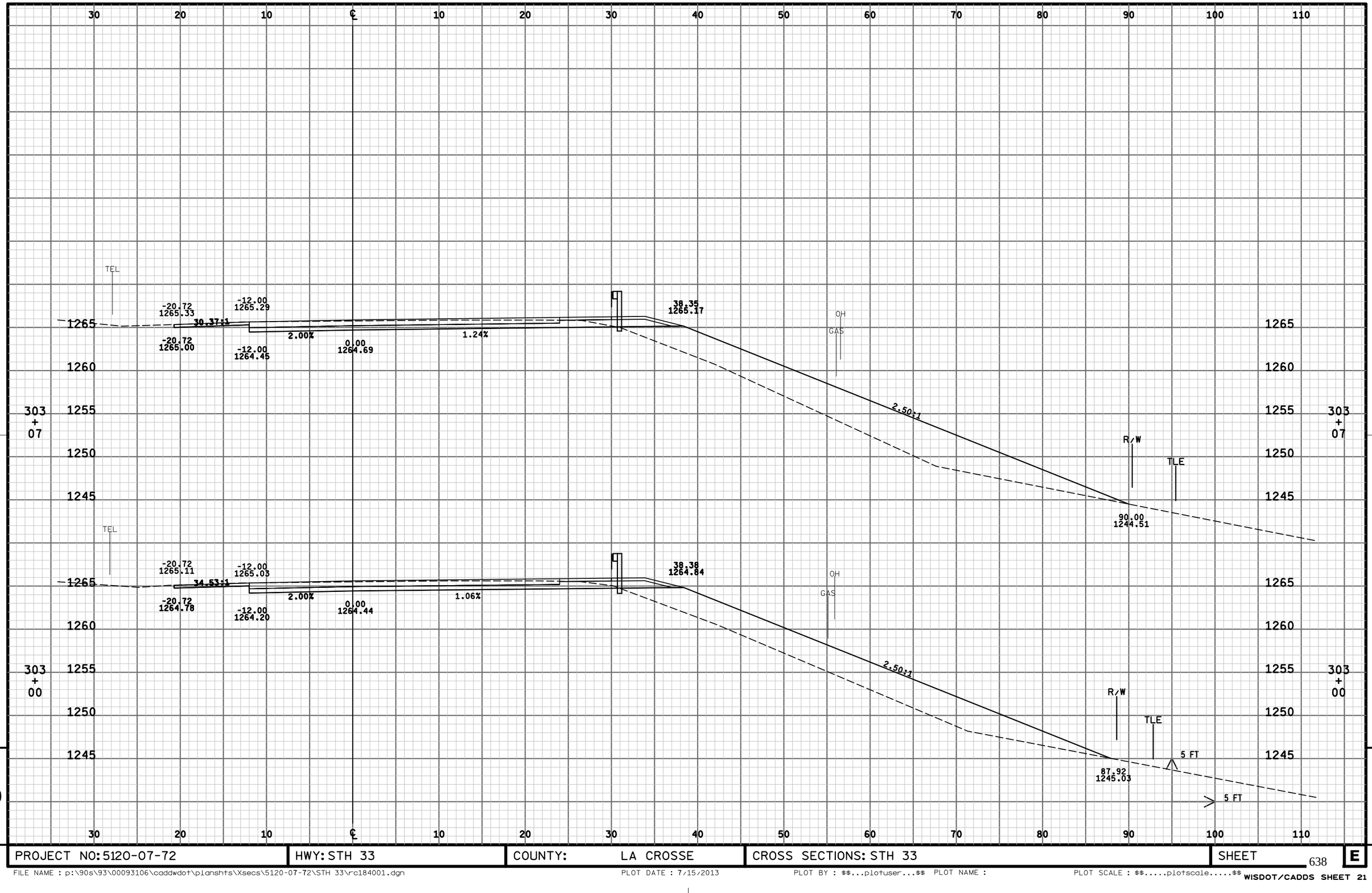
FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc183001a.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$
WISDOT/CADDS SHEET 21



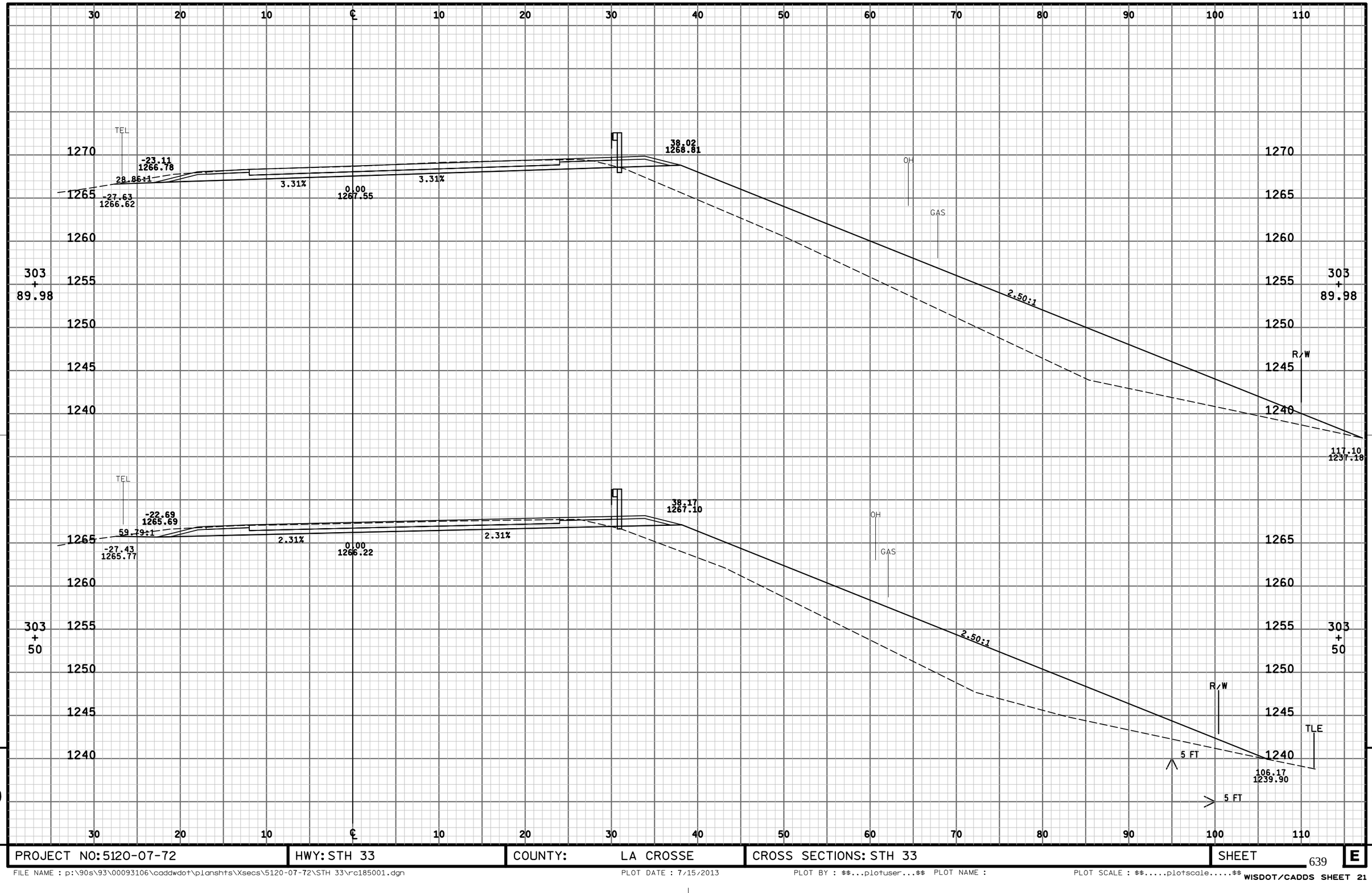
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc183001b.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 638 E

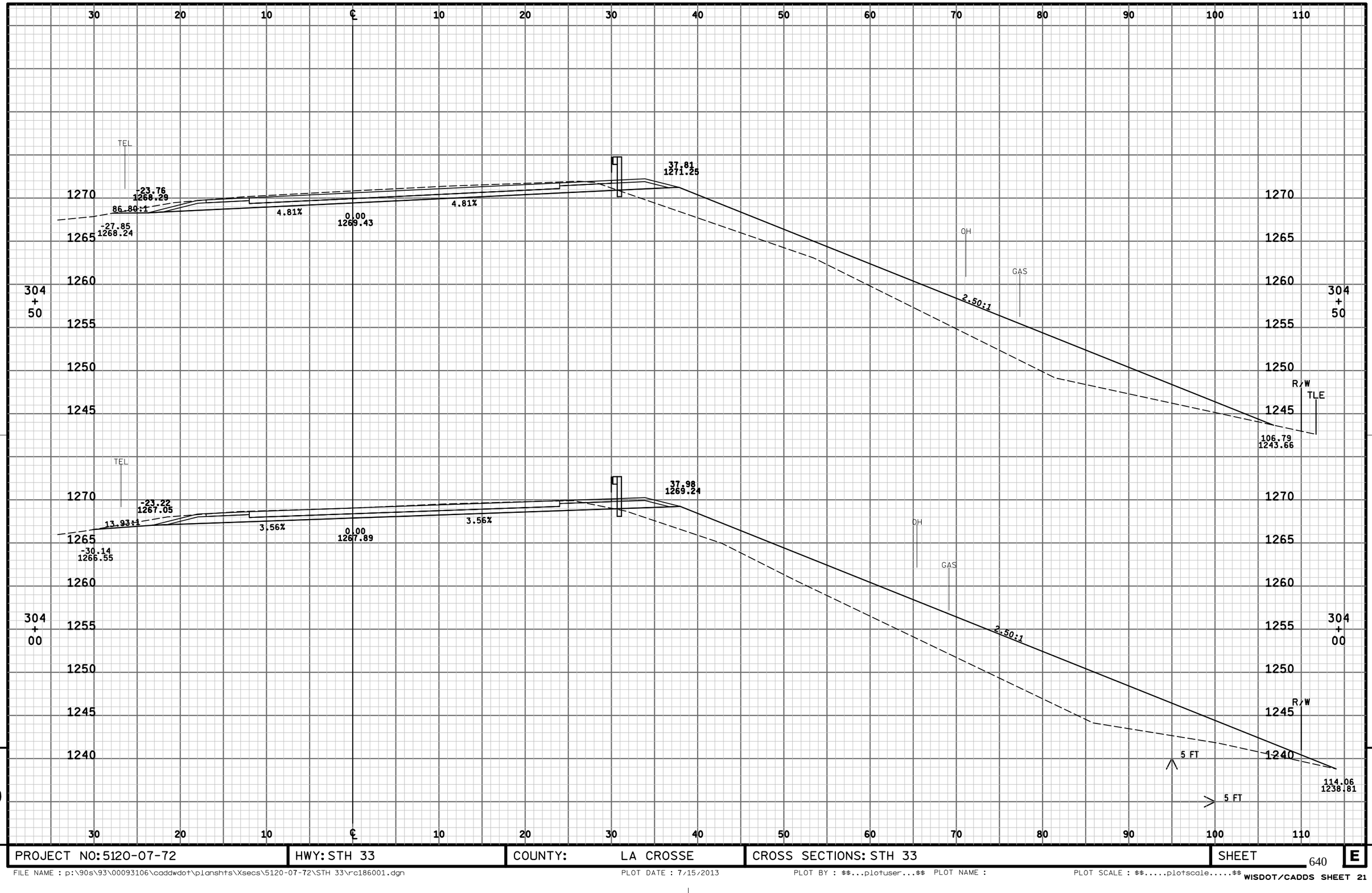


9 9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

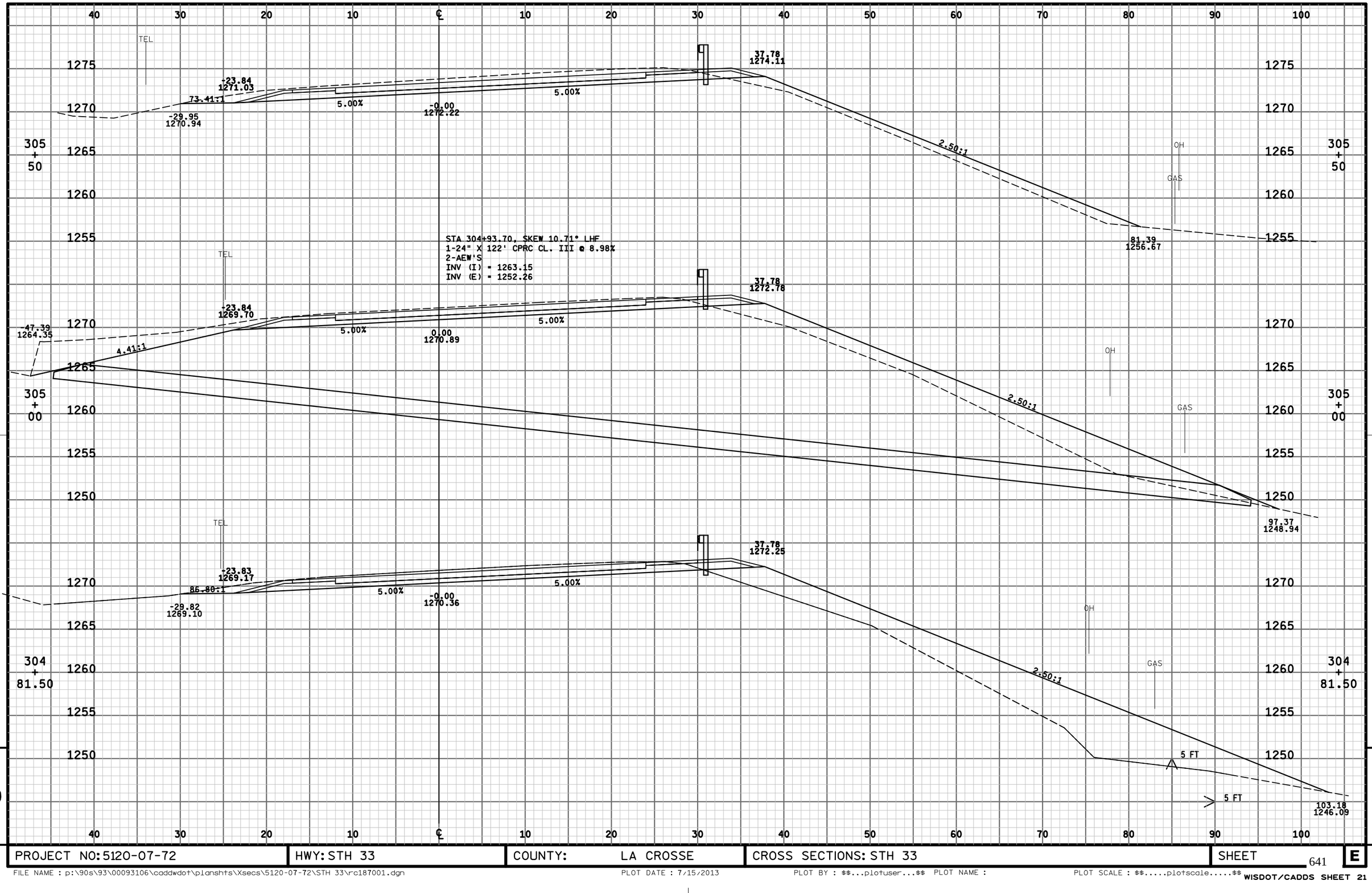
FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc185001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 640 E

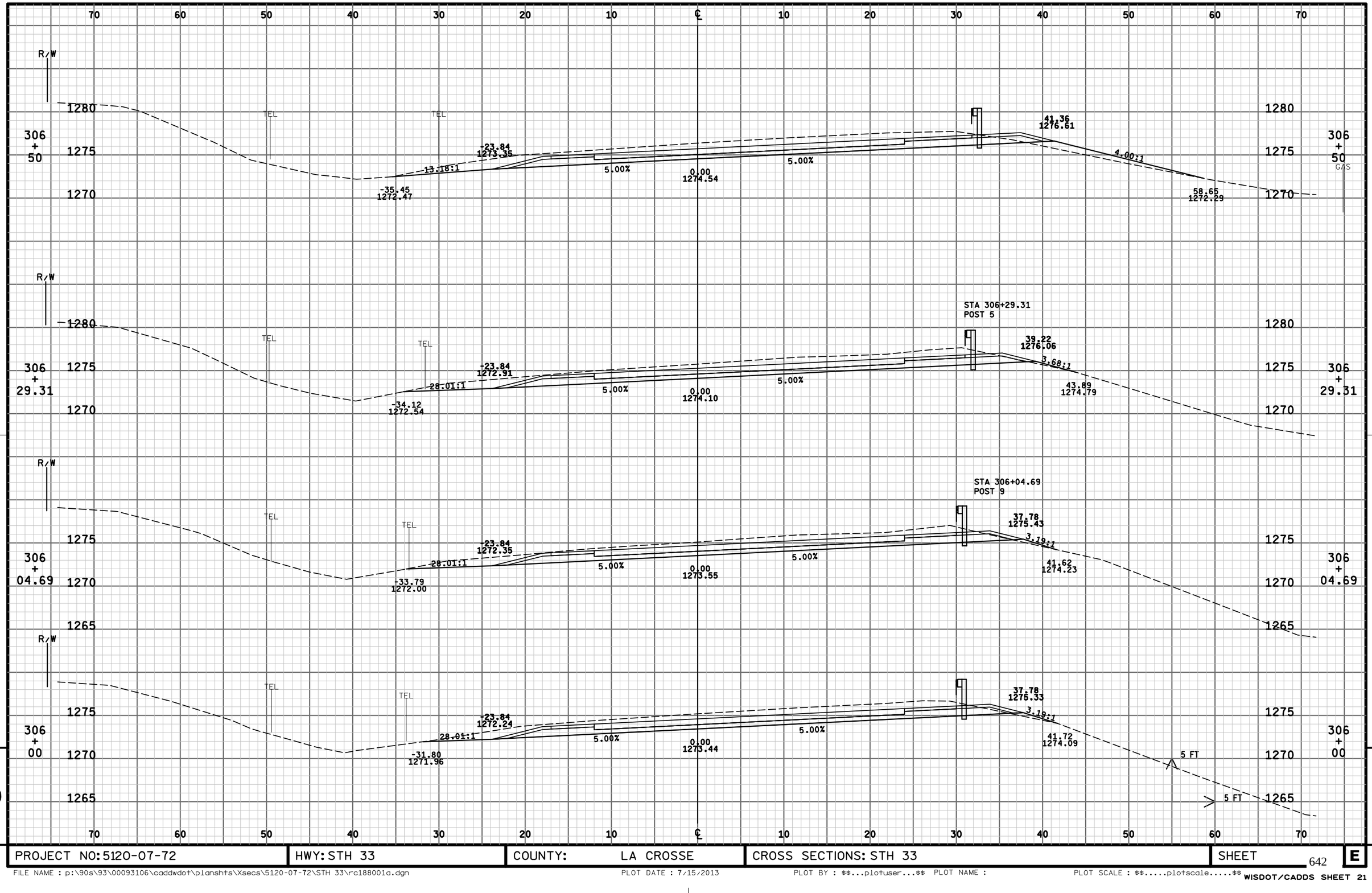
FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc186001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc187001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21



9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc188001a.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

R/W

TEL TEL

1285 1280 1275

308 + 00

-21.76 1278.44 | -12.00 1277.43 | 14.43:1 | -21.76 1278.11 | 5.00% | -12.00 1276.60 | 0.00 1277.20 | 5.00% | 34.04 1278.90 | 17.44:1 | 37.46 1278.05 | 44.00 1278.42

GAS OH

1285 1280 1275

308 + 00

R/W

TEL TEL

1285 1280 1275

307 + 50

-23.84 1275.24 | 11.37:1 | -37.09 1274.07 | 5.00% | 0.00 1276.43 | 5.00% | 34.72 1278.16 | 21.10:1 | 38.77 1277.15 | 45.72 1277.48

GAS OH

1285 1280 1275

307 + 50

R/W

TEL TEL

1285 1280 1275

307 + 00

-23.84 1274.35 | 13.47:1 | -37.45 1273.34 | 5.00% | -0.00 1275.55 | 5.00% | 37.72 1277.43 | 4.00:1 | 42.37 1276.27 | 45.05 1276.94

GAS OH

1285 1280 1275

307 + 00

R/W

TEL TEL

1280 1275 1270

306 + 53.99

STA 306+53.99
POST 1

-23.84 1273.44 | 18.62:1 | -36.91 1272.74 | 5.00% | 0.00 1274.63 | 5.00% | 41.79 1276.72 | 4.00:1 | 55.73 1273.23

GAS

1280 1275 1270

306 + 53.99

5 FT

5 FT

9

9

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 643	E

BURIED TELEPHONE CROSSING STA. 308+94

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 644 E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc189001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

R/W F0 313 + 32.20 — 1280 / 1275 / 1270

18.72:1 | -32.32 1277.30 | -23.16 1277.78 | 3.42% | -0.00 1278.59 | 3.42% | 34.12 1279.75 | 4.00:1 | 54.78 1274.58

R/W F0 313 + 00 — 1285 / 1280 / 1275

-37.58 1276.97 | 6.83:1 | -36.72 1276.84 | -23.50 1277.84 | 4.22% | -0.00 1278.84 | 4.22% | 34.00 1280.28 | 4.00:1 | 54.58 1275.13

R/W 312 + 50 — 1285 / 1280 / 1275

-38.33 1277.15 | 4.06:1 | -37.63 1276.98 | -23.84 1277.98 | 5.00% | 0.00 1279.17 | 5.00% | 33.89 1280.86 | 4.00:1 | 56.17 1275.29

R/W 312 + 00 — 1285 / 1280 / 1275

-38.89 1277.46 | 3.89:1 | -37.93 1277.22 | -23.84 1278.22 | 5.00% | 0.00 1279.41 | 5.00% | 12.00 1280.01 | 5.00% | 24.00 1280.61 | 5.00% | 37.56 1281.29 | 4.00:1 | 56.30 1276.60

R/W 311 + 50 — 1285 / 1280 / 1275

-40.73 1277.73 | 6.22:1 | -38.28 1277.33 | -23.84 1278.33 | 5.00% | 0.00 1279.53 | 5.00% | 12.00 1280.13 | 5.00% | 24.00 1280.73 | 4.00:1 | 45.15 1281.78 | 51.66 1280.16

BURIED TELEPHONE CROSSING STA. 311+10

R/W TEL GAS 311 + 00 — 1285 / 1280 / 1275

-23.84 1278.33 | 6.24:1 | -36.42 1278.02 | -32.12 1277.33 | 5.00% | -0.00 1279.53 | 5.00% | 12.00 1280.13 | 24.00 1280.73 | 0.92% | 47.83 1282.83 | 47.83 1280.95 | 5 FT | 5 FT

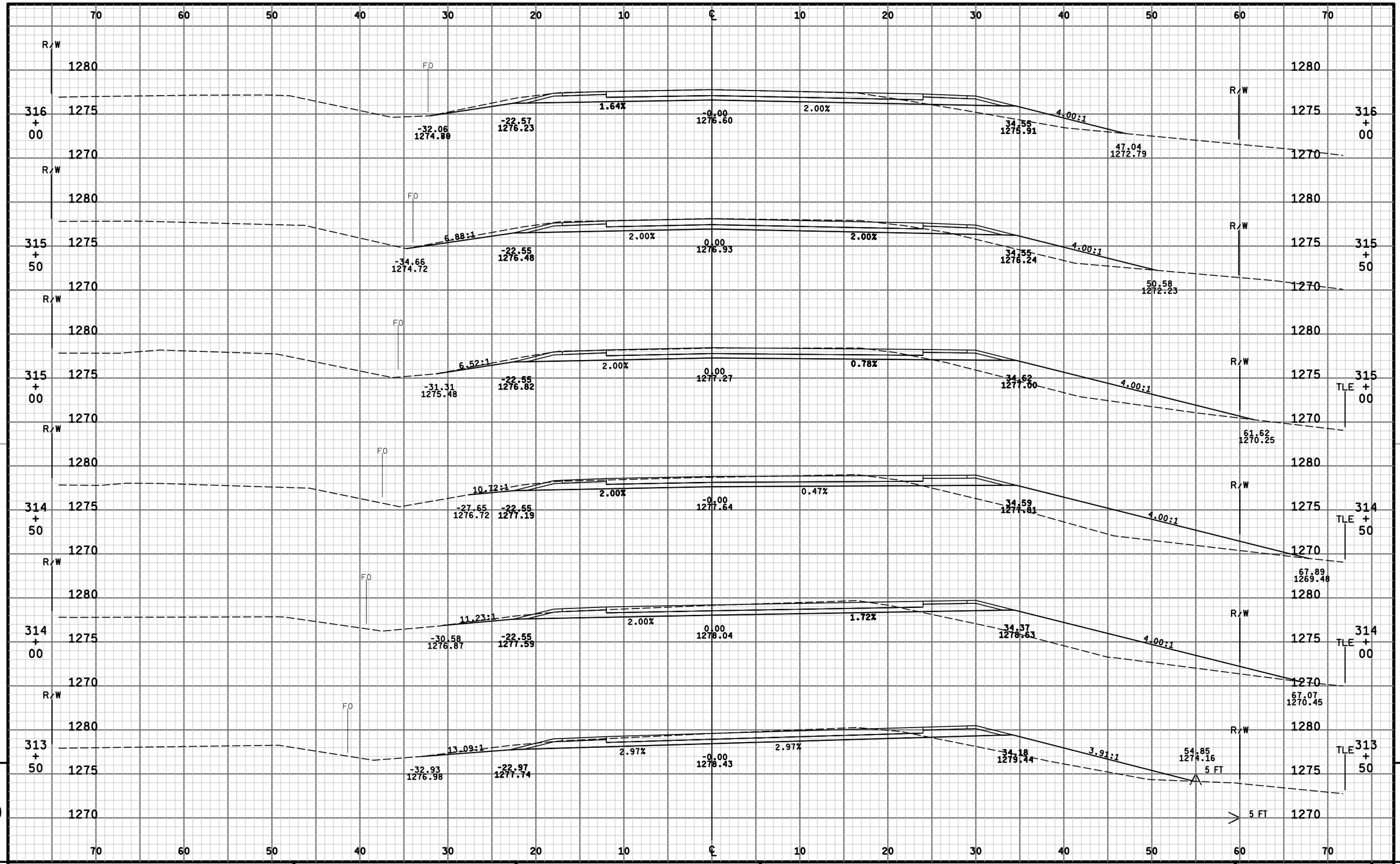
70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

9 9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc190001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET 646 E

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

R/W 1280 1275 1270

318 + 00

FO

-24.67
1275.58

4.00:1

-22.12
1276.22

3.36%

0.00
1275.47

3.36%

-35.07
1274.29

4.00:1

R/W

TLE

58.61
1268.41

318 + 00

R/W 1280 1275 1270

317 + 50

FO

-35.61
1277.04

-21.28
1276.17

2.11%

0.00
1275.72

2.11%

-34.59
1274.99

4.00:1

R/W

TLE

57.49
1269.27

317 + 50

R/W 1280 1275 1270

317 + 06

FO

6.03:1

-31.18
1274.74

-22.49
1276.18

1.01%

0.00
1275.95

2.00%

-34.55
1275.26

4.00:1

R/W

TLE

56.91
1269.67

317 + 06

STA 317+06
1-24" CPRC CL III
2-AEW'S

R/W 1280 1275 1270

317 + 00

FO

-23.10
1276.04

4.00:1

-22.51
1276.19

0.86%

-0.00
1276.00

2.00%

-34.55
1275.30

4.00:1

R/W

TLE

56.87
1269.73

317 + 00

R/W 1280 1275 1270

316 + 50

FO

6.11:1

-33.72
1274.38

-22.65
1276.19

0.39%

0.00
1276.28

2.00%

30.00
1276.22

32.90
1275.62

20.48%

R/W

TLE

59.00
1270.79

5 FT

59.00
1270.28

5 FT

316 + 50

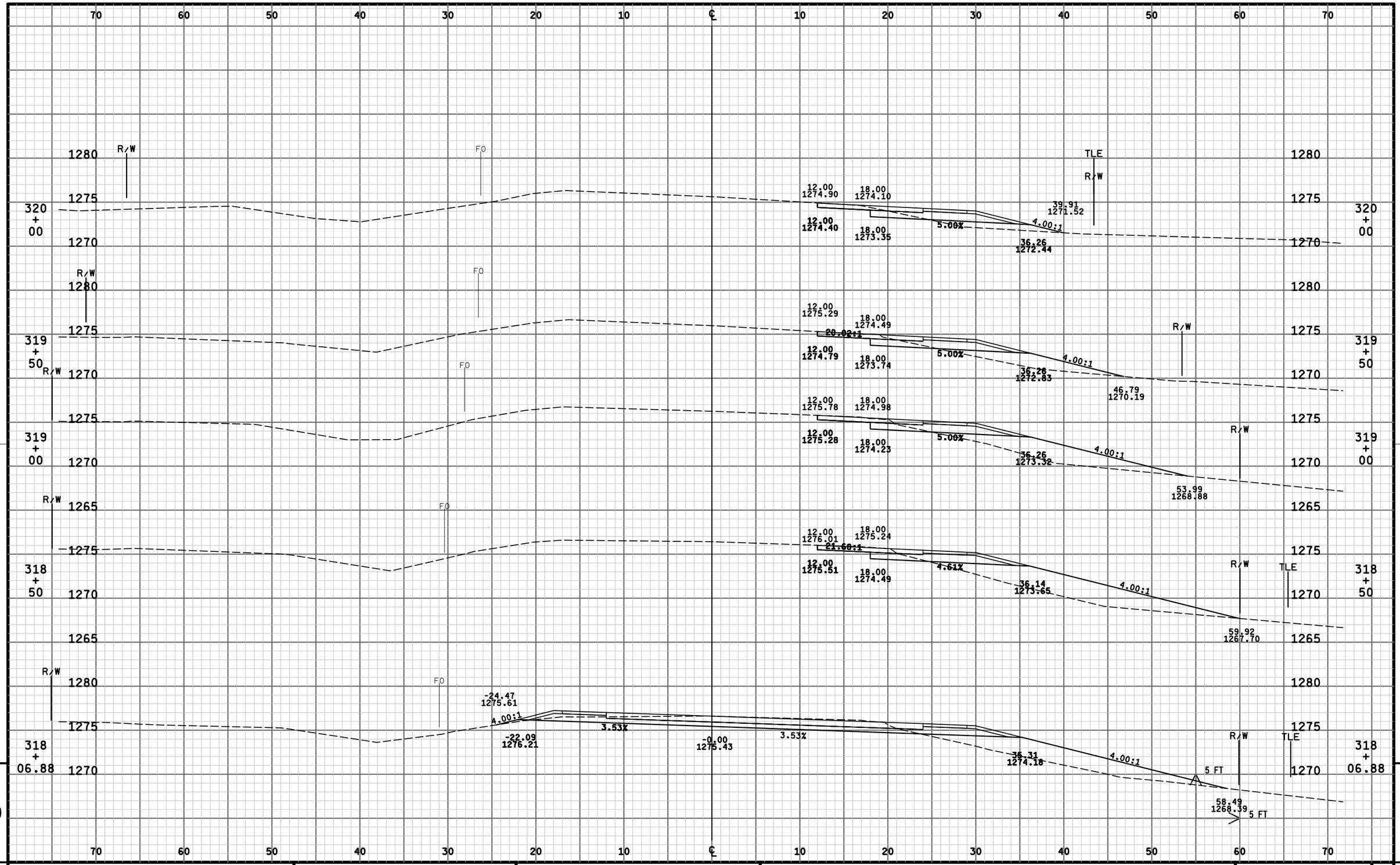
9

9

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc192001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$
WISDOT/CADDS SHEET 21



9 9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc193001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

STA 322+25.50
1-CONCRETE COLLAR
1-18" CPRC CL. III
1-AEW

322 + 25.50

322 + 00

321 + 50

321 + 00

320 + 50

320 + 35.41

1275 1270 1265 1280

R/W FO TLE

12.00 1274.11 | 18.00 1273.39 | 20.02:1 | 12.00 1273.69 | 18.00 1272.64 | 5.00% | 4.00:1 | 4.00:1 | 33.02 1271.89 | 41.10 1271.32 | 38.19 1270.59

12.00 1273.84 | 18.00 1273.04 | 20.02:1 | 12.00 1273.34 | 18.00 1272.29 | 5.00% | 4.00:1 | 4.00:1 | 37.27 | 33.45 1270.99 | 1271.52 | 36.41 1270.78

12.00 1274.43 | 18.00 1273.63 | 20.02:1 | 12.00 1273.93 | 18.00 1272.88 | 5.00% | 4.00:1 | 4.00:1 | 34.31 1272.07 | 43.79 1272.00 | 39.18 1270.85

12.00 1274.54 | 18.00 1273.74 | 20.02:1 | 12.00 1274.04 | 18.00 1272.98 | 5.00% | 4.00:1 | 4.00:1 | 38.85 1272.01 | 35.16 1272.13 | 37.23 1271.61

12.00 1274.65 | 18.00 1273.85 | 20.02:1 | 12.00 1274.15 | 18.00 1273.10 | 5.00% | 4.00:1 | 4.00:1 | 39.16 1271.56 | 36.01 1272.20 | 38.86 1271.48

12.00 1274.72 | 18.00 1273.92 | 20.02:1 | 12.00 1274.22 | 18.00 1273.17 | 5.00% | 4.00:1 | 4.00:1 | 39.68 1271.49 | 36.26 1272.26 | 39.51 1271.45

5 FT 5 FT

9 9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc194001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

1275 1270 1265

325 + 00

R/W

12.00 1274.94 16.06 1274.35 50.00:1 12.00 1274.44 16.06 1273.60 2.00% 4.00:1 26.97 1273.39 31.46 1272.26 R/W

324 + 50

R/W

12.00 1274.70 16.92 1274.10 50.00:1 12.00 1274.20 16.92 1273.35 2.00% 4.00:1 27.83 1273.14 34.14 1271.56 R/W

324 + 00

R/W

12.00 1274.44 17.77 1273.82 50.00:1 12.00 1273.94 17.77 1273.07 2.00% 4.00:1 28.68 1272.85 4.00:1 37.74 1271.38 36.15 1270.99 R/W

323 + 50

R/W

12.00 1274.23 18.00 1273.57 37.64:1 12.00 1273.73 18.00 1272.82 2.66% 4.00:1 29.87 1272.50 4.00:1 36.44 1270.97 36.21 1270.92 R/W

323 + 00

R/W

12.00 1274.04 18.00 1273.30 25.60:1 12.00 1273.54 18.00 1272.55 3.91% 4.00:1 31.39 1272.03 4.00:1 36.55 1270.77 36.49 1270.76 R/W TLE

322 + 50

R/W

12.00 1274.06 18.00 1273.26 20.02:1 12.00 1273.56 18.00 1272.51 5.00% 4.00:1 32.60 1271.78 4.00:1 40.62 1271.27 37.63 1270.52 R/W TLE

5 FT

5 FT

9

9

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc195001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

1275 1270 1265

327 + 36.79 — R/W — 12.00 1276.45 — 17.00 1275.92 — 24.99 1274.91 — 25.01:1 — 4.80:1 — 12.00 1276.12 — 2.00% — 17.00 1275.10 — 24.84 1274.94 — R/W — 327 + 36.79

327 + 00 — R/W — 12.63 1275.75 — 12.00 1276.27 — 25.40 1274.55 — 50.00:1 — 7.95:1 — 12.00 1275.77 — 2.00% — 12.63 1275.00 — 23.54 1274.78 — R/W — 327 + 00

326 + 50 — R/W — 13.49 1275.47 — 12.00 1276.00 — 26.18 1274.05 — 50.00:1 — 4.00:1 — 12.00 1275.50 — 2.00% — 13.49 1274.72 — 24.40 1274.50 — R/W — 326 + 50

326 + 31.03 — R/W — 13.81 1275.31 — 12.00 1275.84 — 50.00:1 — 12.00 1275.34 — 2.00% — 13.81 1274.56 — STA 326+31.03 1-CONCRETE COLLAR 1-24" CPRC CL. III 1-AEW — 24.72 1274.34 — 3.00:1 — 41.15 1270.57 — 3.00:1 — 38.58 1269.72 — R/W — 326 + 31.03

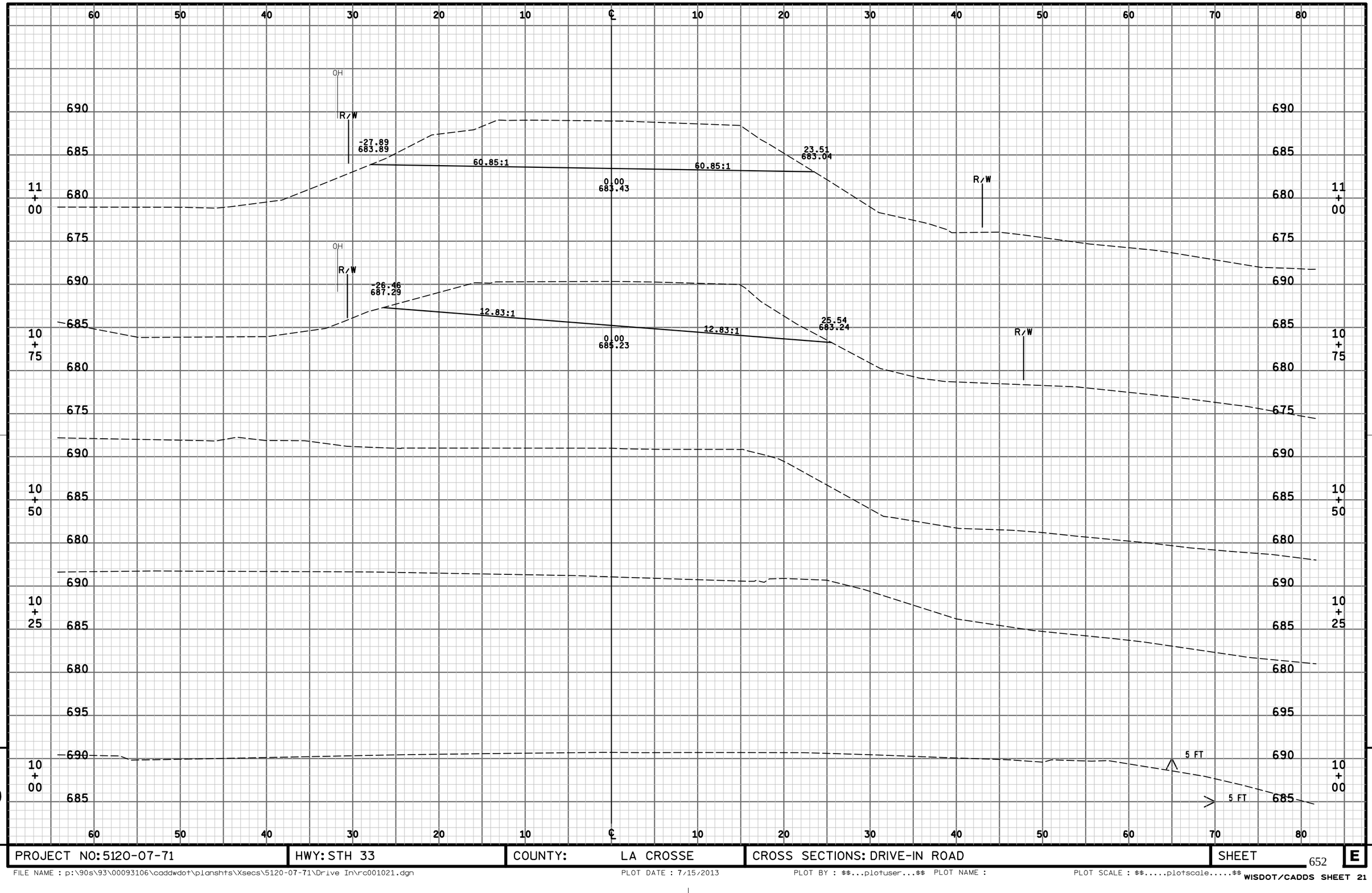
326 + 00 — R/W — 14.35 1275.04 — 12.00 1275.58 — 50.00:1 — 12.00 1275.08 — 2.00% — 14.35 1274.29 — 25.26 1274.07 — 4.00:1 — 33.99 1271.89 — R/W — 326 + 00

325 + 50 — R/W — 15.20 1274.58 — 12.00 1275.14 — 50.00:1 — 12.00 1274.64 — 2.00% — 15.20 1273.83 — 27.43 1273.28 — 4.00:1 — 26.13 1273.61 — R/W — 5 FT — 5 FT — 325 + 50

9 9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: STH 33	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\STH 33\rc196001.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

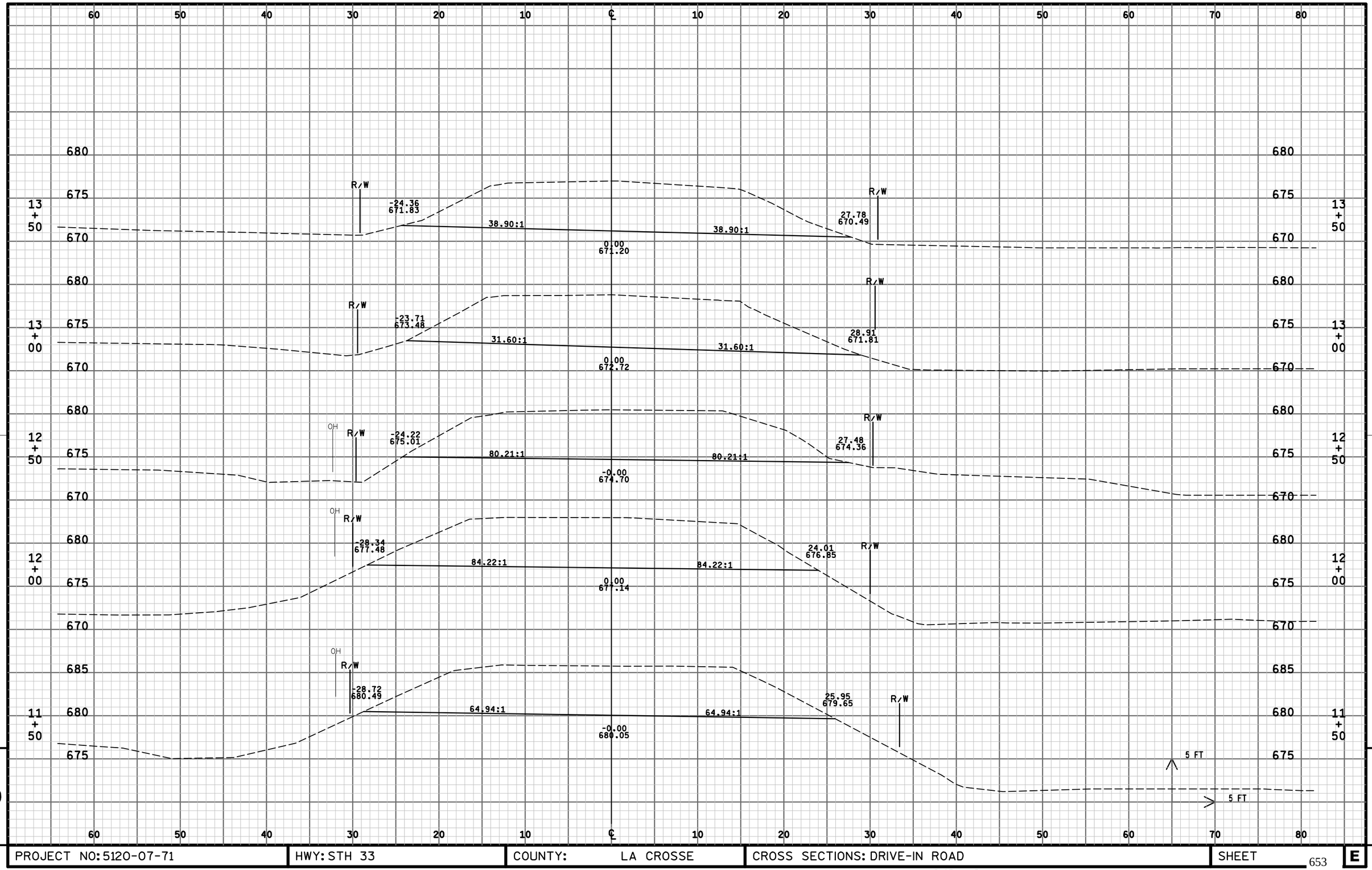


9

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: DRIVE-IN ROAD	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\Drive In\rc001021.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: DRIVE-IN ROAD	SHEET 653	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\Drive In\rc002021.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

675 / 670 / 665

R/W

16+00

0.12 671.37 | 5.39 671.25
-16.05 670.54 | 0.12 670.70 | 5.39 670.59 | 15.85 670.43
19.41:1 | 12.67:1 | 2.20%
0.12 670.70 | 5.39 670.59

15+82

-13.11 671.17 | -3.59 671.46 | 16.48 670.40
18.99:1 | 3.03%
-13.11 670.50 | -3.59 670.79

15+50

-20.64 669.68 | 22.18 669.42
165.13:1 | 165.13:1
0.00 669.55

15+00

-25.12 669.64 | 22.24 669.27
130.02:1 | 130.02:1
0.00 669.44

14+50

-27.06 669.74 | 26.60 669.40
158.04:1 | 158.04:1
-0.00 669.57

14+00

-24.53 670.50 | 28.63 669.75
70.58:1 | 70.58:1
0.00 670.15
5 FT | 5 FT

9 | 9

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: DRIVE-IN ROAD	SHEET 654	E

60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

675 670 665

17 + 50

17 + 00

16 + 75

16 + 60

16 + 50

16 + 25

R/W

13.37
670.60

22.38
669.87

2.00%

13.37
669.64

22.38
669.46

13.33
670.69

31.66
668.93

2.00%

13.33
669.73

30.52
669.38

13.13
670.75

32.13
668.80

2.00%

13.13
669.79

30.52
669.45

-17.90
669.96

25.19:1

8.47
671.01

13.13
670.90

2.24%

8.47
670.34

13.13
670.24

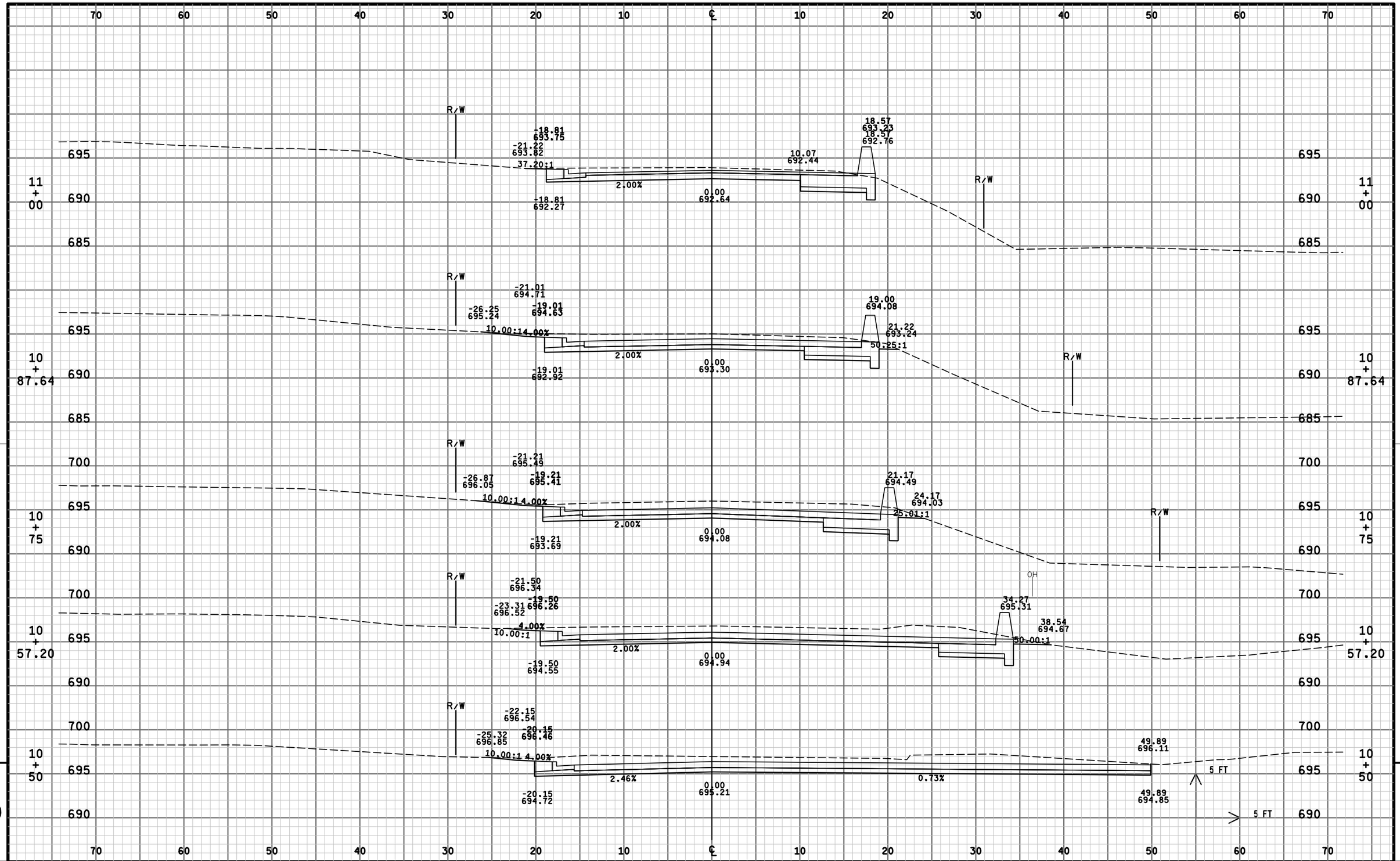
5 FT

5 FT

9

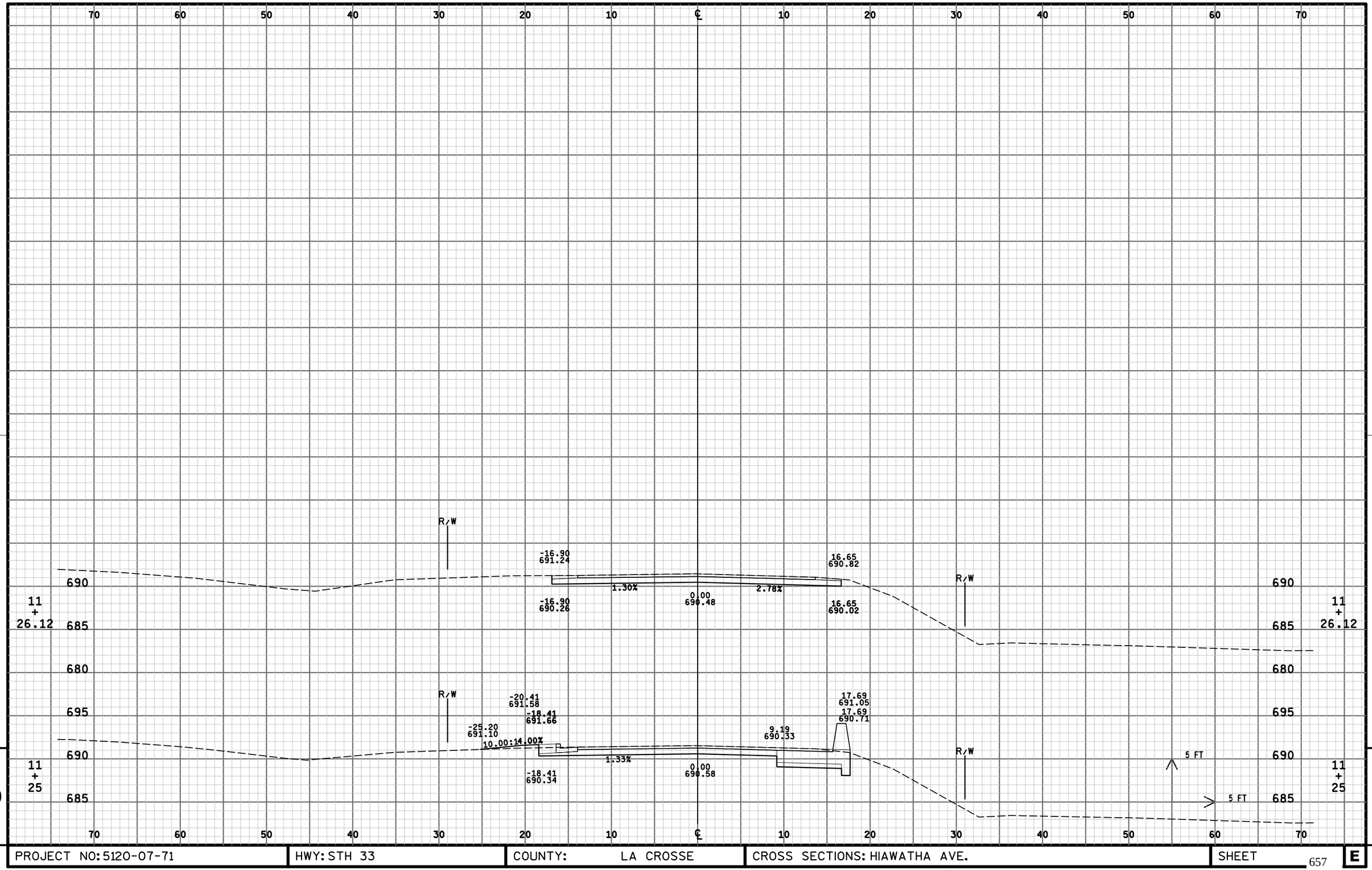
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FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\Drive In\rc004021.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



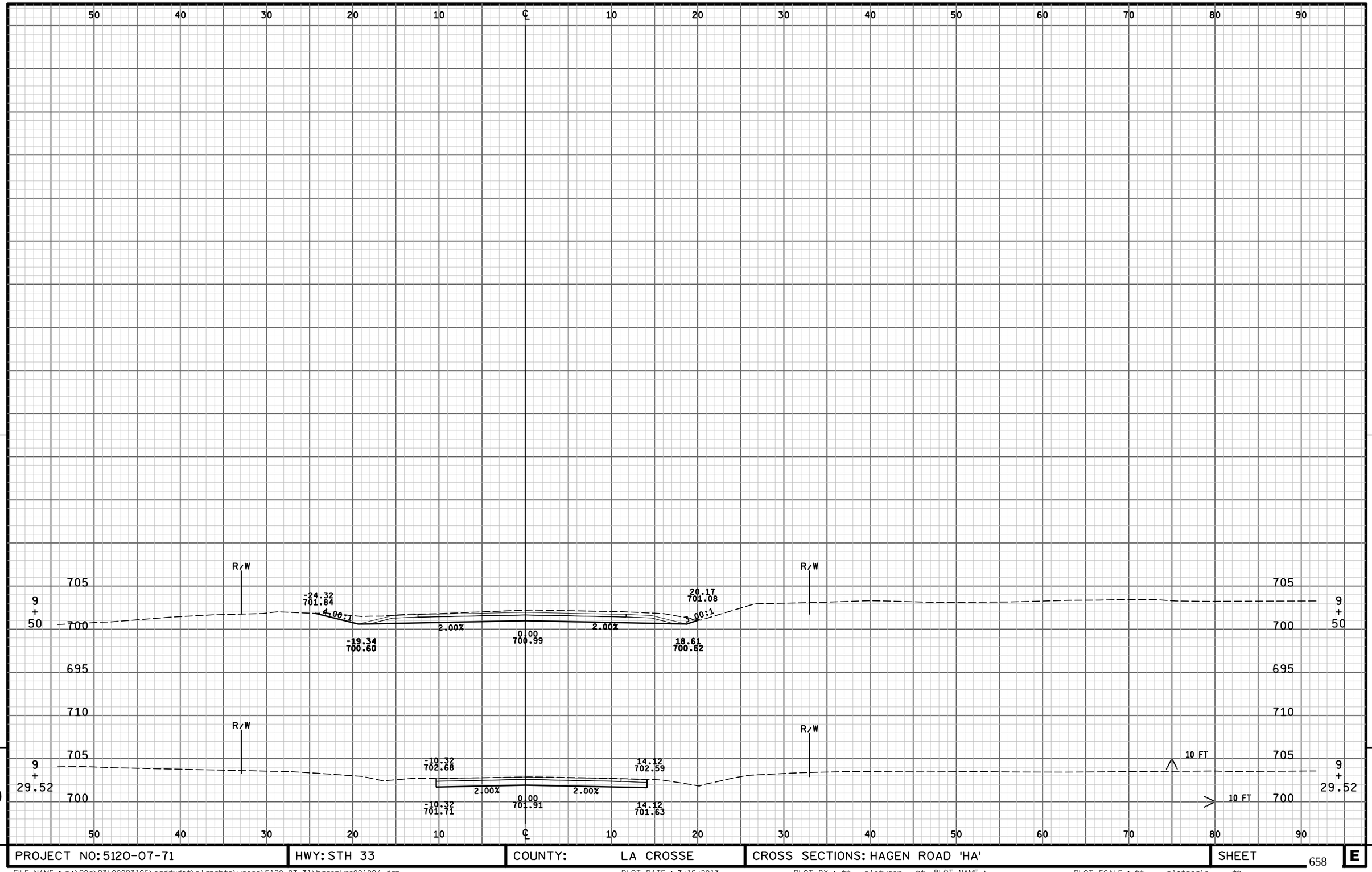
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: HIAWATHA AVE.	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\Hiawatha\rc001003.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: HIAWATHA AVE.	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\Hiawatha\rc002003.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: HAGEN ROAD 'HA'	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\xsecs\5120-07-71\hagen\rc001004.dgn PLOT DATE : 7/16/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

BURIED GAS CROSSING STA. 10+78
OVERHEAD UTILITY CROSSING STA. 10+76

50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90

705 700 695

10 + 75

-37.34 699.37
-35.34 699.29
-38.39 699.10
4.00%
-38.40 698.55
-35.34 697.63
0.44%
0.00 698.38
GAS
36.98 699.88
37.87 700.11
34.98 699.80
4.00%
4.00:1
34.98 698.22
R/W

10 + 50

SAN
GAS
TEL
-30.71 698.95
-30.71 699.25
-24.94 698.78
2.88%
3.35%
2.49%
0.00 698.66
-24.94 697.82
22.44 699.58
20.38 699.66
4.00%
3.00:1
36.80 700.08
20.38 698.15
R/W

10 + 44.61

TEL
-29.94 698.99
-29.94 699.28
1.40%
0.15%
0.00 698.45
-23.99 698.11
21.50 699.60
19.50 699.68
4.00%
3.00:1
35.96 700.39
19.50 698.42
R/W

10 + 25

TLE
R/W
-31.86 699.37
-24.00 699.71
-22.00 699.79
4.00%
2.60:1
1.55%
0.72%
0.00 698.81
-22.00 698.47
25.14 698.79
3.00:1
21.10 698.66
TLE
R/W

10 + 00

R/W
-21.50 700.23
-19.50 700.31
-28.18 699.18
4.00%
3.00:1
1.80%
1.43%
-0.00 699.32
-19.50 698.97
24.21 699.44
3.00:1
20.40 699.03
R/W

9 + 80.27

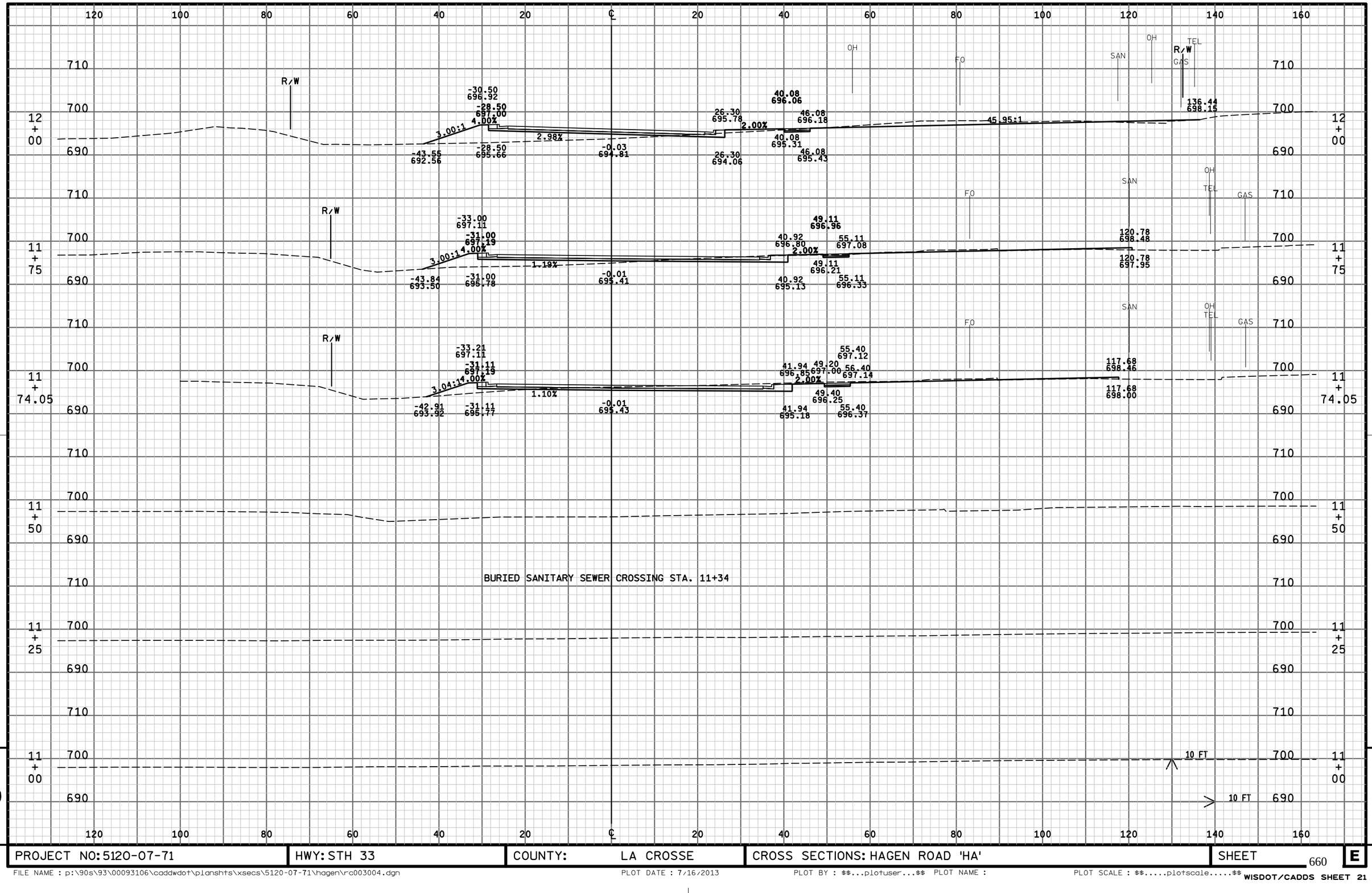
R/W
-23.52 699.32
4.00:1
2.00%
2.00%
0.00 699.62
-22.38 699.17
20.92 699.61
3.00:1
19.62 699.22
R/W

10 FT
10 FT

9

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: HAGEN ROAD 'HA'	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\xsecs\5120-07-71\hagen\rc002004.dgn PLOT DATE : 7/16/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

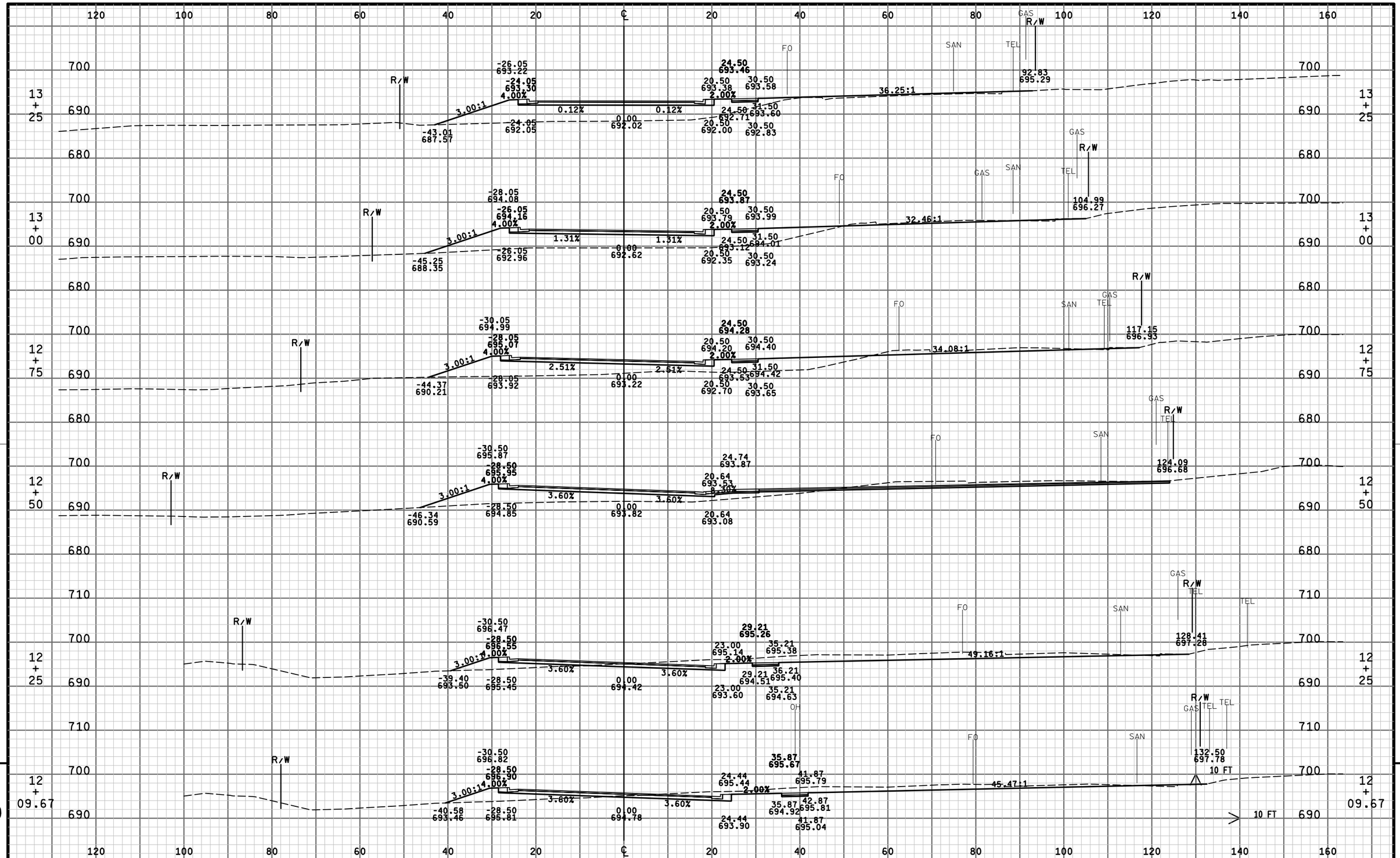


PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: HAGEN ROAD 'HA'	SHEET	E

660

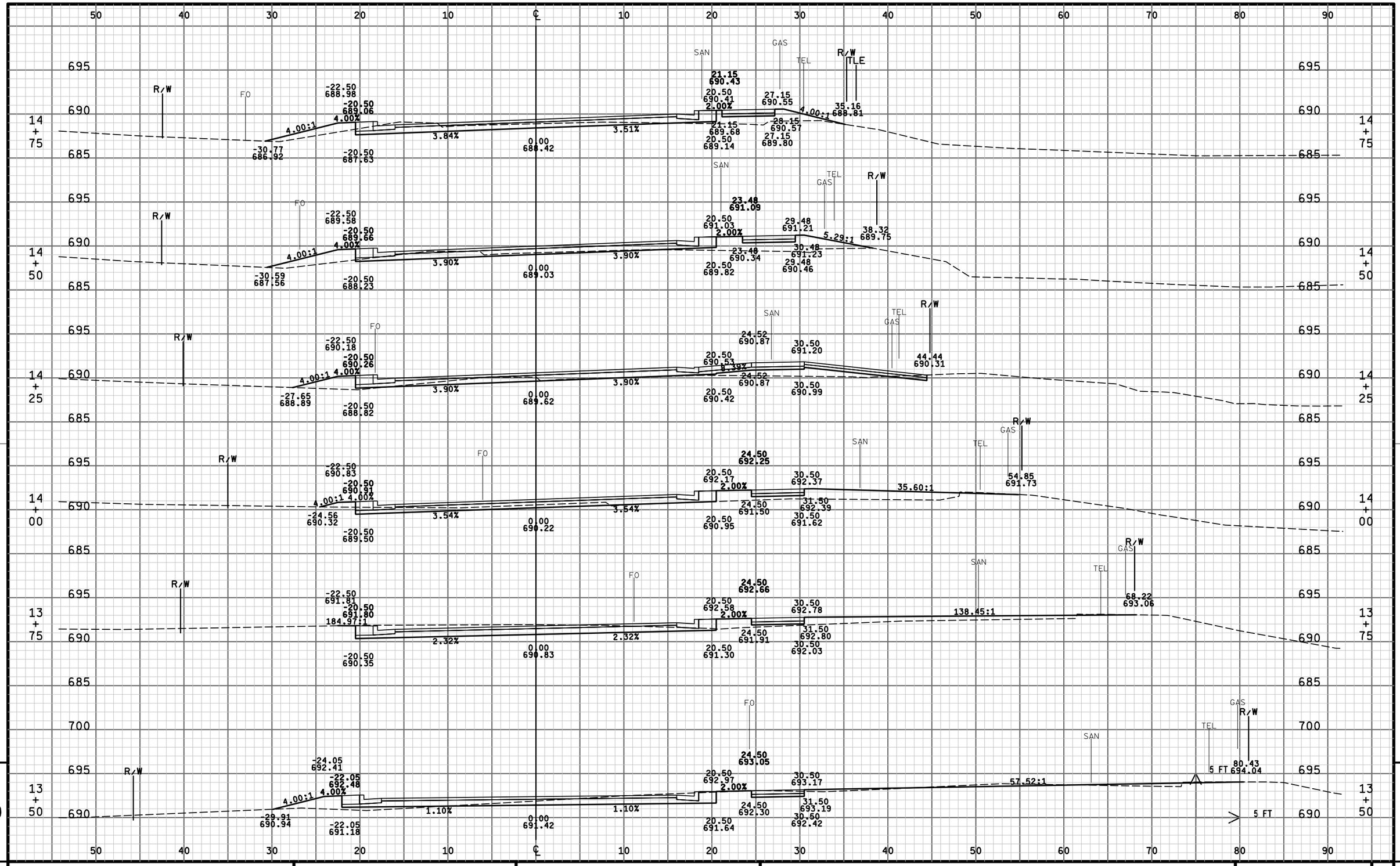
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WISDOT/CADDS SHEET 21



9

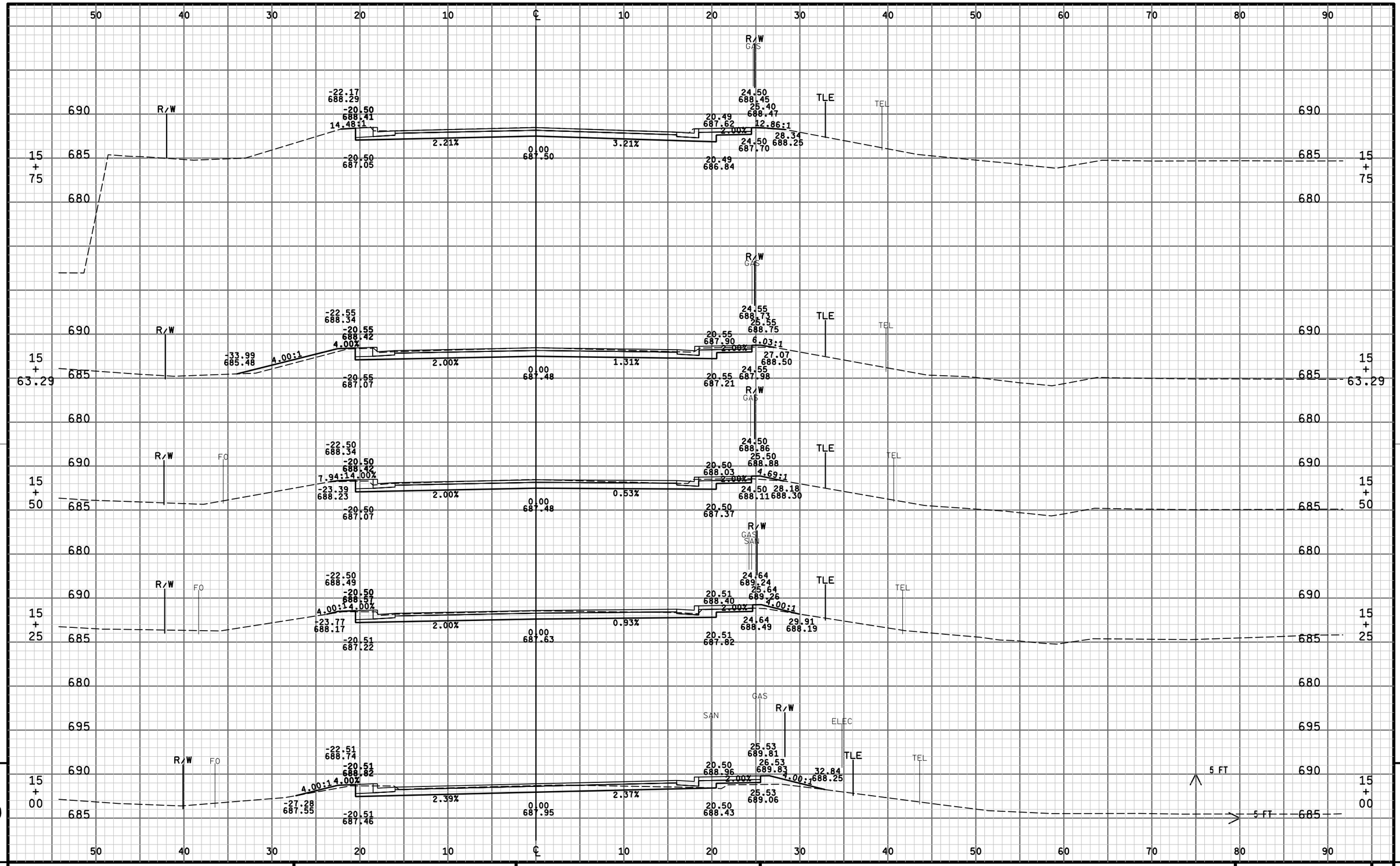
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: HAGEN ROAD 'HA'	SHEET 661	E



9

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: HAGEN ROAD 'HA'	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\xsecs\5120-07-71\hagen\rc005004.dgn PLOT DATE : 7/16/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

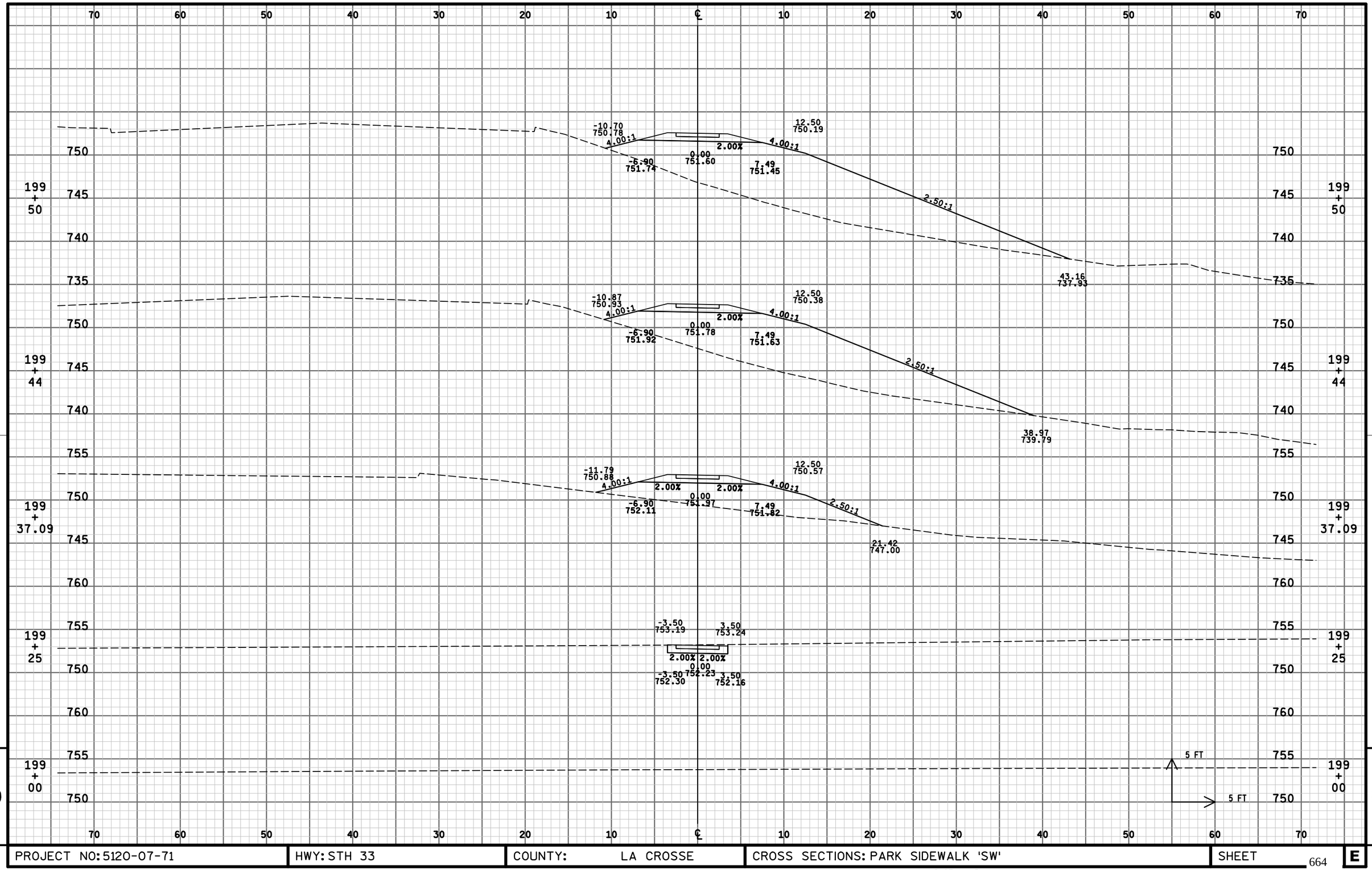


9

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: HAGEN ROAD 'HA'	SHEET	E

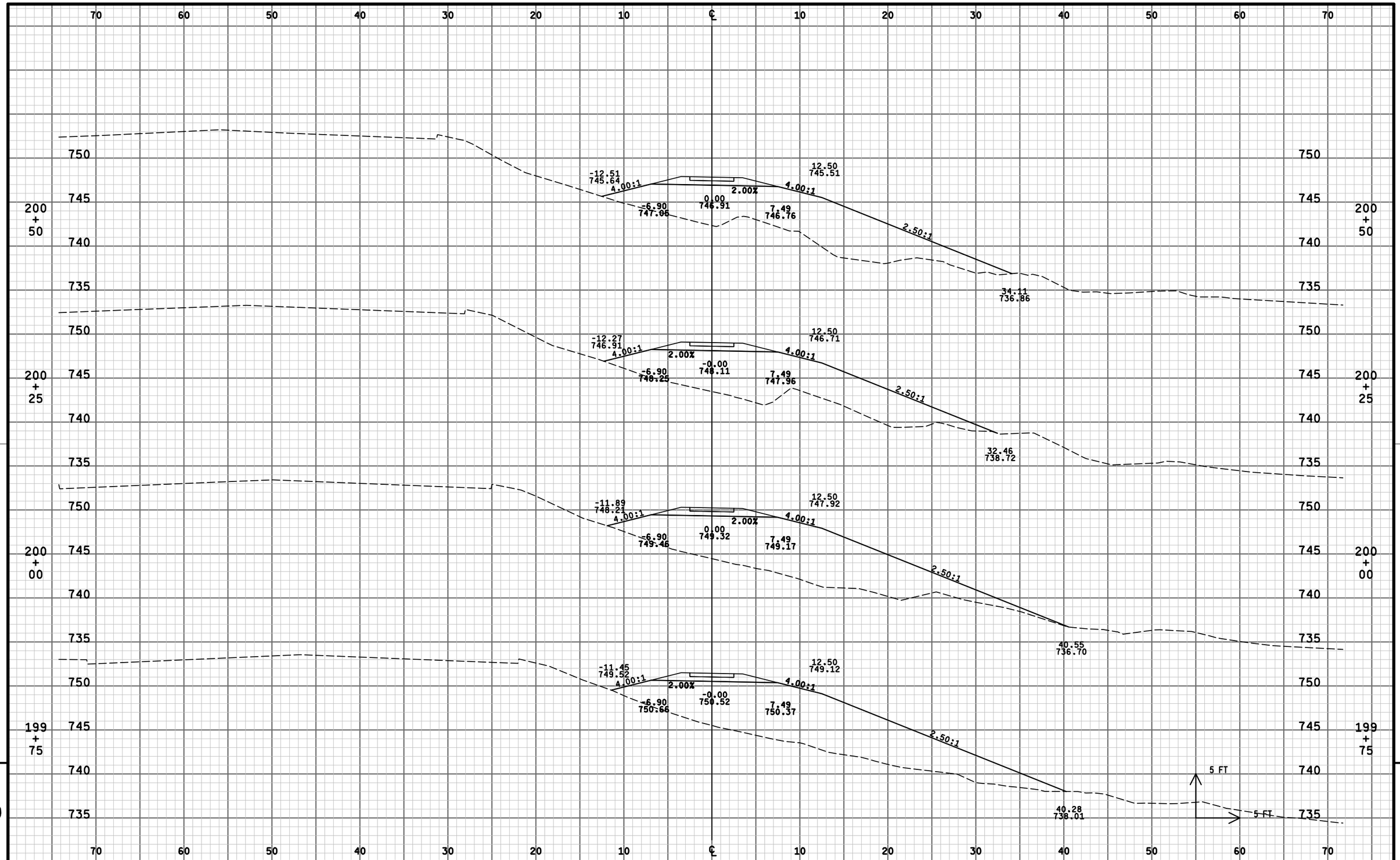
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WISDOT/CADDS SHEET 21



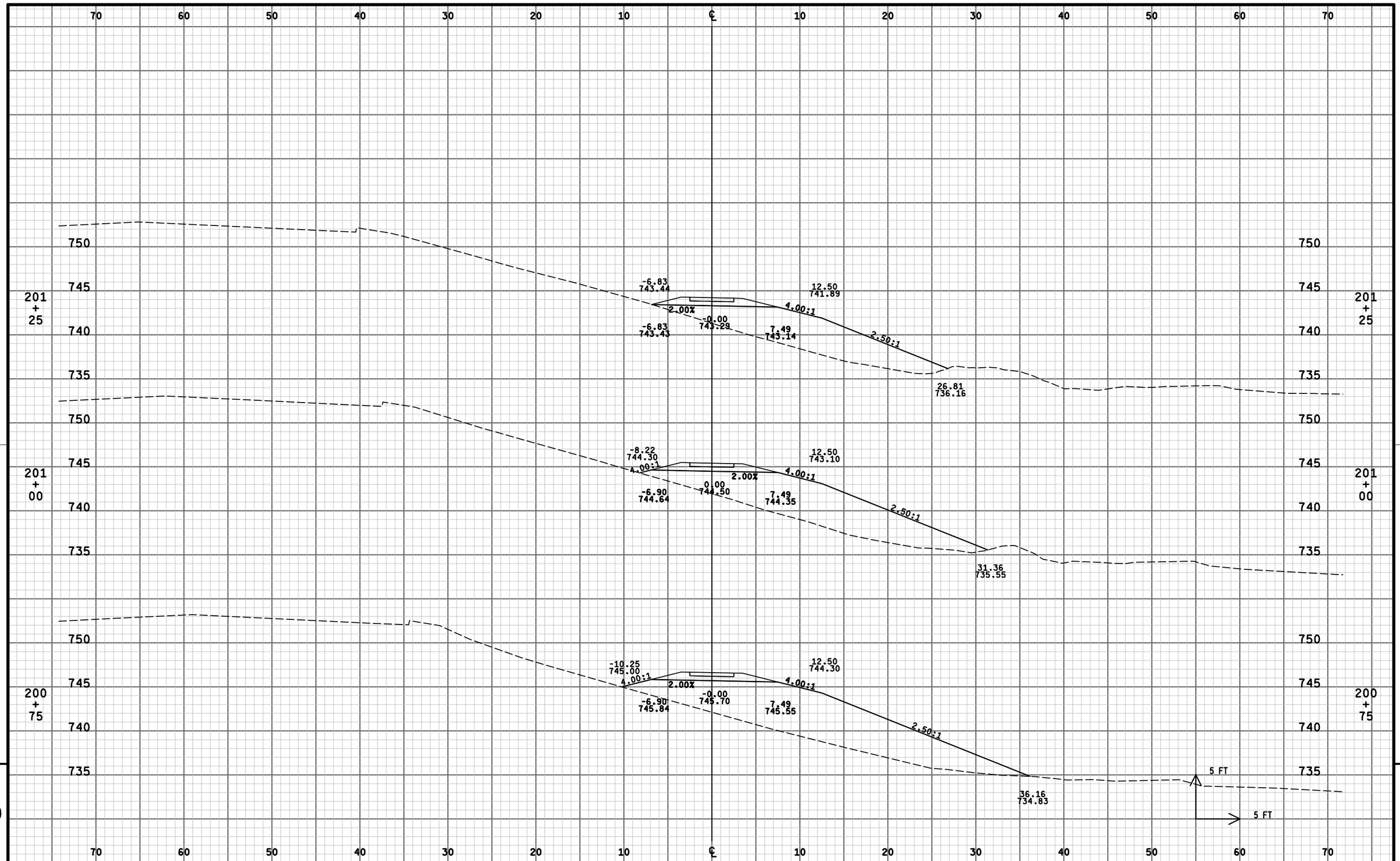
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: PARK SIDEWALK 'SW'	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\Sidewalk\rc001014.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: PARK SIDEWALK 'SW'	SHEET E

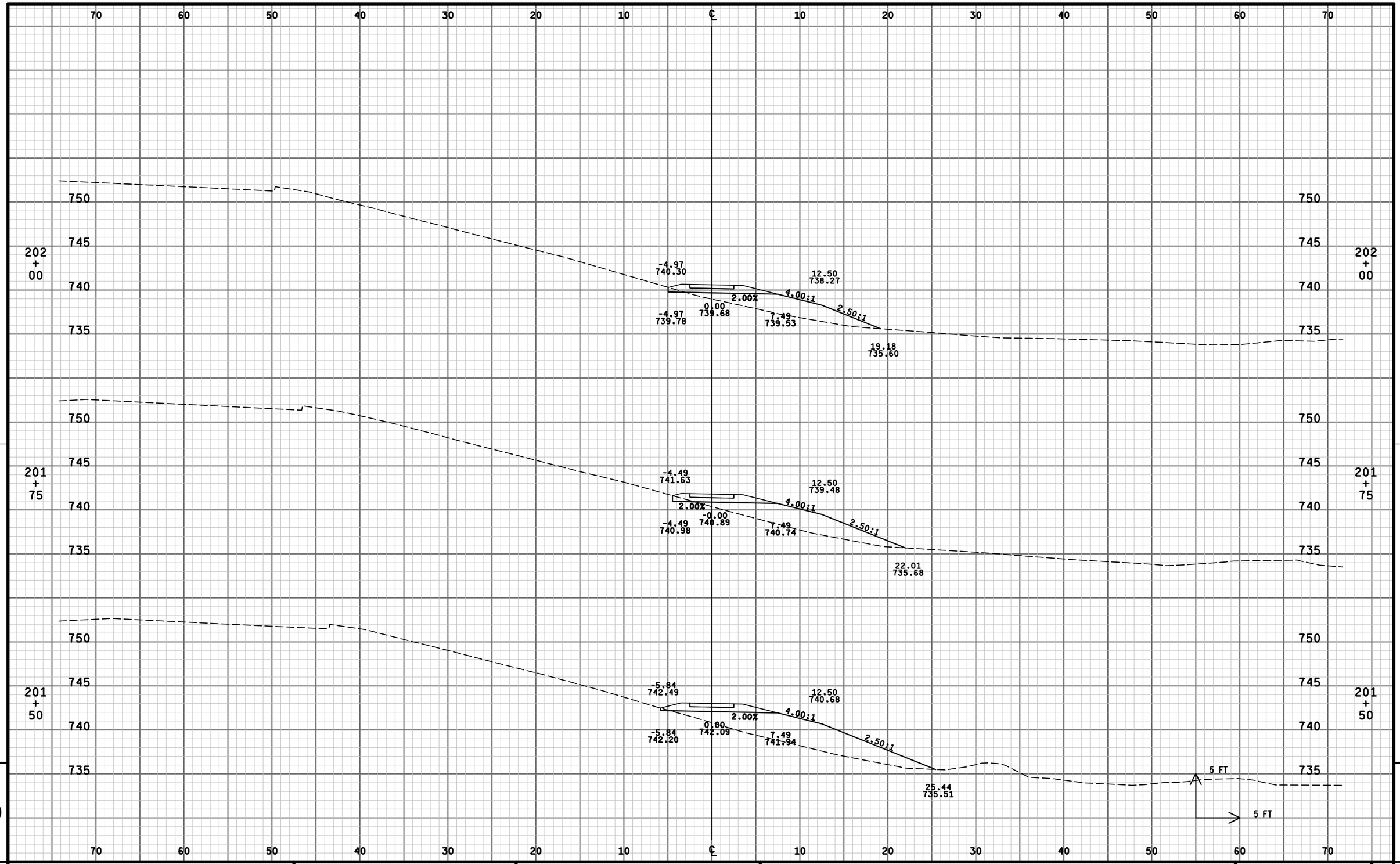
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9 9

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: PARK SIDEWALK 'SW'	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\Sidewalk\rc003014.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



9

9

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: PARK SIDEWALK 'SW'	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\Sidewalk\rc004014.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

750 745 740 735

202 + 86.14

-4.30 737.70
4.00:1
3.71 737.31
2.00% 2.00%
0.00
-3.50 736.59
736.52
3.71 736.44

202 + 75

-3.65 737.63
4.00:1
2.00%
0.00
-3.65 736.75
736.68
736.53

202 + 50

-3.96 738.22
12.50 735.95
4.00:1
2.50:1
2.00%
-0.00 737.35
-3.96 737.43
7.49 737.20
13.81 735.42

202 + 25

-5.06 739.07
12.50 737.07
4.00:1
2.50:1
2.00%
0.00 738.48
-5.06 738.58
7.49 738.33
17.03 735.26

5 FT
5 FT

9

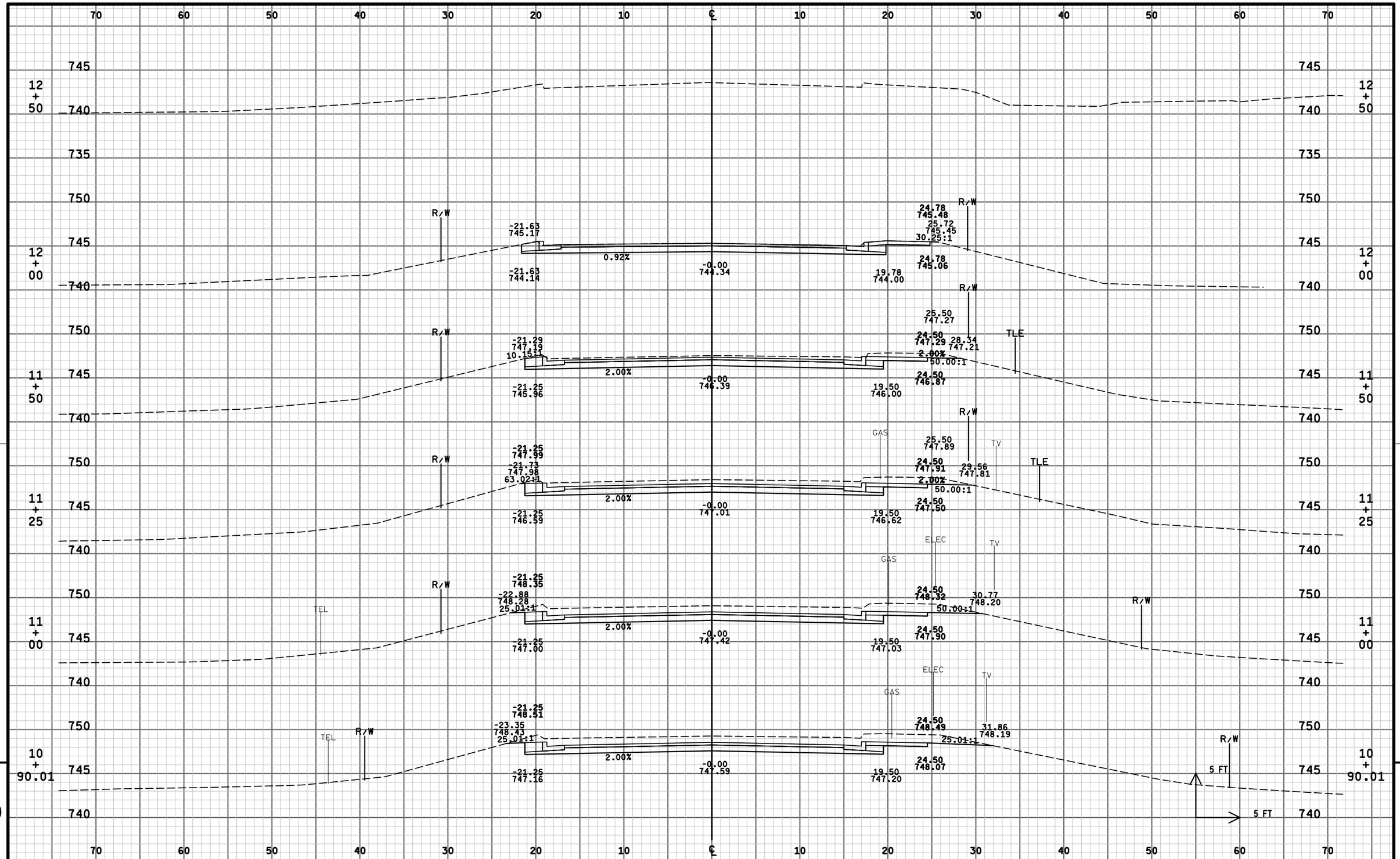
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: PARK SIDEWALK 'SW'	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\Sidewalk\rc005014.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

TV UTILITY CROSSING STA. 10+63S
ELECTRIC UTILITY CROSSING STA. 10+57S

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: SOUTHDALE DRIVE 'S'	SHEET E

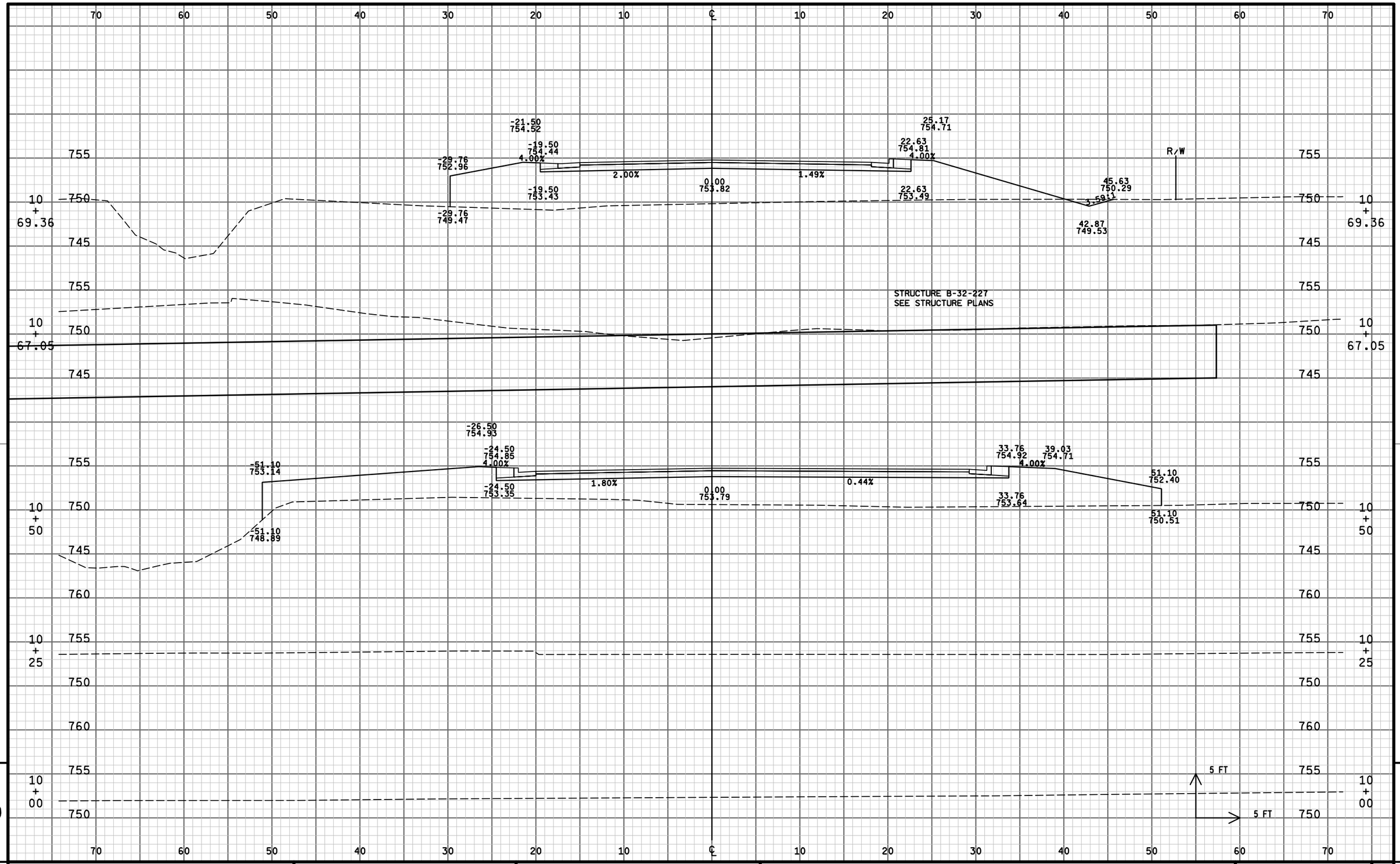
FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\Southdale\rc001006.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: SOUTHDALE DRIVE 'S'	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\Southdale\rc002006.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21



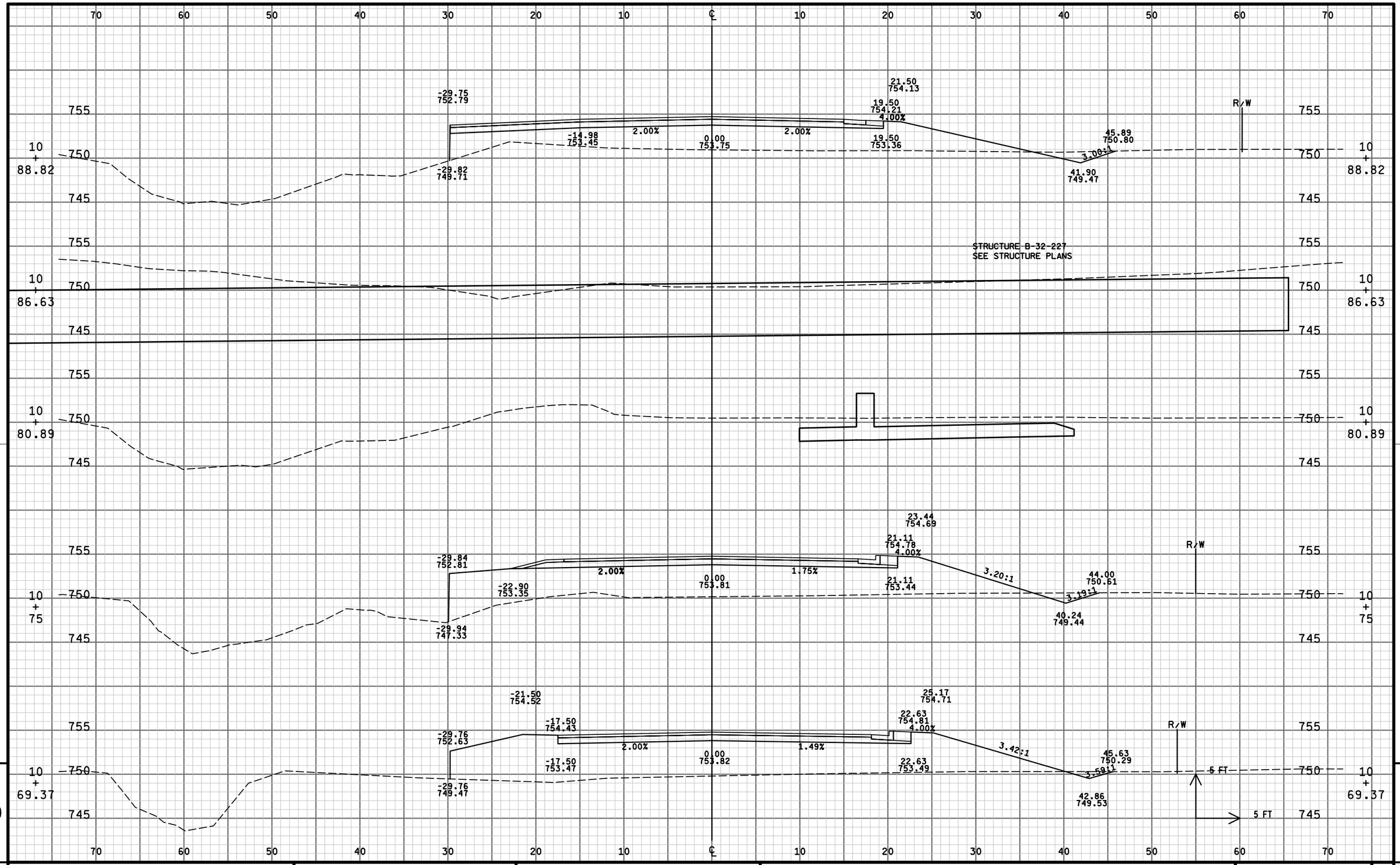
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: BOMA ROAD 'B'	SHEET	E

9

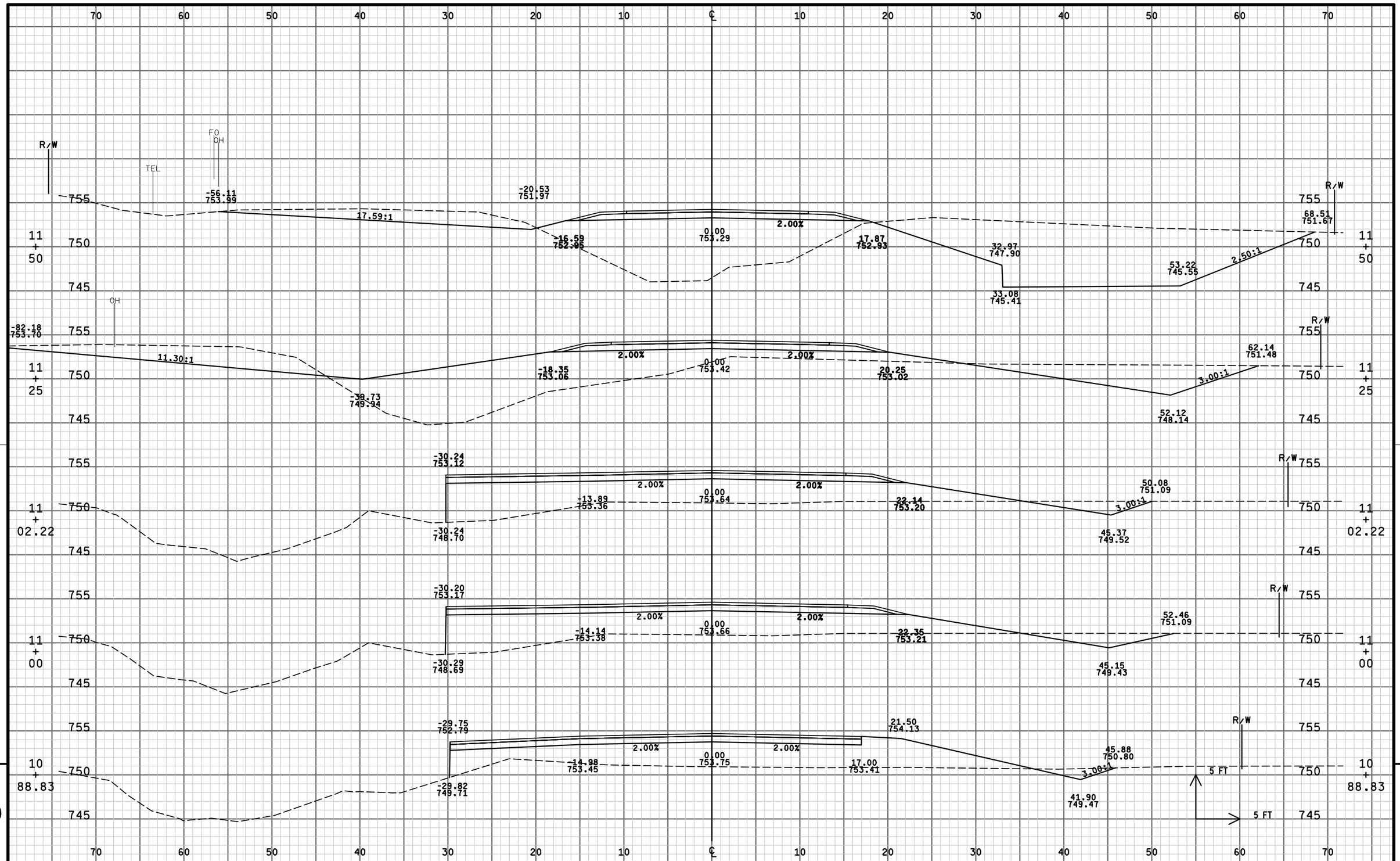
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WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: BOMA ROAD 'B'	SHEET 672	E



9

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: BOMA ROAD 'B'	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\Boma\rc003007.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

775 770 765 760 755 750 745

12 + 25

R/W

-27.48
755.12

3.51:1

-20.25
753.06

-15.91
754.14

2.00%

0.00
754.46

15.91
754.14

3.12:1

38.99
746.74

2.56:1

54.11
752.66

R/W

12 + 00

-34.91
755.19

5.59:1

-20.09
752.54

-15.91
753.59

2.00%

-0.00
753.91

15.91
753.59

3.14:1

38.77
746.32

43.63
746.32

2.50:1

59.72
752.76

R/W

11 + 75

R/W

TEL

FO

-41.42
754.05

11.13:1

-19.93
752.12

-15.91
753.13

2.00%

-0.00
753.44

15.91
753.13

2.93:1

37.16
745.87

50.03
745.92

5 FT

2.50:1

65.46
752.09

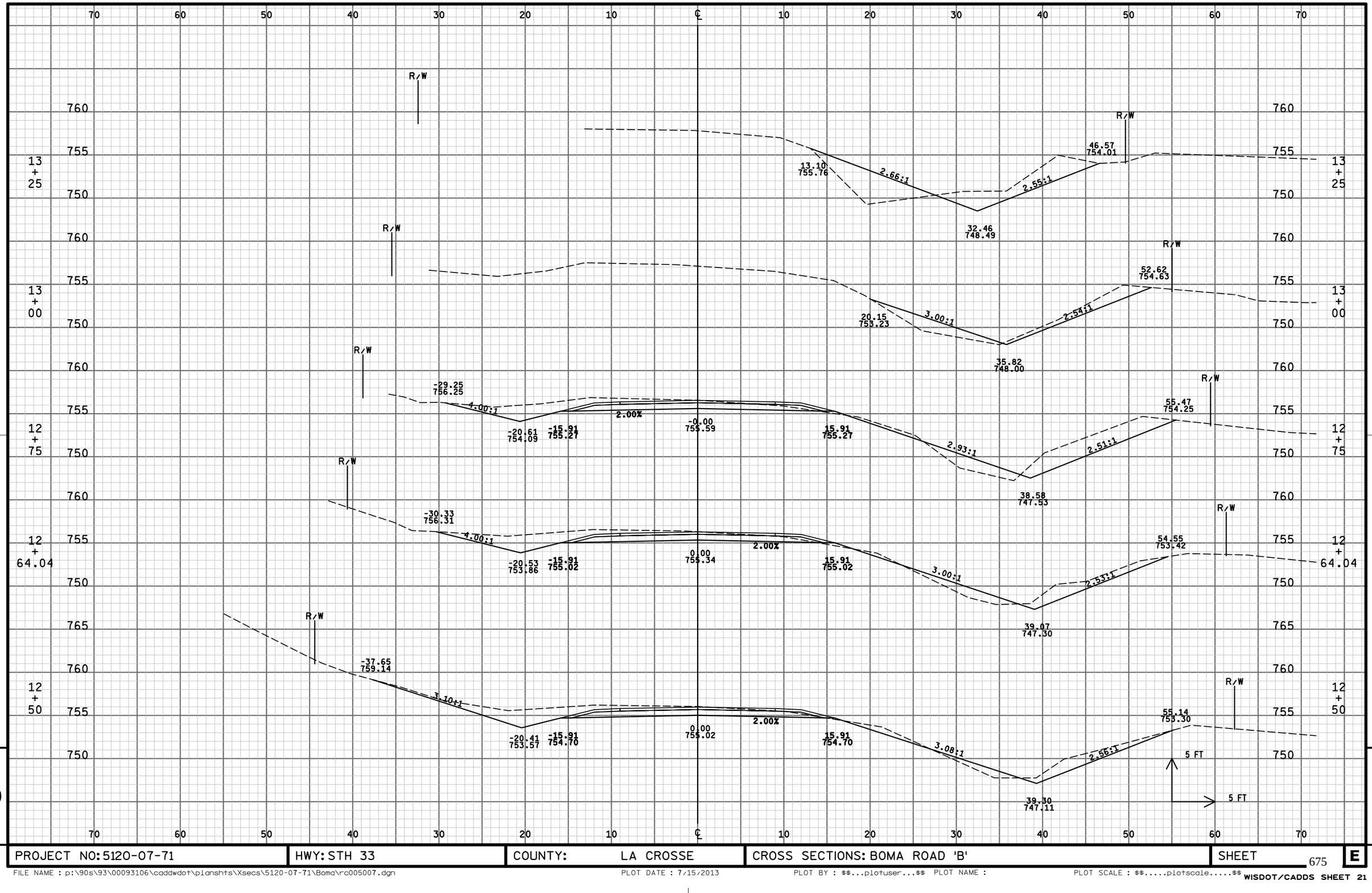
R/W

5 FT

9

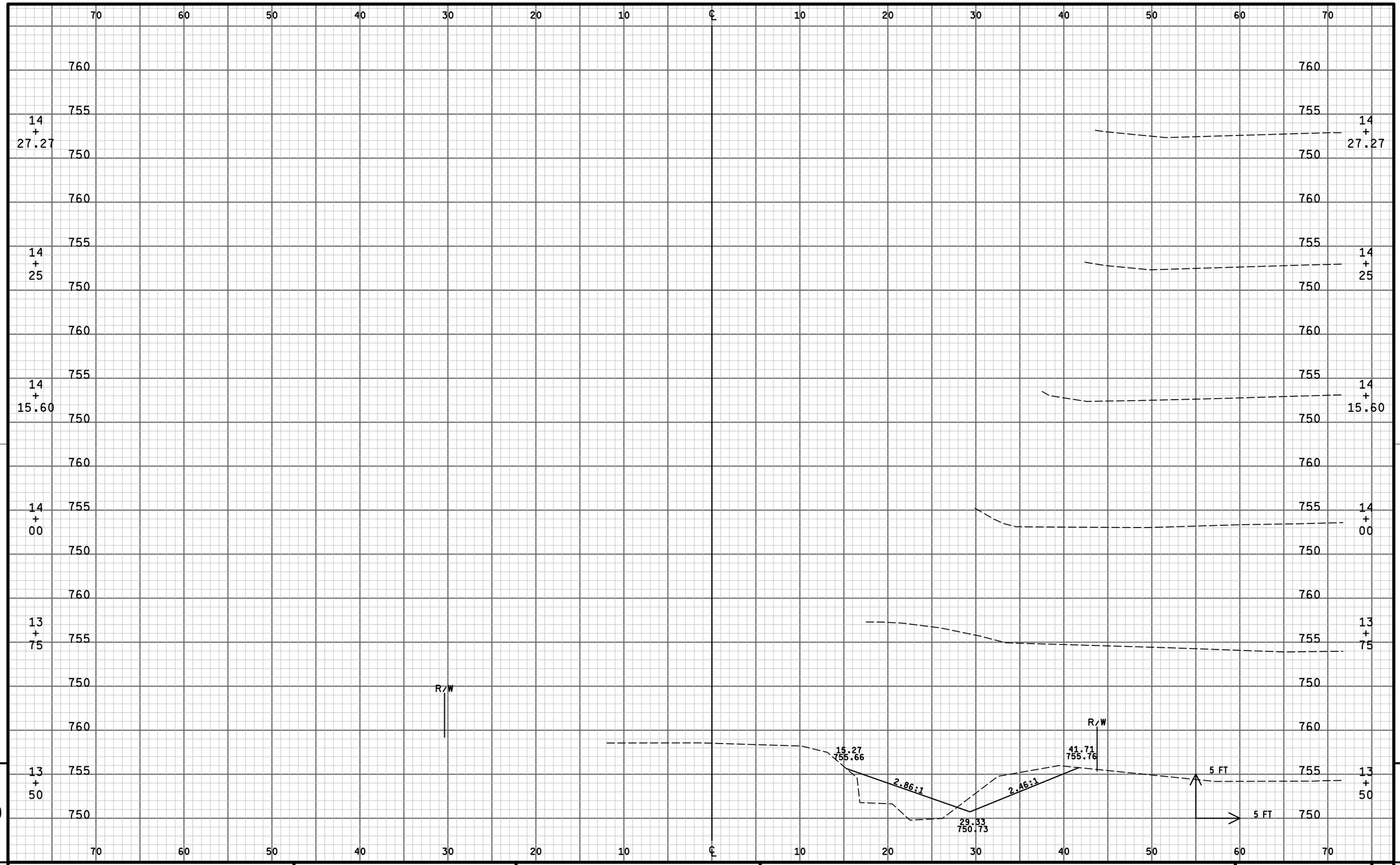
PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: BOMA ROAD 'B'	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\Boma\rc004007.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: BOMA ROAD 'B'	SHEET	E

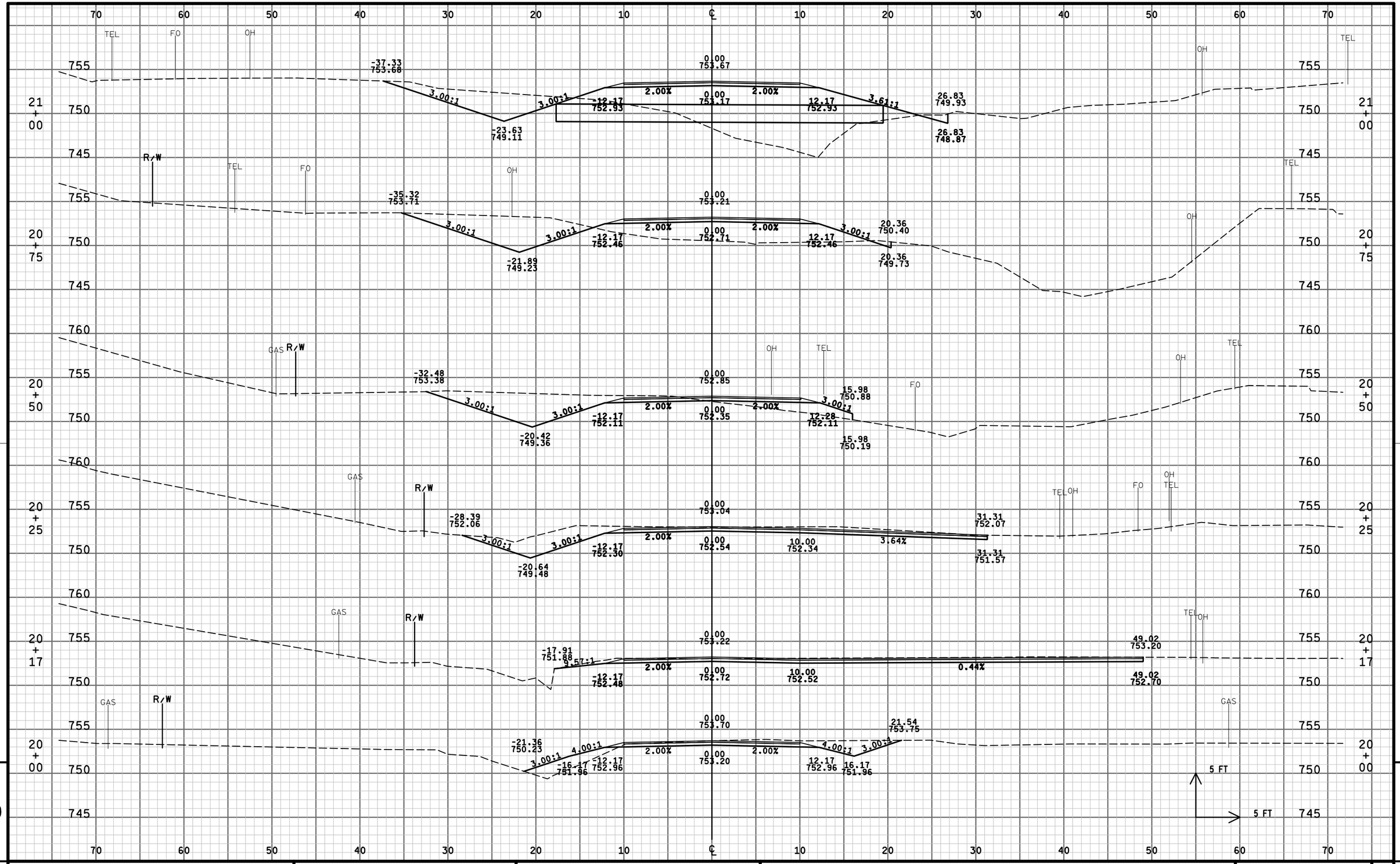
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9

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: BOMA ROAD 'B'	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\Boma\rc006007.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: EAGLE POINT 'EP'	SHEET 677	E

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

755
750
745
755
750
745
755
750
745
755
750
745

21 + 50.17
21 + 50
21 + 25
21 + 16.49

0.00
753.98
-32.43
749.98
6.23:1
-12.17
753.24
2.00%
0.00
753.48
2.00%
12.96
753.22
27.17:1
27.52
752.68
-32.43
748.60
27.52
748.44

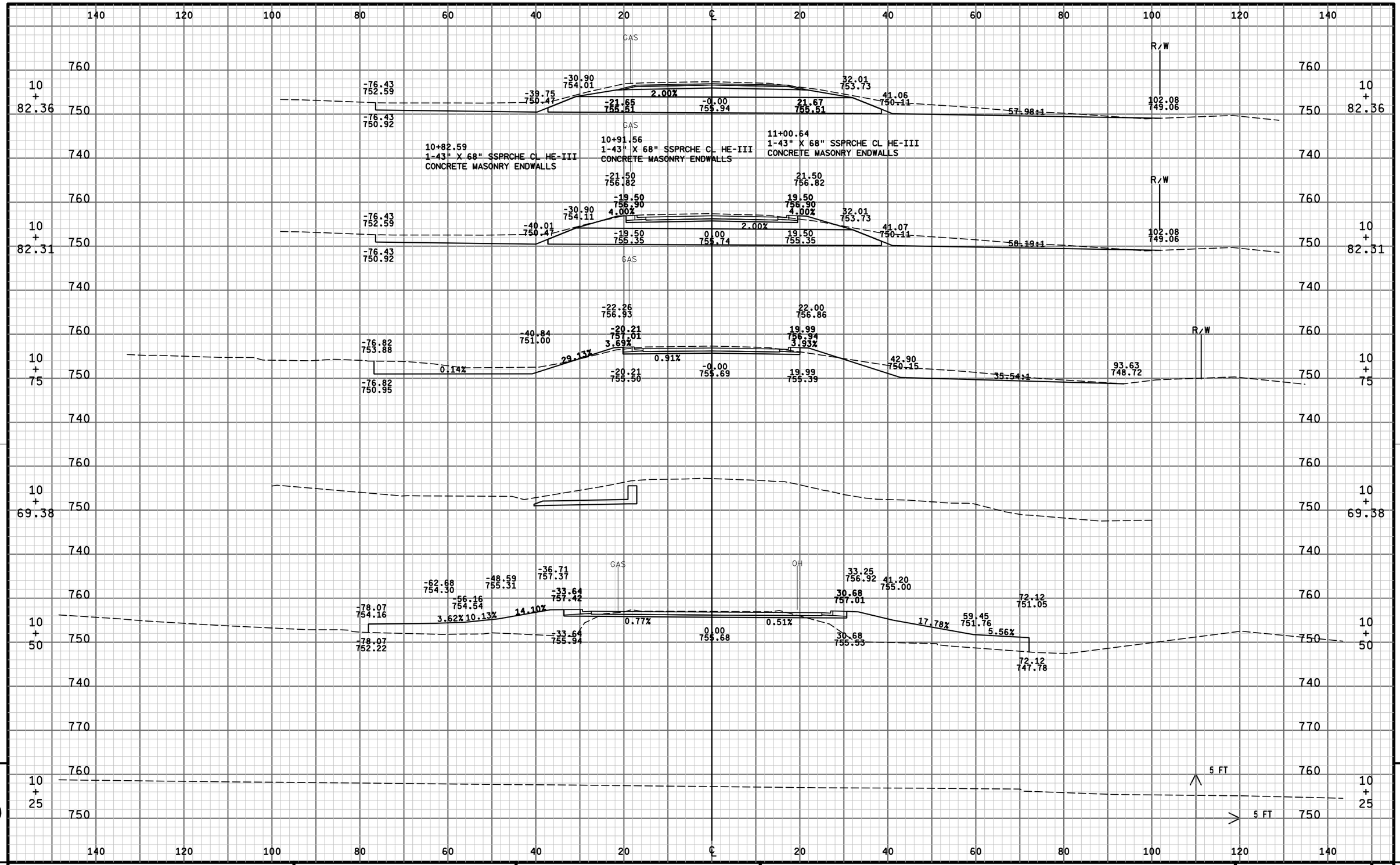
OH
5 FT
5 FT

9

PROJECT NO: 5120-07-71	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: EAGLE POINT 'EP'	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-71\Eagle Point Dr\rc002016.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: HORSESHOE PLACE 'HO'	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Horseshoe\rc001008.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

760 750 740 770

12 + 00 — 11 + 75 — 11 + 50 — 11 + 25 — 11 + 09 — 11 + 00

R/W

GAS

-61.27 755.13
-41.31 755.00
-32.98 755.93
17.07 756.73
2.00%
-58.20 755.00
-49.76 754.61
-22.76 756.08
-0.00 756.54
17.07 756.19

-77.56 754.31
-77.56 751.25
-39.46 751.00
-19.80 755.91
0.00 756.31
2.00%
27.18 755.46
15.46:1
20.35 755.90

-76.39 753.07
-76.39 750.95
-39.64 751.00
-20.59 755.76
0.00 756.17
2.00%
2.00%
21.87 755.74
33.06 752.01
23.73:1
124.18 748.17

-76.13 752.79
-76.13 750.92
-39.88 750.47
-31.02 754.01
-21.03 755.67
0.00 756.09
2.00%
22.73 755.64
31.89 753.73
40.95 750.11
52.54:1
117.29 748.66
5 FT
5 FT

9 9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: HORSESHOE PLACE 'HO'	SHEET 680 E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Horseshoe\rc002008.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

770 765 760

10 + 75

R/W

-38.03
762.29

4.00:1

-20.45
766.69

-18.45
766.77

4.00%

-18.45
765.42

2.00%

-0.00
765.79

3.42%

30.07
768.00

2.40%

32.67
768.06

4.47:1

30.07
766.82

44.28
765.46

10 + 61.01

-38.12
763.30

4.00:1

-21.50
767.46

-19.50
767.54

4.00%

-19.50
766.19

2.00%

0.00
766.58

4.70%

40.91
769.71

4.45%

43.95
769.84

4.28:1

OH

40.91
768.50

49.86
768.46

10 + 61

-38.12
763.30

4.00:1

-21.50
767.46

-19.50
767.54

4.00%

-19.50
765.98

-5.43
766.76

2.00%

-5.43
766.26

0.02
766.87

4.04
767.06

4.04
766.55

4.70%

40.92
769.71

4.46%

43.96
769.84

4.27:1

OH

40.92
768.28

49.86
768.46

OVERHEAD UTILITY CROSSING STA. 10+53I

10 + 50

-39.77
764.02

4.66:1

OH

-24.21
767.36

-22.05
767.44

4.00%

-22.05
765.73

GAS

-17.37
766.48

5.42%

-17.15
765.98

5.42%

0.03
767.42

5.42%

18.24
768.41

18.24
767.91

5.42%

GAS

57.29
771.54

53.09
771.28

6.32%

58.94
771.44

53.09
769.80

58.94
768.85

GAS UTILITY CROSSING STA. 10+43I

10 + 25

5 FT

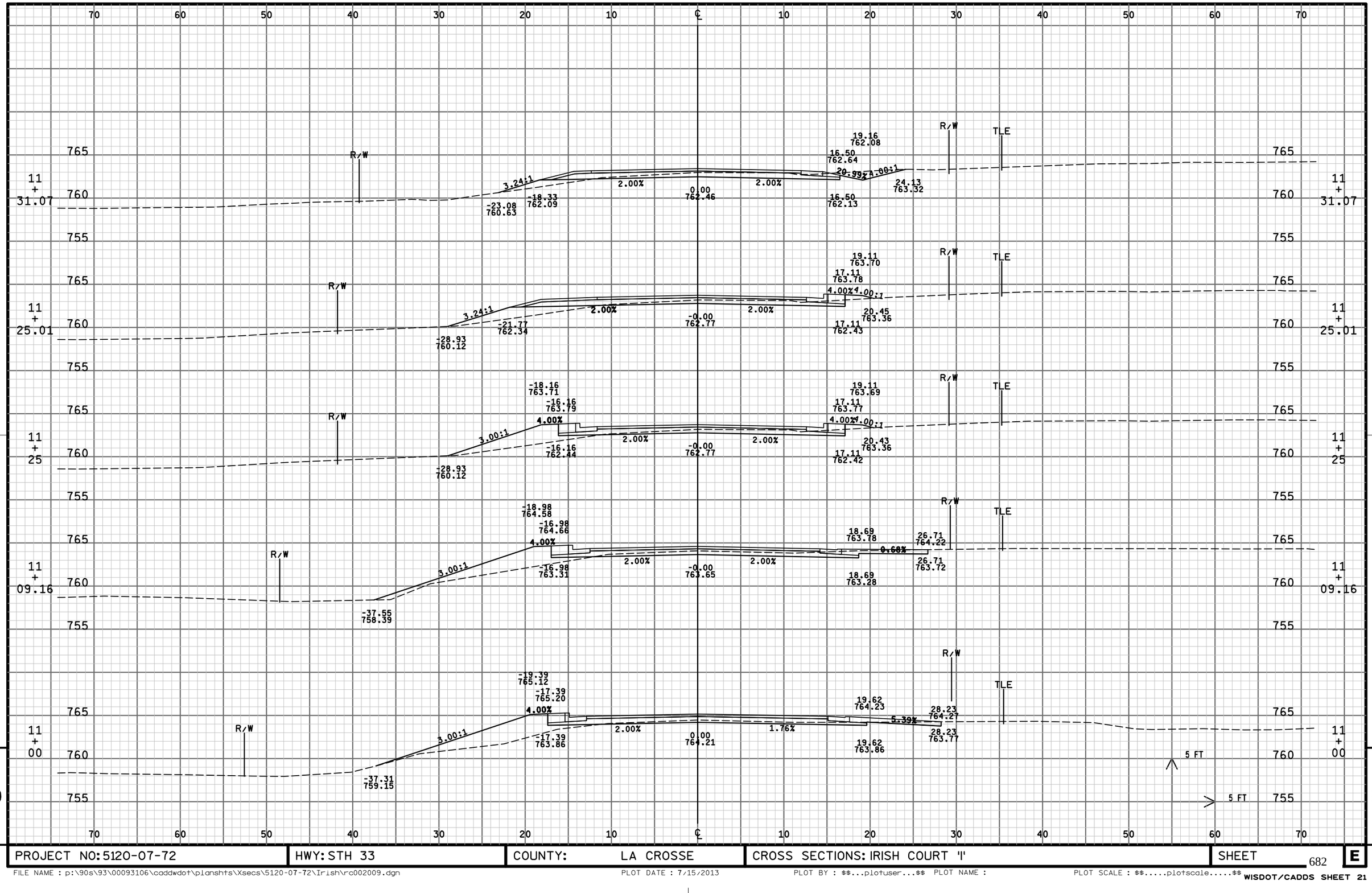
5 FT

9

PROJECT NO: 5120-07-72 | HWY: STH 33 | COUNTY: LA CROSSE | CROSS SECTIONS: IRISH COURT 'I' | SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Irish\rc001009.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

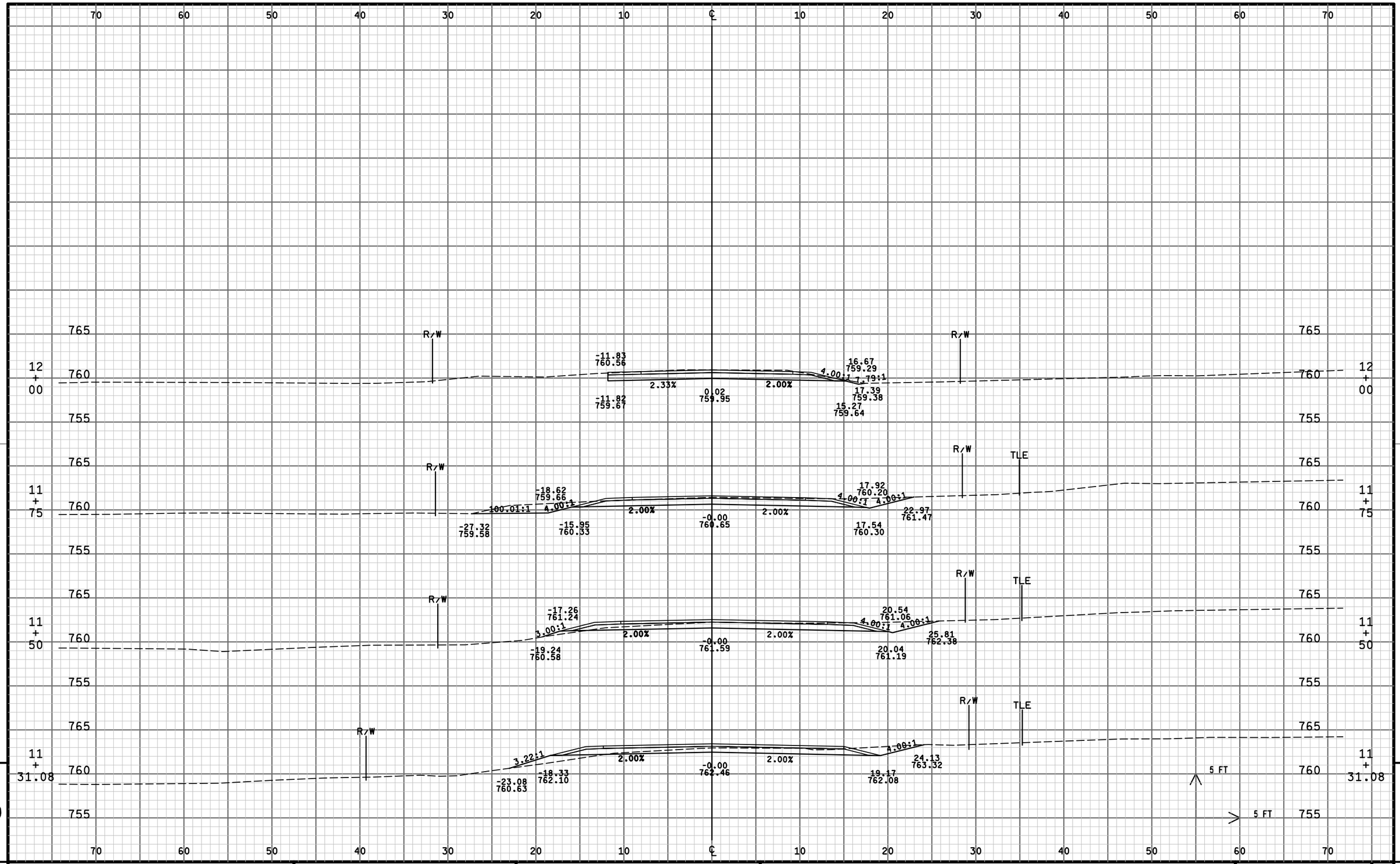
WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: IRISH COURT 'I'	SHEET 682	E

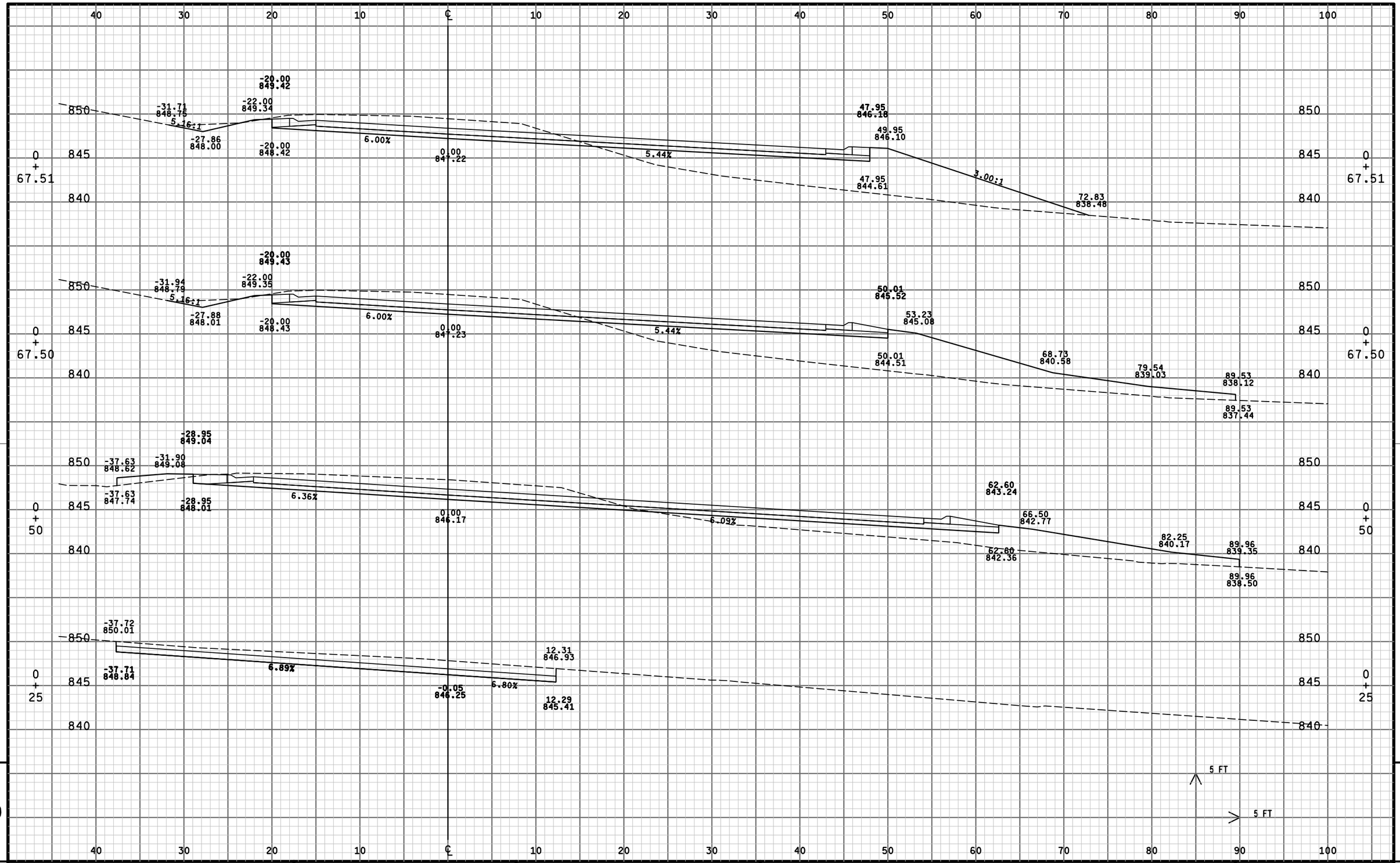
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WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: IRISH COURT 'I'	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Irish\rc003009.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



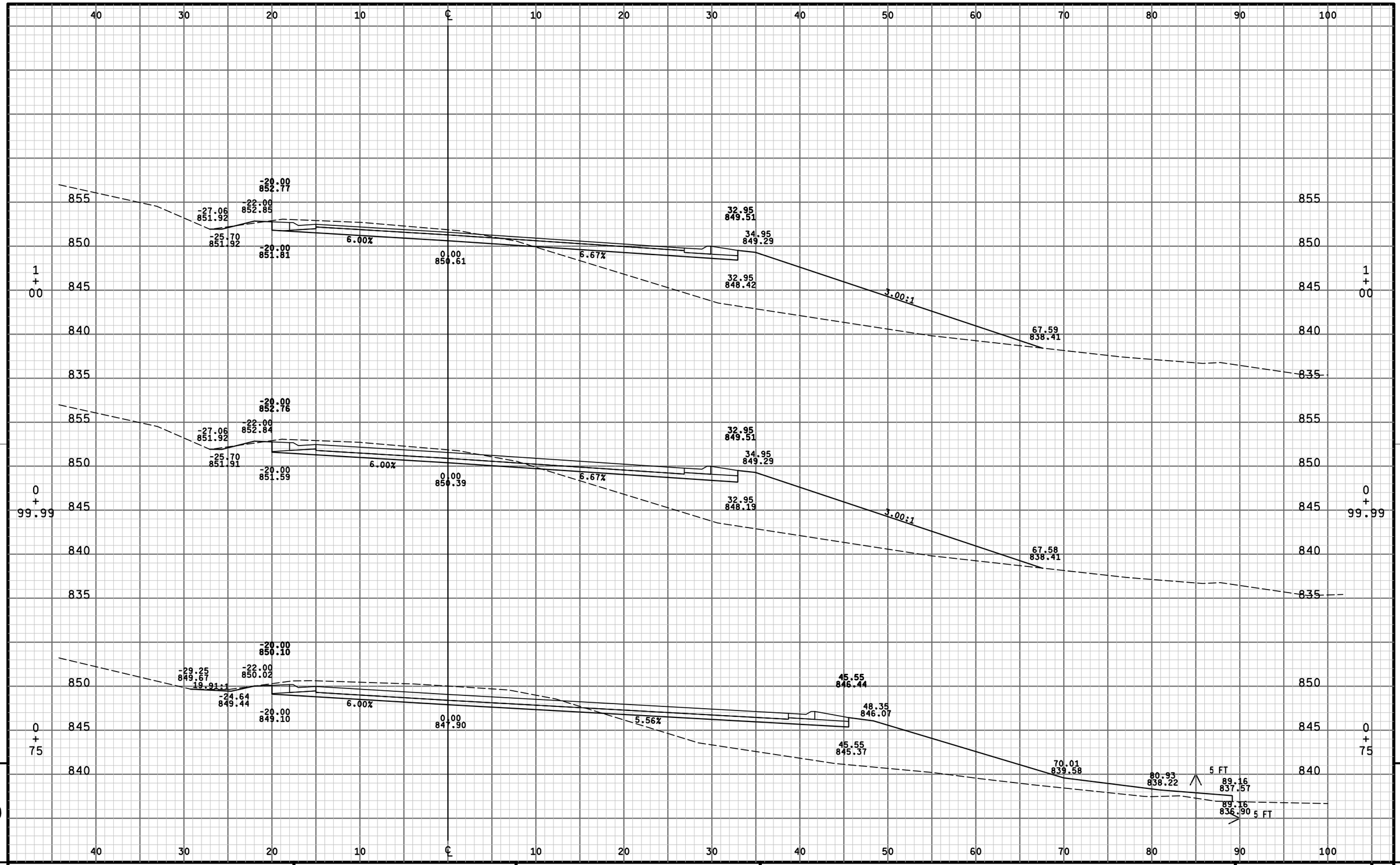
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9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: NORSEMAN DRIVE 'N'	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Norsemen\rc001010.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

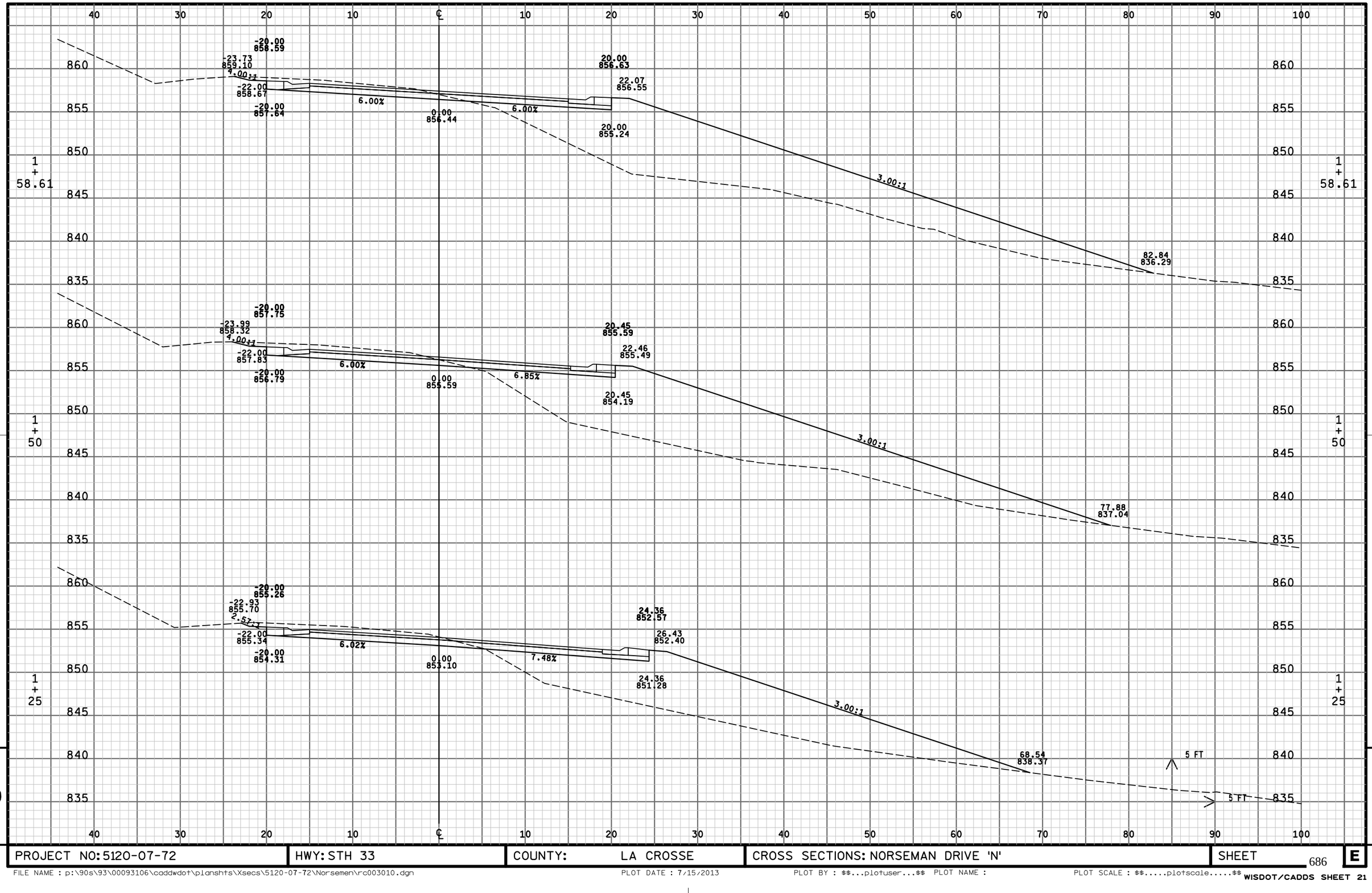
WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: NORSEMAN DRIVE 'N'	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Norsemen\rc002010.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

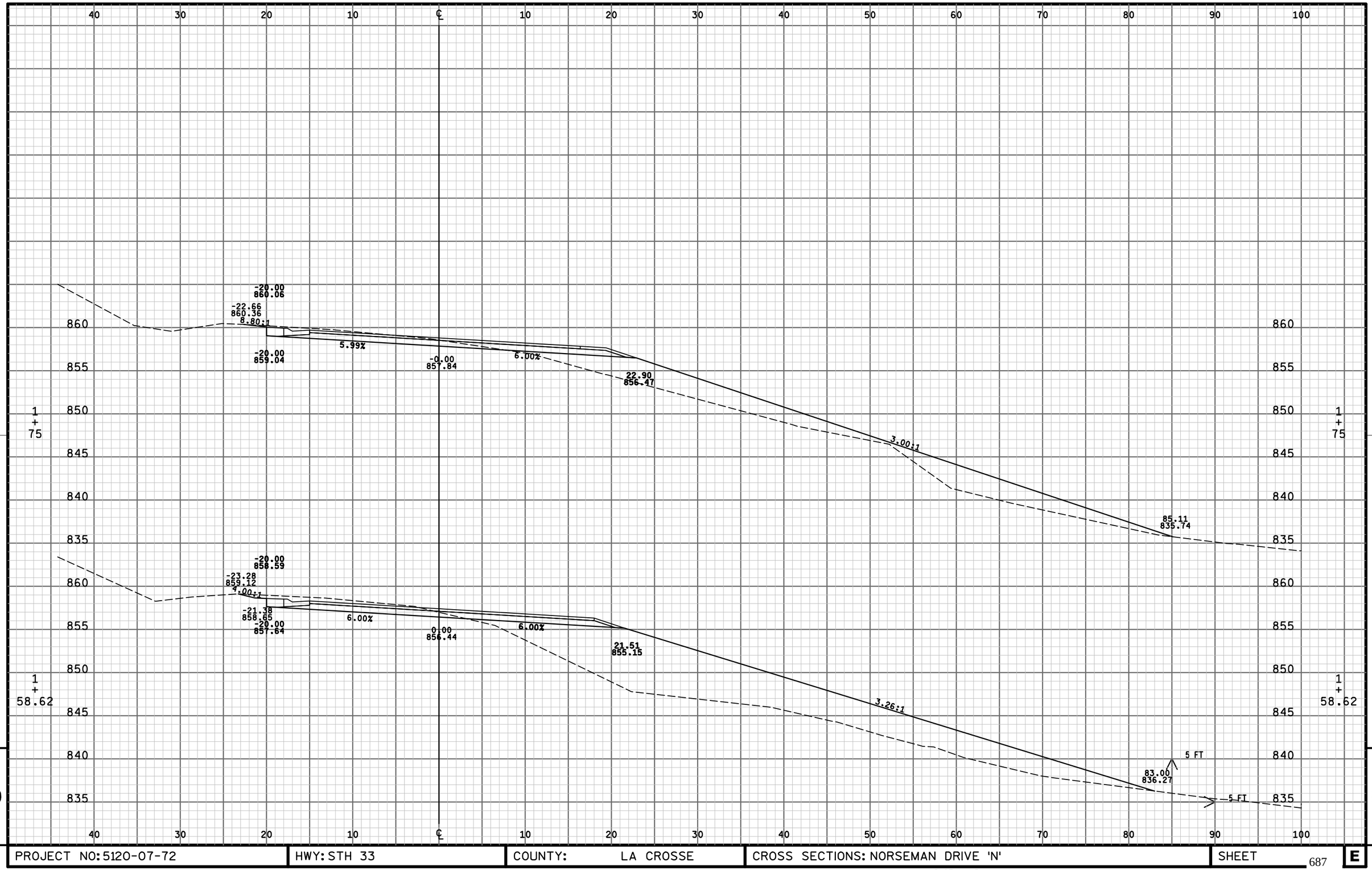
WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: NORSEMAN DRIVE 'N'	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Norsemen\rc003010.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

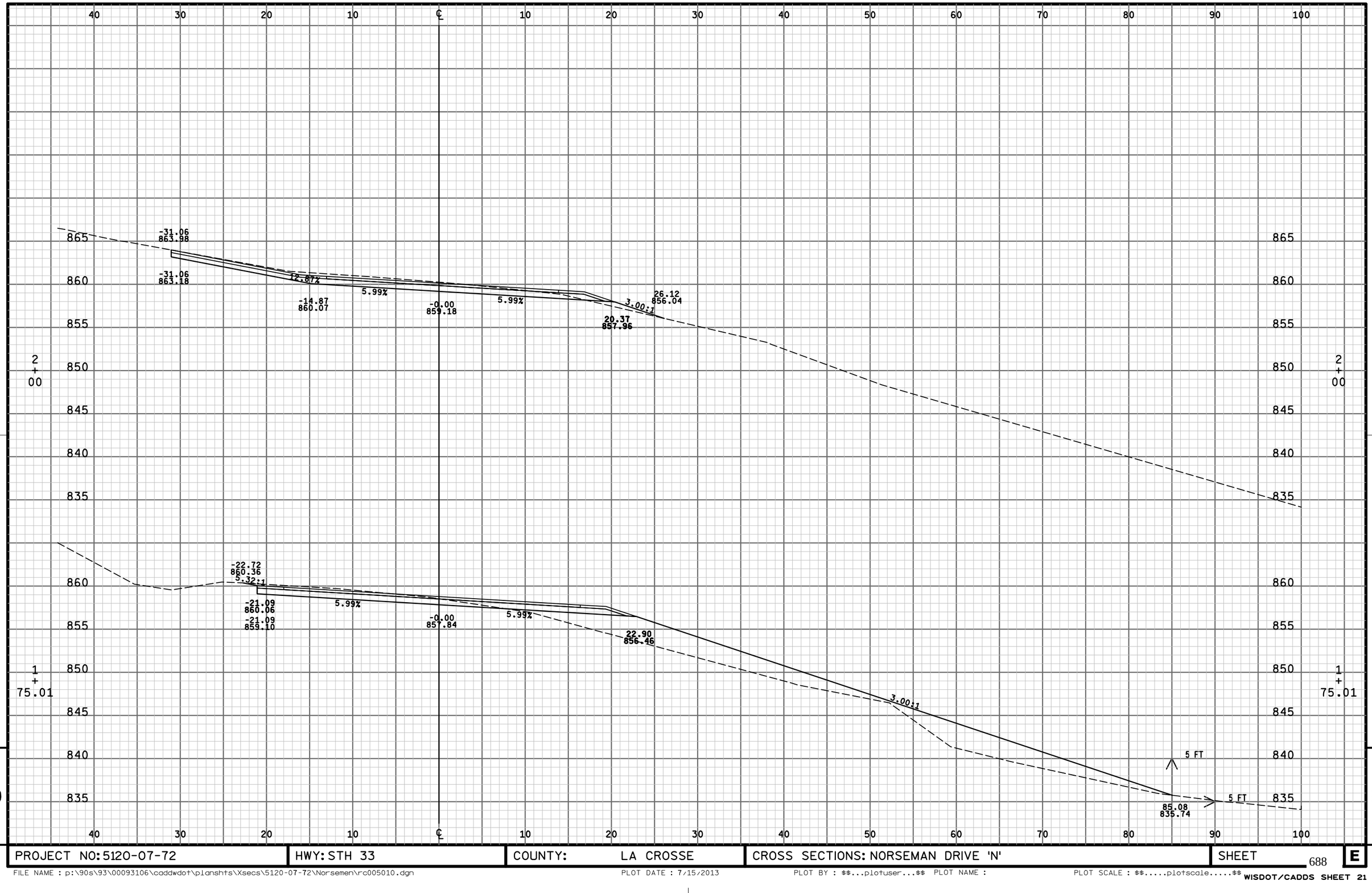
WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: NORSEMAN DRIVE 'N'	SHEET 687 E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Norsemen\rc004010.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

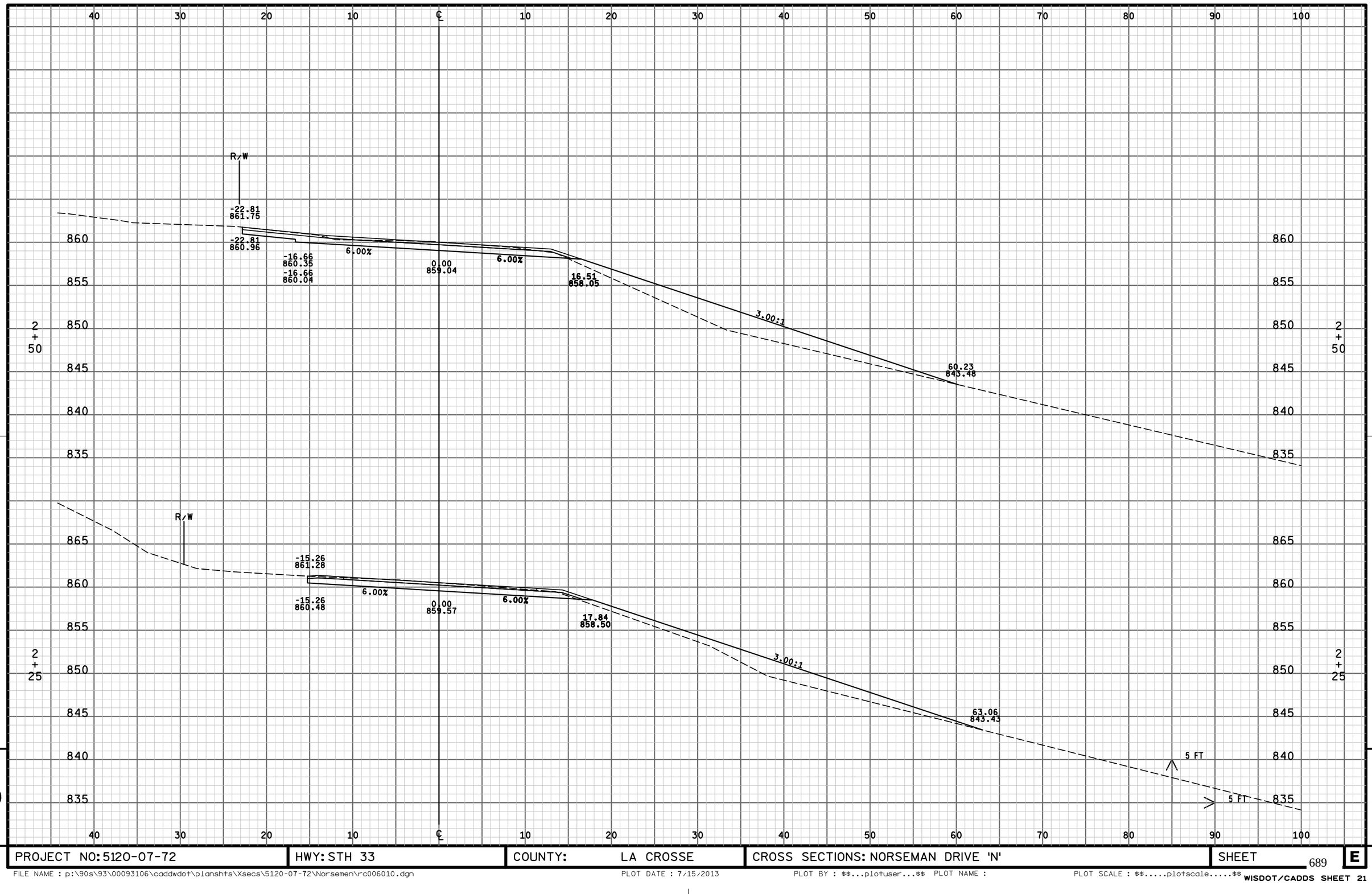


9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: NORSEMAN DRIVE 'N'	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Norsemen\rc005010.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

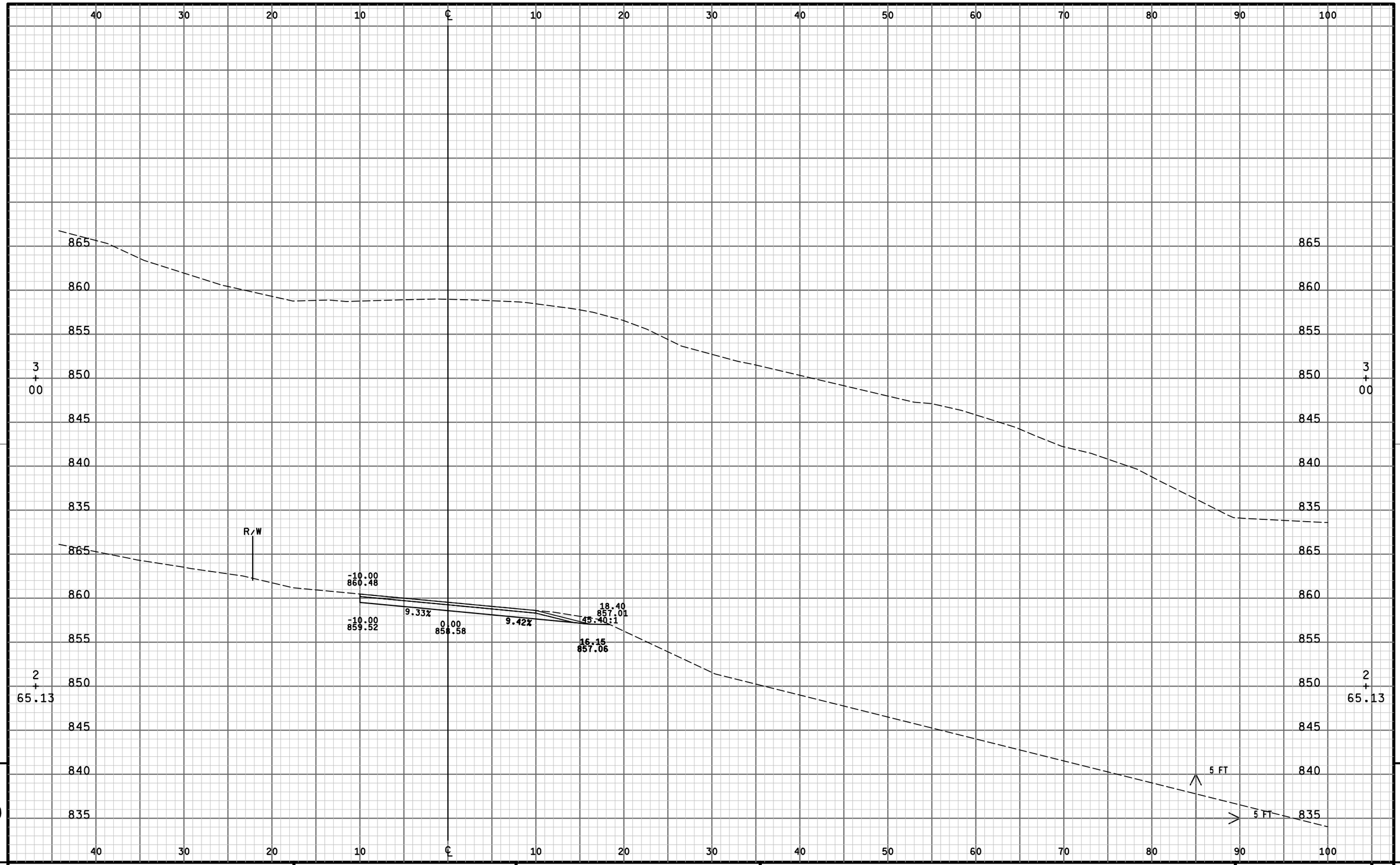


9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: NORSEMAN DRIVE 'N'	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Norsemen\rc006010.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

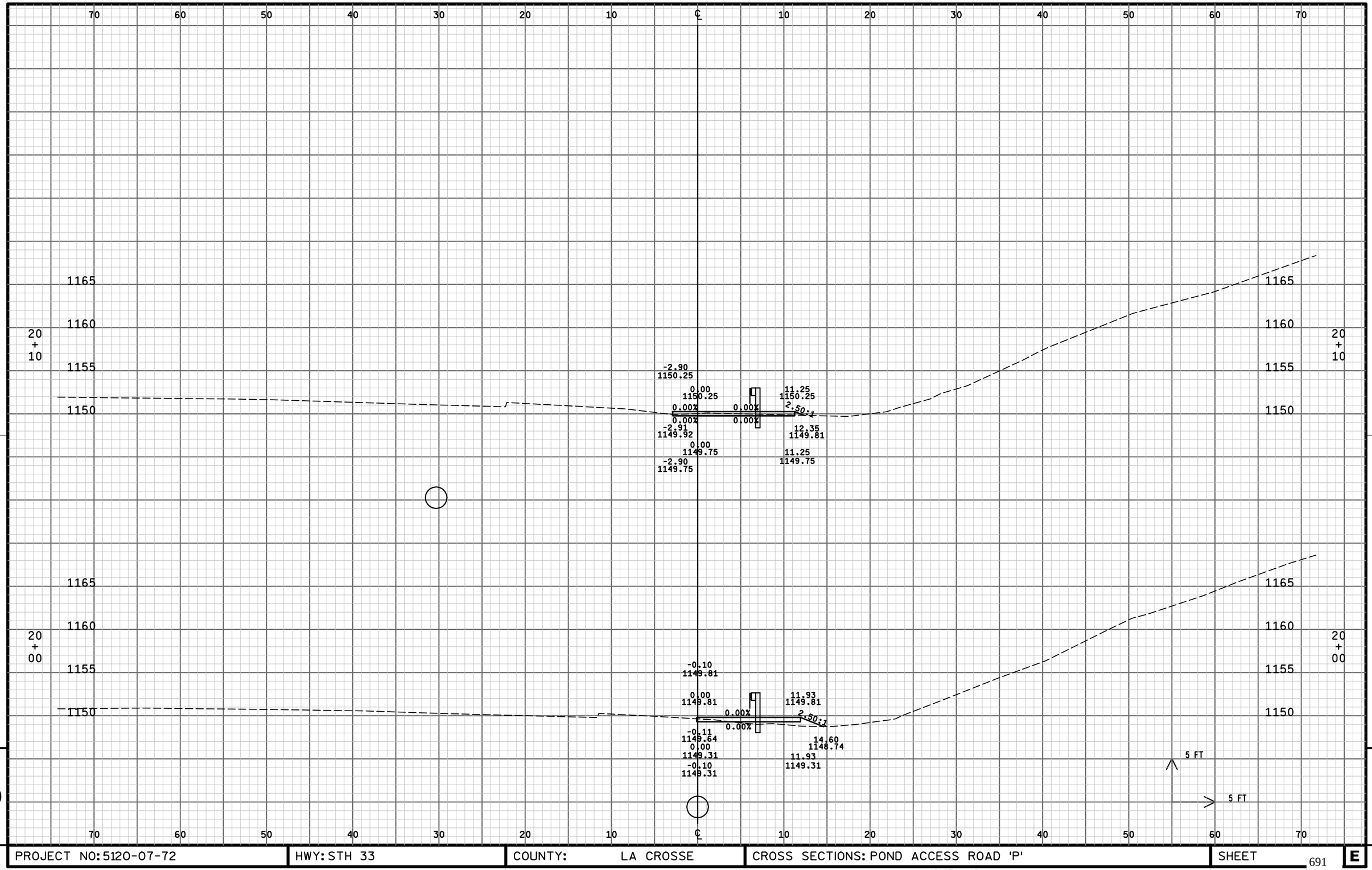


9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: NORSEMAN DRIVE 'N'	SHEET 690 E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Norsemen\rc007010.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

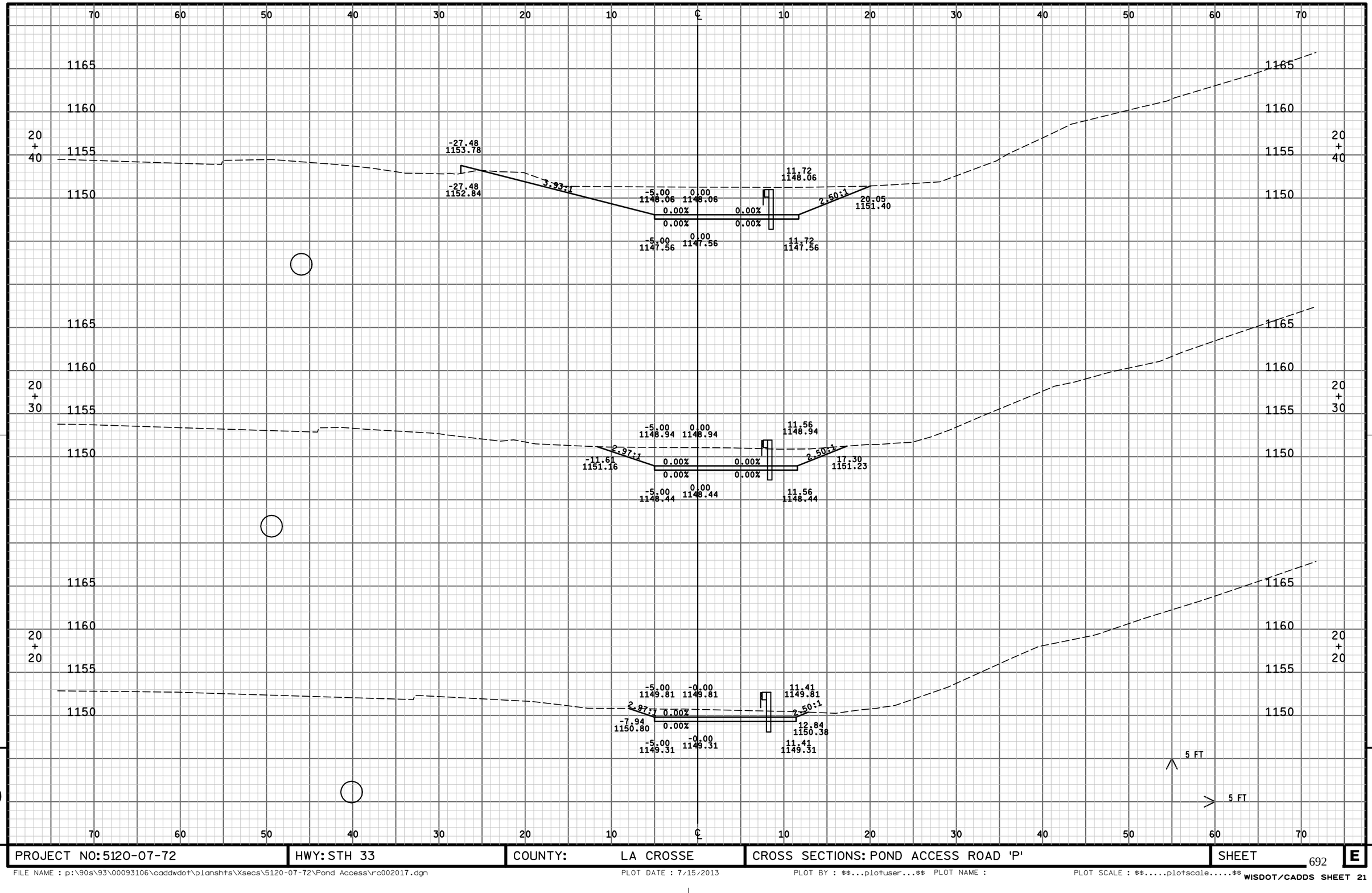
WISDOT/CADDS SHEET 21



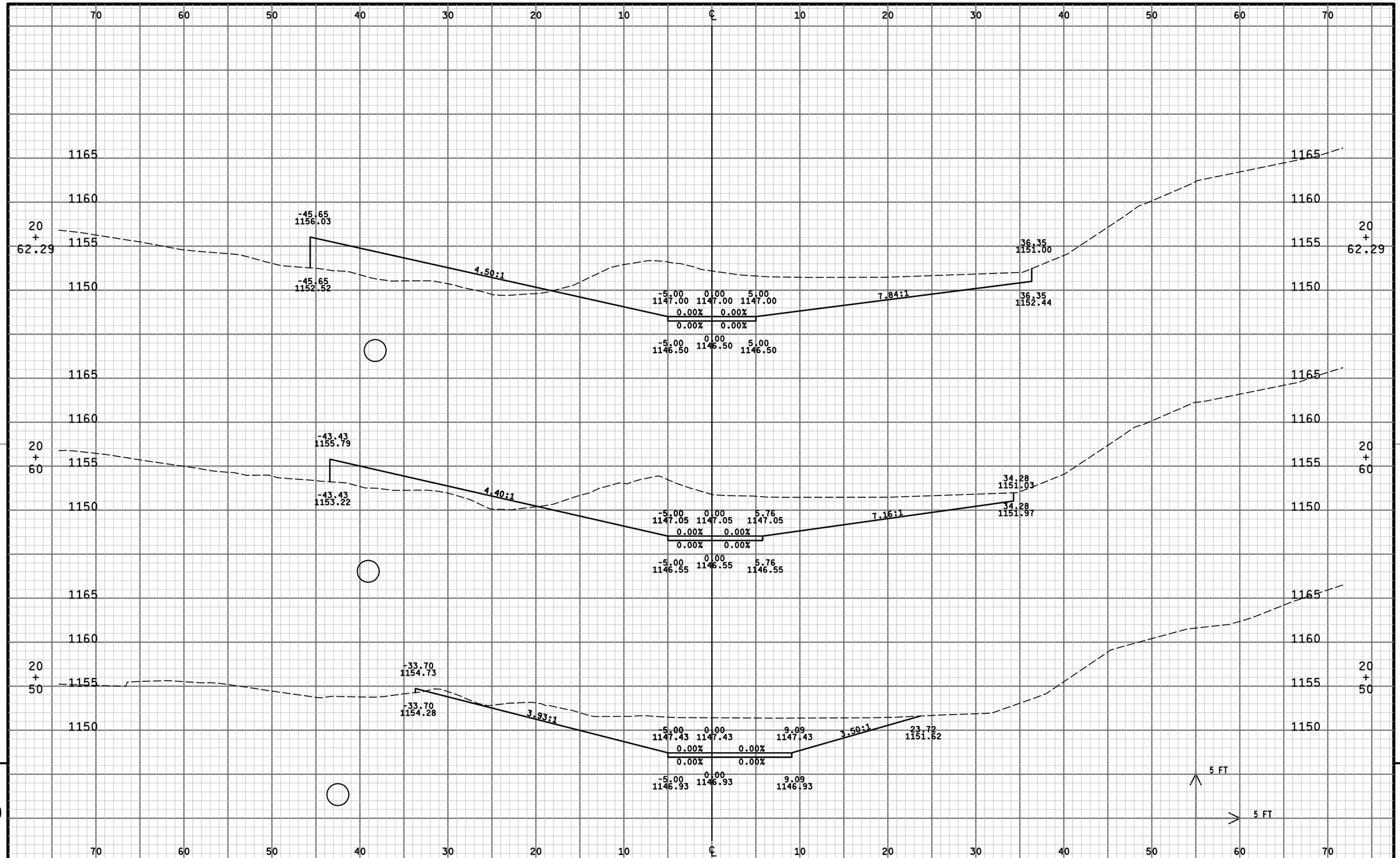
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: POND ACCESS ROAD 'P'	SHEET	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Pond Access\rc001017.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21



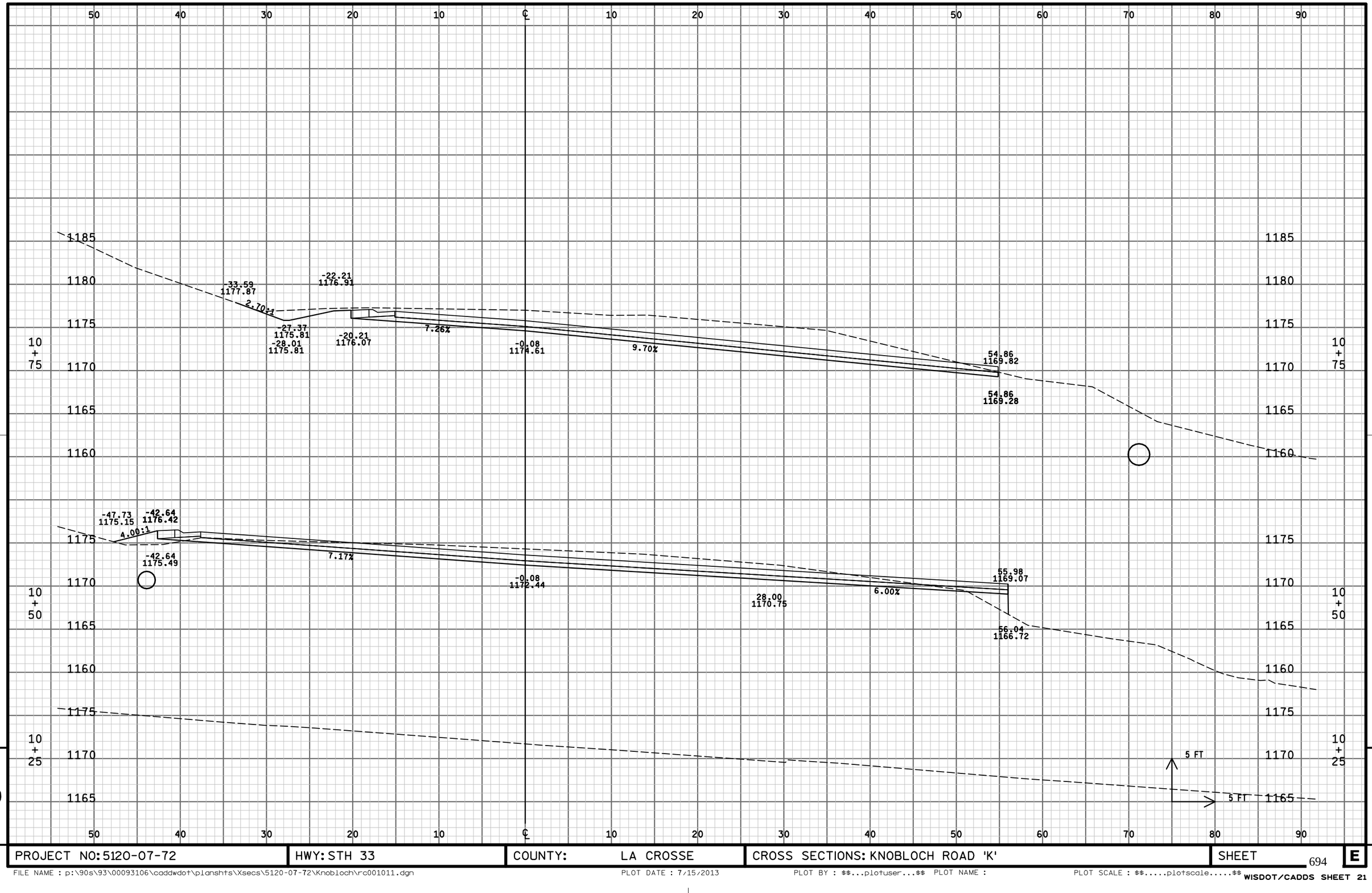
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: POND ACCESS ROAD 'P'	SHEET 692	E



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: POND ACCESS ROAD 'P'	SHEET 693	E

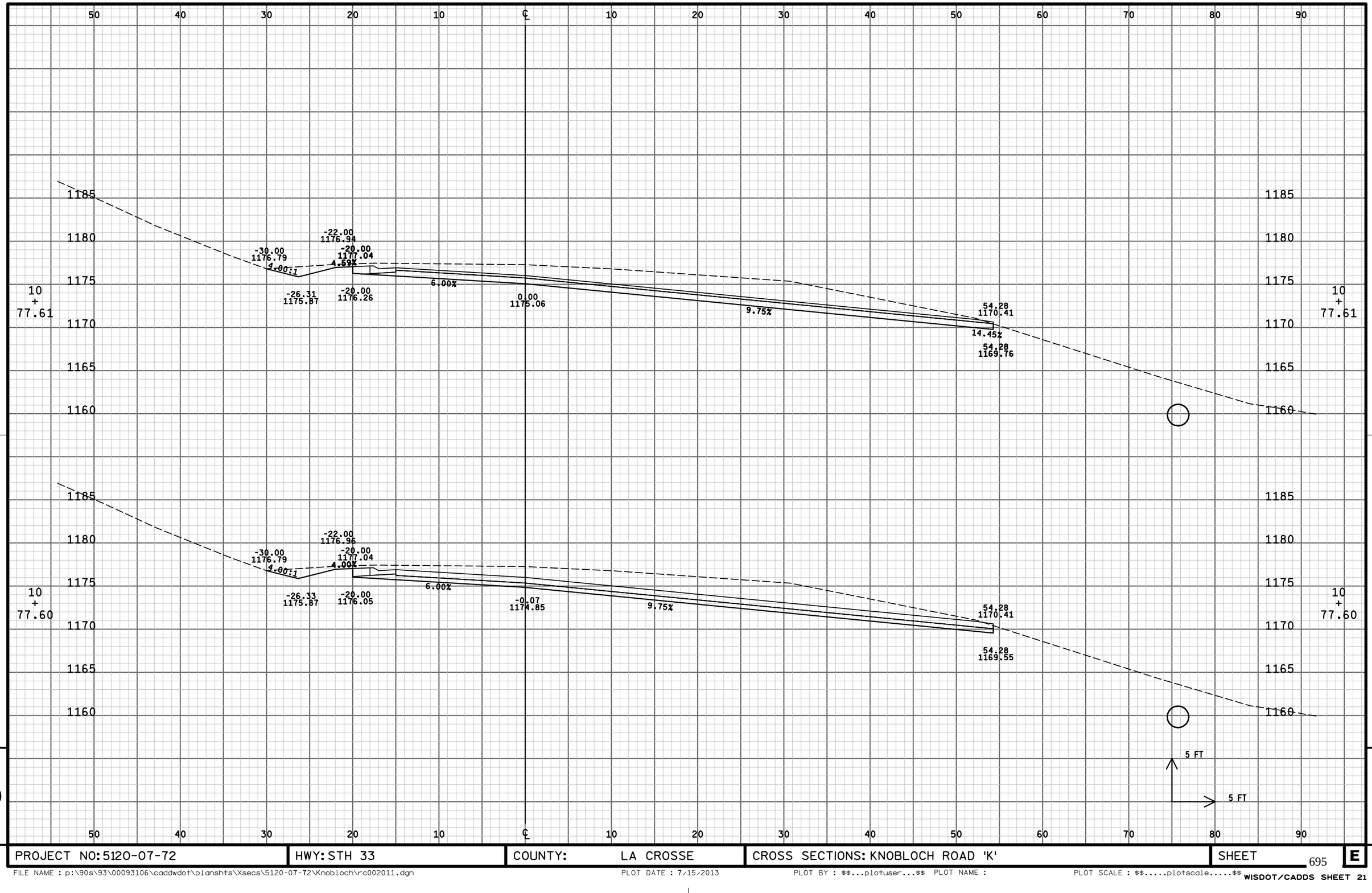
FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Pond Access\rc003017.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21



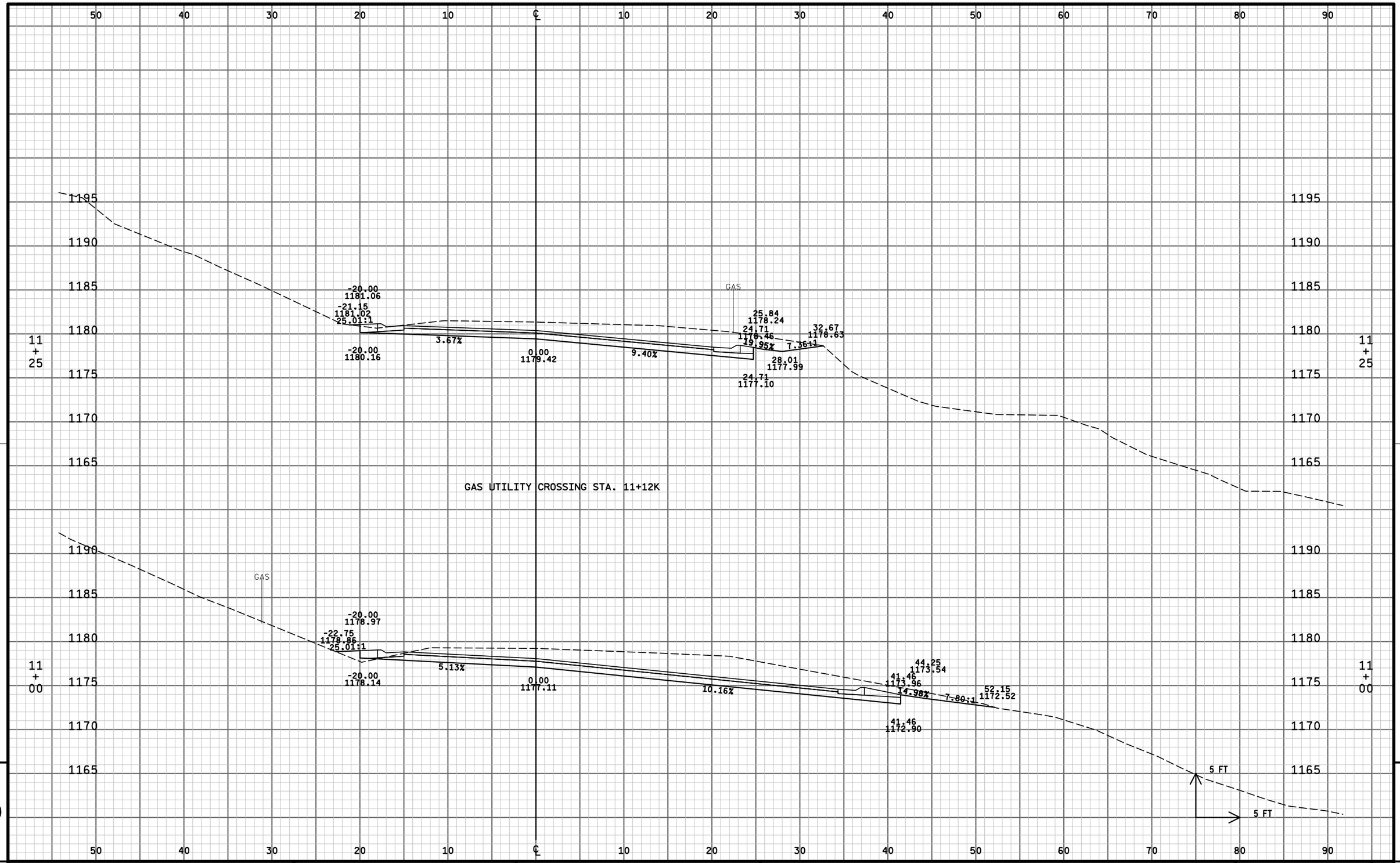
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: KNOBLOCH ROAD 'K'	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Knobloch\rc001011.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: KNOBLOCH ROAD 'K'	SHEET	E

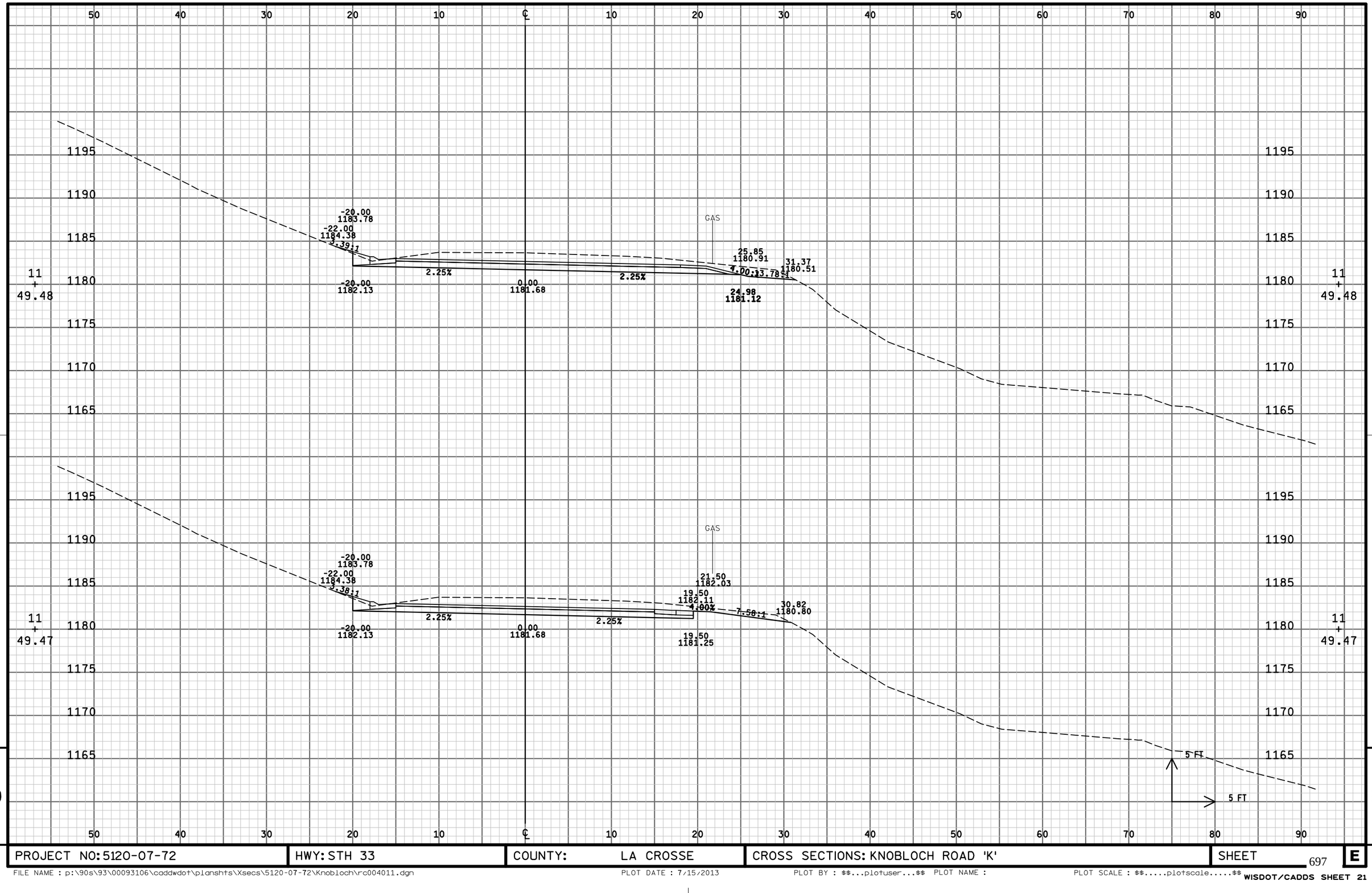
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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: KNOBLOCH ROAD 'K'	SHEET

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Knobloch\rc003011.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

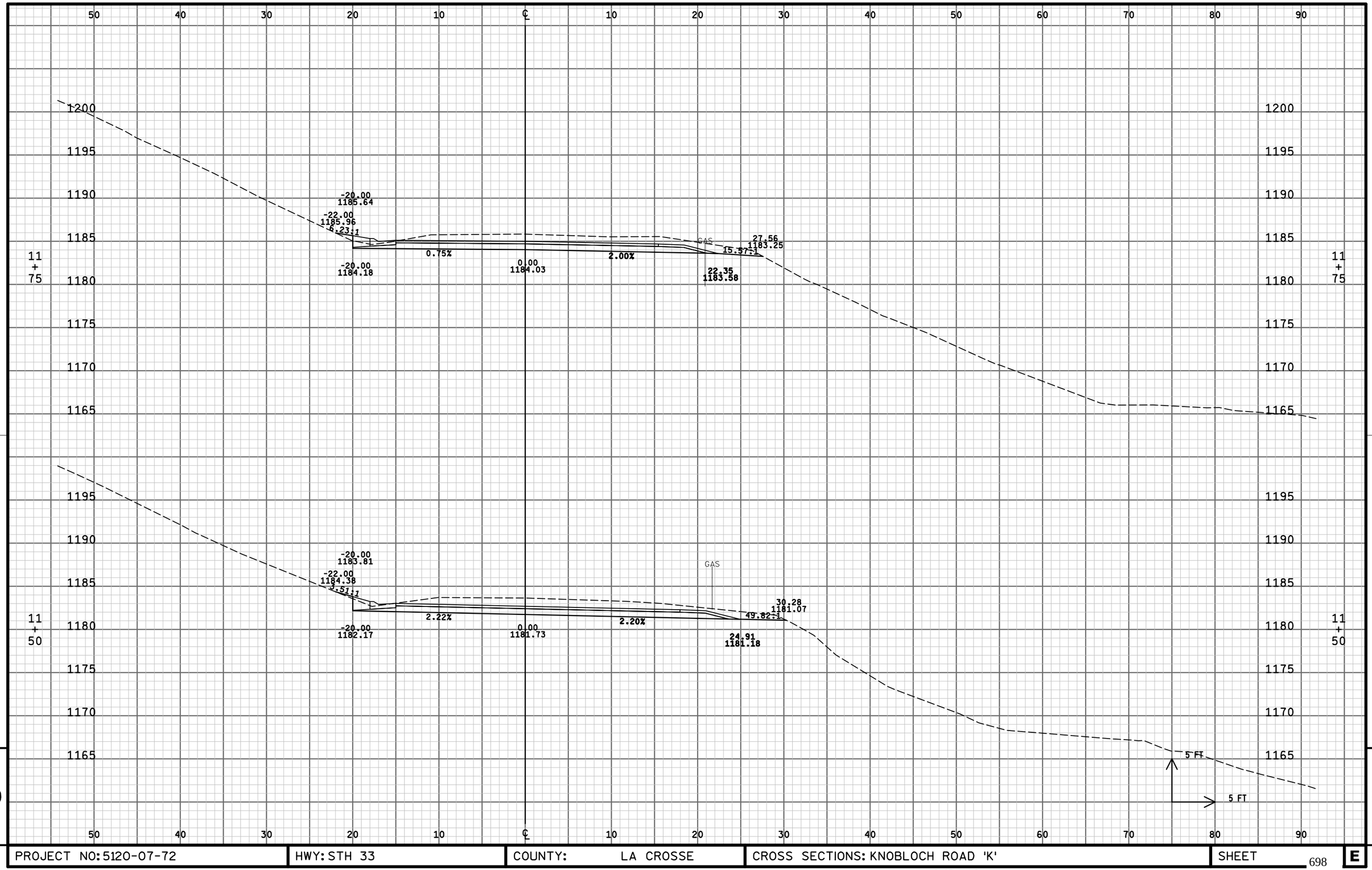
WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: KNOBLOCH ROAD 'K'	SHEET	E

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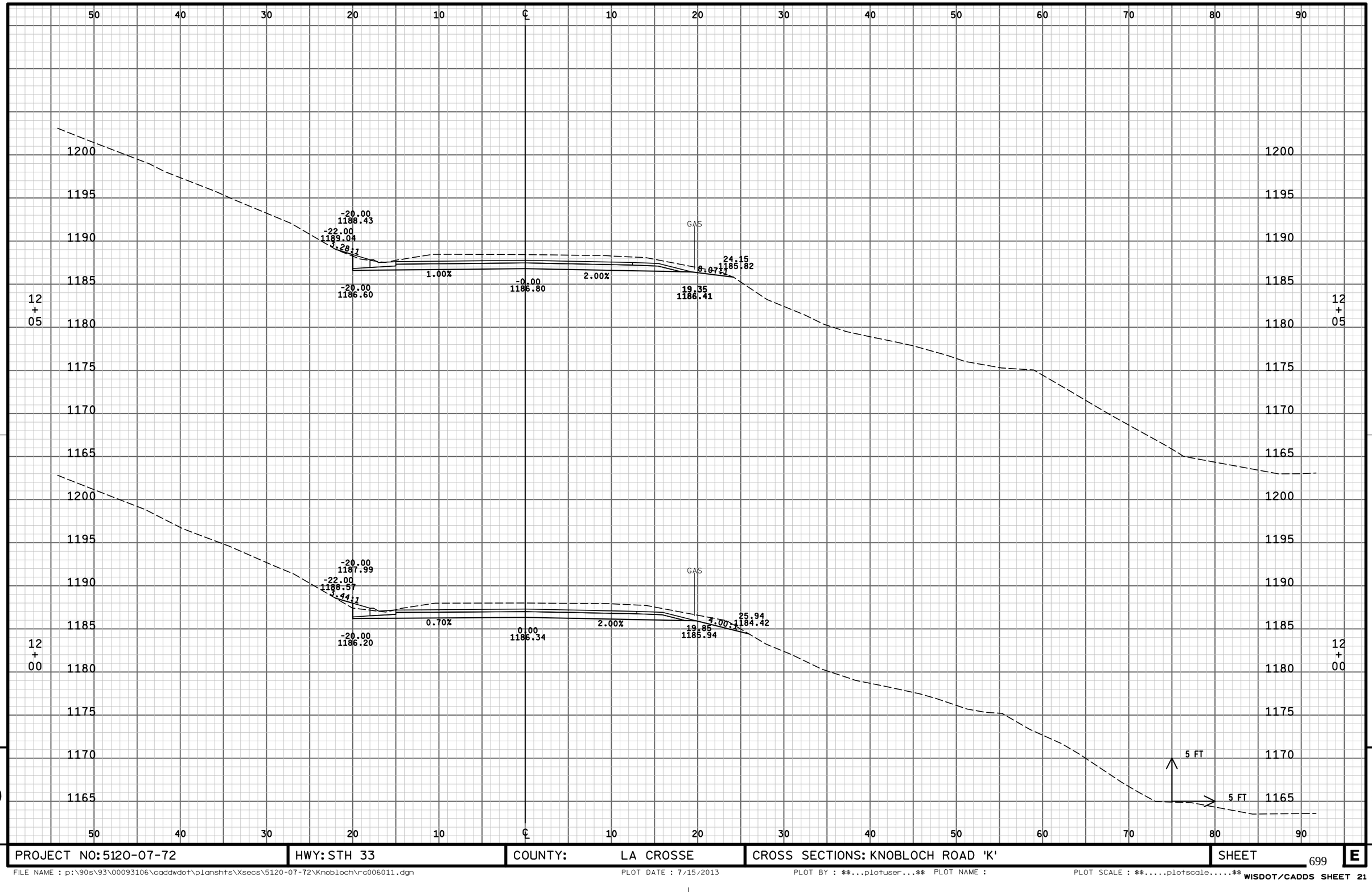
WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: KNOBLOCH ROAD 'K'	SHEET

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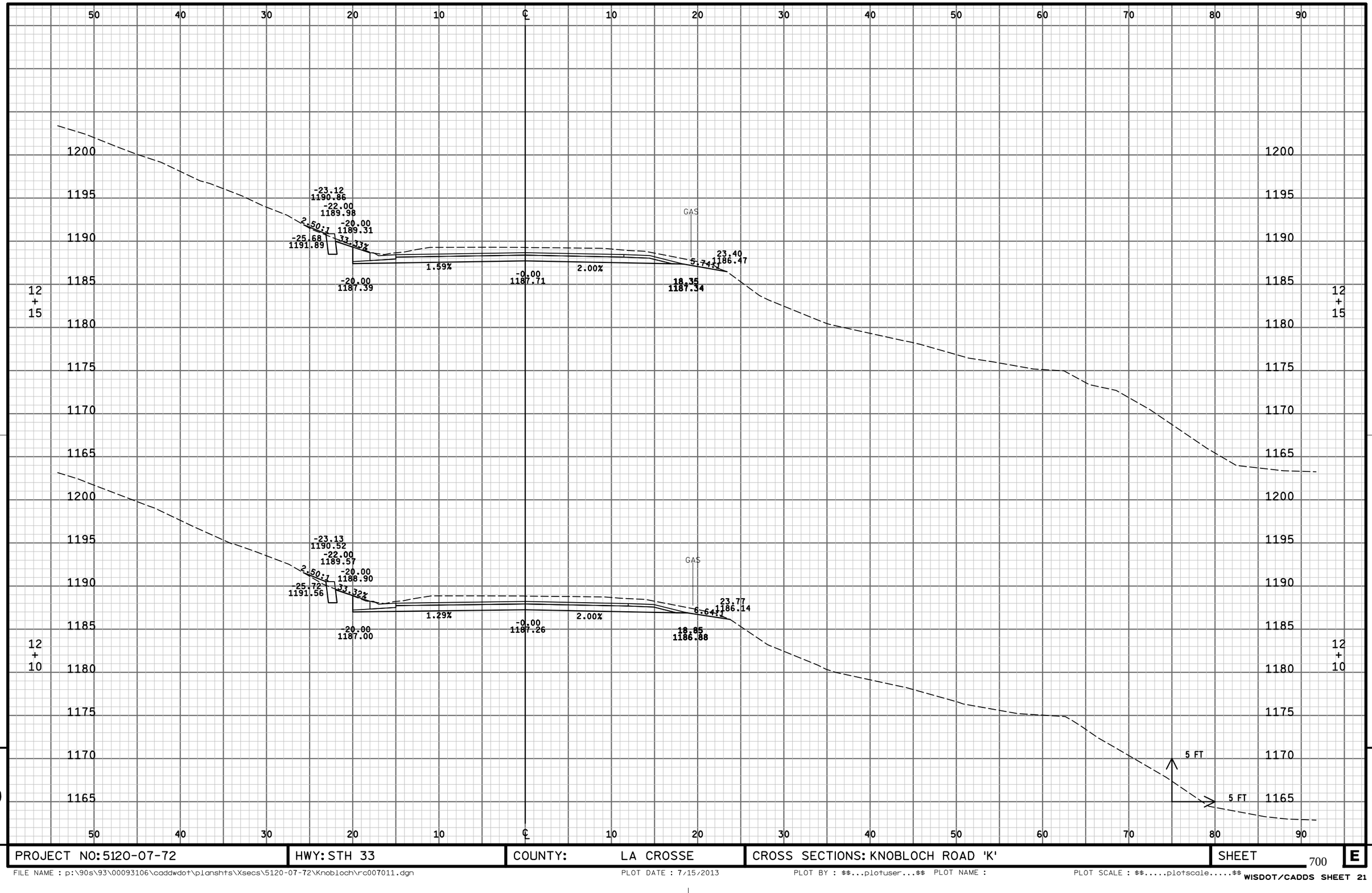
WISDOT/CADDS SHEET 21



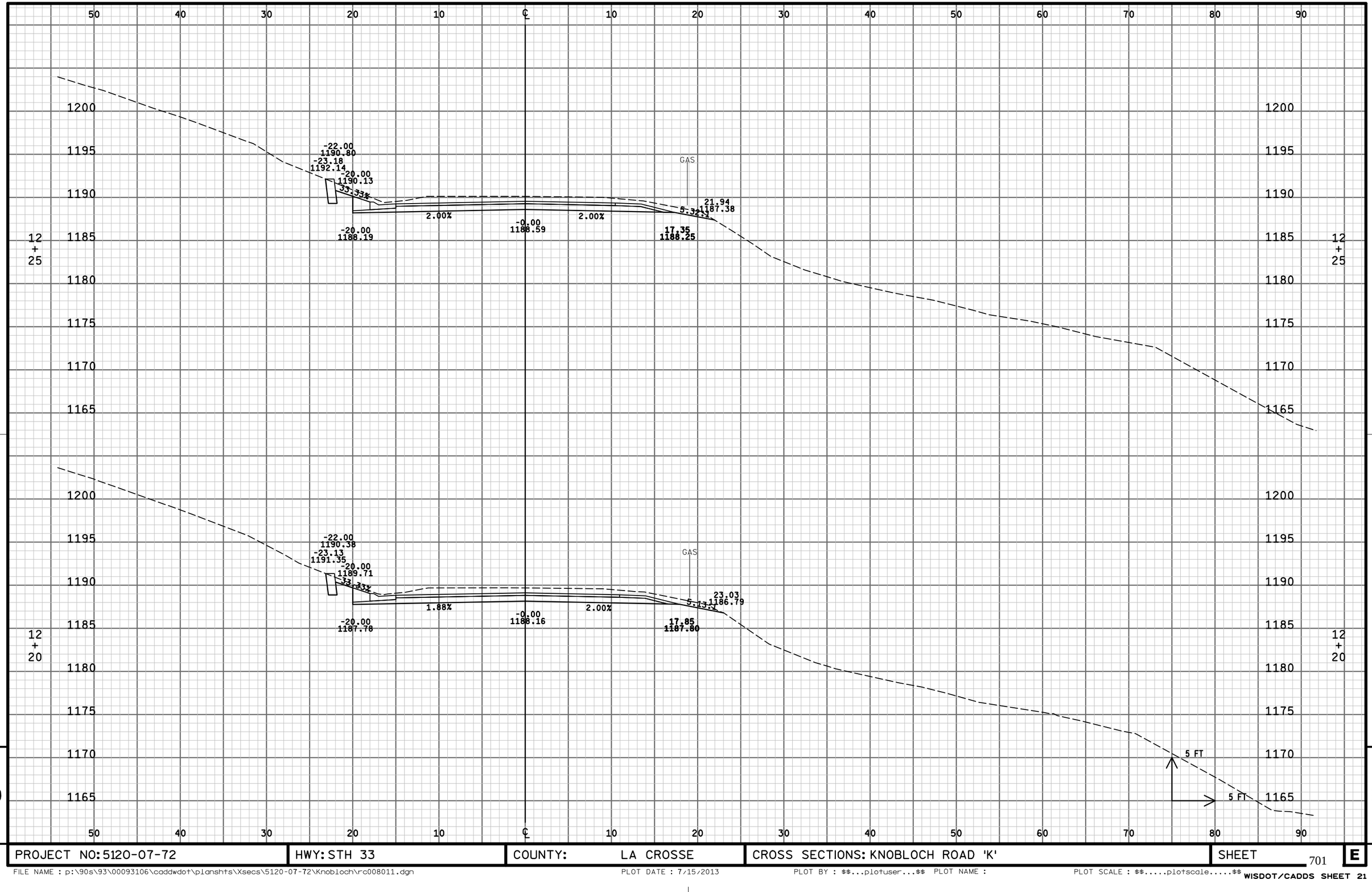
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: KNOBLOCH ROAD 'K'	SHEET

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Knobloch\rc006011.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

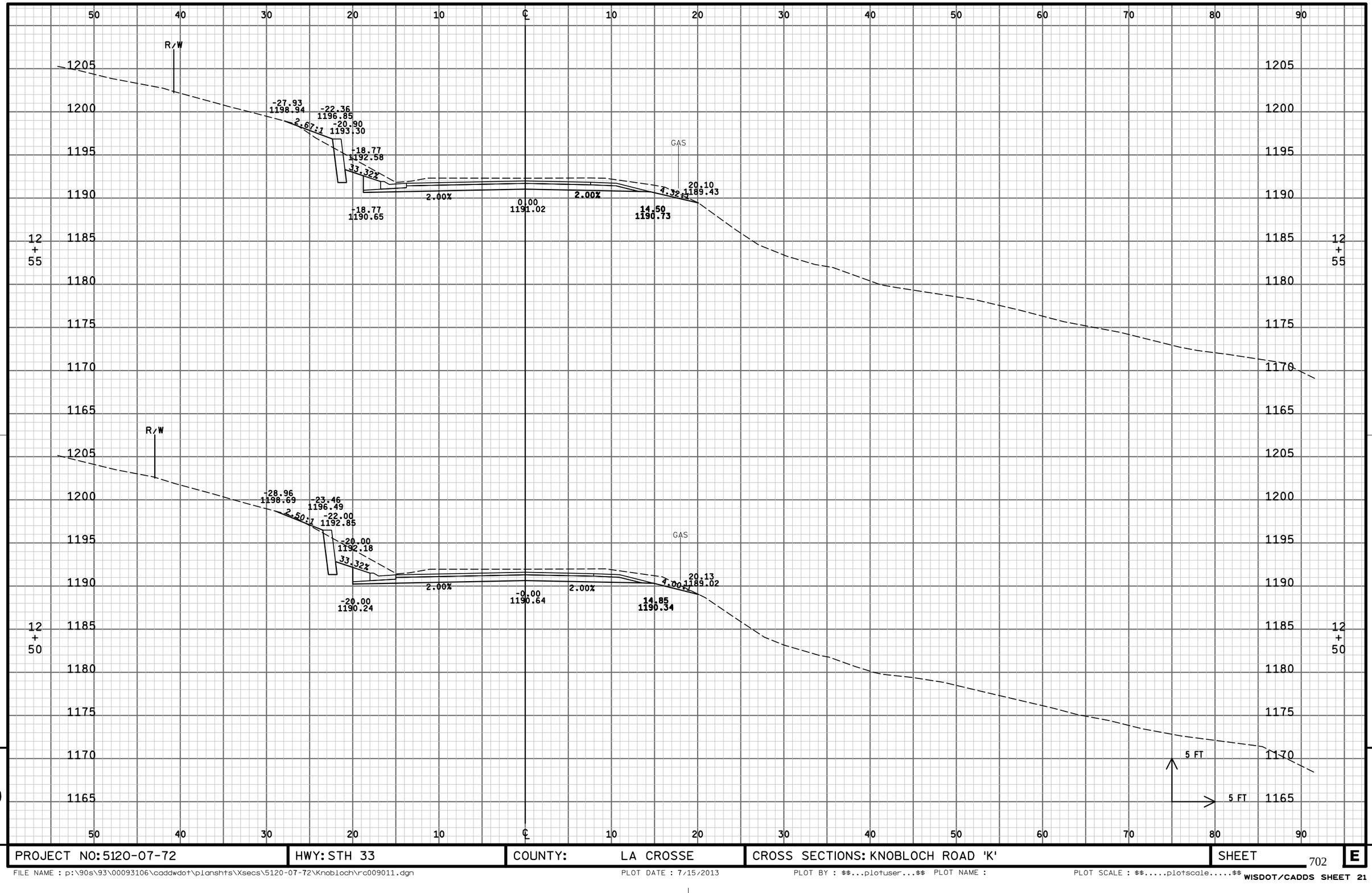


PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: KNOBLOCH ROAD 'K'	SHEET 700	E



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: KNOBLOCH ROAD 'K'	SHEET E

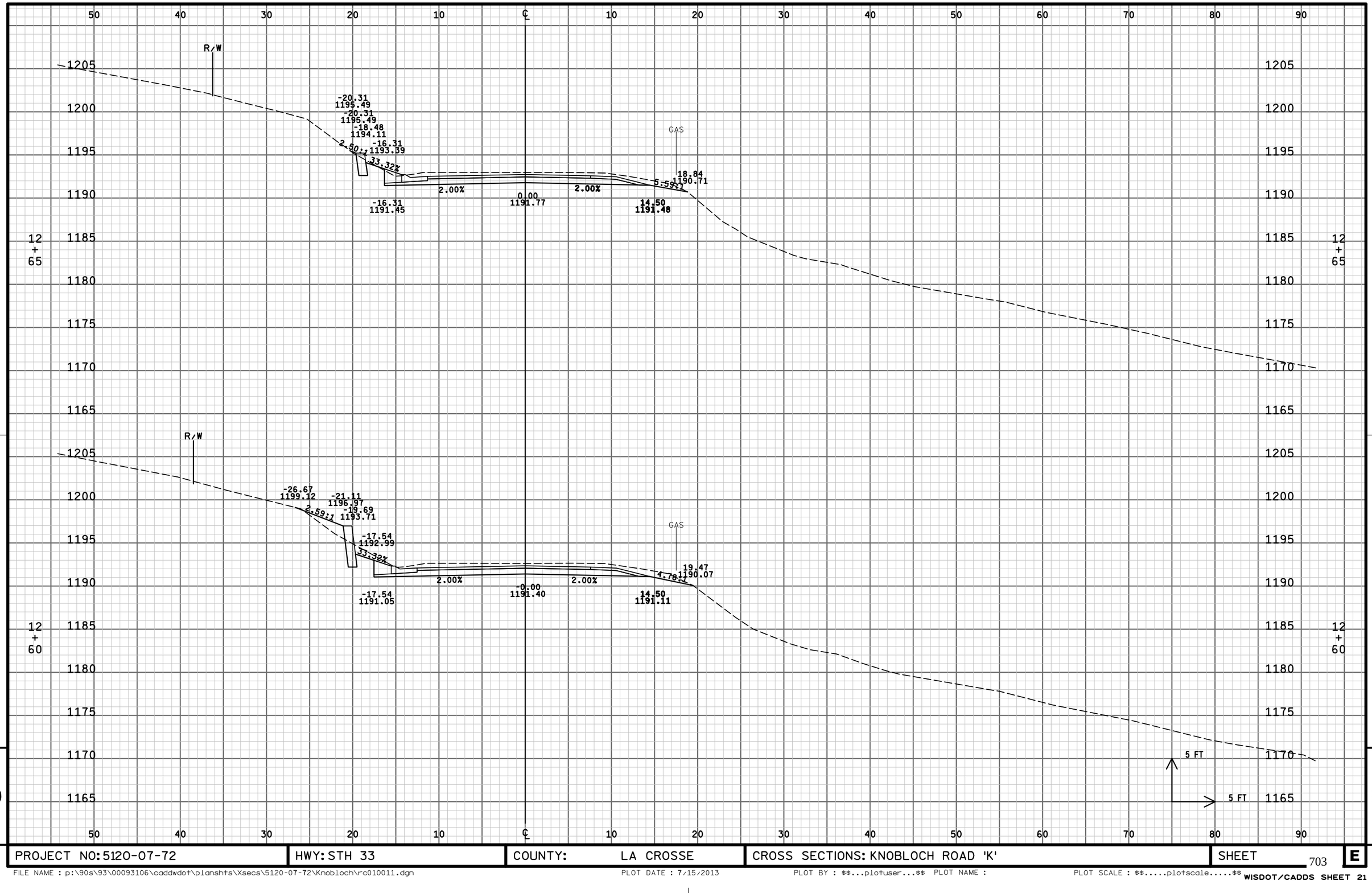
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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: KNOBLOCH ROAD 'K'	SHEET 702	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Knobloch\rc009011.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

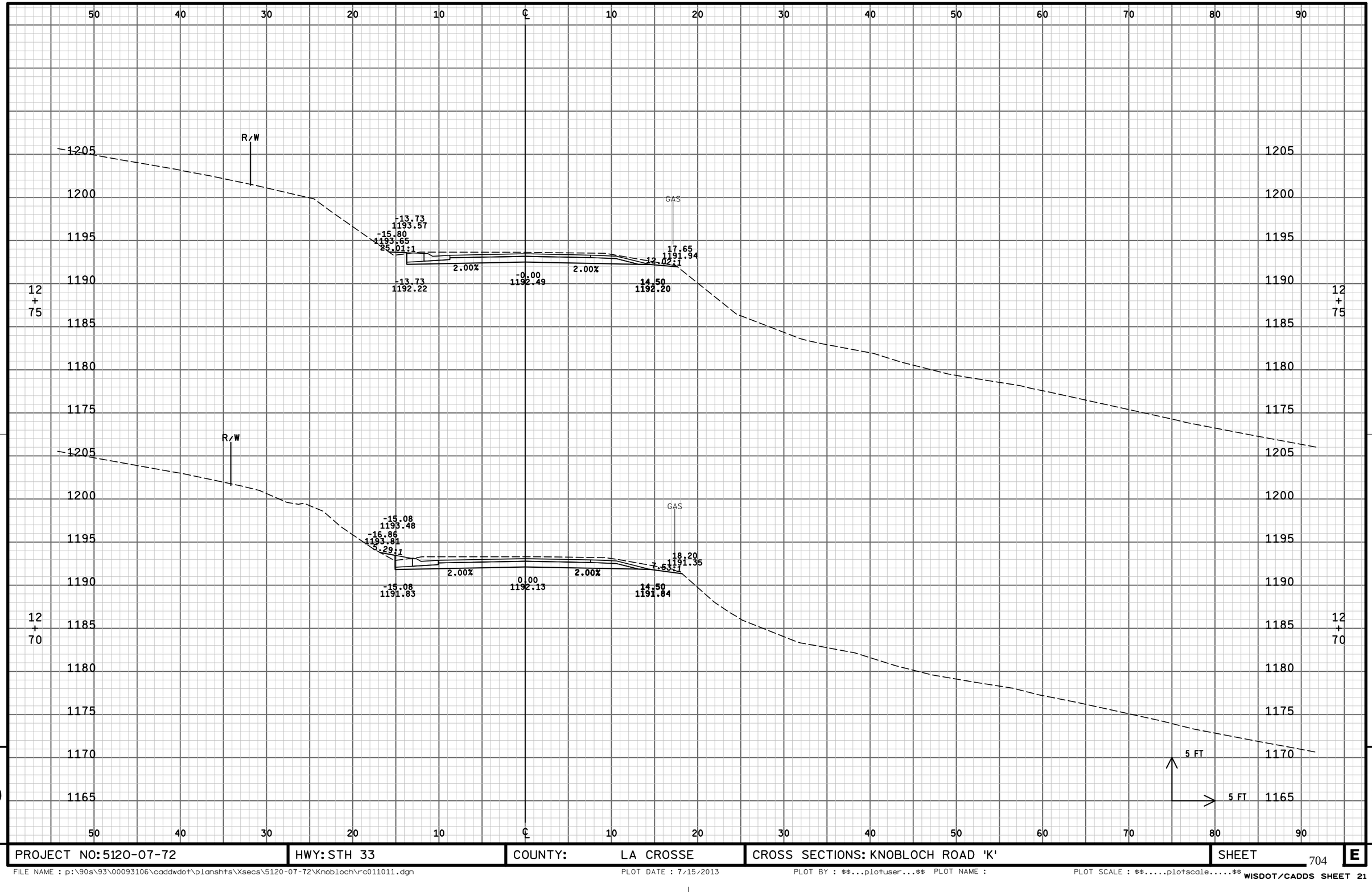
WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: KNOBLOCH ROAD 'K'	SHEET 703

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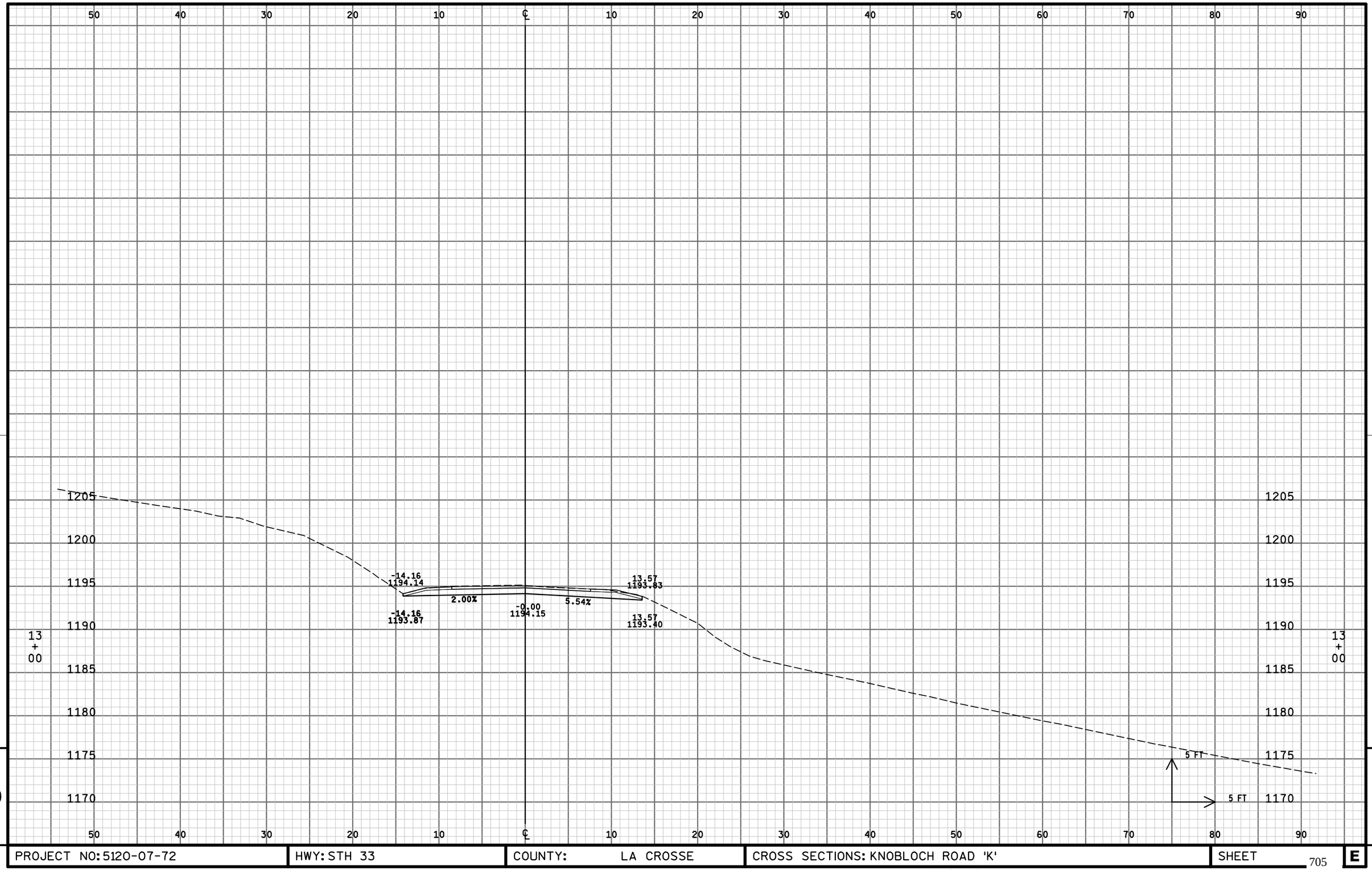
WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: KNOBLOCH ROAD 'K'	SHEET 704

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WISDOT/CADDS SHEET 21

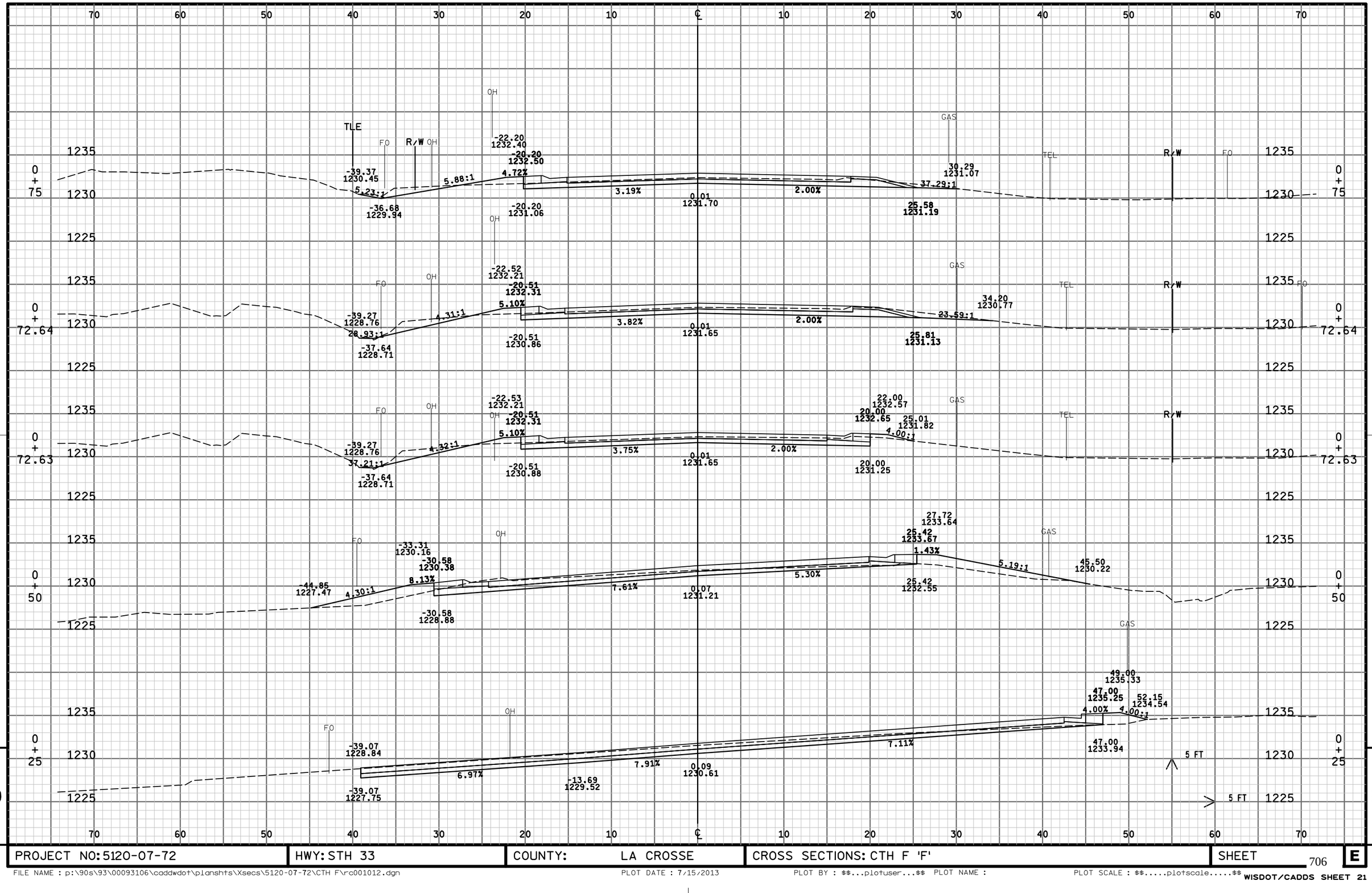


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9

PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: KNOBLOCH ROAD 'K'	SHEET E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Knobloch\rc012011.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

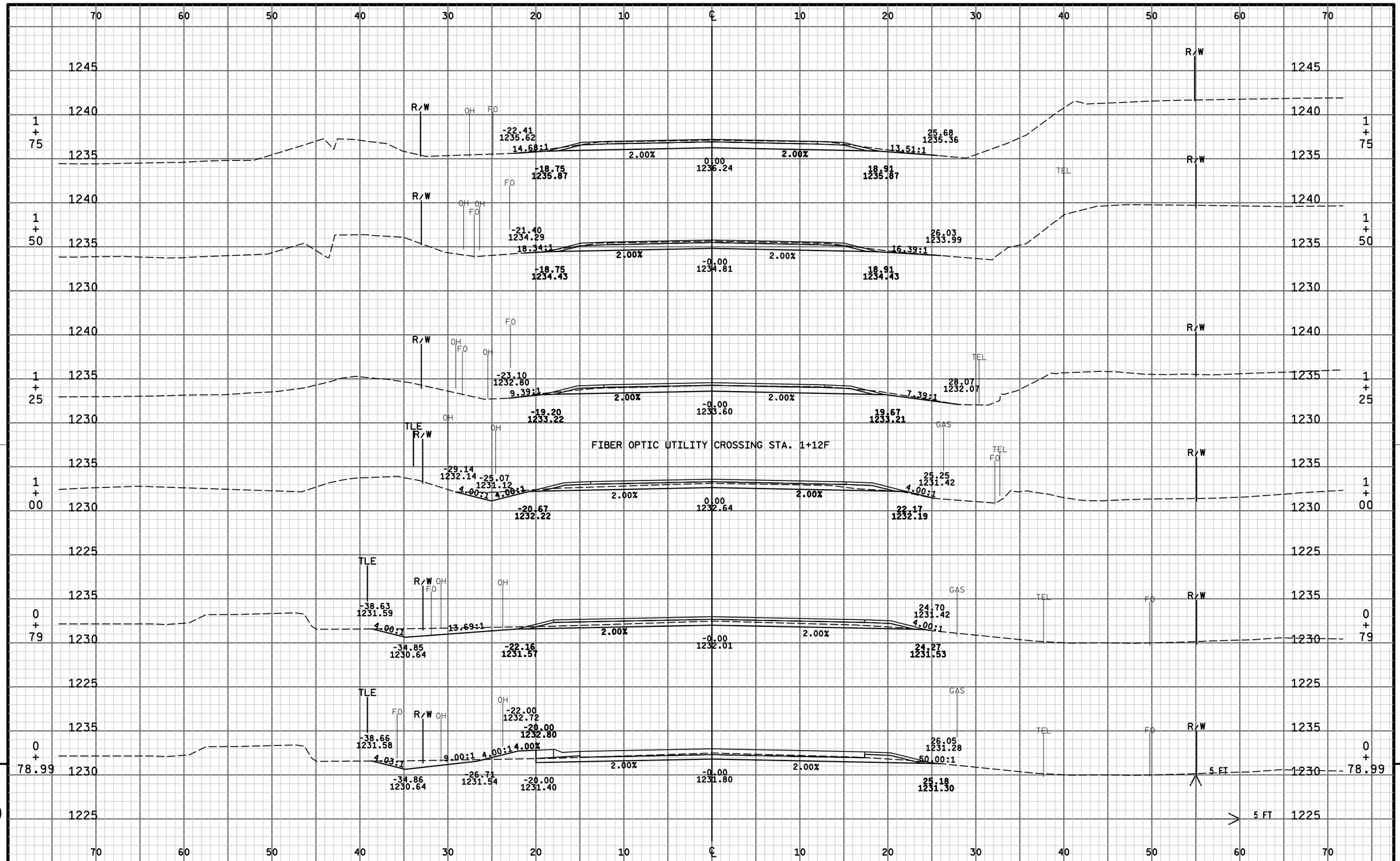


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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: CTH F 'F'	SHEET E

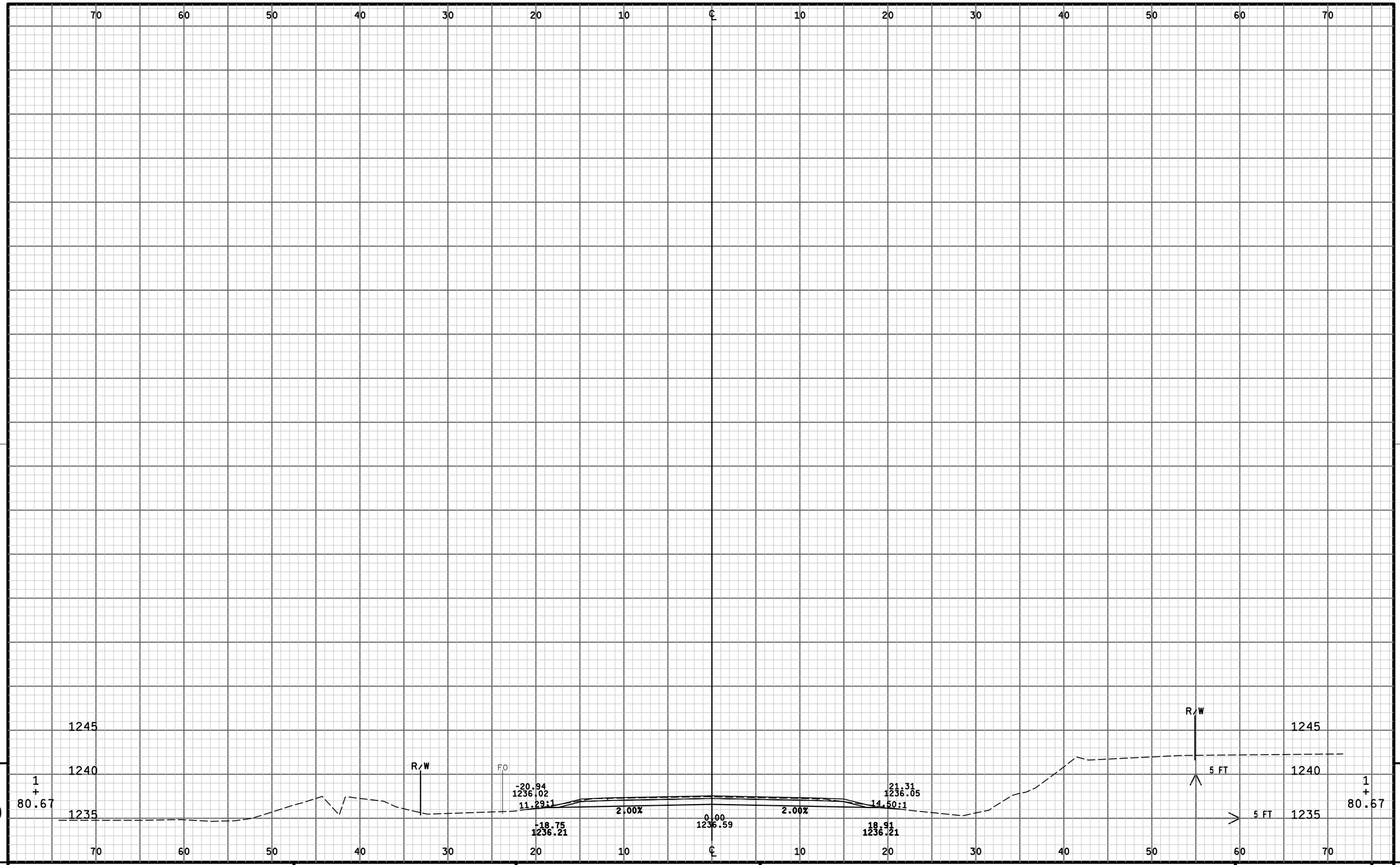
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WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: CTH F 'F'	SHEET 707	E

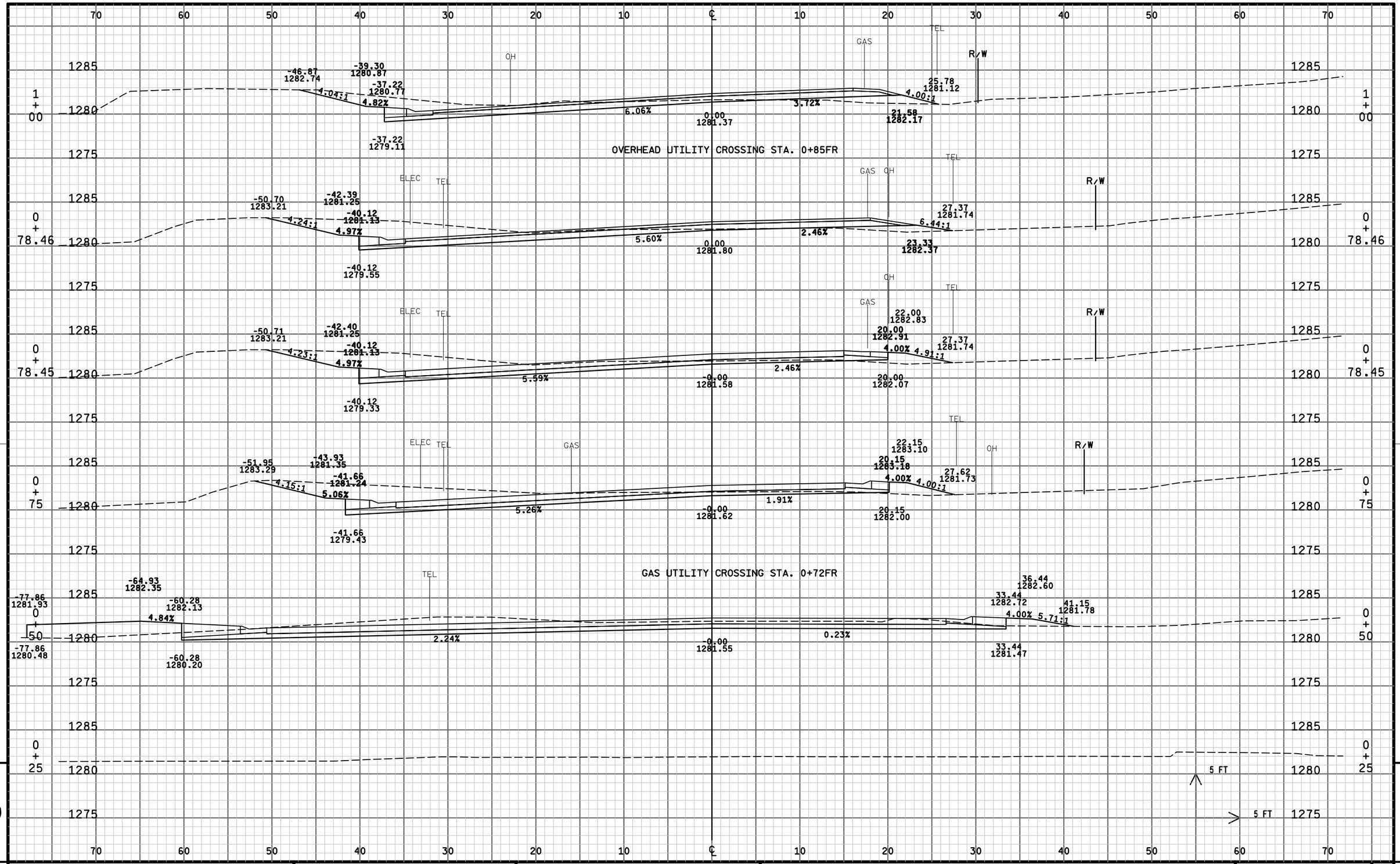
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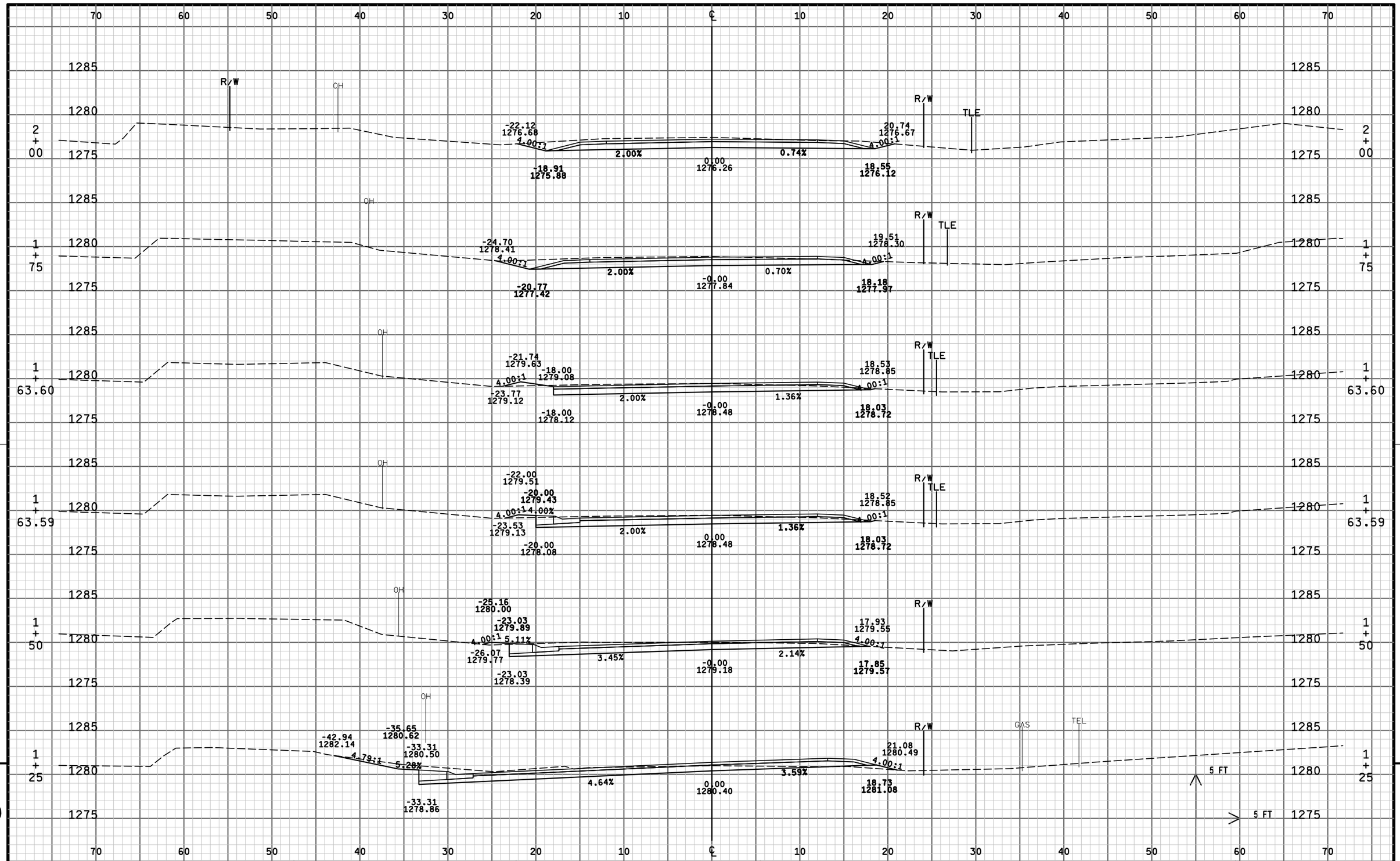
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: CTH F 'F'	SHEET	E

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WISDOT/CADDS SHEET 21



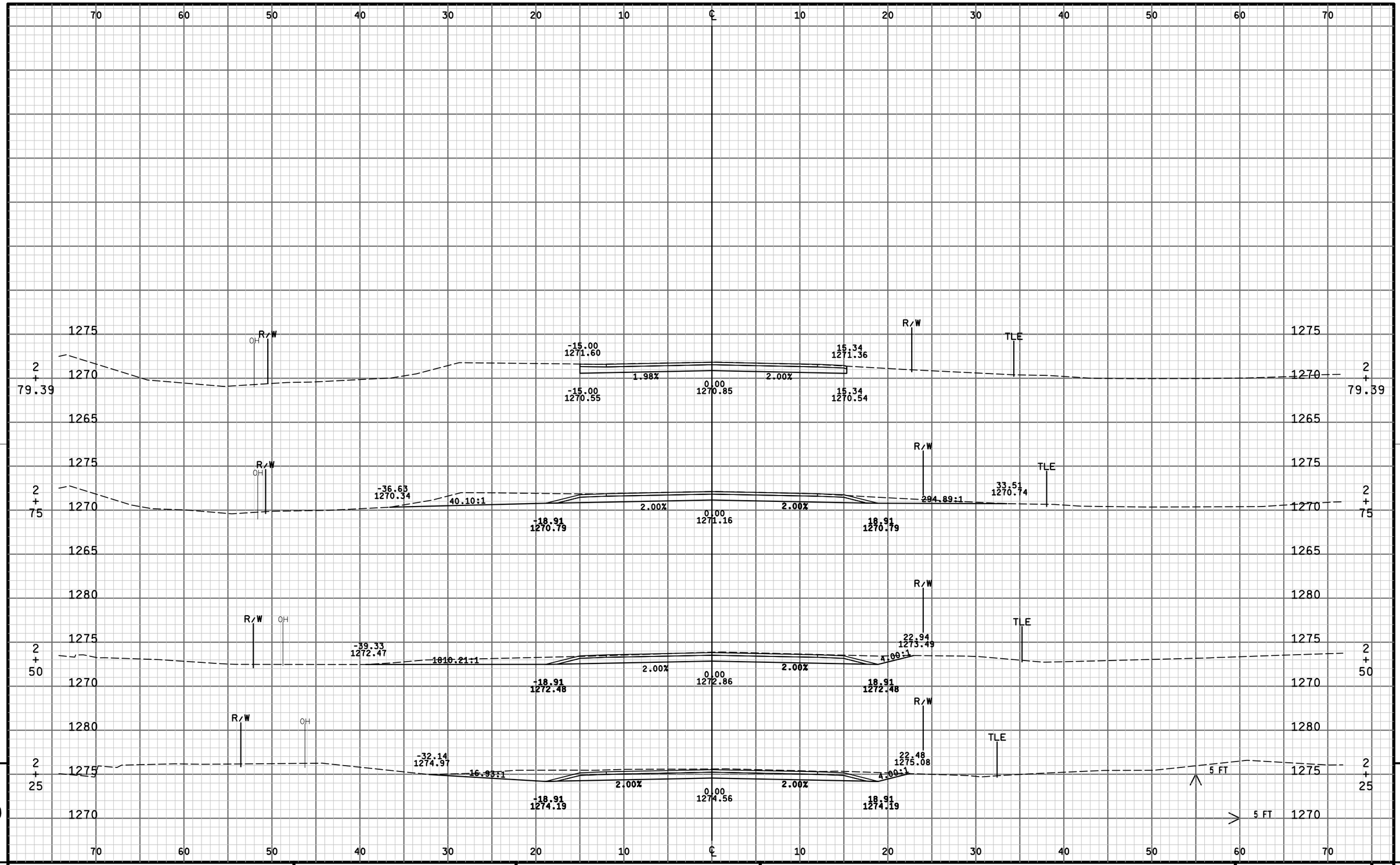
PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: FOREST RIDGE DRIVE 'FR'	SHEET 709 E



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PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: FOREST RIDGE DRIVE 'FR'	SHEET 710	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Forest Ridge\rc002013.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5120-07-72	HWY: STH 33	COUNTY: LA CROSSE	CROSS SECTIONS: FOREST RIDGE DRIVE 'FR'	SHEET 711	E

FILE NAME : p:\90s\93\00093106\caddwdot\planshts\Xsecs\5120-07-72\Forest Ridge\rc003013.dgn PLOT DATE : 7/15/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

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