GRE

MAY 2013

PROJECT ID: 9200-04-71
WITH: N/A

COUNTY: BROWN

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan 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 = 724

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

SHAWANO - GREEN BAY

STH 29 & CTH FF INTERSECTION

STH 29

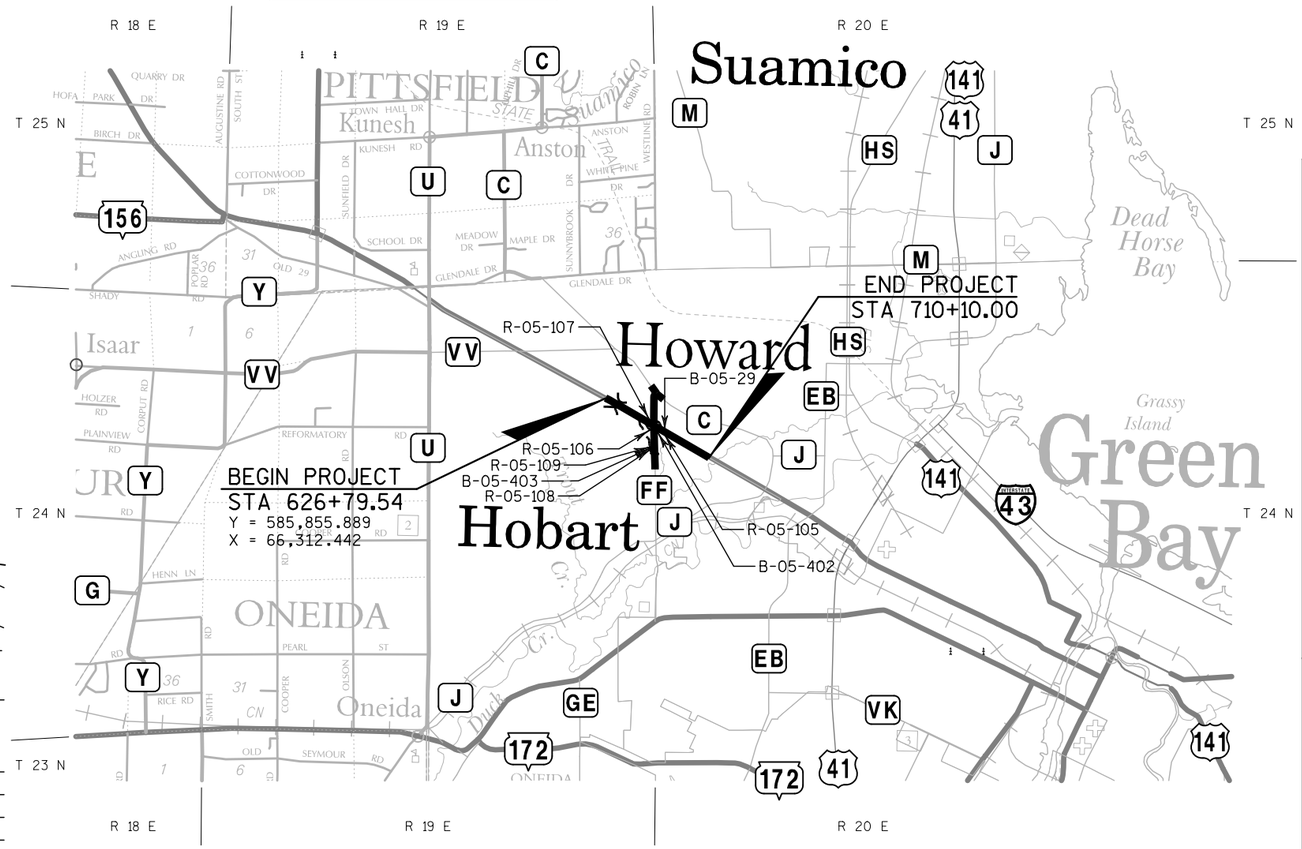
BROWN COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9200-04-71	WISC 2013281	1

STATE PROJECT NUMBER
9200-04-71



N



LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 1.578 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), BROWN COUNTY - NAD 1983 (1991). ELEVATIONS ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

DESIGN DESIGNATION - STH 29

A.A.D.T. 2014	=	32,000
A.A.D.T. 2034	=	50,000
D.H.V.	=	4.5%
D.D.	=	60/40
T.	=	5.3%
DESIGN SPEED	=	70 MPH
ESALS	=	4,782,814

DESIGN DESIGNATION - CTH FF

A.A.D.T. 2014	=	5,400
A.A.D.T. 2034	=	14,500
D.H.V.	=	4.5%
D.D.	=	60/40
T.	=	5.3%
DESIGN SPEED	=	45 MPH
ESALS	=	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

URS
342 North Water Street
7th Floor
Milwaukee, WI 53202
(414) 831-4100

WISCONSIN
WILLIAM R SCHILLING
E-35841
WAUKESHA, WISCONSIN
PROFESSIONAL ENGINEER

(Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	URS CORPORATION
Project Manager	JEREMY ASHAUER
Regional Examiner	
Regional Supervisor	DANIEL SERGERSTROM
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 2/1/2013 (Signature)

E

2

GENERAL NOTES

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

EARTHWORK SHRINKAGE IS VARIABLE, ESTIMATED AT 30%.

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

ALL RADII DIMENSIONS TO CURB AND GUTTER SHOWN ON THE PLAN ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.

TOPSOIL, TEMPORARY SEED, FERTILIZE (TYPE B) AND MULCH ALL DISTURBED AREAS WITHIN THE RIGHT OF WAY AND T.L.E., OR AS DIRECTED BY THE ENGINEER.

PIPE ELEVATIONS SHOWN ON THE PLANS MAY BE ADJUSTED BY THE ENGINEER TO FIT EXISTING FIELD CONDITIONS.

THE ORIGINAL GROUND AT THE SLOPE INTERCEPT IN CUT AND FILL SECTIONS SHALL BE ROUNDED. ROUNDING BEGINS APPROXIMATELY THREE FEET EITHER SIDE OF THE THEORETICAL SLOPE INTERCEPTS.

MISCELLANEOUS REMOVAL ITEMS REQUIRING RESTORATION OF CONCRETE OR ASPHALTIC CONCRETE PAVEMENTS, DRIVEWAYS, SIDEWALKS OR SIDE STREETS SHALL BE REMOVED TO AN EXISTING JOINT OR SAWED AS DETERMINED BY THE ENGINEER.

THE EROSION CONTROL FEATURES ARE SHOWN ON THE EROSION CONTROL SHEETS AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE FIELD

EROSION CONTROL DEVICES ARE TO BE PLACED IN PROPER SEQUENCE WITH CONSTRUCTION OPERATIONS AND MAINTAINED THROUGHOUT THE PROJECT TO COMPLETION AND AS DETERMINED BY THE ENGINEER.

THE QUANTITY OF THE ITEMS FOR EROSION CONTROL INCLUDE AN UNDISTRIBUTED AMOUNT FOR THE PROTECTION, CONTROL AND ABATEMENT OF WATER POLLUTION RESULTING FROM SOIL EROSION.

PERTINENT BORINGS CAN BE FOUND IN THE STRUCTURES PLANS. ALL OTHER BORING LOGS WILL BE AVAILABLE UPON

ALL MEDIANS AND SPLITTER ISLANDS WILL BE SEEDED, MULCHED, AND FERTILIZED UNLESS OTHERWISE NOTED IN THE INTERSECTION DETAILS OR PLAN AND PROFILE SHEETS.

ORDER OF SECTION 2 SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
CUL DE SAC DETAILS
DRIVEWAY DETAILS
SIDEWALK DETAILS
REMOVAL PLANS
MEDIAN ACCESS DETAILS
GRADING PLAN
MATCH LINE PLAN
WETLAND OVERVIEW
EROSION CONTROL
STORM SEWER
GRASS SWALES PLANTING DETAILS
PERMANENT SIGNING
SIGN REMOVALS LIGHTING PLAN
PAVEMENT MARKING
TRAFFIC CONTROL
ALIGNMENT
PROJECT CONTROL POINT TIES

CONTACTS

WIS. DEPT. OF TRANSPORTATION
NE REGION
MR. DAN SEGERSTROM
944 VANDERPERREN WAY
GREEN BAY, WI 54304-0080
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342 North Water Street, 7th Floor
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WISCONSIN DEPARTMENT
OF NATURAL RESOURCES
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920-662-5159 FAX
MATTHEW.SCHAEVE@WISCONSIN.GOV

ENVIRONMENTAL PROTECTION AGENCY
REGION 5
MR. KENNETH WESTLAKE
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

PROJECT UTILITIES COORDINATOR
MR. JEFFRY ORR
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HIGHWAY DEPARTMENT
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ANDREW@HOBART-WI.ORG

VILLAGE OF HOWARD
MR. PAUL EVERT
2456 GLENDALE AVENUE
GREENBAY, WI 54313

UTILITIES

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MR. MICHAEL OLSEN
801 O'KEEFE ROAD
PO BOX 6113
DePERE, WI 54115-6113

AT&T MIDWEST
ENGINEERING OPERATIONS
MR. ERIC ADAIR
205 S JEFFERSON STREET
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CENTRAL BROWN COUNTY WATER AUTHORITY
MR. ROBERT MICHAELSON
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APPLETON, WI 54915
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920-749-1154 FAX
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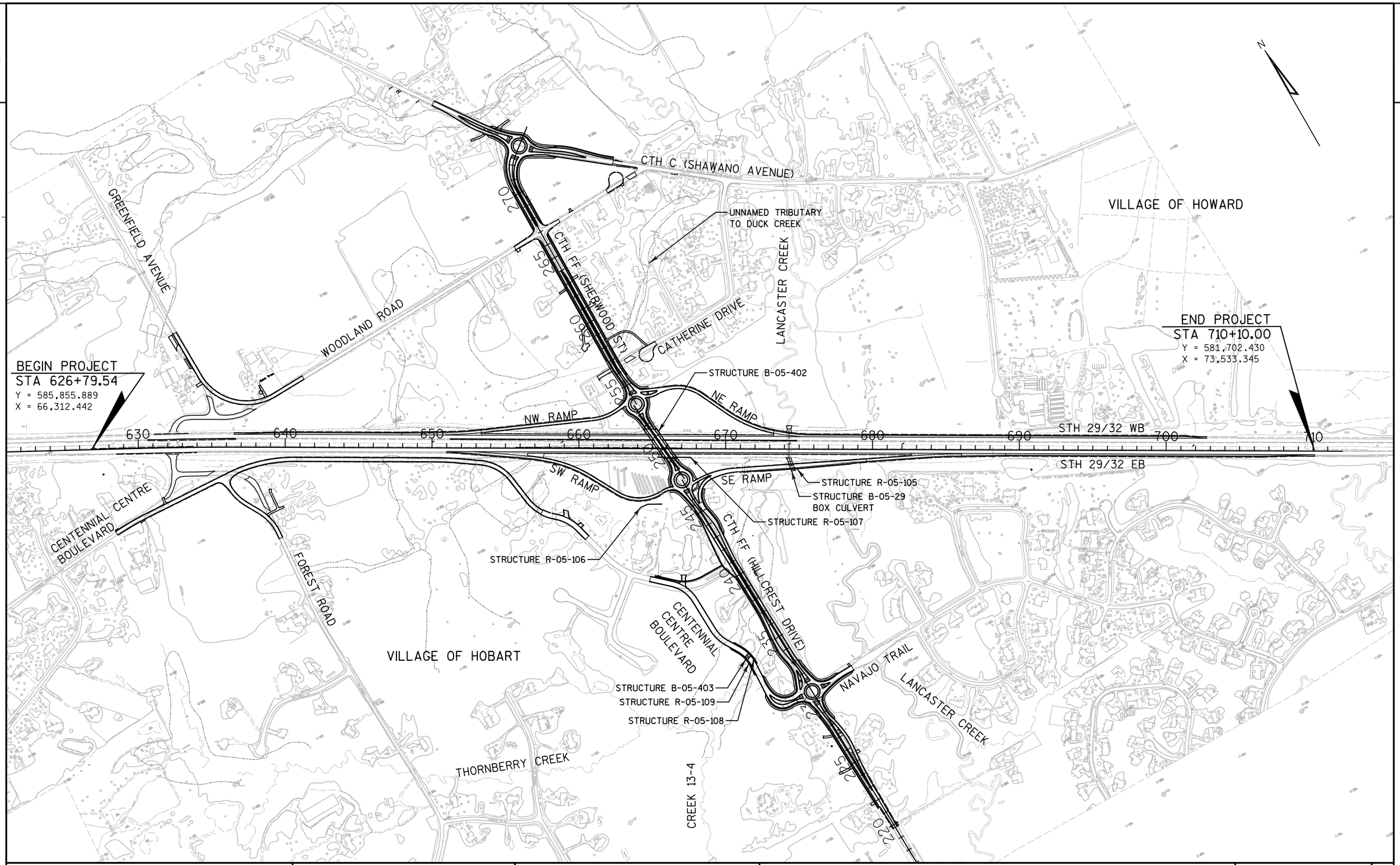
VILLAGE OF HOWARD
WATER & SEWER DEPARTMENT
MR. GEOFF FARR
1336 CORNELL ROAD
GREEN BAY, WI 54313
920-434-4060
GFAAR@VILLAGEOFHOWARD.COM

WISCONSIN PUBLIC SERVICE CORP.
ELECTRIC
MR. RANDY STEIER
2850 S. ASHLAND AVE
PO BOX 19001
GREEN BAY, WI 54307-9001
920-617-5167
RDSTEIER@WISCONSINPUBLICSERVICE.COM

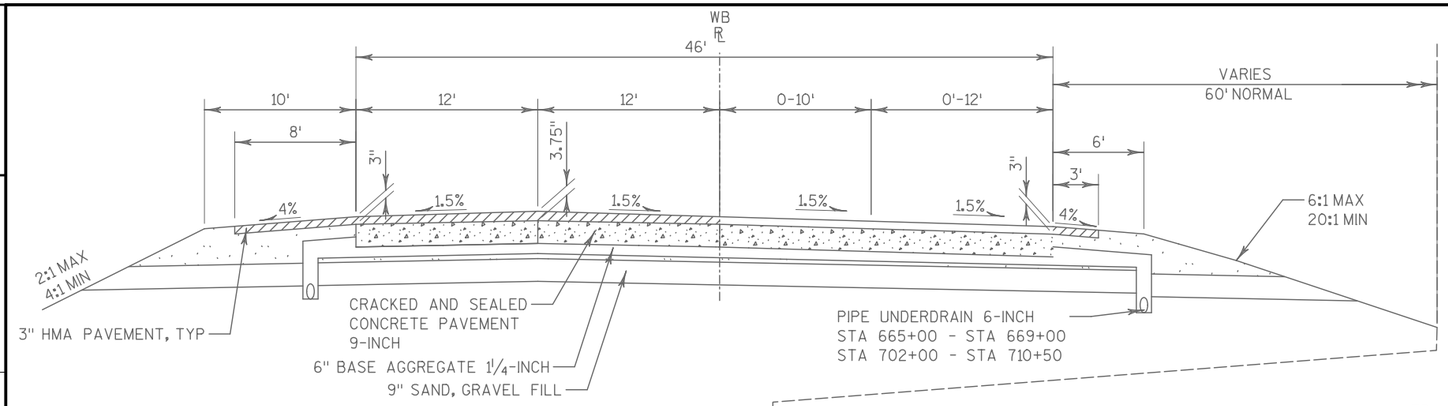
WISCONSIN PUBLIC SERVICE CORP.
GAS/PETROLEUM
MR. TERRY LUTTENEGGER
MR. PHIL MAUERMANN
2850 SOUTH ASHLAND AVE
GREEN BAY, WI 54304
920-617-5129 TERRY
TBLUTTENEGGER@WISCONSINPUBLICSERVICE.COM
920-617-5092 PHIL
PGMAUERMANN@WISCONSINPUBLICSERVICE.COM

LOCATION	HMA TYPE	LOWER LAYER PG64-22 19.0mm	UPPER LAYER PG64-28 12.0mm
STH 29 SHOULDER	E-10	2.25"	1.75"
RAMP SHOULDER	E-0.3	-	3.5"
CTH FF	E-3	4"	2"
CTH C (SHAWANO AVENUE)	E-3	4"	2"
CENTENNIAL CENTRE BOULEVARD	E-1	3"	2.25"
NAVAJO TRAIL	E-1	3"	2.25"
CENTENNIAL CENTRE BOULEVARD (RURAL)	E-1	4"	2"
CENTENNIAL CENTRE BOULEVARD (URBAN)	E-1	4"	2"
CENTENNIAL CENTRE BOULEVARD (TEMPORARY	TEMP	3"	2"
FOREST ROAD	E-1	4"	2"
WOODLAND ROAD	E-0.3	2.25"	2"
CTH C (RURAL)	E-3	2.25"	1.75"
CATHERINE/WOODLAND CULDESAC	E-0.3	2.75"	2"
STH 29 CROSSOVERS	TEMP	3"	2"
CTH FF WINTER PAVING	TEMP	-	3"

DIGGERS HOTLINE
Call 811 3 Work Days Before You Dig
or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

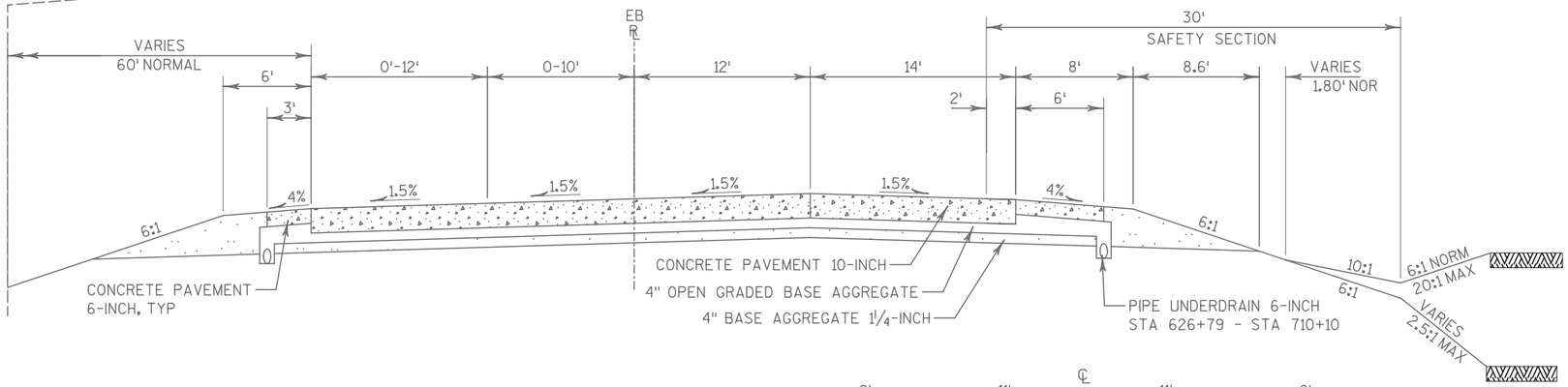


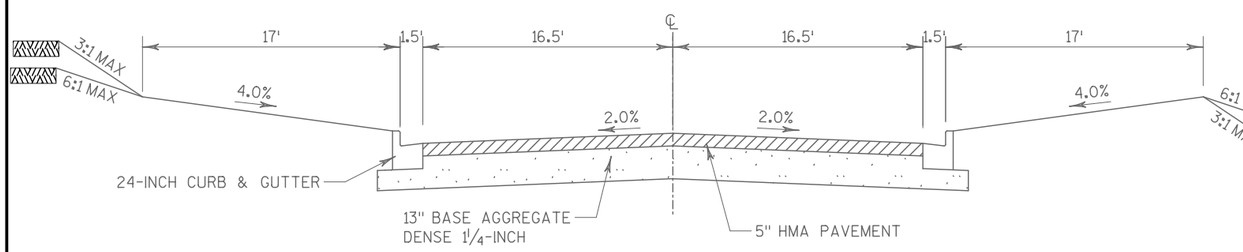
PROJECT NO: 9200-04-71	HWY: STH 29/CTH FF	COUNTY: BROWN	PROJECT OVERVIEW	SHEET 3	E



TYPICAL EXISTING SECTION
STH 29

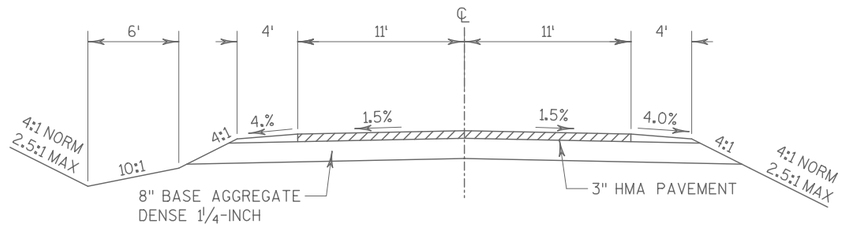
STA 626+79.54 - STA 710+00.00





TYPICAL EXISTING SECTION
CENTENNIAL CENTRE BOULEVARD

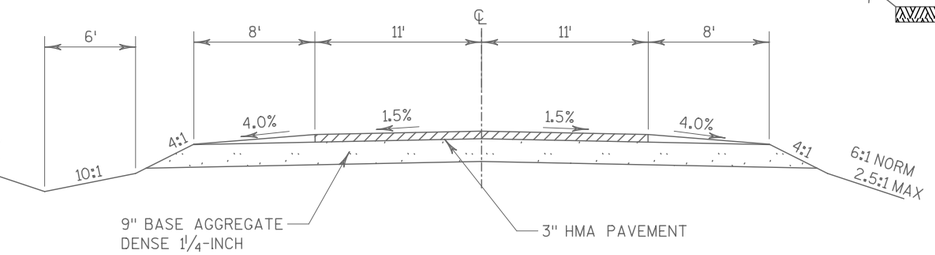
STA 60+35.10 - STA 62+00.00



TYPICAL EXISTING SECTION
TOWN ROADS

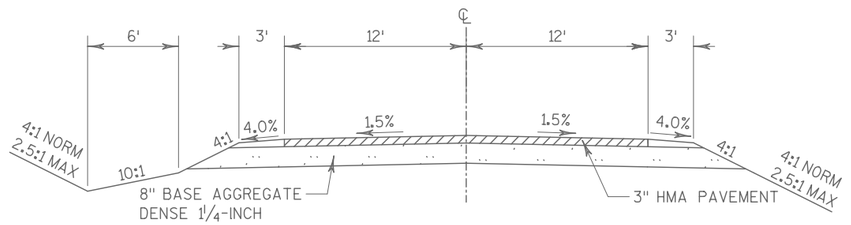
*EXISTING ALIGNMENT STATIONING USED FOR THE ROADWAYS

CTH C (SHAWANO AVENUE) - STA 393+45.00 - STA 406+48.31
*FOREST ROAD - STA 32+41.24 - STA 42+20.43
*WOODLAND ROAD - STA 11+00.00 - STA 19+04.20, STA 87+94.69 - STA 91+47.85
*GREENFIELD AVENUE - STA 20+00.00 - STA 23+00.00
NAVAJO TRAIL - STA 80+00.00 - STA 82+57.98



TYPICAL EXISTING SECTION
CTH FF (HILLCREST DRIVE)/CTH FF (SHERWOOD STREET)

STA 219+78.31 - STA 273+51.48

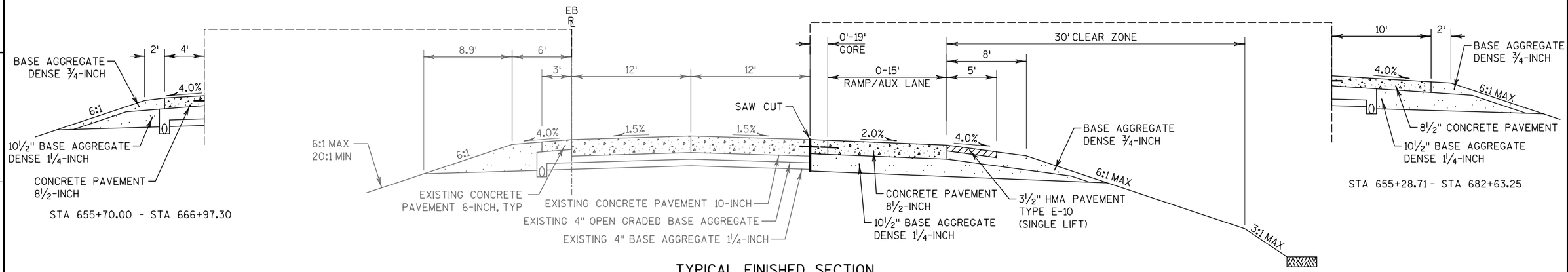


TYPICAL EXISTING SECTION
TOWN ROADS

CENTENNIAL CENTRE BOULEVARD
*STA 2+31.47 - STA 9+54.51

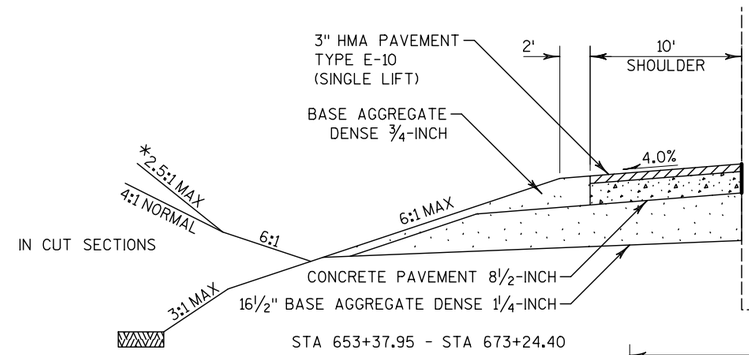
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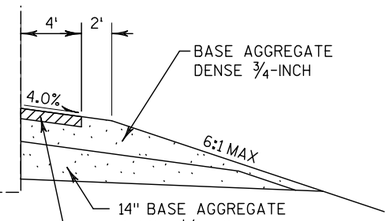
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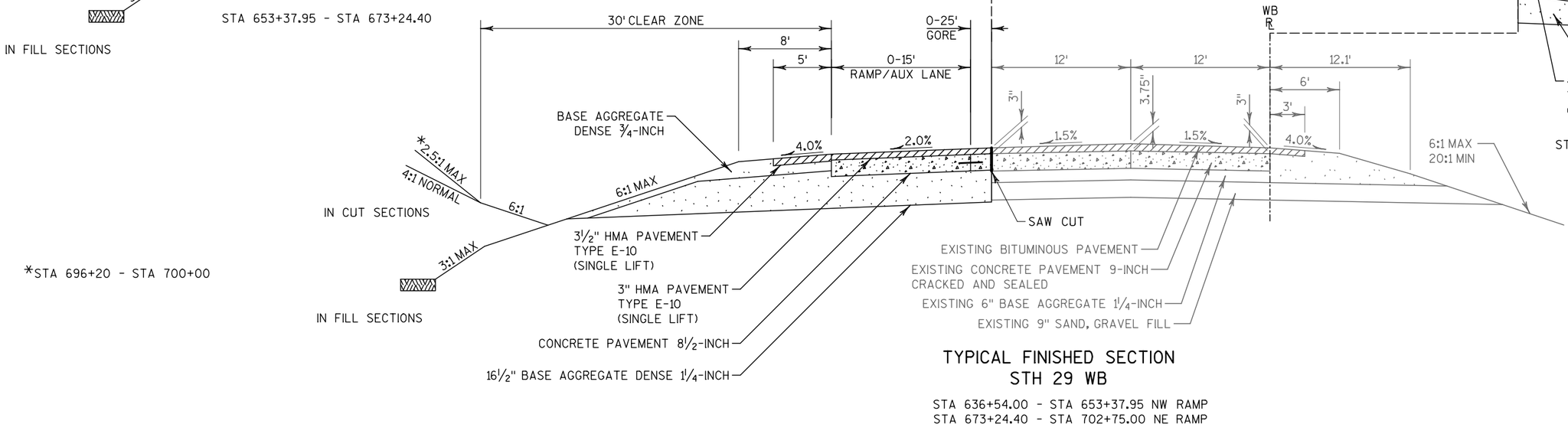


TYPICAL FINISHED SECTION
STH 29 EB

STA 651+00.00 - STA 655+28.71 SW RAMP
STA 682+63.25 - STA 710+10.00 SE RAMP







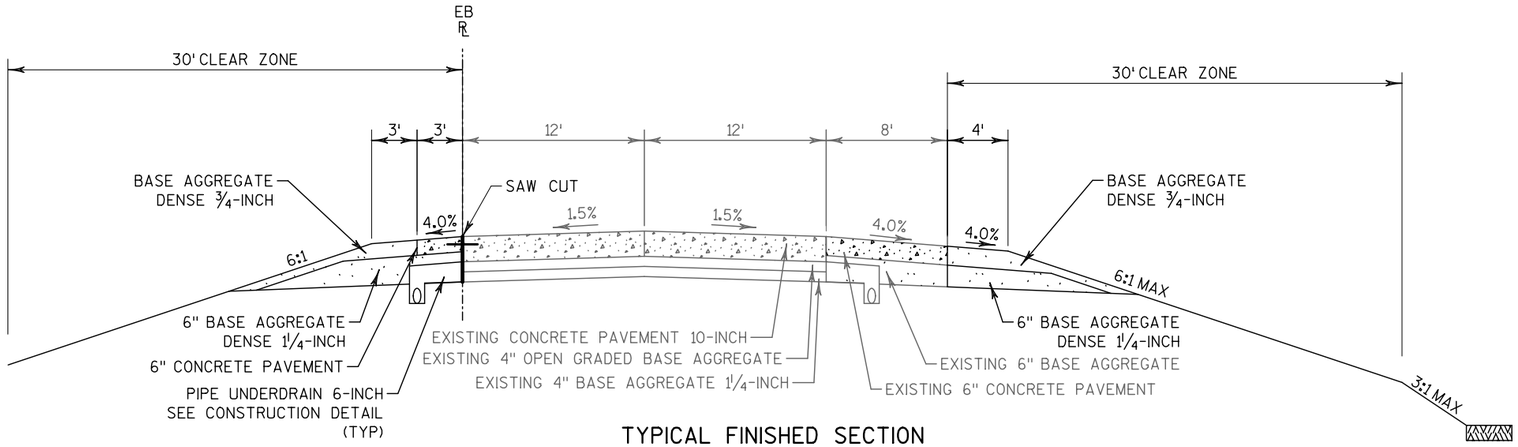
*STA 696+20 - STA 700+00

TYPICAL FINISHED SECTION
STH 29 WB

STA 636+54.00 - STA 653+37.95 NW RAMP
STA 673+24.40 - STA 702+75.00 NE RAMP

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TYPICAL SECTION	SHEET	E

2

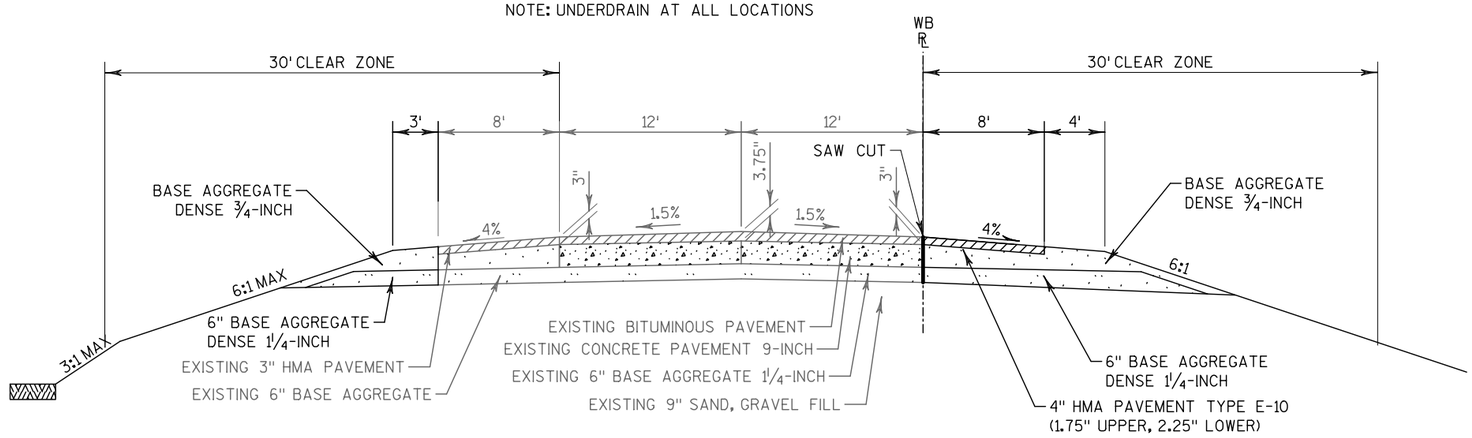


TYPICAL FINISHED SECTION
STH 29 EB

STA 626+79.53 - STA 633+75.29 LT

STA 628+50.22 - STA 633+95.69 RT

NOTE: UNDERDRAIN AT ALL LOCATIONS

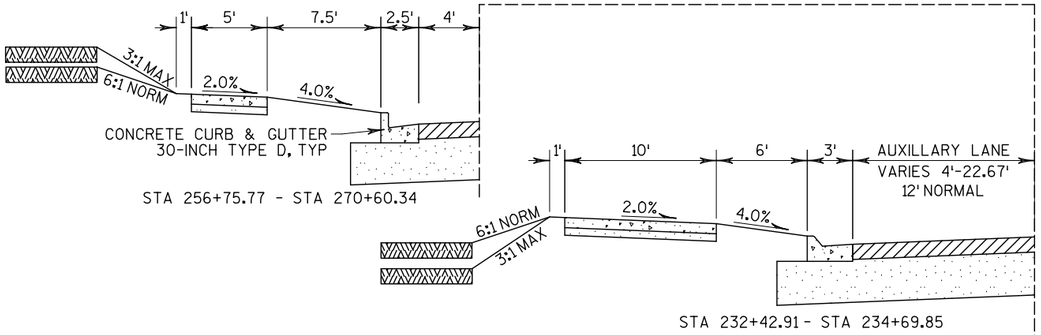


TYPICAL FINISHED SECTION
STH 29 WB

STA 631+09.76 - STA 633+41.47 LT

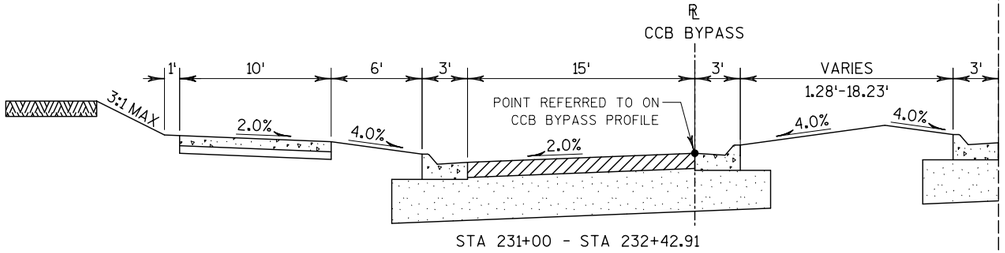
STA 630+65.85 - STA 636+62.96 RT

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TYPICAL SECTION	SHEET 6	E

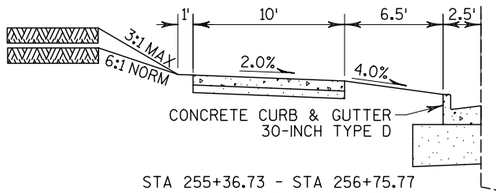


STA 256+75.77 - STA 270+60.34

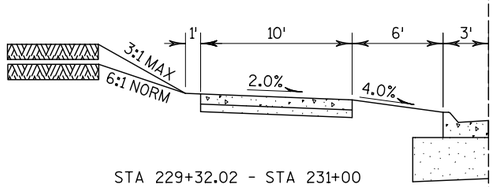
STA 232+42.91 - STA 234+69.85



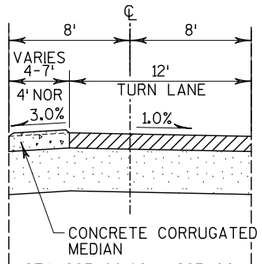
STA 231+00 - STA 232+42.91



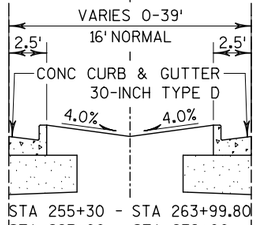
STA 255+36.73 - STA 256+75.77
STA 270+60.34 - STA 273+00



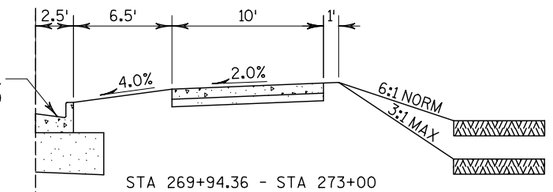
STA 229+32.02 - STA 231+00



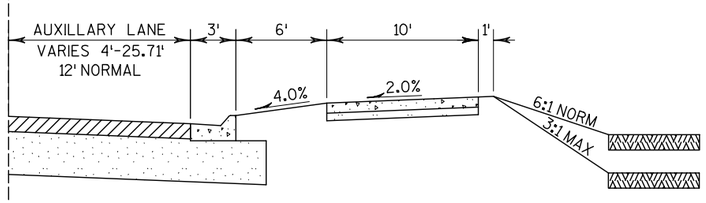
STA 263+99.80 - STA 267+00



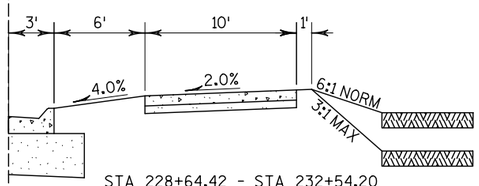
STA 255+30 - STA 263+99.80
STA 267+00 - STA 272+00



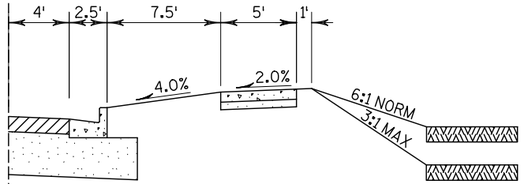
STA 269+94.36 - STA 273+00



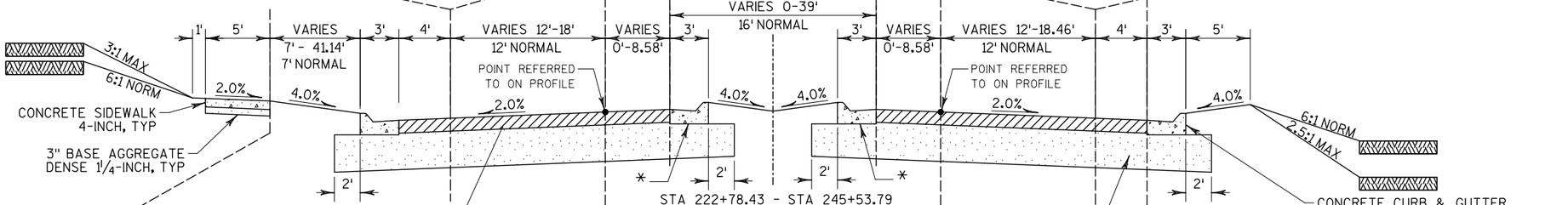
STA 243+32.65 - STA 245+53.79



STA 228+64.42 - STA 232+54.20



STA 255+25.19 - STA 269+94.36



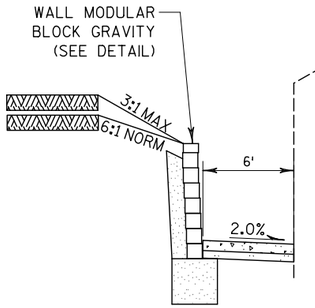
STA 222+78.43 - STA 245+53.79

6" HMA PAVEMENT, TYPE E-3, TYP
(2" UPPER LAYER, 4" LOWER LAYER)
STA 221+50.00 - STA 229+32.02
STA 234+69.85 - STA 245+64.24

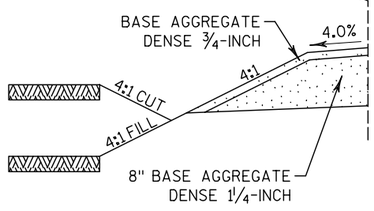
STA 219+78.33 - STA 245+64.24
STA 255+36.73 - STA 273+00

17" BASE AGGREGATE
DENSE 1¼-INCH, TYP
STA 219+78.33 - STA 245+53.79
STA 255+25.19 - STA 273+00

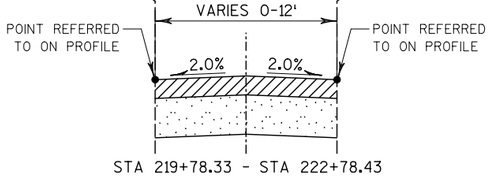
STA 223+78.57 - STA 228+64.42
STA 232+54.20 - STA 243+32.65



STA 227+75.00 - STA 229+19.61

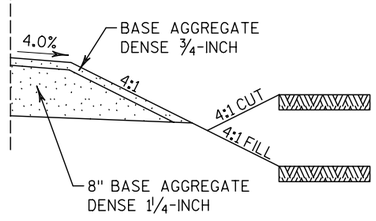


STA 219+78.33 - STA 221+50.00



STA 219+78.33 - STA 222+78.43

TYPICAL FINISHED SECTION
CTH FF
STA 219+78.33 - STA 245+53.79
STA 255+30 - STA 263+99.80



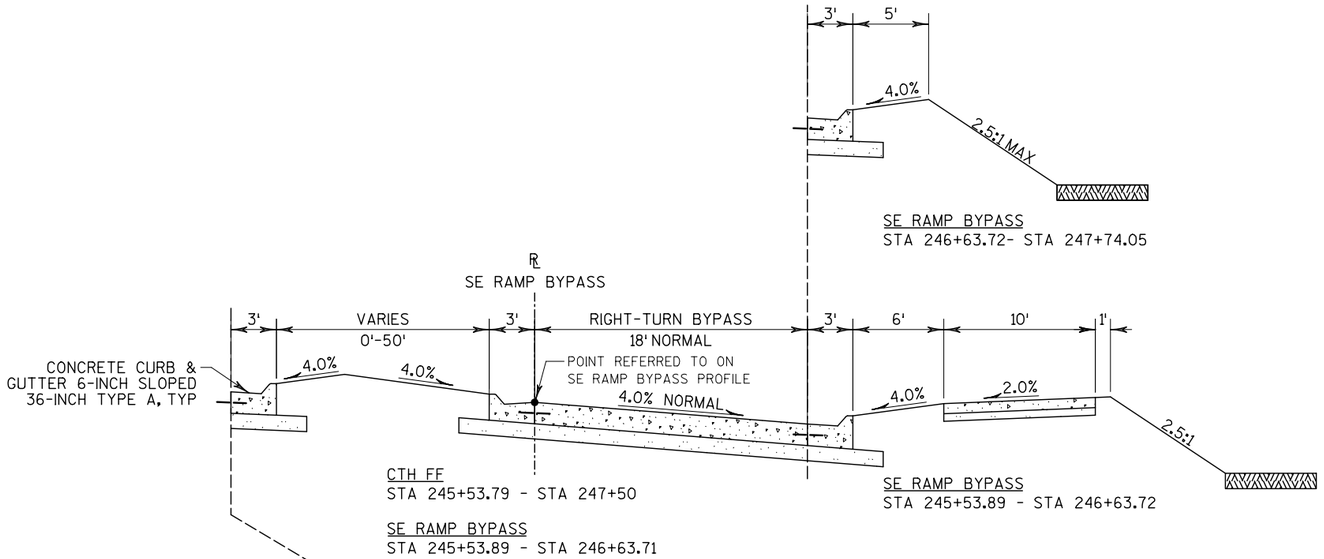
STA 219+78.33 - STA 223+78.57

NOTE:
* STA 222+78.43 - 230+00:
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE T

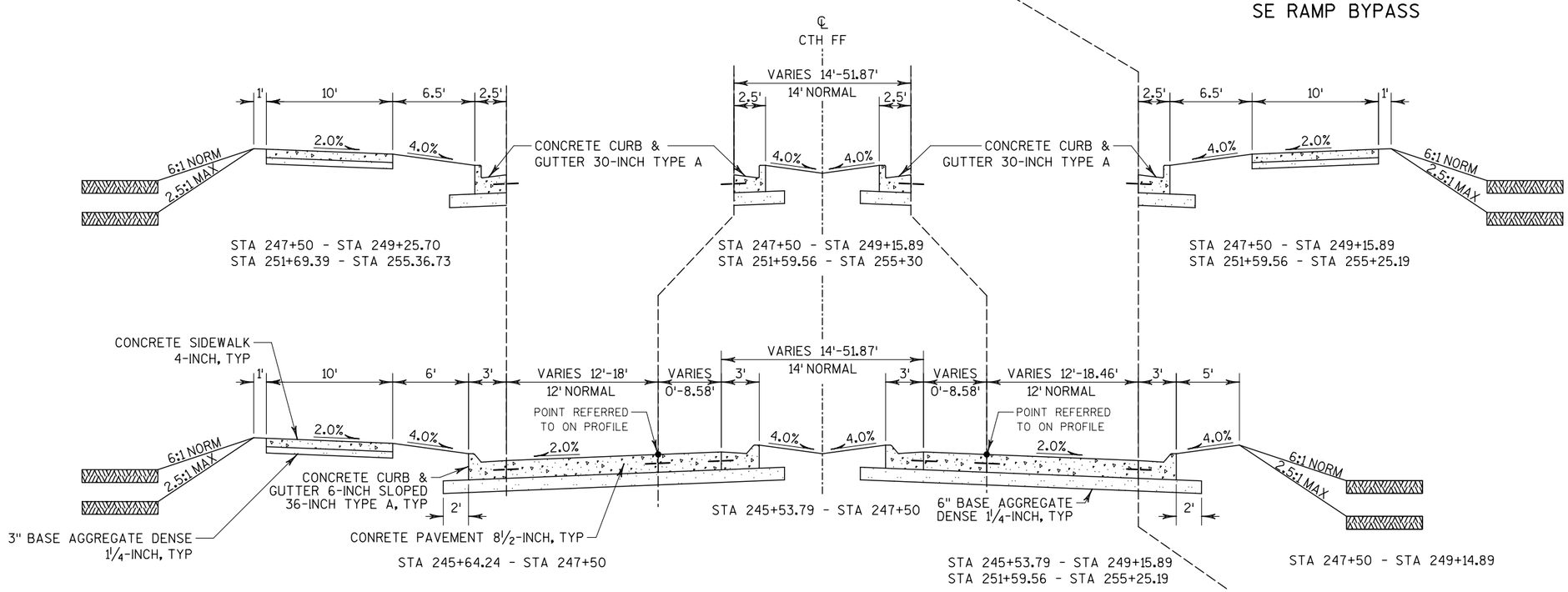
SEE PAN DETAILS FOR LOCATIONS OF
CURB AND GUTTER TRANSITION SECTIONS.

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TYPICAL SECTION	SHEET 7	E

2



TYPICAL FINISHED SECTION
SE RAMP BYPASS

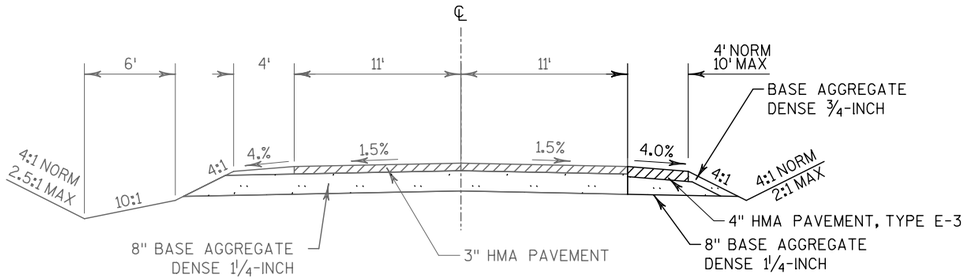


TYPICAL FINISHED SECTION
CTH FF

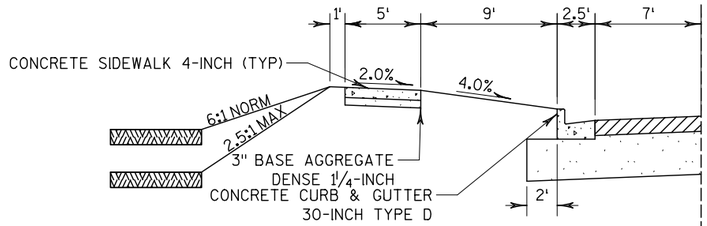
STA 245+53.79 - 255+30

NOTE:
SEE PLAN DETAILS FOR LOCATIONS OF
CURB AND GUTTER TRANSITION SECTIONS.

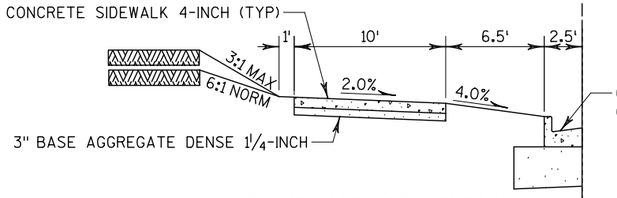
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TYPICAL SECTION	SHEET 8	E



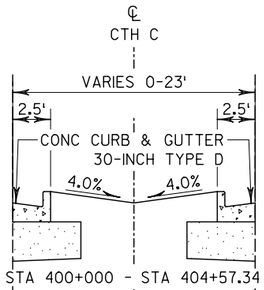
TYPICAL FINISHED SECTION
CTH C (SHAWANO AVENUE)
STA 406+48.31 - STA 408+15.26



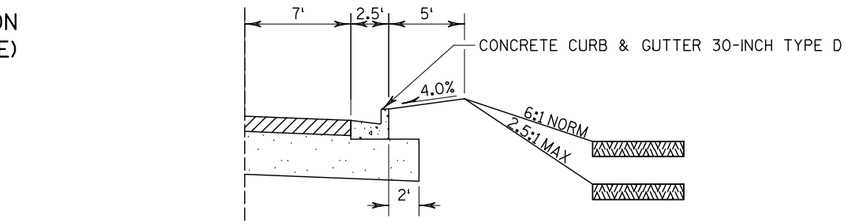
STA 401+80.93 - STA 406+48.31



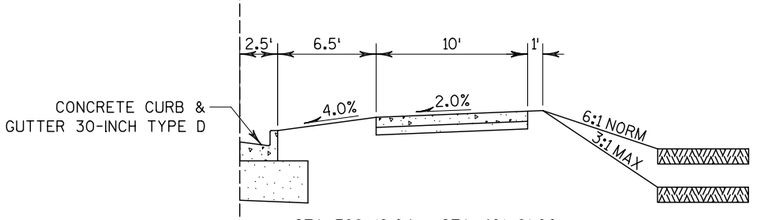
STA 398+09.00 - STA 401+80.93



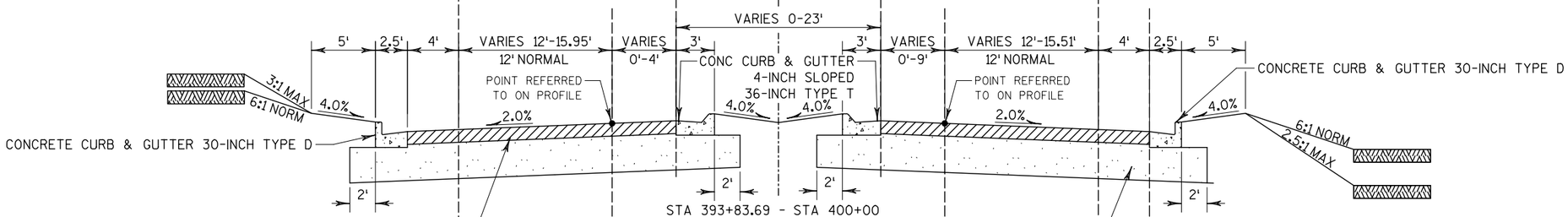
STA 400+000 - STA 404+57.34



STA 401+91.00 - STA 406+48.31



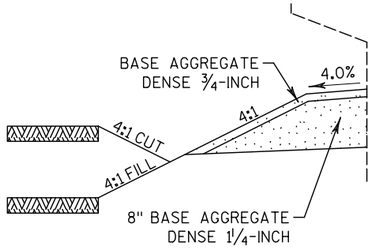
STA 398+12.04 - STA 401+91.00



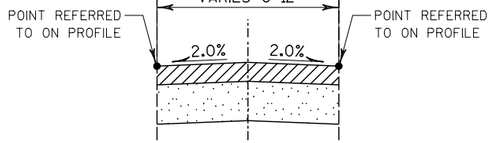
STA 393+83.69 - STA 400+00

STA 393+83.69 - STA 398+09.00

STA 393+83.69 - STA 398+12.04

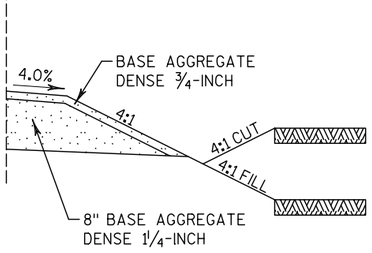


STA 393+45.00 - STA 393+83.69



STA 393+45.00 - STA 393+83.69
STA 404+57.34 - STA 406+48.31

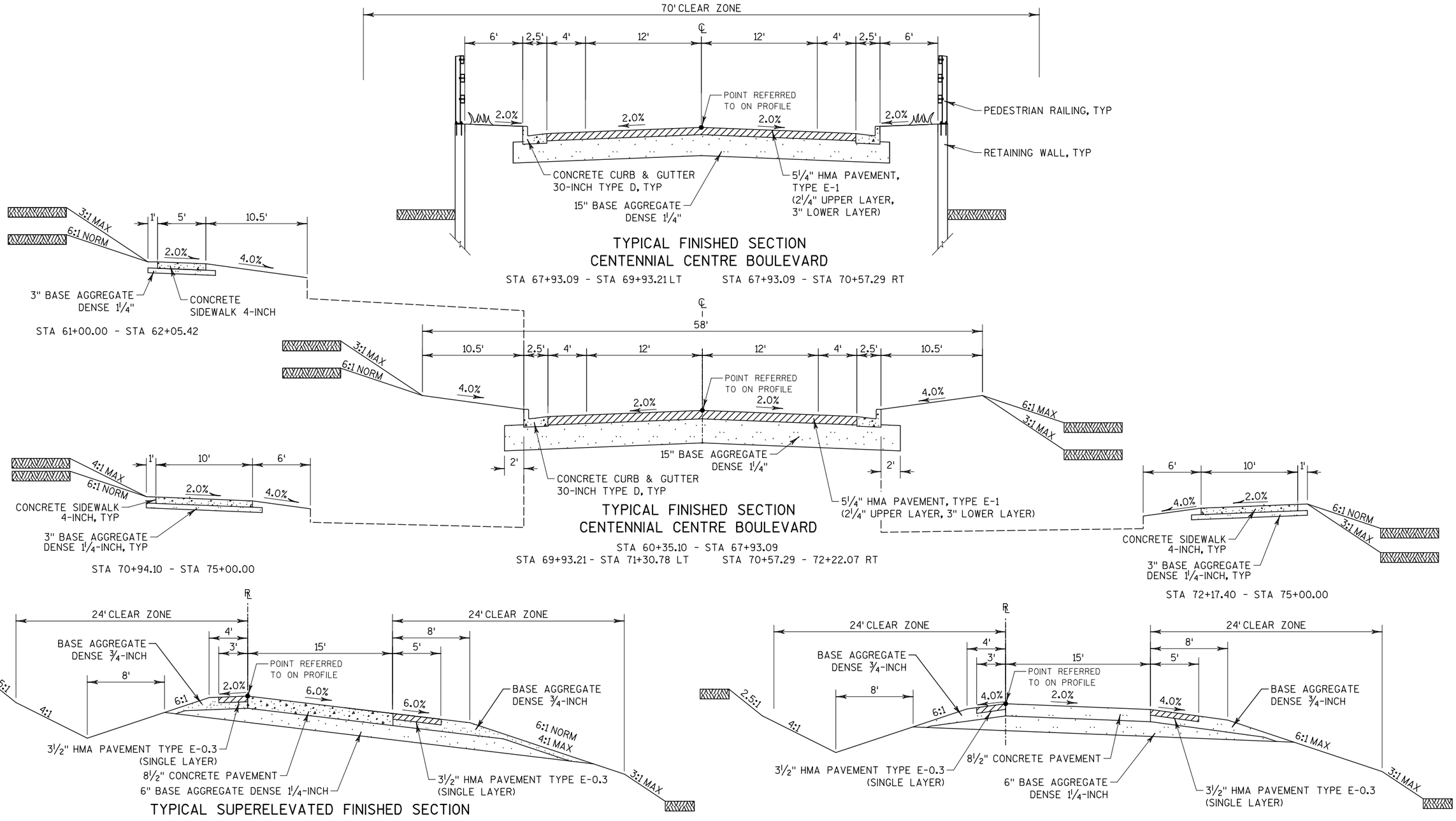
TYPICAL FINISHED SECTION
CTH C
STA 393+45.00 - STA 406+48.31



STA 393+45.00 - STA 393+83.69

NOTE:
SEE PLAN DETAILS FOR LOCATIONS OF
CURB AND GUTTER TRANSITION SECTIONS.

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TYPICAL SECTION	SHEET 9	E



STA 61+00.00 - STA 62+05.42

TYPICAL FINISHED SECTION
CENTENNIAL CENTRE BOULEVARD

STA 67+93.09 - STA 69+93.21 LT STA 67+93.09 - STA 70+57.29 RT

STA 70+94.10 - STA 75+00.00

TYPICAL FINISHED SECTION
CENTENNIAL CENTRE BOULEVARD

STA 60+35.10 - STA 67+93.09
STA 69+93.21 - STA 71+30.78 LT STA 70+57.29 - 72+22.07 RT

STA 72+17.40 - STA 75+00.00

TYPICAL SUPERELEVATED FINISHED SECTION
SINGLE LANE RAMP

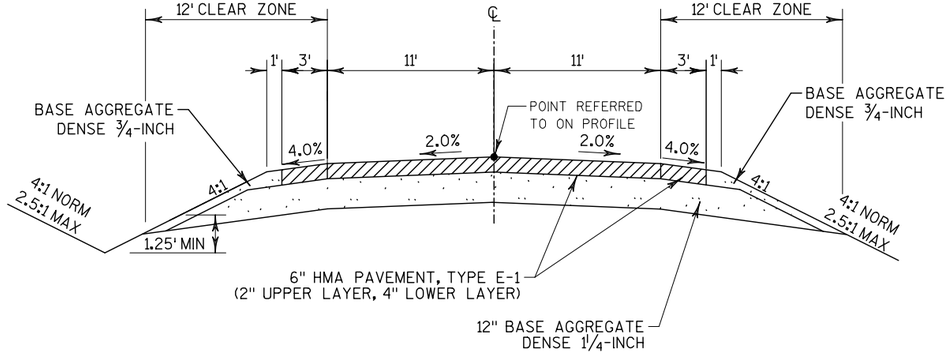
NW RAMP STA 650+91.92 - STA 653+78.21 (5.7%)
STA 660+70.66 - STA 663+53.80 (3.8%)
NE RAMP STA 663+57.69 - STA 664+61.60
STA 666+86.36 - STA 675+07.74
SW RAMP STA 655+66.81 - STA 667+27.31
SE RAMP STA 667+50.36 - STA 668+89.00 (5.2%)
STA 683+32.76 - STA 686+06.23 (4.0%)

NOTE:
SEE PLAN DETAILS FOR LOCATIONS OF CURB AND GUTTER TRANSITION SECTIONS.

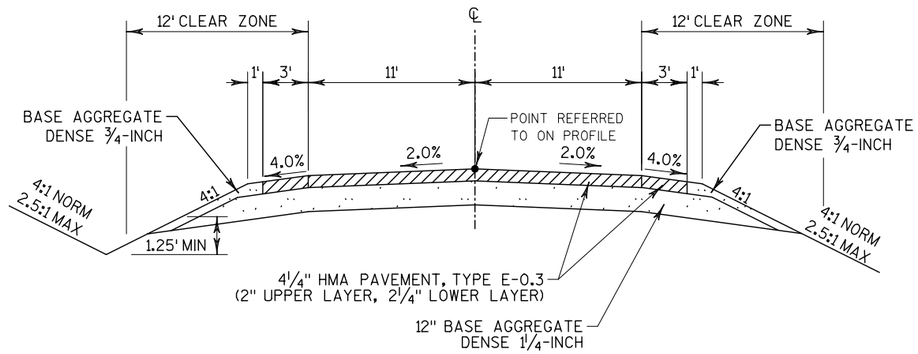
TYPICAL FINISHED SECTION
SINGLE LANE RAMP

NW RAMP STA 653+78.21 - STA 660+70.66
NE RAMP STA - 664+61.60 - STA 666+86.36
SW RAMP STA - 652+90.98 - STA 655+66.81
SE RAMP STA 679+55.86 - STA 683+32.76

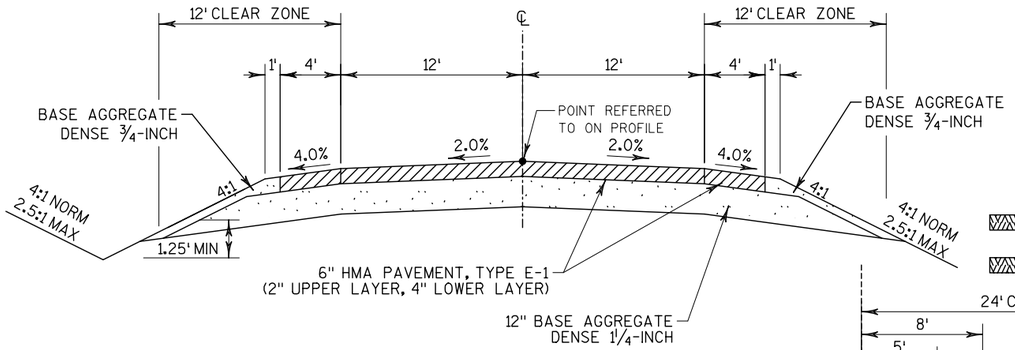
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TYPICAL SECTION	SHEET 10	E



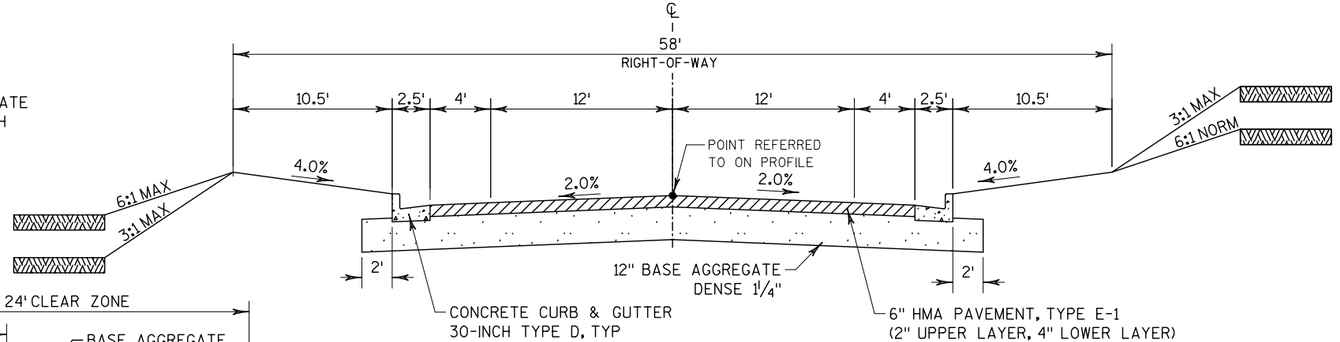
TYPICAL FINISHED SECTION
TOWN ROADS
FOREST ROAD
STA 344+19.59 - STA 350+00.00



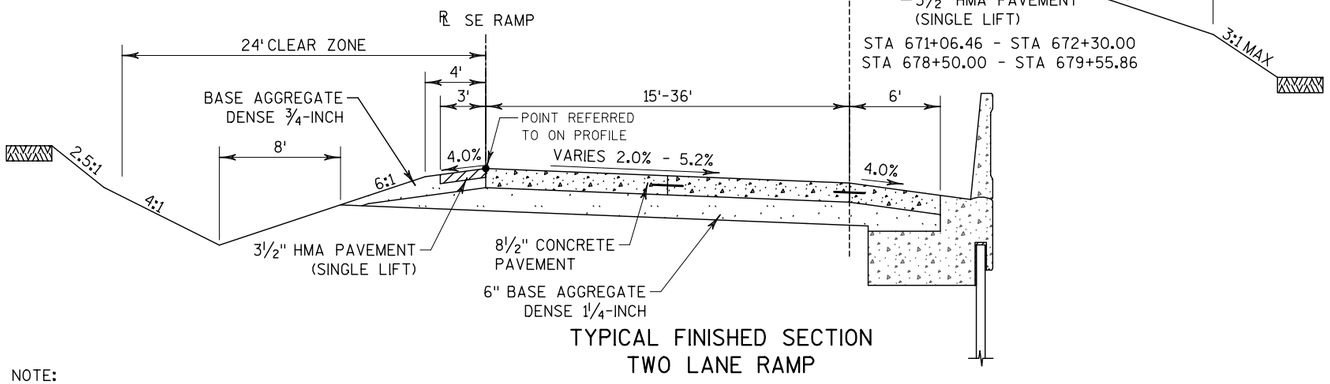
TYPICAL FINISHED SECTION
TOWN ROADS
WOODLAND ROAD & GREENFIELD AVENUE
STA 50+50.00 - STA 62+00.00



TYPICAL RURAL FINISHED SECTION
CENTENNIAL CENTRE BOULEVARD
STA 20+02.33 - STA 51+49.00



TYPICAL FINISHED URBAN SECTION
CENTENNIAL CENTRE BOULEVARD
STA 51+49.00 - STA 55+10.71

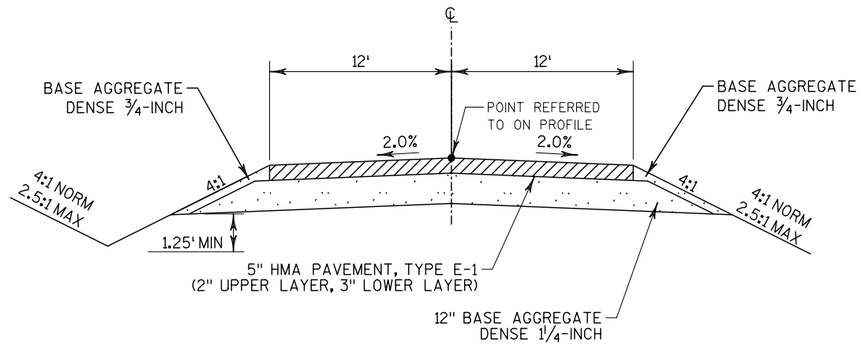


TYPICAL FINISHED SECTION
TWO LANE RAMP

NOTE:
SEE PLAN DETAILS FOR LOCATIONS OF CURB AND GUTTER TRANSITION SECTIONS.

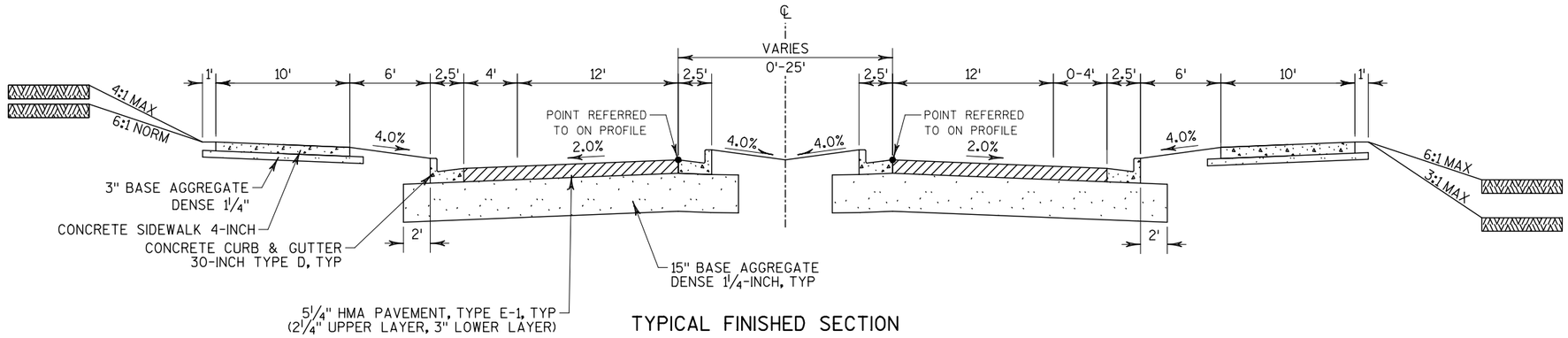
SE RAMP SUPERELEVATION
STA 668+89.00 - STA 671+06.46 (5.2%)

SE RAMP NORMAL CROWN
STA 671+06.46 - STA 679+55.86

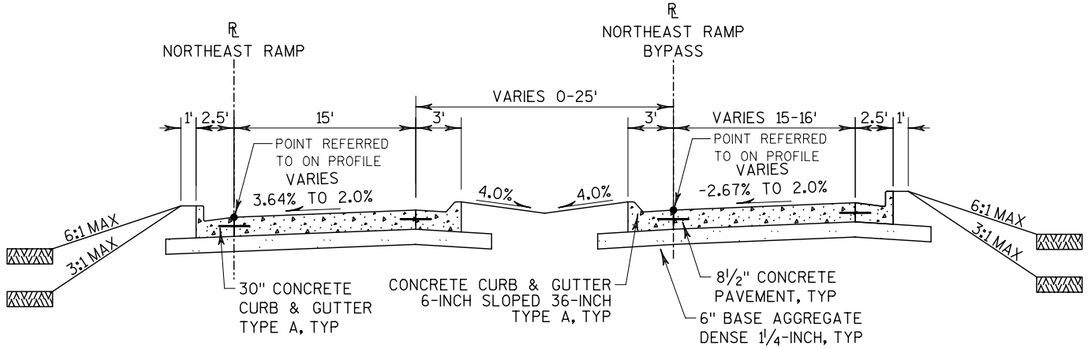


TYPICAL FINISHED SECTION
CENTENNIAL CENTRE BOULEVARD TEMPORARY
STA 10+00.00 - STA 12+00.00

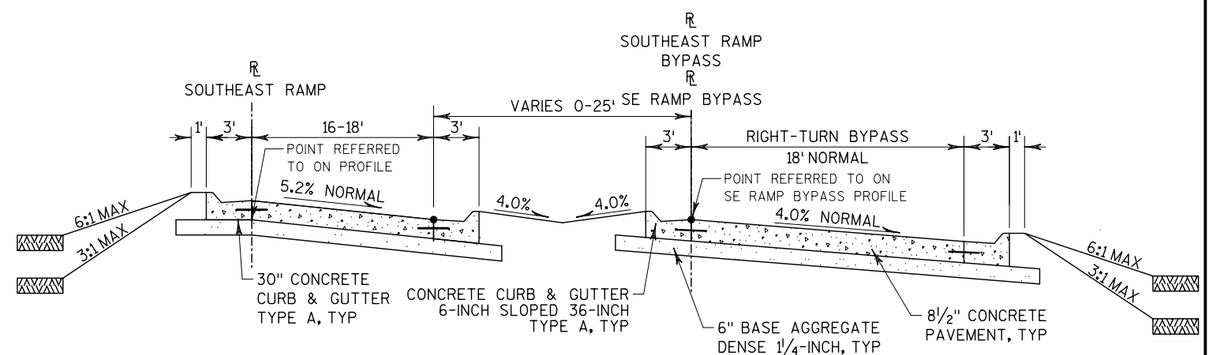
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TYPICAL SECTION	SHEET 11	E



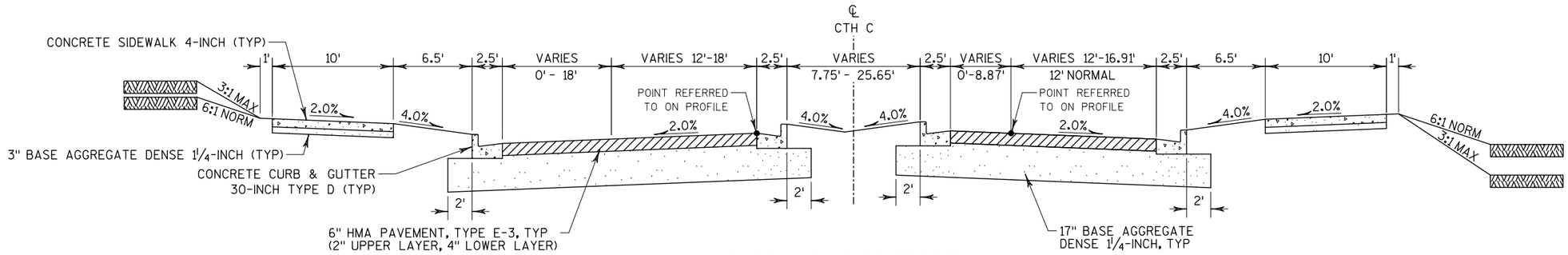
TYPICAL FINISHED SECTION
NAVAJO TRAIL
STA 80+00.00 - STA 82+57.98



TYPICAL FINISHED SECTION
NE BYPASS
STA 663+36.44 - STA 664+77.58

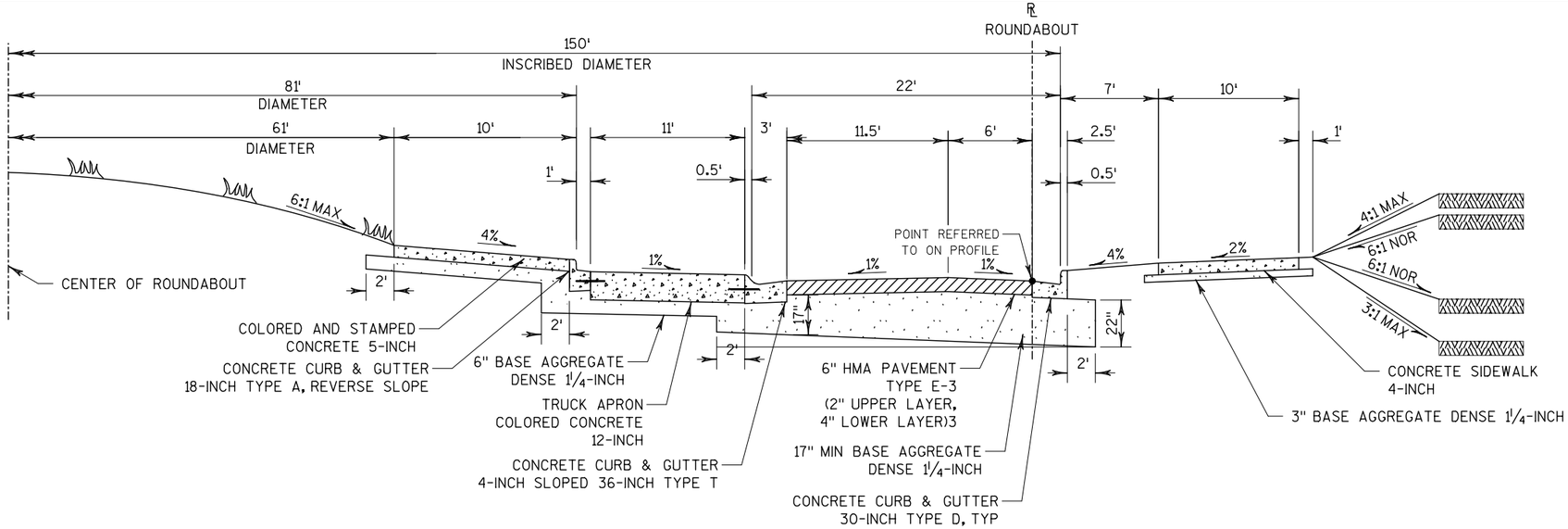


TYPICAL FINISHED SECTION
SE BYPASS
STA 246+63.71 - STA 247+74.05



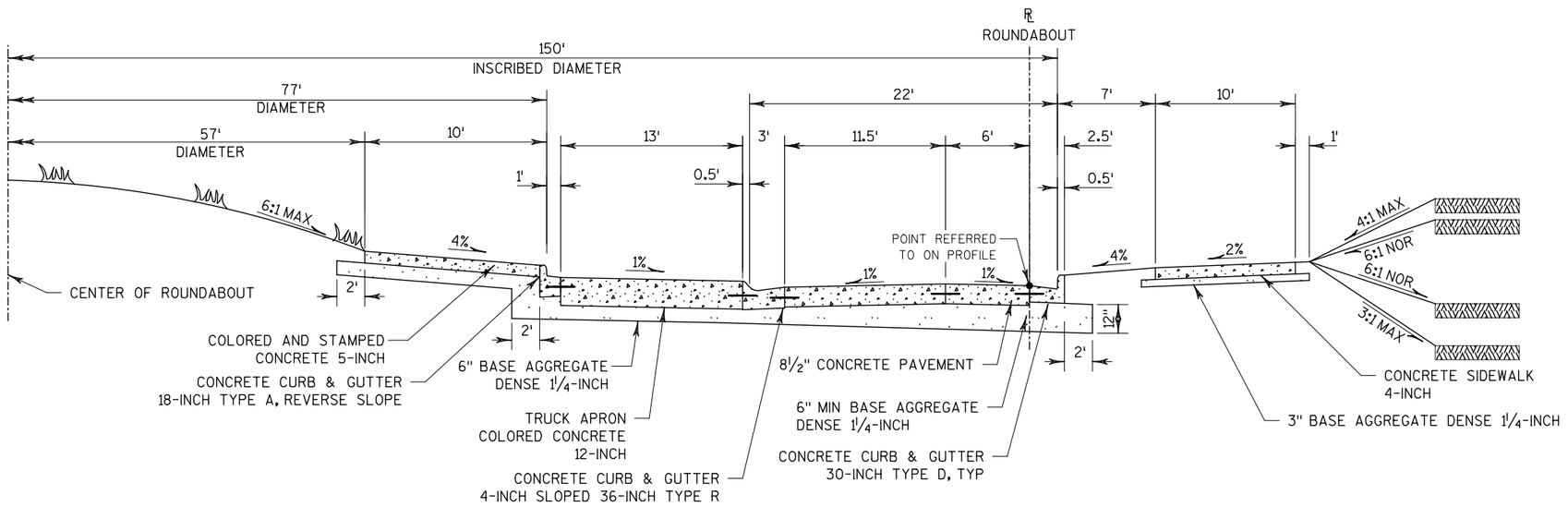
TYPICAL FINISHED SECTION
CENTENNIAL CENTRE BOULEVARD
STA 71+30.78 - STA 75+07.36 LT STA 69+93.21 - 75+70.36 RT

NOTE:
SEE PLAN DETAILS FOR LOCATIONS OF
CURB AND GUTTER TRANSITION SECTIONS.



TYPICAL FINISHED HALF-SECTION
ROUNDABOUTS

CENTENNIAL CENTRE BOULEVARD/ NAVAJO TRAIL
CTH C

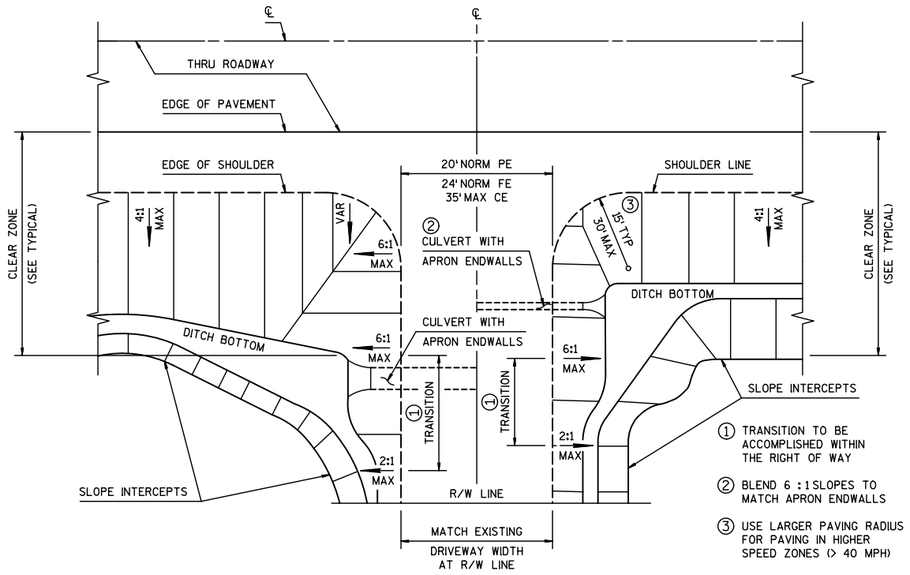


TYPICAL FINISHED HALF-SECTION
ROUNDABOUTS

EB RAMPS
WB RAMPS

NOTE:
SEE PLAN DETAILS FOR LOCATIONS OF
CURB AND GUTTER TRANSITION SECTIONS.

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TYPICAL SECTION	SHEET 13	E

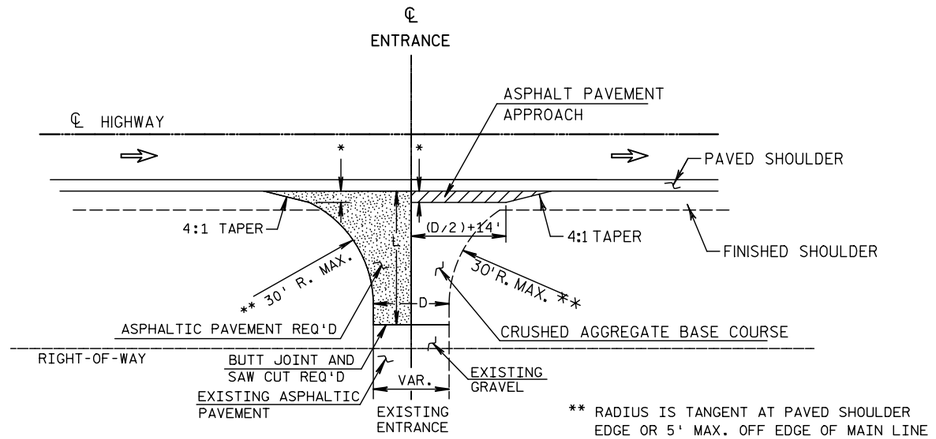


FOR CULVERTS OVER 24" DIAMETER

FOR CULVERTS 24" DIAMETER & LESS

PLAN VIEW

RURAL DRIVEWAY GRADING AND/OR PAVING DETAIL



L=VARIABLE, EXACT LENGTH TO BE DETERMINED IN THE FIELD BY THE ENGINEER. BLEND BACK ON THE ENTRANCE FAR ENOUGH TO GET A SMOOTH PROFILE.

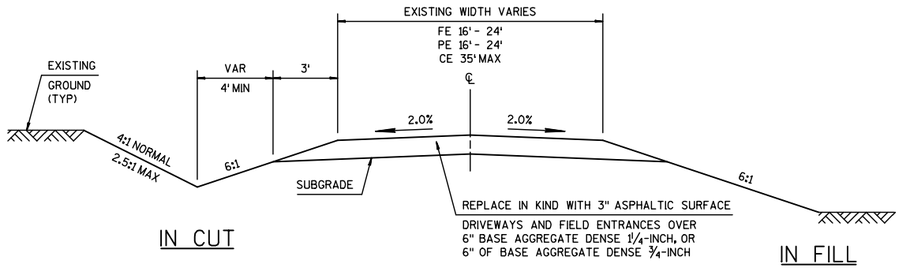
D=DRIVEWAY WIDTH
D=20'TYP.(PE's & FE's) (16'MIN.-24'MAX.)
D=28'TYP.(CE's & FARM ENT.) (24'MIN.-35'MAX.)

** RADIUS IS TANGENT AT PAVED SHOULDER EDGE OR 5' MAX. OFF EDGE OF MAIN LINE PAVEMENT WHICH EVER IS LESS.

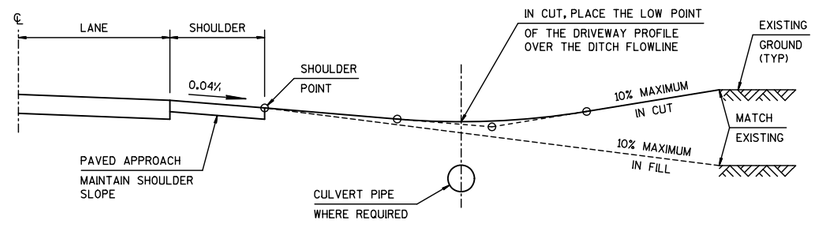
* 3' MAX. OR TO FINISHED SHOULDER WHICH EVER IS LESS.

PLAN VIEW

RURAL DRIVEWAY INTERSECTION DETAIL
(PE's, FE's & CE'S)
(FOR NEW CONSTRUCTION)

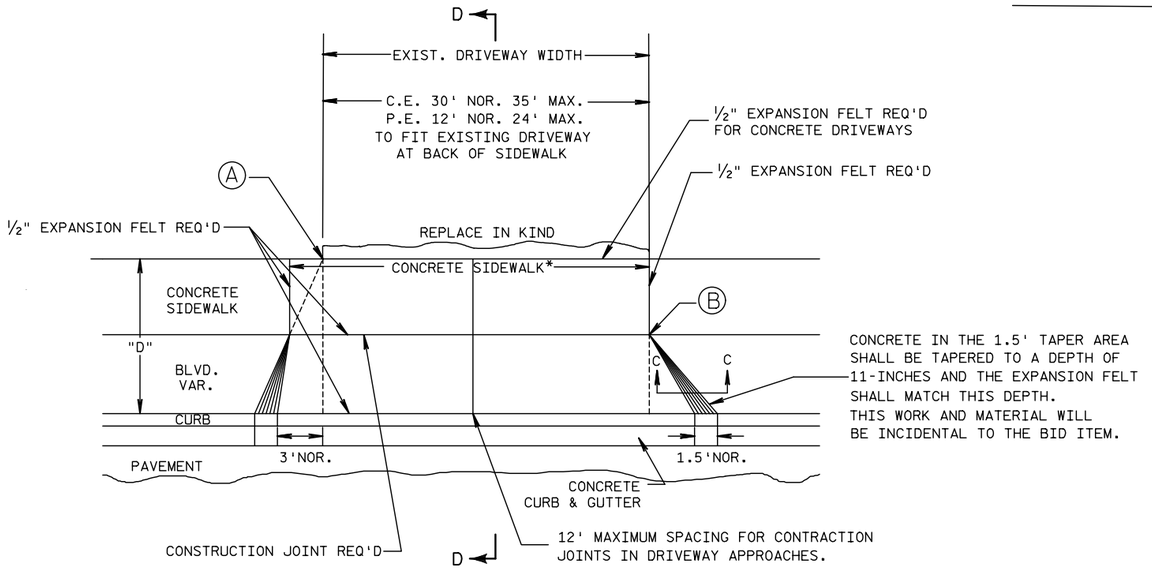


TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE



TYPICAL DRIVEWAY PROFILES

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CONSTRUCTION DETAILS	SHEET 14	E



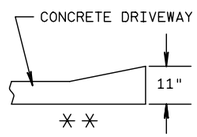
CONCRETE IN THE 1.5' TAPER AREA SHALL BE TAPERED TO A DEPTH OF 11-INCHES AND THE EXPANSION FELT SHALL MATCH THIS DEPTH. THIS WORK AND MATERIAL WILL BE INCIDENTAL TO THE BID ITEM.

PLAN VIEW

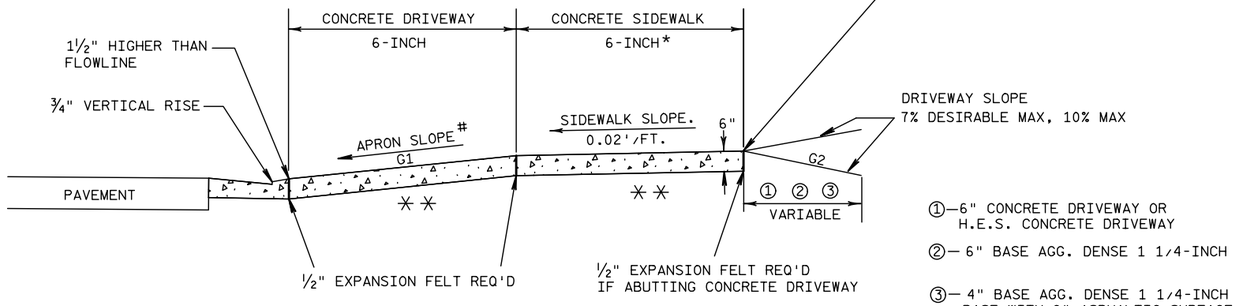
Ⓐ WHEN "D" IS 13' OR LESS, ALIGN TAPER WITH BACK OF SIDEWALK

Ⓑ WHEN "D" IS GREATER THAN 13', ALIGN TAPER WITH FRONT OF SIDEWALK

*PAID FOR AS CONCRETE DRIVEWAY 6-INCH



SECTION C-C



TYPICAL SIDEWALK SECTION
SECTION D-D

①—6" CONCRETE DRIVEWAY OR H.E.S. CONCRETE DRIVEWAY

②— 6" BASE AGG. DENSE 1 1/4-INCH

③— 4" BASE AGG. DENSE 1 1/4-INCH BASE WITH 2" ASPHALTIC SURFACE

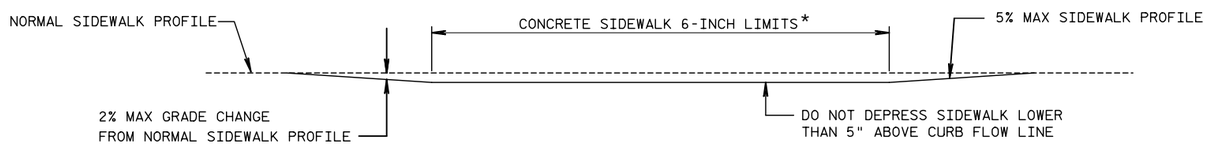
✳✳ = 6" BASE AGG. DENSE 1 1/4-INCH REQ'D UNDER CONCRETE DRWY

\#

TERRACE WIDTH	APRON SLOPE (G1) MIN %	DESIRABLE %	MAX %
3 FT	7.0	8.5	9.0
4 FT	5.0	7.0	9.0
5 FT	4.0	7.0	9.0
6 FT	4.0	7.0	9.0
7 FT	3.5	7.0	9.0
8 FT	3.0	7.0	9.0

NOTE: ALGEBRAIC DIFFERENCE BETWEEN TANGENT GRADES G1 & G2 TO NOT EXCEED 15%

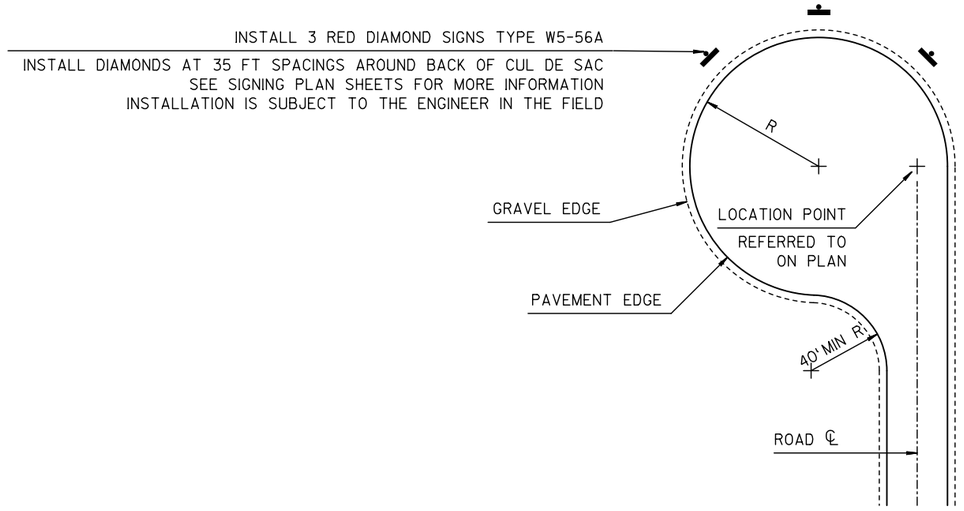
DEPRESS SIDEWALK PROFILE IF DRIVEWAY APRON EXCEEDS MAX SLOPE

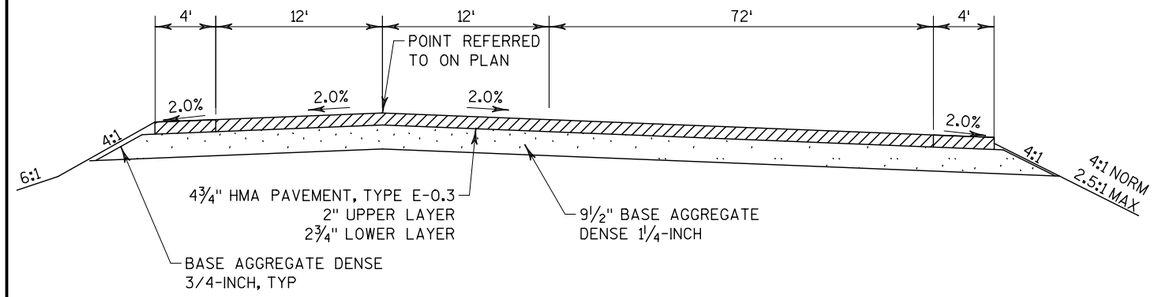


DEPRESSED SIDEWALK PROFILE DETAIL

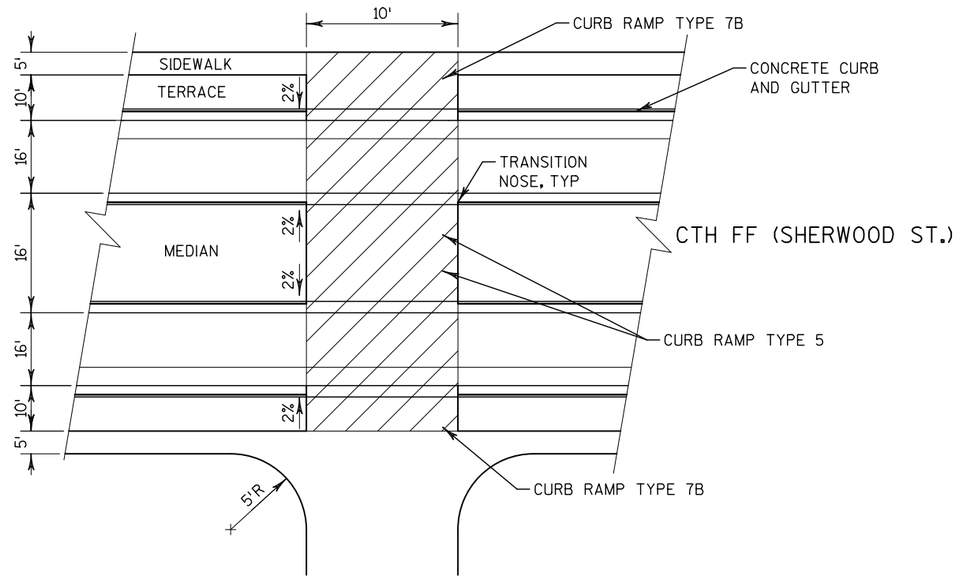
DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER

2





CUL-DE-SAC DETAILS



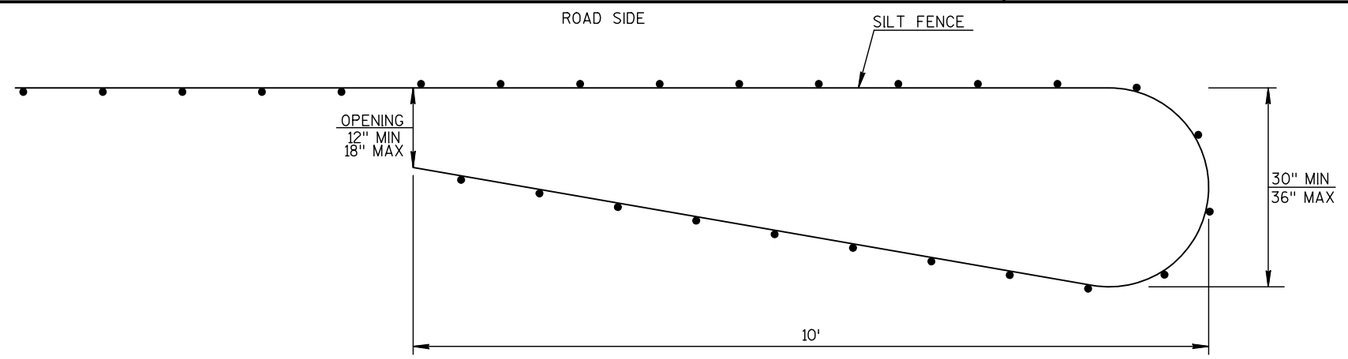
SNOWMOBILE PATH AREA ACROSS ROADWAY

SNOWMOBILE TRAIL CROSSING DETAIL

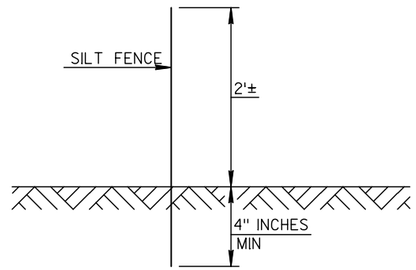
STA 258+38

NOTE: SEE STANDARD DETAIL DRAWING "CURB RAMPS TYPES 5 & 7B" FOR MORE DETAIL.

2

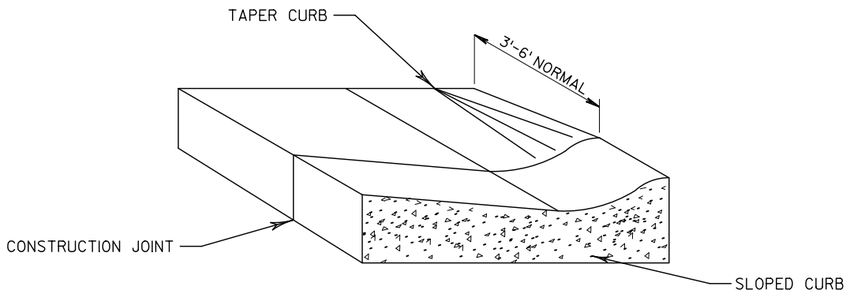


PLAN VIEW

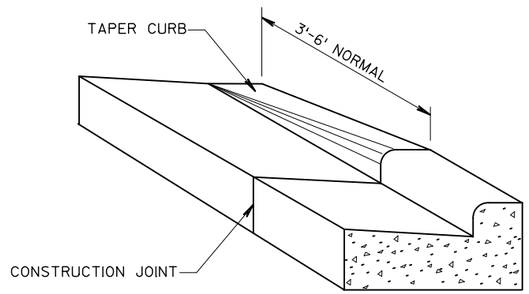


TEMPORARY SILT FENCE TURTLE TURN-AROUND DETAIL

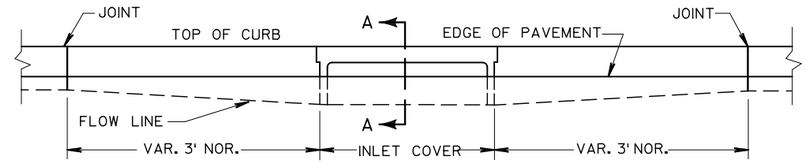
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CONSTRUCTION DETAILS	SHEET 16	E



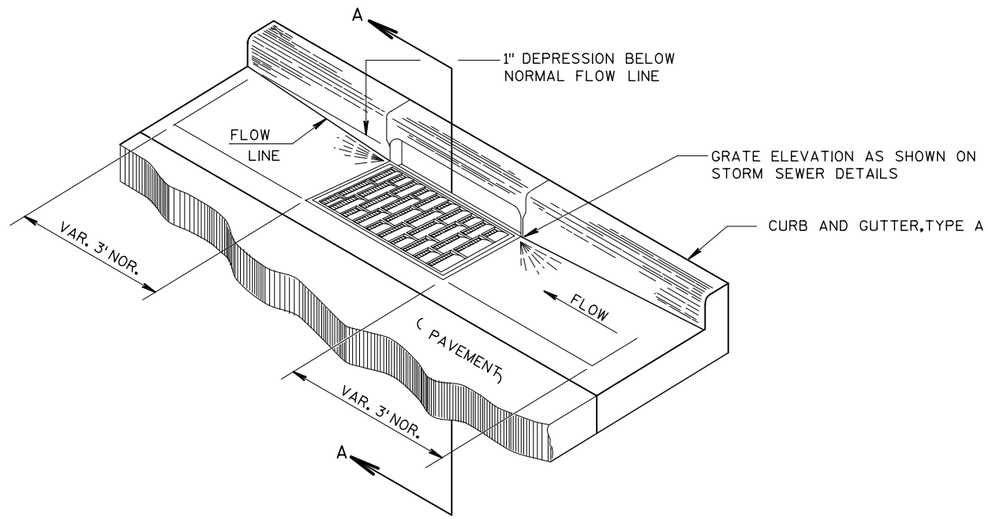
CONCRETE CURB & GUTTER TYPE T

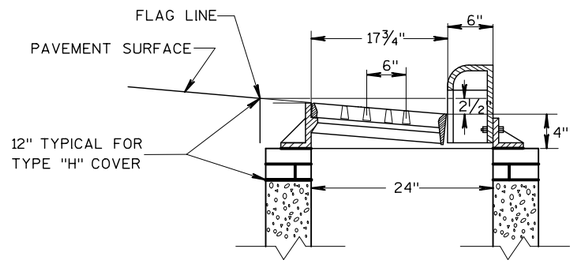


DETAIL OF CURB & GUTTER TERMINI



ELEVATION

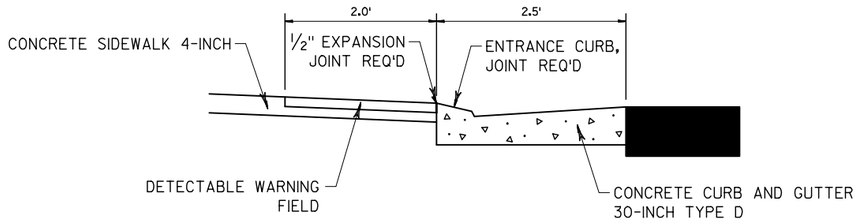




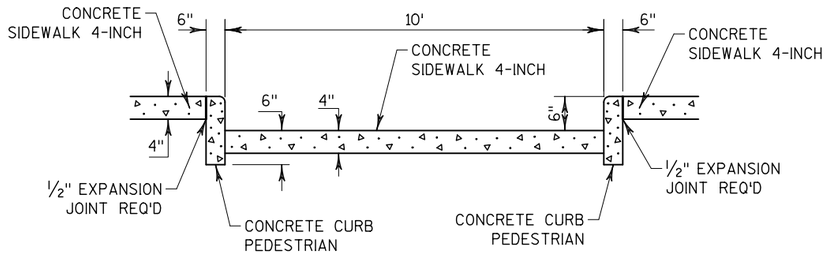
SECTION A-A

DETAIL OF CURB AND GUTTER AT INLETS

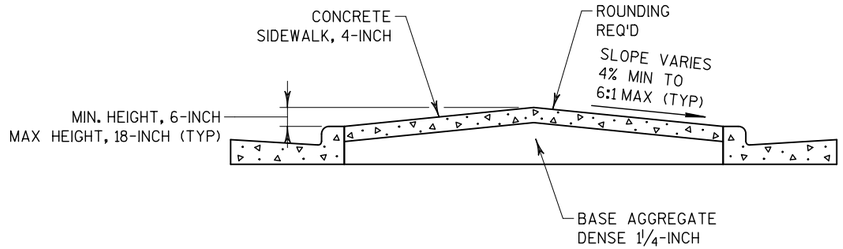
(TYPE 3-H INLET SHOWN)



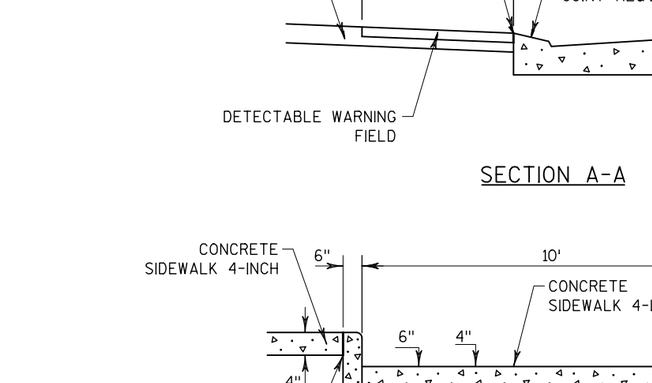
SECTION A-A



SECTION B-B

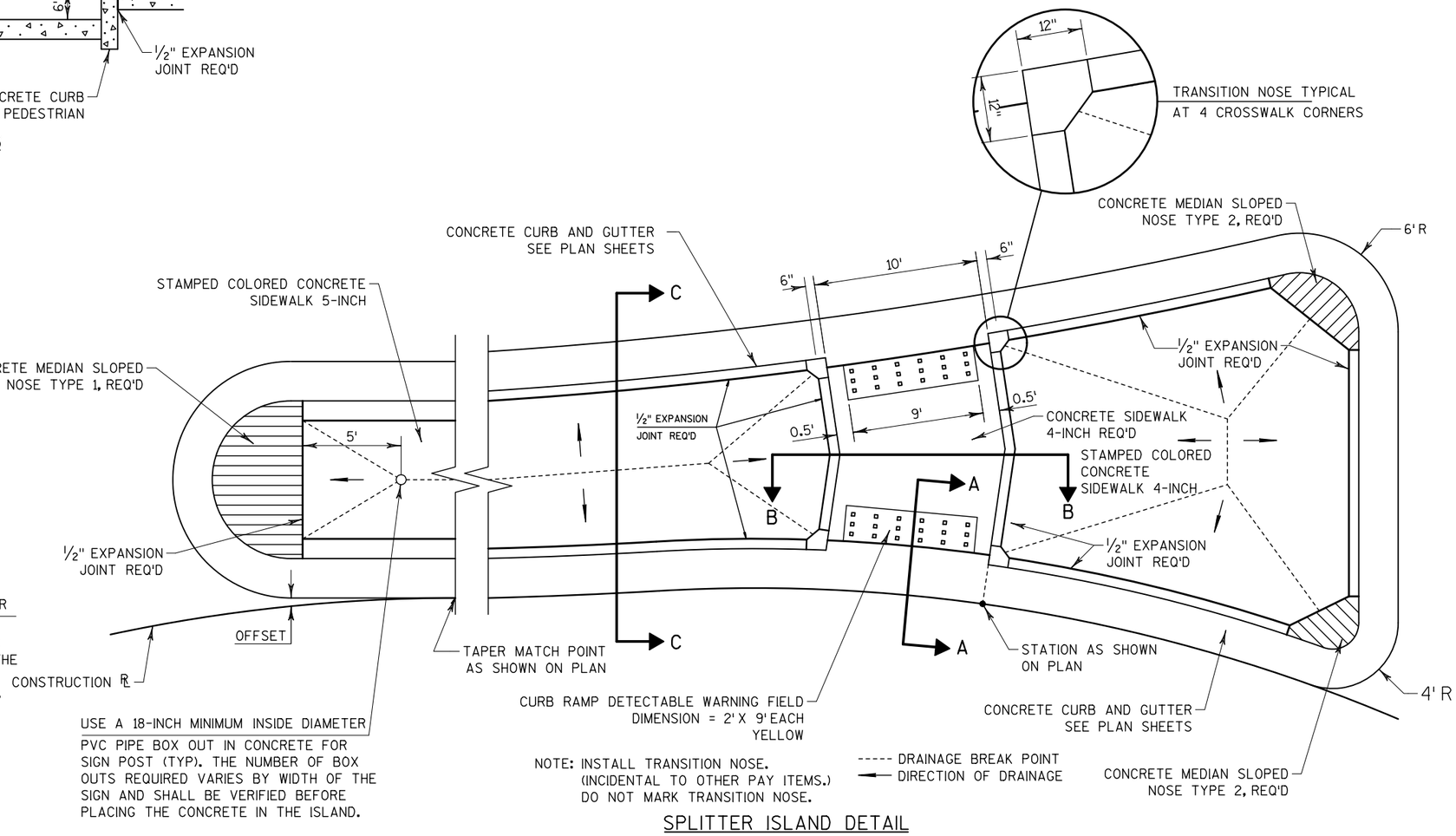


SECTION C-C



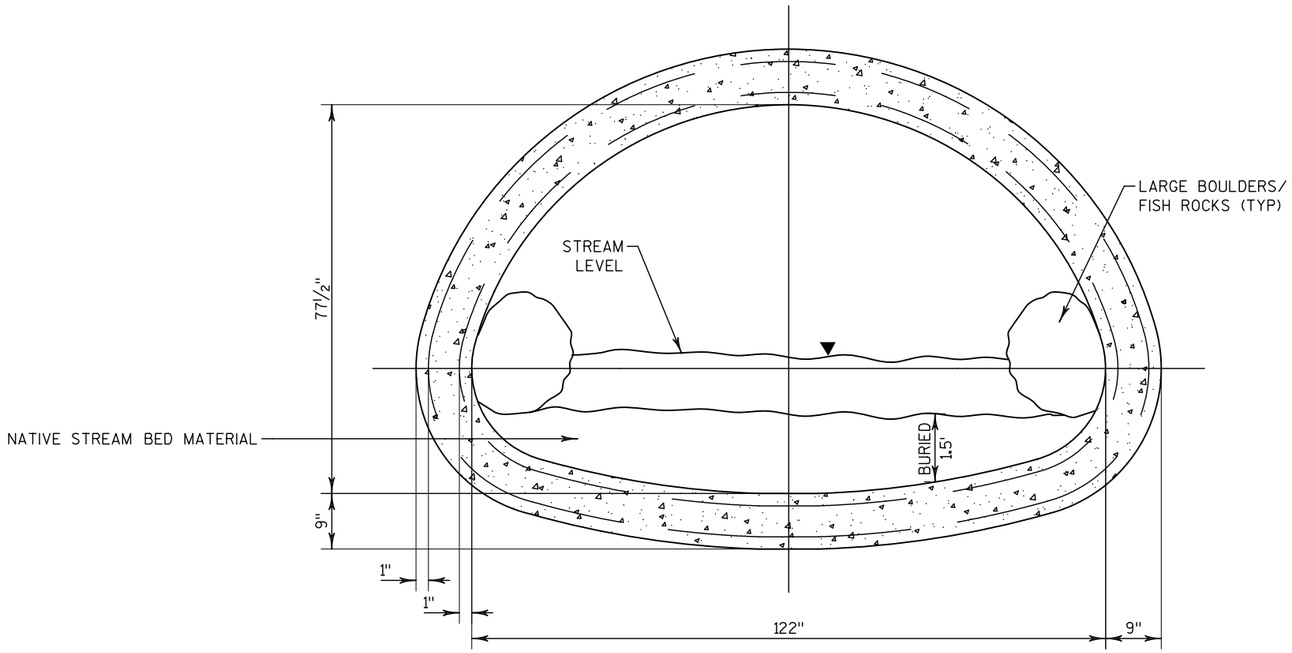
ISLAND SIGN LOCATION DETAIL (TYP)

NOTIFY THE REGIONAL TRAFFIC UNIT AT 920-492-5653 A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING OF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.



SPLITTER ISLAND DETAIL

2



TYPICAL CROSS SECTION

CTH FF CONCRETE ARCH PIPE
(FISH PASSAGE WAY) DETAIL

NOTES:

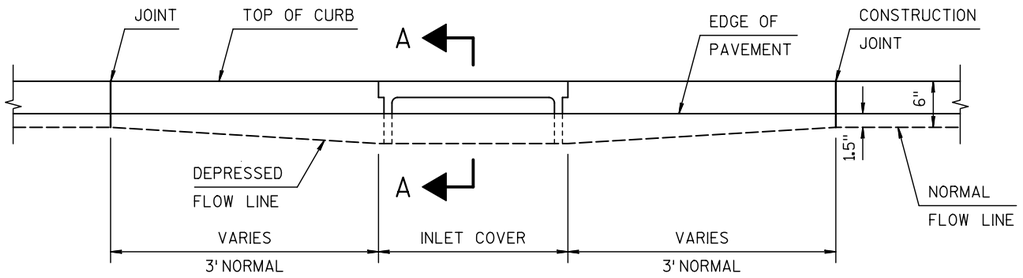
1. THORNBERRY CREEK WILL BE DIVERTED AND THE EXISTING CULVERT PIPE WILL BE REMOVED. (REFER TO CONSTRUCTION DETAIL FOR CULVERT PIPE.)

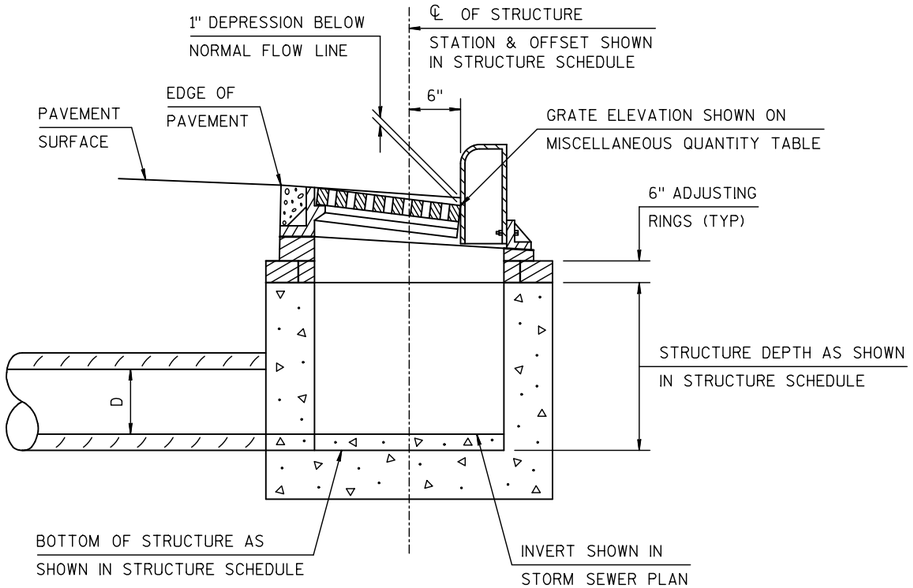
2. ONCE THE CONCRETE ARCH PIPE HAS BEEN PLACED, THE CONTRACTOR WILL PLACE THE NATIVE STREAMBED AND FISH ROCKS INSIDE THE PIPE. THE PIPE IS LARGE ENOUGH TO ALLOW FOR EQUIPMENT AND WORKERS INSIDE THE PIPE.

3. THE CONTRACTOR WILL EVALUATE THE STREAMBED AT AT NATURAL STREAM REFERENCE REACH AWAY FROM THE CULVERT, AND THEN HAVE DOT ENGINEERS CALCULATE A SIMILAR MIX FOR THE CULVERT BOTTOM. WHEN SELECTING A STREAM REFERENCE AREA, IT IS IMPORTANT TO GET BEYOND THE INFLUENCE OF THE CULVERT, EITHER UPSTREAM OR DOWNSTREAM, OR BOTH. DNR WILL ASSIST IN CONDUCTING IN STREAM SURVEYS THIS SPRING, IN ORDER TO BETTER CHARACTERIZE THE NATURAL STREAM WIDTHS, FLOW RATES, AND BED MATERIAL. DNR WILL ALSO RESERVE THE OPPORTUNITY TO INSPECT AND APPROVE THE STREAMBED MIXTURE PRIOR TO, OR DURING CONSTRUCTION. IT IS IMPORTANT THAT THE BED OF THE CULVERT IS NOT FILLED WITH JUST RIP RAP OR STONE.

4. FISH ROCKS WILL BE PLACED THROUGHOUT CULVERT PIPE ALTERNATING EACH SIDE TO PROVIDE REST AREAS FOR FISH.

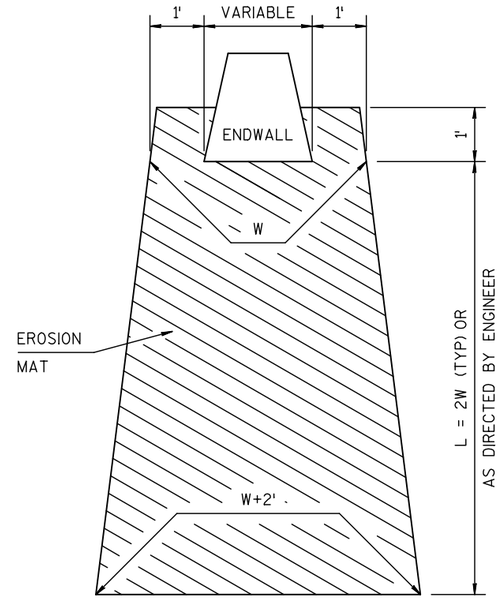
5. FISH LIGHT WILL BE PROVIDED IN THE MEDIAN OF CTH FF. THE FISH LIGHT WILL BE RAISED AND GRADED AWAY FROM THE STRUCTURE. THIS WILL REDUCE THE AMOUNT OF DIRECT STORMWATER RUNOFF.





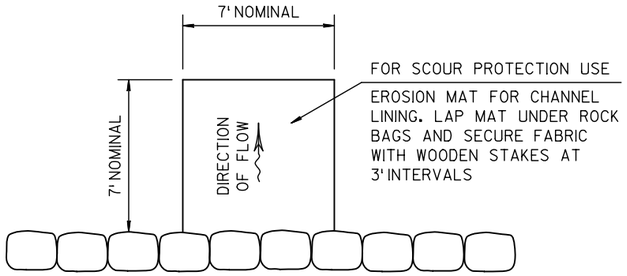
SECTION A-A

DETAIL OF CURB AND GUTTER AT INLETS

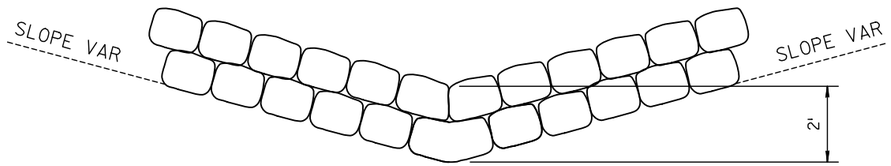


EROSION MAT TREATMENT AT CULVERTS

NOTE: REFER TO STORM SEWER PLANS
AND MISCELLANEOUS QUANTITIES
FOR SIZES AT SPECIFIC LOCATIONS.



PLAN VIEW

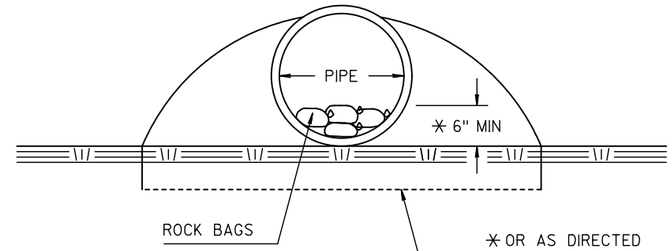


FRONT ELEVATION

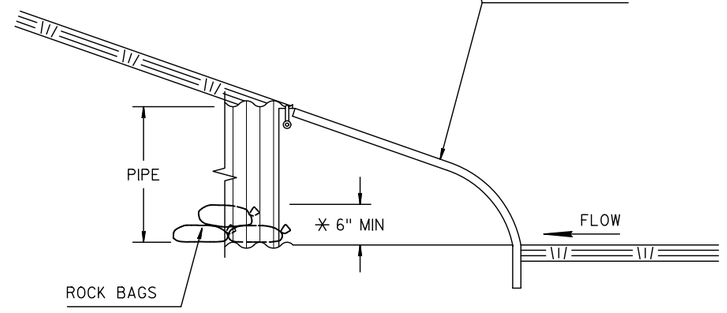
NOTES:
1. PLACE ROCK BAGS TIGHTLY AGAINST EACH OTHER TO PREVENT VOIDS.
2. STAGGER JOINTS BETWEEN BOTTOM AND TOP ROWS.
3. BOTTOM ELEVATION OF END BAG SHALL BE EQUAL TO OR GREATER THAN TOP OF LOWEST ROCK BAG.
4. DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DETAIL SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

ROCK BAG DITCH CHECK DETAIL

SEE EROSION CONTROL PLANS FOR LOCATIONS

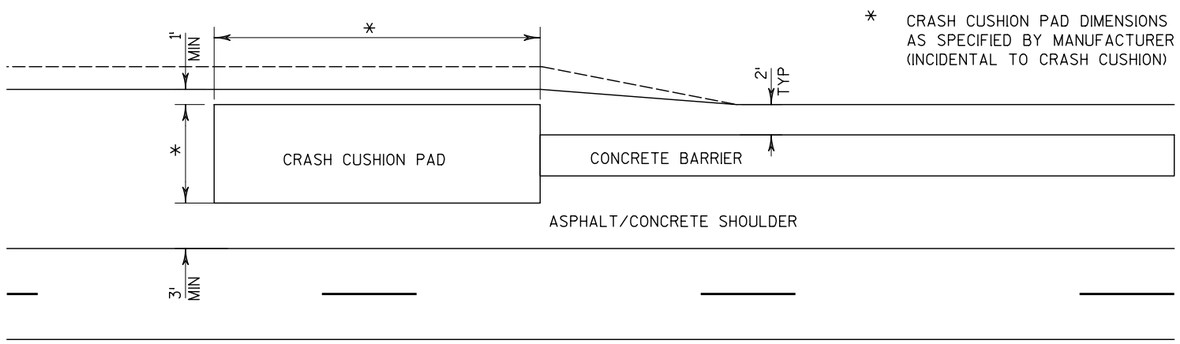


END VIEW

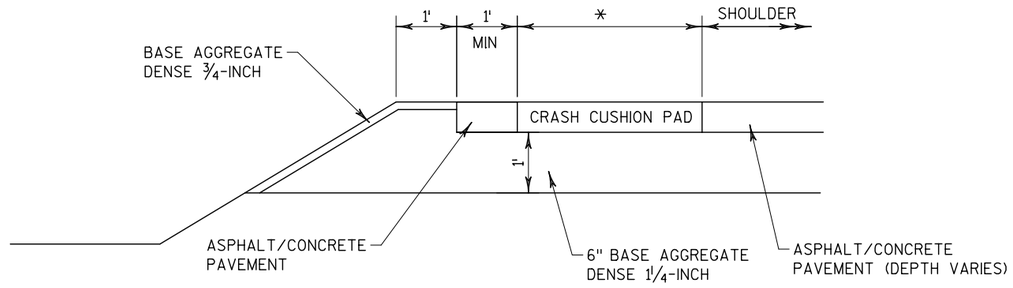


SIDE VIEW

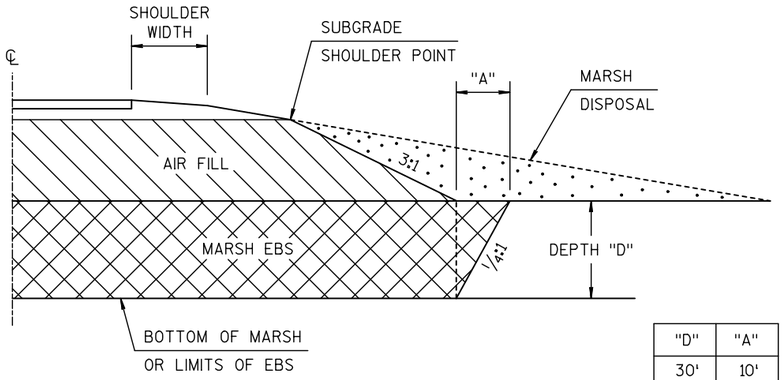
CULVERT PIPE CHECKS



* CRASH CUSHION PAD DIMENSIONS AS SPECIFIED BY MANUFACTURER (INCIDENTAL TO CRASH CUSHION)



CRASH CUSHION PAD DETAIL



"D"	"A"
30'	10'
26'	8'
22'	6'
18'	4'
14'	2'
10'	0'
<10'	0'

"D" = DEPTH OF MARSH EXCAVATION
"A" = DISTANCE OFFSET OUTSIDE SLOPE INTERCEPT

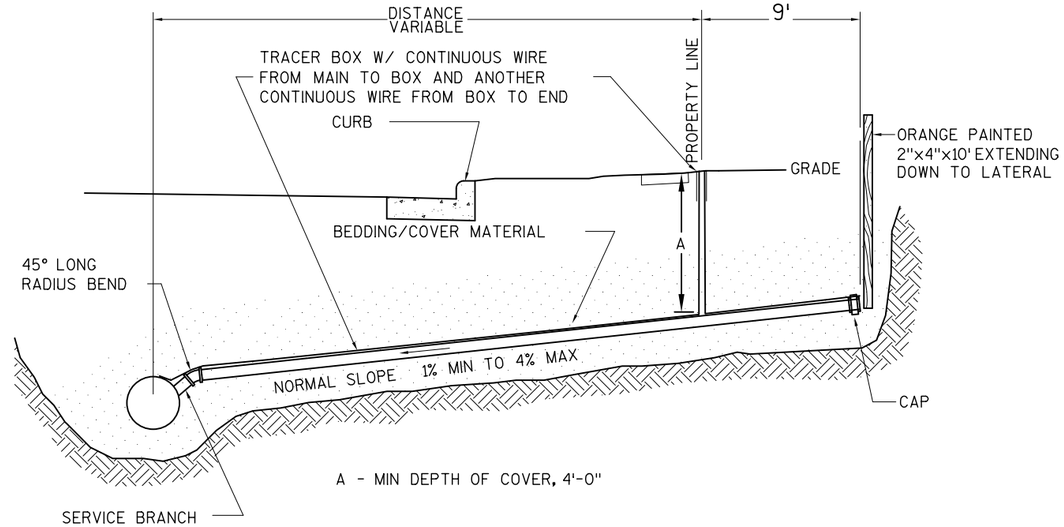
NOTE: LIMIT OF MARSH EXCAVATION SHOULD EXTEND TO SLOPE INTERCEPT AS A MINIMUM. FOR MARSH DEPTHS GREATER THAN 10-FT SEE TABLE FOR DISTANCE OFFSET.

TYPICAL MARSH EXCAVATION

NOTE:

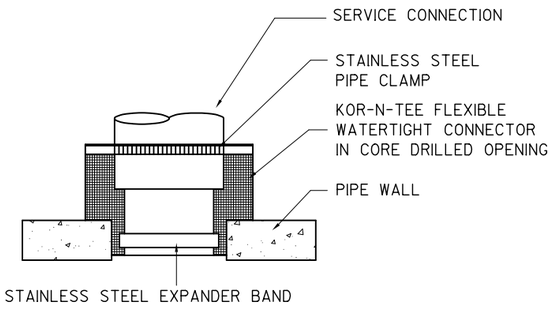
-MATCH EXISTING PIPE UNDERDRAIN LOCATED ALONG STH 29 SHOULDERS.

-4" OPEN GRADED BASE AGGREGATE IS INCIDENTAL TO PIPE UNDERDRAIN.

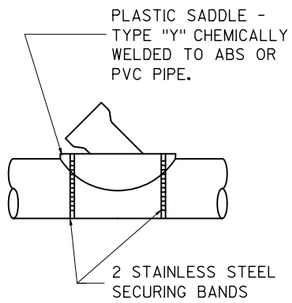


STORM SEWER SERVICE BRANCHES

CONCRETE/CLAY

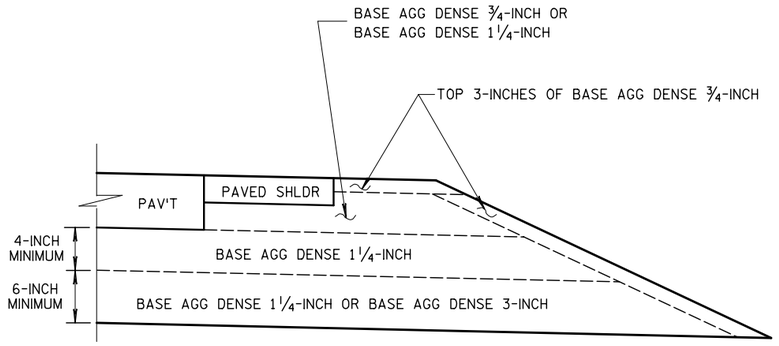


PVC/ABS

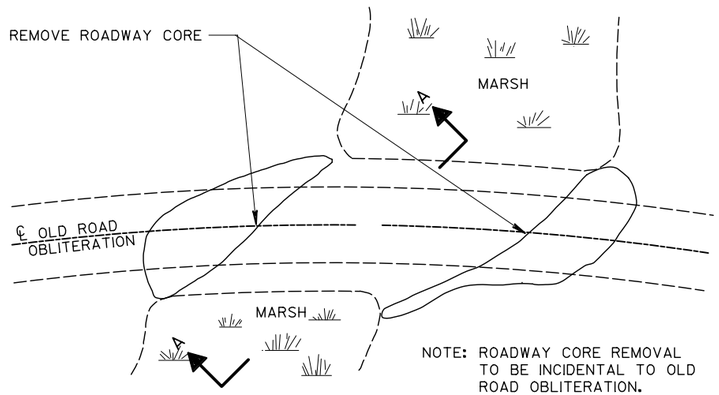


STORM SERVICE BRANCHES FOR NEW OR EXISTING SEWER MAINS

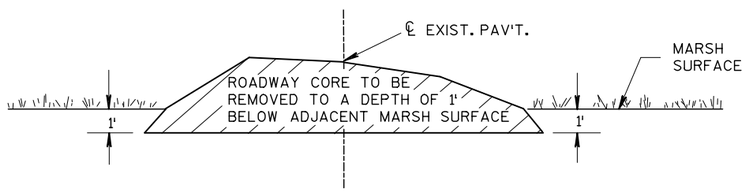
STANDARD STORM LATERAL INSTALLATION



SHOULDER DETAIL



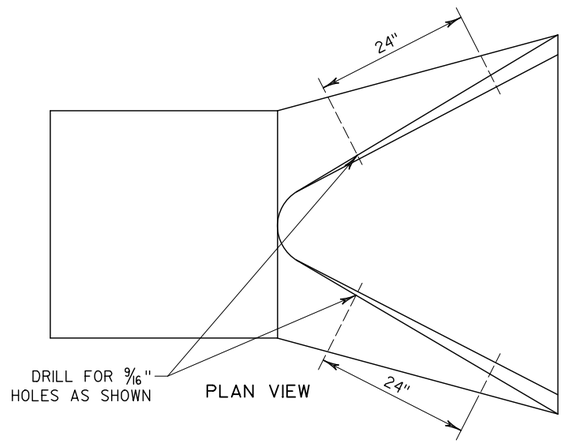
PLAN VIEW

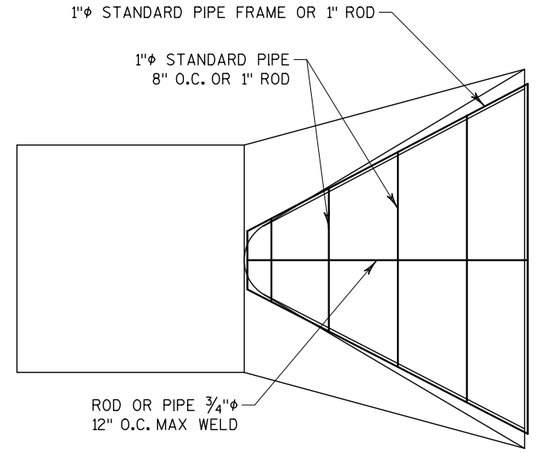


SECTION A-A

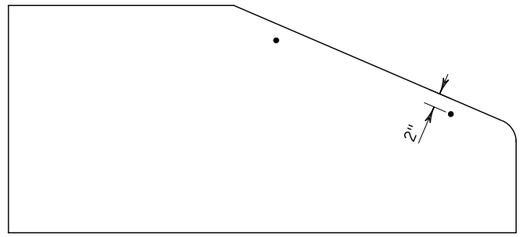
OLD ROAD OBLITERATION DETAIL

CATHERINE DRIVE CUL DE SAC

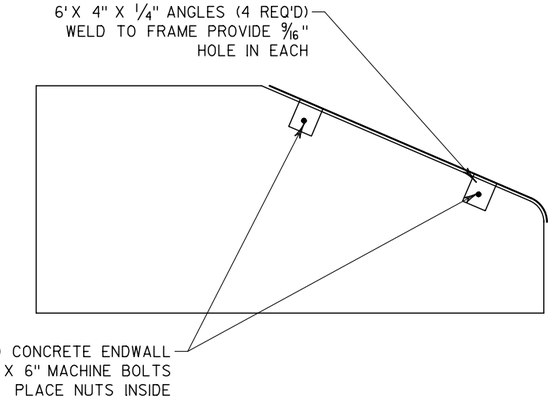


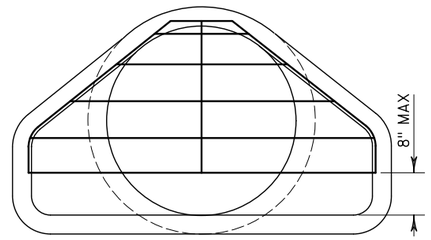


AT EACH PIPE



SIDE VIEW

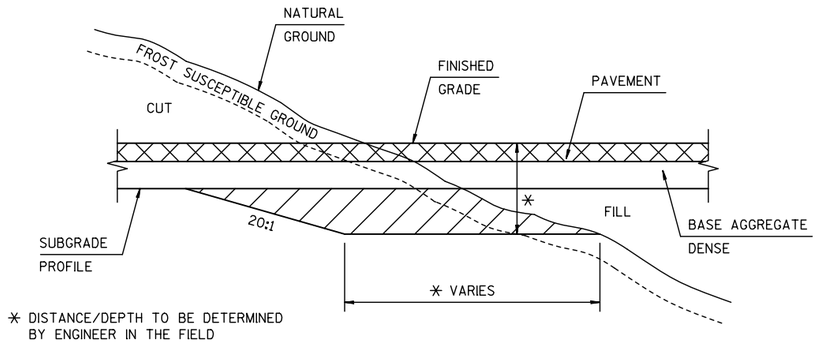




END VIEW

PIPE GRATE DETAIL

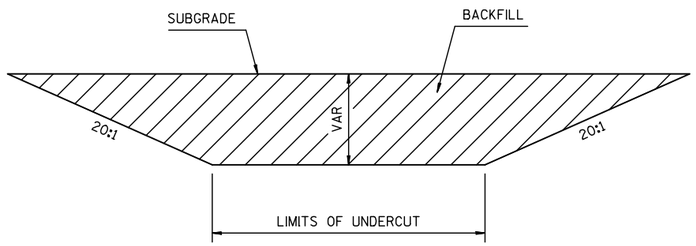
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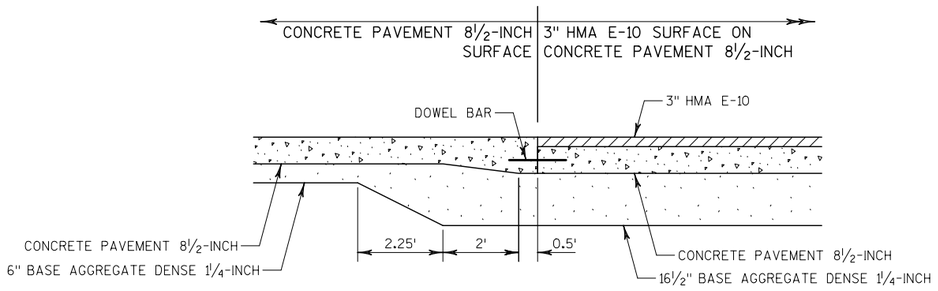
PROFILE VIEW

EXCAVATION BELOW SUBGRADE (EBS)

EXACT LOCATION OF EXCAVATION BELOW SUBGRADE (EBS) SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
EBS AREA TO BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE ENGINEER.

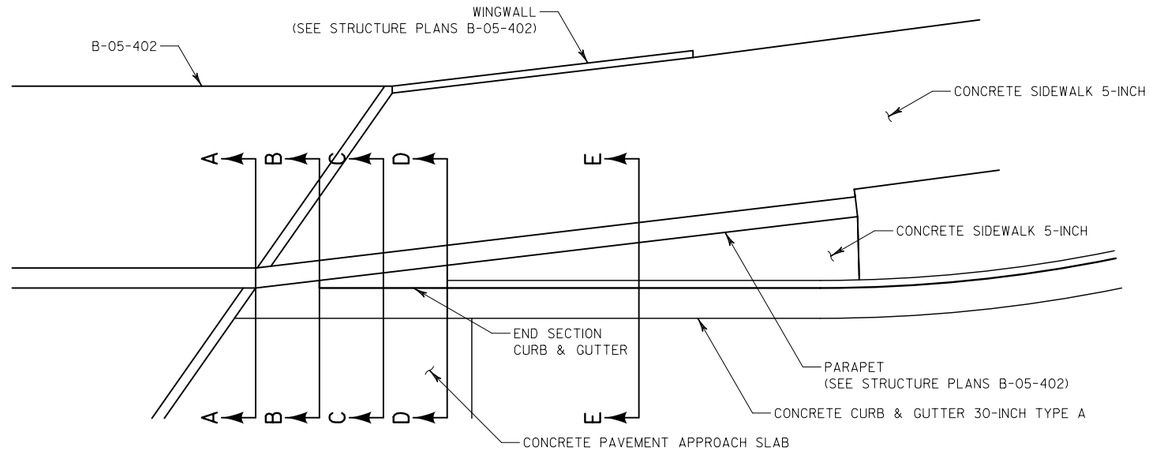


LONGITUDINAL SECTION FOR UNDERCUT AREAS (EBS) AND MARSH EXCAVATION

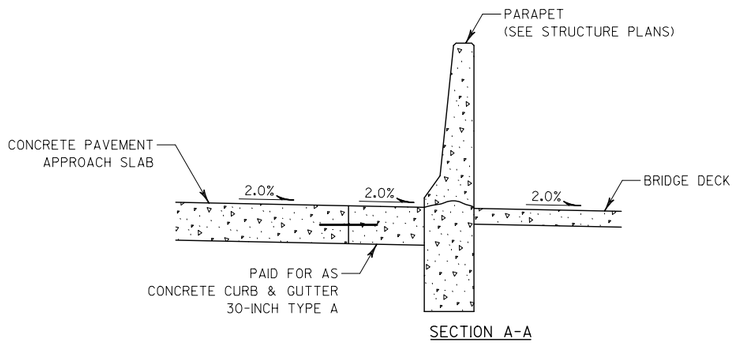


WB RAMP JOINT DETAIL

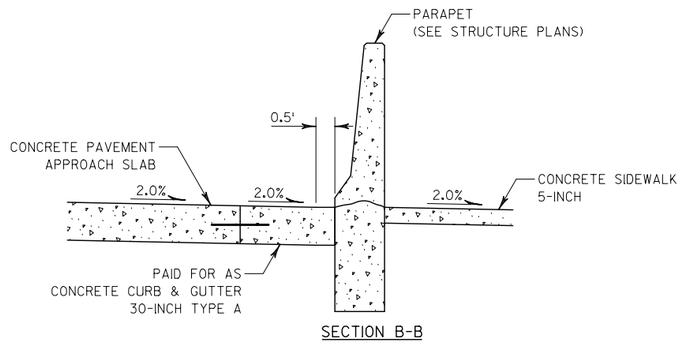
STA 653+36.11 NW RAMP
STA 673+22.55 NE RAMP



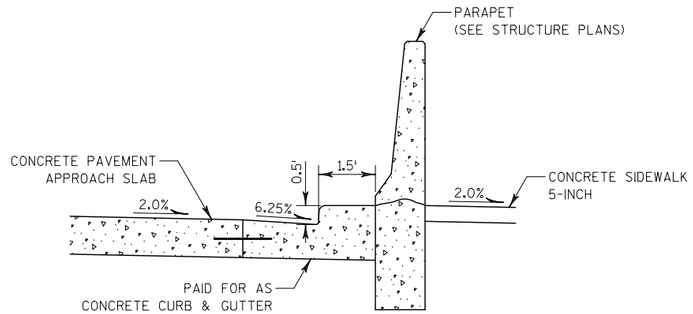
PLAN VIEW



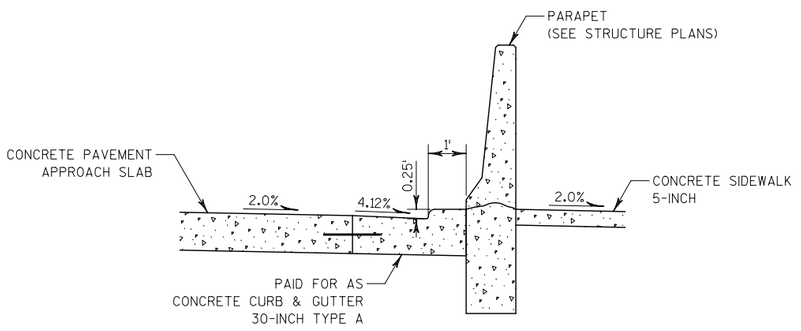
SECTION A-A



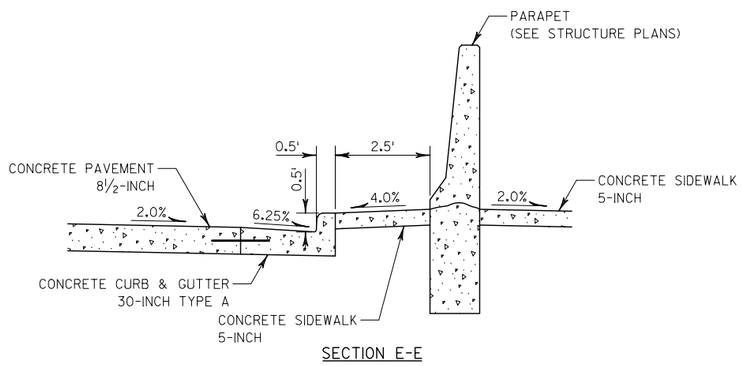
SECTION B-B



SECTION D-D



SECTION C-C

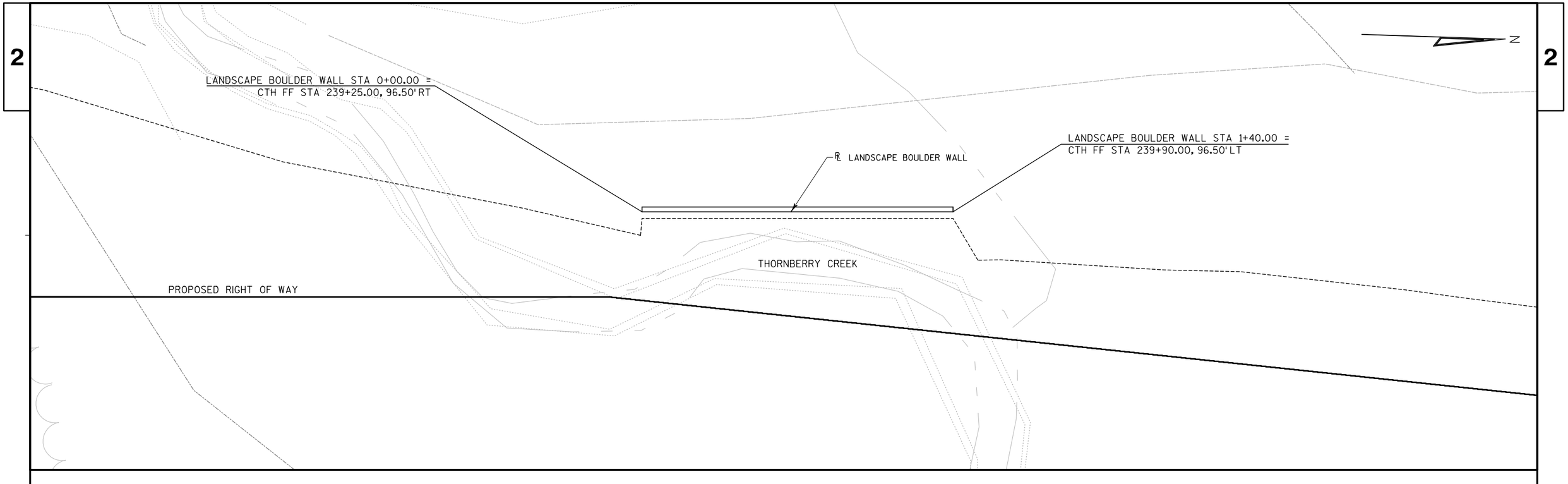


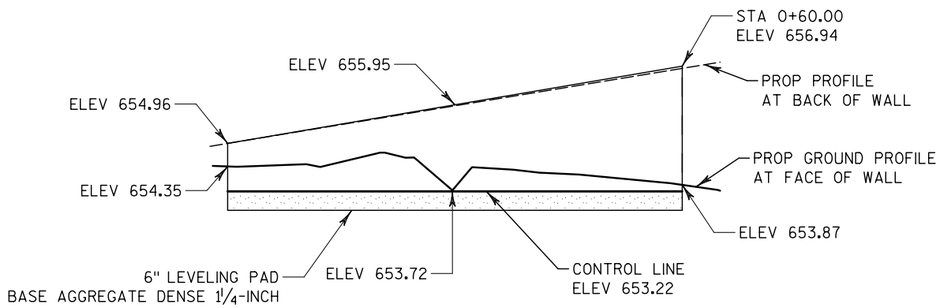
SECTION E-E

NOTE:
1. ALL TRANSITIONAL CURB AND GUTTER IS PAID FOR AS "CONCRETE CURB AND GUTTER 30-INCH TYPE A"

2. SIDEWALK AND PARAPET ELEVATIONS ARE BASED UPON THE WINGWALL, AND WINGWALL SIDEWALK NOTCH (SEE STRUCTURE PLANS B-05-402)

OVERPASS APPROACH CURB & GUTTER DETAIL





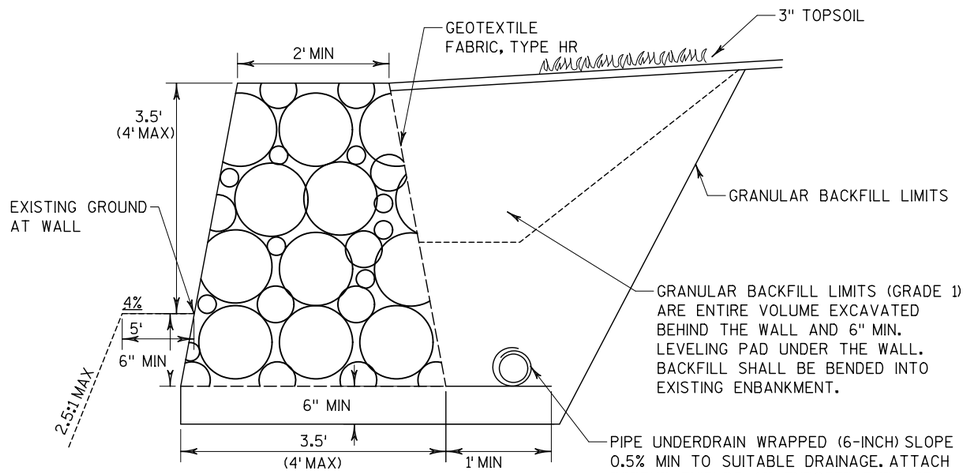
GENERAL WALL MODULAR BLOCK GRAVITY NOTES

WALL BACKFILL TYPE A, GEOTEXTILE FABRIC TYPE "HR" (SCHEDULE B), AND BASE AGGREGATE DENSE 1¼-INCH LEVELING PAD 18-INCH ARE ALL INCIDENTAL TO THE ITEM OF LANDSCAPE BOULDER WALL.

ALL GIVEN OFFSETS ARE AT THE CONTROL LINE.

SEE SPECIAL PROVISION FOR BLOCK COLOR.

PLACE GEOTEXTILE FABRIC TYPE "DF" (SCEDULE B) AROUND PERIMITER OF LEVELING PAD.



LANDSCAPE BOULDER WALL

TYPICAL SECTION

2

2

N

CTH FF

TRANSITION SLOPE
CHANGE AREA

TRANSITION SLOPE
CHANGE AREA

2%
15'
2%
262'

2%
15'
2%

STRUCTURE B-05-402

STH 29/32 WB

152'

663
664
665
666
667
668

STH 29/32 EB

82'

2%
15'
2%

TRANSITION SLOPE
CHANGE AREA

67'

2%
15'
2%

TRANSITION SLOPE
CHANGE AREA

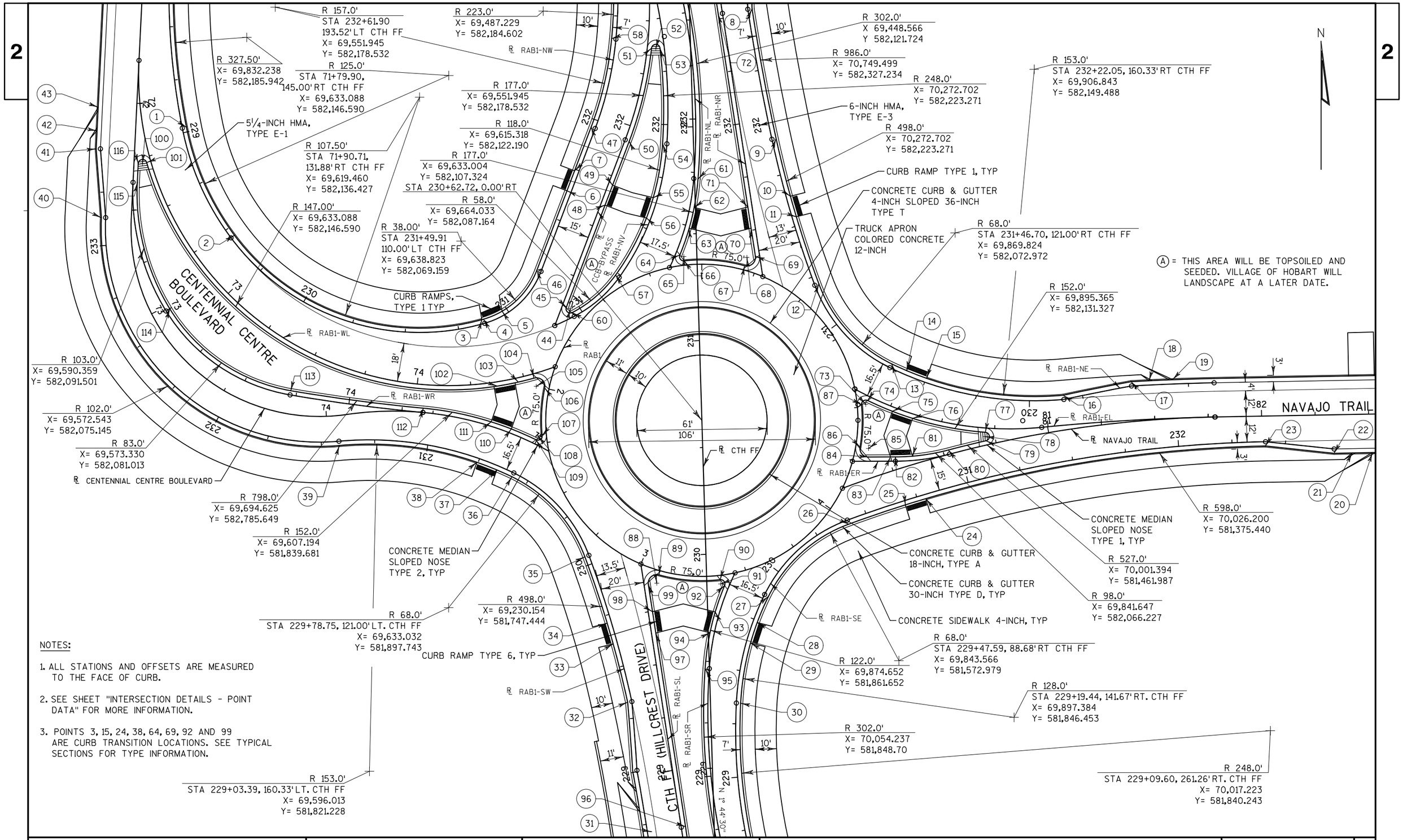
- STA 674+84

TE PAVEMENT

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CONSTRUCTION DRAINAGE DETAIL	SHEET 27	E

FILE NAME : I:\Transportation\WIS 29 Interchange\CADD\sheets\021021_cd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42



NOTES:

1. ALL STATIONS AND OFFSETS ARE MEASURED TO THE FACE OF CURB.
2. SEE SHEET "INTERSECTION DETAILS - POINT DATA" FOR MORE INFORMATION.
3. POINTS 3, 15, 24, 38, 64, 69, 92 AND 99 ARE CURB TRANSITION LOCATIONS. SEE TYPICAL SECTIONS FOR TYPE INFORMATION.

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	INTERSECTION DETAILS - CTH FF & CENTENNIAL CENTRE BOULEVARD	SHEET 28	E

N

R 98.0'
STA 248+97.83, 121.0'LT CTH FF
X= 69,585.566
Y= 583,809.221

R 88.0'
STA 249+08.02, 146.0'LT CTH FF
X= 69,559.775
Y= 583,817.210

R 125.0'
STA 248+87.82, 115.00'LT CTH FF
X= 69,592.411
Y= 583,799.779

CONCRETE PAVEMENT APPROACH SLAB

R 110.0'
X= 69,592.411
Y= 583,799.779

℄ RAB2-NW

℄ RAB2-NL

R 222.0'

CONCRETE PAVEMENT APPROACH SLAB

R 222.0'
X= 69,934.124
Y= 583,817.956

℄ RAB2-NR

CONCRETE SIDEWALK 4-INCH, TYP

CONCRETE CURB & GUTTER 30-INCH TYPE A, TYP

℄ RAB2-NE

R 198.0'
STA 248+87.31,
219.0'RT CTH FF
X= 69,925.195
Y= 583,828.262

R 98.0'
STA 248+67.41,
121.0'RT CTH FF
X= 69,829.293
Y= 583,799.930

CONCRETE CURB & GUTTER 30-INCH TYPE A, TYP

CONCRETE CURB & GUTTER 18-INCH, TYPE A

R 75.0'
STA 247+54.26, 0.00'RT
X= 69,698.552
Y= 583,676.073

℄ CTH FF

R 75.00'
STA 247+54.26, 0.00'RT
X= 69,698.552
Y= 583,676.073

CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R

TRUCK APRON COLORED CONCRETE 12-INCH

8½-INCH CONCRETE PAVEMENT

STA 247+54.26, 0.00'RT

CONCRETE PAVEMENT 8½-INCH

CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A

℄ SW RAMP

STH 29 EASTBOUND OFF RAMP

3½-INCH HMA PAVEMENT TYPE E-0.3

CONCRETE MEDIAN SLOPED NOSE TYPE 2, TYP

R 602.00'
STA 241+02.64, 66.44'RT
X= 69,785.545
Y= 583,026.875

R 448.0'
X= 69,803.475
Y= 583,163.705

CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A

R 143.0'
X= 69,867.134
Y= 583,461.280

℄ SE RAMP

℄ RAB2

℄ RAB2-SW

STH 29 EASTBOUND ON RAMP

℄ SE RAMP BYPASS LANE

℄ RAB2-SE

PCC 248+63.08

CONCRETE MEDIAN SLOPED NOSE TYPE 1, TYP

R 475.00'
STA 243+19.68,
215.12'RT CTH FF
X= 69,847.530
Y= 583,106.858

CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A

PCC 248+95.90

CONCRETE PAVEMENT 8½-INCH

R 68.0'
STA 246+69.73,
120.82'LT CTH FF
X= 69,580.467
Y= 583,587.764

R 498.0'
STA 245+32.30,
528.26'LT CTH FF
X= 69,177.566
Y= 583,437.579

R 117.0'
X= 69,817.075
Y= 583,554.203

CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A

℄ RAB2-SR

CTH FF (HILLCREST DRIVE)

℄ RAB2-SL

℄ RAB2-SV

CURB RAMPS TYPE 6, TYP

CURB RAMPS TYPE 1, TYP

R 38.0'
X= 69,761.541
Y= 583,571.555

R 120.00'
STA 245+34.25,
161.71'RT CTH FF
X= 69,867.134
Y= 583,461.280

R 498.0'
STA 246+12.17, 147.77'LT CTH FF
X= 69,555.349
Y= 583,529.382

R 138.0'
STA 246+06.97, 151.82'LT CTH FF
X= 69,559.465
Y= 583,524.055

R 302.0'
X= 70,001.525
Y= 583,539.951

R 986.0'
STA 244+42.88,
1008.00'LT CTH FF
X= 68,700.894
Y= 583,332.991

R 248.0'
X= 69,964.522
Y= 583,531.279

R 118.0'
X= 69,834.773
Y= 583,539.351

R 178.00'
STA 245+18.38, 217.49'RT CTH FF
X= 69,923.394
Y= 583,447.180

NOTES:

1. ALL STATIONS AND OFFSETS ARE MEASURED TO THE FACE OF CURB.
2. SEE SHEET "INTERSECTION DETAILS - POINT DATA" FOR MORE INFORMATION.
3. POINTS 59, 63, 70 AND 73 ARE CURB TRANSITION LOCATIONS. SEE TYPICAL SECTIONS FOR TYPE INFORMATION.

Ⓐ = THIS AREA WILL BE TOPSOILED AND SEEDED. VILLAGE OF HOBART WILL LANDSCAPE AT A LATER DATE.

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	INTERSECTION DETAILS - CTH FF & STH 29 EASTBOUND RAMPS	SHEET 29	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021120_id_EB Ramps.dgn PLOT DATE : 3/20/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 40.0000 sf / in.

NOTES:

1. ALL STATIONS AND OFFSETS ARE MEASURED TO THE FACE OF CURB.
2. SEE SHEET "INTERSECTION DETAILS - POINT DATA" FOR MORE INFORMATION.
3. POINTS 2, 16 AND 33 ARE CURB TRANSITION LOCATIONS. SEE TYPICAL SECTIONS FOR TYPE INFORMATION.

R 153.0'
STA 255+13.53, 163.68'LT CTH FF
X= 69,524.624
Y= 584,435.527

R 227.0'
X= 69,467.088
Y= 584,428.210

R 152.0'
X= 69,541.912
Y= 584,423.085

R 68.0'
STA 254+75.48, 87.67'LT CTH FF
X= 69,600.139
Y= 584,396.508

CONCRETE CURB & GUTTER
30-INCH TYPE A, TYP

℄ RAB3-NW

CTH FF (SHERWOOD ST.)

R 983.25'
STA 255+63.12, 924.66'RT CTH FF
X= 70,613.52
Y= 584,471.11

CONCRETE CURB & GUTTER
30-INCH TYPE A

8½-INCH CONRETE PAVEMENT

CURB RAMPS TYPE 1, TYP

R 223.0'
STA 255+60.89, 252.70'RT CTH FF
X= 69,941.586
Y= 584,477.524

R 38.0'
STA 254+63.68, 95.30'RT CTH FF
X= 69,782.945
Y= 584,382.350

℄ RAB3-NE

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH
TYPE R

TRUCK APRON
COLORED CONCRETE
12-INCH

CURB RAMPS
TYPE 6, TYP

R 498.0'
STA 258+52.32, 346.20'RT CTH FF
X= 70,038.827
Y= 584,767.728

CONCRETE MEDIAN
SLOPED NOSE
TYPE 1, TYP

℄ NE BYPASS

℄ RAB3-EV

℄ NE RAMP

R 58.0'
X= 69,841.436
Y= 584,421.331

R 138.0'
X= 69,839.391
Y= 584,421.285

R 157.0'
STA 255+03.34,
151.24'RT CTH FF
X= 69,839.391
Y= 584,421.285

R 75.0'
STA 253+57.64, 0.00'RT
X= 69,686.289
Y= 584,277.550

STA 253+57.64, 0.00'RT

CONCRETE PAVEMENT 8½-INCH

3½-INCH HMA PAVEMENT
TYPE E-0.3

R 348.0
STA 257+42.35, 172.42'LT
X= 69,518.837
Y= 584,664.445

CONCRETE SIDEWALK 4-INCH, TYP

CONCRETE CURB & GUTTER
18-INCH, TYPE A

CURB RAMPS,
TYPE 1 TYP

STH 29 WESTBOUND ON RAMP

STH 29 WESTBOUND OFF RAMP

℄ NW RAMP

R 372.0
STA 257+46.96, 170.47'LT
X= 69,520.843
Y= 584,669.025

CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH TYPE A

CONCRETE MEDIAN
SLOPED NOSE
TYPE 2, TYP

℄ RAB3

R 75.0' Ⓐ

℄ RAB3-NL

℄ RAB3-NR

℄ RAB3-SW

℄ RAB3-SE

℄ RAB3-SL

℄ RAB3-SR

℄ CTH FF

R 222.0'
X= 69,450.717
Y= 584,135.666

R 98.0'
STA 252+43.60, 121.00'LT CTH FF
X= 69,555.548
Y= 584,153.692

CONCRETE PAVEMENT
APPROACH SLAB

R 110.0'
X= 69,792.429
Y= 584,153.843

R 88.0'
STA 252+23.19, 115.00'RT CTH FF
X= 69,792.429
Y= 584,153.843

R 98.0'
STA 252+08.58, 121.00'RT CTH FF
X= 69,799.674
Y= 584,139.811

R 125.0'
STA 252+02.99, 146.00'RT CTH FF
X= 69,825.065
Y= 584,136.412

CONCRETE CURB & GUTTER
30-INCH TYPE A

CONCRETE PAVEMENT
APPROACH SLAB

R 198.0'
STA 252+23.70, 219.00'LT CTH FF
X= 69,459.645
Y= 584,125.360

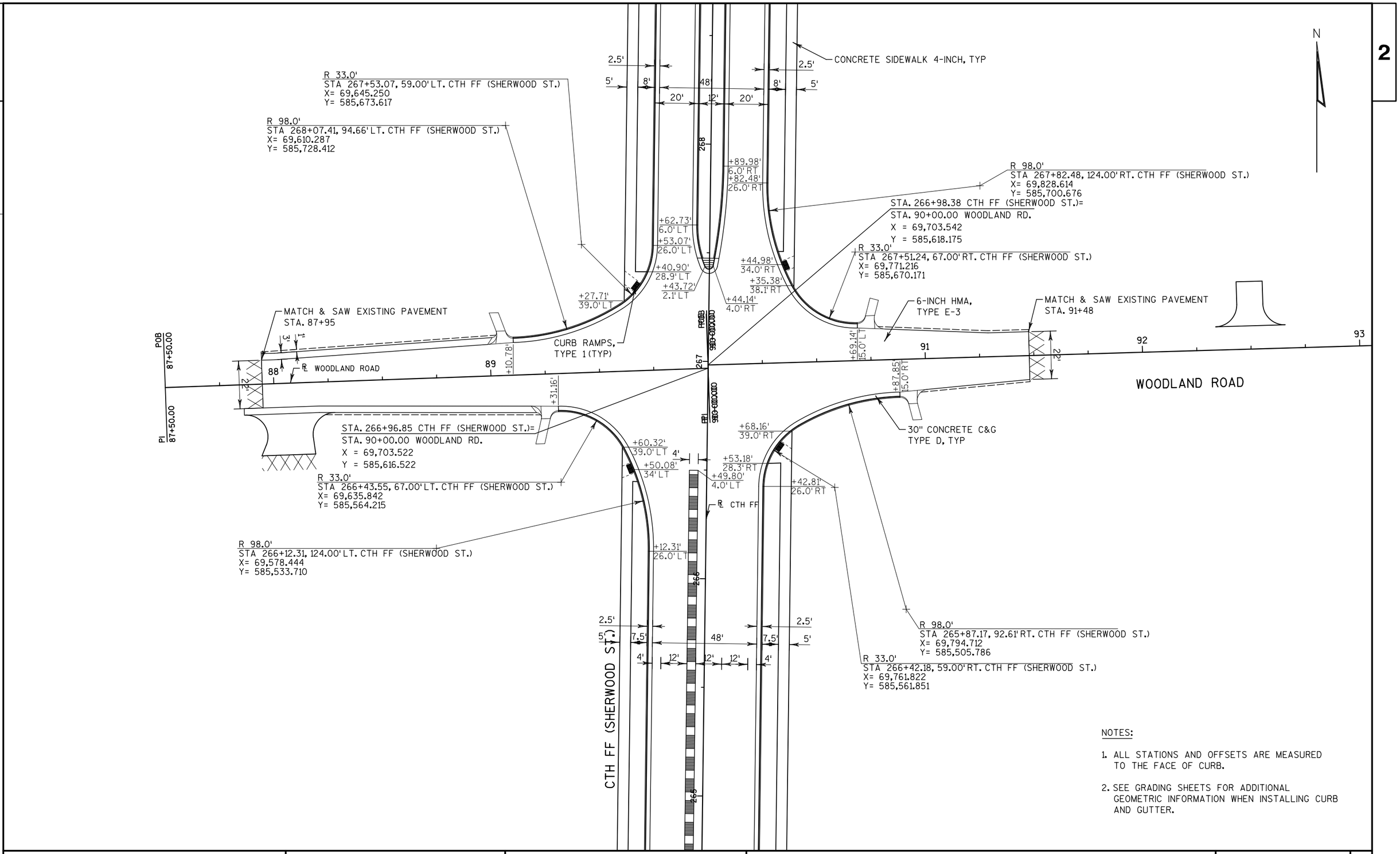
Ⓐ = THIS AREA WILL BE TOPSOILED AND SEEDED. VILLAGE OF HOBART WILL LANDSCAPE AT A LATER DATE.

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	INTERSECTION DETAILS - CTH FF & STH 29 WESTBOUND RAMPS	SHEET 30	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021130_id_WB Ramps.dgn PLOT DATE : 3/20/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

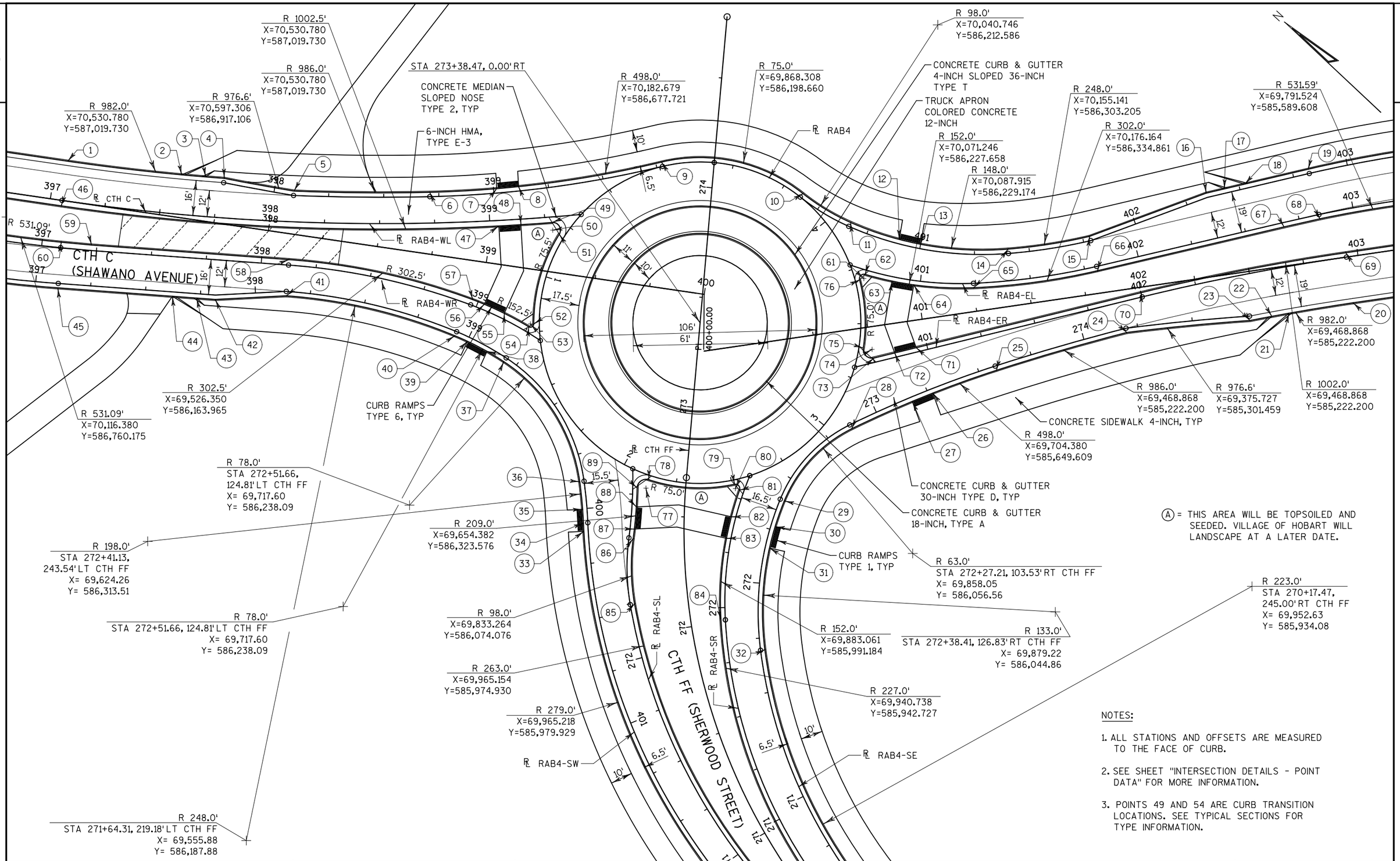
2



NOTES:

1. ALL STATIONS AND OFFSETS ARE MEASURED TO THE FACE OF CURB.
2. SEE GRADING SHEETS FOR ADDITIONAL GEOMETRIC INFORMATION WHEN INSTALLING CURB AND GUTTER.

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	INTERSECTION DETAILS - CTH FF (SHERWOOD ST) & WOODLAND RD	SHEET 31	E



(A) = THIS AREA WILL BE TOPSOILED AND SEEDED. VILLAGE OF HOBART WILL LANDSCAPE AT A LATER DATE.

NOTES:

1. ALL STATIONS AND OFFSETS ARE MEASURED TO THE FACE OF CURB.
2. SEE SHEET "INTERSECTION DETAILS - POINT DATA" FOR MORE INFORMATION.
3. POINTS 49 AND 54 ARE CURB TRANSITION LOCATIONS. SEE TYPICAL SECTIONS FOR TYPE INFORMATION.

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	INTERSECTION DETAILS - CTH FF (SHERWOOD ST.) & CTH C	SHEET 32	E

2

N

6-INCH HMA,
TYPE E-1

S 86° 39' 03" E

CENTENNIAL CENTRE BOULEVARD

4'
1'
24'
4'
1'

26
27
28
29
30
31

POT 350+00.00

+61.04'

℄ CENTENNIAL CENTRE BOULEVARD

R 1,012.0'
X=66,981.868
Y=584,243.445

+54.00'
12.0' RT

+60.31'
26.3' LT

N 3° 20' 57" E

PC 28+94.57

+75.27'
24.1' RT

+51.27'
12.0' RT

PT 349+50.00

R 50.0'
STA 349+40.1, 71.18' LT FOREST RD
X= 66,929.806
Y= 585,186.097

+22.59'
11.0' RT

R 50.0'
STA 349+22.59, 61.00' RT FOREST ROAD
X= 67,061.894
Y= 585,167.988

R 988.0'
X=66,981.868
Y=584,243.445

+1.57'
11.0' LT

349

R 200.0'
STA 349+01.52, 211.00' LT FOREST RD
X= 66,791.881
Y= 585,127.133

R 322.0'
X=67,333.817
Y=585,174.474

R 344.0'
X=67,333.817
Y=585,174.474

3'
22'
3'
1'
1'

℄ FOREST ROAD

348

FOREST ROAD

PC 347+60.53

+60.53'
11.0' RT

+60.53'
11.0' LT

R 200.0'
STA 347+42.78, 54.04' RT FOREST ROAD
X= 67,099.101
Y= 585,022.676

638

637

+0.688
50.310
010

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	INTERSECTION DETAILS - CENTENNIAL CENTRE BLVD & FOREST ROAD	SHEET 33	E

2

CENTENNIAL CENTRE BOULEVARD

POINT	TYPE	ALIGNMENT	STATION	OFFSET		RADIUS
1	PC	CCB	72+10.06	23.69	LT	-
2	PC	CCB	72+65.74	48.20	LT	-
3	SIDEWALK	CCB	74+63.21	47.14	LT	-
4	PC	CCB	74+63.74	47.51	LT	-
5	SIDEWALK	CCB	74+69.43	53.16	LT	-
6	SIDEWALK	FF	231+71.91	59.76	LT	-
7	SIDEWALK	FF	231+81.15	55.94	LT	-
8	PC	FF	232+54.32	29.30	RT	-
9	PC	FF	231+93.43	38.70	RT	-
10	SIDEWALK	FF	231+66.19	44.56	RT	-
11	SIDEWALK	FF	231+56.50	47.04	RT	-
12	PC	FF	231+24.88	56.60	RT	-
13	PC	NAV	80+10.74	18.32	LT	-
14	SIDEWALK	NAV	80+19.43	18.15	LT	-
15	SIDEWALK	NAV	80+30.79	17.84	LT	-
16	PC	NAV	81+01.93	14.00	LT	-
17	PC	NAV	81+34.06	18.00	LT	-
18	SIDEWALK	NAV	81+41.81	18.00	LT	-
19	SIDEWALK	NAV	81+52.54	18.00	LT	-
20	SIDEWALK	NAV	82+45.03	18.00	RT	-
21	SIDEWALK	NAV	82+35.53	18.00	RT	-
22	PC	NAV	82+27.03	18.00	RT	-
23	PC	NAV	81+95.03	14.00	RT	-
24	SIDEWALK	NAV	80+43.81	36.76	RT	-
25	SIDEWALK	NAV	80+36.98	41.82	RT	-

POINT	TYPE	ALIGNMENT	STATION	OFFSET		RADIUS
26	PC	NAV	80+20.21	58.55	RT	-
27	PC	FF	229+79.50	28.63	RT	-
28	SIDEWALK	FF	229+67.51	23.00	RT	-
29	SIDEWALK	FF	229+58.05	19.61	RT	-
30	PC	FF	229+29.95	14.10	RT	-
31	PC	FF	228+71.20	29.30	LT	-
32	PC	FF	229+32.02	38.70	LT	-
33	SIDEWALK	FF	229+59.55	44.64	LT	-
34	SIDEWALK	FF	229+69.24	47.12	LT	-
35	PC	FF	230+00.57	56.60	LT	-
36	PC	CCB	74+96.77	18.47	RT	-
37	SIDEWALK	CCB	74+87.94	18.31	RT	-
38	SIDEWALK	CCB	74+76.56	18.03	RT	-
39	PC	CCB	74+04.83	14.00	RT	-
40	PC	CCB	72+54.20	14.00	RT	-
41	PC	CCB	72+22.20	18.00	RT	-
42	SIDEWALK	CCB	72+02.70	18.00	RT	-
43	SIDEWALK	CCB	72+13.70	18.00	RT	-
44	CENTER	FF	231+16.72	59.89	LT	2.0
45	PC	FF	231+17.48	61.74	LT	-
46	PC	FF	231+35.37	74.9	LT	-
47	PC	FF	231+01.41	47.55	LT	-
48	SIDEWALK	FF	231+64.64	42.21	LT	-
49	SIDEWALK	FF	231+73.88	38.38	LT	-
50	PC	FF	231+84.14	29.99	LT	-

POINT	TYPE	ALIGNMENT	STATION	OFFSET		RADIUS
51	PC	FF	232+37.34	18.23	LT	-
52	CENTER	FF	232+37.06	16.25	LT	2.0
53	PC	FF	232+37.24	14.26	LT	-
54	PC	FF	231+92.62	14.40	LT	-
55	SIDEWALK	FF	231+67.46	19.57	LT	-
56	SIDEWALK	FF	231+58.05	23.05	LT	-
57	PC	FF	231+31.86	38.22	LT	-
58	PC	FF	232+42.34	36.73	LT	-
59	NOT NEEDED	-	-	-	LT	-
60	PC	FF	231+14.92	59.02	LT	-
61	PC	FF	231+75.58	1.65	RT	-
62	SIDEWALK	FF	231+62.28	0.58	LT	-
63	SIDEWALK	FF	231+52.64	3.21	LT	-
64	PC	FF	231+40.30	7.93	LT	-
65	CENTER	FF	231+39.48	6.11	LT	1.0
66	PC	FF	231+37.49	5.95	LT	-
67	PC	FF	231+34.37	22.19	RT	-
68	CENTER	FF	231+38.19	23.37	RT	3.0
69	PC	FF	231+38.67	27.34	RT	-
70	SIDEWALK	FF	231+51.79	25.73	RT	-
71	SIDEWALK	FF	231+61.76	24.51	RT	-
72	PC	FF	232+52.38	13.42	RT	-
73	CENTER	NAV	80+07.73	4.00	RT	1.0
74	PC	NAV	80+07.73	2.00	RT	-
75	SIDEWALK	NAV	80+20.18	2.00	RT	-

POINT	TYPE	ALIGNMENT	STATION	OFFSET		RADIUS
76	SIDEWALK	NAV	80+30.05	2.00	RT	-
77	PC	NAV	80+64.33	2.00	RT	-
78	CENTER	NAV	80+64.33	4.00	RT	2.0
79	PC	NAV	80+64.90	5.91	RT	-
80	PC	NAV	80+48.95	12.4	RT	-
81	SIDEWALK	NAV	80+34.78	18.95	RT	-
82	PC	NAV	80+28.07	21.63	RT	-
83	SIDEWALK	NAV	80+26.18	22.37	RT	-
84	PC	NAV	80+17.88	25.99	RT	-
85	CENTER	NAV	80+16.56	22.29	RT	3.0
86	PC	NAV	80+13.19	23.23	RT	-
87	PC	NAV	80+06.08	5.05	RT	-
88	CENTER	FF	229+87.26	23.37	LT	3.0
89	PC	FF	229+91.08	22.19	LT	-
90	PC	FF	229+87.99	6.30	RT	-
91	CENTER	FF	229+85.99	6.46	RT	1.0
92	PC	FF	229+85.17	8.29	RT	-
93	SIDEWALK	FF	229+72.96	4.05	RT	-
94	SIDEWALK	FF	229+63.34	0.78	RT	-
95	PC	FF	229+46.76	2.02	LT	-
96	PC	FF	228+73.07	13.42	LT	-
97	SIDEWALK	FF	229+64.00	24.55	LT	-
98	SIDEWALK	FF	229+73.97	25.77	LT	-
99	PC	FF	229+86.77	27.34	LT	-
100	CENTER	CCB	72+28.07	4.00	LT	2.0

POINT	TYPE	ALIGNMENT	STATION	OFFSET		RADIUS
101	PC	CCB	72+27.42	5.89	LT	-
102	SIDEWALK	CCB	74+75.30	18.82	LT	-
103	SIDEWALK	CCB	74+82.96	23.68	LT	-
104	PC	CCB	74+88.25	28.01	LT	-
105	CENTER	CCB	74+90.33	24.85	LT	3.0
106	PC	CCB	74+93.69	25.65	LT	-
107	PC	CCB	74+99.63	5.05	LT	-
108	CENTER	CCB	74+99.63	4.00	LT	1.0
109	PC	CCB	74+99.63	2.00	LT	-
110	SIDEWALK	CCB	74+87.18	2.00	LT	-
111	SIDEWALK	CCB	74+75.30	2.00	LT	-
112	PC	CCB	74+45.31	2.00	LT	-
113	PC	CCB	73+81.46	10.92	LT	-
114	PC	CCB	73+01.98	8.62	LT	-
115	PC	CCB	72+37.00	2.00	LT	-
116	PC	CCB	72+28.07	2.00	LT	-

NOTE: ALL MEASUREMENTS IN FEET

NOTE:
CCB CENTENNIAL CENTRE BLVD
FF CTH FF
NAV NAVAJO TRAIL

EASTBOUND RAMPS

POINT	TYPE	ALIGNMENT	STATION	OFFSET		RADIUS
1	PC	SW	666+39.74	2.00	LT	-
2	SIDEWALK	SW	666+97.26	2.00	LT	-
3	SIDEWALK	SW	667+07.13	2.00	LT	-
4	CENTER	SW	667+19.81	4.00	LT	1.0
5	PC	FF	248+16.32	63.71	LT	-
6	PC	FF	248+60.81	30.26	LT	-
7	PC	FF	248+97.83	23.00	LT	-
8	SIDEWALK	FF	249+26.77	23.00	LT	-
9	PC	FF	249+36.92	23.00	LT	-
10	PC	FF	249+04.67	23.00	RT	-
11	SIDEWALK	FF	248+93.82	23.00	RT	-
12	PC	FF	248+67.41	23.00	RT	-
13	PC	FF	248+47.91	23.00	RT	-
14	PC	FF	247+91.62	24.96	RT	-
15	PC	SE	667+63.45	6.00	LT	3.0
16	SIDEWALK	SE	667+79.35	2.00	LT	-
17	SIDEWALK	SE	667+89.32	2.00	LT	-
18	PC	SEB	670+06.25	26.90	RT	-
19	PC	SEB	247+42.23	20.00	RT	-
20	SIDEWALK	SEB	246+63.72	20.00	RT	-
21	SIDEWALK	SEB	246+52.05	20.00	RT	-
22	PC	SEB	245+71.03	20.00	RT	-
23	PC	FF	245+62.67	29.30	LT	-
24	PC	FF	246+23.56	38.70	LT	-
25	SIDEWALK	FF	246+51.87	44.83	LT	-

POINT	TYPE	ALIGNMENT	STATION	OFFSET		RADIUS
26	SIDEWALK	FF	246+61.56	47.33	LT	-
27	PC	FF	246+91.46	56.38	LT	-
28	PC	SW	667+15.06	18.45	RT	-
29	SIDEWALK	SW	667+07.89	18.38	RT	-
30	SIDEWALK	SW	666+96.50	18.24	RT	-
31	PC	SW	666+39.74	16.95	RT	-
32	PC	FF	249+24.30	5.00	LT	-
33	PC	FF	248+39.78	41.27	LT	-
34	PC	FF	248+87.82	5.00	LT	-
35	CENTER	FF	248+32.44	17.71	LT	1.0
36	CENTER	FF	248+30.05	5.78	RT	3.0
37	PC	FF	248+76.27	5.00	RT	-
38	PC	FF	249+17.29	5.00	RT	-
39	CENTER	SEB	247+73.35	3.00	LT	1.0
40	PC	SEB	247+73.35	2.00	LT	-
41	SIDEWALK	SEB	246+62.81	2.00	LT	-
42	SIDEWALK	SEB	246+52.95	2.00	LT	-
43	PC	SEB	245+59.23	2.00	LT	-
44	CENTER	SEB	245+59.23	5.00	LT	2.0
45	PC	SEB	245+58.25	7.82	LT	-
46	PC	SEB	246+09.05	32.72	RT	-
47	SIDEWALK	SEB	246+27.59	43.04	RT	-
48	SIDEWALK	SEB	246+34.73	46.5	RT	-
49	PC	SEB	246+38.82	48.35	RT	-
50	CENTER	SEB	246+49.64	12.68	LT	38.0

POINT	TYPE	ALIGNMENT	STATION	OFFSET		RADIUS
51	PC	SEB	246+67.43	44.15	LT	-
52	SIDEWALK	SEB	246+83.20	33.06	LT	-
53	SIDEWALK	SEB	246+90.56	28.63	LT	-
54	PC	SEB	247+73.44	4.00	LT	-
55	CENTER	FF	246+78.80	23.37	LT	3.0
56	PC	FF	246+82.62	22.19	LT	-
57	PC	FF	246+79.50	5.2	RT	-
58	CENTER	FF	246+77.50	6.08	RT	1.0
59	PC	FF	246+76.68	7.9	RT	-
60	SIDEWALK	FF	246+64.35	3.17	RT	-
61	SIDEWALK	FF	246+54.70	0.54	RT	-
62	PC	FF	246+41.40	1.69	LT	-
63	SIDEWALK	FF	246+56.35	24.65	LT	-
64	SIDEWALK	FF	246+66.29	26.01	LT	-
65	PC	FF	246+78.31	27.34	LT	-
66	PC	FF	248+33.33	19.45	LT	-
67	PC	FF	248+30.44	17.77	LT	-
68	PC	FF	248+26.27	4.47	RT	-
69	PC	FF	248+30.86	9.69	RT	-
70	PC	SE	667+60.23	8.33	LT	-
71	PC	SE	667+63.45	2.00	LT	-
72	PC	SW	667+19.80	2.00	LT	-
73	PC	SW	667+21.23	5.05	LT	-
74	PC	SEB	247+51.36	6.73	LT	-
75	PC	SEB	247+63.08	2.00	LT	-

NOTE: ALL MEASUREMENTS IN FEET

NOTE:
SW SW RAMP
SE SE RAMP
SEB SE BYPASS LANE
FF CTH FF

LEGEND

PC	POINT OF CURVATURE
PT	POINT OF TANGENCY
CENTER	CENTER POINT OF CURVE
SIDEWALK	SIDEWALK TERMINI AT CURB

WESTBOUND RAMPS

POINT	TYPE	ALIGNMENT	STATION	OFFSET		RADIUS
1	PC	NW	660+97.93	17.00	LT	-
2	SIDEWALK	NW	663+17.08	17.86	LT	-
3	SIDEWALK	NW	663+27.59	17.94	LT	-
4	PC	FF	254+10.67	67.09	LT	-
5	PC	FF	254+45.05	26.86	LT	-
6	SIDEWALK	FF	254+53.21	23.08	LT	-
7	SIDEWALK	FF	254+62.53	19.43	LT	-
8	PC	FF	255+34.78	12.17	LT	-
9	PC	FF	255+27.15	32.15	RT	-
10	SIDEWALK	FF	254+59.43	56.07	RT	-
11	SIDEWALK	FF	254+50.26	60.86	RT	-
12	PC	FF	254+42.76	65.15	RT	-
13	PC	NE	664+46.87	2.00	RT	-
14	SIDEWALK	NE	663+87.85	2.00	RT	-
15	SIDEWALK	NE	663+77.97	2.00	RT	-
16	PC	NE	663+65.47	2.00	RT	-
17	CENTER	NE	663+65.47	4.00	RT	1.0
18	PC	NE	663+63.82	5.06	RT	-
19	PC	FF	252+94.70	63.71	RT	-
20	PC	FF	252+50.20	30.26	RT	-
21	PC	FF	252+13.19	23.00	RT	-
22	SIDEWALK	FF	251+64.48	23.00	RT	-
23	PC	FF	251+54.33	23.00	RT	-
24	PC	FF	251+86.63	23.00	LT	-
25	SIDEWALK	FF	251+97.49	23.00	LT	-

POINT	TYPE	ALIGNMENT	STATION	OFFSET		RADIUS
26	PC	FF	252+43.60	23.00	RT	-
27	PC	FF	252+63.10	24.96	RT	-
28	PC	FF	253+19.39	45.66	RT	-
29	PC	NW	663+41.45	13.24	RT	-
30	CENTER	NW	663+38.06	11.30	RT	3.0
31	PC	NW	663+38.71	7.35	RT	-
32	SIDEWALK	NW	663+27.26	5.55	RT	-
33	SIDEWALK	NW	663+17.39	4.30	RT	-
34	PC	NW	662+76.33	2.00	RT	-
35	PC	NW	660+97.93	2.00	RT	-
36	PC	FF	255+37.01	3.68	RT	-
37	PC	FF	254+92.87	5.53	RT	-
38	SIDEWALK	FF	254+56.16	1.10	LT	-
39	SIDEWALK	FF	254+46.71	4.38	LT	-
40	PC	FF	254+35.14	9.40	LT	-
41	CENTER	FF	254+34.27	7.60	LT	1.0
42	PC	FF	254+32.28	7.40	LT	-
43	PC	FF	254+25.22	32.54	RT	-
44	CENTER	FF	254+28.82	34.28	RT	3.0
45	PC	FF	254+29.69	38.18	RT	-
46	SIDEWALK	FF	254+44.45	34.88	RT	-
47	SIDEWALK	FF	254+54.20	32.69	RT	-
48	PC	NEB	663+54.44	17.00	LT	-
49	SIDEWALK	NEB	663+86.46	17.00	LT	-
50	SIDEWALK	NEB	663+96.46	17.00	LT	-

POINT	TYPE	ALIGNMENT	STATION	OFFSET		RADIUS
51	PC	NEB	664+47.38	17.00	LT	-
52	PC	NEB	664+51.51	2.00	RT	-
53	CENTER	NEB	664+51.51	5.00	RT	3.0
54	PC	NEB	664+52.75	7.73	RT	-
55	SIDEWALK	NEB	663+96.82	22.94	RT	-
56	SIDEWALK	NEB	663+86.82	23.15	RT	-
57	PC	NEB	663+81.22	22.94	RT	-
58	CENTER	NEB	663+46.71	5.00	RT	3.0
59	PC	NEB	663+44.65	7.18	RT	-
60	PC	NEB	663+46.71	2.00	RT	-
61	NOT NEEDED	-	-	-	-	-
62	PC	FF	252+80.67	17.77	RT	-
63	PC	FF	252+84.75	4.47	LT	-
64	CENTER	FF	252+80.97	5.78	LT	3.00
65	PC	FF	252+78.68	17.71	RT	-
66	PC	FF	252+23.19	5.00	RT	-
67	PC	FF	252+80.15	9.69	LT	-
68	PC	FF	251+66.97	5.00	RT	-
69	PC	FF	251+73.99	5.00	LT	-
70	PC	FF	252+34.74	5.00	LT	-
71	SIDEWALK	NEB	663+86.46	2.00	RT	-
72	SIDEWALK	NEB	663+96.46	2.00	RT	-
73	NOT NEEDED	-	-	-	-	-
74	PC	FF	252+71.23	41.27	RT	-
75	PC	FF	252+77.69	19.45	RT	-

NOTE: ALL MEASUREMENTS IN FEET

NOTE:
NW NW RAMP
NE NE RAMP
NEB NE BYPASS LANE
FF CTH FF

CTH C (SHAWANO AVENUE)

POINT	TYPE	ALIGNMENT	STATION	OFFSET		RADIUS
1	PC	C	397+05.29	18.00	LT	-
2	SIDEWALK	C	397+57.34	19.38	LT	-
3	SIDEWALK	C	397+68.27	20.02	LT	-
4	PC	C	397+76.75	20.60	LT	-
5	PC	C	398+08.91	19.46	LT	-
6	PC	C	398+69.95	27.85	LT	-
7	SIDEWALK	C	398+99.80	33.85	LT	-
8	SIDEWALK	C	399+09.53	36.22	LT	-
9	PC	C	399+72.09	56.61	LT	-
10	PC	C	400+54.77	64.23	LT	-
11	PC	C	400+74.19	48.21	LT	-
12	SIDEWALK	C	400+94.93	37.36	LT	-
13	SIDEWALK	C	401+04.27	33.74	LT	-
14	PC	C	401+43.22	25.83	LT	-
15	PC	C	401+80.64	26.19	LT	-
16	PC	C	402+12.18	32.90	LT	-
17	SIDEWALK	C	402+20.65	33.62	LT	-
18	SIDEWALK	C	402+31.61	34.56	LT	-
19	PC	C	402+83.58	38.99	LT	-
20	PC	C	402+94.71	18.00	RT	-
21	SIDEWALK	C	402+42.66	19.38	RT	-
22	SIDEWALK	C	402+31.73	20.02	RT	-
23	PC	C	402+23.25	20.60	RT	-
24	PC	C	401+91.09	19.46	RT	-
25	PC	C	401+30.05	27.85	RT	-

POINT	TYPE	ALIGNMENT	STATION	OFFSET		RADIUS
26	SIDEWALK	C	400+99.91	33.91	RT	-
27	SIDEWALK	C	400+90.19	36.29	RT	-
28	PC	C	400+61.13	44.65	RT	-
29	PC	FF	272+59.96	45.13	RT	-
30	SIDEWALK	FF	272+45.88	41.35	RT	-
31	SIDEWALK	FF	272+34.59	38.68	RT	-
32	PC	FF	271+82.43	30.70	RT	-
33	SIDEWALK	FF	272+43.46	45.50	LT	-
34	PC	FF	272+46.75	45.71	LT	-
35	SIDEWALK	FF	272+52.01	46.20	LT	-
36	PC	FF	272+62.65	48.15	LT	-
37	PC	C	399+14.37	43.36	RT	-
38	SIDEWALK	C	399+06.17	39.87	RT	-
39	SIDEWALK	C	398+96.70	36.62	RT	-
40	PC	C	398+90.75	34.98	RT	-
41	PC	C	398+12.31	28.11	RT	-
42	PC	C	397+80.68	34.40	RT	-
43	SIDEWALK	C	397+72.20	35.01	RT	-
44	SIDEWALK	C	397+61.23	35.81	RT	-
45	PC	C	397+09.21	39.56	RT	-
46	PC	C	397+05.29	2.50	RT	-
47	SIDEWALK	C	399+03.24	17.24	LT	-
48	SIDEWALK	C	399+13.03	19.26	LT	-
49	PC	C	399+26.95	22.31	LT	-
50	CENTER	C	399+31.62	18.90	LT	3.0

POINT	TYPE	ALIGNMENT	STATION	OFFSET		RADIUS
51	PC	C	399+30.93	17.49	LT	-
52	PC	C	399+25.37	24.45	RT	-
53	CENTER	C	399+27.78	24.67	RT	1.0
54	PC	C	399+23.31	26.06	RT	-
55	SIDEWALK	C	399+11.43	21.65	RT	-
56	SIDEWALK	C	399+01.82	18.87	RT	-
57	PC	C	398+96.30	17.58	RT	-
58	PC	C	398+11.12	11.65	RT	-
59	PC	C	397+21.51	18.12	RT	-
60	PT	C	397+07.71	18.81	RT	-
61	CENTER	C	400+76.47	22.06	LT	1.0
62	PC	C	400+77.30	23.87	LT	-
63	SIDEWALK	C	400+88.97	19.08	LT	-
64	SIDEWALK	C	400+98.48	15.98	LT	-
65	PC	C	401+25.19	10.76	LT	-
66	PC	C	401+82.00	10.25	LT	-
67	PC	C	402+68.66	17.65	LT	-
68	PC	C	402+85.29	18.92	LT	-
69	PC	C	402+94.71	2.00	LT	-
70	PC	C	402+00.16	2.47	RT	-
71	SIDEWALK	C	400+95.46	12.40	RT	-
72	SIDEWALK	C	400+85.46	13.34	RT	-
73	PC	C	400+75.87	14.25	RT	-
74	CENTER	C	400+75.50	10.27	RT	3.0
75	PC	C	400+75.87	9.09	RT	-

POINT	TYPE	ALIGNMENT	STATION	OFFSET		RADIUS
76	PC	C	400+74.48	21.82	LT	-
77	CENTER	FF	272+61.90	17.93	LT	3.0
78	PC	FF	272+65.55	16.96	LT	-
79	PC	FF	272+66.67	22.01	RT	-
80	CENTER	FF	272+64.59	22.58	RT	1.0
81	PC	FF	272+64.02	24.51	RT	-
82	SIDEWALK	FF	272+50.59	21.40	RT	-
83	SIDEWALK	FF	272+40.04	19.25	RT	-
84	PC	FF	272+00.87	13.61	RT	-
85	PC	FF	272+13.17	24.29	LT	-
86	PC	FF	272+40.49	23.07	LT	-
87	SIDEWALK	FF	272+44.43	22.53	LT	-
88	SIDEWALK	FF	272+53.74	21.85	LT	-
89	PC	FF	272+61.73	21.92	LT	-

NOTE: ALL MEASUREMENTS IN FEET

NOTE:
C CTH C
FF CTH FF

LEGEND

PC	POINT OF CURVATURE
PT	POINT OF TANGENCY
CENTER	CENTER POINT OF CURVE
SIDEWALK	SIDEWALK TERMINI AT CURB

2

N

℄ GREENFIELD AVENUE

TREE TO BE SAVED

STA 54+20, 61'RT
SAW EXISTING PAVEMENT
FULL DEPTH

GREENFIELD AVENUE

WOODLAND ROAD

℄ WOODLAND ROAD

OBLITERATE OLD ROAD, TYP

REMOVE 15" CMCP

SLOPE INTERCEPT (TYP)

STA 630+65 - STA 636+62
SAW EXISTING PAVEMENT
FULL DEPTH

REMOVE CONCRETE CURB AND GUTTER

REMOVE EXISTING INTERSECTION

BEGIN PROJECT
STA 626+79.54
Y = 585,855.889
X = 66,312.442

STA 631+09 - STA 633+41
SAW EXISTING PAVEMENT
FULL DEPTH

STA 636+54 - STA 702+75
SAW EXISTING PAVEMENT
FULL DEPTH

STH 29/32 WB

SIGN

℄ STH 29/32 WB

REMOVE CONCRETE CURB AND GUTTER

STH 29/32

STH 29/32 EB

℄ STH 29/32 EB

PC 630+16.10

PT 637+04.89

STA 626+80 - STA 633+75
SAW EXISTING PAVEMENT
FULL DEPTH

OBLITERATE OLD ROAD, REFER TO 'CONSTRUCTION DETAIL- TEMPORARY CENTENNIAL CENTRE BOULEVARD' FOR STAGING INFORMATION

STA 628+50 - STA 633+95
SAW EXISTING PAVEMENT
FULL DEPTH

REMOVE CONCRETE CURB AND GUTTER

FOREST RD.

SEPTIC

POOL

OBLITERATE OLD ROAD, TYP

STA 24+46, 88'LT
SAW EXISTING PAVEMENT FULL DEPTH

STA 23+91, 60'LT
SAW EXISTING PAVEMENT
FULL DEPTH

REMOVE & REPLACE DRIVEWAY

℄ CENTENNIAL CENTRE BOULEVARD

TREE TO BE REMOVED (TYP)

℄ FOREST ROAD

FOREST ROAD

STA 347+23, 209'RT
SAW EXISTING PAVEMENT
FULL DEPTH

STA 346+97, 170'RT
SAW EXISTING PAVEMENT
FULL DEPTH

STA 345+64, 132'RT
SAW EXISTING PAVEMENT
FULL DEPTH

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	REMOVAL PLAN	SHEET 36	E

2

2

WOODLAND ROAD

61

60

N

SLOPE INTERCEPT (TYP)

STA 636+54 - STA 702+75
SAW EXISTING PAVEMENT
FULL DEPTH

STA 651+26 - STA 674+85
SAW EXISTING PAVEMENT
FULL DEPTH

℄ NW RAMP

SI

STH 29/32 WB

℄ STH 29/32 WB

640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655

STH 29/32 EB

℄ STH 29/32 EB

640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655

33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48

PROPOSE TREE
LINE (TYP)

STA 651+00 - STA 710+10
SAW EXISTING PAVEMENT
FULL DEPTH

℄ SW RAMP

TREE TO BE
REMOVED (TYP)

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	REMOVAL PLAN	SHEET 37	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021206_pd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

WISDOT/CADDS SHEET 42

2

STA 636+54 - STA 702+75
SAW EXISTING PAVEMENT
FULL DEPTH

REMOVE CONCRETE
CURB AND GUTTER

STA 651+26 - STA 674+85
SAW EXISTING PAVEMENT
FULL DEPTH

℄ NW RAMP

NW RAMP

STH 29/32 WB

℄ STH 29/32 WB

CTH FF

REMOVE LEFT TURN LANE
& RECONSTRUCT SHOULDER

STH 29/32 EB

℄ STH 29/32 EB

REMOVE EXISTING
CONCRETE PAVEMENT

STA 651+00 - STA 710+10
SAW EXISTING PAVEMENT
FULL DEPTH

REMOVE INTERSECTION

REMOVE CONCRETE
CURB AND GUTTER

℄ CTH FF

S 55° 22' 40" E

PT 44+44.29

PC 45+93.65

SLOPE INTERCEPT (TYP)

℄ SW RAMP

SW RAMP

STA 655+70 - STA 666+97
SAW EXISTING PAVEMENT
FULL DEPTH

670 NE RAMP 671

℄ NE RAMP

REMOVE FOOTBRIDGE,
SEE STRUCTURE PLANS

REMOVE BEAMGUARD

PROPOSE TREE
LINE (TYP)

TREE TO BE
REMOVED (TYP)

STA 651+26 - STA 674+85
SAW EXISTING PAVEMENT
FULL DEPTH

STH 29/32 WB

℄ STH 29/32 WB

STA 636+54 - STA 702+75
SAW EXISTING PAVEMENT
FULL DEPTH

STH 29/32 EB

℄ SE RAMP

REMOVE BEAMGUARD

℄ STH 29/32 EB

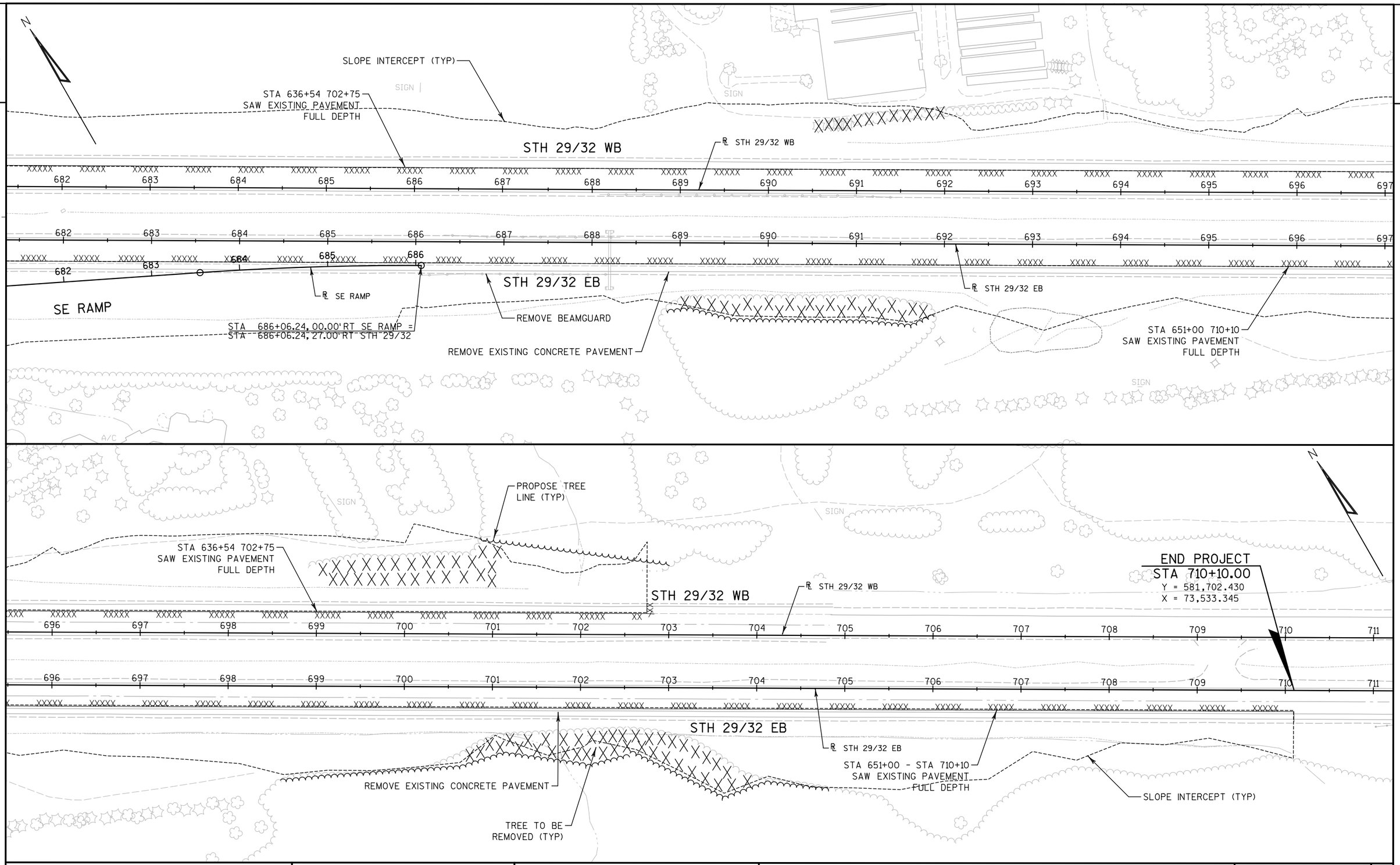
STA 659+76 - STA 667+94
SAW EXISTING PAVEMENT
FULL DEPTH

SE RAMP

SLOPE INTERCEPT (TYP)

STA 651+00 - STA 710+10
SAW EXISTING PAVEMENT
FULL DEPTH

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	REMOVAL PLAN	SHEET 38	E



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	REMOVAL PLAN	SHEET 39	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021208_pd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

2

N

PROPOSE TREE LINE (TYP)

SUBSTATION

STA 663+53.80, 00.00'RT NW RAMP =
STA 253+92.58, 64.10'LT CTH FF

SLOPE INTERCEPT (TYP)

STA 650+91.92, 00.00'RT NW RAMP =
STA 650+91.92, 90.40'LT STH 29/32

STA 636+54 - STA 702+75
SAW EXISTING PAVEMENT
FULL DEPTH

℄ NW RAMP

660 NW RAMP 661

TREE TO BE REMOVED (TYP)

STA 651+26 - STA 674+85
SAW EXISTING PAVEMENT
FULL DEPTH

℄ STH 29/32 WB

STH 29/32 WB

CP 3356

℄ STH 29/32 EB

℄ NE RAMP BYPASS

SLOPE INTERCEPT (TYP)

N

LANCASTER CREEK

STA 663+57.69, 00.00'RT NE RAMP =
STA 653+70.17, 71.92'RT CTH FF

℄ NE RAMP

NE RAMP

PROPOSE TREE LINE (TYP)

REMOVE FOOTBRIDGE, SEE STRUCTURE PLANS

STA 636+54 - STA 702+75
SAW EXISTING PAVEMENT
FULL DEPTH

STA 675+07.74, 00.00'RT NE RAMP =
STA 675+07.74, 85.43'LT STH 29/32

TREE TO BE REMOVED (TYP)

STA 655+70 - STA 666+97
SAW EXISTING PAVEMENT
FULL DEPTH

STA 651+26 - STA 674+85
SAW EXISTING PAVEMENT
FULL DEPTH

℄ STH 29/32 WB

STH 29/32 WB

℄ STH 29/32 EB

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	REMOVAL PLAN	SHEET 40	E

2

STH 29/32 EB

℄ STH 29/32 WB

℄ STH 29/32 EB

STA 652+90.98, 00.00'RT SW RAMP =
STA 652+90.98, 23.93'RT STH 29/32

STA 652+90.98, 00.00'RT SW RAMP =
STA 247+42.75, 72.09'LT STH 29/32

STA 655+70 - STA 666+97
SAW EXISTING PAVEMENT
FULL DEPTH

STA 651+00 - STA 710+10
SAW EXISTING PAVEMENT
FULL DEPTH

SW RAMP

PROPOSE TREE
LINE (TYP)

℄ SW RAMP

STA 651+26 - STA 674+85
SAW EXISTING PAVEMENT
FULL DEPTH

SLOPE INTERCEPT (TYP)

TREE TO BE
REMOVED (TYP)

STA 651+26 - STA 674+85
SAW EXISTING PAVEMENT
FULL DEPTH

℄ STH 29/32

℄ STH 29/32 WB

STA 636+54 - STA 702+75
SAW EXISTING PAVEMENT
FULL DEPTH

STH 29/32 EB

REM BEAMGUARD

℄ STH 29/32 EB

STA 651+00 - STA 710+10
SAW EXISTING PAVEMENT
FULL DEPTH

STA 655+70 - STA 666+97
SAW EXISTING PAVEMENT
FULL DEPTH

SE RAMP

STA 682+23 - STA 710+10
SAW EXISTING PAVEMENT
FULL DEPTH

℄ SE RAMP

SLOPE INTERCEPT (TYP)

℄ SE RAMP BYPASS

TREE TO BE
REMOVED (TYP)

PROPOSE TREE
LINE (TYP)

LANCASTER CREEK

STA 667+50.36, 00.00'RT SE RAMP =
STA 247+02.45, 51.42'RT STH 29/32

THORNBERRY
CREEK

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	REMOVAL PLAN	SHEET 41	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021210_pd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

STA 651+26 - STA 674+85
SAW EXISTING PAVEMENT
FULL DEPTH

℄ STH 29/32 WB

STH 29/32 WB

TREE TO BE
REMOVED (TYP)

681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696

℄ STH 29/32 EB

681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696

STH 29/32 EB

SE RAMP

℄ SE RAMP

STA 651+00 - STA 710+10
SAW EXISTING PAVEMENT
FULL DEPTH

STA 686+06.24, 00.00'RT SE RAMP =
STA 686+06.24, 27.00'RT STH 29/32

PROPOSE TREE
LINE (TYP)

SLOPE INTERCEPT (TYP)

N

SIGN

A/C

ATHLETIC FIELD

BEGIN CONSTRUCTION
STA 219+78.31
Y = 69,782.703
X = 580,901.406

N

STA 221+96, 61'LT
SAW EXISTING PAVEMENT
FULL DEPTH

REMOVE & REPLACE DRIVEWAY

REMOVE LANDSCAPING
MASONRY & LIGHT

℄ CTH FF

REMOVE 18" CMCP

REMOVE 18" CMCP

STA 224+89, 133'LT
SAW EXISTING PAVEMENT
FULL DEPTH

REMOVE & REPLACE
DRIVEWAY

REMOVE & REPLACE DRIVEWAY

STA 227+60, 97'LT
SAW EXISTING PAVEMENT
FULL DEPTH

REMOVE & REPLACE DRIVEWAY

REMOVE 18" CMCP

℄ CENTENNIAL CENTRE BOULEVARD

STA 75+70.36, 00.00'RT CENTENNIAL CENTRE BOULEVARD=
STA 230+50.44, 71.96'LT CTH FF

REMOVE EXISTING
RETAINING WALL
385'-LENGTH

STA 229+07 - STA 232+60

RAZE AND REMOVAL
BY OTHERS

RAZE AND REMOVAL
BY OTHERS

RAZE AND REMOVAL
BY OTHERS

220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235

CTH FF (HILLCREST DRIVE)

REMOVE 18" CMCP

STA 219+78
SAW EXISTING
PAVEMENT
FULL DEPTH

TREE TO BE
REMOVED (TYP)

REMOVE & REPLACE DRIVEWAY

STA 225+55, 65'RT
SAW EXISTING
PAVEMENT
FULL DEPTH

REMOVE CONCRETE
CURB AND GUTTER

PROPOSE TREE
LINE (TYP)

NAVAJO TRAIL

STA 80+00, 00.00'RT NAVAJO TRAIL=
STA 230+75.15, 71.93'CTH FF

SLOPE INTERCEPT (TYP)

℄ NAVAJO TRAIL

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	REMOVAL PLAN	SHEET 42	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021211_pd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

2

PROPOSE TREE LINE (TYP)

REMOVE CONCRETE CURB AND GUTTER

℄ SW RAMP

℄ CTH FF

REMOVE 18" CMCP

STA 655+70 - STA 666+97
SAW EXISTING PAVEMENT
FULL DEPTH

REMOVE 18" CMCP

235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250

CTH FF (HILLCREST DRIVE)

TREE TO BE REMOVED (TYP)

REMOVE 24" CMCP

STA 659+76 - STA 667+94
SAW EXISTING PAVEMENT
FULL DEPTH

SLOPE INTERCEPT (TYP)

REMOVE 18" CMCP

REMOVE 42" CMCP

THORNBERRY CREEK

RAZE AND REMOVAL BY OTHERS

STA 651+26 - STA 674+36
SAW EXISTING PAVEMENT
FULL DEPTH

STA 636+54 - STA 702+75
SAW EXISTING PAVEMENT
FULL DEPTH

℄ SE RAMP

℄ STH 29/32 EB

℄ STH 29/32 WB

STH 29/32 EB

STH 29/32 WB

℄ NW RAMP

STA 659+76 - STA 667+94
SAW EXISTING PAVEMENT
FULL DEPTH

REMOVE & REPLACE DRIVEWAY

REMOVE 24" CMCP

REMOVE 18" CMCP

STA 258+58, 139'LT
SAW EXISTING PAVEMENT
FULL DEPTH

PROPOSE TREE LINE (TYP)

STA 258+71, 83'LT
SAW EXISTING PAVEMENT
FULL DEPTH

SLOPE INTERCEPT (TYP)

STA 262+69, 90'LT
SAW EXISTING PAVEMENT
FULL DEPTH

REMOVE & REPLACE DRIVEWAY

REMOVE 24" CMCP

REMOVE 27" CMCP

℄ CTH FF

REMOVE EXISTING DRIVEWAY

REMOVE 24" CMCP

CTH FF (SHERWOOD STREET)

251 252 253 254 255 256 257 258 259 260 261 262 263 264 265

℄ STH 29/32 WB

℄ STH 29/32 EB

REMOVE 18" CMCP

REMOVE 15" CMCP

STA 655+70 - STA 666+97
SAW EXISTING PAVEMENT
FULL DEPTH

STA 651+26 - STA 674+36
SAW EXISTING PAVEMENT
FULL DEPTH

RAZE AND REMOVAL BY OTHERS

OBLITERATE OLD ROAD

TREE TO BE REMOVED (TYP)

STA 636+54 - STA 702+75
SAW EXISTING PAVEMENT
FULL DEPTH

℄ NE RAMP

CATHERINE DRIVE

REMOVE 15" CMCP

REMOVE 15" CMCP

STA 260+94, 88'RT
SAW EXISTING PAVEMENT
FULL DEPTH

RAZE AND REMOVAL BY OTHERS

REMOVE & REPLACE DRIVEWAY

REMOVE 15" CMCP

REMOVE 15" CMCP

STA 263+15, 75'RT
SAW EXISTING PAVEMENT
FULL DEPTH

STA 13+18
SAW EXISTING PAVEMENT
FULL DEPTH

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	REMOVAL PLAN	SHEET 43	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021212_pd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

BEGIN CONSTRUCTION
STA 87+94.69
Y = 585,609.372
X = 69,498.343

STA 88+06, 33'RT
SAW EXISTING PAVEMENT
FULL DEPTH

STA 88+00
SAW EXISTING PAVEMENT
FULL DEPTH

℄ WOODLAND ROAD

SLOPE INTERCEPT (TYP)

STA 90+00.00, 00.00'RT WOODLAND ROAD=
STA 266+98.85, 00.00'LT CTH FF (SHERWOOD STREET)

℄ CTH FF

FENCE REMOVAL
BY OTHERS

CTH FF (SHERWOOD STREET)

REMOVE 15" CMP

REMOVE EXISTING
ACCESS,
RELOCATION
BY OTHERS

STA 90+00.00, 00.00'RT WOODLAND ROAD=
STA 266+98.38, 00.00'LT CTH FF (SHERWOOD STREET)

WOODLAND ROAD

STA 91+47
SAW EXISTING PAVEMENT
FULL DEPTH

END CONSTRUCTION
STA 91+47.85
Y = 585,622.487
X = 69,851.332

STA 400+00, 00.00'RT CTH C (SHAWANO AVENUE)=
STA 273+25.10, 3.00'RT CTH FF (SHERWOOD STREET)

℄ CTH C

STA 393+45
SAW EXISTING PAVEMENT
FULL DEPTH

PROPOSE TREE
LINE (TYP)

REMOVE DRIVEWAY

℄ CTH C

CTH C (SHAWANO AVENUE)

TREE TO BE
REMOVED (TYP)

STA 398+65, 117'RT
SAW EXISTING PAVEMENT
FULL DEPTH

STA 400+00.00, 00.00'RT CTH C (SHAWANO AVENUE)=
STA 273+51.48, 3.14'LT CTH FF (SHERWOOD STREET)

BEGIN CONSTRUCTION
STA 393+45.00
Y = 586,746.609
X = 69,502.175

REMOVE DRIVEWAY
REMOVE 36" CMCP

℄ CTH C

TREE TO BE
REMOVED (TYP)

REMOVE 48" CMCP

REMOVE 15" CMCP

REMOVE 18" CMCP

PROPOSE TREE
LINE (TYP)

STA 393+45
SAW EXISTING PAVEMENT
FULL DEPTH

STA 400+00.00, 00.00'RT CTH C (SHAWANO AVENUE)=
STA 273+51.48, 3.14'LT CTH FF (SHERWOOD STREET)

STA 400+00.00, 00.00'RT CTH C (SHAWANO AVENUE)=
STA 273+25.10, 3.00'RT CTH FF (SHERWOOD STREET)

CTH FF (SHERWOOD STREET)

SLOPE INTERCEPT (TYP)

℄ CTH FF

END CONSTRUCTION
STA 406+48.31
Y = 585,785.170
X = 70,367.810

REMOVE 24" CMCP

℄ CTH C

CTH C (SHAWANO AVENUE)

STA 406+48
SAW EXISTING PAVEMENT
FULL DEPTH

OBLITERATE
OLD ROAD

STA 96+44, 21'RT
SAW EXISTING PAVEMENT
FULL DEPTH

STA 95+30
SAW EXISTING PAVEMENT
FULL DEPTH

WOODLAND ROAD

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	REMOVAL PLAN	SHEET 44	E

2

N

STA 62+36, 83'LT
SAW EXISTING PAVEMENT
FULL DEPTH
REMOVE & REPLACE
DRIVEWAY

STA 60+90, 33'LT
SAW EXISTING PAVEMENT
FULL DEPTH
REMOVE & REPLACE
DRIVEWAY

REMOVE CONCRETE
CURB AND GUTTER

THORNBERRY CREEK

CTH FF (HILLCREST DRIVE)

CENTENNIAL CENTRE BOULEVARD

STA 80+00.00, 00.00'RT NAVAJO TRAIL=
STA 230+75.15, 71.93'RT CTH FF

℄ CTH FF

RAZE AND REMOVAL
BY OTHERS

TREE TO BE
REMOVED (TYP)

REMOVE CONCRETE PAVEMENT

SLOPE INTERCEPT (TYP)

PROPOSE TREE
LINE (TYP)

℄ CENTENNIAL CENTRE BOULEVARD

STA 60+35
SAW EXISTING PAVEMENT
FULL DEPTH

EX R/W

BEGIN CONSTRUCTION
STA 60+35.10
Y = 583,198.658
X = 69,175.239

RAZE AND REMOVAL
BY OTHERS

RAZE AND REMOVAL
BY OTHERS

℄ CENTENNIAL
CENTRE BOULEVARD

CTH FF (HILLCREST DRIVE)

TREE TO BE
REMOVED (TYP)

SLOPE INTERCEPT (TYP)

℄ CTH FF

℄ CENTENNIAL CENTRE BOULEVARD
BYPASS LANE

END CONSTRUCTION
STA 82+57.98
Y=581,988.3969
X=70,071.125

℄ CENTENNIAL CENTRE BOULEVARD
ROUNDABOUT

REMOVE CONCRETE
CURB AND GUTTER

RAZE AND REMOVAL
BY OTHERS

CENTENNIAL
CENTRE
BOULEVARD

PROPOSE TREE
LINE (TYP)

STA 82+58
SAW EXISTING PAVEMENT
FULL DEPTH

STA 80+00.00, 00.00'RT NAVAJO TRAIL=
STA 230+75.15, 71.93'RT CTH FF

LANCASTER
CREEK

℄ NAVAJO TRAIL

NAVAJO TRAIL

MH

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	REMOVAL PLAN	SHEET 45	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021214_pd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

STA 90+00.00, 00.00'RT WOODLAND ROAD=
STA 266+96.85, 00.00'LT CTH FF (SHERWOOD STREET)

BEGIN CONSTRUCTION
STA 87+94.69
Y= 585,609.372
X= 69,498.343

CTH FF (SHERWOOD STREET)

℄ CTH FF

STA 90+00.00, 00.00'RT WOODLAND ROAD=
STA 266+98.38, 00.00'LT CTH FF (SHERWOOD STREET)

END CONSTRUCTION
STA 91+47.85
Y = 585,622.487
X = 69,851.332

℄ WOODLAND ROAD

STA 406+48
SAW EXISTING PAVEMENT
FULL DEPTH

SLOPE INTERCEPT (TYP)

OBLITERATE OLD ROAD

STA 87+95
SAW EXISTING PAVEMENT
FULL DEPTH

REMOVE 15" CMCP

STA 88+06, 25'RT
SAW EXISTING PAVEMENT
FULL DEPTH

PROPOSE TREE
LINE (TYP)

TREE TO BE
REMOVED (TYP)

REMOVE 15" CMCP

WOODLAND ROAD

STA 91+48
SAW EXISTING PAVEMENT
FULL DEPTH

REMOVE DRIVEWAY,
ACCESS RELOCATION
BY OTHERS

STA 95+30
SAW EXISTING PAVEMENT
FULL DEPTH

STA 96+44, 21'RT
SAW EXISTING PAVEMENT
FULL DEPTH

REMOVE 18" CMCP

SEPTIC

N

OBLITERATE OLD ROAD, TYP

STA 24+46, 88'LT
SAW EXISTING PAVEMENT FULL DEPTH

STA 23+91, 60'LT
SAW EXISTING PAVEMENT
FULL DEPTH

REMOVE & REPLACE DRIVEWAY

TREE TO BE
REMOVED (TYP)

CENTENNIAL CENTRE BOULEVARD

STA 20+15, 22'LT
SAW EXISTING PAVEMENT
FULL DEPTH

STA 20+02
SAW EXISTING PAVEMENT
FULL DEPTH

℄ CENTENNIAL CENTRE BOULEVARD

SLOPE INTERCEPT (TYP)

PROPOSE TREE
LINE (TYP)

STA 28+25.00, 00.00'RT CENTENNIAL CENTRE BOULEVARD DRIVE=
STA 350+00.00, 00.00'LT FOREST ROAD

REMOVE 18' CMCP

STA 21+97, 24'RT
SAW EXISTING PAVEMENT
FULL DEPTH

BEGIN CONSTRUCTION
STA 10+00.00
Y = 585,276.073
X = 66,179.283

FOREST RD.

REMOVE 18' CMCP

STA 347+23, 209'RT
SAW EXISTING PAVEMENT
FULL DEPTH

STA 346+97, 170'RT
SAW EXISTING PAVEMENT
FULL DEPTH

REMOVE
DRIVEWAY

REMOVE 12' CMCP

STA 345+64, 132'RT
SAW EXISTING PAVEMENT
FULL DEPTH

FOREST ROAD

REMOVE 18' CMCP

℄ FOREST ROAD

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	REMOVAL PLAN	SHEET 46	E

2

N

STA 28+25.00, 00.00'RT CENTENNIAL CENTRE BOULEVARD=
STA 350+00.00, 00.00'LT FOREST ROAD

℄ CENTENNIAL CENTRE BOULEVARD

STA 631+56 - STA 633+46
SAW EXISTING PAVEMENT
FULL DEPTH

℄ STH 29/32 WB

SLOPE INTERCEPT (TYP)

TREE TO BE
REMOVED (TYP)

STA 630+16 - STA 636+63
SAW EXISTING PAVEMENT
FULL DEPTH

BEGIN CONSTRUCTION
STA 344+19.59
Y = 584,691.194
X = 67,133.194

℄ FOREST ROAD

FOREST ROAD

CENTENNIAL CENTRE BOULEVARD

STH 29/32 WB

STH 29/32 EB

℄ STH 29/32 EB

OBLITERATE OLD ROAD, TYP

STA 344+20
SAW EXISTING PAVEMENT
FULL DEPTH

PROPOSE TREE
LINE (TYP)

REMOVE & REPLACE DRIVEWAY

STA 346+97, 170'RT
SAW EXISTING
PAVEMENT
FULL DEPTH

STA 345+64, 132'RT
SAW EXISTING PAVEMENT
FULL DEPTH

CP500

℄ STH 29/32 WB

STH 29/32 WB

STH 29/32 EB

℄ STH 29/32 EB

CENTENNIAL CENTRE BOULEVARD DRIVE

STA 636+54 - STA 702+75
SAW EXISTING PAVEMENT
FULL DEPTH

SLOPE INTERCEPT (TYP)

℄ CENTENNIAL CENTRE
BOULEVARD DRIVE

TREE TO BE
REMOVED (TYP)

STA 651+26 - STA 674+36
SAW EXISTING PAVEMENT
FULL DEPTH

STA 651+00 - STA 710+10
SAW EXISTING PAVEMENT
FULL DEPTH

STA 655+70 - STA 666+97
SAW EXISTING PAVEMENT
FULL DEPTH

PROPOSE TREE
LINE (TYP)

N

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	REMOVAL PLAN	SHEET 47	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021216_pd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

2

N

STA 53+00, 60'LT
SAW EXISTING PAVEMENT
FULL DEPTH

STA 54+25, 42'LT
SAW EXISTING PAVEMENT
FULL DEPTH

STA 55+11
SAW EXISTING PAVEMENT
FULL DEPTH

END CONSTRUCTION
STA 55+10.71
Y = 583,655.914
X = 68,943.548

STA 60+89, 33'LT
SAW EXISTING PAVEMENT
FULL DEPTH

STA 60+35
SAW EXISTING PAVEMENT
FULL DEPTH

STA 62+36, 83'LT
SAW EXISTING PAVEMENT
FULL DEPTH

REMOVE CONCRETE
CURB AND GUTTER

CENTENNIAL CENTRE BOULEVARD

REMOVE CONCRETE
CURB AND GUTTER

℄ CENTENNIAL CENTRE BOULEVARD

TREE TO BE
REMOVED (TYP)

PROPOSE TREE
LINE (TYP)

CENTENNIAL CENTRE BOULEVARD

℄ CENTENNIAL CENTRE BOULEVARD

SLOPE INTERCEPT (TYP)

BEGIN CONSTRUCTION
STA 50+50.00
Y = 586,261.191
X = 67,198.625

STA 50+50
SAW EXISTING PAVEMENT
FULL DEPTH

REMOVE & REPLACE DRIVEWAY

GREENFIELD AVENUE

℄ GREENFIELD AVENUE

SLOPE INTERCEPT (TYP)

STA 54+30, 54'RT
SAW EXISTING PAVEMENT
FULL DEPTH

OBLITERATE
OLD ROAD

N

℄ WOODLAND ROAD

STA 62+00
SAW EXISTING PAVEMENT
FULL DEPTH

WOODLAND ROAD

TREE TO
BE SAVED

REMOVE & REPLACE DRIVEWAY

REMOVE 15" CMCP

TREE TO BE
REMOVED (TYP)

BEGIN CONSTRUCTION
STA 62+00.00
Y = 585,563.933
X = 67,807.465

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	REMOVAL PLAN	SHEET 48	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021217_pd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

2

N

CTH FF (HILLCREST DRIVE)

STA 224+68.22

STA 225+68.22

SLOPE INTERCEPT (TYP)

STA 227+20.36

224

225

226

227

228

229

N 10° 44' 30" W

2%

2%

2%

2%

3'

3'

℄ CTH FF

HMA PAVEMENT
TYPE E-0.3
4-INCH DEPTH

CONCRETE CURB AND GUTTER
4-INCH SLOPED 36-INCH TYPE T

STA 227+50.36

HMA PAVEMENT
TYPE E-0.3
4-INCH DEPTH

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN DETAIL - MEDIAN ACCESS POINTS	SHEET 49	E

2

2

CONCRETE CURB AND GUTTER
4-INCH SLOPED 36-INCH TYPE T

CTH C (SHAWANO AVENUE)

STA 397+37.53

S 34° 52' 50" E

394 395 396 397 398 399

3%

3%

2%

2%

℄ CTH C

SLOPE INTERCEPT (TYP)

HMA PAVEMENT
TYPE E-0.3
4-INCH DEPTH

STA 398+37.53

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN DETAIL - MEDIAN ACCESS POINTS	SHEET 50	E

2

GREENFIELD AVENUE

WOODLAND ROAD

EXISTING GREENFIELD AVENUE

OBLITERATE OLD ROAD

REMOVE EXISTING ROADWAY CORE AND GRADE TO ELEVATIONS SHOWN

EXISTING WOODLAND ROAD

TOPSOIL, SEED AND FERTILIZE

STH 29/32 WB

STH 29/32 EB

EXISTING CENTENNIAL CENTRE BOULEVARD

EXISTING FOREST ROAD

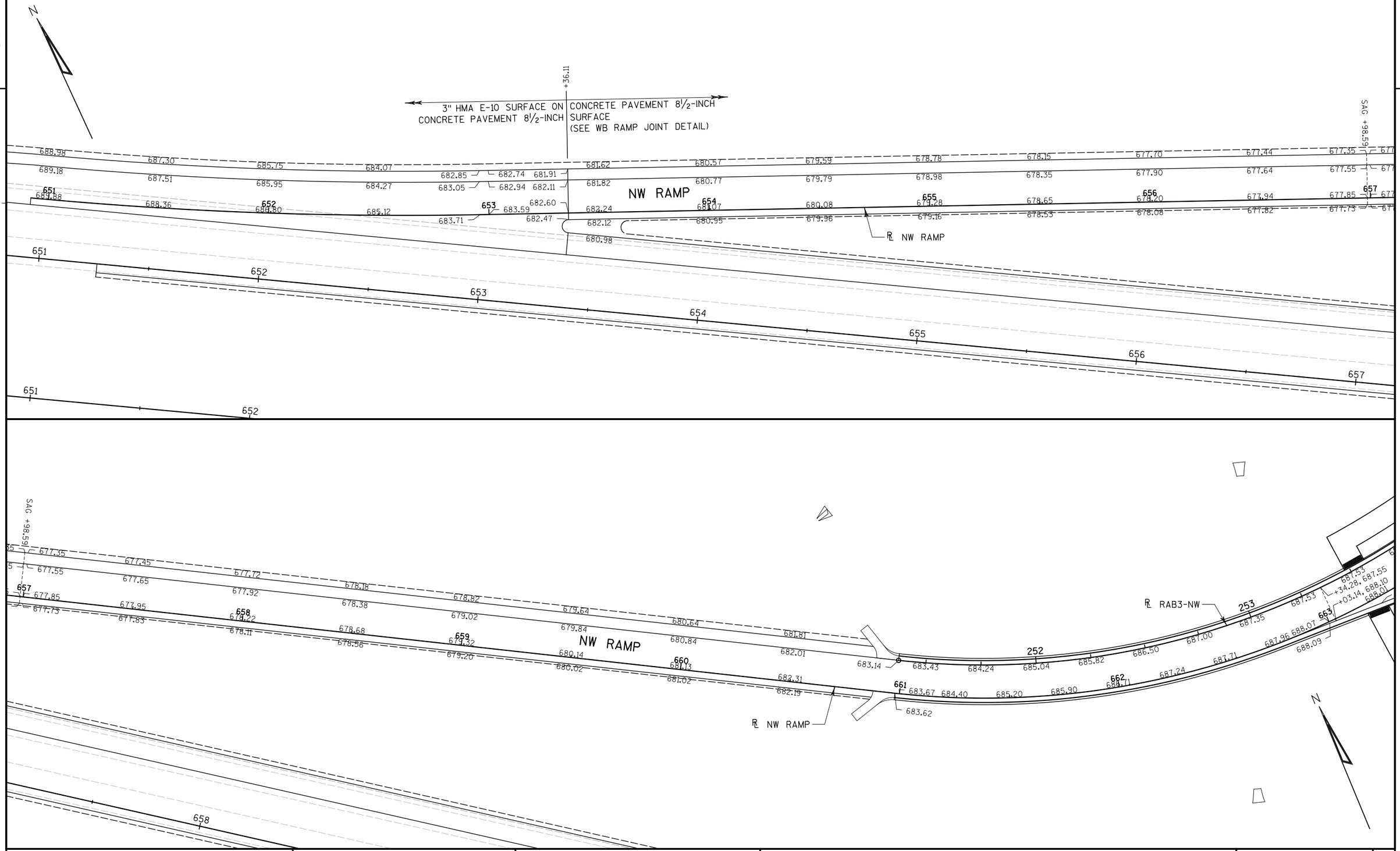
CENTENNIAL CENTRE BOULEVARD

FOREST ROAD

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	OBLITERATION GRADING DETAILS	SHEET 51	E

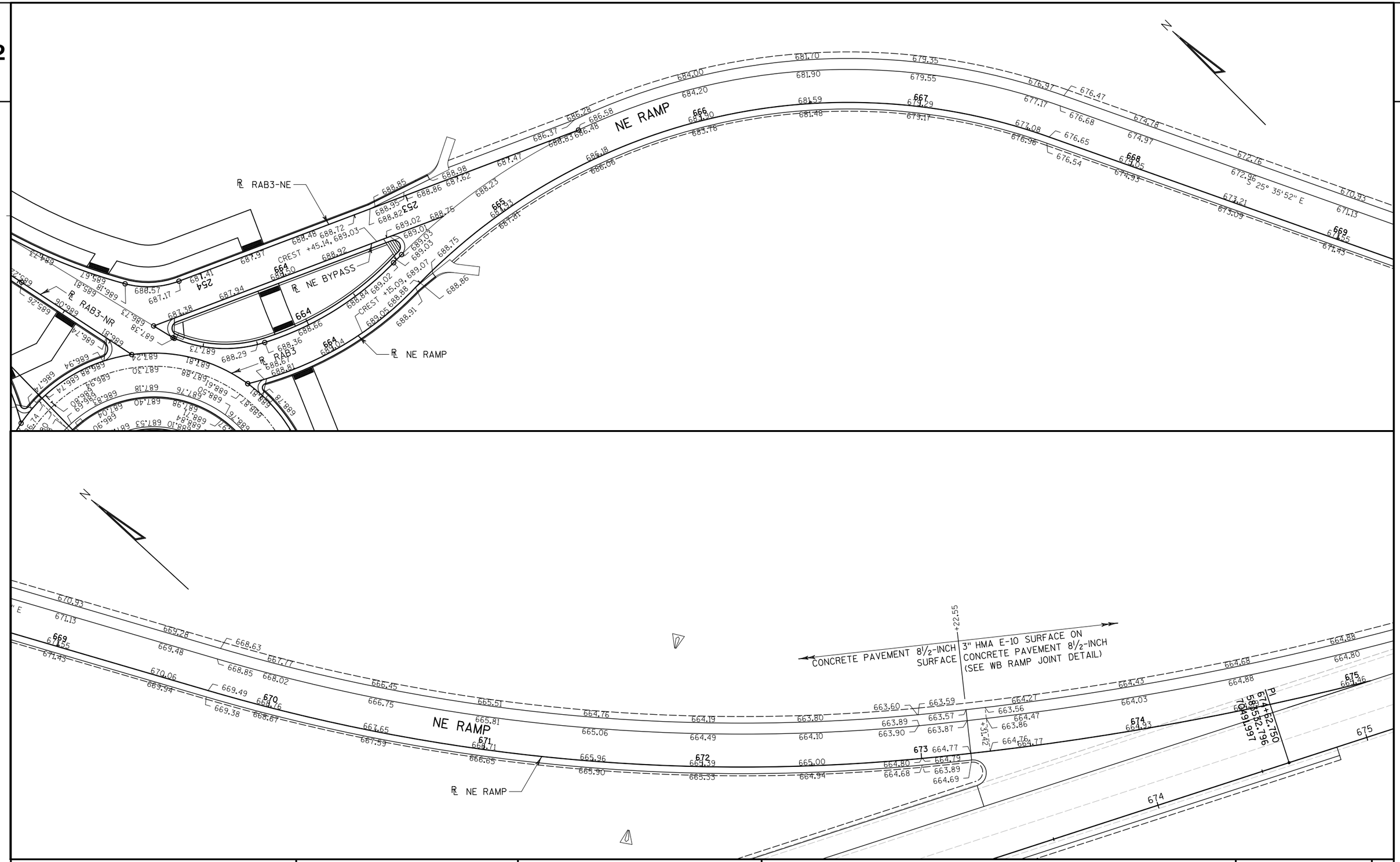
FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021220_pd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

2

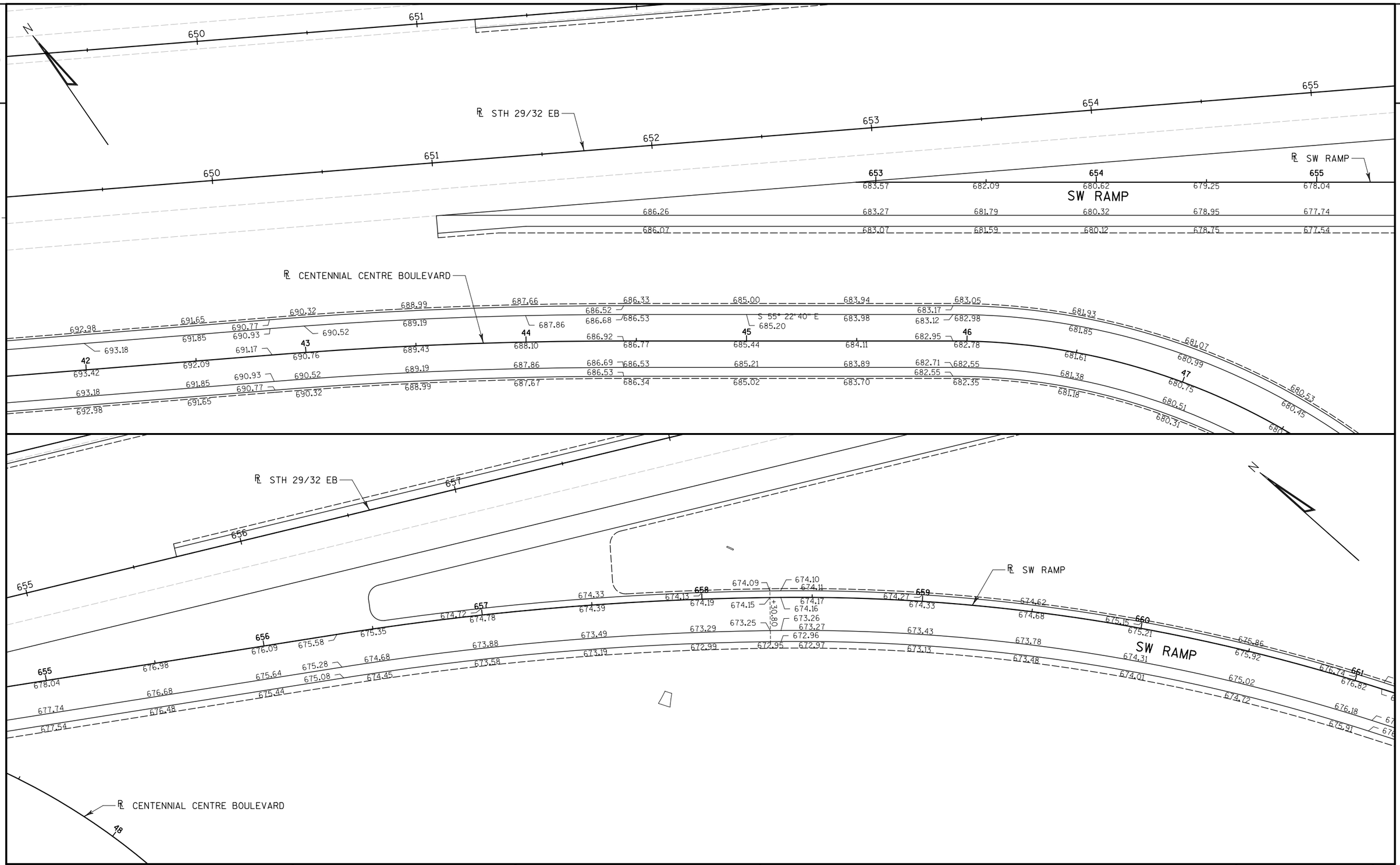


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 52	E

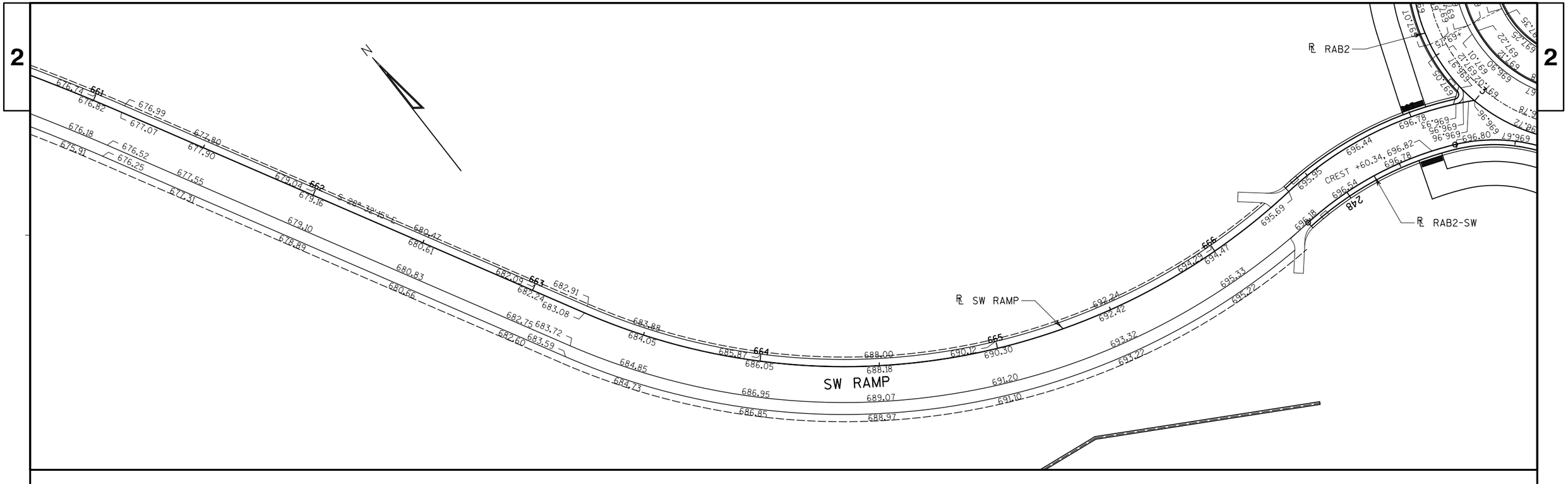
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 53	E

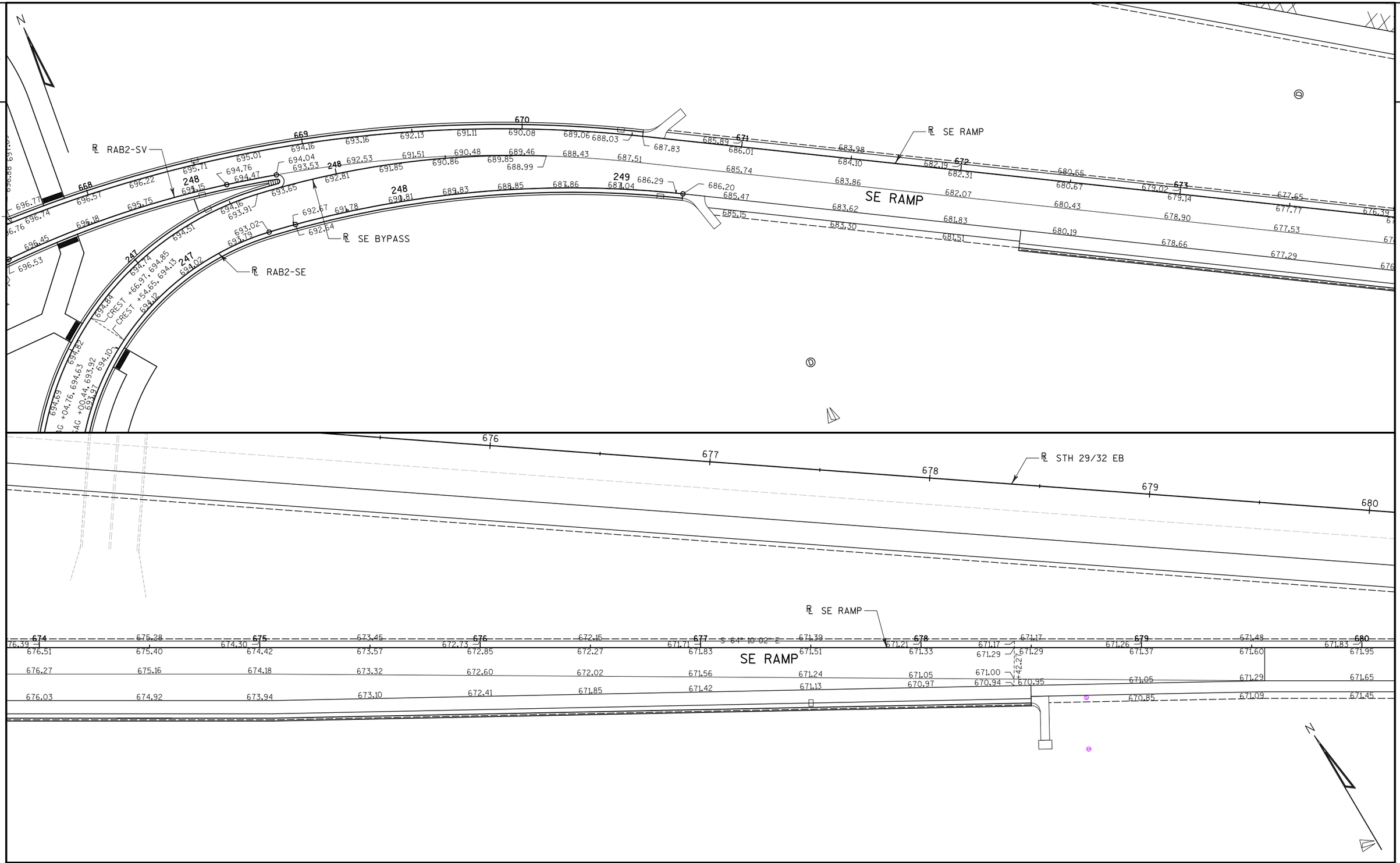


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 54	E



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 55	E

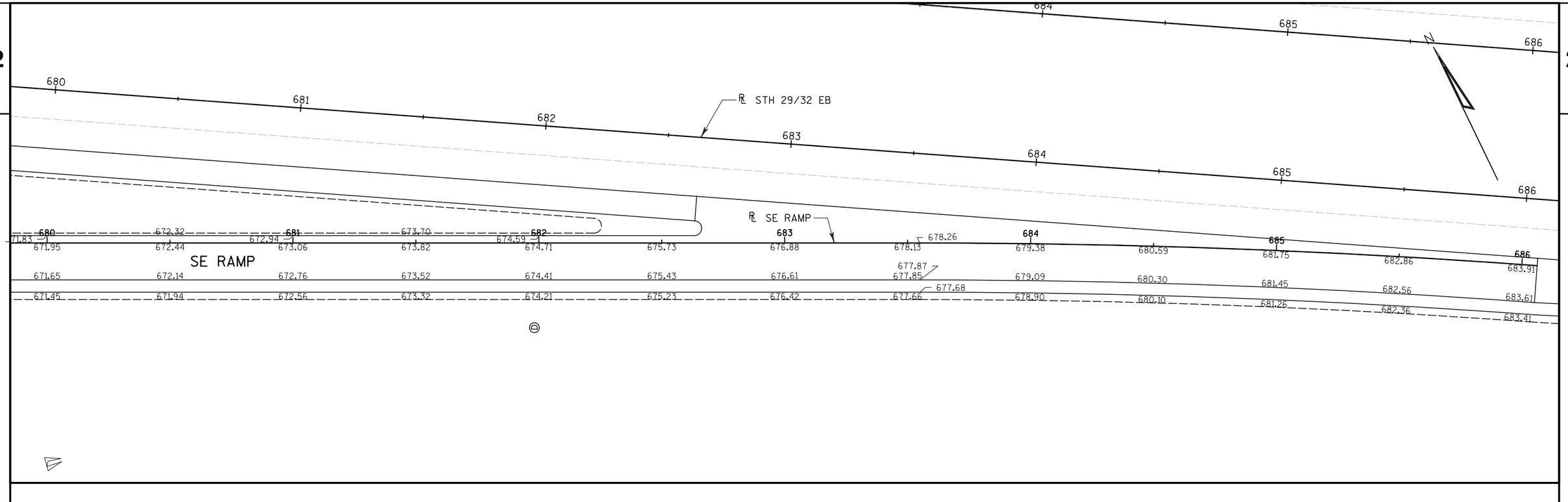
FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021304_jd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 40.0000 sf / in.



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 56	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021305_jd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 57	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021306_jd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

N

CTH FF (HILLCREST DRIVE)

℄ CTH FF

℄ RAB1-SR

℄ RAB1-SE

℄ RAB1-SW

℄ RAB1-NW

℄ CCB BYPASS

℄ RAB1-NV

℄ RAB1

℄ RAB1-NE

℄ NAVAJO

CREST +97.47, 669.39

SAG +00.76, 669.37

CREST +77.84, 671.12

CREST +79.87, 671.13

CREST +37.09, 671.69

SAG +90.51, 669.46

CREST +04.40, 669.52

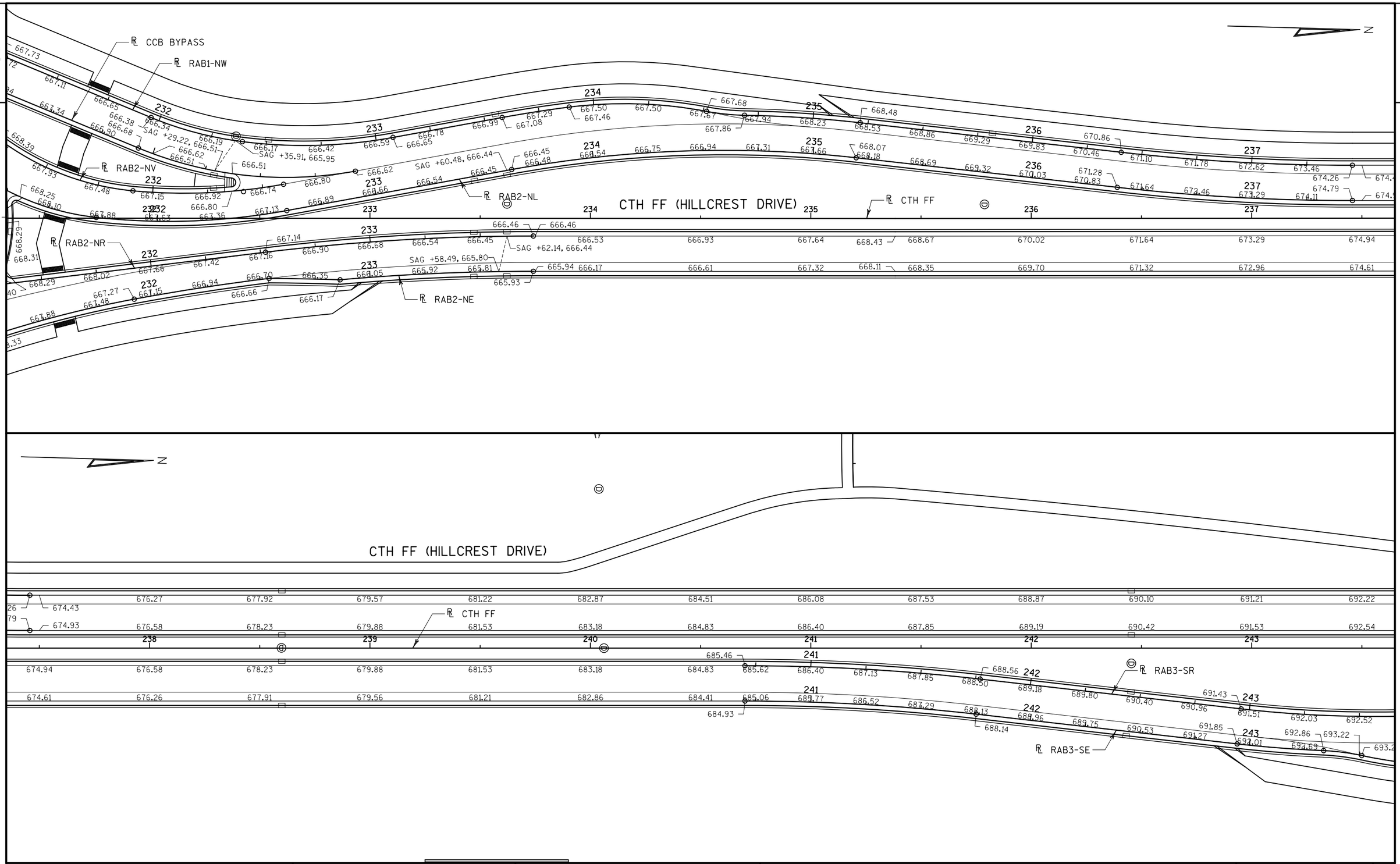
CREST +86.60, 668.19

+25.55

+96.21

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 58	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021307_jd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 40.0000 sf / in.



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 59	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021308_jd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

N

℄ RAB2-SW

6" HMA PAVEMENT TYPE E-3 | 8 ½" CONCRETE PAVEMENT

CTH FF (HILLCREST DRIVE)

℄ CTH FF

℄ RAB2-SL

℄ RAB2-SR

℄ RAB2-SV

℄ RAB2-SE

CREST +09.31, 694.95

CREST +05.37, 696.54

SAG +04.76, 694.63

SAG +00.44, 693.92

℄ SW RAMP

℄ RAB2-NW

℄ RAB2-NL

℄ CTH FF

℄ RAB2-NR

℄ RAB2-NE

℄ RAB2

℄ SE RAMP

8 ½" CONCRETE PAVEMENT | 6" HMA PAVEMENT TYPE E-3

N

℄ NW RAMP

℄ RAB3-SW

℄ RAB3-SL

℄ RAB3-SR

℄ RAB3-SE

℄ RAB3

℄ NE RAMP

℄ RAB3-NW

℄ CTH FF

CREST 3+39.38

SAG 1+03.86

CTH FF (SHERWOOD STREET)

℄ RAB3-NL

℄ RAB3-NR

℄ RAB3-EV

℄ RAB3-NE

℄ NE BYPASS

8½" CONCRETE PAVEMENT | 6" HMA PAVEMENT TYPE E-3

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 60	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021309_jd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

CTH FF (SHERWOOD STREET)

℄ RAB3-NL

℄ RAB3-NW

℄ RAB3-NR

℄ RAB3-NE

℄ CATHERINE DRIVE

℄ CTH FF

256 257 258 259 260 261

682.80 682.10 681.37 680.63 679.89 679.15 679.13 678.35 678.09 676.95 675.74 674.71 673.85 673.16 672.65 672.31 672.14 672.12 672.15

683.53 683.38 681.64 680.89 680.14 679.39 678.65 677.27 676.06 675.03 674.17 673.48 672.97 672.63 672.46 672.44 672.47

683.13 682.38 681.64 680.89 680.14 679.40 678.65 677.27 676.06 675.03 674.17 673.48 672.97 672.63 672.46 672.44 672.47

683.51 682.68 682.36 681.89 681.12 680.36 679.59 678.97 678.33 676.95 675.74 674.71 673.85 673.16 672.65 672.31 672.14 672.12 672.15

+23.33 SAG

+23.33 SAG

CTH FF (SHERWOOD STREET)

℄ CTH FF

℄ WOODLAND ROAD

262 263 264 265 266 267

672.15 672.33 672.62 672.92 673.22 673.53 673.82 674.07 674.32 674.64 675.16 675.78 676.13 676.1

672.47 672.65 672.94 673.24 673.54 673.85 674.14 674.39 674.64 674.97 675.48 676.11 676.46 676.51

673.40 673.90 673.93 674.15 674.26 674.51 674.76 675.09 675.56 676.27 676.53

672.47 672.65 672.94 673.24 673.54 673.84 674.14 674.39 674.64 674.97 675.48 676.11 676.46

672.15 672.33 672.62 672.92 673.22 673.52 673.82 674.07 674.32 674.65 675.16 675.79 676.14

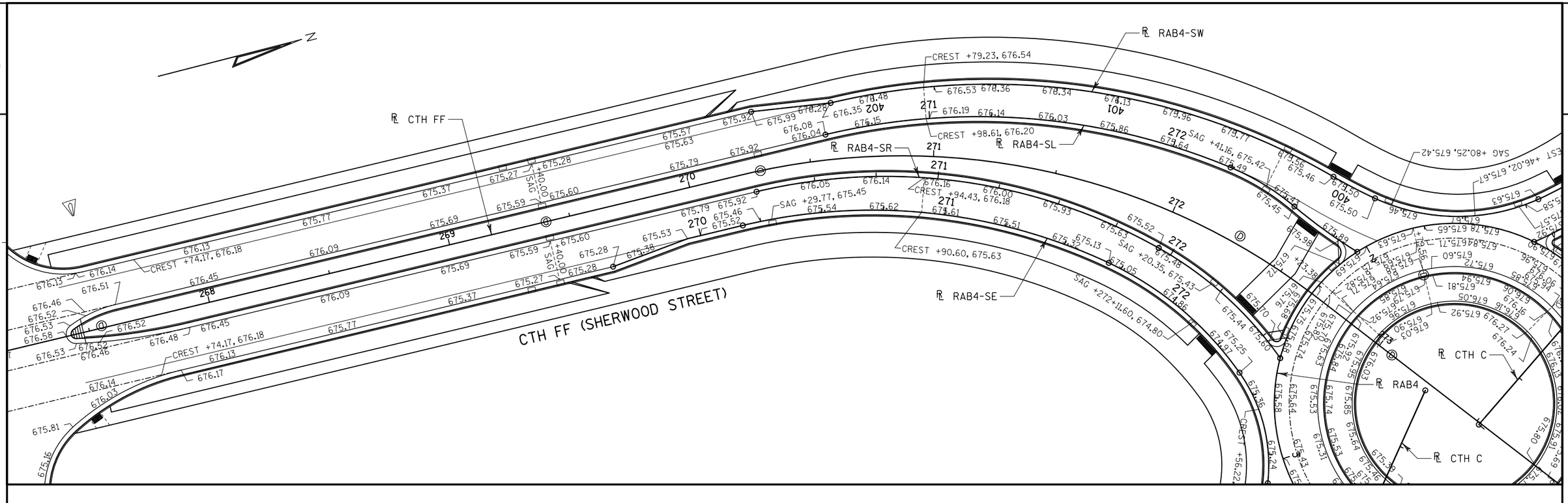
675.14 675.07 675.19 CREST 266+61.88

675.36 675.31 675.24 675.25 675.41 675.65 675.73 675.41 675.78 675.65 675.31 675.16 675.81 676.03 676.46 676.52 676.53 676.58 676.53

674.32 674.99 674.44 674.70

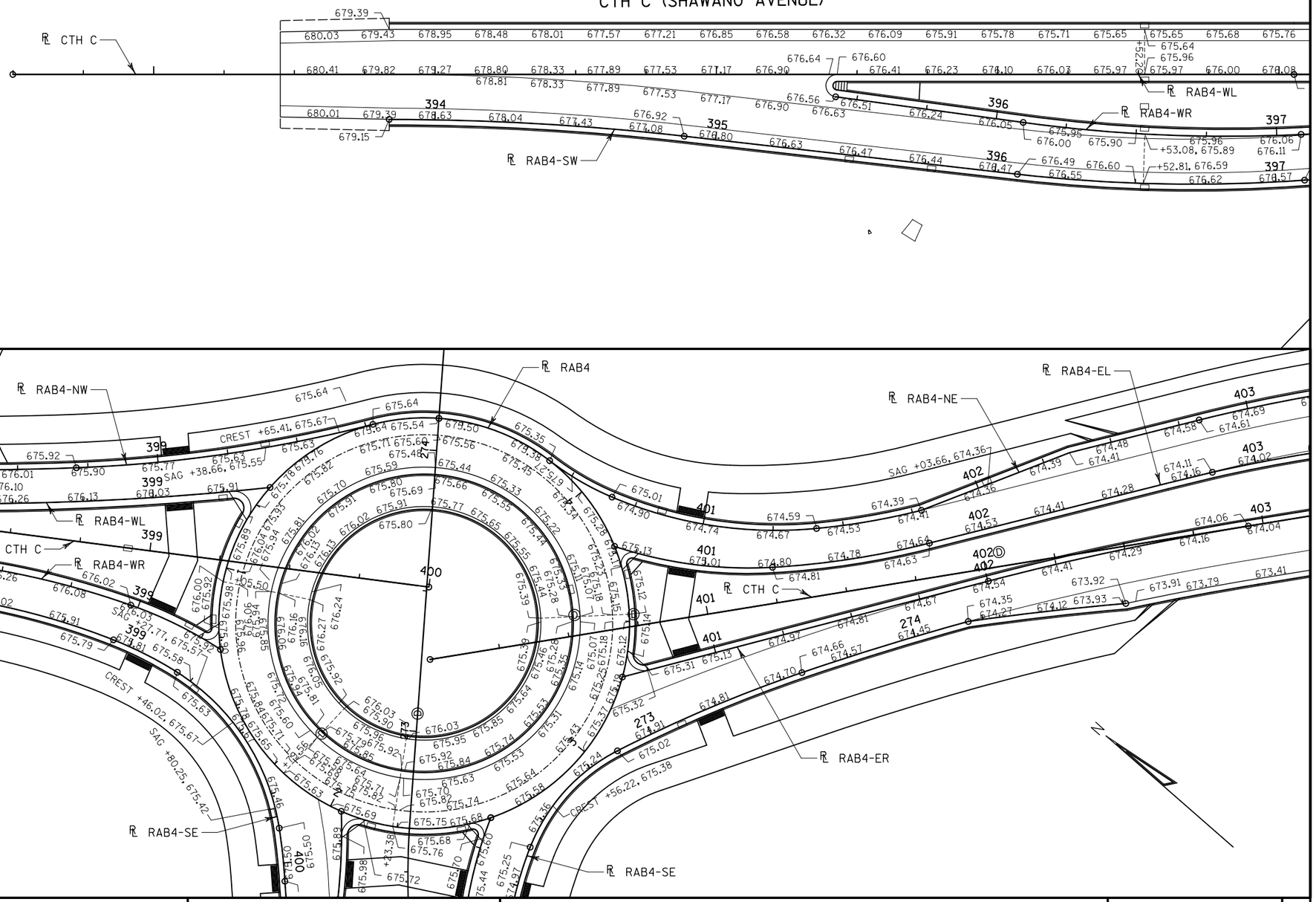
+41.36

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 61	E



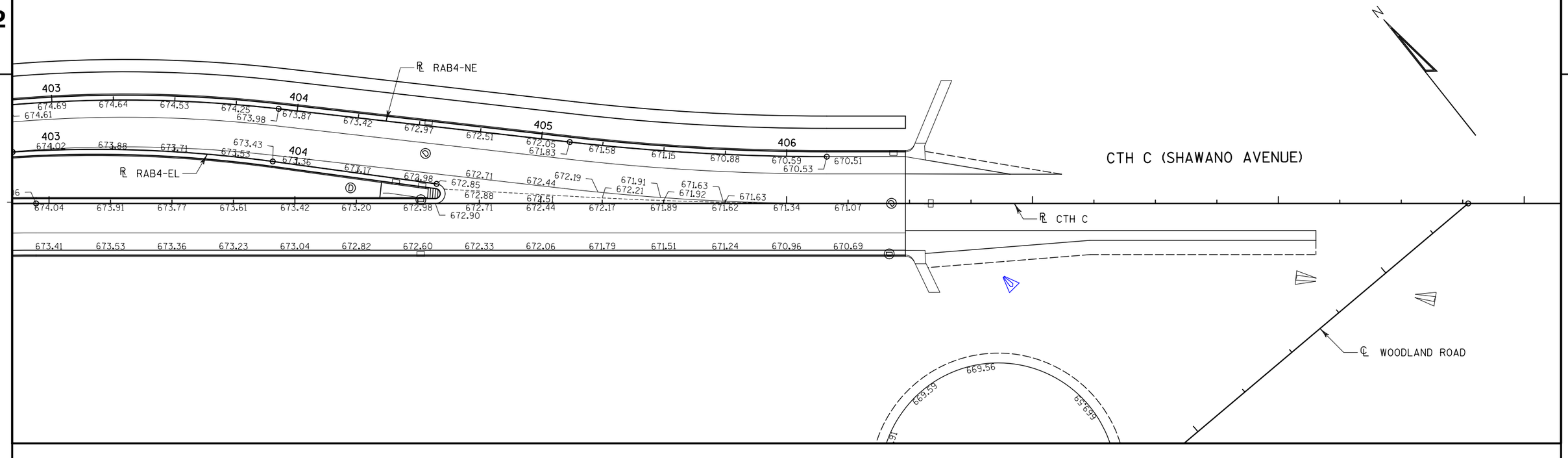
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 62	E

2



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 63	E

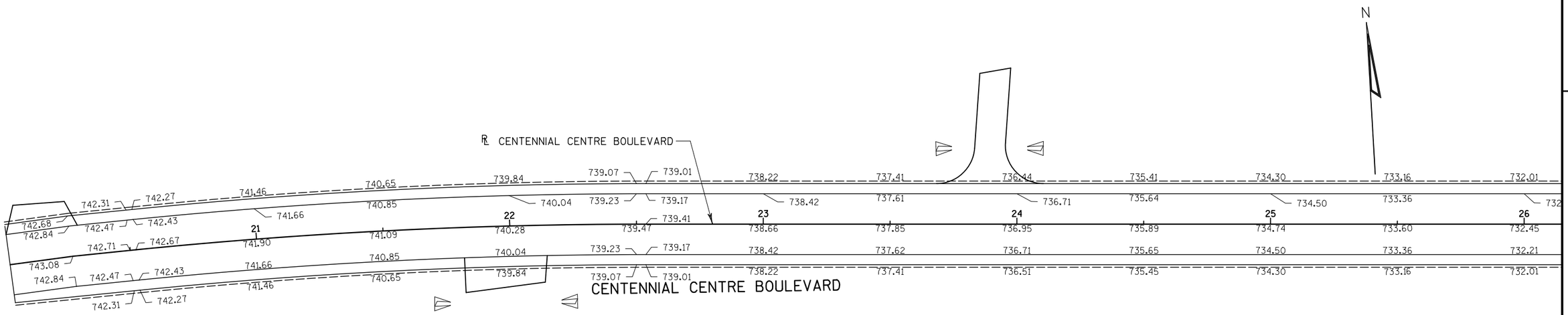
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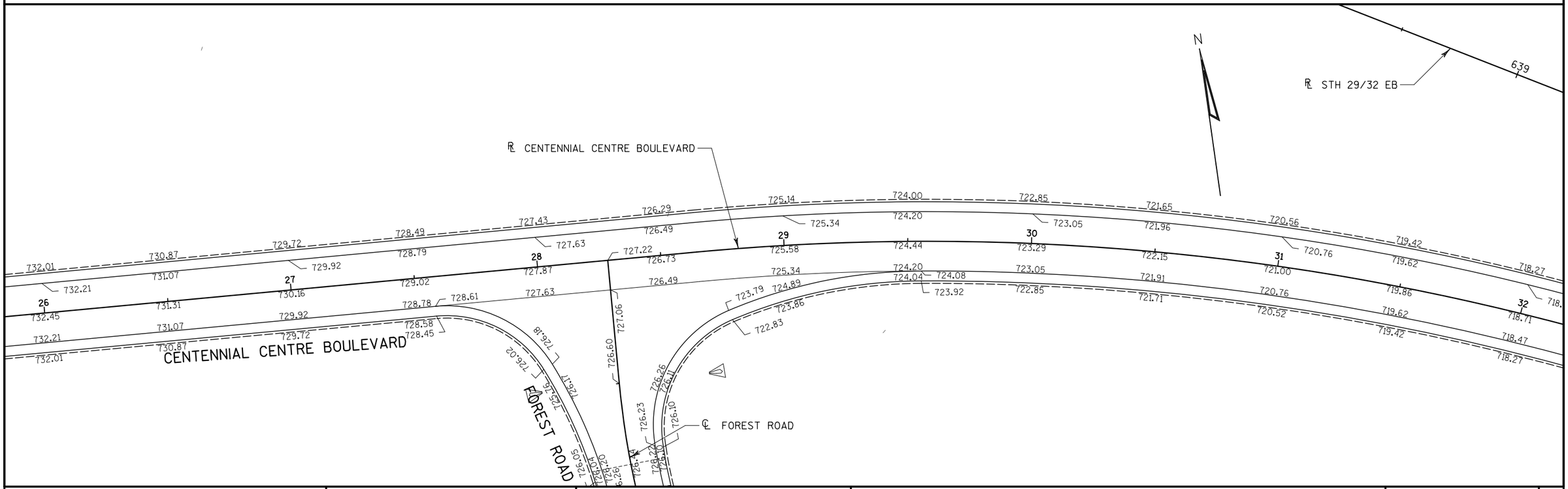


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 64	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021313_jd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 40.0000 sf / in.

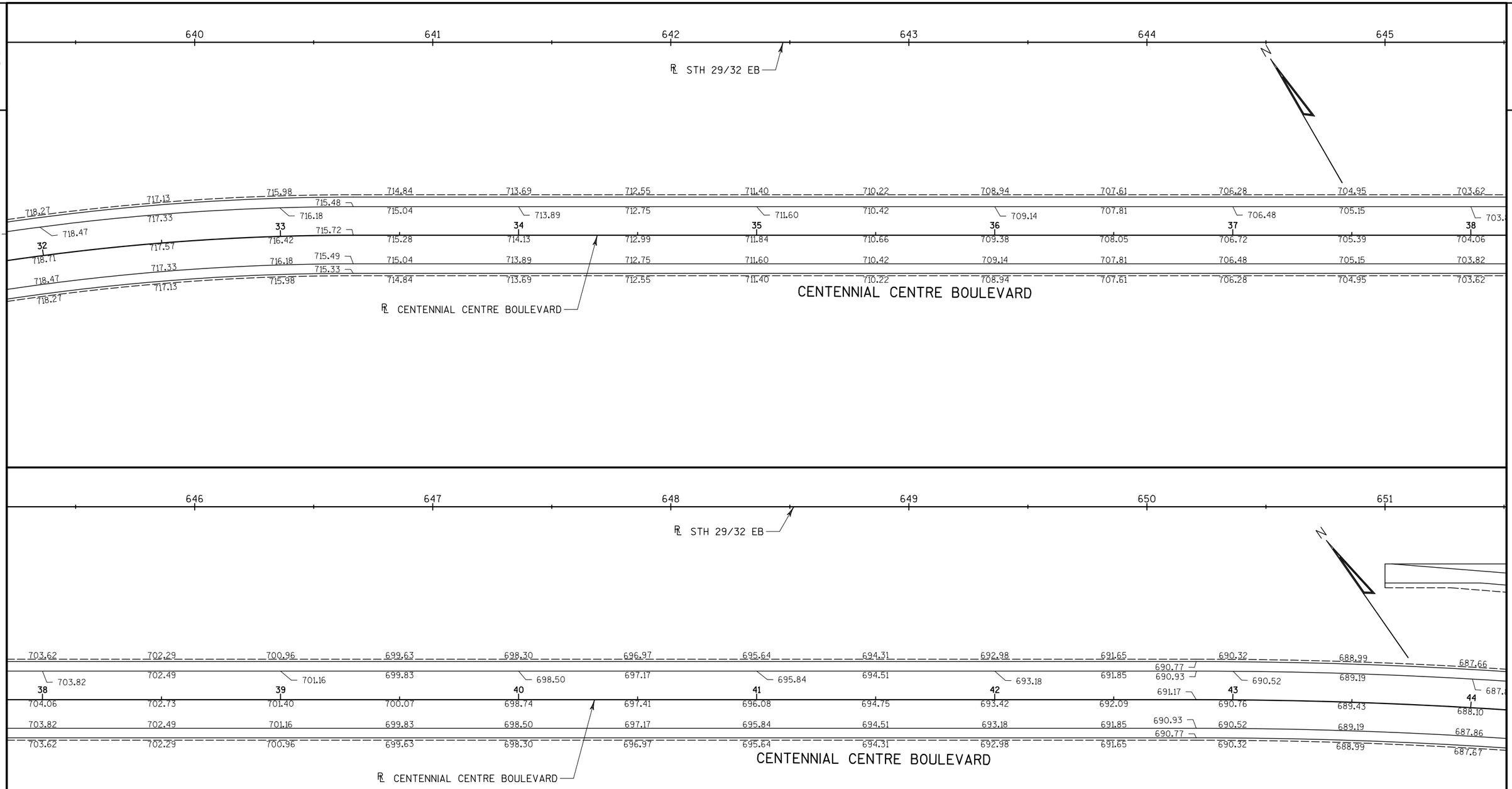
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 65	E

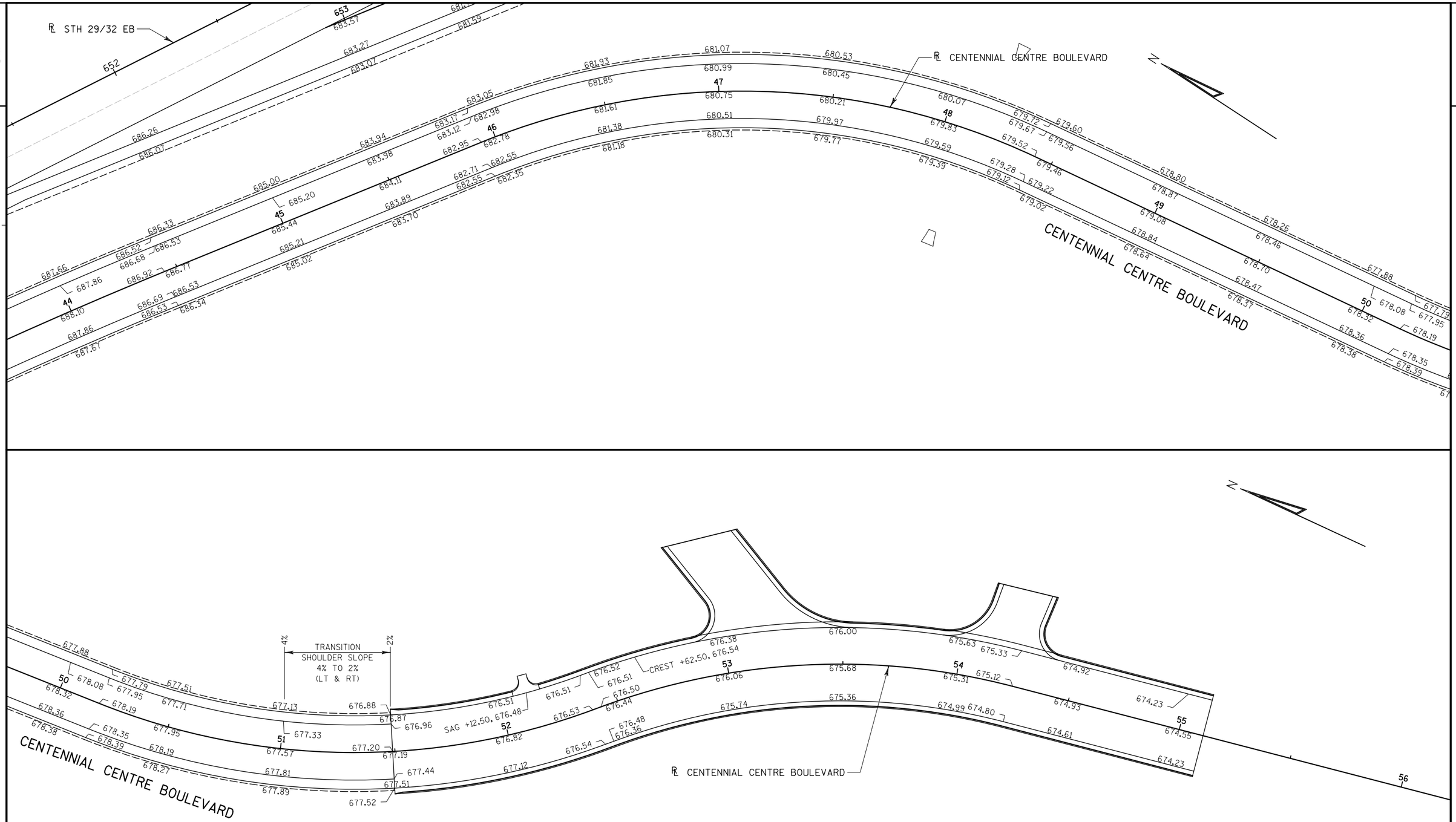
FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021314_jd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 40.0000 sf / in.



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 66	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021315_jd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

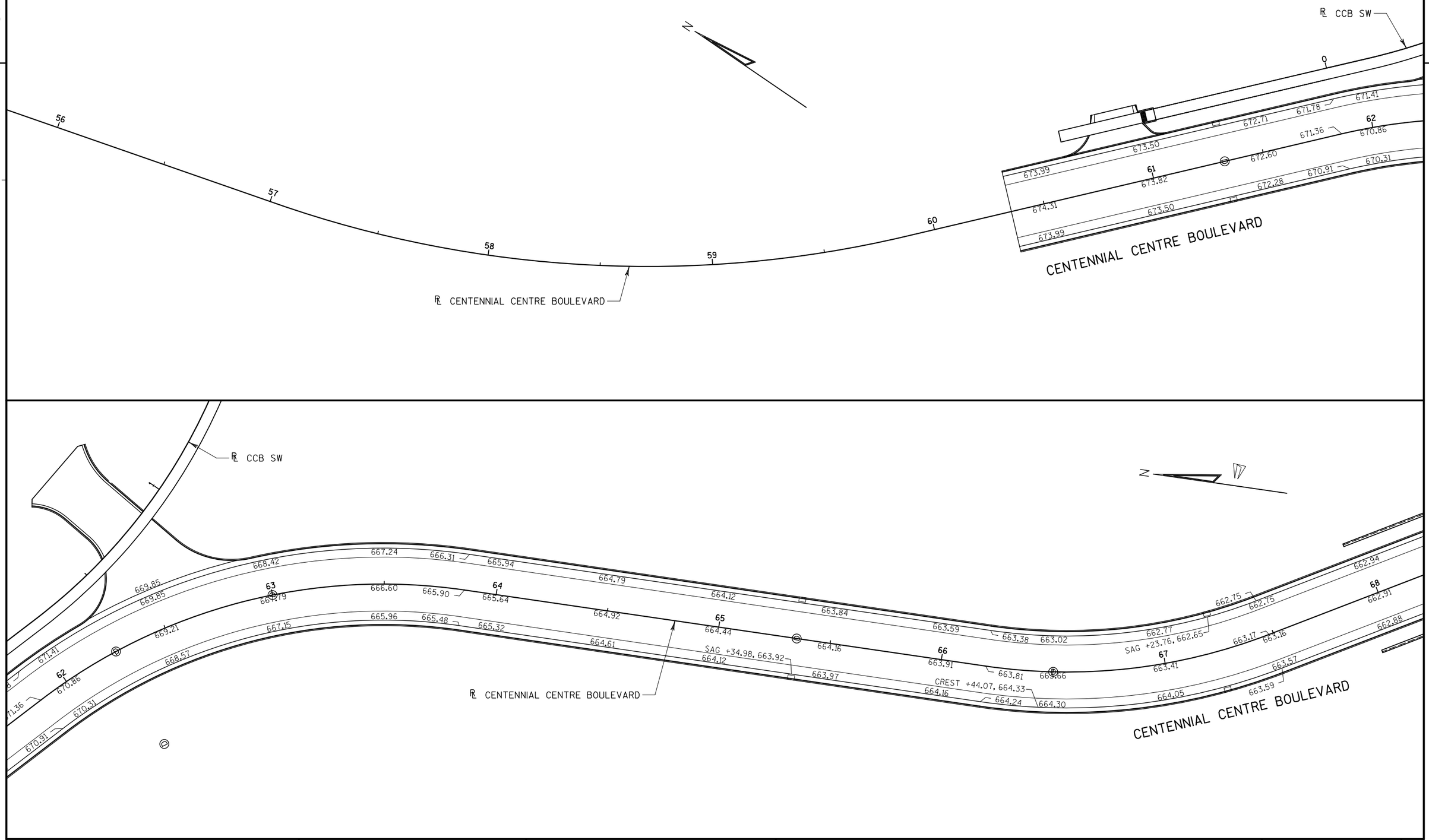


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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 67	E

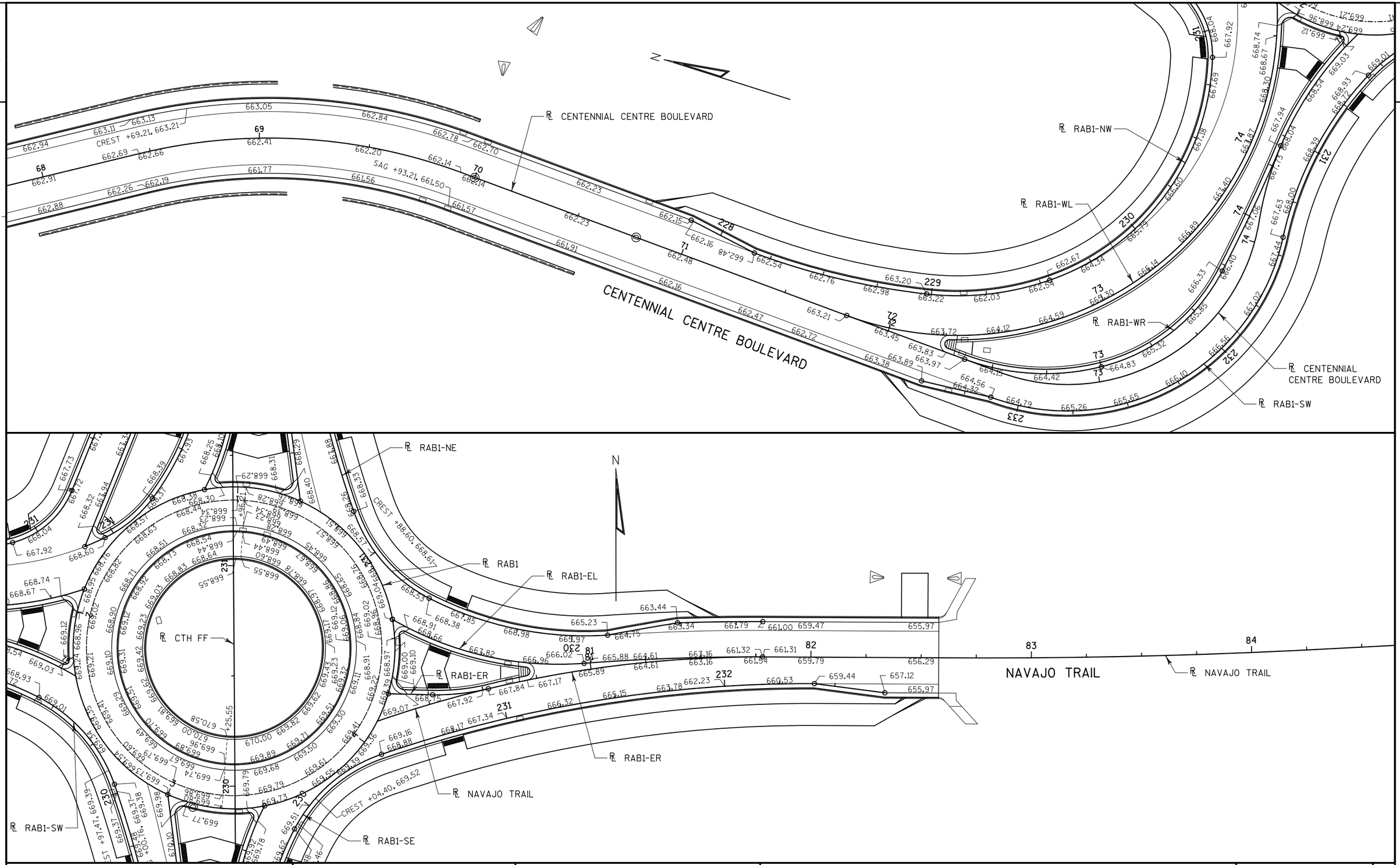
FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021316_jd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

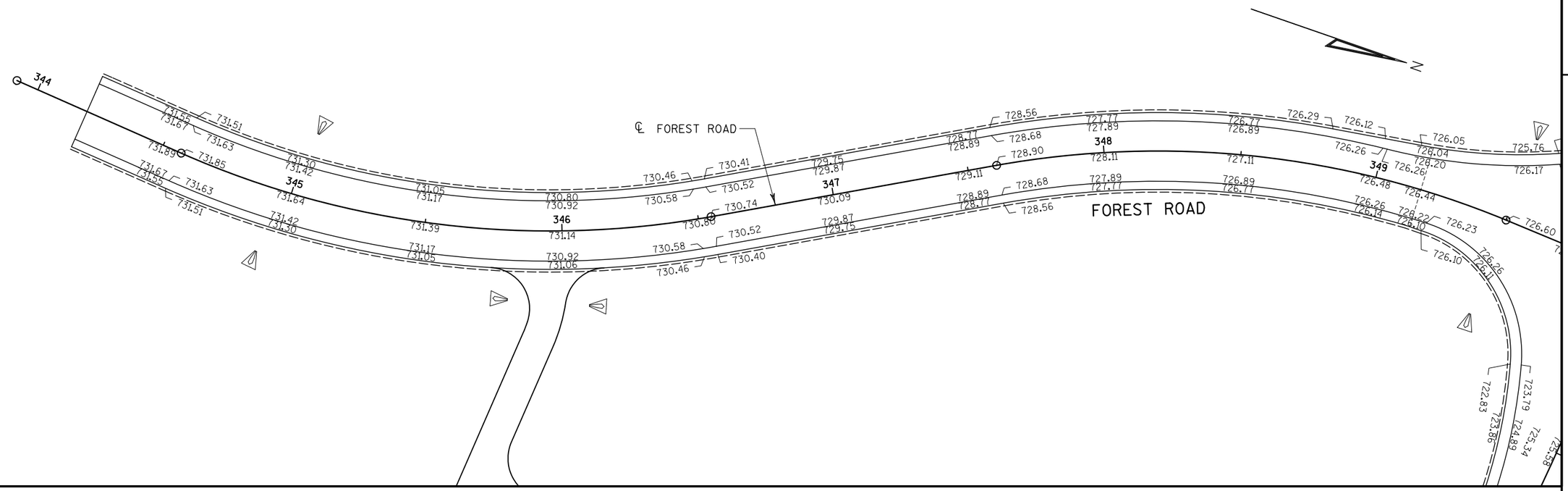


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 68	E

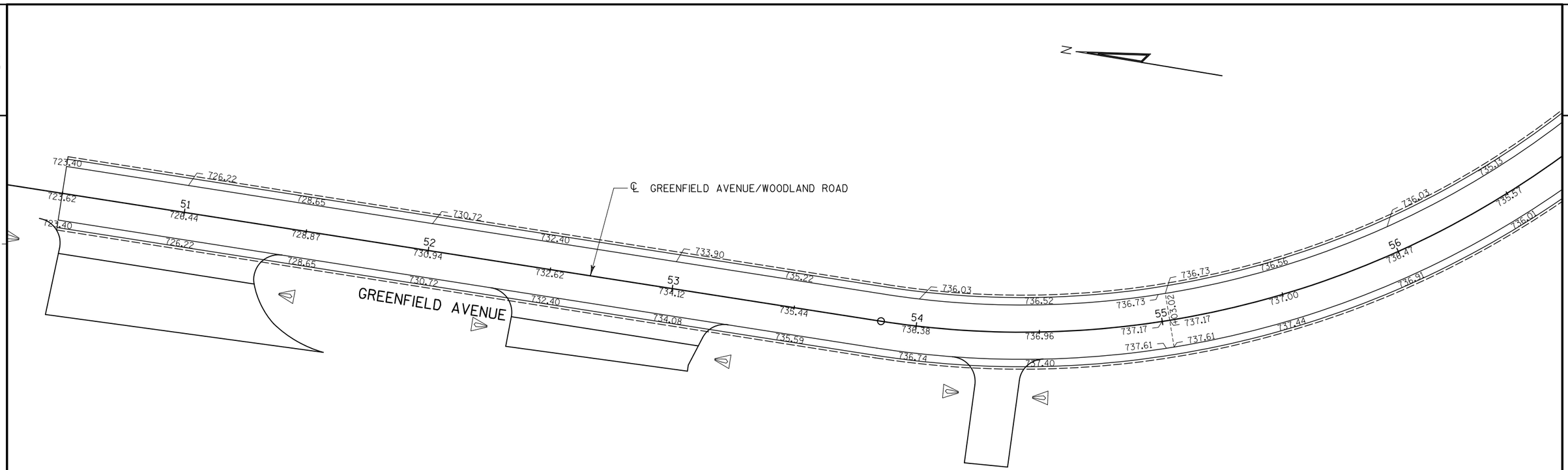
FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\021317_jd.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 40.0000 sf / in.

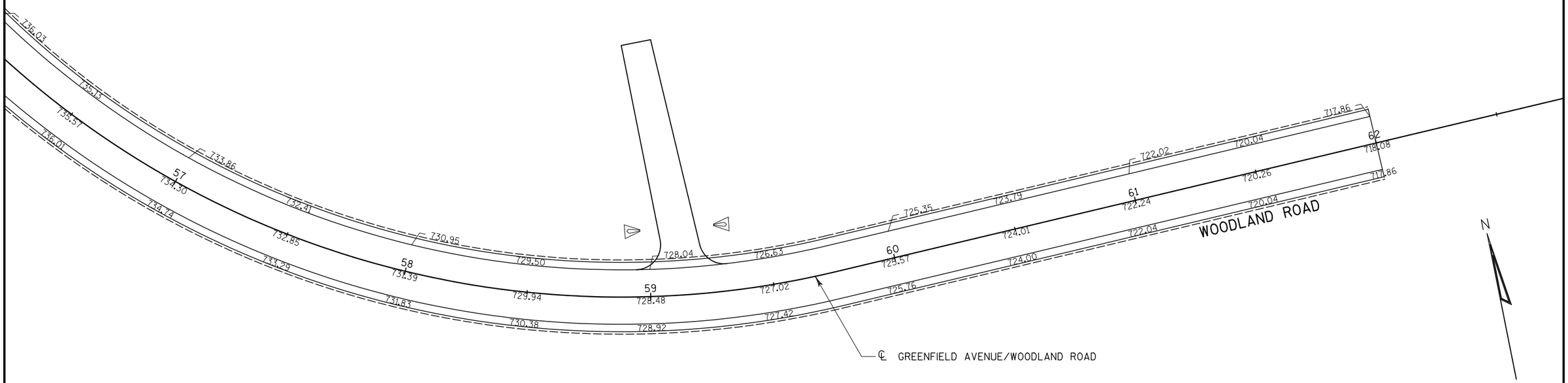

CENTENNIAL CENTRE BOULEVARD
℄ CENTENNIAL CENTRE BOULEVARD
℄ RAB1-NW
℄ RAB1-WL
℄ RAB1-WR
℄ RAB1-SW
℄ RAB1-NE
℄ RAB1
℄ RAB1-EL
℄ RAB1-ER
℄ RAB1-SE
℄ CTH FF
℄ NAVAJO TRAIL
NAVAJO TRAIL
CREST +69.21, 663.21
SAG +93.21, 661.50
CREST +88.50, 668.67
CREST +04.40, 669.52
N

2

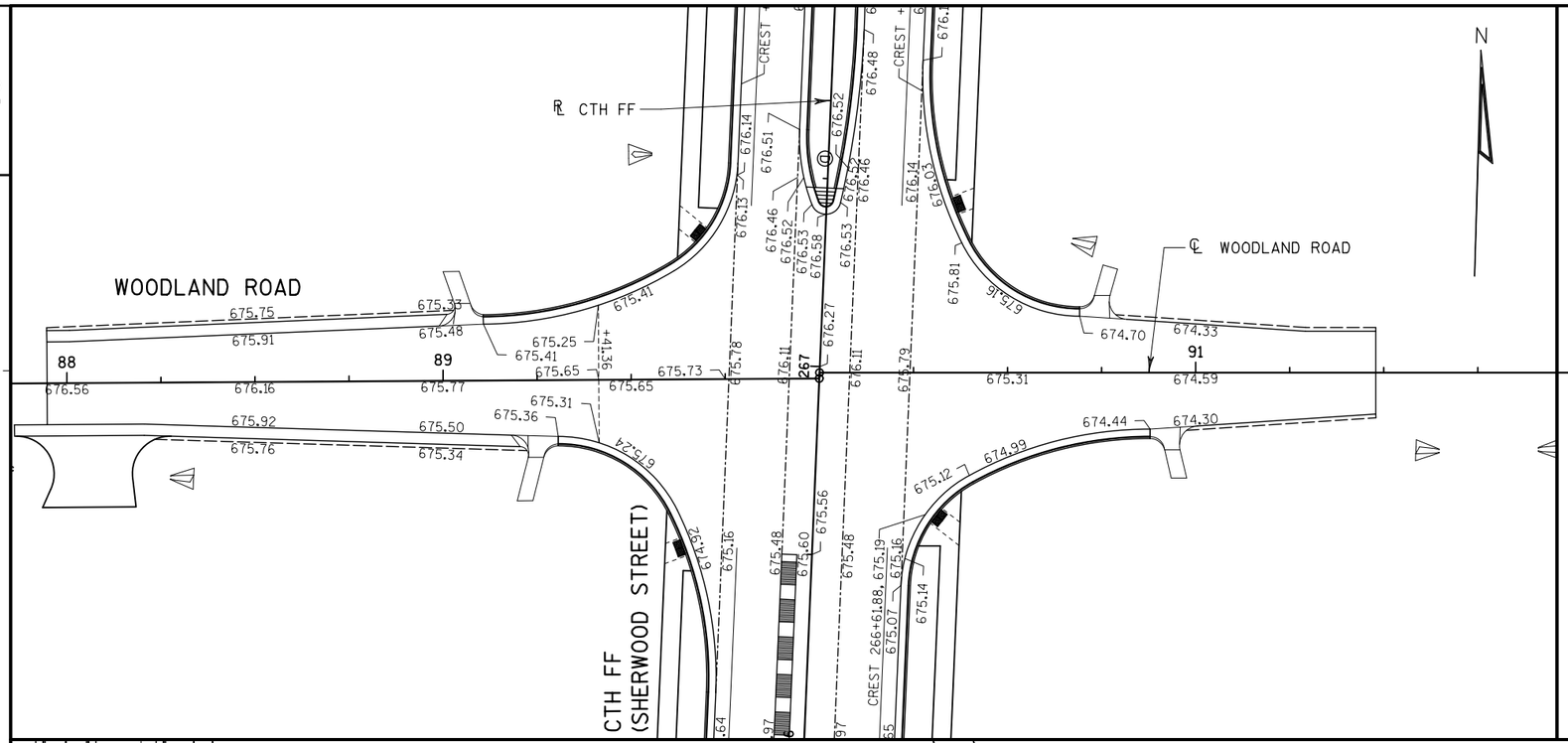


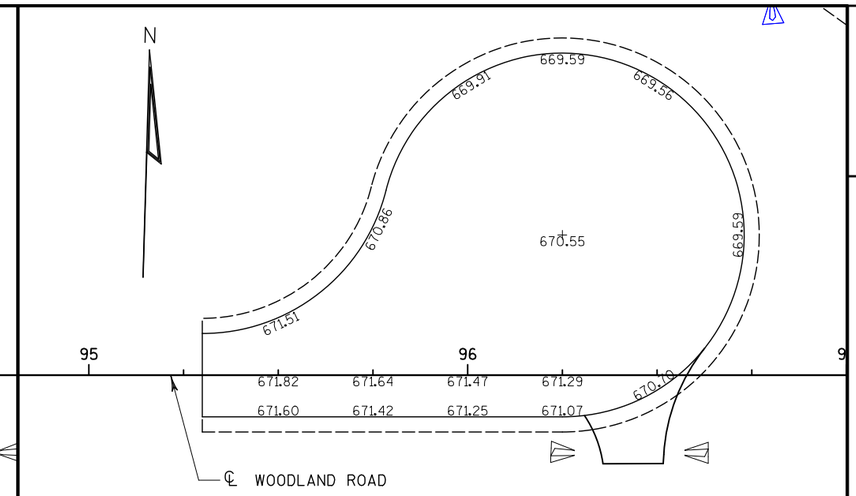
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 70	E

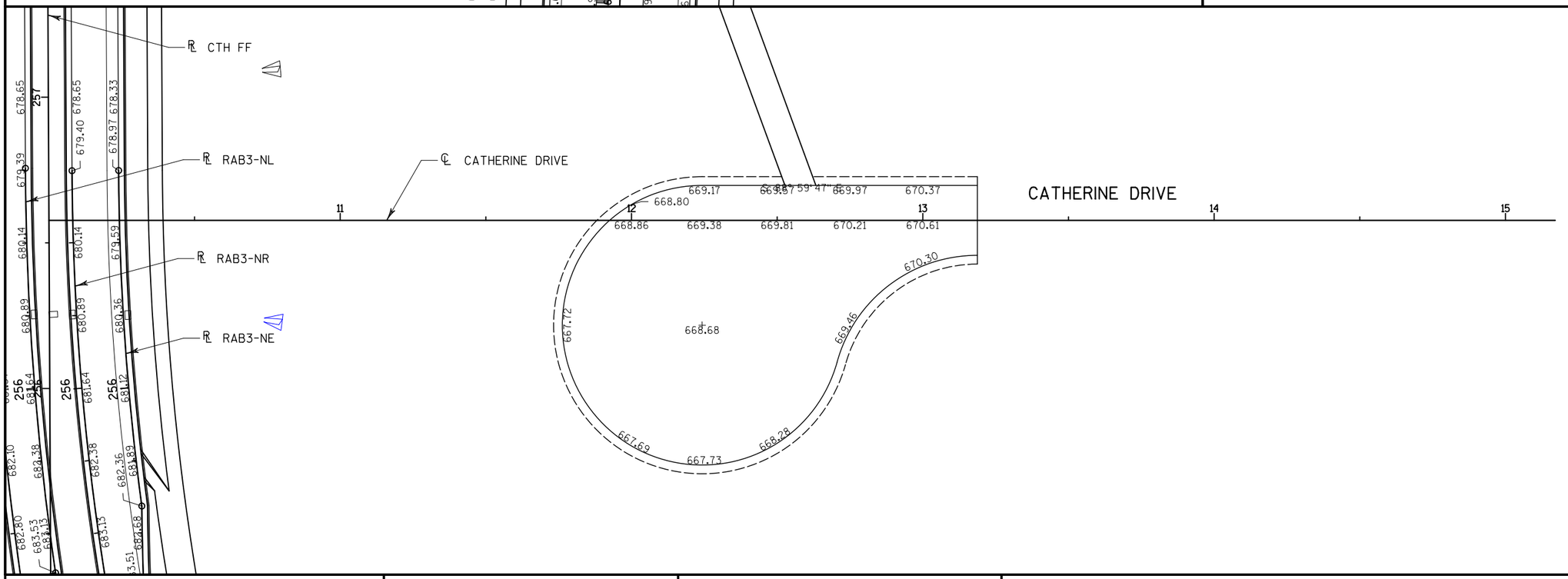




PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 71	E



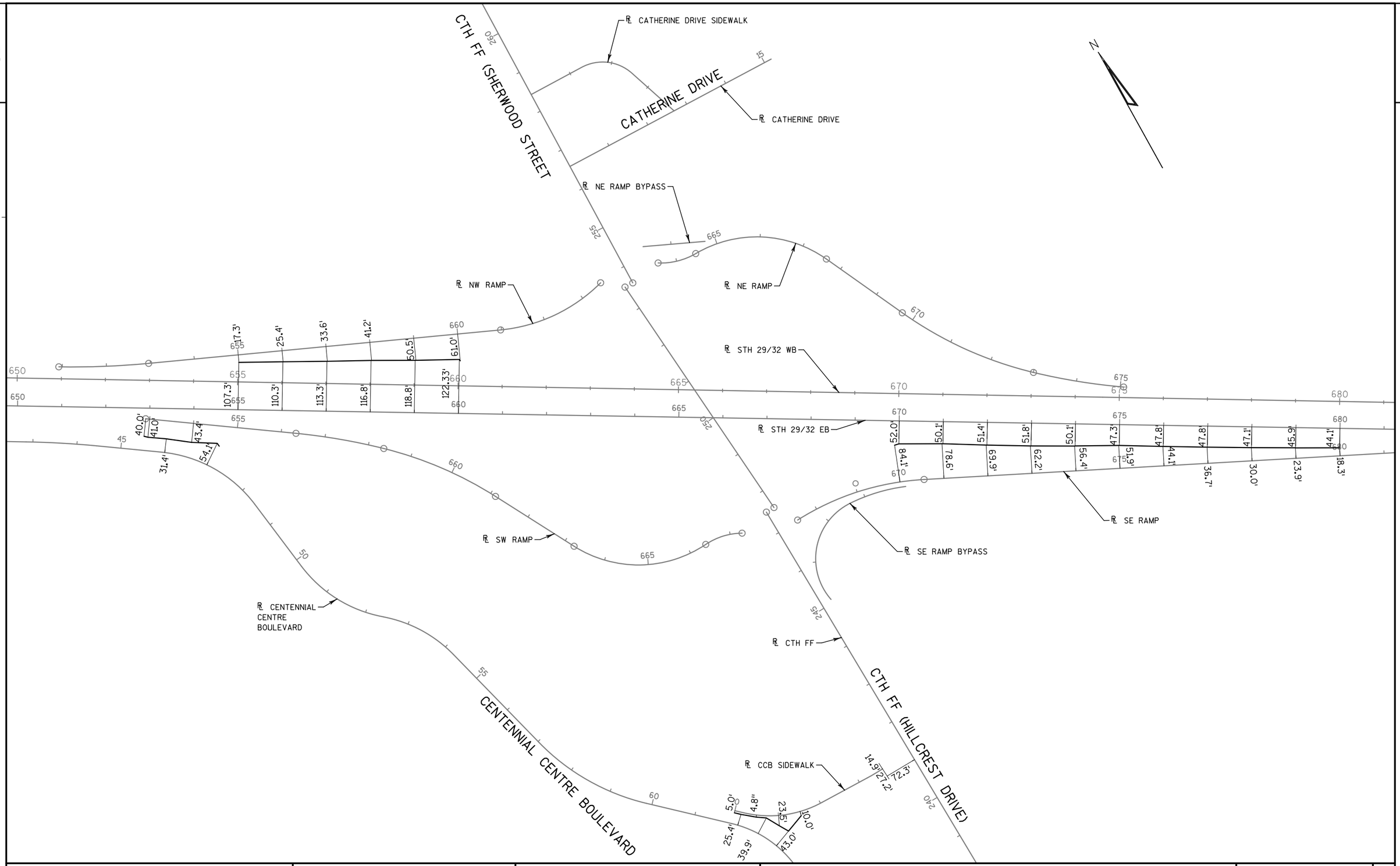




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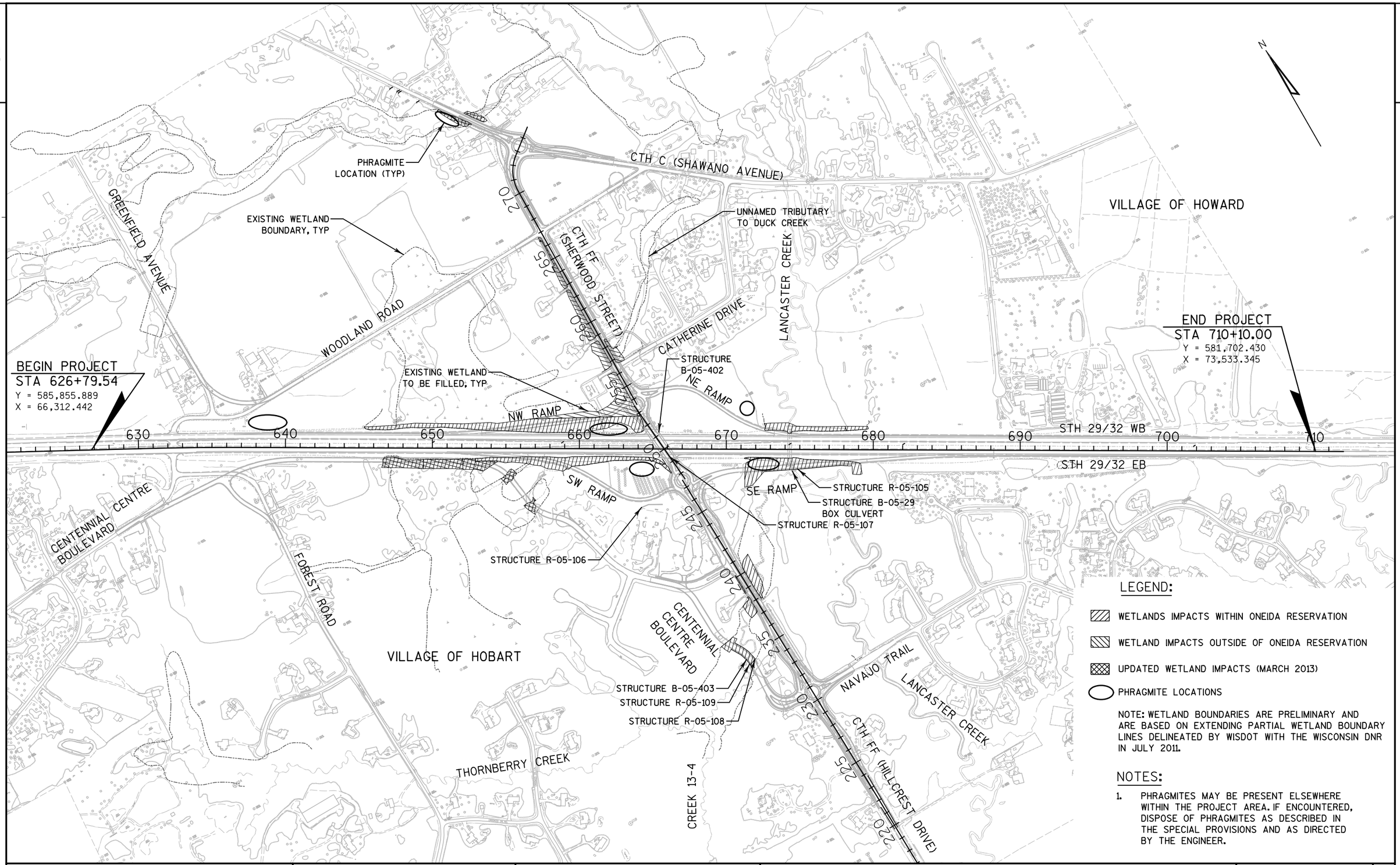
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRADING PLAN	SHEET 72	E

2



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	MATCH LINE PLAN	SHEET 73	E

2



LEGEND:

- WETLANDS IMPACTS WITHIN ONEIDA RESERVATION
- WETLAND IMPACTS OUTSIDE OF ONEIDA RESERVATION
- UPDATED WETLAND IMPACTS (MARCH 2013)
- PHRAGMITE LOCATIONS

NOTE: WETLAND BOUNDARIES ARE PRELIMINARY AND ARE BASED ON EXTENDING PARTIAL WETLAND BOUNDARY LINES DELINEATED BY WISDOT WITH THE WISCONSIN DNR IN JULY 2011.

NOTES:

1. PHRAGMITES MAY BE PRESENT ELSEWHERE WITHIN THE PROJECT AREA. IF ENCOUNTERED, DISPOSE OF PHRAGMITES AS DESCRIBED IN THE SPECIAL PROVISIONS AND AS DIRECTED BY THE ENGINEER.

PROJECT NO: 9200-04-71	HWY: STH 29/CTH FF	COUNTY: BROWN	WETLAND OVERVIEW	SHEET 74	E

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- SURFACE WATER FLOW
- RIP RAP (MEDIUM)
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- ROCK BAGS

NOTE:

1. ALL INLETS WILL HAVE INLET PROTECTION TYPE A DURING STORM SEWER CONSTRUCTION. INLET PROTECTION WILL CHANGE TO TYPE C OR TYPE D DURING ROAD CONSTRUCTION. TYPE C OR TYPE D INLET PROTECTION WILL REMAIN UNTIL THE PROJECT IS COMPLETED. TYPE D INLET PROTECTION WILL BE USED AT SAGS.

2. SEED OR INSTALL EROSION MATTING PER THE PLANS TO ALL DISTURBED BY CONSTRUCTION ACTIVITIES WHICH HAVE PREVENTED THE ESTABLISHMENT OR MAINTENANCE OF GRASS COVER, APPLY A WATER SOLUBLE ANIONIC POLYACRYLAMIDE (PAM) OR ADDITIONAL MATTING TO REDUCE EROSION. NO EXPOSED GROUND WILL BE ALLOWED DURING WINTER SHUTDOWN. CHECK SILT FENCE AND INLET PROTECTION AFTER EACH SNOWFALL. THE CONTRACTOR MUST MAKE SURE AND FIX ANY DAMAGE TO EROSION CONTROL MEASURES DUE TO SNOWFALL. REGULARLY CHECK EROSION CONTROL MEASURES DURING SPRING CONDITIONS. SPRING CONDITIONS BRING FLUCTUATING TEMPERATURES WHICH CAN RESULT IN HEAVY SNOW MELT AND ICE BUILDUPS. THESE SITUATIONS CAN CAUSE MAJOR PROBLEMS AND FAILURES TO EROSION CONTROL MEASURES. REFER TO EROSION CONTROL, WINTERIZATION SPECIAL.

BEGIN PROJECT
STA 626+79.54
Y = 585,855.889
X = 66,312.442

℄ STH 29/32 WB

℄ STH 29/32 EB

STH 29/32 WB

STH 29/32 EB

REFER TO TEMPORARY CENTENNIAL CENTRE BOULEVARD ROAD EROSION CONTROL PLAN

ROAD TO BE OBLITERATE IN STAGE 1, REGRADED AND SEEDED

CENTENNIAL CENTRE BOULEVARD

CULVERT PIPE DITCH CHECK (OOO)

℄ CENTENNIAL CENTRE BOULEVARD

℄ FOREST ROAD

FOREST ROAD

TRACKING PAD

ROAD TO BE OBLITERATE IN STAGE 1, REGRADED AND SEEDED

CULVERT PIPE DITCH CHECK (OOO)

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	EROSION CONTROL PLAN - STAGE 1	SHEET 75	E

NOTE:
1. ALL INLETS WILL HAVE INLET PROTECTION TYPE A DURING STORM SEWER CONSTRUCTION. INLET PROTECTION WILL CHANGE TO TYPE C OR TYPE D DURING ROAD CONSTRUCTION. TYPE C OR TYPE D INLET PROTECTION WILL REMAIN UNTIL THE PROJECT IS COMPLETED. TYPE D INLET PROTECTION WILL BE USED AT SAGS.

2. SEED OR INSTALL EROSION MATTING PER THE PLANS TO ALL DISTURBED BY CONSTRUCTION ACTIVITIES WHICH HAVE PREVENTED THE ESTABLISHMENT OR MAINTENANCE OF GRASS COVER, APPLY A WATER SOLUBLE ANIONIC POLYACRYLAMIDE (PAM) OR ADDITIONAL MATTING TO REDUCE EROSION. NO EXPOSED GROUND WILL BE ALLOWED DURING WINTER SHUTDOWN. CHECK SILT FENCE AND INLET PROTECTION AFTER EACH SNOWFALL. THE CONTRACTOR MUST MAKE SURE AND FIX ANY DAMAGE TO EROSION CONTROL MEASURES DUE TO SNOWFALL. REGULARLY CHECK EROSION CONTROL MEASURES DURING SPRING CONDITIONS. SPRING CONDITIONS BRING FLUCTUATING TEMPERATURES WHICH CAN RESULT IN HEAVY SNOW MELT AND ICE BUILDUPS. THESE SITUATIONS CAN CAUSE MAJOR PROBLEMS AND FAILURES TO EROSION CONTROL MEASURES. REFER TO EROSION CONTROL, WINTERIZATION SPECIAL.

WOODLAND ROAD

SWALE
STA. 636+00 - STA. 643+50

WETLAND BOUNDARY, (TYP)

℄ NW RAMP

℄ STH 29/32 WB

STH 29/32 WB

℄ STH 29/32 EB

STH 29/32 EB

SWALE
STA. 33+00 - STA. 43+00

℄ SW RAMP

SWALE
STA. 30+00 - STA. 39+25

WETLAND BOUNDARY, (TYP)

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- SURFACE WATER FLOW
- RIP RAP (MEDIUM)
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- ROCK BAGS

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	EROSION CONTROL PLAN - STAGE 1	SHEET 76	E

NW RAMP

℄ NW RAMP

STRUCTURE B-05-402
SEE STRUCTURE PLANS

℄ STH 29/32 WB

STH 29/32 WB

℄ STH 29/32 EB

STH 29/32 EB

CTH FF

℄ CTH FF

WETLAND BOUNDARY, TYP

STRUCTURE R-05-107
SEE STRUCTURE PLANS

℄ SW RAMP

NOTE:
1. ALL INLETS WILL HAVE INLET PROTECTION TYPE A DURING STORM SEWER CONSTRUCTION. INLET PROTECTION WILL CHANGE TO TYPE C OR TYPE D DURING ROAD CONSTRUCTION. TYPE C OR TYPE D INLET PROTECTION WILL REMAIN UNTIL THE PROJECT IS COMPLETED. TYPE D INLET PROTECTION WILL BE USED AT SAGS.
2. SEED OR INSTALL EROSION MATTING PER THE PLANS TO ALL DISTURBED BY CONSTRUCTION ACTIVITIES WHICH HAVE PREVENTED THE ESTABLISHMENT OR MAINTENANCE OF GRASS COVER, APPLY A WATER SOLUBLE ANIONIC POLYACRYLAMIDE (PAM)

2. CONTINUED
OR ADDITIONAL MATTING TO REDUCE EROSION. NO EXPOSED GROUND WILL BE ALLOWED DURING WINTER SHUTDOWN. CHECK SILT FENCE AND INLET PROTECTION AFTER EACH SNOWFALL. THE CONTRACTOR MUST MAKE SURE AND FIX ANY DAMAGE TO EROSION CONTROL MEASURES DUE TO SNOWFALL. REGULARLY CHECK EROSION CONTROL MEASURES DURING SPRING CONDITIONS. SPRING CONDITIONS BRING FLUCTUATING TEMPERATURES WHICH CAN RESULT IN HEAVY SNOW MELT AND ICE BUILDUPS. THESE SITUATIONS CAN CAUSE MAJOR PROBLEMS AND FAILURES TO EROSION CONTROL MEASURES. REFER TO EROSION CONTROL, WINTERIZATION SPECIAL.

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- SURFACE WATER FLOW
- RIP RAP (MEDIUM)
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- ROCK BAGS

℄ NE RAMP

STRUCTURE B-05-0029
SEE STRUCTURE PLANS

NE RAMP

WETLAND BOUNDARY, TYP

INLET PROTECTION TYPE A
FOR FISH LIGHT

℄ SE RAMP

SE RAMP

STRUCTURE R-05-105
SEE STRUCTURE PLANS

STRUCTURE B-05-0029
SEE STRUCTURE PLANS

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	EROSION CONTROL PLAN - STAGE 1	SHEET 77	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\022003_ec.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

2

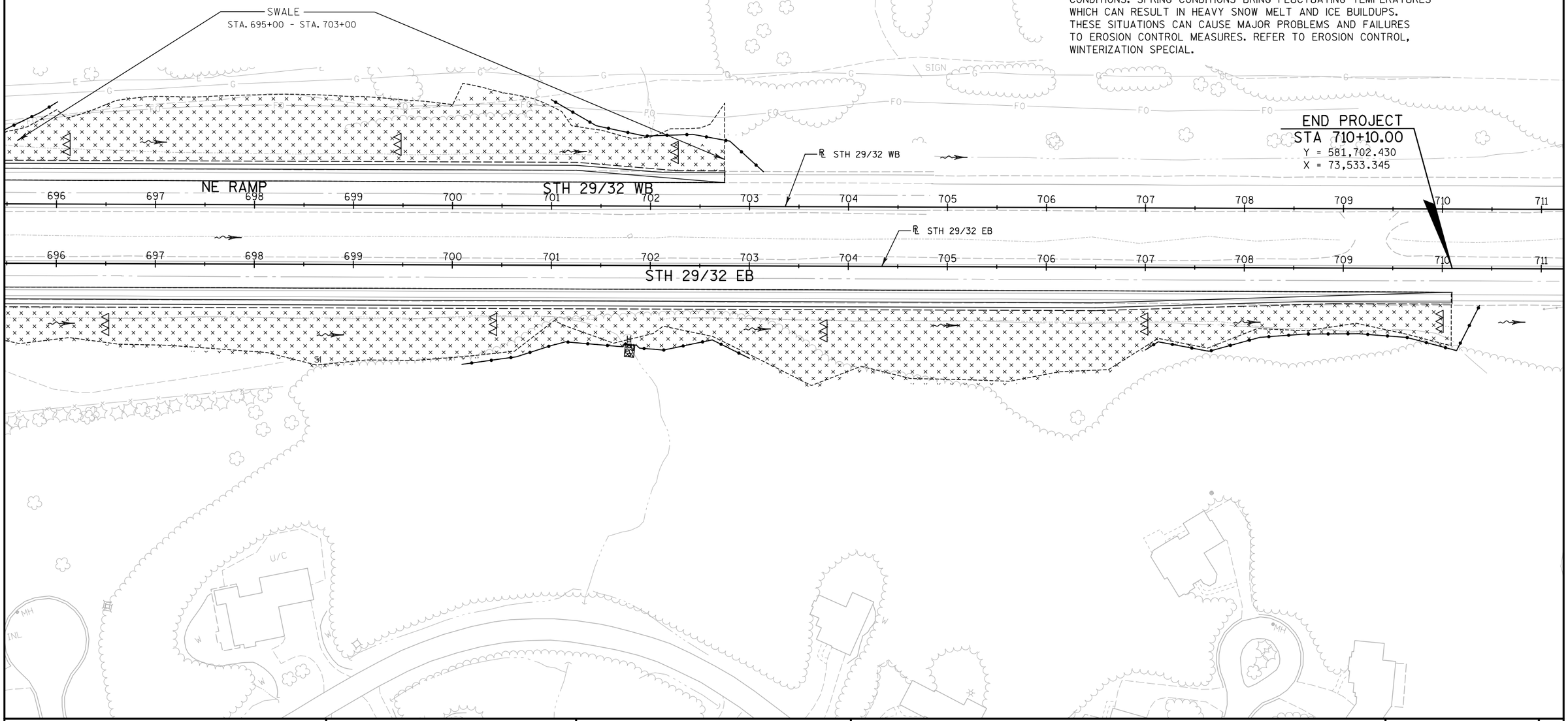
LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- SURFACE WATER FLOW
- RIP RAP (MEDIUM)
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- ROCK BAGS

NOTE:

1. ALL INLETS WILL HAVE INLET PROTECTION TYPE A DURING STORM SEWER CONSTRUCTION. INLET PROTECTION WILL CHANGE TO TYPE C OR TYPE D DURING ROAD CONSTRUCTION. TYPE C OR TYPE D INLET PROTECTION WILL REMAIN UNTIL THE PROJECT IS COMPLETED. TYPE D INLET PROTECTION WILL BE USED AT SAGS.

2. SEED OR INSTALL EROSION MATTING PER THE PLANS TO ALL DISTURBED BY CONSTRUCTION ACTIVITIES WHICH HAVE PREVENTED THE ESTABLISHMENT OR MAINTENANCE OF GRASS COVER. APPLY A WATER SOLUBLE ANIONIC POLYACRYLAMIDE (PAM) OR ADDITIONAL MATTING TO REDUCE EROSION. NO EXPOSED GROUND WILL BE ALLOWED DURING WINTER SHUTDOWN. CHECK SILT FENCE AND INLET PROTECTION AFTER EACH SNOWFALL. THE CONTRACTOR MUST MAKE SURE AND FIX ANY DAMAGE TO EROSION CONTROL MEASURES DUE TO SNOWFALL. REGULARLY CHECK EROSION CONTROL MEASURES DURING SPRING CONDITIONS. SPRING CONDITIONS BRING FLUCTUATING TEMPERATURES WHICH CAN RESULT IN HEAVY SNOW MELT AND ICE BUILDUPS. THESE SITUATIONS CAN CAUSE MAJOR PROBLEMS AND FAILURES TO EROSION CONTROL MEASURES. REFER TO EROSION CONTROL, WINTERIZATION SPECIAL.



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	EROSION CONTROL PLAN - STAGE 1	SHEET 78	E

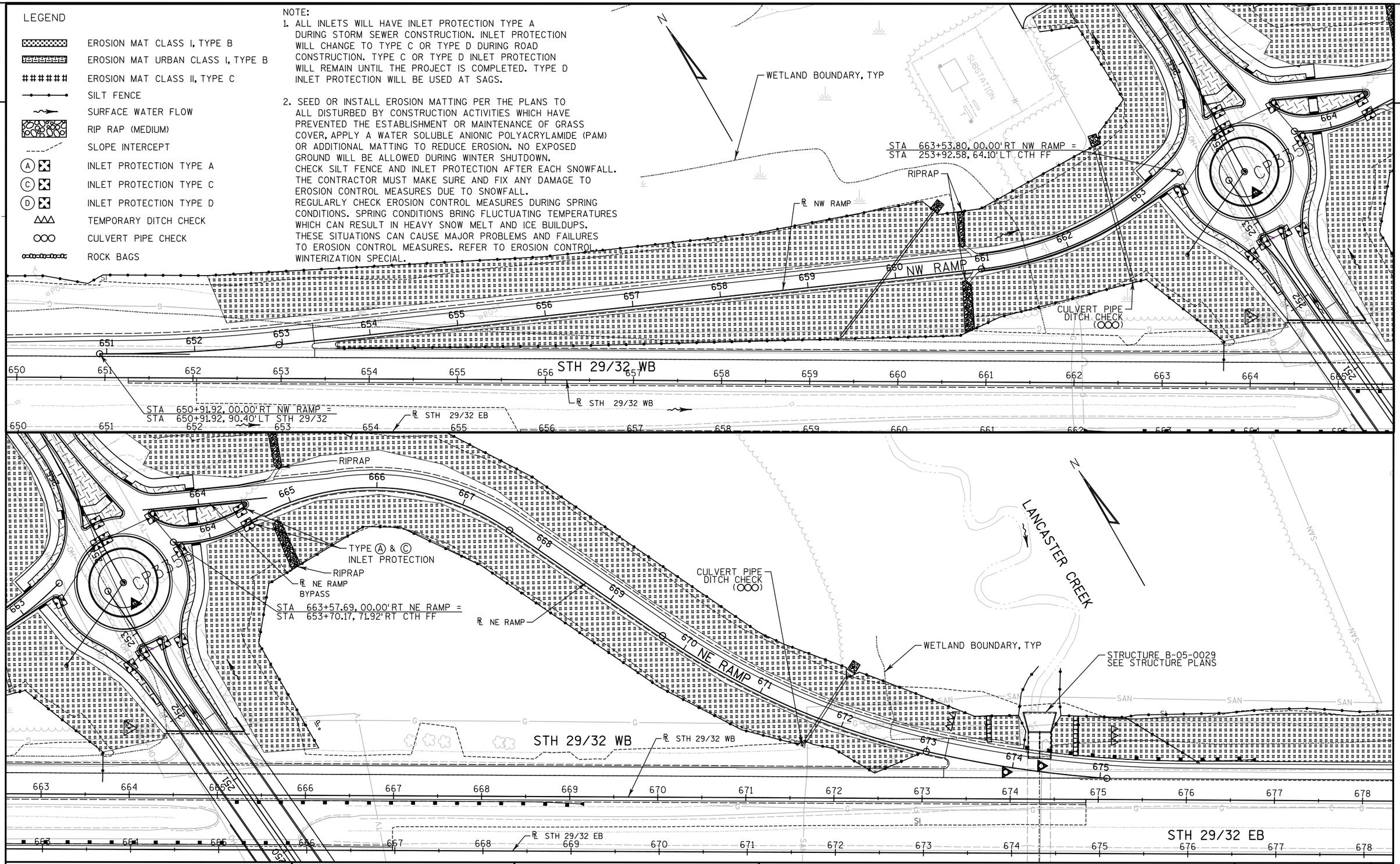
LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- SURFACE WATER FLOW
- RIP RAP (MEDIUM)
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- ROCK BAGS

NOTE:

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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	EROSION CONTROL PLAN - STAGE 1	SHEET 79	E

2

STH 29/32 EB

℄ STH 29/32 WB

℄ STH 29/32 EB

STA 652+90.98, 00.00'RT SW RAMP =
STA 652+90.98, 23.93'RT STH 29/32

STA 652+90.98, 00.00'RT SW RAMP =
STA 247+42.75, 72.09'LT STH 29/32

SW RAMP

℄ SW RAMP

CULVERT PIPE
DITCH CHECK
(○○○)

WETLAND BOUNDARY, TYP

RIPRAP

TYPE Ⓐ & Ⓒ
INLET PROTECTION

NOTE:
1. ALL INLETS WILL HAVE INLET PROTECTION TYPE A DURING STORM SEWER CONSTRUCTION. INLET PROTECTION WILL CHANGE TO TYPE C OR TYPE D DURING ROAD CONSTRUCTION. TYPE C OR TYPE D INLET PROTECTION WILL REMAIN UNTIL THE PROJECT IS COMPLETED. TYPE D INLET PROTECTION WILL BE USED AT SAGS.
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2. CONTINUED
OR ADDITIONAL MATTING TO REDUCE EROSION. NO EXPOSED GROUND WILL BE ALLOWED DURING WINTER SHUTDOWN. CHECK SILT FENCE AND INLET PROTECTION AFTER EACH SNOWFALL. THE CONTRACTOR MUST MAKE SURE AND FIX ANY DAMAGE TO EROSION CONTROL MEASURES DUE TO SNOWFALL. REGULARLY CHECK EROSION CONTROL MEASURES DURING SPRING CONDITIONS. SPRING CONDITIONS BRING FLUCTUATING TEMPERATURES WHICH CAN RESULT IN HEAVY SNOW MELT AND ICE BUILDUPS. THESE SITUATIONS CAN CAUSE MAJOR PROBLEMS AND FAILURES TO EROSION CONTROL MEASURES. REFER TO EROSION CONTROL, WINTERIZATION SPECIAL.

STH 29/32 WB

℄ STH 29/32 EB

STH 29/32 EB

℄ STH 29/32 EB

SE RAMP

℄ SE RAMP

℄ SE RAMP BYPASS

TYPE Ⓐ & Ⓒ
INLET PROTECTION

STA 667+50.36, 00.00'RT SE RAMP =
STA 247+02.45, 51.42'RT STH 29/32

RIPRAP

WETLAND BOUNDARY, TYP

CULVERT PIPE
DITCH CHECK
(○○○)

LANCASTER CREEK

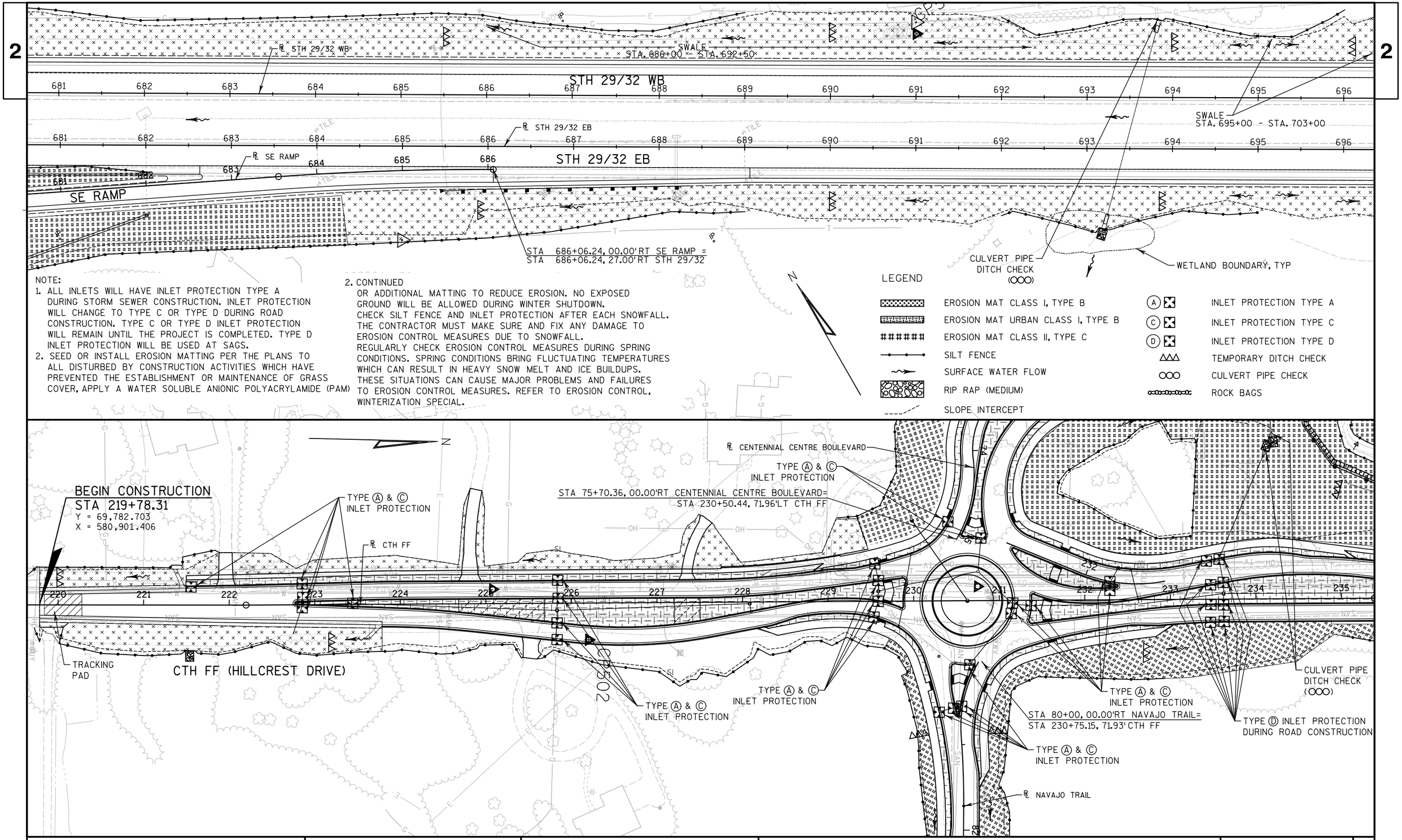
THORNBERRY CREEK

STRUCTURE B-05-0029
SEE STRUCTURE PLANS

LEGEND

▭	EROSION MAT CLASS I, TYPE B	Ⓐ	INLET PROTECTION TYPE A
▭	EROSION MAT URBAN CLASS I, TYPE B	Ⓒ	INLET PROTECTION TYPE C
######	EROSION MAT CLASS II, TYPE C	Ⓓ	INLET PROTECTION TYPE D
—•—•—	SILT FENCE	△△△	TEMPORARY DITCH CHECK
~~	SURFACE WATER FLOW	○○○	CULVERT PIPE CHECK
▭	RIP RAP (MEDIUM)	▭	ROCK BAGS
-----	SLOPE INTERCEPT		

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	EROSION CONTROL PLAN - STAGE 1	SHEET 80	E



NOTE:

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2. SEED OR INSTALL EROSION MATTING PER THE PLANS TO ALL DISTURBED BY CONSTRUCTION ACTIVITIES WHICH HAVE PREVENTED THE ESTABLISHMENT OR MAINTENANCE OF GRASS COVER, APPLY A WATER SOLUBLE ANIONIC POLYACRYLAMIDE (PAM)

2. CONTINUED
OR ADDITIONAL MATTING TO REDUCE EROSION. NO EXPOSED GROUND WILL BE ALLOWED DURING WINTER SHUTDOWN. CHECK SILT FENCE AND INLET PROTECTION AFTER EACH SNOWFALL. THE CONTRACTOR MUST MAKE SURE AND FIX ANY DAMAGE TO EROSION CONTROL MEASURES DUE TO SNOWFALL. REGULARLY CHECK EROSION CONTROL MEASURES DURING SPRING CONDITIONS. SPRING CONDITIONS BRING FLUCTUATING TEMPERATURES WHICH CAN RESULT IN HEAVY SNOW MELT AND ICE BUILDUPS. THESE SITUATIONS CAN CAUSE MAJOR PROBLEMS AND FAILURES TO EROSION CONTROL MEASURES. REFER TO EROSION CONTROL, WINTERIZATION SPECIAL.

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- SURFACE WATER FLOW
- RIP RAP (MEDIUM)
- SLOPE INTERCEPT
- Ⓐ INLET PROTECTION TYPE A
- Ⓒ INLET PROTECTION TYPE C
- Ⓓ INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- ROCK BAGS

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	EROSION CONTROL PLAN - STAGE 1	SHEET 81	E

WETLAND BOUNDARY, TYP

CULVERT PIPE DITCH CHECK (OOO)

TYPE Ⓐ & Ⓒ INLET PROTECTION

℄ SW RAMP

GRADE TO DRAIN

CTH FF (HILLCREST DRIVE)

℄ CTH FF

CTH FF CULVERT PIPE TO BE BURIED 1.5 FT.

TYPE Ⓐ & Ⓒ INLET PROTECTION

THORNBERRY CREEK

EROSION BALES (TYP)

TYPE Ⓐ & Ⓒ INLET PROTECTION

℄ SE RAMP

STH 29/32 WB

STH 29/32 EB

℄ STH 29/32 WB

℄ STH 29/32 EB

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- SURFACE WATER FLOW
- RIP RAP (MEDIUM)
- SLOPE INTERCEPT
- Ⓐ INLET PROTECTION TYPE A
- Ⓒ INLET PROTECTION TYPE C
- Ⓓ INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- ROCK BAGS

NOTE:

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℄ STH 29/32 WB

℄ NW RAMP

TYPE Ⓐ & Ⓒ INLET PROTECTION

CULVERT PIPE DITCH CHECK (OOO)

CULVERT PIPE DITCH CHECK (OOO)

CTH FF (SHERWOOD STREET)

℄ CTH FF

GRADE TO DRAIN

TYPE Ⓐ & Ⓒ INLET PROTECTION

℄ CATHERINE DRIVE

CATHERINE DRIVE

TYPE Ⓓ INLET PROTECTION DURING ROAD CONSTRUCTION

TYPE Ⓐ & Ⓒ INLET PROTECTION

CULVERT PIPE DITCH CHECK (OOO)

SWALE (REFER TO DETAIL SHEET)

SWALE (REFER TO DETAIL SHEET)

CULVERT PIPE DITCH CHECK (OOO)

℄ STH 29/32 EB

℄ NE RAMP

WETLAND BOUNDARY, (TYP)

2. CONTINUED OR ADDITIONAL MATTING TO REDUCE EROSION. NO EXPOSED GROUND WILL BE ALLOWED DURING WINTER SHUTDOWN. CHECK SILT FENCE AND INLET PROTECTION AFTER EACH SNOWFALL. THE CONTRACTOR MUST MAKE SURE AND FIX ANY DAMAGE TO EROSION CONTROL MEASURES DUE TO SNOWFALL. REGULARLY CHECK EROSION CONTROL MEASURES DURING SPRING CONDITIONS. SPRING CONDITIONS BRING FLUCTUATING TEMPERATURES WHICH CAN RESULT IN HEAVY SNOW MELT AND ICE BUILDUPS. THESE SITUATIONS CAN CAUSE MAJOR PROBLEMS AND FAILURES TO EROSION CONTROL MEASURES. REFER TO EROSION CONTROL, WINTERIZATION SPECIAL.

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	EROSION CONTROL PLAN - STAGE 1	SHEET 82	E

2

BEGIN CONSTRUCTION
STA 60+35.10
Y = 583,198.658
X = 69,175.239

CENTENNIAL CENTRE BOULEVARD

THORNBERRY CREEK

CTH FF (HILLCREST DRIVE)

STA 80+00.00, 00.00'RT NAVAJO TRAIL=
STA 230+75.15, 71.93'RT CTH FF

℄ CTH FF

SWALE
(REFER TO
DETAIL SHEET)

℄ CENTENNIAL CENTRE BOULEVARD

TYPE Ⓐ & Ⓒ
INLET PROTECTION

TYPE Ⓓ INLET PROTECTION
DURING ROAD CONSTRUCTION

TYPE A & C
INLET PROTECTION

℄ CENTENNIAL
CENTRE
BOULEVARD

CENTENNIAL CENTRE
BOULEVARD

CTH FF (HILLCREST DRIVE)

℄ CTH FF

END CONSTRUCTION
STA 82+51.53
Y=581,988.396
X=70,071.125

℄ CENTENNIALCENTRE
BOULEVARD BYPASS LANE

℄ CENTENNIAL CENTRE
BOULEVARD ROUNDABOUT

TYPE Ⓐ & Ⓒ
INLET PROTECTION

N

NAVAJO TRAIL

℄ NAVAJO TRAIL

LANCASTER
CREEK

STA 80+00.00, 00.00'RT NAVAJO TRAIL=
STA 230+75.15, 71.93'RT CTH FF

NOTE:
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LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- SURFACE WATER FLOW
- RIP RAP (MEDIUM)
- SLOPE INTERCEPT
- Ⓐ INLET PROTECTION TYPE A
- Ⓒ INLET PROTECTION TYPE C
- Ⓓ INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- ROCK BAGS

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	EROSION CONTROL PLAN - STAGE 1	SHEET 83	E

2

N

CP501

CHT FF (SHERWOOD STREET)

℄ CTH FF

℄ WOODLAND ROAD

WOODLAND ROAD

CULVERT PIPE
DITCH CHECK
(OOO)

STA 90+00.00, 00.00'RT WOODLAND ROAD=
STA 266+96.85, 00.00'LT CTH FF (SHERWOOD STREET)

STA 90+00.00, 00.00'RT WOODLAND ROAD=
STA 266+98.38, 00.00'LT CTH FF (SHERWOOD STREET)

BEGIN CONSTRUCTION
STA 88+00.78
Y = 585,609.588
X = 69,504.430

END CONSTRUCTION
STA 91+47.85
Y = 585,622.487
X = 69,851.332

SWALE
STA 403+00 - STA 408+00

SWALE

TRACKING PAD

WETLAND BOUNDARY, (TYP)

WETLAND BOUNDARY, (TYP)

SEPTIC

LEGEND

EROSION MAT CLASS I, TYPE B	Ⓐ INLET PROTECTION TYPE A
EROSION MAT URBAN CLASS I, TYPE B	Ⓒ INLET PROTECTION TYPE C
EROSION MAT CLASS II, TYPE C	Ⓓ INLET PROTECTION TYPE D
SILT FENCE	TEMPORARY DITCH CHECK
SURFACE WATER FLOW	CULVERT PIPE CHECK
RIP RAP (MEDIUM)	ROCK BAGS
SLOPE INTERCEPT	

TYPE Ⓐ & Ⓒ
INLET PROTECTION

NOTE:
1. ALL INLETS WILL HAVE INLET PROTECTION TYPE A DURING STORM SEWER CONSTRUCTION. INLET PROTECTION WILL CHANGE TO TYPE C OR TYPE D DURING ROAD CONSTRUCTION. TYPE C OR TYPE D INLET PROTECTION WILL REMAIN UNTIL THE PROJECT IS COMPLETED. TYPE D INLET PROTECTION WILL BE USED AT SAGS.

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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	EROSION CONTROL PLAN - STAGE 1	SHEET 84	E

NOTE:
1. ALL INLETS WILL HAVE INLET PROTECTION TYPE A DURING STORM SEWER CONSTRUCTION. INLET PROTECTION WILL CHANGE TO TYPE C OR TYPE D DURING ROAD CONSTRUCTION. TYPE C OR TYPE D INLET PROTECTION WILL REMAIN UNTIL THE PROJECT IS COMPLETED. TYPE D INLET PROTECTION WILL BE USED AT SAGS.

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N

BEGIN CONSTRUCTION
STA 344+19.59
Y = 584,691.194
X = 67,133.194

℄ FOREST ROAD

FOREST ROAD

CULVERT PIPE
DITCH CHECK
(OOO)

WETLAND BOUNDARY, (TYP)

℄ CENTENNIAL CENTRE BOULEVARD

CULVERT PIPE
DITCH CHECK
(OOO)

STA 28+25.00, 00.00'RT CENTENNIAL CENTRE BOULEVARD=
STA 350+00.00, 00.00'LT FOREST ROAD

℄ STH 29/32 WB

CENTENNIAL CENTRE BOULEVARD

STH 29/32 WB

STH 29/32 EB

CP500

℄ STH 29/32 EB

LEGEND

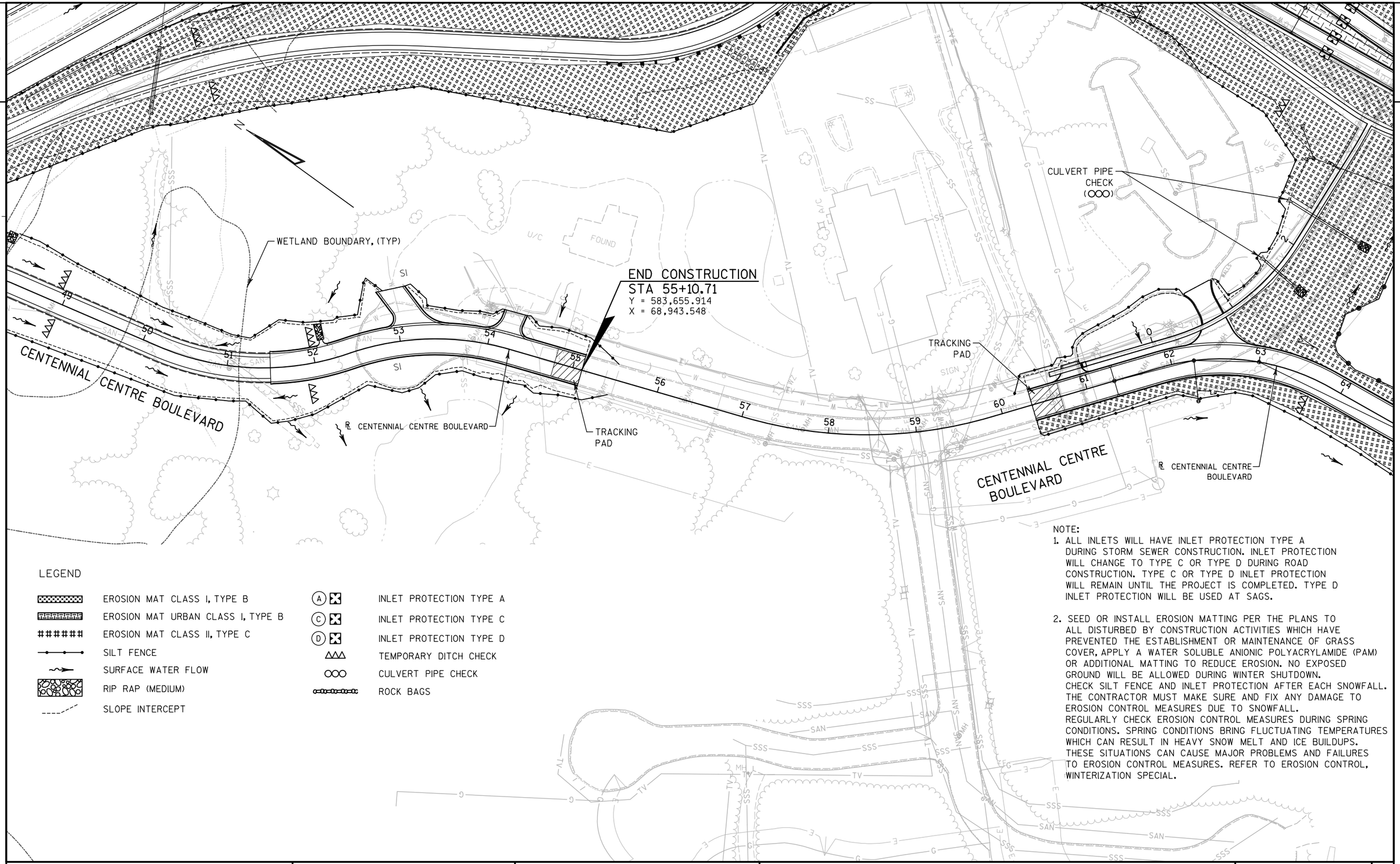
	EROSION MAT CLASS I, TYPE B	(A)	INLET PROTECTION TYPE A
	EROSION MAT URBAN CLASS I, TYPE B	(C)	INLET PROTECTION TYPE C
#######	EROSION MAT CLASS II, TYPE C	(D)	INLET PROTECTION TYPE D
	SILT FENCE	△△△	TEMPORARY DITCH CHECK
	SURFACE WATER FLOW	OOO	CULVERT PIPE CHECK
	RIP RAP (MEDIUM)		ROCK BAGS
	SLOPE INTERCEPT		

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	EROSION CONTROL PLAN - STAGE 1	SHEET 85	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\022011_ec.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

WISDOT/CADDS SHEET 42

2



LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- SURFACE WATER FLOW
- RIP RAP (MEDIUM)
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- ROCK BAGS

NOTE:

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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	EROSION CONTROL PLAN - STAGE 1	SHEET 86	E

LEGEND

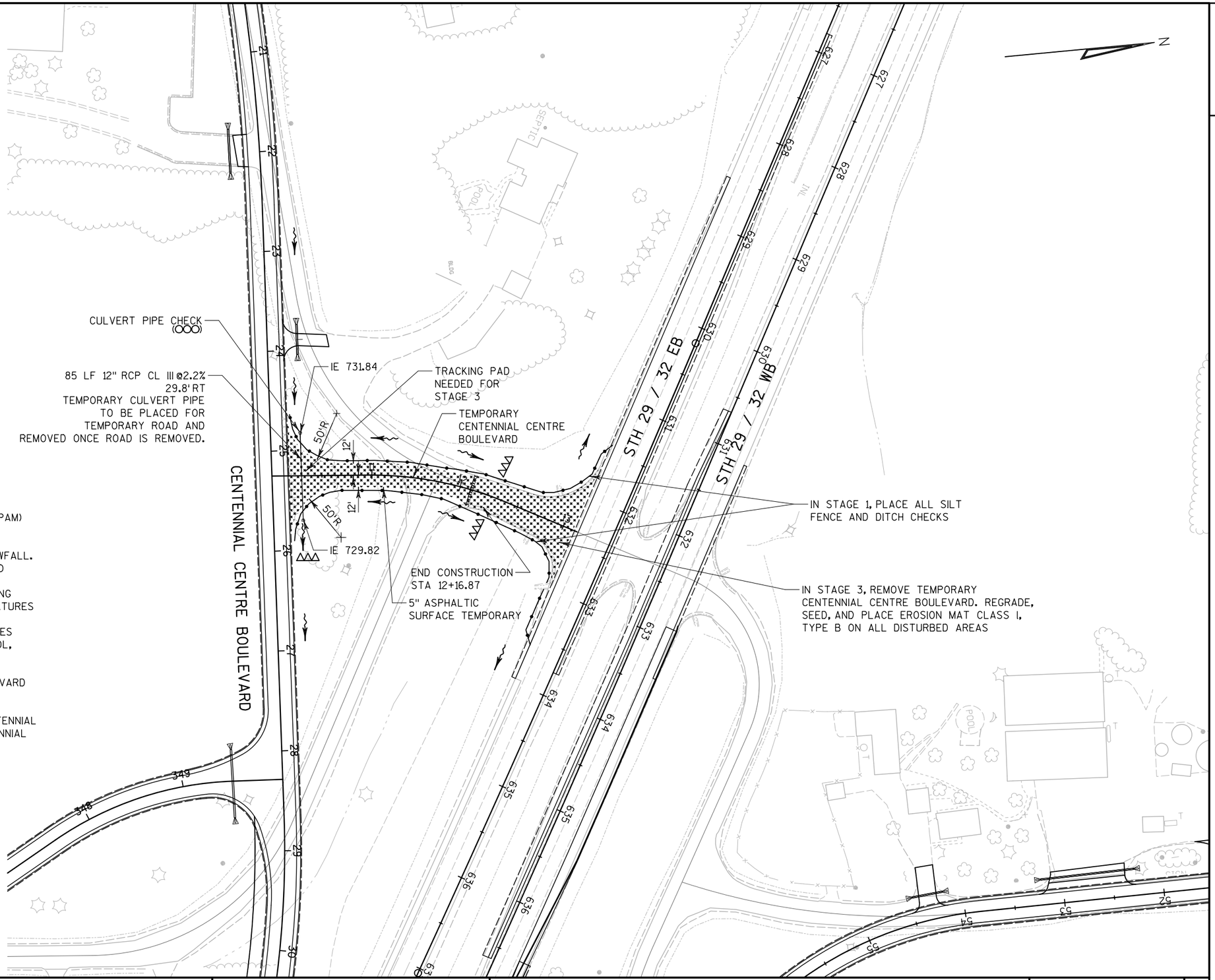
- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- SURFACE WATER FLOW
- RIP RAP (MEDIUM)
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- ROCK BAGS

NOTE:
1. ALL INLETS WILL HAVE INLET PROTECTION TYPE A DURING STORM SEWER CONSTRUCTION. INLET PROTECTION WILL CHANGE TO TYPE C OR TYPE D DURING ROAD CONSTRUCTION. TYPE C OR TYPE D INLET PROTECTION WILL REMAIN UNTIL THE PROJECT IS COMPLETED. TYPE D INLET PROTECTION WILL BE USED AT SAGS.

2. SEED OR INSTALL EROSION MATTING PER THE PLANS TO ALL DISTURBED BY CONSTRUCTION ACTIVITIES WHICH HAVE PREVENTED THE ESTABLISHMENT OR MAINTENANCE OF GRASS COVER, APPLY A WATER SOLUBLE ANIONIC POLYACRYLAMIDE (PAM) OR ADDITIONAL MATTING TO REDUCE EROSION. NO EXPOSED GROUND WILL BE ALLOWED DURING WINTER SHUTDOWN. CHECK SILT FENCE AND INLET PROTECTION AFTER EACH SNOWFALL. THE CONTRACTOR MUST MAKE SURE AND FIX ANY DAMAGE TO EROSION CONTROL MEASURES DUE TO SNOWFALL. REGULARLY CHECK EROSION CONTROL MEASURES DURING SPRING CONDITIONS. SPRING CONDITIONS BRING FLUCTUATING TEMPERATURES WHICH CAN RESULT IN HEAVY SNOW MELT AND ICE BUILDUPS. THESE SITUATIONS CAN CAUSE MAJOR PROBLEMS AND FAILURES TO EROSION CONTROL MEASURES. REFER TO EROSION CONTROL, WINTERIZATION SPECIAL.

3. IN STAGE 3, REMOVE TEMPORARY CENTENNIAL CENTRE BOULEVARD AND CULVERT PIPE.

4. IN STAGE 3, TRACKING PAD NEEDED BY CONNECTION TO CENTENNIAL CENTRE BOULEVARD SO DEBRI DOES NOT GET ON NEW CENTENNIAL CENTRE BOULEVARD.



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	EROSION CONTROL PLAN - STAGE 1 AND 3	SHEET 87	E

2

BEGIN CONSTRUCTION
STA 88+00.78
Y = 585,506.588
X = 69,504.430

STA 90+00.00, 00.00'RT WOODLAND ROAD=
STA 266+98.85, 00.00'LT CTH FF (SHERWOOD STREET)

STA 90+00.00, 00.00'RT WOODLAND ROAD=
STA 266+98.38, 00.00'LT CTH FF (SHERWOOD STREET)

END CONSTRUCTION
STA 91+47.85
Y = 585,622.487
X = 69,851.332

STA 400+00, 00.00'RT CTH C (SHAWANO AVENUE)=
STA 273+25.10, 3.00'RT CTH FF (SHERWOOD STREET)

STA 400+00.00, 00.00'RT CTH C (SHAWANO AVENUE)=
STA 273+51.48, 3.14'LT CTH FF (SHERWOOD STREET)

WOODLAND ROAD

CTH FF (SHERWOOD STREET)

CTH C (SHAWANO AVENUE)

CULVERT PIPE
DITCH CHECK
(○○○)

TYPE Ⓐ & Ⓒ
INLET PROTECTION

TYPE Ⓓ
INLET PROTECTION

℄ CTH FF

℄ CTH C

WETLAND BOUNDARY, (TYP)

CULVERT PIPE
CHECK
(○○○)

NOTE:
1. ALL INLETS WILL HAVE INLET PROTECTION TYPE A DURING STORM SEWER CONSTRUCTION. INLET PROTECTION WILL CHANGE TO TYPE C OR TYPE D DURING ROAD CONSTRUCTION. TYPE C OR TYPE D INLET PROTECTION WILL REMAIN UNTIL THE PROJECT IS COMPLETED. TYPE D INLET PROTECTION WILL BE USED AT SAGS.
2. SEED OR INSTALL EROSION MATTING PER THE PLANS TO ALL DISTURBED BY CONSTRUCTION ACTIVITIES WHICH HAVE PREVENTED THE ESTABLISHMENT OR MAINTENANCE OF GRASS COVER, APPLY A WATER SOLUBLE ANIONIC POLYACRYLAMIDE (PAM)
2. CONTINUED
OR ADDITIONAL MATTING TO REDUCE EROSION. NO EXPOSED GROUND WILL BE ALLOWED DURING WINTER SHUTDOWN.
CHECK SILT FENCE AND INLET PROTECTION AFTER EACH SNOWFALL. THE CONTRACTOR MUST MAKE SURE AND FIX ANY DAMAGE TO EROSION CONTROL MEASURES DUE TO SNOWFALL.
REGULARLY CHECK EROSION CONTROL MEASURES DURING SPRING CONDITIONS. SPRING CONDITIONS BRING FLUCTUATING TEMPERATURES WHICH CAN RESULT IN HEAVY SNOW MELT AND ICE BUILDUPS. THESE SITUATIONS CAN CAUSE MAJOR PROBLEMS AND FAILURES TO EROSION CONTROL MEASURES. REFER TO EROSION CONTROL, WINTERIZATION SPECIAL.

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- SURFACE WATER FLOW
- RIP RAP (MEDIUM)
- SLOPE INTERCEPT
- Ⓐ INLET PROTECTION TYPE A
- Ⓒ INLET PROTECTION TYPE C
- Ⓓ INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- ROCK BAGS

END CONSTRUCTION
STA 406+48.31
Y = 585,785.170
X = 70,367.810

TYPE Ⓐ & Ⓒ
INLET PROTECTION

TRACKING
PAD

SWALE
STA. 403.00 - STA. 408+00

BEGIN CONSTRUCTION
STA 393+45.00
Y = 586,746.609
X = 69,502.175

TYPE Ⓓ INLET PROTECTION
DURING ROAD CONSTRUCTION

WETLAND BOUNDARY, (TYP)

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	EROSION CONTROL PLAN - STAGE 2	SHEET 88	E

NOTE:
1. ALL INLETS WILL HAVE INLET PROTECTION TYPE A DURING STORM SEWER CONSTRUCTION. INLET PROTECTION WILL CHANGE TO TYPE C OR TYPE D DURING ROAD CONSTRUCTION. TYPE C OR TYPE D INLET PROTECTION WILL REMAIN UNTIL THE PROJECT IS COMPLETED. TYPE D INLET PROTECTION WILL BE USED AT SAGS.

2. SEED OR INSTALL EROSION MATTING PER THE PLANS TO ALL DISTURBED BY CONSTRUCTION ACTIVITIES WHICH HAVE PREVENTED THE ESTABLISHMENT OR MAINTENANCE OF GRASS COVER, APPLY A WATER SOLUBLE ANIONIC POLYACRYLAMIDE (PAM) OR ADDITIONAL MATTING TO REDUCE EROSION. NO EXPOSED GROUND WILL BE ALLOWED DURING WINTER SHUTDOWN. CHECK SILT FENCE AND INLET PROTECTION AFTER EACH SNOWFALL. THE CONTRACTOR MUST MAKE SURE AND FIX ANY DAMAGE TO EROSION CONTROL MEASURES DUE TO SNOWFALL. REGULARLY CHECK EROSION CONTROL MEASURES DURING SPRING CONDITIONS. SPRING CONDITIONS BRING FLUCTUATING TEMPERATURES WHICH CAN RESULT IN HEAVY SNOW MELT AND ICE BUILDUPS. THESE SITUATIONS CAN CAUSE MAJOR PROBLEMS AND FAILURES TO EROSION CONTROL MEASURES. REFER TO EROSION CONTROL, WINTERIZATION SPECIAL.

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- SURFACE WATER FLOW
- RIP RAP (MEDIUM)
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- ROCK BAGS

REMOVE MAINTENANCE CROSSOVER INCLUDING CULVERT PIPE. REGRADE MEDIAN DITCH AREA AND PLACE SEED AND EROSION MAT CLASS I, TYPE B IN ALL DISTURBED AREAS.

NE RAMP

℄ STH 29/32 WB

STH 29/32 WB

STH 29/32

℄ STH 29/32 EB

STH 29/32 EB

STH 29/32

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	EROSION CNTL PLAN - STAGE 2 (STH 29/32 CROSSOVER REMOVAL)	SHEET 89	E

2

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- SURFACE WATER FLOW
- RIP RAP (MEDIUM)
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- ROCK BAGS

NOTE:
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REGULARLY CHECK EROSION CONTROL MEASURES DURING SPRING CONDITIONS. SPRING CONDITIONS BRING FLUCTUATING TEMPERATURES WHICH CAN RESULT IN HEAVY SNOW MELT AND ICE BUILDUPS. THESE SITUATIONS CAN CAUSE MAJOR PROBLEMS AND FAILURES TO EROSION CONTROL MEASURES. REFER TO EROSION CONTROL, WINTERIZATION SPECIAL.

N

WETLAND BOUNDARY, TYP

BEGIN CONSTRUCTION
STA 50+50.00
Y = 586,261.191
X = 67,198.625

GREENFIELD AVENUE

℄ GREENFIELD AVENUE

CULVERT PIPE CHECK (OOO)

EROSION MAT CLASS I, TYPE B

CULVERT PIPE CHECK (OOO)

℄ WOODLAND ROAD

TRACKING PAD

WOODLAND ROAD

TREE TO BE SAVED

BEGIN CONSTRUCTION
STA 62+00.00
Y = 585,563.933
X = 67,807.465

CULVERT PIPE CHECK (OOO)

ROAD TO BE OBLITERATE IN STAGE 3, REGRADED AND SEEDED

CP500

℄ STH 29/32 WB

STH 29/32 WB

℄ STH 29/32 EB

STH 29/32 EB

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	EROSION CONTROL PLAN - STAGE 3	SHEET 90	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\022016_ec.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

2

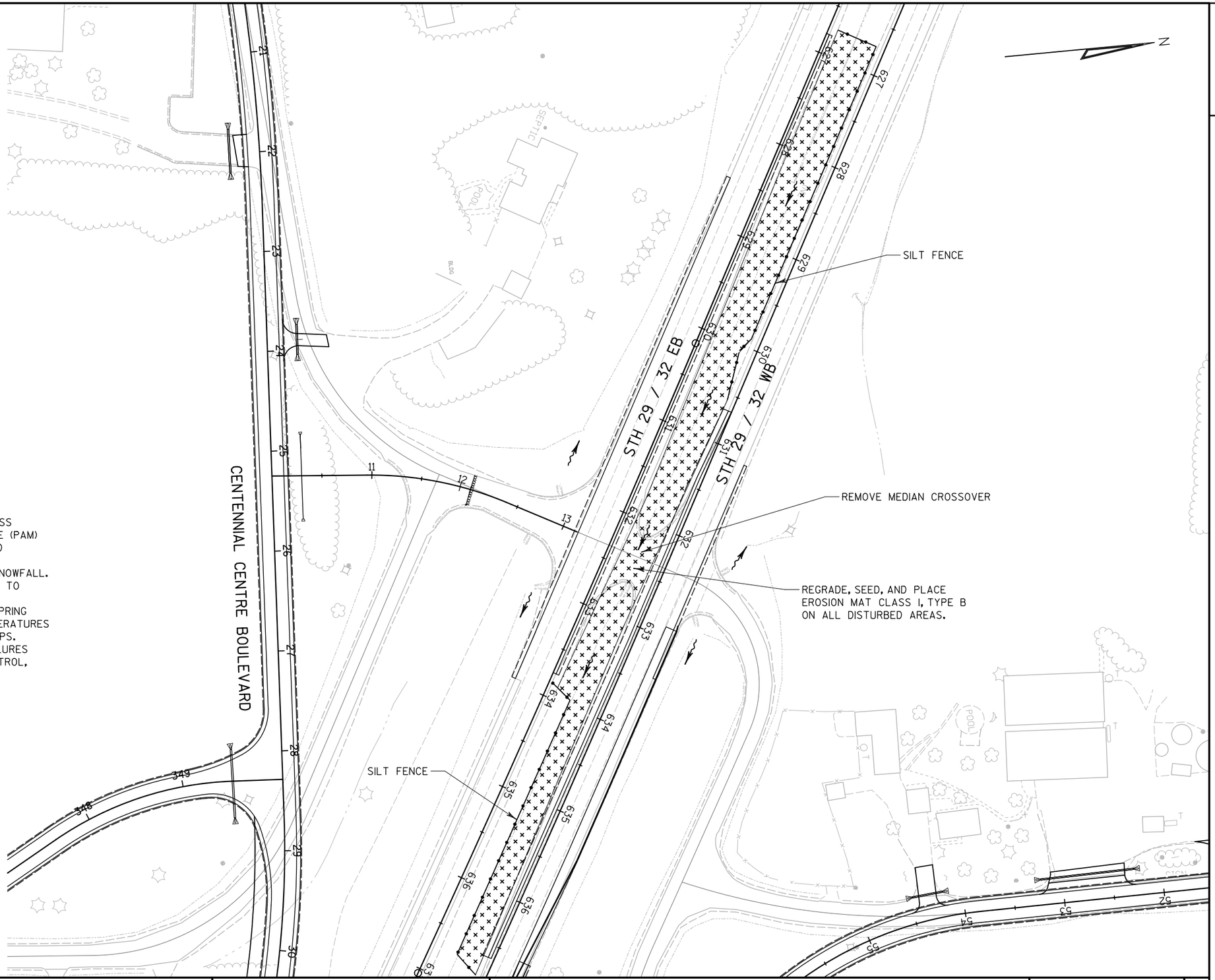
LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- SURFACE WATER FLOW
- RIP RAP (MEDIUM)
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- ROCK BAGS

NOTE:

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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	EROSION CONTROL PLAN - STAGE 3	SHEET 91	E

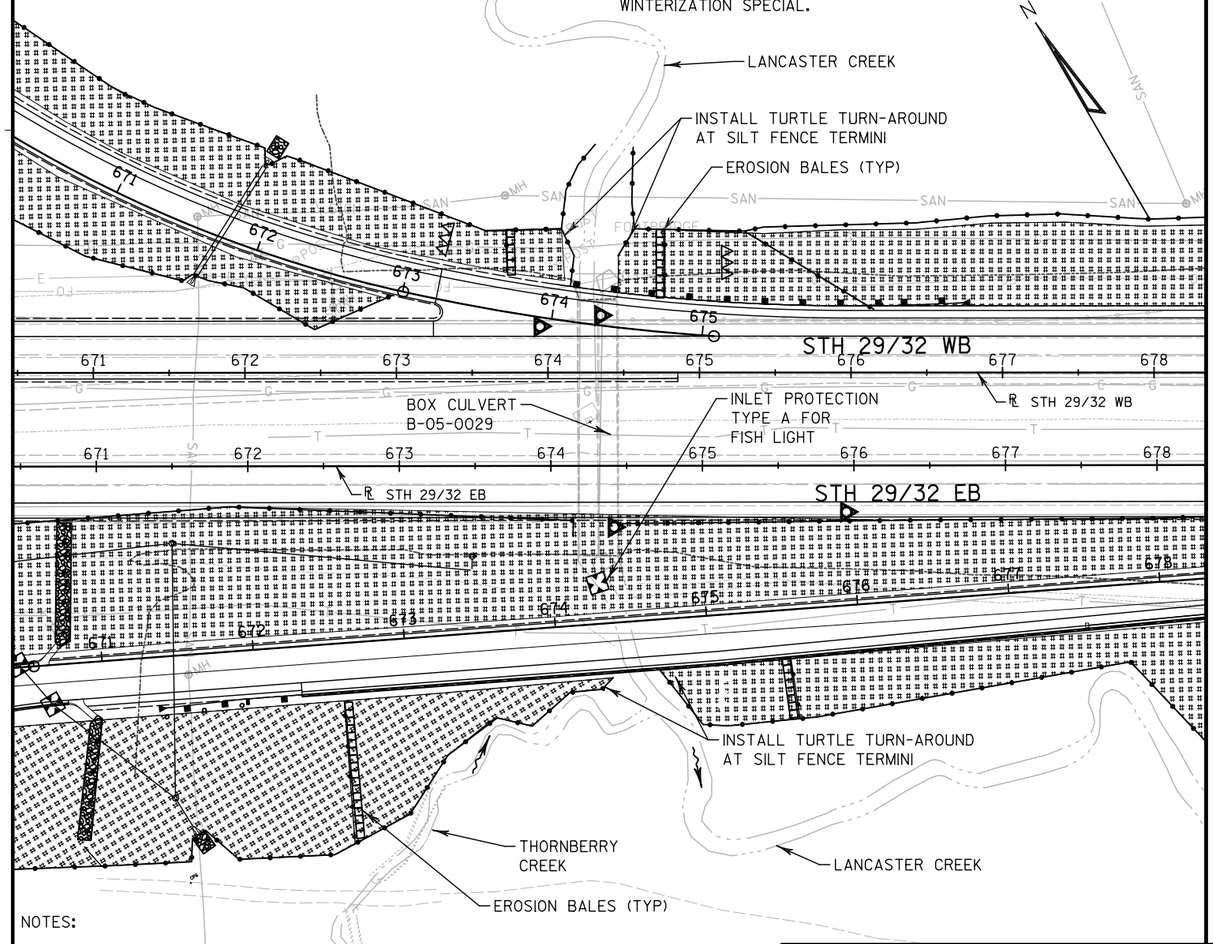
FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\022017_ec.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

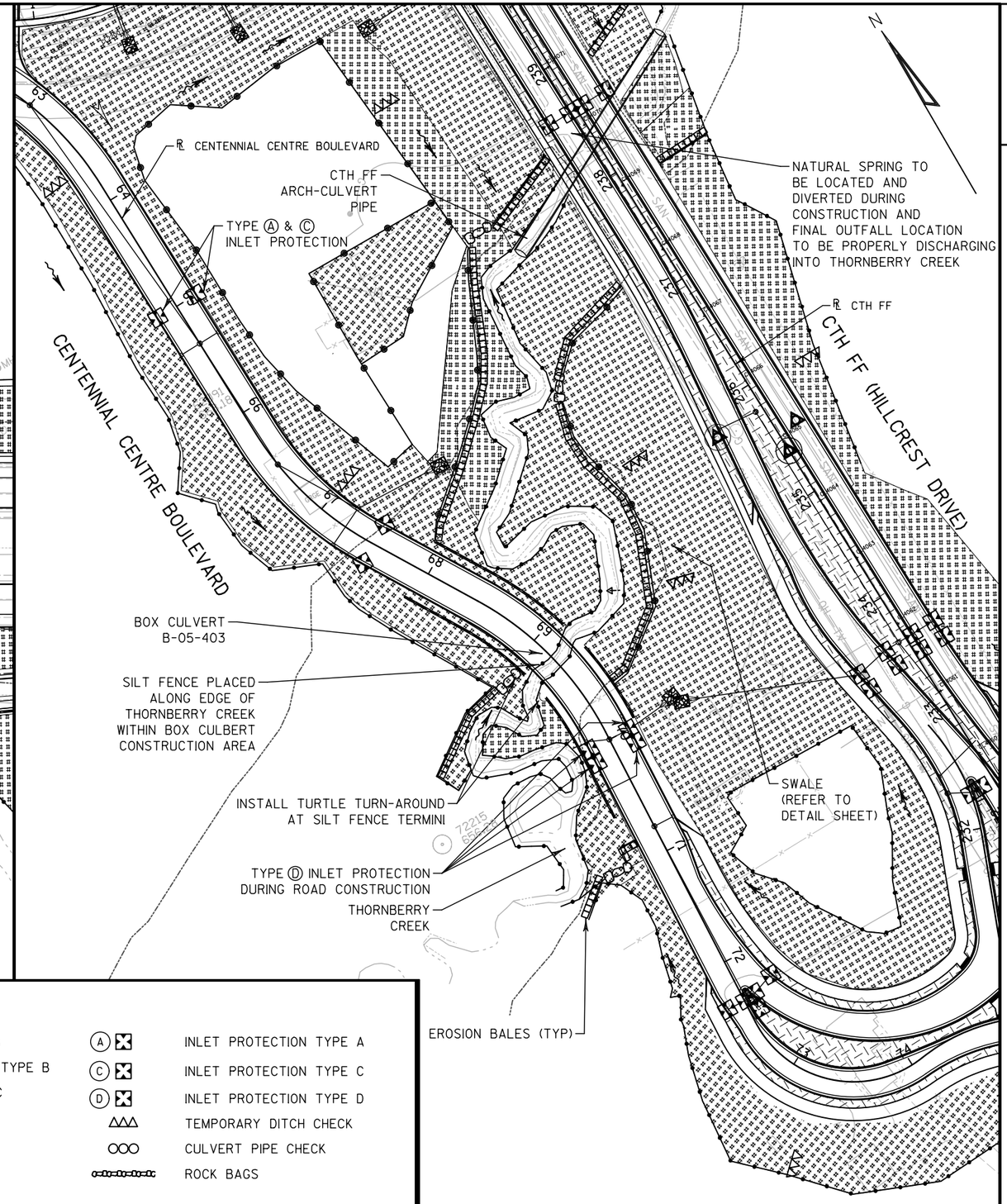
WISDOT/CADDS SHEET 42

2

NOTE:
1. ALL INLETS WILL HAVE INLET PROTECTION TYPE A DURING STORM SEWER CONSTRUCTION. INLET PROTECTION WILL CHANGE TO TYPE C OR TYPE D DURING ROAD CONSTRUCTION. TYPE C OR TYPE D INLET PROTECTION WILL REMAIN UNTIL THE PROJECT IS COMPLETED. TYPE D INLET PROTECTION WILL BE USED AT SAGS.
2. SEED OR INSTALL EROSION MATTING PER THE PLANS TO ALL DISTURBED BY CONSTRUCTION ACTIVITIES WHICH HAVE PREVENTED THE ESTABLISHMENT OR MAINTENANCE OF GRASS COVER, APPLY A WATER SOLUBLE ANIONIC POLYACRYLAMIDE (PAM)

2. CONTINUED
OR ADDITIONAL MATTING TO REDUCE EROSION. NO EXPOSED GROUND WILL BE ALLOWED DURING WINTER SHUTDOWN.
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REGULARLY CHECK EROSION CONTROL MEASURES DURING SPRING CONDITIONS. SPRING CONDITIONS BRING FLUCTUATING TEMPERATURES WHICH CAN RESULT IN HEAVY SNOW MELT AND ICE BUILDUPS. THESE SITUATIONS CAN CAUSE MAJOR PROBLEMS AND FAILURES TO EROSION CONTROL MEASURES. REFER TO EROSION CONTROL, WINTERIZATION SPECIAL.





NOTES:

1. THORNBERRY AND LANCASTER CREEK ARE TROUT STREAMS. (ENVIRONMENTALLY SENSITIVE AREAS). CONTRACTOR NEEDS TO USE SOIL STABILIZER TYPE B IN AREAS FOR WINTER SHUT DOWN.
2. THERE IS NATURAL SPRING LOCATED NEAR CTH FF CULVERT PIPE. CONTRACTOR MUST DIVERT DURING CONSTRUCTION AND FINAL OUTFALL LOCATION TO BE PROPERLY DISCHARGING INTO THORNBERRY CREEK.
3. REFER TO SPECIFICATIONS FOR WORK TO BE DONE IN ENVIRONMENTALLY SENSITIVE AREA.
4. FOR TURTLE TURN-AROUND SPECIFICATIONS REFER TO THE CONSTRUCTION DETAIL.
5. REFER TO EROSION CONTROL CONSTRUCTION DETAILS FOR CONSTRUCTION STAGING OF BOX CULVERT B-05-403, B-05-0029, AND CTH FF STRUCTURE CULVERT PIPE.

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- SURFACE WATER FLOW
- RIP RAP (MEDIUM)
- SLOPE INTERCEPT
- Ⓐ INLET PROTECTION TYPE A
- Ⓒ INLET PROTECTION TYPE C
- Ⓓ INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- ROCK BAGS

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	EC: BOX CULVERT B-05-403, B-05-0029, CTH FF CULVERT PIPE	SHEET 92	E

B-05-0029 CONSTRUCTION DETAIL

NOTES:

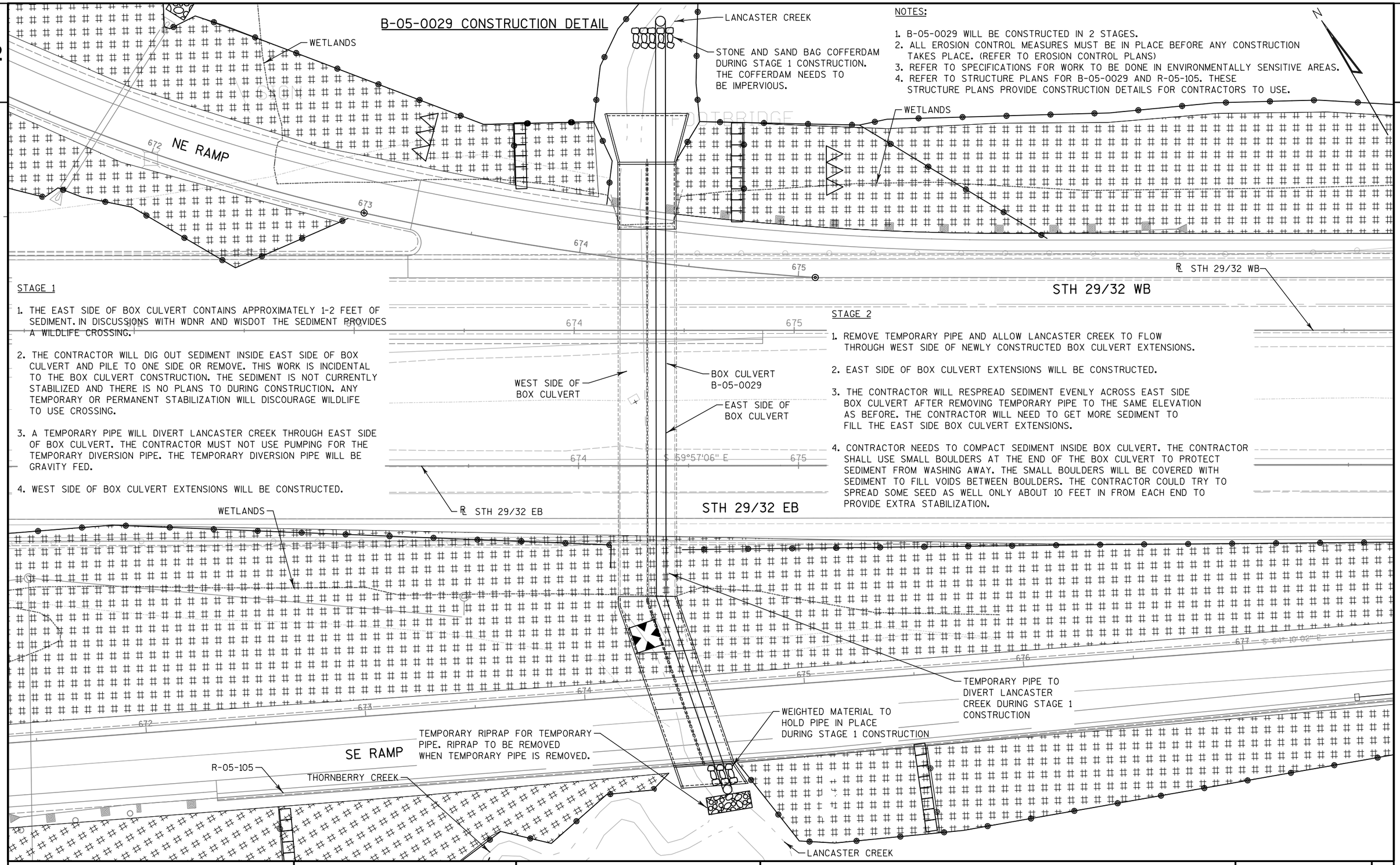
1. B-05-0029 WILL BE CONSTRUCTED IN 2 STAGES.
2. ALL EROSION CONTROL MEASURES MUST BE IN PLACE BEFORE ANY CONSTRUCTION TAKES PLACE. (REFER TO EROSION CONTROL PLANS)
3. REFER TO SPECIFICATIONS FOR WORK TO BE DONE IN ENVIRONMENTALLY SENSITIVE AREAS.
4. REFER TO STRUCTURE PLANS FOR B-05-0029 AND R-05-105. THESE STRUCTURE PLANS PROVIDE CONSTRUCTION DETAILS FOR CONTRACTORS TO USE.

STAGE 1

1. THE EAST SIDE OF BOX CULVERT CONTAINS APPROXIMATELY 1-2 FEET OF SEDIMENT. IN DISCUSSIONS WITH WDNR AND WISDOT THE SEDIMENT PROVIDES A WILDLIFE CROSSING.
2. THE CONTRACTOR WILL DIG OUT SEDIMENT INSIDE EAST SIDE OF BOX CULVERT AND PILE TO ONE SIDE OR REMOVE. THIS WORK IS INCIDENTAL TO THE BOX CULVERT CONSTRUCTION. THE SEDIMENT IS NOT CURRENTLY STABILIZED AND THERE IS NO PLANS TO DURING CONSTRUCTION. ANY TEMPORARY OR PERMANENT STABILIZATION WILL DISCOURAGE WILDLIFE TO USE CROSSING.
3. A TEMPORARY PIPE WILL DIVERT LANCASTER CREEK THROUGH EAST SIDE OF BOX CULVERT. THE CONTRACTOR MUST NOT USE PUMPING FOR THE TEMPORARY DIVERSION PIPE. THE TEMPORARY DIVERSION PIPE WILL BE GRAVITY FED.
4. WEST SIDE OF BOX CULVERT EXTENSIONS WILL BE CONSTRUCTED.

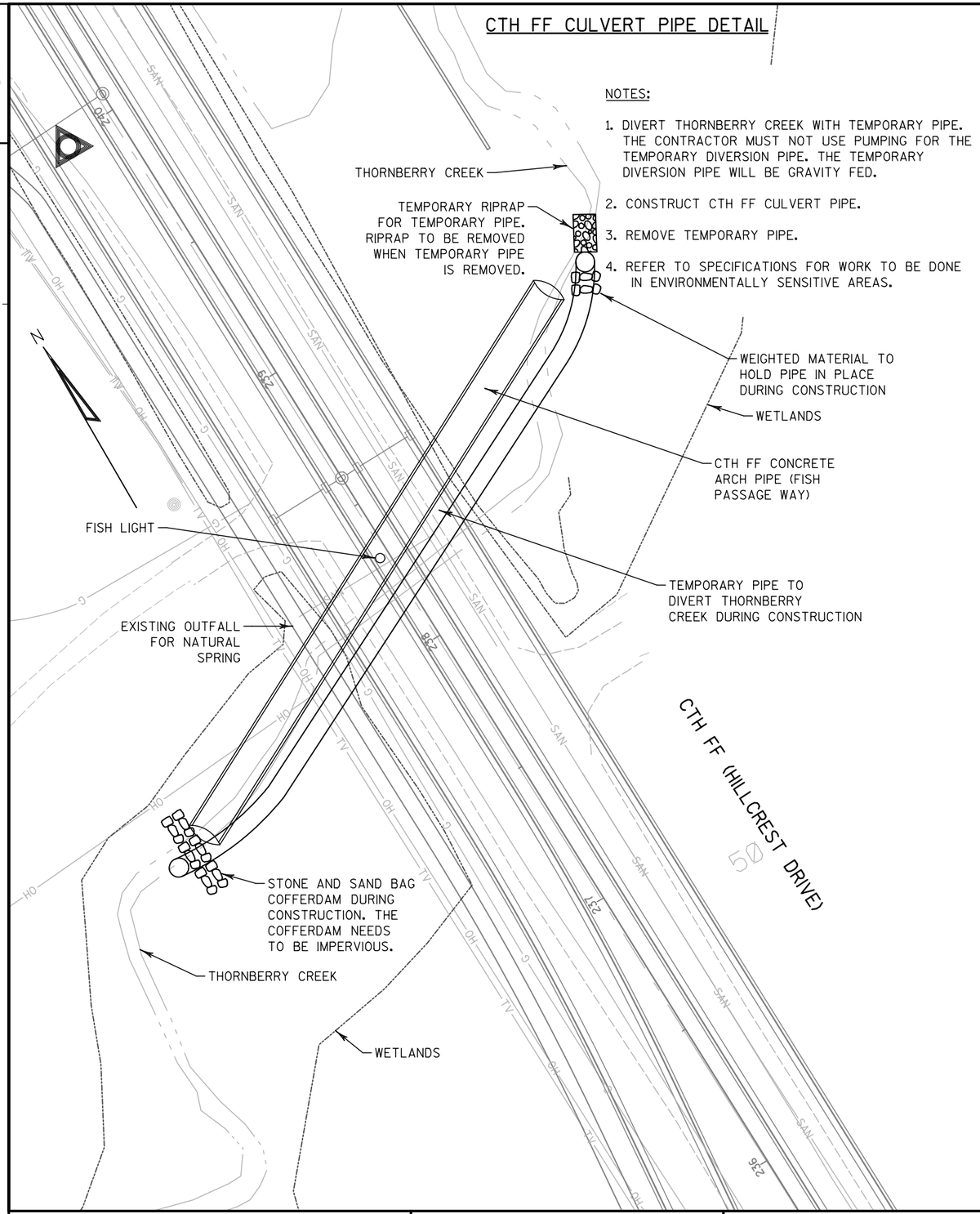
STAGE 2

1. REMOVE TEMPORARY PIPE AND ALLOW LANCASTER CREEK TO FLOW THROUGH WEST SIDE OF NEWLY CONSTRUCTED BOX CULVERT EXTENSIONS.
2. EAST SIDE OF BOX CULVERT EXTENSIONS WILL BE CONSTRUCTED.
3. THE CONTRACTOR WILL RESPREAD SEDIMENT EVENLY ACROSS EAST SIDE BOX CULVERT AFTER REMOVING TEMPORARY PIPE TO THE SAME ELEVATION AS BEFORE. THE CONTRACTOR WILL NEED TO GET MORE SEDIMENT TO FILL THE EAST SIDE BOX CULVERT EXTENSIONS.
4. CONTRACTOR NEEDS TO COMPACT SEDIMENT INSIDE BOX CULVERT. THE CONTRACTOR SHALL USE SMALL BOULDERS AT THE END OF THE BOX CULVERT TO PROTECT SEDIMENT FROM WASHING AWAY. THE SMALL BOULDERS WILL BE COVERED WITH SEDIMENT TO FILL VOIDS BETWEEN BOULDERS. THE CONTRACTOR COULD TRY TO SPREAD SOME SEED AS WELL ONLY ABOUT 10 FEET IN FROM EACH END TO PROVIDE EXTRA STABILIZATION.



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	B-05-0029 CONSTRUCTION DETAIL	SHEET 93	E

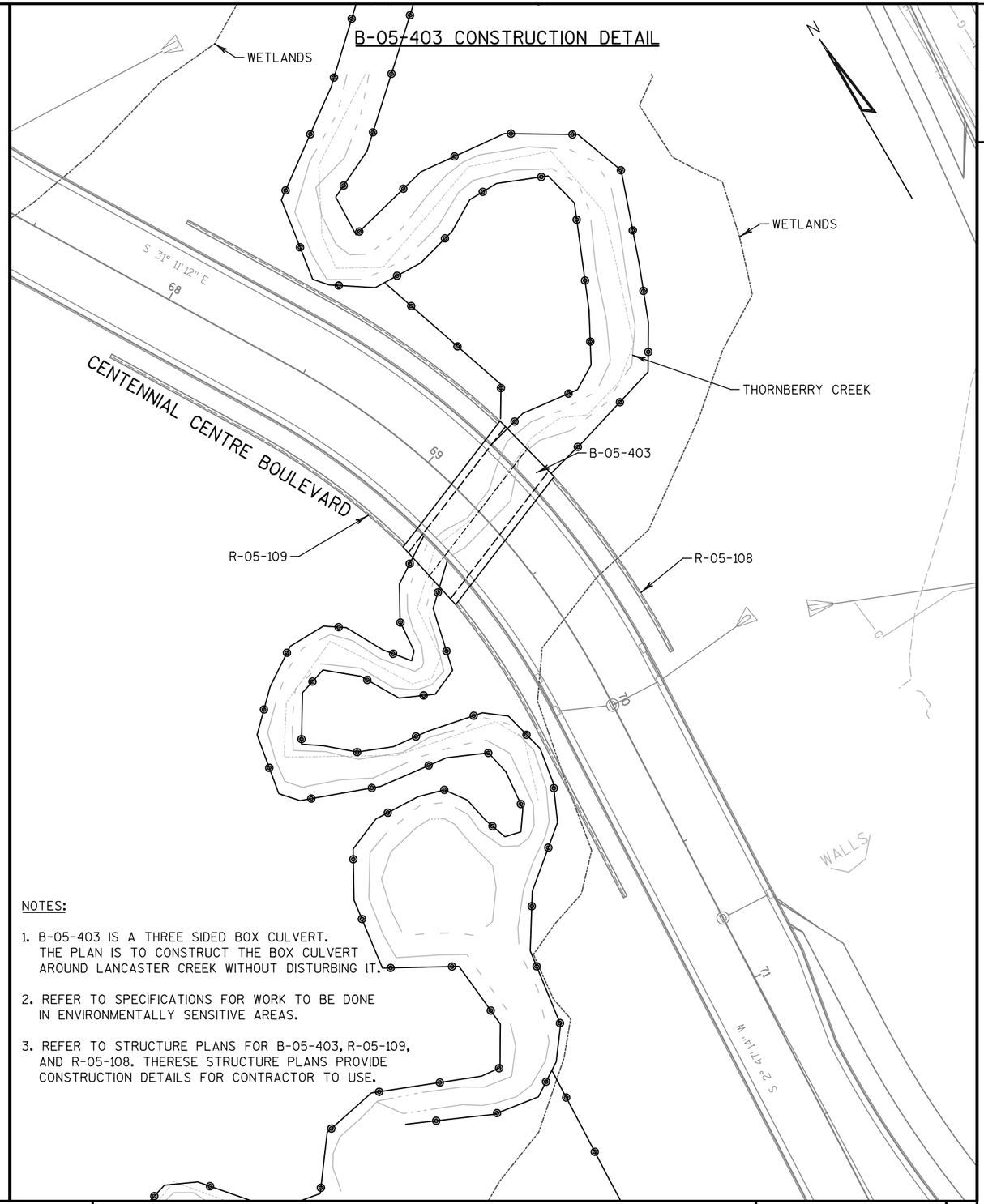
CTH FF CULVERT PIPE DETAIL



NOTES:

1. DIVERT THORNBERRY CREEK WITH TEMPORARY PIPE. THE CONTRACTOR MUST NOT USE PUMPING FOR THE TEMPORARY DIVERSION PIPE. THE TEMPORARY DIVERSION PIPE WILL BE GRAVITY FED.
2. CONSTRUCT CTH FF CULVERT PIPE.
3. REMOVE TEMPORARY PIPE.
4. REFER TO SPECIFICATIONS FOR WORK TO BE DONE IN ENVIRONMENTALLY SENSITIVE AREAS.

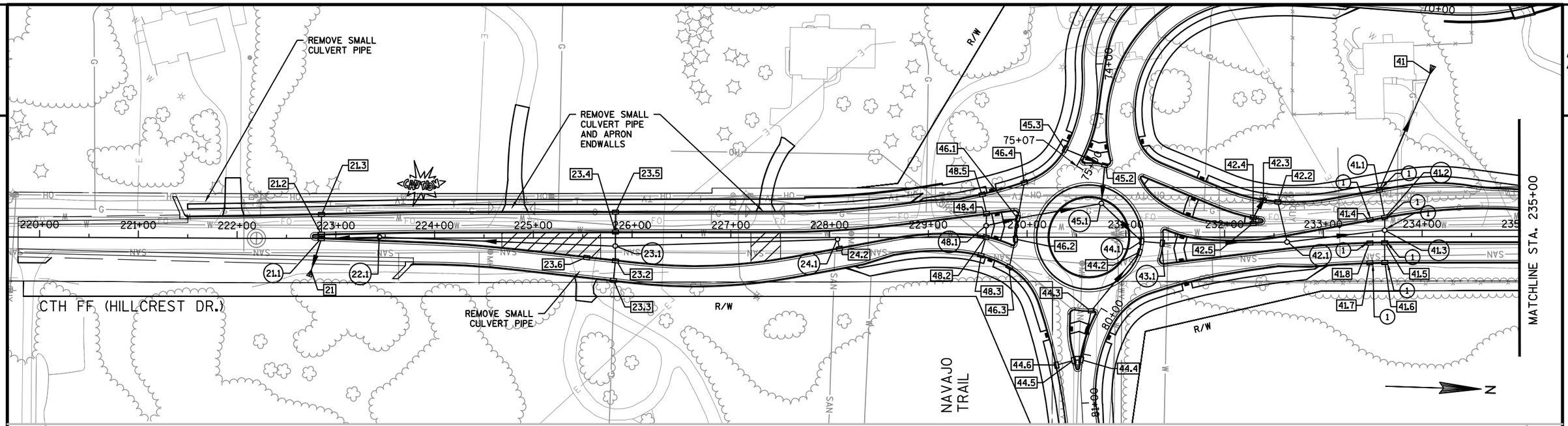
B-05-403 CONSTRUCTION DETAIL

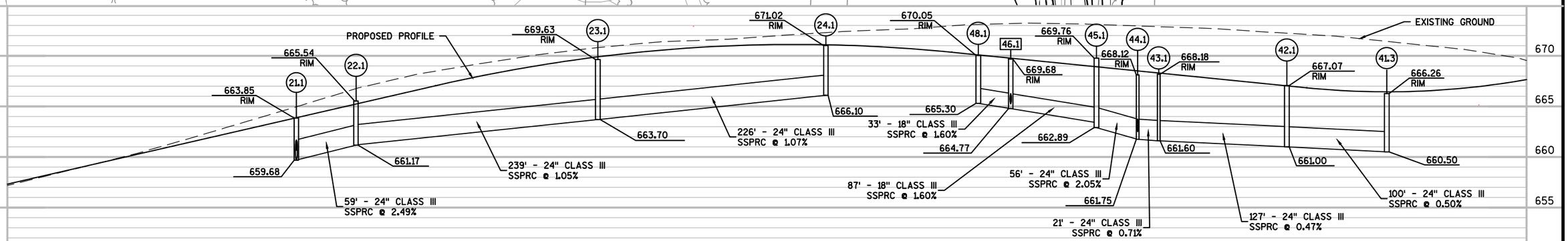


NOTES:

1. B-05-403 IS A THREE SIDED BOX CULVERT. THE PLAN IS TO CONSTRUCT THE BOX CULVERT AROUND LANCASTER CREEK WITHOUT DISTURBING IT.
2. REFER TO SPECIFICATIONS FOR WORK TO BE DONE IN ENVIRONMENTALLY SENSITIVE AREAS.
3. REFER TO STRUCTURE PLANS FOR B-05-403, R-05-109, AND R-05-108. THERESE STRUCTURE PLANS PROVIDE CONSTRUCTION DETAILS FOR CONTRACTOR TO USE.

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CTH FF CULVERT PIPE DETAIL AND B-05-403 CONSTRUCTION DETAIL	SHEET 94	E



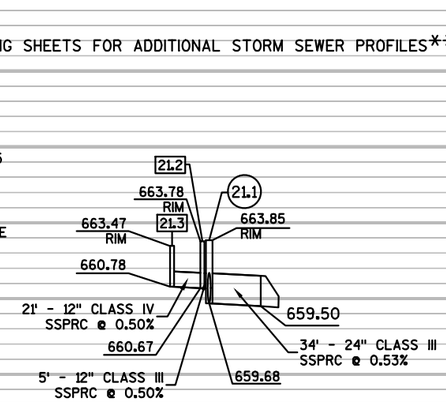


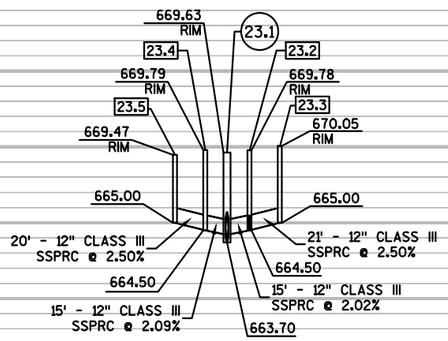
SEE FOLLOWING SHEETS FOR ADDITIONAL STORM SEWER PROFILES

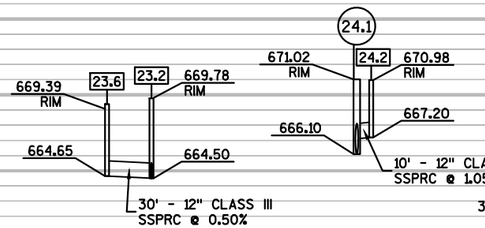
NOTE

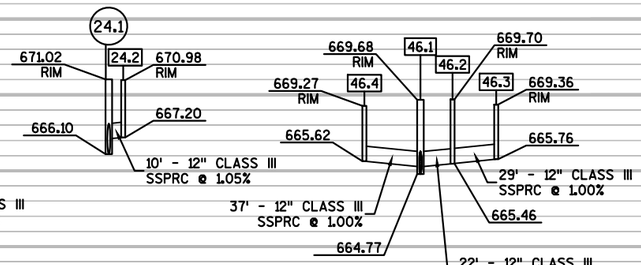
(1) UNDERDRAIN TAP. TERMINATE AND CAP PIPE 5 FEET IN BOTH UPSTREAM DIRECTIONS.

*CONSTRUCTION ENGINEER CAN ELIMINATE THE UNDERDRAIN STUBS IF THE FILL MATERIALS ARE GRANULAR AND NOT CLAY.





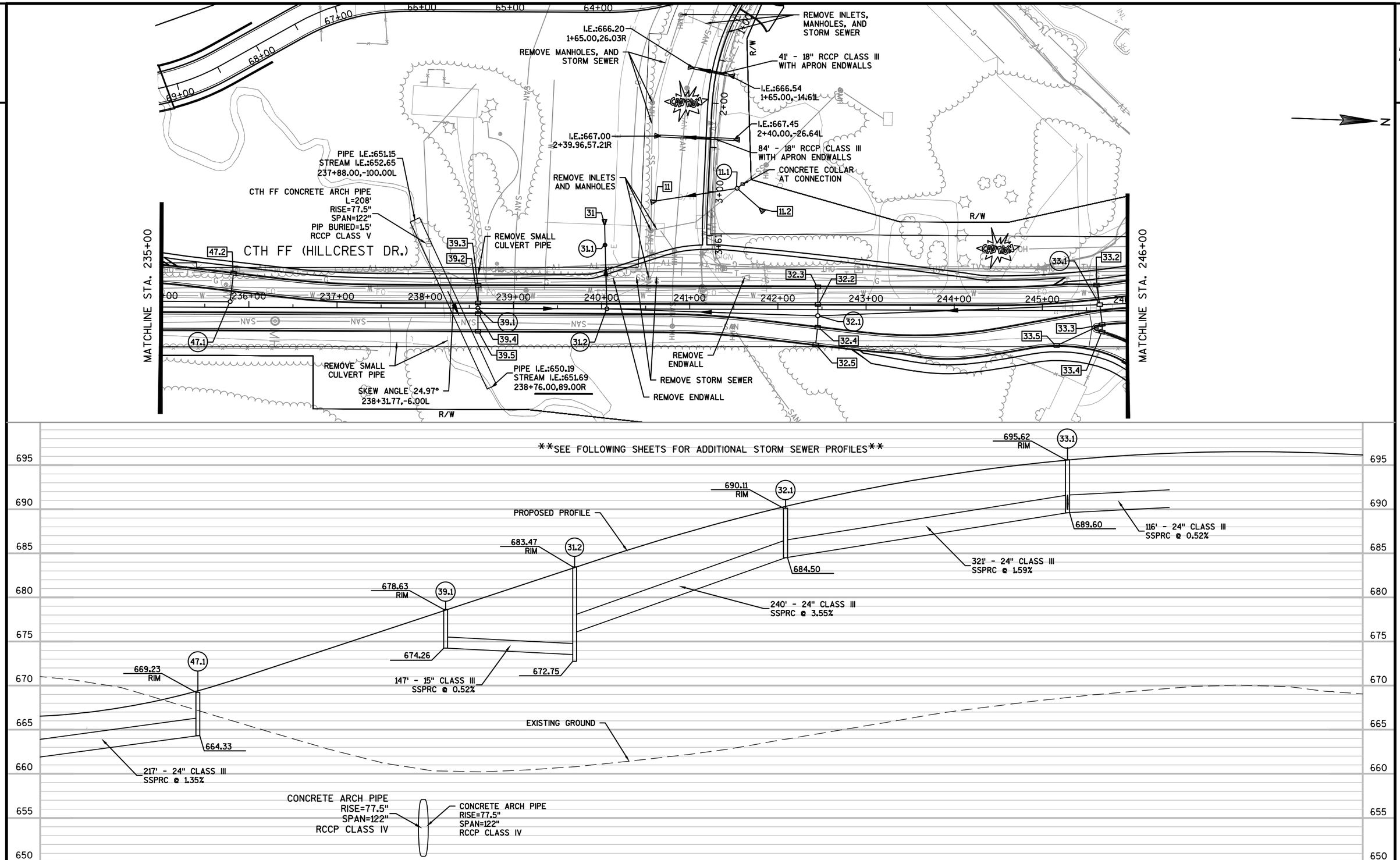




PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	STORM SEWER PLAN - CTH FF	SHEET 95	E

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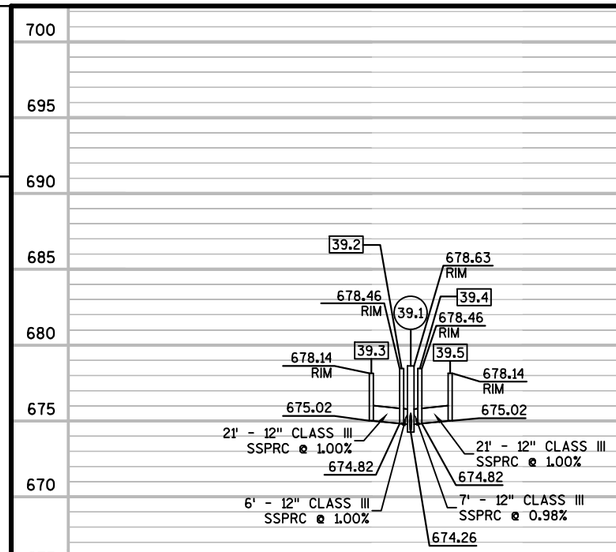
WISDOT/CADDS SHEET 41

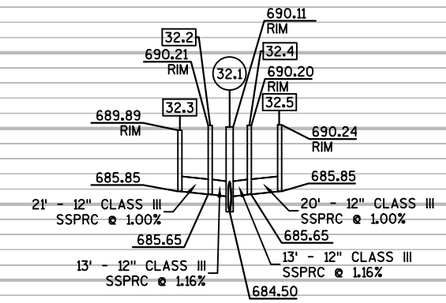


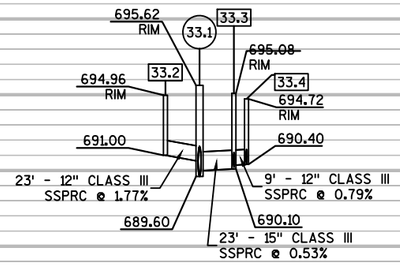
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	STORM SEWER PLAN - CTH FF	SHEET E

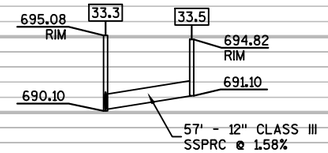
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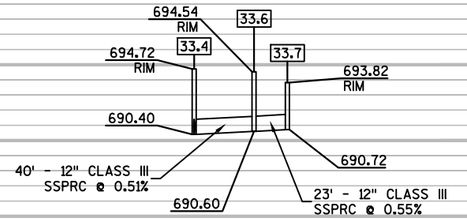
WISDOT/CADDS SHEET 41

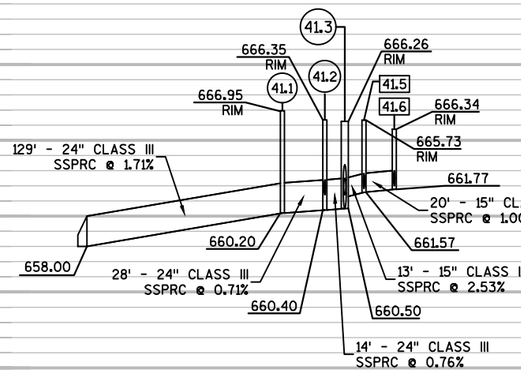


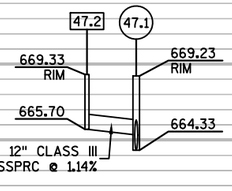


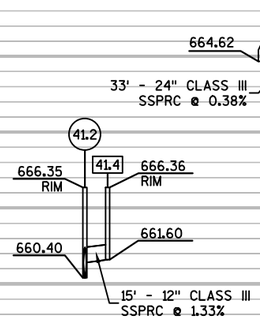


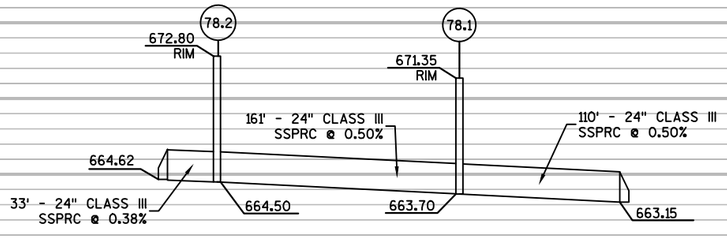


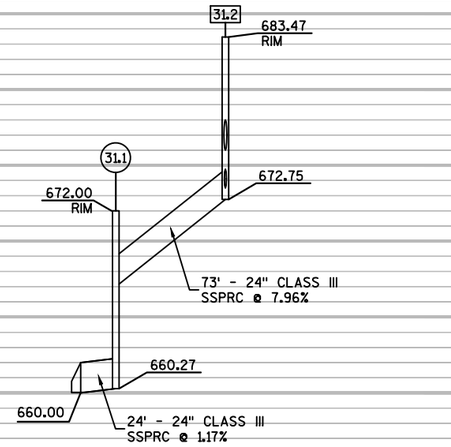


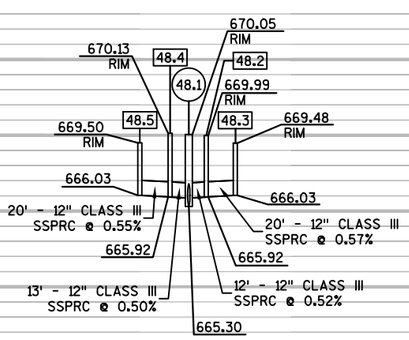


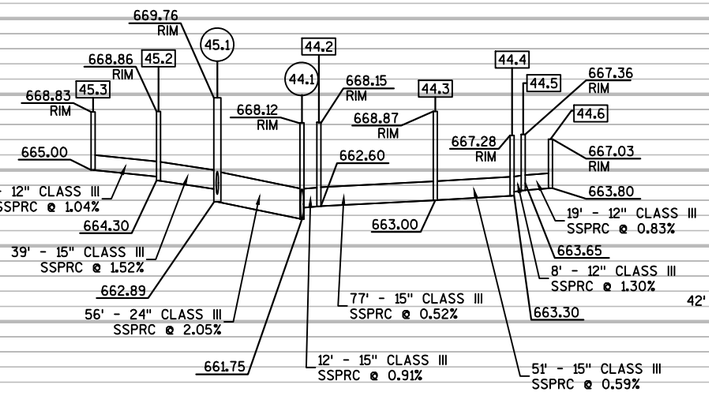


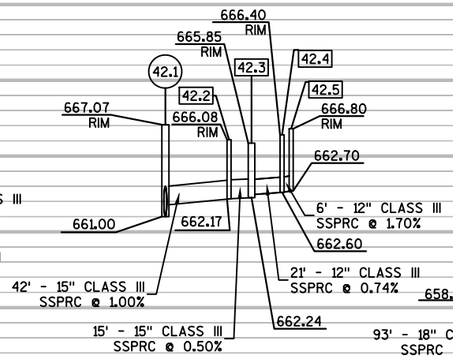


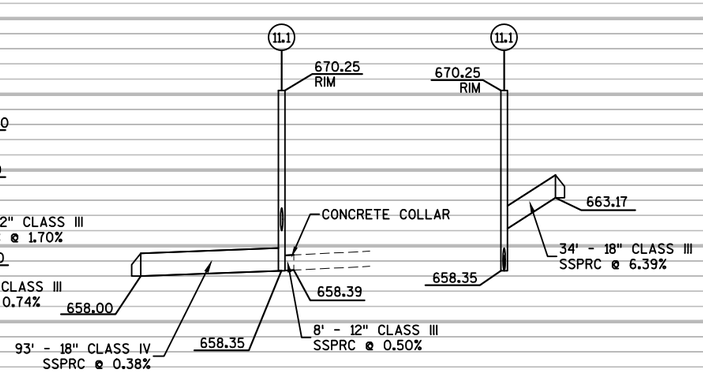






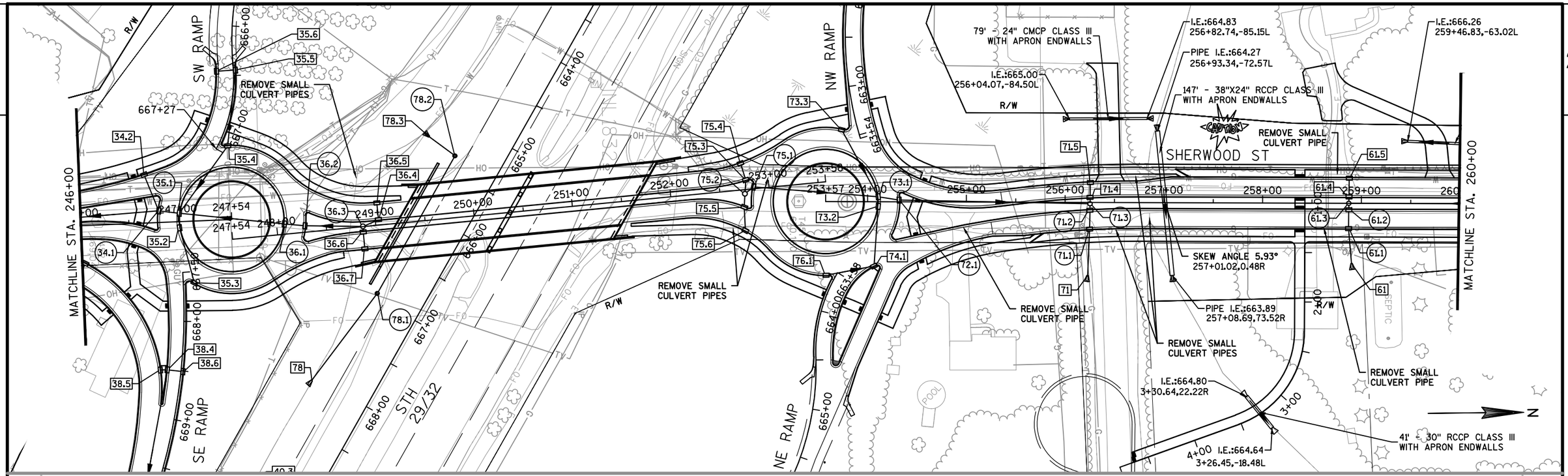


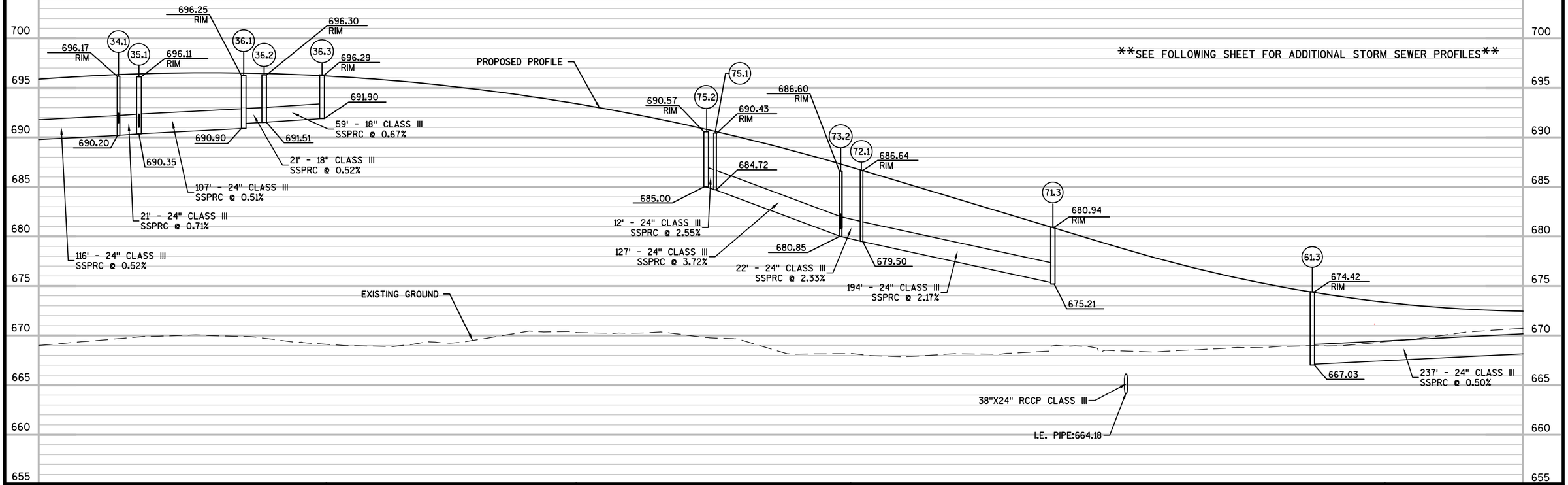




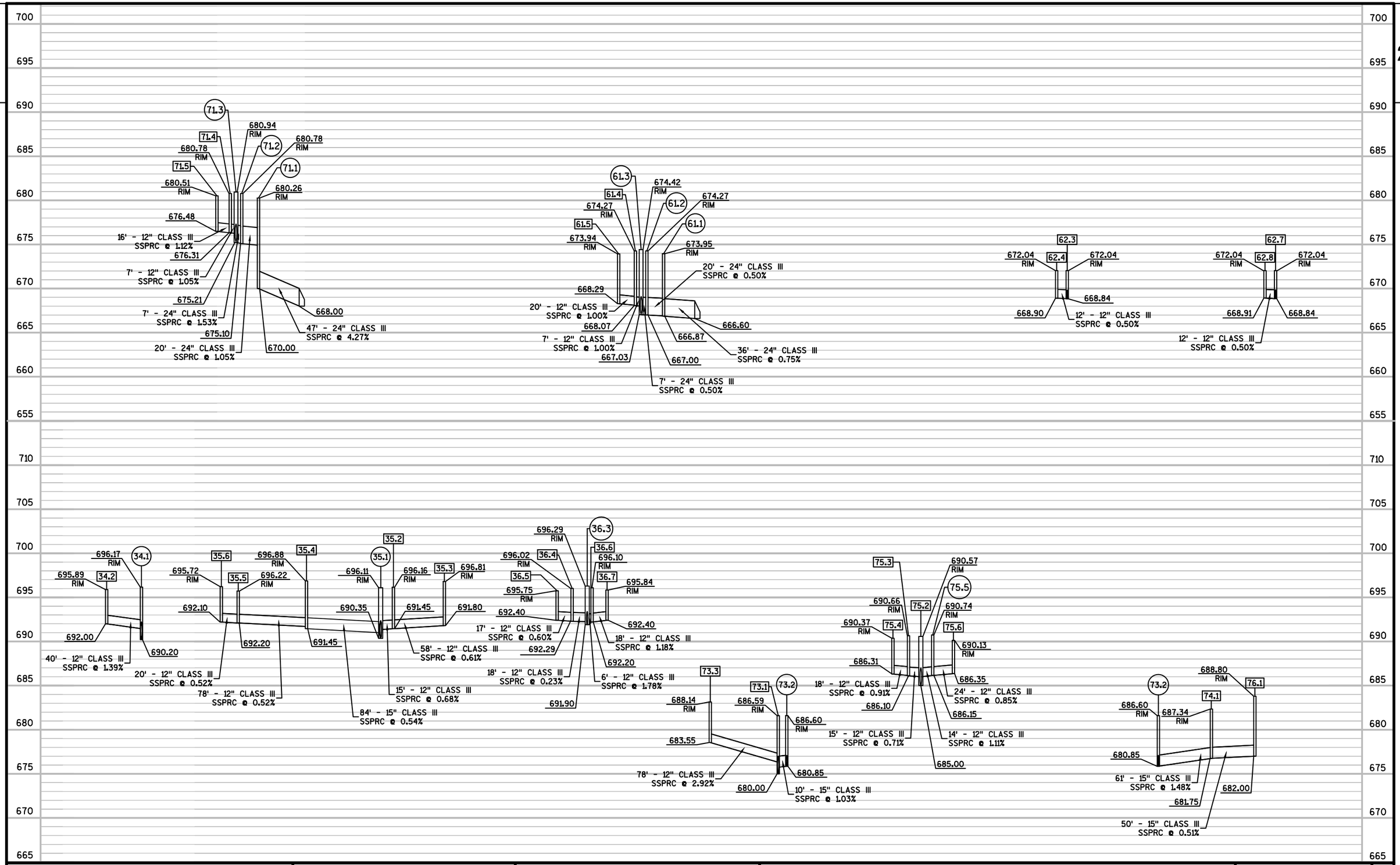
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	STORM SEWER PLAN - CTH FF	SHEET 97	E

2





PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	STORM SEWER PLAN - CTH FF	SHEET 98	E

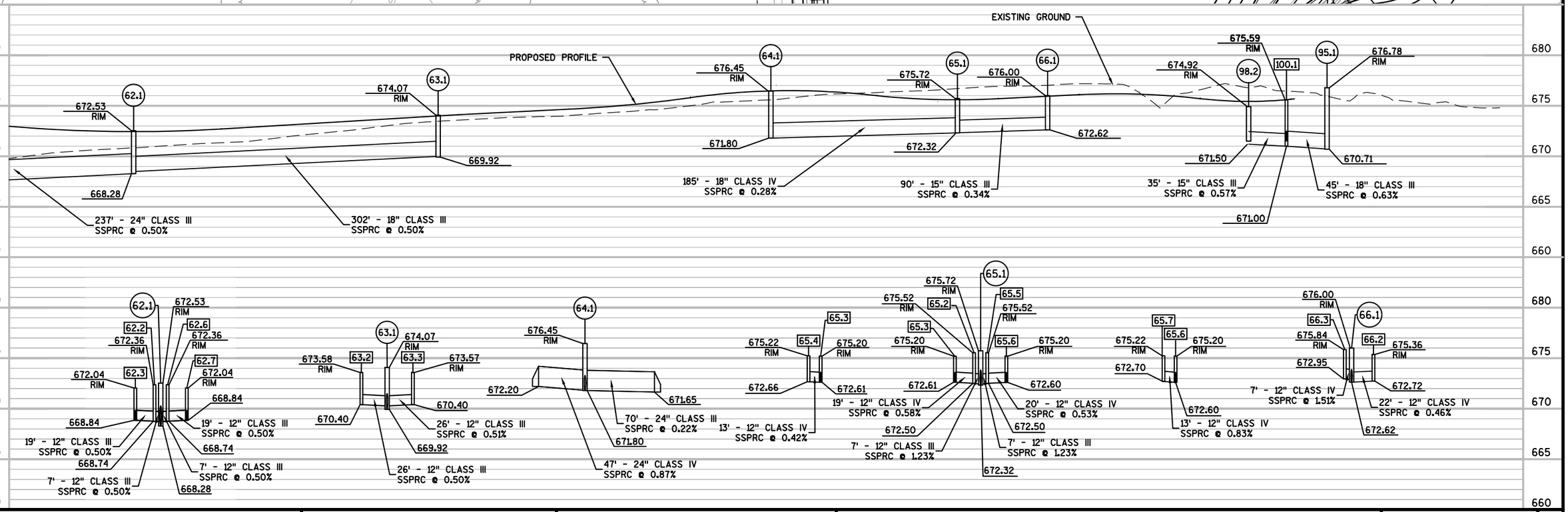


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	STORM SEWER PLAN - CTH FF	SHEET 99	E

NOTE
(1) UNDERDRAIN TAP. TERMINATE AND CAP PIPE 5 FEET IN BOTH UPSTREAM DIRECTIONS.
*CONSTRUCTION ENGINEER CAN ELIMINATE THE UNDERDRAIN STUBS IF THE FILL MATERIALS ARE GRANULAR AND NOT CLAY.

N

I.E.:673.00
87+85.60,22.73R
42' - 15" CMCP CLASS III
WITH APRON ENDWALLS
REMOVE SMALL
CULVERT PIPE
I.E.:672.78
88+27.35,25.26R
87+81
WOODLAND ROAD
40' - 24" CMCP CLASS III
WITH APRON ENDWALLS
53' - 24" CMCP CLASS III
WITH APRON ENDWALLS
I.E.:666.53
260+10.95,-60.77L
I.E.:667.90
262+54.57,-57.23L
I.E.:668.30
262+94.32,-57.45L
REMOVE SMALL CULVERT PIPES
R/W
SHERWOOD STREET
MATCHLINE STA. 260+00
CAPTION
REMOVE SMALL
CULVERT PIPE
I.E.:669.10
261+30.45,54.21R
I.E.:670.50
262+97.98,52.10R
I.E.:670.80
263+32.08,51.45R
62' - 15" CMCP CLASS III
WITH APRON ENDWALLS
I.E.:668.70
260+68.59,55.37R
34' - 15" CMCP CLASS III
WITH APRON ENDWALLS
REMOVE SMALL
CULVERT PIPES
I.E.:671.05
91+64.70,20.80R
26' - 15" CMCP CLASS III
WITH APRON ENDWALLS
I.E.:670.89
91+91.02,20.40R
CTH C



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	STORM SEWER PLAN - CTH FF	SHEET 100	E

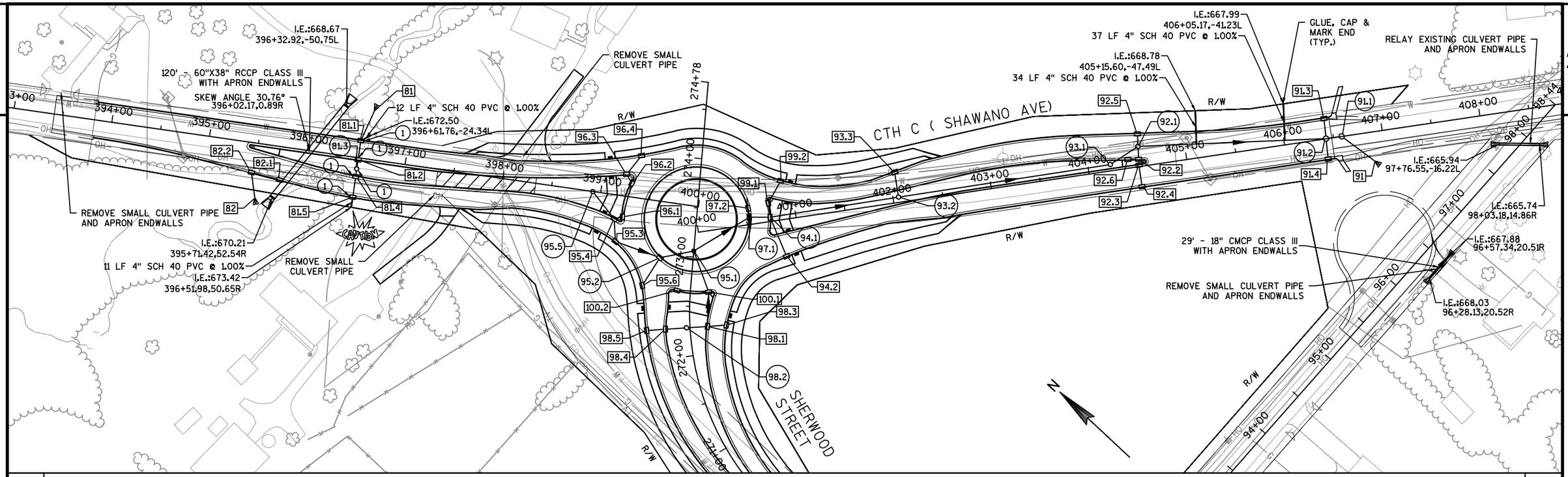
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WISDOT/CADDS SHEET 41

STRUCT NO.	STATION	OFFSET	LOCATION	C-C (FT)	TO STRUCT	INLET SIZE	MANHOLE SIZE	INLET COVER TYPE	MANHOLE COVER TYPE	RIM/ GRATE ELEV.	T.O.S. ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	DISCHARGE PIPE INLET ELEV.	DISCHARGE PIPE DISCHARGE ELEV.	DISCHARGE PIPE LENGTH (FT)	DISCHARGE PIPE SLOPE (%)	REINFORCED CONCRETE CLASS	REMARKS
11	3+13.69	58' RT	Cent. Centre SW	---	---	---	---	---	---	---	---	---	18	---	---	---	---	---	APRON ENDWALL
11.1	2+95.22	33' LT	Cent. Centre SW	93	11	---	4-FT DIA.	---	J	670.25	669.00	11.90	18	658.35	658.00	93	0.38%	CLASS V	---
11.2	3+16.37	59' LT	Cent. Centre SW	34	11.1	---	---	---	---	---	---	---	18	663.17	661.00	34	6.39%	CLASS III	APRON ENDWALL
11.3	2+89.90	39' LT	Cent. Centre SW	8	11.1	---	---	---	---	---	---	---	12	658.39	658.35	8	0.50%	CLASS III	CONCRETE COLLAR
21	222+74.98	33' RT	FF-south	---	---	---	---	---	---	---	---	---	24	---	---	---	---	---	APRON ENDWALL
21.1	222+85.48	0 RT	FF-south	34	21	---	5-FT DIA.	---	HS	663.85	662.60	4.17	24	659.68	659.50	34	0.53%	CLASS III	---
21.2	222+85.50	4 LT	FF-south	5	21.1	2X3-FT	---	HS	---	663.78	662.95	3.11	12	660.67	660.65	5	0.50%	CLASS III	---
21.3	222+85.50	24' LT	FF-south	21	21.2	2X3-FT	---	HM	---	663.47	662.64	2.69	12	660.78	660.68	21	0.50%	CLASS V	---
22.1	223-44.31	1' LT	FF-south	59	21.1	---	4-FT DIA.	---	C	665.54	664.29	4.37	24	661.17	659.70	59	2.49%	CLASS III	---
23.1	225+82.99	8 RT	FF-south	239	22.1	---	4-FT DIA.	---	C	669.63	668.38	5.93	24	663.70	661.20	239	1.05%	CLASS III	---
23.2	225-83.18	23' RT	FF-south	15	23.1	2X3-FT	---	T	---	669.78	668.53	5.28	12	664.50	664.20	15	2.02%	CLASS III	---
23.3	225+80.92	43' RT	FF-south	21	23.2	2X3-FT	---	HM	---	670.05	669.22	5.05	12	665.00	664.50	21	2.50%	CLASS III	---
23.4	225-83.21	6 LT	FF-south	15	23.1	2X3-FT	---	T	---	669.79	668.54	5.29	12	664.50	664.20	15	2.09%	CLASS III	---
23.5	225+83.23	26' LT	FF-south	20	23.4	2X3-FT	---	HM	---	669.47	668.64	4.47	12	665.00	664.50	20	2.50%	CLASS III	---
23.6	225+54.04	20' RT	FF-south	30	23.2	2X3-FT	---	T	---	669.39	668.14	4.74	12	664.65	664.50	30	0.50%	CLASS III	---
24.1	228+08.20	2 RT	FF-south	226	23.1	---	4-FT DIA.	---	C	671.02	669.77	4.92	24	666.10	663.70	226	1.07%	CLASS III	---
24.2	228+09.92	11' RT	FF-south	10	24.1	2X3-FT	---	T	---	670.98	669.73	3.78	12	667.20	667.10	10	1.05%	CLASS III	---
31	240-03.13	95' LT	FF-south	---	---	---	---	---	---	---	---	---	24	---	---	---	---	---	APRON ENDWALL
31.1	240+03.82	72' LT	FF-south	24	31	---	4-FT DIA.	---	J	672.00	670.75	11.73	24	660.27	660.00	24	1.17%	CLASS III	---
31.2	240-06.14	0 RT	FF-south	73	31.1	---	5-FT DIA.	---	C	683.47	682.22	10.72	24	672.75	667.00	73	7.96%	CLASS III	---
32.1	242+45.38	7 RT	FF-south	240	31.2	---	4-FT DIA.	---	C	690.11	688.86	5.61	24	684.50	676.00	240	3.55%	CLASS III	---
32.2	242+45.38	6 LT	FF-south	13	32.1	2X3-FT	---	HM	---	690.21	689.38	4.56	12	685.65	685.50	13	1.16%	CLASS III	---
32.3	242+45.38	26' LT	FF-south	20	32.2	2X3-FT	---	HM	---	689.89	689.06	4.04	12	685.85	685.65	20	1.00%	CLASS III	---
32.4	242+45.27	20' RT	FF-south	13	32.1	2X3-FT	---	HM	---	690.20	689.37	4.55	12	685.65	685.50	13	1.16%	CLASS III	---
32.5	242+43.00	40' RT	FF-south	20	32.4	2X3-FT	---	HM	---	690.24	689.41	4.39	12	685.85	685.65	20	1.00%	CLASS III	---
33.1	245-65.15	7 LT	FF-south	321	32.1	---	4-FT DIA.	---	C	695.62	694.37	6.02	24	689.60	684.50	321	1.59%	CLASS III	---
33.2	245-61.28	29' LT	FF-south	23	33.1	2X3-FT	---	HM	---	694.96	694.13	3.96	12	691.00	690.60	23	1.77%	CLASS III	---
33.3	245+68.02	16 RT	FF-south	23	33.1	2X3-FT	---	HM	---	695.08	694.25	4.98	15	690.10	689.98	23	0.53%	CLASS III	---
33.4	245+65.63	2 LT	SE Ramp_Bypass	9	33.3	2X3-FT	---	HM	---	694.72	693.89	4.32	12	690.40	690.34	9	0.79%	CLASS III	---
33.5	245-16.45	40' RT	FF-south	57	33.3	2X3-FT	---	HM	---	694.82	693.99	3.72	12	691.10	690.20	57	1.58%	CLASS III	---
33.6	245+04.72	2 LT	SE Ramp_Bypass	40	33.4	2X3-FT	---	HM	---	694.54	693.71	3.94	12	690.60	690.40	40	0.51%	CLASS III	---
33.7	245+05.24	20' RT	SE Ramp_Bypass	23	33.5	2X3-FT	---	HM	---	693.82	692.99	3.10	12	690.72	690.60	23	0.55%	CLASS III	---
34.1	246+80.73	12 LT	FF-south	115	33.1	0	5-FT DIA.	---	HS	696.17	694.92	5.97	24	690.20	689.60	115	0.52%	CLASS III	---
34.2	246+67.39	49' LT	FF-south	40	34.1	2X3-FT	---	HM	---	695.89	695.06	3.89	12	692.00	691.45	40	1.38%	CLASS III	---
35.1	247-01.45	9 LT	FF-south	21	34.1	---	4-FT DIA.	---	T	696.11	694.86	5.76	24	690.35	690.20	21	0.71%	CLASS III	---
35.2	247-01.11	6 RT	FF-south	15	35.1	2X3-FT	---	T	---	696.16	694.91	4.71	12	691.45	691.35	15	0.68%	CLASS III	---
35.3	247-13.82	63' RT	FF-south	58	35.2	2X3-FT	---	HS	---	696.81	695.98	5.01	12	691.80	691.45	58	0.61%	CLASS III	---
35.4	247+58.48	94' LT	FF-central	84	35.1	2X3-FT	---	HS	---	696.88	696.05	5.43	15	691.45	691.00	84	0.54%	CLASS III	---
35.5	247+73.57	170 LT	FF-central	78	35.4	2X3-FT	---	HM	---	695.72	694.89	3.62	12	692.10	691.70	78	0.52%	CLASS III	---
35.6	247+44.96	151' LT	FF-south	20	35.5	2X3-FT	---	HM	---	696.22	695.39	4.02	12	692.20	692.10	20	0.52%	CLASS III	---
36.1	248+07.97	10 LT	FF-central	107	35.1	---	4-FT DIA.	---	T	696.25	695.00	5.35	24	690.90	690.35	107	0.51%	CLASS III	---
36.2	248-28.61	7 LT	FF-central	21	36.1	---	4-FT DIA.	---	HS	696.30	695.05	4.79	18	691.51	691.40	21	0.52%	CLASS III	---
36.3	248-86.91	0 LT	FF-central	59	36.2	---	4-FT DIA.	---	C	696.29	695.04	4.39	18	691.90	691.51	59	0.67%	CLASS III	---
36.4	249+03.22	6 LT	FF-central	18	36.3	2X3-FT	---	HS	---	696.02	695.19	3.73	12	692.29	692.25	18	0.23%	CLASS III	---
36.5	249+03.22	23' LT	FF-central	17	36.4	2X3-FT	---	HS	---	695.75	694.92	3.35	12	692.40	692.30	17	0.60%	CLASS III	---
36.6	248+86.66	6 RT	FF-central	6	36.3	2X3-FT	---	HS	---	696.10	695.27	3.90	12	692.20	692.10	6	1.78%	CLASS III	---
36.7	248+86.66	23' RT	FF-central	18	36.6	2X3-FT	---	HS	---	695.84	695.01	3.44	12	692.40	692.20	18	1.18%	CLASS III	---
38	671+51.85	114' RT	SE Ramp	---	---	---	---	---	---	---	---	---	30	---	---	---	---	---	APRON ENDWALL
38.1	671+41.59	94' RT	SE Ramp	23	38	---	4-FT DIA.	---	J	668.00	666.75	10.80	30	657.20	656.80	23	1.79%	CLASS III	---
38.2	670+65.70	26' RT	SE Ramp	102	38.1	---	4-FT DIA.	HM	---	686.41	685.58	10.41	15	676.00	663.50	102	12.29%	CLASS III	---
38.3	670+44.77	2 LT	SE Ramp	35	38.2	2X3-FT	---	HM	---	688.14	687.31	5.34	15	682.80	681.00	35	5.15%	CLASS III	---

STRUCT NO.	STATION	OFFSET	LOCATION	C-C (FT)	TO STRUCT	INLET SIZE	MANHOLE SIZE	INLET COVER TYPE	MANHOLE COVER TYPE	RIM/ GRATE ELEV.	T.O.S. ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	DISCHARGE PIPE INLET ELEV.	DISCHARGE PIPE DISCHARGE ELEV.	DISCHARGE PIPE LENGTH (FT)	DISCHARGE PIPE SLOPE (%)	REINFORCED CONCRETE CLASS	REMARKS
38.4	668-50.42	14' RT	SE Ramp	193	38.3	2X3-F"	---	HM	---	694.97	694.14	4.97	15	690.00	683.00	193	3.64%	CLASS III	---
38.5	247-39.75	2' LT	SE Ramp_Bypass	8	38.4	2X3-F"	---	HM	---	694.22	693.39	3.42	12	690.80	690.50	8	4.27%	CLASS III	---
38.6	668-50.67	2' LT	SE Ramp	17	38.4	2X3-F"	---	HM	---	695.59	694.76	4.54	12	691.05	690.50	17	3.43%	CLASS III	---
39.1	238-59.83	0' LT	FF-south	147	31.2	---	4-FT DIA.	---	C	678.63	677.38	4.37	15	674.26	673.50	147	0.52%	CLASS III	---
39.2	238-60.00	6' LT	FF-south	6	39.1	2X3-F"	---	HM	---	678.46	677.63	3.64	12	674.82	674.76	6	1.00%	CLASS III	---
39.3	238+60.01	26' LT	FF-south	21	39.2	2X3-F"	---	HM	---	678.14	677.31	3.12	12	675.02	674.82	21	1.00%	CLASS III	---
39.4	238-59.97	6' RT	FF-south	7	39.1	2X3-F"	---	HM	---	678.46	677.63	3.64	12	674.82	674.76	7	0.98%	CLASS III	---
39.5	238-59.98	26' RT	FF-south	21	39.4	2X3-F"	---	HM	---	678.14	677.31	3.12	12	675.02	674.82	21	1.00%	CLASS III	---
40.1	671+49.32	51' RT	WIS 29 EB	169	38.1	---	5-FT DIA.	---	C	662.50	661.25	4.45	30	658.05	657.20	169	0.51%	CLASS V	---
40.2	669-29.76	76' RT	WIS 29 EB	222	40.1	---	5-FT DIA.	---	J	668.00	666.75	8.00	24	660.00	658.05	222	0.88%	CLASS III	---
40.3	669-26.90	57' RT	WIS 29 EB	10	40.2	INLET MEDIAN 3 GRATE	---	MS	---	662.75	662.75	2.50	24	660.25	660.00	10	2.75%	CLASS III	---
40.4	673+47.81	59' RT	WIS 29 EB	199	40.1	---	5-FT DIA.	---	J	667.00	665.75	7.80	24	659.20	658.05	199	0.58%	CLASS III	---
40.5	673-47.96	60' RT	WIS 29 EB	10	40.4	INLET MEDIAN 3 GRATE	---	MS	---	661.95	661.95	2.50	24	659.45	659.20	10	2.69%	CLASS III	---
41	234-08.44	165' L"	WIS 29 EB	---	---	---	---	---	---	---	---	---	24	---	---	---	---	---	APRON ENDWALL
41.1	233-56.85	47' LT	WIS 29 EB	129	41	---	4-FT DIA.	---	HM	666.95	665.70	6.75	24	660.20	658.00	129	1.71%	CLASS III	---
41.2	233+62.16	20' LT	WIS 29 EB	28	41.1	---	5-FT DIA.	---	HM	666.35	665.10	5.95	24	660.40	660.20	28	0.71%	CLASS III	---
41.3	233+62.14	7' LT	FF-south	14	41.2	---	5-FT DIA.	---	C	666.25	665.01	5.76	24	660.50	660.40	14	0.75%	CLASS III	---
41.4	233+47.41	17' LT	FF-south	15	41.2	2X3-F"	---	HM	---	666.36	665.53	4.76	12	661.60	661.40	15	1.33%	CLASS III	---
41.5	233-62.09	6' RT	FF-south	13	41.3	2X3-F"	---	HM	---	666.34	665.51	4.77	15	661.57	661.25	13	2.53%	CLASS III	---
41.6	233+62.13	26' RT	FF-south	20	41.5	2X3-F"	---	HM	---	665.73	664.90	3.96	15	661.77	661.57	20	1.00%	CLASS III	---
41.7	233+47.14	26' RT	FF-south	15	41.6	2X3-F"	---	HM	---	665.72	664.89	3.52	12	662.20	662.00	15	1.33%	CLASS III	---
41.8	233+47.14	6' RT	FF-south	15	41.5	2X3-F"	---	HM	---	666.35	665.53	4.26	12	662.10	661.82	15	1.87%	CLASS III	---
42.1	232-63.44	5' RT	FF-south	100	41.3	---	5-FT DIA.	---	C	667.07	665.82	6.07	24	661.00	660.50	100	0.50%	CLASS III	---
42.2	232-53.94	36' LT	FF-south	42	42.1	2X3-F"	---	HM	---	666.08	665.25	3.91	15	662.17	661.75	42	1.00%	CLASS III	---
42.3	232+39.18	37' LT	FF-south	15	42.2	2X3-F"	---	HM	---	665.85	665.02	3.61	15	662.24	662.17	15	0.50%	CLASS III	---
42.4	232+29.15	20' LT	FF-south	21	42.3	2X3-F"	---	HM	---	666.40	665.57	3.80	12	662.60	662.45	21	0.74%	CLASS III	---
42.5	232-28.99	14' LT	FF-south	6	42.4	2X3-F"	---	HM	---	666.80	665.97	4.10	12	662.70	662.60	6	1.70%	CLASS III	---
43.1	231+36.96	6' RT	FF-south	127	42.1	---	4-FT DIA.	---	HS	668.18	666.93	6.58	24	661.50	661.00	127	0.47%	CLASS III	---
44.1	231-16.05	4' RT	FF-south	21	43.1	---	5-FT DIA.	---	T	668.08	666.83	6.33	24	661.75	661.60	21	0.71%	CLASS III	---
44.2	231-13.99	15' RT	FF-south	12	44.1	2X3-F"	---	T	---	668.10	666.85	5.50	15	662.60	662.50	12	0.91%	CLASS III	---
44.3	230-64.87	75' RT	FF-south	77	44.2	2X3-F"	---	HS	---	668.87	668.04	5.87	15	663.00	662.60	77	0.52%	CLASS III	---
44.4	80+56.09	2' RT	FF-south	51	44.3	2X3-F"	---	HS	---	667.29	666.46	3.99	15	663.30	663.00	51	0.59%	CLASS III	---
44.5	80+57.77	9' RT	FF-south	8	44.4	2X3-F"	---	HS	---	667.35	666.53	3.71	12	663.65	663.55	8	1.30%	CLASS III	---
44.6	80+64.02	26' RT	FF-south	19	44.5	2X3-F"	---	HS	---	667.03	666.20	3.23	12	663.80	663.65	19	0.83%	CLASS III	---
45.1	230-75.43	34' LT	Cent. Centre Blvd.	56	44.1	---	4-FT DIA.	---	J	669.75	668.51	6.87	24	662.90	661.75	56	2.05%	CLASS III	---
45.2	230-78.76	73' LT	Cent. Centre Blvd.	39	45.1	2X3-F"	---	HS	---	668.86	668.03	4.56	15	664.30	663.71	39	1.52%	CLASS III	---
45.3	74-97.19	19' RT	Cent. Centre Blvd.	44	45.2	2X3-F"	---	HM	---	668.83	668.00	3.83	12	665.00	664.55	44	1.04%	CLASS III	---
46.1	229-90.72	19' LT	FF-south	87	45.1	2X3-F"	---	---	HS	669.68	668.43	4.90	18	664.78	663.40	87	1.60%	CLASS III	---
46.2	229-88.24	2' RT	FF-south	22	46.1	2X3-F"	---	---	HS	669.70	668.45	4.24	12	665.46	665.25	22	1.00%	CLASS III	---
46.3	229-82.02	30' RT	Cent. Centre Blvd.	29	46.2	2X3-F"	---	HM	---	669.36	668.53	3.60	12	665.76	665.47	29	1.00%	CLASS III	---
46.4	229-97.33	56' LT	FF_Sherwood	37	46.1	2X3-F"	---	HM	---	669.27	668.44	3.65	12	665.62	665.25	37	1.00%	CLASS III	---
47.1	235-78.78	6' LT	FF_Sherwood	217	41.3	---	4-FT DIA.	---	C	669.23	667.98	4.90	24	664.33	661.40	217	1.35%	CLASS III	---
47.2	235-82.46	39' LT	FF_Sherwood	33	47.1	2X3-F"	---	HM	---	669.33	668.50	3.63	12	665.70	665.33	33	1.14%	CLASS III	---
48.1	229-58.66	12' LT	FF_Sherwood	33	46.1	---	4-FT DIA.	---	C	670.05	668.80	4.75	18	665.30	664.78	33	1.60%	CLASS III	---
48.2	229-58.45	0' LT	FF-south	12	48.1	2X3-F"	---	T	---	669.93	668.74	4.07	12	665.92	665.86	12	0.52%	CLASS III	---
48.3	229+53.18	18' RT	FF-south	20	48.2	2X3-F"	---	HM	---	669.48	668.65	3.45	12	666.03	665.92	20	0.57%	CLASS III	---
48.4	229-59.04	24' LT	FF-south	13	48.1	2X3-F"	---	T	---	670.13	668.88	4.21	12	665.92	665.86	13	0.50%	CLASS III	---
48.5	229-54.69	44' LT	FF-south	20	48.4	2X3-F"	---	HM	---	669.50	668.67	3.47	12	666.03	665.92	20	0.55%	CLASS III	---
61	258-90.26	61' RT	FF-south	---	---	---	---	---	---	---	---	---	24	---	---	---	---	---	APRON ENDWALL
61.1	258-87.08	26' RT	FF-south	36	61	---	4-FT DIA.	---	HS	673.95	672.70	7.08	24	666.87	666.60	36	0.75%	CLASS III	---
61.2	258+87.31	7' RT	FF-south	20	61.1	---	4-FT DIA.	---	HS	674.27	673.02	7.27	24	667.00	666.90	20	0.50%	CLASS III	---

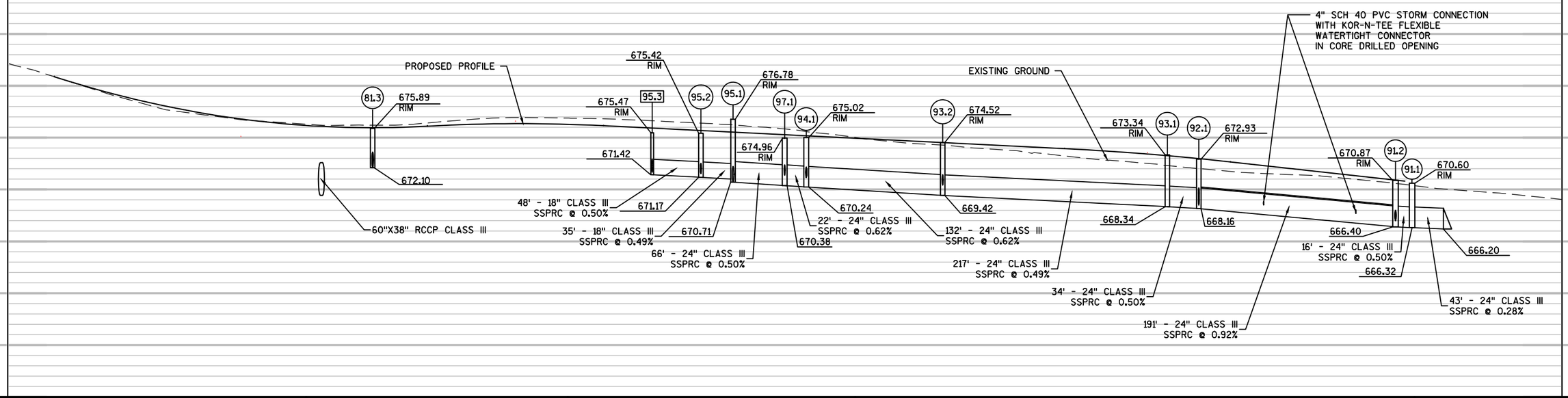
STRUCT NO.	STATION	OFFSET	LOCATION	C-C (FT)	TO STRUCT	INLET SIZE	MANHOLE SIZE	INLET COVER TYPE	MANHOLE COVER TYPE	RIM/ GRATE ELEV.	T.O.S. ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	DISCHARGE PIPE INLET ELEV.	DISCHARGE PIPE DISCHARGE ELEV.	DISCHARGE PIPE LENGTH (FT)	DISCHARGE PIPE SLOPE (%)	REINFORCED CONCRETE CLASS	REMARKS
61.3	258+87.39	0' RT	FF-north	7	61.2	---	5-FT DIA.	---	C	674.42	673.17	7.39	24	667.03	667.00	7	0.50%	CLASS III	---
61.4	258+87.47	7' LT	FF-north	7	61.3	2X3-FT	---	HS	---	674.27	673.44	6.20	12	668.07	668.00	7	1.00%	CLASS III	---
61.5	258+87.70	26' LT	FF-north	20	61.4	2X3-FT	---	HS	---	673.94	673.11	5.65	12	668.29	668.10	20	1.00%	CLASS III	---
62.1	261+23.74	1' LT	FF-north	237	61.3	---	4-FT DIA.	---	C	672.53	671.28	4.25	24	668.28	667.10	237	0.50%	CLASS III	---
62.2	261+23.81	7' LT	FF-north	7	62.1	2X3-FT	---	HS	---	672.36	671.53	3.62	12	668.74	668.71	7	0.50%	CLASS III	---
62.3	261+24.04	26' LT	FF-north	19	62.2	2X3-FT	---	HS	---	672.04	671.21	3.20	12	668.84	668.75	19	0.50%	CLASS III	---
62.4	261+12.04	26' LT	FF-north	12	62.3	2X3-FT	---	HS	---	672.04	671.21	3.14	12	668.90	668.84	12	0.50%	CLASS III	---
62.6	261+23.66	7' RT	FF-north	7	62.1	2X3-FT	---	HS	---	672.36	671.53	3.62	12	668.75	668.71	7	0.50%	CLASS III	---
62.7	261+23.42	26' RT	FF-north	19	62.5	2X3-FT	---	HS	---	672.04	671.21	3.19	12	668.85	668.75	19	0.50%	CLASS III	---
62.8	261+11.43	26' RT	FF-north	12	62.7	2X3-FT	---	HS	---	672.04	671.21	3.13	12	668.91	668.85	12	0.50%	CLASS III	---
63.1	264+25.43	0' RT	FF-north	302	62.1	---	4-FT DIA.	---	J	674.07	672.82	4.07	18	670.00	668.49	302	0.50%	CLASS III	---
63.2	264+25.75	26' LT	FF-north	26	63.1	2X3-FT	---	HS	---	673.58	672.75	3.18	12	670.40	670.27	26	0.50%	CLASS III	---
63.3	264+25.11	26' RT	FF-north	26	63.1	2X3-FT	---	HS	---	673.57	672.74	3.17	12	670.40	670.27	26	0.51%	CLASS III	---
64	267+35.97	58' RT	FF-north	---	---	---	---	---	---	---	---	---	24	---	---	---	---	---	APRON ENDWALL
64.1	267+55.09	1' LT	FF-north	70	64	---	5-FT DIA.	---	C	675.45	675.20	4.65	24	671.80	671.65	70	0.22%	CLASS III	---
64.2	267+54.34	47' LT	FF-north	47	64.1	---	---	---	---	---	---	---	24	672.20	671.80	47	0.87%	---	APRON ENDWALL
65.1	269+40.00	0' RT	FF-north	185	64.1	---	5-FT DIA.	---	C	675.72	674.47	3.40	18	672.32	671.80	185	0.28%	CLASS IV	---
65.2	269+40.00	7' LT	FF-north	7	65.1	2X3-FT	---	HS	---	675.52	674.69	3.02	12	672.50	672.42	7	1.23%	CLASS III	---
65.3	269+40.00	26' LT	FF-north	19	65.2	2X3-FT	---	HS	---	675.20	674.37	2.59	12	672.61	672.50	19	0.58%	CLASS IV	---
65.4	269+27.99	26' LT	FF-north	13	65.3	2X3-FT	---	HS	---	675.22	674.39	2.56	12	672.66	672.61	13	0.42%	CLASS IV	---
65.5	269+40.00	7' RT	FF-north	7	65.1	2X3-FT	---	HS	---	675.52	674.69	3.02	12	672.50	672.42	7	1.23%	CLASS III	---
65.6	269+40.00	26' RT	FF-north	19	65.5	2X3-FT	---	HS	---	675.20	674.37	2.60	12	672.60	672.50	19	0.53%	CLASS IV	---
65.7	269+27.99	26' RT	FF-north	13	65.5	2X3-FT	---	HS	---	675.22	674.39	2.52	12	672.70	672.60	13	0.83%	CLASS IV	---
65.1	270+29.26	0' RT	FF-north	90	65.1	---	5-FT DIA.	---	C	675.00	674.75	3.38	15	672.62	672.32	90	0.34%	CLASS III	---
66.2	270+29.76	22' RT	FF-north	22	66.1	2X3-FT	---	HS	---	675.36	674.53	2.64	12	672.72	672.62	22	0.46%	CLASS IV	---
66.3	270+29.60	7' LT	FF-north	7	66.1	2X3-FT	---	HS	---	675.84	675.01	2.89	12	672.95	672.85	7	1.51%	CLASS IV	---
71	256+23.01	74' RT	FF-north	---	---	---	---	---	---	---	---	---	24	---	---	---	---	---	APRON ENDWALL
71.1	256+24.93	27' RT	FF-north	47	71	---	4-FT DIA.	---	HS	680.26	679.01	10.26	24	670.00	668.00	47	4.27%	CLASS III	---
71.2	256+25.16	8' RT	FF-north	20	71.1	---	4-FT DIA.	---	HS	680.78	679.53	5.68	24	675.10	674.90	20	1.05%	CLASS III	---
71.3	256+25.29	1' RT	FF-north	7	71.2	---	5-FT DIA.	---	C	680.94	679.69	5.73	24	675.21	675.11	7	1.53%	CLASS III	---
71.4	256+25.30	5' LT	FF-north	7	71.3	2X3-FT	---	HS	---	680.78	679.95	4.47	12	676.31	676.24	7	1.05%	CLASS III	---
71.5	256+25.54	20' LT	FF-north	16	71.4	2X3-FT	---	HS	---	680.51	679.68	4.03	12	676.48	676.31	16	1.12%	CLASS III	---
72.1	254+31.94	2' LT	FF-north	194	71.3	---	5-FT DIA.	---	HS	682.42	681.17	2.92	24	679.50	675.31	194	2.17%	CLASS IV	---
73.1	254+10.71	5' LT	FF-north	22	72.1	---	5-FT DIA.	---	T	685.59	685.34	6.59	24	680.00	679.50	22	2.33%	CLASS III	---
73.2	254+10.76	5' RT	FF-north	10	73.1	2X3-FT	---	T	---	685.60	685.35	5.75	15	680.85	680.75	10	1.03%	CLASS III	---
73.3	253+73.52	73' LT	FF-north	78	73.1	2X3-FT	---	HS	---	688.14	687.31	4.59	12	683.55	681.30	78	2.92%	CLASS III	---
74.1	254+06.75	55' RT	FF-north	61	73.2	2X3-FT	---	-M	---	687.34	686.51	5.59	15	681.75	680.85	61	1.48%	CLASS III	---
75.1	252+84.41	2' LT	FF-north	127	73.1	---	4-FT DIA.	HS	---	690.43	689.60	5.71	24	684.72	680.00	127	3.72%	CLASS III	---
75.2	252+75.18	4' RT	FF-north	12	75.1	---	4-FT DIA.	---	C	690.57	689.32	5.57	24	685.00	684.72	12	2.55%	CLASS III	---
75.3	252+77.24	10' LT	FF-north	15	75.2	2X3-FT	---	HS	---	690.66	689.83	4.56	12	686.10	686.00	15	0.71%	CLASS III	---
75.4	252+73.57	27' LT	FF-centre.	18	75.3	2X3-FT	---	HS	---	690.37	689.54	4.06	12	686.31	686.15	18	0.91%	CLASS III	---
75.5	252+73.14	18' RT	FF-centre.	14	75.2	2X3-FT	---	HS	---	690.74	689.91	4.59	12	686.15	686.00	14	1.11%	CLASS III	---
75.6	252+72.04	41' RT	FF-centre.	24	75.5	2X3-FT	---	HS	---	690.13	689.30	3.78	12	685.35	686.15	24	0.85%	CLASS III	---
75.1	253+49.00	94' RT	FF-centre.	50	74.1	2X3-FT	---	HS	---	688.80	687.97	6.80	15	682.00	681.75	50	0.51%	CLASS III	---
78	668+04.01	61' RT	FF-centre.	---	---	---	---	---	---	---	---	---	24	---	---	---	---	---	APRON ENDWALL
78.1	666+95.00	47' RT	WIS 29 EB	110	78	---	4-FT DIA.	---	J	671.35	670.10	7.85	24	663.70	663.15	110	0.50%	CLASS III	---
78.2	665+35.00	47' RT	WIS 29 EB	160	78.1	---	5-FT DIA.	---	J	672.80	671.55	8.30	24	664.50	663.70	160	0.50%	CLASS III	---
78.3	665+31.01	79' RT	WIS 29 EB	33	78.2	---	---	---	---	---	---	---	24	664.62	664.50	33	0.38%	---	APRON ENDWALL



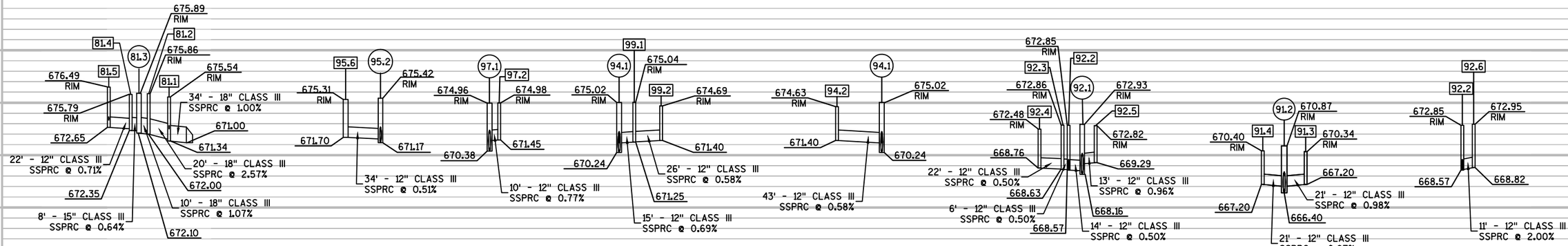
NOTE

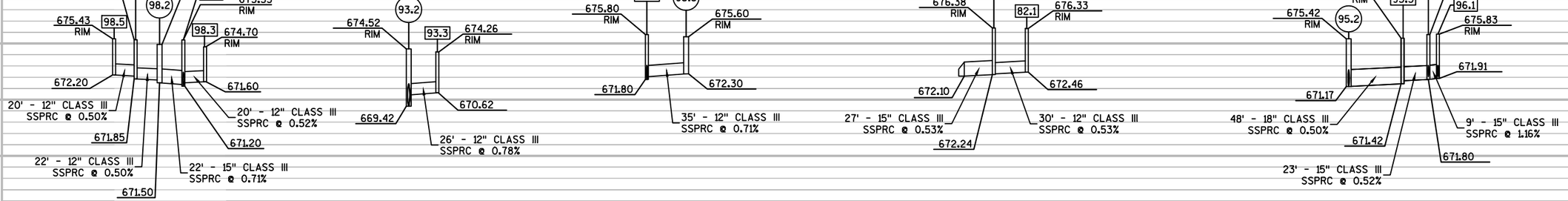
(1) UNDERDRAIN TAP. TERMINATE AND CAP PIPE 5 FEET IN BOTH UPSTREAM DIRECTIONS.

*CONSTRUCTION ENGINEER CAN ELIMINATE THE UNDERDRAIN STUBS IF THE FILL MATERIALS ARE GRANULAR AND NOT CLAY.



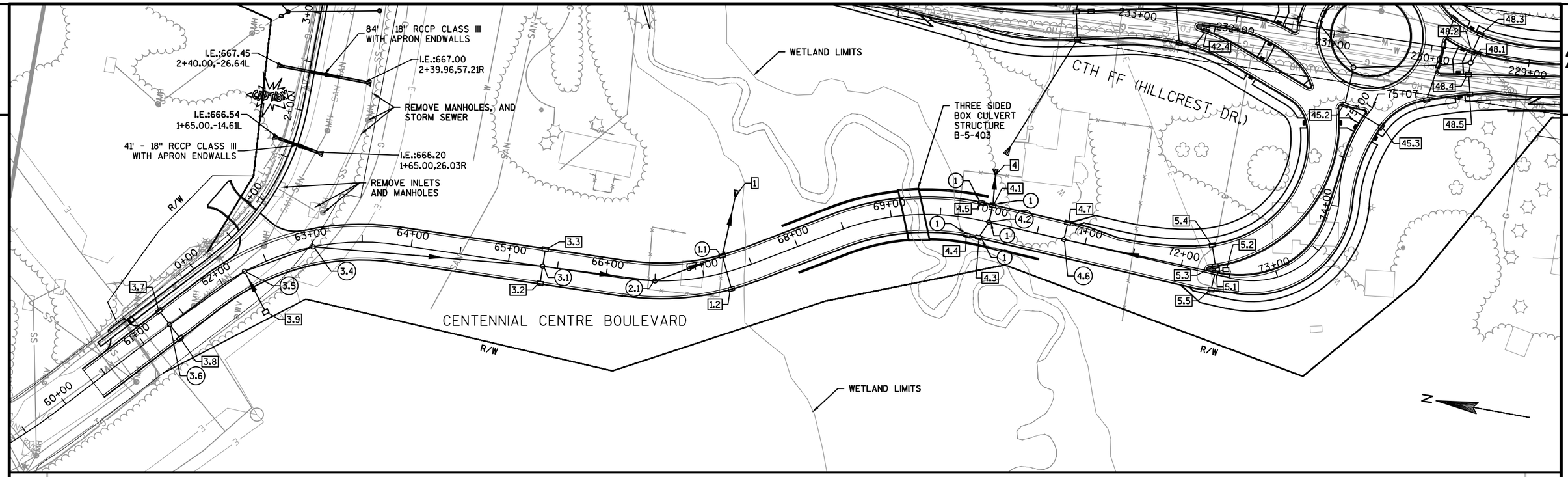
PROJECT NO:9200-04-71	HWY:STH 29	COUNTY:BROWN	STORM SEWER PLAN - CTH C	SHEET 104 E





PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	STORM SEWER PLAN - CTH C	SHEET 105	E

STRUCT NO.	STATION	OFFSET	LOCATION	C-C (FT)	TO STRUCT	INLET SIZE	MANHOLE SIZE	INLET COVER TYPE	MAN-HOLE COVER TYPE	R.M./ GRATE ELEV.	T.O.S. ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	DISCHARGE PIPE INLET ELEV.	DISCHARGE PIPE DISCHARGE ELEV.	DISCHARGE PIPE LENGTH (FT)	DISCHARGE PIPE SLOPE (%)	REINFORCED CONCRETE CLASS	REMARKS
91	395+61.62	43.6 LT	C-west	---	---	---	---	---	---	---	---	---	18	---	---	---	---	---	APRON ENDWALL
81.1	395+52.20	17.5 LT	C-west	34	91	2X3-FT	---	HS	---	675.54	674.71	4.20	18	671.34	671.00	34	1.00%	CLASS ..	---
81.2	395+52.18	2' RT	C-west	20	81.1	2X3-FT	---	HS	---	675.85	675.03	3.85	18	672.03	671.50	20	2.57%	CLASS ..	---
81.3	395+52.16	11.4 RT	C-west	10	81.2	---	4-FT DIA.	---	C	675.85	674.64	3.75	18	672.10	672.00	10	1.07%	CLASS ..	---
81.4	395+52.20	19.2 RT	C-west	8	81.3	2X3-FT	---	HS	---	675.73	674.96	3.44	15	672.35	672.30	8	0.64%	CLASS ..	---
81.5	395+52.21	40.2 RT	C-west	22	82.2	2X3-FT	---	HS	---	676.46	675.66	3.84	12	672.65	672.50	22	0.71%	CLASS ..	---
82	395+54.24	55.4 RT	C-west	---	---	---	---	---	---	---	---	---	15	---	---	---	---	---	APRON ENDWALL
82.1	395+76.44	33.5 RT	C-west	27	91.1	2X3-FT	---	HS	---	676.33	675.50	4.08	15	672.24	672.10	27	0.53%	CLASS ..	---
82.2	395+47.18	30.2 RT	C-west	30	91.2	2X3-FT	---	HS	---	676.38	675.55	3.92	12	672.46	672.30	30	0.53%	CLASS ..	---
91	405+88.29	28.9 RT	C-east	---	---	---	---	---	---	---	---	---	24	---	---	---	---	---	APRON ENDWALL
91.1	405+58.62	0' RT	C-east	43	91	---	4-FT DIA.	---	J	670.60	669.35	4.25	24	665.32	666.20	43	0.26%	CLASS ..	---
91.2	405+42.62	0.1 LT	C-east	15	91.1	---	4-FT DIA.	---	J	670.87	669.62	4.47	24	665.40	666.32	16	0.50%	CLASS ..	---
91.3	405+43.41	20.5 LT	C-east	21	91.2	2X3-FT	---	HS	---	670.34	669.51	3.13	12	667.20	667.00	21	0.96%	CLASS ..	---
91.4	405+41.72	20.5 RT	C-east	21	91.2	2X3-FT	---	HS	---	670.40	669.57	3.23	12	667.20	667.00	21	0.97%	CLASS ..	---
92.1	404+53.08	20.3 LT	C-east	191	91.2	---	5-FT DIA.	---	J	672.33	671.68	4.77	24	666.18	666.40	191	0.92%	CLASS ..	---
92.2	404+51.71	7.3 LT	C-east	14	92.1	2X3-FT	---	HS	---	672.85	672.02	4.29	12	668.57	668.50	14	0.50%	CLASS ..	---
92.3	404+51.20	1.5 LT	C-east	6	92.2	2X3-FT	---	HS	---	672.85	672.03	4.24	12	668.63	668.60	6	0.50%	CLASS ..	---
92.4	404+51.11	20.5 RT	C-east	22	92.3	2X3-FT	---	HS	---	672.48	671.65	3.72	12	668.76	668.65	22	0.50%	CLASS ..	---
92.5	404+54.39	33' LT	C-east	13	92.1	2X3-FT	---	HS	---	672.82	671.99	3.53	12	669.29	669.16	13	0.96%	CLASS ..	---
92.6	404+41.04	8.7' LT	C-east	11	92.2	2X3-FT	---	HS	---	672.85	672.12	4.13	12	668.82	668.60	11	2.00%	CLASS ..	---
93.1	404+22.81	5.3 LT	C-east	34	92.1	---	4-FT DIA.	---	C	673.34	672.09	5.00	24	668.34	668.17	34	0.50%	CLASS ..	---
93.2	401-96.79	4.5' LT	C-east	224	93.1	---	4-FT DIA.	---	C	674.55	673.30	5.13	24	668.42	668.35	224	0.46%	CLASS ..	---
93.3	401-96.48	23.5 LT	C-east	25	93.2	2X3-FT	---	HS	---	674.26	673.43	3.64	12	670.62	670.42	25	0.80%	CLASS ..	---
94.1	403+73.98	4.2 LT	C-east	125	93.2	---	4-FT DIA.	---	-S	675.02	673.77	4.78	24	670.24	669.43	125	0.65%	CLASS ..	---
94.2	403+84.75	37.2 RT	C-east	43	94.1	2X3-FT	---	HS	---	674.83	673.80	3.23	12	671.40	671.15	43	0.58%	CLASS ..	---
95.1	403+00.00	45.1 RT	County C	66	97.1	---	5-FT DIA.	---	J	676.78	675.53	6.07	24	670.71	670.38	66	0.50%	CLASS ..	---
95.2	393+68.86	58.6 RT	C-west	35	95.1	---	4-FT DIA.	---	T	675.42	674.17	4.25	18	671.17	671.00	35	0.49%	CLASS ..	---
95.3	395+21.90	45.8 RT	C-west	48	95.2	2X3-FT	---	HS	---	675.47	674.64	4.05	18	671.42	671.18	48	0.50%	CLASS ..	---
95.4	395+17.42	24.3 RT	C-west	23	95.3	2X3-FT	---	HS	---	675.80	674.97	4.00	15	671.80	671.68	23	0.52%	CLASS ..	---
95.5	398+92.16	0.1 RT	C-west	35	95.4	---	4-FT DIA.	---	C	675.50	674.35	3.30	12	672.30	672.05	35	0.71%	CLASS ..	---
95.6	272+67.07	49' LT	FF-norm	34	95.2	2X3-FT	---	HS	---	675.31	674.48	3.61	12	671.70	671.53	34	0.51%	CLASS ..	---
96.1	393+25.44	21.2 RT	C-west	9	95.4	2X3-FT	---	HS	---	675.83	675.00	3.92	15	671.91	671.81	9	1.16%	CLASS ..	---
96.2	393+30.02	14' LT	C-west	36	96.1	2X3-FT	---	HS	---	675.80	674.97	3.57	12	672.23	672.05	36	0.51%	CLASS ..	---
96.3	393+23.42	22' LT	C-west	11	96.2	2X3-FT	---	HS	---	675.81	674.98	3.53	12	672.28	672.23	11	0.48%	CLASS ..	---
96.4	393+35.68	43.1 LT	C-west	25	96.3	2X3-FT	---	HS	---	675.44	674.61	3.04	12	672.40	672.28	25	0.49%	CLASS ..	---
97.1	403+53.19	7.3' LT	C-east	22	94.1	---	4-FT DIA.	---	T	674.36	673.71	4.58	24	670.38	670.25	22	0.62%	CLASS ..	---
97.2	403+53.36	16.5 LT	C-east	10	97.1	2X3-FT	---	T	---	674.38	673.73	3.53	12	671.45	671.38	10	0.77%	CLASS ..	---
98.1	272+28.63	17.8 RT	FF-norm	35	100.1	2X3-FT	---	HS	---	675.33	674.50	4.13	15	671.20	671.00	35	0.57%	CLASS ..	---
98.2	272+28.43	3.5' LT	FF-norm	22	98.1	---	4-FT DIA.	---	C	674.82	673.67	3.42	15	671.50	671.35	22	0.71%	CLASS ..	---
98.3	272+28.59	37' RT	FF-norm	20	98.1	2X3-FT	---	HS	---	674.70	673.87	3.10	12	671.60	671.50	20	0.52%	CLASS ..	---
98.4	272+28.31	24.9 LT	FF-norm	22	98.2	2X3-FT	---	HS	---	675.35	674.52	3.50	12	671.85	671.74	22	0.50%	CLASS ..	---
98.5	272+28.04	43.9 LT	FF-norm	20	98.4	2X3-FT	---	HS	---	675.43	674.60	3.23	12	672.20	672.10	20	0.50%	CLASS ..	---
99.1	403+74.29	18.5 LT	C-east	15	94.1	2X3-FT	---	HS	---	675.04	674.21	3.75	12	671.25	671.15	15	0.69%	CLASS ..	---
99.2	403+90.00	39' LT	C-east	26	99.1	2X3-FT	---	HS	---	674.88	673.86	3.28	12	671.40	671.25	26	0.58%	CLASS ..	---
100.1	403+01.34	61.5 RT	C-east	45	95.1	2X3-FT	---	HS	---	675.58	674.76	4.55	18	671.00	670.72	45	0.63%	CLASS ..	---
100.2	393+90.54	55.9 RT	C-west	33	100.1	2X3-FT	---	HS	---	675.53	674.80	3.93	12	671.70	671.50	33	0.62%	CLASS ..	---

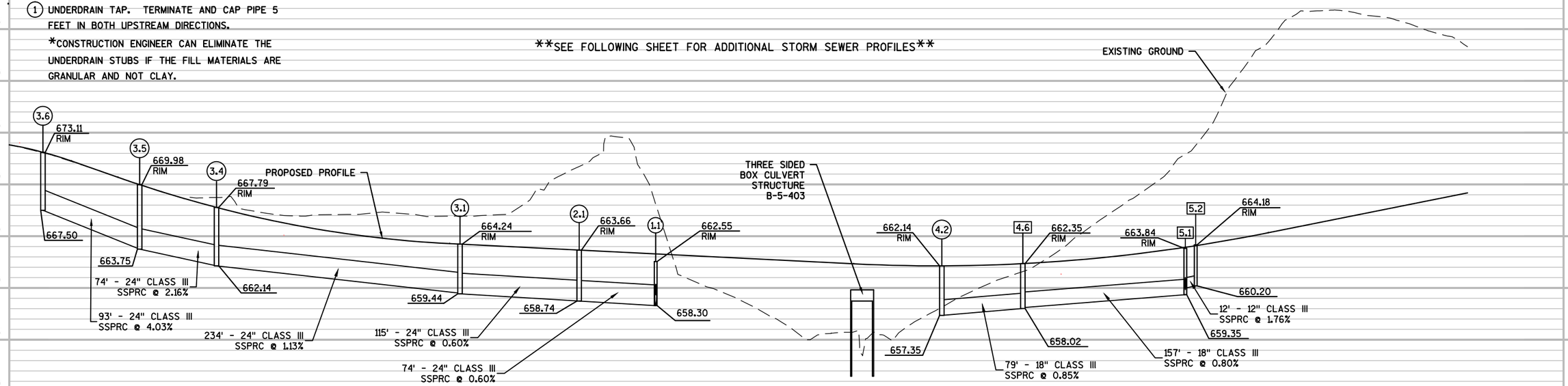


NOTE

(1) UNDERDRAIN TAP. TERMINATE AND CAP PIPE 5 FEET IN BOTH UPSTREAM DIRECTIONS.

*CONSTRUCTION ENGINEER CAN ELIMINATE THE UNDERDRAIN STUBS IF THE FILL MATERIALS ARE GRANULAR AND NOT CLAY.

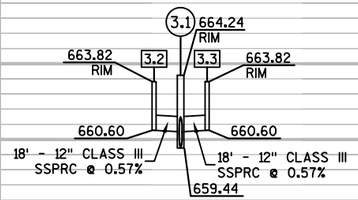
SEE FOLLOWING SHEET FOR ADDITIONAL STORM SEWER PROFILES

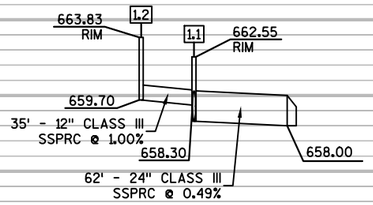


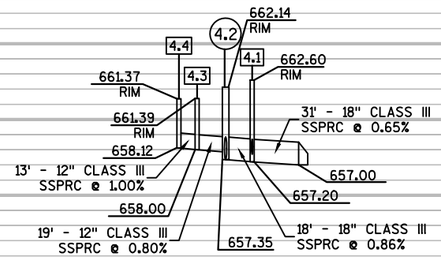
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	STORM SEWER PLAN - CENTENNIAL CENTRE BOULEVARD	SHEET 107 E

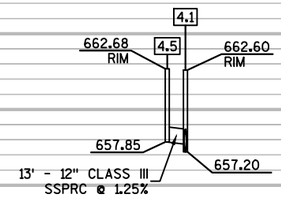
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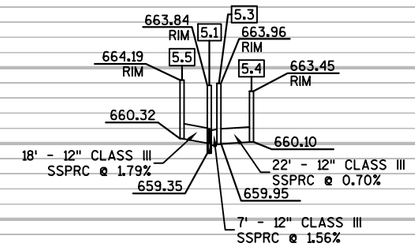
WISDOT/CADDS SHEET 41

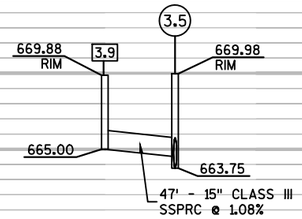


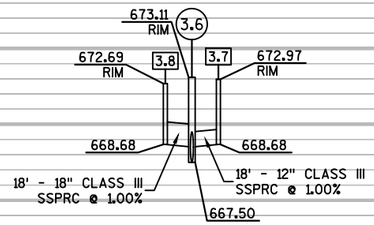


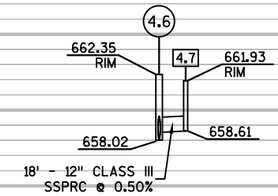












PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	STORM SEWER PLAN - CENTENNIAL CENTRE BOULEVARD	SHEET 108	E

STRUCT NO.	STATION	OFFSET	LOCATION	C-C (FT)	TO STRUCT	INLET SIZE	MANHOLE SIZE	INLET COVER TYPE	MANHOLE COVER TYPE	RIM/ GRATE ELEV.	T.O.S. ELEV.	DEPTH (FT)	DISCHARGE PIPE					REINFORCED CONCRETE CLASS	LENGTH (FT)
													SIZE (IN)	INLET ELEV.	DISCHARGE ELEV.	LENGTH (FT)	SLOPE (%)		
1	67+59.36	70' LT	CENT. CENTRE BLVD.	---	---	---	---	---	---	---	---	---	24	---	---	---	---	---	APRON ENDWALL
1.1	67+23.76	18' LT	CENT. CENTRE BLVD.	62	1	---	5-FT DIA.	HS	---	662.55	661.72	4.25	24	658.30	658.00	62	0.49%	CLASS III	---
1.2	67+23.76	18' RT	CENT. CENTRE BLVD.	35	1.1	2X3-FT	---	HS	---	663.83	663.00	4.13	12	659.70	659.35	35	1.00%	CLASS III	---
2.1	66+50.00	0' RT	CENT. CENTRE BLVD.	74	1.1	---	4-FT DIA.	---	J	663.66	662.41	4.92	24	658.74	658.30	74	0.60%	CLASS III	---
3.1	65+35.00	0' RT	CENT. CENTRE BLVD.	115	2.1	---	4-FT DIA.	---	J	664.24	662.99	4.80	24	659.44	658.75	115	0.60%	CLASS III	---
3.2	65+35.00	17' RT	CENT. CENTRE BLVD.	18	3.1	2X3-FT	---	HS	---	663.82	662.99	3.22	12	660.60	660.50	18	0.57%	CLASS III	---
3.3	65+35.00	18' LT	CENT. CENTRE BLVD.	18	3.1	2X3-FT	---	HS	---	663.82	662.99	3.22	12	660.60	660.50	18	0.57%	CLASS III	---
3.4	63+00.00	0' RT	CENT. CENTRE BLVD.	234	3.1	---	4-FT DIA.	---	J	667.79	666.54	5.65	24	662.14	659.50	234	1.13%	CLASS III	---
3.5	62+25.77	0' RT	CENT. CENTRE BLVD.	74	3.4	---	4-FT DIA.	---	J	669.98	668.73	6.23	24	663.75	662.15	74	2.16%	CLASS III	---
3.6	61+32.51	0' RT	CENT. CENTRE BLVD.	94	3.5	---	4-FT DIA.	---	J	673.11	671.86	5.61	24	667.50	663.75	94	4.03%	CLASS III	---
3.7	61+32.51	18' LT	CENT. CENTRE BLVD.	18	3.6	2X3-FT	---	HS	---	672.97	672.14	4.30	12	668.68	668.50	18	1.00%	CLASS III	---
3.8	61+32.51	18' RT	CENT. CENTRE BLVD.	18	3.6	2X3-FT	---	HS	---	672.69	671.86	4.02	18	668.68	668.50	18	1.00%	CLASS III	---
3.9	62+25.00	46' RT	CENT. CENTRE BLVD.	47	3.5	INLET MEDIAN 1 GRATE	---	MS	---	669.88	669.88	4.88	15	665.00	664.50	47	1.08%	CLASS III	---
4	69+95.65	48' LT	CENT. CENTRE BLVD.	---	---	---	---	---	---	---	---	---	18	---	---	---	---	---	APRON ENDWALL
4.1	70+00.00	17' LT	CENT. CENTRE BLVD.	31	4	2X3-FT	---	HS	---	662.60	661.77	5.40	18	657.20	657.00	31	0.65%	CLASS III	---
4.2	70+00.00	0' RT	CENT. CENTRE BLVD.	18	4.1	---	4-FT DIA.	---	J	662.14	660.89	4.79	18	657.35	657.20	18	0.86%	CLASS III	---
4.3	69+93.21	18' RT	CENT. CENTRE BLVD.	19	4.2	2X3-FT	---	HS	---	661.39	660.56	3.39	12	658.00	657.85	19	0.80%	CLASS III	---
4.4	69+80.30	18' RT	CENT. CENTRE BLVD.	13	4.3	2X3-FT	---	HS	---	661.37	660.54	3.25	12	658.12	658.00	13	1.00%	CLASS III	---
4.5	69+88.34	18' LT	CENT. CENTRE BLVD.	12	4.1	2X3-FT	---	HS	---	662.68	661.85	4.83	12	657.85	657.70	12	1.25%	CLASS III	---
4.6	70+78.06	0' RT	CENT. CENTRE BLVD.	79	4.2	---	4-FT DIA.	---	J	662.35	661.10	4.33	18	658.02	657.35	79	0.85%	CLASS III	---
4.7	70+78.06	18' LT	CENT. CENTRE BLVD.	18	4.6	2X3-FT	---	HS	---	661.93	661.10	3.32	12	658.61	658.52	18	0.50%	CLASS III	---
5.1	72+35.00	2' LT	CENT. CENTRE BLVD.	157	4.6	2X3-FT	---	HS	---	663.84	663.01	4.49	18	659.35	658.10	157	0.80%	CLASS III	---
5.2	72+45.04	7' LT	CENT. CENTRE BLVD.	12	5.1	INLET MEDIAN 1 GRATE	---	MS	---	664.18	664.18	3.98	12	660.20	660.00	12	1.76%	CLASS III	---
5.3	72+33.90	8' LT	CENT. CENTRE BLVD.	7	5.1	2X3-FT	---	HS	---	663.96	663.13	4.01	12	659.95	659.85	7	1.56%	CLASS III	---
5.4	72+26.02	28' LT	CENT. CENTRE BLVD.	22	5.3	2X3-FT	---	HS	---	663.45	662.62	3.35	12	660.10	659.95	22	0.70%	CLASS III	---
5.5	72+35.00	16' RT	CENT. CENTRE BLVD.	18	5.1	2X3-FT	---	HS	---	664.19	663.36	3.87	12	660.32	660.00	18	1.79%	CLASS III	---

STH 29/32

SE RAMP

CTH FF (HILLCREST DR.)

WETLAND

BOX CULVERT EXTENTION

WETLAND

247+54

247+00

246+00

667+00 668+00 669+00 670+00 671+00 672+00 673+00 674+00 675+00 676+00 677+00 678+00 679+00 680+00 681+00

36.7 36.6 36.3 36.5 36.2 36.1 35.2 35.1 34.1 34.2 33.3 33.4 33.1 33.2 38.6 38.4 38.5 38.3 40.3 40.2 40.1 38.2 38.1 38 40.5 40.4 37.2 37.1 37

N

SEE FOLLOWING SHEETS FOR ADDITIONAL STORM SEWER PROFILES

38.4
694.97 RIM
690.00
193' - 15" CLASS III SSPRC @ 3.64%
688.14 RIM
38.3
38.2
682.80
35' - 15" CLASS III SSPRC @ 5.15%
686.41 RIM
676.00

PROPOSED PROFILE

670.80 RIM
37.2
37.1
670.75 RIM
666.40
665.76
125' - 15" CLASS III SSPRC @ 0.50%

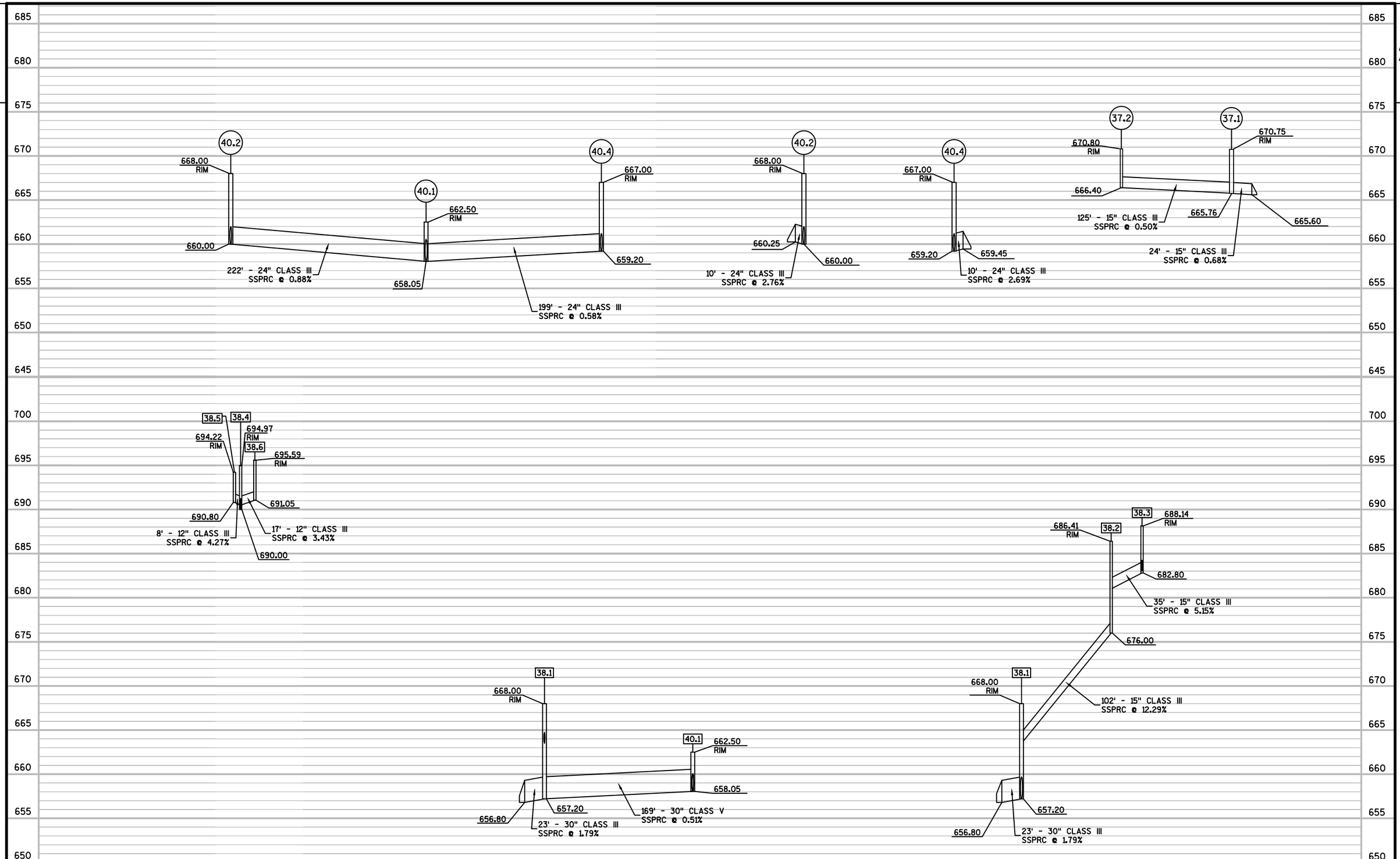
EXISTING GROUND

695 690 685 680 675 670 665 660 655 650

PROJECT NO: 9200-04-00	HWY: STH 29	COUNTY: BROWN	STORM SEWER PLAN - SE RAMP	SHEET 110 E

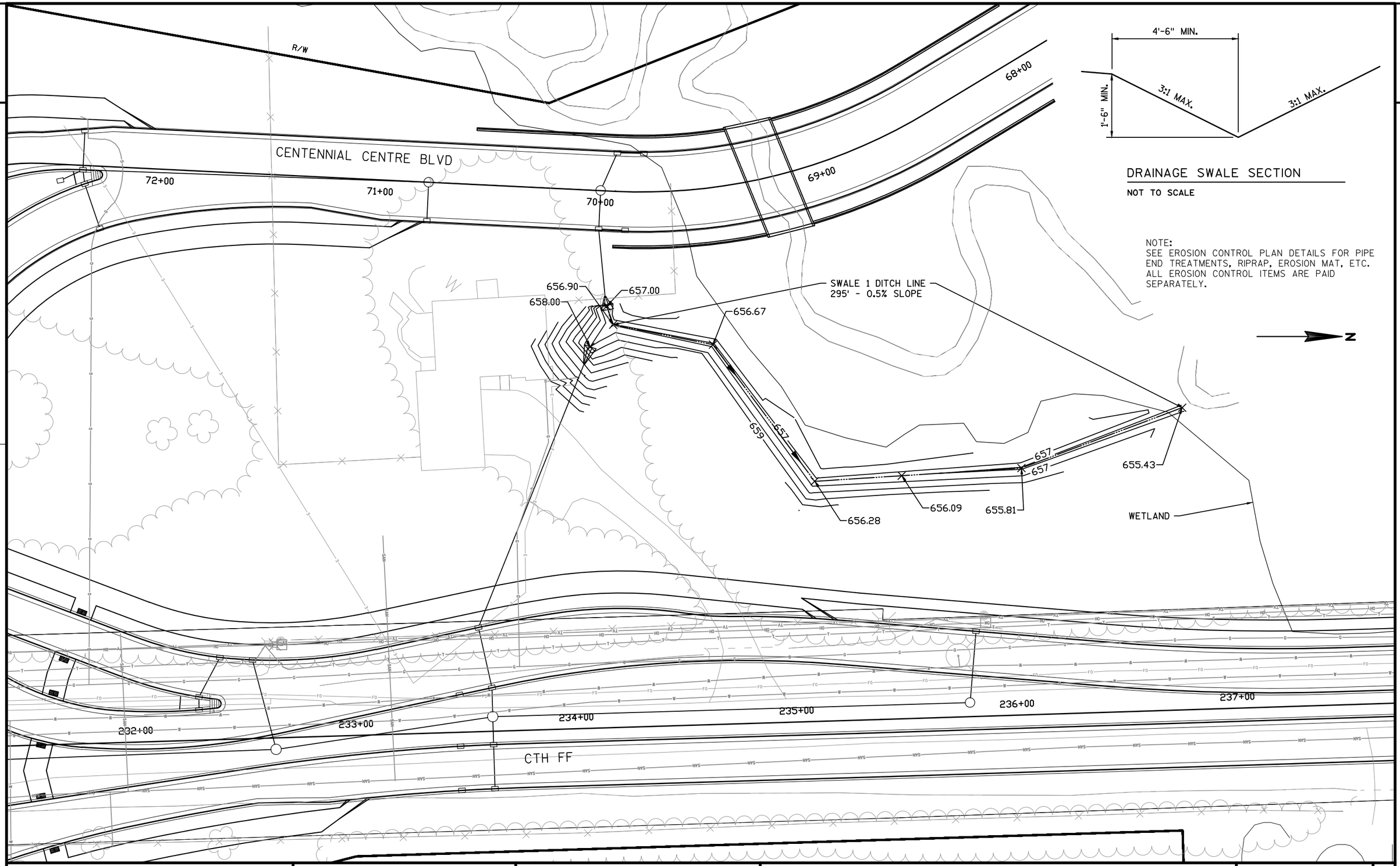
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WISDOT/CADDS SHEET 41



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	STORM SEWER PLAN - SE RAMP	SHEET 111	E

FILE NAME : P:\FILES\1134\92000400\SHEETSPLAN\SE RAMP\022517_SS.DWG PLOT DATE : 3/19/2013 11:25 AM PLOT BY : RJJ PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 41



DRAINAGE SWALE SECTION

NOT TO SCALE

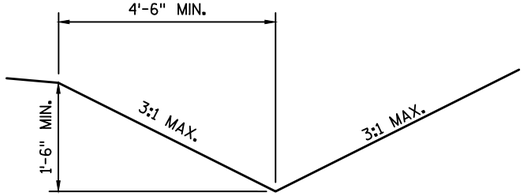
NOTE:
SEE EROSION CONTROL PLAN DETAILS FOR PIPE END TREATMENTS, RIPRAP, EROSION MAT, ETC. ALL EROSION CONTROL ITEMS ARE PAID SEPARATELY.

2

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRASS SWALES	SHEET	E

FILE NAME : P:\FILES\1134\92000400\SHEETSPLAN\SWALE.DWG PLOT DATE : 3/19/2013 10:41 AM PLOT BY : ROX PLOT NAME : PLOT SCALE : 1:40_XREF

NOTE:
SEE EROSION CONTROL PLAN DETAILS FOR PIPE END TREATMENTS, RIPRAP, EROSION MAT, ETC. ALL EROSION CONTROL ITEMS ARE PAID SEPARATELY.



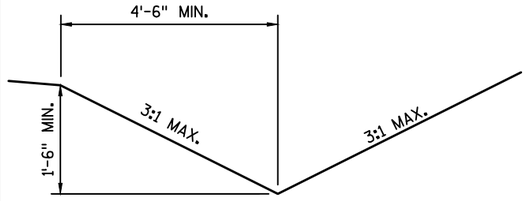
DRAINAGE SWALE SECTION

NOT TO SCALE

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRASS SWALES	SHEET	E

FILE NAME : P:\FILES\1134\92000400\SHEETSPLAN\SWALE.DWG PLOT DATE : 3/19/2013 10:41 AM PLOT BY : ROX PLOT NAME : PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 44



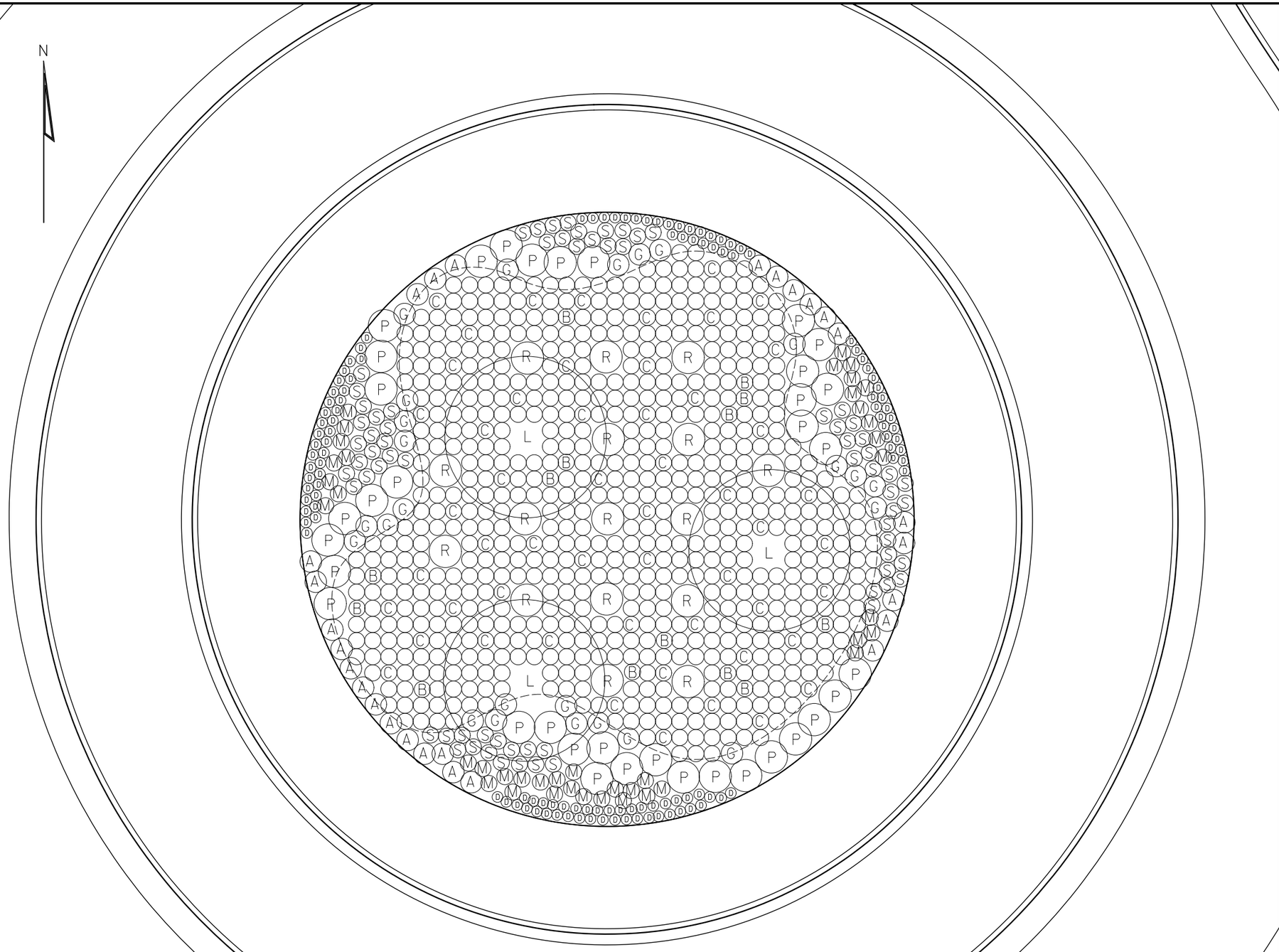
DRAINAGE SWALE SECTION

NOT TO SCALE

256+00
257+00
258+00
259+00
260+00
SHERWOOD STREET
R/W
666.87
667
668
667
666.61
SWALE 3 DITCH LINE
255' - 0.65% SLOPE
666.24
666.36
667
665.94
665.50
665.21
666.10
666
667
665.79
CATHERINE DRIVE
SWALE 4 DITCH LINE
206' - 0.85% SLOPE
666.60
667
666.04
667
666
665
665.69
665.30
664.85
SEPTIC
POOL
82336
667.25
N

NOTE:
SEE EROSION CONTROL PLAN DETAILS FOR PIPE END TREATMENTS, RIPRAP, EROSION MAT, ETC. ALL EROSION CONTROL ITEMS ARE PAID SEPARATELY.

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	GRASS SWALES	SHEET 114	E



PLANTING KEY

L	IVORY SILK LILAC (TREES, SYRINGA RETICULATA)
P	ABBOTSWOOD POTENTILLA (SHRUBS, POTENTILLA FRUTICOAS)
○	LITTLE BLUESTEM (GRASSES, SCHIZACHYRIUM SCOPARIUM)
A	PROFESSOR KIPPENBEG ASTER (PERENNIAL, ASTER NOVAE - ANGLIAE)
B	BUTTERFLY FLOWER (PERENNIAL, ASCLEPIAS TUBEROSA)
C	'BRAVADO' CONEFLOWER (PERENNIAL, ECHINACEA PURPUREA)
D	'STELLA D'ORO DAYLILLY (PERENNIAL, HEMROCALIS)
G	PURPLE GAS PLANT (PERENNIAL, DICATMNUS ALBUS)
M	'FIREBALL' MONARDA (PERENNIAL, MONARDA DIDYMA)
R	RUSSIAN SAGE (PERENNIAL, PEROVSKIA ATRIPLICIFOLIA)
S	'AUTUMN FIRE' SEDUM (PERENNIAL, SEDUM X)

1. EXISTING SOIL IN PLANTING AREA TO BE REMOVED TO A DEPTH OF 24" AND REPLACED WITH PLANTING MIXTURE.
2. MULCH ENTIRE PLANTING BED WITH SHREDDED MULCH TO A MAXIMUM DEPTH OF 3 INCHES. DO NOT BURY PLANT VEGETATION WITH MULCH.
3. IRRIGATION PIPES ARE SHOWN ON PLAN AND PROFILE SHEETS AT THE FOUR ROUNDABOUT LOCATIONS. CONTRACTOR WILL PERFORM WORK BUT WILL NEED TO COORDINATE WITH BOTH VILLAGE OF HOWARD AND VILLAGE OF HOBART.

0 2 4 6 8 10 15 20
SCALE IN FEET

2

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLANTING DETAILS - CTH FF & STH 29 ROUNDABOUTS	SHEET 115	E



Ivory Silk Lilac
Syringa reticulata (Ivory Silk)
20-30' height, 15' spread
June bloom, ivory



Little Bluestem
Schizachyrium scoparium
36" height, 18" spread
August-September bloom



Russian Sage
Perovskia atriplicifolia
48" height, 36" spread
July-October bloom



Abbotswood Potentilla
Potentilla frut cosa 'abbottswood'
24" height, 36" spread
June-September bloom, yellow



PURPLE GAS PLANT
Dictamnus albus'Purpureus'
36" height, 24" spread
May June bloom, purple



Professor Kippenberg Aster
12-18" height, 12-24" spread
Fall bloom, lavender



CONEFLOWER 'Bravado'
Echinacea purpurea 'Bravado'
48" height, 18" spread
July-August bloom, purple



SEDUM, 'Autumn Fire'
sedum x 'autumn fire'
18" height, 18" spread
August-September bloom,bronze/red



DAYLILY 'Stella d'Orol'
hemerocalis 'stella d'Orol'
11" height
June-September bloom, yellow



Butterfly Flower
asclepias tuberosa
36" height, 18" spread
August-October bloom, orange



MONARDA 'Fireball'
Monarda didyma 'fireball'
16" height, 16"-24" spread
July-August bloom, red

PLANT SCHEDULE

SYM.	QTY	COMMON NAME	LATIN NAME	ROOT
		TREES		
L	3	IVORY SILK LILAC	Syringa reticulata	#25 POT
		SHRUBS		
P	36	ABBOTSWOOD POTENTILLA	Potentilla fruticosa 'Abbotswood'	#2 POT
		PERENNIALS		
A	27	PROFESSOR KIPPENBERG ASTER	Aster novae-angliae	#1 POT
B	14	BUTTERFLY FLOWER	Asclepias tuberosa	#1 POT
C	53	'BRAVADO' CONEFLOWER	Echinacea purpurea 'Bravado'	#1 POT
D	119	'STELLA D'ORO DAYLILLY	Hemrocalis 'stella d'oro'	#1 POT
G	25	PURPLE GAS PLANT	Dictamnus albus 'Purpureus'	#1 POT
M	41	'FIREBALL' MONARDA	Monarda didyma 'fireball'	#1 POT
R	16	RUSSIAN SAGE	Perovskia atriplicifolia	#2 POT
S	71	'AUTUMN FIRE' SEDUM	Sedum x 'Autumn fire'	#1 POT
		GRASSES		
	616	LITTLE BLUESTEM	Schizachyrium scoparium	4" POT

SIGNING NOTES

THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRAFFIC UNIT, 920-492-5653, A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING IF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.

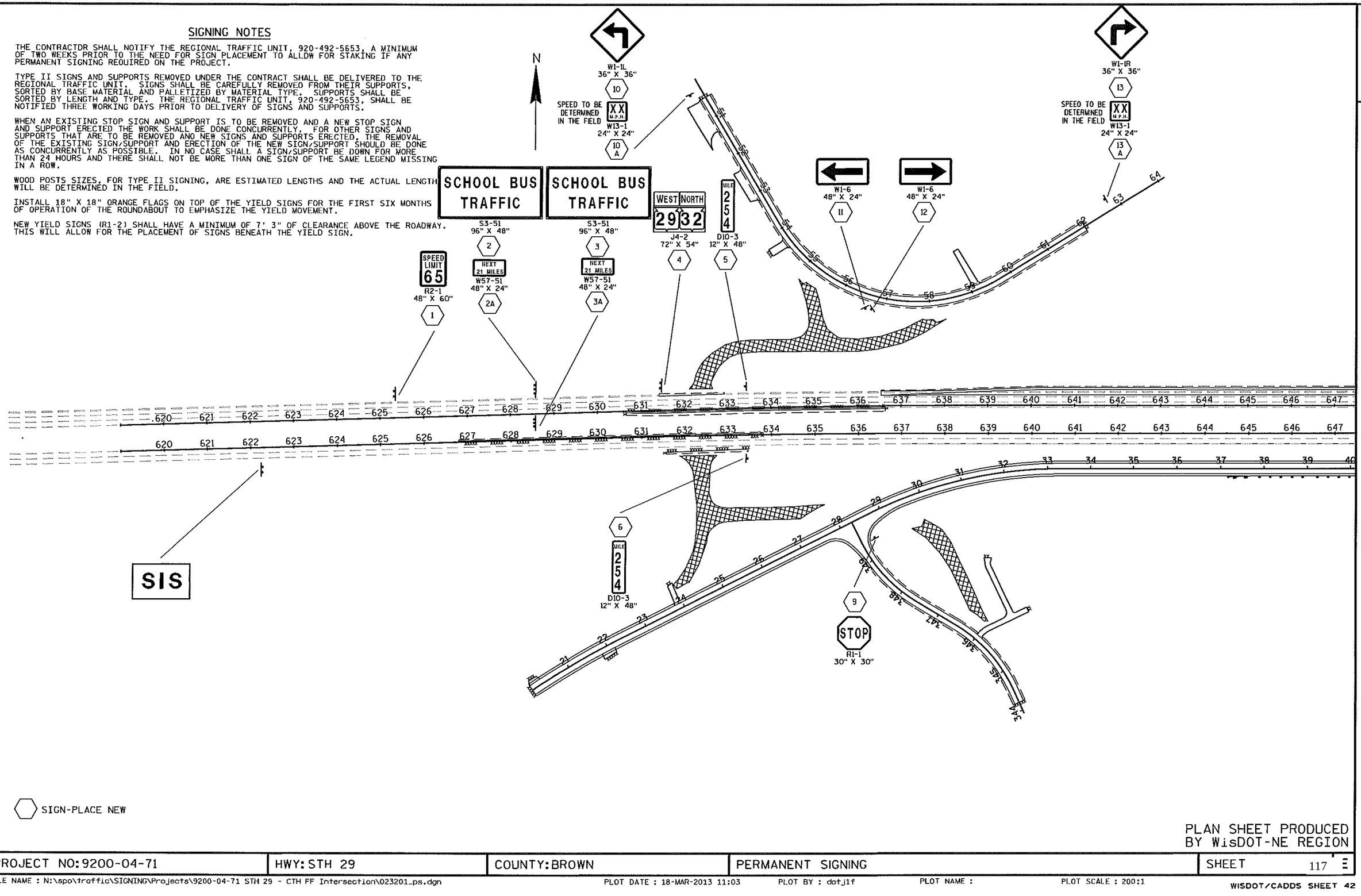
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WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING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

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

INSTALL 18" X 18" ORANGE FLAGS ON TOP OF THE YIELD SIGNS FOR THE FIRST SIX MONTHS OF OPERATION OF THE ROUNDABOUT TO EMPHASIZE THE YIELD MOVEMENT.

NEW YIELD SIGNS (R1-2) SHALL HAVE A MINIMUM OF 7' 3" OF CLEARANCE ABOVE THE ROADWAY. THIS WILL ALLOW FOR THE PLACEMENT OF SIGNS BENEATH THE YIELD SIGN.



SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PERMANENT SIGNING	SHEET 117

FILE NAME : N:\spo\traffic\SIGNING\Projects\9200-04-71 STH 29 - CTH FF Intersection\023201_ps.dgn PLOT DATE : 18-MAR-2013 11:03 PLOT BY : dotj1f PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

SIGNING NOTES

THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRAFFIC UNIT, 920-492-5653, A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING IF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.

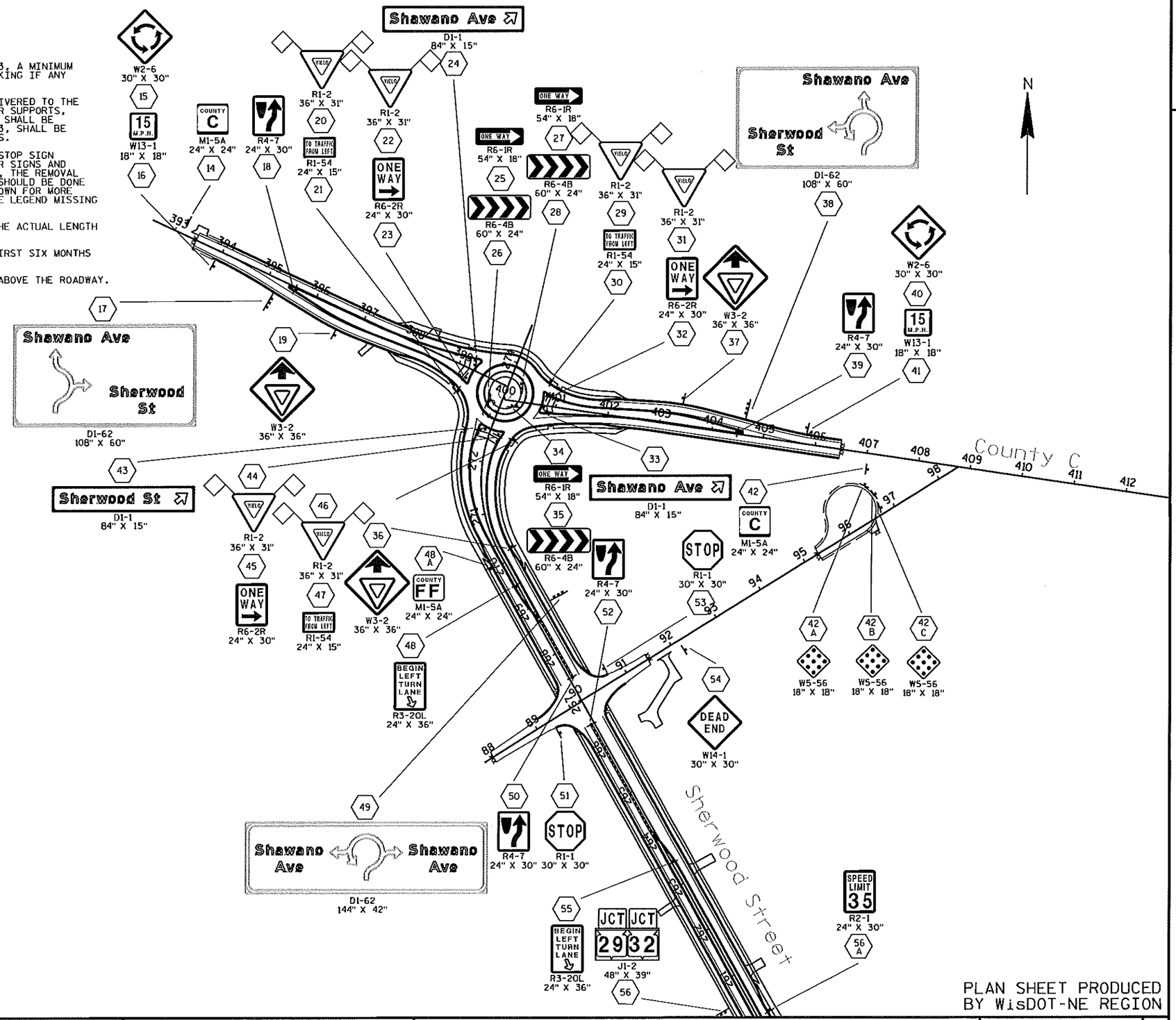
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SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PERMANENT SIGNING - TYPE II	SHEET 118 E

FILE NAME : N:\spo\traffic\SIGNING\Projects\9200-04-71 STH 29 - CTH FF Intersection\023202_ps.dgn PLOT DATE : 18-MAR-2013 10:57 PLOT BY : dotj1f PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

SIGNING NOTES

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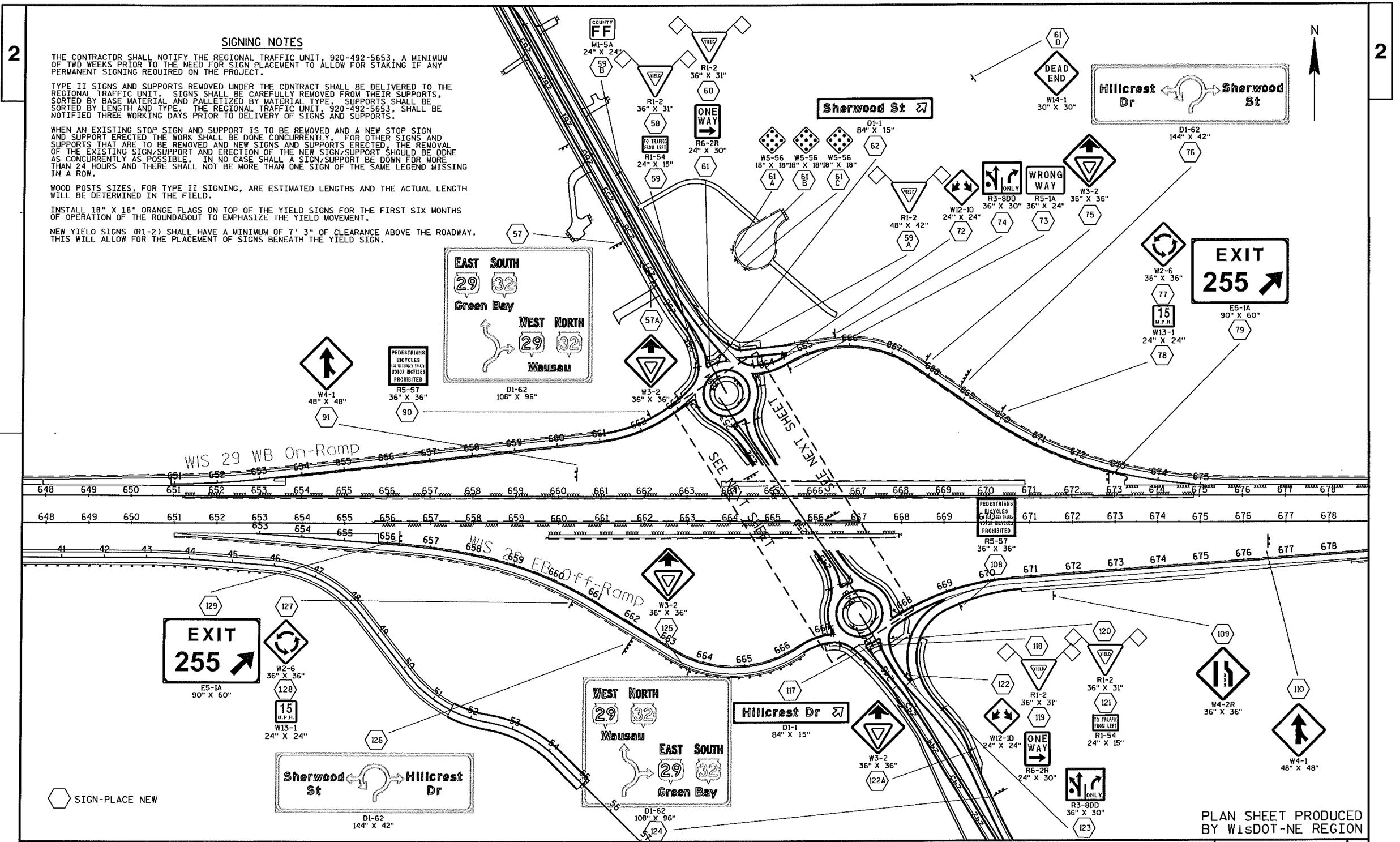
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PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PERMANENT SIGNING - TYPE II	SHEET 119 E

FILE NAME : N:\spo\traffic\SIGNING\Projects\9200-04-71 STH 29 - CTH FF Intersection\023203_ps.dgn PLOT DATE : 18-MAR-2013 10:57 PLOT BY : dotj1f PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

SIGNING NOTES

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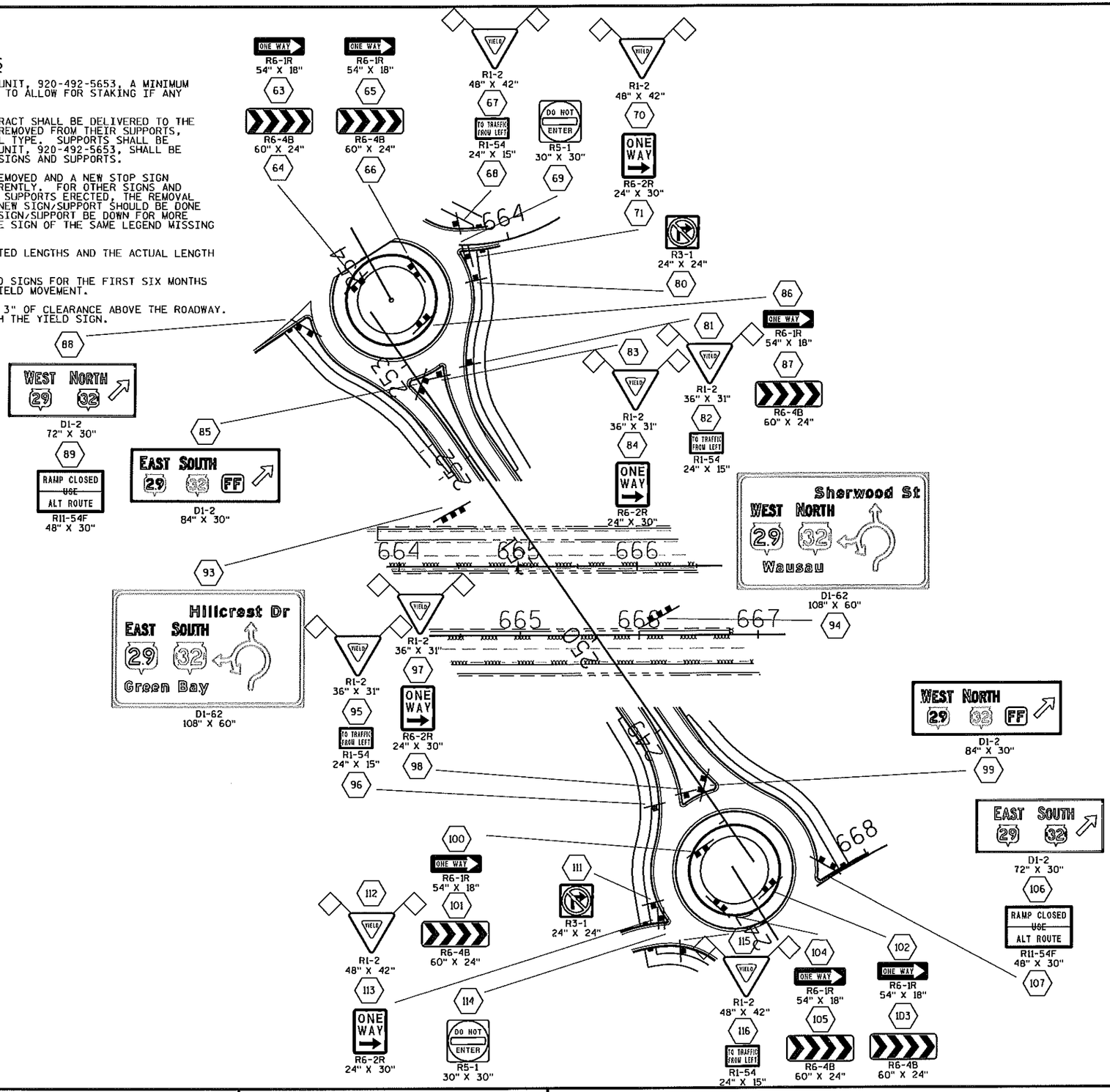
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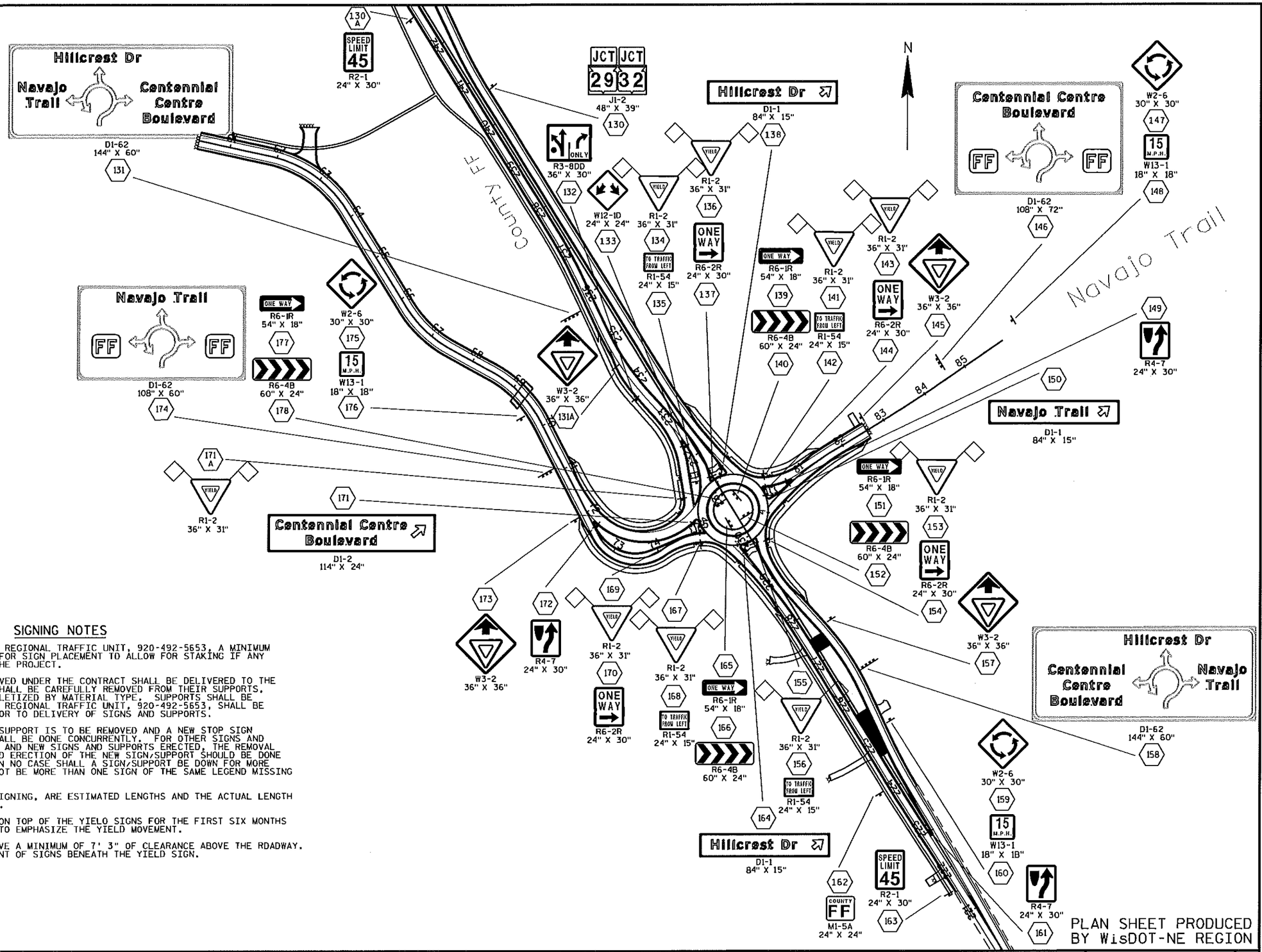
SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PERMANENT SIGNING - TYPE II	SHEET 120 E

FILE NAME : N:\spo\troffic\SIGNING\Projects\9200-04-71 STH 29 - CTH FF Intersection\023210_ps.dgn PLOT DATE : 18-MAR-2013 10:58 PLOT BY : dotjlf PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42



SIGNING NOTES

THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRAFFIC UNIT, 920-492-5653, A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING IF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.

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⬡ SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PERMANENT SIGNING - TYPE II	SHEET 121 E

FILE NAME : N:\spo\traffic\SIGNING\Projects\9200-04-71 STH 29 - CTH FF Intersection\023204_ps.dgn PLOT DATE : 18-MAR-2013 10:58 PLOT BY : dotj1f PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

SIGNING NOTES

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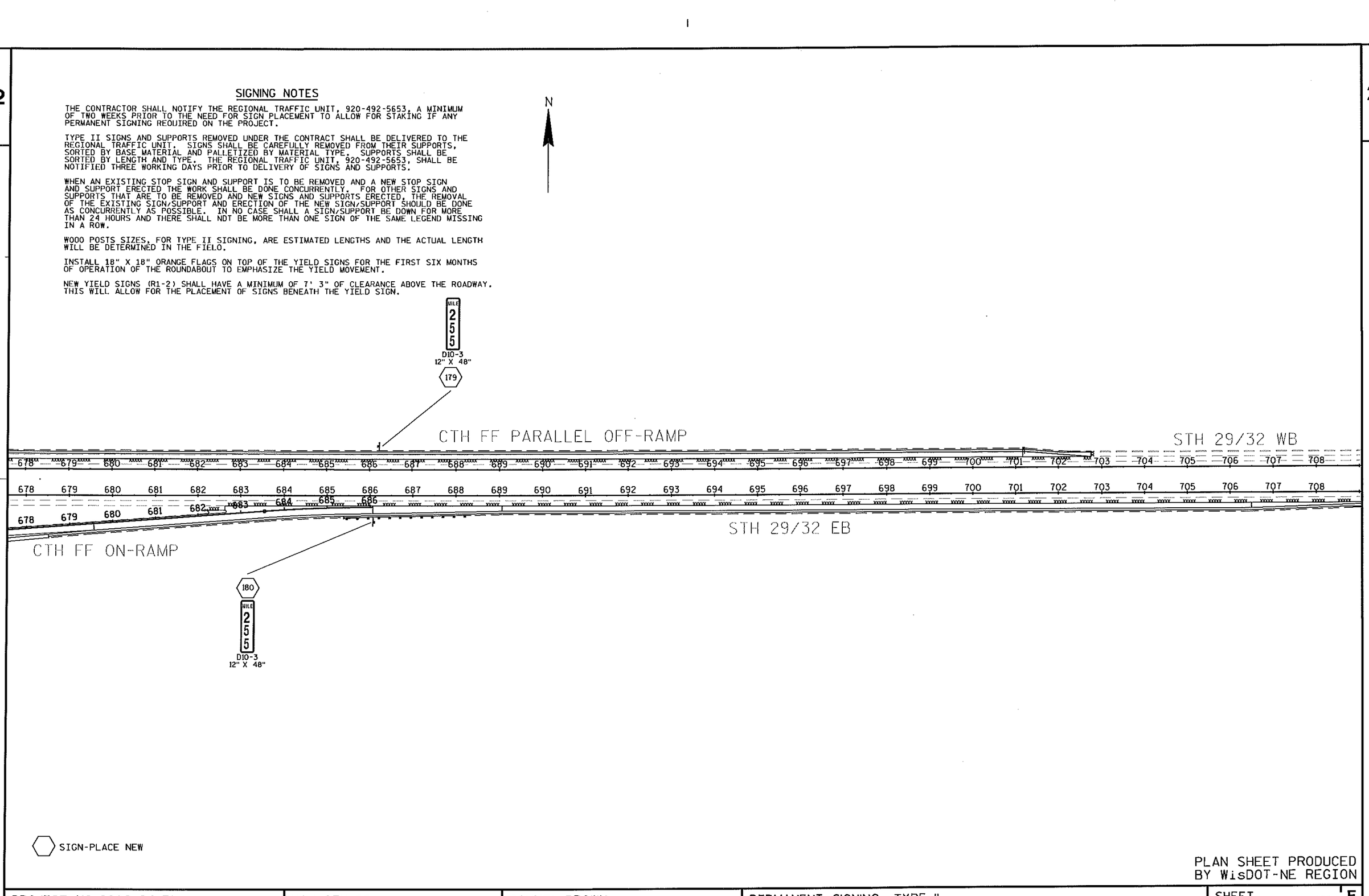
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SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PERMANENT SIGNING - TYPE II	SHEET 122 E

SIGNING NOTES

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N

R3-4B
36" X 48"
181 A

STH 29/32 WB

701 702 703 704 705 706 707 708 709 710 711

STH 29/32

701 702 703 704 705 706 707 708 709 710 711

STH 29/32

CTH FF ON-RAMP

STH 29/32 EB

181
R3-4B
36" X 48"

182
EAST SOUTH
29 32
J4-2
72" X 54"

183
SPEED LIMIT 65
R2-1
48" X 60"

CHOCTAW TRL.

SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PERMANENT SIGNING - TYPE II	SHEET 123 E

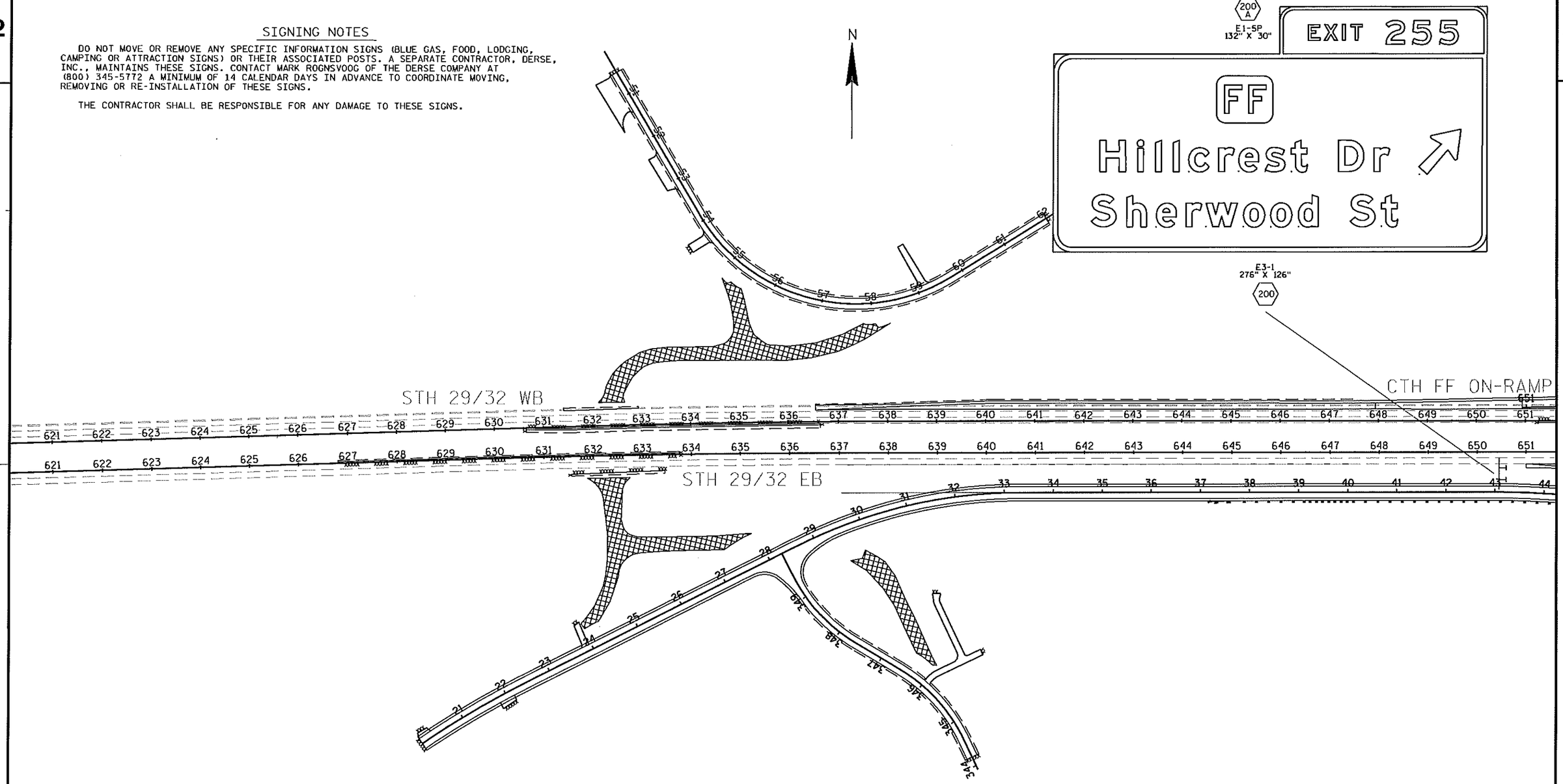
FILE NAME : N:\spo\traffic\SIGNING\Projects\9200-04-71 STH 29 - CTH FF Intersection\023206_ps.dgn PLOT DATE : 18-MAR-2013 11:23 PLOT BY : dotj1f PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

SIGNING NOTES

DO NOT MOVE OR REMOVE ANY SPECIFIC INFORMATION SIGNS (BLUE GAS, FOOD, LODGING, CAMPING OR ATTRACTION SIGNS) OR THEIR ASSOCIATED POSTS. A SEPARATE CONTRACTOR, DERSE, INC., MAINTAINS THESE SIGNS. CONTACT MARK ROGNSVOOG OF THE DERSE COMPANY AT (800) 345-5772 A MINIMUM OF 14 CALENDAR DAYS IN ADVANCE TO COORDINATE MOVING, REMOVING OR RE-INSTALLATION OF THESE SIGNS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THESE SIGNS.



SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PERMANENT SIGNING - TYPE I	SHEET 124

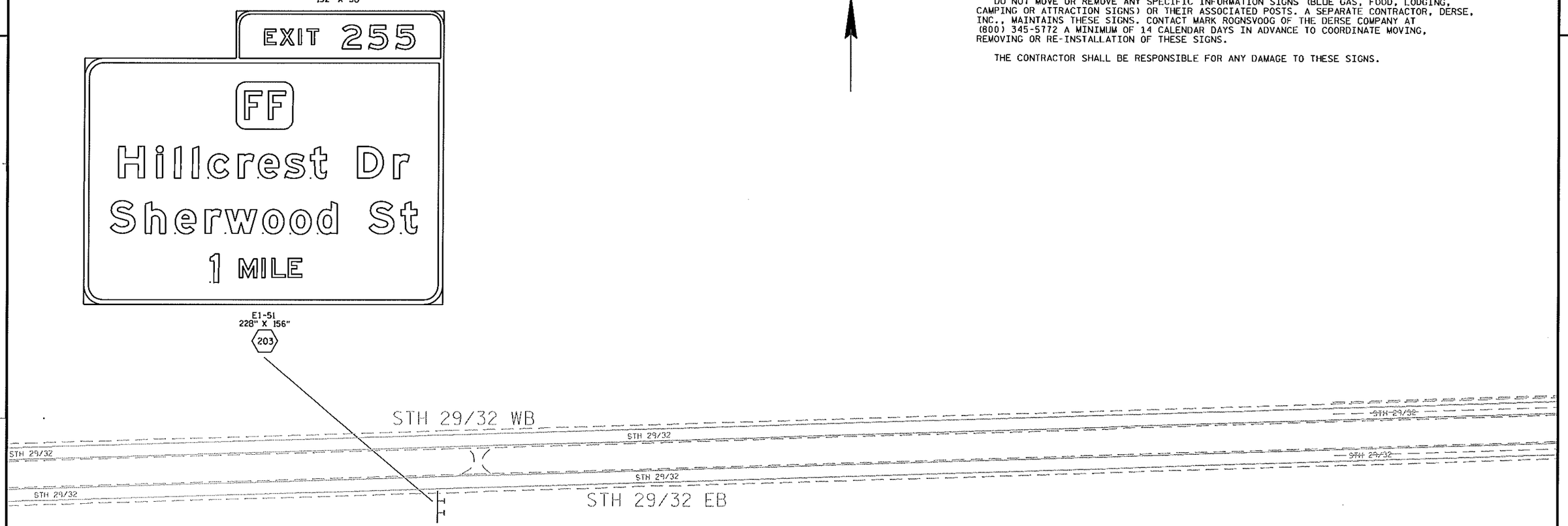


N

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SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO:9200-04-71	HWY:STH 29	COUNTY:BROWN	PERMANENT SIGNING - TYPE I	SHEET 125 E

2

SIGNING NOTES

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THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THESE SIGNS.

THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE GALVANIZED STEEL CANTILEVER STRUCTURE AND THE COSTS OF MATERIALS, EXCEPT FOR THE CONCRETE SUPPORTS WHICH ARE PAID SEPARATELY UNDER 636.0100 & 636.1000.





E6-1
180" X 156"
202

S-05-190
STA. 701+18
SIGN CANTILEVER

E1-51
228" X 156"
201

STH 29/32 WB

700 701 702 703 704 705 706 707 708 709 710 711

STH 29/32

700 701 702 703 704 705 706 707 708 709 710 711

STH 29/32

CTH FF ON-RAMP

STH 29/32 EB

SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PERMANENT SIGNING - TYPE I	SHEET 126 E

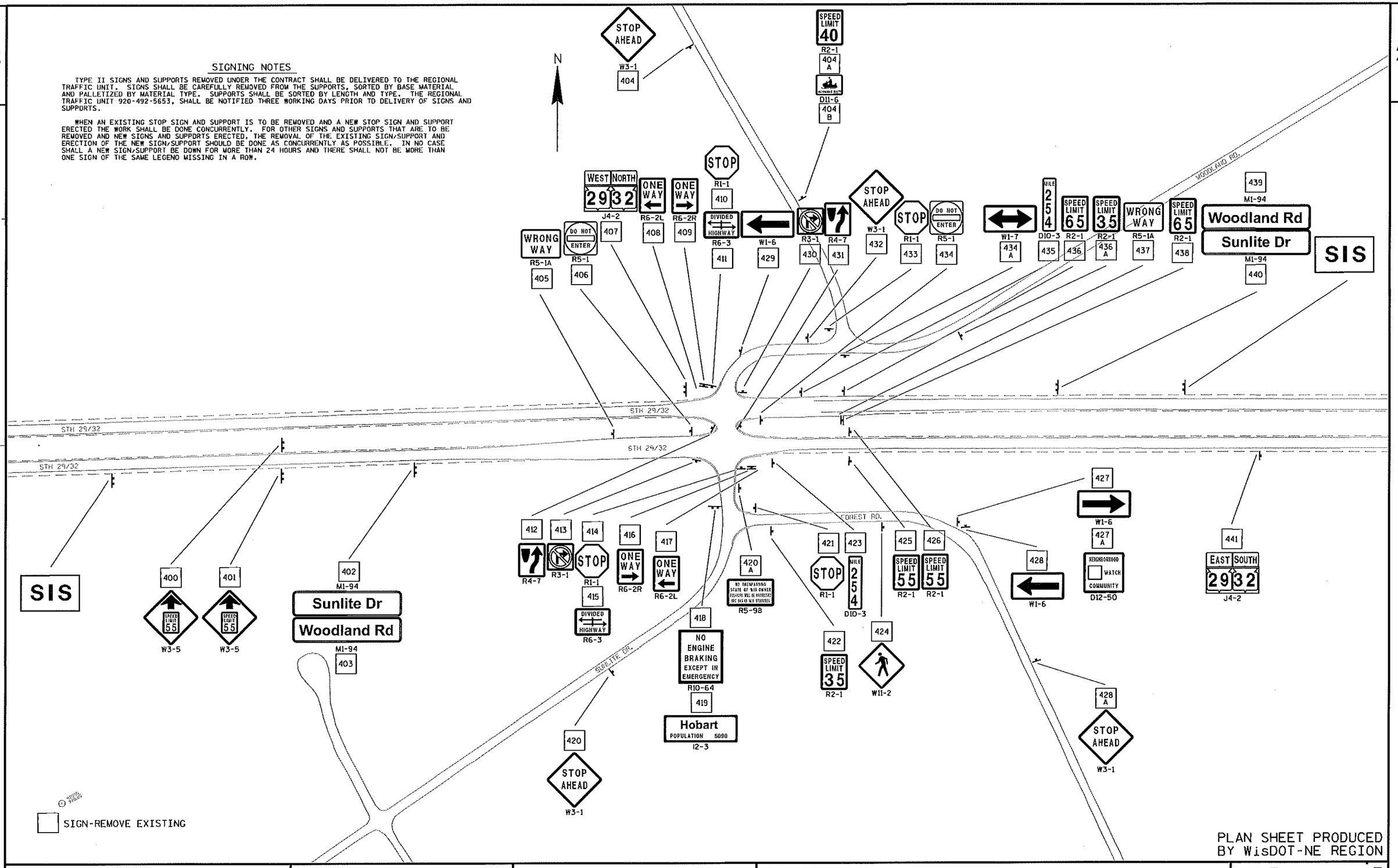
FILE NAME : N:\spo\traffic\SIGNING\Projects\9200-04-71 STH 29 - CTH FF Intersection\023208_ps.dgn PLOT DATE : 18-MAR-2013 09:17 PLOT BY : dotj1f PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

SIGNING NOTES

TYPE II SIGNS AND SUPPORTS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. SUPPORTS SHALL BE SORTED BY LENGTH AND TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS AND SUPPORTS.

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



PLAN SHEET PRODUCED BY WisDOT-NE REGION

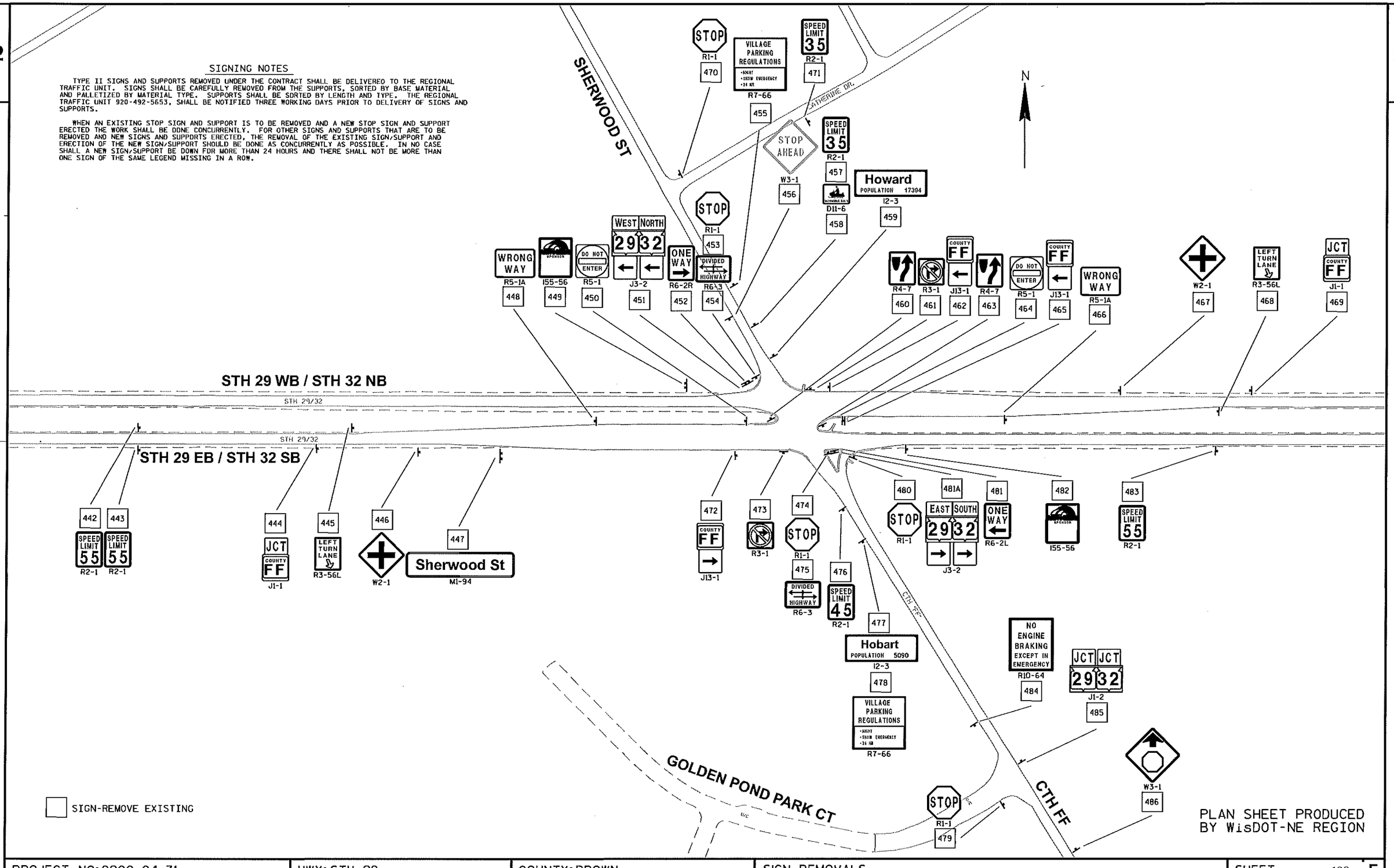
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	SIGN REMOVALS	SHEET 127 E

FILE NAME : N:\spo\traffic\SIGNING\Projects\9200-04-71 STH 29 - CTH FF Intersection\023211_ps.dgn PLOT DATE : 03-DEC-2012 09:53 PLOT BY : dotj1f PLOT NAME : PLOT SCALE : 200:1 WISDOT/CADDS SHEET 42

SIGNING NOTES

TYPE II SIGNS AND SUPPORTS REMOVED UNDER THE CONTRACT SHALL BE DELIVEREO TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. SUPPORTS SHALL BE SORTED BY LENGTH AND TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS AND SUPPORTS.

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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	SIGN REMOVALS	SHEET 128 E

FILE NAME : N:\spo\traffic\SIGNING\Projects\9200-04-71 STH 29 - CTH FF Intersection\023212_ps.dgn PLOT DATE : 26-JUN-2012 14:44 PLOT BY : dotjlf PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

2

SIGNING NOTES

TYPE II SIGNS AND SUPPORTS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. SUPPORTS SHALL BE SORTED BY LENGTH AND TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS AND SUPPORTS.

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N

2

MILE 2 5 5
D10-3
487

SCHOOL BUS TRAFFIC
S3-51
491 A
NEXT 23 MILES
W57-51
491 B

SCHOOL BUS TRAFFIC
S3-51
491 C
NEXT 23 MILES
W57-51
491 D

R3-4B
490

STOP SCHOOL BUS FLASHING RED LIGHTS
R59-51
491

STH 29 WB / STH 32 NB

STH 29/32

STH 29/32

STH 29/32

STH 29/32

STH 29 EB / STH 32 SB

488
MILE 2 5 5
D10-3

489
R3-4B

490 A
SPEED LIMIT 55
R2-1

CHOCTAW TRL

SIGN-REMOVE EXISTING

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	SIGN REMOVALS	SHEET 129 E

FILE NAME : N:\spo\traffic\SIGNING\Projects\9200-04-71 STH 29 - CTH FF Intersection\023213_ps.dgn PLOT DATE : 05-DEC-2012 15:23 PLOT BY : dotj1f PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

2

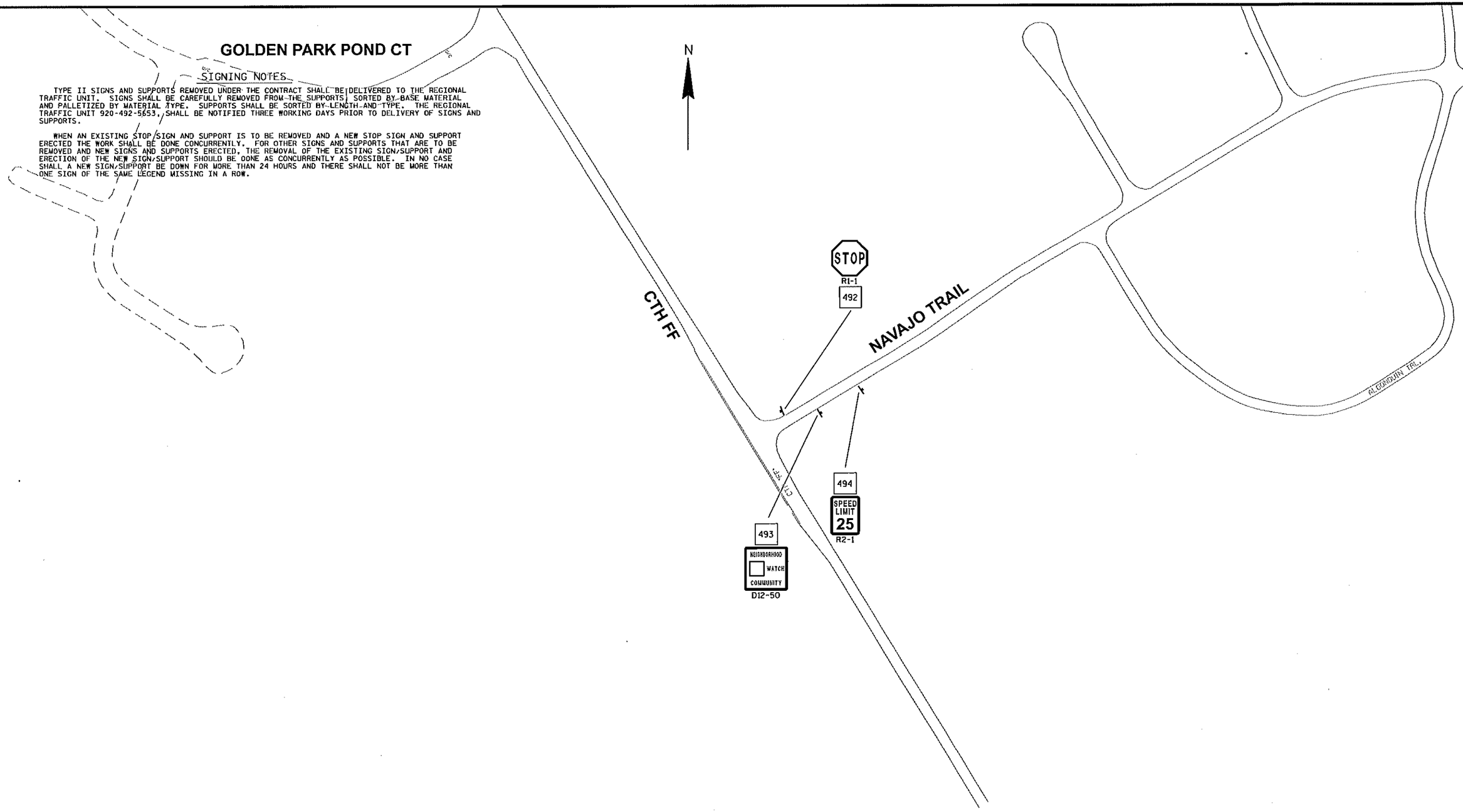
2

GOLDEN PARK POND CT

SIGNING NOTES

TYPE II SIGNS AND SUPPORTS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. SUPPORTS SHALL BE SORTED BY LENGTH AND TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS AND SUPPORTS.

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SIGN-REMOVE EXISTING

PLAN SHEET PRODUCED
BY WisDOT-NE REGION

PROJECT NO:9200-04-71	HWY:STH 29	COUNTY:BROWN	SIGN REMOVALS	SHEET 130 E

FILE NAME : N:\spo\traffic\SIGNING\Projects\9200-04-71 STH 29 - CTH FF Intersection\023214_ps.dgn PLOT DATE : 26-JUN-2012 14:45 PLOT BY : dotjlf PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

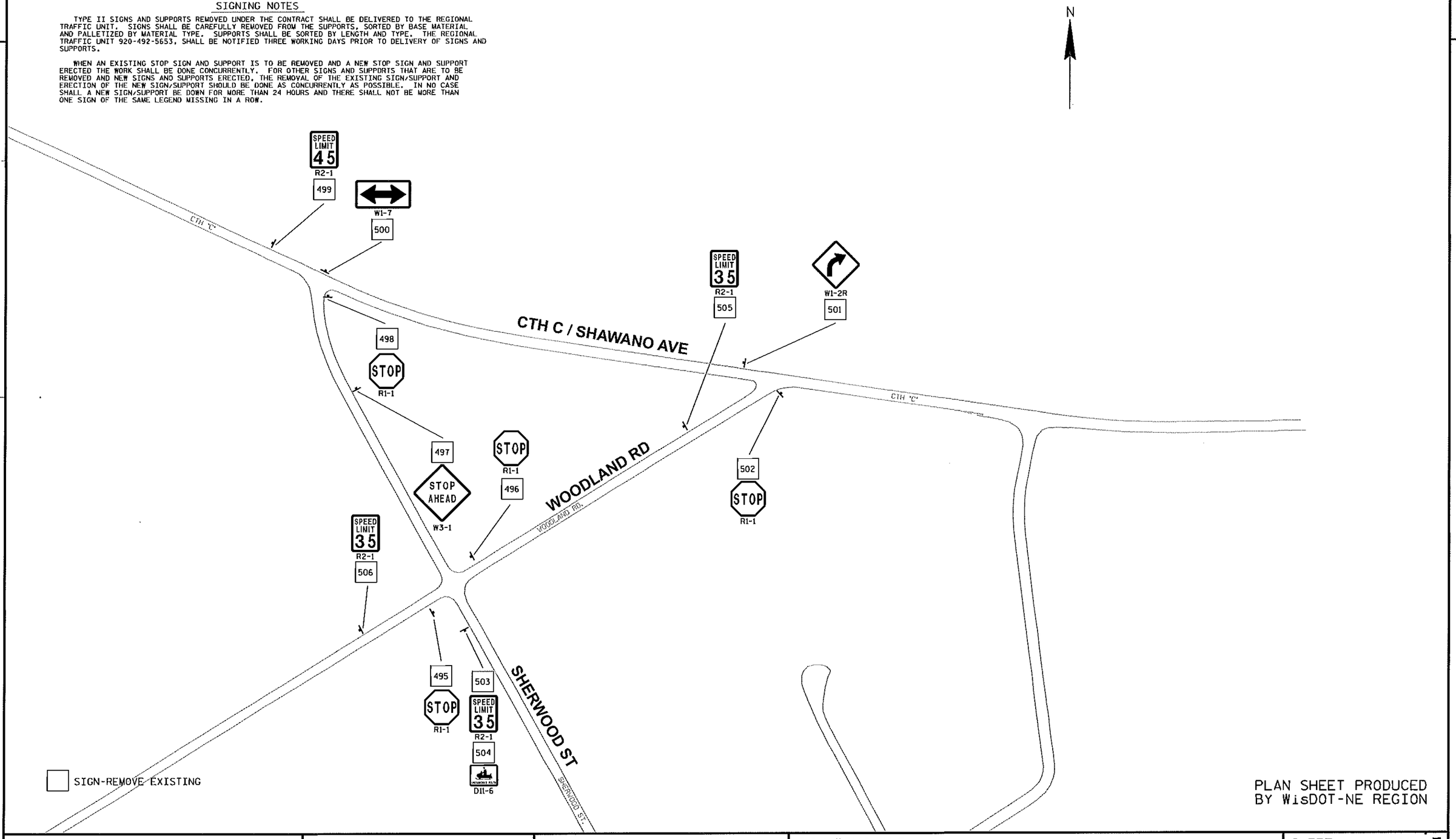
2

2

SIGNING NOTES

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PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	SIGN REMOVALS	SHEET 131 E

FILE NAME : N:\spo\traffic\SIGNING\Projects\9200-04-71 STH 29 - CTH FF Intersection\023215_ps.dgn PLOT DATE : 03-DEC-2012 10:02 PLOT BY : dotjlf PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

2

LIGHTING GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY ALL OF THE INFORMATION SHOWN ON THE CONTRACT DRAWINGS WHICH WOULD AFFECT THE WORK UNDER THIS CONTRACT.

2. ALL NEW CONDUITS, CABLE IN DUCTS, DIRECT BURIAL CABLES, AND APPURTENANCES ARE INDICATED DIAGRAMMATICALLY ON THE DRAWINGS. THE ACTUAL LOCATIONS IN THE FIELD SHALL MEET WITH THE APPROVAL OF THE ENGINEER.

3. THE ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE WisDOT STANDARD SPECIFICATIONS (LATEST EDITION).

4. THE CONTRACTOR SHALL FURNISH AND INSTALL LUMINAIRE LAMPS IN ACCORDANCE WITH THE SUPPLIER'S RECOMMENDATIONS AND IN ACCORDANCE WITH THE SPECIFICATIONS. THE COST OF THIS WORK AND MATERIAL SHALL BE INCLUDED IN THE APPLICABLE LUMINAIRE PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.

5. ALL LUMINAIRES SHALL BE ORIENTED WITH THE OPTICS PERPENDICULAR TO THE ROADWAY UNLESS OTHERWISE INDICATED OR DIRECTED BY THE ENGINEER. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE APPLICABLE LUMINAIRE PAY ITEMS. SEPARATE PAYMENT WILL NOT BE MADE.

6. CONDUITS AND CABLE IN DUCTS SHALL BE INSTALLED AT A MINIMUM 30" DEPTH BELOW GRADE AND POSITIONED IN THE FIELD TO AVOID CONFLICT WITH ROADWAY UNDERDRAINS AND OTHER EXISTING AND PROPOSED UTILITIES. THE CONTRACTOR SHALL INCREASE DEPTH OF DUCT AND CONDUIT AS REQUIRED AT NO ADDITIONAL COST. THE CONTRACTOR SHALL COORDINATE RACEWAY DEPTH WITH THE ELECTRICAL DETAILS AND THE ENGINEER.

7. COORDINATE THE INSTALLATION OF ALL LIGHTING WORK WITHIN THE VILLAGE OF HOWARD WITH THE VILLAGE OF HOWARD PUBLIC WORKS DIRECTOR AT (920) 434-4060.

8. COORDINATE THE INSTALLATION OF ALL LIGHTING UNDERGROUND WORK AT THE NAVAJO TRAIL ROUNDABOUT WITH WISCONSIN PUBLIC SERVICE (WPS).

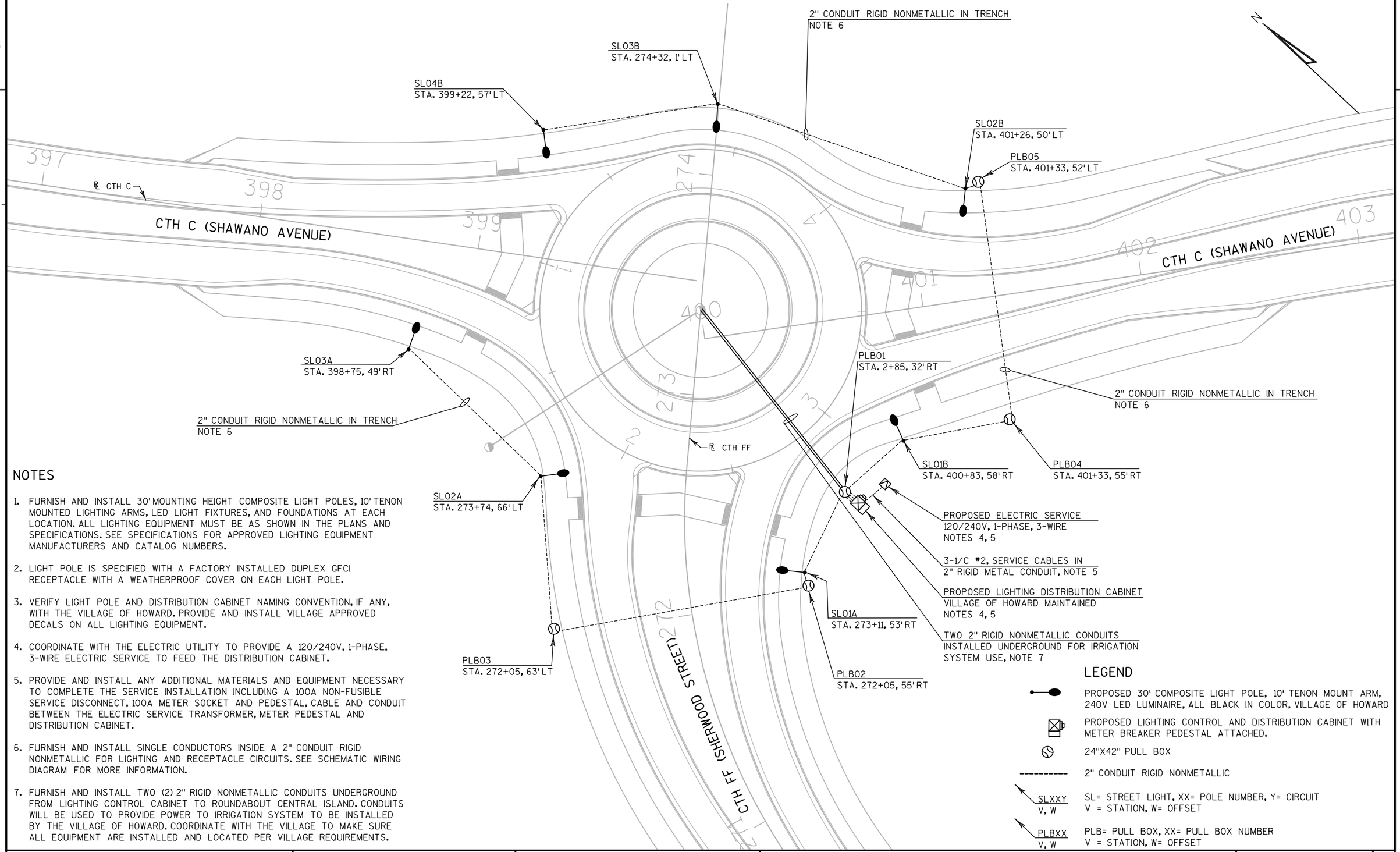
9. COORDINATE THE ELECTRIC SERVICES WITH THE UTILITY AS SOON AS POSSIBLE TO AVOID ANY DELAYS IN PROVIDING POWER TO THE PROPOSED LIGHTING SYSTEMS.

LIGHTING PLAN LEGEND

PROPOSED	EXISTING	
		REMOTE METER PEDESTAL
		PAD MOUNT TRANSF. (WEPCO)
		DISTRIBUTION CENTER
		PHOTO CELL POLE
		PULL BOX (600 mm $^{2}24"^{3}$ UNLESS OTHERWISE NOTED)
		LIGHTING SYSTEM MANHOLE
		JUNCTION BOX
==========	==========	CONDUIT (50 mm $^{2}2"^{3}$ UNLESS OTHERWISE NOTED)
		CID (CABLE IN DUCT)
—— OH ——	—— OH ——	OVER HEAD UTILITY
		LIGHT POLE, POLE TOP LUMINAIRE
		LIGHT POLE, ARM MOUNTED LUMINAIRE
		UDL (UNDER DECK LUMINAIRE)
		SIGN BRIDGE LUMINAIRE
		TUNNEL LUMINAIRE
		HIGH MAST LIGHT TOWER (ARROWS INDICATE QUANTITY OF LUMINAIRES AND DIRECTION AIMED)
		CENTER OF CHANNEL NAVIGATION LUMINAIRE
		EDGE OF CHANNEL NAVIGATION LUMINAIRE
		AVIATION OBSTRUCTION LUMINAIRE
		CONDUIT STUBOUT
		LOCAL MUNI. POLE
		LOCAL MUNI UDL
		EQUIP. GND. ELECTRODE (GND ROD)
PROPOSED	EXISTING	COMPONENT LABELS
A,B,C,...etc.	A,B,C,...etc.	CIRCUIT POLE (ELECTRICAL) DESIGNATION
\\\\ X		REMOVAL/ABANDON
N		NEUTRAL
GND		GROUND
MV		MERCURY VAPOR
HPS		HIGH PRESSURE SODIUM

2

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	LIGHTING PLANS - LEGEND & NOTES- CTH FF (SHERWOOD STREET)	SHEET 132	E



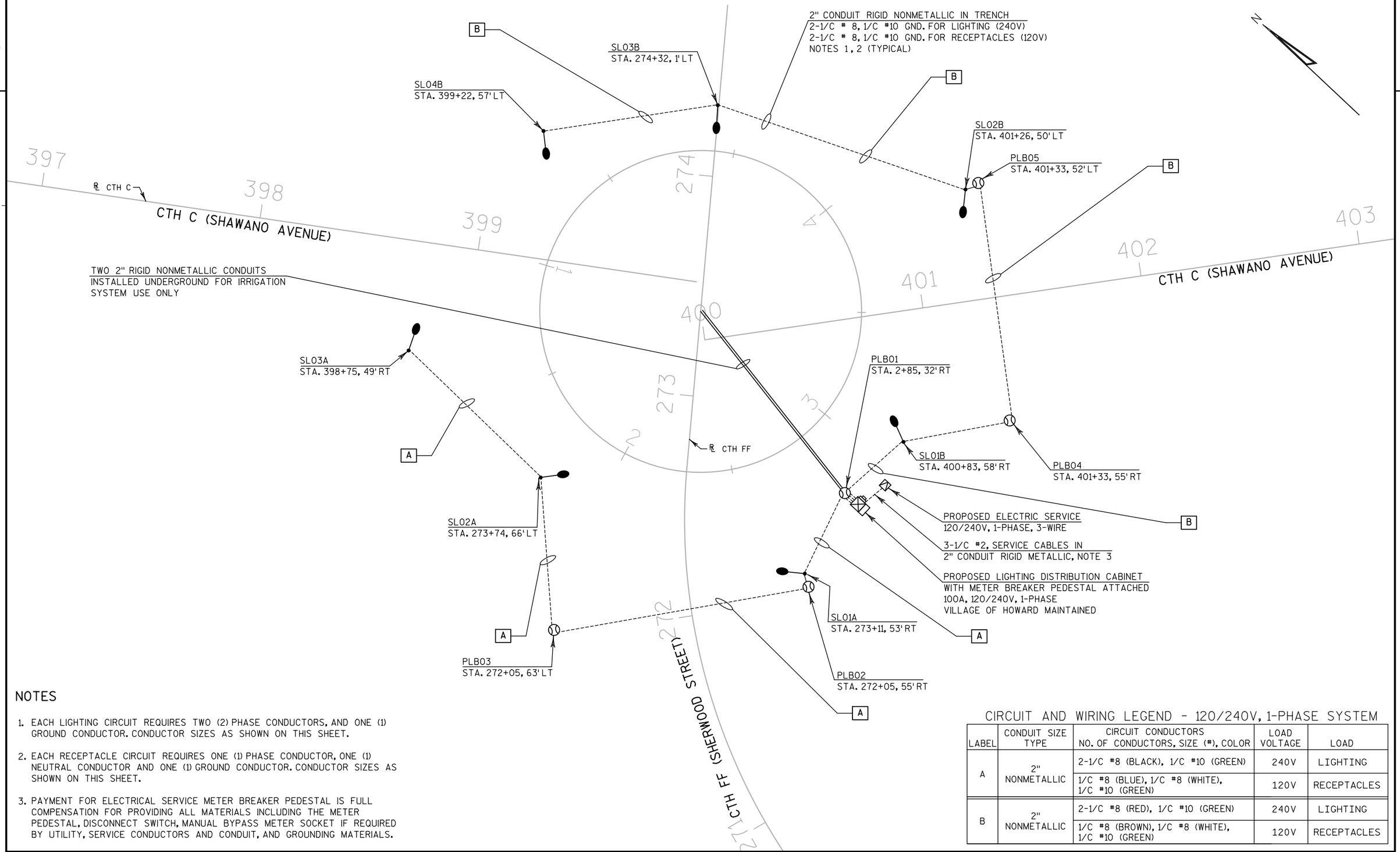
NOTES

1. FURNISH AND INSTALL 30' MOUNTING HEIGHT COMPOSITE LIGHT POLES, 10' TENON MOUNTED LIGHTING ARMS, LED LIGHT FIXTURES, AND FOUNDATIONS AT EACH LOCATION. ALL LIGHTING EQUIPMENT MUST BE AS SHOWN IN THE PLANS AND SPECIFICATIONS. SEE SPECIFICATIONS FOR APPROVED LIGHTING EQUIPMENT MANUFACTURERS AND CATALOG NUMBERS.
2. LIGHT POLE IS SPECIFIED WITH A FACTORY INSTALLED DUPLEX GFCI RECEPTACLE WITH A WEATHERPROOF COVER ON EACH LIGHT POLE.
3. VERIFY LIGHT POLE AND DISTRIBUTION CABINET NAMING CONVENTION, IF ANY, WITH THE VILLAGE OF HOWARD. PROVIDE AND INSTALL VILLAGE APPROVED DECALS ON ALL LIGHTING EQUIPMENT.
4. COORDINATE WITH THE ELECTRIC UTILITY TO PROVIDE A 120/240V, 1-PHASE, 3-WIRE ELECTRIC SERVICE TO FEED THE DISTRIBUTION CABINET.
5. PROVIDE AND INSTALL ANY ADDITIONAL MATERIALS AND EQUIPMENT NECESSARY TO COMPLETE THE SERVICE INSTALLATION INCLUDING A 100A NON-FUSIBLE SERVICE DISCONNECT, 100A METER SOCKET AND PEDESTAL, CABLE AND CONDUIT BETWEEN THE ELECTRIC SERVICE TRANSFORMER, METER PEDESTAL AND DISTRIBUTION CABINET.
6. FURNISH AND INSTALL SINGLE CONDUCTORS INSIDE A 2" CONDUIT RIGID NONMETALLIC FOR LIGHTING AND RECEPTACLE CIRCUITS. SEE SCHEMATIC WIRING DIAGRAM FOR MORE INFORMATION.
7. FURNISH AND INSTALL TWO (2) 2" RIGID NONMETALLIC CONDUITS UNDERGROUND FROM LIGHTING CONTROL CABINET TO ROUNDABOUT CENTRAL ISLAND. CONDUITS WILL BE USED TO PROVIDE POWER TO IRRIGATION SYSTEM TO BE INSTALLED BY THE VILLAGE OF HOWARD. COORDINATE WITH THE VILLAGE TO MAKE SURE ALL EQUIPMENT ARE INSTALLED AND LOCATED PER VILLAGE REQUIREMENTS.

LEGEND

- PROPOSED 30' COMPOSITE LIGHT POLE, 10' TENON MOUNT ARM, 240V LED LUMINAIRE, ALL BLACK IN COLOR, VILLAGE OF HOWARD
- PROPOSED LIGHTING CONTROL AND DISTRIBUTION CABINET WITH METER BREAKER PEDESTAL ATTACHED.
- 24"X42" PULL BOX
- ---------- 2" CONDUIT RIGID NONMETALLIC
- SLXXY / V, W — SL= STREET LIGHT, XX= POLE NUMBER, Y= CIRCUIT; V = STATION, W= OFFSET
- PLBXX / V, W — PLB= PULL BOX, XX= PULL BOX NUMBER; V = STATION, W= OFFSET

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	LIGHTING PLAN - PROPOSED - CTH FF (SHERWOOD STREET)	SHEET 133	E



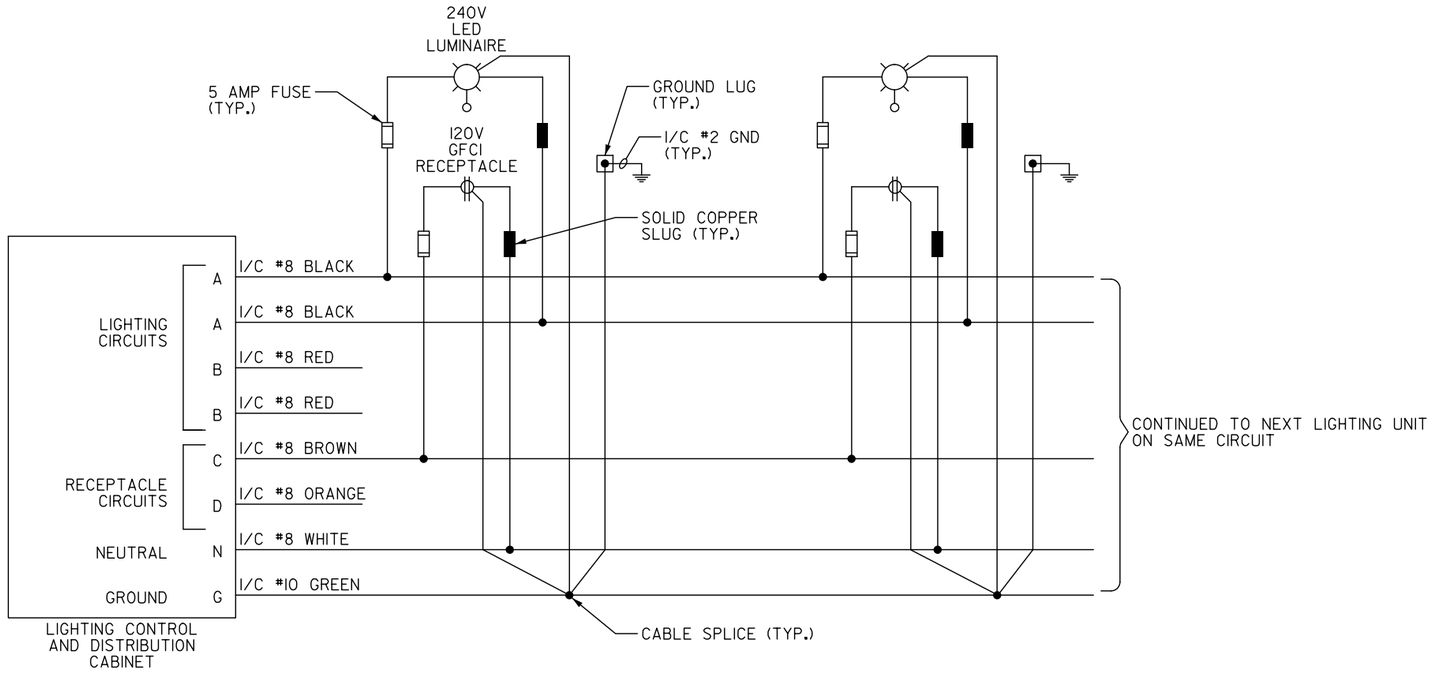
NOTES

1. EACH LIGHTING CIRCUIT REQUIRES TWO (2) PHASE CONDUCTORS, AND ONE (1) GROUND CONDUCTOR. CONDUCTOR SIZES AS SHOWN ON THIS SHEET.
2. EACH RECEPTACLE CIRCUIT REQUIRES ONE (1) PHASE CONDUCTOR, ONE (1) NEUTRAL CONDUCTOR AND ONE (1) GROUND CONDUCTOR. CONDUCTOR SIZES AS SHOWN ON THIS SHEET.
3. PAYMENT FOR ELECTRICAL SERVICE METER BREAKER PEDESTAL IS FULL COMPENSATION FOR PROVIDING ALL MATERIALS INCLUDING THE METER PEDESTAL, DISCONNECT SWITCH, MANUAL BYPASS METER SOCKET IF REQUIRED BY UTILITY, SERVICE CONDUCTORS AND CONDUIT, AND GROUNDING MATERIALS.

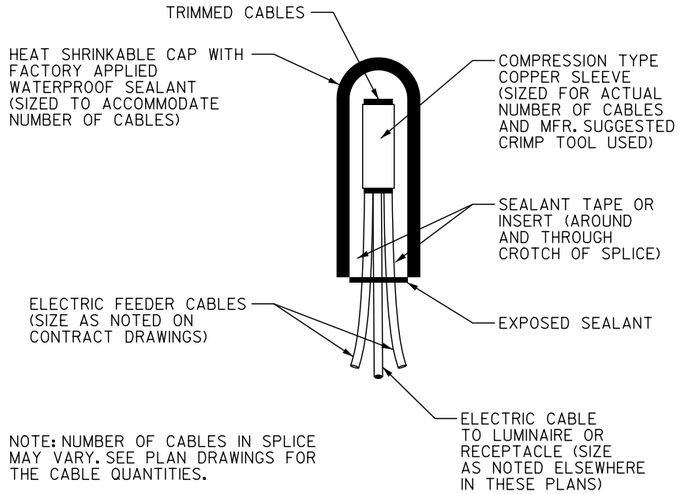
CIRCUIT AND WIRING LEGEND - 120/240V, 1-PHASE SYSTEM

LABEL	CONDUIT SIZE TYPE	CIRCUIT CONDUCTORS NO. OF CONDUCTORS, SIZE (#), COLOR	LOAD VOLTAGE	LOAD
A	2" NONMETALLIC	2-1/C #8 (BLACK), 1/C #10 (GREEN)	240V	LIGHTING
		1/C #8 (BLUE), 1/C #8 (WHITE), 1/C #10 (GREEN)	120V	RECEPTACLES
B	2" NONMETALLIC	2-1/C #8 (RED), 1/C #10 (GREEN)	240V	LIGHTING
		1/C #8 (BROWN), 1/C #8 (WHITE), 1/C #10 (GREEN)	120V	RECEPTACLES

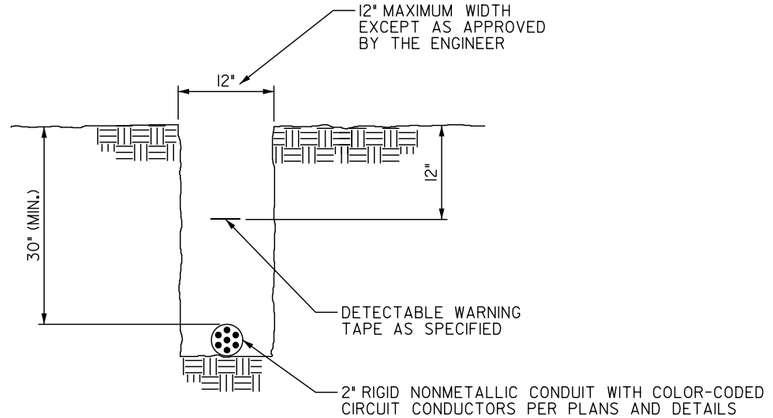
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	LIGHTING PLAN - SCHEMATIC - CTH FF (SHERWOOD STREET)	SHEET 134	E



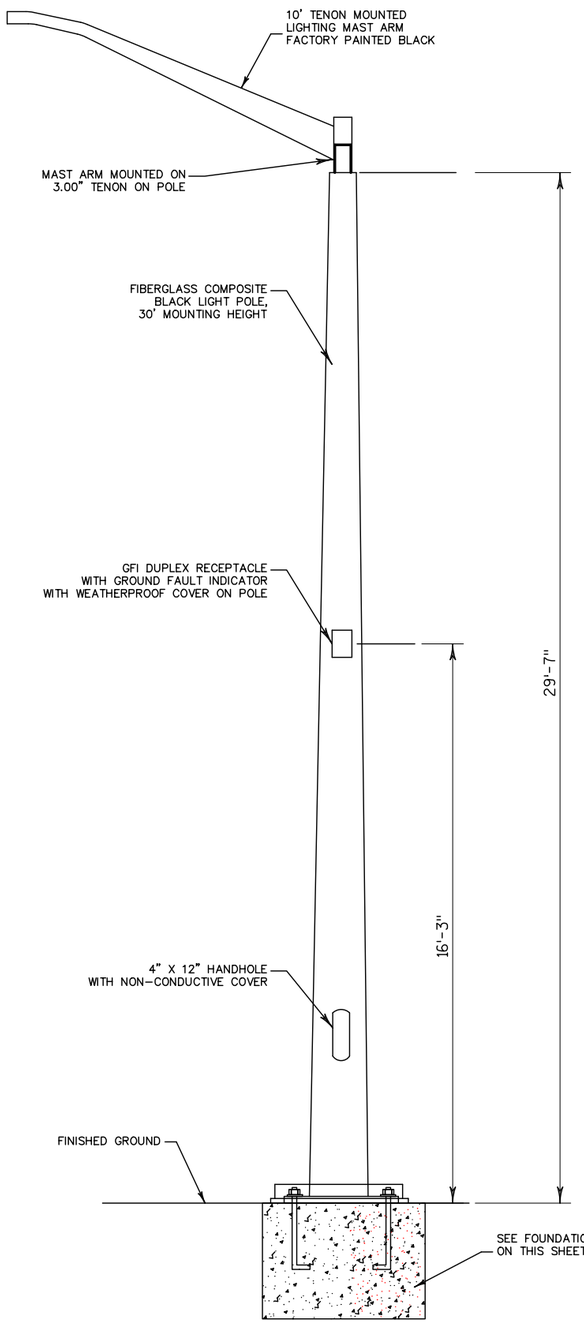
TYPICAL LIGHTING UNIT WITH POLE MOUNTED RECEPTACLE WIRING DIAGRAM
N.T.S.



TYPICAL SPLICE DETAIL
N.T.S.



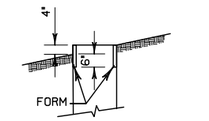
TYPICAL UNIT DUCT IN TRENCH DETAIL
N.T.S.



VILLAGE OF HOWARD
LIGHT POLE DETAIL
NOT TO SCALE

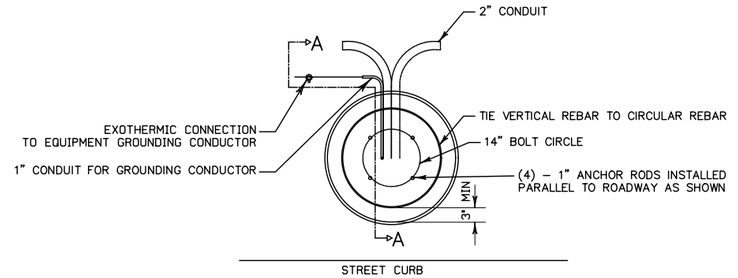
NOTES

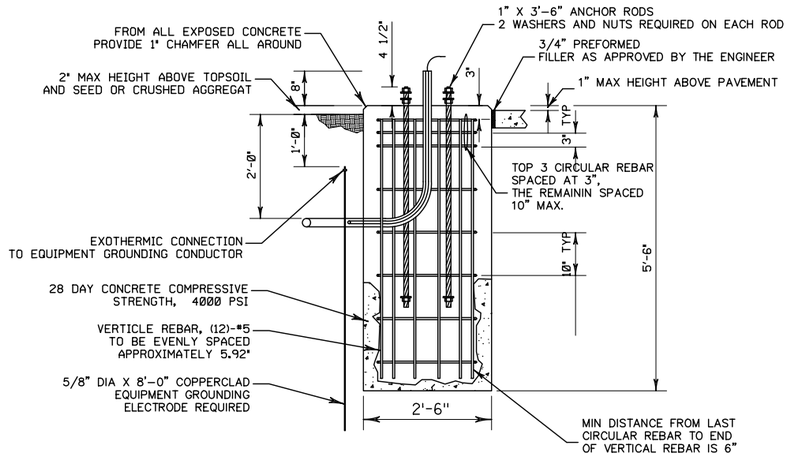
1. VERIFY ALL LIGHT POLE INFORMATION SHOWN WITH VILLAGE OF HOWARD PUBLIC WORKS BEFORE ORDERING ANY EQUIPMENT OR MATERIALS. ALL VILLAGE OF HOWARD SUPPLIED CATALOG NUMBERS ARE LISTED IN THE SPECIAL PROVISIONS.
2. ALL VILLAGE OF HOWARD LIGHT POLES, TENON MOUNTED MAST ARMS, BASE COVERS AND LUMINAIRES MUST BE FACTORY PAINTED BLACK.
3. LIGHT POLE FOUNDATION SHOWN HERE APPLIES TO ALL LIGHT POLE BASES PROPOSED FOR THE HOWARD ROUNADOUT LOCATED AT CTH C AND CTH FF (SHERWOOD STREET) AND THE HOBART LIGHTING DONE BY WISCONSIN PUBLIC SERVICE (WPS) AT GPP/NAVAJO TRAIL AAND CTH FF. VERIFY THAT ALL LIGHT POLES TO BE INSTALLED ON THIS BASE WILL BE PROPERLY ANCHORED BEFORE BEGINING ANY WORK.



FORM DEPTH SHALL BE NO MORE
THAN 6" BELOW GRADE
ON THE LOWER SIDE OF BASE

FORMING DETAIL
NOT TO SCALE

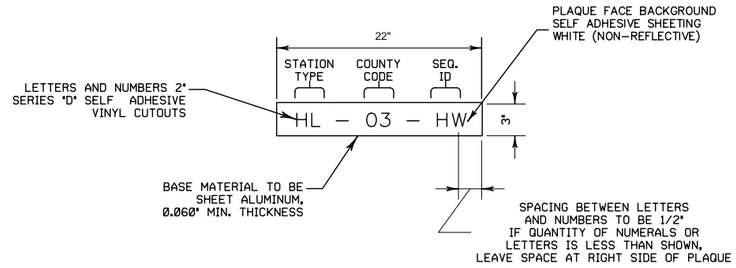




SECTION VIEW A–A

POLE FOUNDATION DETAIL
APPLIES TO ALL LIGHT POLE BASES PROPOSED ON
CTH C AND GPP/NAVAJO TRAIL AT CTH FF ROUNDABOUTS
NOT TO SCALE

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	LIGHTING DETAILS - CTH FF (SHERWOOD STREET)	SHEET 136	E

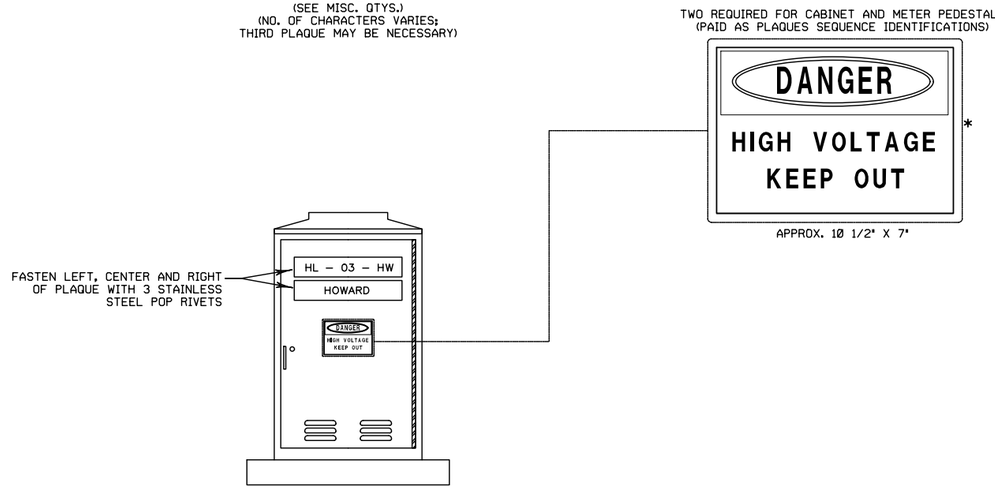


DISTRIBUTION CENTER
IDENTIFICATION PLAQUE

HOWARD

MNEMONIC
(SEE MISC. QTYS.)
(NO. OF CHARACTERS VARIES;
THIRD PLAQUE MAY BE NECESSARY)

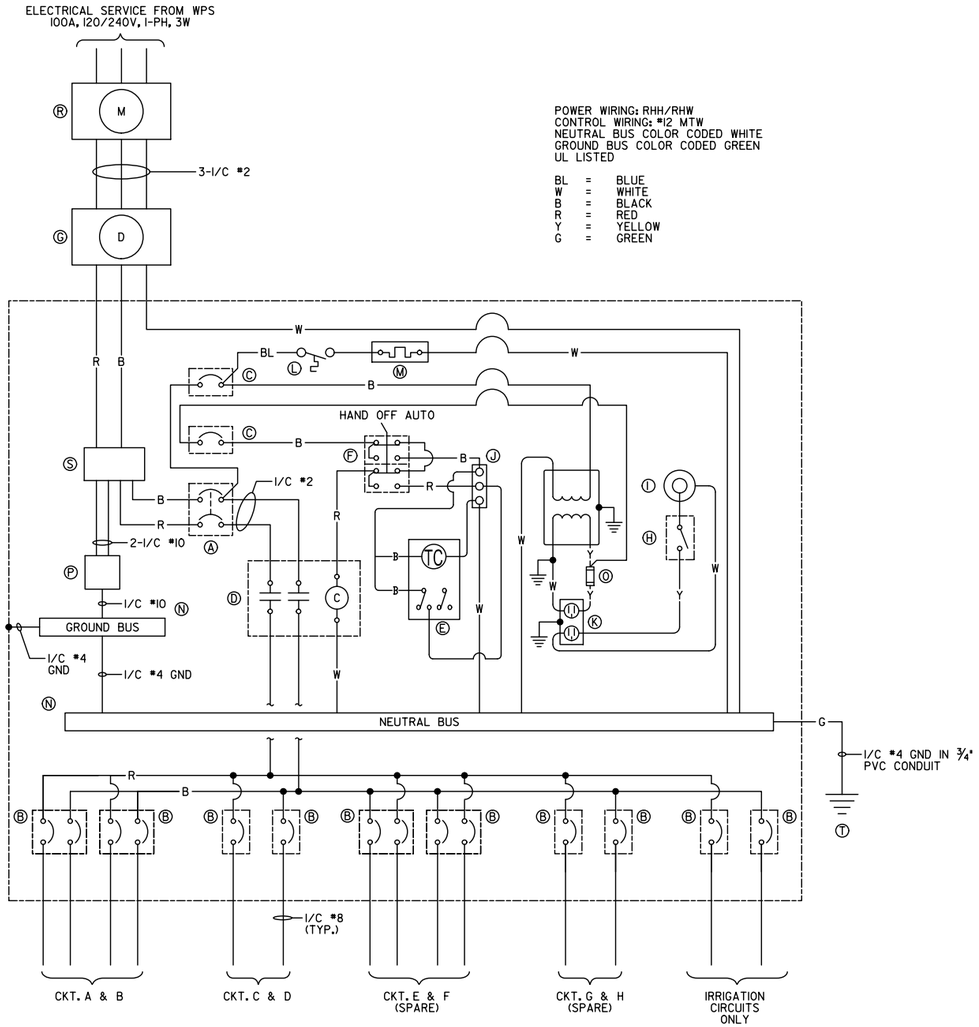
TWO REQUIRED FOR CABINET AND METER PEDESTALS
(PAID AS PLAQUES SEQUENCE IDENTIFICATIONS)



DISTRIBUTION CENTER IDENTIFICATION PLAQUE
REQUIREMENTS AND PLACEMENTS
(TYPICAL ALL CONTROL CABINETS)

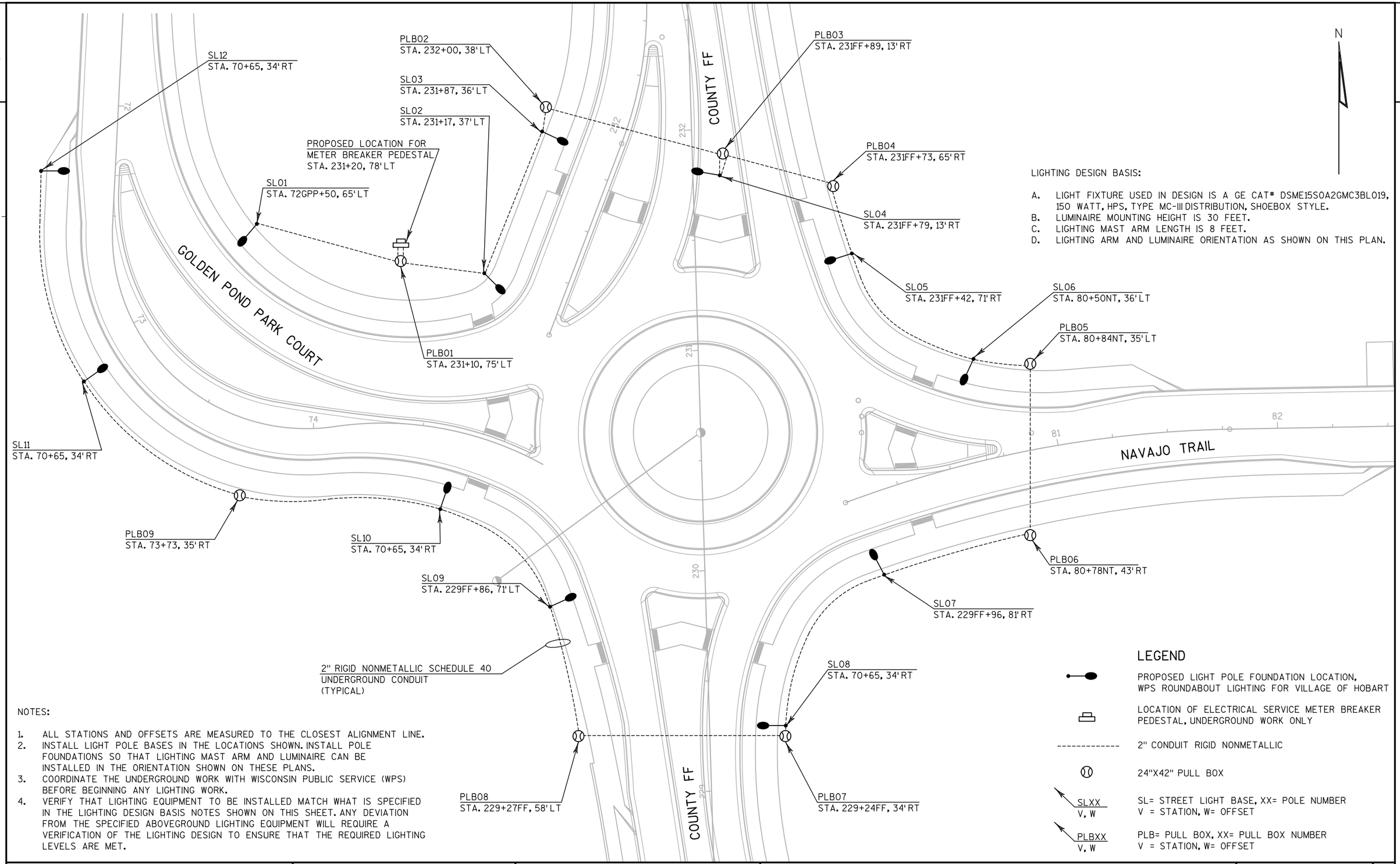
NOTES

1. VERIFY INFORMATION SHOWN, INCLUDING NAMING CONVENTION, WITH VILLAGE OF HOWARD PUBLIC WORKS BEFORE PURCHASING OR INSTALLING PLAQUES.



BILL OF MATERIALS

ITEM	QTY.	DESCRIPTION
Ⓐ	1	MAIN CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 100 AMPERE, 240 VOLT, 2-POLE, NON-INTERCHANGEABLE TRIP, INTERRUPTING RATING 65,000 AMPERES AT 240 VOLTS
Ⓑ	6	6 CUTLER HAMMER, GHB2040, 2-POLE, 40 AMPERE, 240 VOLT (LIGHTING), AND 6 CUTLER HAMMER, GHB1040, 1-POLE, 40 AMPERE, 120 VOLT (RECEPTACLES), BOLT-ON BRANCH CIRCUIT BREAKER, INTERRUPTING RATING 65,000 AMPERES
Ⓒ	2	CUTLER HAMMER, HFD1015, 1-POLE, 15 AMPERE, 240 VOLT CIRCUIT BREAKER, INTERRUPTING RATING 65,000 AMPERES AT 240 VOLTS
Ⓓ	1	CUTLER HAMMER, CN35KN2, 2-POLE, 100 AMPERE, 120 VOLT COIL CONTACTOR
Ⓔ	1	TIME SWITCH, 7-DAY, ELECTRONIC, ASTRONOMIC 2-CHANNEL CONTROLLER, 120V, INTERMATIC MODEL NO. ET8215C
Ⓕ	1	SQUARE D, 9001KYK111, HAND-OFF-AUTO SELECTOR SWITCH
Ⓖ	1	SAFETY DISCONNECT SWITCH, 100A, 240V, NON-FUSIBLE HEAVY DUTY, OUTDOOR RATED, LOCKABLE
Ⓗ	1	OMRON, A20GQ7BK, DOOR SWITCH
Ⓘ	1	LEVITON, 29816-C, LIGHT FIXTURE
Ⓙ	1	CINCH, 3 POINT TERMINAL BLOCK
Ⓚ	1	LEVITON, 6599, 15 AMPERE GROUND FAULT CIRCUIT INTERRUPTOR RECEPTACLE, WITH WEATHERPROOF COVER
Ⓛ	1	WHITE-RODGERS, #2E552, 0-50 DEGREE THERMOSTAT
Ⓜ	1	VULCAN #OSI408-250B 250 WATT STAINLESS STEEL HEATER
Ⓝ	2	COPPER GROUND AND NEUTRAL BUS, MINIMUM 1/4"x1"x12"
Ⓞ	1	BUSSMANN, KTK15, FUSE
Ⓟ	1	BRACKET MOUNTED SURGE ARRESTER FOR 120/240 VOLT, 3-WIRE SERVICE
Ⓡ	1	METER PEDESTAL FOR ELECTRIC UTILITY COMPANY METER
Ⓢ	1	MARATHON, #140240I, 175A, 2-POLE, 600 VOLT POWER DISTRIBUTION BLOCK
Ⓣ	1	COPPER-CLAD GROUND ROD, 5/8"x10'



LIGHTING DESIGN BASIS:

A. LIGHT FIXTURE USED IN DESIGN IS A GE CAT# DSME15SOA2GMC3BL019, 150 WATT, HPS, TYPE MC-III DISTRIBUTION, SHOEBOX STYLE.
B. LUMINAIRE MOUNTING HEIGHT IS 30 FEET.
C. LIGHTING MAST ARM LENGTH IS 8 FEET.
D. LIGHTING ARM AND LUMINAIRE ORIENTATION AS SHOWN ON THIS PLAN.

NOTES:

1. ALL STATIONS AND OFFSETS ARE MEASURED TO THE CLOSEST ALIGNMENT LINE.
2. INSTALL LIGHT POLE BASES IN THE LOCATIONS SHOWN. INSTALL POLE FOUNDATIONS SO THAT LIGHTING MAST ARM AND LUMINAIRE CAN BE INSTALLED IN THE ORIENTATION SHOWN ON THESE PLANS.
3. COORDINATE THE UNDERGROUND WORK WITH WISCONSIN PUBLIC SERVICE (WPS) BEFORE BEGINNING ANY LIGHTING WORK.
4. VERIFY THAT LIGHTING EQUIPMENT TO BE INSTALLED MATCH WHAT IS SPECIFIED IN THE LIGHTING DESIGN BASIS NOTES SHOWN ON THIS SHEET. ANY DEVIATION FROM THE SPECIFIED ABOVEGROUND LIGHTING EQUIPMENT WILL REQUIRE A VERIFICATION OF THE LIGHTING DESIGN TO ENSURE THAT THE REQUIRED LIGHTING LEVELS ARE MET.

LEGEND

- PROPOSED LIGHT POLE FOUNDATION LOCATION, WPS ROUNDABOUT LIGHTING FOR VILLAGE OF HOBART
- LOCATION OF ELECTRICAL SERVICE METER BREAKER PEDESTAL, UNDERGROUND WORK ONLY
- 2" CONDUIT RIGID NONMETALLIC
- 24"X42" PULL BOX
- SLXX / V, W — SL= STREET LIGHT BASE, XX= POLE NUMBER; V = STATION, W= OFFSET
- PLBXX / V, W — PLB= PULL BOX, XX= PULL BOX NUMBER; V = STATION, W= OFFSET

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	LIGHTING PLAN - CTH FF & CENTENNIAL CENTRE BLVD/NAVAJO	SHEET 139	E

NOTES:

WISCONSIN DOT NORTHEAST REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION. CONTACT THEM 3 DAYS IN ADVANCE AT (920) 492-5710.

2" DRAIN DUCT TO DITCH REQUIRED AS DEPICTED. THIS 2" DRAIN DUCT IS INCIDENTAL TO THE PULL BOX BID ITEM.

THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

BREAKAWAY BASE NOTE:

NO TRANSFORMER BASE REQUIRED FOR LB3 & LB13.

EXAMPLE (see individual label on each lighting unit)

III-LED A-12-5-A-4

- LIGHT UNIT NUMBER IN CIRCUIT
- CIRCUIT NUMBER
- BASE TYPE
- MAST ARM LENGTH (in feet)
- LAMP WATTAGE
- DISTRIBUTION TYPE

240 VOLT SYSTEM

120/240 VOLT ELECTRIC SERVICE

2" for Utility Use

III-LED A-12-5-F-1 LB21 PB6 CB1 LB1 III-LED A-12-5-A-1 III-LED A-12-5-A-2 III-LED A-12-5-A-3 LB5 III-LED A-12-5-B-3

III-LED A-12-5-E-1 LB20 III-LED A-12-5-B-1 III-LED A-12-5-B-2 LB4 PB7 LB6 III-LED A-12-5-A-4

III-LED A-12-5-F-4 PB5 LB2 LB3 LB7 PB8

PB1

LB19 PB4 LB16 LB13 III-LED A-12-5-D-1 LB12 PB10 LB11 PB9

LB18 PB3 PB2 LB14 III-LED A-12-5-E-2 III-LED A-12-5-C-2 LB10 LB8 III-LED A-12-5-D-3

III-LED A-12-5-E-4 LB17 LB15 III-LED A-12-5-F-2 III-LED A-12-5-C-1 LB9

III-LED A-12-5-F-3 III-LED A-12-5-E-3 III-LED A-12-5-D-2 III-LED A-12-5-C-3

LEGEND

- LIGHTING CONTROL CABINET (Type 9) WITH METER BREAKER PEDESTAL
- 2" CONDUIT, NON-METALLIC (unless otherwise noted)
- LIGHTING UNIT
- PULL BOX 24" X 42"
- POWER POLE
- SERVICE POLE
- ELECTRIC, UNDERGROUND — E —
- ELECTRIC, OVERHEAD — OH —

CONDUCTOR COLOR SCHEME

Circuit "A" = Black
Circuit "B" = Red
Circuit "C" = Blue
Circuit "D" = Brown
Circuit "E" = Orange
Circuit "F" = Yellow

STH 29 & CTH FF
VILLAGE OF HOWARD
BROWN COUNTY

LIGHTING NO. 863

DESIGNER: WISDOT NE Region Traffic Unit

DATE: 12-7-2012 SHEET NO. 1 OF 1

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CONSTRUCTION DETAIL - ROUNDABOUT LIGHTING	SHEET 140	E

2

LEGEND

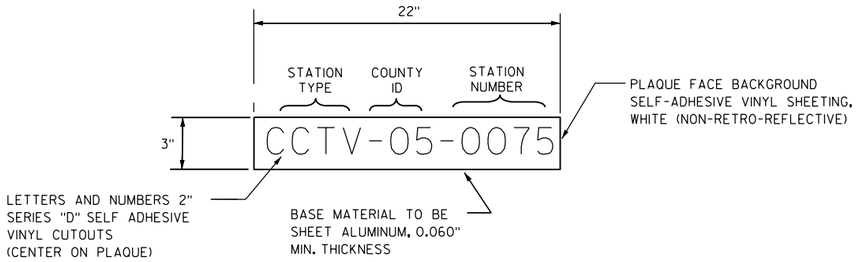
FTMS CONVENTIONAL SYMBOLS	EXISTING	PROPOSED
JUNCTION BOX	▬	▬
CCTV CAMERA AND POLE	◀▬●	◀▬●
FTMS FIELD CABINET AND BASE	▷◁	▷◁
POLE MOUNTED CABINET	⊠	⊠
METER BREAKER PEDESTAL	⊠	⊠
24"X36" STEEL PULL BOX		◑
ANTENNA POLE	H●	
MANHOLE	Ⓜ	Ⓜ
FTMS (ITS) CONDUIT	– –	– –
COMMUNICATIONS VAULT, TYPE 1	V	V

FTMS STANDARD ABBREVIATIONS

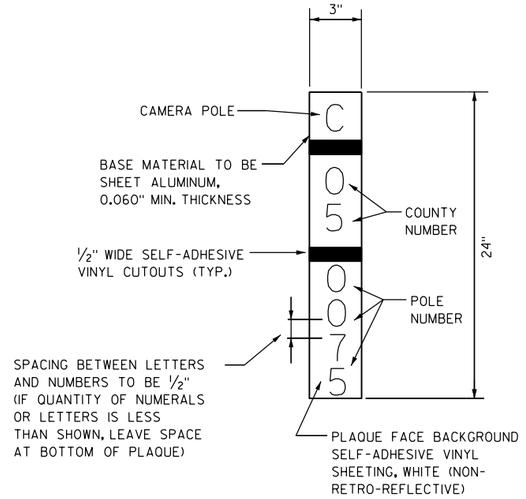
CB	CONTROLLER CABINET
CCTV	CLOSED CIRCUIT TELEVISION SITE
CV	COMMUNICATIONS VAULT
DMS	DYNAMIC MESSAGE SIGN
FY	ADVANCE FLASHER (ASSEMBLY)
PB	PULL BOX
MH	MANHOLE
RM	RAMP METER
WTS	WIRELESS TRAFFIC SENSOR
WP	TEMPORARY WOOD POLE
SH	RAMP METER SIGNAL HEAD
VD	TEMPORARY VIDEO DETECTION
SB	SIGN BASE

FTMS GENERAL NOTES

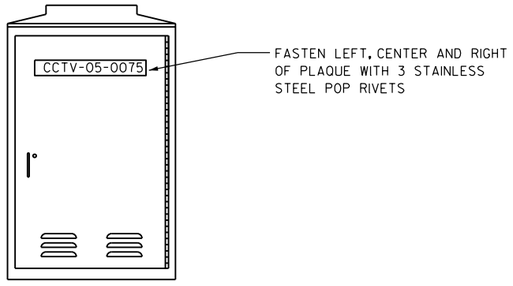
1. THESE PLANS AND THE ASSOCIATED SPECIAL PROVISIONS REFLECT CONDITIONS KNOWN DURING THE DEVELOPMENT OF THE PLANS AND TECHNICAL SPECIAL PROVISIONS. ALL SCALES, DIMENSIONS AND LOCATIONS SHOWN IN THESE PLANS ARE APPROXIMATE. ACTUAL PHYSICAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR THE APPLICATION OF WORK SHOWN IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE APPLICATION OF ALL WORK SHOWN IN THE PLANS TO THE ACTUAL PHYSICAL FIELD CONDITIONS TO PROVIDE A COMPLETE AND ACCEPTED PROJECT. IN THE EVENT THAT ACTUAL PHYSICAL FIELD CONDITIONS AFFECT OR PREVENT THE APPLICATION OR PROGRESSION OF ANY WORK SHOWN IN THE PLANS OR TECHNICAL SPECIAL PROVISIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, AND PRIOR TO ANY FURTHER WORK ACTIVITY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY LOCATION CHANGES OTHER THAN MINOR ADJUSTMENTS.
2. BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.
3. BE AWARE THAT NO TEST BORINGS WERE MADE WHERE CONDUITS, PULLBOXES, POLES, CABINET FOUNDATIONS, OR OTHER EQUIPMENT IS TO BE INSTALLED. THE CONTRACTOR IS FULLY RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.
4. NO TREES (AND/OR SHRUBS) SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
5. AREAS WITHIN THE RIGHT-OF-WAY DISTURBED SPECIFICALLY FOR FTMS CONSTRUCTION SHALL BE RESTORED TO THE ORIGINAL CONDITION WITH TOPSOIL, FERTILIZER, SEED, AND EROSION MAT, AND SHALL BE INCLUDED IN THE COST OF INSTALLING FTMS ITEMS. RESTORATION FOR AREAS DISTURBED FOR OTHER CONSTRUCTION OPERATIONS BUT ALSO CONTAINING FTMS CONSTRUCTION SHALL BE DONE ACCORDING TO REQUIREMENTS AND PAYMENT PROVISIONS FOR THE OTHER CONSTRUCTION OPERATIONS.
6. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
7. DUE TO RAMP, LANE, SHOULDER CLOSURE RESTRICTIONS, AND WORK UNDER OTHER CONTRACTS, SOME WORK MAY BE REQUIRED TO BE PERFORMED AT NIGHT.
8. THE CONTRACTOR IS FULLY RESPONSIBLE FOR COORDINATING RAMP, LANE, SHOULDER, AND ROADWAY CLOSURES WITH OTHER CONTRACTS IN THE AREA.
9. THE CONTRACTOR SHALL CONTACT THE WISDOT STATEWIDE TRAFFIC OPERATIONS CENTER AT (414) 227-2166 FIVE (5) WORKING DAYS PRIOR TO ENTERING ANY EXISTING WISDOT FTMS OR ITS CABINET.
10. ALL LOOP DETECTORS ARE STATIONED TO CENTER OF LEADING EDGE AS APPROACHED BY NORMAL VEHICLE PATH.
11. HAND DIG TRENCHES CROSSING EXISTING CONDUIT CONTAINING FIBER OPTIC CABLE.
12. VISUALLY VERIFY DEPTHS OF EXISTING CONDUITS CONTAINING FIBER OPTIC CABLE PRIOR TO CROSSING BY DIRECTIONAL BORE OR SPECIAL METHOD.



CONTROL CABINET IDENTIFICATION PLAQUE DETAIL



POLE IDENTIFICATION PLAQUE DETAIL



CONTROL CABINET IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENTS

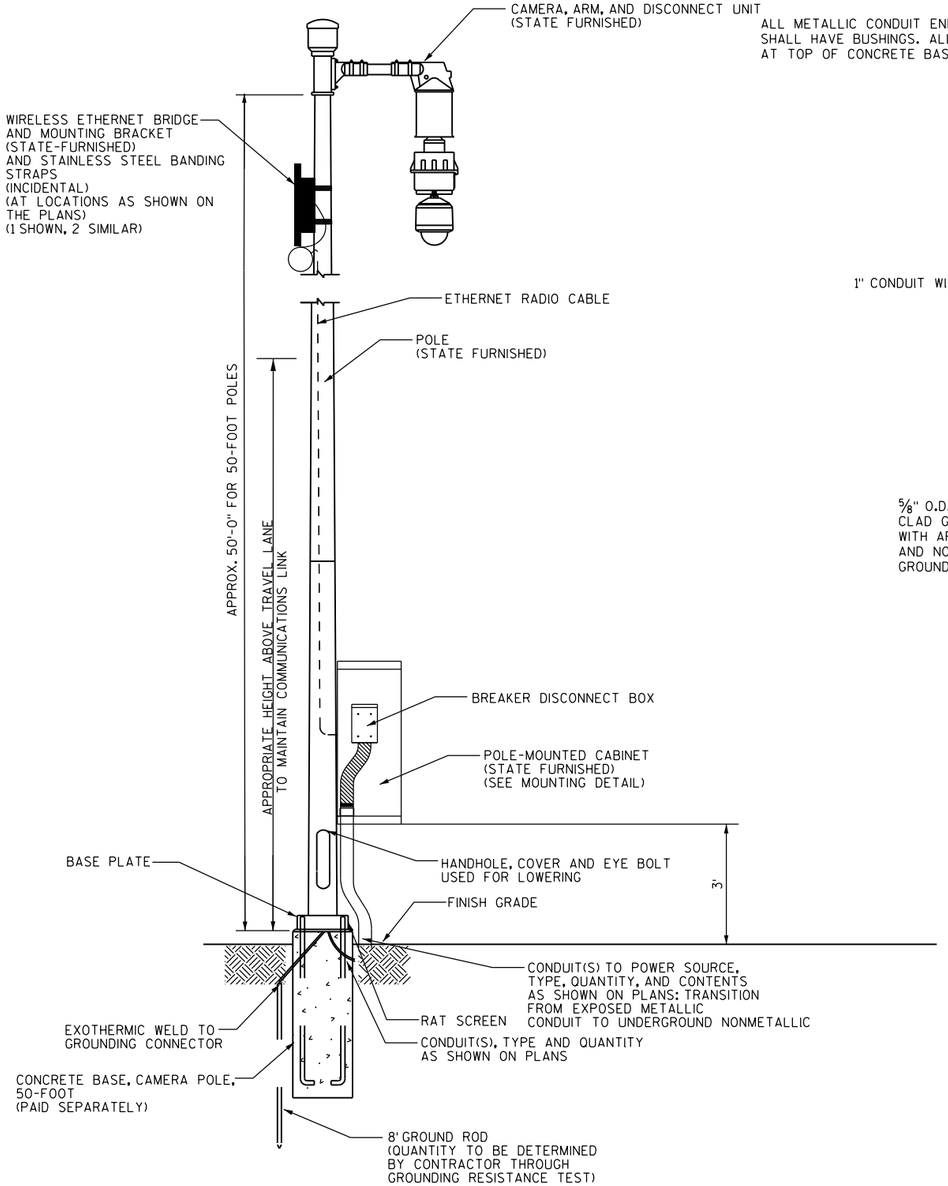
(TYPICAL ALL CONTROL CABINETS)

LEGEND STATION TYPE

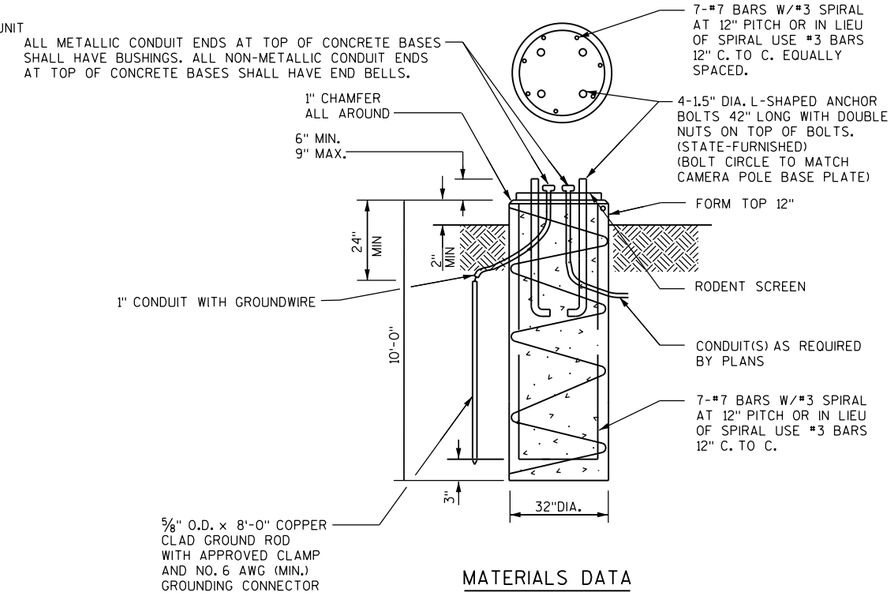
RM - RAMP METER
CCTV - CLOSED CIRCUIT TELEVISION
ATR - AUTOMATIC TRAFFIC RECORDER
SDS - SYSTEM DETECTOR STATION
MD - MICROWAVE DETECTOR

NOTES

1) TWO PLAQUES PER CABINET REQUIRED ON CONTROL CABINET.
2) FASTEN ONE PLAQUE ON FRONT DOOR, UPPER HALF.
3) FASTEN ONE PLAQUE ON SIDE FACING LOCAL STREET. IF NO LOCAL STREET NEARBY, OR IF SUCH LOCATION COINCIDES WITH LOCATION OF PLAQUE IN NOTE 2, FASTEN PLAQUE ON REAR OF CABINET, UPPER HALF.
4) COUNTY NUMBER NOT REQUIRED ON RAMP METER CABINETS.



CAMERA POLE WITH CAMERA LOWERING HARDWARE

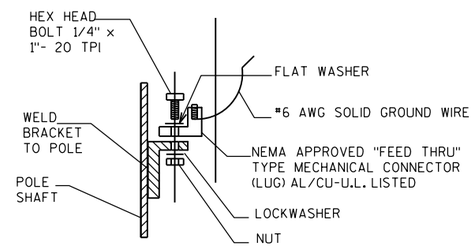


MATERIALS DATA

CONCRETE	f'c=3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT	fy = 60,000 psi

CONCRETE BASE, 50' CAMERA POLE

NOT TO SCALE



FIELD INSTALLED GROUNDING LUG

NOTES

1) ALL HARDWARE AND FASTENERS SHALL BE STAINLESS STEEL
2) POLE DRAWINGS SHOWN FOR BIDDING INFORMATION PURPOSES ONLY. POLES WILL BE STATE FURNISHED. BASE TO BE CONTRACTOR DESIGNED.
3) CONTRACTOR SHALL CONFIRM BOLT PATTERN OF CAMERA POLE PRIOR TO CONSTRUCTION OF CONCRETE BASE.
4) CONTRACTOR SHALL INSTALL GROUNDING LUG AS SHOWN

CAMERA POLES & FOUNDATIONS

2

2

N

COMMUNICATIONS NOTE:
OTHER END OF WIRELESS ETHERNET LINK IS LOCATED AT CCTV-05-0050 AT STH 29 AND PACKERLAND AVE.

CCTV-05-0075
(1) 50-FOOT CAMERA POLE CONCRETE BASE
(1) 50-FOOT CAMERA POLE (S-F)
(1) DOME CAMERA ASSEMBLY (S-F)
(1) POLE-MOUNTED CABINET (S-F)
(1) BREAKER DISCONNECT BOX
(1) 5.8 GHZ WIRELESS ETHERNET BRIDGE (S-F)
(1) ETHERNET VIDEO ENCODER (S-F)
(1) ETHERNET SWITCH (S-F)

(1) 2-INCH METALLIC CONDUIT WITH (3) NO. 6 AWG AND (1) NO. 10 AWG LIGHTING WIRES

PBFF05

(2) 2-INCH NONMETALLIC CONDUITS (FOR FUTURE USE)

(2) 2-INCH NONMETALLIC CONDUITS (1) WITH (3) NO. 6 AWG AND (1) NO. 10 AWG LIGHTING WIRES

PBFF10

PROPOSED LIGHTING CABINET

CTH FF

STH 29 WB

STH 29 EB

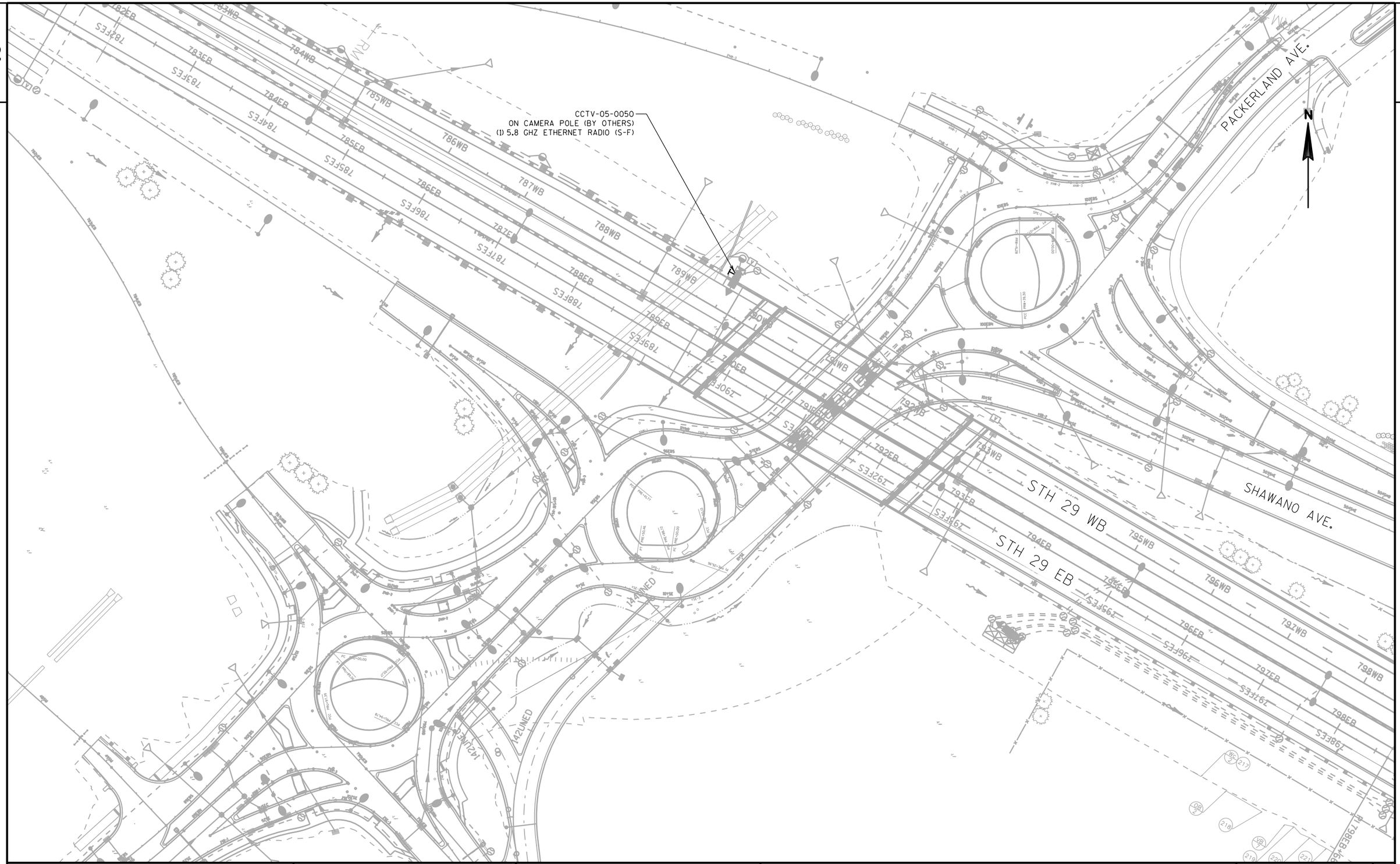
EMH1274

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	FTMS DESIGN	SHEET 144 E

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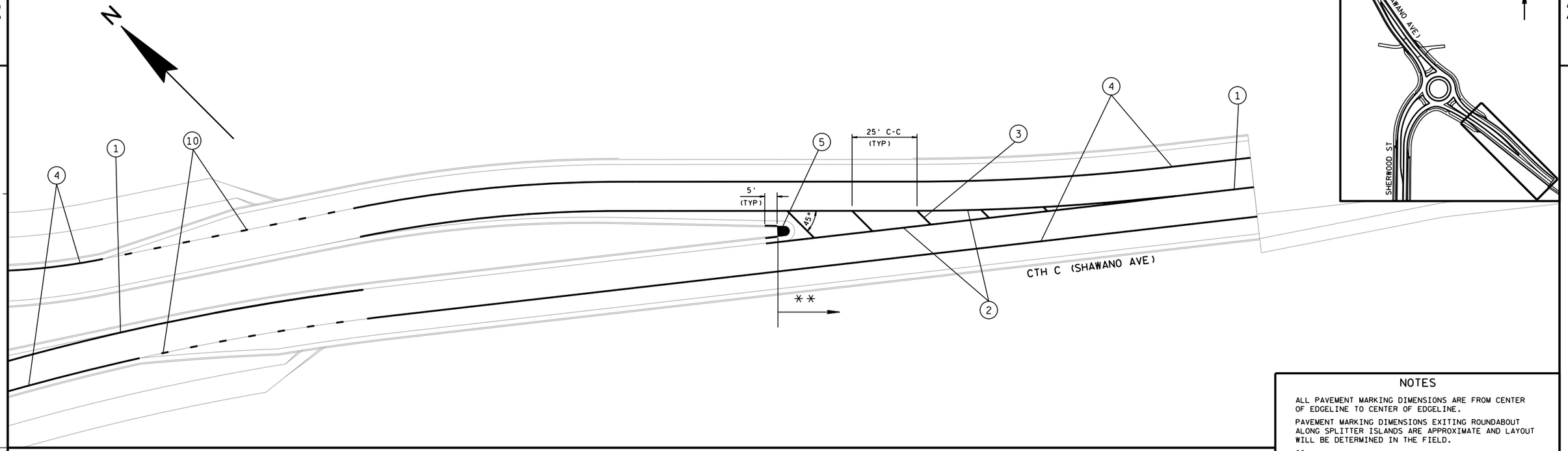
WISDOT/CADDS SHEET 42

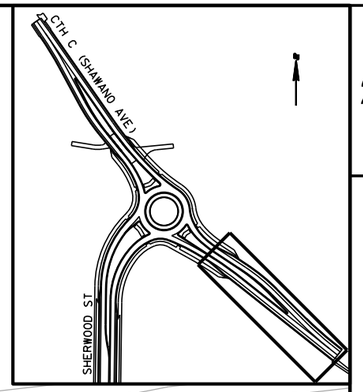
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	FTMS DESIGN	SHEET	E

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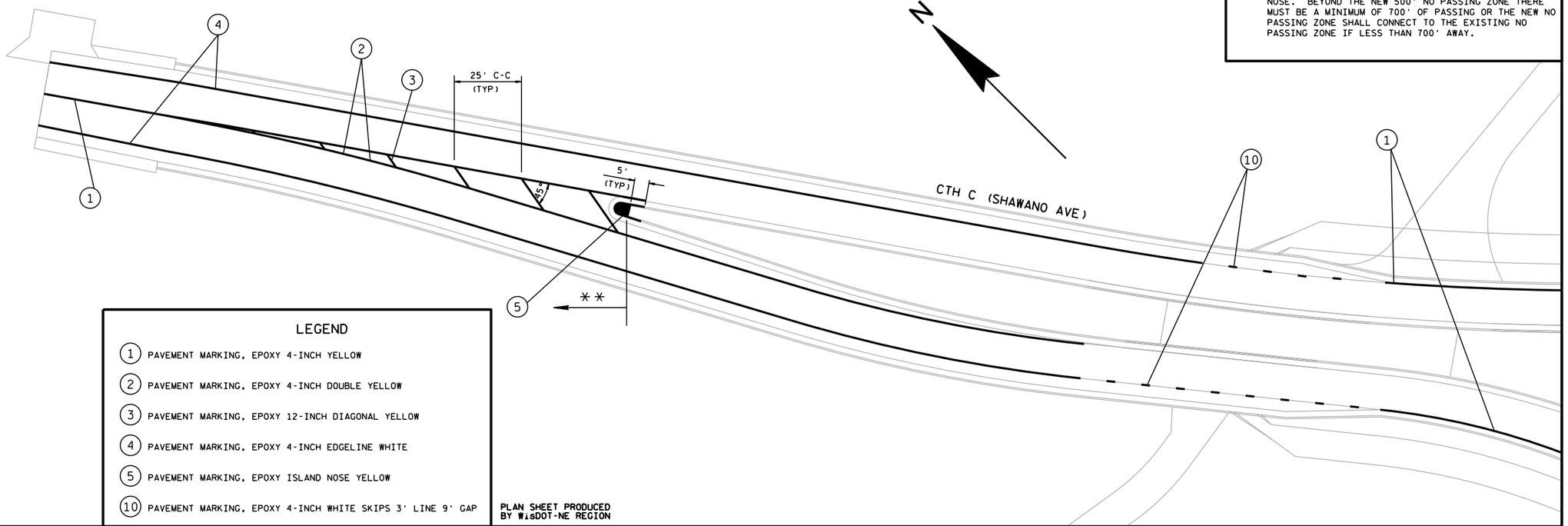
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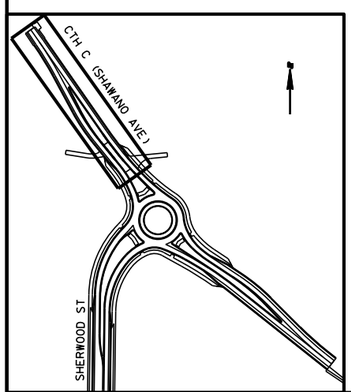
NOTES

ALL PAVEMENT MARKING DIMENSIONS ARE FROM CENTER OF EDGELINE TO CENTER OF EDGELINE.

PAVEMENT MARKING DIMENSIONS EXITING ROUNDABOUT ALONG SPLITTER ISLANDS ARE APPROXIMATE AND LAYOUT WILL BE DETERMINED IN THE FIELD.

** BEYOND THE GORE AREA THE DOUBLE YELLOW SHOULD CONTINUE TO A DISTANCE OF 500' FROM THE MEDIAN NOSE. BEYOND THE NEW 500' NO PASSING ZONE THERE MUST BE A MINIMUM OF 700' OF PASSING OR THE NEW NO PASSING ZONE SHALL CONNECT TO THE EXISTING NO PASSING ZONE IF LESS THAN 700' AWAY.





LEGEND

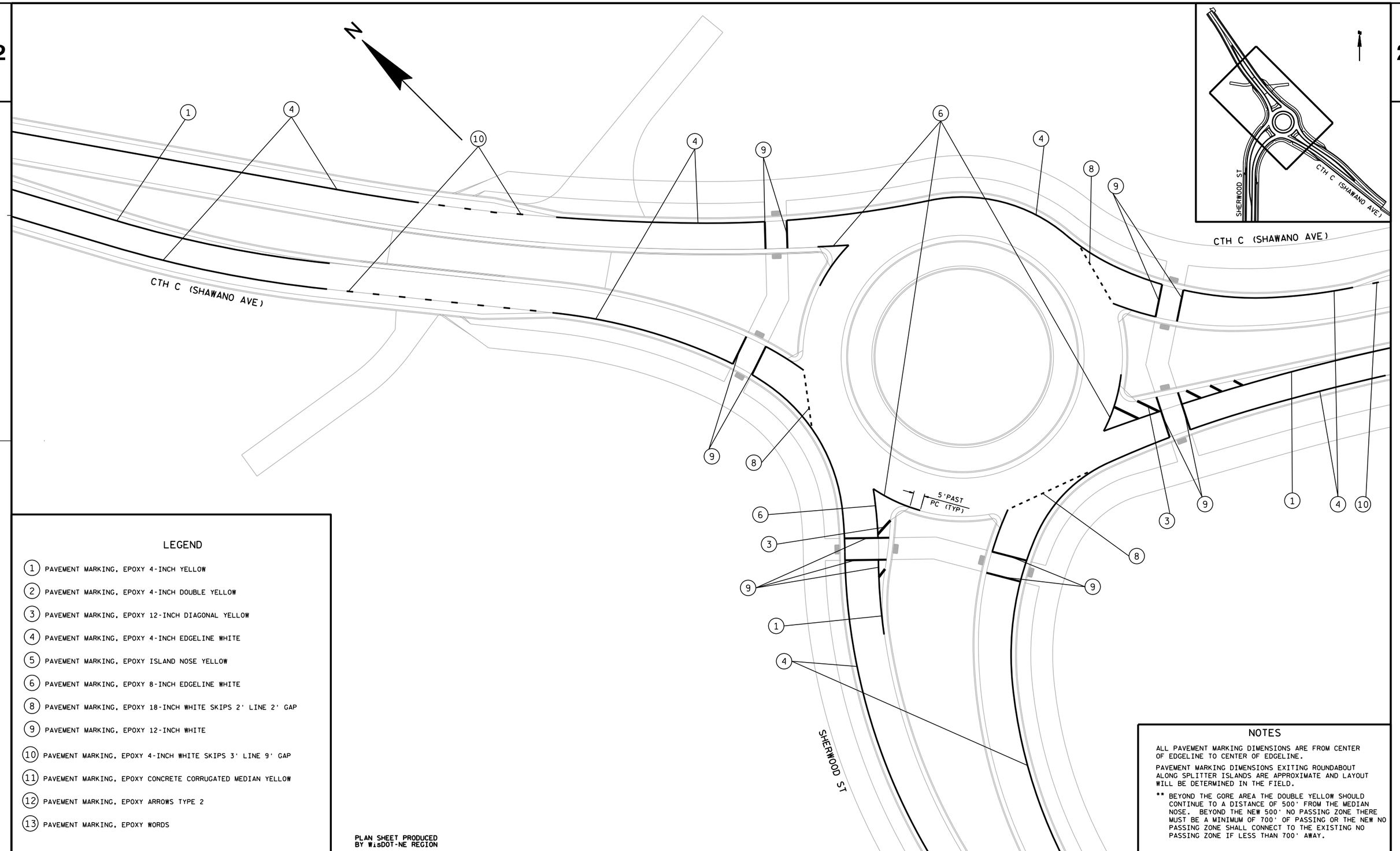
1. PAVEMENT MARKING, EPOXY 4-INCH YELLOW
2. PAVEMENT MARKING, EPOXY 4-INCH DOUBLE YELLOW
3. PAVEMENT MARKING, EPOXY 12-INCH DIAGONAL YELLOW
4. PAVEMENT MARKING, EPOXY 4-INCH EDGELINE WHITE
5. PAVEMENT MARKING, EPOXY ISLAND NOSE YELLOW
10. PAVEMENT MARKING, EPOXY 4-INCH WHITE SKIPS 3' LINE 9' GAP

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PAVEMENT MARKING - CTH FF/HILLCREST DR/SHERWOOD ST	SHEET 146	E

FILE NAME : F:\D3_920004\024501_pm.dgn PLOT DATE : 25-JAN-2013 15:38 PLOT BY : ditjbs PLOT NAME : 024501PM.1 PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42



LEGEND

1. PAVEMENT MARKING, EPOXY 4-INCH YELLOW
2. PAVEMENT MARKING, EPOXY 4-INCH DOUBLE YELLOW
3. PAVEMENT MARKING, EPOXY 12-INCH DIAGONAL YELLOW
4. PAVEMENT MARKING, EPOXY 4-INCH EDGELINE WHITE
5. PAVEMENT MARKING, EPOXY ISLAND NOSE YELLOW
6. PAVEMENT MARKING, EPOXY 8-INCH EDGELINE WHITE
8. PAVEMENT MARKING, EPOXY 18-INCH WHITE SKIPS 2' LINE 2' GAP
9. PAVEMENT MARKING, EPOXY 12-INCH WHITE
10. PAVEMENT MARKING, EPOXY 4-INCH WHITE SKIPS 3' LINE 9' GAP
11. PAVEMENT MARKING, EPOXY CONCRETE CORRUGATED MEDIAN YELLOW
12. PAVEMENT MARKING, EPOXY ARROWS TYPE 2
13. PAVEMENT MARKING, EPOXY WORDS

PLAN SHEET PRODUCED BY WisDOT-NE REGION

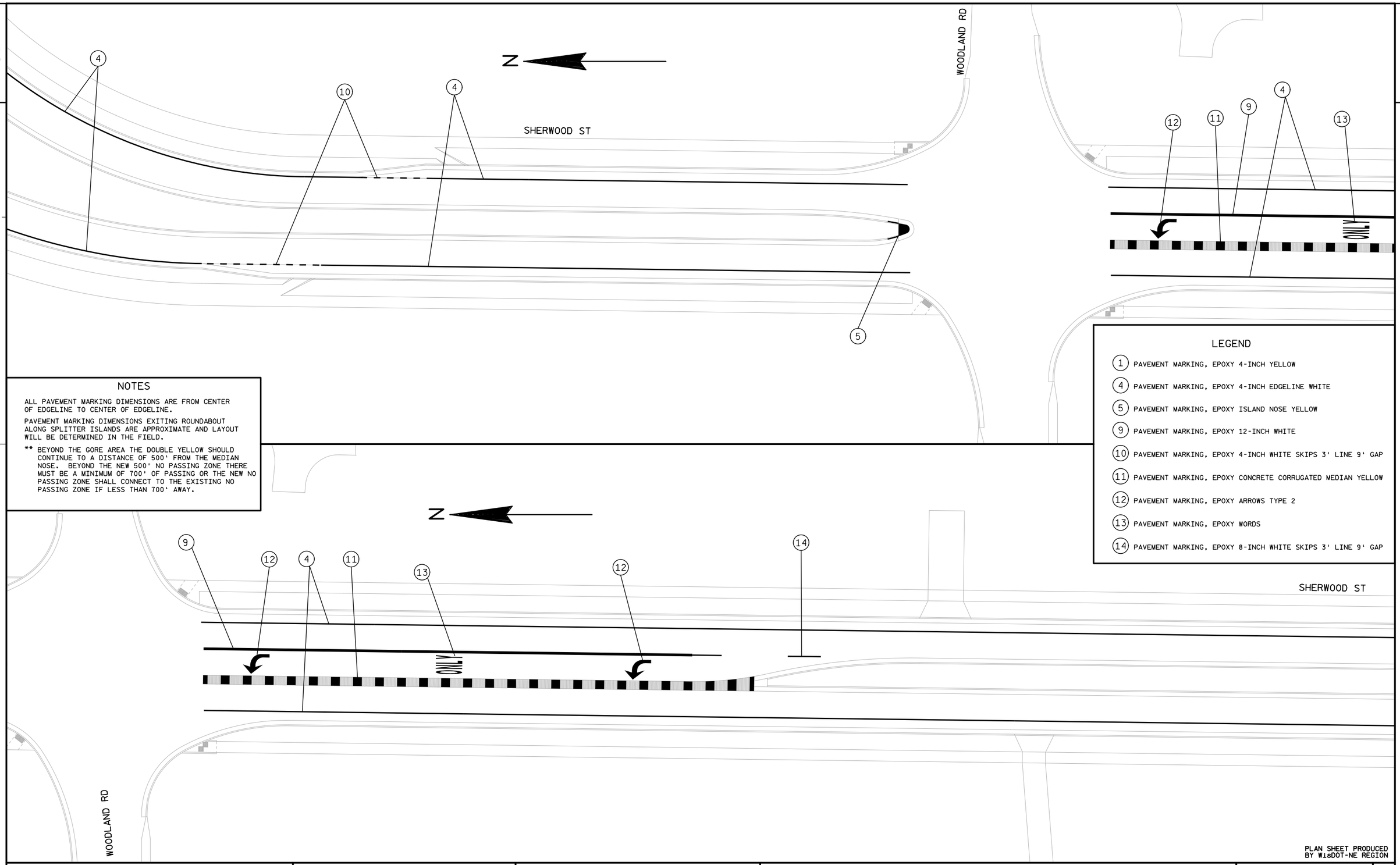
NOTES

ALL PAVEMENT MARKING DIMENSIONS ARE FROM CENTER OF EDGELINE TO CENTER OF EDGELINE.

PAVEMENT MARKING DIMENSIONS EXITING ROUNDABOUT ALONG SPLITTER ISLANDS ARE APPROXIMATE AND LAYOUT WILL BE DETERMINED IN THE FIELD.

** BEYOND THE GORE AREA THE DOUBLE YELLOW SHOULD CONTINUE TO A DISTANCE OF 500' FROM THE MEDIAN NOSE. BEYOND THE NEW 500' NO PASSING ZONE THERE MUST BE A MINIMUM OF 700' OF PASSING OR THE NEW NO PASSING ZONE SHALL CONNECT TO THE EXISTING NO PASSING ZONE IF LESS THAN 700' AWAY.

PROJECT NO:9200-04-71	HWY: STH 29	COUNTY:BROWN	PAVEMENT MARKING - CTH FF/HILLCREST DR/SHERWOOD ST	SHEET 147	E



NOTES

ALL PAVEMENT MARKING DIMENSIONS ARE FROM CENTER OF EDGELINE TO CENTER OF EDGELINE.

PAVEMENT MARKING DIMENSIONS EXITING ROUNDABOUT ALONG SPLITTER ISLANDS ARE APPROXIMATE AND LAYOUT WILL BE DETERMINED IN THE FIELD.

** BEYOND THE GORE AREA THE DOUBLE YELLOW SHOULD CONTINUE TO A DISTANCE OF 500' FROM THE MEDIAN NOSE. BEYOND THE NEW 500' NO PASSING ZONE THERE MUST BE A MINIMUM OF 700' OF PASSING OR THE NEW NO PASSING ZONE SHALL CONNECT TO THE EXISTING NO PASSING ZONE IF LESS THAN 700' AWAY.

LEGEND

(1) PAVEMENT MARKING, EPOXY 4-INCH YELLOW

(4) PAVEMENT MARKING, EPOXY 4-INCH EDGELINE WHITE

(5) PAVEMENT MARKING, EPOXY ISLAND NOSE YELLOW

(9) PAVEMENT MARKING, EPOXY 12-INCH WHITE

(10) PAVEMENT MARKING, EPOXY 4-INCH WHITE SKIPS 3' LINE 9' GAP

(11) PAVEMENT MARKING, EPOXY CONCRETE CORRUGATED MEDIAN YELLOW

(12) PAVEMENT MARKING, EPOXY ARROWS TYPE 2

(13) PAVEMENT MARKING, EPOXY WORDS

(14) PAVEMENT MARKING, EPOXY 8-INCH WHITE SKIPS 3' LINE 9' GAP

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PAVEMENT MARKING - CTH FF/HILLCREST DR/SHERWOOD ST	SHEET 148 E

LEGEND

(1) PAVEMENT MARKING, EPOXY 4-INCH YELLOW

(4) PAVEMENT MARKING, EPOXY 4-INCH EDGELINE WHITE

(6) PAVEMENT MARKING, EPOXY 8-INCH EDGELINE WHITE

(8) PAVEMENT MARKING, EPOXY 18-INCH WHITE SKIPS 2' LINE 2' GAP

(9) PAVEMENT MARKING, EPOXY 12-INCH WHITE

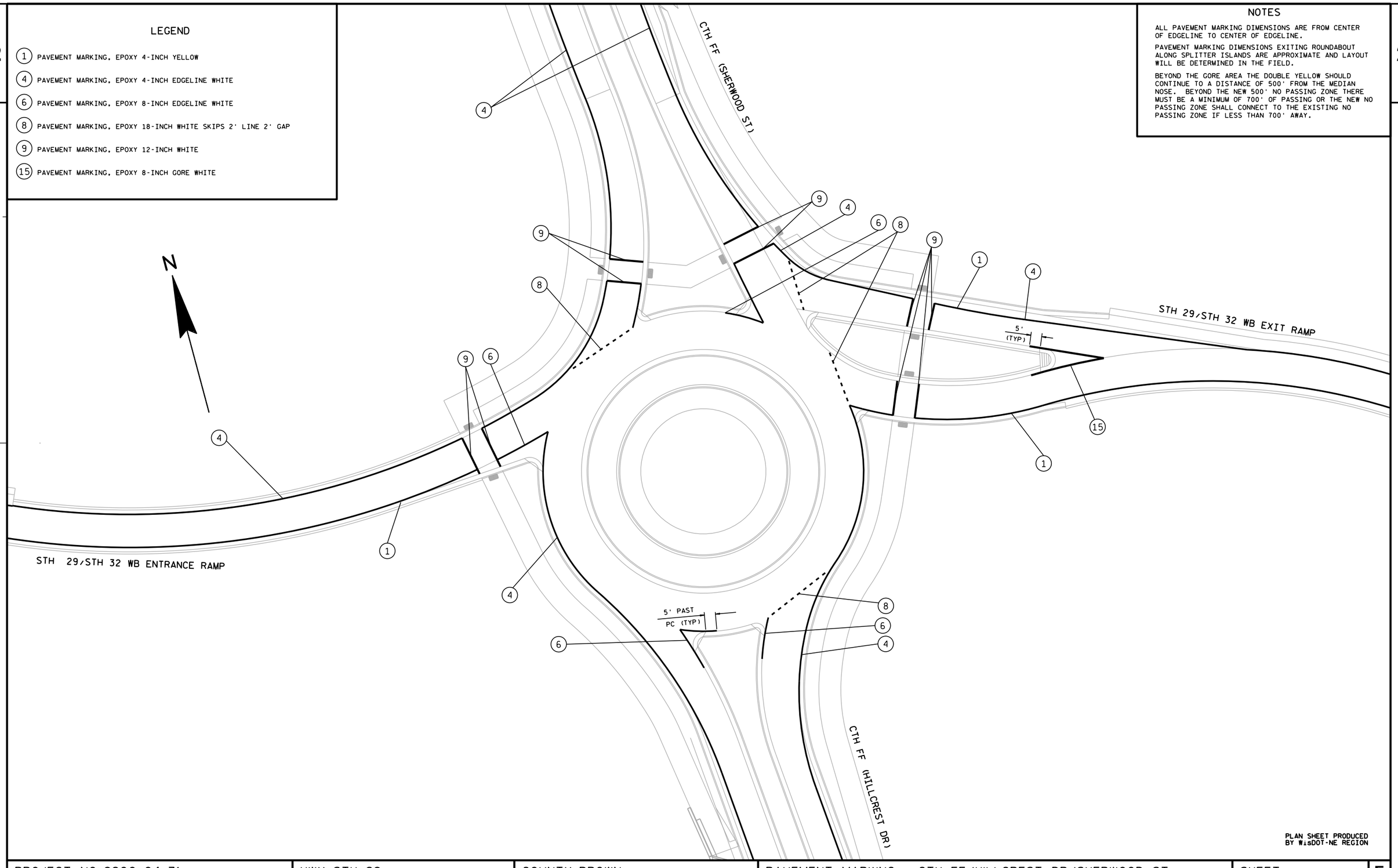
(15) PAVEMENT MARKING, EPOXY 8-INCH GORE WHITE

NOTES

ALL PAVEMENT MARKING DIMENSIONS ARE FROM CENTER OF EDGELINE TO CENTER OF EDGELINE.

PAVEMENT MARKING DIMENSIONS EXITING ROUNDABOUT ALONG SPLITTER ISLANDS ARE APPROXIMATE AND LAYOUT WILL BE DETERMINED IN THE FIELD.

BEYOND THE GORE AREA THE DOUBLE YELLOW SHOULD CONTINUE TO A DISTANCE OF 500' FROM THE MEDIAN NOSE. BEYOND THE NEW 500' NO PASSING ZONE THERE MUST BE A MINIMUM OF 700' OF PASSING OR THE NEW NO PASSING ZONE SHALL CONNECT TO THE EXISTING NO PASSING ZONE IF LESS THAN 700' AWAY.



PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PAVEMENT MARKING - CTH FF/HILLCREST DR/SHERWOOD ST	SHEET	E

FILE NAME : F:\D3_920004\024504_pm.dgn PLOT DATE : 25-JAN-2013 15:38 PLOT BY : ditjbs PLOT NAME : 024504 PM.1 PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

(1) PAVEMENT MARKING, EPOXY 4-INCH YELLOW

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

(4) PAVEMENT MARKING, EPOXY 4-INCH EDGELINE WHITE

(6) PAVEMENT MARKING, EPOXY 8-INCH EDGELINE WHITE

(8) PAVEMENT MARKING, EPOXY 18-INCH WHITE SKIPS 2' LINE 2' GAP

(9) PAVEMENT MARKING, EPOXY 12-INCH WHITE

(10) PAVEMENT MARKING, EPOXY 4-INCH WHITE SKIPS 3' LINE 9' GAP

(14) PAVEMENT MARKING, EPOXY 8-INCH WHITE SKIPS 3' LINE 9' GAP

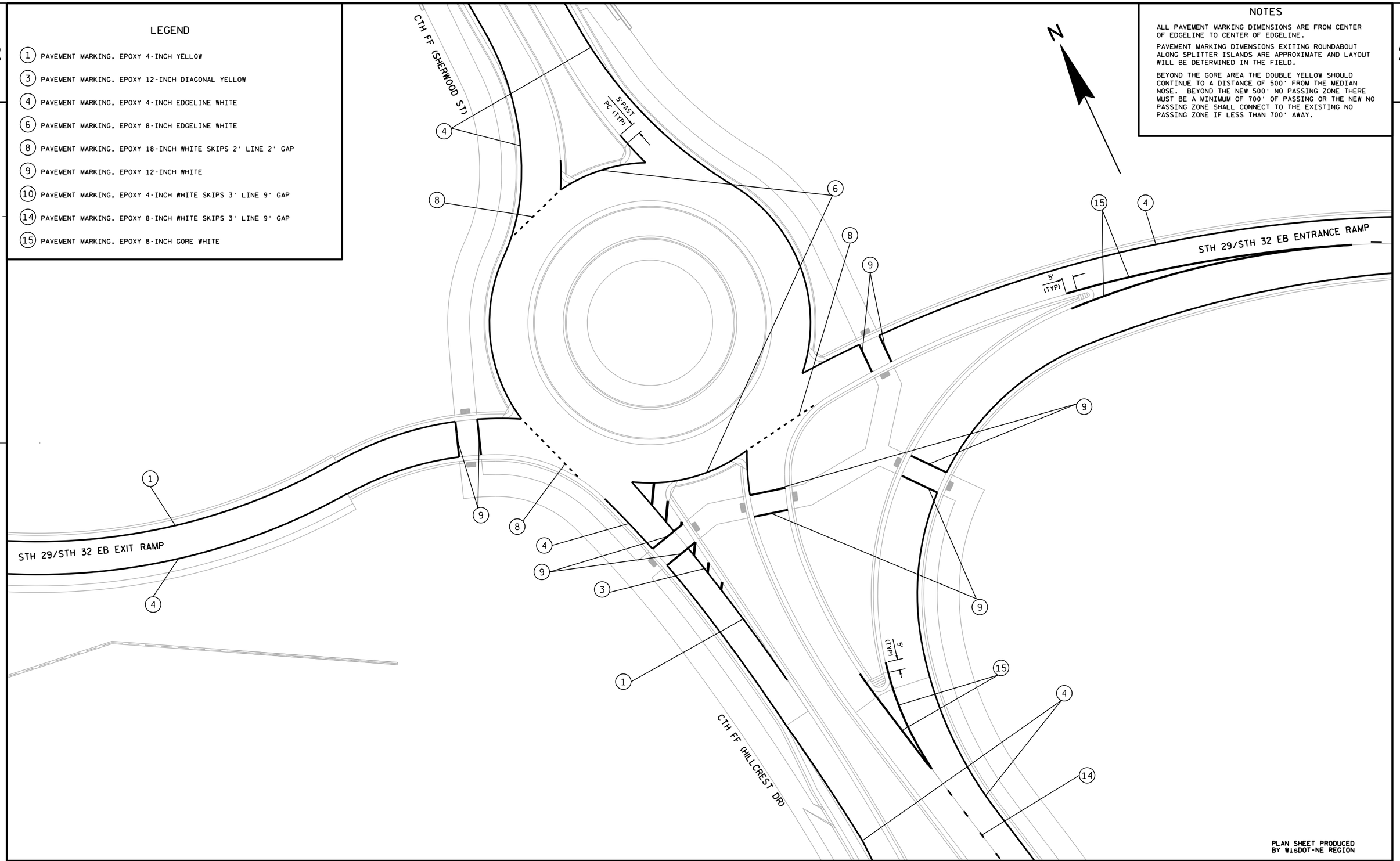
(15) PAVEMENT MARKING, EPOXY 8-INCH GORE WHITE

NOTES

ALL PAVEMENT MARKING DIMENSIONS ARE FROM CENTER OF EDGELINE TO CENTER OF EDGELINE.

PAVEMENT MARKING DIMENSIONS EXITING ROUNDABOUT ALONG SPLITTER ISLANDS ARE APPROXIMATE AND LAYOUT WILL BE DETERMINED IN THE FIELD.

BEYOND THE GORE AREA THE DOUBLE YELLOW SHOULD CONTINUE TO A DISTANCE OF 500' FROM THE MEDIAN NOSE. BEYOND THE NEW 500' NO PASSING ZONE THERE MUST BE A MINIMUM OF 700' OF PASSING OR THE NEW NO PASSING ZONE SHALL CONNECT TO THE EXISTING NO PASSING ZONE IF LESS THAN 700' AWAY.



PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PAVEMENT MARKING - CTH FF/HILLCREST DR/SHERWOOD ST	SHEET 150	E

2

GOLDEN POND PARK RD

CTH FF (HILLCREST DR)

NAVAJO TRAIL

5' (TYP)

5' PAST PC (TYP)

N

LEGEND

1. PAVEMENT MARKING, EPOXY 4-INCH YELLOW
2. PAVEMENT MARKING, EPOXY 4-INCH DOUBLE YELLOW
3. PAVEMENT MARKING, EPOXY 12-INCH DIAGONAL YELLOW
4. PAVEMENT MARKING, EPOXY 4-INCH EDGELINE WHITE
5. PAVEMENT MARKING, EPOXY ISLAND NOSE YELLOW
6. PAVEMENT MARKING, EPOXY 8-INCH EDGELINE WHITE
7. PAVEMENT MARKING, EPOXY 8-INCH YELLOW
8. PAVEMENT MARKING, EPOXY 18-INCH WHITE SKIPS 2' LINE 2' GAP
9. PAVEMENT MARKING, EPOXY 12-INCH WHITE
10. PAVEMENT MARKING, EPOXY 4-INCH WHITE SKIPS 3' LINE 9 GAP
15. PAVEMENT MARKING, EPOXY 8-INCH GORE WHITE

NOTES

ALL PAVEMENT MARKING DIMENSIONS ARE FROM CENTER OF EDGELINE TO CENTER OF EDGELINE.

PAVEMENT MARKING DIMENSIONS EXITING ROUNDABOUT ALONG SPLITTER ISLANDS ARE APPROXIMATE AND LAYOUT WILL BE DETERMINED IN THE FIELD.

BEYOND THE GORE AREA THE DOUBLE YELLOW SHOULD CONTINUE TO A DISTANCE OF 500' FROM THE MEDIAN NOSE. BEYOND THE NEW 500' NO PASSING ZONE THERE MUST BE A MINIMUM OF 700' OF PASSING OR THE NEW NO PASSING ZONE SHALL CONNECT TO THE EXISTING NO PASSING ZONE IF LESS THAN 700' AWAY.

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PAVEMENT MARKING - CTH FF/HILLCREST DR/SHERWOOD ST	SHEET 151	E

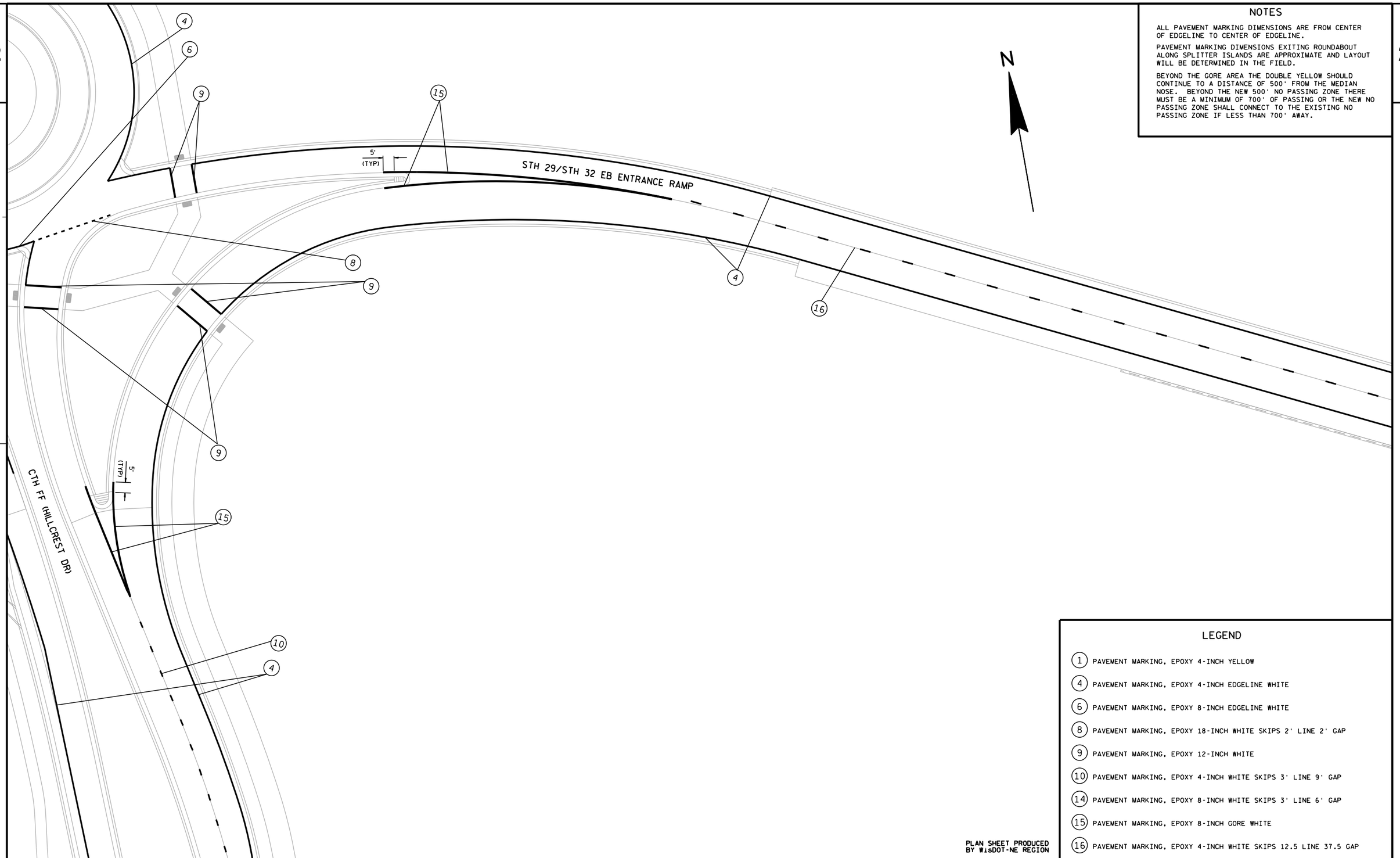
2

NOTES

ALL PAVEMENT MARKING DIMENSIONS ARE FROM CENTER OF EDGELINE TO CENTER OF EDGELINE.

PAVEMENT MARKING DIMENSIONS EXITING ROUNDABOUT ALONG SPLITTER ISLANDS ARE APPROXIMATE AND LAYOUT WILL BE DETERMINED IN THE FIELD.

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LEGEND

(1) PAVEMENT MARKING, EPOXY 4-INCH YELLOW

(4) PAVEMENT MARKING, EPOXY 4-INCH EDGELINE WHITE

(6) PAVEMENT MARKING, EPOXY 8-INCH EDGELINE WHITE

(8) PAVEMENT MARKING, EPOXY 18-INCH WHITE SKIPS 2' LINE 2' GAP

(9) PAVEMENT MARKING, EPOXY 12-INCH WHITE

(10) PAVEMENT MARKING, EPOXY 4-INCH WHITE SKIPS 3' LINE 9' GAP

(14) PAVEMENT MARKING, EPOXY 8-INCH WHITE SKIPS 3' LINE 6' GAP

(15) PAVEMENT MARKING, EPOXY 8-INCH GORE WHITE

(16) PAVEMENT MARKING, EPOXY 4-INCH WHITE SKIPS 12.5 LINE 37.5 GAP

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PAVEMENT MARKING - CTH FF/HILLCREST DR/SHERWOOD ST	SHEET 152	E

2

GENERAL TRAFFIC CONTROL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 1,000 FEET DISTANCE TO EXISTING SIGNS.

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.

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

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

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1,500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE FEWER THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS. SIGNS MUST BE PLACED AT THE HEIGHT SHOWN IN THE MUTCD.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

NO EQUIPMENT OR MATERIAL SHALL BE STORED WITHIN THE WORK ZONE OTHER THAN BEHIND THE PRECAST CONCRETE BARRIER WHEN ADJACENT TO LANES WITH LIVE TRAFFIC.

WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO LOCATE THE ARROWBOARD SHOWN, PLACE THE ARROWBOARD IN THE LANE CLOSURE TAPER AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE TAPER.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF THE WORK DAY.

TRAFFIC CONTROL DRUMS IN TAPERS SHALL BE EQUIPPED WITH WARNING LIGHTS TYPE "C" ONE-WAY LIGHTS IN TAPERS ONLY UNLESS OTHERWISE SHOWN.

CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING

STAGING NOTES

TRAFFIC CONTROL ITEMS SHOWN IN EACH STAGE SHALL BE IN PLACE AT THE START OF THAT STAGE, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

ALL TRAFFIC CONTROL DEVICES SHALL REMAIN IN PLACE, AS SHOWN, THROUGH THE DURATION OF EACH STAGE, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

SEE SPECIAL PROVISIONS FOR TRAFFIC STAGING REQUIREMENTS.

ALL REQUIRED HAUL ROADS TO BE DETERMINED IN THE FIELD AND APPROVED BY THE ENGINEER.

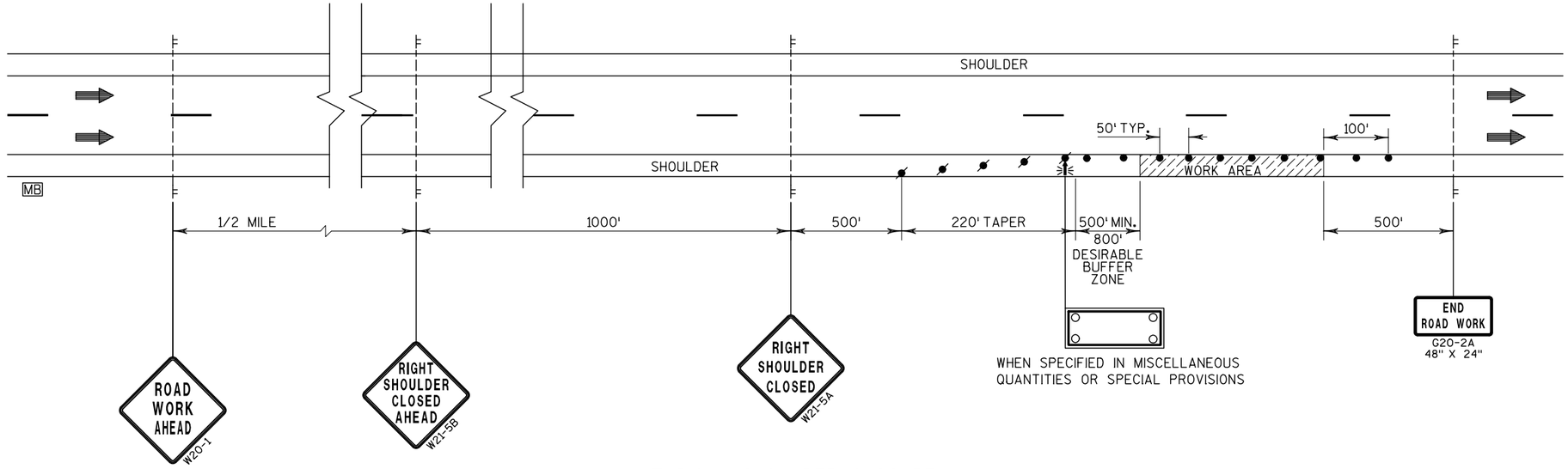
LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- Ⓐ TYPE A WARNING LIGHT (FLASHING)
- Ⓑ TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- Ⓒ TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- TEMPORARY RAISED PAVEMENT MARKER (TWO WAY REFLECTOR)
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

2

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TRAFFIC CONTROL GENERAL NOTES	SHEET 153	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\025200_tc.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 200.0000 sf / in.



TYPICAL SHOULDER CLOSURE

LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD

TRAFFIC CONTROL NOTES

RIGHT SHOULDER CLOSURE SHOWN, REVERSE FOR CLOSING THE LEFT SHOULDER.

ADJUST THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

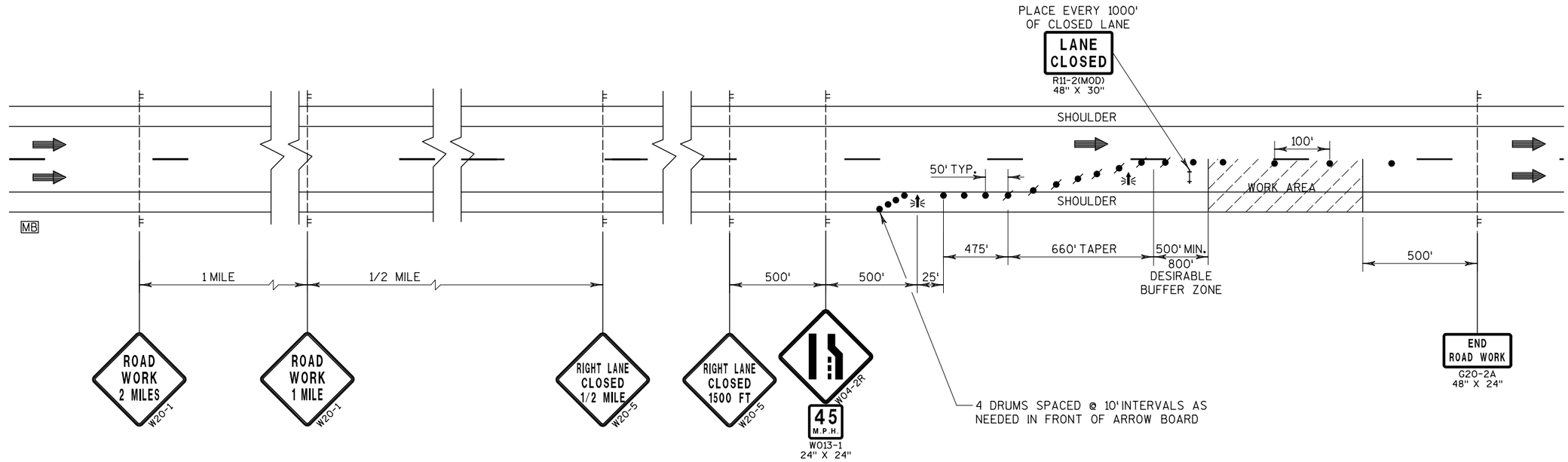
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

REMOVE OR COVER ALL SHORT TERM LANE CLOSURE SIGNS AND REMOVE ALL ARROW BOARDS AND DEVICES BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

SHOULDER CLOSURE-SPEEDS 45 MPH OR GREATER



TYPICAL ONE-LANE CLOSURE

SHORT TERM - 7 DAYS OR LESS

GENERAL NOTES

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

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

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

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

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRED ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

RIGHT LANE CLOSURE SHOWN - REVERSE FOR CLOSING LEFT LANE.

ADJUST THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

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

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

REMOVE AND COVER ALL SHORT TERM LANE CLOSURE SIGNS AND ALL ARROW BOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

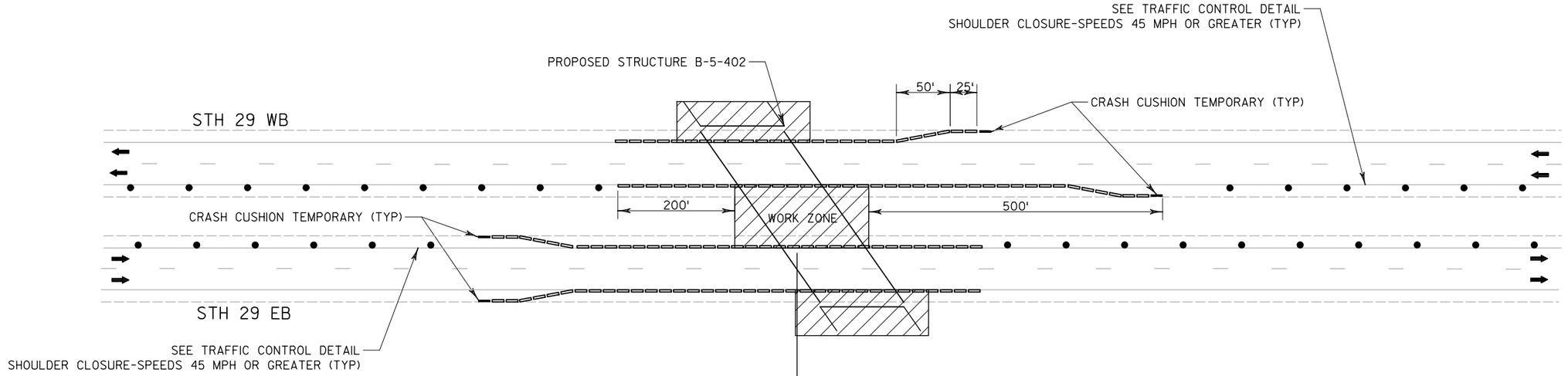
THIS DETAIL IS TYPICAL FOR OFF PEAK AND NIGHT TIME HOURS ONLY

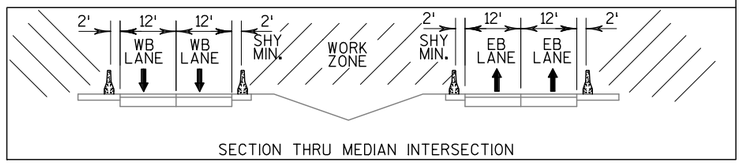
LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- POST WITH ATTACHED SIGN IN DRUM
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK AREA
- MB — PORTABLE CHANGEABLE MESSAGE BOARD

SPEEDS 45 MPH OR GREATER

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TRAFFIC CONTROL - TYPICAL ONE LANE CLOSURE WITHOUT BARRIER	SHEET 155	E





SECTION THRU MEDIAN INTERSECTION

LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- CRASH CUSHION BARRIER TEMPORARY
- SIGN ON TEMPORARY SUPPORT

GENERAL NOTES

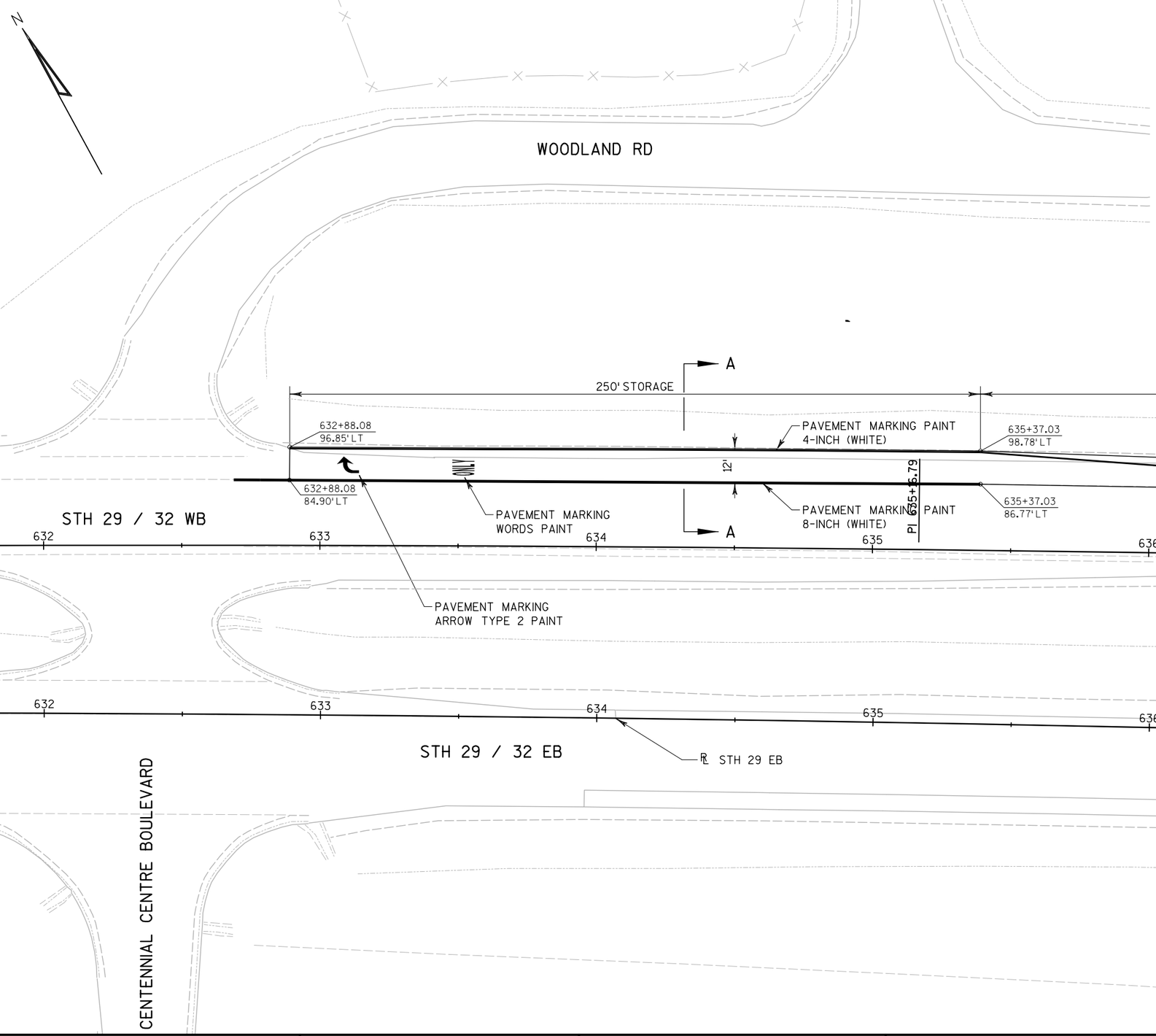
ADJUST THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

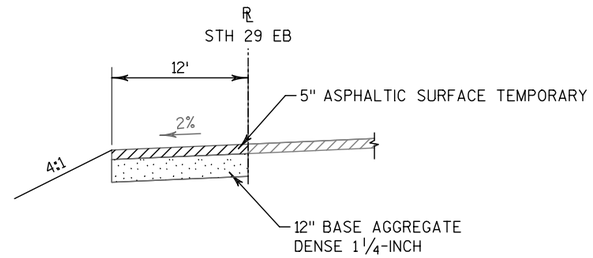
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

MEDIAN PIER CONSTRUCTION
CONSTRUCTION STAGE 1B

2





SECTION A-A

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TRAFFIC CONTROL DETAIL - TEMPORARY RIGHT TURN LANE	SHEET 157	E

NOTES:

1. SEED OR INSTALL EROSION MATTING PER THE PLANS TO ALL DISTURBED BY CONSTRUCTION ACTIVITIES WHICH HAVE PREVENTED THE ESTABLISHMENT OR MAINTENANCE OF GRASS COVER, APPLY A WATER SOLUBLE ANIONIC POLYACRYLAMIDE (PAM) OR ADDITIONAL MATTING TO REDUCE EROSION. NO EXPOSED GROUND WILL BE ALLOWED DURING WINTER SHUTDOWN. CHECK SILT FENCE AND INLET PROTECTION AFTER EACH SNOWFALL. THE CONTRACTOR MUST MAKE SURE AND FIX ANY DAMAGE TO EROSION CONTROL MEASURES DUE TO SNOWFALL. REGULARLY CHECK EROSION CONTROL MEASURES DURING SPRING CONDITIONS. SPRING CONDITIONS BRING FLUCTUATING TEMPERATURES WHICH CAN RESULT IN HEAVY SNOW MELT AND ICE BUILDUPS. THESE SITUATIONS CAN CAUSE MAJOR PROBLEMS AND FAILURES TO EROSION CONTROL MEASURES. REFER TO EROSION CONTROL, WINTERIZATION SPECIAL.

2. CONTRACTOR WILL USE SOIL STABILIZER TYPE B ON ALL DISTURBED GROUND THAT REMAINS EXPOSED AFTER OCTOBER 15, 2013.

N

STH 29 WB

WOODLAND ROAD

CTH FF (SHERWOOD STREET)

EXISTING RIGHT OF WAY

EXISTING RIGHT OF WAY

PROPOSED RIGHT OF WAY

PROPOSED RIGHT OF WAY

CP 3356

PROPOSED DRIVEWAY CULVERTS HAVE BEEN PLACED

PROPOSED DRIVEWAY CULVERTS HAVE BEEN PLACED

PROPOSED DRIVEWAY CULVERTS HAVE BEEN PLACED

TRAFFIC CONTROL DRUMS 50' SPACING (TYP)

3" ASPHALTIC SURFACE TEMPORARY 12" BASE AGGREGATE DENSE 1¼-INCH

3" ASPHALTIC SURFACE TEMPORARY FOR DRIVEWAYS (TYP)

LIMITS OF BASE AGGREGATE DENSE 1¼-INCH FINISHED TYPICAL SECTION

TEMPORARY PAVEMENT MARKING (CENTERLINE)

PROPOSED DITCHES GRADED, (TYP) AND SEEDED

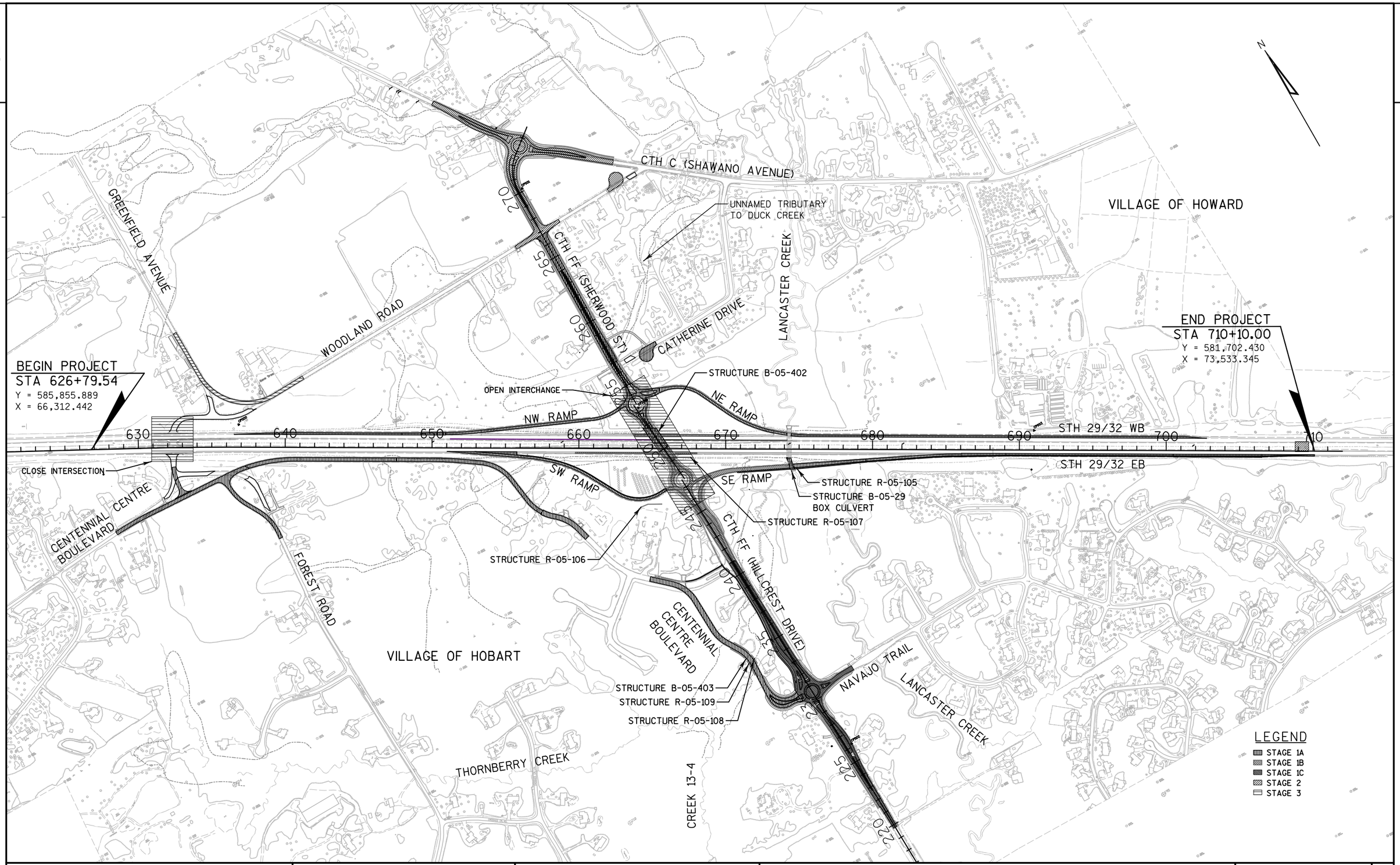
SUBSTATION

SEPTIC

POOL

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TEMPORARY CTH FF (SHERWOOD STREET) DURING WINTER	SHEET 158 E

2



PROJECT NO: 9200-04-71	HWY: STH 29/CTH FF	COUNTY: BROWN	PROJECT OVERVIEW	SHEET 159	E

2

CONSTRUCTION STAGE 1 NOTES

STAGE 1 TRAFFIC CONTROL NOTES

1) MAINTAIN STH 29 TRAFFIC IN ITS EXISTING CONDITION EXCEPT WHEN TEMPORARY CROSSOVERS ARE IN USE.

2) ALL CROSSROADS WITHIN THE PROJECT VICINITY ARE TO REMAIN OPEN AT ALL TIMES WITH THE EXCEPTION OF CTH FF/CTH FF (SHERWOOD ST.) BETWEEN THE EXISTING CENTENNIAL CENTRE BOULEVARD INTERSECTION AND CATHERINE DRIVE. ACCESS IS TO REMAIN OPEN TO CENTENNIAL CENTRE BOULEVARD AND CATHERINE DRIVE IS TO BE CLOSED FOR CUL DE SAC CONSTRUCTION.

3) MAINTAIN TWO LANES OF TRAFFIC FOR STH 29 TRAFFIC IN PEAK HOUR PERIODS.

4) MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION TO COMPLETE SHOULDER WORK ALONG STH 29 DURING OFF-PEAK AND NIGHT TIME HOURS. DO NOT CLOSE LANES IF WORK IS NOT BEING PERFORMED ON THE SHOULDERS.

5) MAINTAIN ONE LANE OF TRAFFIC FOR STH 29 TRAFFIC IN EACH DIRECTION WHEN PLACEMENT OF GIRDERS AND FORMWORK USING TEMPORARY CROSSOVER, ONE WEEK EACH DIRECTION.

STAGE 1A TRAFFIC CONTROL NOTES

1) EXISTING CENTENNIAL CENTRE BOULEVARD CONNECTION TO STH 29 WILL BE CLOSED WHILE CENTENNIAL CENTRE BOULEVARD TEMPORARY CONNECTION IS BEING CONSTRUCTED.

2) CTH FF (SHERWOOD ST.) WILL BE CLOSED TO STH 29 TRAFFIC BETWEEN STH 29 AND WOODLAND ROAD WHILE STRUCTURE B-05-402 AND THE INTERCHANGE RAMPS ARE BEING CONSTRUCTED.

STAGE 1B TRAFFIC CONTROL NOTES

1) CENTENNIAL CENTRE BOULEVARD TEMPOARY CONNECTION IS OPENED TO STH 29 ON A MINIMUM BASE AGGREGATE SURFACE BEFORE CONTINUING STAGE 1B.

2) CTH FF WILL BE CLOSED TO STH 29 TRAFFIC BETWEEN CENTENNIAL CENTRE BOULEVARD AND WOODLAND ROAD WHILE STRUCTURE B-05-402 AND THE INTERCHANGE RAMPS ARE BEING CONSTRUCTED.

STAGE 1C TRAFFIC CONTROL NOTES

1) OPEN CENTENNIAL CENTRE BOULEVARD FRONTAGE ROAD.

2) CLOSE EXISTING CENTENNIAL CENTRE BOULEVARD ONCE THE CENTENNIAL CENTRE BOULEVARD FRONTAGE ROAD IS OPEN TO TRAFFIC.

NOTE: **WORK LISTED IN STAGE 1C FROM THE SOUTH LIMITS TO NAVAJO TRAIL, INCLUDING THE CENTENNIAL CENTRE BOULEVARD ROUNDABOUT, MUST BE COMPLETED PRIOR TO WINTER SHUTDOWN, OTHERWISE COMPLETE WORK IN SPRING. A DETAILED PLAN OF OPERATIONS MUST BE SUBMITTED TO THE FIELD ENGINEER FOR REVIEW.

STAGE 1A CONSTRUCTION STAGING NOTES

1) CONSTRUCT BOX CULVERT B-05-0029 EXTENSION AND PROPOSED RETAINING WALL R-05-105 CONSTRUCTION ADJACENT TO STH 29 EASTBOUND ENTRANCE RAMP.

2) CONSTRUCT BOX CULVERT B-05-0029 EXTENSION CONSTRUCTION ADJACENT TO STH 29 WESTBOUND ENTRANCE RAMP.

3) CLOSE EXISTING INTERSECTION OF STH 29 AND CTH FF (SHERWOOD ST.). (NORTH OF STH 29) REMOVE TURN LANES AND INTERSECTION PAVEMENT.

4) CONSTRUCT FRONTAGE ROAD AND TEMPORARY ACCESS ROAD BETWEEN CENTENNIAL CENTRE BOULEVARD/FOREST ROAD AND STH 29. COMPLETE PRIOR TO STAGE 1B.

5) CONSTRUCT NORTH INTERCHANGE RAMPS AND ROUNDABOUT AT INTERCHANGE NORTH OF STH 29.

6) CONSTRUCT CENTENNIAL CENTRE BOULEVARD RE ALIGNMENT FROM NAVAJO TRAIL TO EXISTING CENTENNIAL CENTRE BOULEVARD. REFER TO SPECIFICATIONS FOR WHEN IN-STREAM RESTRICTIONS OCCUR.

7) CONSTRUCT B-05-403, R-05-108 & R-05-109 OVER THORNBERRY CREEK ALONG THE REALIGNED CENTENNIAL CENTRE BOULEVARD. REFER TO INSTREAM RESTRICTIONS AS OUTLINED IN THE SPECIAL PROVISIONS.

8) REMOVE EXISTING PAVEMENT AT WEST END OF CATHERINE DRIVE AND CONSTRUCT CUL DE SAC.

9) RECONSTRUCT CTH FF (SHERWOOD ST.) FROM THE WESTBOUND INTERCHANGE RAMPS TO WOODLAND ROAD.

10) CONSTRUCT CROSSOVERS ON STH 29.

11) SAWCUT SHOULDER AND TURN LANES AT STH 29 WITH CTH FF INTERSECTION TO ALLOW FROM PLACEMENT OF BARRIER.

STAGE 1B CONSTRUCTION STAGING NOTES

1) CLOSE EXISTING INTERSECTION OF STH 29 AND CTH FF (MEDIAN AND SOUTH OF STH 29). PLACE BARRIER ALONG OUTSIDE SHOULDERS OF STH 29 AT EXISTING INTERSECTION WITH CTH FF. REMOVE TURN LANES AND INTERSECTION PAVEMENT.

2) BEGIN CONSTRUCTION SOUTH INTERCHANGE RAMPS AND ROUNDABOUT AT INTERCHANGE SOUTH OF STH 29. CONTINUE CONSTRUCTION NORTH OF 29.

3) RECONSTRUCT CTH FF FROM STH 29 TO EXISTING CENTENNIAL CENTRE BOULEVARD.

4) CONSTRUCT STRUCTURE B-05-402 AND R-5-107 AND CONTINUE STRUCTURES FROM STAGE 1A.

5) CONTINUE CONSTRUCTING CENTENNIAL CENTRE BOULEVARD FRONTAGE ROAD FROM FOREST ROAD TO CENTENNIAL CENTRE BOULEVARD.

STAGE 1C CONSTRUCTION STAGING NOTES

1) OPEN FRONTAGE ROAD FROM ROUGHLY FOREST ROAD TO EXISTING CENTENNIAL CENTRE BOULEVARD NEAR SW RAMP.

2) BEGIN RECONSTRUCTION OF CTH FF FROM SOUTHERN LIMIT TO EXISTING CENTENNIAL CENTRE BOULEVARD IF COMPLETION OCCURS BEFORE WINTER SHUTDOWN.**

3) REMOVE EXISTING CENTENNIAL CENTRE BOULEVARD ACCESS, GRADE, AND INSTALL SIDEWALK.

4) CONTINUE STRUCTURE CONSTRUCTION FROM STAGES 1A & 1B.

5) CONTINUE RECONSTRUCTION OF CTH FF FROM STAGES 1A & 1B.

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CURRENT WORK AREA
- DIRECTION OF TRAFFIC

N

HILL DRIVE

REFER TO SDD 15D28 "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"

CENTENNIAL CENTRE BOULEVARD

END ROAD WORK
G20-2A
48" X 24"

SHOULDER WORK
W21-5

220' BUFFER

40' TAPER

50' SPACING

CTH FF (HILLCREST DRIVE)

CP 5C

ROAD WORK AHEAD
W20-1

NAVAJO TRAIL

LANCASTER CREEK

99 91 60 220 225 230 235 240 85

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TRAFFIC CONTROL STAGE 1A	SHEET 161 E

2

2

CENTENNIAL CENTRE BOULEVARD

CTH FF (HILLCREST DRIVE)

CTH FF (SHERWOOD ST.)

STH 29/32 EB

STH 29/32 WB

CATHERINE DRIVE

SUBSTATION

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CURRENT WORK AREA
- DIRECTION OF TRAFFIC

N

ROAD WORK AHEAD W20-1

500'

ROAD WORK 1000 FT W20-1

500'

ROAD WORK 500 FT W20-1

500'

END ROAD WORK
G20-2A
48" X 24"

PI 669+05.96

CP 3356

PI 271+54.05

CP 5601

500'

ROAD CLOSED 500 FT W20-3

R11-4
60" X 30"
ROAD CLOSED TO THRU TRAFFIC
TYPE III BARRICADE

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE

SEE SDD 15C2-4B

REFER TO SDD 15C2A
"BARICADES AND SIGNS FOR
MAINLINE CLOSURES"

NO OUTLET
W14-2
30" X 30"

ROAD CLOSED 500 FT W20-3

ROAD WORK AHEAD W20-1

ROAD WORK 500 FT W20-1

ROAD WORK AHEAD W20-1

END ROAD WORK
G20-2A
48" X 24"

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TRAFFIC CONTROL STAGE 1A	SHEET 162	E

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CURRENT WORK AREA
- DIRECTION OF TRAFFIC

N

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE

CENTENNIAL CENTRE BOULEVARD

CP500

STH 29/32 WB

STH 29/32 EB

R11-4
60" X 30"
ROAD CLOSED TO THRU TRAFFIC
TYPE III BARRICADE

FOREST ROAD

500'

ROAD CLOSED 500 FT
W20-3

500'

ROAD CLOSED 1000 FT
W20-3

500'

ROAD CLOSED AHEAD
W20-3

R11-4
60" X 30"
ROAD CLOSED TO THRU TRAFFIC
TYPE III BARRICADE

R11-3
60" X 30"
ROAD CLOSED
1.5 MILES AHEAD
LOCAL TRAFFIC ONLY
TYPE III BARRICADE
NOTE: PLACE AT INTERSECTION OF HILL DRIVE & CTH FF

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE
SEE 15C2-4b

BUTTERNUT LN

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TRAFFIC CONTROL STAGE 1A	SHEET 163	E

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CURRENT WORK AREA
- DIRECTION OF TRAFFIC

STH 29/32 WB

STH 29/32 EB

CENTENNIAL CENTRE BOULEVARD

500'

500'

500'

R11-3
60" X 30"
ROAD CLOSED
½ MILE AHEAD
LOCAL TRAFFIC ONLY
TYPE III BARRICADE

R11-3
60" X 30"
ROAD CLOSED
¼ MILE AHEAD
LOCAL TRAFFIC ONLY
TYPE III BARRICADE

ROAD CLOSED
1000 FT
W20-3

ROAD CLOSED
500 FT
W20-3

R11-4
60" X 30"
ROAD CLOSED
TO
THRU TRAFFIC
TYPE III BARRICADE
SDD 15C2-4B

WEDGESTONE COURT

PINE TREE ROAD

OAKVIEW DRIVE

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TRAFFIC CONTROL STAGE 1A	SHEET 164	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\026106_s1A.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 200.0000 sf / in.

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CURRENT WORK AREA
- DIRECTION OF TRAFFIC

N

CTH J (RIVERDALE DRIVE)

CTH FF (HILLCREST DRIVE)

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

TYPE III BARRICADE

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TRAFFIC CONTROL STAGE 1B	SHEET 165	E

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CURRENT WORK AREA
- DIRECTION OF TRAFFIC

N

HILL DRIVE

ROAD WORK AHEAD W20-1

REFER TO SDD 15D28 "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"

CENTENNIAL CENTRE BOULEVARD

220' BUFFER

40' TAPER

220 225 230 235 240

CD502

50' SPACING

500'

ROAD CLOSED AHEAD W20-3

R11-3 60" X 30"

ROAD CLOSED 1 MILE AHEAD LOCAL TRAFFIC ONLY

TYPE III BARRICADE

NAVAJO TRAIL

LANCASTER CREEK

CTH FF (HILLCREST DRIVE)

500' 500'

ROAD CLOSED 1000 FT W20-3

ROAD CLOSED 500 FT W20-3

ROAD WORK AHEAD W20-1

R11-2 48" X 30"

ROAD CLOSED

TYPE III BARRICADE SDD 15C2-4B

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TRAFFIC CONTROL STAGE 1B	SHEET 166 E

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CURRENT WORK AREA
- DIRECTION OF TRAFFIC

N

CENTENNIAL CENTRE BOULEVARD

CTH FF (SHERWOOD STREET)

WOODLAND ROAD

CATHERINE DRIVE

CTH C (SHAWANO AVENUE)

STH 29/32 EB

STH 29/32 WB

PI 669+05.96

PI 271+54.05

CP 335

CP 501

ROAD WORK AHEAD W20-1

ROAD CLOSED 500 FT W20-3

R11-2 48" X 30" ROAD CLOSED

TYPE III BARRICADE SDD 15C2-4B

NO OUTLET W14-2 30" X 30"

50'

500'

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TRAFFIC CONTROL STAGE 1B	SHEET 167	E

2

CENTENNIAL CENTRE BOULEVARD

STH 29/32 WB

STH 29/32 EB

FOREST ROAD

BUTTERNUT LN.

500'

500'

ROAD WORK 1000 FT
W20-1

ROAD WORK 500 FT
W20-1

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE
SDD 15C2-4B

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE
SDD 15C2-4B

N

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CURRENT WORK AREA
- DIRECTION OF TRAFFIC

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TRAFFIC CONTROL STAGE 1B	SHEET	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\026110_s1B.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 200.0000 sf / in.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CURRENT WORK AREA
- DIRECTION OF TRAFFIC

N

CTH J (RIVERDALE DRIVE)

HILL DR.

HILL DRIVE

R11-3
60" X 30"
ROAD CLOSED
2 MILES AHEAD
LOCAL TRAFFIC ONLY
TYPE III BARRICADE

R11-3
60" X 30"
ROAD CLOSED
1 MILE AHEAD
LOCAL TRAFFIC ONLY
TYPE III BARRICADE

ROAD WORK AHEAD
W20-1

500'

210

215

220

500'

500'

ROAD CLOSED 500 FT
W20-3

ROAD CLOSED 500 FT
W20-3

R11-4
60" X 30"
ROAD CLOSED TO THRU TRAFFIC
TYPE III BARRICADE

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TRAFFIC CONTROL STAGE 1C	SHEET 169 E

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CURRENT WORK AREA
- DIRECTION OF TRAFFIC

N

HILL DRIVE

ROAD WORK AHEAD W20-1

CENTENNIAL CENTRE BOULEVARD

R11-2 48" X 30" ROAD CLOSED

TYPE III BARRICADE SDD 15C2-4B

CTH FF (HILLCREST DRIVE)

215 220 225 230 235 240

C3502

450' 50'

ROAD WORK 500 FT W20-1

R11-4 60" X 30" ROAD CLOSED TO THRU TRAFFIC

TYPE III BARRICADE

R11-2 48" X 30" ROAD CLOSED

TYPE III BARRICADE SDD 15C2-4B

LANCASTER CREEK

NAVAJO TRAIL

450'

ROAD WORK AHEAD W20-1

2

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TRAFFIC CONTROL STAGE 1C	SHEET 170	E

CONSTRUCTION STAGE 2 NOTES

STAGE 2 TRAFFIC CONTROL NOTES

1) MAINTAIN EXISTING STH 29 TRAFFIC CONDITIONS IN PEAK HOURS.

2) CLOSE WOODLAND ROAD AT CTH FF (SHERWOOD STREET), LOCAL ACCESS ONLY.

3) MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION TO COMPLETE SHOULDER WORK ALONG STH 29 DURING OFF-PEAK AND NIGHT TIME HOURS. DO NOT CLOSE LANES IF WORK IS NOT BEING PERFORMED ON THE SHOULDERS.

4) CLOSE SHAWANO AVENUE (CTH C) AND COORDINATE SHAWANO AVENUE RECONSTRUCTION AND CLOSURE WITH BROWN COUNTY PROJECT.

5) MAINTAIN ONE LANE OF TRAFFIC FOR STH 29 TRAFFIC IN EACH DIRECTION WHEN PLACEMENT OF GIRDERS AND FORMWORK USING TEMPORARY CROSSOVER, ONE WEEK EACH DIRECTION.

6) CONTINUE STRUCTURES FROM STAGES 1A & 1B.

7) CONTINUE RECONSTRUCTION OF CTH FF FROM STAGES 1A, 1B & 1C.

STAGE 2 CONSTRUCTION STAGING NOTES

1) CLOSE AND REMOVE MAINTENANCE CROSSOVER AT STATION 709+23.

2) RECONSTRUCT CTH FF (SHERWOOD STREET) FROM WOODLAND DRIVE TO CTH C, INCLUDING THE INTERSECTION AT WOODLAND ROAD.

3) CONSTRUCT ROUNDABOUT AT CTH C.

4) RECONSTRUCT STH 29 SHOULDERS AND MEDIAN.

2

2

CENTENNIAL CENTRE BOULEVARD

CTH FF
(HILLCREST DRIVE)

CTH FF (SHERWOOD STREET)

STH 29/32 EB

STH 29/32 WB

CATHERINE DRIVE

WOODLAND ROAD

CTH C (SHAWANO AVENUE)

CP3356

CP501

245 250 255 260 265 270

595 605 615 625 635 645 655 665

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CURRENT WORK AREA
- DIRECTION OF TRAFFIC

ROAD CLOSED AHEAD W20-3

ROAD CLOSED 1000 FT W20-3

ROAD CLOSED 500 FT W20-3

500' 500' 500'

R11-4
60" X 30"
ROAD CLOSED TO THRU TRAFFIC
TYPE III BARRICADE
SDD 15C2-4B

R11-4
60" X 30"
ROAD CLOSED TO THRU TRAFFIC
TYPE III BARRICADE
SDD 15C2-4B

R11-4
60" X 30"
ROAD CLOSED TO THRU TRAFFIC
TYPE III BARRICADE
SDD 15C2-4B

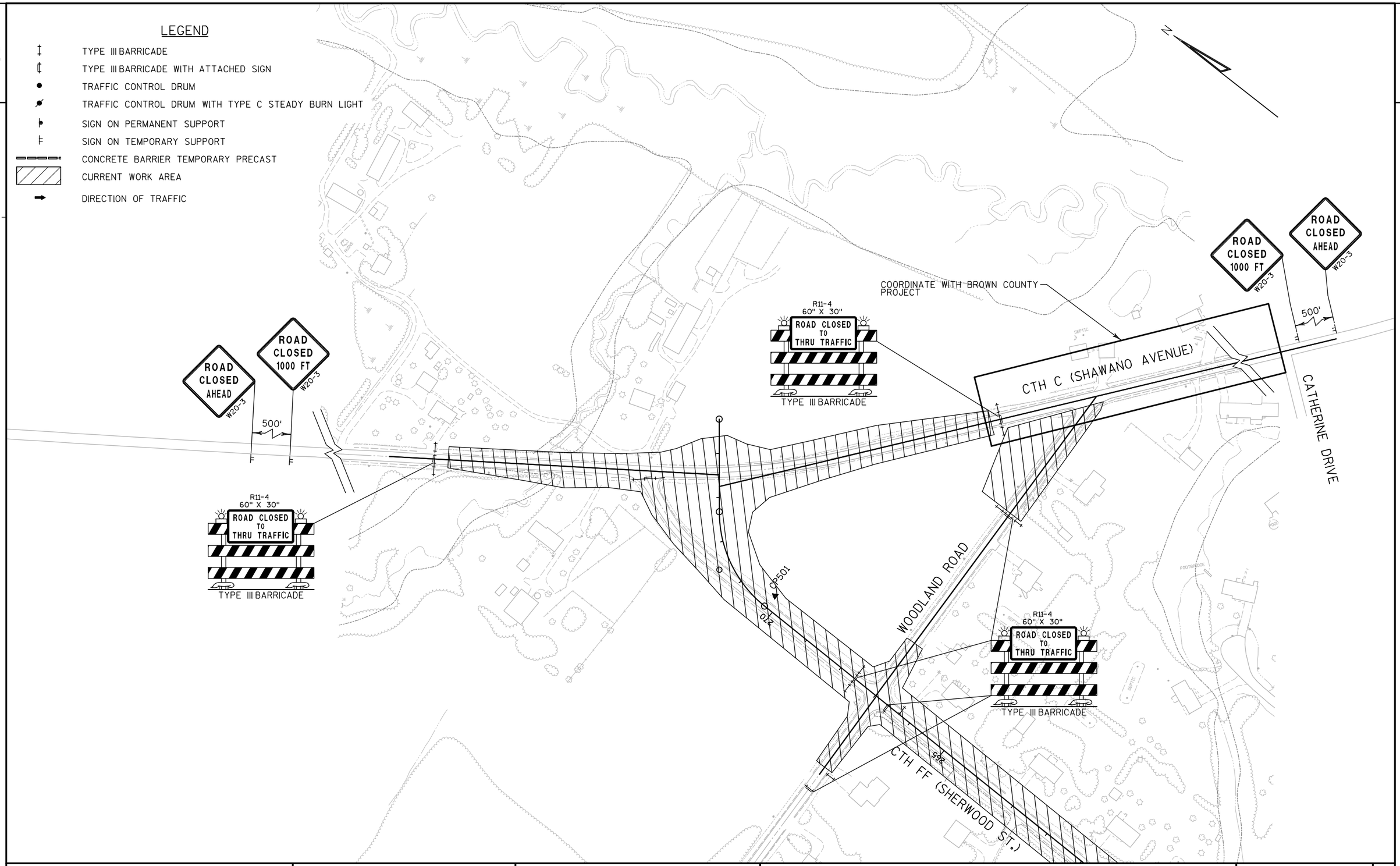
N

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TRAFFIC CONTROL STAGE 2	SHEET 172	E

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CURRENT WORK AREA
- DIRECTION OF TRAFFIC



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TRAFFIC CONTROL STAGE 2	SHEET 173	E

CONSTRUCTION STAGE 3 NOTES

STAGE 3 TRAFFIC CONTROL NOTES

1) OPEN STH 29, CTH FF, CTH FF (SHERWOOD STREET), CENTENNIAL CENTRE BOULEVARD AND CTH C AND INTERCHANGE RAMPS TO TRAFFIC.

2) MAINTAIN EXISTING STH 29 TRAFFIC CONDITIONS INCLUDING LANES AND RAMPS IN PEAK HOURS. OPEN STH 29 AND CTH FF INTERCHANGE RAMPS TO TRAFFIC.

3) CLOSE TEMPORARY CENTENNIAL CENTRE BOULEVARD AND WOODLAND ROAD INTERSECTION WITH STH 29.

4) CLOSE WOODLAND ROAD/GREENFIELD AVENUE FOR RECONSTRUCTION. PROVIDE ACCESS TO LOCAL TRAFFIC ONLY.

STAGE 3 CONSTRUCTION STAGING NOTES

1) OPEN STH 29 AND CTH FF INTERCHANGE AND CLOSE AND OBLITERATE EXISTING INTERSECTIONS OF GREENFIELD AVENUE/WOODLAND ROAD AND TEMPORARY CENTENNIAL CENTRE BOULEVARD WITH STH 29.

2) CONSTRUCT PROPOSED REALIGNMENT OF GREENFIELD AVENUE AND WOODLAND ROAD.

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CURRENT WORK AREA
- DIRECTION OF TRAFFIC

N

CTH C (SHAWANO AVENUE)

CP501

ROAD CLOSED AHEAD
W20-3

WOODLAND ROAD

CTH FF (SHERWOOD STREET)

500'

500'

1000'

R11-4
60" X 30"
ROAD CLOSED TO THRU TRAFFIC

TYPE III BARRICADE

ROAD CLOSED 500 FT
W20-3

ROAD CLOSED 1000 FT
W20-3

STH 29/32 WB

STH 29/32 EB

650

650

655

265

260

SEPTIC

SEPTIC

SEPTIC

SEPTIC

SIGN

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TRAFFIC CONTROL STAGE 3	SHEET 175 E

2

2

ROAD CLOSED AHEAD
W20-3

R11-3
60" X 30"
ROAD CLOSED
0.4 MILES AHEAD
LOCAL TRAFFIC ONLY
TYPE III BARRICADE

ROAD CLOSED
1000 FT
W20-3

500'

ROAD CLOSED
500 FT
W20-3

500'

R11-4
60" X 30"
ROAD CLOSED
TO
THRU TRAFFIC
TYPE III BARRICADE

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CURRENT WORK AREA
- DIRECTION OF TRAFFIC

R11-2
48" X 30"
ROAD
CLOSED
TYPE III BARRICADE

GREENFIELD AVENUE

55

620
620
625
625
630
630
635
635
640
640

PI 633+60.52

CP500

60

WOODLAND ROAD

500'

R11-4
60" X 30"
ROAD CLOSED
TO
THRU TRAFFIC
TYPE III BARRICADE

ROAD
CLOSED
500 FT
W20-3

CENTENNIAL CENTRE BOULEVARD

25
30

STH 29/32 WB

STH 29/32 EB

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	TRAFFIC CONTROL STAGE 3	SHEET 176	E

2

CURVE 29-1
PI STA 633+60.52
y = 585,532.771
x = 66,911.878
Δ = 1° 43' 19.10" (RT)
D = 0° 15' 00.00"
T = 344.42
L = 688.79
R = 22,918.31
PC STA 630+16.10
y = 585,696.196
x = 66,608.699
PT STA637+04.89
y = 585,360.310
x = 67,210.010
SE = NC
RO = N/A
SE TRANSITION = N/A

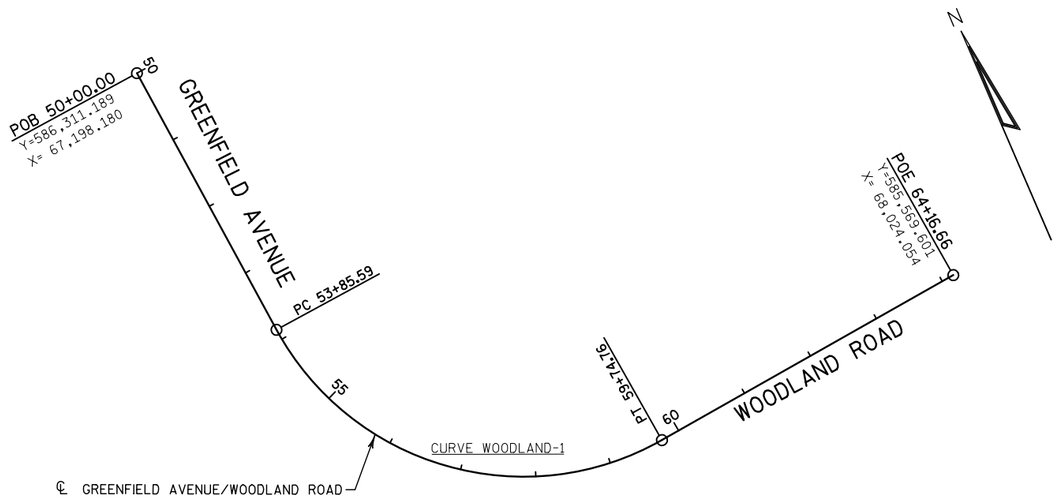
CURVE WOODLAND-1
PI STA 57+63.05
y = 585,548.166
x = 67,204.975
Δ = 90° 59' 19.89" (LT)
D = 15° 26' 36.98"
T = 377.46
L = 589.17
R = 371.00
PC STA 53+85.59
y = 585,925.610
x = 67,201.614
PT STA59+74.76
y = 585,558.041
x = 67,582.305
SE = 4.0%
RO = 77'
SE TRANSITION = 116'

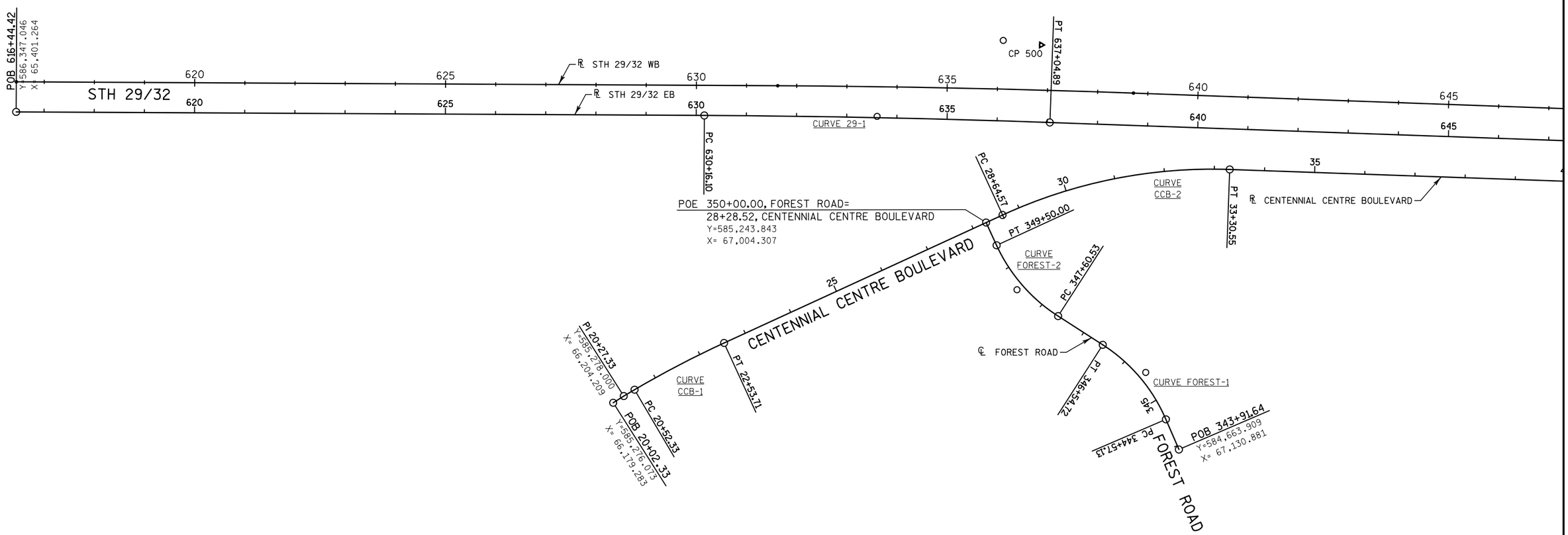
CURVE FOREST-1
PI STA 345+58.93
y = 584,830.618
x = 67,144.723
Δ = 33° 59' 47.99" (LT)
D = 17° 12' 21.38"
T = 101.80
L = 197.59
R = 333.00
PC STA 344+57.13
y = 584,729.170
x = 67,136.300
PT STA346+54.72
y = 584,919.436
x = 67,094.982
SE = NC
RO = N/A
SE TRANSITION = N/A

CURVE FOREST-2
PI STA 348+57.91
y = 585,096.721
x = 66,995.697
Δ = 32° 35' 57.61" (RT)
D = 17° 12' 21.38"
T = 97.37
L = 189.47
R = 333.00
PC STA 347+60.53
y = 585,011.762
x = 67,043.276
PT STA349+50.00
y = 585,193.928
x = 67,001.386
SE = NC
RO = N/A
SE TRANSITION = N/A

CURVE CCB-1
PI STA 21+53.10
y = 585,283.311
x = 66,329.871
Δ = 5° 46' 08.72" (RT)
D = 2° 51' 53.24"
T = 100.77
L = 201.38
R = 2,000.00
PC STA 20+52.33
y = 585,279.055
x = 66,229.186
PT STA 22+53.71
y = 585,277.423
x = 66,430.474
SE = NC
RO = N/A
SE TRANSITION = N/A

CURVE CCB-2
PI STA 31+01.87
y = 585,227.874
x = 67,277.186
Δ = 26° 41' 56.84" (RT)
D = 5° 43' 46.48"
T = 237.30
L = 465.99
R = 1,000.00
PC STA 28+64.57
y = 585,241.737
x = 67,040.288
PT STA 33+30.55
y = 585,109.049
x = 67,482.597
SE = NC
RO = N/A
SE TRANSITION = N/A





PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	ALIGNMENT PLAN	SHEET 177	E

2

CURVE NW-1
PI STA 651+94.06
y = 584,692.812
x = 68,544.267
Δ = 6° 26' 31.60" (LT)
D = 3° 09' 24.45"
T = 102.14
L = 204.07
R = 1,815.00
PC STA 650+91.92
y = 584,744.030
x = 68,455.893
PT STA652+95.99
y = 584,651.834
x = 68,637.830
SE = 5.70%
RO = 190.00'
SE TRANSITION = 156.67'

CURVE NW-2
PI STA 662+31.22
y = 584,276.631
x = 69,494.498
Δ = 39° 37' 21.93" (LT)
D = 15° 29' 07.24"
T = 133.29
L = 255.87
R = 370.00
PC STA 660+97.93
y = 584,330.106
x = 69,372.404
PT STA663+53.80
y = 584,313.305
x = 69,622.645
SE = 3.80%
RO = 86.36'
SE TRANSITION = 131.81'

CURVE SE BYPASS-1
PI STA 246+88.87
y = 583,609.602
x = 69,691.759
Δ = 104° 53' 21" (RT)
D = 40° 55' 32.01"
T = 182.09
L = 256.29
R = 140.00
PC STA 245+06.78
y = 583,431.642
x = 69,730.307
PT STA 247+63.08
y = 583,601.128
x = 69,873.649
SE = 4.0%
RO = N/A
SE TRANSITION = N/A

CURVE SE BYPASS-2
PI STA 248+30.10
y = 583,598.009
x = 69,940.603
Δ = 19° 1' 30" (RT)
D = 14° 19' 26"
T = 67.03
L = 132.82
R = 400.00
PC STA 247+63.08
y = 583,601.128
x = 69,873.649
PT STA 248+95.90
y = 583,573.234
x = 70,002.883
SE = 4.0%
RO = N/A
SE TRANSITION = N/A

CURVE NE-1
PI STA 664+03.55
y = 584,265.177
x = 69,797.455
Δ = 32° 57' 49.17" (LT)
D = 36° 57' 54.07"
T = 45.86
L = 89.18
R = 155.00
PC STA 663+57.69
y = 584,289.152
x = 69,758.361
PT STA664+46.87
y = 584,266.334
x = 69,843.300
SE = NC
RO = N/A
SE TRANSITION = N/A

CURVE NE-2
PI STA 666+23.64
y = 584,270.792
x = 70,020.015
Δ = 65° 50' 50.27" (RT)
D = 20° 59' 14.87"
T = 176.77
L = 313.75
R = 273.00
PC STA 664+46.87
y = 584,266.334
x = 69,843.300
PT STA667+60.61
y = 584,111.371
x = 70,096.390
SE = 6.0%
RO = 136.36'
SE TRANSITION = 181.81'

CURVE SE-1
PI STA 669+05.96
y = 583,634.719
x = 69,906.941
Δ = 29° 04' 36.89" (RT)
D = 9° 32' 57.47"
T = 155.60
L = 304.49
R = 600.00
PC STA 667+50.36
y = 583,625.914
x = 69,751.590
PT STA670+54.85
y = 583,566.917
x = 70,046.992
SE = NC
RO = N/A
SE TRANSITION = N/A

CURVE NE-3
PI STA 671+37.94
y = 583,771.073
x = 70,259.418
Δ = 21° 46' 51.90" (LT)
D = 6° 37' 25.64"
T = 166.42
L = 328.83
R = 865.00
PC STA 669+71.52
y = 583,921.163
x = 70,187.513
PT STA673+00.35
y = 583,658.379
x = 70,381.881
SE = 6.0%
RO = 180.00'
SE TRANSITION = 240.00'

CURVE NE-4
PI STA 674+04.24
y = 583,588.028
x = 70,458.331
Δ = 8° 42' 18.13" (LT)
D = 4° 11' 50.97"
T = 103.89
L = 207.39
R = 1,365.00
PC STA 673+00.35
y = 583,658.379
x = 70,381.881
SE = 6.0%
RO = 200.00'
SE TRANSITION = 266.67

CURVE SW-1
PI STA 657+34.78
y = 584,293.187
x = 68,936.125
Δ = 8° 29' 17.75" (RT)
D = 4° 11' 50.97"
T = 101.30
L = 202.22
R = 1,365.00
PC STA 656+33.48
y = 584,350.740
x = 68,852.766
PT STA658+35.70
y = 584,223.960
x = 69,010.075
SE = 6.0%
RO = 200.00'
SE TRANSITION = 266.67'

CURVE SW-2
PI STA 659+75.43
y = 584,128.469
x = 69,112.082
Δ = 18° 21' 07.47" (RT)
D = 6° 37' 25.64"
T = 139.73
L = 277.06
R = 865.00
PC STA 658+35.70
y = 584,223.960
x = 69,010.075
PT STA661+12.77
y = 584,005.717
x = 69,178.835
SE = 6.0%
RO = 180.00'
SE TRANSITION = 240.00'

CURVE SW-3
PI STA 665+02.10
y = 583,663.687
x = 69,364.832
Δ = 66° 20' 03.66" (LT)
D = 20° 59' 14.87"
T = 178.42
L = 316.07
R = 273.00
PC STA 663+23.67
y = 583,820.433
x = 69,279.593
PT STA666+39.74
y = 583,678.840
x = 69,542.610
SE = 6.0%
RO = 136.36'
SE TRANSITION = 181.82'

CURVE SW-4
PI STA 666+84.81
y = 583,682.668
x = 69,587.520
Δ = 33° 26' 58.92" (RT)
D = 38° 11' 49.87"
T = 45.07
L = 87.57
R = 150.00
PC STA 666+39.74
y = 583,678.840
x = 69,542.610
PT STA667+27.31
y = 583,661.107
x = 69,627.102

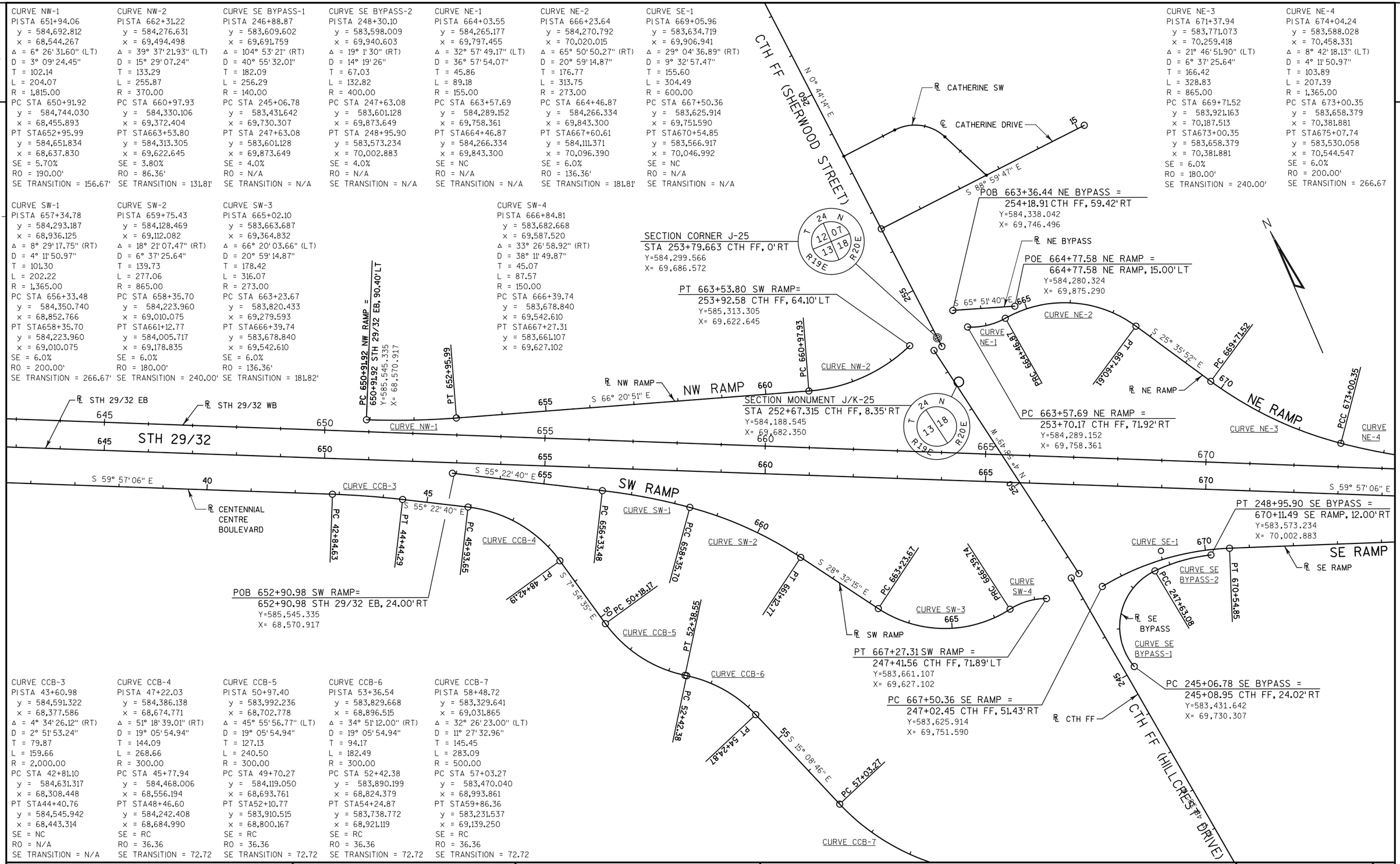
CURVE CCB-3
PI STA 43+60.98
y = 584,591.322
x = 68,377.586
Δ = 4° 34' 26.12" (RT)
D = 2° 51' 53.24"
T = 79.87
L = 159.66
R = 2,000.00
PC STA 42+81.10
y = 584,631.317
x = 68,308.448
PT STA44+40.76
y = 584,545.942
x = 68,443.314
SE = NC
RO = N/A
SE TRANSITION = N/A

CURVE CCB-4
PI STA 47+22.03
y = 584,386.138
x = 68,674.771
Δ = 51° 18' 39.01" (RT)
D = 19° 05' 54.94"
T = 144.09
L = 268.66
R = 300.00
PC STA 45+77.94
y = 584,468.006
x = 68,556.194
PT STA48+46.60
y = 584,242.408
x = 68,684.990
SE = RC
RO = 36.36
SE TRANSITION = 72.72

CURVE CCB-5
PI STA 50+97.40
y = 583,992.236
x = 68,702.778
Δ = 45° 55' 56.77" (LT)
D = 19° 05' 54.94"
T = 127.13
L = 240.50
R = 300.00
PC STA 49+70.27
y = 584,119.050
x = 68,693.761
PT STA52+10.77
y = 583,910.515
x = 68,800.167
SE = RC
RO = 36.36
SE TRANSITION = 72.72

CURVE CCB-6
PI STA 53+36.54
y = 583,829.668
x = 68,896.515
Δ = 34° 51' 12.00" (RT)
D = 19° 05' 54.94"
T = 94.17
L = 182.49
R = 300.00
PC STA 52+42.38
y = 583,890.199
x = 68,824.379
PT STA54+24.87
y = 583,738.772
x = 68,921.119
SE = RC
RO = 36.36
SE TRANSITION = 72.72

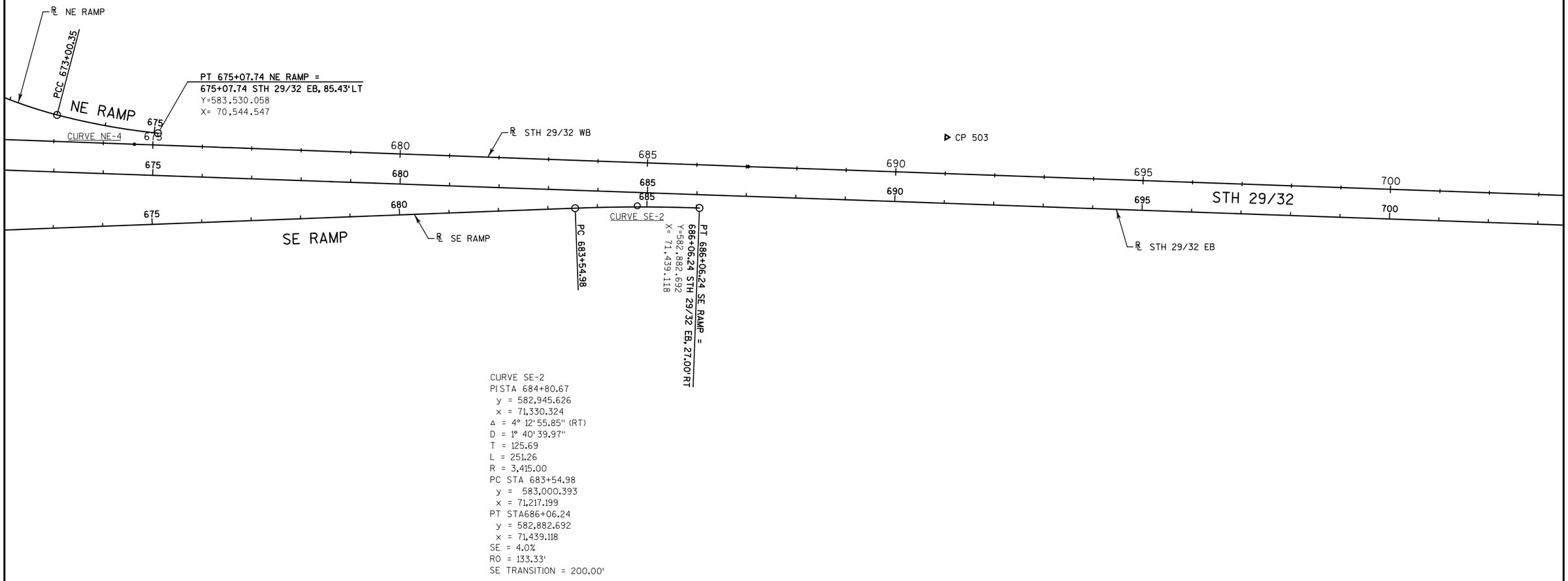
CURVE CCB-7
PI STA 58+48.72
y = 583,329.641
x = 69,031.865
Δ = 32° 26' 23.00" (LT)
D = 11° 27' 32.96"
T = 145.45
L = 283.09
R = 500.00
PC STA 57+03.27
y = 583,470.040
x = 68,993.861
PT STA59+86.36
y = 583,231.537
x = 69,139.250
SE = RC
RO = 36.36
SE TRANSITION = 72.72



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CURVE NE-4
PI STA 674+04.24
y = 583,588.028
x = 70,458.331
Δ = 8° 42' 18.13" (LT)
D = 4° 11' 50.97"
T = 103.89
L = 207.39
R = 1,365.00
PC STA 673+00.35
y = 583,658.379
x = 70,381.881
PT STA675+07.74
y = 583,530.058
x = 70,544.547
SE = 6.0%
RO = 200.00'
SE TRANSITION = 266.67

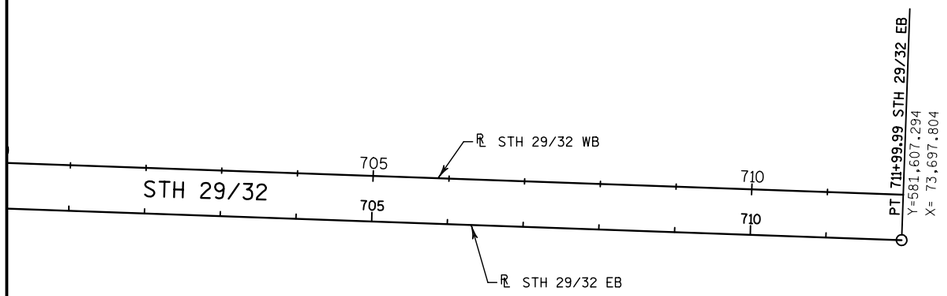


CURVE SE-2
PI STA 684+80.67
y = 582,945.626
x = 71,330.324
Δ = 4° 12' 55.85" (RT)
D = 1° 40' 39.97"
T = 125.69
L = 251.26
R = 3,415.00
PC STA 683+54.98
y = 583,000.393
x = 71,217.199
PT STA686+06.24
y = 582,882.692
x = 71,439.118
SE = 4.0%
RO = 133.33'
SE TRANSITION = 200.00'

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2

N



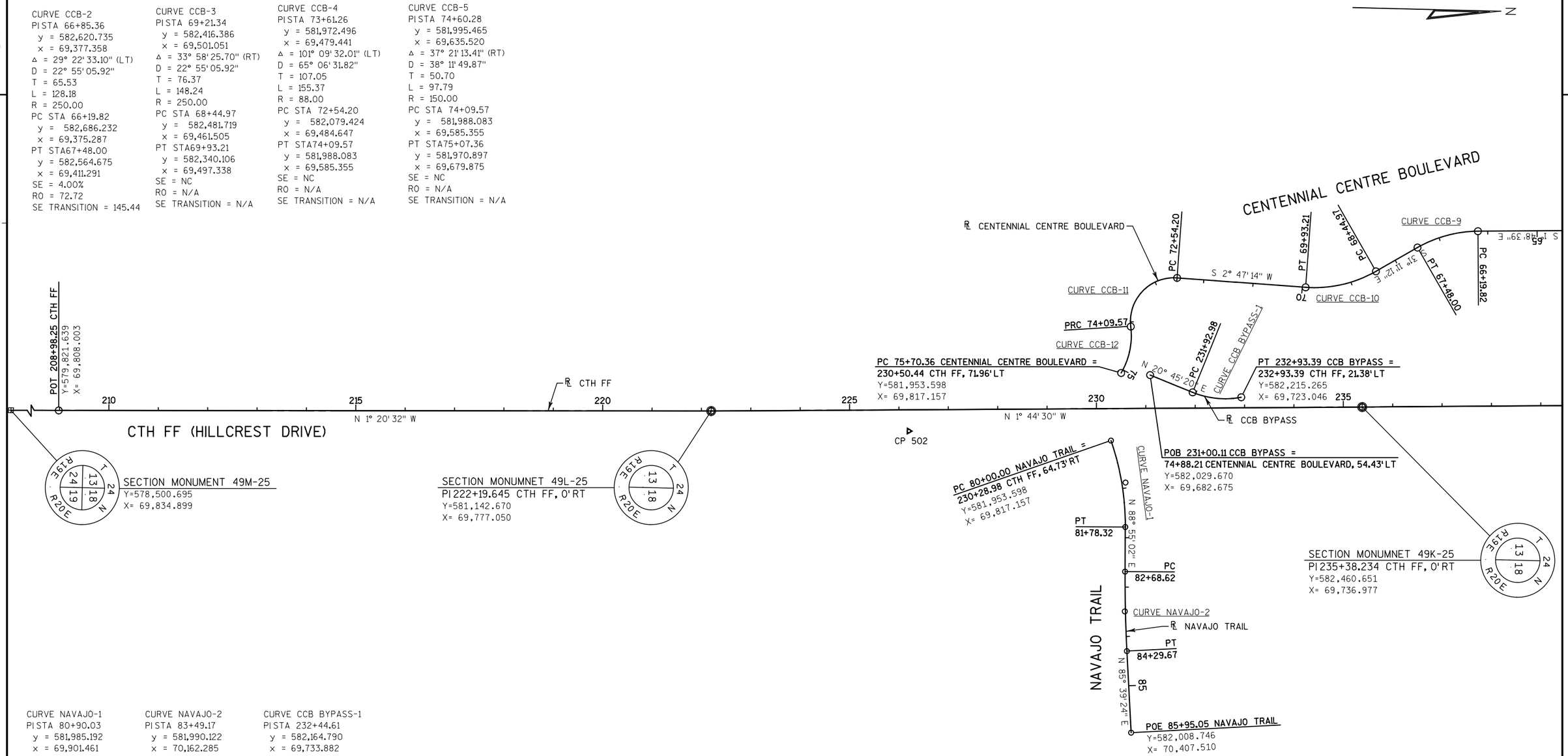
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	ALIGNMENT PLAN	SHEET 180	E

CURVE CCB-2
PISTA 66+85.36
y = 582,620.735
x = 69,377.358
Δ = 29° 22' 33.10" (LT)
D = 22° 55' 05.92"
T = 65.53
L = 128.18
R = 250.00
PC STA 66+19.82
y = 582,686.232
x = 69,375.287
PT STA67+48.00
y = 582,564.675
x = 69,411.291
SE = 4.00%
RO = 72.72
SE TRANSITION = 145.44

CURVE CCB-3
PISTA 69+21.34
y = 582,416.386
x = 69,501.051
Δ = 33° 58' 25.70" (RT)
D = 22° 55' 05.92"
T = 76.37
L = 148.24
R = 250.00
PC STA 68+44.97
y = 582,481.719
x = 69,461.505
PT STA69+93.21
y = 582,340.106
x = 69,497.338
SE = NC
RO = N/A
SE TRANSITION = N/A

CURVE CCB-4
PISTA 73+61.26
y = 581,972.496
x = 69,479.441
Δ = 101° 09' 32.01" (LT)
D = 65° 06' 31.82"
T = 107.05
L = 155.37
R = 88.00
PC STA 72+54.20
y = 582,079.424
x = 69,484.647
PT STA74+09.57
y = 581,988.083
x = 69,585.355
SE = NC
RO = N/A
SE TRANSITION = N/A

CURVE CCB-5
PISTA 74+60.28
y = 581,995.465
x = 69,635.520
Δ = 37° 21' 13.41" (RT)
D = 38° 11' 49.87"
T = 50.70
L = 97.79
R = 150.00
PC STA 74+09.57
y = 581,988.083
x = 69,585.355
PT STA75+07.36
y = 581,970.897
x = 69,679.875
SE = NC
RO = N/A
SE TRANSITION = N/A

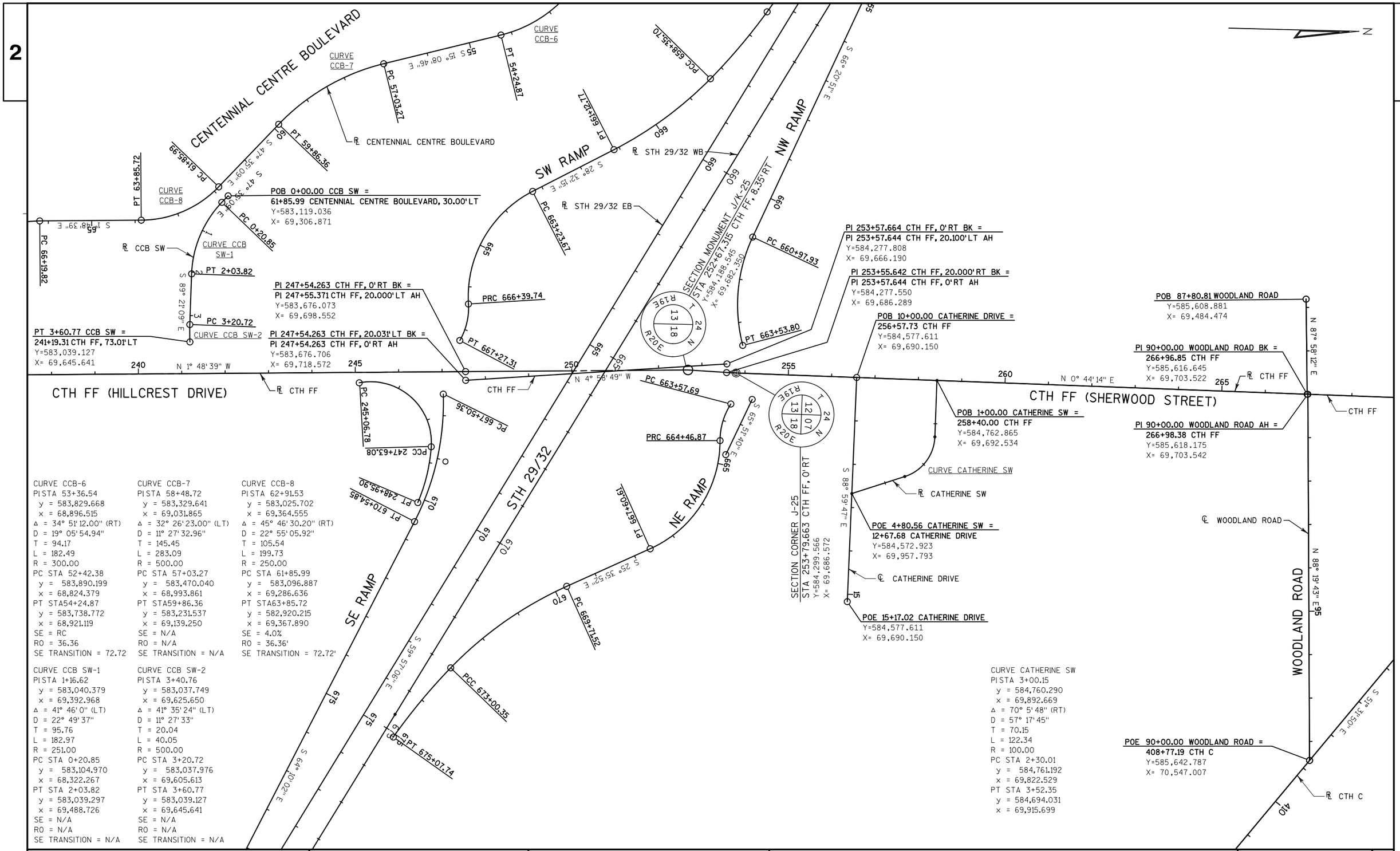


CURVE NAVAJO-1
PISTA 80+90.03
y = 581,985.192
x = 69,901.461
Δ = 19° 27' 41" (RT)
D = 10° 54' 49"
T = 90.03
L = 178.32
R = 525.00
PC STA 80+00.00
y = 581,953.598
x = 69,817.157
PT STA 81+78.32
y = 581,986.893
x = 69,991.473
SE = NC
RO = N/A
SE TRANSITION = N/A

CURVE NAVAJO-2
PISTA 83+49.17
y = 581,990.122
x = 70,162.285
Δ = 3° 15' 37.65" (LT)
D = 2° 01' 28.51"
T = 80.54
L = 161.04
R = 2,830.00
PC STA 82+68.62
y = 581,988.600
x = 70,081.756
PT STA 84+29.67
y = 581,996.221
x = 70,242.598
SE = NC
RO = N/A
SE TRANSITION = N/A

CURVE CCB BYPASS-1
PISTA 232+44.61
y = 582,164.790
x = 69,733.882
Δ = 32° 52' 20" (LT)
D = 32° 44' 26"
T = 51.63
L = 100.40
R = 175.00
PC STA 231+92.98
y = 582,116.515
x = 69,715.587
PT STA 232+93.39
y = 582,215.265
x = 69,723.046
SE = NC
RO = N/A
SE TRANSITION = N/A

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CURVE CCB-6
PI STA 53+36.54
y = 583,829.668
x = 68,896.515
Δ = 34° 51' 12.00" (RT)
D = 19° 05' 54.94"
T = 94.17
L = 182.49
R = 300.00
PC STA 52+42.38
y = 583,890.199
x = 68,824.379
PT STA54+24.87
y = 583,738.772
x = 68,921.119
SE = RC
RO = 36.36
SE TRANSITION = 72.72

CURVE CCB-7
PI STA 58+48.72
y = 583,329.641
x = 69,031.865
Δ = 32° 26' 23.00" (LT)
D = 11° 27' 32.96"
T = 145.45
L = 283.09
R = 500.00
PC STA 57+03.27
y = 583,470.040
x = 68,993.861
PT STA59+86.36
y = 583,231.537
x = 69,139.250
SE = N/A
RO = N/A
SE TRANSITION = N/A

CURVE CCB-8
PI STA 62+91.53
y = 583,025.702
x = 69,364.555
Δ = 45° 46' 30.20" (RT)
D = 22° 55' 05.92"
T = 105.54
L = 199.73
R = 250.00
PC STA 61+85.99
y = 583,096.887
x = 69,286.636
PT STA63+85.72
y = 582,920.215
x = 69,367.890
SE = 4.0%
RO = 36.36'
SE TRANSITION = 72.72'

CURVE CCB SW-1
PI STA 1+16.62
y = 583,040.379
x = 69,392.968
Δ = 41° 46' 0" (LT)
D = 22° 49' 37"
T = 95.76
L = 182.97
R = 251.00
PC STA 0+20.85
y = 583,104.970
x = 68,322.267
PT STA 2+03.82
y = 583,039.297
x = 69,488.726
SE = N/A
RO = N/A
SE TRANSITION = N/A

CURVE CCB SW-2
PI STA 3+40.76
y = 583,037.749
x = 69,625.650
Δ = 41° 35' 24" (LT)
D = 11° 27' 33"
T = 20.04
L = 40.05
R = 500.00
PC STA 3+20.72
y = 583,037.976
x = 69,605.613
PT STA 3+60.77
y = 583,039.127
x = 69,645.641
SE = N/A
RO = N/A
SE TRANSITION = N/A

CURVE CATHERINE SW
PI STA 3+00.15
y = 584,760.290
x = 69,892.669
Δ = 70° 5' 48" (RT)
D = 57° 17' 45"
T = 70.15
L = 122.34
R = 100.00
PC STA 2+30.01
y = 584,761.192
x = 69,822.529
PT STA 3+52.35
y = 584,694.031
x = 69,915.699

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SECTION CORNER 49E-25
Y=589,570.579
X= 69,754.406

T 24 N
11 06
12 07
R19E R20E

N 0° 44' 19" E

POE 274+77.91 CTH FF
Y=586,190.404
X= 69,857.801

395

CTH C (SHAWANO AVENUE)

S 34° 52' 50" E

POB 392+49.90 CTH C
Y=586,821.432
X= 69,450.016

PI 399+99.256 CTH C BK =
273+51.487 CTH FF
Y=586,206.705
X= 69,878.547

PI 399+96.909 CTH C AH =
273+25.104 CTH FF
Y=586,190.404
X= 69,857.801

℄ CTH C

405

S 51° 31' 50" E

410

CTH C (SHAWANO AVENUE)

POE 414+35.86 CTH C
Y=585,235.237
X= 70,984.418

POE 90+00.00 WOODLAND ROAD =
408+77.19 CTH C
Y=585,642.787
X= 70,547.007

N 51° 50' 35" E

PT 272+67.86

CURVE FF-1

PC 270+22.57

CP 501

270

N 88° 19' 43" E

WOODLAND ROAD

℄ WOODLAND ROAD

PI 90+00.00 WOODLAND ROAD BK =
266+96.85 CTH FF
Y=585,616.645
X= 69,703.522

PI 90+00.00 WOODLAND ROAD AH =
266+98.38 CTH FF
Y=585,618.175
X= 69,703.542

N 87° 58' 12" E

POB 87+80.81 WOODLAND ROAD
Y=585,608.881
X= 69,484.474

265

CTH FF (SHERWOOD ST.)

N 0° 44' 19" E

℄ CTH FF

CURVE FF-1
PI STA 271+54.05
y = 586,073.809
x = 69,709.405
Δ = 51° 06' 20.44" (RT)
D = 20° 50' 05.38"
T = 131.48
L = 245.29
R = 275.00
PC STA 270+22.57
y = 585,942.340
x = 69,707.713
PT STA272+67.86
y = 586,155.039
x = 69,812.790
SE = RC
RO = 54.55'
SE TRANSITION = 109.1'

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	ALIGNMENT PLAN	SHEET 183	E

2

CURVE RAB1-SR 1
PI STA 224+33.60
y : 581,356.74
x : 69,779.09
Δ = 3°48'14" (RT)
D = 6° 3'47"
T = 31.38'
L = 62.74'
R = 945.00'
PC STA 224+02.22
y : 581,325.36
x : 69,778.72
PCC STA 224+64.96
y : 581,388.02
x : 69,781.55

CURVE RAB1-SR 2
PI STA 224+75.27
y : 581,398.31
x : 69,782.18
Δ = 1°15'14" (RT)
D = 6° 4'56"
T = 10.31'
L = 20.62'
R = 942.00'
PCC STA 224+64.96
y : 581,388.02
x : 69,781.55
PT STA 224+85.57
y : 581,408.58
x : 69,783.03

CURVE RAB1-SR 3
PI STA 226+84.29
y : 581,606.62
x : 69,799.53
Δ = 16°54'51" (LT)
D = 10°42'34"
T = 79.55'
L = 157.94'
R = 535.00'
PC STA 226+04.75
y : 581,527.34
x : 69,792.92
PT STA 227+62.68
y : 581,684.38
x : 69,782.78

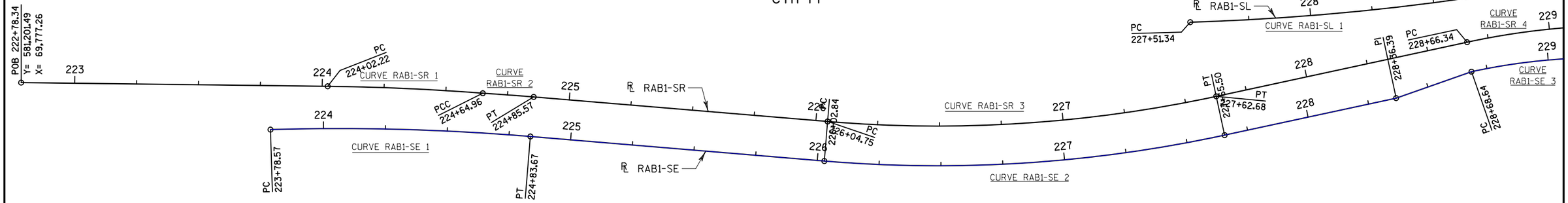
CURVE RAB1-SR 4
PI STA 229+08.63
y : 581,827.06
x : 69,752.06
Δ = 16° 2'51" (RT)
D = 19° 5'55"
T = 42.29'
L = 84.02'
R = 300.00'
PCC STA 229+50.36
y : 581,869.25
x : 69,754.93

CURVE RAB1-SL 1
PI STA 228+12.31
y : 581,734.82
x : 69,751.04
Δ = 6°58'41" (LT)
D = 5°43'46"
T = 60.97'
L = 121.79'
R = 1000.00'
PC STA 227+51.34
y : 581,673.87
x : 69,752.90
PT STA 228+73.13
y : 581,795.08
x : 69,741.80

CURVE RAB1-SW 1
PI STA 228+26.12
y : 581,748.13
x : 69,734.63
Δ = 8°41'32" (LT)
D = 5°49'22"
T = 74.78'
L = 149.28'
R = 984.00'
PC STA 227+51.34
y : 581,673.39
x : 69,736.90
PCC STA 229+00.61
y : 581,821.68
x : 69,721.08

2

CTH FF

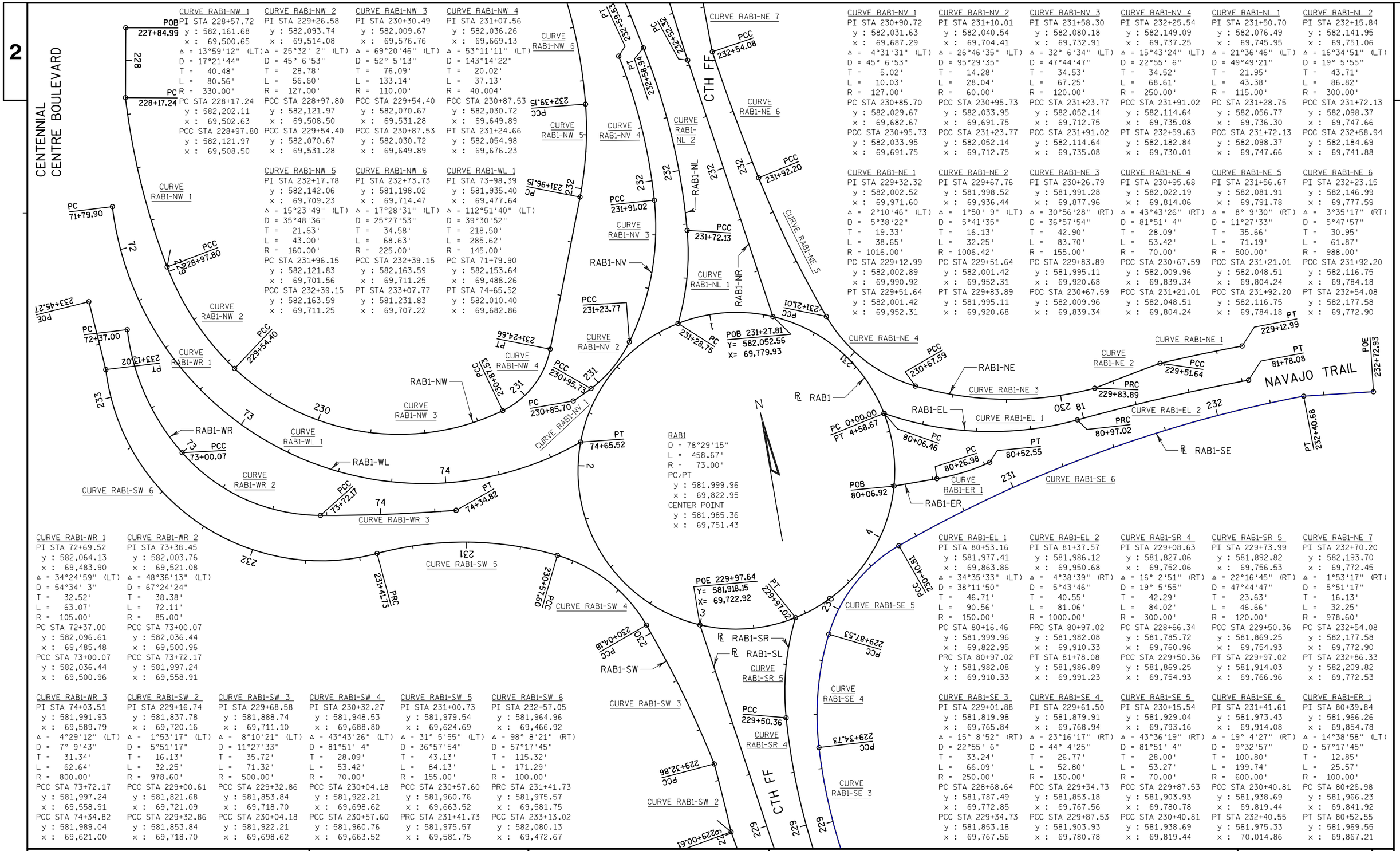


CURVE RAB1-SE 1
PI STA 224+31.17
y : 581,354.83
x : 69,794.61
Δ = 6°30'11" (RT)
D = 6°11'15"
T = 52.61'
L = 105.10'
R = 926.00'
PC STA 223+78.57
y : 581,302.25
x : 69,796.21
PT STA 224+83.67
y : 581,407.26
x : 69,798.98

CURVE RAB1-SE 2
PI STA 226+84.76
y : 581,607.66
x : 69,815.67
Δ = 16°54'51" (LT)
D = 10°23'55"
T = 81.93'
L = 162.66'
R = 551.00'
PC STA 226+02.84
y : 581,526.02
x : 69,808.87
PT STA 227+65.50
y : 581,687.75
x : 69,798.42

CURVE RAB1-SE 3
PI STA 229+01.88
y : 581,819.98
x : 69,765.84
Δ = 15° 8'52" (RT)
D = 22°55' 6"
T = 33.24'
L = 66.09'
R = 250.00'
PC STA 228+68.64
y : 581,787.49
x : 69,772.85
PCC STA 229+34.73
y : 581,853.18
x : 69,767.56

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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	ALIGNMENT PLAN	SHEET 185	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\027222_ad.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

CURVE RAB1-NW 6
PI STA 232+73.73
y : 581,198.02
x : 69,714.47
Δ = 17°28'31" (LT)
D = 25°27'53"
T = 34.58'
L = 68.63'
R = 225.00'
PCC STA 232+39.15
y : 582,163.59
x : 69,711.25
PT STA 233+07.77
y : 581,231.83
x : 69,707.22

CURVE RAB1-NW 7
PI STA 233+73.52
y : 582,296.11
x : 69,693.42
Δ = 3° 9'27" (RT)
D = 10°14'59"
T = 15.41'
L = 30.81'
R = 559.00'
PC STA 233+58.11
y : 582,281.05
x : 69,696.65
PCC STA 233+88.91
y : 582,311.33
x : 69,691.02

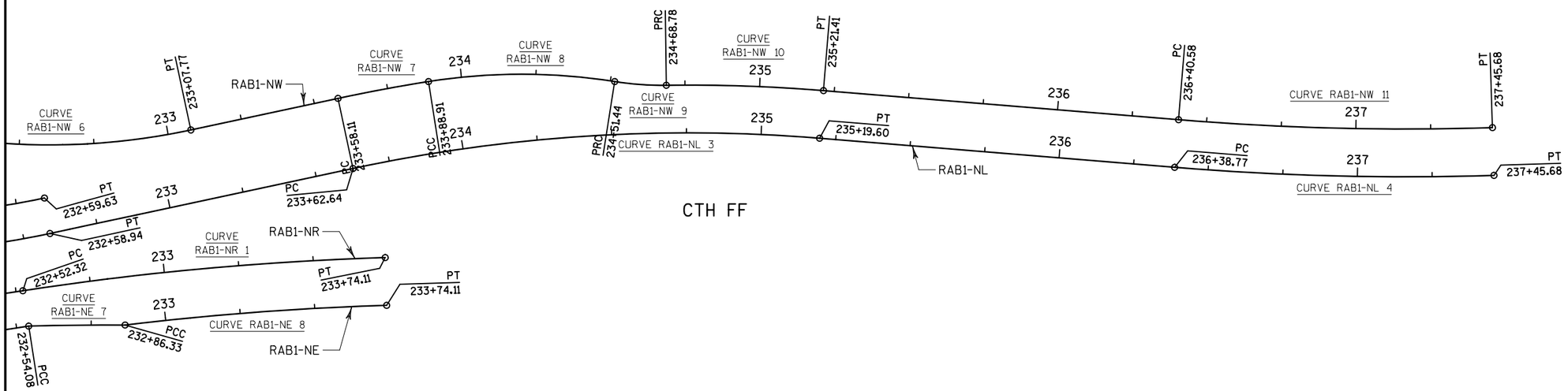
CURVE RAB1-NW 8
PI STA 234+20.44
y : 582,342.47
x : 69,686.11
Δ = 17°54'49" (RT)
D = 28°38'52"
T = 31.52'
L = 62.53'
R = 200.00'
PC STA 233+88.91
y : 582,311.33
x : 69,691.02
PRC STA 234+51.44
y : 582,373.60
x : 69,691.01

CURVE RAB1-NW 9
PI STA 234+60.13
y : 582,382.18
x : 69,692.37
Δ = 9°44' 8" (LT)
D = 56°10'20"
T = 8.69'
L = 17.33'
R = 102.00'
PRC STA 234+51.44
y : 582,373.60
x : 69,691.01
PRC STA 234+68.78
y : 582,390.87
x : 69,692.25

CURVE RAB1-NW 10
PI STA 234+95.11
y : 582,417.21
x : 69,691.89
Δ = 5°28'24" (RT)
D = 10°23'55"
T = 26.34'
L = 52.63'
R = 551.00'
PRC STA 234+68.78
y : 582,390.87
x : 69,692.25
PT STA 235+21.41
y : 582,443.45
x : 69,694.04

CURVE RAB1-NW 11
PI STA 236+93.19
y : 582,614.66
x : 69,708.10
Δ = 5°28'24" (RT)
D = 10°23'55"
T = 26.34'
L = 52.63'
R = 551.00'
PC STA 236+40.58
y : 582,562.23
x : 69,703.79
PT STA 237+45.68
y : 582,667.24
x : 69,706.43

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CURVE RAB1-NR 1
PI STA 233+13.29
y : 582,235.90
x : 69,751.81
Δ = 6°58'41" (RT)
D = 5°43'46"
T = 60.97'
L = 121.79'
R = 1000.00'
PC STA 232+52.32
y : 582,175.63
x : 69,761.06
PT STA 233+74.11
y : 582,296.84
x : 69,749.96

CURVE RAB1-NE 7
PI STA 232+70.20
y : 582,193.70
x : 69,772.45
Δ = 1°53'17" (RT)
D = 5°51'17"
T = 16.13'
L = 32.25'
R = 978.60'
PC STA 232+54.08
y : 582,177.58
x : 69,772.90
PT STA 232+86.33
y : 582,209.82
x : 69,772.53

CURVE RAB1-NE 8
PI STA 233+30.25
y : 582,253.43
x : 69,767.29
Δ = 5° 6'41" (RT)
D = 5°49'22"
T = 43.92'
L = 87.78'
R = 984.00'
PC STA 232+86.33
y : 582,209.82
x : 69,772.53
PT STA 233+74.11
y : 582,297.33
x : 69,765.95

CURVE RAB1-NL 3
PI STA 234+41.69
y : 582,363.37
x : 69,703.52
Δ = 16°48'32" (RT)
D = 10°42'34"
T = 79.04'
L = 156.95'
R = 535.00'
PC STA 233+62.64
y : 582,286.08
x : 69,720.12
PT STA 235+19.60
y : 582,442.15
x : 69,709.99

CURVE RAB1-NL 4
PI STA 236+92.28
y : 582,614.25
x : 69,724.12
Δ = 6°30'11" (LT)
D = 6° 4'56"
T = 53.52'
L = 106.92'
R = 942.00'
PC STA 236+38.77
y : 582,560.92
x : 69,719.74
PT STA 237+45.68
y : 582,667.74
x : 69,722.43

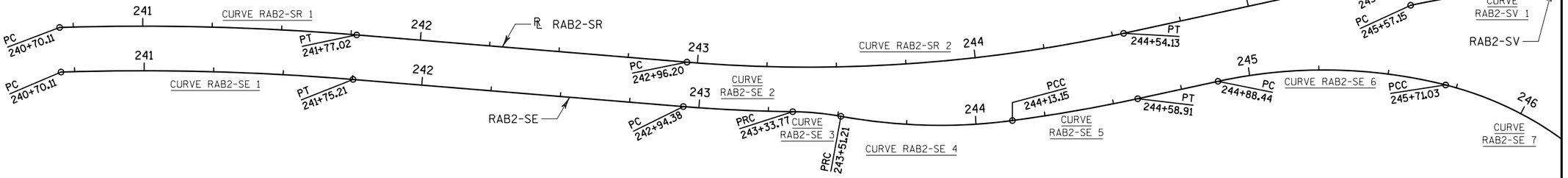
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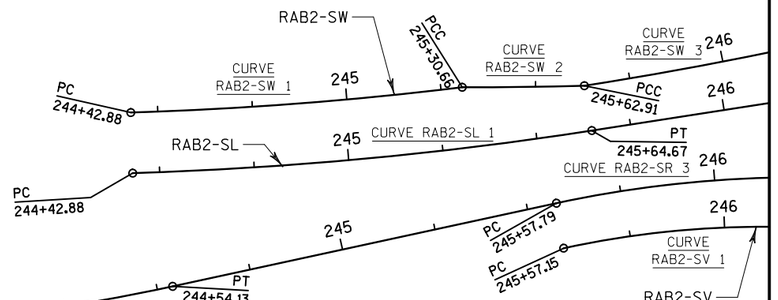
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	ALIGNMENT PLAN	SHEET 186	E

2

N

CTH FF





CURVE RAB2-SW 1
PI STA 244+86.80
y = 583,407.98
x = 69,683.02
Δ = 5° 06' 41" (LT)
D = 5° 49' 22"
T = 43.92
L = 87.78
R = 984.00
PC STA 244+42.88
y = 583,364.08
x = 69,684.40
PCC STA 245+30.66
y = 583,451.58
x = 69,677.72

CURVE RAB2-SW 2
PI STA 245+46.79
y = 583,467.71
x = 69,677.78
Δ = 1° 53' 17" (LT)
D = 5° 51' 17"
T = 16.13
L = 32.25
R = 978.60
PCC STA 245+30.66
y = 583,451.58
x = 69,677.72
PCC STA 245+62.91
y = 583,483.83
x = 69,677.31

CURVE RAB2-SW 3
PI STA 245+93.86
y = 583,514.41
x = 69,672.59
Δ = 3° 35' 16.98" (LT)
D = 5° 47' 57.00"
T = 30.95
L = 61.87
R = 988.00
PCC STA 245+62.91
y = 583,483.83
x = 69,677.31
PCC STA 246+24.78
y = 583,544.64
x = 69,665.96

CURVE RAB2-SL 1
PI STA 245+03.85
y = 583,425.53
x = 69,698.47
Δ = 6° 58' 41" (LT)
D = 5° 43' 46"
T = 60.97
L = 121.79
R = 1,000.00
PC STA 244+42.88
y = 583,364.59
x = 69,700.39
PT STA 245+64.67
y = 583,485.78
x = 69,689.15

CURVE RAB2-SR 1
PI STA 241+23.62
y = 583,046.00
x = 69,726.48
Δ = 6° 30' 11" (RT)
D = 6° 04' 56"
T = 53.52
L = 106.92
R = 942.00
PC STA 240+70.11
y = 582,992.51
x = 69,728.17
PT STA 241+77.02
y = 583,099.34
x = 69,730.85

CURVE RAB2-SR 2
PI STA 243+75.74
y = 583,297.39
x = 69,747.11
Δ = 16° 54' 51" (LT)
D = 10° 42' 34"
T = 79.55
L = 157.94
R = 535.00
PC STA 242+96.20
y = 583,218.11
x = 69,740.60
PT STA 244+54.13
y = 583,375.13
x = 69,730.27

CURVE RAB2-SR 3
PI STA 246+01.66
y = 583,519.32
x = 69,699.04
Δ = 16° 38' 24" (RT)
D = 19° 05' 55"
T = 43.87
L = 87.13
R = 300.00
PC STA 245+57.79
y = 583,476.44
x = 69,708.32
PCC STA 246+44.92
y = 583,563.06
x = 69,702.42

CURVE RAB2-SE 1
PI STA 241+22.72
y = 583,045.60
x = 69,742.50
Δ = 6° 30' 11" (RT)
D = 6° 11' 15"
T = 52.61
L = 105.10
R = 926.00
PC STA 240+70.11
y = 582,993.02
x = 69,744.16
PT STA 241+75.21
y = 583,098.03
x = 69,746.799

CURVE RAB2-SE 2
PI STA 243+14.08
y = 583,236.44
x = 69,758.16
Δ = 4° 05' 44" (LT)
D = 10° 23' 55"
T = 19.70
L = 39.39
R = 551.00
PC STA 242+94.38
y = 583,216.80
x = 69,756.55
PRC STA 243+33.77
y = 583,256.14
x = 69,758.36

CURVE RAB2-SE 3
PI STA 243+42.51
y = 583,264.88
x = 69,758.46
Δ = 9° 47' 45" (RT)
D = 56° 10' 20"
T = 8.74
L = 17.44
R = 102.00
PRC STA 243+33.77
y = 583,256.14
x = 69,758.36
PRC STA 243+51.21
y = 583,273.47
x = 69,760.03

CURVE RAB2-SE 4
PI STA 243+82.43
y = 583,304.19
x = 69,765.66
Δ = 17° 55' 25" (LT)
D = 28° 56' 14"
T = 31.22
L = 61.94
R = 198.00
PRC STA 243+51.21
y = 583,273.47
x = 69,760.03
PCC STA244+13.15
y = 583,335.14
x = 69,761.57

CURVE RAB2-SE 5
PI STA 244+36.04
y = 583,357.84
x = 69,758.57
Δ = 4° 41' 26" (LT)
D = 10° 14' 59"
T = 22.89
L = 45.76
R = 559.00
PCC STA 244+13.15
y = 583,335.14
x = 69,761.57
PT STA 244+58.91
y = 583,380.21
x = 69,753.72

CURVE RAB2-SE 6
PI STA 245+30.48
y = 583,450.16
x = 69,738.57
Δ = 26° 17' 30" (RT)
D = 31° 49' 52"
T = 42.04
L = 82.60
R = 180.00
PC STA 244+88.44
y = 583,409.07
x = 69,747.47
PCC STA 245+71.03
y = 583,490.94
x = 69,748.79

CURVE RAB2-SE 7
PI STA 246+70.89
y = 583,587.79
x = 69,773.07
Δ = 78° 35' 52" (RT)
D = 46° 57' 50"
T = 99.85
L = 167.36
R = 122.00
PCC STA 245+71.03
y = 583,490.94
x = 69,748.79
PCC STA 247+38.39
y = 583,583.15
x = 69,872.81

CURVE RAB2-SV 1
PI STA 245+91.80
y = 583,512.22
x = 69,712.85
Δ = 15° 46' 55" (RT)
D = 22° 55' 06"
T = 34.65
L = 68.86
R = 250.00
PC STA 245+57.15
y = 583,478.35
x = 69,720.19
PCC STA 246+26.01
y = 583,546.80
x = 69,715.00

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	ALIGNMENT PLAN	SHEET 187	E



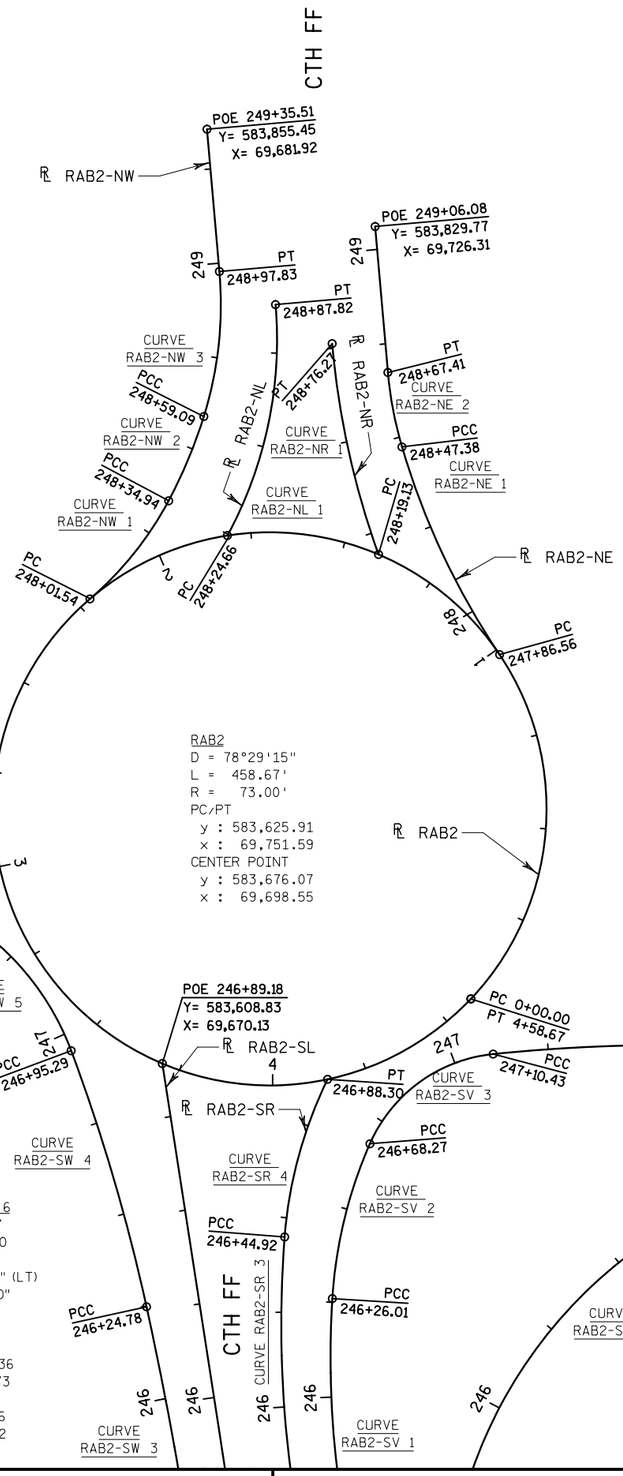
CURVE RAB2-NL 1
PI STA 248+57.18
y = 583,776.765
x = 69,702.826
Δ = 33° 30' 28.62" (LT)
D = 53° 03' 05.93"
T = 32.51
L = 63.16
R = 108.00
PC STA 248+24.66
y = 583,748.200
x = 69,687.299
PT STA248+87.82
y = 583,809.155
x = 69,700.004

CURVE RAB2-NR 1
PI STA 248+47.86
y = 583,770.234
x = 69,717.448
Δ = 14° 52' 51.40" (RT)
D = 26° 02' 36.73"
T = 28.73
L = 57.14
R = 220.00
PC STA 248+19.13
y = 583,743.212
x = 69,727.210
PT STA248+76.27
y = 583,798.857
x = 69,714.954

CURVE RAB2-NW 1
PI STA 248+18.44
y = 583,742.476
x = 69,663.838
Δ = 21° 15' 47.60" (LT)
D = 63° 39' 43.12"
T = 16.89
L = 33.40
R = 90.00
PC STA 248+01.54
y = 583,731.475
x = 69,651.016
PT STA248+34.94
y = 583,757.378
x = 69,671.798

CURVE RAB2-NW 2
PI STA 248+47.05
y = 583,768.062
x = 69,677.504
Δ = 10° 53' 45.21" (LT)
D = 45° 06' 53.23"
T = 12.11
L = 24.15
R = 127.00
PC STA 248+34.94
y = 583,757.378
x = 69,671.798
PT STA248+59.09
y = 583,779.632
x = 69,681.088

CURVE RAB2-NW 3
PI STA 248+78.71
y = 583,798.365
x = 69,686.891
Δ = 22° 11' 29.79" (LT)
D = 57° 17' 44.81"
T = 19.61
L = 38.73
R = 100.00
PC STA 248+59.09
y = 583,779.632
x = 69,681.088
PT STA248+97.83
y = 583,817.903
x = 69,685.188



CURVE RAB2-SW 3
PI STA 245+93.86
y = 583,514.41
x = 69,672.59
Δ = 3° 35' 16.98" (LT)
D = 5° 47' 57.00"
T = 30.95
L = 61.87
R = 988.00
PCC STA 245+62.91
y = 583,483.83
x = 69,677.31
PCC STA 246+24.78
y = 583,544.64
x = 69,665.96

CURVE RAB2-SW 4
PI STA 246+60.09
y = 583,579.133
x = 69,658.394
Δ = 8° 04' 47.69" (LT)
D = 11° 27' 32.96"
T = 35.31
L = 70.51
R = 500.00
PC STA 246+24.78
y = 583,544.639
x = 69,665.959
PT STA246+95.29
y = 583,612.221
x = 69,646.056

CURVE RAB2-SW 5
PI STA 247+24.34
y = 583,639.438
x = 69,635.907
Δ = 45° 04' 26.24" (LT)
D = 81° 51' 04.01"
T = 29.05
L = 55.07
R = 70.00
PC STA 246+95.29
y = 583,612.221
x = 69,646.056
PT STA247+50.36
y = 583,651.473
x = 69,609.470

CURVE RAB2-SW 6
PI STA 247+86.27
y = 583,666.350
x = 69,576.790
Δ = 28° 46' 10.69" (LT)
D = 40° 55' 32.00"
T = 35.91
L = 70.30
R = 140.00
PC STA 247+50.36
y = 583,651.473
x = 69,609.470
PT STA248+20.66
y = 583,663.662
x = 69,540.984

CURVE RAB2-NE 1
PI STA 248+17.21
y = 583,742.209
x = 69,742.073
Δ = 17° 25' 20.82" (RT)
D = 28° 38' 52.40"
T = 30.64
L = 60.82
R = 200.00
PC STA 247+86.56
y = 583,716.768
x = 69,759.156
PT STA248+47.38
y = 583,771.598
x = 69,733.390

CURVE RAB2-NE 2
PI STA 248+57.43
y = 583,781.236
x = 69,730.543
Δ = 11° 28' 42.02" (RT)
D = 57° 17' 44.81"
T = 10.05
L = 20.03
R = 100.00
PC STA 248+47.38
y = 583,771.598
x = 69,733.390
PT STA248+67.41
y = 583,791.249
x = 69,729.670

CURVE RAB2-SV 1
PI STA 245+91.80
y = 583,512.22
x = 69,712.85
Δ = 15° 46' 55" (RT)
D = 22° 55' 06"
T = 34.65
L = 68.86
R = 250.00
PC STA 245+57.15
y = 583,478.35
x = 69,720.19
PCC STA 246+26.01
y = 583,546.80
x = 69,715.00

CURVE RAB2-SV 2
PI STA 246+47.36
y = 583,568.112
x = 69,716.330
Δ = 20° 10' 40.61" (RT)
D = 47° 44' 47.34"
T = 21.35
L = 42.26
R = 120.00
PC STA 246+26.01
y = 583,546.802
x = 69,715.005
PT STA246+68.27
y = 583,587.657
x = 69,724.925

CURVE RAB2-SV 3
PI STA 246+91.55
y = 583,608.965
x = 69,734.295
Δ = 60° 23' 30.46" (RT)
D = 143° 14' 22.01"
T = 23.28
L = 42.16
R = 40.00
PC STA 246+68.27
y = 583,587.657
x = 69,724.925
PT STA247+10.43
y = 583,611.346
x = 69,757.450

CURVE RAB2-SV 4
PI STA 247+63.04
y = 583,616.726
x = 69,809.782
Δ = 13° 20' 09.06" (RT)
D = 12° 43' 56.62"
T = 52.61
L = 104.74
R = 450.00
PC STA 247+10.43
y = 583,611.346
x = 69,757.450
PT STA248+15.17
y = 583,609.891
x = 69,861.943

CURVE RAB2-SV 5
PI STA 248+26.64
y = 583,608.401
x = 69,873.317
Δ = 2° 14' 06.66" (RT)
D = 9° 44' 39.05"
T = 11.47
L = 22.94
R = 588.00
PC STA 248+15.17
y = 583,609.891
x = 69,861.943
PT STA248+38.11
y = 583,606.468
x = 69,884.624

CURVE RAB2-SR 3
PI STA 246+01.66
y = 583,519.32
x = 69,699.04
Δ = 16° 38' 24" (RT)
D = 19° 05' 55"
T = 43.87
L = 87.13
R = 300.00
PC STA 245+57.79
y = 583,476.44
x = 69,708.32
PCC STA 246+44.92
y = 583,563.06
x = 69,702.42

CURVE RAB2-SR 4
PI STA 246+66.87
y = 583,584.947
x = 69,704.107
Δ = 21° 36' 43.87" (RT)
D = 49° 49' 20.70"
T = 21.95
L = 43.38
R = 115.00
PC STA 246+44.92
y = 583,563.062
x = 69,702.416
PT STA246+88.30
y = 583,604.670
x = 69,713.740

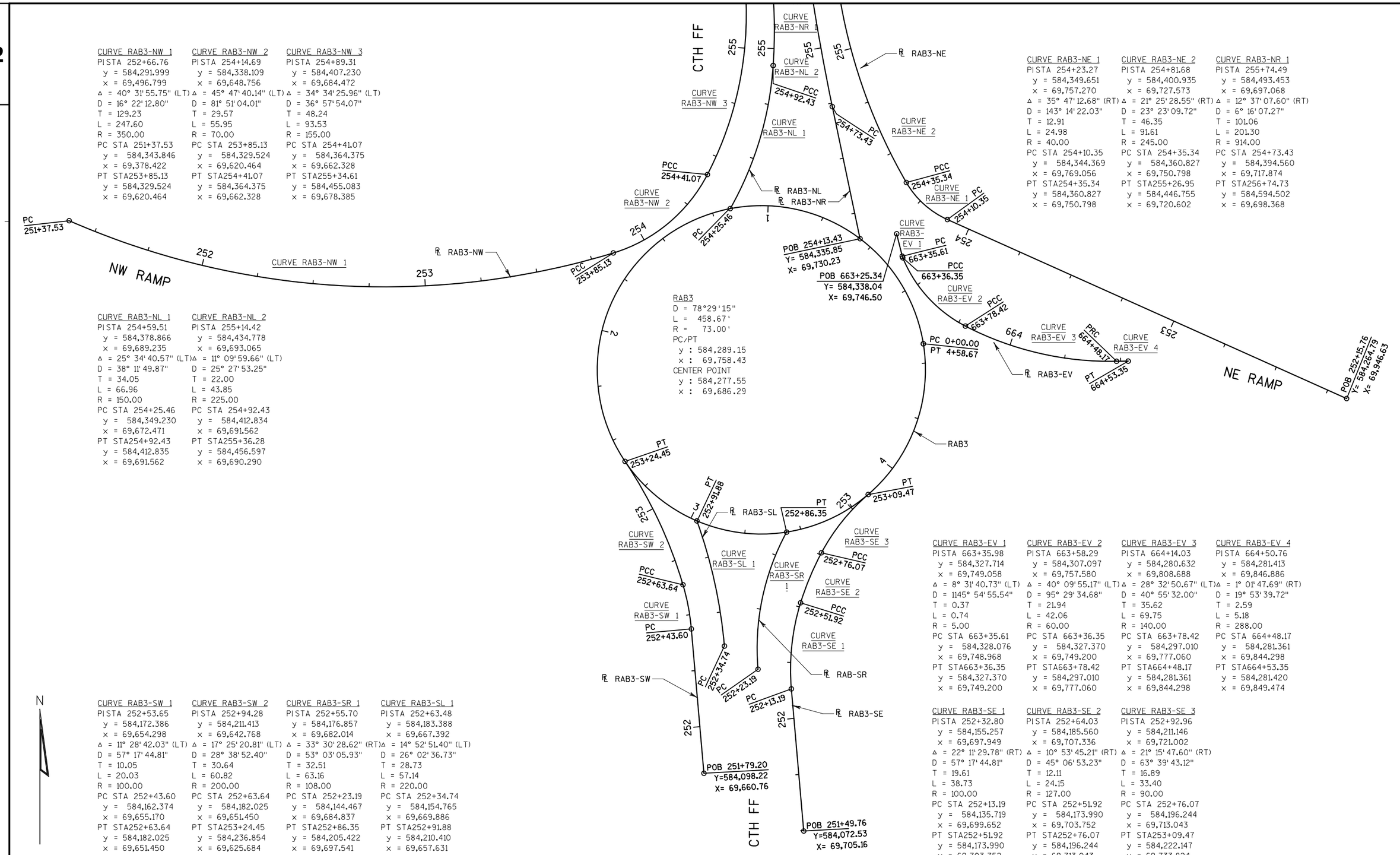
CURVE RAB2-SE 7
PI STA 246+70.89
y = 583,587.79
x = 69,773.07
Δ = 78° 35' 52" (RT)
D = 46° 57' 50"
T = 99.85
L = 167.36
R = 122.00
PCC STA 245+71.03
y = 583,490.94
x = 69,748.79
PCC STA 247+38.39
y = 583,583.15
x = 69,872.81

CURVE RAB2-SE 8
PI STA 247+44.60
y = 583,582.859
x = 69,879.016
Δ = 1° 51' 47.53" (RT)
D = 14° 59' 56.02"
T = 6.21
L = 12.42
R = 382.00
PC STA 247+38.39
y = 583,583.148
x = 69,872.811
PT STA247+50.81
y = 583,582.368
x = 69,885.208

CURVE RAB2-SE 9
PI STA 248+40.52
y = 583,575.282
x = 69,974.637
Δ = 21° 18' 07.91" (RT)
D = 12° 00' 42.10"
T = 89.71
L = 177.35
R = 477.00
PC STA 247+50.81
y = 583,582.368
x = 69,885.208
PT STA249+28.16
y = 583,536.192
x = 70,055.381

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	ALIGNMENT PLAN	SHEET 188	E

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CURVE RAB3-NW 1
PISTA 252+66.76
y = 584,291.999
x = 69,496.799
Δ = 40° 31' 55.75" (LT)
D = 16° 22' 12.80"
T = 129.23
L = 247.60
R = 350.00
PC STA 251+37.53
y = 584,343.846
x = 69,378.422
PT STA253+85.13
y = 584,329.524
x = 69,620.464

CURVE RAB3-NW 2
PISTA 254+14.69
y = 584,338.109
x = 69,648.756
Δ = 45° 47' 40.14" (LT)
D = 81° 51' 04.01"
T = 29.57
L = 55.95
R = 70.00
PC STA 253+85.13
y = 584,329.524
x = 69,620.464
PT STA254+41.07
y = 584,364.375
x = 69,662.328

CURVE RAB3-NW 3
PISTA 254+89.31
y = 584,407.230
x = 69,684.472
Δ = 34° 34' 25.96" (LT)
D = 36° 57' 54.07"
T = 48.24
L = 93.53
R = 155.00
PC STA 254+41.07
y = 584,364.375
x = 69,662.328
PT STA255+34.61
y = 584,455.083
x = 69,678.385

CURVE RAB3-NL 1
PISTA 254+59.51
y = 584,378.866
x = 69,689.235
Δ = 25° 34' 40.57" (LT)
D = 38° 11' 49.87"
T = 34.05
L = 66.96
R = 150.00
PC STA 254+25.46
y = 584,349.230
x = 69,672.471
PT STA254+92.43
y = 584,412.835
x = 69,691.562

CURVE RAB3-NL 2
PISTA 255+14.42
y = 584,434.778
x = 69,693.065
Δ = 11° 09' 59.66" (LT)
D = 25° 27' 53.25"
T = 22.00
L = 43.85
R = 225.00
PC STA 254+92.43
y = 584,412.834
x = 69,691.562
PT STA255+36.28
y = 584,456.597
x = 69,690.290

CURVE RAB3-NE 1
PISTA 254+23.27
y = 584,349.651
x = 69,757.270
Δ = 35° 47' 12.68" (RT)
D = 143° 14' 22.03"
T = 12.91
L = 24.98
R = 40.00
PC STA 254+10.35
y = 584,344.369
x = 69,769.056
PT STA254+35.34
y = 584,360.827
x = 69,750.798

CURVE RAB3-NE 2
PISTA 254+81.68
y = 584,400.935
x = 69,727.573
Δ = 21° 25' 28.55" (RT)
D = 23° 23' 09.72"
T = 46.35
L = 91.61
R = 245.00
PC STA 254+35.34
y = 584,360.827
x = 69,750.798
PT STA255+26.95
y = 584,446.755
x = 69,720.602

CURVE RAB3-NR 1
PISTA 255+74.49
y = 584,493.453
x = 69,697.068
Δ = 12° 37' 07.60" (RT)
D = 6° 16' 07.27"
T = 101.06
L = 201.30
R = 914.00
PC STA 254+73.43
y = 584,394.560
x = 69,717.874
PT STA256+74.73
y = 584,594.502
x = 69,698.368

CURVE RAB3-SW 1
PISTA 252+53.65
y = 584,172.386
x = 69,654.298
Δ = 11° 28' 42.03" (LT)
D = 57° 17' 44.81"
T = 10.05
L = 20.03
R = 100.00
PC STA 252+43.60
y = 584,162.374
x = 69,655.170
PT STA252+63.64
y = 584,182.025
x = 69,651.450

CURVE RAB3-SW 2
PISTA 252+94.28
y = 584,211.413
x = 69,642.768
Δ = 17° 25' 20.81" (LT)
D = 28° 38' 52.40"
T = 30.64
L = 60.82
R = 200.00
PC STA 252+63.64
y = 584,182.025
x = 69,651.450
PT STA253+24.45
y = 584,236.854
x = 69,625.684

CURVE RAB3-SR 1
PISTA 252+55.70
y = 584,176.857
x = 69,682.014
Δ = 33° 30' 28.62" (RT)
D = 53° 03' 05.93"
T = 32.51
L = 63.16
R = 108.00
PC STA 252+23.19
y = 584,144.467
x = 69,684.837
PT STA252+86.35
y = 584,205.422
x = 69,697.541

CURVE RAB3-SL 1
PISTA 252+63.48
y = 584,183.388
x = 69,667.392
Δ = 14° 52' 51.40" (LT)
D = 26° 02' 36.73"
T = 28.73
L = 57.14
R = 220.00
PC STA 252+34.74
y = 584,154.765
x = 69,669.886
PT STA252+91.88
y = 584,210.410
x = 69,657.631

CURVE RAB3-EV 1
PISTA 663+35.98
y = 584,327.714
x = 69,749.058
Δ = 8° 31' 40.73" (LT)
D = 1145° 54' 55.54"
T = 0.37
L = 0.74
R = 5.00
PC STA 663+35.61
y = 584,328.076
x = 69,748.968
PT STA663+36.35
y = 584,327.370
x = 69,749.200

CURVE RAB3-EV 2
PISTA 663+58.29
y = 584,307.097
x = 69,757.580
Δ = 40° 09' 55.17" (LT)
D = 95° 29' 34.68"
T = 21.94
L = 42.06
R = 60.00
PC STA 663+36.35
y = 584,327.370
x = 69,749.200
PT STA663+78.42
y = 584,297.010
x = 69,777.060

CURVE RAB3-EV 3
PISTA 664+14.03
y = 584,280.632
x = 69,808.688
Δ = 28° 32' 50.67" (LT)
D = 40° 55' 32.00"
T = 35.62
L = 69.75
R = 140.00
PC STA 663+78.42
y = 584,297.010
x = 69,777.060
PT STA664+48.17
y = 584,281.361
x = 69,844.298

CURVE RAB3-EV 4
PISTA 664+50.76
y = 584,281.413
x = 69,846.886
Δ = 1° 01' 47.69" (RT)
D = 19° 53' 39.72"
T = 2.59
L = 5.18
R = 288.00
PC STA 664+48.17
y = 584,281.420
x = 69,844.298
PT STA664+53.35
y = 584,281.420
x = 69,849.474

CURVE RAB3-SE 1
PISTA 252+32.80
y = 584,155.257
x = 69,697.949
Δ = 22° 11' 29.78" (RT)
D = 57° 17' 44.81"
T = 19.61
L = 38.73
R = 100.00
PC STA 252+13.19
y = 584,135.719
x = 69,699.652
PT STA252+51.92
y = 584,173.990
x = 69,703.752

CURVE RAB3-SE 2
PISTA 252+64.03
y = 584,185.560
x = 69,707.336
Δ = 10° 53' 45.21" (RT)
D = 45° 06' 53.23"
T = 12.11
L = 24.15
R = 127.00
PC STA 252+51.92
y = 584,173.990
x = 69,703.752
PT STA252+76.07
y = 584,196.244
x = 69,713.043

CURVE RAB3-SE 3
PISTA 252+92.96
y = 584,211.146
x = 69,721.002
Δ = 21° 15' 47.60" (RT)
D = 63° 39' 43.12"
T = 16.89
L = 33.40
R = 90.00
PC STA 252+76.07
y = 584,196.244
x = 69,713.043
PT STA253+09.47
y = 584,222.147
x = 69,733.824

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	ALIGNMENT PLAN	SHEET 189	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\027226_ad.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

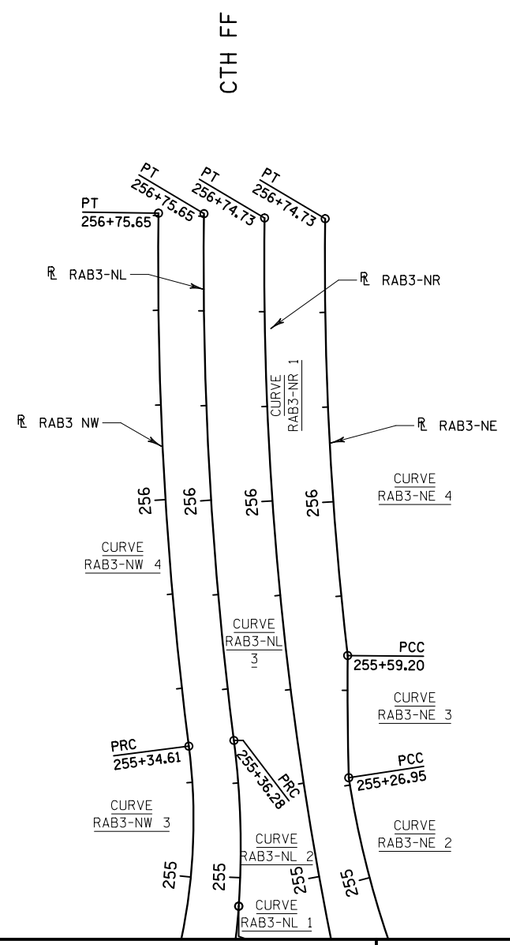
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CURVE RAB3-NL 1
PI STA 254+59.51
y = 584,378.866
x = 69,689.235
Δ = 25° 34' 40.57" (LT)
D = 38° 11' 49.87"
T = 34.05
L = 66.96
R = 150.00
PC STA 254+25.46
y = 584,349.230
x = 69,672.471
PT STA254+92.43
y = 584,412.835
x = 69,691.562

CURVE RAB3-NL 2
PI STA 255+14.42
y = 584,434.778
x = 69,693.065
Δ = 11° 09' 59.66" (LT)
D = 25° 27' 53.25"
T = 22.00
L = 43.85
R = 225.00
PC STA 254+92.43
y = 584,412.834
x = 69,691.562
PT STA255+36.28
y = 584,456.597
x = 69,690.290

CURVE RAB3-NL 3
PI STA 256+06.08
y = 584,525.838
x = 69,681.483
Δ = 7° 59' 07.52" (RT)
D = 5° 43' 46.48"
T = 69.80
L = 139.37
R = 1,000.00
PC STA 255+36.28
y = 584,456.597
x = 69,690.290
PT STA256+75.65
y = 584,595.632
x = 69,682.381



CURVE RAB3-NW 3
PI STA 254+89.31
y = 584,407.230
x = 69,684.472
Δ = 34° 34' 25.96" (LT)
D = 36° 57' 54.07"
T = 48.24
L = 93.53
R = 155.00
PC STA 254+41.07
y = 584,364.375
x = 69,662.328
PT STA255+34.61
y = 584,455.083
x = 69,678.385

CURVE RAB3-NW 4
PI STA 256+05.24
y = 584,525.155
x = 69,669.474
Δ = 7° 59' 07.54" (RT)
D = 5° 39' 41.90"
T = 70.64
L = 141.04
R = 1,012.00
PC STA 255+34.61
y = 584,455.083
x = 69,678.385
PT STA256+75.65
y = 584,595.786
x = 69,670.382

CURVE RAB3-NR 1
PI STA 255+74.49
y = 584,493.453
x = 69,697.068
Δ = 12° 37' 07.60" (RT)
D = 6° 16' 07.27"
T = 101.06
L = 201.30
R = 914.00
PC STA 254+73.43
y = 584,394.560
x = 69,717.874
PT STA256+74.73
y = 584,594.502
x = 69,698.368

CURVE RAB3-NE 2
PI STA 254+81.68
y = 584,400.935
x = 69,727.573
Δ = 21° 25' 28.55" (RT)
D = 23° 23' 09.72"
T = 46.35
L = 91.61
R = 245.00
PC STA 254+35.34
y = 584,360.827
x = 69,750.798
PT STA255+26.95
y = 584,446.755
x = 69,720.602

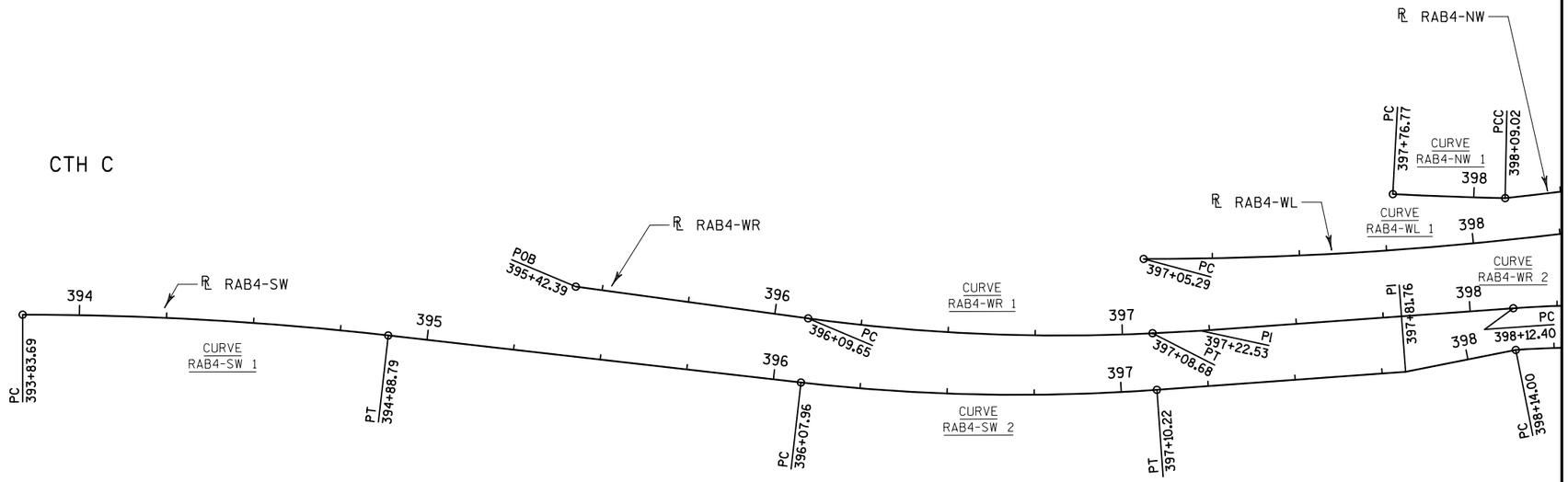
CURVE RAB3-NE 3
PI STA 255+43.08
y = 584,462.876
x = 69,720.162
Δ = 2° 04' 07.05" (RT)
D = 6° 24' 51.55"
T = 16.13
L = 32.25
R = 893.25
PC STA 255+26.95
y = 584,446.755
x = 69,720.602
PT STA255+59.20
y = 584,479.002
x = 69,720.305

CURVE RAB3-NE 4
PI STA 256+17.04
y = 584,536.458
x = 69,713.623
Δ = 7° 22' 15.76" (RT)
D = 6° 22' 49.35"
T = 57.84
L = 115.53
R = 898.00
PC STA 255+59.20
y = 584,479.002
x = 69,720.305
PT STA256+74.73
y = 584,594.296
x = 69,714.367

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	ALIGNMENT PLAN	SHEET 190	E

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CURVE RAB4-WL 1
PI STA 398+24.03
y = 586,350.450
x = 69,778.341
Δ = 13° 32' 36.86" (LT)
D = 5° 43' 46.48"
T = 118.74
L = 236.38
R = 1,000.00
PC STA 397+05.29
y = 586,447.861
x = 69,710.435
PT STA399+41.67
y = 586,271.651
x = 69,867.170

CURVE RAB4-NW 1
PI STA 397+92.90
y = 586,386.166
x = 69,775.096
Δ = 1° 53' 17" (LT)
D = 5° 51' 17"
T = 16.13
L = 32.25
R = 978.60
PC STA 397+76.77
y = 586,399.856
x = 69,766.573
PT STA 398+09.02
y = 586,372.765
x = 69,784.067

CURVE RAB4-SW 1
PI STA 394+36.30
y = 586,659.377
x = 69,543.481
Δ = 6° 30' 10.78" (RT)
D = 6° 11' 14.82"
T = 52.61
L = 105.10
R = 926.00
PC STA 393+83.69
y = 586,702.532
x = 69,513.398
PT STA394+88.79
y = 586,613.092
x = 69,568.484

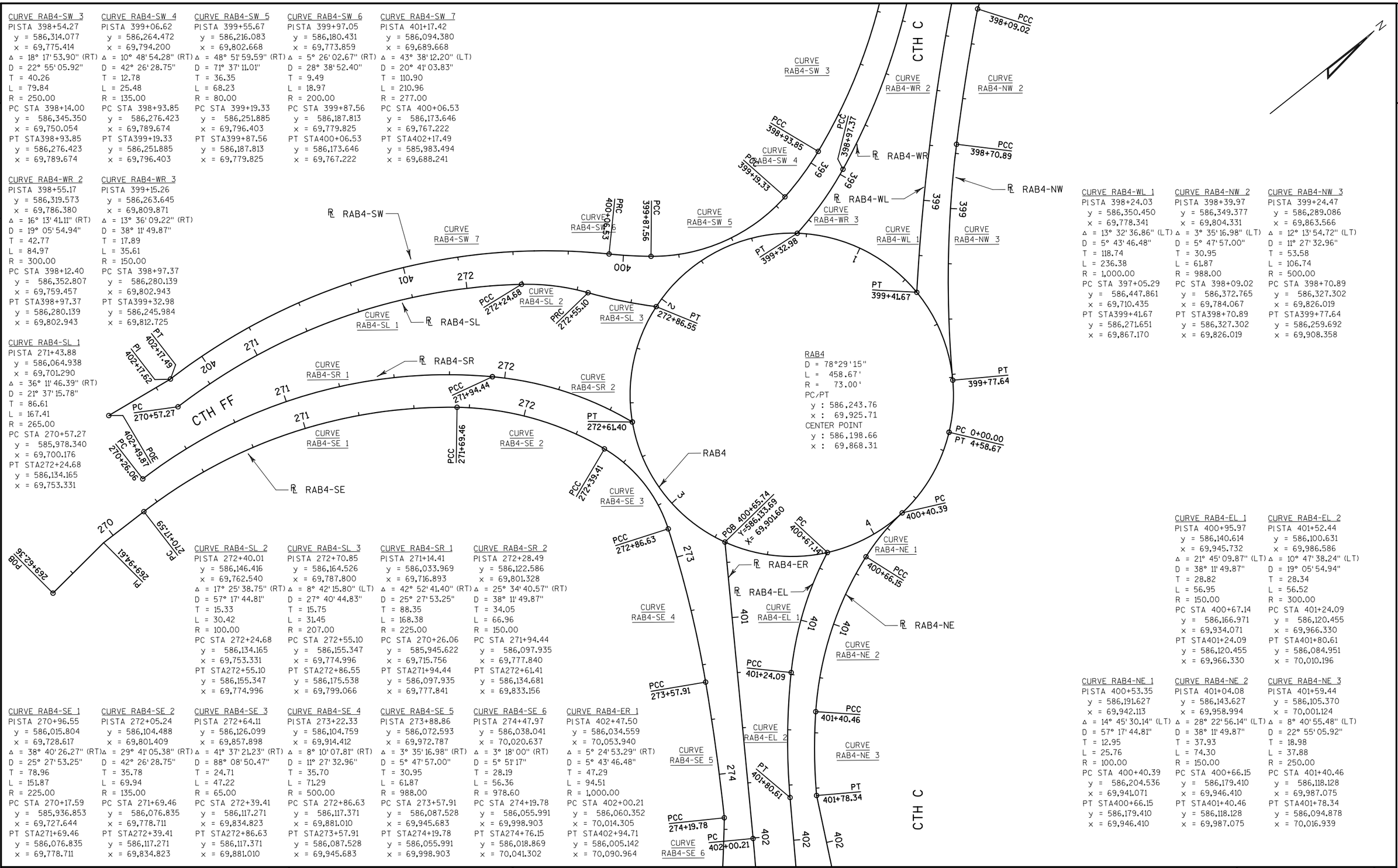
CURVE RAB4-SW 2
PI STA 396+59.24
y = 586,463.123
x = 69,649.496
Δ = 10° 38' 01.42" (LT)
D = 10° 23' 54.63"
T = 51.28
L = 102.26
R = 551.00
PC STA 396+07.96
y = 586,508.240
x = 69,625.125
PT STA397+10.22
y = 586,423.279
x = 69,681.775

CURVE RAB4-SW 3
PI STA 398+54.27
y = 586,314.077
x = 69,775.414
Δ = 18° 17' 53.90" (RT)
D = 22° 55' 05.92"
T = 40.26
L = 79.84
R = 250.00
PC STA 398+14.00
y = 586,345.350
x = 69,750.054
PT STA398+93.85
y = 586,276.423
x = 69,789.674

CURVE RAB4-WR 1
PI STA 396+59.31
y = 586,472.858
x = 69,664.017
Δ = 10° 38' 01.42" (LT)
D = 10° 44' 16.11"
T = 49.66
L = 99.03
R = 533.59
PC STA 396+09.65
y = 586,517.063
x = 69,641.392
PT STA397+08.68
y = 586,433.588
x = 69,694.411

CURVE RAB4-WR 2
PI STA 398+55.17
y = 586,319.573
x = 69,786.380
Δ = 16° 13' 41.11" (RT)
D = 19° 05' 54.94"
T = 42.77
L = 84.97
R = 300.00
PC STA 398+12.40
y = 586,352.807
x = 69,759.457
PT STA398+97.37
y = 586,280.139
x = 69,802.943

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	ALIGNMENT PLAN	SHEET 191	E



CURVE RAB4-SW 3
PISTA 398+54.27
y = 586,314.077
x = 69,775.414
Δ = 18° 17' 53.90" (RT)
D = 22° 55' 05.92"
T = 40.26
L = 79.84
R = 250.00
PC STA 398+14.00
y = 586,345.350
x = 69,750.054
PT STA398+93.85
y = 586,276.423
x = 69,789.674

CURVE RAB4-SW 4
PISTA 399+06.62
y = 586,264.472
x = 69,794.200
Δ = 10° 48' 54.28" (RT)
D = 42° 26' 28.75"
T = 12.78
L = 25.48
R = 135.00
PC STA 398+93.85
y = 586,276.423
x = 69,789.674
PT STA399+19.33
y = 586,251.885
x = 69,796.403

CURVE RAB4-SW 5
PISTA 399+55.67
y = 586,216.083
x = 69,802.668
Δ = 48° 51' 59.59" (RT)
D = 71° 37' 11.01"
T = 36.35
L = 68.23
R = 80.00
PC STA 399+19.33
y = 586,251.885
x = 69,796.403
PT STA399+87.56
y = 586,187.813
x = 69,779.825

CURVE RAB4-SW 6
PISTA 399+97.05
y = 586,180.431
x = 69,773.859
Δ = 5° 26' 02.67" (RT)
D = 28° 38' 52.40"
T = 9.49
L = 18.97
R = 200.00
PC STA 399+87.56
y = 586,187.813
x = 69,779.825
PT STA400+06.53
y = 586,173.646
x = 69,767.222

CURVE RAB4-SW 7
PISTA 401+17.42
y = 586,094.380
x = 69,689.668
Δ = 43° 38' 12.20" (LT)
D = 20° 41' 03.83"
T = 110.90
L = 210.96
R = 277.00
PC STA 400+06.53
y = 586,173.646
x = 69,767.222
PT STA402+17.49
y = 585,983.494
x = 69,688.241

CURVE RAB4-WR 2
PISTA 398+55.17
y = 586,319.573
x = 69,786.380
Δ = 16° 13' 41.11" (RT)
D = 19° 05' 54.94"
T = 42.77
L = 84.97
R = 300.00
PC STA 398+12.40
y = 586,352.807
x = 69,759.457
PT STA398+97.37
y = 586,280.139
x = 69,802.943

CURVE RAB4-WR 3
PISTA 399+15.26
y = 586,263.645
x = 69,809.871
Δ = 13° 36' 09.22" (RT)
D = 38° 11' 49.87"
T = 17.89
L = 35.61
R = 150.00
PC STA 398+97.37
y = 586,280.139
x = 69,802.943
PT STA399+32.98
y = 586,245.984
x = 69,812.725

CURVE RAB4-SL 1
PISTA 271+43.88
y = 586,064.938
x = 69,701.290
Δ = 36° 11' 46.39" (RT)
D = 21° 37' 15.78"
T = 86.61
L = 167.41
R = 265.00
PC STA 270+57.27
y = 585,978.340
x = 69,700.176
PT STA272+24.68
y = 586,134.165
x = 69,753.331

CURVE RAB4-SL 2
PISTA 272+40.01
y = 586,146.416
x = 69,762.540
Δ = 17° 25' 38.75" (RT)
D = 57° 17' 44.81"
T = 15.33
L = 30.42
R = 100.00
PC STA 272+24.68
y = 586,134.165
x = 69,753.331
PT STA272+55.10
y = 586,155.347
x = 69,774.996

CURVE RAB4-SL 3
PISTA 272+70.85
y = 586,164.526
x = 69,787.800
Δ = 8° 42' 15.80" (LT)
D = 27° 40' 44.83"
T = 15.75
L = 31.45
R = 207.00
PC STA 272+55.10
y = 586,155.347
x = 69,774.996
PT STA272+86.55
y = 586,175.538
x = 69,799.066

CURVE RAB4-SR 1
PISTA 271+14.41
y = 586,033.969
x = 69,716.893
Δ = 42° 52' 41.40" (RT)
D = 25° 27' 53.25"
T = 88.35
L = 168.38
R = 225.00
PC STA 270+26.06
y = 585,945.622
x = 69,715.756
PT STA271+94.44
y = 586,097.935
x = 69,777.841

CURVE RAB4-SR 2
PISTA 272+28.49
y = 586,122.586
x = 69,801.328
Δ = 25° 34' 40.57" (RT)
D = 38° 11' 49.87"
T = 34.05
L = 66.96
R = 150.00
PC STA 271+94.44
y = 586,097.935
x = 69,777.840
PT STA272+61.41
y = 586,134.681
x = 69,833.156

CURVE RAB4-SE 1
PISTA 270+96.55
y = 586,015.804
x = 69,728.617
Δ = 38° 40' 26.27" (RT)
D = 25° 27' 53.25"
T = 78.96
L = 151.87
R = 225.00
PC STA 270+17.59
y = 585,936.853
x = 69,727.644
PT STA271+69.46
y = 586,076.835
x = 69,778.711

CURVE RAB4-SE 2
PISTA 272+05.24
y = 586,104.488
x = 69,801.409
Δ = 29° 41' 05.38" (RT)
D = 42° 26' 28.75"
T = 35.78
L = 69.94
R = 135.00
PC STA 271+69.46
y = 586,076.835
x = 69,778.711
PT STA272+39.41
y = 586,117.271
x = 69,834.823

CURVE RAB4-SE 3
PISTA 272+64.11
y = 586,126.099
x = 69,857.898
Δ = 41° 37' 21.23" (RT)
D = 88° 08' 50.47"
T = 24.71
L = 47.22
R = 65.00
PC STA 272+39.41
y = 586,117.271
x = 69,834.823
PT STA272+86.63
y = 586,117.371
x = 69,881.010

CURVE RAB4-SE 4
PISTA 273+22.33
y = 586,104.759
x = 69,914.412
Δ = 8° 10' 07.81" (RT)
D = 11° 27' 32.96"
T = 35.70
L = 71.29
R = 500.00
PC STA 272+86.63
y = 586,117.371
x = 69,881.010
PT STA273+57.91
y = 586,087.528
x = 69,945.683

CURVE RAB4-SE 5
PISTA 273+88.86
y = 586,072.593
x = 69,972.787
Δ = 3° 35' 16.98" (RT)
D = 5° 47' 57.00"
T = 30.95
L = 61.87
R = 988.00
PC STA 273+57.91
y = 586,087.528
x = 69,945.683
PT STA274+19.78
y = 586,055.991
x = 69,998.903

CURVE RAB4-SE 6
PISTA 274+47.97
y = 586,038.041
x = 70,020.637
Δ = 3° 18' 00" (RT)
D = 5° 51' 17"
T = 28.19
L = 56.36
R = 978.60
PC STA 274+19.78
y = 586,055.991
x = 69,998.903
PT STA274+76.15
y = 586,018.869
x = 70,041.302

CURVE RAB4-ER 1
PISTA 402+47.50
y = 586,034.559
x = 70,053.940
Δ = 5° 24' 53.29" (RT)
D = 5° 43' 46.48"
T = 47.29
L = 94.51
R = 1,000.00
PC STA 402+00.21
y = 586,060.352
x = 70,014.305
PT STA402+94.71
y = 586,005.142
x = 70,090.964

CURVE RAB4-WL 1
PISTA 398+24.03
y = 586,350.450
x = 69,778.341
Δ = 13° 32' 36.86" (LT)
D = 5° 43' 46.48"
T = 118.74
L = 236.38
R = 1,000.00
PC STA 397+05.29
y = 586,447.861
x = 69,710.435
PT STA399+41.67
y = 586,271.651
x = 69,867.170

CURVE RAB4-NW 2
PISTA 398+39.97
y = 586,349.377
x = 69,804.331
Δ = 3° 35' 16.98" (LT)
D = 5° 47' 57.00"
T = 30.95
L = 61.87
R = 988.00
PC STA 398+09.02
y = 586,372.765
x = 69,784.067
PT STA398+70.89
y = 586,327.302
x = 69,826.019

CURVE RAB4-NW 3
PISTA 399+24.47
y = 586,289.086
x = 69,863.566
Δ = 12° 13' 54.72" (LT)
D = 11° 27' 32.96"
T = 53.58
L = 106.74
R = 500.00
PC STA 398+70.89
y = 586,327.302
x = 69,826.019
PT STA399+77.64
y = 586,259.692
x = 69,908.358

CURVE RAB4-EL 1
PISTA 400+95.97
y = 586,140.614
x = 69,945.732
Δ = 21° 45' 09.87" (LT)
D = 38° 11' 49.87"
T = 28.82
L = 56.95
R = 150.00
PC STA 400+67.14
y = 586,166.971
x = 69,934.071
PT STA401+24.09
y = 586,120.455
x = 69,966.330

CURVE RAB4-EL 2
PISTA 401+52.44
y = 586,100.631
x = 69,986.586
Δ = 10° 47' 38.24" (LT)
D = 19° 05' 54.94"
T = 28.34
L = 56.52
R = 300.00
PC STA 401+24.09
y = 586,120.455
x = 69,966.330
PT STA401+80.61
y = 586,084.951
x = 70,010.196

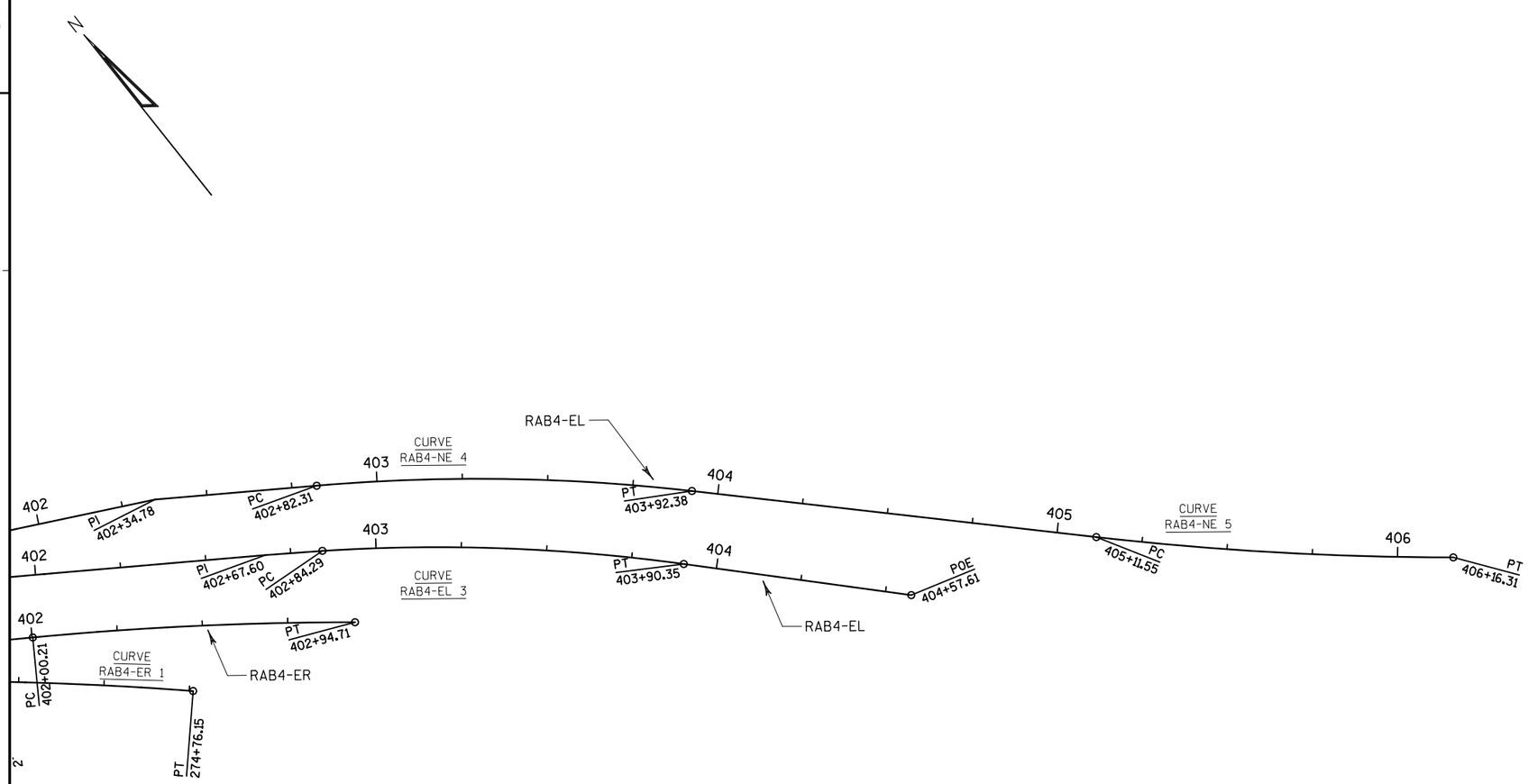
CURVE RAB4-NE 1
PISTA 400+53.35
y = 586,191.627
x = 69,942.113
Δ = 14° 45' 30.14" (LT)
D = 57° 17' 44.81"
T = 12.95
L = 25.76
R = 100.00
PC STA 400+40.39
y = 586,204.536
x = 69,941.071
PT STA400+66.15
y = 586,179.410
x = 69,946.410

CURVE RAB4-NE 2
PISTA 401+04.08
y = 586,143.627
x = 69,958.994
Δ = 28° 22' 56.14" (LT)
D = 38° 11' 49.87"
T = 37.93
L = 74.30
R = 150.00
PC STA 400+66.15
y = 586,179.410
x = 69,946.410
PT STA401+40.46
y = 586,118.128
x = 69,987.075

CURVE RAB4-NE 3
PISTA 401+59.44
y = 586,105.370
x = 70,001.124
Δ = 8° 40' 55.48" (LT)
D = 22° 55' 05.92"
T = 18.98
L = 37.88
R = 250.00
PC STA 401+40.46
y = 586,118.128
x = 69,987.075
PT STA401+78.34
y = 586,094.878
x = 70,016.939

RAB4
D = 78°29'15"
L = 458.67'
R = 73.00'
PC/PT
y : 586,243.76
x : 69,925.71
CENTER POINT
y : 586,198.66
x : 69,868.31

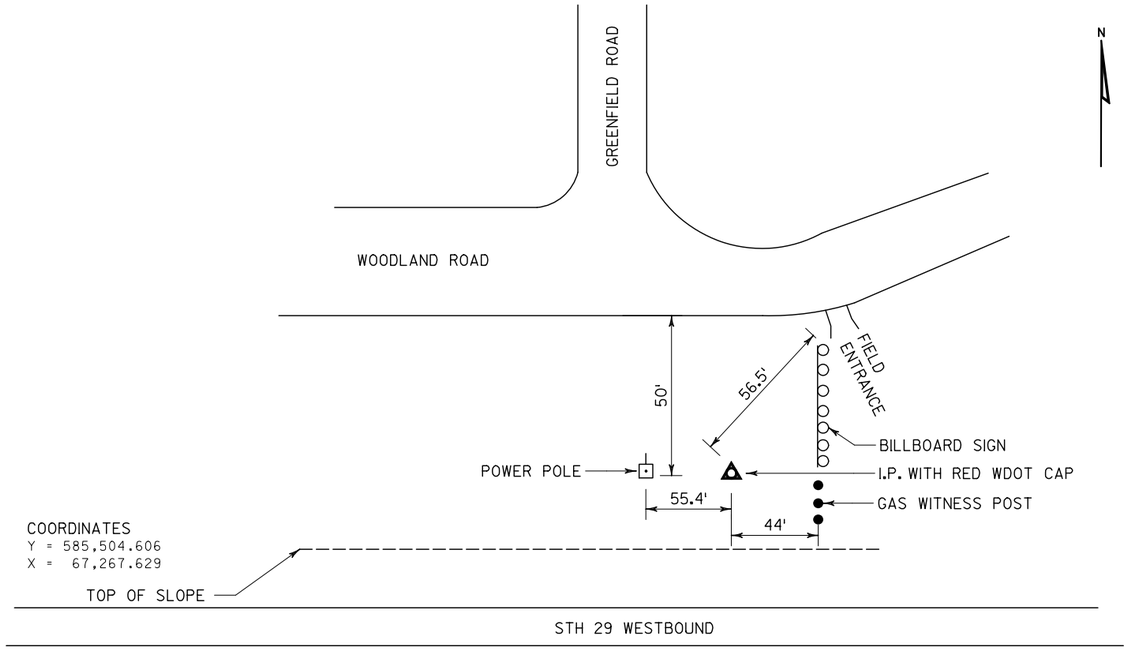
2



CTH C

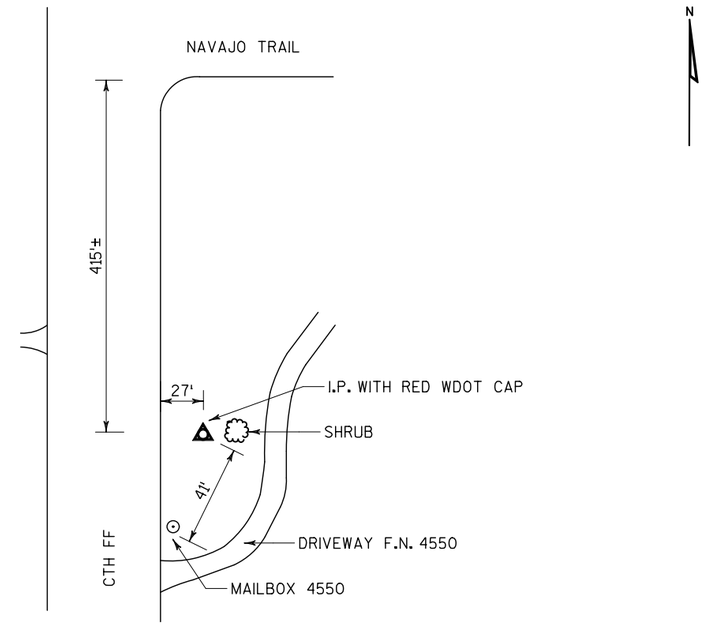
CURVE RAB4-ER 1	CURVE RAB4-EL 3	CURVE RAB4-NE 4	CURVE RAB4-NE 5
PI STA 402+47.50	PI STA 403+37.50	PI STA 403+37.53	PI STA 405+63.99
y = 586,034.559	y = 585,997.053	y = 586,012.885	y = 585,852.573
x = 70,053.940	x = 70,140.145	x = 70,153.054	x = 70,313.522
Δ = 5° 24' 53.29" (RT)	Δ = 11° 23' 17.75" (RT)	Δ = 11° 23' 01.42" (RT)	Δ = 6° 30' 10.78" (LT)
D = 5° 43' 46.48"	D = 10° 44' 16.11"	D = 10° 20' 31.91"	D = 6° 12' 27.22"
T = 47.29	T = 53.20	T = 55.22	T = 52.44
L = 94.51	L = 106.06	L = 110.07	L = 104.76
R = 1,000.00	R = 533.59	R = 554.00	R = 923.00
PC STA 402+00.21	PC STA 402+84.30	PC STA 402+82.31	PC STA 405+11.55
y = 586,060.352	y = 586,027.461	y = 586,043.433	y = 585,889.633
x = 70,014.305	x = 70,096.487	x = 70,107.057	x = 70,276.426
PT STA402+94.71	PT STA403+90.36	PT STA403+92.38	PT STA406+16.31
y = 586,005.142	y = 585,958.623	y = 585,973.860	y = 585,819.953
x = 70,090.964	x = 70,176.940	x = 70,192.118	x = 70,354.576

2



CONTROL POINT NO. 500

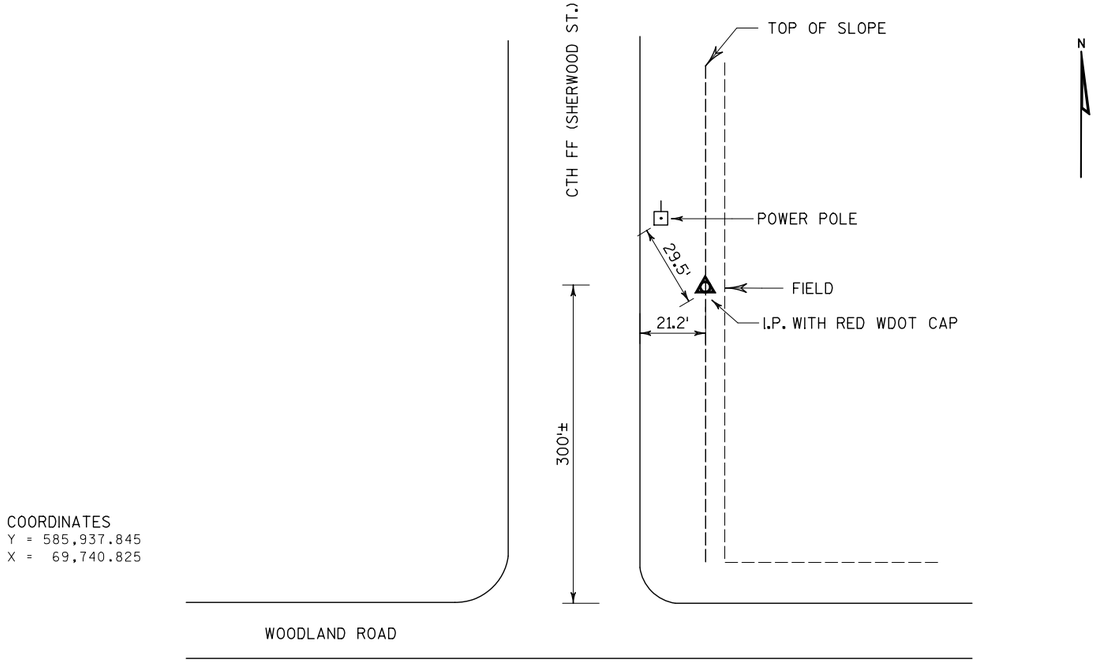
636+83.884 STH 29/32 EB, 153.766'LT



COORDINATES
Y = 581,544.084
X = 69,807.795

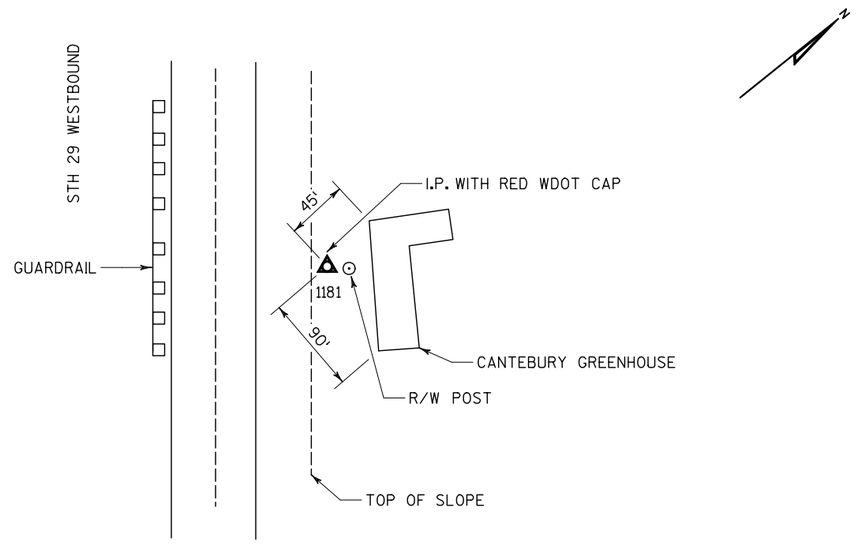
CONTROL POINT NO. 502

226+19.939 CTH FF, 42.930'RT



CONTROL POINT NO. 501

270+18.504 CTH FF, 33.167'RT



COORDINATES
Y = 582,774.113
X = 71,947.147

CONTROL POINT NO. 503

691+00.358 STH 29/32 EB, 133.399'LT

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PROJECT CONTROL POINT TIES	SHEET 194	E

DATE 29MAR13 E S T I M A T E O F Q U A N T I T I E S

LINE 9200-04-71

NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	108.4300	RBC PROGRESS SCHEDULE	EACH	2,000.000	2,000.000
0020	201.0105	CLEARING	STA	144.000	144.000
0030	201.0120	CLEARING	ID	124.000	124.000
0040	201.0205	GRUBBING	STA	144.000	144.000
0050	201.0220	GRUBBING	ID	124.000	124.000
0060	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	35.000	35.000
0070	204.0100	REMOVING PAVEMENT	SY	29,880.000	29,880.000
0080	204.0150	REMOVING CURB & GUTTER	LF	3,870.000	3,870.000
0090	204.0170	REMOVING FENCE	LF	2,010.000	2,010.000
0100	204.0195	REMOVING CONCRETE BASES	EACH	2.000	2.000
0110	204.0210	REMOVING MANHOLES	EACH	4.000	4.000
0120	204.0220	REMOVING INLETS	EACH	4.000	4.000
0130	204.0245	REMOVING STORM SEWER (SIZE) 01. 12-INCH	LF	355.000	355.000
0140	204.0245	REMOVING STORM SEWER (SIZE) 02. 15-INCH	LF	54.000	54.000
0150	204.0245	REMOVING STORM SEWER (SIZE) 03. 18-INCH	LF	145.000	145.000
0160	204.9060.S	REMOVING (ITEM DESCRIPTION) 01. APRON ENDWALLS	EACH	4.000	4.000
0170	204.9060.S	REMOVING (ITEM DESCRIPTION) 02. REMOVING LANDSCAPING MASONRY AND LIGHTING	EACH	2.000	2.000
0180	204.9090.S	REMOVING (ITEM DESCRIPTION) 01. MODULAR WALL	LF	390.000	390.000
0190	204.9105.S	REMOVING (ITEM DESCRIPTION) 01. FOOTBRIDGE	LS	1.000	1.000
0200	205.0100	EXCAVATION COMMON	CY	173,295.000	173,295.000
0210	205.0400	EXCAVATION MARSH	CY	1,300.000	1,300.000
0220	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 01. B-05-402	LS	1.000	1.000
0230	206.2000	EXCAVATION FOR STRUCTURES CULVERTS (STRUCTURE) 01. B-05-29	LS	1.000	1.000
0240	206.2000	EXCAVATION FOR STRUCTURES CULVERTS (STRUCTURE) 01. B-05-403	LS	1.000	1.000
0250	206.6000.S	TEMPORARY SHORING	SF	250.000	250.000
0260	208.0100	BORROW	CY	497,650.000	497,650.000
0270	208.1100	SELECT BORROW	CY	1,300.000	1,300.000
0280	210.0100	BACKFILL STRUCTURE	CY	1,235.000	1,235.000
0290	211.0200	PREPARE FOUNDATION FOR CONCRETE PAVEMENT (PROJECT) 01. 9200-04-71	LS	1.000	1.000
0300	213.0100	FINISHING ROADWAY (PROJECT) 01. 9200-04-71	EACH	1.000	1.000
0310	214.0100	OBLITERATING OLD ROAD	STA	20.000	20.000
0320	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	29,000.000	29,000.000
0330	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	101,660.000	101,660.000
0340	311.0110	BREAKER RUN	TON	22,526.000	22,526.000
0350	405.0100	COLORING CONCRETE RED	CY	540.000	540.000
0360	415.0060	CONCRETE PAVEMENT 6-INCH	SY	235.000	235.000
0370	415.0085	CONCRETE PAVEMENT 8 1/2-INCH	SY	30,680.000	30,680.000
0380	415.0410	CONCRETE PAVEMENT APPROACH SLAB	SY	128.000	128.000
0390	416.0160	CONCRETE DRIVEWAY 6-INCH	SY	2,180.000	2,180.000
0400	416.0512	CONCRETE ROUNDABOUT TRUCK APRON 12-INCH	SY	1,580.000	1,580.000
0410	416.0610	DRILLED TIE BARS	EACH	3,093.000	3,093.000
0420	416.0620	DRILLED DOWEL BARS	EACH	33.000	33.000
0430	416.1110	CONCRETE RUMBLE STRIPS SHOULDER	LF	3,750.000	3,750.000
0440	440.4410.S	INCENTIVE IRI RIDE	DOL	15,269.000	15,269.000
0450	455.0115	ASPHALTIC MATERIAL PG64-22	TON	659.000	659.000

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DATE 29MAR13 — 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	9200-04-71 QUANTITY
0460	455.0120	ASPHALTIC MATERIAL PG64-28	TON	467.000	467.000
0470	455.0605	TACK COAT	GAL	1,660.000	1,660.000
0480	460.1100	HMA PAVEMENT TYPE E-0.3	TON	2,430.000	2,430.000
0490	460.1101	HMA PAVEMENT TYPE E-1	TON	6,445.000	6,445.000
0500	460.1103	HMA PAVEMENT TYPE E-3	TON	8,000.000	8,000.000
0510	460.1110	HMA PAVEMENT TYPE E-10	TON	1,770.000	1,770.000
0520	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	12,700.000	12,700.000
0530	460.4110.S	REHEATING HMA LONGITUDINAL JOINTS	LF	13,030.000	13,030.000
0540	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	190.000	190.000
0550	465.0125	ASPHALTIC SURFACE TEMPORARY	TON	1,410.000	1,410.000
0560	465.0315	ASPHALTIC FLUMES	SY	210.000	210.000
0570	465.0400	ASPHALTIC SHOULDER RUMBLE STRIP	LF	10,430.000	10,430.000
0580	502.0100	CONCRETE MASONRY BRIDGES	CY	1,331.000	1,331.000
0590	502.3200	PROTECTIVE SURFACE TREATMENT	SY	3,537.000	3,537.000
0600	502.5002	MASONRY ANCHORS TYPE L NO. 4 BARS	EACH	164.000	164.000
0610	503.0155	PRESTRESSED GIRDER TYPE I 54W-INCH	LF	2,638.000	2,638.000
0620	504.0100	CONCRETE MASONRY CULVERTS	CY	642.000	642.000
0630	504.0500	CONCRETE MASONRY RETAINING WALLS	CY	563.000	563.000
0640	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	17,145.000	17,145.000
0650	505.0410	BAR STEEL REINFORCEMENT HS CULVERTS	LB	76,780.000	76,780.000
0660	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	205,505.000	205,505.000
0670	505.0610	BAR STEEL REINFORCEMENT HS COATED CULVERTS	LB	28,820.000	28,820.000
0680	505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	20,200.000	20,200.000
0690	506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	44.000	44.000
0700	506.4000	STEEL DIAPHRAGMS (STRUCTURE) 01. B-05-402	EACH	40.000	40.000
0710	513.2000	RAILING PIPE (STRUCTURE) 01. R-05-107	LS	1.000	1.000
0720	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	234.000	234.000
0730	516.0610.S	SHEET MEMBRANE WATERPROOFING FOR TOP SLAB (STRUCTURE) 02. B-05-403	SY	140.000	140.000
0740	517.1010.S	CONCRETE STAINING (STRUCTURE) 01. B-05-402	SF	7,260.000	7,260.000
0750	517.1010.S	CONCRETE STAINING (STRUCTURE) 02. R-05-107	SF	575.000	575.000
0760	517.1015.S	CONCRETE STAINING MULTI-COLOR (STRUCTURE) 01. B-05-402	SF	4,990.000	4,990.000
0770	517.1015.S	CONCRETE STAINING MULTI-COLOR (STRUCTURE) 02. R-05-107	SF	1,620.000	1,620.000
0780	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 01. B-05-402	SF	4,990.000	4,990.000
0790	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 04. R-05-107	SF	1,620.000	1,620.000
0800	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 05. R-05-108	SF	1,090.000	1,090.000
0810	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 06. R-05-109	SF	975.000	975.000
0820	520.8000	CONCRETE COLLARS FOR PIPE	EACH	3.000	3.000
0830	521.0115	CULVERT PIPE CORRUGATED STEEL 15-INCH	LF	502.000	502.000
0840	521.0118	CULVERT PIPE CORRUGATED STEEL 18-INCH	LF	201.000	201.000
0850	521.0124	CULVERT PIPE CORRUGATED STEEL 24-INCH	LF	239.000	239.000
0860	521.0130	CULVERT PIPE CORRUGATED STEEL 30-INCH	LF	182.000	182.000
0870	521.0148	CULVERT PIPE CORRUGATED STEEL 48-INCH	LF	19.000	19.000

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DATE 29MAR13 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	9200-04-71 QUANTITY
0880	521.1015	APRON ENDWALLS FOR CULVERT PIPE STEEL 15-INCH	EACH	20.000	20.000
0890	521.1018	APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH	EACH	10.000	10.000
0900	521.1024	APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH	EACH	10.000	10.000
0910	521.1030	APRON ENDWALLS FOR CULVERT PIPE STEEL 30-INCH	EACH	1.000	1.000
0920	521.1048	APRON ENDWALLS FOR CULVERT PIPE STEEL 48-INCH	EACH	2.000	2.000
0930	522.0118	CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	125.000	125.000
0940	522.0121	CULVERT PIPE REINFORCED CONCRETE CLASS III 21-INCH	LF	200.000	200.000
0950	522.0124	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	138.000	138.000
0960	522.0130	CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH	LF	344.000	344.000
0970	522.0148	CULVERT PIPE REINFORCED CONCRETE CLASS III 48-INCH	LF	120.000	120.000
0980	522.1015	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH	EACH	2.000	2.000
0990	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	8.000	8.000
1000	522.1021	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 21-INCH	EACH	1.000	1.000
1010	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	14.000	14.000
1020	522.1030	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH	EACH	8.000	8.000
1030	522.1048	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 48-INCH	EACH	2.000	2.000
1040	523.0124	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 24X38-INCH	LF	147.000	147.000
1050	523.0138	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 38X60-INCH	LF	120.000	120.000
1060	523.0524	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 24X38-INCH	EACH	2.000	2.000
1070	523.0538	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 38X60-INCH	EACH	2.000	2.000
1080	532.0200.S	WALL MODULAR BLOCK GRAVITY	SF	630.000	630.000
1090	550.1120	PILING STEEL HP 12-INCH X 53 LB	LF	8,467.000	8,467.000
1100	601.0405	CONCRETE CURB & GUTTER 18-INCH TYPE A	LF	995.000	995.000
1110	601.0409	CONCRETE CURB & GUTTER 30-INCH TYPE A	LF	2,090.000	2,090.000
1120	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	14,665.000	14,665.000
1130	601.0555	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A	LF	2,395.000	2,395.000
1140	601.0557	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D	LF	7,720.000	7,720.000
1150	601.0580	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R	LF	670.000	670.000
1160	601.0582	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE T	LF	2,880.000	2,880.000
1170	601.0600	CONCRETE CURB PEDESTRIAN	LF	835.000	835.000

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DATE 29MAR13 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	9200-04-71 QUANTITY
1180	602.0405	CONCRETE SIDEWALK 4-INCH	SF	87,270.000	87,270.000
1190	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	975.000	975.000
1200	603.8000	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	LF	3,910.000	3,910.000
1210	603.8125	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	LF	3,910.000	3,910.000
1220	604.0400	SLOPE PAVING CONCRETE	SY	655.000	655.000
1230	606.0200	RIPRAP MEDIUM	CY	1,256.000	1,256.000
1240	606.0300	RIPRAP HEAVY	CY	118.000	118.000
1250	608.0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	2,228.000	2,228.000
1260	608.0315	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH	LF	1,386.000	1,386.000
1270	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	1,217.000	1,217.000
1280	608.0324	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	5,233.000	5,233.000
1290	608.0330	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH	LF	23.000	23.000
1300	608.0412	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	LF	21.000	21.000
1310	608.0418	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	LF	93.000	93.000
1320	608.0530	STORM SEWER PIPE REINFORCED CONCRETE CLASS V 30-INCH	LF	169.000	169.000
1330	611.0530	MANHOLE COVERS TYPE J	EACH	20.000	20.000
1340	611.0612	INLET COVERS TYPE C	EACH	25.000	25.000
1350	611.0627	INLET COVERS TYPE HM	EACH	43.000	43.000
1360	611.0639	INLET COVERS TYPE H-S	EACH	96.000	96.000
1370	611.0642	INLET COVERS TYPE MS	EACH	6.000	6.000
1380	611.0652	INLET COVERS TYPE T	EACH	16.000	16.000
1390	611.2004	MANHOLES 4-FT DIAMETER	EACH	45.000	45.000
1400	611.2005	MANHOLES 5-FT DIAMETER	EACH	21.000	21.000
1410	611.3230	INLETS 2X3-FT	EACH	134.000	134.000
1420	611.3901	INLETS MEDIAN 1 GRATE	EACH	4.000	4.000
1430	611.3903	INLETS MEDIAN 3 GRATE	EACH	2.000	2.000
1440	611.8115	ADJUSTING INLET COVERS	EACH	1.000	1.000
1450	611.9800.S	PIPE GRATES	EACH	29.000	29.000
1460	612.0106	PIPE UNDERDRAIN 6-INCH	LF	315.000	315.000
1470	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	1,845.000	1,845.000
1480	612.0806	APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH	EACH	4.000	4.000
1490	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1.000	1.000
1500	614.0905	CRASH CUSHIONS TEMPORARY	EACH	5.000	5.000
1510	614.0920	SALVAGED RAIL	LF	1,516.000	1,516.000
1520	614.0925	SALVAGED GUARDRAIL END TREATMENTS	EACH	4.000	4.000
1530	614.2300	MGS GUARDRAIL 3	LF	1,551.000	1,551.000
1540	614.2500	MGS THRIE BEAM TRANSITION	LF	714.000	714.000
1550	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	7.000	7.000
1560	614.2620	MGS GUARDRAIL TERMINAL TYPE 2	EACH	6.000	6.000
1570	616.0700.S	FENCE SAFETY	LF	1,000.000	1,000.000
1580	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 9200-04-71	EACH	1.000	1.000
1590	619.1000	MOBILIZATION	EACH	1.000	1.000

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LINE 9200-04-71

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
1600	620.0100	CONCRETE CORRUGATED MEDIAN	SF	1,030.000	1,030.000
1610	620.0300	CONCRETE MEDIAN SLOPED NOSE	SF	1,115.000	1,115.000
1620	623.0200	DUST CONTROL SURFACE TREATMENT	SY	15,300.000	15,300.000
1630	624.0100	WATER	MGAL	167.000	167.000
1640	625.0100	TOPSOIL	SY	129,699.000	129,699.000
1650	625.0500	SALVAGED TOPSOIL	SY	170,475.000	170,475.000
1660	627.0200	MULCHING	SY	300,458.000	300,458.000
1670	628.1104	EROSION BALES	EACH	196.000	196.000
1680	628.1504	SILT FENCE	LF	42,221.000	42,221.000
1690	628.1520	SILT FENCE MAINTENANCE	LF	42,221.000	42,221.000
1700	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	24.000	24.000
1710	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	14.000	14.000
1720	628.2004	EROSION MAT CLASS I TYPE B	SY	76,652.000	76,652.000
1730	628.2008	EROSION MAT URBAN CLASS I TYPE B	SY	16,235.000	16,235.000
1740	628.2027	EROSION MAT CLASS II TYPE C	SY	102,727.000	102,727.000
1750	628.6510	SOIL STABILIZER TYPE B	ACRE	5.900	5.900
1760	628.7005	INLET PROTECTION TYPE A	EACH	138.000	138.000
1770	628.7015	INLET PROTECTION TYPE C	EACH	110.000	110.000
1780	628.7020	INLET PROTECTION TYPE D	EACH	26.000	26.000
1790	628.7504	TEMPORARY DITCH CHECKS	LF	995.000	995.000
1800	628.7555	CULVERT PIPE CHECKS	EACH	143.000	143.000
1810	628.7560	TRACKING PADS	EACH	7.000	7.000
1820	628.7570	ROCK BAGS	EACH	68.000	68.000
1830	629.0210	FERTILIZER TYPE B	CWT	189.000	189.000
1840	630.0110	SEEDING MIXTURE NO. 10	LB	1,636.000	1,636.000
1850	630.0130	SEEDING MIXTURE NO. 30	LB	2,566.000	2,566.000
1860	630.0140	SEEDING MIXTURE NO. 40	LB	552.000	552.000
1870	632.0101	TREES (SPECIES, ROOT, SIZE) 01. SYRINGA RETICULATA (IVORY SILK), 20-30 FT HEIGHT, #25 POT	EACH	12.000	12.000
1880	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 01. POTENTILLA FRUTICOAS, 'ABBOTTSWOOD', 24-INCH HEIGHT, #2 POT	EACH	144.000	144.000
1890	632.9101	LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES	EACH	20.000	20.000
1900	633.0100	DELINEATOR POSTS STEEL	EACH	68.000	68.000
1910	633.0500	DELINEATOR REFLECTORS	EACH	90.000	90.000
1920	633.1000	DELINEATOR BRACKETS	EACH	7.000	7.000
1930	633.1100	DELINEATORS TEMPORARY	EACH	74.000	74.000
1940	633.5100	MARKERS ROW	EACH	27.000	27.000
1950	633.5200	MARKERS CULVERT END	EACH	25.000	25.000
1960	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	88.000	88.000
1970	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	105.000	105.000
1980	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	20.000	20.000
1990	635.0200	SIGN SUPPORTS STRUCTURAL STEEL HS	LB	3,108.000	3,108.000
2000	636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	12.800	12.800
2010	636.0500	SIGN SUPPORTS STEEL REINFORCEMENT	LB	294.000	294.000
2020	636.1000	SIGN SUPPORTS STEEL REINFORCEMENT HS	LB	980.000	980.000
2030	637.0101	SIGNS TYPE I	SF	1,040.500	1,040.500
2040	637.0202	SIGNS REFLECTIVE TYPE II	SF	2,035.280	2,035.280
2050	637.0402	SIGNS REFLECTIVE FOLDING TYPE II	SF	20.000	20.000
2060	638.2602	REMOVING SIGNS TYPE II	EACH	143.000	143.000
2070	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	113.000	113.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	9200-04-71 QUANTITY
2080	641.1200	SIGN BRIDGE CANTILEVERED (STRUCTURE) 01. S-05-190	LS	1.000	1.000
2090	642.5401	FIELD OFFICE TYPE D	EACH	1.000	1.000
2100	643.0100	TRAFFIC CONTROL (PROJECT) 01. 9200-04-71	EACH	1.000	1.000
2110	643.0300	TRAFFIC CONTROL DRUMS	DAY	104,507.000	104,507.000
2120	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	24,510.000	24,510.000
2130	643.0500	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	EACH	690.000	690.000
2140	643.0600	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES	EACH	690.000	690.000
2150	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	38,772.000	38,772.000
2160	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	12,742.000	12,742.000
2170	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	1,896.000	1,896.000
2180	643.0900	TRAFFIC CONTROL SIGNS	DAY	43,522.000	43,522.000
2190	643.0910	TRAFFIC CONTROL COVERING SIGNS TYPE I	EACH	5.000	5.000
2200	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	50.000	50.000
2210	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	1,896.000	1,896.000
2220	645.0113	GEOTEXTILE FABRIC TYPE DF SCHEDULE C	SY	464.000	464.000
2230	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	1,396.000	1,396.000
2240	645.0140	GEOTEXTILE FABRIC TYPE SAS	SY	12,965.000	12,965.000
2250	646.0103	PAVEMENT MARKING PAINT 4-INCH	LF	460.000	460.000
2260	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	70,265.000	70,265.000
2270	646.0123	PAVEMENT MARKING PAINT 8-INCH	LF	270.000	270.000
2280	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	6,398.000	6,398.000
2290	646.0136	PAVEMENT MARKING EPOXY 12-INCH	LF	870.000	870.000
2300	646.0156	PAVEMENT MARKING EPOXY 18-INCH	LF	554.000	554.000
2310	647.0163	PAVEMENT MARKING ARROWS PAINT TYPE 2	EACH	1.000	1.000
2320	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2	EACH	3.000	3.000
2330	647.0353	PAVEMENT MARKING WORDS PAINT	EACH	1.000	1.000
2340	647.0356	PAVEMENT MARKING WORDS EPOXY	EACH	2.000	2.000
2350	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY	EACH	5.000	5.000
2360	647.0726	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	LF	855.000	855.000
2370	647.0856	PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY	SF	660.000	660.000
2380	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	2,060.000	2,060.000
2390	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	225.000	225.000
2400	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	38,790.000	38,790.000
2410	650.5000	CONSTRUCTION STAKING BASE	LF	18,140.000	18,140.000
2420	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	32,820.000	32,820.000
2430	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	36.000	36.000
2440	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. B-5-29	LS	1.000	1.000
2450	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 02. B-5-402	LS	1.000	1.000
2460	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 03. B-5-403	LS	1.000	1.000
2470	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 04. R-5-105	LS	1.000	1.000
2480	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 05. R-5-106	LS	1.000	1.000
2490	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 06. R-5-107	LS	1.000	1.000
2500	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 07. R-5-108	LS	1.000	1.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	9200-04-71 QUANTITY
2510	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 08. R-5-109	LS	1.000	1.000
2520	650.7000	CONSTRUCTION STAKING CONCRETE PAVEMENT	LF	23,610.000	23,610.000
2530	650.8500	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 01. 9200-04-71	LS	1.000	1.000
2540	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 9200-04-71	LS	1.000	1.000
2550	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	31,380.000	31,380.000
2560	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	135.000	135.000
2570	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	4,541.000	4,541.000
2580	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	LF	620.000	620.000
2590	652.0335	CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH	LF	480.000	480.000
2600	653.0105	PULL BOXES STEEL 12X24-INCH	EACH	8.000	8.000
2610	653.0135	PULL BOXES STEEL 24X36-INCH	EACH	2.000	2.000
2620	653.0140	PULL BOXES STEEL 24X42-INCH	EACH	24.000	24.000
2630	653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	2.000	2.000
2640	654.0105	CONCRETE BASES TYPE 5	EACH	19.000	19.000
2650	654.0215	CONCRETE CONTROL CABINET BASES TYPE 9	EACH	1.000	1.000
2660	654.0217	CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL	EACH	1.000	1.000
2670	655.0610	ELECTRICAL WIRE LIGHTING 12 AWG	LF	3,150.000	3,150.000
2680	655.0615	ELECTRICAL WIRE LIGHTING 10 AWG	LF	16,035.000	16,035.000
2690	655.0620	ELECTRICAL WIRE LIGHTING 8 AWG	LF	3,700.000	3,700.000
2700	655.0625	ELECTRICAL WIRE LIGHTING 6 AWG	LF	705.000	705.000
2710	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 01. CTH C ROUNDABOUT	LS	1.000	1.000
2720	656.0500	ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 01. CCTV-05-0075	LS	1.000	1.000
2730	657.6005.S	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH	2.000	2.000
2740	659.0802	PLAQUES SEQUENCE IDENTIFICATION	EACH	13.000	13.000
2750	670.0100	FIELD SYSTEM INTEGRATOR	LS	1.000	1.000
2760	670.0200	ITS DOCUMENTATION	LS	1.000	1.000
2770	672.0250	BASE CAMERA POLE 50-FT	EACH	1.000	1.000
2780	673.0225.S	INSTALL POLE MOUNTED CABINET	EACH	1.000	1.000
2790	675.0400.S	INSTALL ETHERNET SWITCH	EACH	1.000	1.000
2800	677.0100	INSTALL CAMERA POLE	EACH	1.000	1.000
2810	677.0200	INSTALL CAMERA ASSEMBLY	EACH	1.000	1.000
2820	677.0300.S	INSTALL VIDEO ENCODER	EACH	1.000	1.000
2830	690.0150	SAWING ASPHALT	LF	4,850.000	4,850.000
2840	690.0250	SAWING CONCRETE	LF	17,600.000	17,600.000
2850	715.0415	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	13,292.000	13,292.000
2860	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	7,986.000	7,986.000
2870	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5.00/HR	HRS	2,100.000	2,100.000
2880	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	5,760.000	5,760.000
2890	SPV.0035	SPECIAL 01. PLANTING MIXTURE	CY	764.000	764.000
2900	SPV.0035	SPECIAL 02. EXCAVATION OF PHRAGMITES SOIL	CY	1,070.000	1,070.000
2910	SPV.0060	SPECIAL 01. TRANSFORMER BASES BREAKWAY 11 1/2-INCH BOLT CIRCLE BLACK	EACH	19.000	19.000
2920	SPV.0060	SPECIAL 02. POLES TYPE 5 ALUMINUM BLACK	EACH	21.000	21.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	9200-04-71 QUANTITY
2930	SPV.0060	SPECIAL 03. LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 12-FT BLACK	EACH	21.000	21.000
2940	SPV.0060	SPECIAL 04. LED LUMINAIRE, LED-A BLACK	EACH	21.000	21.000
2950	SPV.0060	SPECIAL 05. INSTALL WIRELESS ETHERNET RADIO	EACH	2.000	2.000
2960	SPV.0060	SPECIAL 06. IN CULVERT BOULDER ASSEMBLY	EACH	5.000	5.000
2970	SPV.0060	SPECIAL 07. SECTION SURVEY MONUMENTS, RECONSTRUCTION PROJECT	EACH	4.000	4.000
2980	SPV.0060	SPECIAL 08. RECONNECT STORM SEWER LATERALS	EACH	1.000	1.000
2990	SPV.0060	SPECIAL 09. LUMINAIRE LED VILLAGE OF HOWARD BETALED LEDWAY BLACK	EACH	7.000	7.000
3000	SPV.0060	SPECIAL 10. LIGHTING CONTROL AND ELECTRICAL DISTRIBUTION CABINET VILLAGE OF HOWARD	EACH	1.000	1.000
3010	SPV.0060	SPECIAL 11. CONCRETE BASES VILLAGE OF HOWARD	EACH	7.000	7.000
3020	SPV.0060	SPECIAL 12. LIGHT POLE COMPOSITE VILLAGE OF HOWARD NOMINAL HEIGHT 30-FT BLACK	EACH	7.000	7.000
3030	SPV.0060	SPECIAL 13. LUMINAIRE ARMS SINGLE MEMBER TENON MOUNT 10-FT BLACK	EACH	7.000	7.000
3040	SPV.0060	SPECIAL 14. PERENNIALS ASTER NOVAE-ANGLIAE, CG, #1 POT	EACH	108.000	108.000
3050	SPV.0060	SPECIAL 15. PERENNIALS ASCLEPIAS TUBEROSA, CG, #1 POT	EACH	56.000	56.000
3060	SPV.0060	SPECIAL 16. PERENNIALS ECHINACEA PURPUREA 'BRAVADO', CG, #1 POT	EACH	212.000	212.000
3070	SPV.0060	SPECIAL 17. PERENNIALS HEMROCALIS 'STELLA D'ORO', CG, #1 POT	EACH	476.000	476.000
3080	SPV.0060	SPECIAL 18. PERENNIALS DICATMNUS ALBUS 'PURPUREUS', CG, #1 POT	EACH	100.000	100.000
3090	SPV.0060	SPECIAL 19. PERENNIALS MONARDA DIDYMA 'FIREBALL', CG, #1 POT	EACH	164.000	164.000
3100	SPV.0060	SPECIAL 20. PERENNIALS PEROVSKIA ATRIPLICIFOLIA, CG, #1 POT	EACH	64.000	64.000
3110	SPV.0060	SPECIAL 21. PERENNIALS SEDUM X 'AUTUMN FIRE', CG, #1 POT	EACH	284.000	284.000
3120	SPV.0060	SPECIAL 22. GRASSES SCHIZACHYRIUM SCOPARIUM, CG, #4 POT	EACH	2,464.000	2,464.000
3130	SPV.0060	SPECIAL 23. TRACKING PAD MAINTENANCE	EACH	7.000	7.000
3140	SPV.0060	SPECIAL 24. CONCRETE BASES WPS LIGHTING FOR HOBART ROUNDABOUT	EACH	12.000	12.000
3150	SPV.0060	SPECIAL 25. REMOVING MEDIAN CROSSOVER	EACH	1.000	1.000
3160	SPV.0075	SPECIAL 01. STREET SWEEPING	HRS	200.000	200.000
3170	SPV.0090	SPECIAL 01. STORM SEWER LATERAL	LF	95.000	95.000
3180	SPV.0090	SPECIAL 02. CULVERT PIPE REINFORCED CONCRETE ARCH CLASS A-IV 122X77-INCH	LF	208.000	208.000
3190	SPV.0105	SPECIAL 01. METER BREAKER PEDESTAL BLACK	LS	1.000	1.000
3200	SPV.0105	SPECIAL 02. RAILING TUBULAR SPECIAL B-05-402	LS	1.000	1.000
3210	SPV.0105	SPECIAL 03. METER BREAKER PEDESTAL (HOBART ROUNDABOUT) UNDERGROUND WORK ONLY	LS	1.000	1.000
3220	SPV.0105	SPECIAL 04. CONCRETE PAVEMENT JOINT LAYOUT	LS	1.000	1.000
3230	SPV.0105	SPECIAL 05. RAILING TUBULAR STEEL TYPE H GALVANIZED R-5-108	LS	1.000	1.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	9200-04-71 QUANTITY
3240	SPV.0105	SPECIAL 06. RAILING TUBULAR STEEL TYPE H GALVANIZED R-5-109	LS	1.000	1.000
3250	SPV.0120	SPECIAL 01. WATER FOR SEEDED AREAS	MGAL	120.000	120.000
3260	SPV.0165	SPECIAL 01. WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT	SF	16,570.000	16,570.000
3270	SPV.0165	SPECIAL 02. WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT R-5-108	SF	1,625.000	1,625.000
3280	SPV.0165	SPECIAL 03. WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT R-5-109	SF	1,610.000	1,610.000
3290	SPV.0165	SPECIAL 04. LANDSCAPE BOULDER WALL	SF	150.000	150.000
3300	SPV.0180	SPECIAL 01. COLORED AND STAMPED CONCRETE 5-INCH	SY	1,000.000	1,000.000

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MODULAR WALL

LOCATION	STA	STA	204.9090.S.01 REMOVING MODULAR WALL LF	532.0200.S WALL MODULAR BLOCK GRAVITY SF	SPV.0165.04 LANDSCAPE BOULDER WALL SF
STAGE 1					
CENTENNIAL CENTRE BOULEVAR	229+07	232+62	390	-	-
CTH FF	227+75	229+14	-	630	-
CTH FF	239+25	239+90	-	-	150
TOTAL			390	630	150

CONCRETE PAVEMENT APPROACH SLAB

LOCATION	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY
SOUTH OF WIS 29	
NB LANES	32
SB LANES	32
NORTH OF WIS 29	
NB LANES	32
SB LANES	32
TOTAL	128

FENCE SAFETY

	616.0700.S FENCE SAFETY LF	NOTES
STAGE 1		
CENTENNIAL CENTRE BOULEVARD	100	STA 69+00 BOX CULVERT CONSTRUCTION
STH 29/RAMPS EB	200	STA 674+00 BOX CULVERT CONSTRUCTION
INTERCHANGE ROUNDABOUTS & RAMPS	300	BRIDGE CONSTRUCTION B-5-402
CTH FF	100	STA 238+00 BOX CULVERT CONSTRUCTION
SUBTOTAL	700	
STAGE 2		
SHERWOOD STREET/CTH C (SHAWANO AVENUE	100	STA 396+00 CULVERT PIPE CONSTRUCTION
SUBTOTAL	100	
TOTAL	800	
UNDISTRIBUTED	200	
PROJECT TOTAL	1000	

OBLITERATING OLD ROAD

STATION	STATION	214.0100 OBLITERATING OLD ROAD STA
GREENFIELD AVENUE		
20+00.00	TO 21+48.00	2
WOODLAND ROAD		
11+08.00	TO 17+08.00	6
97+00.00		1
SUNLITE DRIVE		
6+35.00	TO 9+54.00	4
FOREST ROAD		
32+41.00	TO 34+88.00	3
37+53.00	TO 40+01.00	3
CATHERINE DRIVE		
11+00.00		1
TOTALS		20

DRIVEWAY PAVEMENT

STATION	STATION OFFSET	*305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	416.0160 CONCRETE DRIVEWAY 6-INCH SY	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
STAGE 1				
FOREST ROAD				
345+97.00		1510	380	0
SUNLITE DRIVE				
20+14.00		120	0	10
21+98.00		180	50	0
23+92.00		370	100	0
CENTENNIAL CENTRE BOULEVARD				
53+16.00		650	0	40
54+18.00		260	0	20
60+87.00		160	40	10
62+50.00		940	120	30
STAGE 1 SUBTOTAL		4190	690	110
STAGE 2				
NAVAJO TRAIL			0	
82+47.00		110	30	0
CTH FF				
221+96.00		290	80	0
224+82.00		730	190	0
225+53.00		200	50	0
227+35.00		430	110	0
SHERWOOD STREET				
256+46.00		1200	50	0
259+78.00		1800	450	0
261+00.00		560	140	0
262+76.00		320	80	0
263+15.00		360	90	0
CTH C				
397+50.00		590	0	10
398+00.00		840	80	0
WOODLAND ROAD				
88+00.00		200	50	0
96+44.00		130	0	0
STAGE 2 SUBTOTAL		7,760	1,400	10
STAGE 3				
GREENFIELD AVENUE - WOODLAND ROAD				
50+42.00	51+42.00	1470	0	30
52+27.00	53+25.00	760	0	30
54+16.00	54+53.00	360	90	0
58+94.00	59+31.00	600	0	10
STAGE 3 SUBTOTAL		3190	90	70
PROJECT TOTAL		15,140	2,180	190

GUARDRAIL

LOCATION	614.0920 SALVAGED RAIL LF	614.0925 SALVAGED GUARDRAIL END TREATMENTS EACH	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH
CENTENNIAL CENTRE BOULEVARD						
37+70 TO 45+81 RT	-	-	806	-	1	1
SOUTHWEST RAMP						
663+24 TO 666+37 RT	-	-	290	-	1	1
SOUTHEAST RAMP						
671+35 TO 672+32 RT	-	-	-	39	1	-
STH 29 (EB)						
670+91 TO 674+48	356	1	-	-	-	-
685+44 TO 688+35 RT	425	1	238	-	1	1
662+14 TO 669+12	-	-	-	675	2	2
STH 29 (WB)						
674+04 TO 676+78	400	1	217	-	1	1
688+18 TO 691+46	335	1	-	-	-	-
TOTAL	1516	4	1551	714	7	6

CONCRETE MEDIAN

STATION	620.0100 CONCRETE CORRUGATED MEDIAN SF	620.0300 CONCRETE MEDIAN SLOPED NOSE TYPE 1 SF	620.0300 CONCRETE MEDIAN SLOPED NOSE TYPE 2 SF
STAGE 1			
CTH FF & STH 29 EB RAMPS (ROUNDABOUT)	-	100	120
CTH FF & STH 29 WB RAMPS (ROUNDABOUT)	-	65	140
GOLDEN POND PARK COURT 72+16	-	55	-
STAGE 1 SUBTOTAL	0	220	260
STAGE 2			
CTH FF 222+80	-	50	-
CTH FF & CENTENNIAL CENTRE BOULEVARD (ROUNDABOUT)	-	105	180
SHERWOOD STREET 267+45	-	55	-
SHERWOOD STREET 264+00 - 266+50	1030	-	-
CTH C (SHAWANO AVE) 395+45	-	55	-
CTH C (SHAWANO AVE) 404+54	-	50	-
SHERWOOD ST & CTH C (ROUNDABOUT)	-	-	140
STAGE 2 SUBTOTAL	1030	315	320
9200-04-71 TOTAL	1030	1115	

PREPARE FOUNDATION FOR CONCRETE PAVEMENT

	211.0200 9200-04-71 LS	(FOR INFORMATION ONLY) STA	TO	STA
PROJECT	1	-		-
NW RAMP	-	650+94		663+54
NE RAMP	-	663+46		675+08
SW RAMP	-	652+90		667+27
SE RAMP	-	667+50		686+07
CTH FF	-	245+53		255+37
STH 29 SHLDR	-	626+79		633+75
STH 29 SHLDR	-	655+70		666+98
TOTALS	1			

DELINEATOR POSTS

LOCATION	STATION	STATION	633.0100 DELINEATOR POSTS STEEL EACH	633.0500 DELINEATOR REFLECTORS EACH	633.1000 DELINEATOR BRACKETS EACH
NW RAMP	639+94	660+90	16	19	-
NE RAMP	665+5	702+75	17	18	-
SW RAMP	651+00	662+71	13	19	-
SE RAMP	672+30	708+43	13	22	6
UNDISTRIBUTED (15%)			9	12	1
TOTAL			68	90	7

MOBILIZATIONS EROSION CONTROL

	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
STAGE 1	7	4
STAGE 1A	2	1
STAGE 1B	2	1
STAGE 1C	2	1
STAGE 2	9	6
STAGE 3	2	1
TOTAL	24	14

TRAFFIC CONTROL COVERING SIGNS

STAGE	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE 1 EACH SIGN	CYCLE	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE 2 EACH SIGN	CYCLE
STAGE 1	5	1	30	1
STAGE 2	-	-	10	1
STAGE 3	-	-	10	1
TOTAL UNDISTRIBUTED	5		50	

PIPE UNDERDRAIN

LOCATION	STA	OFFSET	612.0106 PIPE UNDERDRAIN 6-INCH LF	612.0806 APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH EACH	NOTE
STAGE 1					
STH 29 MEDIAN	656+00.00	RT	60	1	
STH 29 MEDIAN	679+00.00	RT	-	-	APRON ENDWALL TO BE ADJUSTED
STH 29 MEDIAN	684+00.00	RT	60	1	
STH 29 MEDIAN	689+00.00	RT	15	1	
CTH FF	233+60.00		40	-	
CTH FF	261+30.00		40	-	
CTH FF	269+40.00		40	-	
CTH C	396+50.00		40	-	
CENTENNIAL CENTRE BL	V70+00.00		20	1	
TOTAL			315	4	

MAINTANENCE AND REPAIR OF HAUL ROADS

	618.0100 9200-04-71 EACH
PROJECT	1
TOTALS	1

* = ADDITIONAL QUANTITIES LISTED ELSEWHERE

ALL QUANTITIES ARE CATEGORY 0010 UNLESS NOTED

PROJECT NO: 9200-04-71 | HWY: STH 29 | COUNTY: BROWN | MISCELLANEOUS QUANTITIES | SHEET 204 | E

TRAFFIC CONTROL

	643.0100	643.0300		643.0420		643.0500	643.0600	633.1100	643.0705		643.0715		643.0800		643.0900		643.1050		603.8000	603.8125	614.0905			
	TRAFFIC CONTROL 9200-04-71 EACH	TRAFFIC CONTROL DRUMS NO.	DAYS	TRAFFIC CONTROL BARRICADES TYPE III NO.	DAYS	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EACH	BASES EACH	DELINEATORS TEMPORARY EACH	TRAFFIC CONTROL WARNING LIGHTS TYPE A NO.	DAYS	TYPE C NO.	DAYS	TRAFFIC CONTROL ARROW BOARDS NO.	DAYS	TRAFFIC CONTROL SIGNS NO.	DAYS	TRAFFIC CONTROL SIGNS PCMS NO.	DAY	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	CRASH CUSHIONS TEMPORARY EACH	NO. OF CLOSURES	REMARKS	
PROJECT 9200-04-71	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	
STAGE 1A																								
LENGTH	-	20	5,420	27	7,317	-	-	-	46	12,466	5	1,355	-	-	31	8,401	-	-	-	-	-	1	271	DAYS
SHOULDER CLOSURE	-	45	2,520	-	-	-	-	-	-	-	5	280	1	56	8	448	1	56	-	-	-	4	14	DAYS
STRUCTURE WORK	-	90	33,390	-	-	-	-	-	-	-	10	3,710	2	742	16	5,936	2	742	1,700	1,700	2	1	371	DAYS
CROSSOVER NOT IN USE	-	-	-	-	-	300	300	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	DAYS
STAGE 1B																								
LENGTH	-	25	7,425	16	4,752	-	-	-	32	9,504	5	1,485	-	-	20	5,420	-	-	-	-	-	1	297	DAYS
SHOULDER CLOSURE	-	45	2,520	-	-	-	-	-	-	-	5	280	1	56	8	448	1	56	-	-	-	4	14	DAYS
STRUCTURE WORK	-	90	35,730	-	-	-	-	-	-	-	10	3,970	2	794	16	6,352	2	794	1,700	1,700	2	1	397	DAYS
CROSSOVER NOT IN USE	-	-	-	-	-	300	300	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	DAYS
STAGE 1C																								
LENGTH	-	-	-	27	1,620	-	-	-	30	1,800	-	-	-	-	15	4,065	-	-	-	-	-	1	60	DAYS
STAGE 2																								
LENGTH	-	-	-	34	7,174	-	-	-	44	9,284	-	-	-	-	14	3,794	-	-	-	-	-	1	211	DAYS
STAGE 3																								
LENGTH	-	-	-	15	450	-	-	-	22	660	-	-	-	-	11	2,981	-	-	-	-	-	1	30	DAYS
WINTER SHUTDOWN																								
LENGTH	-	43	3,870	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	90	
SUBTOTAL	1	358	90,875	119	21,313	600	600	64	174	33,714	40	11,080	6	1,648	139	37,845	6	1,648	3,400	3,400	4			
UNDISTRIBUTED (15%)	-	54	13,632	18	3,197	90	90	10	27	5,058	6	1,662	1	248	21	5,677	1	248	510	510	1			
9200-04-71 TOTAL	1		104,507		24,510	690	690	74		38,772		12,742		1,896		43,522		1,896	3,910	3,910	5			

PLANTING

CATEGORY	LOCATION	627.0200 **MULCHING SY	632.0101 TREES SYRINGA RETICULATA 'IVORY SILK' B&P *25 POT EACH	632.0201 SHRUBS POTENTILLA FRUTICOAS 'ABBOTTSWOOD' CG *2 POT EACH	SPV.0035.01 PLANTING MIXTURE CY	SPV.0060.14 PERENNIALS ASTER NOVAE-ANGLIAE CG *1 POT EACH	SPV.0060.15 PERENNIALS ASCLEPIAS TUBEROSA CG *1 POT EACH	SPV.0060.16 PERENNIALS ECHINACEA PURPUREA 'BRAVADO' CG *1 POT EACH	SPV.0060.17 PERENNIALS HEMROCALIS 'STELLA D' ORO' CG *1 POT EACH	SPV.0060.18 PERENNIALS DICATMNUS ALBUS 'PURPUREUS' CG *1 POT EACH	SPV.0060.19 PERENNIALS MONARDA DIDYMA 'FIREBALL' CG *1 POT EACH	SPV.0060.20 PERENNIALS PEROVSKIA ATRIPLICIFOLIA CG *1 POT EACH	SPV.0060.21 PERENNIALS SEDUM X 'AUTUMN FIRE' CG *1 POT EACH	SPV.0060.22 GRASSES SCHIZACHYRIUM SCOPARIUM CG 4" POT EACH	632.9101 LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES EACH
0020	CENTENNIAL CENTRE BLVD	71	3	36	191	27	14	53	119	25	41	16	71	616	-
0020	EB RAMPS	71	3	36	191	27	14	53	119	25	41	16	71	616	-
0020	VILLAGE OF HOBART	-	-	-	-	-	-	-	-	-	-	-	-	-	10
SUBTOTAL		142	6	72	382	54	28	106	238	50	82	32	142	1232	10
0021	WB RAMPS	71	3	36	191	27	14	53	119	25	41	16	71	616	-
0021	CTH C (SHAWANO AVENUE)	71	3	36	191	27	14	53	119	25	41	16	71	616	-
0021	VILLAGE OF HOWARD	-	-	-	-	-	-	-	-	-	-	-	-	-	10
SUBTOTAL		142	6	72	382	54	28	106	238	50	82	32	142	1232	10
	TOTAL	284	12	144	764	108	56	212	476	100	164	64	284	2,464	20

**CATEGORY 0010

PAVEMENT REMOVAL

	STATION	STATION	204.0100 REMOVING PAVEMENT SY	204.0150 REMOVING CURB & GUTTER LF
STAGE 1A				
STH 29 WB SHOULDER OUTSIDE			920	130
STH 29 MEDIAN CROSSOVERS			12,400	-
SHERWOOD ST TEMPORARY WINTER PAVING			3,300	-
DRIVEWAY	662+77.00	12' LT	140	-
DRIVEWAY	263+17.00	10' RT	150	-
STAGE 1B				
STH 29 WB SHOULDERS MEDIAN			2,350	-
STH 29 EB SHOULDERS MEDIAN			2,350	-
STH 29 EB SHOULDERS OUTSIDE			6,000	270
CTH FF	241+50.00	245+30.00	-	400
STAGE 1C				
CENTENNIAL CENTRE BOULEVARD	52+50.00	55+11.00	-	610
CENTENNIAL CENTRE BOULEVARD	60+35.00	CTH FF	-	1,650
CTH FF	229+07.00	232+62.00	-	370
DRIVEWAY	224+80.00	10' LT	270	-
DRIVEWAY	225+51.00	13' RT	130	-
STAGE 2				
DRIVEWAY	88+08.00	11' RT	70	-
STAGE 3				
STH 29 EB SHOULDERS OUTSIDE			200	-
STH 29 EB SHOULDERS MEDIAN			850	-
STH 29 WB SHOULDERS MEDIAN			620	-
SUNLITE DR/WOODLAND RD INTERSECTION EB			-	330
SUNLITE DR/WOODLAND RD INTERSECTION WB			-	110
DRIVEWAY	55+40.00	15' RT	130	-
TOTALS			29,880	3,870

TEMPORARY PAVEMENT MARKING

LOCATION	646.0103 PAVEMENT MARKING PAINT 4-INCH WHITE LF	646.0123 PAVEMENT MARKING PAINT 8-INCH WHITE LF	649.0400 REMOVABLE TAPE 4-INCH SOLID YELLOW LF	647.0163 ARROWS PAINT TYPE 2 EACH	647.0353 WORDS PAINT EACH
WINTER SHUTDOWN	-	-	2,060	-	-
STH 29 WB TURN LANE TO WOODLAND ROAD	460	270	-	1	1
TOTAL	460	270	2,060	1	1

*QUANTITIES FOUND ELSEWHERE

MARKERS ROW

	STA	STA	633.5100 MARKERS ROW EACH
SW RAMP	663+95	667+05	5
SE RAMP	668+90	681+46	8
NW RAMP	637+08	663+44	6
NE RAMP	666+00	669+35	8
TOTAL			27

REHEATING HMA PAVEMENT LONGITUDINAL JOINT

LOCATION	460.4110.S LF
CTH FF (SHERWOOD STREET)	2600
CTH FF (HILLCREST DRVIE)	1800
CENTENNIAL CENTRE BOULEVAR	5100
WOODLAND ROAD	1630
CTH C	1300
FOREST ROAD	600
TOTALS	13030

INCENTIVE PAVEMENTS

LOCATION	440.4410.S INCENTIVE IRI RIDE DOL	460.2000 INCENTIVE DENSITY HMA PAVEMENT DOL	715.0415 INCENTIVE STRENGTH CONCRETE PAVEMENT DOL	715.0502 INCENTIVE STRENGTH CONCRETE STRUCTURES DOL
PROJECT	15,269	12,700	13,292	7,986
TOTAL	15,269	12,700	13,292	7,986

SAWING PAVEMENT

STATION	STATION	OFFSET DIRECTION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
STH 29 EASTBOUND				
626+80.00	TO 633+75.00		-	710
628+50.00	TO 633+95.00		-	545
651+00.00	TO 710+10.00		-	6660
655+70.00	TO 666+97.00		-	1140
659+76.00	TO 667+94.00		-	840
STH 29 WESTBOUND				
630+65.00	TO 636+62.00		620	-
631+09.00	TO 633+41.00		-	235
636+54.00	TO 702+75.00		-	7470
651+26.00	TO 674+36.00		2760	-
CTH C (SHAWANO AVE)				
393+45.00		DOUBLE CUT	50	-
406+48.00		DOUBLE CUT	50	-
GREENFIELD AVE/WOODLAND RD				
50+50.00		DOUBLE CUT	60	-
54+30.00		RT	20	-
62+00.00		DOUBLE CUT	60	-
87+95.00		DOUBLE CUT	50	-
88+06.00		RT	30	-
91+48.00		DOUBLE CUT	50	-
95+30.00		DOUBLE CUT	50	-
96+44.00		RT	20	-
CATHERINE DRIVE				
13+18.00			30	-
CENTENNIAL CENTRE BOULEVARD				
20+02.00		DOUBLE CUT	70	-
20+15.00		LT	20	-
21+97.00		RT	40	-
23+91.00		LT	20	-
24+46.00		LT	20	-
53+00.00		LT	40	-
54+25.00		LT	30	-
55+11.00		DOUBLE CUT	80	-
60+35.00		DOUBLE CUT	80	-
60+90.00		LT	20	
60+89.00		LT	20	-
62+36.00		LT	50	-
FOREST ROAD				
344+20.00		DOUBLE CUT	60	-
345+64.00		RT	20	-
346+97.00		RT	20	-
347+23.00		RT	50	-
NAVAJO TRAIL				
82+58.00		DOUBLE CUT	70	-
CTH FF (HILLCREST DRIVE)				
219+78.00		DOUBLE CUT	70	-
221+96.00		LT	20	-
224+86.00		LT	20	-
225+55.00		RT	30	-
227+60.00		LT	20	-
CTH FF (SHERWOOD STREET)				
258+58.00		LT	40	-
258+71.00		LT	30	-
260+94.00		RT	20	-
262+69.00		LT	20	-
263+15.00		RT	20	-
TOTAL			4,850	17,600

IRRIGATION

	652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF	653.0105 PULL BOXES STEEL 12x24-INCH EACH
STAGE 1A		
SHERWOOD STREET/NW RAMP ROUNDABOUT	120	2
STAGE 1B		
HILLCREST DRIVE/SW RAMP ROUNDABOUT	120	2
STAGE 1C		
HILLCREST DRIVE/NAVAJO DRIVE ROUNDABOUT	120	2
STAGE 2		
CTH C (SHAWANO AVENUE) ROUNDABOUT	120	2
9200-04-71 TOTAL	480	8

* = ADDITIONAL QUANTITIES LISTED ELSEWHERE

ALL QUANTITIES ARE CATEGORY 0010 UNLESS NOTED

CLEARING AND GRUBBING

	STA - STA	LOCATION FT	201.0105 CLEARING STA	201.0120 CLEARING ID	201.0205 GRUBBING STA	201.0220 GRUBBING ID
STAGE 1						
CENTENNIAL CENTRE BOULEVARD	20+00 - 22+00	30' LT	2	-	2	-
CENTENNIAL CENTRE BOULEVARD	22+00 - 23+0	30' RT	1	3	1	3
CENTENNIAL CENTRE BOULEVARD	24+00 - 26+00	30' LT	2	-	2	-
CENTENNIAL CENTRE BOULEVARD	31+00 - 34+00	35' RT	3	3	3	3
CENTENNIAL CENTRE BOULEVARD	38+00 - 39+00	30' RT	1	-	1	-
CENTENNIAL CENTRE BOULEVARD	39+00 - 40+00	30' RT	1	3	1	3
CENTENNIAL CENTRE BOULEVARD	41+00 - 43+00	30' RT	2	-	2	-
CENTENNIAL CENTRE BOULEVARD	43+00 - 44+00	30' RT	1	3	1	3
CENTENNIAL CENTRE BOULEVARD	44+00 - 46+00	30' RT	2	-	2	-
CENTENNIAL CENTRE BOULEVARD	46+00 - 52+00	30' RT & 30' LT	6	-	6	-
FOREST ROAD	345+00 - 346+00	30' RT	1	3	1	3
FOREST ROAD	345+00 - 346+00	30' LT	1	-	1	-
CENTENNIAL CENTRE BOULEVARD	62+00 - 63+00	40' RT	1	-	1	-
CENTENNIAL CENTRE BOULEVARD	63+00 - 74+00	40' LT	1	8	1	8
CENTENNIAL CENTRE BOULEVARD	73+00 - 74+00	40' RT	1	3	1	3
NAVAJO TRAIL	80+00 - 82+00	60' LT	2	3	2	3
STH 29 SHOULDERS OUTSIDE	675+00 - 678+00	160' LT	3	-	3	-
STH 29 SHOULDERS OUTSIDE	689+00 - 692+00	70' RT	3	3	3	3
STH 29 SHOULDERS OUTSIDE	690+00 - 692+00	140' LT	2	3	2	3
STH 29 SHOULDERS OUTSIDE	700+00 - 704+00	70' RT	4	-	4	-
STH 29 SHOULDERS OUTSIDE	699+00 - 701+00	140' LT	2	-	2	-
STH 29 NW RAMP	661+00 - 663+00	30' RT & 60' LT	2	4	2	4
STH 29 NE RAMP	672+00 - 673+00	50' LT	1	4	1	4
STH 29 SE RAMP	671+00 - 674+00	100' RT & 40' LT	3	4	3	4
STH 29 SE RAMP	680+00 - 681+00	55' RT	1	4	1	4
STH 29 SW RAMP	658+00 - 662+00	40' RT & 20' LT	3	4	3	4
STH 29 SW RAMP	665+00 - 667+00	50' LT	2	4	2	4
CTH FF (HILLCREST DRIVE)	222+00 - 223+00	50' LT	1	-	1	-
CTH FF (HILLCREST DRIVE)	222+00 - 224+00	50' RT	1	3	1	3
CTH FF (HILLCREST DRIVE)	224+00 - 225+00	60' RT	1	3	1	3
CTH FF (HILLCREST DRIVE)	225+00 - 226+00	60' RT	1	-	1	-
CTH FF (HILLCREST DRIVE)	227+00 - 228+00	80' RT	1	3	1	3
CTH FF (HILLCREST DRIVE)	229+00 - 241+00	60' LT	12	3	12	3
CTH FF (HILLCREST DRIVE)	231+00 - 235+00	60' RT	4	-	4	-
CTH FF (HILLCREST DRIVE)	235+00 - 245+00	75' RT	9	3	9	3
CTH FF (HILLCREST DRIVE)	242+00 - 246+00	60' LT	4	3	4	3
CTH FF (HILLCREST DRIVE)	245+00 - 245+00	120' RT	1	-	1	-
CTH FF (HILLCREST DRIVE)	246+00 - 246+00	120' RT	1	3	1	3
CTH FF (SHERWOOD STREET)	251+00 - 253+00	40' RT	1	-	1	-
CTH FF (SHERWOOD STREET)	252+00 - 254+00	20' LT	2	-	2	-
CTH FF (SHERWOOD STREET)	256+00 - 267+00	60' LT	10	4	10	4
CTH FF (SHERWOOD STREET)	253+00 - 256+00	50' RT	3	-	3	-
CTH FF (SHERWOOD STREET)	257+00 - 258+00	50' RT	1	3	1	3
CTH FF (SHERWOOD STREET)	259+00 - 260+00	50' RT	1	-	1	-
CTH FF (SHERWOOD STREET)	260+00 - 261+00	50' RT	1	3	1	3
CTH FF (SHERWOOD STREET)	261+00 - 262+00	50' RT	1	-	1	-
CTH FF (SHERWOOD STREET)	263+00 - 265+00	50' RT	1	-	1	-
WOODLAND ROAD CUL DE SAC	88+00 - 89+00	30' RT	1	3	1	3
WOODLAND ROAD CUL DE SAC	91+00 - 92+00	50' RT	1	3	1	3
WOODLAND ROAD CUL DE SAC	95+00 - 96+00	20' RT	1	-	1	-
WOODLAND ROAD CUL DE SAC	96+00 - 97+30	20' RT	1	-	1	-
CATHERINE DRIVE CUL DE SAC	12+00 - 13+00	45' RT	1	-	1	-
SUBTOTAL			116	96	116	96
STAGE 2						
CTH C (SHAWANO AVENUE)	394+00 - 397+00	40' RT	3	2	3	2
CTH C (SHAWANO AVENUE)	396+00 - 397+00	50' LT	1	2	1	2
CTH C (SHAWANO AVENUE)	398+00 - 399+00	40' RT	1	2	1	2
CTH C (SHAWANO AVENUE)	398+00 - 399+00	60' LT	1	-	1	-
SUBTOTAL			6	6	6	6
STAGE 3						
WOODLAND ROAD	48+00 - 50+00	25 ' RT	2	-	2	-
WOODLAND ROAD	58+00 - 59+00	25 ' LT	1	5	1	5
SUBTOTAL			3	5	3	5
UNDISTRIBUTED (15%)			19	17	19	17
9200-04-71 TOTAL			144	124	144	124

CONCRETE CURB & GUTTER

	601.0405 CONCRETE CURB & GUTTER 18-INCH TYPE A LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0555 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A LF	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	601.0580 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R LF	601.0582 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE T LF	601.0600 CONCRETE CURB PEDESTRIAN LF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
STAGE 1									
FRONTAGE ROAD URBAN	-	-	785	-	-	-	-	-	-
CENTENNIAL CENTRE BOULEVARD	-	-	3,510	-	-	-	-	40	75
NAVAJO TRAIL	-	-	550	-	-	-	-	45	255
CTH FF	-	-	4,110	-	7,720	-	1,430	-	-
INTERCHANGE ROUNDABOUTS & RAMPS	740	2090	100	2,395	-	670	340	510	360
SUBTOTAL	740	2,090	9,055	2,395	7,720	670	1,770	595	690
STAGE 2									
COUNTY C	255	-	3,350	-	-	-	1,110	150	220
SHERWOOD STREET (CTH FF)	-	-	2,260	-	-	-	-	90	65
SUBTOTAL	255	0	5,610	0	0	0	1,110	240	285
9200-04-71 TOTAL	995	2,090	14,665	2,395	7,720	670	2,880	835	975

LANDSCAPING

	SPV.0120.01 WATER FOR SEEDED AREAS MGAL	625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	*627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0130 SEEDING MIXTURE NO. 30 LB	630.0140 SEEDING MIXTURE NO. 40 LB
STAGE 1								
CENTENNIAL CENTRE BOULEVARD/STH 29 CONNECTION	6.3	3,900	11,700	15,600	9.83	-	225	56
FOREST ROAD	0.2	143	427	570	0.36	-	6	4
CENTENNIAL CENTRE BOULEVARD	2.6	1,640	4,920	6,560	4.14	-	94	24
NAVAJO TRAIL	0.2	105	312	417	0.27	-	5	3
STH 29 SHOULDERS MEDIAN	16.0	10,000	30,000	40,000	25.2	203	360	-
STH 29 SHOULDERS OUTSIDE	24.1	15,000	45,000	60,000	37.8	304	540	-
STH 29 NE RAMP	1.7	1,063	3,187	4,250	2.68	9	61	-
STH 29 SE RAMP	3.2	1,988	5,962	7,950	5.01	16	114	-
STH 29 NW RAMP	3.3	2,063	6,187	8,250	5.2	17	119	-
STH 29 SW RAMP	3.8	2,375	7,125	9,500	5.99	19	137	-
CATHERINE DRIVE CUL DE SAC	0.1	37	108	145	0.1	-	2	1
SUBTOTAL	61	38,314	114,928	153,242	97	567	1,663	88
STAGE 2								
CTH FF	9.8	6100	18,300	24,400	15	-	307.44	131.76
CTH FF (SHERWOOD STREET)	3.0	1890	5,670	7,560	5	-	95.26	40.82
CTH C (SHAWANO AVENUE)	1.4	860	2,580	3,440	2	-	43.34	18.58
WOODLAND ROAD CUL DE SAC	0.5	337	1,009	1,346	1	-	19.38	4.85
SUBTOTAL	15	9,187	27,559	36,746	23	0	465	196
STAGE 3								
WOODLAND ROAD	3.1	1,918	5,752	7,670	5	-	104	-
SUBTOTAL	3	1,918	5,752	7,670	5	0	104	196
OBLITERATING ROAD LOCATIONS								
WOODLAND ROAD	14.0	35,000	-	35,000	22	473	-	-
CENTENNIAL CENTRE BOULEVARD	10.0	24,863	-	24,863	16	336	-	-
WOODLAND ROAD CUL DE SAC	0.7	1,700	-	1,700	1	23	-	-
CATHERINE DRIVE CUL DE SAC	0.7	1,800	-	1,800	1	24	-	-
	25	63,363	0	63,363	40	855	0	0
TOTAL	105	112,782	148,239	261,021	165	1,422	2,232	480
UNDISTRIBUTED (15%)	16	16,917	22,236	39,153	25	213	335	72
9200-04-71 TOTAL	120	129,699	170,475	300,174	189	1,636	2,566	552

* = ADDITIONAL QUANTITIES LISTED ELSEWHERE

ALL QUANTITIES ARE CATEGORY 0010 UNLESS NOTED

PAVEMENT

	*305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH SIDEWALK TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH MAINLINE TON	311.0110 BREAKER RUN TON	405.0100 COLORING CONCRETE RED CY	415.0060 CONCRETE PAVEMENT 6-INCH SY	415.0085 CONCRETE PAVEMENT 8 1/2-INCH SY	416.0512 CONCRETE ROUNDABOUT TRUCK APRON 12 -INCH SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	465.0315 ASPHALTIC FLUMES SY	416.1110 CONCRETE RUMBLE STRIPS SHOULDER LF	465.0400 ASPHALTIC SHOULDER RUMBLE STRIPS LF	455.0115 ASPHALTIC MATERIAL PG64-22 TON	455.0120 ASPHALTIC MATERIAL PG64-28 TON	460.1100 HMA PAVEMENT TYPE E-0.3 TON	460.1101 HMA PAVEMENT TYPE E-1 TON	460.1103 HMA PAVEMENT TYPE E-3 TON	460.1110 HMA PAVEMENT TYPE E-10 TON	455.0605 TACK COAT GAL	465.0125 ASPHALTIC SURFACE TEMPORARY TON	602.0405 CONCRETE SIDEWALK 4-INCH SF	645.0140 GEOTEXTILE FABRIC TYPE SAS SY	SPV.0180.01 COLORED AND STAMPED CONCRETE 5-INCH SY
STAGE 1A																								
SUNLITE DRIVE TEMPORARY CONNECTION	20	-	440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	170	-	-	-
FOREST ROAD	180	-	1,310	-	-	-	-	-	-	-	-	-	-	22	9	-	520	-	-	40	-	-	-	-
FRONTAGE ROAD RURAL	940	-	8,860	-	-	-	-	-	-	-	-	-	-	166	70	-	3,825	-	-	290	-	-	-	-
FRONTAGE ROAD URBAN	-	-	1,160	-	-	-	-	-	-	-	5	-	-	18	8	-	425	-	-	33	-	-	-	-
CENTENNIAL CENTRE BOULEVARD	-	30	5,710	-	-	-	-	-	-	-	-	-	-	55	35	-	1,490	-	-	129	-	805	-	-
SW RAMP	1,040	-	1,970	2,217	-	-	3,130	-	222	8	20	-	-	-	13	230	-	-	-	-	-	-	1,852	-
SE RAMP	2,070	-	4,910	2,217	-	-	5,930	-	1,099	10	15	-	2,410	-	26	470	-	-	-	-	-	-	1,852	-
NW RAMP & AUXILLARY LANE	1,640	-	5,700	2,217	-	-	4,270	-	0	0	20	-	1,140	-	39	285	-	-	430	102	-	-	1,852	-
NE RAMP & AUXILLARY LANE	2,540	-	9,940	2,217	-	-	6,110	-	0	0	20	-	2,530	-	63	445	-	-	695	163	-	-	1,852	-
WB INTERCHANGE ROUNDABOUT	-	230	1,570	-	140	-	1,720	420	0	-	-	-	-	-	-	-	-	-	-	-	-	10,170	-	225***
SHERWOOD STREET	-	350	6,040	2,956	-	-	-	-	-	-	-	-	-	61	26	-	-	1,410	-	107	-	13,650	2,408	-
CTH FF TEMPORARY WINTER PAVING	-	-	4,930	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	83	545	-	-	-
CATHERINE DRIVE CUL DE SAC	-	-	690	-	-	-	-	-	-	-	-	-	-	11	7	305	-	-	-	29	-	-	-	-
STH 29 WB SHOULDERS OUTSIDE	800	-	3,340	-	-	-	2,210	-	0		-		1,990	-	20	-	-	-	365	56		-	-	
STAGE 1B																								
CTH FF	-	50	2,770	3,732	-	-	-	-	-	-	20	-		26	11	-	-	610	-	46	-	1,575	3,149	-
SE RAMP	270	-	640	-	-	-	2,270	-	0	-	-	-		-	3	50	-	-	-	7	-	-	-	-
EB INTERCHANGE ROUNDABOUT	-	270	1,770	-	140	-	1,630	420	0	-	-	-		-	-	-	-	-	-	-	-	11,765	-	225**
STH 29 WB SHOULDERS MEDIAN	2,120	-	2,450	-	-	-	-	-	-	-	-	-	2,360	8	6	-	-	-	235	27	-	-	-	
STH 29 EB SHOULDERS MEDIAN	290	-	520	-	-	-	510	-	451	8	-	1,130	-	-	-	-	-	-	-	-	-	-	-	
STH 29 EB SHOULDERS OUTSIDE	700	-	2,360	-	-	-	2,900	-	1,043	-	-	2,620	-	-	-	-	-	-	-	-	-	-	-	
STAGE 1C																								
NAVAJO TRAIL	-	-	730	-	-	-	-	-	-	-	20	-	-	7	4	-	185	-	-	16	-	-	-	-
CTH FF	-	680	13,430	-	130	-	-	370	-	-	25	-	-	126	53	-	-	2,900	-	220	-	28,950	-	275**
SUBTOTAL	12,610	1,610	81,240	15,556	410	0	30,680	1,210	2,815	26	145	3,750	10,430	500	393	1,785	6,445	4,920	1,725	1,364	715	66,915	12,965	725
STAGE 2																								
SHERWOOD STREET	-	180	4,780	-	-	-	-	-	-	-	-	-	-	51	22	-	-	1,180	-	90	-	7,520	-	-
CTH C (SHAWANO AVENUE)	-	320	8,460	-	130	-	-	370	-	-	65	-	-	80	34	-	-	1,845	-	140	-	12,835	-	275***
CTH C (SHAWANO AVENUE) RURAL	30	-	100	-	-	-	-	-	-	-	-	-	-	2	1	-	-	55	-	6	-	-	-	
WOODLAND ROAD CUL DE SAC	-	-	690	-	-	-	-	-	-	-	-	-	-	12	7	315	-	-	-	30	-	-	-	-
SUBTOTAL	30	500	14,030	0	130	0	0	370	0	0	65	0	0	145	64	315	0	3,080	0	266	0	20,355	0	275
STAGE 3																								
WOODLAND ROAD	260	-	3,060	-	-	-	-	-	-	-	-	-	-	8	6	225	-	-	-	24	-	-	-	-
STH 29 EB SHOULDERS OUTSIDE	210	-	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STH 29 WB SHOULDERS OUTSIDE	80	-	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STH 29 EB SHOULDERS MEDIAN	210	-	390	-	-	235	-	-	278	7	-	700	-	-	-	-	-	-	-	-	-	-	-	-
STH 29 WB SHOULDERS MEDIAN	460	-	440	-	-	-	-	-	-	-	-	-	600	2	1	-	-	-	45	6	-	-	-	-
SUBTOTAL	1,220	0	4,190	0	0	235	0	0	278	7	0	0	0	10	7	225	0	0	45	30	0	0	0	0
OTHER																								
ASPHALT WEDGING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	695	-	-	-
BREAKER RUN	-	-	-	6,970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MEDIAN PAVT FOR CROSSING - CTH C	-	-	30	-	-	-	-	-	-	-	-	-	-	1	1	35	-	-	-	-	-	-	-	-
MEDIAN PAVT FOR CROSSING - CTH FF	-	-	60	-	-	-	-	-	-	-	-	-	-	3	2	70	-	-	-	-	-	-	-	-
SUBTOTAL	0	0	90	6,970	0	0	0	0	0	0	0	0	0	4	3	105	0	0	0	0	695	0	0	0
TOTAL	13,860	2,110	99,550	22,526	540	235	30,680	1,580	3,093	33	210	3,750	10,430	659	467	2,430	6,445	8,000	1,770	1,660	1,410	87,270	12,965	1,000
			101,660																					

NOTE: **CATEGORY 0022, ***CATEGORY 0023

CATEGORY 0022 TOTAL 500
CATEGORY 0023 TOTAL 500

FTMS CAMERA AND CABINET ITEMS

ROADWAY	ITEM ID	659.0802 PLAQUES SEQUENCE IDENTIFICATION EACH	672.0250 BASE CAMERA POLE 50-FT EACH	673.0225.S INSTALL POLE MOUNTED CABINET EACH	675.0400.S INSTALL ETHERNET SWITCH EACH	677.0100 INSTALL CAMERA POLE EACH	677.0200 INSTALL CAMERA ASSEMBLY EACH	677.0300.S INSTALL VIDEO ENCODER EACH	SPV.0060.05 INSTALL WIRELESS ETHERNET RADIO EACH
STH 29/CTH FF	CCTV-05-007	2	1	1	1	1	1	1	1
STH 29/Packerland Ave	CCTV-05-005	--	--	--	--	--	--	--	1
TOTALS		2	1	1	1	1	1	1	2

TRACKING PADS

LOCATION	628.7560 TRACKING PADS EACH	SPV.0060.23 TRACKING PAD MAINTENANCE EACH
STAGE 1		
CENTENNIAL CENTRE BOULEVARD/STH 29 CONNECTION	-	-
FOREST ROAD	-	-
CENTENNIAL CENTRE BOULEVARD	3	3
NAVAJO TRAIL	-	-
STH 29 SHOULDERS MEDIAN	-	-
STH 29 SHOULDERS OUTSIDE	-	-
STH 29 NE RAMP	-	-
STH 29 SE RAMP	-	-
STH 29 NW RAMP	-	-
STH 29 SW RAMP	-	-
CATHERINE DRIVE CUL DE SAC	-	-
SUBTOTAL	3	3
STAGE 2		
CTH FF	1	1
CTH FF (SHERWOOD STREET)	1	1
CTH C (SHAWANO AVENUE)	1	1
WOODLAND ROAD CUL DE SAC	-	-
SUBTOTAL	3	3
STAGE 3		
WOODLAND ROAD	1	1
SUBTOTAL	1	1
9200-04-71 TOTAL	7	7

STREET SWEEPING

LOCATION	SPV.0075.01 STREET SWEEPING HRS
PROJECT	170
UNDISTRIBUTED (15%)	30
TOTAL	200

SECTION SURVEY MONUMENTS

	STA	ID	SPV.0060.07 SECTION SURVEY MONUMENTS RECONSTRUCTION PROJECT EACH
ROADWAY	222+20	49L-25	1
MEDIAN	235+38	49K-25	1
MEDIAN	252+67	49J/K-25	1
ROUNDABOUT ISLAND	253+80	49J-25	1
TOTAL			4

FTMS CONDUIT AND ELECTRICAL ITEMS

ITEM ID	LINEAR DISTANCE	652.0125 CONDUIT RIGID METALLIC 2-INCH LF	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	653.0135 PULL BOXES STEEL 24 X 36 - INCH EACH	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG LF	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG LF	656.0500.01 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (CCTV-05-0075) LS
Lighting Cabinet - PBFF10	5	--	10	--	60	20	--
PBFF10	--	--	--	1	30	10	--
PBFF10-PBFF05	175	--	350	--	525	175	--
PBFF05	--	--	--	1	30	10	--
PBFF05-CCTV-05-0075	5	10	10	--	60	20	--
CCTV-05-0075	--	--	--	--	--	--	1
TOTAL		10	370	2	705	235	1

* = ADDITIONAL QUANTITIES LISTED ELSEWHERE

ALL QUANTITIES ARE CATEGORY 0010 UNLESS NOTED

PROJECT NO: 9200-04-71 | HWY: STH 29 | COUNTY: BROWN | MISCELLANEOUS QUANTITIES | SHEET 207 | E

EARTHWORK

Division	Station	To	Station	Location	Common Excavation (1) (Item # 205.0100) Cut (2)	EBS Excavation (3)	Marsh Excavation 205.0400	Unexpanded Fill	Expanded Fill (13) Factor 1.15	Mass Ordinate +/- (14)	Borrow (Item #208.0100)	Select Borrow (Item #208.1100)	Comments
1A	10+20.00	-	12+00.00	CCB-temp	1,546			0	0	1,546	-		
	11+73.23	-	13+18.71	Catherine CDX	847			166	191	656	-		
	663+58.20	-	675+07.74	NE RAMP	736			17,494	20,118	-19,381	19,381		
	663+36.50	-	664+77.50	NE RAMP BYPASS	0			5,139	5,910	-5,910	5,910		
	650+91.92	-	663+53.50	NW RAMP	1,004			31,572	36,308	-35,303	35,303		
	667+50.36	-	686+06.00	SE RAMP	355			94,874	109,105	-108,750	108,750		
	245+63.10	-	247+65.10	SE RAMP BYPASS	0			14,302	16,447	-16,447	16,447		
	652+90.98	-	667+27.31	SW RAMP	1,713			26,902	30,938	-29,224	29,224		
	637+00.00	-	710+50.00	STH 29	17,882			11,370	13,075	4,807	-		
	252+00.00	-	266+50.00	Sherwood St	1,305			33,557	38,591	-37,286	37,286		
	0+00.00	-	4+58.00	RAB WB	0			33,050	38,007	-38,007	38,007		
	0+53.00		2+00.00	CTH FF DW	23			160	184	-161	161		
	1+39.00	-	4+50.00	Catherine SW	358			560	644	-286	286		
	63+50.00	-	74+50.00	CCB	36,921			2,217	2,550	34,371	-		
	20+16.52	-	55+10.71	CCB	32,765			22,513	25,890	6,875	-		
	344+19.59	-	349+50.00	Forest	14,099			24	27	14,071	-		
	0+06.00		1+27.00	Forest DW1	128			0	0	128	-		
	0+10.00		1+50.00	Forest DW2	68			6	7	61	-		
				Undistributed		3,100	100		0	0	-	100	
Division 1A Subtotal					109,752	3,100	100	293,906	337,992	-228,240	290,756	100	
1B	241+00.00	-	249+00.00	County FF	2			94,001	108,102	-108,099	108,099		
	676+00.00	-	4+58.00	RAB EB	0			44,173	50,799	-50,799	50,799		
				Undistributed		4,700	1,200					1,200	
Division 1B Subtotal					2	4,700	1,200	138,175	158,901	-158,899	158,899	1,200	
1C	219+78.31	-	241+50.00	County FF	14,839			51,249	58,936	-44,097	44,097		
	231+00.20	-	232+40.00	CBB BYPASS	3,852			0	0	3,852	-		
	60+35.10	-	63+50.00	CBB	1,062			187	215	847	-		
	0+00.00	-	4+58.00	RAB CCB	8,809			223	257	8,552	-		
	80+50.00	-	82+51.62	Navajo	602			282	324	279	-		
	0+86.51	-	3+60.77	GPPC SW	166			3,422	3,935	-3,769	3,769		
Division 1C Subtotal					29,330	0	0	55,362	63,667	-34,337	47,866	0	
2	87+94.69	-	96+76.97	Woodland	1,219			939	1,080	139	-		
	267+00.00	-	272+00.00	Sherwood	1,896			854	982	914	-		
	0+00.00	-	4+58.00	RAB C					0	0	-		
	393+45.00	-	408+00.00	County C	4,550			2,519	2,897	1,653	-		
Division 2 Subtotal					7,664	0	0	4,312	4,959	2,705	0	0	
3	51+50.00	-	62+00.00	Woodland	7,083			9	10	7,073	-		
	626+50.00	-	675+00.00	STH 29	10,117			3,423	3,936	6,181	-		
	10+20.00	-	12+00.00	Removal of CBB-temp	1,546			0	0	1,546	-		
Division 3 Subtotal					18,746	0	0	3,431	3,946	14,800	0	0	
Grand Total					165,495	7,800	1,300	495,187	569,465	-403,970	497,520	1,300	
Total Common Exc					173,295								

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.
4) Expanded Fill. Factor = 1.15

REMOVING STORM SEWER

UPSTREAM STATION	OFFSET	DOWNSTREAM STATION	OFFSET	LOCATION	204.0220 REMOVING INLETS EACH	204.0210 REMOVING MANHOLES EACH	204.0245 REMOVING STORM SEWER 12-INCH LF	204.0245 REMOVING STORM SEWER 15-INCH LF	204.0245 REMOVING STORM SEWER 18-INCH LF
240+53.48	36' LT	240+14.45	36' LT	FF-south	---	1	---	---	39
240+55.88	89' LT	240+53.48	36' LT	FF-south	---	1	---	54	---
240+56.83	234' LT	240+55.88	89' LT	FF-south	---	1	145	---	---
240+60.70	90' LT	240+55.88	89' LT	FF-south	1	---	5	---	---
240+88.47	334' LT	240+56.83	234' LT	FF-south	---	1	104	---	---
240+92.52	333' LT	240+88.47	334' LT	FF-south	1	---	4	---	---
241+06.76	100' LT	240+60.70	90' LT	FF-south	1	---	47	---	---
241+12.71	104' LT	241+06.76	100' LT	FF-south	---	---	8	---	---
241+30.95	317' LT	240+92.52	333' LT	FF-south	1	---	42	---	---
241+59.44	37' LT	240+53.48	36' LT	FF-south	---	---	---	---	106
9200-04-71 TOTAL					4	4	355	54	145

RECONNECT STORM SEWER LATERAL

LOCATION	STA	SPV.0060.08 EACH
CTH FF	262+50	1
TOTAL		1

ADJUSTING INLET COVERS

LOCATION	STA	OFFSET	611.8115 EACH
STH 29 MEDIAN	658+80.00	40'LT	1
TOTAL			1

CONCRETE PAVEMENT JOINT LAYOUT

	SPV.0105.04 LS
PROJECT	1
TOTAL	1

REMOVING LANDSCAPING MASONRY AND LIGHTING

LOCATION	STATION	OFFSET	204.9060.S.02 EACH
CTH FF	222+00	60' LT	2
9200-04-71 TOTAL			2

DUST CONTROL

LOCATION	STATION	STATION	623.0200 DUST CONTROL SURFACE TREATMENT SY
PROJECT			13300
UNDISTRIBUTED (15%)			2000
TOTAL			15300

REMOVING MEDIAN CROSSOVER

LOCATION	STATION	SPV.0060.25 EACH
STAGE 1		
STH 29	709+25	1
9200-04-71 TOTAL		1

REMOVE APRON ENDWALLS

UPSTREAM STATION	OFFSET	LOCATION	204.9060.S.01 REMOVING APRON ENDWALLS (EACH)
240+14.45	36' LT	FF-south	1
241+59.44	36' LT	FF-south	1
658+14.97	55' RT	WIS 29 EB	1
681+98.18	34' RT	WIS 29 EB	1
9200-04-71 TOTAL			4

* = ADDITIONAL QUANTITIES LISTED ELSEWHERE | ALL QUANTITIES ARE CATEGORY 0010 UNLESS NOTED

PROJECT NO: 9200-04-71 | HWY: STH 29 | COUNTY: BROWN | MISCELLANEOUS QUANTITIES | SHEET 208 E

PIPE GRATES

UPSTREAM STATION	OFFSET	LOCATION	611.9800.S 18-INCH (EACH)	21-INCH (EACH)	24-INCH (EACH)	30-INCH (EACH)
1+65.00	15' LT	Cent. Centre SW	2	---	---	---
2+40.00	27' LT	Cent. Centre SW	2	---	---	---
42+63.73	7' LT	Cent. Centre Blvd.	---	---	1	---
48+10.49	47' RT	Cent. Centre Blvd.	---	---	---	2
657+82.75	42' RT	SW Ramp	---	---	---	1
662+46.83	60' RT	NW Ramp	---	---	---	2
671+68.04	31' RT	NE Ramp	---	---	2	---
681+98.18	35' RT	SE Ramp	---	1	---	---
701+78.84	72' RT	WIS 29 EB	---	---	---	1
3+13.69	58' RT	Cent. Centre SW	1	---	---	---
67+59.36	70' LT	CENT. CENTRE BLVD.	---	---	1	---
69+95.65	48' LT	CENT. CENTRE BLVD.	1	---	---	---
222+74.98	33' RT	FF-south	---	---	1	---
234+08.44	165' LT	FF-south	---	---	1	---
240+03.13	95' LT	FF-south	---	---	1	---
256+23.01	74' RT	FF-north	---	---	1	---
258+90.26	61' RT	FF-north	---	---	1	---
267+35.97	66' RT	FF-north	---	---	1	---
267+54.34	47' LT	FF-north	1	---	1	---
396+61.62	49.8'	C-west	---	---	---	---
406+88.29	29.9'	C-east	---	---	1	---
665+31.01	79' RT	WIS 29 EB	---	---	1	---
668+04.01	61' RT	WIS 29 EB	---	---	1	---
671+51.85	114' RT	SE Ramp	---	---	---	1
9200-04-71 TOTAL			7	1	14	7

STORM SEWER LATERALS

UPSTREAM STATION	OFFSET	LOCATION	SPV.0090.01 LF
396+52.2	-17.5' LT	C-WEST	11
396+52.2	40.2' RT	C-WEST	11
405+12.01	-14.0' LT	C-EAST	35
406+01.06	-4.5' LT	C-EAST	38
9200-04-71 TOTAL			95

ROUNDABOUT LIGHTING

CATEGORY	LOCATION	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	653.0140 PULL BOXES STEEL 24X42-INCH EACH	654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG LF	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (CTH C ROUNDABOUT) LS	659.0802 PLAQUES SEQUENCE IDENTIFICATION EACH	SPV.0060.09 LUMINAIRE LED VILLAGE OF HOWARD BETALED LEDWAY BLACK EACH	SPV.0060.10 LIGHTING CONTROL AND ELECTRICAL DISTRIBUTION CABINET VILLAGE OF HOWARD EACH	SPV.0060.11 CONCRETE BASES VILLAGE OF HOWARD EACH	SPV.0060.12 LIGHT POLE COMPOSITE VILLAGE OF HOWARD NOMINAL HEIGHT 30-FT BLACK EACH	SPV.0060.13 LUMINAIRE ARME SINGLE MEMBER TENON MOUNT 10-FT BLACK EACH	SPV.0060.24 CONCRETE BASES WPS LIGHTING FOR HOBART ROUNDABOUT EACH	SPV.0105.03 ELECTRICAL SERVICE METER BREAKER PEDESTAL (HOBART ROUNDABOUT) UNDERGROUND WORK ONLY LS
0030	COUNTY C & CTH FF	970	5	1	1,850	3,700	1	11	7	1	7	7	7	-	-
0030	CTH FF & NAVAJO TRAIL	1,211	9	-	-	-	-	-	-	-	-	-	-	12	1
	TOTAL	2,181	14	1	1,850	3,700	1	11	7	1	7	7	7	12	1

REINFORCED CONCRETE CULVERT PIPE

UPSTREAM STATION	OFFSET	LOCATION	520.8000 CULVERT PIP CONCRETE COLLAR (EACH)	522.0118 CPRC CLASS III 18-INCH (FT)	522.0121 CPRC CLASS III 21-INCH (FT)	522.0124 CPRC CLASS III 24-INCH (FT)	522.0130 CPRC CLASS III 30-INCH (FT)	523.0124 PIPE ARCH CLASS III 24"x38" (FT)	523.0138 PIPE ARCH CLASS III 38"x60" (FT)	SPV.0090.02 PIPE ARCH CLASS IV 77 1/2"X122" (FT)	*APRON ENDWALLS CPRC 522.1018 18-INCH (EACH)	CPRC 522.1021 21-INCH (EACH)	CPRC 522.1024 24-INCH (EACH)	CPRC 522.1030 30-INCH (EACH)	CPRC H.E. 523.0524 24"x38" (EACH)	CPRC H.E. 523.0538 38"x60" (EACH)	650.6000 *CONSTRUCTION STAKING PIPE CULVERTS (EACH)	633.5200 *MARKERS CULVERT END (EACH)
1+65.00	15' LT	Cent. Centre SW	---	41	---	---	---	---	---	---	2	---	---	---	---	---	1	2
2+40.00	27' LT	Cent. Centre SW	---	84	---	---	---	---	---	---	2	---	---	---	---	---	1	2
3+30.64	23' RT	SW_Catherine	---	---	---	---	41	---	---	---	---	---	---	2	---	---	1	2
42+63.73	7' LT	Cent. Centre Blvd.	1	---	---	52	---	---	---	---	---	---	1	---	---	---	1	1
48+10.49	47' RT	Cent. Centre Blvd.	---	---	---	---	84	---	---	---	---	---	---	2	---	---	1	2
237+88.00	100' LT	FF-south	---	---	---	---	---	---	---	208	---	---	---	---	---	---	1	2
256+93.34	73' LT	FF-north	---	---	---	---	---	147	---	---	---	---	---	---	2	---	1	2
395+71.42	53' RT	C-west	---	---	---	---	---	---	120	---	---	---	---	---	---	2	1	2
657+82.75	42' RT	SW Ramp	1	---	---	---	71	---	---	---	---	---	---	1	---	---	1	1
662+46.83	60' RT	NW Ramp	---	---	---	---	142	---	---	---	---	---	---	2	---	---	1	2
671+68.04	31' RT	NE Ramp	---	---	---	86	---	---	---	---	---	---	2	---	---	---	1	2
681+98.18	35' RT	SE Ramp	---	---	200	---	---	---	---	---	---	1	---	---	---	---	1	1
701+78.84	72' RT	WIS 29 EB	1	---	---	---	6	---	---	---	---	---	---	1	---	---	1	1
9200-04-71 TOTAL			3	125	200	138	344	147	120	208	4	1	3	8	2	2	13	22

NOTES
* ADDITIONAL QUANTITIES LISTED ELSEWHERE
1) PIPE LENGTH IS FROM END OF PIPE TO END OF PIPE AND DOES NOT INCLUDE LENGTH OF APRON ENDWALL.

REMOVE SMALL PIPE CULVERTS

UPSTREAM STATION	OFFSET	LOCATION	SIZE (INCH)	TYPE	203.0100 (EACH)
21+80.00	17' RT	Cent. Centre Blvd.	18	CMCP	1
57+56.82	98' RT	Woodland	15	CMCP	1
58+90.48	10' LT	Woodland	15	CMCP	1
87+93.66	21' RT	Woodland-WofS	15	CMCP	1
91+65.82	21' RT	Woodland-EofS	15	CMCP	1
96+28.13	21' RT	Woodland-EofS	18	CMCP	1
222+16.57	35' LT	FF-south	18	CMCP	1
224+97.31	30' LT	FF-south	18	CMCP	1
225+66.06	35' RT	FF-south	18	CMCP	1
227+49.96	28' LT	FF-south	18	CMCP	1
237+54.80	40' RT	FF-south	18	CMCP	1
238+16.23	38' LT	FF-south	42	CMCP	1
238+74.16	39' LT	FF-south	18	CMCP	1
246+53.20	30' RT	FF-south	18	CMCP	1
248+86.47	53' LT	FF-central	24	CMCP	1
252+49.13	38' RT	FF-central	18	CMCP	1
252+78.07	13' LT	FF-central	18	CMCP	1
254+82.85	26' RT	FF-north	15	CMCP	1
256+25.36	26' RT	FF-north	15	CMCP	1
256+25.40	27' LT	FF-north	24	CMCP	1
256+85.19	23' LT	FF-north	27	CMCP	1
258+73.69	26' RT	FF-north	15	CMCP	1
258+94.19	30' LT	FF-north	24	CMCP	1
261+06.14	24' RT	FF-north	15	CMCP	1
262+87.73	28' LT	FF-north	24	CMCP	1
263+27.47	27' RT	FF-north	15	CMCP	1
266+29.61	27' RT	FF-north	15	CMCP	1
345+00.98	14' LT	Forest	15	CMCP	1
346+92.10	118' RT	Forest	12	CMCP	1
347+59.27	162' RT	Forest	18	CMCP	1
393+33.39	23' LT	C-west	36	CMCP	1
396+08.38	28' RT	C-west	48	CMCP	1
397+16.79	27' RT	C-west	18	CMCP	1
398+17.55	28' LT	C-west	15	CMCP	1
408+15.67	32' RT	C-east	24	CMCP	1
9200-04-71 TOTAL					35

CORRUGATED METAL CULVERT PIPE

UPSTREAM STATION	OFFSET	LOCATION	521.0115 CULVERT PIPE 15-INCH (FT)	521.0118 CULVERT PIPE 18-INCH (FT)	521.0124 CULVERT PIPE 24-INCH (FT)	521.0130 CULVERT PIPE 30-INCH (FT)	521.0148 CULVERT PIPE 48-INCH (FT)	PIPE THICKNESS STEEL (IN)	521.1015 *APRON ENDWALLS FOR CULVERT PIPE 15-INCH (EACH)	521.1018 *APRON ENDWALLS FOR CULVERT PIPE 18-INCH (EACH)	521.1024 *APRON ENDWALLS FOR CULVERT PIPE 24-INCH (EACH)	521.1030 *APRON ENDWALLS FOR CULVERT PIPE 30-INCH (EACH)	521.1048 *APRON ENDWALLS FOR CULVERT PIPE 48-INCH (EACH)	650.6000 *CONSTRUCTION STAKING PIPE CULVERTS (EACH)	633.5200 *MARKERS CULVERT END (EACH)
21+75.40	30' RT	Cent. Centre Blvd.	---	44	---	---	---	0.064	---	2	---	---	---	1	---
23+74.21	30' LT	Cent. Centre Blvd.	---	30	---	---	---	0.064	---	2	---	---	---	1	---
51+42.97	27' RT	Woodland	108	---	---	---	---	0.064	2	---	---	---	---	1	---
53+21.50	26' RT	Woodland	93	---	---	---	---	0.064	2	---	---	---	---	1	---
54+46.95	27' RT	Woodland	30	---	---	---	---	0.064	2	---	---	---	---	1	---
58+96.21	27' LT	Woodland	30	---	---	---	---	0.064	2	---	---	---	---	1	---
82+26.43	37' LT	Cent. Centre Blvd.	29	---	---	---	---	0.064	2	---	---	---	---	1	---
87+85.60	23' RT	Woodland-WofS	42	---	---	---	---	0.064	2	---	---	---	---	1	---
91+64.70	21' RT	Woodland-EofS	26	---	---	---	---	0.064	2	---	---	---	---	1	---
92+36.94	21' LT	Woodland-EofS	---	---	26	---	---	0.064	---	---	2	---	---	1	---
96+28.13	21' RT	Woodland-EofS	---	29	---	---	---	0.064	---	2	---	---	---	1	---
97+76.52	17' LT	Woodland-EofS	---	---	41	---	---	0.064	---	---	2	---	---	1	---
256+04.07	85' LT	FF-north	---	---	79	---	---	0.064	---	---	2	---	---	1	---
260+00.23	61' LT	FF-north	---	---	53	---	---	0.064	---	---	2	---	---	1	---
261+30.45	55' RT	FF-north	62	---	---	---	---	0.064	2	---	---	---	---	1	---
262+94.32	58' LT	FF-north	---	---	40	---	---	0.064	---	---	2	---	---	1	---
263+32.08	52' RT	FF-north	34	---	---	---	---	0.064	2	---	---	---	---	1	---
345+03.60	24' LT	Forest	48	---	---	---	---	0.064	2	---	---	---	---	1	---
345+81.20	26' RT	Forest	---	30	---	---	---	0.064	---	2	---	---	---	1	---
349+49.34	32' LT	Forest	---	68	---	---	---	0.064	---	2	---	---	---	1	---
658+79.55	216' LT	SW Ramp	---	---	---	182	---	0.079	---	---	---	1	---	1	1
693+24.39	78' RT	WIS 29 EB	---	---	---	---	11	0.109	---	---	---	---	1	1	1
693+82.31	144' LT	WIS 29 EB	---	---	---	---	8	0.109	---	---	---	---	1	1	1
9200-04-71 TOTAL			502	201	239	182	19		20	10	10	1	2	23	3

NOTES
* ADDITIONAL QUANTITIES LISTED ELSEWHERE
1) PIPE LENGTH IS FROM END OF PIPE TO END OF PIPE AND DOES NOT INCLUDE LENGTH OF APRON ENDWALL.

* = ADDITIONAL QUANTITIES LISTED ELSEWHERE | ALL QUANTITIES ARE CATEGORY 0010 UNLESS NOTED

EROSION CONTROL

STATION	STATION	606.0200 RIPRAP MEDIUM CY	624.0100 WATER MGAL	628.1104 EROSION BALES LF	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	628.2027 EROSION MAT CLASS II TYPE C SY	628.6510 SOIL STABILIZER TYPE B ACRE	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH	645.0120 GEOTEXTILE FABRIC TYPE HR SY	SPV.0035.02 EXCAVATION OF PHRAGMITES SOIL CY
STAGE 1																		
STH 29																		
616+44.42	620+00.00	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
620+00.00	625+00.00	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
625+00.00	630+00.00	-	2	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-
630+00.00	635+00.00	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
635+00.00	640+00.00	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	139
640+00.00	645+00.00	-	2	-	150	150	-	-	1,111	-	-	-	-	15	-	-	-	-
645+00.00	650+00.00	-	2	-	500	500	-	-	-	-	-	-	-	15	-	-	-	-
650+00.00	655+00.00	-	2	-	100	100	-	-	-	0.2	-	-	-	-	-	-	-	-
655+00.00	660+00.00	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
660+00.00	665+00.00	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	280
665+00.00	670+00.00	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	186
670+00.00	675+00.00	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
675+00.00	680+00.00	-	2	-	500	500	250	2,900	-	0.2	-	-	-	15	-	-	-	-
680+00.00	685+00.00	-	2	-	500	500	2,150	-	-	-	-	-	-	-	-	-	-	-
685+00.00	690+00.00	-	2	-	800	800	3,850	-	-	-	-	-	-	20	-	-	-	-
690+00.00	695+00.00	26	2	-	300	300	4,900	-	-	-	-	-	-	20	10	-	26	-
695+00.00	700+00.00	-	2	-	200	200	5,250	-	-	-	-	-	-	15	-	-	-	-
700+00.00	705+00.00	-	2	-	600	600	3,200	-	-	-	-	-	-	20	-	1	-	-
705+00.00	710+00.00	15	2	-	300	300	2,850	-	-	0.2	-	-	-	10	-	-	15	-
710+00.00	711+99.99	-	2	-	25	25	-	-	-	-	-	-	-	-	-	1	-	-
STH 29 WEST TEMPORARY CROSSOVER																		
640+00.00	664+00.00	-	1	-	197	197	4,270	-	-	-	-	-	-	-	-	-	-	-
STH 29 EAST TEMPORARY CROSSOVER																		
675+00.00	699+00.00	-	1	-	185	185	4,100	-	-	-	-	-	-	-	-	-	-	-
NW RAMP																		
650+91.92	655+00.00	-	2	-	800	800	-	-	670	-	-	-	-	-	-	-	-	-
655+00.00	660+00.00	-	2	-	1,000	1,000	-	-	3,333	0.2	-	-	-	-	-	-	-	-
660+00.00	663+53.80	133	2	-	1,000	1,000	-	-	2,335	-	1	1	-	-	14	-	133	-
SW RAMP																		
652+90.98	655+00.00	-	2	-	75	75	-	-	335	-	-	-	-	-	-	-	-	-
655+00.00	660+00.00	13	2	-	1,000	1,000	-	-	2,889	-	-	-	-	20	-	-	13	-
660+00.00	665+00.00	-	2	-	1,000	1,000	-	-	3,335	0.2	-	-	-	-	-	-	-	-
665+00.00	667+27.31	198	2	-	225	225	-	-	1,500	-	2	2	-	-	-	-	198	-
NE RAMP																		
663+57.69	665+00.00	183	2	-	150	150	-	-	1,000	-	2	2	-	-	-	-	183	-
665+00.00	670+00.00	-	2	-	1,000	1,000	-	-	3,335	-	-	-	-	-	-	-	-	-
670+00.00	675+07.74	26	2	30	700	700	-	-	2,000	0.2	-	-	-	20	5	-	26	93
SE RAMP																		
667+50.36	670+00.00	13	2	-	270	270	-	-	2,680	-	4	4	-	-	-	-	13	-
670+00.00	675+00.00	173	2	30	1,020	1,020	-	-	7,840	0.2	3	2	-	30	-	-	173	139
675+00.00	680+00.00	-	2	-	1,020	1,020	-	-	4,840	-	1	1	-	-	-	-	-	-
680+00.00	686+06.24	13	2	-	650	650	-	-	3,070	-	-	-	-	-	7	-	13	-
CTH FF (HILLCREST DRIVE)																		
215+00.00	220+00.00	-	3	-	100	100	-	-	-	-	-	-	-	-	-	-	-	-
220+00.00	225+00.00	13	3	-	520	520	1,860	277	-	-	4	4	-	20	-	-	13	-
225+00.00	230+00.00	-	3	-	500	500	-	1,760	-	-	8	8	-	-	-	-	-	-
230+00.00	235+00.00	-	3	-	380	380	-	2,980	2,400	0.5	16	8	8	30	10	-	-	-
235+00.00	240+00.00	26	3	30	450	450	-	850	5,080	-	14	14	-	40	-	-	26	-
																		-
CTH FF (SHERWOOD STREET)																		-
250+00.00	255+00.00	-	3	-	380	380	-	400	3,120	-	9	9	-	-	-	-	-	-
255+00.00	260+00.00	39	3	-	840	840	1,400	500	2,775	0.5	8	8	-	20	-	-	39	-
260+00.00	265+00.00	-	3	-	1,290	1,290	3,580	350	240	-	8	2	6	20	-	-	-	-
WOODLAND ROAD																		
88+00.00	92+00.00	26	1	-	165	165	-	-	-	-	-	-	-	25	-	-	26	-
FOREST ROAD																		
343+91.64	350+00.00	45	1	-	850	850	2,790	-	-	-	-	-	-	40	45	45	45	-
SUBTOTAL		942	96	90	19,742	19,742	40,450	10,017	53,888	2.6	80	65	14	395	91	47	942	837

* = ADDITIONAL QUANTITIES LISTED ELSEWHERE | ALL QUANTITIES ARE CATEGORY 0010 UNLESS NOTED

EROSION CONTROL

STATION	STATION	606.0200 RIPRAP MEDIUM CY	624.0100 WATER MGAL	628.1104 EROSION BALES EACH	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	628.2027 EROSION MAT CLASS II TYPE C SY	628.6510 SOIL STABILIZER TYPE B ACRE	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH	645.0120 GEOTEXTILE FABRIC TYPE HR SY	SPV.0035.02 EXCAVATION OF PHRAGMITES SOIL CY
STAGE 1 (CONTINUED)																		
CENTENNIAL CENTRE BOULEVARD																		
20+02.33	25+00.00	-	2	-	1,000	1,000	3,004	-	-	-	-	-	-	20	-	-	-	-
25+00.00	30+00.00	-	2	-	200	200	3,900	-	400	-	-	-	-	30	-	-	-	-
30+00.00	35+00.00	-	2	-	600	600	1,125	-	2,170	0.2	-	-	-	30	-	-	-	-
35+00.00	40+00.00	-	2	-	500	500	1,125	-	2,165	-	-	-	-	20	-	-	-	-
40+00.00	45+00.00	13	2	-	850	850	1,125	-	2,150	-	-	-	-	20	-	-	13	-
45+00.00	50+00.00	26	2	-	800	800	500	-	225	-	-	-	-	40	6	-	26	-
50+00.00	55+00.00	20	2	-	1,000	1,000	-	-	-	0.2	-	-	-	20	-	-	20	-
55+00.00	60+00.00	-	2	-	20	20	-	-	-	-	-	-	-	-	-	-	-	-
TEMPORARY CENTENNIAL CENTRE BOULEVARD																		
60+00.00	65+00.00	-	2	-	700	700	-	-	-	-	-	-	-	20	-	-	-	-
CENTENNIAL CENTRE BOULEVARD																		
60+00.00	65+00.00	26	2	-	550	550	-	-	7,110	-	-	-	-	10	10	-	26	-
65+00.00	70+00.00	39	2	50	1,420	1,420	-	-	11,450	0.5	4	4	-	10	5	3	39	-
70+00.00	75+00.00	-	2	30	550	550	-	-	7,020	0.5	9	5	4	30	-	1	-	-
NAVAJO TRAIL																		
80+00.00	85+00.00	-	1	-	730	730	-	300	1,000	0.2	3	3	-	40	-	-	-	-
CATHERINE DRIVE AND SNOW MOBILE PATH																		
12+00.00	13+00	-	1	-	1,600	1,600	-	-	1,750	0.2	-	-	-	-	-	-	-	-
SUBTOTAL		124	26	80	10,520	10,520	10,779	300	35,440	1.8	16	12	4	290	21	4	124	0
STAGE 1 SUBTOTAL		1,066	122	170	30,262	30,262	51,229	10,317	89,328	4.4	96	77	18	685	112	51	1,066	837
STAGE 2																		
CTH C (SHAWANO AVE.)																		
392+53.79	395+00.00	-	3	-	215	215	-	-	-	-	-	-	-	20	12	-	-	-
395+00.00	400+00.00	13	3	-	1,210	1,210	3,550	1,000	-	0.5	8	3	5	-	-	4	13	93
400+00.00	405+00.00	-	3	-	970	970	1,400	1,050	-	-	6	6	-	20	-	-	-	-
405+00.00	411+00.00	13	3	-	1,040	1,040	1,350	-	-	-	-	-	-	30	-	-	13	-
CTH FF (SHERWOOD STREET)																		
267+00.00	275+00.00	-	6	-	1,350	1,350	905	1,750	-	0.2	10	10	-	30	-	4	-	-
MAINTENANCE CROSSOVER STH 29																		
709+23.00		-	1	-	60	60	245	-	-	-	-	-	-	-	-	-	-	-
STAGE 2 SUBTOTAL		26	19	0	4,845	4,845	7,450	3,800	0	0.7	24	19	5	100	12	8	26	93
STAGE 3																		
WOODLAND ROAD																		
50+50.00	55+50.00	-	1		342	342	2,380	-	-	-	-	-	-	40	-	-	-	-
55+50.00	60+50.00	-	1	-	1,015	1,015	3,315	-	-	-	-	-	-	20	-	-	-	-
60+50.00	62+00.00	-	1	-	250	250	1,115	-	-	-	-	-	-	20	-	-	-	-
TEMPORARY CENTENNIAL CENTRE BOULEVARD																		
60+00.00	65+00.00	-	1	-	-	-	1,165	-	-	-	-	-	-	-	-	-	-	-
STAGE 3 SUBTOTAL		0	4	0	1,607	1,607	7,975	0	0	0	0	0	0	80	0	0	0	0
TOTAL		1,092	145	170	36,714	36,714	66,654	14,117	89,328	5.1	120	96	23	865	124	59	1,092	930
UNDISTRIBUTED (15%)		164	22	26	5,507	5,507	9,998	2,118	13,399	0.8	18	14	3	130	19	9	164	140
TOTALS		1,256	167	196	42,221	42,221	76,652	16,235	102,727	5.9	138	110	26	995	143	68	1,256	1,070

* = ADDITIONAL QUANTITIES LISTED ELSEWHERE | ALL QUANTITIES ARE CATEGORY 0010 UNLESS NOTED

PROJECT NO: 9200-04-71 | HWY: STH 29 | COUNTY: BROWN | MISCELLANEOUS QUANTITIES | SHEET 211 | E

STORM SEWER PIPE SUMMARY

FROM STRUCT.	TO STRUCT.	608.0312 SSPRC CLASS III 12-INCH (FT)	608.0315 SSPRC CLASS III 15-INCH (FT)	608.0318 SSPRC CLASS III 18-INCH (FT)	608.0324 SSPRC CLASS III 24-INCH (FT)	608.0330 SSPRC CLASS III 30-INCH (FT)	608.0412 SSPRC CLASS IV 12-INCH (FT)	608.0418 SSPRC CLASS IV 18-INCH (FT)	608.0530 SSPRC CLASS V 30-INCH (FT)
1.1	1	---	---	---	62	---	---	---	---
1.2	1.1	36	---	---	---	---	---	---	---
2.1	1.1	---	---	---	74	---	---	---	---
3.1	2.1	---	---	---	115	---	---	---	---
3.2	3.1	18	---	---	---	---	---	---	---
3.3	3.1	18	---	---	---	---	---	---	---
3.4	3.1	---	---	---	234	---	---	---	---
3.5	3.4	---	---	---	74	---	---	---	---
3.6	3.5	---	---	---	94	---	---	---	---
3.7	3.6	18	---	---	---	---	---	---	---
3.8	3.6	---	---	18	---	---	---	---	---
3.9	3.5	---	47	---	---	---	---	---	---
4.1	4	---	---	31	---	---	---	---	---
4.2	4.1	---	---	18	---	---	---	---	---
4.3	4.2	19	---	---	---	---	---	---	---
4.4	4.3	13	---	---	---	---	---	---	---
4.5	4.1	13	---	---	---	---	---	---	---
4.6	4.2	---	---	79	---	---	---	---	---
4.7	4.6	18	---	---	---	---	---	---	---
5.1	4.6	---	---	157	---	---	---	---	---
5.2	5.1	12	---	---	---	---	---	---	---
5.3	5.1	7	---	---	---	---	---	---	---
5.4	5.3	22	---	---	---	---	---	---	---
5.5	5.1	18	---	---	---	---	---	---	---
11.1	11.0	---	---	---	---	---	---	93	---
11.2	11.1	---	---	35	---	---	---	---	---
11.3	11.1	8	---	---	---	---	---	---	---
21.1	21.0	---	---	---	34	---	---	---	---
21.2	21.1	5	---	---	---	---	---	---	---
21.3	21.2	21	---	---	---	---	---	---	---
22.1	21.1	---	---	---	59	---	21	---	---
23.1	22.1	---	---	---	239	---	---	---	---
23.2	23.1	15	---	---	---	---	---	---	---
23.3	23.2	21	---	---	---	---	---	---	---
23.4	23.1	15	---	---	---	---	---	---	---
23.5	23.4	20	---	---	---	---	---	---	---
23.6	23.2	30	---	---	---	---	---	---	---
24.1	23.1	---	---	---	226	---	---	---	---
24.2	24.1	P10.0	---	---	---	---	---	---	---
31.1	31.0	---	---	---	24	---	---	---	---
31.2	31.1	---	---	---	73	---	---	---	---
32.1	31.2	---	---	---	240	---	---	---	---
32.2	32.1	13	---	---	---	---	---	---	---
32.3	32.2	21	---	---	---	---	---	---	---
32.4	32.1	13	---	---	---	---	---	---	---
32.5	32.4	21	---	---	---	---	---	---	---
33.1	32.1	---	---	---	321	---	---	---	---
33.2	33.1	23	---	---	---	---	---	---	---
33.3	33.1	---	23	---	---	---	---	---	---
33.4	33.3	9	---	---	---	---	---	---	---
33.5	33.3	57	---	---	---	---	---	---	---
33.6	33.4	40	---	---	---	---	---	---	---
33.7	33.6	23	---	---	---	---	---	---	---
34.1	33.1	---	---	---	116	---	---	---	---
33.7	33.6	23	---	---	---	---	---	---	---
34.1	33.1	---	---	---	116	---	---	---	---
34.2	34.1	40	---	---	---	---	---	---	---
35.1	34.1	---	---	---	21	---	---	---	---
35.2	35.1	15	---	---	---	---	---	---	---
35.3	35.2	58	---	---	---	---	---	---	---
35.4	35.1	---	84	---	---	---	---	---	---
35.5	35.4	78	---	---	---	---	---	---	---
35.6	35.5	20	---	---	---	---	---	---	---
36.1	35.1	---	---	---	107	---	---	---	---
36.2	36.1	---	---	21	---	---	---	---	---
36.3	36.2	---	---	59	---	---	---	---	---
36.4	36.3	18	---	---	---	---	---	---	---
36.5	36.4	17	---	---	---	---	---	---	---
36.6	36.3	6	---	---	---	---	---	---	---
36.7	36.6	18	---	---	---	---	---	---	---
37.1	37.0	---	24	---	---	---	---	---	---
37.2	37.1	---	125	---	---	---	---	---	---
38.1	38.0	---	---	---	---	23	---	---	---
38.2	38.1	---	103	---	---	---	---	---	---
38.3	38.2	---	36	---	---	---	---	---	---
38.4	38.3	---	193	---	---	---	---	---	---
38.5	38.4	8	---	---	---	---	---	---	---
38.6	38.4	17	---	---	---	---	---	---	---
39.1	31.2	---	147	---	---	---	---	---	---
39.2	39.1	6	---	---	---	---	---	---	---
39.3	39.2	21	---	---	---	---	---	---	---
39.4	39.1	7	---	---	---	---	---	---	---
SUBTOTAL		929	782	418	2229	23	21	93	0

STORM SEWER PIPE SUMMARY

FROM STRUCT.	TO STRUCT.	608.0312 SSPRC CLASS III 12-INCH (FT)	608.0315 SSPRC CLASS III 15-INCH (FT)	608.0318 SSPRC CLASS III 18-INCH (FT)	608.0324 SSPRC CLASS III 24-INCH (FT)	608.0330 SSPRC CLASS III 30-INCH (FT)	608.0412 SSPRC CLASS IV 12-INCH (FT)	608.0418 SSPRC CLASS IV 18-INCH (FT)	608.0530 SSPRC CLASS V 30-INCH (FT)
39.5	39.4	21	---	---	---	---	---	---	---
40.1	38.1	---	---	---	---	---	---	---	169
40.2	40.1	---	---	---	222	---	---	---	---
40.3	40.2	---	---	---	10	---	---	---	---
40.4	40.1	---	---	---	199	---	---	---	---
40.5	40.4	---	---	---	10	---	---	---	---
41.1	41.0	---	---	---	129	---	---	---	---
41.2	41.1	---	---	---	28	---	---	---	---
41.3	41.2	---	---	---	14	---	---	---	---
41.4	41.2	15	---	---	---	---	---	---	---
41.5	41.3	---	13	---	---	---	---	---	---
41.6	41.5	---	20	---	---	---	---	---	---
41.7	41.6	15	---	---	---	---	---	---	---
41.8	41.5	15	---	---	---	---	---	---	---
42.1	41.3	---	---	---	100	---	---	---	---
42.2	42.1	---	42	---	---	---	---	---	---
42.3	42.2	---	15	---	---	---	---	---	---
42.4	42.3	21	---	---	---	---	---	---	---
42.5	42.4	6	---	---	---	---	---	---	---
43.1	42.1	---	---	---	127	---	---	---	---
44.1	43.1	---	---	---	21	---	---	---	---
44.2	44.1	---	12	---	---	---	---	---	---
44.3	44.2	---	77	---	---	---	---	---	---
44.4	44.3	---	51	---	---	---	---	---	---
44.5	44.4	8	---	---	---	---	---	---	---
44.6	44.5	19	---	---	---	---	---	---	---
45.1	44.1	---	---	---	56	---	---	---	---
45.2	45.1	---	39	---	---	---	---	---	---
45.3	45.2	44	---	---	---	---	---	---	---
46.1	45.1	---	---	87	---	---	---	---	---
46.2	46.1	22	---	---	---	---	---	---	---
46.3	46.2	29	---	---	---	---	---	---	---
46.4	46.1	37	---	---	---	---	---	---	---
47.1	41.3	---	---	---	217	---	---	---	---
47.2	47.1	33	---	---	---	---	---	---	---
48.1	46.1	---	---	33	---	---	---	---	---
48.2	48.1	12	---	---	---	---	---	---	---
48.3	48.2	20	---	---	---	---	---	---	---
48.4	48.1	13	---	---	---	---	---	---	---
48.5	48.4	20	---	---	---	---	---	---	---
61.1	61.0	---	---	---	36	---	---	---	---
61.2	61.1	---	---	---	20	---	---	---	---
61.3	61.2	---	---	---	7	---	---	---	---
61.4	61.3	7	---	---	---	---	---	---	---
61.5	61.4	20	---	---	---	---	---	---	---
62.1	61.3	---	---	---	237	---	---	---	---
62.2	62.1	7	---	---	---	---	---	---	---
62.3	62.2	19	---	---	---	---	---	---	---
62.4	62.3	12	---	---	---	---	---	---	---
62.6	62.1	7	---	---	---	---	---	---	---
62.7	62.6	19	---	---	---	---	---	---	---
62.8	62.7	12	---	---	---	---	---	---	---
63.1	62.1	---	---	302	---	---	---	---	---
63.2	63.1	P26.0	---	---	---	---	---	---	---
63.3	63.1	P26.0	---	---	---	---	---	---	---
64.1	64.0	---	---	---	70	---	---	---	---
64.2	64.1	---	---	---	47	---	---	---	---
65.1	64.1	---	---	185	---	---	---	---	---
65.2	65.1	7	---	---	---	---	---	---	---
65.3	65.2	19	---	---	---	---	---	---	---
65.4	65.3	13	---	---	---	---	---	---	---
65.5	65.1	7	---	---	---	---	---	---	---
65.6	65.5	19	---	---	---	---	---	---	---
65.7	65.6	13	---	---	---	---	---	---	---
66.1	65.1	---	90	---	---	---	---	---	---
66.2	66.1	22	---	---	---	---	---	---	---
66.3	66.1	7	---	---	---	---	---	---	---
71.1	71.0	---	---	---	47	---	---	---	---
71.2	71.1	---	---	---	20	---	---	---	---
71.3	71.2	---	---	---	7	---	---	---	---
71.4	71.3	7	---	---	---	---	---	---	---
71.5	71.4	16	---	---	---	---	---	---	---
72.1	71.3	---	---	---	194	---	---	---	---
73.1	72.1	---	---	---	22	---	---	---	---
73.2	73.1	---	10	---	---	---	---	---	---
73.3	73.1	78	---	---	---	---	---	---	---
74.1	73.2	---	61	---	---	---	---	---	---
75.1	73.1	---	---	---	127	---	---	---	---
75.2	75.1	---	---	---	12	---	---	---	---
75.3	75.2	15	---	---	---	---	---	---	---
75.4	75.3	18	---	---	---	---	---	---	---
75.5	75.2	14	---	---	---	---	---	---	---
SUBTOTAL		760	430	607	1979	0	0	0	169

STORM SEWER PIPE SUMMARY

FROM STRUCT.	TO STRUCT.	608.0312 SSPRC CLASS III 12-INCH (FT)	608.0315 SSPRC CLASS III 15-INCH (FT)	608.0318 SSPRC CLASS III 18-INCH (FT)	608.0324 SSPRC CLASS III 24-INCH (FT)	608.0330 SSPRC CLASS III 30-INCH (FT)	608.0412 SSPRC CLASS IV 12-INCH (FT)	608.0418 SSPRC CLASS IV 18-INCH (FT)	608.0530 SSPRC CLASS V 30-INCH (FT)
75.6	75.5	24	---	---	---	---	---	---	---
76.1	74.1	---	50	---	---	---	---	---	---
78.1	78.0	---	---	---	110	---	---	---	---
78.2	78.1	---	---	---	161	---	---	---	---
78.3	78.2	---	---	---	33	---	---	---	---
81.1	81.0	---	---	34	---	---	---	---	---
81.2	81.1	---	---	20	---	---	---	---	---
81.3	81.2	---	---	10	---	---	---	---	---
81.4	81.3	---	8	---	---	---	---	---	---
81.5	81.4	22	---	---	---	---	---	---	---
82.2	82.0	---	27	---	---	---	---	---	---
82.1	82.2	30	---	---	---	---	---	---	---
91.1	91.0	---	---	---	43	---	---	---	---
91.2	91.1	---	---	---	16	---	---	---	---
91.3	91.2	21	---	---	---	---	---	---	---
91.4	91.2	21	---	---	---	---	---	---	---
92.1	91.2	---	---	---	191	---	---	---	---
92.2	92.1	14	---	---	---	---	---	---	---
92.3	92.2	6	---	---	---	---	---	---	---
92.4	92.3	22	---	---	---	---	---	---	---
92.5	92.1	13	---	---	---	---	---	---	---
92.6	92.2	11	---	---	---	---	---	---	---
93.1	92.1	---	---	---	34	---	---	---	---
93.2	93.1	---	---	---	224	---	---	---	---
93.3	93.2	25	---	---	---	---	---	---	---
94.1	93.2	---	---	---	125	---	---	---	---
94.2	94.1	43	---	---	---	---	---	---	---
95.1	97.1	---	---	---	66	---	---	---	---
95.2	95.1	---	---	35	---	---	---	---	---
95.3	95.2	---	---	48	---	---	---	---	---
95.4	95.3	---	23	---	---	---	---	---	---
95.5	95.4	35	---	---	---	---	---	---	---
95.6	95.2	34	---	---	---	---	---	---	---
96.1	95.4	---	9	---	---	---	---	---	---
96.2	96.1	36	---	---	---	---	---	---	---
96.3	96.2	11	---	---	---	---	---	---	---
96.4	96.3	25	---	---	---	---	---	---	---
97.1	94.1	---	---	---	22	---	---	---	---
97.2	97.1	10	---	---	---	---	---	---	---
98.1	100.1	---	35	---	---	---	---	---	---
98.2	98.1	---	22	---	---	---	---	---	---
98.3	98.1	20	---	---	---	---	---	---	---
98.4	98.2	22	---	---	---	---	---	---	---
98.5	98.4	20	---	---	---	---	---	---	---
99.1	94.1	15	---	---	---	---	---	---	---
99.2	99.1	26	---	---	---	---	---	---	---
100.1	95.1	---	---	45	---	---	---	---	---
100.2	100.1	33	---	---	---	---	---	---	---
SUBTOTAL		539	174	192	1025	0	0	0	0
9200-04-71	TOTAL	2,228	1,386	1,217	5,233	23	21	93	169

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* = ADDITIONAL QUANTITIES LISTED ELSEWHERE | ALL QUANTITIES ARE CATEGORY 0010 UNLESS NOTED

PROJECT NO: 9200-04-71 | HWY: STH 29 | COUNTY: BROWN | MISCELLANEOUS QUANTITIES | SHEET 212 | E

MANHOLES AND INLETS

STRUCT. NO.	*APRON ENDWALLS SSPRC 522.0115 15-INCH (EACH)	522.0118 18-INCH (EACH)	522.0124 24-INCH (EACH)	522.0130 30-INCH (EACH)	611.2004 MANHOLES 4-FT DIA. (EACH)	611.2005 MANHOLES 5-FT DIA. (EACH)	611.3230 INLET 2X3-FT (EACH)	611.3901 INLET MEDIAN 1 GRATE (EACH)	611.3903 INLET MEDIAN 3 GRATE (EACH)	611.0530 MANHOLE COVERS TYPE J (EACH)	611.0612 INLET COVERS TYPE C (EACH)	611.0627 INLET COVERS TYPE HM (EACH)	611.0639 INLET COVERS TYPE HS (EACH)	611.0642 INLET COVERS TYPE MS (EACH)	611.0652 INLET COVERS TYPE T (EACH)	650.4000 CONSTRUCTION STAKING STORM SEWER SYSTEM EACH
1	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	1
1.1	---	---	---	---	---	1	---	---	---	---	---	---	1	---	---	1
1.2	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
2.1	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	1
3.1	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	1
3.2	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
3.3	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
3.4	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	1
3.5	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	1
3.6	---	1	---	---	1	---	---	---	---	1	---	---	---	---	---	1
3.7	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
3.8	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
3.9	---	---	---	---	---	---	---	1	---	---	---	---	---	1	---	1
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1
4.1	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
4.2	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	1
4.3	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
4.4	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
4.5	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
4.6	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	1
4.7	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
5.1	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
5.2	---	---	---	---	---	---	---	1	---	---	---	---	---	1	---	1
5.3	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
5.4	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
5.5	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
11	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	1
11.1	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	1
11.2	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	1
11.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1
21.0	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	1
21.1	---	---	---	---	---	1	---	---	---	---	---	---	1	---	---	1
21.2	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
21.3	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
22.1	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	1
23.1	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	1
23.2	---	---	---	---	---	---	1	---	---	---	---	---	---	---	1	1
23.3	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
23.4	---	---	---	---	---	---	1	---	---	---	---	---	---	---	1	1
23.5	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
23.6	---	---	---	---	---	---	1	---	---	---	---	---	---	---	1	1
24.1	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	1
24.2	---	---	---	---	---	---	1	---	---	---	---	---	---	---	1	1
31.0	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	1
31.1	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	1
31.2	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	1
32.1	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	1
32.2	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
32.3	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
32.4	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
32.5	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
33.1	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	1
33.2	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
33.3	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
33.4	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
33.5	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
33.6	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
33.7	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
34.1	---	---	---	---	---	1	---	---	---	---	---	---	1	---	---	1
34.2	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
35.1	---	---	---	---	1	---	---	---	---	---	---	---	---	---	1	1
35.2	---	---	---	---	---	---	1	---	---	---	---	---	---	---	1	1
35.3	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
35.4	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
35.5	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
35.6	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
36.1	---	---	---	---	1	---	---	---	---	---	---	---	---	---	1	1
36.2	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	1
36.3	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	1
36.4	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
36.5	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
36.6	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
36.7	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
37.0	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1
37.1	---	---	---	---	---	---	---	1	---	---	---	---	---	1	---	1
37.2	---	---	---	---	---	---	---	1	---	---	---	---	---	1	---	1
38.0	---		---	1	---	---	---	---	---	---	---	---	---	---	---	1
38.1	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	1
38.2	---	---	---	---	1	---	---	---	---	---	---	1	---	---	---	1
38.3	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
38.4	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
38.5	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
38.6	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
39.1	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	1
SUBTOTAL	1	3	3	1	21	4	46	4	0	10	8	21	25	4	7	84

* = ADDITIONAL QUANTITIES LISTED ELSEWHERE

ALL QUANTITIES ARE CATEGORY 0010 UNLESS NOTED

MANHOLES AND INLETS

STRUCT. NO.	*APRON ENDWALLS SSPRC 522.0115 15-INCH (EACH)	522.0118 18-INCH (EACH)	522.0124 24-INCH (EACH)	522.0130 30-INCH (EACH)	611.2004 MANHOLES 4-FT DIA. (EACH)	611.2005 MANHOLES 5-FT DIA. (EACH)	611.3230 INLET 2X3-FT (EACH)	611.3901 INLET MEDIAN 1 GRATE (EACH)	611.3903 INLET MEDIAN 3 GRATE (EACH)	611.0530 MANHOLE COVERS TYPE J (EACH)	611.0612 INLET COVERS TYPE C (EACH)	611.0627 INLET COVERS TYPE HM (EACH)	611.0639 INLET COVERS TYPE HS (EACH)	611.0642 INLET COVERS TYPE MS (EACH)	611.0652 INLET COVERS TYPE T (EACH)	650.4000 CONSTRUCTION STAKING STORM SEWER SYSTEM EACH
39.2	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
39.3	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
39.4	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
39.5	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
40.1	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	1
40.2	---	---	---	---	---	1	---	---	---	1	---	---	---	---	---	1
40.3	---	---	---	---	---	---	---	---	1	---	---	---	---	1	---	1
40.4	---	---	---	---	---	1	---	---	---	1	---	---	---	---	---	1
40.5	---	---	---	---	---	---	---	---	1	---	---	---	---	1	---	1
41.0	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	1
41.1	---	---	---	---	1	---	---	---	---	---	---	1	---	---	---	1
41.2	---	---	---	---	---	1	---	---	---	---	---	1	---	---	---	1
41.3	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	1
41.4	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
41.5	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
41.6	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
41.7	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
41.8	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
42.1	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	1
42.2	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
42.3	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
42.4	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
42.5	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
43.1	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	1
44.1	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	1
44.2	---	---	---	---	---	---	1	---	---	---	---	---	---	---	1	1
44.3	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
44.4	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
44.5	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
44.6	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
45.1	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	1
45.2	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
45.3	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
46.1	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
46.2	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
46.3	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
46.4	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
47.1	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	1
47.2	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
48.1	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	1
48.2	---	---	---	---	---	---	1	---	---	---	---	---	---	---	1	1
48.3	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
48.4	---	---	---	---	---	---	1	---	---	---	---	---	---	---	1	1
48.5	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
61.0	---	--	1	---	---	---	---	---	---	---	---	---	---	---	---	1
61.1	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	1
61.2	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	1
61.3	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	1
61.4	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
61.5	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
62.1	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	1
62.2	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
62.3	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
62.4	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
62.6	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
62.7	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
62.8	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
63.1	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	1
63.2	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
63.3	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
64.0	---	--	1	---	---	---	---	---	---	---	---	---	---	---	---	1
64.1	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	1
64.2	---	--	1	---	---	---	---	---	---	---	---	---	---	---	---	1
65.1	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	1
65.2	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
65.3	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
65.4	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
65.5	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
65.6	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
65.7	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
66.1	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	1
66.2	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
66.3	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
71.0	---	--	1	---	---	---	---	---	---	---	---	---	---	---	---	1
71.1	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	1
71.2	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	1
71.3	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	1
71.4	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
71.5	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
72.1	---	---	---	---	---	1	---	---	---	---	---	---	1	---	---	1
73.1	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	1
73.2	---	---	---	---	---	---	1	---	---	---	---	---	---	---	1	1
73.3	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
74.1	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	1
75.1	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	1
75.2	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	1
75.3	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
SUBTOTAL	0	0	5	0	13	14	53	0	2	4	12	22	36	2	6	87

* = ADDITIONAL QUANTITIES LISTED ELSEWHERE | ALL QUANTITIES ARE CATEGORY 0010 UNLESS NOTED

MANHOLES AND INLETS

STRUCT. NO.	*APRON ENDWALLS SSPRC 522.0115 15-INCH (EACH)	522.0118 18-INCH (EACH)	522.0124 24-INCH (EACH)	522.0130 30-INCH (EACH)	611.2004 MANHOLES 4-FT DIA. (EACH)	611.2005 MANHOLES 5-FT DIA. (EACH)	611.3230 INLET 2X3-FT (EACH)	611.3901 INLET MEDIAN 1 GRATE (EACH)	611.3903 INLET MEDIAN 3 GRATE (EACH)	611.0530 MANHOLE COVERS TYPE J (EACH)	611.0612 INLET COVERS TYPE C (EACH)	611.0627 INLET COVERS TYPE HM (EACH)	611.0639 INLET COVERS TYPE HS (EACH)	611.0642 INLET COVERS TYPE MS (EACH)	611.0652 INLET COVERS TYPE T (EACH)	650.4000 CONSTRUCTION STAKING STORM SEWER SYSTEM EACH
75.4	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
75.5	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
75.6	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
76.1	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
78.0	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	1
78.1	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	1
78.2	---	---	---	---	---	1	---	---	---	1	---	---	---	---	---	1
78.3	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	1
81.0	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	1
81.1	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
81.2	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
81.3	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	1
81.4	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
81.5	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
82.0	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1
82.1	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
82.2	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
91.0	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	1
91.1	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	1
91.2	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	1
91.3	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
91.4	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
92.1	---	---	---	---	---	1	---	---	---	1	---	---	---	---	---	1
92.2	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
92.3	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
92.4	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
92.5	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
92.6	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
93.1	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	1
93.2	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	1
93.3	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
94.1	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	1
94.2	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
95.1	---	---	---	---	---	1	---	---	---	1	---	---	---	---	---	1
95.2	---	---	---	---	1	---	---	---	---	---	---	---	---	---	1	1
95.3	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
95.4	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
95.5	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	1
95.6	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
96.1	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
96.2	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
96.3	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
96.4	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
97.1	---	---	---	---	1	---	---	---	---	---	---	---	---	---	1	1
97.2	---	---	---	---	---	---	1	---	---	---	---	---	---	---	1	1
98.1	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
98.2	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	1
98.3	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
98.5	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
99.1	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
99.2	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
100.1	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
100.2	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	1
SUBTOTAL	1	1	3	0	11	3	35	0	0	6	5	0	35	0	3	54
9200-04-71 TOT	2	4	11	1	45	21	134	4	2	20	25	43	96	6	16	225

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

* = ADDITIONAL QUANTITIES LISTED ELSEWHERE | ALL QUANTITIES ARE CATEGORY 0010 UNLESS NOTED

PROJECT NO: 9200-04-71 | HWY: STH 29 | COUNTY: BROWN | MISCELLANEOUS QUANTITIES | SHEET 215 E

CONSTRUCTION STAKING

LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB AND GUTTER LF	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT .01 B-5-29 LS	.02 B-5-402 LS	.03 B-5-403 LS	.04 R-5-105 LS	.05 R-5-106 LS	.06 R-5-107 LS	.07 R-5-108 LS	.08 R-5-109 LS	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF	650.8500 CONSTRUCTION STAKING ELECTRICAL SERVICE LS	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
STAGE 1															
NAVAJO	300	300	-	-	-	-	-	-	-	-	-	-	-	-	300
CENTENNIAL CENTRE BOULEVARD	6,050	6,050	5,740	-	-	-	-	-	-	-	-	-	-	-	3,150
FOREST	580	580	-	-	-	-	-	-	-	-	-	-	-	-	590
STH 29/RAMPS EB	3,300	-	-	-	-	-	-	-	-	-	-	3,300	-	-	4,420
STH 29/RAMPS WB	2,420	-	-	-	-	-	-	-	-	-	-	2,420	-	-	7,220
STH 29	16,670	2,960	-	-	-	-	-	-	-	-	-	16,670	-	-	-
INTERCHANGE ROUNDABOUTS & RAMPS	-	-	6,660	-	-	-	-	-	-	-	-	-	-	-	5,710
CTH FF	3,130	3,130	9,935	-	-	-	-	-	-	-	-	-	-	-	4,720
SHERWOOD STREET TEMPORARY WINTER PAVING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,340
CATHERINE DRIVE CUL DE SAC	170	170	-	-	-	-	-	-	-	-	-	-	-	-	150
SUBTOTAL	32,620	13,190	22,335	0	0	0	0	0	0	0	0	22,390	0	0	27,600
STAGE 2															
SHERWOOD STREET/CTH C (SHAWANO AVENUE)	3,230	3,230	10,485	-	-	-	-	-	-	-	-	-	-	-	2,480
WOODLAND ROAD CUL DE SAC	170	170	-	-	-	-	-	-	-	-	-	-	-	-	150
SUBTOTAL	3,400	3,400	10,485	0	0	0	0	0	0	0	0	0	0	0	2,630
STAGE 3															
WOODLAND ROAD	1,550	1,550	-	-	-	-	-	-	-	-	-	-	-	-	1,150
SUBTOTAL	1,550	1,550	0	0	0	0	0	0	0	0	0	0	0	0	1,150
DRIVEWAYS															
FOREST DRIVE	280	-	-	-	-	-	-	-	-	-	-	280	-	-	-
CTH C - 398+00 LT	135	-	-	-	-	-	-	-	-	-	-	135	-	-	-
CTH C - 398+00 RT	150	-	-	-	-	-	-	-	-	-	-	150	-	-	-
CTH FF - 225+00 LT	135	-	-	-	-	-	-	-	-	-	-	135	-	-	-
CTH FF - 260+00 LT	185	-	-	-	-	-	-	-	-	-	-	185	-	-	-
CATHERINE SIDEWALK	335	-	-	-	-	-	-	-	-	-	-	335	-	-	-
PROJECT	-	-	-	1	1	1	1	1	1	1	1	-	1	1	-
SUBTOTAL	1,220	0	0	1	1	1	1	1	1	1	1	1,220	1	1	0
TOTAL	38,790	18,140	32,820	1	1	1	1	1	1	1	1	23,610	1	1	31,380

REMOVING FENCE

LOCATION	STATION	TO	STATION	204.0170 LF
CTH FF	231+40		237+46	610
CTH FF	240+94		245+25	440
CTH FF - NE RAMP	245+47		671+04	690
STH 29 WB	645+68		646+14	60
WOODLAND ROAD	60+50		62+30	210
9200-04-71 TOTAL				2,010

* = ADDITIONAL QUANTITIES LISTED ELSEWHERE | ALL QUANTITIES ARE CATEGORY 0010 UNLESS NOTED

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\030213_mq.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 200.0000 sf / in.
WISDOT/CADDS SHEET 43

Conduit Rigid Nonmetallic Schedule 40

LOCATION			
STH 29 & CTH FF		652.0225	652.0235
		2-Inch	3-Inch
FROM	TO	LF	LF
CB1	LB1	40	
LB1	LB2	130	
LB2	SW BRIDGE PARAPET	10	
NW BRIDGE PARAPET	LB4	30	
LB4	PB7	10	
PB7	LB5	80	
LB5	LB6	110	
LB6	LB7	80	
LB7	PB8	10	
PB8	PB9		100
PB9	LB8	50	
LB8	LB9	80	
LB9	LB10	90	
LB10	LB11	90	
LB11	PB10	10	
PB10	PB7		100
PB10	LB12	90	
LB12	NE BRIDGE PARAPET	10	
SE BRIDGE PARAPET	PB2	30	
PB2	PB1		80
PB1	CB1		100
PB2	LB14	10	
LB14	LB15	80	
LB15	LB16	100	
LB16	LB17	80	
LB17	PB3	30	
PB3	LB18	80	
PB3	PB4		70
PB4	LB19	10	
PB4	PB5		110
PB5	LB20	30	
LB20	PB6	80	
PB6	LB21	10	
PB6	CB1		60
CONDUIT FOR UTILITY USE		40	
	TOTAL	1,500	620

Removing Concrete Bases

	204.0195
LOCATION	EACH
STH 29 & CTH FF	2

Pull Boxes Steel

	653.0140
	24x42-Inch
LOCATION	EACH
STH 29 & CTH FF	10

Concrete Bases

		654.0215
		Control
	654.0105	Cabinet
	Type 5	Type 9
LOCATION	EACH	EACH
STH 29 & CTH FF	19	1

Electric Service

	SPV.0105.01
	Meter Breaker Pedestal
	Black
LOCATION	LS
STH 29 & CTH FF	1

Lighting Summary

	SPV.0060.01	SPV.0060.02	SPV.0060.03	SPV.0060.04
	Transformer Bases	Poles	Luminaire Arms	LED
	Breakaway	Type 5	Truss Type	Luminaire
	11 1/2-Inch	(Aluminum)	4 1/2-Inch Clamp	LED-A
	Bolt Circle	Black	12-FT	Black
	Black		Black	
LOCATION	EACH	EACH	EACH	EACH
STH 29 & CTH FF	19	21	21	21

PLAN SHEET PRODUCED

BY WisDOT - NE Region Traffic Unit

Electrical Wire Lighting 10AWG

LOCATION		655.0615
STH 29 & CTH FF		Equipment
		Grounding
(240 VOLT SYSTEM)		Conductor
		(Green)
FROM	TO	LF
CB1	LB1	60
LB1	LB2	150
LB2	LB3	160
LB3	LB4	200
LB4	PB7	30
LB4	LB5	120
LB5	LB6	130
LB6	LB7	100
LB7	PB8	30
LB7	LB8	200
LB8	PB9	70
LB8	LB9	100
LB9	LB10	110
LB10	LB11	110
LB11	PB10	30
LB11	LB12	130
LB12	LB13	180
LB13	LB14	190
LB14	PB2	30
LB14	LB15	100
LB15	LB16	120
LB16	LB17	100
LB17	PB3	50
LB17	LB18	140
LB18	LB19	200
LB19	PB4	30
LB19	LB20	200
LB20	PB5	50
LB20	LB21	120
LB21	PB6	30
LB21	CB1	100
	TOTAL	3,370

Electrical Wire Lighting

			10AWG	12AWG	
LOCATION					655.0610
STH 29 & CTH FF			655.0615	655.0610	Equipment
			Ungrounded	Ungrounded	Grounding
(240 VOLT SYSTEM)			Conductor	Conductor	Conductor
			(see Circuit Color)	(Black)/(Red)	(Green)
Circuit	FROM	TO	LF	LF	LF
A	CB1	LB1	120		
(Black)	LB1	Luminaire		100	50
	LB1	LB3	600		
	LB3	Luminaire		100	50
	LB3	LB5	640		
	LB5	Luminaire		100	50
	LB5	LB7	460		
	LB7	Luminaire		100	50
B	CB1	LB2	400		
(Red)	LB2	Luminaire		100	50
	LB2	LB4	720		
	LB4	Luminaire		100	50
	LB4	LB6	500		
	LB6	Luminaire		100	50
C	CB1	LB13	760		
(Blue)	LB13	Luminaire		100	50
	LB13	LB11	600		
	LB11	Luminaire		100	50
	LB11	LB9	440		
	LB9	Luminaire		100	50
D	CB1	LB12	1120		
(Brown)	LB12	Luminaire		100	50
	LB12	LB10	480		
	LB10	Luminaire		100	50
	LB10	LB8	420		
	LB8	Luminaire		100	50
E	CB1	LB20	340		
(Orange)	LB20	Luminaire		100	50
	CB1	LB14	460		
	LB14	Luminaire		100	50
	LB14	LB16	440		
	LB16	Luminaire		100	50
	LB16	LB18	480		
	LB18	Luminaire		100	50
F	CB1	LB21	200		
(Yellow)	LB21	Luminaire		100	50
	CB1	LB15	660		
	LB15	Luminaire		100	50
	LB15	LB17	440		
	LB17	Luminaire		100	50
	LB17	LB19	300		
	LB19	Luminaire		100	50
		SUB-TOTALS	10,580	2,100	1,050
		TOTAL	10,580	3,150	

PLAN SHEET PRODUCED

BY WisDOT - NE Region Traffic Unit

9200-04-71 PAVEMENT MARKING SUMMARY SHEET 1 OF 4

CATEGORY	STATION	TO	STATION	LOCATION	646.0106 4-INCH EPOXY YELLOW LF	646.0106 4-INCH EPOXY WHITE LF	646.0126 8-INCH EPOXY WHITE LF	646.0136 12-INCH EPOXY WHITE LF	646.0156 18-INCH EPOXY WHITE LF	647.0606 ISLAND NOSE EPOXY YELLOW EACH	647.0726 DIAGONAL EPOXY 12-INCH LF	647.0856 CONCRETE CORRUGATED MEDIAN YELLOW SF	647.0356 WORDS EPOXY EACH	647.0166 ARROWS TYPE 2 EPOXY EACH	REMARKS
STH 29/ 32															
0010	626+50	-	710+25	STH 29/32 EB	8400	2100	-	-	-	-	-	-	-	-	YELLOW EDGELINE/ WHITE SKIPS
0010	626+50	-	651+00	STH 29/32 EB	-	2450	-	-	-	-	-	-	-	-	EDGELINE
0010	656+00	-	682+00	STH 29/32 EB	-	2600	-	-	-	-	-	-	-	-	EDGELINE
0010	686+00	-	710+25	STH 29/32 EB	-	2450	-	-	-	-	-	-	-	-	EDGELINE
0010	651+00	-	656+00	STH 29/32 EB	-	-	700	-	-	-	230	-	-	-	WHITE, GORE & CHEVRONS
0010	682+00	-	686+00	STH 29/32 EB	-	-	1450	-	-	-	-	-	-	-	GORE
0010	630+00	-	703+00	STH 29/32 WB	7300	1850	-	-	-	-	-	-	-	-	YELLOW EDGELINE/ WHITE SKIPS
0010	630+00	-	648+00	STH 29/32 WB	-	1800	-	-	-	-	-	-	-	-	EDGELINE
0010	654+00	-	673+00	STH 29/32 WB	-	1900	-	-	-	-	-	-	-	-	EDGELINE
0010	675+00	-	703+00	STH 29/32 WB	-	2800	-	-	-	-	-	-	-	-	EDGELINE
0010	648+00	-	654+00	STH 29/32 WB	-	-	1300	-	-	-	-	-	-	-	GORE
0010	673+00	-	675+00	STH 29/32 WB	-	-	500	-	-	-	140	-	-	-	WHITE, GORE & CHEVRONS
CTH FF & NAVAJO TRAIL ROUNDABOUT (SOUTH LEG)															
0010	219+75	-	222+75	CTH FF NB	600	-	-	-	-	-	-	-	-	-	DOUBLE YELLOW
0010	219+75	-	222+75	CTH FF SB	600	-	-	-	-	-	-	-	-	-	DOUBLE YELLOW
0010	219+75	-	222+75	CTH FF	-	-	-	-	-	-	120	-	-	-	YELLOW, SOUTH LEG GORE
0010	222+75			CTH FF	-	-	-	-	-	1	-	-	-	-	
0010	229+90			CTH FF NB, SB	-	-	-	70	-	-	-	-	-	-	NB & SB CTH FF CROSSWALK
0010	230+10			CTH FF	-	-	85	-	-	-	-	-	-	-	
0010	230+10			CIRCLE	-	-	-	-	22	-	-	-	-	-	NB CTH FF ENTRACNCE
0010	229+70			CTH FF SB	-	-	-	-	-	-	40	-	-	-	YELLOW, SOUTH LEG EXIT
0010	219+75	-	229+75	CTH FF NB, SB	-	2100	-	-	-	-	-	-	-	-	EDGELINE
CTH FF & NAVAJO TRAIL ROUNDABOUT (EAST LEG)															
0010	EAST LEG			NAVAJO TRAIL	-	500	-	-	-	-	-	-	-	-	EB, WB EDGELINE
0010	EAST LEG			NAVAJO TRAIL	600	-	-	-	-	-	-	-	-	-	DOUBLE YELLOW
0010	EAST LEG			NAVAJO TRAIL	150	-	-	-	-	-	-	-	-	-	EDGELINE
0010	EAST LEG			NAVAJO TRAIL	-	-	-	-	-	1	-	-	-	-	
0010	EAST LEG			NAVAJO TRAIL	-	-	75	-	-	-	-	-	-	-	
0010	EAST LEG			NAVAJO TRAIL	-	-	-	-	-	-	20	-	-	-	YELLOW, EAST LEG EXIT
0010	EAST LEG			NAVAJO TRAIL	-	-	-	70	-	-	-	-	-	-	EB, WB CROSSWALK
0011	EAST LEG			NAVAJO TRAIL	-	-	-	-	22	-	-	-	-	-	WB ENTRANCE
0010	EAST LEG			NAVAJO TRAIL	-	-	-	-	-	-	20	-	-	-	YELLOW, EAST LEG GORE
CTH FF & NAVAJO TRAIL ROUNDABOUT (WEST LEG)															
0010	WEST LEG			GOLDEN POND PARK RD	-	1100	-	-	-	-	-	-	-	-	EDGELINE
0011	WEST LEG			GOLDEN POND PARK RD	500	-	-	-	-	-	-	-	-	-	DOUBLE YELLOW CENTERLINE
0012	WEST LEG			GOLDEN POND PARK RD	200	-	-	-	-	-	-	-	-	-	DOUBLE YELLOW GORE
0013	WEST LEG			GOLDEN POND PARK RD	250	-	-	-	-	-	-	-	-	-	EDGELINE
0014	WEST LEG			GOLDEN POND PARK RD	-	-	80	-	-	-	-	-	-	-	
0015	WEST LEG			GOLDEN POND PARK RD	-	-	-	-	52	-	-	-	-	-	EB ENTRANCE
0016	WEST LEG			GOLDEN POND PARK RD	-	-	-	95	-	-	-	-	-	-	EB, WB CROSSWALK
0017	WEST LEG			GOLDEN POND PARK RD	-	-	-	-	-	1	-	-	-	-	
0018	WEST LEG			GOLDEN POND PARK RD	-	-	-	-	-	-	100	-	-	-	YELLOW, EB LANE GORE
				*SHEET 1 OF 4 TOTALS	18600	21650	4190	235	96	3	670	-	-	-	

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

9200-04-71 PAVEMENT MARKING SUMMARY SHEET 2 OF 4

CATEGORY	STATION TO STATION	LOCATION	646.0106 4-INCH EPOXY YELLOW LF	646.0106 4-INCH EPOXY WHITE LF	646.0126 8-INCH EPOXY WHITE LF	646.0136 12-INCH EPOXY WHITE LF	646.0156 18-INCH EPOXY WJITE LF	647.0606 ISLAND NOSE EPOXY YELLOW EACH	647.0726 DIAGONAL EPOXY 12-INCH LF	647.0856 CONCRETE CORRUGATED MEDIAN YELLOW SF	647.0356 WORDS EPOXY EACH	647.0166 ARROWS TYPE 2 EPOXY EACH	REMARKS
CTH FF & NAVAJO TRAIL ROUNDABOUT (NORTH LEG)													
0010	230+70 - 240+00	CTH FF NB, SB	-	1850	-	-	-	-	-	-	-	-	EDGELINE
0010	232+40 - 233+20	CTH FF SB	-	-	80	-	-	-	-	-	-	-	SB ISLAND GORE
0010	230+70	CIRCLE	-	-	-	-	58	-	-	-	-	-	SB & TURN LANE ENTRANCE
0010	233+20 - 234+40	CTH FF SB	-	-	50	-	-	-	-	-	-	-	SB TURN LANE SKIPS
0010	230+70	CTH FF	-	-	105	-	-	-	-	-	-	-	
0010	231+80	CTH FF NB, SB	-	-	-	100	-	-	-	-	-	-	CTH FF NB, SB CROSSWALKS
0010	230+70 - 231+30	CTH FF NB	-	-	-	-	-	-	35	-	-	-	YELLOW, NORTH LEG EXIT
CTH FF & STH 29/32 SOUTH ROUNDABOUT (SOUTH LEG)													
0010	240+00 - 246+75	CTH FF NB, SB	-	1350	-	-	-	-	-	-	-	-	EDGELINE
0010	244+00 - 245+00	CTH FF NB	-	-	100	-	-	-	-	-	-	-	NB TURN LANE
0010	245+00 - 245+50	CTH FF NB	-	-	125	-	-	-	-	-	-	-	NB TURN LANE GORE
0010	246+75	CTH FF	-	-	105	-	-	-	-	-	-	-	
0010	246+75	CIRCLE	-	-	-	-	34	-	-	-	-	-	NB ENTRANCE
0010	246+50	CTH FF NB, SB	-	-	-	105	-	-	-	-	-	-	NB, SB, TURN LANE CROSSWALKS
0010	246+00 - 246+75	CTH FF SB	-	-	-	-	-	-	35	-	-	-	YELLOW, SOUTH LEG EXIT
CTH FF & STH 29/32 SOUTH ROUNDABOUT (EAST LEG)													
0010	EAST LEG	SE ENTRANCE RAMP	-	3525	-	-	-	-	-	-	-	-	EDGELINE
0010	EAST LEG	SE ENTRANCE RAMP	-	125	-	-	-	-	-	-	-	-	MERGE LANE SKIPS
0010	EAST LEG	SE ENTRANCE RAMP	-	-	275	-	-	-	-	-	-	-	ISLAND GORE AREA
0010	EAST LEG	SE ENTRANCE RAMP	-	-	-	30	-	-	-	-	-	-	CROSSWALK
CTH FF & STH 29/32 SOUTH ROUNDABOUT (WEST LEG)													
0010	WEST LEG	SW EXIT RAMP	1100	-	-	-	-	-	-	-	-	-	EDGELINE
0010	WEST LEG	SW EXIT RAMP	-	1700	-	-	-	-	-	-	-	-	EDGELINE
0010	WEST LEG	SW EXIT RAMP	-	-	-	-	50	-	-	-	-	-	EB STH 29 ENTRANCE
0010	WEST LEG	SW EXIT RAMP	-	-	-	35	-	-	-	-	-	-	CROSSWALK
CTH FF & STH 29/32 SOUTH ROUNDABOUT (NORTH LEG)													
0010	248+30 - 252+00	CTH FF NB, SB	-	975	-	-	-	-	-	-	-	-	EDGELINE
0010	248+30	CTH FF	-	-	70	-	-	-	-	-	-	-	
0010	248+30	CIRCLE	-	-	-	-	44	-	-	-	-	-	SB ENTRANCE
CTH FF & STH 29/32 NORTH ROUNDABOUT (SOUTH LEG)													
0010	252+00 - 252+80	CTH FF NB, SB	-	540	-	-	-	-	-	-	-	-	EDGELINE
0011	252+80	CTH FF	-	-	75	-	-	-	-	-	-	-	
0010	252+80	CIRCLE	-	-	-	-	40	-	-	-	-	-	NB ENTRANCE
CTH FF & STH 29/32 NORTH ROUNDABOUT (EAST LEG)													
0010	EAST LEG	NE EXIT RAMP	-	1150	-	-	-	-	-	-	-	-	EDGELINE
0011	EAST LEG	NE EXIT RAMP	900	-	-	-	-	-	-	-	-	-	EDGELINE
0012	EAST LEG	NE EXIT RAMP	-	-	70	-	-	-	-	-	-	-	
0013	EAST LEG	NE EXIT RAMP	-	-	-	-	54	-	-	-	-	-	WB & TURN LANE ENTRANCE
0014	EAST LEG	NE EXIT RAMP	-	-	-	60	-	-	-	-	-	-	CROSSWALK
		SHEET 2 OF 4 TOTALS	2000	11215	1330	330	280	-	70	-	-	-	

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

9200-04-71 PAVEMENT MARKING SUMMARY SHEET 3 OF 4

CATEGORY	STATION TO STATION	LOCATION	646.0106 4-INCH EPOXY YELLOW LF	646.0106 4-INCH EPOXY WHITE LF	646.0126 8-INCH EPOXY WHITE LF	646.0136 12-INCH EPOXY WHITE LF	646.0156 18-INCH EPOXY WHITE LF	647.0606 ISLAND NOSE EPOXY YELLOW EACH	647.0726 DIAGONAL EPOXY 12-INCH LF	647.0856 CONCRETE CORRUGATED MEDIAN YELLOW SF	647.0356 WORDS EPOXY EACH	647.0166 ARROWS TYPE 2 EPOXY EACH	REMARKS
CTH FF & STH 29/32 NORTH ROUNDABOUT (WEST LEG)													
0010	WEST LEG	NW ENTRANCE RAMP	-	900	-	-	-	-	-	-	-	-	EDGELINE
0010	WEST LEG	NW ENTRANCE RAMP	925	-	-	-	-	-	-	-	-	-	EDGELINE
0010	WEST LEG	NW ENTRANCE RAMP	-	-	50	-	-						EXIT CORNER
0010	WEST LEG	NW ENTRANCE RAMP	-	-	-	40	-	-	-	-	-	-	CROSSWALK
CTH FF & STH 29/32 NORTH ROUNDABOUT (NORTH LEG)													
0010	254+30 - 265+00	CTH FF NB, SB	-	2000		-	-	-	-	-	-	-	EDGELINE
0010	254+30	CTH FF	-	-	120	-	-	-	-	-	-	-	
0010	254+30	CIRCLE	-	-	-	-	44	-		-	-	-	SB ENTRANCE
0010	254+45	CTH FF NB, SB	-	-	-	75	-	-	-	-	-	-	CROSSWALK
CTH FF & WOODLAND RD INTERSECTION													
0010	265+00 - 266+50	CTH FF NB, SB	-	500	-	-	-	-	-	-	-	-	EDGELINE
0010	667+45	CTH FF	-	-	-	-	-	1	-	-	-	-	
0010	267+50 - 269+00	CTH FF NB, SB	-	300	-	-	-	-	-	-	-	-	EDGELINE
0010	265+00 - 266+50	CTH FF	-	-	-	-	-	-	-	420	-	-	
0010	264+30 - 266+50	CTH FF NB	-	-	220	-	-	-	-	-	-	-	TURN LANE
0010	263+45 - 264+30	CTH FF NB	-	-	24	-	-	-		-	-	-	TURN LANE SKIPS
0010	265+00 - 266+50	CTH FF NB	-	-		-	-	-	-	-	-	2	NB TURN LANE
0010	265+00 - 266+50	CTH FF NB	-	-		-	-	-	-	-	1	-	"ONLY"
0010	EAST	WOODLAND DRIVE	75	150	-	-	-	-	-	-	-	-	EDGE & CENTER LINE
0010	WEST	WOODLANE DRIVE	150	300	-	-	-	-	-	-	-	-	EDGE & CENTER LINE
CTH FF & CTH C ROUNDABOUT (SOUTH LEG)													
0010	269+00 - 272+70	CTH FF NB, SB	-	800	-	-	-	-	-	-	-	-	EDGELINE
0010	272+70	CTH FF	-	-	110	-	-	-	-	-	-	-	
0010	272+70	CIRCLE	-	-	-	-	50	-	-	-	-	-	NB ENTRANCE
0010	272+55	CTH FF NB, SB	-		-	70	-	-	-	-	-	-	NB & SB CROSSWALK
0010	272+30 - 272+70	CTH FF SB	-	-	-	-	-	-	25	-	-	-	YELLOW, SB EXIT GORE
CTH FF & CTH C ROUNDABOUT (EAST LEG)													
0010	EAST LEG	CTH C	-	1200	-	-	-	-	-	-	-	-	EDGELINE
0010	EAST LEG	CTH C	650	-	-	-	-	-	-	-	-	-	GORE DOUBLE YELLOW
0010	EAST LEG	CTH C	350	-	-	-	-	-	-	-	-	-	DOUBLE YELLOW BEYOND THE GORE
0010	EAST LEG	CTH C	-	-	-	-	-	-	45	-	-	-	YELLOW, EAST GORE
0010	EAST LEG	CTH C	-	-	-	-	-	1	-	-	-	-	
0010	EAST LEG	CTH C	-	-	-	-	-	-	45	-	-	-	YELLOW,EB EXIT
0010	EAST LEG	CTH C	-	-	110	-	-	-	-	-	-	-	
0010	EAST LEG	CTH C	-	-	-	-	40	-	-	-	-	-	WB ENTRANCE
0010	EAST LEG	CTH C	-	-	-	65	-	-	-	-	-	-	EB & WB CROSSWALK
	*SHEET 3 OF 4 TOTALS		2150	6150	634	250	134	2	115	420	1	2	

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

9200-04-71 PAVEMENT MARKING SUMMARY SHEET 4 OF 4

CATEGORY	STATION TO STATION	LOCATION	646.0106 4-INCH EPOXY YELLOW LF	646.0106 4-INCH EPOXY WHITE LF	646.0126 8-INCH EPOXY WHITE LF	646.0136 12-INCH EPOXY WHITE LF	646.0156 18-INCH EPOXY WHITE LF	647.0606 ISLAND NOSE EPOXY YELLOW EACH	647.0726 DIAGONAL EPOXY 12-INCH LF	647.0856 CONCRETE CORRUGATED MEDIAN YELLOW SF	647.0356 WORDS EPOXY EACH	647.0166 ARROWS TYPE 2 EPOXY EACH	REMARKS
CTH FF & CTH C ROUNDABOUT (WEST LEG)													
0010	WEST LEG	CTH C	-	1300	-	-	-	-	-	-	-	-	EDGELINE
0010	WEST LEG	CTH C	700	-	-	-	-	-	-	-	-	-	GORE DOUBLE YELLOW
0010	WEST LEG	CTH C	700	-	-	-	-	-	-	-	-	-	DOUBLE YELLOW BEYOND THE GORE
0010	WEST LEG	CTH C	200	-	-	-	-	-	-	-	-	-	EDGELINE
0010	WEST LEG	CTH C	-	-	-	-	-	1	-	-	-	-	
0010	WEST LEG	CTH C	-	-	-	-	-	-		-	-	-	YELLOW,EB EXIT
0010	WEST LEG	CTH C	-	-	110	-	-	-	-	-	-	-	
0010	WEST LEG	CTH C	-	-	-	-	44	-	-	-	-	-	EB ENTRANCE
0010	WEST LEG	CTH C	-	-	-	55	-	-	-	-	-	-	EB & WB CROSSWALK
SIDEROADS													
0010		WOODLAND RD	300	-	-	-	-	-	-	-	-	-	SKIPS
0010		SUNLITE DRIVE	1100	-	-	-	-	-	-	-	-	-	SKIPS
0010		FOREST RD	900	-	-	-	-	-	-	-	-	-	DOUBLE YELLOW
0010		GOLDEN POND COURT	1500	1800	-	-	-	-	-	-	-	-	DOUBLE YELLOW/ WHITE EDGELINE
		*SHEET 4 OF 4 TOTALS	5400	3100	110	55	44	1	-	-	-	-	
		PROJECT TOTALS	28150	42115	6398	870	554	5	855	660	2	3	

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

3

ERECTION OF TYPE II SIGNS AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	W X H	637.0202 SIGNS REFLECTIVE TYPE II S.F.	637.0402 SIGNS REFLECTIVE FOLDING TYPE II S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	REMARKS
1	STH 29 WB / STH 32 NB	R2-1	48" X 60"	20.00			2		65 MPH
2	"	S3-51	96" X 48"	32.00			2	1	
2A	"	W57-51	48" X 24"	8.00					MOUNT CENTERED BELOW SIGN #2, NEXT 21 MILES
3	"	S3-51	96" X 48"	32.00			2	1	
3A	"	W57-51	48" X 24"	8.00					MOUNT CENTERED BELOW SIGN #3, NEXT 21 MILES
4	"	J4-2	72" X 54"	27.00			1	1	WEST STH 29, NORTH STH 32, SEE PLAN SHEET
5	"	D10-3	12" X 48"	4.00		1			MILE 254
6	STH 29 EB / STH 32 SB	D10-3	12" X 48"	4.00		1			MILE 254
7 & 8	VACANT								
9	GOLDEN POND PARK CT	R1-1	30" X 30"	5.18		1			
10	GREENFIELD AVE	W1-1L	36" X 36"	9.00			1		FLUORSCENT REFLECTIVE SHEETING
10A	"	W13-1	24" X 24"	4.00					FLUORSCENT REFLECTIVE SHEETING, MOUNT BELOW SIGN #10
11	"	W1-6	48" X 24"	8.00		1			FLUORSCENT REFLECTIVE SHEETING
12	WOODLAND RD	W1-6	48" X 24"	8.00		1			FLUORSCENT REFLECTIVE SHEETING
13	"	W1-1R	36" X 36"	9.00			1		FLUORSCENT REFLECTIVE SHEETING
13A	"	W13-1	24" X 24"	4.00					FLUORSCENT REFLECTIVE SHEETING, MOUNT BELOW SIGN #13
14	CTH C / SHAWANO AVE	M1-5A	24" X 24"	4.00		1			
15	"	W2-6	30" X 30"	6.25			1		
16	"	W13-1	18" X 18"	2.25					FLUORSCENT REFLECTIVE SHEETING, MOUNTED BELOW SIGN #15
17	"	D1-62	108" X 60"	45.00			2	1	SEE SIGN DETAIL SHEET
18	"	R4-7	24" X 30"	5.00		1			
19	"	W3-2	36" X 36"	9.00		1			FLUORSCENT REFLECTIVE SHEETING
20	CTH C / SHAWANO AVE ROUNDABOUT	R1-2	36" X 31"	3.88			1		
21	"	R1-54	24" X 15"	2.50					MOUNT BELOW SIGN #20
22	"	R1-2	36" X 31"	3.88			1		
23	"	R6-2R	24" X 30"	5.00					MOUNT BELOW SIGN #21
24	"	D1-1	84" X 15"	8.75		2			SHAWANO AVE, SEE SIGN DETAIL SHEET
25	"	R6-1R	54" X 18"	6.75		2			
26	"	R6-4B	60" X 24"	10.00					MOUNT BELOW SIGN #25
27	"	R6-1R	54" X 18"	6.75		2			
28	"	R6-4B	60" X 24"	10.00					MOUNT BELOW SIGN #27
29	"	R1-2	36" X 31"	3.88			1		
30	"	R1-54	24" X 15"	2.50					MOUNT BELOW SIGN #29
31	"	R1-2	36" X 31"	3.88			1		
32	"	R6-2R	24" X 30"	5.00					MOUNT BELOW SIGN #31
33	CTH C / SHAWANO AVE ROUNDABOUT	D1-1	84" X 15"	8.75		2			SHAWANO AVE, SEE SIGN DETAIL SHEET
34	"	R6-1R	54" X 18"	6.75		2			
35	"	R6-4B	60" X 24"	10.00					MOUNT BELOW SIGN #34
36	CTH FF / SHERWOOD ST	W3-2	36" X 36"	9.00		1			FLUORSCENT REFLECTIVE SHEETING
37	CTH C / SHAWANO AVE	W3-2	36" X 36"	9.00			1		FLUORSCENT REFLECTIVE SHEETING
	PAGE SUBTOTALS			369.95	0.00	19	17	4	

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

ERECTION OF TYPE II SIGNS AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	W X H	637.0202 SIGNS REFLECTIVE TYPE II S.F.	637.0402 SIGNS REFLECTIVE FOLDING TYPE II S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	REMARKS
38	CTH C / SHAWANO AVE	D1-62	108" X 60"	45.00			2	1	SEE SIGN DETAIL SHEET
39	"	R4-7	24" X 30"	5.00		1			
40	"	W2-6	30" X 30"	6.25			1		FLUORSCENT REFLECTIVE SHEETING
41	"	W13-1	18" X 18"	2.25					FLUORSCENT REFLECTIVE SHEETING, 15 MPH, MOUNT BELOW SIGN #40
42	"	M1-5A	24" X 24"	4.00		1			CTH C
42A	WOODLAND RD	W5-56	18" X 18"	2.25		1			
42B	"	W5-56	18" X 18"	2.25		1			
42C	"	W5-56	18" X 18"	2.25		1			
43	CTH FF / SHERWOOD ST ROUNDABOUT	D1-1	84" X 30"	17.50		2			SHAWANO AVE, SEE SIGN DETAIL SHEET
44	"	R1-2	36" X 31"	3.88			1		
45	"	R6-2R	24" X 30"	5.00					MOUNT BELOW SIGN #44
46	"	R1-2	36" X 31"	3.88		1			
47	"	R1-54	24" X 15"	2.50					MOUNT BELOW SIGN #46
48	CTH FF / SHERWOOD ST	R3-20L	24" X 36"	6.00		1			
48A	"	M1-5A	24" X 24"	4.00		1			CTH FF
49	"	D1-62	144" X 42"	42.00			2	1	SEE SIGN DETAIL SHEET
50	"	R4-7	24" X 30"	5.00		1			
51	WOODLAND RD	R1-1	30" X 30"	5.18		1			
52	CTH FF / SHERWOOD ST	R4-7	24" X 30"	5.00		1			
53	WOODLAND RD	R1-1	30" X 30"	5.18		1			
54	"	W14-1	30" X 30"	6.25		1			
55	CTH FF / SHERWOOD ST	R3-20L	24" X 36"	6.00		1			
56	"	J1-2	48" X 39"	13.00		1	1		JCT STH 29, JCT STH 32, SEE PLAN SHEET
56A	"	R2-1	24" X 30"	5.00		1			35 MPH
57	"	D1-62	108" X 96"	72.00			2	1	SEE SIGN DETAIL SHEET
57A	"	W3-2	36" X 36"	9.00			1		FLUORSCENT REFLECTIVE SHEETING
58	CTH FF / SHERWOOD ST ROUNDABOUT	R1-2	36" X 31"	3.88			1		
59	"	R1-54	24" X 15"	2.50					MOUNT BELOW SIGN #58
59A	"	R1-2	48" X 42"	7.00		1			
60	CTH FF / SHERWOOD ST ROUNDABOUT	R1-2	36" X 31"	3.88			1		
61	"	R6-2R	24" X 30"	5.00					MOUNT BELOW SIGN #60
61A	CATHERINE DR DEAD END	W5-56	18" X 18"	2.25		1			
61B	"	W5-56	18" X 18"	2.25		1			
61C	"	W5-56	18" X 18"	2.25		1			
61D	"	W14-1	30" X 30"	6.25		1			
62	CTH FF / SHERWOOD ST ROUNDABOUT	D1-1	84" X 15"	8.75		2			SHERWOOD ST, SEE SIGN DETAIL SHEET
63	"	R6-1R	54" X 18"	6.75		2			
64	"	R6-4B	60" X 24"	10.00					MOUNT BELOW SIGN #63
	PAGE SUBTOTALS			346.38	0.00	27	12	3	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

3

ERECTION OF TYPE II SIGNS AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	W X H	637.0202 SIGNS REFLECTIVE TYPE II S.F.	637.0402 SIGNS REFLECTIVE FOLDING TYPE II S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	REMARKS
65	STH 29 WB / STH 32 NB OFF-RAMP ROUNDABOUT	R6-1R	54" X 18"	6.75		2			
66	"	R6-4B	60" X 24"	10.00					MOUNT BELOW SIGN #65
67	"	R1-2	48" X 42"	7.00			1		
68	"	R1-54	24" X 15"	2.50					MOUNT BELOW SIGN #67
69	"	R5-1	30" X 30"	6.25					MOUNT ON BACK OF SIGN #70
70	"	R1-2	48" X 42"	7.00			1		
71	"	R6-2R	24" X 30"	5.00					MOUNT BELOW SIGN #70
72	STH 29 WB / STH 32 NB OFF-RAMP	W12-1D	24" X 24"	4.00		1			
73	"	R5-1A	36" X 24"	6.00		1			
74	"	R3-8DD	36" X 30"	7.50		1			
75	"	W3-2	36" X 36"	9.00			1		FLUORSCENT REFLECTIVE SHEETING
76	"	D1-62	144" X 42"	42.00			2	2	
77	"	W2-6	36" X 36"	9.00			1		
78	"	W13-1	24" X 24"	4.00					FLUORSCENT REFLECTIVE SHEETING, 15 MPH, MOUNT BELOW SIGN #77
79	STH 29 WB / STH 32 NB	E5-1A	90" X 60"	37.50			2		EXIT 255
80	STH 29 WB / STH 32 NB OFF-RAMP ROUNDABOUT	R3-1	24" X 24"	4.00		1			
81	"	R1-2	36" X 31"	3.88			1		
82	"	R1-54	24" X 15"	2.50					
83	"	R1-2	36" X 31"	3.88			1		
84	"	R6-2R	24" X 30"	5.00					MOUNT BELOW SIGN #83
85	"	D1-2	84" X 30"	17.50		2			EAST STH 29, SOUTH STH 32, CTH FF, SEE SIGN DETAIL SHEET
86	"	R6-1R	54" X 18"	6.75		2			
87	"	R6-4B	60" X 24"	10.00					MOUNT BELOW SIGN #86
88	"	D1-2	72" X 30"	15.00			2		WEST STH 29, NORTH STH 32, SEE SIGN DETAIL SHEET
89	"	R11-54F	48" X 30"		10.00				MOUNT BELOW SIGN #88
90	STH 29 WB / STH 32 NB ON-RAMP	R5-57	36" X 36"	9.00		1			
91	STH 29 WB / STH 32 NB	W4-1	48" X 48"	16.00			2		
92	VACANT								
93	CTH FF	D1-62	108" X 60"	45.00			2	1	SEE SIGN DETAIL SHEET
94	"	D1-62	108" X 60"	45.00			2	1	SEE SIGN DETAIL SHEET
95	"	R1-2	36" X 31"	3.88			1		
96	"	R1-54	24" X 15"	2.50					MOUNT BELOW SIGN #95
97	"	R1-2	36" X 31"	3.88			1		
98	"	R6-2R	24" X 30"	5.00					MOUNT BELOW SIGN #97
	PAGE SUBTOTALS			362.27	10.00	11	20	4	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

ERECTION OF TYPE II SIGNS AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	W X H	637.0202 SIGNS REFLECTIVE TYPE II S.F.	637.0402 SIGNS REFLECTIVE FOLDING TYPE II S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	REMARKS
99	CTH FF ROUNDABOUT	D1-2	84" X 30"	17.50		2			WEST STH 29, NORTH STH 32, CTH FF, SEE SIGN DETAIL SHEET
100	"	R6-1R	54" X 18"	6.75		2			
101	"	R6-4B	60" X 24"	10.00					MOUNT BELOW SIGN #100
102	STH 29 EB / STH 32 SB OFF-RAMP ROUNDABOUT	R6-1R	54" X 18"	6.75		2			
103	"	R6-4B	60" X 24"	10.00					MOUNT BELOW SIGN #102
104	"	R6-1R	54" X 18"	6.75		2			
105	"	R6-4B	60" X 24"	10.00					MOUNT BELOW SIGN #104
106	"	D1-2	72" X 30"	15.00			2		EAST STH 29, SOUTH STH 32, SEE SIGN DETAIL SHEET
107	"	R11-54F	48" X 30"		10.00				MOUNT BELOW SIGN #106
108	STH 29 EB / STH 32 SB ON-RAMP	R5-57	36" X 36"	9.00			1		
109	"	W4-2R	36" X 36"	9.00			1		
110	STH 29 EB / STH 32 SB	W4-1	48" X 48"	16.00			2		
111	STH 29 EB / STH 32 SB OFF-RAMP ROUNDABOUT	R3-1	24" X 24"	4.00		1			
112	"	R1-2	48" X 42"	7.00			1		
113	"	R6-2R	24" X 30"	5.00					MOUNT BELOW SIGN #112
114	"	R5-1	30" X 30"	6.25					MOUNT ON BACK OF SIGN #112
115	"	R1-2	48" X 42"	7.00			1		
116	"	R1-54	24" X 15"	2.50					MOUNT BELOW SIGN #115
117	"	D1-1	84" X 15"	8.75			2		HILLCREST DR, SEE SIGN DETAIL SHEET
118	CTH FF ROUNDABOUT	R1-2	36" X 31"	3.88			1		
119	"	R6-2R	24" X 30"	5.00					MOUNT BELOW SIGN #118
120	"	R1-2	36" X 31"	3.88			1		
121	"	R1-54	24" X 15"	2.50					MOUNT BELOW SIGN #120
122	CTH FF	W12-1D	24" X 24"	4.00		1			
122A	"	W3-2	36" X 36"	9.00			1		FLUORSCENT REFLECTIVE SHEETING
123	"	R3-8DD	36" X 30"	7.50		1			
124	"	D1-62	108" X 96"	72.00			2	1	SEE SIGN DETAIL SHEET
125	STH 29 EB / STH 32 SB OFF-RAMP	W3-2	36" X 36"	9.00			1		FLUORSCENT REFLECTIVE SHEETING
126	"	D1-62	144" X 42"	42.00			2	2	SEE SIGN DETAIL SHEET
127	"	W2-6	36" X 36"	9.00			1		
128	"	W13-1	24" X 24"	4.00					FLUORSCENT REFLECTIVE SHEETING, 15 MPH, MOUNT BELOW SIGN #127
129	STH 29 EB / STH 32 SB	E5-1A	90" X 60"	37.50			2		EXIT 255
130	CTH FF	J1-2	48" X 39"	13.00			1		JCT STH 29, JCT STH 32, SEE PLAN SHEET
130A	"	R2-1	24" X 30"	5.00		1			35 MPH
131	"	D1-62	144" X 60"	60.00			2	2	SEE SIGN DETAIL SHEET
131A	"	W3-2	36" X 36"	9.00			1		FLUORSCENT REFLECTIVE SHEETING
132	"	R3-8DD	36" X 30"	7.50		1			
	PAGE SUBTOTALS			461.01	10.00	13	25	5	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

ERECTION OF TYPE II SIGNS AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	W X H	637.0202 SIGNS REFLECTIVE TYPE II S.F.	637.0402 SIGNS REFLECTIVE FOLDING TYPE II S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	REMARKS
133	CTH FF	W12-1D	24" X 24"	4.00		1			
134	CTH FF ROUNDABOUT	R1-2	36" X 31"	3.88			1		
135	"	R1-54	24" X 15"	2.50					MOUNT BELOW SIGN #134
136	"	R1-2	36" X 31"	3.88			1		
137	"	R6-2R	24" X 30"	5.00					MOUNT BELOW SIGN #136
138	"	D1-1	84" X 15"	8.75		2			HILLCREST DR, SEE SIGN DETAIL SHEET
139	"	R6-1R	54" X 18"	6.75		2			
140	"	R6-4B	60" X 24"	10.00					
141	"	R1-2	36" X 31"	3.88			1		
142	"	R1-54	24" X 15"	2.50					MOUNT BELOW SIGN #141
143	"	R1-2	36" X 31"	3.88			1		
144	"	R6-2R	24" X 30"	5.00					MOUNT BELOW SIGN #143
145	NAVAJO TRAIL	W3-2	36" X 36"	9.00			1		FLUORSCENT REFLECTIVE SHEETING
146	"	D1-62	108" X 72"	54.00			2	1	SEE SIGN DETAIL SHEET
147	"	W2-6	30" X 30"	6.25			1		
148	"	W13-1	18" X 18"	2.25					FLUORSCENT REFLECTIVE SHEETING, 15 MPH, MOUNT BELOW SIGN #147
149	NAVAJO TRAIL ROUNDABOUT	R4-7	24" X 30"	5.00		1			
150	"	D1-1	84" X 15"	8.75			2		NAVAJO TRAIL, SEE SIGN DETAIL SHEET
151	"	R6-1R	54" X 18"	6.75		2			
152	"	R6-4B	60" X 24"	10.00					MOUNT BELOW SIGN #151
153	CTH FF ROUNDABOUT	R1-2	36" X 31"	3.88			1		
154	"	R6-2R	24" X 30"	5.00					MOUNT BELOW SIGN #153
155	"	R1-2	36" X 31"	3.88			1		
156	"	R1-54	24" X 15"	2.50					MOUNT BELOW SIGN #155
157	"	W3-2	36" X 36"	9.00			1		
158	CTH FF	D1-62	144" X 60"	60.00			2	2	SEE SIGN DETAIL SHEET
159	"	W2-6	30" X 30"	6.25			1		
160	"	W13-1	18" X 18"	2.25					FLUORSCENT REFLECTIVE SHEETING, 15 MPH, MOUNT BELOW SIGN #159
161	"	R4-7	24" X 30"	5.00		1			
162	"	M1-5A	24" X 24"	4.00		1			CTH FF
163	"	R2-1	24" X 30"	5.00		1			35 MPH
164	CTH FF ROUNDABOUT	D1-2	84" X 15"	8.75			1		HILLCREST DR, SEE SIGN DETAIL SHEET
165	GOLDEN POND PARK CT ROUNDABOUT	R6-1R	54" X 18"	6.75		2			
166	"	R6-4B	60" X 24"	10.00					MOUNT BELOW SIGN #165
	PAGE SUBTOTALS			294.28	0.00	13	17	3	

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

ERECTION OF TYPE II SIGNS AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	W X H	637.0202 SIGNS REFLECTIVE TYPE II S.F.	637.0402 SIGNS REFLECTIVE FOLDING TYPE II S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	REMARKS
167	GOLDEN POND PARK CT ROUNDABOUT	R1-2	36" X 31"	3.88			1		
168	"	R1-54	24" X 15"	2.50					MOUNT BELOW SIGN #167
169	"	R1-2	36" X 31"	3.88			1		
170	"	R6-2R	24" X 30"	5.00					MOUNT BELOW SIGN #169
171	"	D1-2	114" X 24"	19.00			2		CENTENNIAL CENTRE BOULEVARD, SEE SIGN DETAIL SHEET
171A	"	R1-2	36" X 31"	3.88		1			
172	GOLDEN POND PARK CT	R4-7	24" X 30"	5.00					
173	"	W3-2	36" X 36"	9.00			1		
174	"	D1-62	108" X 60"	45.00			2	1	SEE SIGN DETAIL SHEET
175	"	W2-6	30" X 30"	6.25			1		
176	"	W13-1	18" X 18"	2.25					FLUORSCENT REFLECTIVE SHEETING, 15 MPH, MOUNT BELOW SIGN #175
177	CTH FF ROUNDABOUT	R6-1R	54" X 18"	6.75		2			
178	"	R6-4B	60" X 24"	10.00					MOUNT BELOW SIGN #177
179	STH 29 WB / STH 32 NB	D10-3	12" X 48"	4.00		1			MILE 255
180	STH 29 EB / STH 32 SB	D10-3	12" X 48"	4.00		1			MILE 255
181	"	R3-4B	36" X 48"	12.00			1		
181A	STH 29 WB / STH 32 NB	R3-4B	36" X 48"	12.00			1		
182	STH 29 EB / STH 32 SB	J4-2	72" X 54"	27.00			2		EAST STH 29, SOUTH STH 32, SEE PLAN SHEET
183	"	R2-1	48" X 60"	20.00			2		65 MPH
	PAGE SUBTOTALS			201.39	0.00	5	14	1	
	PROJECT TOTALS			2035.28	20.00	88	105	20	

ERECTION OF PERMANENT SIGNING, TYPE I AND SIGN SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	637.0101 SIGNS, TYPE I W	X	H	S.F.	635.0200 SIGN SUPPORTS STRUCT. STEEL HIGH-STRENGTH LB	636.0100 SIGN SUPPORTS CONCRETE MASONRY CY	636.0500 SIGN SUPPORTS STEEL REINFORCEMENT LB	636.1000 SIGN SUPPORTS STEEL REINFORCEMENT HS LB	TYPE/SIZE OF STEEL	641.1200 SIGN BRIDGE CANTILEVERED S-05-190 LS	INFO ONLY - POST LENGTH TO BE VERIFIED BY CONTRACTOR POST NO. 1 LENGTH FT	POST NO. 2 LENGTH FT	OFFSET DISTANCE FT	DISTANCE BETWEEN POSTS (S) FT	REMARKS
200	STH 29 EB / STH 32 SB	E3-1	276"	X	126"	241.50	990	1.6	98		2-TYPE B		22.5	25.5	30	13.8	SEE SIGN DETAIL
200A	"	E1-5P	132"	X	30"	27.50											MOUNTED ABOVE SIGN #200
201	STH 29 WB / STH 32 NB	E1-51	228"	X	156"	247.00	1059	1.6	98		2-TYPE B		25	27.5	30	11.4	SEE SIGN DETAIL
201A	"	E1-5P	132"	X	30"	27.50											MOUNTED ABOVE SIGN #202
202	STH 29 WB / STH 32 NB	E6-1	180"	X	156"	195.00		8		980		1					MOUNT ON S-05-190 CENTERED OVER LANE, SEE SIGN DETAIL
202A	"	E1-5P	132"	X	30"	27.50											MOUNTED ABOVE SIGN #204 ON S-05-190
203	STH 29 EB / STH 32 SB	E1-51	228"	X	156"	247.00	1059	1.6	98		2-TYPE B		25	27.5	30	11.4	SEE SIGN DETAIL
203A	"	E1-5P	132"	X	30"	27.50											MOUNTED ABOVE SIGN #206
	PROJECT TOTALS					1040.50	3108	12.80	294	980		1					

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

3

REMOVING, TYPE II SIGNS AND REMOVING SMALL SIGN SUPPORTS

SIGN	LOCATION	SIGN CODE	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
400	STH 29 EB / STH 32 SB	W3-5	1	2	55 MPH
401	"	W3-5	1	2	55 MPH
402	"	M1-94	1	2	SUNLITE DR
403	"	M1-94	1		WOODLAND RD, MOUNTED BELOW SIGN #402
404	GREENFIELD AVE	W3-1	1		
404A	"	R2-1	1	1	40 MPH
404B	"	D11-6	1		MOUNTED BELOW SIGN #404A
405	STH 29 EB / STH 32 SB	R5-1A	1	1	
406	"	R5-1	1	1	
407	STH 29 WB / STH 32 NB	J4-2	4	2	
408	WOODLAND RD	R6-2L	1	1	
409	"	R6-2R	1		MOUNTED ON BACKSIDE OF SIGN #408
410	"	R1-1	1	1	
411	"	R6-3	1		
412	STH 29/32 & WOODLAND RD INTERSECTION	R4-7	1	1	
413	SUNLITE DR	R3-1	1	1	
414	"	R1-1	1	1	
415	"	R6-3	1		MOUNTED BELOW SIGN #414
416	"	R6-2R	1	1	
417	"	R6-2L	1		MOUNTED ON BACKSIDE OF SIGN #414
418	"	R10-64	1	2	
419	"	I2-3	1		HOBART
420	"	W3-1	1	1	
420A	"	R5-98	1	1	
421	FOREST RD	R1-1	1	1	
422	"	R2-1	1	1	35 MPH
423	STH 29 EB / STH 32 SB	D10-3	1	2	MILE 254
424	FOREST RD	W11-2	1	1	
425	STH 29 EB / STH 32 SB	R2-1	1	1	55 MPH
426	"	R2-1	1	1	55 MPH
427	FOREST RD	W1-6	1	1	
427A	"	D12-50	1		MOUNTED BELOW SIGN #427
428	"	W1-6	1	1	
428A	"	W3-1	1	1	
429	WOODLAND RD	W1-6	1	1	
430	"	R3-1	1	1	
431	"	R4-7	1	1	
432	"	W3-1	1	1	
	PAGE SUBTOTALS		41	35	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

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REMOVING, TYPE II SIGNS AND REMOVING SMALL SIGN SUPPORTS

SIGN	LOCATION	SIGN CODE	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
433	GREENFIELD AVE	R1-1	1	1	
434	STH 29 WB / STH 32 NB	R5-1	1	1	
434A	WOODLAND RD	W1-7	1	1	
435	STH 29 WB / STH 32 NB	D10-3	1	1	
436	"	R2-1	1	1	65 MPH
436A	WOODLAND RD	R2-1	1	1	35 MPH
437	STH 29 WB / STH 32 NB	R5-1A	1	1	MOUNTED ON BACKSIDE OF SIGN #438
438	"	R2-1	1	1	65 MPH
439	"	M1-94	1	2	WOODLAND RD
440	"	M1-94	1		SUNLITE DR
441	STH 29 EB / STH 32 SB	J4-2	4	1	
442	"	R2-1	1	1	55 MPH
443	"	R2-1	1	1	55 MPH
444	"	J1-1	1	1	
445	"	R3-56L	1	1	
446	"	W2-1	1	1	
447	"	M1-94	1	2	SHERWOOD ST
448	"	R5-1A	1	1	
449	"	I55-56	1	1	
450	"	R5-1	1	1	
451	SHERWOOD ST	J3-2	6	1	
452	"	R6-2R	1		MOUNTED ON BACKSIDE OF SIGN #451
453	"	R1-1	1	1	
454	"	R6-3	1		MOUNTED ON BACKSIDE OF SIGN #453
455	"	R7-66	1	1	
456	"	W3-1	1	1	
457	"	R2-1	1	1	
458	"	D11-6	1		MOUNTED BELOW SIGN #457
459	"	I2-3	1	1	HOWARD
460	STH 29 EB / STH 32 SB	R4-7	1	1	
461	"	R3-1	1	1	
462	STH 29 WB / STH 32 NB	J13-1	2	1	
463	"	R4-7	1	1	
464	"	R5-1	1	1	MOUNTED ON BACKSIDE OF SIGN #465
465	"	J13-1	2		
466	"	R5-1A	1	1	
467	"	W2-1	1	1	
468	"	R3-56L	1	1	
469	"	J1-1	2	1	
470	CATHERINE DR	R1-1	1	1	
471	"	R2-1	1	1	35 MPH
	PAGE SUBTOTALS		52	38	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

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REMOVING, TYPE II SIGNS AND REMOVING SMALL SIGN SUPPORTS

SIGN	LOCATION	SIGN CODE	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
472	STH 29 EB / STH 32 SB	J13-1	2	1	
473	"	R3-1	1	1	
474	CTH FF	R1-1	1	1	
475	"	R6-3	1	1	
476	"	R2-1	1	1	45 MPH
477	"	I2-3	1	1	HOBART
478	"	R7-66	1	1	MOUNTED BELOW SIGN #477
479	GOLDEN POND PARK CT	R1-1	1	1	
480	CTH FF	R1-1	1	1	
481	"	R6-2L	1		MOUNTED ON BACKSIDE OF SIGN #481A
481A	"	J3-2	6	1	
482	STH 29 EB / STH 32 SB	I55-56	1	1	
483	"	R2-1	1	1	55 MPH
484	CTH FF	R10-64	1	1	
485	"	J1-2	4	1	
486	"	W3-1	1	1	
487	STH 29 WB / STH 32 NB	D10-3	1	1	MILE 255
488	STH 29 EB / STH 32 SB	D10-3	1	1	MILE 255
489	STH 29 WB / STH 32 NB	R3-4B	1	1	
490	"	R3-4B	1	1	
490A	"	R2-1	1	1	55 MPH
491	"	R59-51	1	1	
491A	"	S3-51	1	2	
491B	"	W57-51	1		NEXT 23 MILES
491C	"	S3-51	1	3	
491D	"	W57-51	1		NEXT 23 MILES
492	NAVAJO TRAIL	R1-1	1	1	
493	"	D12-50	1	1	
494	"	R2-1	1	1	25 MPH
495	WOODLAND RD	R1-1	1	1	
496	"	R1-1	1	1	
497	SHERWOOD ST	W3-1	1	1	
498	"	R1-1	1	1	
499	CTH C / SHAWANO AVE	R2-1	1	1	45 MPH
500	"	W1-7	1	1	
501	"	W1-2R	1	1	
502	WOODLAND RD	R1-1	1	1	
503	SHERWOOD ST	R2-1	1	1	
504	"	D11-6	1		MOUNTED BELOW SIGN #503
505	WOODLAND RD	R2-1	1	1	35 MPH
506	"	R2-1	1	1	35 MPH
	PAGE SUBTOTALS		50	40	
	PROJECT TOTALS		143	113	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

TRANSPORTATION PROJECT PLAT NO: 9200-04-21-4.01
AMENDMENT NUMBER 1

AMENDS PARCELS 3, 4 AND 5 OF TRANSPORTATION PROJECT PLAT 9200-04-21-4.01
RECORDED AS DOCUMENT #2576520 ON 06/04/2012
PART OF LOT 1, CSM #4525, OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4, AND PART OF LOT 1, CSM #4955, PART OF LOT 2, CSM#5709, WITHIN AND INCLUDING UNPLATTED LAND IN THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4, SECTION 13, T24N-R19E; PART OF LOT 1, CSM#8065, WITHIN AND INCLUDING UNPLATTED LANDS IN LOT 15, LOT 14, LOT 4 & LOT 3, SECTION 18, T24N-R20E; ALL LOCATED IN THE VILLAGE OF HOBART, BROWN COUNTY, WISCONSIN.

RELOCATION ORDER STH 29 BROWN 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.

CONVENTIONAL ABBREVIATIONS AND SYMBOLS

ACCESS POINT	AP	SECTION CORNER (MATERIAL AS NOTED)	
ACCESS RIGHTS	AR	SET R/W MONUMENT W/CAP (1-1/4" OUTSIDE DIA.x18" IRON PIPE 1.13 LBS/FT)	
ACRES	AC	SET P.K. NAIL	
CHORD BEARING	CH BRG	PROPOSED R/W BOUNDARY POINT	
CHORD DISTANCE	CH DIS		
DEED	(D)	CORPORATE LIMITS	
DOCUMENT	DOC	EXISTING R/W	
EAST BOUND	EB	SECTION LINE	
GAS VALVE	GV	QUARTER LINE	
INLET	IL	SIXTEENTH LINE	
LENGTH OF CURVE	L	PROPOSED OR NEW R/W LINE	
MANHOLE	MH	PROPOSED EASEMENT LINE	
MONUMENT	MON	PARCEL NUMBER	00
NORTH BOUND	NB	UTILITY NUMBER	000
PAGE	PG	PROPERTY LINE	PL
PERMANENT	PERM	LOT, TIE AND OTHER MINOR DASHED LINES	
PERMANENT LIMITED EASEMENT	PLE	ACCESS RESTRICED (By Previous Acquisition /Control)	
PRIVATE DRIVEWAY	PD	ACCESS RESTRICED (By Acquisition)	
PROPERTY LINE	PL	NO ACCESS (By Statutory Authority)	
RADIUS	RAD	LIMITED EASEMENT (Temporary or Permanent)	
REFERENCE LINE	℄		
REMAINING	REM		
RIGHT OF WAY	R/W		
SECTION	SEC		
SECTION LINE	¾		
FOUND IRON PIPE	IP ●		
STATION	STA		
TEMPORARY LIMITED EASEMENT	TLE		
TIE POINT	DB1		
VOLUME	VOL		
ADJOINING LANDS WITH SAME OWNER			
PARALLEL TO LINE	00'		
BUILDING TO BE RAZED			
FEE ACQUISITION	VARIOUS HATCHING		

FIBER OPTIC LINE	FO	
TELEPHONE LINE	T	
BURIED GAS LINE	G	
SANITARY SEWER LINE	SAN	
BURIED WATER LINE	W	
BURIED ELECTRIC LINE	E	
OVERHEAD ELECTRIC LINE	OH	

	COMPENSABLE	NON-COMPENSABLE
POWER POLE	●	○
TELEPHONE POLE	●	○
SIGN	▶	▷
TELEPHONE PEDESTAL	×	×

RESERVE FOR CLAUSES AND NOTE INFORMATION

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS AND ARE REFERENCED TO THE US PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

RIGHT OF WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

AREAS SHOWN IN THE TOTAL ACRES COLUMN OF THE SCHEDULE OF LANDS & INTEREST TABLE MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

COORDINATES AS SHOWN ARE NOT INTENDED TO BE USED FOR RETRACEMENT PURPOSES AND MUST BE VERIFIED WITH THE COUNTY SURVEY DEPARTMENT.

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, BROWN COUNTY ZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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 AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING RIGHT OF WAY WAS ACQUIRED FROM PROJECT(S):
R/W PROJECT NO. E 0-0 (62), CSM OF RECORD & COUNTY MAPS

EXISTING ACCESS CONTROL WAS ACQUIRED UNDER PROJECT(S):

STH 29 IN BROWN COUNTY WAS DESIGNATED AS A FREEWAY UNDER SECTION 84.295 OF THE WISCONSIN STATUTES BY THE HIGHWAY COMMISSION ON 3/18/08, DOC.#2364054.

RIGHT OF WAY REFERENCE LINE AND SECTION LINE ALONG CTH "FF" ARE THE SAME. RIGHT OF WAY REFERENCE LINE MAY NOT BE THE SAME AS THE CONSTRUCTION REFERENCE LINE.

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 REQUIREDFOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE TO PREVENT EROSION OF THE SOIL. ALL TLEs ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

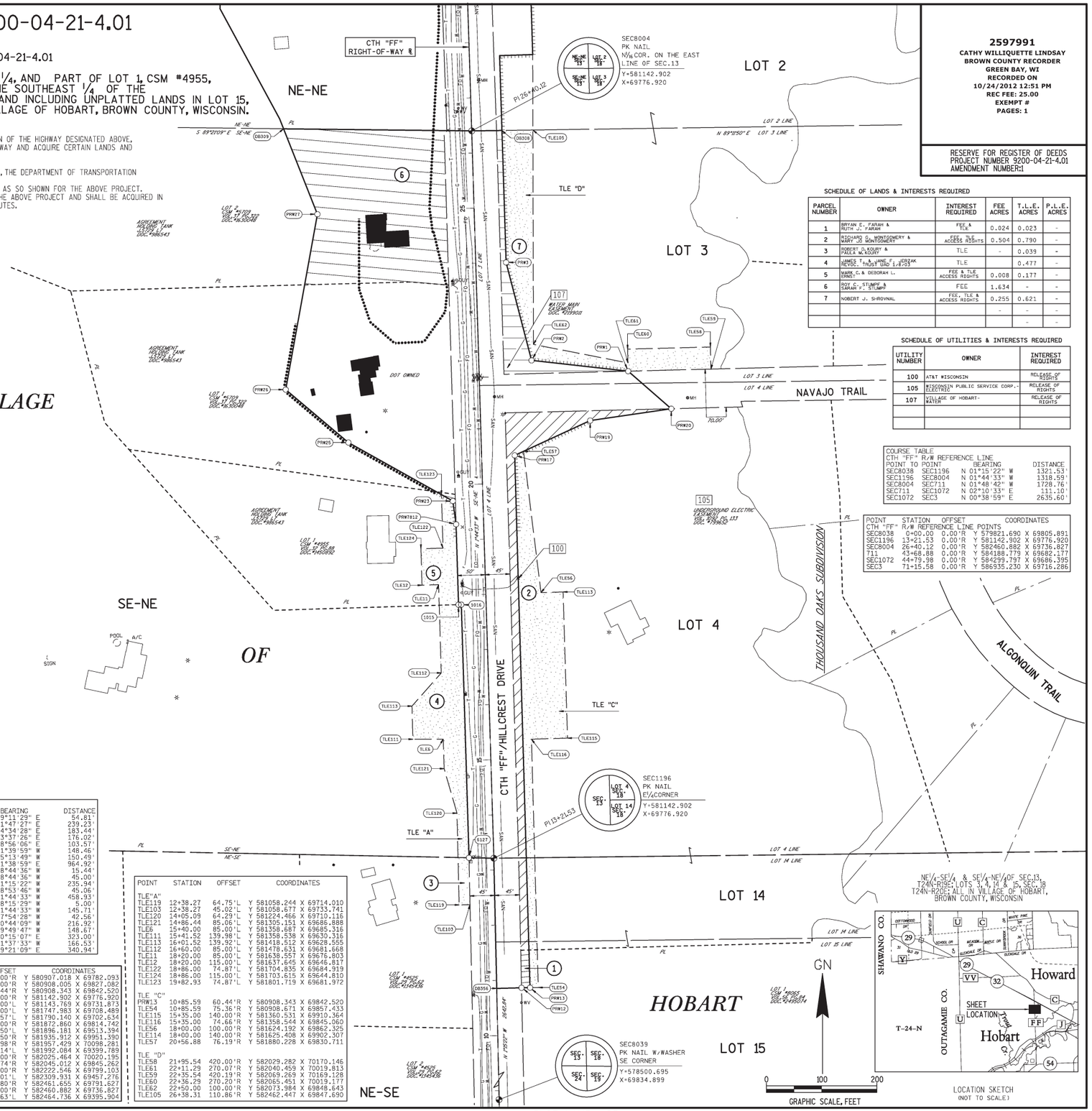
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOESES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO DEPARTMENT OF TRANSPORTATION.

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

PRINTED NAME	SIGNATURE	DATE
JON L. HERBEL	Jon L Herbel	10/19/2012

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

PRINTED NAME	SIGNATURE	DATE
NORMAN PAWELCZYK	Norman K. Pawelczyk	10/19/2012



PARCEL NUMBER	OWNER	INTEREST REQUIRED	FEE ACRES	T.L.E. ACRES	P.L.E. ACRES
1	BRYAN E. FARAH & RUTH J. FARAH	FEE & TLE	0.024	0.023	-
2	RICHARD G. MONTGOMERY & MARY JO MONTGOMERY	FEE, TLE & ACCESS RIGHTS	0.504	0.790	-
3	ROBERT O. KOURY & PAULA M. KOURY	TLE	-	0.039	-
4	JAMES T. & JANE F. JEDRAK REVOC. TRUST UAD 8/25	TLE		0.477	-
5	MARK C. & DEBORAH L. ERNST	FEE & TLE ACCESS RIGHTS	0.008	0.177	-
6	ROY C. STUMPF & SARAH F. STUMPF	FEE	1.634	-	-
7	NOBERT J. SHROVNAL	FEE, TLE & ACCESS RIGHTS	0.255	0.621	-
			-	-	-
				-	-

SCHEDULE OF LANDS & INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
100	AT&T WISCONSIN	RELEASE OF RIGHTS
105	WISCONSIN PUBLIC SERVICE CORP.- ELECTRIC	RELEASE OF RIGHTS
107	VILLAGE OF HOBART- WATER	RELEASE OF RIGHTS

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

COURSE TABLE			
POINT TO POINT		BEARING	DISTANCE
SEC8038	SEC1196	N 01°15'22" W	1321.53'
SEC1196	SEC8004	N 01°44'33" W	1318.59'
SEC8004	SEC711	N 01°48'42" W	1728.76'
SEC711	SEC1072	N 02°10'33" E	111.10'
SEC1072	SEC3	N 00°38'59" E	2635.60'

POINT	STATION	OFFSET	COORDINATES
CTH "FF" R/W REFERENCE LINE POINTS			
SEC8038	0+00.00	0.00'R	Y 579821.690 X 69805.891
SEC1196	13+21.53	0.00'R	Y 581142.902 X 69776.920
SEC8004	26+40.12	0.00'R	Y 582460.882 X 69736.827
711	43+68.88	0.00'R	Y 584188.779 X 69682.177
SEC1072	44+79.98	0.00'R	Y 584299.797 X 69686.395
SEC3	71+15.58	0.00'R	Y 586935.230 X 69716.286

COURSE TABLE			
POINT TO POINT		BEARING	DISTANCE
SEC8004	DB308	N 89°11'29" E	54.81'
DB308	PRW3	S 01°47'27" E	239.23'
PRW3	PRW2	S 14°34'28" E	183.44'
PRW2	PRW1	S 83°37'26" E	176.02'
PRW1	PRW20	S 48°56'06" E	103.57'
PRW20	PRW19	S 81°39'59" W	148.46'
PRW19	PRW17	S 65°13'49" W	150.49'
PRW17	PRW13	S 01°38'59" E	964.92'
PRW13	PRW12	S 88°44'36" W	15.44'
PRW12	DB356	S 88°44'36" W	45.00'
DB356	SEC1196	N 01°15'22" E	235.94'
SEC1196	6127	N 88°53'46" W	45.06'
6127	1016	N 01°44'33" W	458.93'
1016	1015	S 88°15'29" W	5.00'
1015	PRW7812	N 01°44'33" W	145.71'
PRW7812	PRW23	N 07°54'28" W	42.66'
PRW23	PRW25	N 60°44'09" W	216.92'
PRW25	PRW26	N 49°49'47" W	148.67'
PRW26	PRW27	N 10°15'07" E	323.00'
PRW27	DB309	N 21°37'33" W	166.53'
DB309	SEC8004	S 89°21'09" E	340.94'

POINT	STATION	OFFSET	COORDINATES
DB356	10+85.59	0.00'R	Y 580907.018 X 69782.093
PRW12	10+85.59	45.00'R	Y 580908.005 X 69827.082
PRW13	10+85.59	60.44'R	Y 580908.343 X 69842.520
SEC1196	13+21.53	0.00'R	Y 581142.902 X 69776.920
PRW21	13+23.77	45.00'L	Y 581143.769 X 69731.873
PRW7812	19+28.41	50.00'L	Y 581747.983 X 69708.489
PRW23	19+70.73	54.57'L	Y 581790.140 X 69702.634
PRW17	20+50.00	60.00'R	Y 581872.860 X 69814.742
PRW25	20+82.47	240.50'L	Y 581896.181 X 69513.394
PRW19	21+08.87	198.50'R	Y 581935.912 X 69951.390
PRW20	21+25.91	345.98'R	Y 581957.429 X 70098.281
PRW26	21+81.79	351.14'L	Y 581992.084 X 69399.789
PRW1	21+96.29	270.00'R	Y 582025.464 X 70020.195
PRW2	22+21.14	95.74'R	Y 582045.012 X 69845.262
PRW3	24+00.00	55.00'R	Y 582222.546 X 69799.103
PRW27	24+97.74	284.01'L	Y 582309.931 X 69457.276
DB308	26+39.23	54.80'R	Y 582461.655 X 69791.627
SEC8004	26+40.12	0.00'R	Y 582460.882 X 69736.827
DB309	26+54.75	340.63'L	Y 582464.736 X 69395.900

POINT	STATION	OFFSET	COORDINATES
TLE"A"			
TLE119	12+38.27	64.75'L	Y 581058.244 X 69714.010
TLE103	12+38.27	45.02'L	Y 581058.677 X 69733.741
TLE120	14+05.09	64.29'L	Y 581224.466 X 69710.116
TLE121	14+86.44	85.06'L	Y 581305.151 X 69686.888
TLE6	15+40.00	85.00'L	Y 581358.687 X 69685.316
TLE111	15+41.52	139.98'L	Y 581358.538 X 69630.316
TLE113	16+01.52	139.92'L	Y 581418.512 X 69628.555
TLE112	16+60.00	85.00'L	Y 581478.631 X 69681.668
TLE11	18+20.00	85.00'L	Y 581638.557 X 69676.803
TLE12	18+20.00	115.00'L	Y 581637.645 X 69646.817
TLE122	18+86.00	74.87'L	Y 581704.835 X 69684.919
TLE124	18+86.00	115.00'L	Y 581703.615 X 69644.810
TLE123	19+82.93	74.87'L	Y 581801.719 X 69681.972
TLE "C"			
PRW13	10+85.59	60.44'R	Y 580908.343 X 69842.520
TLE54	10+85.59	75.36'R	Y 580908.671 X 69857.433
TLE115	15+35.00	140.00'R	Y 581360.531 X 69910.364
TLE116	15+35.00	74.66'R	Y 581358.544 X 69845.060
TLE56	18+00.00	100.00'R	Y 581624.192 X 69862.325
TLE114	18+00.00	140.00'R	Y 581625.408 X 69902.307
TLE57	20+56.88	76.19'R	Y 581880.228 X 69830.711
TLE "D"			
TLE58	21+95.54	420.00'R	Y 582029.282 X 70170.146
TLE61	22+11.29	270.07'R	Y 582040.459 X 70019.813
TLE59	22+35.54	420.19'R	Y 582069.269 X 70169.128
TLE60	22+36.29	270.20'R	Y 582065.451 X 70019.177
TLE62	22+50.00	100.00'R	Y 582073.984 X 69848.643
TLE105	26+38.31	110.86'R	Y 582462.447 X 69847.690

NE¼-SE¼ & SE¼-NE¼ OF SEC.13, T24N-R19E; LOTS 3, 4, 14 & 15, SEC.18 T24N-R20E; ALL IN VILLAGE OF HOBART, BROWN COUNTY, WISCONSIN

2597991
CATHY WILLIQUETTE LINDSAY
BROWN COUNTY RECORDER
GREEN BAY, WI
RECORDED ON
10/24/2012 12:51 PM
REC FEE: 25.00
EXEMPT #
PAGES: 1

RESERVE FOR REGISTER OF DEEDS
PROJECT NUMBER 9200-04-21-4.01
AMENDMENT NUMBER:1

FILE NAME : C:\USERS\P\D3\920006B\dgn\040101_rw_amend_1_4_01.dgn PLOT DATE : 19-OCT-2012 09:32 PLOT BY : $$...plotuser...$$ PLOT NAME : D3 PLOT SCALE : 100.000000:1.000000
APPRAISAL PLAT DATE :

TRANSPORTATION PROJECT PLAT NO: 9200-04-21-4.01

PART OF LOT 1, CSM #4525, OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4, AND PART OF LOT 1, CSM #4955, PART OF LOT 2, CSM#5709, WITHIN AND INCLUDING UNPLATTED LAND IN THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4, SECTION 13, T24N-R19E; PART OF LOT 1, CSM#8065, WITHIN AND INCLUDING UNPLATTED LANDS IN LOT 15, LOT 14, LOT 4 & LOT 3, SECTION 18, T24N-R20E; ALL LOCATED IN THE VILLAGE OF HOBART, BROWN COUNTY, WISCONSIN.

RELOCATION ORDER STH 29 BROWN 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.

CONVENTIONAL ABBREVIATIONS AND SYMBOLS

ACCESS POINT	AP	SECTION CORNER (MATERIAL AS NOTED)	
ACCESS RIGHTS	AR	SET R/W MONUMENT W/CAP (1-1/4" OUTSIDE DIA.x18" IRON PIPE 1.13 LBS/FT)	
ACRES	AC.	SET P.K. NAIL	
CHORD BEARING	CH BRG	PROPOSED R/W BOUNDARY POINT	
CHORD DISTANCE	CH DIS		
DEED	(D)		
DOCUMENT	DOC		
EAST BOUND	EB		
GAS VALVE	GV		
INLET	IL		
LENGTH OF CURVE	L		
MANHOLE	MH		
MONUMENT	MON		
NORTH BOUND	NB		
PAGE	PG		
PERMANENT	PERM		
PERMANENT LIMITED EASEMENT	PLE		
PRIVATE DRIVEWAY	PD		
PROPERTY LINE	PL		
RADIUS	RAD		
REFERENCE LINE	℄		
REMAINING	REM		
RIGHT OF WAY	R/W		
SECTION	SEC		
SECTION LINE	¾		
FOUND IRON PIPE	IP ●		
STATION	STA.		
TEMPORARY LIMITED EASEMENT	TLE		
TIE POINT	DB1		
VOLUME	VOL		
ADJOINING LANDS WITH SAME OWNER			
PARALLEL TO LINE	00'		
BUILDING TO BE RAZED			
FEE ACQUISITION	VARIOUS HATCHING		

FIBER OPTIC LINE —FO—
TELEPHONE LINE —T—
BURIED GAS LINE —G—
SANITARY SEWER LINE —SAN—
BURIED WATER LINE —W—
BURIED ELECTRIC LINE —E—
OVERHEAD ELECTRIC LINE —OH—

PRWOOO

PROPERTY LINE
LOT, TIE AND OTHER MINOR DASHED LINES
ACCESS RESTRICED (By Previous Acquisition /Control)
ACCESS RESTRICED (By Acquisition)
NO ACCESS (By Statutory Authority)
LIMITED EASEMENT (Temporary or Permanent)

	COMPENSABLE	NON-COMPENSABLE
POWER POLE		
TELEPHONE POLE		
SIGN		
TELEPHONE PEDESTAL		

RESERVE FOR CLAUSES AND NOTE INFORMATION

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS AND ARE REFERENCED TO THE US PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

RIGHT OF WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

AREAS SHOWN IN THE TOTAL ACRES COLUMN OF THE SCHEDULE OF LANDS & INTEREST TABLE MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

COORDINATES AS SHOWN ARE NOT INTENDED TO BE USED FOR RETRACEMENT PURPOSES AND MUST BE VERIFIED WITH THE COUNTY SURVEY DEPARTMENT.

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, BROWN COUNTY ZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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 AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING RIGHT OF WAY WAS ACQUIRED FROM PROJECT(S):
R/W PROJECT NO. E 0-0 (62), CSM OF RECORD & COUNTY MAPS

EXISTING ACCESS CONTROL WAS ACQUIRED UNDER PROJECT(S):

STH 29 IN BROWN COUNTY WAS DESIGNATED AS A FREEWAY UNDER SECTION 84.295 OF THE WISCONSIN STATUTES BY THE HIGHWAY COMMISSION ON 3/18/08, DOC.#2364054.

RIGHT OF WAY REFERENCE LINE AND SECTION LINE ALONG CTH "FF" ARE THE SAME. RIGHT OF WAY REFERENCE LINE MAY NOT BE THE SAME AS THE CONSTRUCTION REFERENCE LINE.

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 REQUIREDFOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE TO PREVENT EROSION OF THE SOIL. ALL TLEs ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

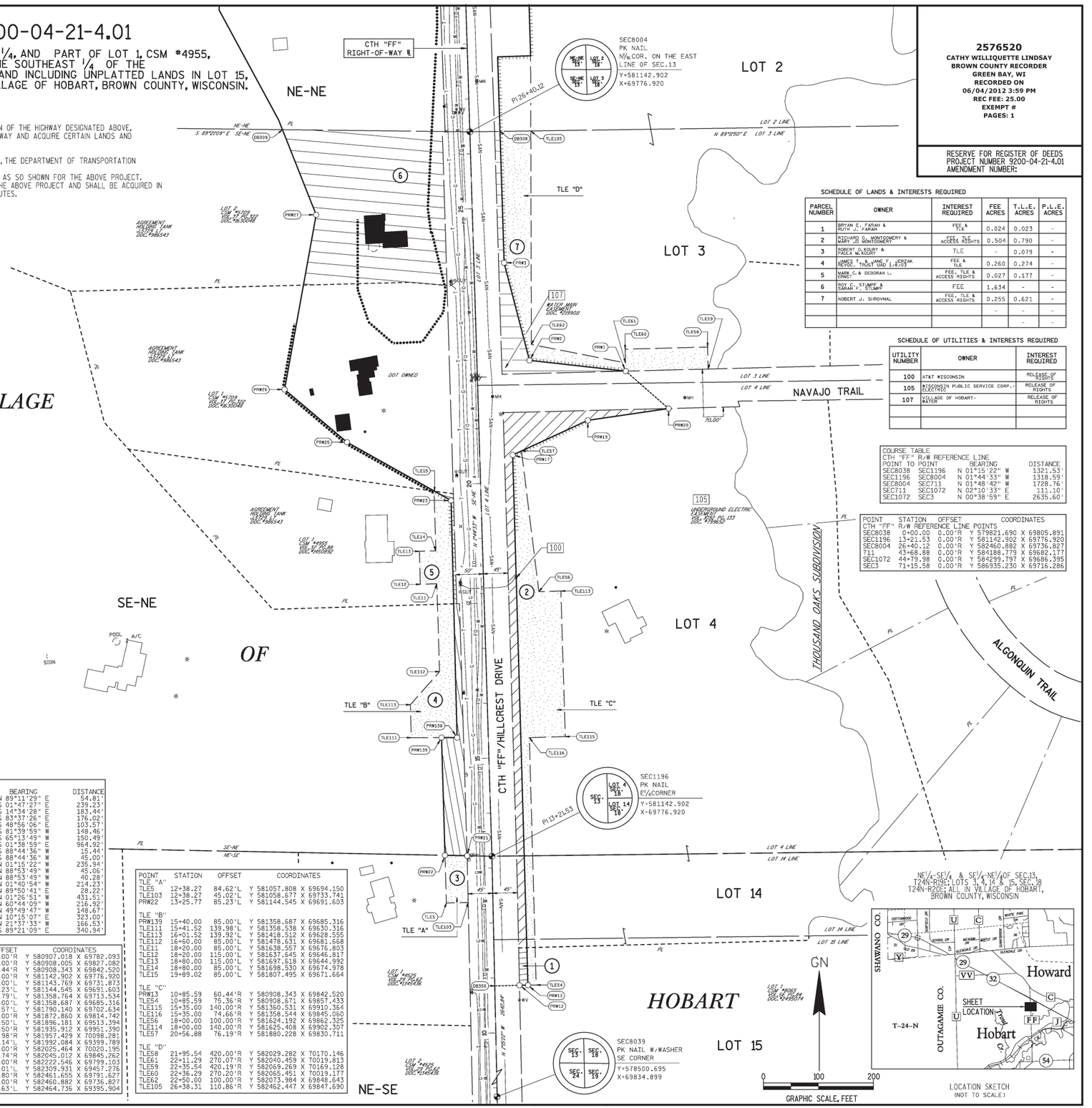
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOESES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO DEPARTMENT OF TRANSPORTATION.

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

JON L. HERBEL		06/04/2012
PRINTED NAME	SIGNATURE	DATE

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

NORMAN PAWELCZYK		06/04/2012
PRINTED NAME	SIGNATURE	DATE



COURSE TABLE			
POINT TO POINT		BEARING	DISTANCE
SEC8004	DB308	N 89°11'29" E	54.81'
DB308	PRW3	S 01°47'27" E	239.23'
PRW3	PRW2	S 14°34'28" E	183.44'
PRW2	PRW1	S 83°37'26" E	176.02'
PRW1	PRW20	S 48°56'06" E	103.57'
PRW20	PRW19	S 81°39'59" W	148.46'
PRW19	PRW17	S 65°13'49" W	150.49'
PRW17	PRW13	S 01°38'59" E	964.92'
PRW13	PRW12	S 88°44'36" W	15.44'
PRW12	DB356	S 88°44'36" W	45.00'
DB356	SEC1196	N 01°15'22" W	235.94'
SEC1196	PRW21	N 88°53'49" W	45.06'
PRW21	PRW22	N 88°53'49" W	40.28'
PRW22	PRW139	N 01°40'54" W	214.23'
PRW139	PRW138	N 89°50'41" E	28.22'
PRW138	PRW23	N 01°26'51" W	431.51'
PRW23	PRW25	N 60°44'09" W	216.92'
PRW25	PRW26	N 49°49'47" W	148.67'
PRW26	PRW27	N 10°15'07" E	323.00'
PRW27	DB309	N 21°37'33" W	166.53'
DB309	SEC8004	S 89°21'09" E	340.94'

POINT	STATION	OFFSET	COORDINATES
DB356	10+85.59	0.00'R	Y 580907.018 X 69782.093
PRW12	10+85.59	45.00'R	Y 580908.005 X 69827.082
PRW13	10+85.59	60.44'R	Y 580908.343 X 69842.520
SEC1196	13+21.53	0.00'R	Y 581142.902 X 69776.920
PRW21	13+23.77	45.00'L	Y 581143.769 X 69731.873
PRW22	13+25.77	85.23'L	Y 581144.545 X 69691.603
PRW138	15+39.22	56.79'L	Y 581358.764 X 69713.534
PRW139	15+40.00	85.00'L	Y 581358.687 X 69685.316
PRW23	19+70.73	54.57'L	Y 581790.140 X 69702.634
PRW17	20+50.00	60.00'R	Y 581872.860 X 69814.742
PRW25	20+82.47	240.50'L	Y 581896.181 X 69513.394
PRW19	21+08.87	198.50'R	Y 581935.912 X 69951.390
PRW20	21+25.91	345.98'R	Y 581957.429 X 70098.281
PRW26	21+81.79	351.14'L	Y 581992.084 X 69399.789
PRW1	21+96.29	270.00'R	Y 582025.464 X 70020.195
PRW2	22+21.14	95.74'R	Y 582045.012 X 69845.262
PRW3	24+00.00	55.00'R	Y 582222.546 X 69799.103
PRW27	24+97.74	284.01'L	Y 582309.931 X 69457.276
DB308	26+39.23	54.80'R	Y 582461.655 X 69791.627
SEC8004	26+40.12	0.00'R	Y 582460.882 X 69736.827
DB309	26+54.75	340.63'L	Y 582464.736 X 69395.904

POINT	STATION	OFFSET	COORDINATES
TLE "A"			
TLE5	12+38.27	84.62'L	Y 581057.808 X 69694.150
TLE103	12+38.27	45.02'L	Y 581058.677 X 69733.741
PRW22	13+25.77	85.23'L	Y 581144.545 X 69691.603
TLE "B"			
PRW139	15+40.00	85.00'L	Y 581358.687 X 69685.316
TLE111	15+41.52	139.98'L	Y 581358.538 X 69630.316
TLE113	16+01.52	139.92'L	Y 581418.512 X 69628.555
TLE112	16+60.00	85.00'L	Y 581478.631 X 69681.668
TLE11	18+20.00	85.00'L	Y 581638.557 X 69676.803
TLE12	18+20.00	115.00'L	Y 581637.645 X 69646.817
TLE13	18+80.00	115.00'L	Y 581697.618 X 69644.992
TLE14	18+80.00	85.00'L	Y 581698.530 X 69674.978
TLE15	19+89.02	85.00'L	Y 581807.495 X 69671.664
TLE "C"			
PRW13	10+85.59	60.44'R	Y 580908.343 X 69842.520
TLE54	10+85.59	75.36'R	Y 580908.671 X 69857.433
TLE115	15+35.00	140.00'R	Y 581360.531 X 69910.364
TLE116	15+35.00	74.66'R	Y 581358.544 X 69845.060
TLE56	18+00.00	100.00'R	Y 581624.192 X 69862.325
TLE114	18+00.00	140.00'R	Y 581625.408 X 69902.307
TLE57	20+56.88	76.19'R	Y 581880.228 X 69830.711
TLE "D"			
TLE58	21+95.54	420.00'R	Y 582029.282 X 70170.146
TLE61	22+11.29	270.07'R	Y 582040.459 X 70019.813
TLE59	22+35.54	420.19'R	Y 582069.269 X 70169.128
TLE60	22+36.29	270.20'R	Y 582066.451 X 70019.177
TLE62	22+50.00	100.00'R	Y 582073.984 X 69848.643
TLE105	26+38.31	110.86'R	Y 582462.447 X 69847.690

POINT	STATION	OFFSET	COORDINATES
CTH "FF" R/W REFERENCE LINE POINTS			
SEC8038	0+00.00	0.00'R	Y 579821.690 X 69805.891
SEC1196	13+21.53	0.00'R	Y 581142.902 X 69776.920
SEC8004	26+40.12	0.00'R	Y 582460.882 X 69736.827
711	43+68.88	0.00'R	Y 584188.779 X 69682.177
SEC1072	44+79.98	0.00'R	Y 584299.797 X 69686.395
SEC3	71+15.58	0.00'R	Y 586935.230 X 69716.286

COURSE TABLE			
POINT TO POINT		BEARING	DISTANCE
SEC8038	SEC1196	N 01°15'22" W	1321.53'
SEC1196	SEC8004	N 01°44'33" W	1318.59'
SEC8004	SEC711	N 01°48'42" W	1728.76'
SEC711	SEC1072	N 02°10'33" E	111.10'
SEC1072	SEC3	N 00°38'59" E	2635.60'

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER	INTEREST REQUIRED	FEE ACRES	T.L.E. ACRES	P.L.E. ACRES
1	BRYAN E. FARAH & RUTH J. FARAH	FEE & TLE	0.024	0.023	-
2	RICHARD C. MONTGOMERY & MARY JO MONTGOMERY	FEE, TLE & ACCESS RIGHTS	0.504	0.790	-
3	ROBERT A. KOURY & PAULA M. KOURY	TLE	-	0.079	-
4	JAMES T. & JANE F. JEDRAK REVOC. TRUST DAD 1/6/93	FEE & TLE	0.260	0.274	-
5	MARK C. & DEBORAH L. ERNST	FEE, TLE & ACCESS RIGHTS	0.027	0.177	-
6	ROY C. STUMPF & SARAH F. STUMPF	FEE	1.634	-	-
7	NOBERT J. SHROVNAL	FEE, TLE & ACCESS RIGHTS	0.255	0.621	-
			-	-	-
				-	-

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
100	AT&T WISCONSIN	RELEASE OF RIGHTS
105	WISCONSIN PUBLIC SERVICE CORP.- ELECTRIC	RELEASE OF RIGHTS
107	VILLAGE OF HOBART- WATER	RELEASE OF RIGHTS

NE¼-SE¼ & SE¼-NE¼ OF SEC.13, T24N-R19E; LOTS 3, 4, 14 & 15, SEC.18 T24N-R20E; ALL IN VILLAGE OF HOBART, BROWN COUNTY, WISCONSIN

LOCATION SKETCH (NOT TO SCALE)

2576520
CATHY WILLIQUETTE LINDSAY
BROWN COUNTY RECORDER
GREEN BAY, WI
RECORDED ON
06/04/2012 3:59 PM
REC FEE: 25.00
EXEMPT #
PAGES: 1

RESERVE FOR REGISTER OF DEEDS
PROJECT NUMBER 9200-04-21-4.01
AMENDMENT NUMBER:

TRANSPORTATION PROJECT PLAT NO: 9200-04-21-4.02

PART OF LOT 3 OF GOLDEN POND PARK, AND PART OF LOTS 24, 25, 26 & OUTLOT 4 , OF GOLDEN POND PARK FIRST ADDITION, AND PART OF LOT 1, CSM #7769, AND PART OF PARCEL 1 OF TRANSPORTATION PROJECT PLAT #05-126-0004.1, LOCATED WITHIN AND INCLUDING UNPLATTED LANDS IN THE NORTHEAST 1/4 OF THE NORTHEAST 1/4, VILLAGE OF HOBART; ALL OF THE FRACTIONAL SECTION 13, VILLAGE OF HOWARD; ALL LOCATED WITHIN SECTION 13, T24N-R19E, BROWN COUNTY, WISCONSIN.

RELOCATION ORDER STH 29 BROWN 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.

CONVENTIONAL ABBREVIATIONS AND SYMBOLS

ACCESS POINT	AP	SECTION CORNER (MATERIAL AS NOTED)	
ACCESS RIGHTS	AR	SET R/W MONUMENT W/CAP (1-1/4" OUTSIDE DIA.x18" IRON PIPE 1.13 LBS/FT)	○
ACRES	AC	SET P.K. NAIL	△
CHORD BEARING	CH BRG	PROPOSED R/W	
CHORD DISTANCE	CH DIS	BOUNDARY POINT	PRWOOO
DEED	(D)	CORPORATE LIMITS	
DOCUMENT	DOC	EXISTING R/W	
EAST BOUND	EB	SECTION LINE	
GAS VALVE	GV	QUARTER LINE	
INLET	IL	SIXTEENTH LINE	
LENGTH OF CURVE	L	PROPOSED OR NEW R/W LINE	
MANHOLE	MH	PROPOSED EASEMENT LINE	
MONUMENT	MON	PARCEL NUMBER	00
NORTH BOUND	NB	UTILITY NUMBER	000
PAGE	PG	PROPERTY LINE	PL
PERMANENT	PERM	LOT, TIE AND OTHER MINOR DASHED LINES	
PERMANENT LIMITED EASEMENT	PLE	ACCESS RESTRCTED (By Previous Acquisition / Control)	
PRIVATE DRIVEWAY	PD	ACCESS RESTRCTED (By Acquisition)	
PROPERTY LINE	PL	NO ACCESS (By Statutory Authority)	
RADIUS	RAD	LIMITED EASEMENT (Temporary or Permanent)	
REFERENCE LINE	℄		
REMAINING	REM		
RIGHT OF WAY	R/W		
SECTION	SEC		
SECTION LINE	℄		
FOUND IRON PIPE	IP ●		
STATION	STA		
TEMPORARY LIMITED EASEMENT	TLE		
TIE POINT	DB1		
VOLUME	VOL		
ADJOINING LANDS WITH SAME OWNER			
PARALLEL TO LINE	00'		
BUILDING TO BE RAZED			
FEE ACQUISITION	VARIOUS HATCHING		
FOUND R/W MONUMENT (1-1/4" OUTSIDE " IRON PIPE)	●		

FIBER OPTIC LINE	FO	
TELEPHONE LINE	T	
BURIED GAS LINE	G	
SANITARY SEWER LINE	SAN	
BURIED WATER LINE	W	
BURIED ELECTRIC LINE	E	
OVERHEAD ELECTRIC LINE	OH	

	COMPENSABLE	NON-COMPENSABLE
POWER POLE	●	●
TELEPHONE POLE	●	●
SIGN	▶	▶
TELEPHONE PEDESTAL	×	×

RESERVE FOR CLAUSES AND NOTE INFORMATION

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS AND ARE REFERENCED TO THE US PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

RIGHT OF WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

AREAS SHOWN IN THE TOTAL ACRES COLUMN OF THE SCHEDULE OF LANDS & INTEREST TABLE MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

COORDINATES AS SHOWN ARE NOT INTENDED TO BE USED FOR RETRACEMENT PURPOSES AND MUST BE VERIFIED WITH THE COUNTY SURVEY DEPARTMENT.

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, BROWN COUNTY ZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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 AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING RIGHT OF WAY WAS ACQUIRED FROM PROJECT(S): R/W PROJECT NO. E 0-0 (62), CSM OF RECORD & COUNTY MAPS

EXISTING ACCESS CONTROL WAS ACQUIRED UNDER PROJECT(S):

STH 29 IN BROWN COUNTY WAS DESIGNATED AS A FREEWAY UNDER SECTION 84.295 OF THE WISCONSIN STATUTES BY THE HIGHWAY COMMISSION ON 3/18/08, DOC.#2364054.

RIGHT OF WAY REFERENCE LINE AND SECTION LINE ALONG CTH "FF" ARE THE SAME. RIGHT OF WAY REFERENCE LINE MAY NOT BE THE SAME AS THE CONSTRUCTION REFERENCE LINE.

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 REQUIREDFOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE TO PREVENT EROSION OF THE SOIL. ALL TLEs ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

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

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

JON L. HERBEL — PRINTED NAME — SIGNATURE — 06/18/2012 — DATE

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

NORMAN PAWELCZYK — PRINTED NAME — SIGNATURE — 06/18/2012 — DATE

POINT TO POINT		BEARING	DISTANCE
COURSE TABLE #1			
SEC8004	DB309	N 89°21'09" W	340.94'
DB309	PRW28	N 21°37'33" W	19.17'
PRW28	PRW29	N 28°23'42" W	227.38'
PRW29	PRW31	N 02°56'44" E	319.64'
PRW31	PRW1009	N 37°37'17" W	162.58'
PRW1009	PRW1002	S 80°16'16" E	129.62'
PRW1002	PRW35	S 68°59'52" E	90.91'
PRW35	PRW36	N 86°12'47" E	159.75'
PRW36	PRW37	N 13°46'52" E	175.58'
PRW37	PRW38	N 01°48'38" W	122.80'
PRW38	PRW39	N 14°24'42" W	168.34'
PRW39	PRW40	N 57°33'16" W	184.62'
PRW40	PRW41	N 88°40'40" W	108.34'
PRW41	PRW42	N 43°18'02" W	56.04'
PRW42	PRW43	N 24°38'25" W	278.69'
PRW43	DB305	N 85°46'27" E	572.27'
DB305	SEC8004	S 01°48'42" E	1465.39'
COURSE TABLE #2			
SEC1072	DB310	S 84°55'12" W	935.23'
DB310	PRW132	S 01°20'47" W	54.99'
PRW132	PRW133	S 12°36'41" E	152.41'
PRW133	RW74	S 33°11'47" E	121.61'
RW74	RW89	N 81°45'22" W	144.76'
RW89	DB317	N 04°46'44" W	279.64'
DB317	DB310	N 84°55'12" E	68.26'
COURSE TABLE #3			
SEC1072	117	S 02°10'33" W	111.10'
117	DB305	S 01°48'42" E	263.37'
DB305	DB112	N 59°57'09" W	648.51'
DB112	SEC1072	N 84°55'12" E	559.45'

COURSE TABLE			
CTH "FF" R/W REFERENCE LINE			
POINT TO POINT		BEARING	DISTANCE
SEC8038	SEC1196	N 01°15'22" W	1321.53'
SEC1196	SEC8004	N 01°44'33" W	1318.59'
SEC8004	SEC711	N 01°48'42" W	1728.76'
SEC711	SEC1072	N 02°10'33" E	111.10'
SEC1072	SEC3	N 00°38'59" E	2635.60'

POINT	STATION	OFFSET	COORDINATES
CTH "FF" R/W REFERENCE LINE POINTS			
SEC8038	0+00.00	0.00'R	Y 579821.690 X 69805.891
SEC1196	13+21.53	0.00'R	Y 581142.902 X 69776.920
SEC8004	26+40.12	0.00'R	Y 582460.882 X 69736.827
711	43+68.88	0.00'R	Y 584188.779 X 69682.177
SEC1072	44+79.98	0.00'R	Y 584299.797 X 69686.395
SEC3	71+15.58	0.00'R	Y 586935.230 X 69716.286

POINT	STATION	OFFSET	COORDINATES
POINTS FROM CTH "FF" REFERENCE LINE			
TLE "A"			
PRW35	32+65.33	306.70'L	Y 583076.088 X 69410.516
TLE16	33+06.41	312.40'L	Y 583116.968 X 69403.523
TLE17	33+52.33	376.09'L	Y 583160.848 X 69338.408
TLE19	33+81.10	413.22'L	Y 583186.530 X 69240.422
TLE18	33+93.08	454.98'L	Y 583199.085 X 69258.267
TLE "B"			
TLE88	34+04.13	109.85'L	Y 583221.034 X 69602.883
TLE87	36+07.50	109.84'L	Y 583424.306 X 69596.456
POINTS FROM STH 29-32 REFERENCE LINE			
TLE "C"			
PRW41	663+75.01	437.88'R	Y 583644.499 X 69301.849
PRW39	666+54.48	393.53'R	Y 583542.950 X 69565.967
TLE "D"			
PRW133	657+44.54	376.54'R	Y 584013.282 X 68786.825
TLE20	658+46.52	415.68'R	Y 583928.332 X 68855.499
TLE21	658+95.27	395.72'R	Y 583921.205 X 68907.696
TLE22	659+46.01	413.93'R	Y 583880.031 X 68942.494
TLE23	659+69.44	460.75'R	Y 583827.772 X 68939.530
TLE24	660+92.26	578.32'R	Y 583664.501 X 68986.782
TLE25	660+95.54	594.24'R	Y 583649.082 X 68981.649

COURSE TABLE			
STH 29 / 32 R/W REFERENCE LINE			
611	657	S 61°40'28" E	1716.10'
657	658	SEE CURVE TABLE CUR80	
658	722	S 59°57'09" E	7495.11'

POINT	STATION	OFFSET	COORDINATES
POINTS FROM CTH "FF" REFERENCE LINE			
DB309	26+54.75	340.63'L	Y 582464.736 X 69395.904
PRW28	26+72.78	347.13'L	Y 582482.556 X 69388.839
PRW29	28+76.13	448.88'L	Y 582682.581 X 69280.709
PRW31	31+94.67	422.37'L	Y 583001.799 X 69297.154
PRW35	32+65.33	306.70'L	Y 583076.088 X 69410.516
PRW36	32+70.84	147.04'L	Y 583086.639 X 69569.919
PRW1002	33+00.58	390.50'L	Y 583108.670 X 69325.647
PRW1009	33+26.51	517.50'L	Y 583130.575 X 69197.887
PRW37	34+39.96	99.85'L	Y 583257.166 X 69611.745
PRW38	35+62.76	99.85'L	Y 583379.907 X 69607.865
PRW39	37+27.05	136.57'L	Y 583542.950 X 69565.967
DB305	41+05.51	0.00'R	Y 583925.540 X 69690.503
POINTS FROM STH 29-32 REFERENCE LINE			
DB317	655+59.03	255.50'R	Y 584210.941 X 68686.851
DB310	656+14.85	218.22'R	Y 584216.985 X 68754.840
PRW132	656+41.26	264.45'R	Y 584162.015 X 68753.548
RW89	657+18.73	486.05'R	Y 583932.273 X 68710.148
PRW133	657+44.54	376.54'R	Y 584013.282 X 68786.825
RW74	658+53.13	431.29'R	Y 583911.517 X 68853.409
DB112	659+22.20	0.00'R	Y 584250.260 X 69129.147
PRW43	660+55.58	249.26'R	Y 583967.709 X 69119.789
DB313	661+17.56	137.44'L	Y 584271.411 X 69367.077
PRW42	662+82.99	410.36'R	Y 583714.396 X 69235.980
PRW41	663+75.01	437.88'R	Y 583644.499 X 69301.849
PRW40	664+70.02	385.81'R	Y 583641.999 X 69410.164
DB305	665+70.71	0.00'R	Y 583925.540 X 69690.503
PRW39	666+54.48	393.53'R	Y 583542.950 X 69565.967

CURVE TABLE						
CURVE	CH DISTANCE	CH BEARING	RADIUS	ARC LENGTH	PI COORDINATES	
CUR80	688.77'	S 60°48'49" E	22918.31	688.79'	Y=585532.961	X=66911.689

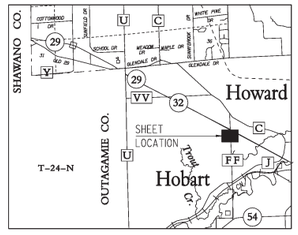
SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER	INTEREST REQUIRED	FEE ACRES	T.L.E. ACRES	P.L.E. ACRES
8	CLETUS CONARD & DOROTHY CONARD	FEE	4.282	-	-
9	RED VIPER, LLC	FEE, TLE & ACCESS RIGHTS	0.536	0.205	-
10	TECHNICAL ASSOCIATES GROUP, LLC	FEE & TLE	0.132	0.113	-
11	4648 GOLDEN POND PARK COURT, LLC	FEE & TLE	0.305	0.026	-
12	JUZA INVESTMENTS,LLC	FEE & TLE	0.046	0.077	-
13	PIONEER CREDIT UNION	FEE & TLE	0.138	0.001	-
19	WISCONSIN PUBLIC SERVICE	FEE	0.564	-	-
33	JEFFREY T. MARLOW	FEE	0.154	-	-
			-	-	-

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
100	AT&T WISCONSIN	RELEASE OF RIGHTS
101	CENTRAL BROWN COUNTY WATER AUTHORITY	RELEASE OF RIGHTS
103	TIME WARNER CABLE	RELEASE OF RIGHTS
105	WISCONSIN PUBLIC SERVICE CORP.- ELECTRIC	RELEASE OF RIGHTS
106	WISCONSIN PUBLIC SERVICE CORP.- GAS	RELEASE OF RIGHTS
108	VILLAGE OF HOBART- WATER	RELEASE OF RIGHTS

NE1/4- NE1/4, OF SEC. 13, VILLAGE OF HOBART & THE FRACTIONAL SEC. 13, VILLAGE OF HOWARD, ALL WITHIN T24N-R19E, BROWN COUNTY, WISCONSIN



LOCATION SKETCH (NOT TO SCALE)

GRAPHIC SCALE, FEET (0, 100, 200)

2578780
CATHY WILLIQUETTE LINDSAY
BROWN COUNTY RECORDER
GREEN BAY, WI
RECORDED ON
06/19/2012 2:43 PM
REC FEE: 25.00
EXEMPT #
PAGES: 1

RESERVE FOR REGISTER OF DEEDS
PROJECT NUMBER 9200-04-21-4.02
AMENDMENT NUMBER:

FILE NAME : C:\users\P\D3\920006B\dgn\040102_rw.dgn
PLOT DATE : 18-JUN-2012 11:40 PLOT BY : $$...plotuser...$$ PLOT NAME : D3 PLOT SCALE : 100.000000:1.000000
APPRAISAL PLAT DATE :

TRANSPORTATION PROJECT PLAT NO: 9200-04-21-4.03

PART OF LOT 1, CSM*7644, AND PART OF OUTLOT 1, CSM*8033, WITHIN AND INCLUDING UNPLATTED LANDS IN LOT 2, VILLAGE OF HOBART; PART OF UNPLATTED LANDS IN GOVERNMENT LOT 3, VILLAGE OF HOWARD; ALL LOCATED IN SECTION 18, T24N-R20E, BROWN COUNTY, WISCONSIN.

RELOCATION ORDER STH 29 BROWN 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.

CONVENTIONAL ABBREVIATIONS AND SYMBOLS

ACCESS POINT	AP	SECTION CORNER (MATERIAL AS NOTED)	
ACCESS RIGHTS	AR	SET R/W MONUMENT W/CAP (1-1/4" OUTSIDE DIA.x18" IRON PIPE 1.13 LBS/FT)	○
ACRES	AC	SET P.K. NAIL	△
CHORD BEARING	CH BRG	PROPOSED R/W	
CHORD DISTANCE	CH DIS	BOUNDARY POINT	
DEED	(D)	CORPORATE LIMITS	
DOCUMENT	DOC	EXISTING R/W	
EAST BOUND	EB	SECTION LINE	
GAS VALVE	GV	QUARTER LINE	
INLET	▭ IL	SIXTEENTH LINE	
LENGTH OF CURVE	L	PROPOSED OR NEW R/W LINE	
MANHOLE	● MH	PROPOSED EASEMENT LINE	
MONUMENT	MON	PARCEL NUMBER	00
NORTH BOUND	NB	UTILITY NUMBER	000
PAGE	PG	PROPERTY LINE	PL
PERMANENT	PERM	LOT, TIE AND OTHER MINOR DASHED LINES	
PERMANENT LIMITED EASEMENT	PLE	ACCESS RESTRICTED (By Previous Acquisition / Control)	
PRIVATE DRIVEWAY	PD	ACCESS RESTRICTED (By Acquisition)	
PROPERTY LINE	PL	NO ACCESS (By Statutory Authority)	
RADIUS	RAD	LIMITED EASEMENT (Temporary or Permanent)	
REFERENCE LINE	℄		
REMAINING	REM		
RIGHT OF WAY	R/W		
SECTION	SEC		
SECTION LINE	℄		
FOUND IRON PIPE	IP ●		
STATION	STA		
TEMPORARY LIMITED EASEMENT	TLE		
TIE POINT	DB1		
VOLUME	VOL		
ADJOINING LANDS WITH SAME OWNER			
PARALLEL TO LINE	00'		
BUILDING TO BE RAZED			
FEE ACQUISITION	VARIOUS HATCHING		

FIBER OPTIC LINE	FO
TELEPHONE LINE	T
BURIED GAS LINE	G
SANITARY SEWER LINE	SAN
BURIED WATER LINE	W
BURIED ELECTRIC LINE	E
OVERHEAD ELECTRIC LINE	OH

	COMPENSABLE	NON-COMPENSABLE
POWER POLE		
TELEPHONE POLE		
SIGN		
TELEPHONE PEDESTAL		

RESERVE FOR CLAUSES AND NOTE INFORMATION

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EXISTING RIGHT OF WAY WAS ACQUIRED FROM PROJECT(S): R/W PROJECT NO. E 0-0 (62), CSM OF RECORD & COUNTY MAPS

EXISTING ACCESS CONTROL WAS ACQUIRED UNDER PROJECT(S):

STH 29 IN BROWN COUNTY WAS DESIGNATED AS A FREEWAY UNDER SECTION 84.295 OF THE WISCONSIN STATUTES BY THE HIGHWAY COMMISSION ON 3/18/08, DOC.#2364054.

RIGHT OF WAY REFERENCE LINE AND SECTION LINE ALONG CTH "FF" / SHERWOOD STREET ARE THE SAME. RIGHT OF WAY REFERENCE LINE MAY NOT BE THE SAME AS THE CONSTRUCTION REFERENCE LINE.

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 REQUIREDFOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE TO PREVENT EROSION OF THE SOIL. ALL TLEs ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

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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

JON L. HERBEL — PRINTED NAME — SIGNATURE — 06/04/2012 — DATE

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

NORMAN PAWELCZYK — PRINTED NAME — SIGNATURE — 06/04/2012 — DATE

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER	INTEREST REQUIRED	FEE ACRES	T.L.E. ACRES	P.L.E. ACRES
7	NOBERT J. SHROVNAL	FEE, T.L.E. & ACCESS RIGHTS	4.877	0.214	-
14	REDJ, LLC	FEE	0.053	-	-
15	WICKEY ROY, & ETAL	FEE	4.914	-	-
38	STEPHEN SCRIMP & CYNTHIA GEOCARIS LIVING TRUST DATED 08/31/2005	FEE	0.310	-	-
			-	-	-

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
100	AT&T WISCONSIN	RELEASE OF RIGHTS
102	GREEN BAY METROPOLITAN SEWERAGE DISTRICT, *42	RELEASE OF RIGHTS
104	VILLAGE OF HOWARD	RELEASE OF RIGHTS
106	WISCONSIN PUBLIC SERVICE CORP.,* GAS	RELEASE OF RIGHTS

SCHEDULE OF SIGNS

SIGN NUMBER	OWNER
15-1	LAMAR ADVERTISING

COURSE TABLE

POINT TO POINT		BEARING	DISTANCE
SEC8004	711	N 01°48'42" W	1728.76'
711	SEC1072	N 02°10'33" E	111.10'
SEC1072	PRW49	N 88°03'21" E	319.57'
PRW49	PRW48	S 57°54'41" E	123.61'
PRW48	PRW47	S 28°50'43" E	399.82'
PRW47	PRW46	S 36°46'35" E	197.37'
PRW46	SIXT7	S 58°33'20" E	500.00'
SIXT7	DB302	S 01°48'10" E	410.99'
DB302	PRW10	N 65°28'11" W	195.45'
PRW10	PRW9	N 06°56'01" W	68.65'
PRW9	PRW8	N 65°04'33" W	418.67'
PRW8	PRW7	S 73°06'17" W	141.36'
PRW7	PRW6	N 64°11'31" W	303.38'
PRW6	PRW137	S 04°14'09" W	639.39'
PRW137	PRW136	S 01°47'27" E	245.00'
PRW136	PRW134	S 88°12'33" W	60.00'
PRW134	DB308	S 01°47'27" E	135.77'
DB308	SEC8004	S 89°11'29" W	54.81'

POINT STATION OFFSET COORDINATES

TLE "A" USING CTH "FF" REFERENCE LINE			
TLE105	26+38.31	110.86'R	Y 582462.447 X 69847.690
DB308	26+39.23	54.80'R	Y 582461.655 X 69791.627
PRW136	27+74.91	114.85'R	Y 582599.238 X 69847.355
TLE "B" USING STH 29 / 32 REFERENCE LINE			
PRW7	672+65.48	263.36'R	Y 583349.687 X 70160.041
TLE85	672+80.19	262.27'R	Y 583343.268 X 70173.315
TLE86	673+76.93	158.73'R	Y 583384.449 X 70308.898

POINT STATION OFFSET COORDINATES

CTH "FF" R/W REFERENCE LINE POINTS			
SEC8038	0+00.00	0.00'R	Y 579821.690 X 69805.891
SEC1196	13+21.53	0.00'R	Y 581142.902 X 69776.920
SEC8004	26+40.12	0.00'R	Y 582460.882 X 69736.827
711	43+68.88	0.00'R	Y 584188.779 X 69682.177
SEC1072	44+79.98	0.00'R	Y 584299.797 X 69686.395
SEC3	71+15.58	0.00'R	Y 586935.230 X 69716.286

COURSE TABLE

CTH "FF" R/W REFERENCE LINE			
POINT TO POINT		BEARING	DISTANCE
SEC8038	SEC1196	N 01°15'22" W	1321.53'
SEC1196	SEC8004	N 01°44'33" W	1318.59'
SEC8004	SEC711	N 01°48'42" W	1728.76'
SEC711	SEC1072	N 02°10'33" E	111.10'
SEC1072	SEC3	N 00°38'59" E	2635.60'

COURSE TABLE

STH 29 / 32 R/W REFERENCE LINE			
611	657	S 61°40'28" E	1716.10'
657	658	SEE CURVE TABLE CUR80	
658	722	S 59°57'09" E	7495.11'

POINT STATION OFFSET COORDINATES

STH 29 / 32 R/W REFERENCE LINE POINTS			
611	613+00.00	0.00'R	Y 586510.638 X 65097.880
657	630+16.10	0.00'R	Y 585696.382 X 66608.506
658	637+04.89	0.00'R	Y 585360.503 X 67209.824
722	712+00.00	0.00'R	Y 581607.572 X 73697.670

STH 29 / 32 REFERENCE LINE COURSE TABLE POINTS

POINT	STATION	OFFSET	COORDINATES
SEC1072	663+79.75	321.90'L	Y 584299.797 X 69686.395
711	664+31.69	223.69'L	Y 584188.779 X 69682.177
DB305	665+70.71	0.00'R	Y 583925.540 X 69690.503
PRW49	666+50.79	491.21'L	Y 584310.638 X 70005.780
PRW48	667+74.32	486.81'L	Y 584244.974 X 70110.504
PRW6	669+62.94	285.79'R	Y 583481.763 X 69886.925
PRW47	671+16.65	280.24'L	Y 583894.758 X 70303.398
PRW7	672+65.48	263.36'R	Y 583349.687 X 70160.041
PRW46	672+98.09	202.56'L	Y 583736.667 X 70421.564
PRW8	673+61.99	160.07'R	Y 583390.159 X 70290.297
PRW9	677+78.99	122.69'R	Y 583214.333 X 70674.975
SIXT7	677+97.94	190.37'L	Y 583475.831 X 70848.137
PRW10	678+20.28	177.52'R	Y 583146.189 X 70683.262
DB324	679+16.21	0.00'L	Y 583251.822 X 70855.188
DB302	680+14.82	158.73'R	Y 583065.045 X 70861.067

CTH "FF" REFERENCE LINE COURSE TABLE POINTS

DB308	26+39.23	54.80'R	Y 582461.655 X 69791.627
SEC8004	26+40.12	0.00'R	Y 582460.882 X 69736.827
PRW136	27+74.91	114.85'R	Y 582599.238 X 69847.355
PRW134	27+74.93	54.85'R	Y 582597.363 X 69787.384
PRW137	30+19.91	114.93'R	Y 582844.118 X 69839.698
PRW6	36+55.75	182.30'R	Y 583481.763 X 69886.925
DB305	41+05.51	0.00'R	Y 583925.540 X 69690.503
711	43+68.88	0.00'R	Y 584188.779 X 69682.177
SEC1072	44+79.98	0.00'R	Y 584299.797 X 69686.395

CURVE TABLE

CURVE	CH DISTANCE	CH BEARING	RADIUS	ARC LENGTH	PI COORDINATES	
CUR80	688.77'	S 60°48'49" E	22918.31	688.79'	Y=585532.961	X=66911.689

SEC1023
1" IRON ROD W/CAP
Y=584388.713
X=72305.873

SEC1072
PK NAIL
Y=584299.797
X=69686.395

711
COMPUTED PT.
Y=584188.779
X=69682.177

SEC8004
PK NAIL
Y=581142.902
X=69776.920

SIXT7
COMPUTED PT.
Y=583475.831
X=70848.137

TLE "A"
TLE "B"

GN
0 100 200
GRAPHIC SCALE, FEET

LOT 2, VILLAGE OF HOBART & GOV'T LOT 3, VILLAGE OF HOWARD, ALL WITHIN SEC. 18, T24N-R20E, BROWN COUNTY, WISCONSIN

LOCATION SKETCH (NOT TO SCALE)

2576521
CATHY WILLIQUETTE LINDSAY
BROWN COUNTY RECORDER
GREEN BAY, WI
RECORDED ON
06/04/2012 3:59 PM
REC FEE: 25.00
EXEMPT #
PAGES: 1

RESERVE FOR REGISTER OF DEEDS
PROJECT NUMBER 9200-04-21-4.03
AMENDMENT NUMBER:

TRANSPORTATION PROJECT PLAT NO: 9200-04-21-4.04

PART OF LOTS 58 AND 59 OF CHOCTAW WOODS FIRST ADDITION, AND PART OF LOT 3 AND OUTLOT 1, CSM#8033, WITHIN AND INCLUDING UNPLATTED LANDS IN LOT 1, VILLAGE OF HOBART; PART OF UNPLATTED LANDS WITHIN GOVERNMENT LOT 2, VILLAGE OF HOWARD; ALL LOCATED IN SECTION 18, T24N-R20E, BROWN COUNTY, WISCONSIN.

RELOCATION ORDER STH 29 BROWN 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.

CONVENTIONAL ABBREVIATIONS AND SYMBOLS

ACCESS POINT	AP	SECTION CORNER (MATERIAL AS NOTED)	
ACCESS RIGHTS	AR	SET R/W MONUMENT W/CAP (1-1/4" OUTSIDE DIA.x18" IRON PIPE 1.13 LBS/FT)	
ACRES	AC		
CHORD BEARING	CH BRG		
CHORD DISTANCE	CH DIS		
DEED	(D)	SET P.K. NAIL	
DOCUMENT	DOC		
EAST BOUND	EB	PROPOSED R/W	
GAS VALVE	GV	BOUNDARY POINT	
INLET	IL		
LENGTH OF CURVE	L	CORPORATE LIMITS	
MANHOLE	MH	EXISTING R/W	
MONUMENT	MON	SECTION LINE	
NORTH BOUND	NB	QUARTER LINE	
PAGE	PG	SIXTEENTH LINE	
PERMANENT	PERM	PROPOSED OR NEW R/W LINE	
PERMANENT LIMITED EASEMENT	PLE	PROPOSED EASEMENT LINE	
PRIVATE DRIVEWAY	PD		
PROPERTY LINE	PL	PARCEL NUMBER	00
RADIUS	RAD		
REFERENCE LINE	℄	UTILITY NUMBER	000
REMAINING	REM		
RIGHT OF WAY	R/W	PROPERTY LINE	PL
SECTION	SEC	LOT, TIE AND OTHER MINOR DASHED LINES	
SECTION LINE	℄		
FOUND IRON PIPE	IP ●	ACCESS RESTRICTED (By Previous Acquisition / Control)	
STATION	STA	ACCESS RESTRICTED (By Acquisition)	
TEMPORARY LIMITED EASEMENT	TLE	NO ACCESS (By Statutory Authority)	
TIE POINT	DB1	LIMITED EASEMENT (Temporary or Permanent)	
VOLUME	VOL		
ADJOINING LANDS WITH SAME OWNER	00'		
PARALLEL TO LINE			
BUILDING TO BE RAZED			
FEE ACQUISITION	VARIOUS HATCHING		

FIBER OPTIC LINE	FO	
TELEPHONE LINE	T	
BURIED GAS LINE	G	
SANITARY SEWER LINE	SAN	
BURIED WATER LINE	W	
BURIED ELECTRIC LINE	E	
OVERHEAD ELECTRIC LINE	OH	

	COMPENSABLE	NON-COMPENSABLE
POWER POLE		
TELEPHONE POLE		
SIGN		
TELEPHONE PEDESTAL		

RESERVE FOR CLAUSES AND NOTE INFORMATION

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS AND ARE REFERENCED TO THE US PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

RIGHT OF WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

AREAS SHOWN IN THE TOTAL ACRES COLUMN OF THE SCHEDULE OF LANDS & INTEREST TABLE MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

COORDINATES AS SHOWN ARE NOT INTENDED TO BE USED FOR RETRACEMENT PURPOSES AND MUST BE VERIFIED WITH THE COUNTY SURVEY DEPARTMENT.

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, BROWN COUNTY ZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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 AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING RIGHT OF WAY WAS ACQUIRED FROM PROJECT(S):
R/W PROJECT NO. E 0-0 (62), CSM OF RECORD & COUNTY MAPS

EXISTING ACCESS CONTROL WAS ACQUIRED UNDER PROJECT(S):

STH 29 IN BROWN COUNTY WAS DESIGNATED AS A FREEWAY UNDER SECTION 84.295 OF THE WISCONSIN STATUTES BY THE HIGHWAY COMMISSION ON 3/18/08, DOC.#2364054.

RIGHT OF WAY REFERENCE LINE MAY NOT BE THE SAME AS THE CONSTRUCTION REFERENCE LINE.

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 REQUIREDFOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE TO PREVENT EROSION OF THE SOIL. ALL TLEs ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

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

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

JON L. HERBEL		06/04/2012
PRINTED NAME	SIGNATURE	DATE

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

NORMAN PAWELCZYK		06/04/2012
PRINTED NAME	SIGNATURE	DATE

COURSE TABLE
STH 29 / 32 R/W REFERENCE LINE

611	657	S 61°40'28" E	1716.10'
657	658	SEE CURVE TABLE CUR80	
658	722	S 59°57'09" E	7495.11'

POINT STATION OFFSET COORDINATES
STH 29 / 32 R/W REFERENCE LINE POINTS

611	613+00.00	0.00'R	Y 586510.638 X 65097.880
657	630+16.10	0.00'R	Y 585696.382 X 66608.506
658	637+04.89	0.00'R	Y 585360.503 X 67209.824
722	712+00.00	0.00'R	Y 581607.572 X 73697.670

CURVE TABLE

CURVE	CH DISTANCE	CH BEARING	RADIUS	ARC LENGTH	PI COORDINATES	
CUR80	688.77'	S 60°48'49" E	22918.31	688.79'	Y=585532.961	X=66911.689

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER	INTEREST REQUIRED	FEE ACRES	T.L.E. ACRES	P.L.E. ACRES
14	REDJ, LLC	FEE	0.551		-
16	WALTER A. NEAL & JULIE A. NEAL	FEE & TLE	0.100	0.075	-
17	RONALD A. OLEJEV (DEVISOR) TIM L. & DAWN M. FAY (PURCHASER)	FEE & TLE	0.185	0.047	-
					-
					-
					-
					-

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
100	AT&T WISCONSIN	RELEASE OF RIGHTS
104	VILLAGE OF HOWARD	RELEASE OF RIGHTS
105	WISCONSIN PUBLIC SERVICE CORP.- ELECTRIC	RELEASE OF RIGHTS
106	WISCONSIN PUBLIC SERVICE CORP.- GAS	RELEASE OF RIGHTS

POINT STATION OFFSET COORDINATES

TLE "A"			
TLE4	680+88.68	132.78'R	Y 583050.533 X 70937.991
TLE3	681+56.23	119.91'R	Y 583007.821 X 71037.531
TLE2	684+29.61	119.18'R	Y 582891.593 X 71239.918
TLE1	684+31.31	110.00'R	Y 582898.685 X 71245.984
TLE "B"			
TLE26	696+01.71	162.35'L	Y 582548.396 X 72395.461
TLE27	696+02.30	178.11'L	Y 582561.739 X 72403.866
TLE28	696+74.38	184.89'L	Y 582531.518 X 72469.654
TLE29	697+71.26	174.66'L	Y 582474.152 X 72548.391

POINT STATION OFFSET COORDINATES

SEC1072	663+79.75	321.90'L	Y 584299.797 X 69686.395
SIXT7	677+97.94	190.37'L	Y 583475.831 X 70848.137
DB324	679+16.21	0.00'L	Y 583251.822 X 70855.188
DB302	680+14.82	158.73'R	Y 583065.045 X 70861.067
PRW11	680+18.19	158.41'R	Y 583063.640 X 70864.145
PRW44	681+51.31	110.00'R	Y 583038.886 X 71003.613
DB314	681+51.31	0.00'R	Y 583134.104 X 71058.692
SEC1023	686+02.68	1710.49'L	Y 584388.713 X 72305.873
SIXT1	694+37.14	150.40'L	Y 582620.457 X 72247.028
DB315	699+00.00	0.00'L	Y 582258.505 X 72572.376
PRW717	699+35.71	186.59'L	Y 582402.140 X 72696.722

COURSE TABLE
POINT TO POINT

		BEARING	DISTANCE
SEC1072	SEC1023	N 88°03'21" E	2620.99'
SEC1023	SIXT1	S 01°54'22" W	1769.23'
SIXT1	PRW717	S 64°06'16" E	499.89'
PRW717	DB315	S 40°52'59" W	189.98'
DB315	DB314	N 59°57'09" W	1748.69'
DB314	PRW44	S 30°02'51" W	110.00'
PRW44	PRW11	N 79°56'08" W	141.65'
PRW11	DB302	N 65°28'11" W	3.38'
DB302	SIXT7	N 01°48'10" W	410.99'
SIXT7	SIXT1	S 58°33'20" E	1639.68'

SEC1072
PK NAIL
Y=584299.797
X=69686.395

SEC1023
1" IRON ROD W/CAP
Y=584388.713
X=72305.873

SIXT1
COMPUTED PT.
Y=582620.457
X=72247.028

SIXT7
COMPUTED PT.
Y=583475.831
X=70848.137

SEC8004
PK NAIL
Y=581142.902
X=69776.920

N 88°03'21" E 2620.99'

0 100 200
GRAPHIC SCALE, FEET

LOT 1, VILLAGE OF HOBART;
GOVT LOT 2 VILLAGE OF HOWARD;
ALL LOCATED IN SEC.18, T24N-R20E,
BROWN COUNTY, WISCONSIN

LOCATION SKETCH
(NOT TO SCALE)

2576523
CATHY WILLIQUETTE LINDSAY
BROWN COUNTY RECORDER
GREEN BAY, WI
RECORDED ON
06/04/2012 3:59 PM
REC FEE: 25.00
EXEMPT #
PAGES: 1

RESERVE FOR REGISTER OF DEEDS
PROJECT NUMBER 9200-04-21-4.04
AMENDMENT NUMBER:

VILLAGE OF HOWARD
VILLAGE OF HOBART
GOVT. LOT 2
GOVT. LOT 3
LOT 1
LOT 2
LOT 5
LOT 6
LOT 7
LOT 8
LOT 54
LOT 55
LOT 56
LOT 57
LOT 58
LOT 59
LOT 60
OUTLOT 1 CSM#8033 VOL. 39 PG. 338 DOC. #2477909
LOT 1 CSM#8033 VOL. 39 PG. 338 DOC. #2477909
LOT 1 CSM #3444 VOL. 16 PG. 251 DOC. #261734
CHOCTAW WOODS FIRST ADDITION VOL. 18 PAGE 7 DOC. #426043
SANITARY SEWER EASEMENT DOC. #1284370
ELECTRIC/GAS EASEMENT VOL. 356 PG. 622
ELECTRIC/GAS EASEMENT DOC. #803606
WATER USE AGREEMENT VOL. 1 PG. 433 DOC. #284333
GAS LINE EASEMENT VOL. 356 PG. 622 DOC. #129631
STH 29-32 RIGHT-OF-WAY ℄
STH 29/STH 32
FREDRICK CT.
OSAGE CT.
ALGONQUIN TRAIL
CHOCTAW WOODS FIRST ADDITION VOL. 18 PAGE 7 DOC. #426043
TLE "A"
TLE "B"
RUINS
STATUE
SIGN
SAN
FO
T
G
W
E
OH
PL
SHAWANO CO.
OUTAGAMIE CO.
T-24-N
Howard
Hobart
SHEET LOCATION
GOVT LOT 2 VILLAGE OF HOWARD
GOVT LOT 3 LINE
S 1°54'22" W 1769.23'
GOVT LOT 2 LINE

FILE NAME : C:\USERS\P\D3\920006B\dgn\040104_rw.dgn
PLOT DATE : 04-JUN-2012 11:22
PLOT BY : $$...plotuser...$$
PLOT NAME : D3
PLOT SCALE : 100.000000:1.000000
APPRAISAL PLAT DATE :
4.

TRANSPORTATION PROJECT PLAT NO: 9200-04-21-4.05

PART OF LOTS 1 AND 2, CSM*779, PART OF LOT 3, CSM*780, ALL OF LOT 5, CSM*780, AND ALL OF LOT 6, CSM*790, WITHIN THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4, SECTION 7, T24N-R20E, VILLAGE OF HOWARD; PART OF LOT 1, CSM*1464, PART OF LOTS 1& 2, CSM*5945, PART OF LOT 1, CSM*6922, WITHIN GOVERNMENT LOT 4, SECTION 12, T24N-R19E, VILLAGE OF HOWARD; PART OF LOT 1, CSM*1464, PART OF LOT 1, CSM*6922, WITHIN AND INCLUDING UNPLATTED LANDS IN LOT 7, SECTION 12, T24N-R19E, VILLAGE OF HOBART; ALL LOCATED WITHIN BROWN COUNTY, WISCONSIN.

RELOCATION ORDER STH 29 BROWN 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.

VILLAGE

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
100	AT&T WISCONSIN	RELEASE OF RIGHTS
105	WISCONSIN PUBLIC SERVICE CORP.- ELECTRIC	RELEASE OF RIGHTS
106	WISCONSIN PUBLIC SERVICE CORP.- GAS	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER	INTEREST REQUIRED	FEE ACRES	T.L.E. ACRES	P.L.E. ACRES
13	PIONEER CREDIT UNION	FEE	0.185	-	-
18	ROBERT N. TISCH & RUTH A. TISCH	FEE	1.464	-	-
19	WISCONSIN PUBLIC SERVICE	FEE, T.L.E. & ACCESS RIGHTS	1.817	0.279	-
20	WILLIAM R. FLISAKOWSKI & KIMBERLY A.FLISAKOWSKI	FEE, T.L.E & ACCESS RIGHTS	0.864	0.339	-
21	MATTHEW ROSE & BETH ROSE	FEE, T.L.E & ACCESS RIGHTS	0.161	0.110	-
22	JEFFREY A.LEMAY & LINDA L.LEMAY	FEE, T.L.E & ACCESS RIGHTS	0.327	0.035	-
23	JANICE M. MAROSZEK	FEE, T.L.E & ACCESS RIGHTS	0.138	0.029	-
24	SCOTT A.HARRIG & CAROL HARRIG	FEE, T.L.E & ACCESS RIGHTS	0.173	0.085	-
25	RONALD M. MARTENS & PATSY A. MARTENS	FEE, T.L.E & ACCESS RIGHTS	0.121	0.244	-
26	GARY T.DECASTER & GINA DECASTER	FEE	0.403	-	-
			-	-	-

CONVENTIONAL ABBREVIATIONS AND SYMBOLS

ACCESS POINT	AP	SECTION CORNER (MATERIAL AS NOTED)	
ACCESS RIGHTS	AR	SET R/W MONUMENT W/CAP (1-1/4" OUTSIDE DIA.x18" IRON PIPE 1.13 LBS/FT)	
ACRES	AC		
CHORD BEARING	CH BRG		
CHORD DISTANCE	CH DIS	SET P.K. NAIL	
DEED	(D)		
DOCUMENT	DOC	PROPOSED R/W	
EAST BOUND	EB	BOUNDARY POINT	
GAS VALVE	GV		
INLET	IL		
LENGTH OF CURVE	L	CORPORATE LIMITS	
MANHOLE	MH	EXISTING R/W	
MONUMENT	MON	SECTION LINE	
NORTH BOUND	NB	QUARTER LINE	
PAGE	PG	SIXTEENTH LINE	
PERMANENT	PERM	PROPOSED OR NEW R/W LINE	
PERMANENT LIMITED EASEMENT	PLE	PROPOSED EASEMENT LINE	
PRIVATE DRIVEWAY	PD		
PROPERTY LINE	PL	PARCEL NUMBER	00
RADIUS	RAD		
REFERENCE LINE	℄	UTILITY NUMBER	000
REMAINING	REM		
RIGHT OF WAY	R/W	PROPERTY LINE	PL
SECTION	SEC		
SECTION LINE	℄	LOT, TIE AND OTHER MINOR DASHED LINES	
FOUND IRON PIPE	IP ●		
STATION	STA	QUARTER LINE	
TEMPORARY LIMITED EASEMENT	TLE	ACCESS RESTRICTED (By Previous Acquisition / Control)	
TIE POINT	DB1		
VOLUME	VOL	ACCESS RESTRICTED (By Acquisition)	
ADJOINING LANDS		NO ACCESS (By Statutory Authority)	
WITH SAME OWNER		LIMITED EASEMENT (Temporary or Permanent)	
PARALLEL TO LINE	00'		
BUILDING TO BE RAZED			
FEE ACQUISITION	VARIOUS HATCHING		

	COMPENSABLE	NON-COMPENSABLE
POWER POLE		
TELEPHONE POLE		
SIGN		
TELEPHONE PEDESTAL		

FIBER OPTIC LINE	FO
TELEPHONE LINE	T
BURIED GAS LINE	G
SANITARY SEWER LINE	SAN
BURIED WATER LINE	W
BURIED ELECTRIC LINE	E
OVERHEAD ELECTRIC LINE	OH

PRWOOO

RESERVE FOR CLAUSES AND NOTE INFORMATION

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS AND ARE REFERENCED TO THE US PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

RIGHT OF WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

AREAS SHOWN IN THE TOTAL ACRES COLUMN OF THE SCHEDULE OF LANDS & INTEREST TABLE MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

COORDINATES AS SHOWN ARE NOT INTENDED TO BE USED FOR RETRACEMENT PURPOSES AND MUST BE VERIFIED WITH THE COUNTY SURVEY DEPARTMENT.

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, BROWN COUNTYZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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 AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING RIGHT OF WAY WAS ACQUIRED FROM PROJECT(S): R/W PROJECT NO. E O-O (62), CSM OF RECORD & COUNTY MAPS

EXISTING ACCESS CONTROL WAS ACQUIRED UNDER PROJECT(S):

STH 29 IN BROWN COUNTY WAS DESIGNATED AS A FREEWAY UNDER SECTION 84.295 OF THE WISCONSIN STATUTES BY THE HIGHWAY COMMISSION ON 3/18/08, DOC.#2364054.

RIGHT OF WAY REFERENCE LINE AND SECTION LINE ALONG SHERWOOD STREET ARE THE SAME.
RIGHT OF WAY REFERENCE LINE MAY NOT BE THE SAME AS THE CONSTRUCTION REFERENCE LINE.

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 REQUIREDFOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE TO PREVENT EROSION OF THE SOIL. ALL TLEs ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

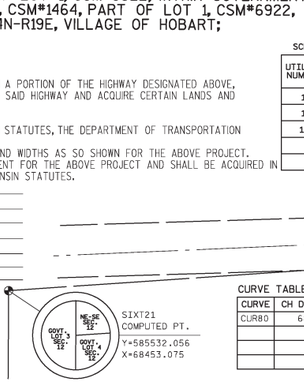
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOESES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO DEPARTMENT OF TRANSPORTATION.

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

JON L. HERBEL		06/18/2012
PRINTED NAME	SIGNATURE	DATE

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

NORMAN PAWELCZYK		06/18/2012
PRINTED NAME	SIGNATURE	DATE



CURVE TABLE

CURVE	CH DISTANCE	CH BEARING	RADIUS	ARC LENGTH	PI COORDINATES	
CUR80	688.77'	S 60°48'49" E	22918.31	688.79'	Y=585532.961	X=66911.689

POINT	STATION	OFFSET	COORDINATES
R/W REFERENCE LINE POINTS			
SEC8038	0+00.00	0.00'R	Y 579821.690 X 69805.891
SEC1196	13+21.53	0.00'R	Y 581142.902 X 69776.920
SEC8004	26+40.12	0.00'R	Y 582460.882 X 69736.827
711	43+68.88	0.00'R	Y 584188.779 X 69682.177
SEC1072	44+79.98	0.00'R	Y 584299.797 X 69686.395
SEC3	71+15.58	0.00'R	Y 586935.230 X 69716.286

COURSE TABLE R/W REFERENCE LINE POINT TO POINT		BEARING	DISTANCE
SEC8038	SEC1196	N 01°15'22" W	1321.53'
SEC1196	SEC8004	N 01°44'33" W	1318.59'
SEC8004	SEC711	N 01°48'42" W	1728.76'
SEC711	SEC1072	N 02°10'33" E	111.10'
SEC1072	SEC3	N 00°38'59" E	2635.60'

COURSE TABLE STH 29 / 32 R/W REFERENCE LINE			
611	657	S 61°40'28" E	1716.10'
657	658	SEE CURVE TABLE CUR80	
658	722	S 59°57'09" E	7495.11'

POINT	STATION	OFFSET	COORDINATES
STH 29 / 32 R/W REFERENCE LINE POINTS			
611	613+00.00	0.00'R	Y 586510.638 X 65097.880
657	630+16.10	0.00'R	Y 585696.382 X 66608.506
658	637+04.89	0.00'R	Y 585360.503 X 67209.824
722	712+00.00	0.00'R	Y 581607.572 X 73697.670

COURSE TABLE POINT TO POINT		BEARING	DISTANCE
SEC1072	PRW49	N 88°03'21" E	319.57'
PRW49	PRW50	N 00°39'00" E	230.62'
PRW50	PRW51	N 74°14'04" W	226.00'
PRW51	PRW52	N 00°37'41" W	200.90'
PRW52	PRW53	N 34°20'32" W	36.62'
PRW53	PRW54	N 04°29'35" W	100.40'
PRW54	PRW141	N 00°19'04" E	650.49'
PRW141	DB319	N 00°19'04" E	35.02'
DB319	SIXT3	S 88°08'20" W	62.09'
SIXT3	DB320	S 86°05'01" W	50.59'
DB320	PRW89	S 05°02'34" W	33.30'
PRW89	PRW140	S 05°02'34" W	261.32'
PRW140	PRW93	S 01°21'12" W	570.04'
PRW93	PRW94	S 05°02'55" W	130.38'
PRW94	PRW96	S 00°38'59" W	200.00'
PRW96	PRW97	S 66°24'35" W	99.21'
PRW97	PRW98	N 71°53'20" W	134.28'
PRW98	PRW99	N 69°10'28" W	480.97'
PRW99	SIXT20	N 61°42'21" W	545.43'
SIXT20	DB316	S 00°18'36" W	208.29'
DB316	DB317	S 28°50'40" E	494.53'
DB317	DB310	N 84°55'12" E	68.26'
DB310	PRW131	N 01°20'47" E	46.18'
PRW131	PRW130	N 15°55'17" W	91.27'
PRW130	DB318	N 30°02'51" E	112.28'
DB318	DB112	S 59°57'09" E	395.14'
DB112	SEC1072	N 84°55'12" E	559.45'

POINT	STATION	OFFSET	COORDINATES
TLE "A"			
TLE35	46+90.00	150.00'L	Y 584511.506 X 69538.787
TLE34	46+90.00	90.00'L	Y 584510.826 X 69598.783
TLE118	48+87.72	83.25'L	Y 584708.456 X 69607.772
DB36	48+87.72	150.00'L	Y 584709.213 X 69541.029
TLE "B"			
PRW93	49+30.00	80.00'L	Y 584750.697 X 69611.504
TLE72	49+30.00	150.00'L	Y 584751.491 X 69541.508
TLE73	51+35.63	150.00'L	Y 584957.107 X 69543.841
TLE74	51+38.63	77.44'L	Y 584959.283 X 69616.432
TLE "C"			
TLE90	53+50.00	74.84'L	Y 585170.611 X 69621.425
TLE75	53+50.00	95.00'L	Y 585170.840 X 69601.268
TLE76	53+95.00	95.00'L	Y 585215.837 X 69601.779
TLE91	53+95.00	80.00'L	Y 585215.667 X 69616.778
TLE92	55+00.00	80.00'L	Y 585320.660 X 69617.968
TLE94	57+39.40	200.70'L	Y 585561.416 X 69499.987
TLE93	57+45.28	59.04'L	Y 585565.691 X 69641.705
TLE95	57+54.37	201.86'L	Y 585576.393 X 69499.005
TLE "D"			
PRW52	49+85.00	96.00'R	Y 584803.697 X 69788.116
TLE65	51+50.00	72.00'R	Y 584968.959 X 69765.989
TLE96	51+50.00	100.00'R	Y 584968.641 X 69793.987
TLE97	52+35.00	100.00'R	Y 585053.636 X 69794.951
TLE98	52+35.00	65.30'R	Y 585054.029 X 69760.258
TLE "E"			
TLE66	53+85.00	64.44'R	Y 585204.030 X 69761.090
TLE67	53+85.00	82.00'R	Y 585203.830 X 69778.654
TLE69	54+55.00	64.03'R	Y 585274.030 X 69761.478
TLE68	54+55.00	82.00'R	Y 585273.826 X 69779.448
TLE "F"			
TLE70	56+55.41	62.87'R	Y 585474.440 X 69762.590
TLE32	57+27.99	200.90'R	Y 585545.445 X 69901.437
TLE33	57+71.54	200.41'R	Y 585589.002 X 69901.437

POINT	STATION	OFFSET	COORDINATES
POINTS FROM SIXT3			
SIXT20	650+32.30	180.86'L	Y 584852.403 X 68449.399
DB6	650+45.33	158.05'L	Y 584826.129 X 68449.257
DB316	651+35.61	0.00'L	Y 584644.116 X 68448.272
PRW130	655+27.05	112.28'R	Y 584350.927 X 68730.887
DB318	655+27.05	0.00'R	Y 584448.115 X 68787.106
DB317	655+59.03	255.50'R	Y 584210.941 X 68686.851
PRW99	655+77.47	197.55'L	Y 584593.868 X 68929.665
PRW131	655+92.68	175.72'R	Y 584263.154 X 68755.925
DB310	656+14.85	216.22'R	Y 584216.985 X 68754.840
DB112	659+22.20	0.00'R	Y 584250.260 X 69129.147
PRW98	660+52.23	274.63'L	Y 584422.871 X 69379.217
PRW97	661+83.61	302.40'L	Y 584381.129 X 69506.844
PRW96	662+42.43	382.29'L	Y 584420.832 X 69597.762
SEC1072	663+79.75	321.90'L	Y 584299.797 X 69686.395
PRW50	665+38.35	691.81'L	Y 584540.578 X 70008.893
PRW49	666+50.79	491.21'L	Y 584310.638 X 70005.780
POINTS FROM SHERWOOD ST. REFERENCE LINE			
SEC1072	44+79.98	0.00'R	Y 584299.797 X 69686.395
PRW49	44+94.44	319.24'R	Y 584310.638 X 70005.780
PRW96	46+00.00	90.00'L	Y 584420.832 X 69597.762
PRW50	47+24.40	319.75'R	Y 584540.578 X 70008.893
PRW51	47+84.15	100.48'R	Y 584602.812 X 69790.318
PRW94	48+00.00	90.00'L	Y 584620.819 X 69600.030
PRW93	49+30.00	80.00'L	Y 584750.697 X 69611.504
PRW52	49+85.00	96.00'R	Y 584803.697 X 69788.116
PRW53	50+15.00	75.00'R	Y 584833.934 X 69767.458
PRW54	51+15.00	66.00'R	Y 584934.029 X 69759.593
PRW140	55+00.00	73.00'L	Y 585320.581 X 69624.968
PRW89	57+60.55	52.98'L	Y 585580.886 X 69647.937
PRW141	57+65.48	62.23'R	Y 585584.507 X 69763.200
DB320	57+93.75	50.43'L	Y 585614.057 X 69650.864
DB319	58+00.50	62.03'R	Y 585619.529 X 69763.394

2578786
CATHY WILLIQUETTE LINDSAY
BROWN COUNTY RECORDER
GREEN BAY, WI
RECORDED ON
06/19/2012 3:01 PM
REC FEE: 25.00
EXEMPT #
PAGES: 1

RESERVE FOR REGISTER OF DEEDS
PROJECT NUMBER 9200-04-21-4.05
AMENDMENT NUMBER:

FILE NAME : C:\users\P\D3\920006B\dgn\040105_rw.dgn PLOT DATE : 18-JUN-2012 13:57 PLOT BY : $$...plotuser...$$ PLOT NAME : D3 PLOT SCALE : 100.000000:1.000000
APPRAISAL PLAT DATE :

TRANSPORTATION PROJECT PLAT NO: 9200-04-21-4.06 AMENDMENT NUMBER 1

AMENDS PARCELS 28 AND 29 OF TRANSPORTATION PROJECT PLAT 9200-04-21-4.06
RECORDED AS DOCUMENT #2578790 ON 06/19/2012
PART OF UNPLATTED LANDS WITHIN THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4, SECTION 12, T24N-R19E;
PART OF UNPLATTED LANDS WITHIN THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4, SECTION 7, T24N-R20E;
ALL LOCATED WITHIN THE VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN.

RELOCATION ORDER STH 29 BROWN 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.

CONVENTIONAL ABBREVIATIONS AND SYMBOLS

ACCESS POINT	AP	SECTION CORNER (MATERIAL AS NOTED)	
ACCESS RIGHTS	AR	SET R/W MONUMENT W/CAP (1-1/4" OUTSIDE DIA.x18" IRON PIPE 1.13 LBS/FT)	
ACRES	AC	SET P.K. NAIL	
CHORD BEARING	CH BRG	PROPOSED R/W	
CHORD DISTANCE	CH DIS	BOUNDARY POINT	
DEED	(D)	CORPORATE LIMITS	
DOCUMENT	DOC	EXISTING R/W	
EAST BOUND	EB	SECTION LINE	
GAS VALVE	GV	QUARTER LINE	
INLET	IL	SIXTEENTH LINE	
LENGTH OF CURVE	L	PROPOSED OR NEW R/W LINE	
MANHOLE	MH	PROPOSED EASEMENT LINE	
MONUMENT	MON	PARCEL NUMBER	00
NORTH BOUND	NB	UTILITY NUMBER	000
PAGE	PG	PROPERTY LINE	PL
PERMANENT	PERM	LOT, TIE AND OTHER MINOR DASHED LINES	
PERMANENT LIMITED EASEMENT	PLE	ACCESS RESTRICTED (By Previous Acquisition / Control)	
PRIVATE DRIVEWAY	PD	ACCESS RESTRICTED (By Acquisition)	
PROPERTY LINE	PL	NO ACCESS (By Statutory Authority)	
RADIUS	RAD	LIMITED EASEMENT (Temporary or Permanent)	
REFERENCE LINE	℄		
REMAINING	REM		
RIGHT OF WAY	R/W		
SECTION	SEC		
SECTION LINE	S		
FOUND IRON PIPE	IP		
STATION	STA		
TEMPORARY LIMITED EASEMENT	TLE		
TIE POINT	DB1		
VOLUME	VOL		
ADJOINING LANDS WITH SAME OWNER			
PARALLEL TO LINE	00'		
BUILDING TO BE RAZED			
FEE ACQUISITION	VARIOUS HATCHING		

FIBER OPTIC LINE	FO	
TELEPHONE LINE	T	
BURIED GAS LINE	G	
SANITARY SEWER LINE	SAN	
BURIED WATER LINE	W	
BURIED ELECTRIC LINE	E	
OVERHEAD ELECTRIC LINE	OH	

	COMPENSABLE	NON-COMPENSABLE
POWER POLE	●	●
TELEPHONE POLE	●	●
SIGN	▸	▸
TELEPHONE PEDESTAL	×	×

RESERVE FOR CLAUSES AND NOTE INFORMATION

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS AND ARE REFERENCED TO THE US PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

RIGHT OF WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

AREAS SHOWN IN THE TOTAL ACRES COLUMN OF THE SCHEDULE OF LANDS & INTEREST TABLE MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

COORDINATES AS SHOWN ARE NOT INTENDED TO BE USED FOR RETRACEMENT PURPOSES AND MUST BE VERIFIED WITH THE COUNTY SURVEY DEPARTMENT.

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, BROWN COUNTYZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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 AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING RIGHT OF WAY WAS ACQUIRED FROM PROJECT(S):
R/W PROJECT NO. E 0-0 (62), CSM OF RECORD & COUNTY MAPS

EXISTING ACCESS CONTROL WAS ACQUIRED UNDER PROJECTS(S):

STH 29 IN BROWN COUNTY WAS DESIGNATED AS A FREEWAY UNDER SECTION 84.295 OF THE WISCONSIN STATUTES BY THE HIGHWAY COMMISSION ON 3/18/08, DOC.#2364054.

RIGHT OF WAY REFERENCE LINE AND SECTION LINE ALONG SHERWOOD STREET ARE THE SAME.
RIGHT OF WAY REFERENCE LINE MAY NOT BE THE SAME AS THE CONSTRUCTION REFERENCE LINE.

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 REQUIREDFOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE TO PREVENT EROSION OF THE SOIL. ALL TLEs ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

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

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

JON L. HERBEL		10/25/2012
PRINTED NAME	SIGNATURE	DATE

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

NORMAN PAWELCZYK		10/25/2012
PRINTED NAME	SIGNATURE	DATE

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER	INTEREST REQUIRED	FEE ACRES	T.L.E. ACRES	P.L.E. ACRES
27	ST. JOSEPH CORP.	FEE & TLE	0.352	0.222	-
28	JOSHUA D. LINSEN & ELIZABETH W. LINSEN	FEE & TLE	0.228	0.375	-
29	PAUL A KRAUSE & JANE D KRAUSE	FEE & TLE	2.175	1.263	-
30	THOMAS D. & JANET J. HEIDT	TLE	-	0.283	-
			-	-	-
			-	-	-

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
103	TIME WARNER CABLE	RELEASE OF RIGHTS
105	WISCONSIN PUBLIC SERVICE CORP.- ELECTRIC	RELEASE OF RIGHTS
106	WISCONSIN PUBLIC SERVICE CORP GAS	RELEASE OF RIGHTS

2598525
CATHY WILLIQUETTE LINDSAY
BROWN COUNTY RECORDER
GREEN BAY, WI
RECORDED ON
10/29/2012 11:46 AM
REC FEE: 25.00
EXEMPT #
PAGES: 1

RESERVE FOR REGISTER OF DEEDS
PROJECT NUMBER 9200-04-21-4.06
AMENDMENT NUMBER:1

SEC3
E1/4 SEC.12 T24N-R19E
STONE CUT "X"
Y=586935.230
X=69716.286

POINT	STATION	OFFSET	COORDINATES
DB357	57+92.54	65.56'L	Y 585613.021 X 69635.726
SIXT3	57+97.78	0.00'R	Y 585617.513 X 69701.341
DB659	58+21.41	538.91'R	Y 585635.033 X 70240.486
PRW86	58+30.11	64.98'L	Y 585650.581 X 69636.729
DB321	58+36.39	880.49'R	Y 585646.137 X 70582.214
PRW7820	58+37.01	95.61'R	Y 585655.653 X 69797.387
PRW67	58+56.38	537.38'R	Y 585670.014 X 70239.349
PRW7822	58+57.02	50.28'R	Y 585676.178 X 69752.292
PRW7821	58+59.01	95.61'R	Y 585677.651 X 69797.637
PRW7819	59+52.79	731.25'R	Y 585764.220 X 70434.301
PRW7818	59+53.77	754.51'R	Y 585764.940 X 70457.568
PRW7814	59+63.30	611.77'R	Y 585776.080 X 70314.952
PRW7825	60+04.58	689.05'R	Y 585816.487 X 70392.694
PRW7817	60+91.43	586.63'R	Y 585904.489 X 70291.268
PRW60	61+03.33	50.66'R	Y 585922.468 X 69755.462
PRW85	61+55.00	60.00'L	Y 585975.391 X 69645.396
PRW7823	61+58.20	360.68'R	Y 585973.824 X 70066.080
PRW64	62+00.68	297.57'R	Y 586017.015 X 70003.456
PRW7816	62+14.85	460.26'R	Y 586029.338 X 70166.299
PRW62	62+67.36	118.37'R	Y 586085.725 X 69825.027
PRW142	62+70.00	32.00'L	Y 586090.066 X 69674.698
PRW7824	62+74.97	166.71'R	Y 586092.780 X 69873.454
PRW7815	62+85.40	351.23'R	Y 586101.119 X 70058.081
PRW71	63+38.37	291.28'R	Y 586154.763 X 69998.732
PRW143	64+00.00	32.00'L	Y 586220.058 X 69676.172
PRW6217	64+53.40	0.00'L	Y 586273.095 X 69708.776
PRW72	64+56.17	249.41'R	Y 586273.036 X 69958.203
PRW73	65+20.15	152.96'R	Y 586338.105 X 69862.483
PRW82	65+33.40	0.00'L	Y 586353.090 X 69709.683
PRW74	65+88.33	85.06'R	Y 586407.050 X 69795.356
PRW75	66+18.54	36.43'R	Y 586437.808 X 69747.079
PRW80	68+81.05	231.88'L	Y 586703.340 X 69481.762
PRW79	69+27.61	244.77'L	Y 586750.049 X 69469.403

POINT	STATION	OFFSET	COORDINATES
R/W REFERENCE LINE POINTS			
SEC8038	0+00.00	0.00'R	Y 579821.690 X 69805.891
SEC1196	13+21.53	0.00'R	Y 581142.902 X 69776.920
SEC8004	26+40.12	0.00'R	Y 582460.882 X 69736.827
711	43+68.88	0.00'R	Y 584188.779 X 69682.177
SEC1072	44+79.98	0.00'R	Y 584299.797 X 69686.395
SEC3	71+15.58	0.00'R	Y 586935.230 X 69716.286

COURSE TABLE
R/W REFERENCE LINE

POINT TO POINT		BEARING	DISTANCE
SEC8038	SEC1196	N 01°15'22" W	1321.53'
SEC1196	SEC8004	N 01°44'33" W	1318.59'
SEC8004	SEC711	N 01°48'42" W	1728.76'
SEC711	SEC1072	N 02°10'33" E	111.10'
SEC1072	SEC3	N 00°38'59" E	2635.60'

POINT	STATION	OFFSET	COORDINATES
TLE "A"			
TLE101	58+24.31	204.86'L	Y 585646.365 X 69496.792
TLE77	58+49.29	205.90'L	Y 585671.354 X 69496.039
TLE78	58+54.68	76.01'L	Y 585675.268 X 69625.980
TLE102	61+55.00	70.00'L	Y 585975.505 X 69635.396
PRW143	64+00.00	32.00'L	Y 586220.058 X 69676.172
TLE "B"			
TLE136	58+60.07	103.25'R	Y 585678.624 X 69805.291
TLE134	58+68.08	67.30'R	Y 585687.049 X 69769.433
TLE135	58+69.66	103.26'R	Y 585688.219 X 69805.414
TLE125	58+77.04	490.22'R	Y 585691.214 X 70192.429
TLE126	59+69.81	603.24'R	Y 585782.695 X 70306.492
TLE137	61+44.61	67.70'R	Y 585963.552 X 69772.968
TLE "C"			
PRW143	64+00.00	32.00'L	Y 586220.058 X 69676.172
TLE130	65+45.13	47.92'L	Y 586365.359 X 69661.904
TLE131	65+47.82	107.95'L	Y 586368.728 X 69601.902
TLE132	65+90.37	111.41'L	Y 586411.312 X 69598.924
TLE133	66+18.01	69.98'L	Y 586438.485 X 69640.668
TLE108	66+84.76	129.11'L	Y 586505.897 X 69582.303
TLE107	66+90.51	120.92'L	Y 586511.553 X 69590.550
TLE109	67+17.48	152.10'L	Y 586538.883 X 69559.678
TLE110	67+23.23	143.92'L	Y 586544.539 X 69567.924
TLE80	69+07.29	273.26'L	Y 586730.053 X 69440.678
PRW79	69+27.61	244.77'L	Y 586750.049 X 69469.403
TLE "D"			
PRW7818	59+53.77	754.51'R	Y 585764.940 X 70457.568
TLE129	59+54.54	772.56'R	Y 585765.500 X 70475.632
TLE128	62+32.69	476.90'R	Y 586046.988 X 70183.140
TLE127	63+54.39	285.59'R	Y 586170.845 X 69993.221
TLE "E"			
PRW72	64+56.17	249.41'R	Y 586273.036 X 69958.203
TLE117	66+88.79	134.71'R	Y 586506.940 X 69846.150
TLE82	67+00.08	36.10'R	Y 586519.349 X 69747.672
TLE106	69+60.43	207.37'L	Y 586782.443 X 69507.166
TLE81	69+77.85	182.95'L	Y 586799.583 X 69531.788

COURSE TABLE

POINT TO POINT		BEARING	DISTANCE
SIXT3	DB357	S 86°05'01" W	65.77'
DB357	PRW86	N 01°31'43" E	37.57'
PRW86	PRW85	N 01°31'43" E	324.93'
PRW85	PRW142	N 14°20'02" E	118.36'
PRW142	PRW143	N 00°38'59" E	130.00'
PRW143	PRW6217	N 31°34'49" E	62.26'
PRW6217	PRW82	N 00°38'59" E	80.00'
PRW82	PRW80	N 33°03'13" W	417.88'
PRW80	PRW79	N 14°49'14" W	48.32'
PRW79	PRW75	S 41°38'48" E	417.85'
PRW75	PRW74	S 57°29'54" E	57.24'
PRW74	PRW73	S 44°14'04" E	96.23'
PRW73	PRW72	S 55°47'34" E	115.74'
PRW72	PRW71	S 18°54'55" E	125.02'
PRW71	PRW7815	S 47°53'25" E	80.00'
PRW7815	PRW7816	S 56°26'37" E	129.86'
PRW7816	PRW7817	S 45°01'39" E	176.65'
PRW7817	PRW7825	S 49°03'13" E	134.28'
PRW7825	PRW7818	S 51°31'50" E	82.86'
PRW7818	PRW7819	S 88°13'34" W	23.28'
PRW7819	PRW7814	N 84°19'30" W	119.94'
PRW7814	PRW7823	N 51°31'51" W	317.87'
PRW7823	PRW64	N 55°24'23" W	76.07'
PRW64	PRW7824	N 59°45'59" W	150.47'
PRW7824	PRW62	N 81°42'41" W	48.94'
PRW62	PRW60	S 23°04'45" W	177.46'
PRW60	PRW7822	S 00°44'15" W	246.31'
PRW7822	PRW7821	N 88°08'20" E	45.37'
PRW7821	PRW7820	S 00°38'59" W	22.00'
PRW7820	PRW67	N 88°08'20" E	442.20'
PRW67	DB659	S 01°51'40" E	35.00'
DB659	SIXT3	S 88°08'20" W	539.43'

COURSE TABLE

POINT TO POINT		BEARING	DISTANCE
SIXT3	DB659	N 88°08'20" E	539.43'
DB659	DB321	N 88°08'20" E	341.91'
DB321	PRW7819	N 51°23'55" W	189.27'
PRW7819	PRW7814	N 84°19'30" W	119.94'
PRW7814	PRW67	S 35°28'51" W	130.25'
PRW67	DB659	S 01°51'40" E	35.00'

SPECIAL NOTE FOR TLE AREA FOR PARCEL 29
NO TREES TO BE DISTURBED UNLESS AGREED UPON BY OWNER. TLE AREA IS FOR DRIVEWAY CONSTRUCTION.

SHERWOOD ST. RIGHT-OF-WAY ℄

SIXT3
COMPUTED PT.
Y=585617.513
X=69701.341

SEC1072
PK NAIL
Y=584299.797
X=69686.395

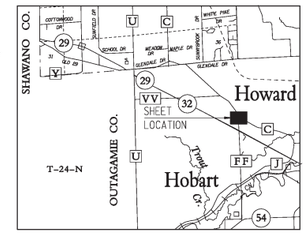
GAS PIPELINE EASEMENT DOC. #1135501

ELECTRIC EASEMENT DOC. #371143

GN

0 100 200
GRAPHIC SCALE, FEET

NE/4- SE/4, SEC. 12, T24N-R19E;
NW/4- SW/4, SEC. 7, T24N-R20E
VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN.



LOCATION SKETCH
(NOT TO SCALE)

FILE NAME : $$....designfile....$$
APPRAISAL PLAT DATE :
PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : D3 PLOT SCALE : $$.....plotscale.....$$

TRANSPORTATION PROJECT PLAT NO: 9200-04-21-4.06

PART OF UNPLATTED LANDS WITHIN THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4, SECTION 12, T24N-R19E;
PART OF UNPLATTED LANDS WITHIN THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4, SECTION 7, T24N-R20E;
ALL LOCATED WITHIN THE VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN.

RELOCATION ORDER STH 29 BROWN 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.

CONVENTIONAL ABBREVIATIONS AND SYMBOLS

ACCESS POINT	AP	SECTION CORNER (MATERIAL AS NOTED)	
ACCESS RIGHTS	AR	SET R/W MONUMENT W/CAP (1-1/4" OUTSIDE DIA.x18" IRON PIPE 1.13 LBS/FT)	
ACRES	AC	SET P.K. NAIL	
CHORD BEARING	CH BRG	PROPOSED R/W BOUNDARY POINT	PRWOOO
CHORD DISTANCE	CH DIS	CORPORATE LIMITS	
DEED	(D)	EXISTING R/W	
DOCUMENT	DOC	SECTION LINE	
EAST BOUND	EB	QUARTER LINE	
GAS VALVE	GV	SIXTEENTH LINE	
INLET	IL	PROPOSED OR NEW R/W LINE	
LENGTH OF CURVE	L	PROPOSED EASEMENT LINE	
MANHOLE	MH	PARCEL NUMBER	00
MONUMENT	MON	UTILITY NUMBER	000
NORTH BOUND	NB	PROPERTY LINE	PL
PAGE	PG	LOT, TIE AND OTHER MINOR DASHED LINES	
PERMANENT	PERM	ACCESS RESTRICTED (By Previous Acquisition / Control)	
PERMANENT LIMITED EASEMENT	PLE	ACCESS RESTRICTED (By Acquisition)	
PRIVATE DRIVEWAY	PD	NO ACCESS (By Statutory Authority)	
PROPERTY LINE	PL	LIMITED EASEMENT (Temporary or Permanent)	
RADIUS	RAD		
REFERENCE LINE	℄		
REMAINING	REM		
RIGHT OF WAY	R/W		
SECTION	SEC		
SECTION LINE	℄		
FOUND IRON PIPE	IP ●		
STATION	STA		
TEMPORARY LIMITED EASEMENT	TLE		
TIE POINT	DB1		
VOLUME	VOL		
ADJOINING LANDS WITH SAME OWNER			
PARALLEL TO LINE	00'		
BUILDING TO BE RAZED			
FEE ACQUISITION	VARIOUS HATCHING		

FIBER OPTIC LINE	FO	
TELEPHONE LINE	T	
BURIED GAS LINE	G	
SANITARY SEWER LINE	SAN	
BURIED WATER LINE	W	
BURIED ELECTRIC LINE	E	
OVERHEAD ELECTRIC LINE	OH	

	COMPENSABLE	NON-COMPENSABLE
POWER POLE	●	●
TELEPHONE POLE	●	●
SIGN	▶	▶
TELEPHONE PEDESTAL	×	×

RESERVE FOR CLAUSES AND NOTE INFORMATION

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS AND ARE REFERENCED TO THE US PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

RIGHT OF WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

AREAS SHOWN IN THE TOTAL ACRES COLUMN OF THE SCHEDULE OF LANDS & INTEREST TABLE MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

COORDINATES AS SHOWN ARE NOT INTENDED TO BE USED FOR RETRACEMENT PURPOSES AND MUST BE VERIFIED WITH THE COUNTY SURVEY DEPARTMENT.

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, BROWN COUNTYZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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 AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING RIGHT OF WAY WAS ACQUIRED FROM PROJECT(S):
R/W PROJECT NO. E 0-0 (62), CSM OF RECORD & COUNTY MAPS

EXISTING ACCESS CONTROL WAS ACQUIRED UNDER PROJECT(S):

STH 29 IN BROWN COUNTY WAS DESIGNATED AS A FREEWAY UNDER SECTION 84.295 OF THE WISCONSIN STATUTES BY THE HIGHWAY COMMISSION ON 3/18/08, DOC.#2364054.

RIGHT OF WAY REFERENCE LINE AND SECTION LINE ALONG SHERWOOD STREET ARE THE SAME.
RIGHT OF WAY REFERENCE LINE MAY NOT BE THE SAME AS THE CONSTRUCTION REFERENCE LINE.

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 REQUIREDFOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE TO PREVENT EROSION OF THE SOIL. ALL TLEs ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

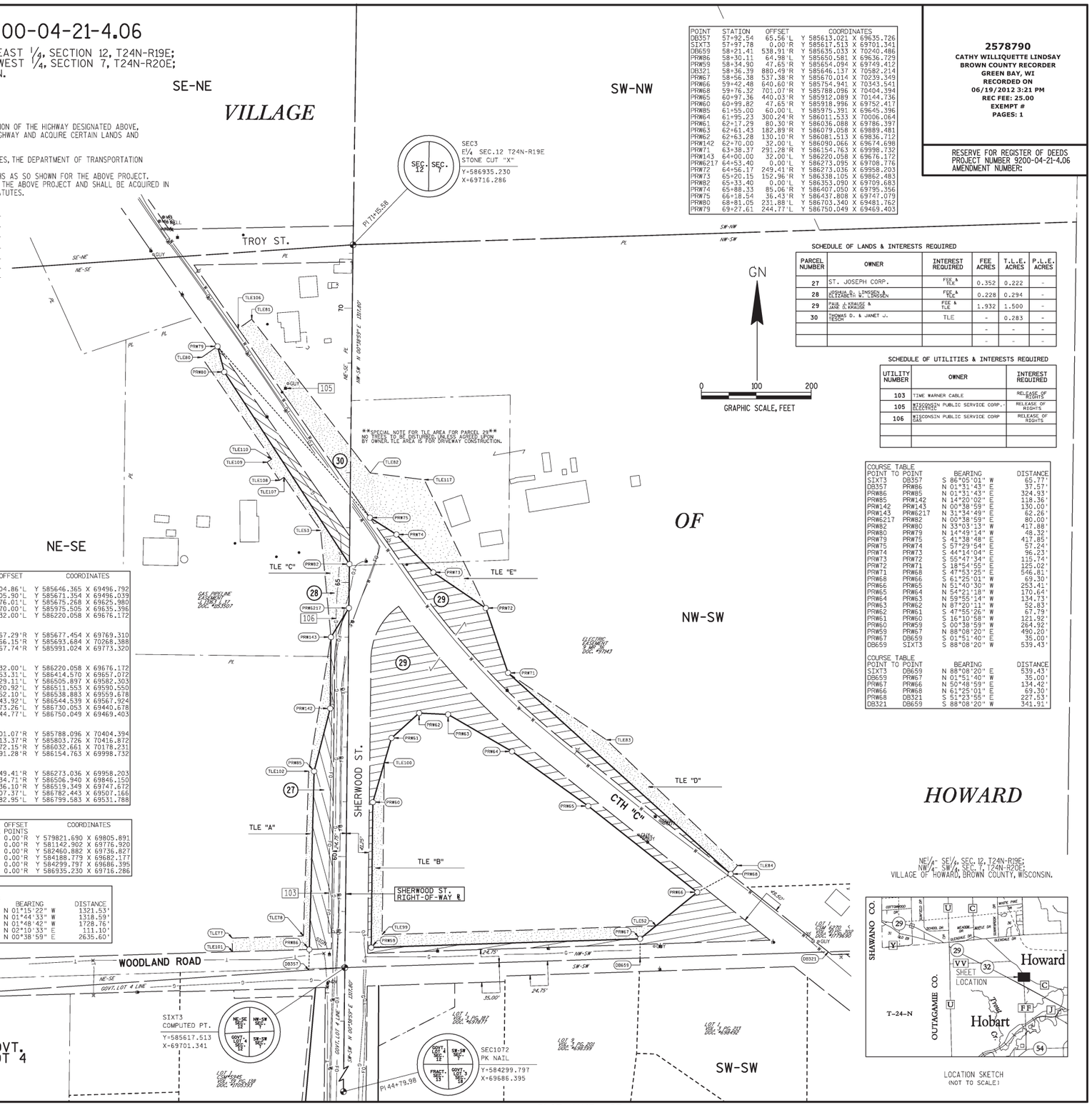
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOESES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO DEPARTMENT OF TRANSPORTATION.

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

JON L. HERBEL		06/04/2014
PRINTED NAME	SIGNATURE	DATE

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

NORMAN PAWELCZYK		06/04/2014
PRINTED NAME	SIGNATURE	DATE



POINT	STATION	OFFSET	COORDINATES
DB357	57+92.54	65.56'L	Y 585613.021 X 69635.726
SIXT3	57+97.78	0.00'R	Y 585617.513 X 69701.341
DB659	58+21.41	538.91'R	Y 585635.033 X 70240.486
PRW86	58+30.11	64.98'L	Y 585650.581 X 69636.729
PRW59	58+34.90	47.65'R	Y 585654.094 X 69749.412
DB321	58+36.39	880.49'R	Y 585646.137 X 70582.214
PRW67	58+56.38	537.38'R	Y 585670.014 X 70239.349
PRW66	59+42.48	640.60'R	Y 585754.941 X 70343.541
PRW68	59+76.32	701.07'R	Y 585788.096 X 70404.394
PRW65	60+97.36	440.03'R	Y 585912.089 X 70144.736
PRW60	60+99.82	47.65'R	Y 585918.996 X 69752.417
PRW85	61+55.00	60.00'L	Y 585975.391 X 69645.396
PRW64	61+95.23	300.24'R	Y 586011.533 X 70006.064
PRW61	62+17.29	80.30'R	Y 586036.088 X 69786.397
PRW63	62+61.43	182.89'R	Y 586079.058 X 69889.481
PRW62	62+63.28	130.10'R	Y 586081.513 X 69836.712
PRW142	62+70.00	32.00'L	Y 586090.066 X 69674.698
PRW71	63+38.37	291.28'R	Y 586154.763 X 69998.732
PRW143	64+00.00	32.00'L	Y 586220.058 X 69676.172
PRW6217	64+55.40	0.00'L	Y 586273.095 X 69708.176
PRW72	64+56.17	249.41'R	Y 586273.036 X 69958.203
PRW73	65+20.15	152.96'R	Y 586338.105 X 69862.483
PRW82	65+33.40	0.00'L	Y 586353.090 X 69709.683
PRW74	65+88.33	85.06'R	Y 586407.050 X 69795.356
PRW75	66+18.54	36.43'R	Y 586437.808 X 69747.079
PRW80	68+81.05	231.88'L	Y 586703.340 X 69481.762
PRW79	69+27.61	244.77'L	Y 586750.049 X 69469.403

POINT	STATION	OFFSET	COORDINATES
TLE "A"			
TLE101	58+24.31	204.86'L	Y 585646.365 X 69496.792
TLE77	58+49.29	205.90'L	Y 585671.354 X 69496.039
TLE78	58+54.68	76.01'L	Y 585675.268 X 69625.980
TLE102	61+55.00	70.00'L	Y 585975.505 X 69635.396
PRW143	64+00.00	32.00'L	Y 586220.058 X 69676.172
TLE "B"			
TLE99	58+58.49	67.29'R	Y 585677.454 X 69769.310
TLE52	58+80.38	566.15'R	Y 585693.684 X 70268.388
TLE100	61+72.08	67.74'R	Y 585991.024 X 69773.320
TLE "C"			
PRW143	64+00.00	32.00'L	Y 586220.058 X 69676.172
TLE53	65+94.28	53.31'L	Y 586414.570 X 69657.072
TLE108	66+84.76	129.11'L	Y 586505.897 X 69582.303
TLE107	66+90.51	120.92'L	Y 586511.553 X 69590.550
TLE109	67+17.48	152.10'L	Y 586538.883 X 69559.678
TLE110	67+23.23	143.92'L	Y 586544.539 X 69567.924
TLE80	69+07.29	273.26'L	Y 586730.053 X 69440.678
PRW79	69+27.61	244.77'L	Y 586750.049 X 69469.403
TLE "D"			
PRW68	59+76.32	701.07'R	Y 585788.096 X 70404.394
TLE84	59+92.09	713.37'R	Y 585803.726 X 70416.872
TLE83	62+18.31	472.15'R	Y 586032.661 X 70178.231
PRW71	63+38.37	291.28'R	Y 586154.763 X 69998.732
TLE "E"			
PRW72	64+56.17	249.41'R	Y 586273.036 X 69958.203
TLE117	66+88.79	134.71'R	Y 586506.940 X 69846.150
TLE82	67+00.08	36.10'R	Y 586519.349 X 69747.672
TLE106	69+60.43	207.37'L	Y 586782.443 X 69507.166
TLE81	69+77.85	182.95'L	Y 586799.583 X 69531.788

POINT	STATION	OFFSET	COORDINATES
R/W REFERENCE LINE POINTS			
SEC8038	0+00.00	0.00'R	Y 579821.690 X 69805.891
SEC1196	13+21.53	0.00'R	Y 581142.902 X 69776.920
SEC8004	26+40.12	0.00'R	Y 582460.882 X 69736.827
711	43+68.88	0.00'R	Y 584188.779 X 69682.177
SEC1072	44+79.98	0.00'R	Y 584299.797 X 69686.395
SEC3	71+15.58	0.00'R	Y 586935.230 X 69716.286

COURSE TABLE R/W REFERENCE LINE POINT TO POINT		BEARING	DISTANCE
SEC8038	SEC1196	N 01°15'22" W	1321.53'
SEC1196	SEC8004	N 01°44'33" W	1318.59'
SEC8004	SEC711	N 01°48'42" W	1728.76'
SEC711	SEC1072	N 02°10'33" E	111.10'
SEC1072	SEC3	N 00°38'59" E	2635.60'

COURSE TABLE POINT TO POINT		BEARING	DISTANCE
SIXT3	DB357	S 86°05'01" W	65.77'
DB357	PRW86	N 01°31'43" E	37.67'
PRW86	PRW85	N 01°31'43" E	324.93'
PRW85	PRW142	N 14°20'02" E	118.36'
PRW142	PRW143	N 00°38'59" E	130.00'
PRW143	PRW6217	N 31°34'49" E	62.26'
PRW6217	PRW82	N 00°38'59" E	80.00'
PRW82	PRW80	N 33°03'13" W	417.88'
PRW80	PRW79	N 14°49'14" W	48.32'
PRW79	PRW75	S 41°38'48" E	417.85'
PRW75	PRW74	S 57°29'54" E	57.24'
PRW74	PRW73	S 44°14'04" E	96.23'
PRW73	PRW72	S 55°47'34" E	115.74'
PRW72	PRW71	S 18°54'56" E	125.02'
PRW71	PRW68	S 47°53'25" E	546.81'
PRW68	PRW66	S 61°25'01" W	69.30'
PRW66	PRW65	N 51°40'30" W	253.41'
PRW65	PRW64	N 54°21'18" W	170.64'
PRW64	PRW63	N 59°55'14" W	134.73'
PRW63	PRW62	N 67°20'11" W	52.83'
PRW62	PRW61	S 47°55'26" W	67.79'
PRW61	PRW60	S 16°10'58" W	121.92'
PRW60	PRW59	S 00°38'59" E	264.92'
PRW59	PRW67	N 88°08'20" E	490.20'
PRW67	DB659	S 01°51'40" E	35.00'
DB659	SIXT3	S 88°08'20" W	539.43'

COURSE TABLE POINT TO POINT		BEARING	DISTANCE
SIXT3	DB659	N 88°08'20" E	539.43'
DB659	PRW67	N 01°51'40" W	35.00'
PRW67	PRW66	N 50°48'59" E	134.42'
PRW66	PRW68	N 61°25'01" E	69.30'
PRW68	DB321	S 51°23'55" E	227.53'
DB321	DB659	S 88°08'20" W	341.91'

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER	INTEREST REQUIRED	FEE ACRES	T.L.E. ACRES	P.L.E. ACRES
27	ST. JOSEPH CORP.	FEE & TLE	0.352	0.222	-
28	JOSHUA D. LINDSEN & ELIZABETH L. LINDSEN	FEE & TLE	0.228	0.294	-
29	PAUL J. KRAUSE & JANE D. KRAUSE	FEE & TLE	1.932	1.500	-
30	THOMAS D. & JANET J. TESCH	TLE	-	0.283	-
			-	-	-
			-	-	-

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
103	TIME WARNER CABLE	RELEASE OF RIGHTS
105	WISCONSIN PUBLIC SERVICE CORP.- ELECTRIC	RELEASE OF RIGHTS
106	WISCONSIN PUBLIC SERVICE CORP GAS	RELEASE OF RIGHTS

NE1/4 SE1/4, SEC. 12, T24N-R19E;
NW1/4 SW1/4, SEC. 7, T24N-R20E;
VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN.

2578790
CATHY WILLIQUETTE LINDSAY
BROWN COUNTY RECORDER
GREEN BAY, WI
RECORDED ON
06/19/2012 3:21 PM
REC FEE: 25.00
EXEMPT #
PAGES: 1

RESERVE FOR REGISTER OF DEEDS
PROJECT NUMBER 9200-04-21-4.06
AMENDMENT NUMBER:

TRANSPORTATION PROJECT PLAT NO: 9200-04-21-4.07

PART OF LOT 1, CSM#2574, OF LOT 1; PART OF LOT 2, CSM#2101, OF LOT 6; PART OF UNPLATTED LAND WITHIN LOTS 4 & 5; ALL LOCATED WITHIN SECTION 12, T24N-R19E, VILLAGE OF HOBART, BROWN COUNTY, WISCONSIN.

2576524
CATHY WILLIQUETTE LINDSAY
BROWN COUNTY RECORDER
GREEN BAY, WI
RECORDED ON
06/04/2012 4:01 PM
REC FEE: 25.00
EXEMPT #
PAGES: 1

RESERVE FOR REGISTER OF DEEDS
PROJECT NUMBER 9200-04-21-4.07
AMENDMENT NUMBER:

RELOCATION ORDER STH 29 BROWN 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.

CONVENTIONAL ABBREVIATIONS AND SYMBOLS

ACCESS POINT	AP	SECTION CORNER (MATERIAL AS NOTED)	
ACCESS RIGHTS	AR	SET R/W MONUMENT W/CAP (1-1/4" OUTSIDE DIA.x18" IRON PIPE 1.13 LBS/FT)	
ACRES	AC		
CHORD BEARING	CH BRG		
CHORD DISTANCE	CH DIS		
DEED	(D)	SET P.K. NAIL	
DOCUMENT	DOC		
EAST BOUND	EB	PROPOSED R/W	
GAS VALVE	GV	BOUNDARY POINT	
INLET	IL		
LENGTH OF CURVE	L	CORPORATE LIMITS	
MANHOLE	MH	EXISTING R/W	
MONUMENT	MON	SECTION LINE	
NORTH BOUND	NB	QUARTER LINE	
PAGE	PG	SIXTEENTH LINE	
PERMANENT	PERM	PROPOSED OR NEW R/W LINE	
PERMANENT LIMITED EASEMENT	PLE	PROPOSED EASEMENT LINE	
PRIVATE DRIVEWAY	PD		
PROPERTY LINE	PL	PARCEL NUMBER	00
RADIUS	RAD		
REFERENCE LINE	℄	UTILITY NUMBER	000
REMAINING	REM		
RIGHT OF WAY	R/W	PROPERTY LINE	PL
SECTION	SEC		
SECTION LINE	℄	LOT, TIE AND OTHER MINOR DASHED LINES	
FOUND IRON PIPE	IP ●		
STATION	STA	ACCESS RESTRICTED (By Previous Acquisition / Control)	
TEMPORARY LIMITED EASEMENT	TLE		
TIE POINT	DB1	ACCESS RESTRICTED (By Acquisition)	
VOLUME	VOL		
ADJOINING LANDS WITH SAME OWNER		NO ACCESS (By Statutory Authority)	
PARALLEL TO LINE	00'	LIMITED EASEMENT (Temporary or Permanent)	
BUILDING TO BE RAZED			
FEE ACQUISITION	VARIOUS HATCHING		

	COMPENSABLE	NON-COMPENSABLE
POWER POLE		
TELEPHONE POLE		
SIGN		
TELEPHONE PEDESTAL		

FIBER OPTIC LINE	FO
TELEPHONE LINE	T
BURIED GAS LINE	G
SANITARY SEWER LINE	SAN
BURIED WATER LINE	W
BURIED ELECTRIC LINE	E
OVERHEAD ELECTRIC LINE	OH

RESERVE FOR CLAUSES AND NOTE INFORMATION

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS AND ARE REFERENCED TO THE US PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

RIGHT OF WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

AREAS SHOWN IN THE TOTAL ACRES COLUMN OF THE SCHEDULE OF LANDS & INTEREST TABLE MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

COORDINATES AS SHOWN ARE NOT INTENDED TO BE USED FOR RETRACEMENT PURPOSES AND MUST BE VERIFIED WITH THE COUNTY SURVEY DEPARTMENT.

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, BROWN COUNTYZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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 AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING RIGHT OF WAY WAS ACQUIRED FROM PROJECT(S):
R/W PROJECT NO. E 0-0 (62), CSM OF RECORD & COUNTY MAPS

EXISTING ACCESS CONTROL WAS ACQUIRED UNDER PROJECT(S):

STH 29 IN BROWN COUNTY WAS DESIGNATED AS A FREEWAY UNDER SECTION 84.295 OF THE WISCONSIN STATUTES BY THE HIGHWAY COMMISSION ON 3/18/08, DOC.#2364054.

RIGHT OF WAY REFERENCE LINE MAY NOT BE THE SAME AS THE CONSTRUCTION REFERENCE LINE.

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 REQUIREDFOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE TO PREVENT EROSION OF THE SOIL. ALL TLEs ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

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

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

JON L. HERBEL (PRINTED NAME) — (SIGNATURE) — 06/04/2012 (DATE)

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

NORMAN PAWELCZYK (PRINTED NAME) — (SIGNATURE) — 06/04/2012 (DATE)

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER	INTEREST REQUIRED	FEE ACRES	T.L.E. ACRES	P.L.E. ACRES
31	KARL L. SCHWIESOW	FEE	2.237	-	-
32	FIRST BUSINESS BANK OF WILMAKEE	FEE	0.059	-	-
34	TODD A.MILLER & LISA M.MILLER	TLE	-	0.070	-
35	NICHOLAS & AILI HEINTZ	TLE	-	0.037	-
			-		-
			-	-	-

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
100	AT&T WISCONSIN	RELEASE OF RIGHTS

COURSE TABLE			
STH 29 / 32 R/W	REFERENCE LINE		
611	657	S 61°40'28" E	1716.10'
657	658	SEE CURVE TABLE CUR80	
658	722	S 59°57'09" E	7495.11'

POINT	STATION	OFFSET	COORDINATES
STH 29 / 32 R/W REFERENCE LINE POINTS			
611	613+00.00	0.00'R	Y 586510.638 X 65097.880
657	630+16.10	0.00'R	Y 585696.382 X 66608.506
658	637+04.89	0.00'R	Y 585360.503 X 67209.824
722	712+00.00	0.00'R	Y 581607.572 X 73697.670

CURVE TABLE

CURVE	CH DISTANCE	CH BEARING	RADIUS	ARC LENGTH	PI COORDINATES	
CUR80	688.77'	S 60°48'49" E	22918.31	688.79'	Y=585532.961	X=66911.689

COURSE TABLE			
POINT TO	POINT	BEARING	DISTANCE
SIXT25	DB325	N 85°34'48" E	882.15'
DB325	PRW127	S 64°20'16" E	434.57'
PRW127	PRW128	S 71°48'25" E	186.18'
PRW128	PRW129	S 60°55'03" E	161.43'
PRW129	SIXT19	N 06°43'39" E	334.13'
SIXT19	SEC1071	N 61°55'58" W	94.27'
SEC1071	SIXT32	S 85°35'40" W	230.72'
SIXT32	DB325	S 85°34'48" W	436.87'

COURSE TABLE			
POINT TO	POINT	BEARING	DISTANCE
SIXT25	DB322	N 85°34'48" E	235.01'
DB322	SIXT32	N 85°34'48" E	1084.01'
SIXT32	DB323	S 07°05'10" W	733.88'
DB323	PRW7069	N 82°54'50" W	46.51'
PRW7069	PRW100	N 20°30'59" W	65.63'
PRW100	PRW101	N 00°43'29" E	90.67'
PRW101	PRW102	N 22°46'24" W	124.47'
PRW102	PRW103	N 35°43'42" W	151.26'
PRW103	PRW104	N 08°40'11" W	136.99'
PRW104	PRW105	N 79°22'33" W	261.44'
PRW105	PRW106	N 85°11'04" W	328.09'
PRW106	PRW107	N 88°57'28" W	178.53'
PRW107	DB322	N 04°25'12" W	35.00'

POINT	STATION	OFFSET	COORDINATES
SIXT25	626+23.92	712.14'R	Y 585255.588 X 65925.389
DB322	628+21.59	585.02'R	Y 585273.700 X 66159.699
PRW107	628+40.52	614.46'R	Y 585238.804 X 66162.397
PRW106	629+99.18	532.62'R	Y 585235.557 X 66340.895
PRW105	633+05.09	399.96'R	Y 585208.014 X 66667.828
DB325	633+69.48	232.28'R	Y 585323.574 X 66804.912
PRW104	635+56.60	315.97'R	Y 585159.814 X 66924.785
PRW103	636+43.19	423.24'R	Y 585024.394 X 66945.434
SIXT32	637+33.07	12.53'L	Y 585357.243 X 67240.486
PRW102	637+82.27	485.39'R	Y 584901.599 X 67033.763
PRW127	638+06.19	201.49'R	Y 585135.375 X 67196.619
PRW101	638+81.44	560.61'R	Y 584786.836 X 67081.942
SEC1071	639+23.32	143.06'L	Y 585374.966 X 67470.524
PRW100	639+25.85	639.66'R	Y 584696.174 X 67080.795
PRW7069	639+76.53	681.35'R	Y 584634.709 X 67103.796
PRW128	639+88.40	163.24'R	Y 585077.247 X 67373.490
SIXT19	640+17.53	146.31'L	Y 585330.611 X 67553.708
DB323	640+19.36	663.20'R	Y 584628.971 X 67149.954
PRW129	641+49.80	160.52'R	Y 584998.782 X 67514.565

POINT	STATION	OFFSET	COORDINATES
TLE "A"			
RW115	639+39.24	461.08'R	Y 584844.041 X 67181.806
TLE49	639+48.30	456.84'R	Y 584843.176 X 67191.769
TLE51	640+07.18	605.95'R	Y 584628.529 X 67168.072
TLE50	640+16.23	601.71'R	Y 584683.766 X 67178.035
TLE "B"			
TLE46	628+02.40	531.97'R	Y 585329.505 X 66167.985
TLE45	628+13.22	548.79'R	Y 585309.564 X 66169.526
TLE47	629+52.30	441.51'R	Y 585338.007 X 66342.850
TLE48	629+60.41	454.13'R	Y 585323.051 X 66344.006

SIXT25 PK NAIL W/WASHER
Y=585255.588
X=65925.389

SIXT33 COMPUTED PT.
Y=585517.613
X=67204.655

SEC1071
1"IP W/CAP
Y=585374.966
X=67470.524

SIXT20 COMPUTED PT.
Y=584852.403
X=68449.399

SIXT32 BROWN CO. MON.
Y=585357.243
X=67240.486

SIXT19 COMPUTED PT.
Y=585330.611
X=67553.708

SEC1091
PK NAIL
Y=584056.062
X=67078.735

LOTS 1, 4, 5, & 6, VILLAGE OF HOBART, WITHIN SEC. 12, T24N-R19E, BROWN COUNTY, WISCONSIN.

GRAPHIC SCALE, FEET (0, 100, 200)

LOCATION SKETCH (NOT TO SCALE)

FILE NAME : C:\USERS\P\D3\920006B\dgn\040107_rw.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 04-JUN-2012 11:52
PLOT BY : $$...plotuser...$$ PLOT NAME : D3
PLOT SCALE : 100.000000:1.000000

TRANSPORTATION PROJECT PLAT NO: 9200-04-21-4.08

PART OF UNPLATTED LAND WITHIN LOTS 1, 6 & 7, IN THE VILLAGE OF HOBART; PART OF UNPLATTED LAND WITHIN GOVERNMENT LOTS 2 & 3, IN THE VILLAGE OF HOWARD; ALL LOCATED WITHIN SECTION 12, T24N-R19E, BROWN COUNTY, WISCONSIN.

RELOCATION ORDER STH 29 BROWN 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.

CONVENTIONAL ABBREVIATIONS AND SYMBOLS

ACCESS POINT	AP	SECTION CORNER (MATERIAL AS NOTED)	
ACCESS RIGHTS	AR	SET R/W MONUMENT W/CAP (1-1/4" OUTSIDE DIA.x18" IRON PIPE 1.13 LBS/FT)	○
ACRES	AC	SET P.K. NAIL	△
CHORD BEARING	CH BRG	PROPOSED R/W	PRWOOD
CHORD DISTANCE	CH DIS	BOUNDARY POINT	
DEED	(D)	CORPORATE LIMITS	
DOCUMENT	DOC	EXISTING R/W	
EAST BOUND	EB	SECTION LINE	
GAS VALVE	GV	QUARTER LINE	
INLET	IL	SIXTEENTH LINE	
LENGTH OF CURVE	L	PROPOSED OR NEW R/W LINE	
MANHOLE	MH	PROPOSED EASEMENT LINE	
MONUMENT	MON	PARCEL NUMBER	00
NORTH BOUND	NB	UTILITY NUMBER	000
PAGE	PG	PROPERTY LINE	PL
PERMANENT	PERM	LOT, TIE AND OTHER MINOR DASHED LINES	
PERMANENT LIMITED EASEMENT	PLE	ACCESS RESTRICTED (By Previous Acquisition / Control)	
PRIVATE DRIVEWAY	PD	ACCESS RESTRICTED (By Acquisition)	
PROPERTY LINE	PL	NO ACCESS (By Statutory Authority)	
RADIUS	RAD	LIMITED EASEMENT (Temporary or Permanent)	
REFERENCE LINE	℄		
REMAINING	REM		
RIGHT OF WAY	R/W		
SECTION	SEC		
SECTION LINE	℄		
FOUND IRON PIPE	IP ●		
STATION	STA		
TEMPORARY LIMITED EASEMENT	TLE		
TIE POINT	DB1		
VOLUME	VOL		
ADJOINING LANDS WITH SAME OWNER			
PARALLEL TO LINE	00'		
BUILDING TO BE RAZED			
FEE ACQUISITION	VARIOUS HATCHING		

FIBER OPTIC LINE	FO
TELEPHONE LINE	T
BURIED GAS LINE	G
SANITARY SEWER LINE	SAN
BURIED WATER LINE	W
BURIED ELECTRIC LINE	E
OVERHEAD ELECTRIC LINE	OH

	COMPENSABLE	NON-COMPENSABLE
POWER POLE	●	●
TELEPHONE POLE	●	●
SIGN	■	■
TELEPHONE PEDESTAL	✕	✕

RESERVE FOR CLAUSES AND NOTE INFORMATION

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS AND ARE REFERENCED TO THE US PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

RIGHT OF WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

AREAS SHOWN IN THE TOTAL ACRES COLUMN OF THE SCHEDULE OF LANDS & INTEREST TABLE MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

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COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, BROWN COUNTYZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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 AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING RIGHT OF WAY WAS ACQUIRED FROM PROJECT(S):
R/W PROJECT NO. E 0-0 (62), CSM OF RECORD & COUNTY MAPS

EXISTING ACCESS CONTROL WAS ACQUIRED UNDER PROJECT(S):

STH 29 IN BROWN COUNTY WAS DESIGNATED AS A FREEWAY UNDER SECTION 84.295 OF THE WISCONSIN STATUTES BY THE HIGHWAY COMMISSION ON 3/18/08, DOC.#2364054.

RIGHT OF WAY REFERENCE LINE MAY NOT BE THE SAME AS THE CONSTRUCTION REFERENCE LINE.

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 REQUIREDFOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE TO PREVENT EROSION OF THE SOIL. ALL TLEs ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

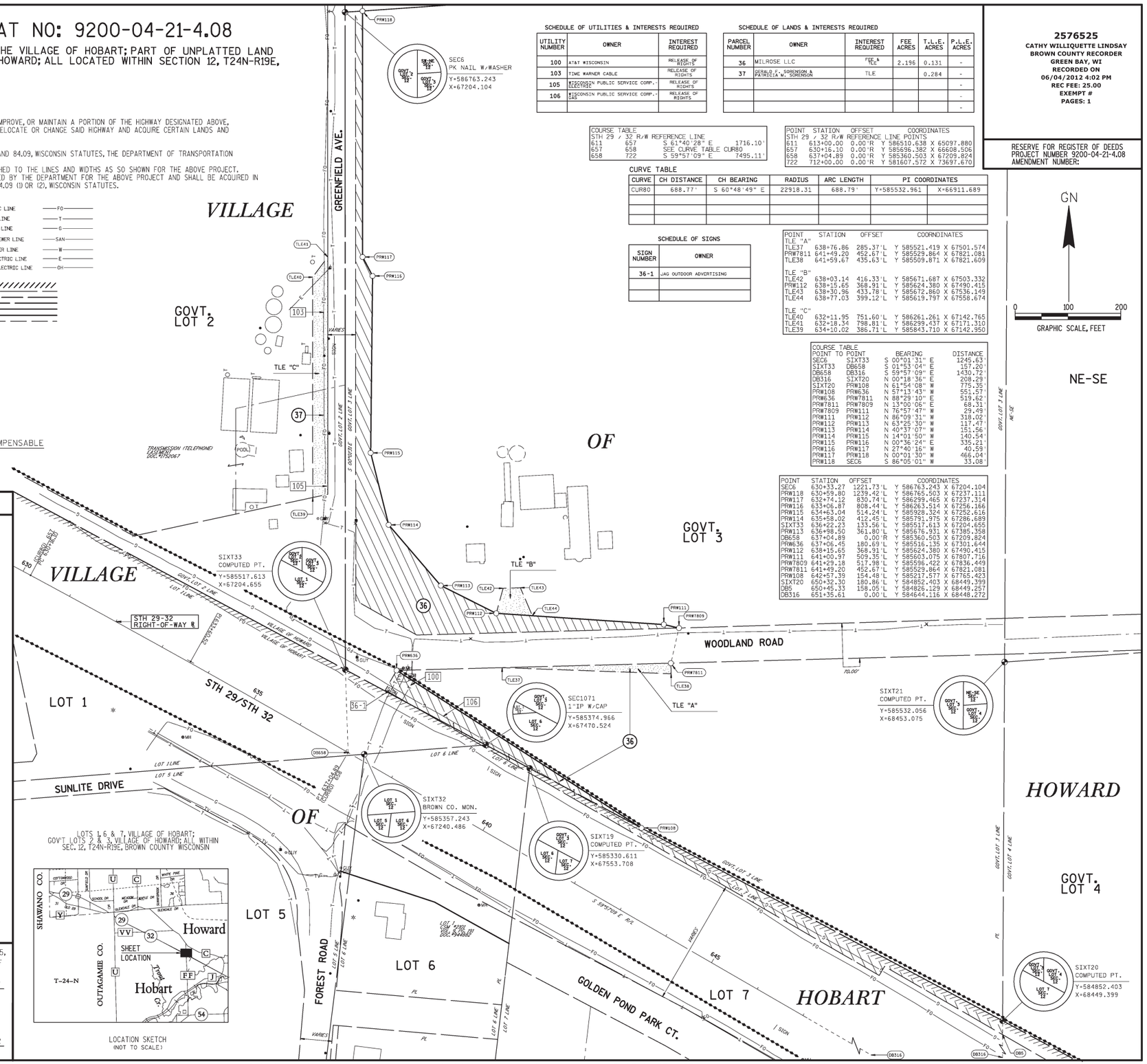
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOESES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO DEPARTMENT OF TRANSPORTATION.

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

JON L. HERBEL		06/04/2012
PRINTED NAME	SIGNATURE	DATE

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

NORMAN PAWELCZYK		06/04/2012
PRINTED NAME	SIGNATURE	DATE



SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
100	AT&T WISCONSIN	RELEASE OF RIGHTS
103	TIME WARNER CABLE	RELEASE OF RIGHTS
105	WISCONSIN PUBLIC SERVICE CORP.- ELECTRIC	RELEASE OF RIGHTS
106	WISCONSIN PUBLIC SERVICE CORP.- GAS	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER	INTEREST REQUIRED	FEE ACRES	T.L.E. ACRES	P.L.E. ACRES
36	MTLROSE LLC	FEE & TLE	2.196	0.131	-
37	GERALD F. SORENSON & PATRICIA W. SORENSON	TLE		0.284	-
					-
					-
					-
					-

COURSE TABLE
STH 29 / 32 R/W REFERENCE LINE

611	657	S 61°40'28" E	1716.10'
657	658	SEE CURVE TABLE CUR80	
658	722	S 59°57'09" E	7495.11'

POINT STATION OFFSET COORDINATES
STH 29 / 32 R/W REFERENCE LINE POINTS

611	613+00.00	0.00'R	Y 586510.638 X 65097.880
657	630+16.10	0.00'R	Y 585696.382 X 66608.506
658	637+04.89	0.00'R	Y 585360.503 X 67209.824
722	712+00.00	0.00'R	Y 581607.572 X 73697.670

CURVE TABLE

CURVE	CH DISTANCE	CH BEARING	RADIUS	ARC LENGTH	PI COORDINATES	
CUR80	688.77'	S 60°48'49" E	22918.31	688.79'	Y=585532.961	X=66911.689

SCHEDULE OF SIGNS

SIGN NUMBER	OWNER
36-1	JAG OUTDOOR ADVERTISING

POINT STATION OFFSET COORDINATES

TLE "A"			
TLE37	638+76.86	285.37'L	Y 585521.419 X 67501.574
PRW7811	641+49.20	452.67'L	Y 585529.864 X 67821.081
TLE38	641+59.67	435.63'L	Y 585509.871 X 67821.609
TLE "B"			
TLE42	638+03.14	416.33'L	Y 585671.687 X 67503.332
PRW112	638+15.65	368.91'L	Y 585624.380 X 67490.415
TLE43	638+30.96	433.78'L	Y 585672.860 X 67536.149
TLE44	638+77.03	399.12'L	Y 585619.797 X 67558.674
TLE "C"			
TLE40	632+11.95	751.60'L	Y 586261.261 X 67142.765
TLE41	632+18.34	798.81'L	Y 586299.437 X 67171.310
TLE39	634+10.02	386.71'L	Y 585843.710 X 67142.950

COURSE TABLE
POINT TO POINT BEARING DISTANCE

SEC6	SIXT33	S 00°01'31" E	1245.63'
SIXT33	DB658	S 01°53'04" E	157.20'
DB658	DB316	S 59°57'09" E	1430.72'
DB316	SIXT20	N 00°18'36" E	208.29'
SIXT20	PRW108	N 61°54'08" W	775.35'
PRW108	PRW636	N 57°13'43" W	551.57'
PRW636	PRW7811	N 88°29'10" E	519.62'
PRW7811	PRW7809	N 13°00'06" E	68.31'
PRW7809	PRW111	N 76°57'47" W	29.49'
PRW111	PRW112	N 86°09'31" W	318.02'
PRW112	PRW113	N 63°25'30" W	117.47'
PRW113	PRW114	N 40°37'07" W	151.56'
PRW114	PRW115	N 14°01'50" W	140.54'
PRW115	PRW116	N 00°36'24" E	335.21'
PRW116	PRW117	N 27°40'16" W	40.59'
PRW117	PRW118	N 00°01'30" W	466.04'
PRW118	SEC6	S 86°05'01" W	33.08'

POINT STATION OFFSET COORDINATES

SEC6	630+33.27	1221.73'L	Y 586763.243 X 67204.104
PRW118	630+59.80	1239.42'L	Y 586765.503 X 67237.111
PRW117	632+74.12	830.74'L	Y 586299.465 X 67237.314
PRW116	633+06.87	808.44'L	Y 586263.514 X 67256.166
PRW115	634+63.04	514.24'L	Y 585928.324 X 67252.616
PRW114	635+58.02	412.45'L	Y 585791.975 X 67286.689
SIXT33	636+22.23	133.56'L	Y 585517.613 X 67204.655
PRW113	636+98.50	361.80'L	Y 585676.931 X 67385.358
DB658	637+04.89	0.00'R	Y 585360.503 X 67209.824
PRW636	637+06.45	180.69'L	Y 585516.135 X 67301.644
PRW112	638+15.65	368.91'L	Y 585624.380 X 67490.415
PRW111	641+00.97	509.35'L	Y 585603.075 X 67807.716
PRW7809	641+29.18	517.98'L	Y 585596.422 X 67836.449
PRW7811	641+49.20	452.67'L	Y 585529.864 X 67821.081
PRW108	642+57.39	154.48'L	Y 585217.577 X 67765.423
SIXT20	650+32.30	180.86'L	Y 584852.403 X 68449.399
DB5	650+45.33	158.05'L	Y 584826.129 X 68449.257
DB316	651+35.61	0.00'L	Y 584644.116 X 68448.272

2576525
CATHY WILLIQUETTE LINDSAY
BROWN COUNTY RECORDER
GREEN BAY, WI
RECORDED ON
06/04/2012 4:02 PM
REC FEE: 25.00
EXEMPT #
PAGES: 1

RESERVE FOR REGISTER OF DEEDS
PROJECT NUMBER 9200-04-21-4.08
AMENDMENT NUMBER:

FILE NAME : C:\USERS\P\D3\920006B\dgn\040108_rw.dgn PLOT DATE : 04-JUN-2012 10:51 PLOT BY : $$...plotuser...$$ PLOT NAME : D3 PLOT SCALE : 100.000000:1.000000
APPRAISAL PLAT DATE :

TRANSPORTATION PROJECT PLAT NO: 9200-04-21-4.09

ALL OF UNPLATTED LANDS WITHIN THE NORTHWEST 1/4 OF THE NORTHWEST 1/4, SECTION 15, TOWNSHIP 24 NORTH, RANGE 19 EAST, LOCATED WITHIN THE VILLAGE OF HOBART, BROWN COUNTY, WISCONSIN.

RELOCATION ORDER STH 29 BROWN 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.

CONVENTIONAL ABBREVIATIONS AND SYMBOLS

ACCESS POINT	AP	SECTION CORNER (MATERIAL AS NOTED)	
ACCESS RIGHTS	AR	SET R/W MONUMENT W/CAP (1-1/4" OUTSIDE DIA.x18" IRON PIPE 1.13 LBS/FT)	○
ACRES	AC	SET P.K. NAIL	△
CHORD BEARING	CH BRG	PROPOSED R/W BOUNDARY POINT	PRWOOO
CHORD DISTANCE	CH DIS	CORPORATE LIMITS	
DEED	(D)	EXISTING R/W	
DOCUMENT	DOC	SECTION LINE	
EAST BOUND	EB	QUARTER LINE	
GAS VALVE	GV	SIXTEENTH LINE	
INLET	IL	PROPOSED OR NEW R/W LINE	
LENGTH OF CURVE	L	PROPOSED EASEMENT LINE	
MANHOLE	MH	PARCEL NUMBER	00
MONUMENT	MON	UTILITY PARCEL NUMBER	000
NORTH BOUND	NB	PROPERTY LINE	PL
PAGE	PG	LOT, TIE AND OTHER MINOR DASHED LINES	
PERMANENT	PERM	ACCESS CONTROL (By Previous Acquisition or Covenant)	
PERMANENT LIMITED EASEMENT	PLE	NO ACCESS (By Acquisition)	
PRIVATE DRIVEWAY	PD	NO ACCESS (By Statutory Authority)	
PROPERTY LINE	PL	LIMITED EASEMENT (Temporary or Permanent)	
RADIUS	RAD		
REFERENCE LINE	℄		
REMAINING	REM		
RIGHT OF WAY	R/W		
SECTION	SEC		
SECTION LINE	℄		
FOUND IRON PIPE	IP ●		
STATION	STA		
TEMPORARY LIMITED EASEMENT	TLE		
TIE POINT	DB1		
VOLUME	VOL		
ADJOINING LANDS WITH SAME OWNER			
PARALLEL TO LINE	00'		
BUILDING TO BE RAZED			
FEE ACQUISITION	VARIOUS HATCHING		

COMMUNICATION UNDERGROUND	C-UG
BURIED GAS LINE	G
SANITARY SEWER LINE	SAN
BURIED WATER LINE	W
BURIED ELECTRIC LINE	E
OVERHEAD ELECTRIC LINE	OH

	COMPENSABLE	NON-COMPENSABLE
POWER POLE		
TELEPHONE POLE		
SIGN		
TELEPHONE PEDESTAL		

GN

0 100 200

GRAPHIC SCALE, FEET

RESERVE FOR CLAUSES AND NOTE INFORMATION

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS AND ARE REFERENCED TO THE US PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

RIGHT OF WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

AREAS SHOWN IN THE TOTAL ACRES COLUMN OF THE SCHEDULE OF LANDS & INTEREST TABLE MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

COORDINATES AS SHOWN ARE NOT INTENDED TO BE USED FOR RETRACEMENT PURPOSES AND MUST BE VERIFIED WITH THE COUNTY SURVEY DEPARTMENT.

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, BROWN COUNTY ZONE, NAD83 (1991) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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 AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING RIGHT OF WAY WAS ACQUIRED FROM PROJECT(S)/DOCUMENTS: VOLUME 653, PAGE 169, DOCUMENT #612760, HIGHWAY ORDER DATED 12/13/1910, CSM OF RECORD & COUNTY MAPS

EXISTING ACCESS CONTROL WAS ACQUIRED UNDER PROJECT(S):

RIGHT OF WAY REFERENCE LINE MAY NOT BE THE SAME AS THE CONSTRUCTION REFERENCE LINE.

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

FEE SIMPLE TO ALL THOSE EXISTING LANDS OF THE GRANTOR CURRENTLY USED FOR HIGHWAY PURPOSES, DESIGNATED AS EXISTING RIGHT OF WAY, WHETHER ACQUIRED BY SEPARATE CONVEYANCE OR OTHERWISE, BOUND BY THE TRAVERSE OF THE COURSE TABLE OF NEW RIGHT OF WAY AS SHOWN ON THE SAID TRANSPORTATION PROJECT PLAT.

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

JON L. HERBEL	Jon L. Herbel	12/07/2012
PRINTED NAME	SIGNATURE	DATE

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

NORMAN PAWELCZYK	Norman K. Pawelczyk	12/07/2012
PRINTED NAME	SIGNATURE	DATE

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W ACRES REQUIRED FEE	R/W ACRES REQUIRED EXISTING	R/W ACRES REQUIRED TOTAL	T.L.E. ACRES
39	CHARLOTTE M. THEES REVOCABLE TRUST DATED 5/3/2011	FEE	37.413	2.587	40.000	-
						-
						-
						-

2605185
CATHY WILLIQUETTE LINDSAY
BROWN COUNTY RECORDER
GREEN BAY, WI
RECORDED ON
12/11/2012 12:44 PM
REC FEE: 25.00
EXEMPT #
PAGES: 1

RESERVE FOR REGISTER OF DEEDS
PROJECT NUMBER 9200-04-21-4.09
AMENDMENT NUMBER:

VILLAGE

SEC59
PK NAIL W/WASHER
Y=583813.217
X=54033.907

SIXT65
PK NAIL
Y=583826.559
X=55336.439

SHADY DRIVE

33.00'

N 89°24'47" E 1302.60'

1202.54'

24.75'

24.75'

N 89°24'47" E
1302.62'

FD.¾" IR

QTR60
COMPUTED
Y=583839.904
X=56638.994

RW18
SET 1¼" IP W/CAP
Y=582505.561
X=54058.354

RW8
SET 1¼" IP W/CAP
Y=583728.642
X=54072.903

N 45°02'50" E
86.12'

10.25' TO BE RESERVED FOR FUTURE ROAD RIGHT OF WAY ALONG SHADY DRIVE WITHIN THE NW¼-NW¼ SEC. 15

RW10
SET 1¼" IP W/CAP
Y=583801.807
X=55336.331

TELEPHONE EASEMENT VOL. PG. 470 DOC. 620838

TELEPHONE EASEMENT J. 15448 I. 15 DOC. 1210609

39

LOT 4

PL

NW 1/4-NW 1/4, SECTION 15, T24N-R19E, VILLAGE OF HOBART, BROWN COUNTY WISCONSIN

SHAWANO CO.
OUTAGAMIE CO.
Howard
Hobart
SHEET LOCATION
T-24-N

LOCATION SKETCH
(NOT TO SCALE)

COURSE TABLE			
POINT TO POINT		BEARING	DISTANCE
SEC59	SIXT65	N 89°24'47" E	1302.60'
SIXT65	SIXT64	S 00°14'53" W	1315.91'
SIXT64	SIXT3	S 89°46'13" W	1312.40'
SIXT3	SEC59	N 00°40'54" E	1307.91'

N 00°40'54" E 1307.91'

CTH "U"

OUTAGAMIE COUNTY
BROWN COUNTY

40.00'

40.00'

1223.17'

OF

NW-NW

PROPOSED MITIGATION AREA

1315.91'

S 00°14'53" W 1291.16'

LOT 1
CSM #3610
VOL. 20 PG. 199
DOC. #1169749

LOT 2
CSM #3610
VOL. 20 PG. 199
DOC. #1169749

LOT 5

LOT 3
CSM #3610
VOL. 20 PG. 199
DOC. #1169749

LOT 4
CSM #3610
VOL. 20 PG. 199
DOC. #1169749

SIXT3
PK NAIL W/ WASHER
Y=582505.401
X=54018.349

40.00'

1272.40'

S 89°46'13" W 1312.40'

RW18
SET 1¼" IP W/CAP
Y=582505.561
X=54058.354

SIXT64
CONC. MON. W/BRASS CAP
Y=582510.660
X=55330.740

QTR72
PK NAIL W/ WASHER
Y=581197.584
X=54002.791

SW-NW

HOBART

SE-NW

242

FILE NAME : $$....designfile....$$
APPRAISAL PLAT DATE :

PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : D3 PLOT SCALE : $$.....plotscale.....$$

4.

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP 500	636+85.37 89.98'LT	I.P. WITH RED WDOT CAP	737.611
BM 617	627+57.74 171.29'LT	RR SPIKE IN 8" PINE TREE 90 FT S OF STH 29 EB, .1 MI W CCB	742.76

N

BEGIN PROJECT
STA 626+79.54
Y = 585,855.889
X = 66,312.442

℄ STH 29/32 WB

℄ STH 29/32 EB

RECONSTRUCT SHOULDERS

RECONSTRUCT SHOULDERS, TYP

4-INCH HMA PAVEMENT TYPE E-10

6-INCH CONCRETE PAVEMENT

360' TAPER

STA 636+53

STA 640+11

CP500

STH 29/32 WB

STH 29/32 EB

℄ GREENFIELD AVENUE

GREENFIELD AVENUE

4" ASPHALTIC SURFACE DRIVEWAY
6" BASE AGGREGATE DENSE ¾-INCH

6" BASE AGGREGATE DENSE ¾-INCH

DRIVEWAY
6" CONCRETE PAVEMENT
4" BASE AGGREGATE DENSE ¾-INCH

MILROSE LLC

WOODLAND ROAD

℄ WOODLAND ROAD

SORENSON

ONEIDA NATION OF WISCONSIN

MILLER

FREDRICKSON

CENTENNIAL CENTRE BOULEVARD

℄ CENTENNIAL CENTRE BOULEVARD

SCHWIESOW

℄ FOREST ROAD

FOREST ROAD

FIRST BUSINESS BANK MILWAUKEE

VILLAGE OF HOBART

DRIVEWAY
6" CONCRETE PAVEMENT
4" BASE AGGREGATE DENSE ¾-INCH

CAUTION

EX R/W

P.L.

T.L.E.

R/W

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN - STH 29/32	SHEET 243	E

WOODLAND ROAD

MILROSE LLC

BOLLEN

FLISAKOWSKI

DECASTER

P.L.

N

CONCRETE PAVEMENT

HMA PAVEMENT

STA 653+38

SINGLE DELINEATOR WITH POST (WHITE), TYP

DOUBLE DELINEATOR WITH POST (WHITE), TYP

BEGIN SHOULDER RECONSTRUCTION STA 651+25

℄ NW RAMP

R/W

EX R/W

STH 29/32 WB

8½-INCH CONCRETE PAVEMENT

℄ STH 29/32 WB

4-INCH HMA PAVEMENT TYPE E-10

STH 29/32 EB

℄ STH 29/32 EB

℄ SW RAMP

8½-INCH CONCRETE PAVEMENT

MGS TERMINAL EAT

MGS GUARDRAIL 3

MGS TERMINAL TYPE 2

ONEIDA TRIBE OF WISCONSIN

PIONEER CREDIT UNION

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN - STH 29/32	SHEET 244	E

DECASTER

SINGLE DELINEATORS WITH POST (WHITE), TYP

FLISAKOWSKI

WISCONSIN PUBLIC SERVICE CORPS

NW RAMP

℄ NW RAMP

8½-INCH CONCRETE PAVEMENT

4-INCH HMA PAVEMENT TYPE E-10

CAUTION

STRUCTURE B-05-402 SEE STRUCTURE PLANS

END SHOULDER RECONSTRUCTION STA 666+97

CTH FF

EX R/W

8½-INCH CONCRETE PAVEMENT

STH 29/32 WB

℄ STH 29/32 WB

REMOVE LEFT TURN LANE & RECONSTRUCT SHOULDER

STEEL THRIE BEAM BULLNOSE TERMINAL

STEEL THRIE BEAM

STH 29/32 EB

℄ STH 29/32 EB

℄ STH 29/32

℄ CTH FF

EX R/W

PIPE UNDERDRAIN 6-INCH

BEGIN SHOULDER RECONSTRUCTION STA 655+70

APRON ENDWALLS FOR 6-INCH UNDERDRAIN

℄ SW RAMP

SW RAMP

8½-INCH CONCRETE PAVEMENT

RECONSTRUCT SHOULDER

STRUCTURE R-05-107 SEE STRUCTURE PLANS

DOUBLE DELINEATORS WITH POST (WHITE), TYP

PIONEER CREDIT UNION

HERMSEN PROPERTIES LLC

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
BM 618	251+32.99 80.61' RT	RR SPIKE IN 14" ELM STUMP. 65'N OF STH 29 WB CL	673.04

SINGLE DELINEATORS WITH POST (WHITE), TYP

RECONSTRUCT SHOULDER

4-INCH HMA PAVEMENT TYPE E-10

NE RAMP

℄ NE RAMP

8½-INCH CONCRETE PAVEMENT

DOUBLE DELINEATORS WITH POST (WHITE), TYP

KOWALKOWSKI

EXISTING FOOT BRIDGE

CAUTION

STRUCTURE B-05-29 SEE STRUCTURE PLANS

EX R/W

STH 29/32 WB

8½-INCH CONCRETE PAVEMENT

℄ STH 29/32 WB

END SHOULDER RECONSTRUCTION STA 674+84

APRON ENDWALL FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH TO BE ADJUSTED

℄ STH 29/32 EB

STH 29/32 EB

℄ SE RAMP

EX R/W

8½-INCH CONCRETE PAVEMENT

CONCRETE BARRIER MOUNTED DELINEATORS (WHITE)

SCHROVNAL

STRUCTURE R-05-105 SEE STRUCTURE PLANS

STRUCTURE B-05-29 SEE STRUCTURE PLANS

SCHROVNAL

SCRIPP

NEAL

NEAL

KOWALKOWSKI BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
BM 619	674+18.01 60.12' RT	BRASS CAP ON SW WALL OF BOX CULVERT B-5-29-55.	658.06

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN - STH 29/32	SHEET 245	E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP 503	691+00.36 73.40' LT	I.P. WITH RED WDOT CAP	693.151
BM 810	690+83.34 133.4' RT	USGS MONUMENT. STAMPED J-228 RESET 1987.	691.86

CCAPTS IILLC

CCAPTS IILLC

CCAPTS IILLC

FYE

SINGLE DELINEATORS WITH POST (WHITE), TYP

48" CPCM
L = 8'
S = 0.63%

I.E. 679.50

I.E. 679.55

CP503

T.L.E.

R/W

EX R/W

NE RAMP

8½-INCH CONCRETE PAVEMENT, TYP

STH 29/32 WB

STH 29/32 EB

℄ STH 29/32 EB

℄ STH 29/32 EB

STA 686+06.24, 00.00' RT SE RAMP =
STA 686+06.24, 27.00' RT STH 29/32

SE RAMP

℄ SE RAMP

MGS TERMINAL EAT

PIPE UNDERDRAIN 6-INCH

MGS GUARDRAIL 3

MGS TERMINAL TYPE 2

PIPE UNDERDRAIN 6-INCH

APRON ENDWALL FOR 6-INCH UNDERDRAIN

APRON ENDWALL FOR 6-INCH UNDERDRAIN

GESTRICH

I.E. 677.99

WETLAND BOUNDARY

48" CPCM
L = 11'
S = 1.3%

I.E. 677.85

CONGER

SIMIA

NEAL

NEAL

NEAL

NEAL

NEAL

5

5

*SEE BUREAU OF STRUCTURES STANDARD DETAIL DRAWINGS 39.10, 39.11, AND 39.12 FOR STRUCTURE DESIGN.

SIGN STRUCTURE S-5-190*
STA 701+18, 54' LT

FYE

T.L.E.

R/W

EX R/W

SINGLE DELINEATORS WITH POST (WHITE), TYP

NE RAMP

STA 701+25

150' TAPER

STA 702+75

END PROJECT
STA 710+10.00
Y = 581,702.430
X = 73,533.345

STH 29/32 WB

STH 29/32 EB

℄ STH 29/32 EB

℄ STH 29/32 EB

8½-INCH CONCRETE PAVEMENT, TYP

30" CPRC
L =6'
S = 2.5%
I.E. = 669.19

I.E. = 669.34

STA 706+50

360' TAPER

STA 710+10

EX R/W

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN - STH 29/32	SHEET 246	E

NW RAMP

STATION	GRADE	REMARKS
650+92	-4.47%	BEGIN RAMP
651+33	-5.70%	BEGIN FULL SE
652+55	-5.70%	END FULL SE
653+78	-2.0%	BEGIN NORMAL CROWN
660+71	-2.0%	END NORMAL CROWN
661+12	-3.80%	BEGIN FULL SE
662+16	-3.80%	END FULL SE
663+54	-2.97%	END RAMP

N

P.L.

FLISAKOWSKI

DECASTER

STA 650+91.92, 00.00' RT NW RAMP =
STA 650+91.92, 90.40' LT STH 29/32

SINGLE DELINEATORS WITH POST (WHITE), TYP

WETLAND BOUNDARY

CAUTION

3½-INCH HMA PAVEMENT

8½-INCH CONCRETE PAVEMENT

℄ NW RAMP

NW RAMP

30" CPCM
L = 182'
S = 0.5%
I.E. = 666.72

R/W

CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH TYPE A

CONCRETE CURB & GUTTER
30-INCH TYPE A

STA 663+53.80, 00.00' RT NW RAMP =
STA 253+92.58, 64.10' LT CTH FF
I.E. = 667.29

30" CPRC
L = 142'
S = 0.5%

ASPHALTIC FLUMES

4-INCH HMA PAVEMENT TYPE E-10

STRUCTURE B-05-402

I.E. = 668.00

8½-INCH CONCRETE PAVEMENT, TYP

EX R/W

STH 29/32 WB

I.E. = 667.58

℄ STH 29/32 WB

℄ STH 29/32 EB

STH 29/32 EB

CP 1350

650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665

5

5

710 700 690 680 670 660 650 640

PI 650+91.92
690.13

-3.05%

PI 651+91.50
687.09

-3.40%

PC 652+28.00
685.85

900.00' VC
K = 138.41

SAG 656+98.59
677.85

PROPOSED PROFILE NW RAMP

EXISTING GROUND

PI 656+78.00
670.55

30" CPCM
L = 182'
S = 0.5%

PT 661+28.00
684.51

3.10%

PC 661+82.00
686.19

PI 662+66.00
688.80

168.00' VC
K = 39.05

CREST 663+03.14
688.07

30" CPRC
L = 142'
S = 0.5%

PT 663+50.00
687.79

-1.20%

PI 663+53.80
687.74

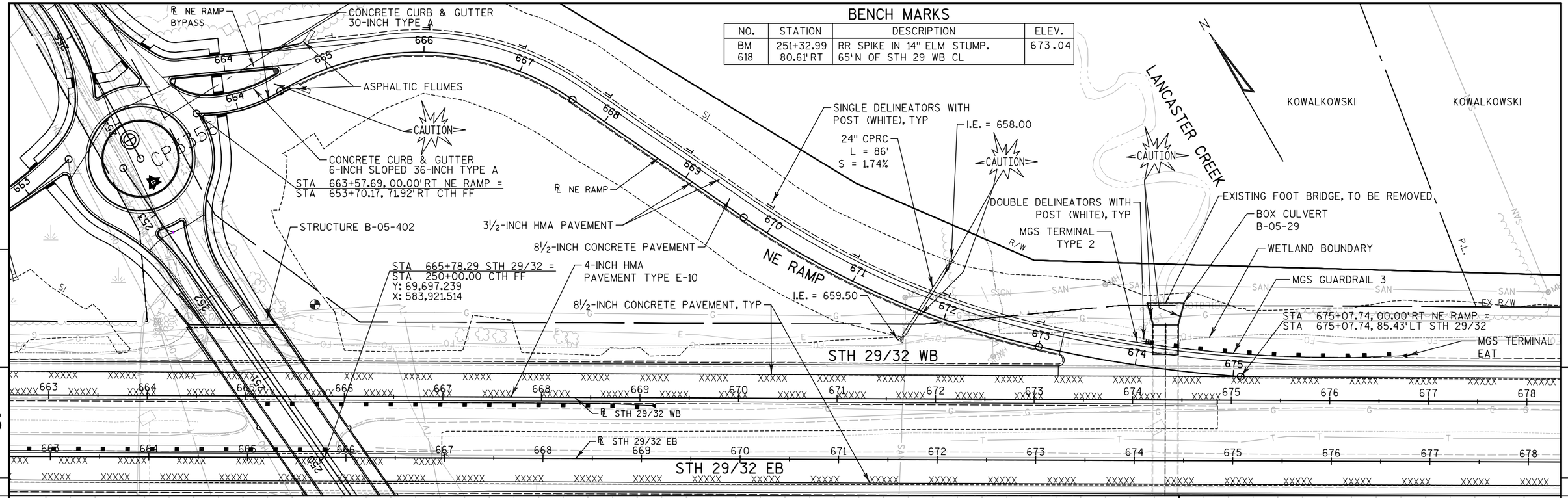
689.8 689.88 | 688.4 688.36 | 686.8 686.81 | 685.2 685.12 | 682.8 683.59 | 679.8 682.24 | 677.3 681.07 | 674.8 680.09 | 672.4 679.28 | 671.4 678.65 | 670.5 678.20 | 670.3 677.94 | 669.7 677.85 | 669.5 677.95 | 669.3 678.22 | 669.1 678.68 | 668.7 679.32 | 668.1 680.14 | 668.5 681.14 | 668.5 682.31 | 668.1 683.67 | 668.0 685.20 | 668.2 686.71 | 668.0 687.71 | 667.6 688.07 | 666.7 687.79

651+00 652+00 653+00 654+00 655+00 656+00 657+00 658+00 659+00 660+00 661+00 662+00 663+00 664+00

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - NW RAMP	SHEET 247	E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
BM 618	251+32.99 80.61'RT	RR SPIKE IN 14" ELM STUMP. 65'N OF STH 29 WB CL	673.04

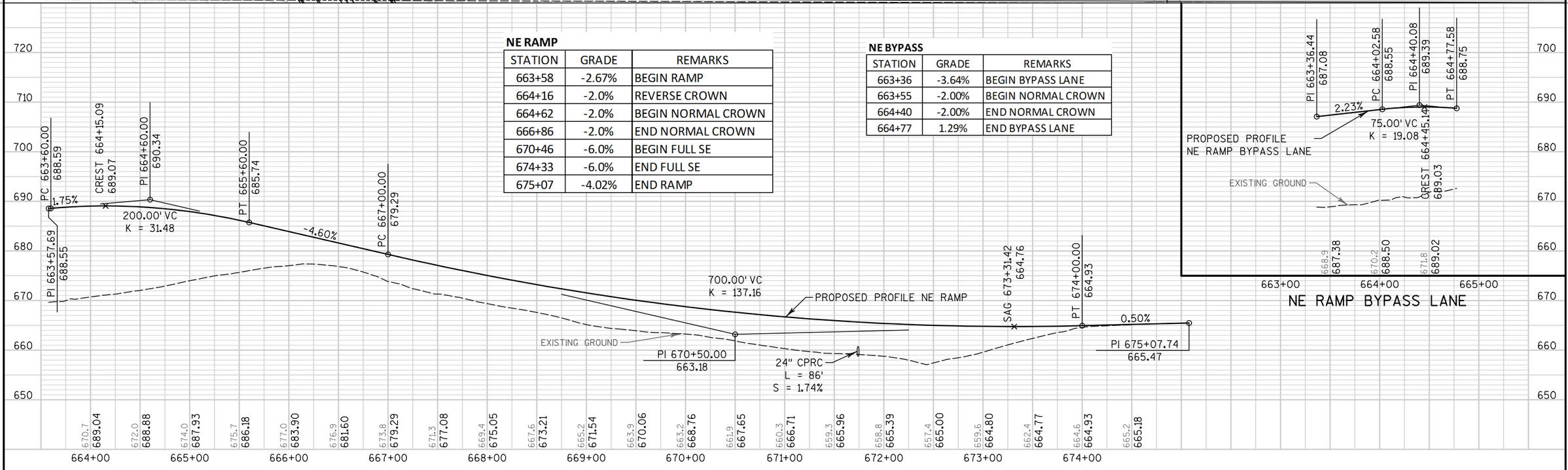


NE RAMP

STATION	GRADE	REMARKS
663+58	-2.67%	BEGIN RAMP
664+16	-2.0%	REVERSE CROWN
664+62	-2.0%	BEGIN NORMAL CROWN
666+86	-2.0%	END NORMAL CROWN
670+46	-6.0%	BEGIN FULL SE
674+33	-6.0%	END FULL SE
675+07	-4.02%	END RAMP

NE BYPASS

STATION	GRADE	REMARKS
663+36	-3.64%	BEGIN BYPASS LANE
663+55	-2.00%	BEGIN NORMAL CROWN
664+40	-2.00%	END NORMAL CROWN
664+77	1.29%	END BYPASS LANE



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - NE RAMP	SHEET 248	E

STH 29/32 EB

℄ STH 29/32 EB

I.E. = 668.91

8½-INCH CONCRETE PAVEMENT, TYP

STRUCTURE R-05-107

CONCRETE CURB & GUTTER 30-INCH TYPE A

STA 652+90.98, 00.00' RT SW RAMP =
STA 247+42.75, 72.09' LT STH 29/32

CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A

I.E. = 669.29

30" CPRC
L = 71'
S = 0.5%

8½-INCH CONCRETE PAVEMENT

3½-INCH HMA PAVEMENT

SW RAMP

℄ SW RAMP

STA 652+90.98, 00.00' RT SW RAMP =
STA 652+90.98, 23.93' RT STH 29/32

EX R/W

DOUBLE DELINEATORS WITH POST (WHITE), TYP

PIONEER CREDIT UNION

ASPHALTIC FLUMES

MGS TERMINAL EAT

MGS GUARDRAIL 3

CAUTION

SINGLE DELINEATORS WITH POST (WHITE), TYP

HERMSEN PROPERTIES LLC

STRUCTURE R-05-106

T.L.E.

R/W

P.L.

SI

SAN

SSS

W

UTC

TV

INL

SS

FAT

FO

SW RAMP

STATION	GRADE	REMARKS
652+91	2.0%	BEGIN RAMP
655+67	-2.0%	END NORMAL CROWN
657+00	-6.0%	BEGIN FULL SE
660+52	-6.0%	END FULL SE
662+11	0.0%	SE TRANSITION
663+69	6.0%	BEGIN FULL SE
665+95	6.0%	END FULL SE
667+27	-1.29%	END RAMP

PROPOSED PROFILE SW RAMP

EXISTING GROUND

PI 652+90.98 683.83

-2.95%

PC 653+92.50 680.84

275.00' VC
K = 157.09

PCC 656+67.50 675.13

742.00' VC
K = 136.15

PT 664+09.50 686.45

4.25%

PC 665+75.31 693.50

PI 666+51.31 696.73

PT 667+27.31 696.96

152.00' VC
K = 38.48

-0.99%

PI 654+00.00 673.49

PI 655+00.00 672.50

PI 655+30.00 676.78

SPECIAL DITCH RIGHT

30" CPRC
L = 71'
S = 0.5%

SAG 658+30.80 674.15

PI 660+38.50 670.68

PI 661+00.00 670.20

PI 662+00.00 671.20

PI 663+00.00 671.75

PI 664+00.00 672.75

PI 665+00.00 673.75

PI 666+00.00 674.75

1.00%

0.55%

1.00%

1.00%

1.00%

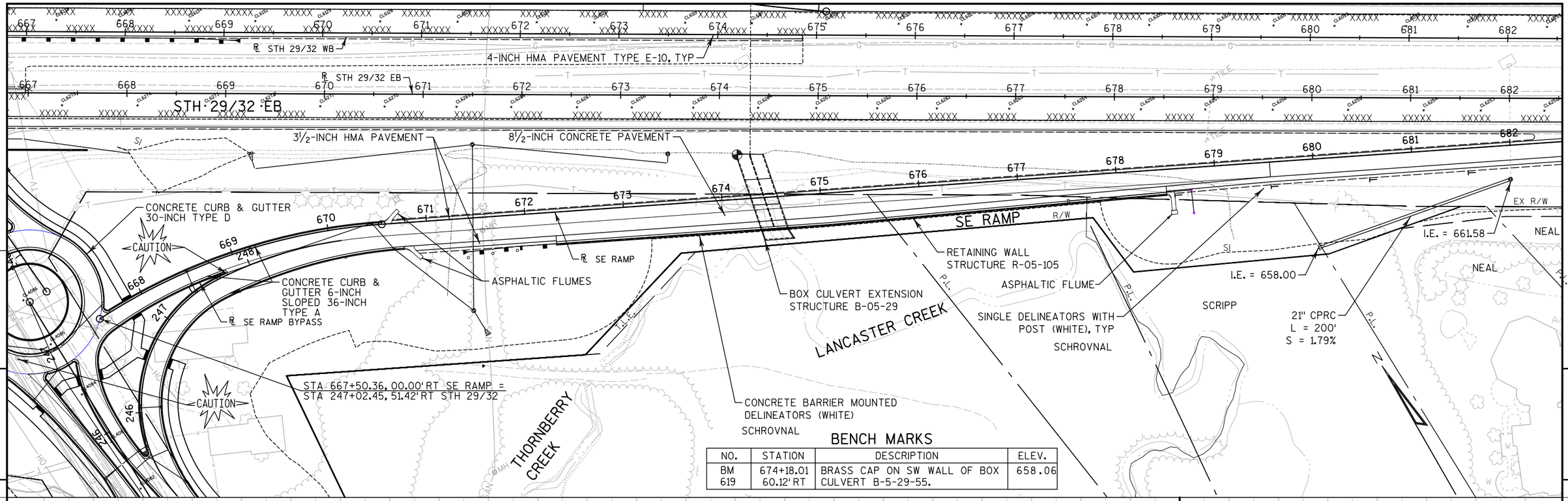
SPECIAL DITCH RIGHT

710 700 690 680 670 660 650 640

683.6 683.57 | 682.1 682.09 | 680.6 680.62 | 679.0 679.25 | 677.2 678.04 | 675.3 676.98 | 673.5 676.09 | 672.1 675.35 | 670.8 674.78 | 668.9 674.39 | 668.9 674.19 | 668.5 674.17 | 669.5 674.33 | 670.8 674.68 | 672.4 675.21 | 671.0 675.92 | 671.8 676.82 | 671.6 677.90 | 671.7 679.16 | 672.1 680.61 | 672.3 682.24 | 672.3 684.05 | 672.5 686.05 | 672.8 688.17 | 673.6 690.30 | 673.9 692.43 | 674.8 694.47 | 674.9 695.95 | 673.8 696.78

653+00 654+00 655+00 656+00 657+00 658+00 659+00 660+00 661+00 662+00 663+00 664+00 665+00 666+00 667+00

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - SW RAMP	SHEET 249	E



BENCH MARKS

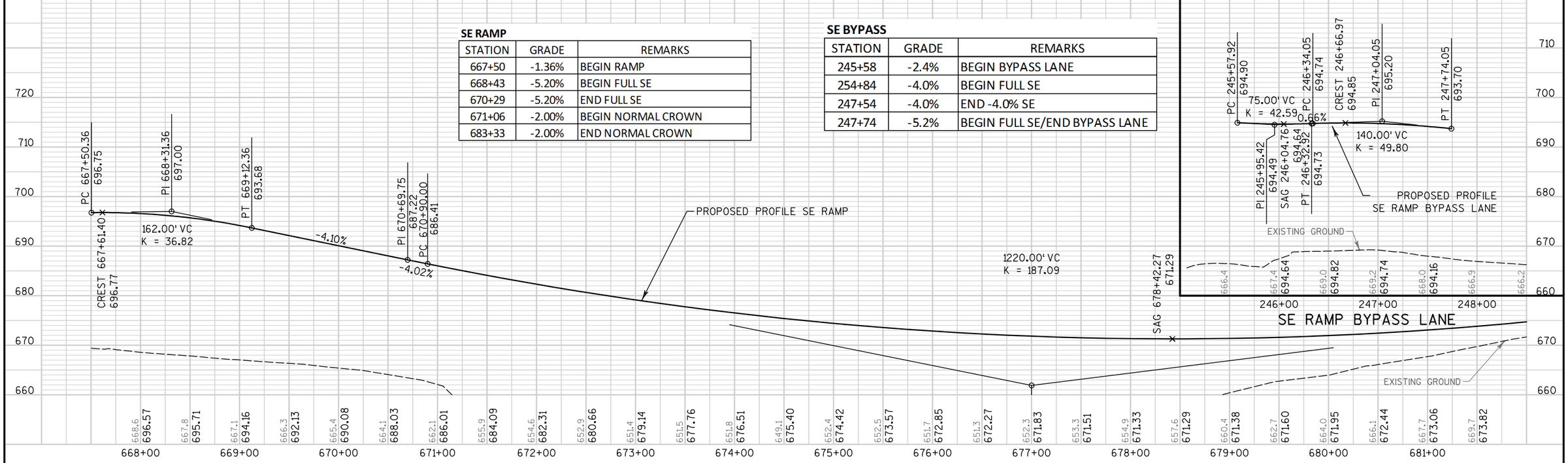
NO.	STATION	DESCRIPTION	ELEV.
BM 619	674+18.01 60.12' RT	BRASS CAP ON SW WALL OF BOX CULVERT B-5-29-55.	658.06

SE RAMP

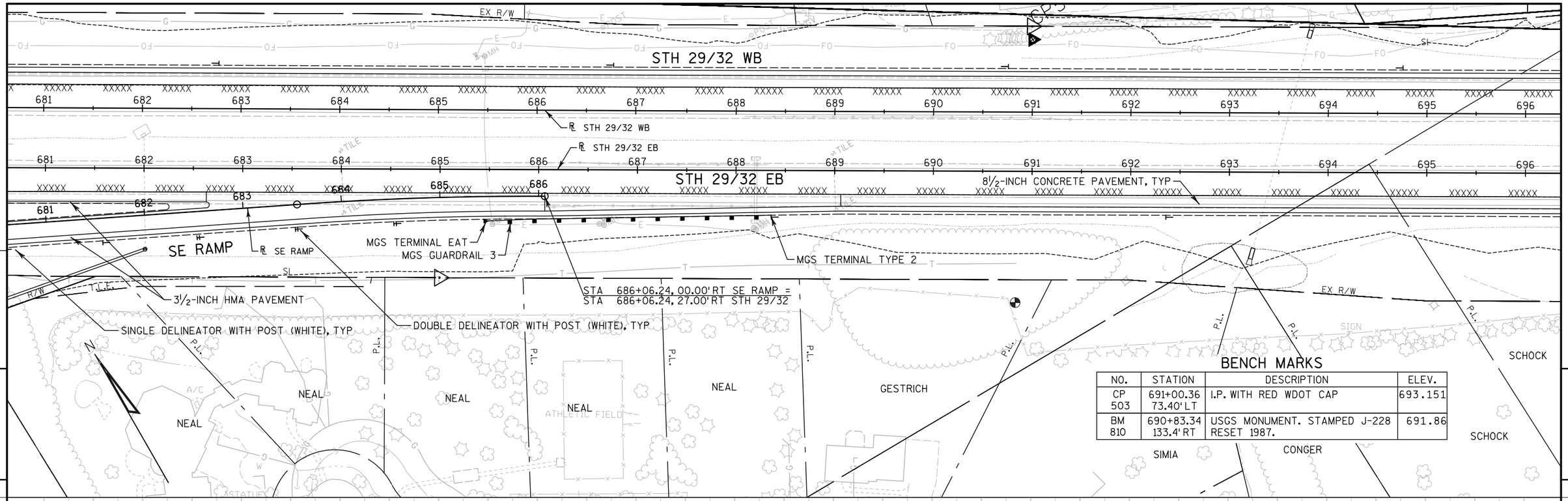
STATION	GRADE	REMARKS
667+50	-1.36%	BEGIN RAMP
668+43	-5.20%	BEGIN FULL SE
670+29	-5.20%	END FULL SE
671+06	-2.00%	BEGIN NORMAL CROWN
683+33	-2.00%	END NORMAL CROWN

SE BYPASS

STATION	GRADE	REMARKS
245+58	-2.4%	BEGIN BYPASS LANE
254+84	-4.0%	BEGIN FULL SE
247+54	-4.0%	END -4.0% SE
247+74	-5.2%	BEGIN FULL SE/END BYPASS LANE

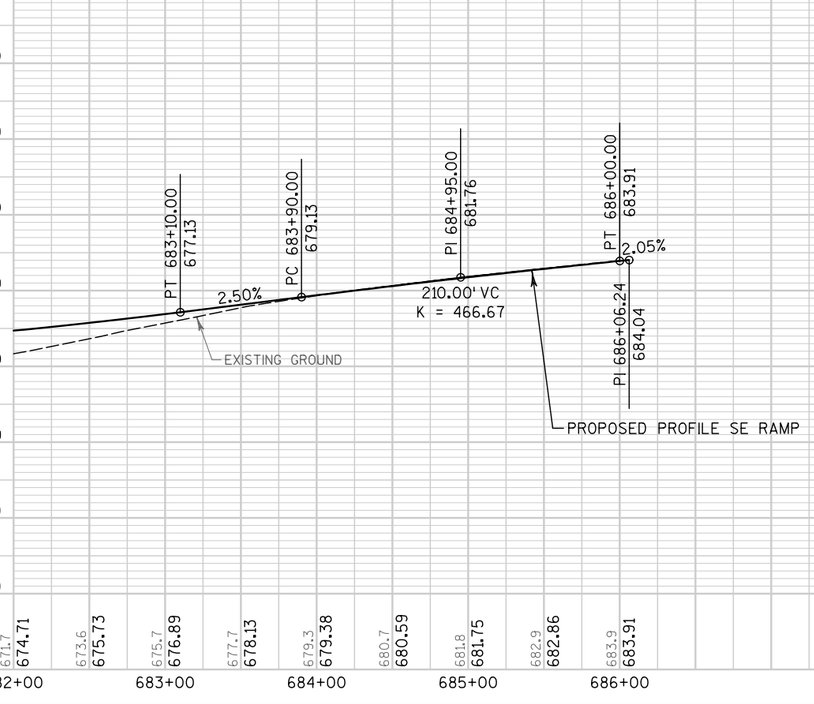


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - SE RAMP	SHEET 250	E



BENCH MARKS

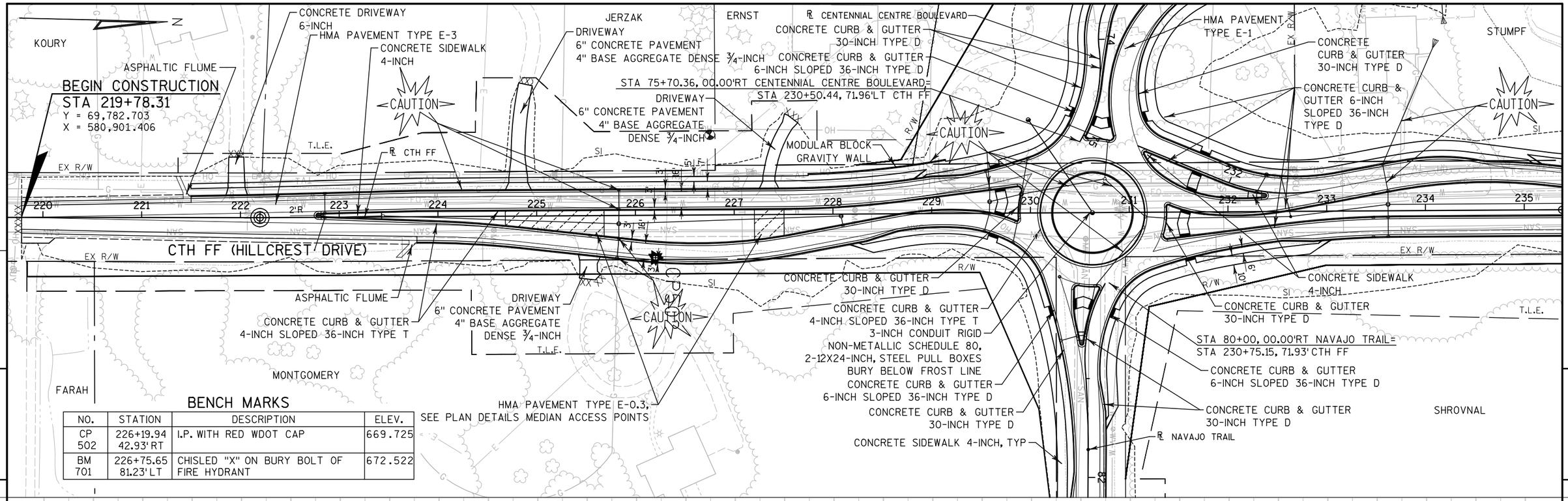
NO.	STATION	DESCRIPTION	ELEV.
CP 503	691+00.36 73.40' LT	I.P. WITH RED WDOT CAP	693.151
BM 810	690+83.34 133.4' RT	USGS MONUMENT. STAMPED J-228 RESET 1987.	691.86



SE RAMP

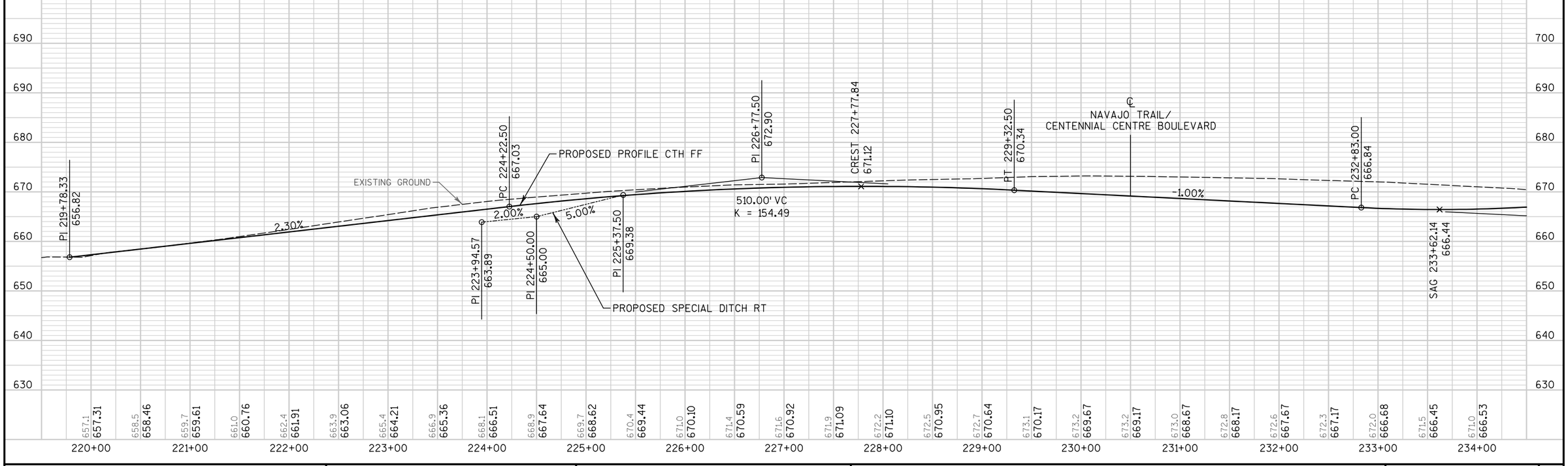
STATION	GRADE	REMARKS
671+06	-2.0%	BEGIN NORMAL CROWN
683+33	-2.0%	END NORMAL CROWN
683+99	-4.0%	BEGIN FULL SE
685+62	-4.0%	END FULL SE
686+06	2.67%	END RAMP

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - SE RAMP	SHEET 251	E



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP 502	226+19.94 42.93' RT	I.P. WITH RED WDOT CAP	669.725
BM 701	226+75.65 81.23' LT	CHISLED "X" ON BURY BOLT OF FIRE HYDRANT	672.522



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - CTH FF	SHEET 252	E

STUMPF

PIPE I.E. = 651.15
STREAM I.E. = 652.65

CTH FF (HILLCREST DRIVE)

P.L.

CAUTION

SI

RED VIPER LLC

R/W

STRUCTURE R-05-106

℄ SW RAMP

CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH TYPE A

4'
CONCRETE PAVEMENT 8½-INCH
3'
16'

CONCRETE CURB & GUTTER
4-INCH SLOPED
36-INCH TYPE R

STRUCTURE B-05-402

3-INCH CONDUIT RIGID NON-METALLIC SCHEDULE 80, 2-12X24-INCH, STEEL PULL BOXES BURY BELOW FROST LINE

CONCRETE PAVEMENT APPROACH SLAB

HMA PAVEMENT TYPE E-3

3' 3' 16' 5' 5'

235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250

3' 3' 16'

EX R/W

PIPE I.E. = 650.19
STREAM I.E. = 651.69

LANDSCAPE BOULDER WALL

℄ CTH FF
FISH LIGHT

T.L.E.

R/W

CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH TYPE D

CONCRETE SIDEWALK 4-INCH, TYP

CONCRETE CURB & GUTTER
30-INCH TYPE A

CTH FF CONCRETE ARCH PIPE (FISH PASSAGE WAY)
L = 208'
SPAN = 122"
RISE = 77.5"
S = 0.462%
PIPE BURIED = 1.5 FT
CLASS IV

THORNBERRY CREEK

SCHROVNAL

CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH TYPE D

CONCRETE PAVEMENT 8½-INCH

℄ SE RAMP

℄ STH 29/32 EB

STH 29/32 EB

STH 29/32 WB

℄ STH 29/32 WB

5

5

700 690 680 670 660 650 640 630

PI 247+37.45
707.52

1400.00' VC
K = 222.22

CREST 247+70.78
696.52

PC 240+37.45
684.42

PT 236+23.00
670.74

3.30%

340.00' VC
K = 79.05

PI 234+53.00
665.13

PROPOSED PROFILE CTH FF

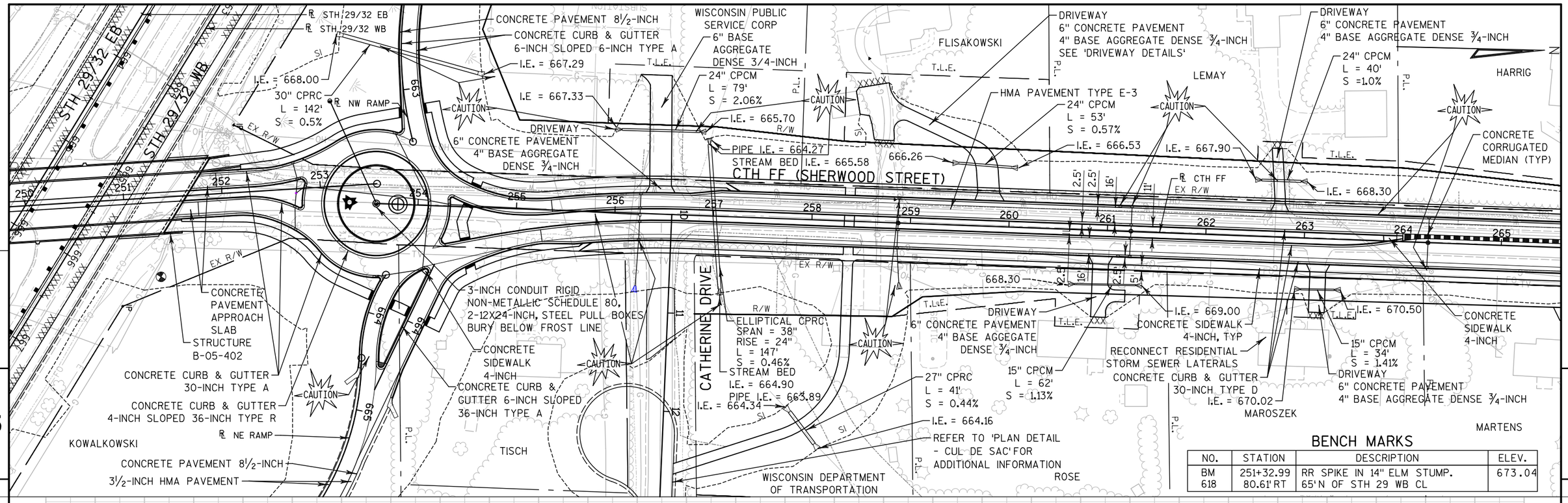
EXISTING GROUND

CTH FF CONCRETE ARCH PIPE
(FISH PASSAGE WAY)

670.4 666.93 | 669.5 667.64 | 668.1 668.67 | 666.5 670.02 | 665.1 671.63 | 663.6 673.28 | 662.2 674.93 | 661.1 676.58 | 660.3 678.23 | 660.2 679.88 | 660.4 681.53 | 660.8 683.18 | 661.2 684.83 | 661.8 686.40 | 662.4 687.85 | 663.1 689.19 | 664.0 690.42 | 664.8 691.53 | 665.7 692.54 | 666.5 693.43 | 667.3 694.21 | 667.9 694.87 | 668.5 695.42 | 669.0 695.86 | 669.4 696.19 | 669.8 696.41 | 670.0 696.51 | 669.3 696.50 | 669.1 696.38 | 669.3 696.14

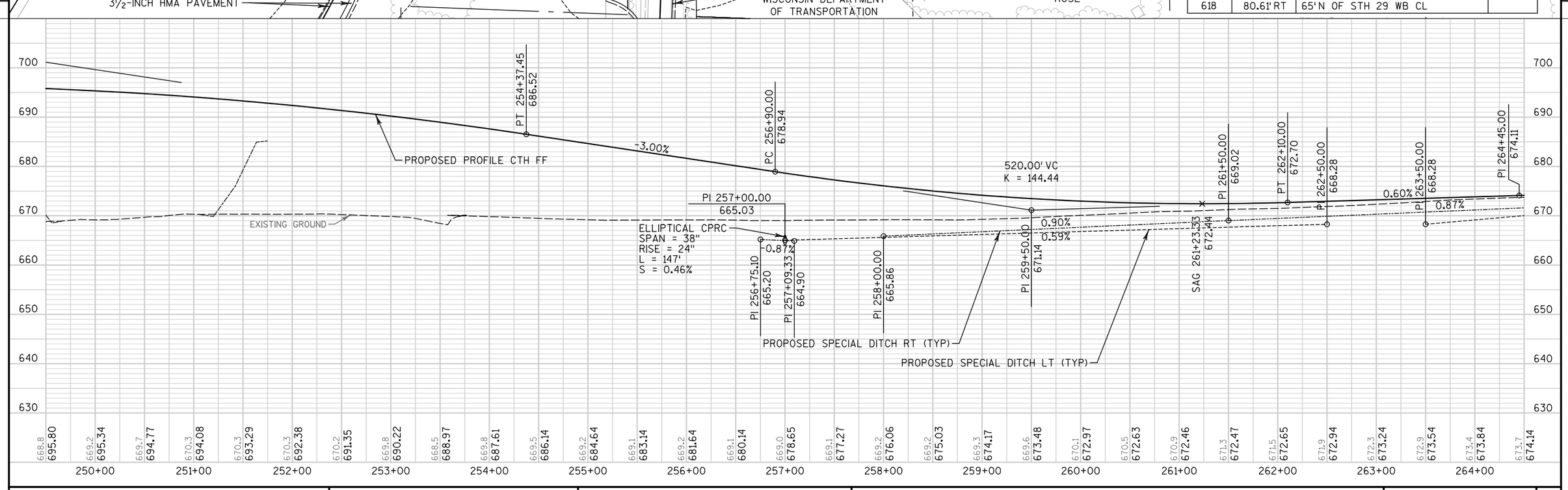
235+00 236+00 237+00 238+00 239+00 240+00 241+00 242+00 243+00 244+00 245+00 246+00 247+00 248+00 249+00

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - CTH FF	SHEET 253	E



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
BM 618	251+32.99 80.61' RT	RR SPIKE IN 14" ELM STUMP. 65'N OF STH 29 WB CL	673.04



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - CTH FF	SHEET 254	E

HARRIG

ST. JOSEPH CORPORATION

LINSSEN

KRAUSE

KRAUSE

MARTENS

DRIVEWAY
6" CONCRETE PAVEMENT
4" BASE AGGREGATE
DENSE ¾-INCH

BEGIN CONSTRUCTION
STA 87+94.69
Y = 585,609.372
X = 69,498.343

℄ WOODLAND ROAD

ASPHALTIC FLUMES
STA 90+00.00, 00.00'RT WOODLAND ROAD=
STA 266+98.85, 00.00'LT CTH FF (SHERWOOD STREET)

HMA PAVEMENT TYPE E-3

CTH FF (SHERWOOD STREET)

℄ CTH FF

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE T

CAUTION

6" BASE AGGREGATE
DENSE ¾-INCH

DRIVEWAY
6" CONCRETE PAVEMENT
4" BASE AGGREGATE
DENSE ¾-INCH

℄ CTH C

CONCRETE SIDEWALK
4-INCH

CTH C (SHAWANO AVENUE)

CONCRETE CORRUGATED
MEDIAN (TYP)

CONCRETE SIDEWALK 4-INCH, TYP

CONCRETE CURB & GUTTER
30-INCH TYPE D

CP 501

DRIVEWAY
RELOCATION
BY OTHERS

STA 90+00.00, 00.00'RT WOODLAND ROAD=
STA 266+98.38, 00.00'LT CTH FF (SHERWOOD STREET)

STA 400+00, 00.00'RT CTH C (SHAWANO AVENUE)=
STA 273+25.10, 3.00'RT CTH FF (SHERWOOD STREET)

ASPHALTIC FLUMES

DRIVEWAY
6" CONCRETE PAVEMENT
4" BASE AGGREGATE
DENSE ¾-INCH

6" BASE AGGREGATE
DENSE ¾-INCH

STA 400+00.00, 00.00'RT CTH C (SHAWANO AVENUE)=
STA 273+51.48, 3.14'LT CTH FF (SHERWOOD STREET)

END CONSTRUCTION
STA 91+47.85
Y = 585,622.487
X = 69,851.332

6" BASE AGGREGATE DENSE ¾-INCH

WOODLAND ROAD

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP	270+18.50	I.P. WITH RED WDOT CAP	674.656
501	33.17' RT		

WOODLAND ROAD

PI 264+45.00
674.11

PC 265+55.00
674.66

120.00' VC
K = 133.34

PRC 266+75.00
675.80

PI 267+24.30
672.72

PI 267+60.00
676.99

PT 268+45.00
676.14

120.00' VC
K = 80.00

PT 269+80.00
675.69

PC 270+60.00
676.09

CREST 270+96.49
676.19

PI 271+20.00
676.39

PRC 271+80.00
675.71

PI 272+38.46
676.60

PT 272+70.00
675.64

0.50%

1.75%

-1.00%

0.50%

0.75%

1.00%

PI 266+00.00
672.92

PI 266+15.00
674.96

PI 266+50.00
673.54

170.00' VC
K = 70.83

CREST 267+74.17
676.50

PC 268+60.00
675.99

PI 269+20.00
675.39

SAG 269+40.00
675.59

EXISTING GROUND

120.00' VC
K = 72.98

90.00' VC
K = 41.97

PI 272+25.00
675.19

SAG 272+28.03
675.43

PI 272+73.39
675.68

PROPOSED SPECIAL DITCH RT (TYP)

PROPOSED SPECIAL DITCH LT (TYP)

PROPOSED PROFILE CTH FF

673.7 674.14 | 674.0 674.39 | 674.1 674.64 | 674.5 674.97 | 674.9 675.48 | 675.4 676.11 | 675.6 676.46 | 676.2 676.45 | 676.4 676.09 | 676.5 675.69 | 676.8 675.60 | 677.0 675.79 | 677.2 676.04 | 677.1 676.18 | 675.6 675.99 | 677.1 675.53 | 676.8 675.49 | 676.1 | 676.3 | 675.3

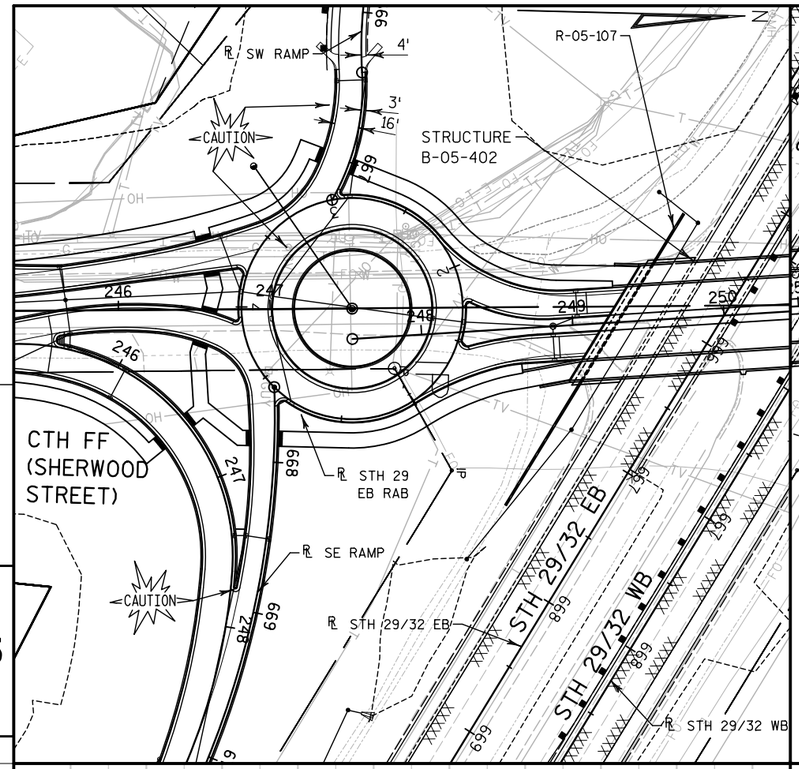
265+00 266+00 267+00 268+00 269+00 270+00 271+00 272+00 273+00 274+00 275+00

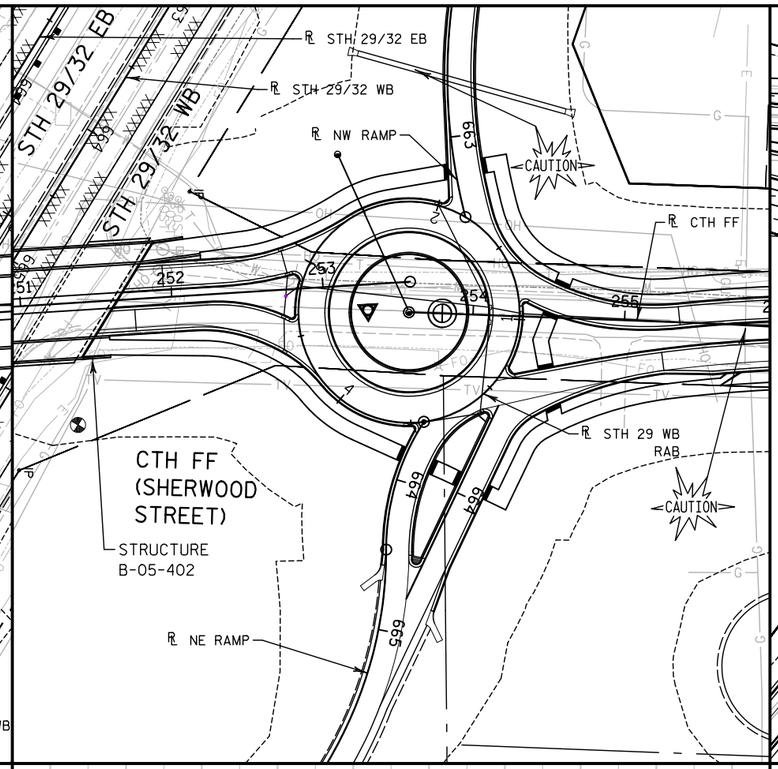
690 680 670 660 650 640 630 620

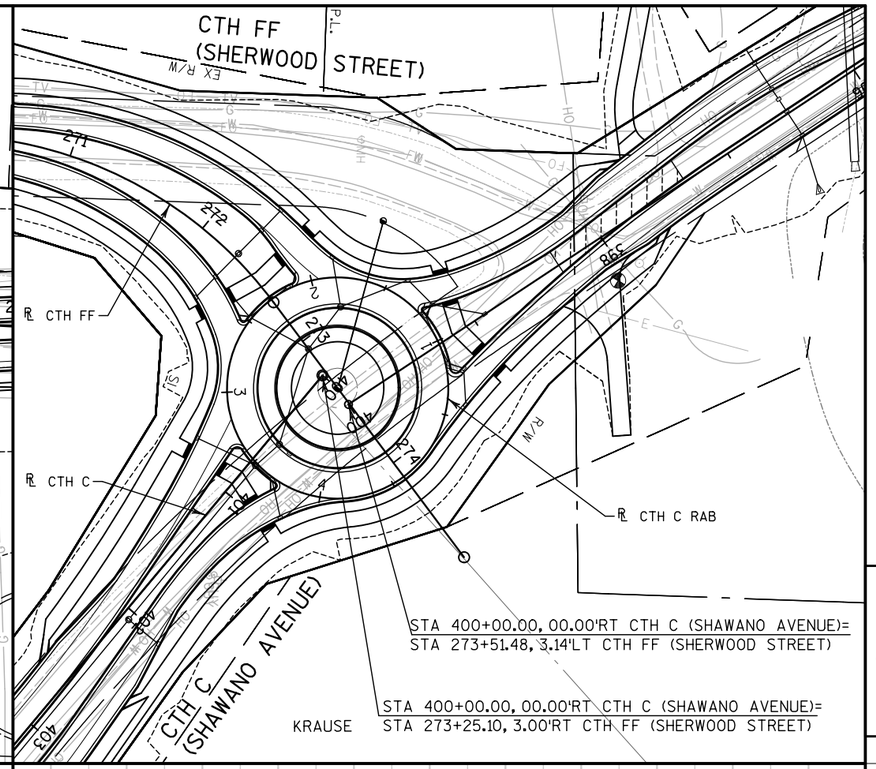
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - CTH FF	SHEET 255	E

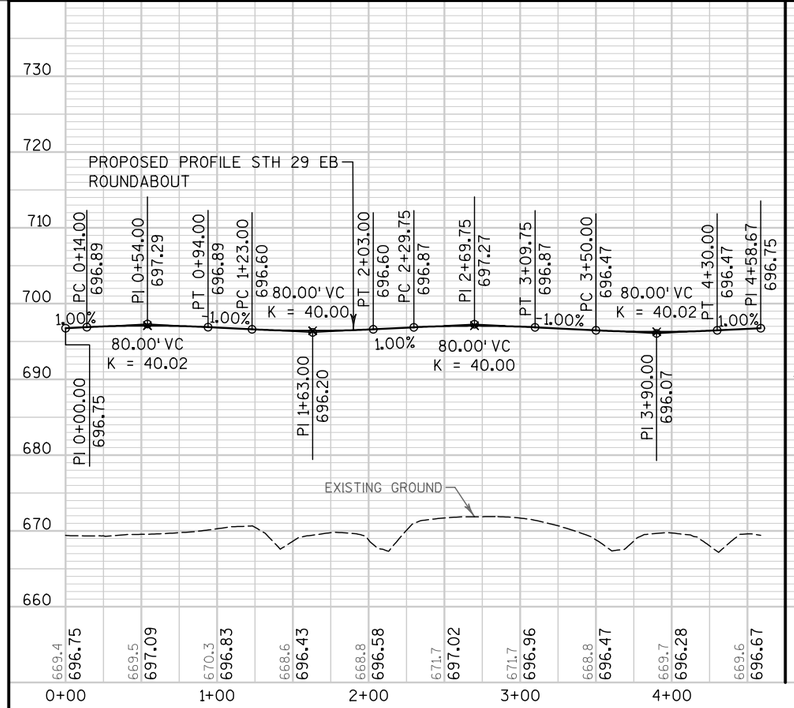
FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\050113_pp.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

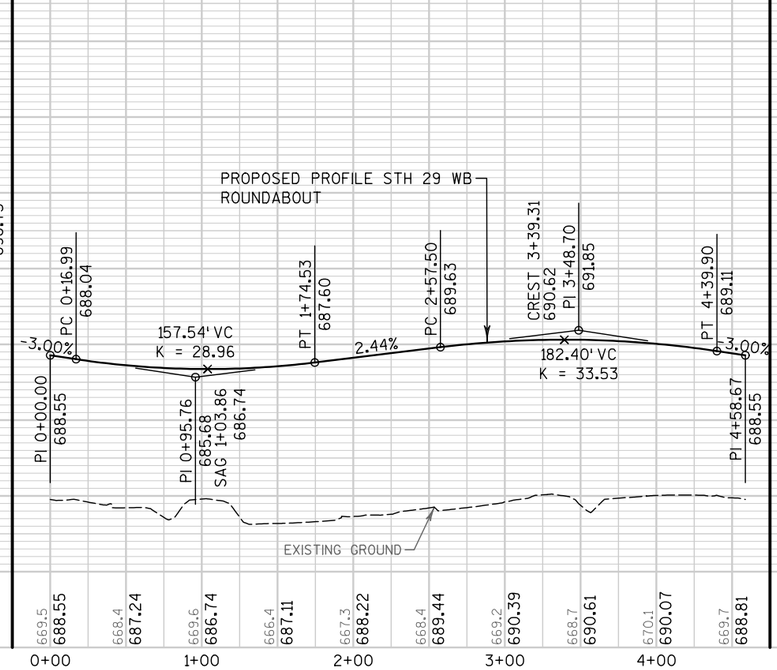
WISDOT/CADDS SHEET 40

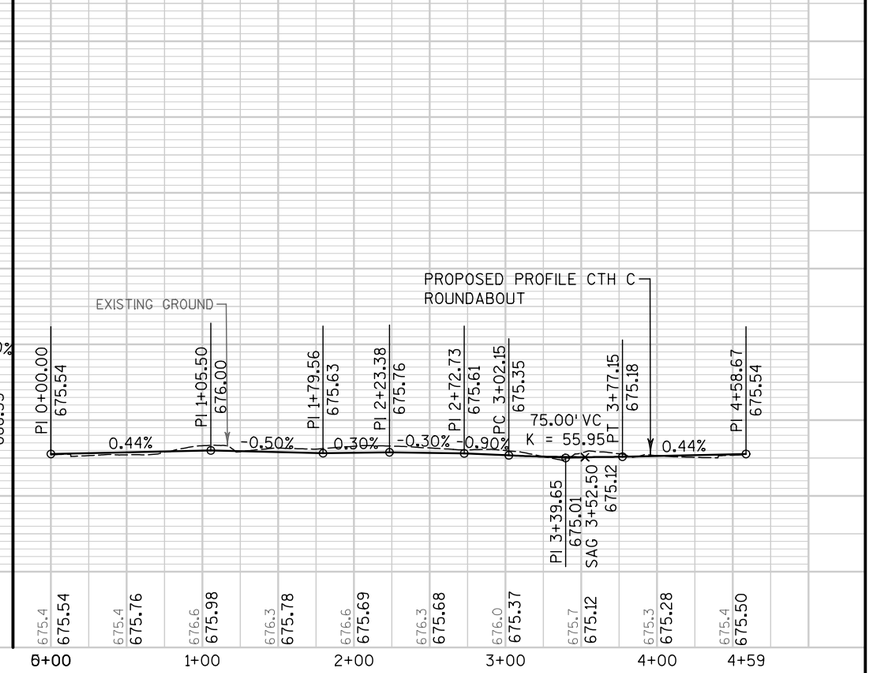












PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - ROUNDABOUTS	SHEET 256	E

BEGIN CONSTRUCTION
STA 393+45.00
Y = 586,746.609
X = 69,502.175

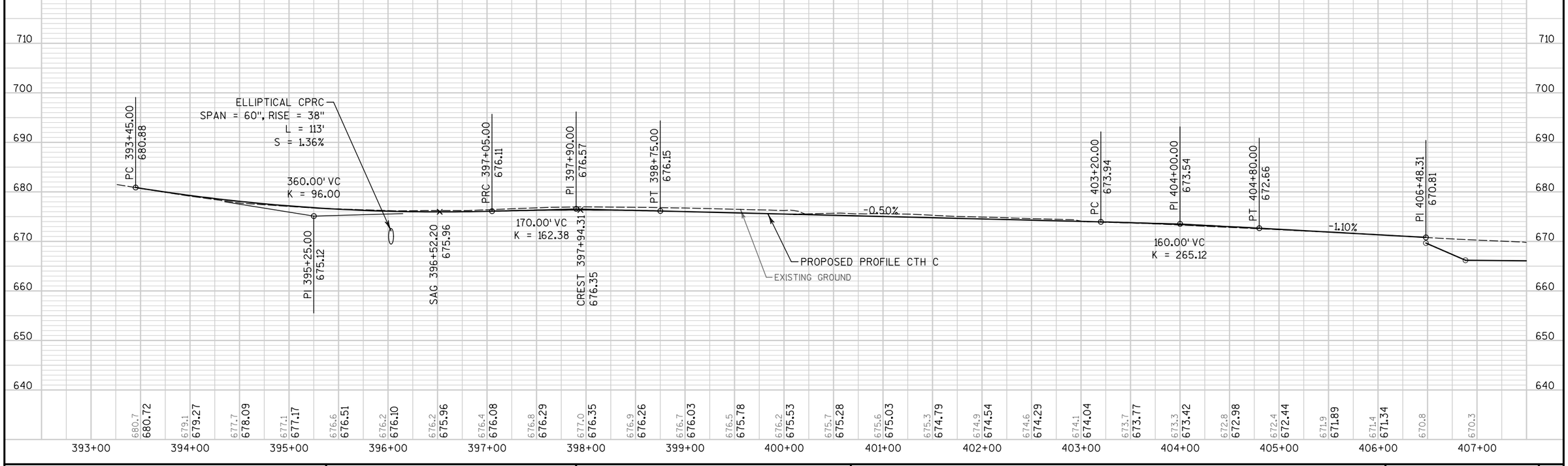
END CONSTRUCTION
STA 407+11.82
Y = 585,754.994
X = 70,424.943

TESCH
KRAUSE
KRAUSE
LINSSEN
KRAUSE

CONCRETE DRIVEWAY 6-INCH
HMA PAVEMENT TYPE E-0.3,
SEE 'PLAN DETAILS- MEDIAN ACCESS POINTS'
HMA PAVEMENT
TYPE E-3
I.E. = 668.67
DRIVEWAY
6" BASE AGGREGATE
DENSE ¾-INCH
STA 400+00.00, 00.00'RT CTH C (SHAWANO AVENUE)=
STA 273+51.48, 3.14'LT CTH FF (SHERWOOD STREET)
STA 400+00.00, 00.00'RT CTH C (SHAWANO AVENUE)=
STA 273+25.10, 3.00'RT CTH FF (SHERWOOD STREET)
CONCRETE SIDEWALK
4-INCH
HMA PAVEMENT
TYPE E-3
ASPHALTIC FLUMES
CAUTION
EX R/W
℄ CTH C
T.L.E.
R/W
P.L.
SI
OH
W-OH
SAN
W
G
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
274
400
490
233
212
16:1
2.5'
16'
2.5'
CONCRETE SIDEWALK
4-INCH
ELLIPTICAL CPRC
SPAN = 60", RISE = 38"
L = 113'
S = 1.36%
I.E. = 670.21
DRIVEWAY
6" CONCRETE
PAVEMENT
4" BASE AGGREGATE
DENSE ¾-INCH
DRIVEWAY
6" BASE AGGREGATE
DENSE ¾-INCH
CONCRETE SIDEWALK
4-INCH, TYP
CONCRETE CURB & GUTTER
30-INCH TYPE D
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE T
CTH FF
(SHERWOOD STREET)
℄ CTH FF
CTH C (SHAWANO AVENUE)
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE T
3-INCH CONDUIT RIGID
NON-METALLIC SCHEDULE 80,
2-12X24-INCH, STEEL PULL BOXES
BURY BELOW FROST LINE
CONCRETE CURB & GUTTER
30-INCH TYPE D
REFER TO 'PLAN DETAIL - CUL DE SAC'
FOR ADDITIONAL INFORMATION
RECONSTRUCTION OF ROADWAY
BY OTHERS, CONCURRENT WITH
PROJECT ID 9200-04-71
DRIVEWAY
6" CONCRETE PAVEMENT
4" BASE AGGREGATE DENSE ¾-INCH
WOODLAND ROAD
I.E. = 667.88
HODKIEWICZ
18" CPCM
L = 29'
S = 0.5%
I.E. = 668.03
DEVILLERS
95
96
97
98
91
94

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
BM 700	398+10.42 30.07'LT	CHISLED "X" ON BURY BOLT OF FIRE HYDRANT	662.841



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - CTH C	SHEET 257	E

N

ONEIDA NATION
OF WISCONSIN

6" CONCRETE PAVEMENT
4" BASE AGGEGRATE DENSE ¾-INCH

P.L. I.E. = 733.66

18" CMCP
L = 30'
S = 1.30%
I.E. = 734.05

℄ CENTENNIAL
CENTRE
BOULEVARD

MILLER

DRIVEWAY
3" ASPHALTIC SURFACE
3" BASE AGGREGATE
DENSE ¾-INCH

FREDRICKSON

T.L.E.

EX R/W

HMA PAVEMENT TYPE E-1

STA 28+25.00, 00.00'RT\ CENTENNIAL CENTRE BOULEVARD=
STA 350+00.00, 00.00'LT FOREST ROAD

CAUTION

6" CONCRETE PAVEMENT
4" BASE AGGREGATE DENSE ¾-INCH

I.E. 736.65

I.E. = 737.38

18" - CMP
L = 44'
S = 1.66%

FIRST BUSINESS
BANK MILWAUKEE

SCHWIESOW

CENTENNIAL
CENTRE
BOULEVARD

GRACYALNY

BEGIN CONSTRUCTION
STA 20+02.33
Y = 585,276.073
X = 66,179.283

I.E. = 723.20

18" CPCM
L = 68'
S = 0.5%

I.E. = 722.87

CAUTION

FOREST ROAD

VILLAGE OF HOBART

6" CONCRETE PAVEMENT
4" BASE AGGREGATE DENSE ¾-INCH

I.E. = 727.85

SCHWIESOW

18" CPCM
L = 30'
S = 0.78%

I.E. = 728.38

℄ FOREST ROAD

HEINTZ

CAUTION

15" CPCM
L = 48'
S = 1.98%

I.E. = 728.00

I.E. = 727.50

PI 20+02.33
743.48

-1.62%

PC 23+49.67
737.85

PI 23+99.67
737.04

PT 24+49.67
735.90

100.00' VC
K = 149.41

EXISTING GROUND

PROPOSED PROFILE
CENTENNIAL CENTRE BOULEVARD

-2.29%

743.7	742.8	742.0	741.1	740.1	738.9	737.1	736.9	736.5	736.3	736.5	737.0	737.8	738.6	739.3	740.2	738.9	735.3	736.1	733.3	733.5	732.3	730.2	728.1	725.1	722.0	719.9	718.5	717.8
	742.78	742.01	741.20	740.36	739.48	738.57	737.62	736.64	735.62	734.57	733.49	732.37	731.23	730.08	728.93	727.78	726.63	725.48	724.33	723.18	722.03	720.88	719.73	718.58	717.43	716.28	715.13	713.98
20+00	21+00	22+00	23+00	24+00	25+00	26+00	27+00	28+00	29+00	30+00	31+00	32+00	33+00	34+00														

760 750 740 730 720 710 700 690

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - CENTENNIAL CENTRE BLVD & FOREST ROAD	SHEET 258	E

STH 29/32 WB

STH 29/32 EB

℄ STH 29/32 EB

℄ STH 29/32 WB

CONNECT TO EXISTING CULVERT PIPE
I.E. = 678.41

℄ CENTENNIAL CENTRE BOULEVARD

CENTENNIAL CENTRE BOULEVARD

MGS TERMINAL EAT

HMA PAVEMENT TYPE E-1

24" CPRC
L = 52'
S = 0.62%
I.E. = 678.09

MGS GUARDRAILS

MGS TERMINAL
TYPE 2

EX R/W

R/W

P.L.

ONEIDA TRIBE
OF WISCONSIN

PIONEER CREDIT UNION

I.E. = 671.50

672.80

30" CPRC
L = 84'
S = 1.55%

5

5

PROJECT NO: 9200-04-71 | HWY: STH 29 | COUNTY: BROWN | PLAN & PROFILE - CENTENNIAL CENTRE BOULEVARD | SHEET 259 | E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\050117_pp.dgn | PLOT DATE : 3/19/2013 | PLOT BY : jessica_meddaugh | PLOT NAME : | PLOT SCALE : 100.0000 sf / in.

WISDOT/CADDS SHEET 40

HERMSEN PROPERTIES LLC

4688 GOLDEN POND PARK COURT LLC

RED VIPER LLC

PIONEER CREDIT UNION

TECHNICAL ASSOCIATES GROUP

TRANSITION SHOULDER FROM 4% TO 2% OVER 50'(RT & LT)

HMA PAVEMENT TYPE E-1

ASPHALTIC FLUME

DRIVEWAY
3" ASPHALTIC SURFACE
4" BASE AGGREGATE DENSE ¾-INCH

DRIVEWAY
6" CONCRETE PAVEMENT
4" BASE AGGREGATE DENSE ¾-INCH

DRIVEWAY
3" ASPHALTIC SURFACE
4" BASE AGGREGATE 3#4-INCH

END CONSTRUCTION
STA 55+10.71
Y = 583,655.914
X = 68,943.548

BEGIN CONSTRUCTION
STA 60+35.10
Y = 583,198.658
X = 69,175.239

CENTENNIAL CENTRE BOULEVARD

CURB AND GUTTER TERMINI, SEE CONSTRUCTION DETAIL

℄ CENTENNIAL CENTRE BOULEVARD

CONCRETE CURB & GUTTER 30-INCH YPE D

PIONEER CREDIT UNION

BLACK VIPER LLC

MARLOW

CONRAD

5

5

710
700
690
680
670
660
650
640

PI 49+00.00
672.00

PI 51+00.00
673.00

-0.75%

0.50%

PROPOSED PROFILE
CENTENNIAL CENTRE BOULEVARD

PI 55+14.23
674.45

PROPOSED PROFILE CENTENNIAL CENTRE BOULEVARD SPECIAL DITCH
STA 37+00.00 TO STA 51+00.00 SPECIAL DITCH LEFT
STA 37+00.00 TO STA 50+00.00 SPECIAL DITCH RIGHT

EXISTING GROUND

PI 60+35.11
674.39

PC 60+60.00
674.26

PI 61+10.00
674.01

PT 61+60.00
672.26

PC 62+05.00
670.69

-0.50%

100.00' VC
K = 33.33

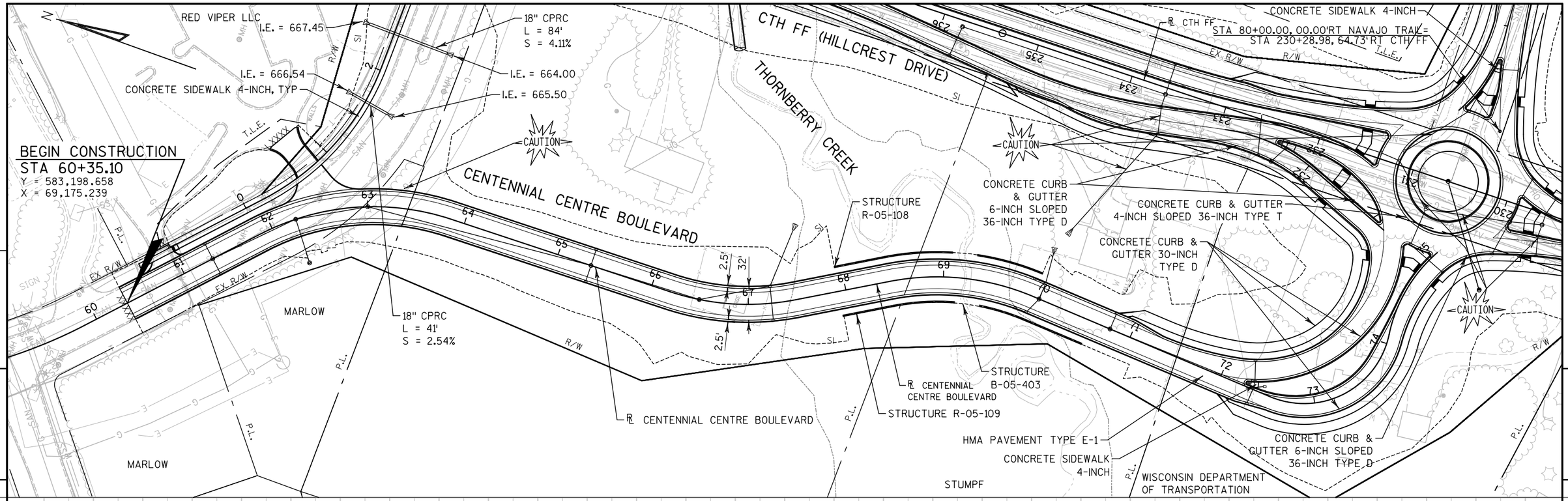
-3.50%

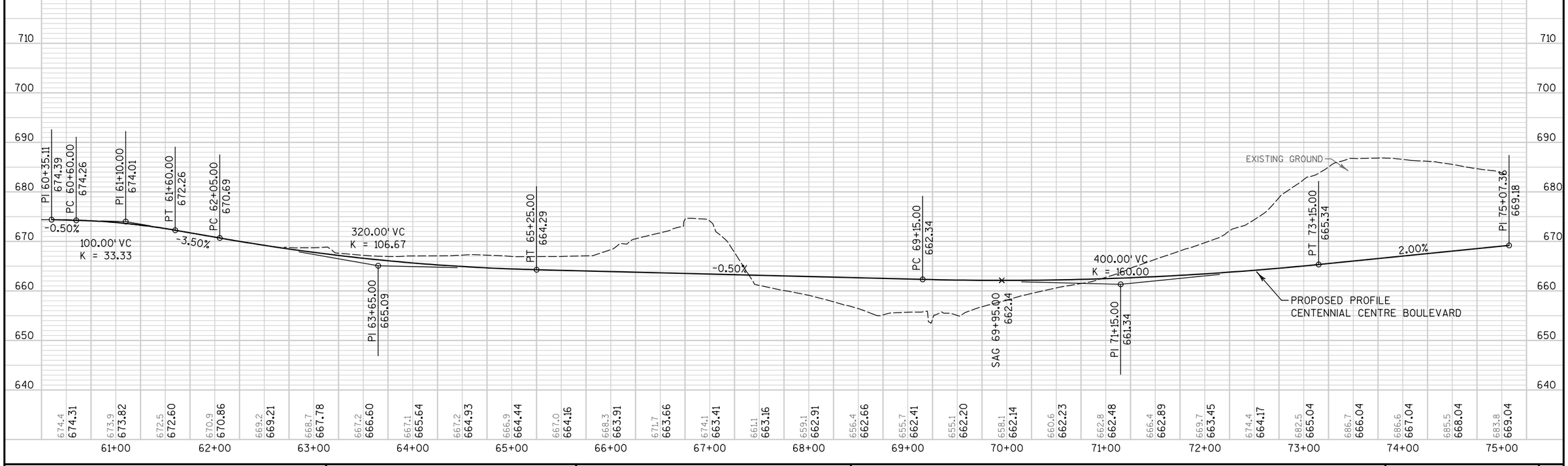
320.00' VC
K = 106.67

PI 63+65.00
665.09

PROPOSED PROFILE
CENTENNIAL CENTRE BOULEVARD

| | | |





PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - CENTENNIAL CENTRE BOULEVARD	SHEET 261	E

WISCONSIN DEPARTMENT OF TRANSPORTATION

CTH FF (HILLCREST DRIVE)

CENTENNIAL CENTRE BOULEVARD

CENTENNIAL CENTRE BOULEVARD BYPASS LANE

CENTENNIAL CENTRE BOULEVARD ROUNDABOUT

NAVAJO TRAIL

SCHROVNAL

ARIENS

SEHRING

TRESSLER

MONTGOMERY

BADOUR

HOWALD

LANCASTER CREEK

FIELD ENTRANCE
6" BASE AGGREGATE DENSE
¾-INCH

CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH
TYPE D

CONCRETE SIDEWALK 4-INCH, TYP

CONCRETE CURB & GUTTER
30-INCH TYPE D

CONCRETE SIDEWALK
4-INCH

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE T

CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH TYPE D

15" CPCM
L = 29'
S = 6.00%

I.E. = 652.50

I.E. = 654.23

ASPHALTIC FLUME

HMA PAVEMENT TYPE E-1

T.L.E.

END CONSTRUCTION
STA 82+57.98

STA 80+00.00, 00.00'RT NAVAJO TRAIL=
STA 230+28.98, 64.73'RT CTH FF

CAUTION

EX R/W

R/W

P.L.

CCB BYPASS

STATION	GRADE	REMARKS
231+00	2.24%	BEGIN BYPASS LANE
231+15	2.00%	BEGIN NORMAL CROWN
232+22	2.00%	END NORMAL CROWN
232+40	3.19%	END BYPASS LANE

ROUNDABOUT

PI 0+00.00
668.90

70.00' VC
K = 44.87

PC 0+61.21
668.42

PT 1+31.21
668.42

PC 2+90.55
669.66

CREST 3+25.55
669.80

PI 3+25.55
669.94

PT 3+60.55
669.66

PI 4+58.67
668.90

0.78%

0.78%

-0.78%

70.00' VC
K = 44.87

SAG 0+96.21
668.28

PI 0+96.21
668.15

EXISTING GROUND

PROPOSED PROFILE CENTENNIAL CENTRE BOULEVARD ROUNDABOUT

670.6 668.90 | 673.1 668.51 | 672.9 668.28 | 681.0 668.57 | 668.96 | 669.35 | 679.0 669.73 | 672.9 669.73 | 670.6 669.35 | 671.0 668.96

0+00 1+00 2+00 Station 3+00 4+00

NAVAJO TRAIL

PC 80+00.00
669.27

PI 80+90.50
667.46

181.00' VC
K = 36.20

PT 81+81.00
661.12

-7.00%

PI 82+57.99
655.73

EXISTING GROUND

PROPOSED PROFILE NAVAJO TRAIL

669.27 | 667.6 667.92 | 665.8 665.89 | 663.1 663.16 | 659.8 659.79 | 656.3 656.29

80+00 81+00 82+00 83+00 84+00

BYPASS LANE

EXISTING GROUND

PI 231+00.00
668.57

PC 231+35.45
667.68

105.00' VC
K = 37.44

-2.50%

PT 232+40.45
666.52

PROPOSED PROFILE CENTENNIAL CENTRE BOULEVARD BYPASS LANE

PI 231+87.95
666.37

SAG 232+29.22
666.51

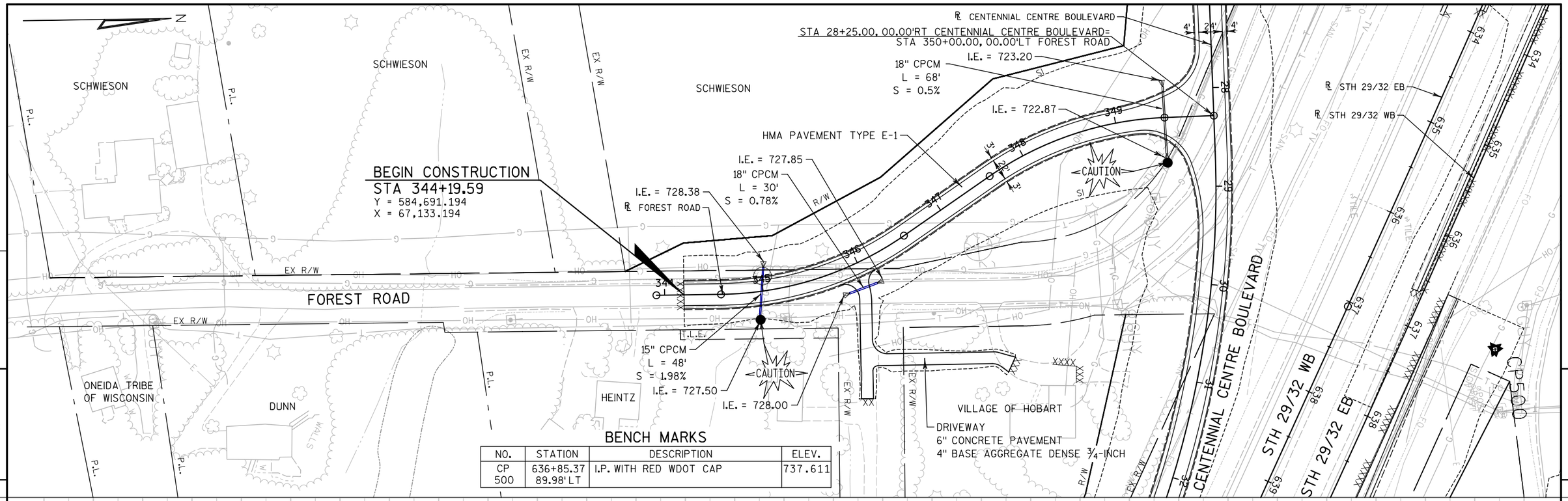
668.57 | 681.8 667.34 | 678.9 666.62 | 672.1

231+00 232+00 233+00

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - NAVAJO TRAIL	SHEET 262	E

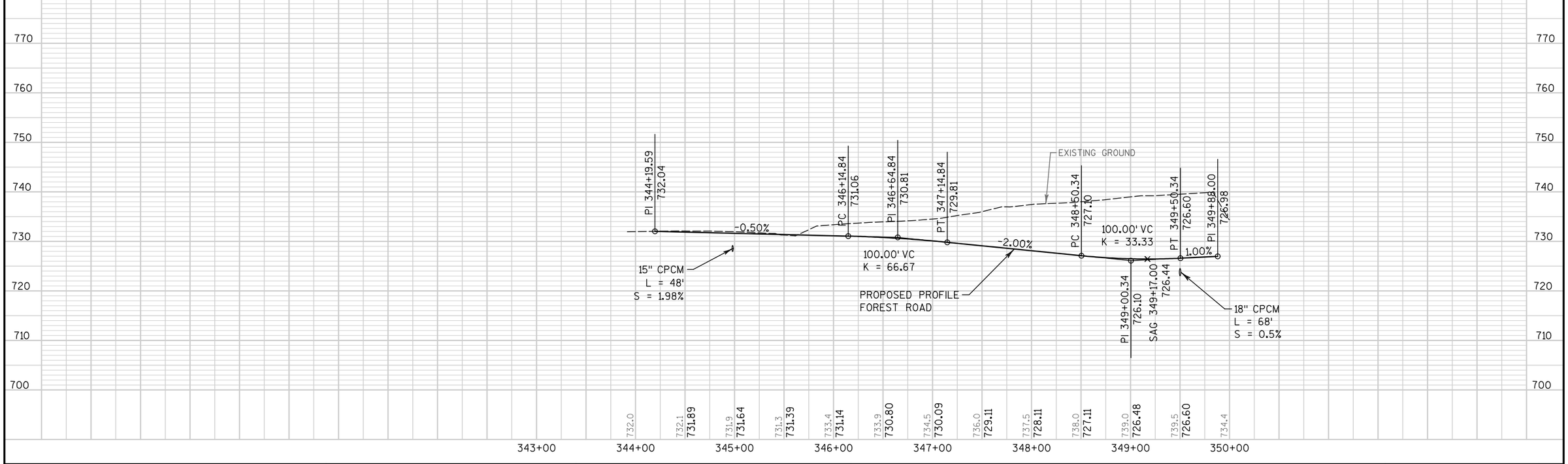
FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\050120_pp.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

WISDOT/CADDS SHEET 40



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP 500	636+85.37 89.98'LT	I.P. WITH RED WDOT CAP	737.611



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - CENTENNIAL CENTRE BOULEVARD & FOREST DRIVE	SHEET 263	E

ST. JOSEPH CORPORATIOIN

STA 90+00.00, 00.00'RT WOODLAND ROAD=
STA 266+96.85, 00.00'LT CTH FF (SHERWOOD STREET)

BEGIN CONSTRUCTION
STA 87+94.69
Y = 585,609.372
X = 69,498.343

℄ CTH FF

CTH FF (SHERWOOD STREET)

STA 90+00.00, 00.00'RT WOODLAND ROAD=
STA 266+98.38, 00.00'LT CTH FF (SHERWOOD STREET)

CONCRETE SURFACE DRAIN

END CONSTRUCTION
STA 91+47.85
Y = 585,622.487
X = 69,851.332

KRAUSE

KRAUSE

MANLICK

HODKIEWICZ

BOLLEN

DRUCKREY

LEMAY

MARTENS

DEVILLERS

STACKMAN

WOLFE

ROSE

HARRIG

WOODLAND RD.

WOODLAND ROAD

℄ WOODLAND ROAD

I.E. = 672.78

I.E. = 671.05

I.E. = 670.89

I.E. = 673.00

I.E. = 668.03

I.E. = 655.60

I.E. = 667.88

15" CPCM
L = 26'
S = 0.62%

15" CPCM
L = 42'
S = 0.5%

24" CPCM
L = 41'
S = 1.22%
I.E. = 655.10

18" CPCM
L = 29'
S = 0.5%

DRIVEWAY
6" CONCRETE PAVEMENT
4" BASE AGGREGATE DENSE ¾-INCH

FIELD ENTRANCE
6" BASE AGGREGATE
DENSE ¾-INCH

DRIVEWAY
6" CONCRETE PAVEMENT
4" BASE AGGREGATE DENSE ¾-INCH

HMA PAVEMENT TYPE E-1

CONCRETE SIDEWALK 4-INCH, TYP

CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH TYPE D

EX R/W

T.L.E.

P.L.

R/W

CAUTION

SEPTIC

88 89 90 91 92 93 94 95 96 97 98

264 265 266 267 268

406 407 408 409 410

N

PI 87+94.69
676.60

-0.80%

PC 88+85.97
675.87

90.00' VC
K = 69.23

PI 89+30.97
675.51

SAG 89+41.36
675.65

PT 89+75.97
675.74

2.10%

PI 89+91.99
676.07

PI 90+00.00
676.24

PI 90+00.00
676.25

PI 90+08.01
676.10

PC 90+26.50
675.74

1.95%

PI 90+24.02
675.78

90.00' VC
K = 94.83

PI 90+71.50
674.86

PT 91+16.50
674.41

PI 91+47.85
674.09

-1.00%

PROPOSED PROFILE WOODLAND ROAD

EXISTING GROUND

PI 95+29.95
671.96

-0.70%

PI 96+24.97
671.29

24" CPCM
L = 41'
S = 1.22%

676.6 676.56
676.3 676.16
675.8 675.77
675.4 675.65
675.4 676.25
674.9 675.31
674.6 674.59
674.1
673.6
673.1
672.7
672.4
672.2
672.0
671.9
671.9 671.82
671.6 671.47
671.2
670.7
669.9
668.7

710 700 690 680 670 660 650 640

87+00 88+00 89+00 90+00 91+00 92+00 93+00 94+00 95+00 96+00 97+00 98+00 99+00

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - WOODLAND ROAD	SHEET 264	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\050122_pp.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

WISDOT/CADDS SHEET 40

WISCONSIN PUBLIC SERVICE CORP

SUBSTATION

T.L.E.

R/W

CTH FF (SHERWOOD STREET)

WISCONSIN DEPARTMENT OF TRANSPORTATION

ARROWOOD

CONCRETE SIDEWALK 4-INCH, TYP

CAUTION

EX R/W

DEGREEF

ROHLOFF

CATHERINE DR.

CATHERINE DRIVE

DRUCKREY

SEPTIC

℄ CATHERINE DRIVE

END CONSTRUCTION
STA 13+18.71
Y= 584,572.029
X= 70,008.816

HMA PAVEMENT
TYPE E-0.3

℄ CTH FF

DUQUETTE

BEYERS

BARETTE

KOWALKOWSKI

P.L.

SI

OH

TV

HO

N

5

5

PI 12+24.23
669.40

PI 13+18.71
670.91

1.60%

EXISTING GROUND

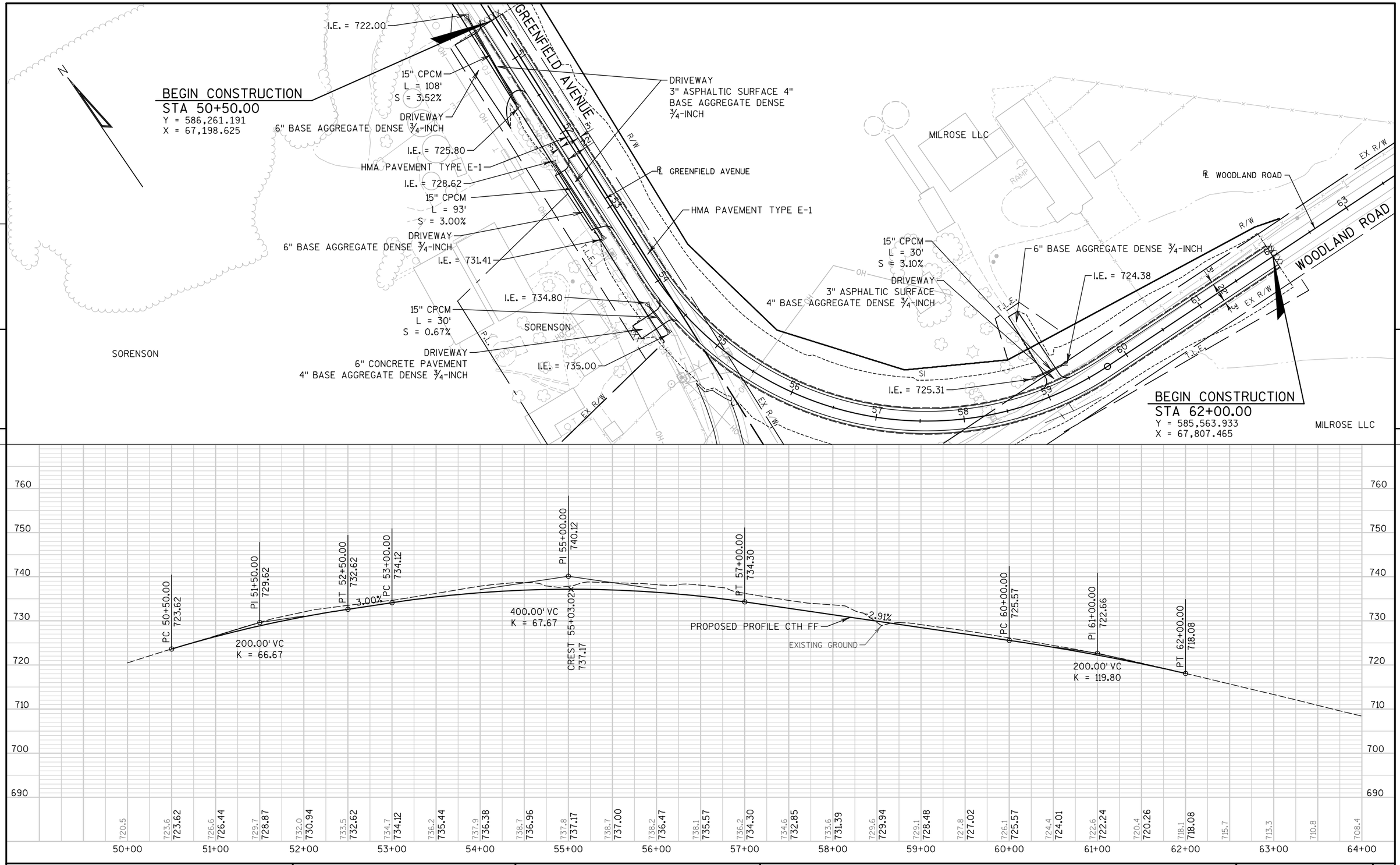
PROPOSED PROFILE CATHERINE DRIVE

669.1	668.0	667.9	668.3	668.9	669.7	670.6	671.6	672.8	673.9	674.7
					669.81	670.61				

10+00 11+00 12+00 13+00 14+00 15+00 16+00

690 685 680 675 670 665

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - CATHERINE DRIVE	SHEET 265	E



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - GREENFIELD AVENUE & WOODLAND ROAD	SHEET 266	E

NOTE: DO NOT PLACE FERTILIZER OR SEED ON JERZAK PROPERTY; TOPSOIL ONLY.

SLOPE INTERCEPT (TYP)

4-INCH TOPSOIL IN DISTURBED AREAS

CONCRETE DRIVEWAY 6-INCH

STA 00+55.00, 7'LT
X=69,636.742
Y=581,415.099

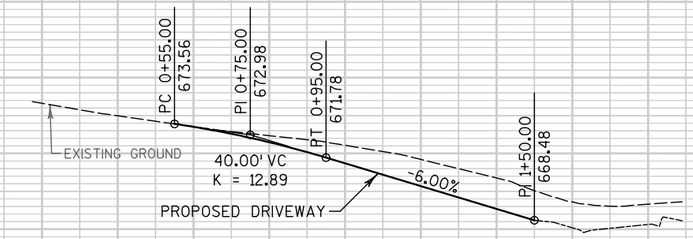
STA 00+55.00, 7'RT
X=69,634.205
Y=581,401.331

STA 01+29.41, 350'LT
X=69,698.891
Y=581,752.422

JERZAK

CTH FF (HILLCREST DRIVE)

CURVE 1
PI STA 0+91.90
y = 581,401.43
x = 69,671.74
Δ = 12° 19' 45" (LT)
D = 16° 22' 13"
T = 37.80
L = 75.31
R = 350.00
PC STA 0+54.09
y = 581,408.38
x = 69,634.58
PT STA 1+29.41
y = 581,402.58
x = 69,709.53



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE - DRIVEWAY DETAILS	SHEET 267	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\050124_pp.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 40

CURVE 1
PISTA 0+54.40
y = 581663.816
x = 69680.348
Δ = 31°48'26.66" LT
D = 49°59'14.58"
T = 32.66
L = 63.63
R = 114.62
PC STA 0+21.74
y = 581,685.268
x = 69,655.724
PT STA 0+85.37
y = 581,658.564
x = 69,712.582
SE = NC

CURVE 2
PISTA 0+95.31
y = 581656.965
x = 69722.395
Δ = 10°59'44.37" LT

STA 00+31.76 7.11' LT
X=69,667.745
Y=581,684.770

POB 0+00.00

PC 0+21.74

679.89

680.05

679.89

CURVE 1

108.62' R

CURVE 2

PT 0+85.37

PI 0+95.31

POE 1+26.31

STA 00+32.76, 8.97' RT
X=69,659.161
Y=581,671.140

PI 0+54.40

676.14

671.14

676.03

671.26

671.14

140.16' R

STA 00+21.73, 115' LT
X=69,731.014
Y=581,771.693

SLOPE INTERCEPT (TYP)

PI 0+31.76
680.05

EXISTING GROUND

-13.85%

PI 0+95.31
671.26

PROPOSED DRIVEWAY

PROPOSED COUNTY FF

682.7

678.0
677.53

672.8

684
680
676
672
668

0+00
1+00
2+00

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE - DRIVEWAY DETAILS	SHEET 268	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\050125_pp.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 40

CTH FF (SHERWOOD STREET)

5'R STA 01+44.00, 5'LT
X=69,736.596
Y=584,767.299

PC 2+30.005
584761.192
69822.529

PI 3+00.15

UNNAMED TRIBUTARY TO DUCK CREEK

CURVE 1

PT 3+52.347
584694.031
69915.699

REFER TO "SNOWMOBILE TRAIL CROSSING DETAIL"

RAZE AND REMOVAL BY OTHERS
STA 01+44.00, 15'RT
X=69,736.338
Y=584,747.302

41'- 27" RCCP CLASS III WITH APRON ENDWALLS

℄ CTH FF

SLOPE INTERCEPT (TYP)

℄ CATHERINE SW

CURB RAMP TYPE 2
REFER TO SDD 8D5 FOR MORE DETAIL

EX R/W

℄ CATHERINE DRIVE

CATHERINE DRIVE

10'
2.0% TYP
6:1
6:1
3-INCH BASE AGGREGATE DENSE 1¼-INCH
CONCRETE SIDEWALK 4-INCH

SECTION A-A

CURVE 1
PI STA 3+00.15
y = 584760.290
x = 69892.669
Δ = 70°05'47.79" RT
D = 57°17'44.81"
T = 70.15
L = 122.34
R = 100.00
PC STA 2+30.00
y = 584,761.192
x = 69,822.529
PT STA 3+52.35
y = 584,694.031
x = 69,915.699
SE = NC

N

PC 1+39.00 675.62
PI 1+64.00 675.62
PT 1+89.00 674.37
CREST 1+39.00 675.62
50.00' VC
K = 10.00
PI 1+65.00 666.99
-5.00%
PC 2+63.00 670.67
PROPOSED CATHERINE DRIVE SIDEWALK
160.00' VC
K = 21.35
PT 4+23.00 668.67
PI 4+67.78 669.78
2.50%
EXISTING GROUND
PI 3+24.78 664.32
-1.67%
2.20%
PI 4+60.30 667.30
SPECIAL DITCH LT
41'- 27" RCCP CLASS III WITH APRON ENDWALLS
PI 3+43.00 666.67
SAG 3+69.73 668.00

669.2 669.2 671.7 666.40 669.3 665.57 665.3 664.73 665.8 664.87 667.4 665.97 667.5 667.07

678 674 670 666 662

1+00 2+00 3+00 4+00 5+00

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE - CATHERINE DRIVE SIDEWALK	SHEET 269	E

CENTENNIAL CENTRE BOULEVARD

CTH FF (HILLCREST DRIVE)

S 47° 35' 09" E

S 89° 21' 09" E

5'
2.0% TYP
6:1
6:1
3-INCH BASE AGGREGATE DENSE 1 1/4-INCH
CONCRETE SIDEWALK 4-INCH

SECTION A-A

R/W

I.E. = 666.54

I.E. = 667.45

18" CPRC
L = 84'
S = 4.11%

I.E. = 665.50

CONCRETE SIDEWALK 4-INCH

I.E. = 664.00

18" CPRC
L = 84'
S = 4.11%

EX R/W

SLOPE INTERCEPT (TYP)

N

5

5

PC 0+90.00
670.11

PI 1+00.00
669.86

PT 1+10.00
669.36

PI 0+86.54
670.20

5.00%

5.00%

20.00' VC
K = 8.00

PC 1+18.25
668.95

SAG 1+43.25
668.32

50.00' VC
K = 5.00

PI 1+43.25
667.70

PT 1+68.25
668.95

5.00%

PROPOSED CENTENNIAL CENTRE BOULEVARD SIDEWALK

18" CPRC
L = 84'
S = 4.11%

18" CPRC
L = 84'
S = 4.11%

EXISTING GROUND

PC 3+40.77
677.57

PI 3+50.77
678.07

PT 3+60.77
678.27

20.00' VC
K = 6.67

682
678
674
670
666
662
658

671.6
670.4
668.0 669.80
666.2 668.37
665.3 670.53
664.5 673.03
663.4 675.53
662.6 677.97

0+00
1+00
2+00
3+00
4+00

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE - EXISTING CENTENNIAL CENTRE BLVD SIDEWALK	SHEET 270	E

REFER TO CATHERINE DRIVE SIDEWALK DETAILS

WETLAND BOUNDARY

SLOPE INTERCEPT (TYP)

STA 13+18
SAW EXISTING PAVEMENT
FULL DEPTH

OBLITERATE OLD ROAD

EX R/W

R/W

CATHERINE DRIVE

CTH FF (SHERWOOD STREET)

POINT REFERRED TO IN CONSTRUCTION DETAIL

4¾" HMA PAVEMENT TYPE E-0.3

R 48.0'
X= 69,913.712
Y= 584,537.689

R 50.0'
X= 70,007.730
Y= 584,510.038

669.00
670.00
670.71
670.93
668.00
667.72
668.00
669.00
670.00
13'

S 88° 59' 47" E

N

R 40.0'
X= 69,910.186
Y= 584,409.272

T.L.E.

STA 95+30
SAW EXISTING PAVEMENT
FULL DEPTH

WOODLAND ROAD

4¾" HMA PAVEMENT TYPE E-0.3

669.62
670.00
669.60
4'

R 48.0'
X= 70,005.845
Y= 585,387.976

669.59
671.00
670.00
671.08
671.32
671.10

CTH C (SHAWANO AVENUE)

POE
98+43.82

POINT REFERRED TO IN CONSTRUCTION DETAIL

OBLITERATE OLD ROAD

SLOPE INTERCEPT (TYP)

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN - CUL DE SAC	SHEET 271	E

* EXISTING IRRIGATION SYSTEM, COORDINATE WITH PROPERTY OWNER 2 WEEKS PRIOR TO CONSTRUCTION

N

STA 01+76.62
X=69,640.893
Y=584,871.796
PC 1+76.622
584883.956
69613.468

STA 00+95.92
X=69,547.848
Y=584,824.776

STA 01+61.66
X=69,640.314
Y=584,855.688

STA 01+03.75
X=69,598.556
Y=584,810.850

MATCH EXISTING GARAGE ENTRY ELEVATION

CURVE 1
PI 0+66.93
PT 0+78.002
584793.801
69573.494
PC 0+53.763
584779.356
69555.211

CURVE 2
PI 1+94.36
PT 2+08.659
584901.686
69638.329

N 79°27'53" E
N 23°54'45" E
N 68°05'52" E

672.46
672.58
672.81
670.93
671.05
670.93
669.40
669.52
669.40
668.94
669.10
669.00
669.42
669.12
669.93

12'
22'
36'R
30'R
20'R
30'R

T.L.E.
R/W
EX R/W

CTH FF (SHERWOOD STREET)
260
259

SEPTIC

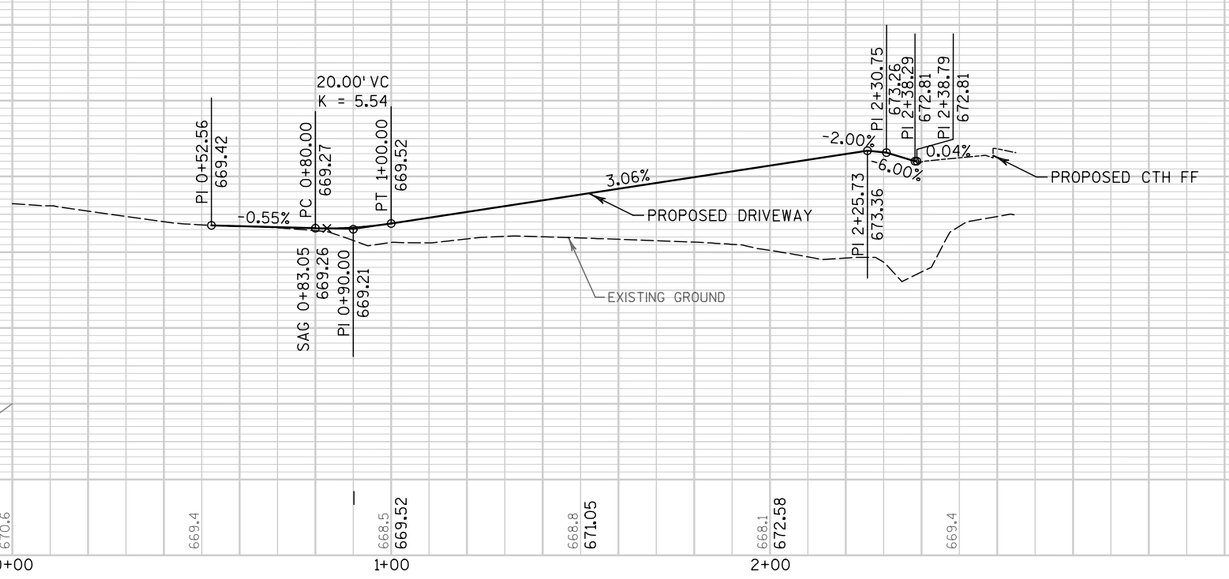
SLOPE INTERCEPT (TYP)

RAZE AND REMOVAL BY OTHERS

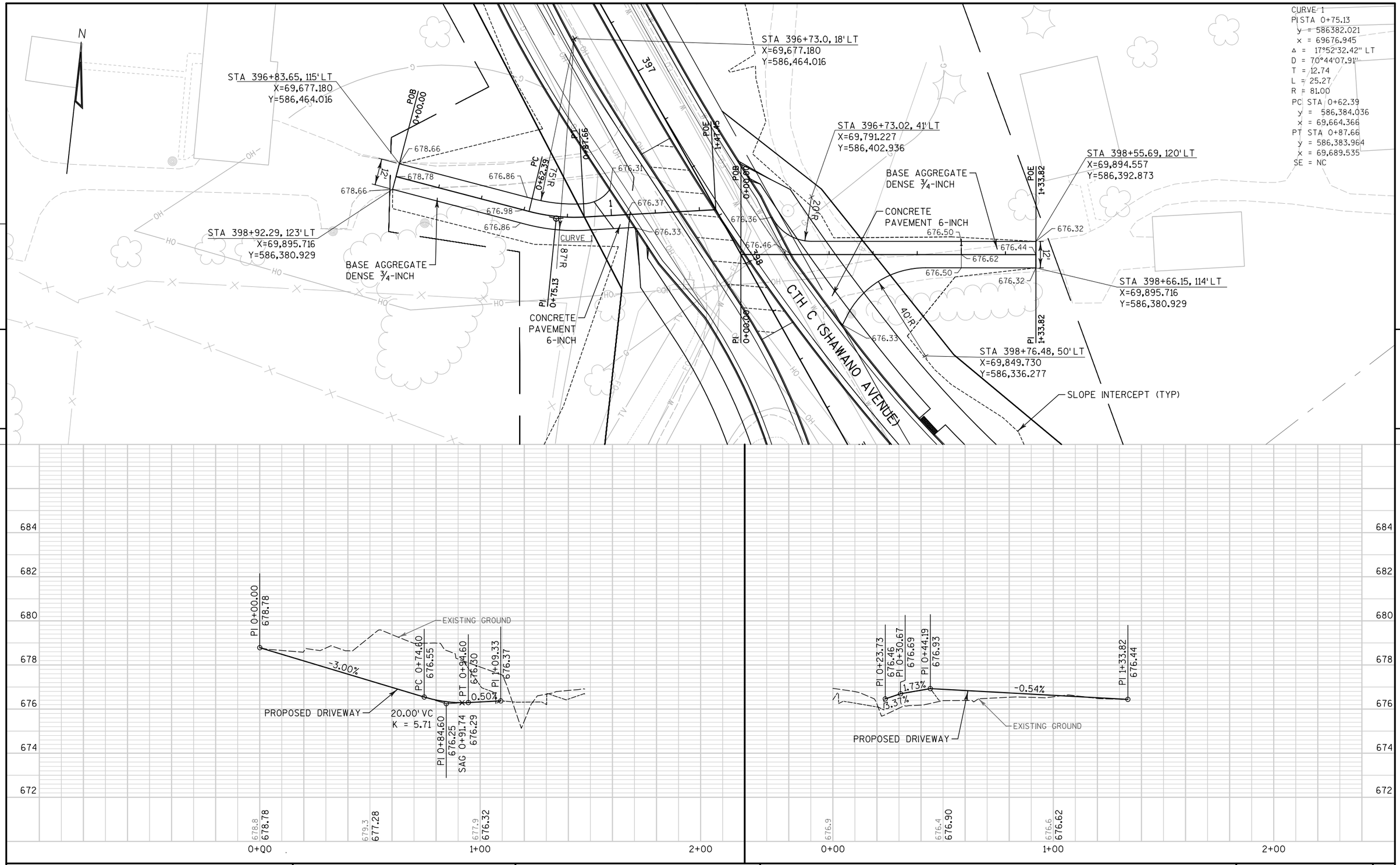
EXISTING DRIVEWAY TO BE REMOVED

CURVE 1
PISTA 0+66.93
y = 584781.763
x = 69568.157
Δ = 55°33'10.12" LT
D =229°10'59.22"
T = 13.17
L = 24.24
R = 25.00
PC STA 0+53.76
y = 584,779.356
x = 69,555.211
PT STA 0+78.00
y = 584,793.801
x = 69,573.494
SE = NC

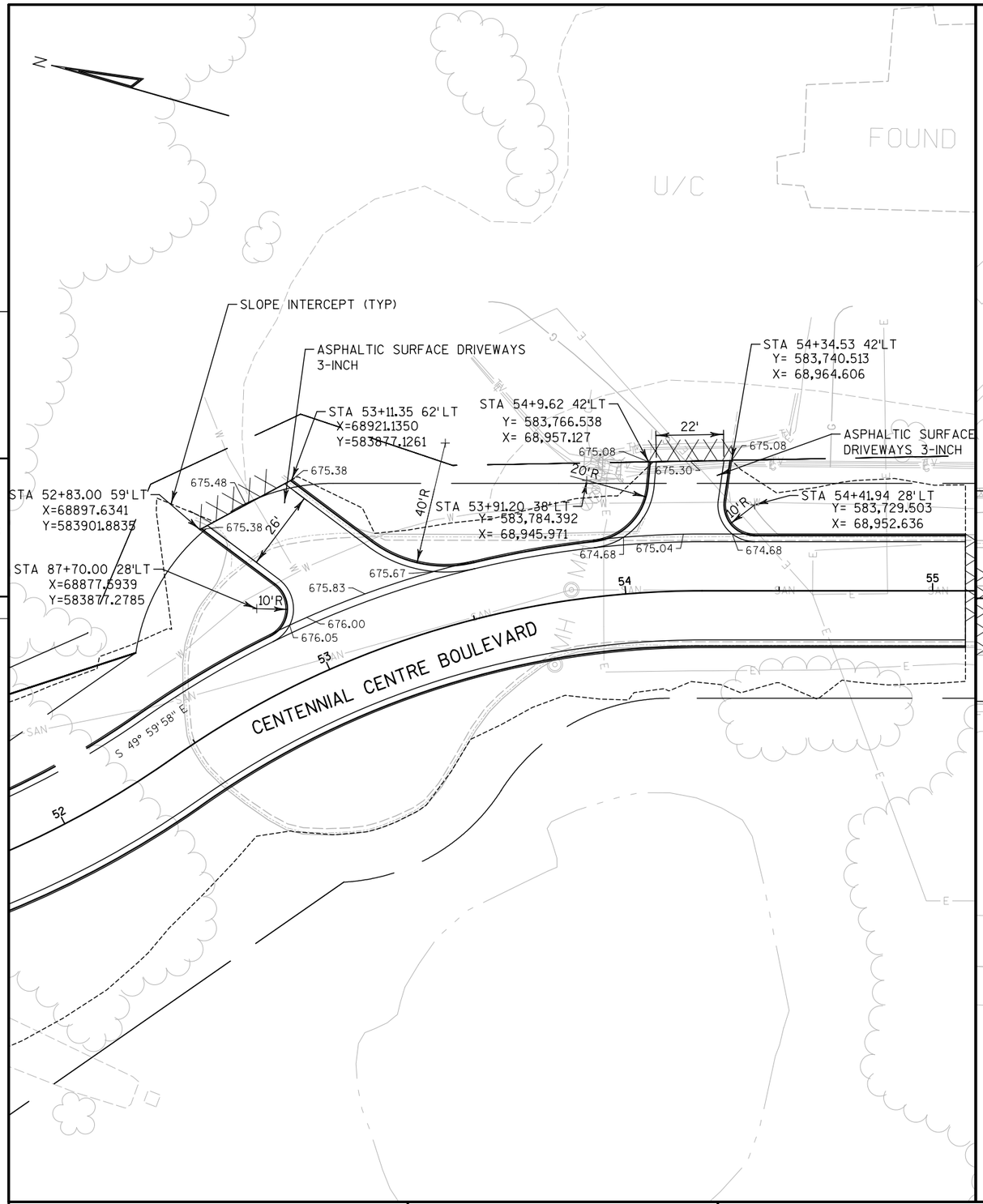
CURVE 2
PISTA 1+94.36
y = 584900.171
x = 69620.657
Δ = 61°11'09.38" RT
D =190°59'09.35"
T = 17.74
L = 32.04
R = 30.00
PC STA 1+76.62
y = 584,883.956
x = 69,613.468
PT STA 2+08.66
y = 584,901.686
x = 69,638.329
SE = NC

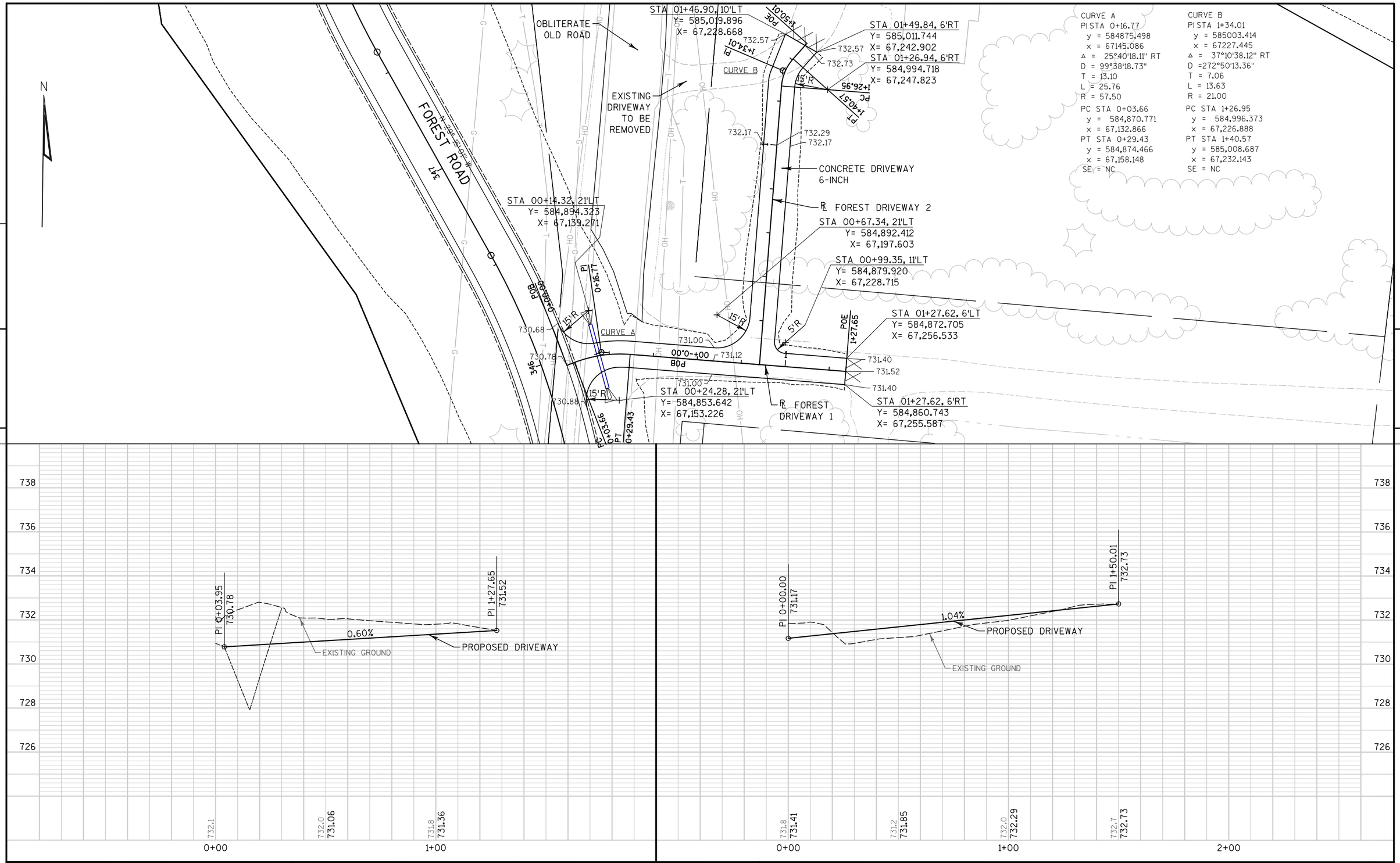


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - DRIVEWAY DETAILS	SHEET 272	E

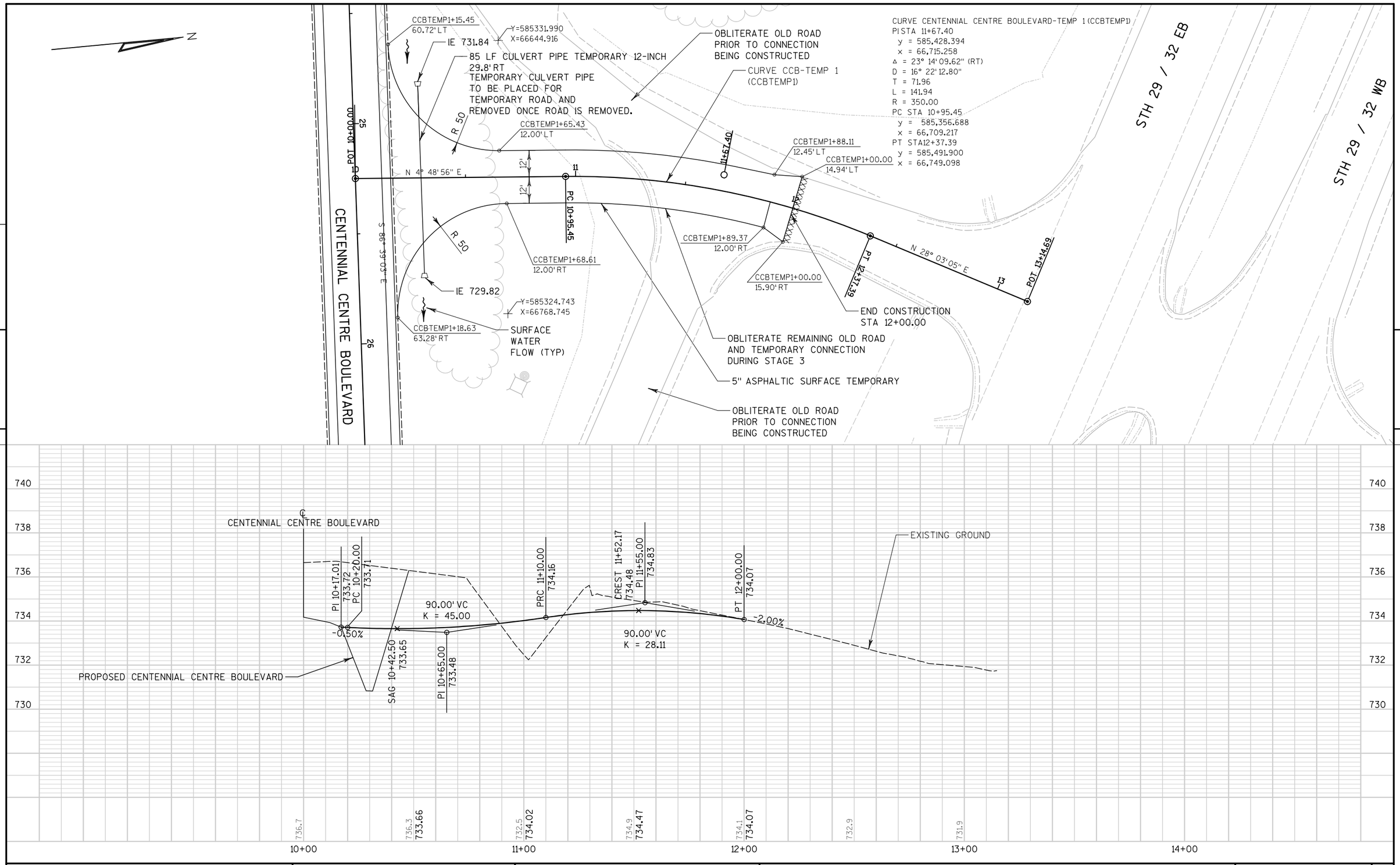


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - DRIVEWAY DETAILS	SHEET 273	E


N
FOUND
U/C
SLOPE INTERCEPT (TYP)
ASPHALTIC SURFACE DRIVEWAYS 3-INCH
STA 52+83.00 59'LT
X=68897.6341
Y=583901.8835
STA 53+11.35 62'LT
X=68921.1350
Y=583877.1261
STA 54+9.62 42'LT
Y= 583,766.538
X= 68,957.127
STA 54+34.53 42'LT
Y= 583,740.513
X= 68,964.606
STA 53+91.20 38'LT
Y= 583,784.392
X= 68,945.971
STA 54+41.94 28'LT
Y= 583,729.503
X= 68,952.636
ASPHALTIC SURFACE DRIVEWAYS 3-INCH
STA 87+70.00 28'LT
X=68877.5939
Y=583877.2785
22'
20'R
40'R
10'R
10'R
16'
675.48
675.38
675.38
675.08
675.30
675.08
674.68
675.04
674.68
675.67
675.83
676.00
676.05
54
55
53
52
CENTENNIAL CENTRE BOULEVARD
S 49° 59' 58" E
SAN
SAN
SAN



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN & PROFILE - DRIVEWAY DETAILS	SHEET 275	E



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE - TEMPORARY CENTENNIAL CENTRE BLVD	SHEET 276	E

Standard Detail Drawing List

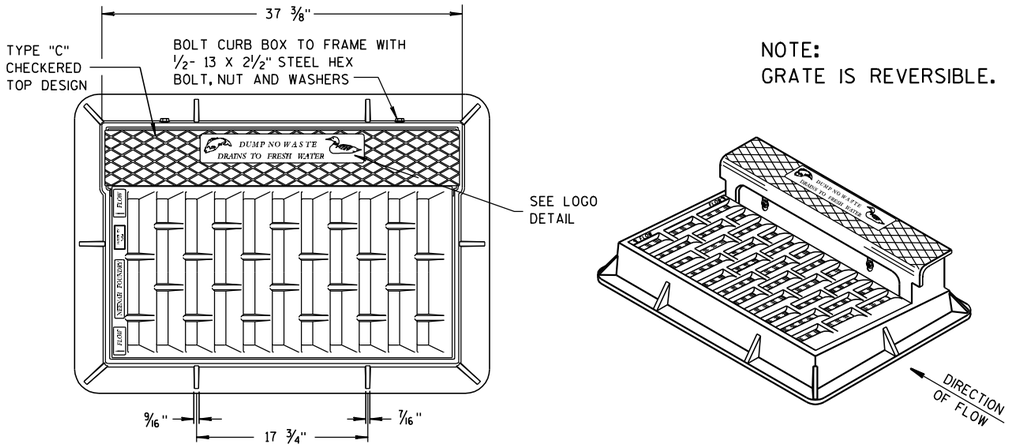
08A05-18A	INLET COVERS TYPE A, H, A-S, & H-S
08A05-18B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-18C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-18D	INLET COVER, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08C09-01	INLETS MEDIAN 3 AND 4 GRATE
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D02-06	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-14A	CURB RAMPS TYPES 1 AND 1-A
08D05-14B	CURB RAMPS TYPES 2 AND 3
08D05-14C	CURB RAMPS TYPE 4A
08D05-14D	CURB RAMPS TYPE 4B
08D05-14E	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
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
09B02-07	CONDUIT
09B04-09	PULL BOX
09C02-06	CONCRETE BASES, TYPES 1, 2 & 5
09C05-07	CONCRETE CONTROL CABINET BASES
09C06-05	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09D01-04	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09E01-11D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-11G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-04	NON-FREEWAY LIGHTING UNIT POLE WIRING
10A02-02	IDENTIFICATION PLAQUES LIGHT POLES
10A07-02	ELECTRICAL DETAILS GROUND MOUNT LIGHT POLES PHASE-TO-PHASE SYSTEMS
10A18-04A	LUMINAIRE ARMS, SINGLE MEMBER 6-INCH CLAMP
10A18-04B	LUMINAIRE ARMS, TRUSS TYPE 6-INCH CLAMP
11B01-05	CONCRETE CORRUGATED MEDIAN
11B02-02	CONCRETE MEDIAN NOSE
13A03-05	CONCRETE PAVEMENT SHOULDERS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13C01-15	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C11-10A	RURAL DOWELED CONCRETE PAVEMENT
13C11-10B	RURAL DOWELED CONCRETE PAVEMENT
13C13-07	URBAN DOWELED CONCRETE PAVEMENT
13C17-01A	CONCRETE JOINT DETAIL FOR EXIT RAMP TERMINI
13C17-01B	CONCRETE JOINT DETAIL FOR ENTRANCE RAMP TERMINI
13C18-01A	CONCRETE PAVEMENT JOINTING
13C18-01B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-01C	CONCRETE PAVEMENT JOINT TIES
13C18-01D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
13C18-01E	CONCRETE PAVEMENT JOINTING AND STEEL REINFORCEMENT IN ROUNDABOUTS
14A02-01	TREE PLANTING DETAIL
14B07-13A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B26-02A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

6

Standard Detail Drawing List

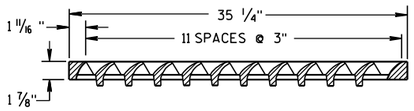
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-01A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15A01-11	MARKER POST FOR RIGHT-OF-WAY
15A02-07	DELINEATOR POST, DELINEATOR BRACKET AND DELINEATOR
15A03-01	MARKER POSTS, FLEXIBLE, FOR CULVERT END
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A06-02	DELINEATOR LAYOUT
15C02-04A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-15A	PAVEMENT MARKING (MAINLINE)
15C08-15B	PAVEMENT MARKING (INTERSECTIONS)
15C08-15E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-15F	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)
15C11-05	FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES
15C12-03	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C15-03	36" DIAMETER FULL SPAN OVERHEAD SIGN SUPPORT BASE
15C19-01C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C29-02A	BICYCLE LANE MARKING
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15C31-01B	LANE DROP PAVEMENT MARKING
15D03-01	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D06-02	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D11-03	TRAFFIC CONTROL, SINGLE LANE CROSSOVER
15D12-02	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.
15D14-01	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D15-01	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D16-01	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-01	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-01	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-01	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-01	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE

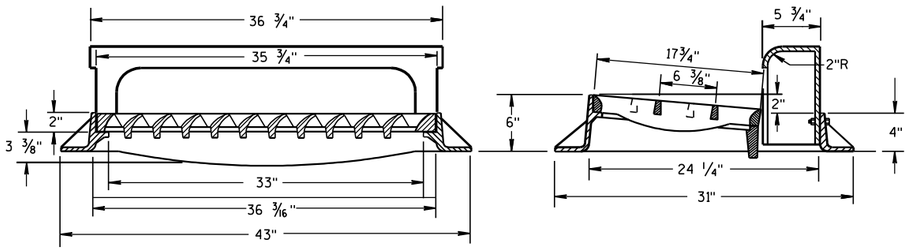
6



NOTE:
GRATE IS REVERSIBLE.

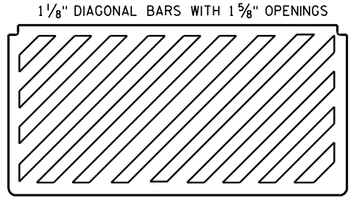
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"





TYPE "H"

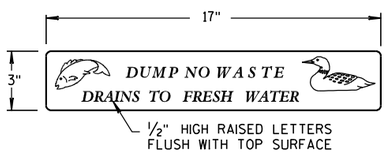
(APPROXIMATE WEIGHT 441 LBS.)
FRAME..... 181 LBS.
GRATE..... 146 LBS.
CURB BOX..... 114 LBS.



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

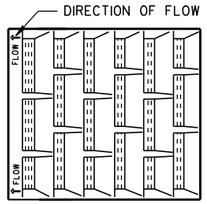
GENERAL NOTES

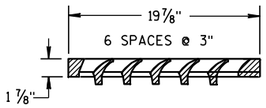
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

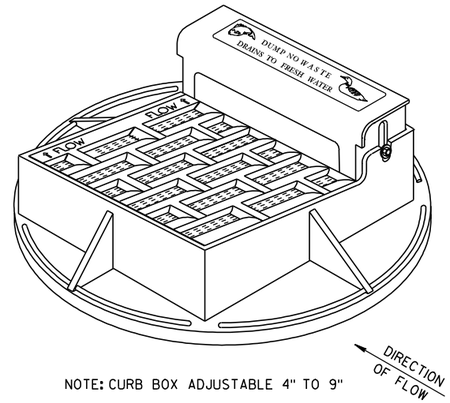
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

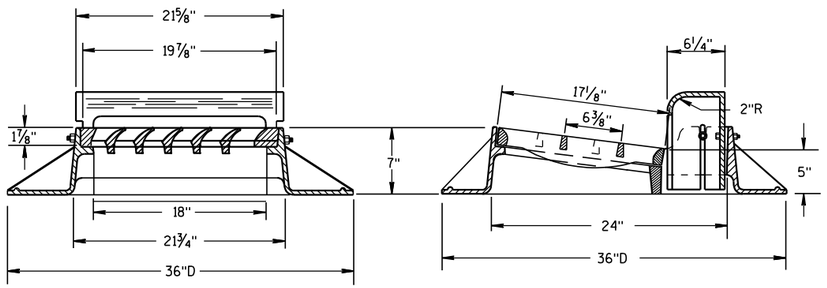
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





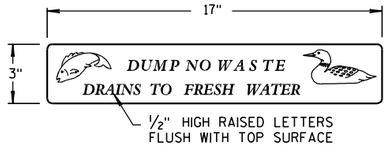


NOTE: CURB BOX ADJUSTABLE 4" TO 9"



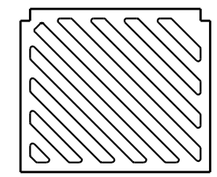
TYPE "A"

(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

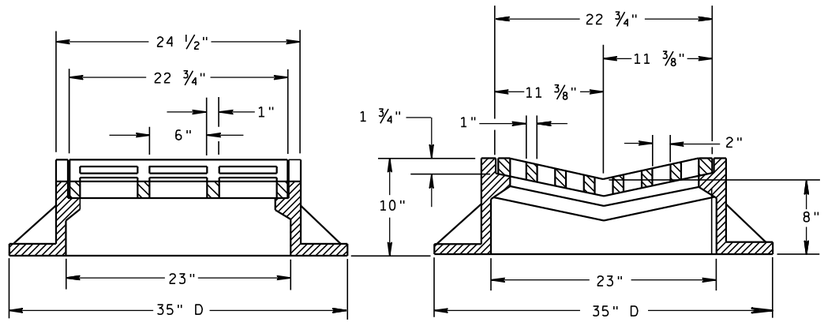
APPROVED
6/5/2012 DATE
/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
279
FHWA

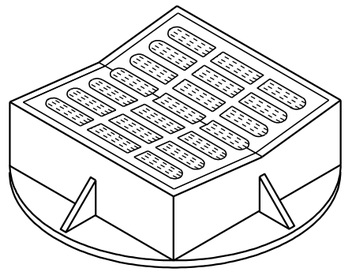
6

S.D.D. 8 A 5-18a

6

S.D.D. 8 A 5-18a

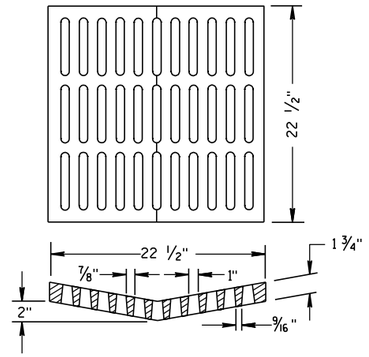




TYPE "B"

(APPROXIMATE WEIGHT 405 LBS.)

FRAME..... 294 LBS.
GRATE..... 111 LBS.

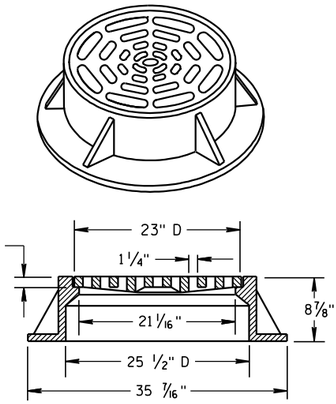


ALTERNATIVE GRATE FOR TYPE "B" COVER

(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.

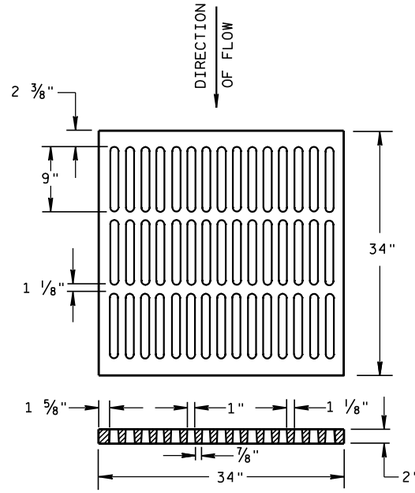
GENERAL NOTES

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.

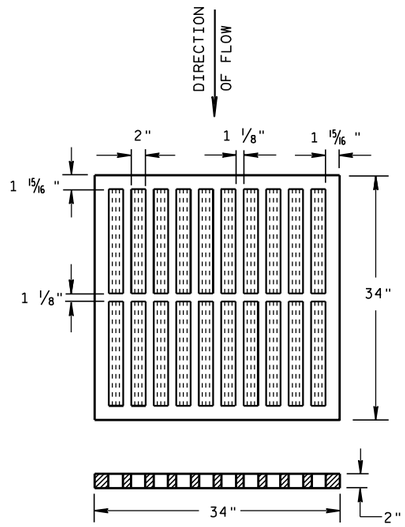


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 329 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

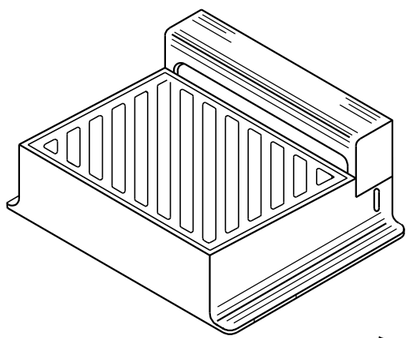


TYPE "MS"

(APPROXIMATE GRATE WEIGHT 268 LBS.)

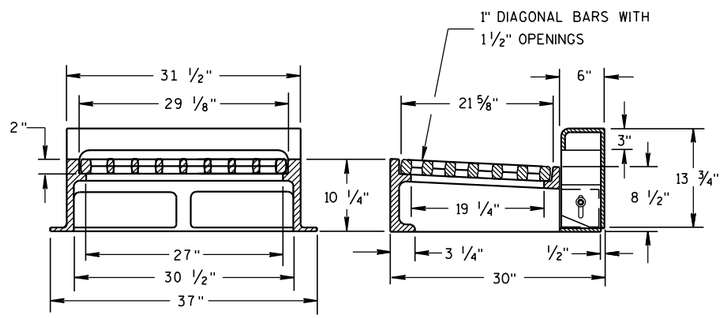
USE ON FREEWAYS AND EXPRESSWAYS

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

280

ENT

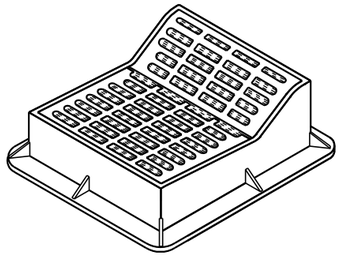
FHWA

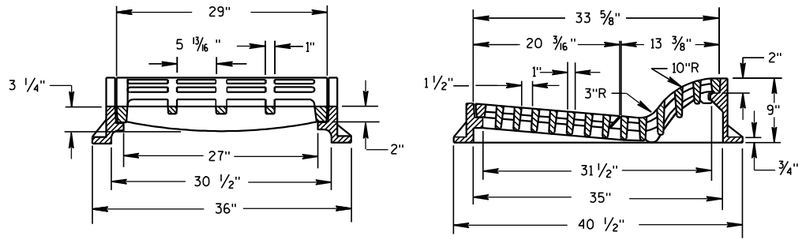
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S.D.D. 8 A 5-18b

6

S.D.D. 8 A 5-18b



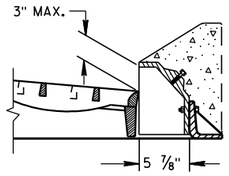


TYPE "F"

(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

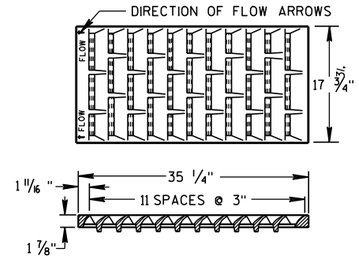
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

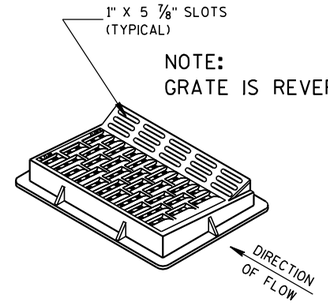
GENERAL NOTES

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.

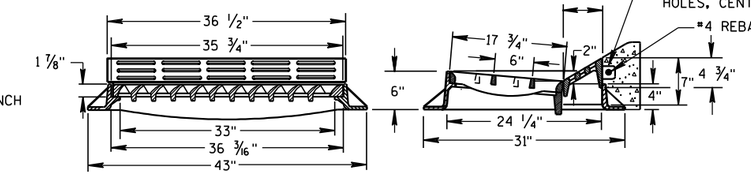
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





NOTE:
GRATE IS REVERSIBLE.

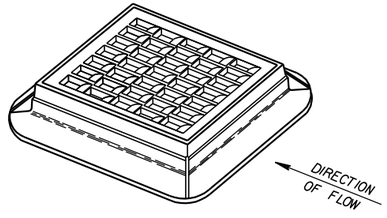


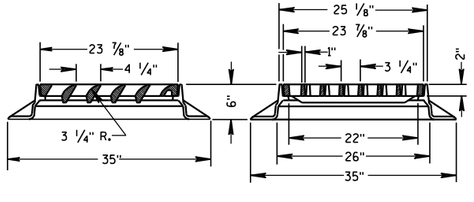
TYPE "HM"

(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

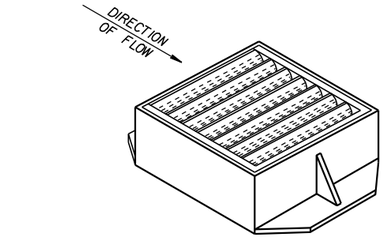


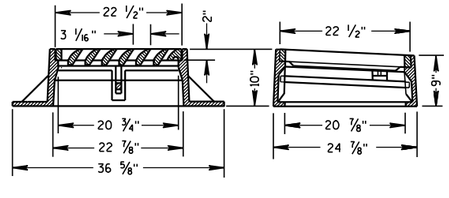


TYPE "S"

(APPROXIMATE WEIGHT 333 LBS.)

FRAME.....164 LBS.
GRATE..... 169 LBS.

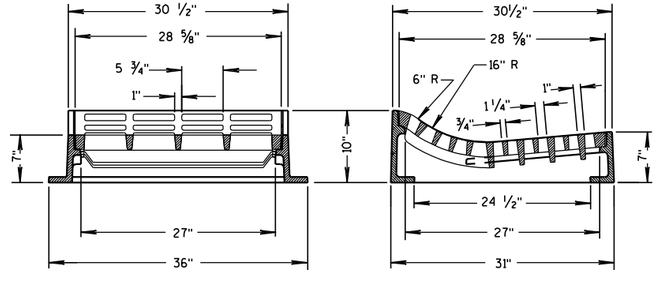




TYPE "V"

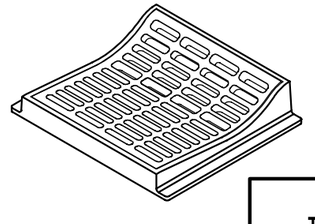
(APPROXIMATE WEIGHT 410 LBS.)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

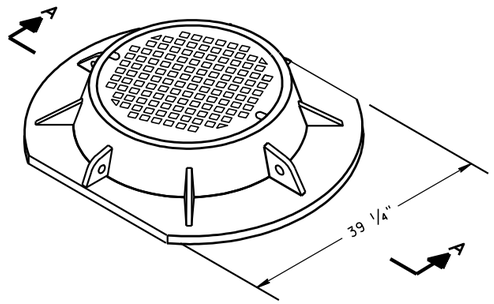
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

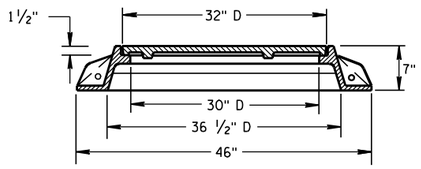
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S.D.D. 8 A 5-18c

6

S.D.D. 8 A 5-18c



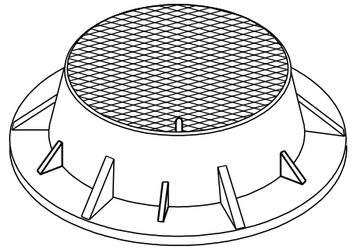


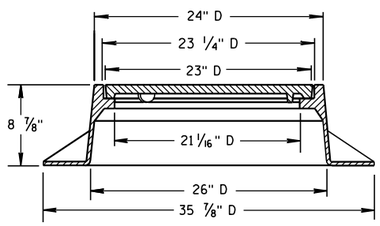
SECTION A-A

TYPE "K"

(APPROXIMATE WEIGHT 439 LBS.)

FRAME.....216 LBS.
LID.....223 LBS.

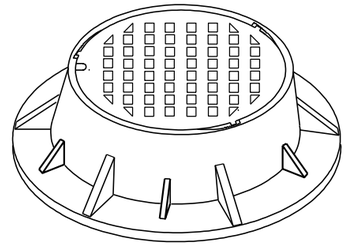


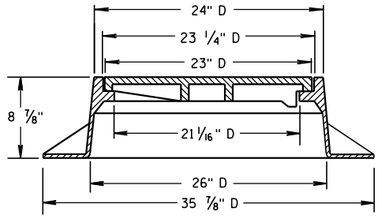


TYPE "J"

(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)

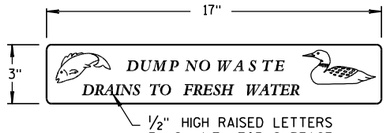
GENERAL NOTES

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.

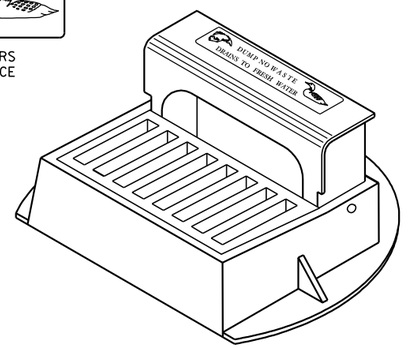
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

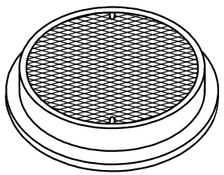
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

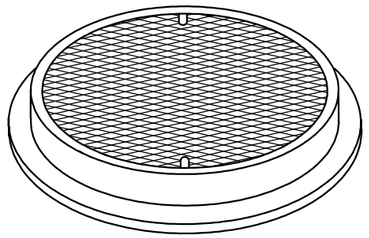
THE ACTUAL WEIGHT OF COVERS MAY VARY WITH 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

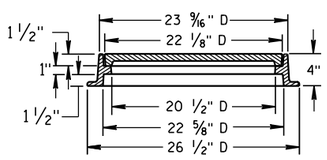


LOGO DETAIL





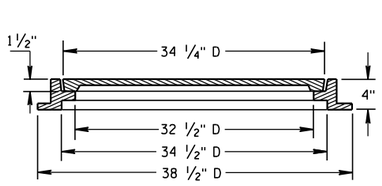




TYPE "L"

(APPROXIMATE WEIGHT 158 LBS.)

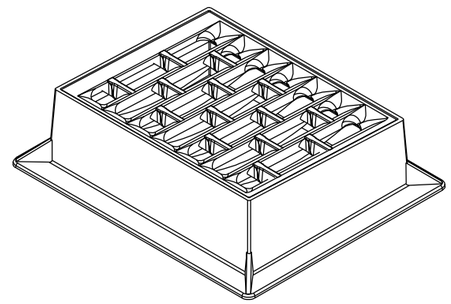
FRAME.....81 LBS.
LID.....77 LBS.

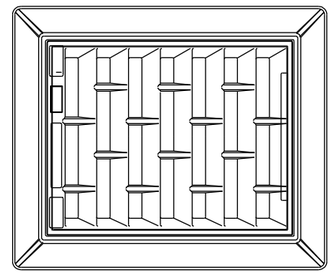


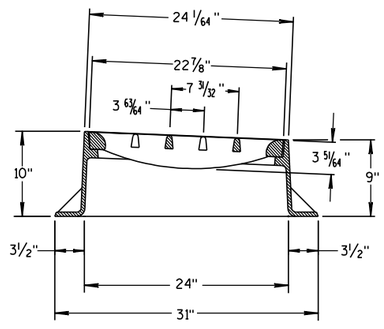
TYPE "M"

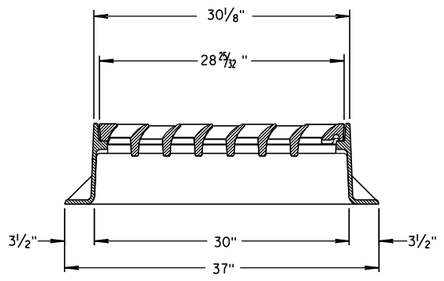
(APPROXIMATE WEIGHT 377 LBS.)

FRAME..... 125 LBS.
LID..... 252 LBS.

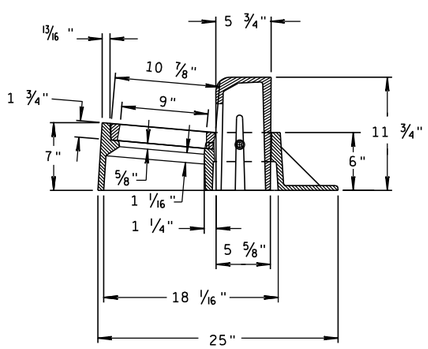


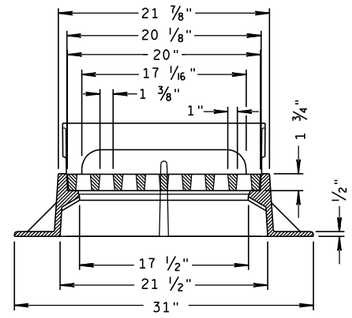






INLET COVER TYPE "BW"





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

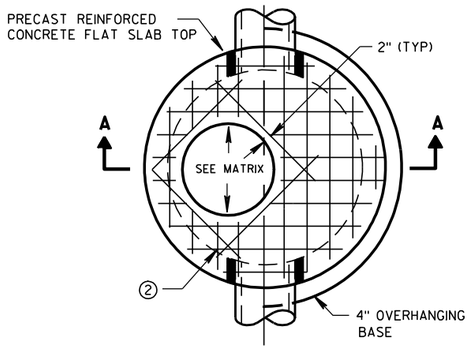
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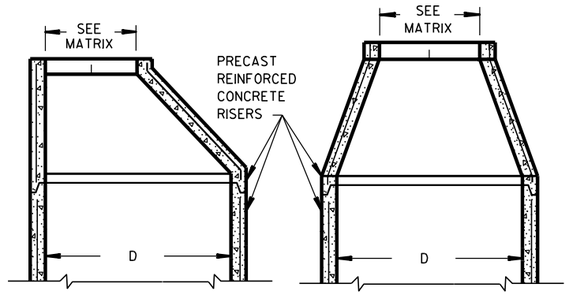
S.D.D. 8 A 5-18d

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S.D.D. 8 A 5-18d

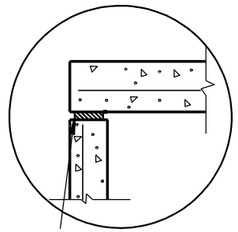


PLAN VIEW CIRCULAR OPENING



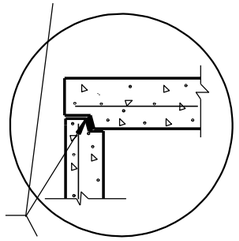
OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

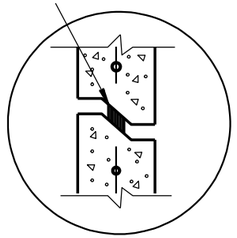


TOP WITH PLAIN END JOINT

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

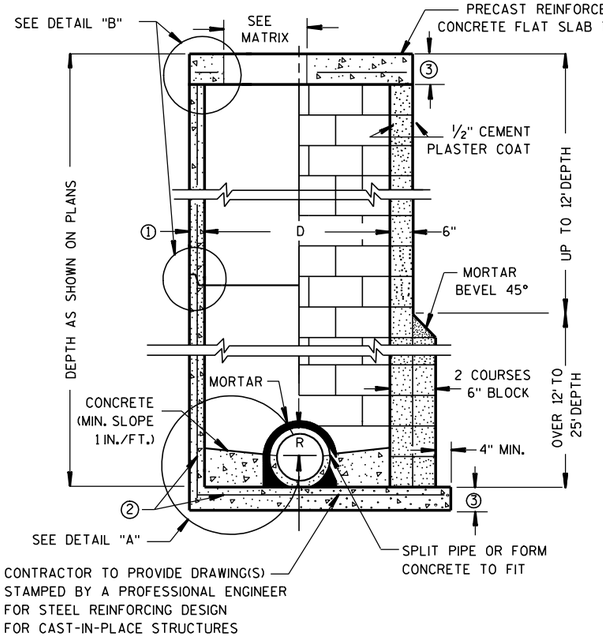


TOP WITH TONGUE AND GROOVE JOINT



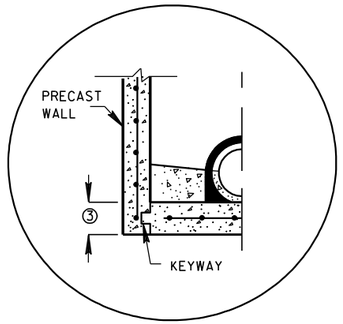
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

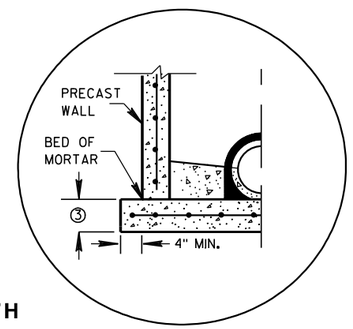


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

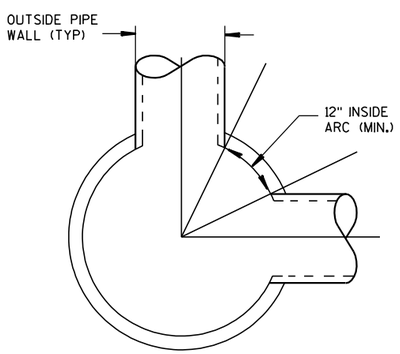


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



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

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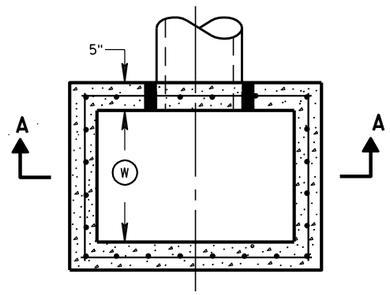
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6/5/2012
DATE

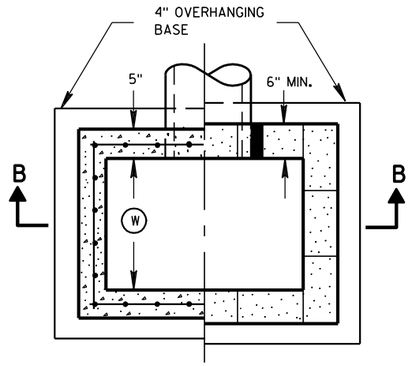
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

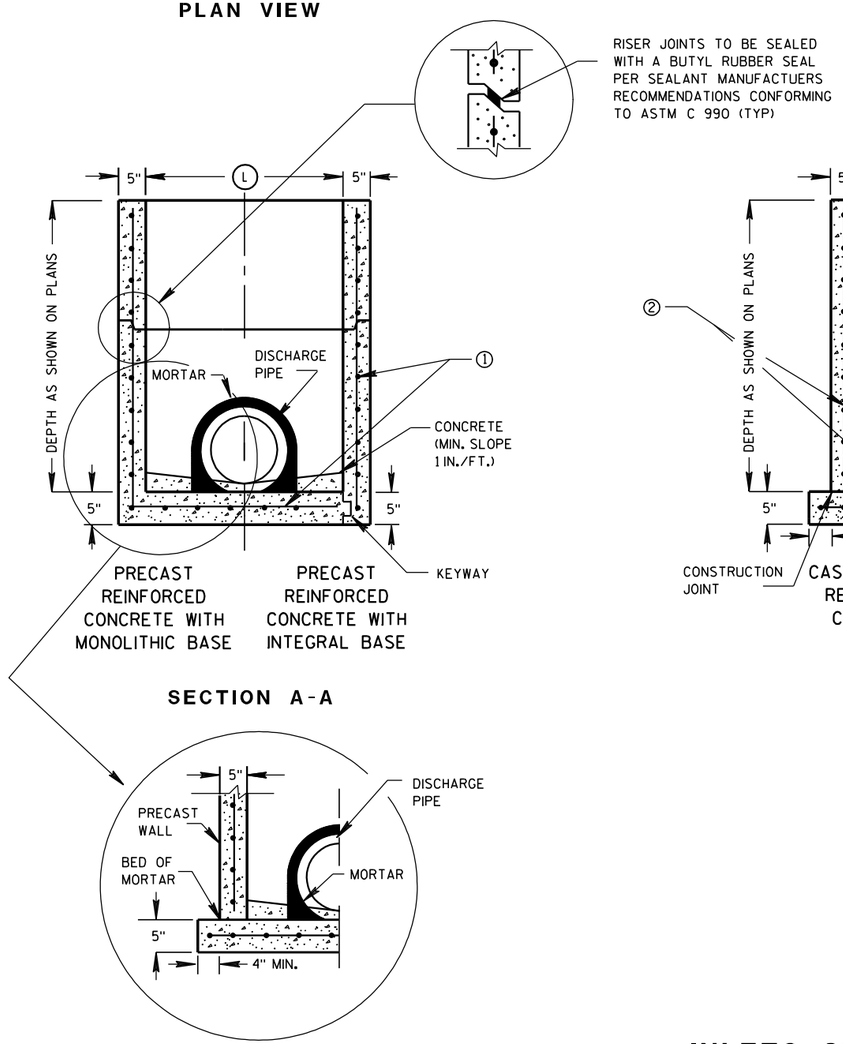
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S.D.D. 8 B 9-1



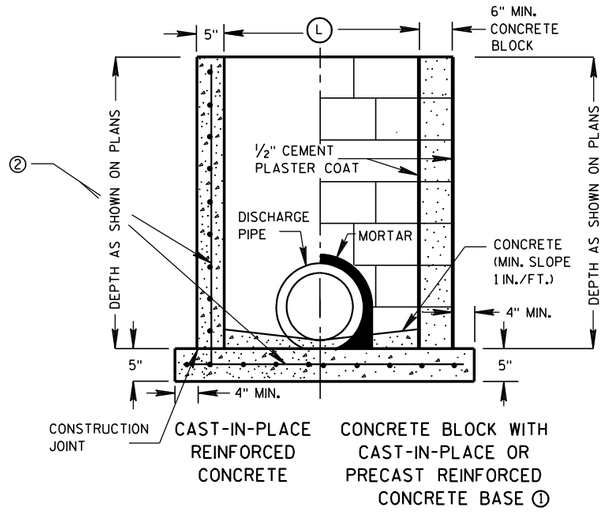
PLAN VIEW



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.

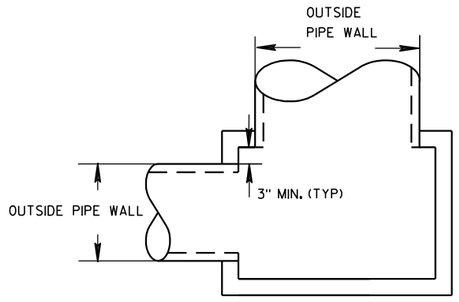
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

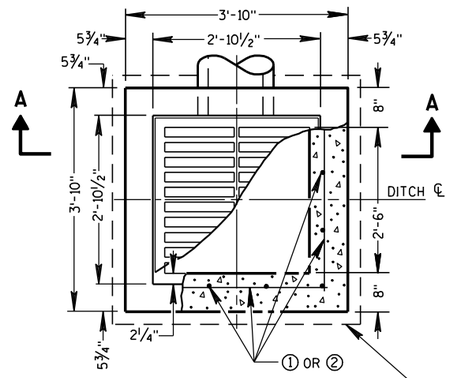
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6/5/2012 DATE
/S/ Jerry H. Zoda
ROADWAY STANDARDS D 284 IT
ENGINEER
FHWA

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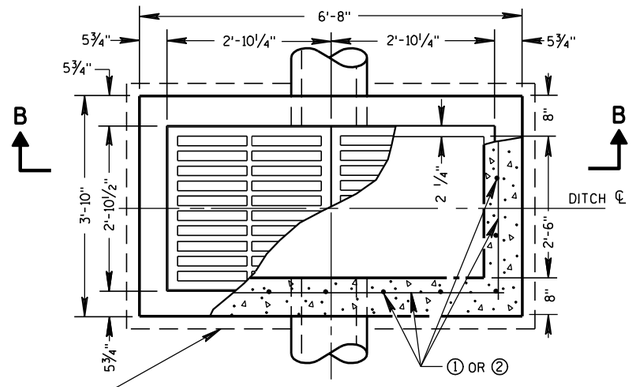
S.D.D. 8 C 7-1

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S.D.D. 8 C 7-1

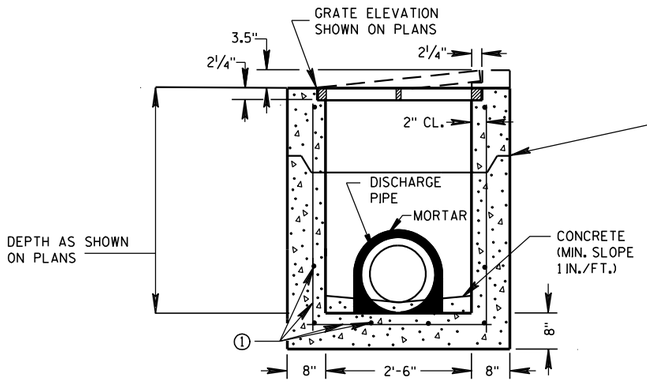


PLAN VIEW

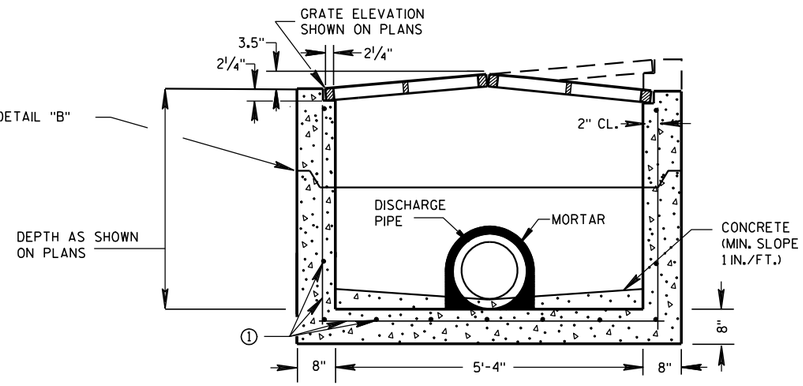


PLAN VIEW

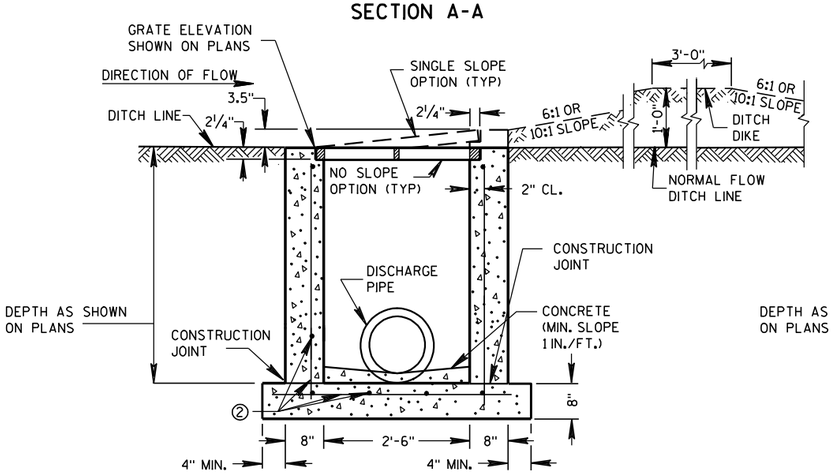
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



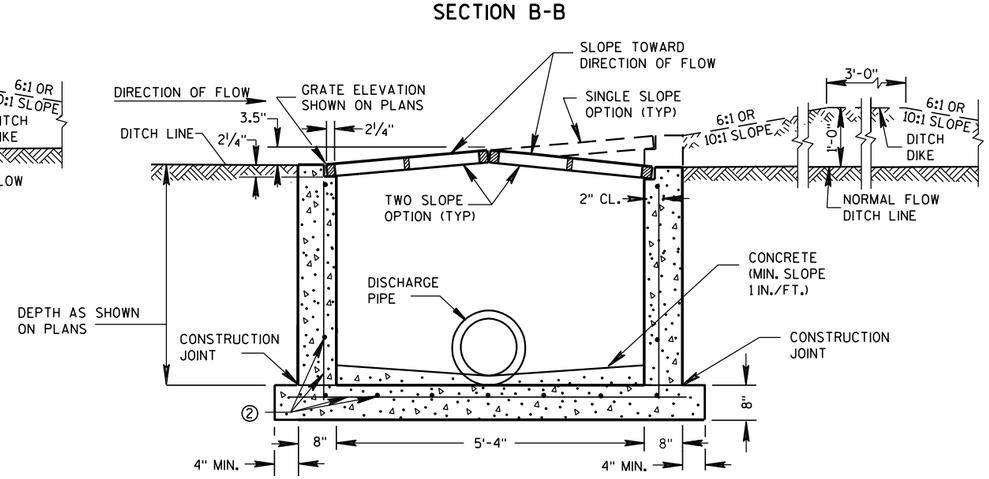
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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

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

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

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

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

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

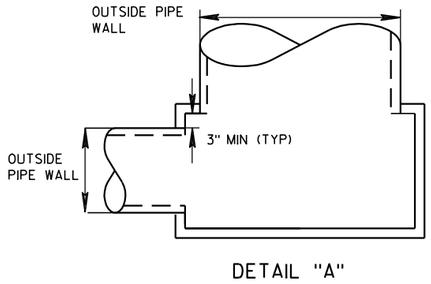
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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

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

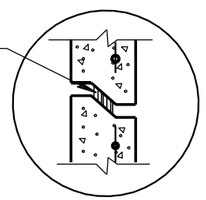
PIPE MATRIX

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



DETAIL "A"

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



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

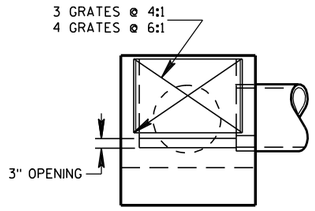
FHWA

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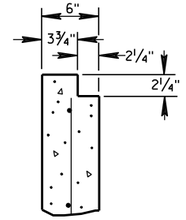
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S.D.D. 8 C 8-1



SECTION B-B



SECTION C-C

GENERAL NOTES

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

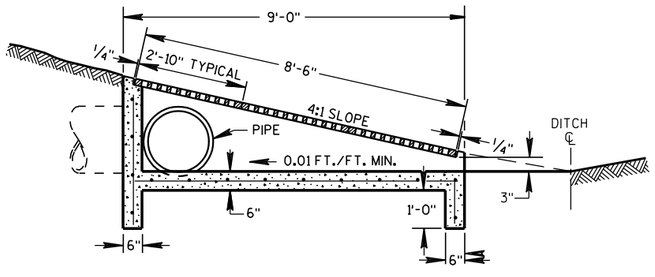
UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

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.

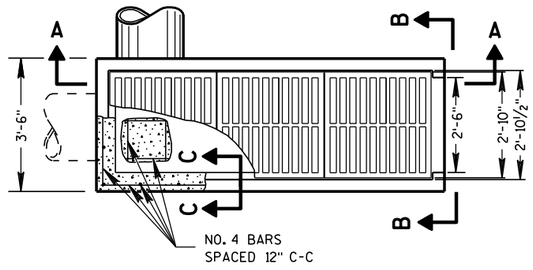
ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 3G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

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

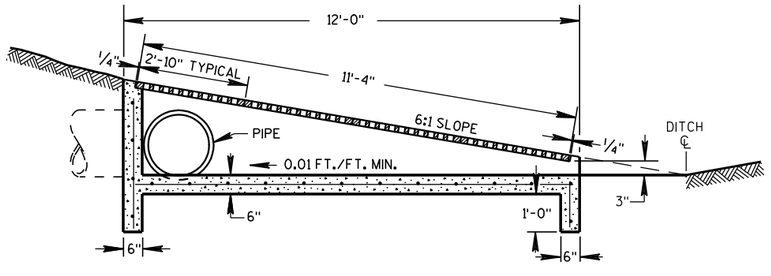


SECTION A-A

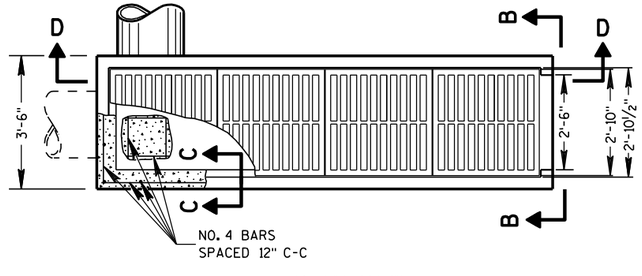


PLAN VIEW

INLETS MEDIAN 3 GRATE



SECTION D-D



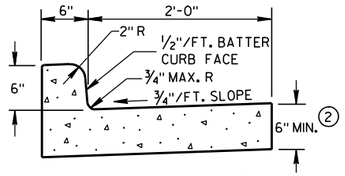
PLAN VIEW

INLETS MEDIAN 4 GRATE

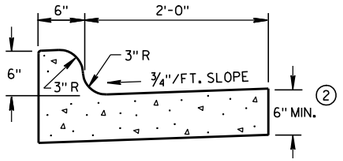
INLETS MEDIAN 3 AND 4 GRATE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/5/2012 DATE FHWA	/S/ Jerry H. Zogg ROADWAY STANDARDS DEV ENGINEER

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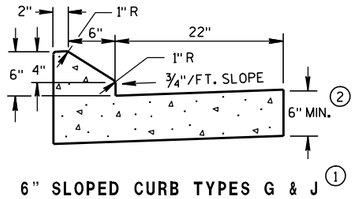
S.D.D. 8 C 9-1



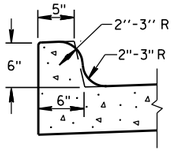
TYPES A & D (1)



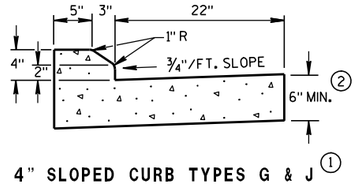
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

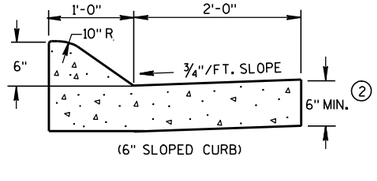


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

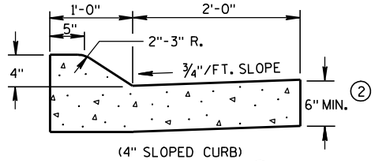


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

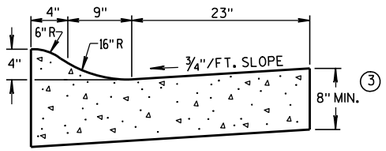


(6" SLOPED CURB)



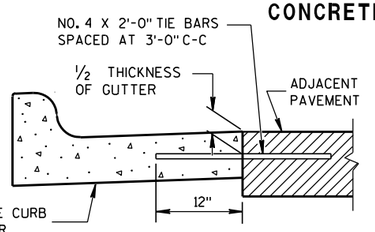
(4" SLOPED CURB)

TYPES A & D (1)

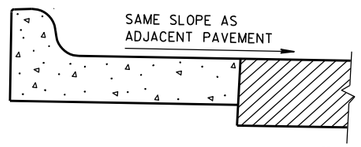


4" SLOPED CURB TYPES R & T (1) (4)

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.

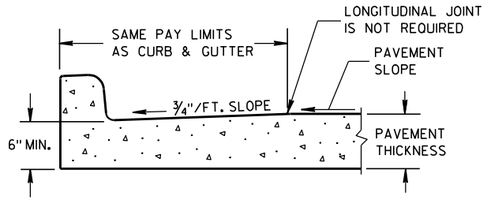
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(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.

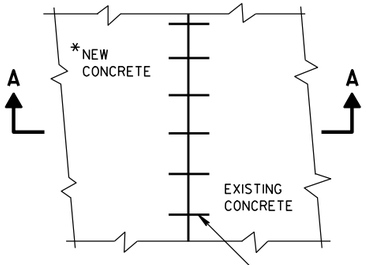
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(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.

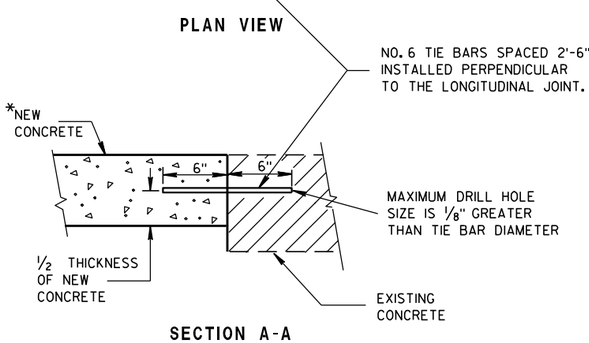


PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



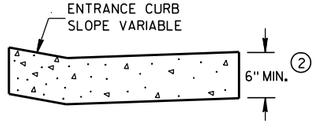
PLAN VIEW

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

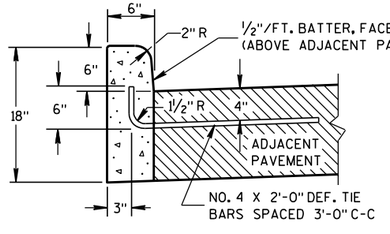


SECTION A-A

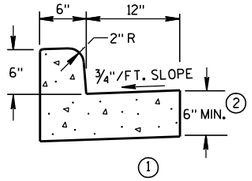
TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

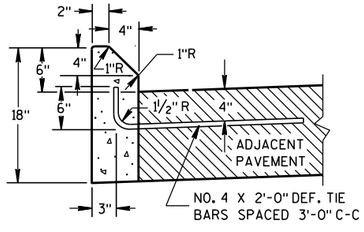


(1) TYPES A & D

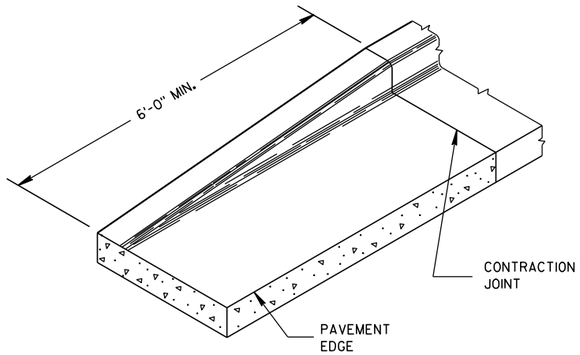


(1) TYPES A & D

CONCRETE CURB & GUTTER 18"



(1) TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

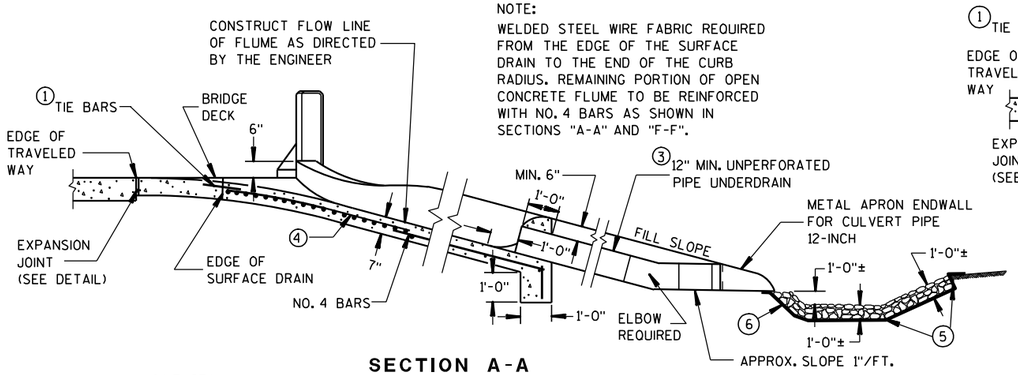
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

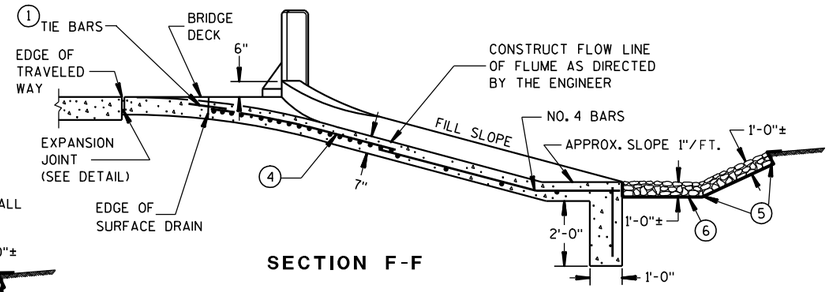
FHWA ENT

6

S.D.D. 8 D 1-17



SECTION A-A



SECTION F-F

GENERAL NOTES

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

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

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

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

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

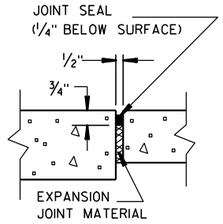
(4) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.

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

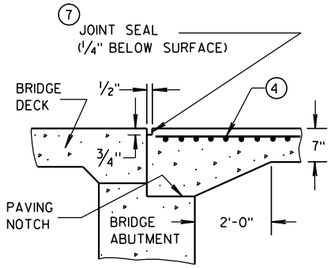
(6) GEOTEXTILE FABRIC, TYPE 'R"

(7) HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

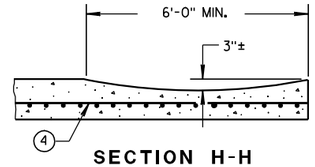
(8) THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'-1½".



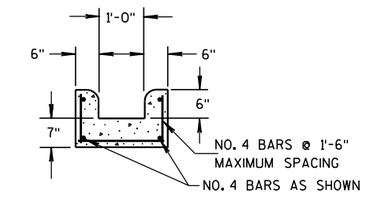
EXPANSION JOINT DETAIL



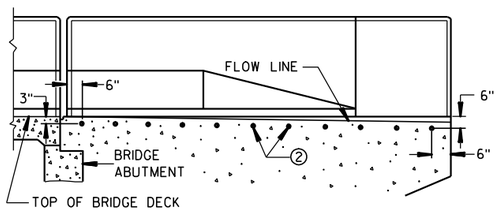
SECTION D-D



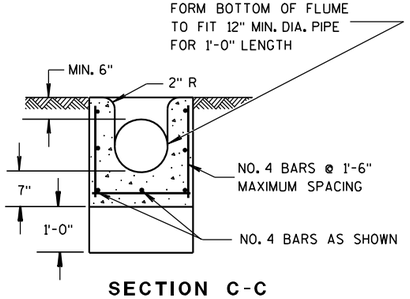
SECTION H-H



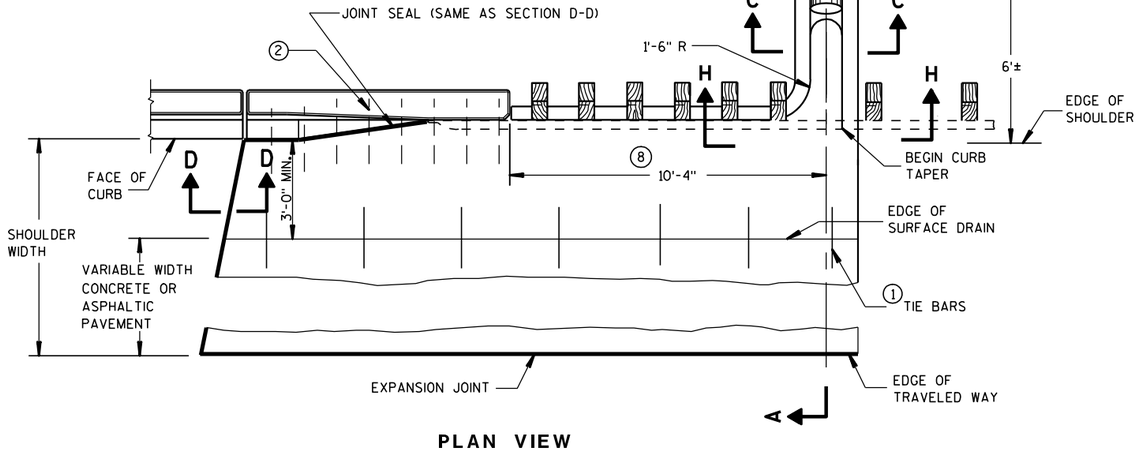
SECTION E-E



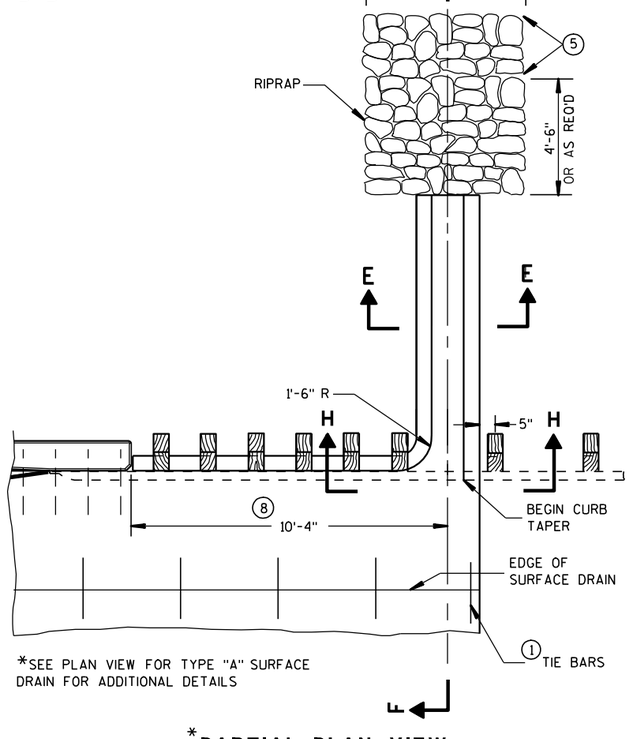
LOCATION OF TIE BARS IN WINGWALL



SECTION C-C



PLAN VIEW
SURFACE DRAIN WITH PIPE
TYPE "A"



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

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

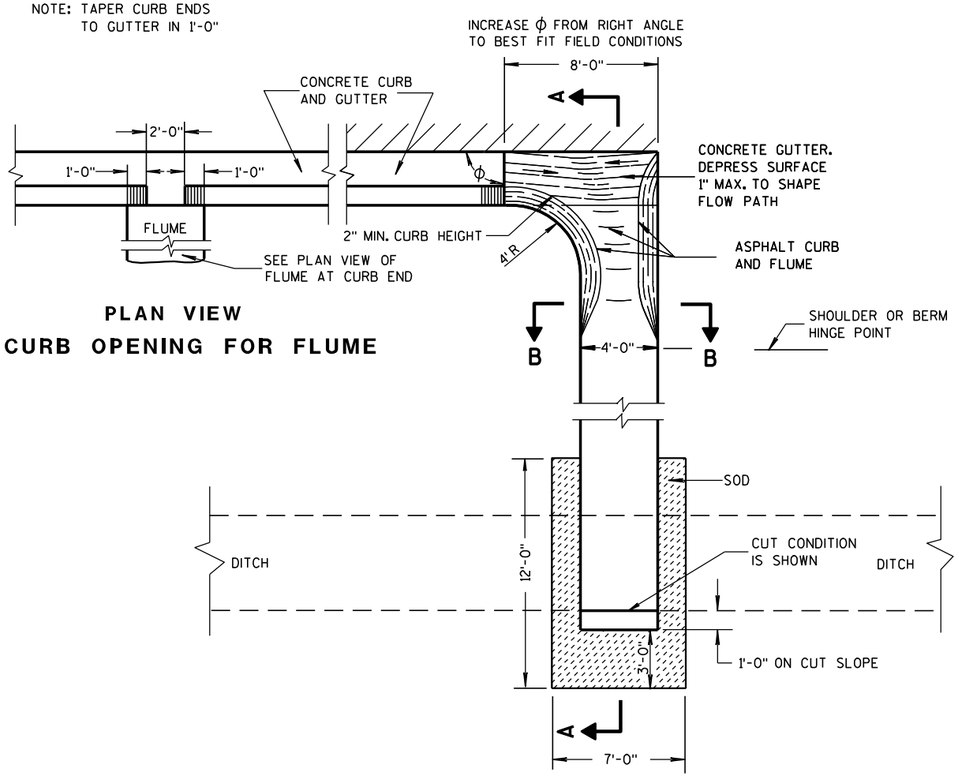
CONCRETE SURFACE DRAINS
FLUME TYPE
AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

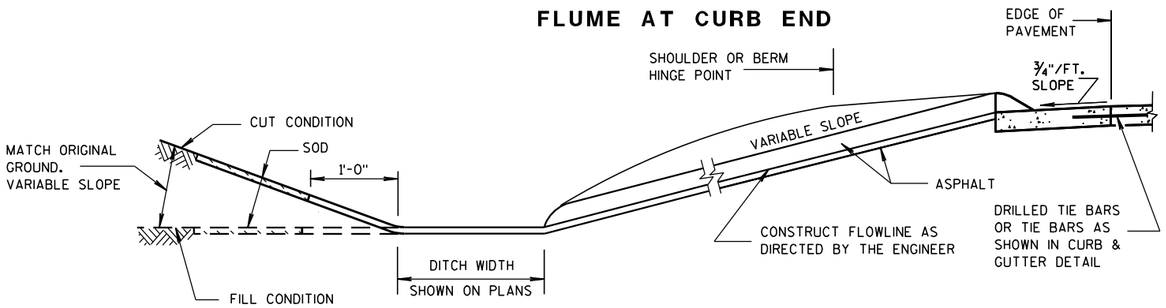
6
S.D.D. 8 D 2-6

ASPHALTIC FLUME

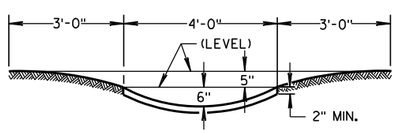


PLAN VIEW
CURB OPENING FOR FLUME

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.

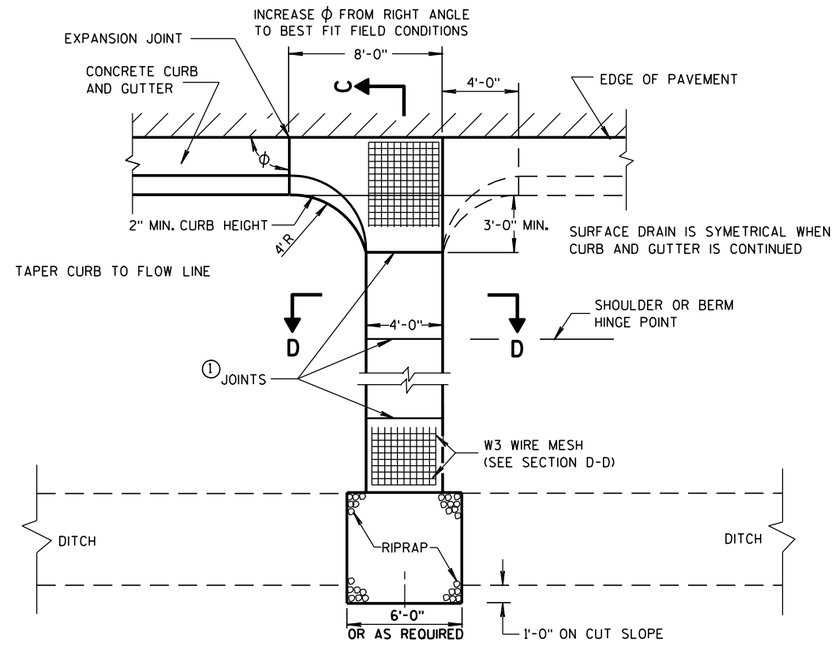
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE ⅛ TO ¼ INCH WIDE BY 1½ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

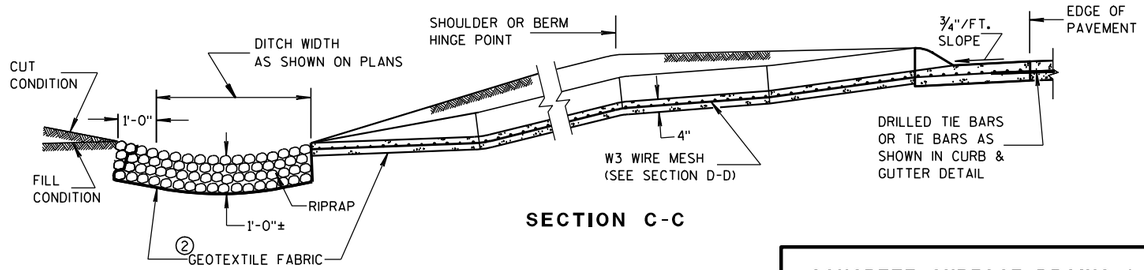
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

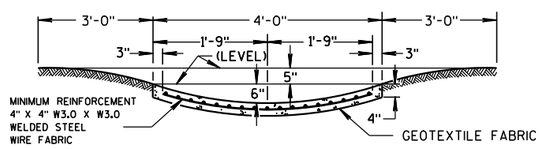
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

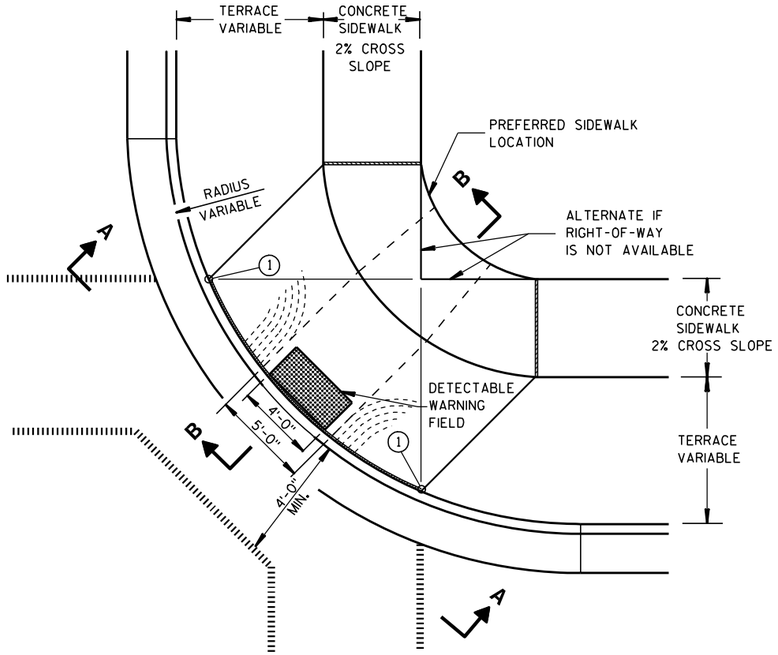
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
289
MENT
FHWA

6

S.D.D. 8 D 4-5

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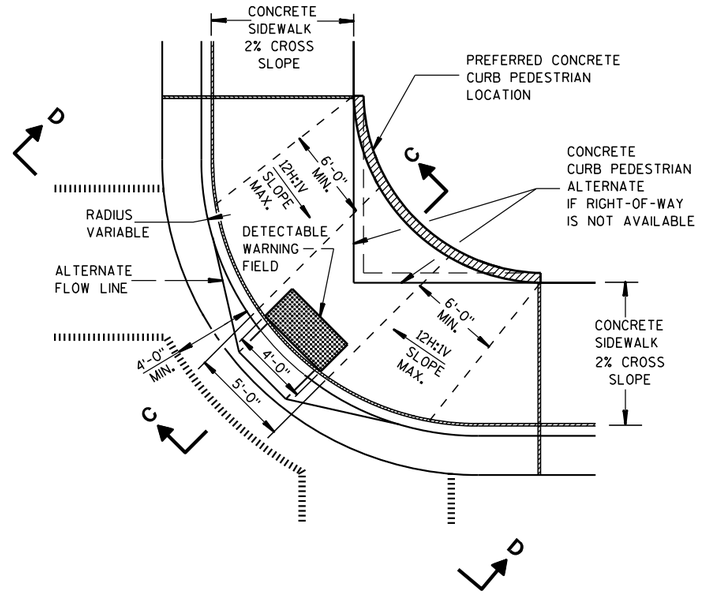
S.D.D. 8 D 4-5



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".

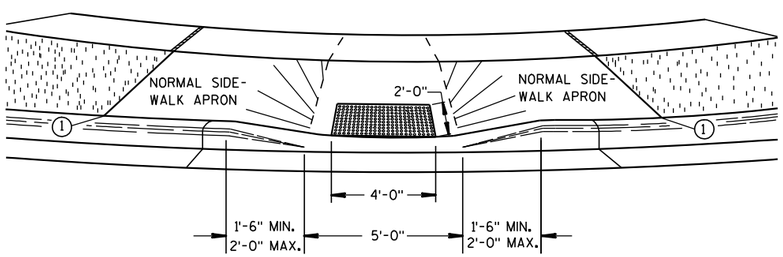
SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

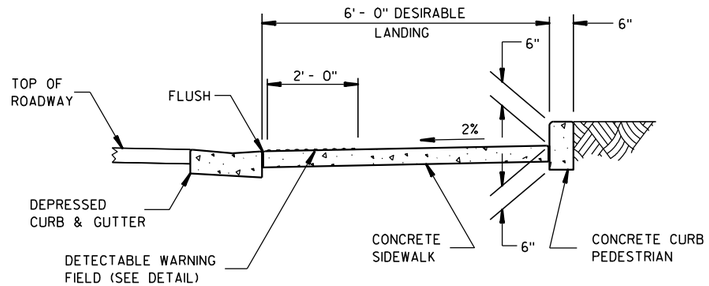
(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

LEGEND

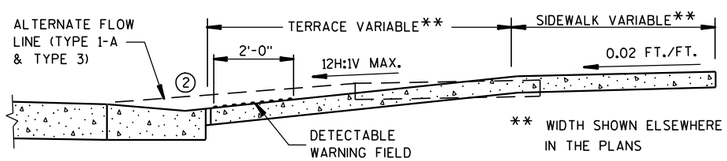
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



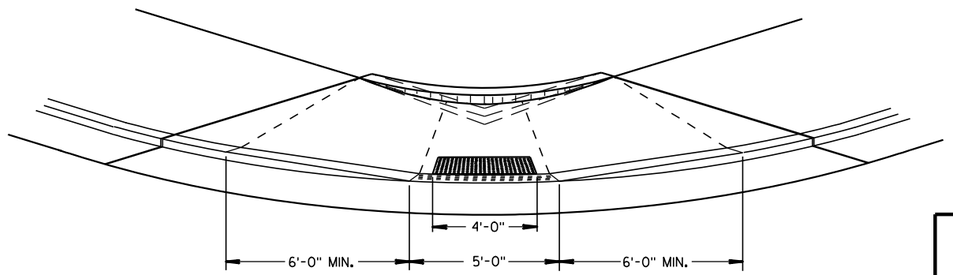
VIEW A-A



SECTION C-C



SECTION B-B



VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

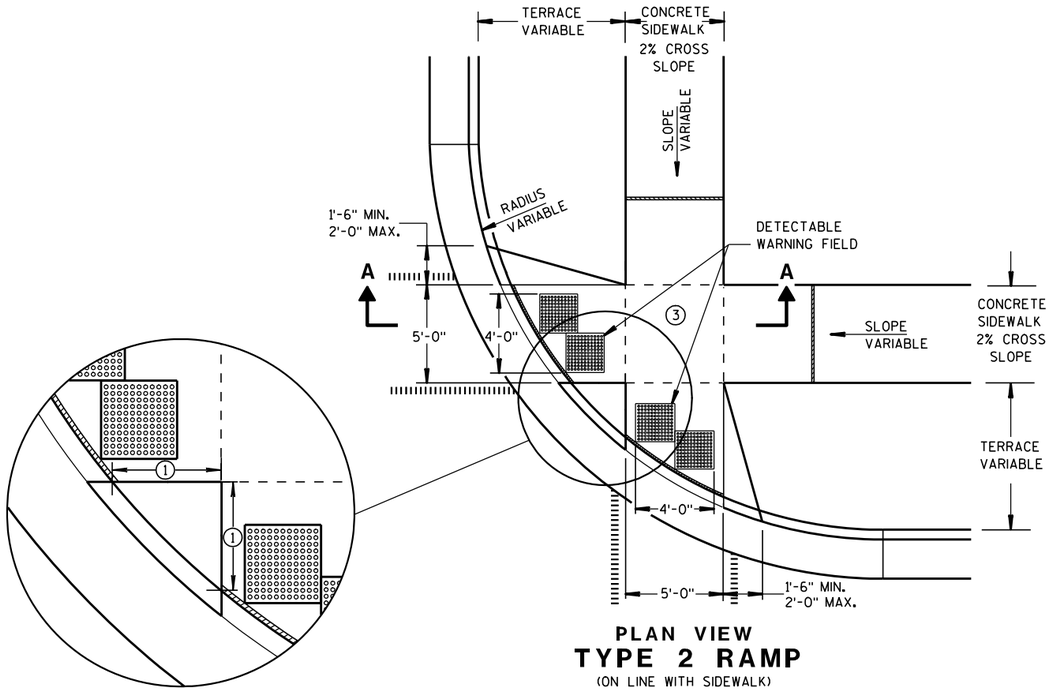
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

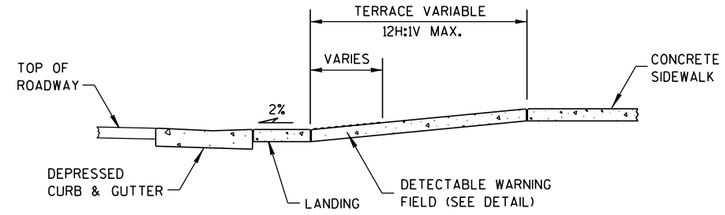
S.D.D. 8 D 5-14a

6

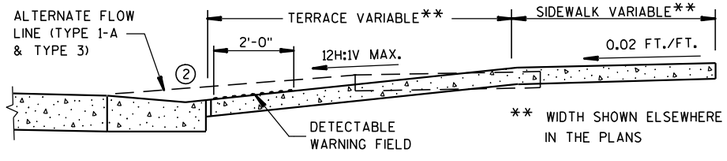
S.D.D. 8 D 5-14a



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.

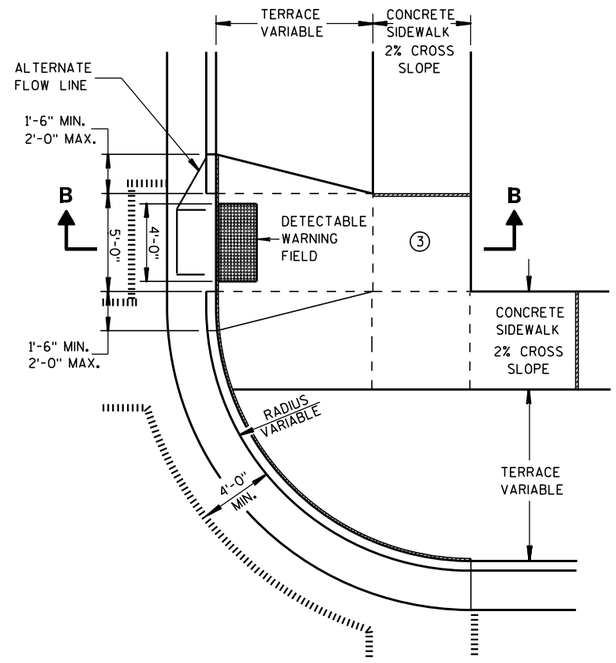
(1) WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

(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) PROVIDE LANDING AT TOP OF RAMP WITH NO MORE THAN 2% SLOPE IN ANY DIRECTION.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

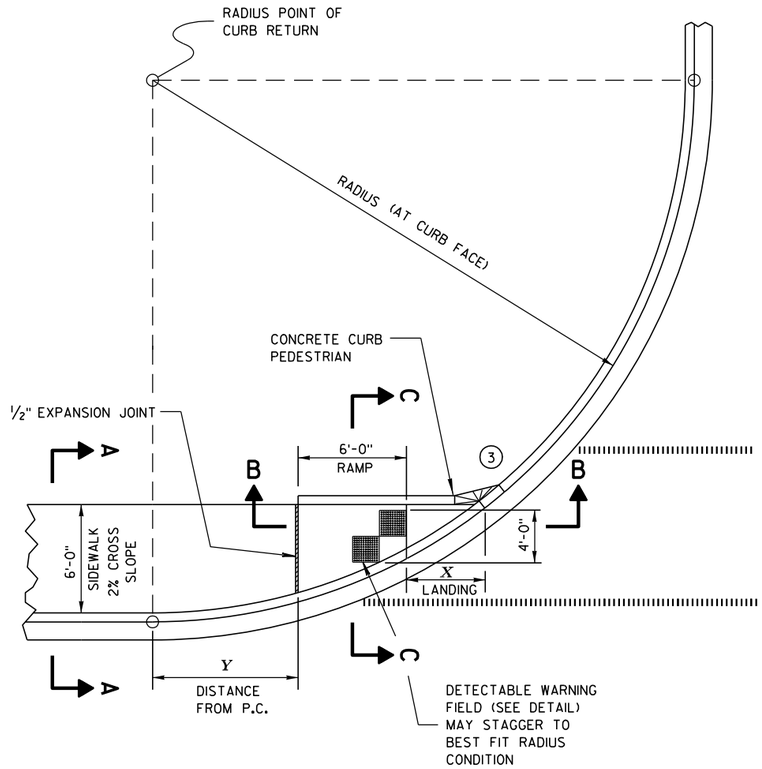


PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

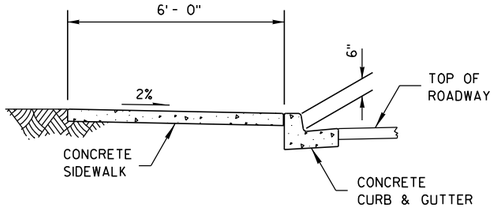
6
S.D.D. 8 D 5-14b



CURB RAMP TYPE 4A
PLAN VIEW

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

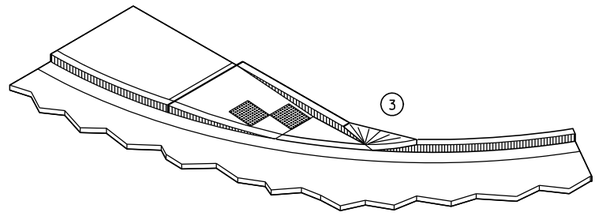
GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

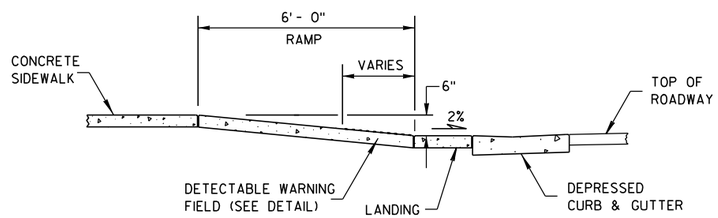
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

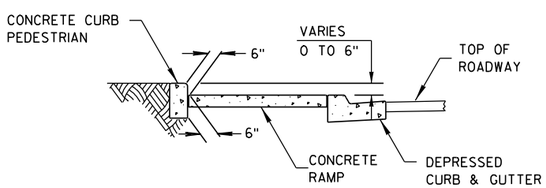
(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW



SECTION B-B



SECTION C-C

LEGEND

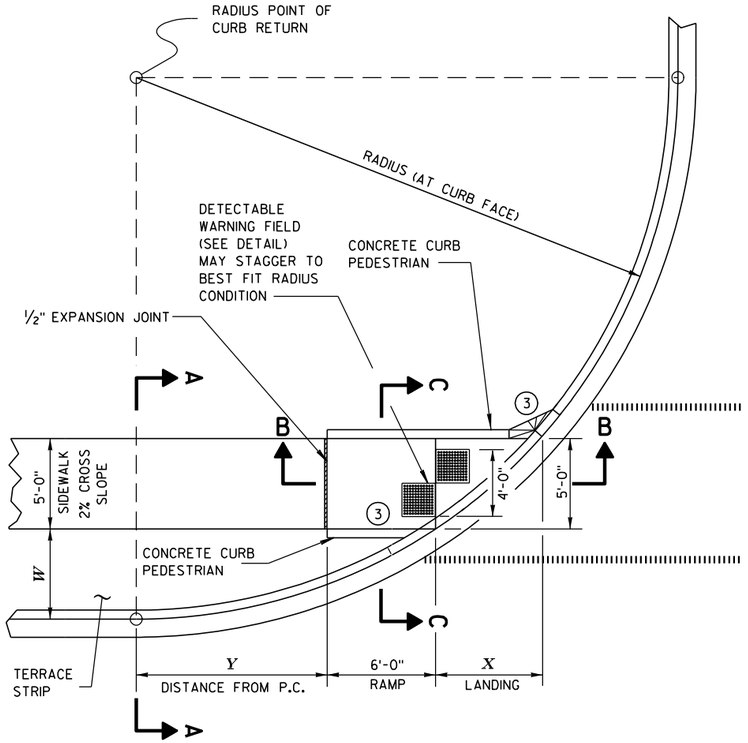
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 4A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 8 D 5-14c



CURB RAMP TYPE 4B
PLAN VIEW

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

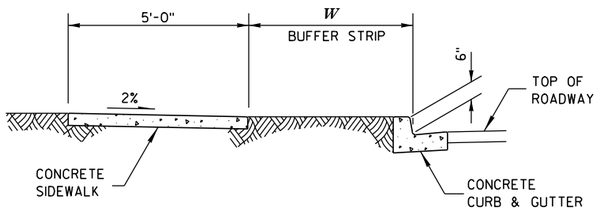
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

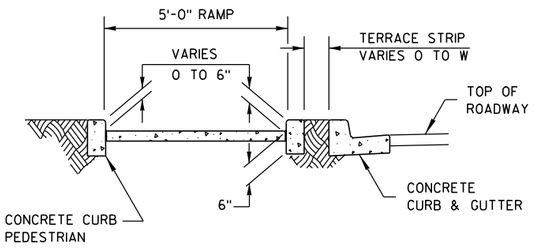
(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

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"
70 FEET	12'-2¾"	14'-3¼"	11'-¼"	17'-4"	10'-1"	19'-11¾"	9'-3¾"	22'-4¼"	8'-8¼"	24'-6¼"
80 FEET	13'-2"	15'-8½"	11'-10½"	18'-11¾"	10'-10¾"	21'-10"	10'-1"	24'-4¾"	9'-5"	26'-8¾"
90 FEET	14'- ½"	17'-½"	12'-8¼"	20'-6½"	11'-7¾"	23'-7"	10'-9¾"	26'-3¾"	10'-1¼"	28'-9½"
100 FEET	14'-10½"	18'-3¾"	13'-5½"	22'-0"	12'-4¼"	25'-2¾"	11'-5¾"	28'-1½"	10'-9"	30'-9"

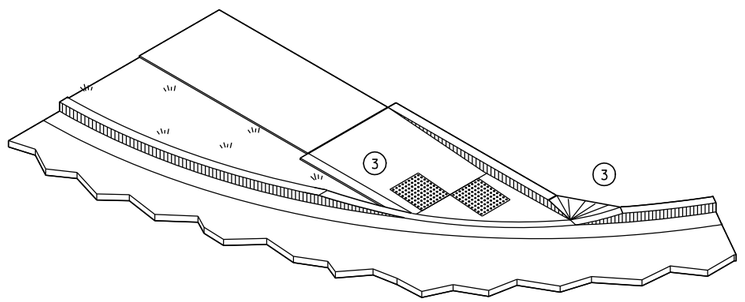
INTERMEDIATE RADII CAN BE INTERPOLATED



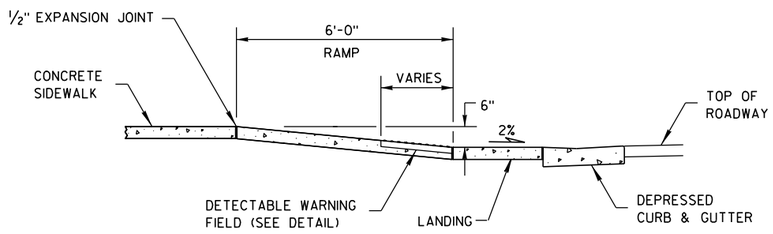
SECTION A-A



SECTION C-C



ISOMETRIC VIEW



SECTION B-B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

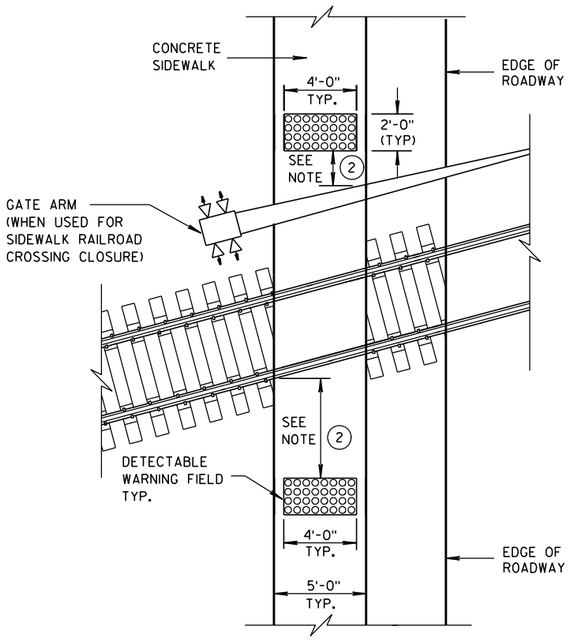
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 4B

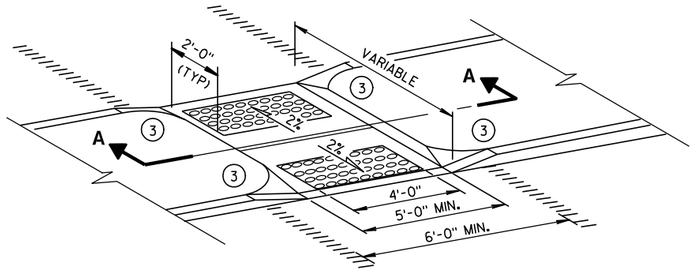
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

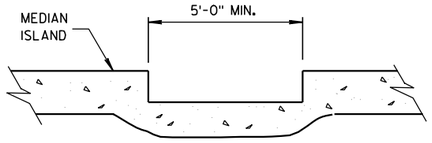
S.D.D. 8 D 5-14d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



SECTION A-A

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

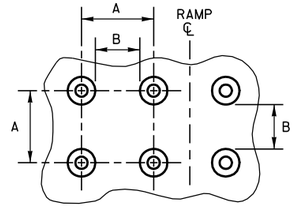
(1) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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.

LEGEND

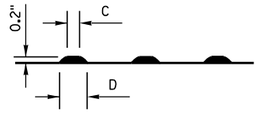
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



PLAN VIEW

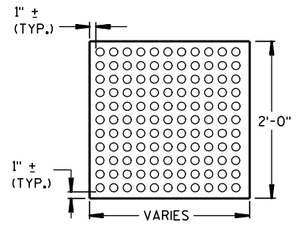
	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



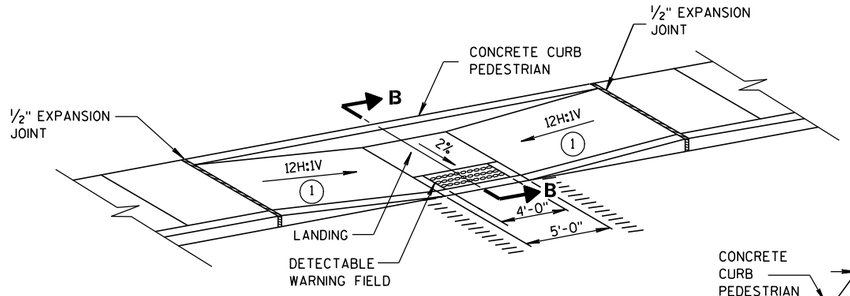
ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

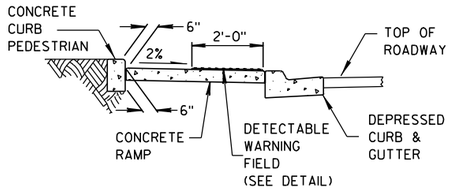


PLAN VIEW

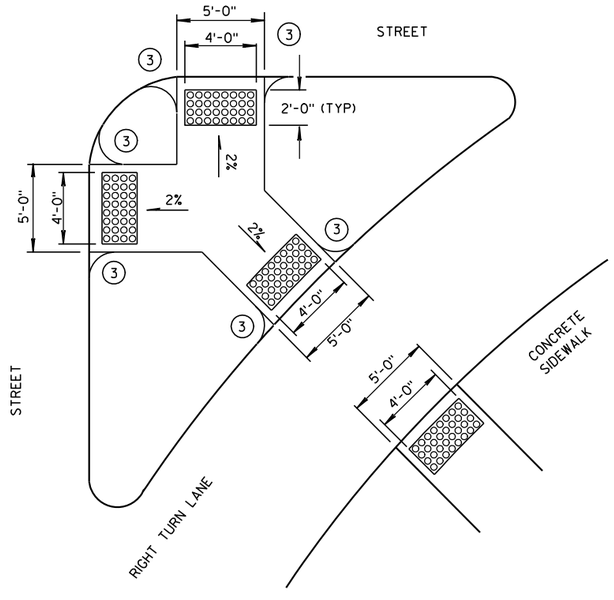
DETECTABLE WARNING FIELD (TYPICAL)



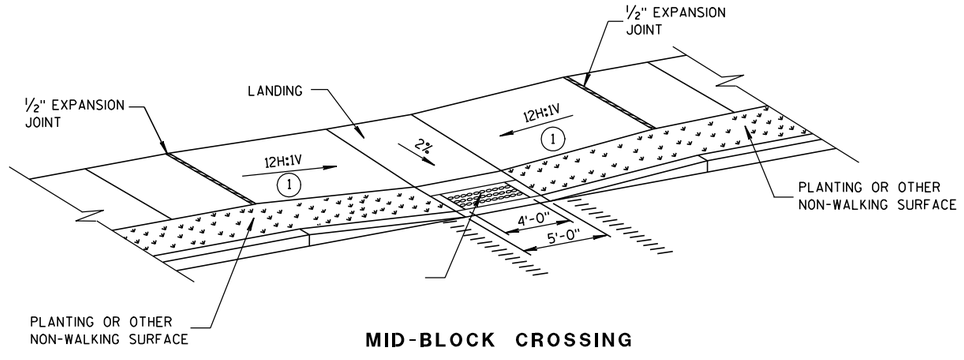
MID-BLOCK CROSSING
TYPE 7A



SECTION B-B



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.

CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

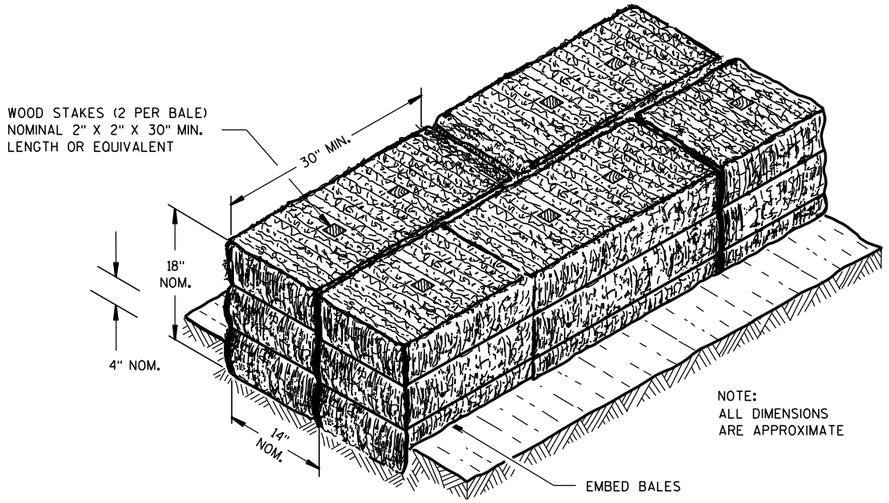
APPROVED
2-9-10 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
294 ENT
FHWA

6

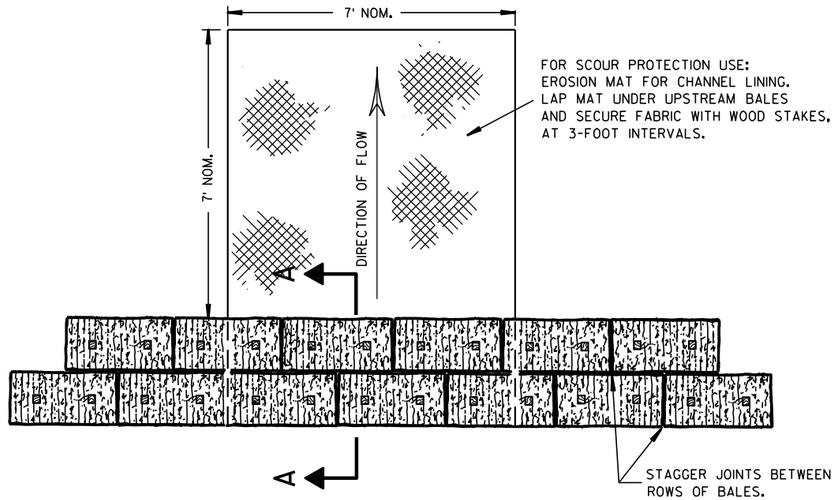
S.D.D. 8 D 5-14e

6

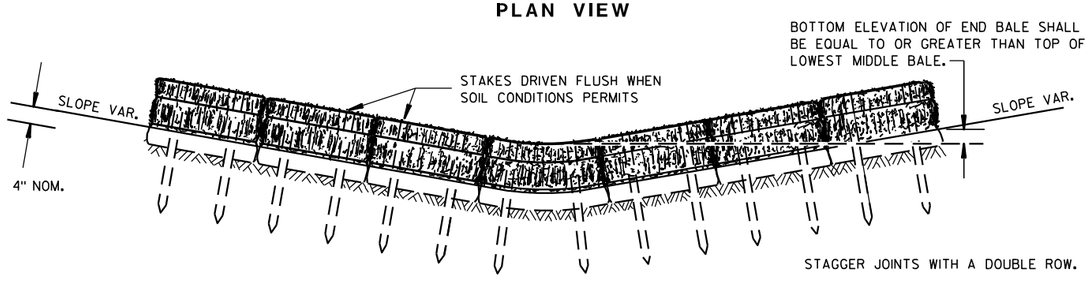
S.D.D. 8 D 5-14e



SECTION A-A



PLAN VIEW



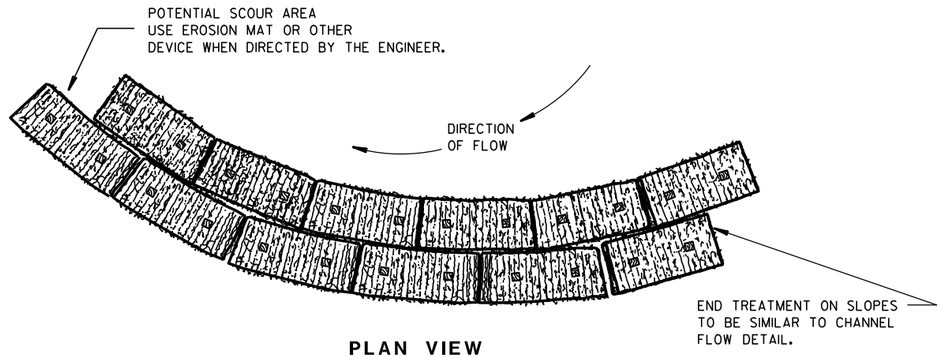
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

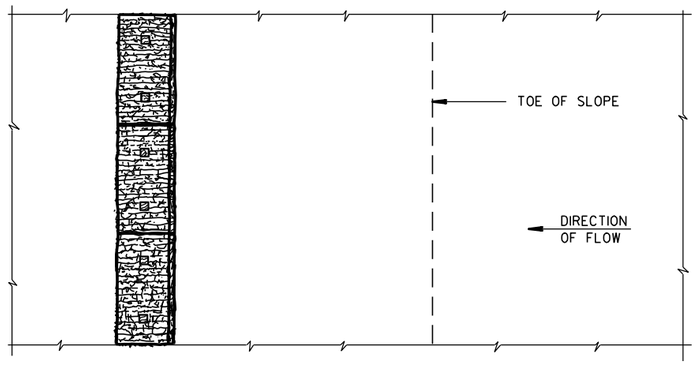
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

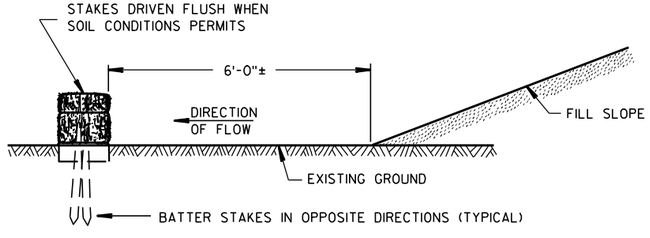


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

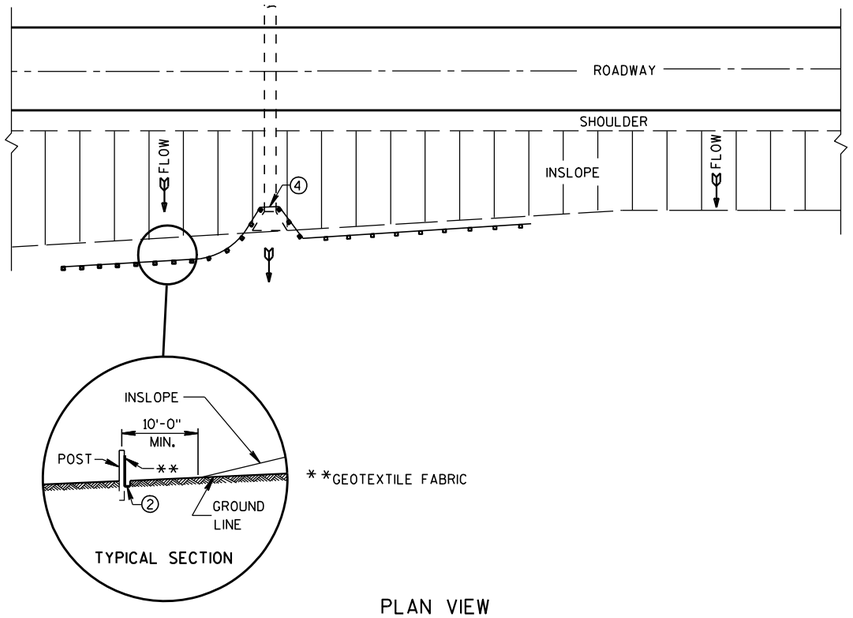
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

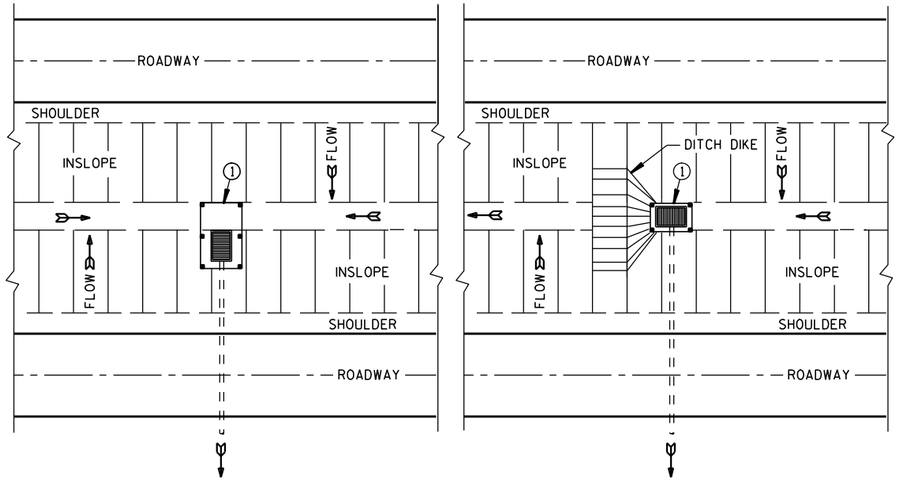
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

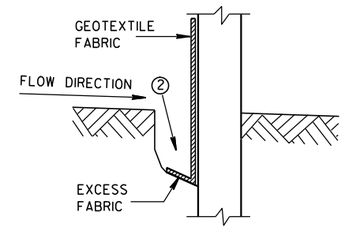
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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

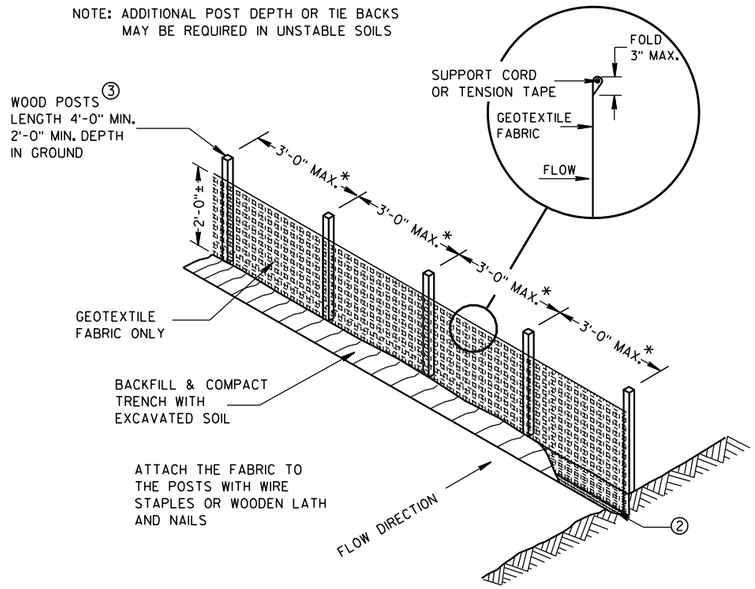
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

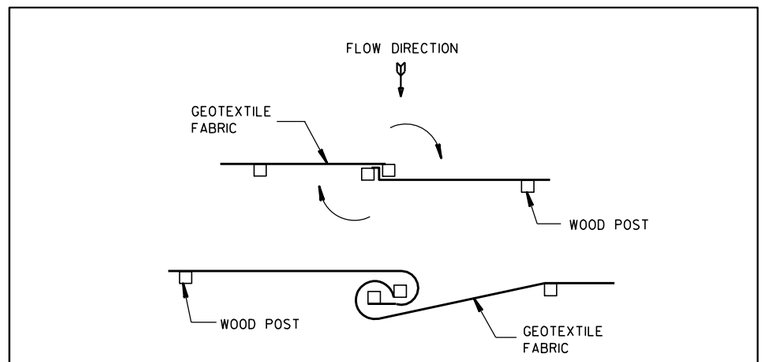
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



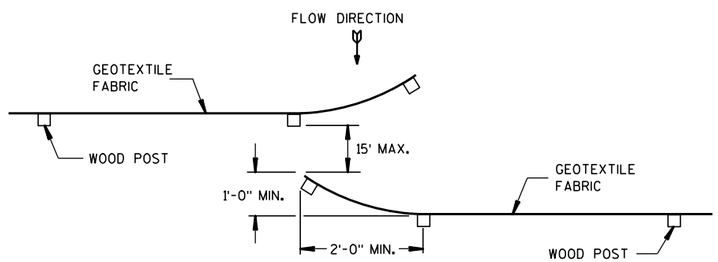
TRENCH DETAIL



SILT FENCE

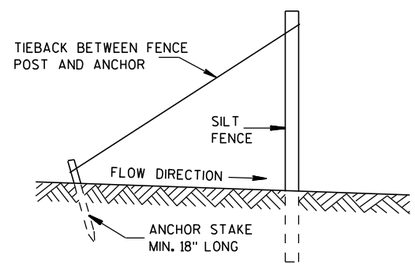


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

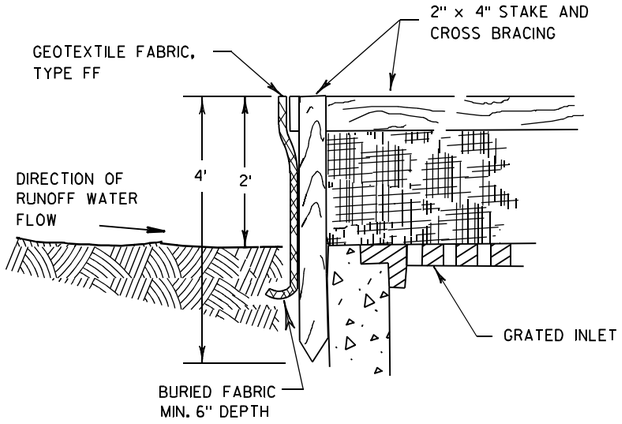
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

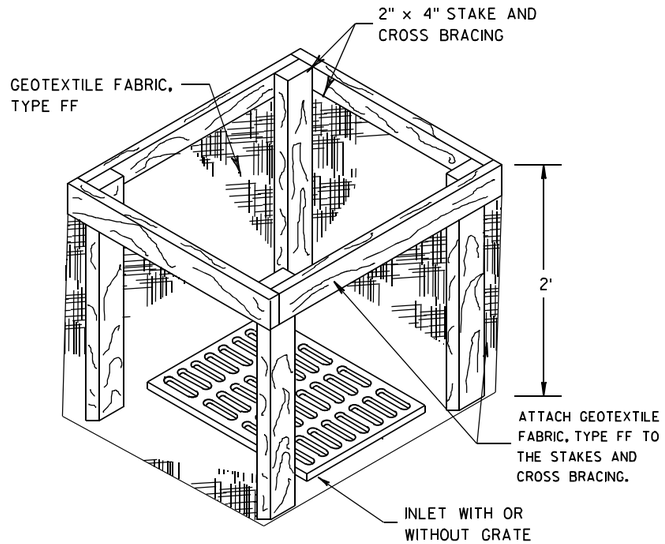
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S.D.D. 8 E 9-6

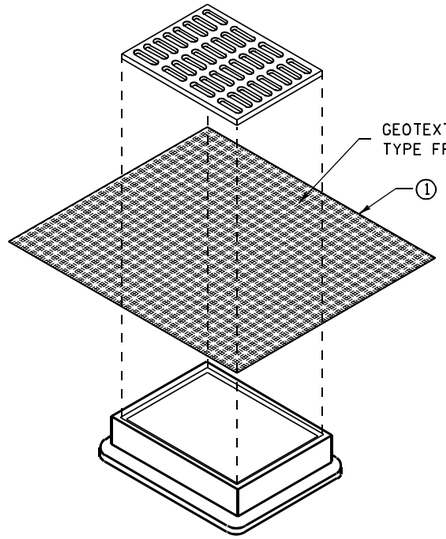
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S.D.D. 8 E 9-6



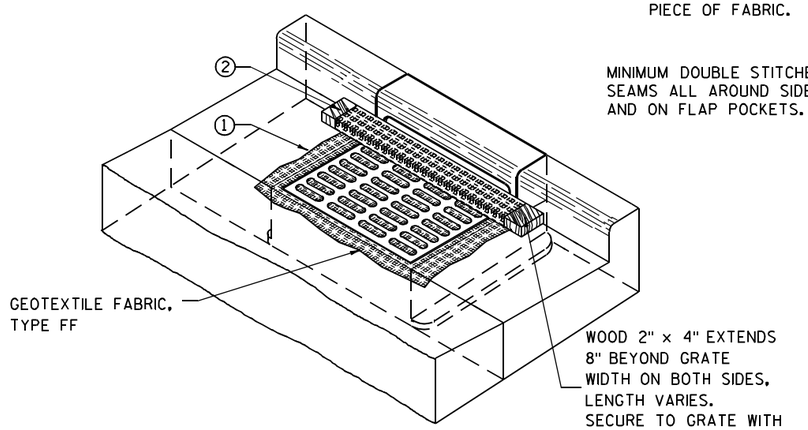


INLET PROTECTION, TYPE A

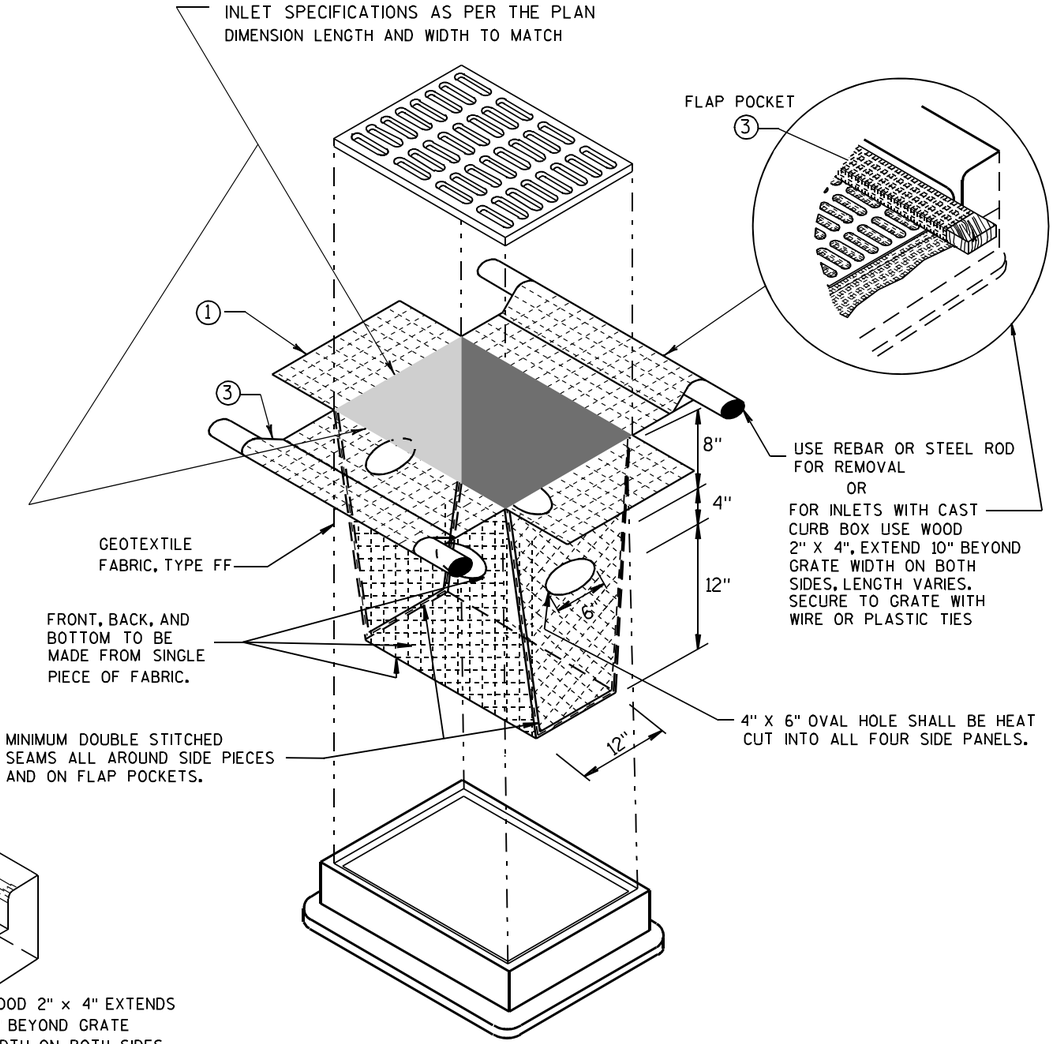


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

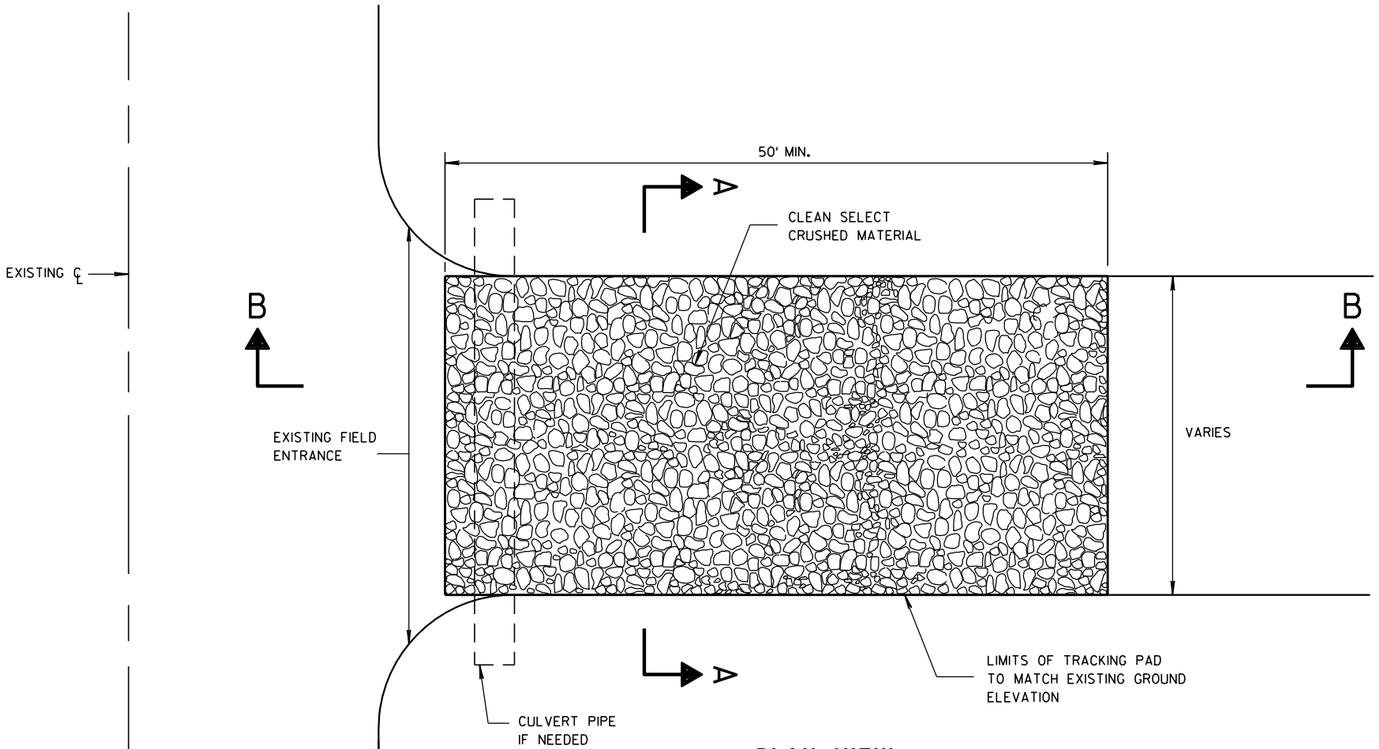
FHWA

6

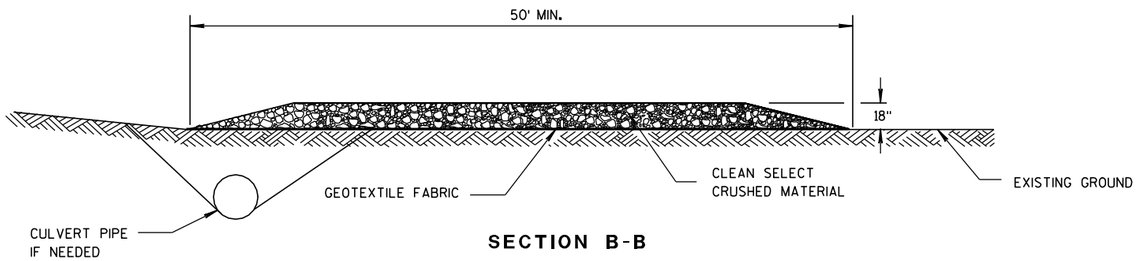
S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2



PLAN VIEW



SECTION B-B

GENERAL NOTES

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

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

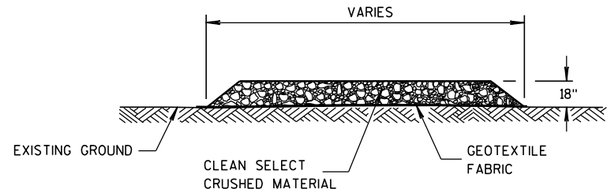
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

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

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

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



SECTION A-A

TRACKING PAD

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011	/S/ Jerry H. Zoda	
DATE	ROADWAY STANDARDS ENGINEER	ENT

FHWA

6

S.D.D. 8 E 14-1

METAL APRON ENDWALLS

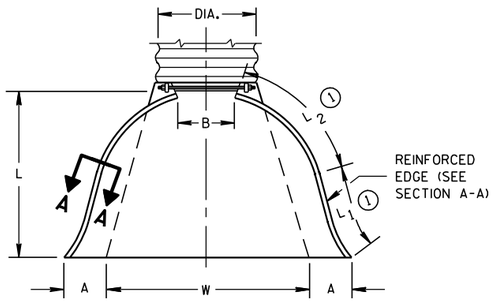
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

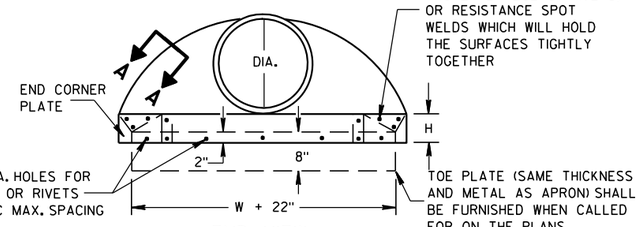
REINFORCED CONCRETE APRON ENDWALLS

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

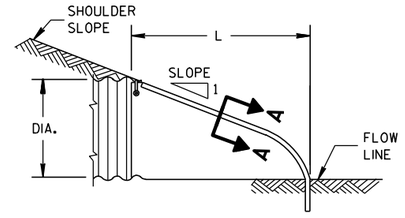
*MINIMUM
**MAXIMUM



PLAN VIEW

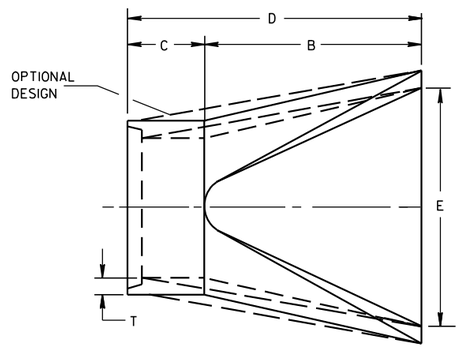


END VIEW

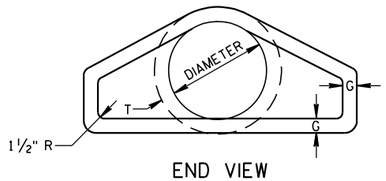


SIDE ELEVATION

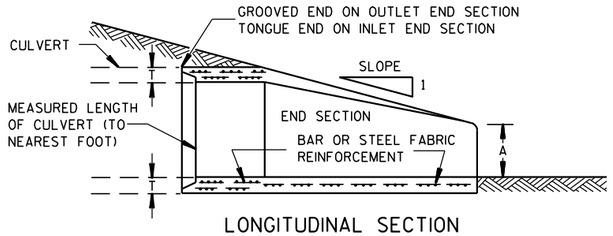
METAL ENDWALLS



PLAN

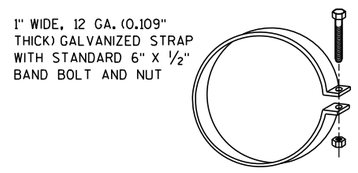


END VIEW



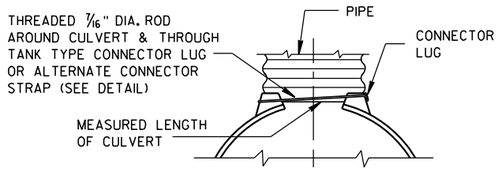
LONGITUDINAL SECTION

CONCRETE ENDWALLS

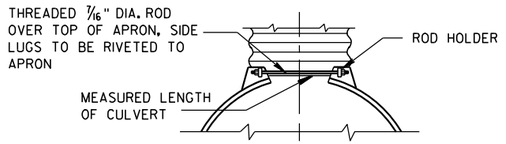


ALTERNATE FOR TYPE 1 CONNECTION

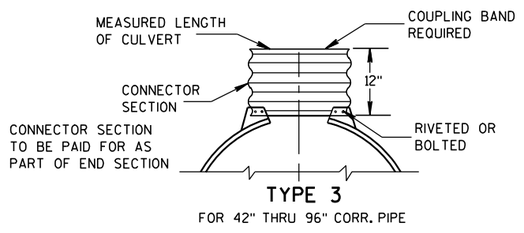
END SECTION CONNECTOR STRAP



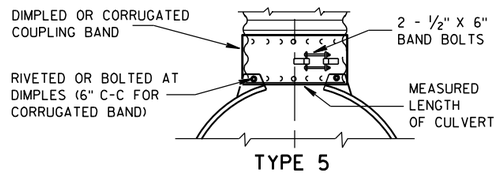
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

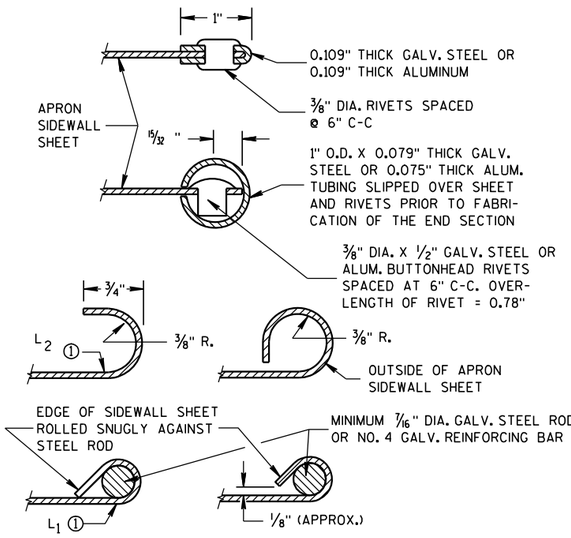
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

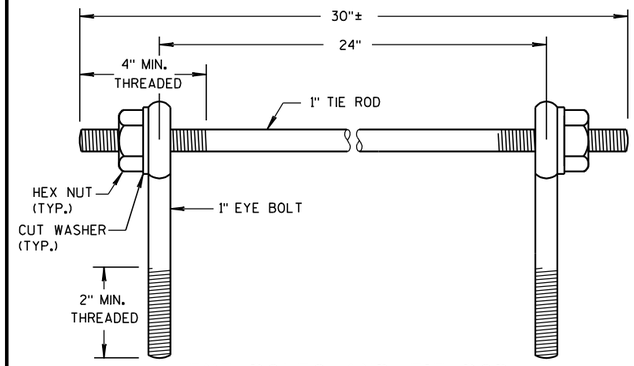
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

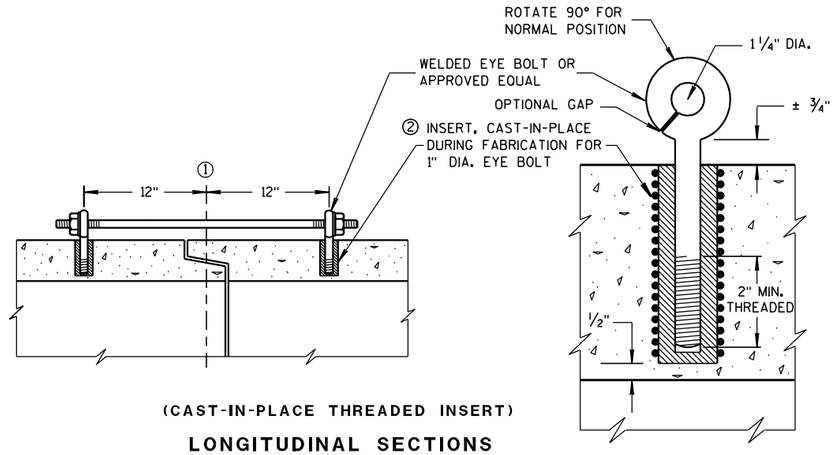
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

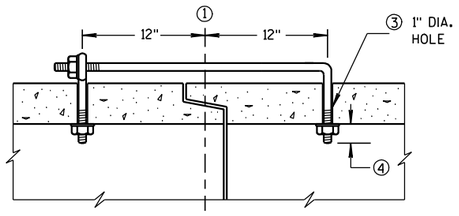
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

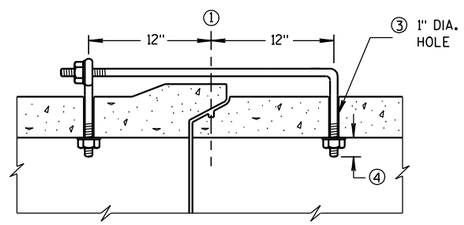
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

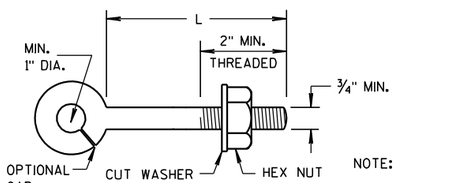


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

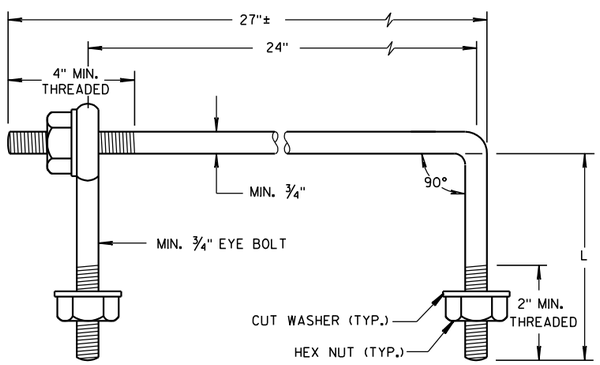
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



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

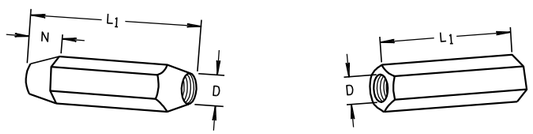
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

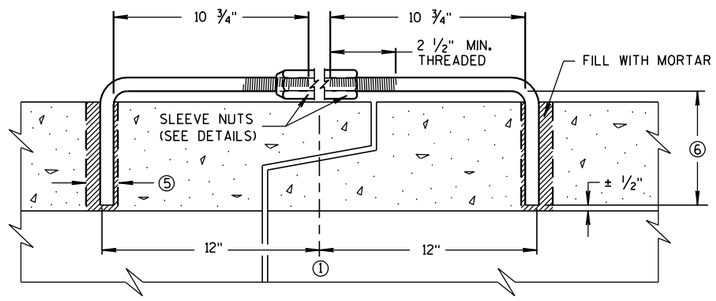
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

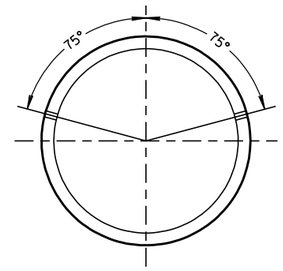
SLEEVE NUTS



LONGITUDINAL SECTION

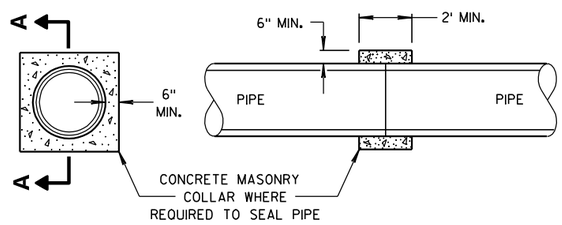
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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

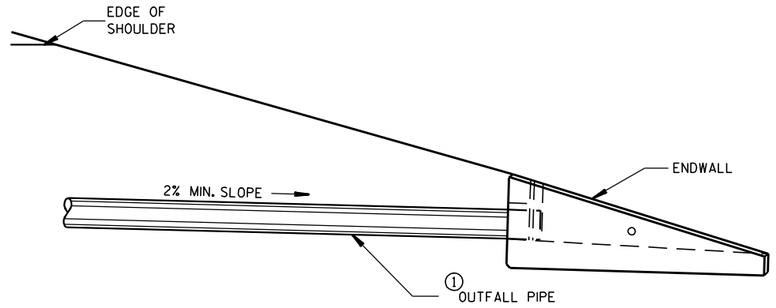
S.D.D. 8 F 4-7

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.

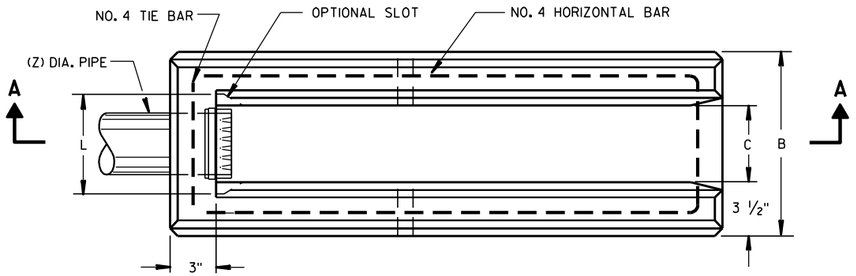
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

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.

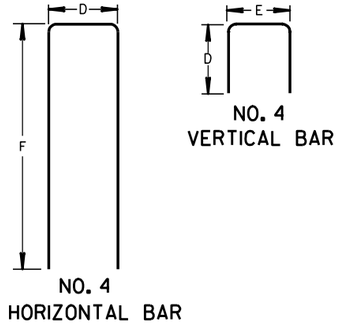
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE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

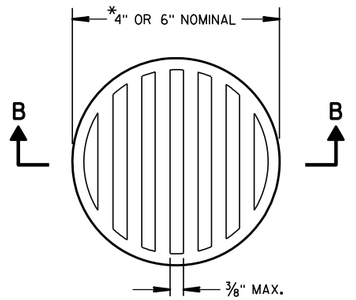
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL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

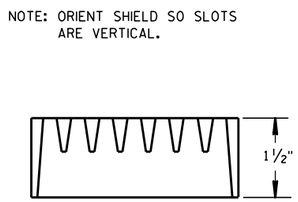


PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS

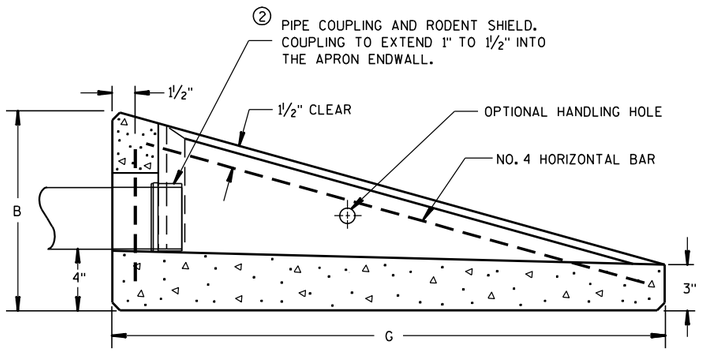




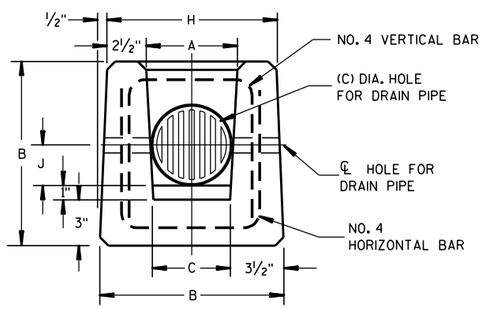
SECTION B-B

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

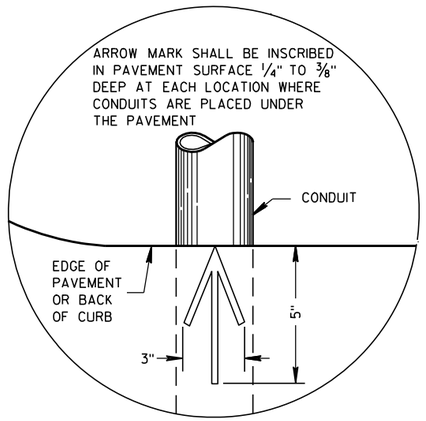
3/10/98 DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

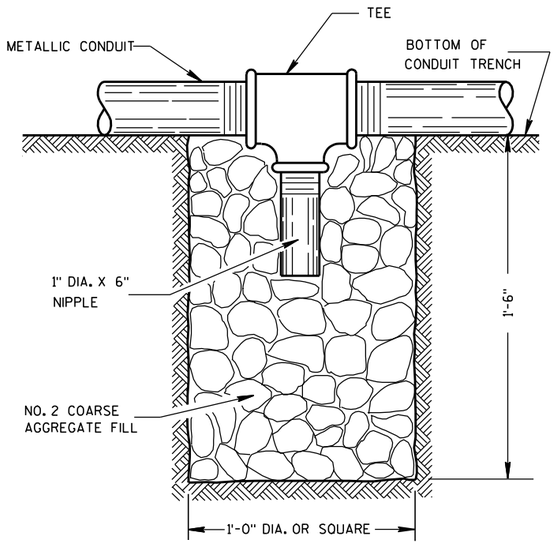
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S.D.D. 8 F 6-4



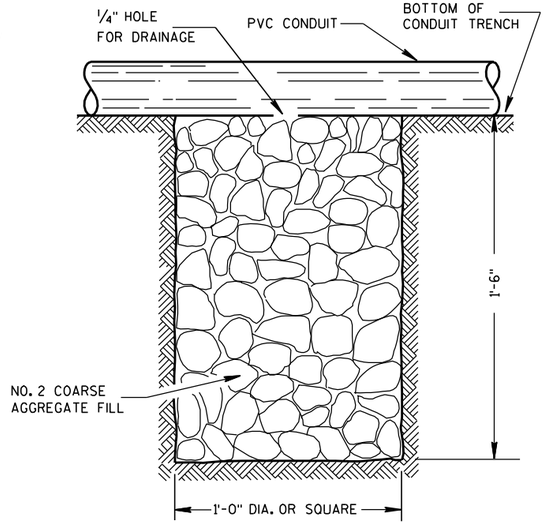
PLAN VIEW

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.

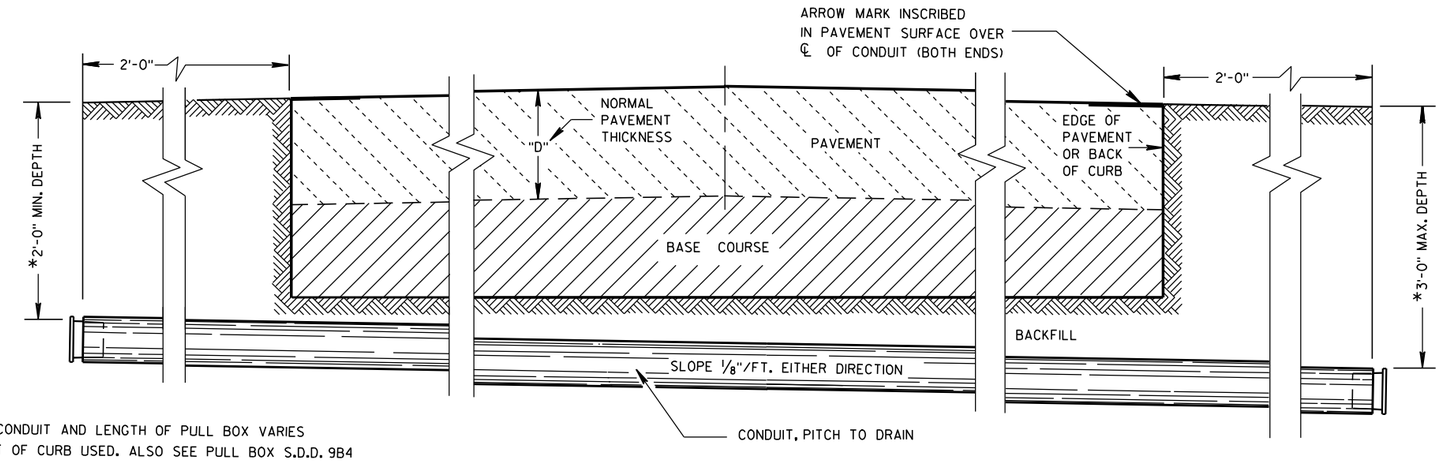
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

FHWA

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S.D.D. 9 B 2-7

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.

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. THE MECHANICAL CONNECTION (INSIDE AND OUTSIDE) TO THE PULL BOX, SHALL BE TOTALLY AND PERMANENTLY SEALED WITH A SILICONE OR RUBBERIZED CAULKING COMPOUND AS APPROVED BY THE ENGINEER.

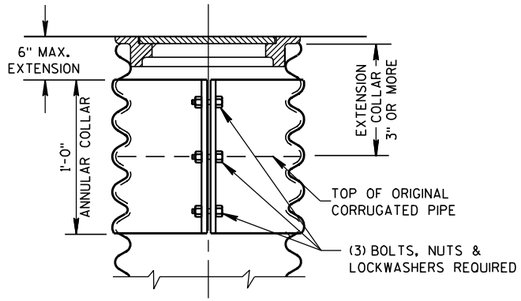
GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

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

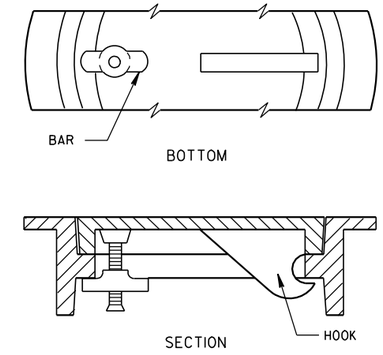
S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

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.

IF PULL BOX EQUIPMENT GROUNDING IS REQUIRED USING AN EQUIPMENT GROUNDING ELECTRODE IN EACH PULL BOX, THE EQUIPMENT GROUNDING ELECTRODE SHALL BE 5/8" X 8'-0", COPPERCLAD AND BE EXOTHERMICALLY WELDED TO A #4 AWG, COPPER, STRANDED WIRE (BARE OR GREEN INSULATED). THE #4 AWG WIRE SHALL BE 4 FEET IN LENGTH, NEATLY COILED, TAPED AND AVAILABLE FOR USE WHEN REQUIRED.

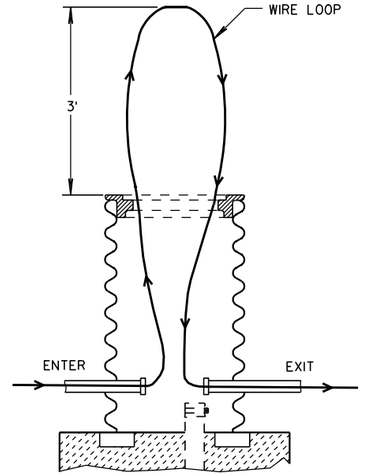


CORRUGATED PIPE EXTENDER

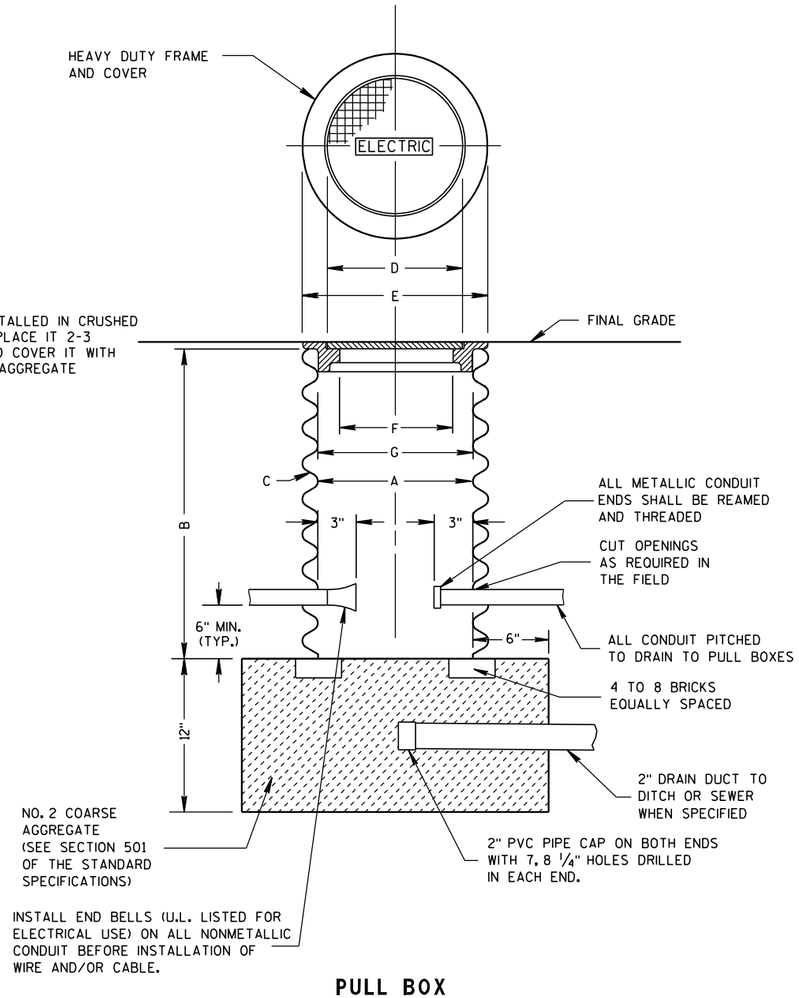


ALTERNATE COVER (LOCKING)

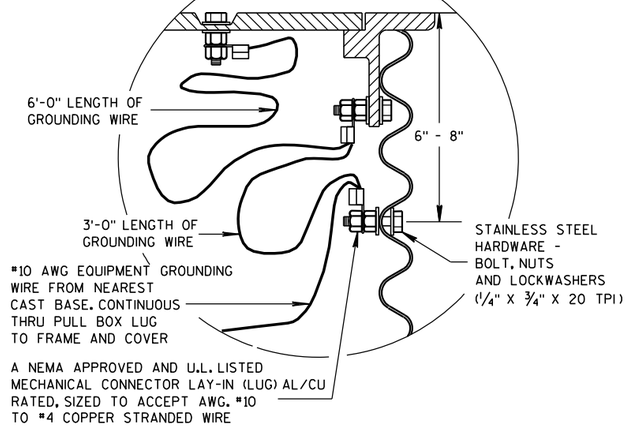
TIGHTENING BAR TYPE



MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/27/06 DATE

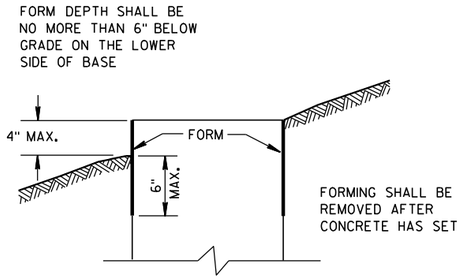
/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI

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S.D.D. 9 B 4-9



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.

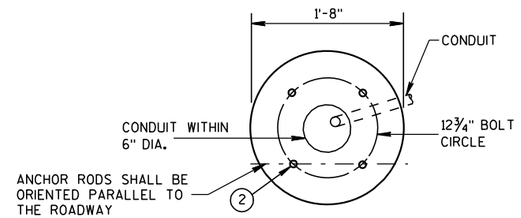
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

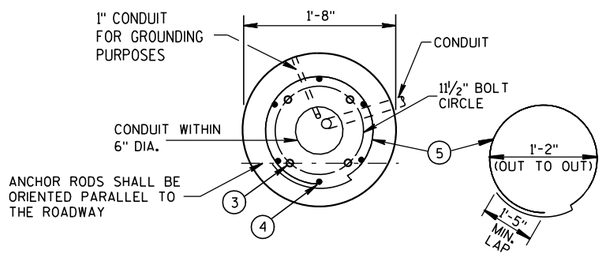
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

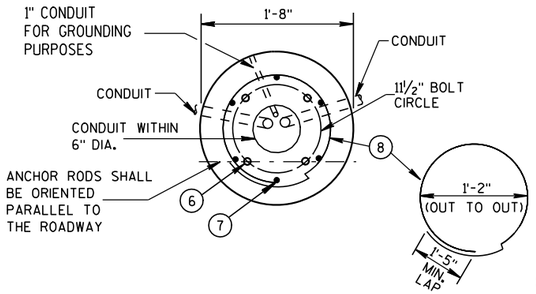
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

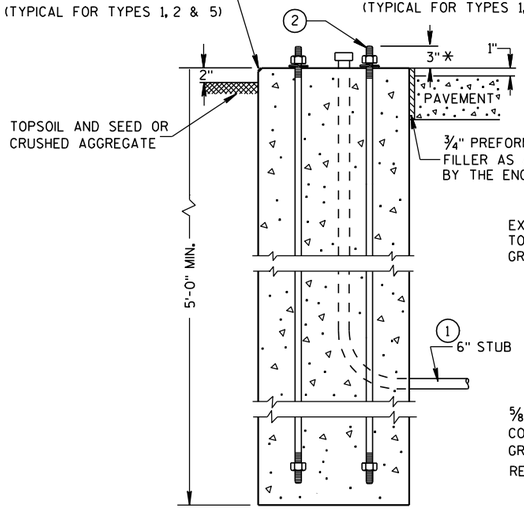






FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

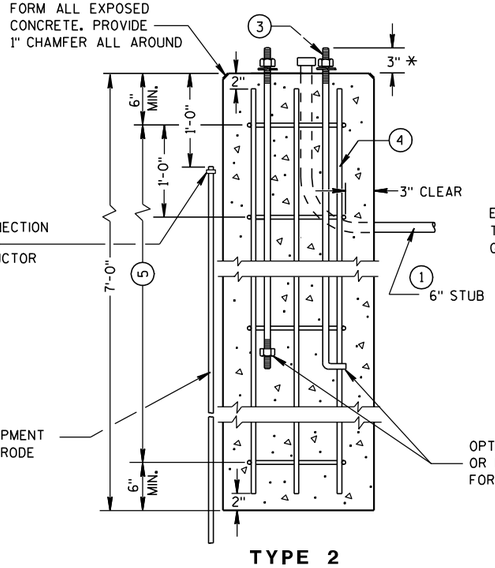
HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2 & 5)



HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2 & 5)

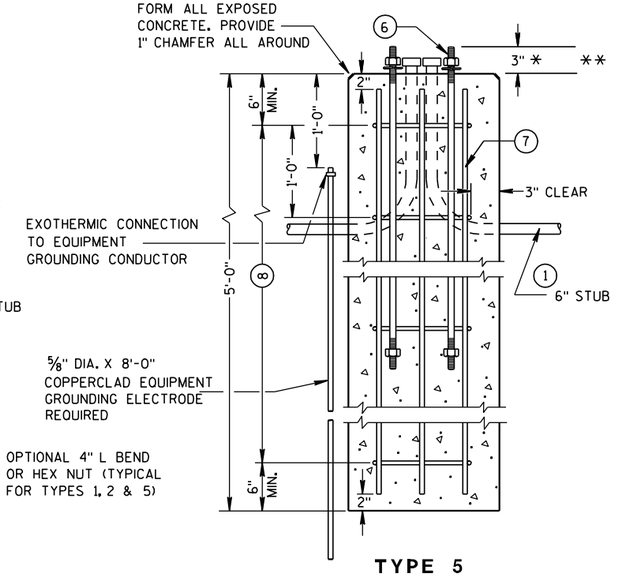
TYPE 1

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



TYPE 2

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



TYPE 5

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.

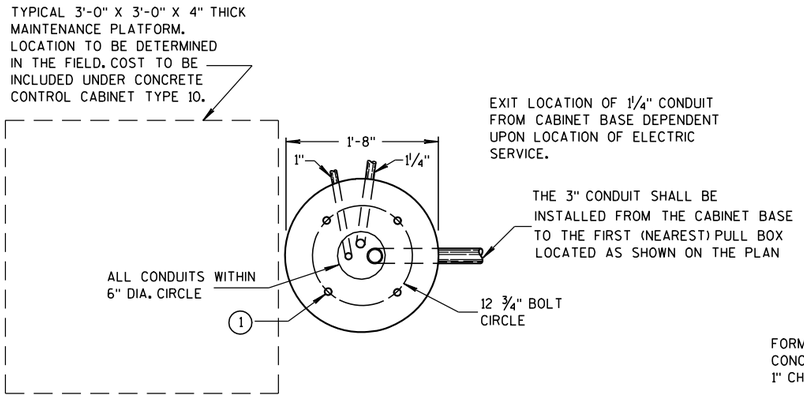
CONCRETE BASES, TYPES 1, 2 & 5

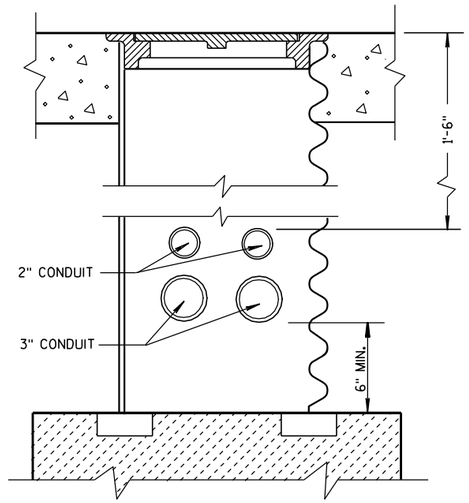
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3/3/10 — DATE
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CONTROL CABINET BASE TYPE	DIMENSIONS				C.Y. CONCRETE (APPROX.)
	H	I	J	K	
TYPE 6 - 30" CABINET	34"	60"	10"	17"	.64
TYPE 7 - 38" CABINET	42"	60"	10"	21"	.93
TYPE 8 - 38" CABINET	42"	72"	12"	21"	1.29
TYPE 9 - VARIABLE	54"	72"	14"	27"	1.56
TYPE 10 - POST MOUNT	AS SHOWN				.65 *

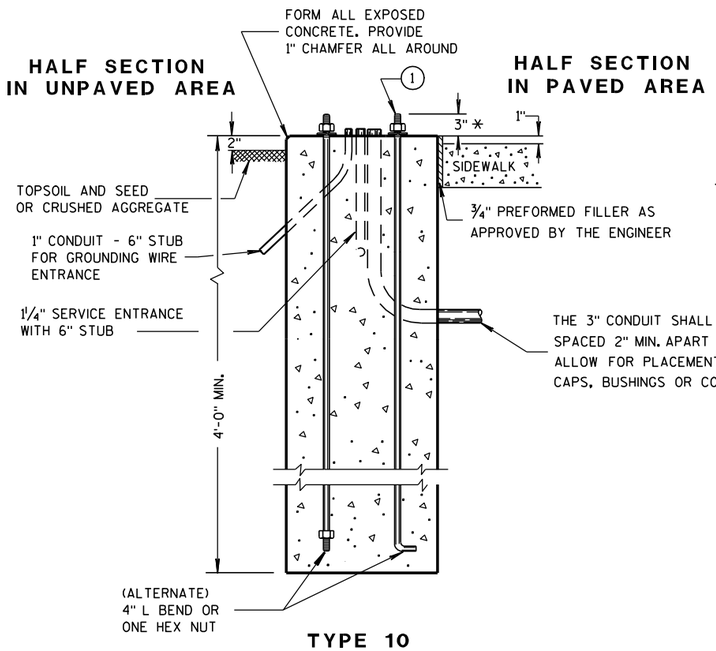
* INCLUDES MAINTENANCE PLATFORM.



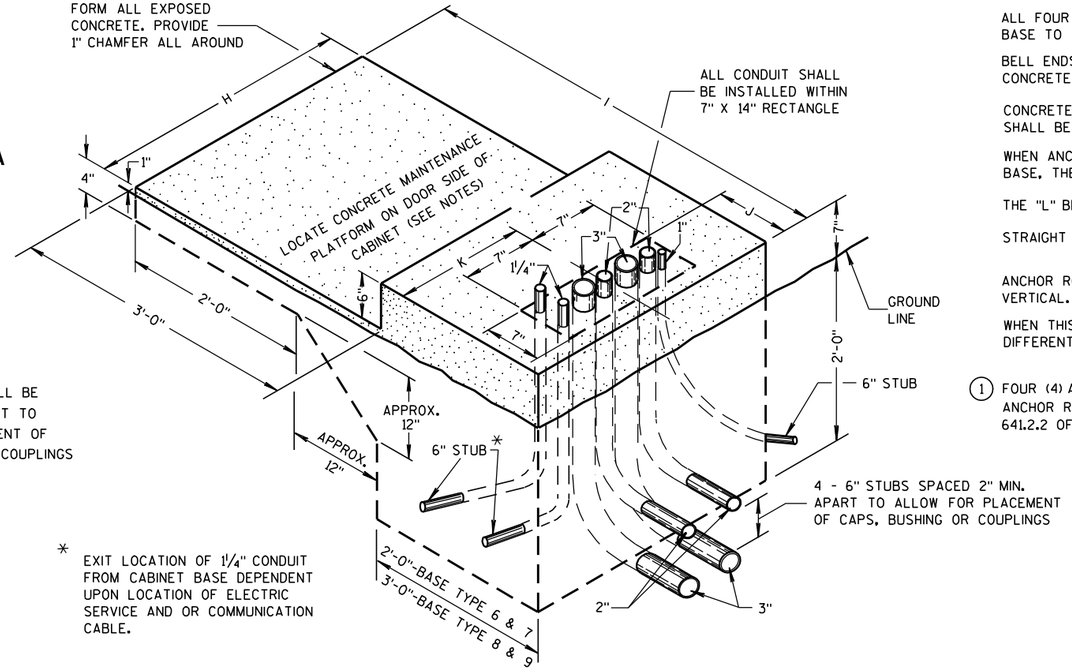


CONDUIT LOCATIONS IN 24" X 36" PULL BOX

(LEADING TO CONTROLLER CABINET BASE TYPE 6, 7, 8 AND 9)



TYPE 10



TYPE 6,7,8 AND 9 (ISOMETRIC VIEW)

* EXIT LOCATION OF 1¼" CONDUIT FROM CABINET BASE DEPENDENT UPON LOCATION OF ELECTRIC SERVICE AND OR COMMUNICATION CABLE.

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

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 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 SURFACES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

WHEN A TYPE 10 CONTROL CABINET BASE IS USED TO POST MOUNT A CONTROL CABINET, A 36" SQUARE 4" THICK CONCRETE MAINTENANCE PLATFORM SHALL BE REQUIRED ON THE DOOR SIDE OF THE CABINET. THE TOP 1 INCH SHALL BE ABOVE FINISHED GRADE AND BE BROOM FINISHED AND 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.

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.

ALL FOUR (TWO INCH AND THREE INCH) CONDUIT SHALL BE INSTALLED FROM THE CABINET BASE TO THE FIRST (NEAREST PULL BOX LOCATED AS SHOWN ON THE PLANS.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

WHEN ANCHOR RODS USING THE ALTERNATE L BEND ARE FURNISHED FOR THE TYPE 10 BASE, THE 4" L BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH.

THE "L" BEND SHALL NOT BE THREADED.

STRAIGHT ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD.

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

WHEN THIS DRAWING IS USED FOR STREET LIGHTING CABINET BASES, CONDUIT MAY BE DIFFERENT AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

(1) FOUR (4) ANCHOR RODS, 1" DIA. X 3'-6"
ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS.

CONCRETE CONTROL CABINET BASES

STATE OF WISCONSIN
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3/3/10 DATE

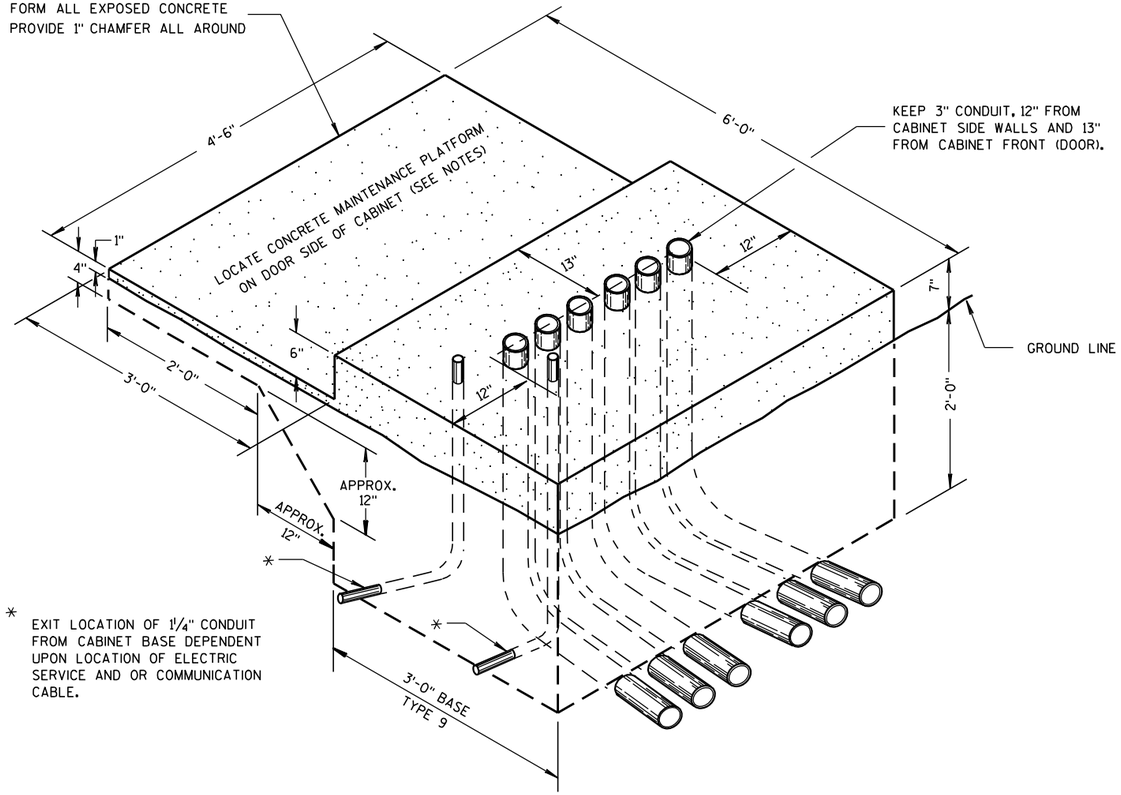
/S/ Joanna L. [illegible]
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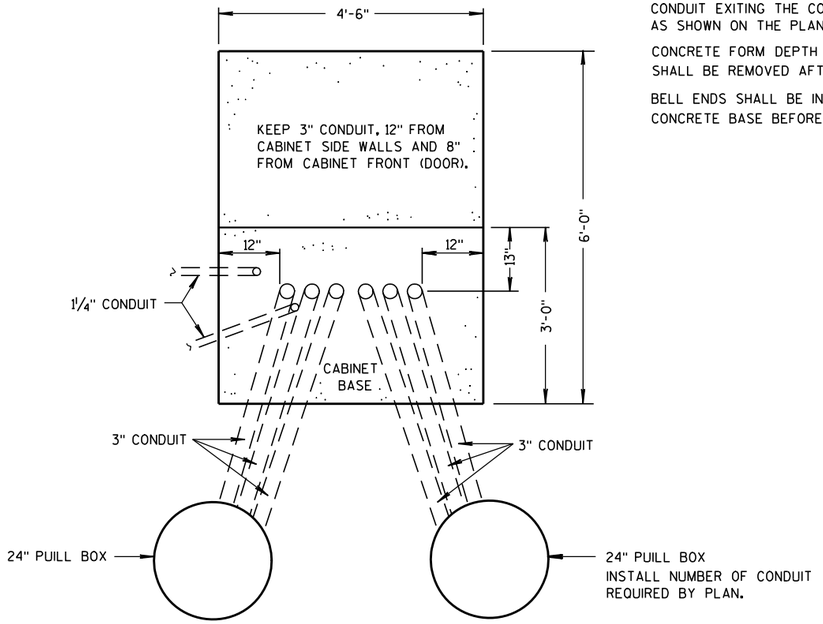


* EXIT LOCATION OF 1¼" CONDUIT FROM CABINET BASE DEPENDENT UPON LOCATION OF ELECTRIC SERVICE AND OR COMMUNICATION CABLE.

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

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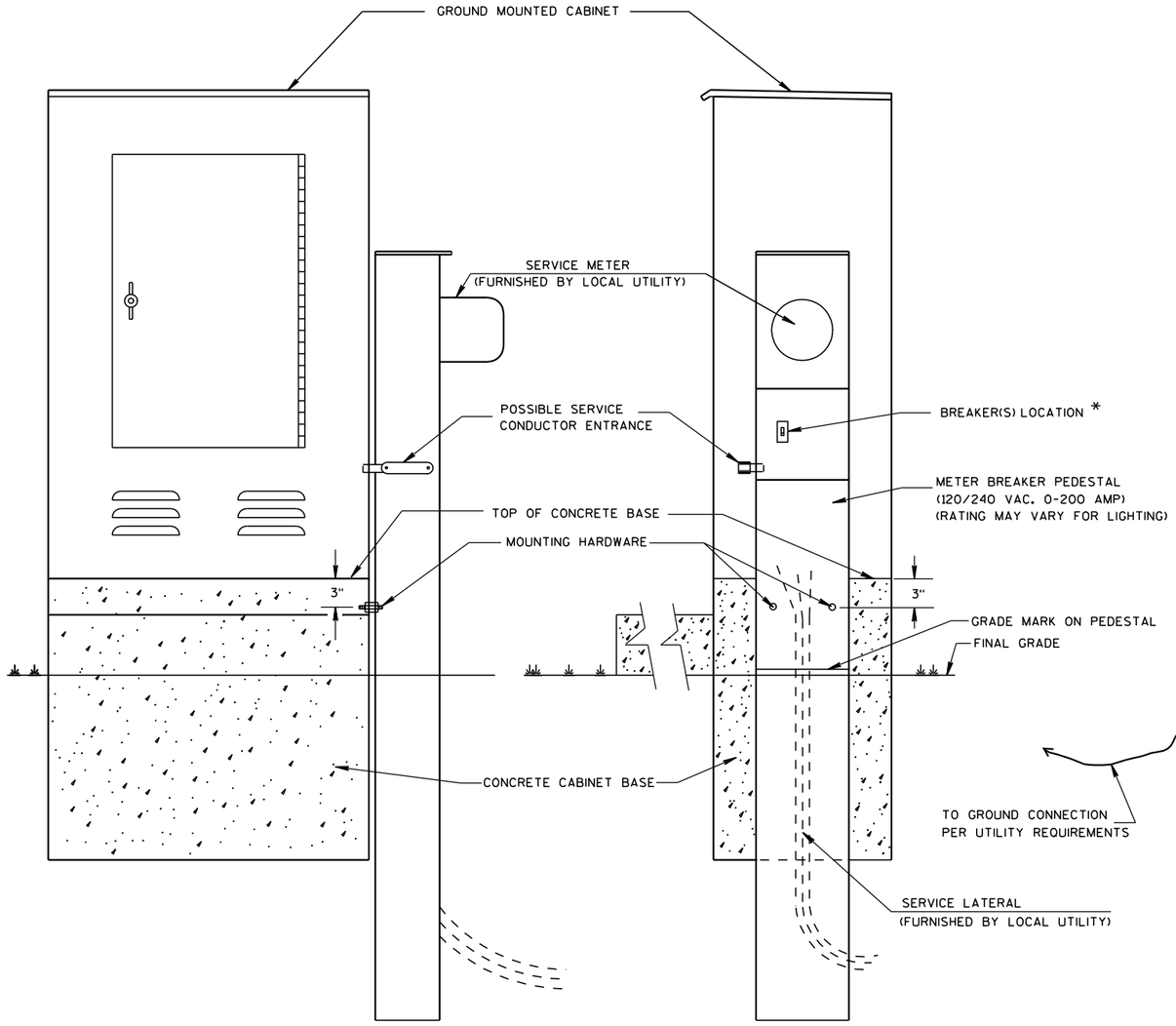
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S.D.D. 9 C 6-5



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

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S.D.D. 9 D 1-4

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/27/09 DATE

/S/ Joanna L. Bush
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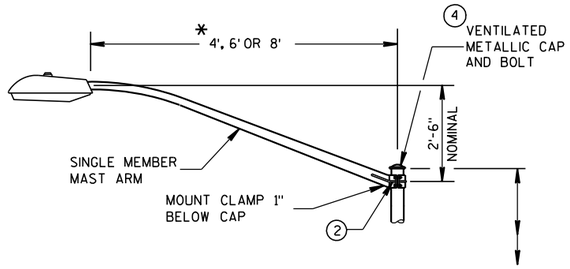
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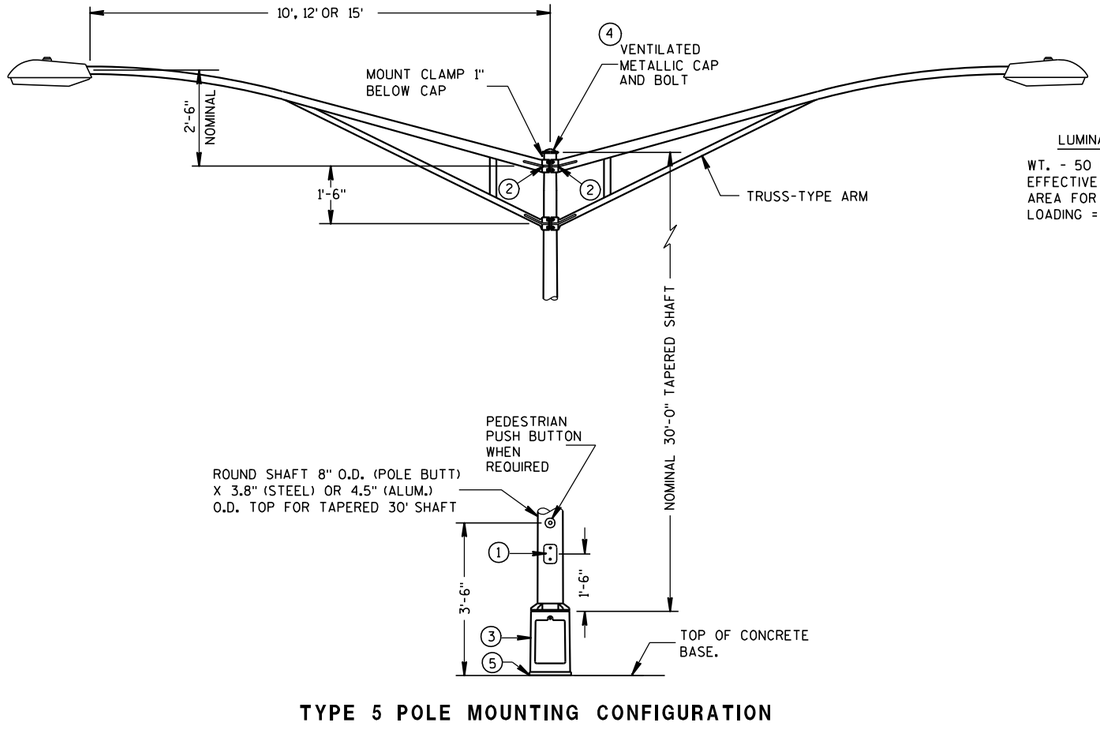
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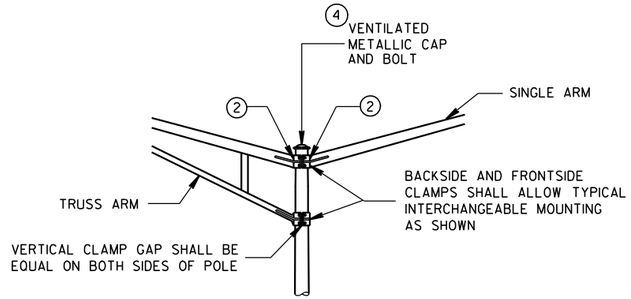
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*RISE FOR 4' ARM SHALL BE 2'-0".





TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY



INTERCHANGEABLE MOUNTING DETAIL

GENERAL NOTES

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

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

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

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

THE TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.188".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

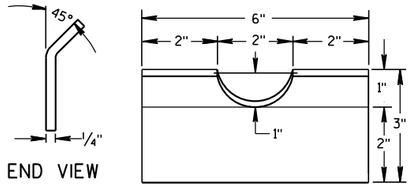
WHEN TRANSFORMER BASES ARE USED, WIRE CONEECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

1. 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.
2. GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.
3. CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
4. FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
5. SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

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

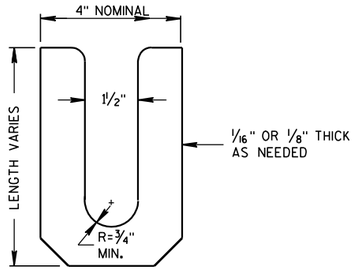
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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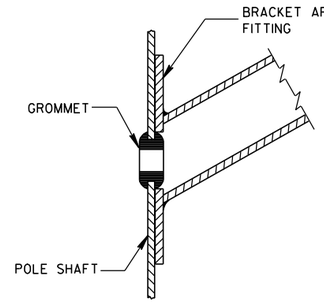
RECTANGULAR CLAMP SHIM

(4 TO A SET)

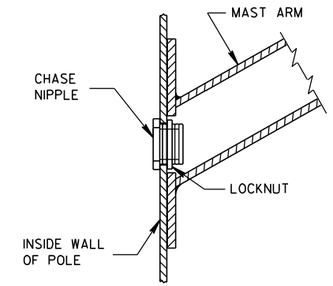


LEVELING SHIM (15)

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".

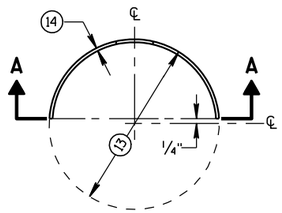
SHIM MATERIAL SHALL BE ALUMINUM ALLOY.

SHIM THICKNESS SHALL BE IMPRESSED INTO EACH SHIM. NUMERALS SHALL BE 1/4" HIGH AND LEGIBLE.

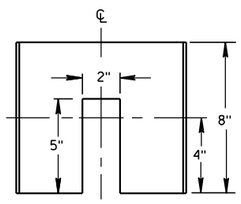
THE CONTRACTOR SHALL SUBMIT TWO COPIES OF ALL SHIM SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.

(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.



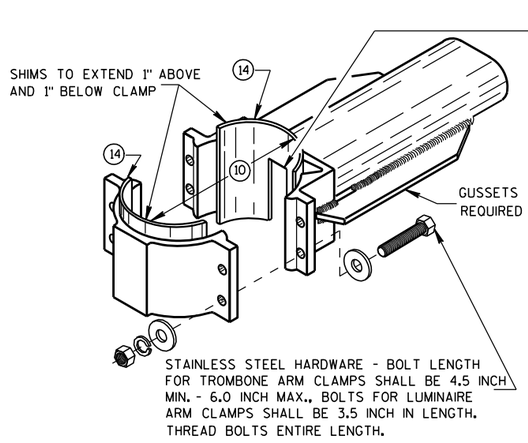
PLAN VIEW



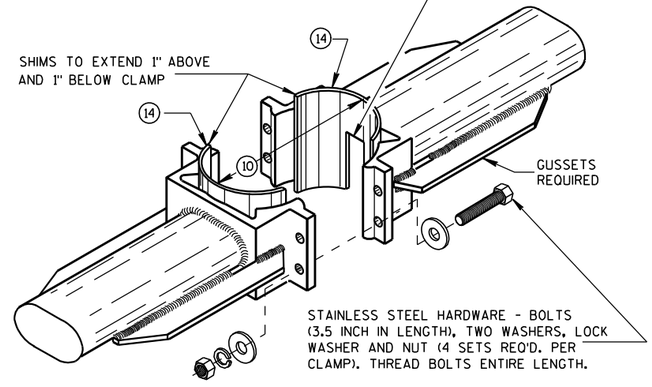
SECTION A-A

CIRCULAR CLAMP SHIM

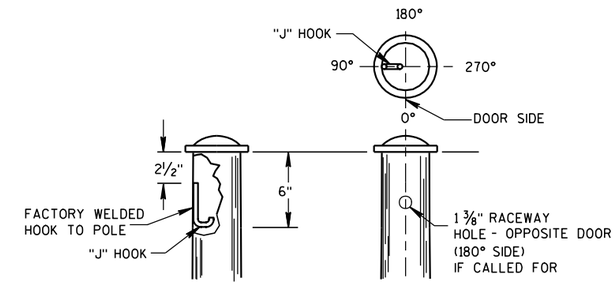
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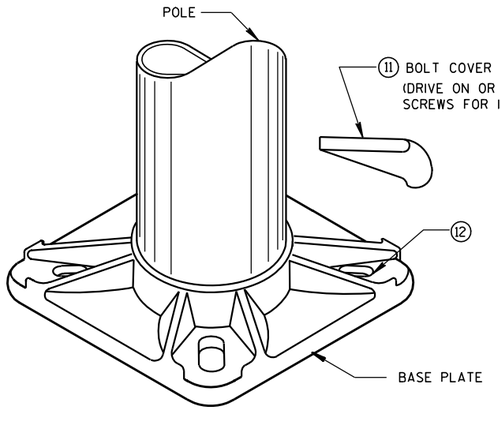
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



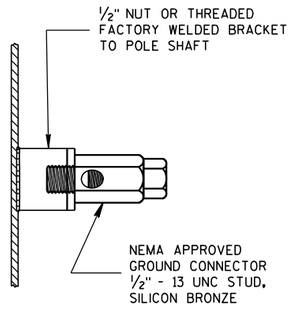
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

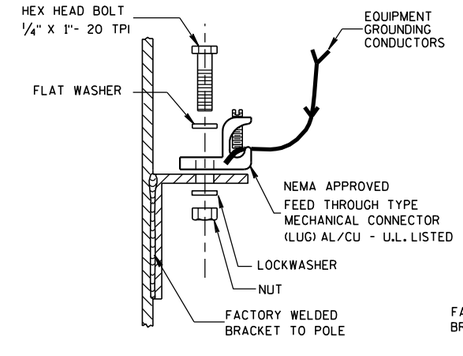


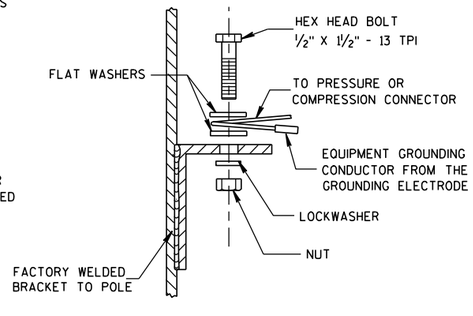
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTINGS

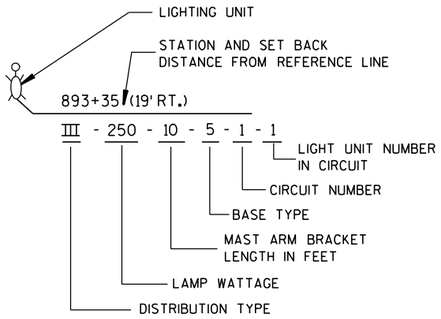
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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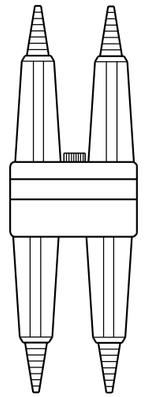
3/2/11 — DATE

/S/ Thomas J. Gosling — STATE ELECTRICAL ENGI

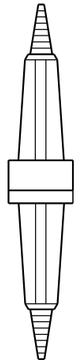
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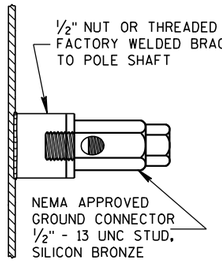
LIGHTING UNIT CODE
(TYPICAL)

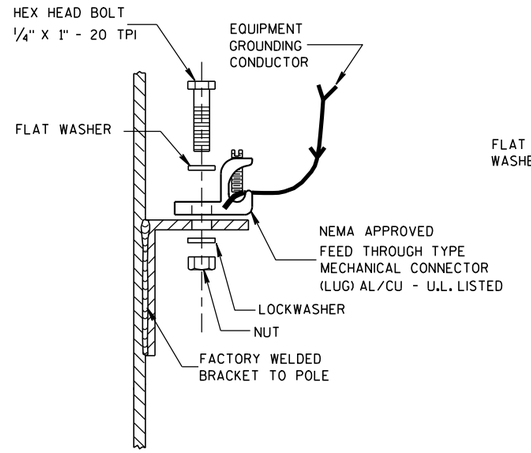


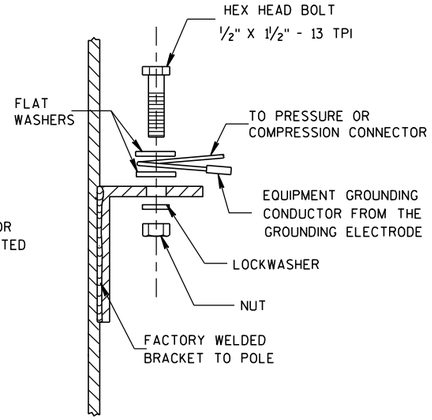
DETAIL "A"
BREAKAWY
DOUBLE POLE WITH
WATERPROOF
INSULATING BOOT



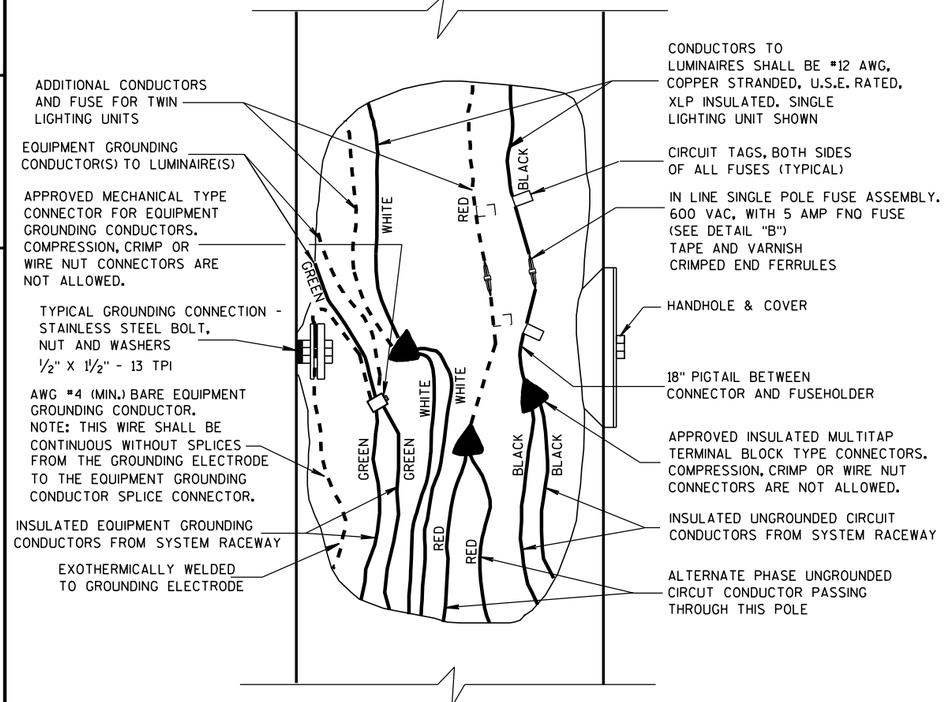
DETAIL "B"
BREAKAWY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT



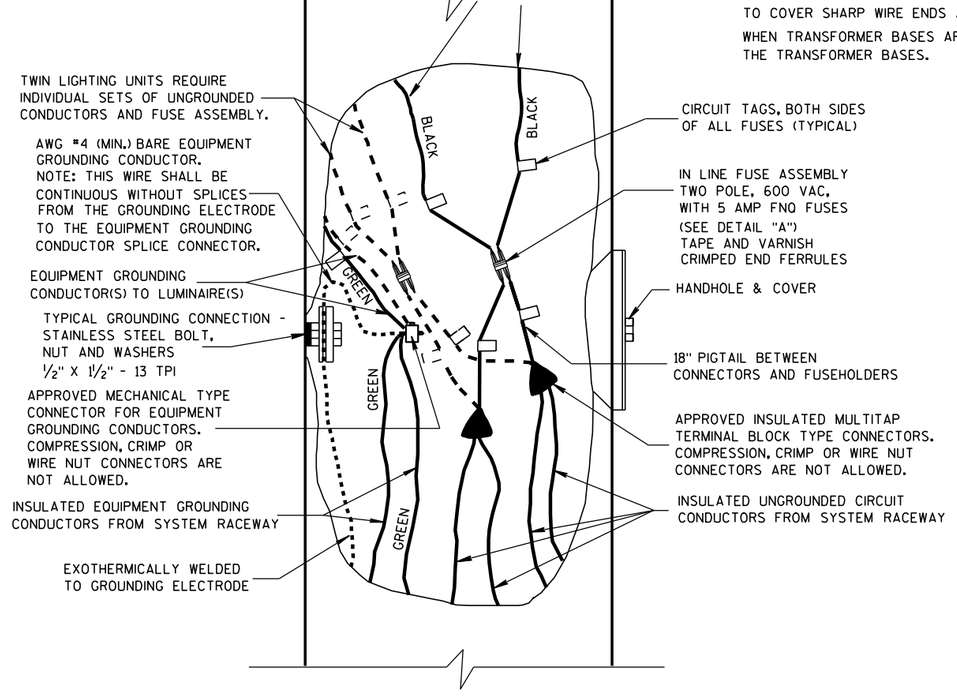




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

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

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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3/2/2011 — DATE

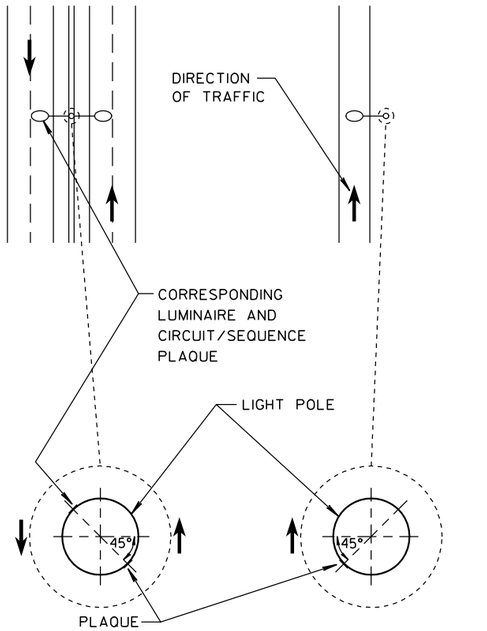
/S/ Thomas J. Gosnine — STATE ELECTRICAL ENGI

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HWYS

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6
S.D.D. 9 E 3-4



MEDIAN POLE SINGLE ARM POLE

LOCATION OF LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

WHERE SHOWN IN THE PLANS, REPLACEMENT PLAQUES WILL BE MEASURED AND PAID SEPARATELY.

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

GALVANIZED STEEL SHAFT - STAINLESS STEEL POP RIVETS

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

ALUMINUM SHAFTS - ALUMINUM POP RIVETS

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

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

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

LINES - BLACK, 1/2" WIDE, SELF-ADHESIVE

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

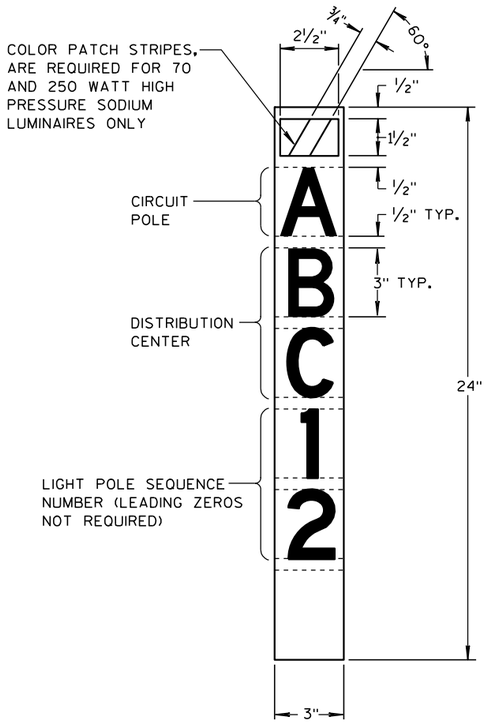
COLOR PATCHES - VARIOUS COLORS, SELF-ADHESIVE VINYL SHEETING

WITH THE APPROVAL OF THE ENGINEER, THE BASE MATERIAL MAY BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE SURFACE, IN CASES SUCH AS SMOOTH, CLEAN ALUMINUM POLES.

ALTERNATIVE COMPUTER-GENERATED SIGN LETTERING MAY BE ACCEPTED IF THE ENGINEER FINDS IT TO BE EQUIVALENT.

COLOR PATCH CODE FOR HPS LUMINAIRES

1000 WATT - NO PATCH
400 WATT - ORANGE
310 WATT - BLUE
250 WATT - ORANGE WITH WHITE STRIPE
200 WATT - RED
150 WATT - GREEN
100 WATT - BROWN
70 WATT - BROWN WITH WHITE STRIPE



LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

IDENTIFICATION PLAQUES LIGHT POLES

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DEPARTMENT OF TRANSPORTATION

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10/25/2010 — DATE
/S/ John Corbin — STATE ELECTRICAL ENGI 311 — HWYS
FHWA

6
S.D.D. 10 A 2-2

GENERAL NOTES

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

USE THIS DETAIL IN CONJUNCTION WITH THE DETAIL FOR ELECTRICAL HANDHOLE WIRING.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

WIRING FOR SINGLE LUMINAIRE POLES IS SHOWN WITH SOLID LINES. WIRING FOR THE SECOND LUMINAIRE OF TWIN LUMINAIRE POLES IS SHOWN WITH DOTTED LINES.

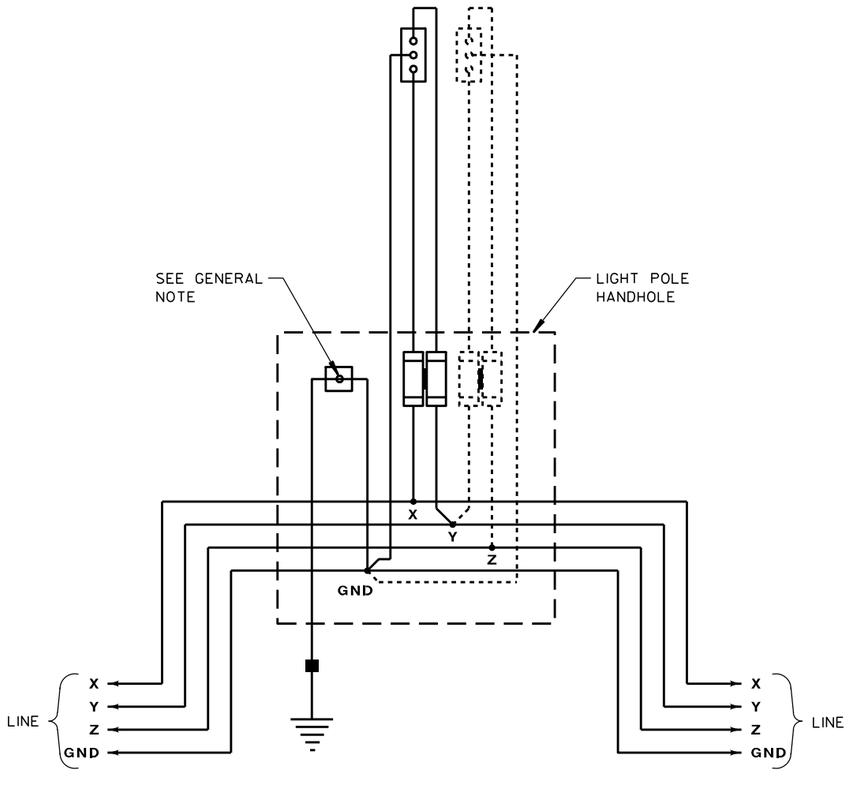
THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

HANDHOLE FUSE SCHEDULES

LINE VOLTAGE φ-φ	BALLAST WATTAGE 70-200 W	BALLAST WATTAGE 250-400 W
240 VAC	2P-5 A	2P-5 A
480 VAC	2P-5 A	2P-5 A

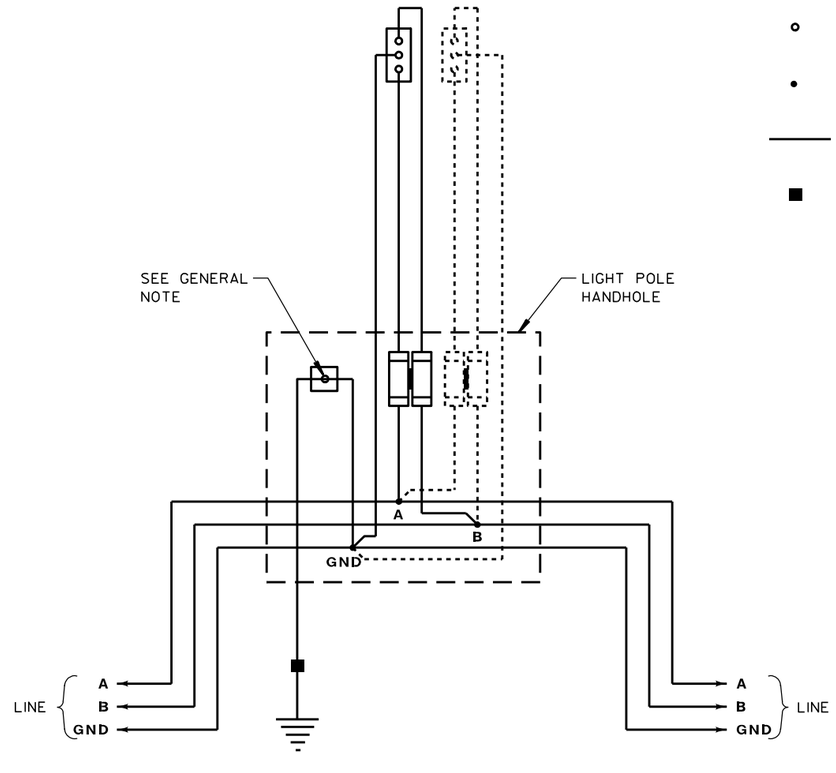
LEGEND

A, B, X, Y, Z	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
φ	PHASE (ELECTRICAL CURRENT)
	HANDHOLE GROUND LUG
	SINGLE-POLE (1P) FUSE ASSEMBLY
	TWO-POLE (2P) FUSE ASSEMBLY
	UNFUSED LUMINAIRE
	EQUIPMENT GROUNDING ELECTRODE
	TERMINAL
	SPLICE
	CONDUCTOR
	EXOTHERMIC WELD



TYPICAL WIRING DIAGRAM

PHASE-TO-PHASE DELTA SYSTEM
3-φ 480VAC 3 WIRE



TYPICAL WIRING DIAGRAM

UNGROUNDED SYSTEM
1-φ 120-120VAC 2 WIRE

ELECTRICAL DETAILS GROUND MOUNT LIGHT POLES PHASE-TO-PHASE SYSTEMS

STATE OF WISCONSIN
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10/25/2010 DATE

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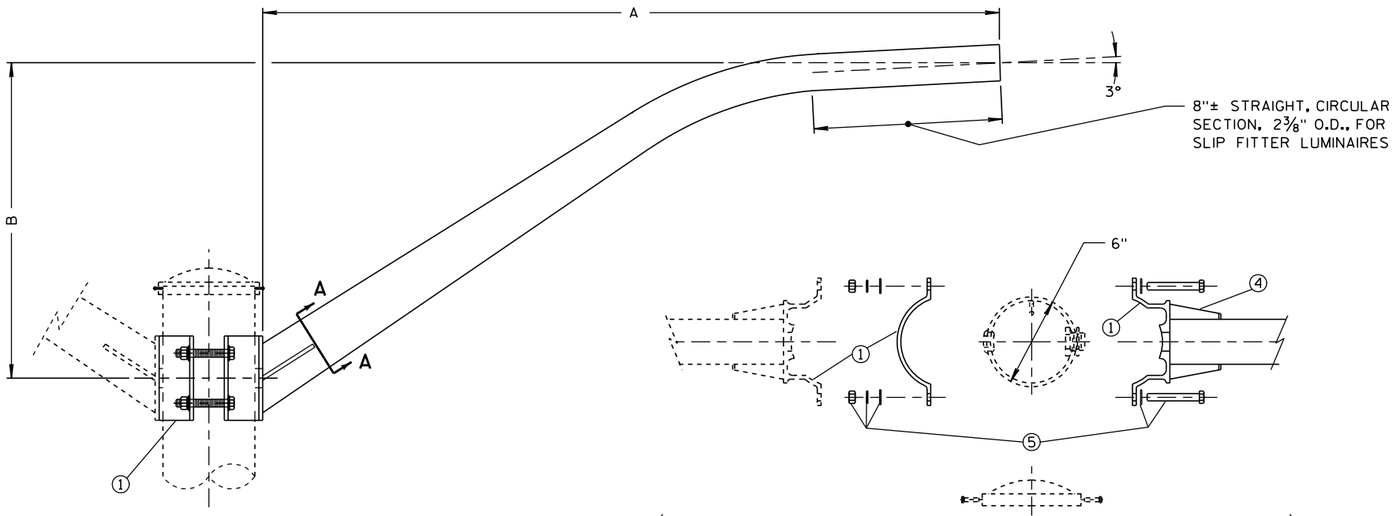
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S.D.D. 10 A 7-2

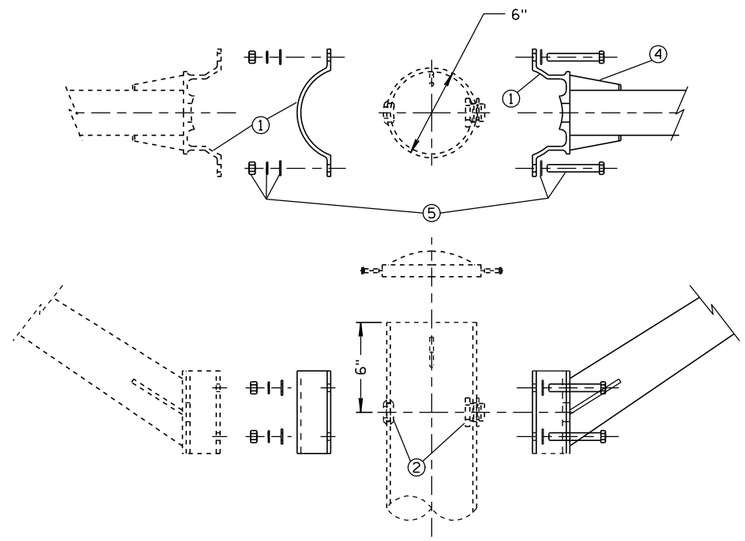
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S.D.D. 10 A 7-2



LUMINAIRE ARMS, SINGLE MEMBER, 6-INCH CLAMP - FOR POLES, TYPE 7, A OR E

VARIOUS LENGTHS (SEE TABLE)



CLAMP ASSEMBLY

SINGLE MEMBER CLAMP SHOWN

TYPE	DIM. A NOMINAL ARM LENGTH (FT)	DIM. B APPROX. RISE (FT)
SINGLE MEMBER	4.0	2.0
SINGLE MEMBER	8.0	3.0
SINGLE MEMBER	10.0	3.0
SINGLE MEMBER	15.0	3.0

GENERAL NOTES

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

ARMS AND CLAMP EXTRUSIONS SHALL BE CONSTRUCTED OF NATURAL FINISH 6063-T6 ALUMINUM (OR DARK BRONZE ANODIZED IF SO STATED IN THE CONTRACT).

HEAT TREATMENT OF WELDS IN STRUCTURAL AREAS IS REQUIRED.

ALL THREADED FASTENER COMPONENTS SHALL BE STAINLESS STEEL. NUTS SHALL BE HEX NUTS. BOLTS SHALL BE HEX HEAD. ALL THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE COMPOUND PRIOR TO INSTALLATION.

LUMINAIRE LOADING FOR DESIGN CALCULATION SHALL BE 50 LBS. IN WEIGHT AND 1.5 SQ. FT. FOR E.P.A..

① CLAMPS SHALL BE EXTRUDED ALUMINUM.

② RACE WAY: 1⅜" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET) PER EACH REQUIRED LUMINAIRE ARM. PROVIDE 1½" HOLE IN CLAMP EXTRUSION TO CONTINUE RACEWAY.

③ STIFFENER

④ GUSSETS REQUIRED.

⑤ CLAMP BOLT ASSEMBLY (BOLT - ½"-13 UNC, 2 EACH - FLAT WASHER, LOCK WASHER, NUT) - 4 EACH PER CLAMP.

LUMINAIRE ARMS, SINGLE MEMBER 6-INCH CLAMP

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DEPARTMENT OF TRANSPORTATION

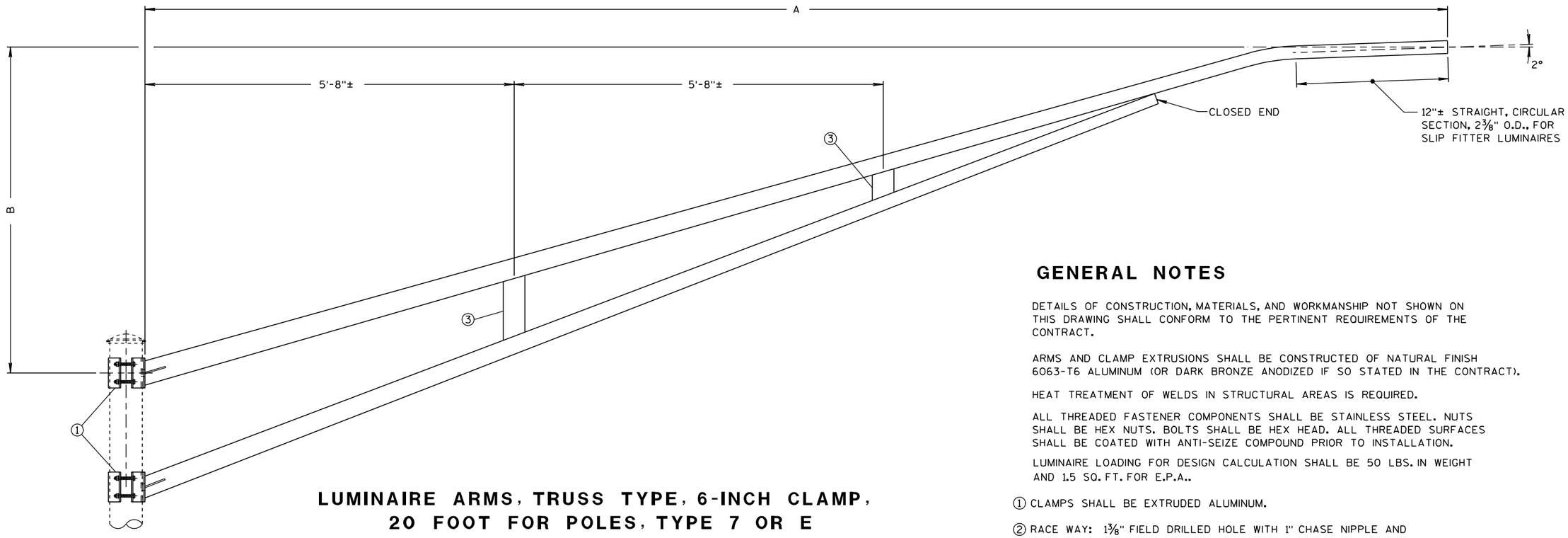
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S.D.D. 10 A 18-4a



LUMINAIRE ARMS, TRUSS TYPE, 6-INCH CLAMP, 20 FOOT FOR POLES, TYPE 7 OR E

UPPER AND LOWER TRUSS CHORD CLAMPS SIMILIAR

TYPE	DIM. A NOMINAL ARM LENGTH (FT)	DIM. B APPROX. RISE (FT)
TRUSS TYPE	20.0	5.0

GENERAL NOTES

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

ARMS AND CLAMP EXTRUSIONS SHALL BE CONSTRUCTED OF NATURAL FINISH 6063-T6 ALUMINUM (OR DARK BRONZE ANODIZED IF SO STATED IN THE CONTRACT).

HEAT TREATMENT OF WELDS IN STRUCTURAL AREAS IS REQUIRED.

ALL THREADED FASTENER COMPONENTS SHALL BE STAINLESS STEEL. NUTS SHALL BE HEX NUTS. BOLTS SHALL BE HEX HEAD. ALL THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE COMPOUND PRIOR TO INSTALLATION.

LUMINAIRE LOADING FOR DESIGN CALCULATION SHALL BE 50 LBS. IN WEIGHT AND 1.5 SQ. FT. FOR E.P.A..

① CLAMPS SHALL BE EXTRUDED ALUMINUM.

② RACE WAY: 1⅜" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET) PER EACH REQUIRED LUMINAIRE ARM. PROVIDE 1½" HOLE IN CLAMP EXTRUSION TO CONTINUE RACEWAY. NOTE: NO RACEWAY ON LOWER TRUSS CORD CLAMP. FOR INFORMATION ONLY.

③ STIFFENER.

④ GUSSETS REQUIRED.

⑤ CLAMP BOLT ASSEMBLY (BOLT - ½"-13 UNC, 2 EACH - FLAT WASHER, LOCK WASHER, NUT) - 4 EACH PER CLAMP.

LUMINAIRE ARMS, TRUSS TYPE 6-INCH CLAMP

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10/25/2010 DATE

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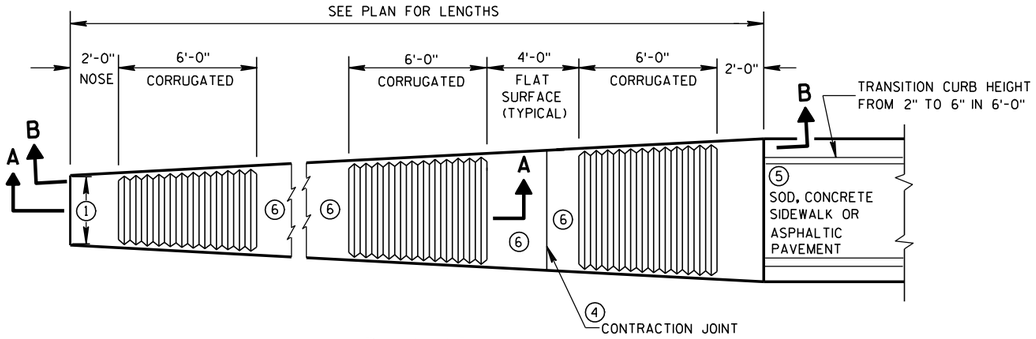
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HWYS

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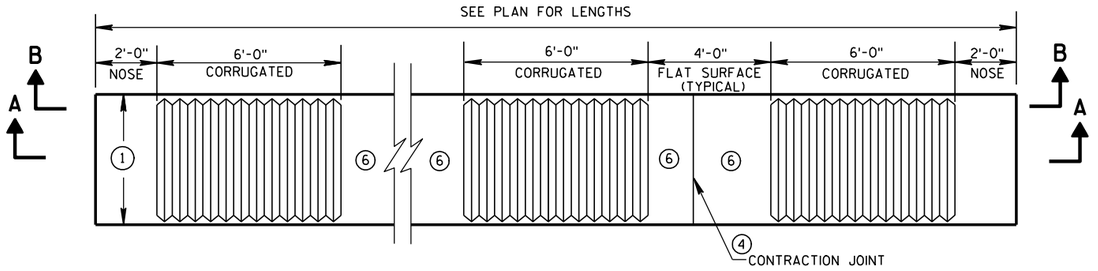
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S.D.D. 10 A 18-4b



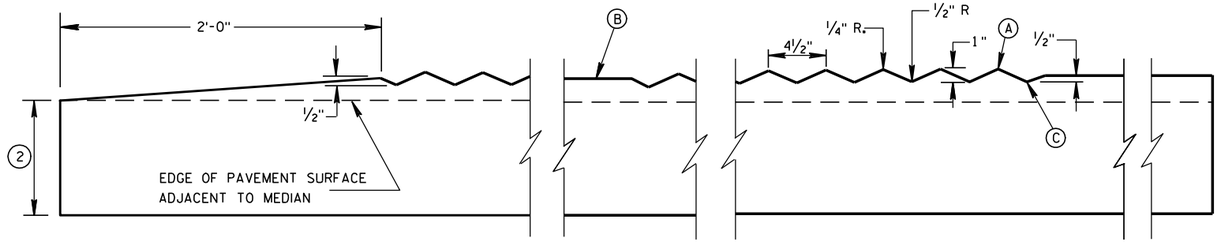
PLAN VIEW

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.

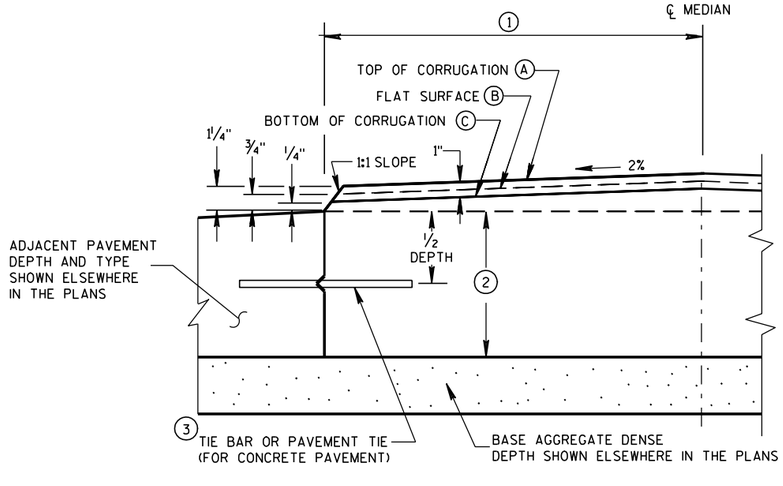
INSTALL TIE BARS TO MAINTAIN A MINIMUM OF 3-INCHES OF COVER BETWEEN THE TIE BAR AND THE CONCRETE SURFACE (BOTTOM AND TOP).

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.

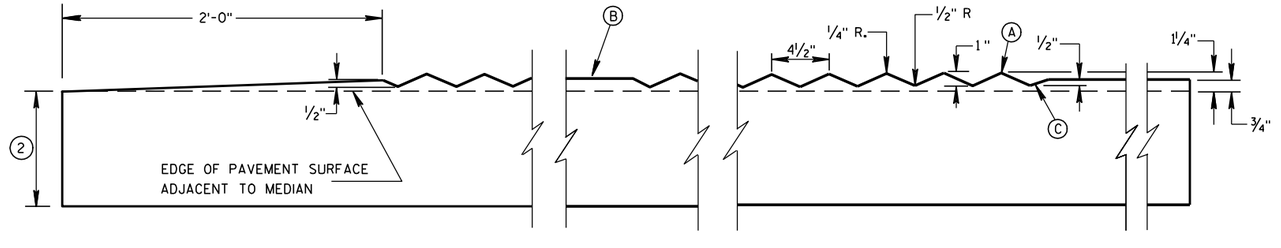
(5) SURFACE TYPE AND DETAILS ARE DEFINED ELSEWHERE IN THE PLAN.

(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

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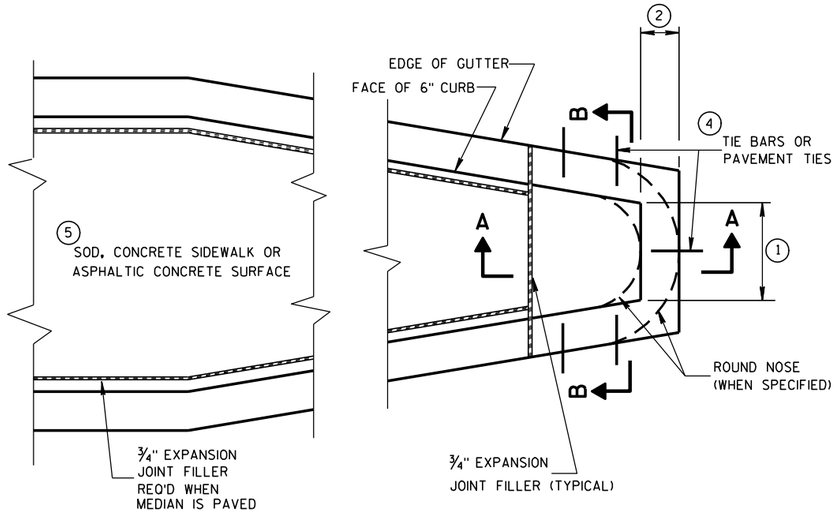
12/17/07 — DATE

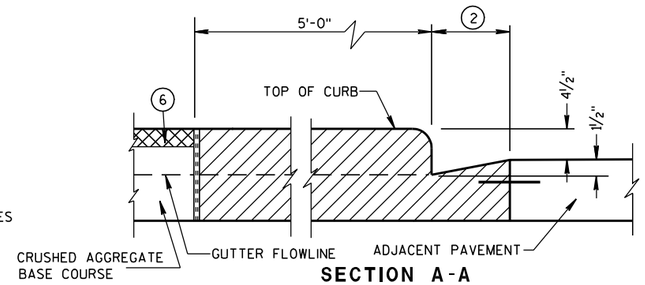
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

FHWA

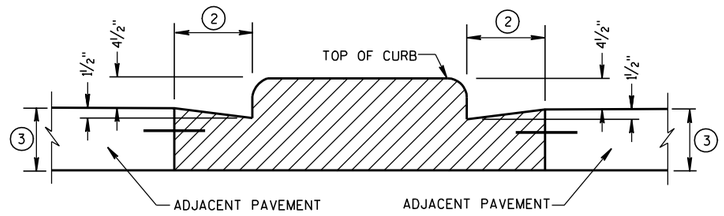
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S.D.D. 11 B 1-5





SECTION A-A



SECTION B-B

CONCRETE MEDIAN BLUNT NOSE 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.

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

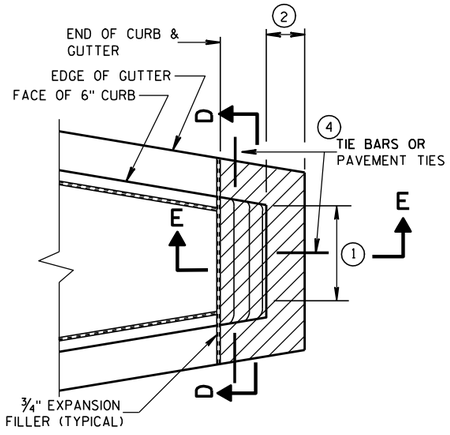
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

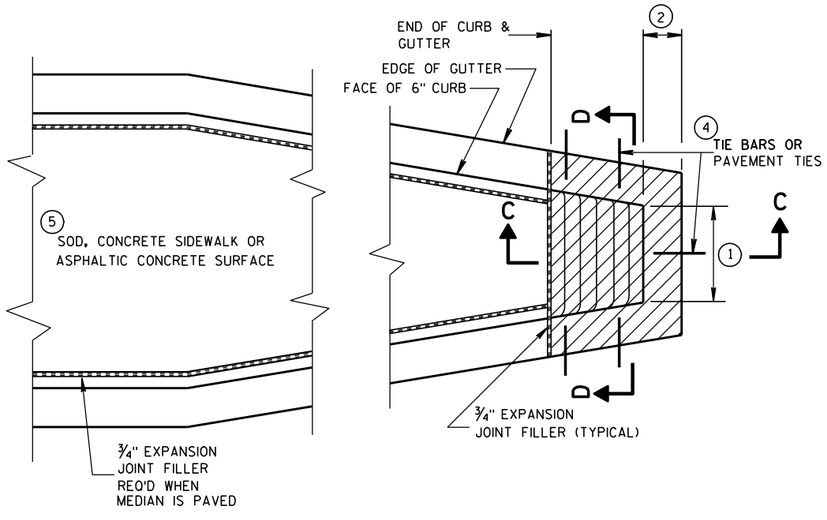
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

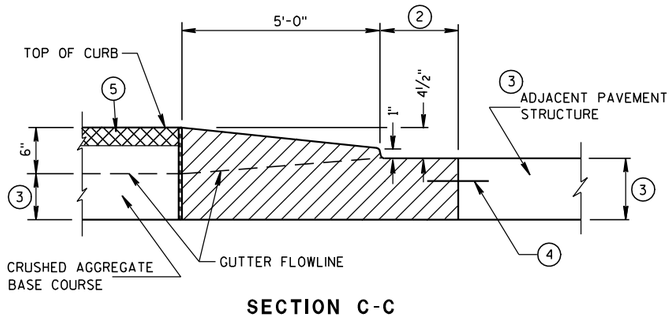
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING 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.

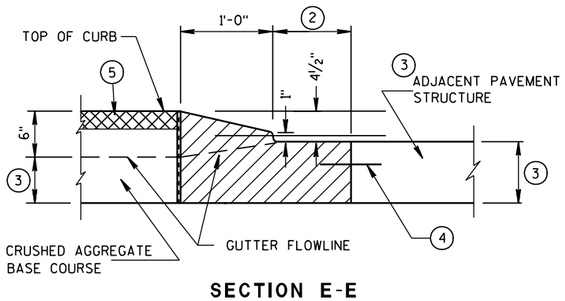
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.







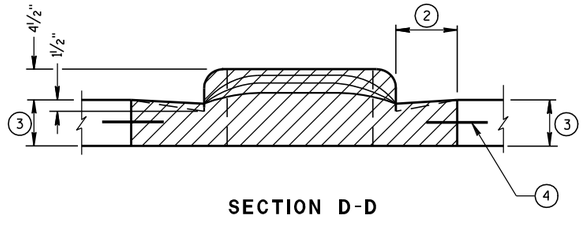
SECTION C-C



SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 1

CONCRETE MEDIAN SLOPED NOSE TYPE 2



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/8/2006
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

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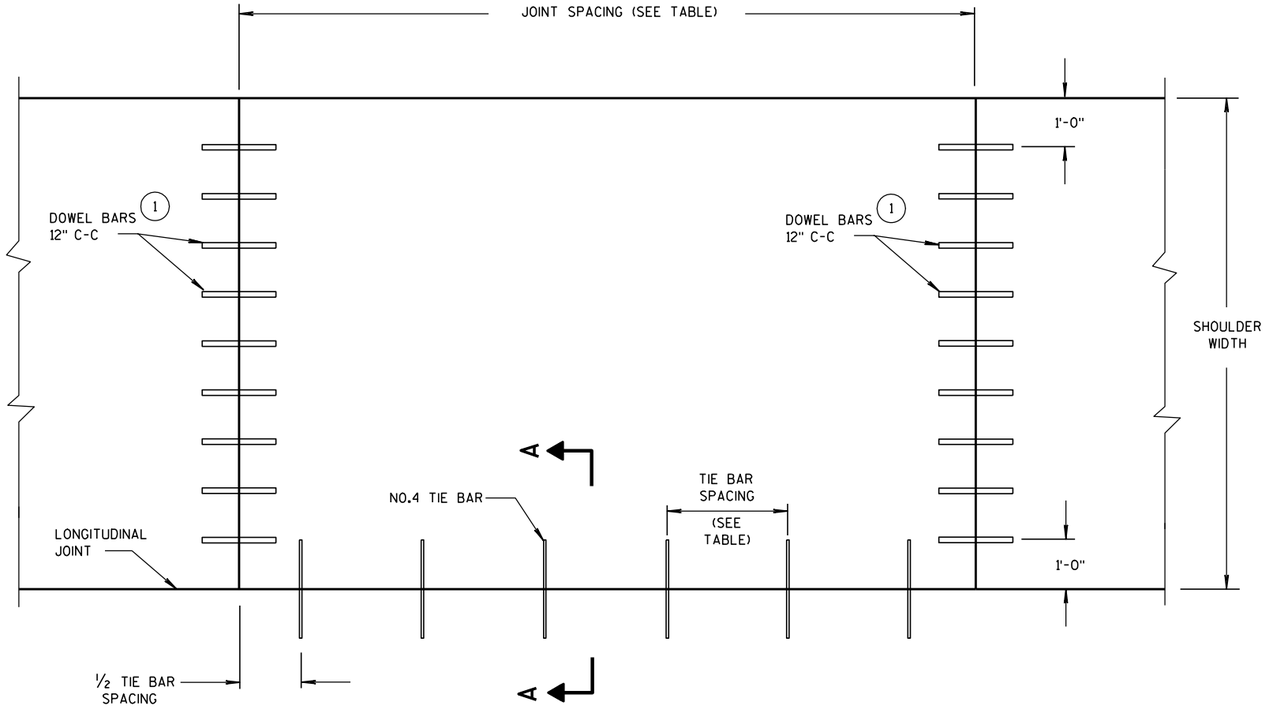
FHWA

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S.D.D. 11 B 2-2

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S.D.D. 11 B 2-2



PLAN VIEW

CONCRETE PAVEMENT SHOULDER

PAVEMENT TYPE OF TRAFFIC LANES	TIE BAR SPACING	SHOULDER JOINT SPACING
NON-REINFORCED	30"	MATCH JOINT SPACING OF ADJACENT TRAFFIC LANE
CONTINUOUSLY REINFORCED	30"	15' FOR 6' TO 10' WIDE SHOULDERS
CONTINUOUSLY REINFORCED	36"	12' FOR 3' WIDE SHOULDERS

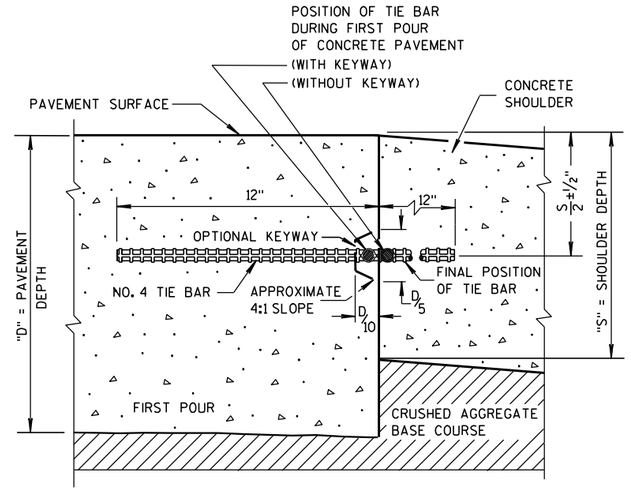
GENERAL NOTES

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.

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT

(1)

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'

FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FOR THE AVERAGE THICKNESS OF THE CROSS SECTION.

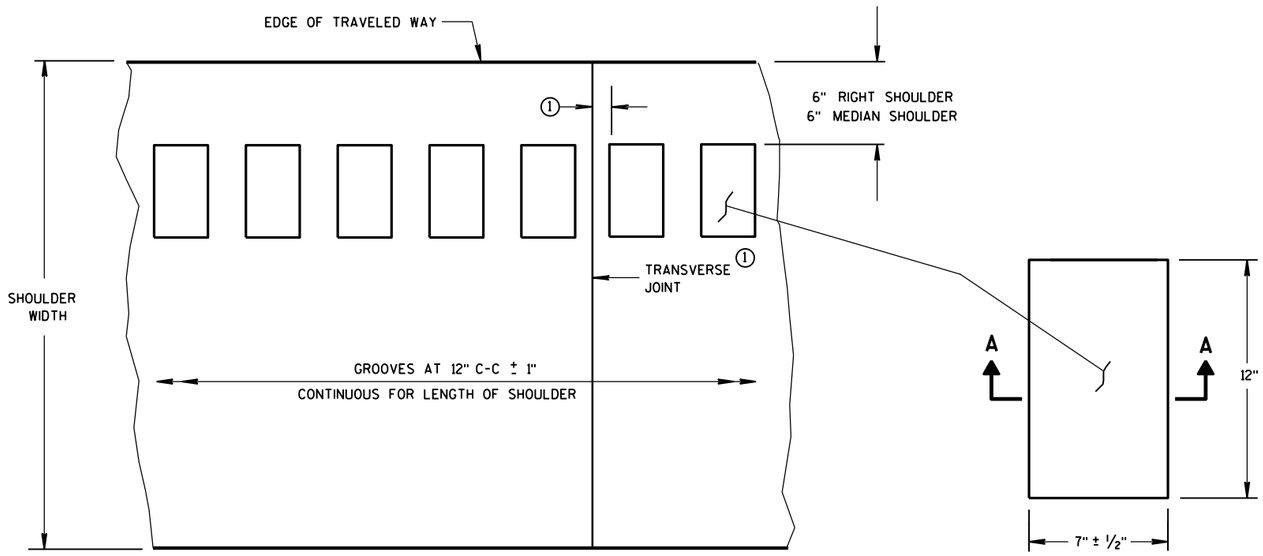
CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/15/2011 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & D — INEER
FHWA

6

S.D.D. 13 A 3-5



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

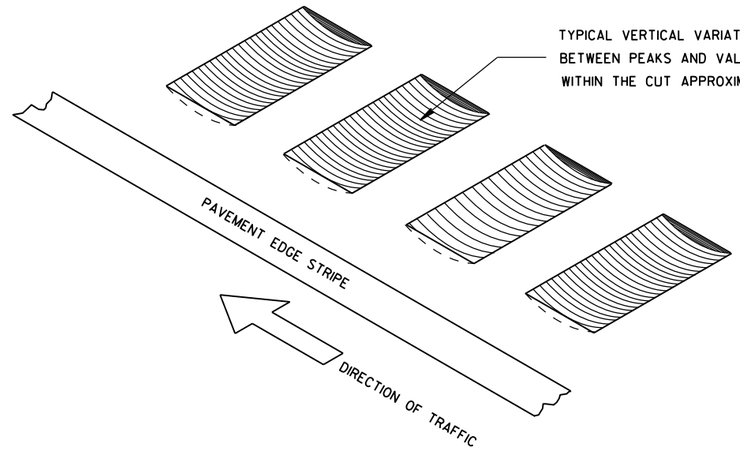
GENERAL NOTES

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

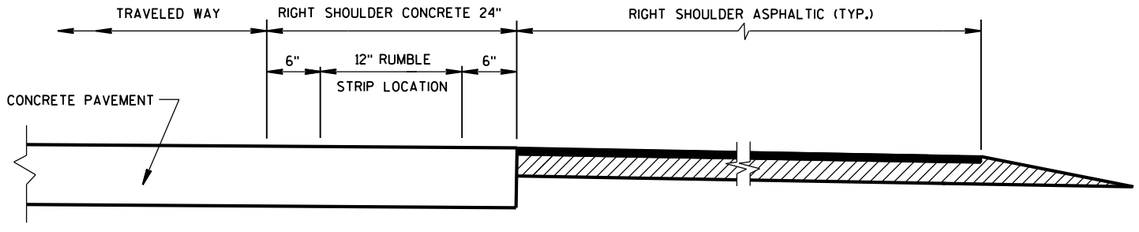
RUMBLE STRIPS ON EXPRESSWAYS

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

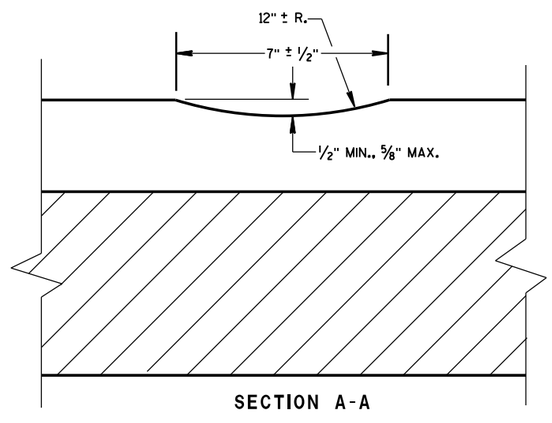
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



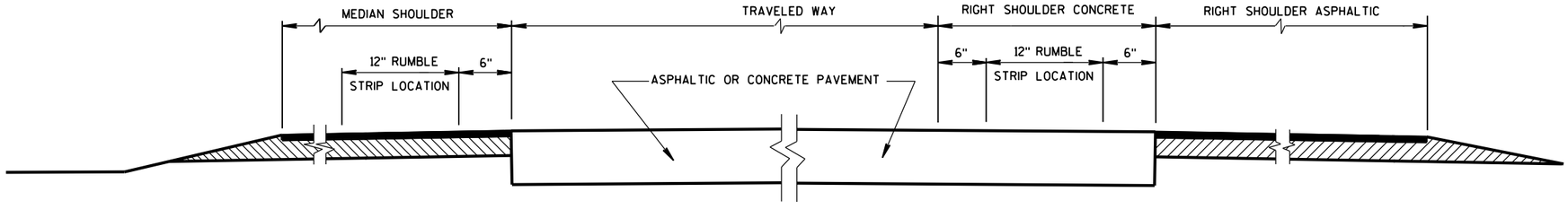
ISOMETRIC



SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION A-A



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)

SHOULDER RUMBLE STRIP, MILLING

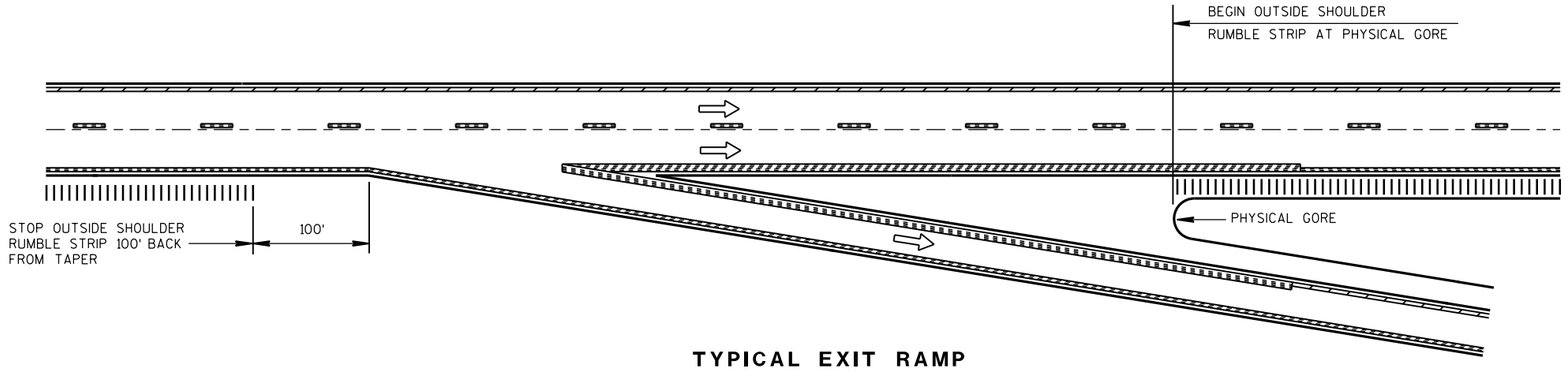
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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

6

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



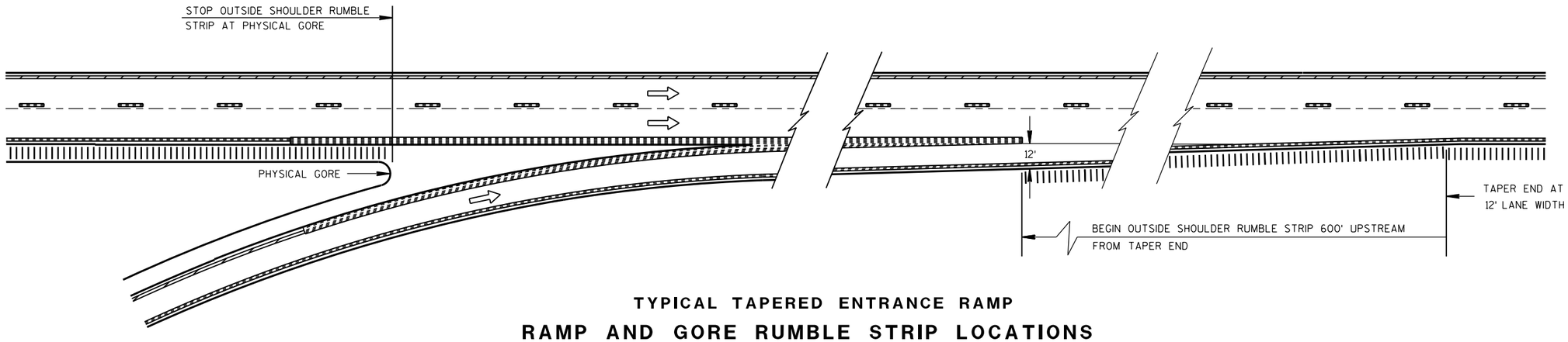
TYPICAL EXIT RAMP

NOTES:

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

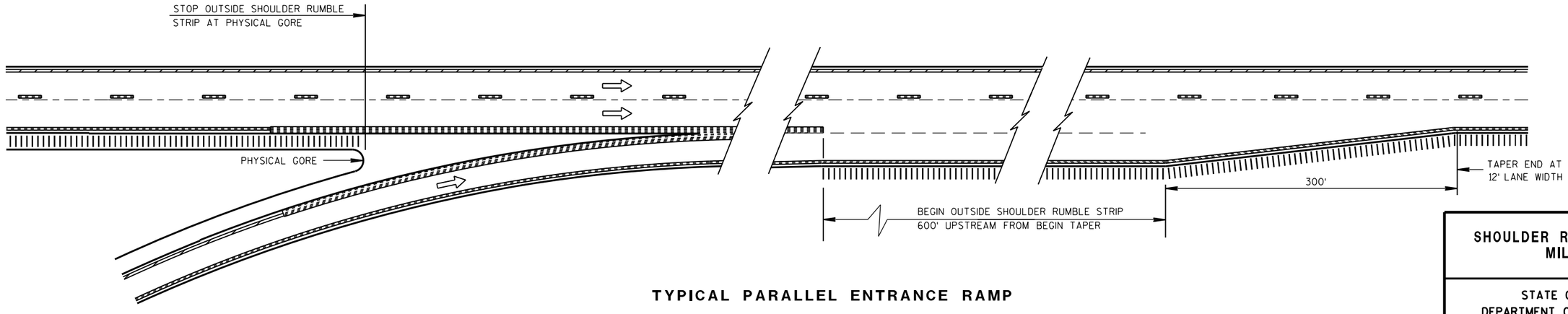
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

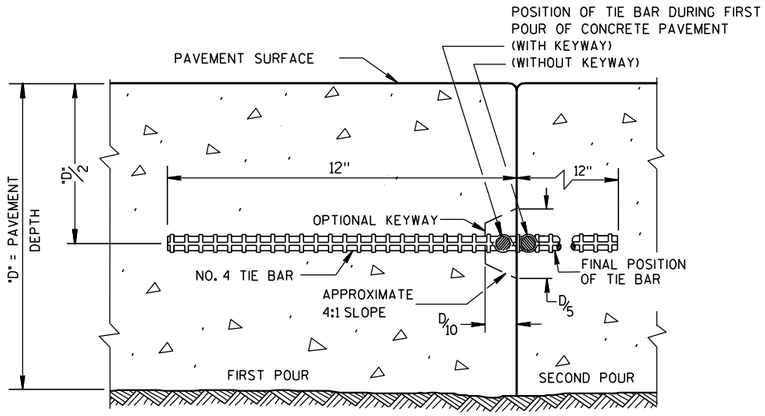
APPROVED
12/17/2012 DATE
/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER
FHWA

6

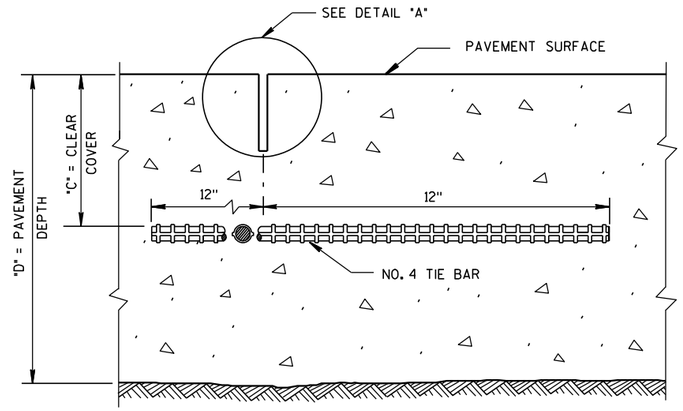
S.D.D. 13 A 5-5b

6

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



CONSTRUCTION JOINT



SAWED JOINT

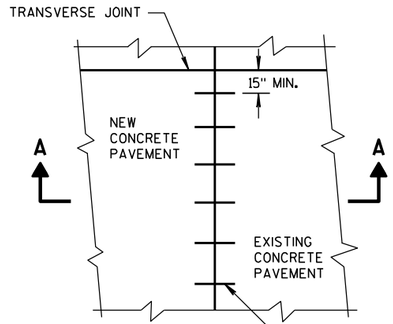
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

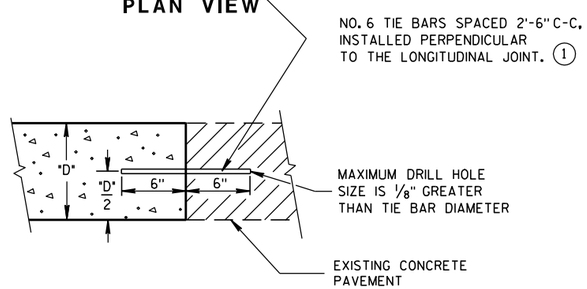
CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

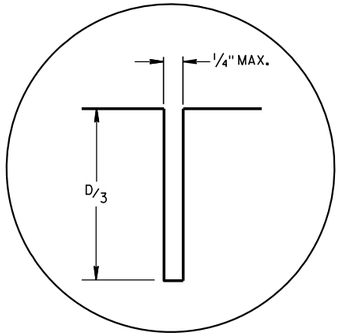
(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

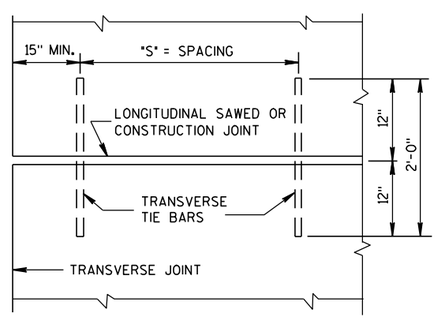


SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"

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

10-5-2010
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DI 320 INEER

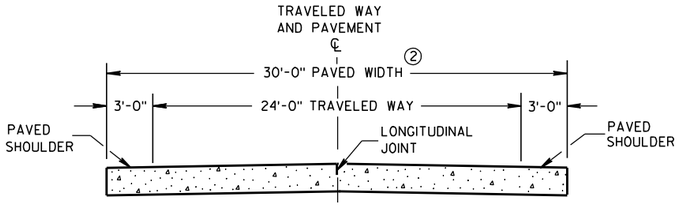
FHWA

6

S.D.D. 13 C 1-15

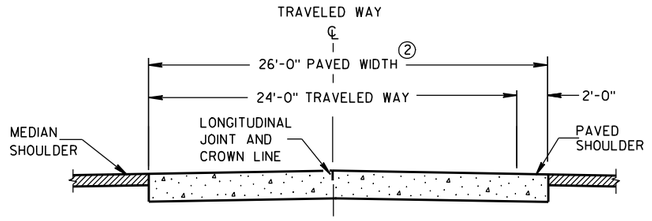
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S.D.D. 13 C 1-15

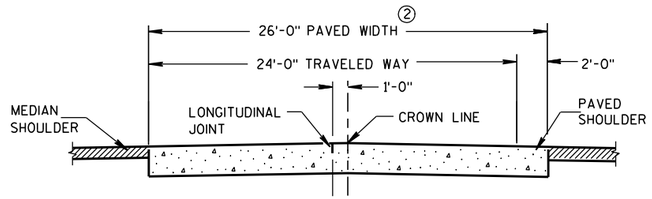


SECTION A-A ①

TWO-LANE TWO-WAY HIGHWAY



SECTION B-B



ALTERNATIVE SECTION B-B

①

DIVIDED HIGHWAY

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT 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, CENTER THE DOWEL ASSEMBLY ACROSS THE LANES. LOCATE THE INNER AND OUTER MOST DOWEL BARS SO THAT THE CENTER OF THE BARS ARE A MINIMUM OF 6 INCHES AND A MAXIMUM OF 12 INCHES FROM THE LONGITUDINAL JOINT AND THE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 4 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

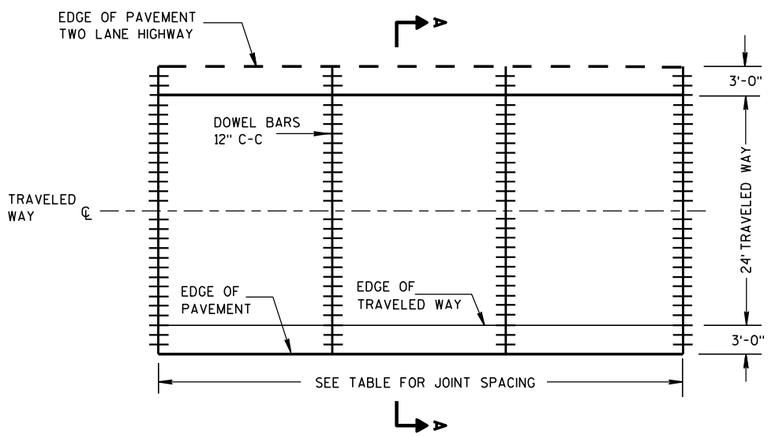
THE CONTRACTOR MAY INSERT TIE BARS THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN PLACED.

① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.

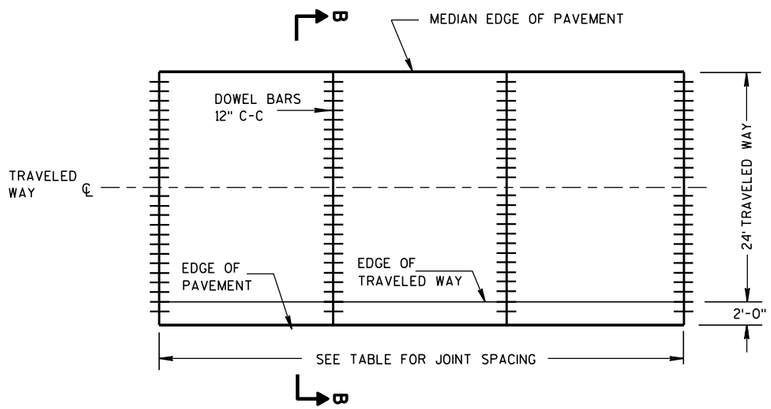
② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED PAVED SHOULDER AS CONCRETE PAVEMENT.

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'



CONTRACTION JOINT LAYOUT FOR TWO-LANE TWO-WAY HIGHWAY

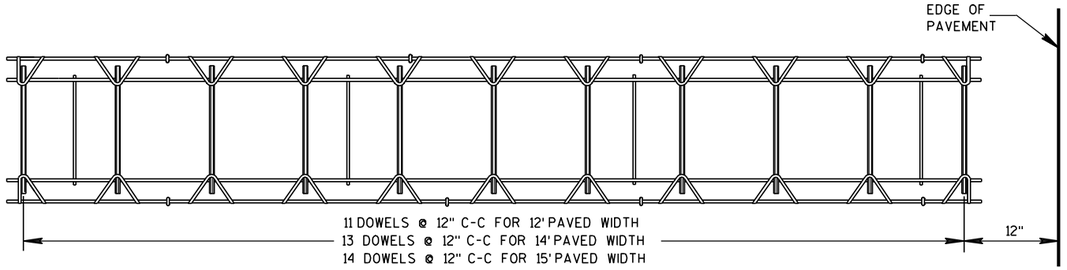


CONTRACTION JOINT LAYOUT FOR DIVIDED HIGHWAY

RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 13 C 11-10a



PLAN VIEW

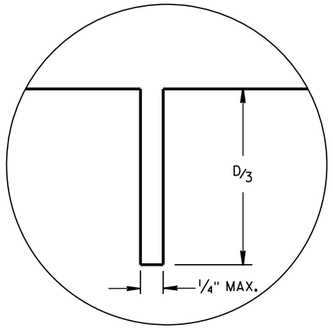


⑤

SIDE VIEW

(NORMAL TO CENTERLINE)

CONTRACTION JOINT DOWEL ASSEMBLY ①



JOINT DETAIL

GENERAL NOTES

① THE ENGINEER MAY APPROVE THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. THE CONTRACTOR MAY USE MECHANICAL DOWEL BAR INSERTERS INSTEAD OF DOWEL ASSEMBLIES.

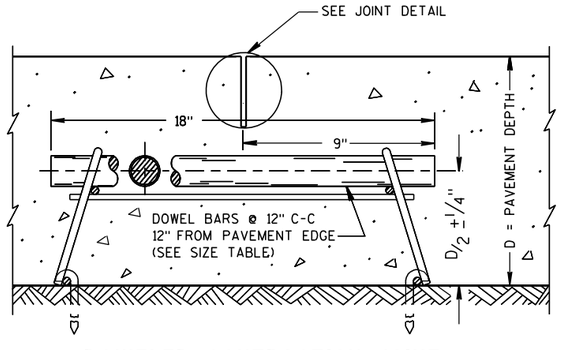
② ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY.

③ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

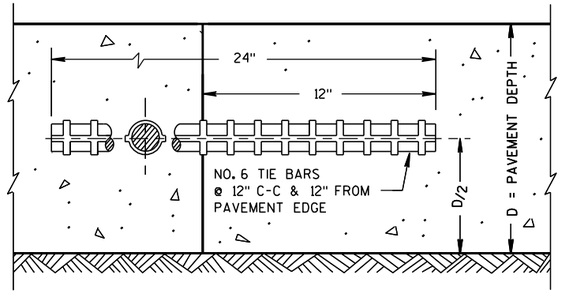
④ SPACE DOWEL BARS INSTALLED BY DRILLING 1'-3" ON CENTER. CENTER THE GROUPING OF DOWEL BARS INSIDE THE SLAB BASED ON ALL THE FOLLOWING SITUATIONS:

BETWEEN THE EDGES OF PAVEMENTS WITHOUT LONGITUDINAL JOINTS OR BETWEEN THE EDGE OF PAVEMENT AND NEAREST LONGITUDINAL JOINT OR BETWEEN TWO ADJACENT LONGITUDINAL JOINTS.

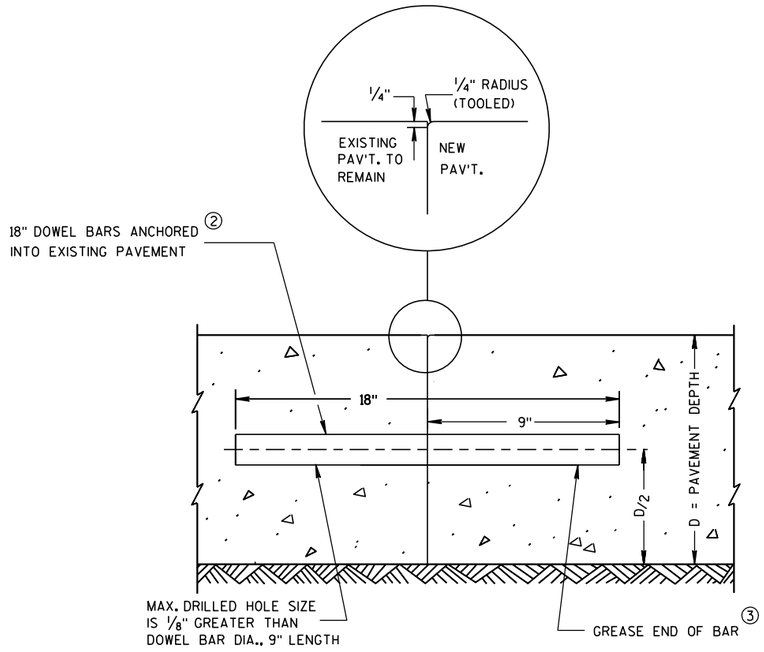
⑤ SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.



DOWELED CONTRACTION JOINT



CONSTRUCTION JOINT



TRANSVERSE CONTRACTION JOINTS ABUTTING EXISTING PAVEMENT

④ **DOWEL BAR DETAIL**

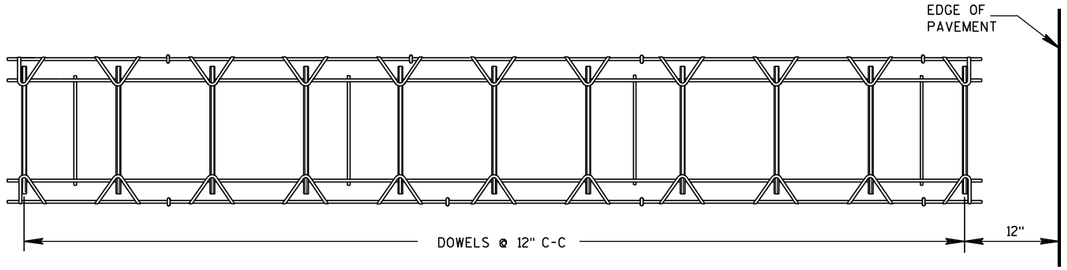
RIRAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/11/09 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & DESIGNER
FHWA

6

S.D.D. 13 C 11-10b

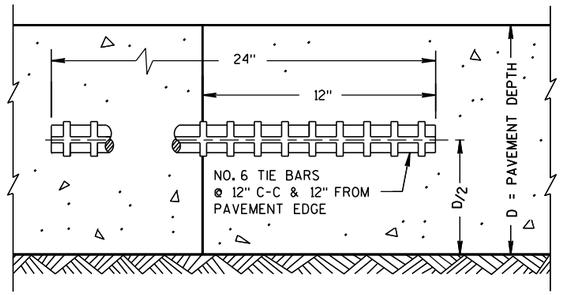


PLAN VIEW



SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



TRANSVERSE CONSTRUCTION JOINT

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT 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, CENTER THE DOWEL ASSEMBLY ACROSS THE LANES. LOCATE THE INNER AND OUTER MOST DOWEL BARS SO THAT THE CENTER OF THE BARS ARE A MINIMUM OF 6 INCHES AND A MAXIMUM OF 12 INCHES FROM THE LONGITUDINAL JOINT AND THE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 4 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

THE CONTRACTOR MAY INSERT TIE BARS THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN PLACED.

① THE ENGINEER MAY APPROVE THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. THE CONTRACTOR MAY USE MECHANICAL DOWEL BAR INSERTERS INSTEAD OF DOWEL ASSEMBLIES.

② ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY.

③ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

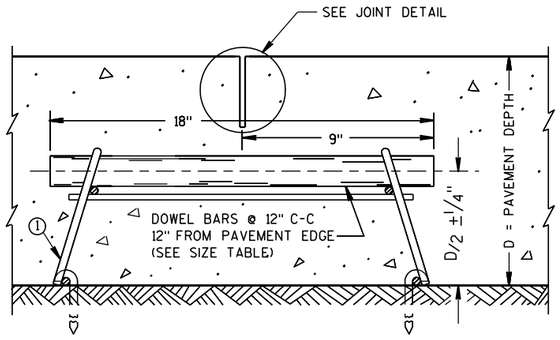
④ SPACE DOWEL BARS INSTALLED BY DRILLING 1'-3" ON CENTER. CENTER THE GROUPING OF DOWEL BARS INSIDE THE SLAB BASED ON ALL THE FOLLOWING SITUATIONS:

BETWEEN THE EDGES OF PAVEMENTS WITHOUT LONGITUDINAL JOINTS OR BETWEEN THE EDGE OF PAVEMENT AND NEAREST LONGITUDINAL JOINT OR BETWEEN TWO ADJACENT LONGITUDINAL JOINTS.

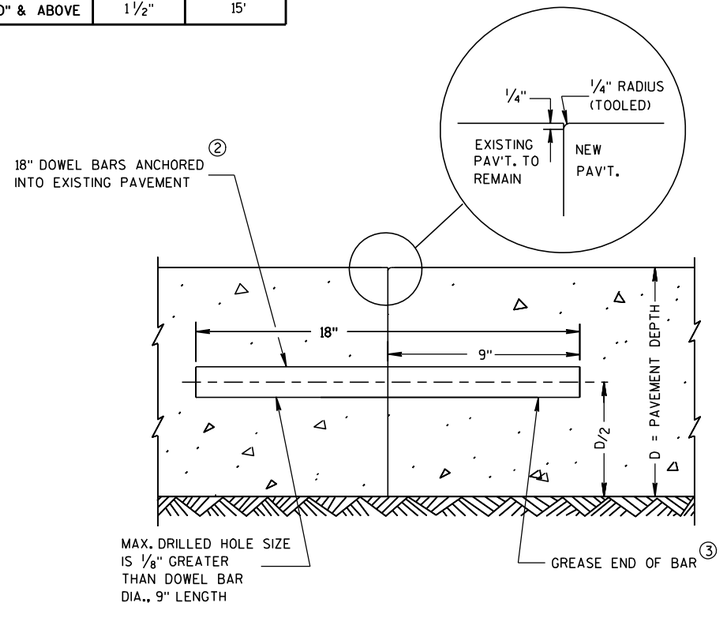
⑤ SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

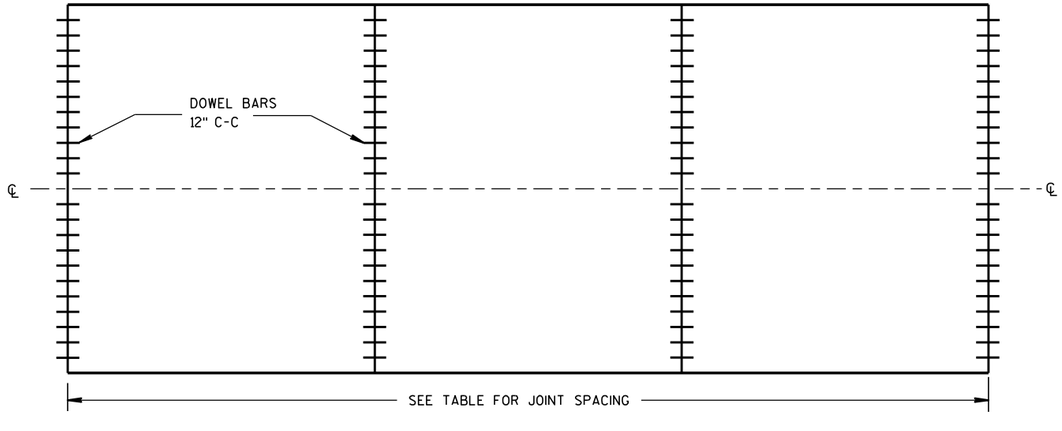


DOWELED CONTRACTION JOINT

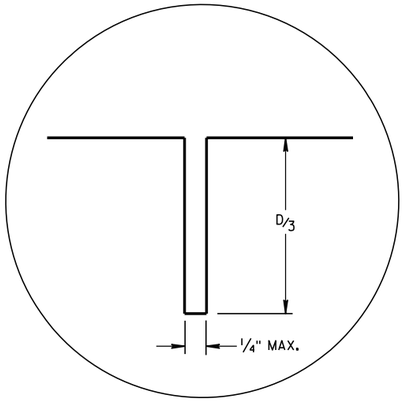


TRANSVERSE CONTRACTION JOINTS ABUTTING EXISTING PAVEMENT

④ DOWEL BAR DETAIL



CONTRACTION JOINT LOCATIONS



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

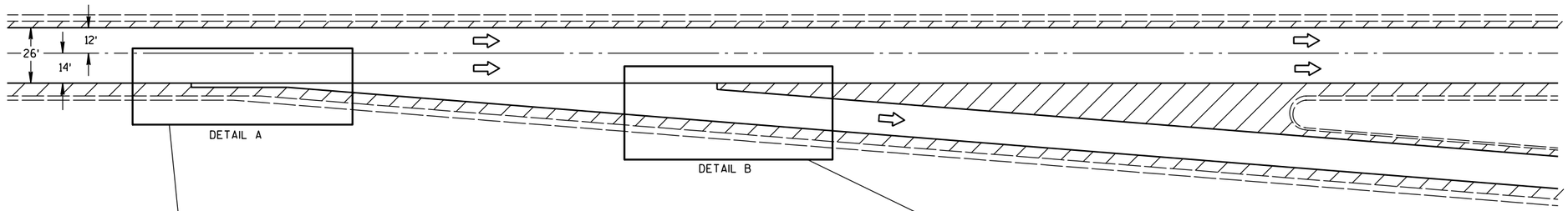
APPROVED
12/11/2009 DATE
/S/ Deb Bischoff PAVEMENT POLICY & DE
NEER
FHWA

6

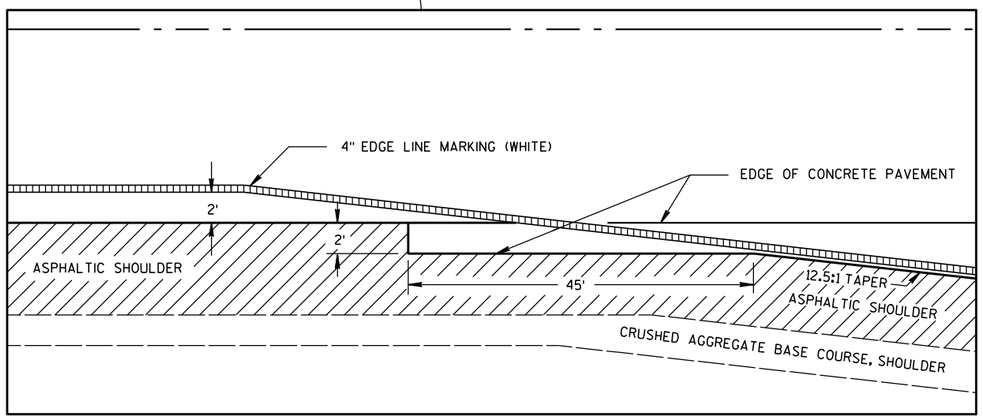
S.D.D. 13 C 13-7

6

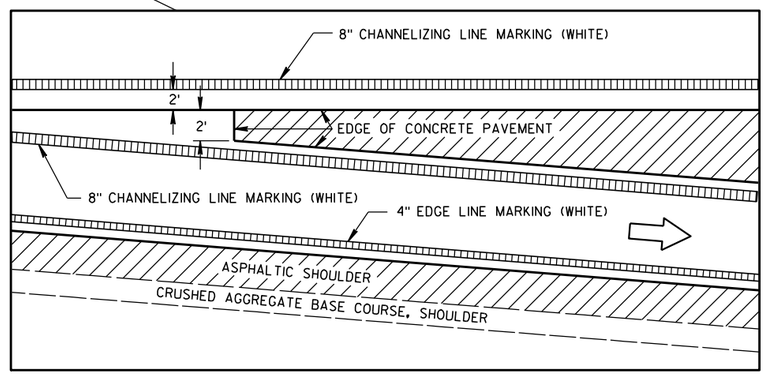
S.D.D. 13 C 13-7



EXIT RAMP DETAIL



DETAIL A



DETAIL B

CONCRETE JOINT PAVING DETAILS

GENERAL NOTES

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

SEE SDD 13 A 4-4c OR SDD 13 A 5-1b FOR RAMP AND GORE RUMBLE STRIP LOCATION.

CONCRETE JOINT DETAIL FOR EXIT RAMP TERMINI

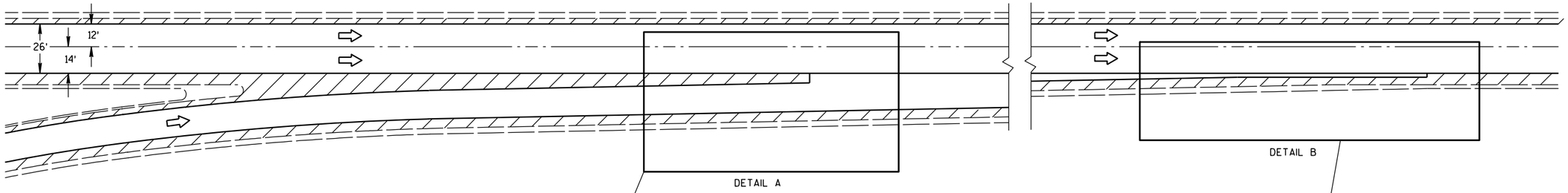
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

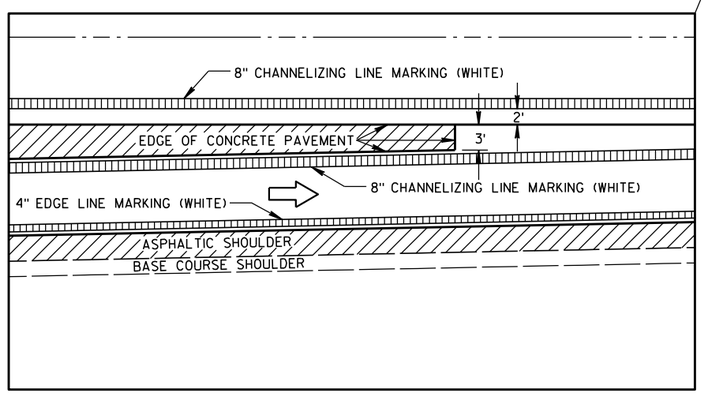
S.D.D. 13 C 17-1a

6

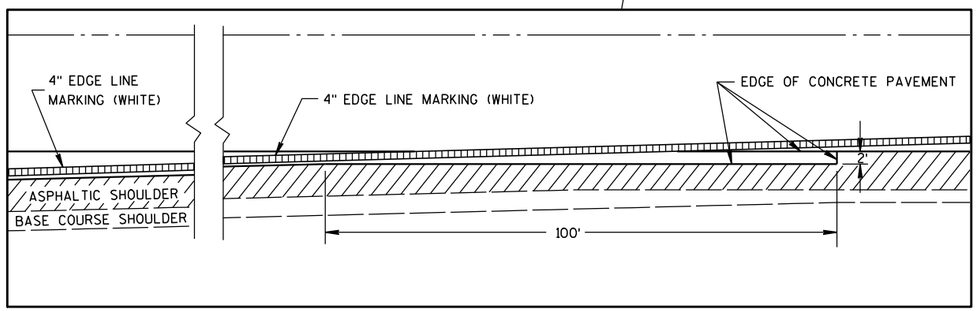
S.D.D. 13 C 17-1a



ENTRANCE RAMP DETAIL



DETAIL A



DETAIL B

CONCRETE JOINT PAVING DETAILS

GENERAL NOTES

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

SEE SDD 13 A 4-4c OR SDD 13 A 5-1b FOR RAMP AND GORE RUMBLE STRIP LOCATION.

CONCRETE JOINT DETAIL FOR ENTRANCE RAMP TERMINI

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/27/98
DATE

/S/ Rory L. Rhi[illegible]
CHIEF ROADWAY DEVELOP[illegible]INEER

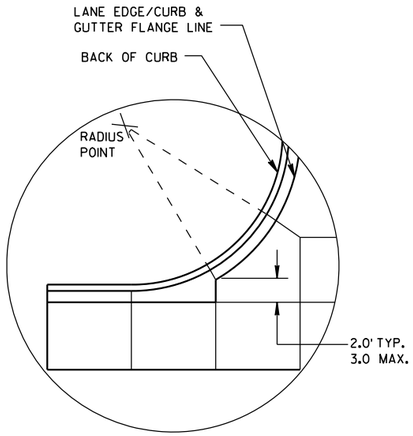
FHWA

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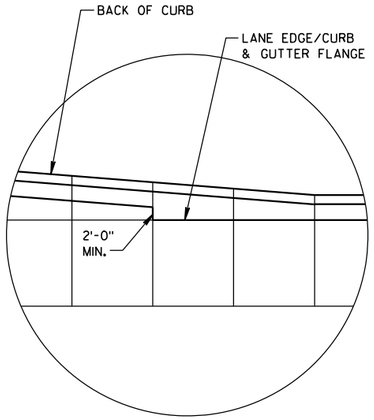
S.D.D. 13 C 17-1b

6

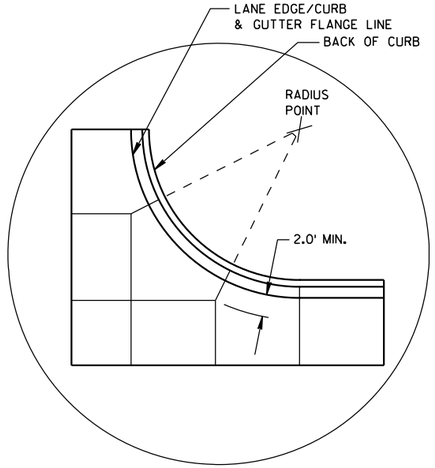
S.D.D. 13 C 17-1b



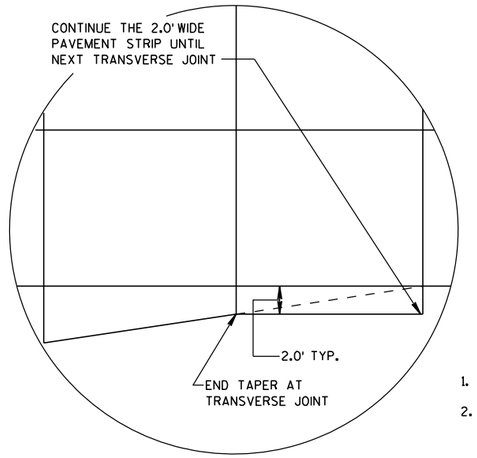
DETAIL "A"



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.

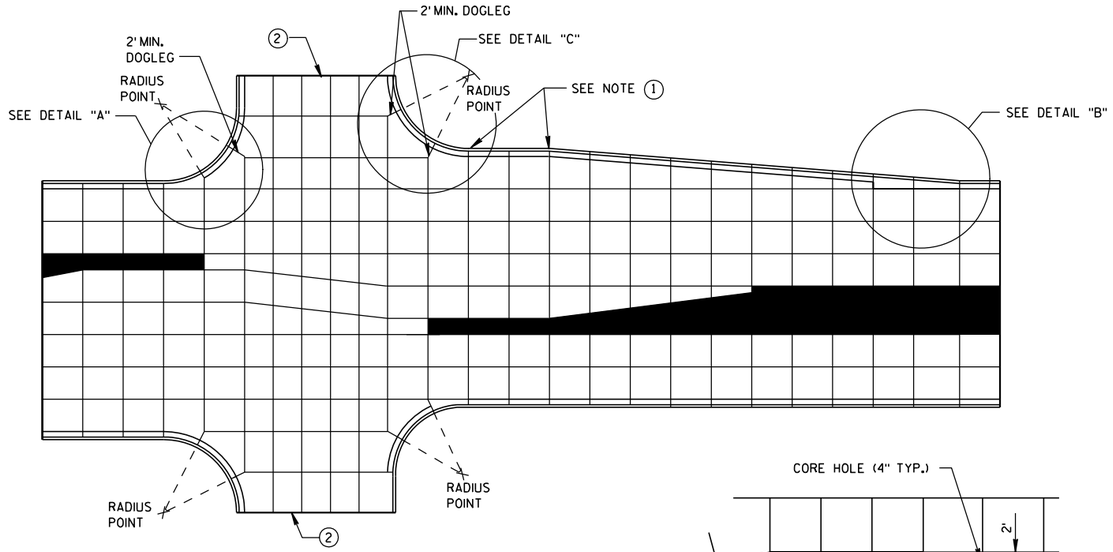
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

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.

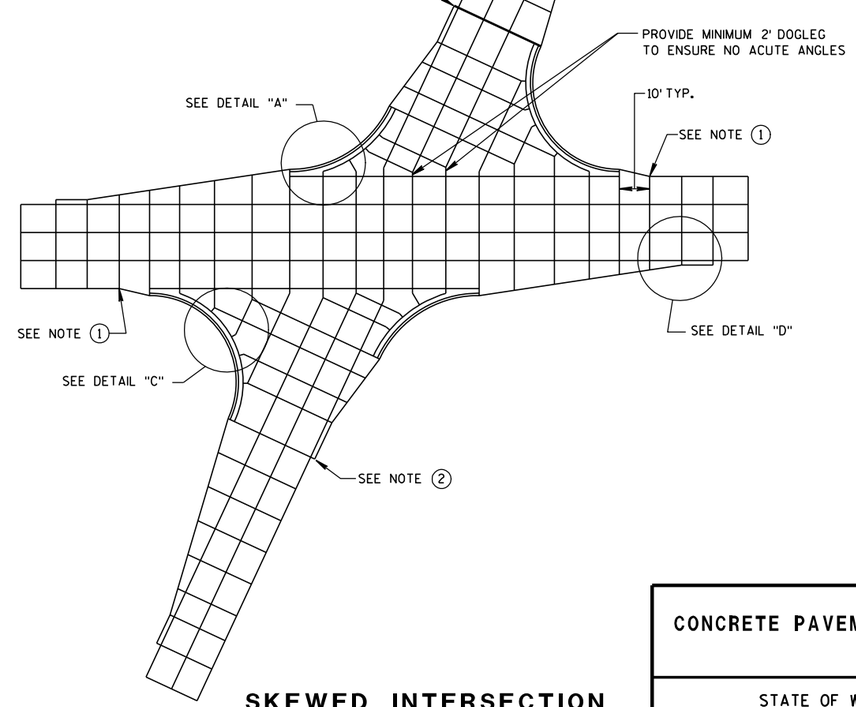
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



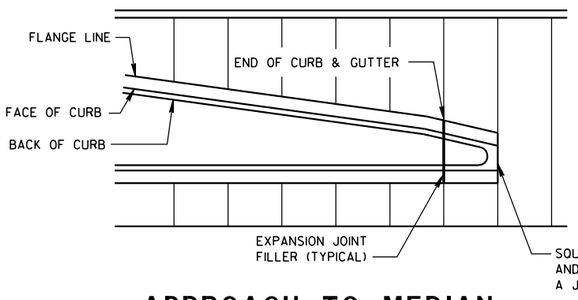
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

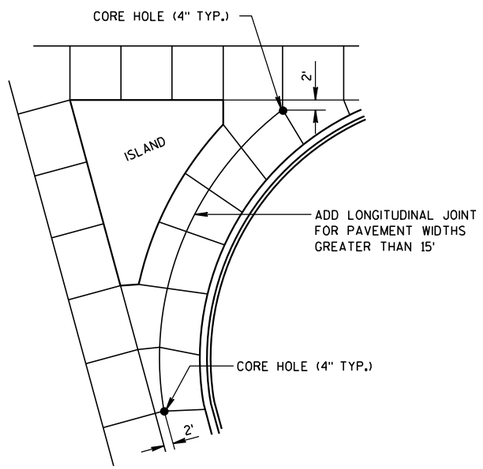
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

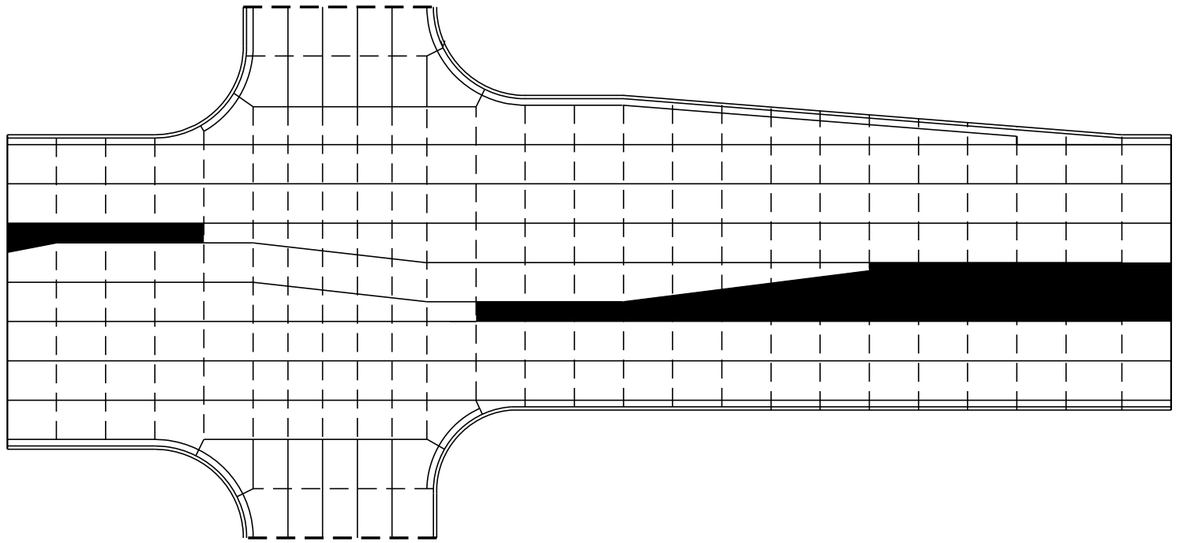
6
S.D.D. 13 C 18-1a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

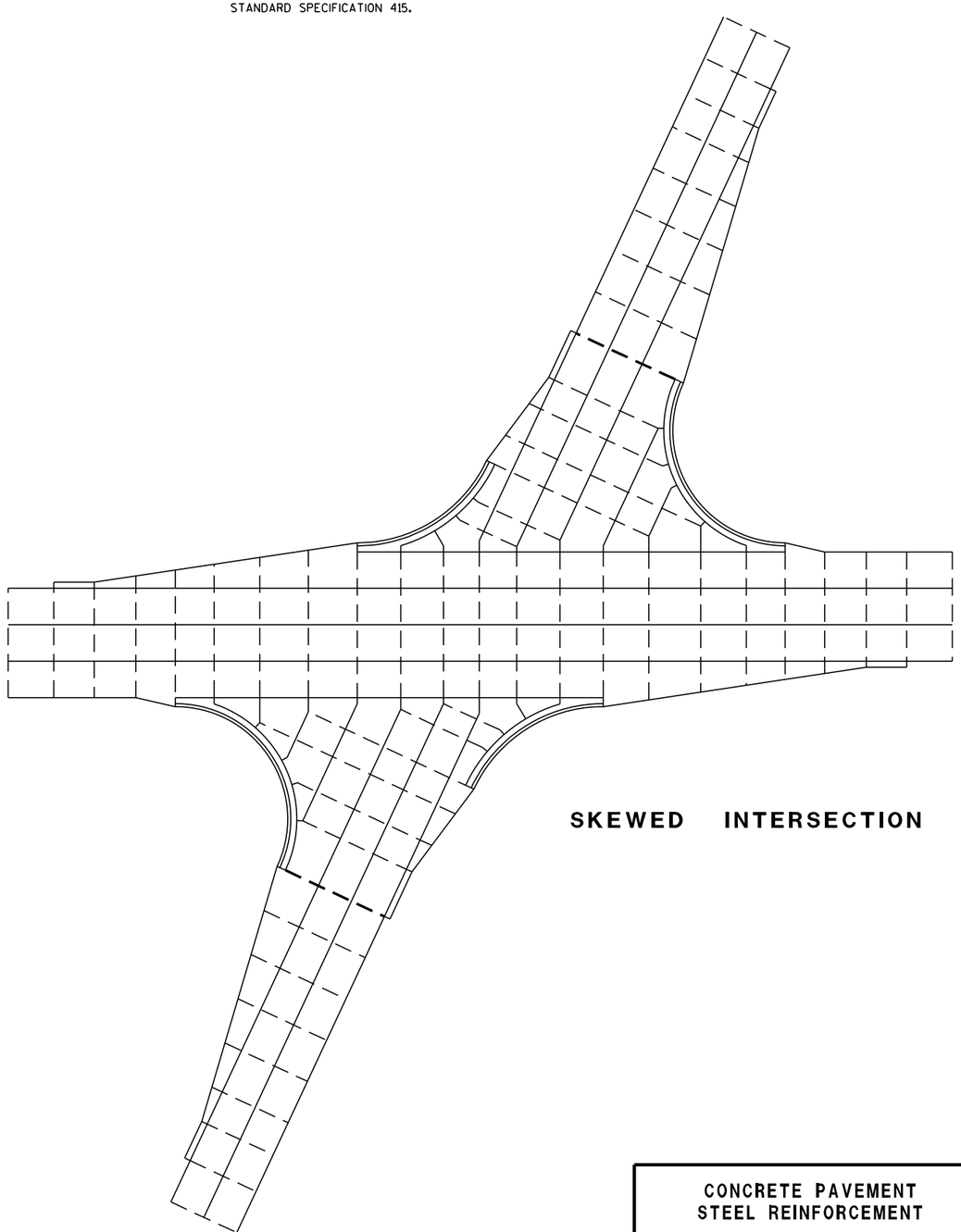
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

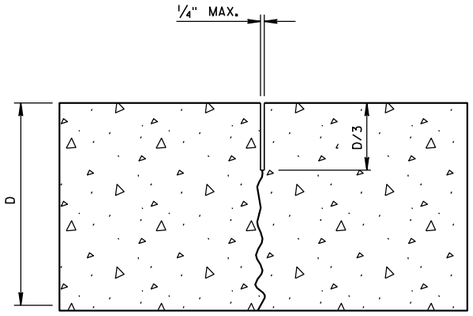
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S.D.D. 13 C 18-1b

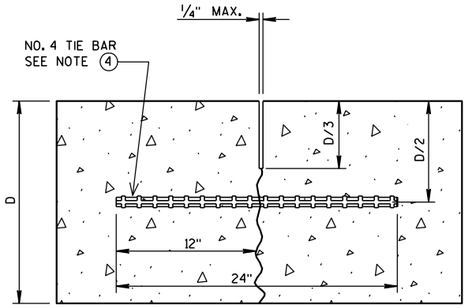
S.D.D. 13 C 18-1b

CONCRETE PAVEMENT
STEEL REINFORCEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



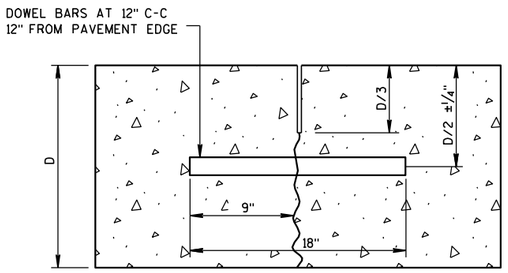
UNDOWELED-TRANSVERSE



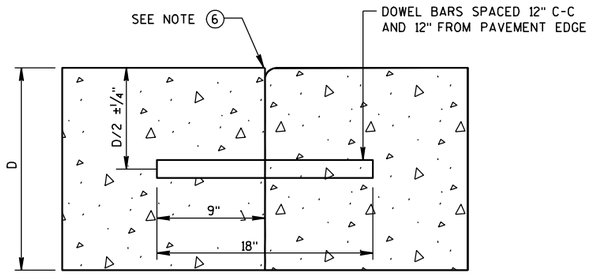
TIED LONGITUDINAL

GENERAL NOTES

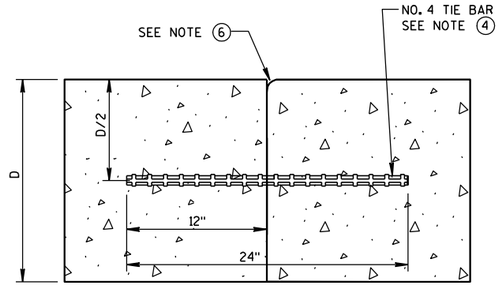
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 4 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE 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



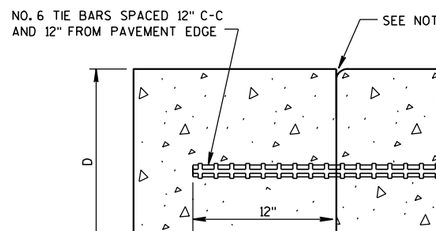
DOWELED TRANSVERSE



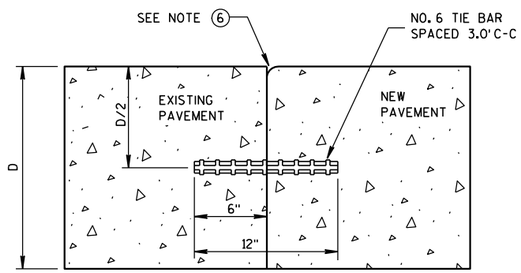
TIED LONGITUDINAL

CONTRACTION JOINTS

SEE NOTE (2)



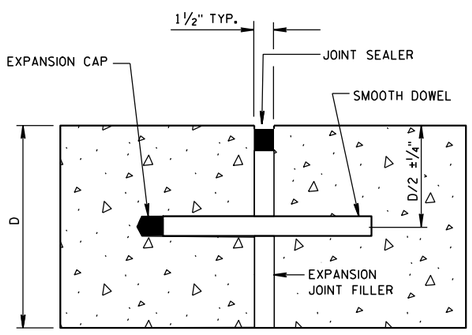
TIED TRANSVERSE
SEE NOTE (3)



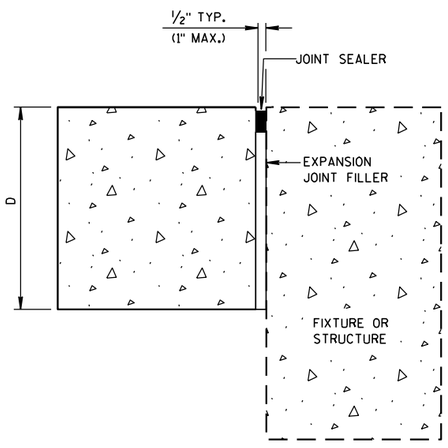
TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS

SEE NOTE (5)



DOWELED-TRANSVERSE
SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

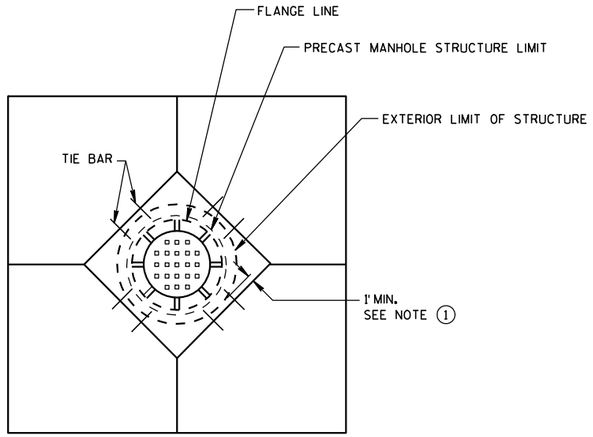
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

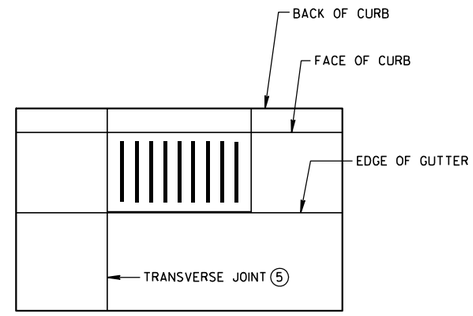
S.D.D. 13 C 18-1c

6

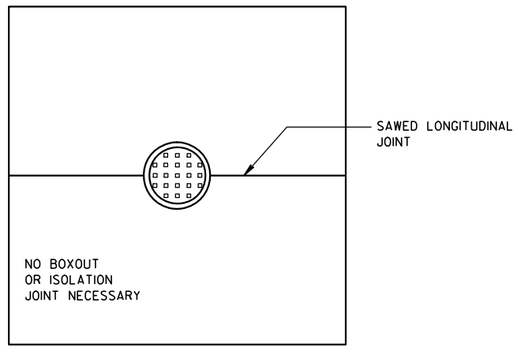
S.D.D. 13 C 18-1c



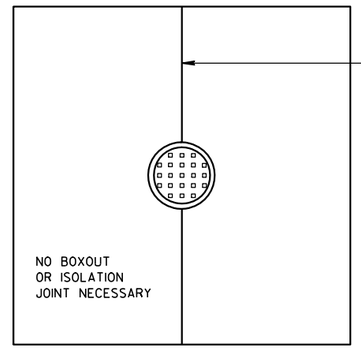
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



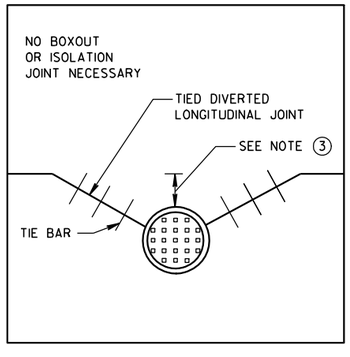
INLET WITH TRANSVERSE JOINT



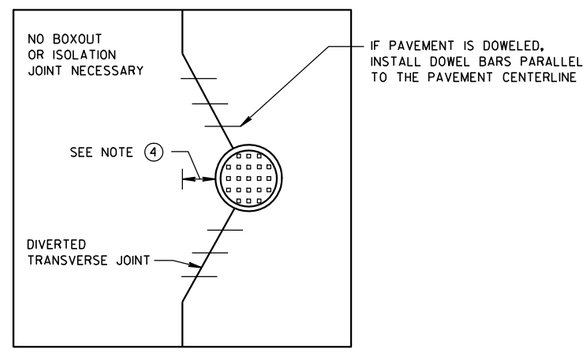
MANHOLE WITH LONGITUDINAL JOINT



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 GREATER THAN 2 FEET, DO NOT DIVERT JOINT AND SAW LONGITUDINAL JOINT AS NORMAL. IF DISTANCE IS 2 FEET OR LESS, DIVERT LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE.
4. IF DISTANCE FROM THE EDGE OF MANHOLE TO THE NEAREST TRANSVERSE JOINT IS GREATER THAN 4 FEET, REDIRECT JOINT TO INTERSECT MANHOLE. IF DISTANCE IS 4 FEET OR LESS, PLACE REBAR REINFORCEMENT AROUND 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
10-5-2010
DATE
/S/ Deb Bischoff
PAVEMENT POLICY & D 329 ENGINEER
FHWA

6
S.D.D. 13 C 18-1d

LEGEND

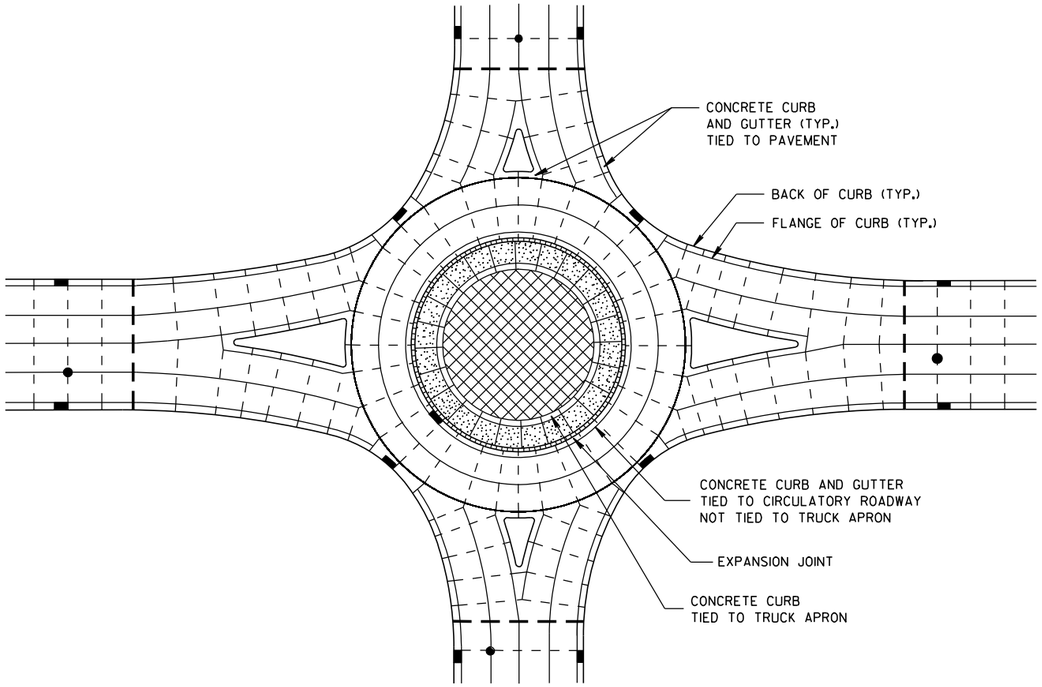
- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT
- TRUCK APRON
- CENTRAL ISLAND
- UTILITY STRUCTURES

GENERAL NOTES

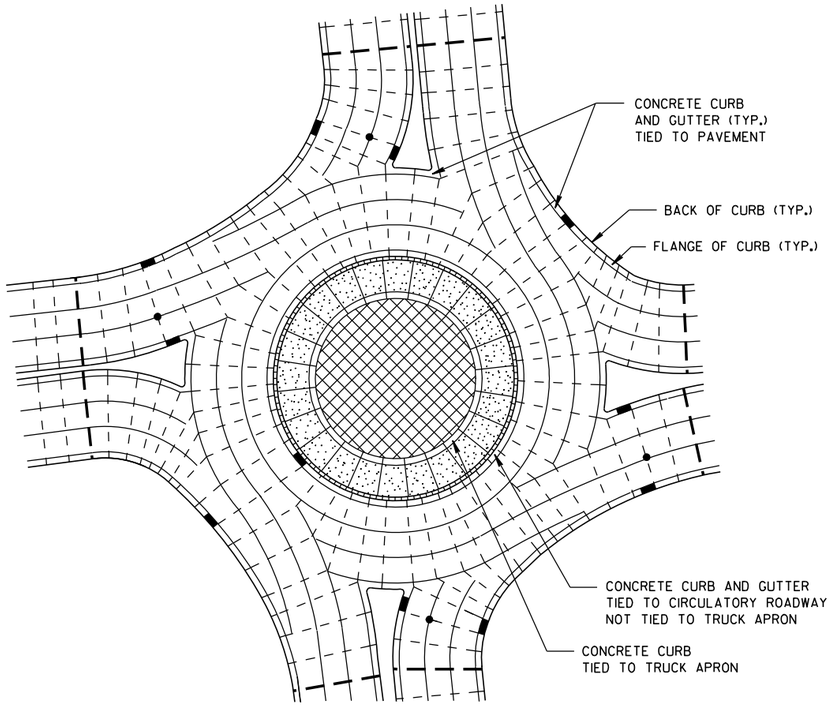
MAXIMUM JOINT SPACING IS IN ACCORDANCE WITH THE TABLE SHOWN ON SDD 13C18-1a.

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.

DO NOT DOWEL OR TIE THE TRUCK APRON TRANSVERSE JOINTS.



ISOLATED CIRCLE JOINT LAYOUT FOR ROUNDABOUTS



PINWHEEL JOINT LAYOUT FOR ROUNDABOUTS

CONCRETE PAVEMENT JOINTING AND STEEL REINFORCEMENT IN ROUNDABOUTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

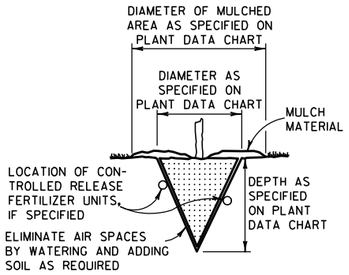
10-5-2010 DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DI 330 INEER

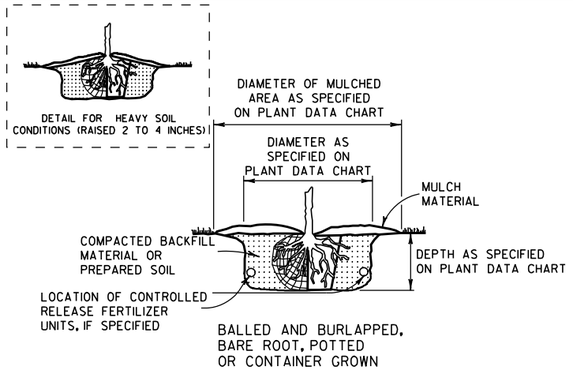
FHWA

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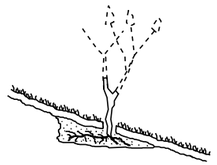
S.D.D. 13 C 18-1e



MACHINE MOVED

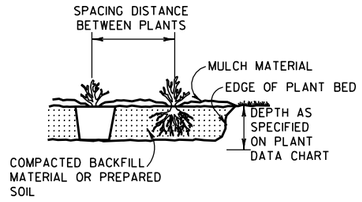


BALLED AND BURLAPPED, BARE ROOT, POTTED OR CONTAINER GROWN



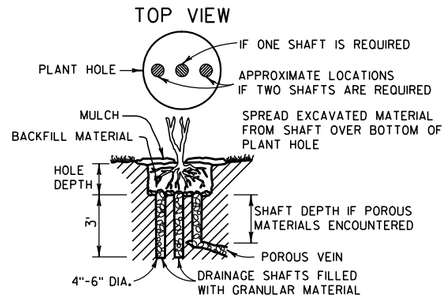
ACCOMMODATE ROOTS (SMOOTH AND STAGHORN SUMAC)

NOTE:
1) ENGINEER SHALL REQUIRE 3 SLITS IN POT TO SPEED DETERIORATION
2) METAL, PLASTIC OR OTHER NONDEGRADABLE POTS SHALL BE REMOVED PRIOR TO PLANTING



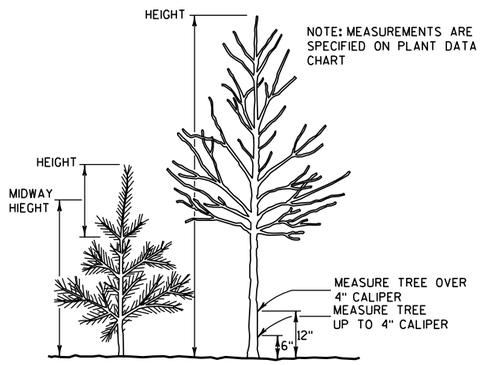
PREPARED BED (BARE ROOT AND POTTED)

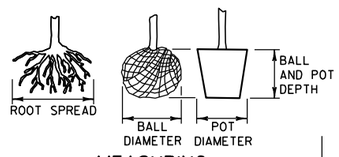
PLANTING



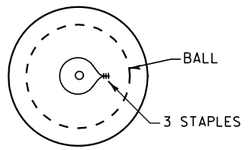
NOTE:
DRAINAGE SHAFT AS SPECIFIED ON PLANT DATA CHART

DRAINING

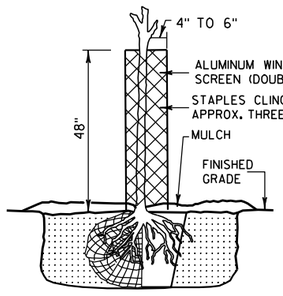




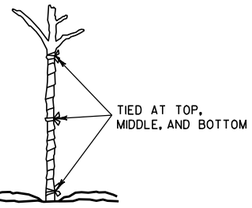
MEASURING



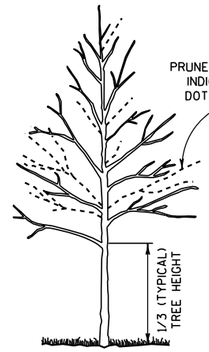
TOP VIEW



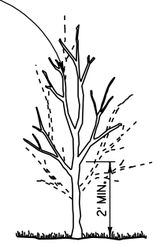
RODENT PROTECTION



WRAPPING



TALL DECIDUOUS TREES (ASH, MAPLE, LINDEN, OAK)



SINGLE STEMMED LOW DECIDUOUS TREES (CRABS AND OTHER SINGLE STEM TYPE)



MULTI-STEMMED LOW DECIDUOUS TREES OR LARGE SHRUBS (HAWTHORN, SERVICEBERRY)

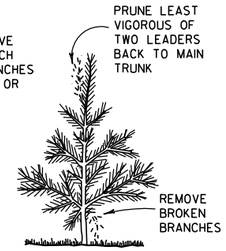
NOTE: WHEN PRUNING, PRESERVE CHARACTER AND SHAPE OF TREE. AVOID LEAVING STUBS - REMOVE BRANCH OR TWIG BACK TO THE NEAREST CROTCH
1) PRUNE TO REMOVE DEAD AND BROKEN BRANCHES
2) PRUNE TO REMOVE BRANCHES THAT TOUCH OR ARE TOO CLOSE TO OTHER BRANCHES



SHRUBS (GRAY DOGWOOD ARROWWOOD VIBURNUM)

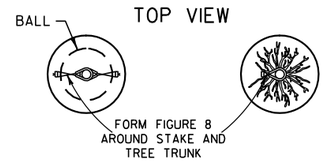


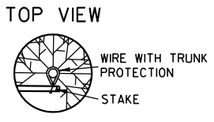
SUMAC

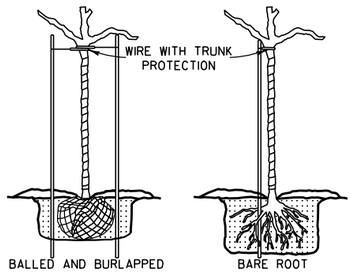


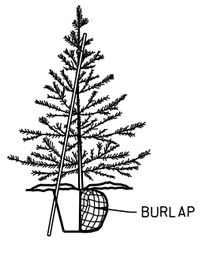
TREE TYPE EVERGREENS (PINE, SPRUCE, FIR) EVERGREENS USUALLY ARE NOT PRUNED

PRUNING



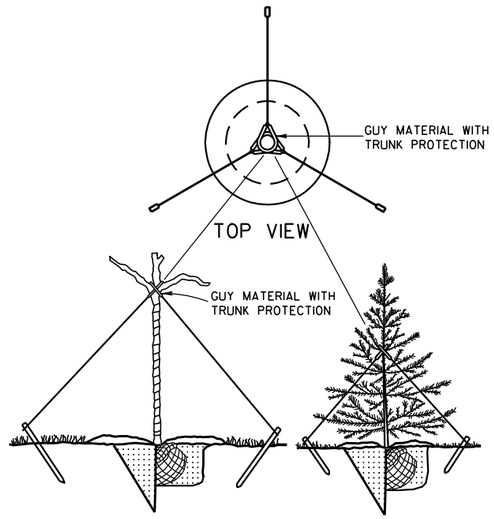




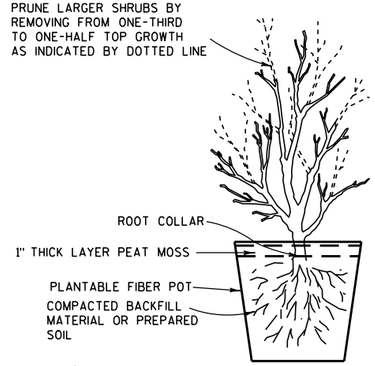


NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE IN PLACE.

BRACING



GUYING



POTTING

NOTES

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

BRACING, WRAPPING, GUYING, RODENT PROTECTION, FERTILIZER AND MULCH SHALL BE USED ONLY WHEN SPECIFIED ON THE PLANT DATA CHART (PART OF PLAN) OR SPECIAL PROVISIONS.

TREE PLANTING DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

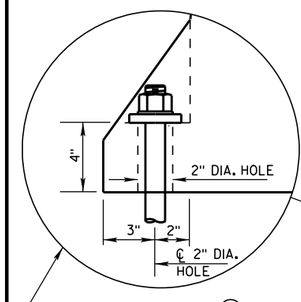
4/11/94
DATE

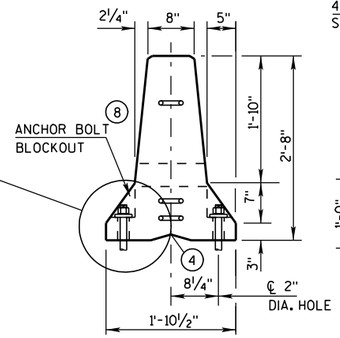
/S/ Rory L. Rhinesmith
CHIEF METHODS DEVELOPMENT ENGINEER

FHWA

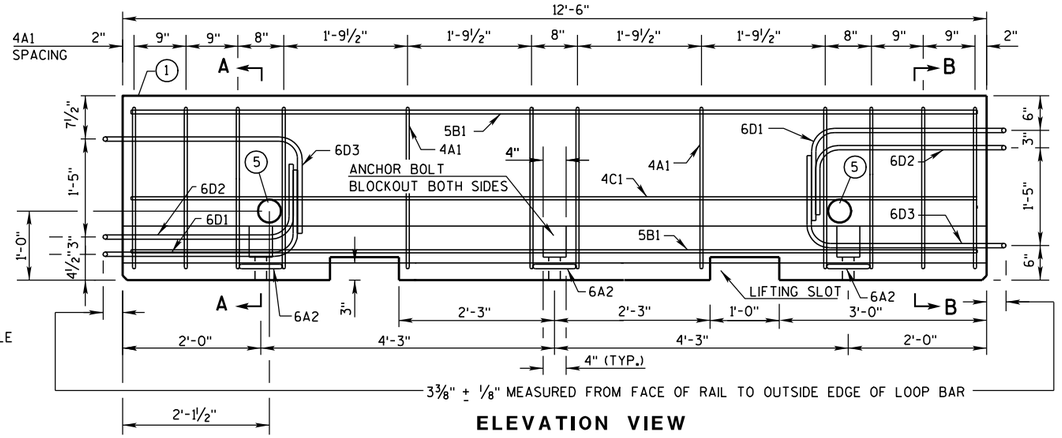
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S.D.D. 14 A 2-1

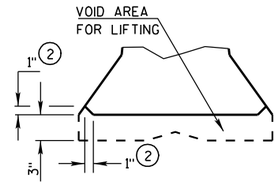




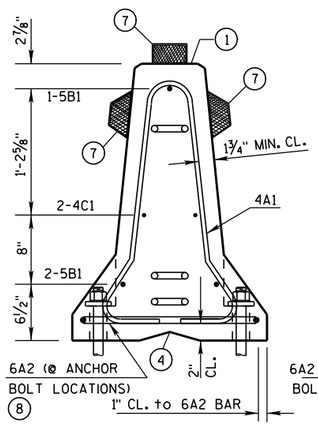
END VIEW



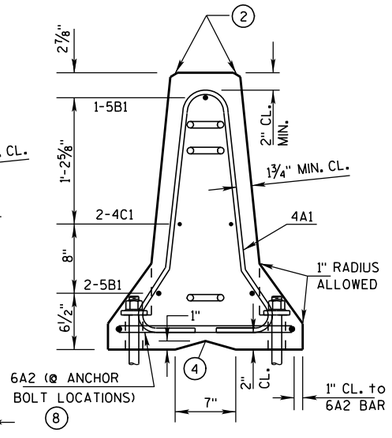
ELEVATION VIEW



DETAIL "B"
LIFTING SLOT DETAIL



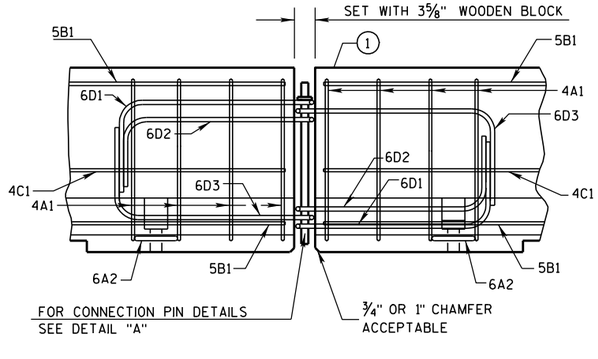
SECTION A-A
(STIRRUP PLACEMENT)



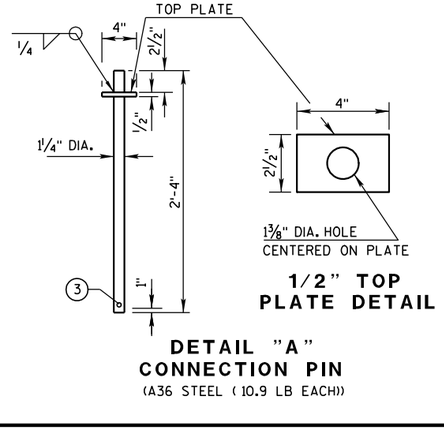
SECTION B-B
(STIRRUP PLACEMENT)

PLAN VIEW

DETAILS OF BARRIER SECTION

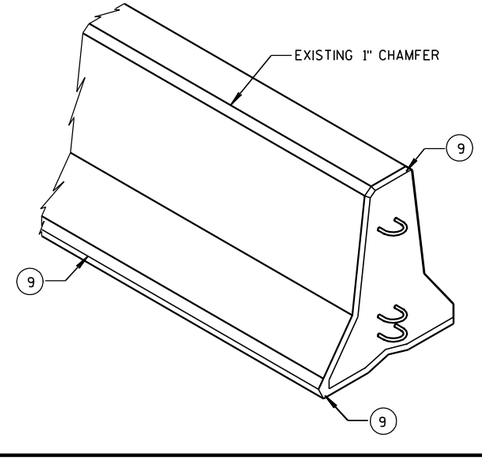


DETAILS OF BARRIER CONNECTION



1/2" TOP PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-13(a) THRU 14B7-13(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR EPOXY ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WICBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

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

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

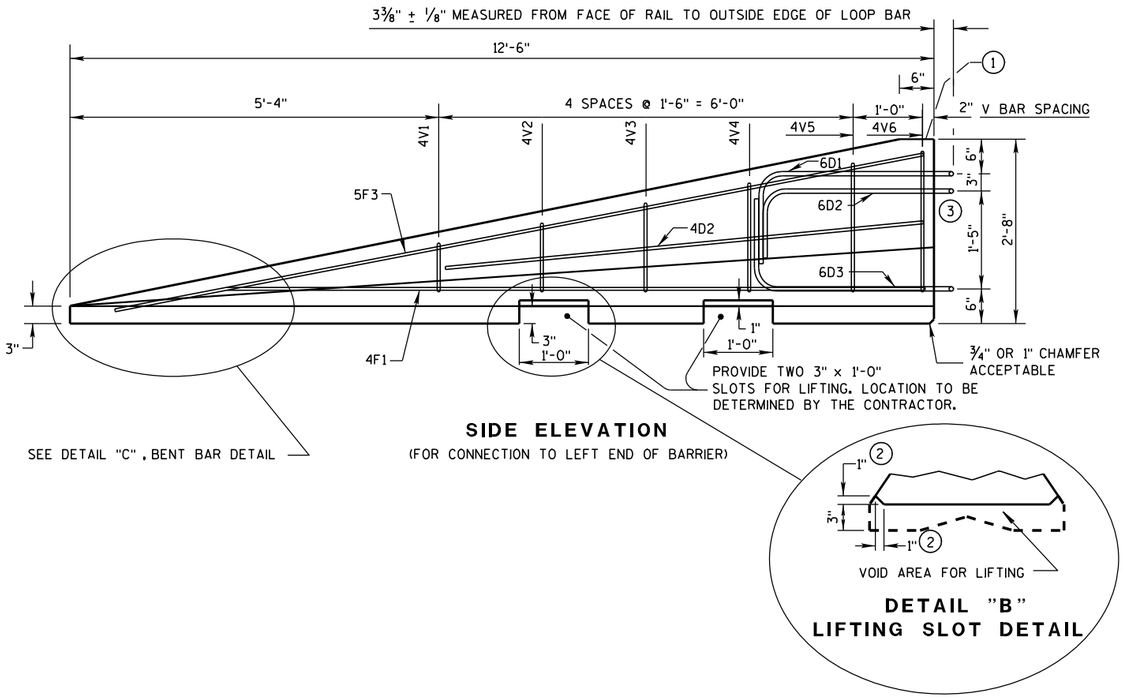
(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6

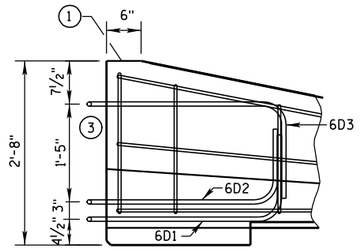
S.D.D. 14 B 7-13a



SIDE ELEVATION

(FOR CONNECTION TO LEFT END OF BARRIER)

DETAIL "B"
LIFTING SLOT DETAIL

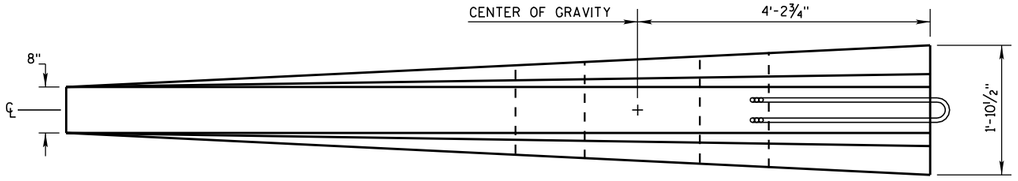


SIDE ELEVATION

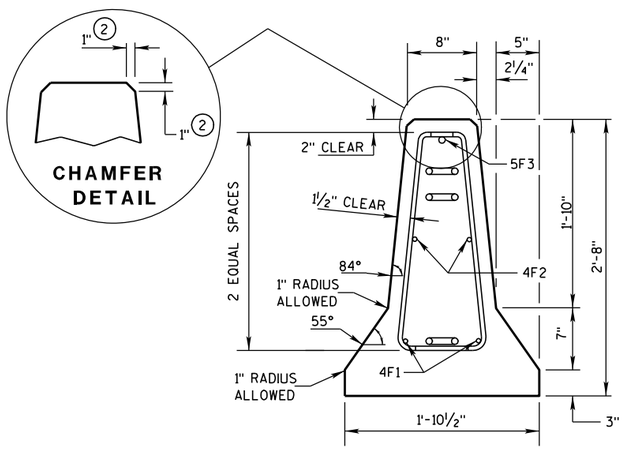
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

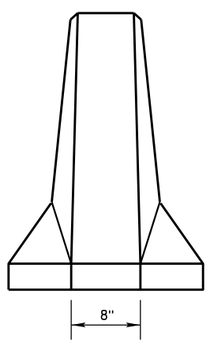
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



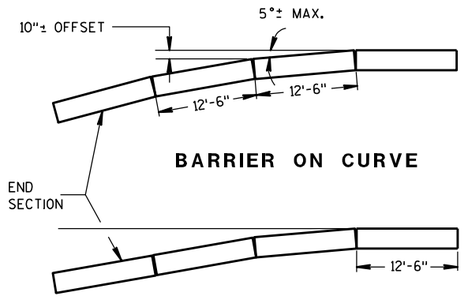
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 7-13b

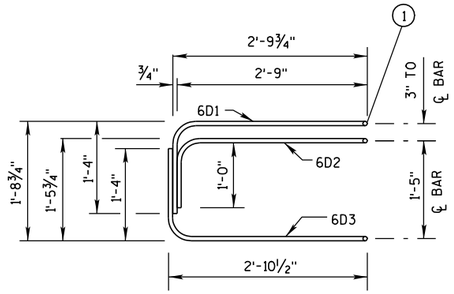
6

S.D.D. 14 B 7-13b

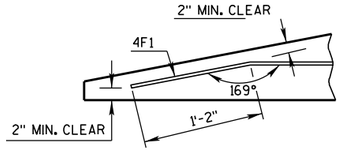
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

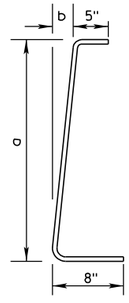
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

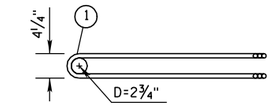
GENERAL NOTES

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

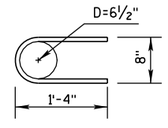
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

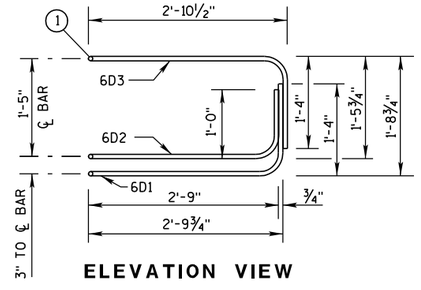
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



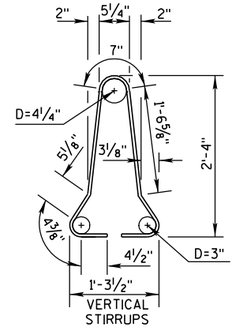
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



ELEVATION VIEW



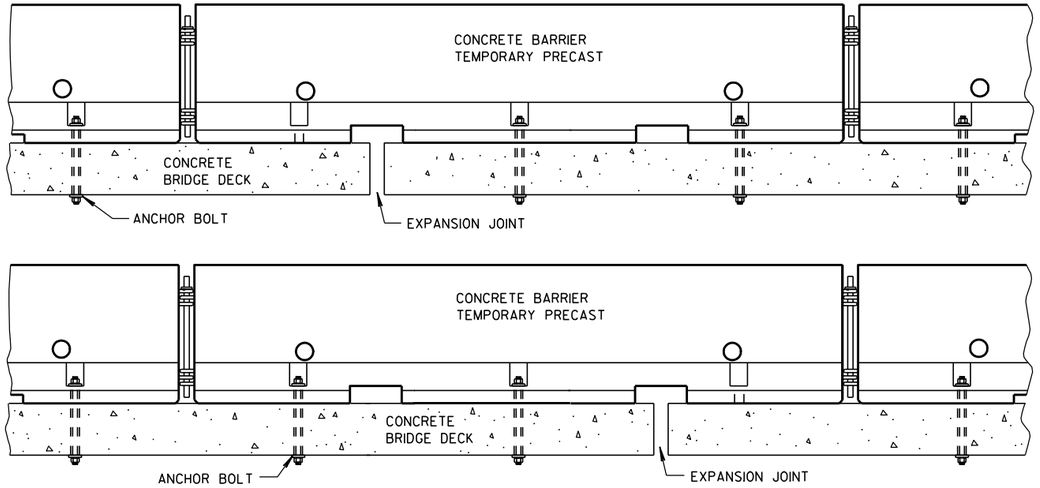
4A1

BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

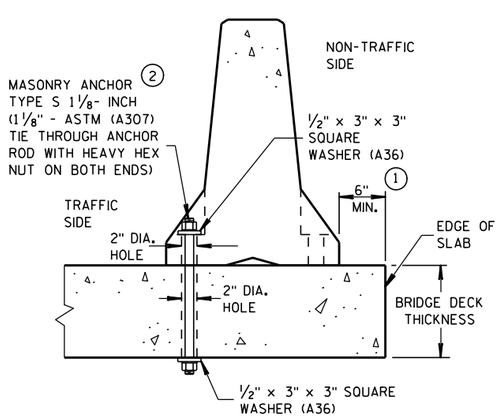
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 7-13c



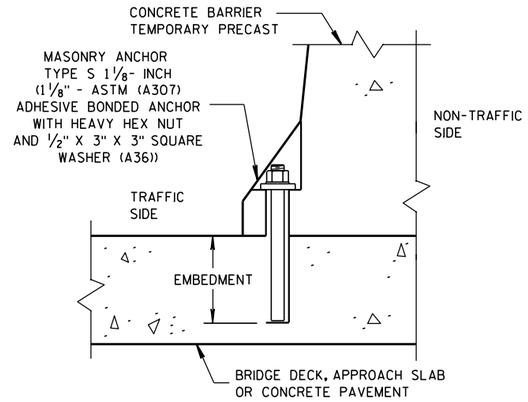
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

2

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

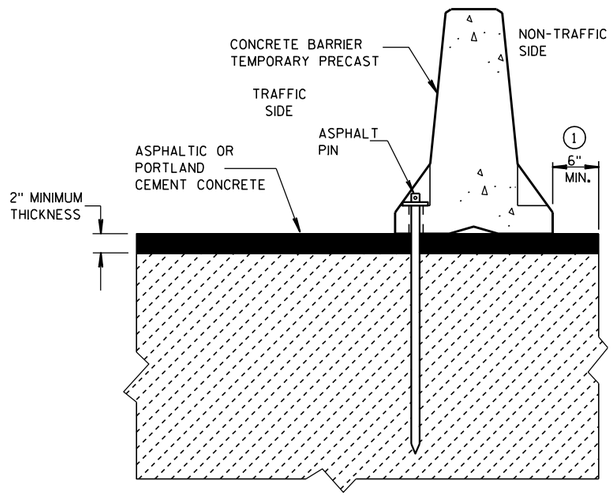
1. CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT. IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

2. ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

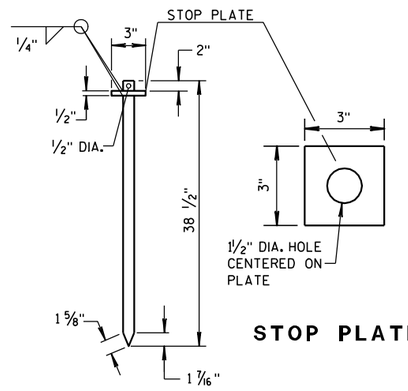
   WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

   UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALLANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR EPOXY MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

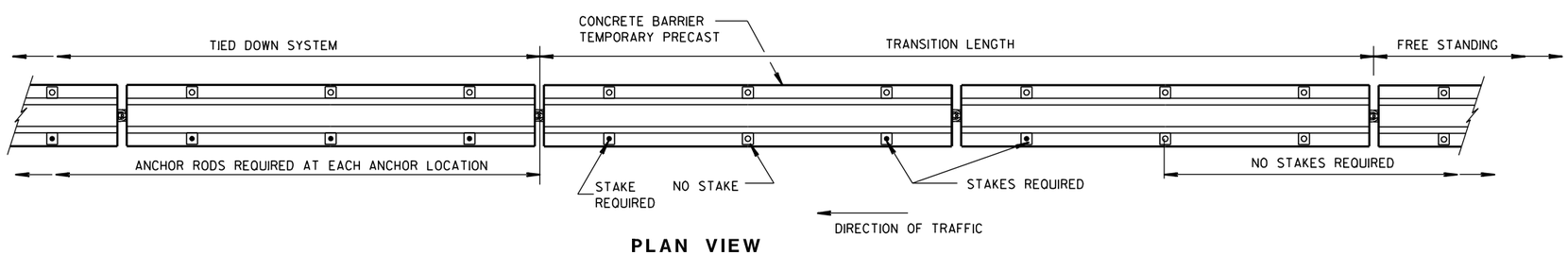
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



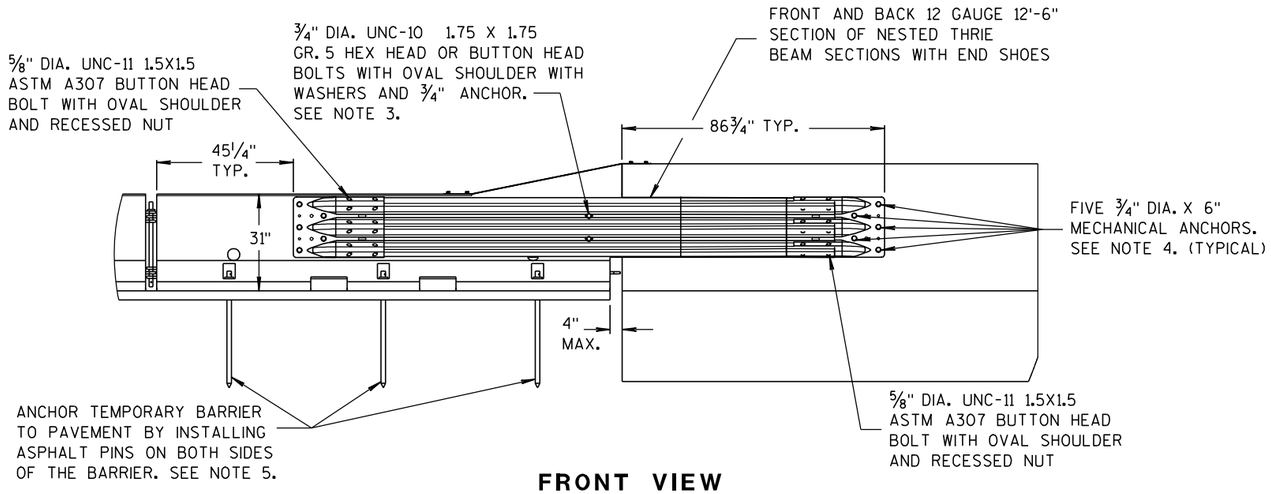
PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

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

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

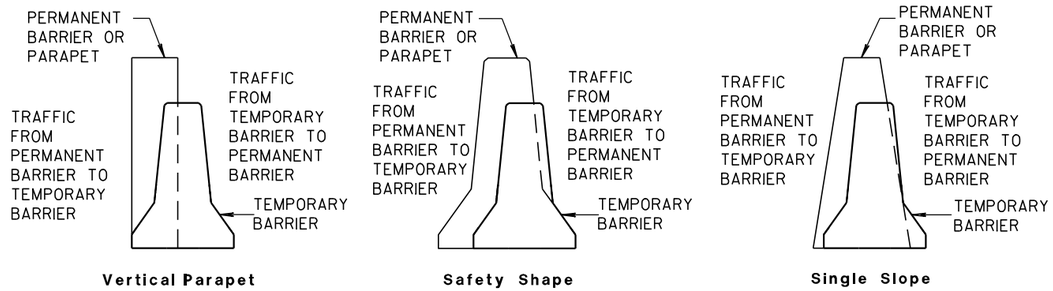
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

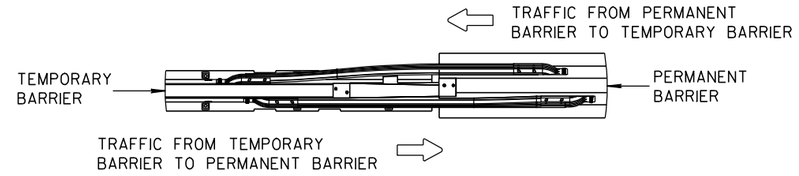


FRONT VIEW

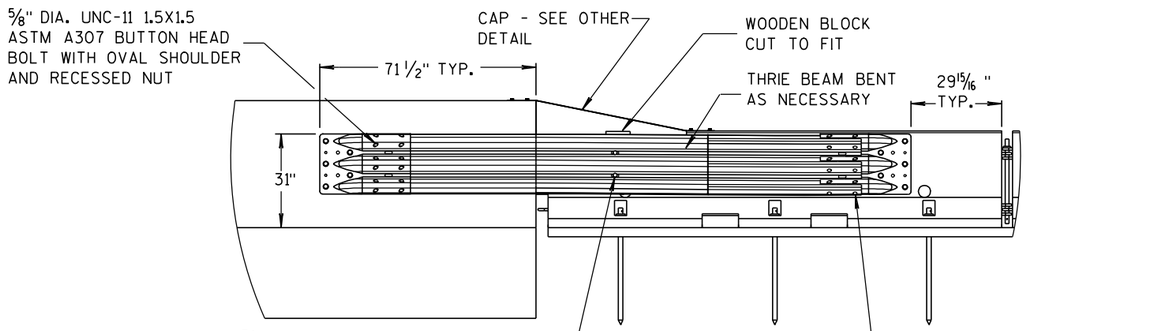
NOTES

1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.

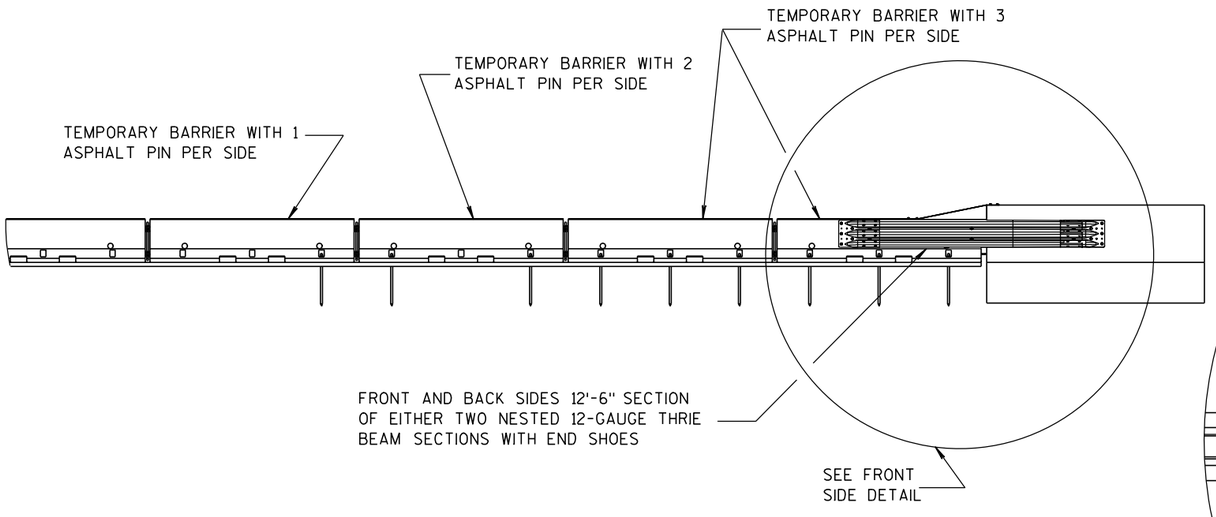




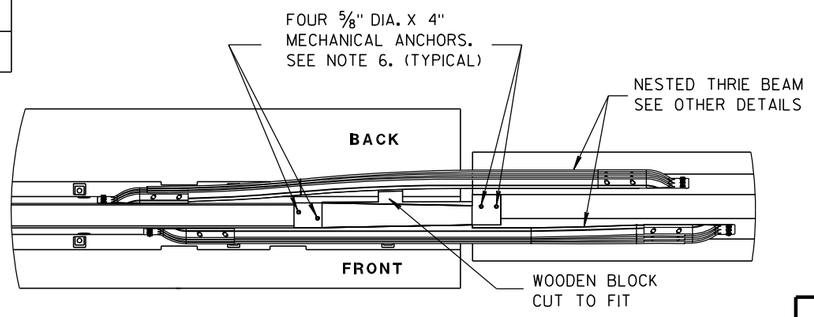
TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



BACK VIEW



FRONT VIEW



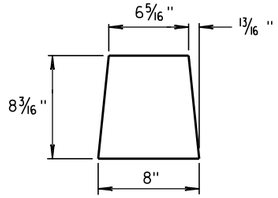
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

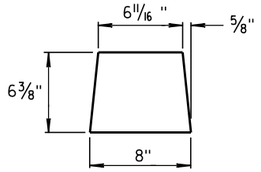
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

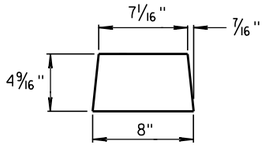
6
S.D.D. 14 B 7-13e



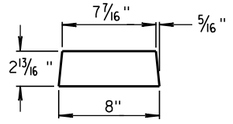
GUSSET 1



GUSSET 2

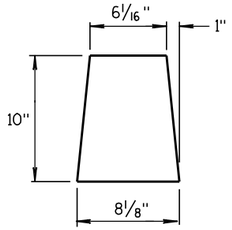


GUSSET 3

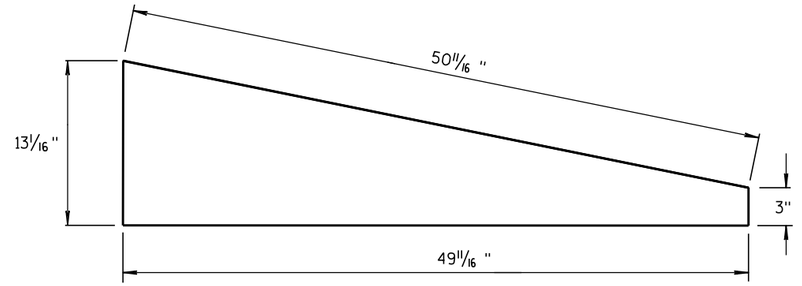


GUSSET 4

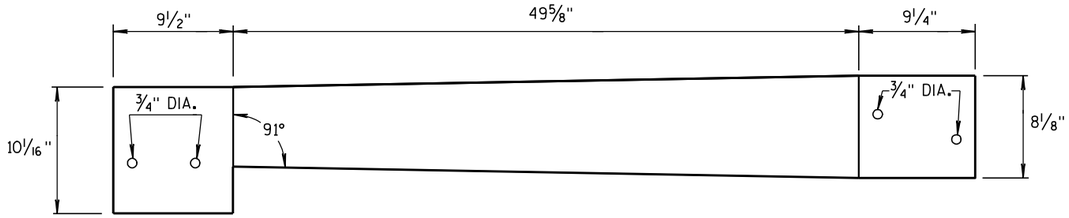
GUSSETS

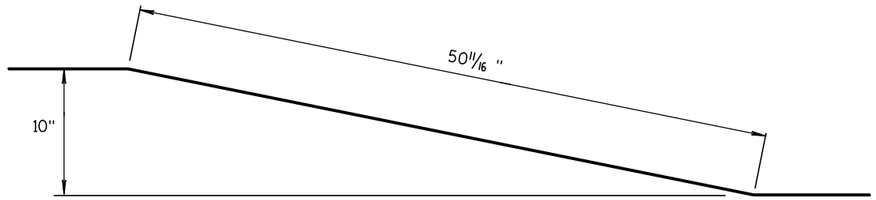


END PLATE

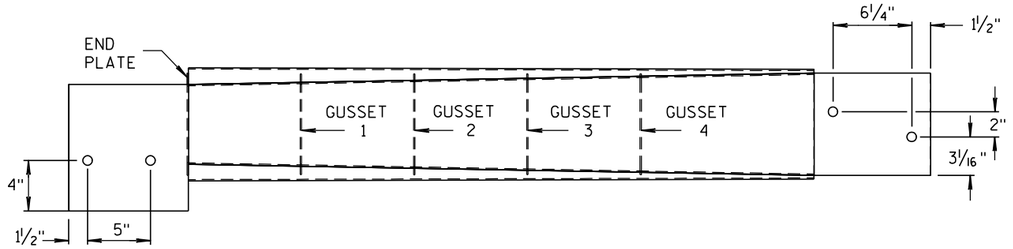


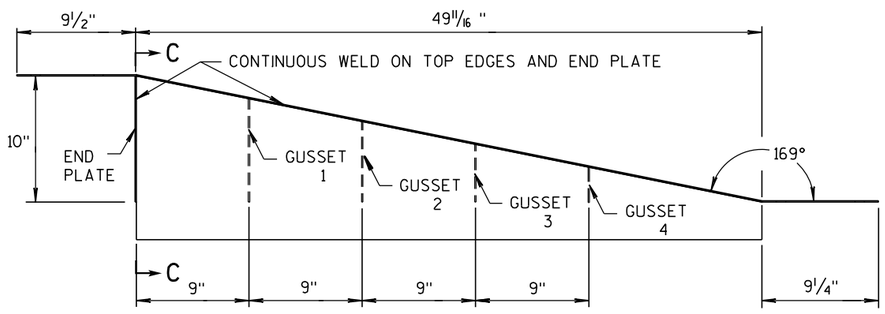
SIDE PLATE

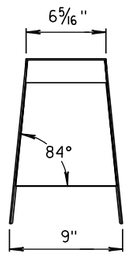




TOP PLATE







SECTION C-C

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

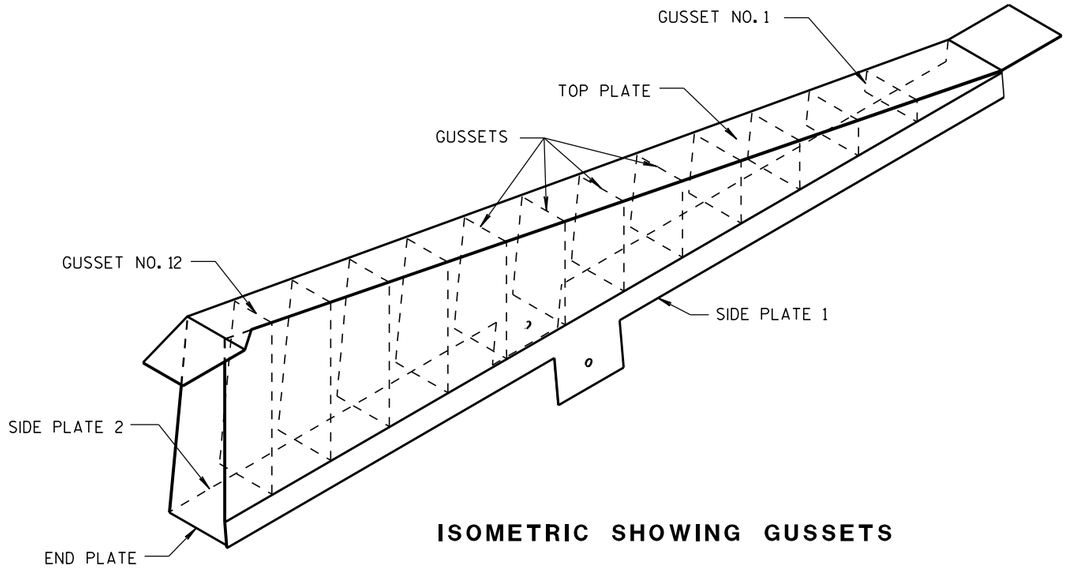
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

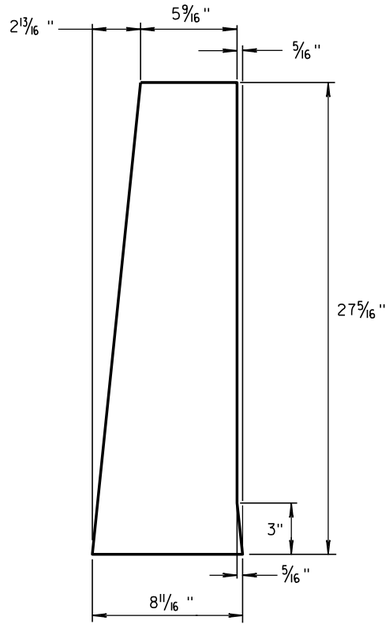
SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

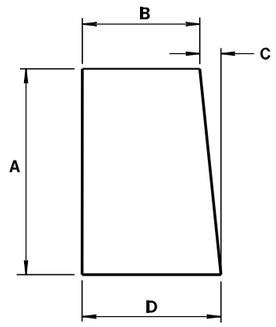


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



GUSSETS 1 - 12

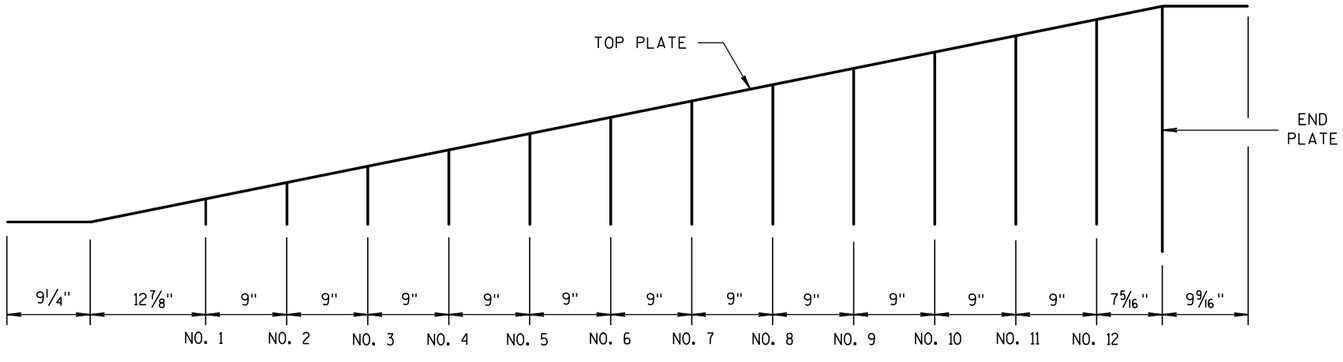
ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS

GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

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

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



GUSSET LOCATION

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

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

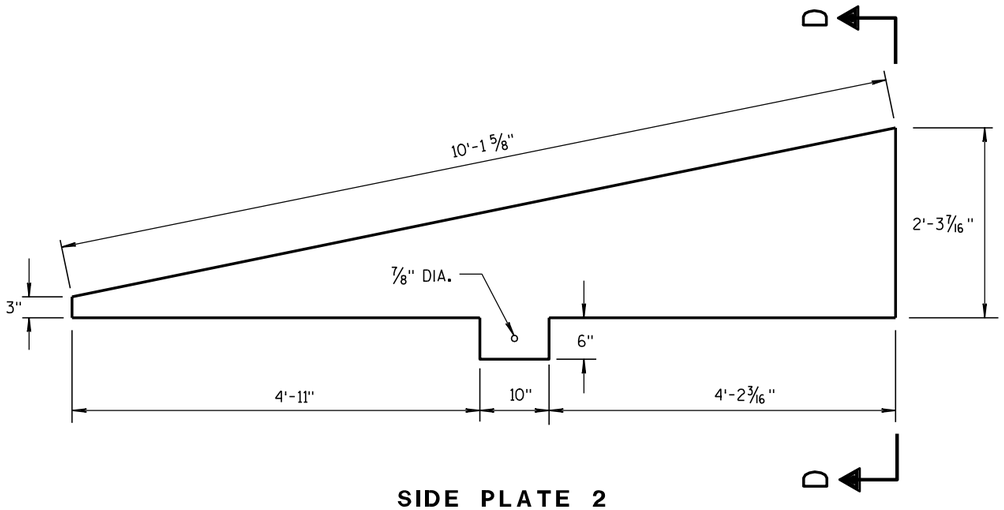
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

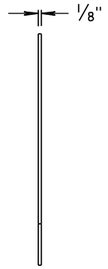
S.D.D. 14 B 7-13g

6

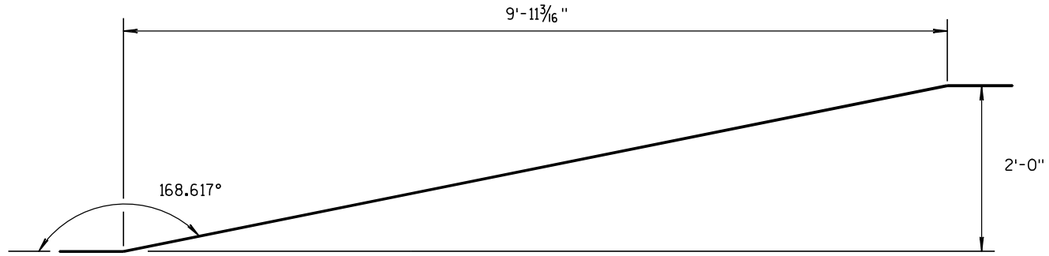
S.D.D. 14 B 7-13g



SIDE PLATE 2

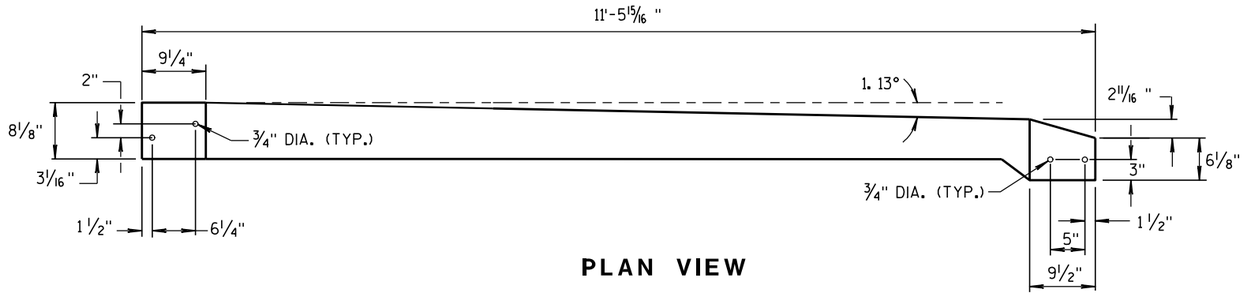


END VIEW



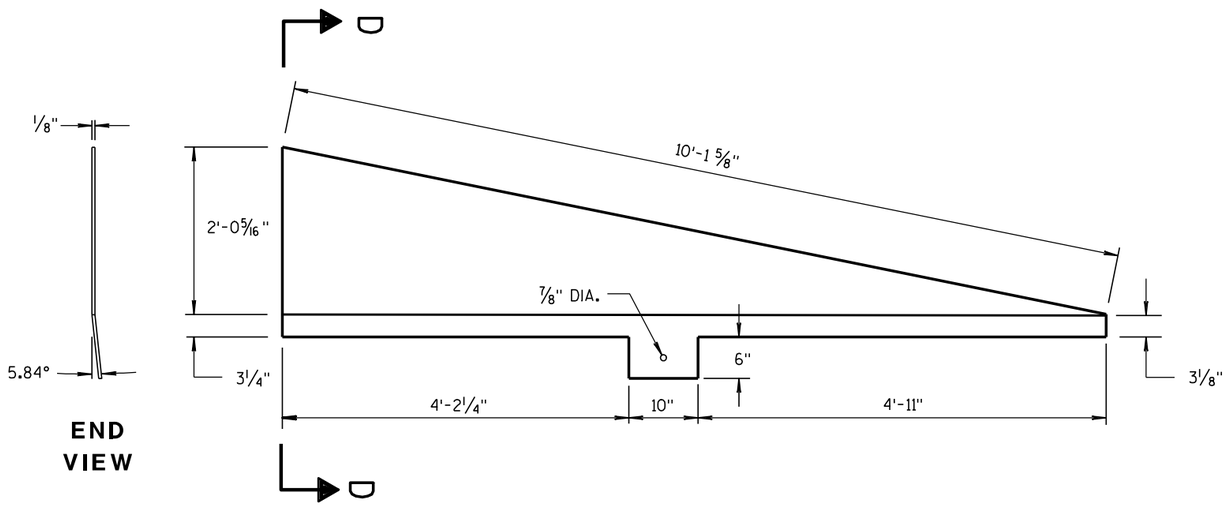
SIDE VIEW

TOP PLATE



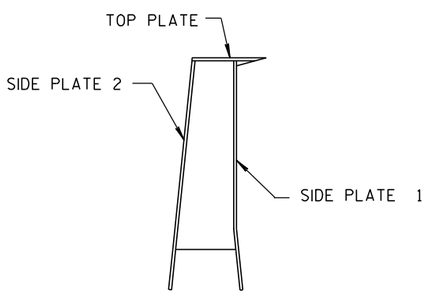
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

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

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. ---
ROADWAY STANDARDS ENGINEER

339

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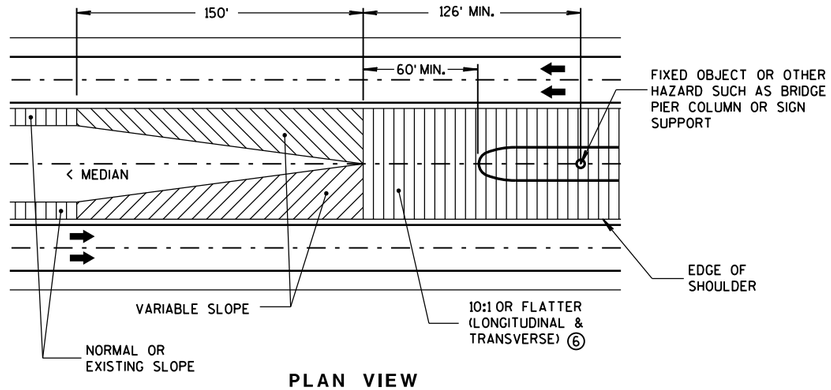
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S.D.D. 14 B 7-13h

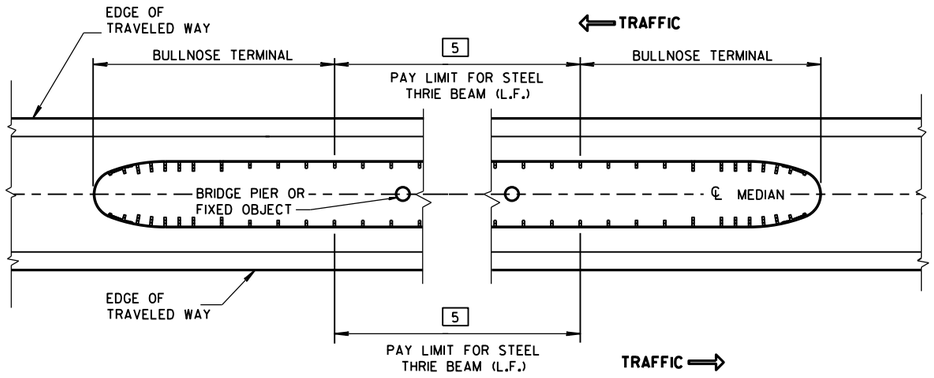
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S.D.D. 14 B 7-13h

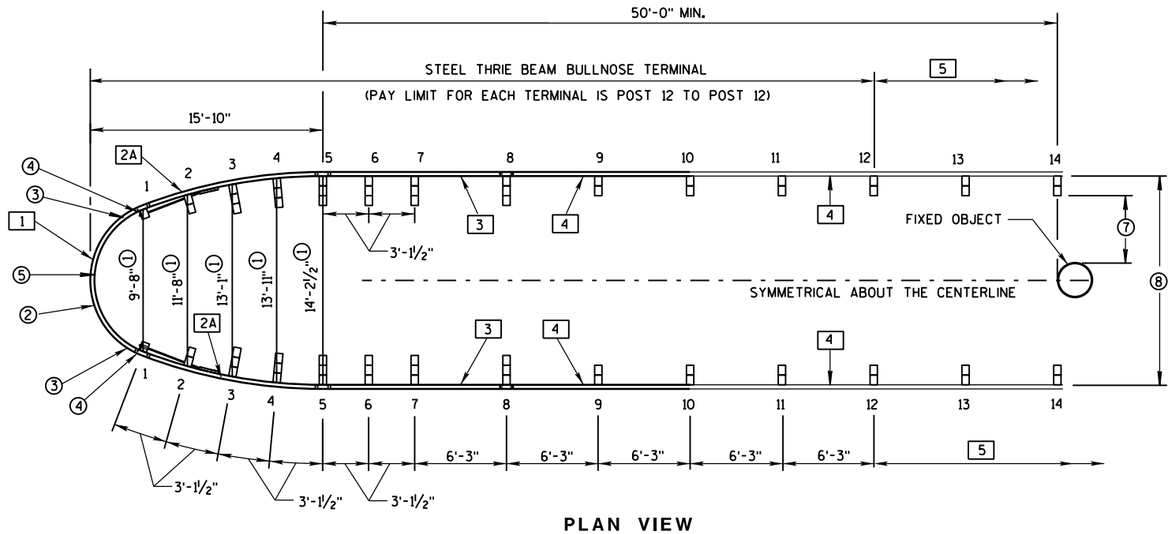


PLAN VIEW

GRADING AT BULLNOSE
(ALL INSTALLATIONS)

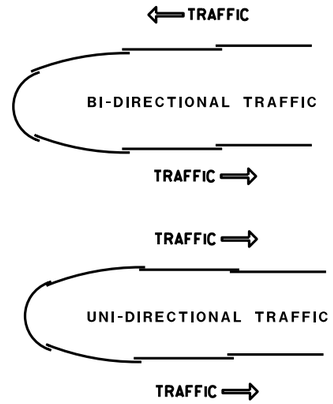


MEDIAN HAZARD PROTECTION PAY LIMITS



PLAN VIEW

TYPICAL BULLNOSE LAYOUT



LAPPING DETAIL
(ALL INSTALLATIONS)

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

PUNCHING, DRILLING, CUTTING OR WELDING IS NOT PERMITTED ON ANY GALVANIZED THRIE BEAM ACCESSORY OR TERMINAL ACCESSORY.

OTHER ANCHOR CABLE ASSEMBLIES HAVING 40,000 LBS. MIN. BREAKING STRENGTH MAY BE USED.

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

THE USE OF STEEL POSTS ON THE BULLNOSE IS NOT ALLOWED.

BOLTS AND ALL NECESSARY HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

ALL THRIE BEAM SHALL BE 12-GAUGE.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A. (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

[4] UNBENT STANDARD THRIE-BEAM RAIL NO.4. (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.

② U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.

③ NOSE CABLE W/SWAGGED END BUTTONS.

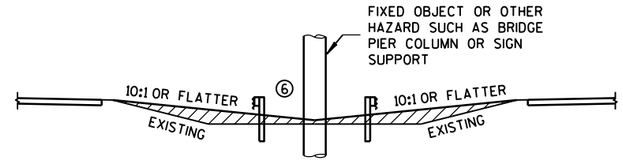
④ NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).

⑤ THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.

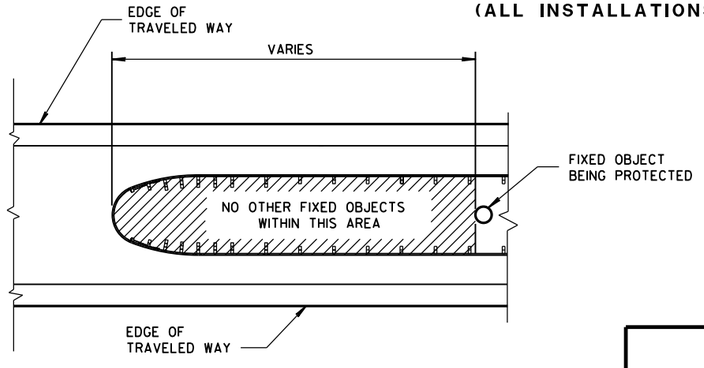
⑥ PROVIDE SUITABLE DRAINAGE WHEN MEDIAN GRADING IMPEDES NORMAL FLOW.

⑦ 2'-6" MINIMUM LATERAL DISTANCE BETWEEN BACK OF POST AND FACE OF FIXED OBJECT.

⑧ MAXIMUM WIDTH OF SYSTEM IS 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



MEDIAN GRADING SECTION
(ALL INSTALLATIONS)



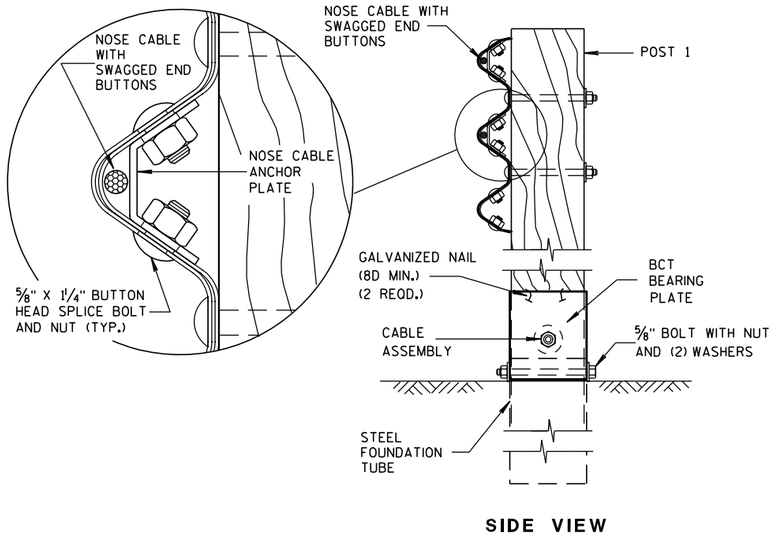
HAZARD FREE AREA INSIDE BULLNOSE

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

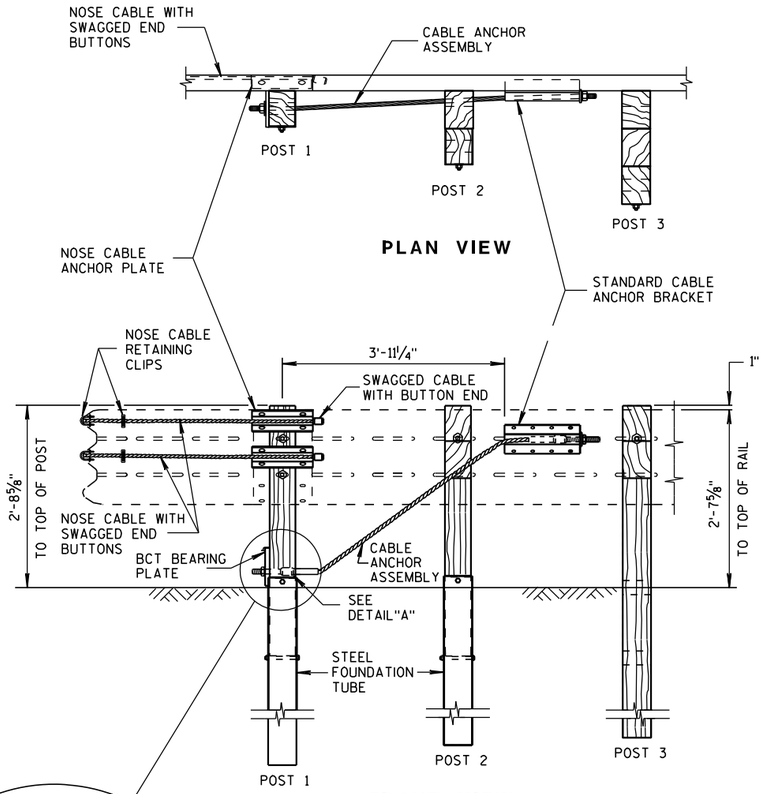
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S.D.D. 14 B 26-2a



SIDE VIEW

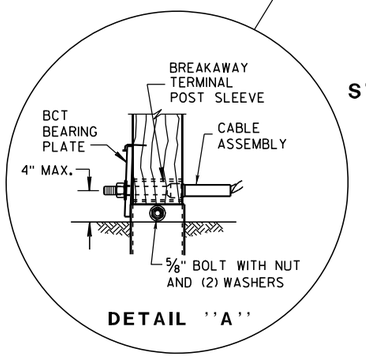
NOSE CABLE ASSEMBLY AT POST NO. 1



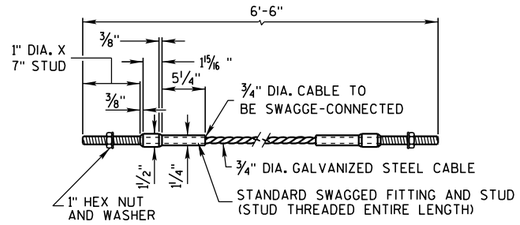
PLAN VIEW

FRONT VIEW

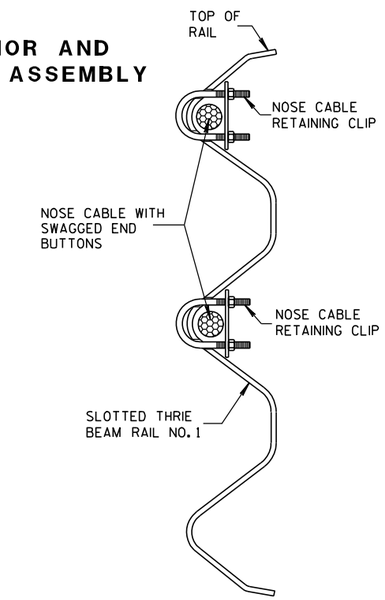
NOSE CABLE ANCHOR AND STANDARD BRACKET ASSEMBLY



DETAIL ''A''



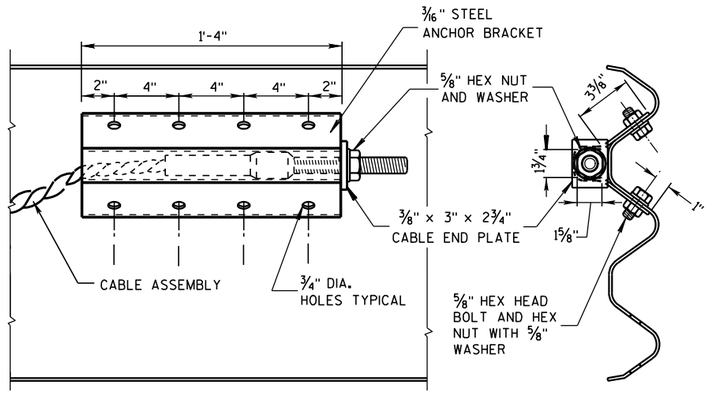
DETAILS OF CABLE ANCHOR ASSEMBLY



PLACEMENT OF NOSE CABLE RETAINING CLIP

GENERAL NOTES

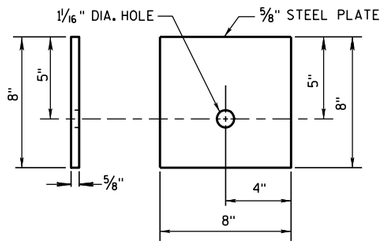
SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



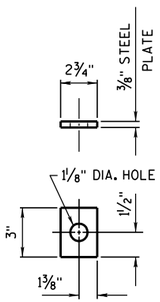
FRONT VIEW

END VIEW

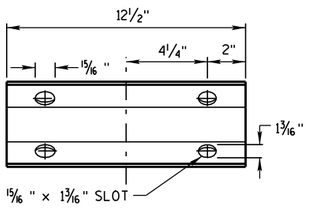
DETAILS OF CABLE ANCHOR BRACKET



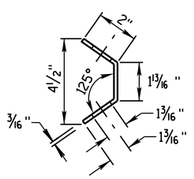
BCT BEARING PLATE



CABLE END PLATE



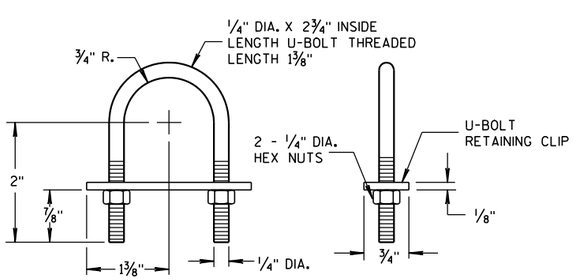
ELEVATION VIEW



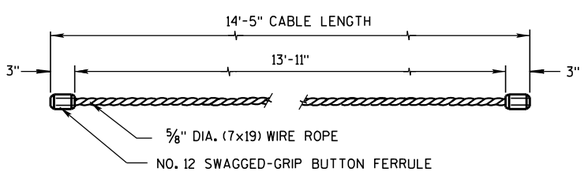
END VIEW

NOSE CABLE ANCHOR PLATE

NOTE: 12 1/2" x 5 13/16" x 3/16" STEEL PLATE (A306)



NOSE CABLE RETAINING CLIP



NOSE CABLE WITH SWAGGED END BUTTONS

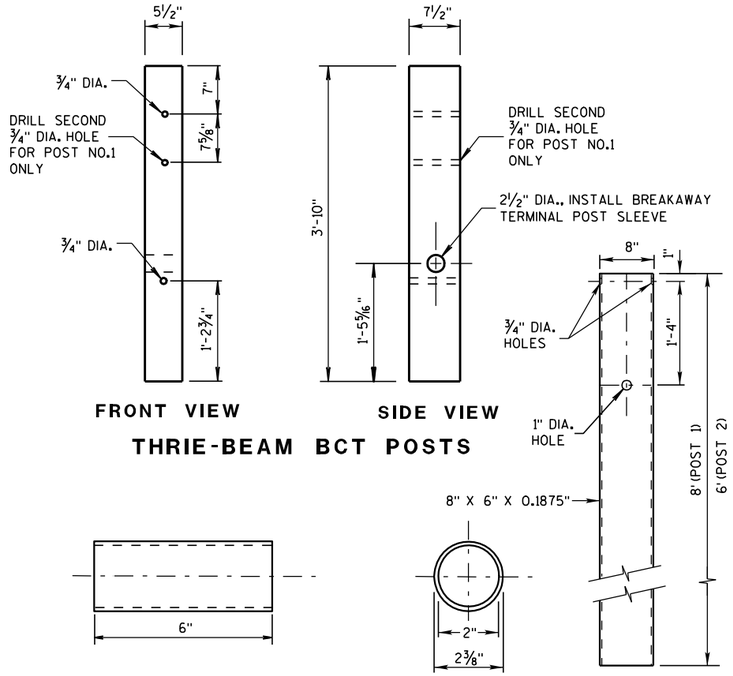
TO PULL OFF SWAGGED GRIP BUTTON FERRULE FROM WIRE ROPE REQUIRES A FORCE EQUAL TO 98% OF THE WIRE ROPE'S BREAKING STRENGHT.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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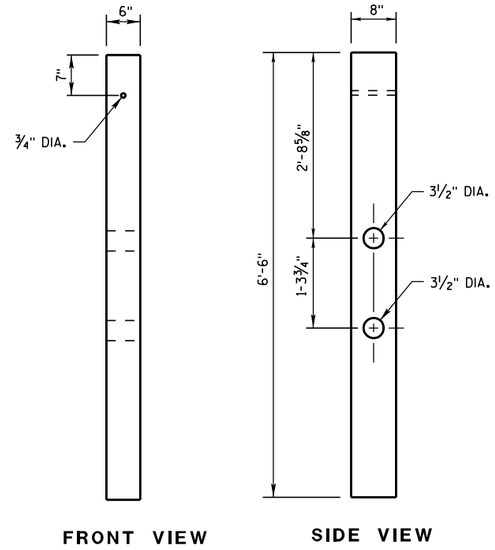
S.D.D. 14 B 26-2c



THRIE-BEAM BCT POSTS

BREAKAWAY TERMINAL POST SLEEVE

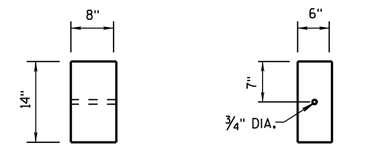
STEEL FOUNDATION TUBE



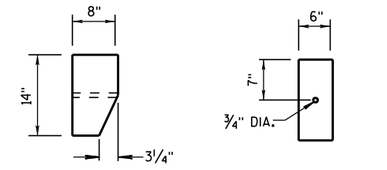
THRIE-BEAM CRT WOOD POSTS

GENERAL NOTES

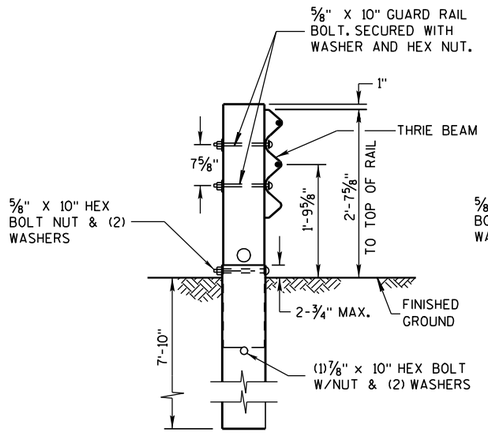
SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



STANDARD WOOD BLOCK

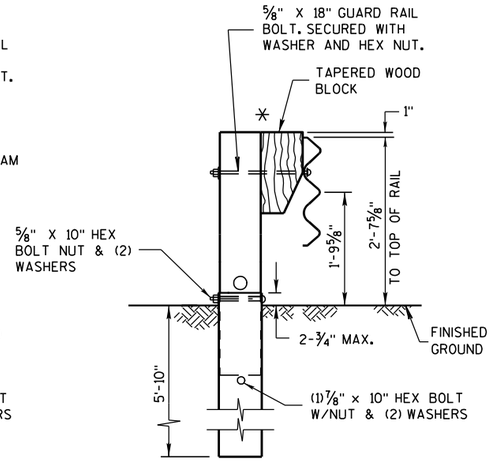


TAPERED WOOD BLOCK



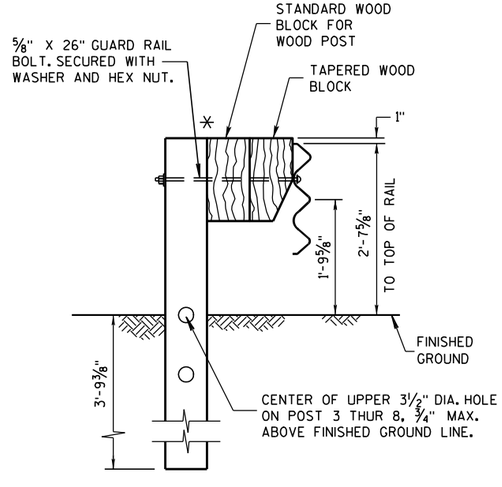
THRIE-BEAM BCT POST
(WITH 8'-0" FOUNDATION TUBE)

POST NO. 1



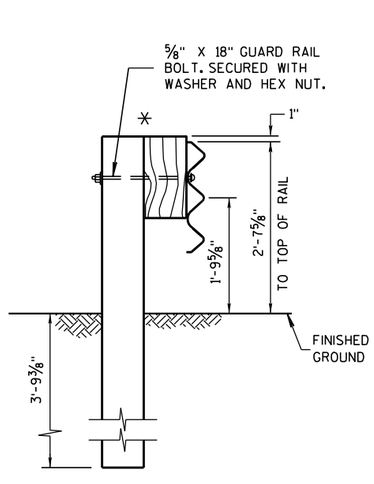
THRIE-BEAM BCT POST
(WITH 6'-0" FOUNDATION TUBE AND 1'-2" TAPERED BLOCK)

POST NO. 2



THRIE-BEAM CRT POST
(6'-6" LONG POST WITH 1'-2" BLOCK AND 1'-2" TAPERED BLOCK)

POST NO. 3,4,5,6,7, & 8



THRIE-BEAM POST
(6'-6" LONG POST WITH 1'-2" BLOCK)

POST NO. 9,10,11,& 12
(ALSO USE FOR STEEL THRIE BEAM BEYOND POST 12)

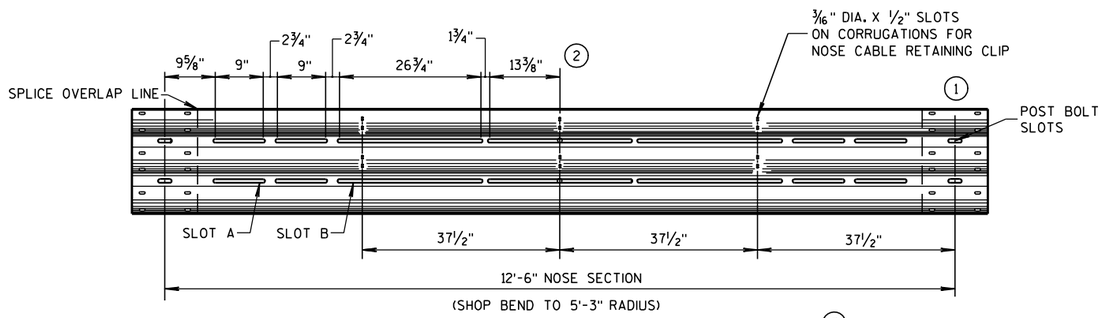
* IF NEEDED DUE TO AN UNDERGROUND OBSTACLE ADD 1 ADDITIONAL STANDARD BLOCKOUT TO POST.

STEEL THRIE BEAM BULLNOSE TERMINAL

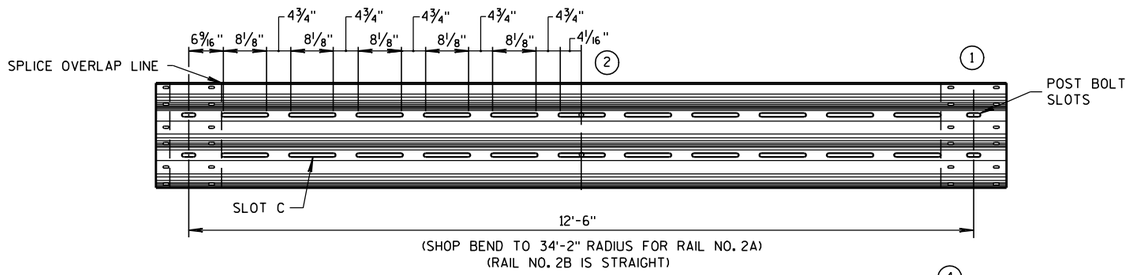
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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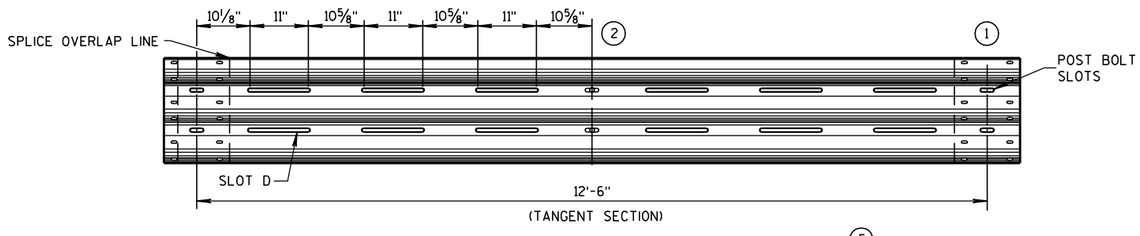
S.D.D. 14 B 26-2d



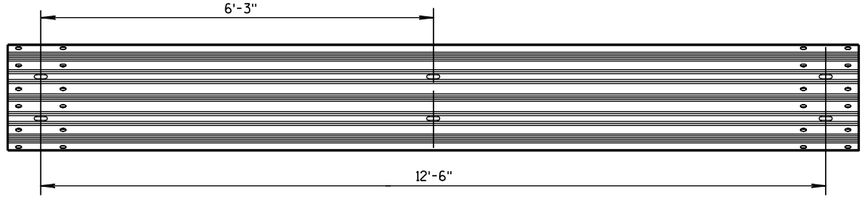
SLOTTED THRIE BEAM RAIL NO. 1 (3)



SLOTTED THRIE BEAM RAILS NO. 2A AND NO. 2B (4)



SLOTTED THRIE BEAM RAIL NO. 3 (5)



UNBENT STANDARD THRIE BEAM RAIL NO. 4 AND NO. 5

GENERAL NOTES

SEE STANADRD DETAIL DRAWINGS 14 B 26a-e.

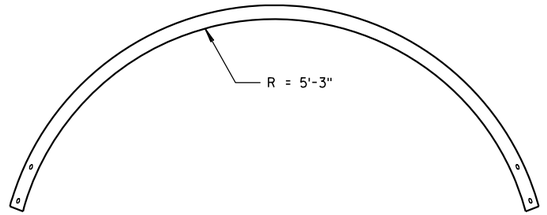
(1) SLOTTED THRIE BEAM RAIL DIMENSIONS SHOWN ARE BEFORE BENDING TO THE RADIUS SHOWN.

(2) SLOT SIZE AND SPACING SYMMETRIC.

(3) SLOTTED THRIE BEAM RAIL NO. 1, 12'-6", SHOP BEND TO R=5'-3".

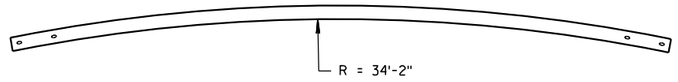
(4) SLOTTED THRIE BEAM RAIL NO. 2A, 12'-6", SHOP BEND TO R=34'-2".
SLOTTED THRIE BEAM RAIL NO. 2B, 12'-6", RAIL IS STRAIGHT.

(5) SLOTTED THRIE BEAM RAIL NO. 3, 12'-6", TANGENT.



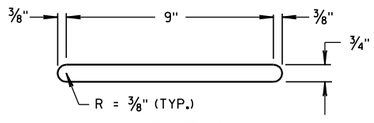
PLAN VIEW

SLOTTED THRIE BEAM RAIL NO. 1

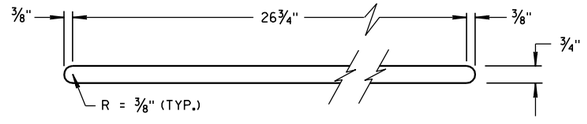


PLAN VIEW

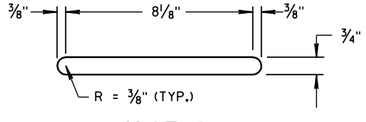
SLOTTED THRIE BEAM RAIL NO. 2A



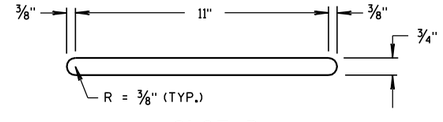
SLOT A



SLOT B



SLOT C



SLOT D

SLOT DETAILS

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-16-2010
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

GENERAL NOTES

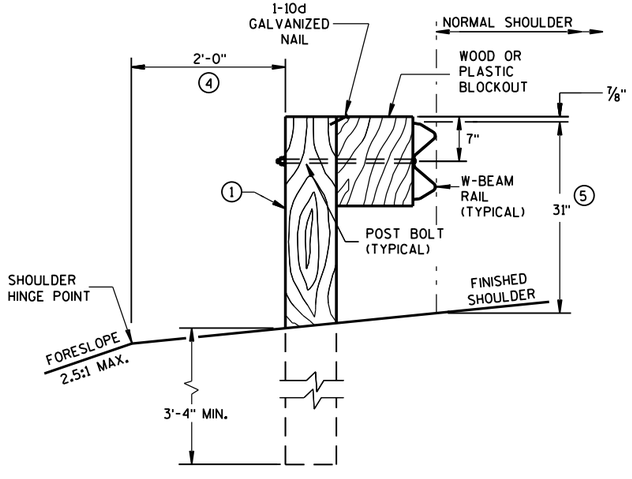
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

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.

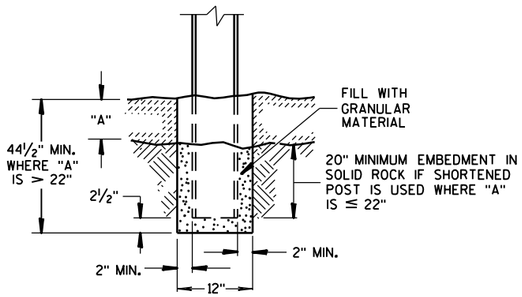
4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

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".



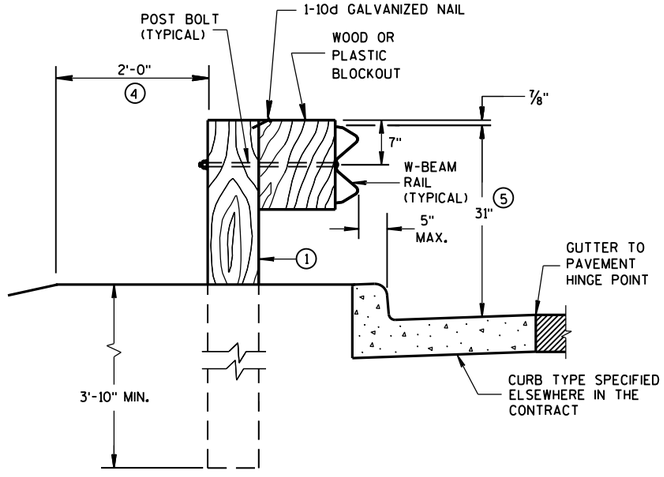
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



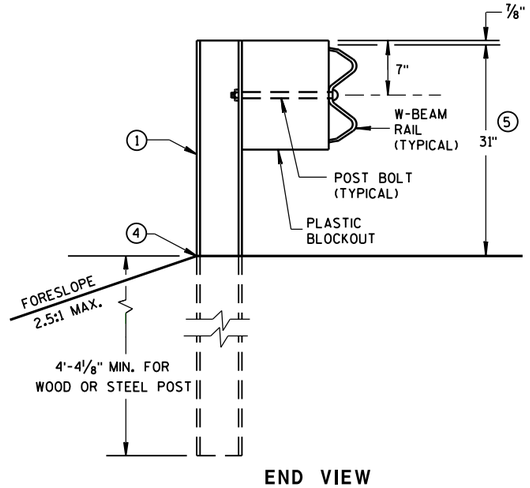
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



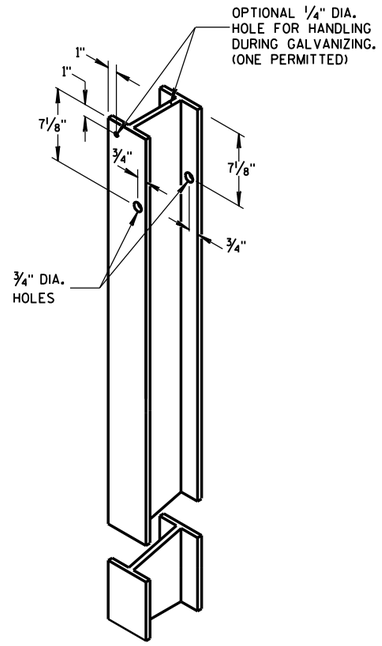
END VIEW

LOCATED ALONG A CURBED ROADWAY

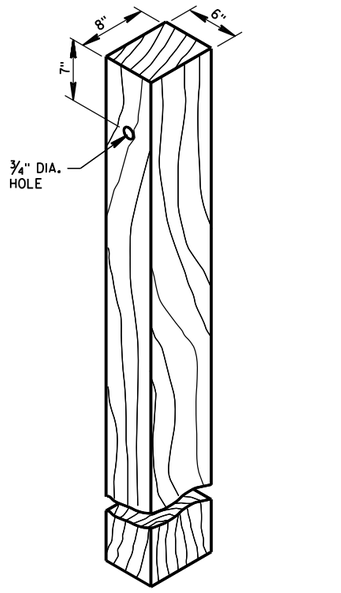


END VIEW

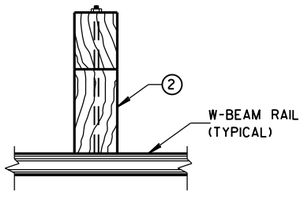
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



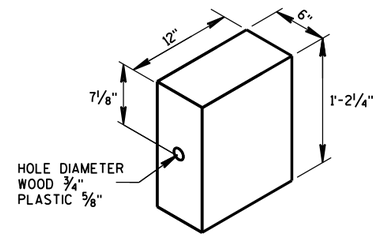
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



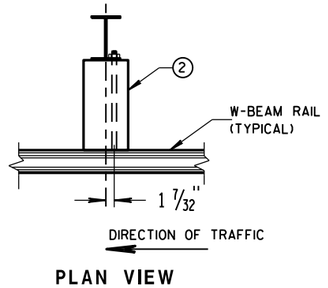
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

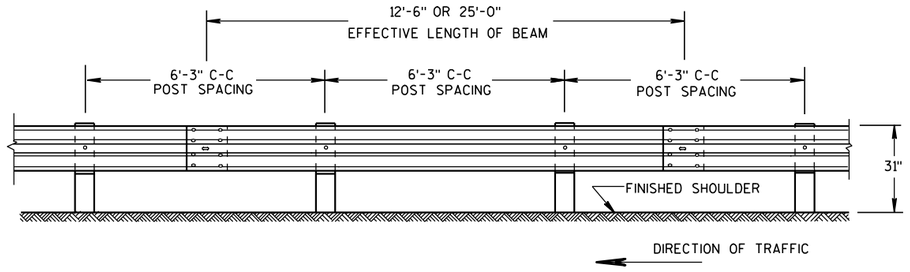


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

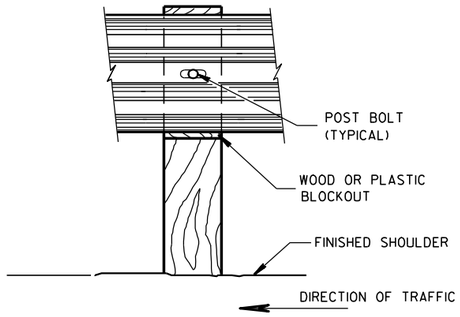
STATE OF WISCONSIN
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S.D.D. 14 B 42-2a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



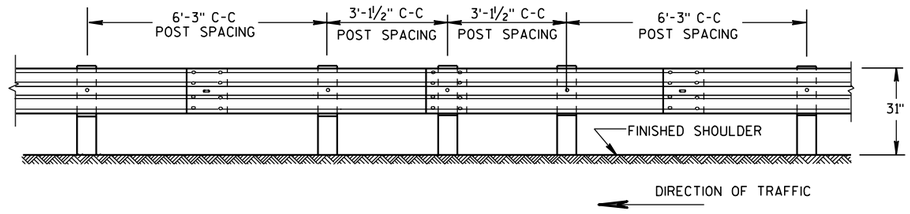
FRONT VIEW AT WOOD POST

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.

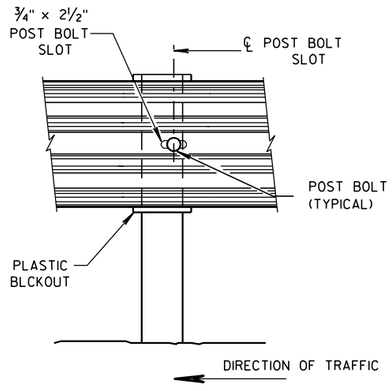
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

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.

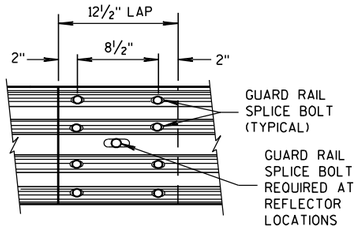


FRONT VIEW

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

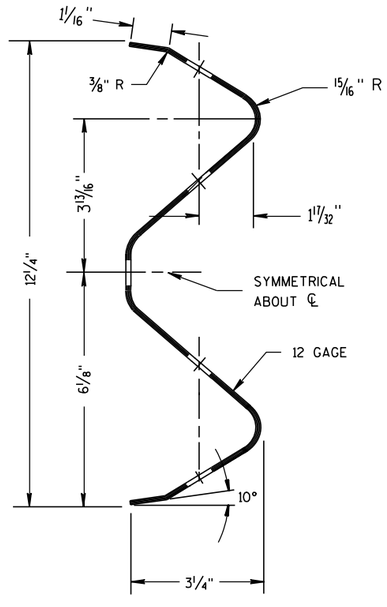


FRONT VIEW AT STEEL POST

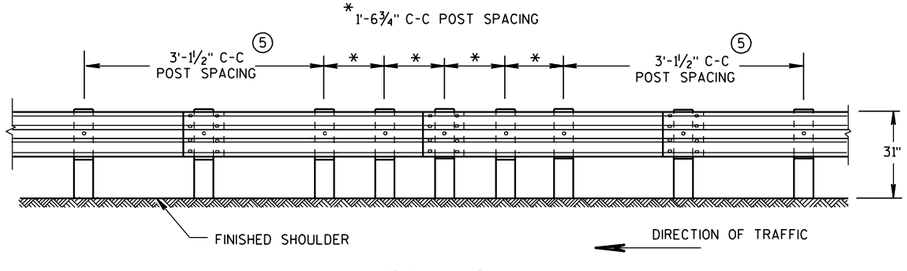


FRONT VIEW

MID-SPAN BEAM SPLICE

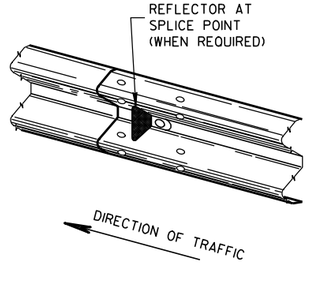


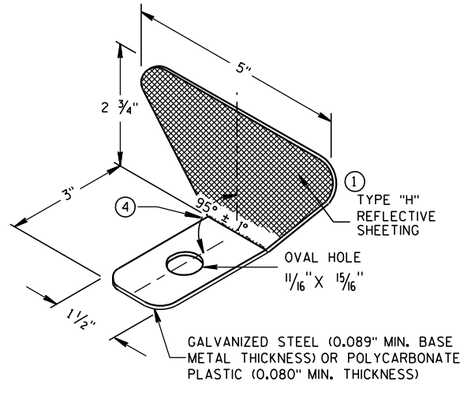
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①

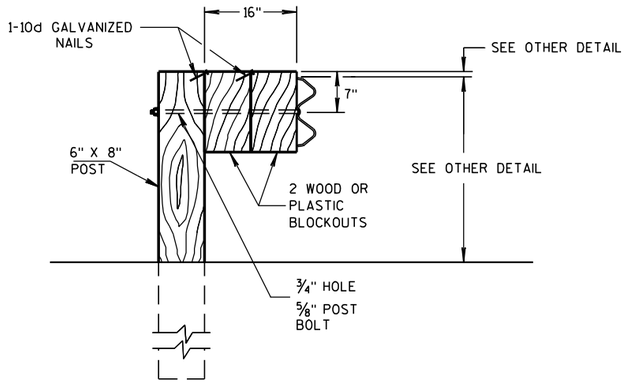
REFLECTOR SPACING ②

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ③	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2 ④	3
	> 200'	100' C-C	2	

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

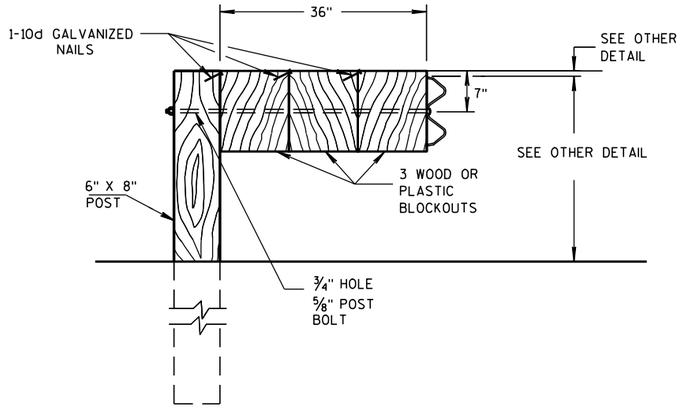
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
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.

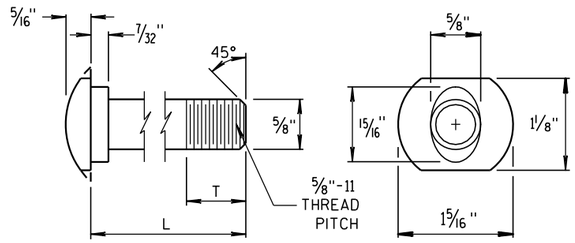


DETAIL FOR 36" BLOCKOUT DEPTH

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.

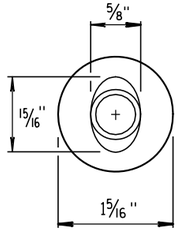
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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.

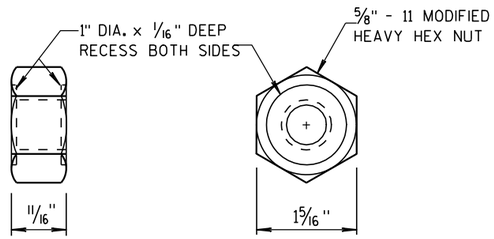


POST BOLT TABLE

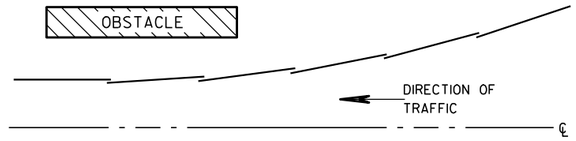
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

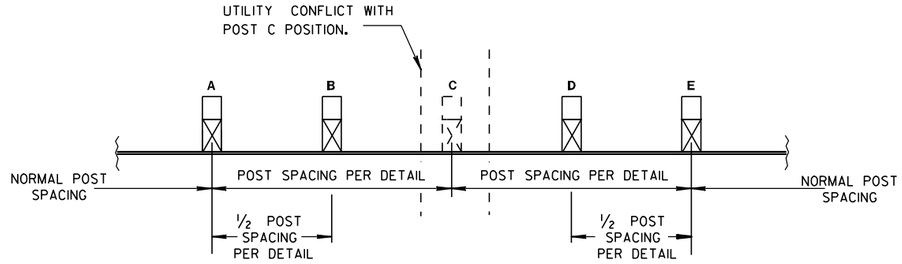


POST BOLT AND RECESS NUT

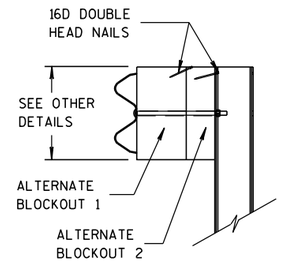


PLAN VIEW

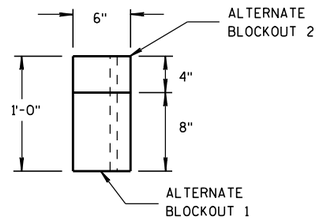
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

6

6

S.D.D. 14 B 42-2c

S.D.D. 14 B 42-2c

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.

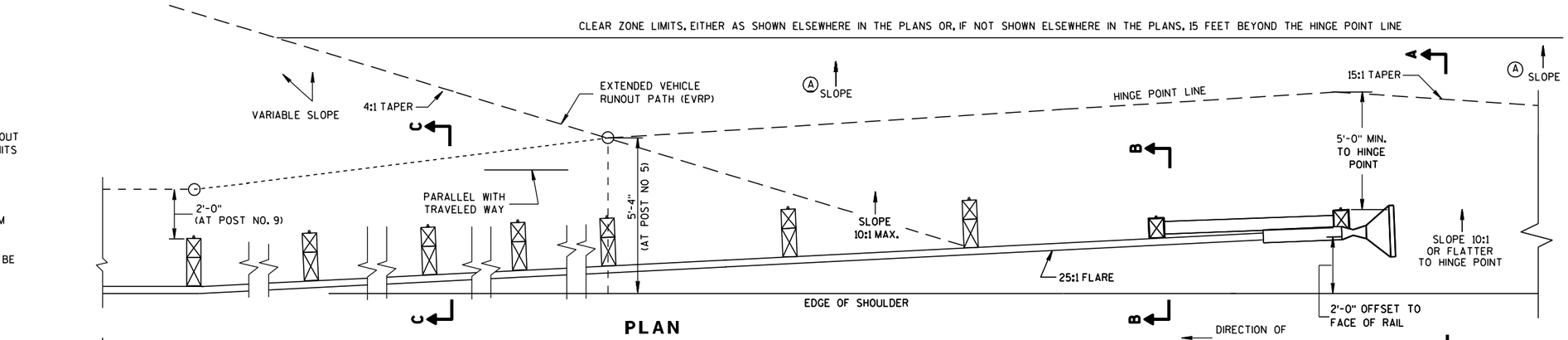
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

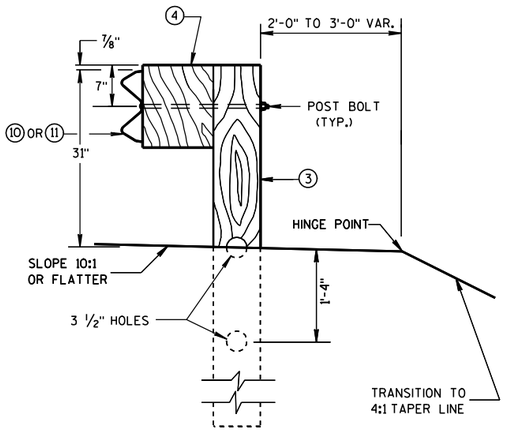
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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.

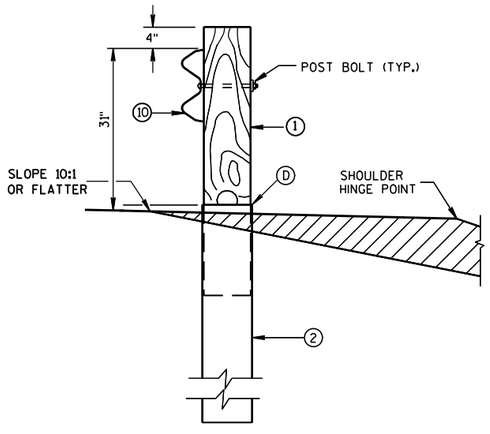
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

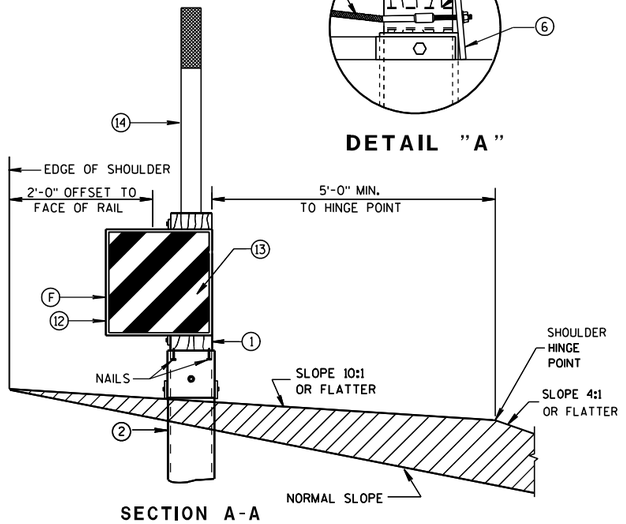




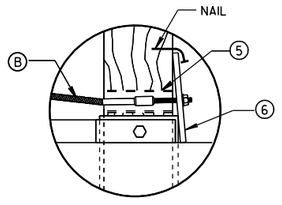
SECTION C-C
TYPICAL AT POST NOS. 3-9



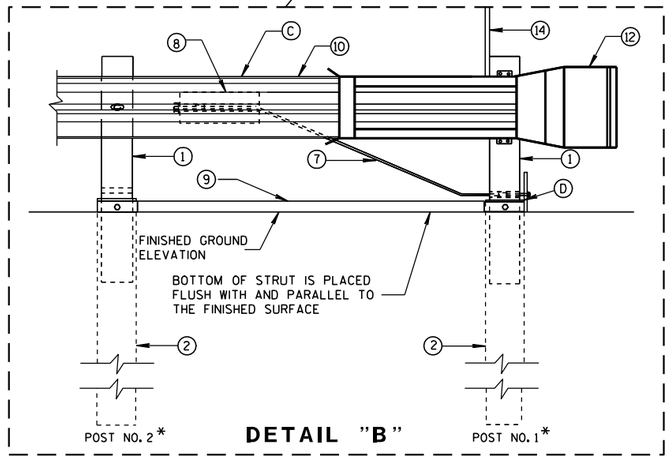
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

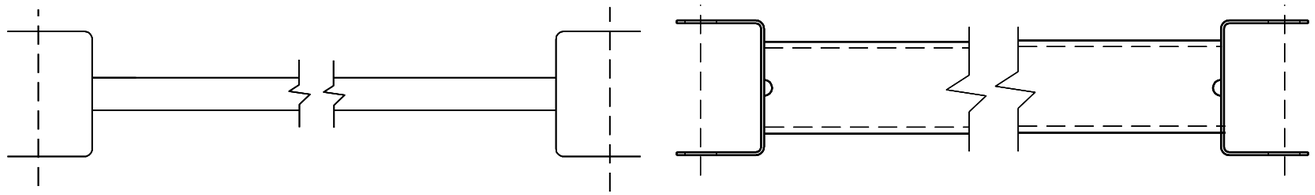
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 44-1a

6

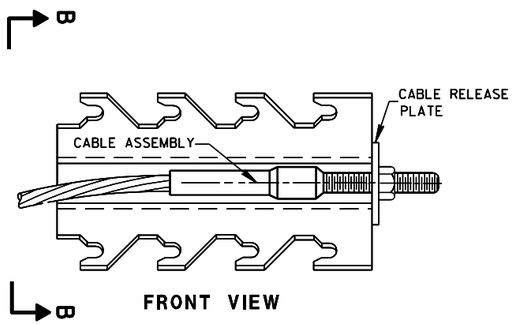
S.D.D. 14 B 44-1a



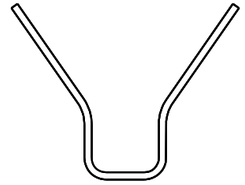
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

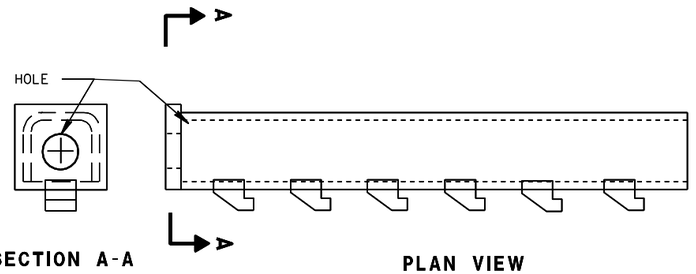
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



FRONT VIEW



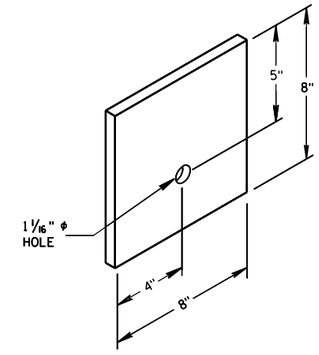
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



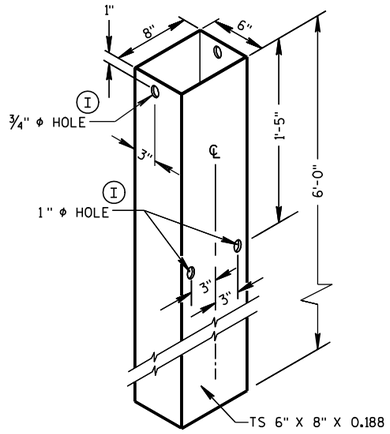
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

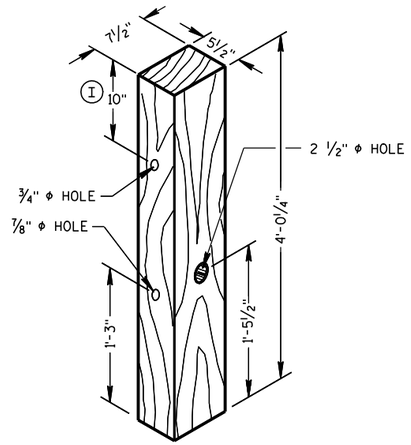
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 44-1b

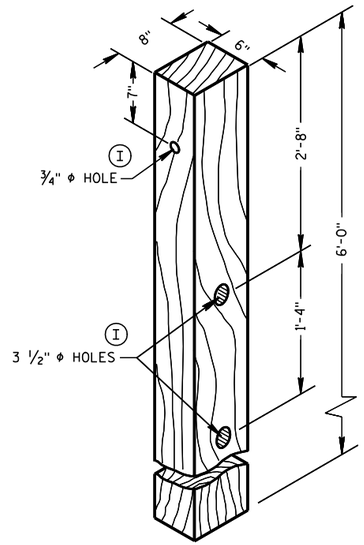


FOUNDATION TUBE (2)



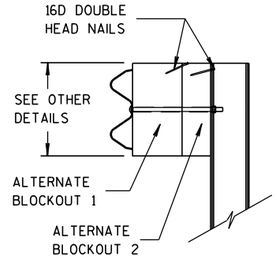
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

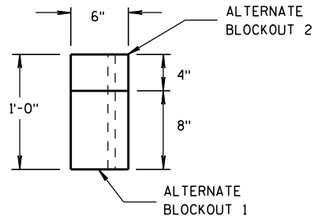


POSTS NUMBER 3-9

WOOD CRT POST (3)

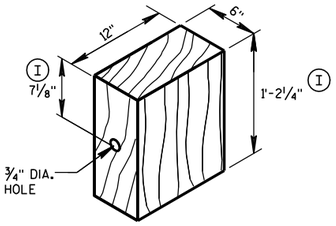


SIDE VIEW



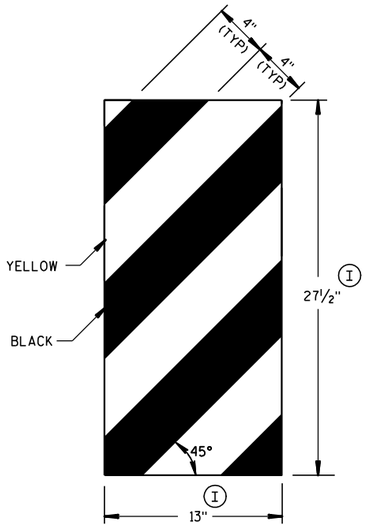
TOP VIEW

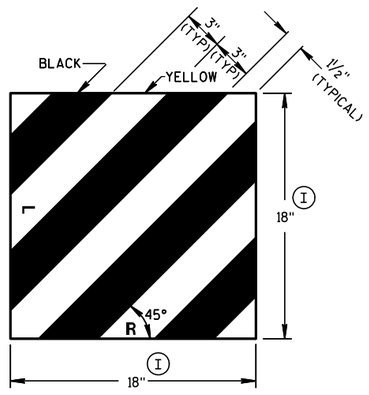
ALTERNATE WOOD BLOCKOUT DETAIL



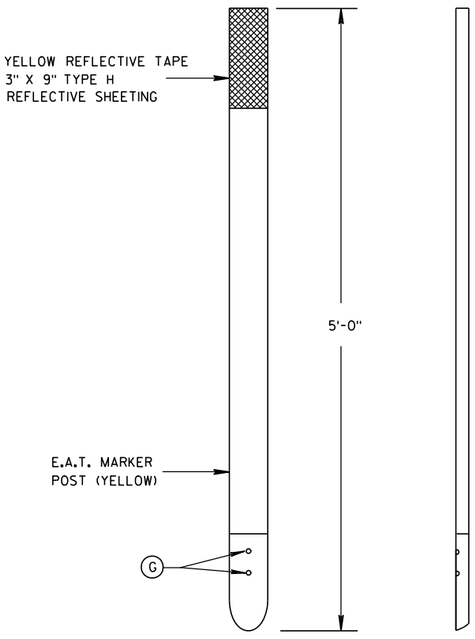
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





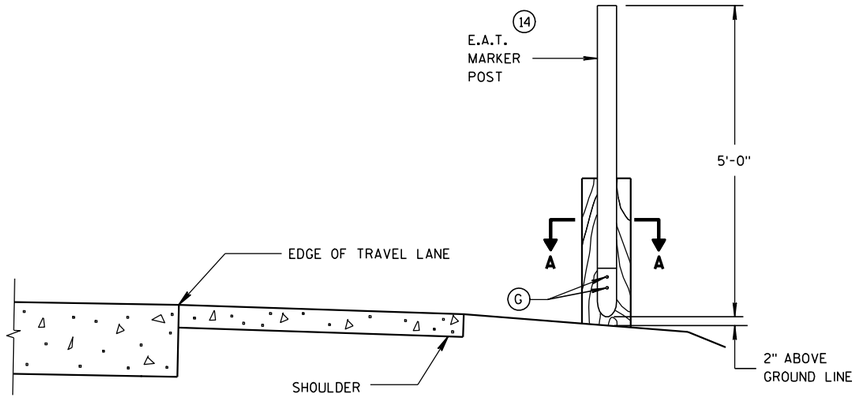
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

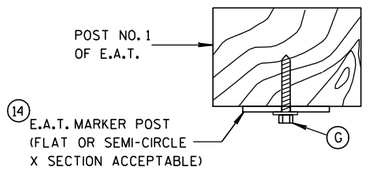
SIDE VIEW

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

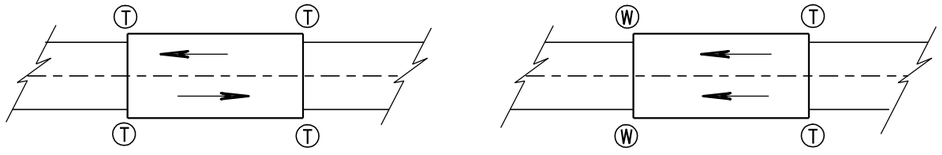
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2011
DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS 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

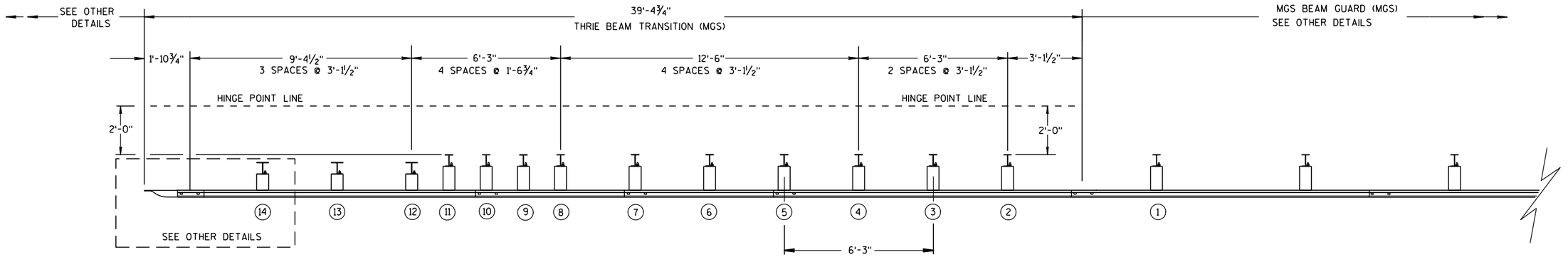
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

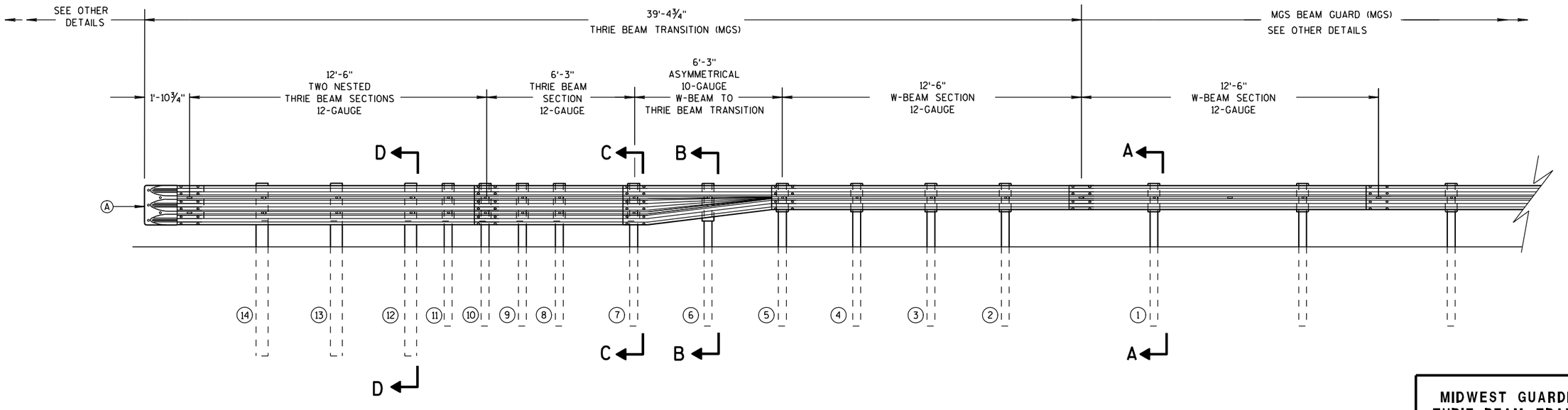
TRANSITION USES STEEL POSTS ONLY.

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	350

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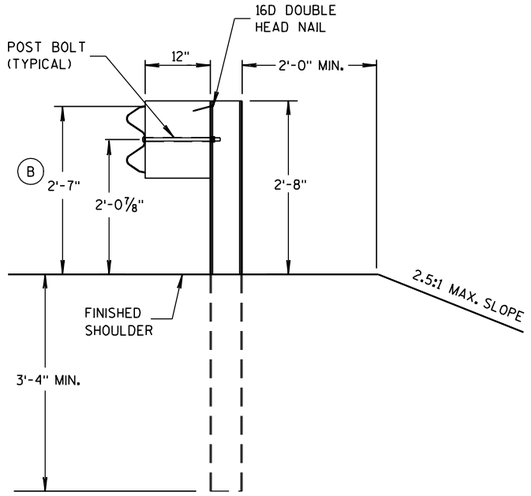
S.D.D. 14 B 45-3a

6

S.D.D. 14 B 45-3a

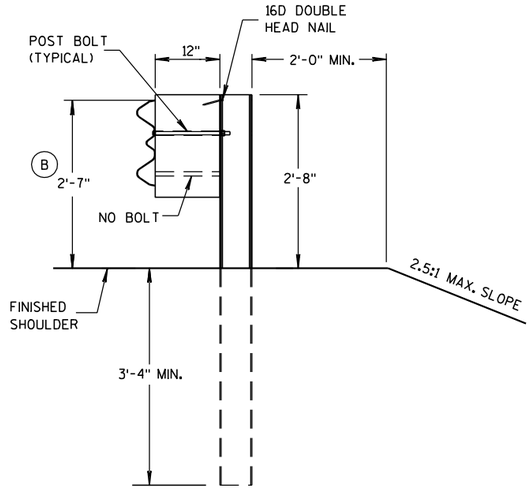
GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



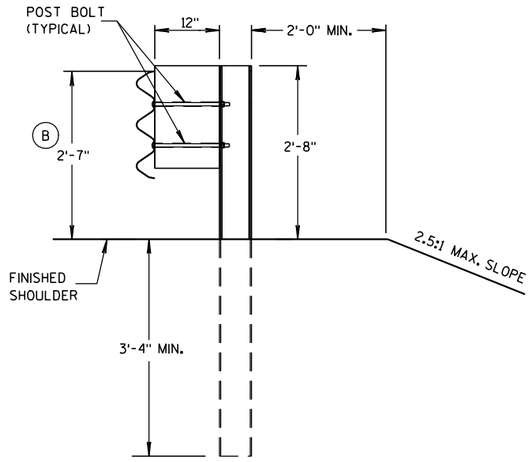
SECTION A-A

POSTS 1-5



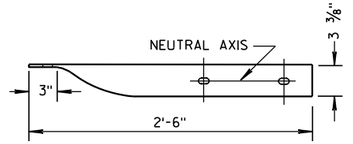
SECTION B-B

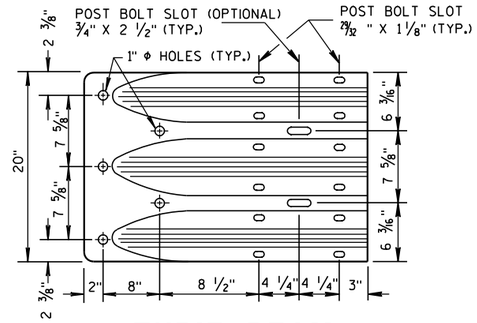
POST 6



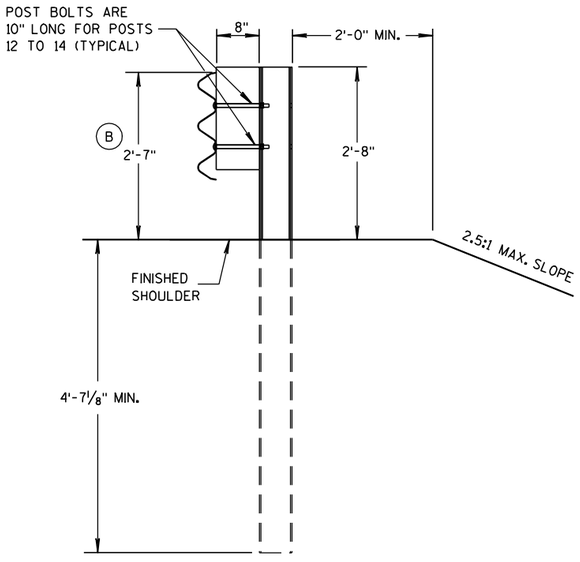
SECTION C-C

POSTS 7-11





THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-14

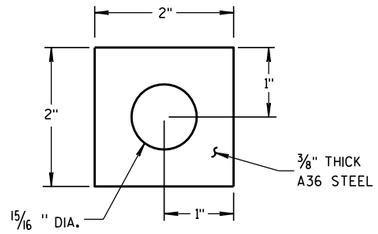
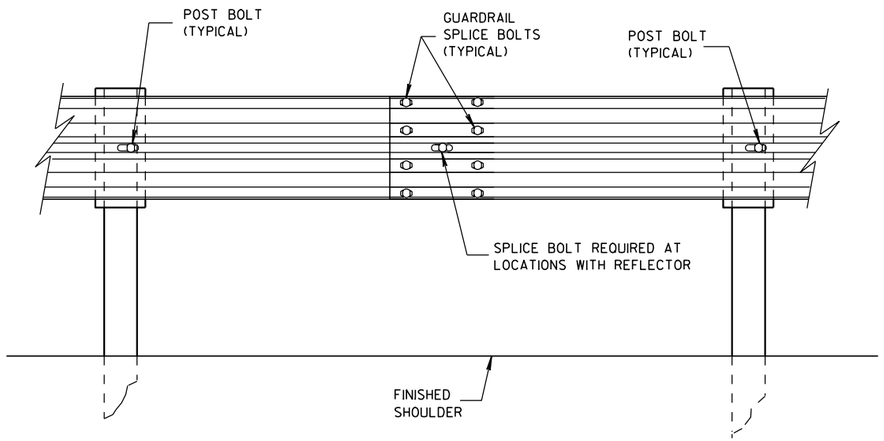
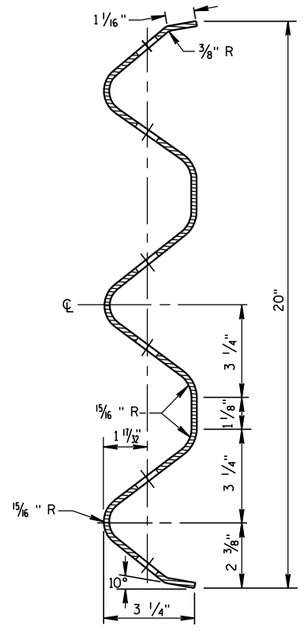


PLATE WASHER DETAIL



SPLICE DETAIL



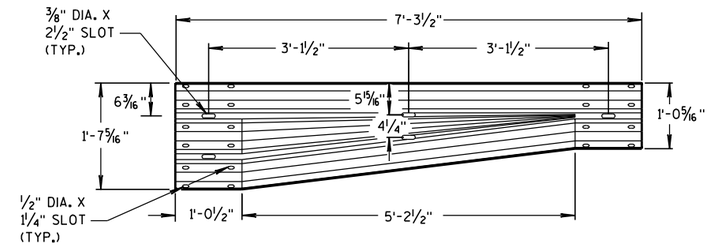
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

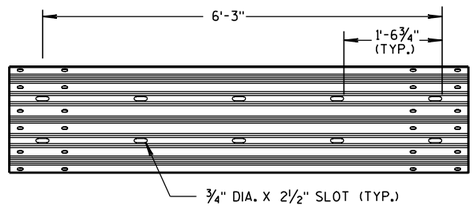
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

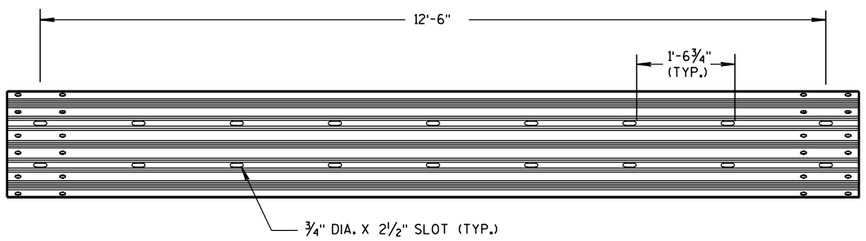
S.D.D. 14 B 45-3b



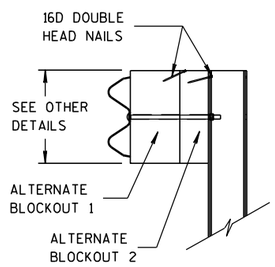
W-BEAM TO THRIE BEAM TRANSITION SECTION



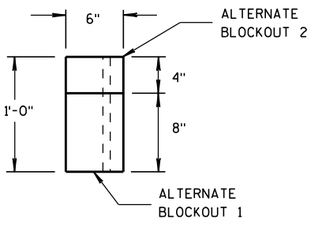
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

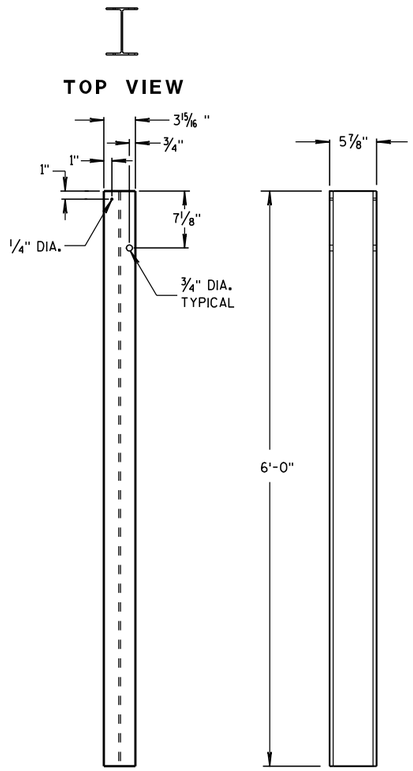


SIDE VIEW

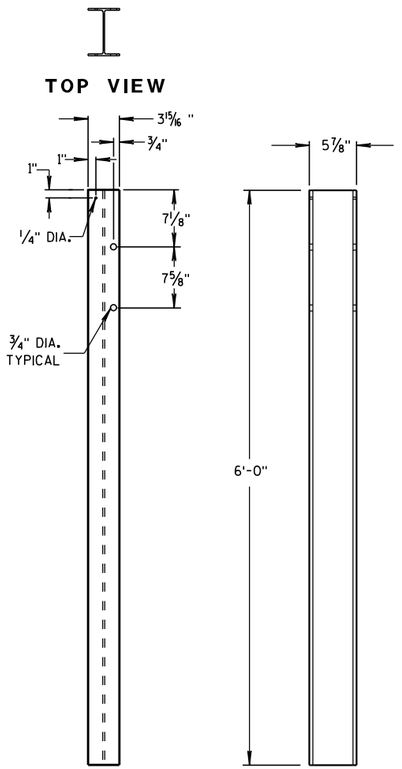


TOP VIEW

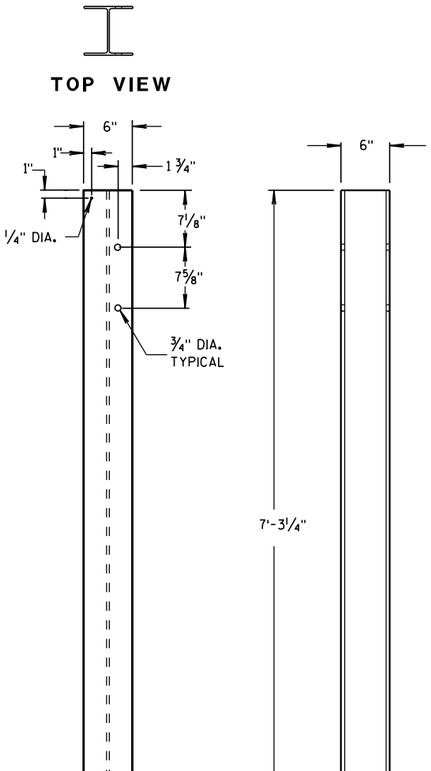
ALTERNATE WOOD BLOCKOUT DETAIL



STEEL POSTS 1-5

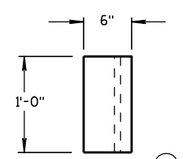


STEEL POSTS 6-11

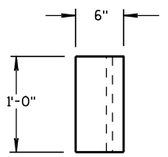


STEEL POSTS 12-14

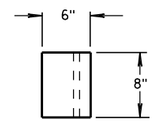
1 WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



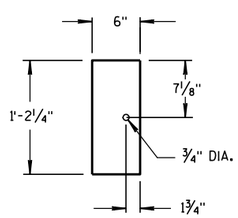
TOP VIEW (1)



TOP VIEW (1)

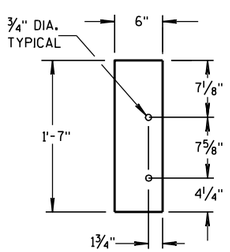


TOP VIEW



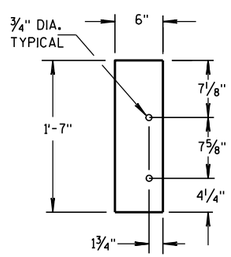
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

BLOCKOUT POSTS 12-14

STEEL POST SIZES

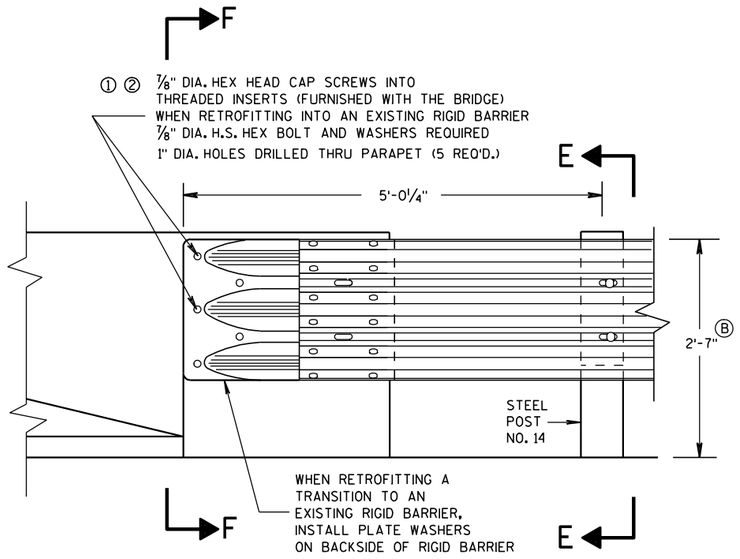
POST NUMBER	SECTION TYPE	LENGTH
1	W6x9	72"
2	W6x9	72"
3	W6x9	72"
4	W6x9	72"
5	W6x9	72"
6	W6x9	72"
7	W6x9	72"
8	W6x9	72"
9	W6x9	72"
10	W6x9	72"
11	W6x9	72"
12	W6x15	87 1/8"
13	W6x15	87 1/8"
14	W6x15	87 1/8"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

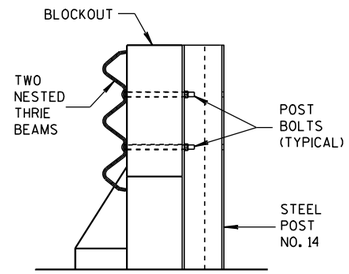
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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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.

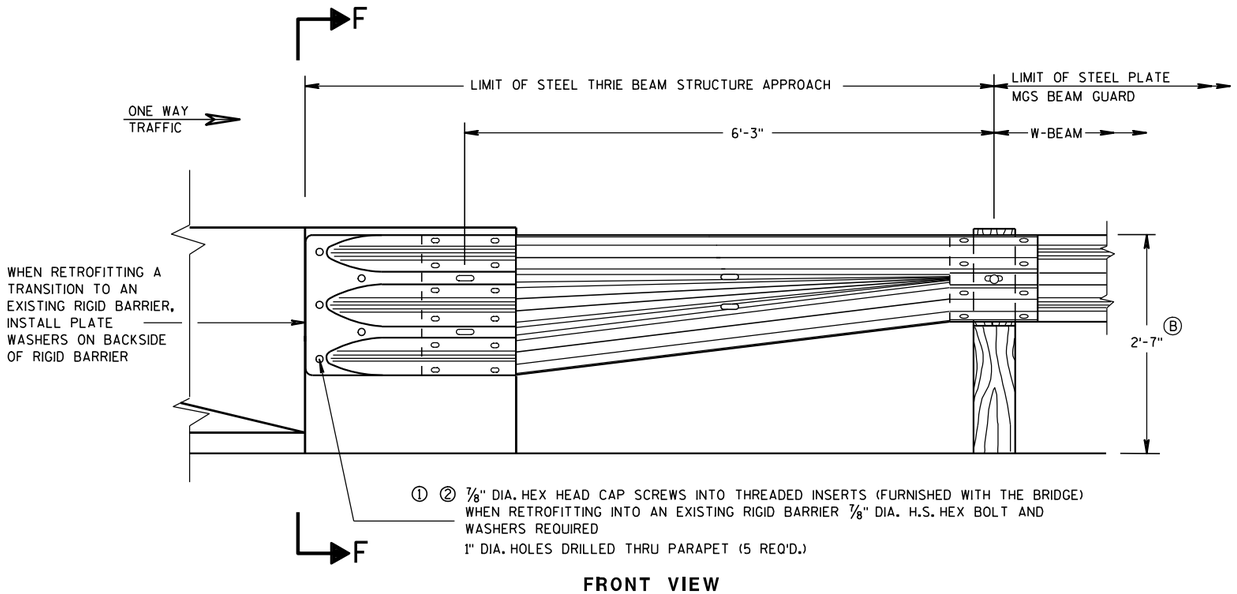
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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.

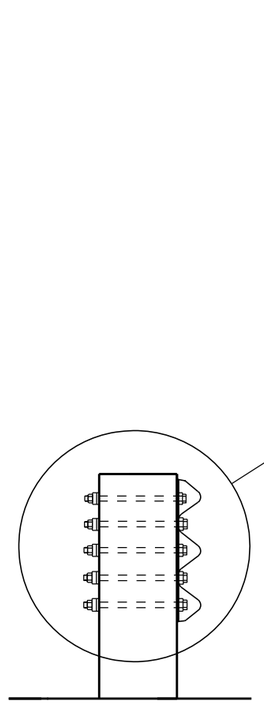
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

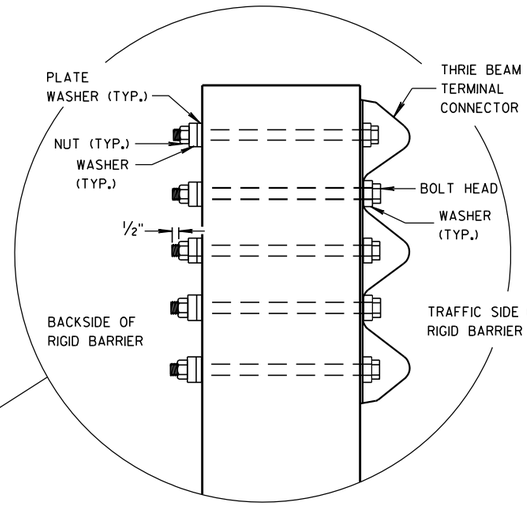
THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



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] ENGINEER

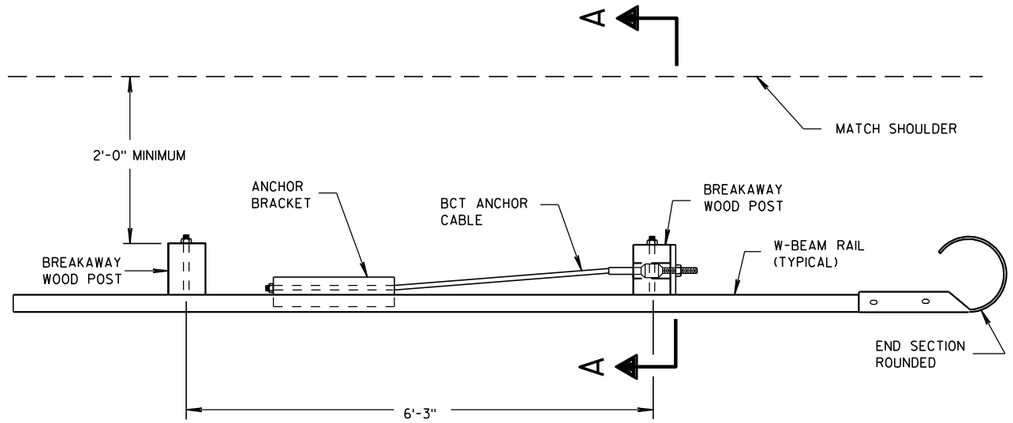
FHWA

6

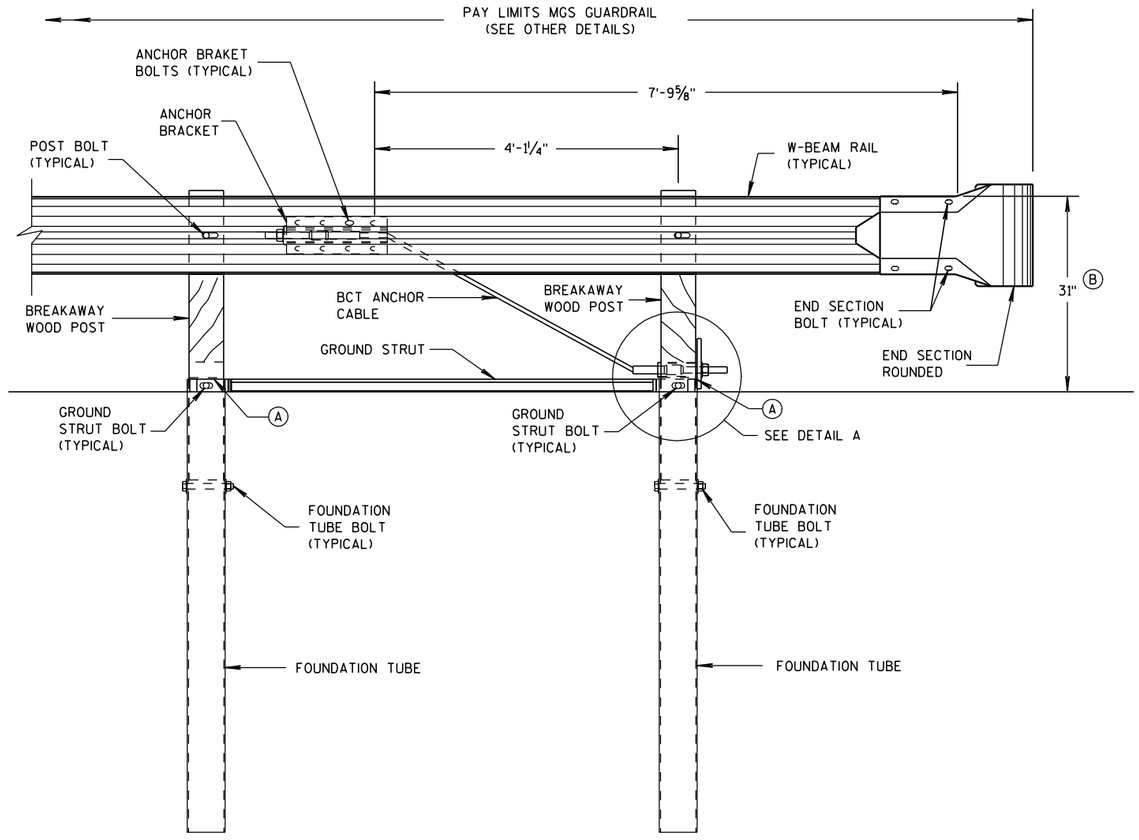
S.D.D. 14 B 45-3d

6

S.D.D. 14 B 45-3d

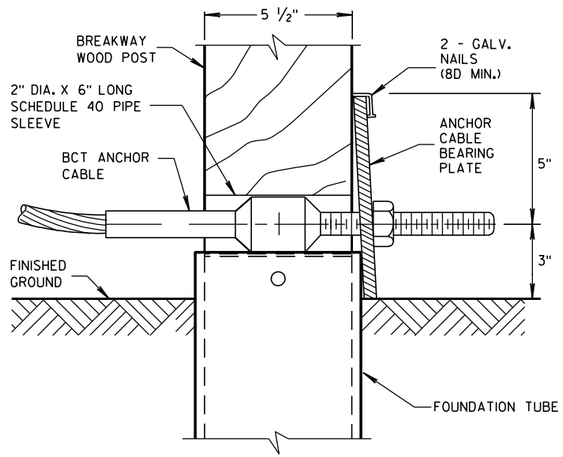


PLAN VIEW



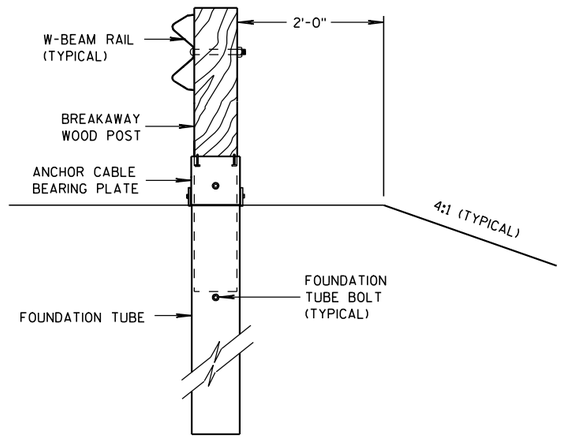
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

POST BOLTS ARE A ⅝" DIAMETER X 10" LONG GUARDRAIL BOLT. A POST BOLT REQUIRES A ⅝" DIAMETER DH MODIFIED (RECESSED) HEAVY HEX NUT AND ⅝" DIAMETER FLAT WASHER.

FOUNDATION TUBE BOLTS ARE A ⅞" DIAMETER X 7½" LONG HEAVY HEX HEAD BOLT. A FOUNDATION TUBE BOLT REQUIRES A ⅞" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

GROUND STRUT BOLTS ARE A ⅝" DIAMETER X 10" LONG HEAVY HEX HEAD BOLT. A GROUND STRUT BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

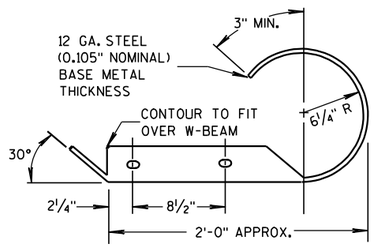
ANCHOR BRAKET BOLTS ARE A ⅝" DIAMETER X 1½" LONG HEAVY HEX HEAD BOLT. AN ANCHOR BRAKET BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A FLAT WASHER.

END SECTION BOLTS ARE A ⅝" DIAMETER X 1½" HEAVY HEX HEAD BOLT. AN END SECTION BOLT REQUIRES ⅝" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

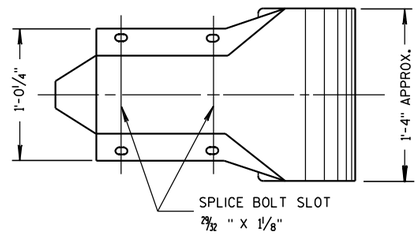
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



FRONT VIEW

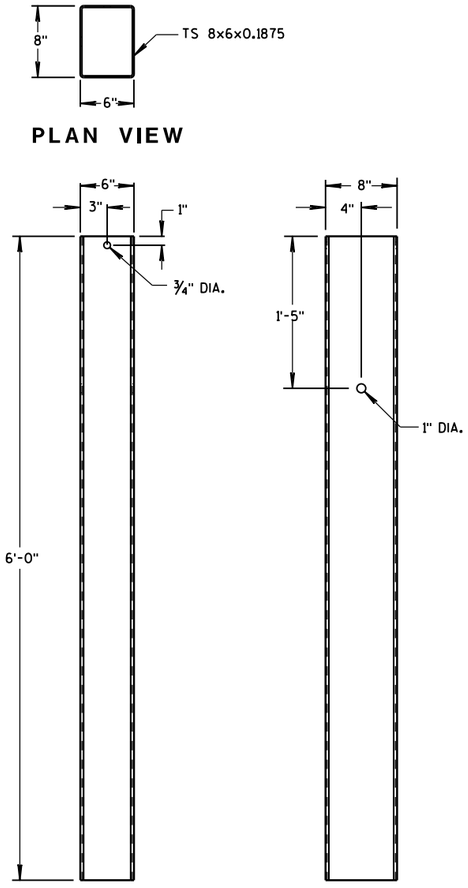
W BEAM END SECTION ROUNDED

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

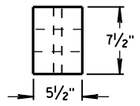
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

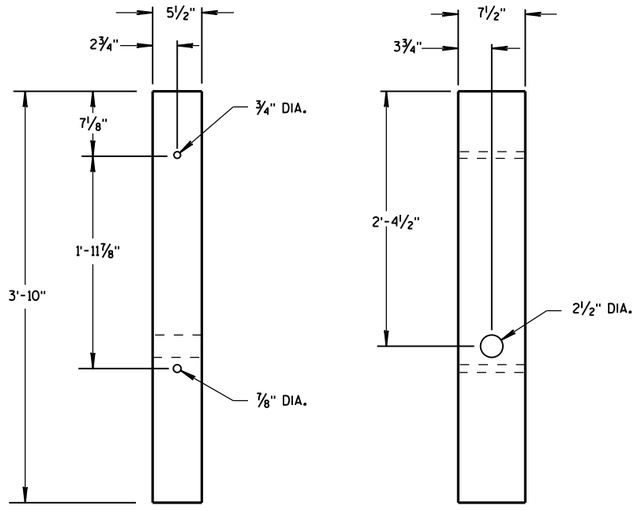
6

S.D.D. 14 B 47-1a



FOUNDATION TUBE



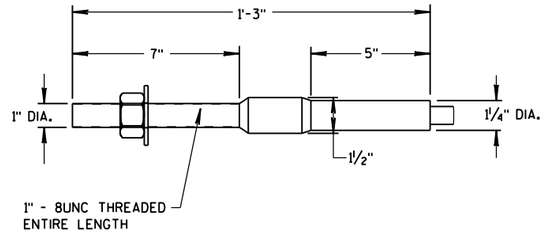


BREAKAWAY WOOD POST

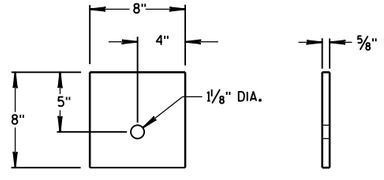
GENERAL NOTES

BCT ANCHOR CABLE IS A ⅜" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. THE END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. THE TREADED STUD SHOULD CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.

BCT ANCHOR CABLE



DETAIL B



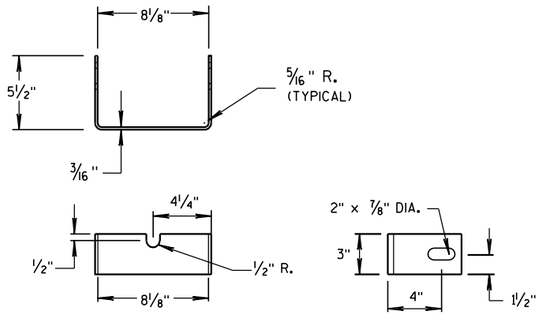
ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

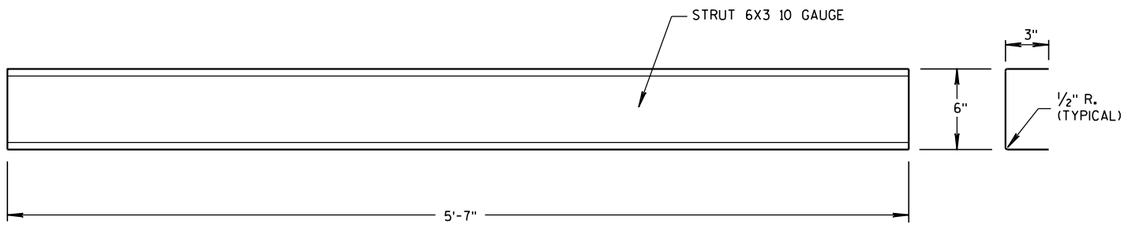
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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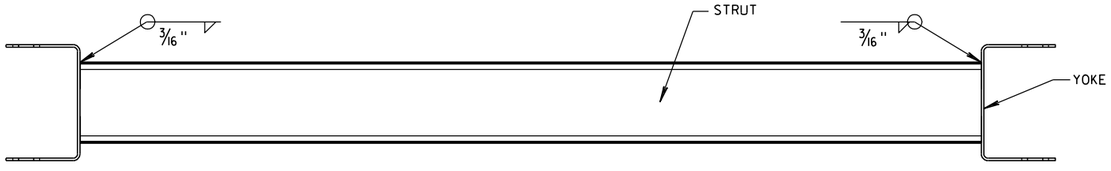
S.D.D. 14 B 47-1b



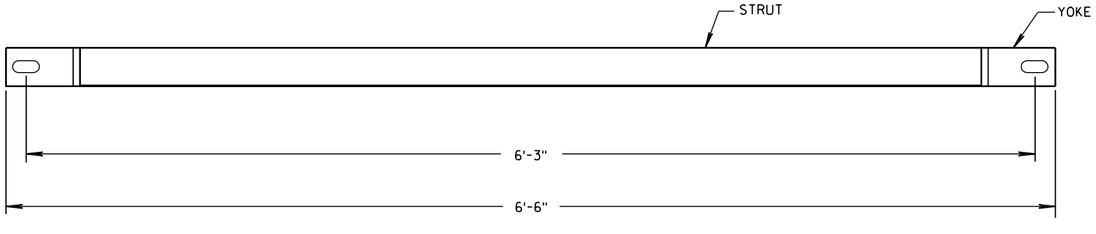
YOKE DETAIL



STRUT DETAIL

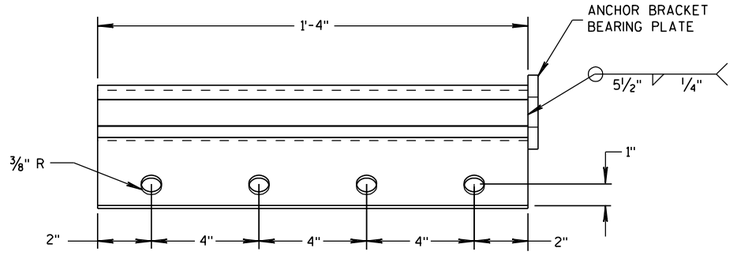


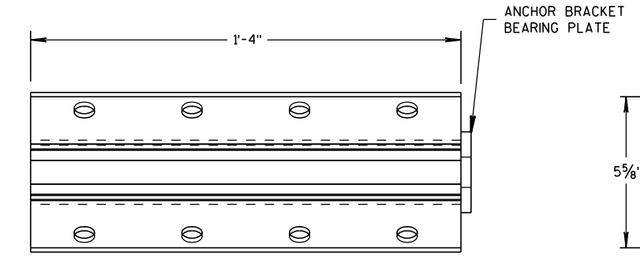
PLAN VIEW

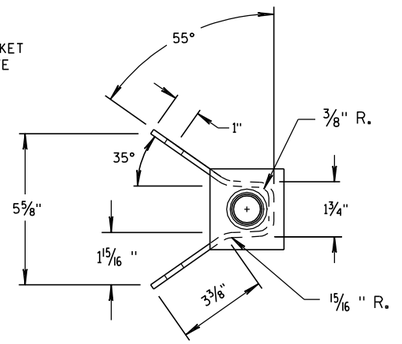


FRONT VIEW

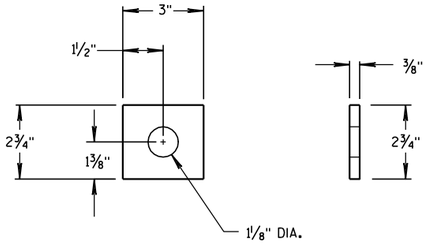
GROUND STRUT DETAIL







ANCHOR BRACKET



ANCHOR BRACKET BEARING PLATE

6

6

S.D.D. 14 B 47-1c

S.D.D. 14 B 47-1c

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

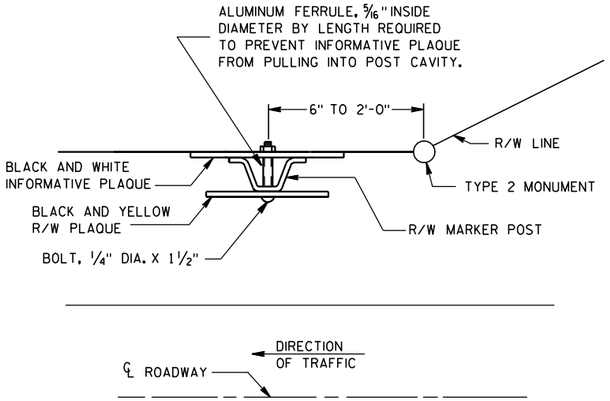
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

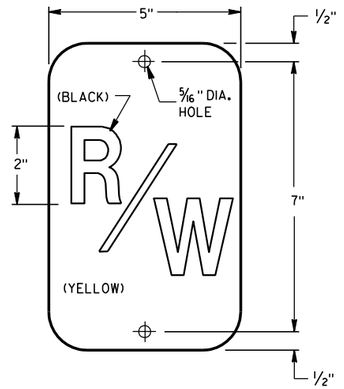
5/23/2011
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

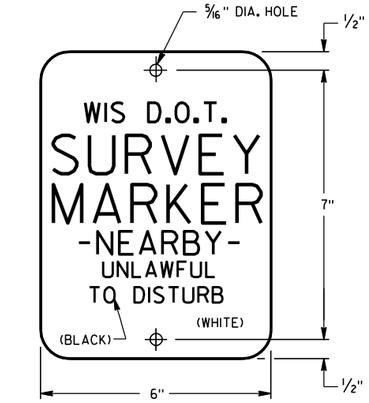


PLAN VIEW



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.

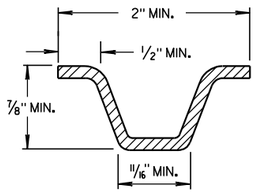
A STEEL MARKER POST FOR RIGHT-OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY, WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

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.

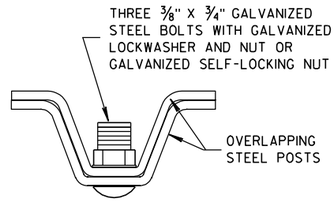
(1) IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK TO A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR.

FILL THE BORE HOLE WITH CEMENT GROUT, OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.

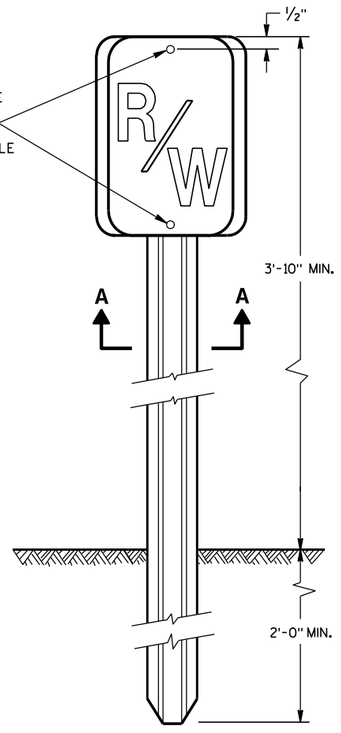


MIN. WEIGHT 1.12 LB./FT.

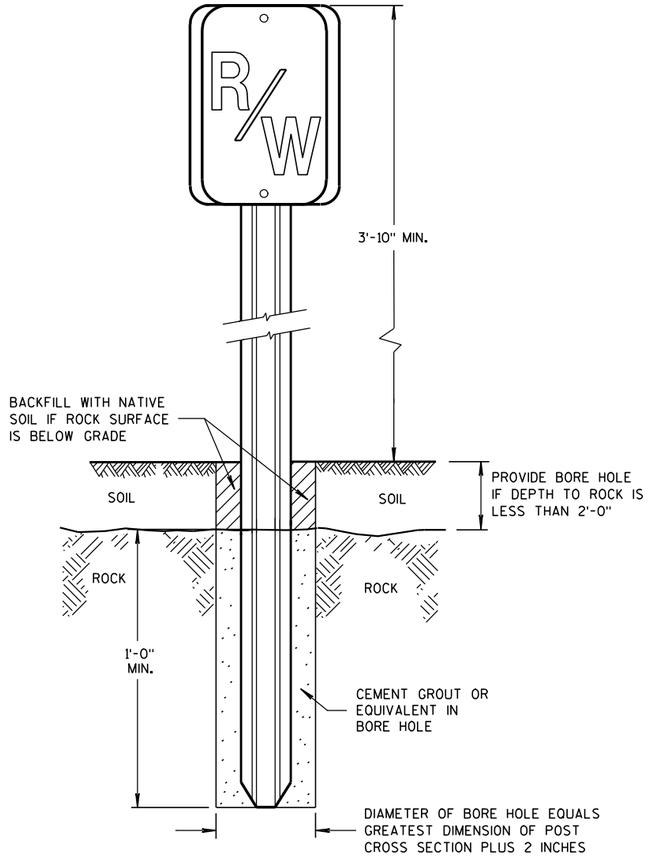
SECTION A-A



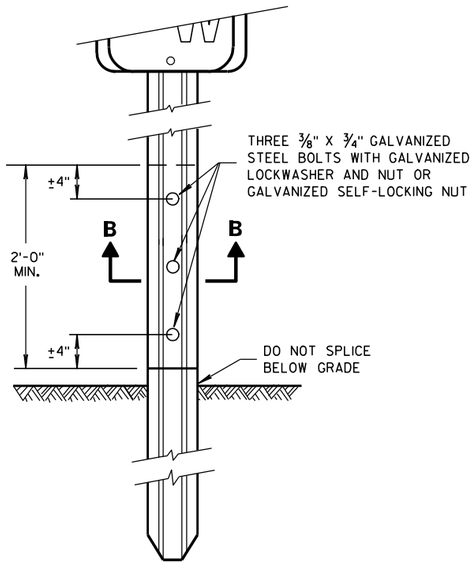
SECTION B-B



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

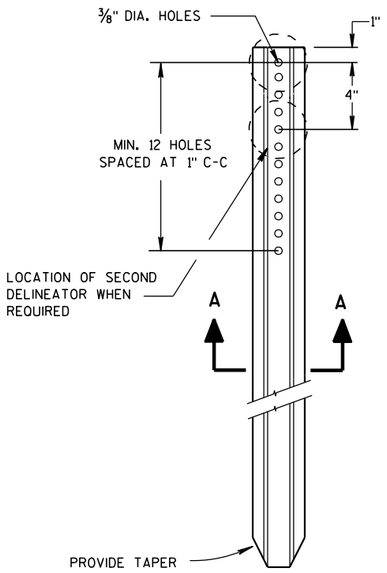
FHWA

6

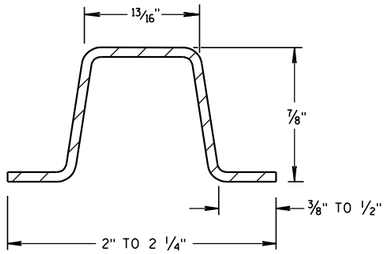
S.D.D. 15 A 1-11

6

S.D.D. 15 A 1-11

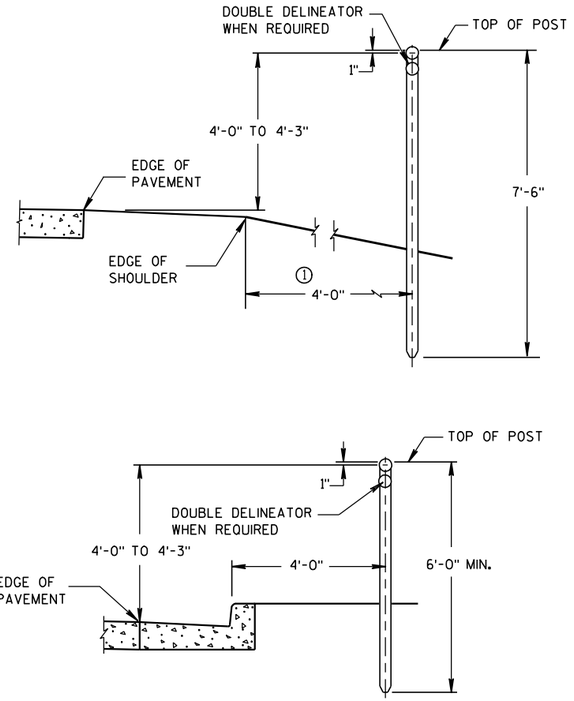


DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

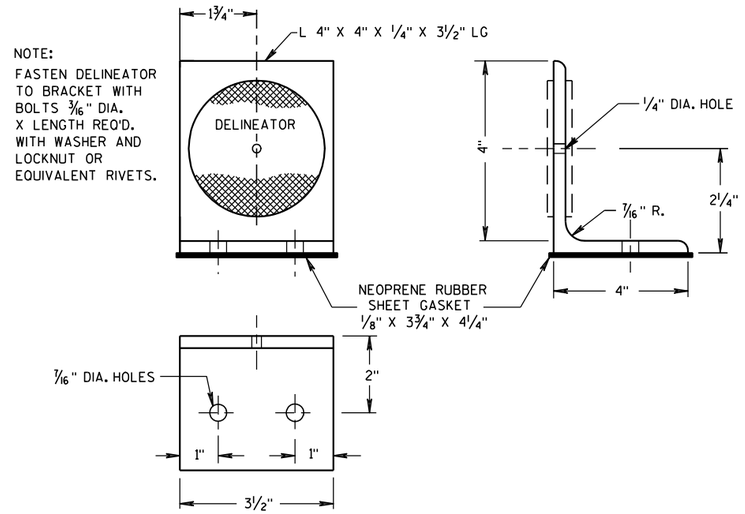


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

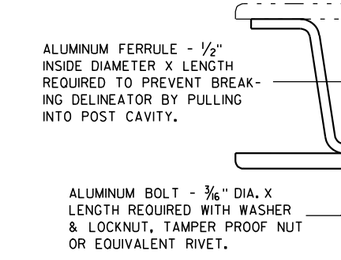
GENERAL NOTES

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

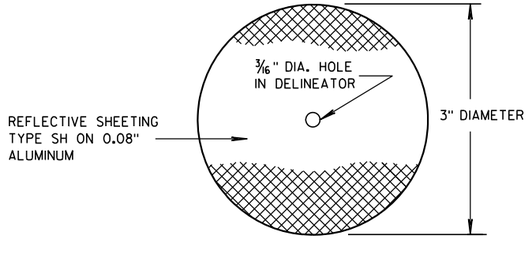
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



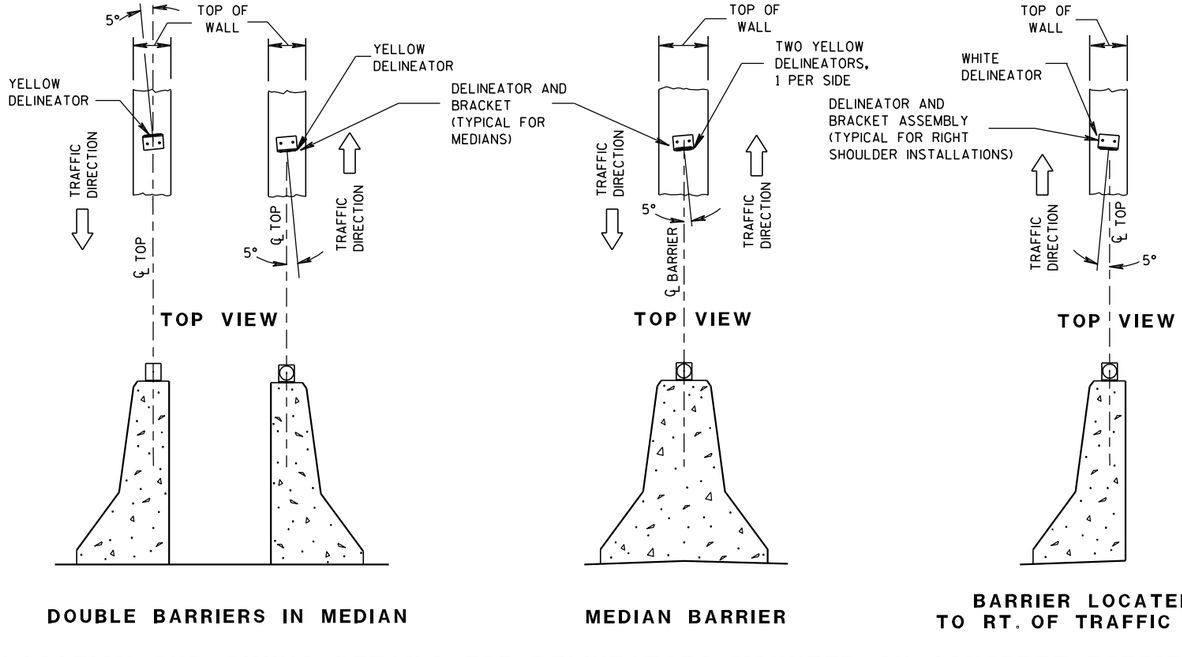
DELINEATOR BRACKET



MOUNTING DETAIL FOR DELINEATOR



DELINEATOR

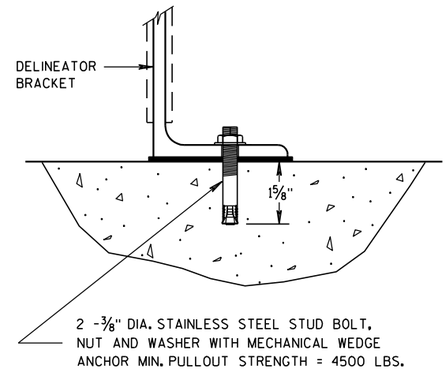


DOUBLE BARRIERS IN MEDIAN

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

FHWA

6

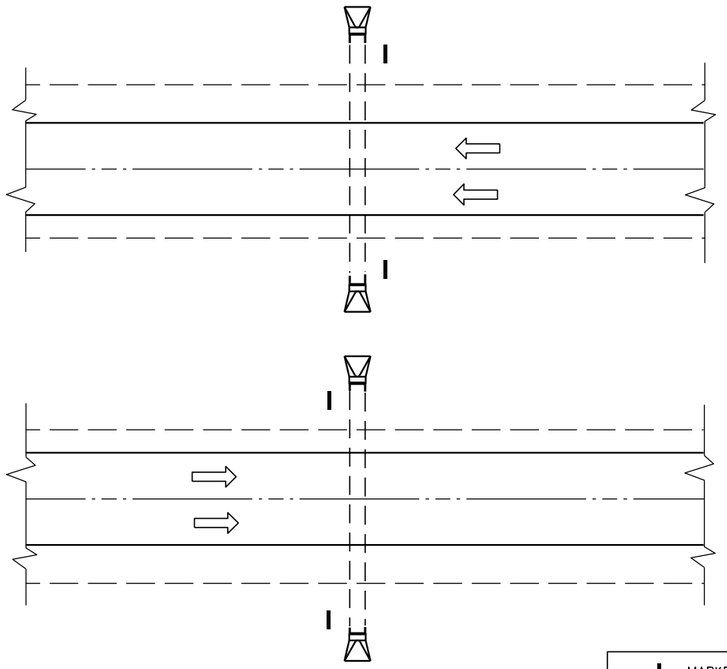
S.D.D. 15 A 2-7

6

S.D.D. 15 A 2-7

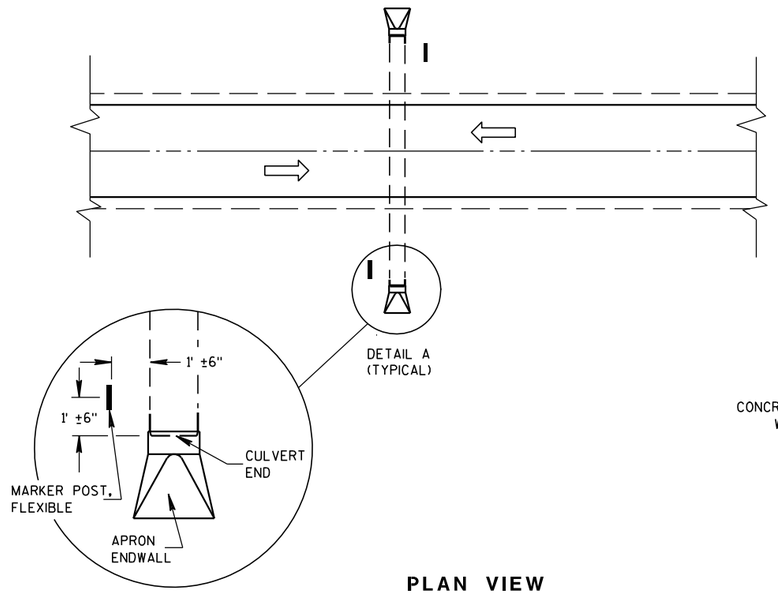
GENERAL NOTES

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

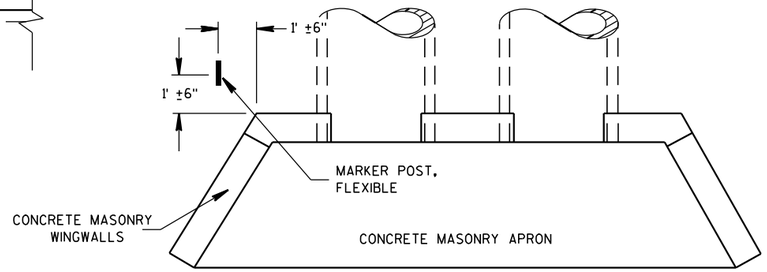
DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

UNDIVIDED HIGHWAY



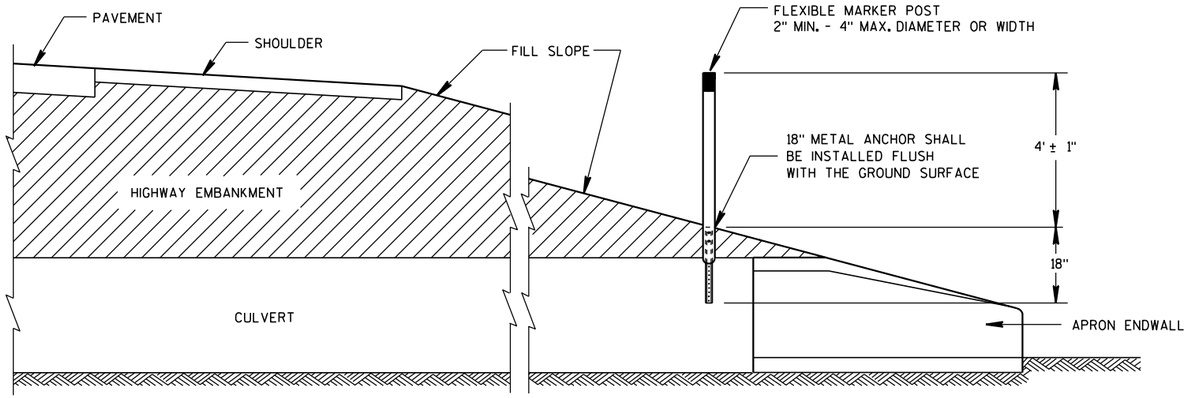
PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

MARKER POST, FLEXIBLE

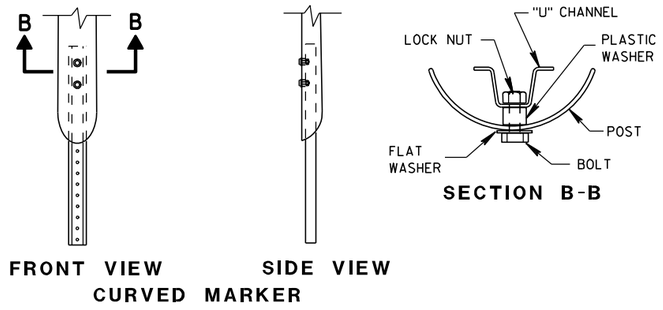
DIRECTION OF TRAFFIC FLOW

FLEXIBLE MARKER POST LOCATION



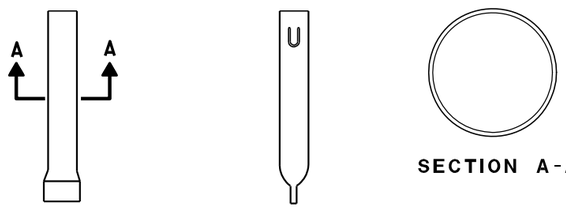
CROSS SECTION

FLEXIBLE MARKER POST



SECTION B-B

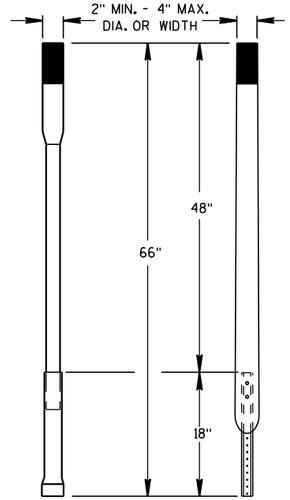
FRONT VIEW SIDE VIEW
CURVED MARKER



SECTION A-A

FRONT VIEW SIDE VIEW
ROUND MARKER

FLEXIBLE MARKER POST ANCHORS



ALTERNATE 1 ALTERNATE 2

FLEXIBLE MARKER POST

MARKER POST, FLEXIBLE, FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/1/98
DATE

/S/ Rory L. Rhinesmith
CHEIF ROADWAY DEVELOP ENGINEER

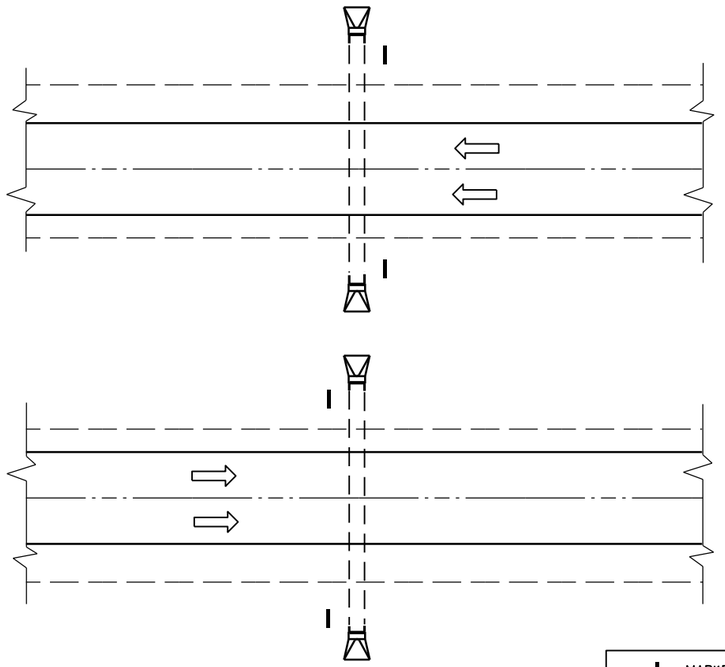
FHWA

6

S.D.D. 15 A 3-1

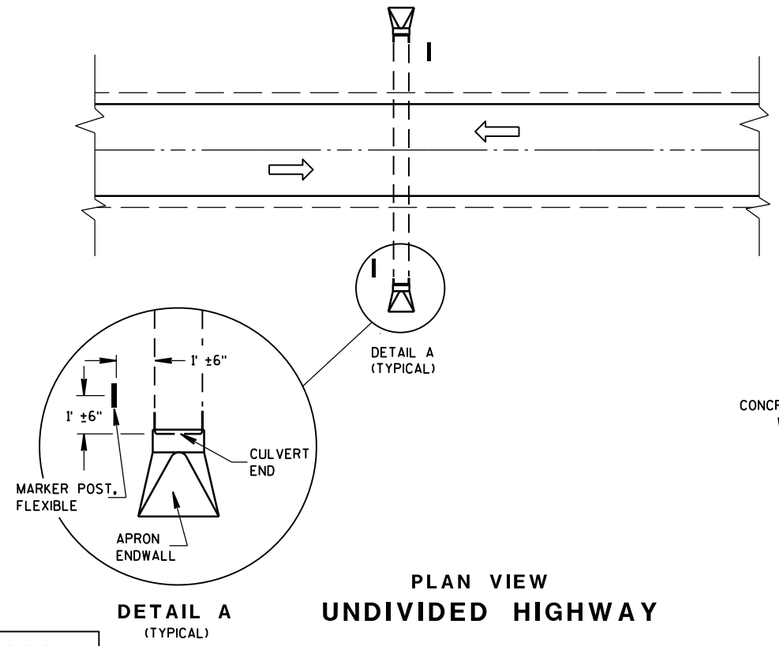
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S.D.D. 15 A 3-1



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

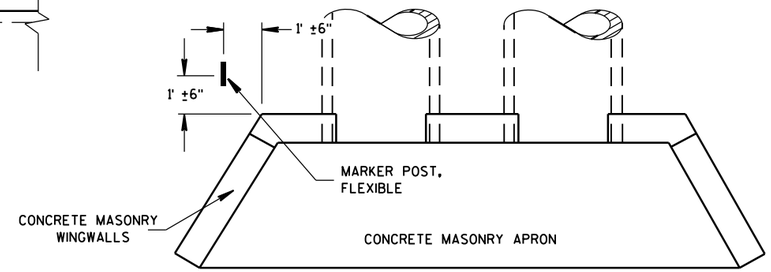
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

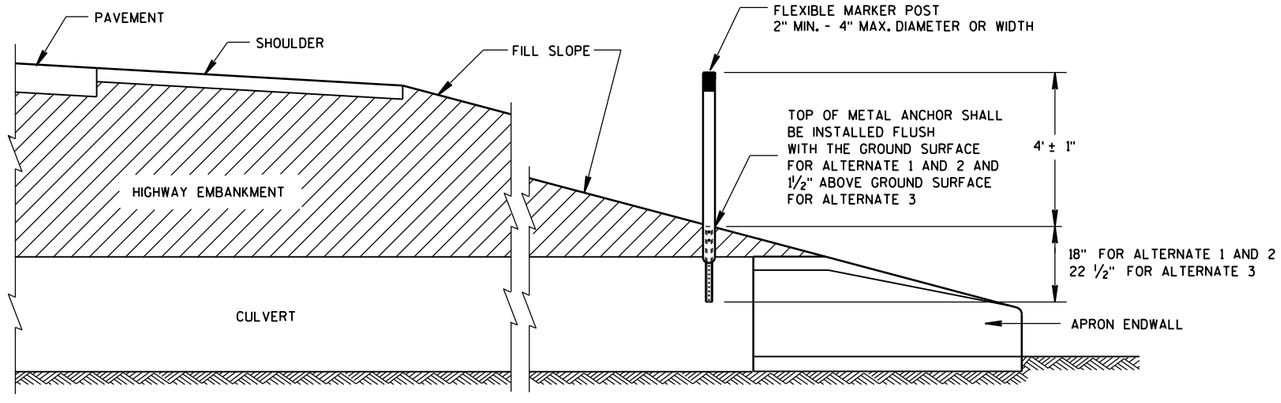
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

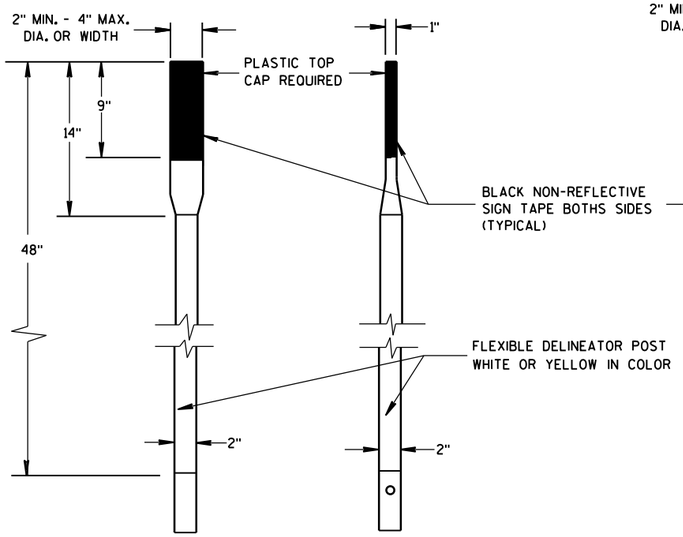
FLEXIBLE MARKER POST

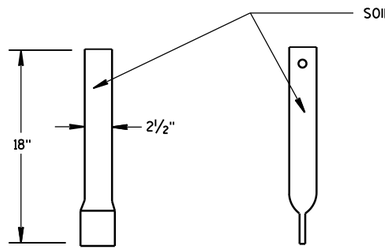
FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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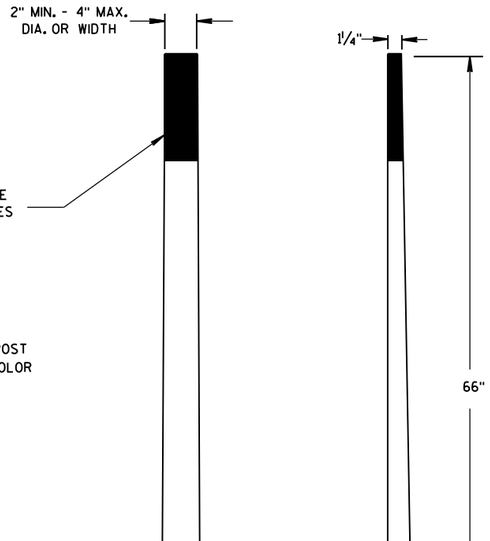
S.D.D. 15 A 3-2a





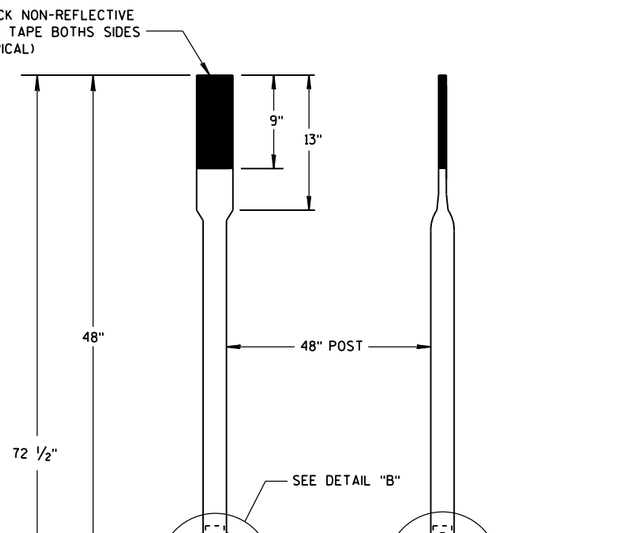
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

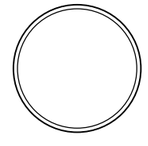
ALTERNATE 2



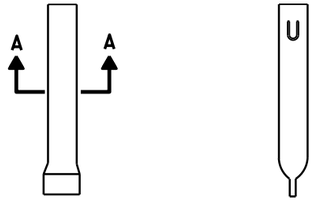
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

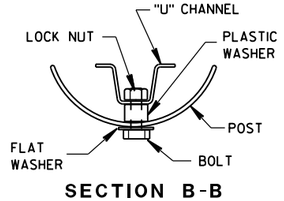


SECTION A-A

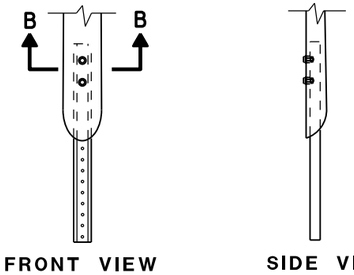


FRONT VIEW SIDE VIEW

ALTERNATE 1

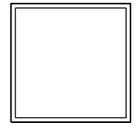


SECTION B-B

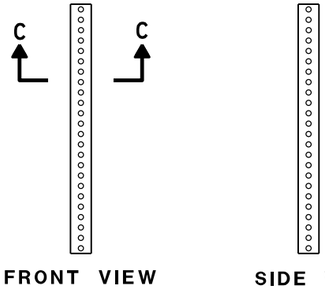


FRONT VIEW SIDE VIEW

ALTERNATE 2



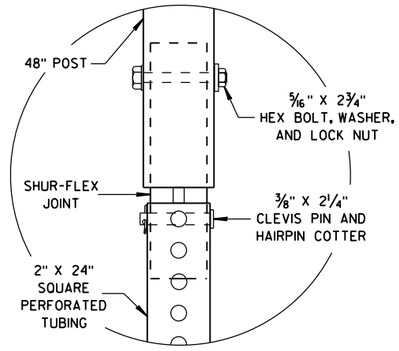
SECTION C-C



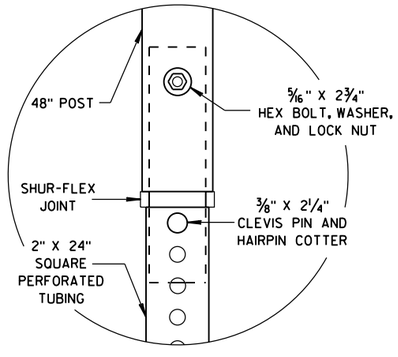
FRONT VIEW SIDE VIEW

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

6

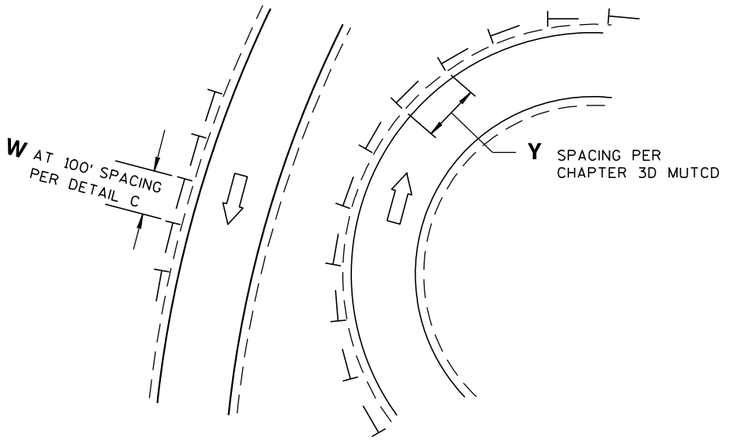
S.D.D. 15 A 3-2b

6

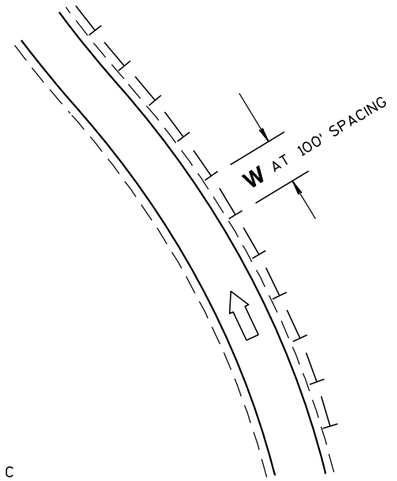
S.D.D. 15 A 3-2b

GENERAL NOTES

* USE DOUBLE DELINEATOR ALONG ACCELERATION-DECELERATION LANES AND TAPERS. USE SINGLE DELINEATOR WHEN RAMP PAVEMENT IS FULL WIDTH.



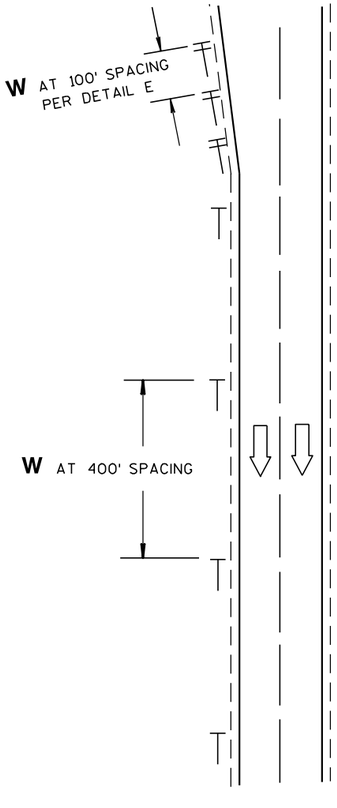
DETAIL A
DELINEATOR LAYOUT AT CURVED RAMP



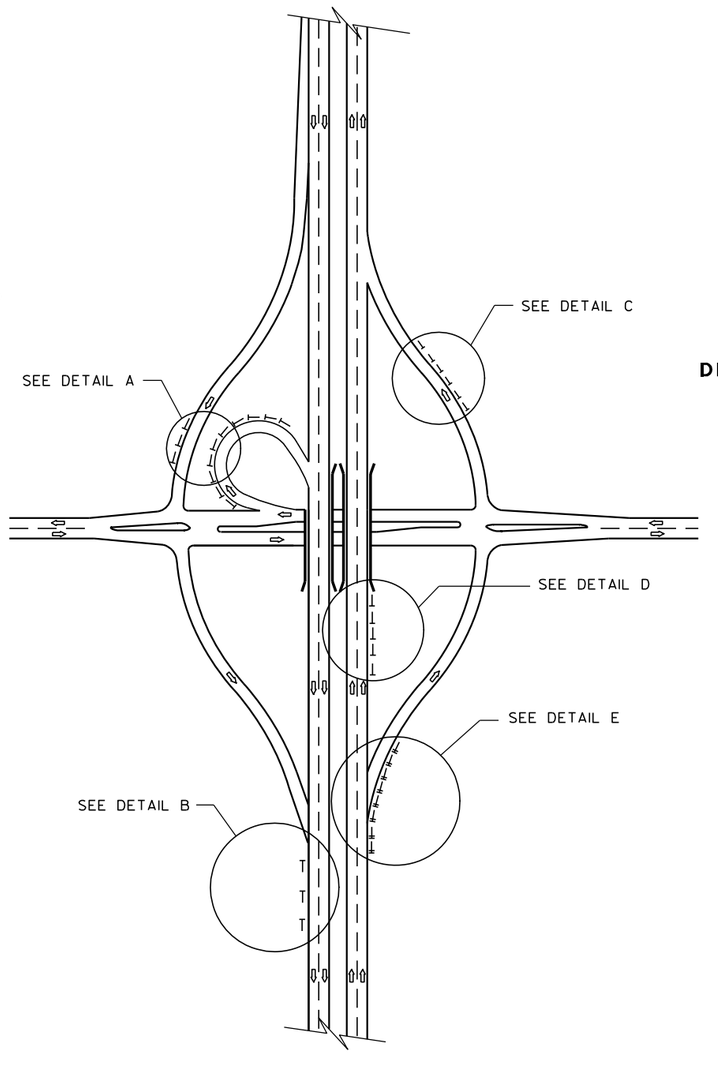
DETAIL C
DELINEATOR LAYOUT ALONG RAMP

LEGEND

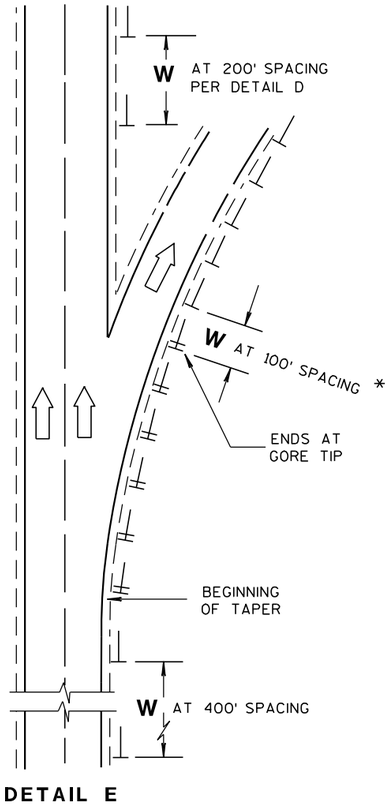
- DIRECTION OF TRAFFIC FLOW
- SINGLE DELINEATOR
- DOUBLE DELINEATOR
- W — WHITE
- Y — YELLOW



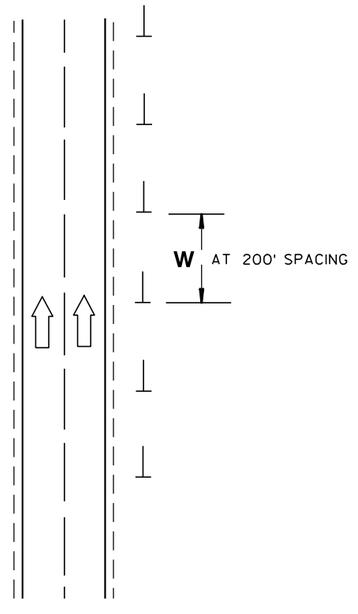
DETAIL B
DELINEATOR LAYOUT ALONG MAINLINE



DELINEATOR LAYOUT



DETAIL E
DELINEATOR LAYOUT FOR ACCELERATION - DECELERATION LANES AND TAPERS AT RAMPS



DETAIL D
DELINEATOR LAYOUT BETWEEN INTERCHANGE RAMPS

DELINEATOR LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

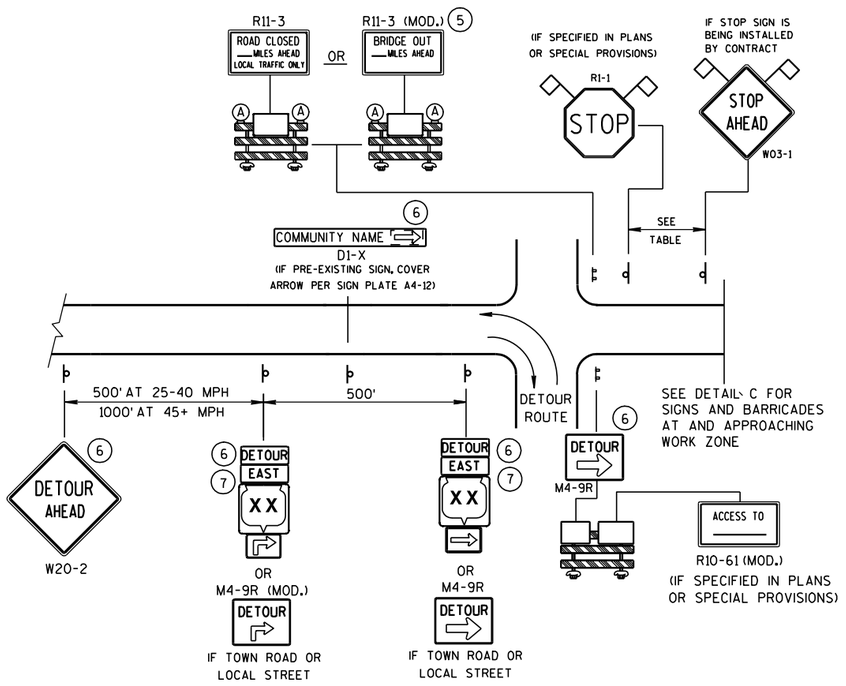
APPROVED
2/5/09 DATE
/S/ Thomas N. Nothdurft STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 A 6-2

6

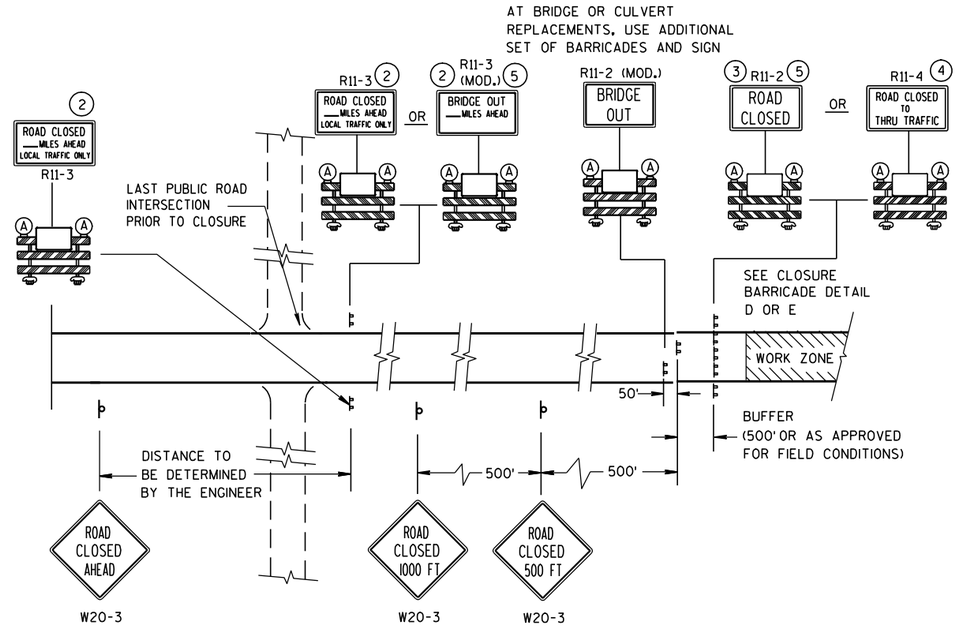
S.D.D. 15 A 6-2



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

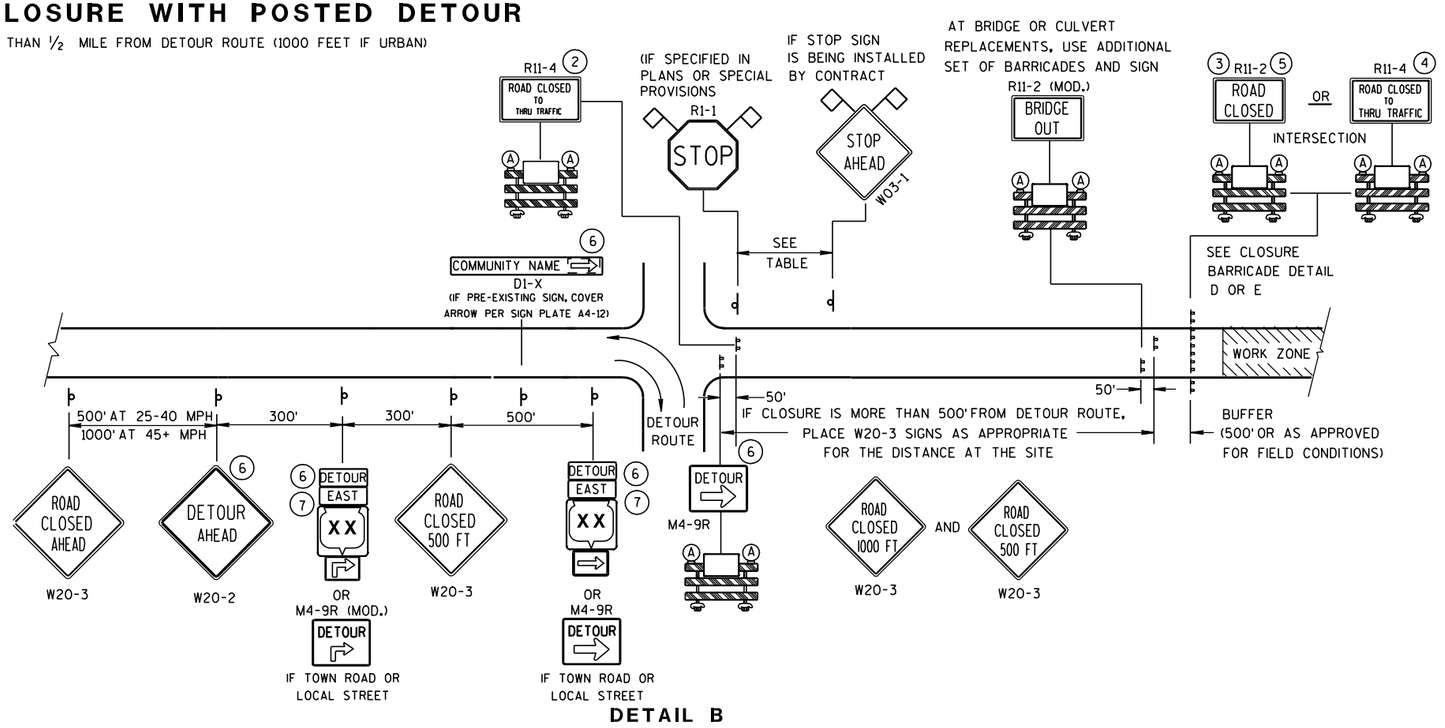


DETAIL C

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

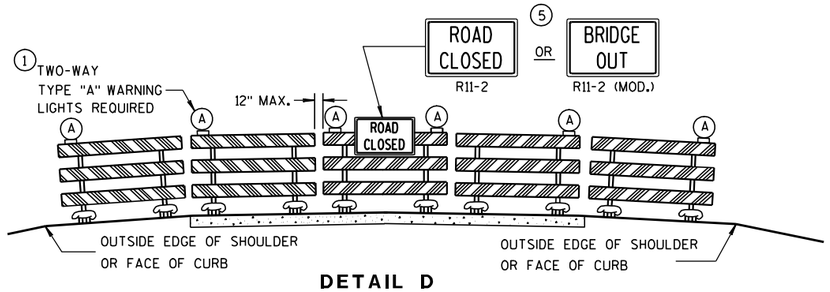
- POST MOUNTED SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK ZONE
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1; M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

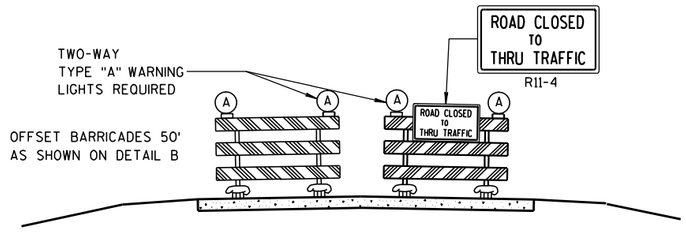
S.D.D. 15 C 2-4a



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 MARKING 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.

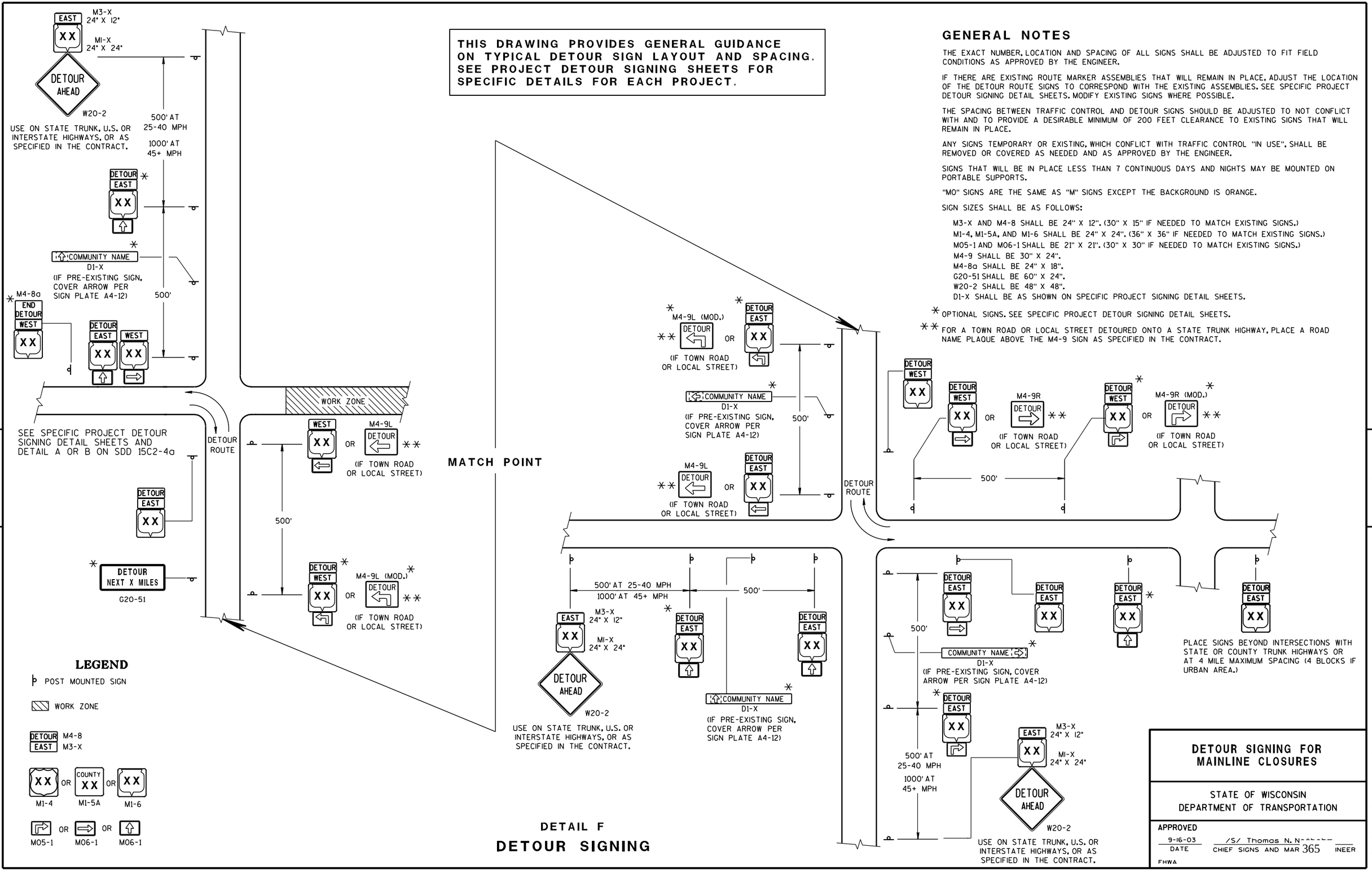
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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.



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

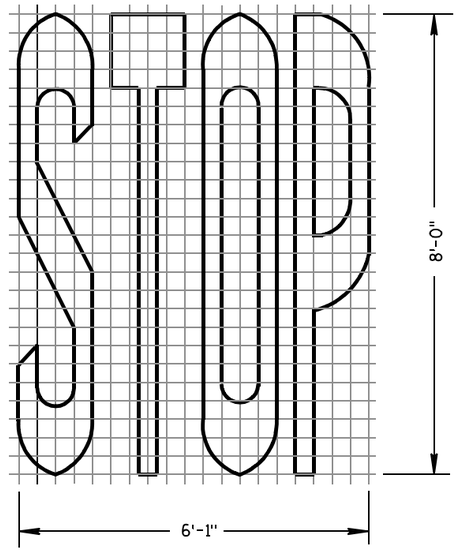
FHWA

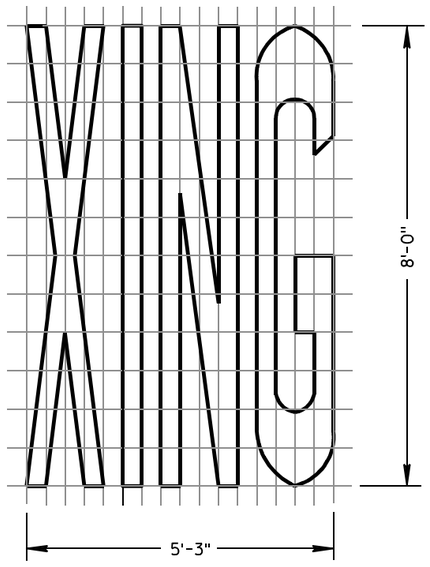
6 S.D.D. 15 C 2-4c

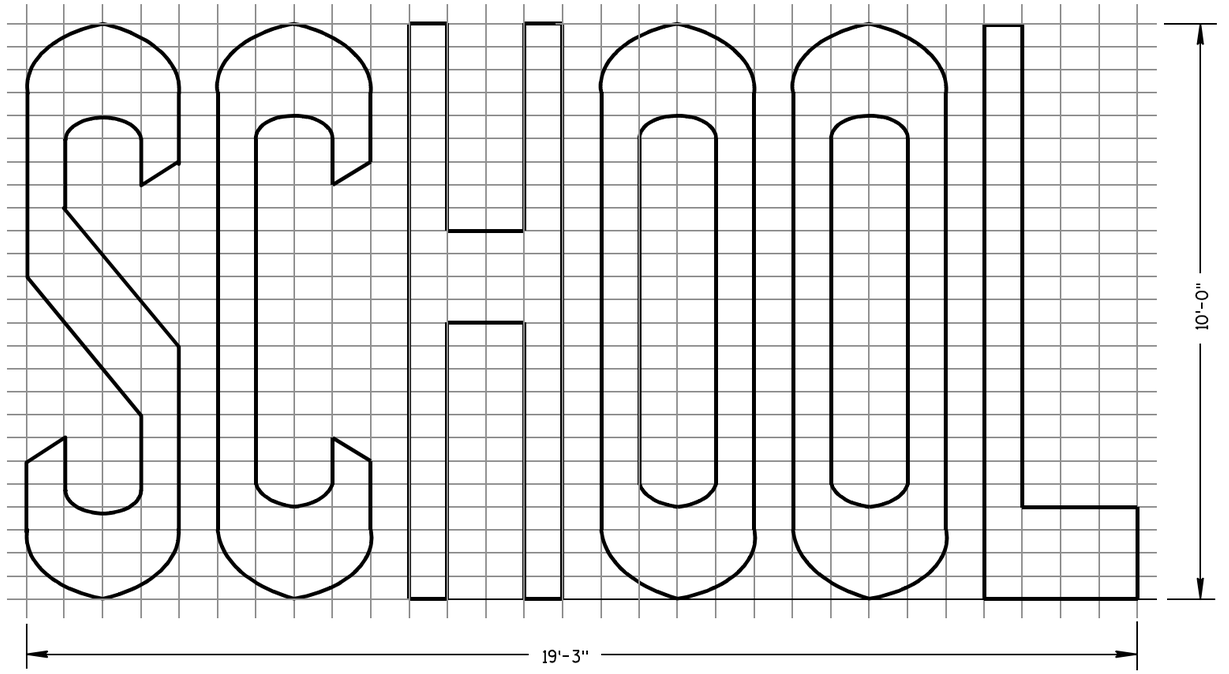
GENERAL NOTES

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.

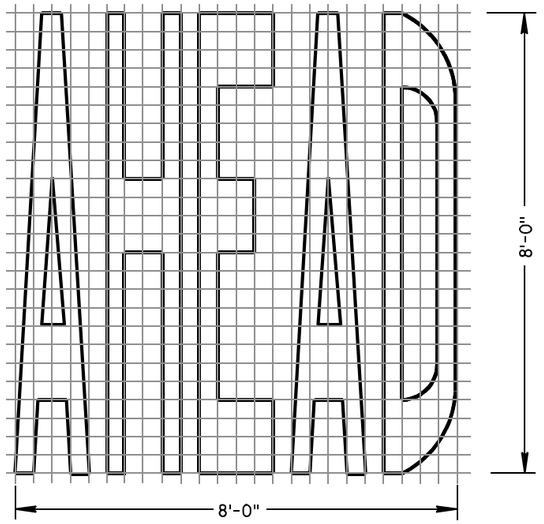
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

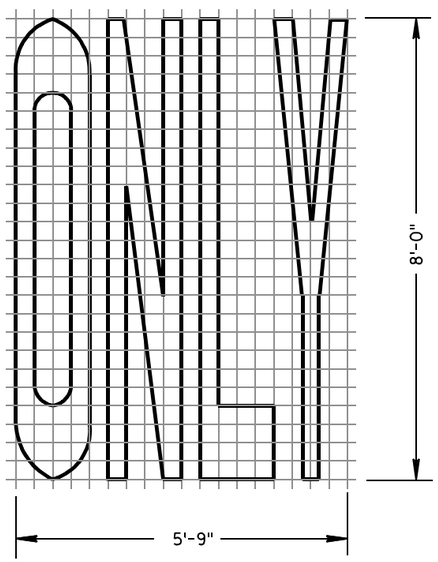


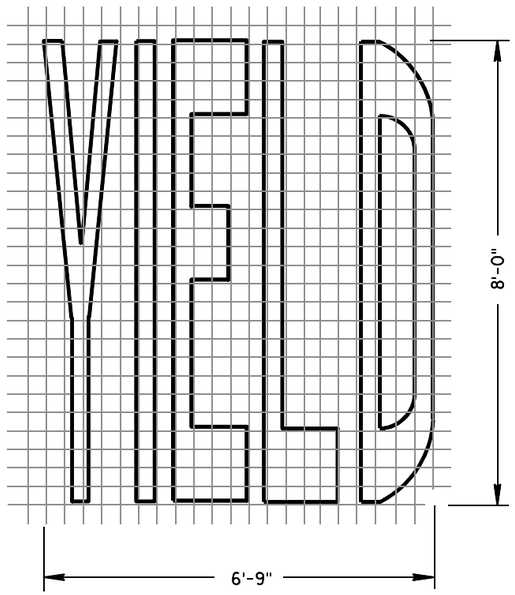


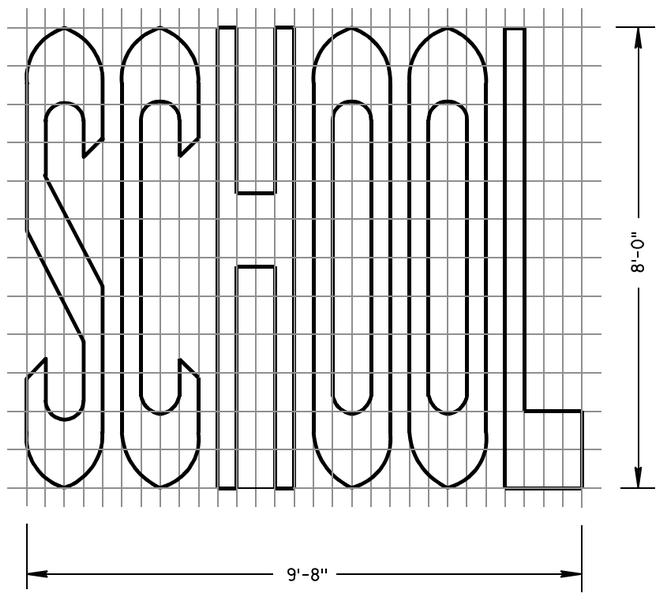


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nottbohm STATE TRAFFIC ENGINEER

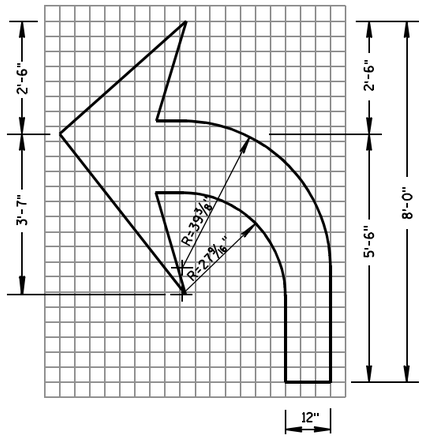
FHWA

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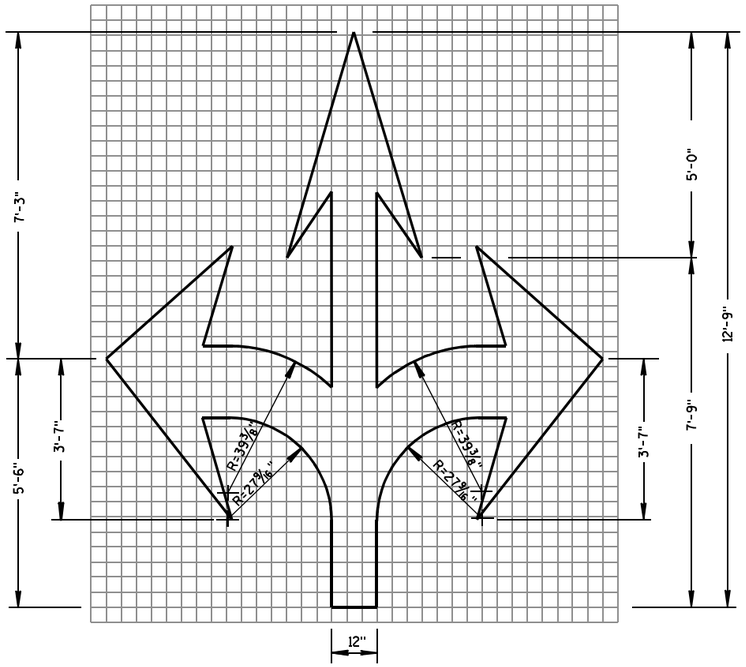
S.D.D. 15 C 7-12b

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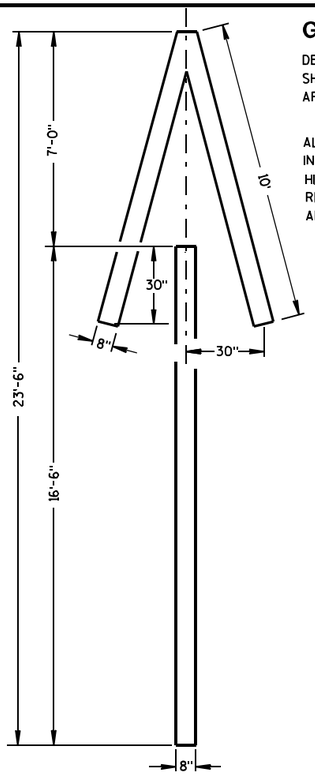
S.D.D. 15 C 7-12b



TYPE 2



TYPE 6

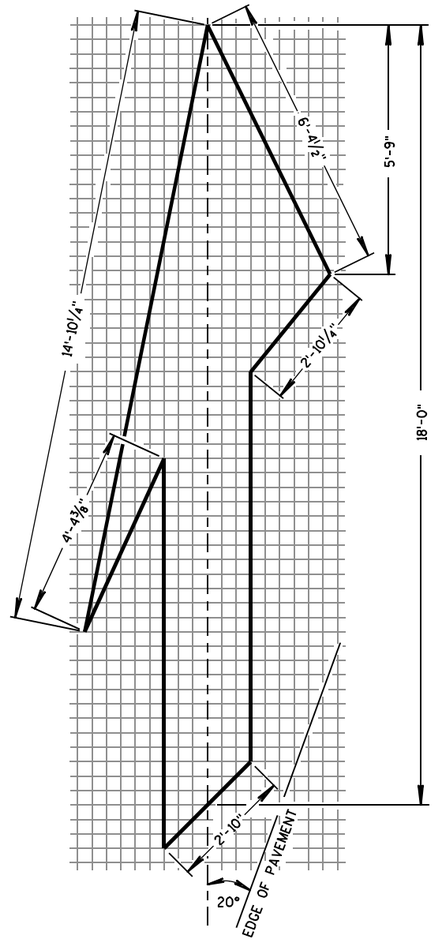


TYPE 4

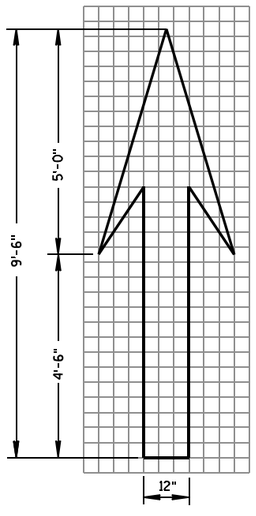
GENERAL NOTES

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.

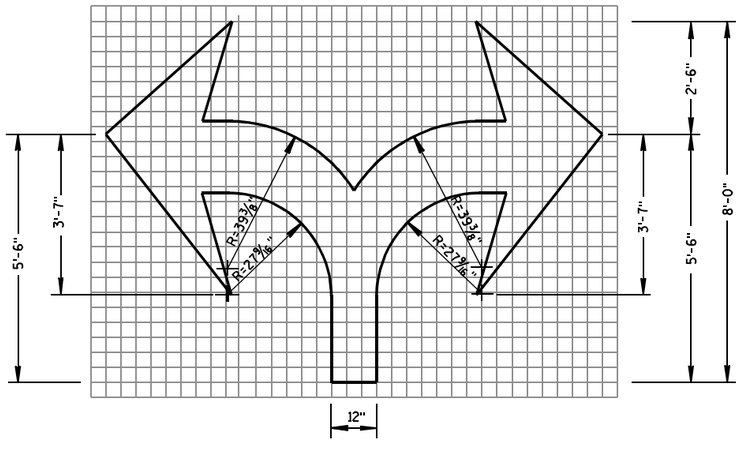
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



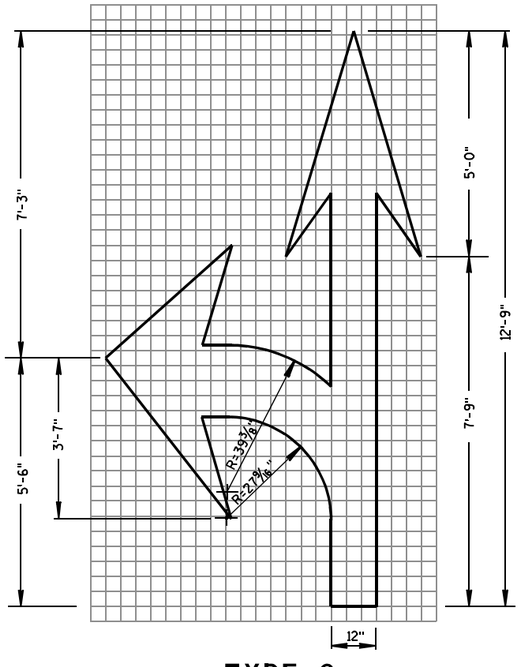
TYPE 5 LANE DROP ARROW



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

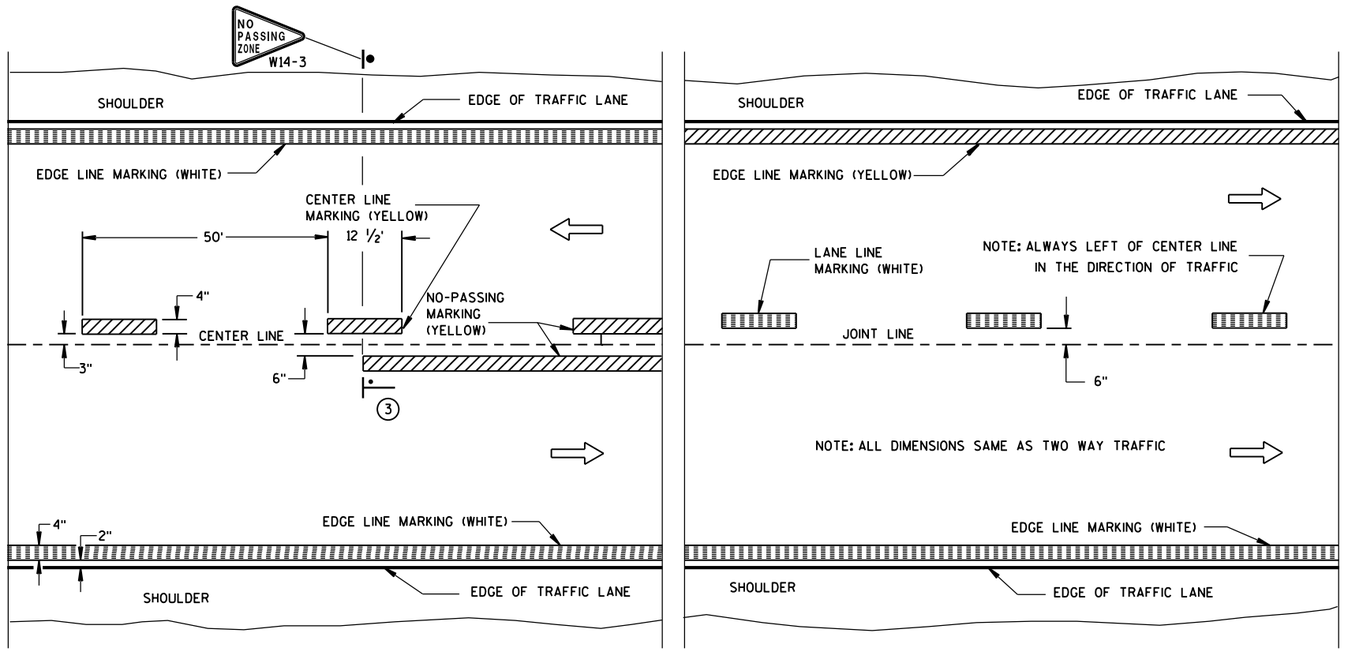
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S.D.D. 15 C 7-12c

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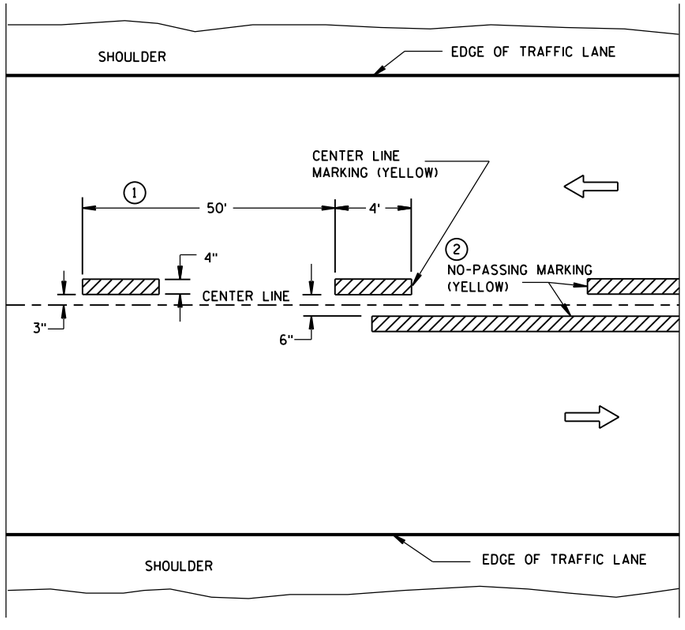
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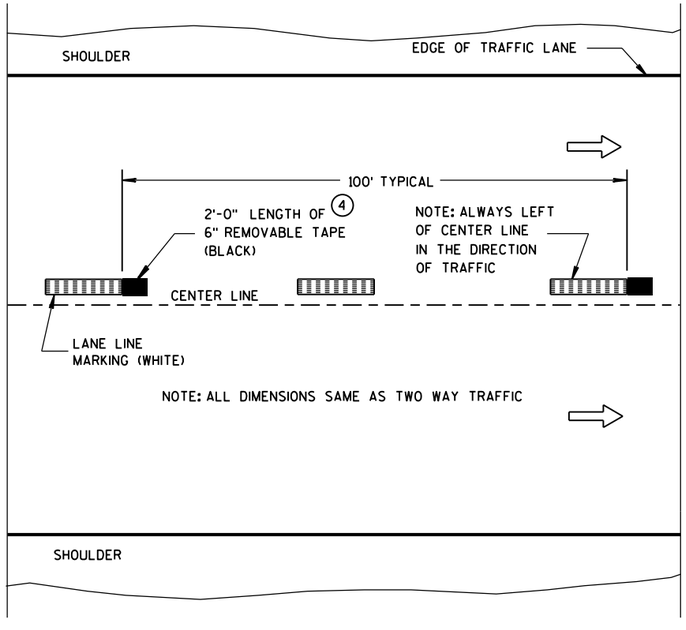
TWO WAY TRAFFIC

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)

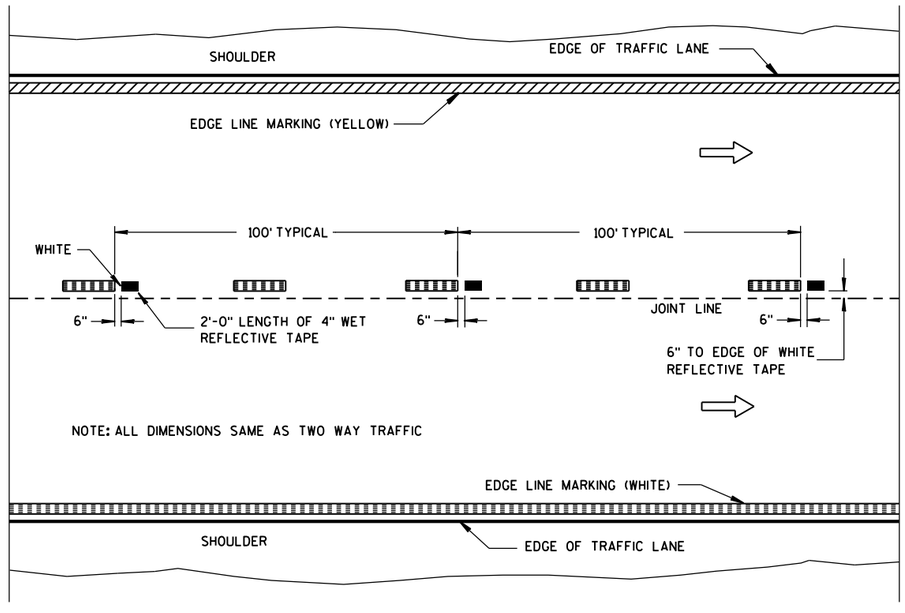
GENERAL NOTES

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

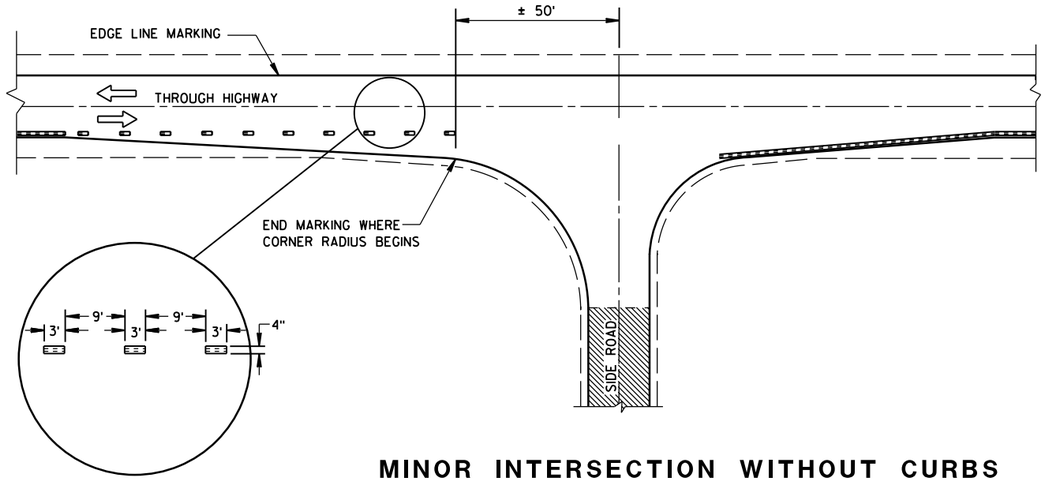
APPROVED
10-1-2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 C 8-15a

6

S.D.D. 15 C 8-15a



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.

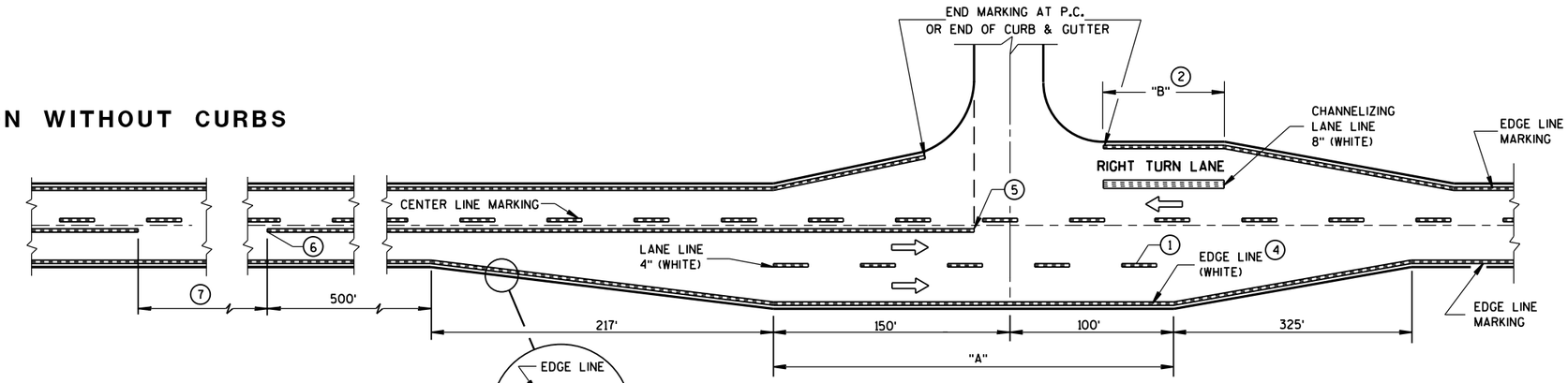
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

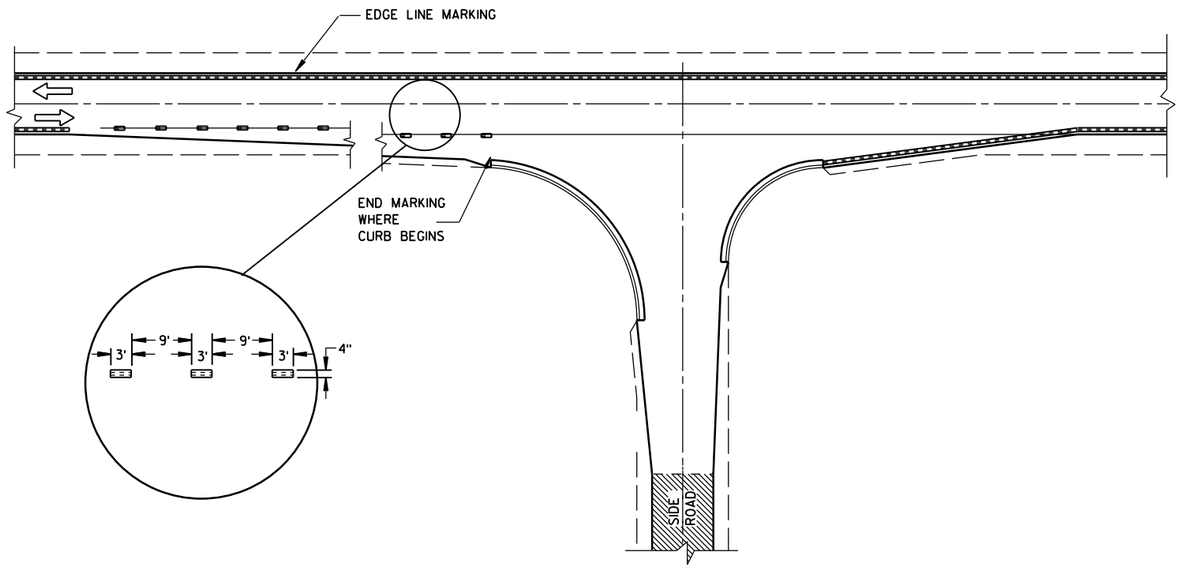
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



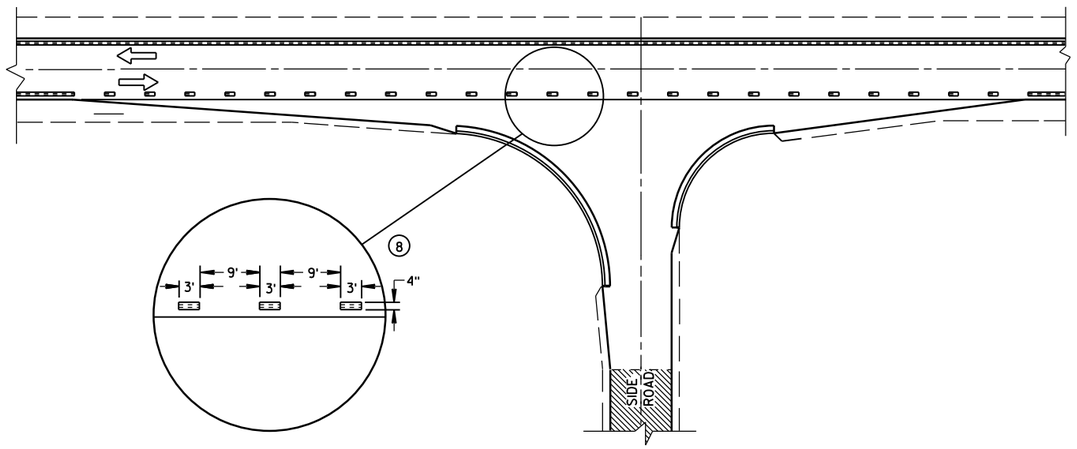
MAJOR INTERSECTIONS

(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)

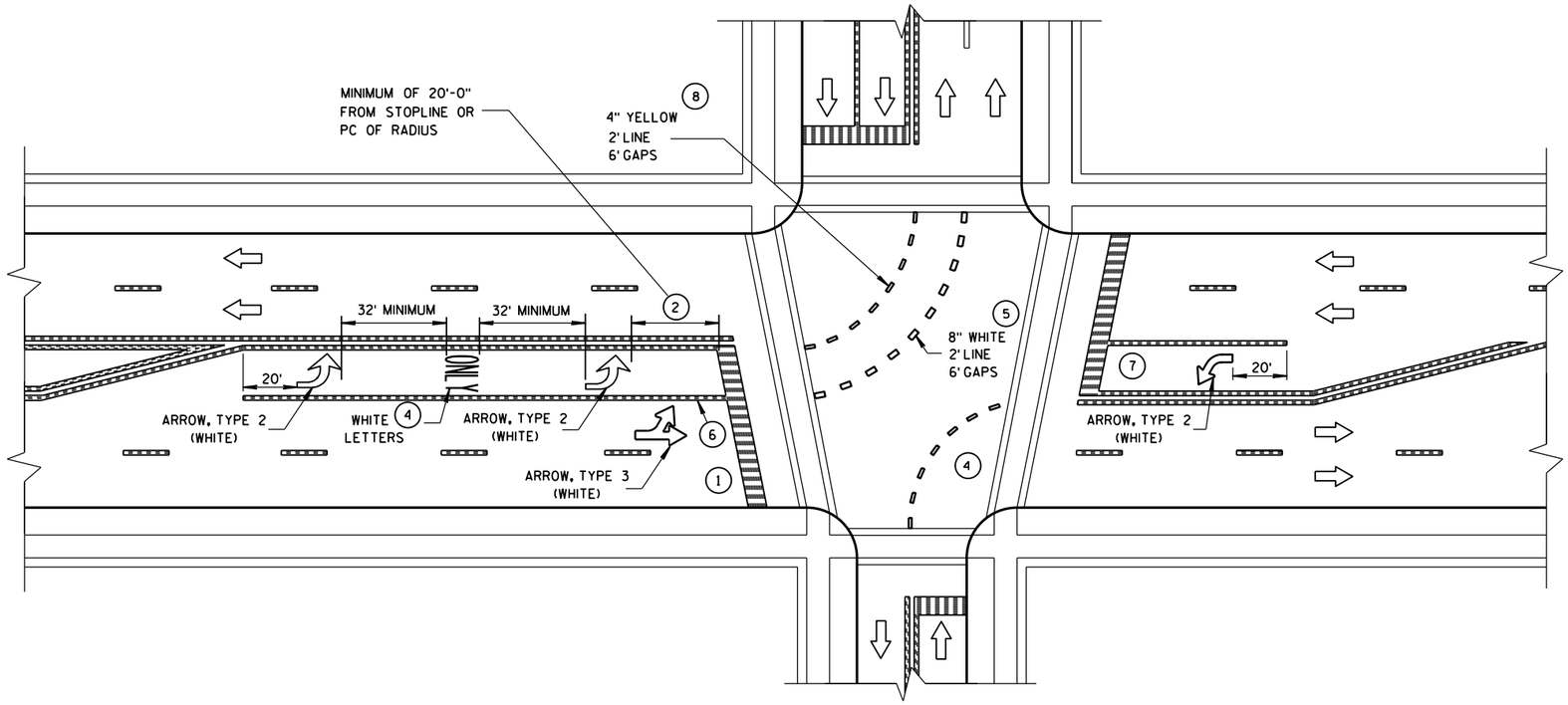
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 15 C 8-15b

6

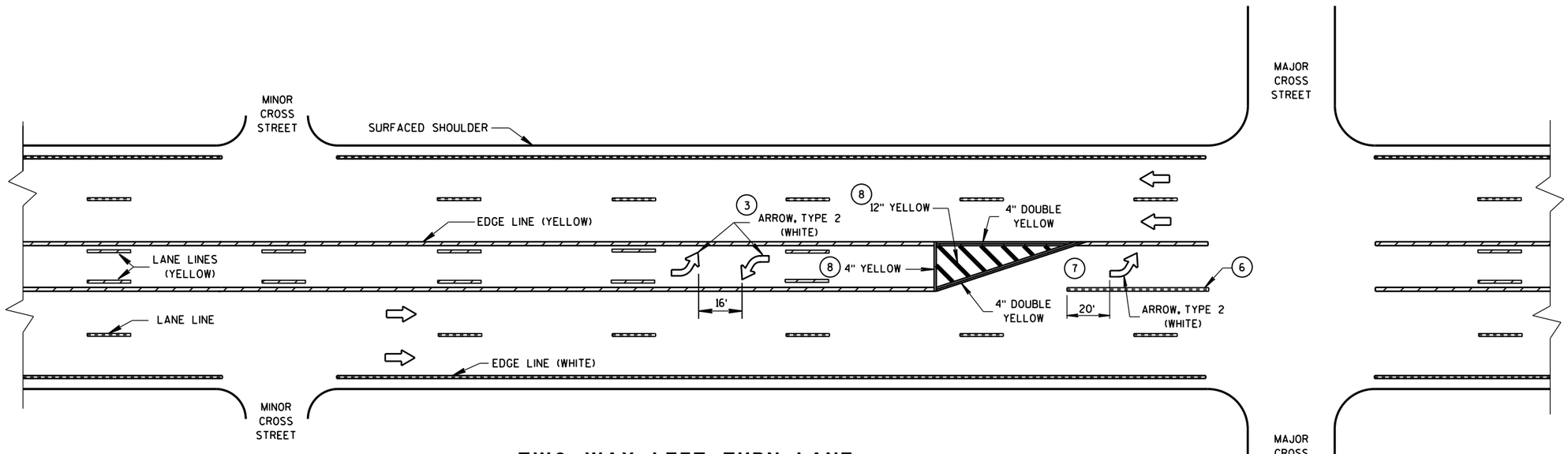
S.D.D. 15 C 8-15b



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' OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA ARROW AND ONLY PER 160' 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'.
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)

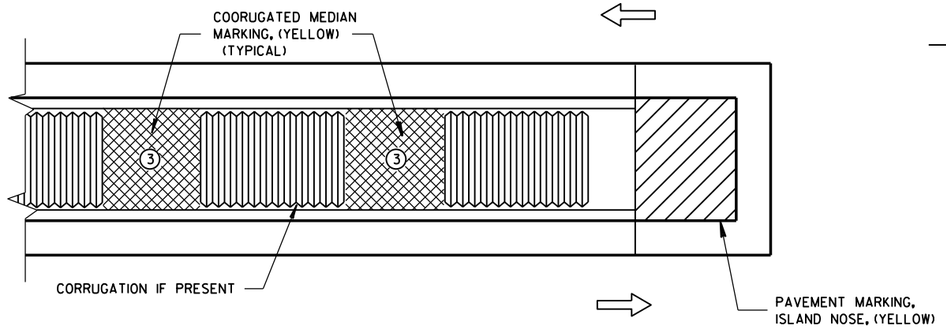
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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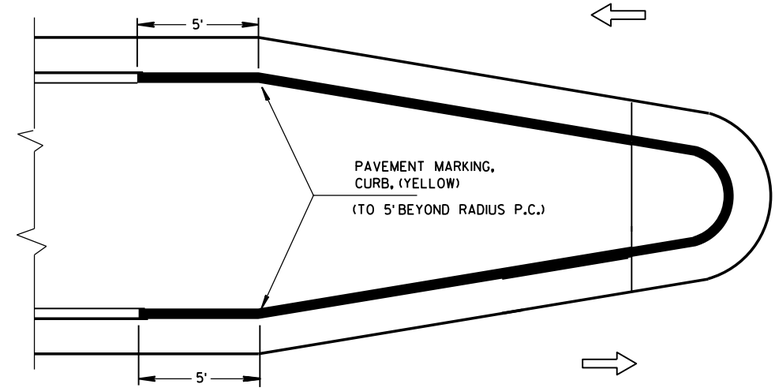
S.D.D. 15 C 8-15e

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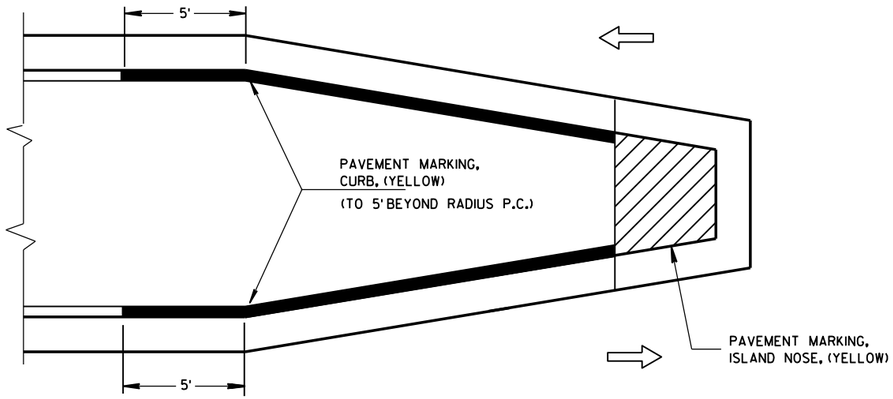
S.D.D. 15 C 8-15e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

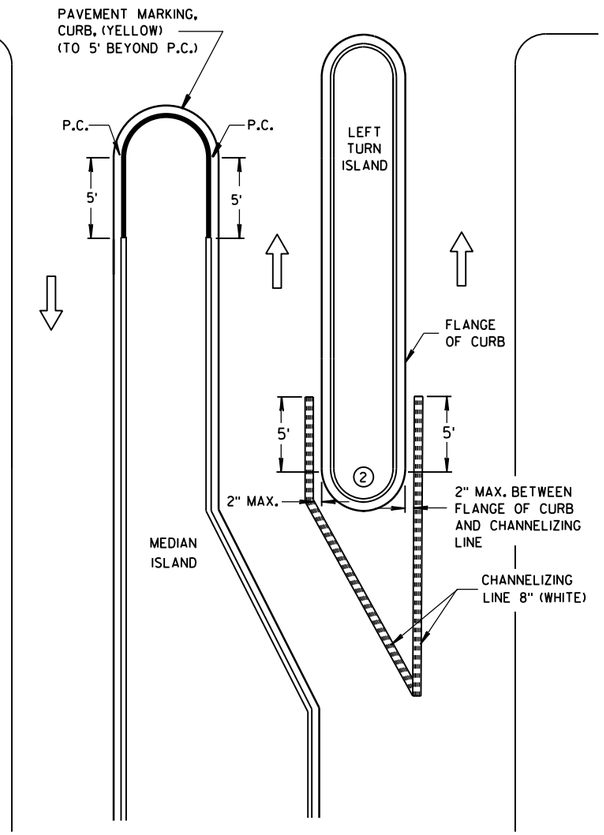


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

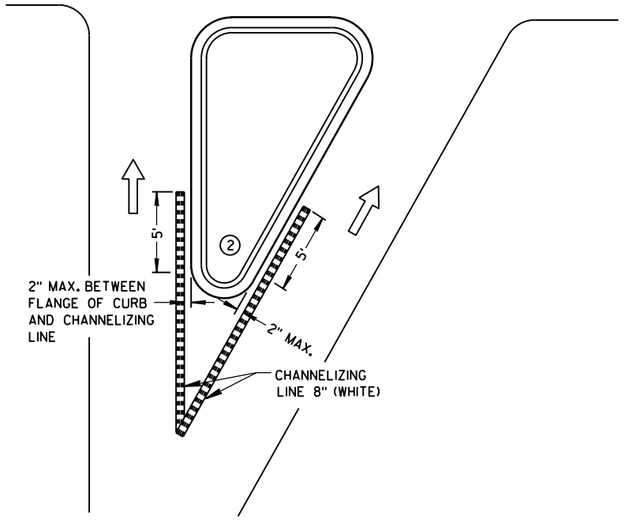
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



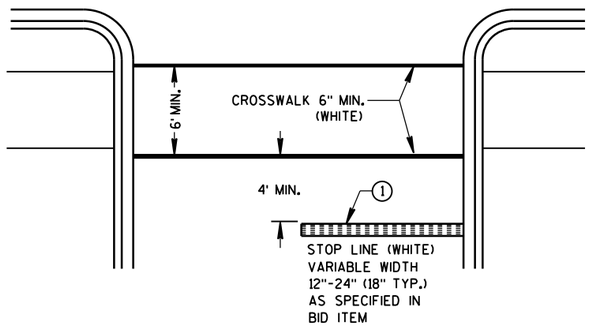
LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. STOP LINE IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
3. 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



STOP LINE AND CROSSWALK

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS, STOP LINE &
CROSS WALK)

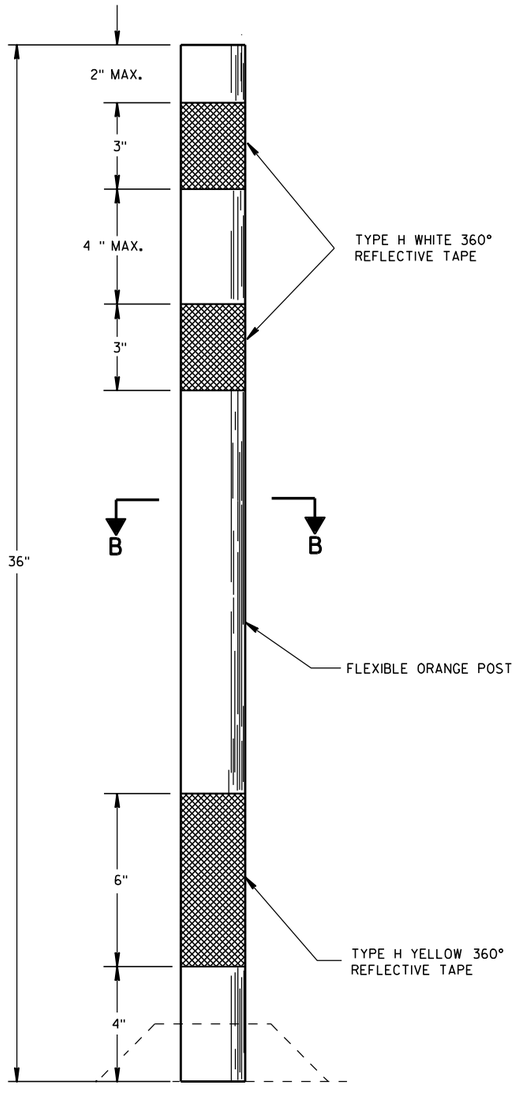
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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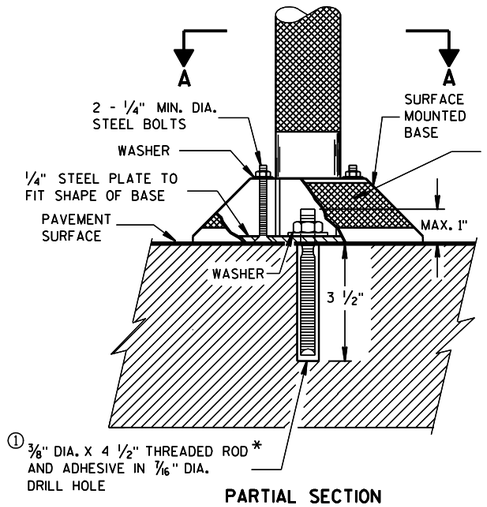
S.D.D. 15 C 8-15f

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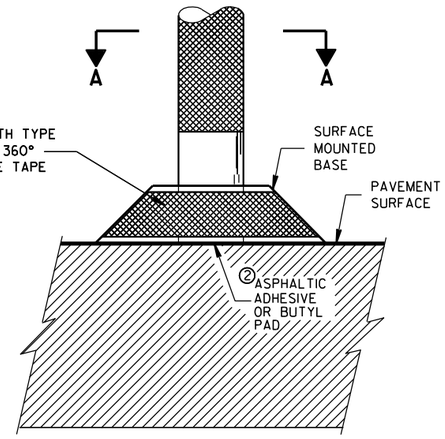
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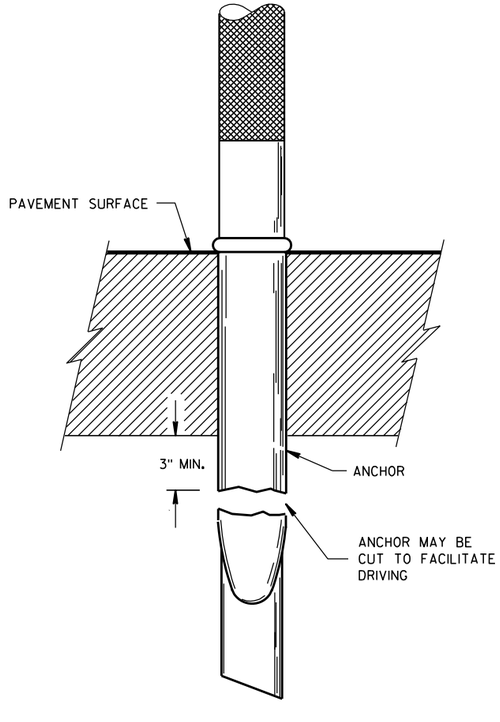
FLEXIBLE TUBULAR MARKER POST

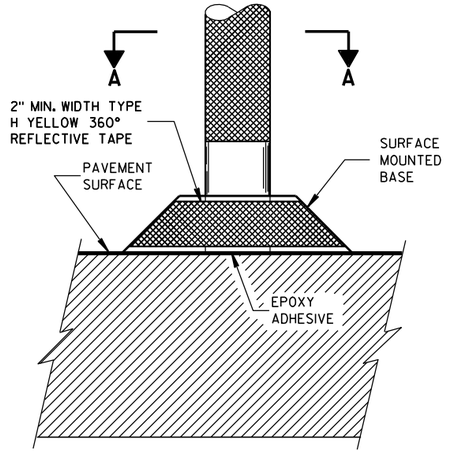


PARTIAL SECTION TO SHOW BOLTS



POST BASES ON NEW OR EXISTING PAVEMENT





POST ANCHOR AND BASE ON PAVEMENT WHICH WILL BE REMOVED

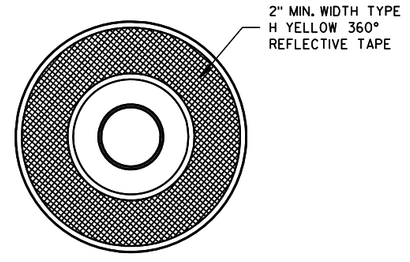
GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

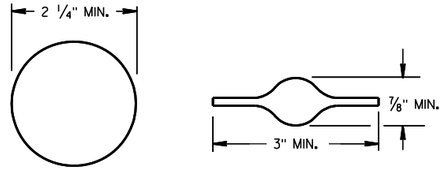
① THREADED ROD SHALL BE MACHINED DOWN TO 0.280 INCH DIA. 1 1/4 INCHES FROM THE TOP.

② THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



SECTION A-A

SURFACE MOUNTED BASE



SECTION B-B

ALTERNATIVE SHAPES

FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/17/94 DATE

/S/ Chester J. [illegible] DIRECTOR, OFFICE O

FHWA

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S.D.D. 15 C 11-5

TWO-LANE ROADWAY

SYMBOLS

WORK AREA

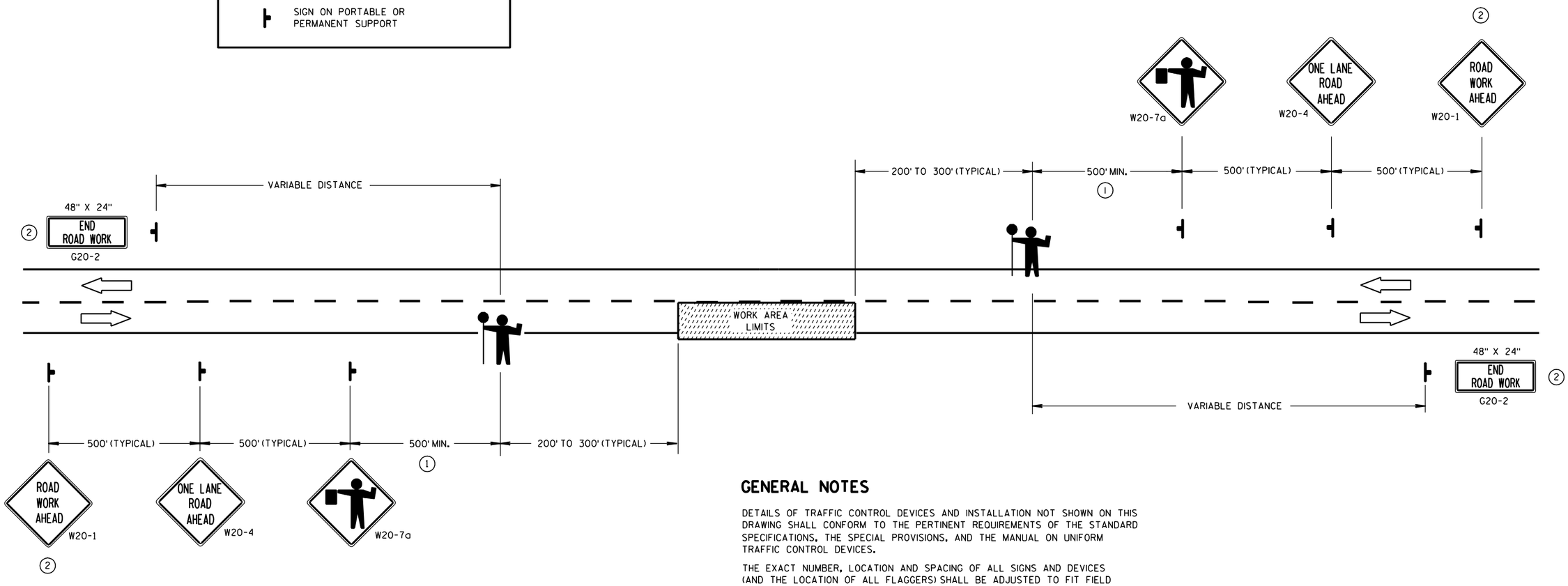
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN ON PORTABLE OR PERMANENT SUPPORT



W3-4

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



(1) FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/5/06 — DATE

/S/ Thomas N. Nathaam — STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 C 12-3

GENERAL NOTES

ORIENT ANCHOR BOLTS IN FOOTING AND PROVIDE ANCHOR BOLT STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER FABRICATION DRAWING.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

SIGN SUPPORTS SHALL BE LOCATED NORMAL TO ROADWAY.

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

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

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

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

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

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

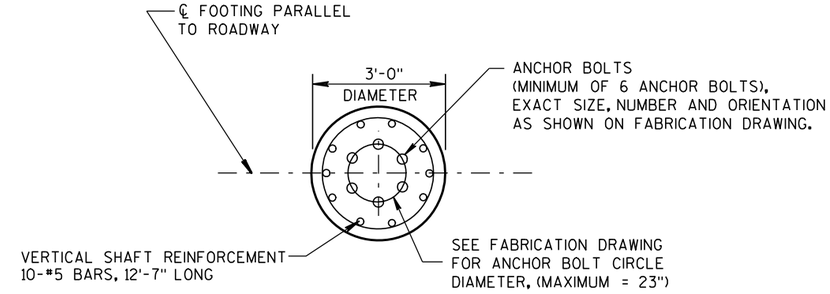
IF THE DRILLED HOLE CONTAINS STANDING WATER, THE CONCRETE SHALL BE PLACED USING A TREMIE TO DISPLACE THE WATER.

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

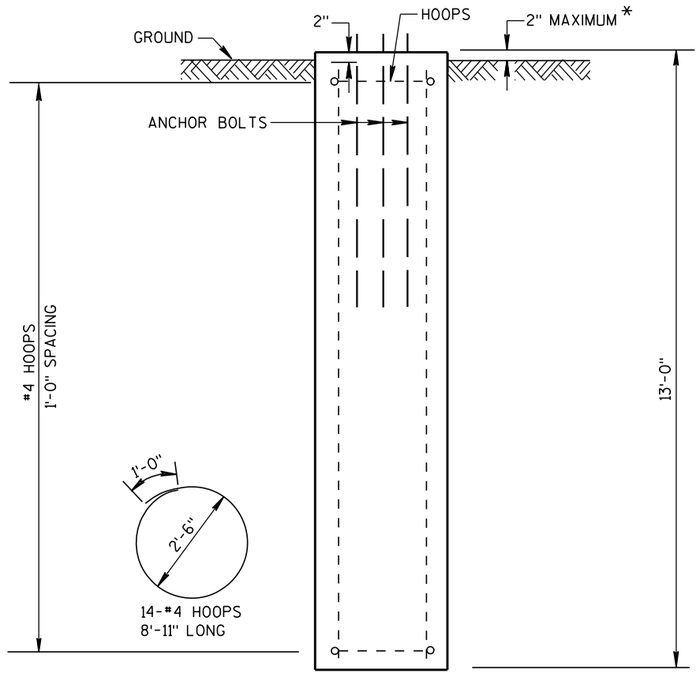
ANY DAMAGE TO THE CONCRETE BASE DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR BOLTS	AASHTO M314 GRADE 55

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



PLAN VIEW



ELEVATION VIEW

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

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

36" DIAMETER FULL SPAN OVERHEAD SIGN SUPPORT BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/17/09 — DATE

/S/ Thomas N. Nothdurm — STATE TRAFFIC ENGINEER

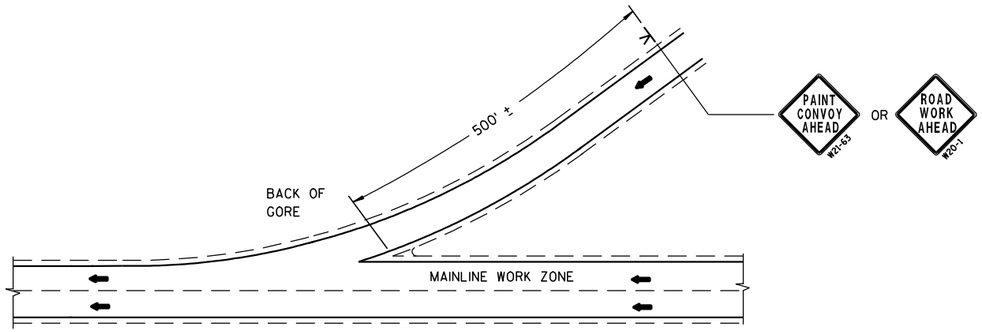
FHWA

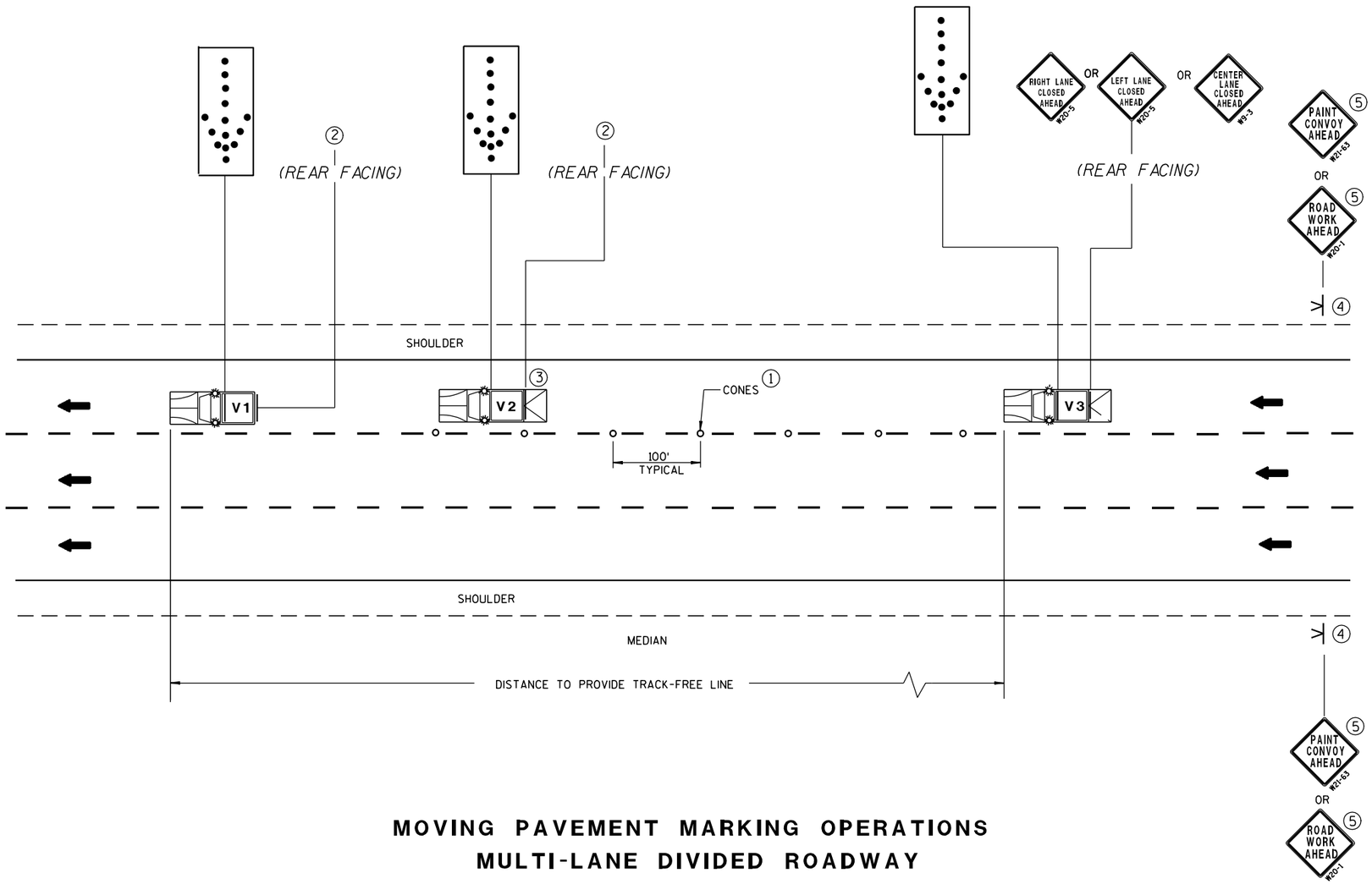
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S.D.D. 15 C 15-3

6

S.D.D. 15 C 15-3





MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED ROADWAYS.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT ↙ W21-64 OR WET PAINT ↘ W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

(4) SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.

(5) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON PORTABLE SUPPORT
	DIRECTION OF TRAVEL
	CONES
	FLASHING ARROW PANEL (MERGE)

MOVING PAVEMENT MARKING OPERATION
MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/6/2011 DATE

/S/ Thomas N. Nathaus STATE TRAFFIC ENGINEER

375 SIGN

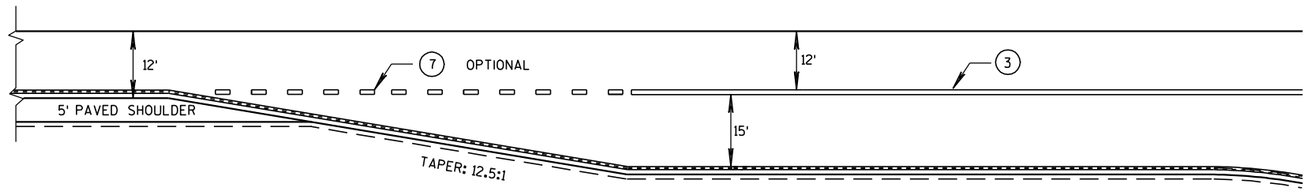
FHWA

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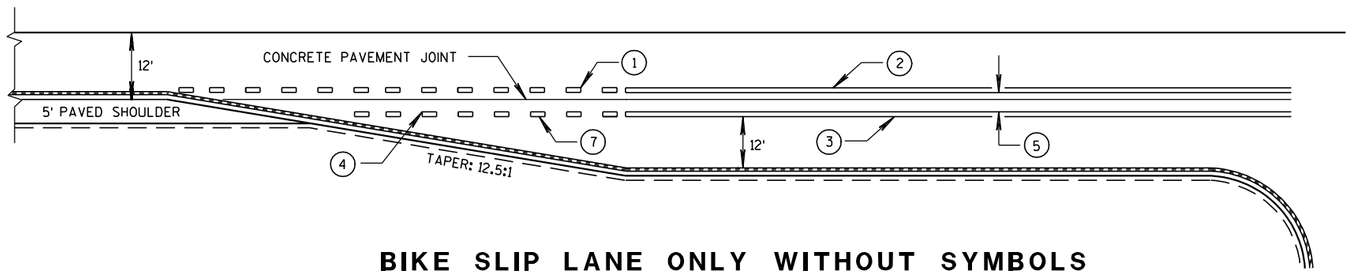
S.D.D. 15 C 19-1c

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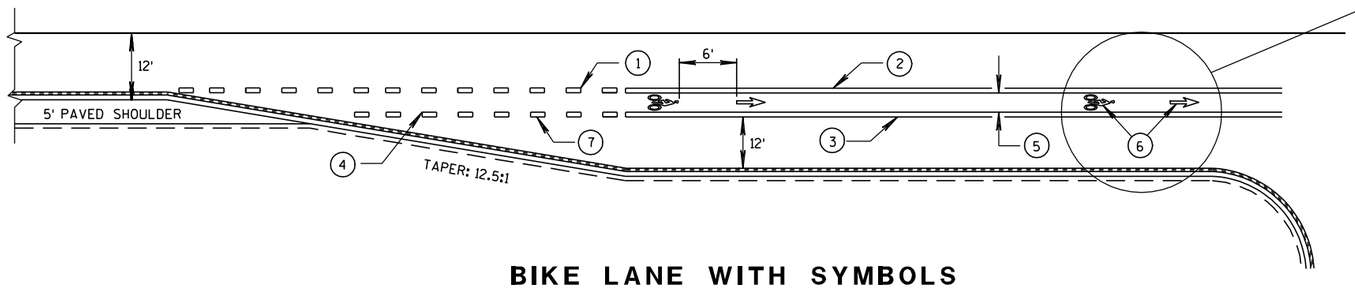
S.D.D. 15 C 19-1c

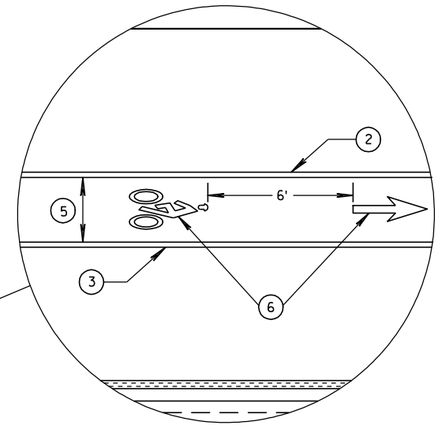


WIDER TURN LANE



BIKE SLIP LANE ONLY WITHOUT SYMBOLS





BIKE LANE WITH SYMBOLS

GENERAL NOTES

1. 3' LINE, 9' GAP - 4-INCH WIDE, WHITE.
2. 4-INCH, WHITE.
3. 8-INCH, WHITE.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMMODATION FOR CONCRETE PAVEMENT IS 5' WIDE.
   2 LANE (3' LEFT, 2' RIGHT OF JOINT).
   4 LANE (2' LEFT, 3' RIGHT OF JOINT).
   BIKE ACCOMMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4', 5' AT ≥45 MPH.
6. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
7. 3' LINE, 9' GAP - 8-INCH WIDE, WHITE.

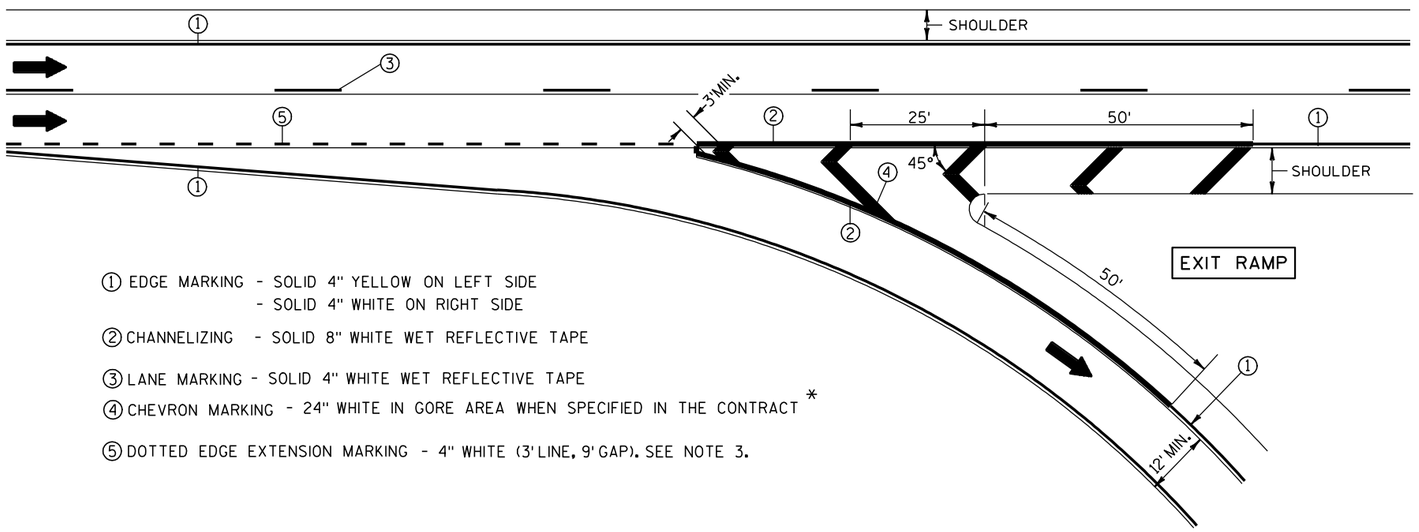
BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/6/2012 DATE
/S/ Thomas N. N[illegible] STATE TRAFFIC ENGINE 376 SIGN
FHWA

6

S.D.D. 15 C 29-2a



① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE

② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE

③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE

④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT *

⑤ DOTTED EDGE EXTENSION MARKING - 4" WHITE (3' LINE, 9' GAP). SEE NOTE 3.

NOTES:

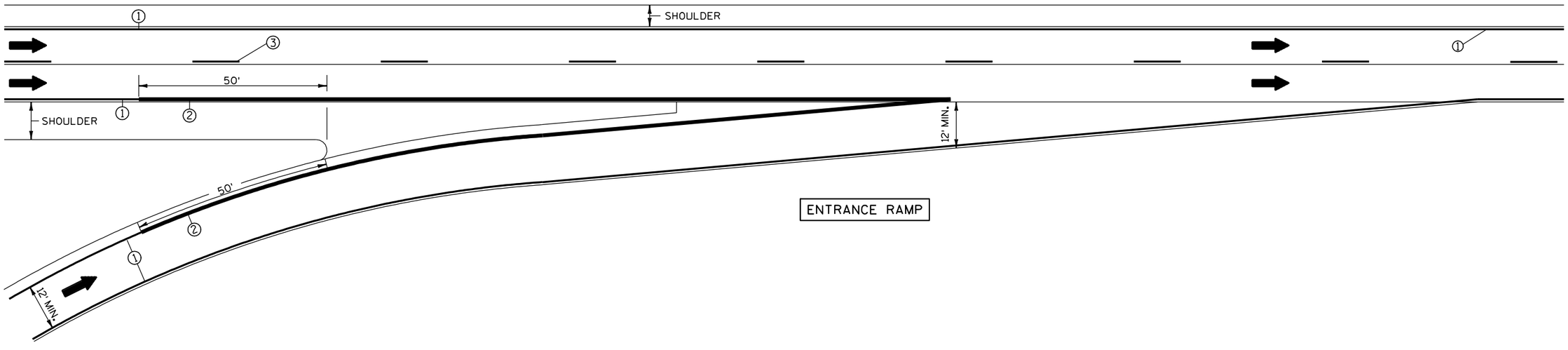
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

3. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

4. RETRACE EXISTING DIAGONAL MARKINGS.

* REFER TO DESIGN NOTES.



6

S.D.D. 15 C 31-1a

PAVEMENT MARKING
(RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 31-1a

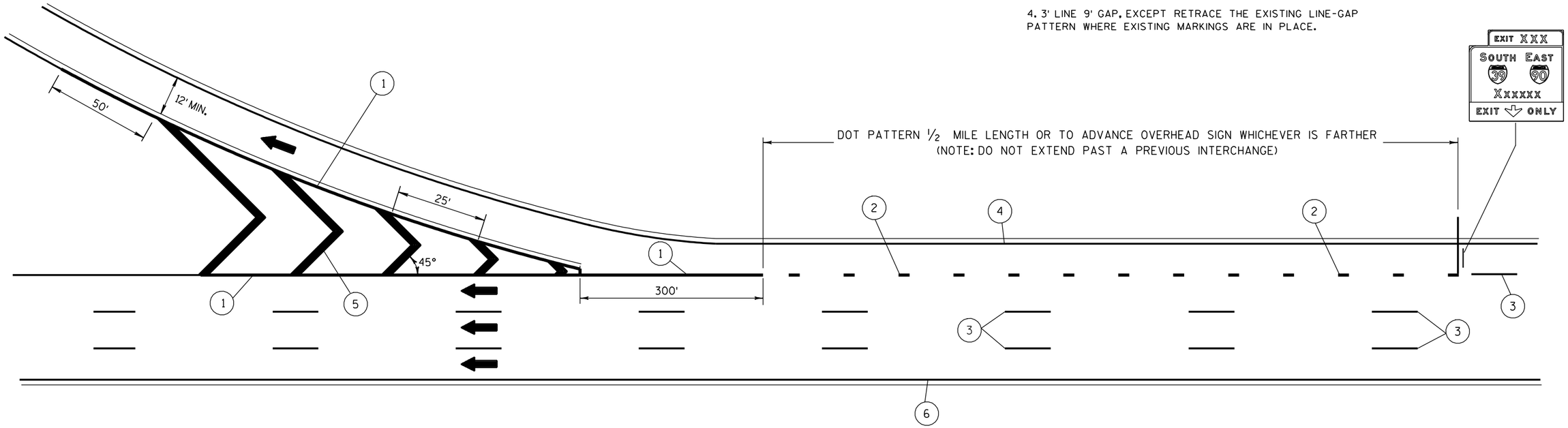
NOTES:

1. SEE STANDARD DETAIL DRAWING 15 C 10 FOR SPRAYED OR NON WET REFLECTIVE LINE SEGMENTS.

2. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

3. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

4. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.



1. CHANNELIZING - SOLID 8" WHITE WET RELECTIVE TAPE
2. 3' LINE, 9' GAP SOLID 8" WHITE WET REFLECTIVE TAPE. SEE NOTE 4.
3. SOLID 4" WHITE WET REFLECTIVE TAPE
4. 4" WHITE EDGELINE
5. CHEVRON MARKING - 24" WHITE WHEN SPECIFIED IN THE CONTRACT
6. 4" YELLOW EDGELINE

LANE DROP
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 31-1b

6

S.D.D. 15 C 31-1b

LEGEND

- POST WITH ATTACHED SIGN
- DRUM WITH WARNING LIGHT (TYPE C)
- DRUM
- ARROW BOARD
- REMOVING PAVEMENT MARKING
- TEMPORARY PRECAST CONCRETE BARRIER
- DIRECTION OF TRAFFIC
- WORK ZONE

GENERAL NOTES :

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

(1) CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

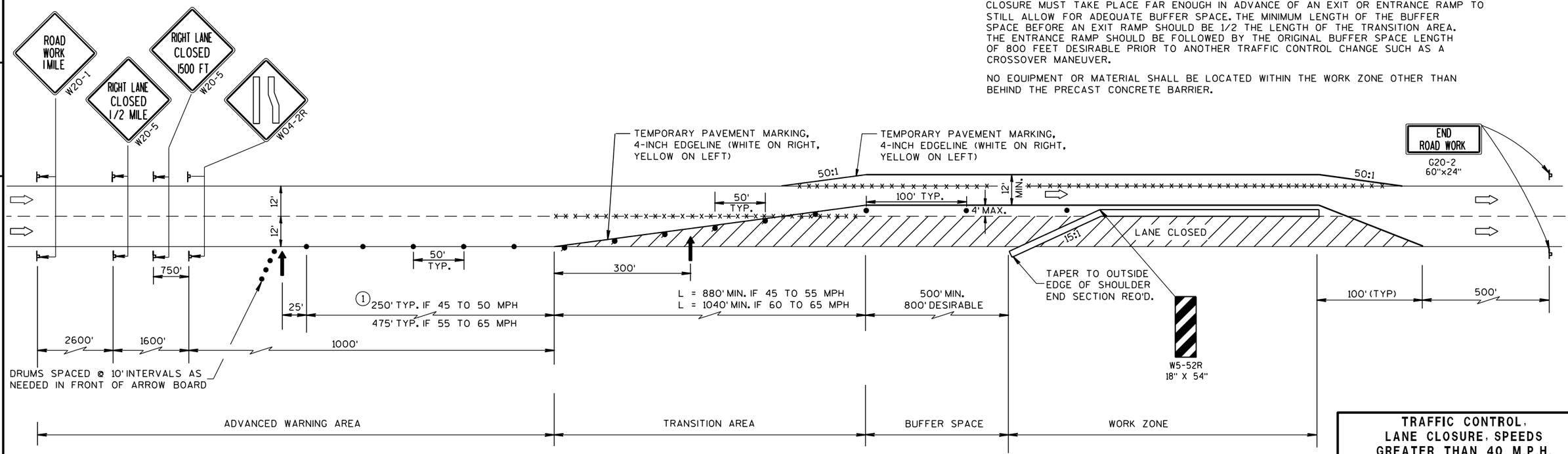
FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 7 CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

NO EQUIPMENT OR MATERIAL SHALL BE LOCATED WITHIN THE WORK ZONE OTHER THAN BEHIND THE PRECAST CONCRETE BARRIER.



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-94
DATE

/S/ Chester J. [illegible]
DIRECTOR, OFFICE OF [illegible]

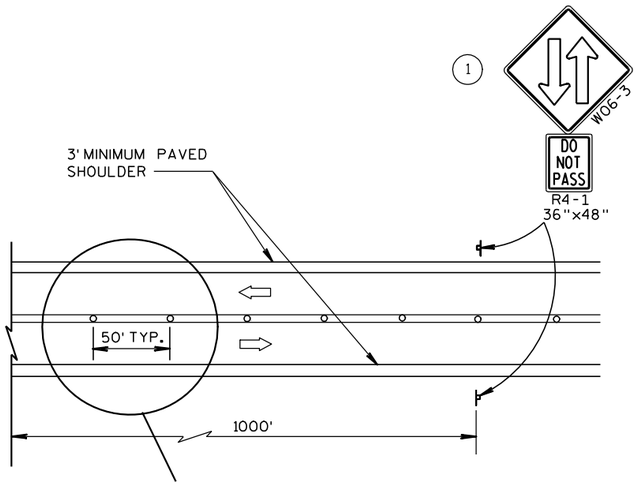
FHWA

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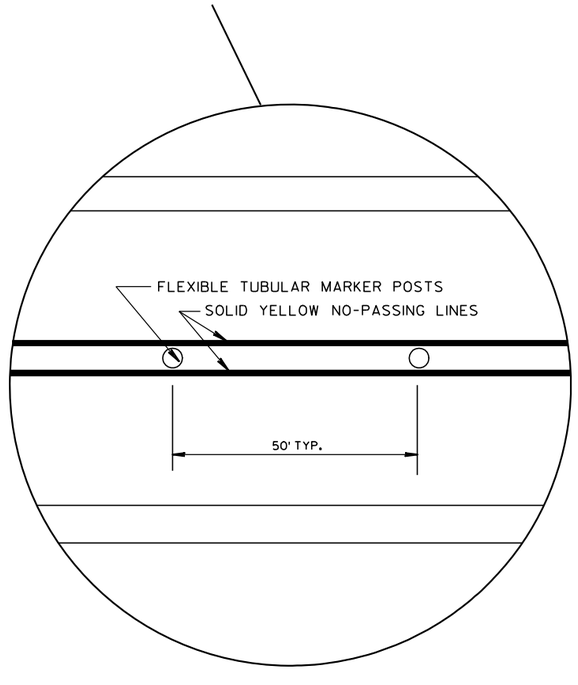
S.D.D. 15 D 3-1

6

S.D.D. 15 D 3-1



TWO LANE, TWO WAY OPERATION



GENERAL NOTES :

ALL SIGNS ARE 48"x48" UNLESS OTHERS NOTED.

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

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

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

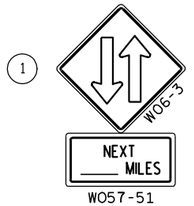
A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC @ 50' SPACING.

COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW.



R2-1
48"x60"
(BLACK AND WHITE)

IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD **BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY** 2 OR 3 MILES.



W057-51
48"x24"



R4-1
36"x48"

THE W06-3 WITH THE W057-51 SHALL BE LOCATED 200' BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND/OR 500' BEYOND ANY SIDEROAD. THE W06-3 WITH THE R4-1 SHALL BE LOCATED 1000' BEYOND THE W06-3 AND THE W057-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN W06-3 SIGNS.

LEGEND

- POST WITH ATTACHED SIGN
- FLEXIBLE TUBULAR MARKER AND BASE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

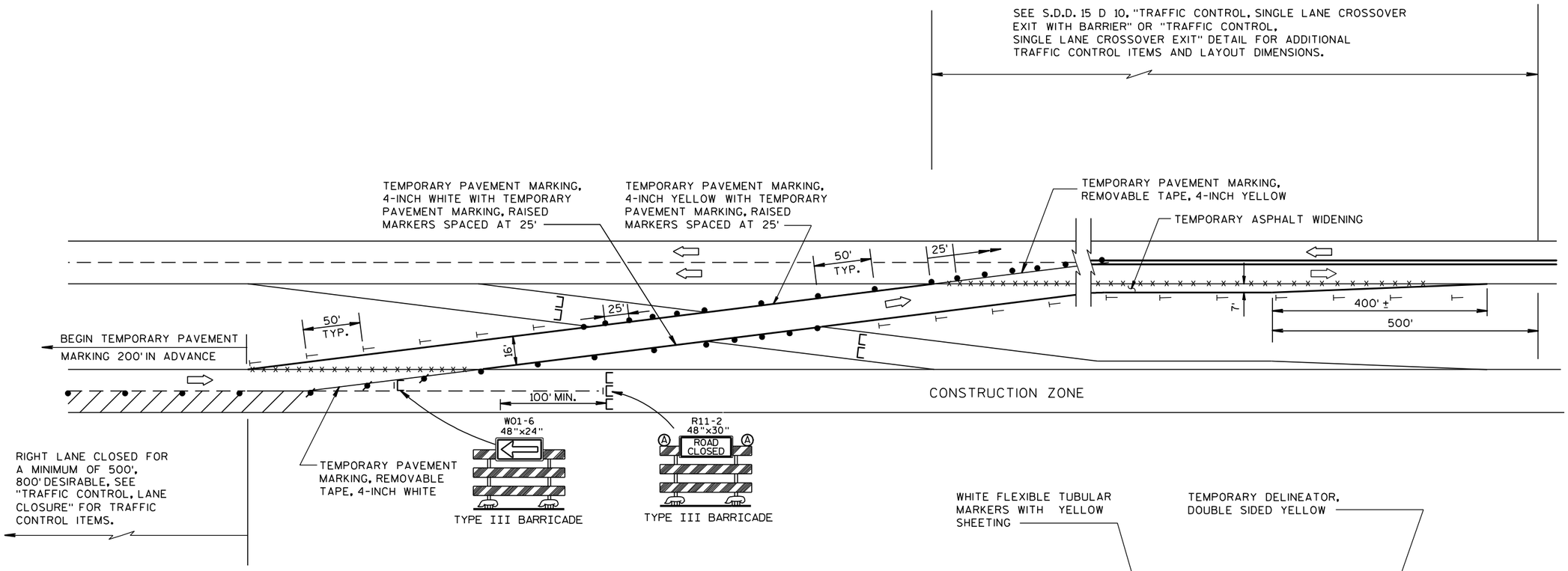
12-4-95
DATE

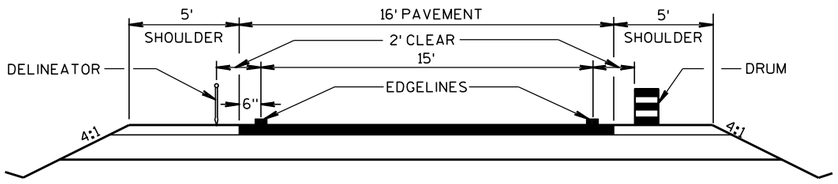
/S/ Chester J. [illegible]
DIRECTOR, OFFICE OF 380

FHWA

6

S.D.D. 15 D 6-2





TYPICAL CROSSOVER ROADWAY DIMENSIONS

LEGEND

- 8' TYPE III BARRICADE WITHOUT/WITH ATTACHED SIGN
- DRUM WITH WARNING LIGHTS, TYPE C
- DRUM
- TEMPORARY DELINEATOR (STEEL POST W/SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE PAINT
- (A) WARNING LIGHT, TYPE A
- REMOVING PAVEMENT MARKINGS
- TEMPORARY DELINEATOR (DOUBLE SIDED)
- FLEXIBLE TUBULAR MARKER AND BASE
- DIRECTION OF TRAFFIC

GENERAL NOTES :

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

THE SPACING BETWEEN PROPOSED SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

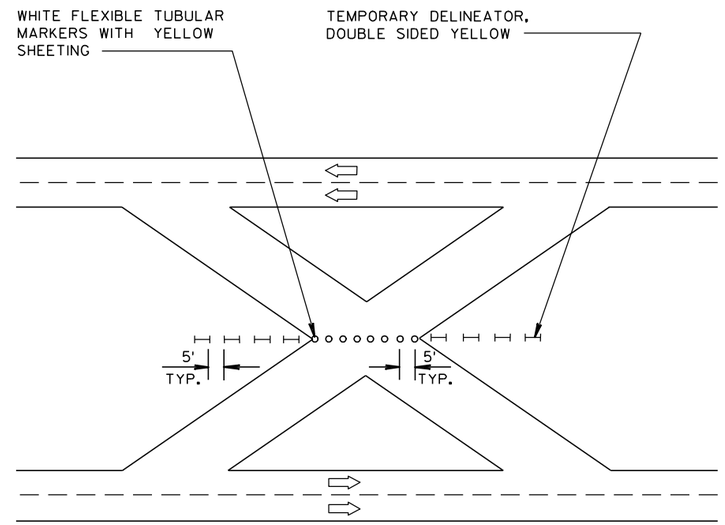
TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER AND TEMPORARY PAVEMENT MARKING WHERE USED.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

REVERSE DEVICES WHEN OTHER LEG OF CROSSOVER IS IN USE.



PROTECTION OF CROSSOVER NOT IN USE WHEN CONSTRUCTION IS NOT TAKING PLACE

TRAFFIC CONTROL, SINGLE LANE CROSSOVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-22-96 DATE
/S/ Chester J. [illegible]
STATE TRAFFIC E

FHWA

6

S.D.D. 15 D 11-3

LEGEND

- POST WITH ATTACHED SIGN
- POST WITH ATTACHED SIGN IN DRUM
- DRUM WITH WARNING LIGHT (TYPE C)
- DRUM
- ARROW BOARD
- 8' TYPE III BARRICADE
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC

GENERAL NOTES :

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

(1) CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

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

GENERAL NOTES CONTINUED:

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 7 CONTINUOUS DAYS AND NIGHTS.

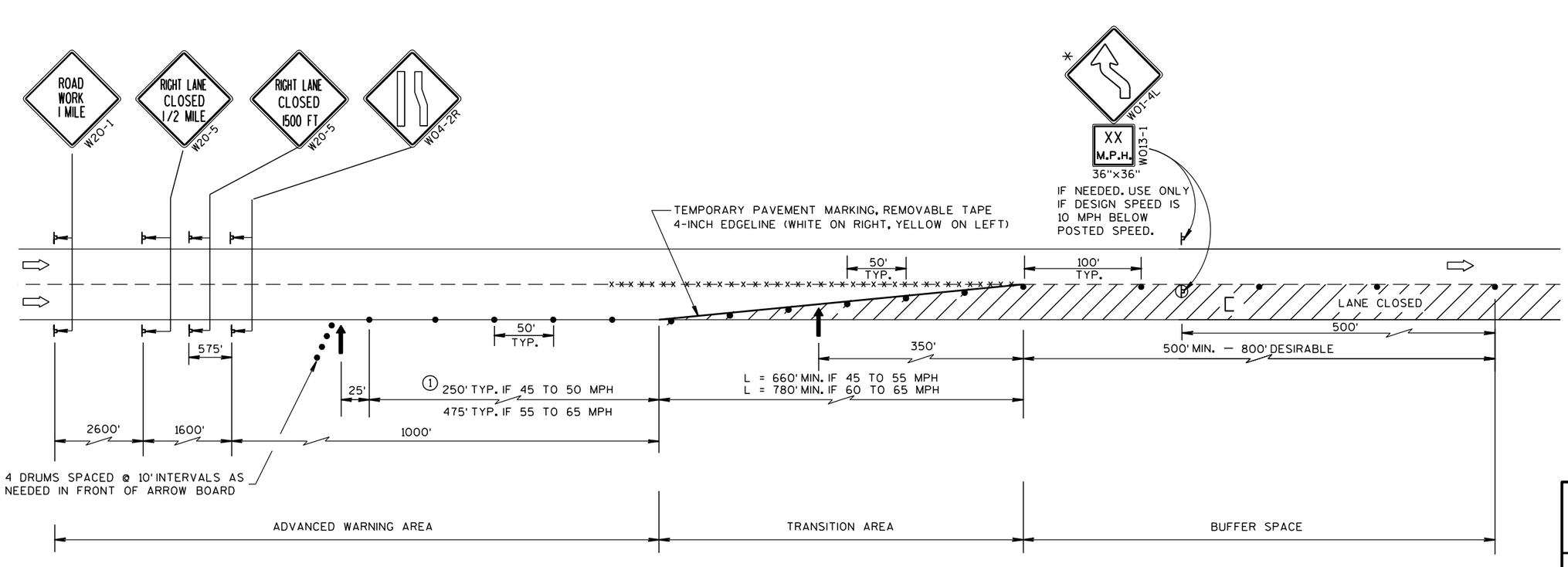
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1/4 MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

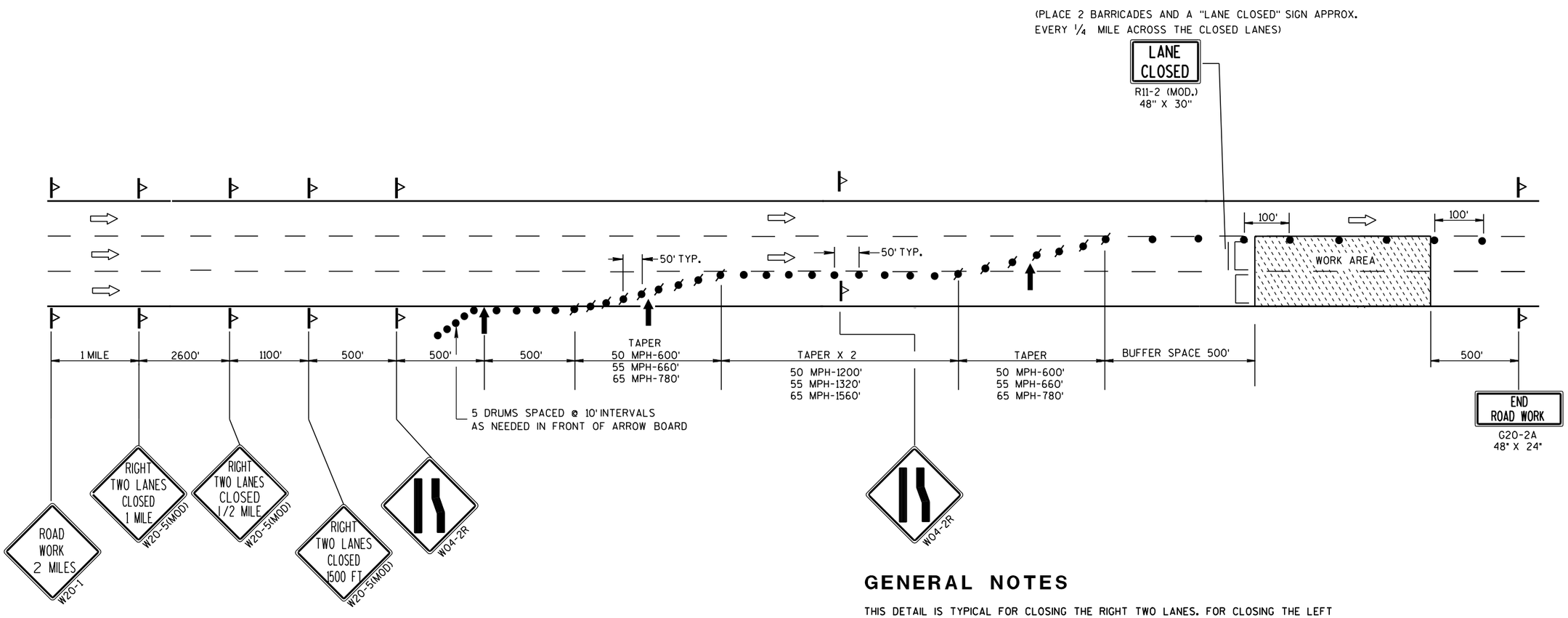
APPROVED
8-7-95 DATE
/S/ Chester J. [illegible]
DIRECTOR, OFFICE O 382 C
FHWA

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S.D.D. 15 D 12-2

6

S.D.D. 15 D 12-2



LEGEND

- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY BURN)
- SIGN ON POST OR PORTABLE SUPPORT
- FLASHING ARROW BOARD
- TYPE III BARRICADE (8' EQUIVALENT) WITH/WITHOUT SIGN
- DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING THE LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

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

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

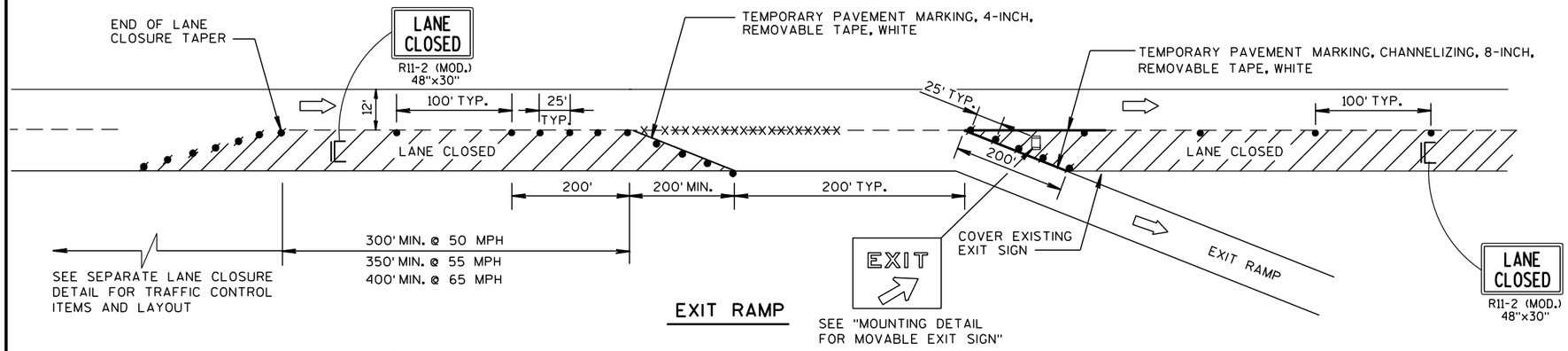
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

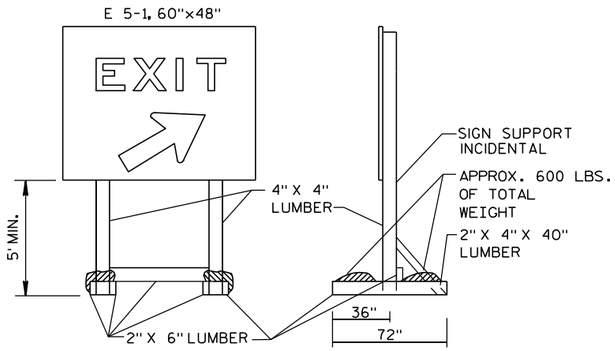
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2000 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

6
S.D.D. 15 D 14-1

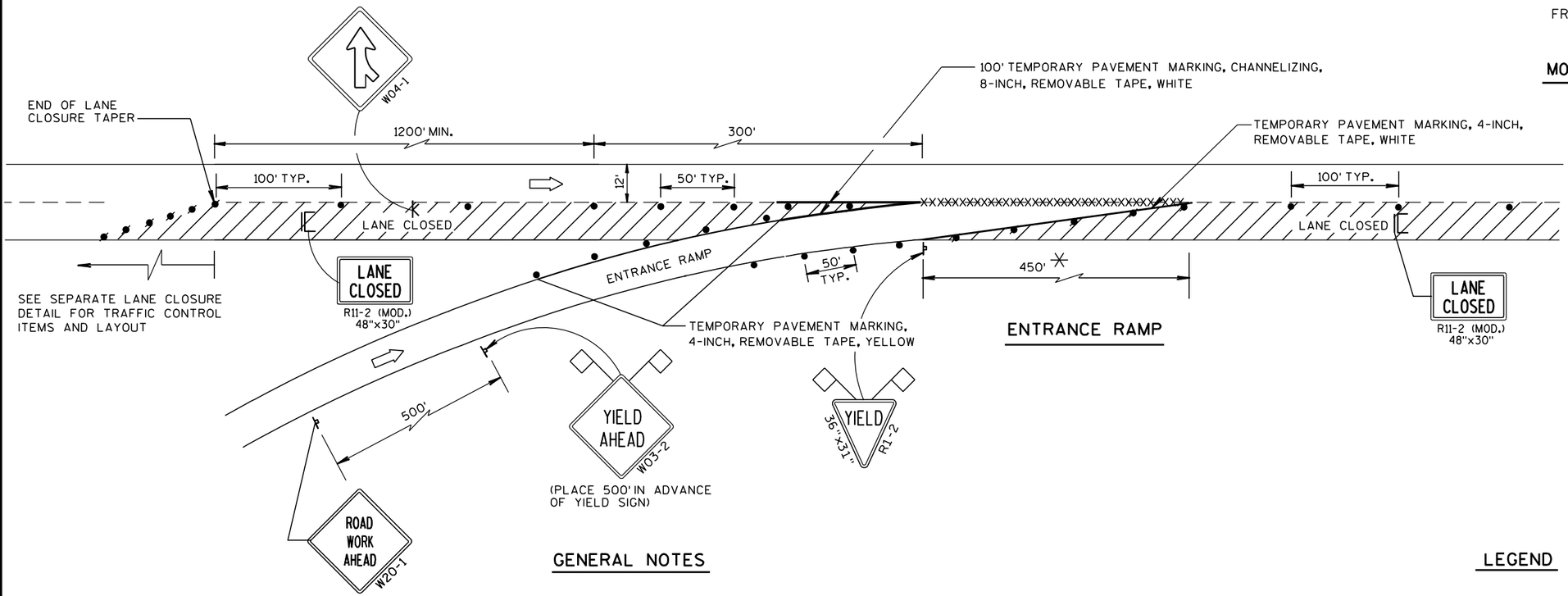


EXIT RAMP



NOTE: ALL LUMBER DIMENSIONS ARE NOMINAL

MOUNTING DETAIL FOR MOVABLE EXIT SIGN



ENTRANCE RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2 (MOD.) "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

✳ LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

LEGEND

- POST MOUNTED SIGN
- SIGN ON PORTABLE SUPPORT
- TRAFFIC CONTROL, DRUM
- TRAFFIC CONTROL, DRUM WITH WARNING LIGHT, TYPE C (STEADY-BURN)
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE (8' EQUIVALENT) WITH SIGN
- FLAGS, 16"x16" MIN., ORANGE
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/24/2000 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

S.D.D. 15 D 15-1

SYMBOLS

IC/C	TYPE III BARRICADE (8' EQUIVALENT) WITH/WITHOUT SIGN
•	DRUM
⊢	POST MOUNTED SIGN
(A)	WARNING LIGHT, TYPE A (FLASHING)
⇨	DIRECTION OF TRAFFIC

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

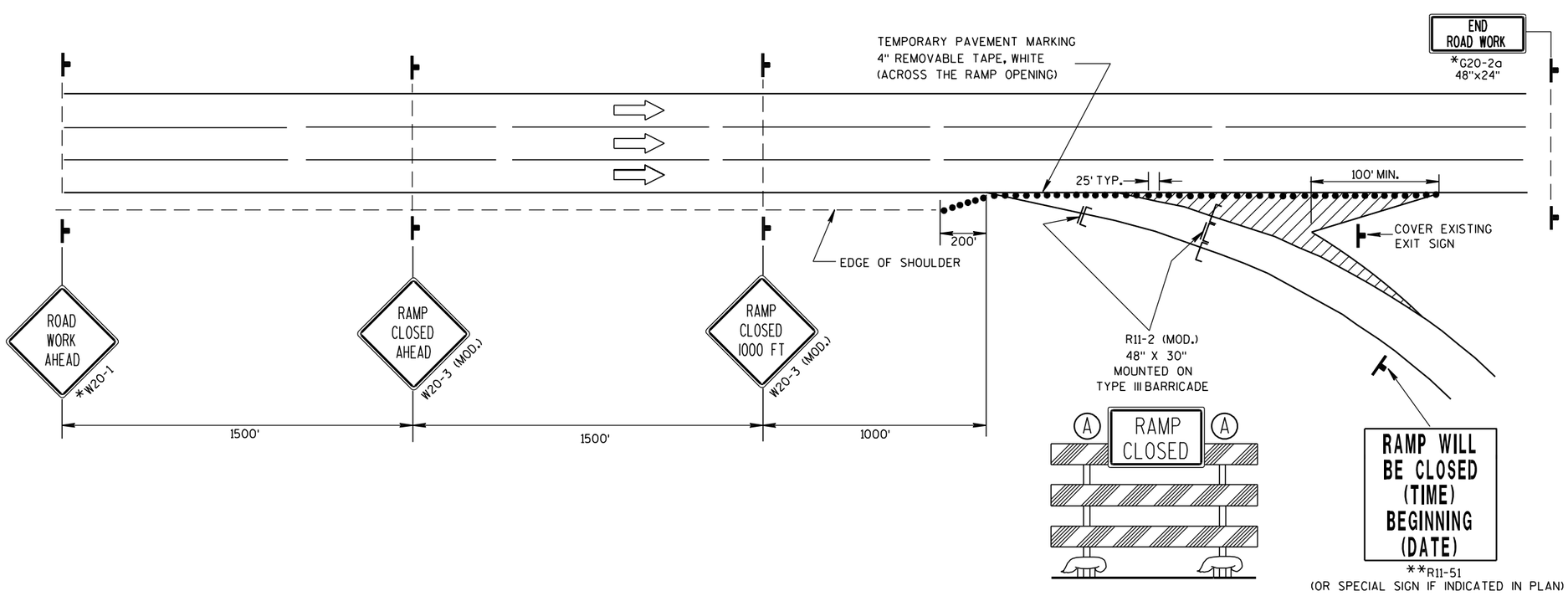
PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROPOFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN THE WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12-HOUR DURATION.

*W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

**USE THE "RAMP WILL BE CLOSED" SIGN IF INDICATED IN MISCELLANEOUS QUANTITIES. PLACE 10 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



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S.D.D. 15 D 16-1

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S.D.D. 15 D 16-1

TRAFFIC CONTROL, EXIT RAMP CLOSURE

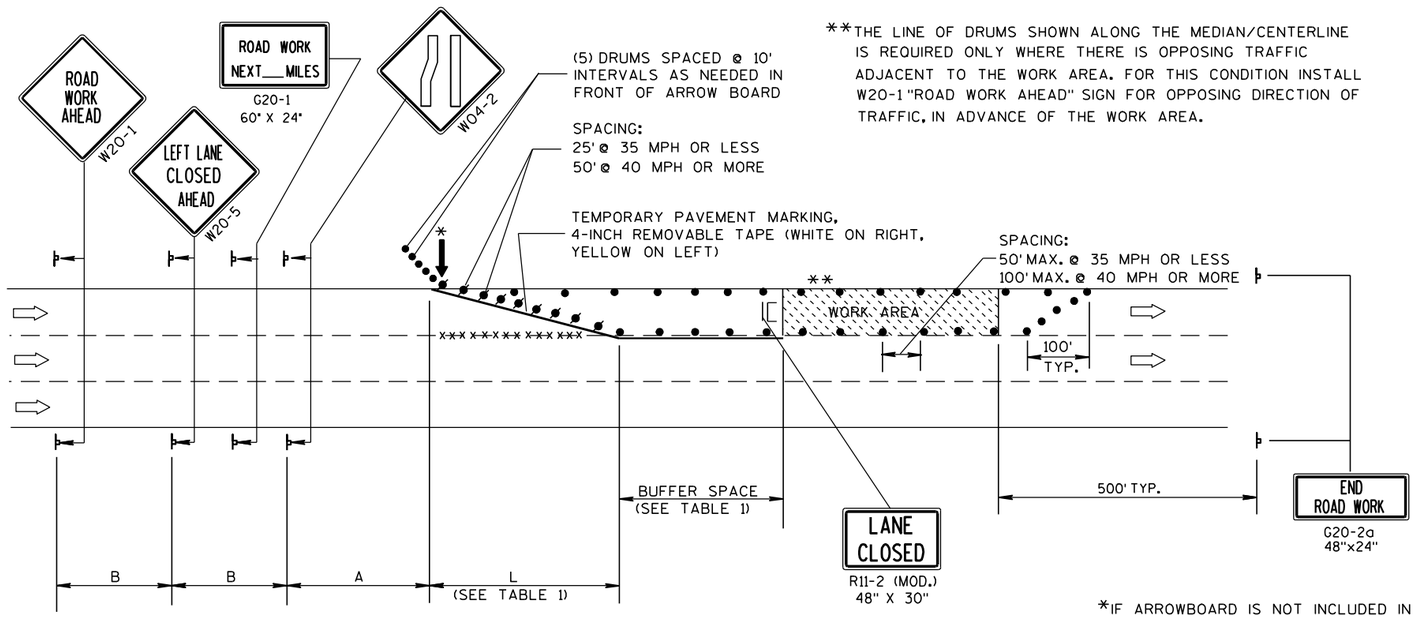
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/2000
DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MAR 385 INEER

FHWA



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

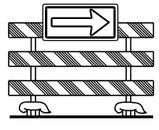


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- POST MOUNTED SIGN
- ARROW BOARD
- TYPE III BARRICADE (8' EQUIVALENT) AND WARNING LIGHTS, TYPE A (FLASHING) WITH/WITHOUT SIGN
- DIRECTION OF TRAFFIC FLOW
- xxxx REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

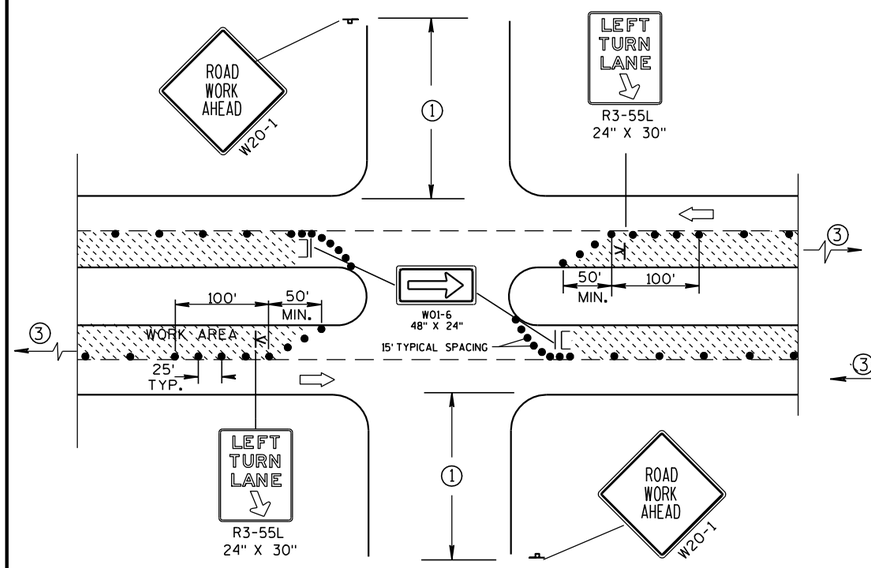
5/23/00
DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER

FHWA

6

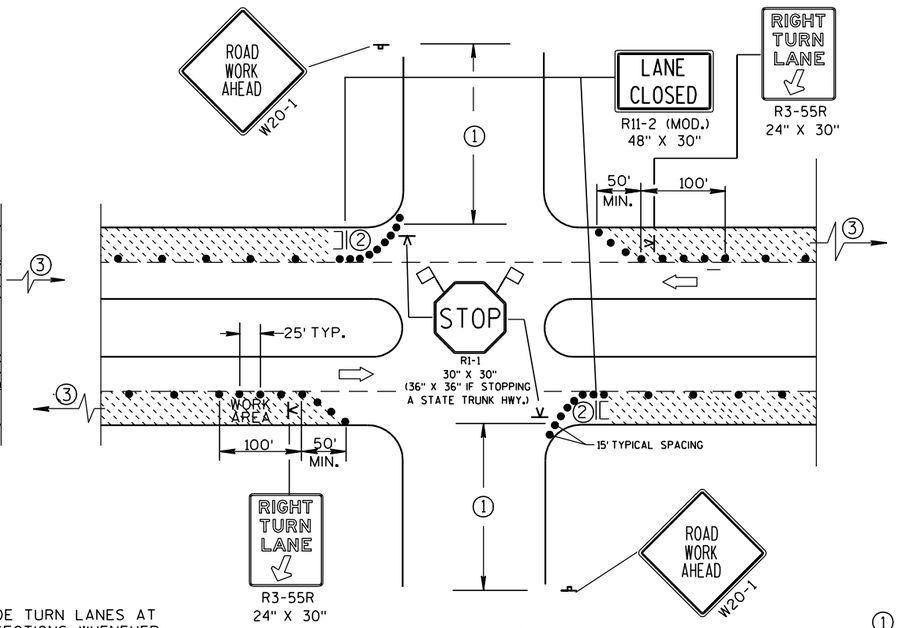
S.D.D. 15 D 20-1



DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

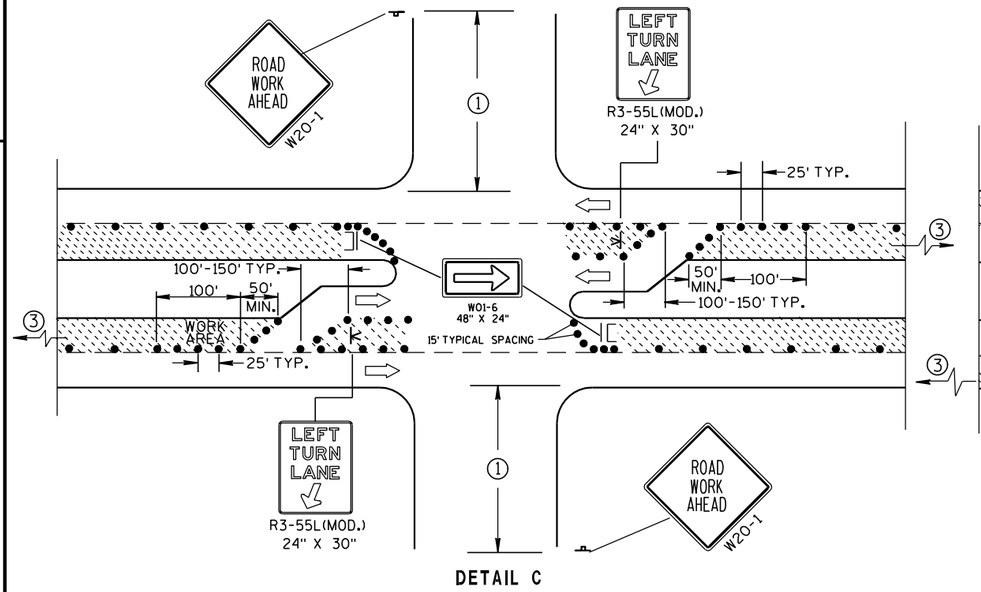
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

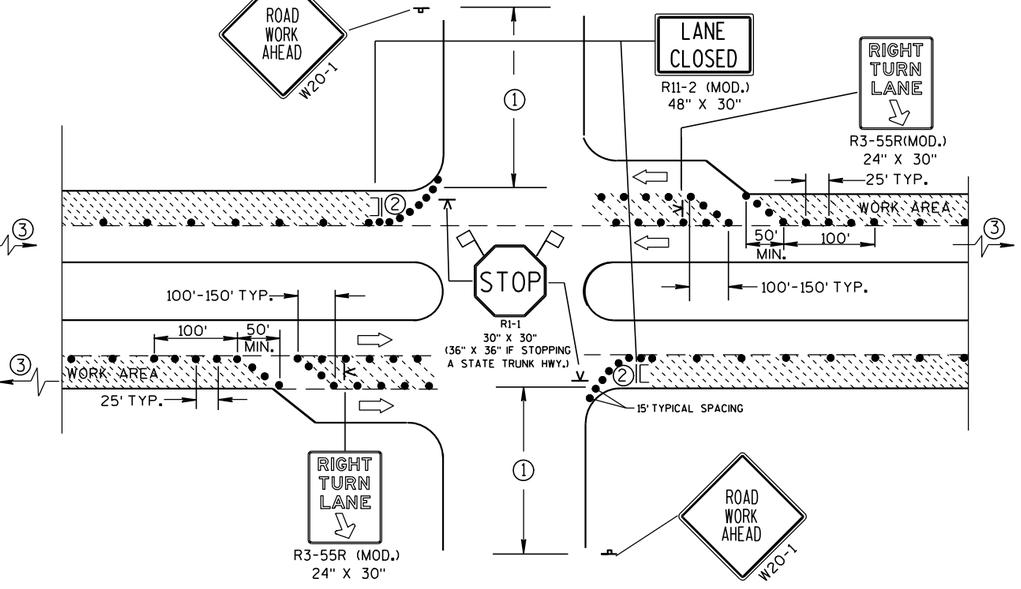
② ALSO USE BARRICADE AND 15' TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- DRUM
- POST MOUNTED SIGN
- SIGN ON PORTABLE SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE (8' EQUIVALENT) AND WARNING LIGHT, TYPE A (FLASHING) WITH SIGN
- DIRECTION OF TRAFFIC FLOW
- FLAGS, 16" X 16" MIN., ORANGE

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/00 DATE

/S/ Chester J. Spang
CHIEF SIGNS AND MARKINGS ENGINEER

FHWA

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S.D.D. 15 D 21-1

6

S.D.D. 15 D 21-1

SYMBOLS

- TRAFFIC CONTROL DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW
- ARROW BOARD IN CAUTION MODE

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

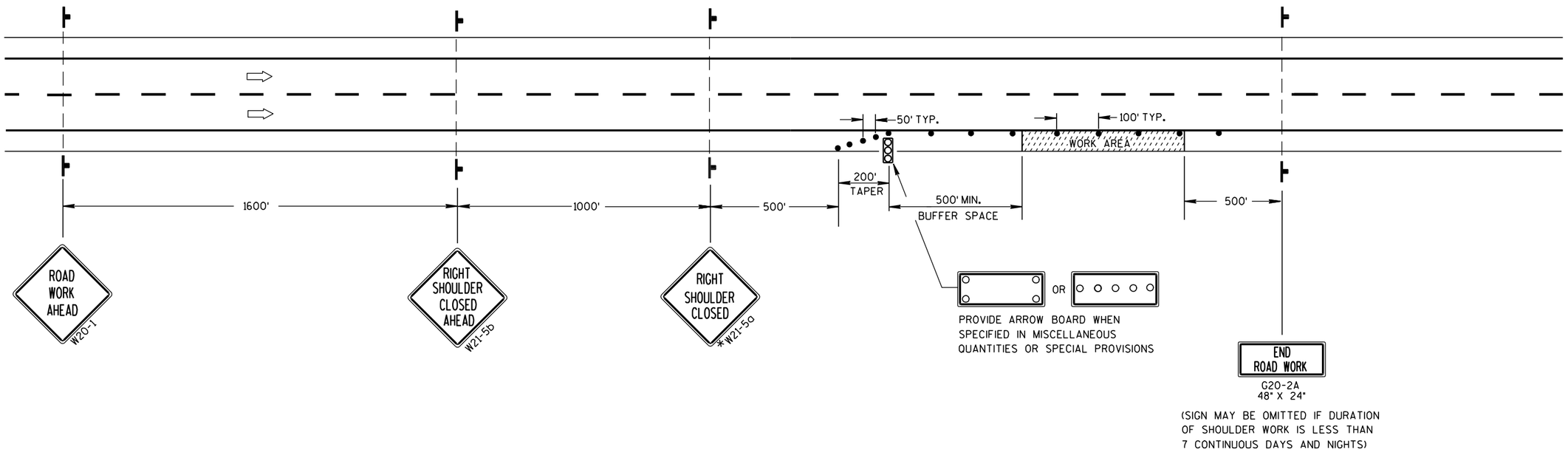
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/00
DATE

/S/ Chester J Spong
CHIEF SIGNS AND MARKINGS ENGINEER

FHWA

6

S.D.D. 15 D 27-1

GENERAL NOTES

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

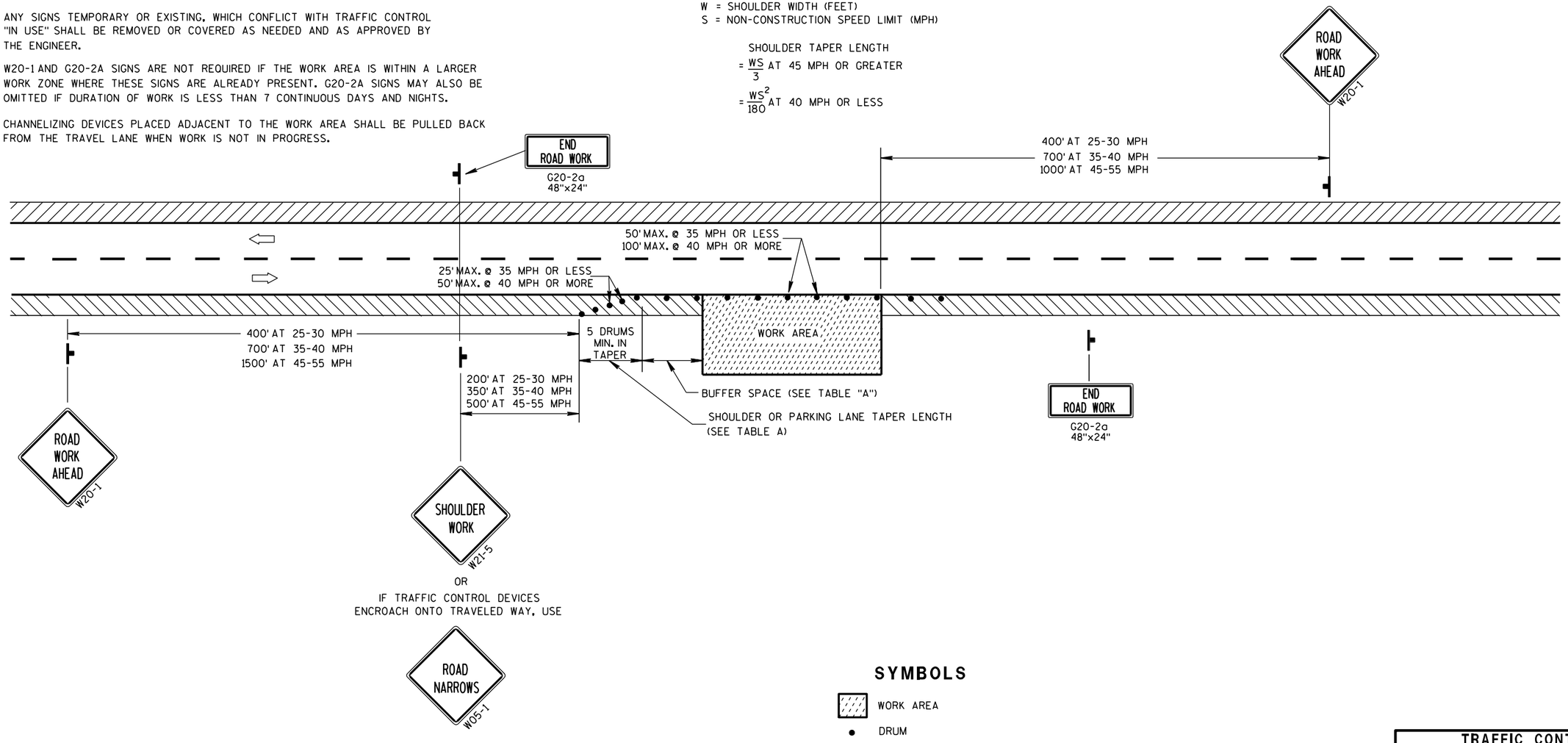
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	85
35	30	45	55	70	120
40	40	55	75	90	170
45	60	90	120	150	220
50	70	100	135	170	280
55	75	110	150	185	335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
$= \frac{WS}{3}$ AT 45 MPH OR GREATER
$= \frac{WS^2}{180}$ AT 40 MPH OR LESS



SYMBOLS

- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

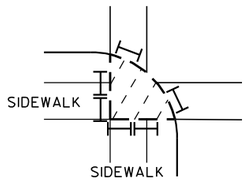
TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

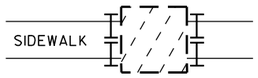
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

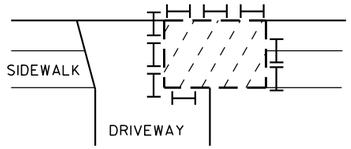
APPROVED
5/23/00 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible] ENGINEER
FHWA

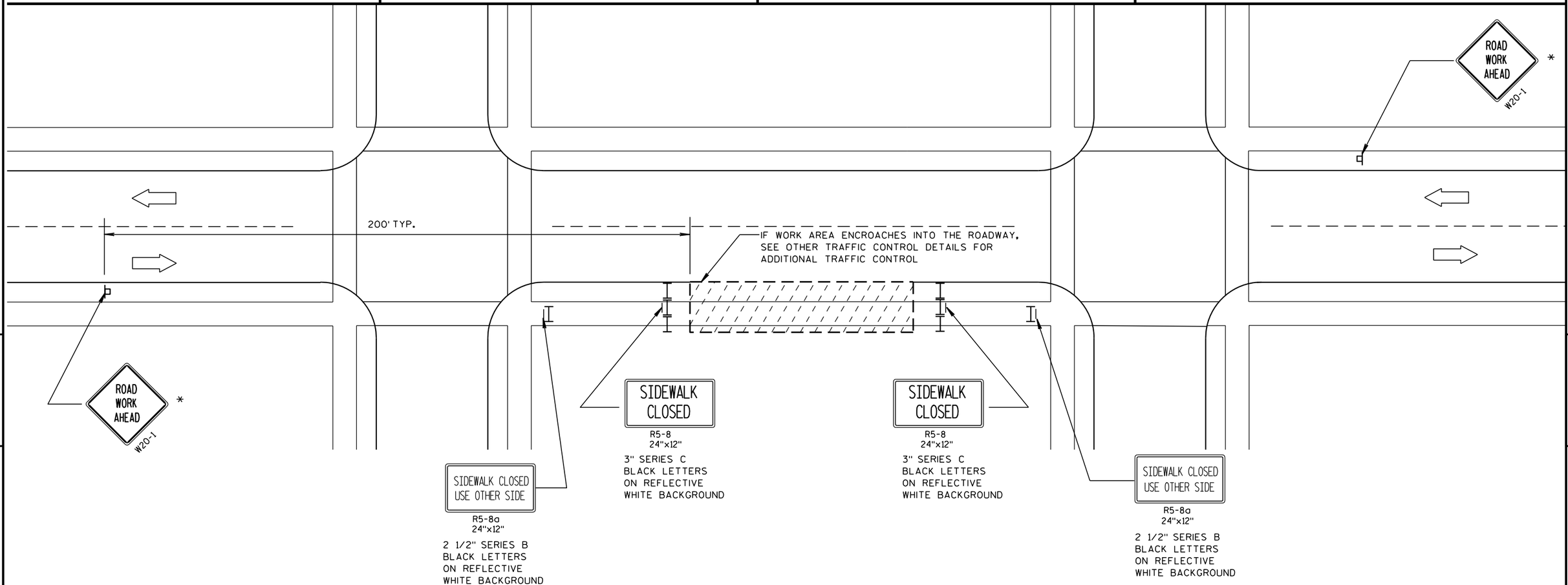
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S.D.D. 15 D 28-1

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

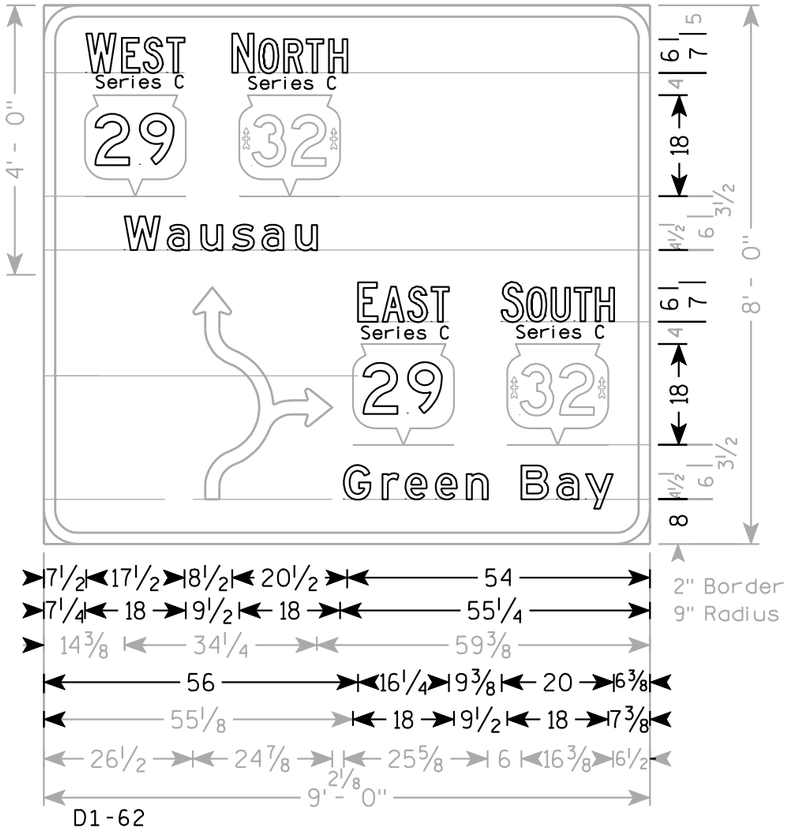
APPROVED
5/23/2000 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK 390 NEER
FHWA

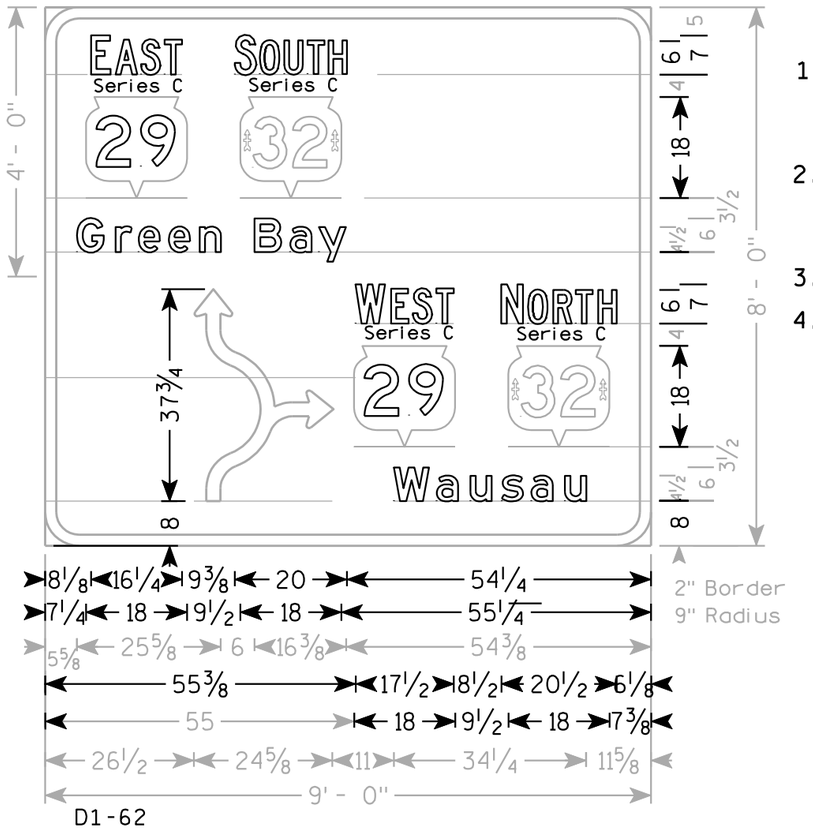
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S.D.D. 15 D 30-1

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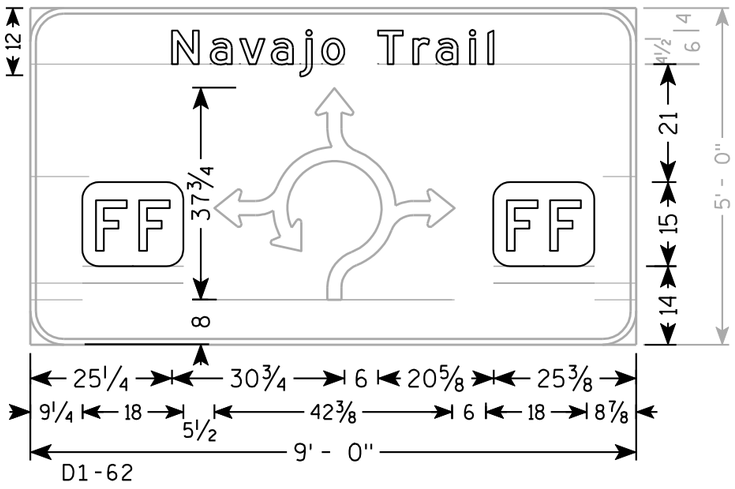
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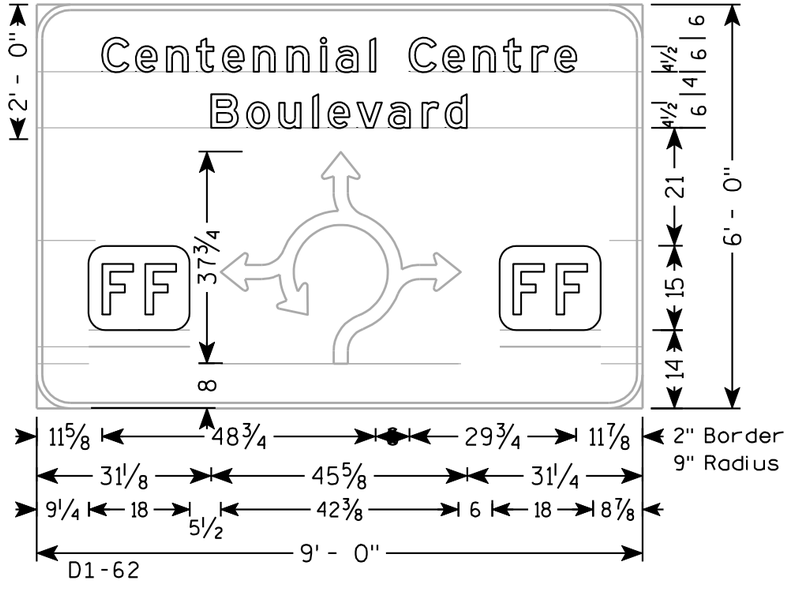




NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted
4. For Roundabout Detail refer to Standard Plate A11-12 for dimensions.





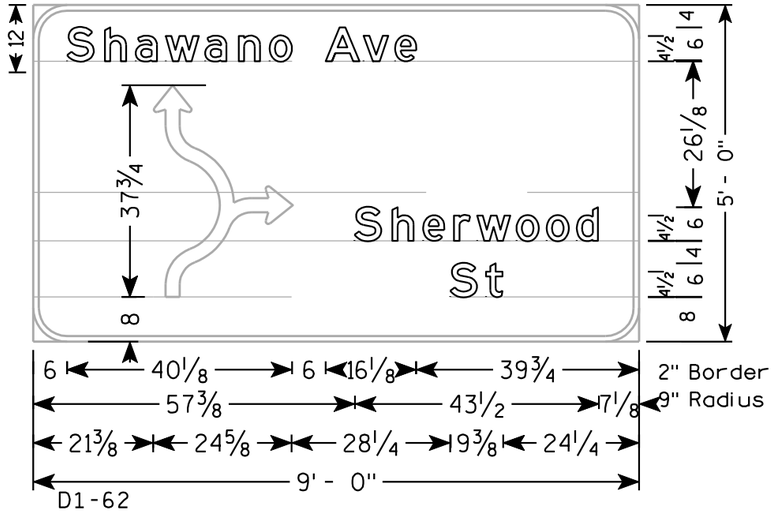
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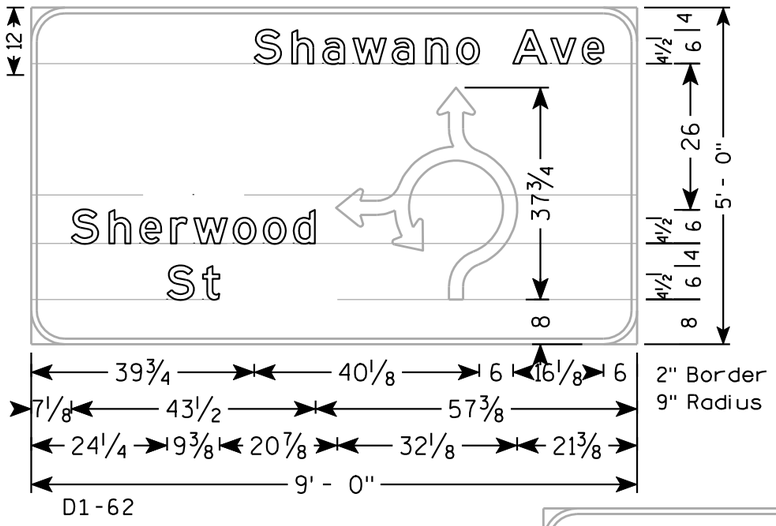
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	PERMANENT SIGNING	SHEET NO: 391	E

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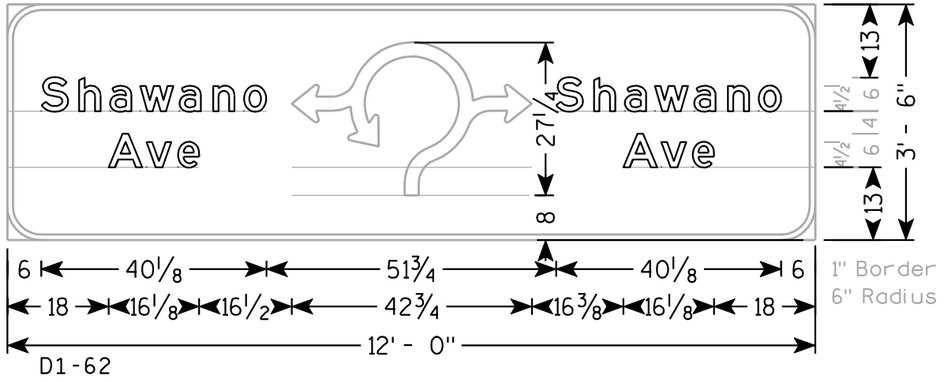
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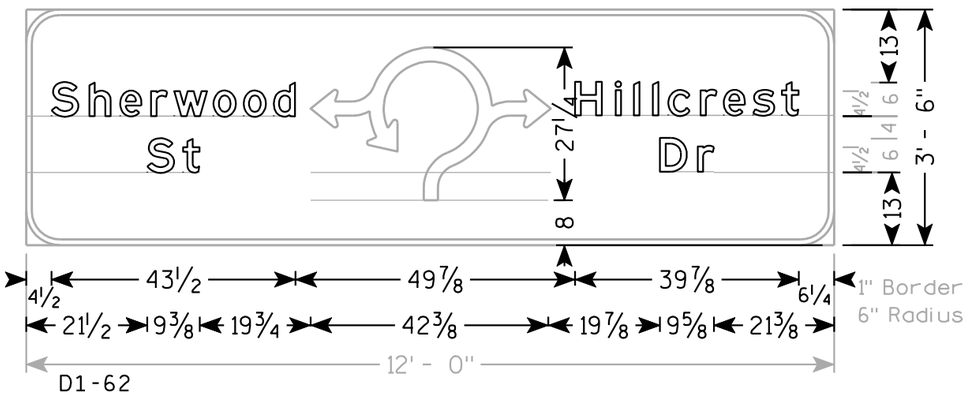


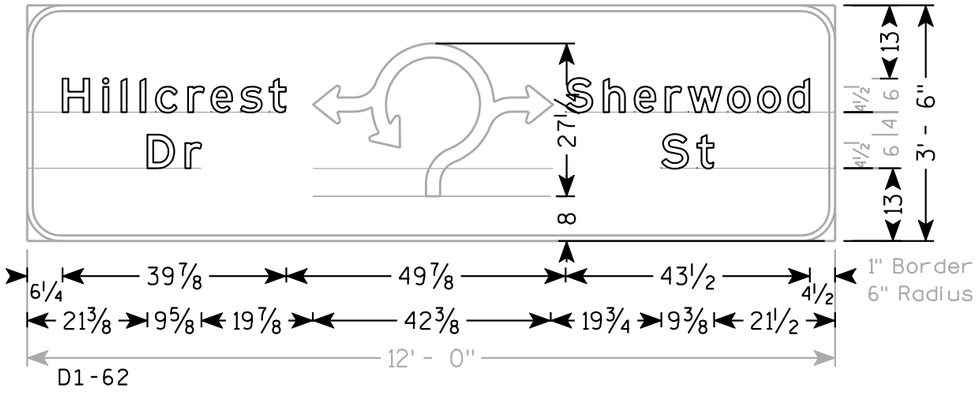


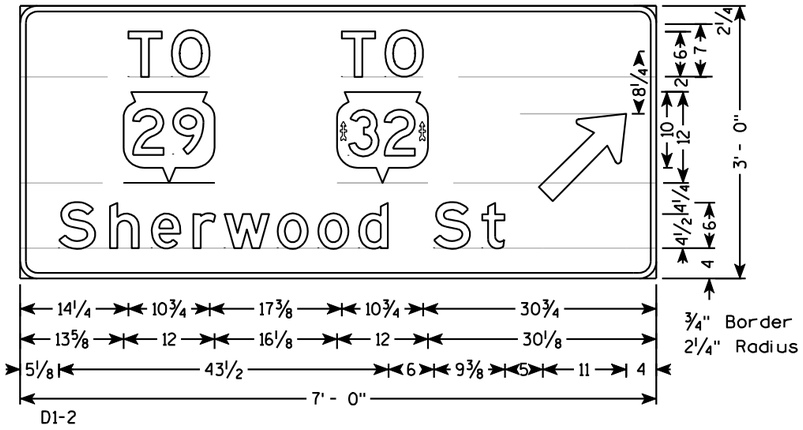
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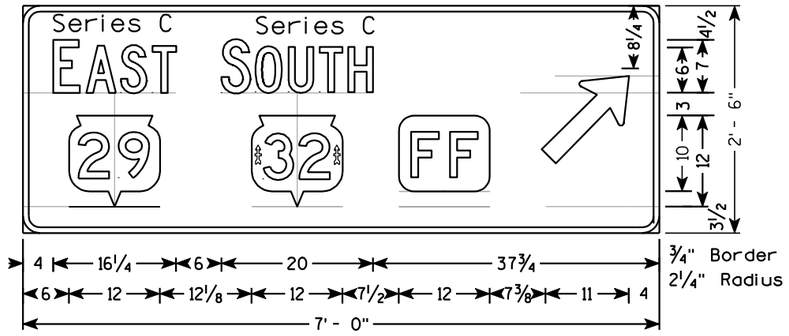
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted
4. For Roundabout Detail refer to Standard Plate A11-12 for dimensions.





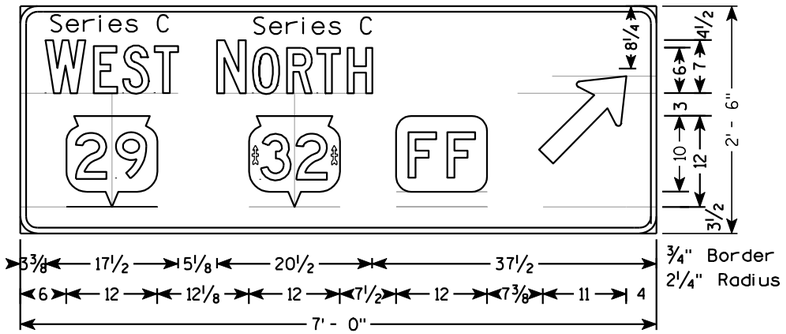


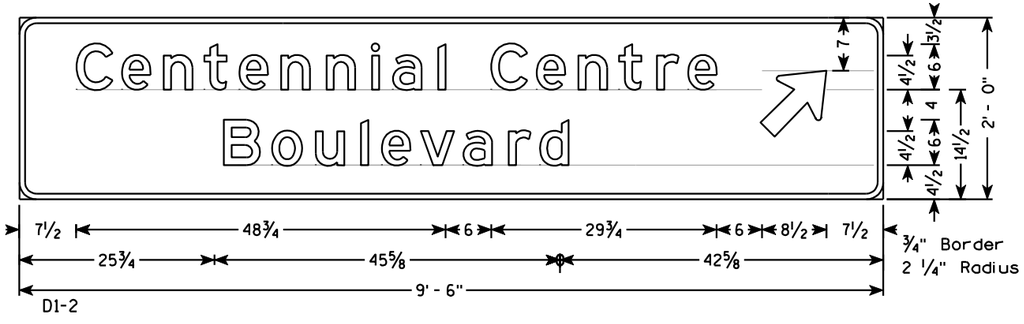




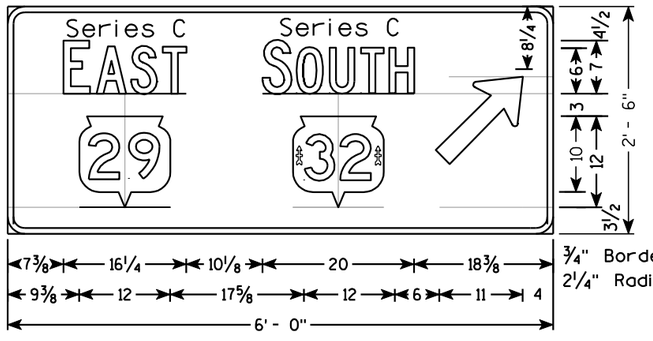
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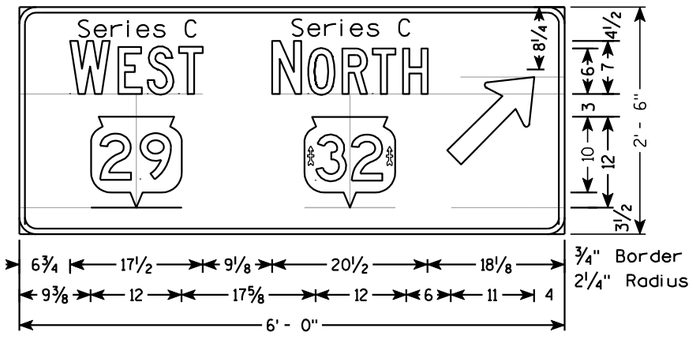
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted

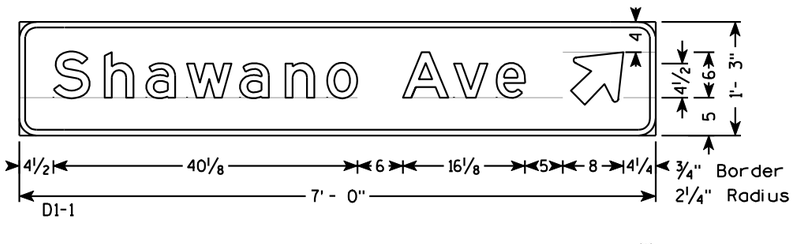


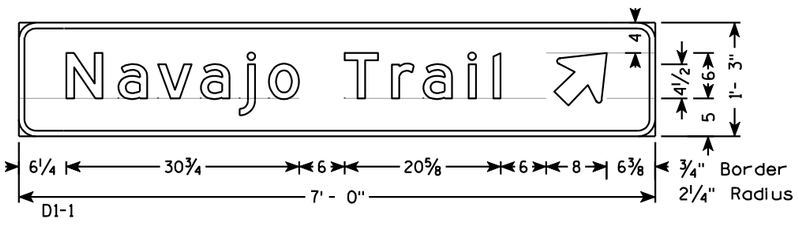


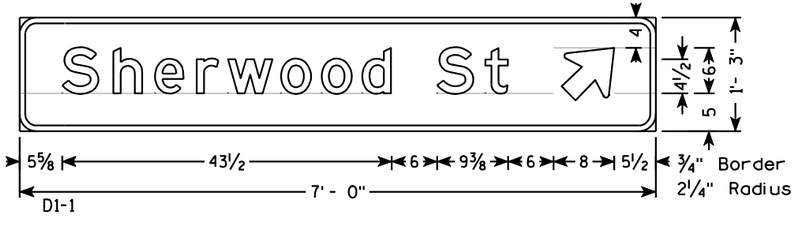


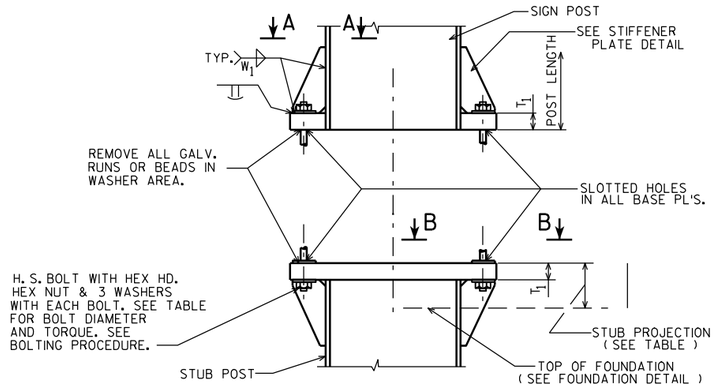




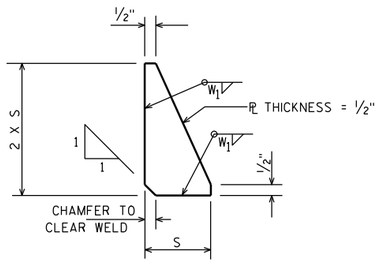






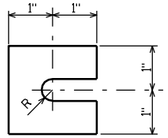


SIGN POST AND STUB POST ELEVATION



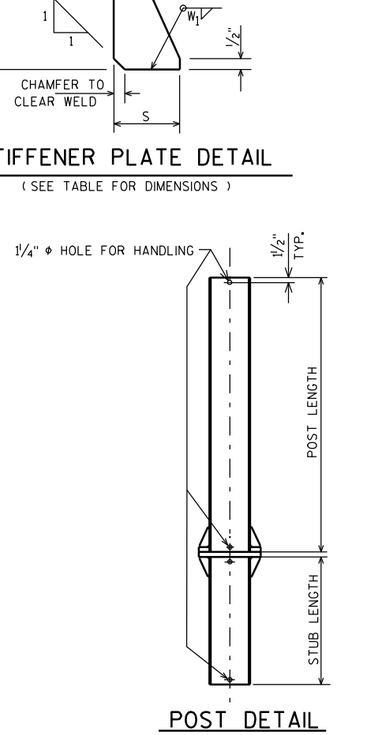
STIFFENER PLATE DETAIL

(SEE TABLE FOR DIMENSIONS)



FURNISH 2 @ .012" ± THICK AND 2 @ .032" ± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO A.S.T.M.- B36.

SHIM DETAIL



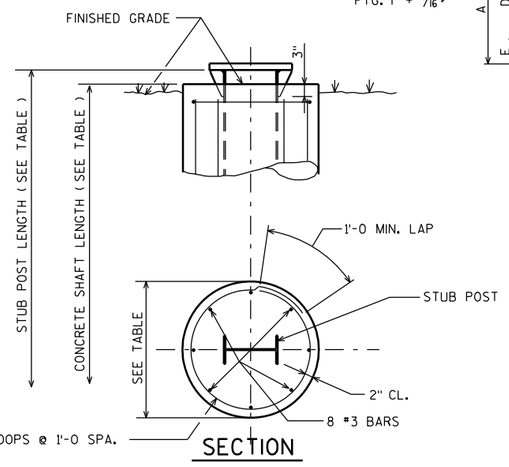
POST DETAIL

	QUANTITIES FOR 1 FOOTING	
	CONC. MASONRY C.Y.	REINF. STEEL LBS.
A	0.6	34
B	0.8	49
C	0.9	50
D	0.9	56
E	1.0	62

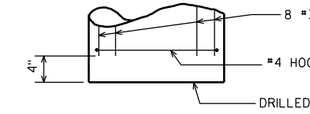
⑦

REINF.	TYPE	#3	#4
	A	8 @ 4'-5	5 @ 6'-3
	B	8 @ 6'-5	7 @ 6'-3
	C	8 @ 6'-11	7 @ 6'-3
	D	8 @ 7'-5	8 @ 6'-3
	E	8 @ 7'-11	9 @ 6'-3

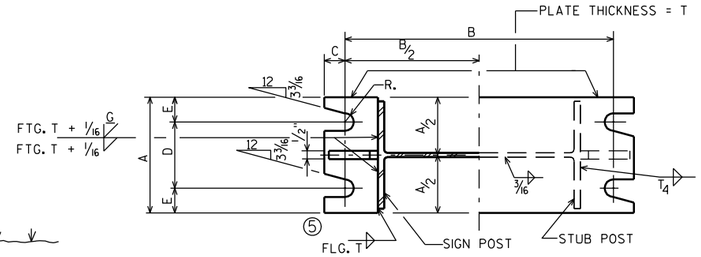
⑦



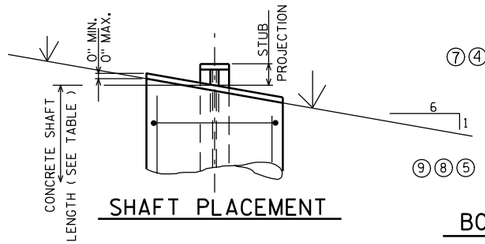
SECTION



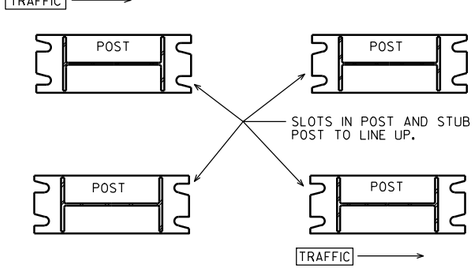
FOUNDATION DETAIL



SECTION A-A SECTION B-B



SHAFT PLACEMENT



POST SLOT ORIENTATION ⑦

DESIGN DATA

WIND PRESSURE = 75 M.P.H.
WIND COMPONENTS - NORMAL = 1.0 TRANSVERSE = 0.0
ICE LOAD = 3 P.S.F.

GROUP LOADS	PERCENT OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD & WIND	140
3. DEAD, ICE & 1/2 WIND△	140 △25 P.S.F. MIN.

ALLOWABLE SOIL PRESSURE = 1½T / SQ. FT.
WIND LOAD WAS APPLIED TO THE AREA OF THE SIGN AND TO THE SUPPORTING MEMBERS.
ICE LOAD WAS APPLIED TO ONE FACE OF THE SIGN AND AROUND THE SURFACE OF THE SUPPORTING MEMBERS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DESIGN CONFORMS WITH A.A.S.H.T.O. SPECIFICATIONS 1985.
ALL POSTS, POST STUBS & ATTACHMENTS SHALL BE A.S.T.M. A709 GRADE 50.
⑨ THE POST, BASE PLATES, UPPER SIX INCHES OF STUB POST FLANGE SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER FABRICATION.
H.S. BOLTS, WASHERS & NUTS SHALL BE A325 GALVANIZED WHEN POSTS, POST STUBS AND ATTACHMENTS ARE A709 GRADE 50 AND GALVANIZED.

BOLTING PROCEDURE - BASE CONNECTION

1. ASSEMBLE SIGN POST TO STUB POST WITH BOLTS AND ONE OF THE FLAT WASHERS ON EACH BOLT BETW. PLATES.
2. SHIM AS REQ'D. TO PLUMB POST.
3. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS, THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. (SEE TABLE)
4. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NOTE:
TIGHTEN THE HIGH STRENGTH BOLTS TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.

	TYPE	DIMENSION / POST SIZE	BASE CONNECTION DATA TABLE: BOLT SIZE & TORQUE	A	B	C	D	E	T_1	T_4	W_1	R	S	FOUNDATION DATA: STUB LENGTH	STUB PROJECTION	SHAFT DIAMETER	SHAFT LENGTH	② K
④	A	W10"X12.0 #/FT.	3/4" ϕ @ 75#-FT.	5 1/4"	1'-0 3/8	7/8"	3 1/2"	7/8"	1"	3/16"	5/16"	13/32 "	2 1/8"	3'-6	3"	2'-0 ϕ	5'-0	76.0# ④
④	B	W12"X16.0 #/FT.	7/8" ϕ @ 85#-FT.	5 1/2"	1'-4 1/4	1"	3 1/2"	1"	1 1/4"	1/4"	5/16"	15/32 "	3"	5'-6	3"	2'-0 ϕ	7'-0	146.5# ④
	C	W12"X19.0 #/FT.	7/8" ϕ @ 85#-FT.	5 1/2"	1'-4 1/4	1"	3 1/2"	1"	1 1/2"	5/16"	5/16"	15/32 "	3"	6'-0	3"	2'-0 ϕ	7'-6	182.1#
	D	W12"X22.0 #/FT.	7/8" ϕ @ 85#-FT.	5 1/2"	1'-4 1/4	1"	3 1/2"	1"	1 1/2"	3/8"	5/16"	15/32 "	3"	6'-6	3"	2'-0 ϕ	8'-0	210.5#
③	E	W12"X26.0 #/FT.	1" ϕ @ 90#-FT.	7"	1'-4 1/4	1 1/4"	4"	1 1/2"	1 1/2"	3/8"	5/16"	17/32 "	3"	7'-0	3"	2'-0 ϕ	8'-6	293.0# ③

① ⑥ ①

STRUCTURAL CARBON STEEL PAY WTS. (1 POST) = K+ (POST LENGTH X POST WT.)
" K " INCLUDES STUB, BASE PLATES, STIFFS., BOLTS, AND WASHERS.

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer
DATE 4/26/11 PLATE NO. A3-1.13

NO.	DATE	REVISION
⑨	4-26-11	REMOVE NON-GALVANIZED
⑧	10-30-96	NOT GALVANIZED/GALVANIZED
⑦	10-30-92	QUANT., A588 EXCEPT., ADD SLOT VIEW
⑥	8-24-87	BASE CONN. WELD
⑤	10-13-81	BASE CONN. WELD & FUSE ℄ WASHERS
④	10-19-79	POST A & B, A572 GR. 50, & K
②	11-28-78	"K" ③4-23-79 TYPE "E"
①	5-4-78	T_1 , T_2 & W_1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

TYPE A, B, C, D, & E

CONST. SPEC. 2011 | DRAWN BY JPH | PLANS CK'D.

FTG. & SIGN SUPPORT DETAILS GROUND MOUNT BREAK-AWAY SIGNS | SHEET

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 394 | E

VERTICAL DIMENSION ⇨

HORIZONTAL DIMENSION ⇩

Type "A" (2 Posts) 1.2 CY Conc. 68 LBs Bar Steel

⇩ \ ⇨	2.5 ft.	3 ft.	3.5 ft.	4 ft.	4.5 ft.	5 ft.	5.5 ft.	6 ft.	6.5 ft.	7 ft.	7.5 ft.	8 ft.	8.5 ft.	9 ft.	9.5 ft.	10 ft.	10.5 ft.	11 ft.	11.5 ft.	12 ft.	12.5 ft.	13 ft.	13.5 ft.	14 ft.	14.5 ft.	15 ft.	15.5 ft.	16 ft.
22 ft.	55 Sq. Ft	66 Sq. Ft	77 Sq. Ft	88 Sq. Ft	99 Sq. Ft	110 Sq. Ft	121 Sq. Ft	132 Sq. Ft	143 Sq. Ft	154 Sq. Ft	165 Sq. Ft	176 Sq. Ft	187 Sq. Ft	198 Sq. Ft	209 Sq. Ft	220 Sq. Ft	231 Sq. Ft	242 Sq. Ft	253 Sq. Ft	264 Sq. Ft	275 Sq. Ft	286 Sq. Ft	297 Sq. Ft	308 Sq. Ft	319 Sq. Ft	330 Sq. Ft	341 Sq. Ft	352 Sq. Ft
23 ft.	57.5 Sq. Ft	69 Sq. Ft	80.5 Sq. Ft	92 Sq. Ft	103.5 Sq. Ft	115 Sq. Ft	126.5 Sq. Ft	138 Sq. Ft	149.5 Sq. Ft	161 Sq. Ft	172.5 Sq. Ft	184 Sq. Ft	195.5 Sq. Ft	207 Sq. Ft	218.5 Sq. Ft	230 Sq. Ft	241.5 Sq. Ft	253 Sq. Ft	264.5 Sq. Ft	276 Sq. Ft	287.5 Sq. Ft	299 Sq. Ft	310.5 Sq. Ft	322 Sq. Ft	333.5 Sq. Ft	345 Sq. Ft	356.5 Sq. Ft	368 Sq. Ft
24 ft.	60 Sq. Ft	72 Sq. Ft	84 Sq. Ft	96 Sq. Ft	108 Sq. Ft	120 Sq. Ft	132 Sq. Ft	144 Sq. Ft	156 Sq. Ft	168 Sq. Ft	180 Sq. Ft	192 Sq. Ft	204 Sq. Ft	216 Sq. Ft	228 Sq. Ft	240 Sq. Ft	252 Sq. Ft	264 Sq. Ft	276 Sq. Ft	288 Sq. Ft	300 Sq. Ft	312 Sq. Ft	324 Sq. Ft	336 Sq. Ft	348 Sq. Ft	360 Sq. Ft	372 Sq. Ft	384 Sq. Ft
25 ft.	62.5 Sq. Ft	75 Sq. Ft	87.5 Sq. Ft	100 Sq. Ft	112.5 Sq. Ft	125 Sq. Ft	137.5 Sq. Ft	150 Sq. Ft	162.5 Sq. Ft	175 Sq. Ft	187.5 Sq. Ft	200 Sq. Ft	212.5 Sq. Ft	225 Sq. Ft	237.5 Sq. Ft	250 Sq. Ft	262.5 Sq. Ft	275 Sq. Ft	287.5 Sq. Ft	300 Sq. Ft	312.5 Sq. Ft	325 Sq. Ft	337.5 Sq. Ft	350 Sq. Ft	362.5 Sq. Ft	375 Sq. Ft	387.5 Sq. Ft	400 Sq. Ft
26 ft.	65 Sq. Ft	78 Sq. Ft	91 Sq. Ft	104 Sq. Ft	117 Sq. Ft	130 Sq. Ft	143 Sq. Ft	156 Sq. Ft	169 Sq. Ft	182 Sq. Ft	195 Sq. Ft	208 Sq. Ft	221 Sq. Ft	234 Sq. Ft	247 Sq. Ft	260 Sq. Ft	273 Sq. Ft	286 Sq. Ft	299 Sq. Ft	312 Sq. Ft	325 Sq. Ft	338 Sq. Ft	351 Sq. Ft	364 Sq. Ft	377 Sq. Ft	390 Sq. Ft	403 Sq. Ft	416 Sq. Ft
27 ft.	67.5 Sq. Ft	81 Sq. Ft	94.5 Sq. Ft	108 Sq. Ft	121.5 Sq. Ft	135 Sq. Ft	148.5 Sq. Ft	162 Sq. Ft	175.5 Sq. Ft	189 Sq. Ft	202.5 Sq. Ft	216 Sq. Ft	229.5 Sq. Ft	243 Sq. Ft	256.5 Sq. Ft	270 Sq. Ft	283.5 Sq. Ft	297 Sq. Ft	310.5 Sq. Ft	324 Sq. Ft	337.5 Sq. Ft	351 Sq. Ft	364.5 Sq. Ft	378 Sq. Ft	391.5 Sq. Ft	405 Sq. Ft	418.5 Sq. Ft	432 Sq. Ft
28 ft.	70 Sq. Ft	84 Sq. Ft	98 Sq. Ft	112 Sq. Ft	126 Sq. Ft	140 Sq. Ft	154 Sq. Ft	168 Sq. Ft	182 Sq. Ft	196 Sq. Ft	210 Sq. Ft	224 Sq. Ft	238 Sq. Ft	252 Sq. Ft	266 Sq. Ft	280 Sq. Ft	294 Sq. Ft	308 Sq. Ft	322 Sq. Ft	336 Sq. Ft	350 Sq. Ft	364 Sq. Ft	378 Sq. Ft	392 Sq. Ft	406 Sq. Ft	420 Sq. Ft	434 Sq. Ft	448 Sq. Ft
29 ft.	72.5 Sq. Ft	87 Sq. Ft	101.5 Sq. Ft	116 Sq. Ft	130.5 Sq. Ft	145 Sq. Ft	159.5 Sq. Ft	174 Sq. Ft	188.5 Sq. Ft	203 Sq. Ft	217.5 Sq. Ft	232 Sq. Ft	246.5 Sq. Ft	261 Sq. Ft	275.5 Sq. Ft	290 Sq. Ft	304.5 Sq. Ft	319 Sq. Ft	333.5 Sq. Ft	348 Sq. Ft	362.5 Sq. Ft	377 Sq. Ft	391.5 Sq. Ft	406 Sq. Ft	420.5 Sq. Ft	435 Sq. Ft	449.5 Sq. Ft	464 Sq. Ft
30 ft.	75 Sq. Ft	90 Sq. Ft	105 Sq. Ft	120 Sq. Ft	135 Sq. Ft	150 Sq. Ft	165 Sq. Ft	180 Sq. Ft	195 Sq. Ft	210 Sq. Ft	225 Sq. Ft	240 Sq. Ft	255 Sq. Ft	270 Sq. Ft	285 Sq. Ft	300 Sq. Ft	315 Sq. Ft	330 Sq. Ft	345 Sq. Ft	360 Sq. Ft	375 Sq. Ft	390 Sq. Ft	405 Sq. Ft	420 Sq. Ft	435 Sq. Ft	450 Sq. Ft	465 Sq. Ft	480 Sq. Ft
31 ft.	77.5 Sq. Ft	93 Sq. Ft	108.5 Sq. Ft	124 Sq. Ft	139.5 Sq. Ft	155 Sq. Ft	170.5 Sq. Ft	186 Sq. Ft	201.5 Sq. Ft	217 Sq. Ft	232.5 Sq. Ft	248 Sq. Ft	263.5 Sq. Ft	279 Sq. Ft	294.5 Sq. Ft	310 Sq. Ft	325.5 Sq. Ft	341 Sq. Ft	356.5 Sq. Ft	372 Sq. Ft	387.5 Sq. Ft	403 Sq. Ft	418.5 Sq. Ft	434 Sq. Ft	449.5 Sq. Ft	465 Sq. Ft	480.5 Sq. Ft	496 Sq. Ft
32 ft.	80 Sq. Ft	96 Sq. Ft	112 Sq. Ft	128 Sq. Ft	144 Sq. Ft	160 Sq. Ft	176 Sq. Ft	192 Sq. Ft	208 Sq. Ft	224 Sq. Ft	240 Sq. Ft	256 Sq. Ft	272 Sq. Ft	288 Sq. Ft	304 Sq. Ft	320 Sq. Ft	336 Sq. Ft	352 Sq. Ft	368 Sq. Ft	384 Sq. Ft	400 Sq. Ft	416 Sq. Ft	432 Sq. Ft	448 Sq. Ft	464 Sq. Ft	480 Sq. Ft	496 Sq. Ft	512 Sq. Ft
33 ft.	82.5 Sq. Ft	99 Sq. Ft	115.5 Sq. Ft	132 Sq. Ft	148.5 Sq. Ft	165 Sq. Ft	181.5 Sq. Ft	198 Sq. Ft	214.5 Sq. Ft	231 Sq. Ft	247.5 Sq. Ft	264 Sq. Ft	280.5 Sq. Ft	297 Sq. Ft	313.5 Sq. Ft	330 Sq. Ft	346.5 Sq. Ft	363 Sq. Ft	379.5 Sq. Ft	396 Sq. Ft	412.5 Sq. Ft	429 Sq. Ft	445.5 Sq. Ft	462 Sq. Ft	478.5 Sq. Ft	495 Sq. Ft	511.5 Sq. Ft	528 Sq. Ft
34 ft.	85 Sq. Ft	102 Sq. Ft	119 Sq. Ft	136 Sq. Ft	153 Sq. Ft	170 Sq. Ft	187 Sq. Ft	204 Sq. Ft	221 Sq. Ft	238 Sq. Ft	255 Sq. Ft	272 Sq. Ft	289 Sq. Ft	306 Sq. Ft	323 Sq. Ft	340 Sq. Ft	357 Sq. Ft	374 Sq. Ft	391 Sq. Ft	408 Sq. Ft	425 Sq. Ft	442 Sq. Ft	459 Sq. Ft	476 Sq. Ft	493 Sq. Ft	510 Sq. Ft	527 Sq. Ft	544 Sq. Ft
35 ft.	87.5 Sq. Ft	105 Sq. Ft	122.5 Sq. Ft	140 Sq. Ft	157.5 Sq. Ft	175 Sq. Ft	192.5 Sq. Ft	210 Sq. Ft	227.5 Sq. Ft	245 Sq. Ft	262.5 Sq. Ft	280 Sq. Ft	297.5 Sq. Ft	315 Sq. Ft	332.5 Sq. Ft	350 Sq. Ft	367.5 Sq. Ft	385 Sq. Ft	402.5 Sq. Ft	420 Sq. Ft	437.5 Sq. Ft	455 Sq. Ft	472.5 Sq. Ft	490 Sq. Ft	507.5 Sq. Ft	525 Sq. Ft	542.5 Sq. Ft	560 Sq. Ft
36 ft.	90 Sq. Ft	108 Sq. Ft	126 Sq. Ft	144 Sq. Ft	162 Sq. Ft	180 Sq. Ft	198 Sq. Ft	216 Sq. Ft	234 Sq. Ft	252 Sq. Ft	270 Sq. Ft	288 Sq. Ft	306 Sq. Ft	324 Sq. Ft	342 Sq. Ft	360 Sq. Ft	378 Sq. Ft	396 Sq. Ft	414 Sq. Ft	432 Sq. Ft	450 Sq. Ft	468 Sq. Ft	486 Sq. Ft	504 Sq. Ft	522 Sq. Ft	540 Sq. Ft	558 Sq. Ft	576 Sq. Ft

Type "B" (2 Posts)
1.6 CY Conc.
98 LBs Bar Steel

Type "C" (2 Posts)
1.8 CY Conc.
100 LBs Bar Steel

Type "D" (2 Posts)
1.8 CY Conc.
112 LBs Bar Steel

Type "C" (3 Posts)
2.7 CY Conc.
150 LBs Bar Steel

Type "D" (3 Posts)
2.7 CY Conc.
168 LBs Bar Steel

STEEL POST SIZE

"A" - W10" x 12"
"B" - W12" x 16"
"C" - W12" x 19"
"D" - W12 x 22"

DETERMINATION OF HIGH STRENGTH STRUCTURAL STEEL SIGN SUPPORT TYPE

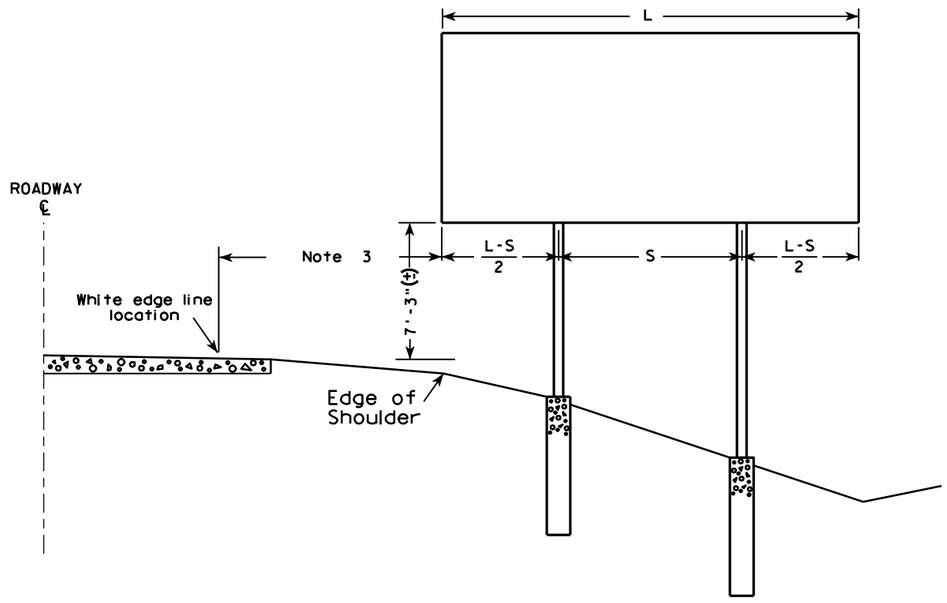
WISCONSIN DEPT OF TRANSPORTATION

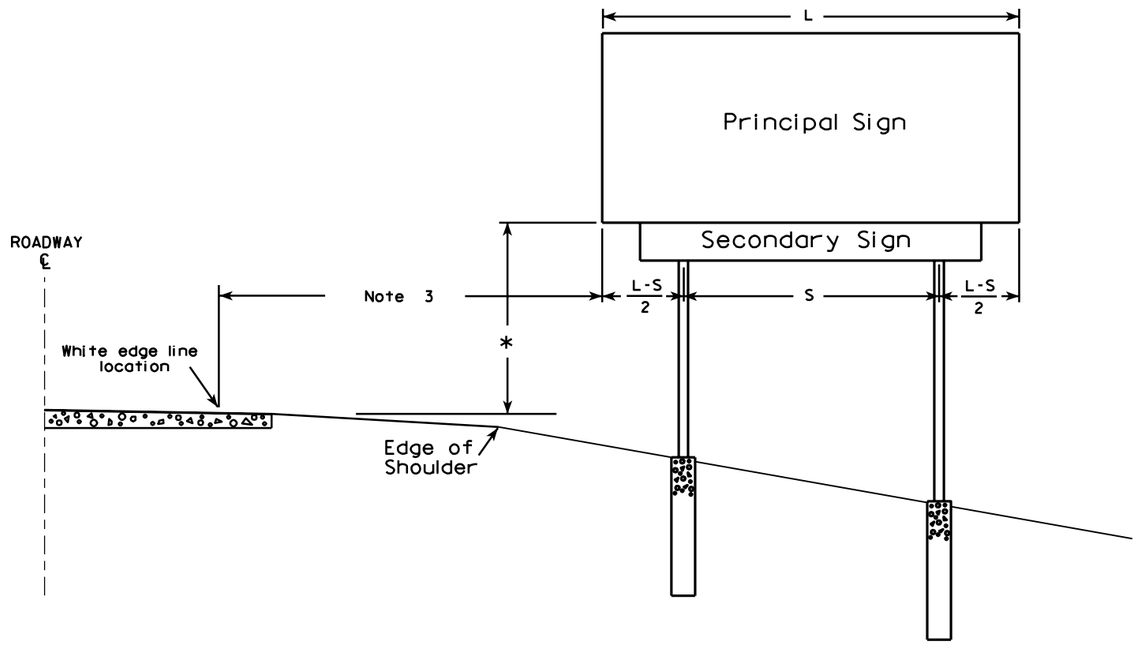
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/5/10 PLATE NO. A3-3.2

PROJECT NO: | SHEET NO: E

FILE NAME : C:\users\PROJECTS\tr_stdplate\A33.DGN PLOT DATE : 05-MAR-2010 10:07 PLOT BY : ditjph





GENERAL NOTES

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

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

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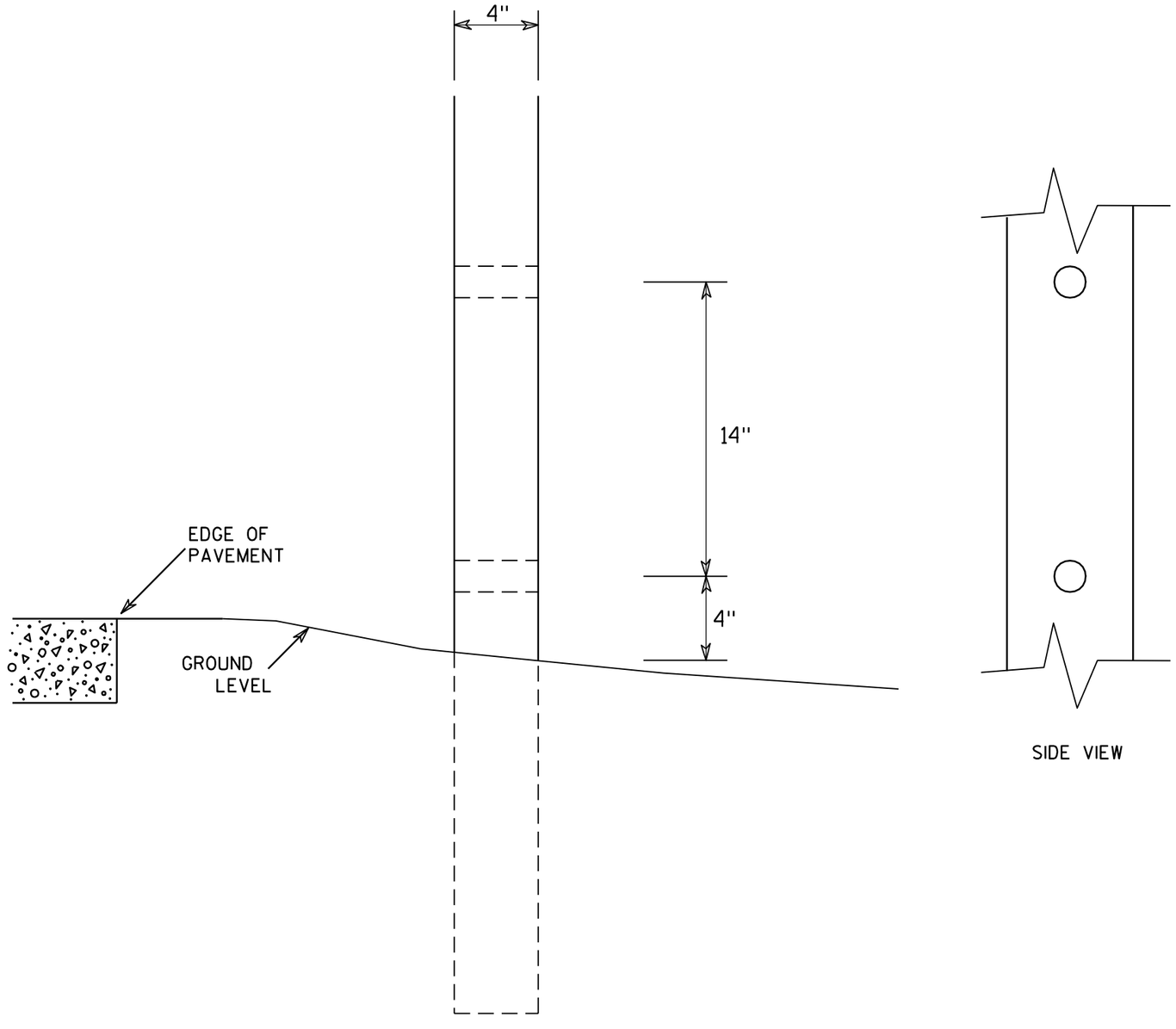
TYPICAL INSTALLATION
OF TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/02/08 PLATE NO. A4-1.9

PROJECT NO:				SHEET NO: 396	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

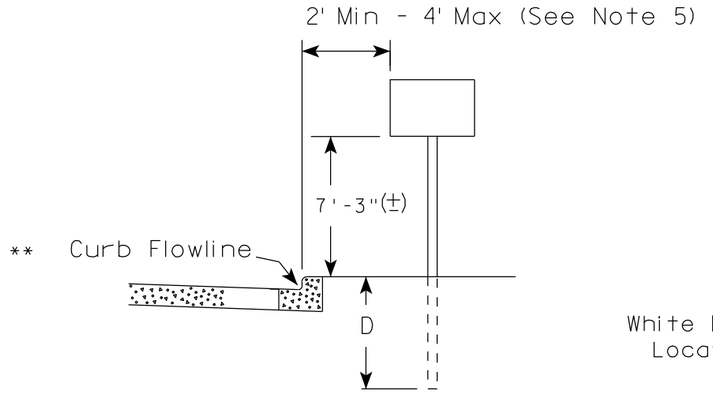
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

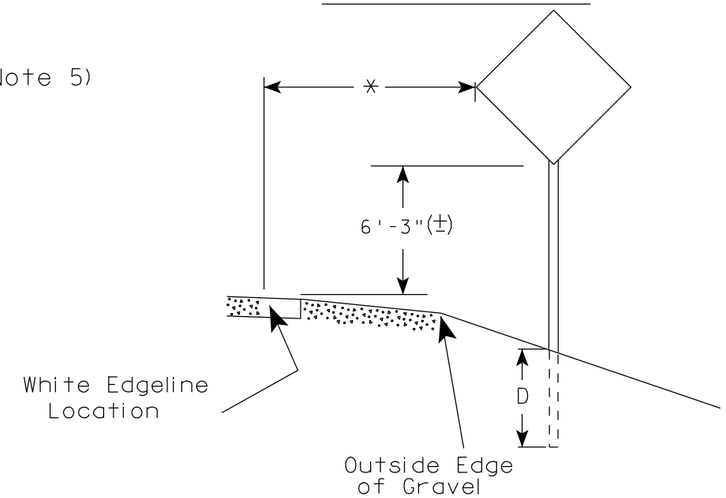
DATE 3/27/97 PLATE NO. A4-11.2

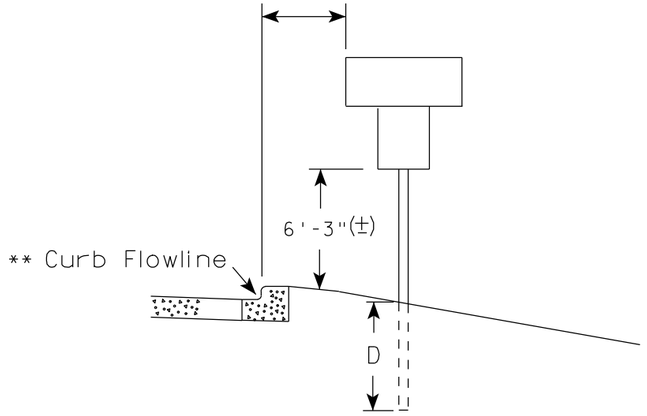
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 397	E

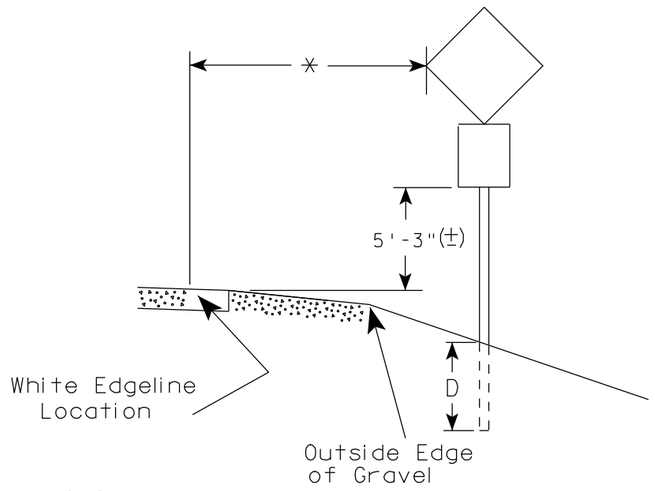
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

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), 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" (±).

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

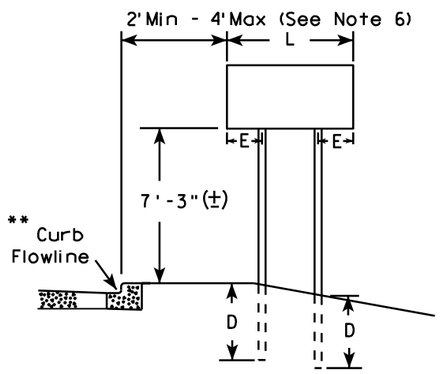
DATE 9/21/2011 PLATE NO. A4-3.16

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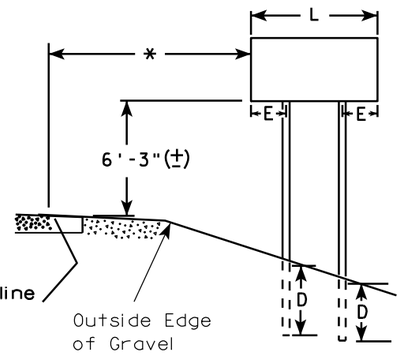
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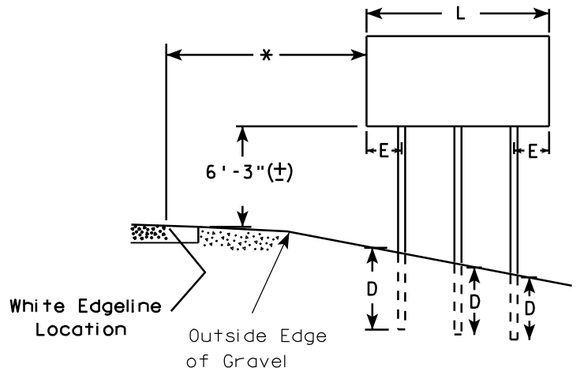
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 398 | E

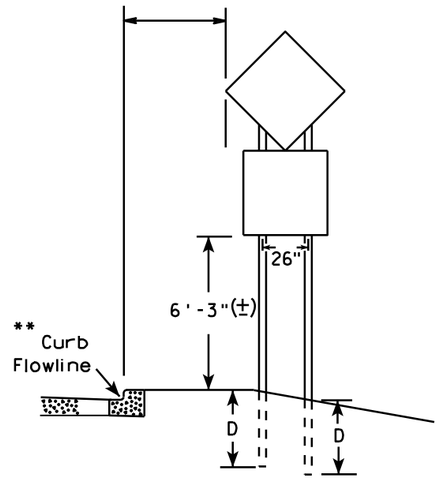
URBAN AREA



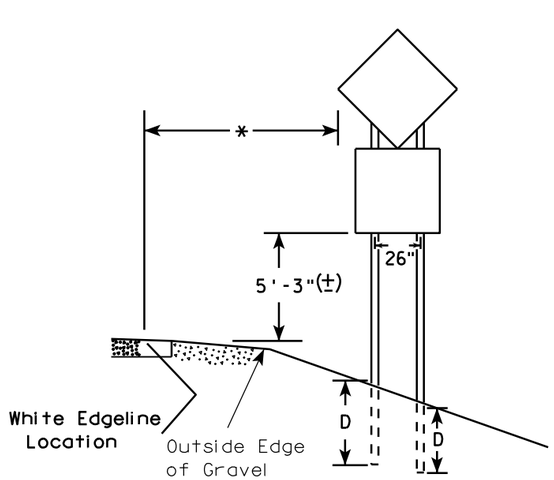
RURAL AREA (See Note 3)







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

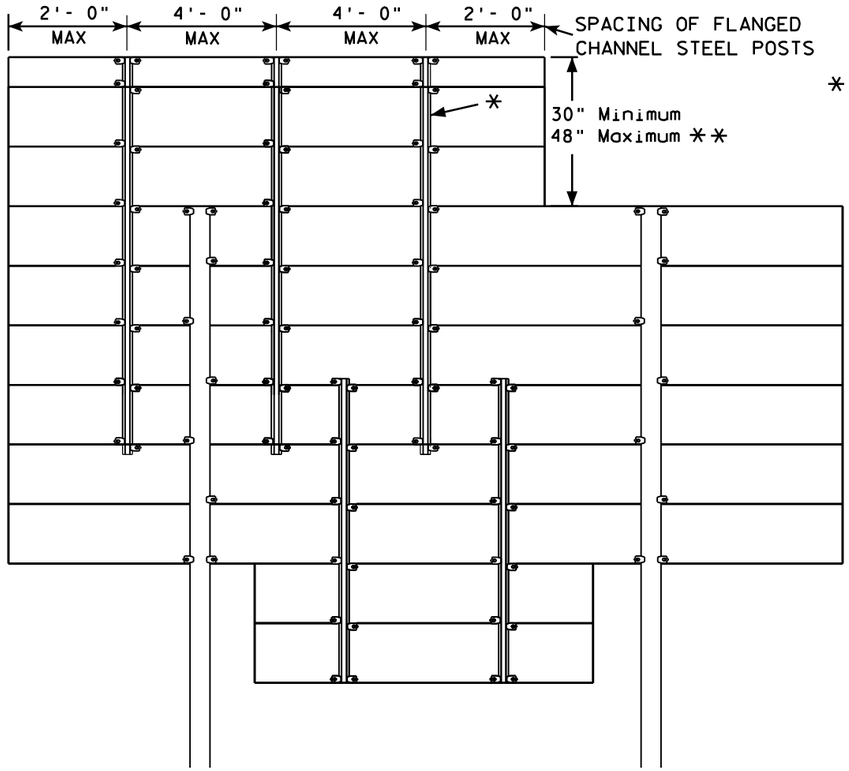
DATE 9/21/2011 PLATE NO. A4-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 399	E

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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

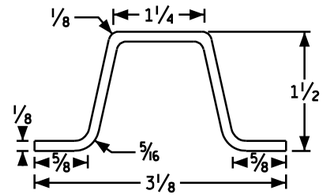
GROUND MOUNTED SIGN



*=2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

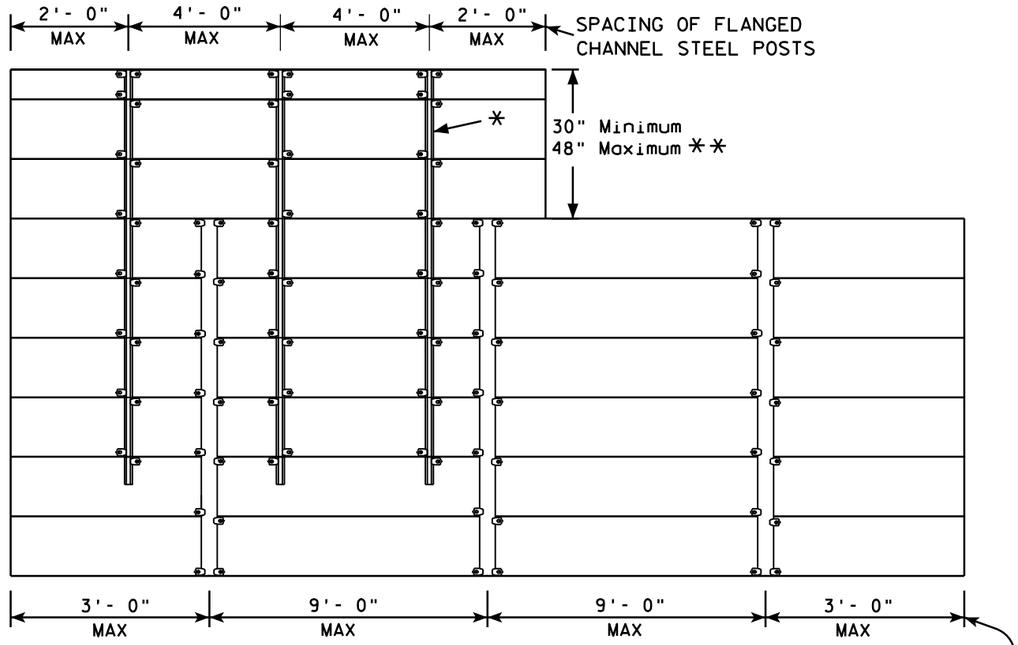
**=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

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

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

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)

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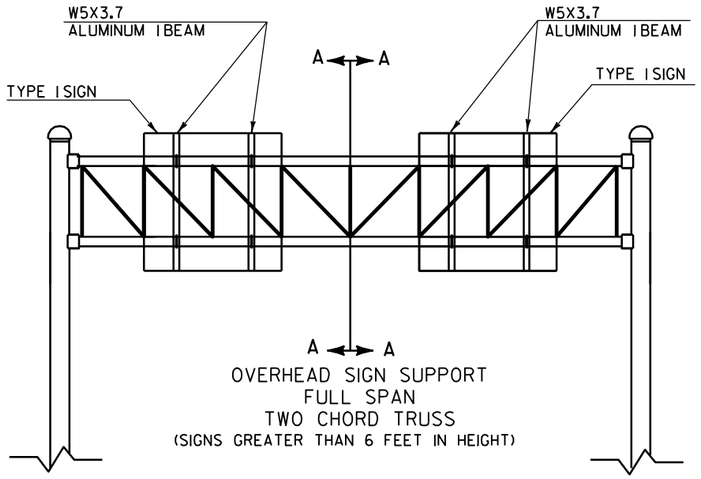
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

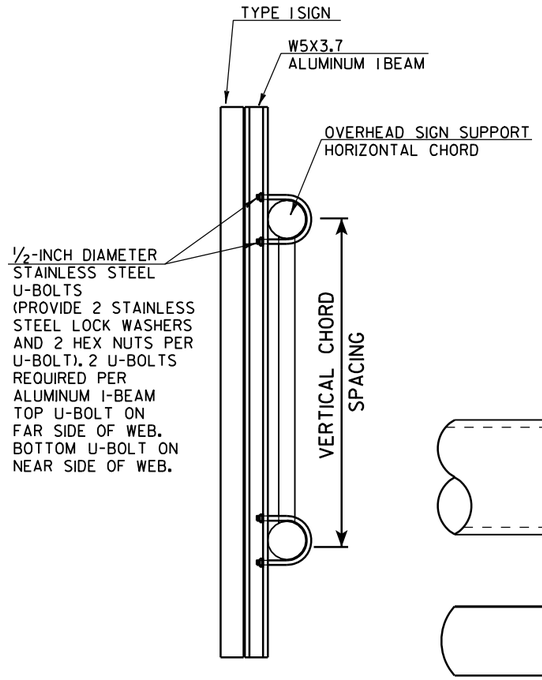
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/7/10 PLATE NO. A4-6.11

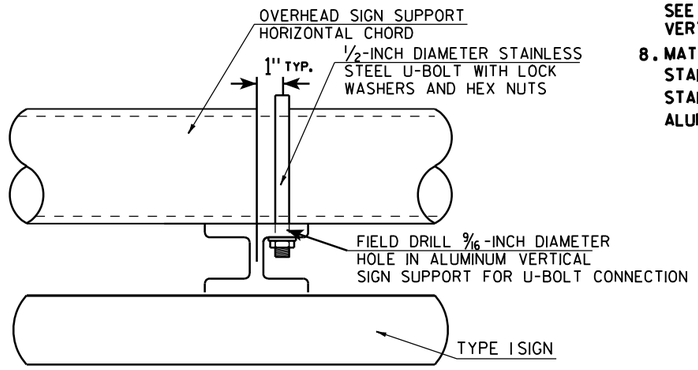
PROJECT NO:				SHEET NO: 400	E



OVERHEAD SIGN SUPPORT
FULL SPAN
TWO CHORD TRUSS
(SIGNS GREATER THAN 6 FEET IN HEIGHT)



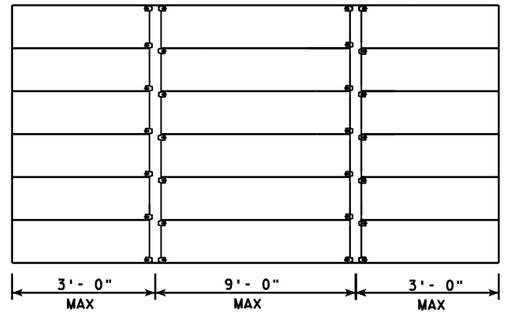
CUT SECTION A-A



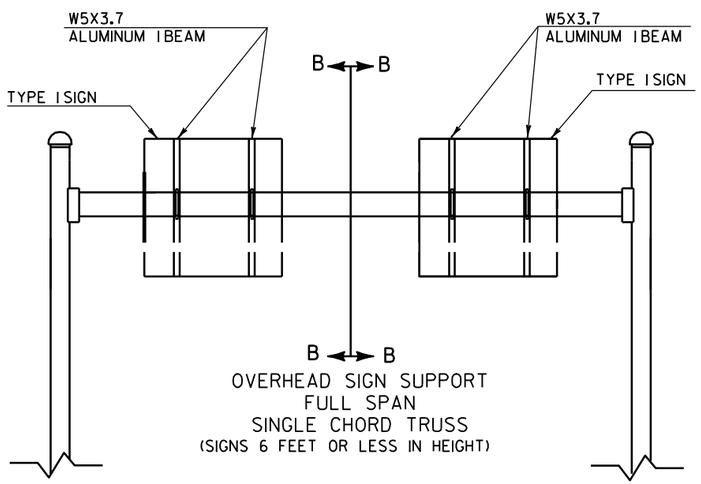
TYPICAL SIGN CONNECTION FOR
TWO CHORD TRUSS
PLAN VIEW

GENERAL NOTES

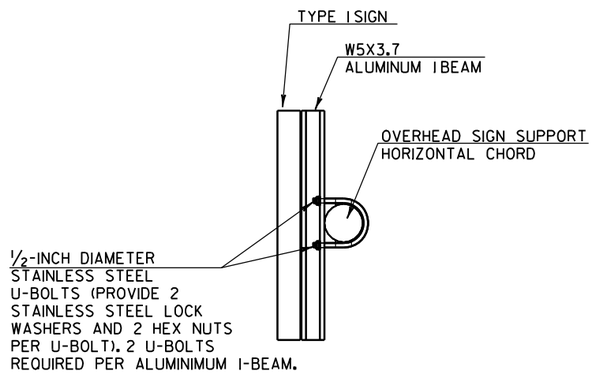
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.



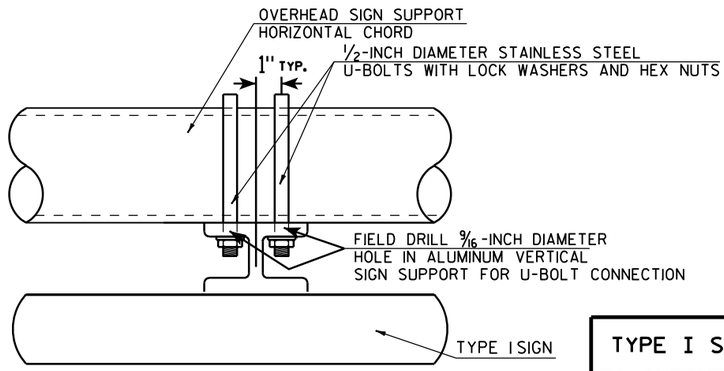
SPACING OF W5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
SINGLE CHORD TRUSS
(SIGNS 6 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
SINGLE CHORD TRUSS
PLAN VIEW

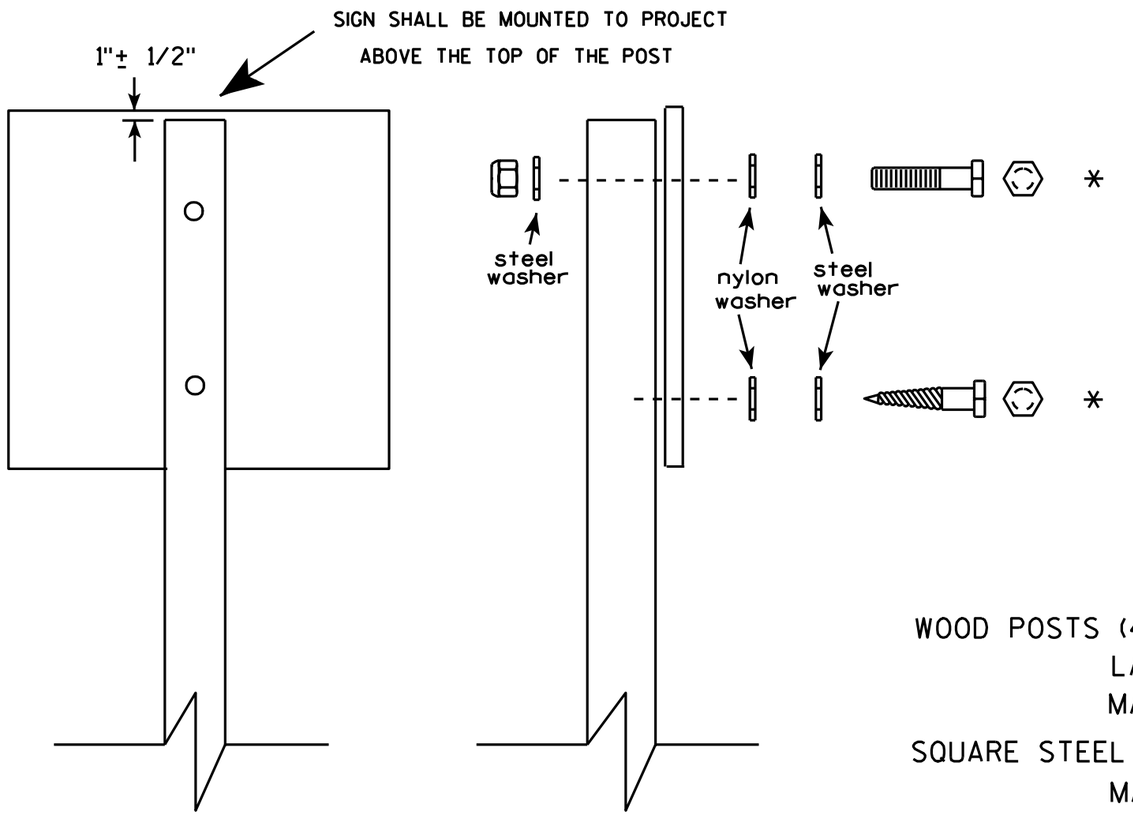
TYPE I SIGN CONNECTION TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/12/12 PLATE NO. A4-7.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 401	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

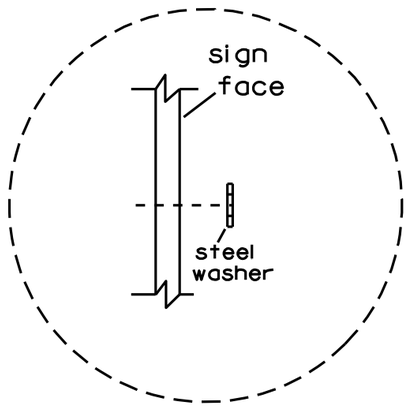
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

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

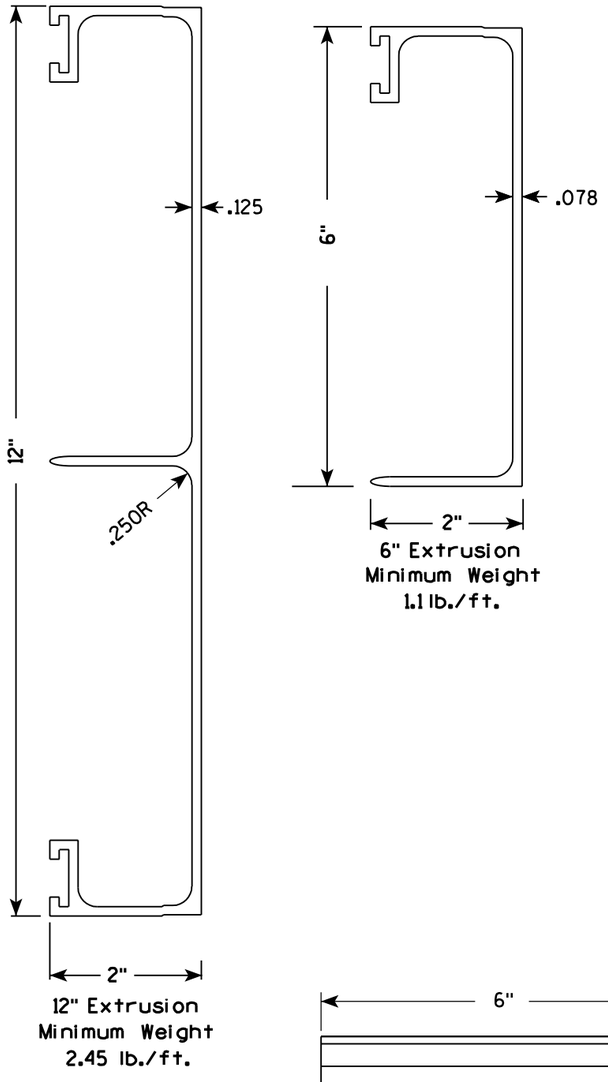
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PROJECT NO:

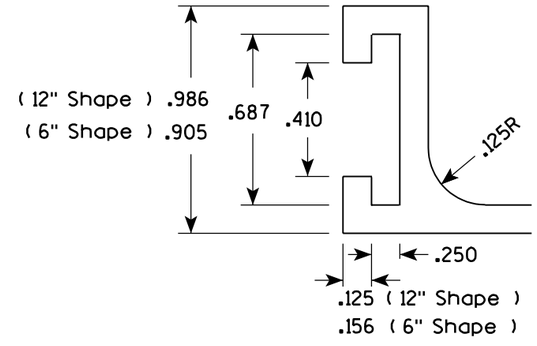
SHEET NO: 402 E

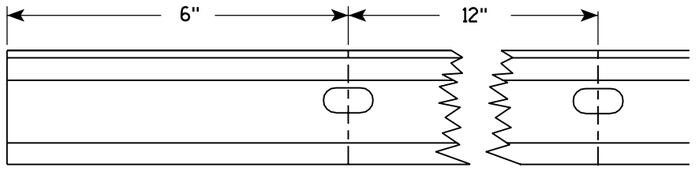
Extruded Shape



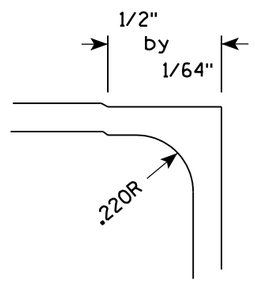
12" Extrusion
Minimum Weight
2.45 lb./ft.

6" Extrusion
Minimum Weight
1.1 lb./ft.





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

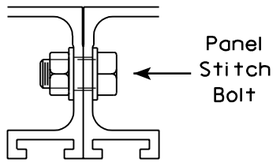


Hardware

STITCH BOLT, WASHER & NUT

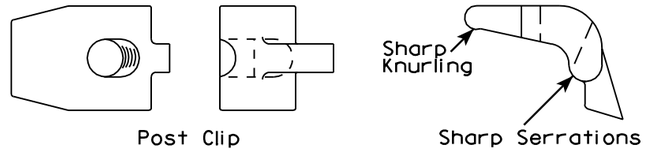
The hardware includes:

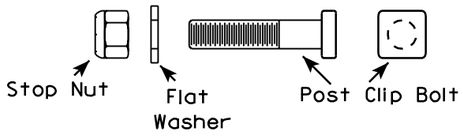
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

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





NOTES

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

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

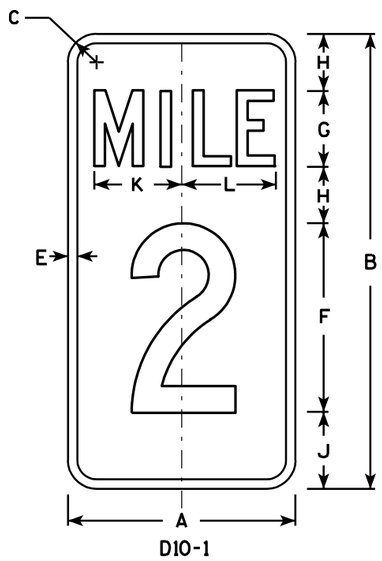
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

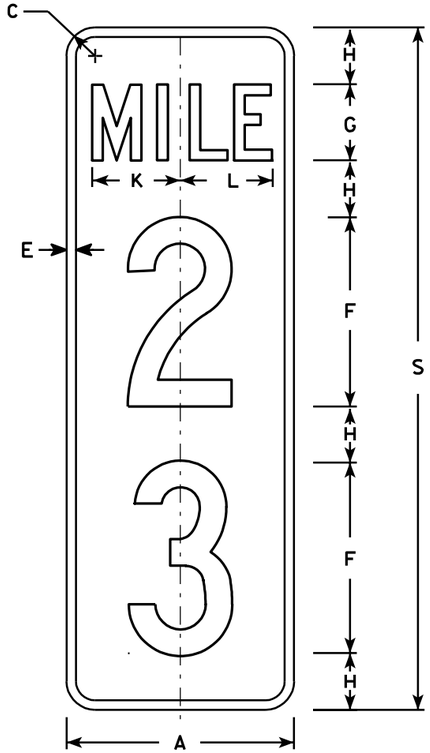
DATE 11/18/99 PLATE NO. A5-2.9

PROJECT NO:

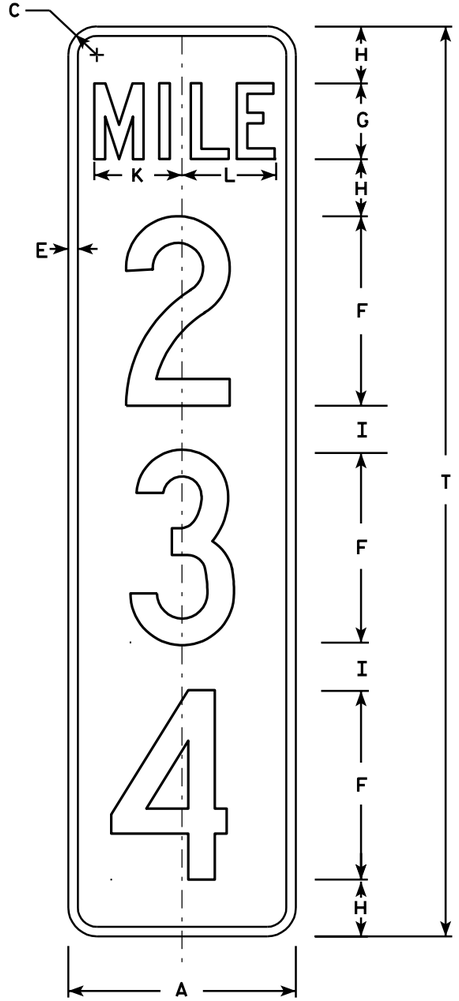
SHEET NO: 403 E



D10-1



D10-2



D10-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White - Type H Reflective
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Optically adjust numerals about the centerline of the sign to achieve proper balance.

Metric equivalent for this sign is:

PHY. SIZE	
12 X 24	300 mm X 600 mm
12 X 36	300 mm X 900 mm
12 X 48	300 mm X 1200 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3																										
4	12	24	1 ½		½	10	4	3	2 ½	4	4 ⅝	4 ⅞							36	48						
5	12	24	1 ½		½	10	4	3	2 ½	4	4 ⅝	4 ⅞							36	48						

D10-1	D10-2	D10-3
Area sq. ft.	Area sq. ft.	Area sq. ft.
2.0	3.0	4.0
Area m2	Area m2	Area m2
.19	.28	.38

STANDARD SIGN
D10-1 , D10-2 & D10-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for Director, Office of Traffic

DATE 1/16/02 PLATE NO. D10-3.2

PROJECT NO:

SHEET NO: 404 E



D12-50

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White
3. Message Series - B for Line 1
   Series C for Lines 2 & 3
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 LOGO which may not exceed 12 inches by 12 inches, see TGM policy 2-4-48.1 for acceptable logos.

Metric equivalent for this sign is:

SIZE	
1	
2	900 mm X 900 mm
3	
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	36		1 3/8	1/2	5/8	4	12	13 1/4	12	2	1 1/4	13 5/8	13														9.0	0.81
3																												
4																												
5																												

STANDARD SIGN
D12-50

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/09/09 PLATE NO. D12-50.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 405	E

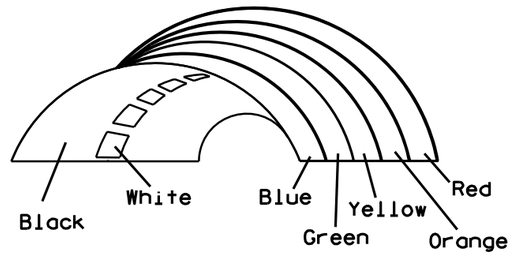


* VARIES

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - (See Note 5)
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. Border - Blue
   Line 1 - Red
   Line 2 - Black
   Line 3-5 - Blue
6. Line 1 - Dutch 8011L
   Line 2 - Series E
   Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

STANDARD SIGN
I55-56

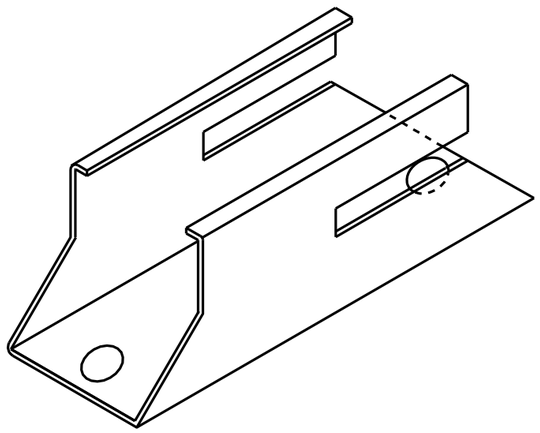
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/27/11 PLATE NO. 155-56.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 406

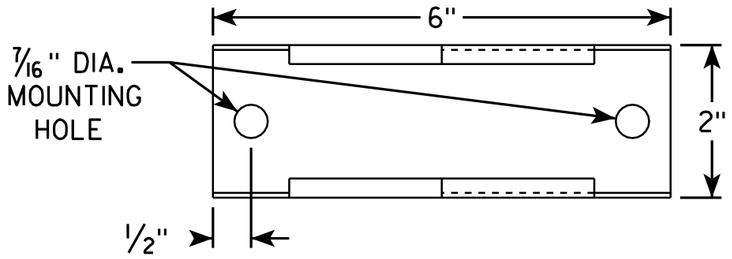
ISOMETRIC VIEW



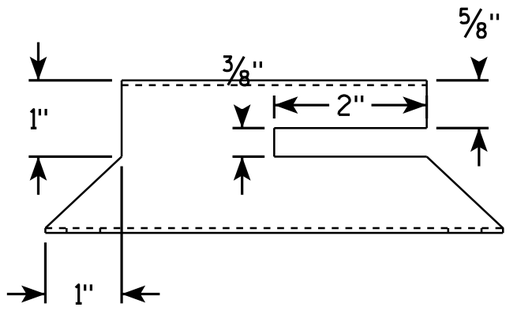
NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

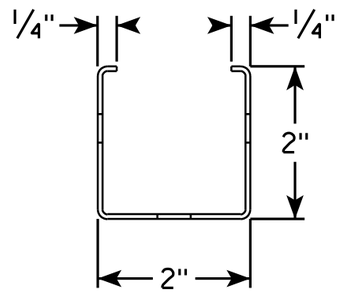
TOP VIEW



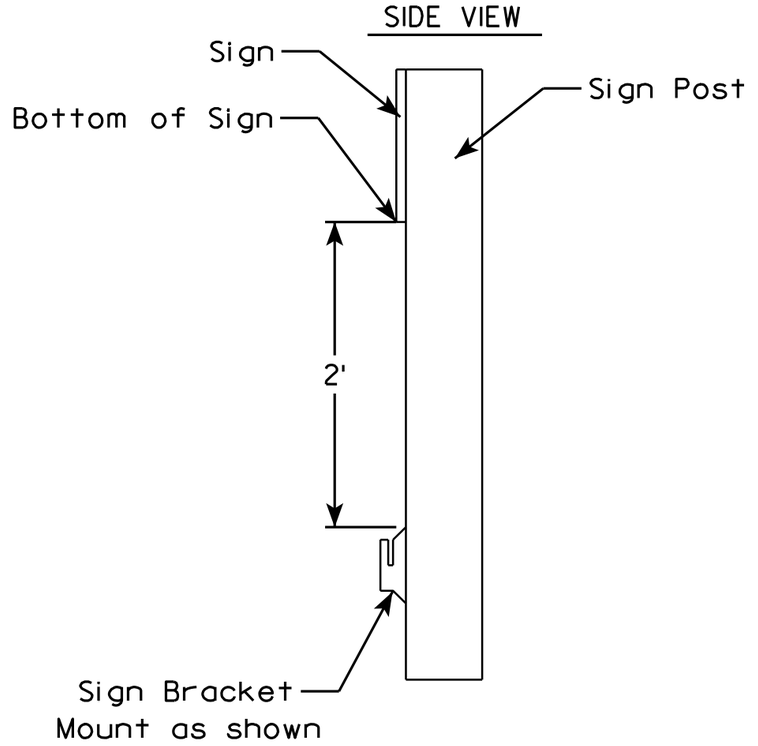
SIDE VIEW



END VIEW



SIDE VIEW



7

7

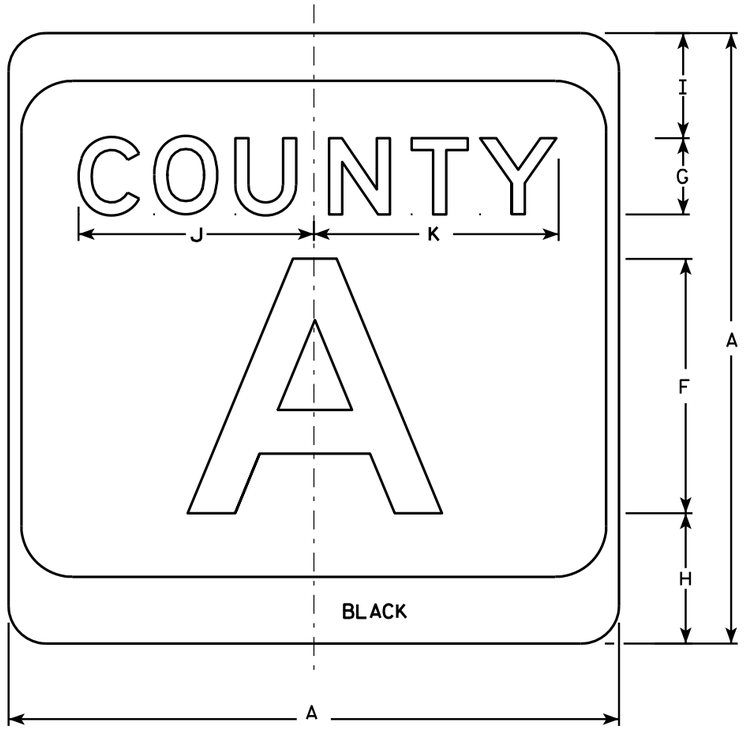
ROLLUP SIGN BRACKET I55-56B

WISCONSIN DEPT OF TRANSPORTATION

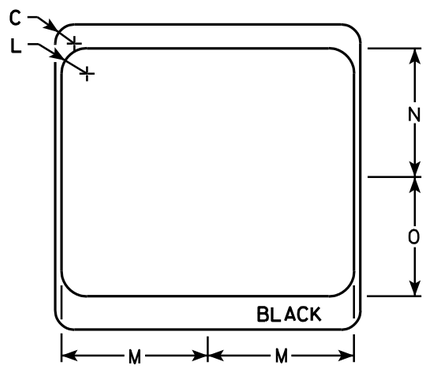
APPROVED Matthew R Rauch for State Traffic Engineer

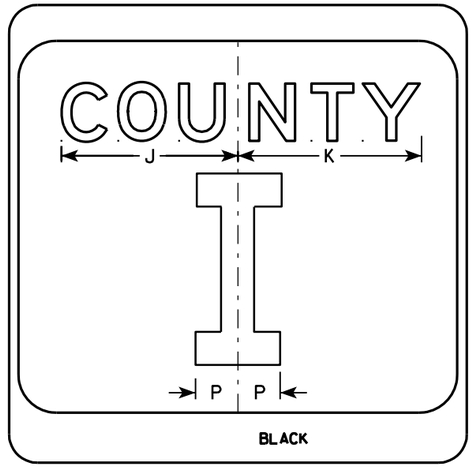
DATE 2/5/10 PLATE NO. I55-56B.1

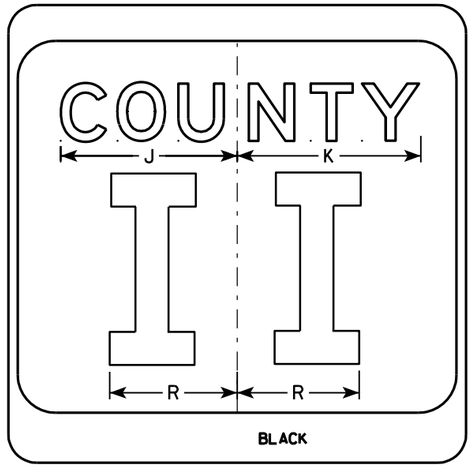
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 407	E



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

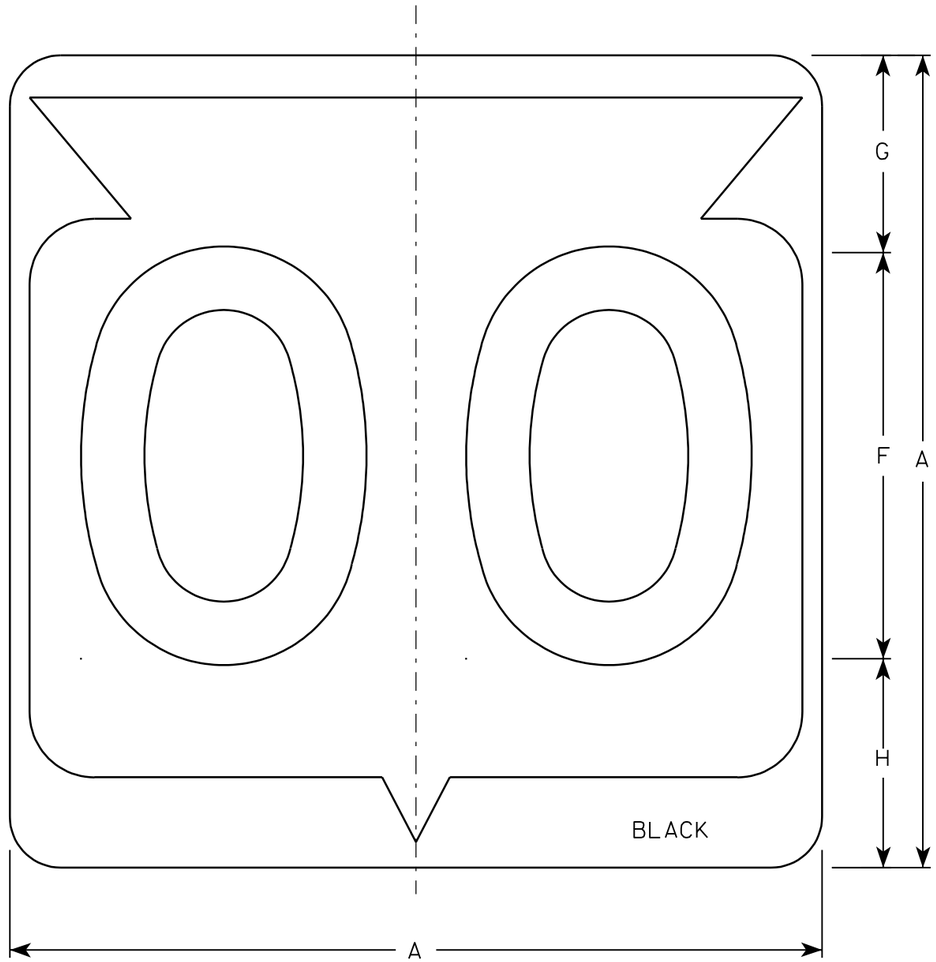
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

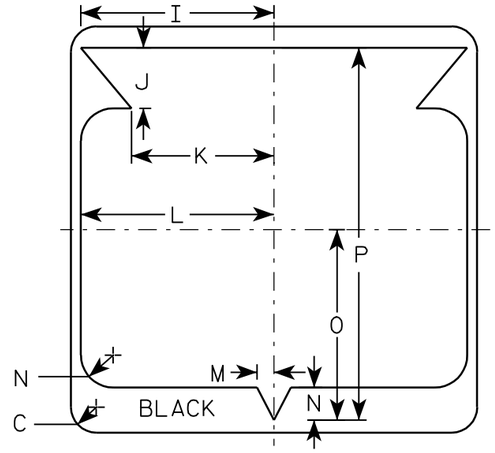
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 408 | E



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

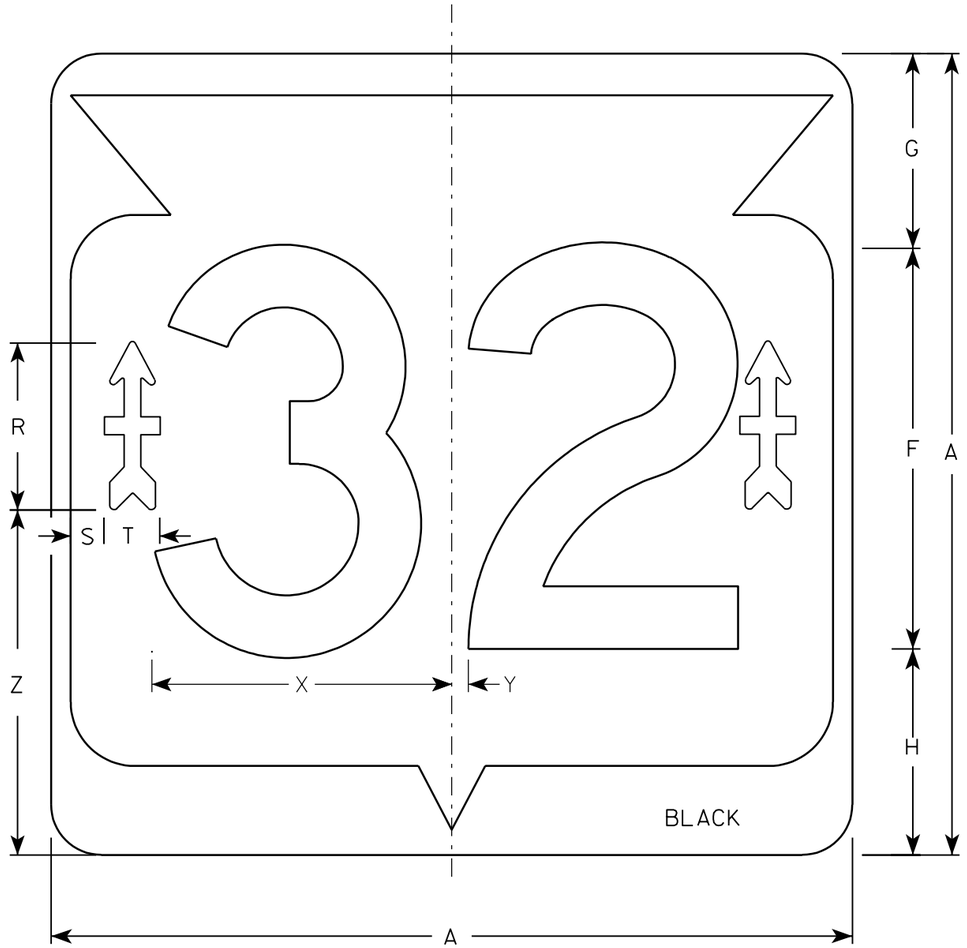
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

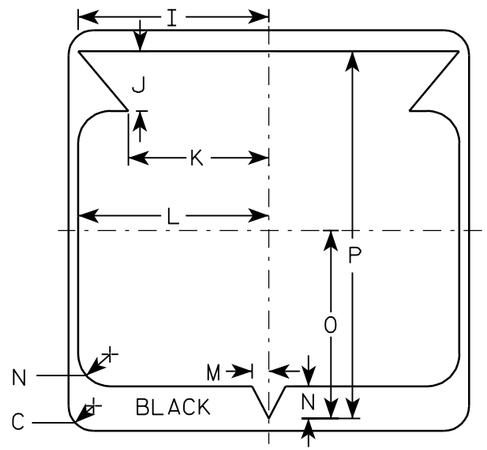
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 409	E



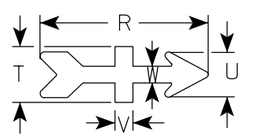
M1-6B

NOTES

1. Sign is Type II - Type H - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black
   Message - Black
   Arrow - Type H Reflective Red
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.



32nd DIVISION ARROW
ACTUAL SIZE



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 ½			12	5 ½	6 ½	10 ¼	2 ½	8 ⅞	11 ½	1	1 ⅞	11 ¼	21 ⅞		5 ⅛	¾	1 ⅞	1 ½	⅝	⅝	9	½	10 ½	4.0	.36
3	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81
4	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81
5	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81

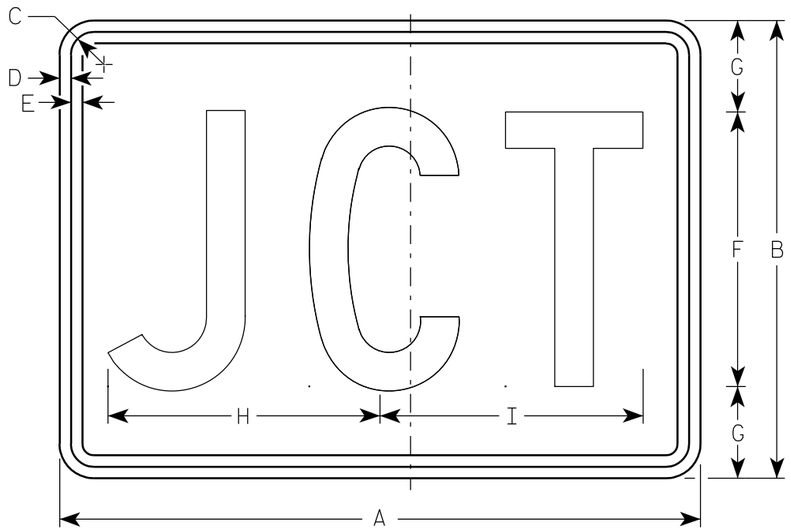
STATE ROUTE MARKER "32"
M1-6B FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

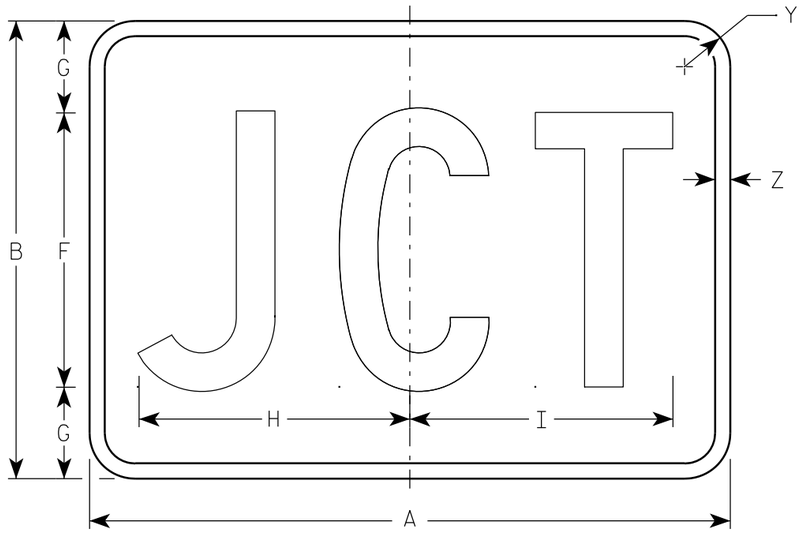
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 12/5/05 PLATE NO. M1-6B.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 410 | 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

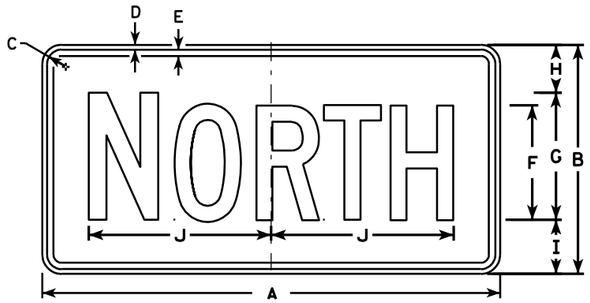
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M2-1.10

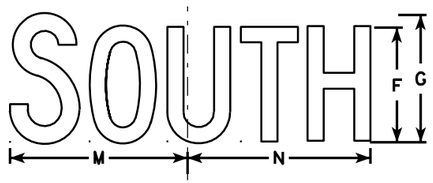
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 411	E



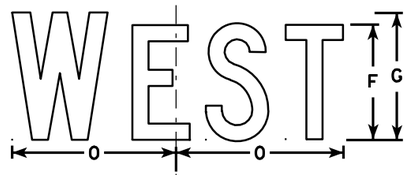
M3-1
MK3-1
MO3-1



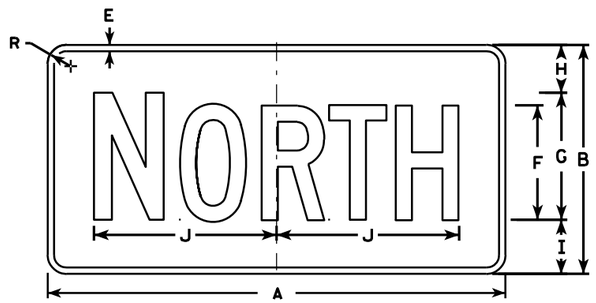
M3-2
MK3-2
MO3-2



M3-3
MK3-3
MO3-3



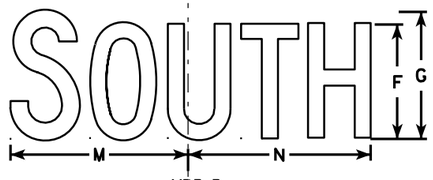
M3-4
MK3-4
MO3-4



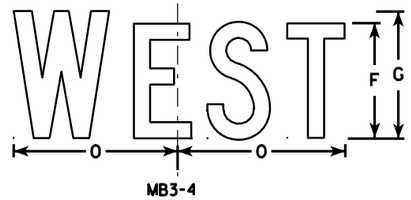
MB3-1
MG3-1
MM3-1
MN3-1



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

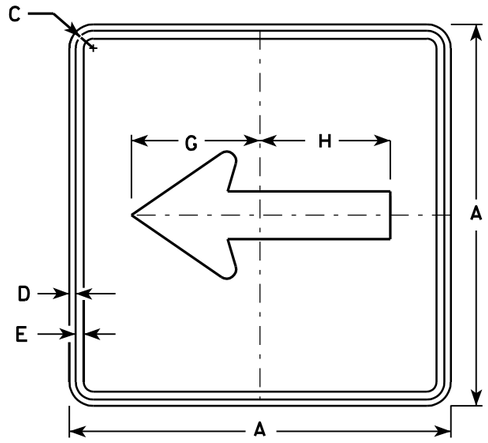
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

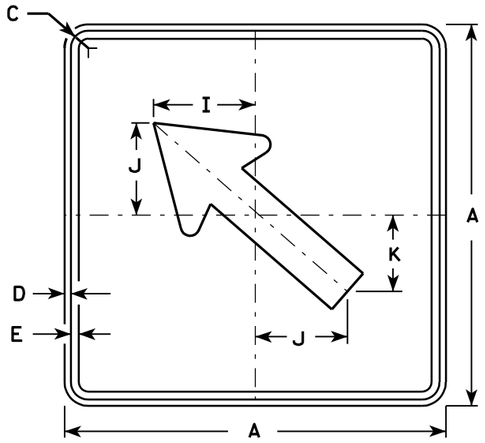
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/10/10 PLATE NO. M3-1.12

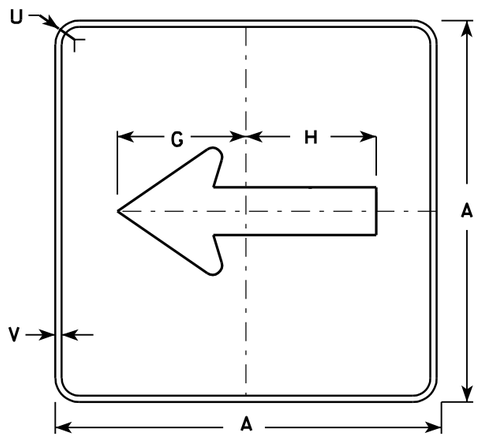
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 412	E



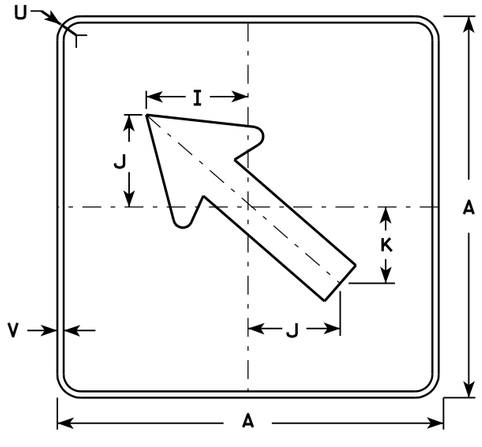
M6-1
MK6-1
MM6-1
MO6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MR6-2



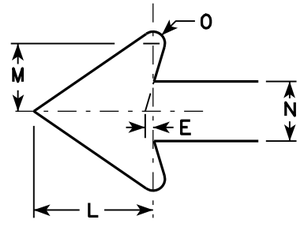
MB6-1
MG6-1
MN6-1



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 (Detour or temporary Signs - Reflective) Message - Black
   MB6-1 and MB6-2 Background - Blue Message - White - Type H Reflective (Detour or temporary Signs - 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 - Reflective Message - Black
   MR6-1 and MR6-2 Background - Brown Message - Yellow - Type H Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 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		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	0.28
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	0.56
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	0.56
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	0.56

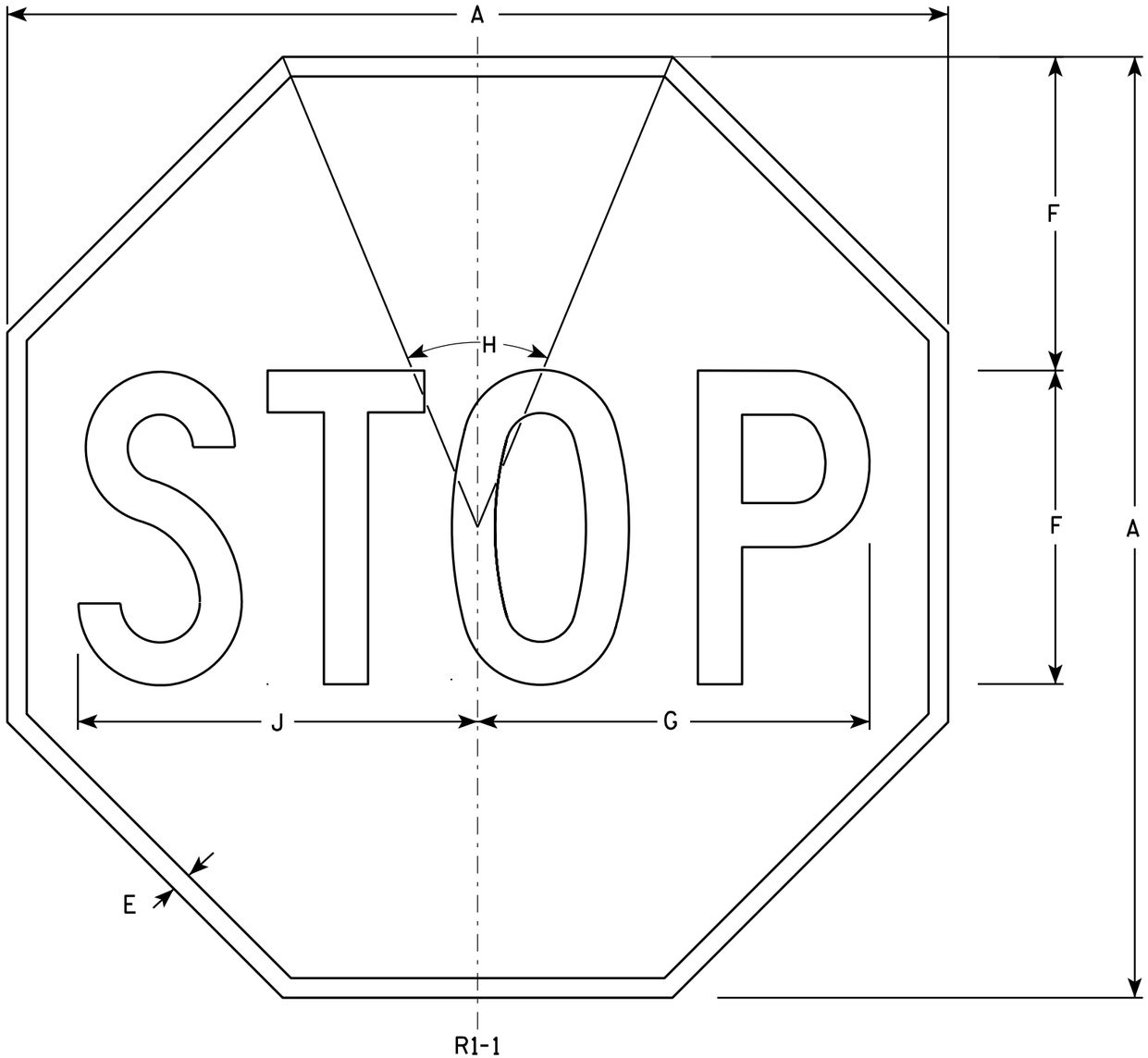
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M6-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 413	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

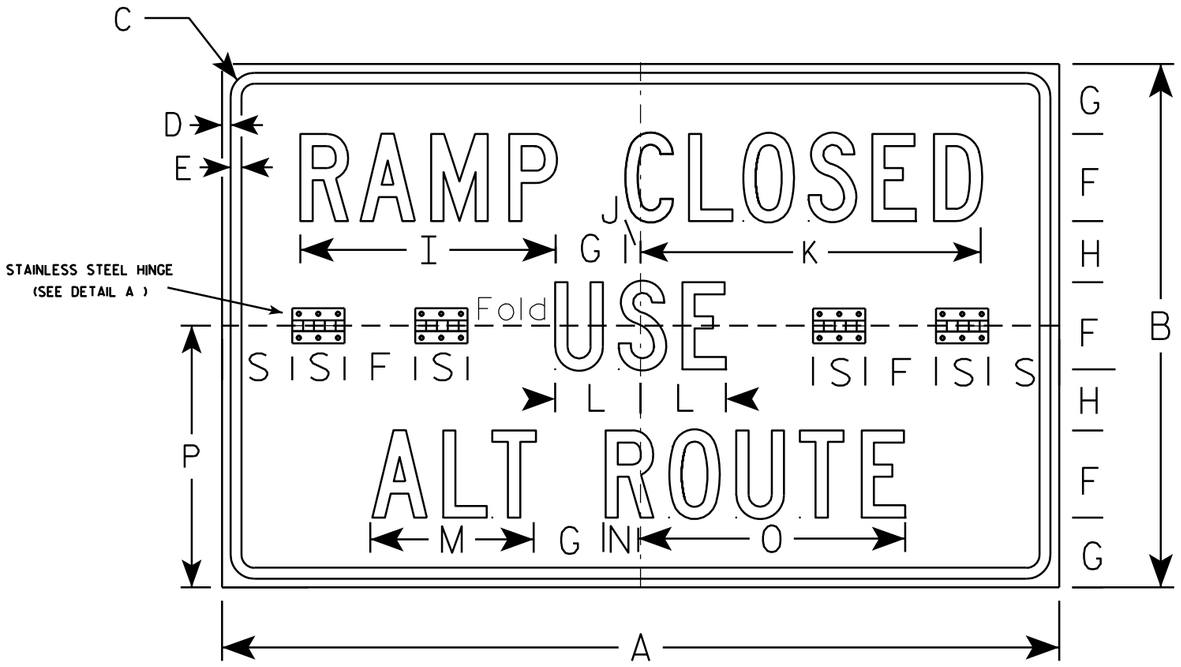
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

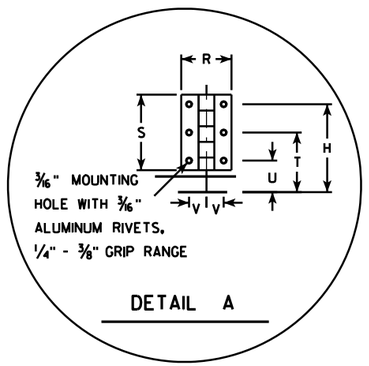
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

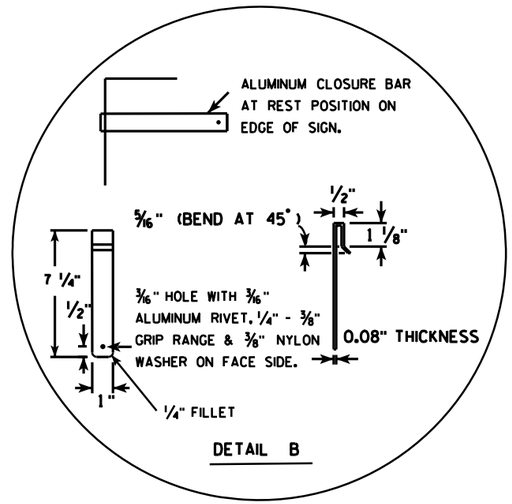
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 414	E



R11-54F



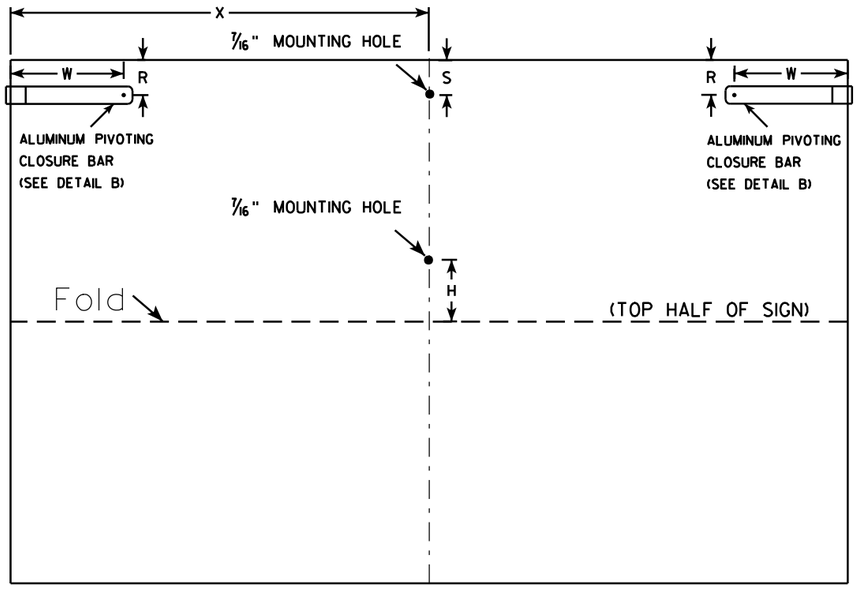
DETAIL A



DETAIL B

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. Sign Base Material shall be aluminum corners and borders shall be rounded.
5. All hardware used on the folding sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



(BACK VIEW)

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	5	4	3 1/2	14 5/8	7/8	19 1/2	4 7/8	9 3/8	2	15 1/4	15		2	3	2 5/8	1 1/4	11/16	6 1/2	24			10.0
2M	48	30	1 3/8	1/2	5/8	5	4	3 1/2	14 5/8	7/8	19 1/2	4 7/8	9 3/8	2	15 1/4	15		2	3	2 5/8	1 1/4	11/16	6 1/2	24			10.0
3																											
4																											
5																											

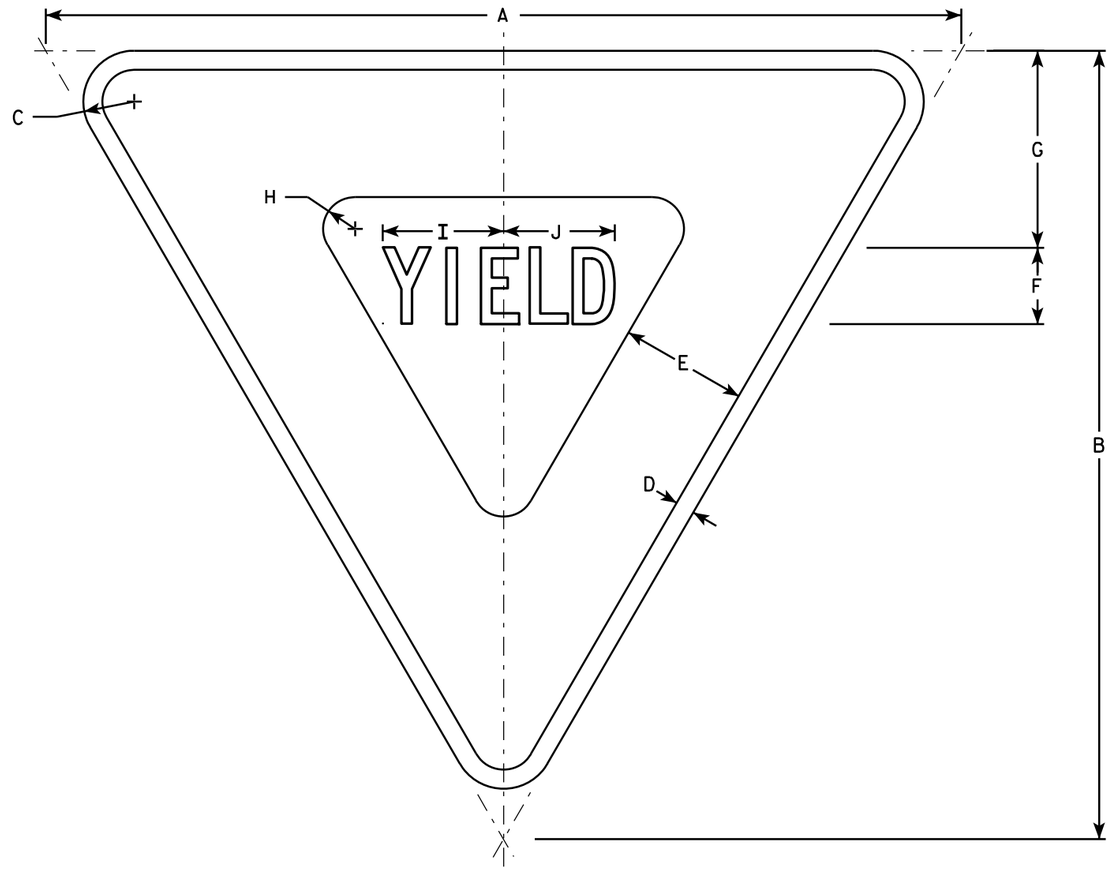
STANDARD SIGN
R11-54F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-54F.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 415	E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 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. The border strip and word message are reflectorized red.

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	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6	24	21	1 1/2	3/8	3	2	4 3/4	7/8	3 1/4	3																	1.75
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

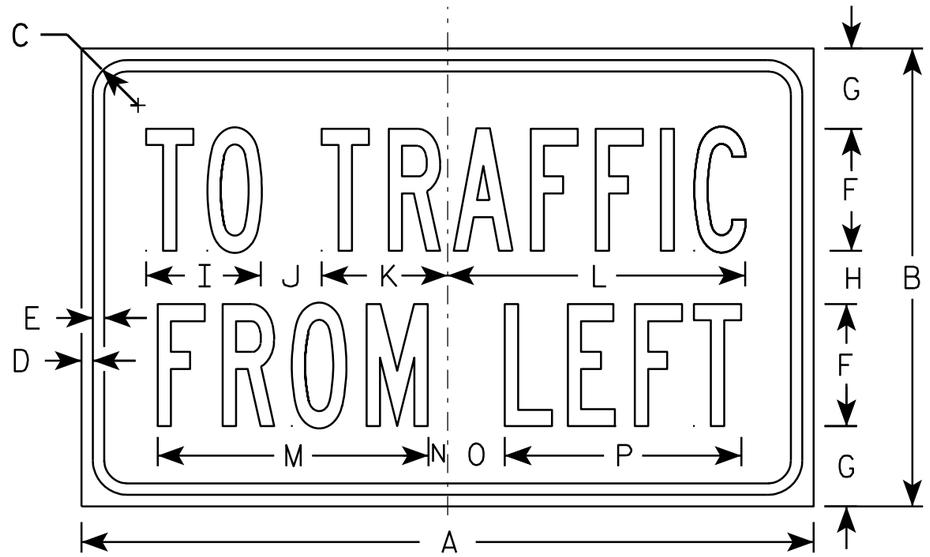
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. R1-2.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 416 | E

7



R1-54

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 - B

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	15	1 1/8	3/8	3/8	4	2 5/8	1 3/4	3 3/4	2	4 1/8	9 3/4	8 7/8	5/8	1 7/8	7 3/4											2.5
2M	24	15	1 1/8	3/8	3/8	4	2 5/8	1 3/4	3 3/4	2	4 1/8	9 3/4	8 7/8	5/8	1 7/8	7 3/4											2.5
3																											
4																											
5																											

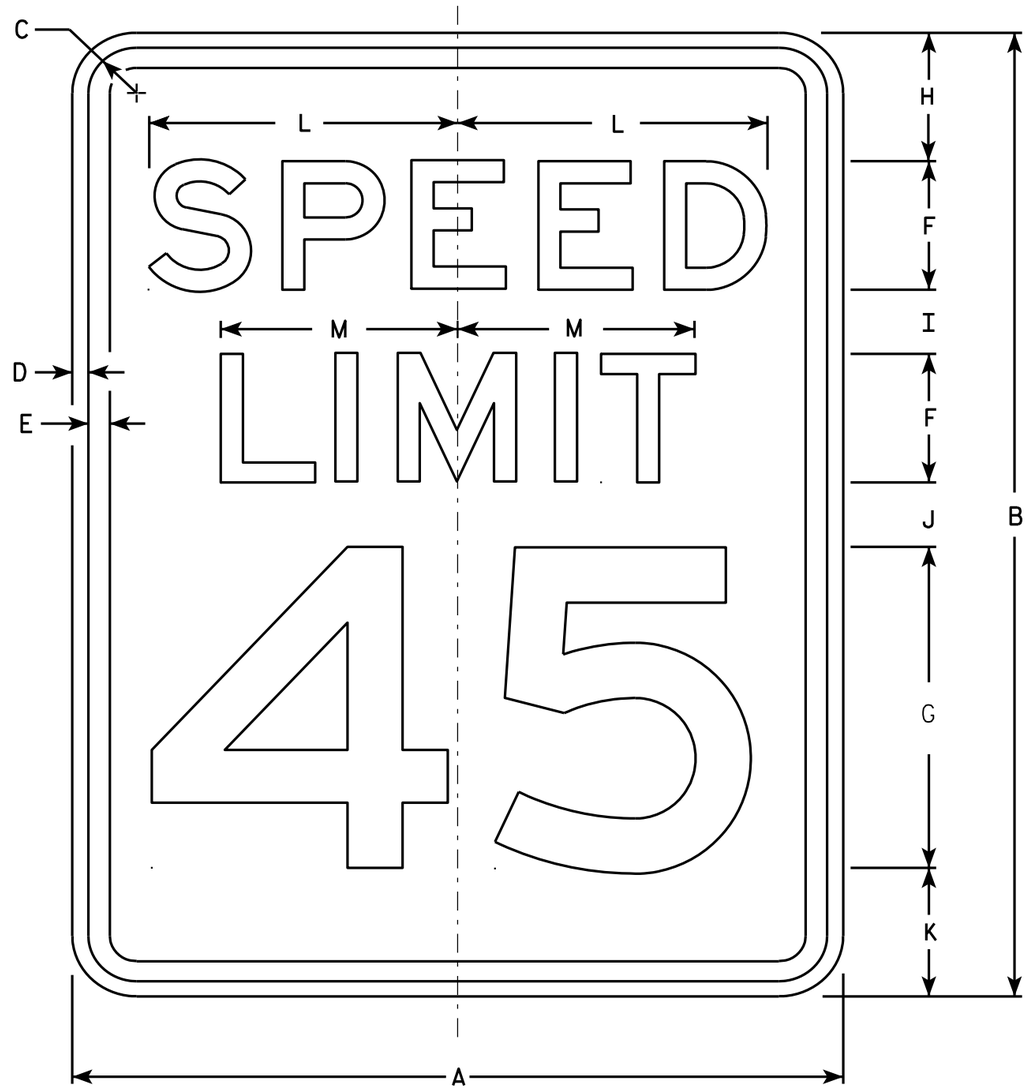
STANDARD SIGN
R1-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-54.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 417	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

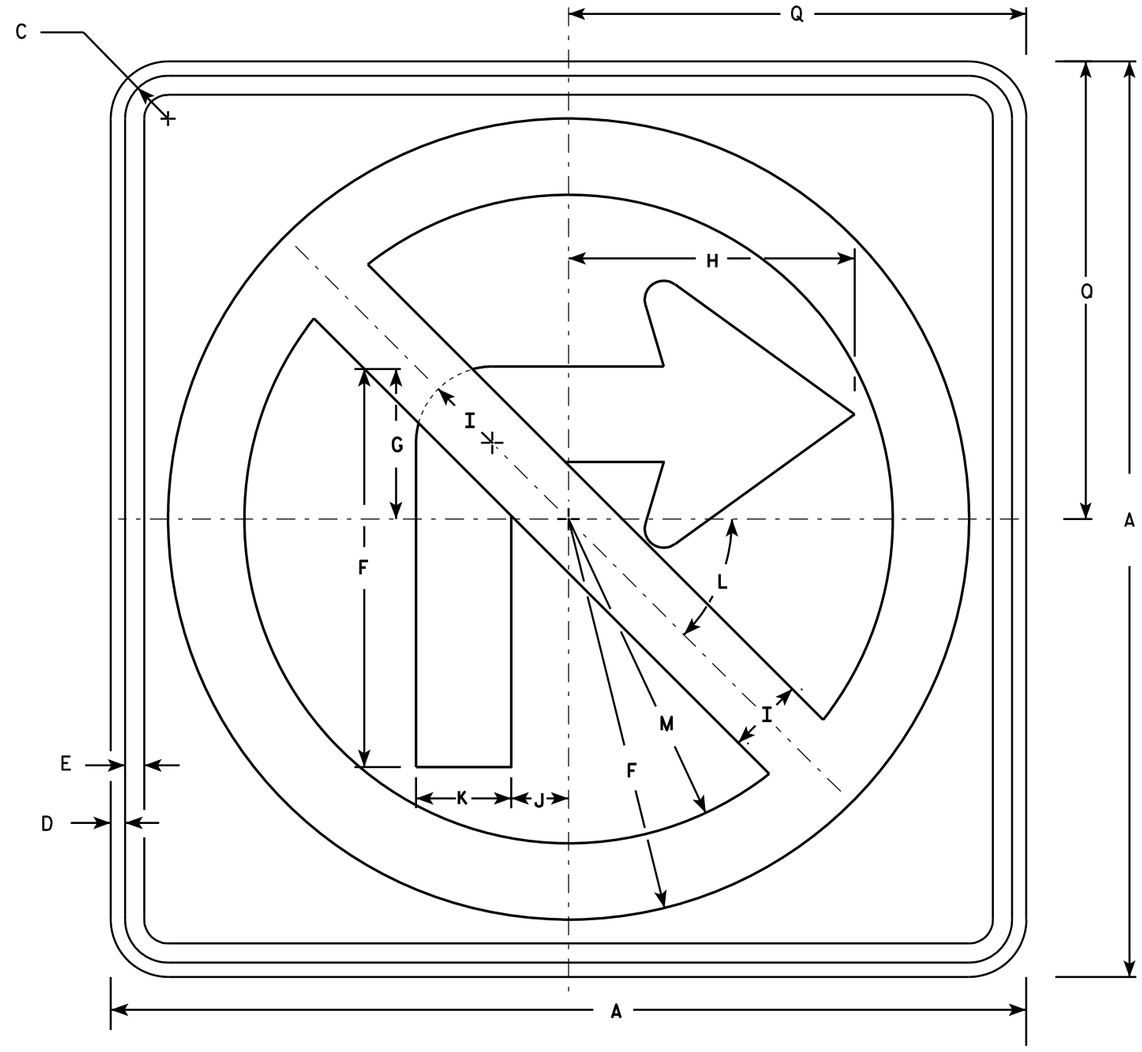
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

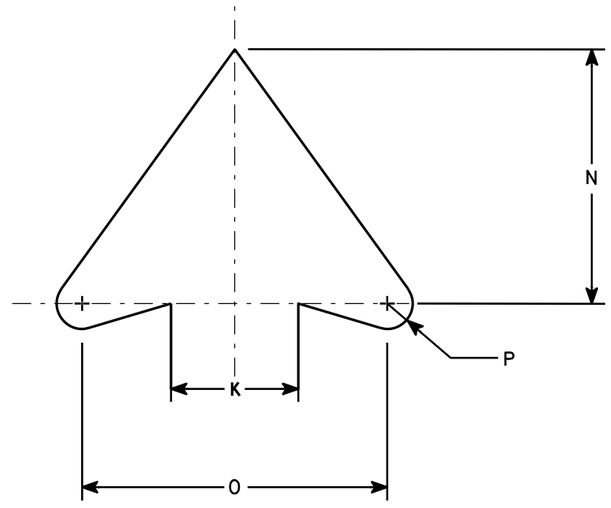
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 418	E



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

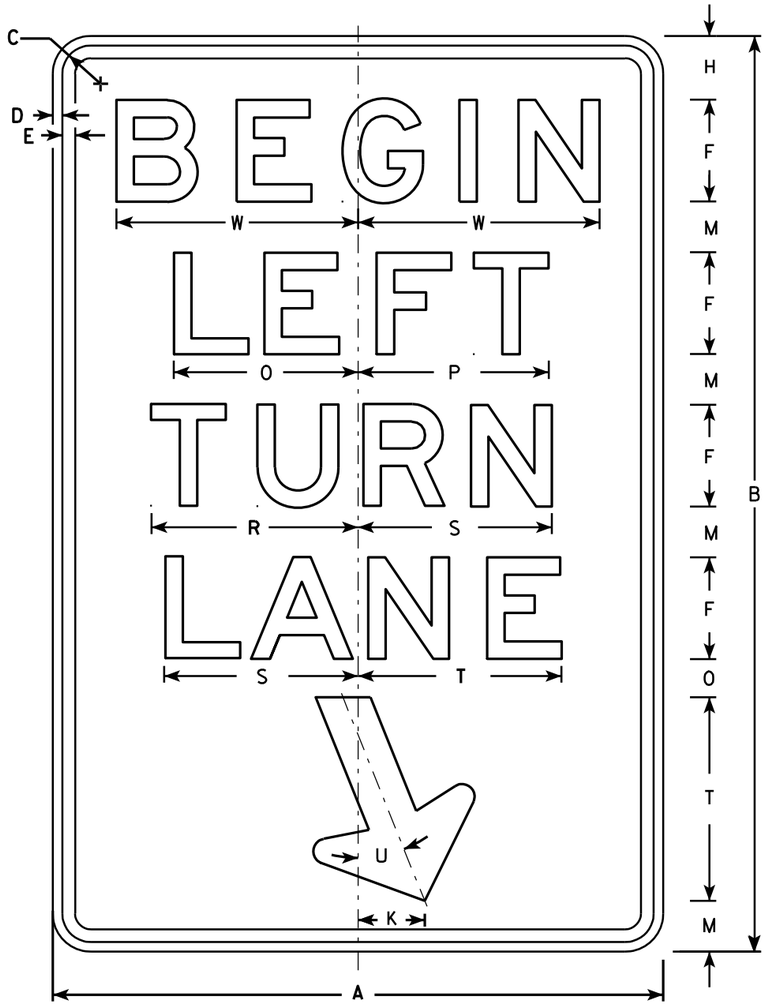
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

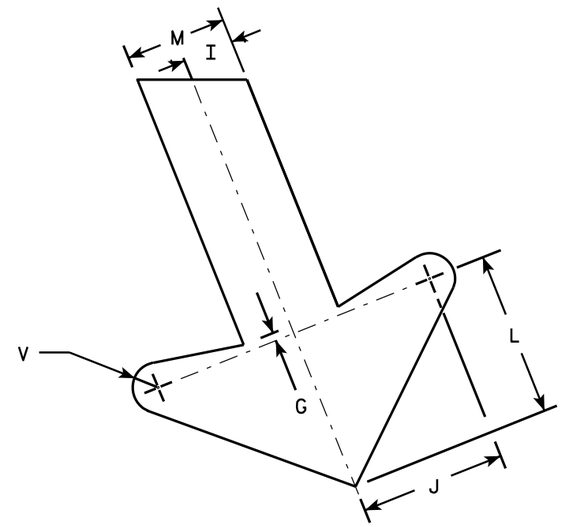
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 419	E



R3-20L

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	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

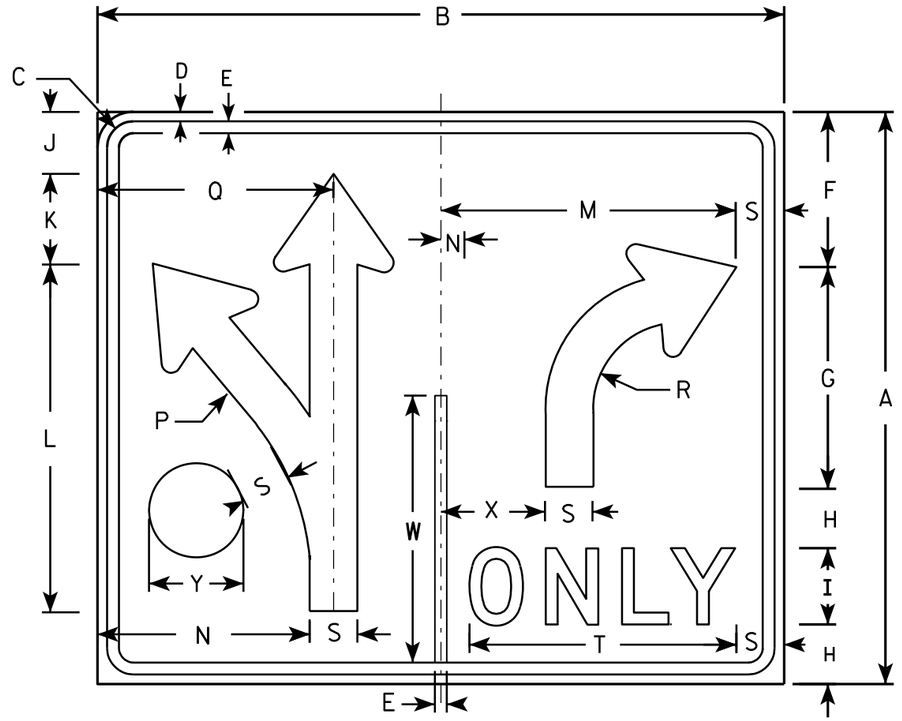
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 420	E

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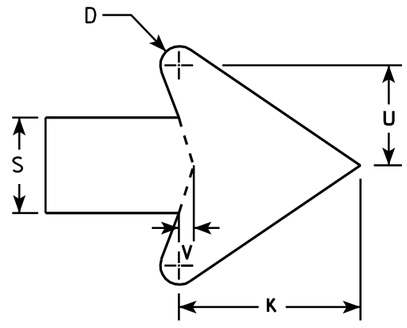
WISDOT/CADDS SHEET 42

7

7



R3-8DD



ARROW DETAIL

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - WHITE
   Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R3-8B & R3-8C is the same but reversed.

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	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	15 1/2	1 1/4		13 1/4	12 3/8	4 1/2	2 1/2	14	2 5/8	3/8	14	5 1/4	4 1/4		7.5
2M	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	15 1/2	1 1/4		13 1/4	12 3/8	4 1/2	2 1/2	14	2 5/8	3/8	14	5 1/4	4 1/4		7.5
3																											

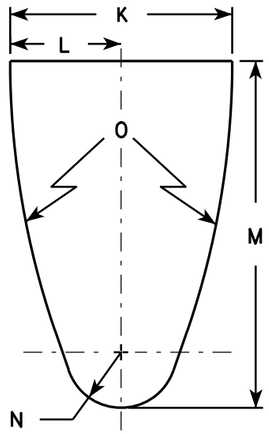
STANDARD SIGN
R3-8DD

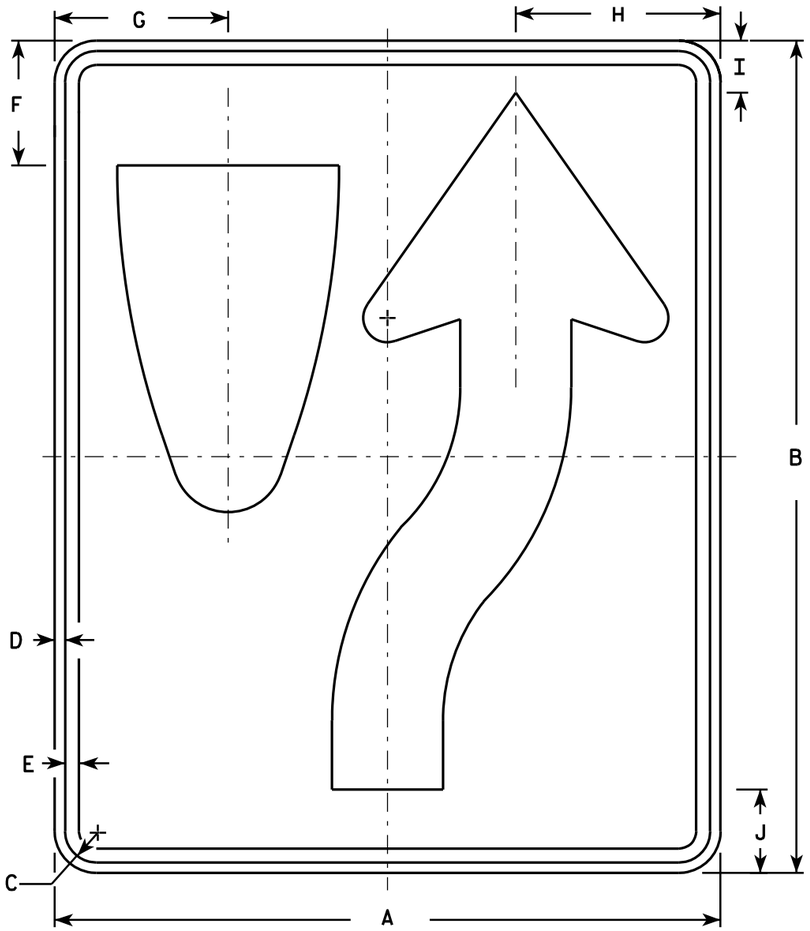
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-8DD.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 421 | E

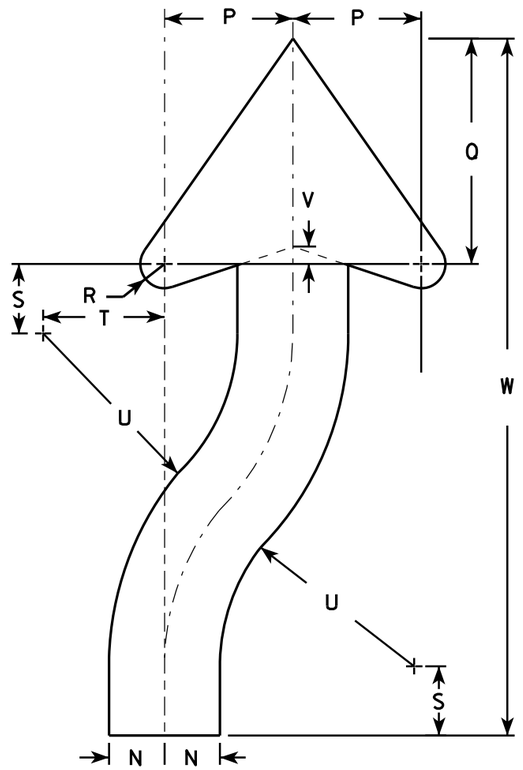




R4-7

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

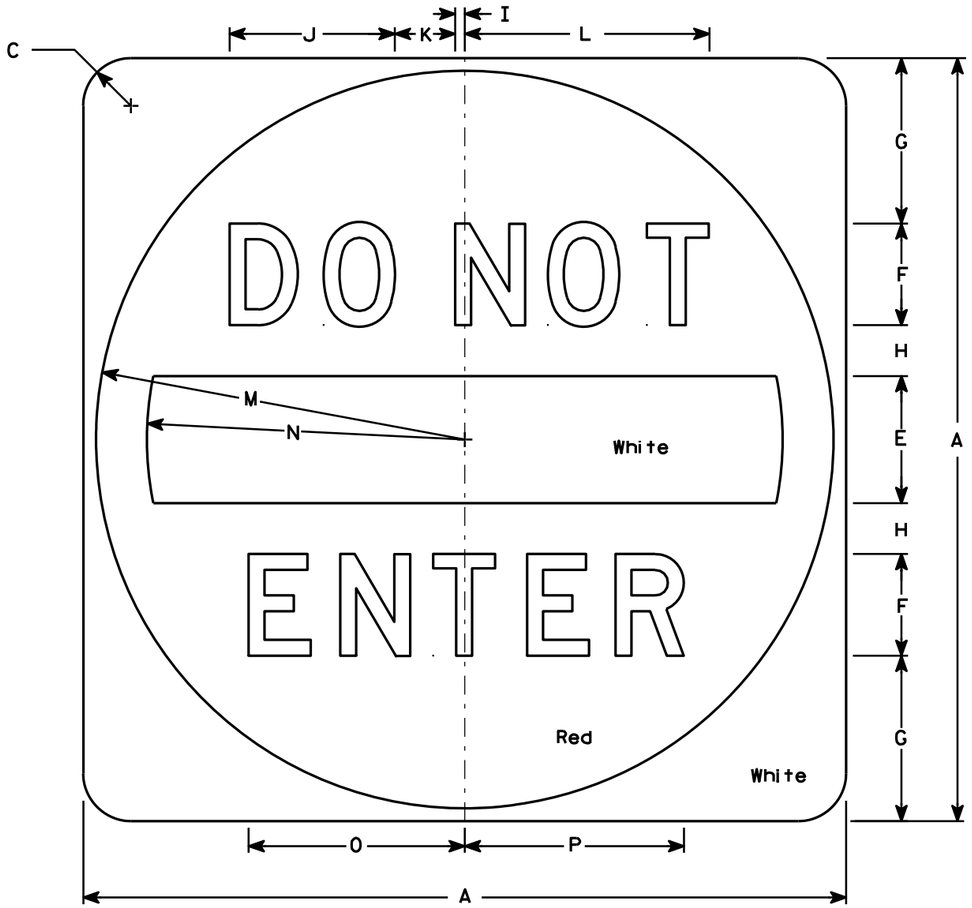
STANDARD SIGN
R4-7 & R4-8

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: 422	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

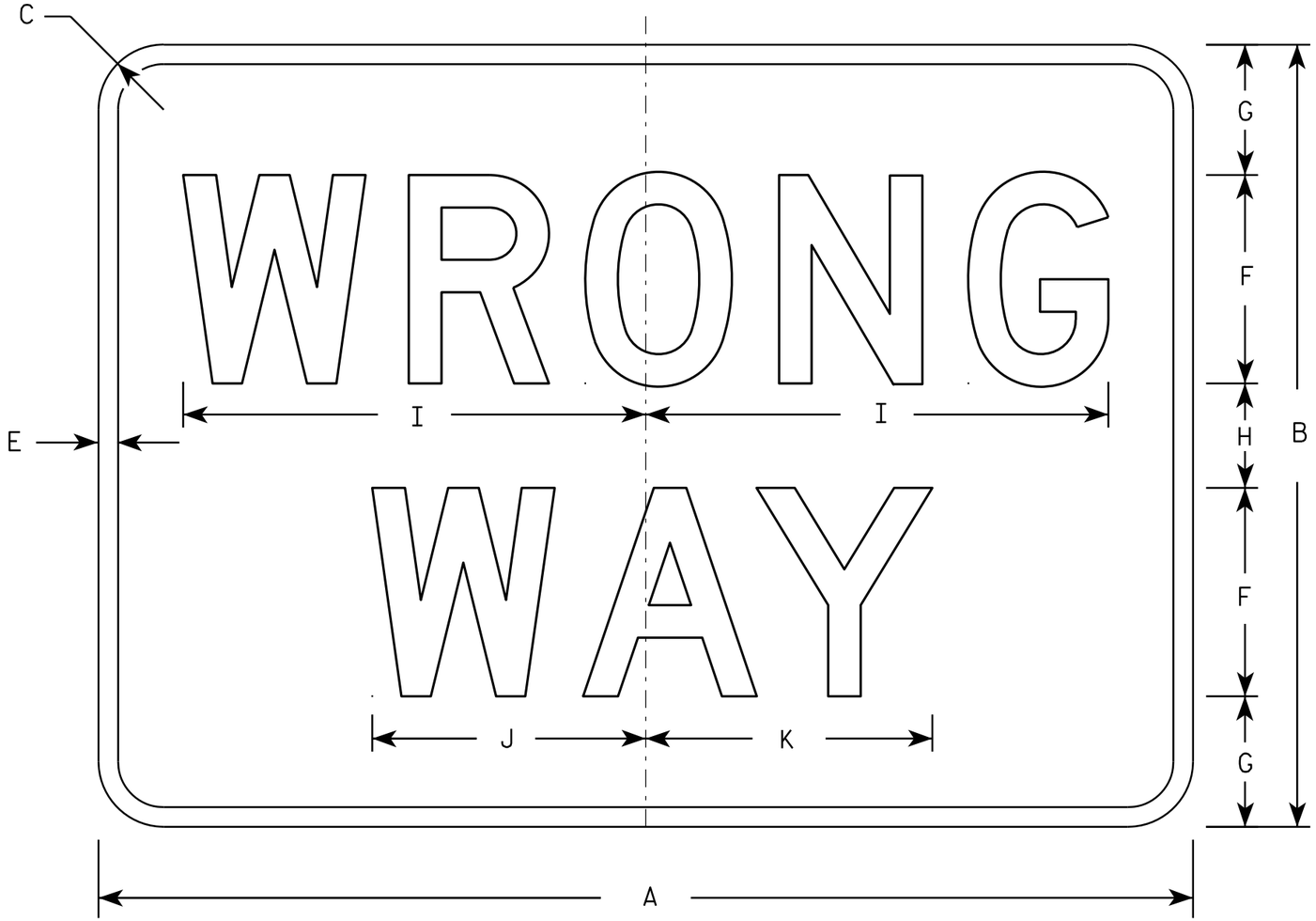
STANDARD SIGN
R5-1

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: 423 | 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: 424	E



R5-57

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Lines 1, 2, and 5 are Series C.
   Lines 3 and 4 are Series B.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	36		1 5/8	5/8	3/4	4	3	2	3 1/2	14 1/4	14 7/8	11	11 1/2	4 3/4	1 3/4	9		1 3/8	10	11	2 1/2	1 3/4	15 1/2	13	13 5/8		9.0
5	36		1 5/8	5/8	3/4	4	3	2	3 1/2	14 1/4	14 7/8	11	11 1/2	4 3/4	1 3/4	9		1 3/8	10	11	2 1/2	1 3/4	15 1/2	13	13 5/8		9.0

STANDARD SIGN
R5-57

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-57.10

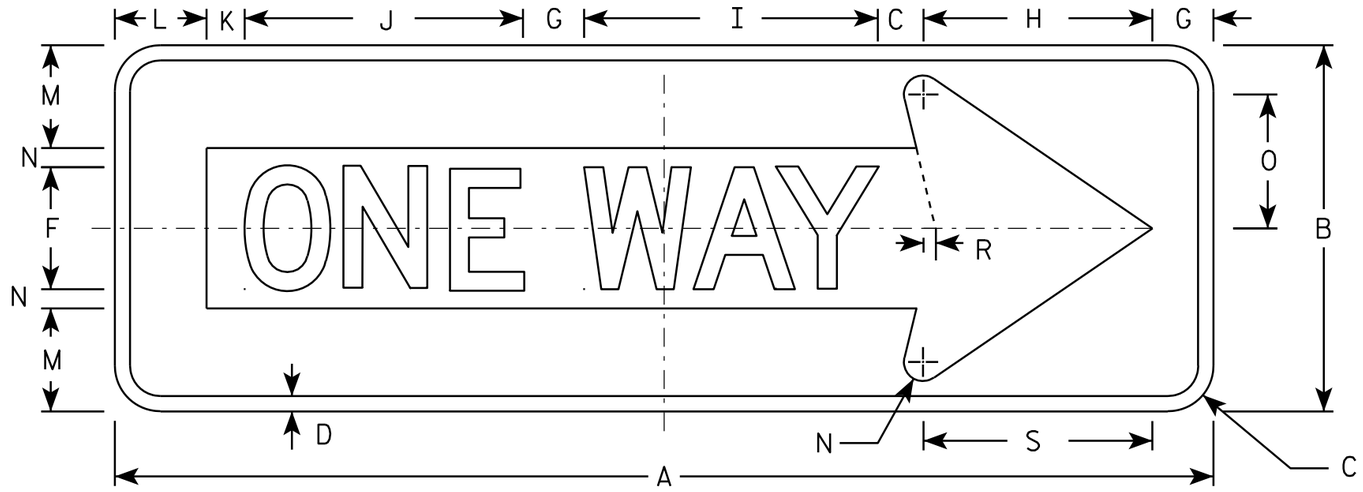
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 425 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R557.DGN PLOT DATE : 29-MAR-2011 14:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

7

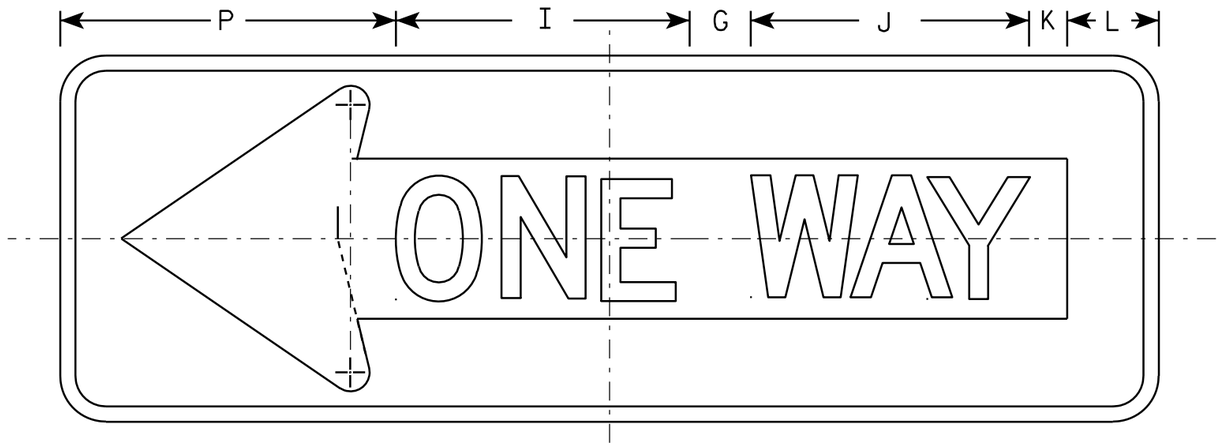
7



R6-1R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - BLACK
   Message - BLACK LEGEND & WHITE ARROW & BORDER
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R6-1L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	12	1 ½	½		4	2	7 ½	9 ⅝	9 ⅛	1 ¼	3	3 ⅜	⅝	4 ⅜	11		⅜	7 ½								3.0
2M	54	18	2 ¼	¾		6	3	11 ¼	14 ½	13 ⅝	1 ⅞	4 ½	5	1	6 ½	16 ½		⅝	11 ¼								6.75
3	54	18	2 ¼	¾		6	3	11 ¼	14 ½	13 ⅝	1 ⅞	4 ½	5	1	6 ½	16 ½		⅝	11 ¼								6.75
4	54	18	2 ¼	¾		6	3	11 ¼	14 ½	13 ⅝	1 ⅞	4 ½	5	1	6 ½	16 ½		⅝	11 ¼								6.75
5																											

STANDARD SIGN
R6-1 L & R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R6-1.2

PROJECT NO:

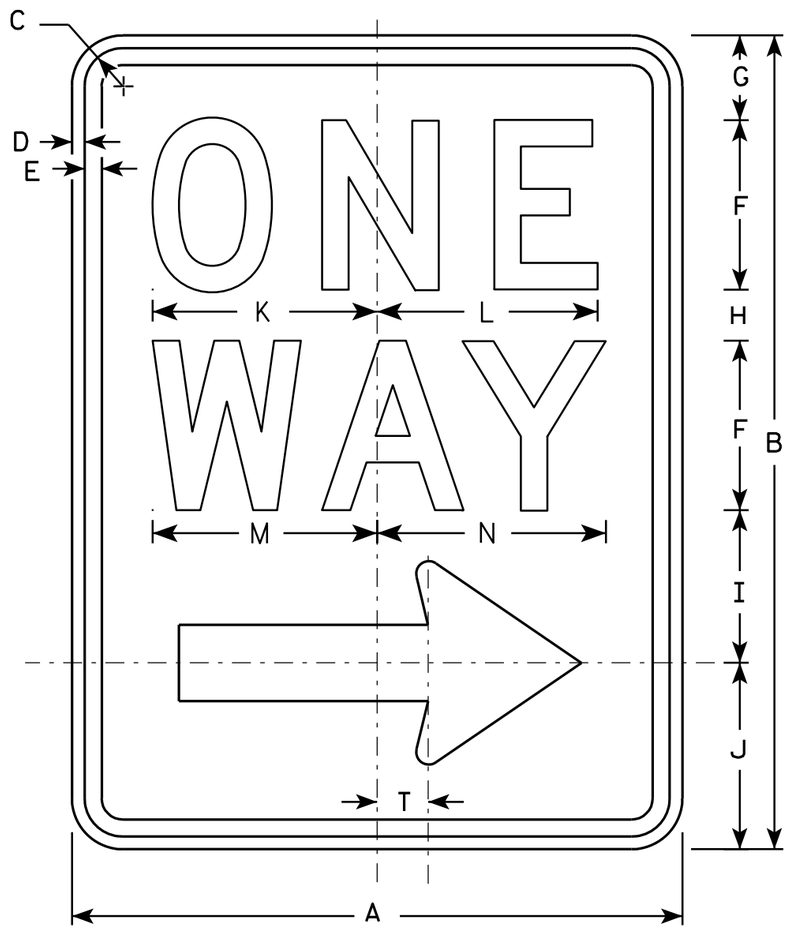
SHEET NO: 426 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R61.DGN PLOT DATE : 17-DEC-2010 14:11 PLOT BY : dotsja

WISDOT/CADDS SHEET 42

7

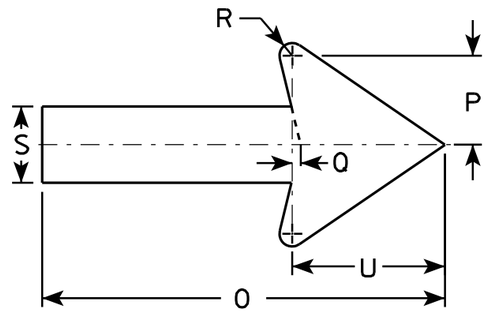
7



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

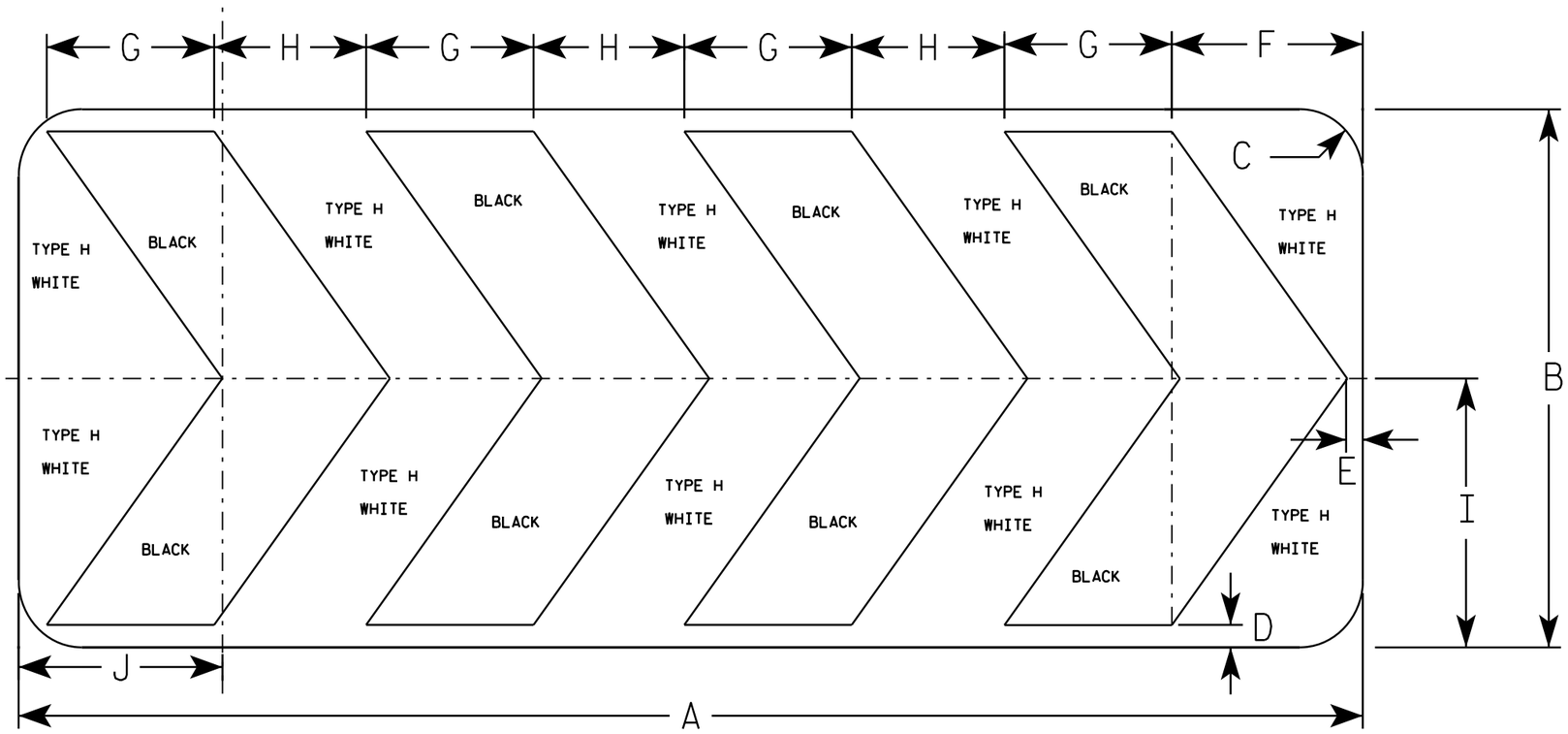
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 427 | 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 - WHITE
   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.



R6-4B

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	60	24	2 1/4	1	3/4	8 1/2	7 1/2	6 3/4	12	9 1/8																	10.0
2M	60	24	2 1/4	1	3/4	8 1/2	7 1/2	6 3/4	12	9 1/8																	10.0
3																											
4																											
5																											

STANDARD SIGN
R6-4B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/03/11 PLATE NO. R6-4B.2

PROJECT NO:

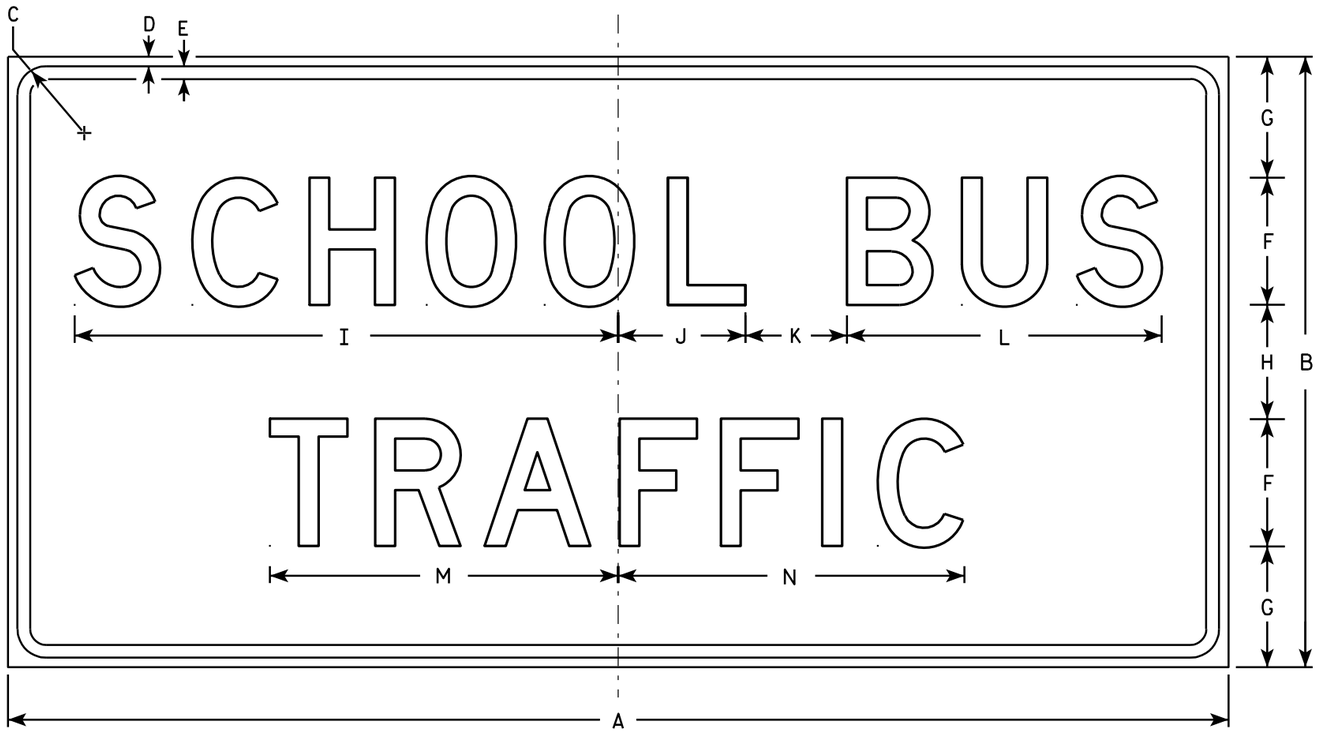
SHEET NO: 428 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R64B.DGN PLOT DATE : 03-JAN-2011 14:30 PLOT BY : dotsja

WISDOT/CADDS SHEET 42

7

7



S3-51

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 - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8	5	4 3/4	4 1/2	21 3/8	5	4	12 3/8	14	13 5/8													8.0
2M	48	24	1 3/8	1/2	5/8	5	4 3/4	4 1/2	21 3/8	5	4	12 3/8	14	13 5/8													8.0
3																											
4	96	48	2 1/4	3/4	1	10	9 1/2	9	42 3/4	10	8	24 3/4	27 3/8	27 1/8													32.0
5																											

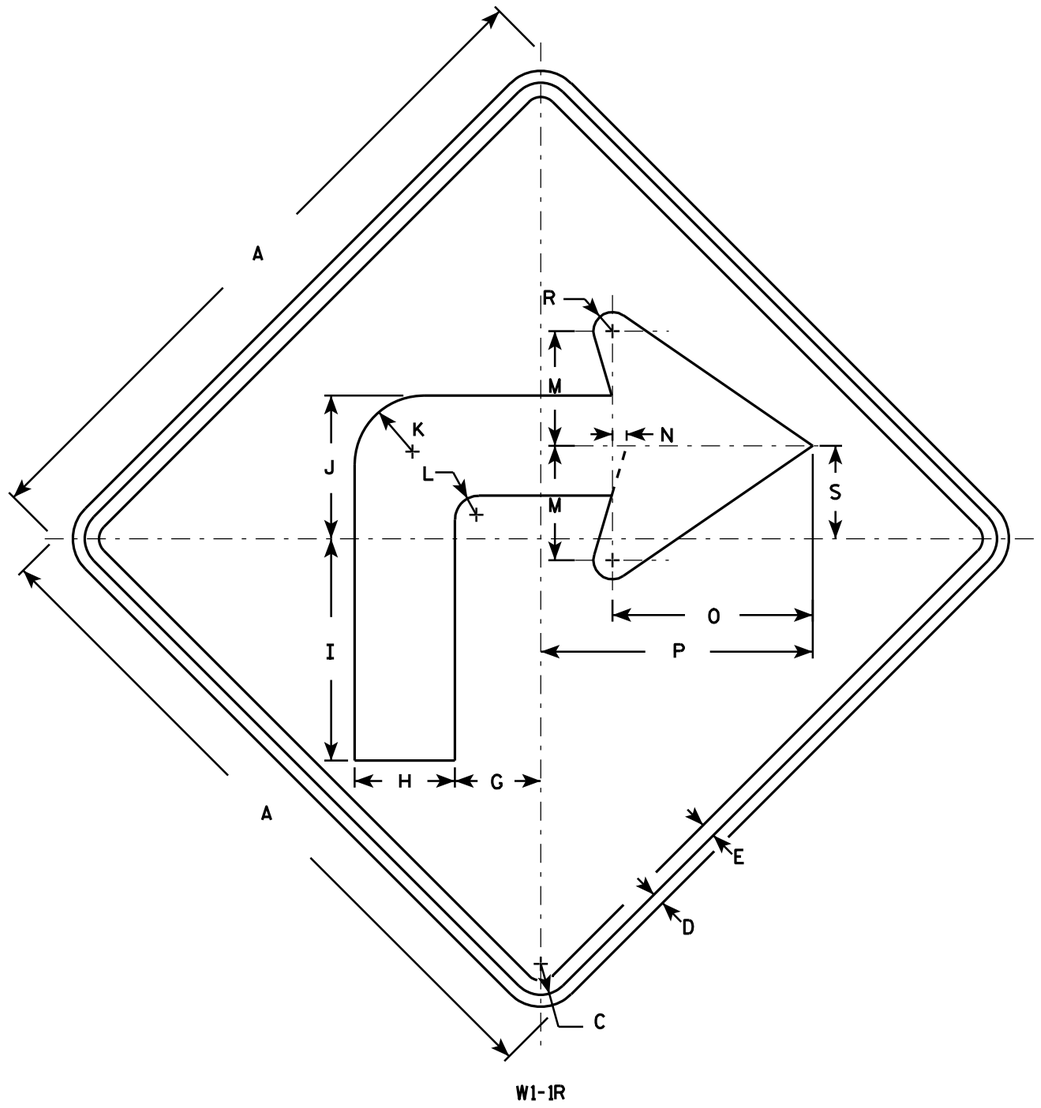
STANDARD SIGN
S3-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. S3-51.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 429 | E



W1-1R

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. W1-1L is the same as W1-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		3	3 1/2	7 3/4	5	2 1/2	7/8	4	1/2	7	9 1/2		5/8	3 1/4								4.0
2S	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
2M	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
3	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
4	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0
5	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0

STANDARD SIGN
W1-1

WISCONSIN DEPT OF TRANSPORTATION

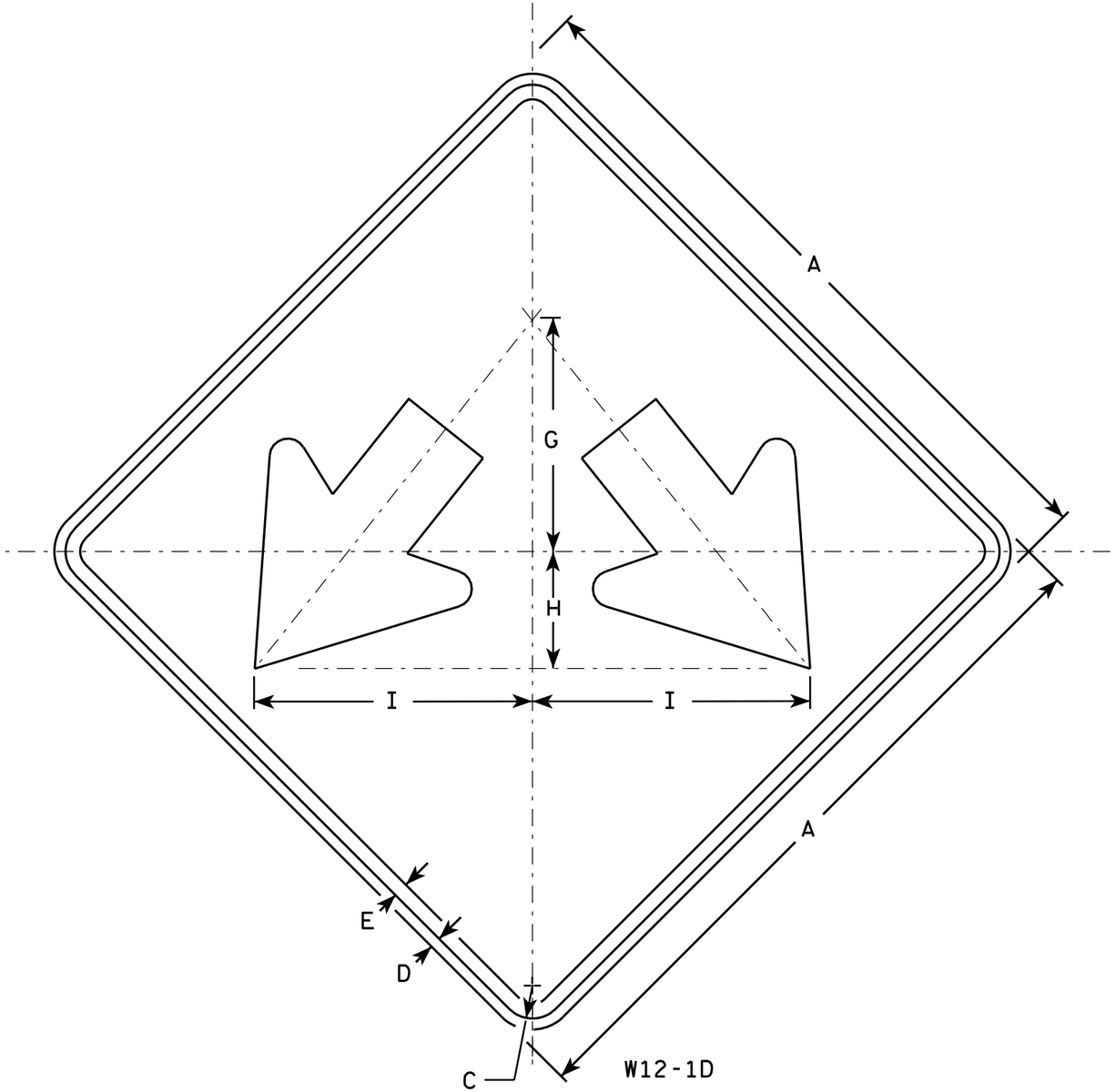
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-1.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 430 | E

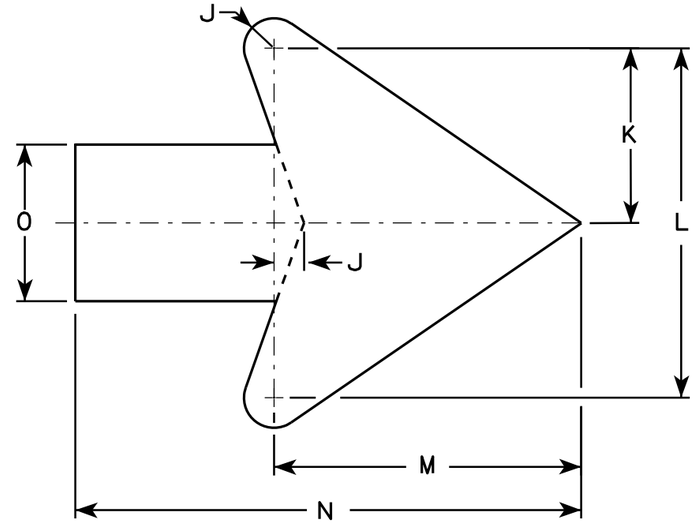
7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W11.DGN PLOT DATE : 15-MAY-2012 13:47 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 7.939035:1.000000
WISDOT/CADDS SHEET 42



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/11 PLATE NO. W12-1D.14

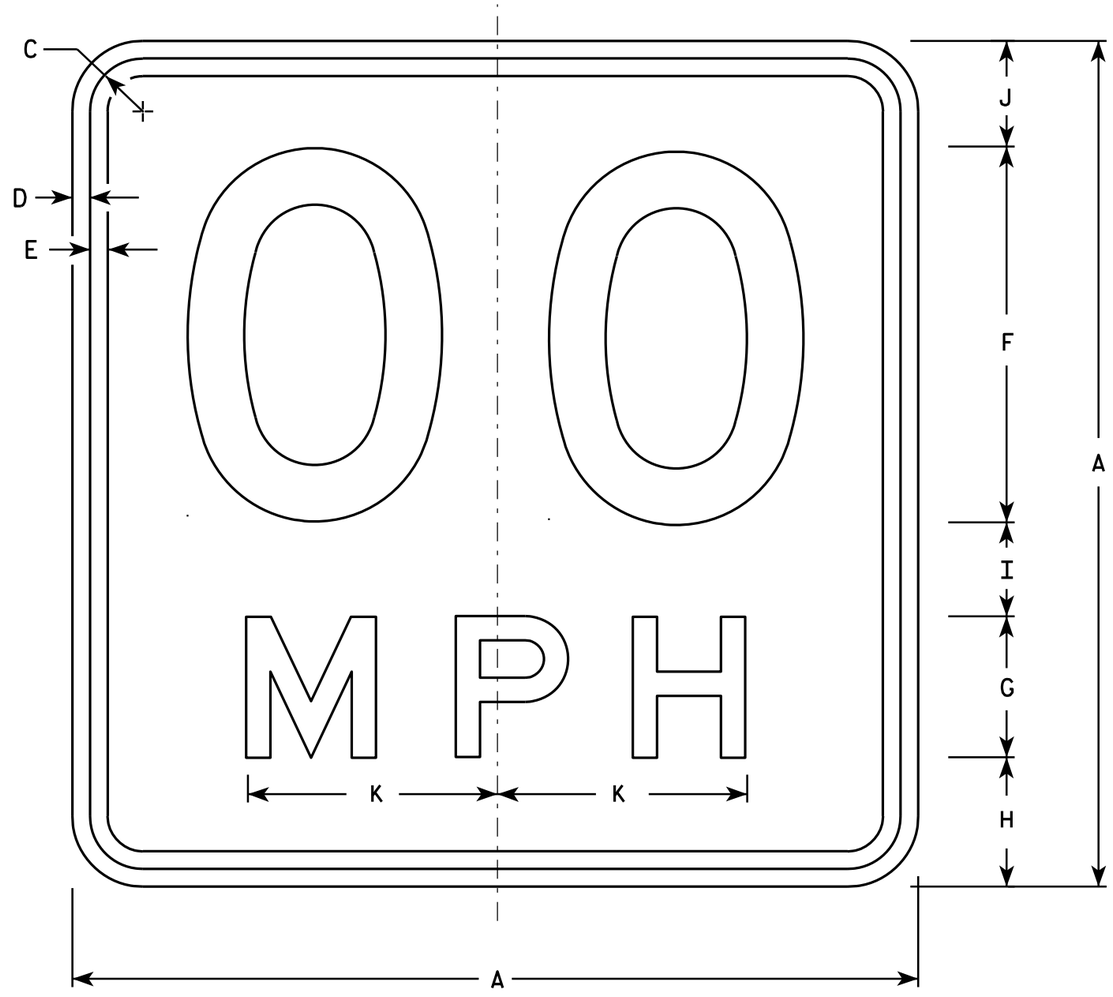
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 431	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W121D.DGN PLOT DATE : 16-MAR-2011 14:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.717577:1.000000

WISDOT/CADDS SHEET 42

7

7



W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

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 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. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

	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		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

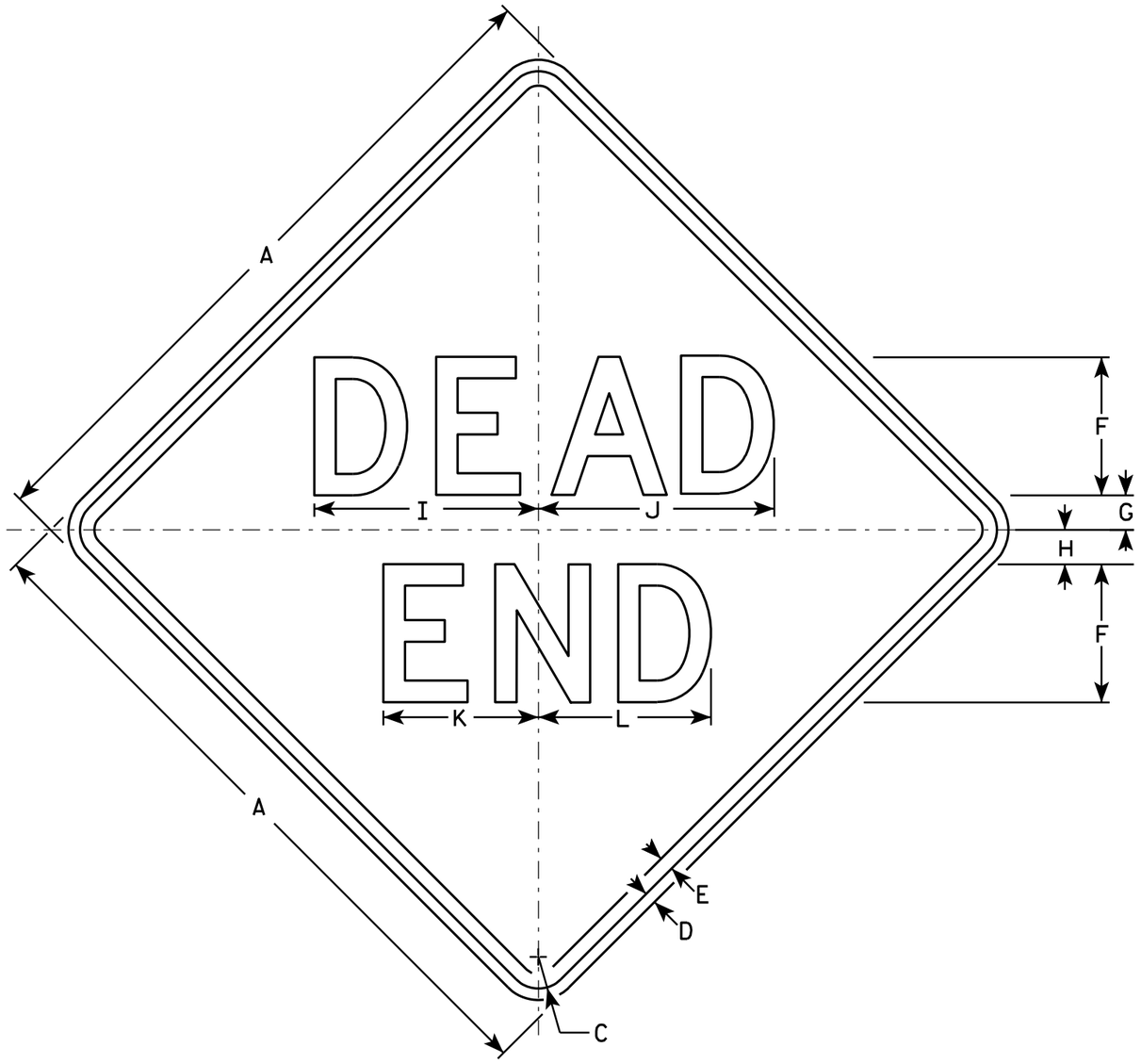
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 432 | E



W14-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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	8 1/4	8 5/8	5 5/8	6 1/4															4.0
2S	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
2M	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
3	36		1 5/8	5/8	3/4	7	2	3	11 3/8	12	7 7/8	8 3/4															9.0
4																											
5																											

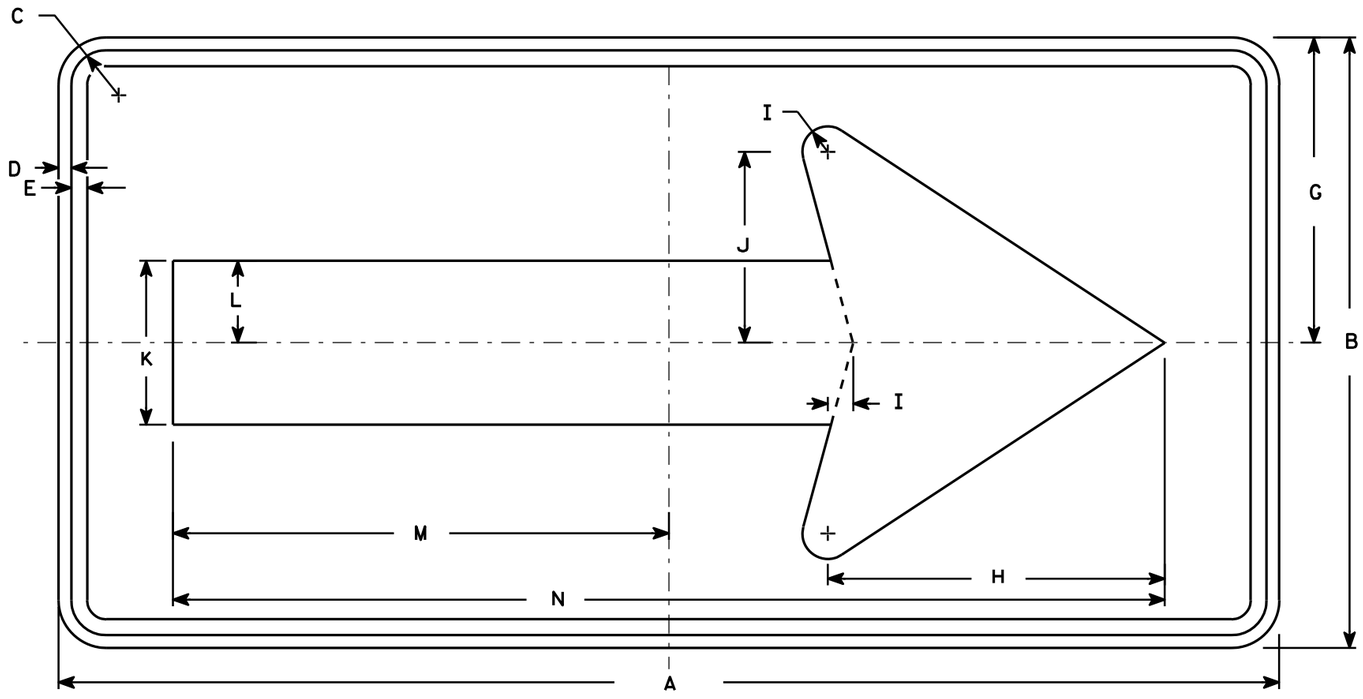
STANDARD SIGN
W14-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W14-1.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 433	E



W1-6

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	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

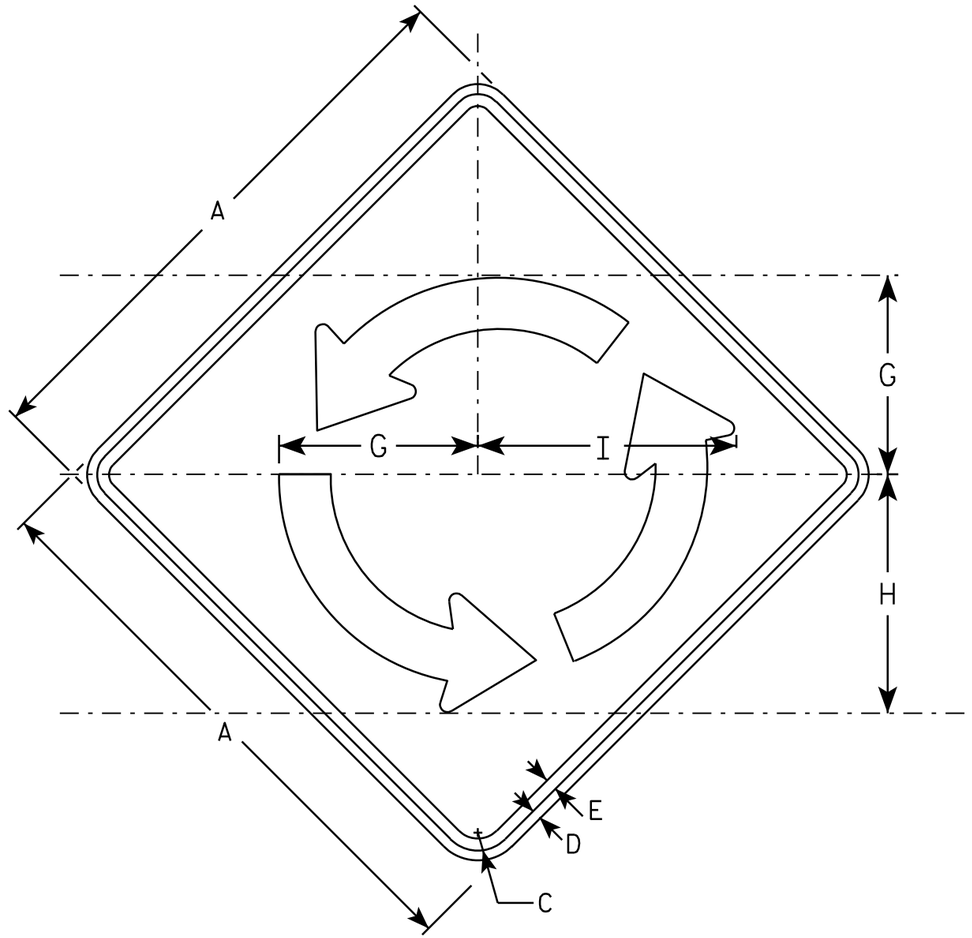
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

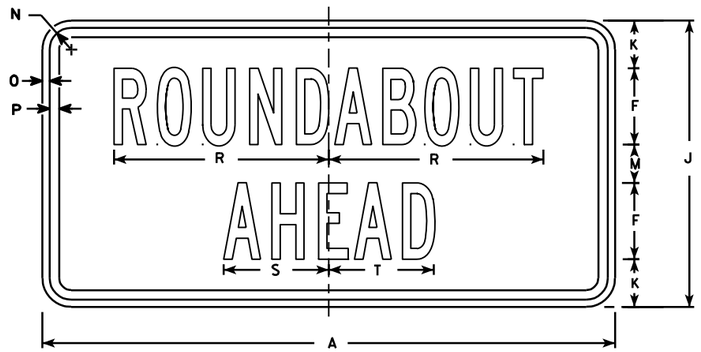
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 434



W2-6

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 - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W2-6P

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	W2-6 Area sq. ft.	W2-6P Area sq. ft.
1																										
2S	30		1 3/8	1/2	5/8	4	10 3/8	12 1/2	13 1/2	15	2 1/2		2	1 1/8	3/8	1/2		11 1/4	5 1/2	5 1/2					6.25	3.12
2M	30		1 3/8	1/2	5/8	4	10 3/8	12 1/2	13 1/2	15	2 1/2		2	1 1/8	3/8	1/2		11 1/4	5 1/2	5 1/2					6.25	3.12
3	36		1 5/8	5/8	3/4	5	12 1/2	15	16 1/4	18	2 5/8		2 3/4	1 1/8	3/8	1/2		14	7	6 3/4					9.00	4.50
4	48		2 1/4	3/4	1	6	16 5/8	20	16 1/4	24	4 3/8		3 5/8	1 3/8	1/2	5/8		17	8 1/4	8 1/4					16.0	8.0
5																										

STANDARD SIGN
W2-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/29/12 PLATE NO. W2-6.5

PROJECT NO:

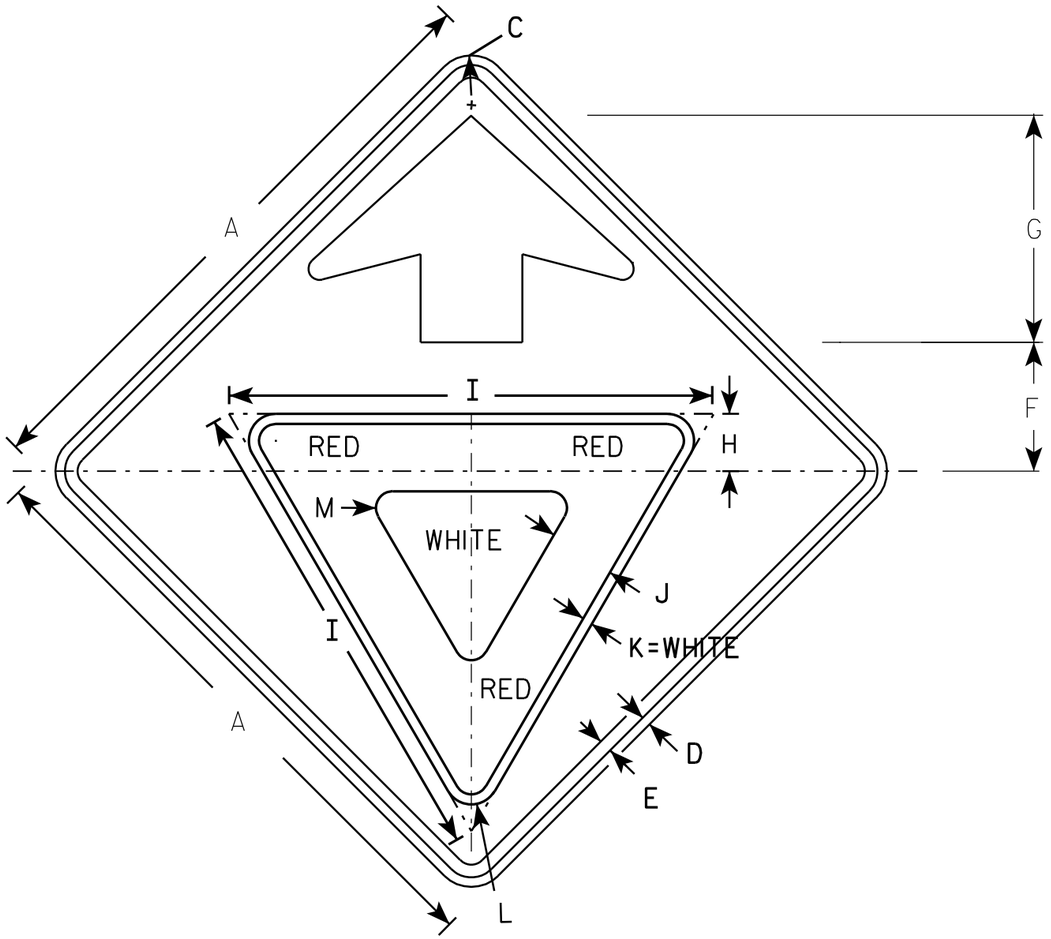
SHEET NO: 435 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W26.DGN PLOT DATE : 29-JUN-2012 10:15 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

7

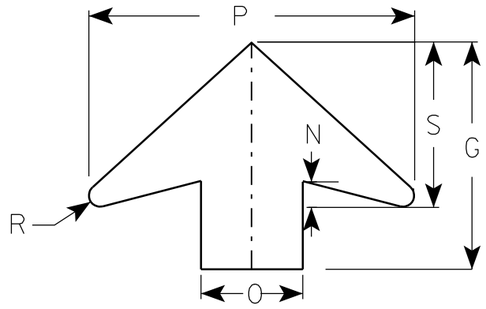
7



W3-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Yield Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	3	25	3 3/8	1/2	1 3/8	7/8	1 1/4	5	16		1/2	8								6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W3-2

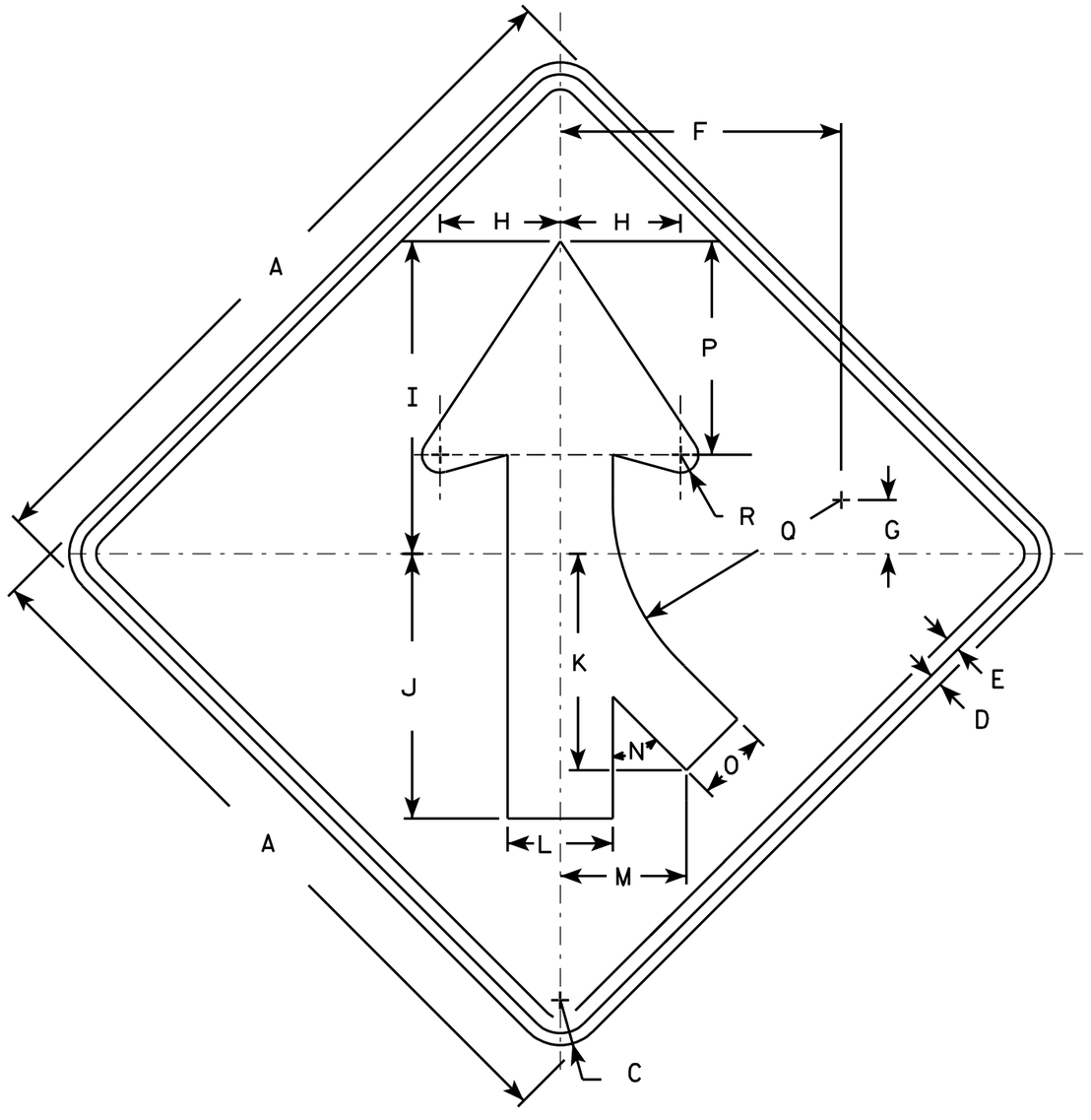
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-2..9

PROJECT NO:

SHEET NO: 436 E



W4-1 R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-1L is the same as W4-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	11 5/8	2 1/2	5	13	11	9	4 3/8	5 1/4	45°	3	8 7/8	9 1/2	3/4									6.25
2S	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2M	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
3	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

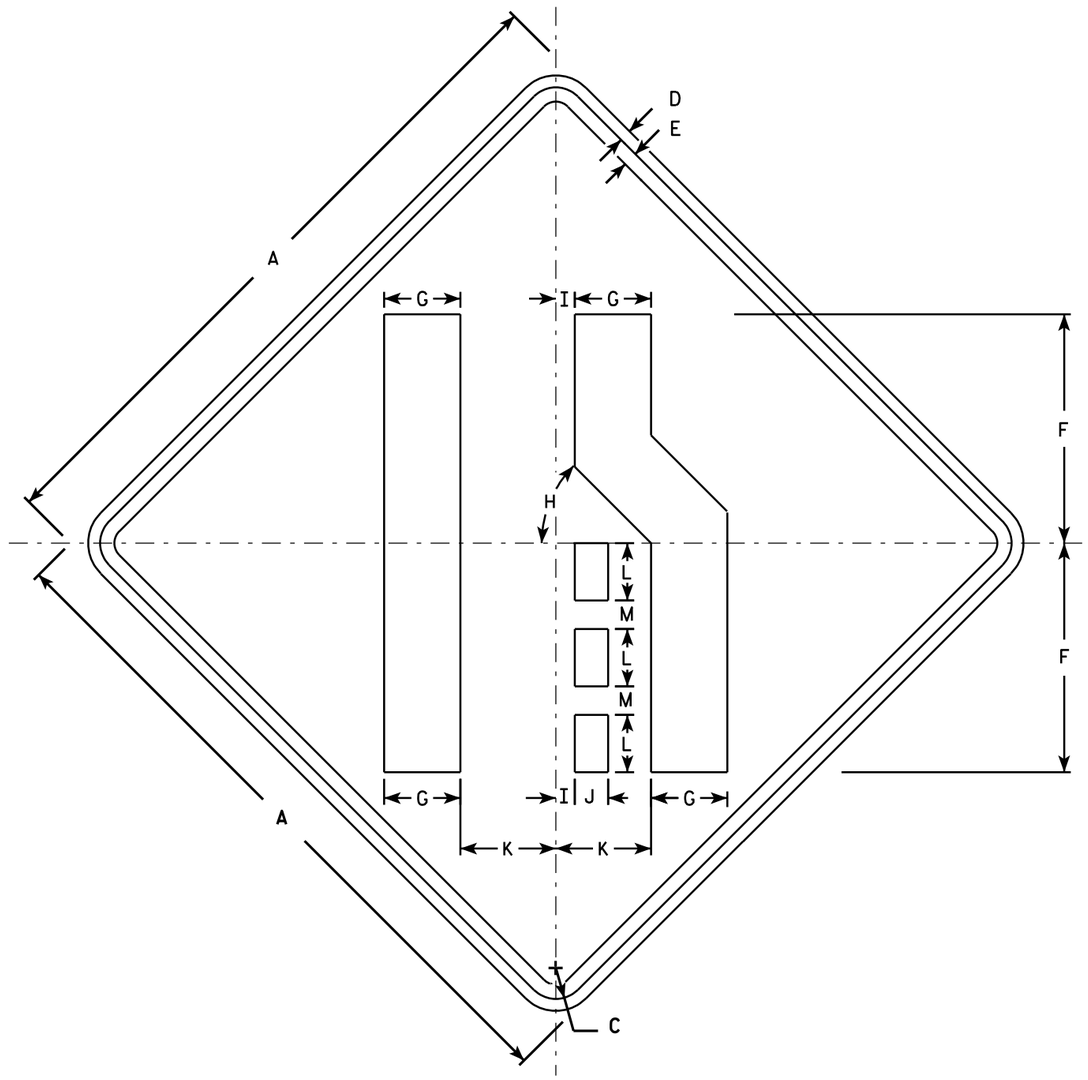
STANDARD SIGN
W4-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/21/11 PLATE NO. W4-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 437 | E



W4-2R

NOTES

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

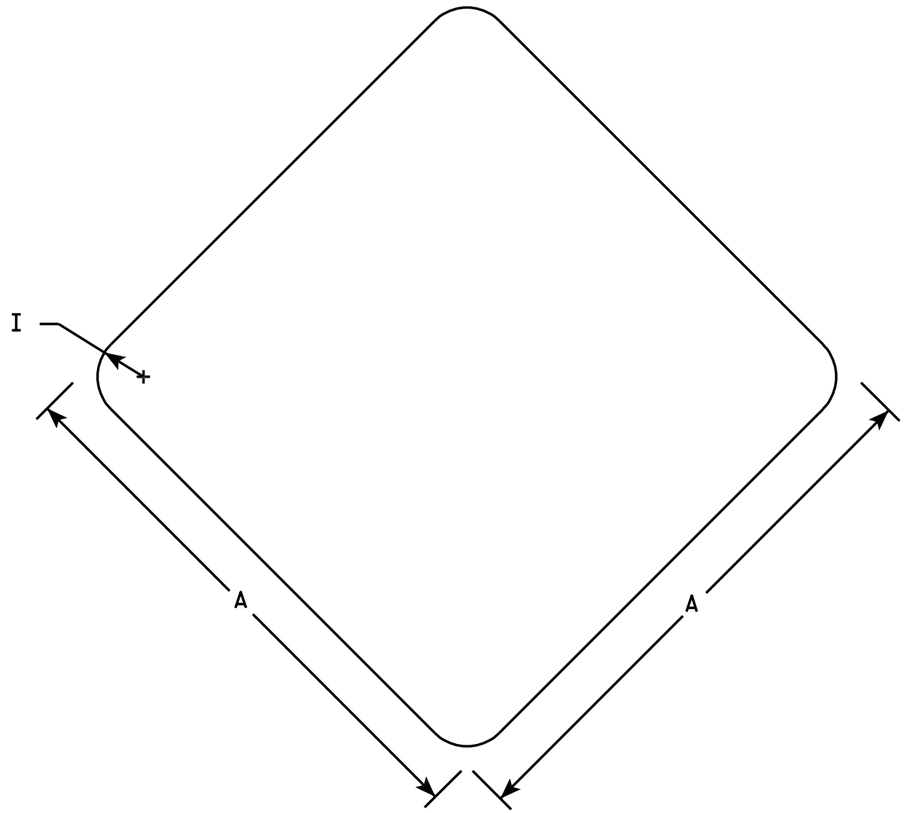
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/29/2012 PLATE NO. W4-2.13

PROJECT NO:

SHEET NO: 438 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																											

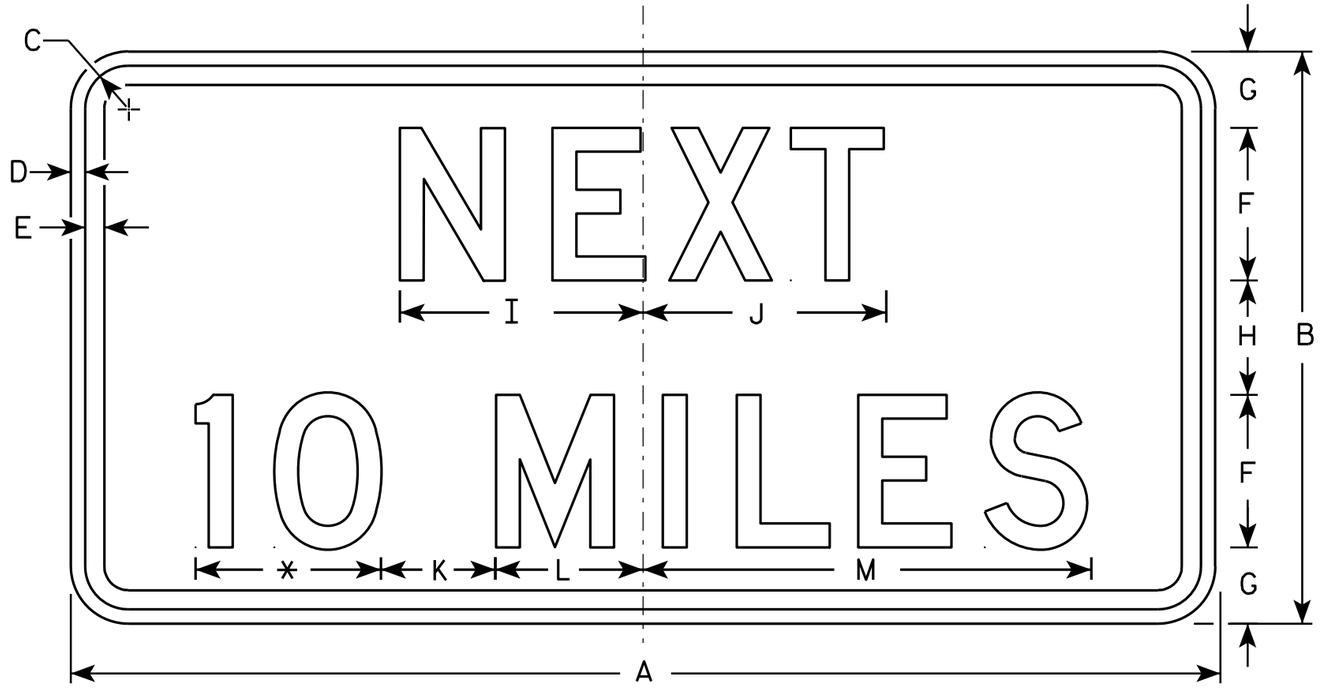
STANDARD SIGN
W5-56

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: 439	E



W57-51

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

* See note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	1 1/8	3/8	3/8	3	1 3/4	2 1/2	5	5 1/8	3	2 3/4	9 5/8														2.0
2S	30	15	1 1/8	3/8	1/2	4	2	3	6 3/8	6 3/8	3	3 1/8	11 3/4														3.13
2M	36	18	1 1/8	3/8	1/2	5	2 5/8	2 3/4	7 1/8	8	5	4 1/8	15 3/8														4.5
3	36	18	1 1/8	3/8	1/2	5	2 5/8	2 3/4	7 1/8	8	5	4 1/8	15 3/8														4.5
4	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0
5	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0

STANDARD SIGN
W57-51

WISCONSIN DEPT OF TRANSPORTATION

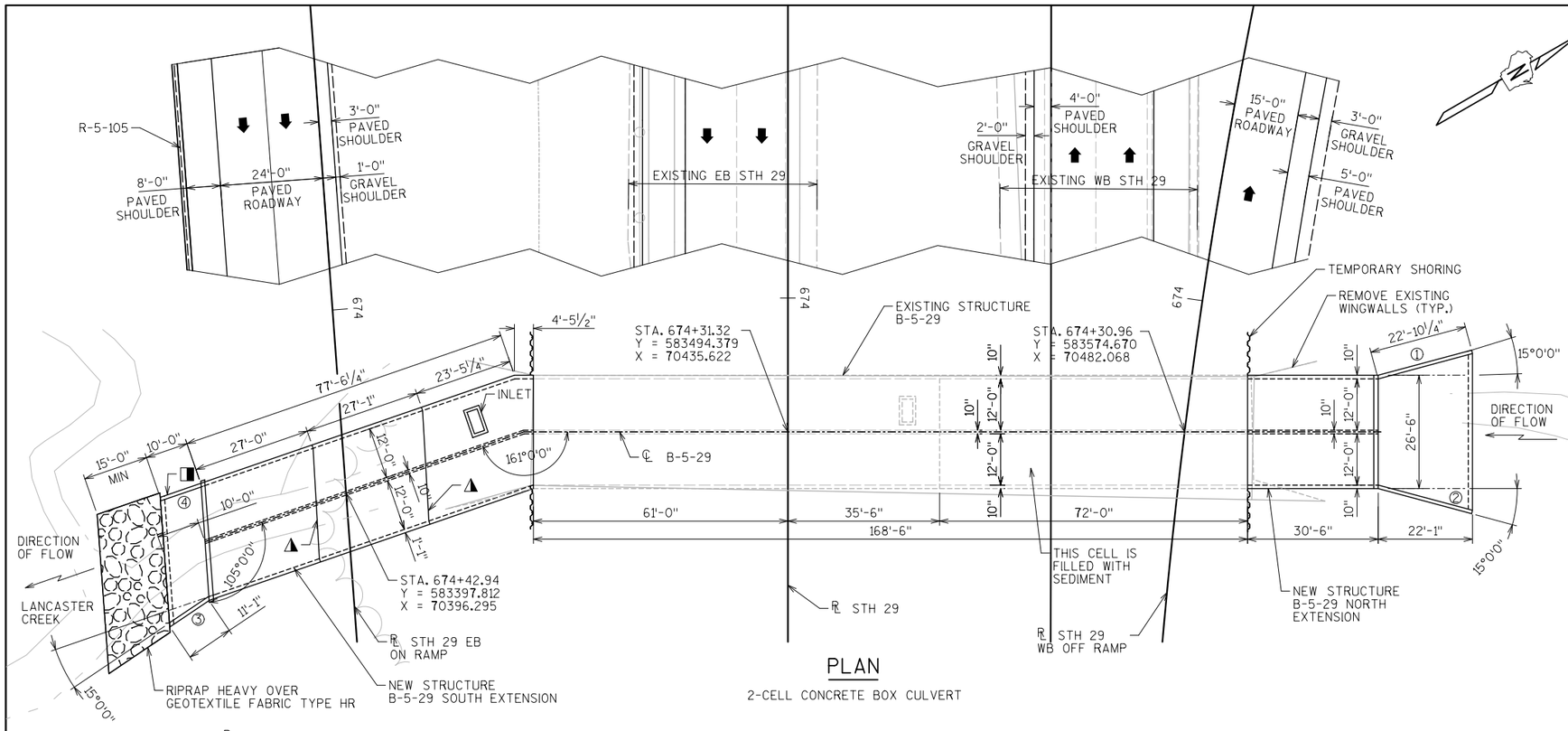
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/18/11 PLATE NO. W57-51.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 440	E

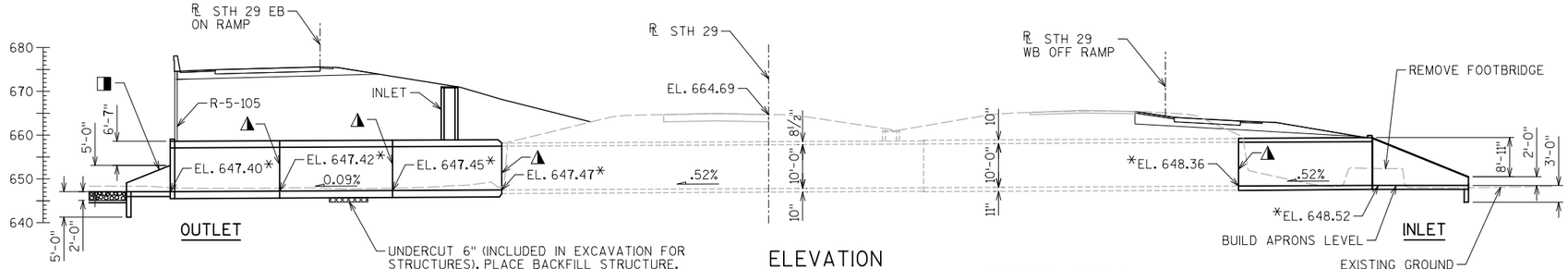
STATE PROJECT NUMBER

9200-04-71



PLAN

2-CELL CONCRETE BOX CULVERT



ELEVATION

(LOOKING WEST)

GENERAL NOTES

EXISTING STRUCTURE B-5-29 IS A TWO CELL CAST-IN-PLACE CONCRETE BOX CULVERT. REMOVE ALL EXISTING WINGWALLS AND APRONS. CONSTRUCT CAST-IN-PLACE CONCRETE BOX EXTENSIONS AT BOTH ENDS OF EXISTING STRUCTURE.

REMOVE EXISTING WINGWALLS ALONG ORIGINAL CONSTRUCTION JOINTS. EXERCISE CARE NOT TO DAMAGE BOX CULVERT WALLS OR APRON.

DRAWINGS SHALL NOT BE SCALED.

ALL BAR STEEL FOR CAST-IN-PLACE CONCRETE BOX CULVERTS SHALL BE UNCOATED.

THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES CULVERTS B-5-29 SHALL BE THE EXISTING GROUNDLINE.

ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE ELEVATION AND SECTION EXISTING PRIOR TO EXCAVATION.

LOCATE NAME PLATE ON WINGWALL AS SHOWN. REUSE EXISTING NAMEPLATE IF IT IS IN GOOD CONDITION AFTER EXISTING WINGWALL REMOVAL.

THE CONCRETE IN THE CUTOFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH APPROVAL OF THE STRUCTURES DESIGN SECTION. MATERIALS, FABRICATION, AND DESIGN OF PRECAST BOXES SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR TRANSPORTATION MATERIALS, M259 OR M273, AND AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION 2, SECTION 27, EXCEPT THE CONCRETE MIXTURE SHALL CONTAIN NOT LESS THAN 565 POUNDS OF CEMENTITIOUS MATERIALS PER CUBIC YARD.

CHAMFER ALL EXPOSED CORNERS ¾".

PLACE APRON AND BOX CULVERT FLOOR MONOLITHICALLY.

THOROUGHLY CLEAN ALL CONSTRUCTION JOINTS BEFORE FRESH CONCRETE IS PLACED.

CONTRACTOR IS RESPONSIBLE TO MAINTAIN THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION.

PLACE SHEET MEMBRANE WATERPROOFING FOR TOP SLAB B-5-29 ON ENTIRE TOP SLAB BETWEEN HEADERS AND EXTEND 1'-0" DOWN AT WALL ENDS.

HYDRAULIC DATA

100 YEAR FREQUENCY	
DRAINAGE AREA	7.0 SQ. MI.
Q_{100} TOTAL	1,500 C.F.S.
THROUGH STRUCTURE	1,500 C.F.S.
OVERTOPPING ROADWAY	0 C.F.S.
VELOCITY - THROUGH STRUCTURE	9.75 F.P.S.
WATERWAY AREA	154 SQ. FT.
HIGH WATER$_{100}$ ELEVATION	656.62
EROSION CONTROL	
Q_2	303 C.F.S.
HIGH WATER$_2$ ELEVATION	651.51

TRAFFIC DATA

A.D.T STH 29 EB ON RAMP (2034)	8,700
A.D.T STH 29 WB OFF RAMP (2034)	8,500
DESIGN SPEED	50 M.P.H

TOTAL ESTIMATED QUANTITIES

BID ITEM #	BID ITEM	UNIT	TOTAL
206.2000	EXCAVATION FOR STRUCTURES CULVERTS B-5-29	LS	1
206.6000.S	TEMPORARY SHORING	SF	250
208.0100	BORROW	CY	130
210.0100	BACKFILL STRUCTURE	CY	220
502.5002	MASONRY ANCHORS TYPE L NO. 4 BARS	EACH	164
504.0100	CONCRETE MASONRY CULVERTS	CY	507
505.0410	BAR STEEL REINFORCEMENT HS CULVERTS	LB	71,320
505.0610	BAR STEEL REINFORCEMENT HS COATED CULVERTS	LB	9,370
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	127
516.0610.S.01	SHEET MEMBRANE WATERPROOFING FOR TOP SLAB B-5-29	SY	332
606.0300	RIPRAP HEAVY	CY	39
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	20
650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT B-5-29	LS	1
SPV.0060.06	IN CULVERT BOULDER ASSEMBLY	EACH	5
SPV.0105.01	REMOVING FOOTBRIDGE	LS	1
	NON BID ITEMS		
	FILLER	SIZE	3/4"

ALL ITEMS ARE CATEGORY 0040

LEGEND

- NAME PLATE LOCATION
- VERT. CONST. JOINT (TYP.). 18" MIN. WIDTH RUBBERIZED MEMBRANE WATER-PROOFING UP WALLS AND ACROSS TOP SLAB. SEE SHT. 3 FOR DETAILS.
- * ELEVATIONS SHOWN ARE BASED ON ORIGINAL STRUCTURE PLANS AND ANTICIPATED SETTLEMENT OF THE NEW STRUCTURE. THE CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS PRIOR TO CONSTRUCTION AND CONSTRUCT THE BOX TO THE SLOPE SHOWN.

BENCHMARK

NO.	STATION	DESCRIPTION	ELEVATION
BM 29619	674+17	BRASS CAP ON SW WALL OF B-5-29	658.06
CP 503	691+00	STA. 691+00.36, 133.40' LT.	693.15

DESIGN DATA

LIVE LOAD:	
DESIGN LOADING:	HL-93
INVENTORY RATING FACTOR:	1.05
OPERATING RATING FACTOR:	1.35
MAX. STANDARD PERMIT VEHICLE LOAD:	255 KIPS
NOTE: RATING ONLY APPLIES TO NEW BOX CULVERT EXTENSIONS	
EARTH LOAD:	
DESIGNED FOR 18 FT OF FILL (SOUTH EXTENSION)	UNIT WT. = 120 PCF
DESIGNED FOR 5 FT OF FILL (NORTH EXTENSION)	
DO NOT EXCEED A FILL OF 8' OVER EXISTING CULVERT IN AREAS WITH FILL LESS THAN 2', RESTRICT SOIL COMPACTION METHODS TO HAND EQUIPMENT ONLY	
FILL HEIGHT IS MEASURED FROM TOP OF SLAB TO TOP OF PAVEMENT.	
LIVE LOAD SURCHARGE:	
SOUTH EXTENSION EQUIVALENT HEIGHT	2.0 FT
NORTH EXTENSION EQUIVALENT HEIGHT	2.2 FT
ULTIMATE DESIGN STRESSES:	
CONCRETE MASONRY CULVERTS	F'C = 3,500 P.S.I
HIGH-STRENGTH BAR STEEL REINFORCEMENT	FY = 60,000 P.S.I

WISCONSIN PROFESSIONAL ENGINEER
MICHAEL J. ARNOLD
E-41217
GREENDALE
WI
January 15, 2013

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. BOX DETAILS
3. REINFORCEMENT DETAILS
4. WINGWALL DETAILS
5. CULVERT DETAILS
6. SUBSURFACE EXPLORATION

NE REGION CONTACT - JEREMY ASHAUER (920) 492-4165
BUREAU OF STRUCTURES CONTACT - WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT - MIKE ARNOLD (414) 831-4179

NO.	DATE	REVISION	BY

URS
342 North Water Street
7th Floor
Milwaukee, WI 53202
(414) 831-4100

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 01/26/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-5-29

STH 29 BOX CULVERT EXTENSION

COUNTY	BROWN
~~TOWN/CITY~~/VILLAGE	HOBART
DESIGN SPEC.	AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS
DESIGNED BY	MRL
DESIGN CK'D.	MJA
DRAWN BY	MRL
PLANS CK'D.	JDB

GENERAL PLAN & ELEVATION

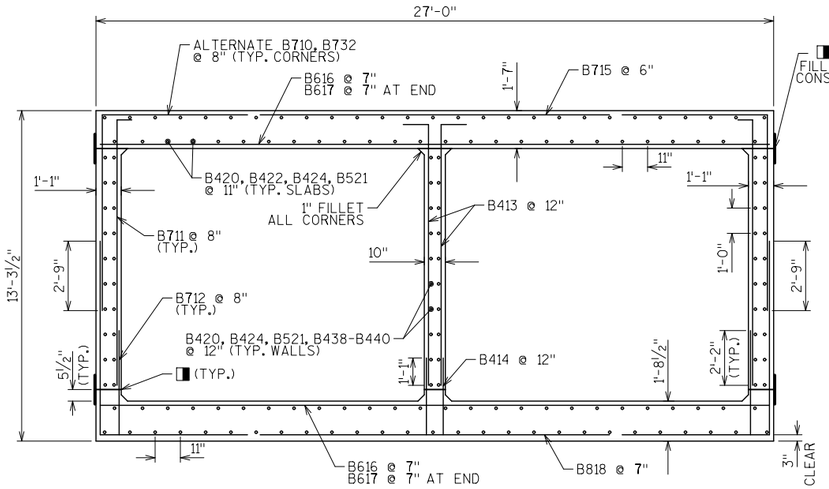
SHEET 1 OF 6
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DATE: 1/16/2013
I.D.

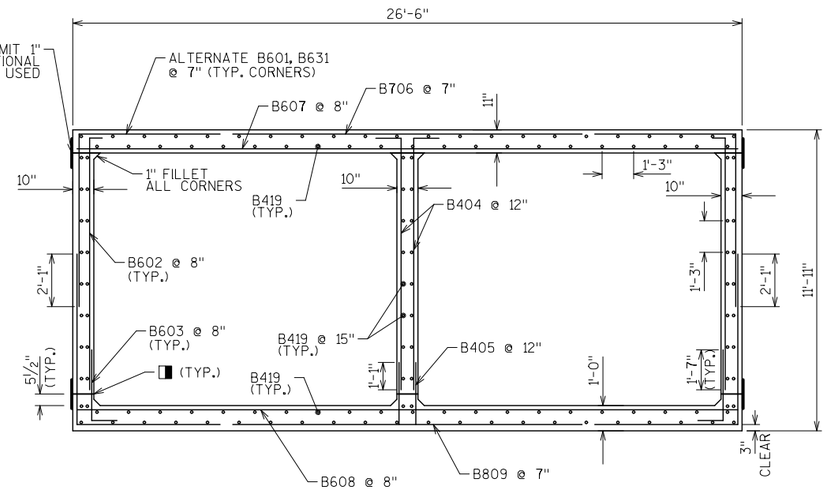
STATE PROJECT NUMBER

9200-04-71



BOX REINFORCEMENT DETAILS

(SOUTH EXTENSION)



BOX REINFORCEMENT DETAILS

(NORTH EXTENSION)

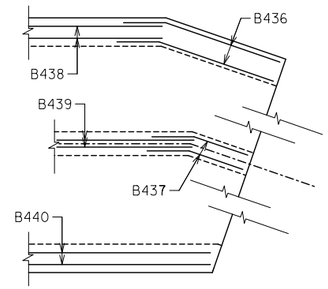
NOTES

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

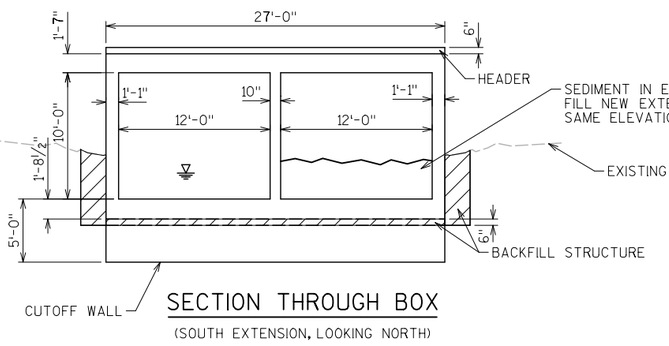
TENSION LAP SPLICE LENGTHS FOR BARS SHALL BE CLASS "C" LAPS; EXCEPT FOR DOWEL BARS IN THE BOX SHALL BE CLASS "B" LAPS.

STRUCTURE BACKFILL IS REQUIRED BEHIND ALL WINGWALLS.

SEE "REINFORCEMENT DETAILS" SHEET FOR BILL OF BARS.

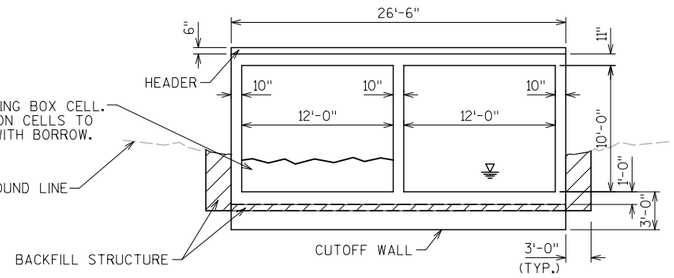


WALL BEND DETAIL



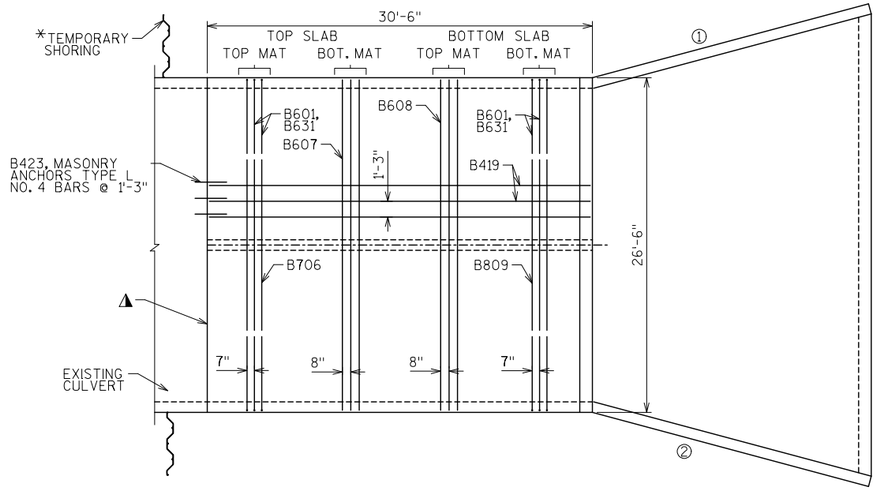
SECTION THROUGH BOX

(SOUTH EXTENSION, LOOKING NORTH)



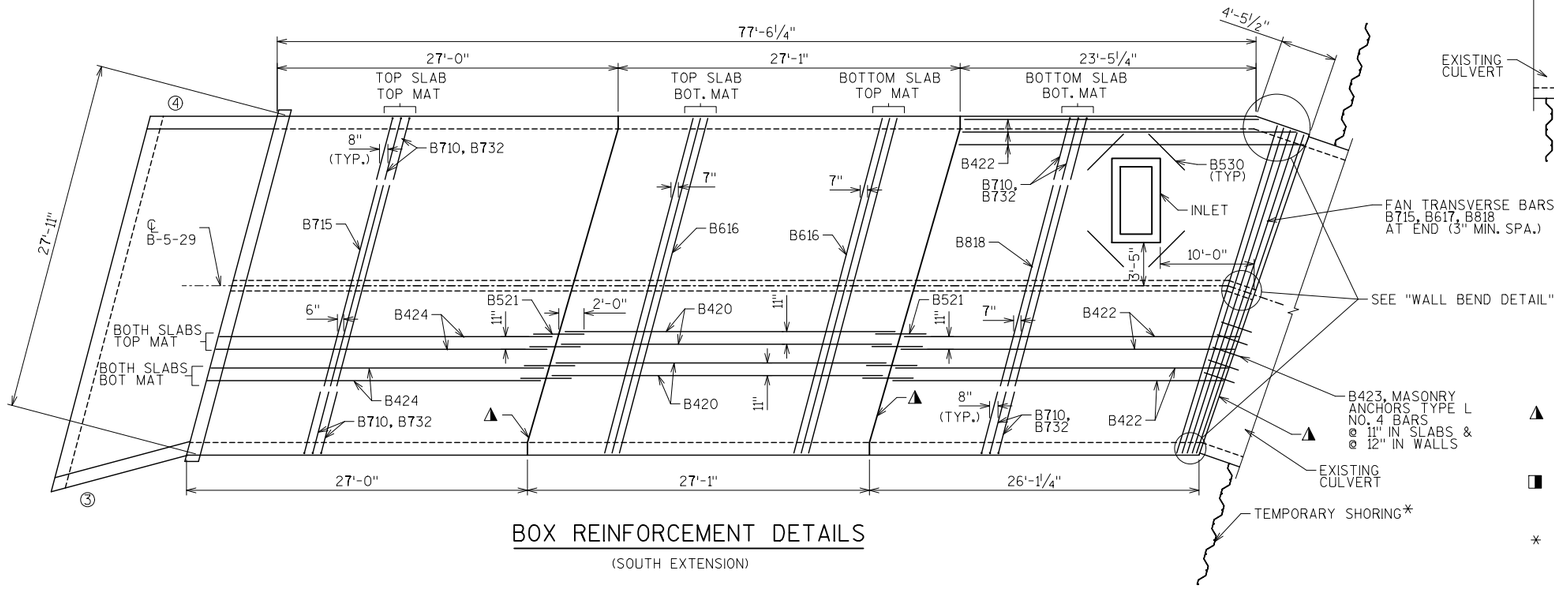
SECTION THROUGH BOX

(NORTH EXTENSION, LOOKING SOUTH)



BOX REINFORCEMENT DETAILS

(NORTH EXTENSION)



BOX REINFORCEMENT DETAILS

(SOUTH EXTENSION)

LEGEND

▲ VERT. CONST. JOINT (TYP.). 18" MIN. WIDTH RUBBERIZED MEMBRANE WATER-PROOFING UP WALLS AND ACROSS TOP SLAB. SEE SHEET 3 FOR DETAILS.

◨ HORIZ. CONST. JOINT (TYP.). 18" MIN. WIDTH RUBBERIZED MEMBRANE WATER-PROOFING ALONG OUTSIDE OF HORIZ. JOINT IN BOX.

* LOCATION OF TEMPORARY SHORING TO BE APPROVED BY THE FIELD ENGINEER. MAINTAIN MINIMUM DISTANCE OF 15' FROM EDGE OF ROADWAY SHOULDER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-29

DRAWN BY: MRL | PLANS CK'D: JDB

BOX DETAILS

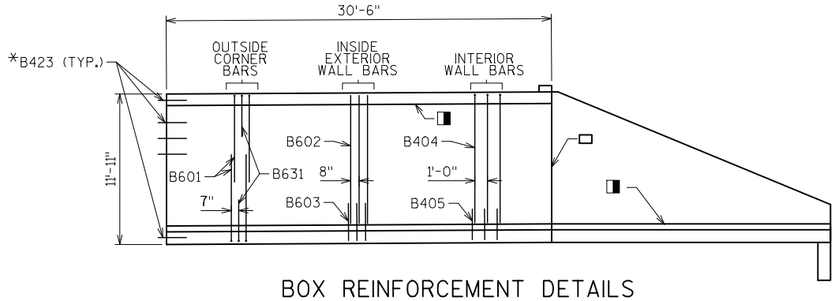
SHEET 2 OF 6
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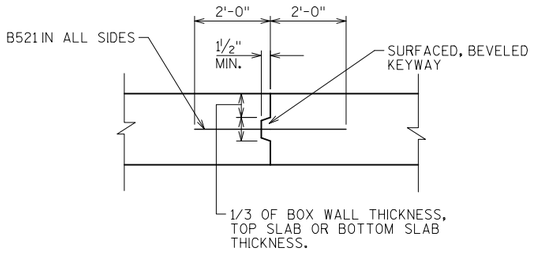
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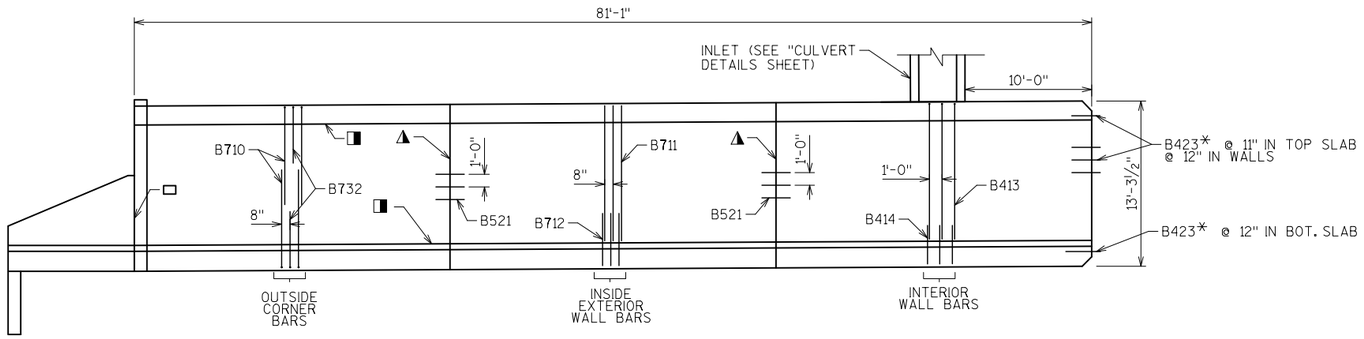


BOX REINFORCEMENT DETAILS

(NORTH EXTENSION)



VERTICAL CONSTRUCTION JOINT



BOX REINFORCEMENT DETAILS

(SOUTH EXTENSION)

BILL OF BARS

ALL BARS IN THIS TABLE SHALL BE UNCOATED.

	BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
	B601	108	12'-4"	X		N. CORNERS VERT.
	B602	94	10'-1"	X		N. EXTERIOR WALL VERT.
	B603	94	3'-10"	X		N. EXTERIOR WALL DOWELS VERT.
	B404	64	10'-5"	X		N. INTERIOR WALL VERT.
	B405	64	2'-6"			N. INTERIOR WALL DOWELS VERT.
	B606	53	13'-10"			N. TOP SLAB TOP MAT HORIZ.
	B607	47	26'-2"			N. TOP SLAB BOT. MAT HORIZ.
	B608	47	26'-2"			N. BOT. SLAB TOP MAT HORIZ.
	B809	53	13'-10"			N. BOT. SLAB BOT. MAT HORIZ.
	B710	248	13'-9"	X		S. CORNERS VERT.
	B711	248	11'-9"	X		S. EXTERIOR WALL VERT.
	B712	248	4'-4"			S. EXTERIOR WALL DOWELS VERT.
	B413	164	11'-1"	X		S. INTERIOR WALL VERT.
	B414	164	3'-2"			S. INTERIOR WALL DOWELS VERT.
	B715	165	14'-9"			S. TOP SLAB TOP MAT HORIZ.
	B616	266	27'-7"			S. SLABS HORIZ.
	B617	16	27'-2"		X	S. SLABS HORIZ. @ END
	B818	141	14'-9"			S. BOT. SLAB BOT. MAT HORIZ.
	B419	140	30'-2"			N. LONGITUDINAL WALLS AND SLABS
	B420	184	26'-9"			S. LONGITUDINAL WALLS AND SLABS
	B521	368	4'-0"			CONSTR. JT. DOWELS
	B422	120	25'-3"		X	S. LONGITUDINAL SLABS @ END
*	B423	164	2'-5"			LONGIT. ANCHOR
	B424	184	26'-8"			S. LONGITUDINAL
	B425	16	10'-10"	X		CULVERT INLET HORIZ.
	B426	16	3'-4"			CULVERT INLET HORIZ.
	B427	16	6'-2"			CULVERT INLET HORIZ.
	B428	32	9'-11"			CULVERT INLET VERT.
	B429	32	4'-2"	X		CULVERT INLET VERT.
	B530	8	4'-0"			CULVERT INLET HORIZ.
	B631	104	8'-4"	X		N. CORNERS VERT.
	B732	248	9'-8"	X		S. CORNERS VERT.
	B433	14	2'-4"	X		BUMPOUT HORIZ.
	B434	4	12'-11"			BUMPOUT VERT.
	B435	14	2'-1"	X		BUMPOUT HORIZ.
	B436	22	5'-8"	X		S. WEST WALL LONGIT. @ END
	B437	22	3'-5"	X		S. CENTER WALL LONGIT. @ END
	B438	22	23'-3"			S. WEST WALL LONGIT. @ END
	B439	22	24'-7"			S. CENTER WALL LONGIT. @ END
	B440	22	25'-9"			S. EAST WALL LONGIT. @ END

BAR MARK	NO. REQ'D	LENGTH
B422	4 SERIES OF 30	23'-3" TO 27'-4"
B617	2 SERIES OF 8	26'-8" TO 27'-7"

BAR SERIES

DIM. 'C'

BAR MARK	DIM. 'C'
B425	6'-4"
B433	1'-2"
B435	11"

DIM. 'D'

161°

BAR MARK	DIM. 'D'
B436	4'-3"
B437	2'-0"

DIM. 'A'

BAR MARK	DIM. 'A'
B601	6'-10"
B710	7'-10"
B631	3'-3"
B732	4'-5"

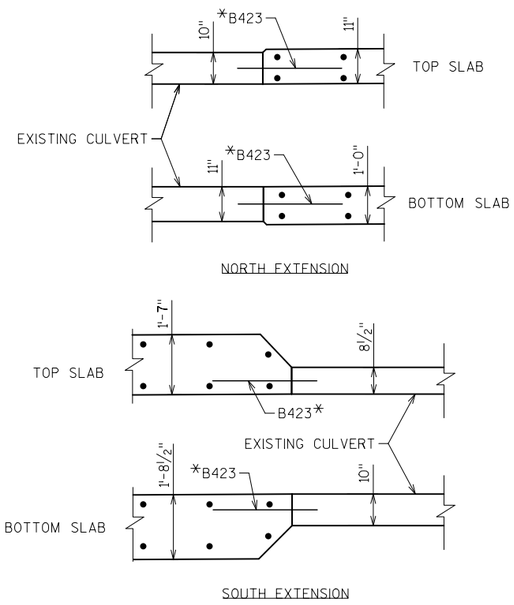
CORNER BARS

BAR DETAILS

DIM. 'B'

BAR MARK	DIM. 'B'
B602	10'-1"
B603	3'-0"
B404	10'-1"
B711	10'-9"
B413	10'-9"
B429	3'-10"

VERT. BARS

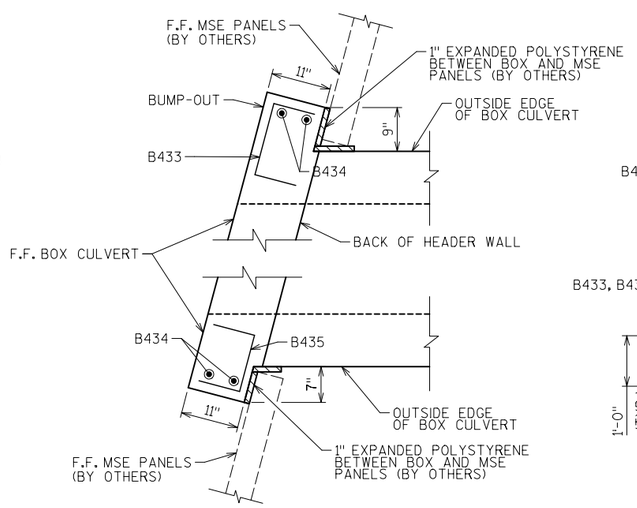


NORTH EXTENSION

SOUTH EXTENSION

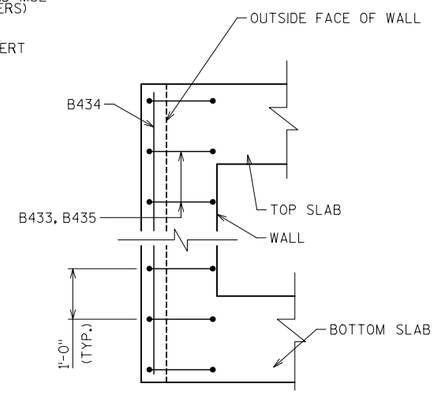
SLAB TRANSITION

CHAMFER EDGES AT 45°



PLAN - BUMP-OUT DETAIL

(SOUTH EXTENSION)



ELEVATION - BUMP-OUT DETAIL

(SOUTH EXTENSION)

LEGEND

- ▲ VERT. CONST. JOINT (TYP.). 18" MIN. WIDTH RUBBERIZED MEMBRANE WATER-PROOFING UP WALLS AND ACROSS TOP SLAB.
- □ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING FROM HORIZ. CONSTR. JT. TO TOP OF WINGWALL & ALONG HORIZ. CONSTR. JT. IN WING.
- ◨ HORIZ. CONST. JOINT (TYP.). 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG JOINT.
- * MASONRY ANCHORS TYPE L NO. 4 BARS. MIN. PULLOUT CAPACITY OF 12 KIPS. EMBED MINIMUM OF 1'-0" INTO EXISTING CULVERT. PLACE WITH A MINIMUM EDGE DISTANCE OF 4".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-29

DRAWN BY: MRL | PLANS CK'D.: JDB

REINFORCEMENT DETAILS

SHEET 3 OF 6
443

STATE PROJECT NUMBER
9200-04-71

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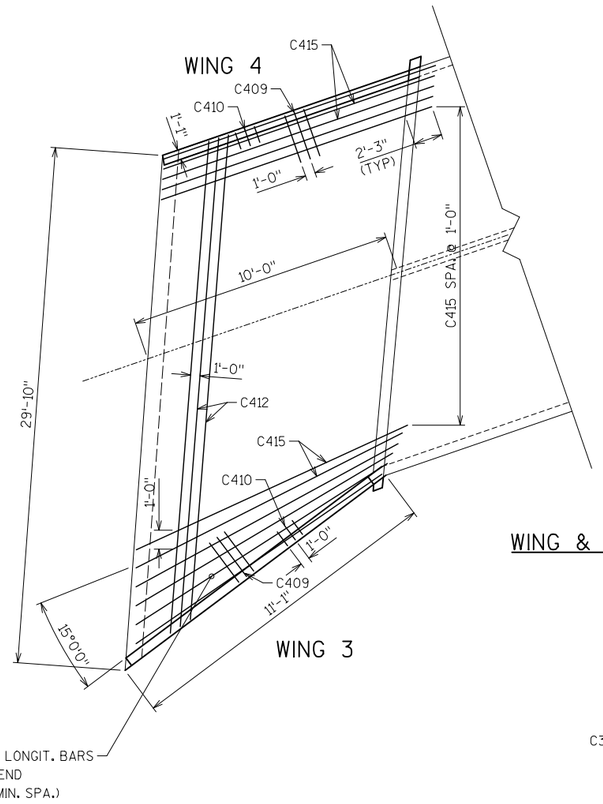
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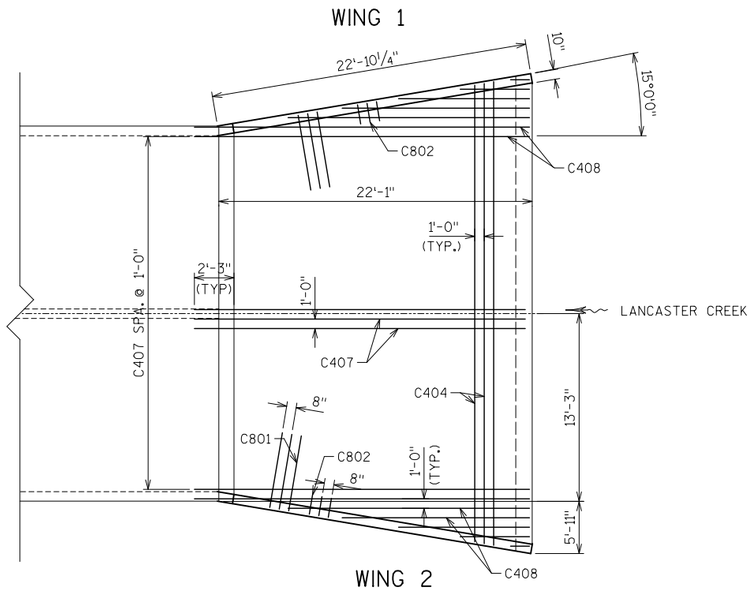
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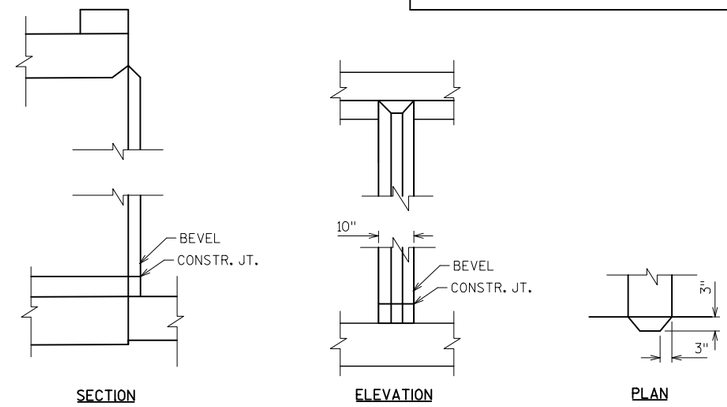
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STATE PROJECT NUMBER

9200-04-71



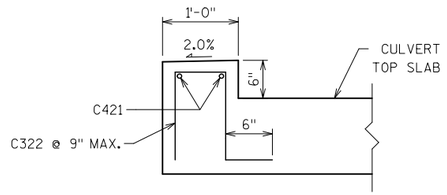




INLET NOSE CENTERWALL DETAIL

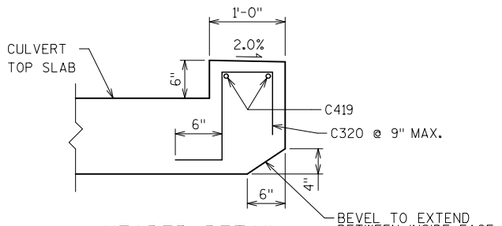
WING & APRON REINFORCEMENT

PLAN



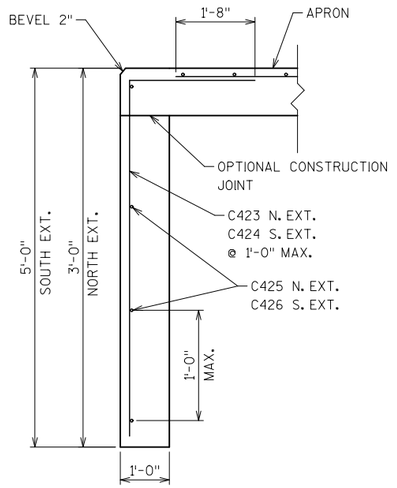
HEADER DETAIL

SOUTH EXT.

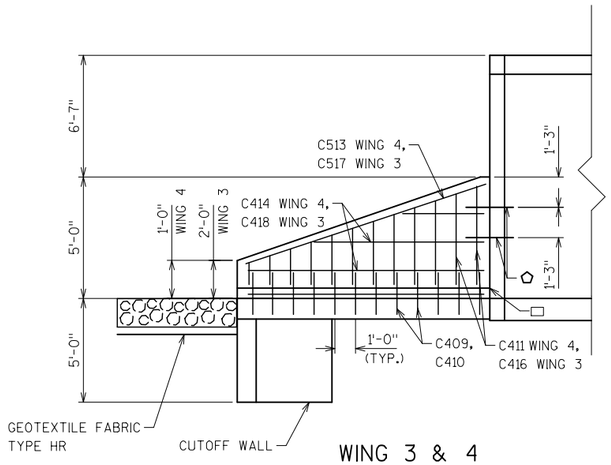


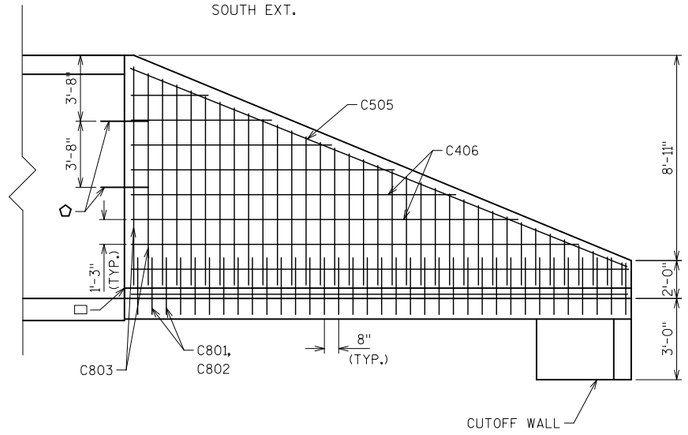
HEADER DETAIL

NORTH EXT.



CUTOFF WALL DETAIL





WING REINFORCEMENT

ELEVATION

NOTE

SEE "CULVERT DETAILS" SHEET FOR BILL OF BARS.

LEGEND

⬠ 1" DIAMETER SMOOTH ROUND BAR, 2'-6" LONG BETWEEN BARREL & WINGS. EMBED 1'-3" INTO BARREL WALL. USE DEBONDER ON EXTENSION INTO WING. BEND AS REQ'D. GALVANIZE OR EPOXY COAT AFTER BENDING. TWO BARS FOR EACH WINGWALL. INCLUDE IN BID ITEM "CONCRETE MASONRY CULVERTS."

□ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING FROM HORIZ. CONSTR. JT. TO TOP OF WINGWALL & ALONG HORIZ. CONSTR. JT. IN WING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-29

DRAWN BY MRL | PLANS CK'D. JDB

WINGWALL DETAILS

SHEET 4 OF 6
444

8

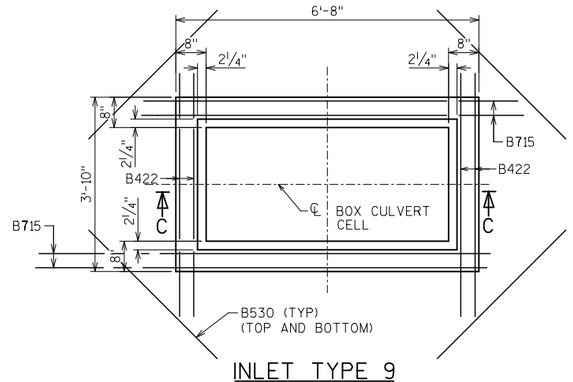
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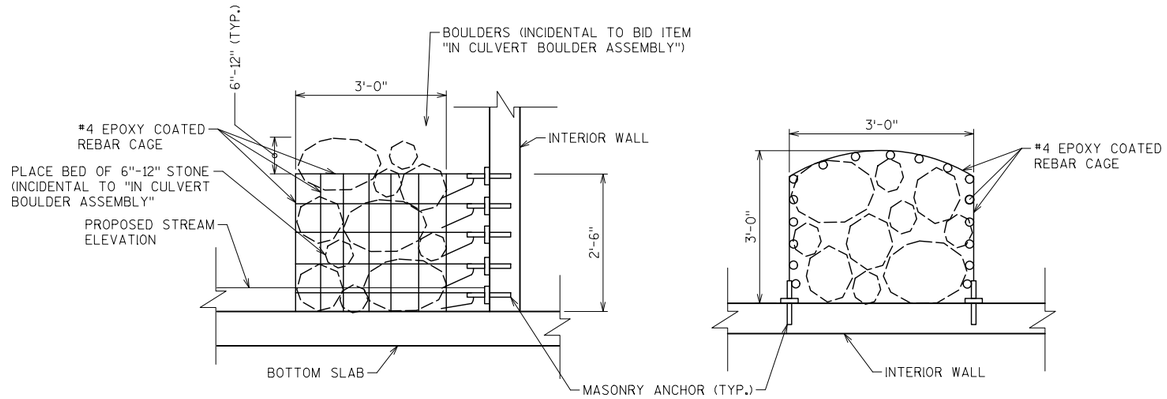
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STATE PROJECT NUMBER

9200-04-71



INLET TYPE 9



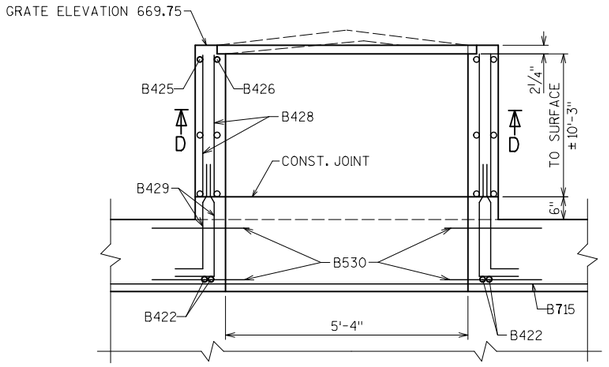
SECTION THROUGH BOX

PLAN VIEW

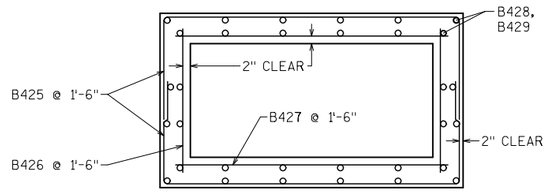
BILL OF BARS

ALL BARS IN THIS TABLE SHALL BE EPOXY COATED.

BAR MARK	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
C801	70	14'-7"	X		N. APRON CORNER
C802	70	7'-11"	X		N. APRON DOWEL
C803	140	5'-8"		X	N. WINGS VERT.
C404	23	31'-7"		X	N. APRON TRANSVERSE
C505	4	24'-2"			N. WING DIAGONAL- TOP
C406	36	12'-9"		X	N. WINGS HORIZ.
C407	28	24'-2"			N. APRON LONGIT.
C408	18	11'-10"		X	N. APRON LONGIT. @ ENDS
C409	23	8'-5"	X		S. APRON CORNER
C410	23	3'-11"	X		S. APRON DOWEL
C411	22	2'-8"		X	S. WING 4 VERT.
C412	11	28'-6"		X	S. APRON TRANSVERSE
C513	2	10'-1"			S. WING 4 DIAGONAL- TOP
C414	8	7'-0"		X	S. WING 4 HORIZ.
C415	35	12'-1"			S. APRON LONGIT.
C416	24	2'-8"		X	S. WING 3 VERT.
C517	2	11'-2"			S. WING 3 DIAGONAL- TOP
C418	8	7'-9"		X	S. WING 3 HORIZ.
C419	2	26'-2"			N. HEADER HORIZ.
C320	36	2'-9"	X		N. HEADER VERT.
C421	2	27'-7"			S. HEADER HORIZ.
C322	38	4'-5"	X		S. HEADER VERT.
C423	40	5'-3"	X		N. CUTOFF WALL VERT.
C424	31	7'-3"	X		S. CUTOFF WALL VERT.
C425	4	37'-11"			N. CUTOFF WALL HORIZ.
C426	6	30'-0"			S. CUTOFF WALL HORIZ.



SECTION C-C



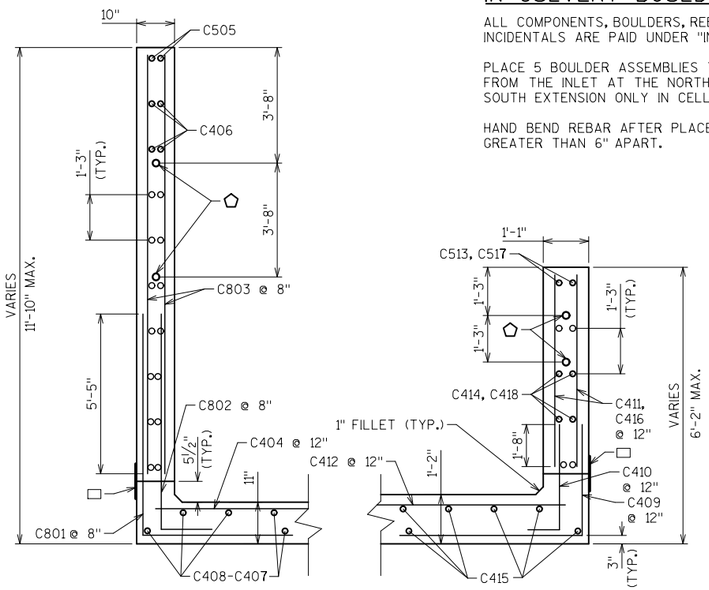
SECTION D-D

INLET NOTES

FIELD CUT BAR STEEL REINFORCEMENT IN TOP SLAB TO CLEAR THE OPENING PROVIDED FOR MEDIAN INLET.

ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK. MAXIMUM ADJUSTMENT SHALL BE 8".

SEE "REINFORCEMENT DETAILS" SHEET FOR BILL OF BARS.



WINGS 1& 2 WINGS 3 & 4

SECTION THRU WINGWALLS

IN CULVERT BOULDER ASSEMBLY

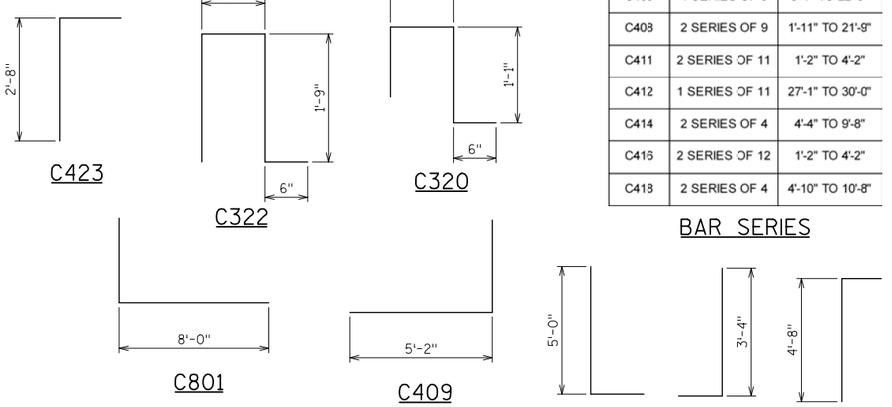
ALL COMPONENTS, BOULDERS, REBAR, EYE BOLT ASSEMBLY, ANCHORS AND INCIDENTALS ARE PAID UNDER "IN CULVERT BOULDER ASSEMBLY".

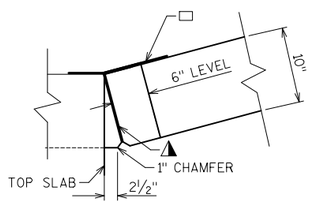
PLACE 5 BOULDER ASSEMBLIES TO AID IN FISH PASSAGE EQUALLY SPACED FROM THE INLET AT THE NORTH EXTENSION TO THE OUTLET AT THE SOUTH EXTENSION ONLY IN CELL THAT CARRIES FLOW.

HAND BEND REBAR AFTER PLACEMENT THROUGH EYE BOLT. SPACE BARS NO GREATER THAN 6" APART.

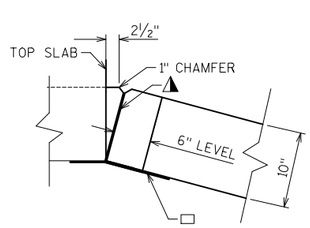
BAR MARK	NO. REQ'D	LENGTH
C803	4 SERIES OF 35	1'-2" TO 10'-1"
C404	1 SERIES OF 23	26'-2" TO 37'-0"
C405	4 SERIES OF 9	3'-1" TO 22'-6"
C408	2 SERIES OF 9	1'-11" TO 21'-9"
C411	2 SERIES OF 11	1'-2" TO 4'-2"
C412	1 SERIES OF 11	27'-1" TO 30'-0"
C414	2 SERIES OF 4	4'-4" TO 9'-8"
C416	2 SERIES OF 12	1'-2" TO 4'-2"
C418	2 SERIES OF 4	4'-10" TO 10'-8"

BAR SERIES

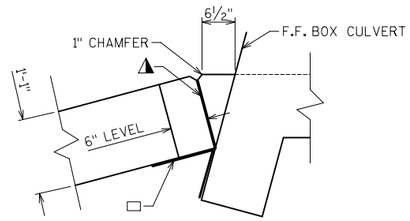




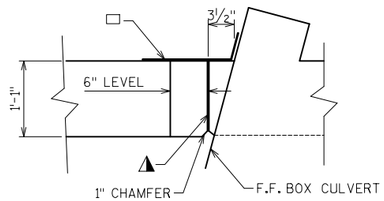
CORNER DETAIL
WING 1



CORNER DETAIL
WING 2



CORNER DETAIL
WING 3



CORNER DETAIL
WING 4

LEGEND

▲ ¾" JOINT FILLER TO EXTEND FROM TOP OF CONSTRUCTION JOINT TO TOP OF WINGWALL

□ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING FROM HORIZ. CONSTR. JT. TO TOP OF WINGWALL & ALONG HORIZ. CONSTR. JT. IN WING.

✪ 1" DIAMETER SMOOTH ROUND BAR, 2'-6" LONG BETWEEN BARREL & WINGS. EMBED 1'-3" INTO BARREL WALL. USE DEBONDER ON EXTENSION INTO WING. BEND AS REQ'D. GALVANIZE OR EPOXY COAT AFTER BENDING. TWO BARS FOR EACH WINGWALL. INCLUDE IN BID ITEM "CONCRETE MASONRY CULVERTS."

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-29

DRAWN BY MRL PLANS CK'D. JDB

CULVERT DETAILS

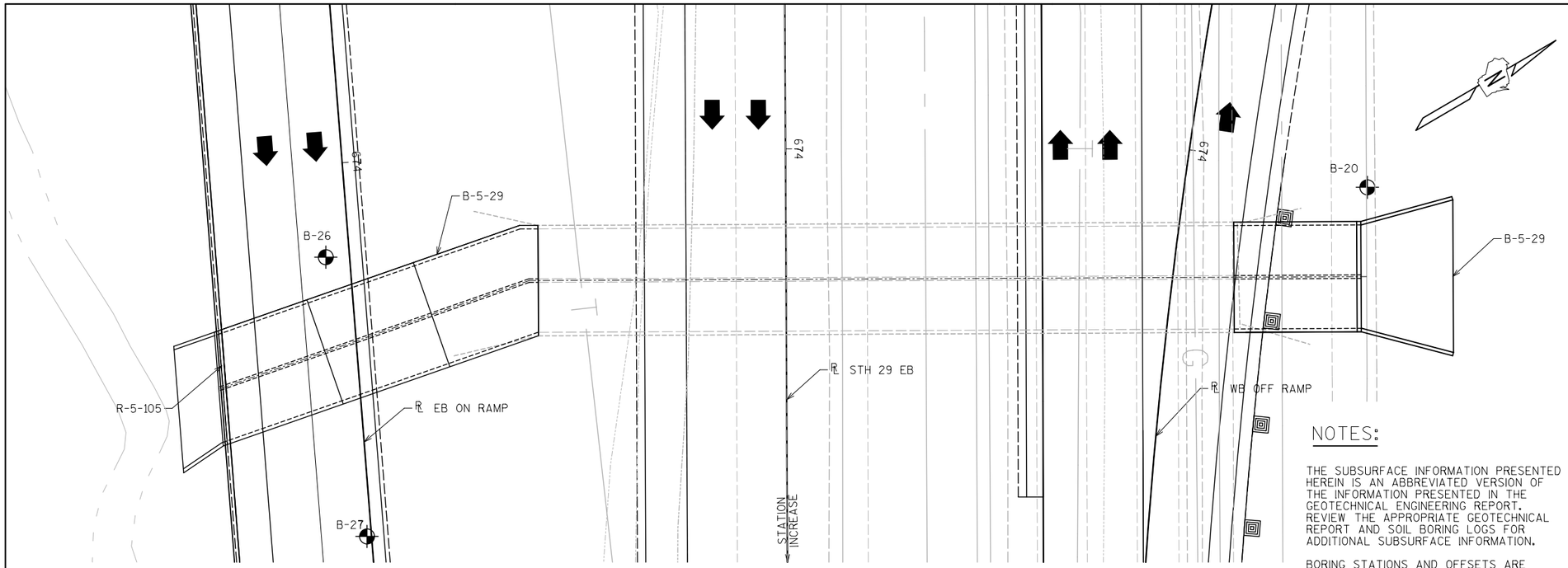
SHEET 5 OF 6
445

DATE: 1/16/2013
I.D.

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8

8



PLAN

SOIL BORING TAKEN:

JANUARY 6, 2011 - BORING B-20
JANUARY 13, 2011 - BORING B-26
DECEMBER 28, 2010 - BORING B-27

NOTES:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

BORING STATIONS AND OFFSETS ARE BASED ON:
WB OFF RAMP ℄ FOR B-20
EB ON RAMP ℄ FOR B-26, B-27

DENOTES SOIL BORING LOCATION

SOIL BORINGS COMPLETED BY:
PROFESSIONAL SERVICE INDUSTRIES, INC.

ELEVATION

STATE PROJECT NUMBER

9200-04-71

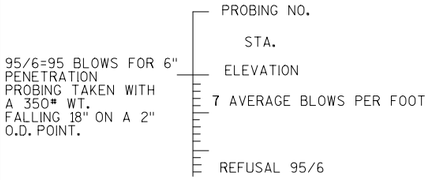
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

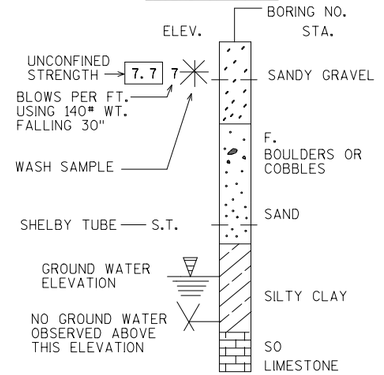
MATERIAL SYMBOLS

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 B-5-29

DRAWN BY MRL PLANS CK'D. JDB

SUBSURFACE EXPLORATION

SHEET 6 OF 6
446

8

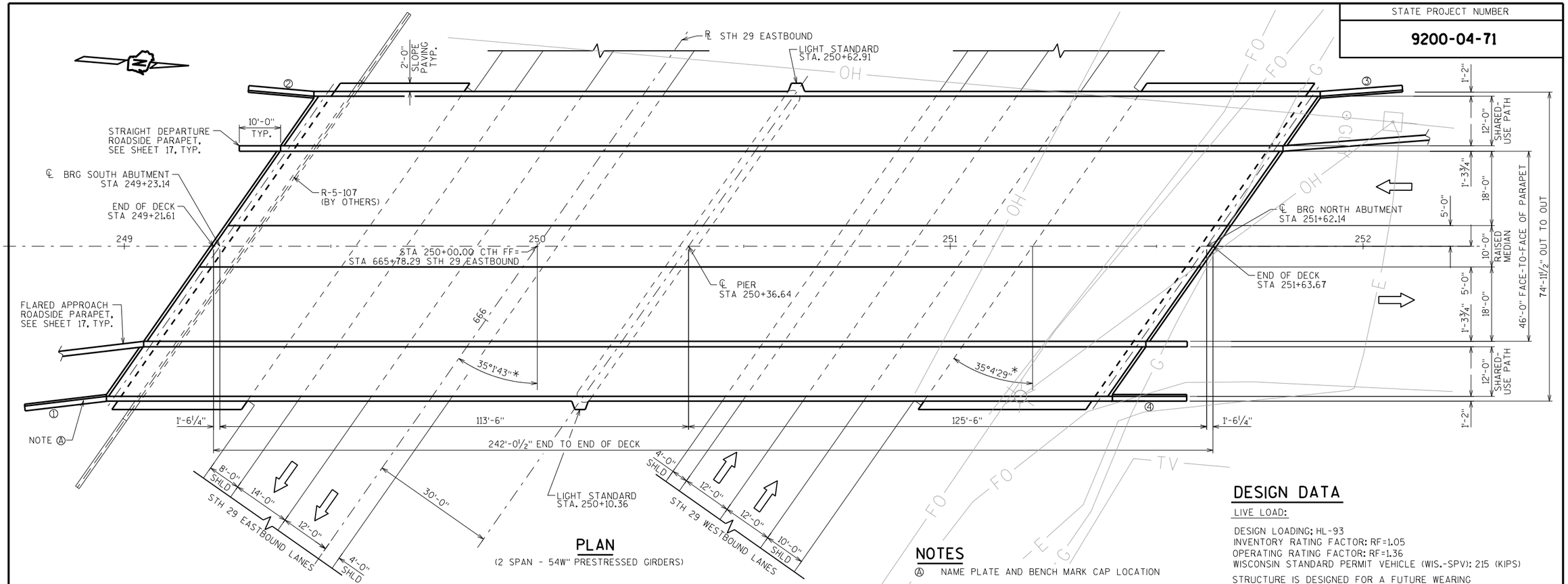
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DATE: 1/16/2013
I.D.

STATE PROJECT NUMBER

9200-04-71



PLAN

(2 SPAN - 54W" PRESTRESSED GIRDERS)

NOTES

Ⓐ NAME PLATE AND BENCH MARK CAP LOCATION

* THE SKEW OF B-05-402 IS TO BE MEASURED FROM THE ℄ FOR STH 29 EASTBOUND (35°-1'-43")

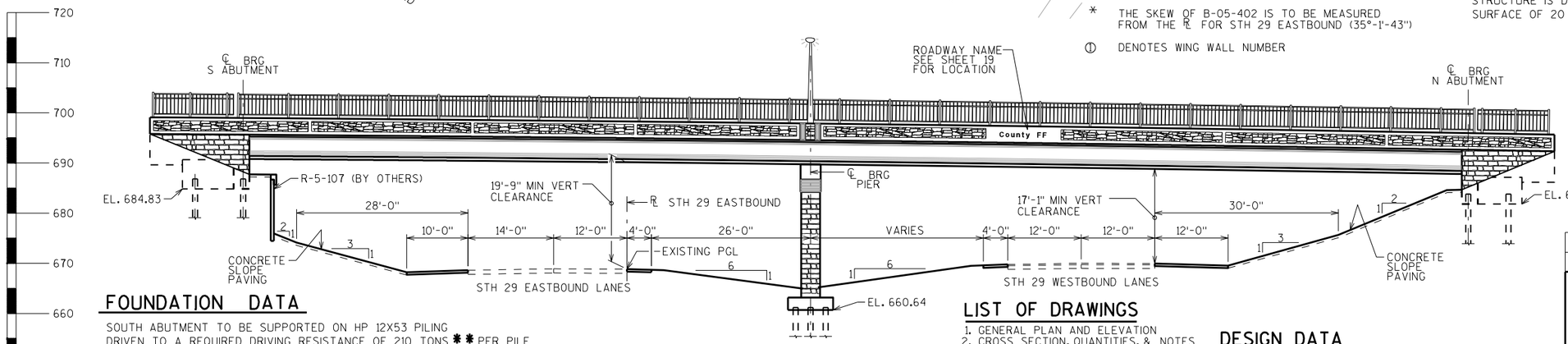
① DENOTES WING WALL NUMBER

DESIGN DATA

LIVE LOAD:

DESIGN LOADING; HL-93
INVENTORY RATING FACTOR: RF=1.05
OPERATING RATING FACTOR: RF=1.36
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 215 (KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.



ELEVATION

NORMAL TO STH 29

FOUNDATION DATA

SOUTH ABUTMENT TO BE SUPPORTED ON HP 12X53 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 80'-0" LONG.

NORTH ABUTMENT TO BE SUPPORTED ON HP 12X53 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 220 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 80'-0" LONG.

PIER TO BE SUPPORTED ON HP12X53 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 220 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 85'-0" 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.

TRAFFIC DATA

STH 29	CTH FF
A.A.D.T. (2014) = 32,000	A.A.D.T. (2014) = 5,400
A.A.D.T. (2034) = 50,000	A.A.D.T. (2034) = 14,500
RDS = 70 MPH	RDS = 45 MPH

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. CROSS SECTION, QUANTITIES, & NOTES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT DETAILS
6. NORTH ABUTMENT
7. NORTH ABUTMENT DETAILS
8. PIER
9. STEEL DIAPHRAGM
10. 54W" PRESTRESSED GIRDER DETAILS
11. 54W" PRESTRESSED GIRDER DETAILS
12. SUPERSTRUCTURE
13. SUPERSTRUCTURE DETAILS
14. PARAPET "A" ELECTRICAL WORK
15. VERTICAL FACE PARAPET "A"
16. ORNAMENTAL PROTECTIVE SCREENING
17. SLOPED FACE PARAPET "51F"
18. PARAPET FOOTING
19. AESTHETICS DETAILS
20. SLOPE PAVING (CONCRETE CAST-IN-PLACE)
21. ALTERNATE CONSTRUCTION JOINT

DESIGN DATA

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY
SLAB ..... f'c = 4,000 psi
ALL OTHER ..... f'c = 3,500 psi

BAR STEEL REINFORCEMENT, HIGH STRENGTH, GRADE 60 .....fy = 60,000 psi

54W-INCH PRESTRESSED GIRDERS, CONCRETE MASONRY .....f'c = 8,000 psi

0.6" DIA. PRESTRESSING STRANDS f's = 270,000 psi

STRUCTURES CONTACTS:
ANDREW SMITH (608) 266-0989
DAVE KIEKBUSCH (608) 266-5084

NO.	DATE	REVISION	BY

Plans Prepared By **WISDOT**
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher 1/31/13
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-05-402

CTH FF OVER STH 29

COUNTY	~~TOWN/CITY~~/VILLAGE
BROWN	HOBART

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ADS	NAR	DDS	ADS

GENERAL PLAN

SHEET 1 OF 21

447

I.D. 9200-04-00

DATE: **JAN. 2013**

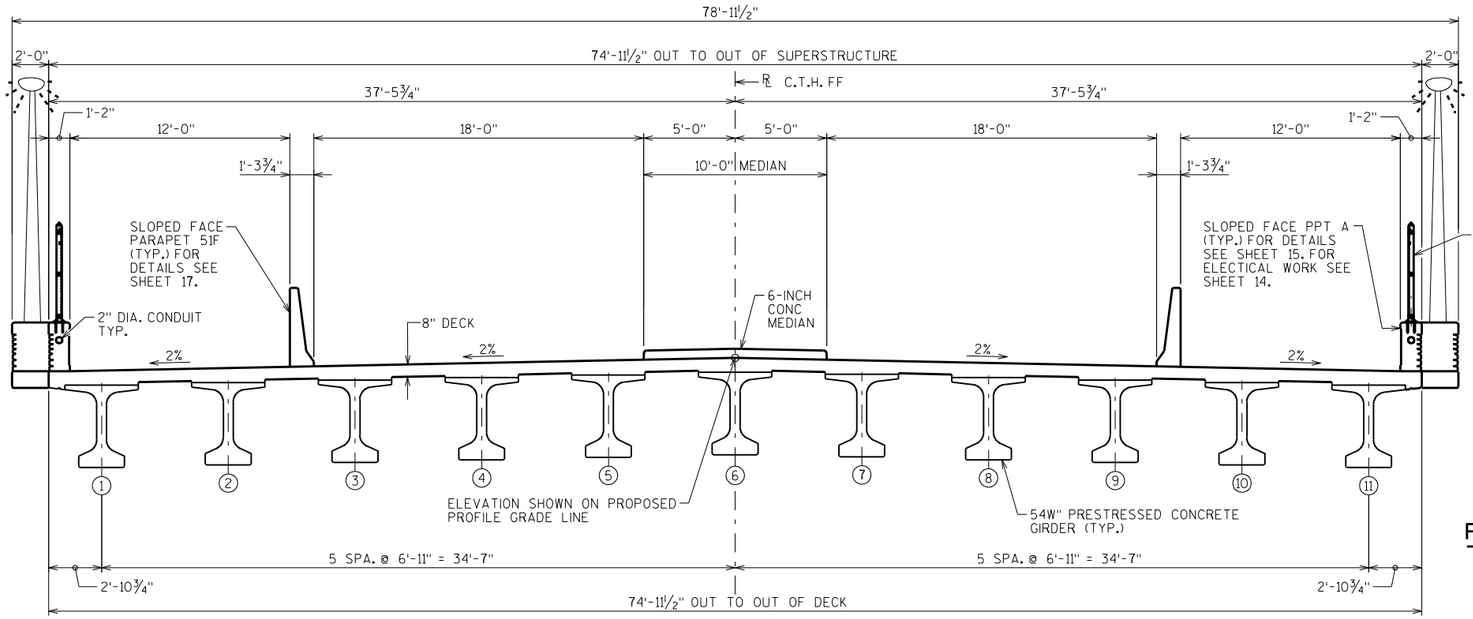
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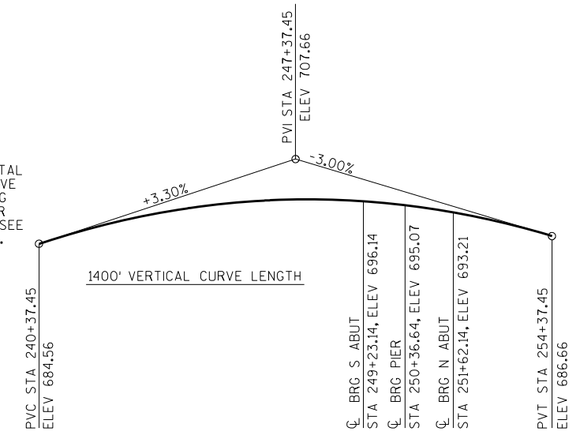
STATE PROJECT NUMBER

9200-04-71



CROSS SECTION THRU ROADWAY

AT RIGHT ANGLES TO ℄ OF ROADWAY (LOOKING NORTH)



PROPOSED PROFILE GRADE LINE ON CTH FF/SHERWOOD STREET

NTS

STH 29 DIMENSIONING AND ELEVATION IS BASED UPON THE EXISTING STH 29 EASTBOUND ℄ AND PROFILE GRADE LINE

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	PIER	TOTALS
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-05-402	LS	———	———	———	———	1
210.0100	BACKFILL STRUCTURE	CY	———	410	575	———	985
502.0100	CONCRETE MASONRY BRIDGES	CY	870	114	147	200	1331
502.3200	PROTECTIVE SURFACE TREATMENT	SY	2742	———	———	———	2742
503.0155	PRESTRESSED GIRDER TYPE I 54W-INCH	LF	2638	———	———	———	2638
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	———	5845	7190	4110	17145
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	165340	6060	6870	27235	205505
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	———	11	11	22	44
506.4000	STEEL DIAPHRAGMS B-05-402	EACH	40	———	———	———	40
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	———	21	22	———	43
517.1010.S	CONCRETE STAINING B-05-402	SF	4800	530	530	1400	7260
517.1015.S	CONCRETE STAINING MULTI-COLOR B-05-402	SF	1760	600	840	1790	4990
517.1050.S	ARCHITECTURAL SURFACE TREATMENT B-05-402	SF	1760	600	840	1790	4990
550.1200	PILING STEEL HP 12-INCH X 53 LB	LF	———	1280	1360	4675	7315
604.0400	SLOPE PAVING CONCRETE	SY	———	275	380	———	655
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	———	135	137	———	272
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	———	65	60	———	125
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	490	———	———	———	490
653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	2	———	———	———	2
657.6005.S	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH	2	———	———	———	2
SPV.0105	RAILING TUBULAR SPECIAL B-05-402	LS	———	———	———	———	1
	NON-BID ITEMS						
	FILLER	SIZE	———	———	———	———	½" & ¾"

GENERAL NOTES:

DRAWINGS SHALL NOT BE SCALED.

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

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

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), BROWN COUNTY - NAD 1983 (1991).

ELEVATIONS ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR CONSIDERED ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES.

* AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE LIMITS SHOWN.

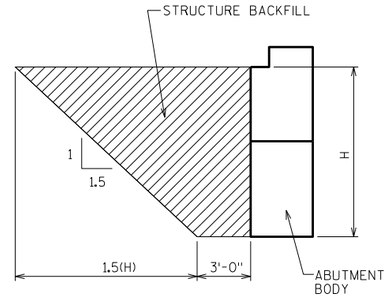
ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

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

PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE TOP OF THE DECK, SIDEWALKS AND ALL SURFACES OF MEDIAN, 51F PARAPET AND INSIDE & TOP OF OUTSIDE PARAPET.

THE EXISTING GROUND LINE IS THE UPPER LIMIT OF EXCAVATION FOR STRUCTURES BRIDGES B-05-402.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS.



*STRUCTURE BACKFILL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-402

DRAWN BY DDS | PLANS CK'D. ADS

CROSS SECTION & QUANTITIES

SHEET 2

448

SCALE = 4.00

8

8

NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

BORING STATIONS AND OFFSETS ARE BASED ON CTH FF ℄

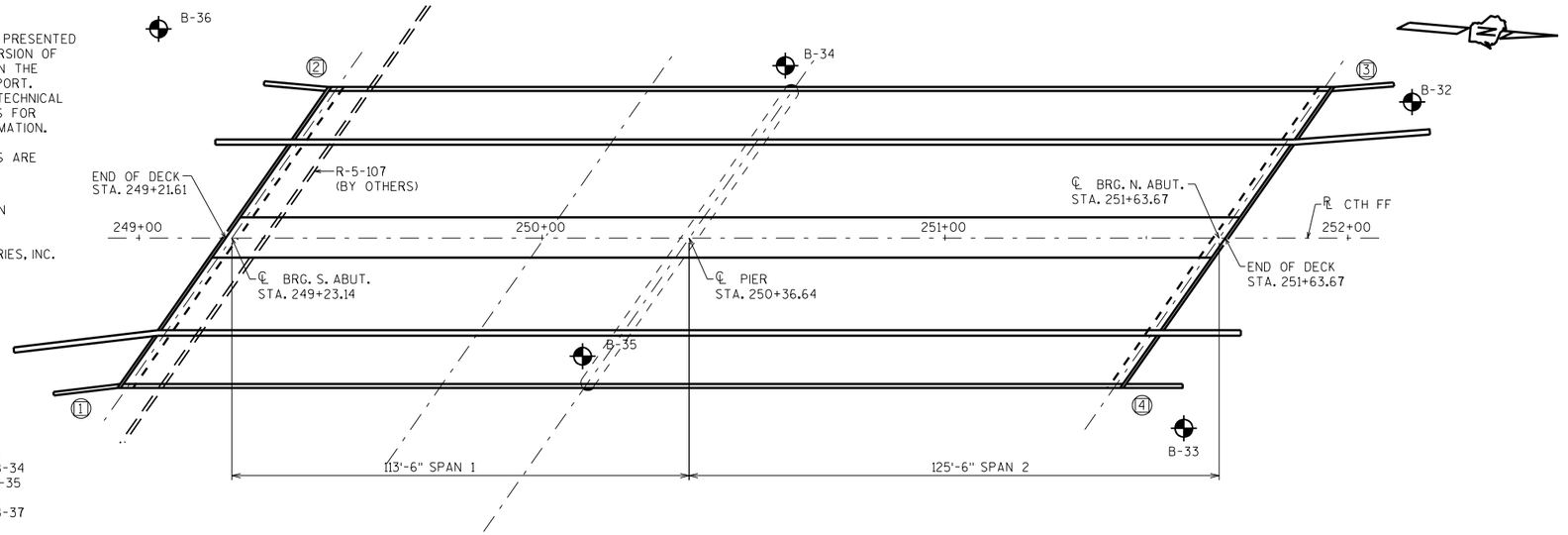
⊕ DENOTES SOIL BORING LOCATION

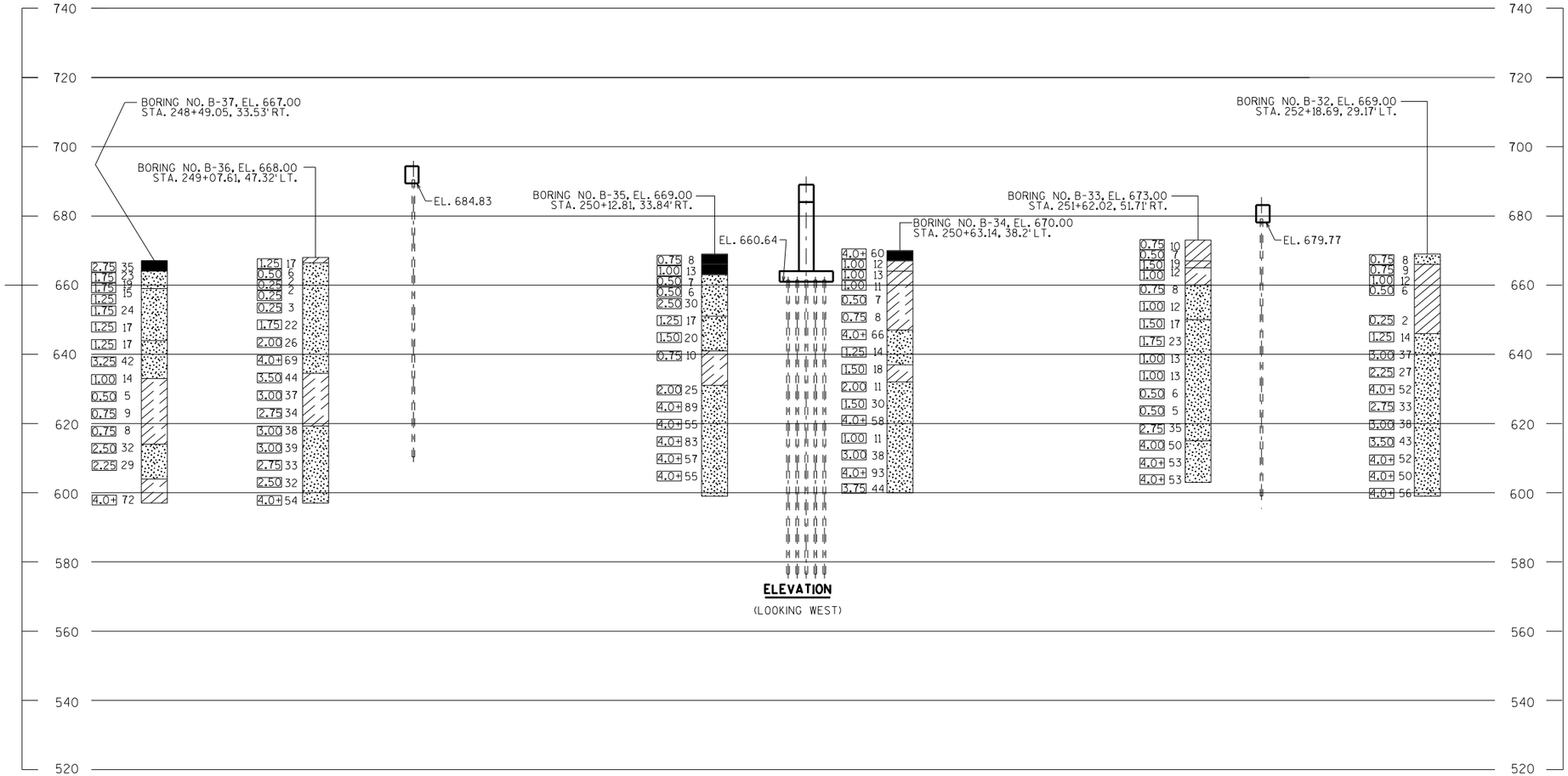
SOIL BORINGS COMPLETED BY:
PROFESSIONAL SERVICE INDUSTRIES, INC.

(1) INDICATES WING NUMBER

SOIL BORING TAKEN:

JANUARY 6, 2011 - BORING B-32
JANUARY 5, 2011 - BORING B-33
DECEMBER 22, 2010 - BORING B-34
DECEMBER 21, 2010 - BORING B-35
JANUARY 4, 2011 - BORING B-36
DECEMBER 27, 2010 - BORING B-37





ELEVATION

(LOOKING WEST)

STATE PROJECT NUMBER

9200-04-71

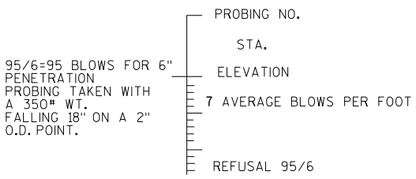
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

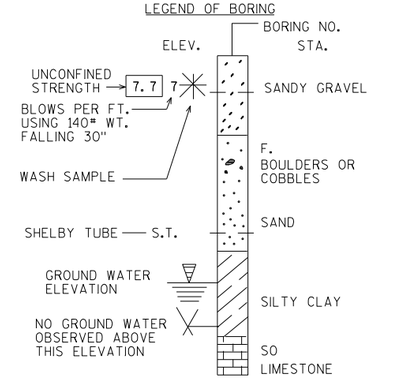
MATERIAL SYMBOLS

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 B-05-402

DRAWN BY MMM/DDS | PLANS CK'D. ADS

SUBSURFACE EXPLORATION

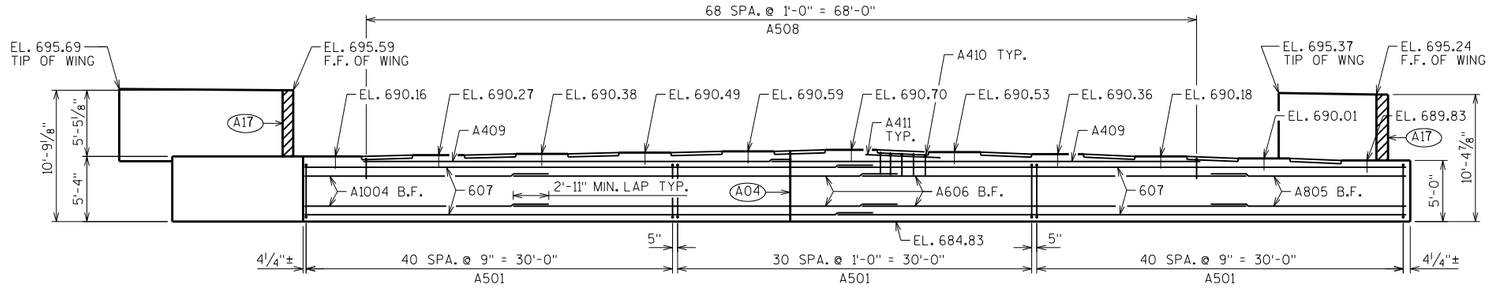
SHEET 3

449

SCALE =

STATE PROJECT NUMBER

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ELEVATION - LOOKING SOUTH

(A04) VERT. CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 x 8. 3/4" "V" GROOVE @ THE FRONT FACE AND 18" R.M.W. @ BACKFACE. FOR OPTIONAL DETAILS SEE "ALTERNATE CONSTRUCTION JOINT" SHEET.

(A07) SUPPORT ABUTMENT ON HP 12 x 53 STEEL PILING, ESTIMATED 80'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A18) 3/4" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

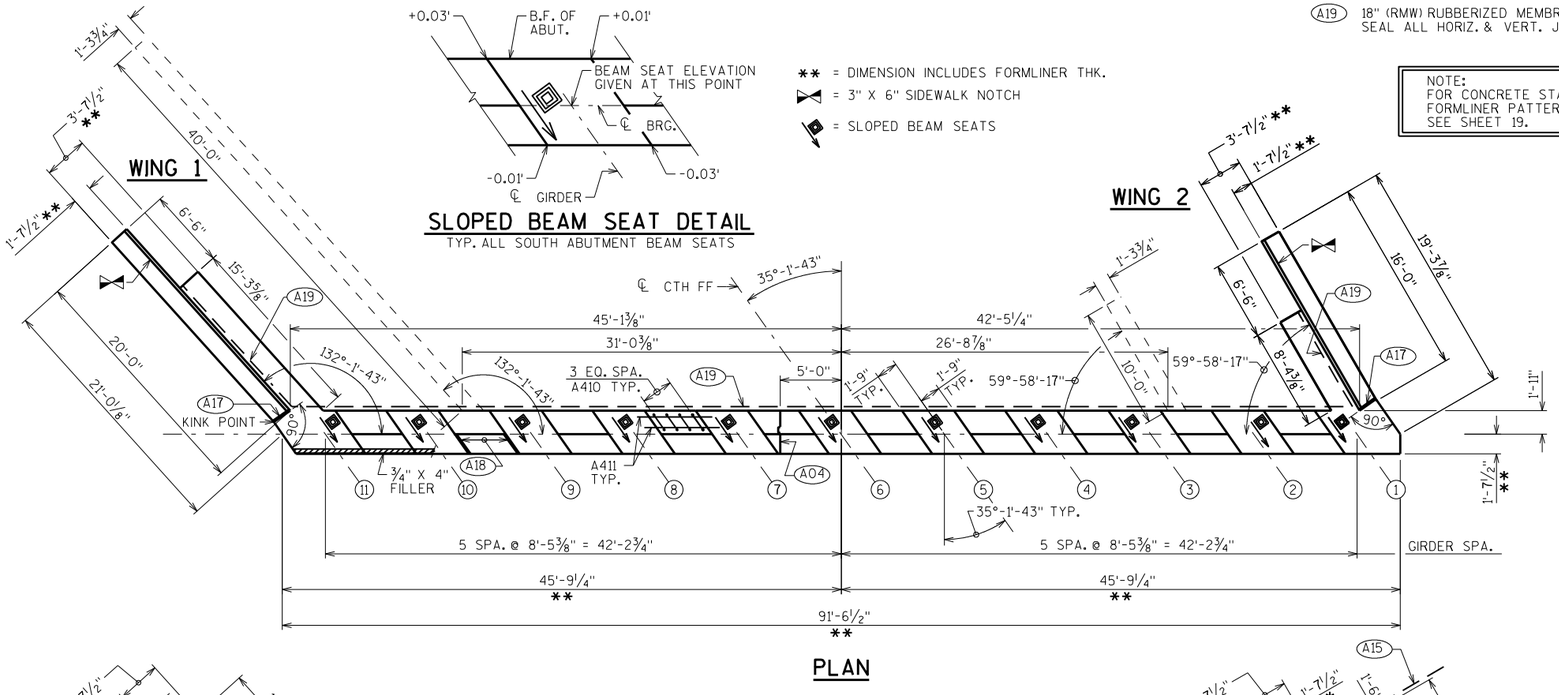
(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NOTE:
FOR CONCRETE STAINING AND FORMLINER PATTERN/DETAILS SEE SHEET 19.

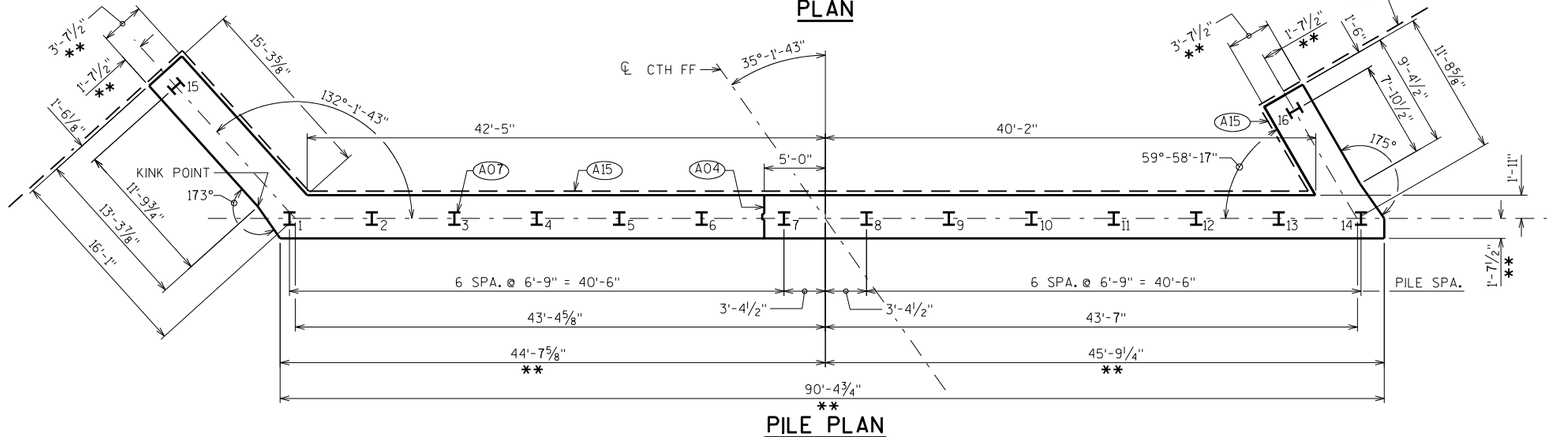
SLOPED BEAM SEAT DETAIL

TYP. ALL SOUTH ABUTMENT BEAM SEATS

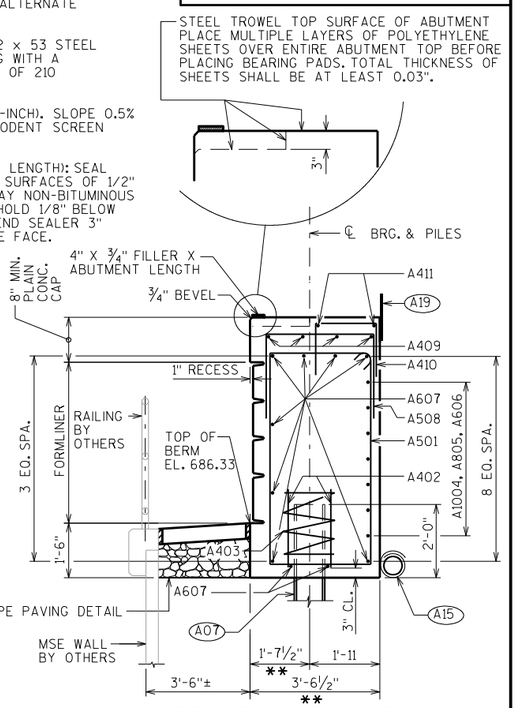
** = DIMENSION INCLUDES FORMLINER THK.
= 3" X 6" SIDEWALK NOTCH
= SLOPED BEAM SEATS



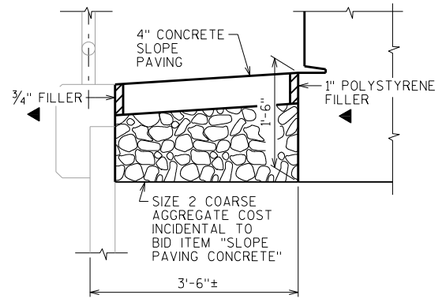
PLAN



PILE PLAN



SECTION THRU BODY



SLOPE PAVING DETAIL

◀ SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSTYRENE WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW THE SURFACE OF THE CONCRETE).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-402

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SOUTH ABUTMENT

SHEET 4

450

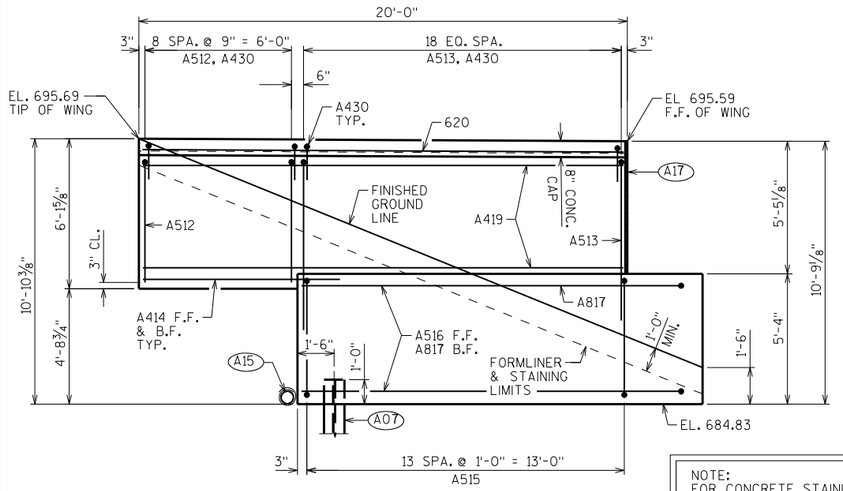
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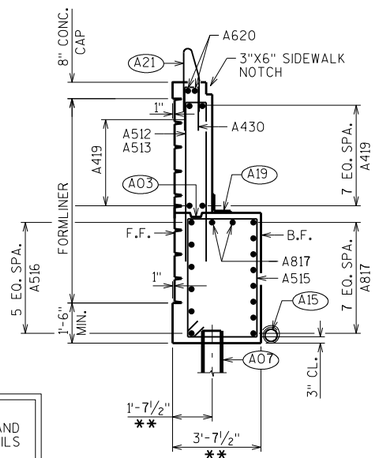
STATE PROJECT NUMBER

9200-04-71



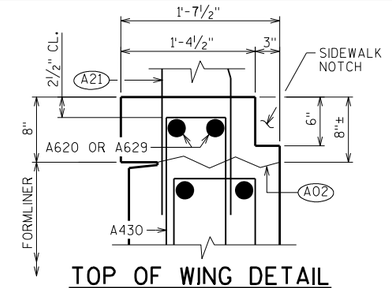
ELEVATION - WING 1

NOTE:
FOR CONCRETE STAINING AND FORMLINER PATTERN/DETAILS SEE SHEET 19.

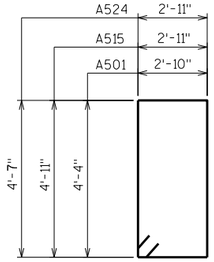


SECTION THRU WING 1

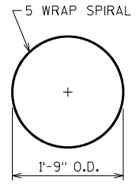
** = DIMENSION INCLUDES FORMLINER THK.



TOP OF WING DETAIL



A501, A515, A524

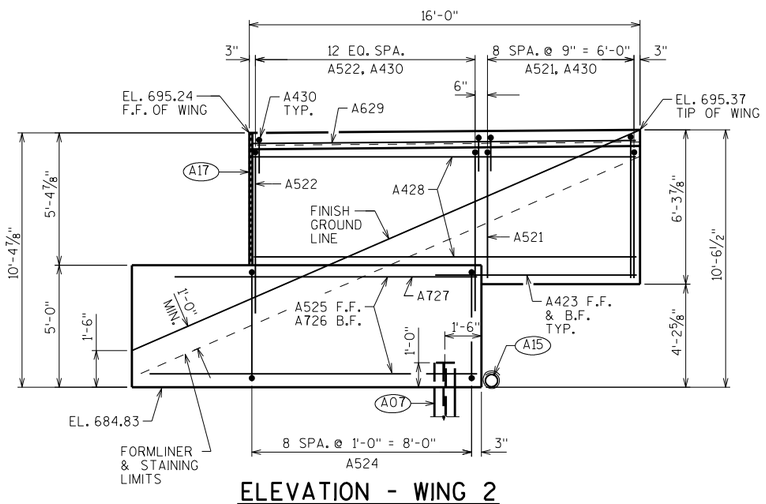


A403

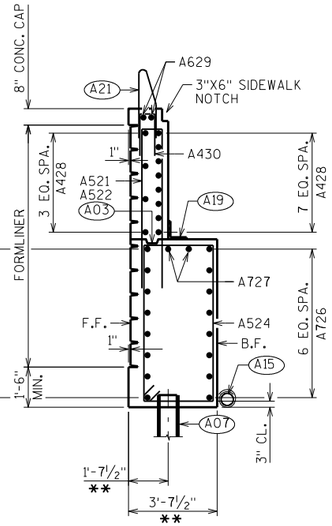
BILL OF BARS

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

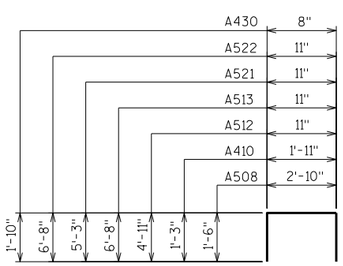
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501		113	15'-0"	X		BODY - STIRRUP
A402		28	2'-3"			BODY - VERT. - 2 PER BODY PILE
A403		14	28'-0"	X		BODY - VERT. - 1 PER BODY PILE
A1004		7	20'-0"			BODY - HORIZ. - B.F.
A805		7	16'-0"			BODY - HORIZ. - B.F.
A606		14	32'-0"			BODY - HORIZ. - B.F.
A607		20	47'-1"			BODY - HORIZ.
A508		69	5'-7"	X		BODY - VERT.
A409		8	35'-1"			BODY - HORIZ.
A410		40	4'-2"	X		BODY - VERT. - BETWEEN GIRDERS
A411		20	6'-3"			BODY - HORIZ. - BETWEEN GIRDERS
A512	X	9	10'-6"	X		WING 1 - VERT.
A513	X	19	14'-0"	X		WING 1 - VERT.
A414	X	2	7'-9"			WING 1 - HORIZ.
A515	X	14	16'-4"	X		WING 1 - STIRRUP
A516	X	6	16'-2"			WING 1 - HORIZ. - F.F.
A817	X	10	17'-11"	X		WING 1 - HORIZ. - B.F.
A818	X	NOT	USED			
A419	X	12	19'-5"			WING 1 - HORIZ.
A620	X	2	19'-5"			WING 1 - HORIZ. - TOP
A521	X	9	11'-2"	X		WING 2 - VERT.
A522	X	13	14'-0"	X		WING 2 - VERT.
A423	X	2	7'-9"			WING 2 - HORIZ.
A524	X	10	15'-8"	X		WING 2 - STIRRUP
A525	X	6	12'-6"			WING 2 - HORIZ. - F.F.
A726	X	7	11'-0"			WING 2 - HORIZ. - B.F.
A727	X	2	11'-7"			WING 2 - HORIZ.
A428	X	12	15'-6"			WING 2 - HORIZ.
A629	X	2	15'-6"			WING 2 - HORIZ. - TOP
A430	X	50	4'-2"	X		WINGS1&2 - VERT. - TOP



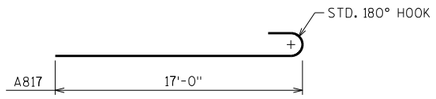
ELEVATION - WING 2



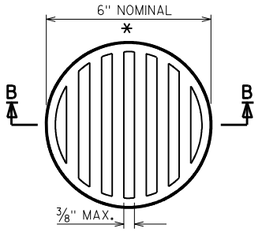
SECTION THRU WING 2



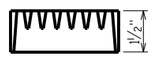
A508, A410, A512, A513, A521, A522, A430



A817



RODENT SCREEN DETAIL

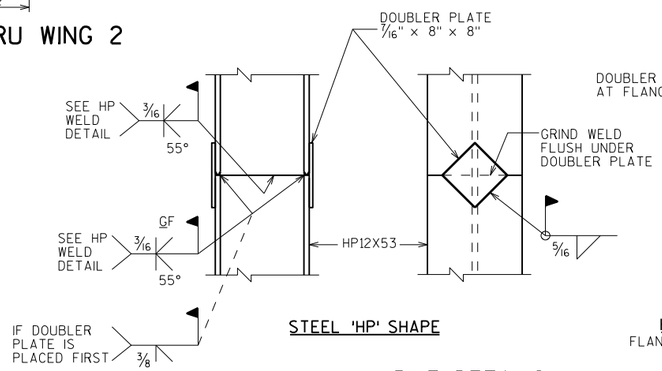


SECTION B-B

* 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.



STEEL 'HP' SHAPE

HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

PILE DETAILS

(A02) CONSTRUCTION JOINT: POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" R.M.W. @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(A07) SUPPORT ABUTMENT ON HP 12 x 53 STEEL PILING, ESTIMATED 80'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

(A21) FOR PPT. BARS & DIMENSION SEE PARAPET SHT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-402

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SOUTH ABUTMENT DETAILS

SHEET 5

451

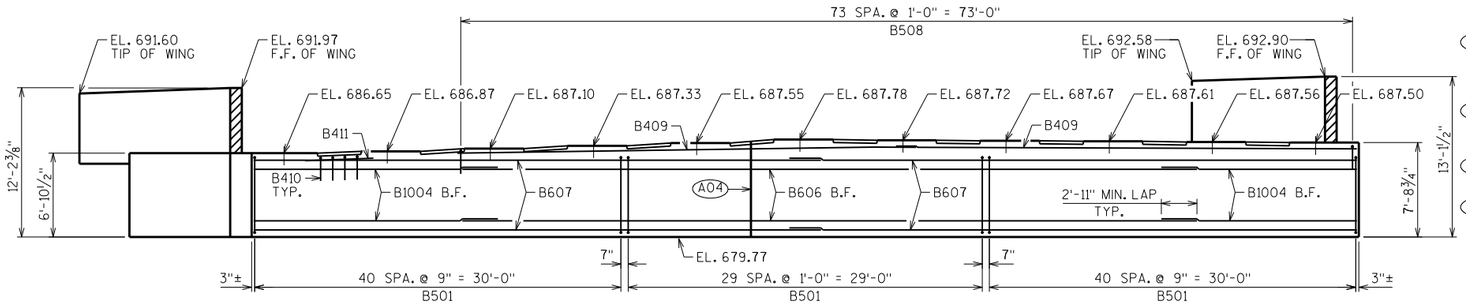
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STATE PROJECT NUMBER

9200-04-71



ELEVATION - LOOKING NORTH

A04 VERT. CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 x 8. 3/4" "V" GROOVE @ THE FRONT FACE AND 18" R.M.W. @ BACKFACE. FOR OPTIONAL DETAILS SEE "ALTERNATE CONSTRUCTION JOINT" SHEET.

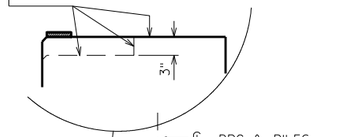
A07 SUPPORT ABUTMENT ON HP 12 x 53 STEEL PILING, ESTIMATED 80'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 220 TONS PER PILE.

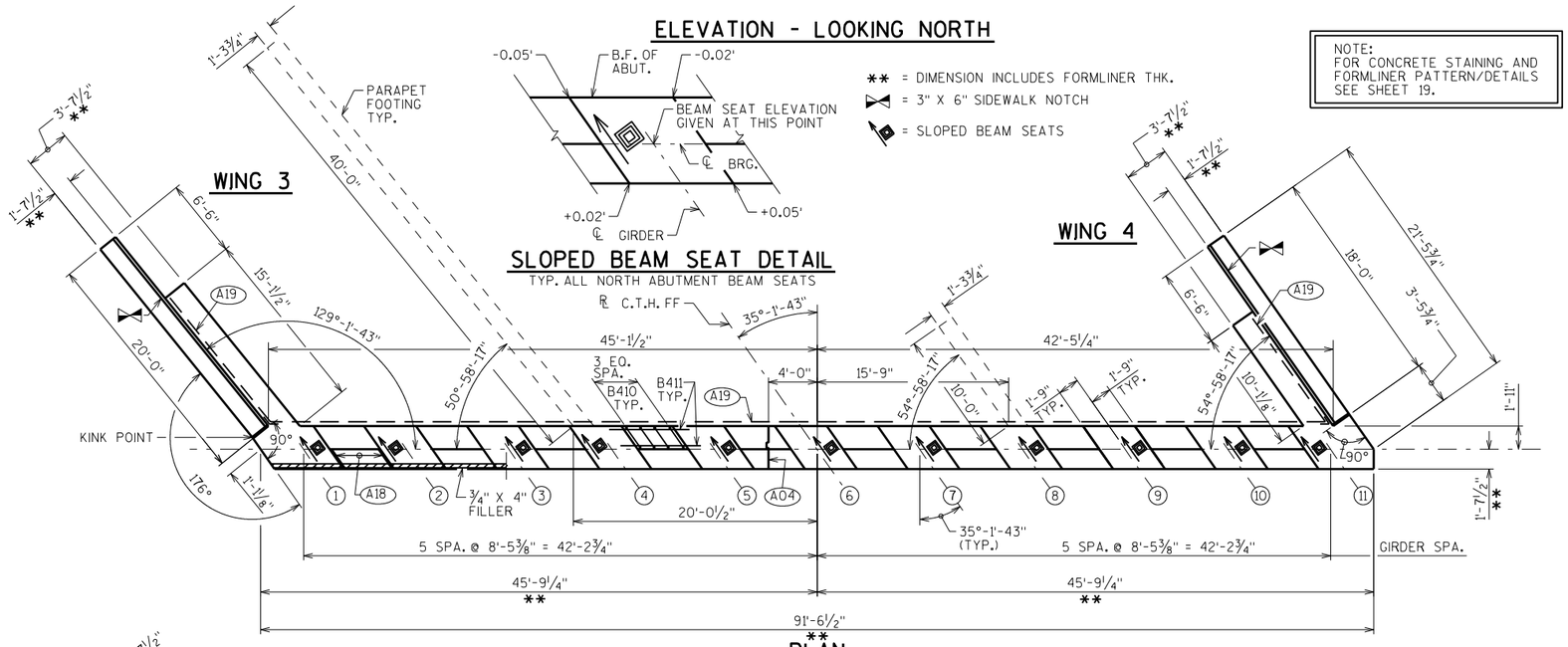
A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

A18 3/4" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

STEEL TROWEL TOP SURFACE OF ABUTMENT PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

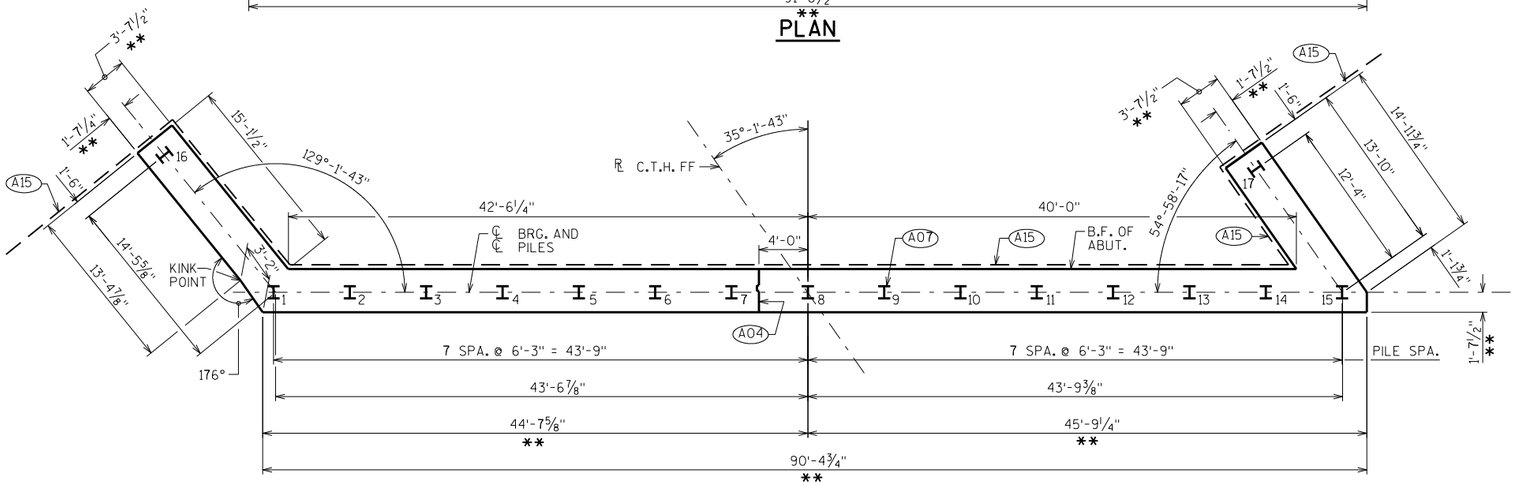




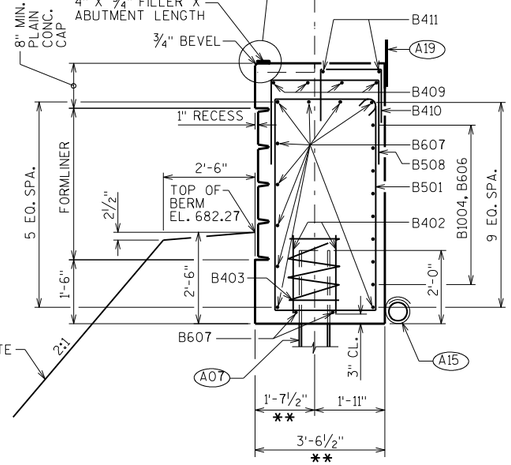
SLOPED BEAM SEAT DETAIL

TYP. ALL NORTH ABUTMENT BEAM SEATS

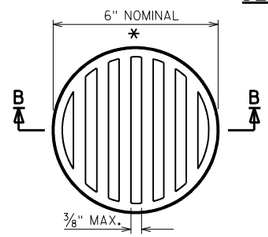
PLAN

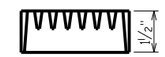


PILE PLAN



SECTION THRU BODY





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 B-05-402

DRAWN BY DDS | PLANS CK'D. ADS

NORTH ABUTMENT

SHEET 6

452

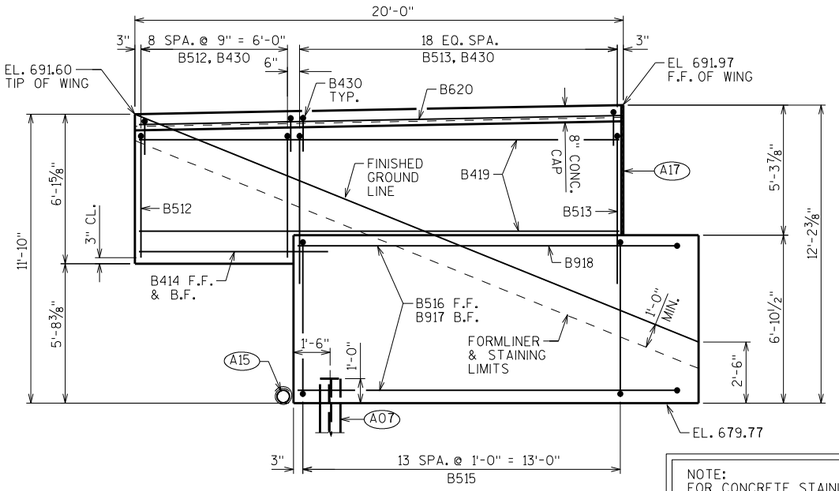
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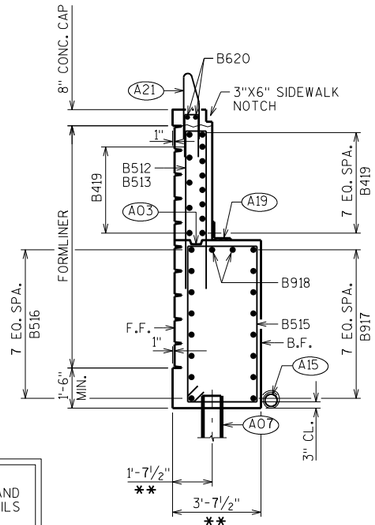
STATE PROJECT NUMBER

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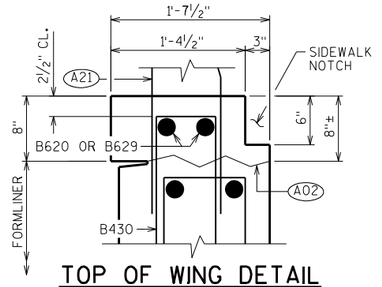
ELEVATION - WING 3

NOTE:
FOR CONCRETE STAINING AND FORMLINER PATTERN/DETAILS SEE SHEET 19.

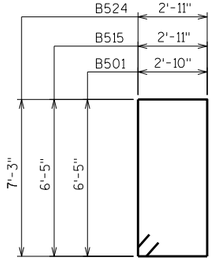


SECTION THRU WING 3

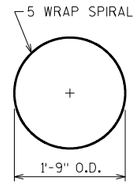
** = DIMENSION INCLUDES FORMLINER THK.



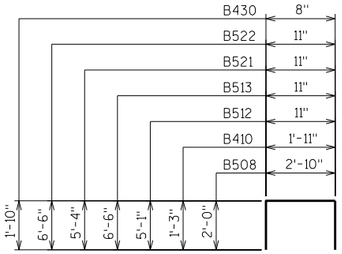
TOP OF WING DETAIL



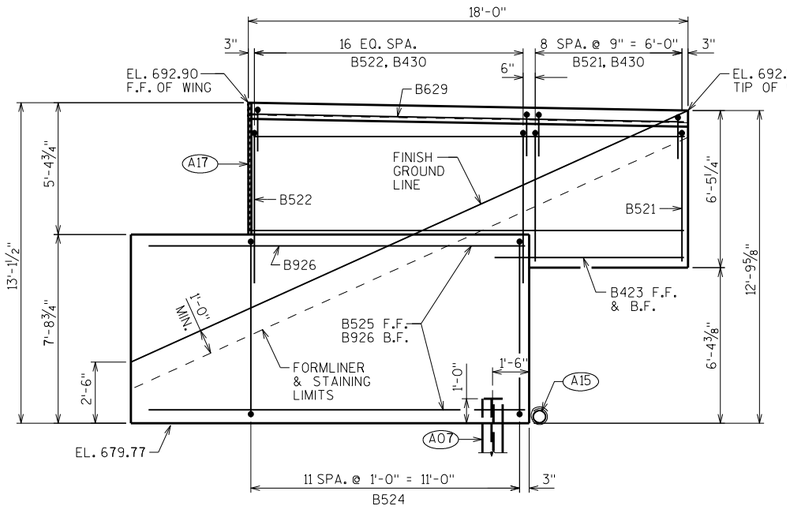
B501, B515, B524



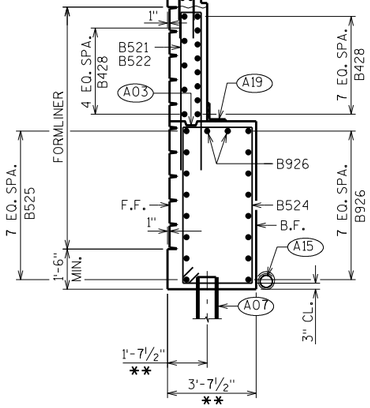
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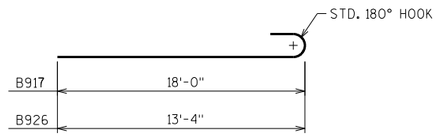
B508, B410, B512, B513, B521, B522, A430



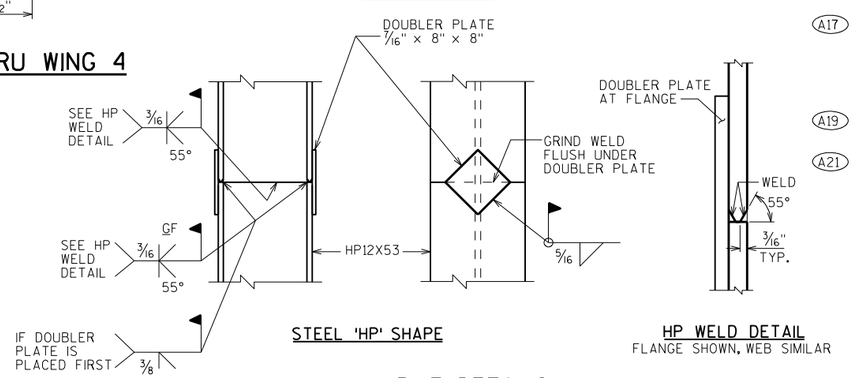
ELEVATION - WING 4



SECTION THRU WING 4



B917, B926



STEEL 'HP' SHAPE

HP WELD DETAIL
FLANGE SHOWN, WEB SIMILAR

PILE DETAILS

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		112	19'-2"	X		BODY - STIRRUP
B402		26	2'-3"			BODY - VERT. - 2 PER BODY PILE
B403		13	28'-0"	X		BODY - VERT. - 1 PER BODY PILE
B1004		16	20'-0"			BODY - HORIZ. - B.F.
B1005		NOT	USED			
B606		8	56'-10"			BODY - HORIZ. - B.F.
B607		24	47'-1"			BODY - HORIZ.
B508		74	6'-7"	X		BODY - VERT.
B409		8	37'-7"			BODY - HORIZ.
B410		40	4'-3"	X		BODY - VERT. - BETWEEN GIRDERS
B411		20	6'-8"			BODY - HORIZ. - BETWEEN GIRDERS
B512	X	9	10'-10"	X		WING 3 - VERT.
B513	X	19	13'-8"	X		WING 3 - VERT.
B414	X	2	7'-9"			WING 3 - HORIZ.
B515	X	14	19'-4"	X		WING 3 - STIRRUP
B516	X	8	16'-2"			WING 3 - HORIZ. - F.F.
B917	X	8	19'-3"	X		WING 3 - HORIZ. - B.F.
B918	X	2	16'-8"			WING 3 - HORIZ.
B419	X	12	19'-7"			WING 3 - HORIZ.
B620	X	2	19'-7"			WING 3 - HORIZ. - TOP
B521	X	9	11'-4"	X		WING 4 - VERT.
B522	X	17	13'-8"	X		WING 4 - VERT.
B423	X	2	7'-9"			WING 4 - HORIZ.
B524	X	12	21'-0"	X		WING 4 - STIRRUP
B525	X	8	14'-5"			WING 4 - HORIZ. - F.F.
B926	X	10	14'-7"	X		WING 4 - HORIZ. - B.F.
B927		NOT	USED			
B428	X	12	17'-8"			WING 4 - HORIZ.
B629	X	2	17'-8"			WING 4 - HORIZ. - TOP
B430	X	54	4'-2"	X		WINGS 3&4 - VERT. - TOP

(A02) CONSTRUCTION JOINT: POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" R.M.W. @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(A07) SUPPORT ABUTMENT ON HP 12 x 53 STEEL PILING, ESTIMATED 80'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 220 TONS PER PILE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

(A21) FOR PPT. BARS & DIMENSION SEE PARAPET SHT.

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STRUCTURE B-05-402

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NORTH ABUTMENT DETAILS

SHEET 7

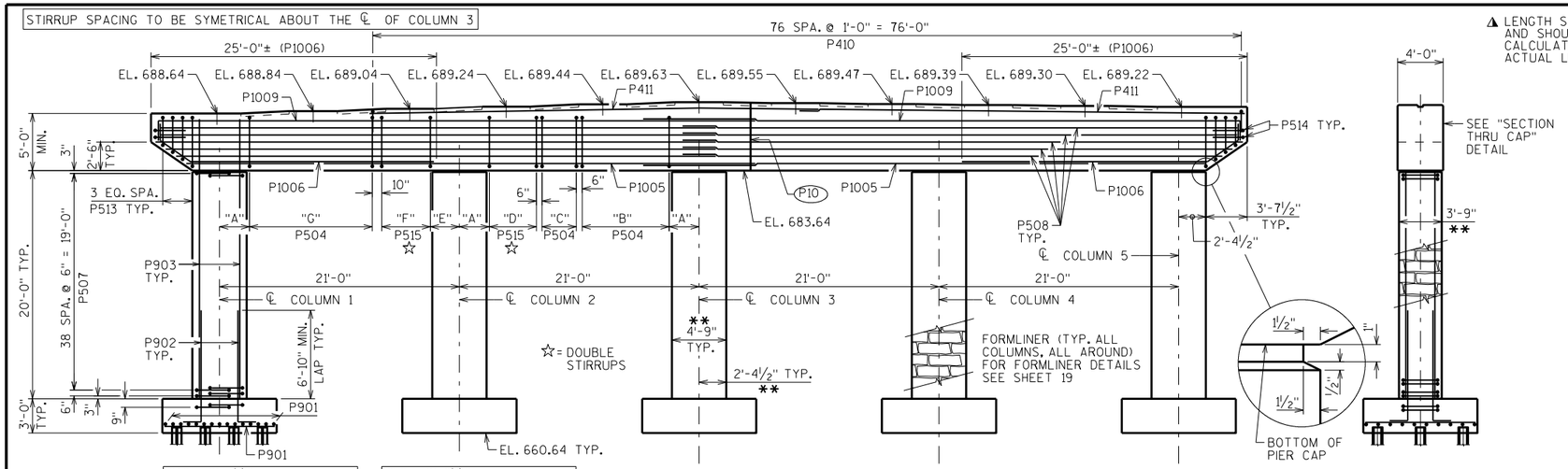
453

8

8

SCALE =

STIRRUP SPACING TO BE SYMETRICAL ABOUT THE ℄ OF COLUMN 3



"A" = 2'-7½"	"E" = 2'-6½"
"B" = 15 SPA. @ 6" = 7'-6"	"F" = 12 SPA. @ 5" = 5'-0"
"C" = 3 EQ. SPA. = 3'-3"	"G" = 12 SPA. @ 10" = 10'-0"
"D" = 8 SPA. @ 6" = 4'-0"	

ELEVATION
LOOKING NORTH

END ELEVATION

** = DIMENSION INCLUDES FORMLINER THK.

◭ = SLOPED BEAM SEATS

◭ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

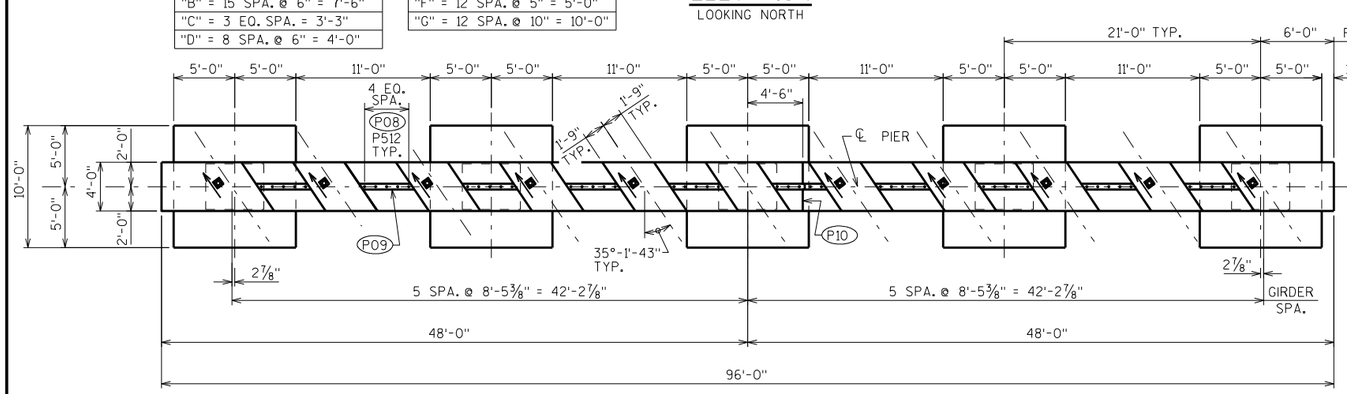
STATE PROJECT NUMBER

9200-04-71

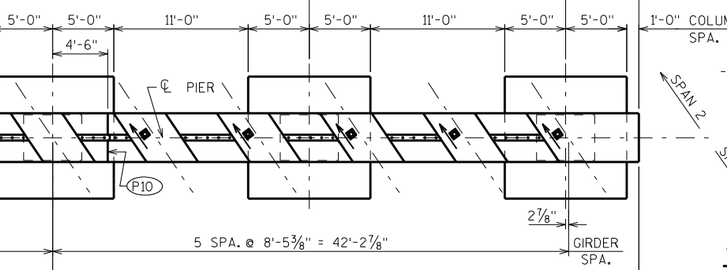
BILL OF BARS

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

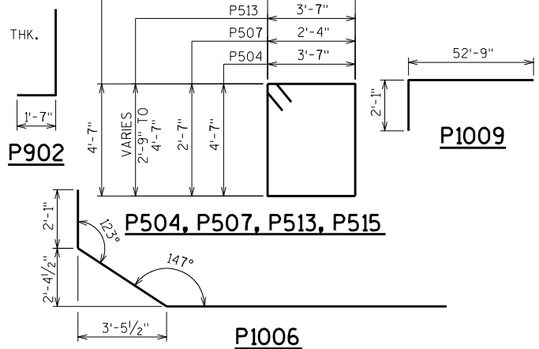
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
P901		125	9'-8"			FOOTING - HORIZ.
P902	X	100	10'-8"	X		FOOTING/COLUMN - VERT.
P903	X	100	24'-6"			COLUMN/CAP - VERT.
P504	X	66	17'-0"	X		CAP - STIRRUPS
P1005	X	14	49'-4"			CAP - HORIZ. - BOTTOM
P1006	X	6	27'-10"	X		CAP - HORIZ. - BOTTOM/ENDS
P507	X	410	10'-6"	X		FOOTING/COLUMN - HORIZ. - STIRRUP
P508	X	20	49'-3"			CAP - HORIZ. - SIDES
P1009	X	14	54'-6"	X		CAP - HORIZ. - TOP
P410	X	77	7'-5"	X		CAP - HORIZ. - VERT.
P411	X	8	39'-0"			CAP - HORIZ. - TOP
P512	X	50	2'-0"			DOWEL BARS
◭ P513	X	8	15'-2"	X	◭	CAP - STIRRUPS - ENDS
P514	X	4	7'-2"	X		CAP - HORIZ. - ENDS
P515	X	88	8'-4"	X		CAP - STIRRUPS



PLAN

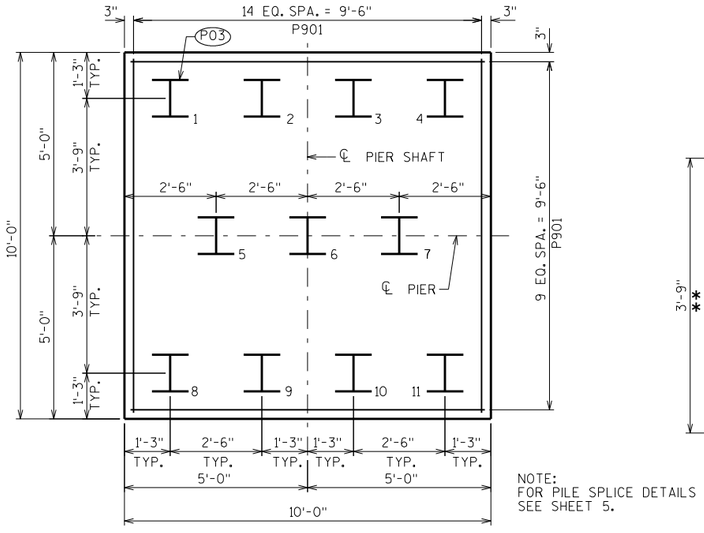


SLOPED BEAM SEAT DETAIL
TYP. ALL PIER BEAM SEATS



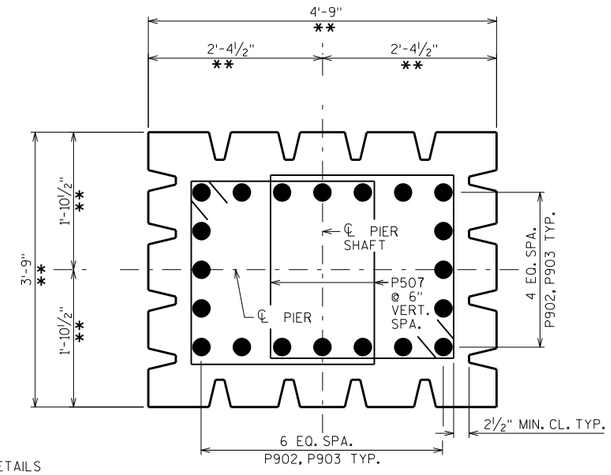
P504, P507, P513, P515

P1006

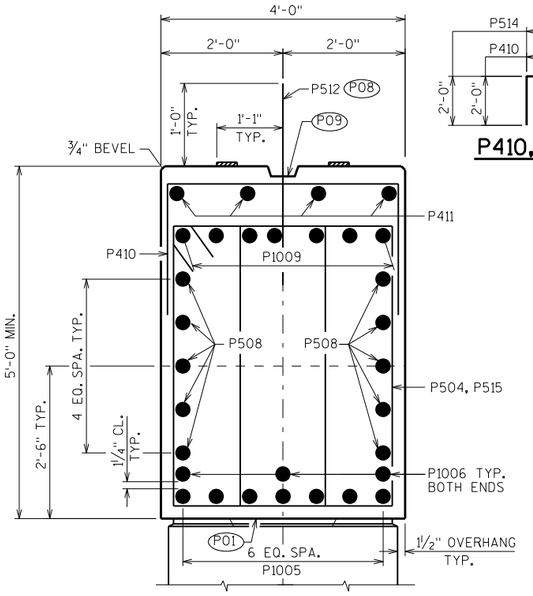


NOTE:
FOR PILE SPLICE DETAILS SEE SHEET 5.

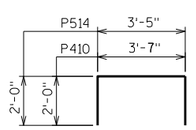
FOOTING/PILE PLAN



SECTION THRU PIER COLUMN
FOR FORMLINER DETAILS - SEE SHEET 19



SECTION THRU PIER CAP



P410, P514

BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
P513	2 SERIES OF 4	13'-4" TO 17'-0"

BUNDLE AND TAG EACH SERIES SEPARATELY.

(P01) 1'-3" X 2'-9" X 2" CONSTRUCTION JOINT FORMED BY BEVELED KEYWAY.

(P03) SUPPORT PIER ON HP 12 X 53 STEEL PILING. ESTIMATED 85'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 220 TONS PER PILE.

(P08) B512 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)

(P09) KEYED CONSTRUCTION JOINT-FORMED BY BEVELED 2 x 6 BETWEEN BEAM SEATS.

(P10) VERT. CONST. JOINT FORMED BY SURFACED BEVELED 2 X 6 X 2'-0 KEYWAY

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PIER

SHEET 8

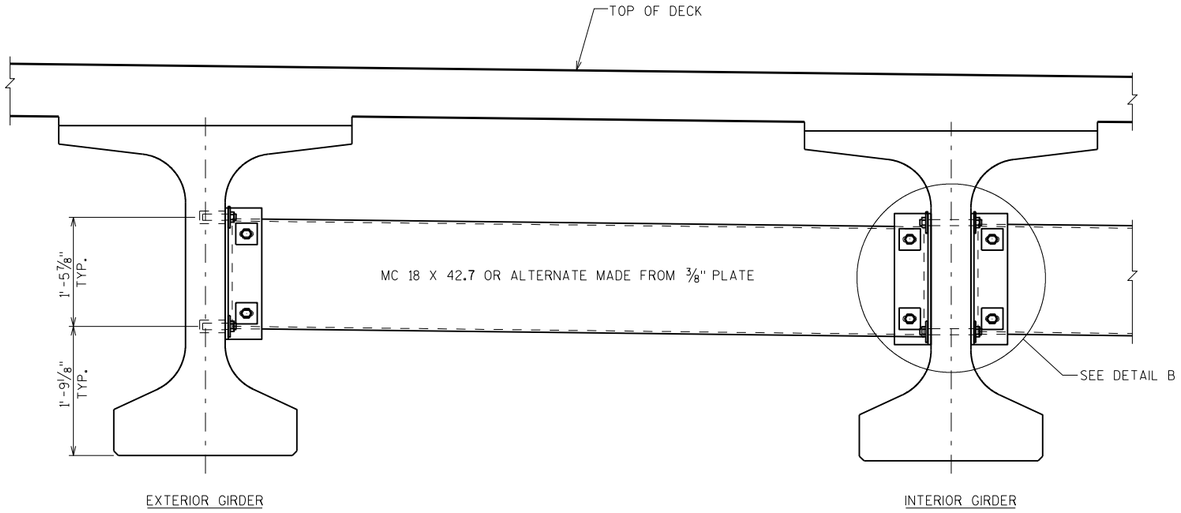
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SCALE = 6.00

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STATE PROJECT NUMBER
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PART TRANSVERSE SECTION AT DIAPHRAGM

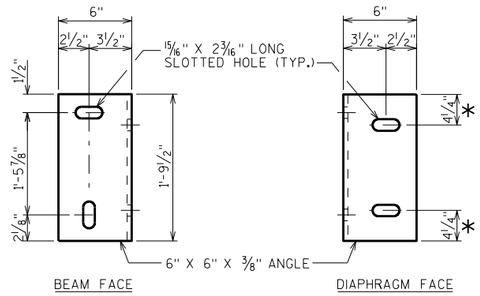
NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-05-402", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

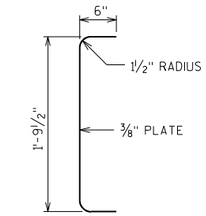
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

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

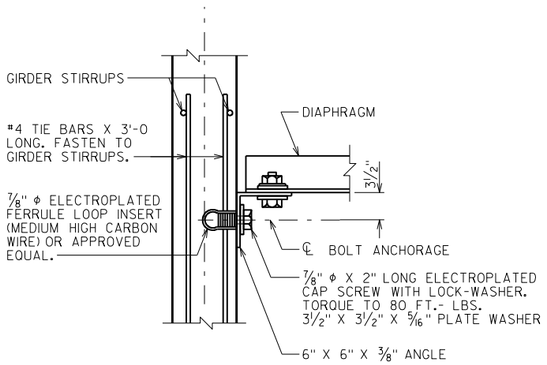


DIAPHRAGM SUPPORT

* 2½" FOR ALTERNATE PLATE DIAPHRAGM

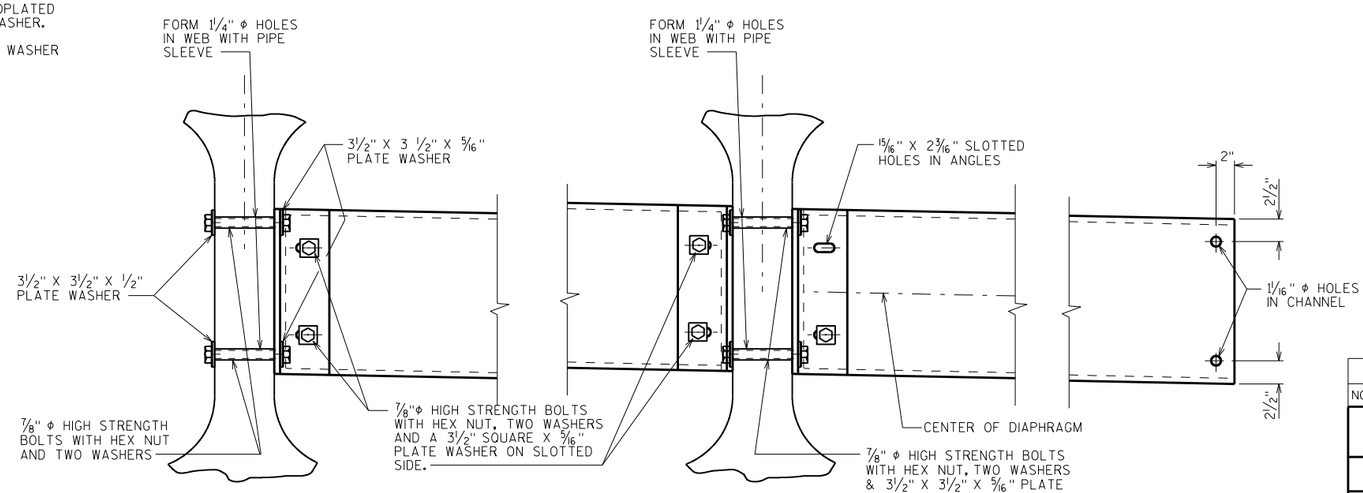


SECTION THRU ALTERNATE DIAPHRAGM



SECTION A-A

(FOR EXTERIOR ATTACHMENT)



(FOR STAGGERED DIAPHRAGM)

(FOR CONTINUOUS LINE OF DIAPHRAGMS)

DETAIL B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-402

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STEEL DIAPHRAGM

SHEET 9

455

GSTDIA
7-09

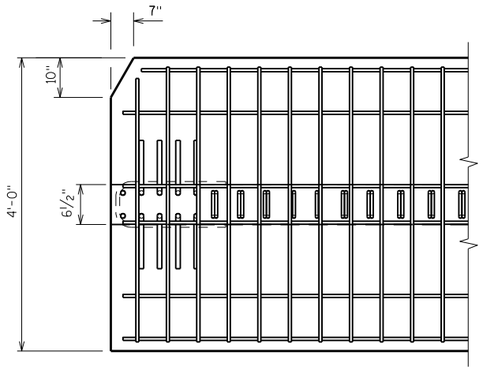
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TOP FLANGE

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 15" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 15" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH THE END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, ENDS OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

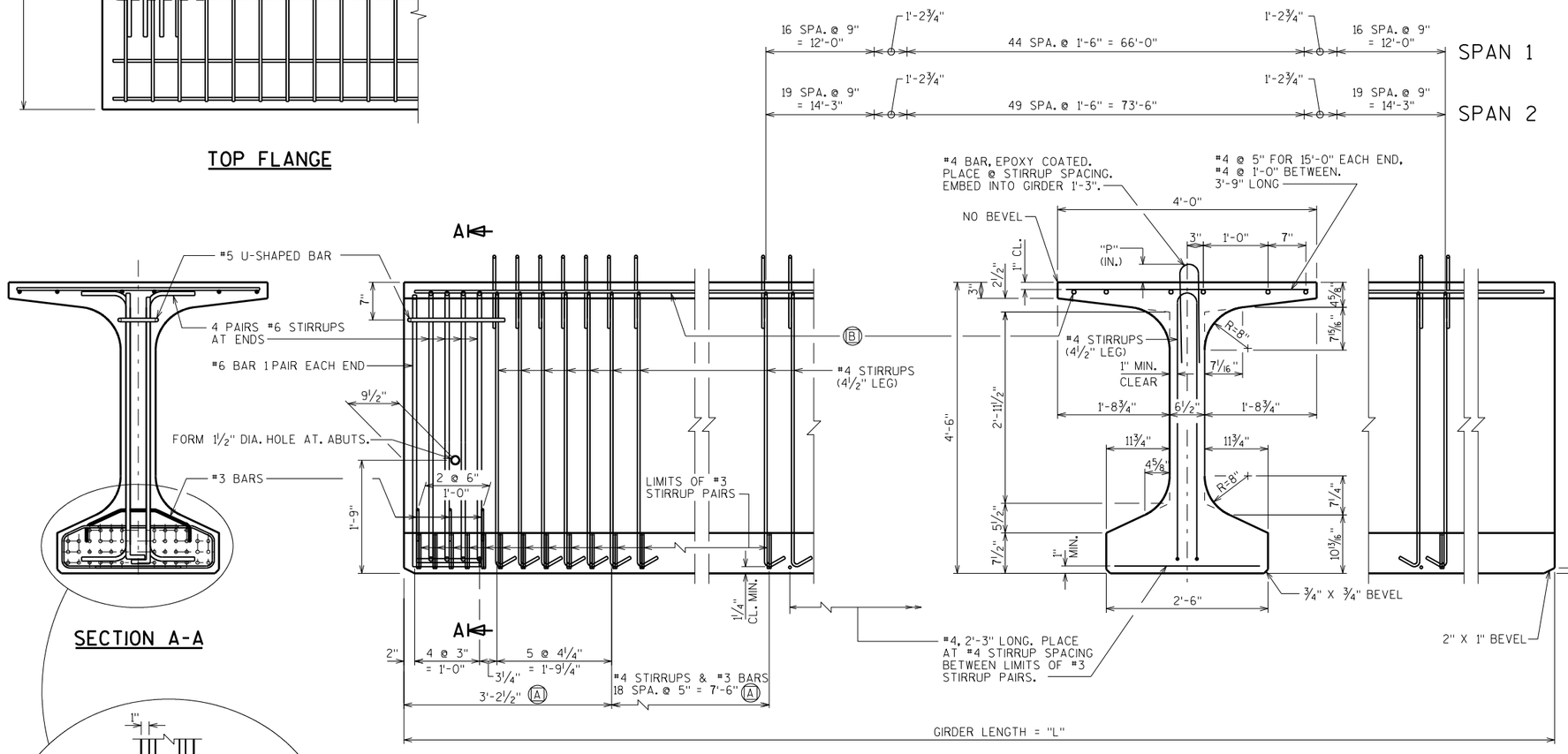
SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT. IF THE FABRICATOR WANTS TO BUILD A BAR STEEL CAGE BY WELDING LONGITUDINAL REINFORCEMENT TO THE #4 STIRRUPS, ONE OPTION IS AVAILABLE:

USE ASTM A706, GRADE 60 REINFORCEMENT AND THE STIRRUP SPACING AS SHOWN ON THE PLANS.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE 0.6" DIA.-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 psi.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

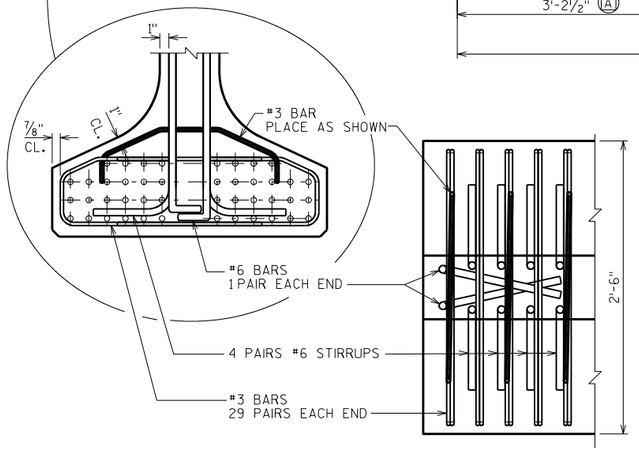


SIDE VIEW & TYP. SECTION IN SPAN

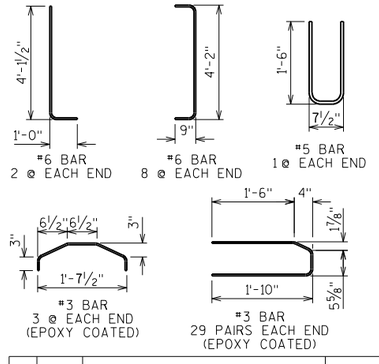
(A) DETAIL TYP. AT EACH END

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

SECTION A-A



BOTTOM FLANGE



✳ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P" 1ST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳
1	1-11	113.88	0.5	1.0	1.3	1.5	1.6	1.5	1.3	1.0	0.5	8000	7"	7"	7"	0.6	28	6400	50.0	15.5	18.5	4.0		
2	1-11	125.88	0.8	1.4	2.0	2.4	2.5	2.4	2.0	1.4	0.8	8000	7"	7"	7"	0.6	38	6400	49.0	16.0	19.0	5.0		

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-05-402

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54W" PRESTRESSED GIRDER DETAILS

SHEET 10

456

SCALE = 1.00

7-12
G54W

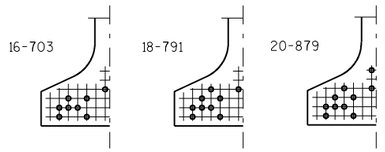
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1 2 3 5 9

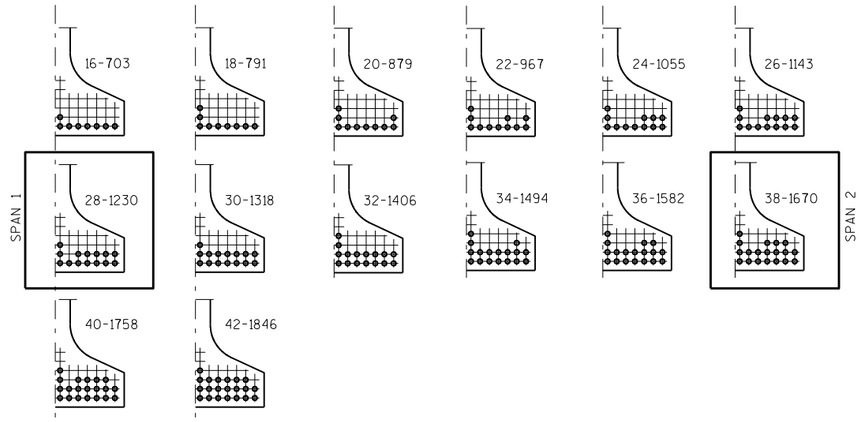
STATE PROJECT NUMBER

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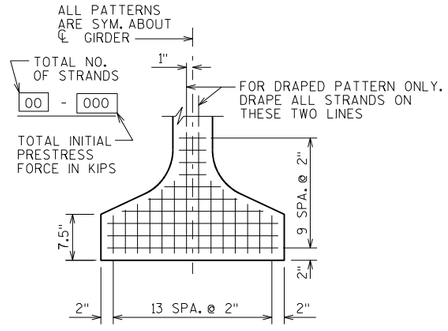
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"Φ STRANDS

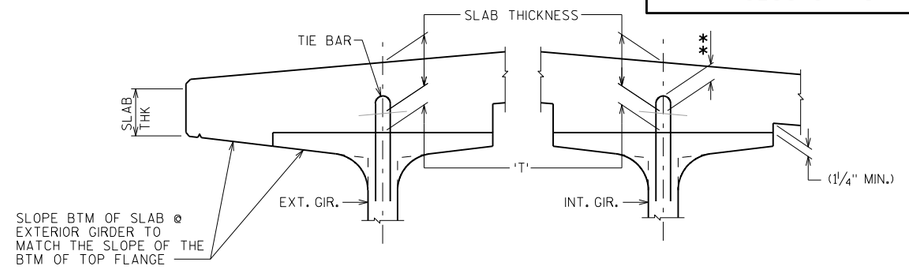


ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"Φ STRANDS



TYP. STRAND PATTERN



SLAB HAUNCH DETAIL

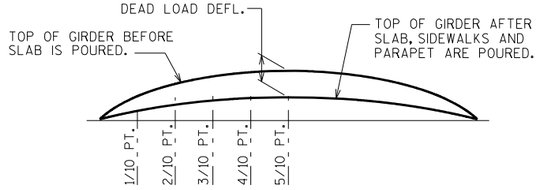
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN SLAB THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

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

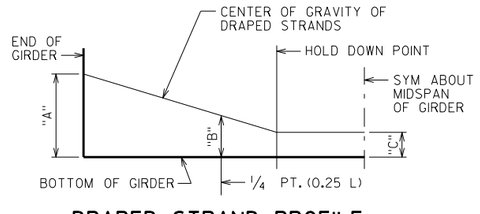
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

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

NOTE: AN AVERAGE HAUNCH ('T') OF 2¾" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM



DRAPED STRAND PROFILE

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

SPAN	CAMBER (IN.) *
1	2.35
2	3.91

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

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-402

DRAWN BY DDS | PLANS CK'D. ADS

54W" PRESTRESSED GIRDER DETAILS

SHEET 11

457

G54W
5-11

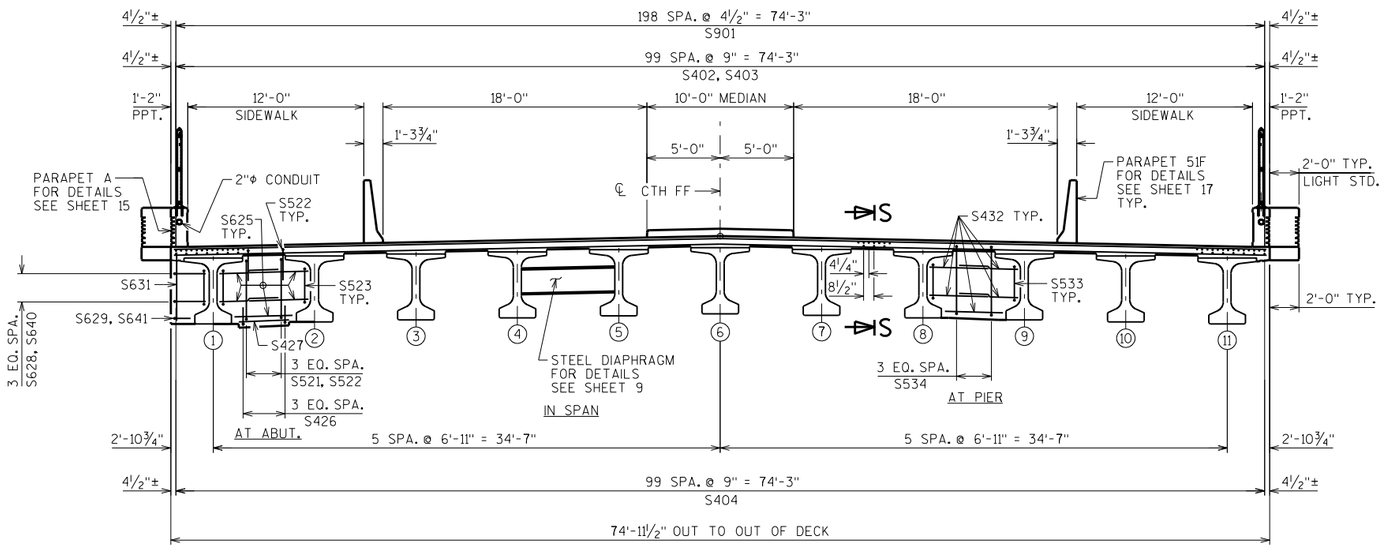
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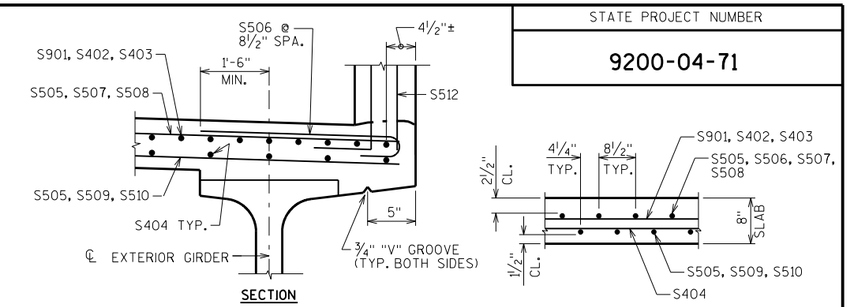
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STATE PROJECT NUMBER

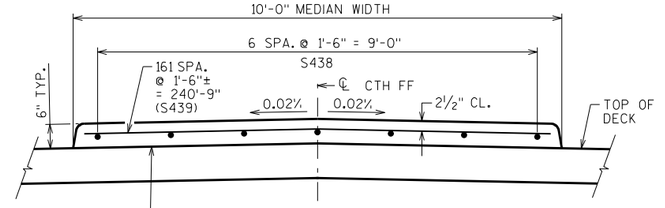
9200-04-71



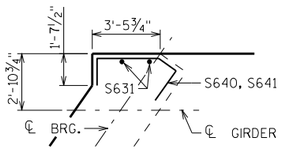
ELEVATION - LOOKING NORTH



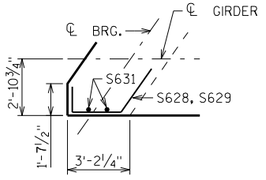
DETAIL A



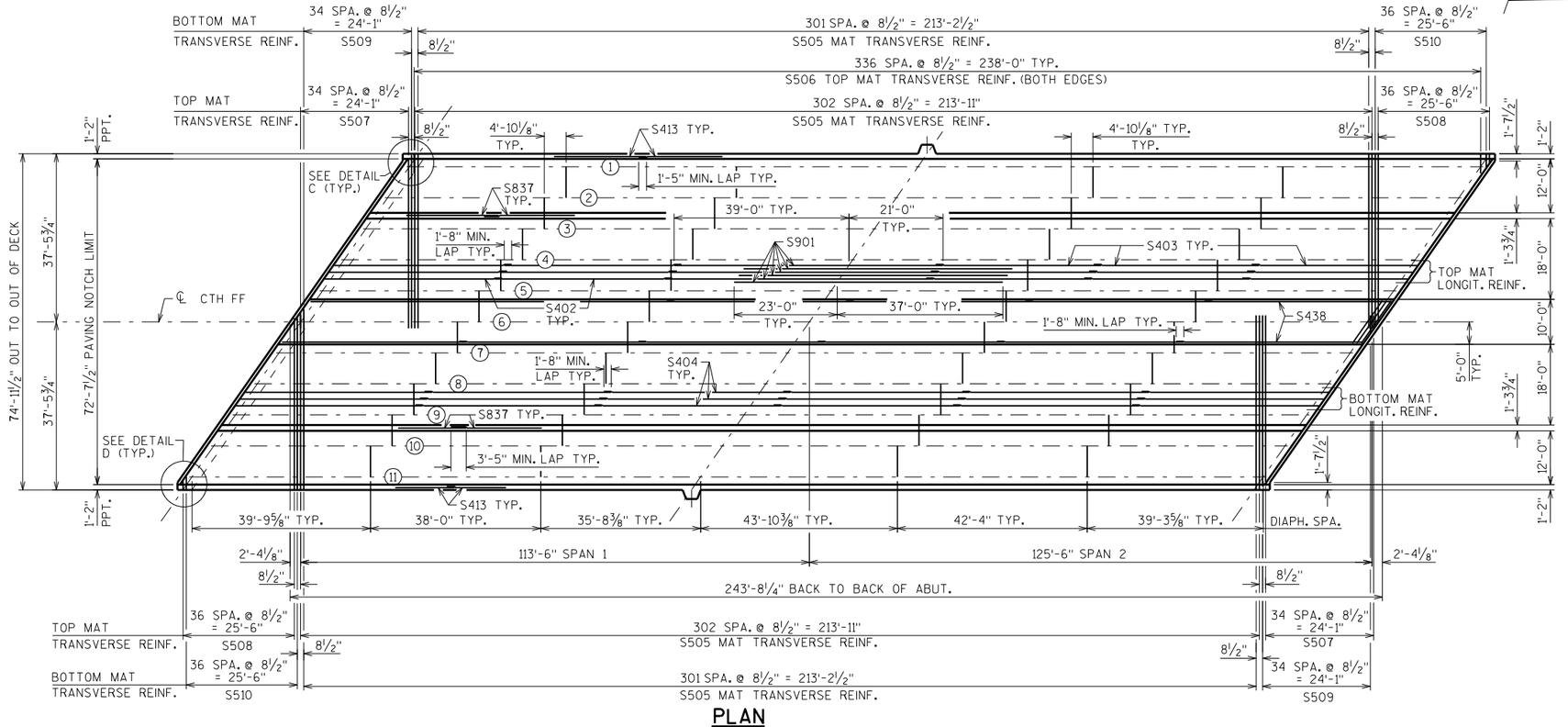
SECTION THRU MEDIAN



DETAIL C



DETAIL D



PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-402

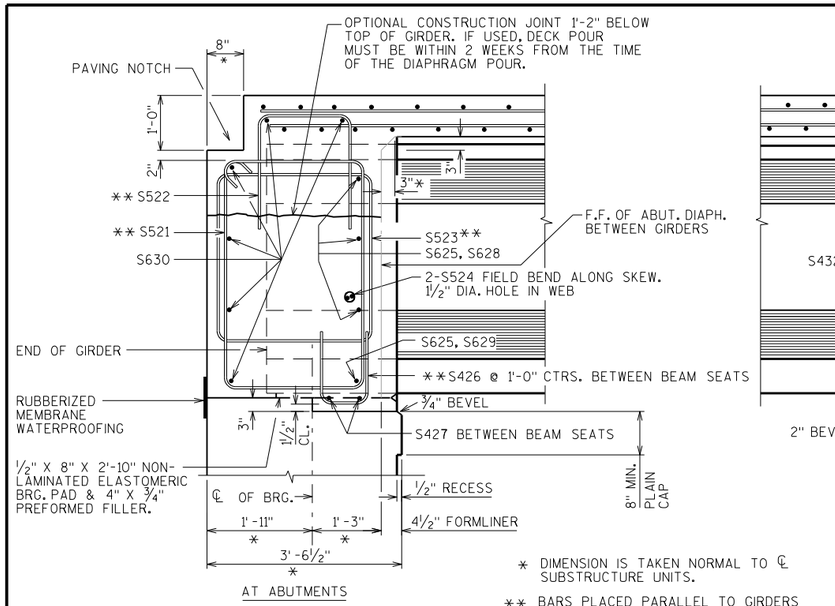
DRAWN BY DDS | PLANS CK'D. ADS

SUPERSTRUCTURE

SHEET 12

458

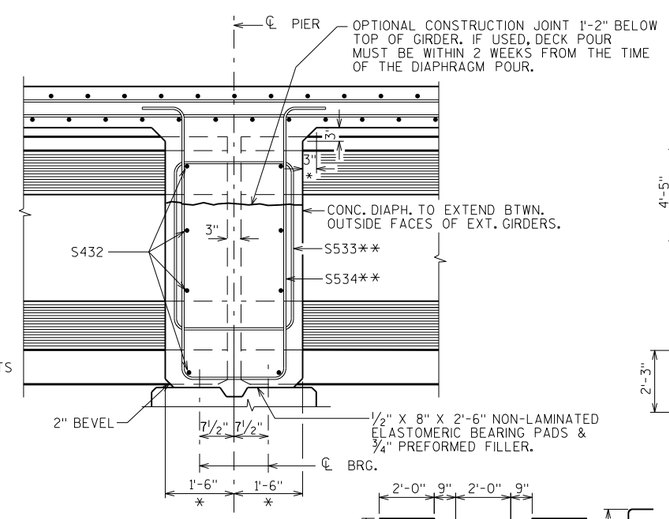
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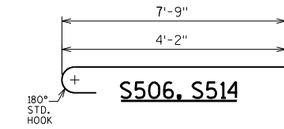
PART LONGIT. SECTION

* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

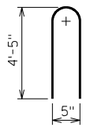
** BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO ℄ GIRDERS



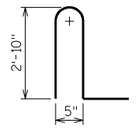
AT PIER DIAPHRAGM



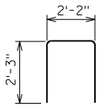
S506, S514



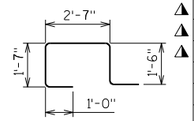
S511



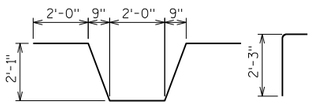
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S515



S516

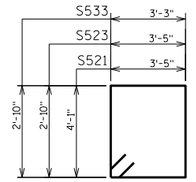


S617

S519



S520



S521, S523, S533

BILL OF BARS

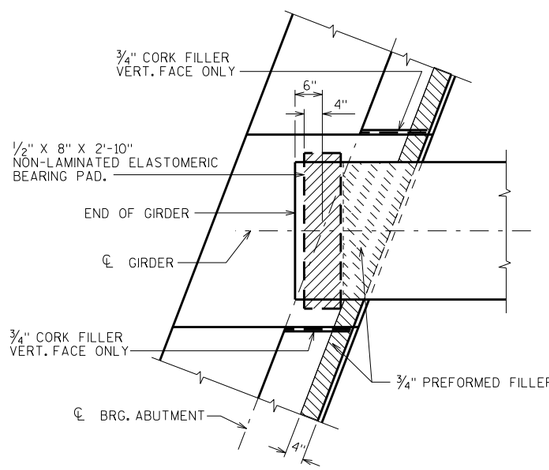
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S901	X	199	60'-0"			SLAB - CONTINUITY STEEL OVER PIER
S402	X	200	40'-3"			SLAB - LONGITUDINAL - TOP
S403	X	300	32'-9"			SLAB - LONGITUDINAL - TOP
S404	X	600	42'-1"			SLAB - LONGITUDINAL - BOTTOM
S505	X	1210	38'-10"			SLAB - TRANSVERSE - TOP & BOTTOM
S506	X	674	4'-10"	X		SLAB - TRANSVERSE - TOP - EDGE OF DECK
⚠ S507	X	70	20'-6"		⚠	SLAB - TRANSVERSE - TOP
⚠ S508	X	74	19'-6"		⚠	SLAB - TRANSVERSE - TOP
⚠ S509	X	70	21'-0"		⚠	SLAB - TRANSVERSE - BOTTOM
⚠ S510	X	74	20'-0"		⚠	SLAB - TRANSVERSE - BOTTOM
S511	X	4	9'-1"	X		PARAPET A - VERT. - AT PAVING NOTCHES
S512	X	486	6'-9"	X		PARAPET A - VERT.
S413	X	72	42'-1"			PARAPET A - HORIZ.
S514	X	24	8'-1"	X		LIGHT STD./DECK - HORIZ.
S515	X	8	6'-5"	X		LIGHT STD - VERT.
S516	X	8	7'-0"	X		LIGHT STD. - VERT.
S617	X	14	10'-0"	X		LIGHT STD./DECK - HORIZ.
S518	X	24	7'-8"			LIGHT STD./DECK - HORIZ.
S519	X	4	3'-2"	X		LIGHT STD. - VERT.
S520	X	4	3'-5"	X		LIGHT STD./DECK - VERT.
S521	X	88	15'-8"	X		ABUT. DIAPH. - STIRRUP
S522	X	88	5'-4"	X		ABUT. DIAPH. - VERT.
S523	X	44	13'-2"	X		ABUT. DIAPH. - STIRRUP
S524	X	44	6'-0"			ABUT. DIAPH. - HORIZ.
S625	X	140	5'-0"			ABUT. DIAPH. - HORIZ.
S426	X	80	3'-5"	X		ABUT. DIAPH. - VERT.
S427	X	40	4'-4"			ABUT. DIAPH. - HORIZ.
S628	X	6	5'-10"	X		ABUT. DIAPH. - HORIZ. - ENDS
S629	X	2	4'-7"	X		ABUT. DIAPH. - HORIZ. - ENDS
S630	X	24	47'-1"			ABUT. DIAPH. - HORIZ. - B.F.
S631	X	8	4'-0"			ABUT. DIAPH. - VERT.
S432	X	140	5'-0"			PIER DIAPH. - HORIZ.
S533	X	20	11'-6"	X		PIER DIAPH. - STIRRUP
S534	X	40	13'-3"	X		PIER DIAPH. - VERT.
S535	X	730	4'-2"	X		PARAPET 51F - VERT.
S536	X	730	7'-11"	X		PARAPET 51F - VERT.
S837	X	108	43'-5"			PARAPET 51F - HORIZ.
S438	X	42	41'-8"			MEDIAN - HORIZ.
S439	X	162	9'-6"			MEDIAN - HORIZ.
S640	X	6	6'-7"	X		ABUT. DIAPH. - HORIZ. - ENDS
S641	X	2	5'-6"	X		ABUT. DIAPH. - HORIZ. - ENDS

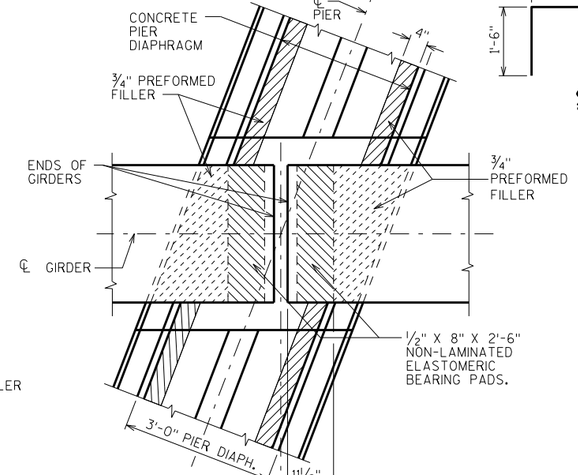
⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

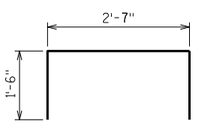
TOP OF DECK ELEVATIONS

	℄ BRG. S. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	℄ PIER	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	℄ BRG. N. ABUT.
WEST EDGE OF DECK	695.22	695.13	695.03	694.92	694.81	694.69	694.57	694.44	694.31	694.17	694.02	693.85	693.68	693.49	693.30	693.11	692.90	692.69	692.47	692.25	692.02
℄ GIRDER 1	695.27	695.17	695.08	694.97	694.86	694.74	694.62	694.49	694.36	694.22	694.08	693.91	693.73	693.55	693.36	693.17	692.97	692.76	692.54	692.31	692.08
℄ GIRDER 2	695.44	695.35	695.26	695.15	695.05	694.93	694.81	694.69	694.56	694.42	694.28	694.11	693.94	693.76	693.58	693.38	693.18	692.98	692.76	692.54	692.31
℄ GIRDER 3	695.62	695.53	695.44	695.34	695.23	695.12	695.00	694.88	694.75	694.62	694.48	694.31	694.15	693.97	693.79	693.60	693.40	693.19	692.98	692.76	692.54
℄ GIRDER 4	695.79	695.71	695.62	695.52	695.42	695.31	695.19	695.07	694.95	694.81	694.68	694.52	694.35	694.18	694.00	693.81	693.61	693.41	693.20	692.99	692.77
℄ GIRDER 5	695.97	695.88	695.79	695.70	695.60	695.49	695.38	695.26	695.14	695.01	694.87	694.72	694.55	694.38	694.21	694.02	693.83	693.63	693.42	693.21	692.99
℄ GIR. 6 (℄ CTH FF)	696.14	696.06	695.97	695.88	695.78	695.68	695.57	695.45	695.33	695.20	695.07	694.92	694.76	694.59	694.41	694.23	694.04	693.85	693.64	693.43	693.21
℄ GIRDER 7	696.03	695.95	695.87	695.78	695.68	695.58	695.48	695.36	695.24	695.12	694.99	694.84	694.68	694.52	694.34	694.16	693.98	693.78	693.58	693.38	693.16
℄ GIRDER 8	695.93	695.85	695.77	695.68	695.59	695.49	695.38	695.27	695.16	695.04	694.91	694.76	694.60	694.44	694.27	694.10	693.91	693.72	693.52	693.32	693.11
℄ GIRDER 9	695.82	695.74	695.67	695.58	695.49	695.39	695.29	695.18	695.07	694.95	694.82	694.68	694.53	694.37	694.20	694.03	693.85	693.66	693.46	693.26	693.05
℄ GIRDER 10	695.71	695.64	695.56	695.48	695.39	695.30	695.20	695.09	694.98	694.86	694.74	694.60	694.45	694.29	694.13	693.96	693.78	693.59	693.40	693.20	692.99
℄ GIRDER 11	695.60	695.53	695.46	695.38	695.29	695.20	695.10	695.00	694.89	694.78	694.66	694.52	694.37	694.21	694.05	693.88	693.71	693.53	693.34	693.14	692.94
EAST EDGE OF DECK	695.58	695.51	695.44	695.36	695.28	695.19	695.09	694.99	694.88	694.77	694.65	694.51	694.36	694.21	694.05	693.88	693.71	693.53	693.34	693.14	692.94

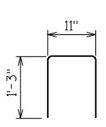


BEARING PAD DETAIL

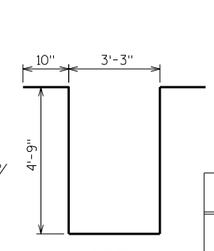




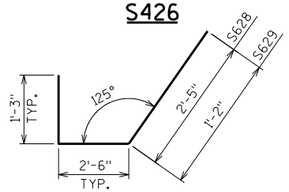
S522



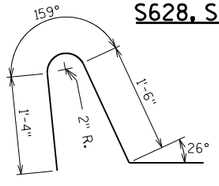
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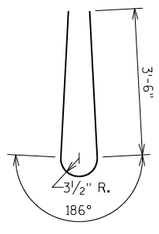
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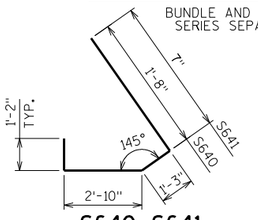
S628, S629



S535



S536



S640, S641

BAR SERIES TABLES

MARK	NO. REQD.	LENGTH
S507	2 SERIES OF 35	3'-3" TO 37'-8"
S508	2 SERIES OF 37	1'-3" TO 37'-8"

MARK	NO. REQD.	LENGTH
S509	2 SERIES OF 35	3'-10" TO 38'-2"
S510	2 SERIES OF 37	1'-9" TO 38'-2"

BUNDLE AND TAG EACH SERIES SEPARATELY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-402

DRAWN BY DDS | PLANS CK'D. ADS

SUPERSTRUCTURE DETAILS

SHEET 13

459

STATE PROJECT NUMBER

9200-04-71

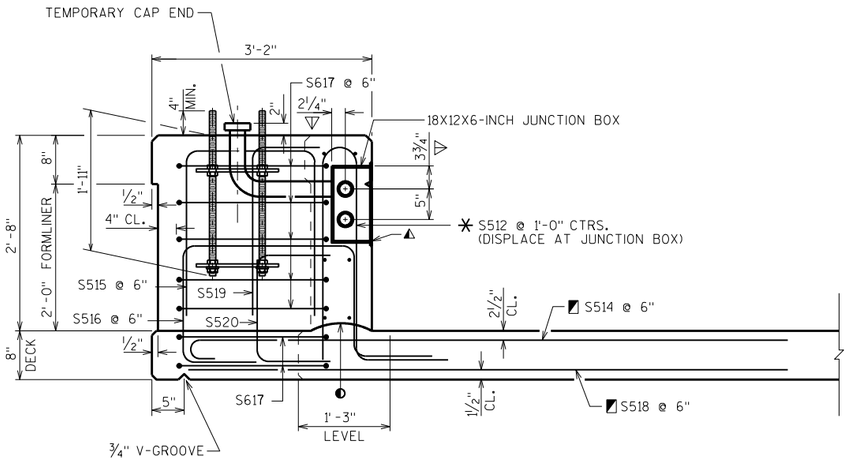
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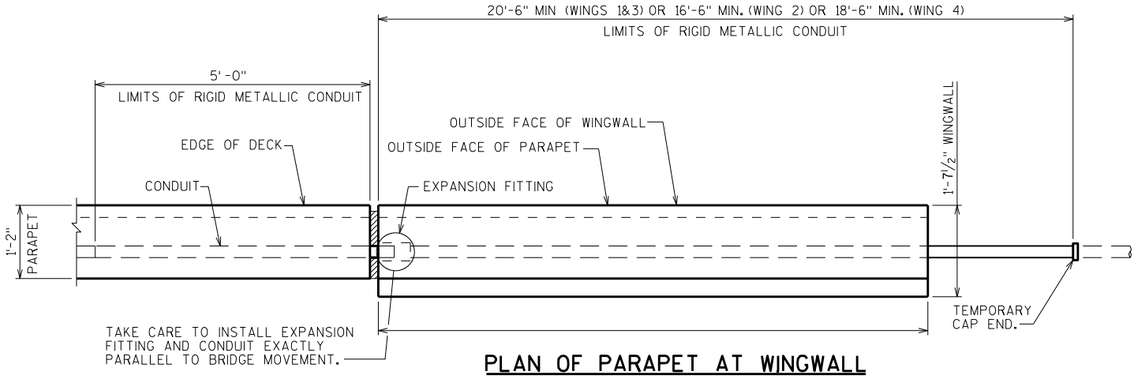
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G45WDET
7-11

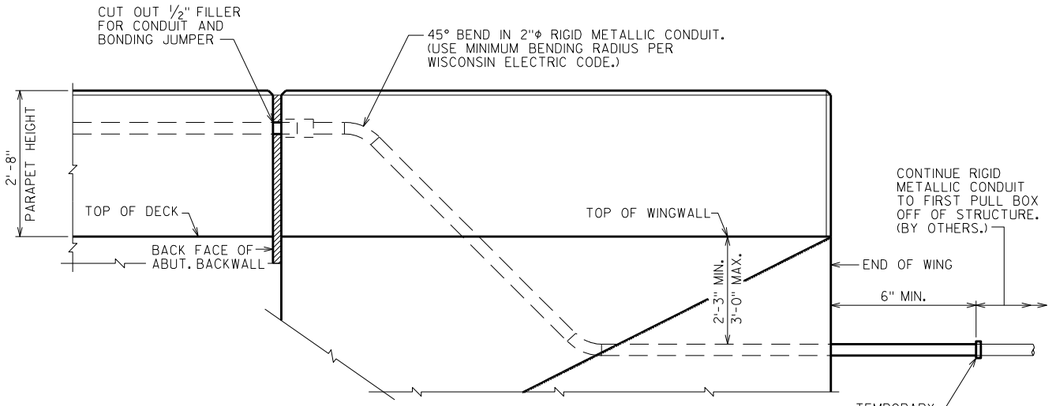
STATE PROJECT NUMBER
9200-04-71



SECTION A-A
AESTHETICS NOT SHOWN FOR CLARITY



PLAN OF PARAPET AT WINGWALL



OUTSIDE ELEVATION OF PARAPET AT WINGWALL

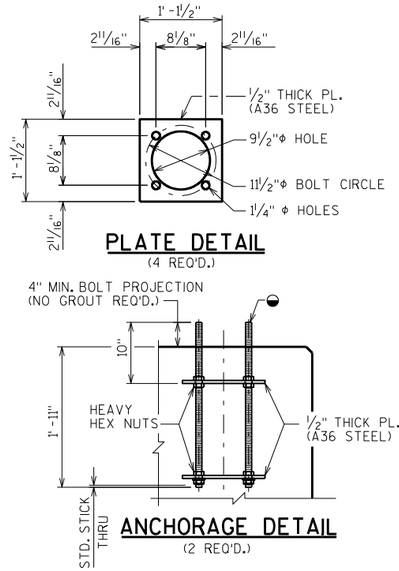
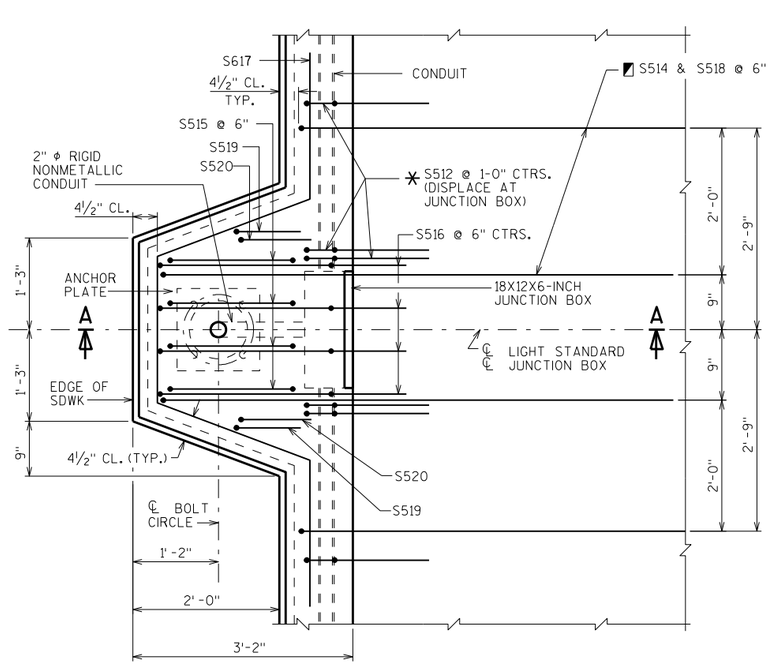


PLATE DETAIL
(4 REQ'D.)

ANCHORAGE DETAIL
(2 REQ'D.)



PLAN AT LIGHT STANDARD

NOTES

- ◐ CONSTR. JT. STRIKE OFF AS SHOWN
- ◭ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.
- ▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.
- ◩ THESE BARS ARE IN ADDITION TO STANDARD TRANSVERSE BARS IN SIDEWALK.
- ◒ 1"Φ THREADED ANCHOR BOLTS ASTM A449 OR AASHTO M 314-90 GR 55. HOT DIP ASTM A153, CLASS C, UPPER 8" OF BOLT INCLUDING NUTS & WASHERS. PROVIDE ENLARGED THREAD ON NUTS FOR PROPER FIT AFTER GALVANIZING. PROVIDE DOUBLE FLAT WASHERS & NUTS.
- ✳ SEE VERTICAL FACE PARAPET "A", SHEET 17 FOR ADDITIONAL BAR STEEL DETAILS.

BID ITEMS SHALL BE:
"JUNCTION BOXES 18X12X6-INCH", EACH.
"ANCHOR ASSEMBLIES LIGHT POLES", EACH.
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH"
"CONDUIT RIGID METALLIC 2-INCH".

APPROVED MANUFACTURERS - JUNCTION BOXES:
SEE APPROVED MATERIAL LIST.

APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING:
O-Z/GEDNEY TYPE AX-200 AND BONDING JUMPER (4" TOTAL CONDUIT MOVEMENT).

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

WHEN CONNECTING NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. LISTED FOR ELECTRICAL USE SHALL BE USED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-402

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PARAPET "A" ELECTRICAL WORK

SHEET 14

460

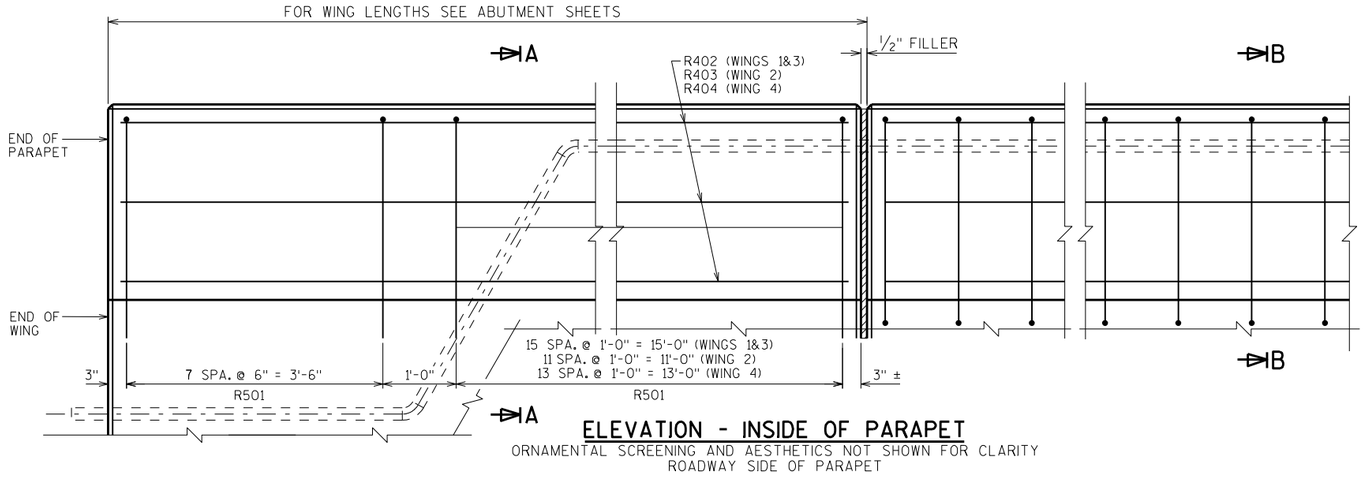
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PPTAELEC
7-11

8 15 18 12 4 7 8

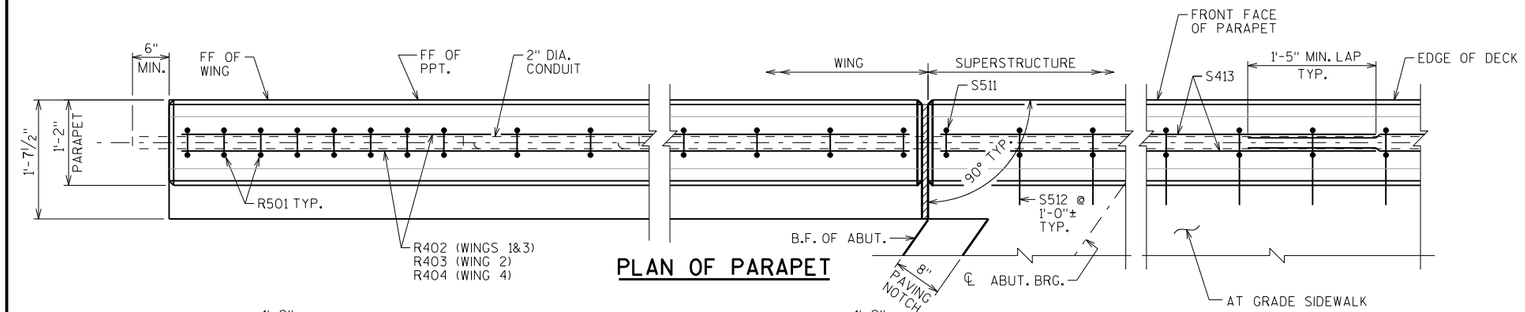
STATE PROJECT NUMBER

9200-04-71

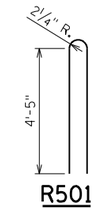


ELEVATION - INSIDE OF PARAPET

ORNAMENTAL SCREENING AND AESTHETICS NOT SHOWN FOR CLARITY
ROADWAY SIDE OF PARAPET



PLAN OF PARAPET

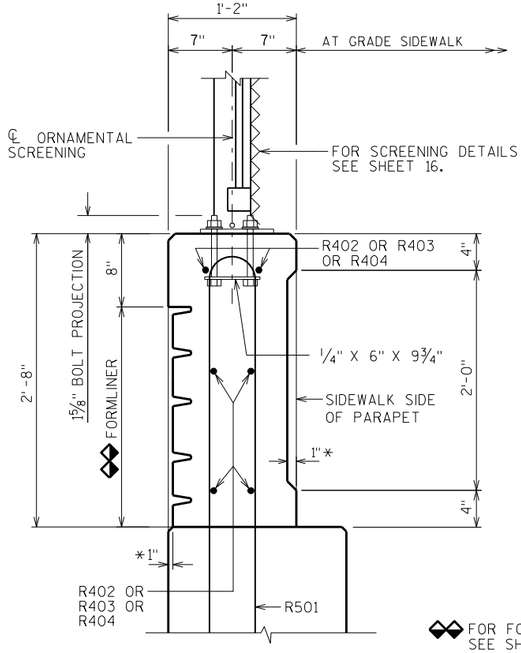


R501

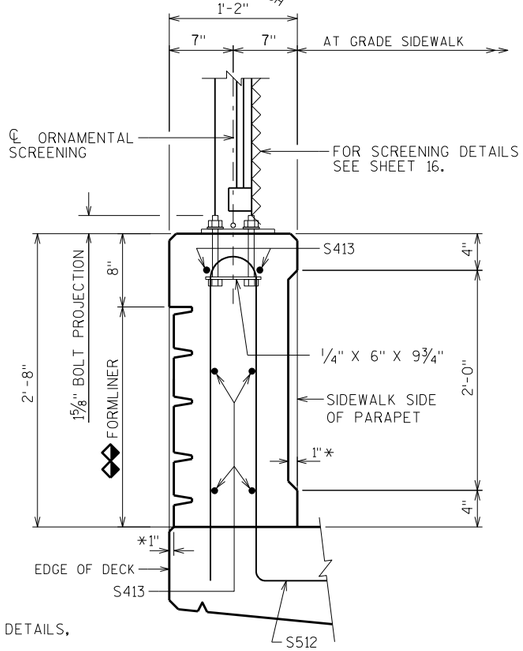
BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	90	9-5	X		PARAPET VERT.
R402	X	12	19-8			PARAPET HORIZ.
R403	X	6	15-8			PARAPET HORIZ.
R404	X	6	17-8			PARAPET HORIZ.

NOTE:
WING ANGLE VARIES (SEE ABUTMENT SHEETS)



SECTION A-A



SECTION B-B

◆◆ FOR FORMLINER DETAILS, SEE SHEET 19.

* RECESSED PANELS. FOR SPACING SEE SHEET 19

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-402

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VERTICAL FACE PARAPET "A"

SHEET 15

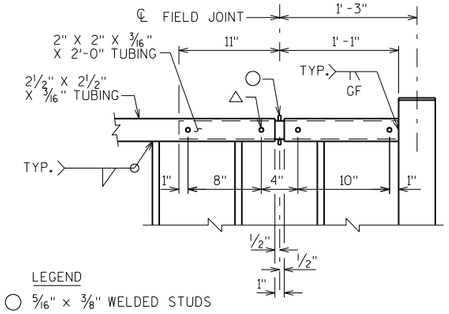
461

SCALE = 1.00

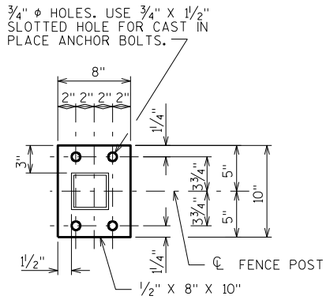
PPTA
1-12

8

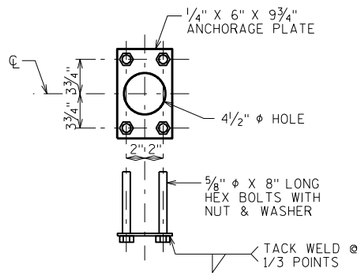
1 2 5 6 9



RAILING EXPANSION JOINT DETAIL

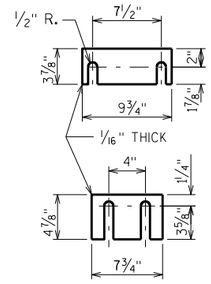


BASE PLATE



ANCHORAGE DETAIL

5/8" ϕ CONCRETE MASONRY ANCHOR, TYPE S EPOXY, 7" MINIMUM EMBEDMENT WITH A MINIMUM PULLOUT OF 20 KIPS MAY BE SUBSTITUTED FOR 5/8" CAST IN PLACE ANCHOR BOLTS. ANCHORAGE PLATE NOT REQUIRED WHEN TYPE S ANCHORS ARE USED.



SHIM PLATE DETAILS

TWO SHIMS OF EACH SIZE REQUIRED PER POST

NOTES

BID ITEM SHALL BE "RAILING TUBULAR SPECIAL B-05-402" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

RAILS AND POSTS TO BE ASTM A500, GRADE B. BASE PLATES AND SHIMS TO BE ASTM A709, GRADE 36. ALL GALVANIZED AFTER FABRICATION.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET POSTS NORMAL TO GRADE.

ALL POST SPA. ARE TAKEN HORIZ. ALONG CENTER LINE OF RAILING AT BASE OF POST.

SHIMS SHALL BE USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

CUT BOTTOM OF POST TO MAKE VERTICAL IN TRANSVERSE DIRECTION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM 307. IF 307 IS USED, ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED.

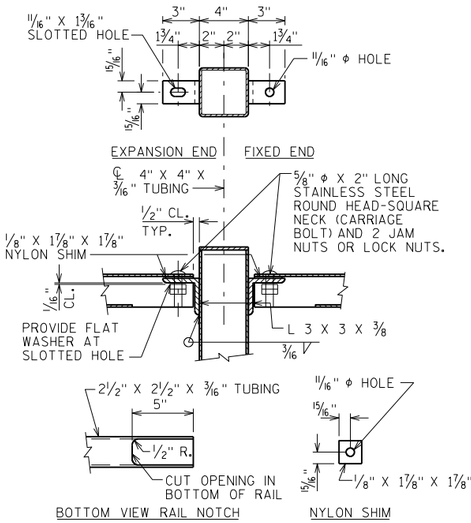
RAILING TO BE PAINTED AND FENCE FABRIC AND TIES TO BE VINYL COATED. BLACK (FEDERAL COLOR NO. 27038).

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE NOT MORE THAN 3 POSTS.

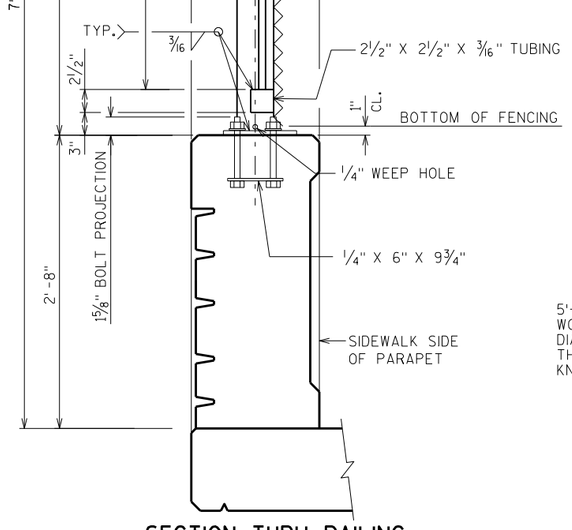
THE END OF THE FABRIC SHALL BE ATTACHED TO THE POST BY MEANS OF A TENSION BAR THREADED THROUGH THE END LOOPS OF THE FABRIC AND SECURED TO THE POST WITH CLAMPS & BOLT. THE FABRIC SHALL BE STRETCHED TO REMOVE ALL SLACK.

VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING.

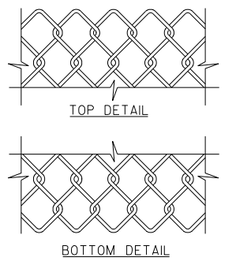
ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING ALL STEEL RAILING POSTS AND STEEL TUBING SHALL BE GIVEN A #6 BLAST CLEANING BY SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH APPROVED TIE COAT AND TOPCOAT.



TOP RAIL CONNECTION FOR FENCE W/ BENT TOP

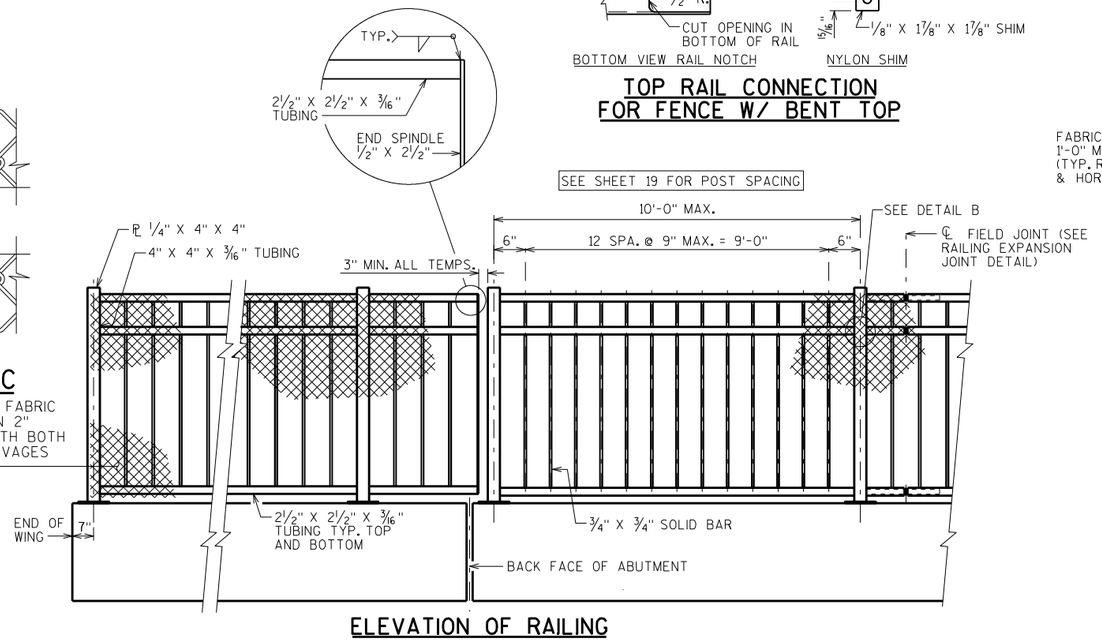


SECTION THRU RAILING

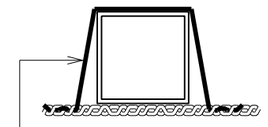


FENCE FABRIC

5'-0" VINYL COATED FENCE FABRIC WOVEN OF 9-GAUGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

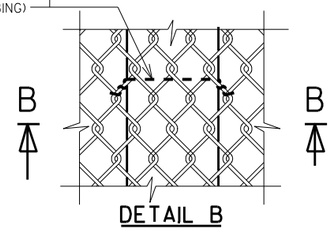


ELEVATION OF RAILING



SECTION B-B

FABRIC TIE @ 1'-0" MAX. SPA. (TYP. RAIL POSTS & HORIZ. TUBING)



DETAIL B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-402

DRAWN BY DDS | PLANS CK'D. ADS

ORNAMENTAL PROTECTIVE SCREENING

SHEET 16

462

STATE PROJECT NUMBER

9200-04-71

8

8

SCALE = 1.00

SCREENING
7-11

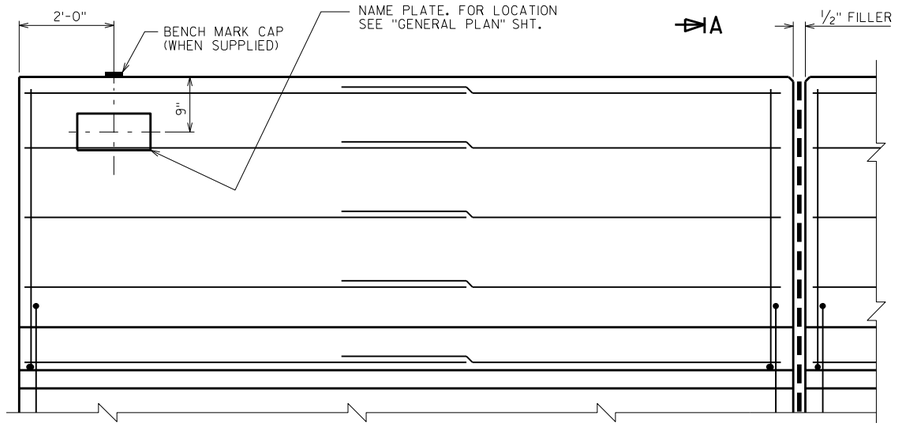
STATE PROJECT NUMBER

9200-04-71

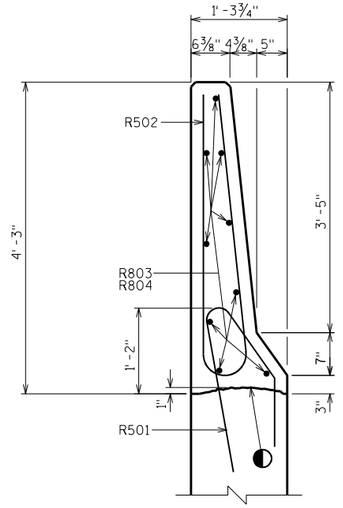
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BILL OF BARS

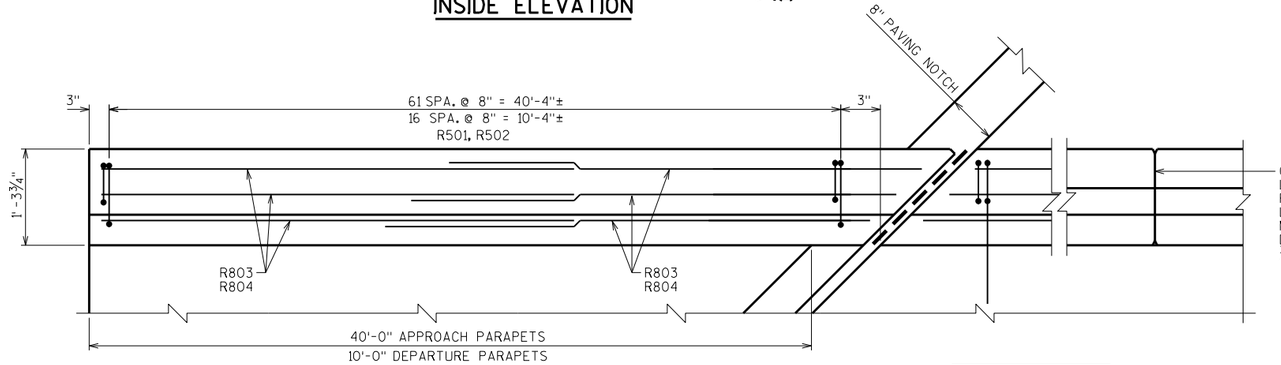
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	158	4'-6"	X		PARAPETS - VERT.
R502	X	158	7'-11"	X		PARAPETS - VERT.
R803	X	36	22'-4"			APPROACH PARAPETS - HORIZ.
R804	X	36	7'-4"			DEPARTURE PARAPETS - HORIZ.



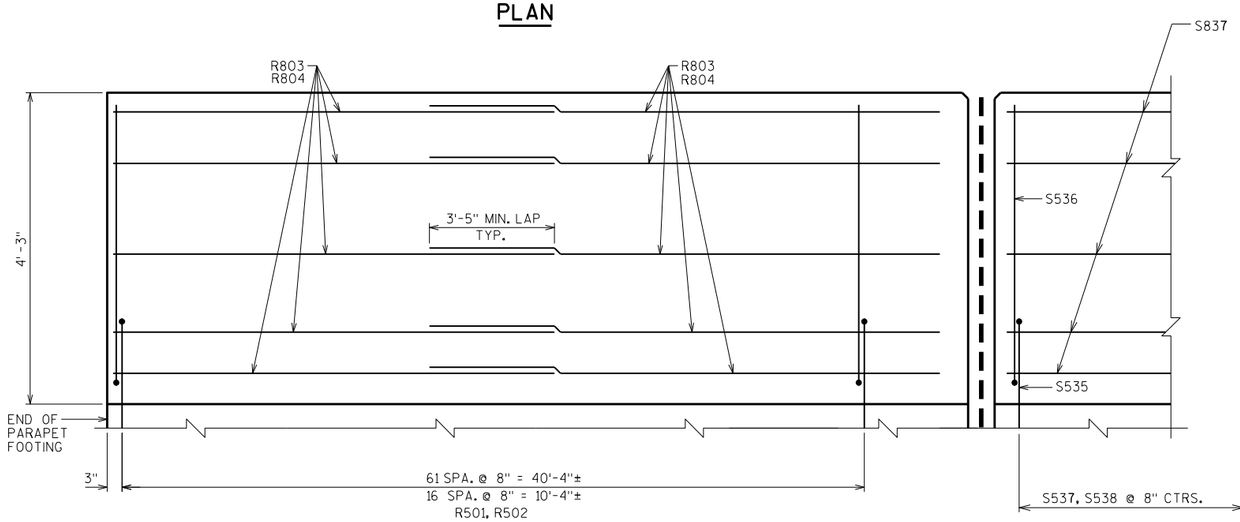
INSIDE ELEVATION



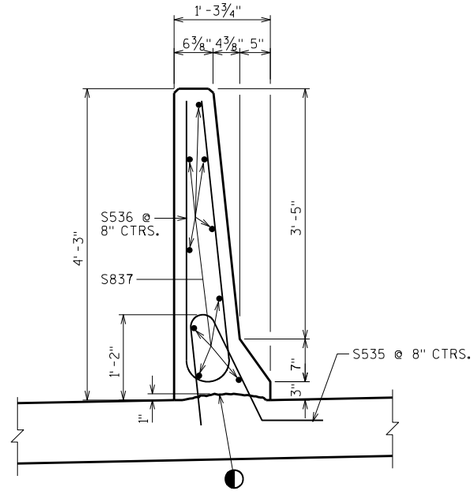
SECTION A



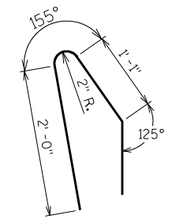
PLAN



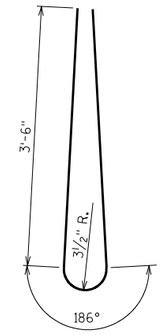
OUTSIDE ELEVATION



SECTION THRU PARAPET ON BRIDGE



R501



R502

CONST. JOINT - STRIKE OFF AS SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-402

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SLOPED FACE PARAPET "51F"

SHEET 17

463

SCALE =

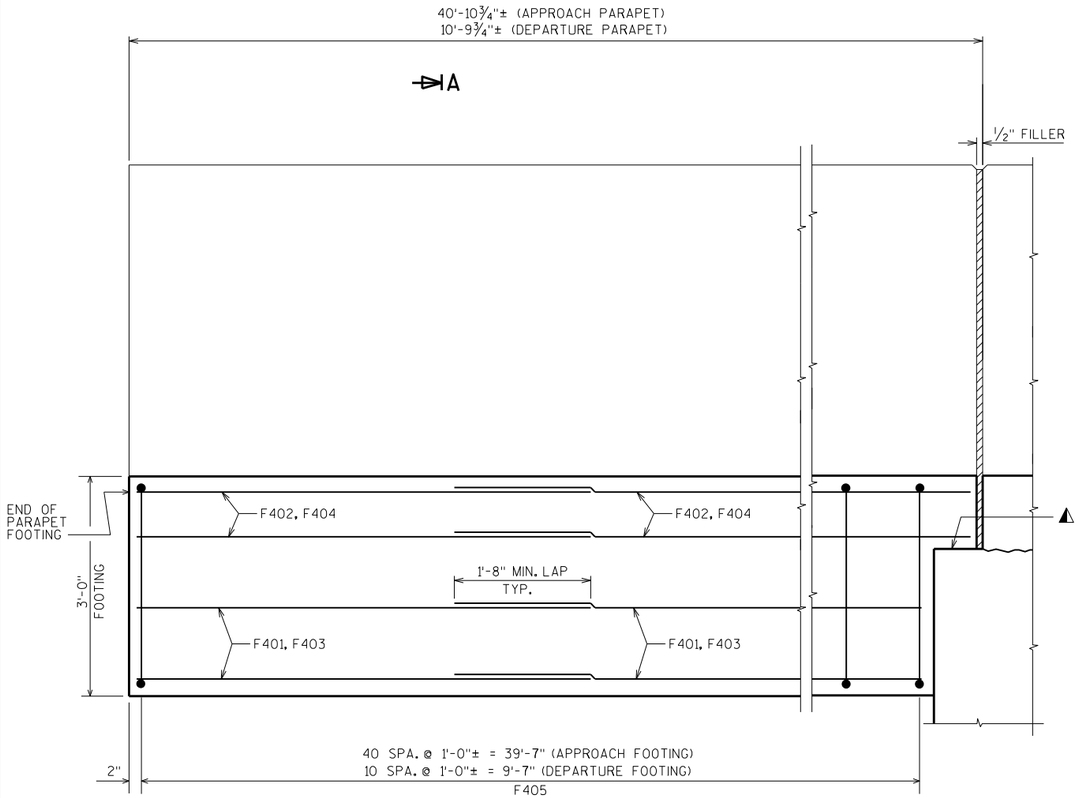
51F
10-08

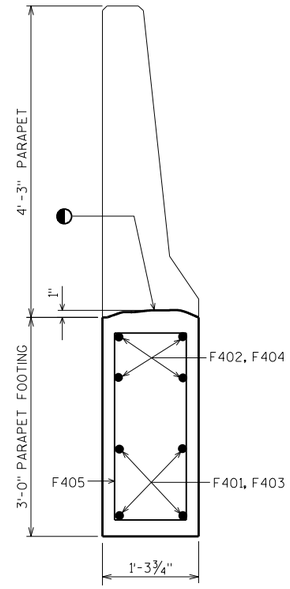
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8

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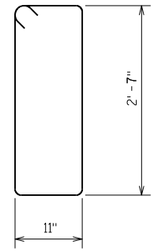


SECTION A

BILL OF BARS

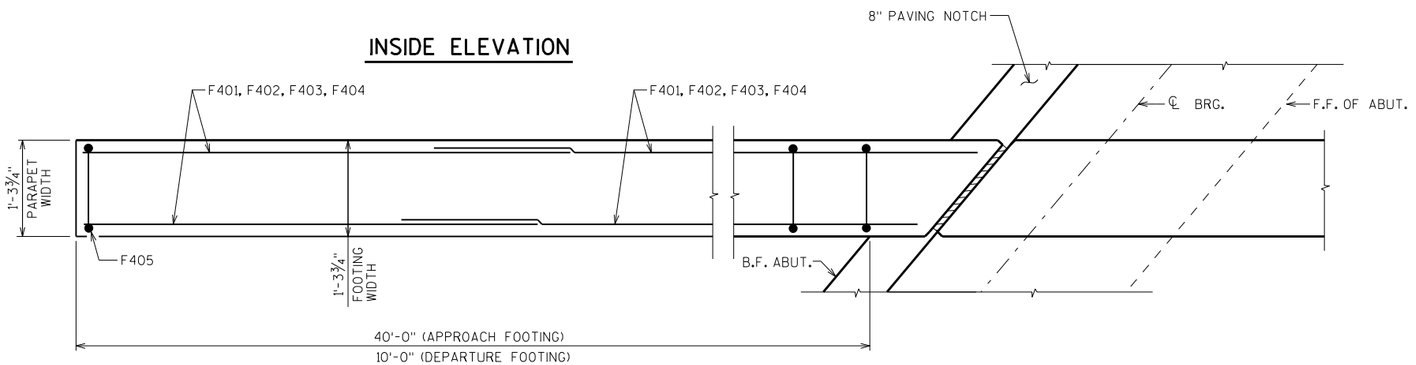
FOR PARAPET FOOTINGS

BAR MARK	COAT	S. ABUT.	N. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
F401	X	8	8	21-2			APPROACH - PARAPET FOOTINGS - HORIZ.
F402	X	8	8	21-7			APPROACH - PARAPET FOOTINGS - HORIZ.
F403	X	8	8	6-0			DEPARTURE - PARAPET FOOTINGS - HORIZ.
F404	X	8	8	6-5			DEPARTURE - PARAPET FOOTINGS - HORIZ.
F405	X	52	52	7-6	X		ALL - PARAPET FOOTINGS - STIRRUP



F405

INSIDE ELEVATION



PLAN

▲ STEEL TROWEL HORIZ. SURFACE OF ABUTMENT PAVING NOTCH. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS BETWEEN PARAPET FOOTING AND HORIZ. SURFACE OF PAVING NOTCH. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-402

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PARAPET FOOTING

SHEET 18

464

7-12
SSFOOTING

SCALE = 1

8

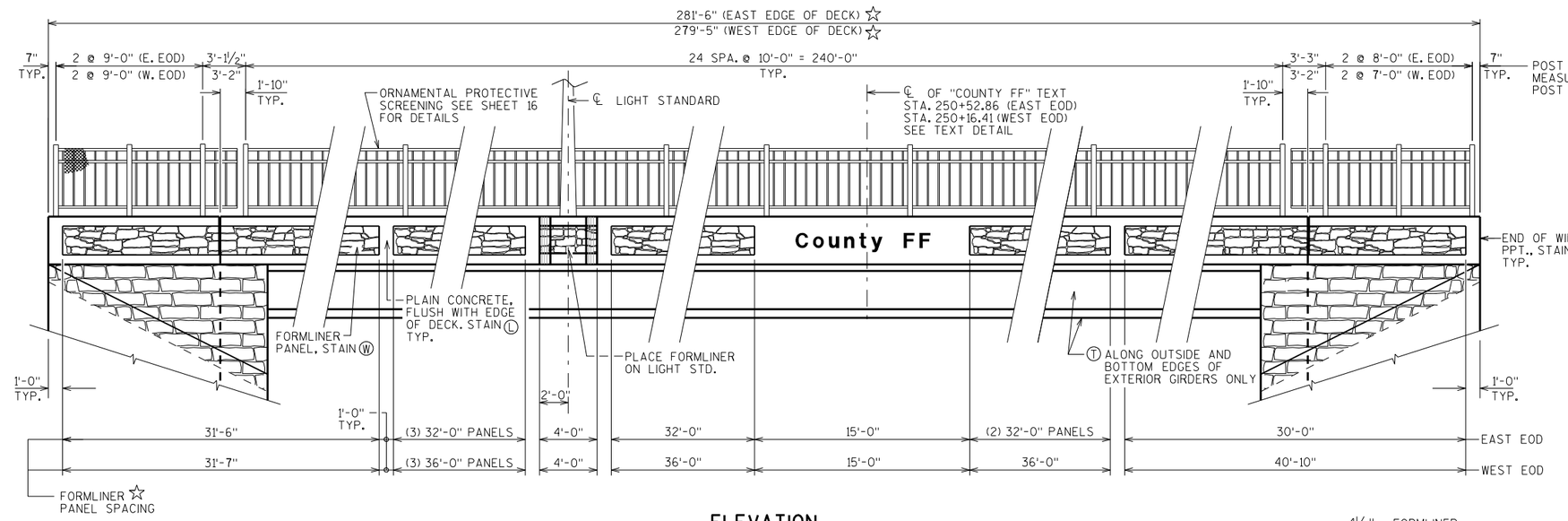
8

10

1 2 3 4

STATE PROJECT NUMBER

9200-04-71



ELEVATION

☆ MEASURED ALONG EDGE(S) OF DECK

FORMLINER NOTES

FORMLINER COURSING ON ABUTMENTS, WINGS, AND PIER COLUMNS SHALL BE LEVEL.

THE FORMLINER COURSING ON THE WINGS SHALL BE VERTICALLY ALIGNED WITH THE FORMLINER COURSING ON THE FRONT OF THE ABUTMENT.

THE FORMLINER COURSING ON THE PARAPETS SHOULD BE PARALLEL TO THE TOP OF PARAPET.

THE FORMLINER PATTERN SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.

WRAP AROUND/MATCH FORMLINER PATTERN AT CORNERS.

FORMLINER ON ABUTMENTS, WINGS, AND PIER COLUMNS SHALL BE "RANDOM CUT STONE" (OR EQUIVALENT) TO THE LIMITS SHOWN.

FORMLINER ON EXTERIOR PARAPETS SHALL BE "NEW ENGLAND DRYSTACK" (OR EQUIVALENT) APPLIED AS PANELS AND SPACED AS SHOWN IN DETAIL.

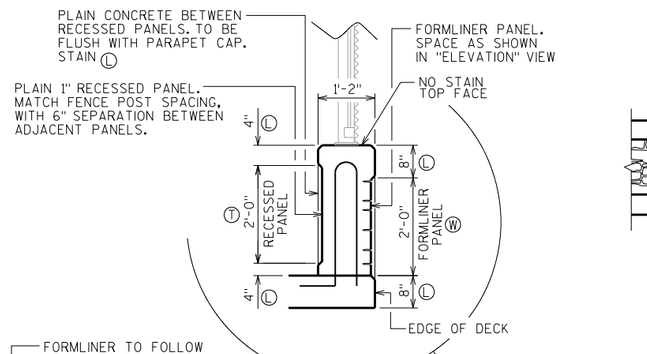
STAINING NOTES

COLOR SAMPLES AND TEST PANEL TO BE APPROVED BY WISDOT PRIOR TO APPLYING STAIN TO STRUCTURE.

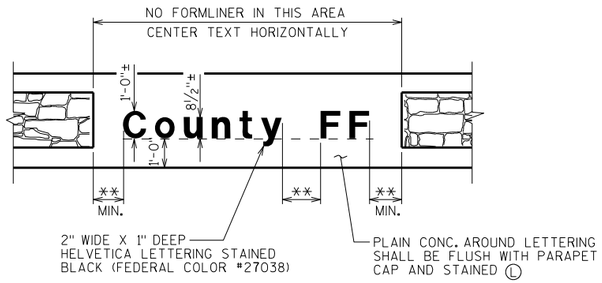
Ⓛ LIGHT TAN STAIN, FS#30315

Ⓣ TAN STAIN, FS#30227

Ⓦ WEATHERED STAIN - SEE STANDARD SPECIAL PROVISION "CONCRETE STAINING MULTI-COLOR B-05-402"

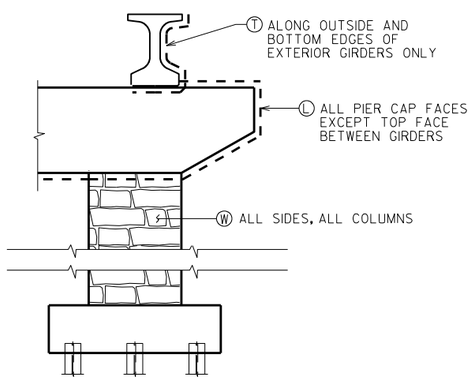


ELEVATION - FRONT FACE OF ABUTMENT BODY

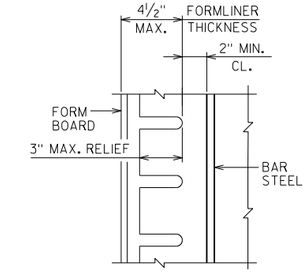


ROADWAY TEXT DETAIL

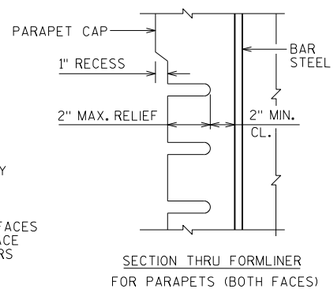
** 2 LETTER SPA.



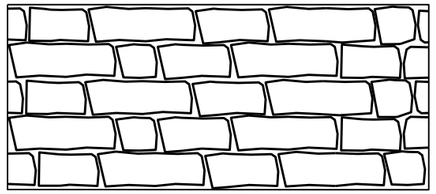
ELEVATION - PIER COLUMN



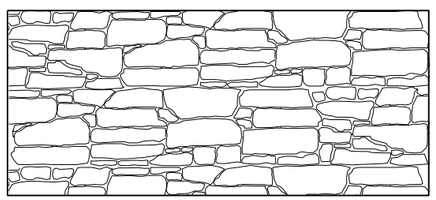
SECTION THRU FORMLINER FOR ABUTS AND PIER



SECTION THRU FORMLINER FOR PARAPETS (BOTH FACES)



RANDOM CUT STONE (OR EQUIV.)
COURSE HEIGHT = 14"± 2"
MAX. RELIEF = 3"
MAX. FORMLINER THK. = 4½"



NEW ENGLAND DRYSTACK (OR EQUIV.)
STONE SIZE = 3" - 24"
MAX RELIEF = 2"

FORMLINER DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-402

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AETHETICS DETAILS

SHEET 19

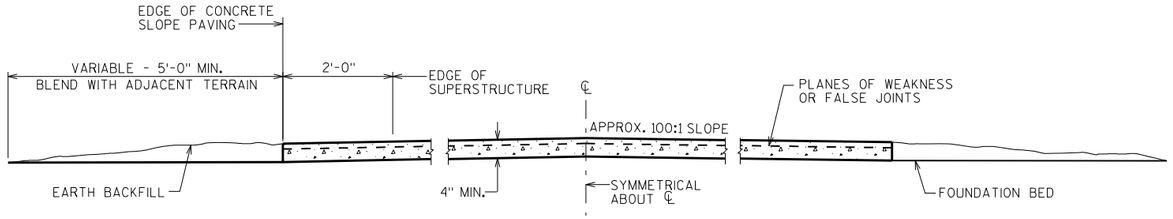
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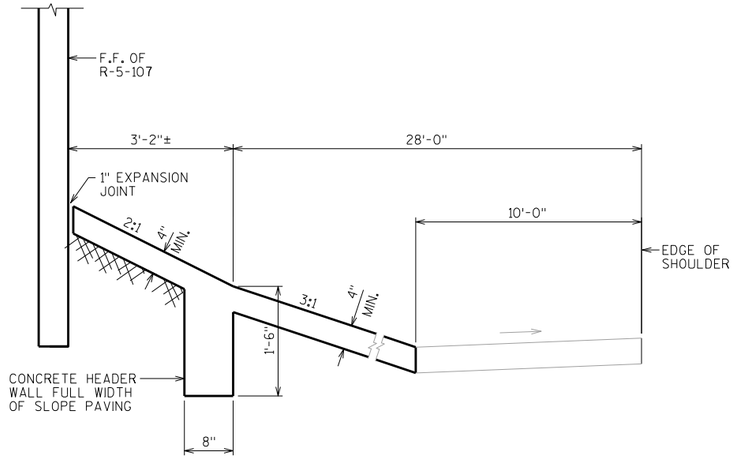
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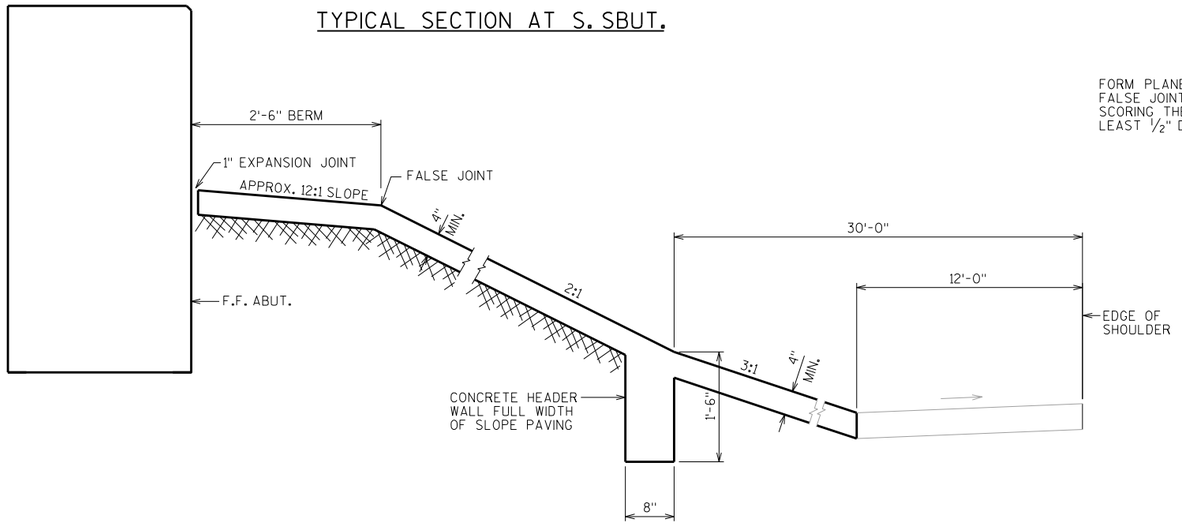
STATE PROJECT NUMBER
9200-04-71



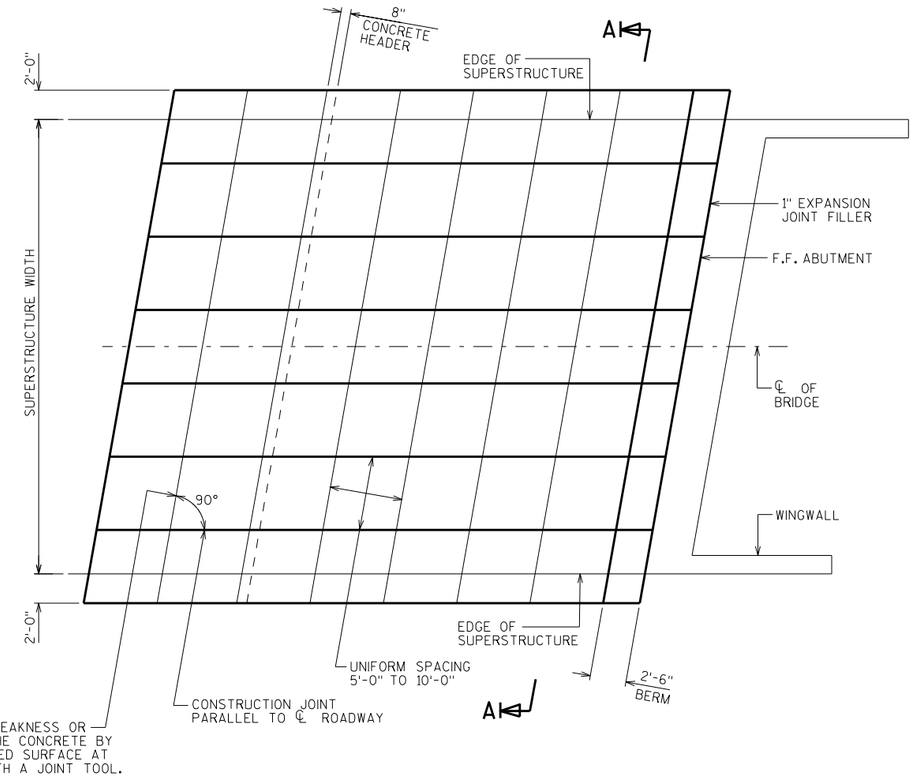
SECTION A-A



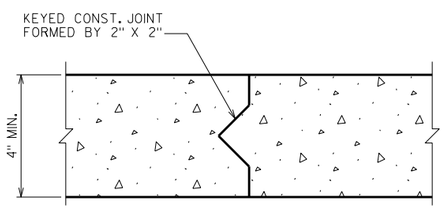
TYPICAL SECTION AT S. SBUT.



TYPICAL SECTION AT N. ABUT.



CONSTRUCTION JOINT DESIGN



CONSTRUCTION JOINT

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN HEREON SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-402

DRAWN BY DDS | PLANS CK'D. ADS

SLOPE PAVING (CONCRETE CAST-IN-PLACE)

SHEET 20

466

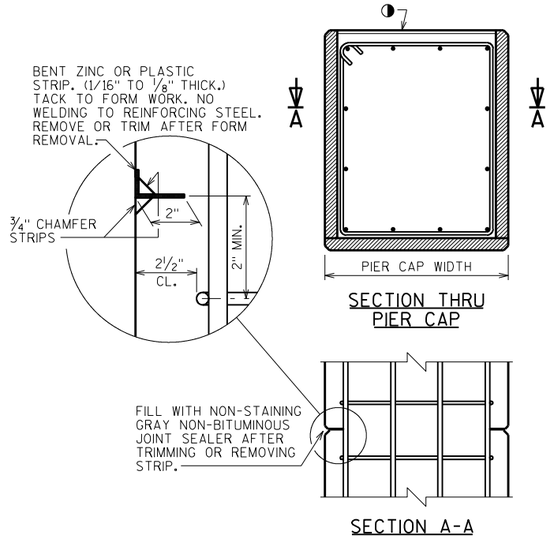
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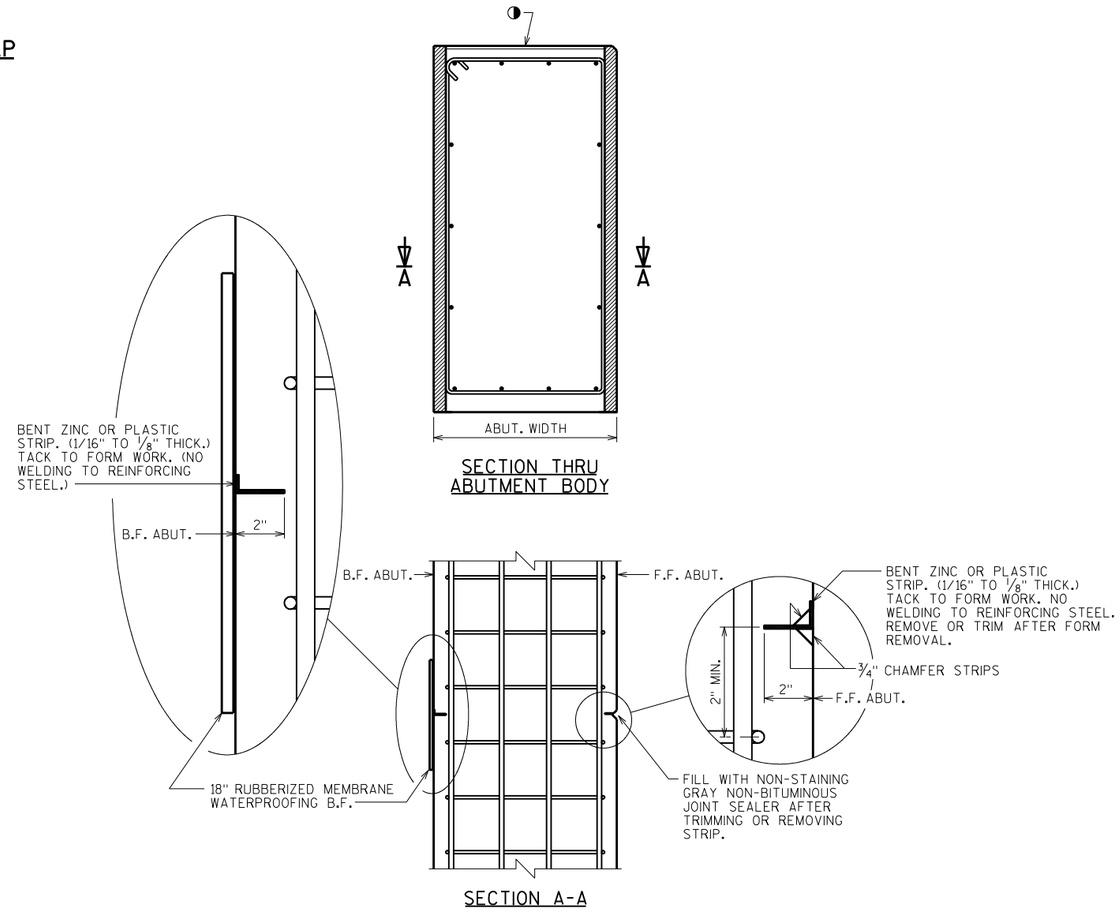
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STATE PROJECT NUMBER

9200-04-71



ALTERNATE CONSTRUCTION JOINT AT PIER CAP



ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

◑ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-402

DRAWN BY DDS | PLANS CK'D. ADS

ALTERNATE CONSTRUCTION JOINT

SHEET 21

467

8

8

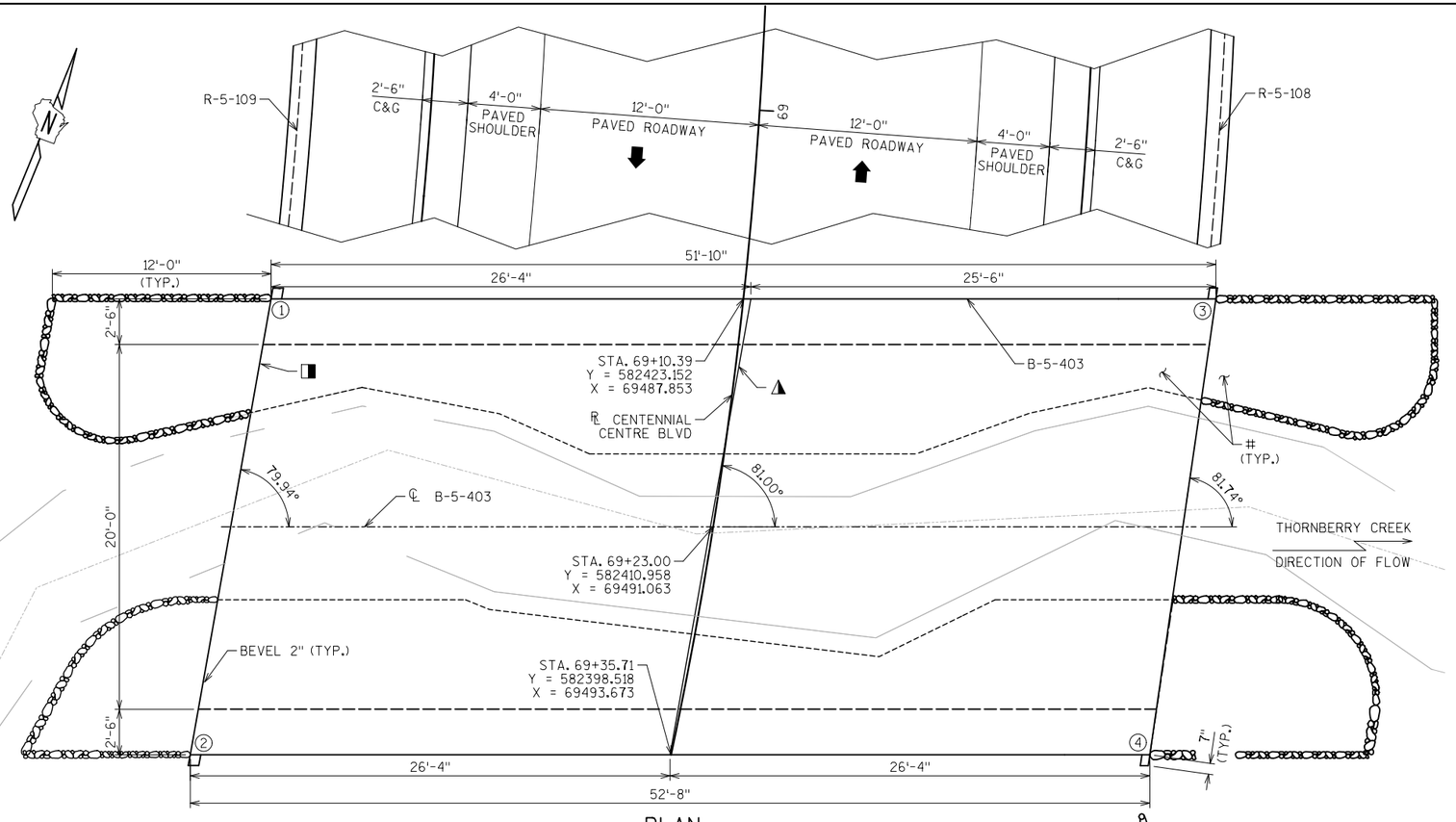
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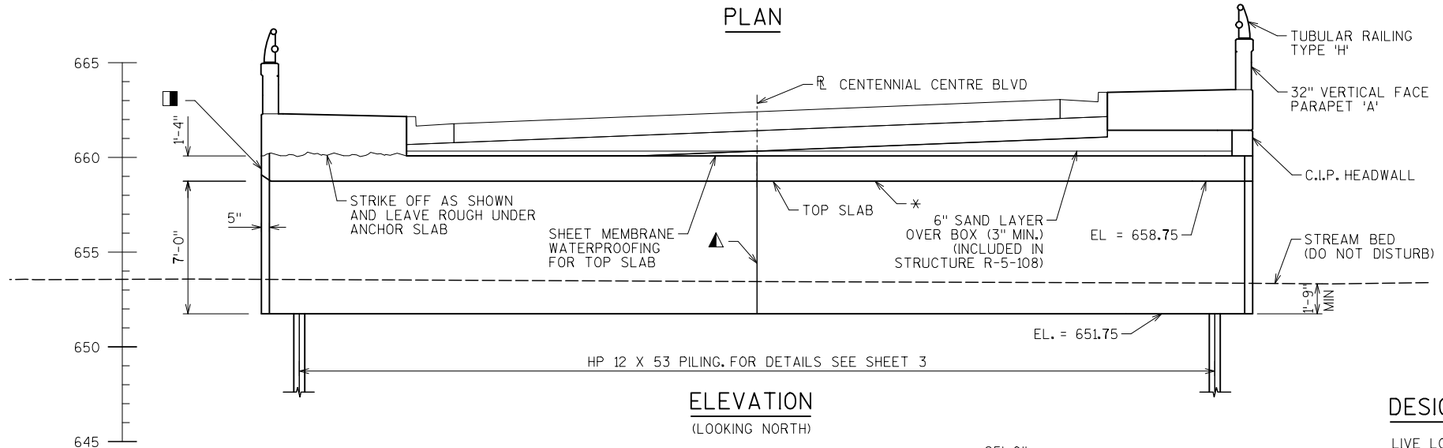
ALTJOINT
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STATE PROJECT NUMBER

9200-04-71

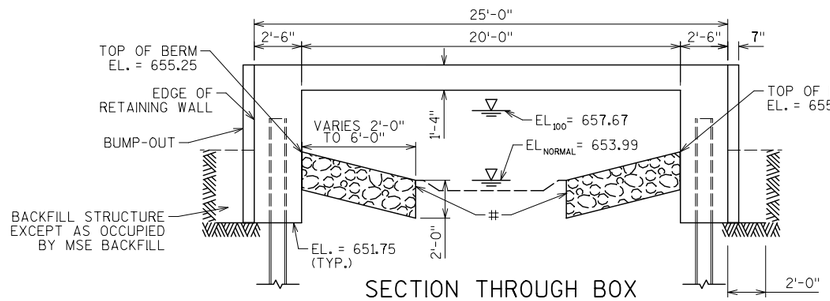


PLAN



ELEVATION

(LOOKING NORTH)



SECTION THROUGH BOX

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

B-5-403 IS A SINGLE CELL, THREE SIDED, CAST-IN-PLACE BOX CULVERT RUNNING BENEATH CENTENNIAL CENTRE BLVD. IT WILL EXTEND THROUGH R-5-109 ON THE WEST END AND THROUGH R-5-108 ON THE EAST END. THE CONTRACTOR SHALL COORDINATE WITH THE CONSTRUCTION OF THE ADJACENT RETAINING WALLS.

ALL BAR STEEL FOR CAST-IN-PLACE CONCRETE BOX CULVERTS SHALL BE UNCOATED EXCEPT FOR THE BAR STEEL IN THE TOP SLAB.

THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES CULVERTS B-5-403 SHALL BE THE EXISTING GROUNDLINE.

ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE ELEVATION AND SECTION EXISTING PRIOR TO EXCAVATION. THE REST SHALL BE INCLUDED IN THE ROADWAY FILL.

DO NOT BACKFILL UNTIL TOP SLAB HAS REACHED DESIGN STRENGTH.

LOCATE NAME PLATE ON THE NW END OF THE TOP SLAB.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 36 STANDARDS OF THE CURRENT WISCONSIN 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 QUANTITITES".

THE PARAPETS AND ANCHOR SLABS ABOVE THE CULVERT ARE INCLUDED IN THE RETAINING WALL PLANS R-5-108 & R-5-109.

PROTECT EXISTING STREAMBED FROM DISTURBANCE DURING CONSTRUCTION. DO NOT RE-ROUTE STREAM IN ANY FASHION.

ALL STATIONS AND DIMENSIONS ARE IN SURVEY FEET, ALL ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO NAVD 88 DATUM.

BENCHMARK

NO.	STATION	DESCRIPTION	ELEVATION
BM 292009	248+00	PK NAIL IN PPOL 241913E7 NEAR FF	671.04
CP 502	226+20	CONTROL POINT NEAR HILLCREST DRIVE	669.73

LEGEND

- ◨ NAME PLATE LOCATION
- ◭ 18" MIN. RUBBERIZED MEMBRANE WATERPROOFING. VERT. CONST. JOINT UP WALLS. OPTIONAL CONST. JOINT ACROSS TOP SLAB.
- # RIPRAP HEAVY OVER GEOTEXTILE FABRIC TYPE HR. EXTEND TO LIMITS SHOWN ON PLAN VIEW. MAINTAIN 1'-0" MIN. DISTANCE TO STREAM EDGE.
- * HORIZ. CONST. JOINT. 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG JOINT.
- ① SIGNIFIES CORNER NUMBER

FOUNDATION DATA

PILING STEEL HP 12-INCH X 53 LB TO BE DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS, AS DETERMINED BY THE MODIFIED GATES EQUATION. ESTIMATED PILE LENGTH IS 72' FOR BOTH NORTH AND SOUTH WALLS.

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. QUANTITIES AND CULVERT DETAILS
3. WALL DETAILS
4. REINFORCEMENT DETAILS
5. SUBSURFACE EXPLORATION

WISCONSIN
MICHAEL J. ARNOLD
E-41717
GREENDALE
WI
PROFESSIONAL ENGINEER
15 29

TRAFFIC DATA

A.A.D.T (2014)	1,800
A.A.D.T (2034)	6,000
DESIGN SPEED	30 M.P.H

HYDRAULIC DATA

100 YEAR FREQUENCY	
DRAINAGE AREA	0.92 SQ. MI.
Q_{100} TOTAL	130 C.F.S.
THROUGH STRUCTURE	130 C.F.S.
OVERTOPPING ROADWAY	0 C.F.S.
VELOCITY - THROUGH STRUCTURE	2.9 F.P.S.
WATERWAY AREA	45 SQ. FT.
HIGH WATER$_{100}$ ELEVATION	657.67
EROSION CONTROL	
Q_2	11.4 C.F.S.
HIGH WATER$_2$ ELEVATION	655.05

DESIGN DATA

LIVE LOAD:	
DESIGN LOADING:	HL-93
INVENTORY RATING FACTOR:	1.05
OPERATING RATING FACTOR:	1.35
MAX. STANDARD PERMIT VEHICLE LOAD:	255 KIPS
EARTH LOAD:	
DESIGNED FOR 1.99 FT OF FILL AND 3.5 FT OF FILL	UNIT WT. = 140 P.C.F. UNIT WT. = 150 P.C.F.
LIVE LOAD SURCHARGE:	
EQUIVALENT HEIGHT	2.8 FT
ULTIMATE DESIGN STRESSES:	
CONCRETE MASONRY (GRADE A-FA)	F'C = 3,500 P.S.I
HIGH-STRENGTH BAR STEEL REINFORCEMENT	FY = 60,000 P.S.I

NE REGION CONTACT - JEREMY ASHAUER (920) 492-4165
BUREAU OF STRUCTURES CONTACT - WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT - MIKE ARNOLD (414) 831-4179

NO.	DATE	REVISION	BY

URS
342 North Water Street
7th Floor
Milwaukee, WI 53202
(414) 831-4100

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher — CHIEF STRUCTURES DESIGN ENGINEER — 2/15/13 DATE

STRUCTURE B-5-403

CENTENNIAL CENTRE BLVD OVER THORNBERRY CREEK

COUNTY	~~TOWN/CITY~~/VILLAGE
BROWN	HOBART

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
MRL	MJA	MRL	JDB

GENERAL PLAN AND ELEVATION

SHEET 1 OF 5
468

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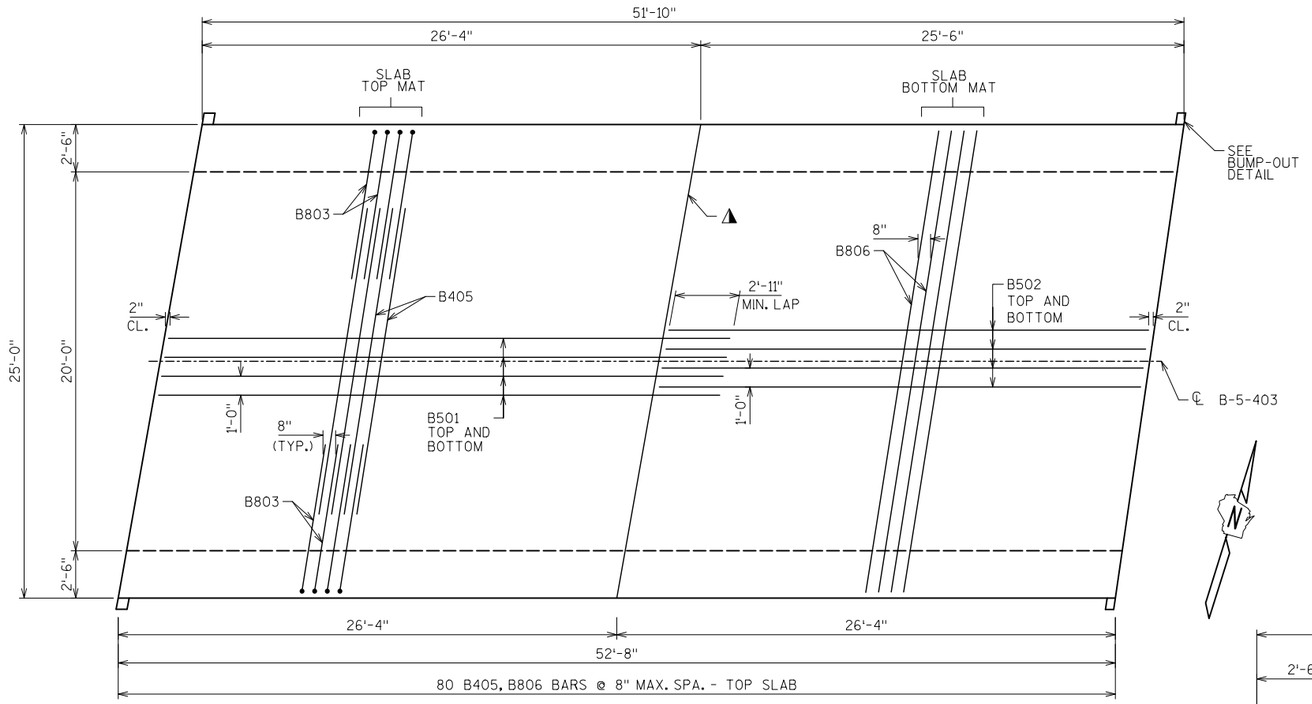
DATE: 2/15/2013
I.D.

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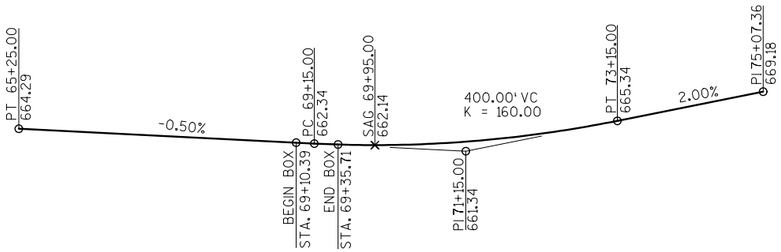
STATE PROJECT NUMBER

9200-04-71

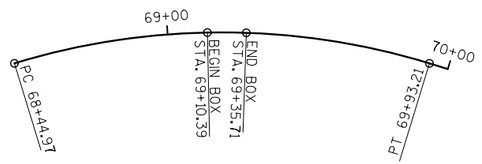


SLAB DETAILS

PLAN VIEW



PROFILE GRADE LINE - CENTENNIAL CENTRE BLVD



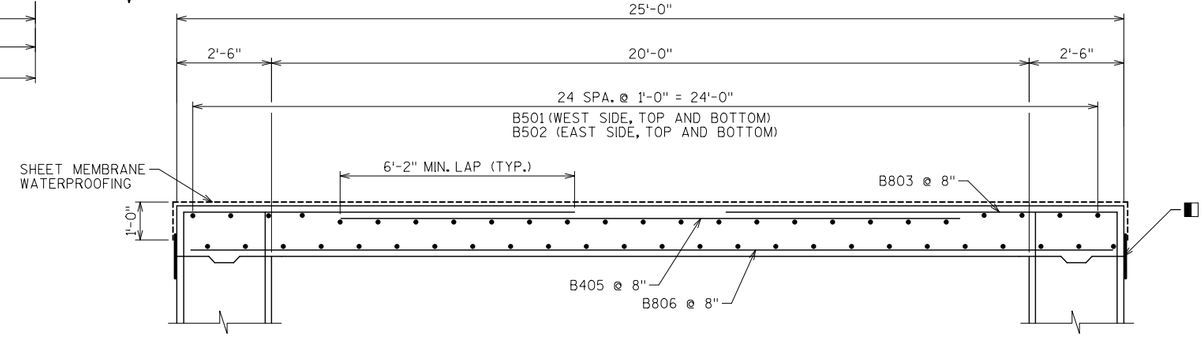
HORIZONTAL CURVE - CENTENNIAL CENTRE BLVD

CCB HORIZONTAL CURVE DATA

PC = STA 68+44.97
X = 69461.505
Y = 582481.719
PI = STA 69+21.34
X = 69501.051
Y = 582416.386
PT = STA 69+93.21
X = 69497.338
Y = 582340.106
R = 250.00
DELTA = 33°58'26" (RT)
D = 22°55'06"
L = 148.24

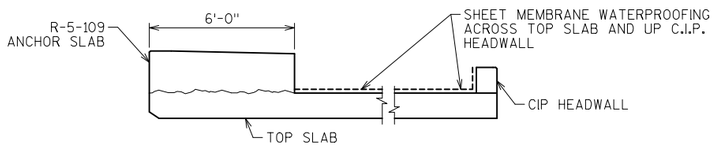
TOTAL ESTIMATED QUANTITIES

BID ITEM #	BID ITEM	UNIT	TOTAL
206.2000	EXCAVATION FOR STRUCTURES CULVERTS B-5-403	LS	1
210.0100	BACKFILL STRUCTURE	CY	30
504.0100	CONCRETE MASONRY CULVERTS	CY	135
505.0410	BAR STEEL REINFORCEMENT HS CULVERTS	LB	4,960
505.0610	BAR STEEL REINFORCEMENT HS COATED CULVERTS	LB	19,450
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	25
516.0610.S.02	SHEET MEMBRANE WATERPROOFING FOR TOP SLAB B-5-403	SY	140
550.1120	PILING STEEL HP 12-INCH x 53 LB	LF	1,152
606.0300	RIPRAP HEAVY	CY	59
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	133
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	90
	NON BID ITEMS		
	FILLER	SIZE	1"
	NAME PLATE	EACH	1



TYPICAL SECTION THRU SLAB

ALL BARS IN SLAB ARE EPOXY COATED



LIMITS OF SHEET MEMBRANE WATERPROOFING

ELEVATION VIEW - LOOKING NORTH

LEGEND

◭ 18" MIN. RUBBERIZED MEMBRANE WATERPROOFING. VERT. CONST. JOINT UP WALLS. OPTIONAL CONST. JOINT ACROSS TOP SLAB.

◧ HORIZ. CONST. JOINT (TYP.). 18" MIN. RUBBERIZED MEMBRANE WATERPROOFING ALONG JOINT.

NOTES

SEE SHEET 4 FOR BILL OF BARS.

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

MINIMUM TENSION LAP SPLICE LENGTHS SHALL BE CLASS "C" LAPS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-403

DRAWN BY MRL | PLANS CK'D. JDB

QUANTITIES AND CULVERT DETAILS

SHEET 2 OF 5
469

DATE: 2/15/2013
I.D.

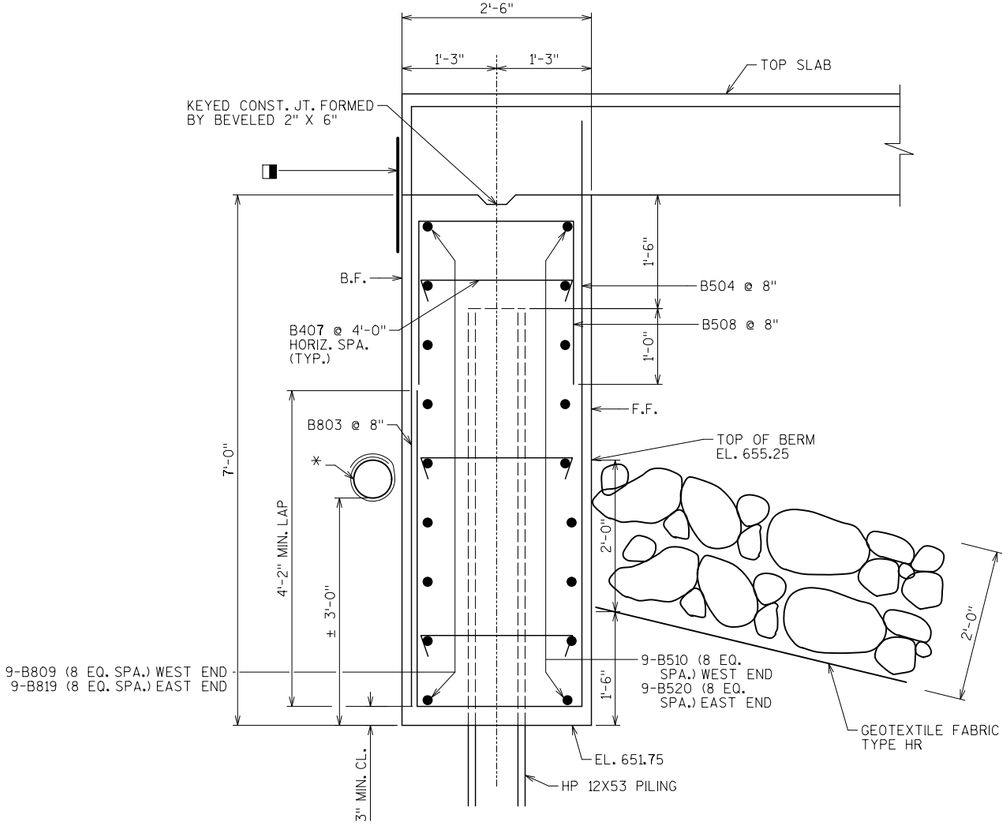
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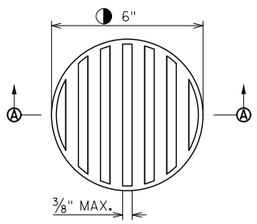
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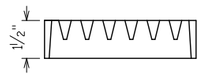
9200-04-71



TYPICAL SECTION THRU WALL



RODENT SCREEN DETAIL

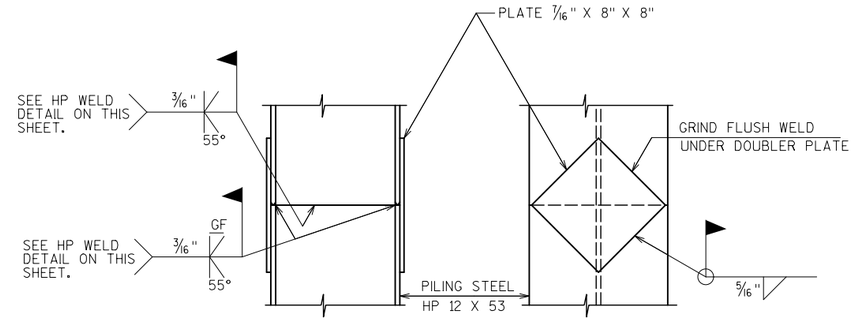


SECTION A-A

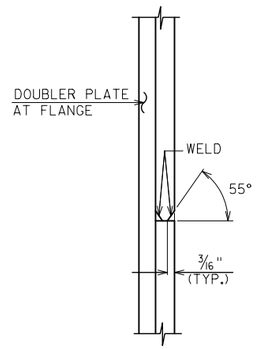
◑ DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SHIELD SO SLOTS ARE VERTICAL.

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

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

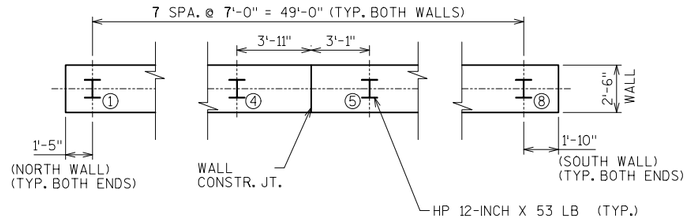


PILE SPLICE DETAIL



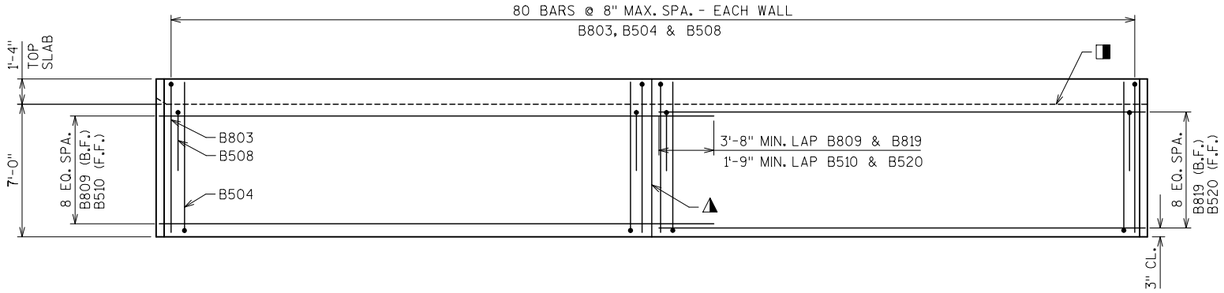
HP WELD DETAIL

(FLANGE SHOWN, WEB SIMILAR)



PILING DETAILS

PLAN VIEW



WALL DETAIL

ELEVATION VIEW - LOOKING NORTH
PILING NOT SHOWN FOR CLARITY

LEGEND

▲ 18" MIN. RUBBERIZED MEMBRANE WATERPROOFING. VERT. CONST. JOINT UP WALLS. OPTIONAL CONST. JOINT ACROSS TOP SLAB.

◨ HORIZ. CONST. JOINT (TYP.). 18" MIN. RUBBERIZED MEMBRANE WATERPROOFING ALONG JOINT.

✳ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

NOTES

SEE SHEET 4 FOR BILL OF BARS.

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

MINIMUM TENSION LAP SPLICE LENGTHS SHALL BE CLASS "C" LAPS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-403

DRAWN BY	MRL	PLANS CK'D.	JDB

WALL DETAILS

SHEET 3 OF 5
470

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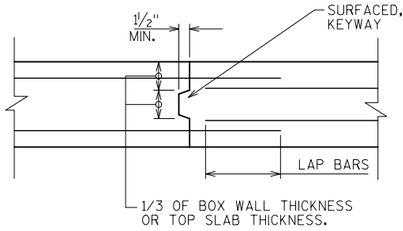
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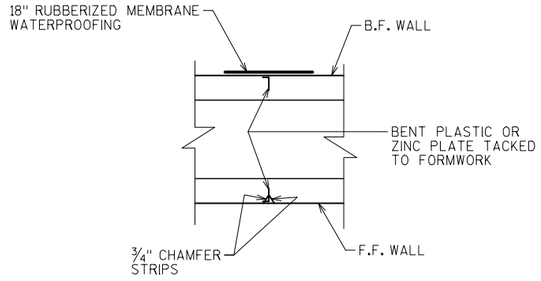
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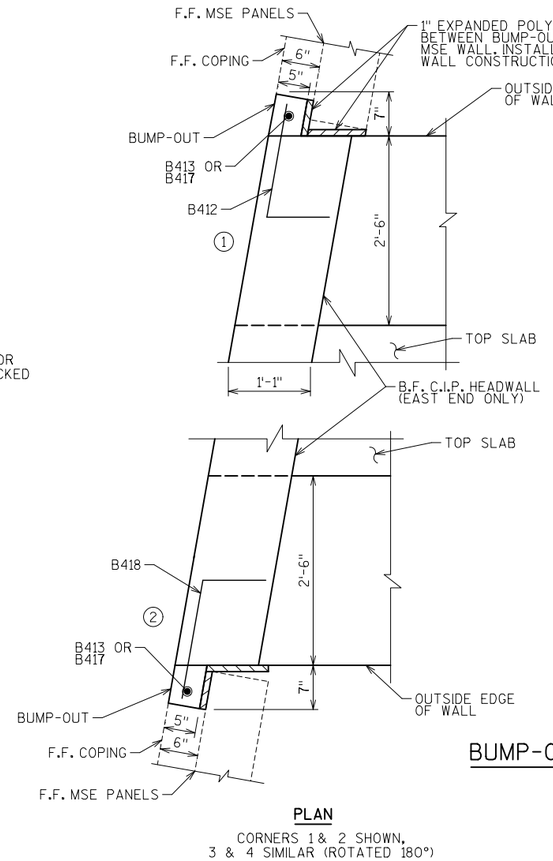
9200-04-71



CONSTRUCTION JOINT DETAIL



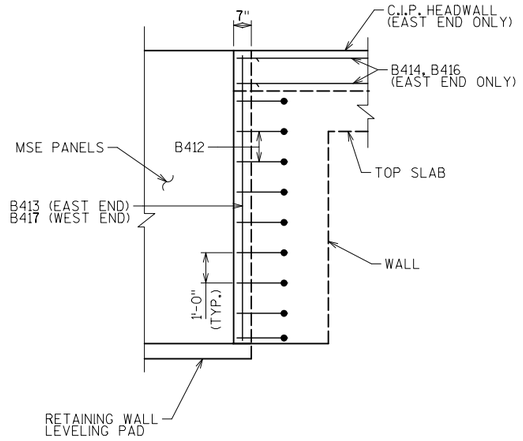
ALTERNATE TO WALL CONSTRUCTION JOINT



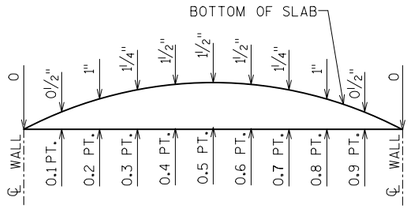
BUMP-OUT DETAIL

PLAN

CORNERS 1 & 2 SHOWN,
3 & 4 SIMILAR (ROTATED 180°)



ELEVATION



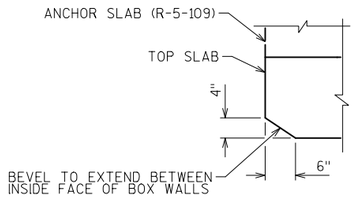
CAMBER DIAGRAM

CAMBER SPAN AS SHOWN TO PROVIDE FOR DEADLOAD DEFLECTION & FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. CAMBER BASED ON 6 TIMES THE DEAD LOAD DEFLECTION.

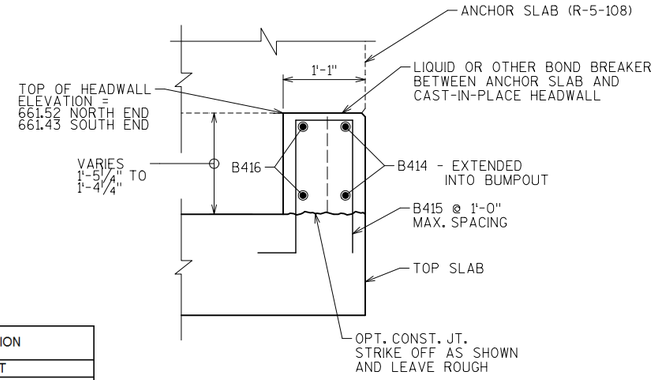
NOTES

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM TRANSVERSE AND TOP LONGITUDINAL BARS TO BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).



INLET DETAIL

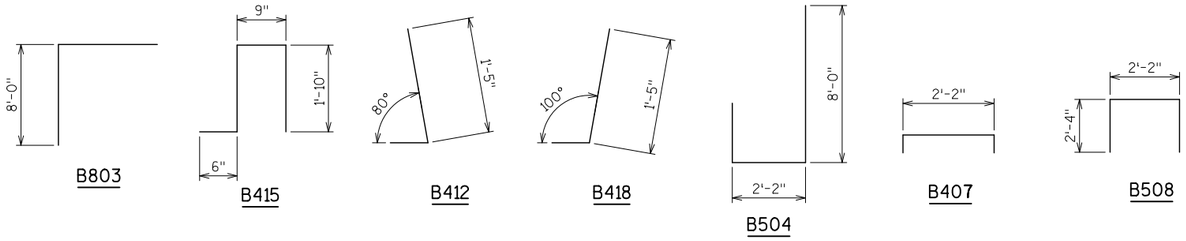


C.I.P. HEADWALL DETAIL

(AT EAST END)

BILL OF BARS

BAR MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
B501	50	30'-1"		X	SLAB LONG. WEST
B502	50	25'-2"		X	SLAB LONG. EAST
B803	160	18'-1"	X	X	CORNER
B504	160	14'-3"	X	X	WALL VERT.
B405	80	16'-10"		X	SLAB TOP MAT HORIZ.
B806	80	25'-0"		X	SLAB BOTT. MAT HORIZ.
B407	84	2'-9"	X		WALL TIES
B508	160	6'-7"	X		WALL VERT. TOP
B809	18	30'-10"			WALL HORIZ. WEST
B510	18	28'-11"			WALL HORIZ. WEST
B511	–	–	--	–	(NOT USED)
B412	18	2'-0"	X	X	BUMPOUT HORIZ.
B413	2	9'-4"		X	BUMPOUT VERT. EAST
B414	2	26'-2"		X	HEADWALL HORIZ.
B415	25	4'-8"	X	X	HEADWALL VERT.
B416	2	25'-0"		X	HEADWALL HORIZ.
B417	2	8'-0"		X	BUMPOUT VERT. WEST
B418	18	2'-0"	X	X	BUMPOUT HORIZ.
B819	18	25'-2"			WALL HORIZ. EAST
B520	18	25'-2"			WALL HORIZ. EAST



BAR DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-403

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REINFORCEMENT DETAILS

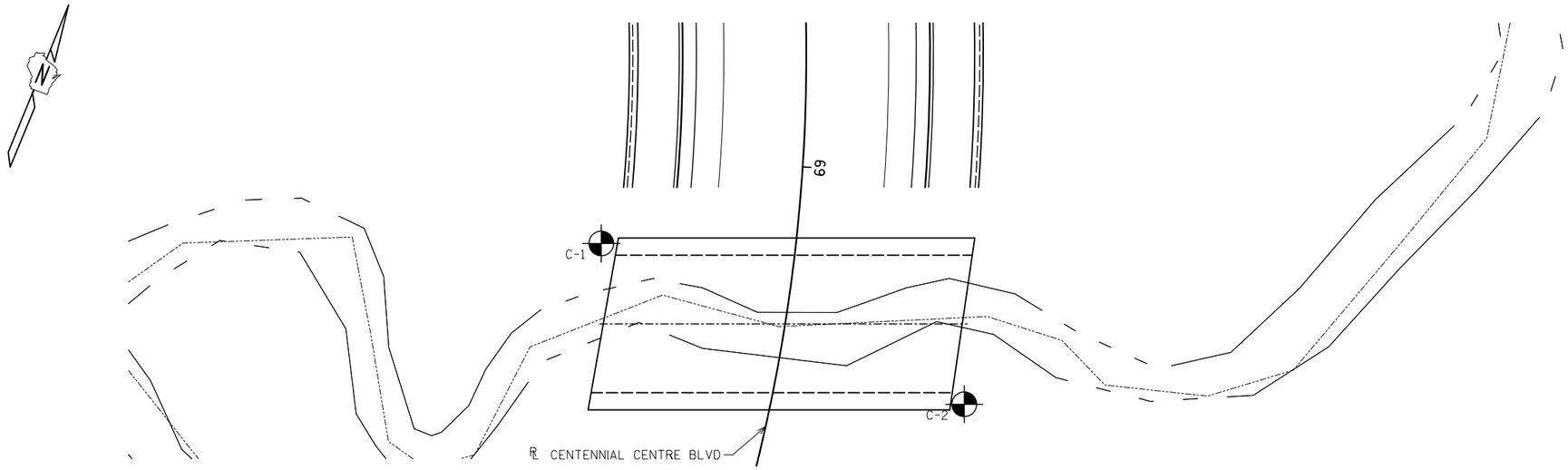
SHEET 4 OF 5
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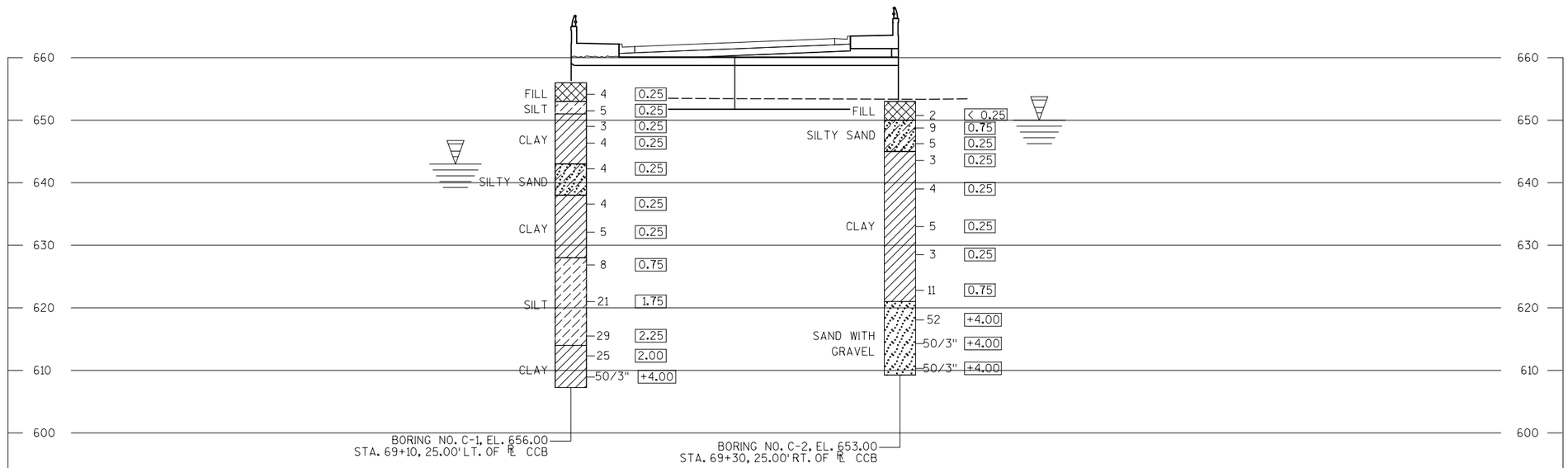
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PLAN



STATE PROJECT NUMBER

9200-04-71

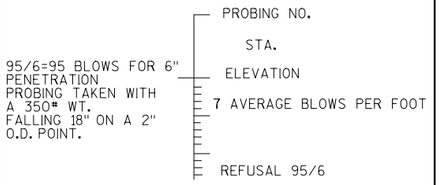
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

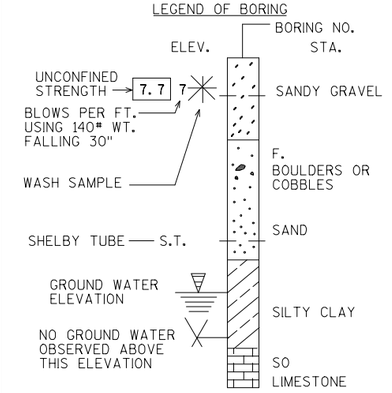
MATERIAL SYMBOLS

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

STRUCTURE B-5-403

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SUBSURFACE EXPLORATION

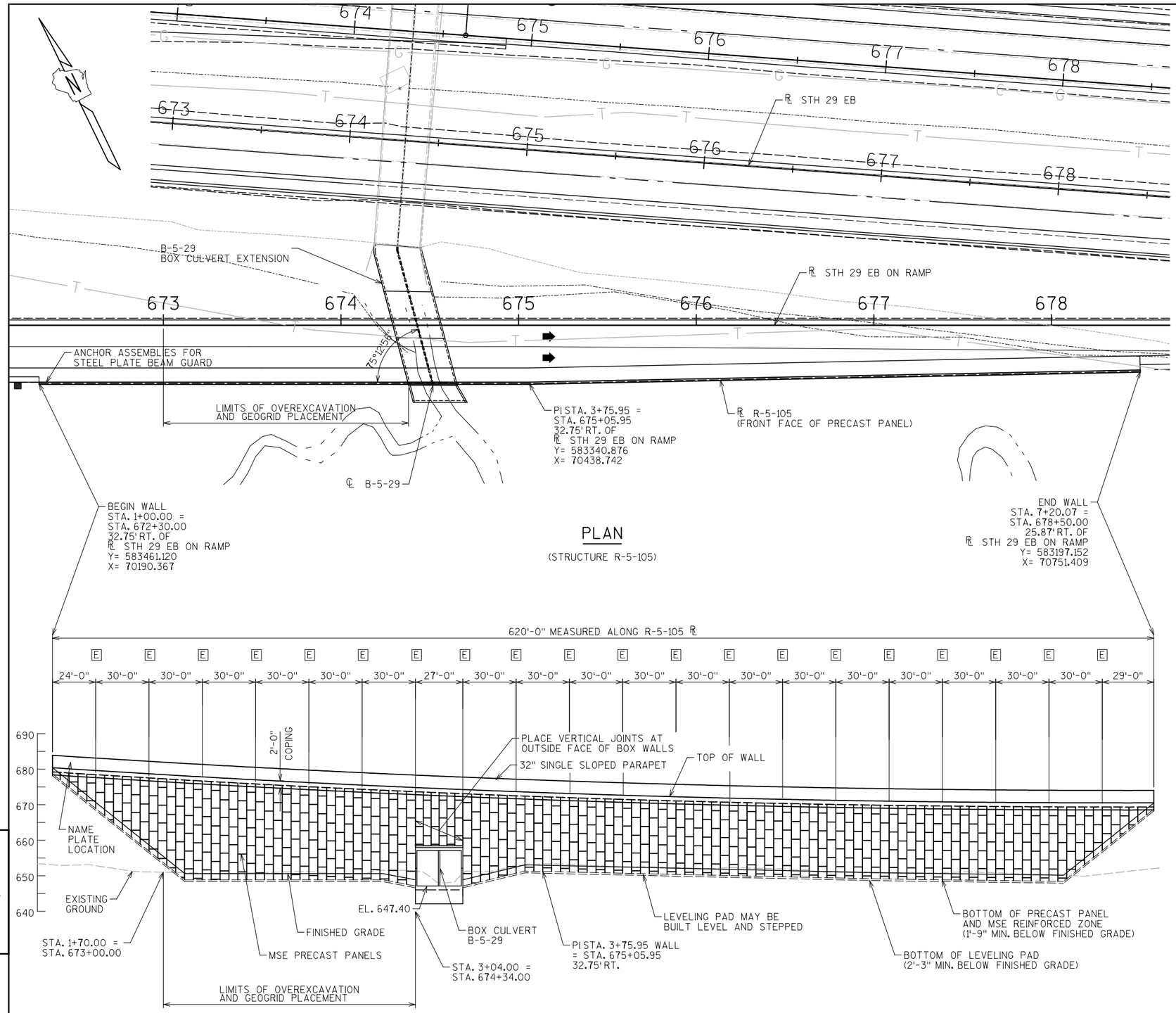
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PLAN

(STRUCTURE R-5-105)

ELEVATION

(LOOKING NORTH AT FRONT FACE OF WALL)

NOTE:

SEE "GEOMETRY TABLE" ON SHEET 2

STATE PROJECT NUMBER

9200-04-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND DIMENSIONS ARE IN SURVEY FEET, ALL ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NAVD 88 DATUM.

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

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

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 IN THE GEOMETRY TABLE.

DESIGN FOR RETAINING WALL TO PROVIDE FOR A FINISHED GRADE SLOPE BEHIND THE WALL AS SHOWN IN THE ROADWAY CROSS SECTIONS.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

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.

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

HOT DIP GALVANIZE ALL STRUCTURAL STEEL CARBON IN ACCORDANCE WITH ASTM A123 WHERE SHOWN.

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP AND INSIDE FACES OF PARAPETS AND EXPOSED PORTION OF ANCHOR SLAB.

THE COST OF FURNISHING AND PLACING THE LEVELING PAD UNDER THE PRECAST WALL PANELS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT."

THE QUANTITY OF CONCRETE MASONRY FOR THE CAST-IN-PLACE ANCHOR SLAB AND PARAPETS IS PAID FOR UNDER THE ITEM "CONCRETE MASONRY RETAINING WALLS"

ALL STATIONS ARE ALONG THE ℄ FOR R-5-105 ALONG THE FRONT FACE OF WALL UNLESS SHOWN OTHERWISE.

THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF RETAINING WALL R-5-105 WITH BOX CULVERT B-5-29.

THE SOILS AT THE BASE OF THE WALL SHALL BE REVIEWED BY THE NORTHEAST REGION SOILS ENGINEER TO DETERMINE IF THE SOILS HAVE ADEQUATE STRENGTH TO SUPPORT THE MSE WALL.

GEOGRID SUPPLIED MUST BE APPROVED BY THE DEPARTMENT'S BUREAU OF STRUCTURES DESIGN SECTION.

LEGEND

E = EXPANSION JOINT

◄ = DIRECTION OF TRAFFIC

WISCONSIN
MICHAEL J. ARNOLD
E-41717
GREENDALE
WI
13 | 2 | 06
PROFESSIONAL ENGINEER

LIST OF DRAWINGS

1. GENERAL PLAN
2. DESIGN DATA AND QUANTITIES
3. WALL DETAILS 1
4. WALL DETAILS 2
5. SINGLE SLOPE PARAPET 32SS
6. SUBSURFACE EXPLORATION

NO.	DATE	REVISION	BY

URS
342 North Water Street
7th Floor
Milwaukee, WI 53202
(414) 831-4100

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher 2/19/13
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE R-5-105

STH 29 EB ON RAMP RETAINING WALL

COUNTY	BROWN	~~TOWN/CITY~~/VILLAGE	HOBART

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	JDB	DESIGN CK'D.	MJA	DRAWN BY	JDB	PLANS CK'D.	MJA

GENERAL PLAN AND ELEVATION

SHEET 1 OF 6
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NE REGION CONTACT - JEREMY ASHAUER (920) 492-4165
BUREAU OF STRUCTURES CONTACT - WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT - MIKE ARNOLD (414) 831-4179

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STATE PROJECT NUMBER

9200-04-71

GEOMETRY TABLE

WALL STATION	STH 29 EB ON RAMP STATION	OFFSET TO R/L OF WALL	TOP OF WALL	FINISHED GRADE
1+00.00	672+30.00	32.75 ' RT	680.51	680.42
1+25.00	672+55.00	32.75 ' RT	679.71	670.43
1+50.00	672+80.00	32.75 ' RT	678.94	660.43
1+75.00	673+05.00	32.75 ' RT	678.20	650.62
2+00.00	673+30.00	32.75 ' RT	677.50	650.23
2+25.00	673+55.00	32.75 ' RT	676.83	649.84
2+50.00	673+80.00	32.75 ' RT	676.20	649.45
2+75.00	674+05.00	32.75 ' RT	675.60	649.05
3+00.00	674+30.00	32.75 ' RT	675.03	648.88
3+25.00	674+55.00	32.75 ' RT	674.49	648.88
3+50.00	674+80.00	32.75 ' RT	673.99	651.18
3+75.00	675+05.00	32.75 ' RT	673.53	653.01
3+75.95	675+05.95	32.75 ' RT	673.51	653.00
4+00.00	675+30.00	32.27 ' RT	673.10	652.74
4+25.00	675+55.00	31.77 ' RT	672.71	652.46
4+50.00	675+80.00	31.27 ' RT	672.35	652.19
4+75.00	676+05.00	30.77 ' RT	672.03	651.91
5+00.00	676+30.00	30.27 ' RT	671.74	651.64
5+25.00	676+55.00	29.77 ' RT	671.48	651.36
5+50.00	676+80.00	29.27 ' RT	671.26	651.09
5+75.00	677+05.00	28.77 ' RT	671.07	650.85
6+00.00	677+30.00	28.27 ' RT	670.91	650.67
6+25.00	677+55.00	27.77 ' RT	670.79	650.49
6+50.00	677+80.00	27.27 ' RT	670.70	650.32
6+75.00	678+05.00	26.77 ' RT	670.64	652.50
7+00.00	678+30.00	26.27 ' RT	670.62	662.49
7+20.07	678+50.00	25.87 ' RT	670.62	670.51

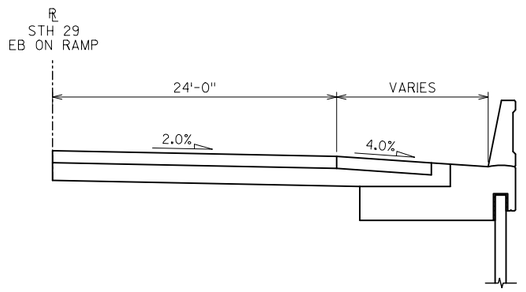
TOTAL ESTIMATED QUANTITIES

BID ITEM #	BID ITEM	UNIT	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	295
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	278
505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	32,220
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	26
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	630
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1
650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT R-5-105	LS	1
SPV.0165.01	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT	SF	13,305
	NON BID ITEMS		
	FILLER	SIZE	1/2" & 1"
	NAME PLATE	EACH	1
	EXPANDED POLYSTYRENE	SIZE	1"

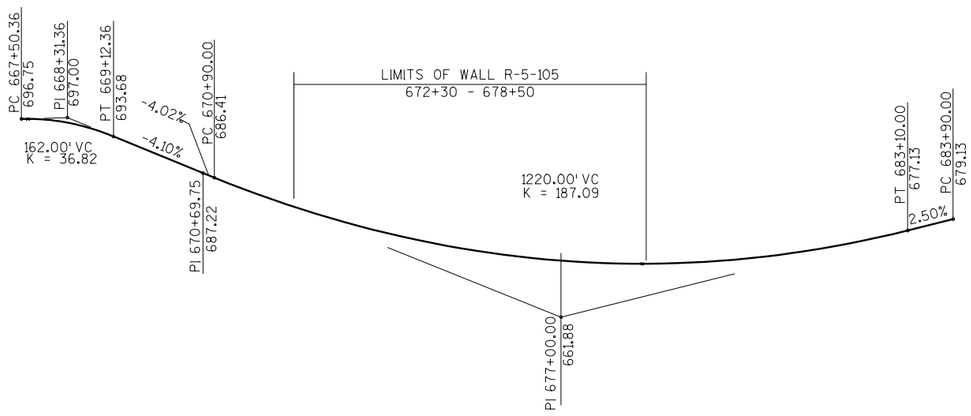
ALL ITEMS ARE CATEGORY 0070

BENCHMARK

NO.	STATION	DESCRIPTION	ELEVATION
BM 29619	674+17	BRASS CAP ON SW WALL OF B-5-29	658.06
CP 503	691+00	CONTROL POINT NEAR STH 29	693.15



TYPICAL SECTION - STH 29 EB ON RAMP



PROFILE GRADE LINE - STH 29 EB ON RAMP

WALL EXTERNAL AND OVERALL STABILITY EVALUATION

DIMENSIONS	EVALUATED LOCATIONS			
ROADWAY REFERENCE LINE STATION	673+05	674+05	675+05	676+05
WALL HEIGHT (FEET)*	28.75	28.15	21.45	22.75
EXPOSED WALL HEIGHT (FEET)	27	26.4	19.7	21
OVEREXCAVATION BELOW BOTTOM OF WALL (FEET)	3.00	3.75	0	0
◪ MINIMUM LENGTH OF GEOGRID IN OVEREXCAVATED ZONE (BELOW BOTTOM OF WALL) (FEET)	29	34	N/A	N/A
◪ MINIMUM LENGTH OF REINFORCEMENT FROM BOTTOM OF WALL TO LIMIT BELOW† (FEET)	29	34	15	17
†HEIGHT FROM BOTTOM OF WALL TO TOP OF ZONE WITH LONGER REINFORCING STRAPS (FEET)	11	12	N/A	N/A
◪ MINIMUM LENGTH OF REINFORCEMENT FOR REMAINING HEIGHT (FEET)	19	25	15	17
WALL STATION	1+75	2+75	3+75	4+75
BORING USED	B-26	B-26	B-27	B-27
CAPACITY TO DEMAND RATIO (CDR)				
SLIDING (CDR>1.0)	2.2	2.0	1.6	1.5
ECCENTRICITY (CDR>1.0)	2.0	3.2	1.9	2.0
☆ OVERALL STABILITY (CDR>1.0)	1.0	1.0	1.1	1.1
BEARING RESISTANCE (CDR>1.0)	1.5	1.3	1.7	1.0
FACTORED BEARING RESISTANCE (PSF)	9166	11672	7200	4493

*INCLUDES 1'-9" EMBEDMENT DEPTH

◪ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND OVERALL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS. FINAL DESIGN FOR INTERNAL STABILITY AND EXTERNAL SLIDING AND ECCENTRICITY AT OTHER WALL LOCATIONS IS THE RESPONSIBILITY OF THE CONTRACTOR'S WALL DESIGNER.

☆ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED ON OVERALL STABILITY PERFORMED BY THE WALL DESIGNER. COMPOUND STABILITY IS THE CONTRACTORS RESPONSIBILITY.

◆ ALL CDR VALUES ASSUME EXCAVATION BELOW THE MSE FILL AS REQUIRED. INSTALL ALTERNATING 6" LAYERS OF GEOGRID AND ENGINEERED FILL MEETING THE REQUIREMENTS OF THE MSE WALL FILL. EXTEND GEOGRID AND MSE REINFORCING STRAPS TO THE LENGTH GIVEN IN THE TABLE. PAYMENT FOR OVER EXCAVATION, PROVIDING AND PLACING GEOGRID AND ADDITIONAL ENGINEERED FILL, AND THE ADDITIONAL REINFORCING STRAP LENGTH IS INCIDENTALTO BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT".

SOIL PARAMETERS

BORING B-25, STA 672+89.72			
Stratum Locations & Soil Description	Unit Weight (PCF)	Friction Angle (Degrees)	Cohesion (PSF)
EL. 648' TO EL. 651'	127	28	50
EL. 628' TO EL. 648'	105	31	0
EL. 601' TO EL. 628'	130	29	50
Granular backfill (Within the Wall Reinforcing Zone)	120	30	0
Fill (Behind and Below the Reinforcing Zone)	120	33	0

BORING B-26, STA 674+22.3			
Stratum Locations & Soil Description	Unit Weight (PCF)	Friction Angle (Degrees)	Cohesion (PSF)
EL. 636' TO EL. 649'	105	31	0
EL. 619' TO EL. 636'	130	29	50
EL. 599' TO EL. 619'	105	30	0
Granular backfill (Within the Wall Reinforcing Zone)	120	30	0
Fill (Behind and Below the Reinforcing Zone)	120	33	0

BORING B-27, STA 674+89.92			
Stratum Locations & Soil Description	Unit Weight (PCF)	Friction Angle (Degrees)	Cohesion (PSF)
EL. 650' TO EL. 653'	128.0	33	50
EL. 648' TO EL. 650'	118	28	0
EL. 635' TO EL. 648'	125	30	0
EL. 610' TO EL. 635'	121	36	50
EL. 605' TO EL. 610'	130	29	150
Granular backfill (Within the Wall Reinforcing Zone)	120	30	0
Fill (Behind and Below the Reinforcing Zone)	120	33	0

DESIGN DATA

LIVE LOAD
- LIVE LOAD SURCHARGE (ROADWAY) 240 PSF

MATERIAL PROPERTIES
- CONCRETE MASONRY RETAINING WALL f'c = 3,500 PSI
- PRECAST CONCRETE WALL PANELS f'c = 4,000 PSI
- BAR STEEL REINFORCEMENT fy = 60,000 PSI

FOUNDATION DATA - ULTIMATE SOIL BEARING CAPACITY
- MSE WALL VARIES

GEOGRID ULTIMATE TENSILE STRENGTH 7,810 PLF
GEOGRID MAXIMUM ALLOWABLE (DESIGN) STRENGTH 2,860 PLF

NOTE: THE WALL HAS BEEN DESIGNED FOR TRAFFIC LOADING ONLY. IF DURING CONSTRUCTION HEAVY EQUIPMENT IS OPERATING IN CLOSE PROXIMITY TO THE WALL OR IF MATERIAL IS STOCKPILED NEAR THE WALL, THE SAFETY FACTOR FOR THIS WALL WILL SIGNIFICANTLY DECREASE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-105

DRAWN BY JDB | PLANS CK'D. MJA

DESIGN DATA AND QUANTITIES

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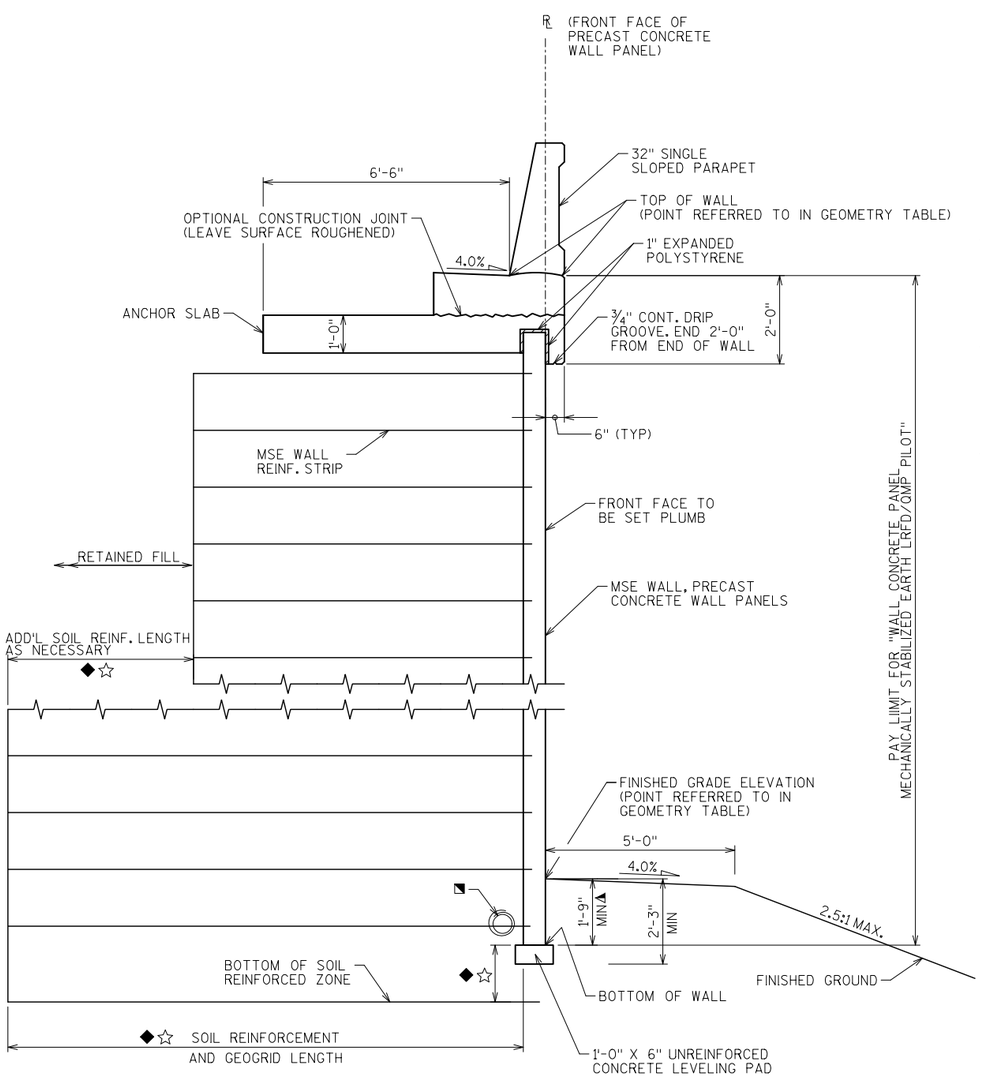
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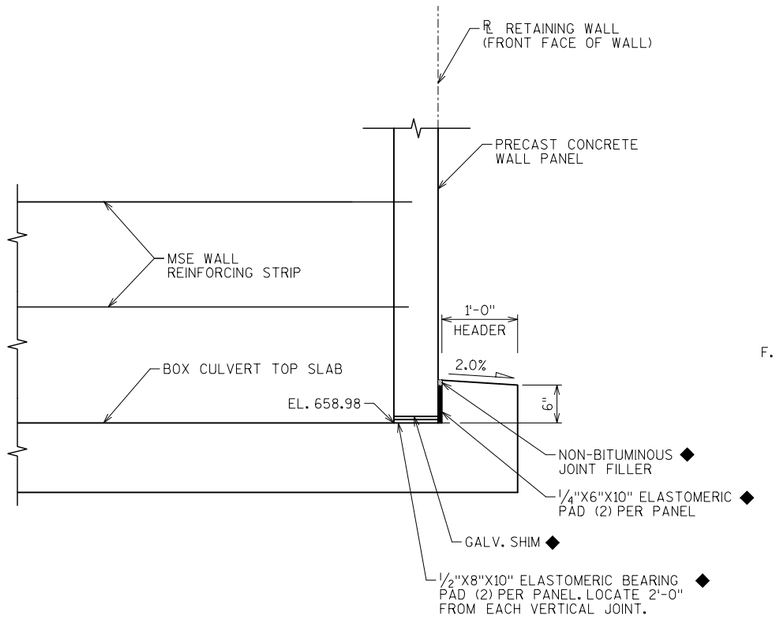
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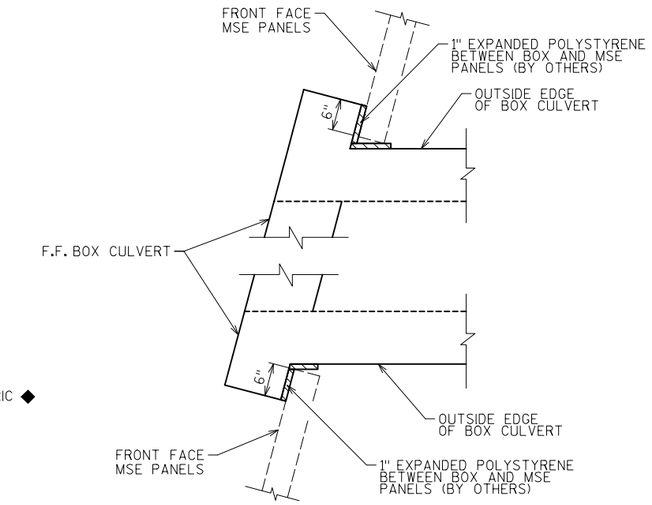


TYPICAL WALL SECTION

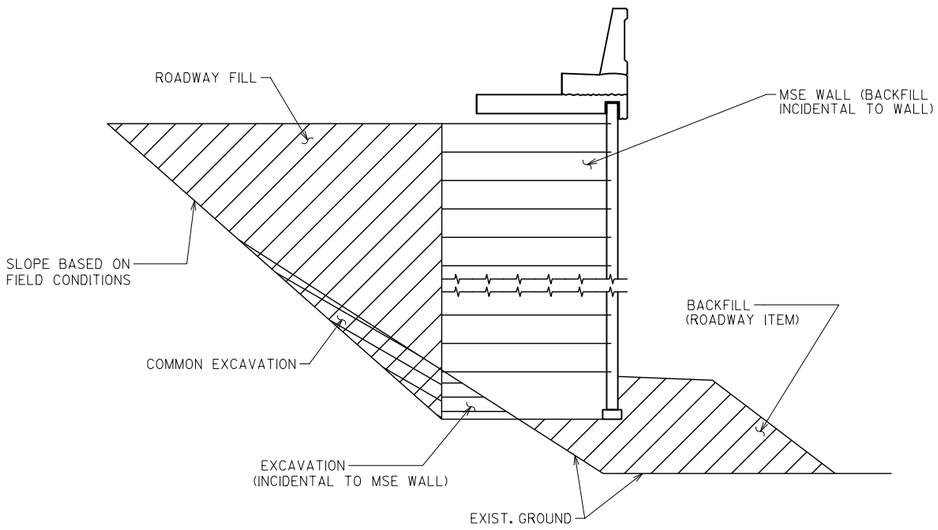


ELEVATION - WALL PANEL AT BOX CULVERT DETAIL

CONCRETE AND REINFORCEMENT INCLUDED IN THE BID ITEM "WALL PANEL CONCRETE MECHANICALLY STABILIZED EARTH"



PLAN - WALL PANEL AT CULVERT DETAIL



EXCAVATION/BACKFILL DETAIL

⁎ THE PLAN QUANTITY FOR THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF LEVELING PAD TO THE TOP OF THE WALL AS SHOWN. COPING AND FOOTING CONCRETE AND REINFORCEMENT ARE TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT"

◥ PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELDS AT EXPOSED ENDS OF PIPE UNDERDRAIN. SEE RODENT SHIELD DETAIL ON "WALL DETAILS 2" SHT

◭ MINIMUM EMBEDMENT BASED ON SITE SPECIFIC PARAMETERS. FIELD EMBEDMENTS SHALL MEET OR EXCEED THE MINIMUM EMBEDMENT. FIELD EMBEDMENTS BELOW MINIMUM EMBEDMENT SHALL NOT BE INCLUDED IN THE PAY LIMITS.

◆ INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT".

☆ OVER EXCAVATION, GEOGRID PLACEMENT, AND ADDITIONAL REINFORCING STRAP LENGTH REQUIRED FOR STABILITY OF WALL. GEOGRID SHOULD BE PLACED AT 6" VERTICAL SPACING BELOW BOTTOM OF WALL. LIMITS SHOWN ON "GENERAL PLAN AND ELEVATION" SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-105

DRAWN BY JDB | PLANS CK'D. MJA

WALL DETAILS 1

SHEET 3 OF 6
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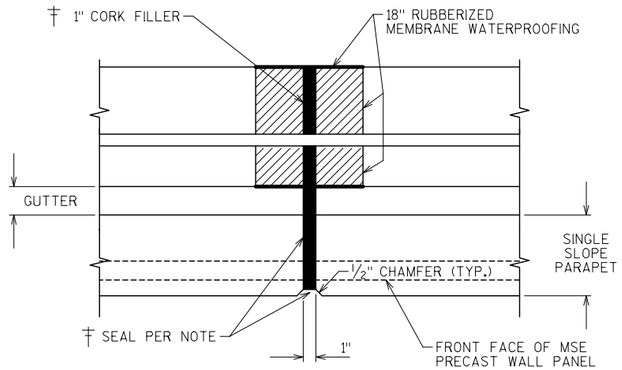
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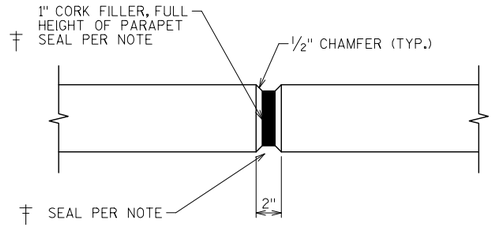
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9200-04-71



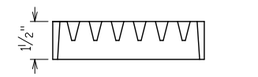
ANCHOR SLAB EXPANSION JOINT DETAIL



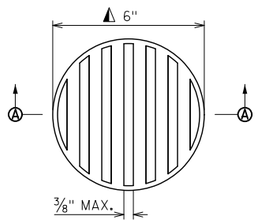
TRAFFIC BARRIER EXPANSION JOINT DETAIL

EXPANSION JOINTS TO BE SPACED AT A MINIMUM OF 20' AND A MAXIMUM OF 30'. LOCATE EXPANSION JOINTS OVER WALL JOINTS. DO NOT RUN BAR STEEL THRU JOINT. EXCEPT FOR DOWEL BARS. JOINT TO EXTEND FULL DEPTH OF PARAPET AND ANCHOR SLAB.

† SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING, NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH STAIN. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)



SECTION A-A

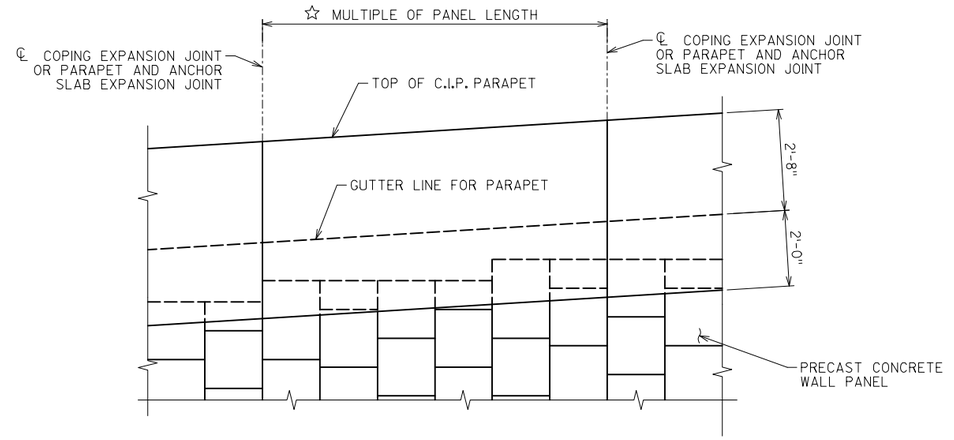


RODENT SHIELD

▲ DIMENSIONS ARE APPROXIMATE, THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. FASTEN TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

ORIENT SHIELD SO SLOTS ARE VERTICAL.

COST OF RODENT SHIELD AND ALL FITTINGS TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."



☆ ALL JOINTS SHALL COINCIDE WITH PANEL JOINT ON FRONT FACE.

C.I.P. PARAPET OR COPING PARTIAL ELEVATION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-105

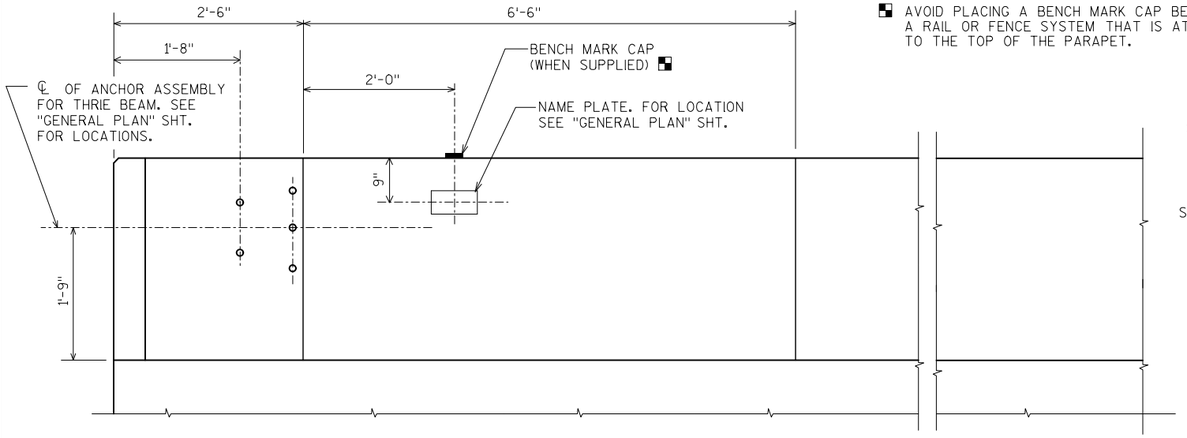
DRAWN BY JDB | PLANS CK'D. MJA

WALL DETAILS 2

SHEET 4 OF 6
476

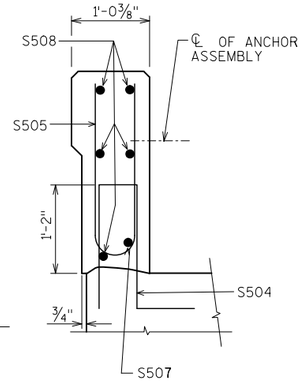
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DATE: 2/14/2013
I.D.

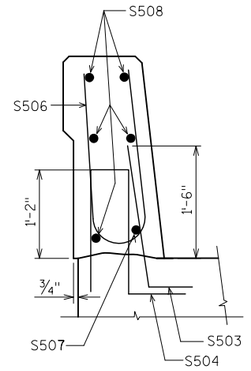


INSIDE ELEVATION

■ AVOID PLACING A BENCH MARK CAP BELOW A RAIL OR FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.



SECTION A

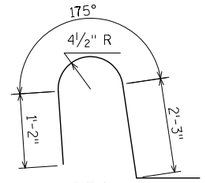


SECTION B

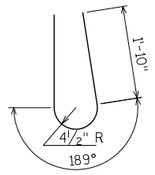
BILL OF BARS

ALL BARS IN THIS TABLE SHALL BE EPOXY COATED

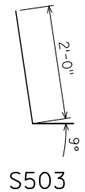
BAR MARK	NO. REQ'D	LENGTH	BENT	LOCATION
S501	918	5'-5"	X	PARAPET VERT.
S502	918	5'-0"	X	PARAPET VERT.
S503	12	2'-9"	X	PARAPET VERT.
S504	17	4'-4"	X	PARAPET VERT.
S505	11	4'-9"	X	PARAPET VERT.
S506	6	4'-10"	X	PARAPET VERT.
S507	1	58'-9"	X	PARAPET HORIZ.
S508	5	58'-9"		PARAPET HORIZ.
S509	60	58'-9"		PARAPET HORIZ.
S410	497	4'-10"	X	ANCHOR SLAB VERT.
S511	931	8'-2"	X	ANCHOR SLAB HORIZ.
S412	497	6'-2"		ANCHOR SLAB HORIZ.
S413	225	42'-11"		ANCHOR SLAB LONGIT.



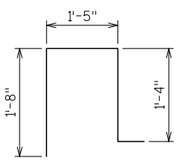
S501



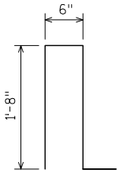
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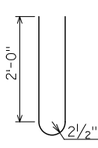
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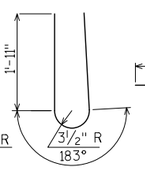
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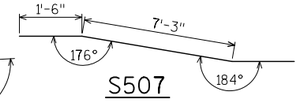
S504



S505

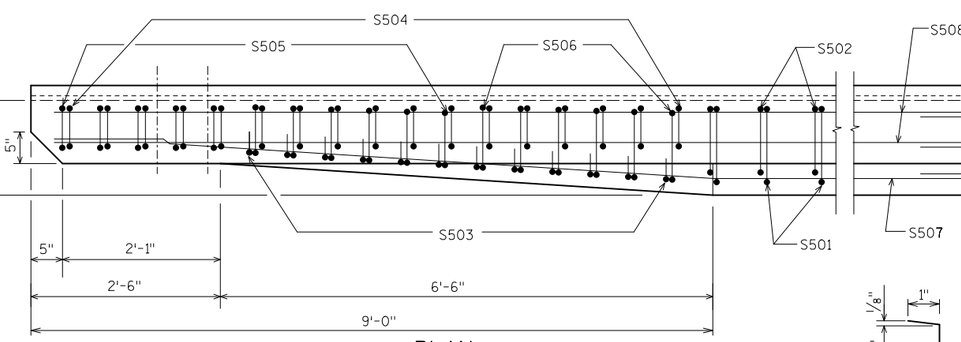


S506



S507

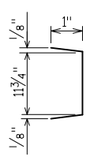
S511



PLAN

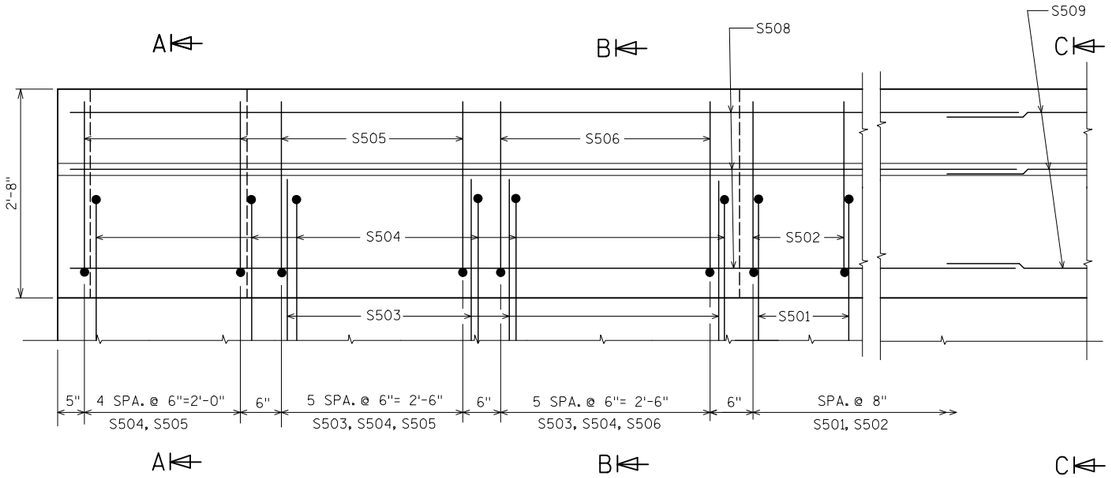
(TRANSITION AT WEST END OF PARAPET ONLY)

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 3/4" - 'V' GROOVE.



RUSTICATION DETAIL

▲ PROVIDE RUSTICATION IF OPT. CONST. JOINT IS USED.

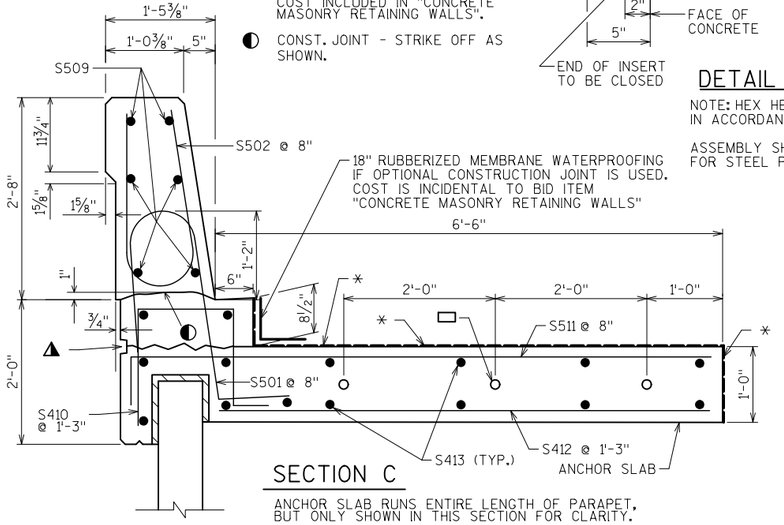


OUTSIDE ELEVATION

* 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT.

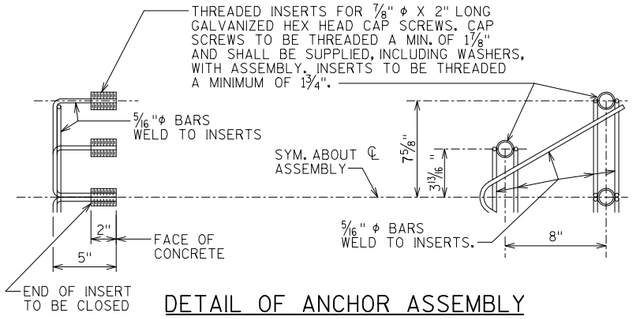
□ (3) - 3/4" ϕ SMOOTH DOWEL BARS, 1'-6" LONG, AT EXPANSION JOINT. EMBED 9". USE APPROVED DEBONDER ON 1/2 OF BAR LENGTH. COST INCLUDED IN "CONCRETE MASONRY RETAINING WALLS".

◐ CONST. JOINT - STRIKE OFF AS SHOWN.



SECTION C

ANCHOR SLAB RUNS ENTIRE LENGTH OF PARAPET, BUT ONLY SHOWN IN THIS SECTION FOR CLARITY.



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-105

DRAWN BY JDB | PLANS CK'D. MJA

SINGLE SLOPE PARAPET 32SS

SHEET 5 OF 6
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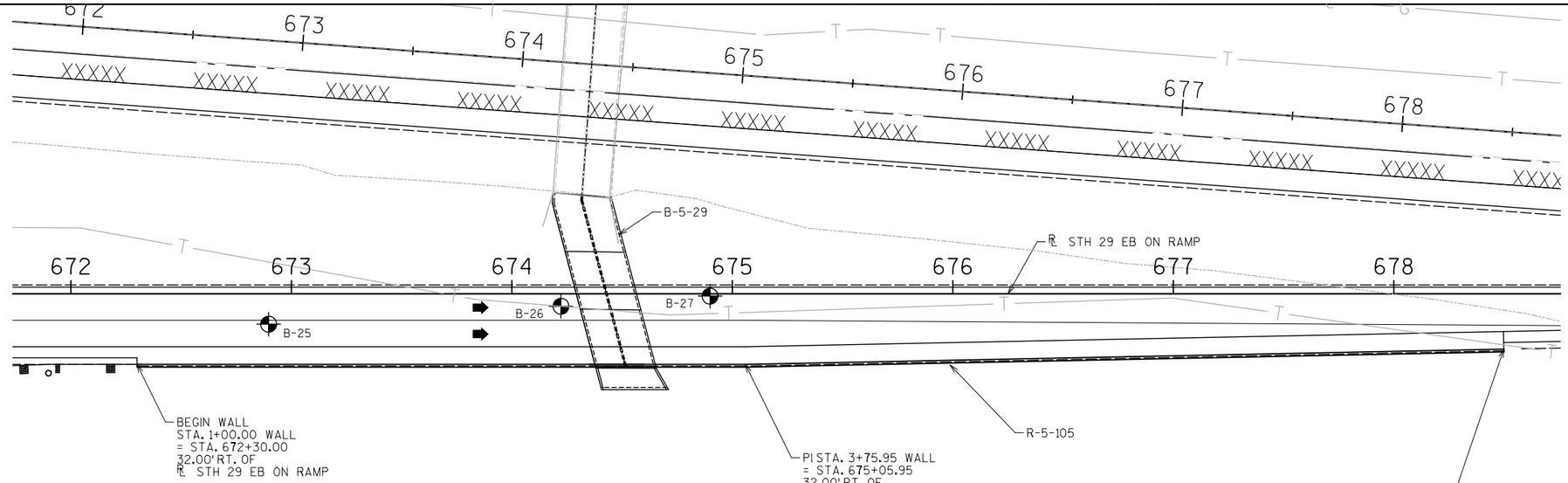
STATE PROJECT NUMBER
9200-04-71

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I.D.

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PLAN

NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

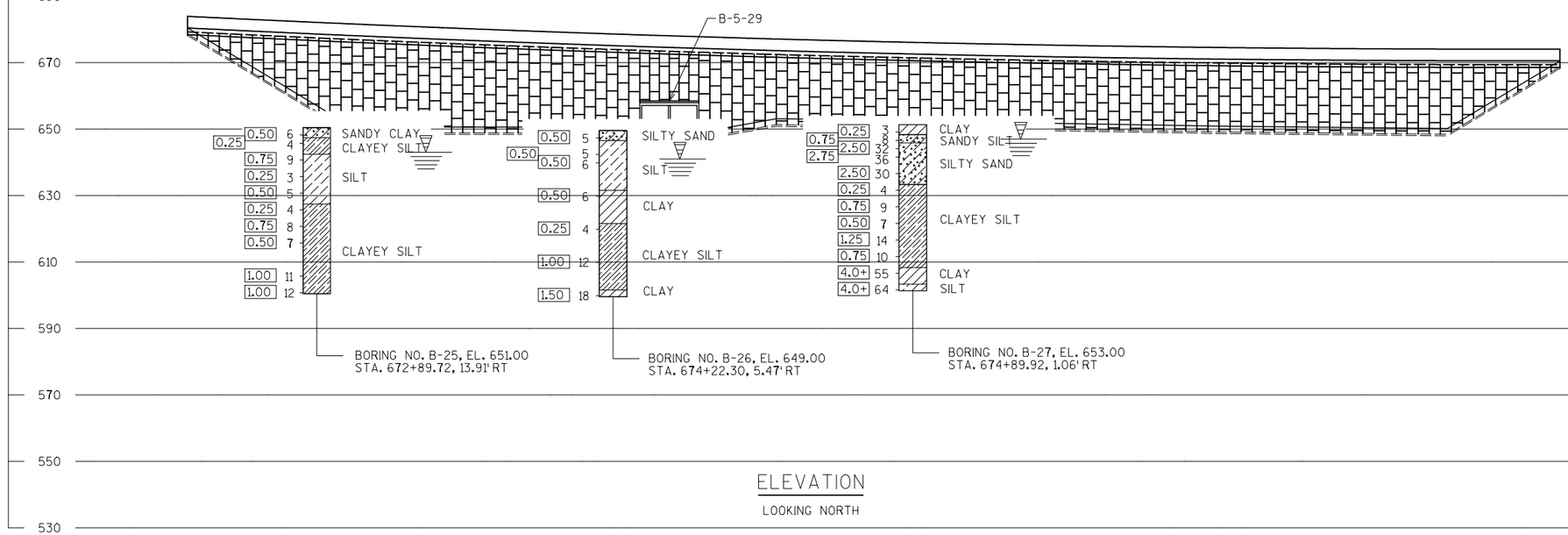
BORING STATIONS AND OFFSETS ARE BASED ON ℄ STH 29 EB ON RAMP

⊕ DENOTES SOIL BORING LOCATION

SOIL BORINGS COMPLETED BY:
PROFESSIONAL SERVICE INDUSTRIES, INC.

SOIL BORING TAKEN:

JANUARY 13, 2011 - BORING B-25
JANUARY 13, 2011 - BORING B-26
DECEMBER 28, 2010 - BORING B-27



ELEVATION

LOOKING NORTH

STATE PROJECT NUMBER

9200-04-71

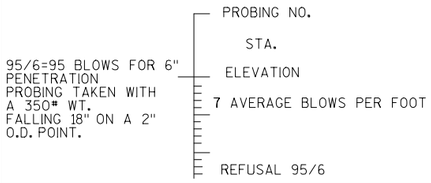
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

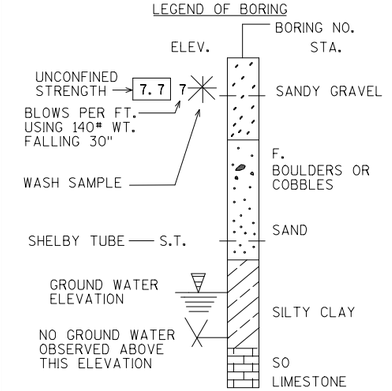
MATERIAL SYMBOLS

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

STRUCTURE R-5-105

DRAWN BY JDB | PLANS CK'D. MJA

SUBSURFACE EXPLORATION

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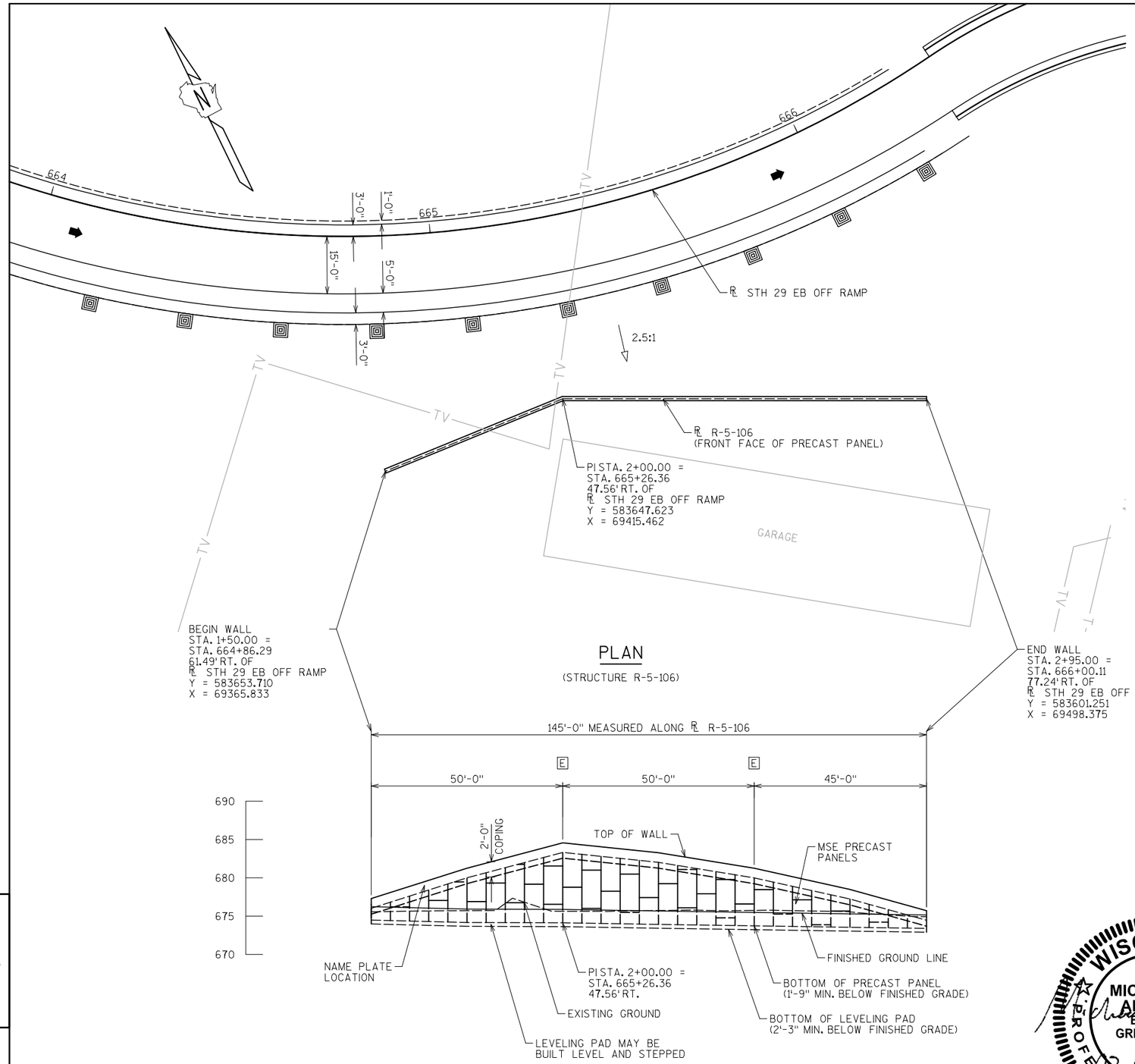
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STATE PROJECT NUMBER

9200-04-71



PLAN

(STRUCTURE R-5-106)

ELEVATION

(LOOKING NORTH AT FRONT FACE OF WALL)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND DIMENSIONS ARE IN SURVEY FEET, ALL ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NAVD 88 DATUM.

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

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

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 IN THE GEOMETRY TABLE.

DESIGN FOR RETAINING WALL TO PROVIDE FOR A FINISHED GRADE SLOPE BEHIND THE WALL AS SHOWN IN THE ROADWAY CROSS SECTIONS.

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 100 PSF.

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

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.

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

HOT DIP GALVANIZE ALL STRUCTURAL STEEL CARBON IN ACCORDANCE WITH ASTM A123 WHERE SHOWN.

ALL STATIONS ARE ALONG THE ℄ FOR R-5-106 ALONG THE FRONT FACE OF WALL UNLESS SHOWN OTHERWISE.

THE SOILS AT THE BASE OF THE WALL SHALL BE REVIEWED BY THE NORTHEAST REGION SOILS ENGINEER TO DETERMINE IF THE SOILS HAVE ADEQUATE STRENGTH TO SUPPORT THE MSE WALL.

LEGEND

[E] = EXPANSION JOINT

◄ = DIRECTION OF TRAFFIC

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. DESIGN DATA AND QUANTITIES
3. WALL DETAILS
4. SUBSURFACE EXPLORATION

WISCONSIN
MICHAEL J. ARNOLD
E-41717
GREENDALE
WI
PROFESSIONAL ENGINEER
2/13/2013

NO.	DATE	REVISION	BY

URS
342 North Water Street
7th Floor
Milwaukee, WI 53202
(414) 831-4100

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher — CHIEF STRUCTURES DESIGN ENGINEER — DATE 2/19/13

STRUCTURE R-5-106

STH 29 EB OFF RAMP RETAINING WALL.

COUNTY	~~TOWN/CITY~~/VILLAGE
BROWN	HOBART

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JDB	MJA	JDB	MJA

GENERAL PLAN AND ELEVATION

SHEET 1 OF 4
479

NE REGION CONTACT - JEREMY ASHAUER (920) 492-4165
BUREAU OF STRUCTURES CONTACT - WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT - MIKE ARNOLD (414) 831-4179

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I.D.

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GEOMETRY TABLE

WALL STATION	EASTBOUND OFF RAMP STATION	OFFSET TO R/L OF WALL	TOP OF WALL	FINISHED GRADE
1+50.00	664+86.29	61.49 ' RT	677.29	676.24
1+75.00	665+05.90	53.64 ' RT	681.26	675.93
2+00.00	665+26.36	47.56 ' RT	684.57	675.89
2+25.00	665+46.98	52.95 ' RT	683.28	675.68
2+50.00	665+66.82	60.14 ' RT	681.25	675.49
2+75.00	665+85.73	69.02 ' RT	678.49	675.30
2+95.00	666+00.11	77.24 ' RT	675.72	675.16

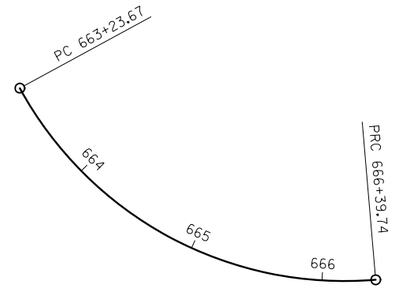
TOTAL ESTIMATED QUANTITIES

BID ITEM #	BID ITEM	UNIT	TOTAL
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	**1**
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	**155**
650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT R-5-106	LS	**1**
SPV.0165.01	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT	SF	**1,030**
	NON BID ITEMS		
	FILLER	SIZE	1/2" & 1"
	NAME PLATE	EACH	1
	EXPANDED POLYSTYRENE	SIZE	1"

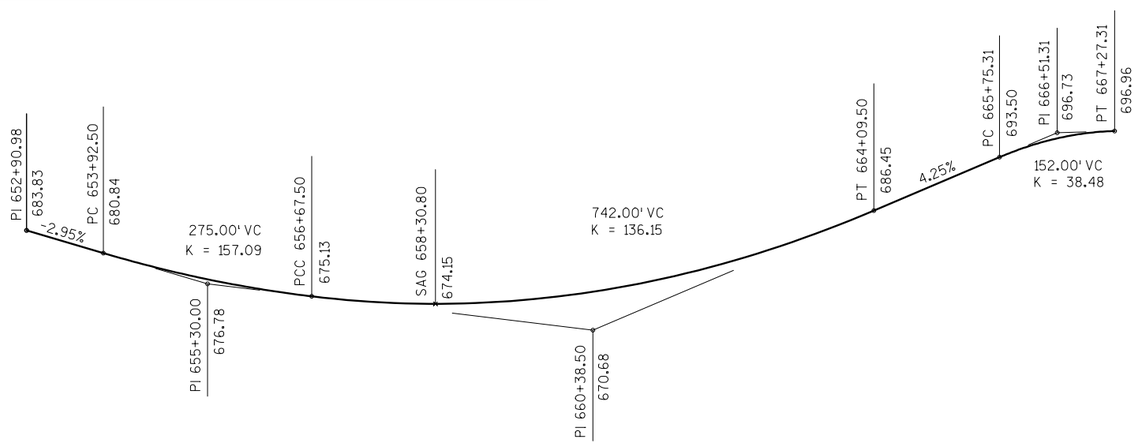
ALL ITEMS ARE CATEGORY 0080

BENCHMARK

NO.	STATION	DESCRIPTION	ELEVATION
BM 292009	248+00	PK NAIL IN PPOL 241913E7 NEAR FF	671.04
BM 29618	251+70	RR SPIKE IN ELM TREES NEAR SHERWOOD ST	673.04
CP 501	270+19	CONTROL POINT NORTH OF STH N9 NEAR SHERWOOD ST	674.66



HORIZONTAL ALIGNMENT - STH 29 EB OFF RAMP



PROFILE GRADE LINE - STH 29 EB OFF RAMP

SOIL PARAMETERS

BORING B-43, STA 664+67.67			
Stratum Locations & Soil Description	Unit Weight (PCF)	Friction Angle (Degrees)	Cohesion (PSF)
EL. 663' TO EL. 676'	125.0	32	0
EL. 657' TO EL. 663'	120	28	50
EL. 646' TO EL. 657'	125	35	0
Granular backfill (Within the Wall Reinforcing Zone)	120	30	0
Fill (Behind and Below the Reinforcing Zone)	125	30	200

BORING B-44, STA 665+38.81			
Stratum Locations & Soil Description	Unit Weight (PCF)	Friction Angle (Degrees)	Cohesion (PSF)
EL. 668' TO EL. 676'	125.0	32	0
EL. 662' TO EL. 668'	120	28	50
EL. 646' TO EL. 662'	125	35	0
Granular backfill (Within the Wall Reinforcing Zone)	120	30	0
Fill (Behind and Below the Reinforcing Zone)	125	30	200

BORING B-45, STA 666+07.04			
Stratum Locations & Soil Description	Unit Weight (PCF)	Friction Angle (Degrees)	Cohesion (PSF)
EL. 657' TO EL. 675'	125.0	32	0
EL. 645' TO EL. 657'	125	35	0
Granular backfill (Within the Wall Reinforcing Zone)	120	30	0
Fill (Behind and Below the Reinforcing Zone)	125	30	200

WALL EXTERNAL & OVERALL STABILITY EVALUATION

	DIMENSIONS	EVALUATED LOCATION
	HWY 29 EB OFF ROAD STATION	665+38.81
	WALL HEIGHT (FEET)*	13.75
	EXPOSED WALL HEIGHT (FEET)	12
■	MINIMUM LENGTH OF REINFORCEMENT (FEET)	8.4
	WALL STATION	215+00
	BORING USED	B-44
	CAPACITY TO DEMAND RATIO (CDR)	
	SLIDING (CDR>1.0)	1.3
	ECCENTRICITY (CDR>1.0)	1.4
☆	OVERALL STABILITY (CDR>1.0)	1.1
	BEARING RESISTANCE (CDR>1.0)	1.1
	FACTORED BEARING RESISTANCE (PSF)	2963

*INCLUDES 1'-9" EMBEDMENT DEPTH

■ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND OVERALL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS. FINAL DESIGN FOR INTERNAL STABILITY AND EXTERNAL SLIDING AND ECCENTRICITY AT OTHER WALL LOCATIONS IS THE RESPONSIBILITY OF THE CONTRACTOR'S WALL DESIGNER.

☆ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED ON OVERALL STABILITY PERFORMED BY THE WALL DESIGNER. COMPOUND STABILITY IS THE CONTRACTORS RESPONSIBILITY.

DESIGN DATA

LIVE LOAD
LIVE LOAD SURCHARGE (ROADWAY) 100 PSF

MATERIAL PROPERTIES
CONCRETE MASONRY RETAINING WALL f'c = 3500 PSI
PRECAST CONCRETE WALL PANELS f'c = 4000 PSI
BAR STEEL REINFORCEMENT fy = 60,000 PSI

NOTE: THE WALL HAS NOT BEEN DESIGNED FOR TRAFFIC LOADING. IF DURING CONSTRUCTION HEAVY EQUIPMENT IS OPERATING IN CLOSE PROXIMITY TO THE WALL OR IF MATERIAL IS STOCKPILED NEAR THE WALL, THE SAFETY FACTOR FOR THIS WALL WILL SIGNIFICANTLY DECREASE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-106

DRAWN BY JDB | PLANS CK'D. MJA

DESIGN DATA AND QUANTITIES

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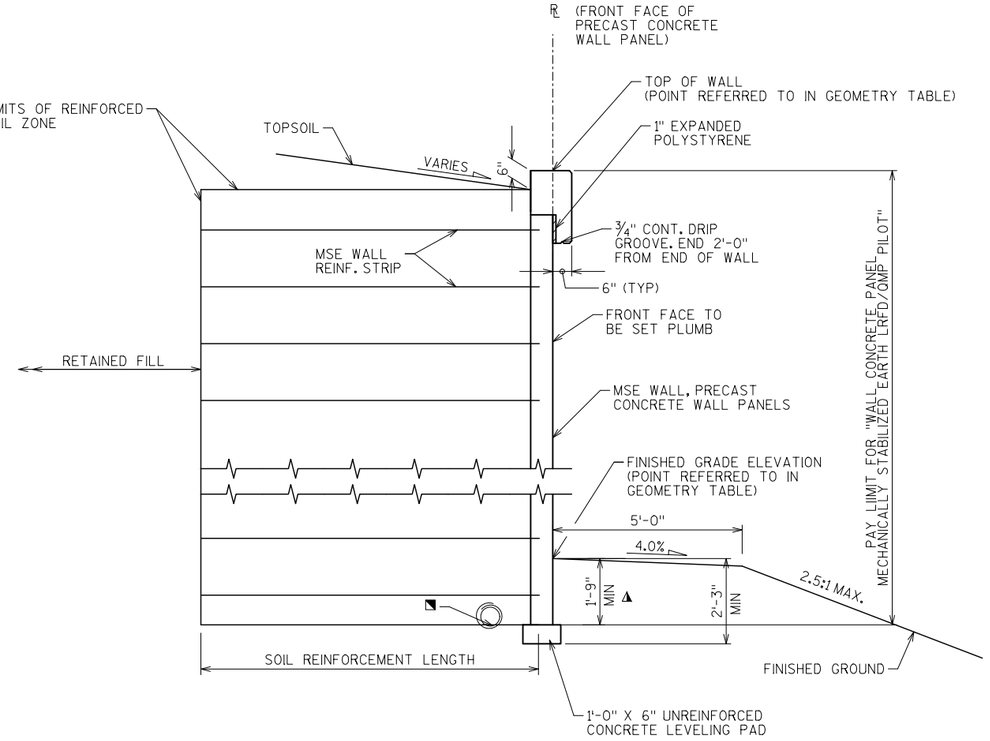
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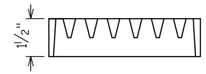
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STATE PROJECT NUMBER

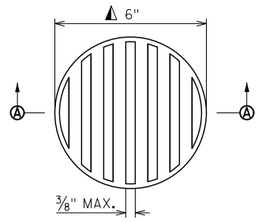
9200-04-71



TYPICAL WALL SECTION



SECTION A-A

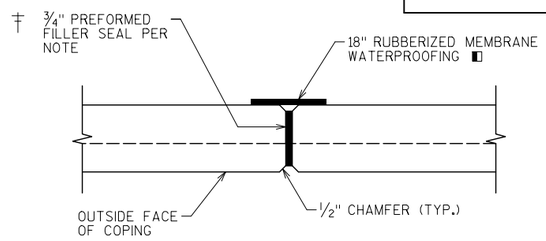


RODENT SHIELD

◭ DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. FASTEN TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

ORIENT SHIELD SO SLOTS ARE VERTICAL.

COST OF RODENT SHIELD AND ALL FITTINGS TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."

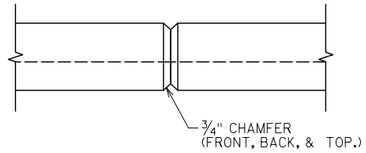


COPING EXPANSION JOINT

EXPANSION JOINTS TO BE SPACED AT A MAXIMUM OF 50'. LOCATE EXPANSION JOINTS OVER WALL JOINTS. DO NOT RUN BAR STEEL THRU JOINT, EXCEPT FOR DOWEL BARS. JOINT TO EXTEND FULL DEPTH OF COPING.

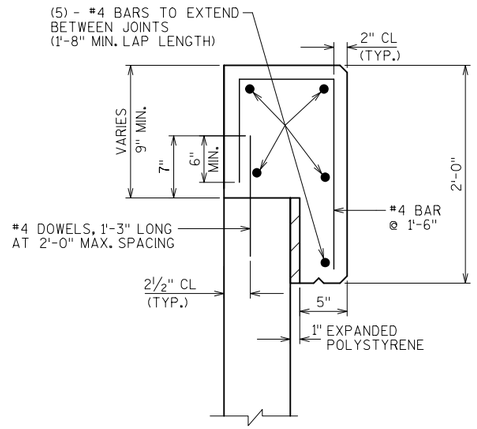
‡ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING, NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH STAIN. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)

◧ RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW SURFACE OF CONCRETE.

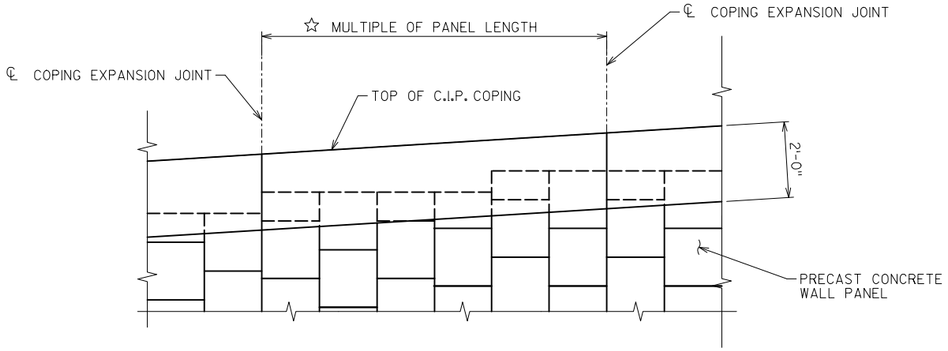


COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 12'

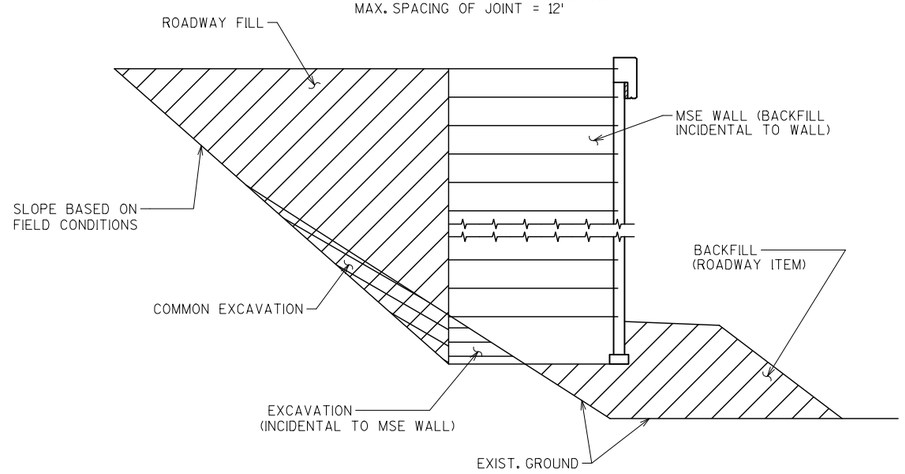


CONCRETE COPING DETAIL



☆ ALL JOINTS SHALL COINCIDE WITH PANEL JOINT ON FRONT FACE.

C.I.P. COPING PARTIAL ELEVATION



EXCAVATION/BACKFILL DETAIL

* THE PLAN QUANTITY FOR THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF LEVELING PAD TO THE TOP OF THE WALL AS SHOWN. COPING AND FOOTING CONCRETE AND REINFORCEMENT ARE TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT"

◥ PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELDS AT EXPOSED ENDS OF PIPE UNDERDRAIN. SEE RODENT SHIELD DETAIL.

◭ MINIMUM EMBEDMENT BASED ON SITE SPECIFIC PARAMETERS. FIELD EMBEDMENTS SHALL MEET OR EXCEED THE MINIMUM EMBEDMENT. FIELD EMBEDMENTS BELOW MINIMUM EMBEDMENT SHALL NOT BE INCLUDED IN THE PAY LIMITS.

◆ INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-106

DRAWN BY JDB | PLANS CK'D. MJA

WALL DETAILS

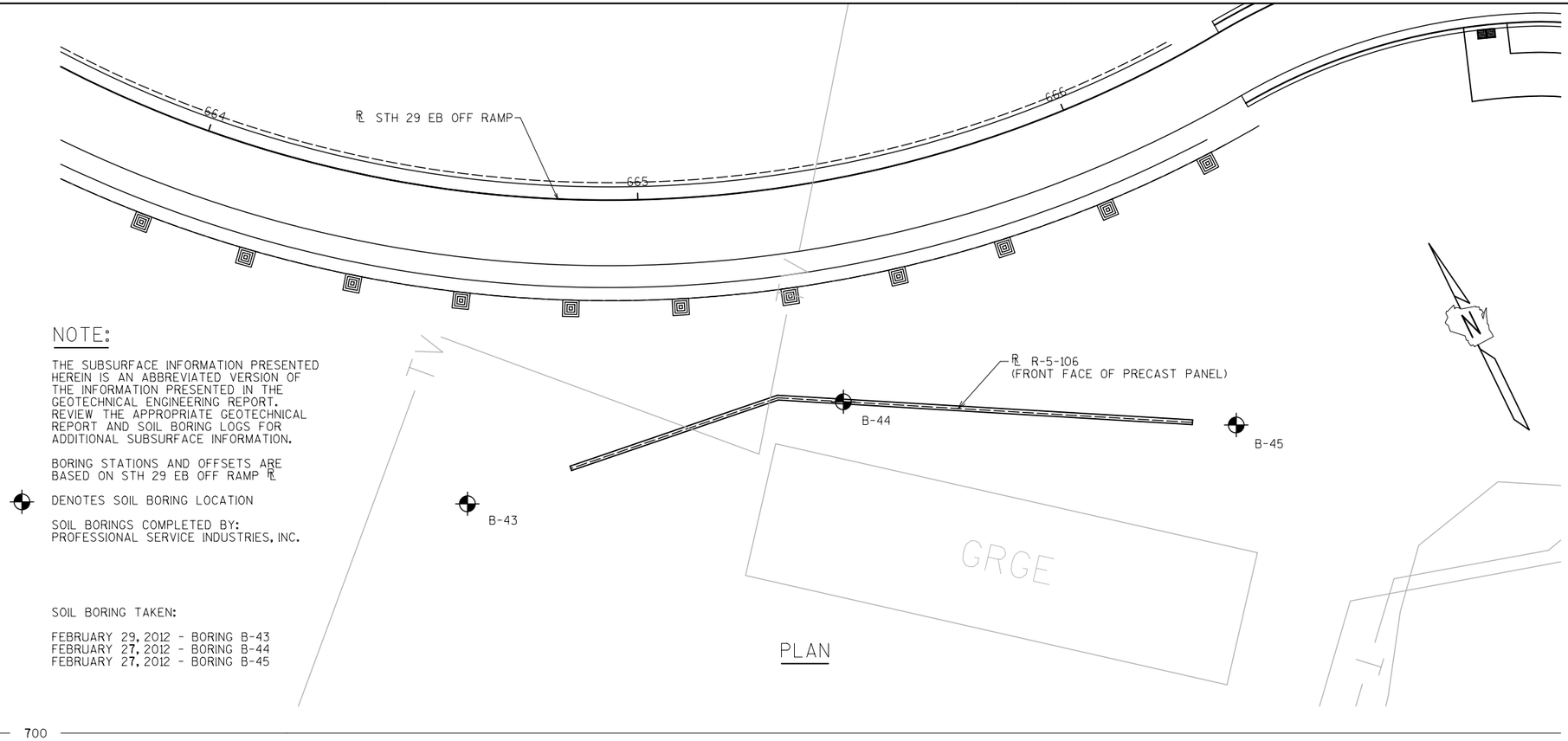
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PLAN

NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

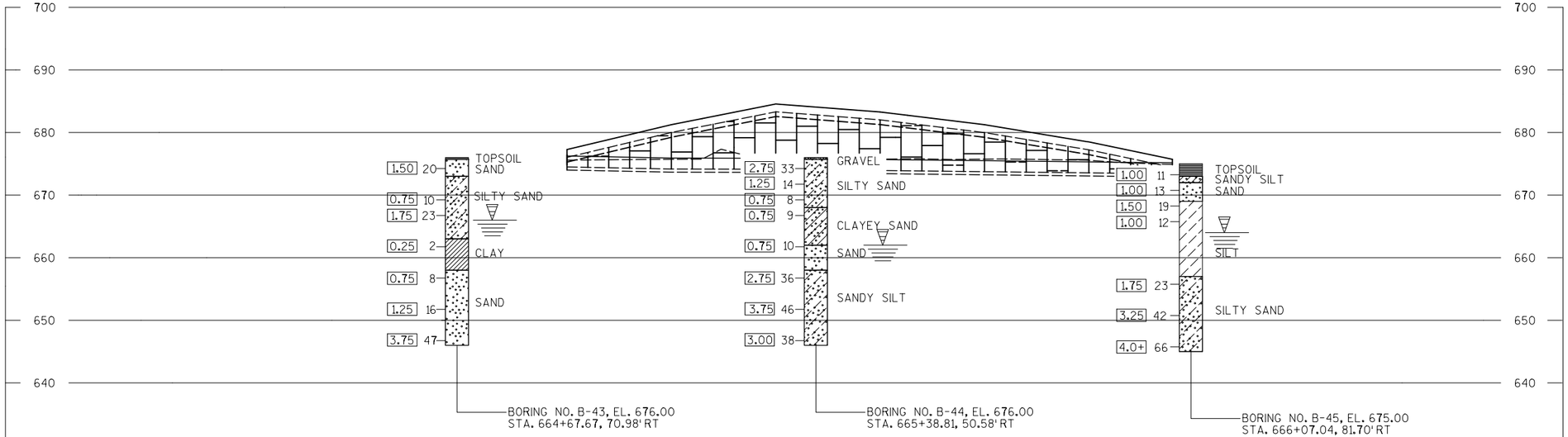
BORING STATIONS AND OFFSETS ARE BASED ON STH 29 EB OFF RAMP ℄

⌖ DENOTES SOIL BORING LOCATION

SOIL BORINGS COMPLETED BY:
PROFESSIONAL SERVICE INDUSTRIES, INC.

SOIL BORING TAKEN:

FEBRUARY 29, 2012 - BORING B-43
FEBRUARY 27, 2012 - BORING B-44
FEBRUARY 27, 2012 - BORING B-45



STATE PROJECT NUMBER

9200-04-71

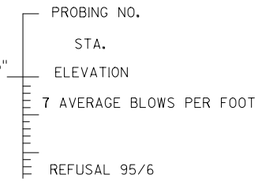
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

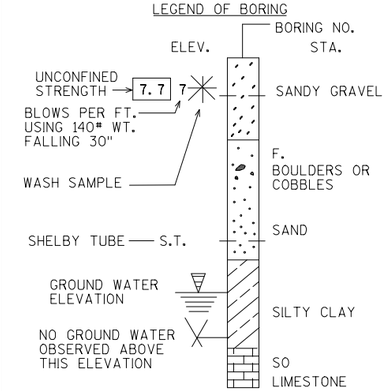
MATERIAL SYMBOLS

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

STRUCTURE R-5-106

DRAWN BY JDB | PLANS CK'D. MJA

SUBSURFACE EXPLORATION

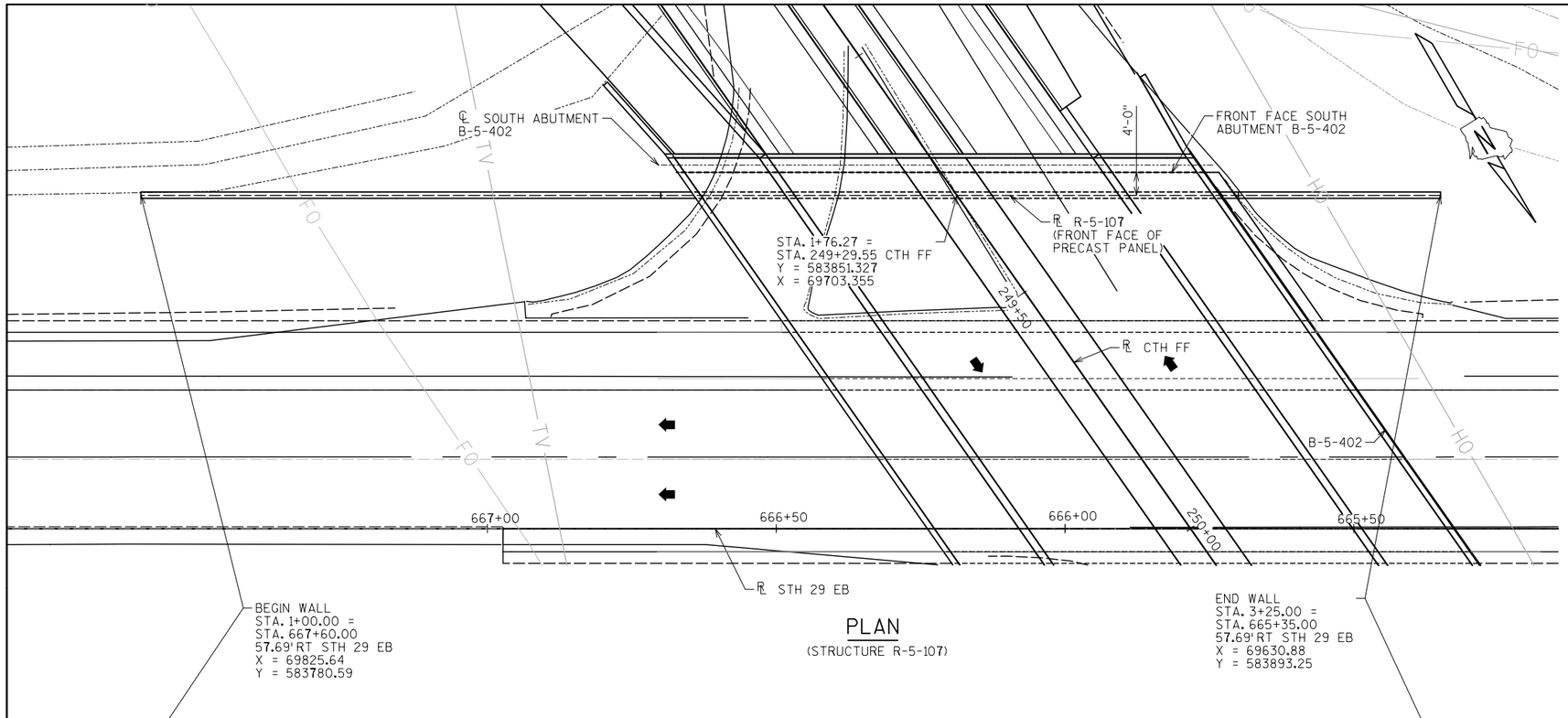
SHEET 4 OF 4
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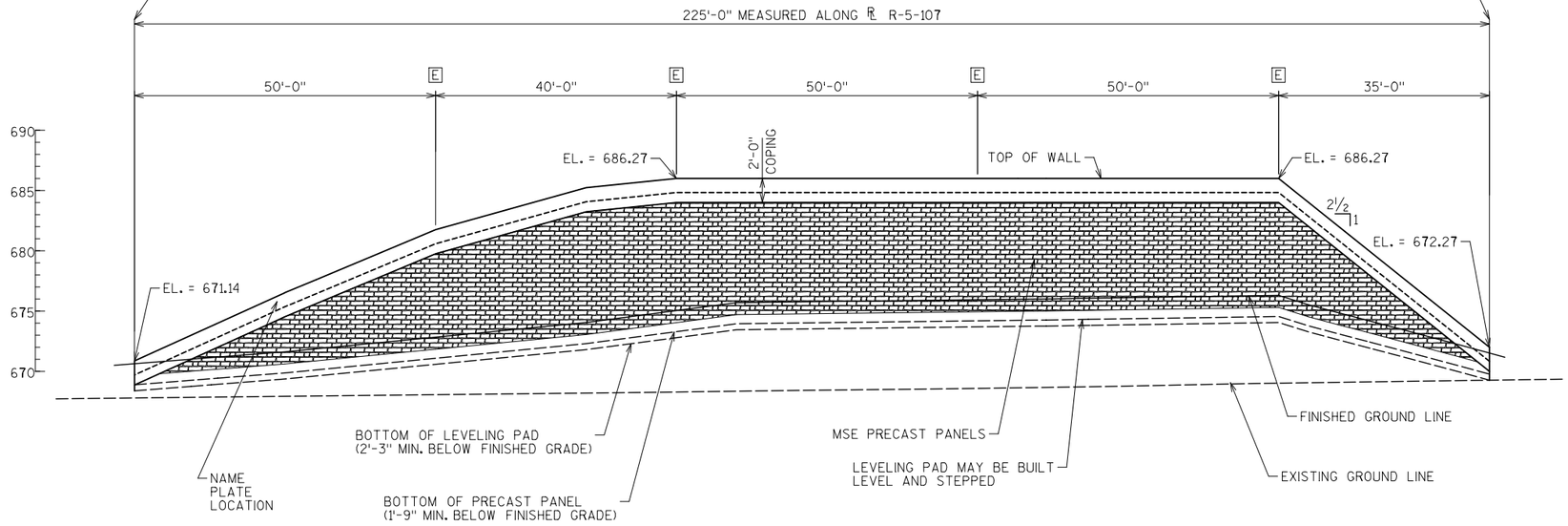
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DATE: 2/14/2013
I.D.



PLAN

(STRUCTURE R-5-107)



ELEVATION

(LOOKING SOUTH AT FRONT FACE OF WALL)
VERTICAL SCALE EXAGGERATED TWO TIMES

GENERAL NOTES

STATE PROJECT NUMBER

9200-04-71

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND DIMENSIONS ARE IN SURVEY FEET, ALL ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NAVD 88 DATUM.

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

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

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 IN THE GEOMETRY TABLE.

DESIGN FOR RETAINING WALL TO PROVIDE FOR A FINISHED GRADE SLOPE BEHIND THE WALL AS SHOWN IN THE ROADWAY CROSS SECTIONS.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

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.

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

HOT DIP GALVANIZE ALL STRUCTURAL STEEL CARBON IN ACCORDANCE WITH ASTM A123 WHERE SHOWN.

ALL STATIONS ARE ALONG THE ℄ FOR R-5-107 ALONG THE FRONT FACE OF WALL UNLESS SHOWN OTHERWISE.

THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF RETAINING WALL R-5-107 WITH BRIDGE B-5-402.

THE SOILS AT THE BASE OF THE WALL SHALL BE REVIEWED BY THE NORTHEAST REGION SOILS ENGINEER TO DETERMINE IF THE SOILS HAVE ADEQUATE STRENGTH TO SUPPORT THE MSE WALL.

DESIGN THE WALL IN FRONT OF THE ABUTMENT TO RESIST THE FORCE FROM ALL HORIZONTAL EARTH PRESSURE ACTING ON THE BACK OF THE ABUTMENY BELOW THE BEAM SEATS.

WISCONSIN
MICHAEL J. ARNOLD
E-41717
GREENDALE
WI
2/13/2013
PROFESSIONAL ENGINEER

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. DESIGN DATA AND QUANTITIES
3. WALL DETAILS
4. PIPE RAILING DETAILS
5. SUBSURFACE EXPLORATION
6. AESTHETIC DETAILS

LEGEND

E = EXPANSION JOINT

◀ = DIRECTION OF TRAFFIC

NO.	DATE	REVISION	BY

URS
342 North Water Street
7th Floor
Milwaukee, WI 53202
(414) 831-4100

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION DATE

ACCEPTED William C. Dreher 2/19/13
CHIEF STRUCTURES DESIGN ENGINEER

STRUCTURE R-5-107

RETAINING WALL AT B-05-402 SOUTH ABUTMENT

COUNTY		~~TOWN/CITY~~/VILLAGE	
BROWN		HOBART	

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JDB	MJA	JDB	MJA

GENERAL PLAN AND ELEVATION

SHEET 1 OF 6
483

NE REGION CONTACT - JEREMY ASHAUER (920) 492-4165
BUREAU OF STRUCTURES CONTACT - WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT - MIKE ARNOLD (414) 831-4179

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DATE: 2/14/2013
I.D.

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STATE PROJECT NUMBER

9200-04-71

GEOMETRY TABLE

WALL STATION	STH 29 EASTBOUND STATION	OFFSET TO R/L OF WALL	TOP OF WALL	FINISHED GRADE
1+00.00	667+60.00	57.69 ' RT	671.14	670.91
1+25.00	667+35.00	57.69 ' RT	676.80	671.89
1+50.00	667+10.00	57.69 ' RT	682.03	673.11
1+75.00	666+85.00	57.69 ' RT	685.51	674.33
1+90.00	666+70.00	57.69 ' RT	686.27	675.32
2+00.00	666+60.00	57.69 ' RT	686.27	675.98
2+25.00	666+35.00	57.69 ' RT	686.27	676.13
2+50.00	666+10.00	57.69 ' RT	686.27	676.27
2+75.00	665+85.00	57.69 ' RT	686.27	676.46
2+90.00	665+70.00	57.69 ' RT	686.27	676.57
3+00.00	665+60.00	57.69 ' RT	682.27	675.13
3+25.00	665+35.00	57.69 ' RT	672.27	671.79

NOTE:

FINISHED GRADE ELEVATIONS ARE BASED ON EXISTING STH 29 PROFILE.

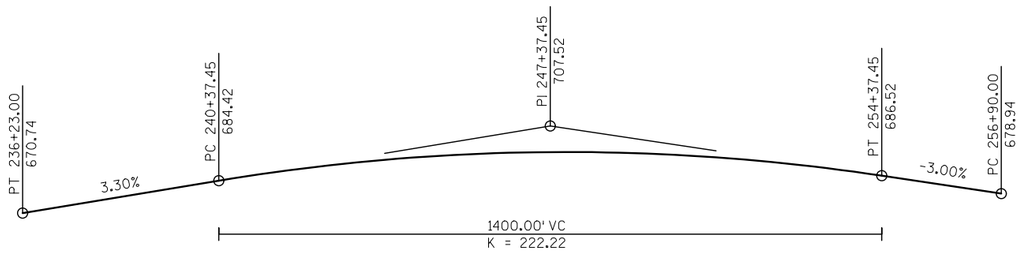
TOTAL ESTIMATED QUANTITIES

BID ITEM #	BID ITEM	UNIT	TOTAL
513.2000	RAILING PIPE R-5-107	LS	1
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	2
517.1010.S.02	CONCRETE STAINING R-5-107	SF	575
517.1015.S.02	CONCRETE STAINING MULTI-COLOR R-5-107	SF	1,620
517.1050.S.04	ARCHITECTURAL SURFACE TREATMENT R-5-107	SF	1,620
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	160
650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT R-5-107	LS	1
SPV.0165.01	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT	SF	2,235
	NON BID ITEMS		
	FILLER	SIZE	1/2", 3/4" & 1"
	NAME PLATE	EACH	1
	EXPANDED POLYSTYRENE	SIZE	1"

ALL ITEMS ARE CATEGORY 0090

BENCHMARK

NO.	STATION	DESCRIPTION	ELEVATION
BM 292009	248+00	PK NAIL IN PPOL 241913E7 NEAR FF	671.04
BM 29618	251+70	RR SPIKE IN ELM TREES NEAR SHERWOOD ST	673.04
CP 501	270+19	CONTROL POINT NORTH OF STH N9 NEAR SHERWOOD ST	674.66



PROFILE GRADE LINE - CTH FF

SOIL PARAMETERS

BORING B-41, STA 665+70.11			
Stratum Locations & Soil Description	Unit Weight (PCF)	Friction Angle (Degrees)	Cohesion (PSF)
EL. 666' TO EL. 669'	120.0	28	0
EL. 657' TO EL. 666'	125	32	0
EL. 599' TO EL. 657'	125	34	0
Granular backfill (Within the Wall Reinforcing Zone)	120	30	0
Fill (Behind and Below the Reinforcing Zone)	125	30	200

BORING B-42, STA 666+63.41			
Stratum Locations & Soil Description	Unit Weight (PCF)	Friction Angle (Degrees)	Cohesion (PSF)
EL. 665' TO EL. 668'	120.0	28	0
EL. 656' TO EL. 665'	125	32	0
EL. 598' TO EL. 656'	125	34	0
Granular backfill (Within the Wall Reinforcing Zone)	120	30	0
Fill (Behind and Below the Reinforcing Zone)	125	30	200

WALL EXTERNAL & OVERALL STABILITY EVALUATION

DIMENSIONS	EVALUATED LOCATION
WALL HEIGHT (FEET)*	11.75
EXPOSED WALL HEIGHT (FEET)	10
MINIMUM LENGTH OF REINFORCEMENT (FEET)	8
WALL STATION	665+70
BORING USED	B-41
CAPACITY TO DEMAND RATIO (CDR)	
SLIDING (CDR>1.0)	1.2
ECCENTRICITY (CDR>1.0)	1.4
OVERALL STABILITY (CDR>1.0)	1.5
BEARING RESISTANCE (CDR>1.0)	3
FACTORED BEARING RESISTANCE (PSF)	6839

*INCLUDES 1'-9" EMBEDMENT DEPTH

THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND OVERALL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

DESIGN DATA

LIVE LOAD
LIVE LOAD SURCHARGE (ROADWAY) 240 PSF

MATERIAL PROPERTIES
CONCRETE MASONRY RETAINING WALL f'c = 3500 PSI
PRECAST CONCRETE WALL PANELS f'c = 4000 PSI
BAR STEEL REINFORCEMENT fy = 60,000 PSI

NOTE: DESIGN THE MSE WALL IN FRONT OF THE ABUTMENT BODY TO RESIST THE FORCE FROM ALL HORIZONTAL EARTH PRESSURE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS.

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STRUCTURE R-5-107

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DESIGN DATA AND QUANTITIES

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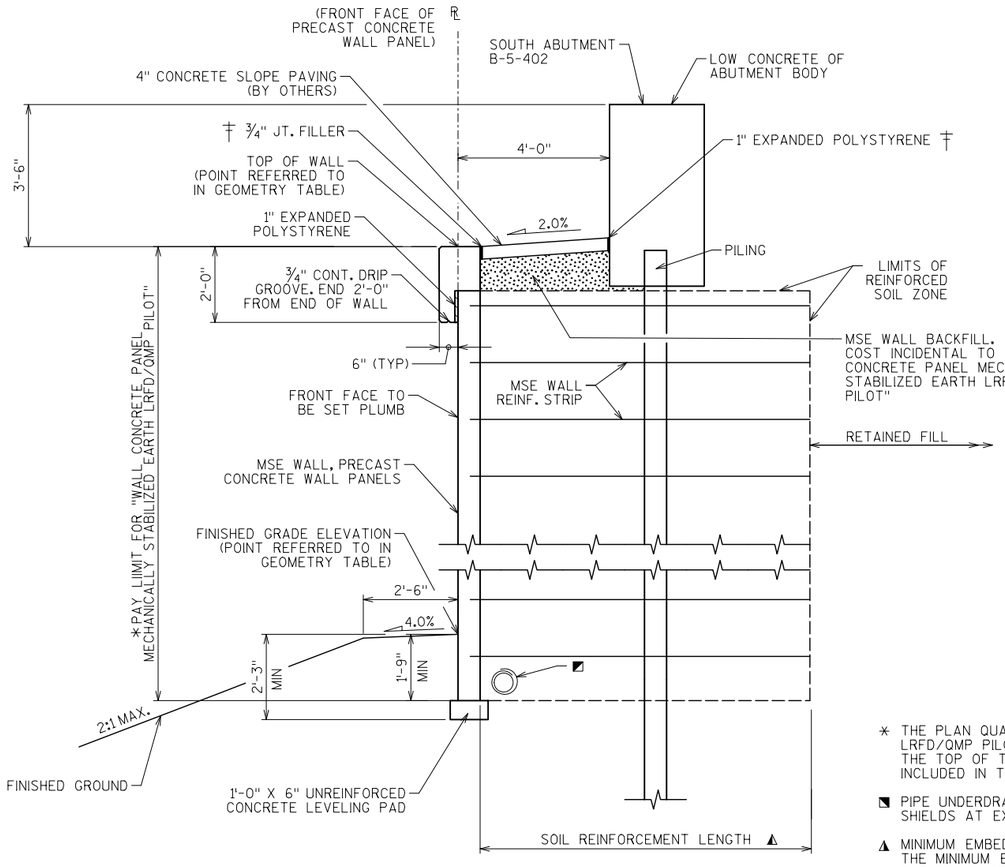
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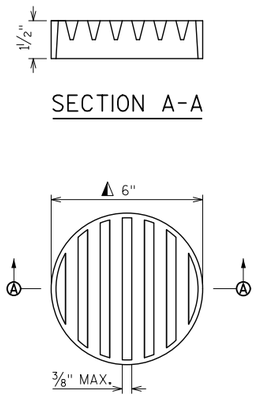
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TYPICAL WALL SECTION

RAILING NOT SHOWN FOR CLARITY

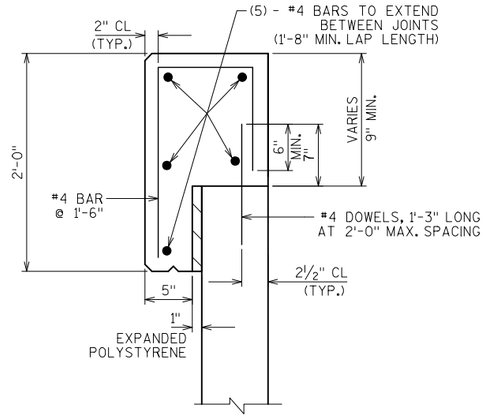


RODENT SHIELD

▲ DIMENSIONS ARE APPROXIMATE, THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. FASTEN TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

ORIENT SHIELD SO SLOTS ARE VERTICAL.

COST OF RODENT SHIELD AND ALL FITTINGS TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."

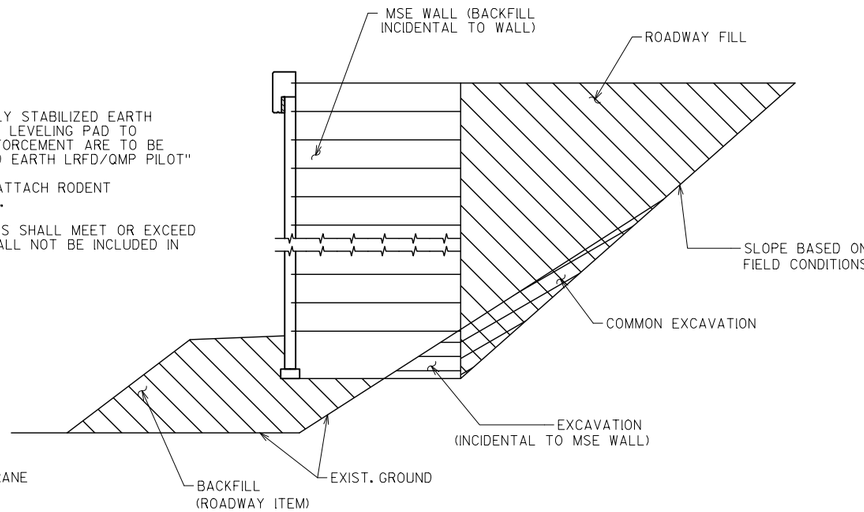


CONCRETE COPING DETAIL

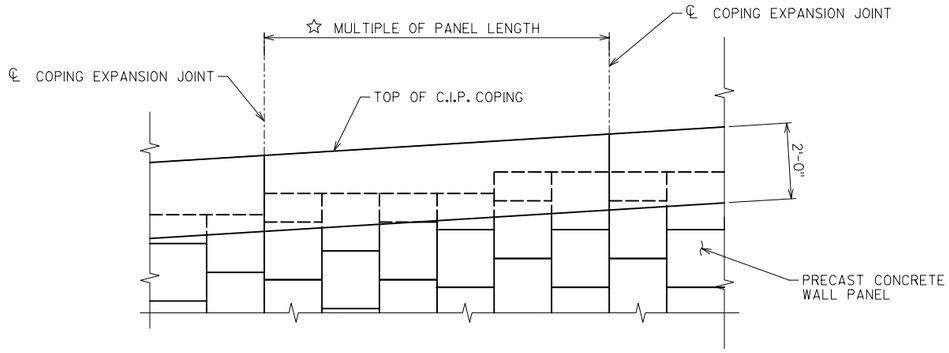
* THE PLAN QUANTITY FOR THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF LEVELING PAD TO THE TOP OF THE WALL AS SHOWN. COPING AND FOOTING CONCRETE AND REINFORCEMENT ARE TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT"

◥ PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELDS AT EXPOSED ENDS OF PIPE UNDERDRAIN. SEE RODENT SHIELD DETAIL.

▲ MINIMUM EMBEDMENT BASED ON SITE SPECIFIC PARAMETERS. FIELD EMBEDMENTS SHALL MEET OR EXCEED THE MINIMUM EMBEDMENT. FIELD EMBEDMENTS BELOW MINIMUM EMBEDMENT SHALL NOT BE INCLUDED IN THE PAY LIMITS.

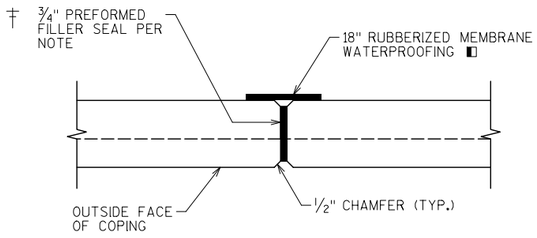


EXCAVATION/BACKFILL DETAIL



☆ ALL JOINTS SHALL COINCIDE WITH PANEL JOINT ON FRONT FACE.

C.I.P. COPING PARTIAL ELEVATION

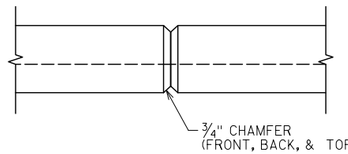


COPING EXPANSION JOINT

EXPANSION JOINTS TO BE SPACED AT A MAXIMUM OF 50'. LOCATE EXPANSION JOINTS OVER WALL JOINTS. DO NOT RUN BAR STEEL THRU JOINT. EXCEPT FOR DOWEL BARS. JOINT TO EXTEND FULL DEPTH OF COPING.

† SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING, NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH STAIN. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)

◧ RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW SURFACE OF CONCRETE.



COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 12'

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WALL DETAILS

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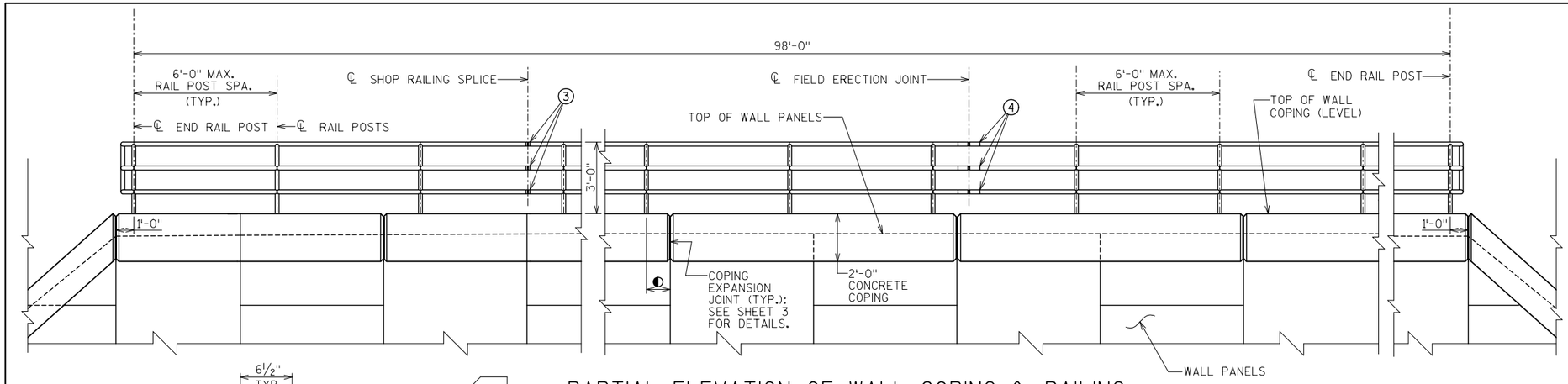
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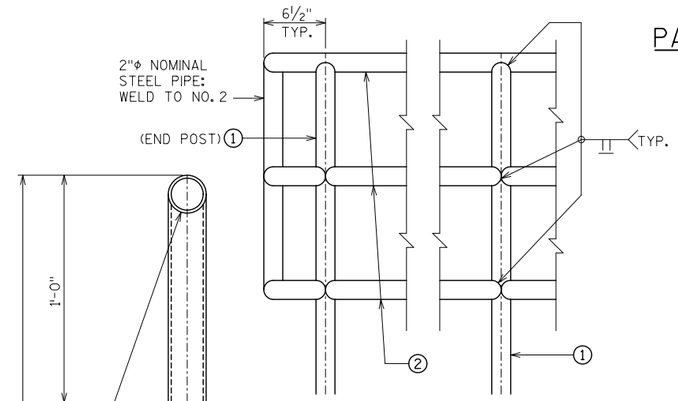
9200-04-71



PARTIAL ELEVATION OF WALL COPING & RAILING

LOOKING NORTH AT F.F. WALL

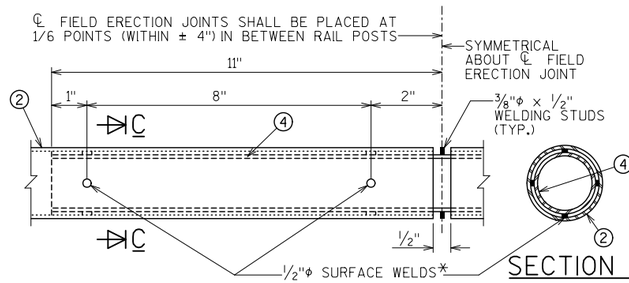
◐ 1'-0" MIN. DISTANCE REQUIRED BETWEEN THE ℄ OF COPING EXPANSION JOINTS AND THE ℄ OF RAIL POSTS



PART ELEVATION OF RAILING

SHOP RAILING SPLICE DETAIL

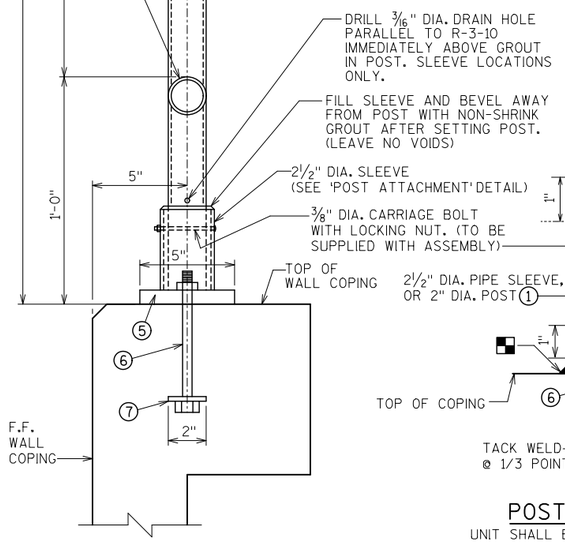
(LOCATION MUST BE SHOWN ON THE SHOP DRAWINGS)



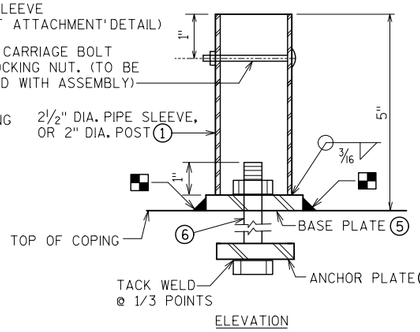
◪ FIELD ERECTION JOINT DETAIL

*MIN. ⅝" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.

SECTION C-C



SECTION THRU RAILING

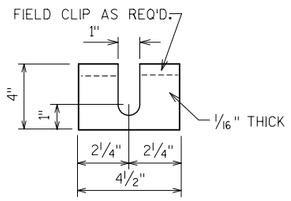


ELEVATION

POST ATTACHMENT

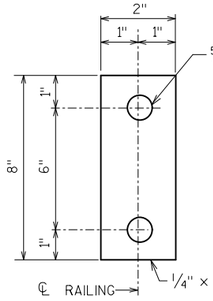
UNIT SHALL BE GALV. AFTER FABRICATION

NOTE:
IN LIEU OF USING THE 2½"Φ SLEEVE, THE 2"Φ RAIL POST MAY BE WELDED TO THE BASE PLATE.

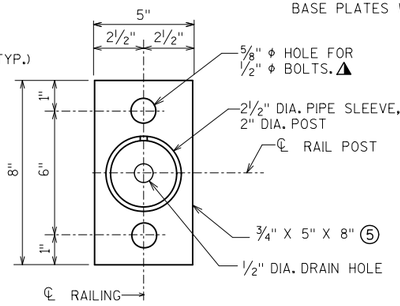


POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST.



ANCHOR PLATE



BASE PLATE

LEGEND

① 2"Φ NOMINAL STEEL PIPE FOR POSTS: CUT BOTTOM OF POST TO MATCH TOP OF CONCRETE. POSTS ARE TO BE SET VERTICAL.

② 2"Φ NOMINAL STEEL PIPE FOR RAILS: WELD TO NO. 1

③ 1½"Φ PIPE SLEEVE FOR NO. 2. PROVIDE "SLIDING FIT" WITH A MINIMUM OUT TO OUT DIMENSION OF 2 1/16".

④ 1½"Φ PIPE SLEEVE × 1'-10" LONG FOR NO. 2. PROVIDE ½"Φ SURFACE WELDS ON ALL SIDES AS SHOWN. GRIND WELDS TO FIT FREE INTO I.D. OF NO. 2. PROVIDE ⅜"Φ × ½" WELDING STUDS ON TOP AND BOTTOM SURFACES AT CENTERLINE.

⑤ PLATE ¾" × 5" × 8", WITH ⅝"Φ HOLE FOR ANCHOR BOLTS NO. 6. WELD TO NO. 1 OR PIPE SLEEVE AS SHOWN.

⑥ ½"Φ × 6⅞" LONG HEX BOLTS (GALVANIZED) WITH NUT AND WASHER. 2 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 5. CHAMFER TOP OF BOLTS BEFORE THREADING. TYPE S, ½" CONCRETE MASONRY ANCHORS MAY BE SUBSTITUTED FOR ½" BOLTS. ANCHOR PLATE NOT REQUIRED WHEN TYPE S ANCHORS ARE USED. SEE NOTE ☆

☆ ½" DIA. CONCRETE MASONRY ANCHOR, TYPE "S", 6" MIN. EMBEDMENT (EPOXY ANCHORED) INTO CONCRETE AND MINIMUM PULLOUT CAPACITY OF 10 KIPS. ANCHOR, WASHER AND NUT SHALL BE GALVANIZED.

⑦ ¼" × 2" × 8" FLAT BAR, WITH ⅝"Φ HOLES FOR ANCHOR BOLTS NO. 6.

GENERAL NOTES

BID ITEM SHALL BE "RAILING PIPE R-5-107", WHICH INCLUDES ALL ITEMS SHOWN.

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

FIELD ERECTION JOINTS MUST BE PLACED IN BETWEEN RAIL POSTS WHERE THERE IS ALSO A CONCRETE COPING EXPANSION JOINT IN BETWEEN RAIL POSTS.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ALL MATERIAL EXCEPT ANCHORAGE DETAIL (NO. 7) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS AND STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.

DRILL DRAIN HOLES PRIOR TO GALVANIZING.

ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A709 GRADE 36 UNLESS NOTED OTHERWISE.

STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.

ALL RAILS, POSTS AND SLEEVES ARE STANDARD WEIGHT PIPE, SCHEDULE 40.

PLACE ALL NUTS ON OUTSIDE OF POSTS.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING.

◪ CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS IN POST SHIMS AND BASE PLATES WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER.

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STRUCTURE R-5-107

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PIPE RAILING DETAILS

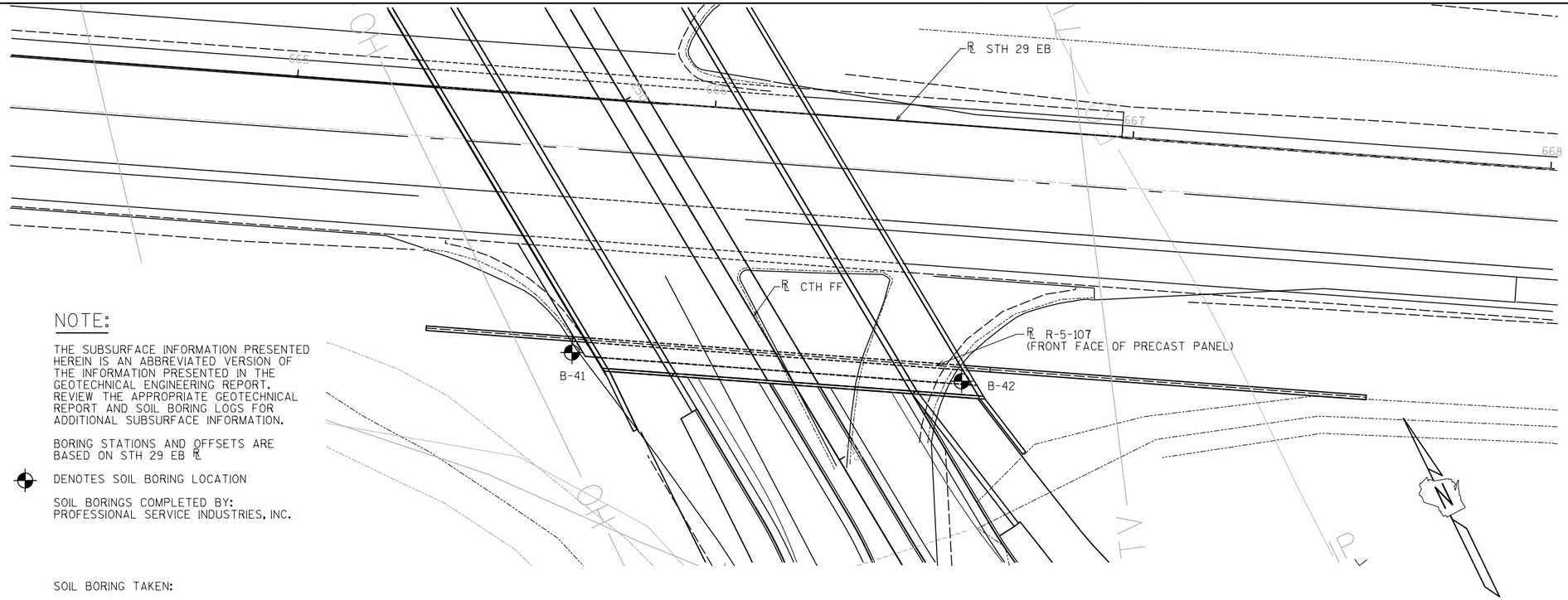
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PLAN

NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

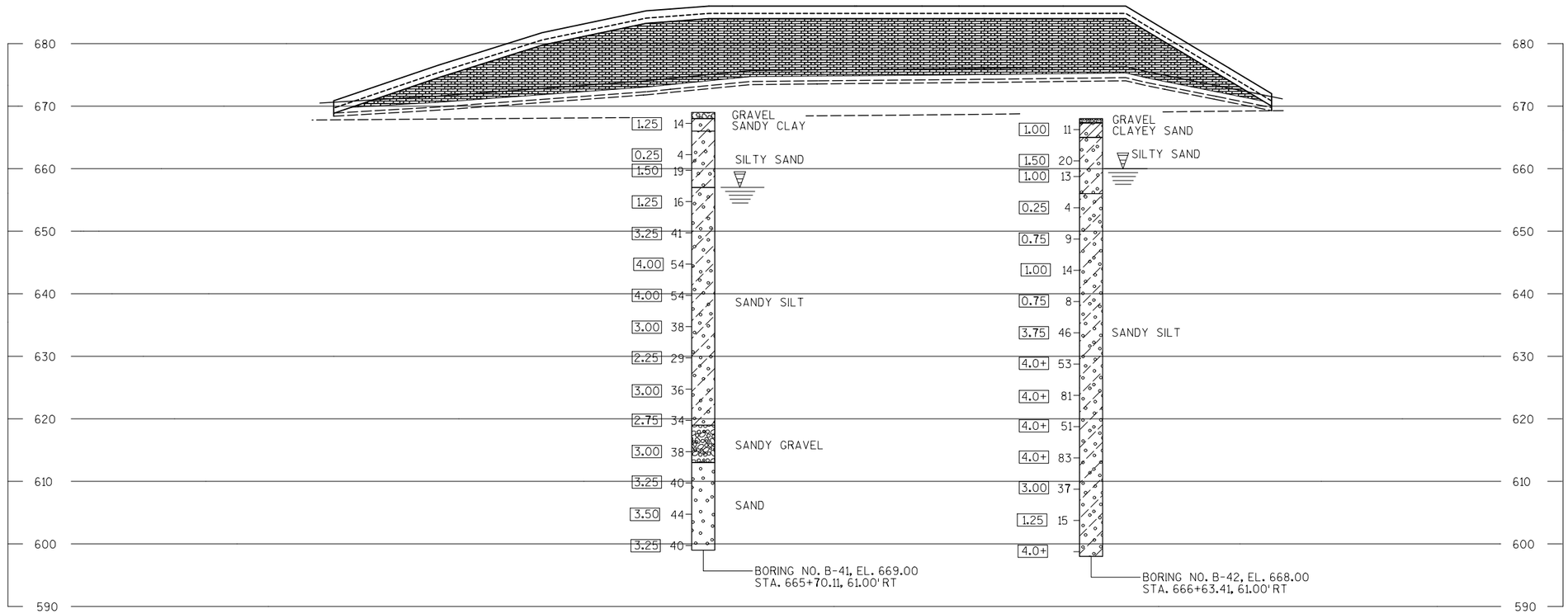
BORING STATIONS AND OFFSETS ARE BASED ON STH 29 EB ℄

⌖ DENOTES SOIL BORING LOCATION

SOIL BORINGS COMPLETED BY:
PROFESSIONAL SERVICE INDUSTRIES, INC.

SOIL BORING TAKEN:

FEBRUARY 28, 2012 - BORING B-41
FEBRUARY 28, 2012 - BORING B-42



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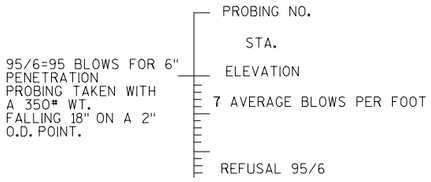
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

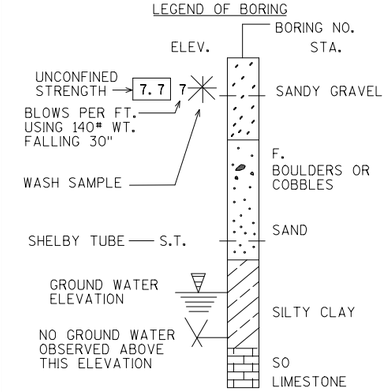
MATERIAL SYMBOLS

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

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STRUCTURE R-05-107

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SUBSURFACE EXPLORATION

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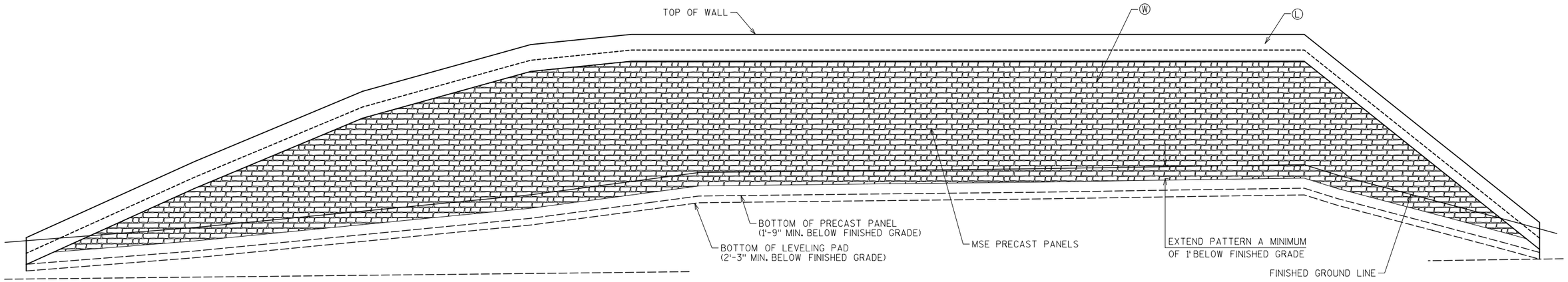
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ELEVATION - MSE WALL

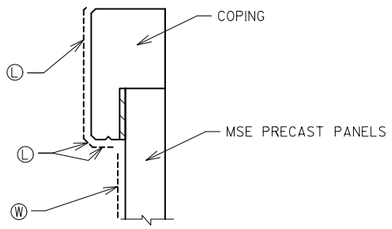
(LOOKING SOUTH AT FRONT FACE OF WALL)

STAINING NOTES

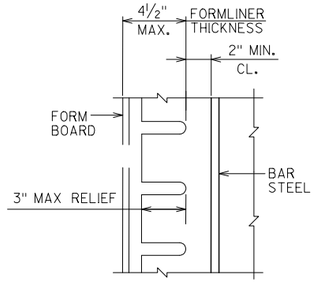
COLOR SAMPLES AND TEST PANEL TO BE APPROVED BY WISDOT PRIOR TO APPLYING STAIN TO STRUCTURE.

Ⓛ LIGHT TAN STAIN, FS#30315

Ⓦ WEATHERED STAIN - SEE STANDARD SPECAIL PROVISION "CONCRETE STAINING MULTI-COLOR R-5-107"



SECTION THRU COPING



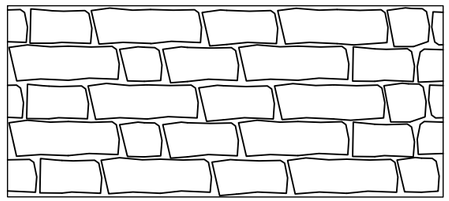
SECTION THRU FORMLINER

FORMLINER NOTES

FORMLINER COURSING ON RETAINING WALLS SHALL BE LEVEL.

THE FORMLINER PATTERN SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.

FORMLINER SHALL BE "RANDOM CUT STONE" (OR EQUIVALENT) TO LIMITS SHOWN.



RANDOM CUT STONE (OR EQUIV.)
COURSE HEIGHT = 14" ± 2"
MAX RELIEF = 3"
MAX FORMLINER THK. = 4½"

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AESTHETIC DETAILS

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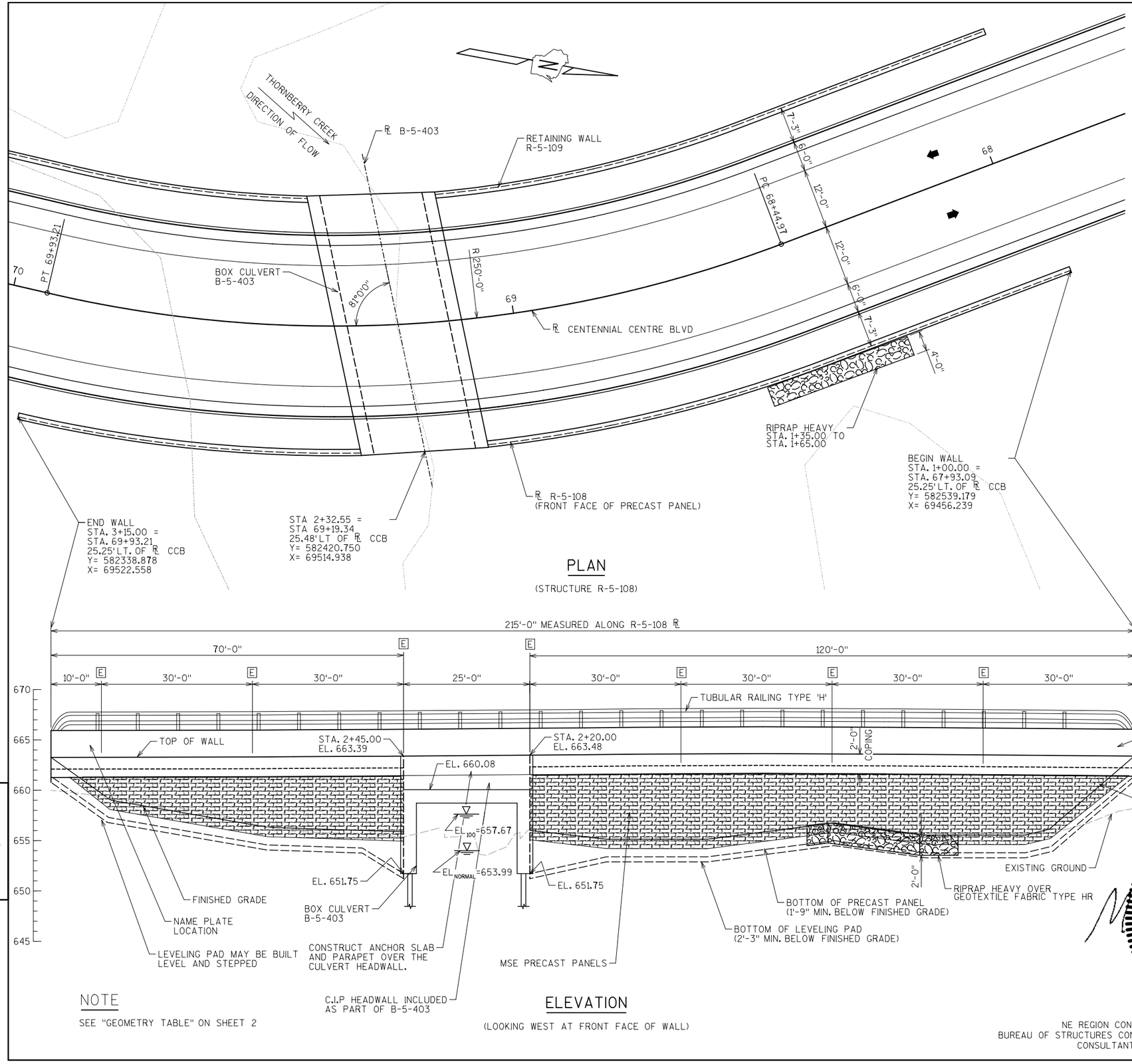
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DATE: 2/14/2013

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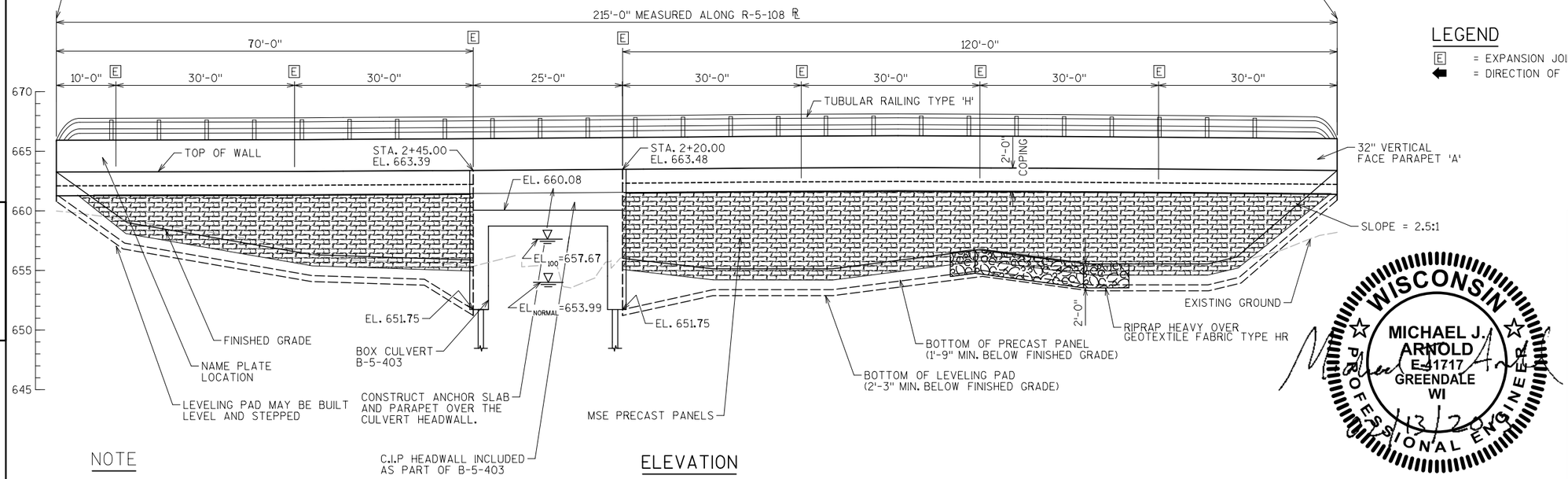
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PLAN

(STRUCTURE R-5-108)



ELEVATION

(LOOKING WEST AT FRONT FACE OF WALL)

NOTE

SEE "GEOMETRY TABLE" ON SHEET 2

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND DIMENSIONS ARE IN SURVEY FEET, ALL ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NAVD 88 DATUM.

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

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALL, AND MSE WALL REINFORCEMENT IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL SUPPLIER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT R-5-108."

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 IN THE GEOMETRY TABLE.

DESIGN FOR RETAINING WALL TO PROVIDE FOR A FINISHED GRADE SLOPE BEHIND THE WALL AS SHOWN IN THE ROADWAY CROSS SECTIONS.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

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.

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

HOT DIP GALVANIZE ALL STRUCTURAL STEEL CARBON IN ACCORDANCE WITH ASTM A123 WHERE SHOWN.

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP AND INSIDE FACES OF PARAPETS.

THE QUANTITY OF CONCRETE MASONRY FOR THE CAST-IN-PLACE ANCHOR SLAB AND PARAPETS IS PAID FOR UNDER THE ITEM "CONCRETE MASONRY RETAINING WALLS."

ALL STATIONS ARE ALONG THE ℄ FOR R-5-108 ALONG THE FRONT FACE OF WALL UNLESS SHOWN OTHERWISE.

THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF RETAINING WALL R-5-108 WITH BOX CULVERT B-5-403 AND RETAINING WALL R-5-109.

THE SOILS AT THE BASE OF THE WALL SHALL BE REVIEWED BY THE NORTHEAST REGION SOILS ENGINEER TO DETERMINE IF THE SOILS HAVE ADEQUATE STRENGTH TO SUPPORT THE MSE WALL.

LEGEND

E = EXPANSION JOINT

= DIRECTION OF TRAFFIC

LIST OF DRAWINGS

1. GENERAL PLAN
2. DESIGN DATA AND QUANTITIES
3. WALL DETAILS 1
4. WALL DETAILS 2
5. VERTICAL FACE PARAPET 'A'
6. TUBULAR RAILING TYPE 'H' STEEL
7. SUBSURFACE EXPLORATION
8. AESTHETIC DETAILS

NO.	DATE	REVISION	BY

URS
342 North Water Street
7th Floor
Milwaukee, WI 53202
(414) 831-4100

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 02/25/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

WISCONSIN PROFESSIONAL ENGINEER
MICHAEL J. ARNOLD
E-31717
GREENDALE
WI
12/20/2013

NE REGION CONTACT - JEREMY ASHAUER (920) 492-4165
BUREAU OF STRUCTURES CONTACT - WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT - MIKE ARNOLD (414) 831-4179

STRUCTURE R-5-108

CENTENNIAL CENTRE BLVD EAST RETAINING WALL.

COUNTY		~~TOWN/CITY~~/VILLAGE	
	BROWN		HOBART

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JDB	MJA	JDB	MJA

GENERAL PLAN AND ELEVATION

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8

STATE PROJECT NUMBER

9200-04-71

TOTAL ESTIMATED QUANTITIES

BID ITEM #	BID ITEM	UNIT	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	230
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	130
505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	7,860
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	3
517.1050.S.05	ARCHITECTURAL SURFACE TREATMENT R-5-108	SF	1,090
606.0300	RIPRAP HEAVY	CY	9
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	230
645.0113	GEOTEXTILE FABRIC TYPE DF SCHEDULE C	SY	221
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	14
650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT R-5-108	LS	1
SPV.0105.05	RAILING TUBULAR STEEL TYPE H GALVANIZED R-5-108	LS	1
SPV.0165.02	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT R-5-108	SF	1,625
	NON BID ITEMS		
	FILLER	SIZE	1/2" & 1"
	NAME PLATE	EACH	1
	EXPANDED POLYSTYRENE	SIZE	1"

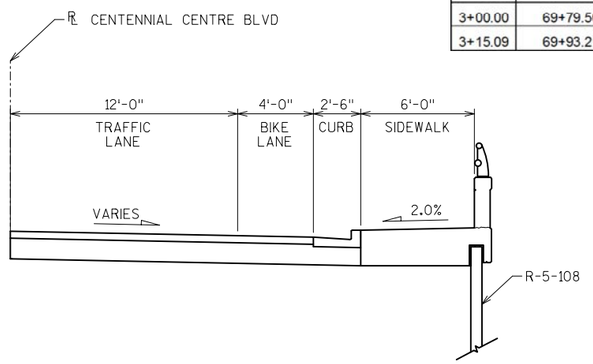
ALL ITEMS ARE CATEGORY 0100

BENCHMARK

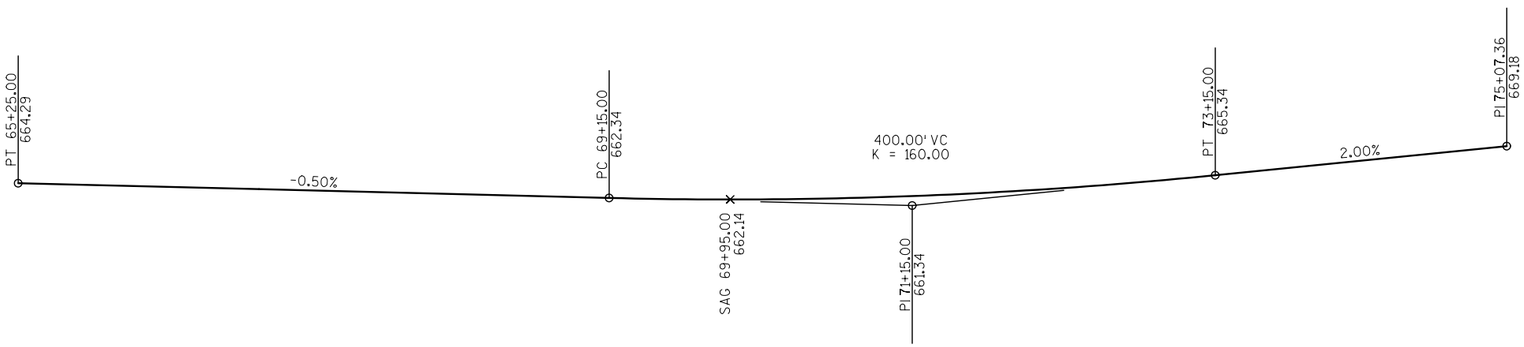
NO.	STATION	DESCRIPTION	ELEVATION
BM 292009	248+00	PK NAIL IN PPOL 241913E7 NEAR FF	671.04
CP 502	226+20	CONTROL POINT NEAR HILLCREST DRIVE	669.73

GEOMETRY TABLE

WALL STATION	CENTENNIAL CENTRE BLVD STATION	OFFSET TO R/L OF WALL	TOP OF WALL	FINISHED GRADE
1+00.00	67+93.09	25.25 ' LT	663.42	663.42
1+25.00	68+18.09	25.25 ' LT	663.52	655.63
1+50.00	68+43.09	25.25 ' LT	663.61	655.76
1+51.88	68+44.97	25.25 ' LT	663.62	656.12
1+75.00	68+65.97	25.25 ' LT	663.67	655.95
2+00.00	68+88.68	25.25 ' LT	663.61	655.99
2+25.00	69+11.38	25.25 ' LT	663.50	655.98
2+50.00	69+34.09	25.25 ' LT	663.41	655.43
2+75.00	69+56.80	25.25 ' LT	663.34	656.32
3+00.00	69+79.50	25.25 ' LT	663.31	658.64
3+15.09	69+93.21	25.25 ' LT	663.30	663.30



CENTENNIAL CENTRE BLVD TYPICAL HALF SECTION



PROFILE GRADE LINE - CENTENNIAL CENTRE BLVD

SOIL PARAMETERS

BORING RWC-1, STA 68+50			
Stratum Locations & Soil Description	Unit Weight (PCF)	Friction Angle (Degrees)	Cohesion (PSF)
El. 662.5' to EL. 655.5'	120.0	33	0
EL. 655.5' TO EL. 637'	127	28	50
Granular backfill (Within the Wall Reinforcing Zone)	120	30	0
Fill (Behind and Below the Reinforcing Zone)	120	33	0

BORING C-2, STA 69+30			
Stratum Locations & Soil Description	Unit Weight (PCF)	Friction Angle (Degrees)	Cohesion (PSF)
El. 653' to EL. 650' (overexcavate)	90.0	0	0
EL. 650' TO EL. 645'	110.0	31	0
EL. 645' TO EL. 621'	127.0	28	50
EL. 621' TO EL. 609'	130.0	35	0
Granular backfill (Within the Wall Reinforcing Zone)	120	30	0
Fill (Behind and Below the Reinforcing Zone)	120	33	0

WALL EXTERNAL & OVERALL STABILITY EVALUATION

DIMENSIONS	EVALUATED LCCATION
WALL HEIGHT (FEET)*	9.75
EXPOSED WALL HEIGHT (FEET)	8
MINIMUM LENGTH OF REINFORCEMENT (FEET)	8
WALL STATION	69+50
BORING USED	C-2
CAPACITY TO DEMAND RATIO (CDR)	
SLIDING (CDR>1.0)	1.4
ECCENTRICITY (CDR>1.0)	3.7
OVERALL STABILITY (CDR>1.0)	1.1
BEARING RESISTANCE (CDR>1.0)	1.75
FACTORED BEARING RESISTANCE (PSF)	3728

*INCLUDES 1'-9" EMBEDMENT DEPTH

■ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND OVERALL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

DESIGN DATA

LIVE LOAD
LIVE LOAD SURCHARGE (ROADWAY) 240 PSF

MATERIAL PROPERTIES
CONCRETE MASONRY RETAINING WALL f'c = 3500 PSI
PRECAST CONCRETE WALL PANELS f'c = 4000 PSI
BAR STEEL REINFORCEMENT fy = 60,000 PSI

NOTE: THE WALL HAS BEEN DESIGNED FOR TRAFFIC LOADING ONLY. IF DURING CONSTRUCTION HEAVY EQUIPMENT IS OPERATING IN CLOSE PROXIMITY TO THE WALL OR IF MATERIAL IS STOCKPILED NEAR THE WALL, THE SAFETY FACTOR FOR THIS WALL WILL SIGNIFICANTLY DECREASE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-108

DRAWN BY JDB | PLANS CK'D. MJA

DESIGN DATA AND QUANTITIES

SHEET 2 OF 8
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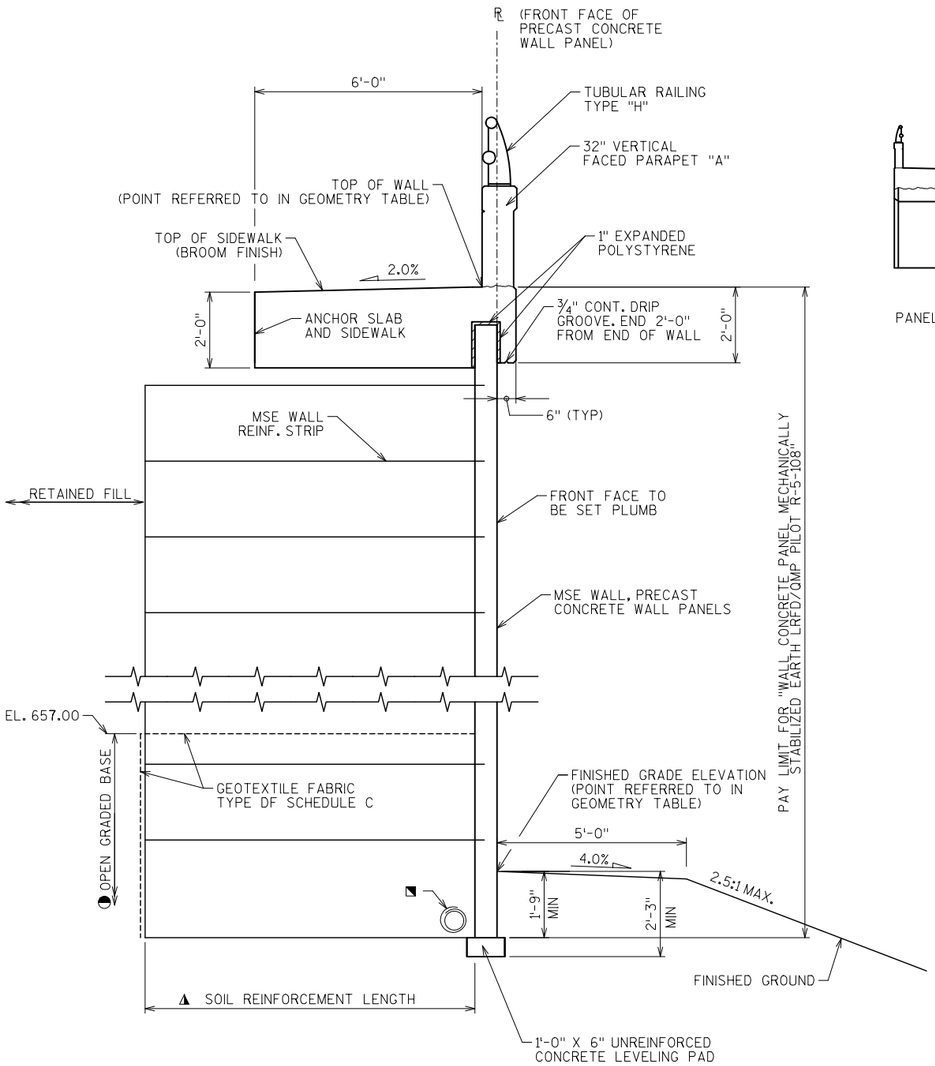
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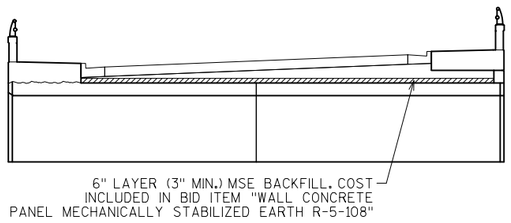
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I.D.

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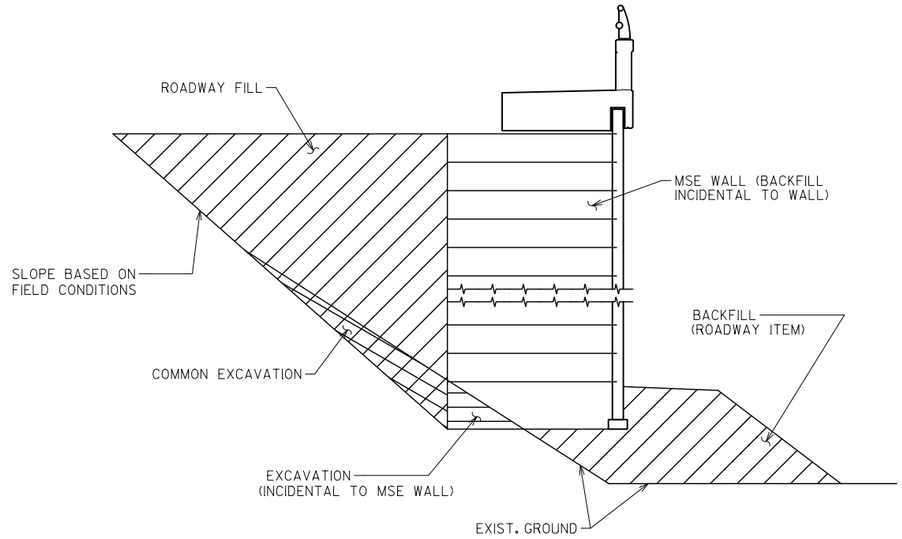
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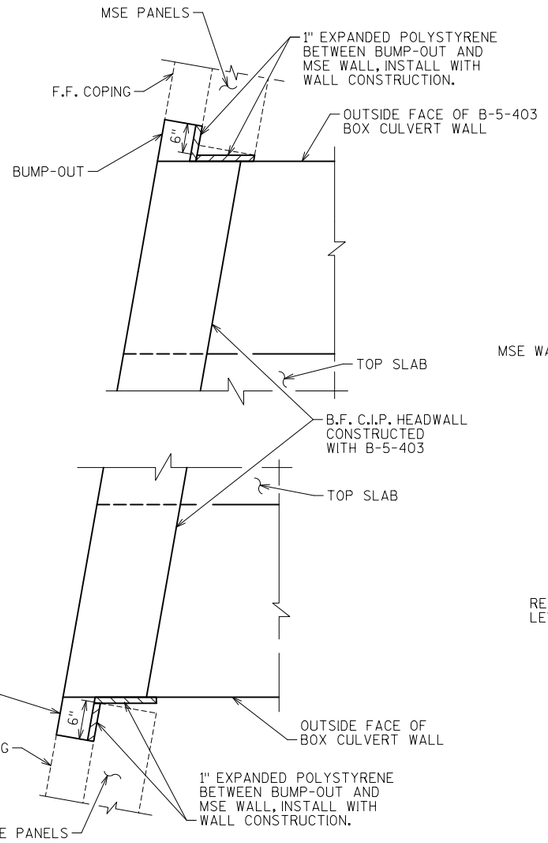
TYPICAL WALL SECTION



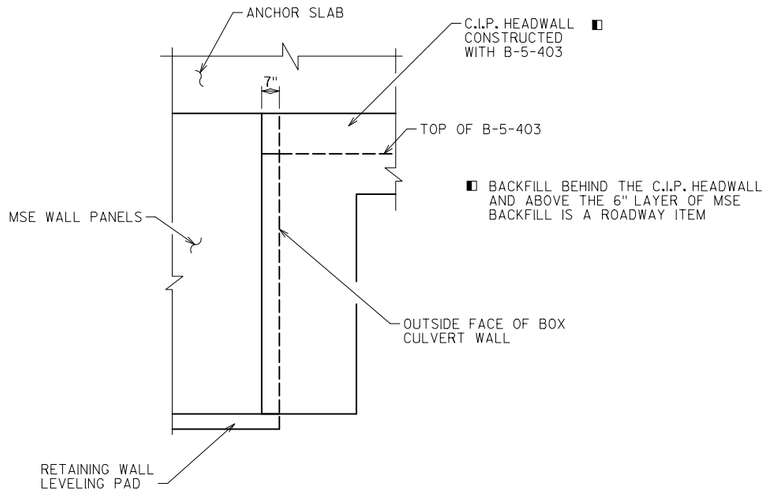
SECTION AT BOX CULVERT



EXCAVATION/BACKFILL DETAIL



PLAN - BUMP-OUT DETAIL



ELEVATION - BUMP-OUT DETAIL

* THE PLAN QUANTITY FOR THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT R-5-108" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF LEVELING PAD TO THE TOP OF THE WALL AS SHOWN. COPING AND FOOTING CONCRETE AND REINFORCEMENT ARE TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT R-5-108"

◥ PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELDS AT EXPOSED ENDS OF PIPE UNDERDRAIN. SEE RODENT SHIELD DETAIL.

◮ MINIMUM EMBEDMENT BASED ON SITE SPECIFIC PARAMETERS. FIELD EMBEDMENTS SHALL MEET OR EXCEED THE MINIMUM EMBEDMENT. FIELD EMBEDMENTS BELOW MINIMUM EMBEDMENT SHALL NOT BE INCLUDED IN THE PAY LIMITS.

◑ OPEN GRADED BASE IS INCLUDED IN THE BID ITEM "WALL CONCRETE MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT R-5-108" AND PLACED BELOW THE ELEVATION OF 657.00. OPEN GRADED BASE MATERIAL SHALL CONFORM TO THE GRADATION REQUIREMENTS STATED IN SECTION 310.2 OF THE STANDARD SPECIFICATION. ELECTRICAL RESISTIVITY TESTING IS NOT REQUIRED FOR THE OPEN GRADED BASE MATERIAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE R-5-108

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WALL DETAILS 1

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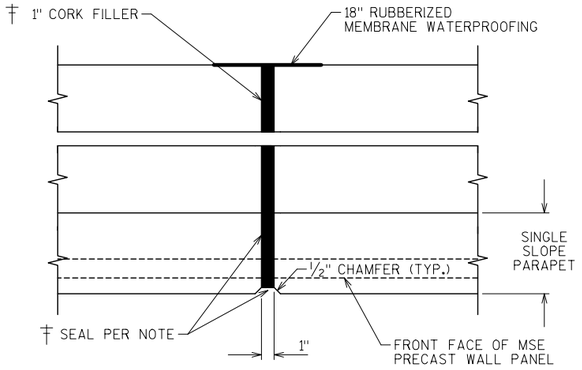
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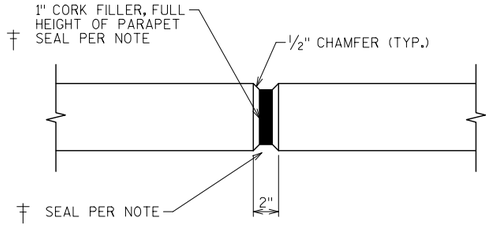
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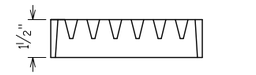
ANCHOR SLAB EXPANSION JOINT DETAIL



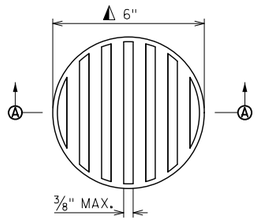
TRAFFIC BARRIER EXPANSION JOINT DETAIL

EXPANSION JOINTS TO BE SPACED AT A MINIMUM OF 20' AND A MAXIMUM OF 30'. LOCATE EXPANSION JOINTS OVER WALL JOINTS. DO NOT RUN BAR STEEL THRU JOINT. EXCEPT FOR DOWEL BARS. JOINT TO EXTEND FULL DEPTH OF PARAPET AND ANCHOR SLAB.

† SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING, NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH STAIN. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)



SECTION A-A

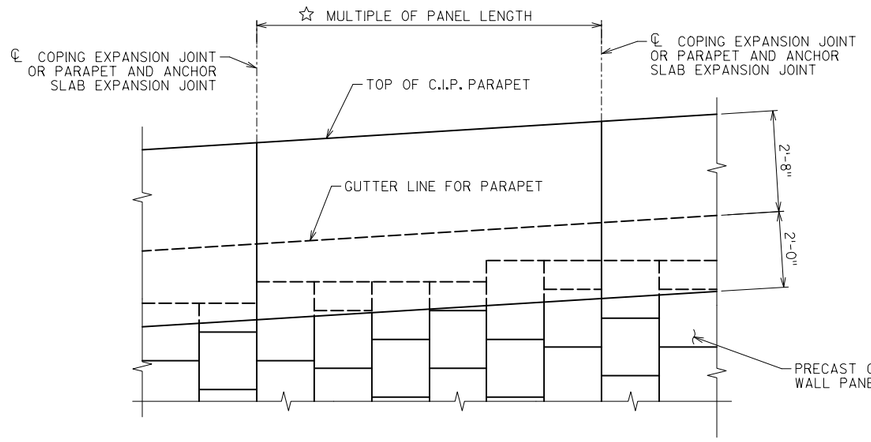


RODENT SHIELD

⚠ DIMENSIONS ARE APPROXIMATE, THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. FASTEN TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

ORIENT SHIELD SO SLOTS ARE VERTICAL.

COST OF RODENT SHIELD AND ALL FITTINGS TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."



☆ ALL JOINTS SHALL COINCIDE WITH PANEL JOINT ON FRONT FACE.

C.I.P. PARAPET OR COPING PARTIAL ELEVATION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE R-5-108

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WALL DETAILS 2

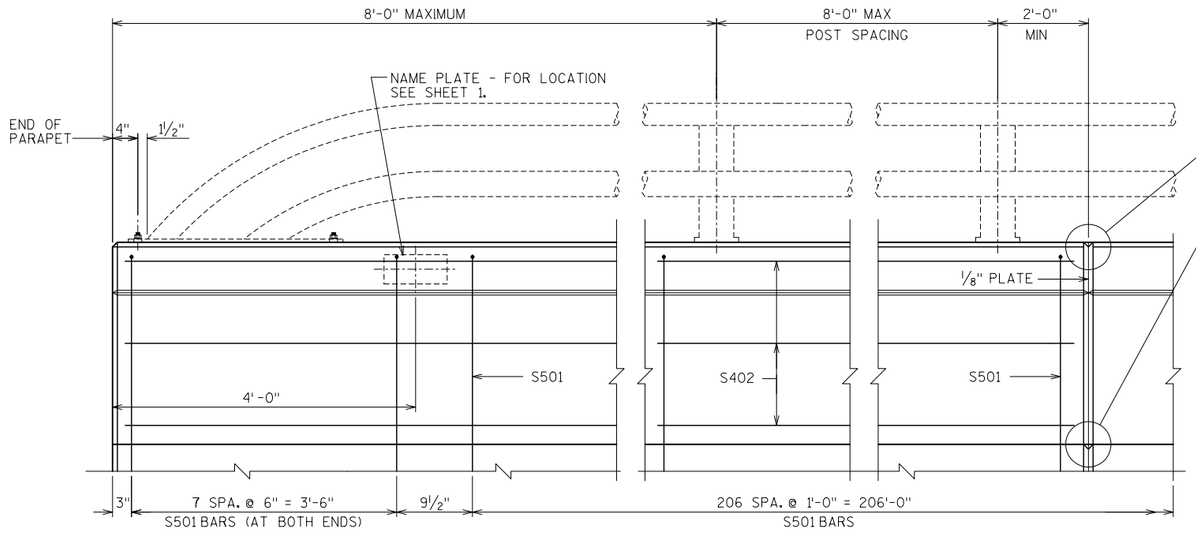
SHEET 4 OF 8
492

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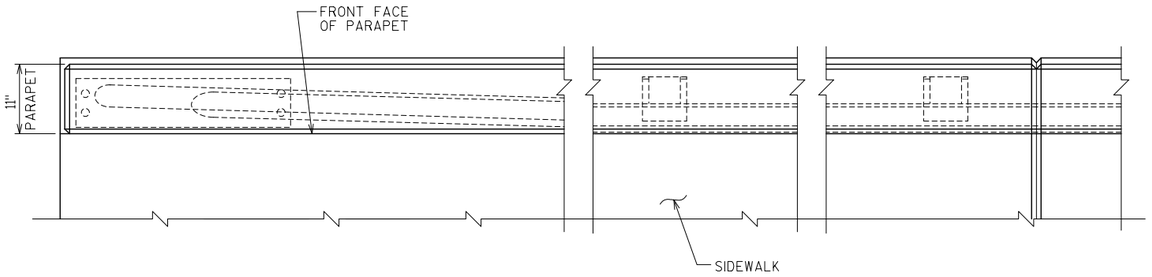
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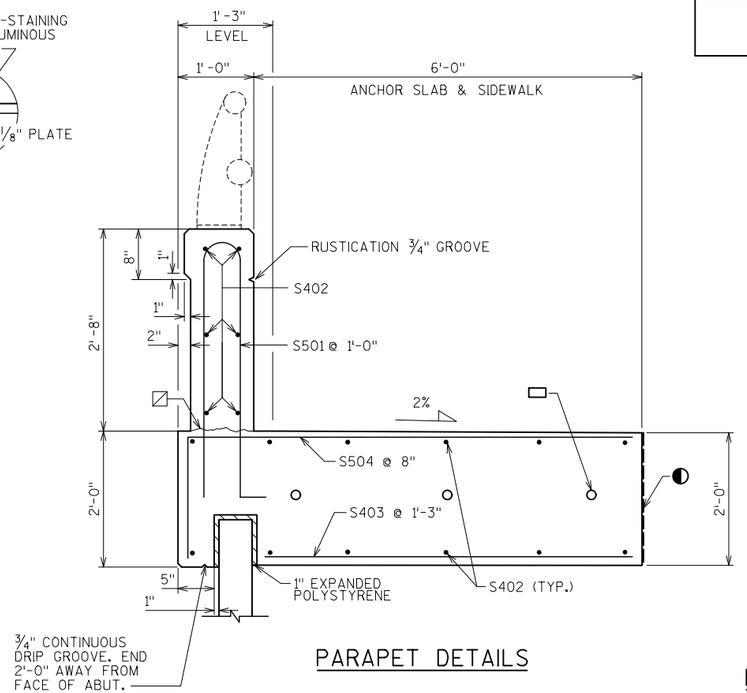
9200-04-71



ELEVATION OF PARAPET AT DEFLECTION JOINT



PLAN OF PARAPET



PARAPET DETAILS

LEGEND

◐ 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT

▨ HORIZ. CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.

▭ (3) - 3/4" ϕ SMOOTH DOWEL BARS, 1'-6" LONG, AT EXPANSION JOINT, EMBED 9". USE APPROVED DEBONDER ON 1/2 OF BAR LENGTH. COST INCLUDED IN "CONCRETE MASONRY RETAINING WALLS".

BILL OF BARS

ALL BARS IN THIS TABLE SHALL BE EPOXY COATED.

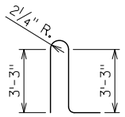
	BAR MARK	NO. REQ'D	LENGTH	BENT	LOCATION
*	S501	223	7'-10"	X	PARAPET VERT.
*	S402	18	215'-1"		PARAPET & SLAB LONGIT.
	S403	153	5'-10"		ANCHOR SLAB HORIZ.
	S504	324	8'-2"	X	ANCHOR SLAB HORIZ.
	S405	21	6'-8"		ANCHOR SLAB HORIZ.

NOTES

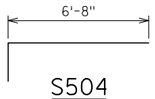
THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

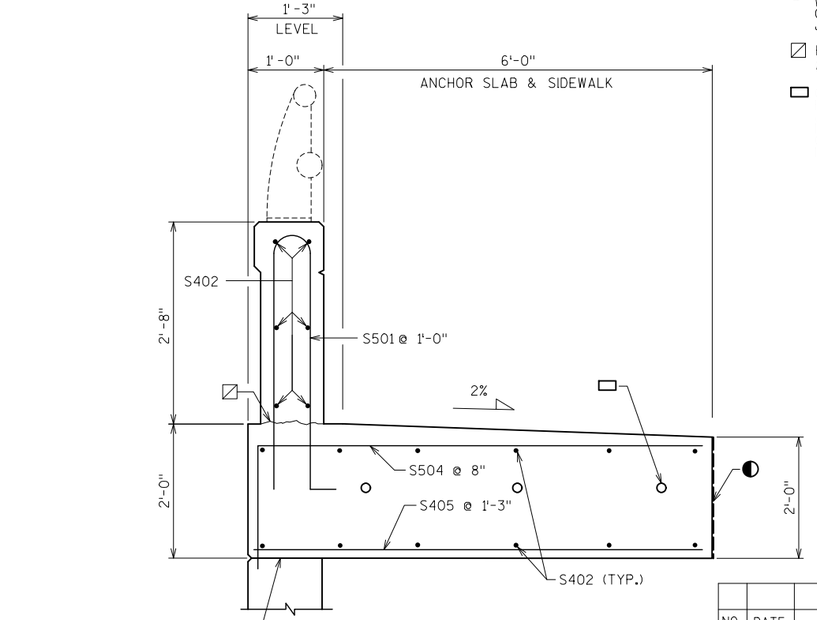
* FIGURE SHOWN IN THE 'NO.' AND 'LENGTH' COLUMNS OF THE TABLE SHOULD BE USED FOR BAR WEIGHT CALCULATIONS ONLY. INDIVIDUAL BAR LENGTHS TO BE DETERMINED BY THE CONTRACTOR BASED ON THE ACTUAL DISTANCE BETWEEN ANCHOR SLAB EXPANSION JOINTS.



S501



S504



PARAPET DETAILS OVER BOX CULVERT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-108

DRAWN BY JDB | PLANS CK'D. MJA

ANCHOR SLAB & VERTICAL FACE PARAPET "A"

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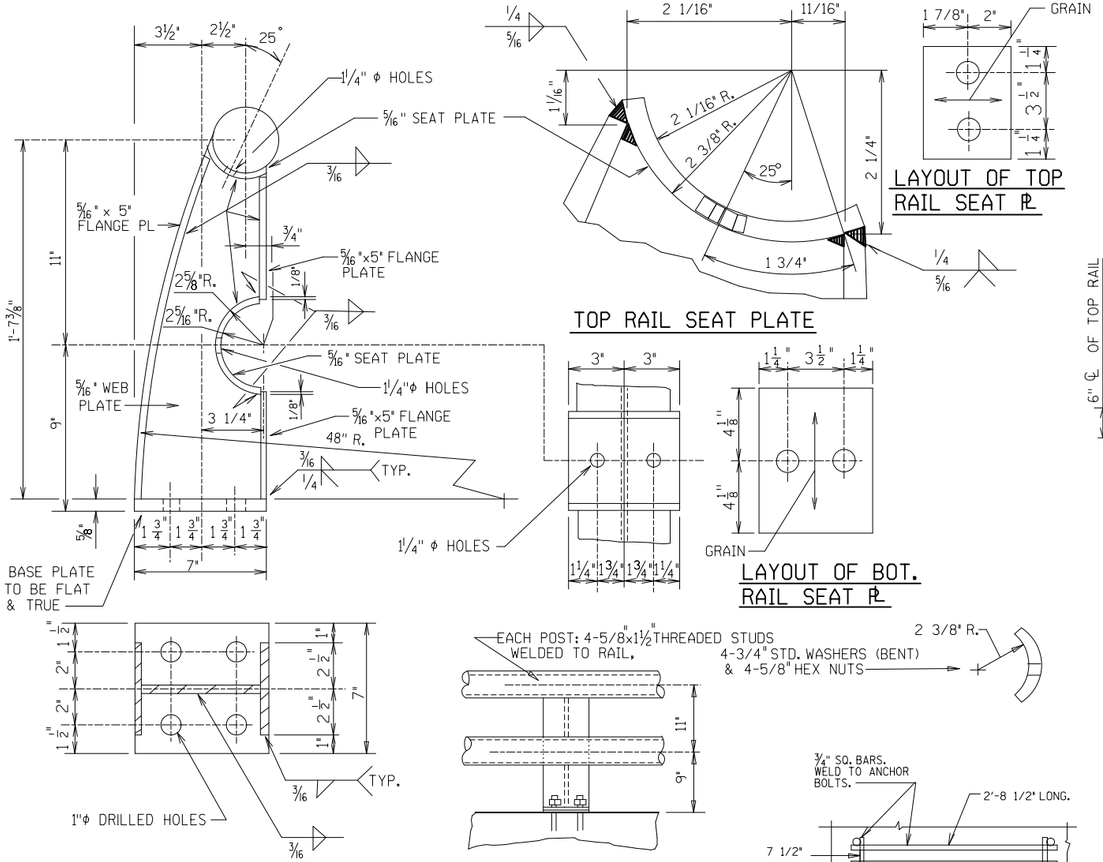
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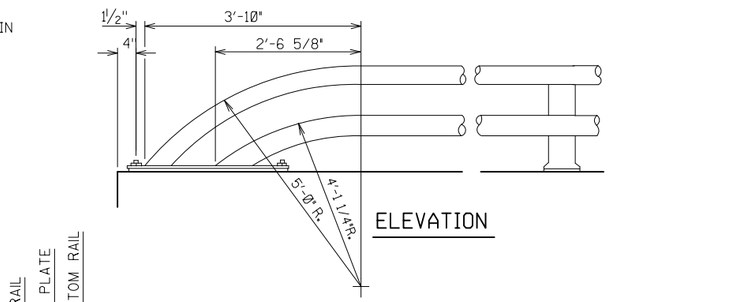
LAYOUT OF TOP RAIL SEAT ℄

TOP RAIL SEAT PLATE

LAYOUT OF BOT. RAIL SEAT ℄

STEEL POST DETAILS

RAIL TO POST CONN.



ELEVATION

PLAN

VERTICAL FACE PARAPET 'A'

DETAIL OF RAIL BEND AT ENDS OF WALL

GENERAL NOTES

BID ITEM SHALL BE "RAILING TUBULAR STEEL TYPE H GALVANIZED R-05-108" WHICH INCLUDES ALL ITEMS SHOWN.

THE SHANK AND ROOT DIAMETER OF THREAD FOR ANCHOR BOLTS SHALL BE A MIN. OF ⅝".

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM A307. IF A307 IS USED ELECTRO-GALVANIZE NUTS, WASHERS & TOP 3½" OF ANCHOR BOLTS.

CLOSURE ENDS ON STEEL RAILING SHALL BE ¼" PLATE. WELD AND GRIND SMOOTH.

RAILINGS SHALL BE FABRICATED IN 2 AND 3 PANEL LENGTHS.

RAILING POSTS SHALL BE SET NORMAL TO GRADE LINE.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG CENTERLINE OF THE POST BASE.

SHIMS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQ'D. FOR ALIGNMENT.

FILL ALL EXPOSED OPENINGS BETWEEN SHIMS AND POST ANCHOR BOLT HOLES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

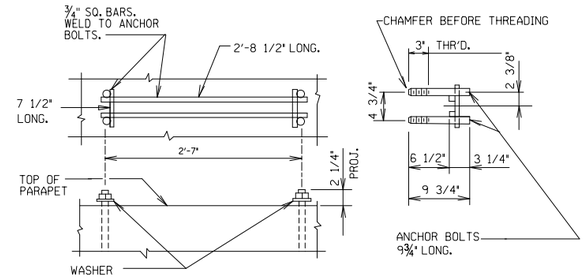
RAILS, POSTS & SHIMS SHALL BE MADE FROM MATERIALS CONFORMING TO ASTM DESIGNATION A709, GRADE 36.

ALL MATERIALS, EXCEPT ANCHORAGES, SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL SHALL BE GIVEN A NO. 6 BLAST CLEANING BY SSPC SPECIFICATIONS. AFTER GALVANIZING, PAINT ALL SURFACES OF RAILING BLACK (FEDERAL COLOR NUMBER 27038).

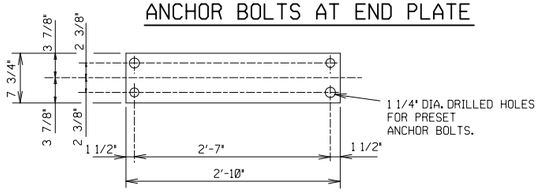
RAILS SHALL BE BUILT STRAIGHT AND SPRUNG INTO PLACE FOR STRUCTURES CURVED UP TO 3°. FOR STRUCTURES CURVED GREATER THAN 3°, RAILS SHALL BE CURVED TO FIT.

ALL SLEEVE DETAILS SAME AS "FIELD ERECTION JOINT DETAIL" UNLESS SHOWN OTHERWISE.

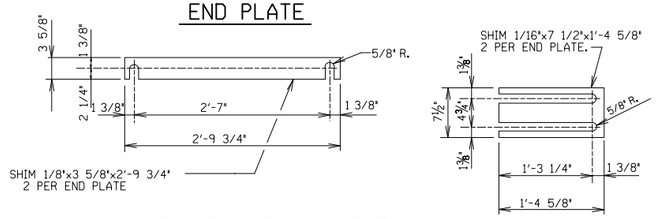
- ◯ ⅝" × ⅜" WELDED STUDS
- ⬡ 3" ϕ STD. PIPE x 1'-10 LONG
- □ 3" ϕ EXTRA STRONG PIPE x 1'-10 LONG
- △ 11" CIRCUMF. GRIND BEADS SO THAT ½" ϕ WELD BEADS AT 1/3 PTS. ON PIPE SLEEVE FITS FREELY IN THE I.D. OF 4" ϕ EXTRA STRONG PIPE.



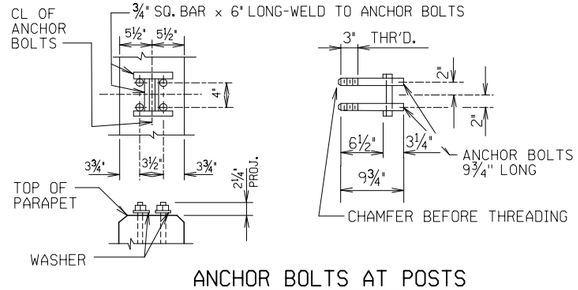
ANCHOR BOLTS AT END PLATE



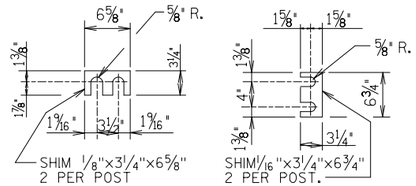
END PLATE



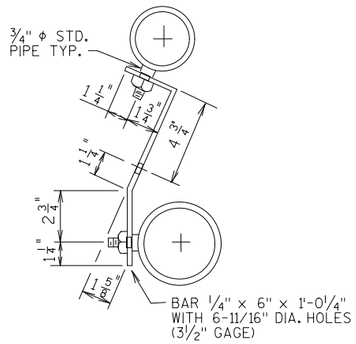
END PLATE SHIM DETAILS



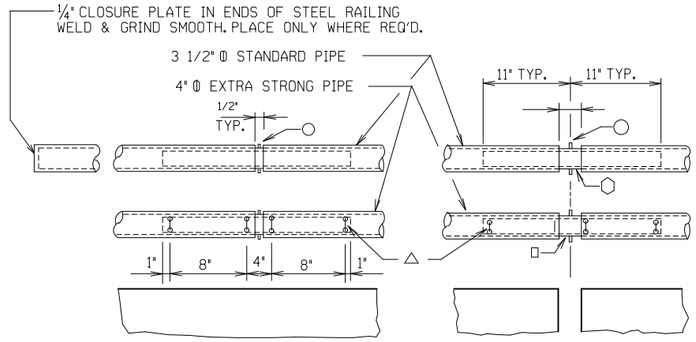
ANCHOR BOLTS AT POSTS



POST SHIM DETAILS



SHIPPING BAR



FIELD ERECTION JOINT DETAIL

DETAIL AT RAIL OPENING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-108

DRAWN BY JDB | PLANS CK'D. MJA

TUBULAR RAILING TYPE 'H' STEEL

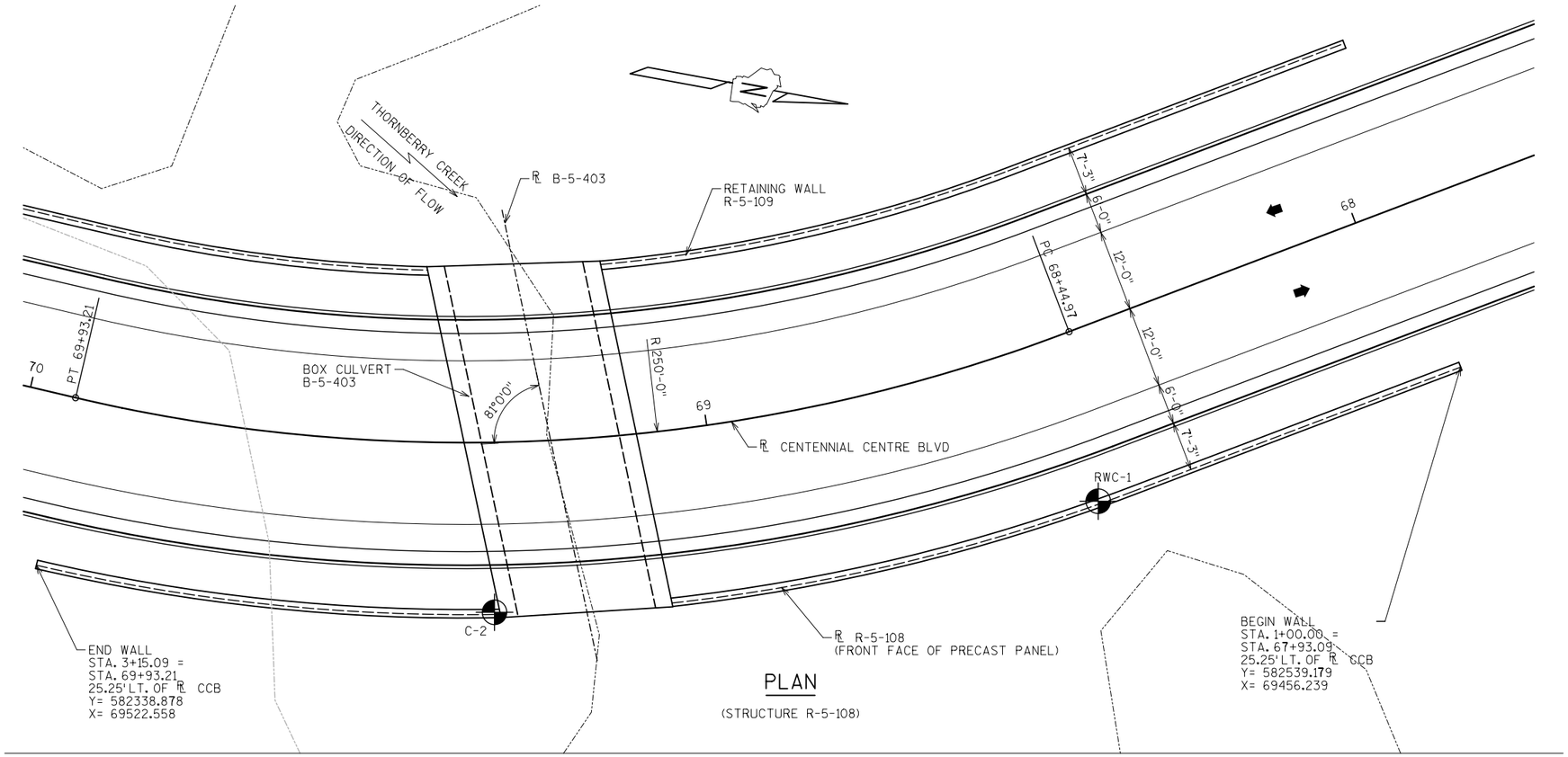
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I.D.

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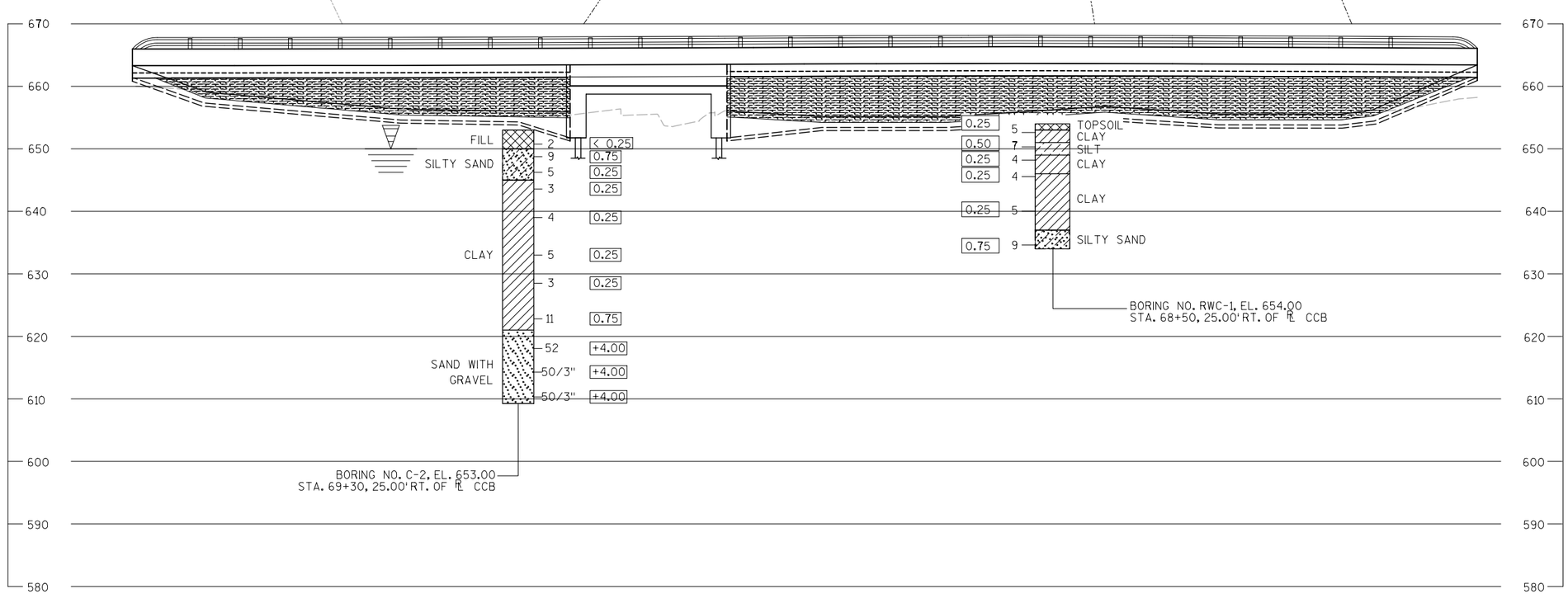
8

8



PLAN

(STRUCTURE R-5-108)



BORING NO. C-2, EL. 653.00
STA. 69+30, 25.00'RT. OF ℄ CCB

BORING NO. RWC-1, EL. 654.00
STA. 68+50, 25.00'RT. OF ℄ CCB

STATE PROJECT NUMBER

9200-04-71

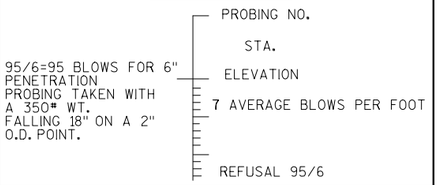
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

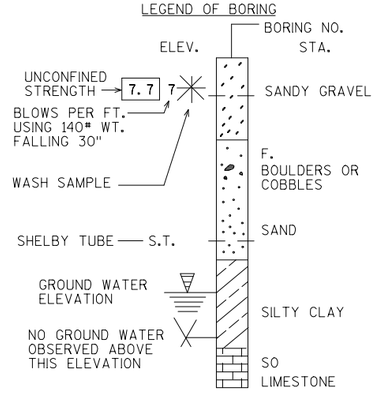
MATERIAL SYMBOLS

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

STRUCTURE R-5-108

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SUBSURFACE EXPLORATION

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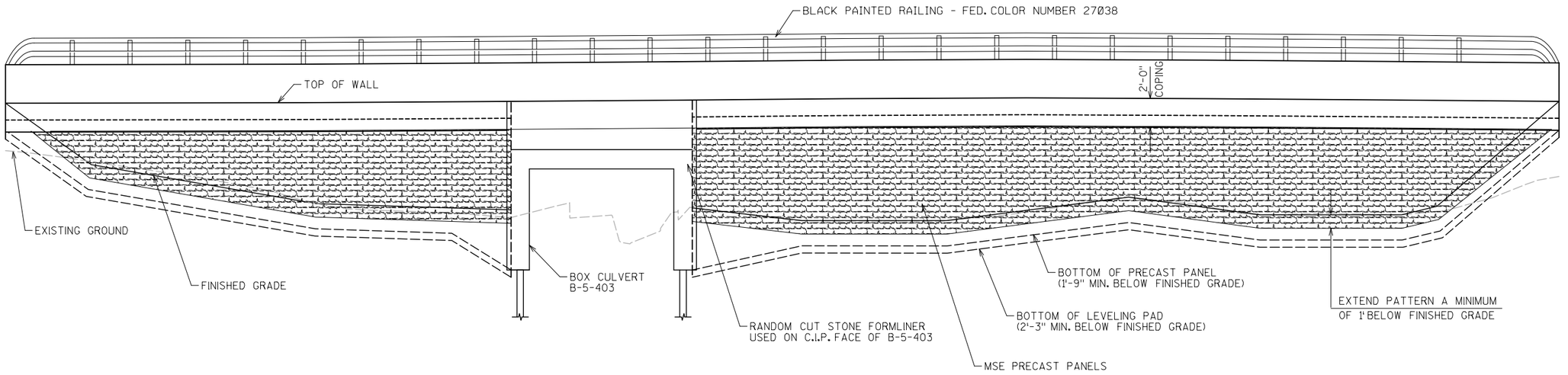
DATE: 2/22/2013
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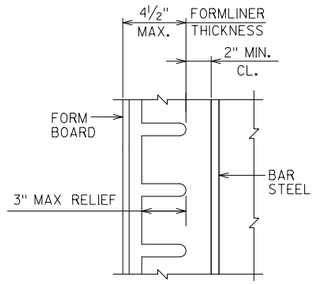
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STATE PROJECT NUMBER
9200-04-71



ELEVATION - MSE WALL

(LOOKING WEST AT FRONT FACE OF WALL)



SECTION THRU FORMLINER

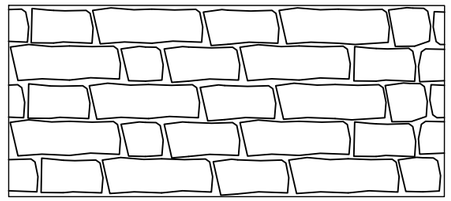
FORMLINER NOTES

FORMLINER COURSING ON RETAINING WALLS SHALL BE LEVEL.

FORMLINER COURSING ON PARAPETS SHALL BE PARALLEL TO TOP OF PARAPET.

THE FORMLINER PATTERN SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.

FORMLINER SHALL BE "RANDOM CUT STONE" (OR EQUIVALENT) TO LIMITS SHOWN.



RANDOM CUT STONE (OR EQUIV.)
COURSE HEIGHT = 14" ± 2"
MAX RELIEF = 3"
MAX FORMLINER THK. = 4½"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-108

DRAWN BY JDB | PLANS CK'D. MJA

AESTHETIC DETAILS

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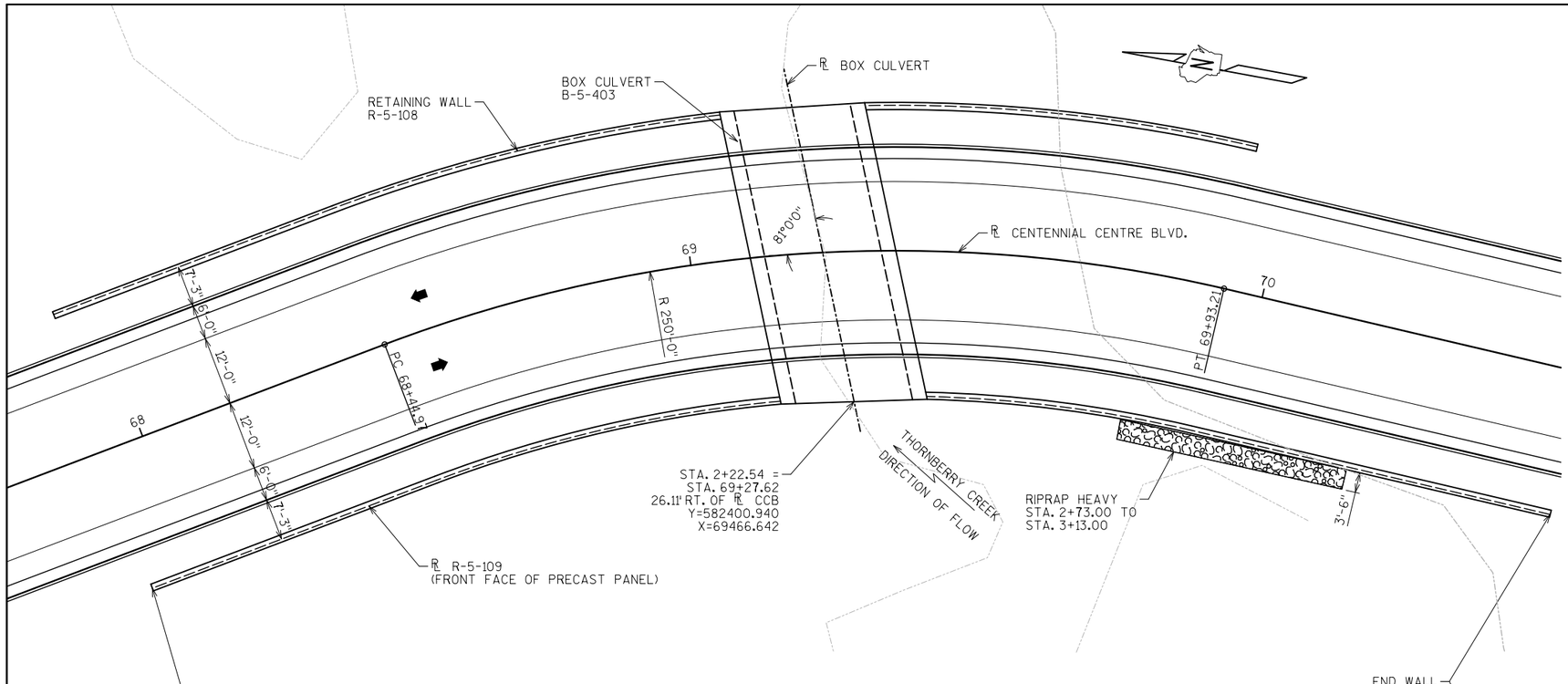
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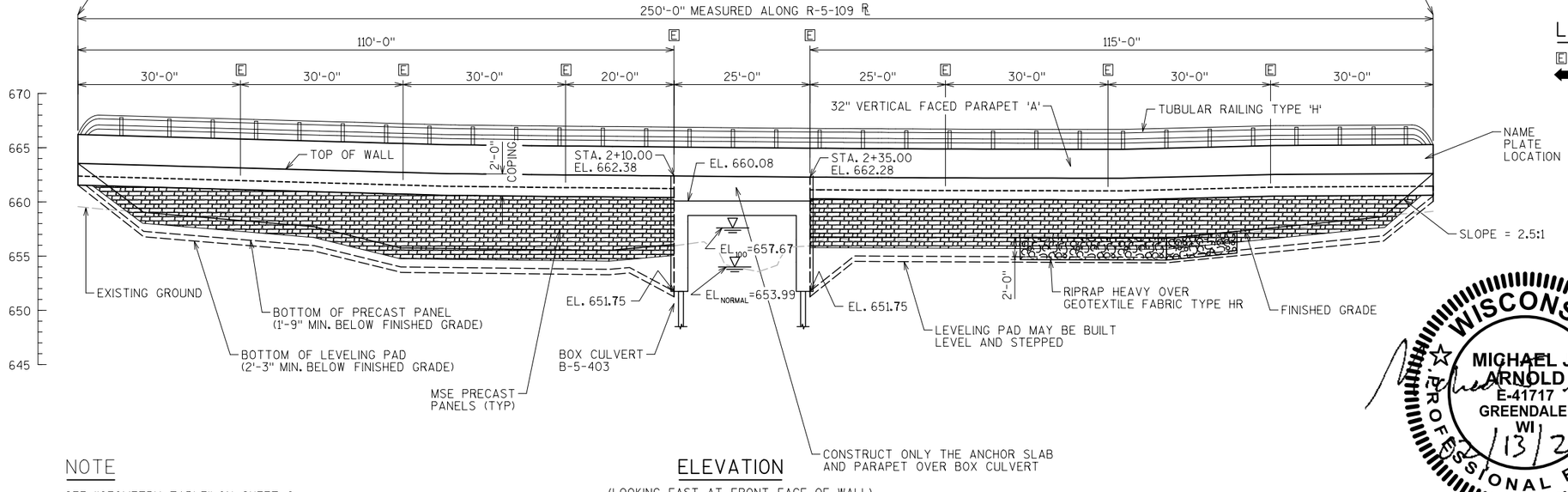
DATE: 2/22/2013

I.D.



PLAN

(STRUCTURE R-5-109)



ELEVATION

(LOOKING EAST AT FRONT FACE OF WALL)

NOTE

SEE "GEOMETRY TABLE" ON SHEET 2

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND DIMENSIONS ARE IN SURVEY FEET, ALL ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NAVD 88 DATUM.

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

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALL, AND MSE WALL REINFORCEMENT IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL SUPPLIER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT R-5-109."

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 IN THE GEOMETRY TABLE.

DESIGN FOR RETAINING WALL TO PROVIDE FOR A FINISHED GRADE SLOPE BEHIND THE WALL AS SHOWN IN THE ROADWAY CROSS SECTIONS.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

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.

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

HOT DIP GALVANIZE ALL STRUCTURAL STEEL CARBON IN ACCORDANCE WITH ASTM A123 WHERE SHOWN.

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP AND INSIDE FACES OF PARAPETS.

THE QUANTITY OF CONCRETE MASONRY FOR THE CAST-IN-PLACE ANCHOR SLAB AND PARAPETS IS PAID FOR UNDER THE ITEM "CONCRETE MASONRY RETAINING WALLS."

ALL STATIONS ARE ALONG THE ℄ FOR R-5-109 ALONG THE FRONT FACE OF WALL UNLESS SHOWN OTHERWISE.

THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF RETAINING WALL R-5-109 WITH BOX CULVERT B-5-403 AND RETAINING WALL R-5-108.

THE SOILS AT THE BASE OF THE WALL SHALL BE REVIEWED BY THE NORTHEAST REGION SOILS ENGINEER TO DETERMINE IF THE SOILS HAVE ADEQUATE STRENGTH TO SUPPORT THE MSE WALL.

LEGEND

E = EXPANSION JOINT

◄ = DIRECTION OF TRAFFIC

LIST OF DRAWINGS

1. GENERAL PLAN
2. DESIGN DATA AND QUANTITIES
3. WALL DETAILS 1
4. WALL DETAILS 2
5. VERTICAL FACE PARAPET 'A'
6. TUBULAR RAILING TYPE 'H' STEEL
7. SUBSURFACE EXPLORATION
8. AESTHETIC DETAILS

STATE PROJECT NUMBER

9200-04-71

NO.	DATE	REVISION	BY

URS
342 North Water Street
7th Floor
Milwaukee, WI 53202
(414) 831-4100

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 02/25/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

WISCONSIN MICHAEL J. ARNOLD E-41717 GREENDALE WI 13 20 PROFESSIONAL ENGINEER

STRUCTURE R-5-109

CENTENNIAL CENTRE BLVD. WEST RETAINING WALL.

COUNTY	~~TOWN/CITY~~/VILLAGE
BROWN	HOBART

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JDB	MJA	JDB	MJA

GENERAL PLAN AND ELEVATION

SHEET 1 OF 8
497

NE REGION CONTACT - JEREMY ASHAUER (920) 492-4165
BUREAU OF STRUCTURES CONTACT - WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT - MIKE ARNOLD (414) 831-4179

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DATE: 2/22/2013

I.D.

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STATE PROJECT NUMBER

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TOTAL ESTIMATED QUANTITIES

BID ITEM #	BID ITEM	UNIT	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	270
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	155
505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	9,120
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	7
517.1050.S.06	ARCHITECTURAL SURFACE TREATMENT R-5-109	SF	975
606.0300	RIPRAP HEAVY	CY	11
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	265
645.0113	GEOTEXTILE FABRIC TYPE DF SCHEDULE C	SY	243
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	16
650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT R-5-109	LS	1
SPV.0105.06	RAILING TUBULAR STEEL TYPE H GALVANIZED R-5-109	LS	1
SPV.0165.03	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT R-5-109	SF	1,610
	NON BID ITEMS		
	FILLER	SIZE	1/2" & 1"
	NAME PLATE	EACH	1
	EXPANDED POLYSTYRENE	SIZE	1"

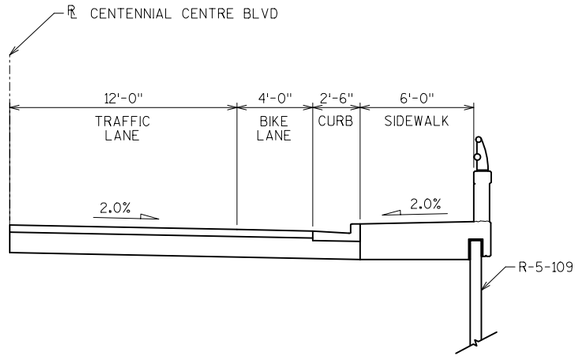
ALL ITEMS ARE CATEGORY 0110

BENCHMARK

NO.	STATION	DESCRIPTION	ELEVATION
BM 292009	248+00	PK NAIL IN PPOL 241913E7 NEAR FF	671.04
CP 502	226+20	CONTROL POINT NEAR HILLCREST DRIVE	669.73

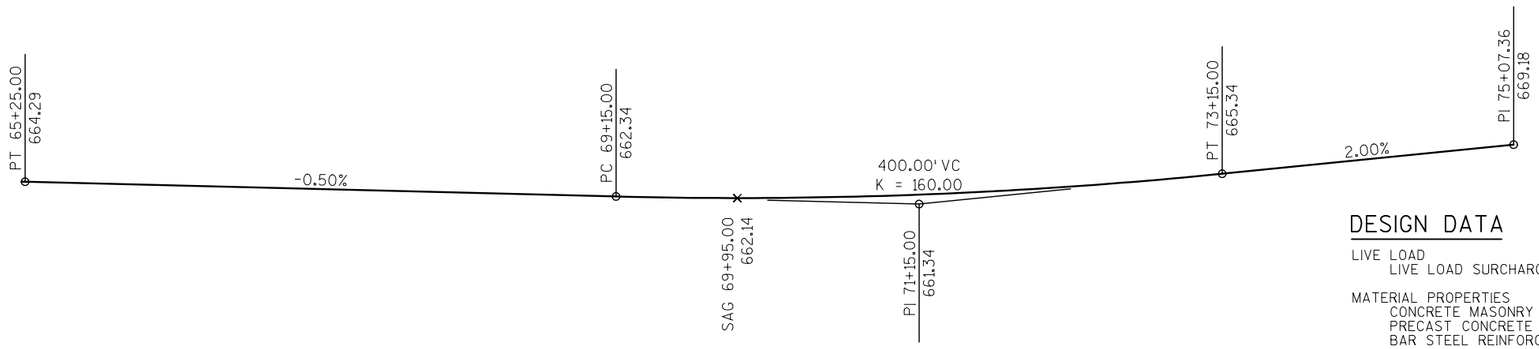
GEOMETRY TABLE

WALL STATION	CENTENNIAL CENTRE BLVD STATION	OFFSET TO R/L OF WALL	TOP OF WALL	FINISHED GRADE
1+00.00	67+92.23	25.25 ' RT	663.47	663.47
1+25.00	68+17.23	25.25 ' RT	663.13	658.95
1+50.00	68+43.09	25.25 ' RT	662.78	658.00
1+51.88	68+44.97	25.25 ' RT	662.76	657.81
1+75.00	68+70.69	25.25 ' RT	662.41	655.57
2+00.00	68+98.50	25.25 ' RT	662.27	656.06
2+25.00	69+26.31	25.25 ' RT	662.14	653.94
2+50.00	69+54.11	25.25 ' RT	662.04	656.33
2+75.00	69+81.92	25.25 ' RT	662.00	656.65
2+85.15	69+93.21	25.25 ' RT	661.99	656.23
3+00.00	70+08.06	25.25 ' RT	662.17	656.43
3+25.00	70+33.06	25.25 ' RT	662.36	658.12
3+50.09	70+57.29	25.25 ' RT	662.44	662.44



CENTENNIAL CENTRE BLVD TYPICAL HALF SECTION

(SYMMETRICAL ABOUT ℄)



PROFILE GRADE LINE - CENTENNIAL CENTRE BLVD

SOIL PARAMETERS

BORING RWC-2, STA 69+50			
Stratum Locations & Soil Description	Unit Weight (PCF)	Friction Angle (Degrees)	Cohesion (PSF)
EL. 663.5' TO EL. 655.5'	120.0	33	0
EL. 655.5' TO EL. 646'	105	31	0
EL. 646' TO EL. 638'	129	28	50
Granular backfill (Within the Wall Reinforcing Zone)	120	30	0
Fill (Behind and Below the Reinforcing Zone)	120	33	0

BORING C-1, STA 69+10			
Stratum Locations & Soil Description	Unit Weight (PCF)	Friction Angle (Degrees)	Cohesion (PSF)
El. 656' to EL. 653' (overexcavate)	90.0	0	0
EL. 653' TO EL. 651'	115.0	30	0
EL. 651' TO EL. 643'	127.0	28	50
EL. 643' TO EL. 638'	110.0	30	0
EL. 638' TO EL. 628'	127.0	28	50
EL. 628' TO EL. 614'	120.0	33	0
EL. 614' TO EL. 607'	127	28	50
Granular backfill (Within the Wall Reinforcing Zone)	120	30	0
Fill (Behind and Below the Reinforcing Zone)	120	33	0

WALL EXTERNAL & OVERALL STABILITY EVALUATION

DIMENSIONS	EVALUATED LOCATION
WALL HEIGHT (FEET)*	8.75
EXPOSED WALL HEIGHT (FEET)	7
MINIMUM LENGTH OF REINFORCEMENT (FEET)	8
WALL STATION	68+50
BORING USED	C-1
CAPACITY TO DEMAND RATIO (CDR)	
SLIDING (CDR>1.0)	1.2
ECCENTRICITY (CDR>1.0)	4.3
OVERALL STABILITY (CDR>1.0)	1.1
BEARING RESISTANCE (CDR>1.0)	1.7
FACTORED BEARING RESISTANCE (PSF)	3439

*INCLUDES 1'-9" EMBEDMENT DEPTH

■ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND OVERALL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

DESIGN DATA

LIVE LOAD
LIVE LOAD SURCHARGE (ROADWAY) 240 PSF

MATERIAL PROPERTIES
CONCRETE MASONRY RETAINING WALL f'c = 3500 PSI
PRECAST CONCRETE WALL PANELS f'c = 4000 PSI
BAR STEEL REINFORCEMENT fy = 60,000 PSI

NOTE: THE WALL HAS BEEN DESIGNED FOR TRAFFIC LOADING ONLY. IF DURING CONSTRUCTION HEAVY EQUIPMENT IS OPERATING IN CLOSE PROXIMITY TO THE WALL OR IF MATERIAL IS STOCKPILED NEAR THE WALL, THE SAFETY FACTOR FOR THIS WALL WILL SIGNIFICANTLY DECREASE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-109

DRAWN BY JDB | PLANS CK'D. MJA

DESIGN DATA AND QUANTITIES

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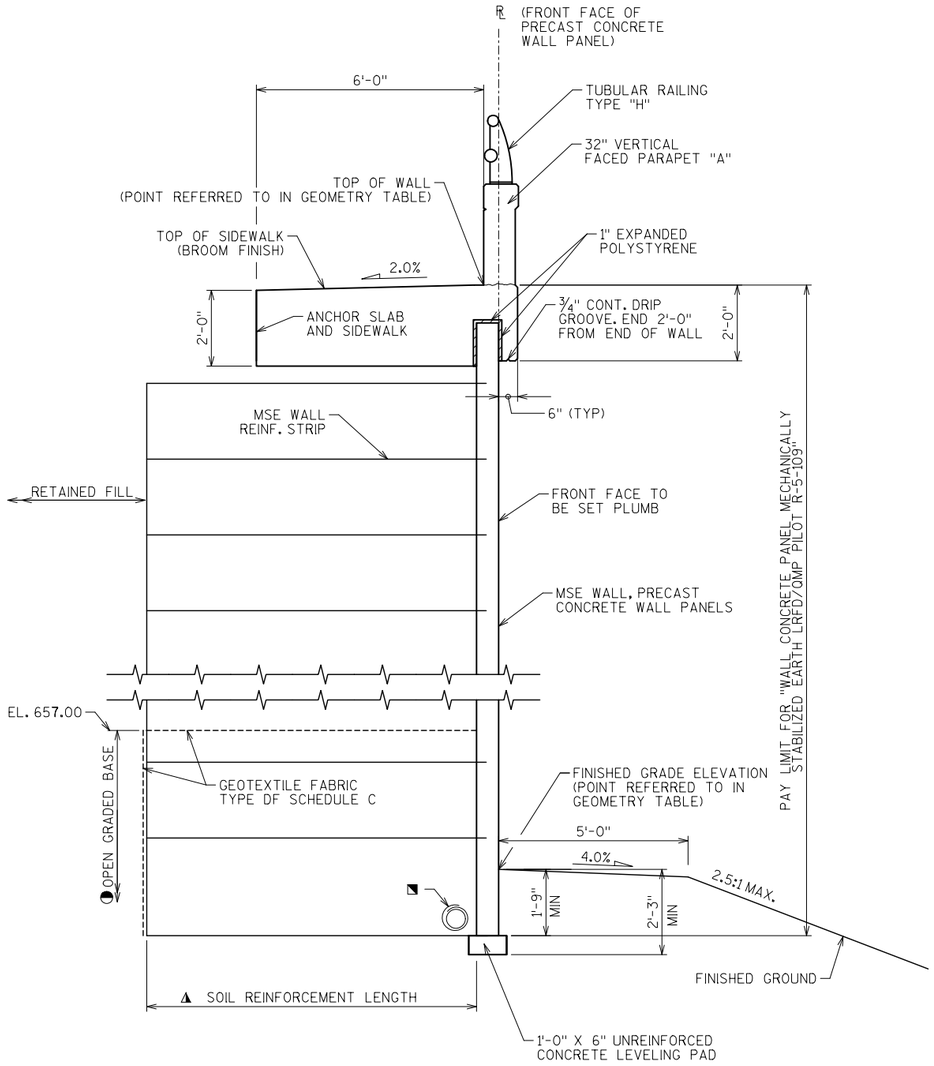
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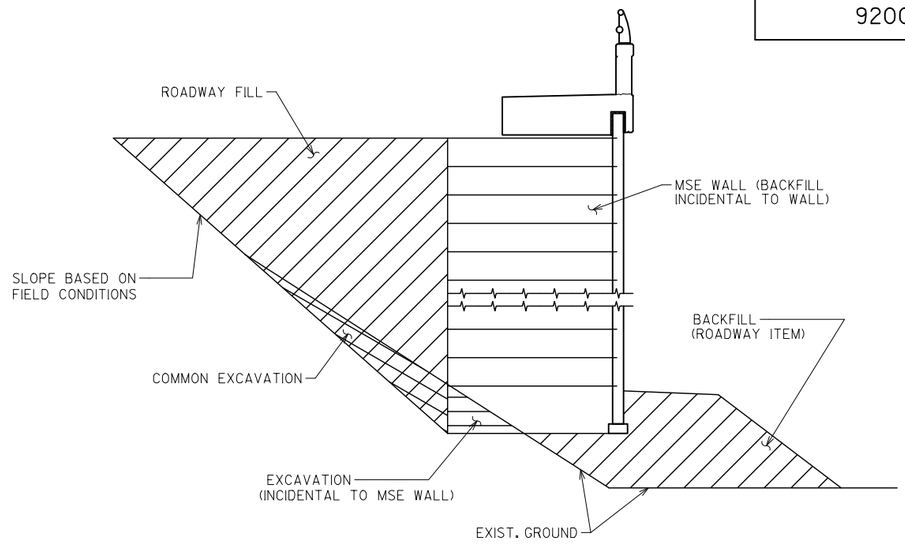
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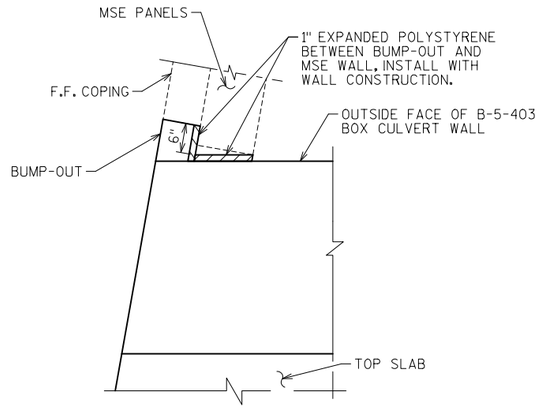
9200-04-71

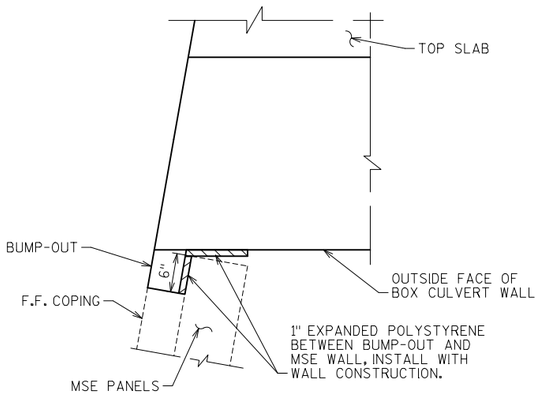


TYPICAL WALL SECTION

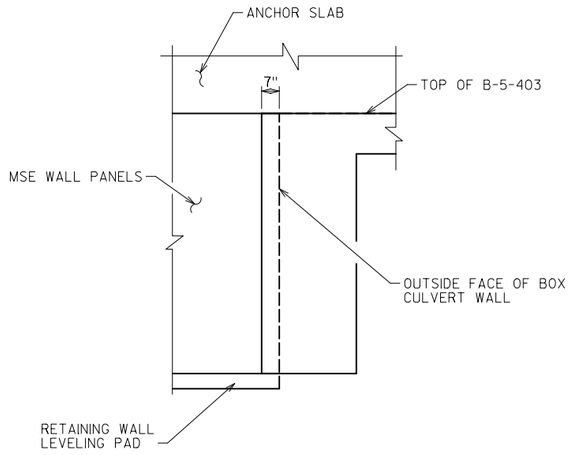


EXCAVATION/BACKFILL DETAIL





PLAN - BUMP-OUT DETAIL



ELEVATION - BUMP-OUT DETAIL

* THE PLAN QUANTITY FOR THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT R-5-109" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF LEVELING PAD TO THE TOP OF THE WALL AS SHOWN. COPING AND FOOTING CONCRETE AND REINFORCEMENT ARE TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT R-5-109"

◥ PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELDS AT EXPOSED ENDS OF PIPE UNDERDRAIN. SEE RODENT SHIELD DETAIL.

◭ MINIMUM EMBEDMENT BASED ON SITE SPECIFIC PARAMETERS. FIELD EMBEDMENTS SHALL MEET OR EXCEED THE MINIMUM EMBEDMENT. FIELD EMBEDMENTS BELOW MINIMUM EMBEDMENT SHALL NOT BE INCLUDED IN THE PAY LIMITS.

◑ OPEN GRADED BASE IS INCLUDED IN THE BID ITEM "WALL CONCRETE MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT R-5-109" AND PLACED BELOW THE ELEVATION OF 657.00. OPEN GRADED BASE MATERIAL SHALL CONFORM TO THE GRADATION REQUIREMENTS STATED IN SECTION 310.2 OF THE STANDARD SPECIFICATION. ELECTRICAL RESISTIVITY TESTING IS NOT REQUIRED FOR THE OPEN GRADED BASE MATERIAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-109

DRAWN BY JDB | PLANS CK'D. MJA

WALL DETAILS 1

SHEET 3 OF 8

499

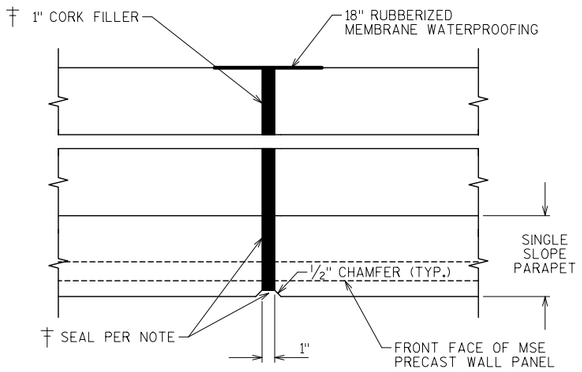
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I.D.

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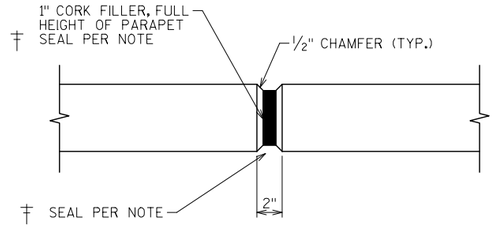
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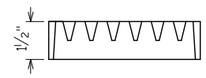
ANCHOR SLAB EXPANSION JOINT DETAIL



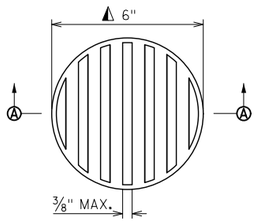
TRAFFIC BARRIER EXPANSION JOINT DETAIL

EXPANSION JOINTS TO BE SPACED AT A MINIMUM OF 20' AND A MAXIMUM OF 30'. LOCATE EXPANSION JOINTS OVER WALL JOINTS. DO NOT RUN BAR STEEL THRU JOINT, EXCEPT FOR DOWEL BARS. JOINT TO EXTEND FULL DEPTH OF PARAPET AND ANCHOR SLAB.

† SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING, NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH STAIN. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)



SECTION A-A

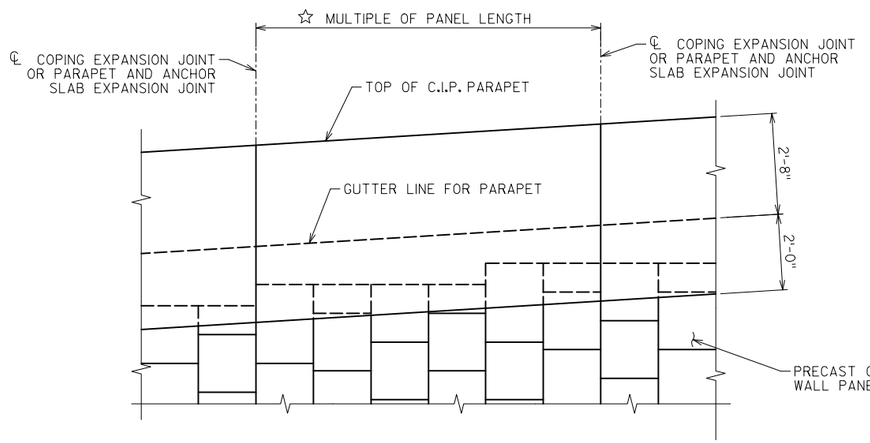


RODENT SHIELD

⚠ DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. FASTEN TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

ORIENT SHIELD SO SLOTS ARE VERTICAL.

COST OF RODENT SHIELD AND ALL FITTINGS TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."



☆ ALL JOINTS SHALL COINCIDE WITH PANEL JOINT ON FRONT FACE.

C.I.P. PARAPET OR COPING PARTIAL ELEVATION

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DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-109

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WALL DETAILS 2

SHEET 4 OF 8
500

8

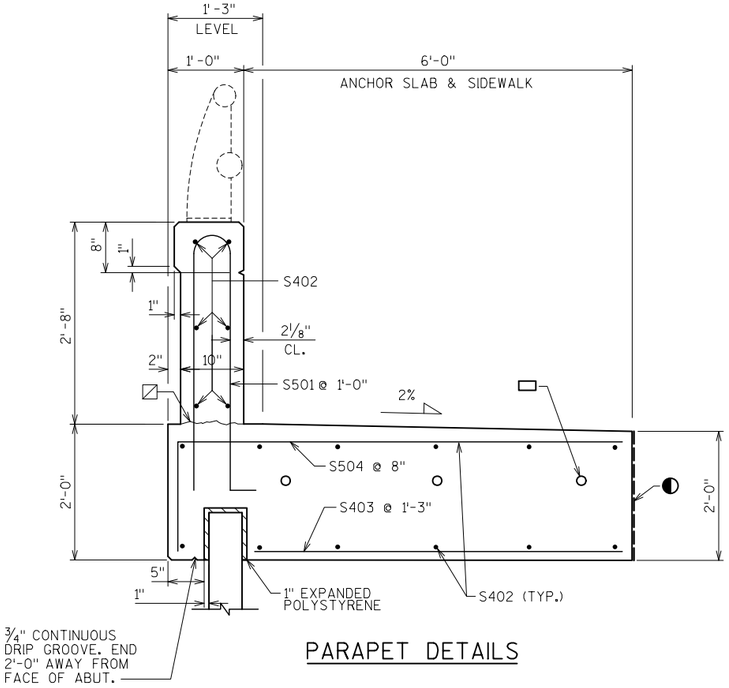
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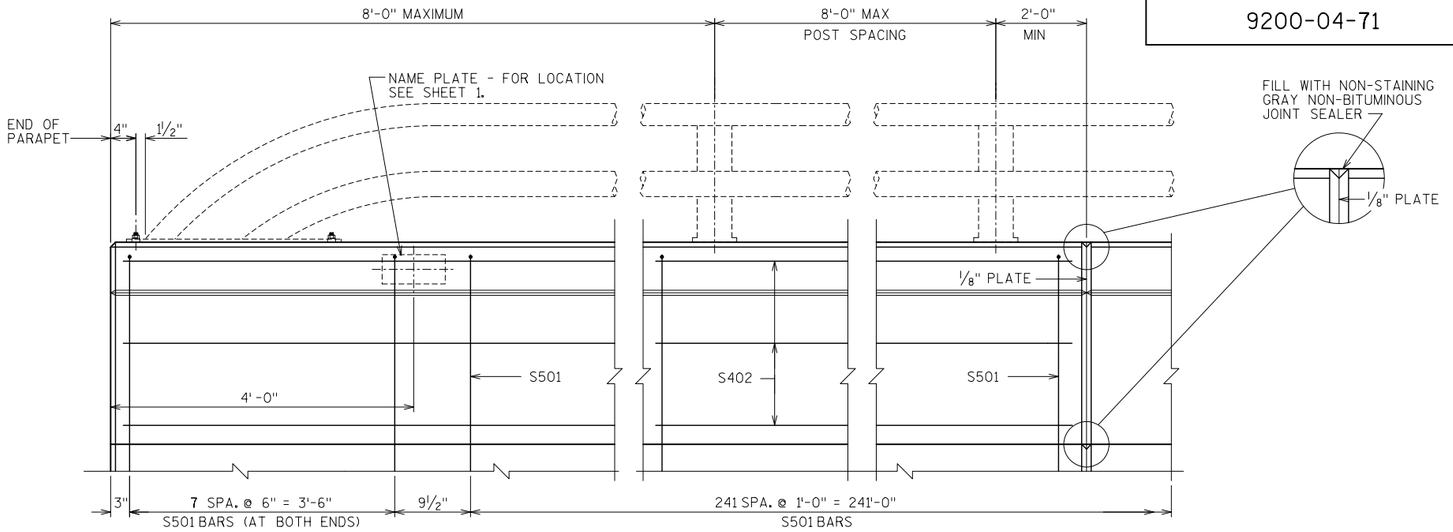
DATE: 2/22/2013
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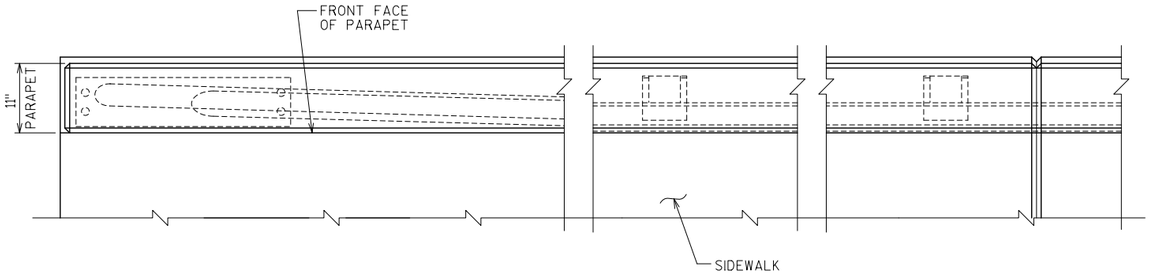


PARAPET DETAILS

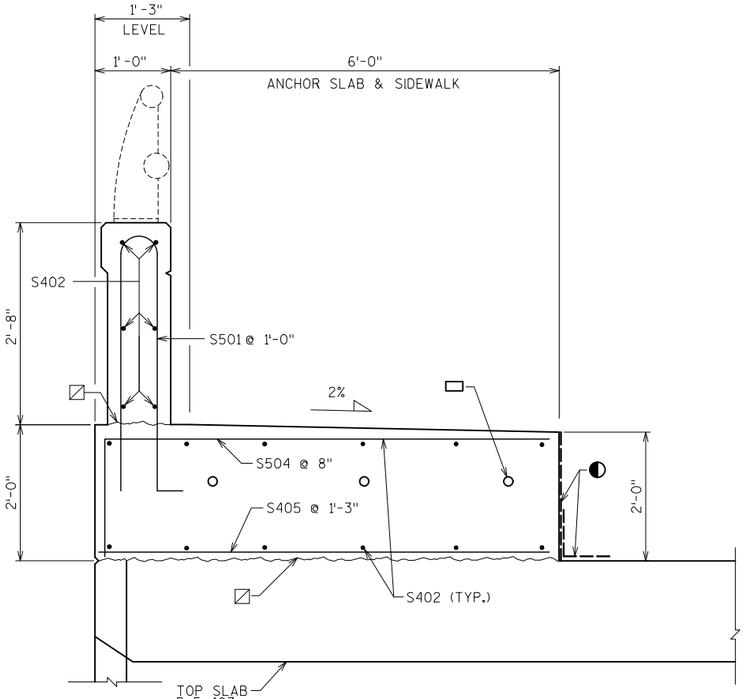


ELEVATION OF PARAPET

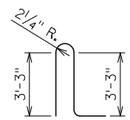
AT DEFLECTION JOINT



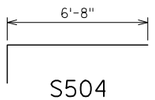
PLAN OF PARAPET



PARAPET DETAILS
OVER BOX CULVERT



S501



S504

BILL OF BARS

ALL BARS IN THIS TABLE SHALL BE EPOXY COATED.

	BAR MARK	NO. REQ'D	LENGTH	BENT	LOCATION
	S501	258	7'-10"	X	PARAPET VERT.
*	S402	18	250'-1"		PARAPET & SLAB LONGIT.
	S403	181	5'-10"		ANCHOR SLAB HORIZ.
	S504	376	8'-2"	X	ANCHOR SLAB HORIZ.
	S405	21	6'-8"		ANCHOR SLAB HORIZ.

NOTES

THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

* FIGURE SHOWN IN THE 'NO.' AND 'LENGTH' COLUMNS OF THE TABLE SHOULD BE USED FOR BAR WEIGHT CALCULATIONS ONLY. INDIVIDUAL BAR LENGTHS TO BE DETERMINED BY THE CONTRACTOR BASED ON THE ACTUAL DISTANCE BETWEEN ANCHOR SLAB EXPANSION JOINTS.

LEGEND

- (3) - 3/4" ϕ SMOOTH DOWEL BARS, 1'-6" LONG, AT EXPANSION JOINT, EMBED 9". USE APPROVED DEBONDER ON 1/2 OF BAR LENGTH. COST INCLUDED IN "CONCRETE MASONRY RETAINING WALLS".
- 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT. OVER THE BOX CULVERT, RUN THE R.M.W. HORIZONTALLY ALONG ANCHOR SLAB.
- HORIZ. CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-109

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ANCHOR SLAB AND VERTICAL FACE PARAPET "A"

SHEET 5 OF 8
501

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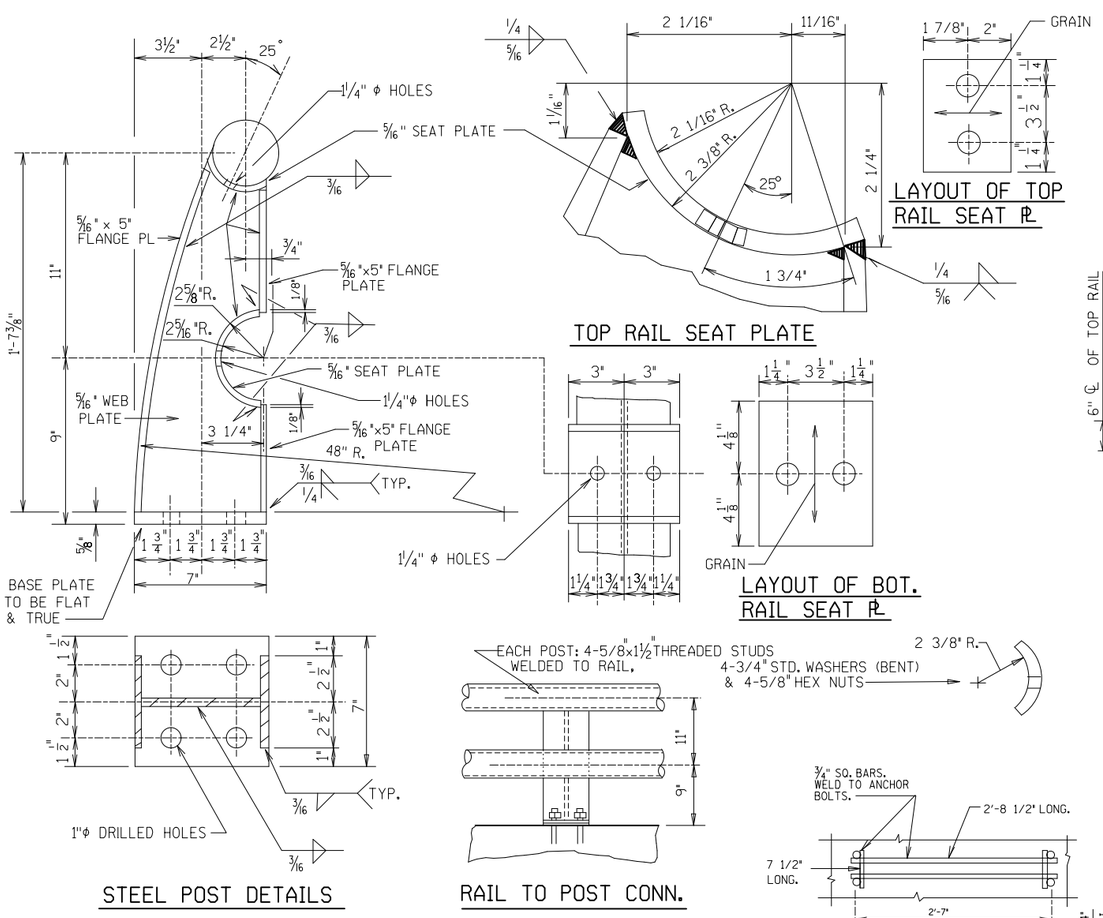
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GENERAL NOTES

BID ITEM SHALL BE "RAILING TUBULAR STEEL TYPE H GALVANIZED R-05-109" WHICH INCLUDES ALL ITEMS SHOWN.

THE SHANK AND ROOT DIAMETER OF THREAD FOR ANCHOR BOLTS SHALL BE A MIN. OF ⅝".

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM A307. IF A307 IS USED ELECTRO-GALVANIZE NUTS, WASHERS & TOP 3½" OF ANCHOR BOLTS.

CLOSURE ENDS ON STEEL RAILING SHALL BE ¼" PLATE. WELD AND GRIND SMOOTH.

RAILINGS SHALL BE FABRICATED IN 2 AND 3 PANEL LENGTHS.

RAILING POSTS SHALL BE SET NORMAL TO GRADE LINE.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG CENTERLINE OF THE POST BASE.

SHIMS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQ'D. FOR ALIGNMENT.

FILL ALL EXPOSED OPENINGS BETWEEN SHIMS AND POST ANCHOR BOLT HOLES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

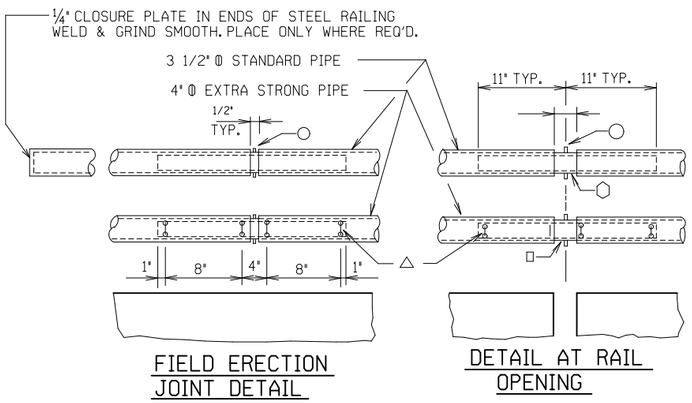
RAILS, POSTS & SHIMS SHALL BE MADE FROM MATERIALS CONFORMING TO ASTM DESIGNATION A709, GRADE 36.

ALL MATERIALS, EXCEPT ANCHORAGES, SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL SHALL BE GIVEN A NO. 6 BLAST CLEANING BY SSPC SPECIFICATIONS. AFTER GALVANIZING, PAINT ALL RAILING SURFACES BLACK (FED. COLOR NUMBER 27038).

RAILS SHALL BE BUILT STRAIGHT AND SPRUNG INTO PLACE FOR STRUCTURES CURVED UP TO 3°. FOR STRUCTURES CURVED GREATER THAN 3°, RAILS SHALL BE CURVED TO FIT.

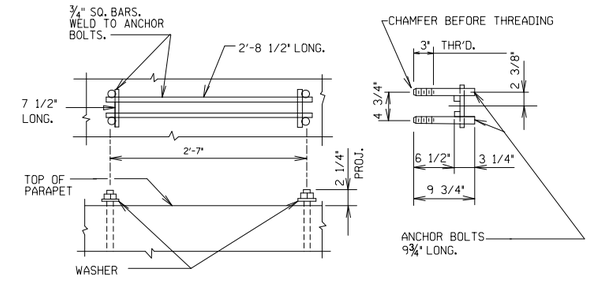
ALL SLEEVE DETAILS SAME AS "FIELD ERECTION JOINT DETAIL" UNLESS SHOWN OTHERWISE.

- ○ ⅝" × ⅜" WELDED STUDS
- ⬡ 3" ϕ STD. PIPE × 1'-10 LONG
- □ 3" ϕ EXTRA STRONG PIPE × 1'-10 LONG
- △ 11" CIRCUMF. GRIND BEADS SO THAT ½" ϕ WELD BEADS AT 1/3 PTS. ON PIPE SLEEVE FITS FREELY IN THE I.D. OF 4" ϕ EXTRA STRONG PIPE.

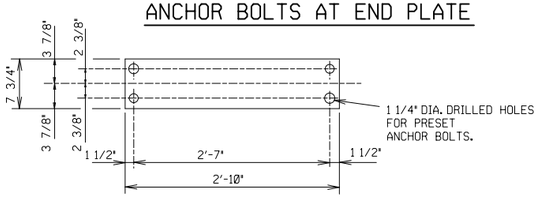


FIELD ERECTION JOINT DETAIL

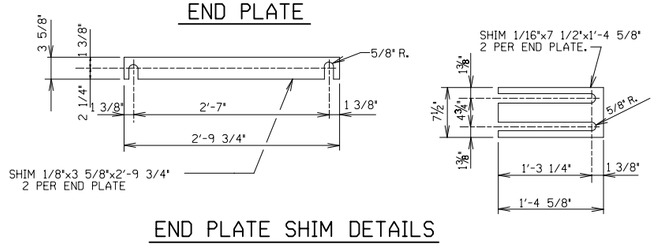
DETAIL AT RAIL OPENING



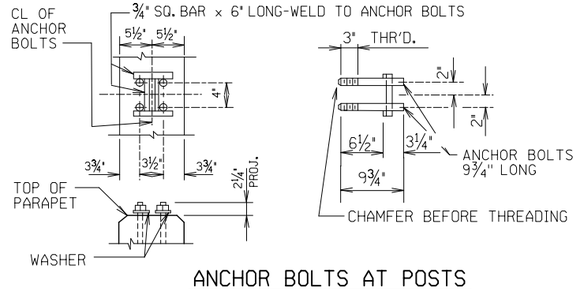
ANCHOR BOLTS AT END PLATE



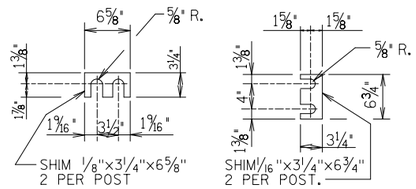
END PLATE



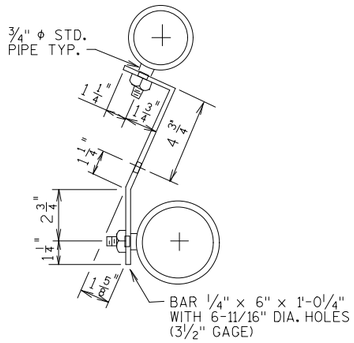
END PLATE SHIM DETAILS



ANCHOR BOLTS AT POSTS



POST SHIM DETAILS



SHIPPING BAR

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DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-109

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TUBULAR RAILING TYPE 'H' STEEL

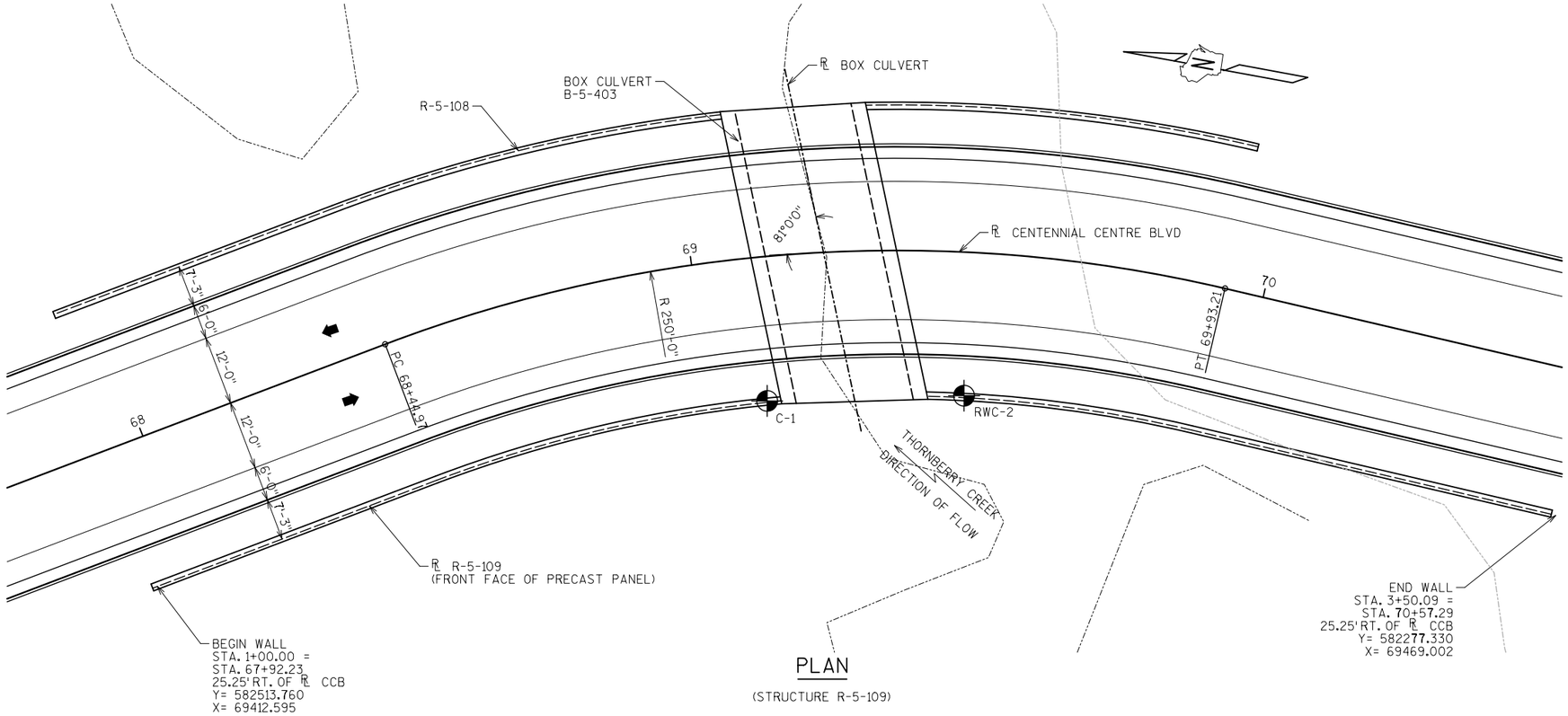
SHEET 6 OF 8
502

DATE: 2/22/2013
I.D.

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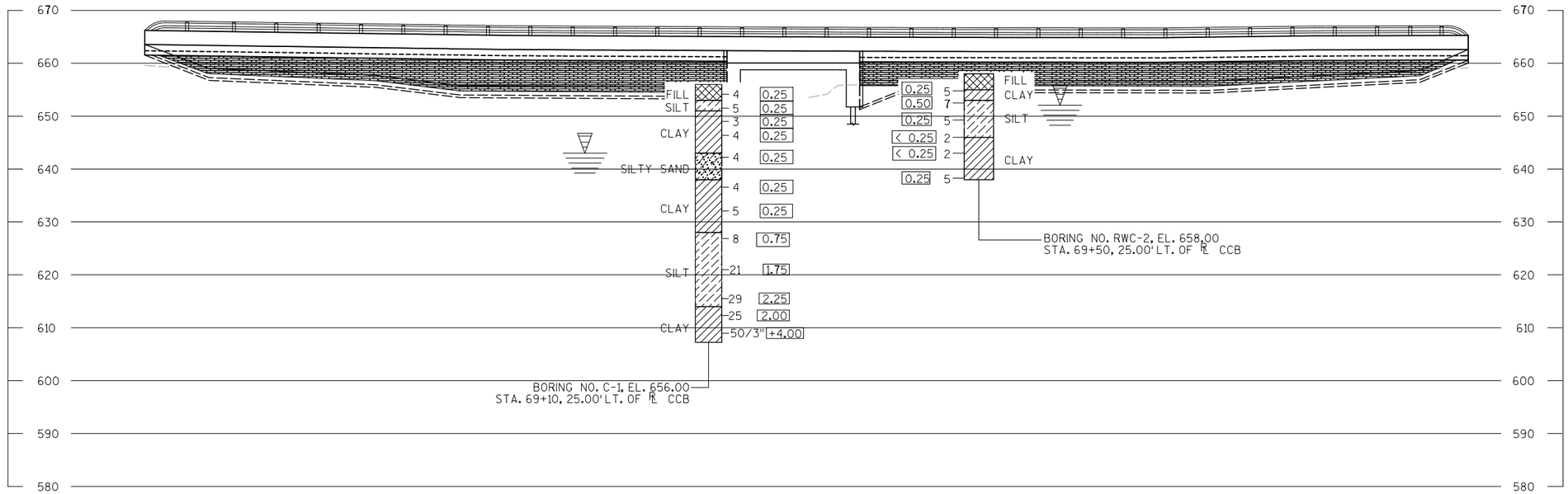
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PLAN

(STRUCTURE R-5-109)



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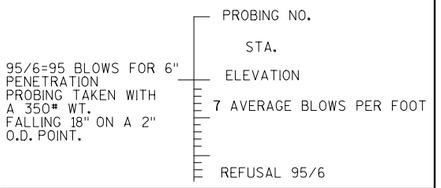
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

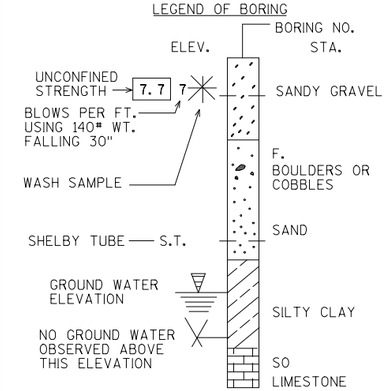
MATERIAL SYMBOLS

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.

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SUBSURFACE EXPLORATION

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503

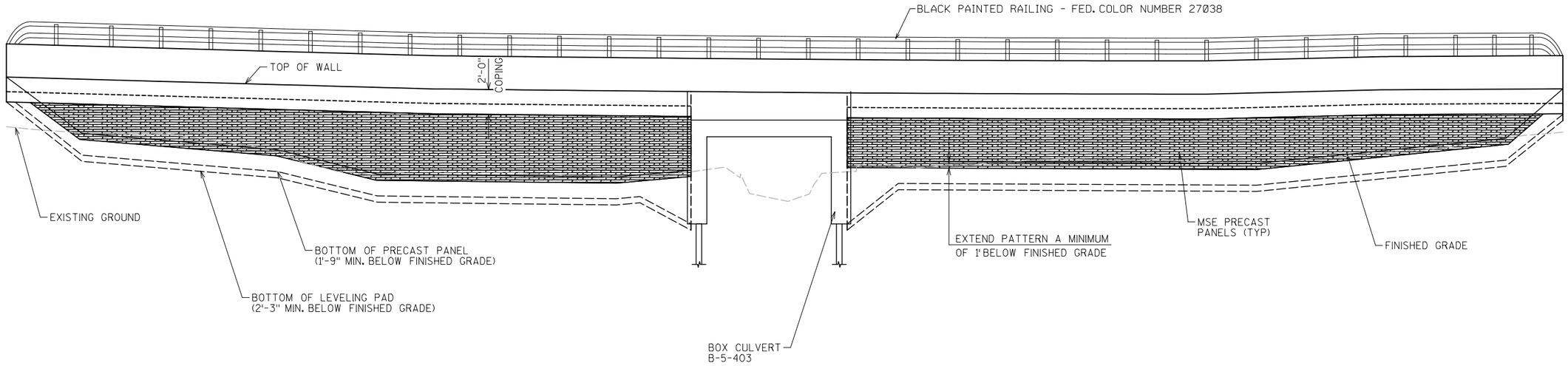
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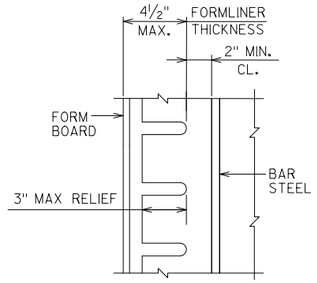
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ELEVATION - MSE WALL

(LOOKING EAST AT FRONT FACE OF WALL)



SECTION THRU FORMLINER

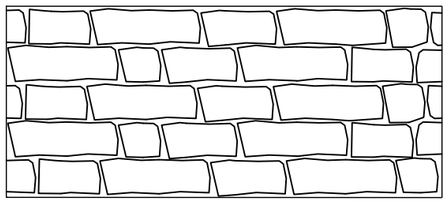
FORMLINER NOTES

FORMLINER COURSING ON RETAINING WALLS SHALL BE LEVEL.

FORMLINER COURSING ON PARAPETS SHALL BE PARALLEL TO TOP OF PARAPET.

THE FORMLINER PATTERN SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.

FORMLINER SHALL BE "RANDOM CUT STONE" (OR EQUIVALENT) TO LIMITS SHOWN.



RANDOM CUT STONE (OR EQUIV.)
COURSE HEIGHT = 14" ± 2"
MAX RELIEF = 3"
MAX FORMLINER THK. = 4½"

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DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-109

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AESTHETIC DETAILS

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DATE: 2/22/2013
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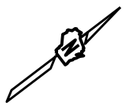
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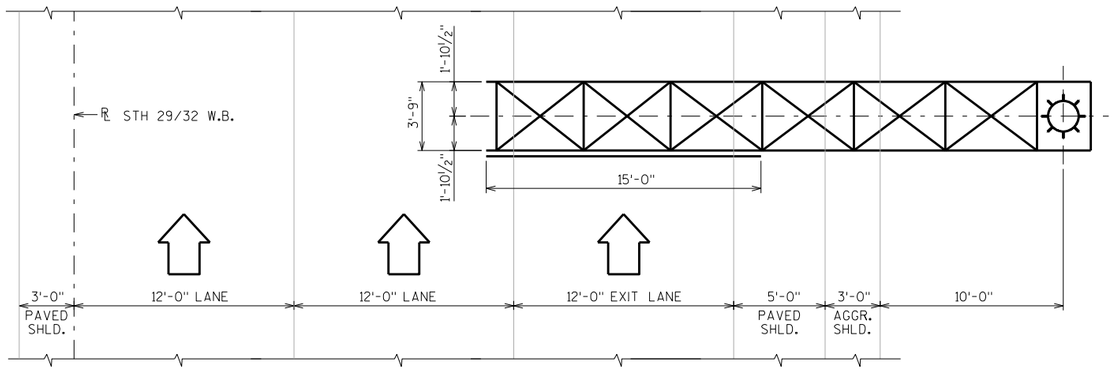
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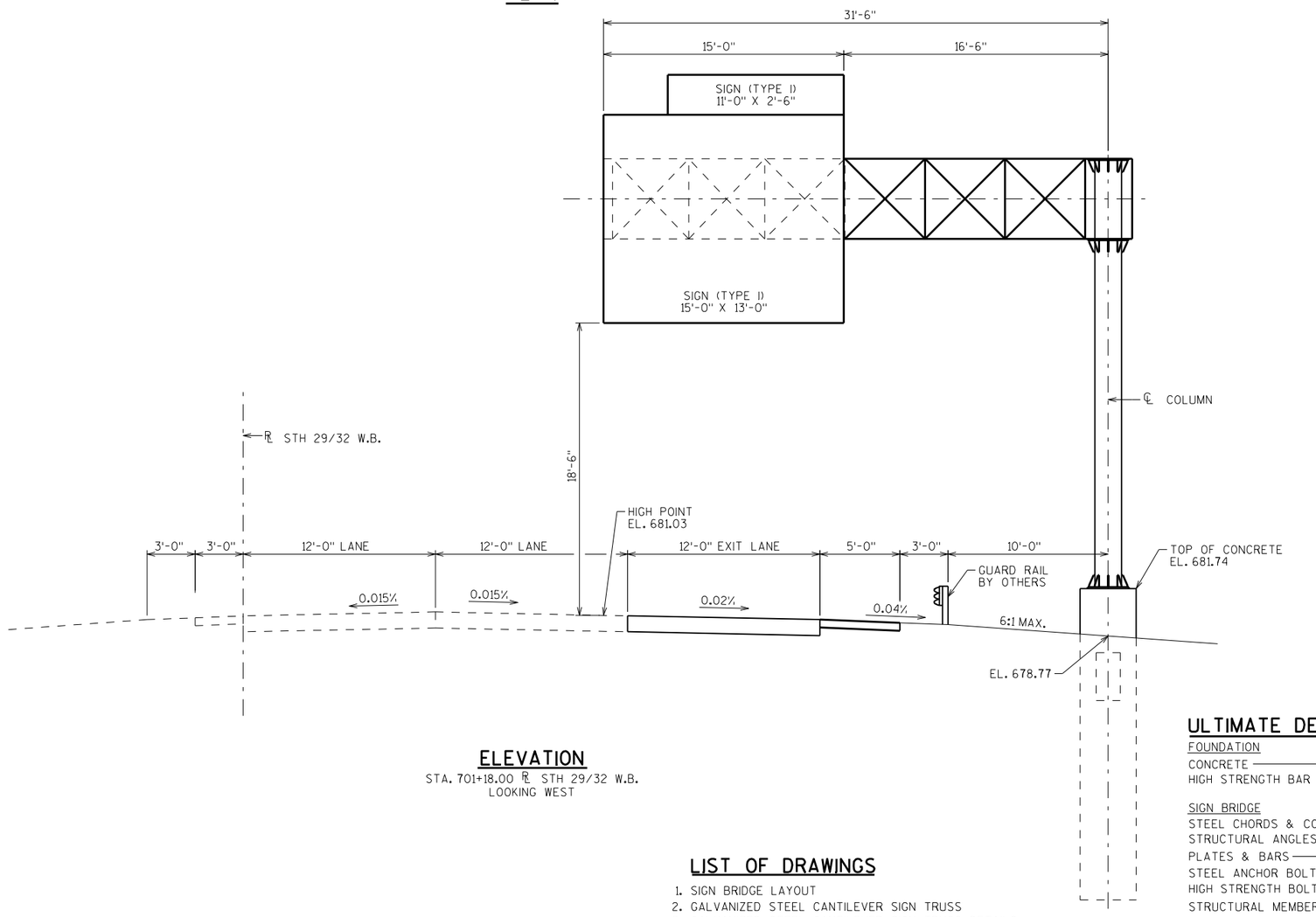
STATE PROJECT NUMBER

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PLAN



ELEVATION

STA. 701+18.00 ℄ STH 29/32 W.B.
LOOKING WEST

LIST OF DRAWINGS

1. SIGN BRIDGE LAYOUT
2. GALVANIZED STEEL CANTILEVER SIGN TRUSS
3. GALVANIZED STEEL CANTILEVER SIGN TRUSS DETAILS
4. CANTILEVER TRUSS FOOTING

DESIGN DATA

SIGN BRIDGE CANTILEVERED	DESIGN SIGN AREA (SQ. FT.)	MAX. SIGN DEPTH
S-05-190	254	13'-0"

WIND VELOCITY = 90 MPH (3-SECOND GUST SPEED) TO SIGN AREA AND EXPOSED MEMBERS.

DEAD LOAD OF SIGNS IS 3 P.S.F.
DEAD LOAD - WEIGHT OF SIGN AND SUPPORTING SIGN STRUCTURE. NO PROVISIONS HAVE BEEN MADE TO ALLOW FOR LIGHTS AND CATWALKS.

ICE LOAD - 3 P.S.F. TO 1 FACE OF SIGN AND AROUND SURFACE OF MEMBERS.

WIND COMPONENTS	NORMAL	TRANSVERSE
COMBINATION 1	1.0	0.2
COMBINATION 2	0.6	0.3

GROUP LOADS	% OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD + WIND	133
3. DEAD + ICE + ½ (WIND *)	133

* MIN. VALUE OF 25 PSF FOR GR. 3

GENERAL NOTES

EXACT LOCATION OF SIGN BRIDGE SHALL BE DETERMINED BY THE REGION TRAFFIC ENGINEER.

DRAWINGS SHALL NOT BE SCALED.

ALL STRUCTURAL STEEL MEMBERS SHALL BE GALVANIZED.

THE UPPER 12" OF ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE A.A.S.H.T.O. SPECIFICATION AS STATED IN SECTION 641 OF THE WISCONSIN DOT STANDARD SPECIFICATIONS.

CENTER SIGN VERTICALLY ON THE TRUSS.

CENTER SIGN OVER THE RESPECTIVE LANE.

ALTERNATE DESIGNS ARE NOT ALLOWED.

HANDHOLES ARE NOT REQUIRED.

PROVIDE AN IDENTIFICATION PLAQUE FOR SIGN BRIDGE CANTILEVERED SUPPORT, TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "SIGN BRIDGE CANTILEVERED S-05-190".

THE NEW SIGN BRIDGE WAS DESIGNED ACCORDING TO THE LATEST EDITION OF THE AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS."

SIGNS OR BLANKS SHALL BE INSTALLED ON THE TRUSS AT THE TIME OF ERECTION. BLANKS SHALL BE ¼ THE LENGTH OF THE BRIDGE, 2'-0" DEEPER THAN CENTER TO CENETR OF CHORDS AND SHALL BE CENTERED ON THE BRIDGE. SIGN SHALL BE AS DESIGNATED IN THE PLANS. SIGN BLANKS AND MOUNTING HARDWARE SHALL BE CONSIDERED INCIDENTAL TO "SIGN BRIDGE CANTILEVERED B-05-190".

VERIFY UTILITY INTERFERENCES PRIOR TO CONSTRUCTION.

PROVIDE A ¾" CHAMFER OR 1" DIAMETER RADIUS ON ALL EXPOSED CONCRETE EDGES.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QTY.	UNITS
636.0100	SIGN SUPPORTS CONCRETE MASONRY	8	CY
636.1000	SIGN SUPPORTS STEEL REINFORCEMENT HS	980	LB
641.1200	SIGN BRIDGE CANTILEVERED S-05-190	1	LS

STRUCTURE DESIGN CONTACTS:
VU THAO (608) 267-2869

ULTIMATE DESIGN STRESSES

FOUNDATION

CONCRETE — f'c = 3,500 PSI
HIGH STRENGTH BAR STEEL REINFORCEMENT — fy = 60,000 PSI

SIGN BRIDGE

STEEL CHORDS & COLUMN — API-5L-X42 — fy=42,000 PSI
STRUCTURAL ANGLES — ASTM A709 GRADE 36 — fy=36,000 PSI
PLATES & BARS — ASTM A709 GRADE 36 — fy=36,000 PSI
STEEL ANCHOR BOLTS — AASTO M314 — fy=55,000 PSI
HIGH STRENGTH BOLTS — A325 — fy=92,000 PSI
STRUCTURAL MEMBERS GALVANIZED A123
HARDWARE GALVANIZED — A153 CLASS C

NO.	DATE	REVISION	BY

Plans Prepared By **WISDOT**
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher NK 03/29/13
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE S-05-190

STH 29/32 W.B. OFF RAMP

COUNTY	~~TOWN/CITY~~/VILLAGE
BROWN	HOBART

DESIGN SPEC. AASHTO STD. SPEC.	LOAD

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
VT	ARC	DDS	VT

SIGN BRIDGE LAYOUT

SHEET 1 OF 4

505

SCALE = 4.00

I.D. 9200-04-00

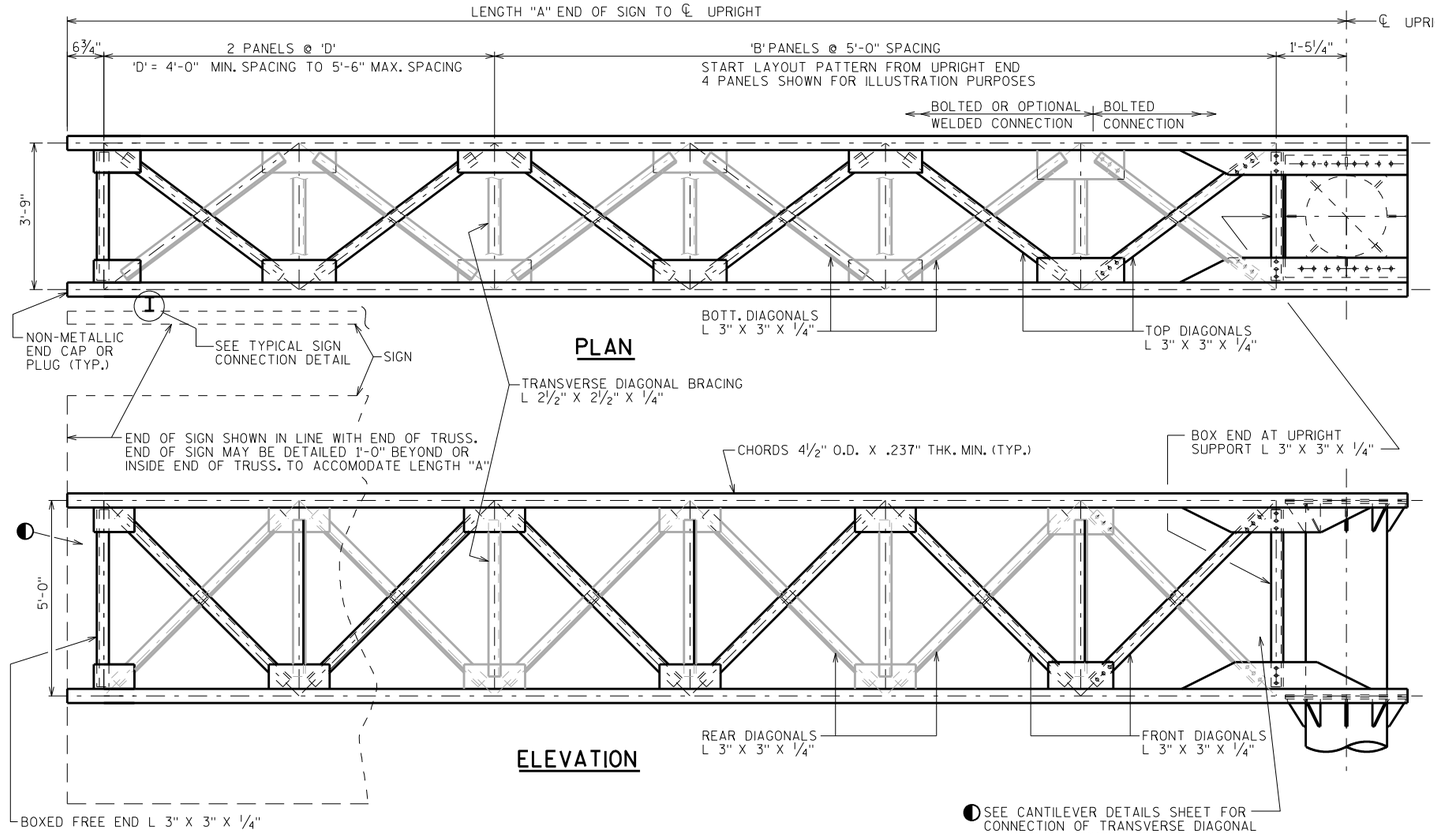
DATE: **MARCH 2013**

8

8

STATE PROJECT NUMBER

9200-04-71



GENERAL NOTES

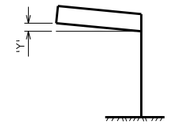
DRAWINGS SHALL NOT BE SCALED.

DESIGNED ACCORDING TO AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS".

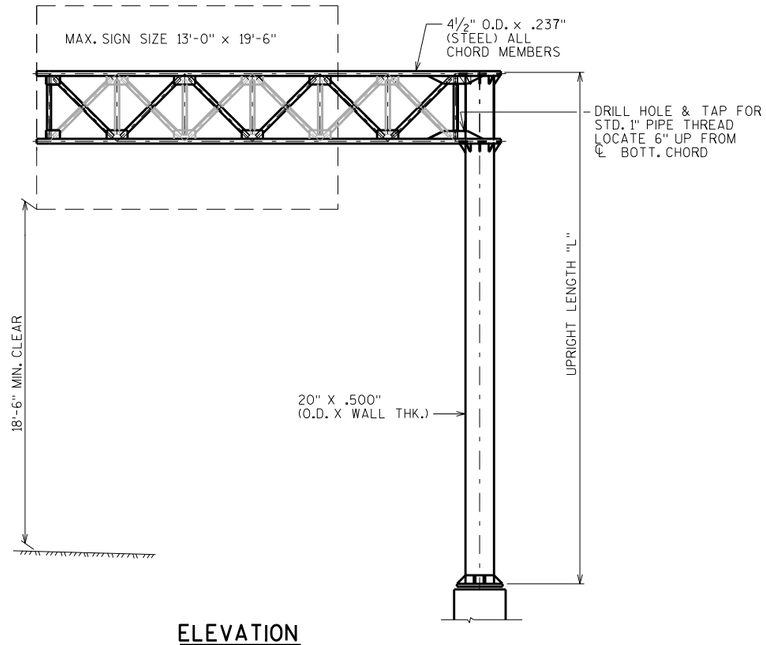
WIND VELOCITY = 90 MPH (3-SECOND GUST SPEED)

PREFABRICATE CAMBER INTO THE HORIZONTAL SUPPORT PROVIDING AN AMOUNT "Y" AT END OF TRUSS SHOWN IN "CAMBER DIAGRAM". DO NOT RAKE VERTICAL UPRIGHT BY ADJUSTMENT OF LEVELING NUTS.

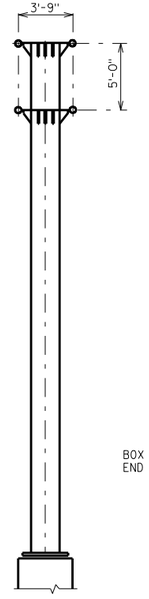
STRUCTURE	"A"	"L"	"B"	"D"	"Y"
S-05-190	31'-6"	26'-7"	4	4'-9"	2⅞"



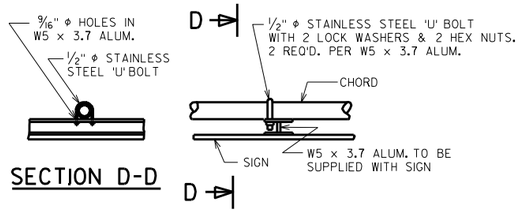
CAMBER DIAGRAM



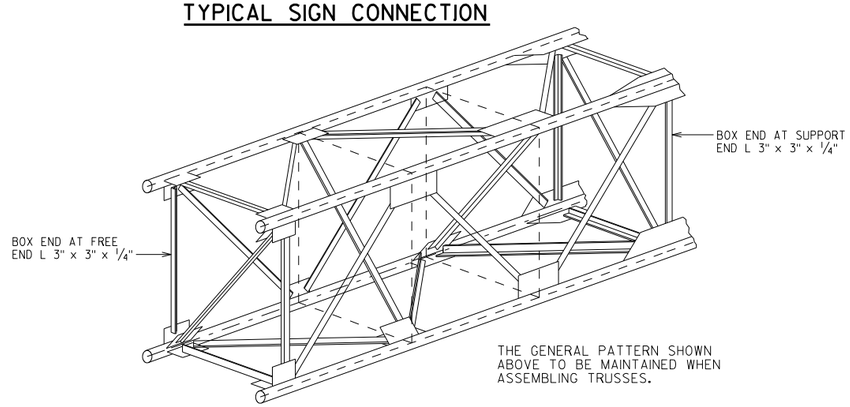
ELEVATION



END VIEW



TYPICAL SIGN CONNECTION



TYPICAL TRUSS SECTION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-05-190

DRAWN BY DDS | PLANS CK'D. VT

GALVANIZED STEEL CANTILEVER SIGN TRUSS

SHEET 2

506

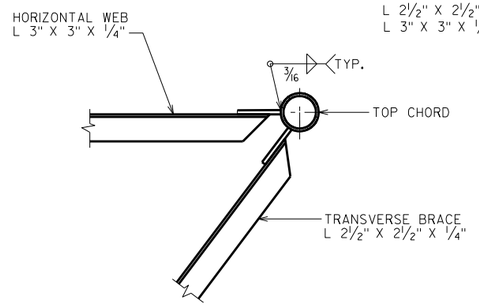
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FILE= STCANT
SCALE = 2.25

9-08

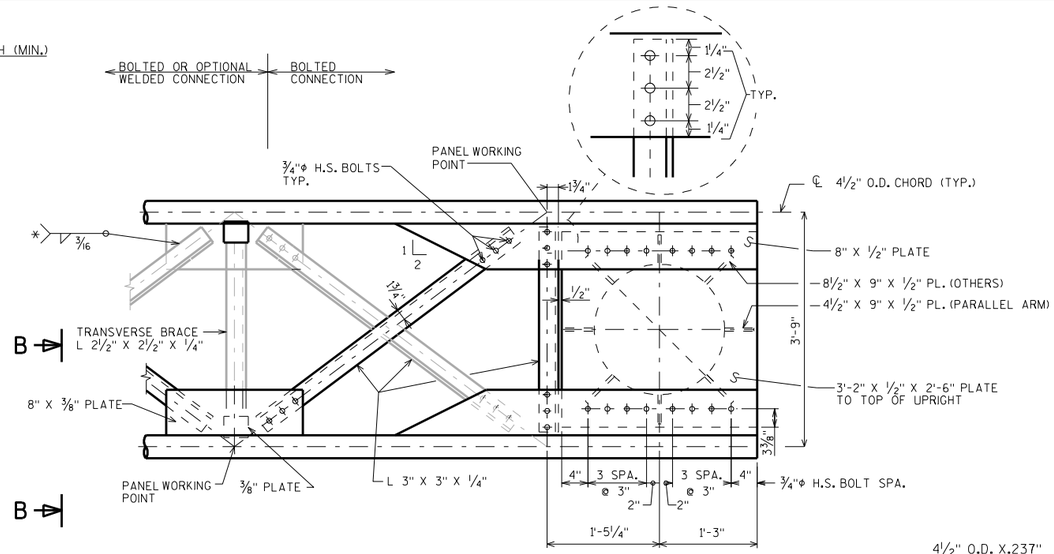
STATE PROJECT NUMBER

9200-04-71

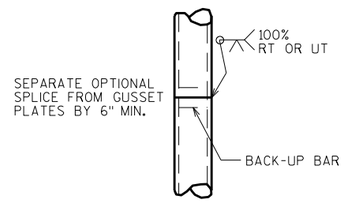


SECTION B-B

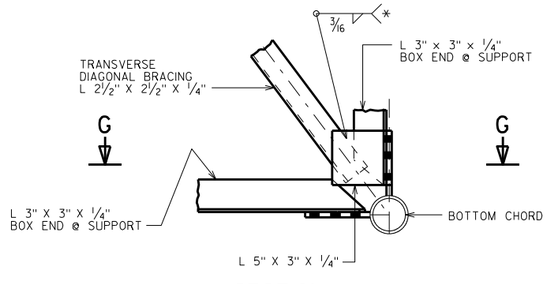
* ANGLE	WELD LENGTH (MIN.)
L 2 1/2" X 2 1/2" X 1/4"	7"
L 3" X 3" X 1/4"	8"



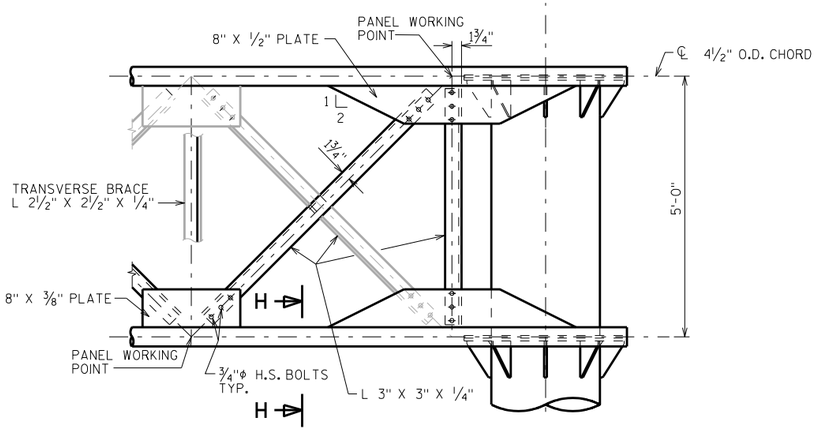
PLAN TRUSS TO UPRIGHT



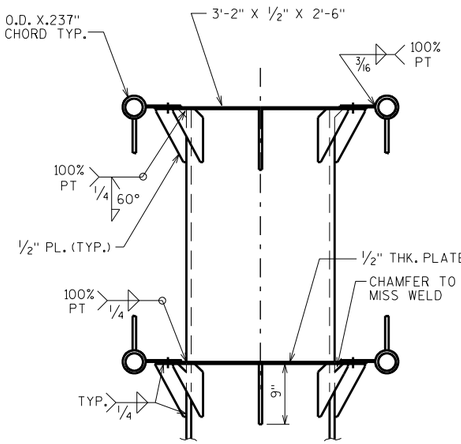
OPTIONAL COLUMN OR CHORD SPLICE DETAIL



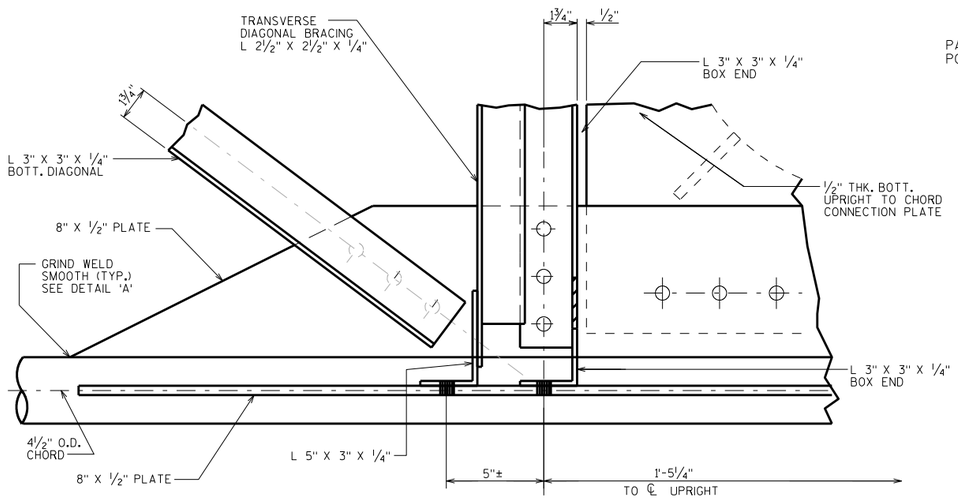
SECTION H-H



ELEVATION TRUSS TO UPRIGHT

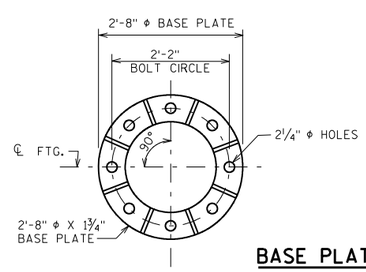


END VIEW TRUSS TO UPRIGHT

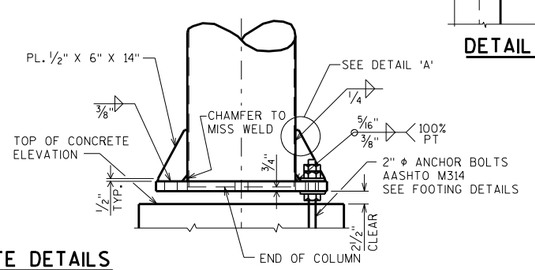


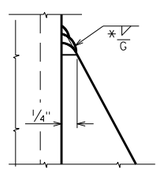
SECTION G-G

(LOOKING DOWN @ BOTT. HORIZ. PLANE @ FRONT CHORD)



BASE PLATE DETAILS





DETAIL 'A'

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-05-190

DRAWN BY DDS | PLANS CK'D. VT

GALVANIZED STEEL CANTILEVER SIGN TRUSS DETAILS

SHEET 3

507

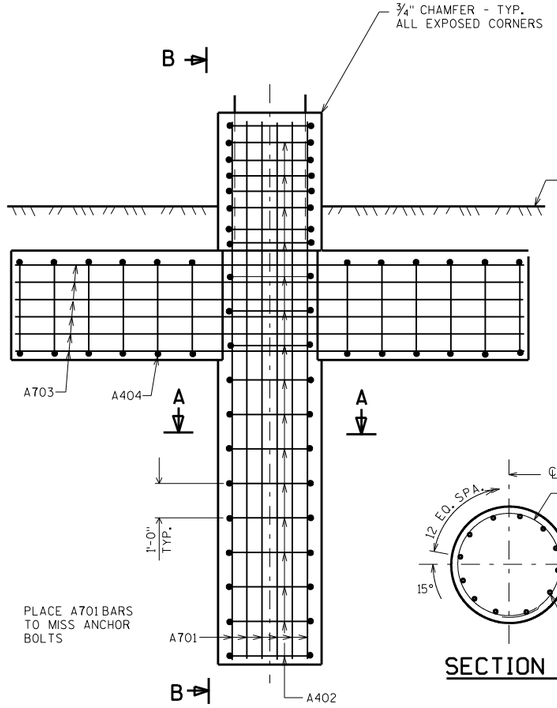
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FILE- STCANT
SCALE = 2.25

8-08

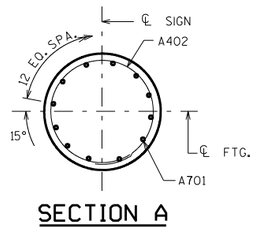
STATE PROJECT NUMBER

9200-04-71

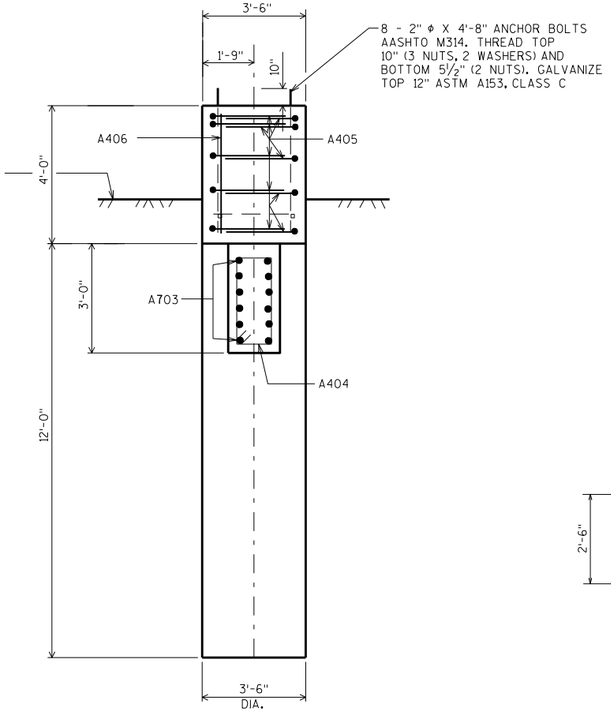


ELEVATION

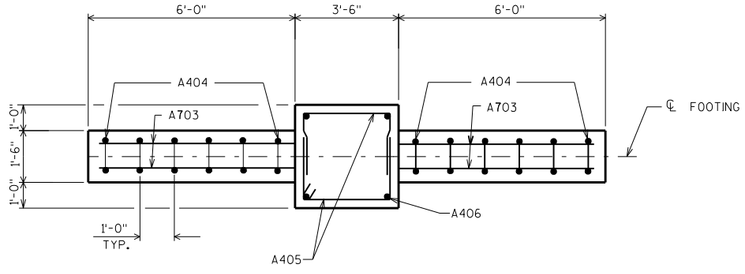
(8 C.Y.)



SECTION A



SECTION B



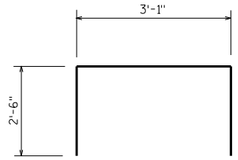
PLAN

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

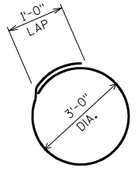
BILL OF BARS

980 LB

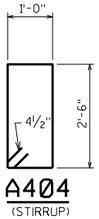
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	CUT. DIAG.	BUNDLE	LOCATION
A701		12	15'-6"				FOOTING - COLUMN/TOP
A402		16	10'-6"	X			FOOTING - COLUMN/TOP
A703		12	15'-0"				FOOTING - WINGS
A404		12	7'-6"	X			FOOTING - WINGS
A405		10	7'-11"	X			FOOTING - TOP
A406		4	3'-6"				FOOTING - TOP - COLUMNS



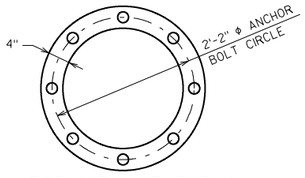
A405



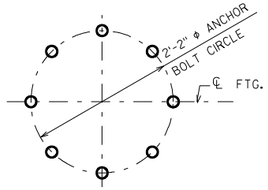
A402

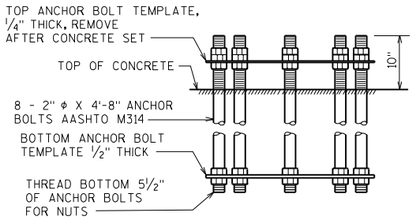


A404
(STIRRUP)



TOP VIEW OF TOP &
BOTTOM TEMPLATES





ANCHOR BOLT DETAILS

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL
BE EMBEDDED 3" CLEAR UNLESS
DETAILED OTHERWISE.

ULTIMATE DESIGN STRESSES

CONCRETE MASONRY ——— f'c = 3,500 PSI
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 ——— fy = 60,000 PSI
ANCHOR BOLTS AASHTO M314 ——— fy = 55,000 PSI

FOUNDATION DATA

ALLOWABLE SOIL BEARING PRESSURE = 2T/SF

TOTAL ESTIMATED QUANTITIES (1 FTG.)

SIGN SUPPORTS CONCRETE MASONRY ——— 8 CY
SIGN SUPPORTS STEEL REINFORCEMENT HS ——— 980 LB

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-05-190

DRAWN BY DDS | PLANS CK'D. VT

CANTILEVER TRUSS FOOTING

SHEET 4

508

CANTFLG1.DGN

SCALE = 7.25

8

8

8-08

DIVISION 1A CENTENNIAL CENTRE BOULEVARD TEMPORARY

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
10+20.00	1020.00		744.16	0.00	0.00	0.00	0.00	0.00	0.00
10+50.00	1050.00	30	358.51	0.00	612.59	0.00	612.59	0.00	612.59
11+00.00	1100.00	50	114.61	0.72	438.07	0.67	1050.67	0.77	1049.90
11+50.00	1150.00	50	153.01	0.00	247.80	0.67	1298.46	1.53	1296.93
12+00.00	1200.00	50	114.69	0.00	247.87	0.00	1546.34	1.53	1544.80
				Column totals	1546.34	1.33			

DIVISION 1A CATHERINE ROAD

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
11+73.23	1173.23		211.86	0.00	0.00	0.00	0.00	0.00	0.00
12+00.00	1200.00	27	137.28	19.30	173.08	9.57	173.08	11.00	162.08
12+50.00	1250.00	50	191.36	54.62	304.30	68.44	477.38	89.71	387.67
13+00.00	1300.00	50	132.26	29.32	299.65	77.72	777.03	179.09	597.93
13+18.71	1318.71	19	69.11	0.26	69.77	10.25	846.80	190.88	655.92
				Column totals	846.80	165.98			

9

9

PROJECT NO: 9200-04-71 | HWY: STH 29 | COUNTY: BROWN | EARTHWORK | SHEET 509 E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090101_ew.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 200.0000 sf / in.

WISDOT/CADDS SHEET 49

DIVISION 1A NE RAMP

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
663+58.20	66358.20		0.00	507.23	0.00	0.00	0.00	0.00	0.00
664+00.00	66400.00	42	0.00	794.97	0.00	0.00	0.00	0.00	0.00
664+50.00	66450.00	50	0.00	849.61	0.00	0.00	0.00	0.00	0.00
665+00.00	66500.00	142	0.00	1201.86	0.00	4403.25	0.00	5063.74	-5063.74
666+00.00	66600.00	100	0.00	377.53	0.00	2924.80	0.00	8427.26	-8427.26
667+00.00	66700.00	100	14.76	267.28	27.33	1194.09	27.33	9800.46	-9773.13
668+00.00	66800.00	100	17.06	280.84	58.93	1015.04	86.26	10967.76	-10881.50
669+00.00	66900.00	100	7.95	317.21	46.31	1107.50	132.57	12241.38	-12108.81
670+00.00	67000.00	100	13.76	231.04	40.20	1015.28	172.78	13408.95	-13236.17
671+00.00	67100.00	100	5.80	294.01	36.22	972.31	209.00	14527.11	-14318.11
672+00.00	67200.00	100	29.02	340.76	64.48	1175.50	273.48	15878.94	-15605.46
673+00.00	67300.00	100	28.45	387.67	106.43	1348.94	379.91	17430.22	-17050.32
674+00.00	67400.00	100	25.15	335.17	99.26	1338.59	479.17	18969.60	-18490.44
675+00.00	67500.00	100	98.92	176.73	229.76	947.96	708.93	20059.76	-19350.84
675+07.74	67507.74	8	91.23	174.50	27.25	50.34	736.18	20117.66	-19381.48
				Column totals	736.18	17493.61			

DIVISION 1A NW RAMP

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
650+91.92	65091.92		33.98	200.47	0.00	0.00	0.00	0.00	0.00
651+00.00	65100.00	8	34.62	194.88	10.26	59.16	10.26	68.03	-57.76
652+00.00	65200.00	100	36.15	178.07	131.06	690.65	141.32	862.27	-720.95
653+00.00	65300.00	100	29.74	248.74	122.02	790.39	263.34	1771.22	-1507.88
654+00.00	65400.00	100	28.62	268.76	108.07	958.33	371.41	2873.31	-2501.89
655+00.00	65500.00	100	19.87	346.14	89.80	1138.70	461.21	4182.81	-3721.61
656+00.00	65600.00	100	19.73	376.72	73.33	1338.63	534.54	5722.24	-5187.70
657+00.00	65700.00	100	19.31	452.08	72.30	1534.81	606.84	7487.28	-6880.44
658+00.00	65800.00	100	19.99	553.97	72.78	1863.06	679.62	9629.79	-8951.17
659+00.00	65900.00	100	18.96	790.93	72.13	2490.56	751.75	12493.93	-11745.18
660+00.00	66000.00	100	18.10	1096.25	68.63	3494.78	820.38	16512.92	-15698.55
661+00.00	66100.00	100	18.88	1226.36	68.48	4301.13	888.86	21459.22	-20580.36
662+00.00	66200.00	100	21.69	1575.16	75.13	5188.00	963.99	27425.42	-26476.44
663+00.00	66300.00	100	0.00	1653.06	40.17	5978.19	1004.15	34300.34	-33317.18
663+53.50	66353.50	54	0.00	865.45	0.00	2495.19	1004.15	37169.80	-36193.65
				Column totals	1004.15	31571.76			

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
667+50.36	66750.36		0.00	1986.81	0.00	0.00	0.00	0.00	0.00
668+00.00	66800.00	50	0.00	2366.55	0.00	4001.87	0.00	4602.15	-4601.15
669+00.00	66900.00	100	0.00	3330.34	0.00	9486.05	0.00	10908.96	-10908.96
670+00.00	67000.00	100	0.00	2803.14	0.00	11358.30	0.00	23971.00	-23971.00
670+14.16	67014.16	14	1.69	2819.67	0.44	1474.43	0.44	25666.59	-25667.15
671+00.00	67100.00	86	0.00	3110.55	2.69	9426.85	3.13	36507.47	-36507.34
671+39.89	67139.89	40	0.00	3605.47	0.00	4961.15	3.13	42212.79	-42215.66
671+64.89	67164.89	25	0.04	3340.78	0.02	3215.86	3.15	45911.03	-45917.88
671+89.89	67189.89	25	0.00	3096.04	0.02	2980.01	3.17	49338.04	-49349.87
672+00.00	67200.00	10	0.00	3082.13	0.00	1156.69	3.17	50668.23	-50686.07
673+00.00	67300.00	100	0.01	1901.50	0.02	9228.94	3.19	61281.52	-61306.33
674+00.00	67400.00	100	0.05	1635.35	0.11	6549.72	3.30	68813.70	-68846.40
675+00.00	67500.00	100	0.01	1298.73	0.11	5433.48	3.41	75062.20	-75103.80
676+00.00	67600.00	100	0.03	1113.40	0.07	4466.91	3.48	80199.15	-80250.67
677+00.00	67700.00	100	0.00	901.91	0.06	3732.06	3.54	84491.01	-84553.47
678+00.00	67800.00	100	0.02	713.55	0.04	2991.59	3.57	87931.34	-88005.77
679+00.00	67900.00	100	0.13	1030.71	0.28	3230.11	3.85	91645.97	-91733.12
680+00.00	68000.00	100	0.04	737.36	0.31	3274.20	4.17	95411.31	-95512.14
681+00.00	68100.00	100	1.18	593.02	2.26	2463.67	6.43	98244.52	-98358.10
682+00.00	68200.00	100	28.96	380.07	55.81	1802.02	62.24	100316.84	-100390.60
683+00.00	68300.00	100	16.34	304.74	83.89	1268.17	146.13	101775.23	-101782.11
684+00.00	68400.00	100	16.84	230.24	61.44	990.70	207.57	102914.54	-102877.97
684+73.71	68443.71	44	18.48	209.71	28.59	356.12	236.16	103324.08	-103277.91
685+00.00	68500.00	56	20.60	184.56	40.74	410.99	276.90	103796.72	-103729.81
685+48.71	68548.71	49	20.66	188.79	37.22	336.78	314.12	104184.01	-104100.89
685+73.71	68573.71	25	19.71	174.56	18.69	168.22	332.81	104377.46	-104297.65
685+98.71	68598.71	25	18.00	38.86	17.46	98.81	350.27	104491.08	-104416.82
686+00.00	68600.00	1	17.89	37.60	0.86	1.83	351.12	104493.18	-104442.06
686+06.00	68606.00	6	17.39	39.93	3.92	8.61	355.04	104503.09	-104473.05
				Column totals	355.04	94874.12			

DIVISION 1A **SW RAMP**

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
652+90.98	65291.92		16.67	36.11	0.00	0.00	0.00	0.00	0.00
653+00.00	65300.00	8	16.63	46.05	4.98	12.29	4.98	14.14	-9.15
654+00.00	65400.00	100	17.82	94.01	63.80	259.37	68.78	312.41	-243.63
655+00.00	65500.00	100	23.18	78.56	75.93	319.57	144.70	679.92	-535.22
656+00.00	65600.00	100	23.18	129.43	85.85	385.17	230.56	1122.87	-892.31
657+00.00	65700.00	100	43.19	95.22	122.91	416.02	353.46	1601.29	-1247.82
658+00.00	65800.00	100	52.42	158.77	177.06	470.35	530.52	2142.19	-1611.67
659+00.00	65900.00	100	159.48	118.80	392.41	514.02	922.93	2733.31	-1810.39
660+00.00	66000.00	100	90.76	52.94	463.41	318.04	1386.33	3099.06	-1712.72
661+00.00	66100.00	100	24.97	157.52	214.31	389.74	1600.65	3547.26	-1946.61
662+00.00	66200.00	100	3.93	417.16	53.52	1064.22	1654.17	4771.11	-3116.94
663+00.00	66300.00	100	1.30	683.17	9.69	2037.65	1663.85	7114.41	-5451.55
663+23.65	66323.65	24	28.45	860.79	13.03	676.20	1676.88	7892.03	-6218.15
663+48.65	66348.65	25	13.96	899.57	19.63	814.98	1696.52	8829.26	-7138.75
663+73.65	66373.65	25	1.08	890.12	6.96	828.56	1703.48	9782.11	-8088.63
664+00.00	66400.00	26	0.00	960.33	0.53	902.95	1704.01	10820.50	-9131.49
665+00.00	66500.00	100	2.51	1383.82	4.65	4341.02	1708.65	15812.67	-14125.02
666+00.00	66600.00	100	0.00	1889.45	4.65	6061.61	1713.30	22783.53	-21098.22
667+00.00	66700.00	100	0.00	1442.02	0.00	6169.39	1713.30	29878.32	-28201.02
667+27.31	66727.31	27	0.00	379.14	0.00	921.03	1713.30	30937.51	-29269.21
				Column totals	1713.30	26902.19			

DIVISION 1A NE RAMP BYPASS

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
663+36.50	66336.50		0.00	1125.28	0.00	0.00	0.00	0.00	0.00
664+00.00	66400.00	64	0.00	1024.50	0.00	2527.98	0.00	2907.17	-2907.17
664+77.50	66477.50	78	0.00	794.80	0.00	2611.02	0.00	5909.85	-5909.85
				Column totals	0.00	5139.00			

DIVISION 1A SE RAMP BYPASS

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
245+63.10	24563.10		0.00	2143.93	0.00	0.00	0.00	0.00	0.00
246+00.00	24600.00	37	0.00	2045.95	0.00	2863.08	0.00	3292.55	-3291.55
247+00.00	24700.00	100	0.00	1725.65	0.00	7303.12	0.00	11691.14	-11690.14
247+65.10	24765.10	65	0.00	1704.88	0.00	4135.69	0.00	16447.19	-16446.19
				Column totals	0.00	14301.90			

DIVISION 1A DRIVEWAYS

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
CTH FF 259+86									
0+53.00	053.00		17.76	0.09	0.00	0.00	0.00	0.00	0.00
1+00.00	100.00	47	0.89	8.87	16.23	7.80	16.23	8.97	8.26
1+50.00	150.00	50	2.92	54.33	3.53	39.07	3.53	53.90	-23.35
2+00.00	200.00	50	0.80	181.41	3.44	113.29	3.44	184.18	-144.27
FOREST DW 1									
0+06.00	006.00		45.74	0.00	0.00	0.00	0.00	0.00	0.00
0+50.00	50.00	44	32.97	0.00	64.13	0.00	64.13	0.00	65.13
0+88.35	88.35	38	21.14	0.00	38.43	0.00	38.43	0.00	103.56
1+00.00	100.00	12	20.37	0.00	8.96	0.00	8.96	0.00	111.52
1+27.00	127.00	27	13.35	0.19	16.86	0.10	16.86	0.11	126.27
FOREST DW 2									
0+10.00	010.00		33.87	0.00	0.00	0.00	0.00	0.00	0.00
0+50.00	50.00	40	7.01	2.55	30.28	1.35	30.28	1.56	29.73
1+00.00	100.00	50	10.34	1.27	16.06	2.36	16.06	4.27	58.63
1+27.00	127.00	27	13.06	0.54	11.70	1.09	11.70	5.52	72.45
				Column totals	209.63	165.05			

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DIVISION 1A SHERWOOD ST

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
252+00.00	25200.00		0.00	3047.70	0.00	0.00	0.00	0.00	0.00
252+50.00	25250.00	50	0.00	2912.90	0.00	5519.07	0.00	6346.94	-6347.94
254+50.00	25450.00		0.00	2228.57	0.00	0.00	0.00	0.00	0.00
255+00.00	25500.00	50	0.00	2225.04	0.00	4123.71	0.00	4742.27	-4742.27
255+50.00	25550.00	50	0.05	1904.13	0.05	3823.31	0.05	9139.07	-9140.02
256+00.00	25600.00	50	0.00	1751.22	0.05	3384.58	0.09	13031.34	-13034.25
256+50.00	25650.00	50	11.50	1201.26	10.65	2733.78	10.74	16175.18	-16170.44
257+00.00	25700.00	50	2.56	1369.67	13.02	2380.49	23.76	18912.75	-18898.99
257+50.00	25750.00	50	7.23	1068.64	9.06	2257.69	32.82	21509.10	-21491.27
258+00.00	25800.00	50	64.04	843.51	65.99	1770.51	98.81	23545.18	-23467.37
258+50.00	25850.00	50	83.05	696.99	136.19	1426.39	235.01	25185.53	-24978.52
259+00.00	25900.00	50	17.11	589.85	92.74	1191.52	327.75	26555.78	-26264.03
259+50.00	25950.00	50	9.19	116.20	24.35	653.75	352.10	27307.59	-27000.49
260+00.00	26000.00	50	2.58	424.36	10.90	500.52	363.00	27883.18	-27575.18
260+50.00	26050.00	50	19.16	276.72	20.13	649.15	383.13	28629.70	-28312.58
261+00.00	26100.00	50	35.01	131.72	50.16	378.19	433.29	29064.62	-28709.33
261+50.00	26150.00	50	37.62	182.38	67.25	290.83	500.54	29399.08	-28989.54
262+00.00	26200.00	50	35.80	170.43	67.98	326.68	568.52	29774.75	-29311.23
262+50.00	26250.00	50	37.16	172.37	67.56	317.41	636.07	30139.77	-29623.70
263+00.00	26300.00	50	39.54	155.93	71.02	303.98	707.09	30489.35	-29918.26
263+50.00	26350.00	50	44.29	153.25	77.62	286.28	784.71	30818.57	-30186.86
264+00.00	26400.00	50	43.37	134.81	81.17	266.72	865.88	31125.30	-30430.42
264+50.00	26450.00	50	37.42	130.69	74.81	245.83	940.69	31408.01	-30657.32
265+00.00	26500.00	50	58.35	95.94	88.68	209.84	1029.36	31649.33	-30829.97
265+50.00	26550.00	50	50.50	93.34	100.79	175.26	1130.15	31850.88	-30951.73
266+00.00	26600.00	50	43.06	93.25	86.63	172.77	1216.78	32049.56	-31085.78
266+50.00	26650.00	50	52.58	89.49	88.56	169.20	1305.33	32244.14	-31214.81
				Column totals	1305.33	33557.46			

DIVISION 1A RAB WB

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
0+00.00	0.00		0.00	1460.51	0.00	0.00	0.00	0.00	0.00
0+50.00	50.00	50	0.00	1543.53	0.00	2781.52	0.00	3198.75	-3198.75
1+00.00	100.00	50	0.00	1372.91	0.00	2700.41	0.00	6304.21	-6304.21
1+50.00	150.00	50	0.00	2678.12	0.00	3750.95	0.00	10617.81	-10617.81
2+00.00	200.00	50	0.00	1939.10	0.00	4275.20	0.00	15534.30	-15534.30
2+50.00	250.00	50	0.00	2776.02	0.00	4365.85	0.00	20555.03	-20555.03
3+00.00	300.00	50	0.00	1605.12	0.00	4056.61	0.00	25220.13	-25220.13
3+50.00	350.00	50	0.00	1644.53	0.00	3008.94	0.00	28680.40	-28680.40
4+00.00	400.00	50	0.00	2543.30	0.00	3877.62	0.00	33139.67	-33139.67
4+50.00	450.00	50	0.00	1547.32	0.00	3787.61	0.00	37495.42	-37495.42
4+58.00	458.00	8	0.00	1455.35	0.00	444.84	0.00	38006.99	-38006.99
				Column totals	0.00	33049.55			

DIVISION 1A CENTENNIAL CENTRE BOULEVARD

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
20+16.52	2016.52		22.27	0.00	0.00	0.00	0.00	0.00	0.00
21+00.00	2100.00	83	70.45	0.00	143.34	0.00	143.34	0.00	142.34
22+00.00	2200.00	100	74.76	0.00	268.91	0.00	412.25	0.00	409.25
23+00.00	2300.00	100	117.08	0.74	355.26	1.37	767.50	1.58	759.93
24+00.00	2400.00	100	131.16	0.00	459.70	1.37	1227.21	3.15	1214.06
25+00.00	2500.00	100	286.71	0.00	773.83	0.00	2001.04	3.15	1982.89
26+00.00	2600.00	100	623.85	0.00	1686.22	0.00	3687.26	3.15	3663.11
27+00.00	2700.00	100	1025.25	0.00	3053.89	0.00	6741.15	3.15	6710.00
28+00.00	2800.00	100	972.43	0.00	3699.41	0.00	10440.56	3.15	10401.41
29+00.00	2900.00	100	1042.79	0.00	3731.89	0.00	14172.45	3.15	14124.30
30+00.00	3000.00	100	1084.51	0.00	3939.44	0.00	18111.89	3.15	18053.74
31+00.00	3100.00	100	944.60	0.00	3757.61	0.00	21869.50	3.15	21800.35
32+00.00	3200.00	100	672.18	0.00	2994.04	0.00	24863.54	3.15	24782.39
33+00.00	3300.00	100	594.31	1.90	2345.35	3.52	27208.89	7.20	27110.70
34+00.00	3400.00	100	583.19	3.71	2180.56	10.39	29389.45	19.15	29265.30
35+00.00	3500.00	100	299.39	7.73	1634.41	21.19	31023.86	43.51	30860.35
36+00.00	3600.00	100	16.42	37.91	584.83	84.52	31608.69	140.70	31331.99
36+15.40	3615.40	15	14.68	51.39	8.87	25.47	31617.56	169.99	31294.57
37+00.00	3700.00	85	3.83	116.19	29.00	262.54	31646.56	471.92	31003.64
37+20.40	3720.40	20	4.52	148.11	3.15	99.85	31649.71	586.74	30872.97
37+45.40	3745.40	25	5.66	153.55	4.71	139.66	31654.43	747.34	30697.08
37+70.40	3770.40	25	5.97	187.55	5.38	157.92	31659.81	928.95	30499.86
38+00.00	3800.00	30	11.77	223.32	9.72	225.22	31669.53	1187.95	30228.59
39+00.00	3900.00	100	17.73	263.58	54.63	901.67	31724.16	2224.87	29223.30
40+00.00	4000.00	100	11.54	367.01	54.20	1167.76	31778.37	3567.79	27910.58
41+00.00	4100.00	100	2.36	500.13	25.74	1605.81	31804.11	5414.48	26064.63
42+00.00	4200.00	100	5.49	609.16	14.54	2054.24	31818.65	7776.85	23690.79
43+00.00	4300.00	100	3.96	616.37	17.50	2269.50	31836.15	10386.78	21071.37
44+00.00	4400.00	100	0.53	637.20	8.31	2321.43	31844.46	13056.42	18382.04
45+00.00	4500.00	100	4.93	555.08	10.11	2207.93	31854.57	15595.53	15824.04
46+00.00	4600.00	100	4.17	443.75	16.85	1849.69	31871.42	17722.67	13683.75
47+00.00	4700.00	100	18.62	318.20	42.20	1411.02	31913.63	19345.34	12072.29
48+00.00	4800.00	100	0.37	448.36	35.17	1419.56	31948.79	20977.83	10442.96
49+00.00	4900.00	100	7.05	268.23	13.74	1327.02	31962.53	22503.90	8897.63
50+00.00	5000.00	100	0.25	264.71	13.52	986.93	31976.05	23638.87	7742.19
51+00.00	5100.00	100	0.02	185.34	0.50	833.43	31976.55	24597.31	6749.25
52+00.00	5200.00	100	0.00	179.54	0.04	675.70	31976.59	25374.37	5936.22
53+00.00	5300.00	100	112.21	21.75	207.80	372.76	32184.39	25803.04	5678.35
54+00.00	5400.00	100	55.44	9.21	310.46	57.33	32494.85	25868.97	5884.88
55+00.00	5500.00	100	74.26	0.71	240.19	18.37	32735.03	25890.10	6064.94
55+10.71	5510.71	11	76.33	0.47	29.87	0.23	32764.90	25890.37	6054.53
				Column totals	32764.90	22513.36			

DIVISION 1A CENTENNIAL CENTRE BOULEVARD

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
63+50.00	6350.00		129.78	19.86	0.00	0.00	0.00	0.00	0.00
64+00.00	6400.00	50	168.34	0.25	276.04	18.62	276.04	21.41	254.62
64+50.00	6450.00	50	230.45	0.00	369.25	0.23	645.29	21.68	623.61
65+00.00	6500.00	50	263.55	0.00	457.41	0.00	1102.69	21.68	1081.01
65+50.00	6550.00	50	276.36	0.00	499.92	0.00	1602.61	21.68	1580.93
66+00.00	6600.00	50	411.33	0.00	636.75	0.00	2239.36	21.68	2217.68
66+50.00	6650.00	50	741.05	0.00	1067.02	0.00	3306.38	21.68	3284.70
67+00.00	6700.00	50	822.84	0.00	1448.05	0.00	4754.43	21.68	4732.75
67+50.00	6750.00	50	4.88	74.48	766.41	137.93	5520.83	180.29	5340.54
68+00.00	6800.00	50	0.08	129.37	4.59	188.75	5525.43	397.36	5128.07
68+50.00	6850.00	50	0.02	239.86	0.09	341.88	5525.52	790.52	4735.00
69+00.00	6900.00	50	0.00	251.41	0.02	454.88	5525.54	1313.63	4211.91
69+50.00	6950.00	50	0.00	259.93	0.00	473.46	5525.54	1858.11	3667.42
70+00.00	7000.00	50	0.04	156.64	0.04	385.71	5525.57	2301.68	3223.89
70+50.00	7050.00	50	22.20	32.07	20.59	174.73	5546.17	2502.62	3043.54
71+00.00	7100.00	50	173.03	6.19	180.77	35.43	5726.94	2543.36	3183.57
71+50.00	7150.00	50	377.84	0.00	510.06	5.73	6237.00	2549.95	3687.05
72+00.00	7200.00	50	1007.85	0.00	1283.05	0.00	7520.05	2549.95	4970.09
72+50.00	7250.00	50	2608.26	0.00	3348.25	0.00	10868.30	2549.95	8318.34
73+00.00	7300.00	50	2981.83	0.00	5176.01	0.00	16044.31	2549.95	13494.35
73+50.00	7350.00	50	3288.73	0.00	5806.07	0.00	21850.38	2549.95	19300.43
74+00.00	7400.00	50	3409.87	0.00	6202.41	0.00	28052.79	2549.95	25502.83
74+50.00	7450.00	50	2515.01	0.00	5486.00	0.00	33538.79	2549.95	30987.83
75+00.00	7500.00	50	957.23	0.00	3215.04	0.00	36753.82	2549.95	34200.87
75+07.36	7507.36	7	271.81	0.00	167.51	0.00	36921.34	#DIV/0!	#DIV/0!
				Column totals	36921.34	2217.35			

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DIVISION 1A FOREST ROAD

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
344+19.59	34419.59		113.16	0.00	0.00	0.00	0.00	0.00	0.00
344+50.00	34450.00	30	100.70	0.00	120.43	0.00	120.43	0.00	120.43
345+00.00	34500.00	50	91.12	6.19	177.61	11.46	298.05	13.18	284.86
345+50.00	34550.00	50	174.48	0.00	245.93	5.73	543.97	19.77	524.20
346+00.00	34600.00	50	305.20	4.23	444.15	3.92	988.12	24.28	963.84
346+50.00	34650.00	50	400.10	0.90	653.06	1.67	1641.18	26.19	1614.98
347+00.00	34700.00	50	535.31	0.00	866.12	0.83	2507.30	27.15	2480.14
347+50.00	34750.00	50	816.35	0.00	1251.54	0.00	3758.83	27.15	3731.68
348+00.00	34800.00	50	1070.58	0.00	1747.16	0.00	5505.99	27.15	5478.84
348+50.00	34850.00	50	1250.37	0.00	2149.03	0.00	7655.02	27.15	7627.87
349+00.00	34900.00	50	1428.66	0.00	2480.58	0.00	10135.60	27.15	10108.45
349+50.00	34950.00	50	2851.42	0.00	3963.04	0.00	14098.64	27.15	14071.49
				Column totals	14098.64	23.61			

DIVISION 1A CATHERINE SIDEWALK

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
1+39.00	139.00		0.00	10.00	0.00	0.00	0.00	0.00	1.00
1+50.00	150.00	11	0.00	62.43	0.00	14.75	0.00	16.97	-15.97
2+00.00	200.00	50	108.34	44.09	100.31	98.63	100.31	130.38	-30.07
2+50.00	250.00	50	49.45	36.98	146.10	75.06	246.42	216.71	27.71
3+00.00	300.00	50	9.39	106.21	54.48	132.58	300.90	369.18	-73.28
3+50.00	350.00	50	12.80	48.67	20.55	143.41	321.44	534.10	-221.65
4+00.00	400.00	50	10.63	9.75	21.69	54.09	343.14	596.31	-267.17
4+50.00	450.00	50	5.80	35.35	15.21	41.76	358.35	644.33	-305.98
				Column totals	358.35	560.29			

DIVISION 1A STH 29 EB

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
637+00.00	63700.00		177.20	0.02	0.00	0.00	0.00	0.00	0.00
638+00.00	63800.00	100	279.87	0.49	846.43	0.94	846.43	1.09	845.34
639+00.00	63900.00	100	215.26	4.21	916.91	8.70	1763.33	11.10	1752.24
640+00.00	64000.00	100	182.00	5.57	735.67	18.11	2499.00	31.92	2467.08
641+00.00	64100.00	100	141.79	1.10	542.28	12.35	3041.28	46.13	2995.16
642+00.00	64200.00	100	115.46	0.10	315.13	2.22	3356.41	48.68	3307.73
643+00.00	64300.00	100	54.71	6.84	170.46	12.85	3526.88	63.46	3463.41
644+00.00	64400.00	100	37.34	19.47	138.09	48.72	3664.97	119.49	3545.48
645+00.00	64500.00	100	37.23	38.75	136.44	107.81	3801.41	243.48	3557.93
646+00.00	64600.00	100	36.45	82.24	136.00	224.06	3937.41	501.14	3436.27
647+00.00	64700.00	100	36.99	92.07	135.20	322.80	4072.62	872.36	3200.26
648+00.00	64800.00	100	36.02	140.05	134.94	429.85	4207.56	1366.69	2840.87
649+00.00	64900.00	100	36.85	184.52	140.06	601.06	4347.62	2057.90	2289.71
650+00.00	65000.00	100	38.78	204.14	71.81	719.74	4419.43	2885.61	1533.83
651+00.00	65100.00	100	0.00	0.00	26.83	378.04	4446.27	3320.35	1125.92
652+00.00	65200.00	100	14.49	109.72	53.67	203.19	4499.93	3554.01	945.92
676+00.00	67600.00		31.80	170.54	0.00	0.00	0.00	0.00	0.00
676+22.06	67622.61	23	32.35	176.40	26.86	145.27	26.86	167.05	-140.99
676+47.06	67647.06	24	32.28	213.82	29.11	169.27	55.97	361.71	-308.56
676+72.06	67672.06	25	31.97	213.82	29.72	179.30	85.69	567.91	-488.16
677+00.00	67700.00	28	31.96	188.98	33.19	199.42	118.88	797.24	-688.71
677+77.06	67777.06	77	31.40	194.00	91.22	550.63	210.09	1430.46	-1239.07
678+00.00	67800.00	23	30.17	186.20	26.94	163.10	237.03	1618.03	-1407.64
679+00.00	67900.00	100	28.66	172.64	108.94	664.52	345.98	2382.22	-2063.04
680+00.00	68000.00	100	30.09	143.88	108.80	586.15	454.77	3056.29	-2623.89
681+00.00	68100.00	100	31.05	106.09	113.22	462.91	567.99	3588.64	-3040.71
682+00.00	68200.00	100	31.33	70.81	115.52	327.59	683.51	3965.37	-3300.98
683+00.00	68300.00	100	31.56	81.58	116.46	282.20	799.98	4289.90	-3511.44
684+00.00	68400.00	100	30.04	107.25	114.07	349.69	914.05	4692.04	-3805.17
685+00.00	68500.00	100	28.50	152.42	108.41	480.87	1022.46	5245.04	-4255.21
686+00.00	68600.00	100	27.10	155.82	102.96	570.81	1125.42	5901.48	-4780.96
687+00.00	68700.00	100	43.47	199.03	130.69	657.13	1256.11	6657.18	-5370.37
688+00.00	68800.00	100	46.33	73.85	166.30	505.33	1422.40	7238.31	-5512.72
689+00.00	68900.00	100	190.61	9.58	438.78	154.50	1861.18	7415.99	-4877.95
690+00.00	69000.00	100	248.11	5.84	812.44	28.56	2673.62	7448.83	-4055.24
691+00.00	69100.00	100	213.89	12.33	855.56	33.65	3529.18	7487.52	-3474.00
692+00.00	69200.00	100	120.87	24.84	619.93	68.83	4149.11	7566.68	-3233.87
693+00.00	69300.00	100	51.55	141.54	319.30	308.11	4468.40	7921.01	-3389.79
694+00.00	69400.00	100	55.59	93.98	198.41	436.15	4666.81	8422.58	-3666.69
695+00.00	69500.00	100	65.73	15.82	224.67	203.33	4891.48	8656.41	-3491.28
696+00.00	69600.00	100	155.26	11.04	409.24	49.74	5300.72	8713.61	-2693.21
697+00.00	69700.00	100	306.59	10.09	855.28	39.13	6155.99	8758.61	-1474.93
698+00.00	69800.00	100	375.58	6.25	1263.28	30.26	7419.27	8793.41	-30.15
699+00.00	69900.00	100	423.39	8.40	1479.57	27.13	8898.85	8824.61	1339.33
700+00.00	70000.00	100	332.98	6.94	1400.69	28.41	10299.53	8857.28	2244.28
701+00.00	70100.00	100	173.33	16.64	937.61	43.67	11237.14	8907.49	2630.06
702+00.00	70200.00	100	62.11	60.66	436.00	143.15	11673.14	9072.11	2755.40
703+00.00	70300.00	100	94.47	2.30	289.96	116.59	11963.11	9206.20	3001.62
704+00.00	70400.00	100	110.89	7.52	380.30	18.19	12343.40	9227.11	3332.13
705+00.00	70500.00	100	78.88	12.89	351.43	37.80	12694.83	9270.57	3523.81
706+00.00	70600.00	100	48.10	8.72	235.15	40.02	12929.98	9316.60	3618.33
707+00.00	70700.00	100	27.79	7.68	140.54	30.37	13070.51	9351.52	3673.16
708+00.00	70800.00	100	20.68	7.65	89.76	28.39	13160.27	9384.17	3720.66
709+00.00	70900.00	100	22.60	7.51	80.15	28.07	13240.42	9416.45	3782.82
710+00.00	71000.00	100	28.40	27.80	94.44	65.39	13334.86	9491.65	3760.22
710+50.00	71050.00	50	0.00	0.00	26.30	25.74	13361.16	9521.25	3730.61
				Column totals	17882.09	11369.80			

DIVISION 1B COUNTY FF

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
241+00.00	24100.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
241+50.00	24150.00	50	0.00	4061.84	0.00	3760.96	0.00	4325.11	-4325.11
242+00.00	24200.00	50	1.13	4146.45	1.05	7600.27	1.05	13065.42	-13064.37
242+50.00	24250.00	50	0.01	4217.28	1.06	7744.19	2.10	21971.24	-21969.14
243+00.00	24300.00	50	0.00	4726.46	0.01	8281.24	2.11	31494.67	-31492.56
243+50.00	24350.00	50	0.02	5119.57	0.02	9116.69	2.13	41978.87	-41976.74
244+00.00	24400.00	50	0.01	5233.62	0.03	9586.29	2.16	53003.10	-53000.94
244+50.00	24450.00	50	0.00	5056.01	0.01	9527.44	2.17	63959.65	-63957.48
245+00.00	24500.00	50	0.12	4777.81	0.11	9105.39	2.28	74430.84	-74428.57
245+50.00	24550.00	50	0.00	3970.15	0.11	8099.96	2.39	83745.80	-83743.41
246+00.00	24600.00	50	0.00	3210.91	0.00	6649.13	2.39	91392.30	-91389.91
246+50.00	24650.00	50	0.00	4495.84	0.00	7135.88	2.39	99598.56	-99596.17
248+50.00	24850.00		0.00	3956.89	0.00	0.00	0.00	0.00	0.00
249+00.00	24900.00	50	0.00	3992.75	0.00	7393.98	2.39	99895.38	-99892.99
				Column totals	2.39	94001.42			

DIVISION 1B RAB EB

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
0+00.00	0.00		0.00	2009.06	0.00	0.00	0.00	0.00	0.00
0+50.00	50.00	50	0.00	3455.06	0.00	5059.37	0.00	5818.28	-5818.28
1+00.00	100.00	50	0.00	3727.13	0.00	6650.18	0.00	13465.98	-13465.98
1+50.00	150.00	50	0.00	1960.83	0.00	5266.63	0.00	19522.60	-19522.60
2+00.00	200.00	50	0.00	2543.49	0.00	4170.67	0.00	24318.87	-24318.87
2+50.00	250.00	50	0.00	3247.64	0.00	5362.16	0.00	30485.35	-30485.35
3+00.00	300.00	50	0.00	1986.44	0.00	4846.37	0.00	36058.68	-36058.68
3+50.00	350.00	50	0.00	2388.32	0.00	4050.70	0.00	40716.99	-40716.99
4+00.00	400.00	50	0.00	2043.93	0.00	4103.94	0.00	45436.51	-45436.51
4+50.00	450.00	50	0.00	2300.03	0.00	4022.19	0.00	50062.02	-50062.02
4+58.00	458.00	8	0.00	2028.47	0.00	641.26	0.00	50799.47	-50799.47
				Column totals	0.00	44173.45			

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DIVISION 1C **COUNTY FF**

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
219+78.31	21978.31		0.00	0.00	0.00	0.00	0.00	0.00	0.00
220+00.00	22000.00	22	93.05	14.74	37.38	5.92	37.38	6.81	30.57
220+50.00	22050.00	50	77.45	55.94	157.87	65.44	195.25	82.07	113.18
221+00.00	22100.00	50	81.69	65.22	147.35	112.19	342.60	211.08	130.51
221+50.00	22150.00	50	65.66	47.94	136.44	104.78	479.03	331.58	144.46
222+00.00	22200.00	50	151.38	27.72	200.96	70.06	680.00	412.14	261.85
222+50.00	22250.00	50	125.92	37.25	256.76	60.16	936.75	481.32	445.43
223+00.00	22300.00	50	223.07	12.15	323.14	45.74	1259.89	533.92	710.97
223+50.00	22350.00	50	193.38	13.46	385.60	23.71	1645.50	561.19	1063.30
224+00.00	22400.00	50	214.28	25.20	377.46	35.80	2022.96	602.36	1392.60
224+50.00	22450.00	50	158.95	25.02	345.58	46.50	2368.54	655.83	1676.71
225+00.00	22500.00	50	128.15	17.80	265.83	39.65	2634.38	701.43	1887.95
225+50.00	22550.00	50	198.27	5.86	302.24	21.91	2936.62	726.62	2154.99
226+00.00	22600.00	50	111.60	15.39	286.92	19.68	3223.53	749.25	2408.28
226+50.00	22650.00	50	87.70	37.96	184.54	49.40	3408.07	806.06	2524.01
227+00.00	22700.00	50	85.58	72.72	160.44	102.48	3568.51	923.91	2553.60
227+50.00	22750.00	50	196.56	77.62	261.24	139.20	3829.75	1084.00	2640.76
228+00.00	22800.00	50	161.33	46.41	331.38	114.84	4161.13	1216.07	2825.07
228+50.00	22850.00	50	234.10	17.05	366.14	58.76	4527.27	1283.64	3107.63
229+00.00	22900.00	50	299.09	3.52	493.69	19.05	5020.97	1305.54	3562.43
229+50.00	22950.00	50	811.26	0.00	1028.10	3.26	6049.07	1309.29	4568.78
231+50.00	23150.00		671.01	0.00	0.00	0.00	6049.07	1309.29	4549.78
232+00.00	23200.00	50	606.85	0.00	1183.20	0.00	7232.27	1309.29	5712.98
232+50.00	23250.00	50	1161.16	0.00	1637.05	0.00	8869.32	1309.29	7329.03
233+00.00	23300.00	50	882.01	0.60	1891.82	0.56	10761.14	1309.93	9198.21
233+50.00	23350.00	50	699.86	0.01	1464.69	0.56	12225.84	1310.58	10639.26
234+00.00	23400.00	50	551.44	0.00	1158.61	0.01	13384.45	1310.59	11773.86
234+50.00	23450.00	50	342.69	1.45	827.90	1.34	14212.35	1312.13	12575.21
235+00.00	23500.00	50	143.33	76.27	450.02	71.96	14662.37	1394.89	12916.48
235+50.00	23550.00	50	23.58	289.26	154.55	338.45	14816.91	1784.11	12654.80
236+00.00	23600.00	50	0.00	583.80	21.83	808.39	14838.75	2713.76	11718.99
236+50.00	23650.00	50	0.00	937.20	0.00	1408.33	14838.75	4333.34	10070.40
237+00.00	23700.00	50	0.00	1410.39	0.00	2173.69	14838.75	6833.09	7540.65
237+50.00	23750.00	50	0.00	1766.38	0.00	2941.45	14838.75	10215.76	4126.98
238+00.00	23800.00	50	0.00	2283.11	0.00	3749.53	14838.75	14527.72	-216.97
238+50.00	23850.00	50	0.00	2599.57	0.00	4521.00	14838.75	19726.87	-5449.12
239+00.00	23900.00	50	0.00	2964.24	0.00	5151.68	14838.75	25651.30	-11407.55
239+50.00	23950.00	50	0.00	3226.83	0.00	5732.47	14838.75	32243.64	-18034.90
240+00.00	24000.00	50	0.00	3458.82	0.00	6190.42	14838.75	39362.62	-25189.87
240+50.00	24050.00	50	0.08	3618.96	0.07	6553.50	14838.82	46899.14	-32763.33
241+00.00	24100.00	50	0.00	3842.51	0.07	6908.77	14838.89	54844.23	-40746.33
241+50.00	24150.00	50	0.00	0.00	0.00	3557.88	14838.89	58935.79	-44876.90
				Column totals	14838.89	51248.51			

DIVISION 1C **CENTENNIAL CENTRE BOULEVARD BYPASS**

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
231+00.20	23100.20		1109.18	0.00	0.00	0.00	0.00	0.00	0.00
231+50.00	23150.00	50	996.36	0.00	918.87	0.00	918.87	0.00	1942.78
232+00.00	23200.00	50	857.21	0.00	1820.73	0.00	2739.60	0.00	3659.04
232+40.00	23240.00	40	644.27	0.00	1112.21	0.00	3851.80	0.00	4771.25
				Column totals	3851.80	0.00			

DIVISION 1C CENTENNIAL CENTRE BOULEVARD

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
60+35.10	6035.10		75.54	6.33	0.00	0.00	0.00	0.00	0.00
60+50.00	6050.00	15	92.50	6.12	46.37	3.44	46.37	3.95	42.42
61+00.00	6100.00	50	92.57	3.91	85.71	9.29	132.08	14.63	203.10
61+50.00	6150.00	50	82.13	8.55	145.99	11.54	278.07	27.90	351.59
62+00.00	6200.00	50	87.38	15.13	156.95	21.93	435.02	53.11	483.33
62+50.00	6250.00	50	101.98	26.77	175.33	38.80	610.36	97.73	614.05
63+00.00	6300.00	50	128.03	31.96	212.97	54.38	823.33	160.27	764.48
63+50.00	6350.00	50	129.78	19.86	238.71	47.98	1062.04	215.44	948.02
				Column totals	1062.04	187.34			

DIVISION 1C NAVAJO TRAIL

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
80+50.00	8050.00		113.67	41.16	0.00	0.00	0.00	0.00	-15.00
81+00.00	8100.00	50	70.35	40.67	170.39	75.77	170.39	87.13	53.26
81+50.00	8150.00	50	65.30	37.72	125.60	72.58	295.99	170.60	80.39
82+00.00	8200.00	50	88.59	36.09	142.49	68.34	438.48	249.20	129.28
82+50.00	8250.00	50	83.50	31.80	159.34	62.86	597.82	321.49	201.34
82+51.62	8251.62	2	71.38	35.78	4.65	2.03	602.47	323.82	188.65
				Column totals	602.47	281.58			

DIVISION 1C CENTENNIAL CENTRE BOULEVARD SIDEWALK

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
0+86.51	86.51		0.00	19.70	0.00	0.00	0.00	0.00	-15.00
1+00.00	100.00	13	1.01	23.60	0.25	11.79	0.25	13.56	-28.31
1+50.00	150.00	50	18.56	39.17	17.19	72.54	17.19	83.42	-102.34
2+00.00	200.00	50	40.36	177.55	54.56	328.80	71.74	461.53	-442.90
2+50.00	250.00	50	25.15	437.76	60.66	810.67	132.40	1393.80	-1332.51
3+00.00	300.00	50	5.47	592.49	28.35	1097.20	160.75	2655.58	-2584.94
3+50.00	350.00	50	0.00	593.84	5.06	1099.70	165.81	3920.24	-3864.53
3+60.77	360.77	11	0.00	2.45	0.00	0.98	165.81	3921.37	-3886.66
				Column totals	166.07	3421.68			

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DIVISION 1C RAB CBB

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
0+00.00	0.00		260.09	12.62	0.00	0.00	0.00	0.00	0.00
0+50.00	50.00	50	404.65	11.14	615.50	22.00	615.50	25.30	590.20
1+00.00	100.00	50	433.89	10.56	776.43	20.09	1391.93	48.41	1343.52
1+50.00	150.00	50	743.73	12.02	1090.39	20.91	2482.31	72.45	2409.86
2+00.00	200.00	50	924.82	14.45	1544.95	24.51	4027.27	100.64	3926.63
2+50.00	250.00	50	1075.41	15.35	1852.06	27.59	5879.33	132.37	5746.97
3+00.00	300.00	50	289.28	15.06	1263.60	28.16	7142.94	164.75	6978.19
3+50.00	350.00	50	295.83	13.73	541.77	26.66	7684.70	195.40	7489.30
4+00.00	400.00	50	270.59	13.55	524.46	25.26	8209.17	224.45	7984.71
4+50.00	450.00	50	289.29	12.78	518.41	24.38	8727.57	252.49	8475.09
4+58.00	458.00	8	259.51	12.64	81.30	3.77	8808.88	256.82	8552.06
				Column totals	8808.88	223.32			

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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	EARTHWORK	SHEET 521	E

DIVISION 2 **WOODLAND ROAD**

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
87+94.69	8794.69		47.46	3.65	0.00	0.00	0.00	0.00	0.00
88+00.00	8800.00	5	57.25	3.74	10.30	0.73	10.30	0.84	9.46
88+50.00	8850.00	50	63.21	9.30	111.54	12.07	121.83	14.72	107.11
89+00.00	8900.00	50	68.97	8.58	122.39	16.56	244.22	33.76	210.46
89+50.00	8950.00	50	31.70	22.24	93.21	28.54	337.44	66.58	270.86
90+50.00	9050.00								
91+00.00	9100.00	50	54.14	13.06	100.26	100.26	100.26	115.30	255.82
91+47.85	9147.85	48	58.29	11.20	99.63	99.63	199.88	229.87	240.88
95+29.95	9529.95		40.03	8.27					
95+50.00	9550.00	20	57.86	12.39	36.35	36.35	36.35	41.80	235.42
96+00.00	9600.00	50	197.00	10.47	235.98	235.98	272.33	313.18	200.03
96+50.00	9650.00	50	86.59	18.74	262.58	262.58	534.91	615.15	159.64
96+76.97	9676.97	27	206.54	1.70	146.40	146.40	681.31	#DIV/0!	#DIV/0!
				Column totals	1218.63	939.09			

DIVISION 2 **SHERWOOD STREET**

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
267+00.00	26700.00		127.78	40.60	0.00	0.00	0.00	0.00	0.00
267+50.00	26750.00	50	39.54	93.16	154.93	123.85	154.93	142.43	12.50
268+00.00	26800.00	50	45.58	99.24	78.81	178.15	233.74	347.30	-113.56
268+50.00	26850.00	50	66.05	63.17	103.36	150.38	337.10	520.24	-183.13
269+00.00	26900.00	50	103.43	34.89	156.93	90.80	494.03	624.65	-130.62
269+50.00	26950.00	50	117.28	29.83	204.36	59.93	698.39	693.57	4.82
270+00.00	27000.00	50	115.19	27.36	215.25	52.95	913.64	754.46	159.18
270+50.00	27050.00	50	95.38	42.69	194.97	64.86	1108.61	829.05	279.56
271+00.00	27100.00	50	89.36	34.70	171.06	71.66	1279.67	911.46	368.21
271+50.00	27150.00	50	153.35	12.11	224.73	43.34	1504.40	961.30	543.09
272+00.00	27200.00	50	269.77	7.60	391.78	18.25	1896.18	982.29	913.88
				Column totals	1896.18	854.17			

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PROJECT NO: 9200-04-71 | HWY: STH 29 | COUNTY: BROWN | EARTHWORK | SHEET 522 | E

DIVISION 2 **COUNTY C**

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
393+45.00	39345.00		93.05	0.00	0.00	0.00	0.00	0.00	0.00
393+50.00	39350.00	5	96.18	0.00	17.52	0.00	17.52	0.00	17.52
394+00.00	39400.00	50	81.27	51.38	164.31	47.57	181.83	54.71	127.12
394+50.00	39450.00	50	66.54	63.40	136.86	106.28	318.69	176.93	141.76
395+00.00	39500.00	50	64.04	92.36	118.59	171.04	437.28	373.62	65.97
395+50.00	39550.00	50	61.72	148.47	116.44	222.99	553.73	630.06	-74.02
396+00.00	39600.00	50	49.95	182.25	103.40	306.22	657.12	982.22	-322.78
396+50.00	39650.00	50	78.06	75.56	144.56	139.93	801.68	1143.13	-365.17
397+00.00	39700.00	50	126.46	75.73	189.37	140.08	991.05	1304.23	-336.89
397+50.00	39750.00	50	191.51	6.55	294.42	76.19	1285.47	1391.84	-130.09
398+00.00	39800.00	50	139.48	5.49	258.30	10.17	1543.76	1403.53	164.69
398+50.00	39850.00	50	199.63	19.25	308.49	35.65	1852.25	1444.53	437.69
399+00.00	39900.00	50	133.54	16.80	226.79	33.38	2079.04	1482.85	707.85
401+00.00	40100.00		111.39	10.67	0.00	0.00	0.00	0.00	0.00
401+50.00	40150.00	50	90.41	18.65	167.06	27.15	167.06	31.22	155.63
402+00.00	40200.00	50	90.02	41.26	168.47	55.47	335.54	95.01	258.90
402+50.00	40250.00	50	91.93	51.40	162.09	85.80	497.63	193.68	328.71
403+00.00	40300.00	50	83.13	70.44	142.17	112.81	639.80	323.42	361.07
403+50.00	40350.00	50	70.41	90.44	126.34	148.96	766.14	494.72	331.92
404+00.00	40400.00	50	66.04	88.57	129.05	165.75	895.19	685.34	267.65
404+50.00	40450.00	50	73.33	75.57	145.63	151.98	1040.81	860.11	221.92
405+00.00	40500.00	50	83.95	59.45	164.61	125.02	1205.43	1003.89	223.78
405+50.00	40550.00	50	93.83	52.97	175.47	104.09	1380.90	1123.59	268.69
406+00.00	40600.00	50	95.68	47.84	213.14	93.34	1594.04	1230.94	336.81
406+50.00	40650.00	50	134.51	29.48	242.10	71.59	1836.14	1313.27	467.62
407+00.00	40700.00	50	126.96	32.43	341.53	57.32	2177.67	1379.19	643.80
407+50.00	40750.00	50	241.89	0.15	246.92	30.17	2424.58	1413.88	950.64
408+00.00	40800.00	50	24.78	0.00	45.89	0.14	2470.47	1414.04	1197.39
				Column totals	4549.51	2519.09			

DIVISION 1B **RAB C**

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
0+00.00	0.00		62.52	113.70	0.00	0.00	0.00	0.00	0.00
0+50.00	50.00	50	76.42	105.33	128.65	202.81	128.65	233.23	-104.58
1+00.00	100.00	50	92.59	92.66	156.49	183.32	285.14	444.05	-158.91
1+50.00	150.00	50	124.82	116.27	201.31	193.45	486.44	666.52	-180.08
2+00.00	200.00	50	85.13	110.79	194.40	210.24	680.84	908.30	-227.46
2+50.00	250.00	50	89.22	110.87	161.44	205.24	842.28	1144.32	-302.05
3+00.00	300.00	50	119.21	108.57	192.99	203.19	1035.27	1377.99	-342.72
3+50.00	350.00	50	95.03	86.16	198.37	180.31	1233.64	1585.34	-351.70
4+00.00	400.00	50	83.59	99.00	165.39	171.44	1399.03	1782.50	-383.47
4+50.00	450.00	50	62.69	112.94	135.44	196.24	1534.47	2008.18	-473.70
4+58.00	458.00	8	62.53	113.63	18.55	33.57	1553.02	2046.78	-493.75
				Column totals	1553.02	1779.81			

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DIVISION 3 **STH 29 EB**

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
626+50.00	62650.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
627+00.00	62700.00	50	18.22	0.00	16.87	0.00	16.87	0.00	16.87
628+00.00	62800.00	100	19.41	0.00	69.69	0.00	86.56	0.00	86.56
629+00.00	62900.00	100	24.91	0.00	82.07	0.00	168.63	0.00	168.63
630+00.00	63000.00	100	28.80	0.00	99.46	0.00	268.09	0.00	268.09
631+00.00	63100.00	100	54.93	0.20	155.06	0.37	423.15	0.43	422.72
632+00.00	63200.00	100	120.61	0.00	325.07	0.37	748.22	0.85	747.37
633+00.00	63300.00	100	78.04	0.00	367.87	0.00	1116.09	0.85	1115.24
634+00.00	63400.00	100	19.99	0.00	181.54	0.00	1297.63	0.85	1296.78
635+00.00	63500.00	100	18.50	0.00	71.28	0.00	1368.91	0.85	1368.06
636+00.00	63600.00	100	17.06	0.00	65.85	0.00	1434.76	0.85	1433.91
653+00.00	65300.00		23.01	0.00	0.00	0.00	0.00	0.00	0.00
654+00.00	65400.00	100	27.52	0.00	141.37	0.00	141.37	0.00	141.37
655+00.00	65500.00	100	48.82	26.97	267.00	49.94	408.37	57.44	350.93
656+00.00	65600.00	100	95.36	20.22	364.85	87.39	773.22	157.93	615.29
657+00.00	65700.00	100	101.66	19.41	415.74	73.39	1188.96	242.33	946.63
658+00.00	65800.00	100	122.84	18.01	479.72	69.30	1668.69	322.02	1346.66
659+00.00	65900.00	100	136.21	20.83	490.26	71.93	2158.94	404.74	1754.21
660+00.00	66000.00	100	128.53	21.40	494.43	78.20	2653.37	494.67	2158.70
661+00.00	66100.00	100	138.46	15.72	524.46	68.74	3177.83	573.72	2604.11
662+00.00	66200.00	100	144.75	5.81	556.24	39.87	3734.07	619.57	3114.50
663+00.00	66300.00	100	155.62	0.00	634.98	10.76	4369.06	631.95	3737.11
664+00.00	66400.00	100	187.27	0.00	693.59	0.00	5062.65	631.95	4430.70
665+00.00	66500.00	100	197.96	281.85	733.19	521.94	5795.83	1232.18	4563.65
666+00.00	66600.00	100	187.46	193.19	713.74	879.70	6509.57	2243.84	4265.73
667+00.00	66700.00	100	89.97	0.00	513.76	357.76	7023.33	2655.26	4368.07
668+00.00	66800.00	100	65.29	0.00	287.52	0.00	7310.85	2655.26	4655.59
669+00.00	66900.00	100	62.56	3.75	236.76	6.94	7547.61	2663.25	4884.36
670+00.00	67000.00	100	57.23	21.69	221.83	47.11	7769.44	2717.43	5052.02
671+00.00	67100.00	100	58.15	32.08	213.67	99.57	7983.11	2831.94	5151.17
672+00.00	67200.00	100	50.68	10.96	201.54	79.70	8184.65	2923.60	5261.05
673+00.00	67300.00	100	47.67	8.72	182.13	36.44	8366.78	2965.51	5401.27
674+00.00	67400.00	100	37.51	91.99	157.74	186.50	8524.52	3179.98	5559.01
675+00.00	67500.00	100	47.83	262.66	158.04	656.76	8682.56	3935.26	5717.05
				Column totals	10117.31	3422.70			

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PROJECT NO: 9200-04-71 | HWY: STH 29 | COUNTY: BROWN | EARTHWORK | SHEET 524 | E

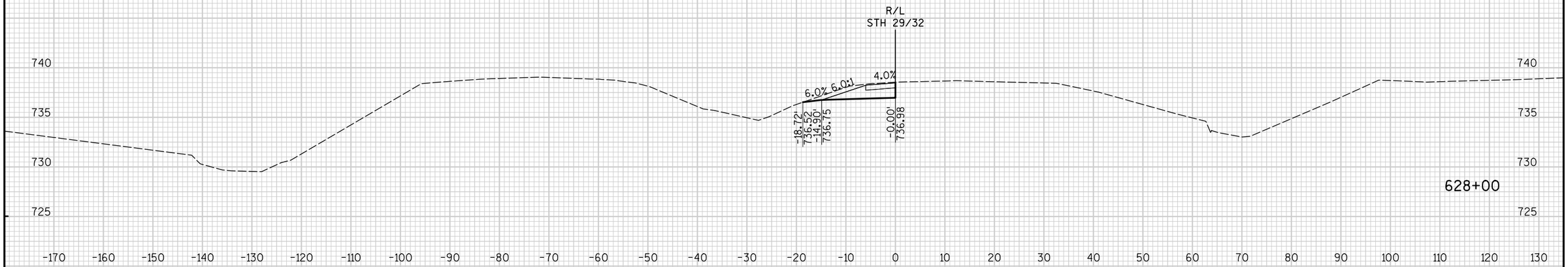
FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090116_ew.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 200.0000 sf / in.

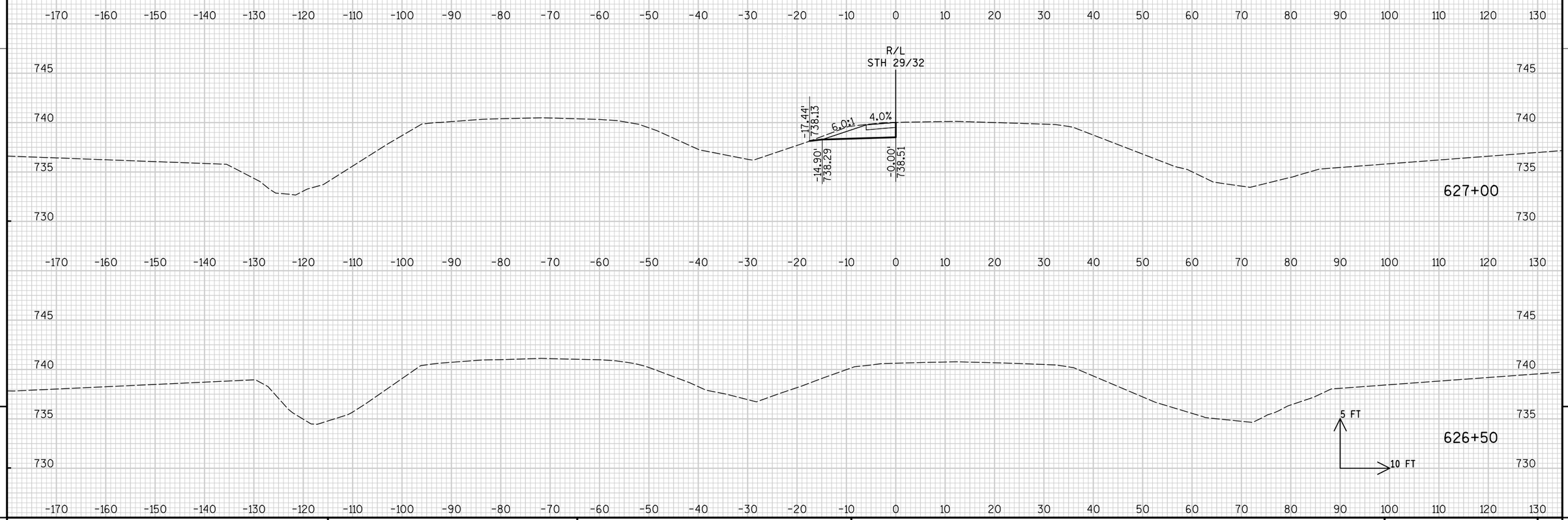
WISDOT/CADDS SHEET 49

DIVISION 3 **WOODLAND ROAD / GREENFIELD AVENUE**

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.15	Mass Ordinate
50+00.00	5000.00		0.00	0.00	0.00	0.00	0.00	0.00	
50+50.00	5050.00	50	91.50	0.42	84.72	0.39	84.72	0.45	84.28
51+00.00	5100.00	50	95.83	0.00	177.46	0.00	262.19	0.45	257.73
51+50.00	5150.00	50	129.47	0.00	208.61	0.00	470.80	0.45	466.34
52+00.00	5200.00	50	161.94	0.00	269.82	0.00	740.62	0.45	736.16
52+50.00	5250.00	50	145.39	0.00	284.56	0.00	1025.19	0.45	1020.73
53+00.00	5300.00	50	111.45	0.00	206.39	0.00	1231.57	0.45	1258.54
53+50.00	5350.00	50	143.59	0.00	236.15	0.00	1467.72	0.45	1494.69
54+00.00	5400.00	50	188.22	0.00	307.23	0.00	1774.95	0.45	1801.92
54+50.00	5450.00	50	231.09	0.00	427.94	0.00	2202.90	0.45	2190.17
55+00.00	5500.00	50	232.83	0.00	429.56	0.00	2632.45	0.45	2619.73
55+50.00	5550.00	50	217.21	0.00	416.70	0.00	3049.16	0.45	3036.43
56+00.00	5600.00	50	235.46	0.00	419.14	0.00	3468.30	0.45	3455.57
56+50.00	5650.00	50	289.54	0.00	486.11	0.00	3954.41	0.45	3941.68
57+00.00	5700.00	50	284.04	0.00	531.09	0.00	4485.50	0.45	4472.78
57+50.00	5750.00	50	254.51	0.00	498.66	0.00	4984.16	0.45	4971.43
58+00.00	5800.00	50	239.85	0.00	457.74	0.00	5441.90	0.45	5429.17
58+50.00	5850.00	50	191.61	0.00	399.50	0.00	5841.40	0.45	5828.67
59+00.00	5900.00	50	140.23	0.00	307.26	0.00	6148.66	0.45	6135.93
59+50.00	5950.00	50	102.93	0.42	190.61	0.78	6339.27	1.34	6360.19
60+00.00	6000.00	50	83.84	1.57	172.94	1.84	6512.20	3.46	6531.00
60+50.00	6050.00	50	84.38	0.45	155.76	1.87	6667.96	5.61	6684.61
61+00.00	6100.00	50	92.79	0.13	164.05	0.54	6832.01	6.23	6848.04
61+50.00	6150.00	50	95.85	0.73	174.67	0.80	7006.68	7.14	7021.79
62+00.00	6200.00	50	77.71	2.45	160.70	2.94	7167.38	10.53	7179.11
62+50.00	6250.00	50	0.00	0.00	71.95	2.27	7239.33	13.14	7248.45
					7239.33	11.43			

STH 29 / 32





9

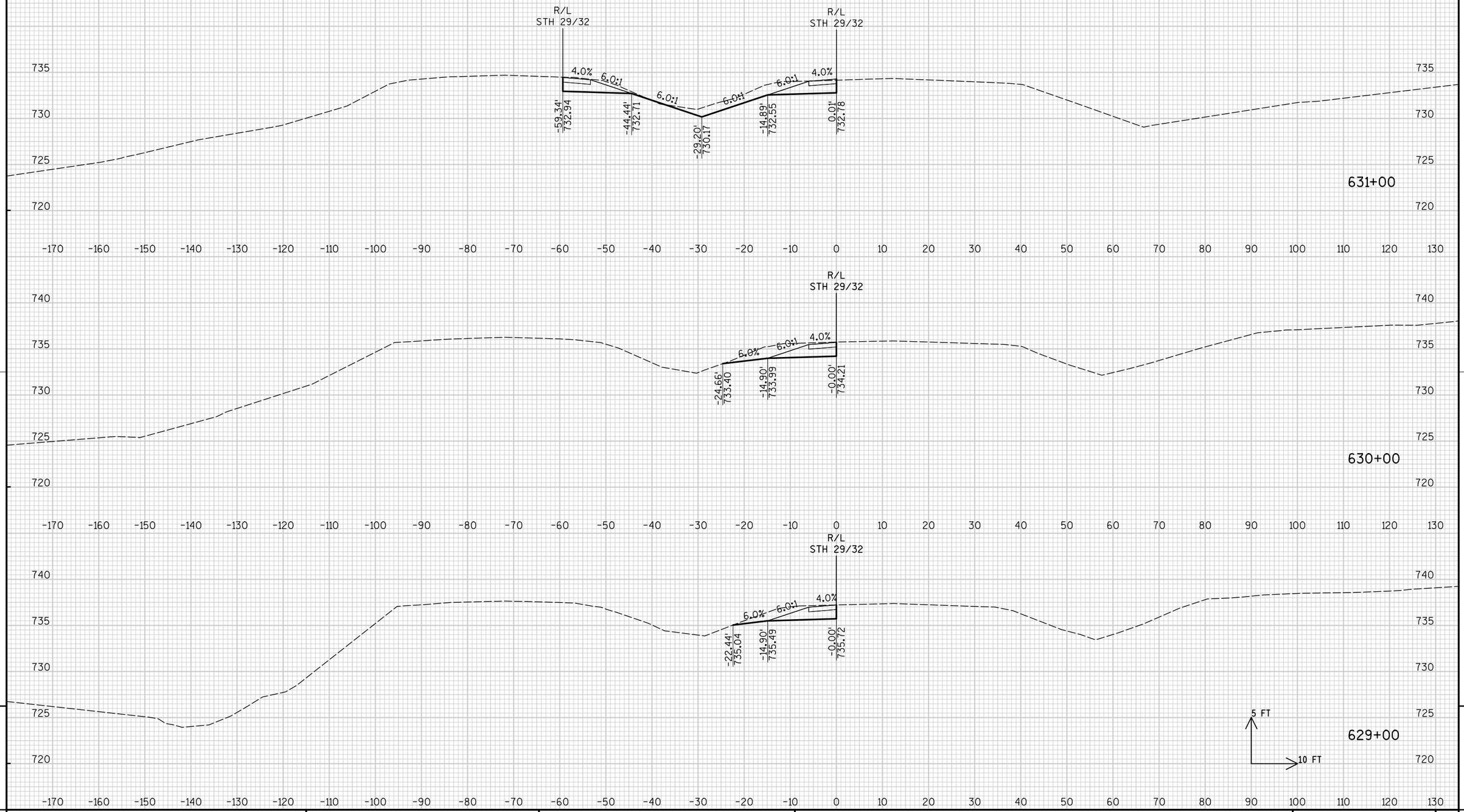
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 626+50 TO STA 628+00	SHEET	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090201_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

STH 29 / 32



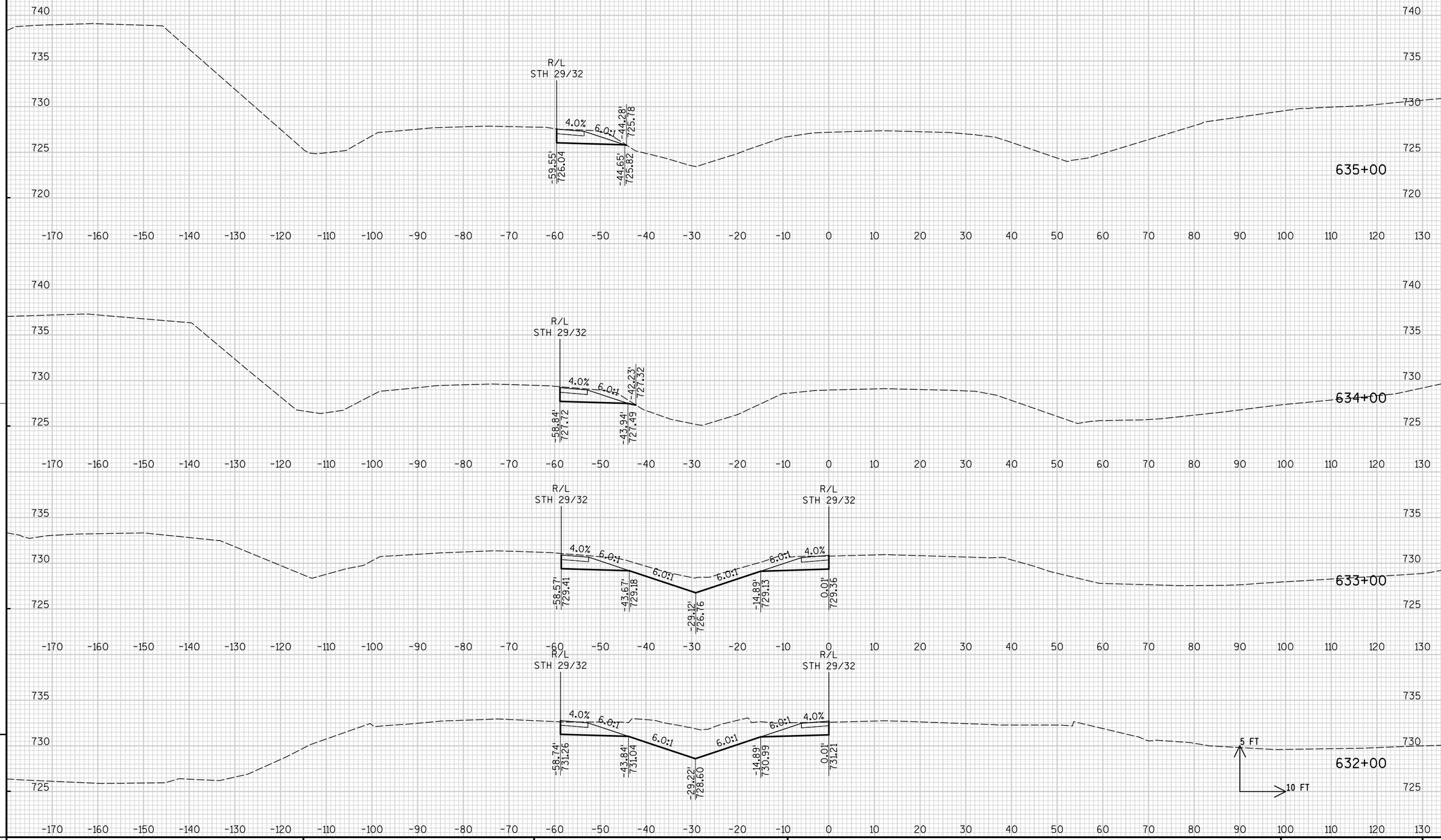
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 629+00 TO STA 631+00	SHEET 527	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090202_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

STH 29 / 32

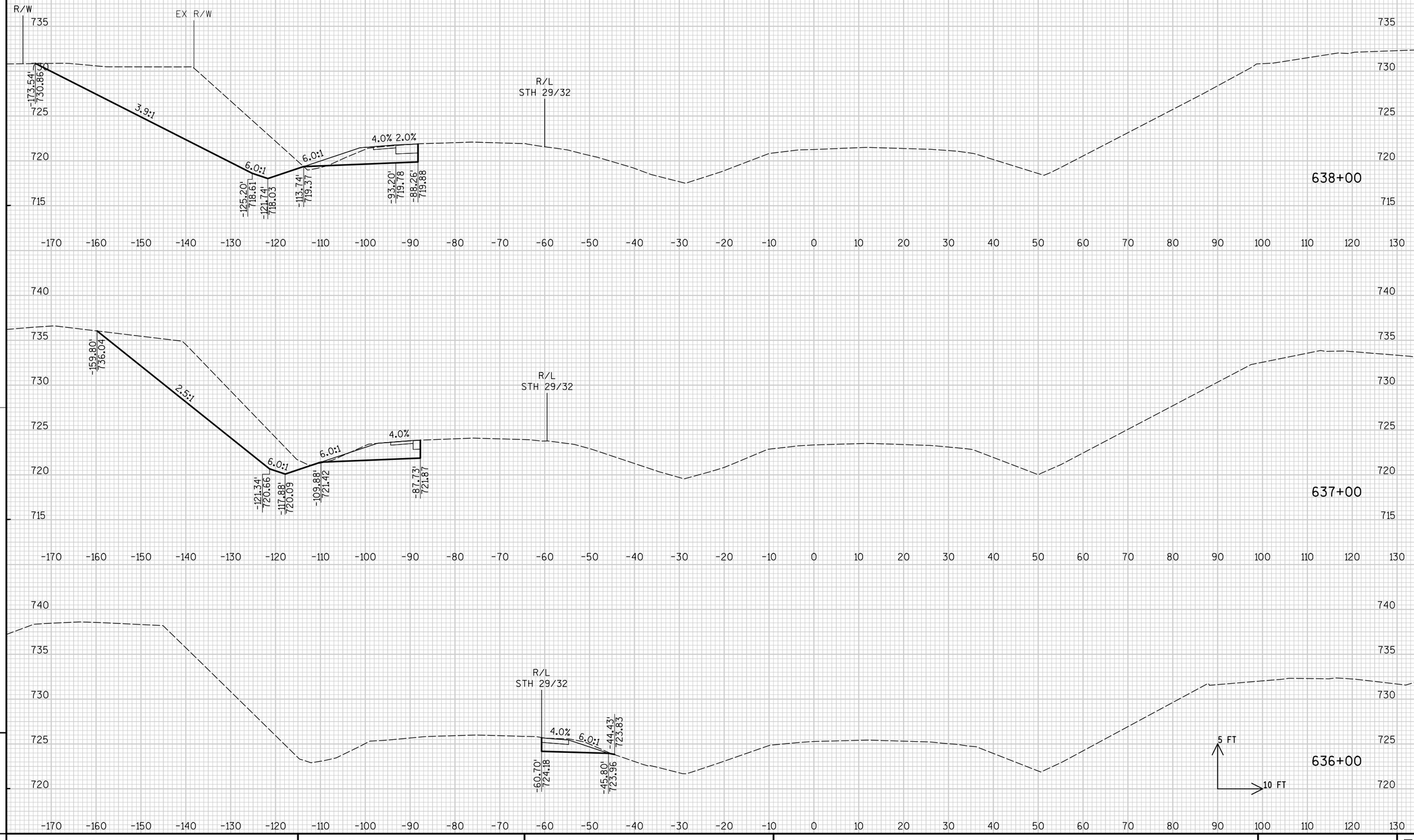


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 632+00 TO STA 635+00	SHEET 528	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090203_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

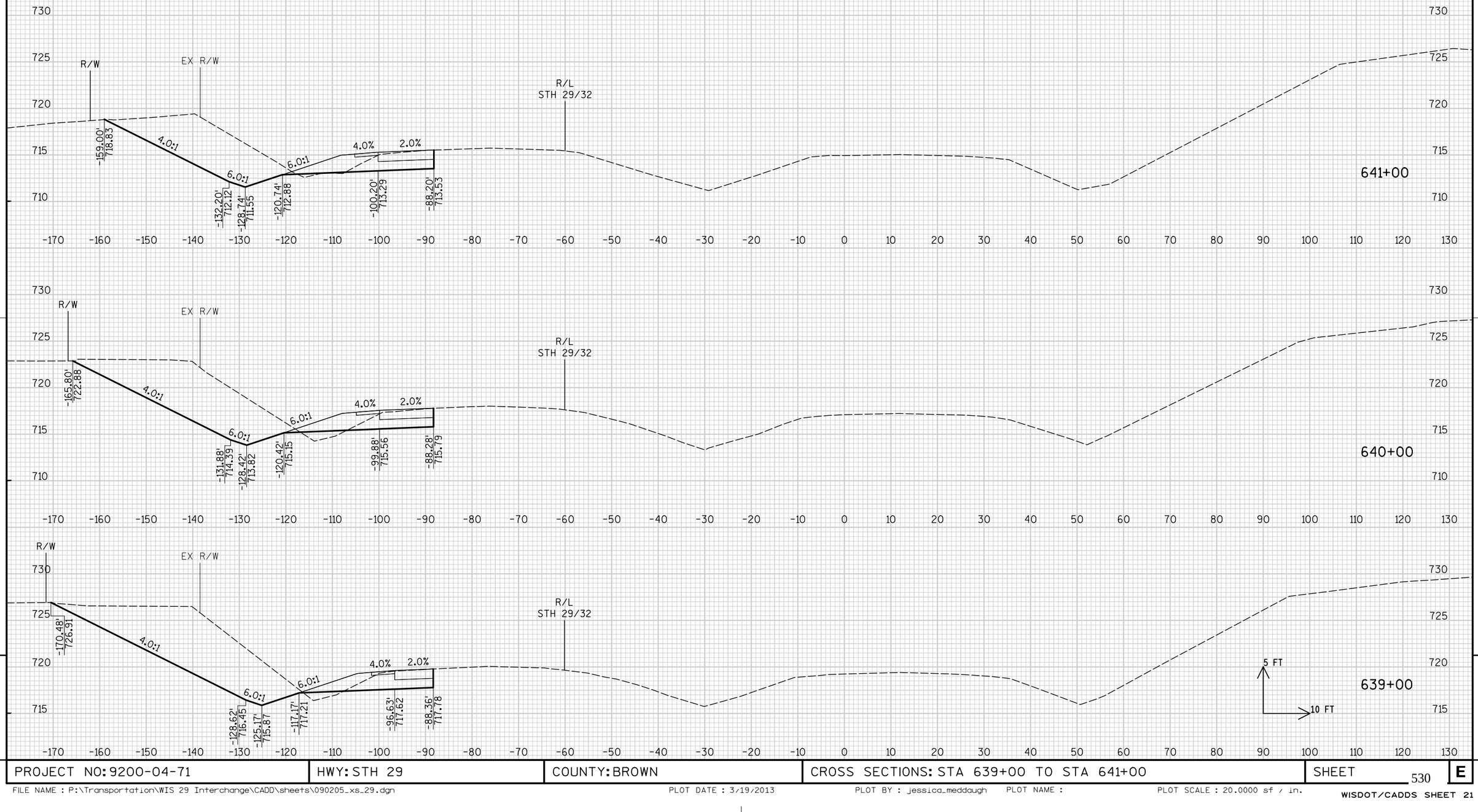
STH 29 / 32



9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 636+00 TO STA 638+00	SHEET 529	E

STH 29 / 32

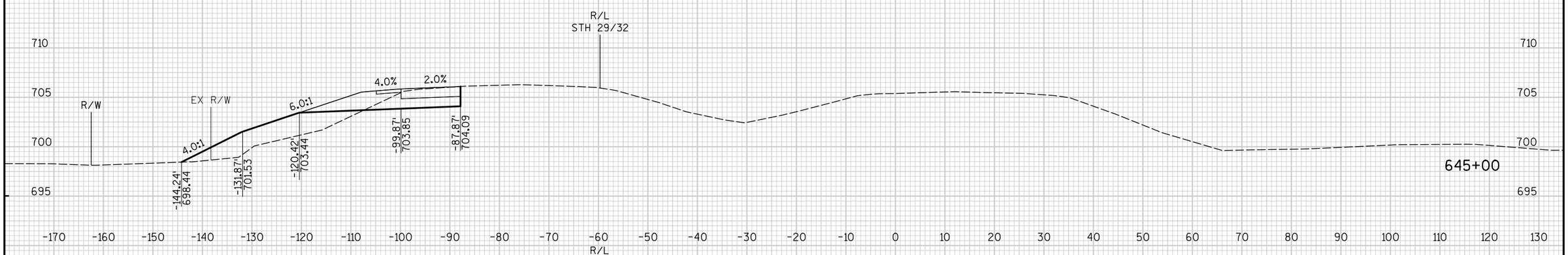


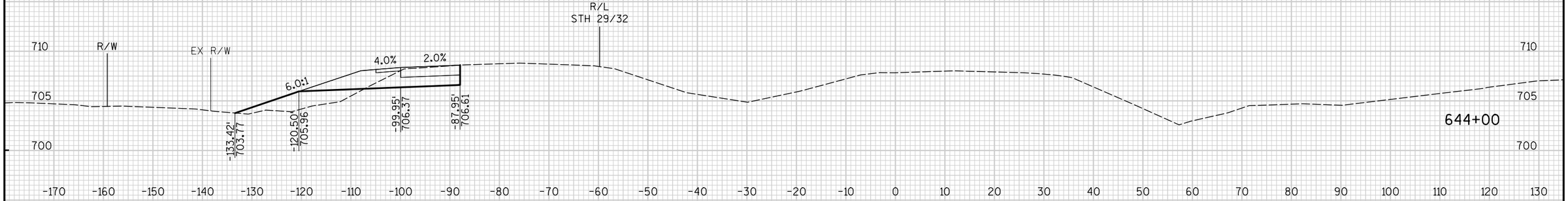
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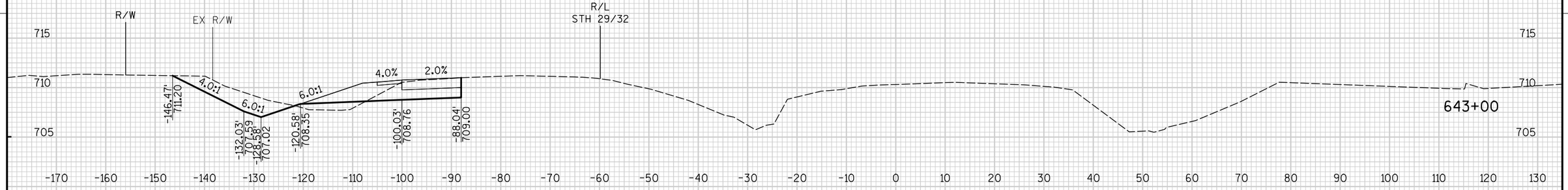
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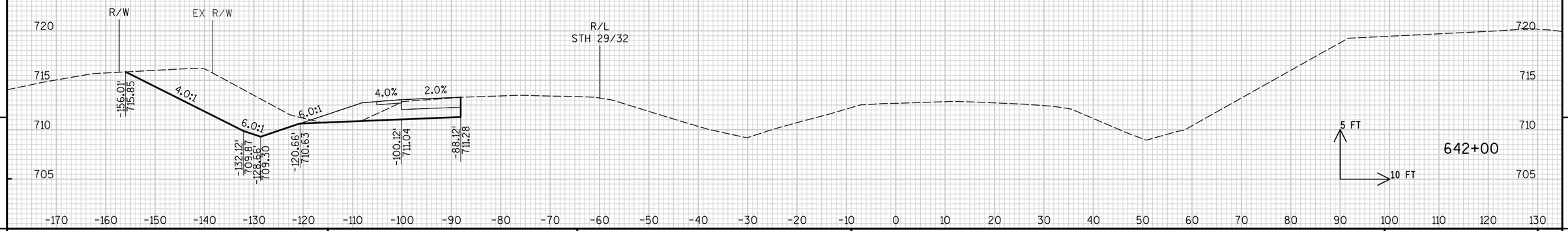
WISDOT/CADDS SHEET 21

STH 29 / 32









-170 -160 -150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

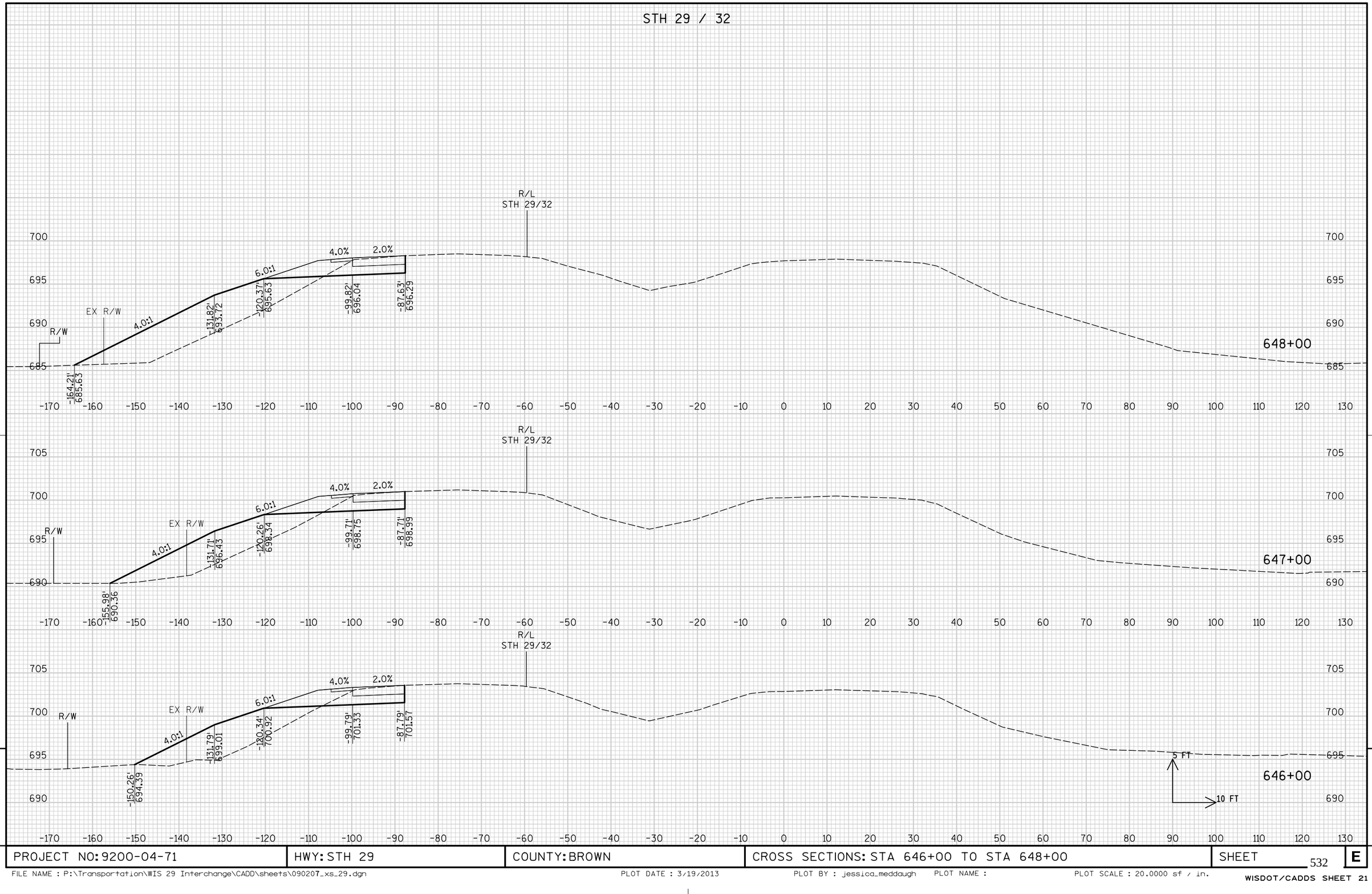
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 642+00 TO STA 645+00	SHEET 531	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090206_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

STH 29 / 32



9

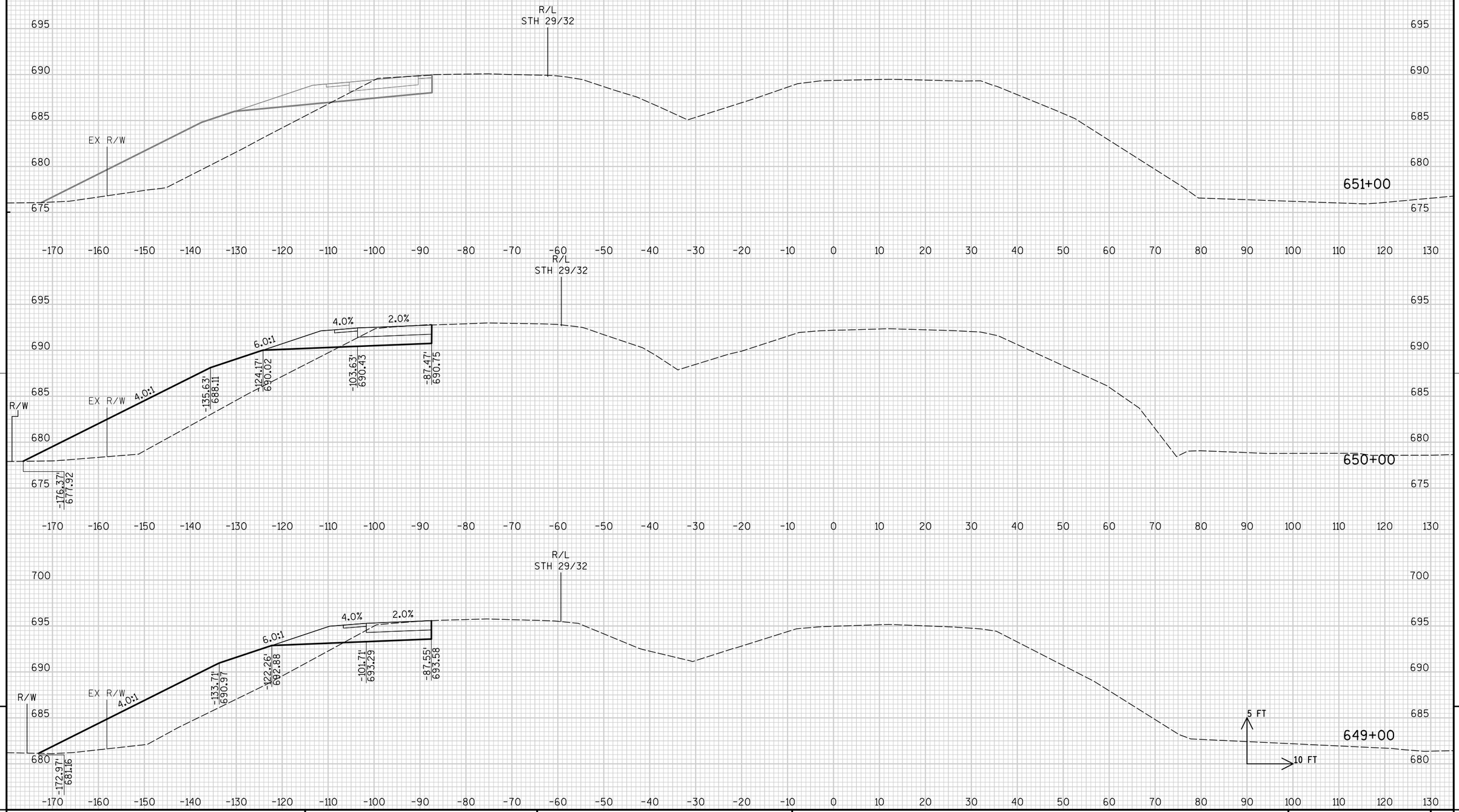
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 646+00 TO STA 648+00	SHEET 532	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090207_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

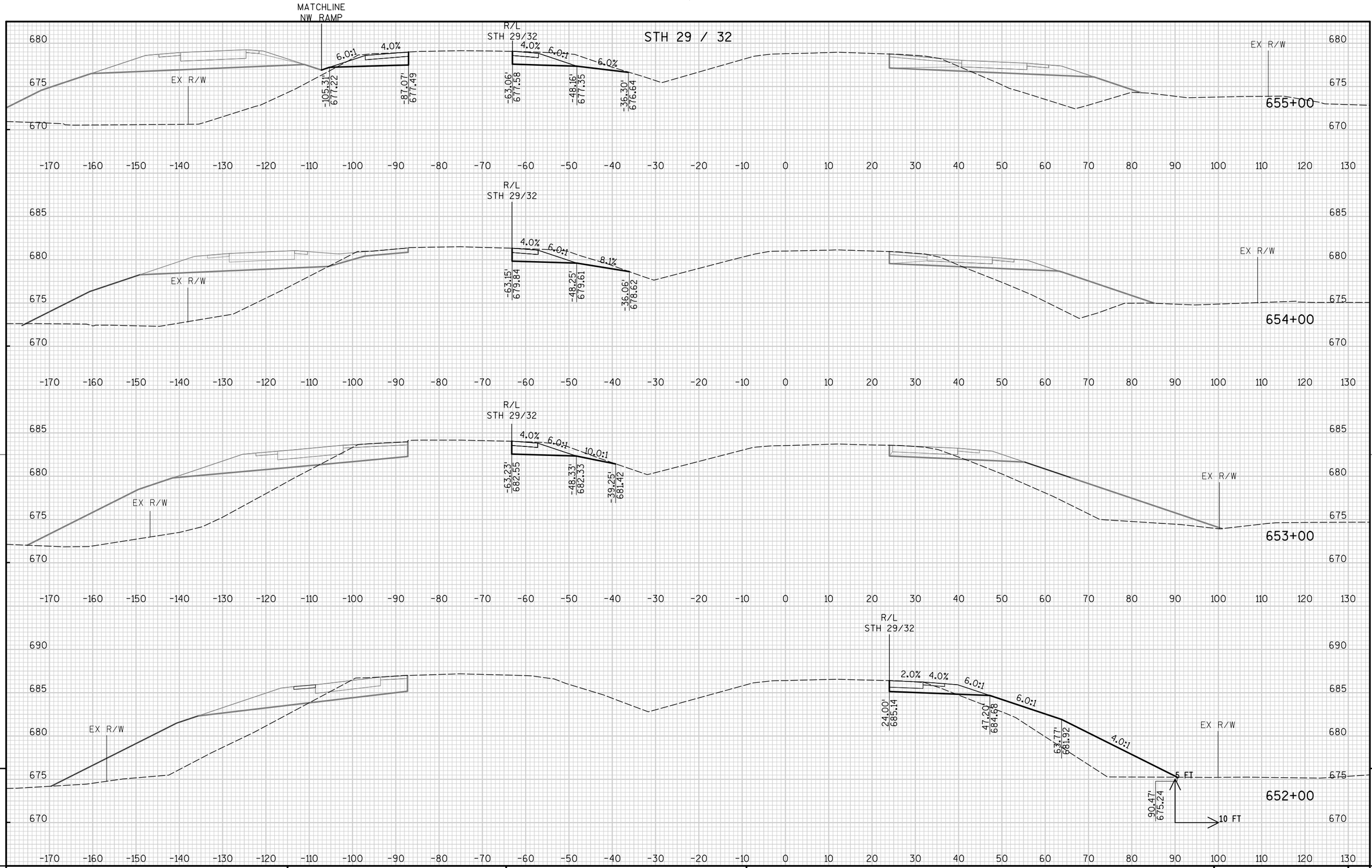
STH 29 / 32



9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 649+00 TO STA 651+00	SHEET 533	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090208_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.



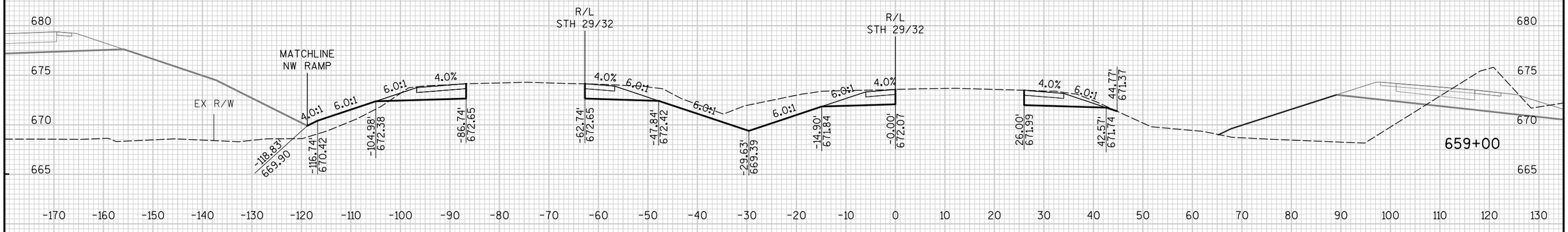
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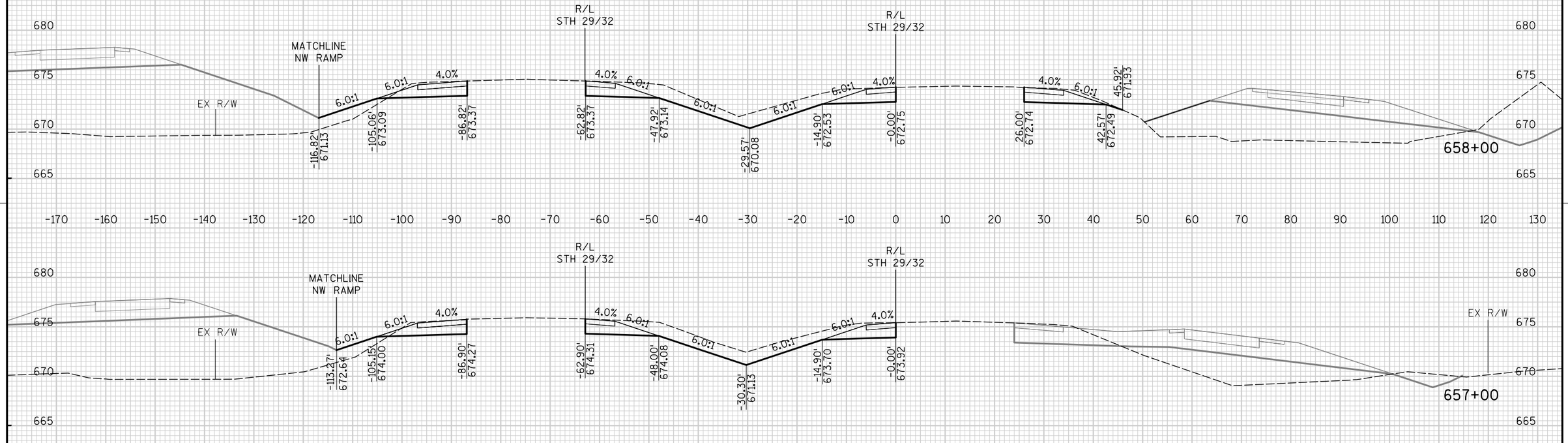
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 652+00 TO STA 655+00	SHEET 534	E

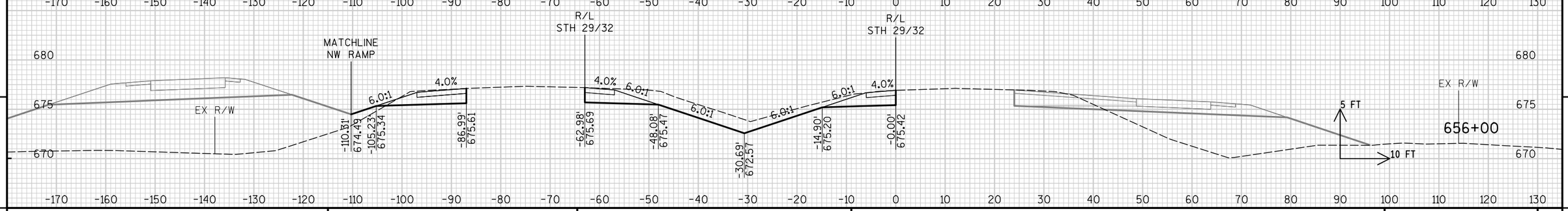
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WISDOT/CADDS SHEET 21

STH 29 / 32







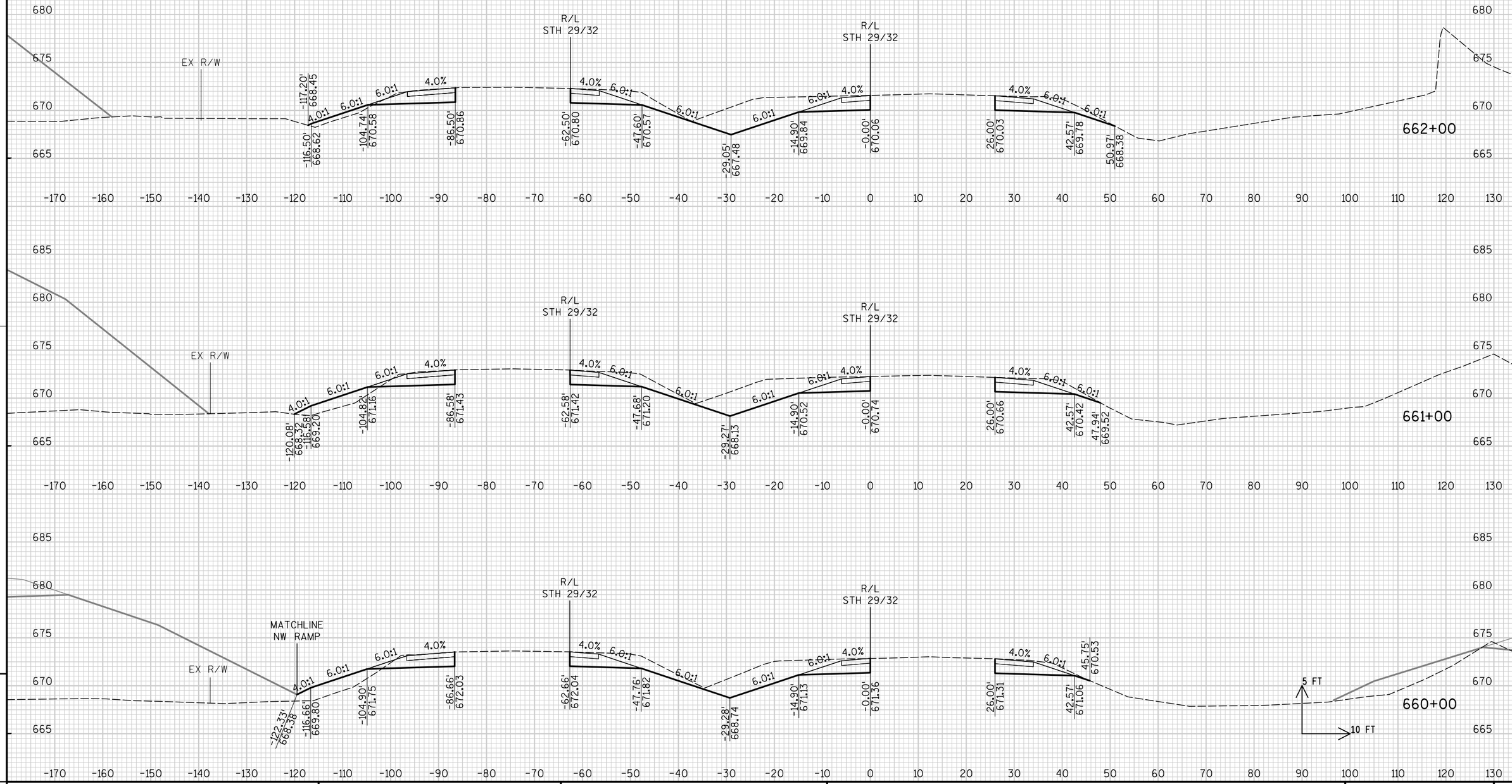
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 656+00 TO STA 659+00	SHEET 535	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090210_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

STH 29 / 32



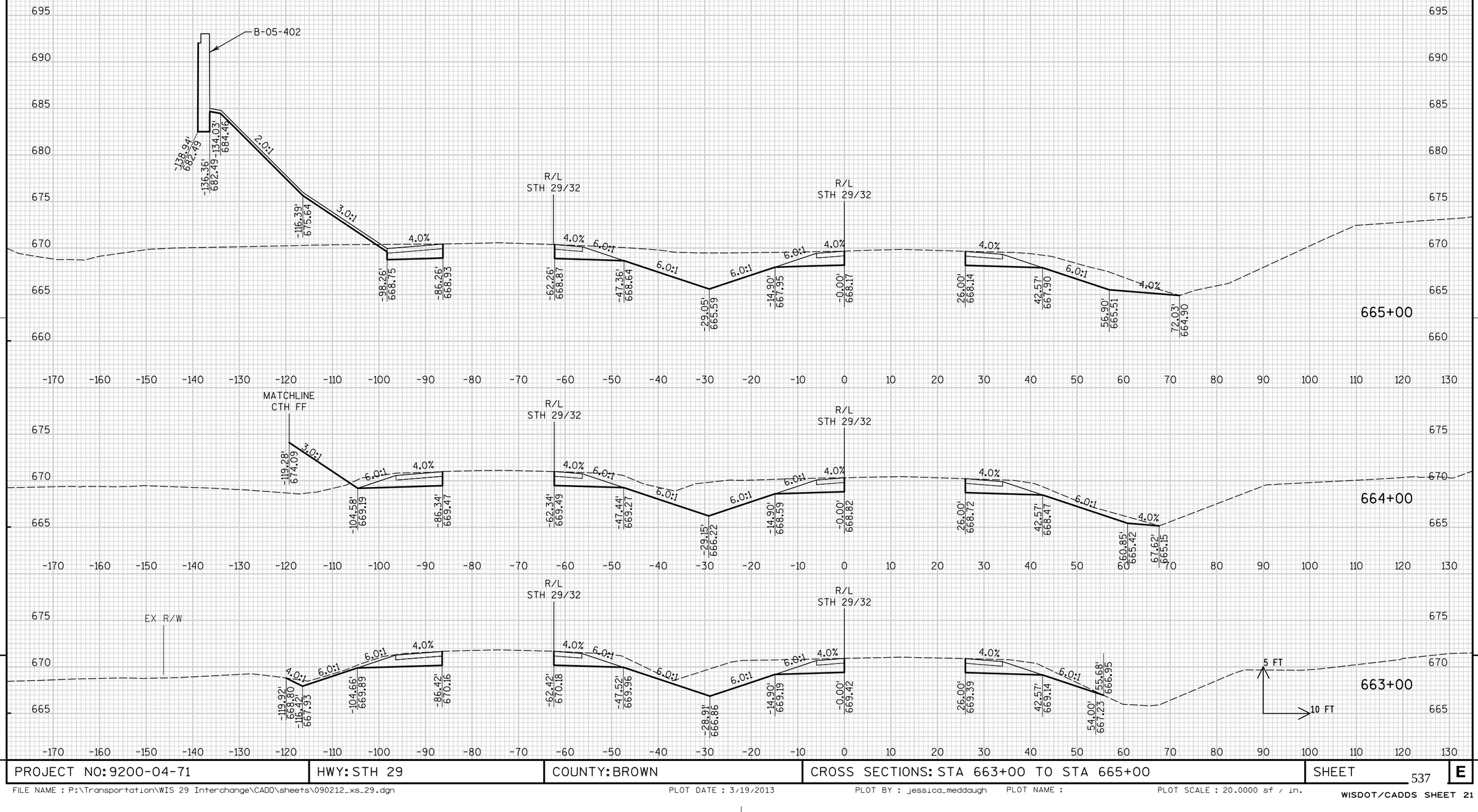
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 660+00 TO STA 662+00	SHEET 536	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090211_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

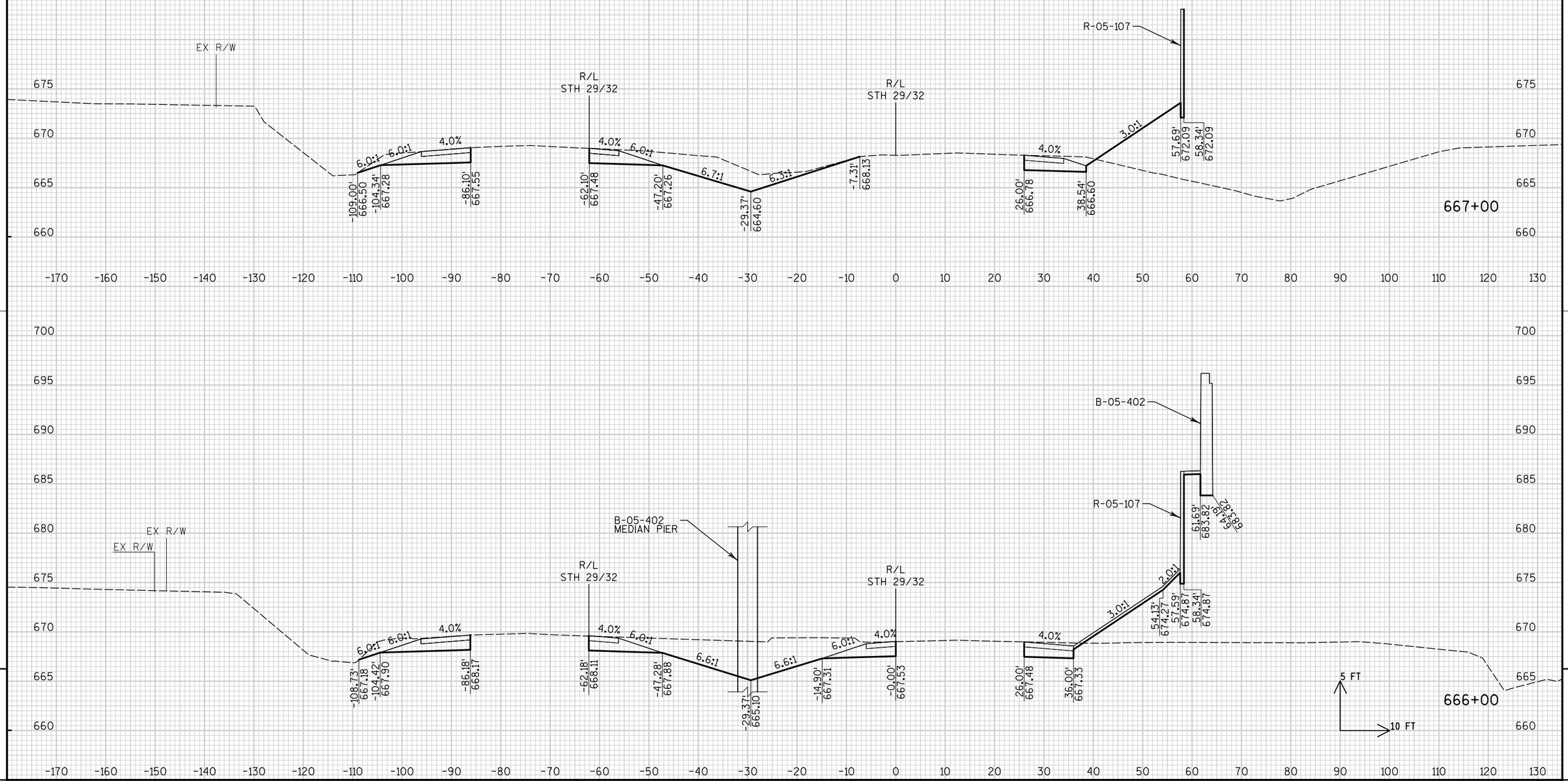
STH 29 / 32



9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 663+00 TO STA 665+00	SHEET 537	E

STH 29 / 32

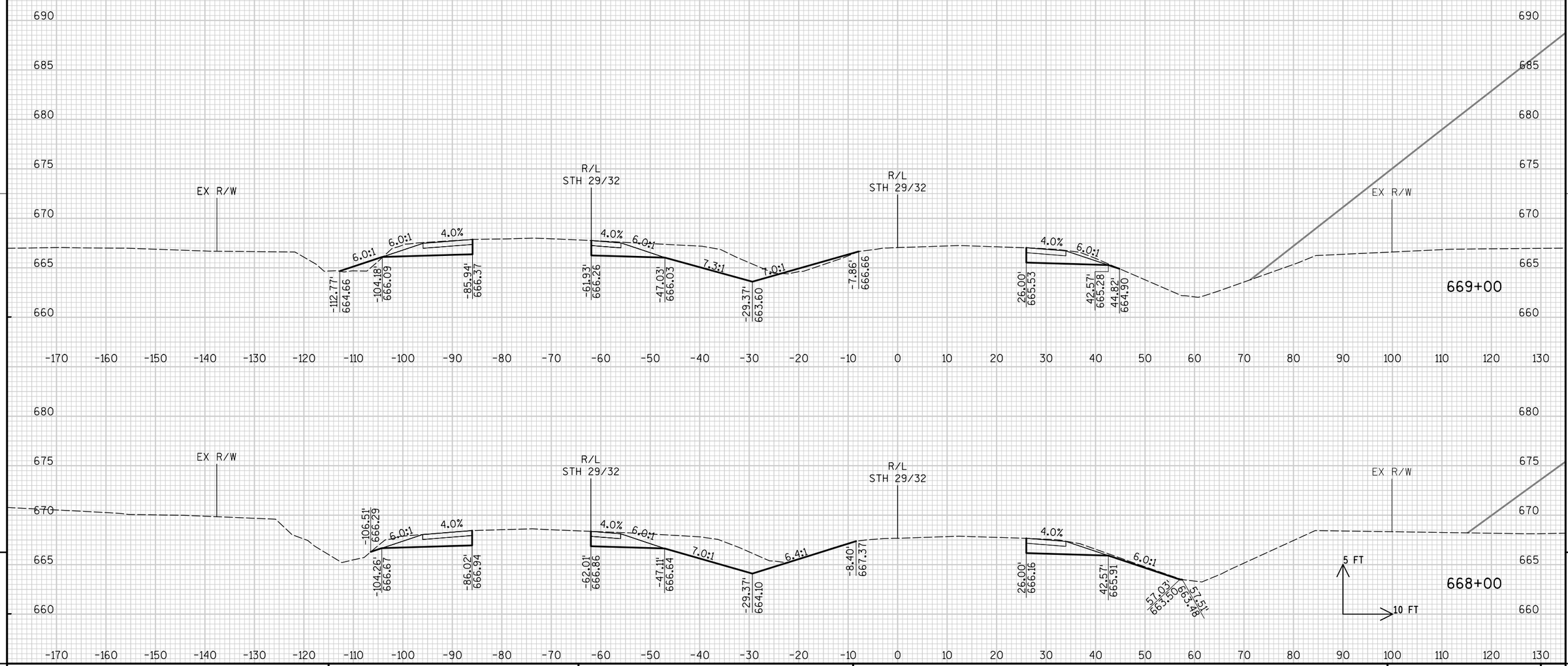


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 666+00 TO STA 667+00	SHEET 538	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090213_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

STH 29 / 32

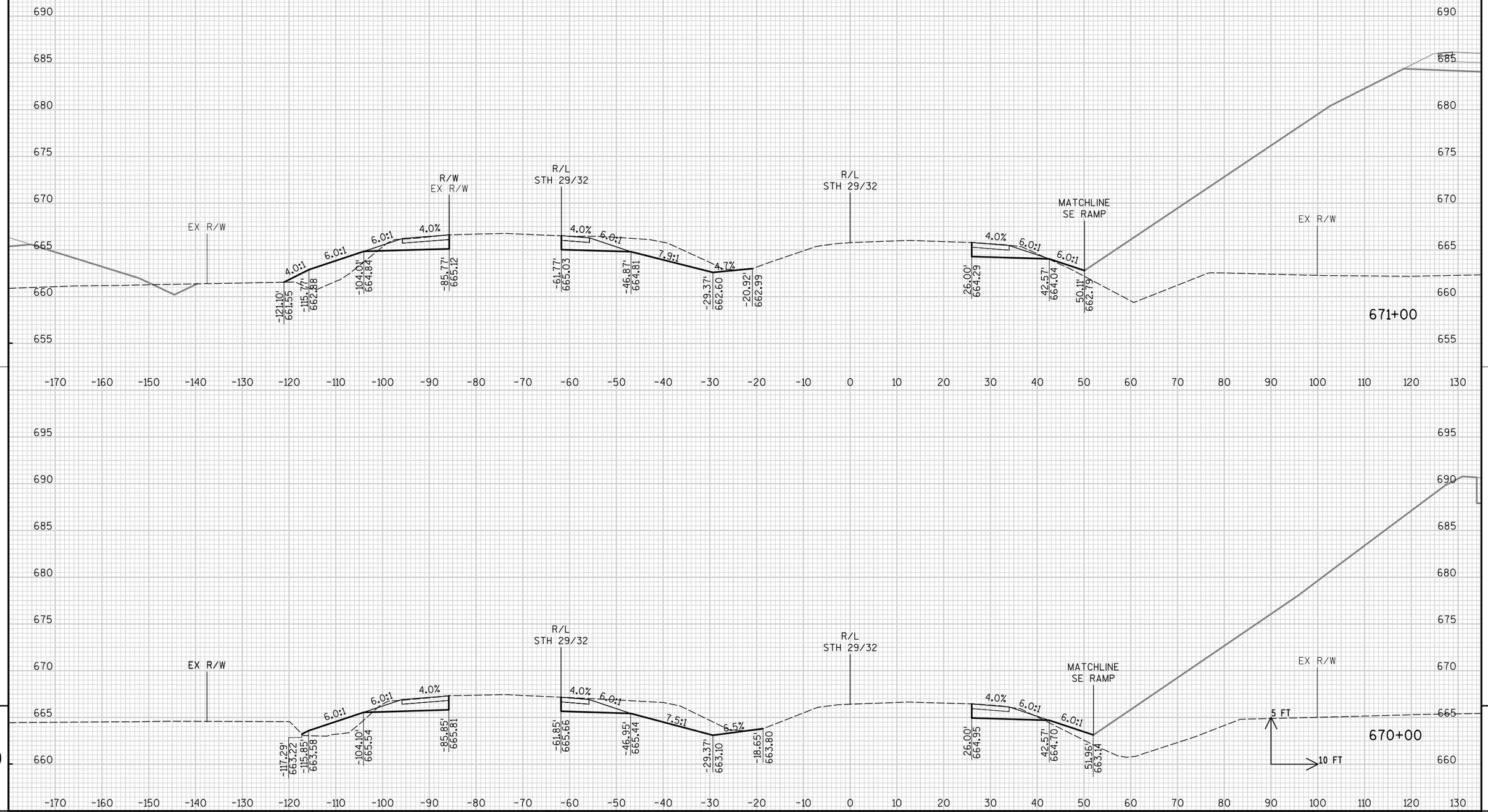


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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 668+00 TO STA 669+00	SHEET 539	E

STH 29 / 32

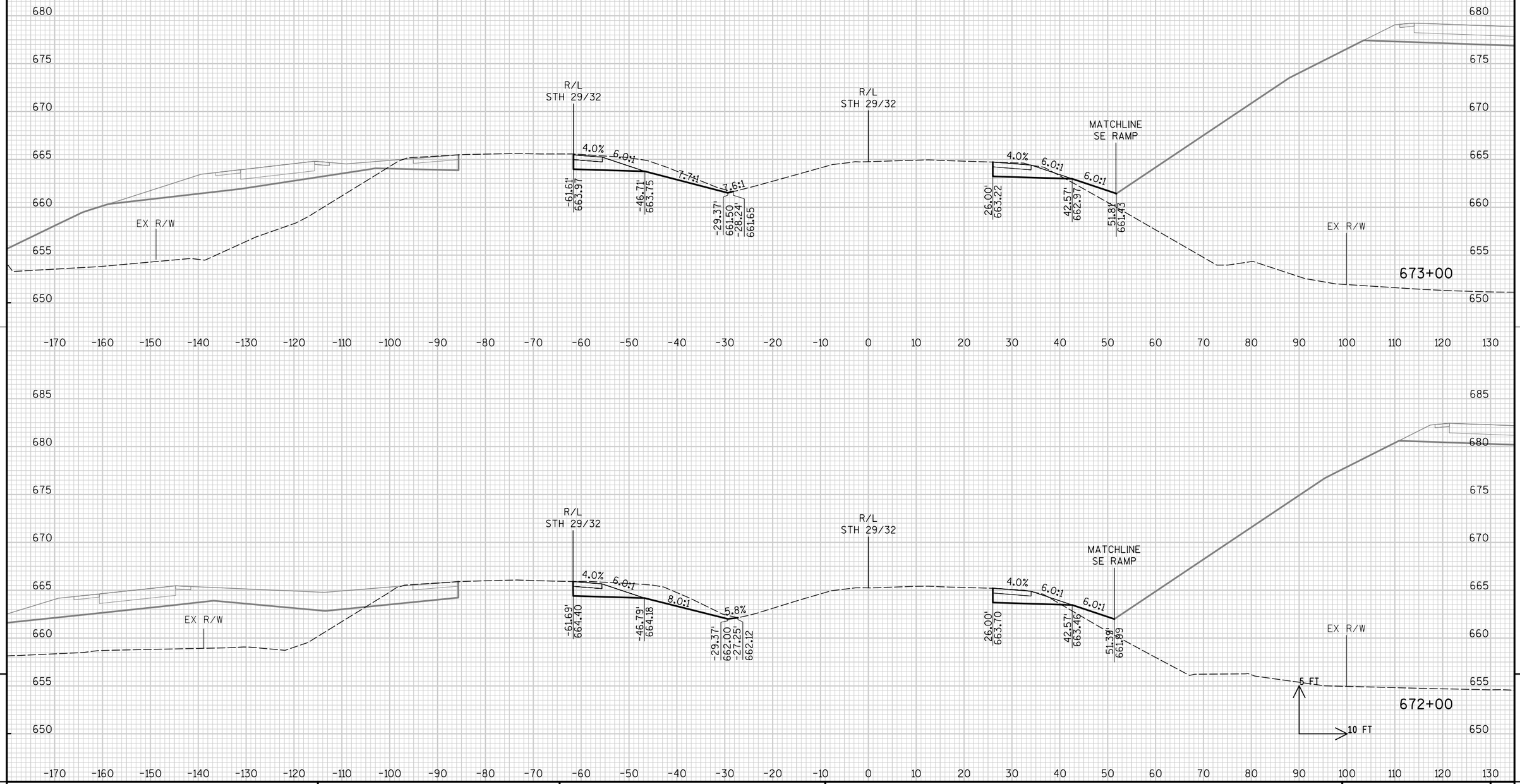


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 670+00 TO STA 671+00	SHEET 540	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090215_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

STH 29 / 32



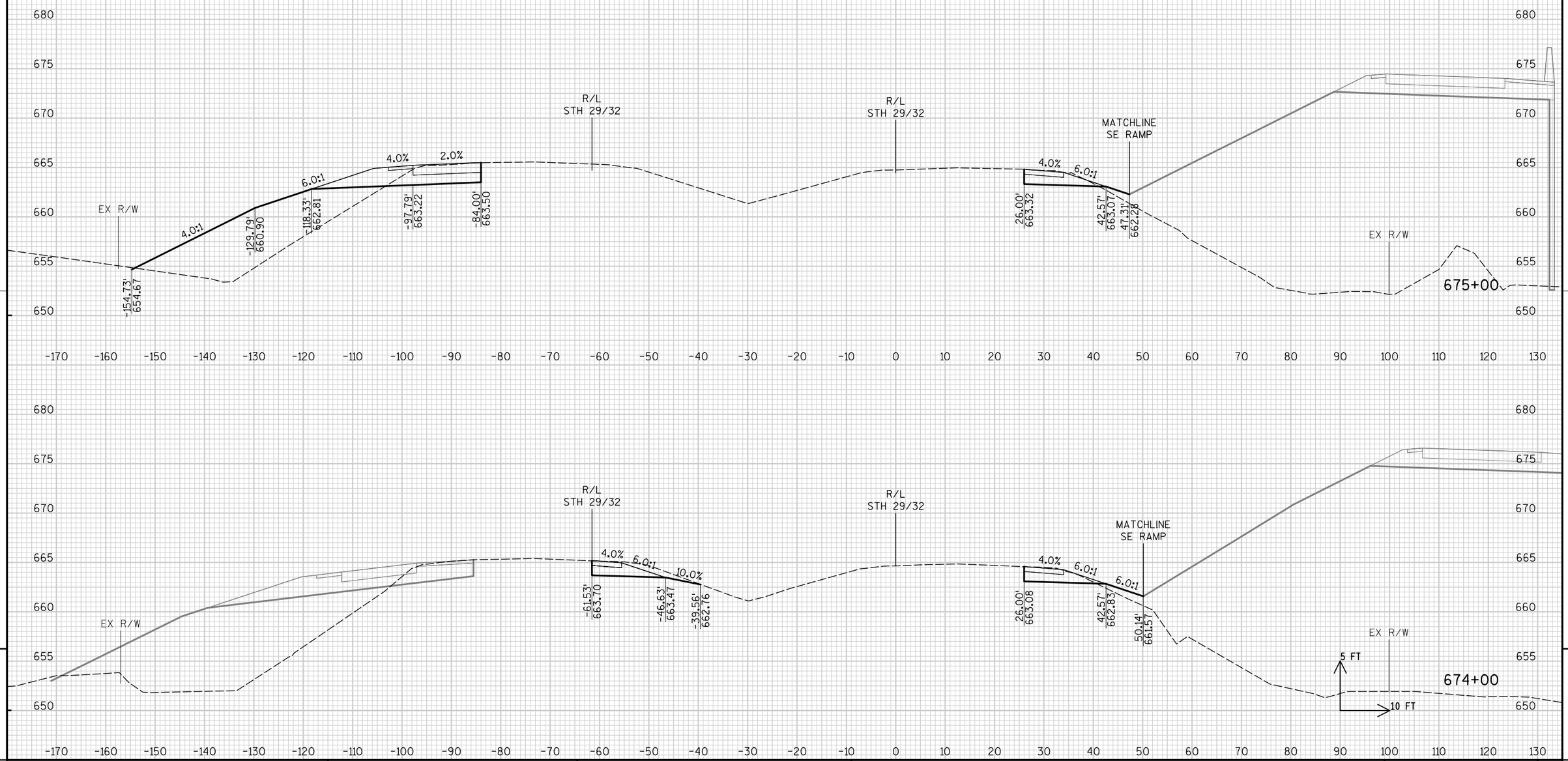
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 672+00 TO STA 673+00	SHEET 541 E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090216_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

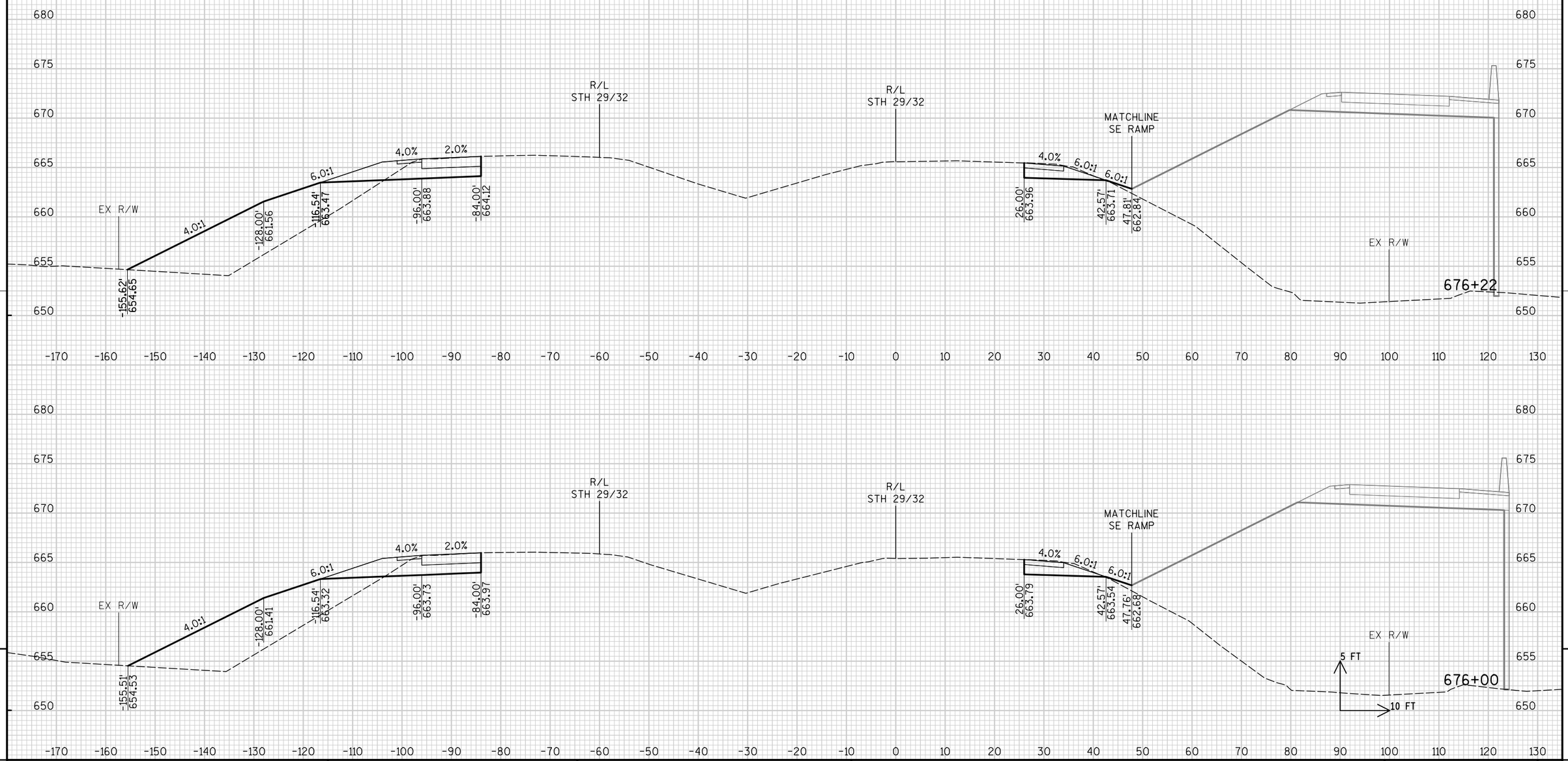
WISDOT/CADDS SHEET 21

STH 29 / 32



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 674+00 TO STA 675+00	SHEET 542 E

STH 29 / 32

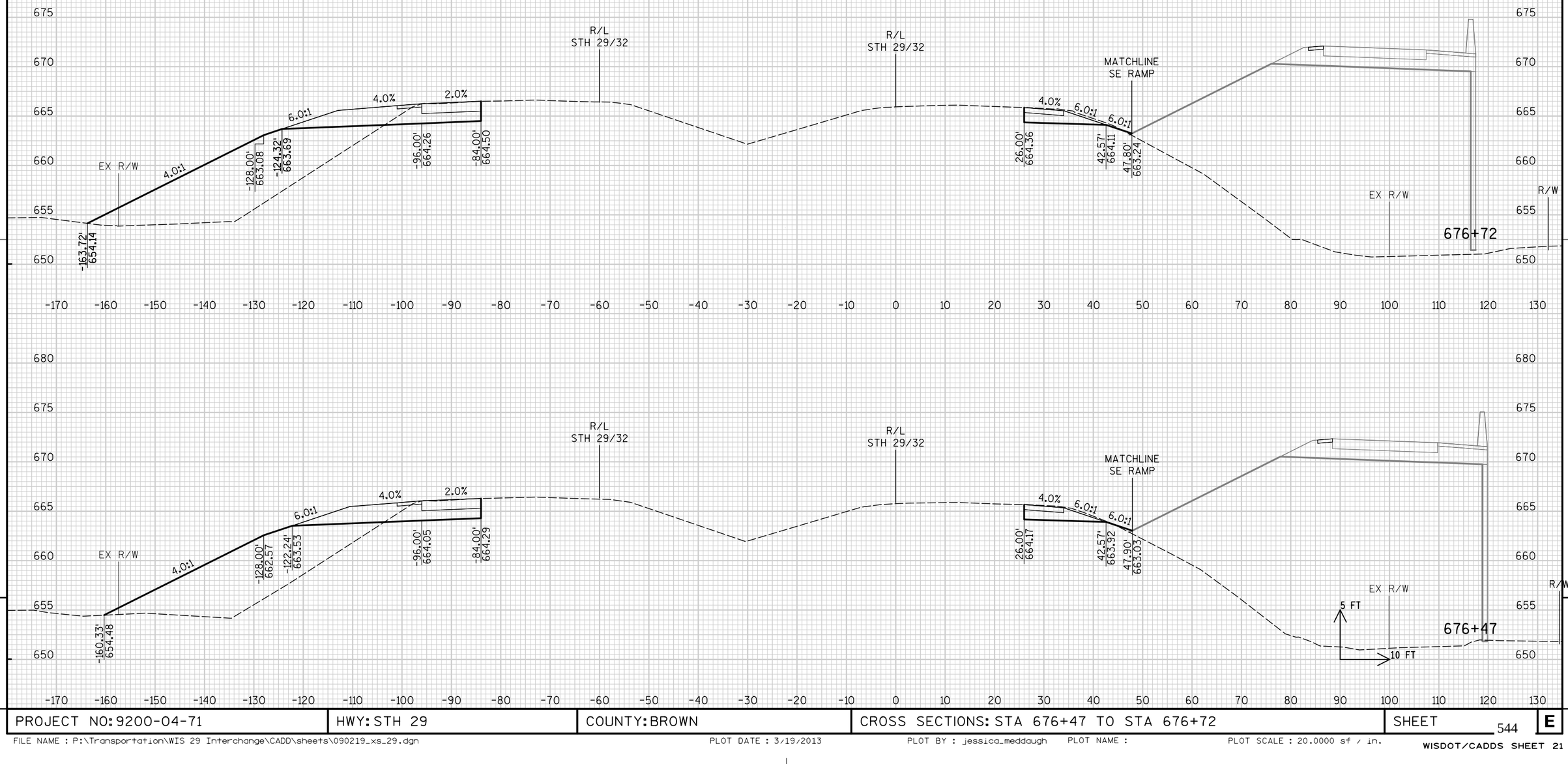


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 676+00 TO STA 676+22	SHEET 543 E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090218_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

STH 29 / 32

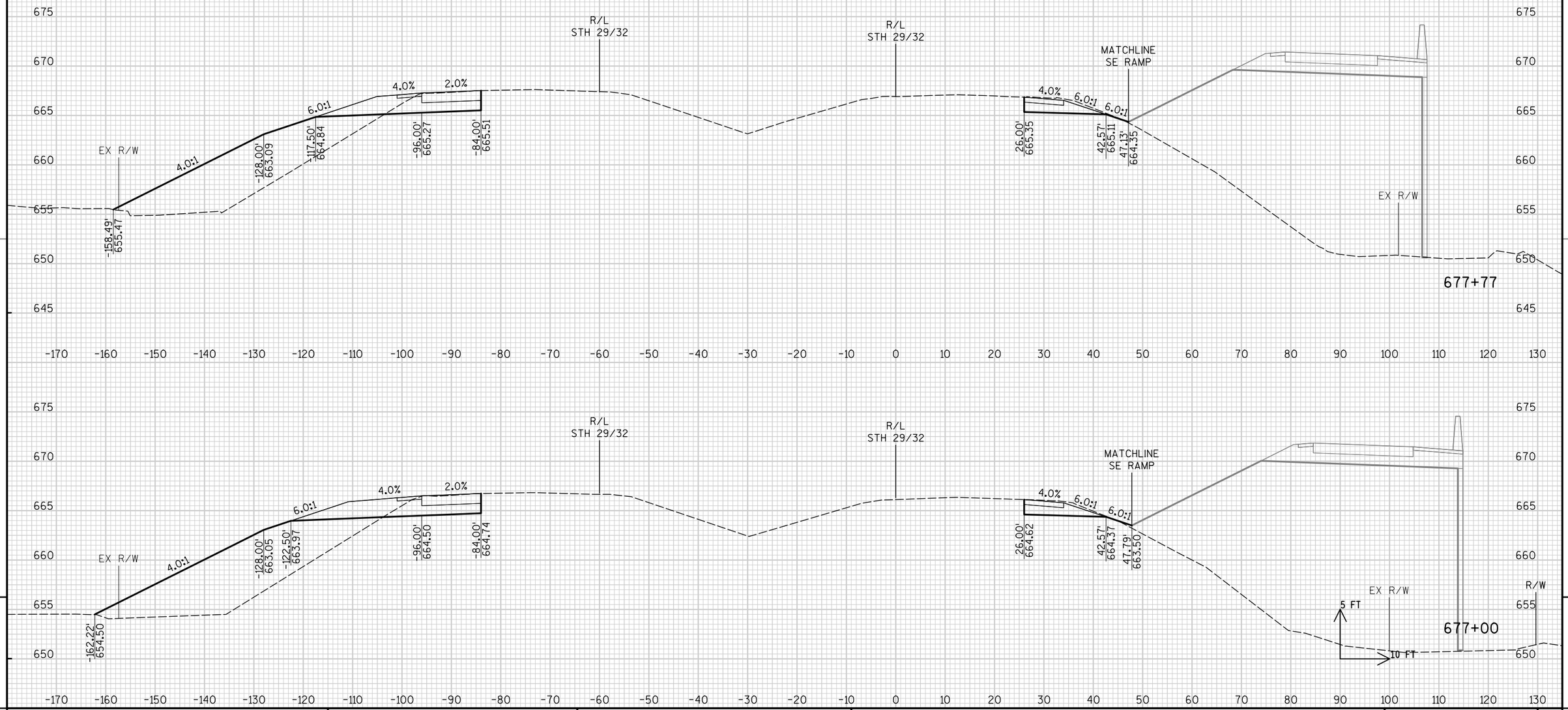


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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 676+47 TO STA 676+72	SHEET 544	E

STH 29 / 32



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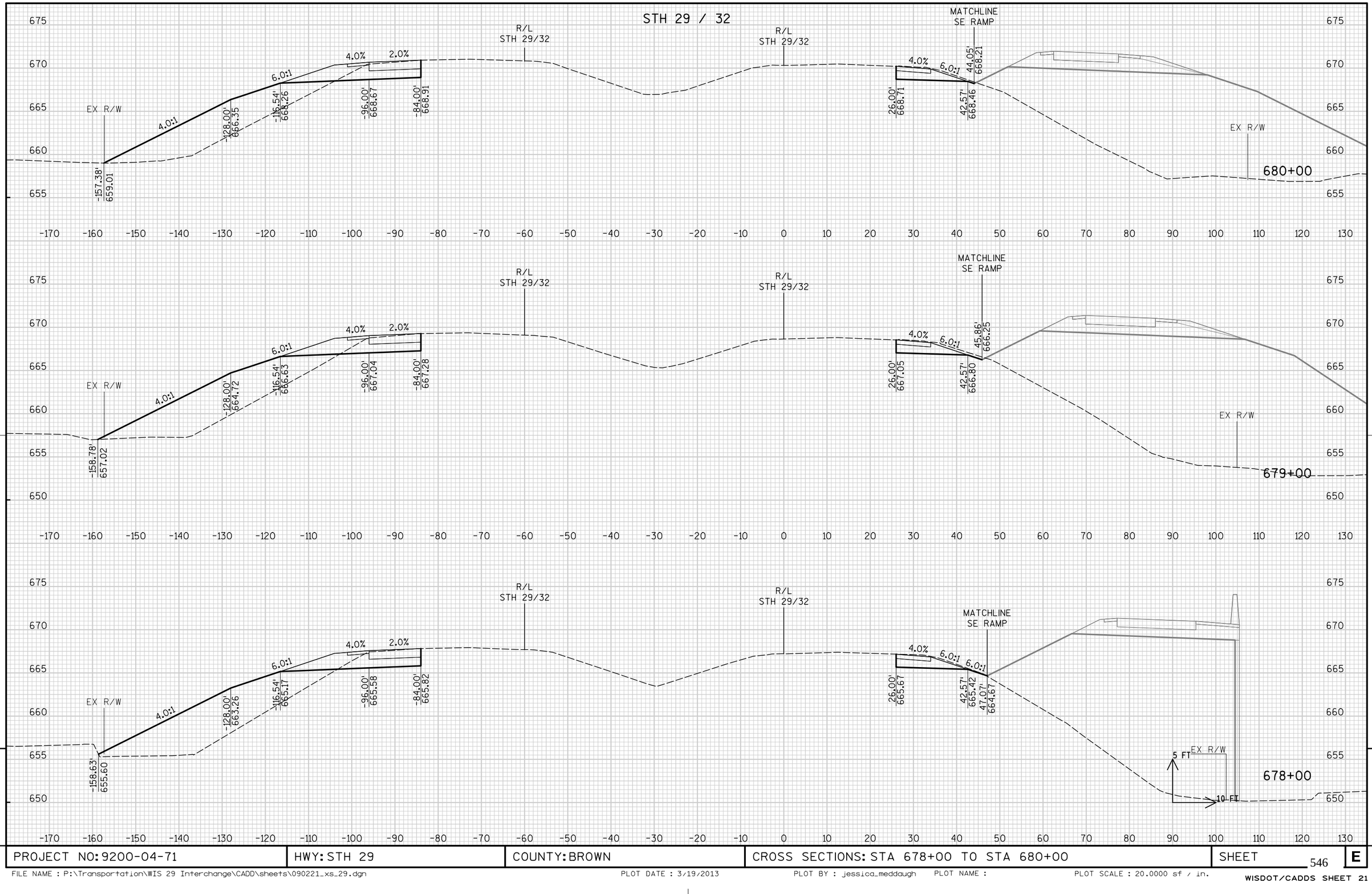
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 677+00 TO STA 677+77	SHEET 545	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090220_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

STH 29 / 32

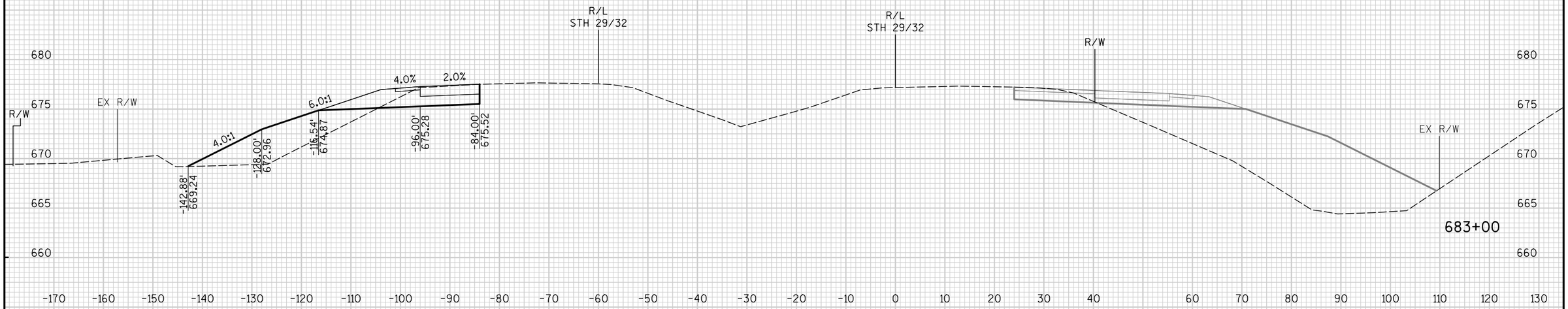


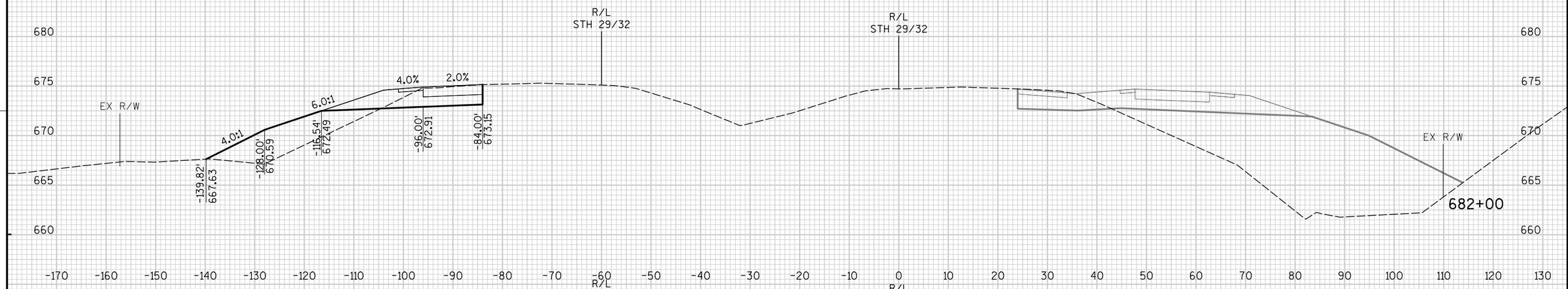
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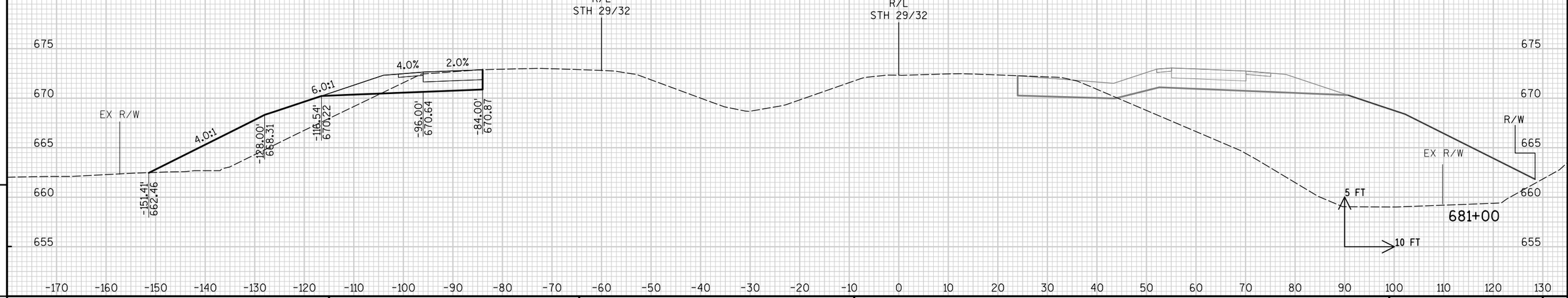
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 678+00 TO STA 680+00	SHEET 546	E

STH 29 / 32







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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 681+00 TO STA 683+00	SHEET 547 E

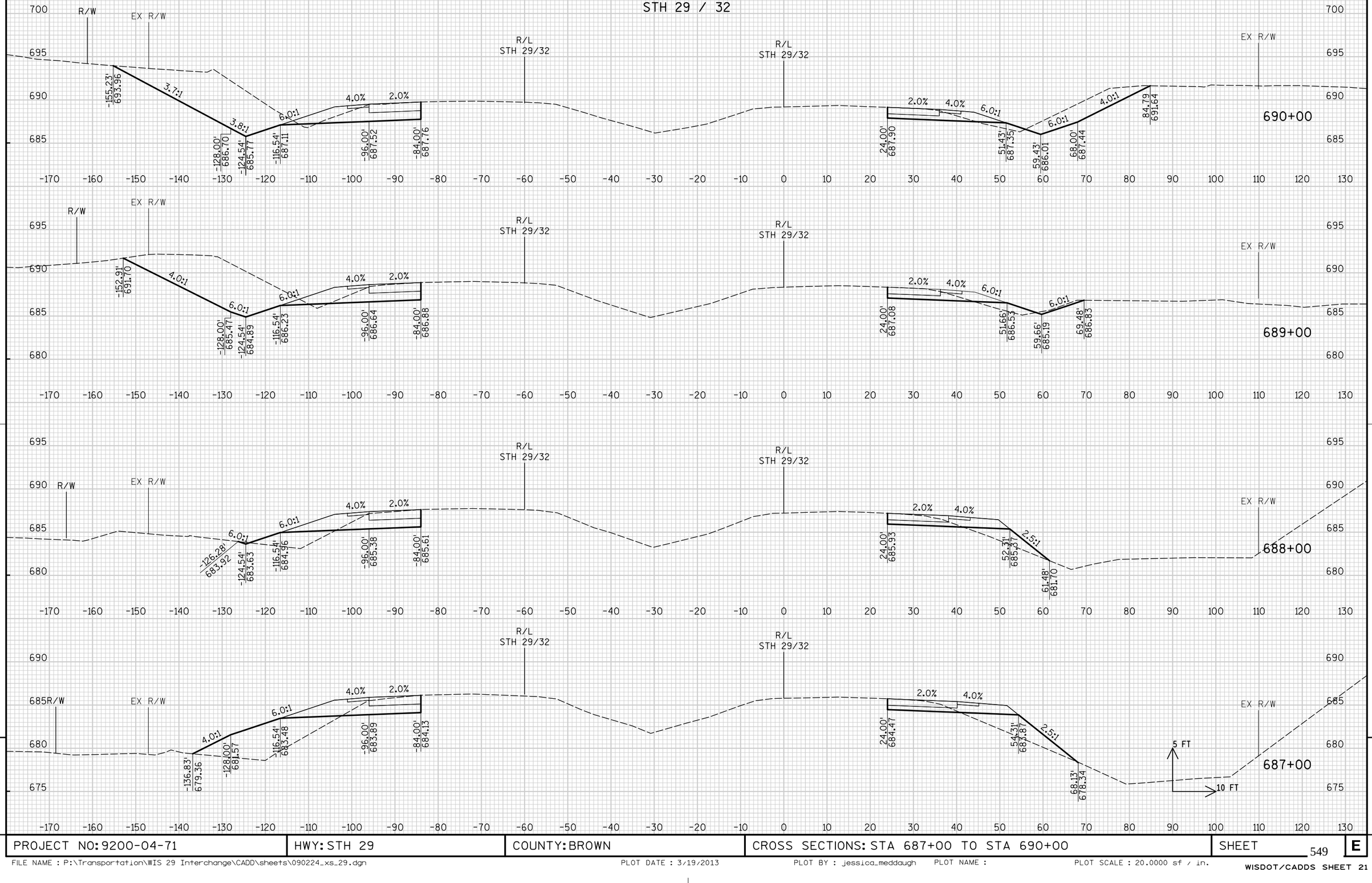
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WISDOT/CADDS SHEET 21

STH 29 / 32

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 684+00 TO STA 686+00	SHEET 548	E

STH 29 / 32

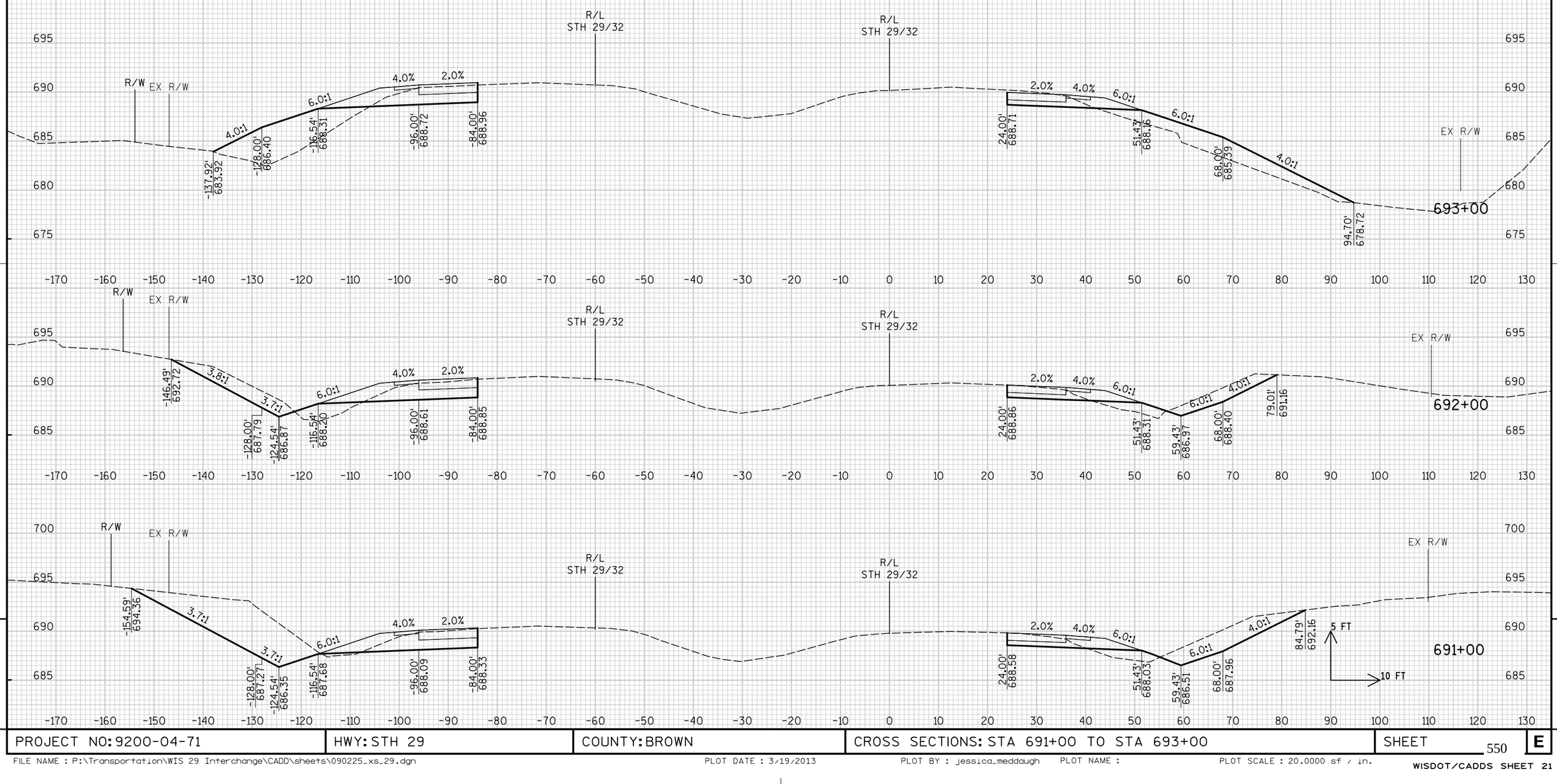


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 687+00 TO STA 690+00	SHEET 549	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090224_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

STH 29 / 32



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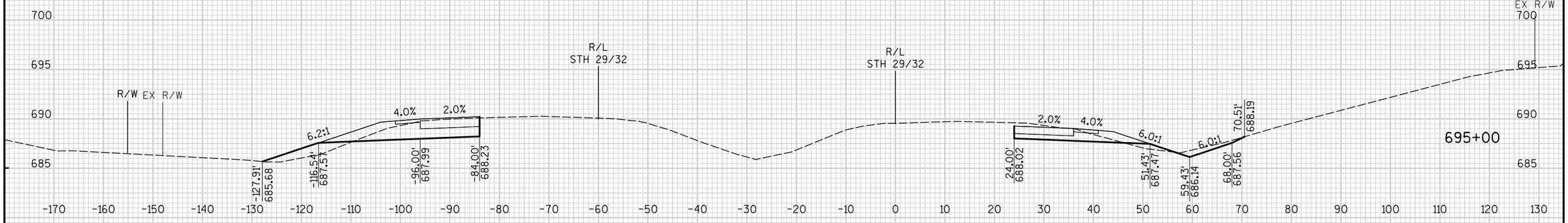
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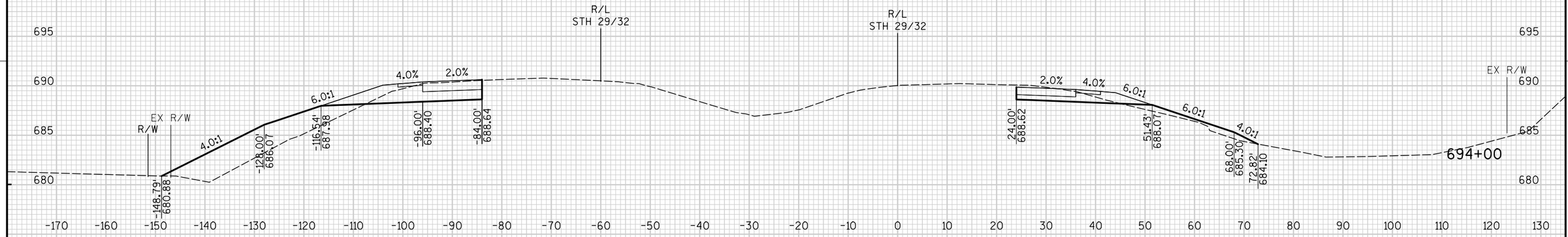
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 691+00 TO STA 693+00	SHEET 550	E

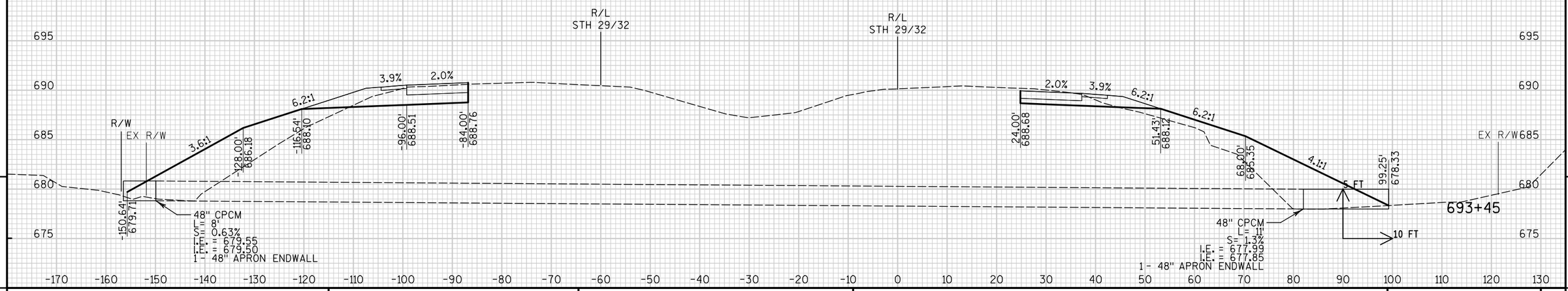
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WISDOT/CADDS SHEET 21

STH 29 / 32







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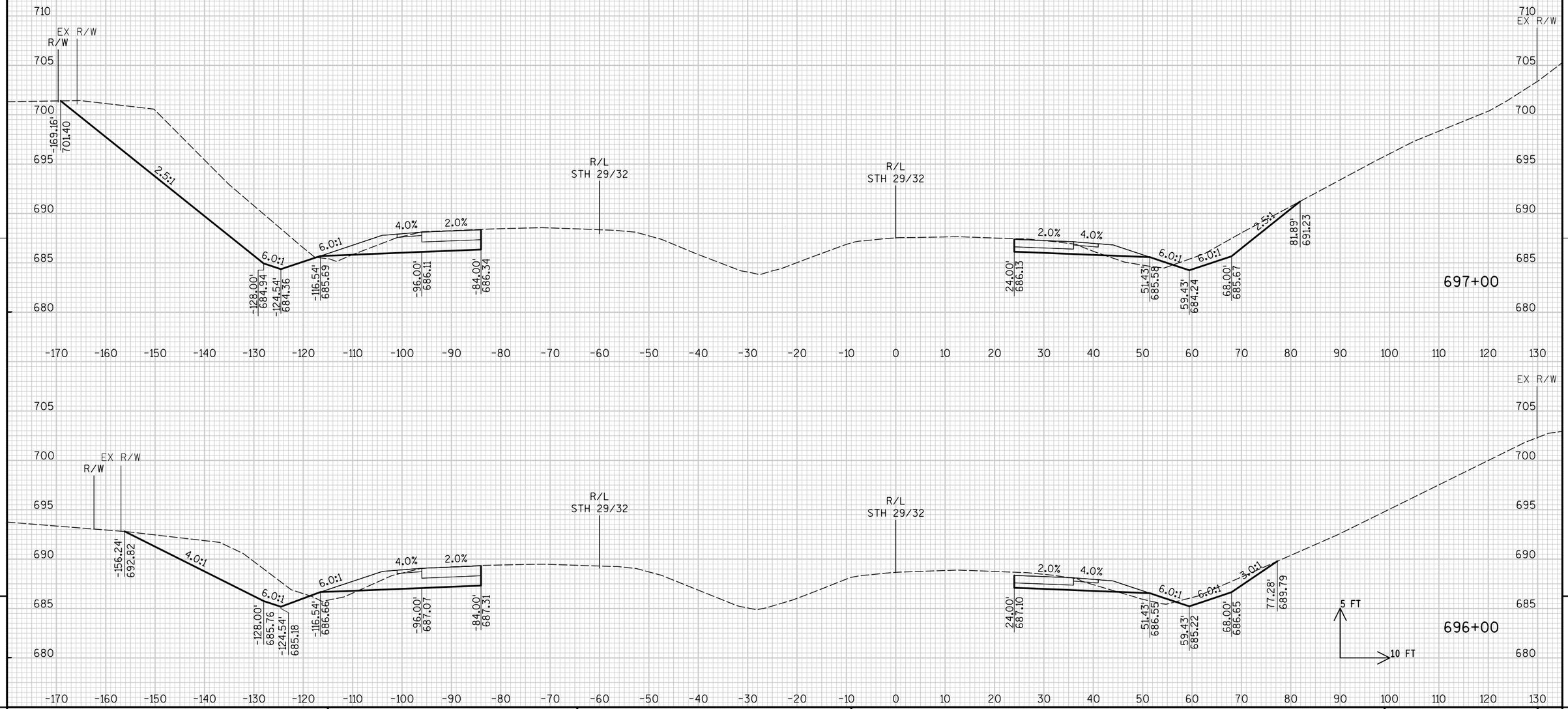
9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 693+45 TO STA 695+00	SHEET 551	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090226_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

STH 29 / 32



9

9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 696+00 TO STA 697+00	SHEET 552	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090227_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

STH 29 / 32

700+00

-165.55'
693.74
2.7:1
6.0:1
-128.00'
680.08
-124.54'
679.50
6.0:1
-116.54'
680.83
4.0%
2.0%
-96.00'
681.24
-84.00'
681.48
R/L
STH 29/32
R/L
STH 29/32
2.0%
4.0%
-24.00'
681.21
6.0:1
-51.43'
680.66
-59.43'
679.33
6.0:1
-68.00'
680.76
4.0:1
94.60'
687.41
EX R/W

699+00

-169.91'
698.95
2.5:1
6.0:1
-128.00'
682.19
-124.54'
681.61
6.0:1
-116.54'
682.94
4.0%
2.0%
-96.00'
683.35
-84.00'
683.59
R/L
STH 29/32
R/L
STH 29/32
2.0%
4.0%
-24.00'
683.08
6.0:1
-51.43'
682.54
-59.43'
681.20
6.0:1
-68.00'
682.63
4.0:1
96.75'
689.82
EX R/W

698+00

R/W
EX R/W
-171.07'
700.93
2.5:1
6.0:1
-128.00'
683.70
-124.54'
683.12
6.0:1
-116.54'
684.46
4.0%
2.0%
-96.00'
684.87
-84.00'
685.11
R/L
STH 29/32
R/L
STH 29/32
2.0%
4.0%
-24.00'
684.71
6.0:1
-51.43'
684.16
-59.43'
682.82
6.0:1
-68.00'
684.25
2.5:1
87.96'
692.24
EX R/W
5 FT
10 FT

9

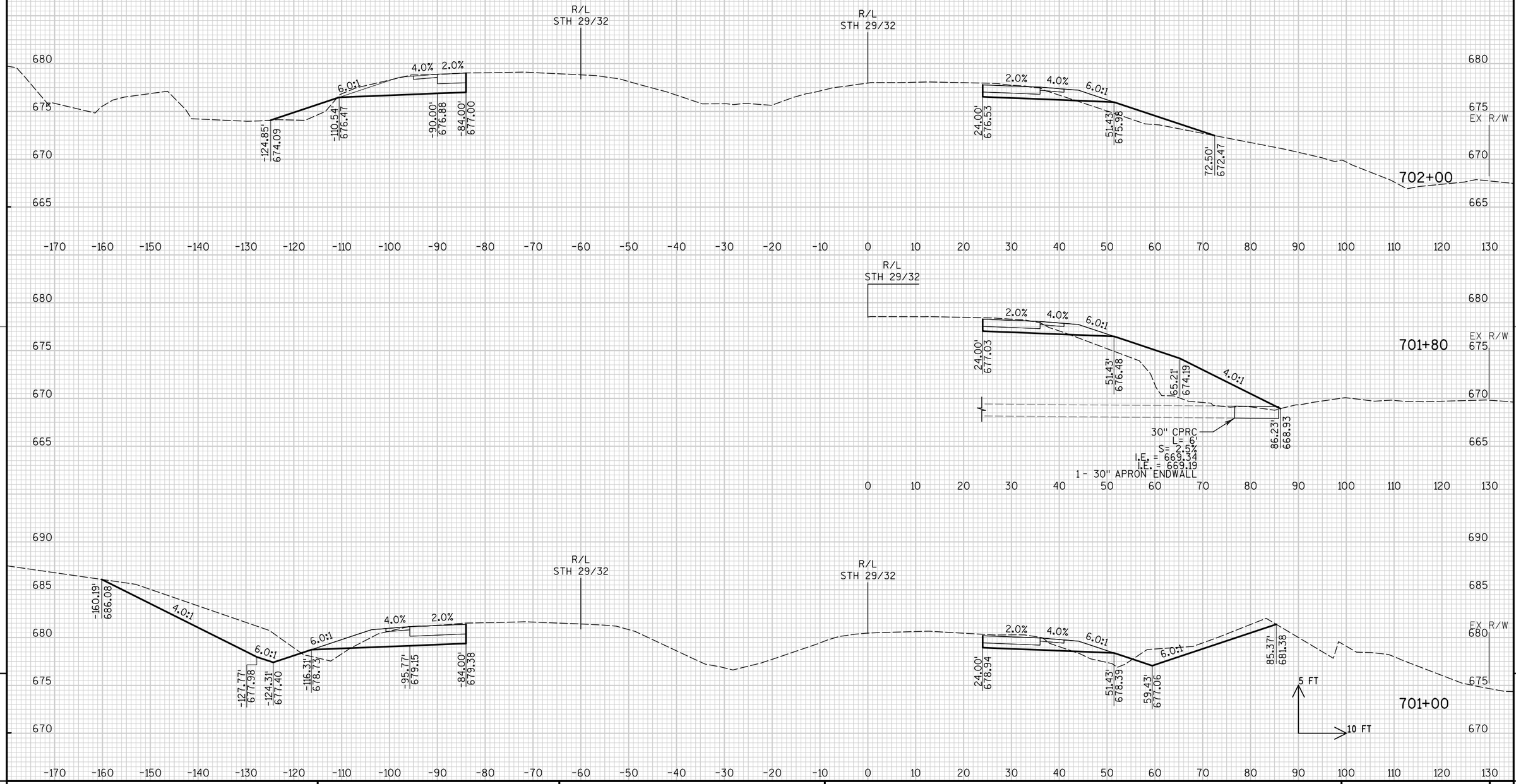
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 698+00 TO STA 700+00	SHEET 553	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090228_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

STH 29 / 32



9

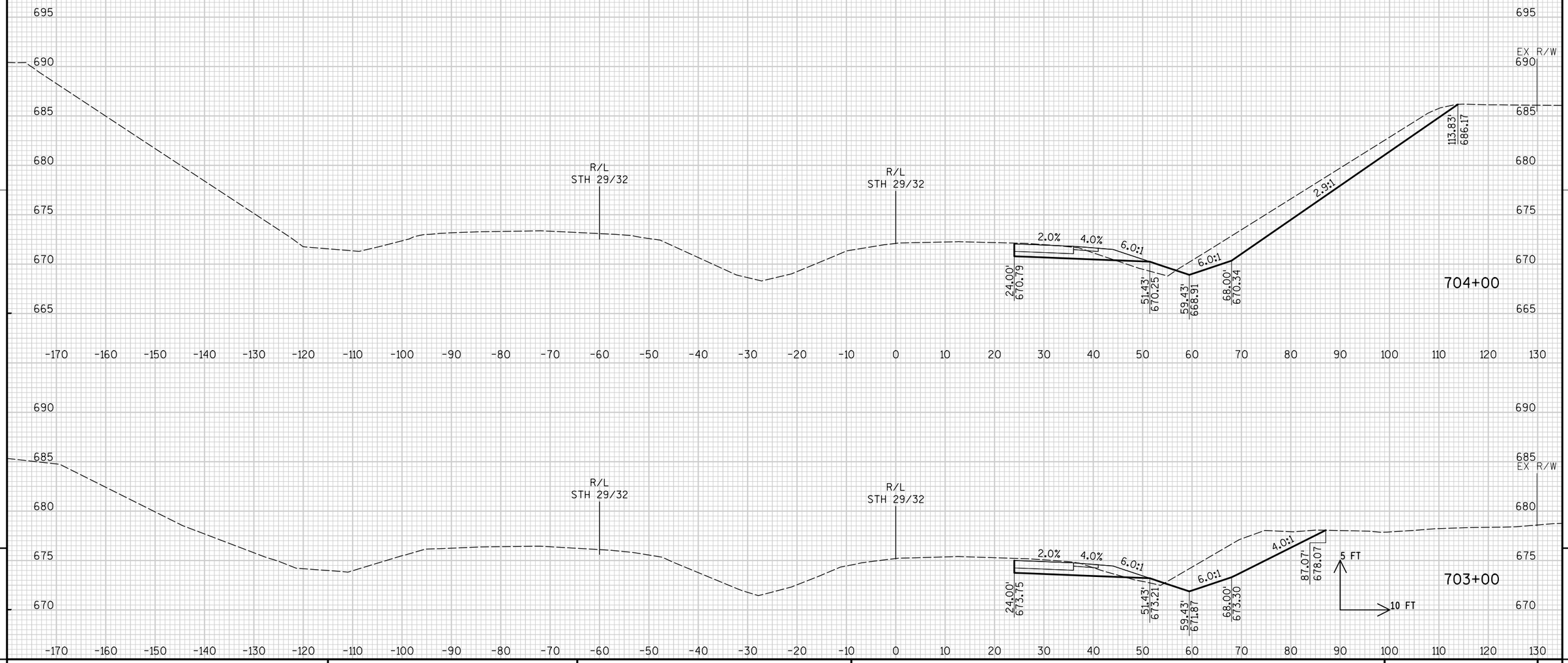
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 701+00 TO STA 702+00	SHEET 554	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090229_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

STH 29 / 32



9

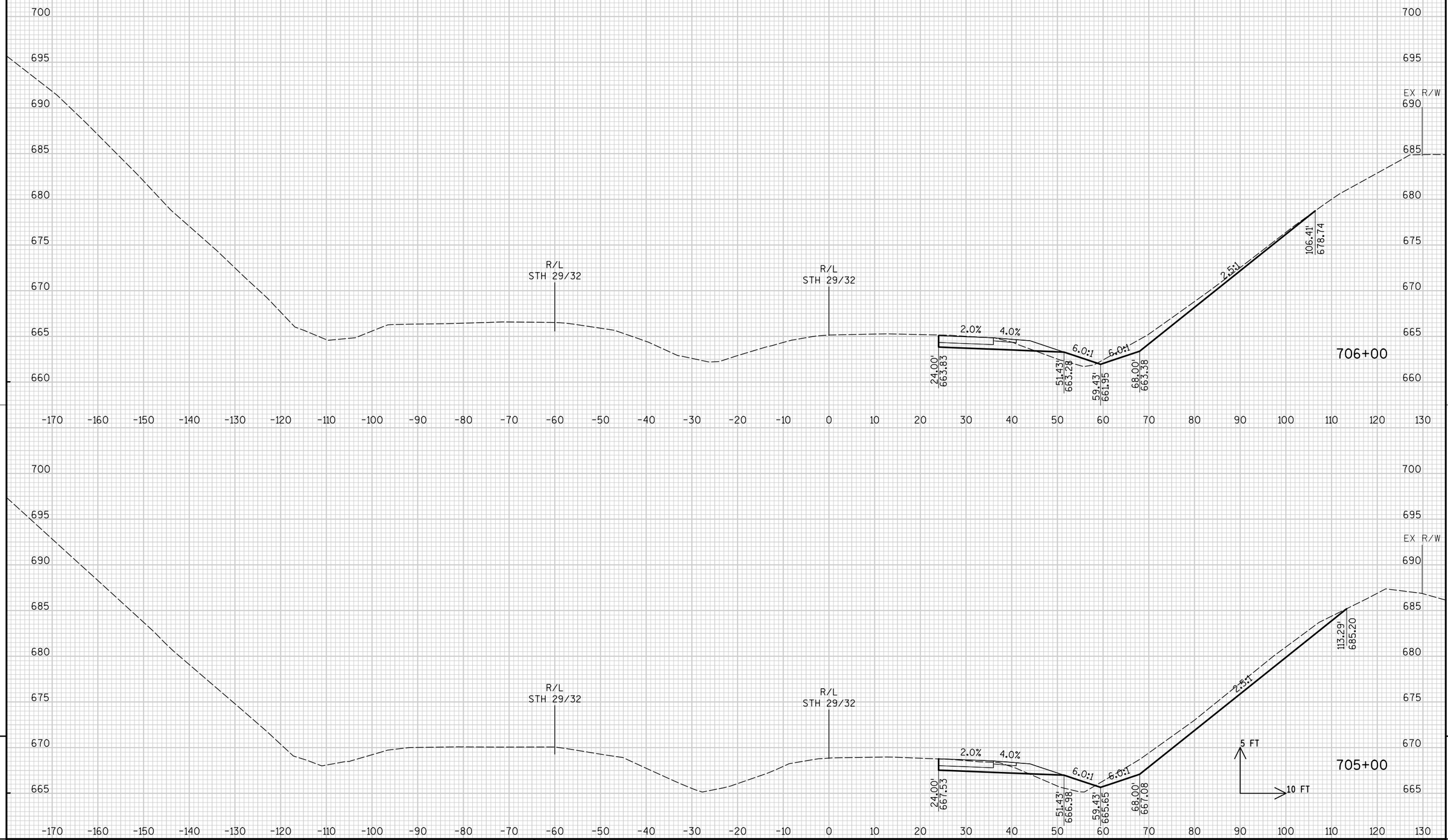
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 703+00 TO STA 704+00	SHEET 555	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090230_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

STH 29 / 32



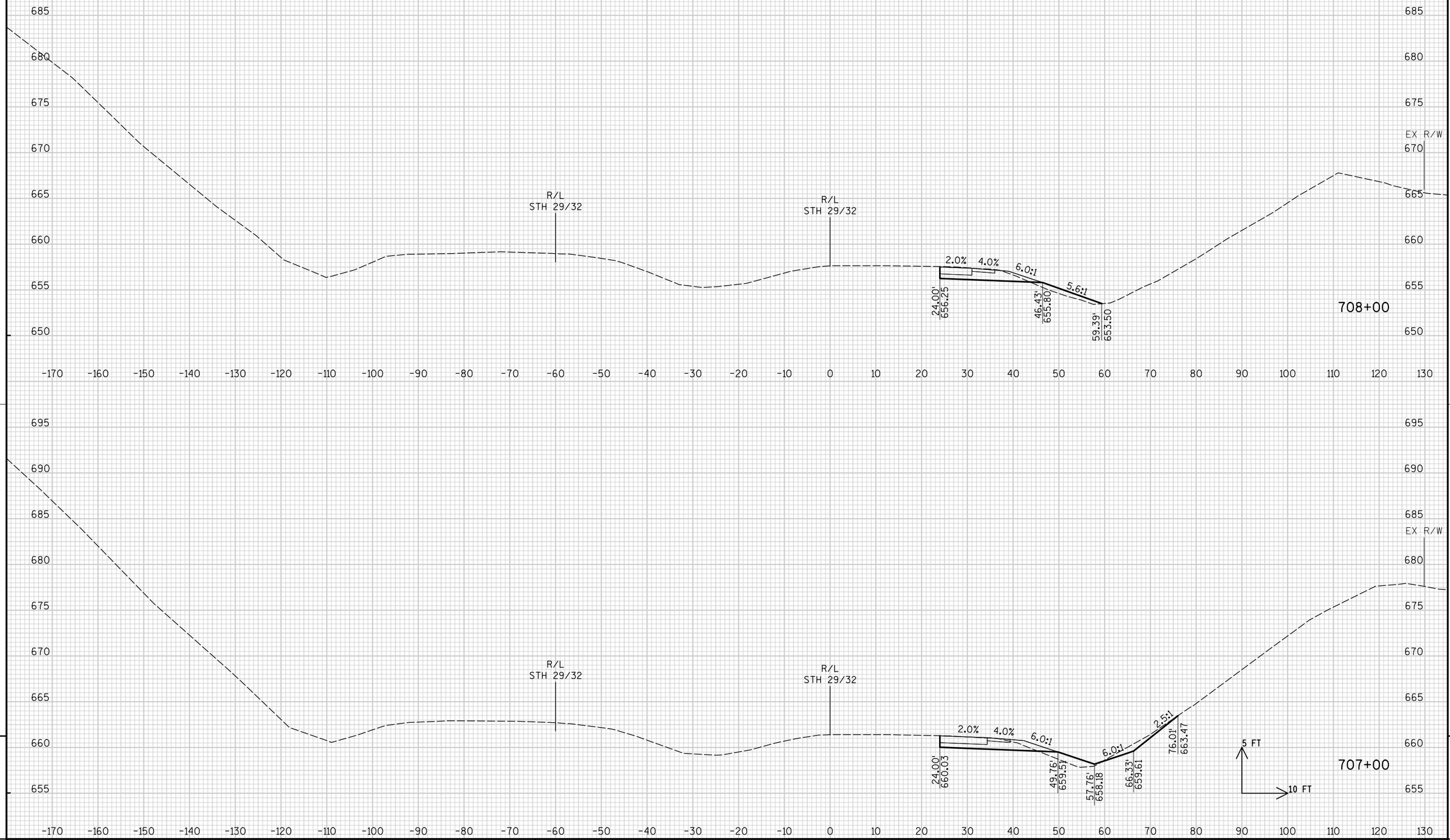
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 705+00 TO STA 706+00	SHEET 556	E

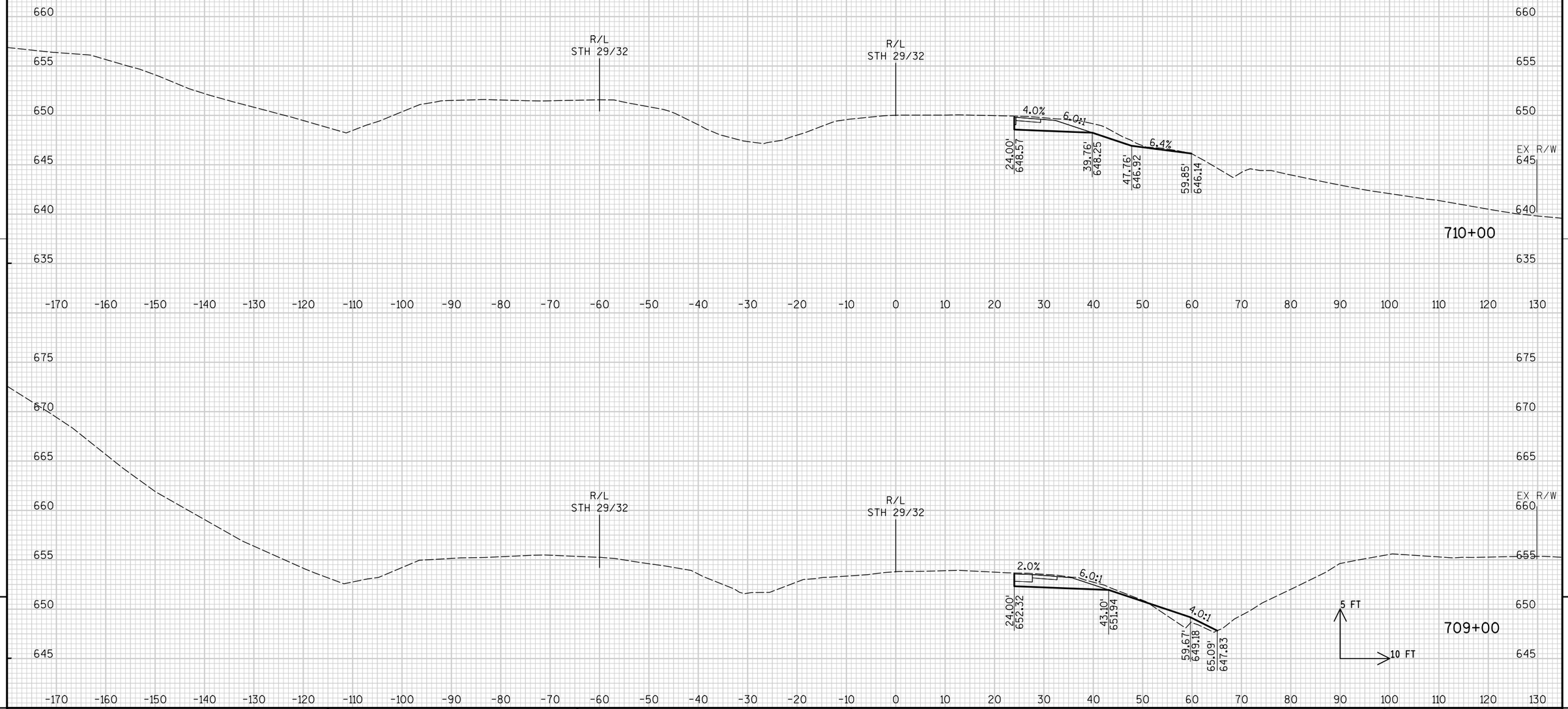
FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090231_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

STH 29 / 32



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 707+00 TO STA 708+00	SHEET 557	E

STH 29 / 32

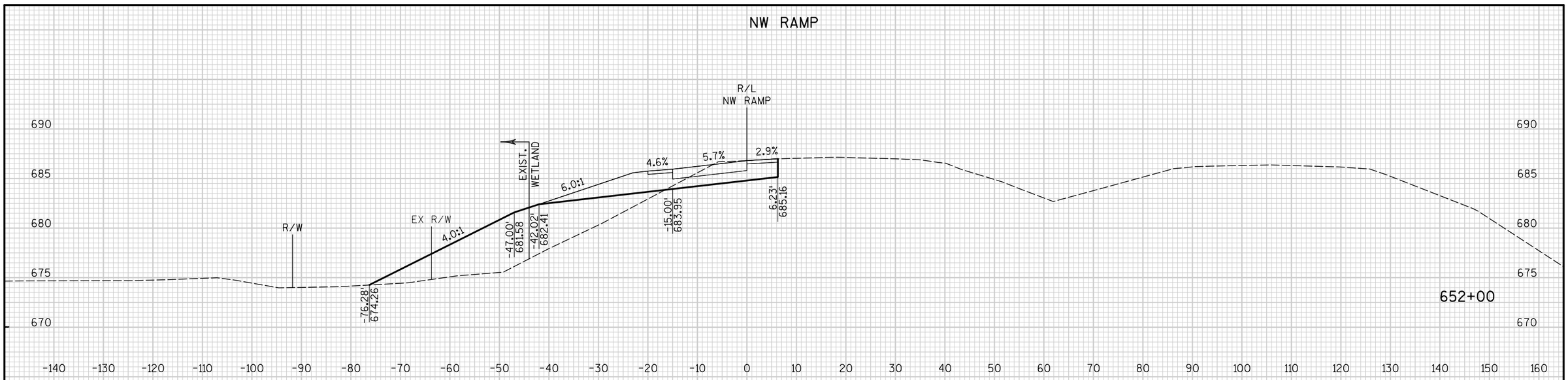


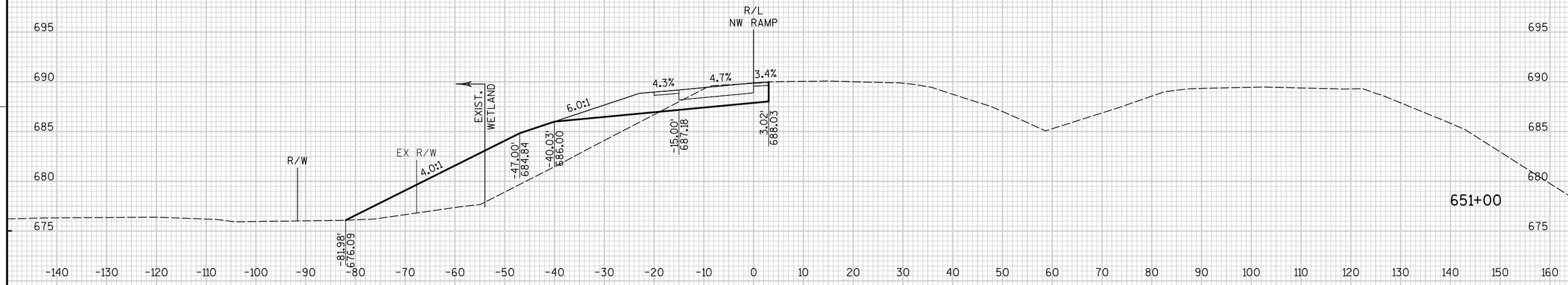
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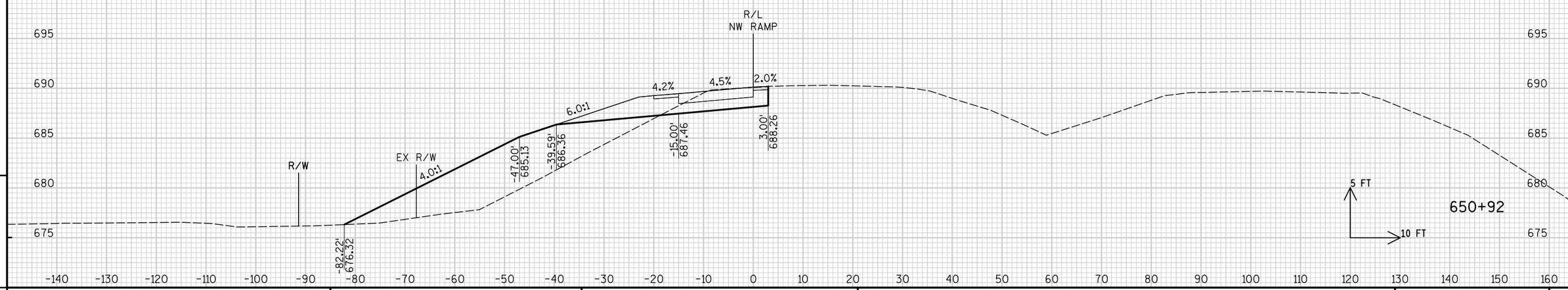
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 709+00 TO STA 710+00	SHEET 558	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090233_xs_29.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

NW RAMP







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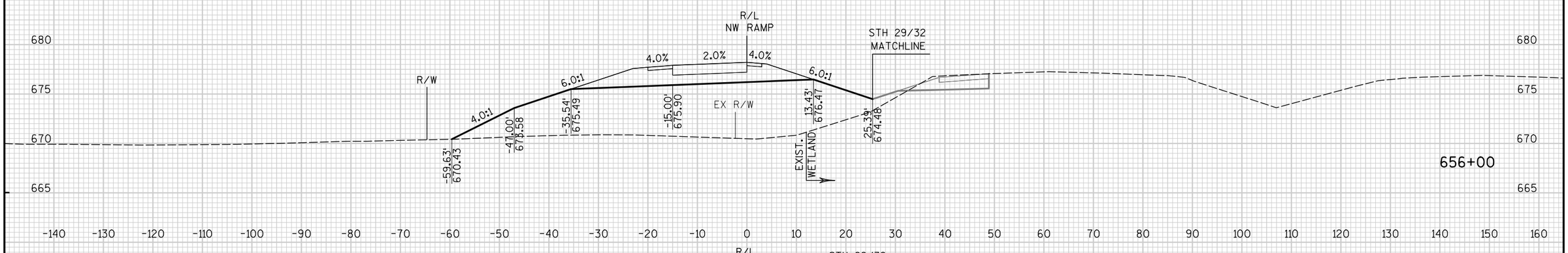
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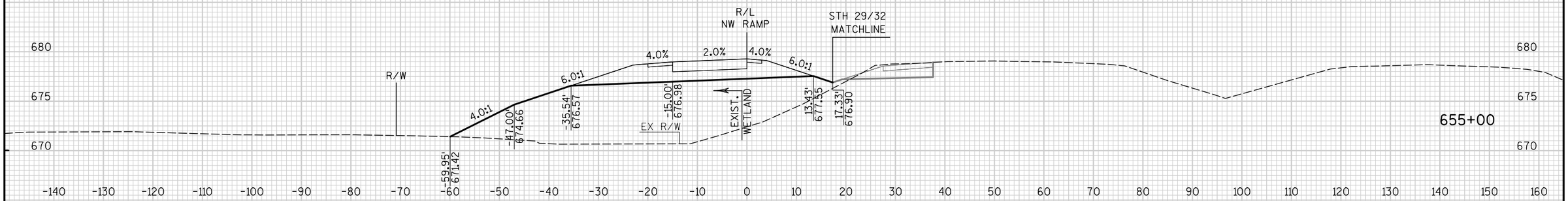
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 650+92 TO STA 652+00	SHEET 559	E

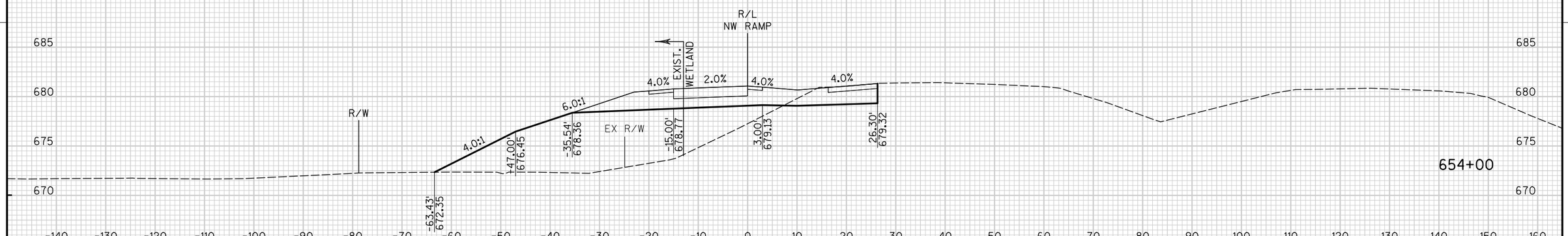
FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090241_xs_NWR.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

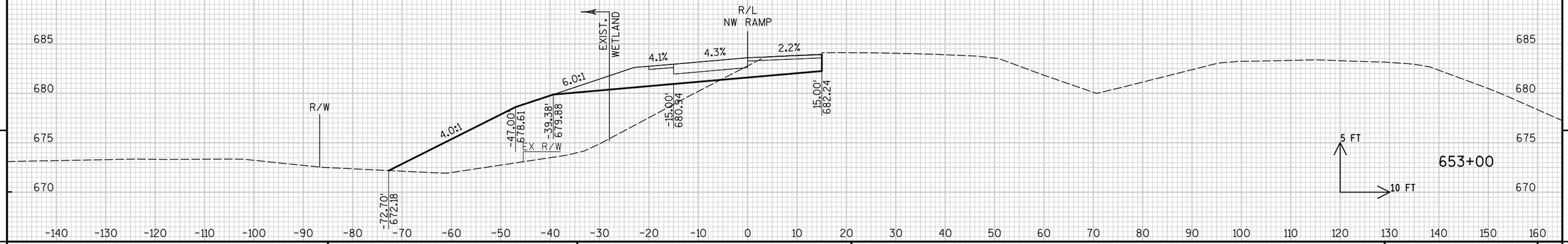
WISDOT/CADDS SHEET 21

NW RAMP









PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 653+00 TO STA 656+00	SHEET 560	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090242_xs_NWR.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

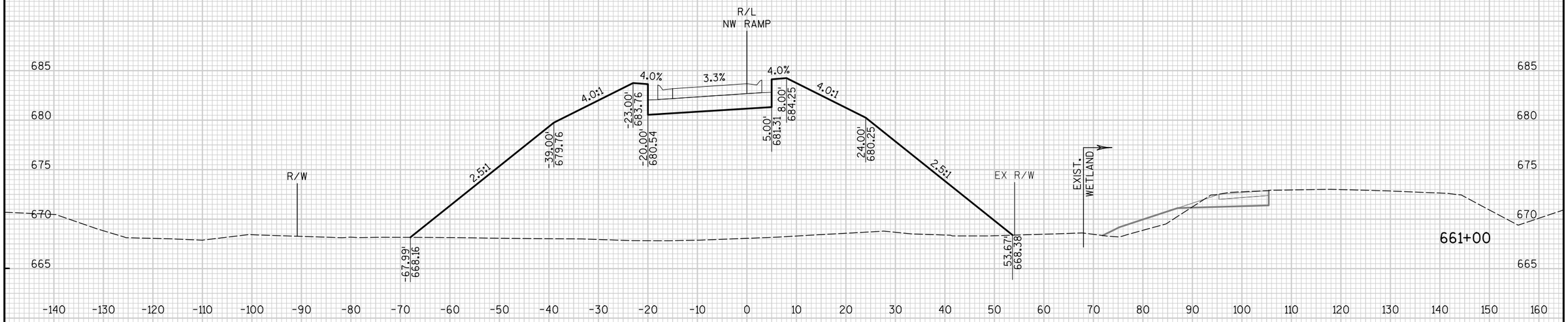
NW RAMP

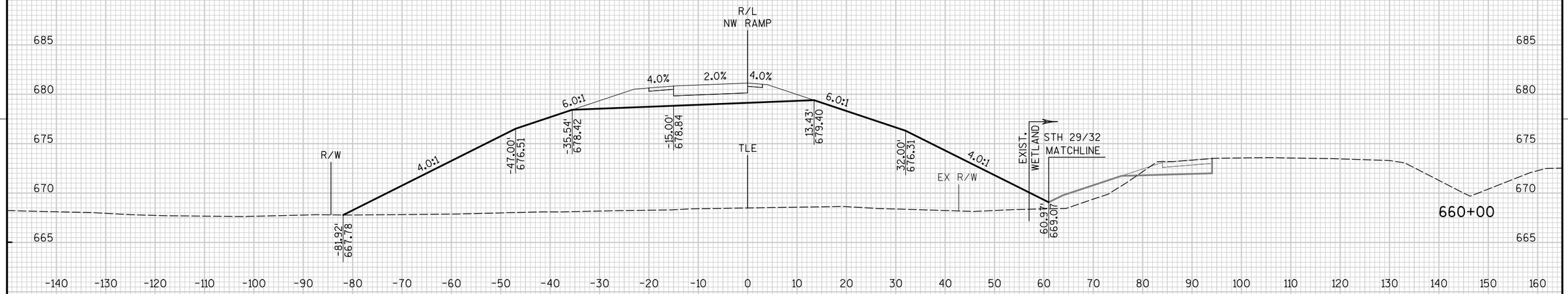
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 657+00 TO STA 659+00	SHEET 561	E

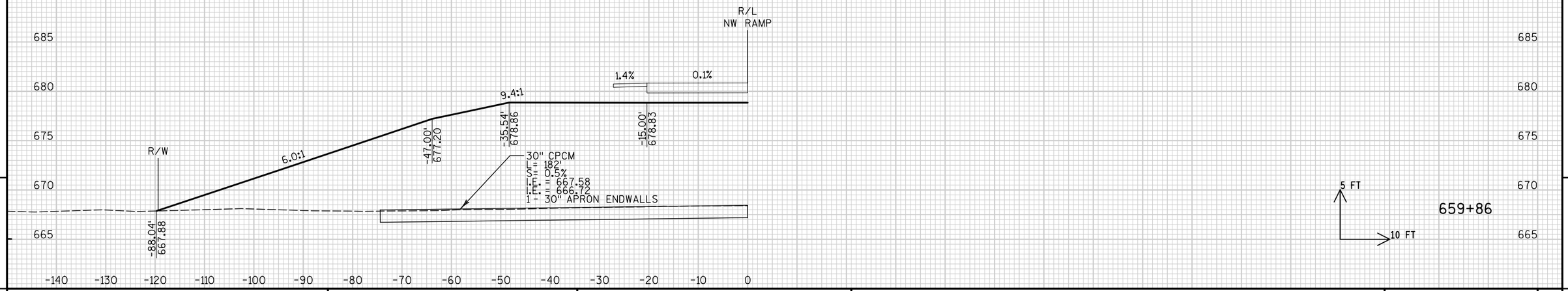
FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090243_xs_NWR.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

NW RAMP





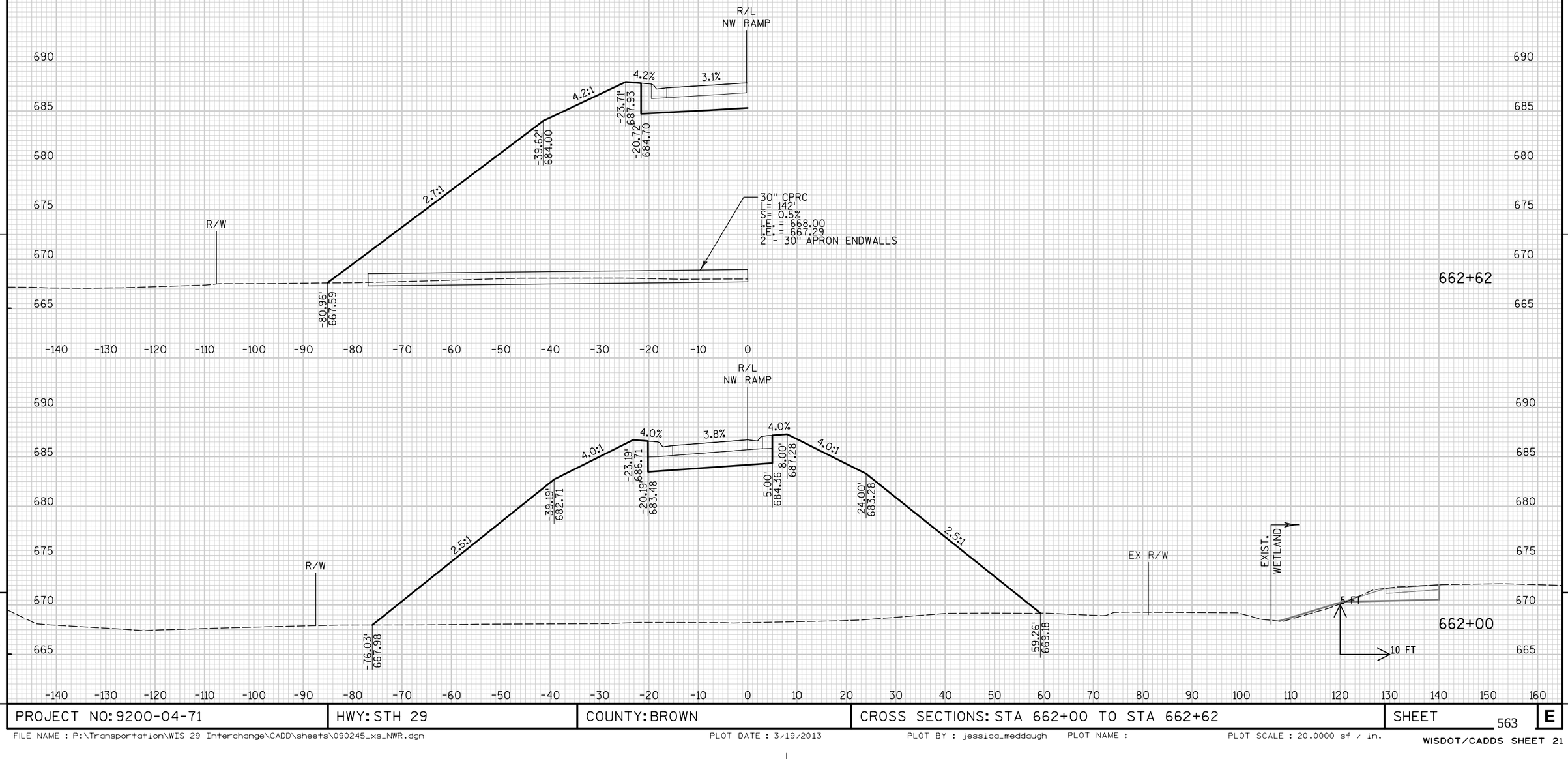


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 659+86 TO STA 661+00	SHEET 562	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090244_xs_NWR.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

NW RAMP

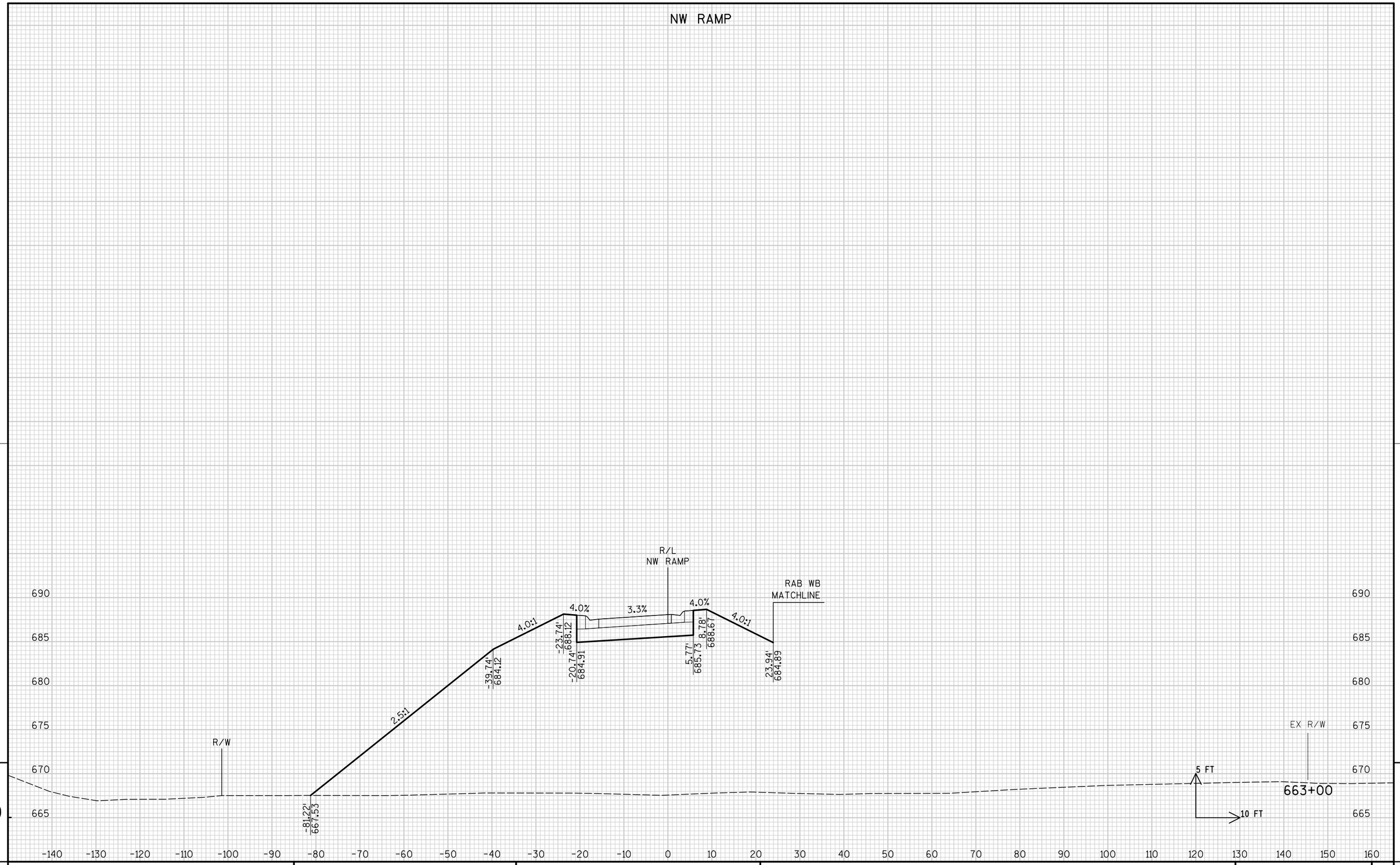


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 662+00 TO STA 662+62	SHEET 563	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090245_xs_NWR.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

NW RAMP

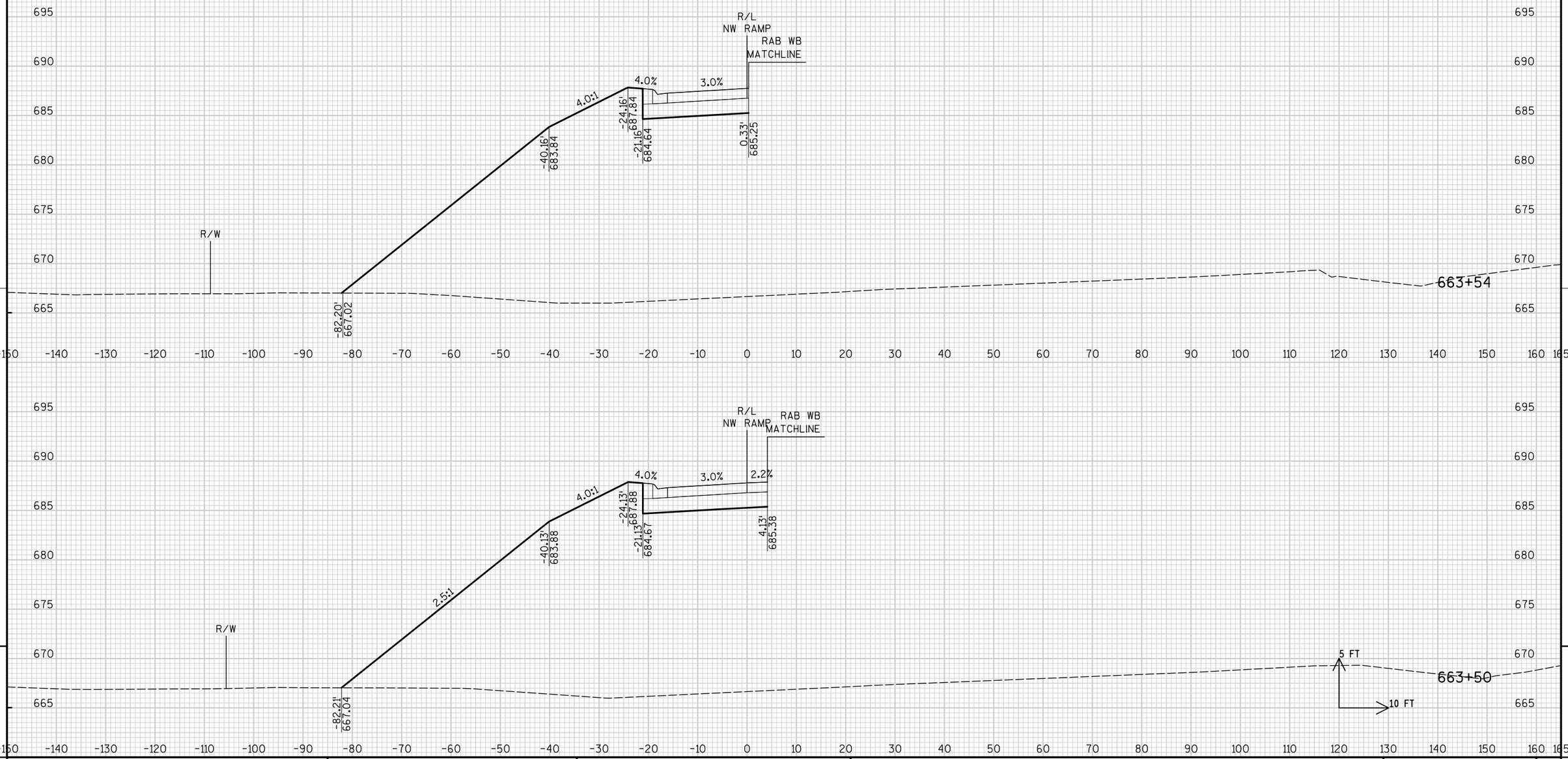


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 663+00 TO STA 663+00	SHEET 564	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090246_xs_NWR.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

NW RAMP

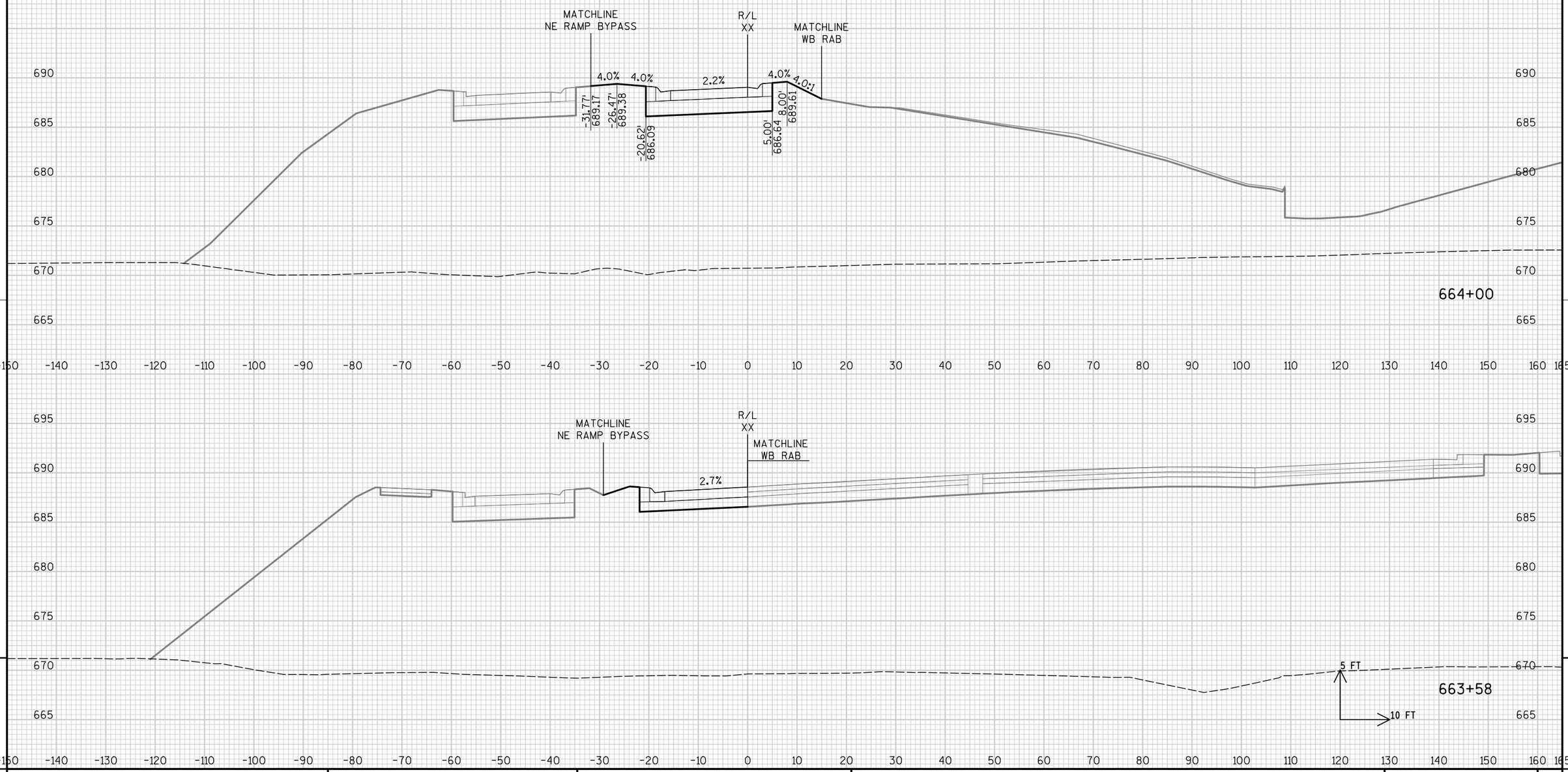


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 663+50 TO STA 663+54	SHEET 565	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090247_xs_NWR.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

NE RAMP

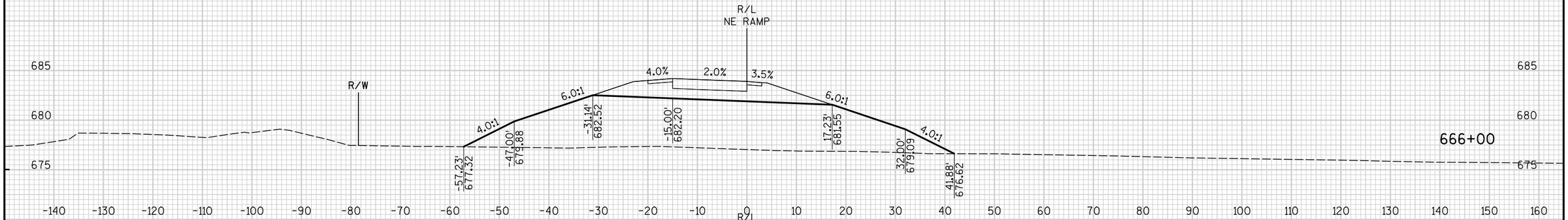


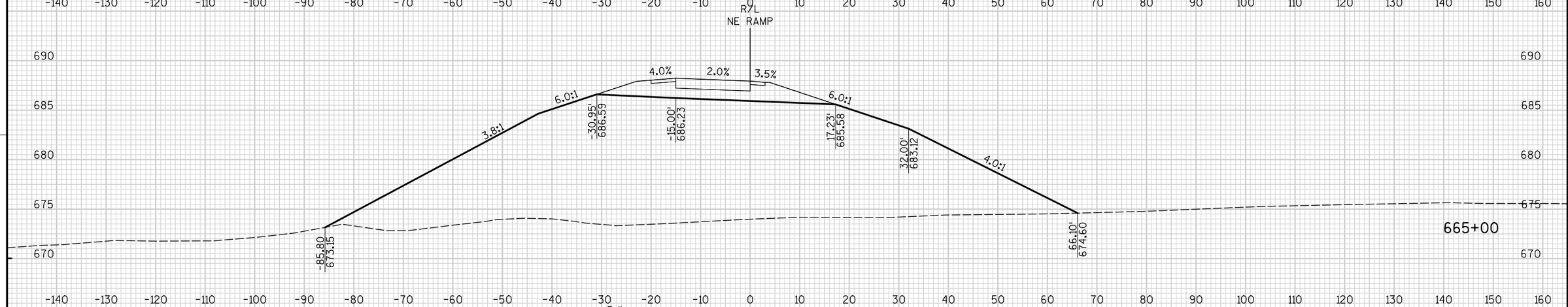
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 663+58 TO STA 664+00	SHEET	E

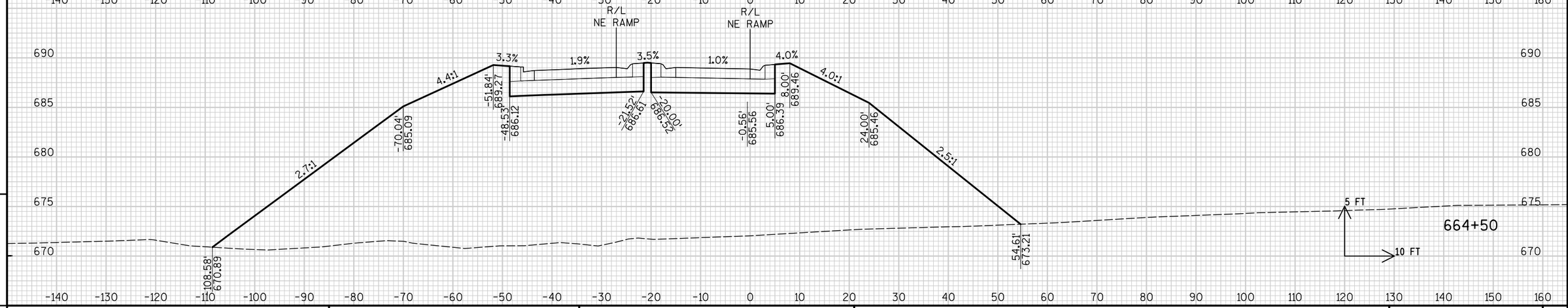
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FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090255_xs_NER.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

NE RAMP







9 9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 664+50 TO STA 666+00	SHEET 567	E

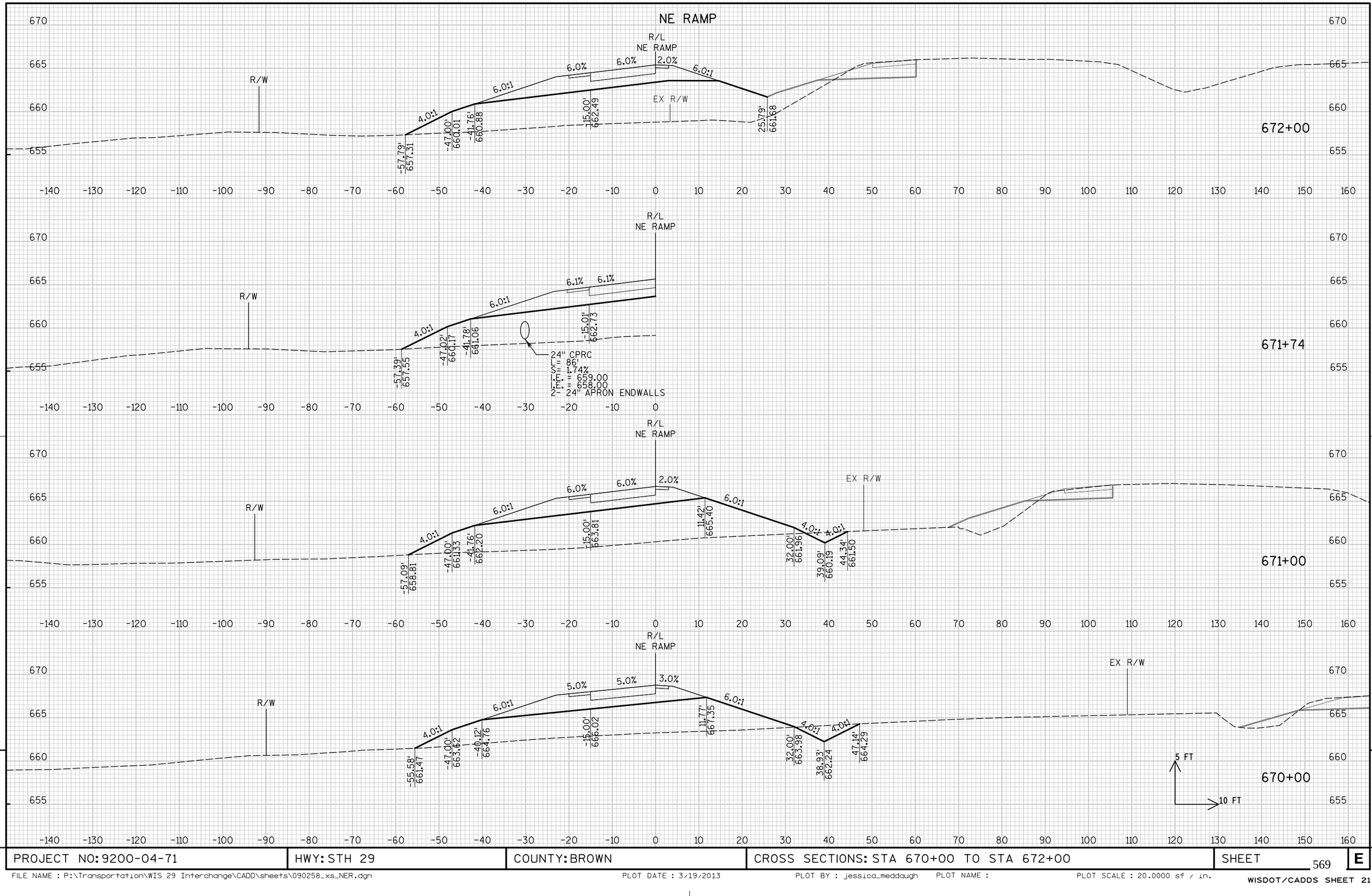
NE RAMP

9 9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 667+00 TO STA 669+00	SHEET 568	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090257_xs_NER.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

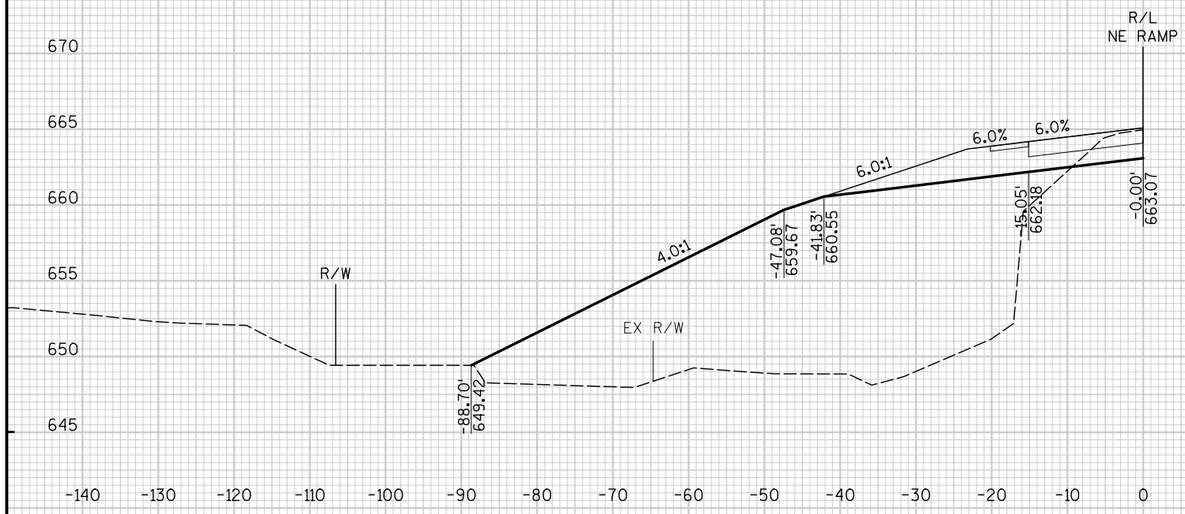


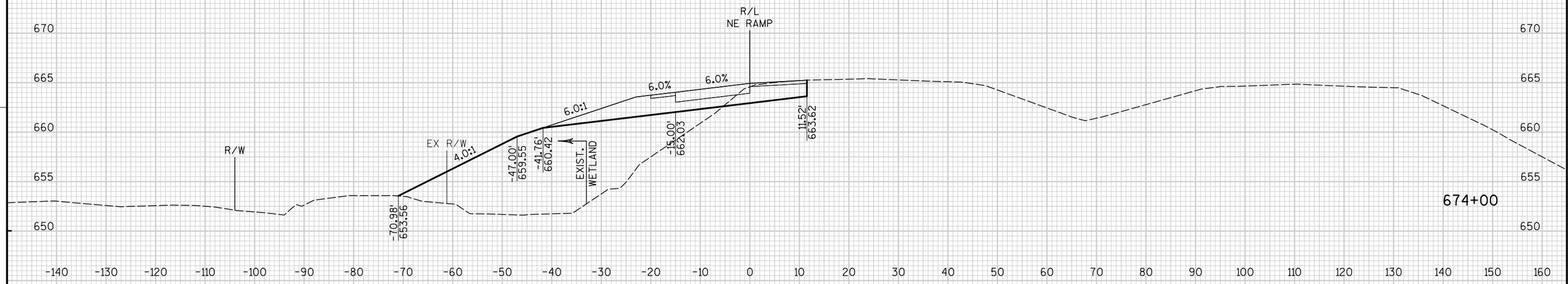
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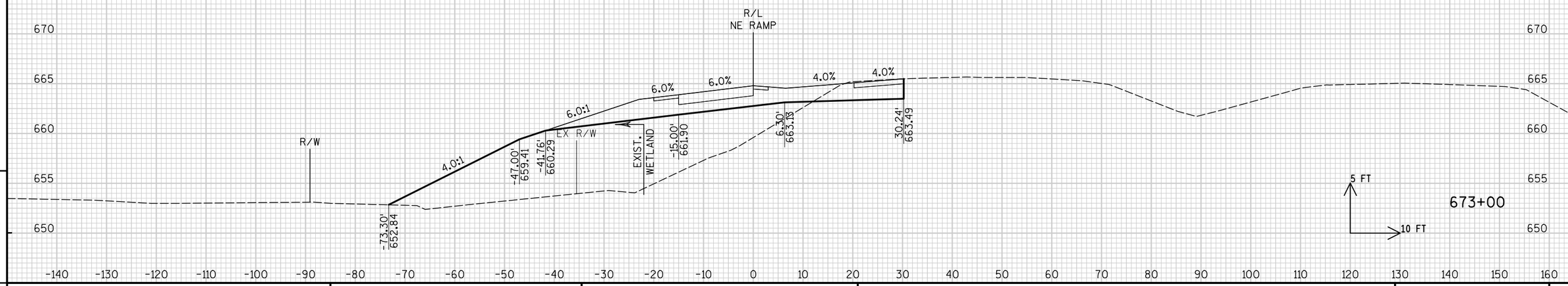
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WISDOT/CADDS SHEET 21

NE RAMP







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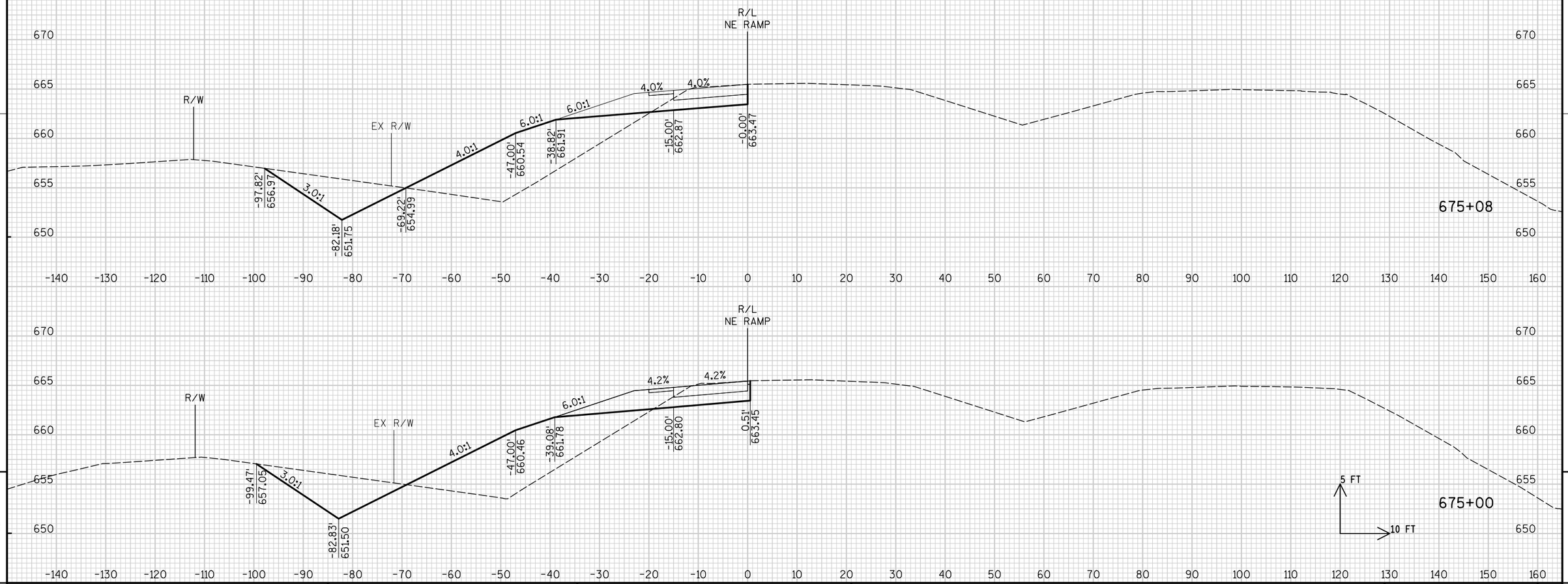
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 673+00 TO STA 674+31	SHEET 570	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090259_xs_NER.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

NE RAMP

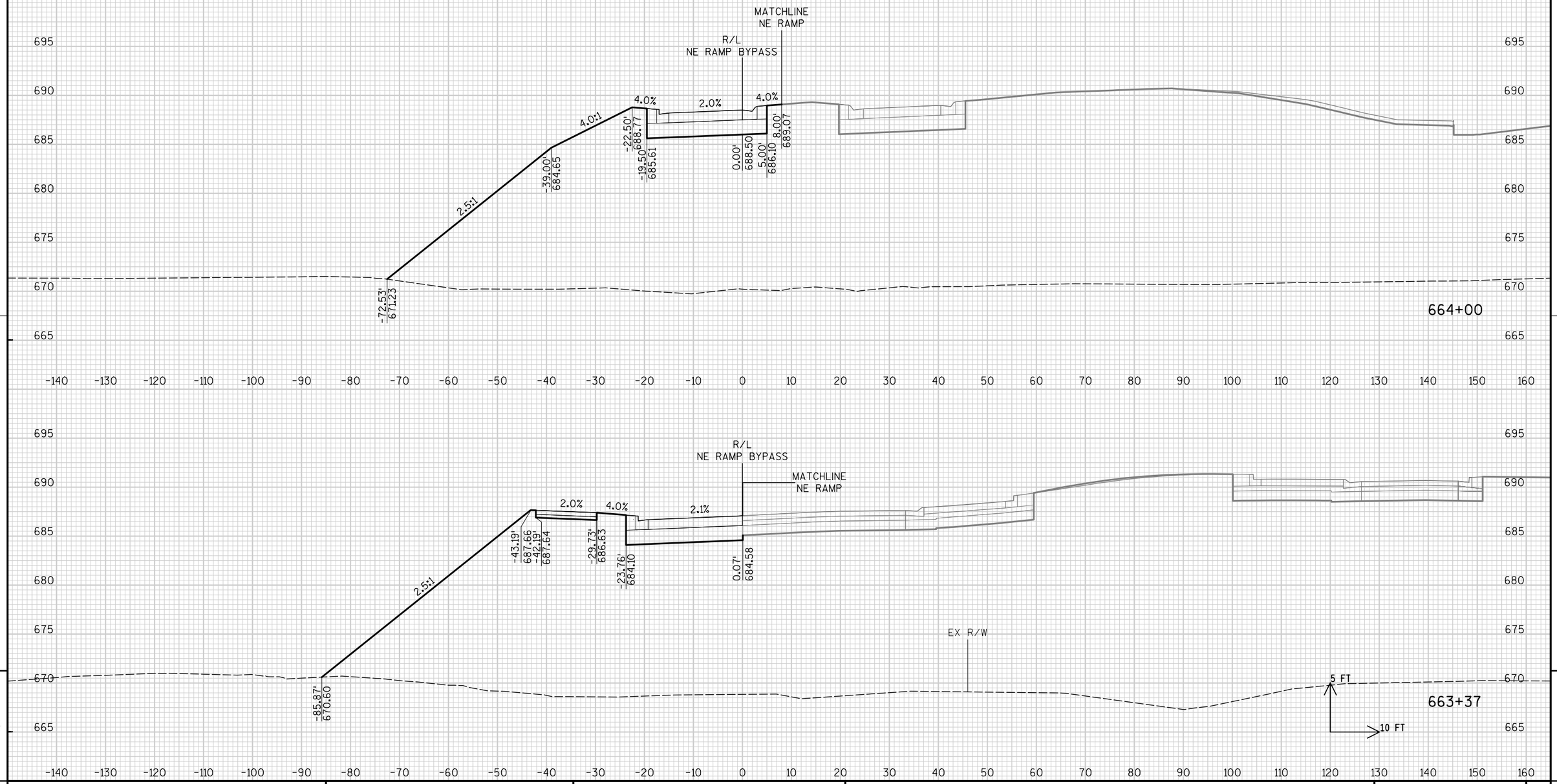


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 675+00 TO STA 675+08	SHEET 571	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090259a_xs_NER.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

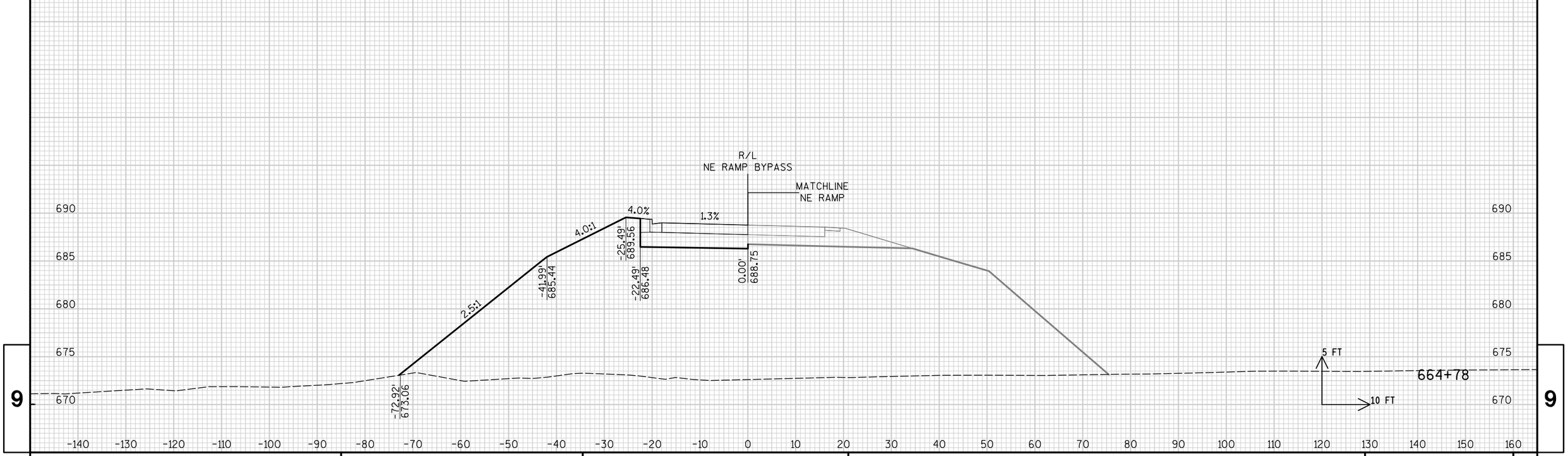
NE RAMP BYPASS



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 663+37 TO STA 664+00	SHEET 572 E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090259b_xs_NERbypass.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

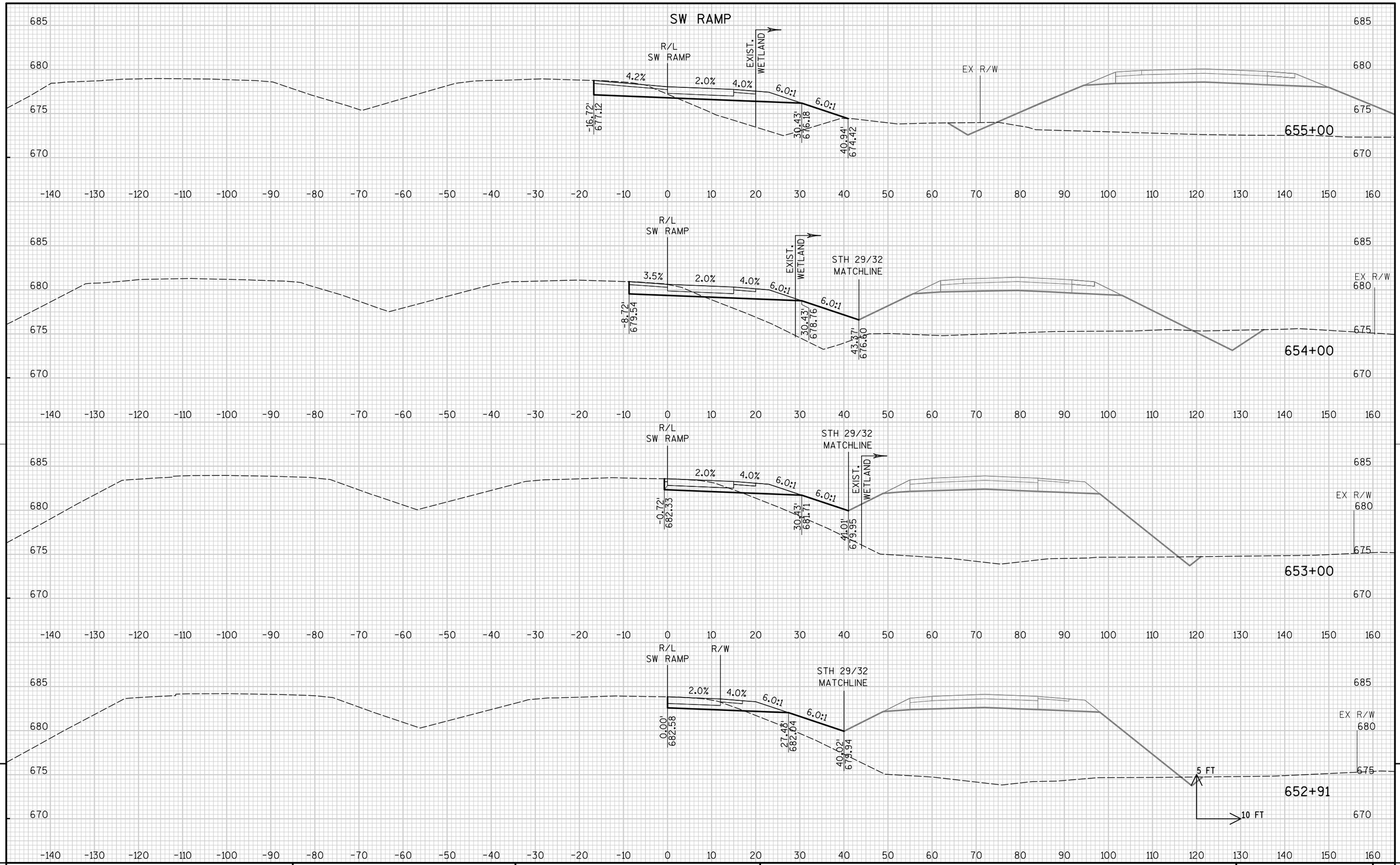
NE RAMP BYPASS



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 664+78 TO STA 664+78	SHEET 573	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090259c_xs_NERbypass.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



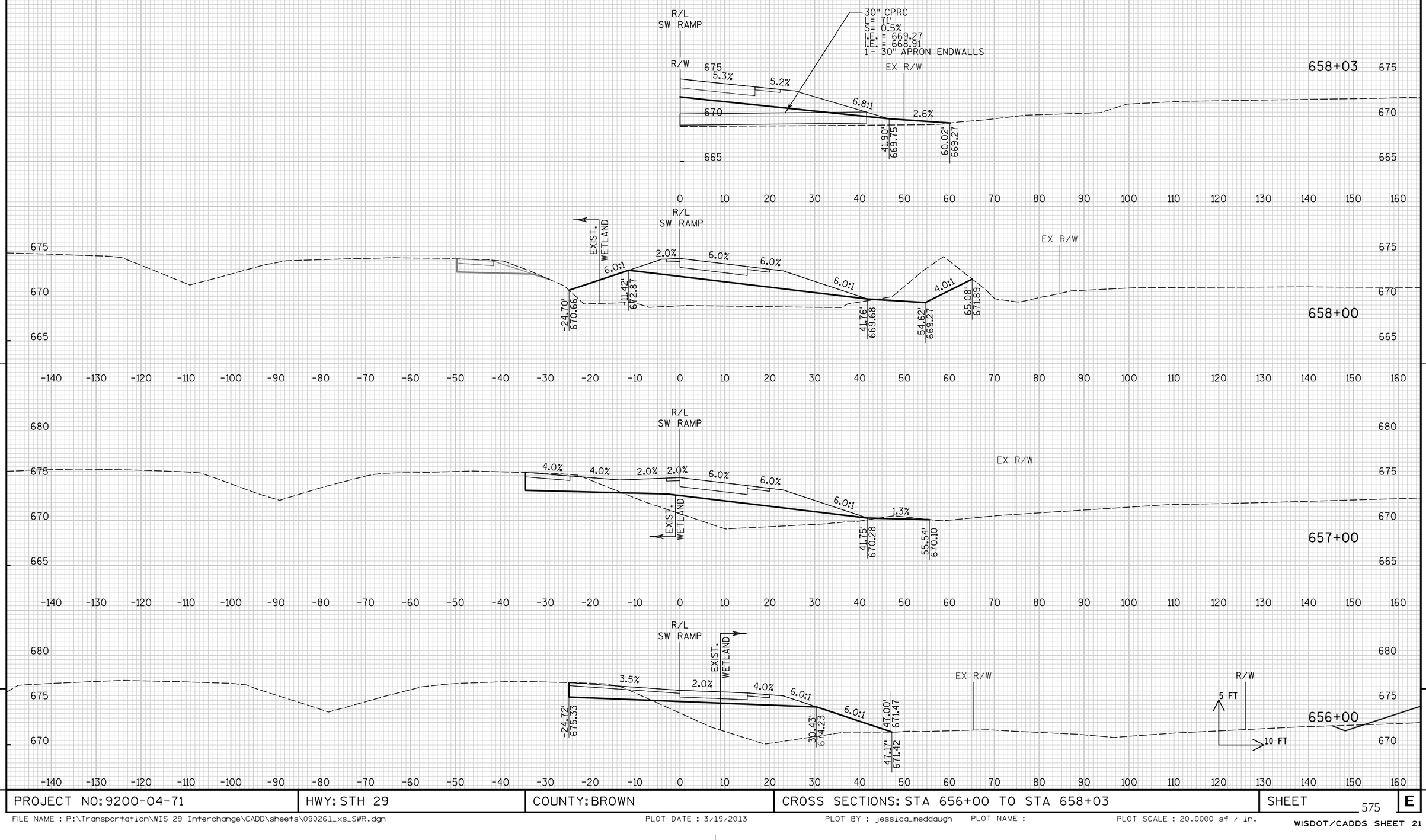
9

9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 652+91 TO STA 655+00	SHEET 574	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090260_xs_SWR.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

SW RAMP

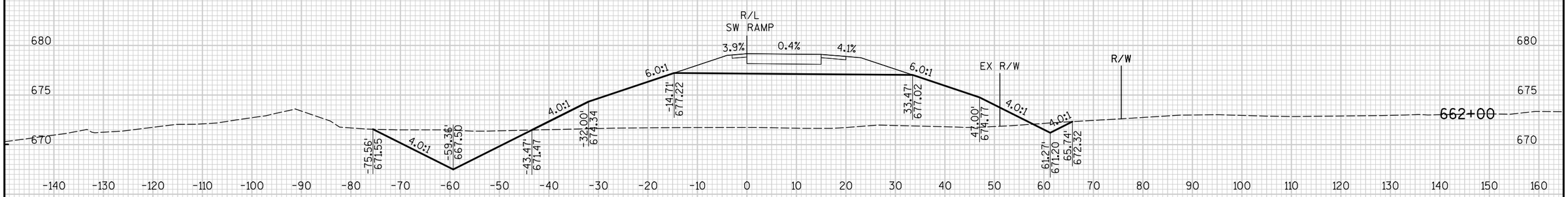


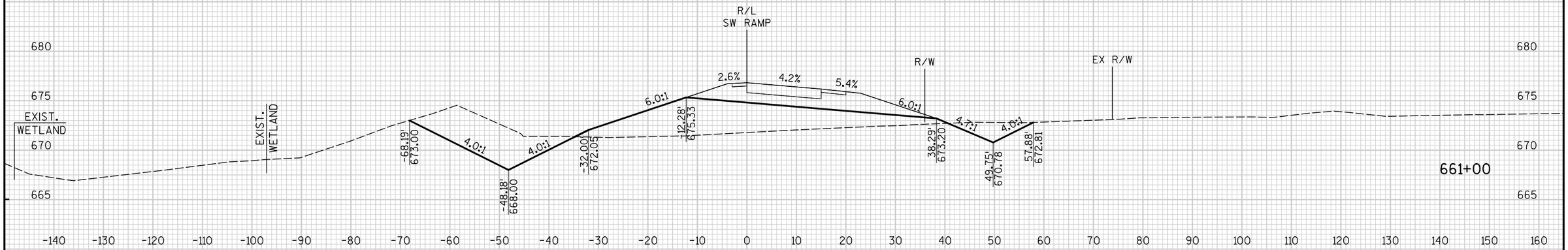
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 656+00 TO STA 658+03	SHEET 575	E

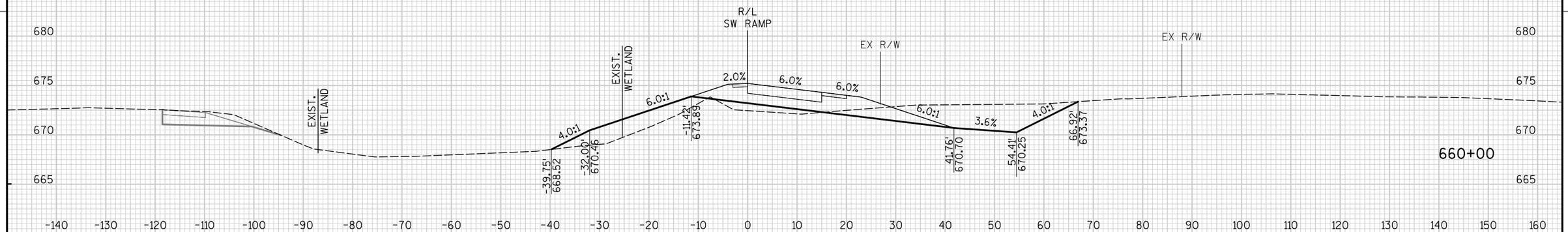
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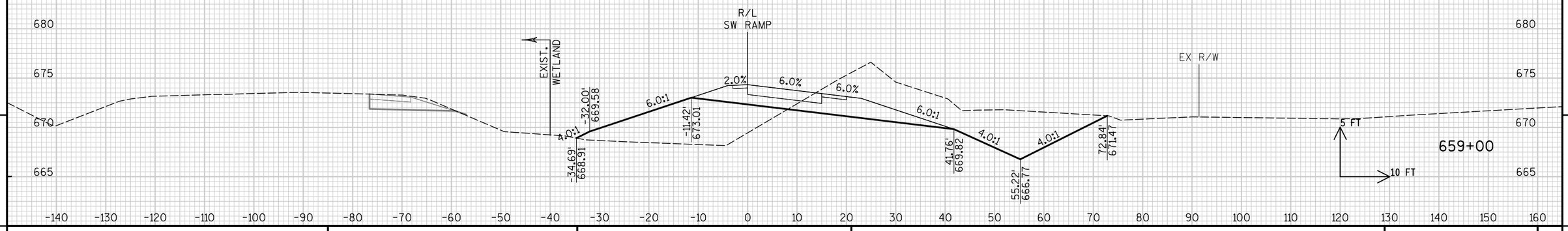
WISDOT/CADDS SHEET 21

SW RAMP









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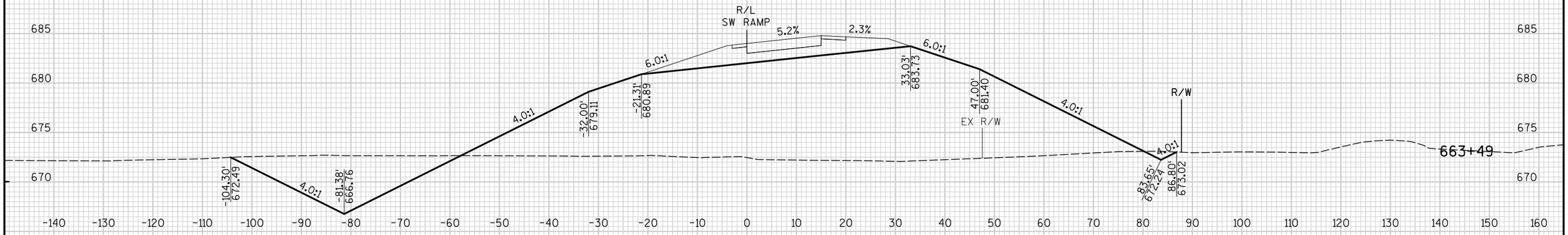
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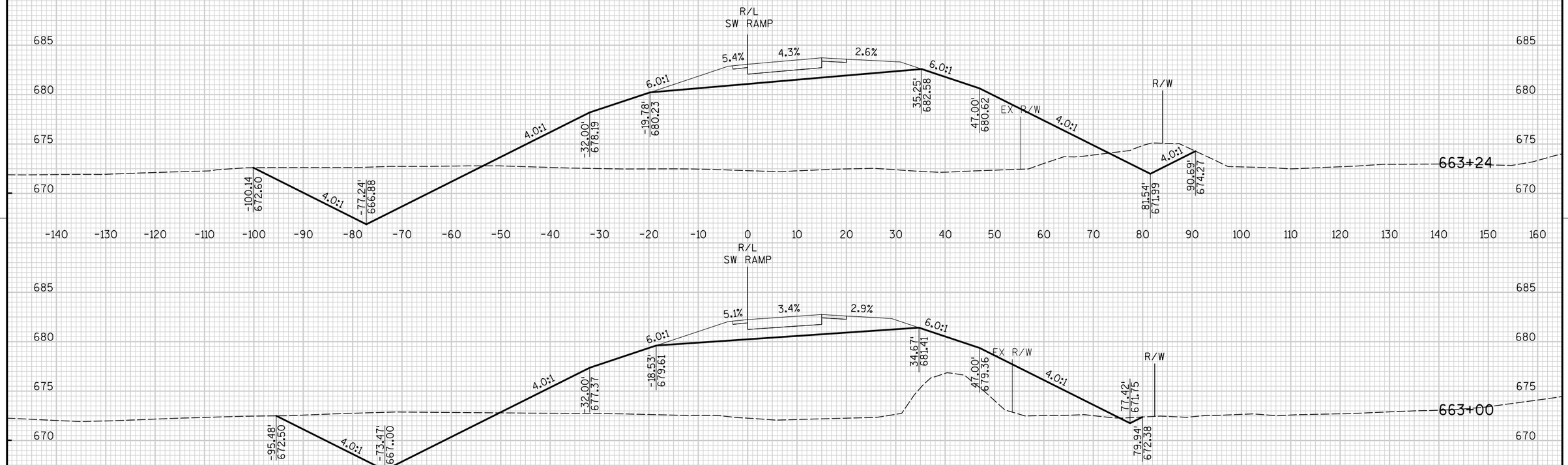
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 659+00 TO STA 662+00	SHEET 576	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090262_xs_SWR.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

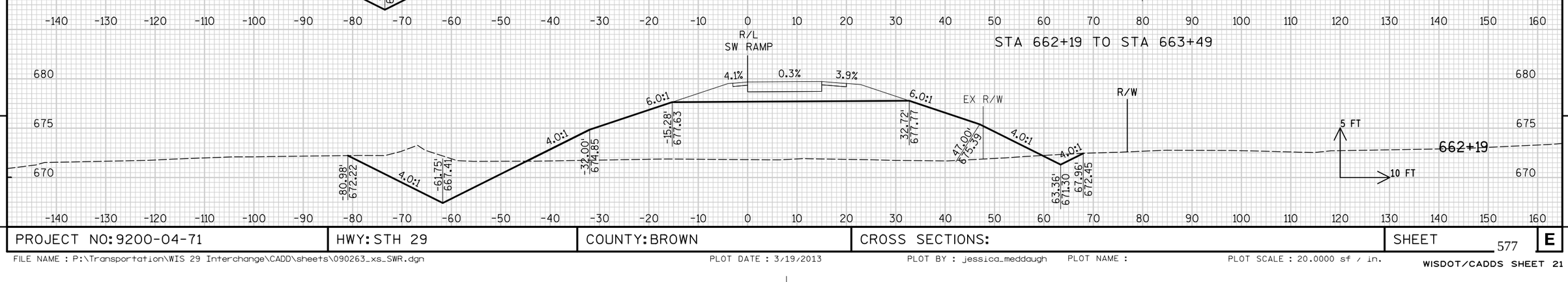
WISDOT/CADDS SHEET 21

SW RAMP





STA 662+19 TO STA 663+49



9

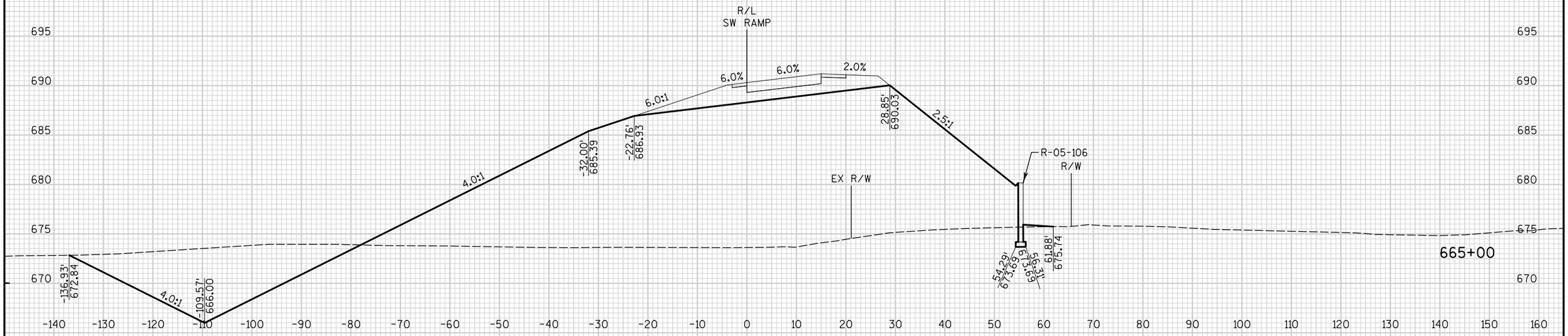
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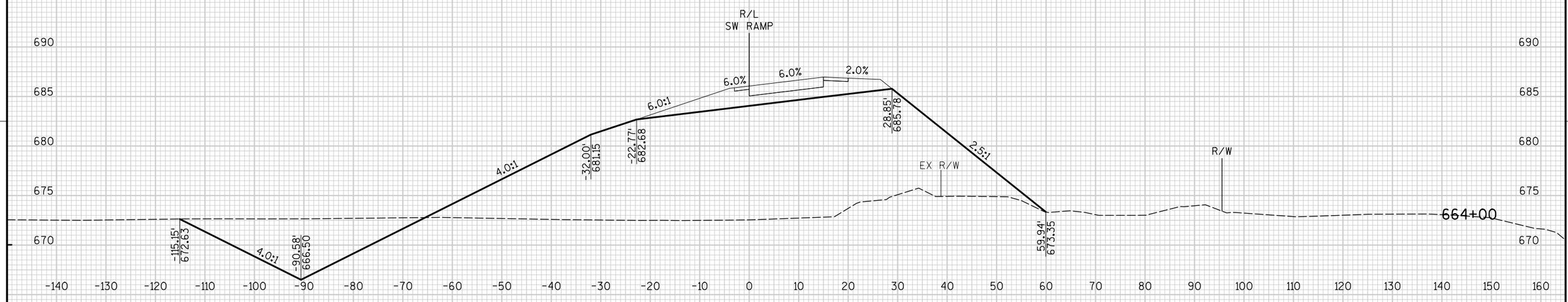
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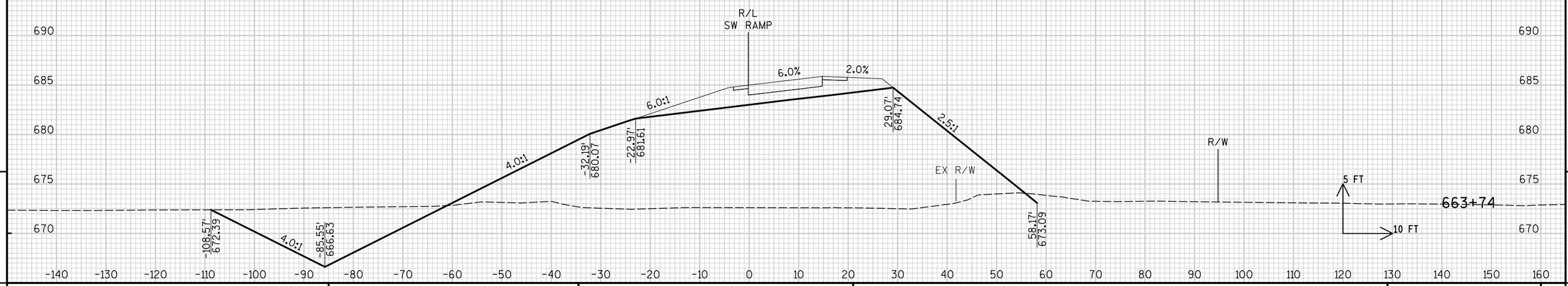
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WISDOT/CADDS SHEET 21

SW RAMP







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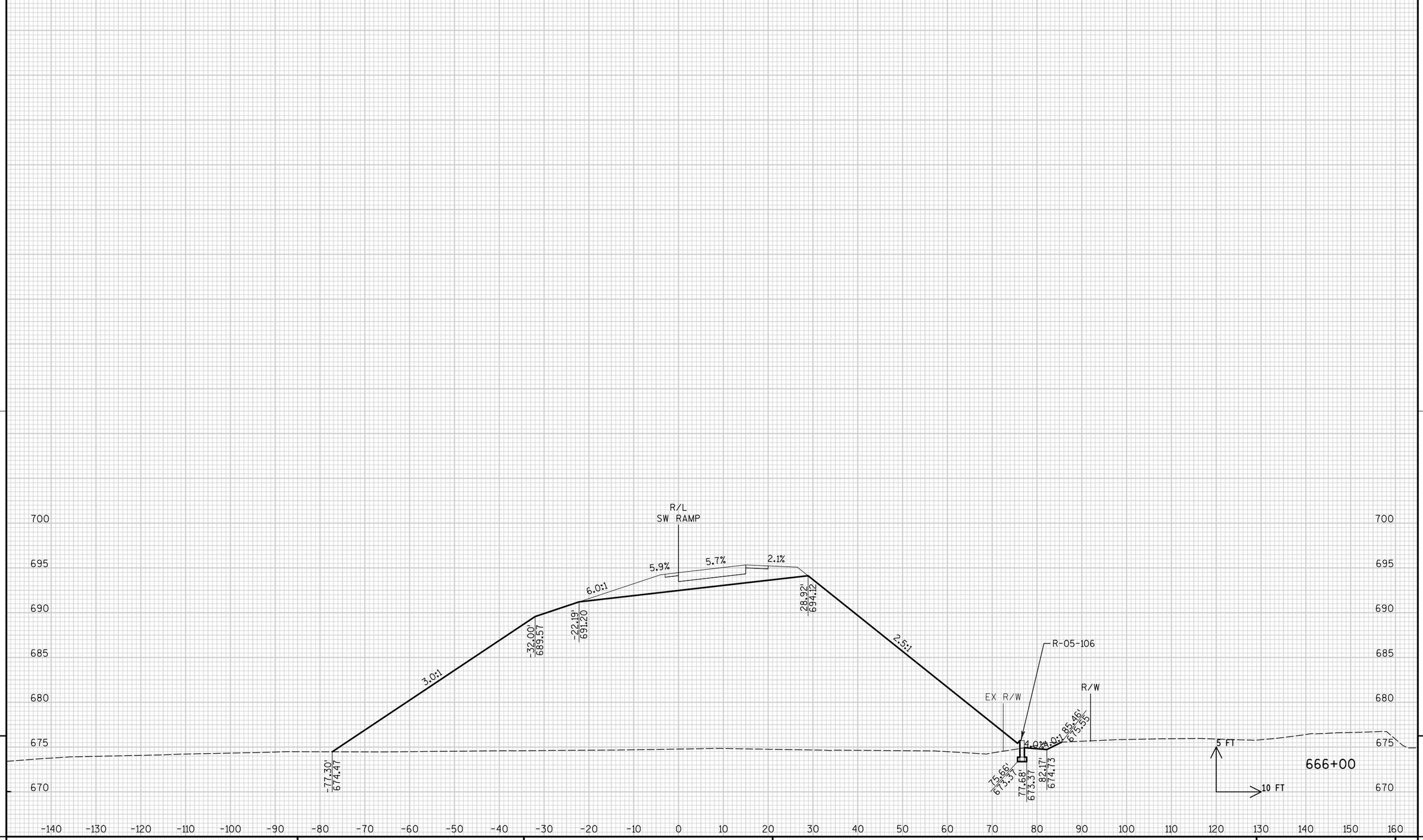
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 663+74 TO STA 665+00	SHEET 578	E

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WISDOT/CADDS SHEET 21

SW RAMP



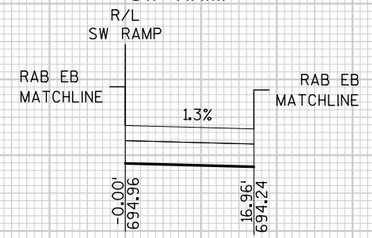
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 666+00 TO STA 666+00	SHEET 579	E

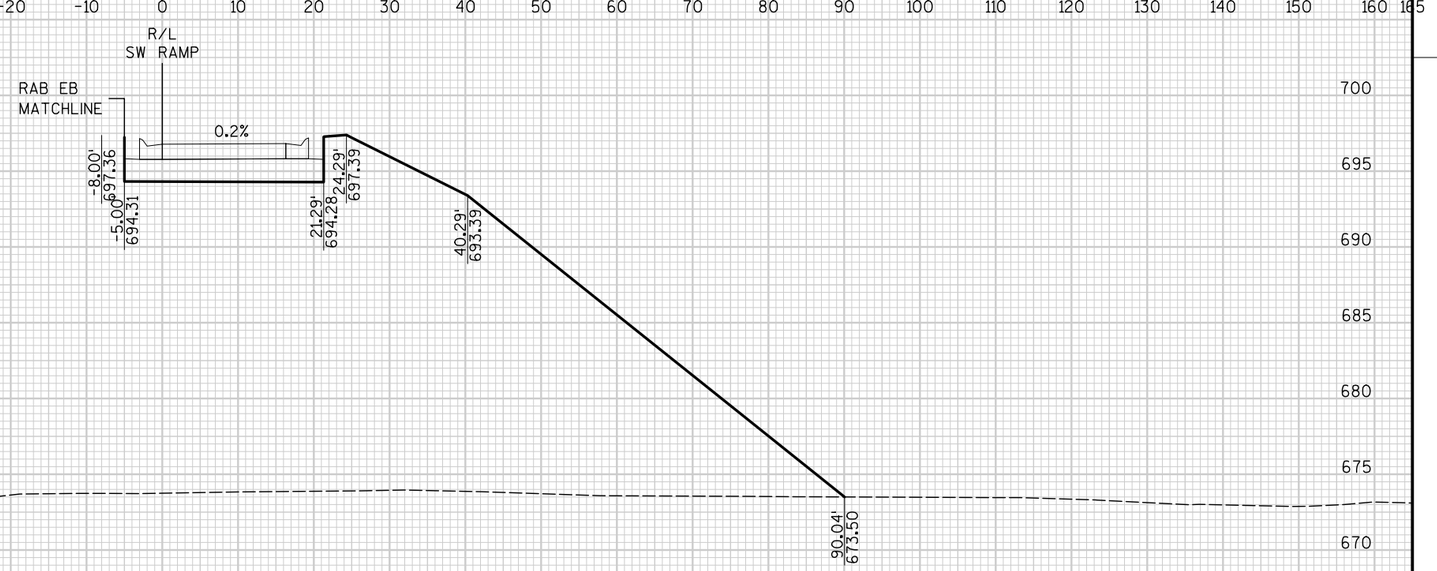
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WISDOT/CADDS SHEET 21

SW RAMP



667+27



667+00

5 FT

10 FT

9

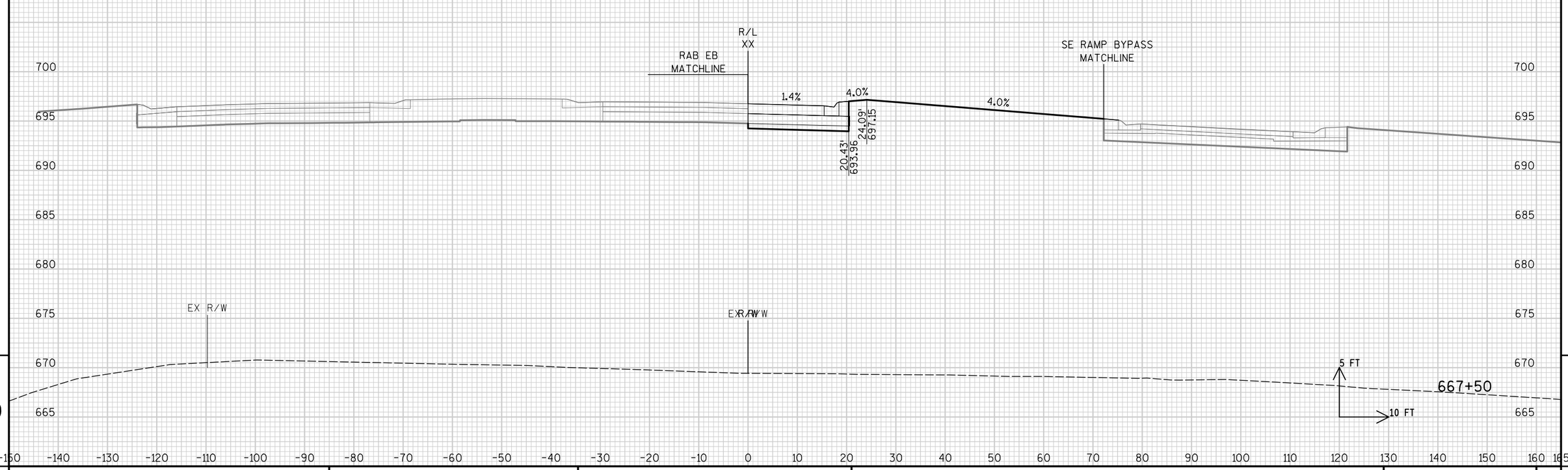
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FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090263D_xs_SWR.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

SE RAMP



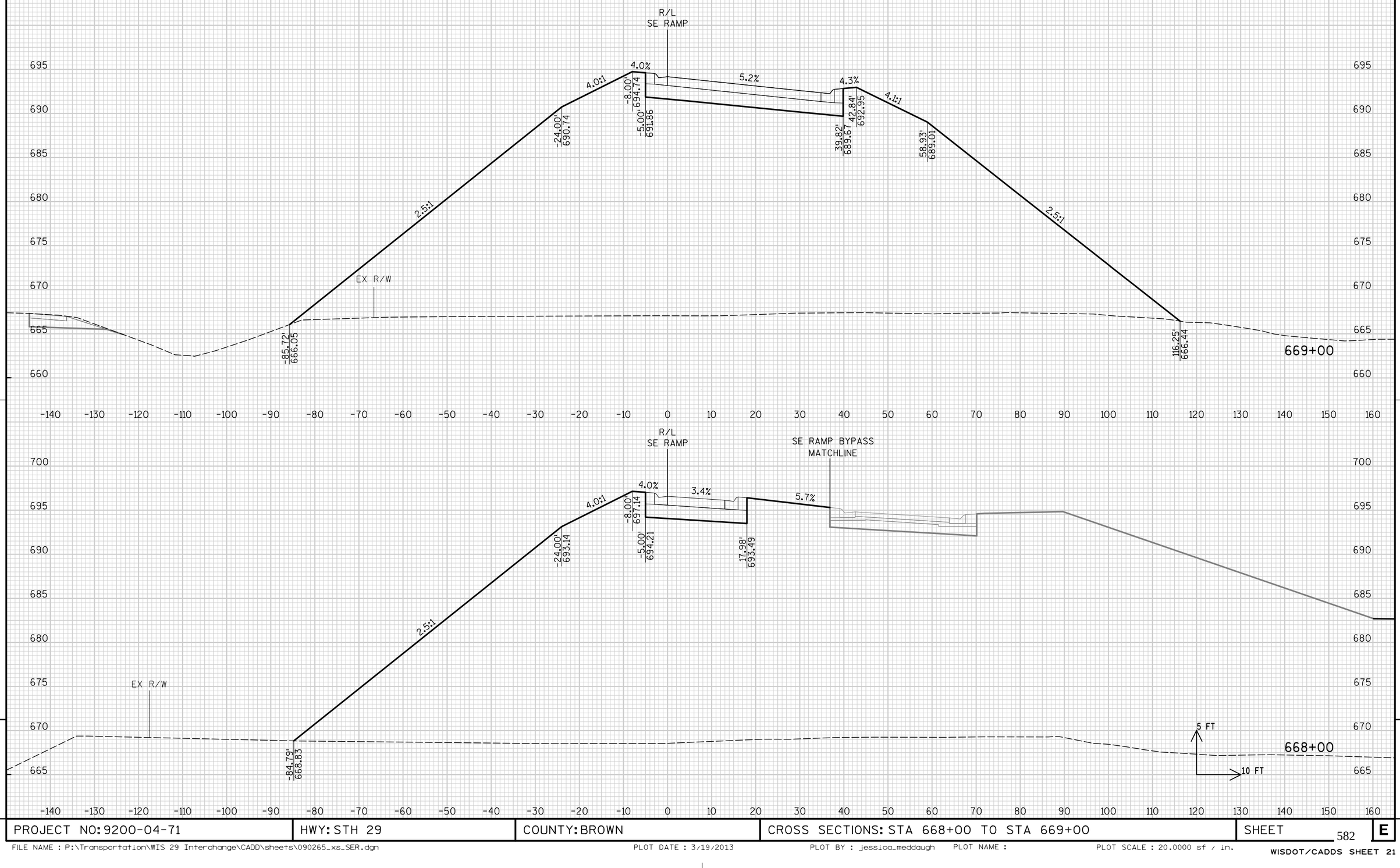
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 667+50 TO STA 667+50	SHEET 581	E

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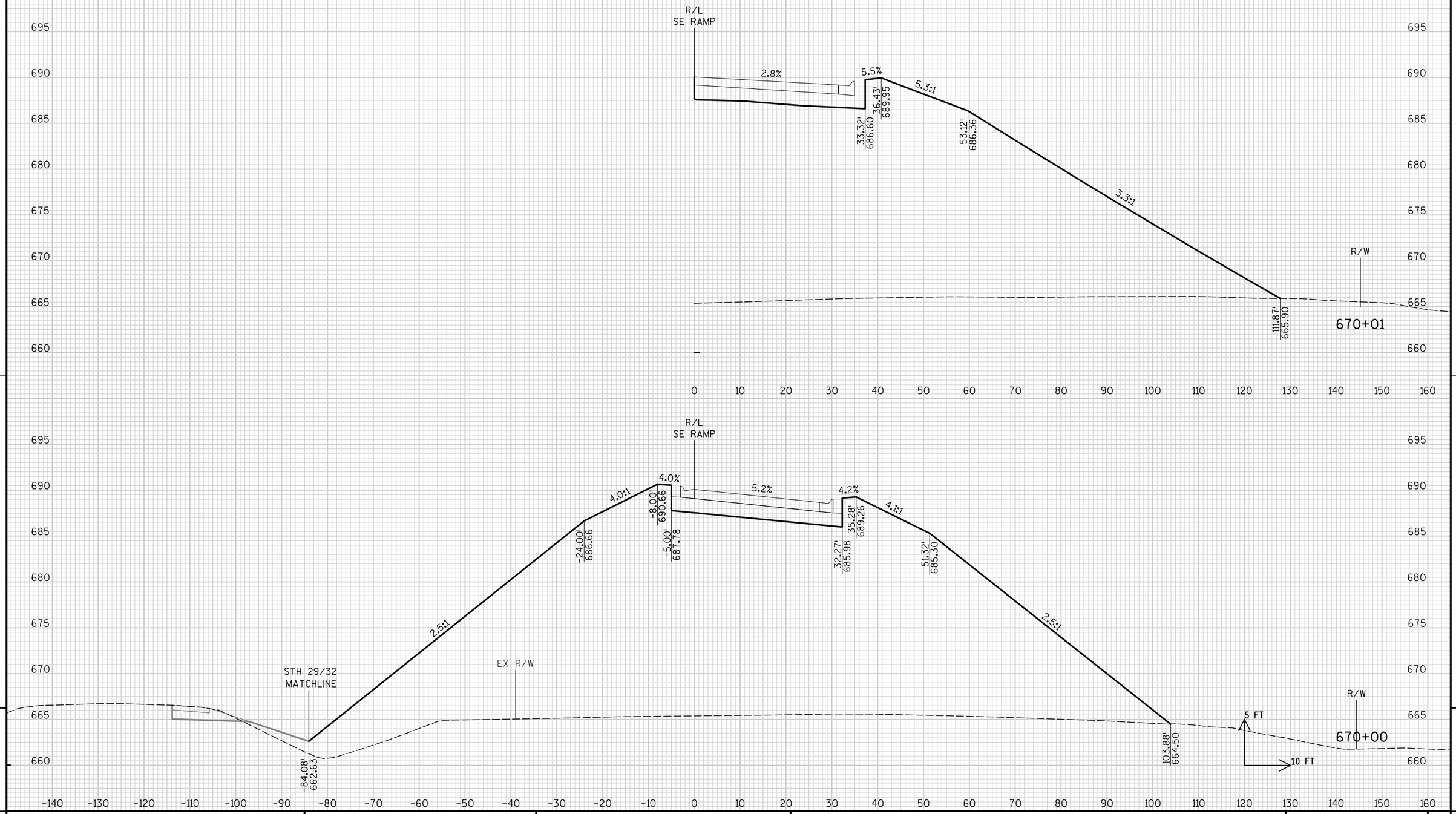
WISDOT/CADDS SHEET 21

SE RAMP



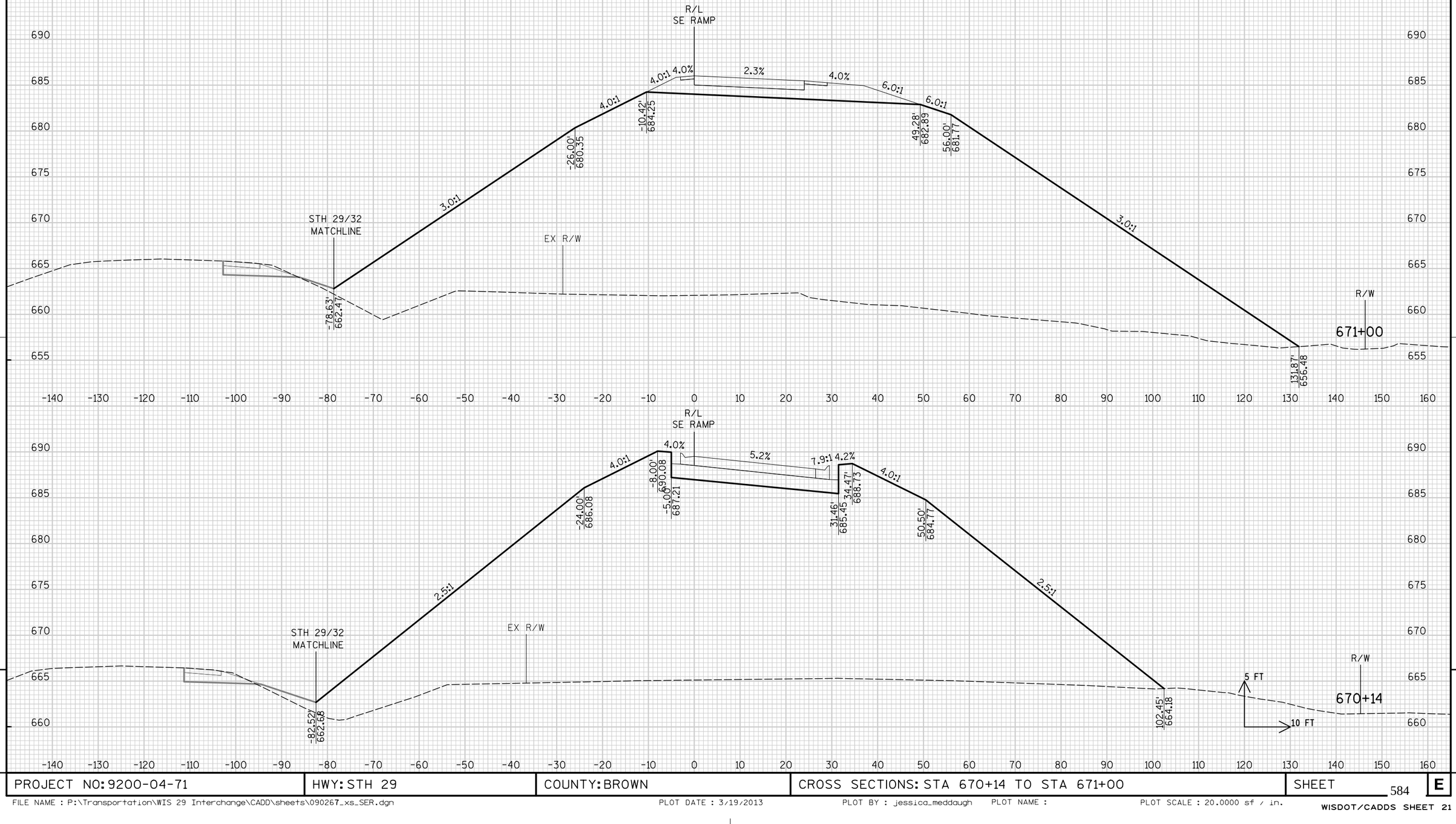
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 668+00 TO STA 669+00	SHEET 582	E

SE RAMP



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 670+00 TO STA 670+01	SHEET 583	E

SE RAMP

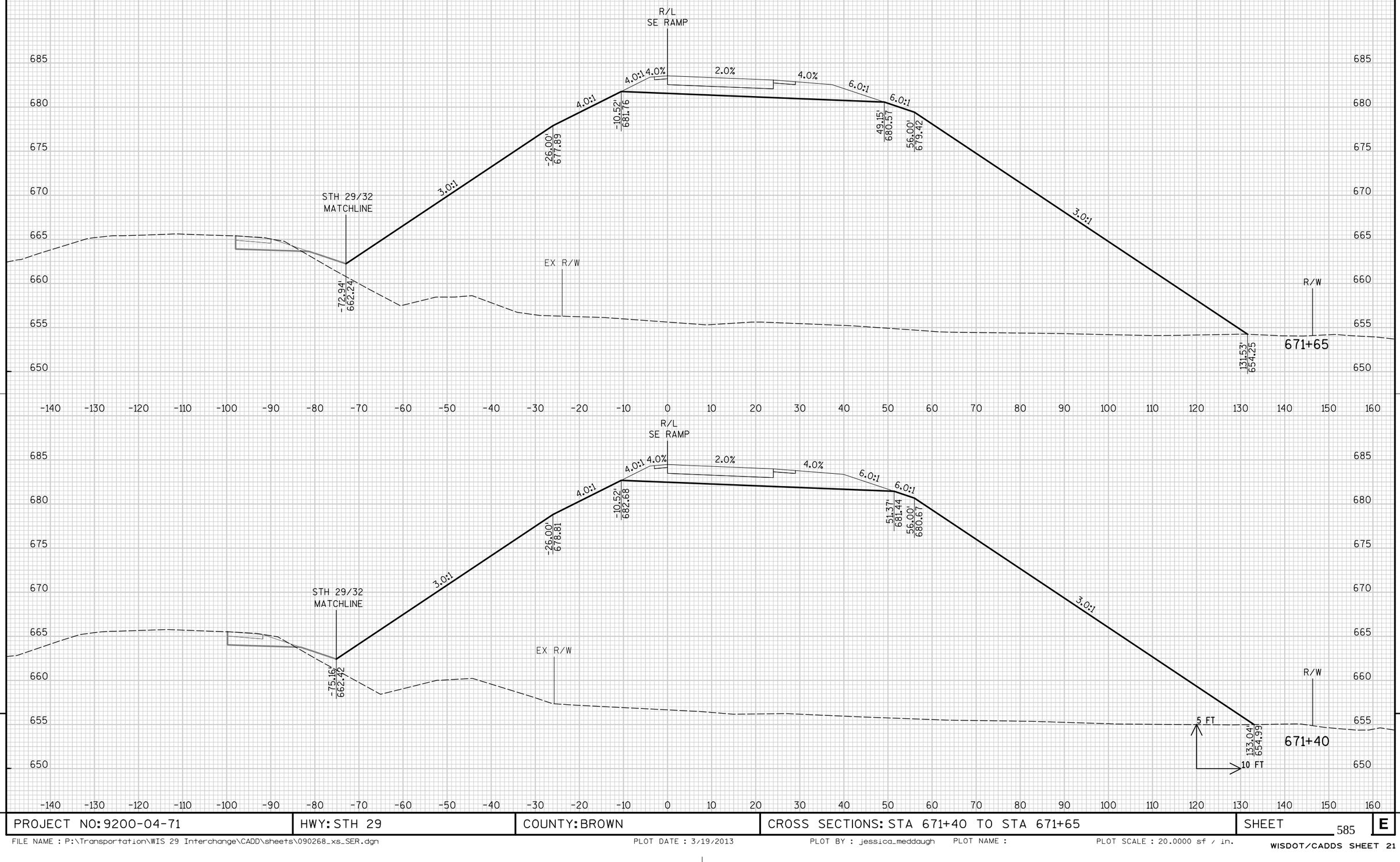


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 670+14 TO STA 671+00	SHEET 584 E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090267_xs_SER.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

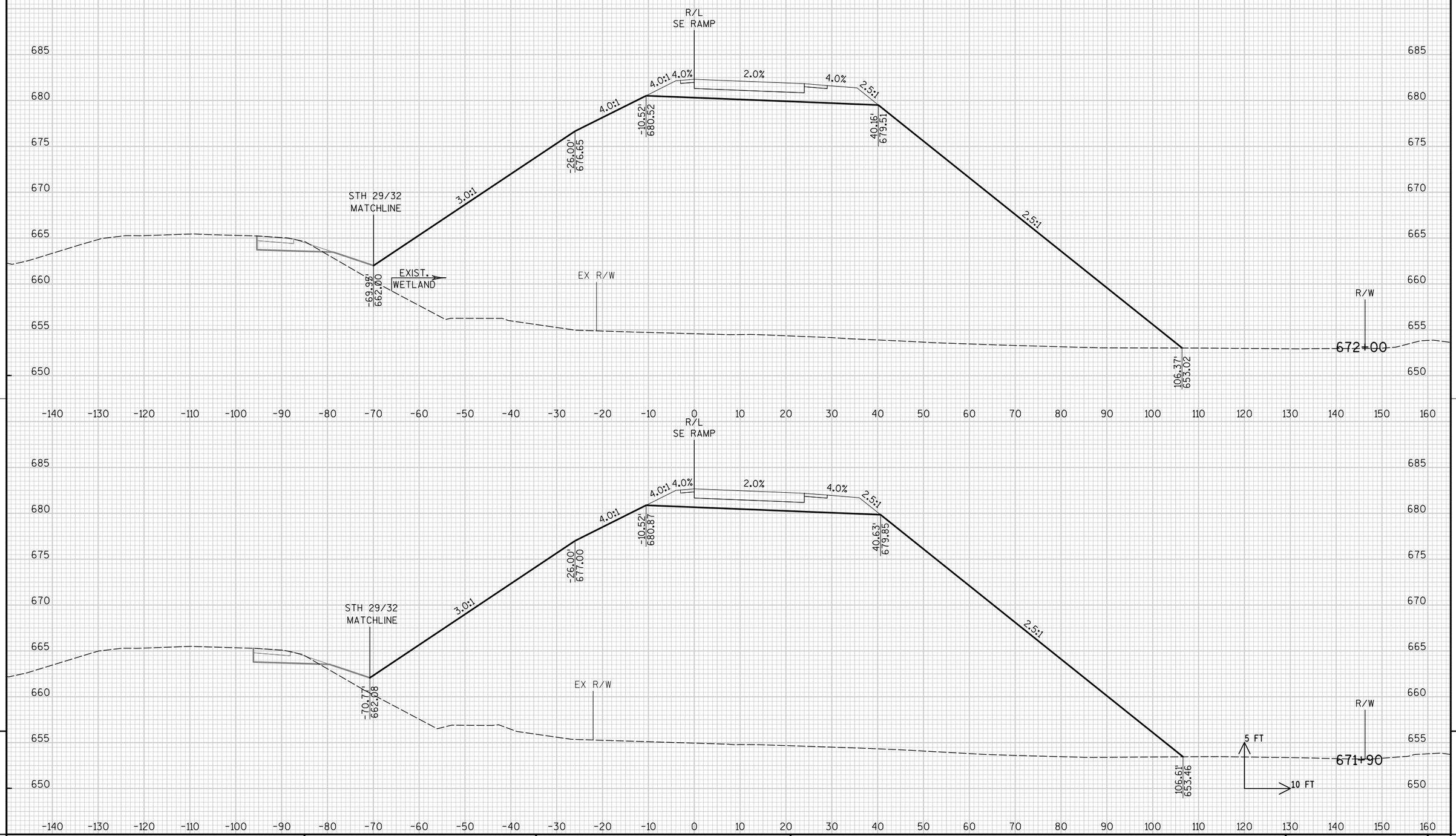
WISDOT/CADDS SHEET 21

SE RAMP



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 671+40 TO STA 671+65	SHEET 585	E

SE RAMP

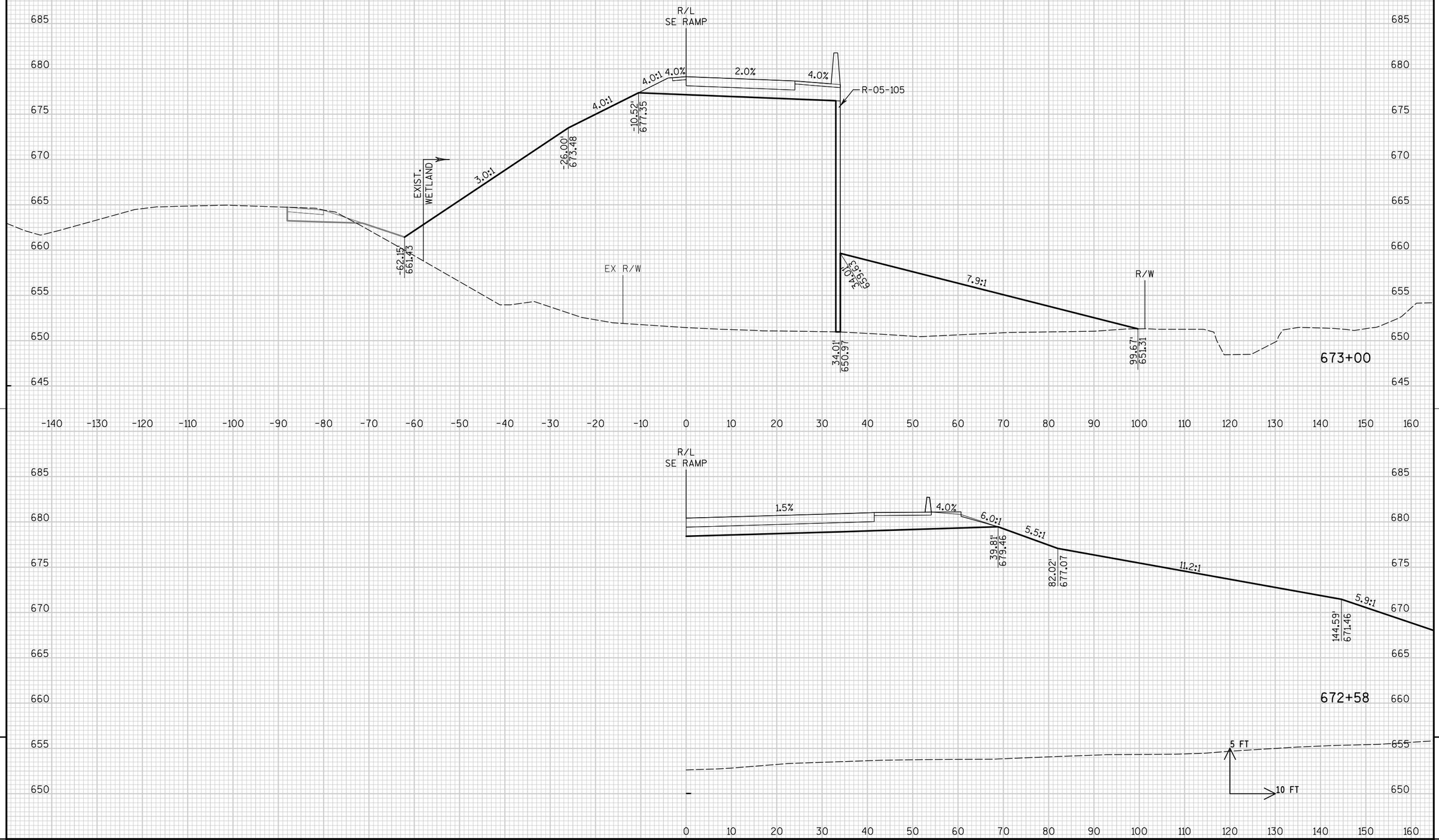


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 671+90 TO STA 672+00	SHEET 586	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090269_xs_SER.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

SE RAMP

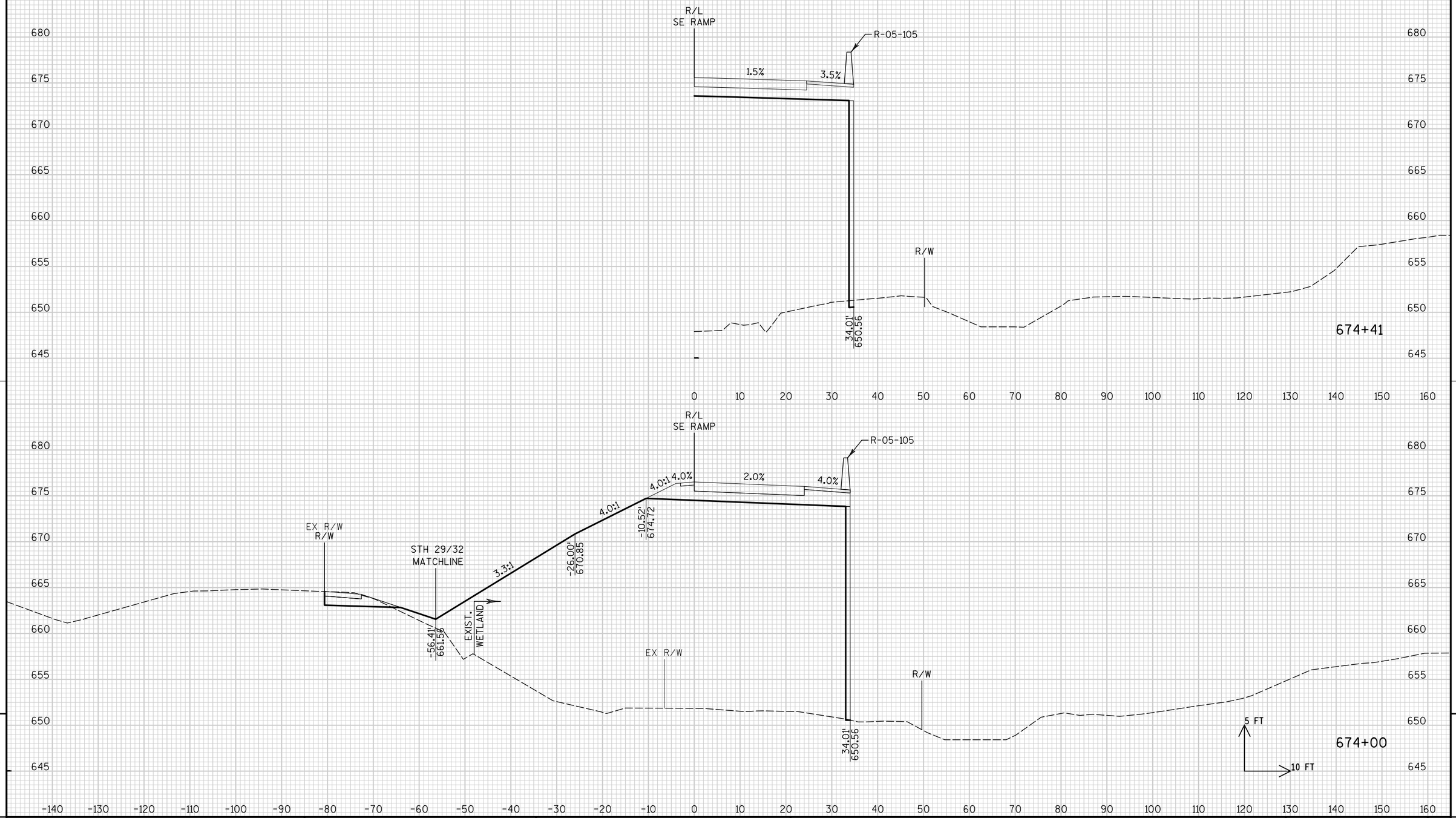


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 672+58 TO STA 673+00	SHEET 587	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090270_xs_SER.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

SE RAMP

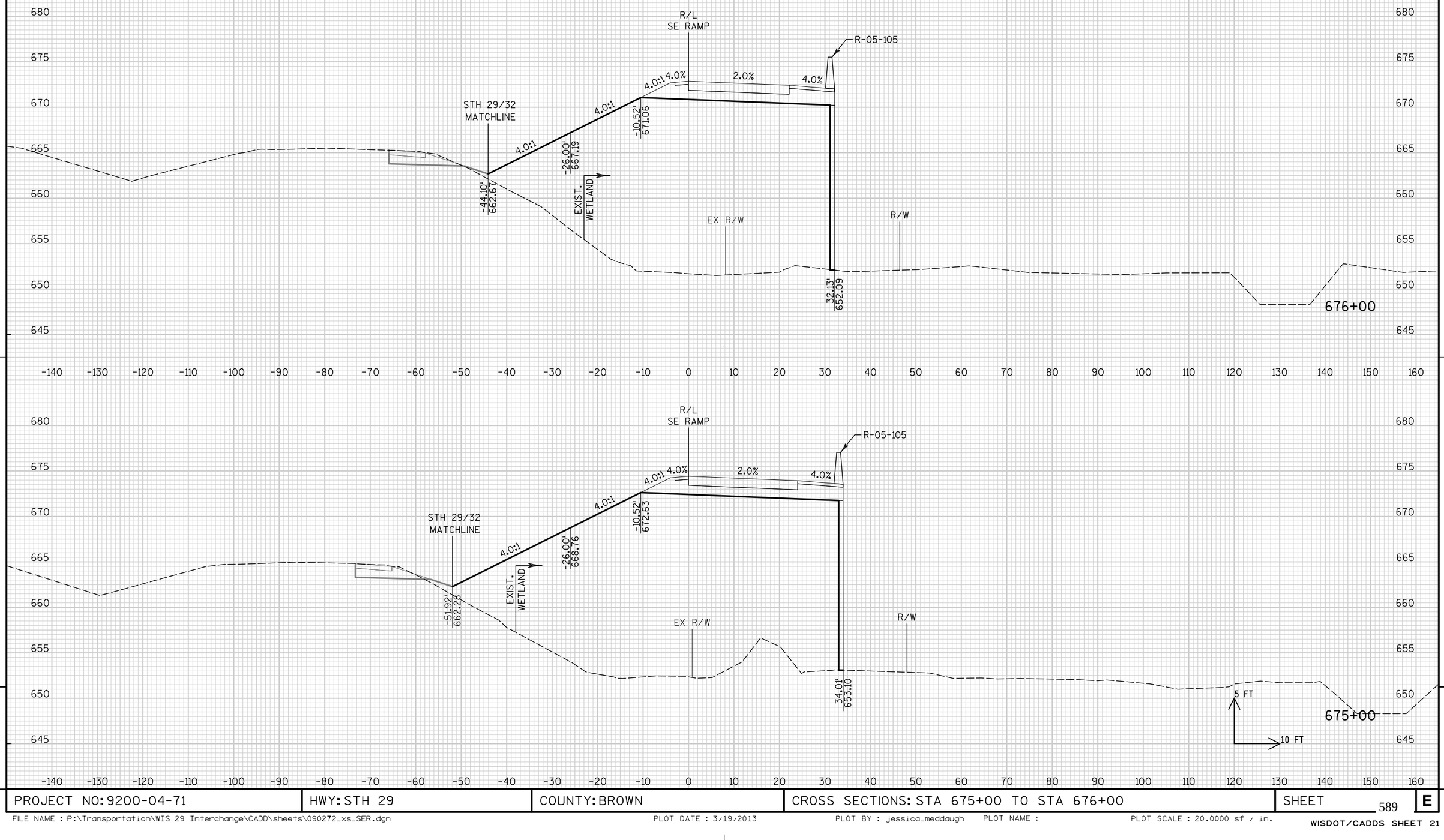


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 674+00 TO STA 674+41	SHEET 588	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090271_xs_SER.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

SE RAMP

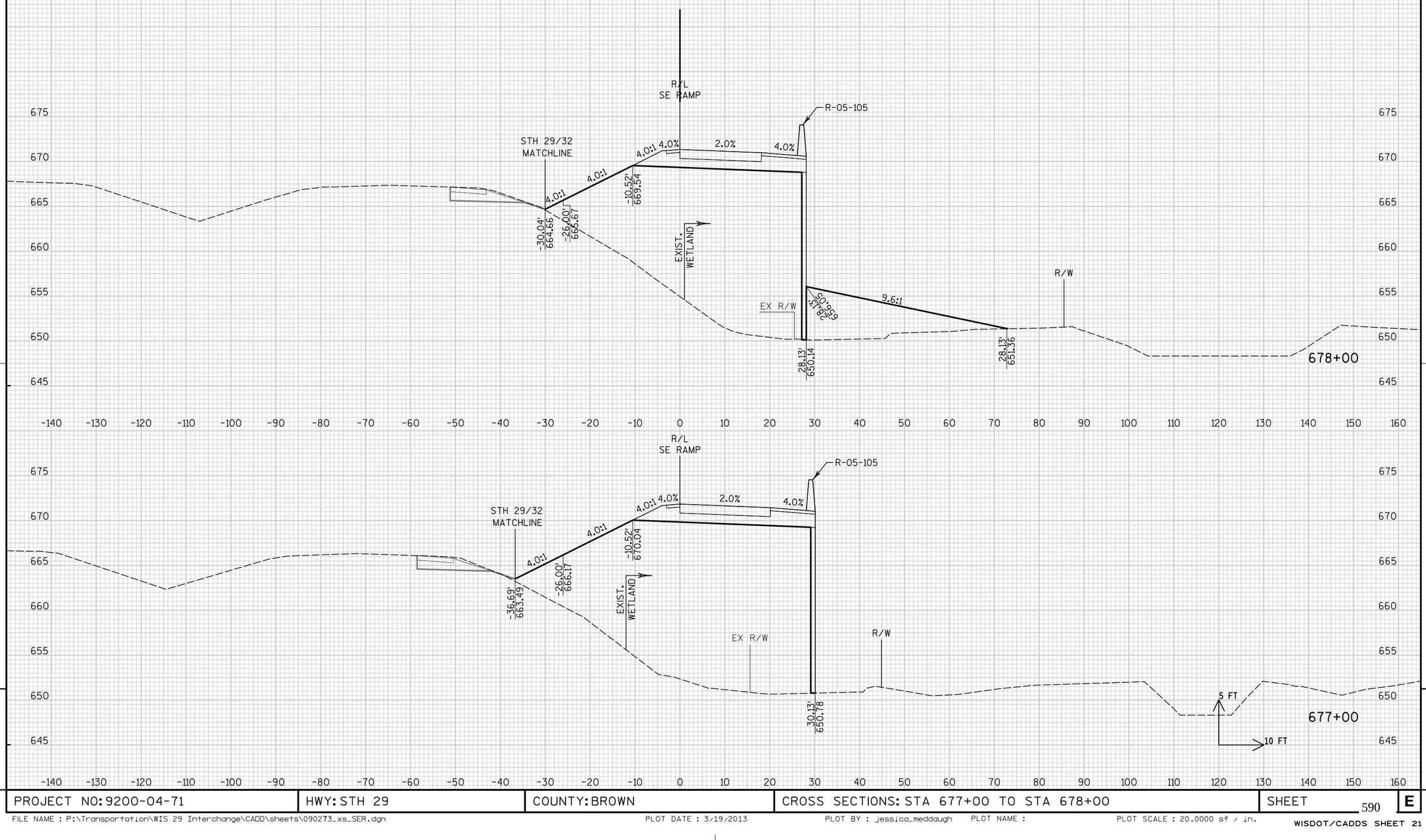


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 675+00 TO STA 676+00	SHEET 589	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090272_xs_SER.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

SE RAMP

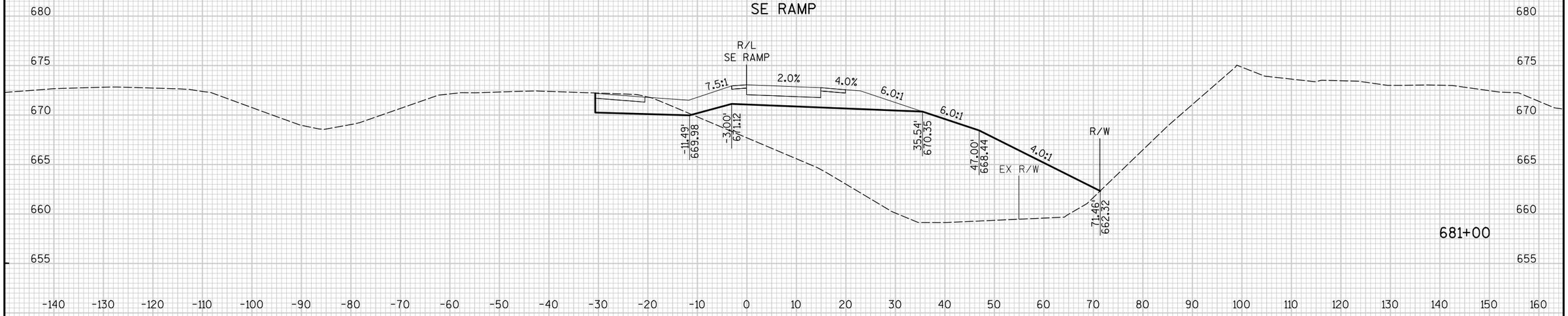


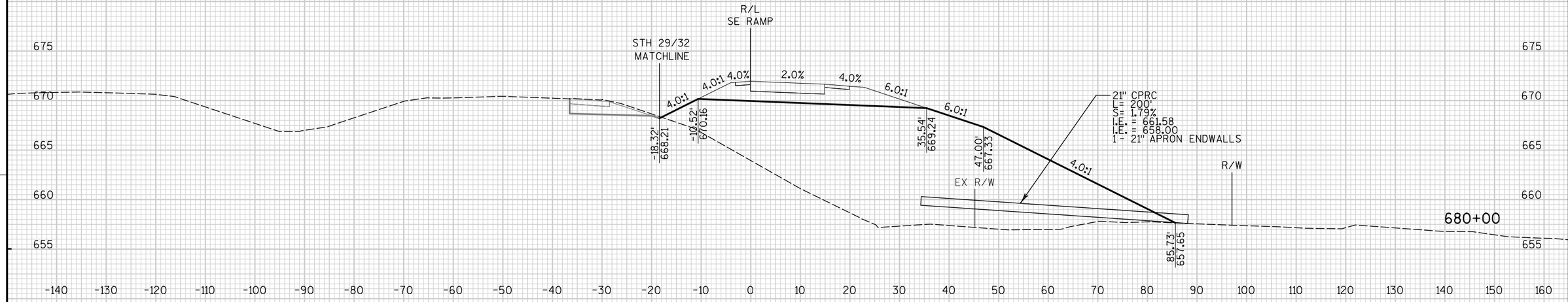
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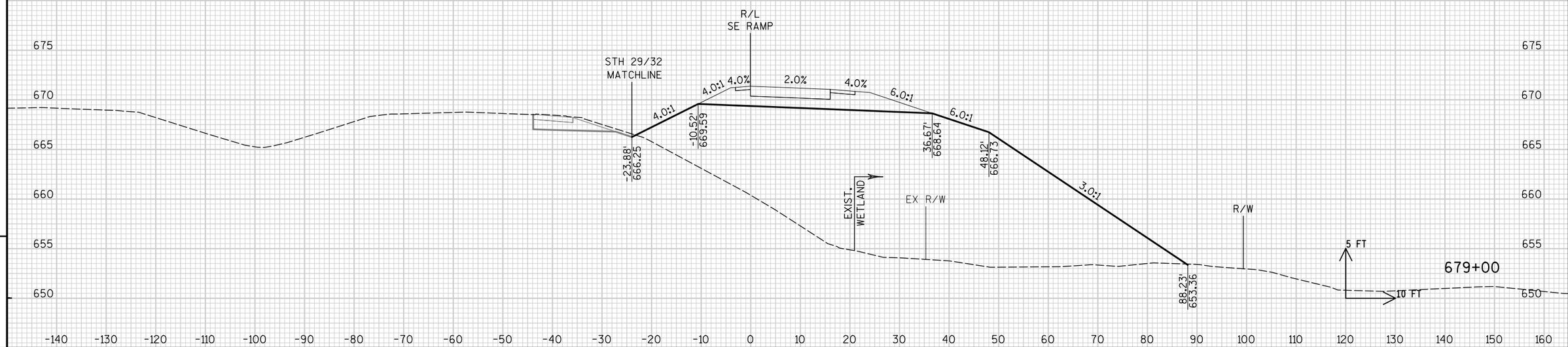
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WISDOT/CADDS SHEET 21

SE RAMP





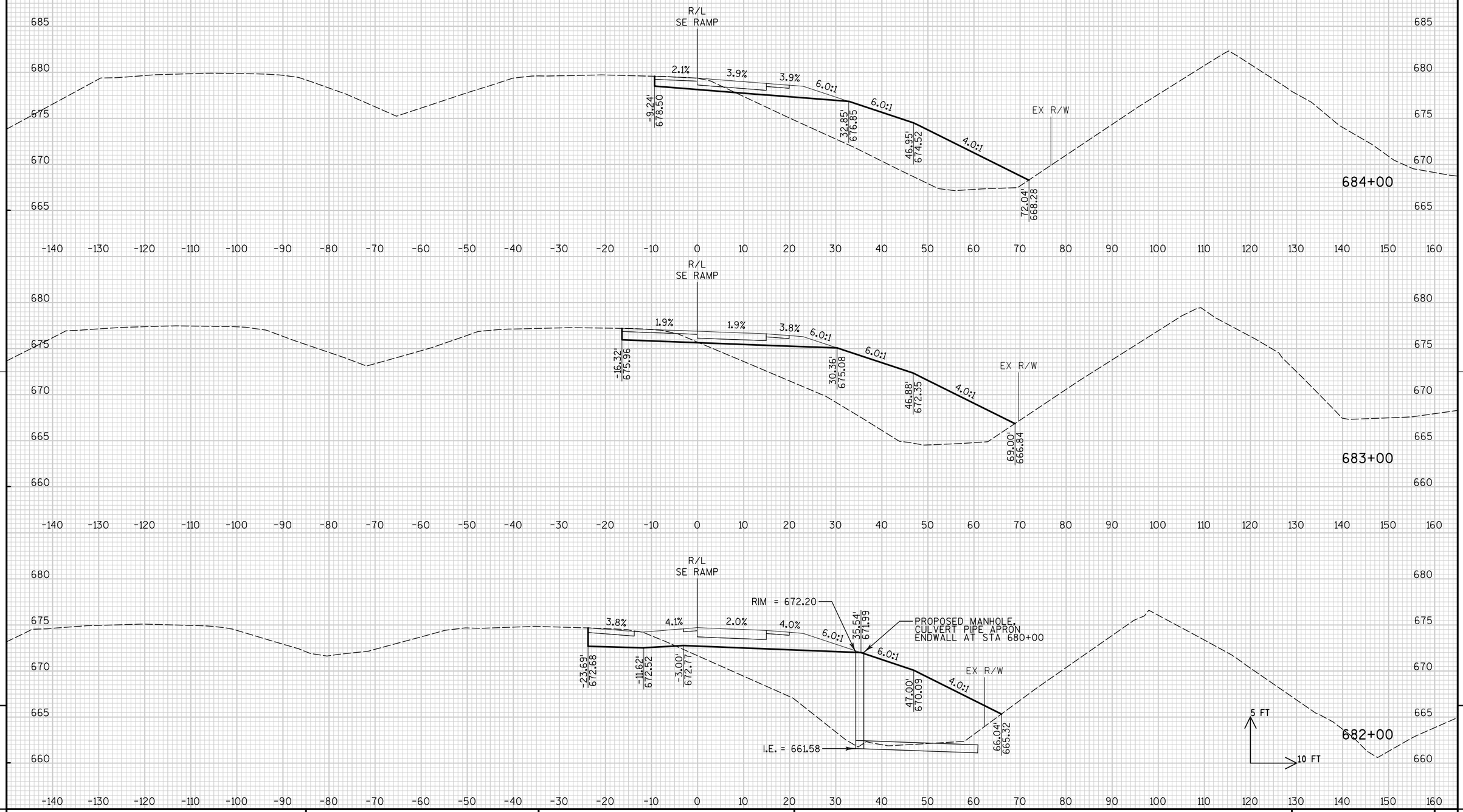


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 679+00 TO STA 681+00	SHEET 591	E

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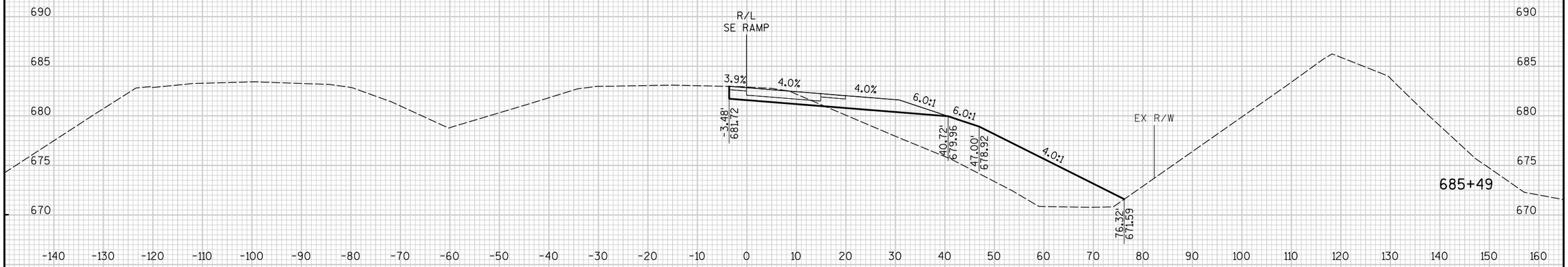
WISDOT/CADDS SHEET 21

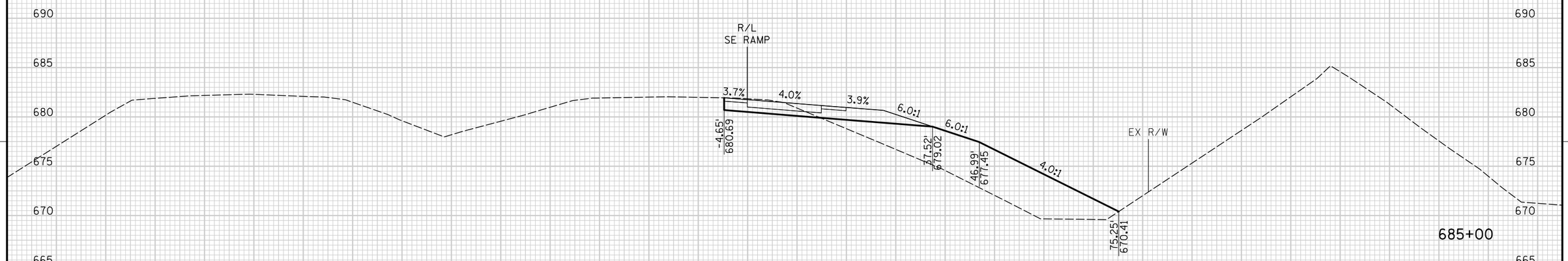
SE RAMP

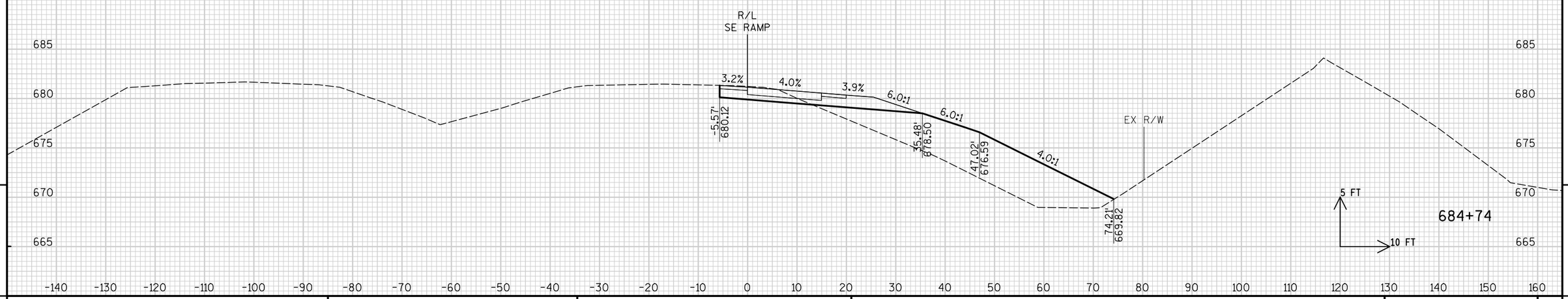


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 682+00 TO STA 684+00	SHEET 592	E

SE RAMP





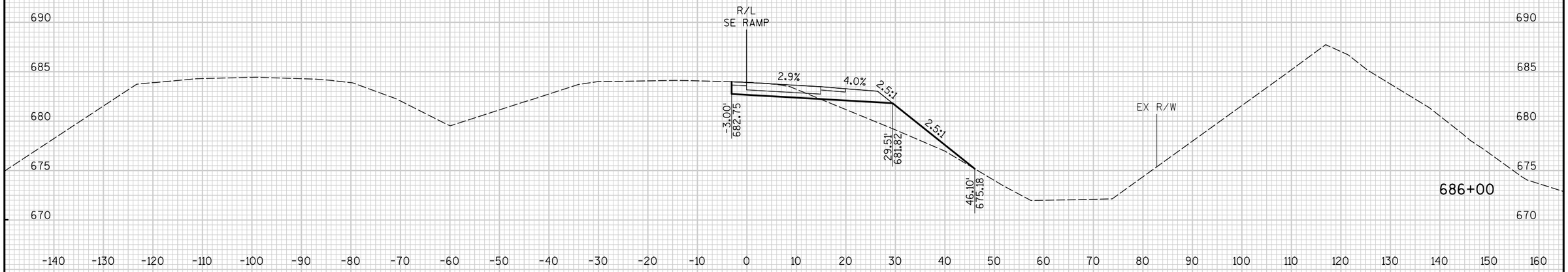


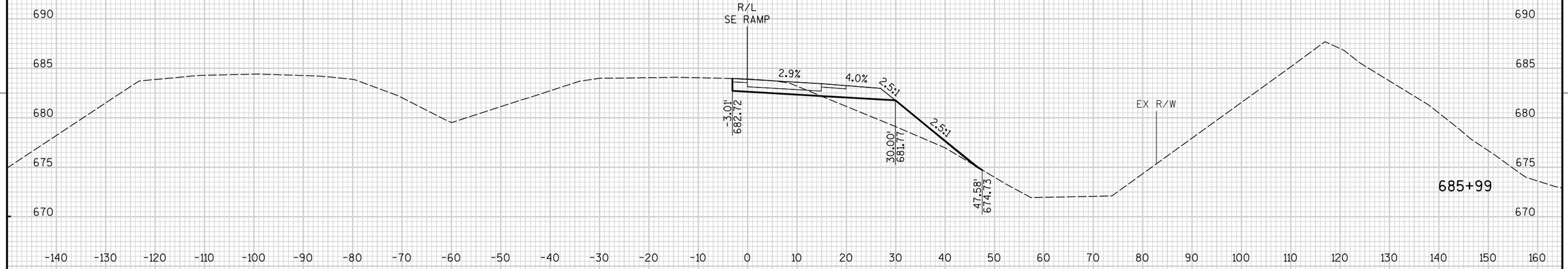
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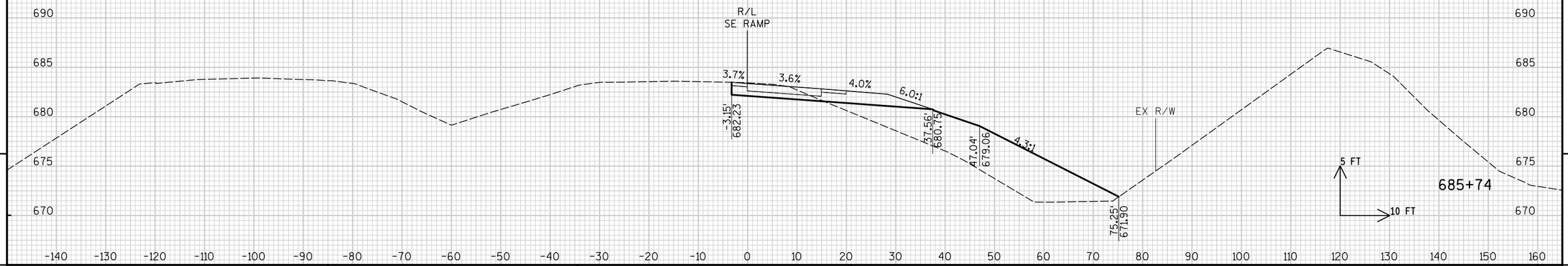
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 684+74 TO STA 685+49	SHEET 593	E

SE RAMP







9

9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 685+74 TO STA 686+00	SHEET 594	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090277_xs_SER.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

SE RAMP

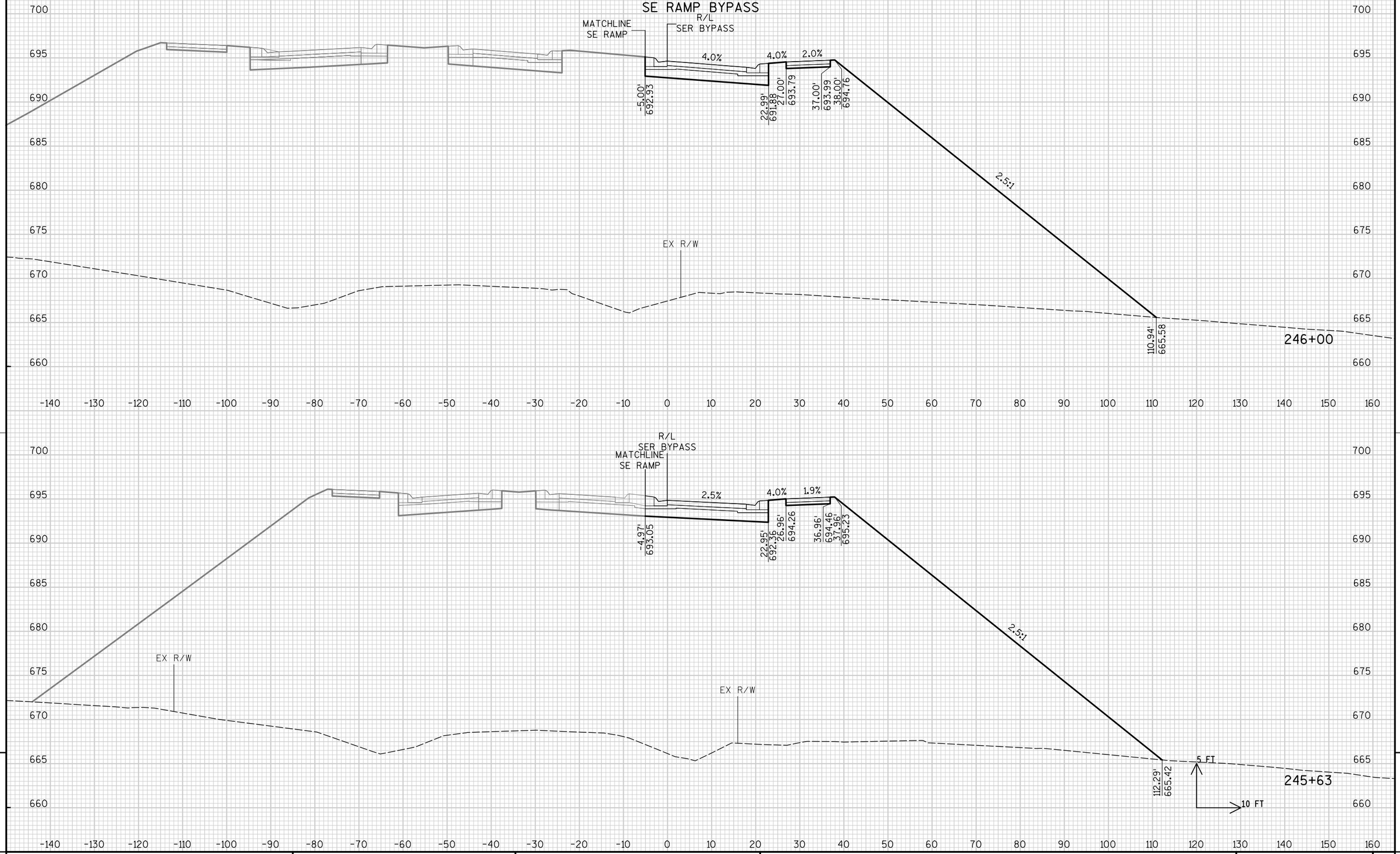


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 686+06 TO STA 686+06	SHEET 595	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090278_xs_SER.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

SE RAMP BYPASS

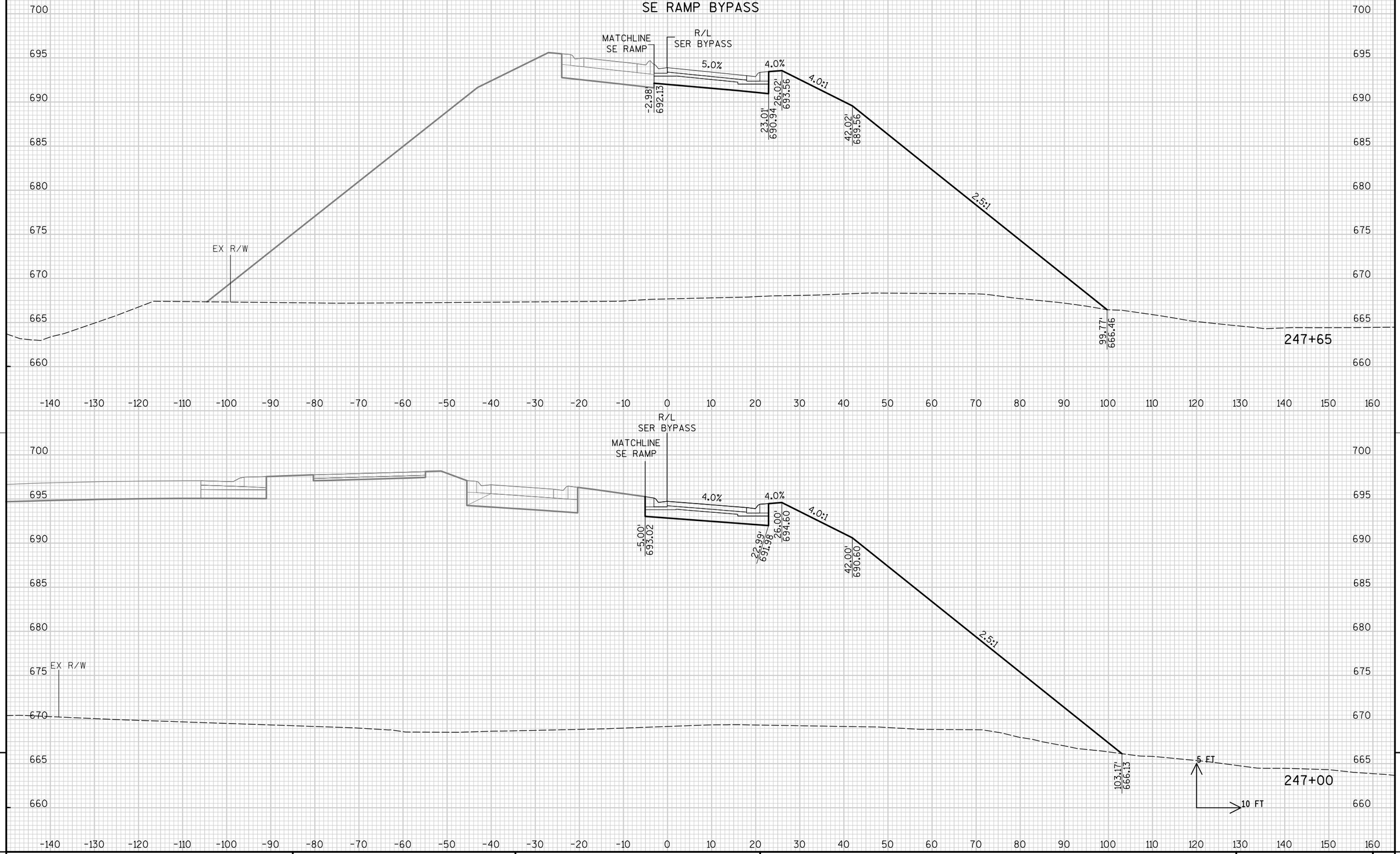


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 245+63 TO STA 246+00	SHEET 596	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090279_xs_SERbypass.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

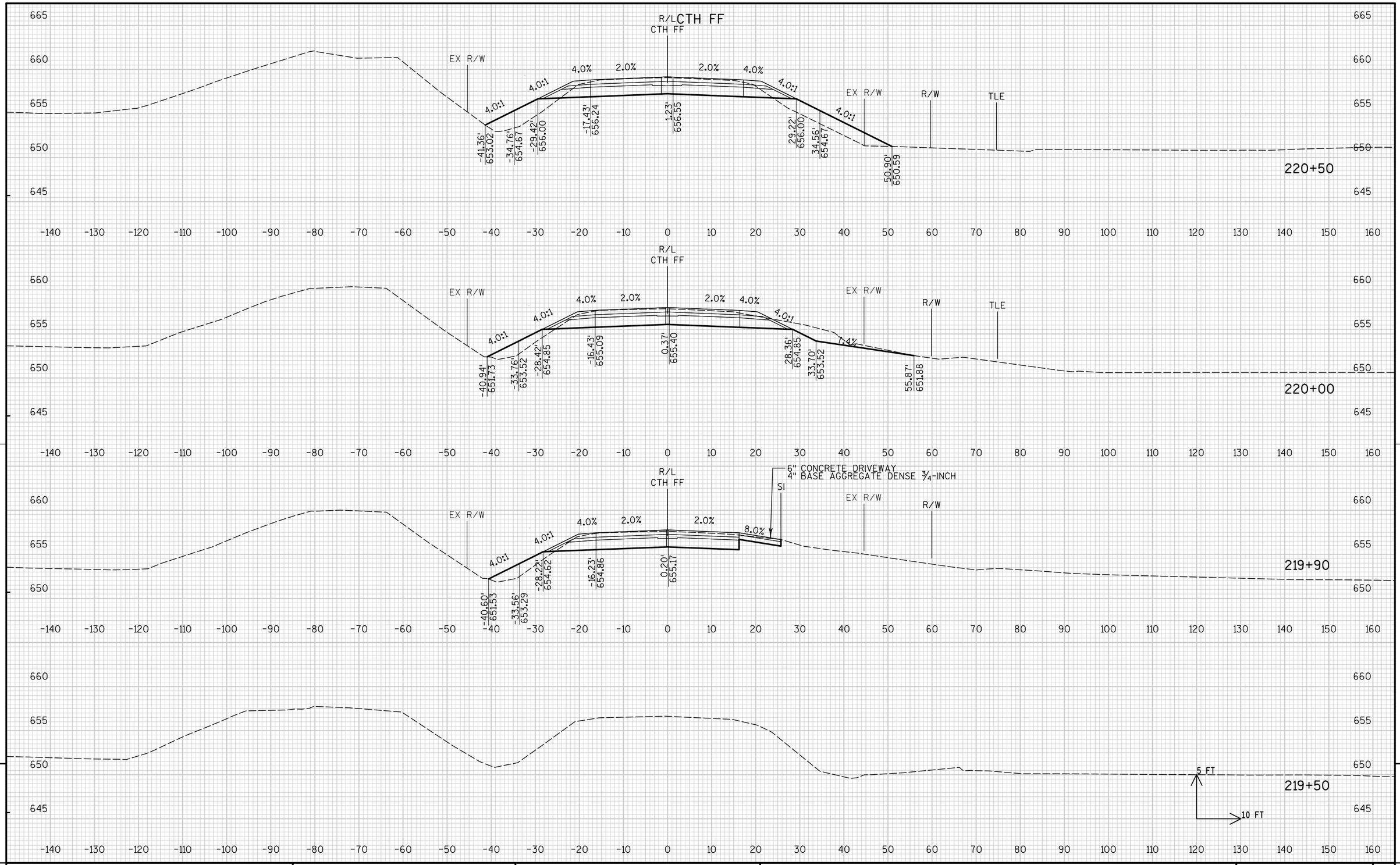
SE RAMP BYPASS



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 247+00 TO STA 247+65	SHEET 597	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090280_xs_SERbypass.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



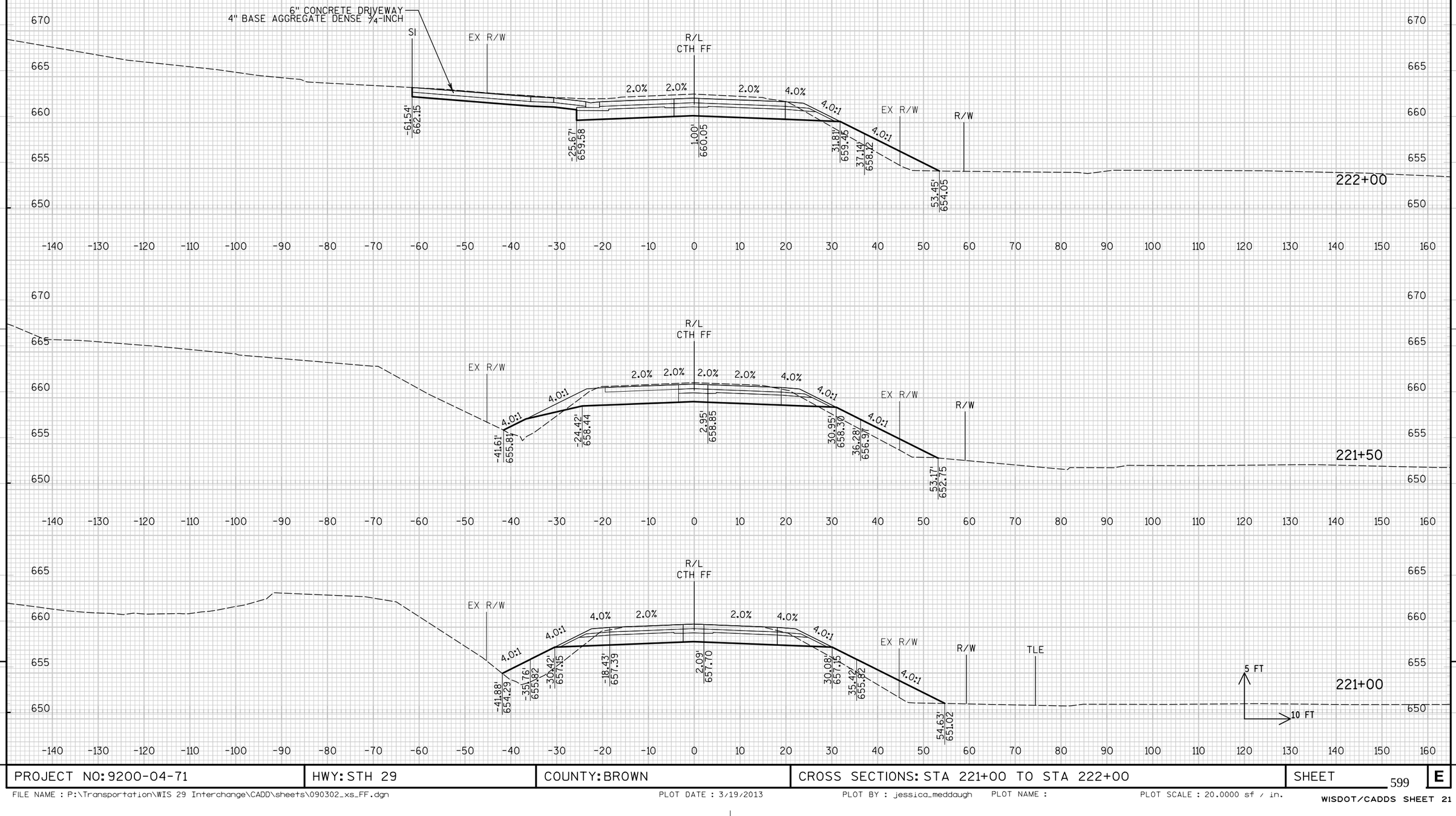
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 219+50 TO STA 220+50	SHEET 598	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090301_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

CTH FF



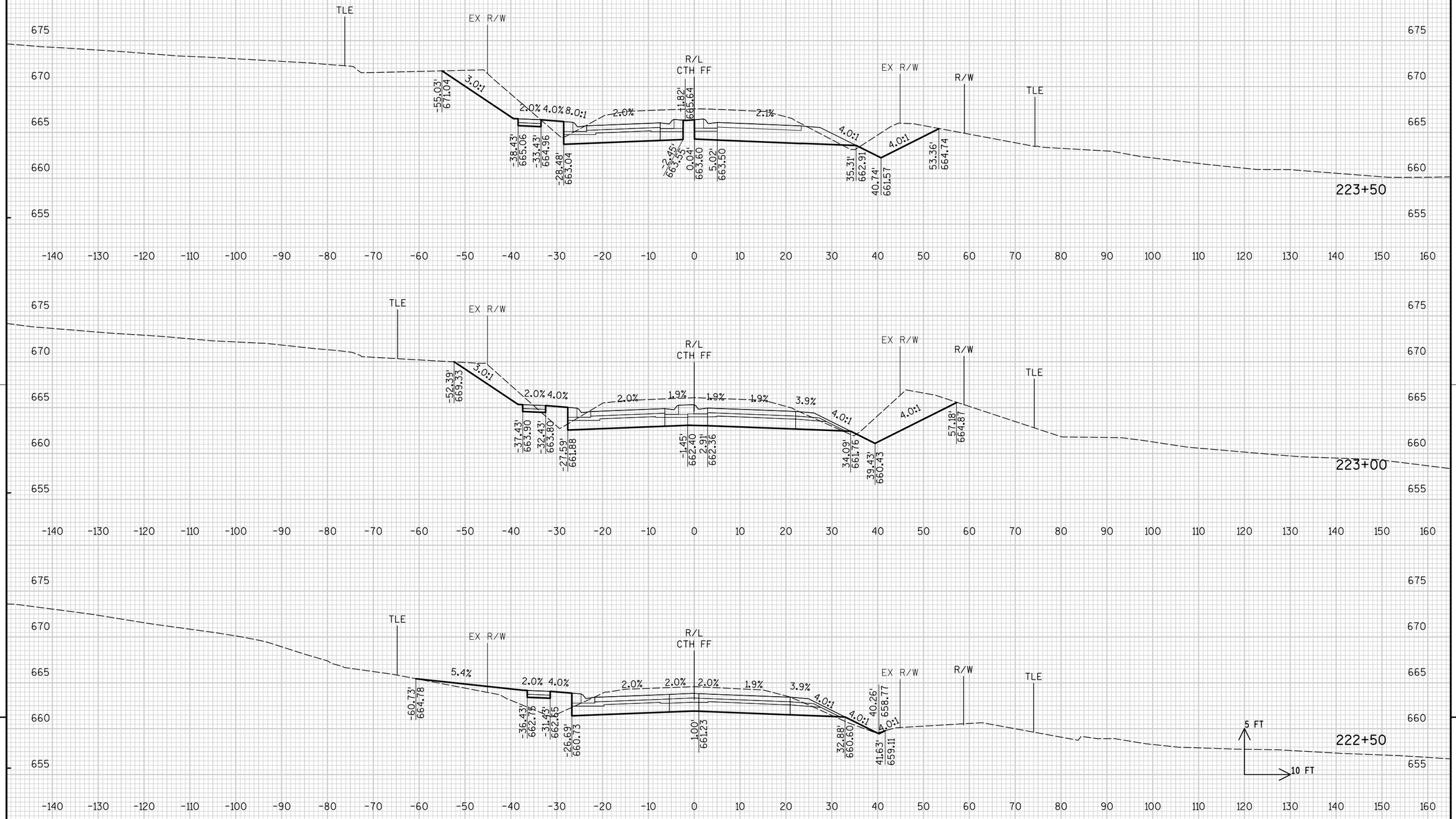
9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 221+00 TO STA 222+00	SHEET 599	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090302_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

CTH FF



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 222+50 TO STA 223+50	SHEET 600 E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090303_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 224+00 TO STA 225+00	SHEET 601	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090304_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

CTH FF

9

9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 225+50 TO STA 226+00	SHEET 602	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090305_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

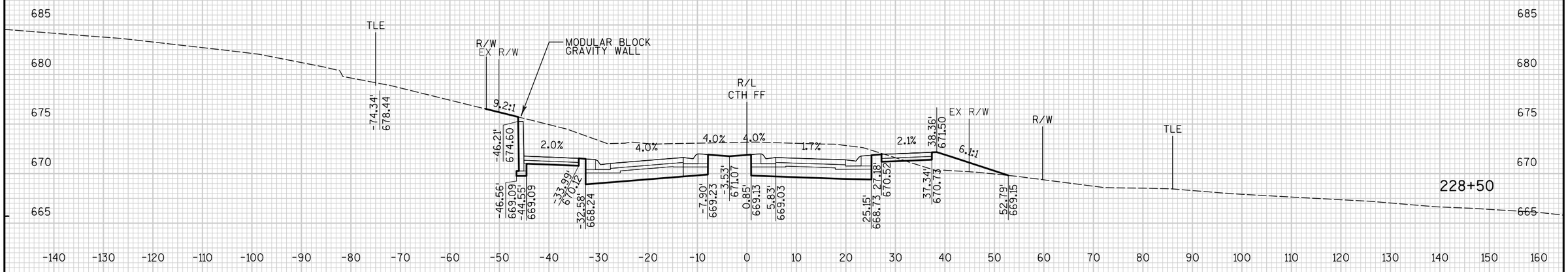
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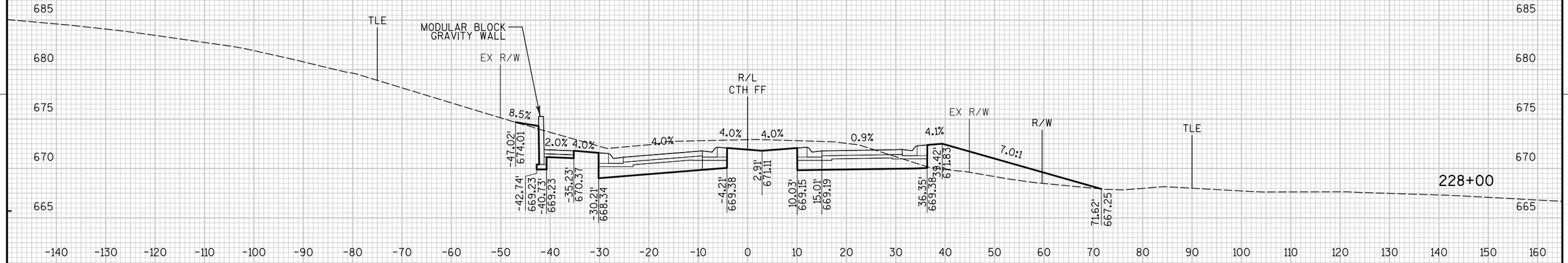
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 226+50 TO STA 227+35	SHEET 603	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090306_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

CTH FF



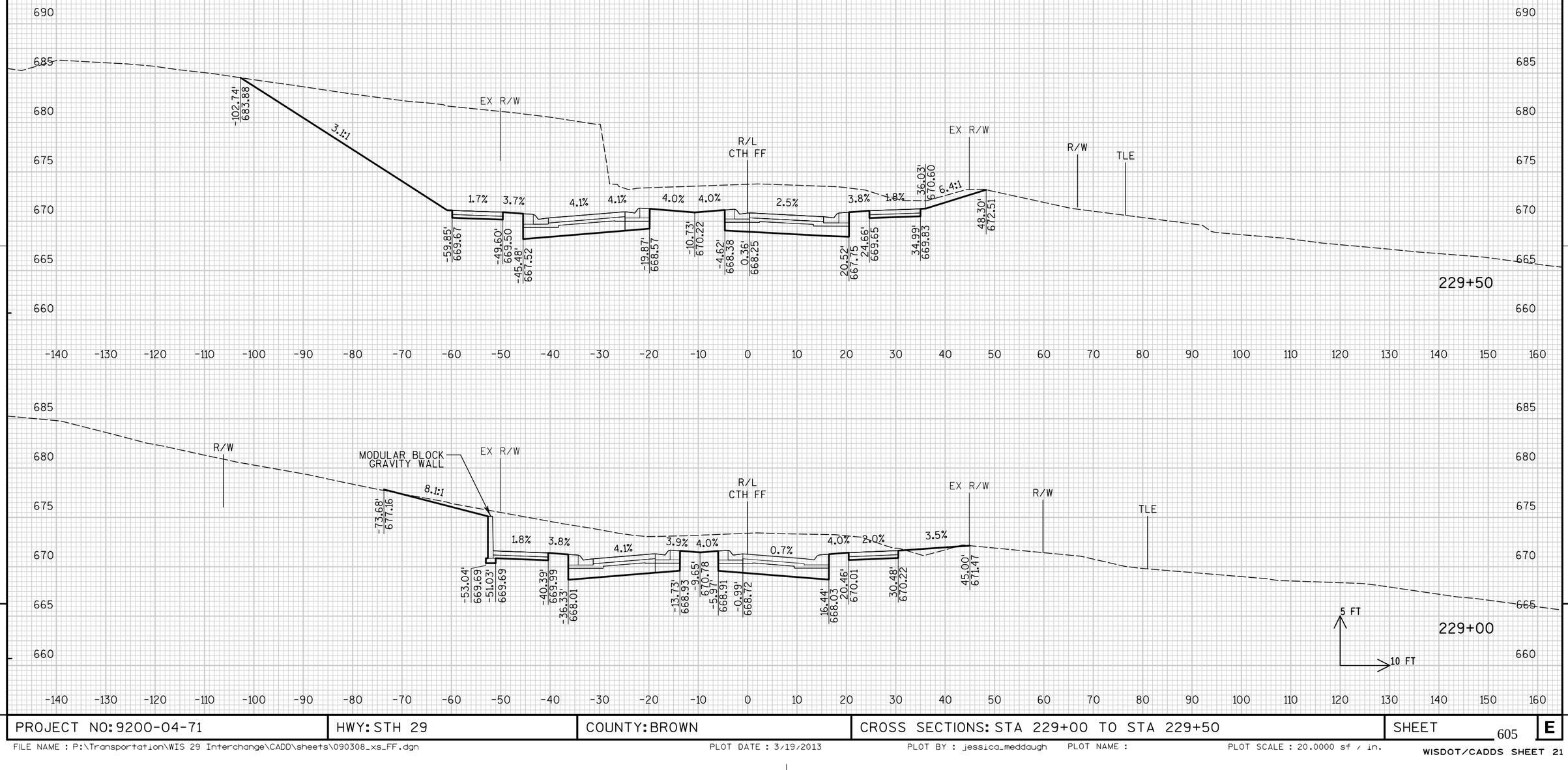


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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 227+50 TO STA 228+50	SHEET 604	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090307_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

CTH FF



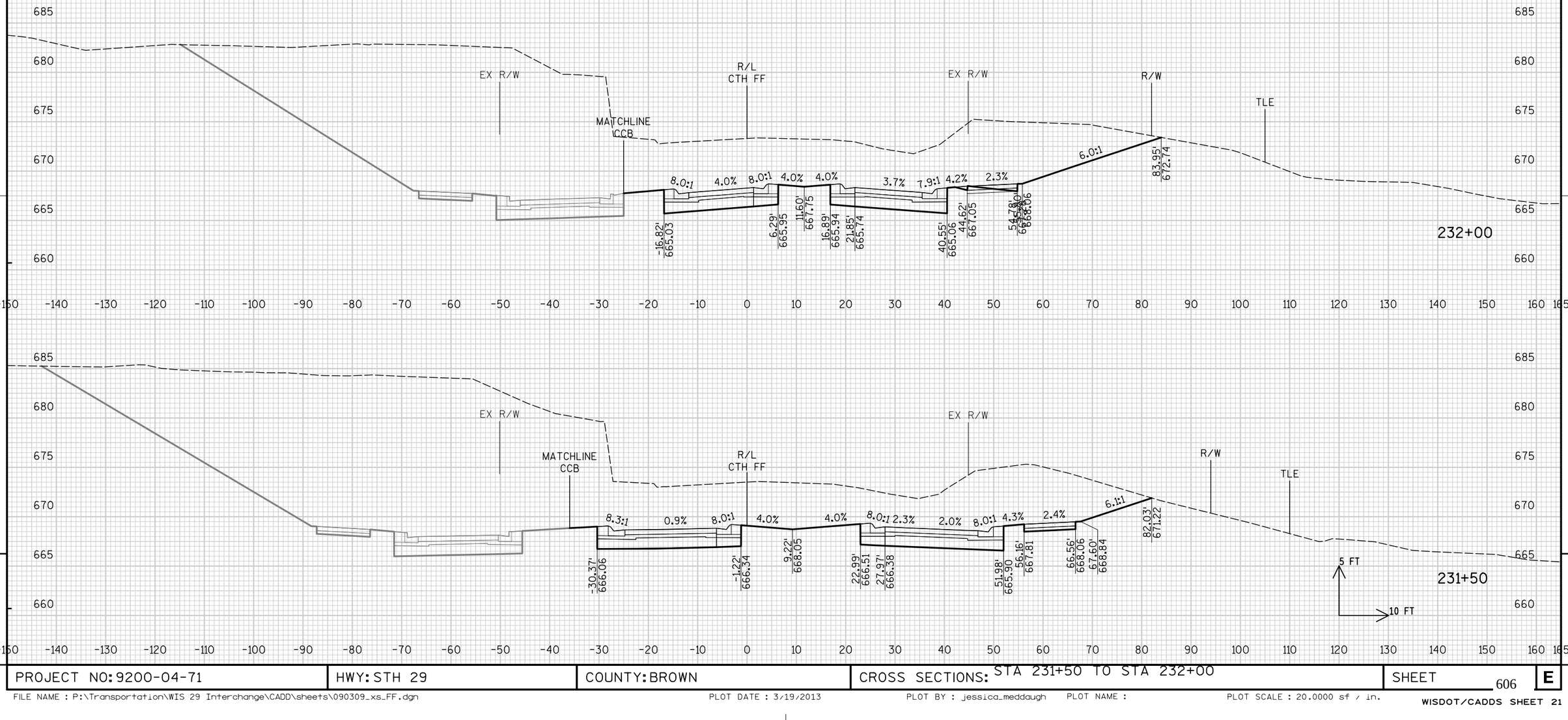
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 229+00 TO STA 229+50	SHEET 605	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090308_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

CTH FF



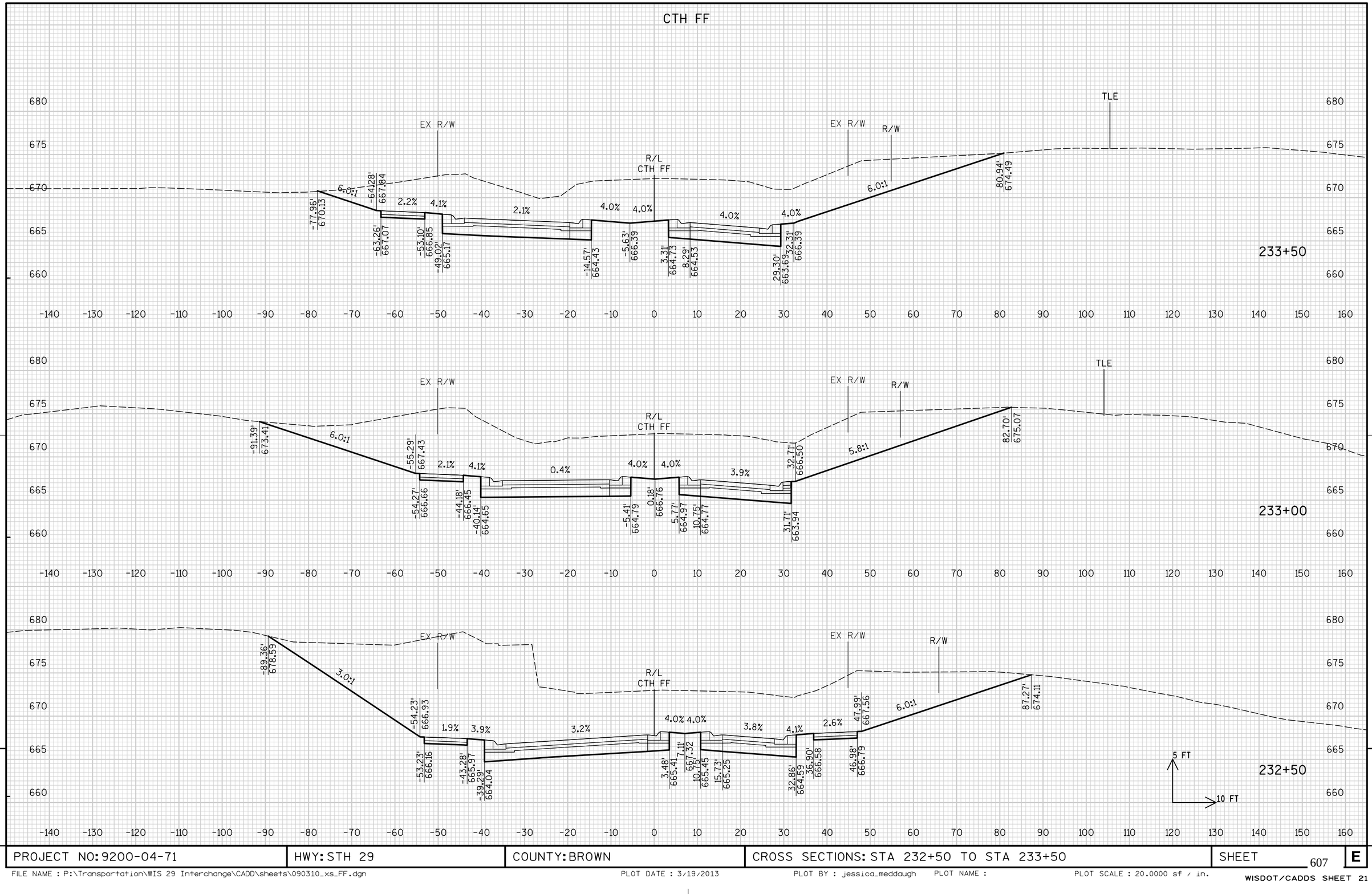
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 231+50 TO STA 232+00	SHEET 606	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090309_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

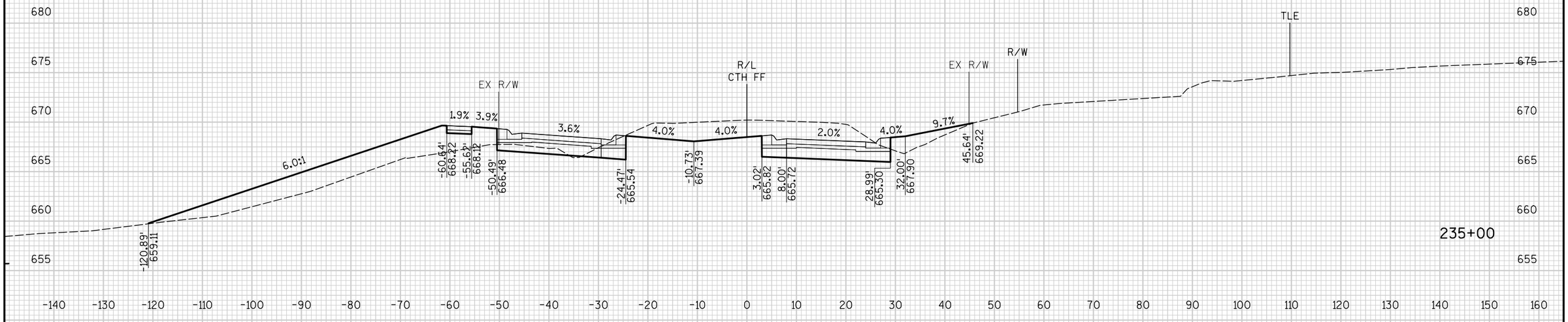


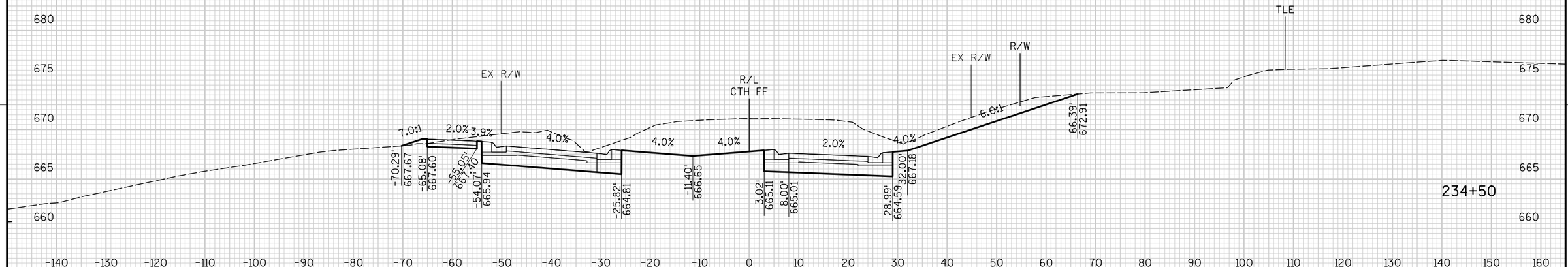
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 232+50 TO STA 233+50	SHEET 607	E

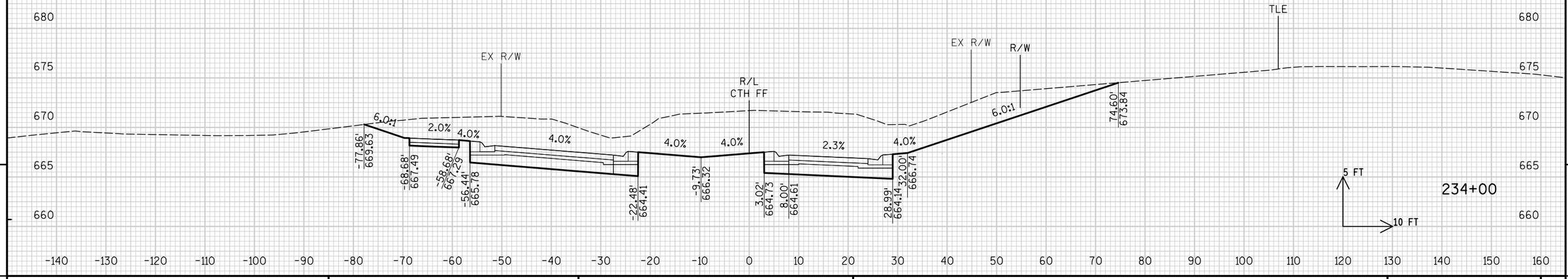
FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090310_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

CTH FF







9

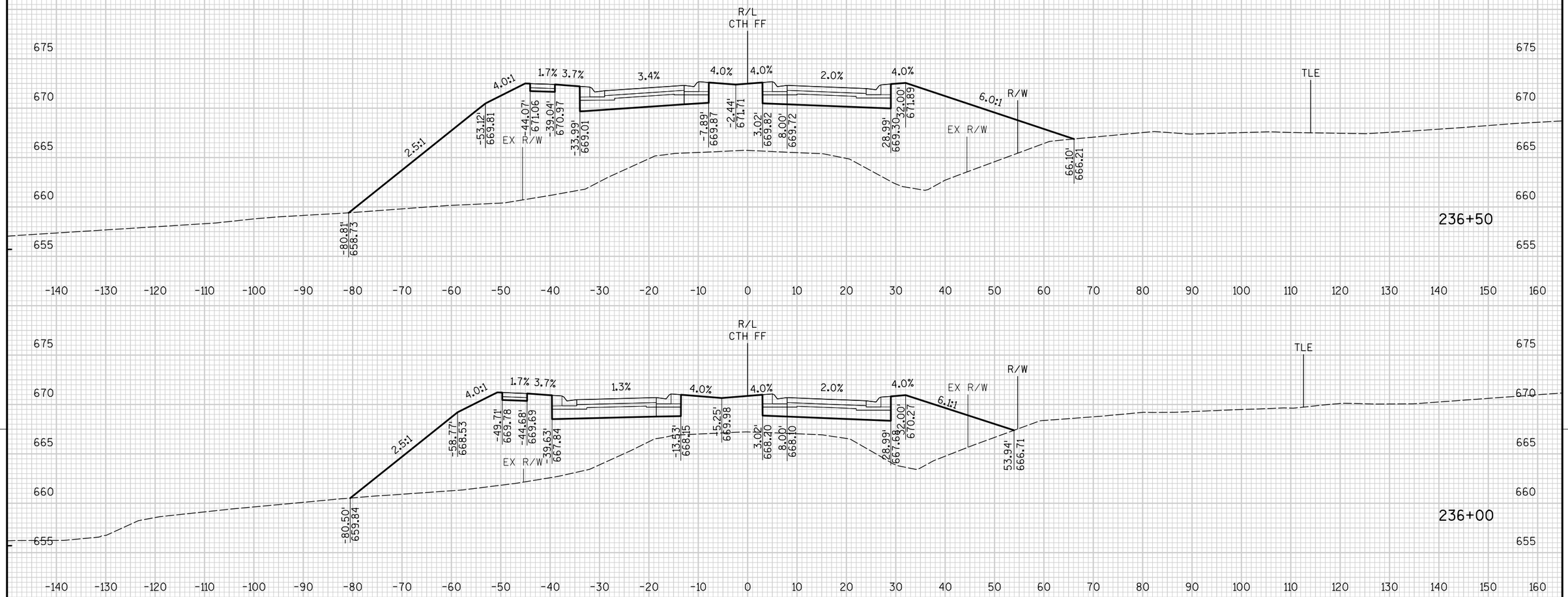
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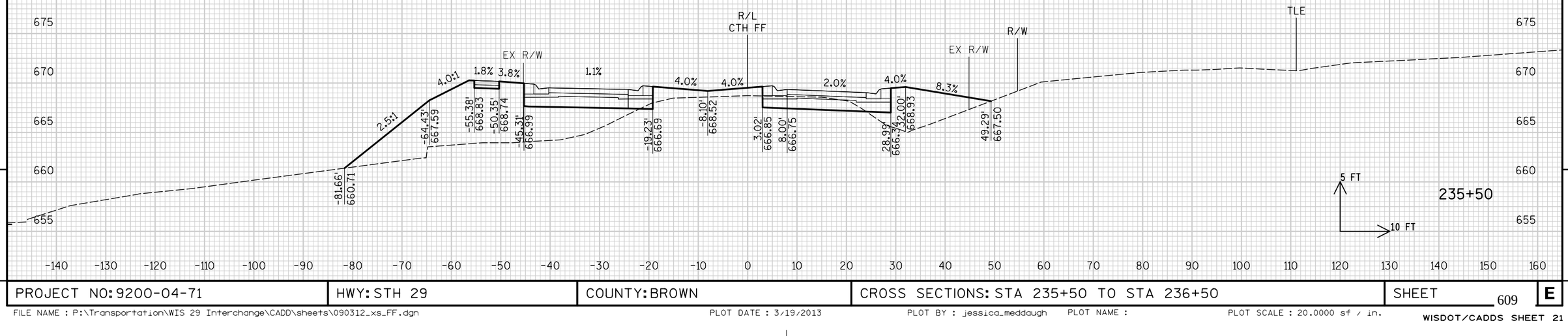
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 234+00 TO STA 235+00	SHEET 608	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090311_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

CTH FF





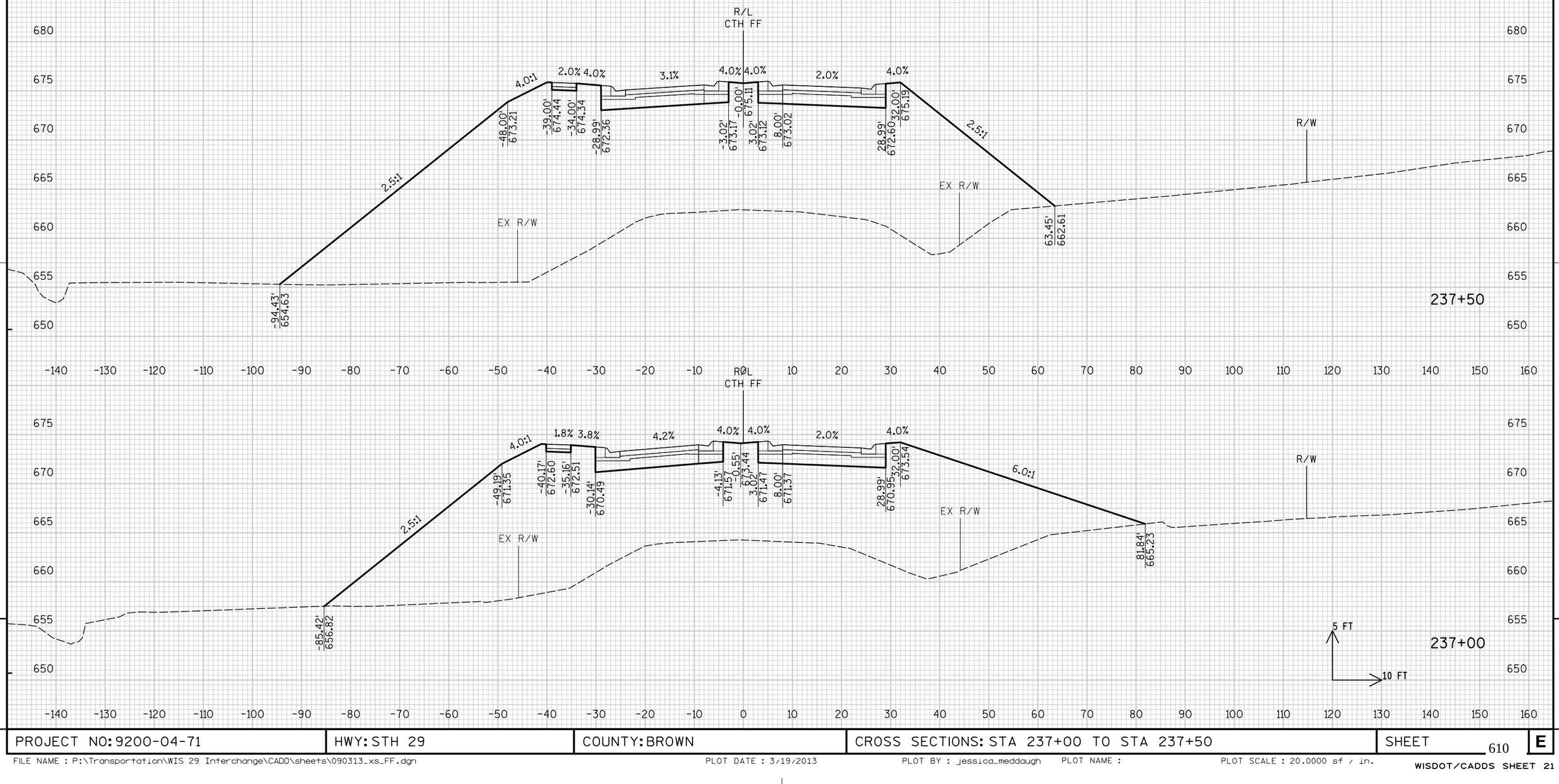
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 235+50 TO STA 236+50	SHEET 609	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090312_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

CTH FF



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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 237+00 TO STA 237+50	SHEET 610	E

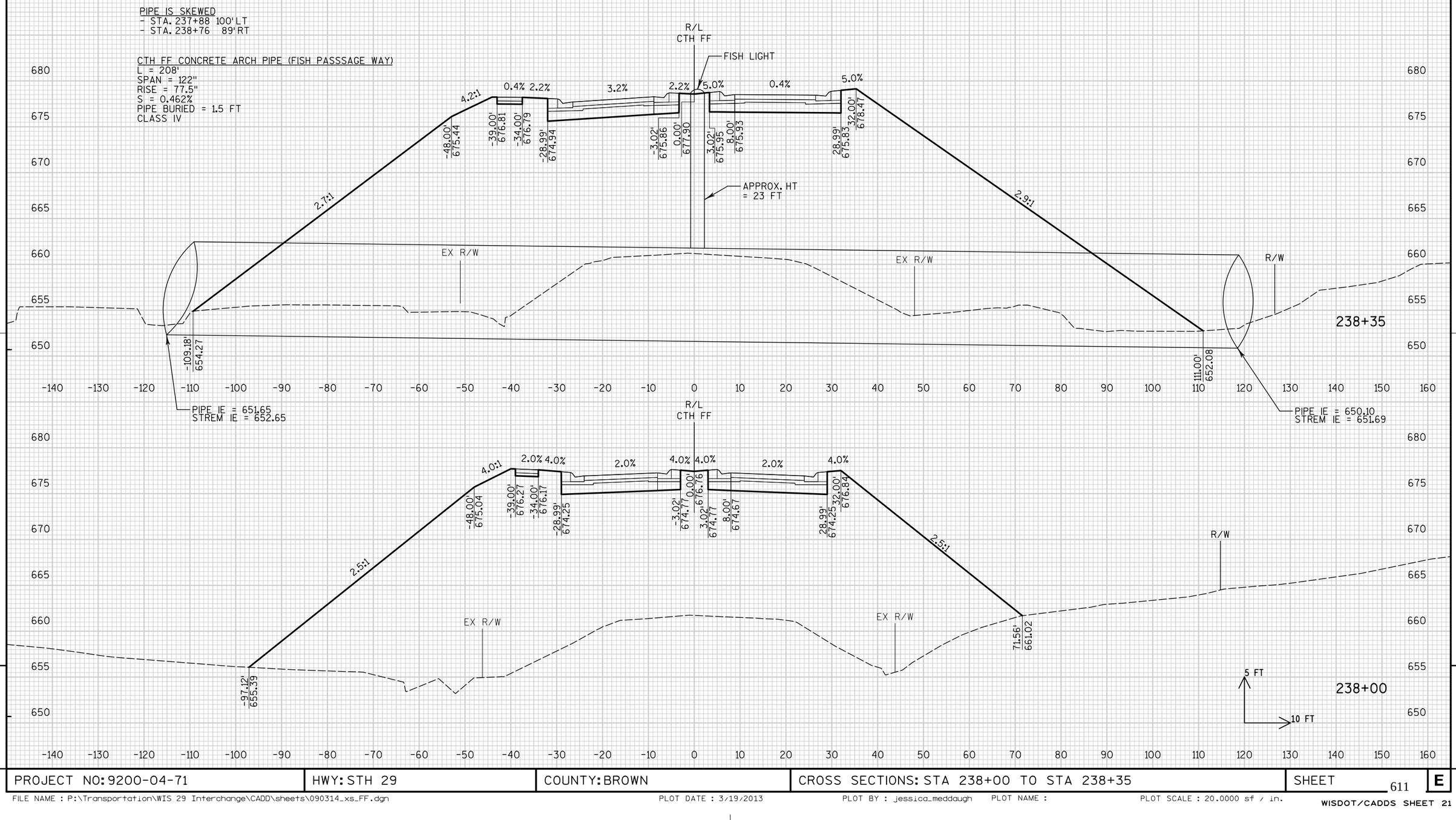
FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090313_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

CTH FF

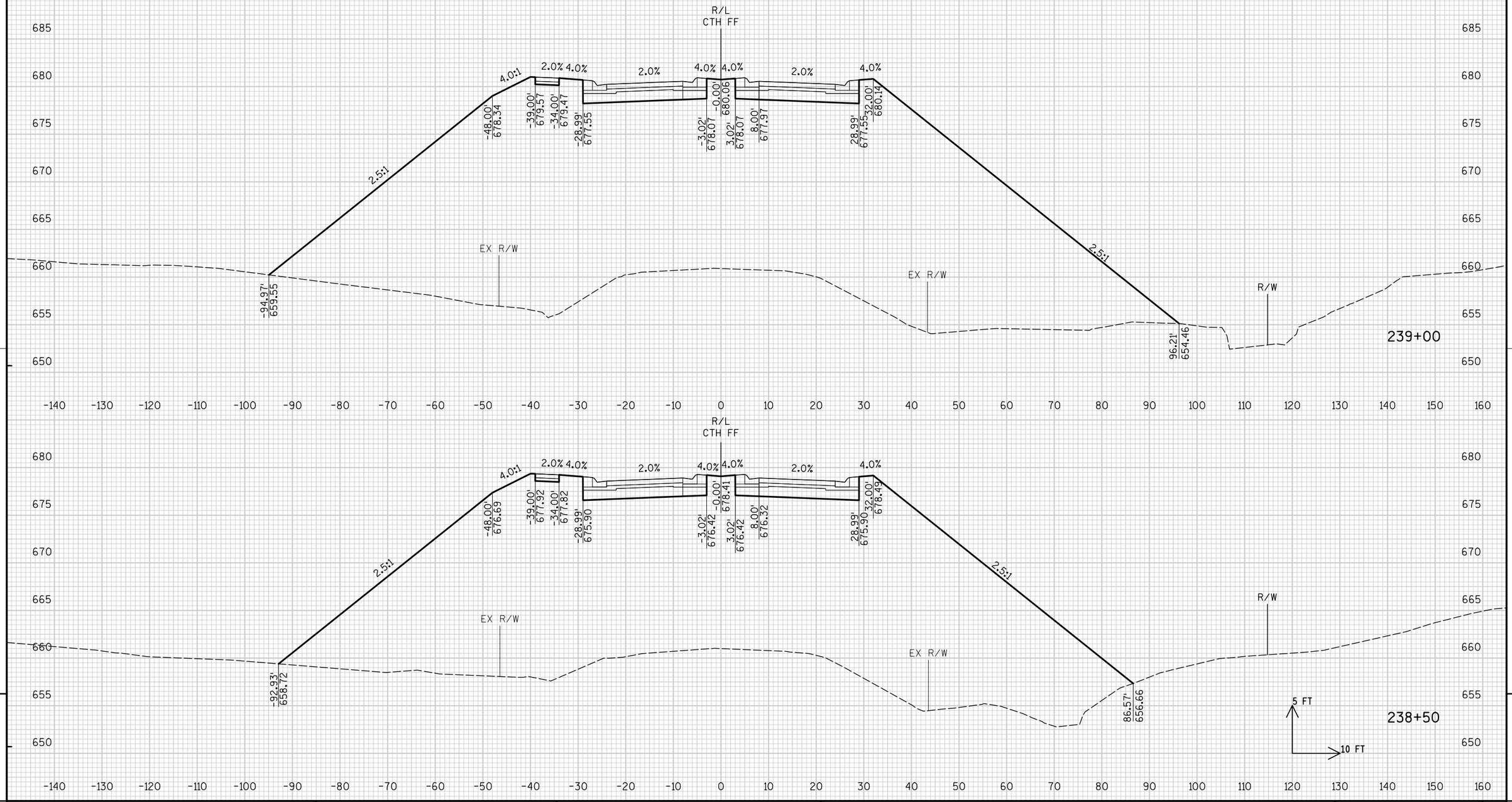
PIPE IS SKEWED
- STA. 237+88 100'LT
- STA. 238+76 89'RT

CTH FF CONCRETE ARCH PIPE (FISH PASSSAGE WAY)
L = 208'
SPAN = 122"
RISE = 77.5"
S = 0.462%
PIPE BURIED = 1.5 FT
CLASS IV



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 238+00 TO STA 238+35	SHEET 611	E

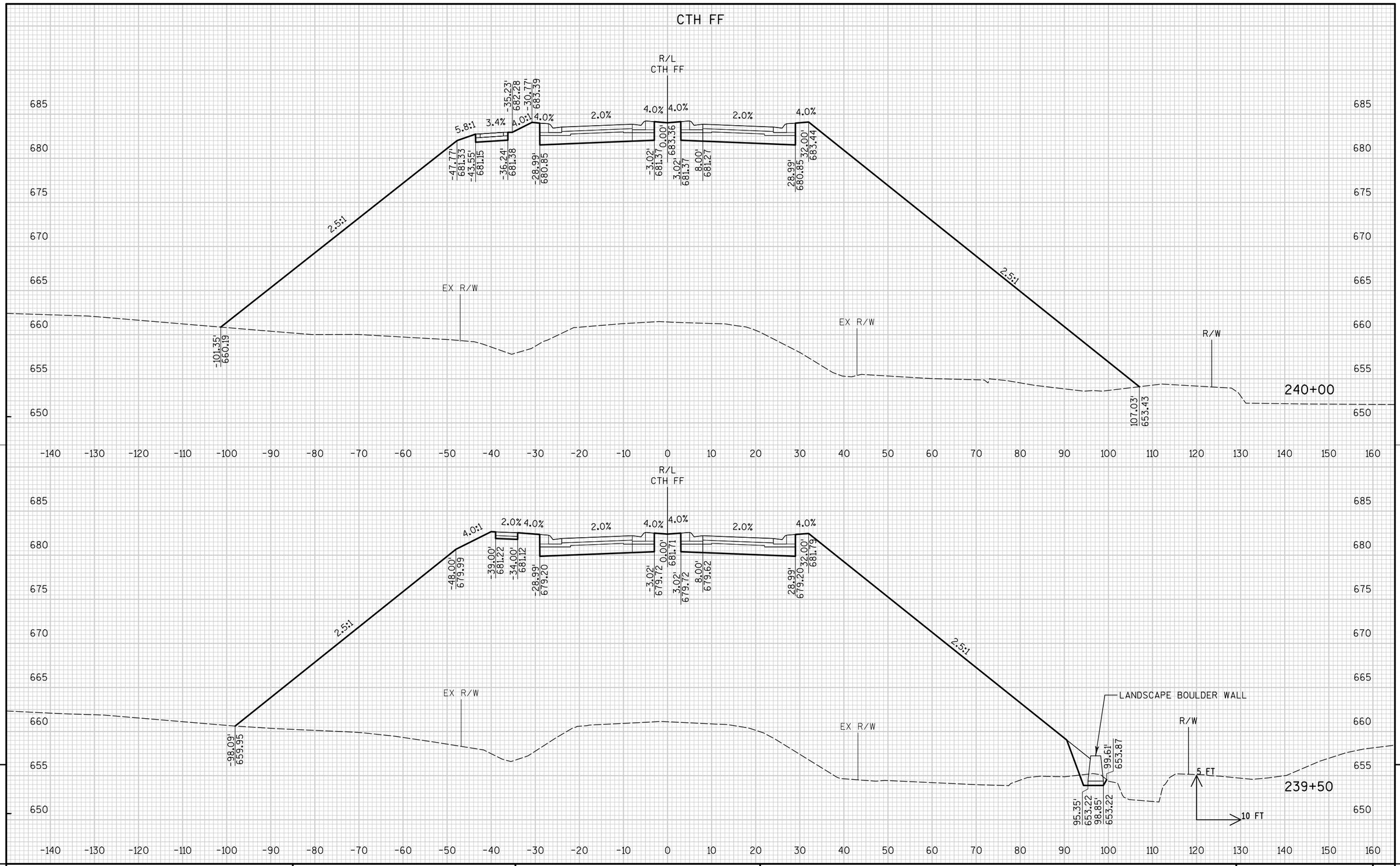
CTH FF



9

9

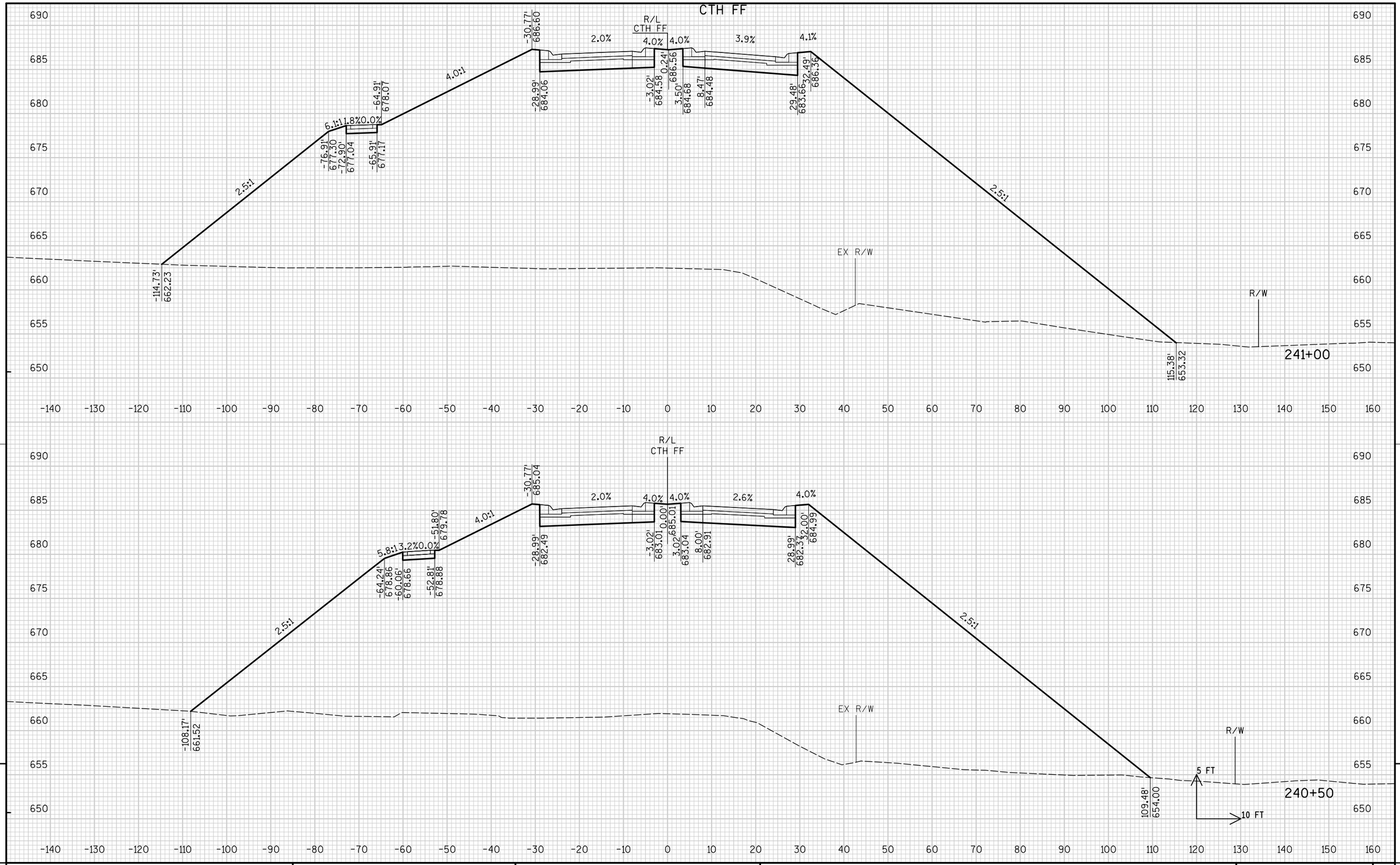
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 238+50 TO STA 239+00	SHEET 612	E



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 239+50 TO STA 240+00	SHEET 613	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090316_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



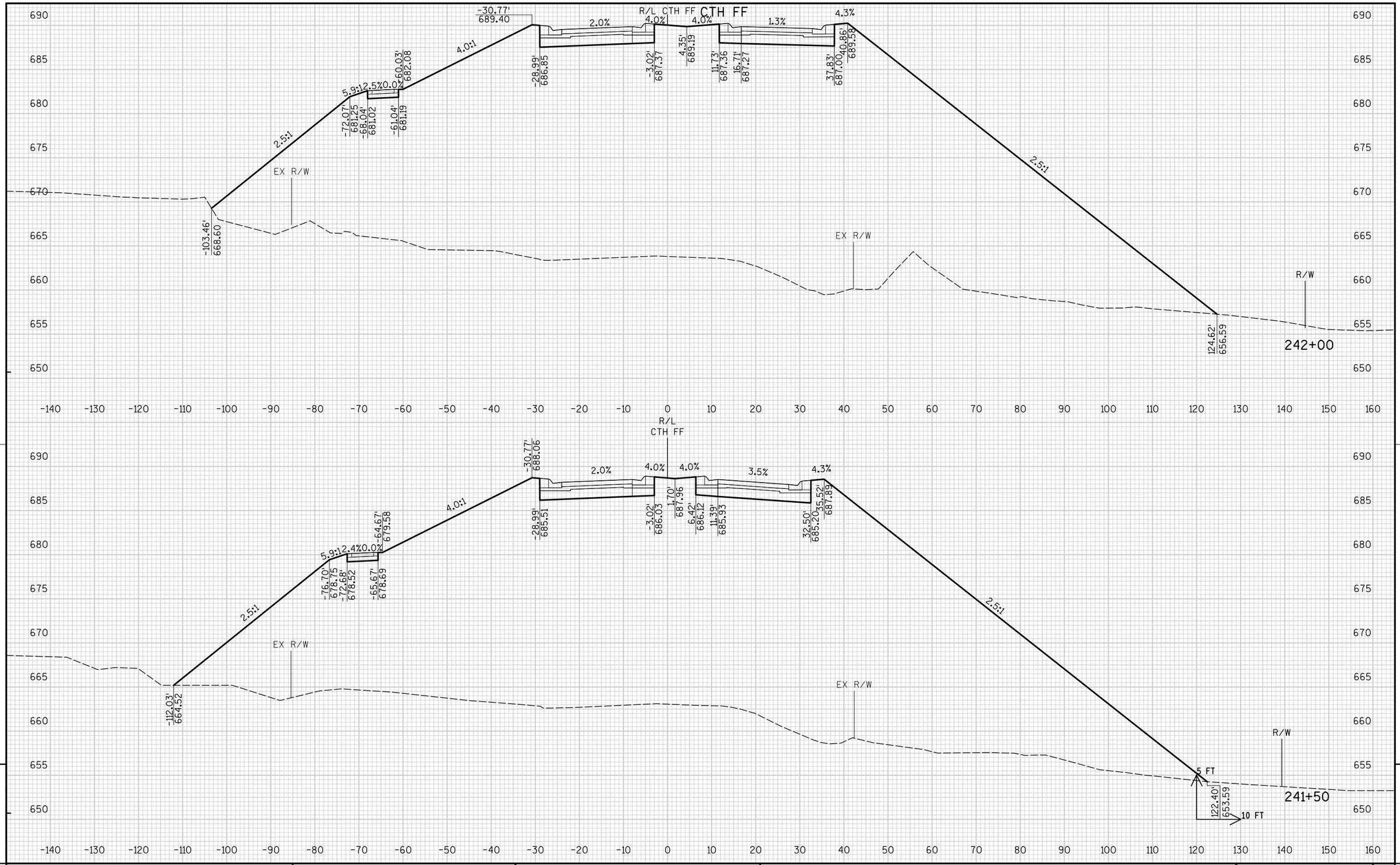
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9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 240+50 TO STA 241+00	SHEET 614	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090317_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

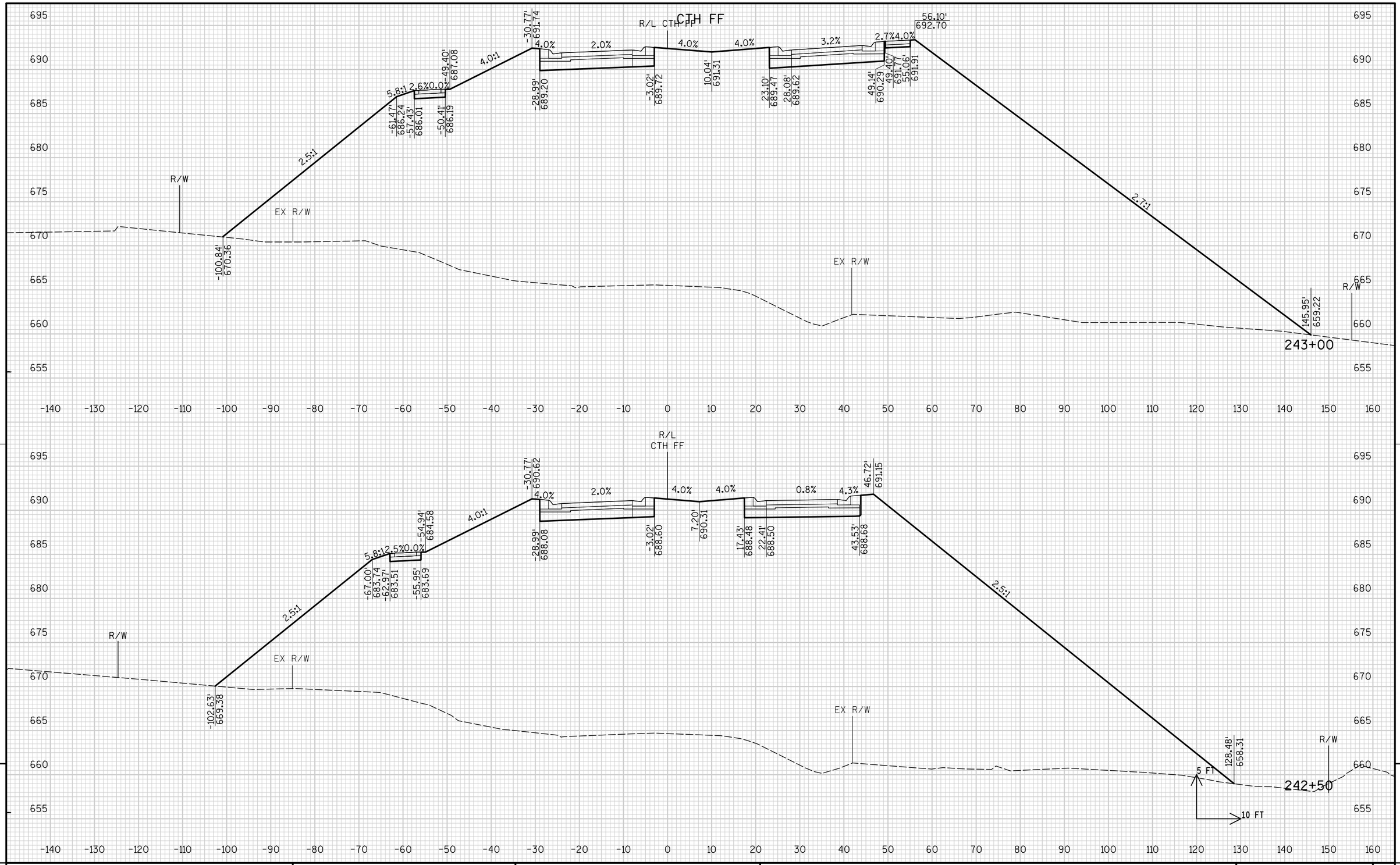
WISDOT/CADDS SHEET 21



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 241+50 TO STA 242+00	SHEET 615	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090318_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

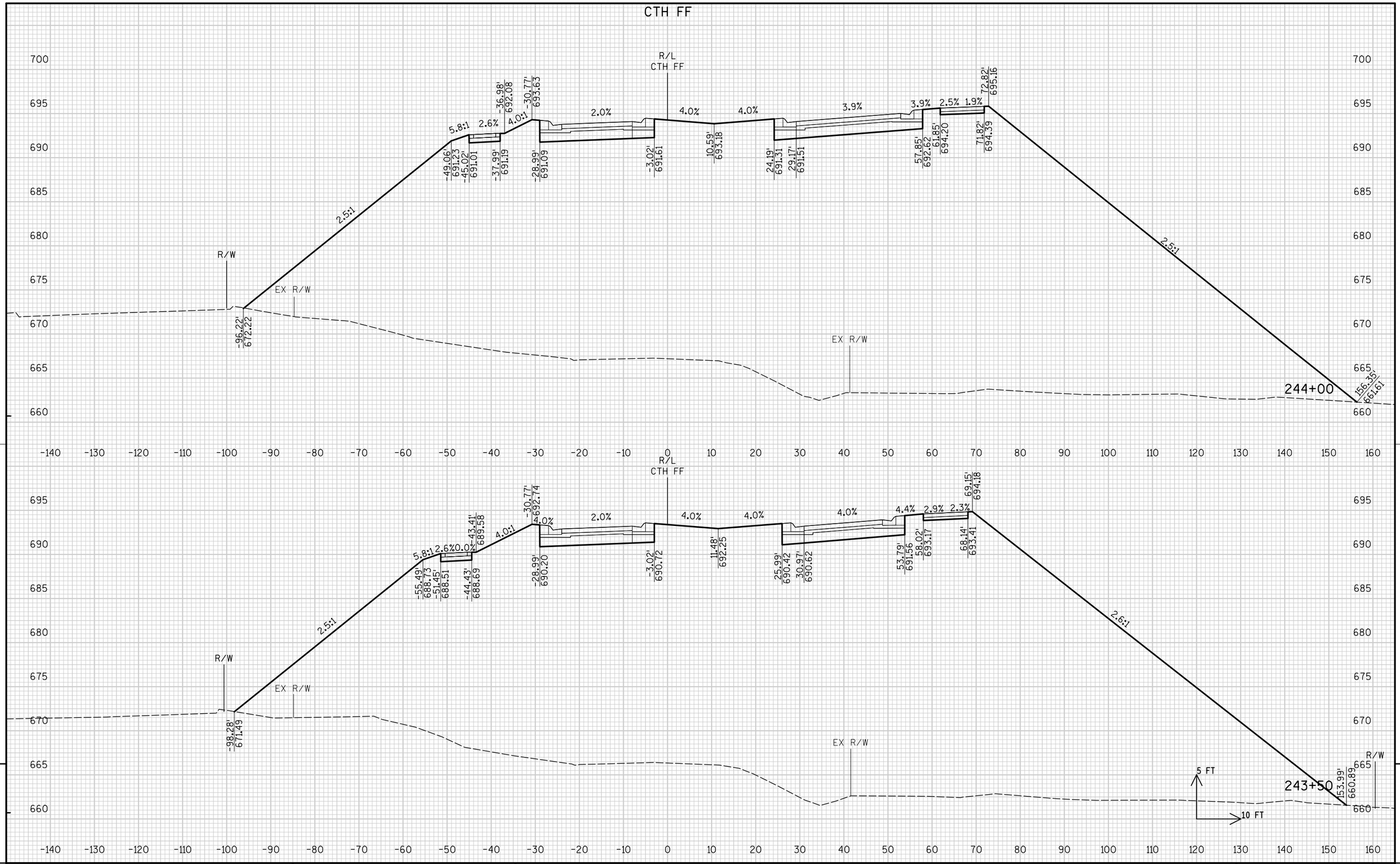
WISDOT/CADDS SHEET 21



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 242+50 TO STA 243+00	SHEET 616 E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090319_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

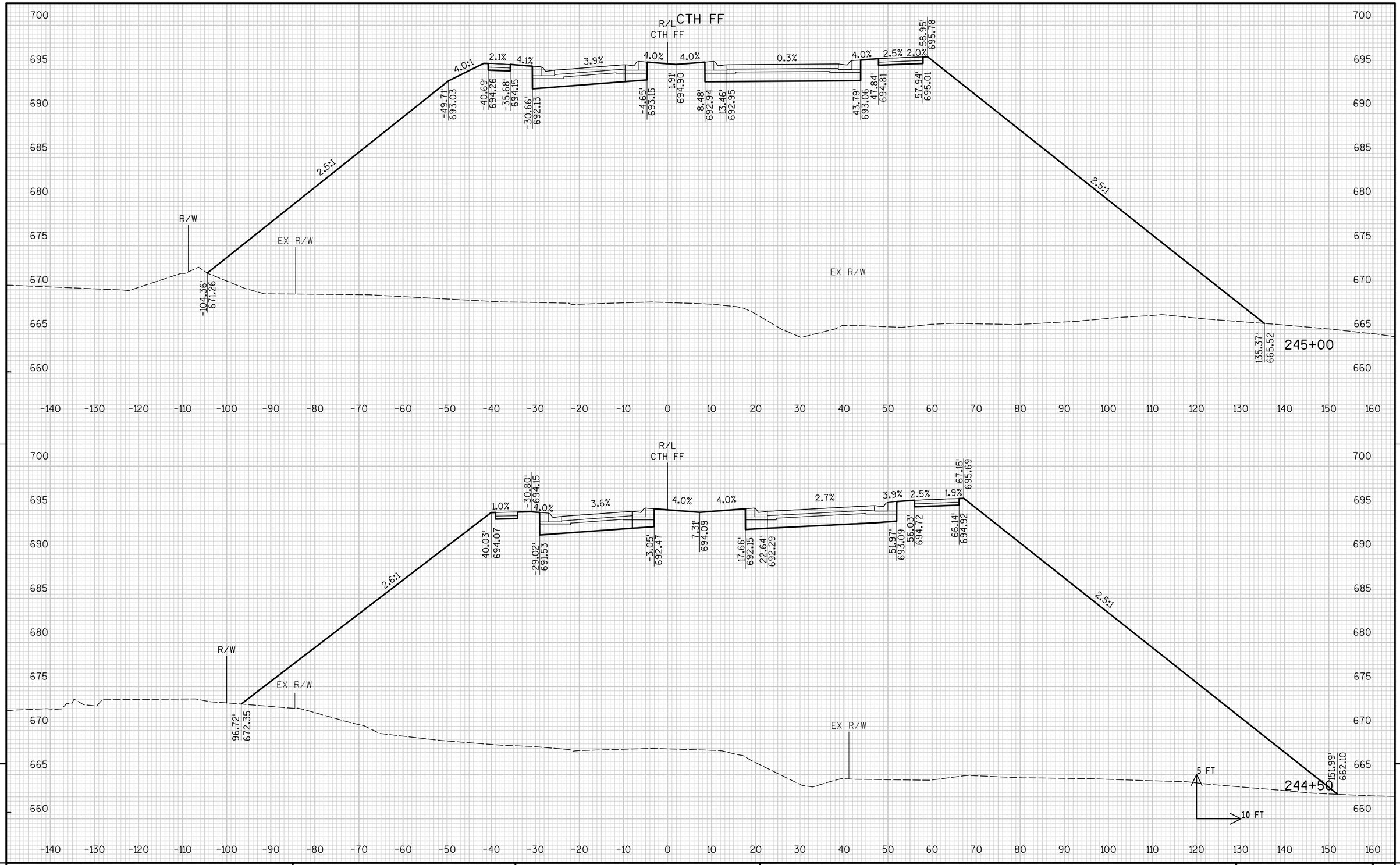
WISDOT/CADDS SHEET 21



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 243+50 TO STA 244+00	SHEET 617	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090320_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

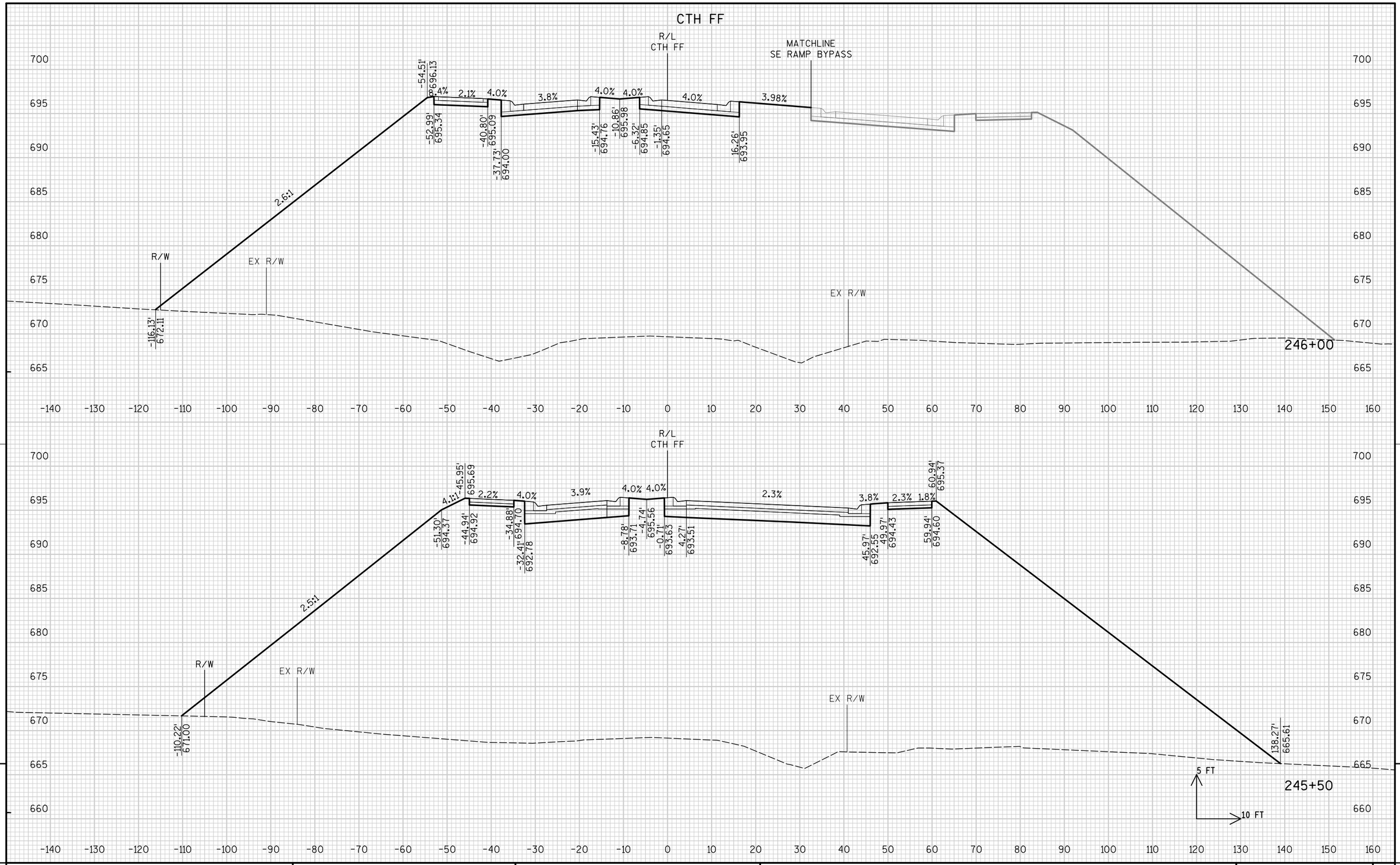


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 244+50 TO STA 245+00	SHEET 618	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090321_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

CTH FF



9

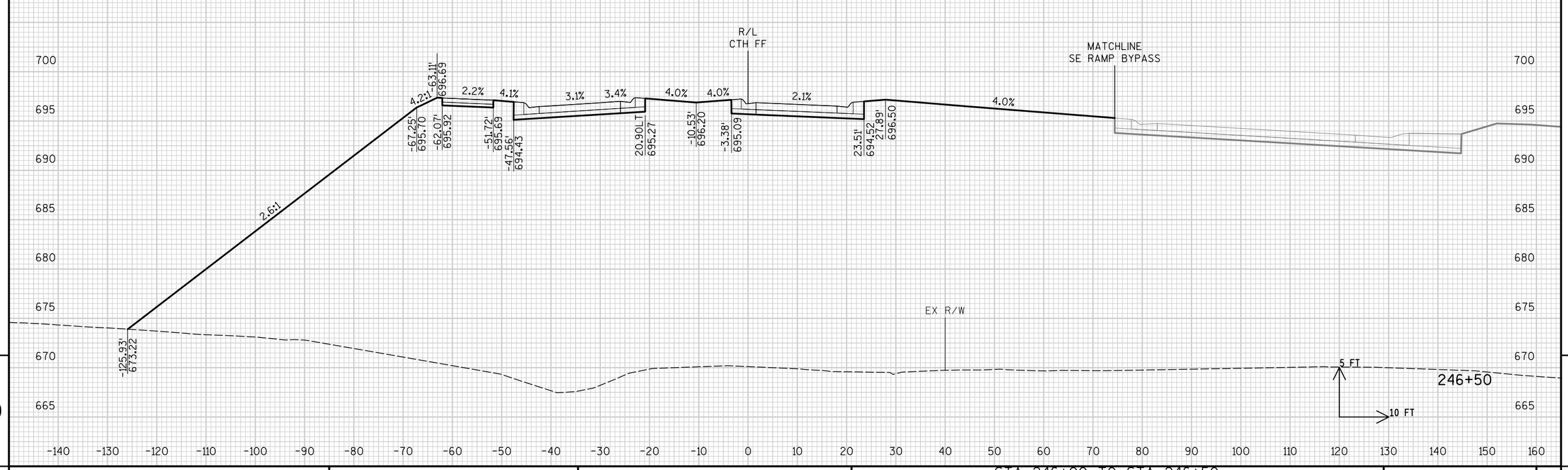
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 245+50 TO STA 246+00	SHEET 619	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090322_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

9

CTH FF

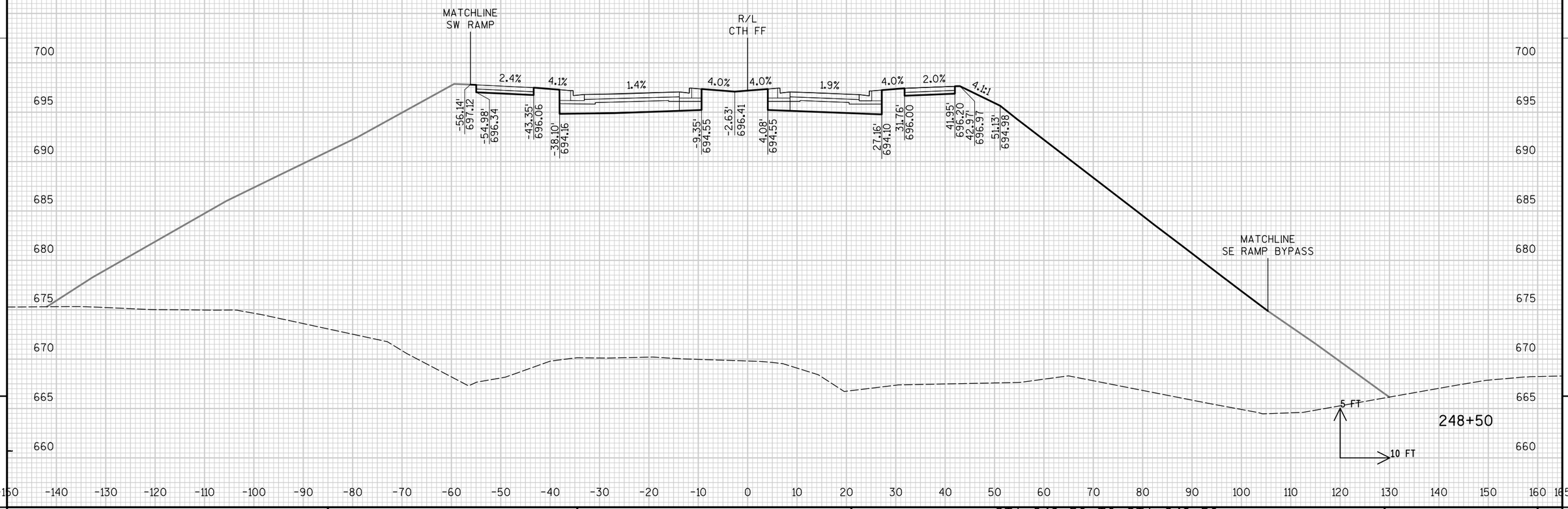


9 9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 246+00 TO STA 246+50	SHEET 620	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090323_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

CTH FF



9

9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 248+50 TO STA 248+50	SHEET 621	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090324_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

CTH FF

R/L
CTH FF

695 690 685 680 675 670 665

-140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

4.0:1 | 1.9% | 4.0% | 2.0% | 4.0% | 4.0% | 2.0% | 4.0% | 1.9% | 4.0:1

-46.00' 690.81
-37.98' 692.82
-36.98' 692.05
-26.96' 691.86
-25.49' 690.79
-2.51' 691.25
0.00 692.57
2.51' 691.25
25.49' 690.79
28.95' 691.94
38.98' 692.13
39.98' 692.89
48.00' 690.88

2.5:1

EX R/W

-100.12' 669.14

92.74' 672.96

252+00

R/L
CTH FF

700 695 690 685 680 675 670 665 660

-140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

4.0:1 | 2.1% | 4.0% | 2.0% | 4.0% | 4.0% | 2.0% | 2.2

-48.62 694.71
-40.59' 696.71
-39.59' 695.94
-29.56' 695.73
-25.49' 694.56
-2.51' 695.02
0.00 696.34
2.51' 695.10
25.49' 694.58
30.66' 695.02

2.5:1

STRUCTURE B-05-402
SEE STRUCTURE PLANS

-103.80' 672.75

5 FT
10 FT

249+00

9

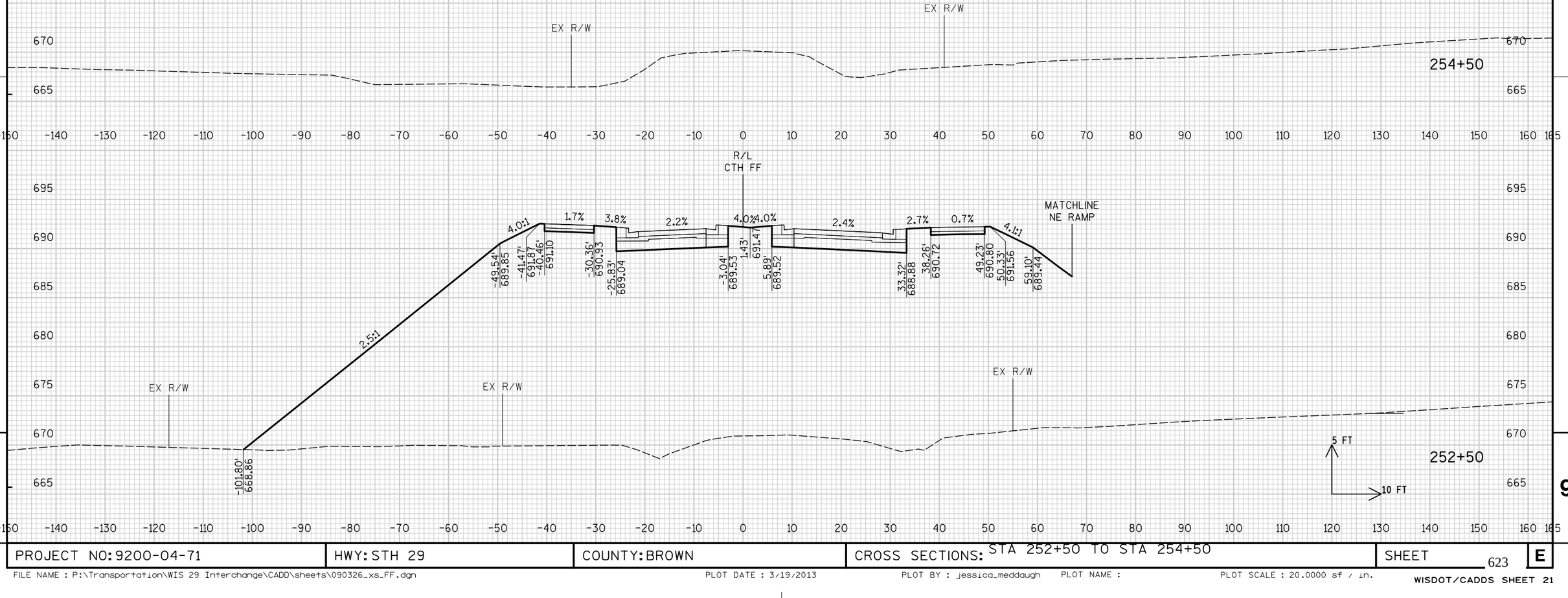
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 249+00 TO STA 252+00	SHEET 622	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090325_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

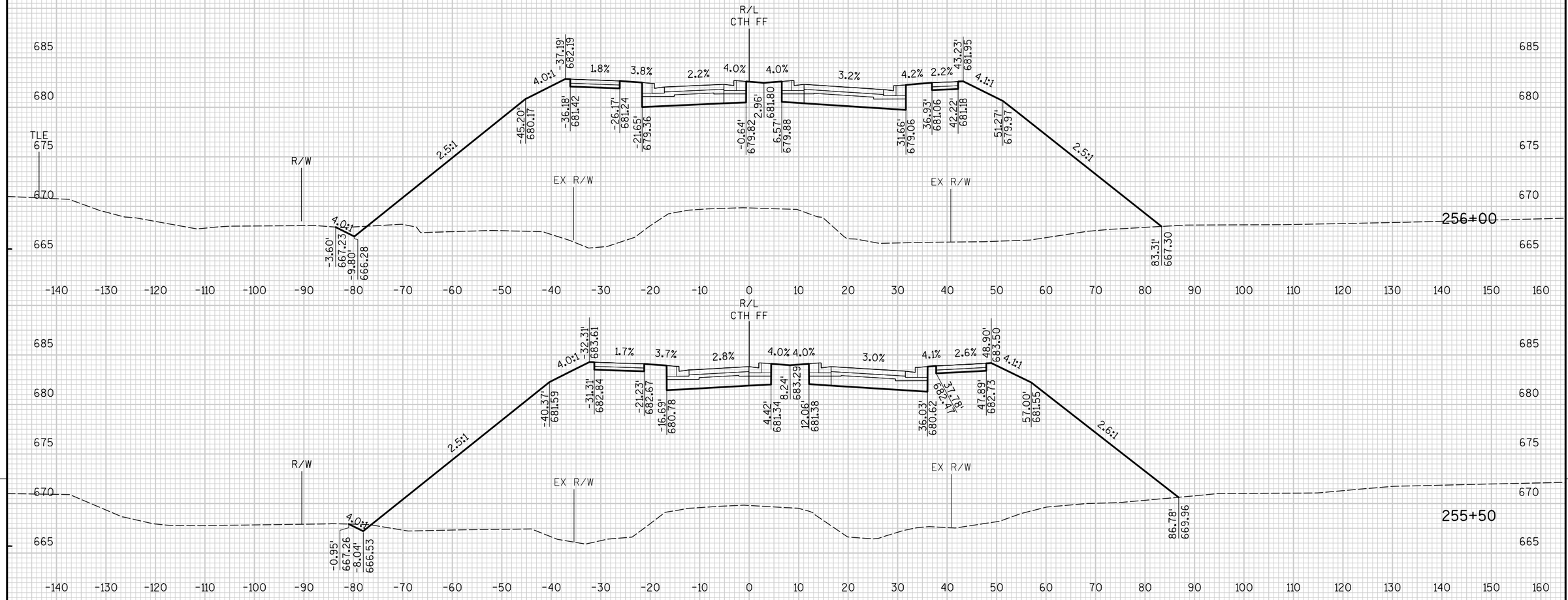
WISDOT/CADDS SHEET 21

CTH FF



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 252+50 TO STA 254+50	SHEET 623	E

CTH FF



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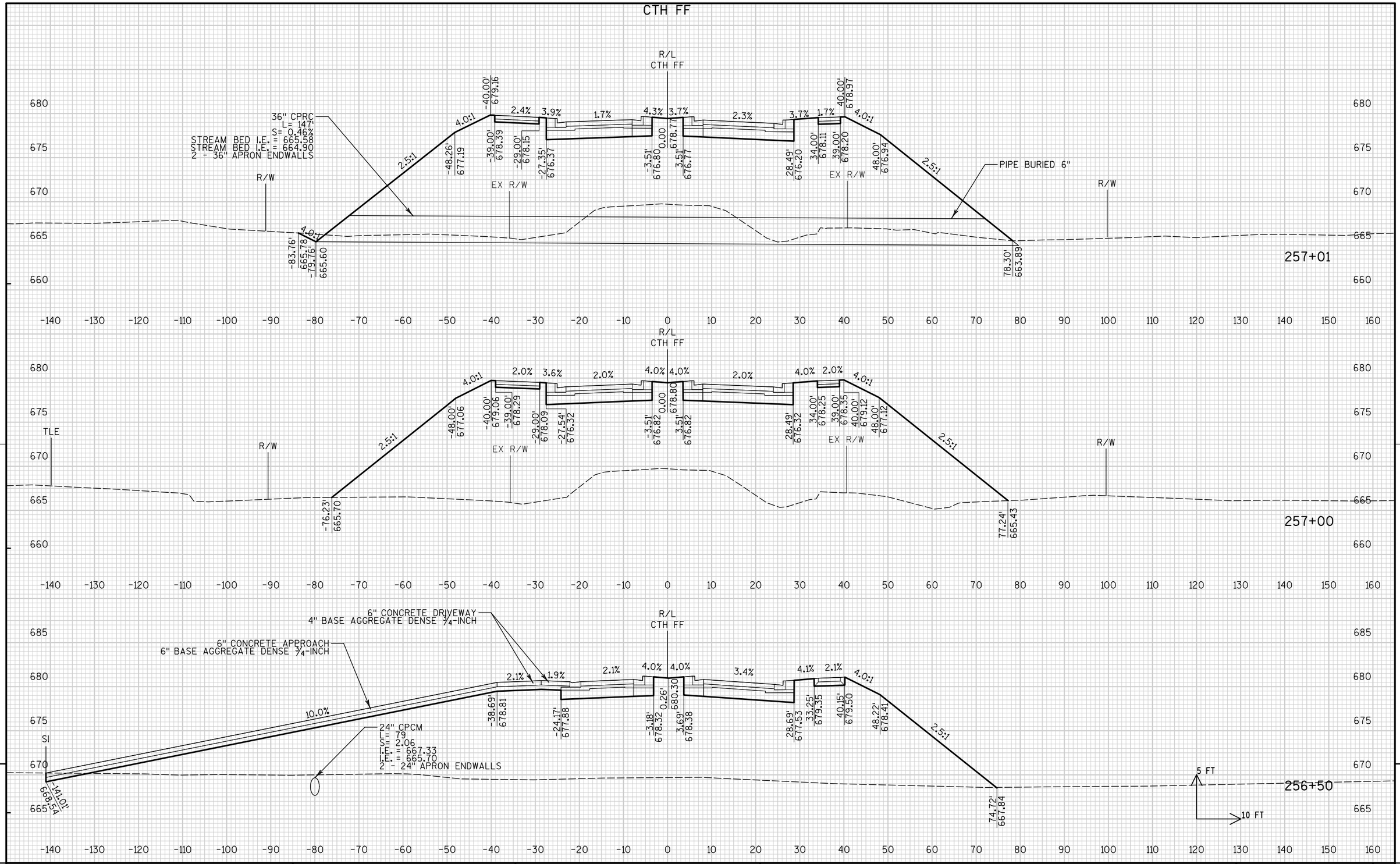
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 255+00 TO STA 256+00	SHEET 624	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090327_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

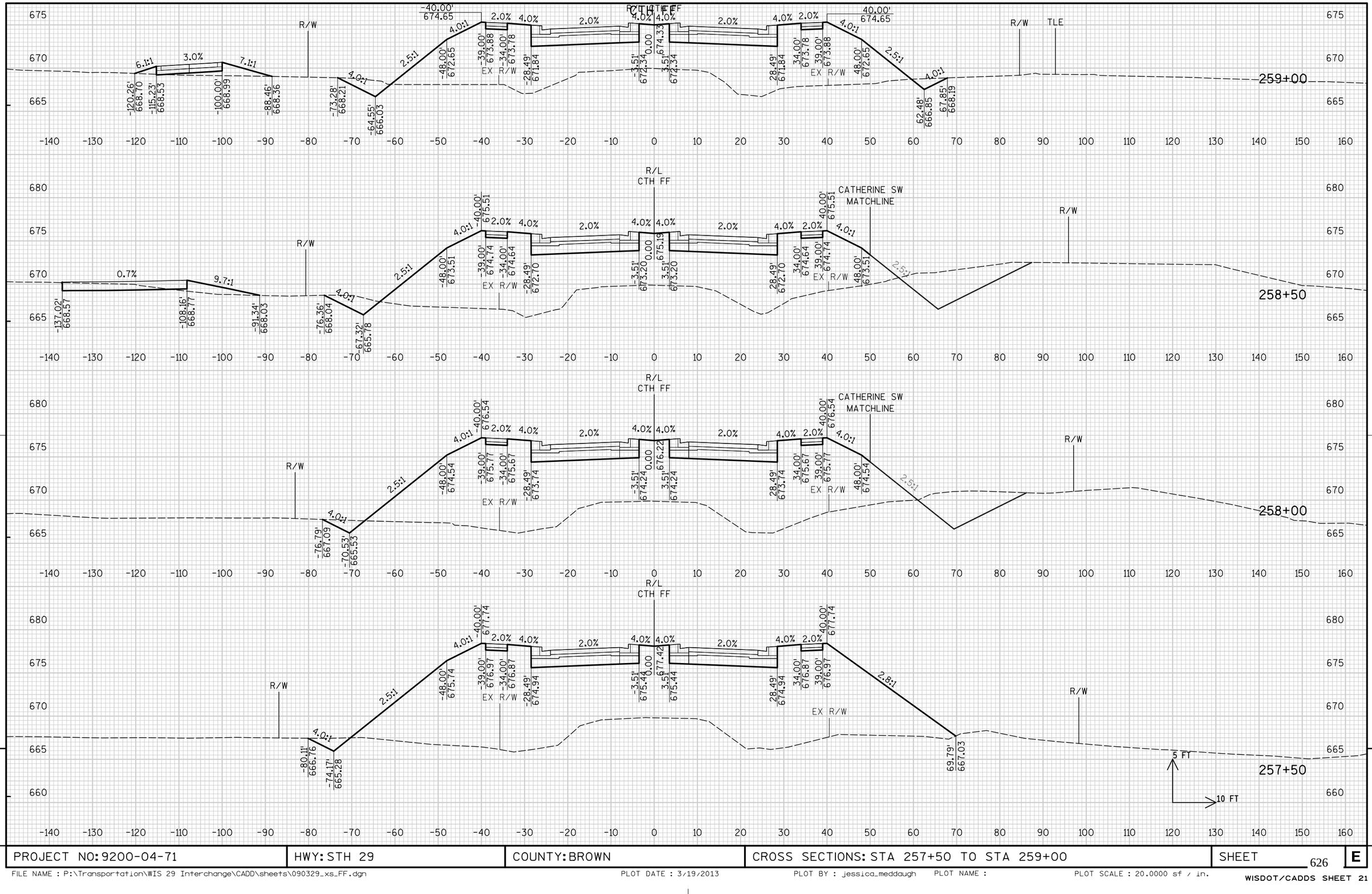
CTH FF



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 256+50 TO STA 257+01	SHEET 625	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090328_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

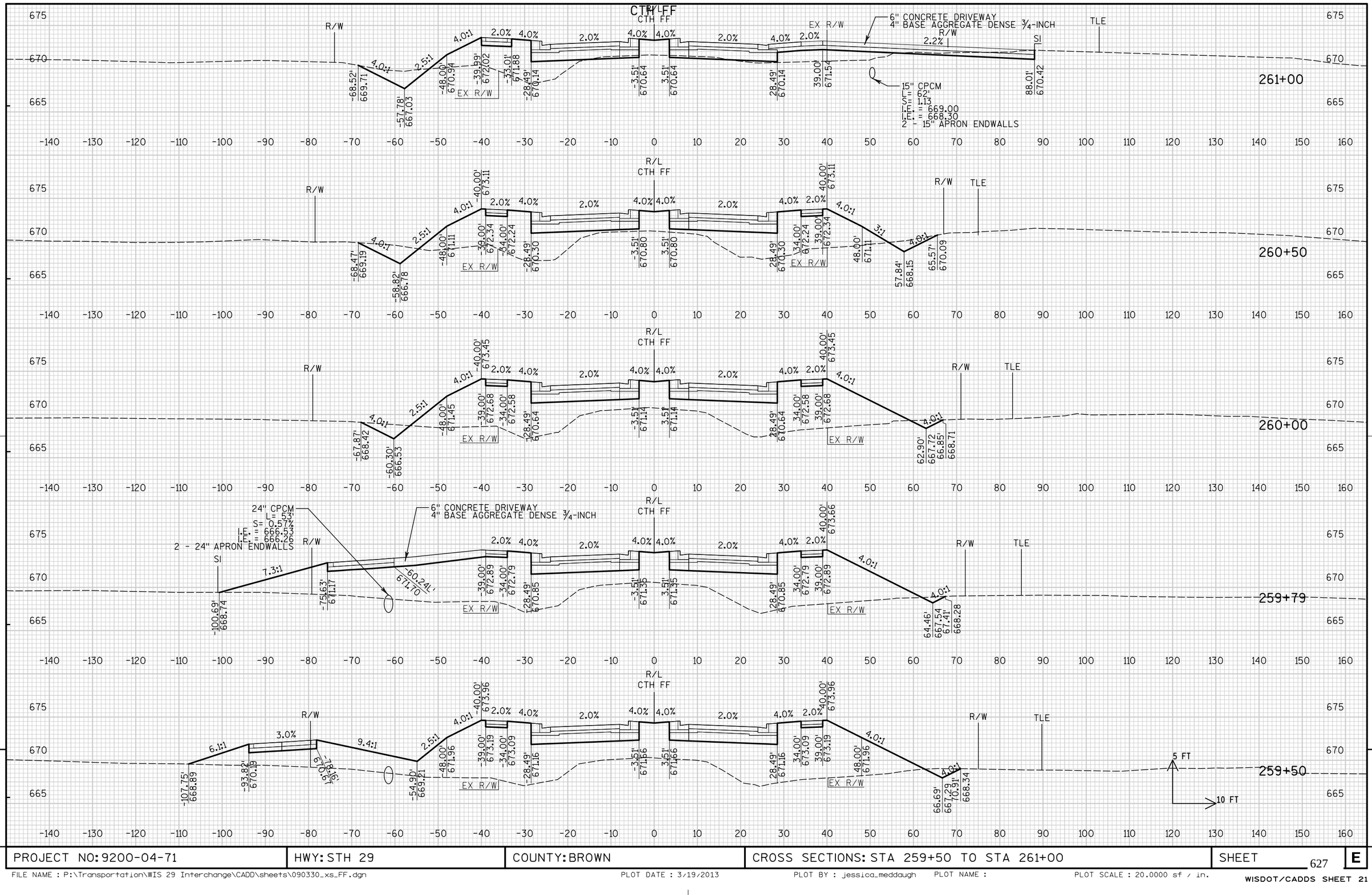


9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 257+50 TO STA 259+00	SHEET 626	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090329_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

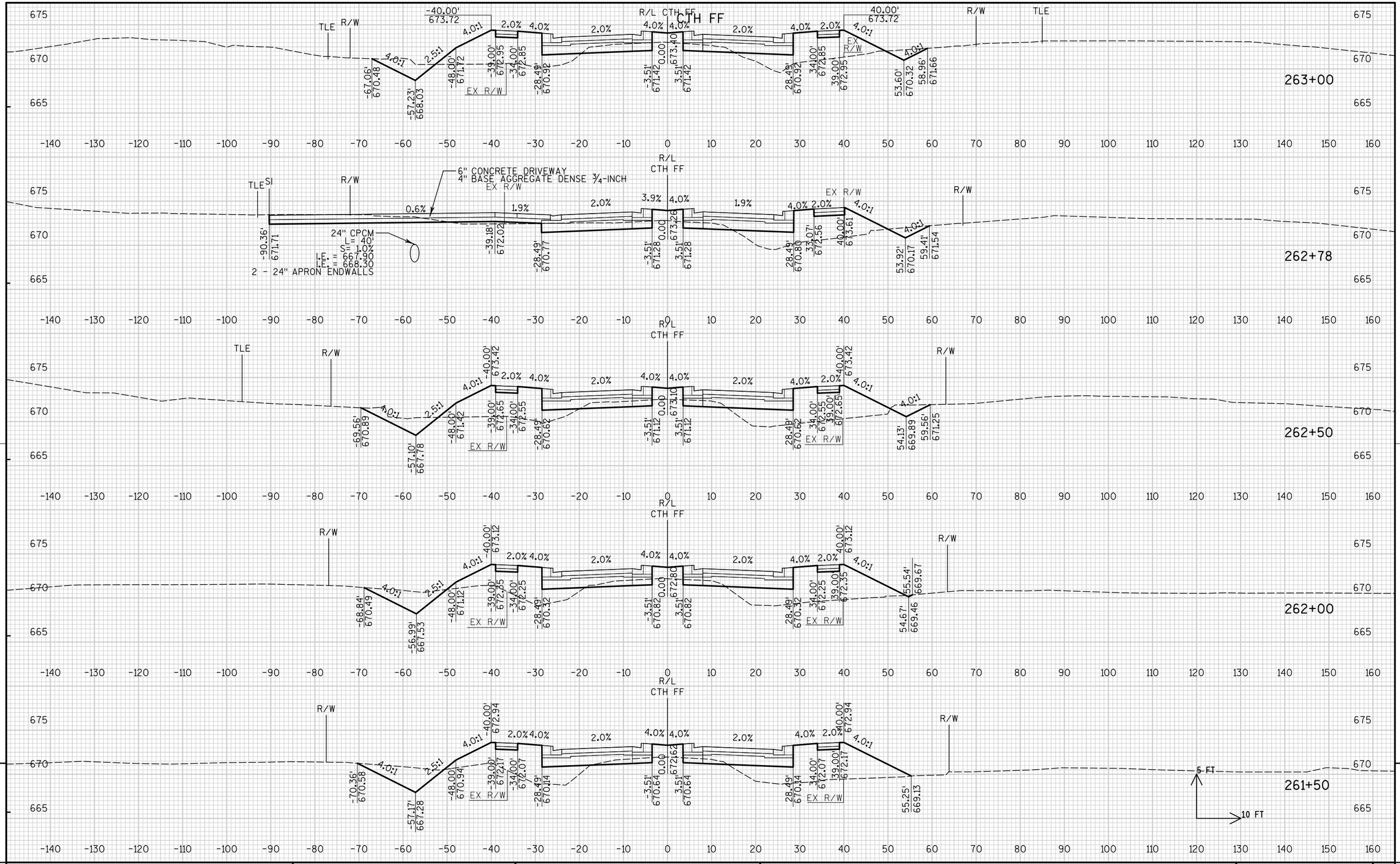
WISDOT/CADDS SHEET 21



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 259+50 TO STA 261+00	SHEET 627	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090330_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

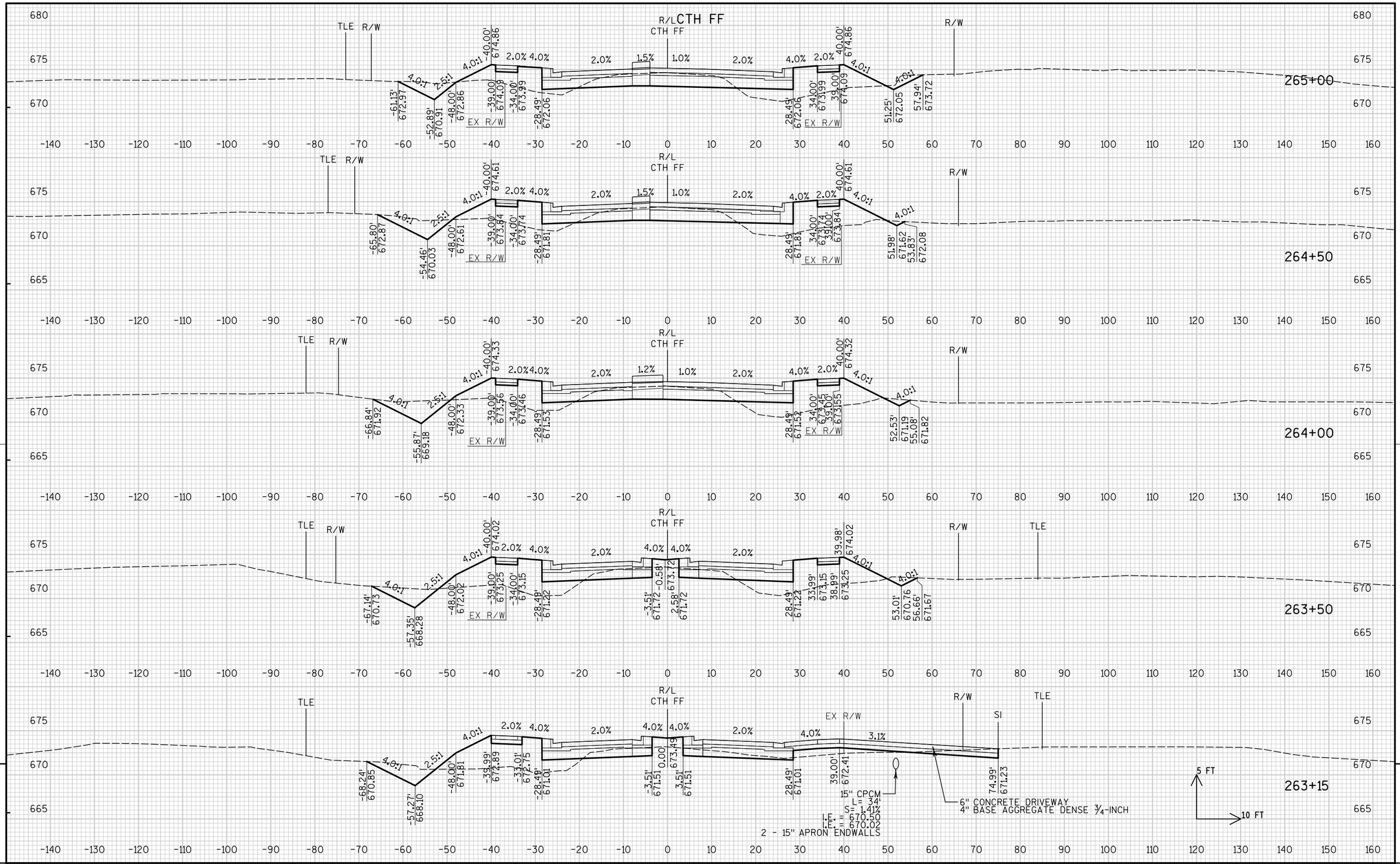


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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 261+50 TO STA 263+00	SHEET 628	E

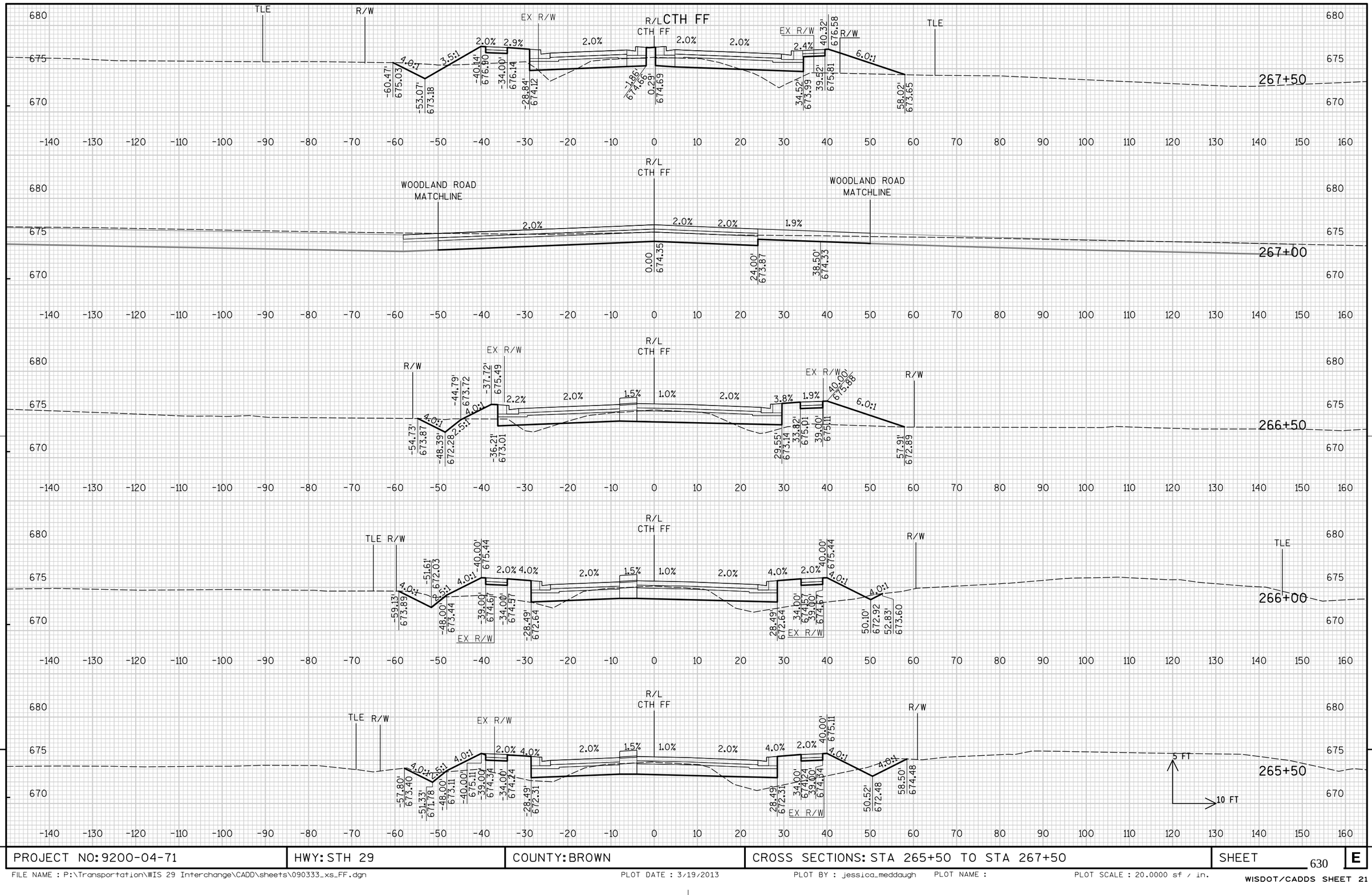
FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090331_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 263+15 TO STA 265+00	SHEET 629	E

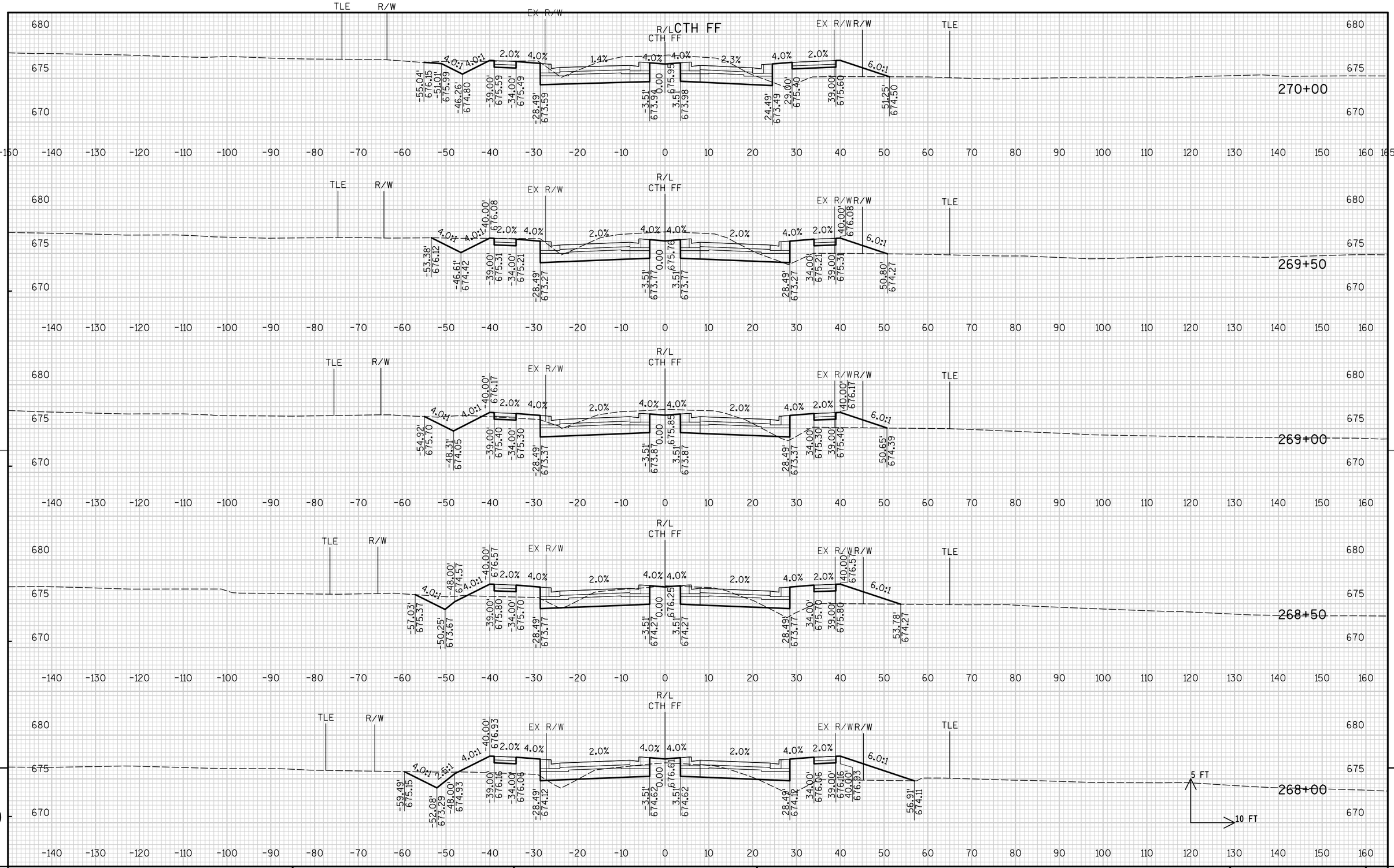
FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090332_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.



9

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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 265+50 TO STA 267+50	SHEET 630	E



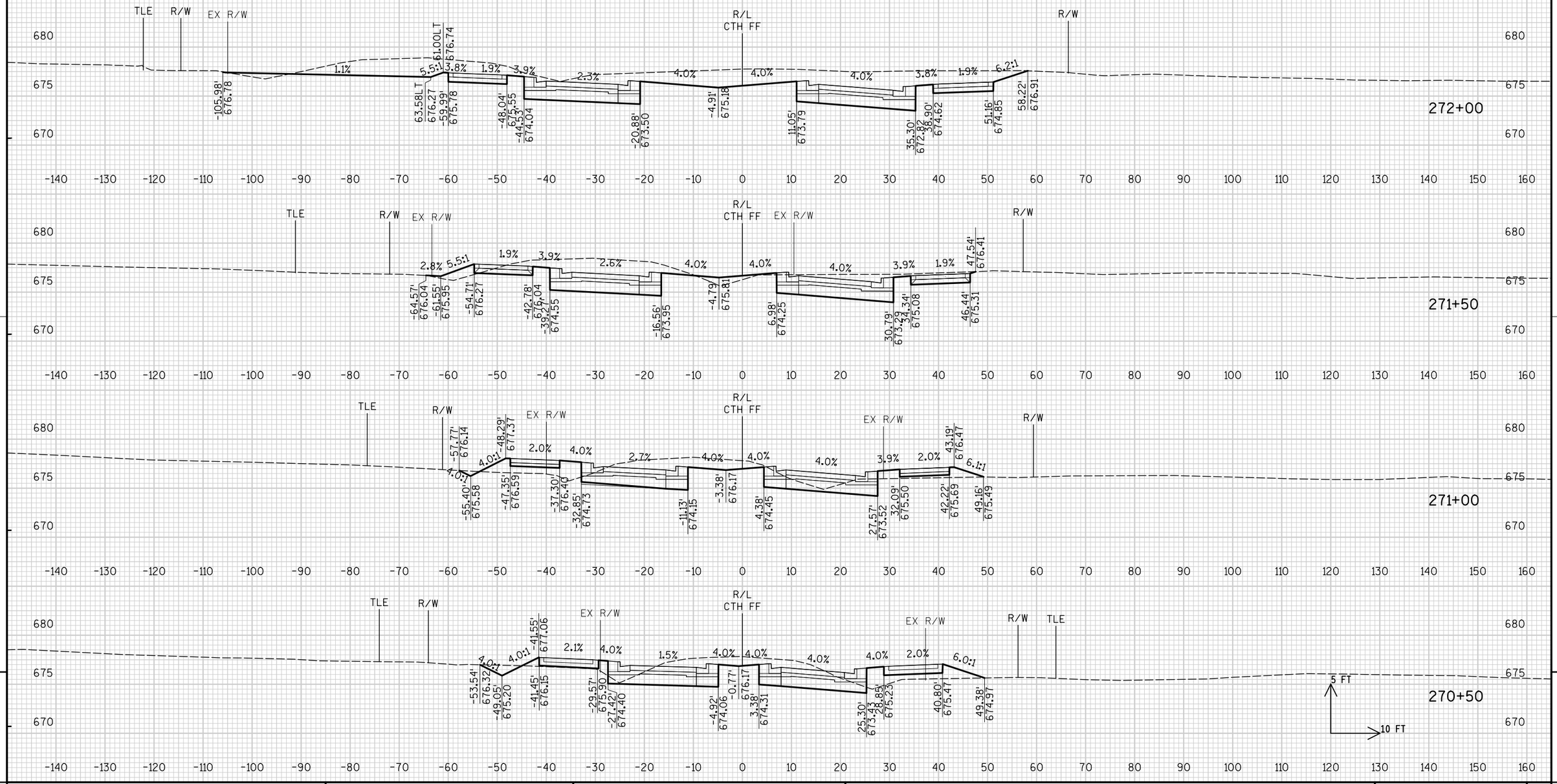
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 268+00 TO STA 270+00	SHEET 631	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090334_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

CTH FF



9

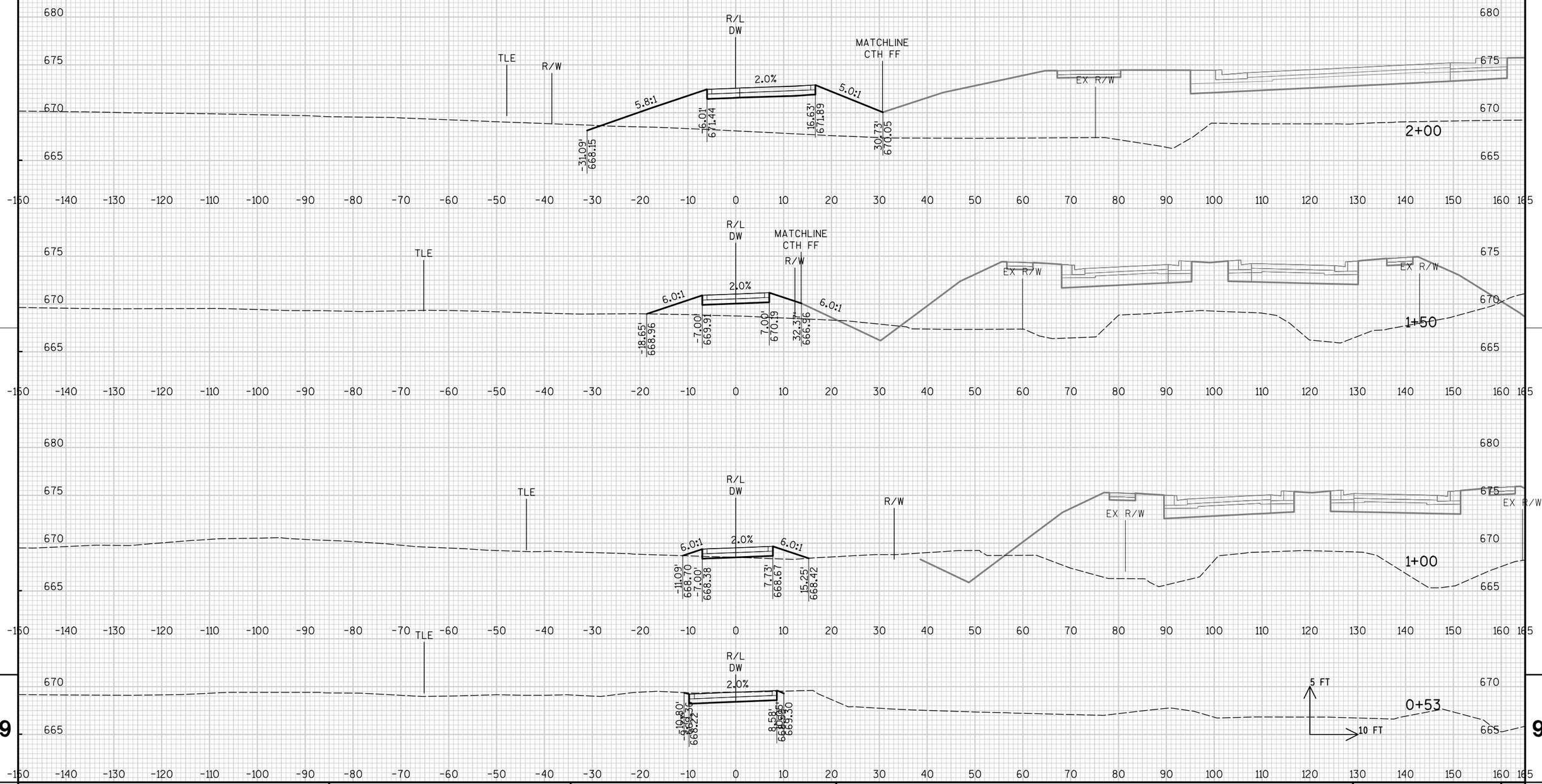
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 270+50 TO STA 272+00	SHEET 632	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090335_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

CTH FF DRIVEWAY 259+86

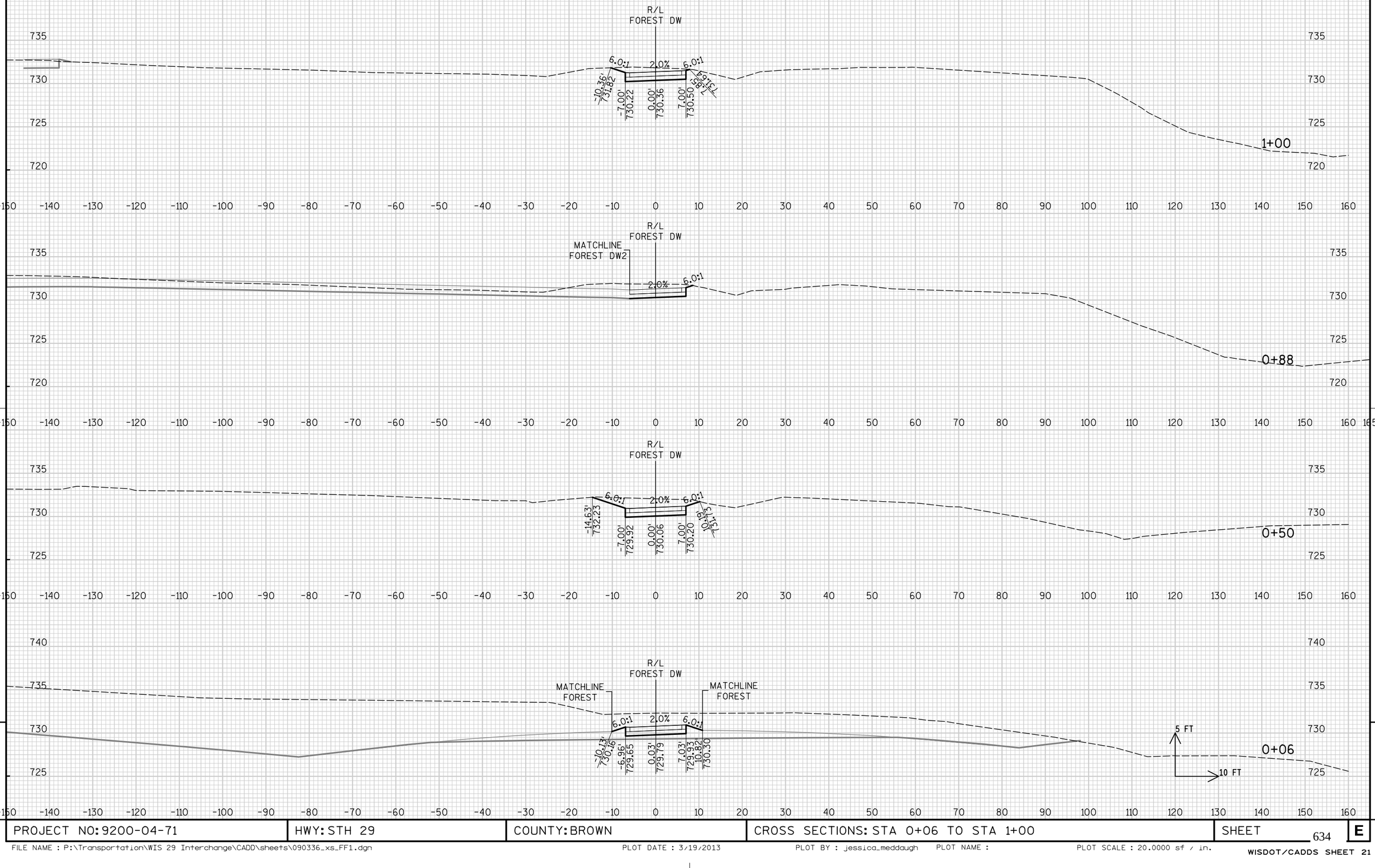


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 0+53 TO STA 2+00	SHEET 633	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090336_xs_FF.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

CTH FF DRIVEWAY 259+86

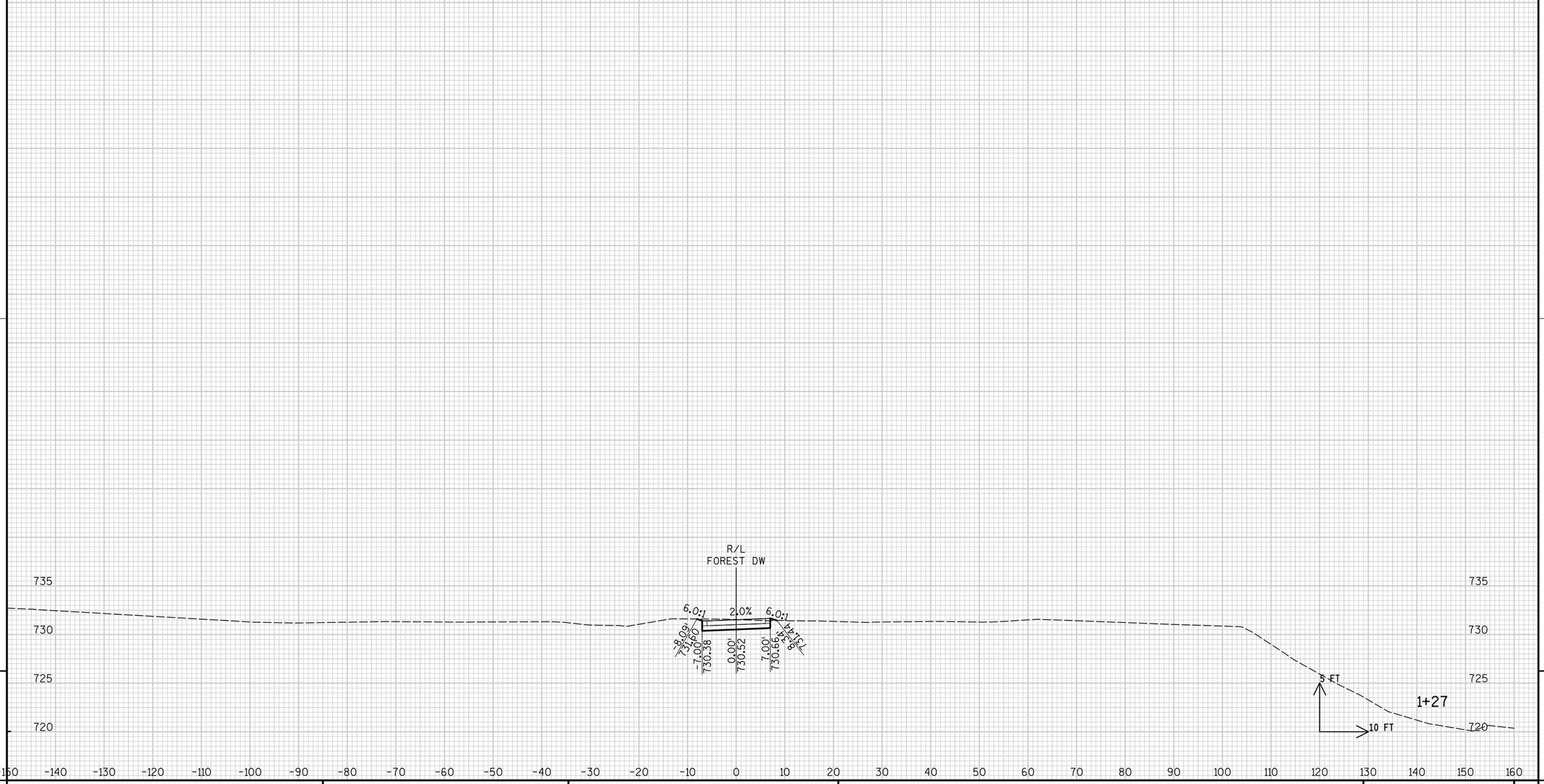


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 0+06 TO STA 1+00	SHEET 634	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090336_xs_FF1.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

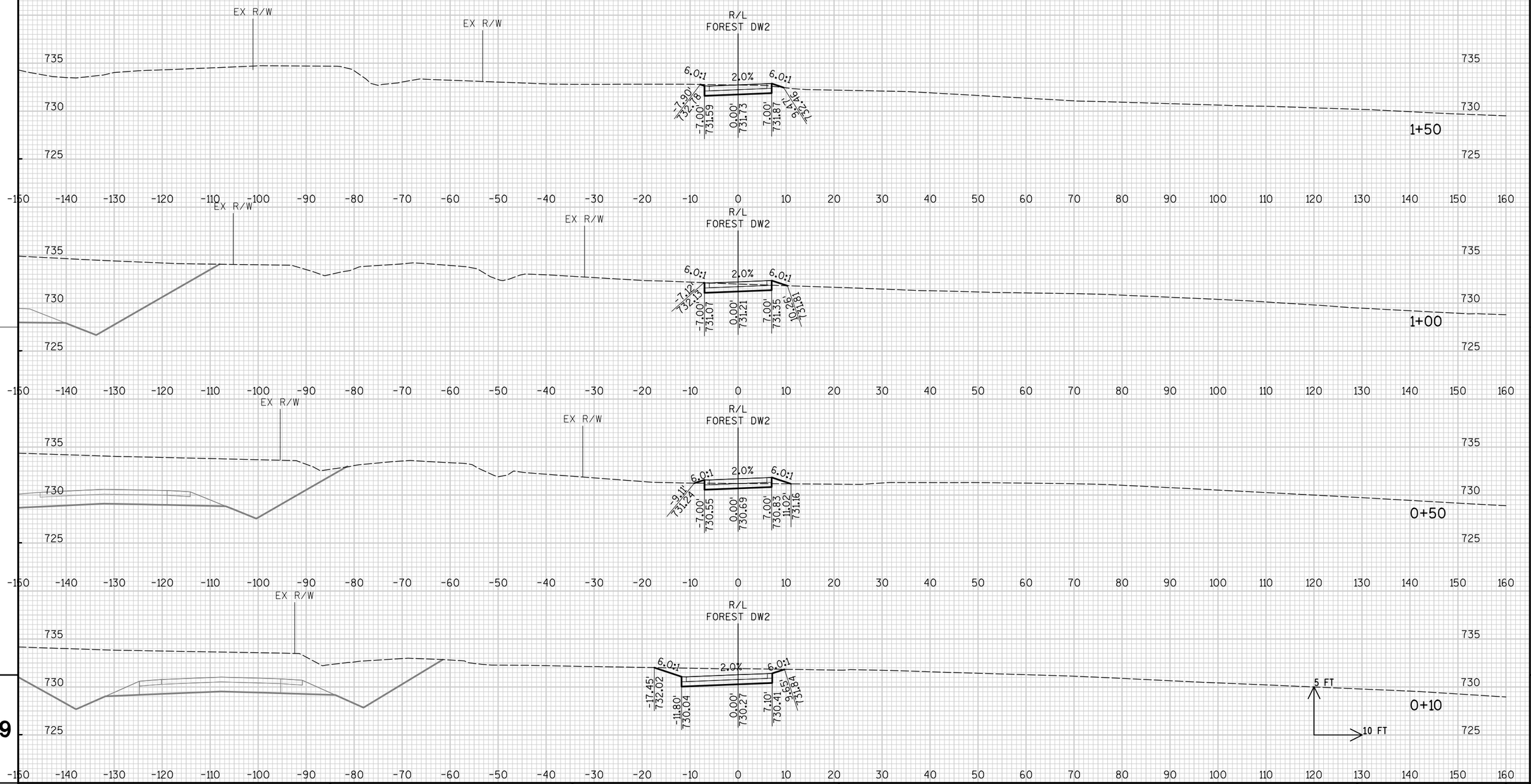
CTH FF DRIVEWAY 259+86



9 9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 1+27 TO STA 1+27	SHEET 635	E

CTH FF DRIVEWAY 259+86



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 0+10 TO STA 1+50	SHEET 636	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090336_xs_FF3.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

RAB-EB

MATCHLINE EB RAB
6.8:1
4.0%
EX R/W
1.0%
7.1%
1.0%
R/L RAB-EB
1.0%
6.8%
2.0%
4.1:1
2.7:1
MATCHLINE SE RAMP
-44.00' 698.27
-36.50' 695.91
9.22' 697.65
19.24' 697.25
21.25' 697.96
57.35' 685.92
0+50

MATCHLINE EB RAB
6.3:1
4.0%
R/L RAB-EB
1.0%
EX R/W
1.0%
MATCHLINE SE RAMP
1.0%
-44.01' 697.93
-36.51' 695.58
-0.03' 695.21
0+00

705 700 695 690 685 680 675 670 665

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

5 FT
10 FT

9

9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 0+00 TO STA 0+50	SHEET 637	E

RAB-EB

705
MATCHLINE
EB RAB

EX R/W
EX R/W
R/L
RAB-EB

4.0%
1.0%
1.0%
1.0%
6.8%
2.0%
5.3:1
2.5:1

-44.00'
698.01

-36.50'
695.65

0.00'
695.29

9.03'
696.78

19.04'
696.97

28.05'
695.93

105.14'
665.06

1+00

705
700
695
690
685
680
675
670
665
660

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

5 FT
10 FT

9

9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 1+00 TO STA 1+00	SHEET 638	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090336b_xs_RAB_EB.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

RAB-EB

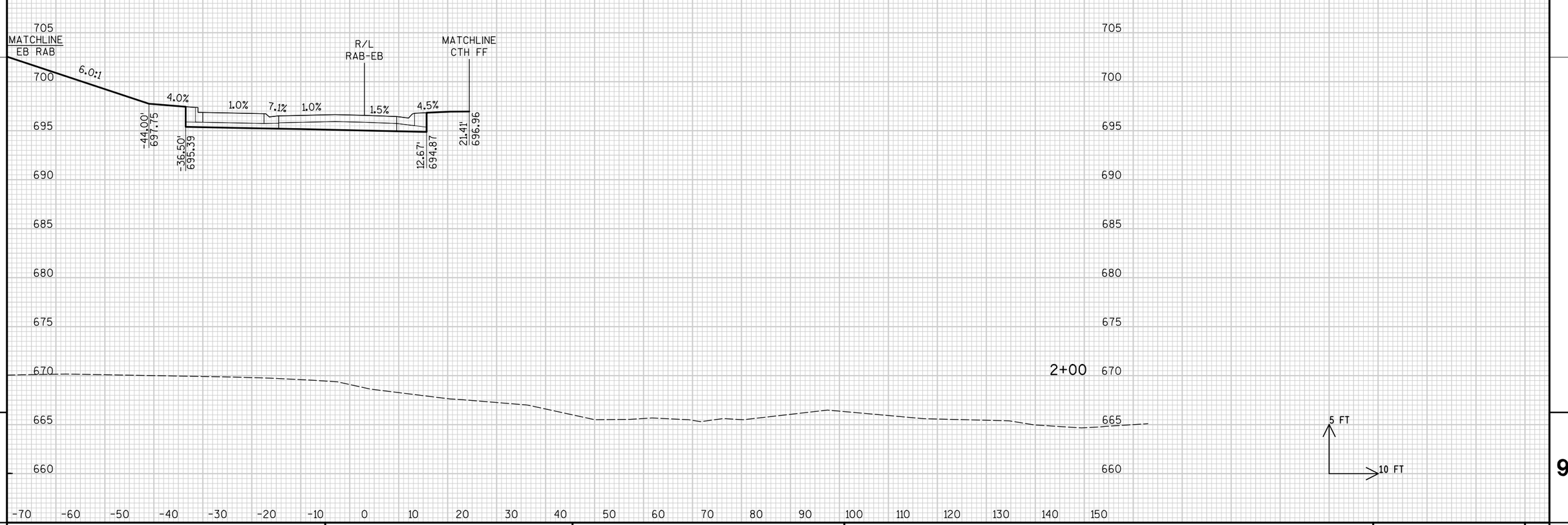
705
MATCHLINE
EB RAB
700
5.9:1
4.0%
1.0%
7.1%
1.0%
1.0%
-44.00'
697.60
-36.50'
695.24
0.00'
694.88
R/L
RAB-EB
MATCHLINE
CTH FF
695
690
685
680
675
670
665
660
1+50
5 FT
10 FT
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

9

9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 1+50 TO STA 1+50	SHEET 639	E

RAB-EB



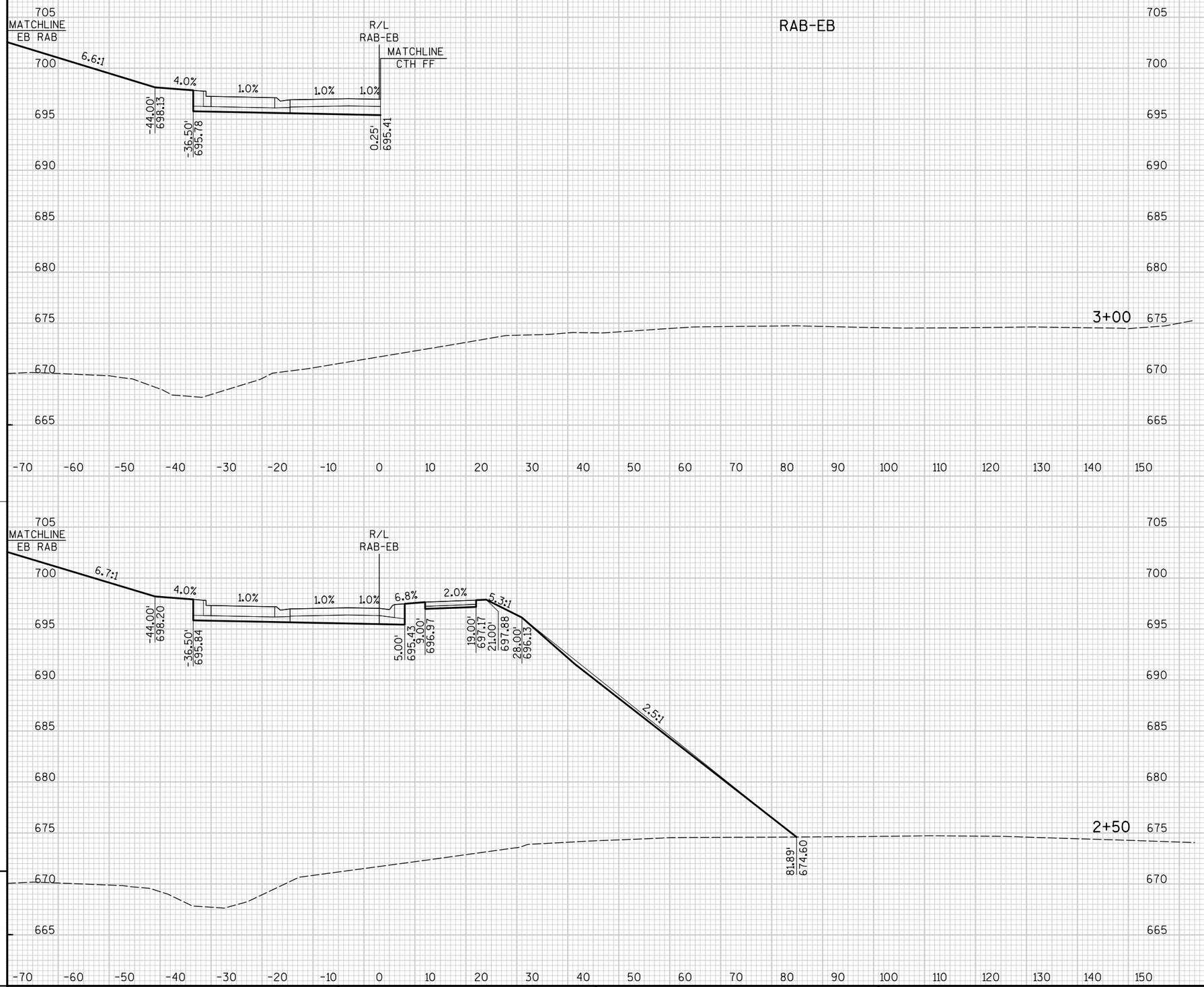
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 2+00 TO STA 2+00	SHEET 640	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090336d_xs_RAB_EB.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

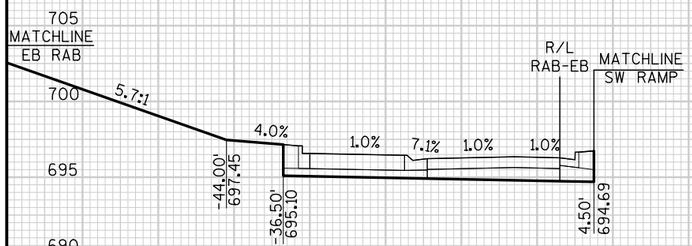
RAB-EB

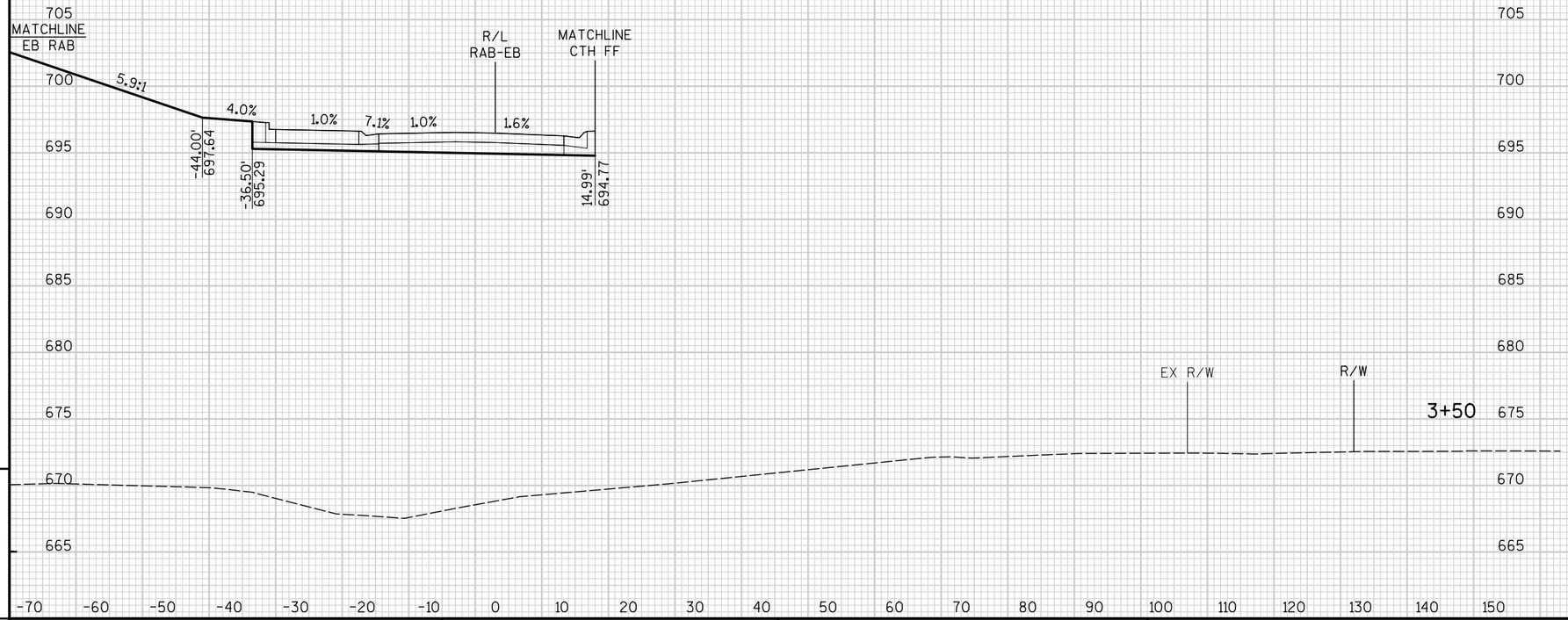


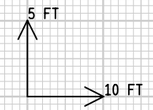
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 2+50 TO STA 3+00	SHEET 641	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090336e_xs_RAB_EB.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

RAB-EB



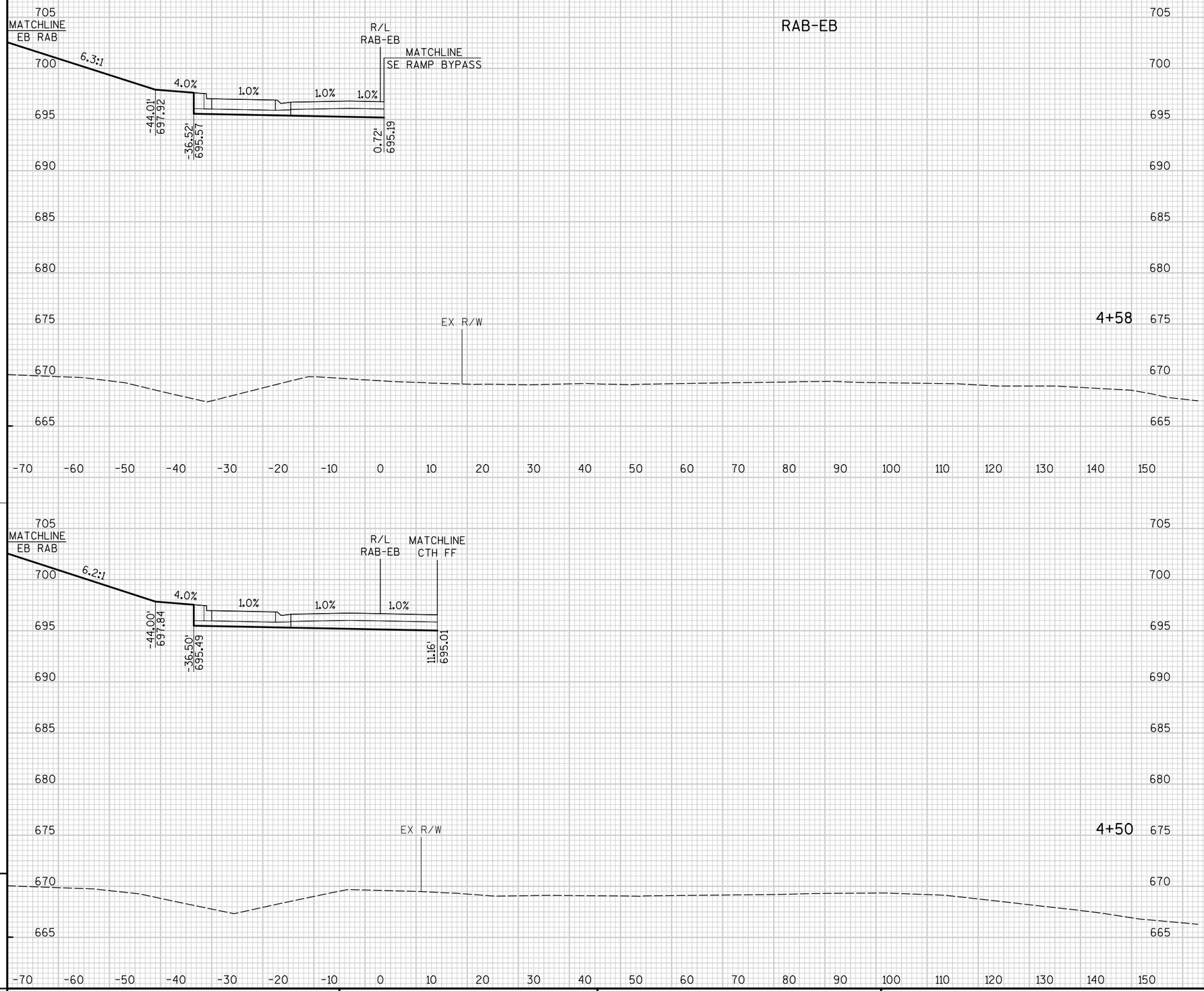




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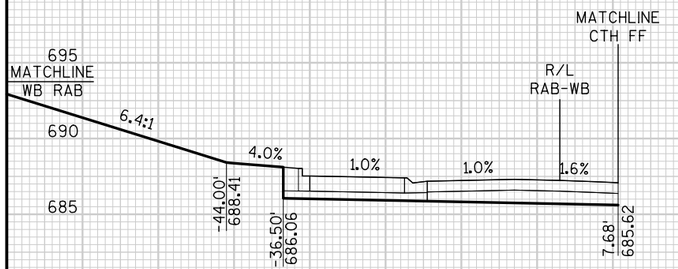
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 3+50 TO STA 4+00	SHEET 642	E

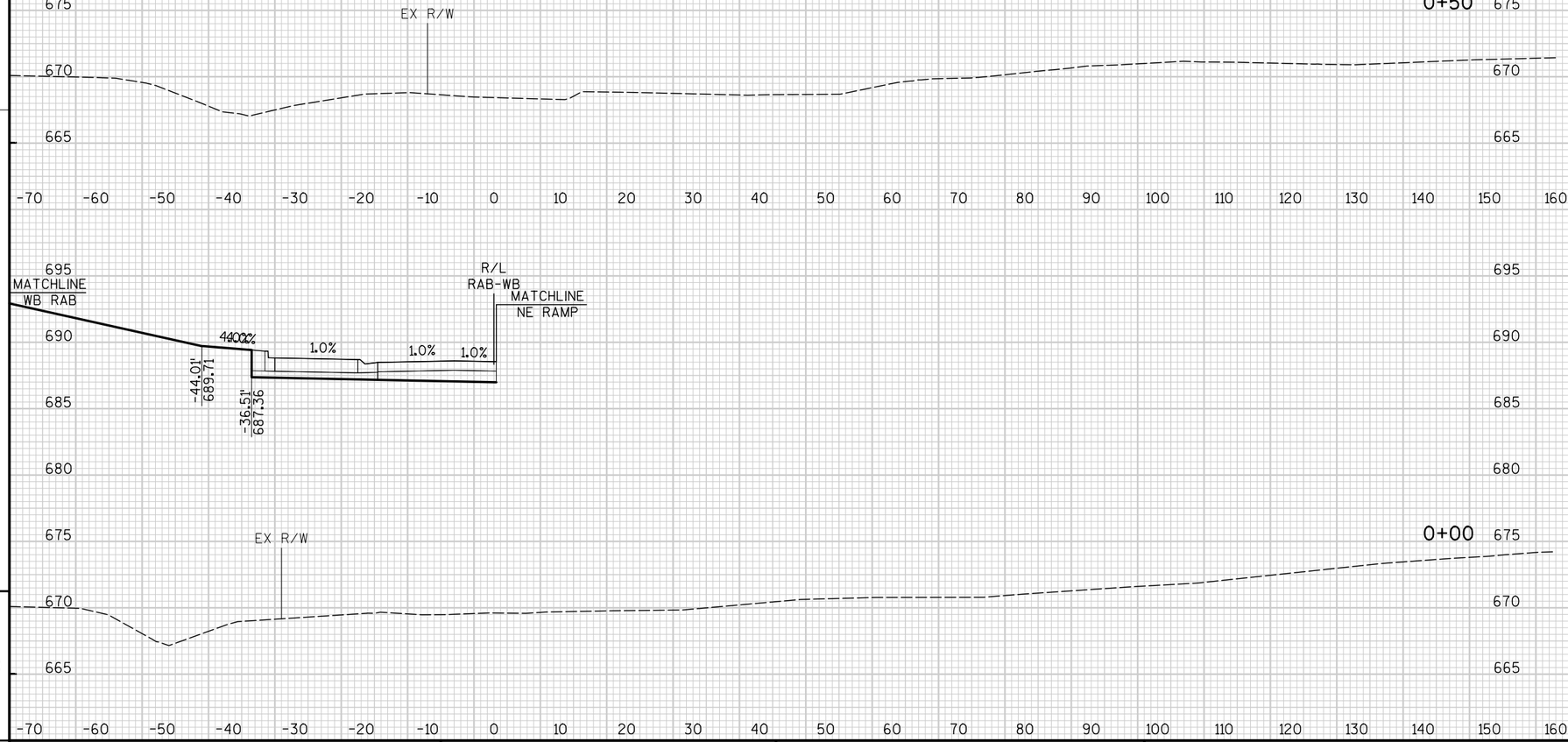
RAB-EB

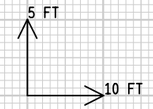


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 4+50 TO STA 4+58	SHEET 643	E

RAB-WB





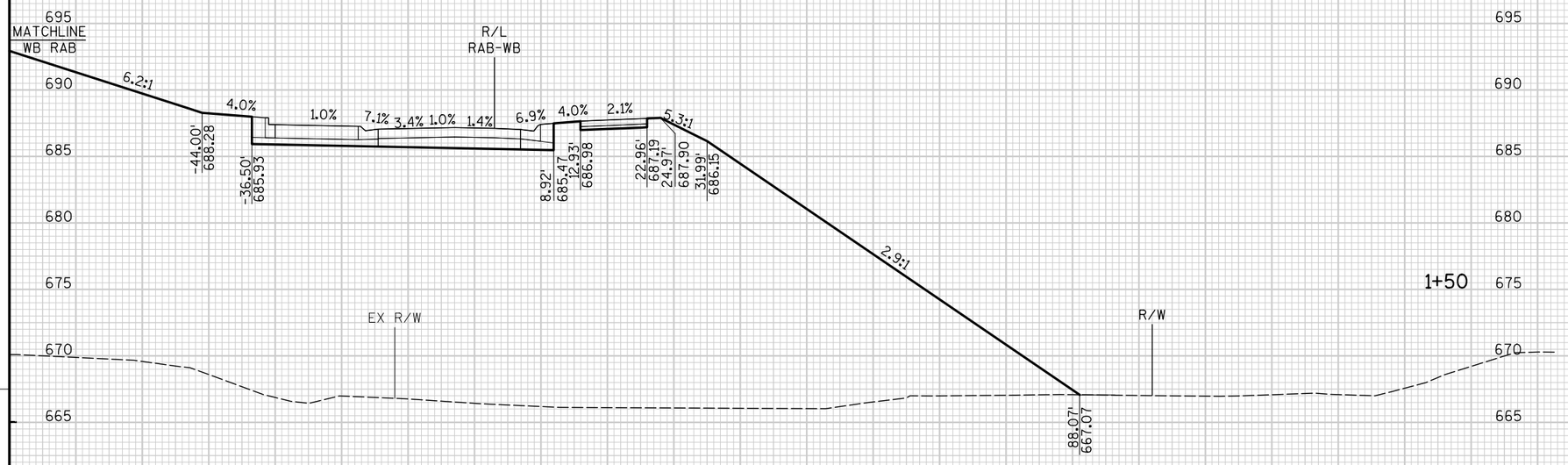


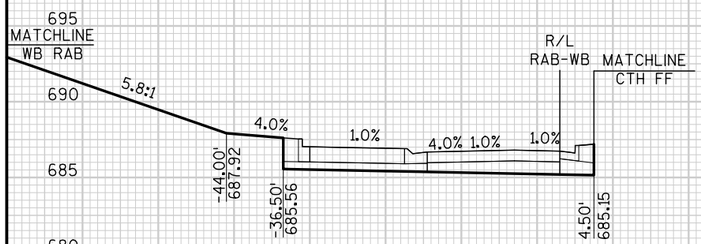
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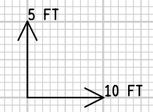
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 0+00 TO STA 0+50	SHEET 644	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090337a_xs_RAB_WB.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

RAB-WB







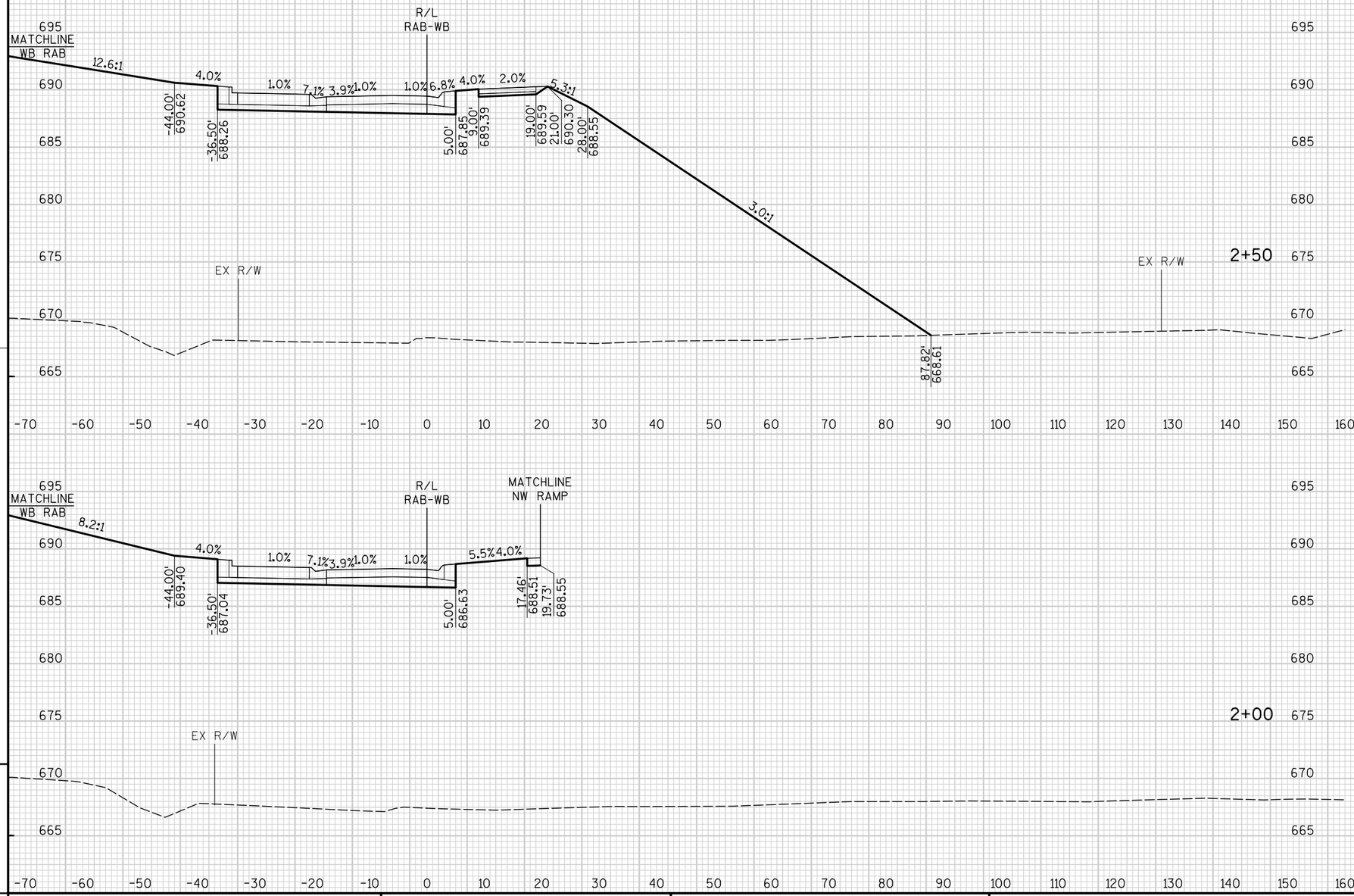
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9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 1+00 TO STA 1+50	SHEET 645	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090337b_xs_RAB_WB.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

RAB-WB

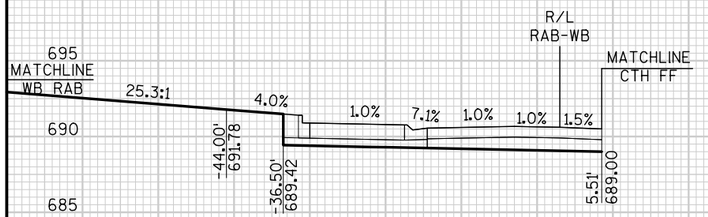


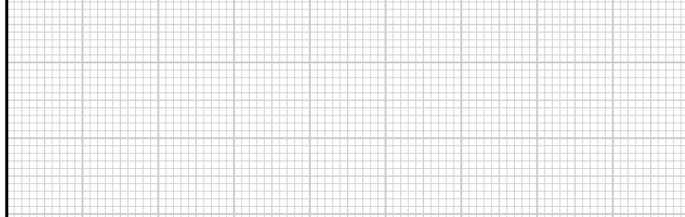
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 2+00 TO STA 2+50	SHEET 646	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090337c_xs_RAB_WB.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

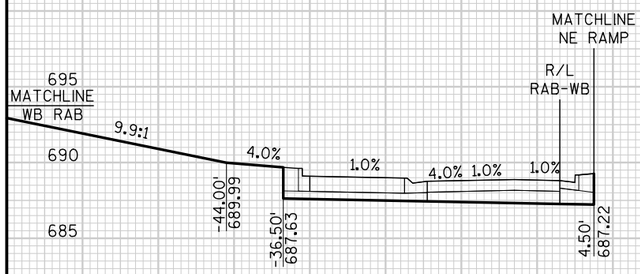
RAB-WB

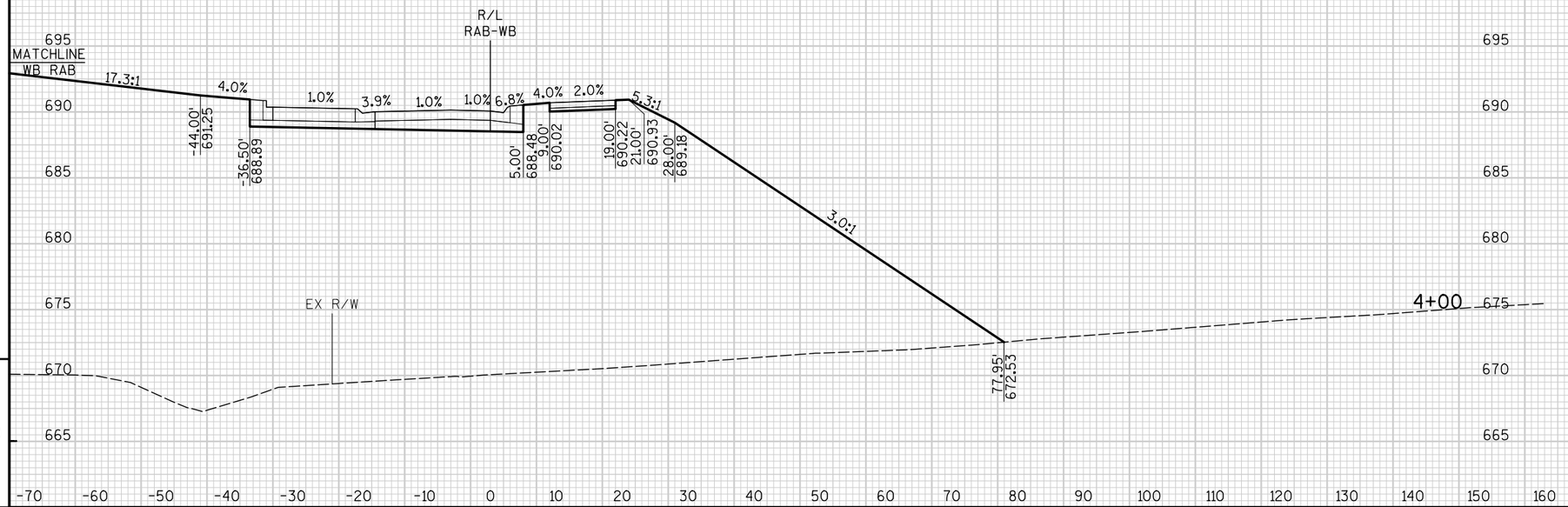




PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 3+00 TO STA 3+50	SHEET 647	E

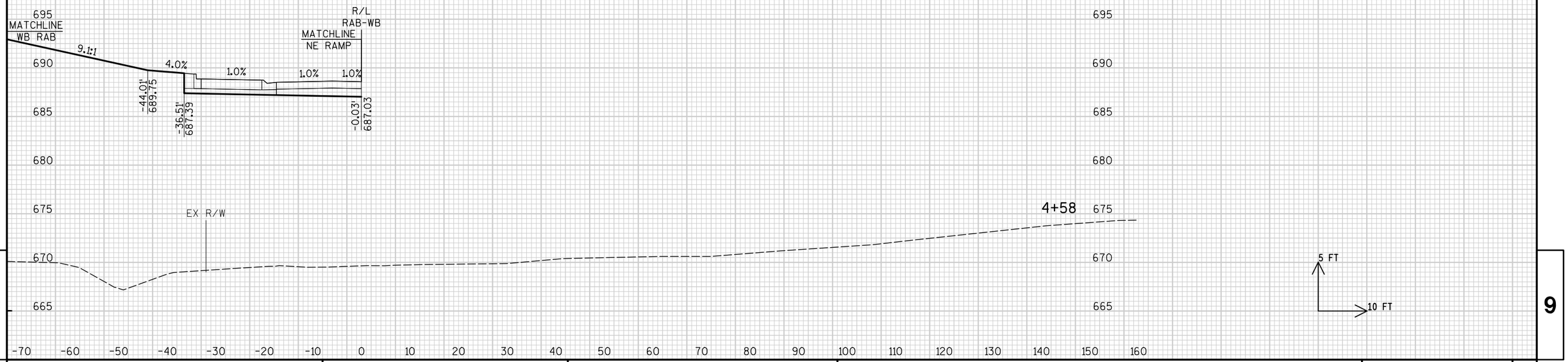
RAB-WB





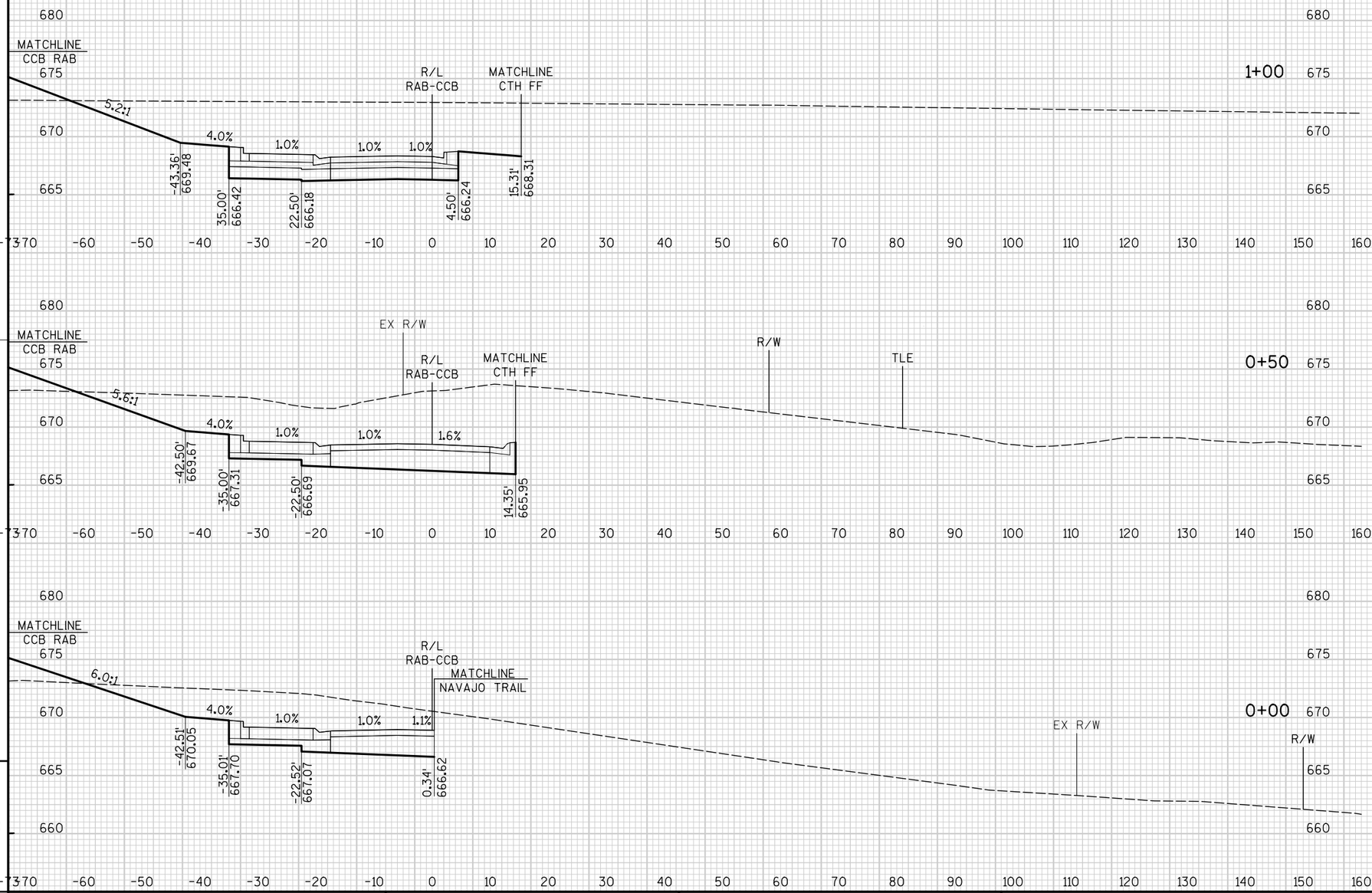
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 4+00 TO STA 4+50	SHEET 648	E

RAB-WB



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 4+58 TO STA 4+58	SHEET 649	E

RAB-CCB

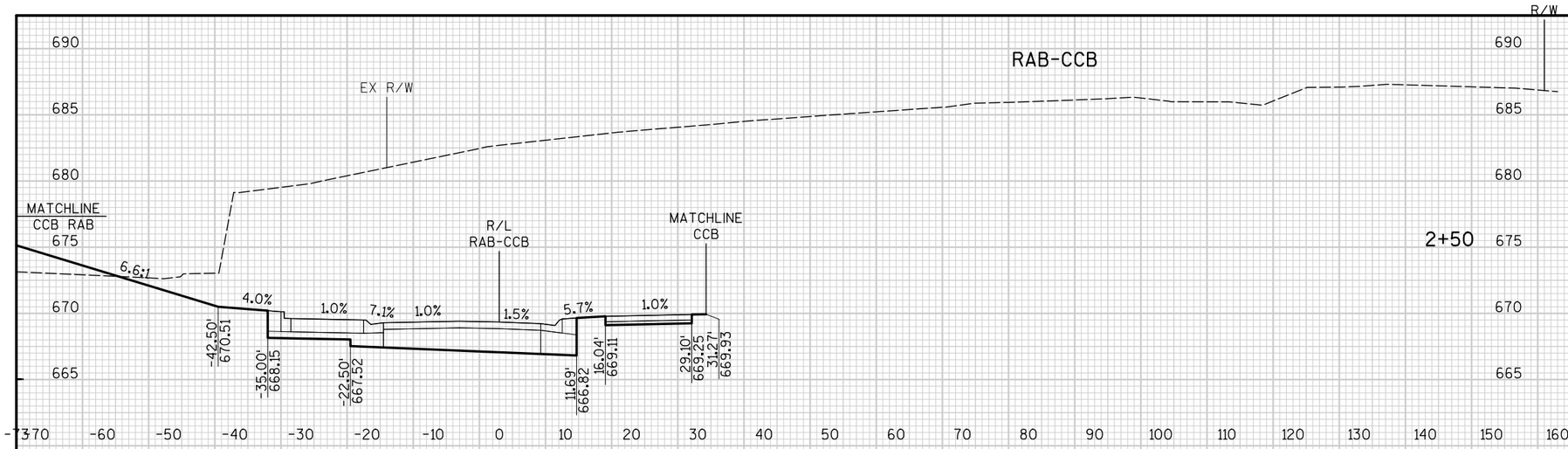


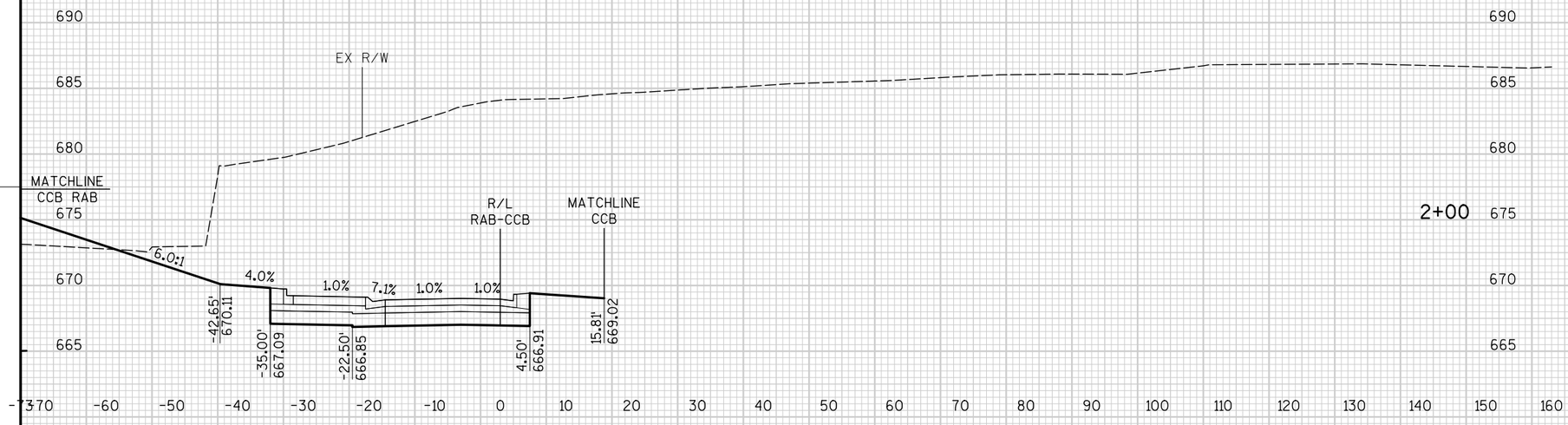
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 0+00 TO STA 1+00	SHEET 650	E

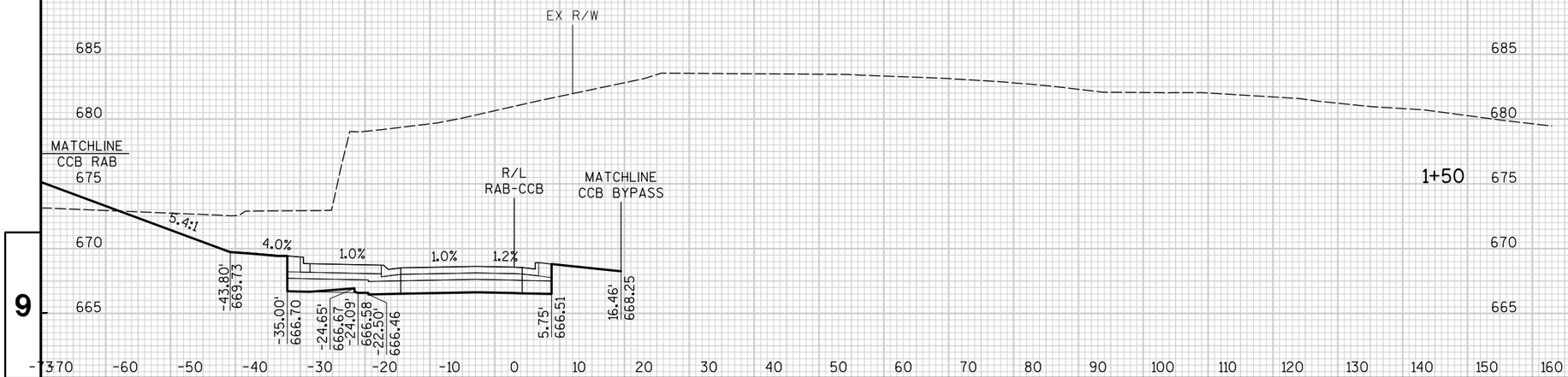
FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090338a_xs_RAB_CBB.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

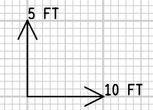
WISDOT/CADDS SHEET 21

RAB-CCB







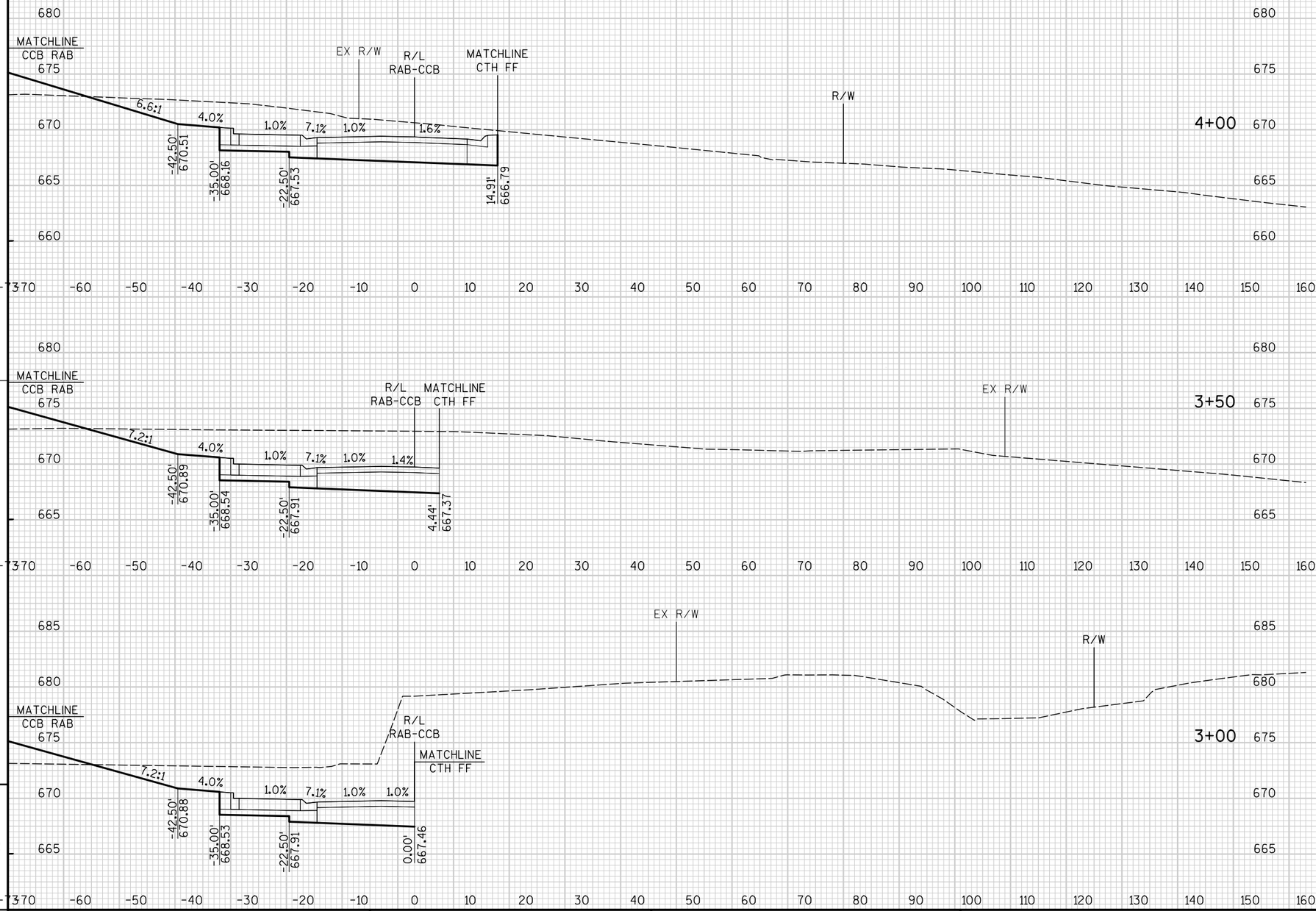


9 9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 1+50 TO STA 2+50	SHEET 651	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090338b_xs_RAB_CBB.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.
WISDOT/CADDS SHEET 21

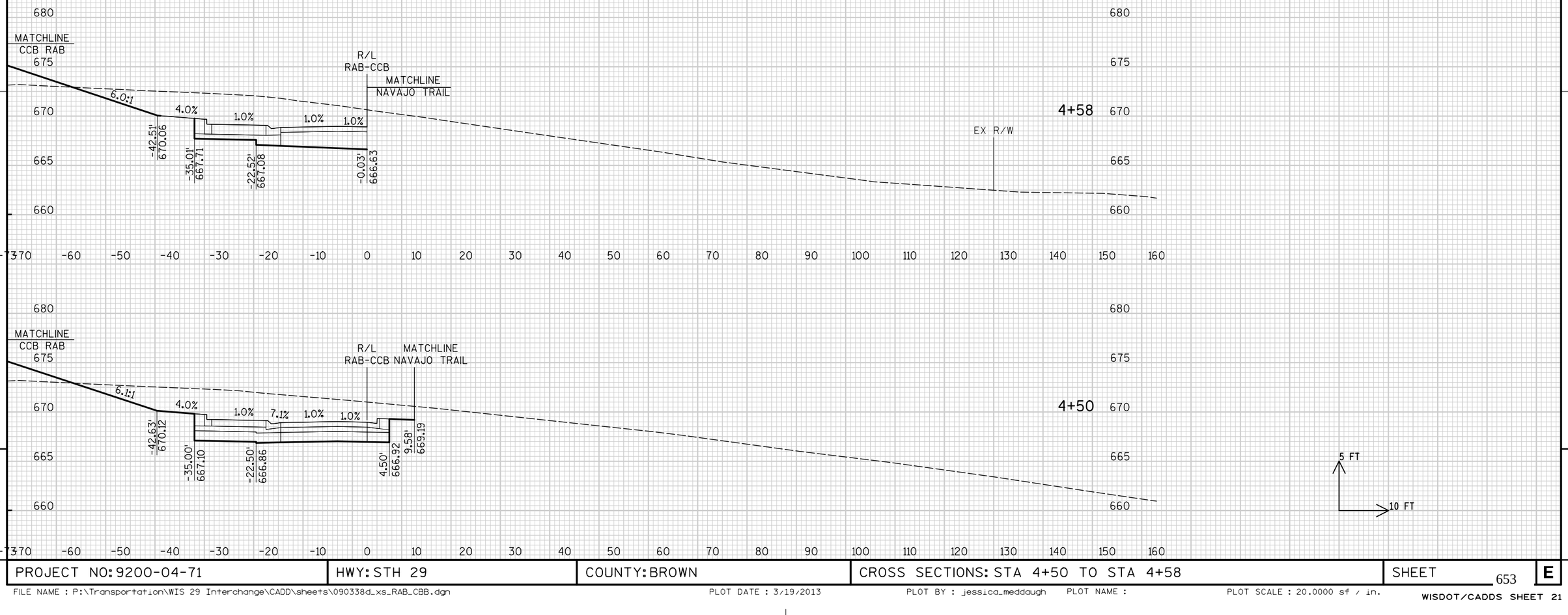
RAB-CCB



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 3+00 TO STA 4+00	SHEET 652	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090338c_xs_RAB_CBB.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

RAB-CCB



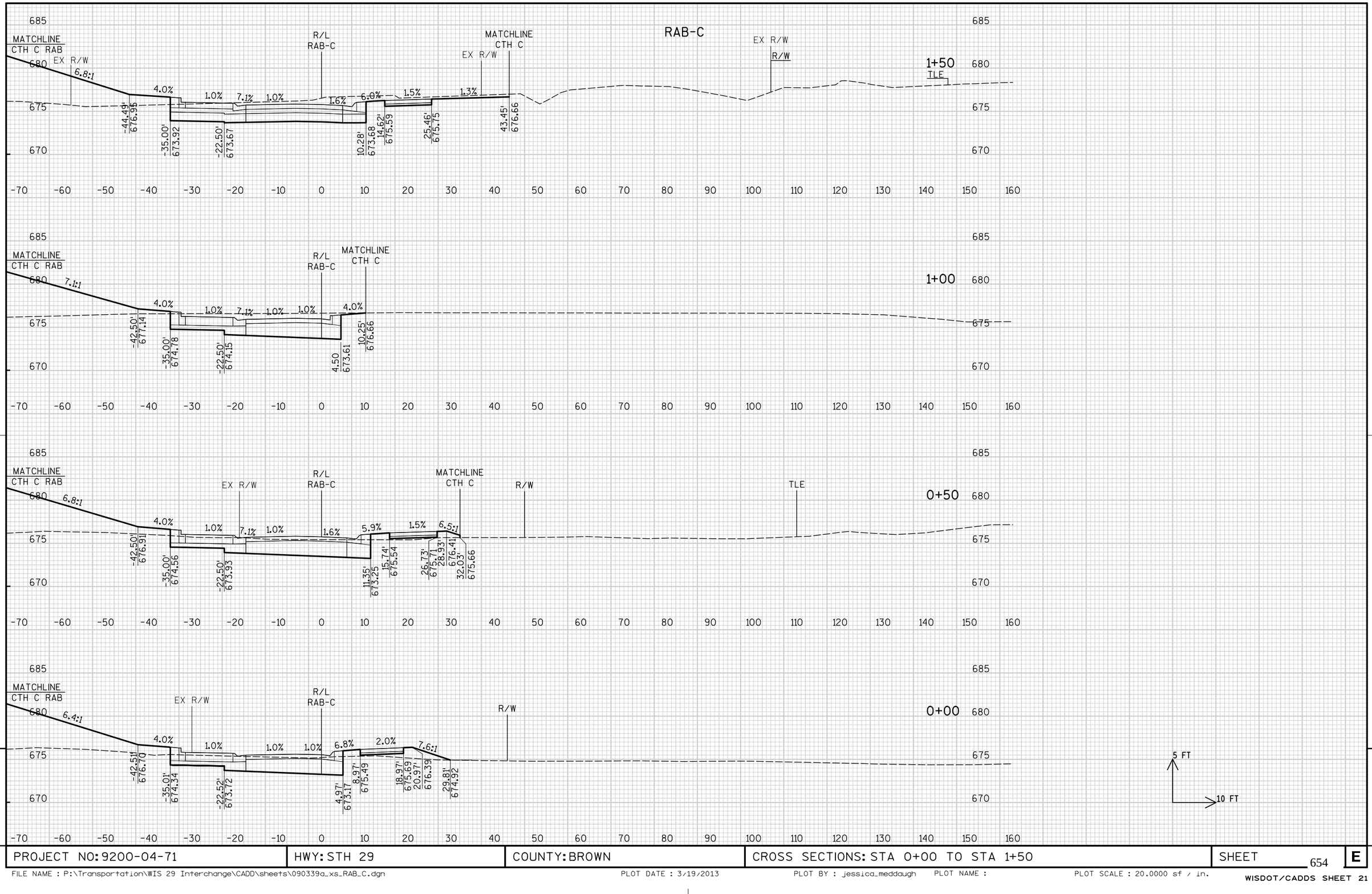
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 4+50 TO STA 4+58	SHEET 653	E

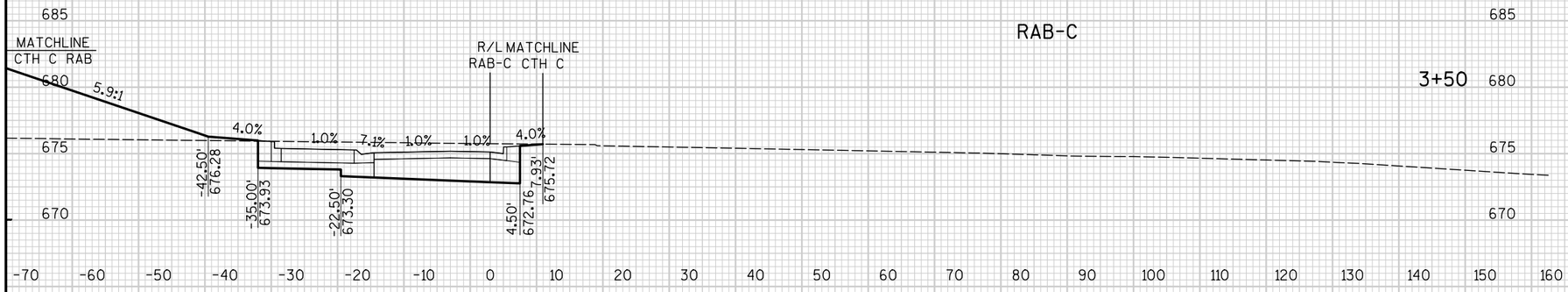
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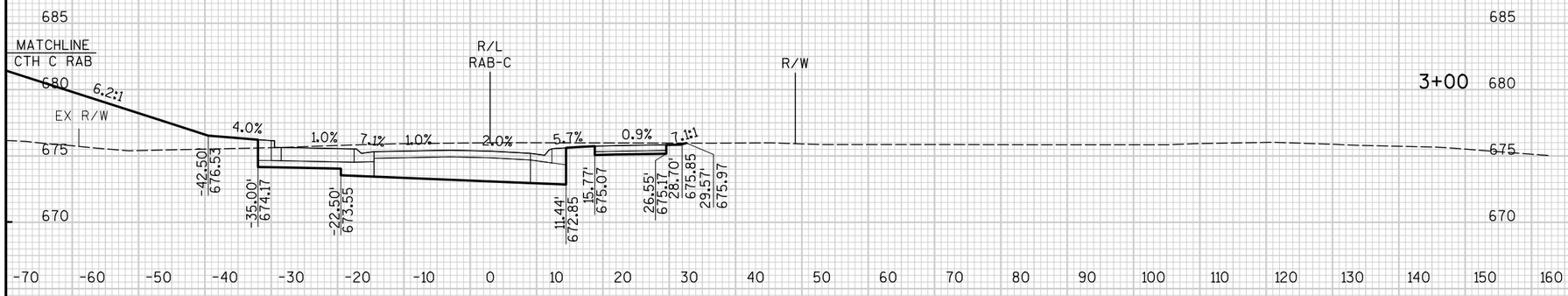
WISDOT/CADDS SHEET 21

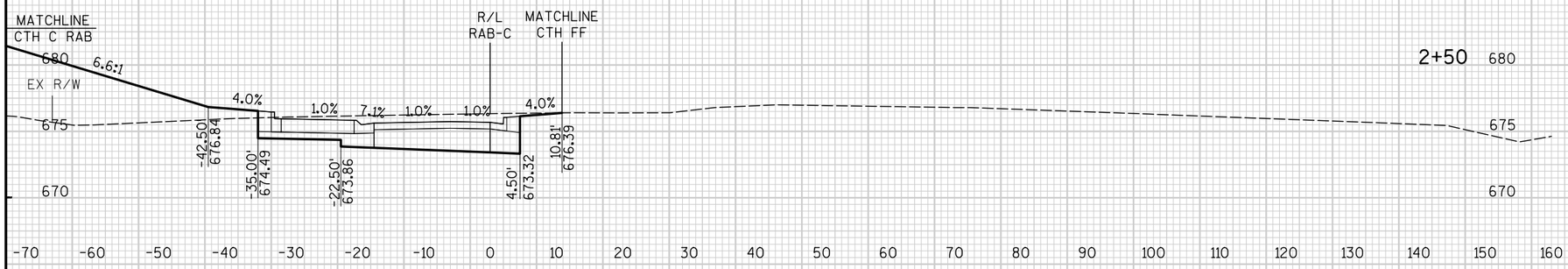


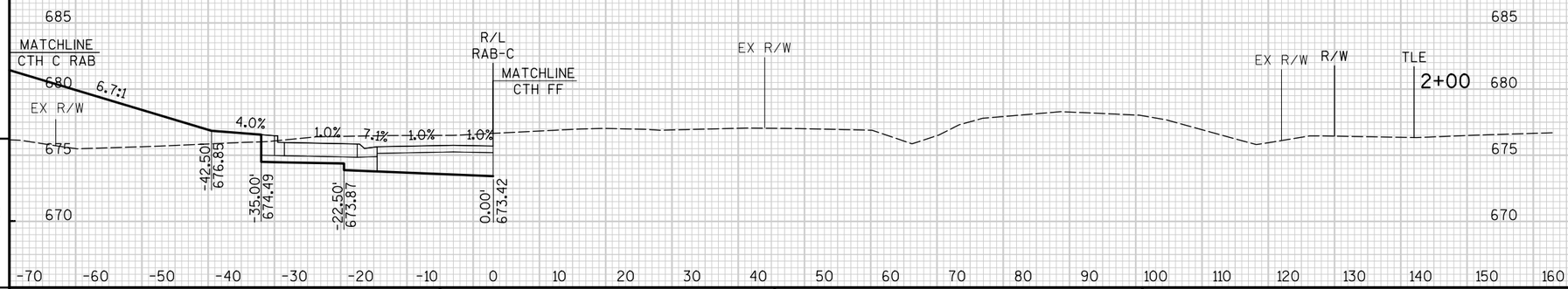
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RAB-C









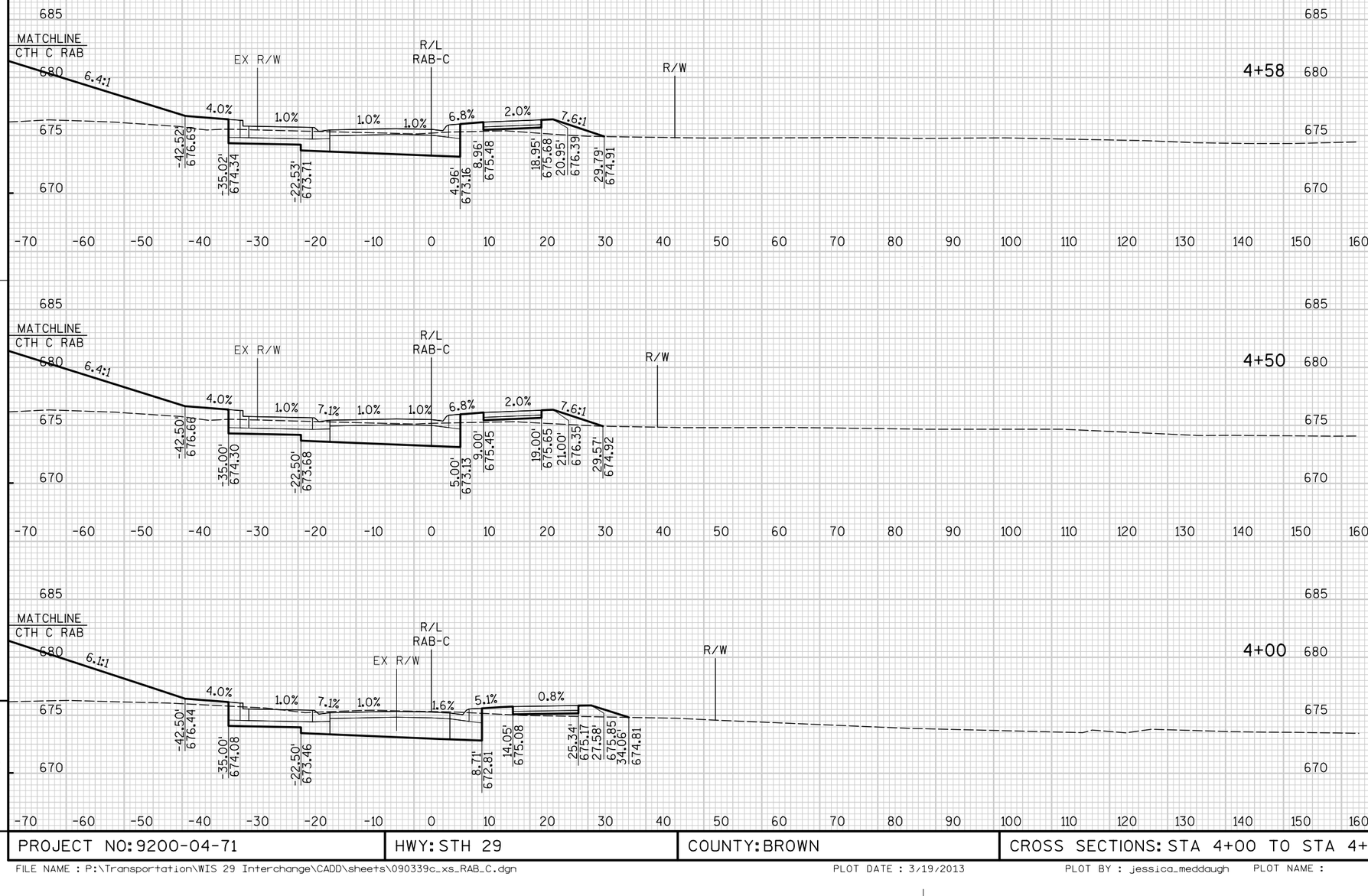
5 FT
10 FT

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PROJECT NO: 9200-04-71 | HWY: STH 29 | COUNTY: BROWN | CROSS SECTIONS: STA 2+00 TO STA 3+50 | SHEET 655 | E

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RAB-C



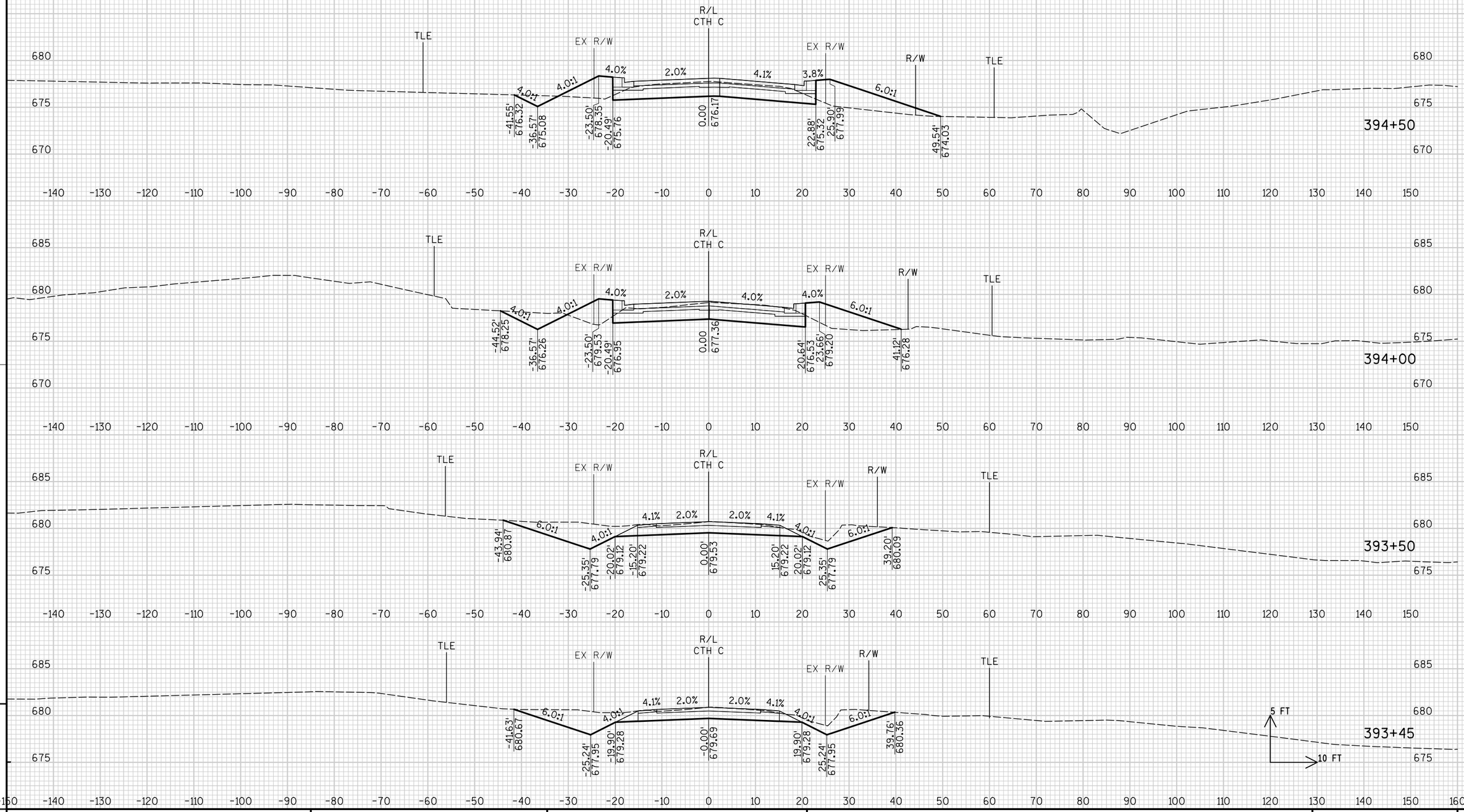
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 4+00 TO STA 4+58	SHEET 656	E

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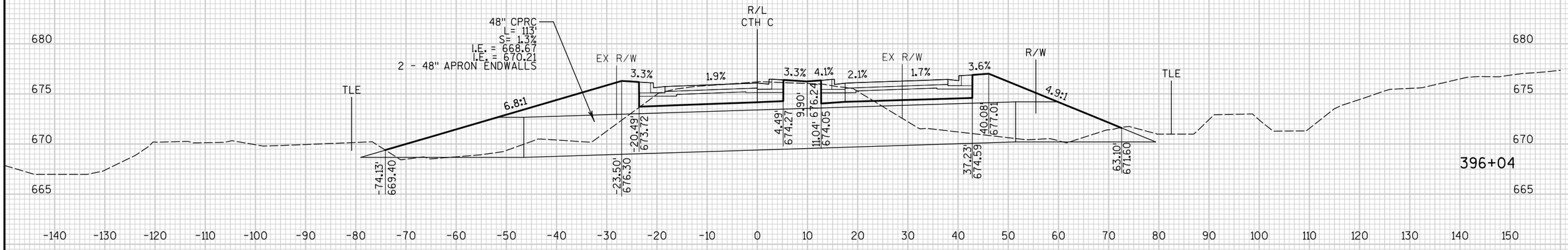
CTH C

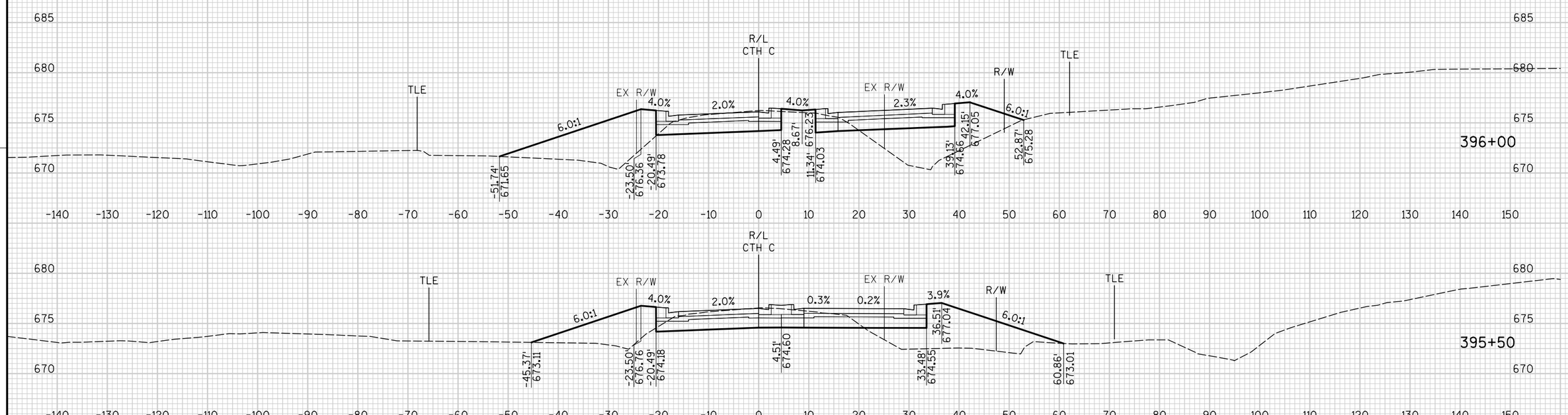


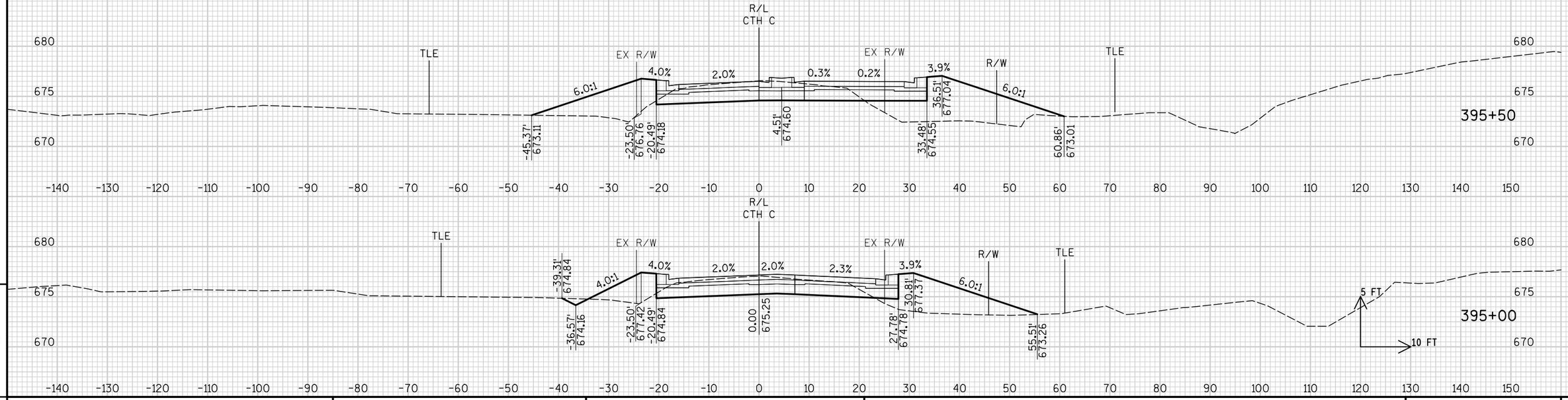
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FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090340_xs_C.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

CTH C







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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 395+00 TO STA 396+04	SHEET 658	E

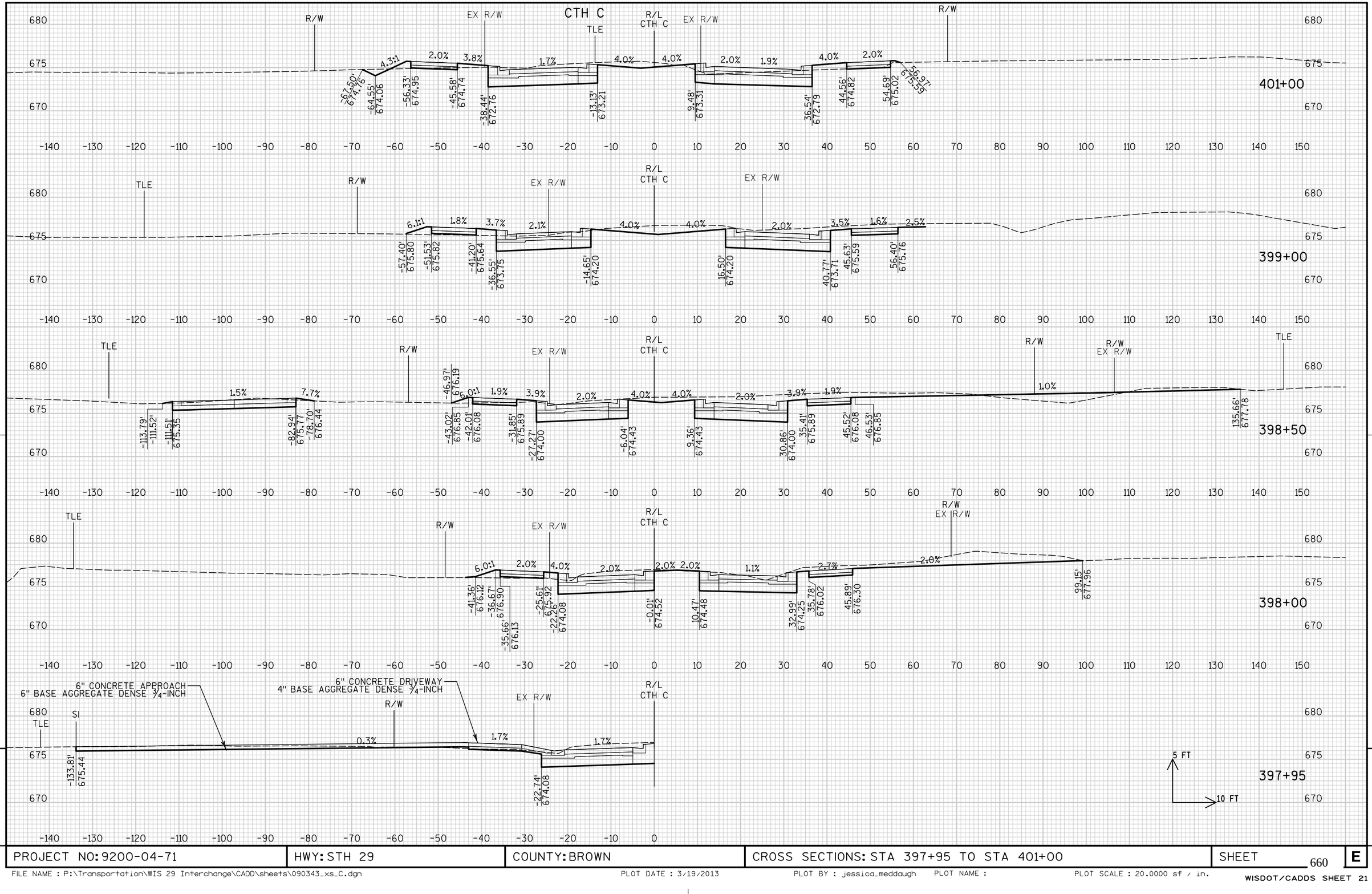
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WISDOT/CADDS SHEET 21

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 396+50 TO STA 397+72	SHEET 659	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090342_xs_C.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

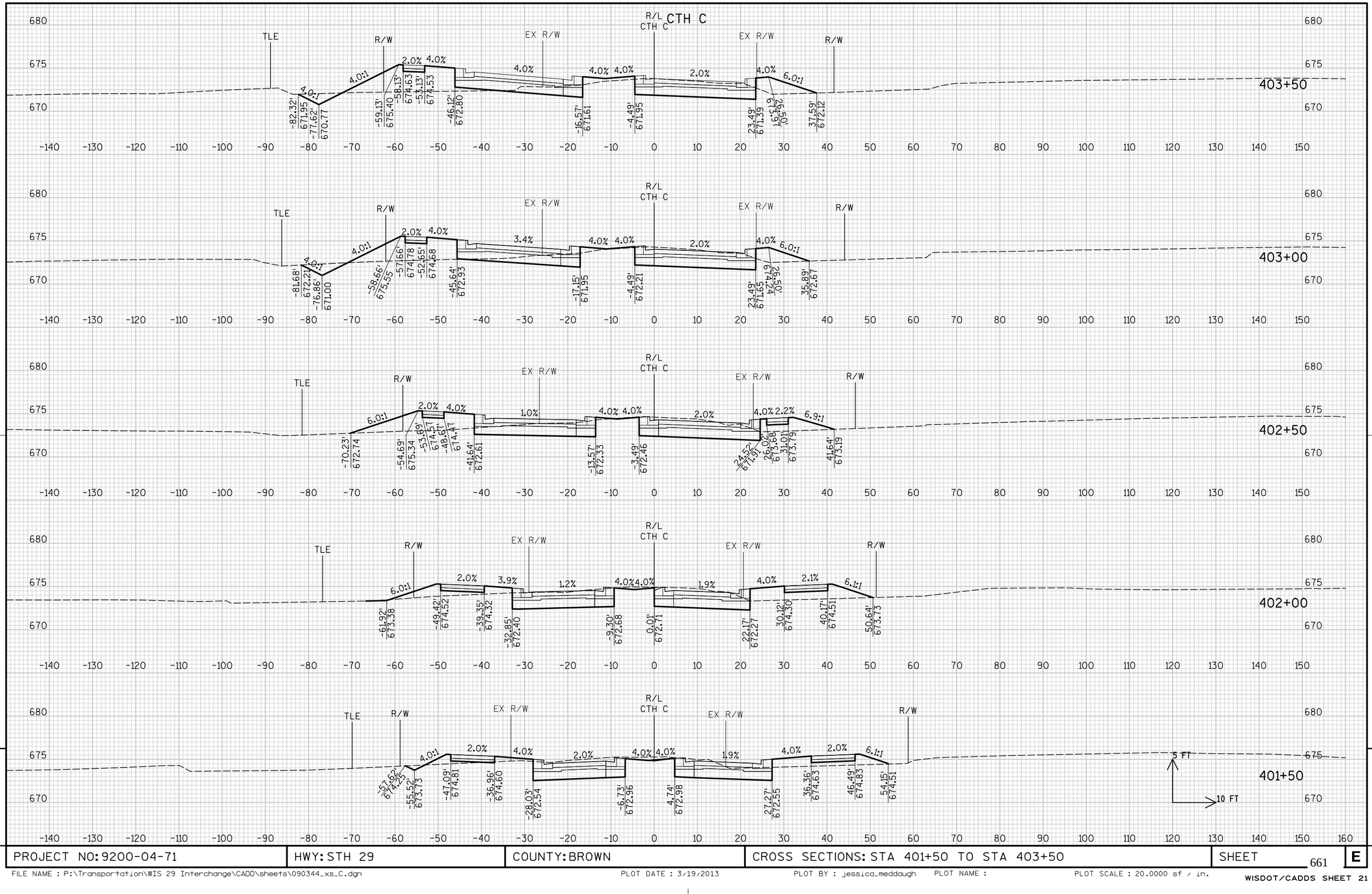
WISDOT/CADDS SHEET 21



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 397+95 TO STA 401+00	SHEET 660	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090343_xs_C.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



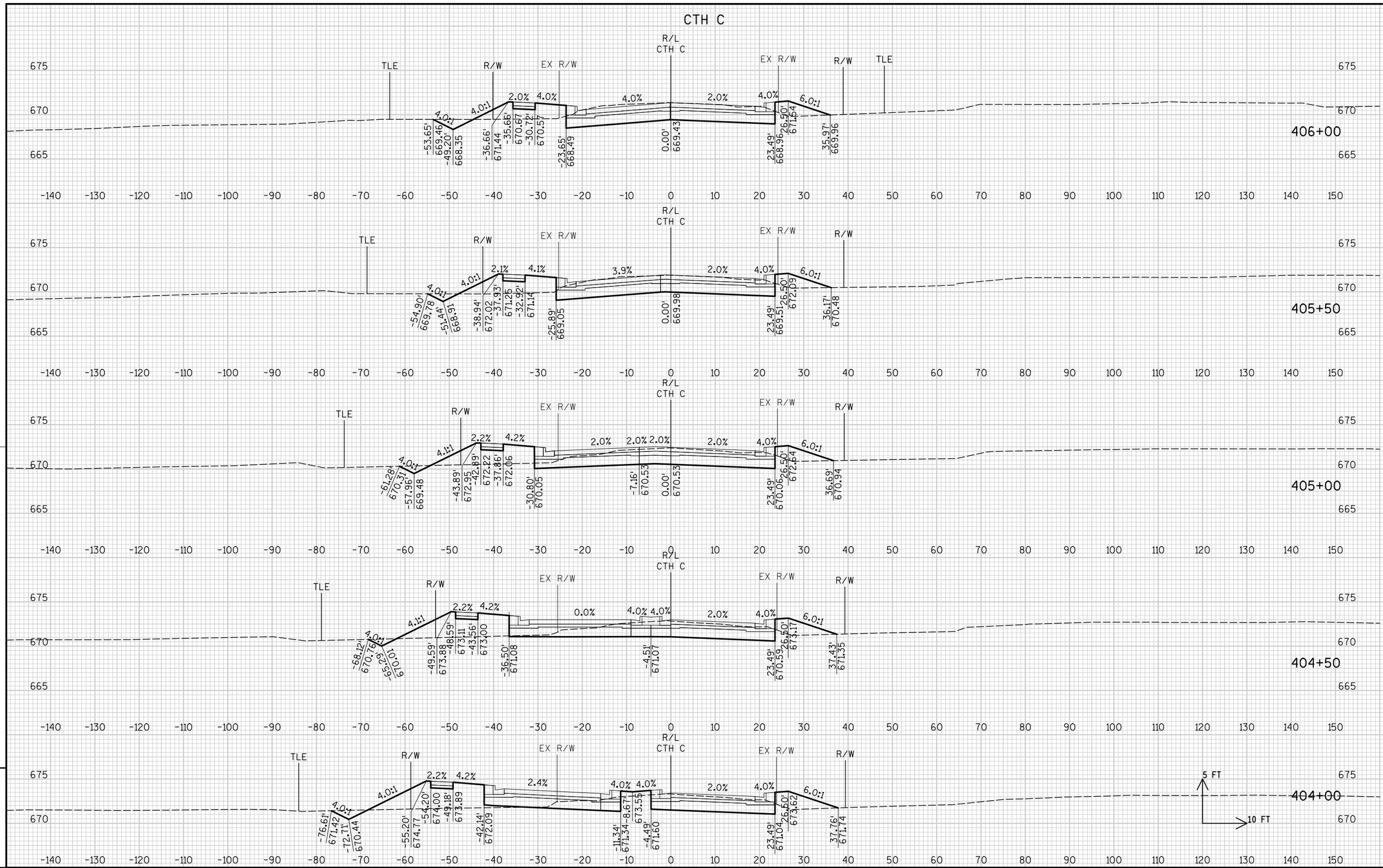
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 401+50 TO STA 403+50	SHEET 661	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090344_xs_C.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



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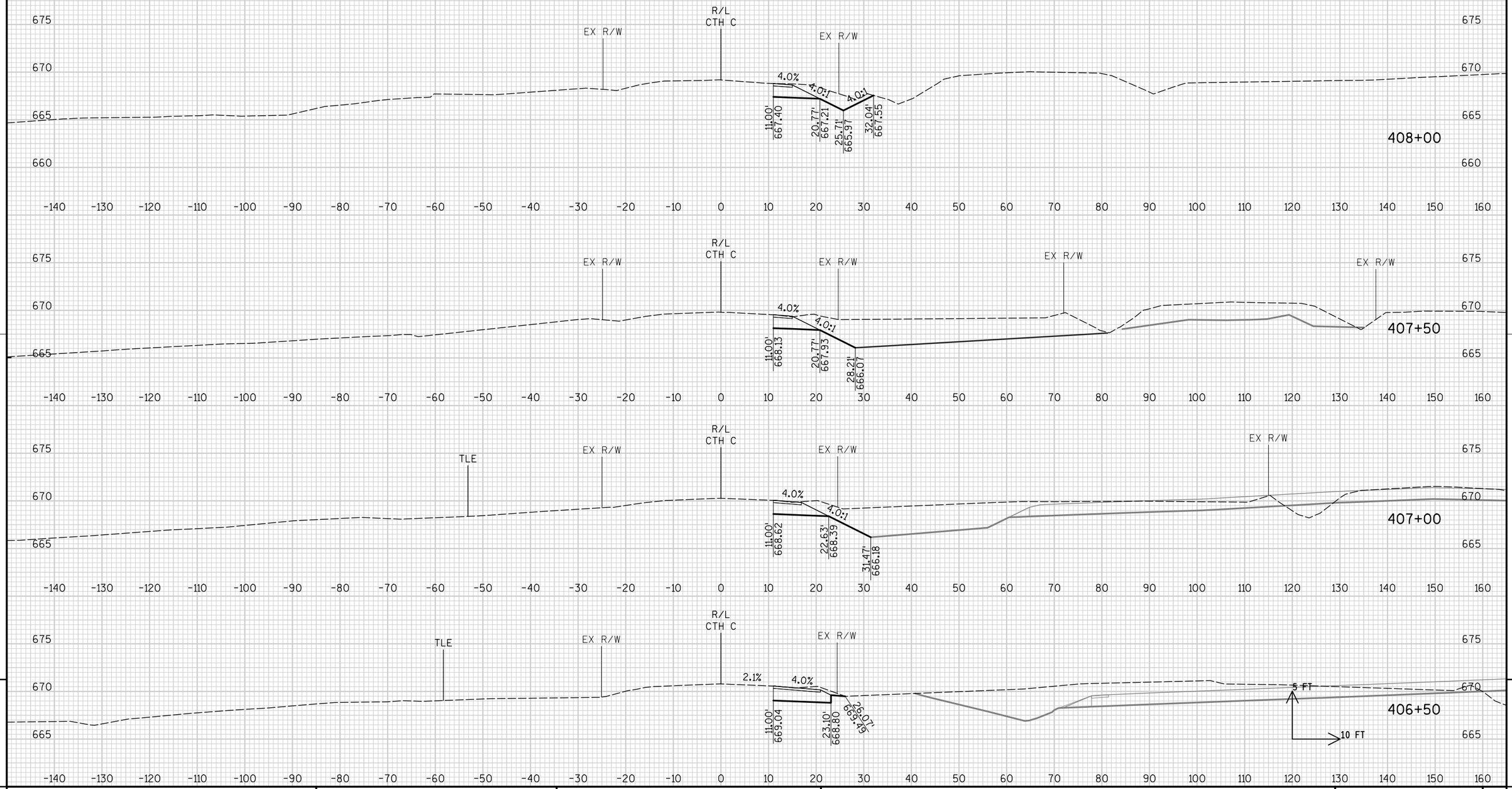
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 404+00 TO STA 406+00	SHEET 662	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090345_xs_C.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

CTH C



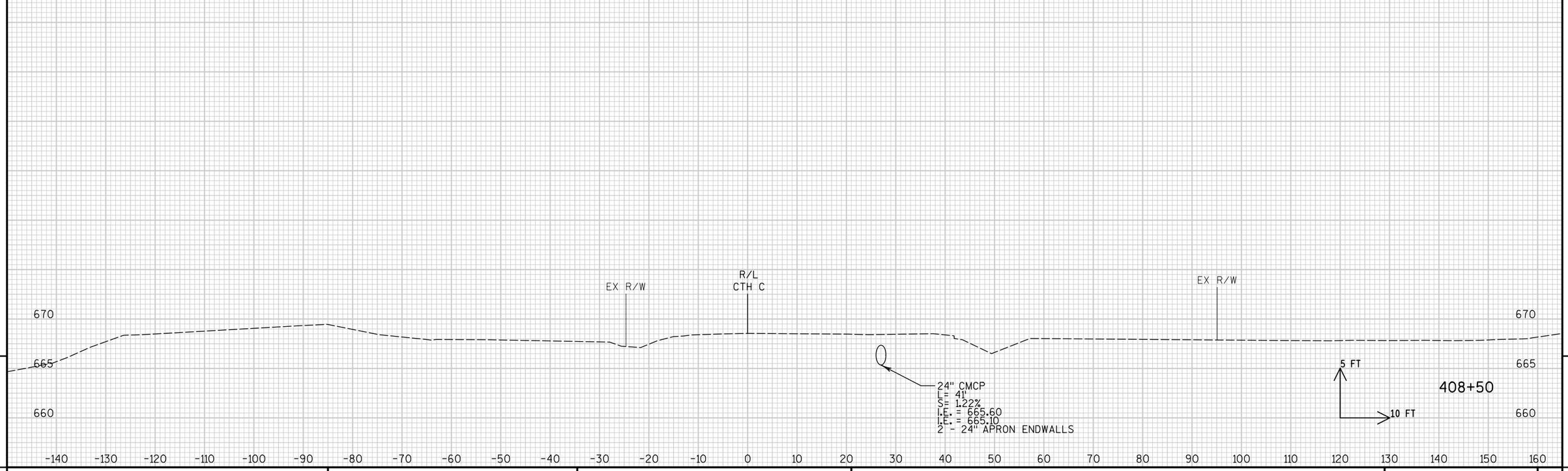
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 406+50 TO STA 408+00	SHEET 663	E

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WISDOT/CADDS SHEET 21

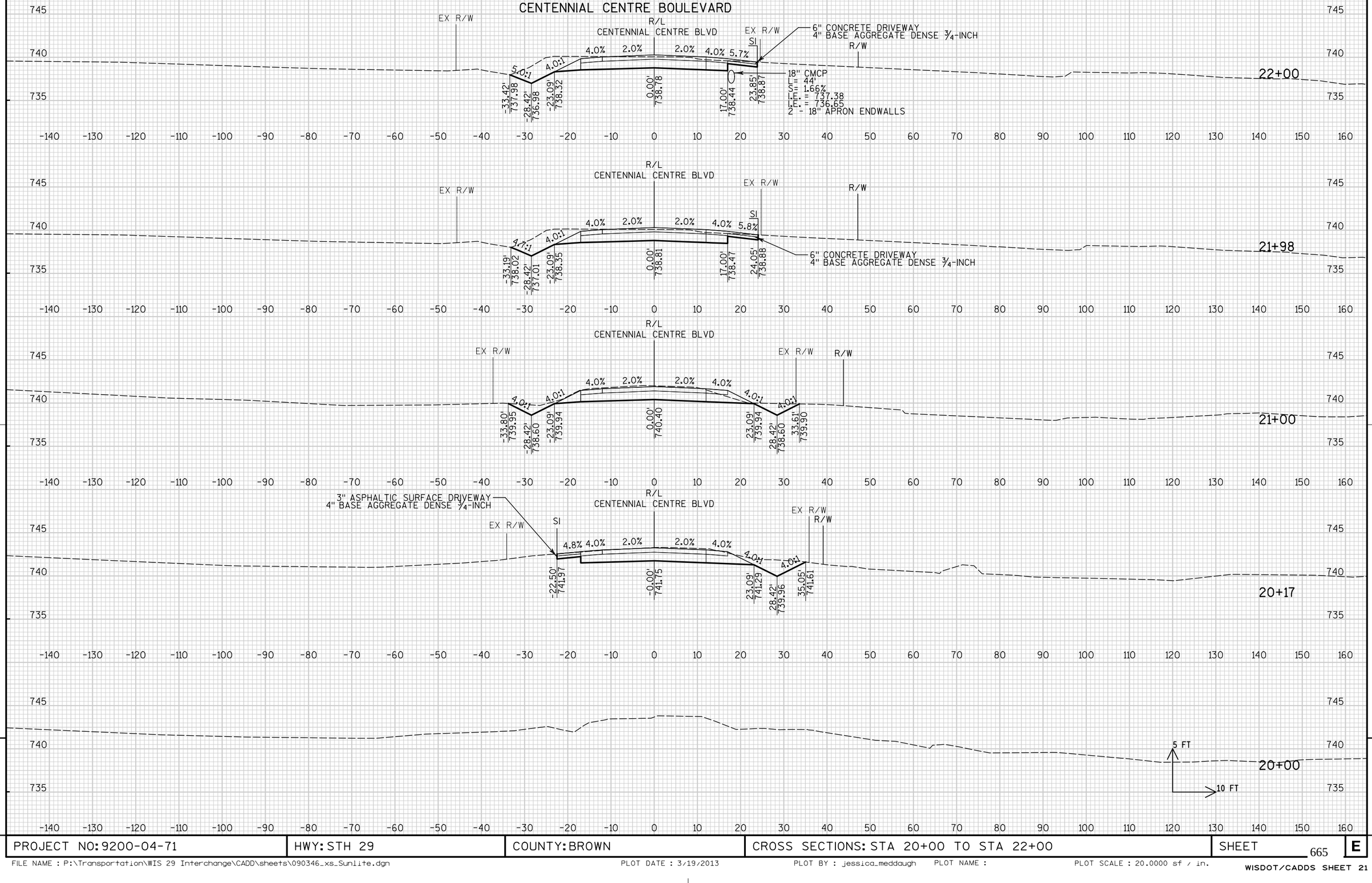
CTH C



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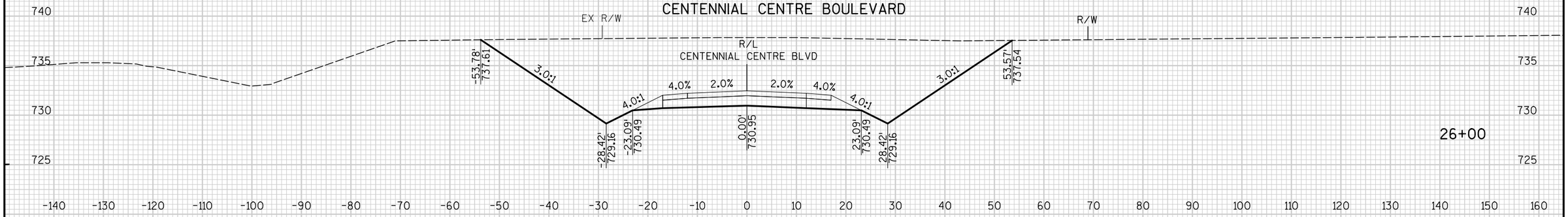
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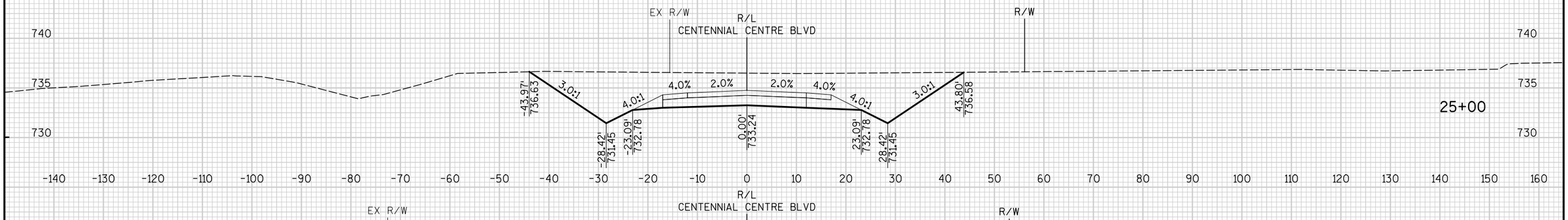
CENTENNIAL CENTRE BOULEVARD

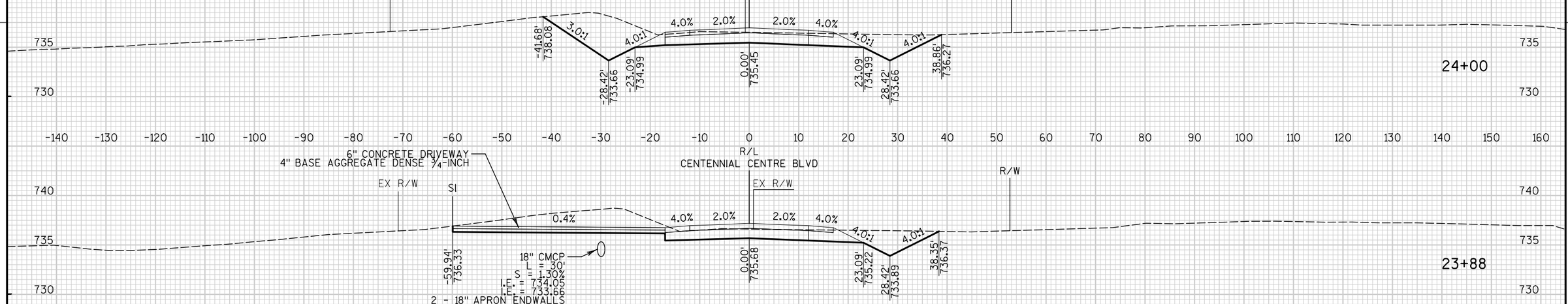


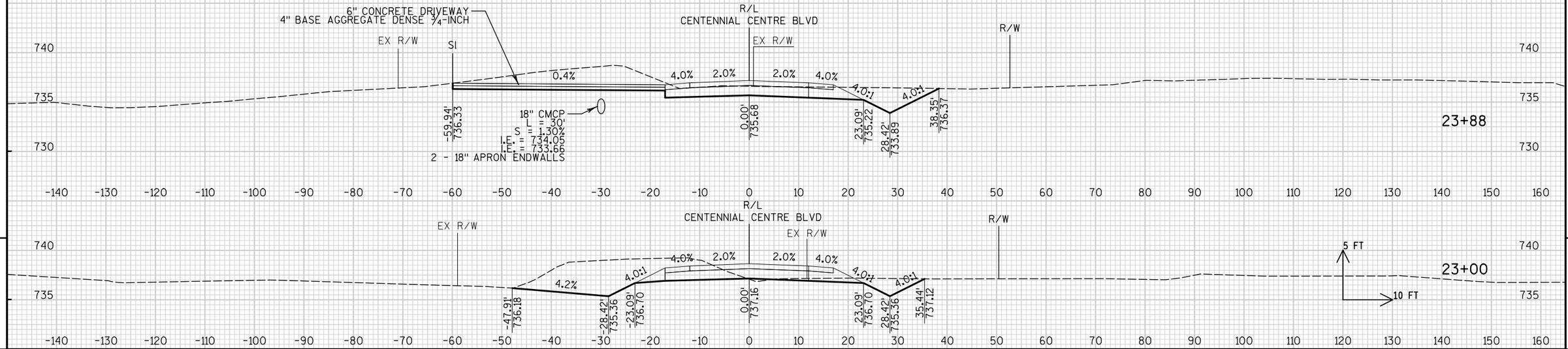
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 20+00 TO STA 22+00	SHEET 665	E

CENTENNIAL CENTRE BOULEVARD







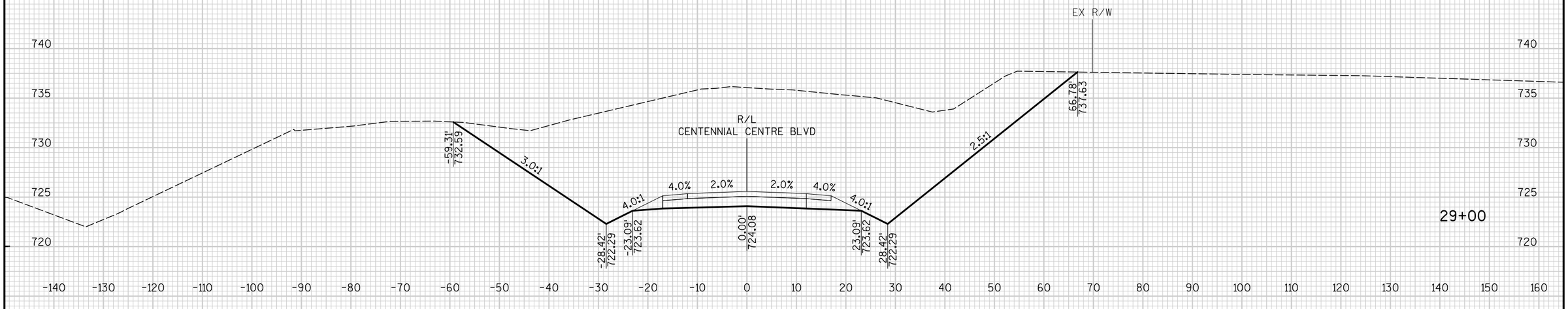


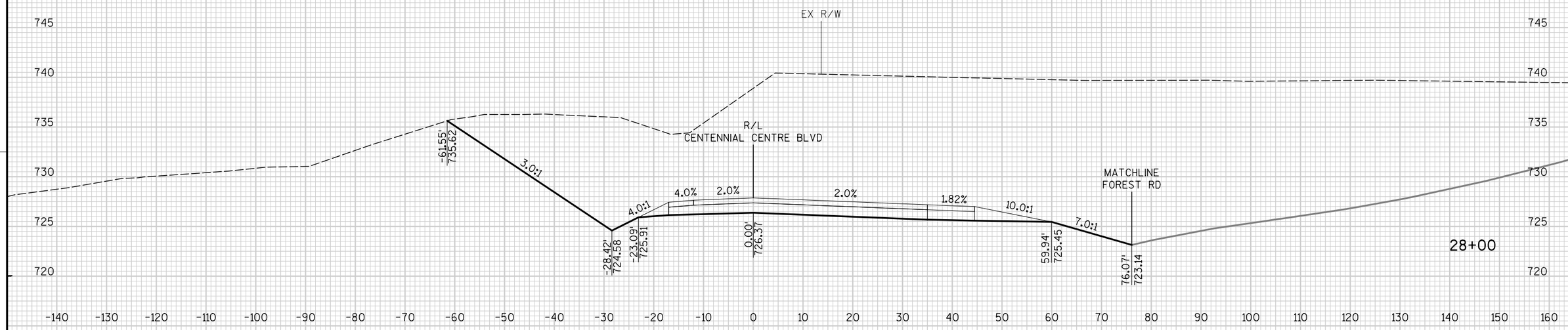
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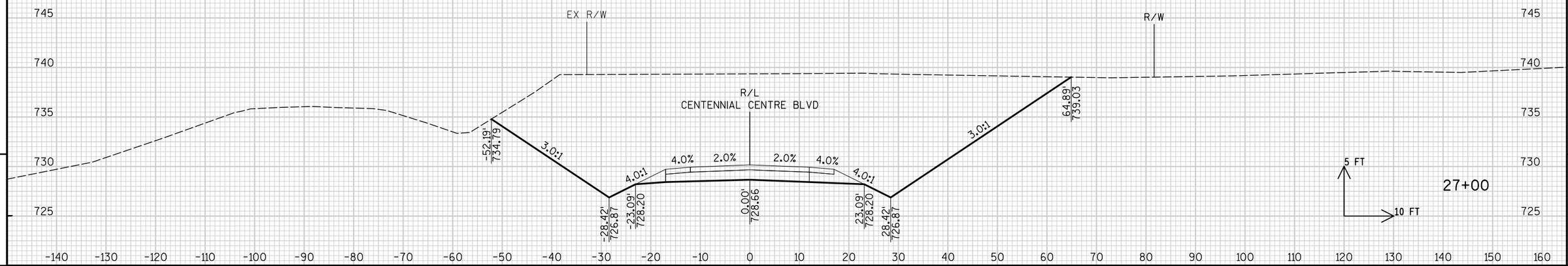
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WISDOT/CADDS SHEET 21

CENTENNIAL CENTRE BOULEVARD







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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 27+00 TO STA 29+00	SHEET 667	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090348_xs_Sunlite.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

CENTENNIAL CENTRE BOULEVARD

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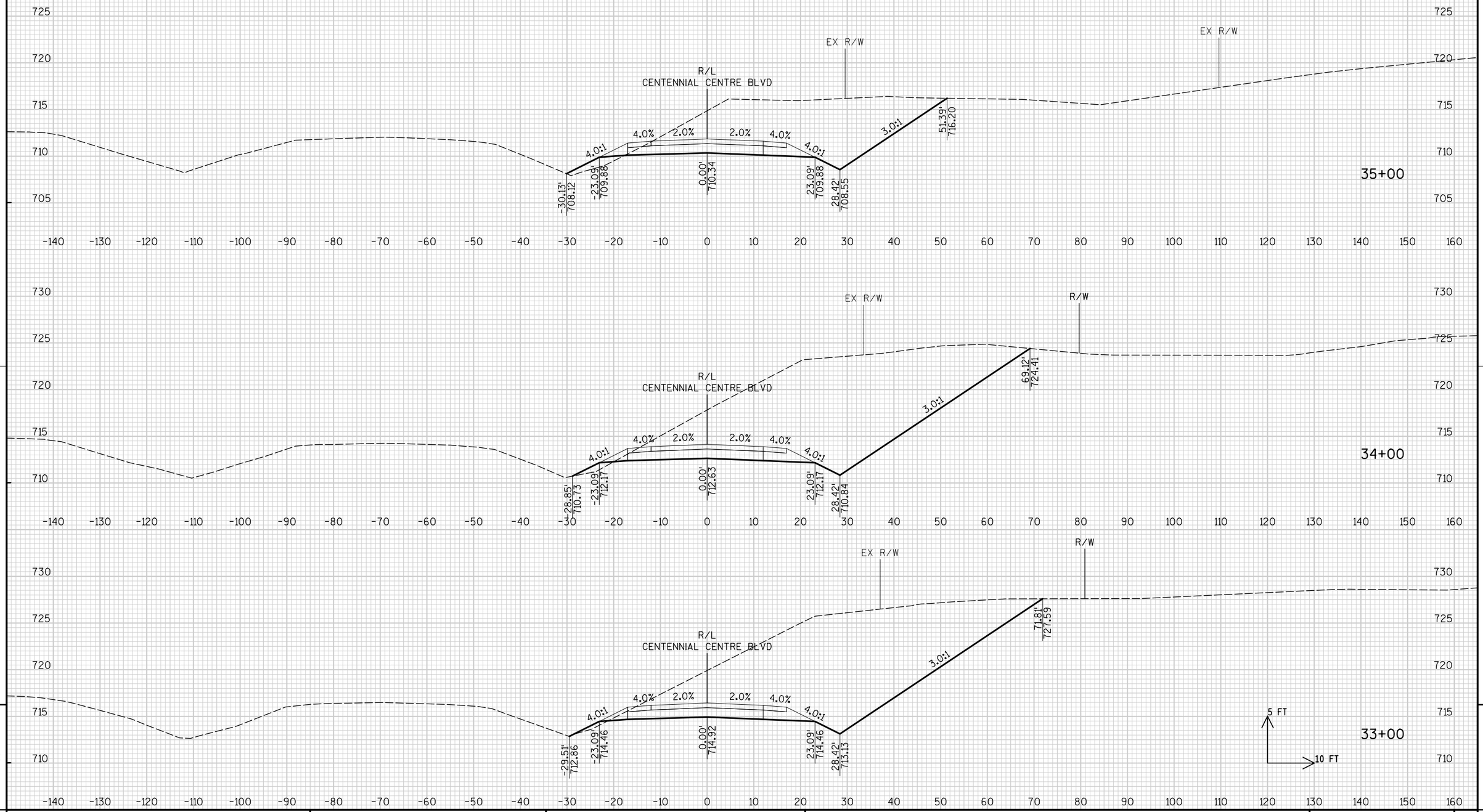
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 30+00 TO STA 32+00	SHEET 668	E

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WISDOT/CADDS SHEET 21

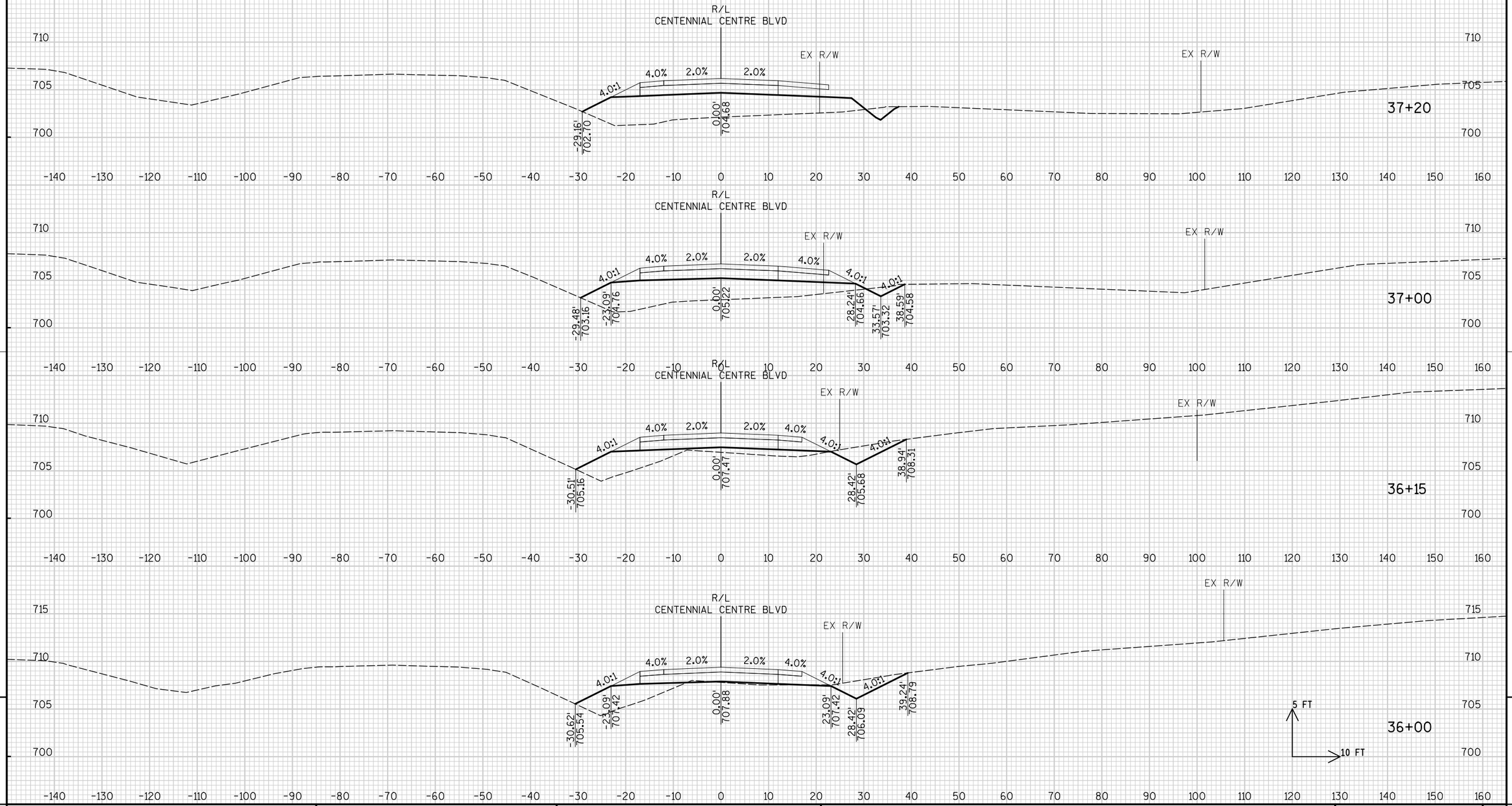
CENTENNIAL CENTRE BOULEVARD



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 33+00 TO STA 35+00	SHEET 669	E

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CENTENNIAL CENTRE BOULEVARD

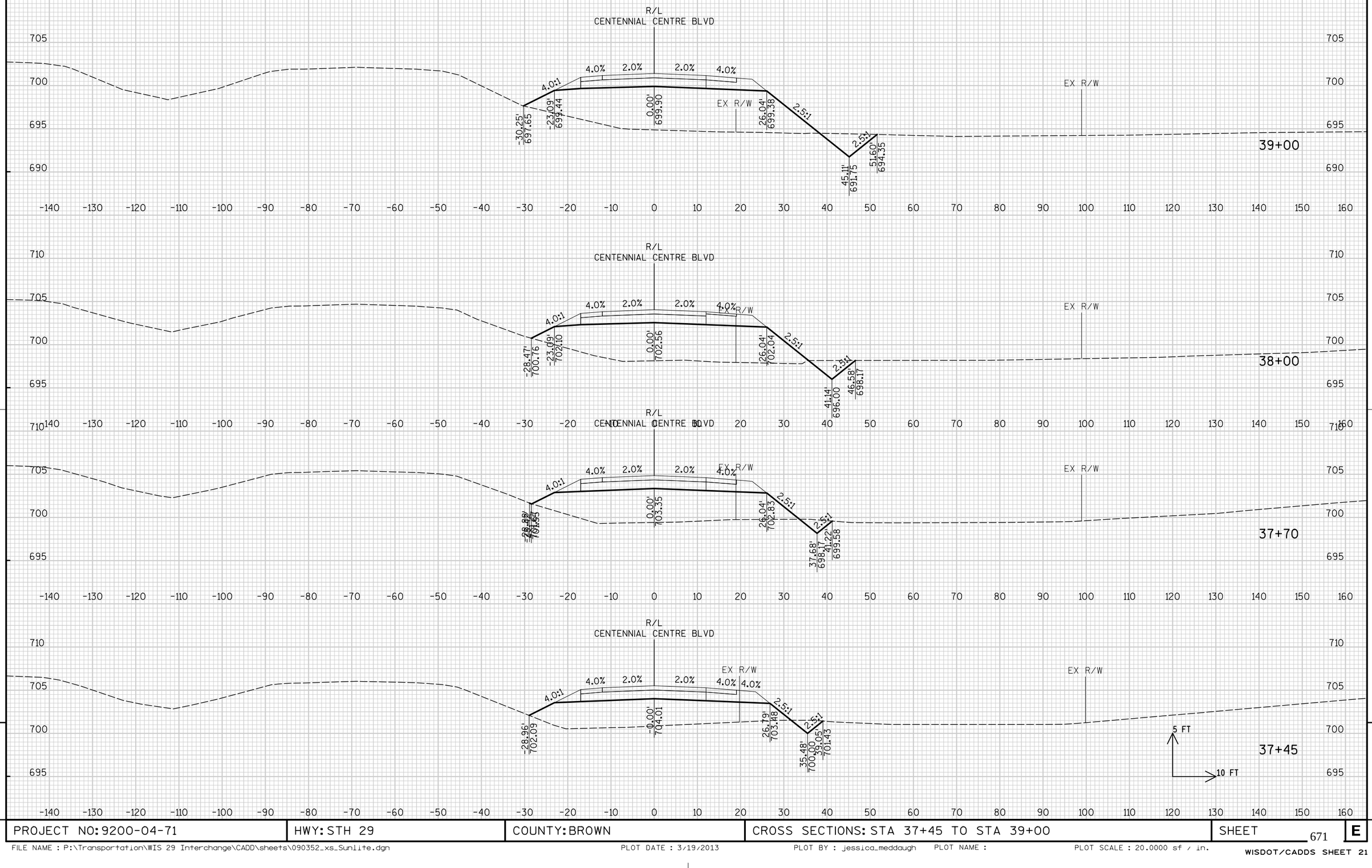


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 36+00 TO STA 37+20	SHEET 670	E

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WISDOT/CADDS SHEET 21

CENTENNIAL CENTRE BOULEVARD

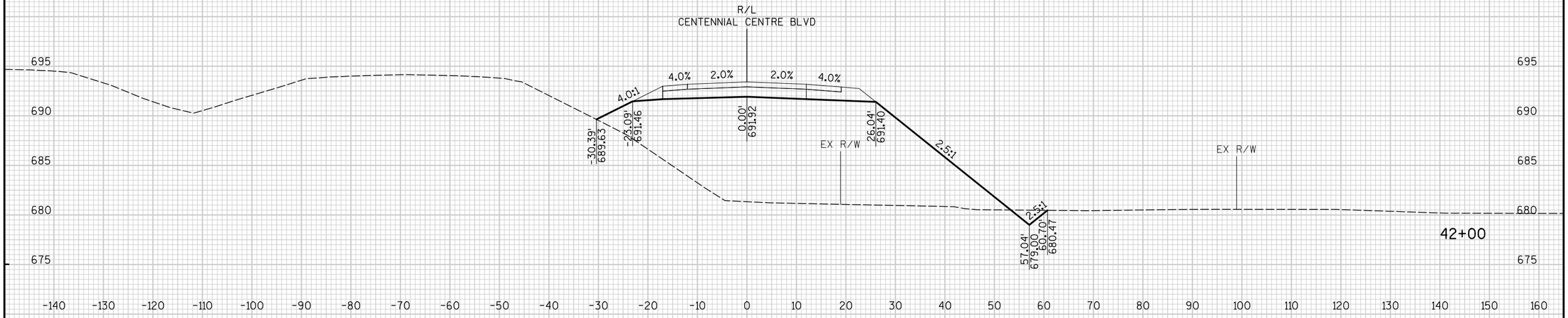


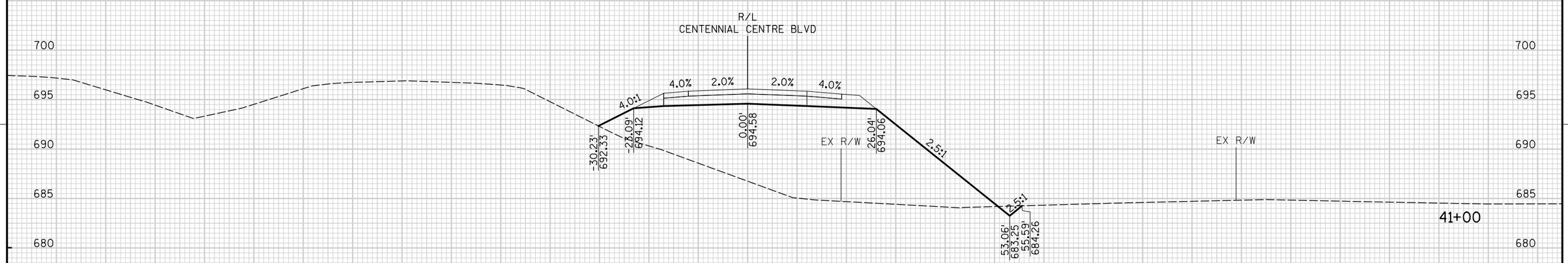
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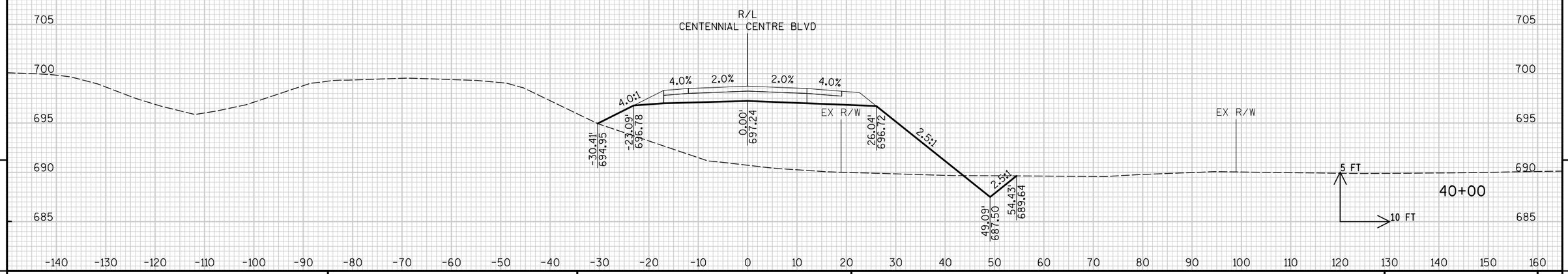
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WISDOT/CADDS SHEET 21

CENTENNIAL CENTRE BOULEVARD







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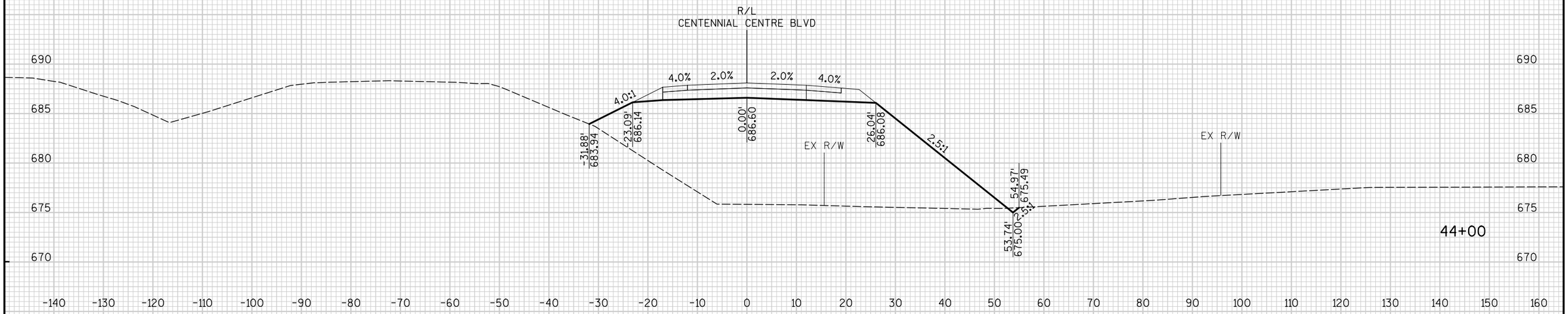
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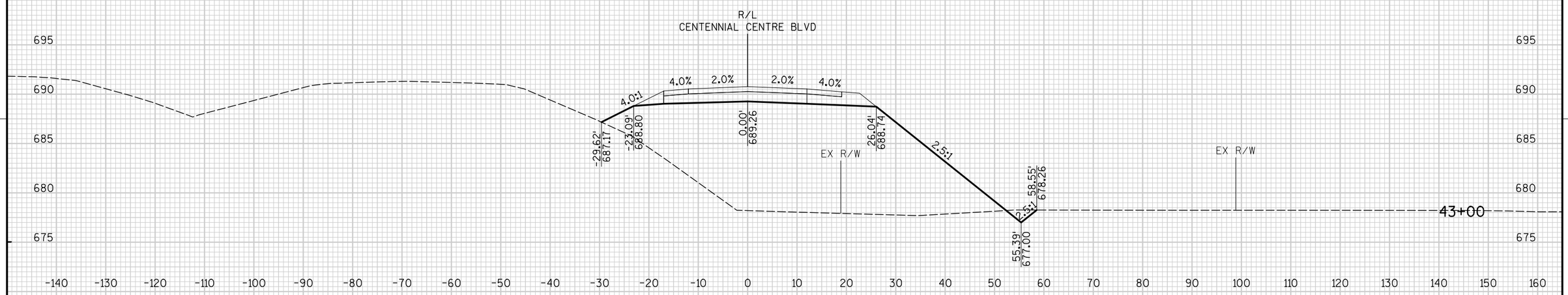
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 40+00 TO STA 42+00	SHEET 672	E

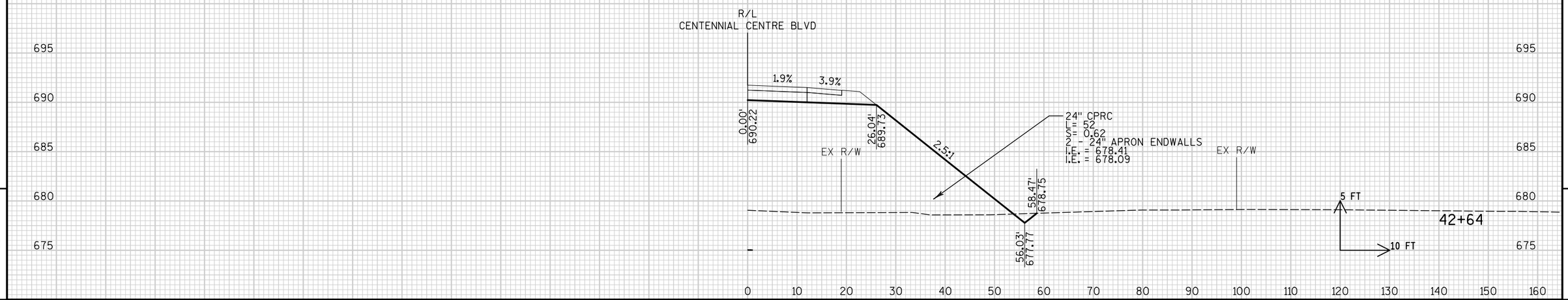
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WISDOT/CADDS SHEET 21

CENTENNIAL CENTRE BOULEVARD



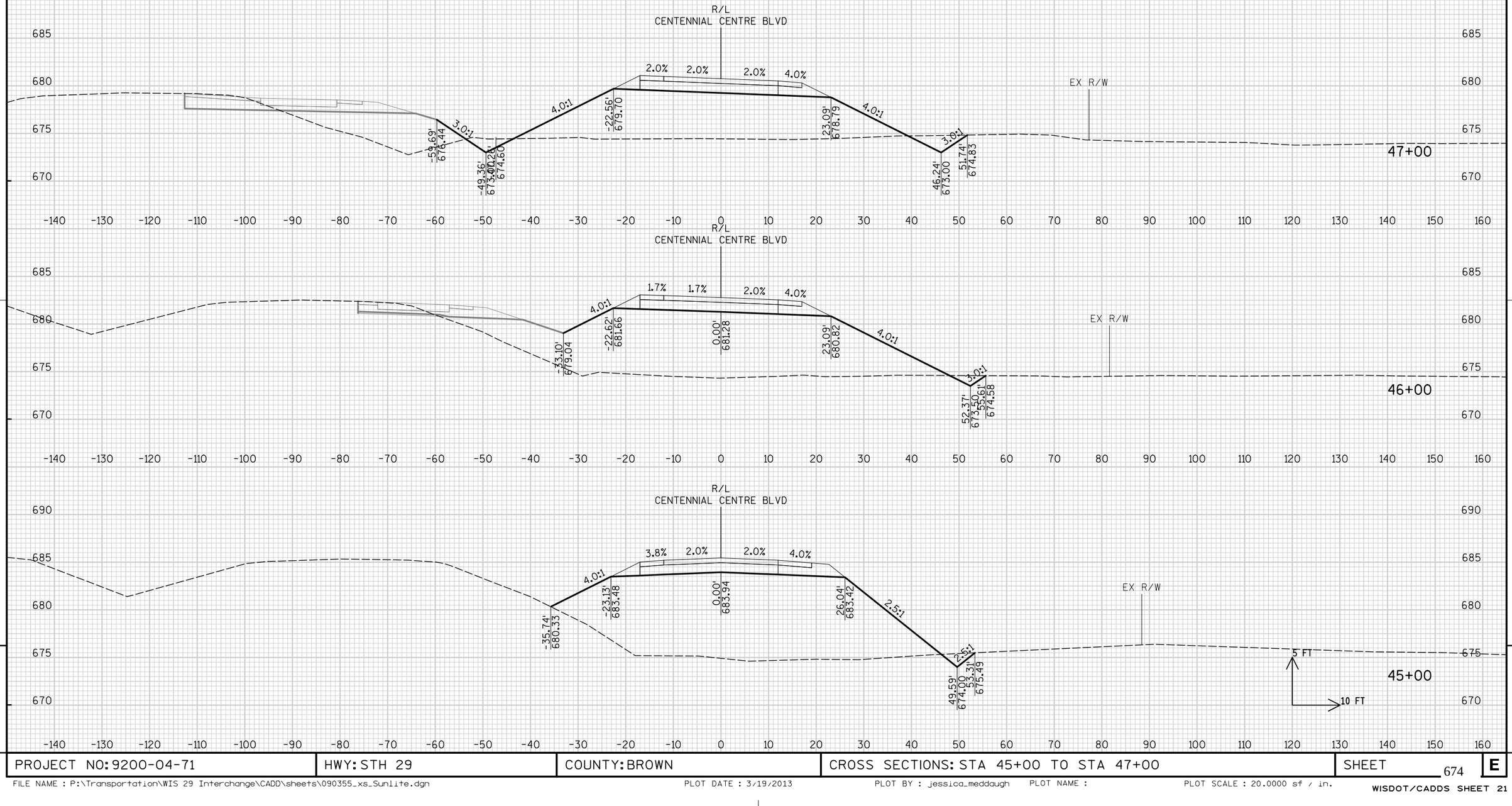




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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 42+64 TO STA 44+00	SHEET 673	E

CENTENNIAL CENTRE BOULEVARD



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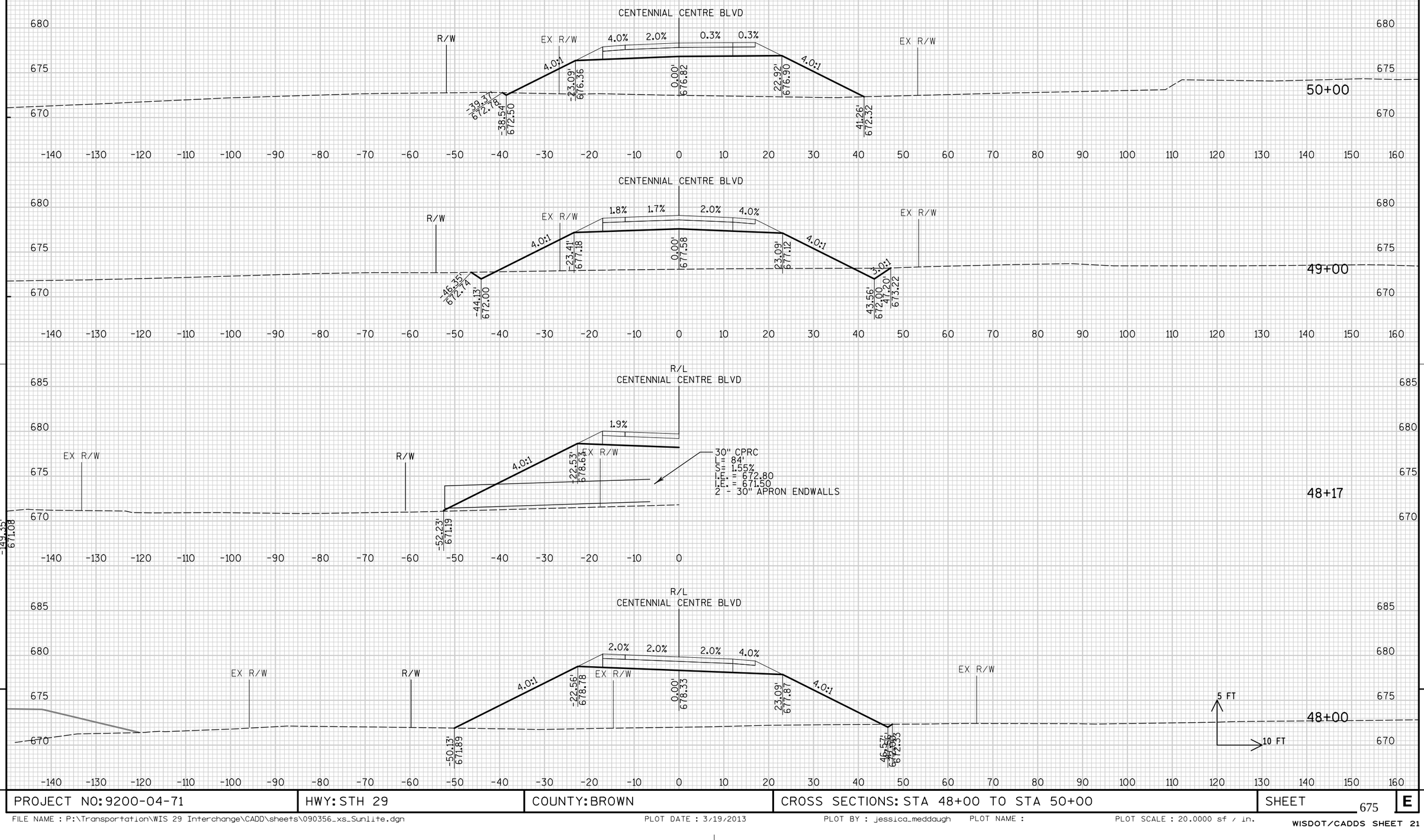
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 45+00 TO STA 47+00	SHEET 674	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090355_xs_Sunlite.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

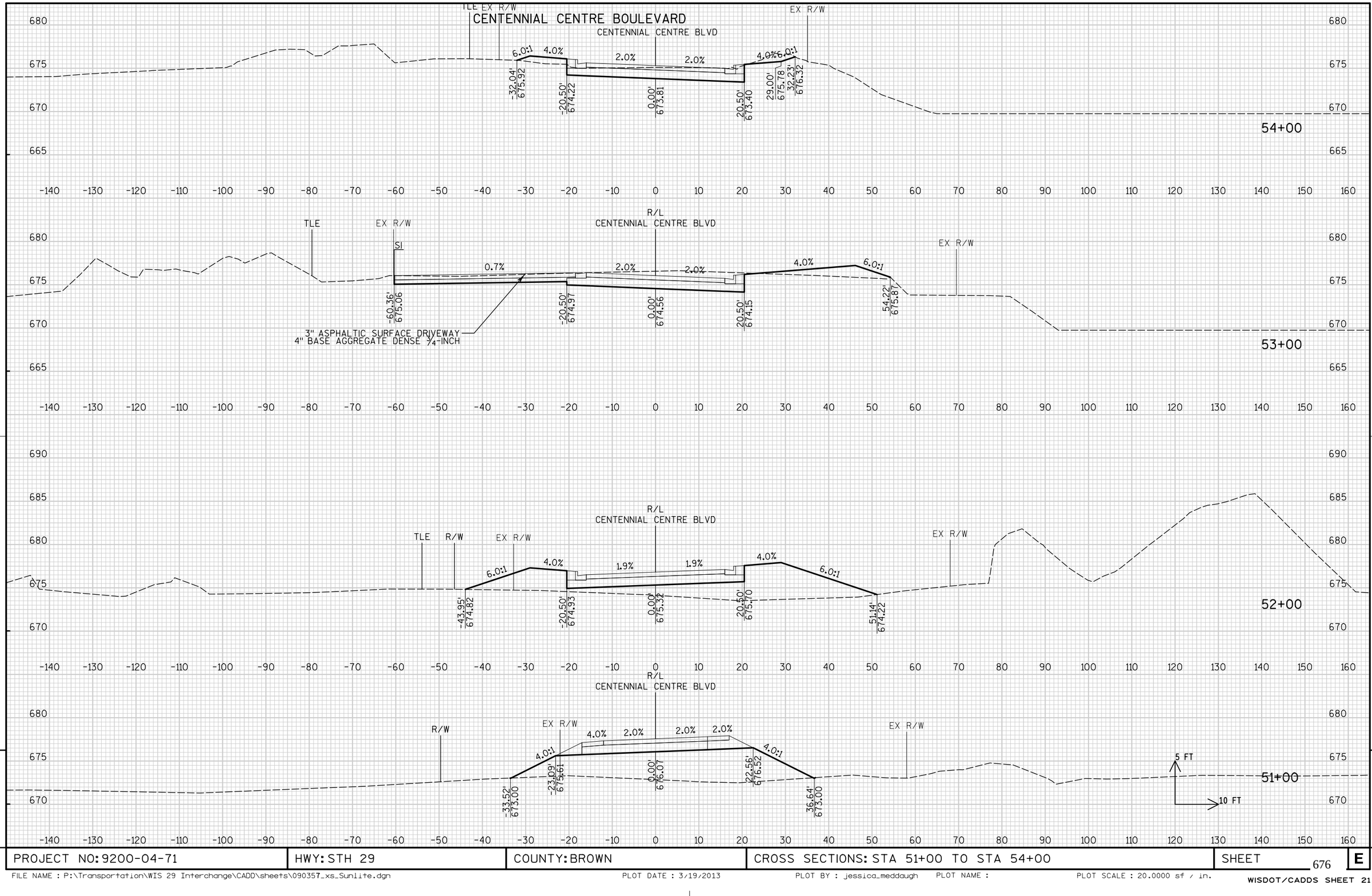
CENTENNIAL CENTRE BOULEVARD



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 48+00 TO STA 50+00	SHEET 675	E

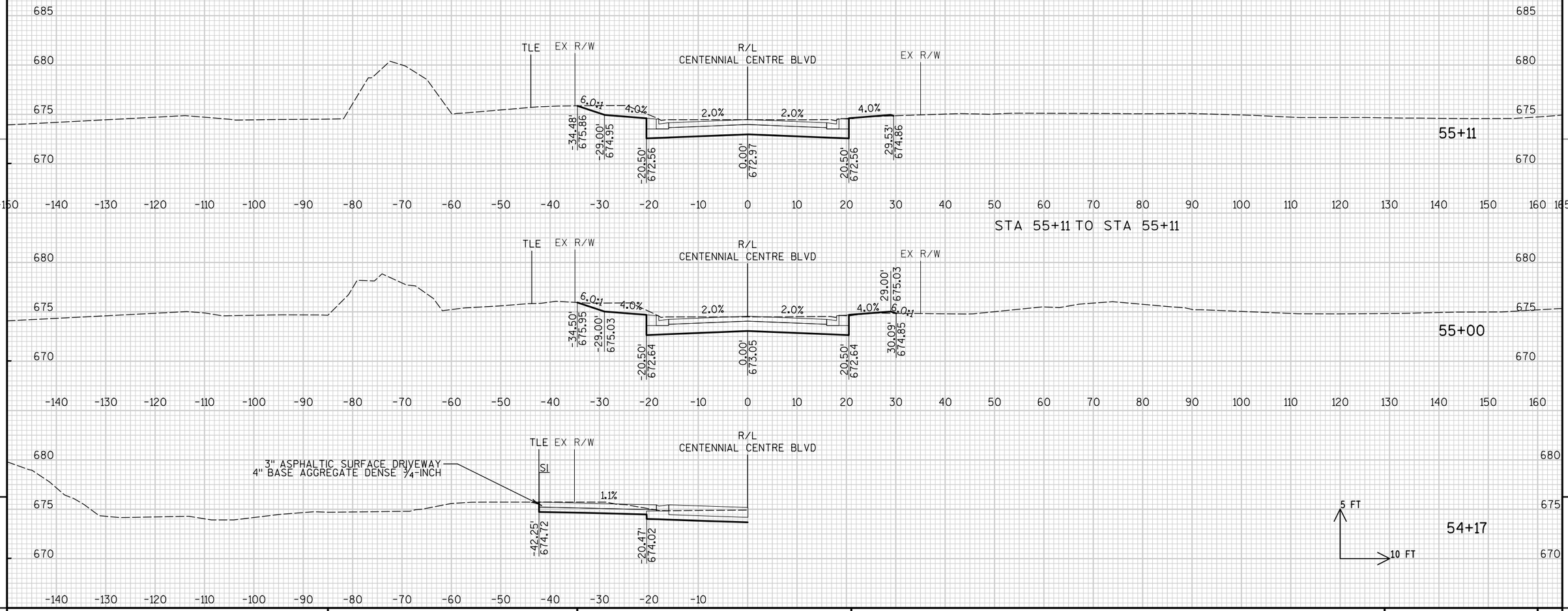
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WISDOT/CADDS SHEET 21



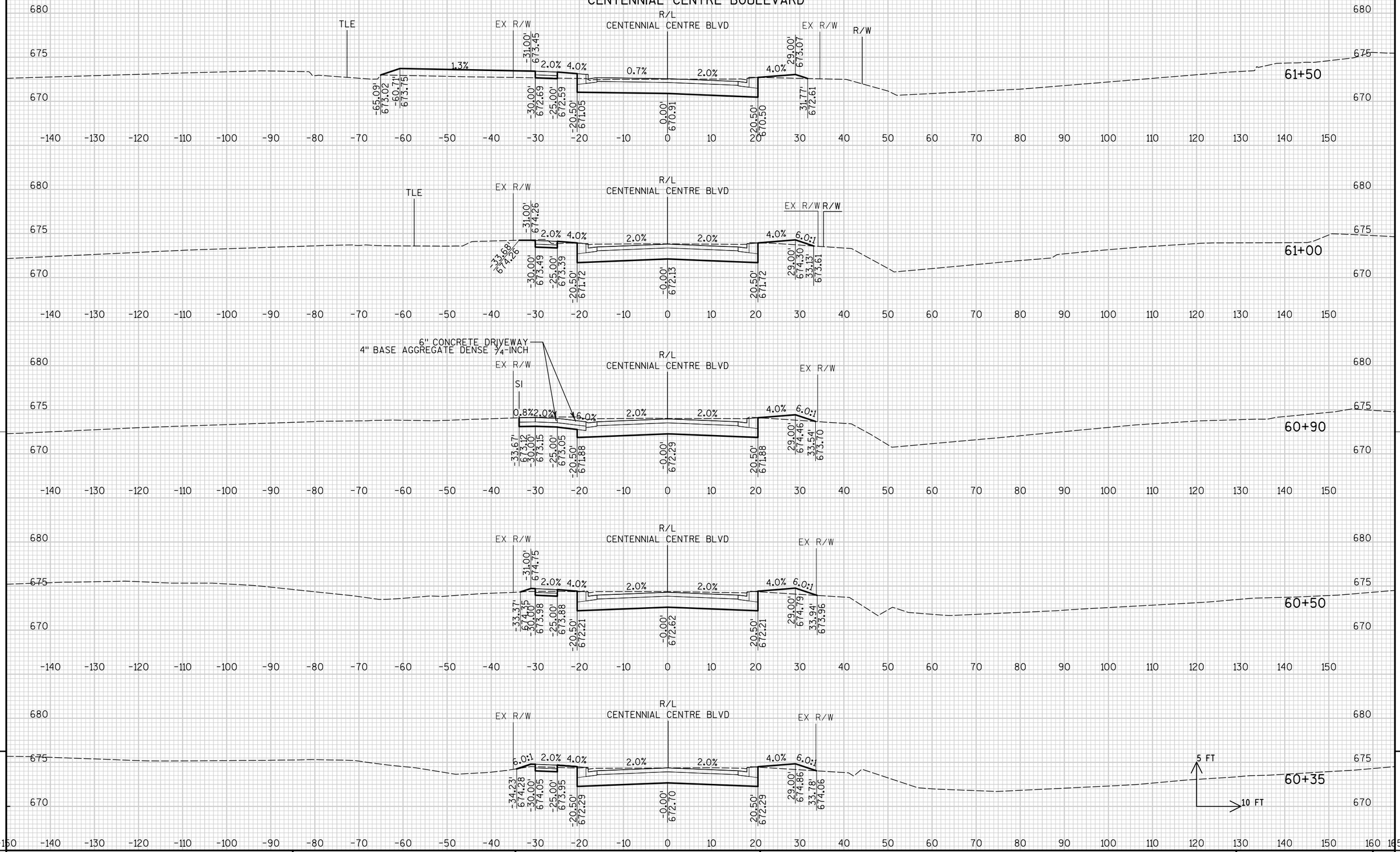
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 51+00 TO STA 54+00	SHEET 676	E

CENTENNIAL CENTRE BOULEVARD



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 54+17 TO STA 55+50	SHEET 677	E

CENTENNIAL CENTRE BOULEVARD

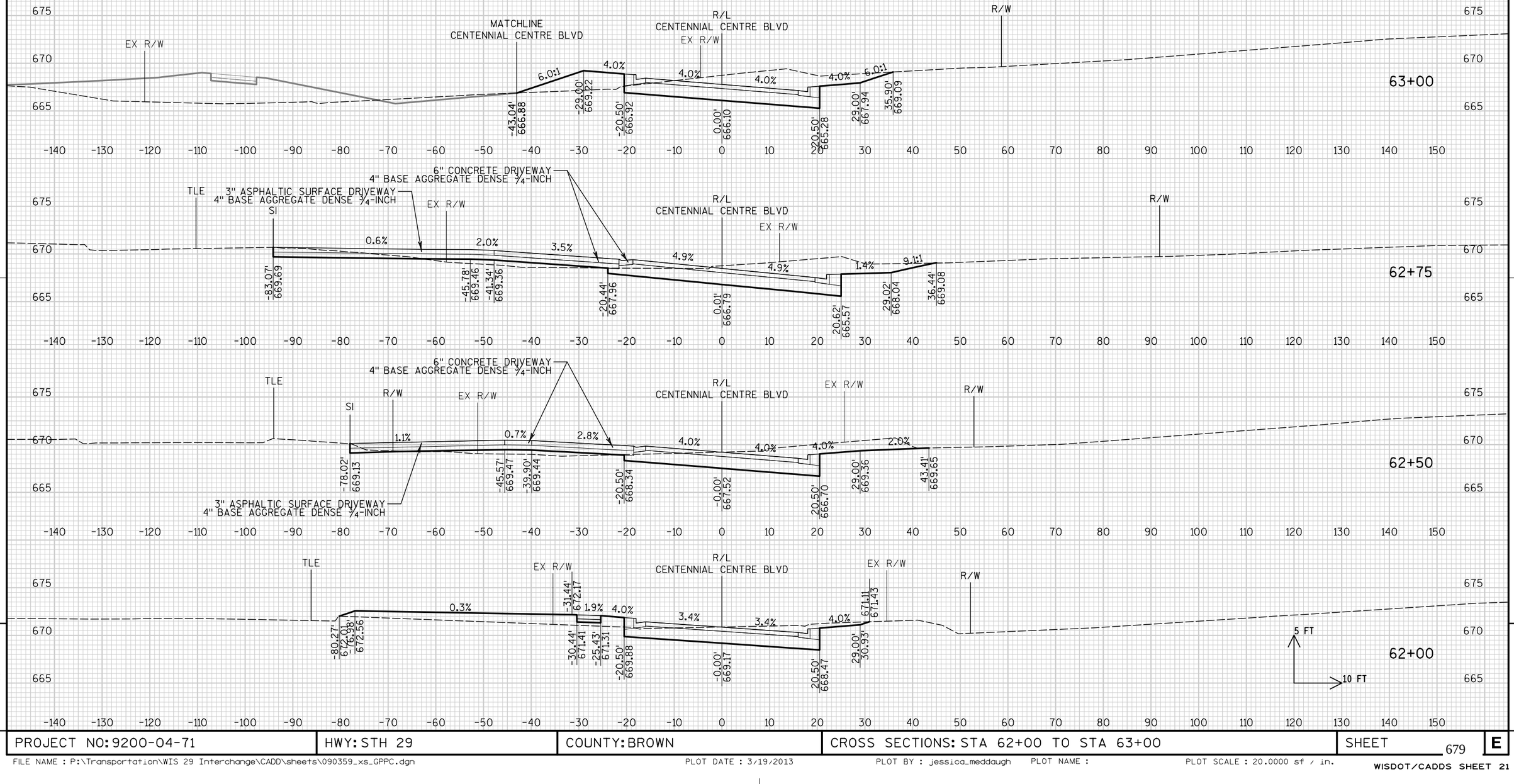


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 60+35 TO STA 60+35	SHEET 678 E

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WISDOT/CADDS SHEET 21

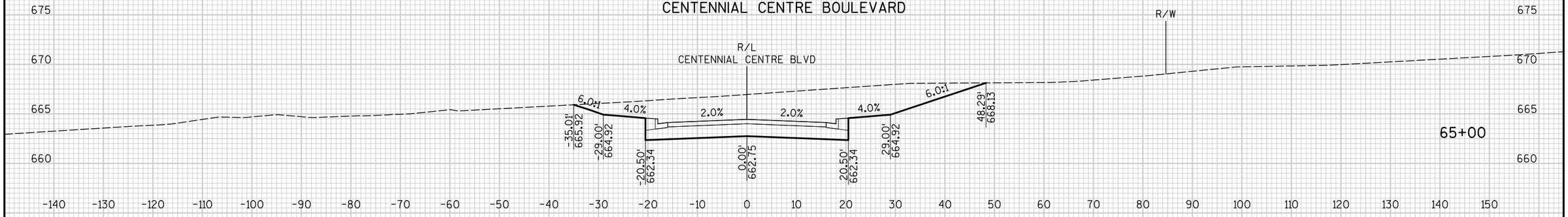
CENTENNIAL CENTRE BOULEVARD

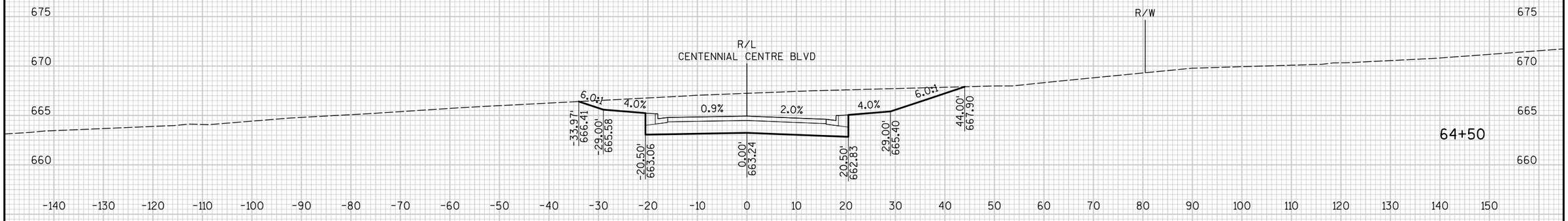


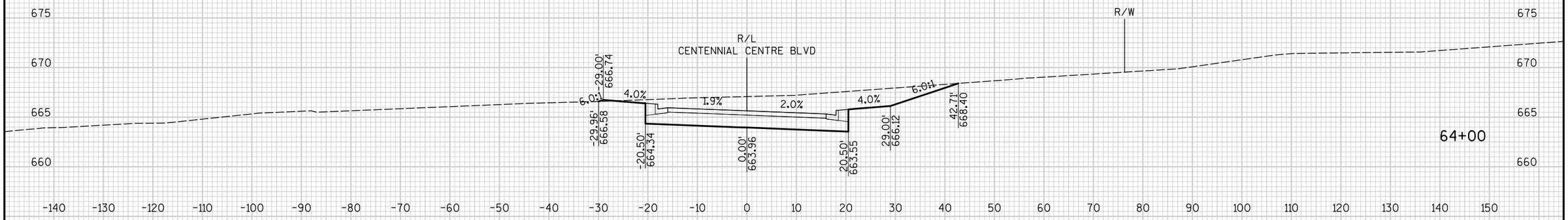
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 62+00 TO STA 63+00	SHEET 679	E

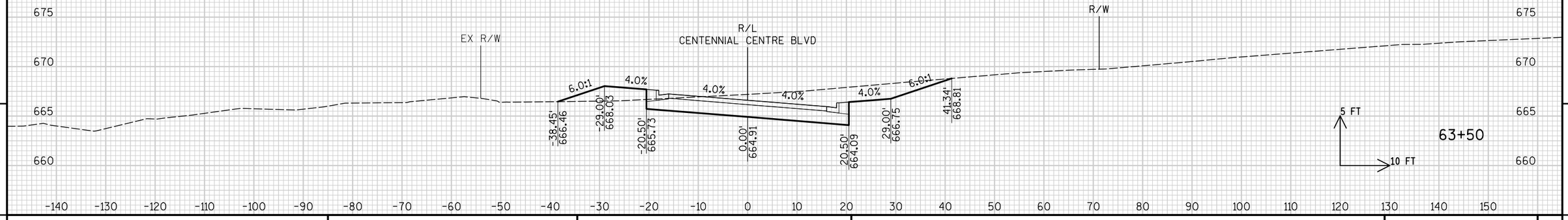
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CENTENNIAL CENTRE BOULEVARD







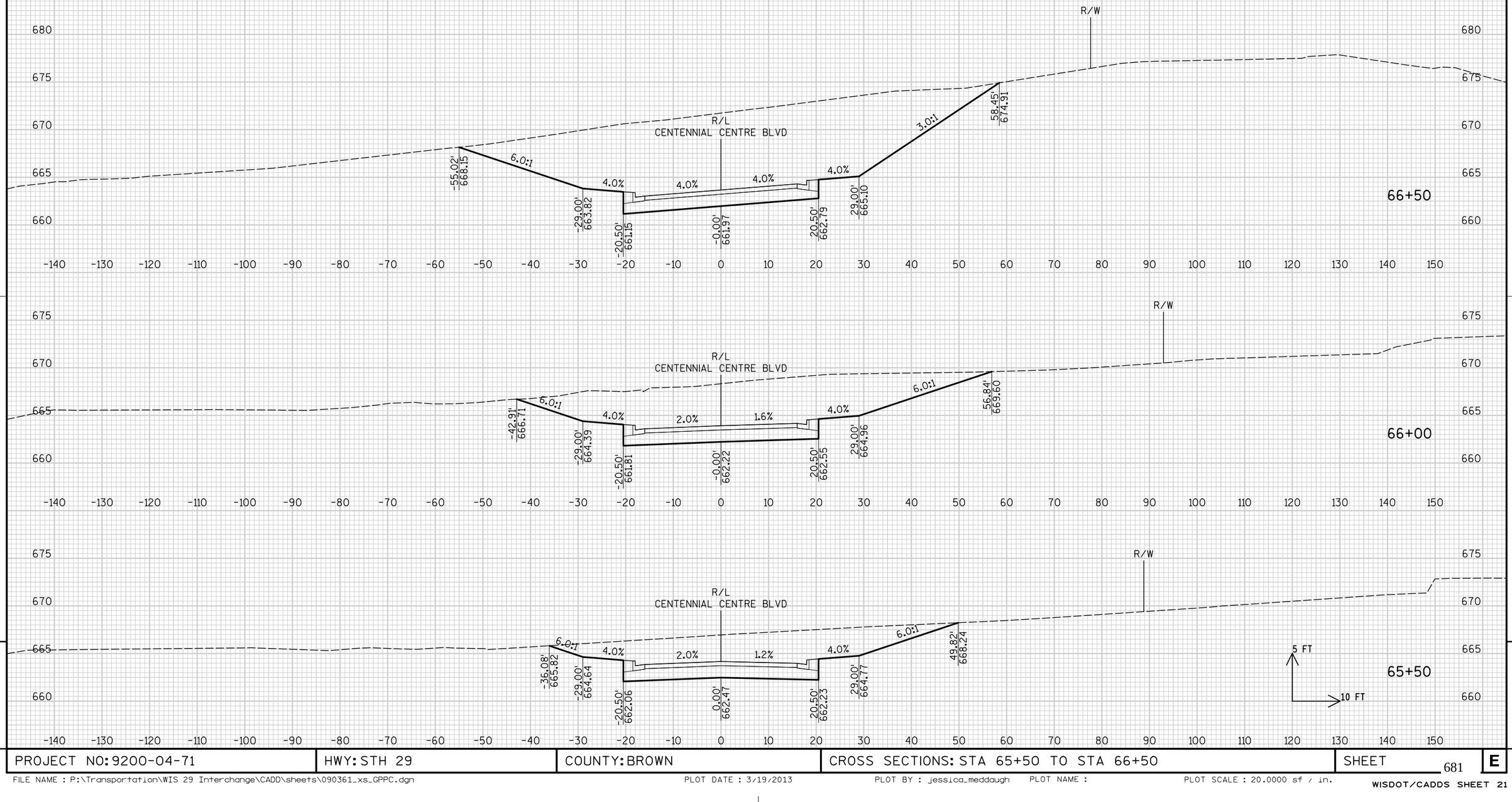


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 63+50 TO STA 65+00	SHEET 680	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090360_xs_GPPC.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

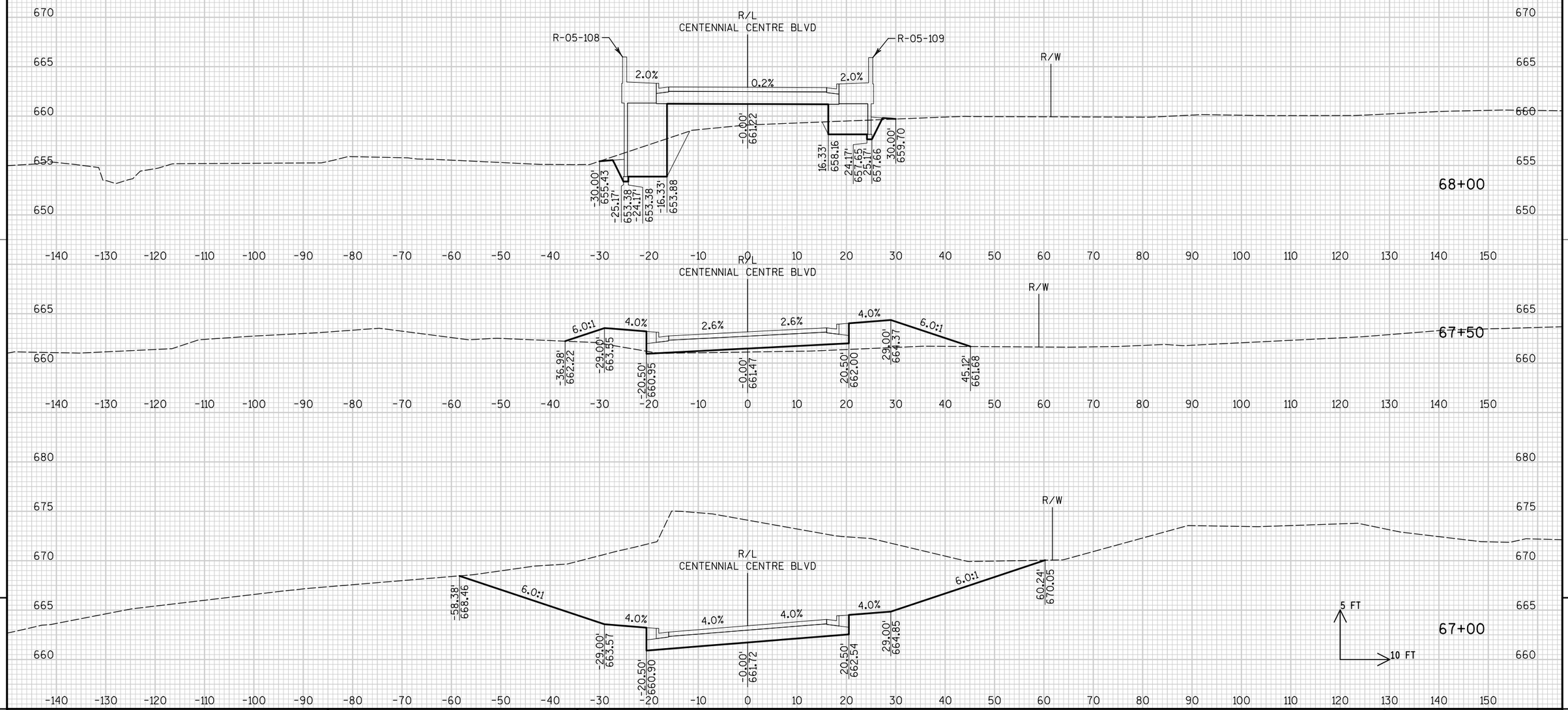
WISDOT/CADDS SHEET 21

CENTENNIAL CENTRE BOULEVARD



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 65+50 TO STA 66+50	SHEET 681	E

CENTENNIAL CENTRE BOULEVARD



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 67+00 TO STA 68+00	SHEET 682	E

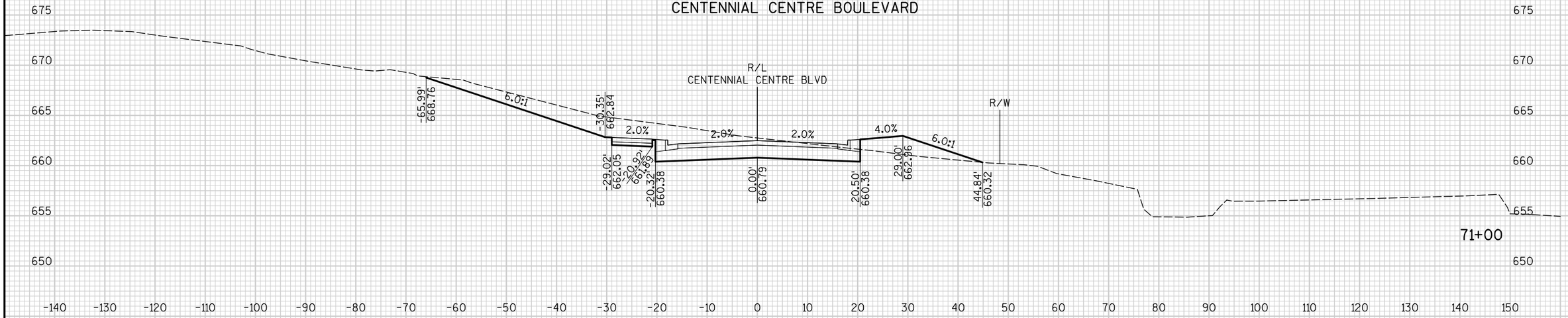
CENTENNIAL CENTRE BOULEVARD

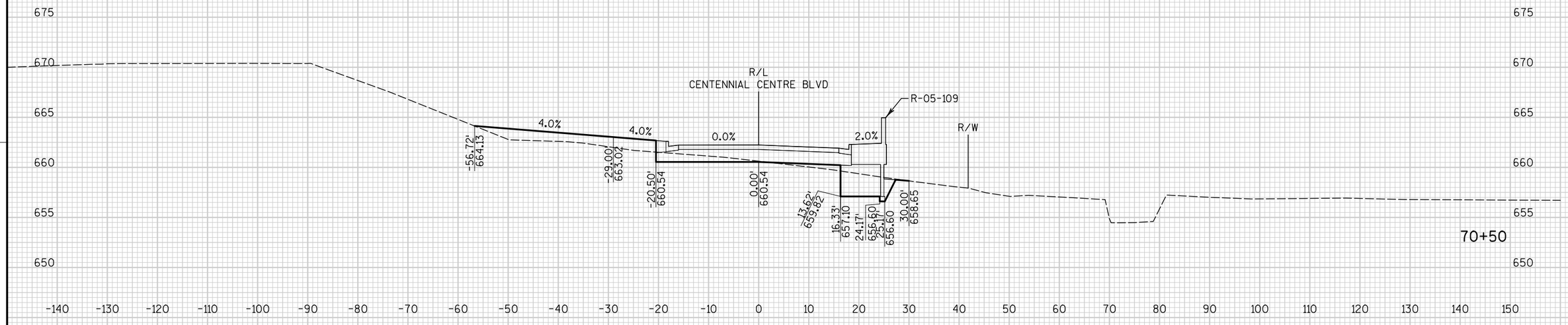
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 68+50 TO STA 69+50	SHEET 683	E

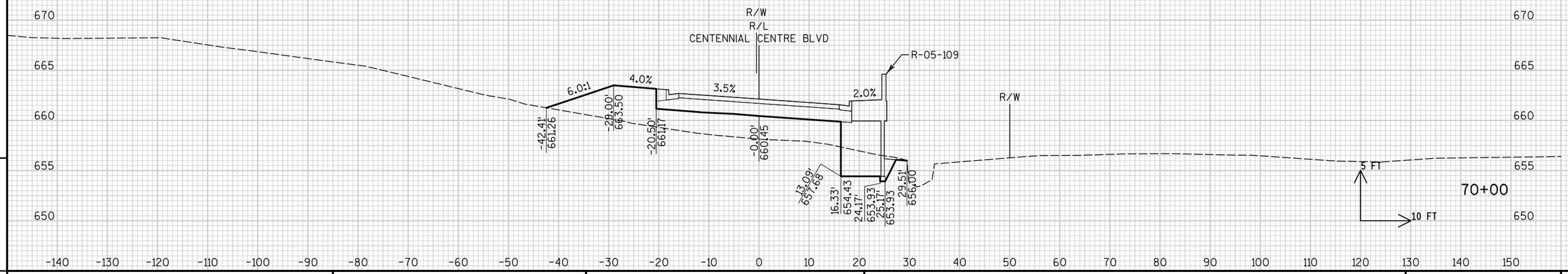
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WISDOT/CADDS SHEET 21

CENTENNIAL CENTRE BOULEVARD







9

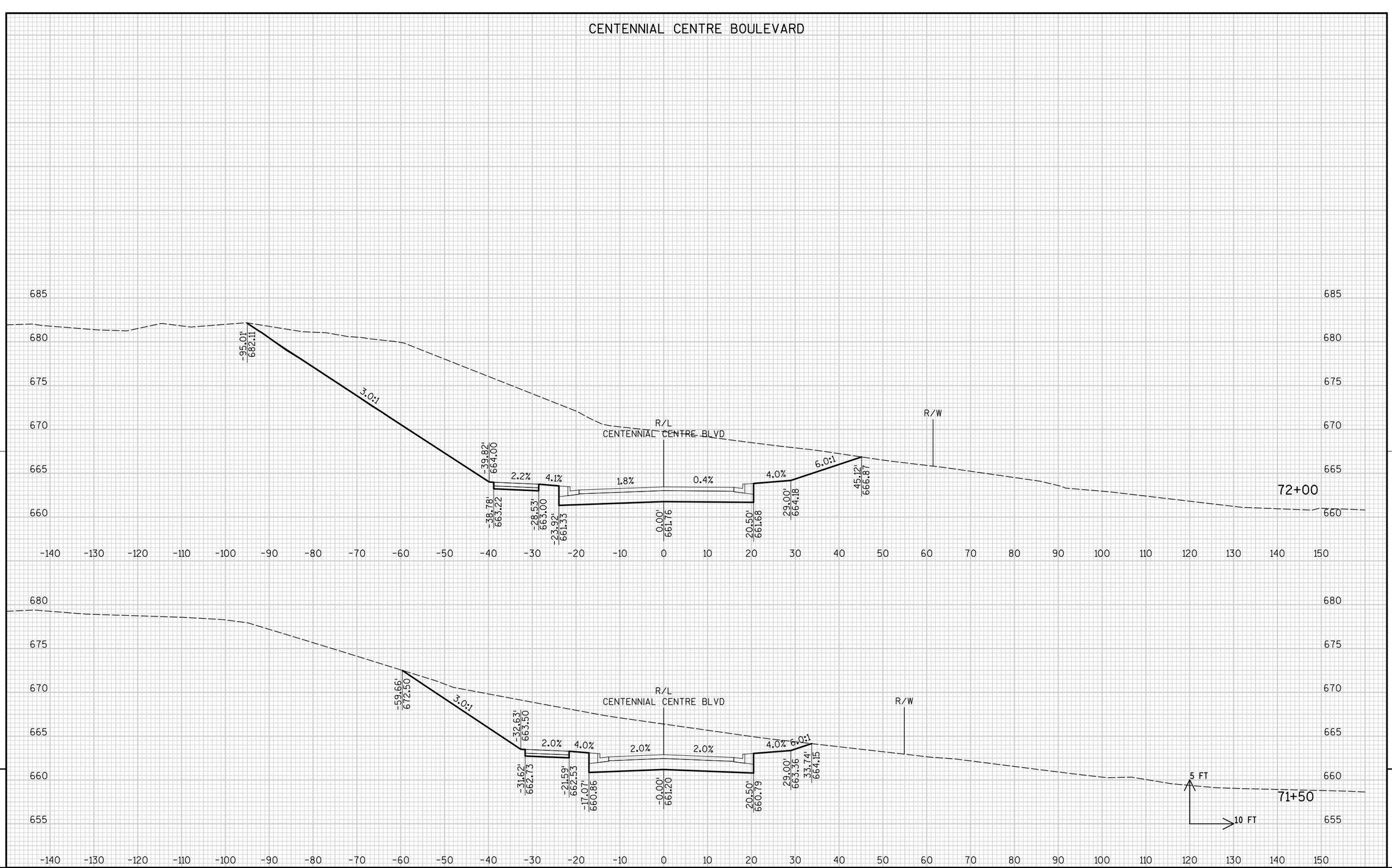
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 70+00 TO STA 71+00	SHEET 684	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090364_xs_GPPC.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

CENTENNIAL CENTRE BOULEVARD



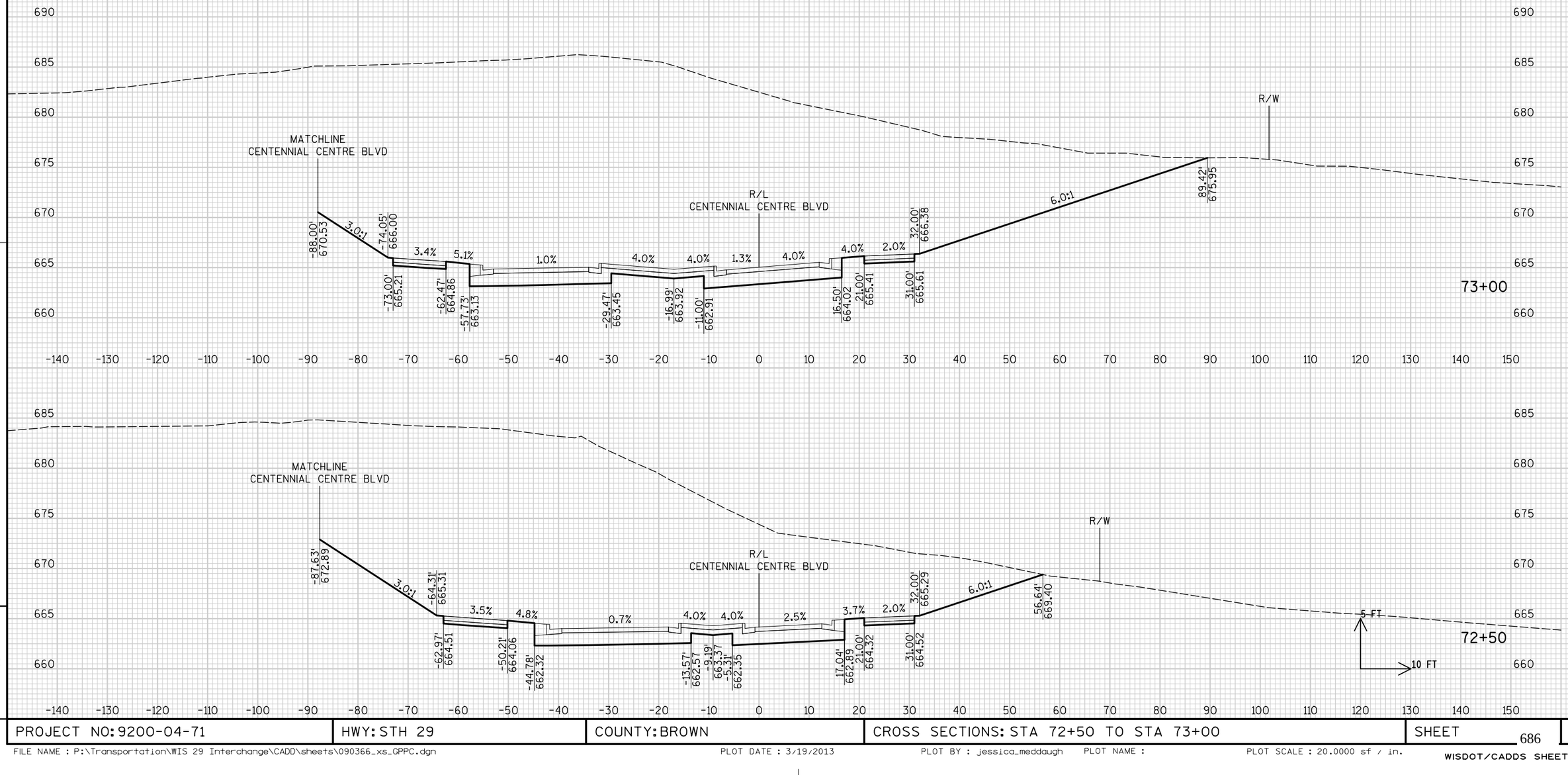
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 71+50 TO STA 72+00	SHEET 685	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090365_xs_GPPC.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

CENTENNIAL CENTRE BOULEVARD



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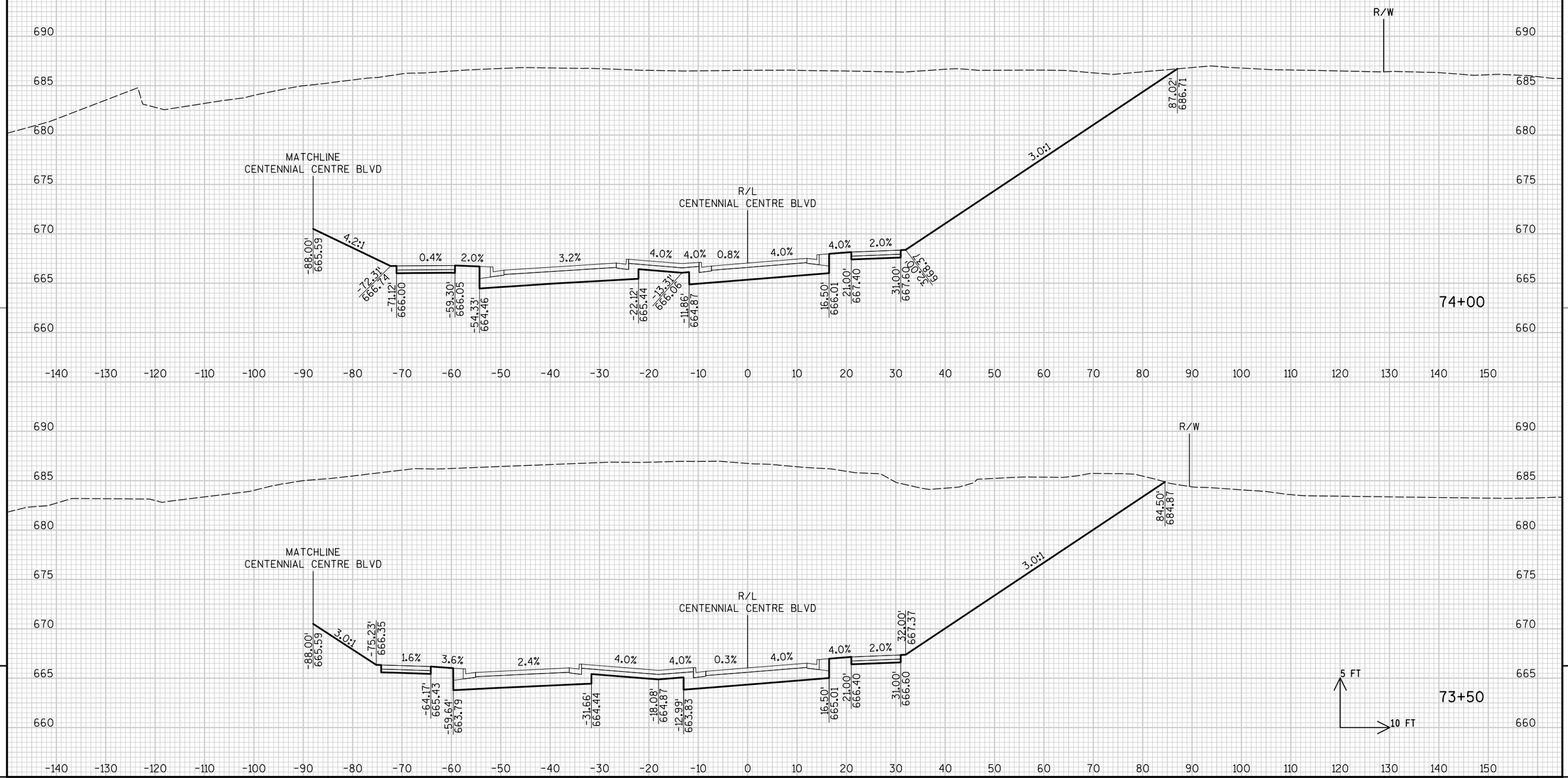
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 72+50 TO STA 73+00	SHEET 686	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090366_xs_GPPC.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

CENTENNIAL CENTRE BOULEVARD



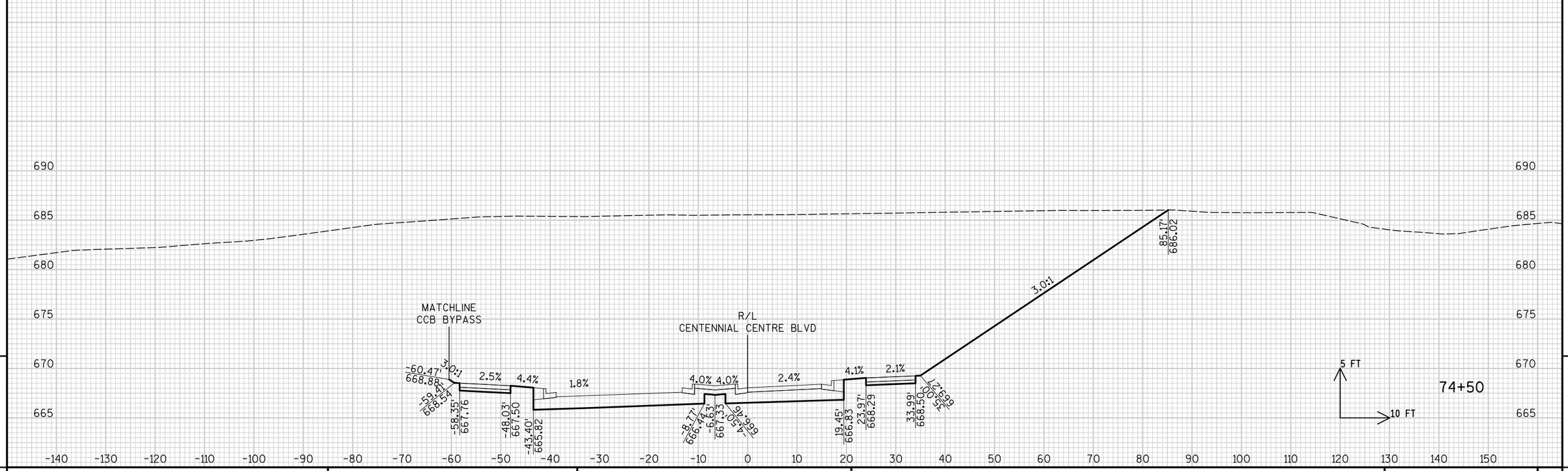
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 73+50 TO STA 74+00	SHEET 687	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090367_xs_GPPC.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

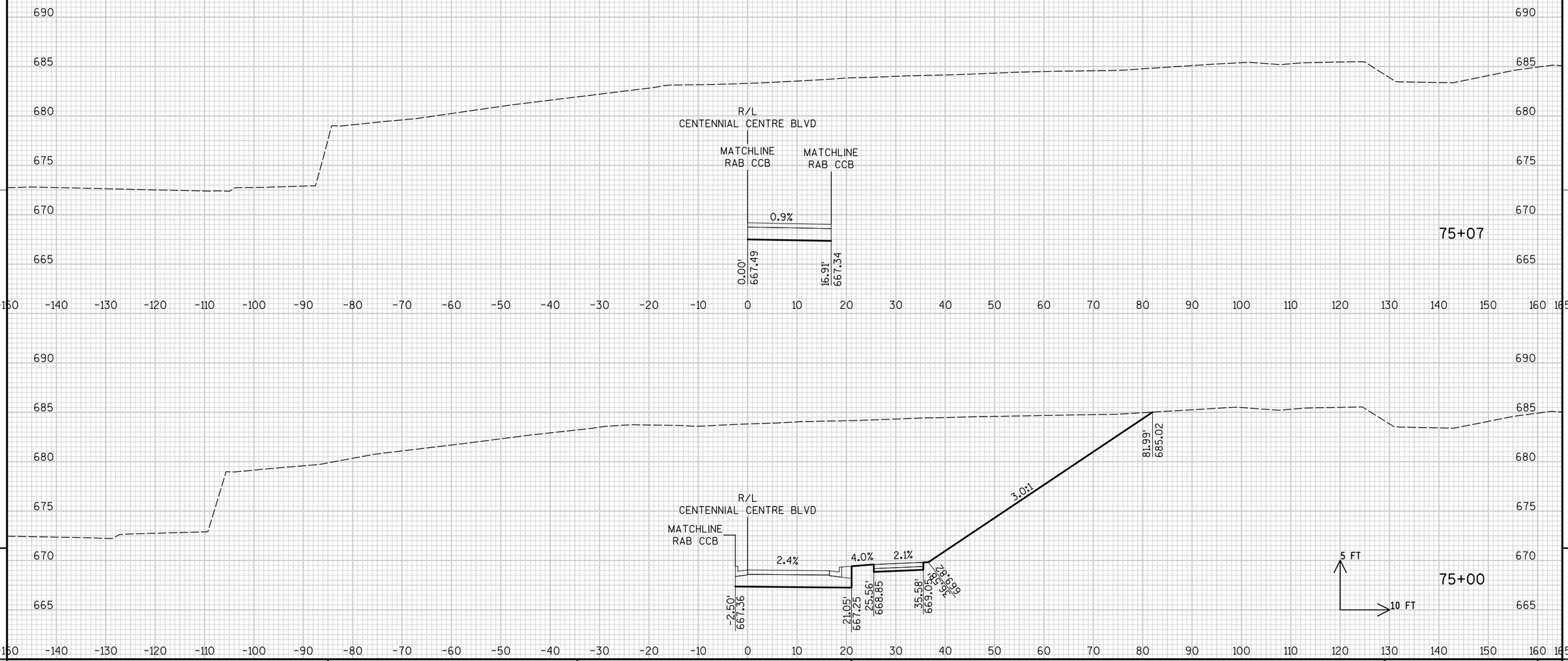
CENTENNIAL CENTRE BOULEVARD



9 9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 74+50 TO STA 74+50	SHEET 688	E

CENTENNIAL CENTRE BOULEVARD

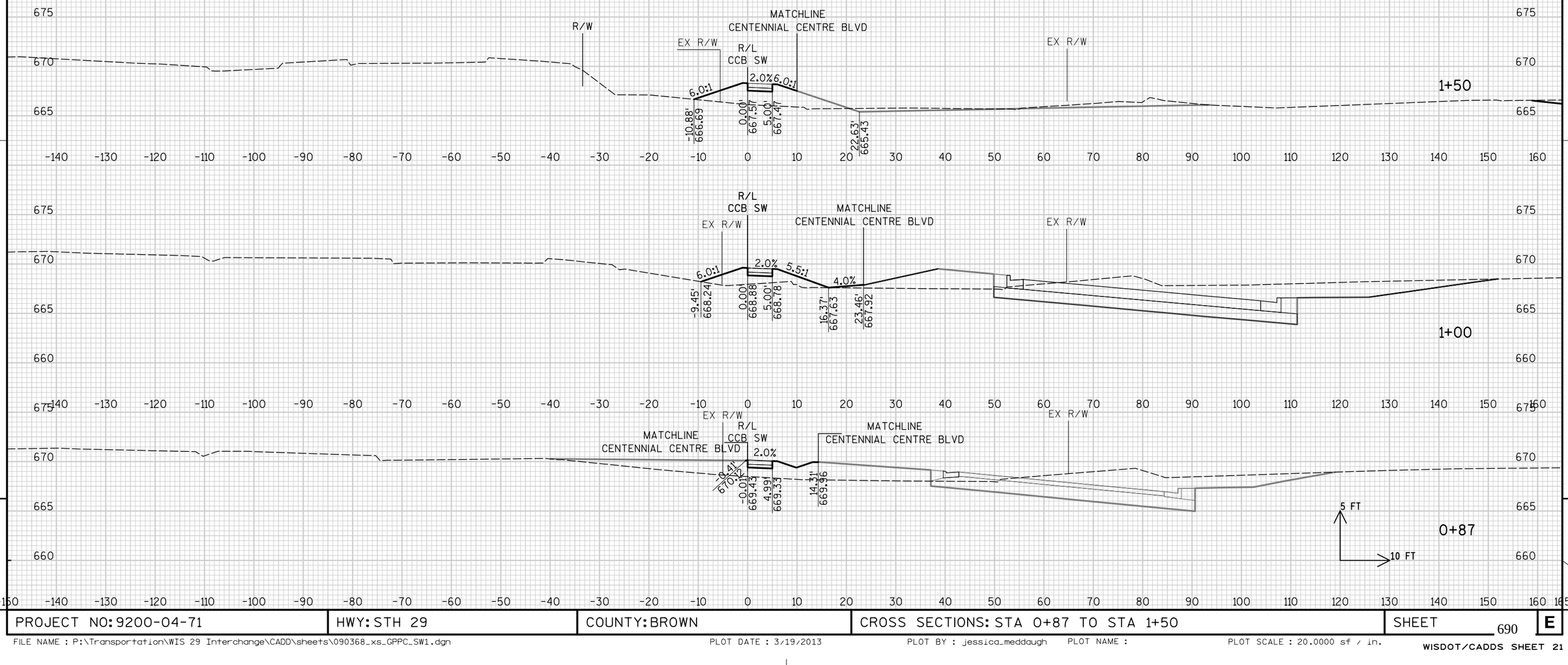


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 75+00 TO STA 75+07	SHEET 689	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090367B_xs_GPPC.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

CENTENNIAL CENTRE BOULEVARD SIDEWALK

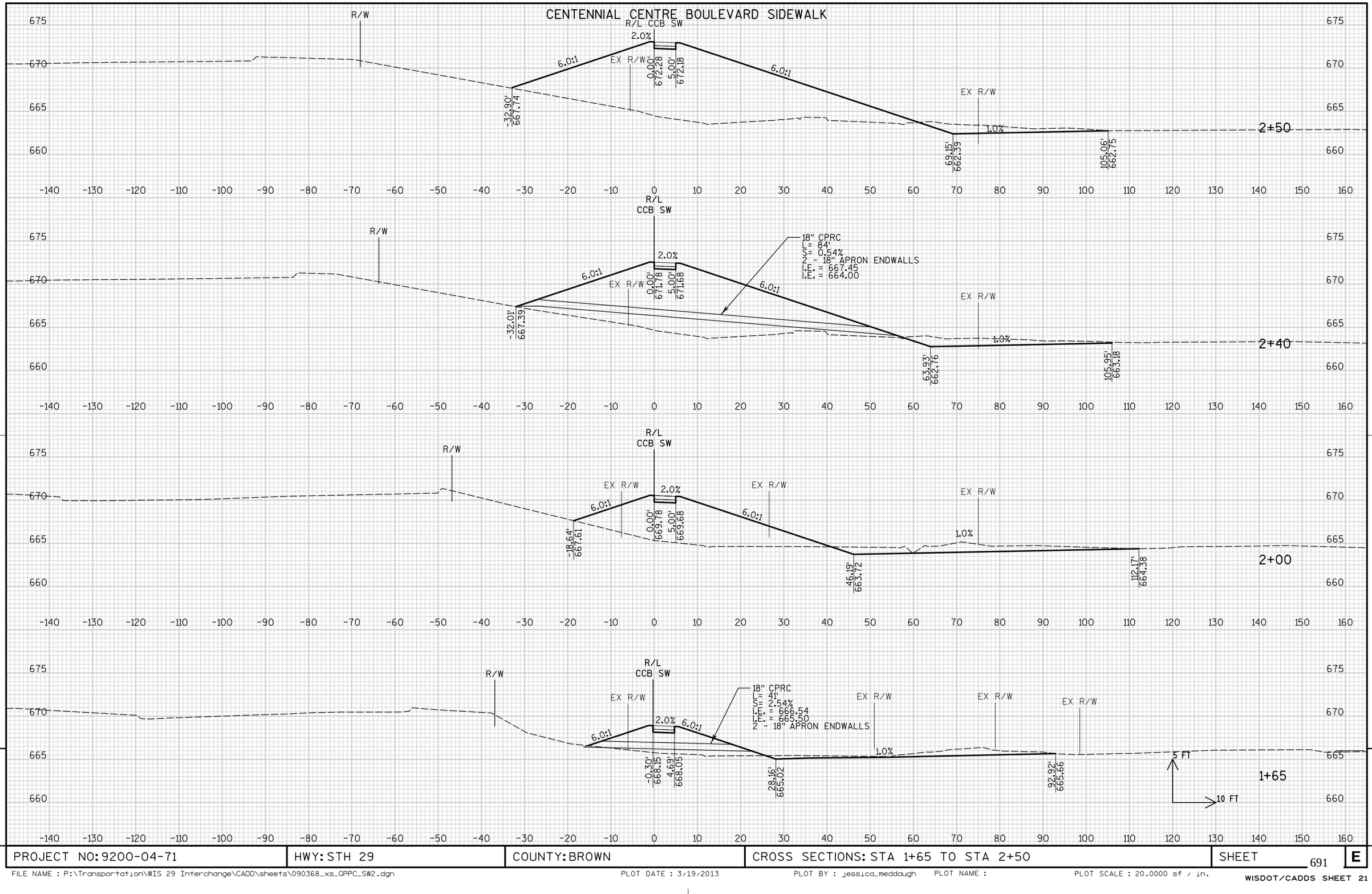


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 0+87 TO STA 1+50	SHEET 690	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090368_xs_GPPC_SW1.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

CENTENNIAL CENTRE BOULEVARD SIDEWALK

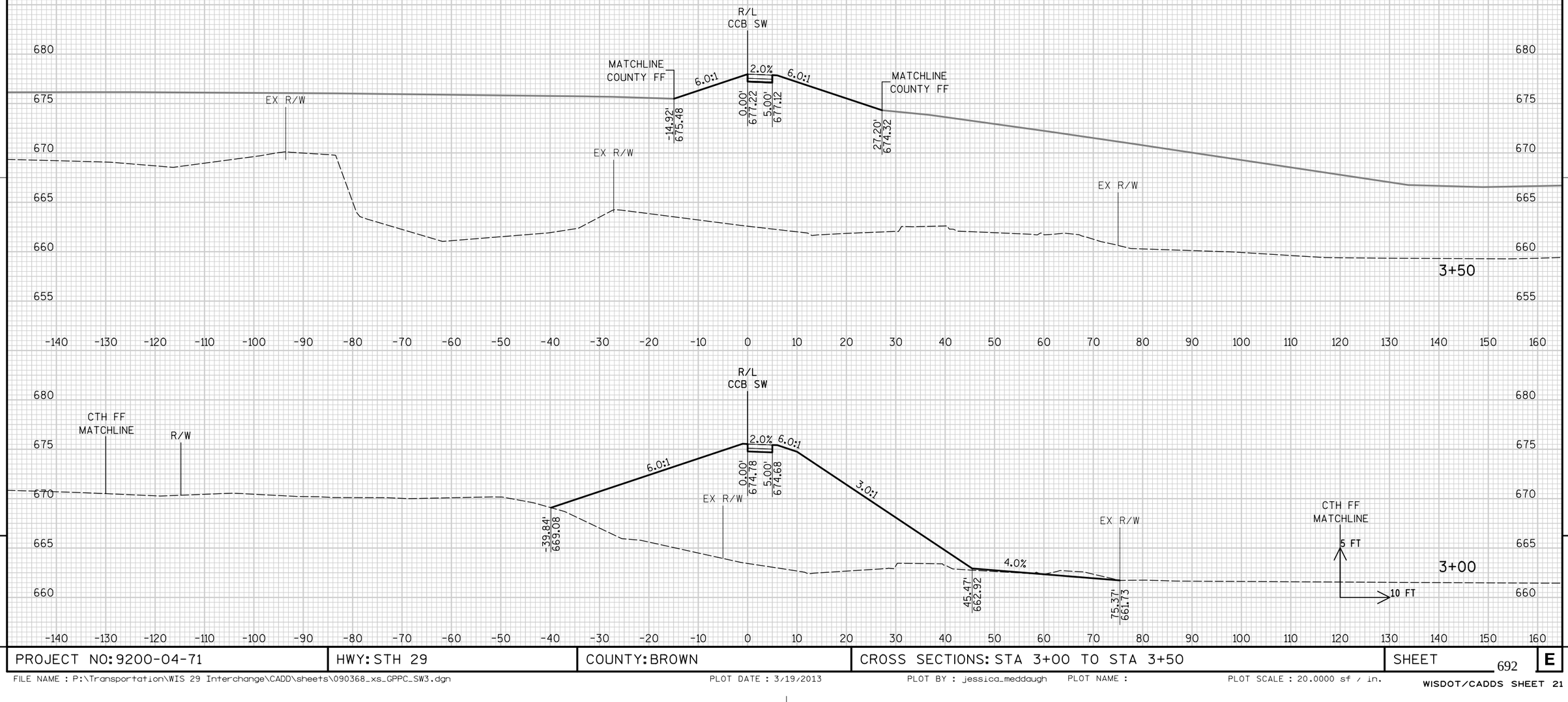


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 1+65 TO STA 2+50	SHEET 691 E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090368_xs_GPPC_SW2.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

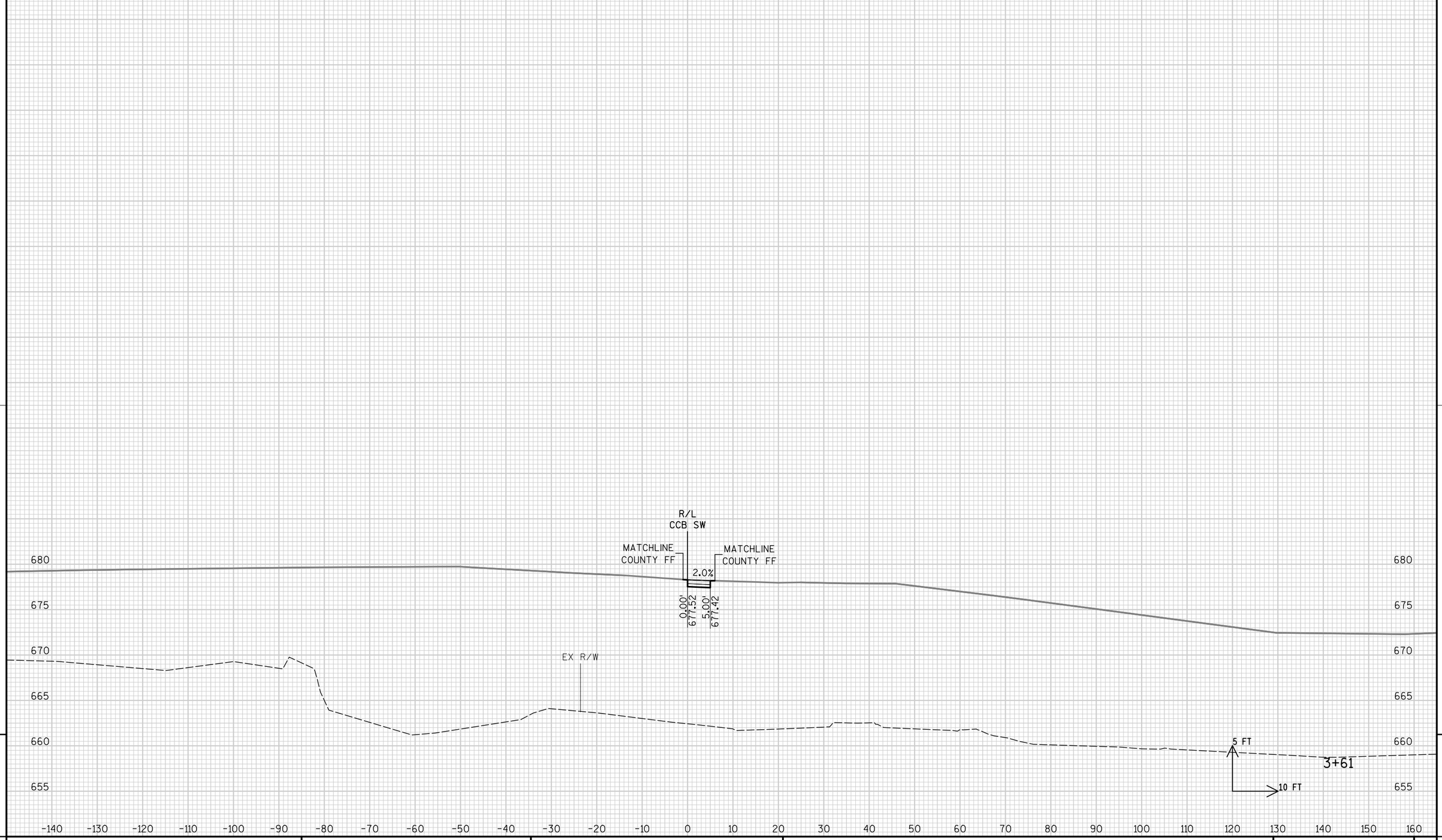
CENTENNIAL CENTRE BOULEVARD SIDEWALK



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 3+00 TO STA 3+50	SHEET 692	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090368_xs_GPPC_SW3.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

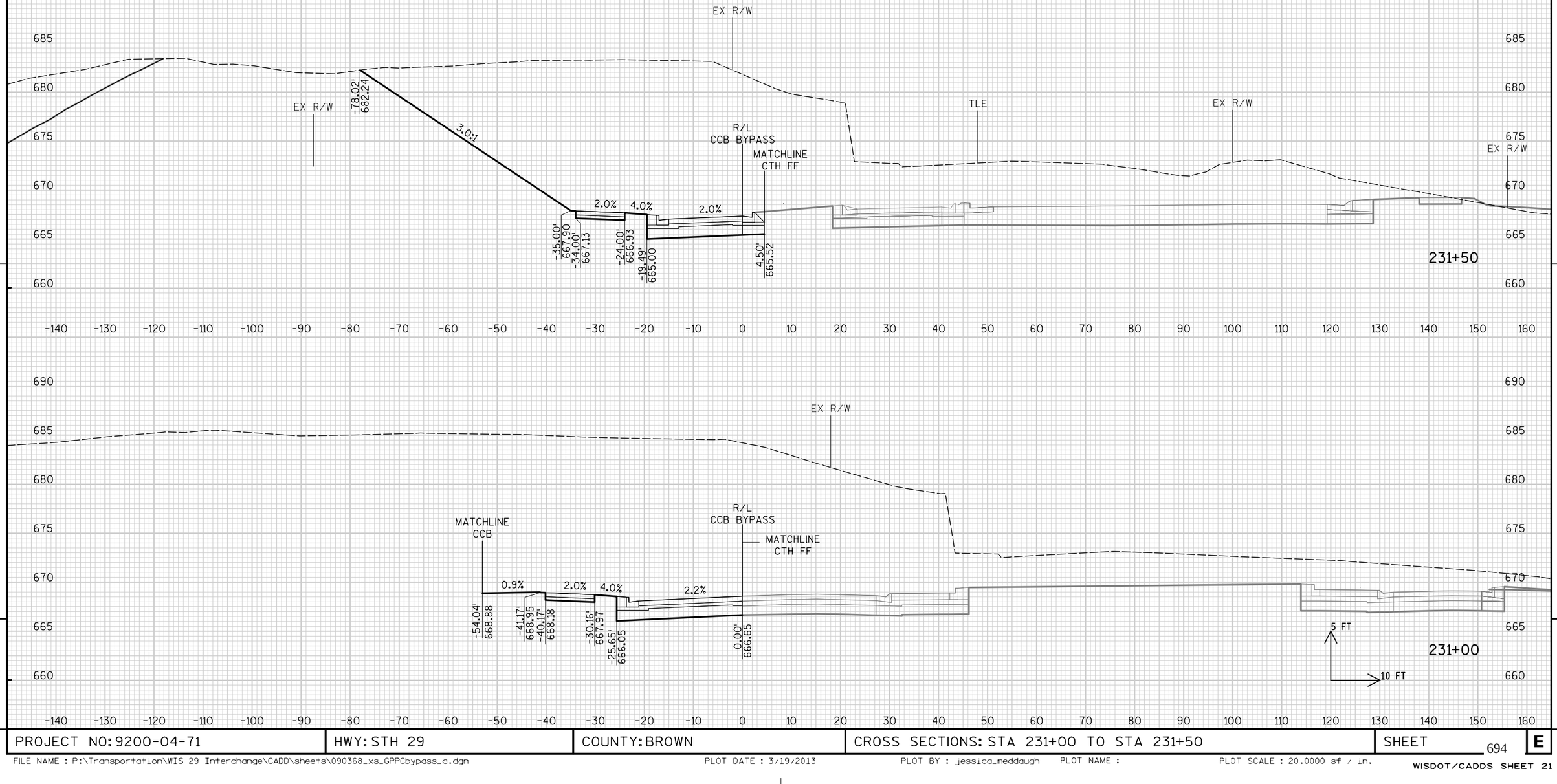
CENTENNIAL CENTRE BOULEVARD SIDEWALK



9 9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 3+61 TO STA 3+61	SHEET 693	E

CENTENNIAL CENTRE BOULEVARD
BYPASS

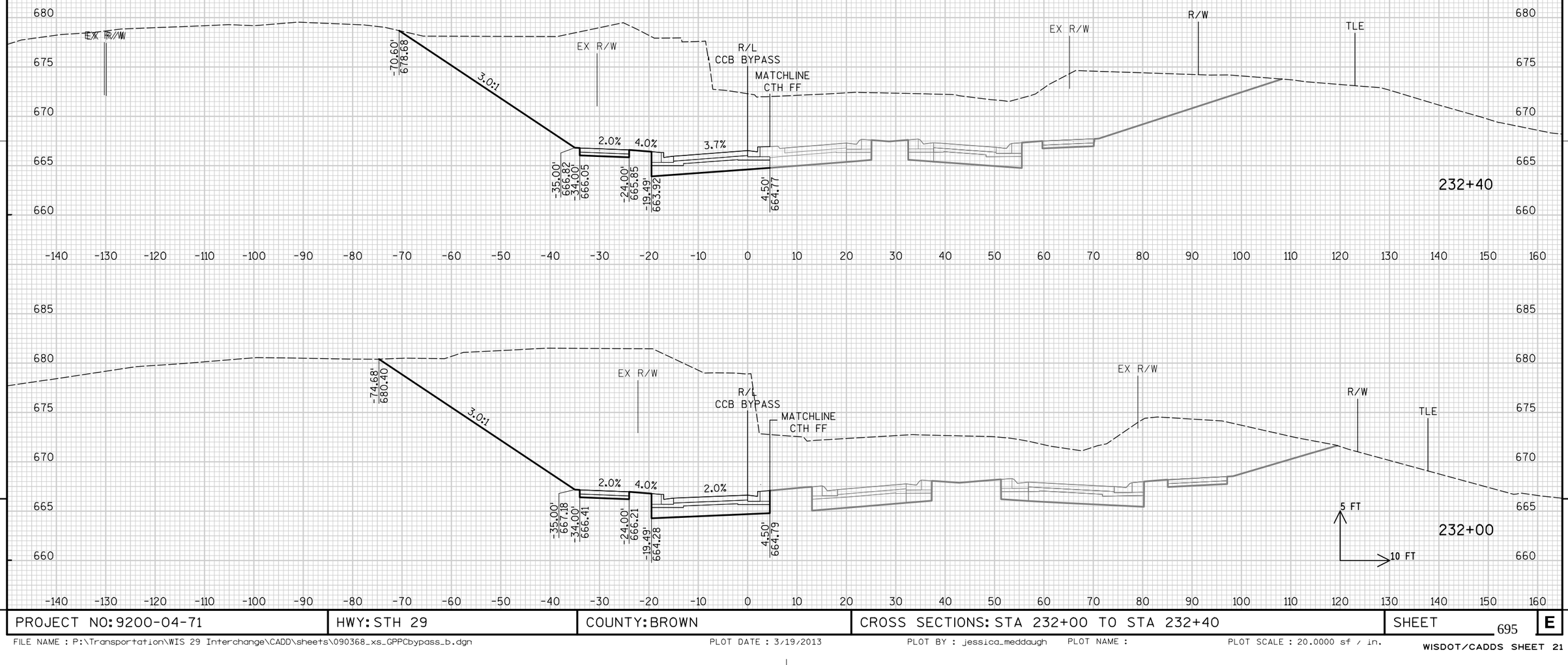


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 231+00 TO STA 231+50	SHEET 694	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090368_xs_GPPCbypass_a.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

CENTENNIAL CENTRE BOULEVARD
BYPASS

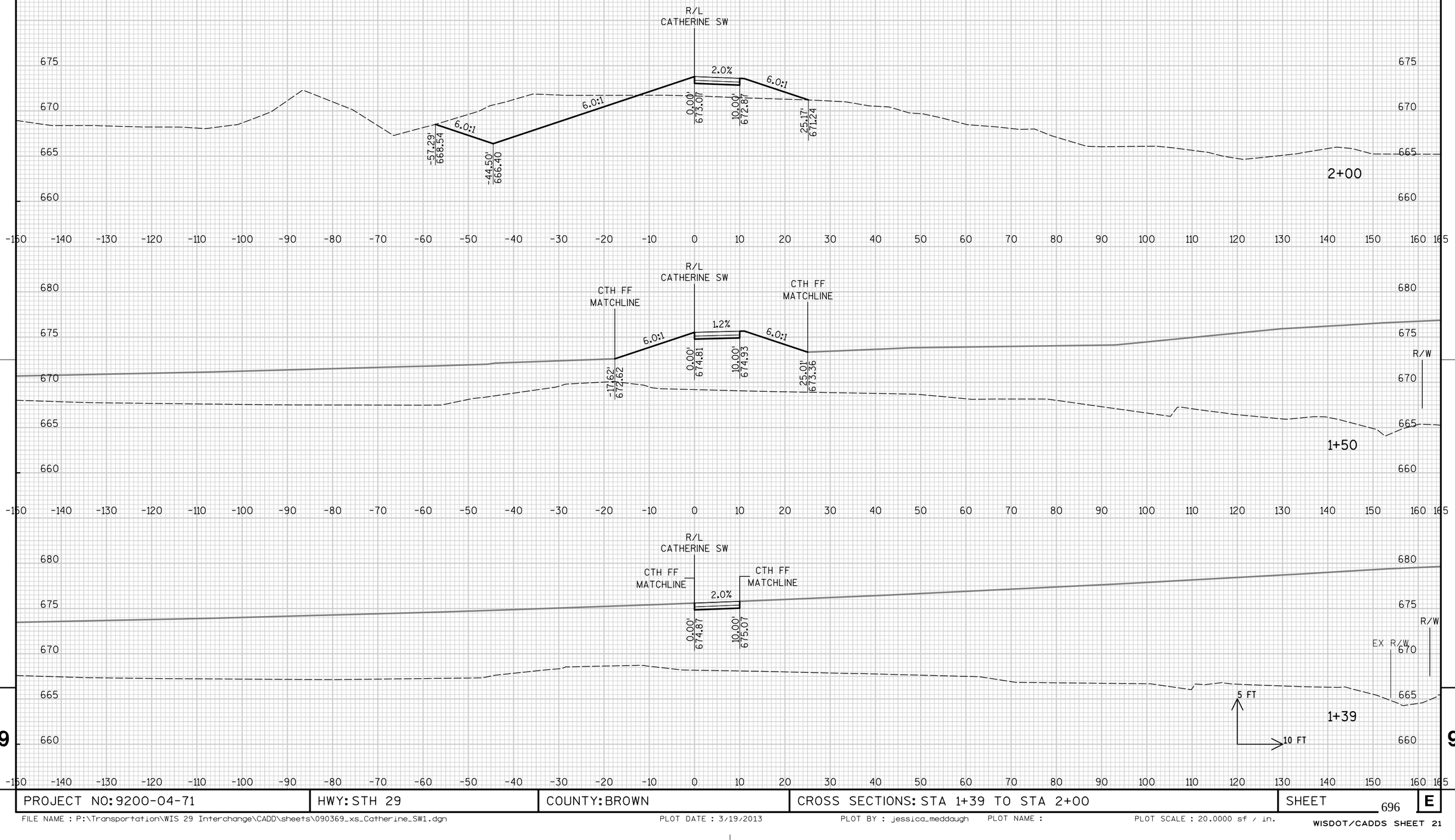


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 232+00 TO STA 232+40	SHEET 695	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090368_xs_GPPCbypass_b.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

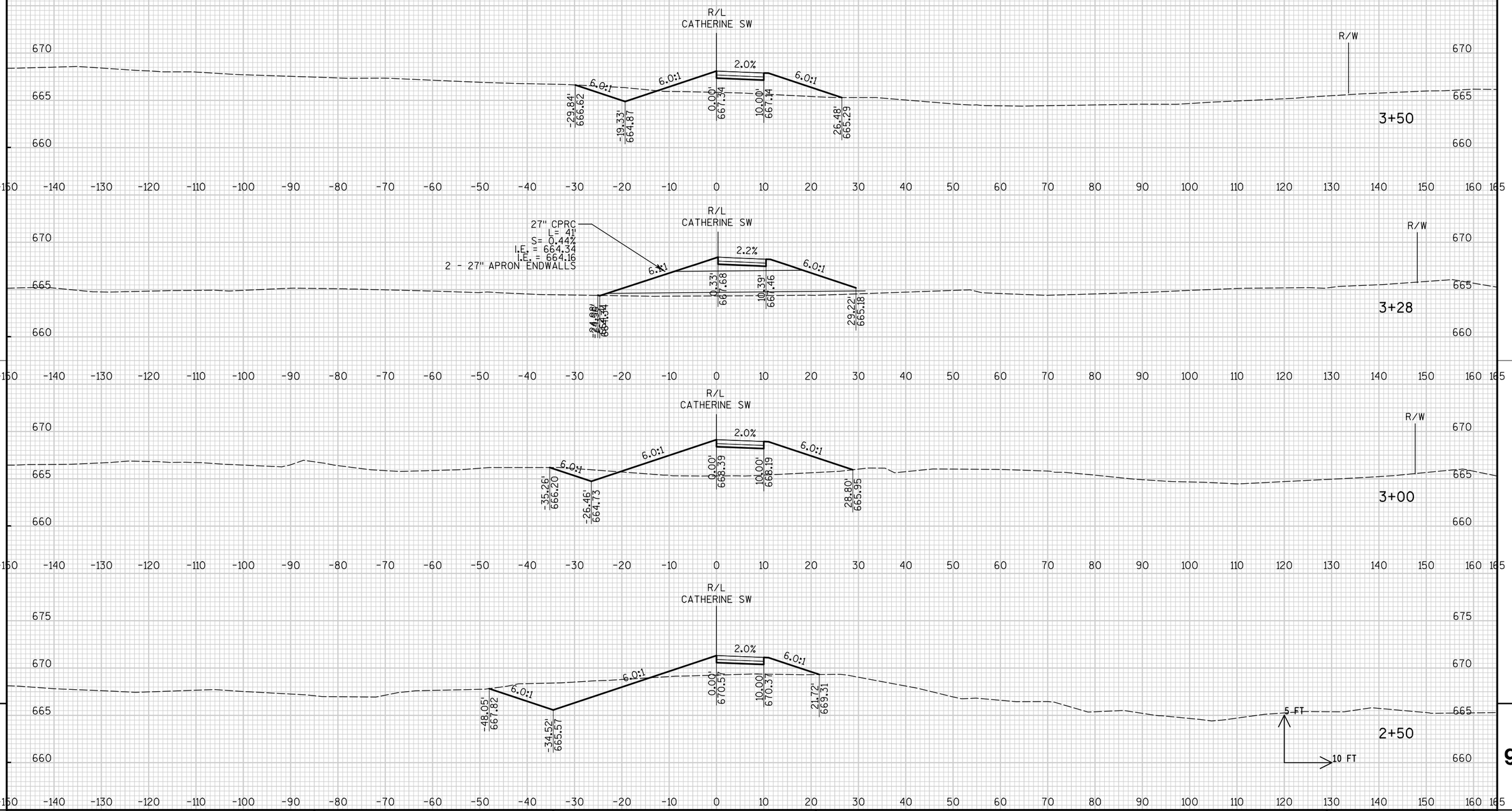
CATHERINE SIDEWALK



9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 1+39 TO STA 2+00	SHEET 696	E

CATHERINE SIDEWALK

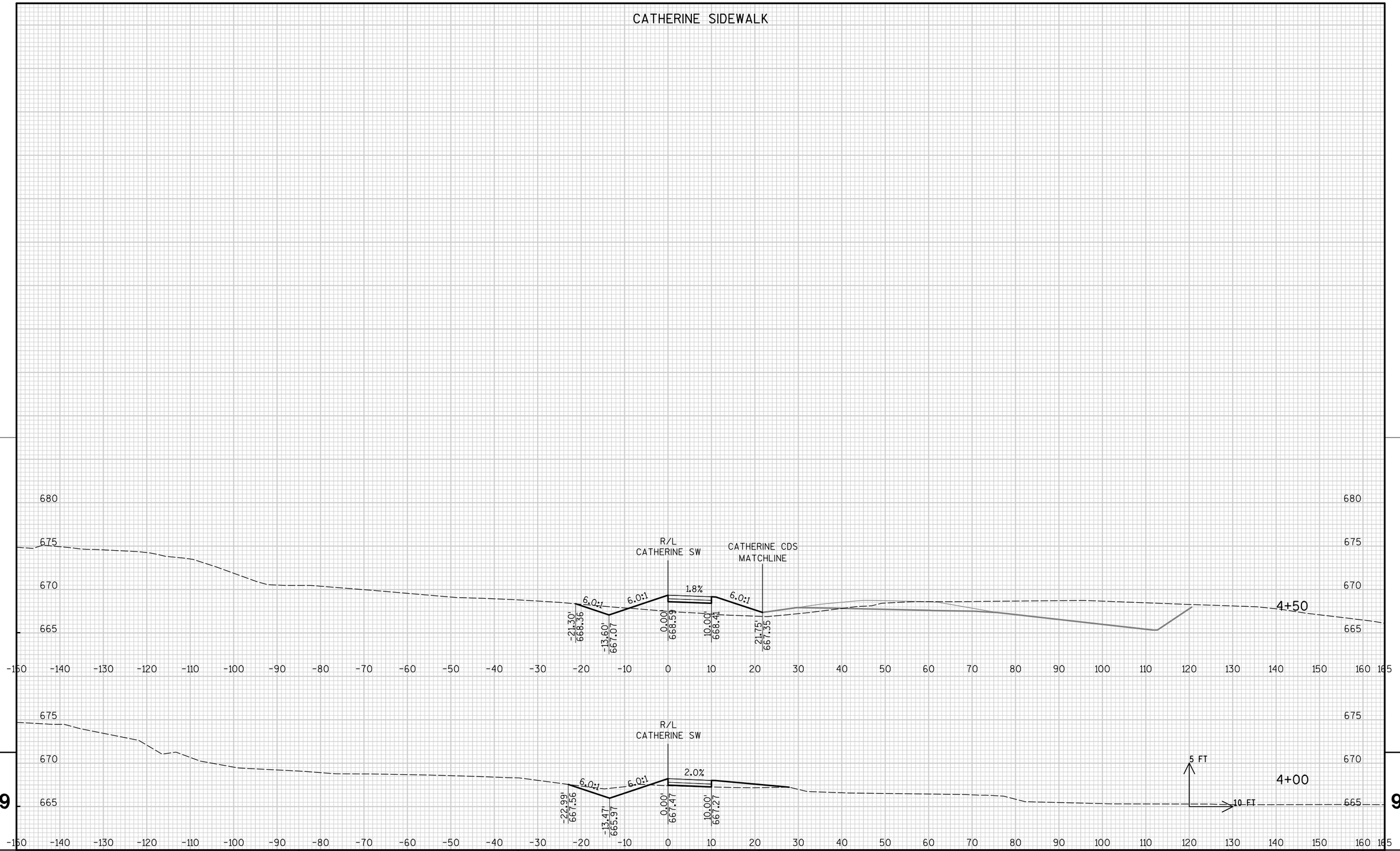


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 2+50 TO STA 3+50	SHEET 697 E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090369_xs_Catherine_SW2.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

CATHERINE SIDEWALK

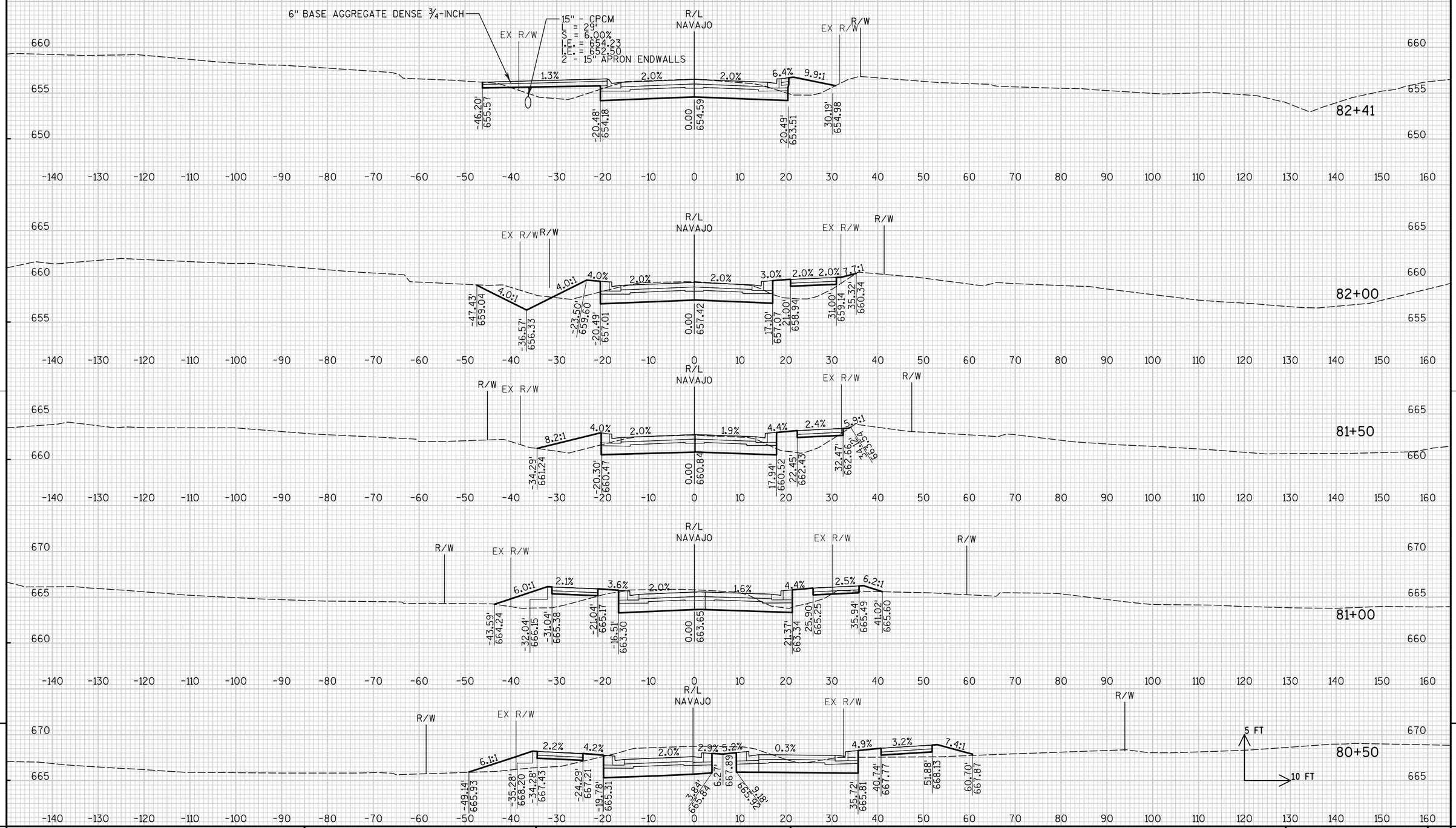


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 4+00 TO STA 4+50	SHEET 698	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090369_xs_Catherine_SW3.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

NAVAJO TRAIL

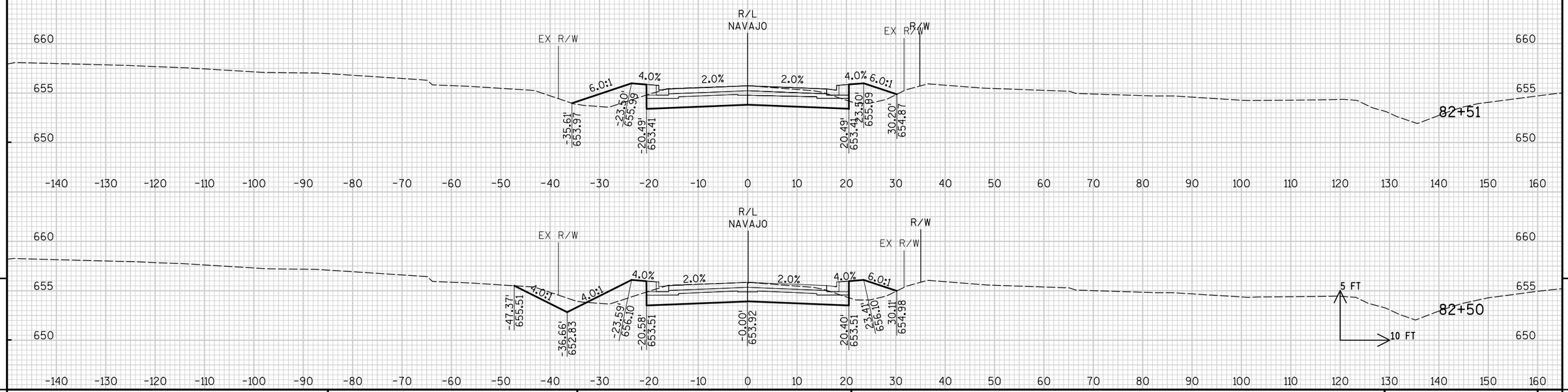


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA. 80+50 TO STA. 82+41	SHEET 699	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090369_xs_Navajo.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

NAVAJO TRAIL



9 9

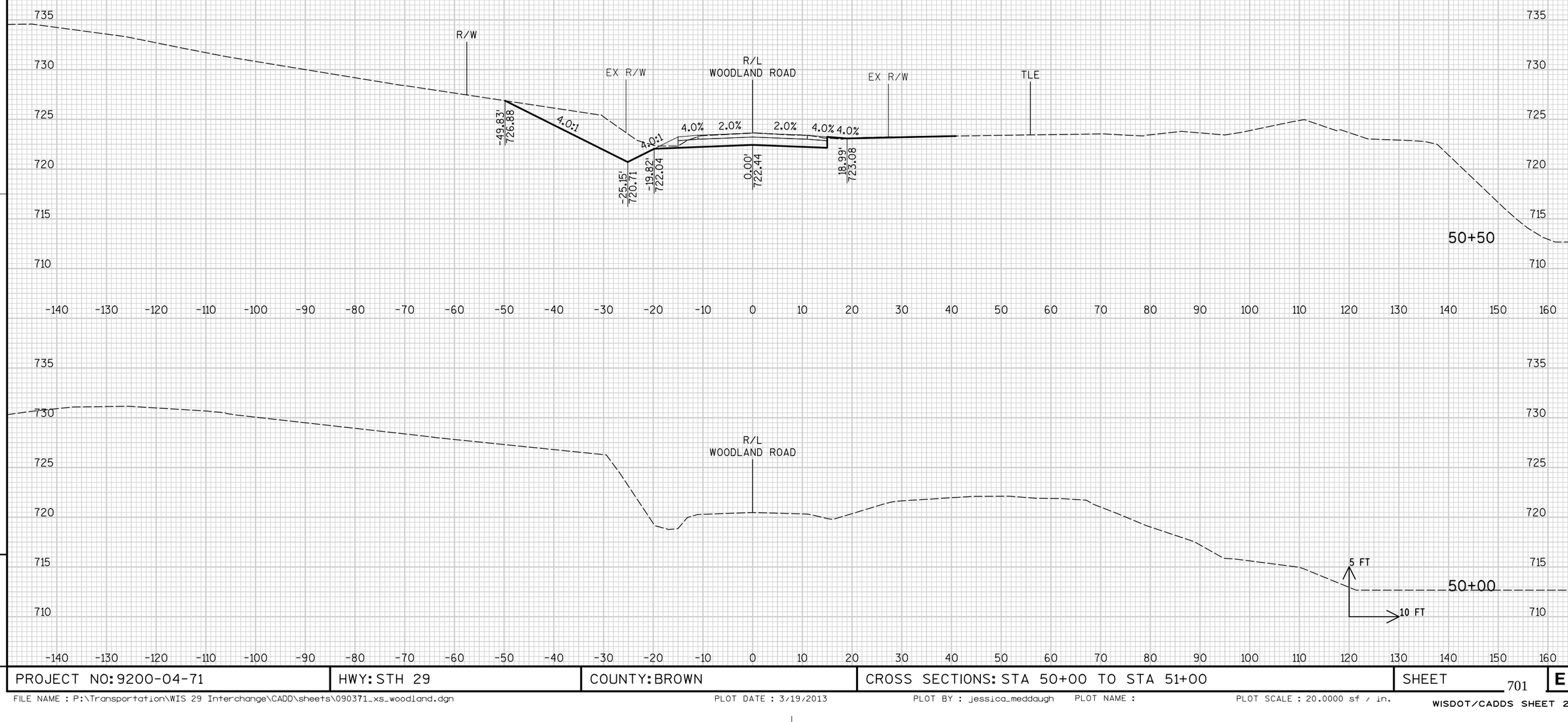
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA. 82+50 TO STA. 82+51	SHEET 700	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090370_xs_Navajo.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

WOODLAND ROAD



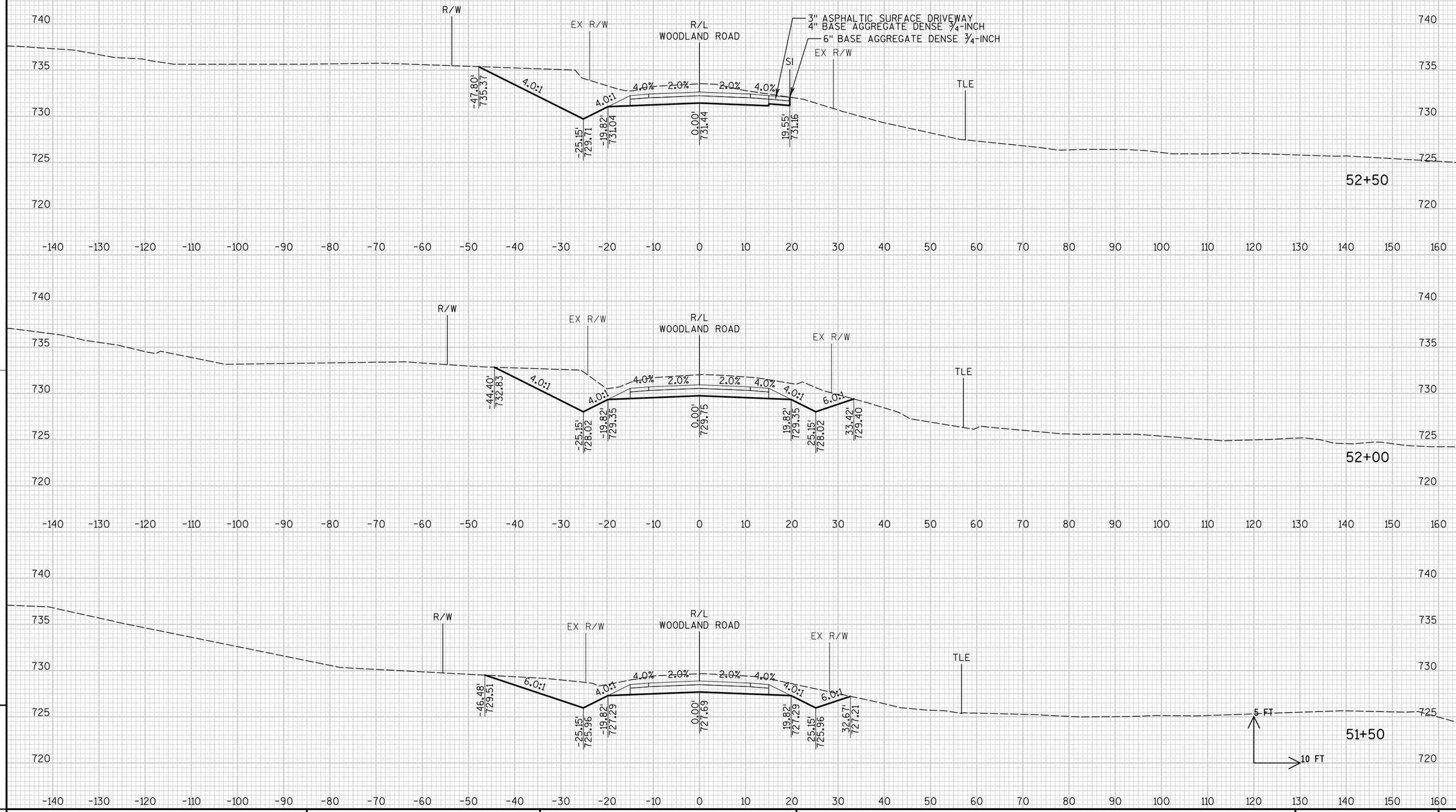


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 50+00 TO STA 51+00	SHEET 701	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090371_xs_woodland.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

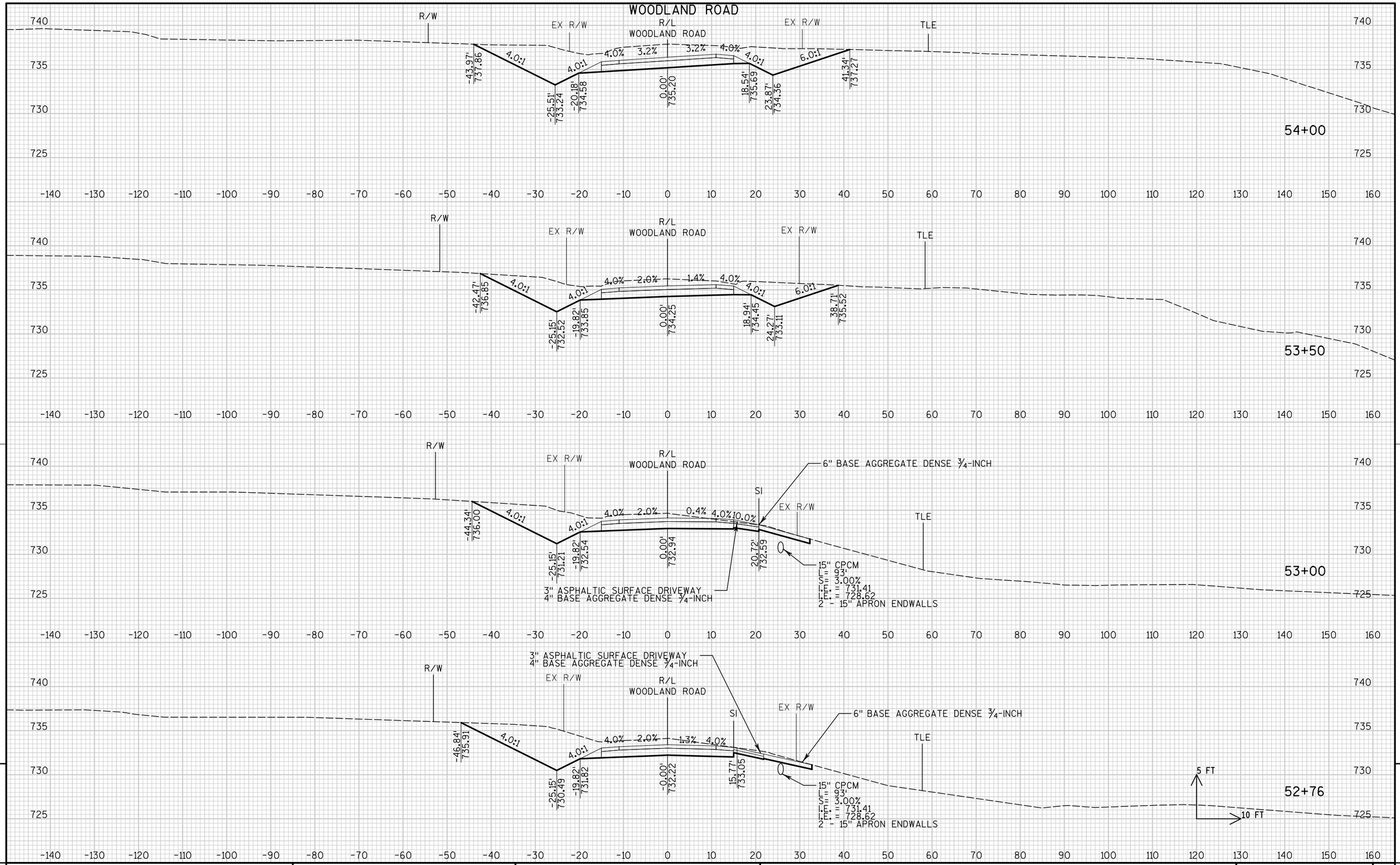
WISDOT/CADDS SHEET 21

WOODLAND ROAD



9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 51+50 TO STA 52+50	SHEET 702	E



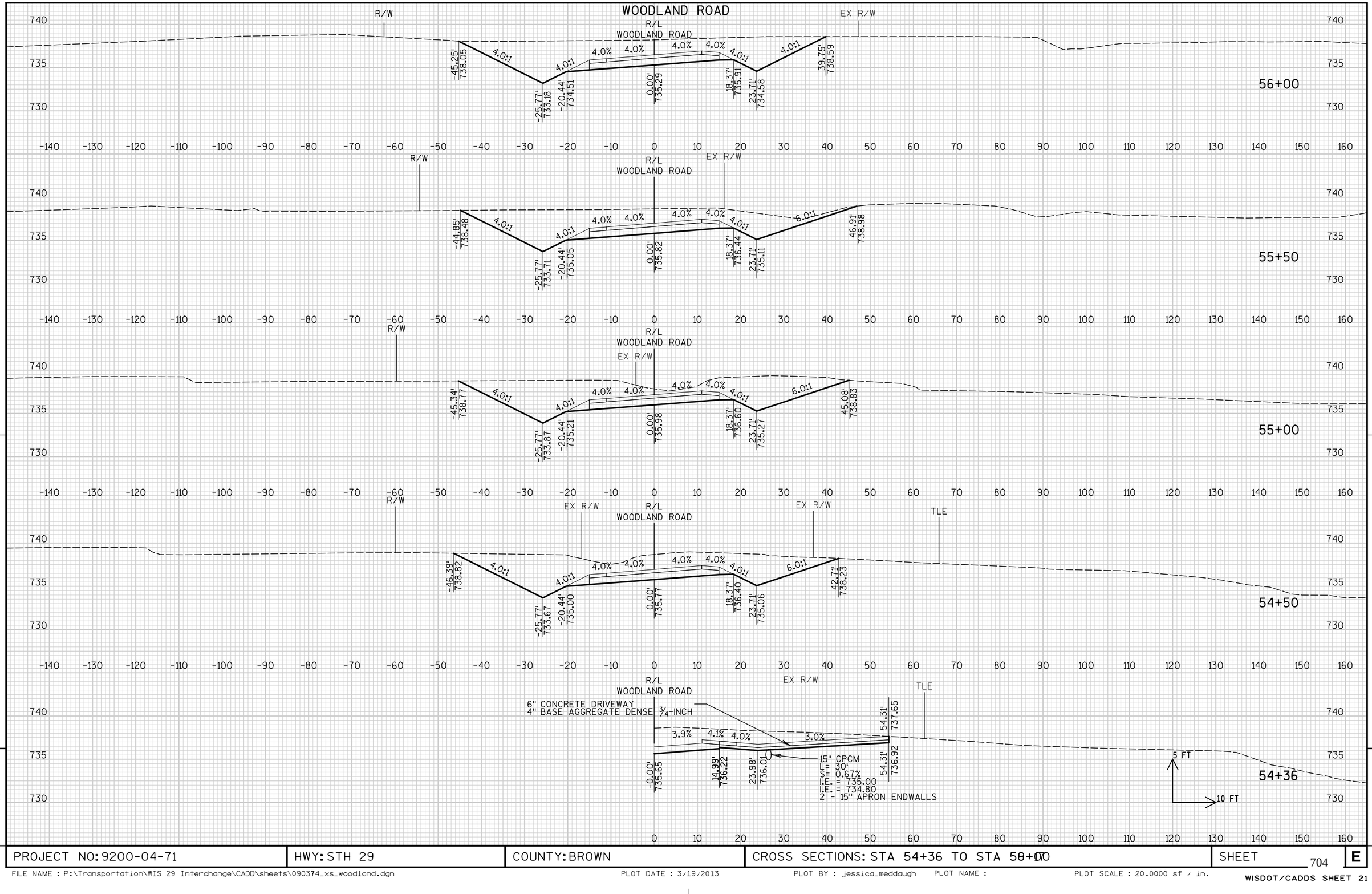
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 52+76 TO STA 54+00	SHEET 703	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090373_xs_woodland.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



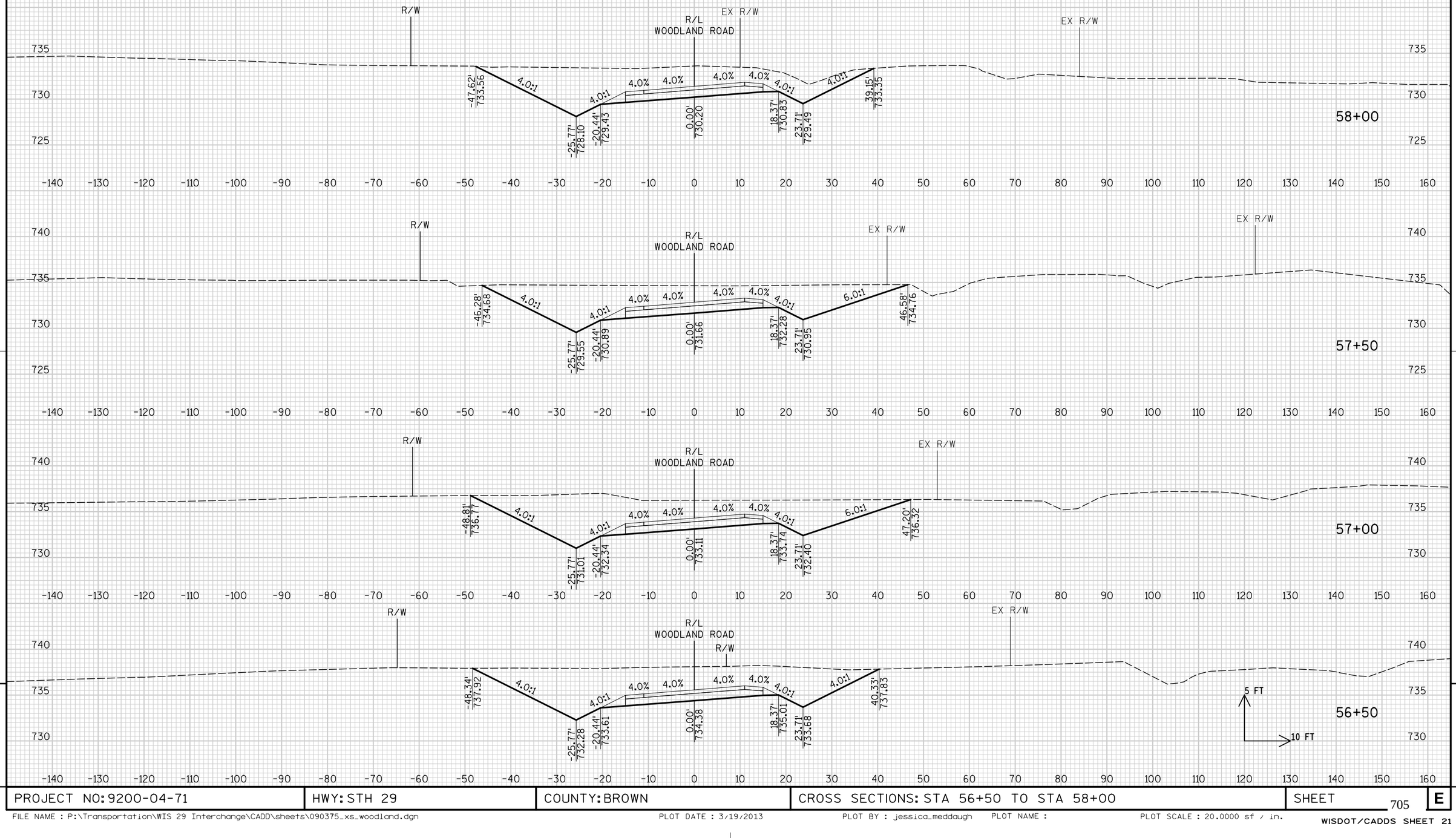
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 54+36 TO STA 58+00	SHEET 704	E

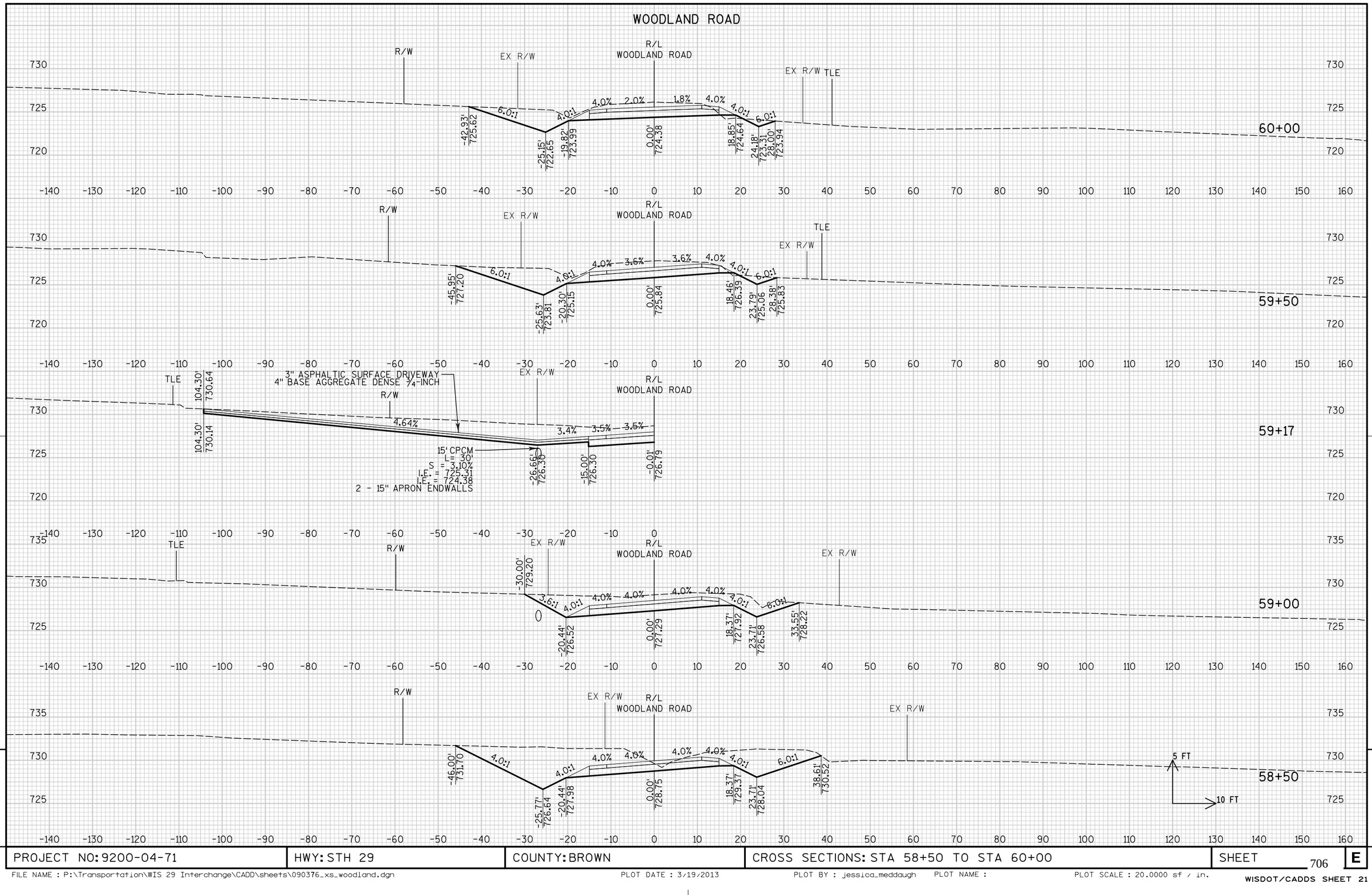
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WOODLAND ROAD



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 56+50 TO STA 58+00	SHEET 705	E

WOODLAND ROAD



9

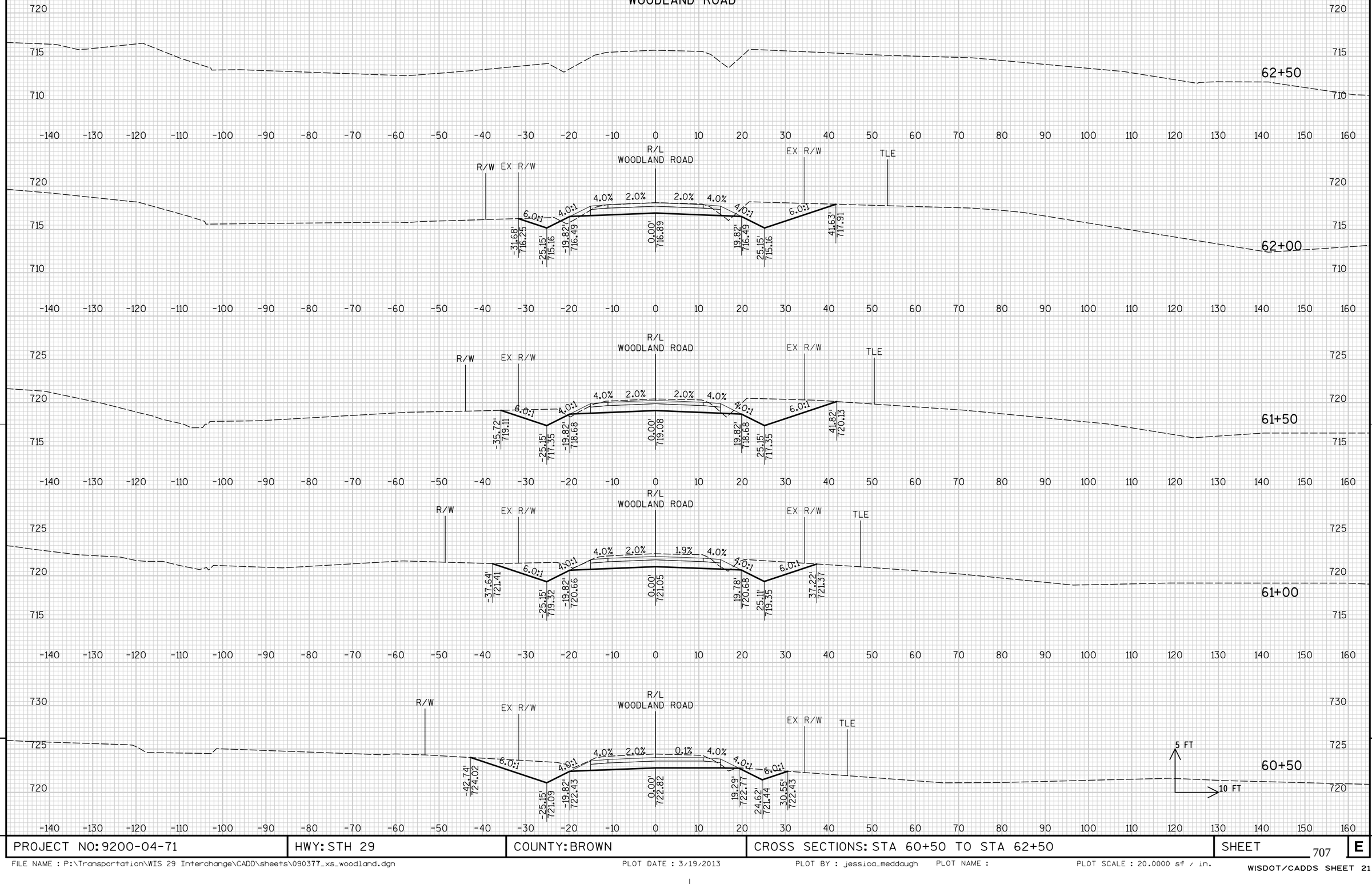
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 58+50 TO STA 60+00	SHEET 706	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090376_xs_woodland.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

WOODLAND ROAD

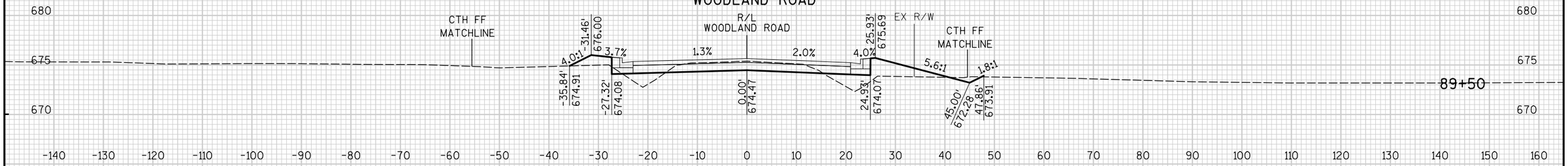


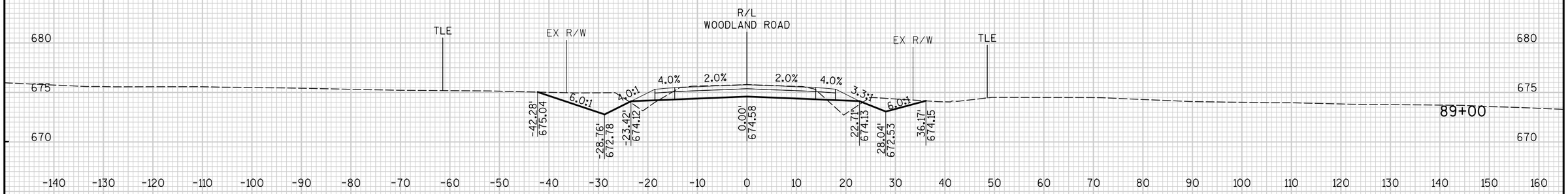
PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 60+50 TO STA 62+50	SHEET 707	E

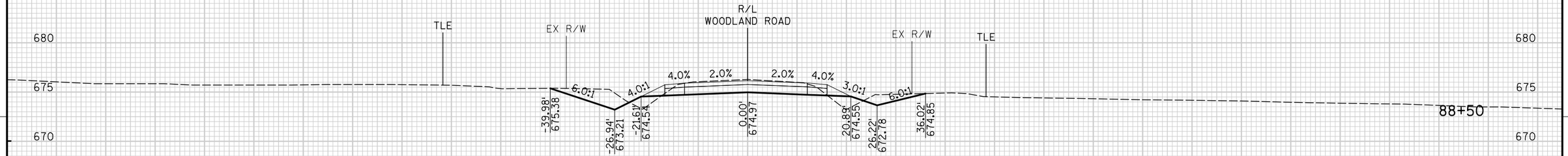
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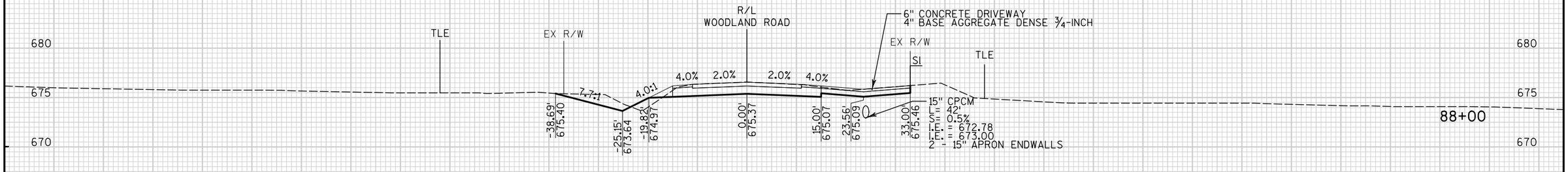
WISDOT/CADDS SHEET 21

WOODLAND ROAD











9

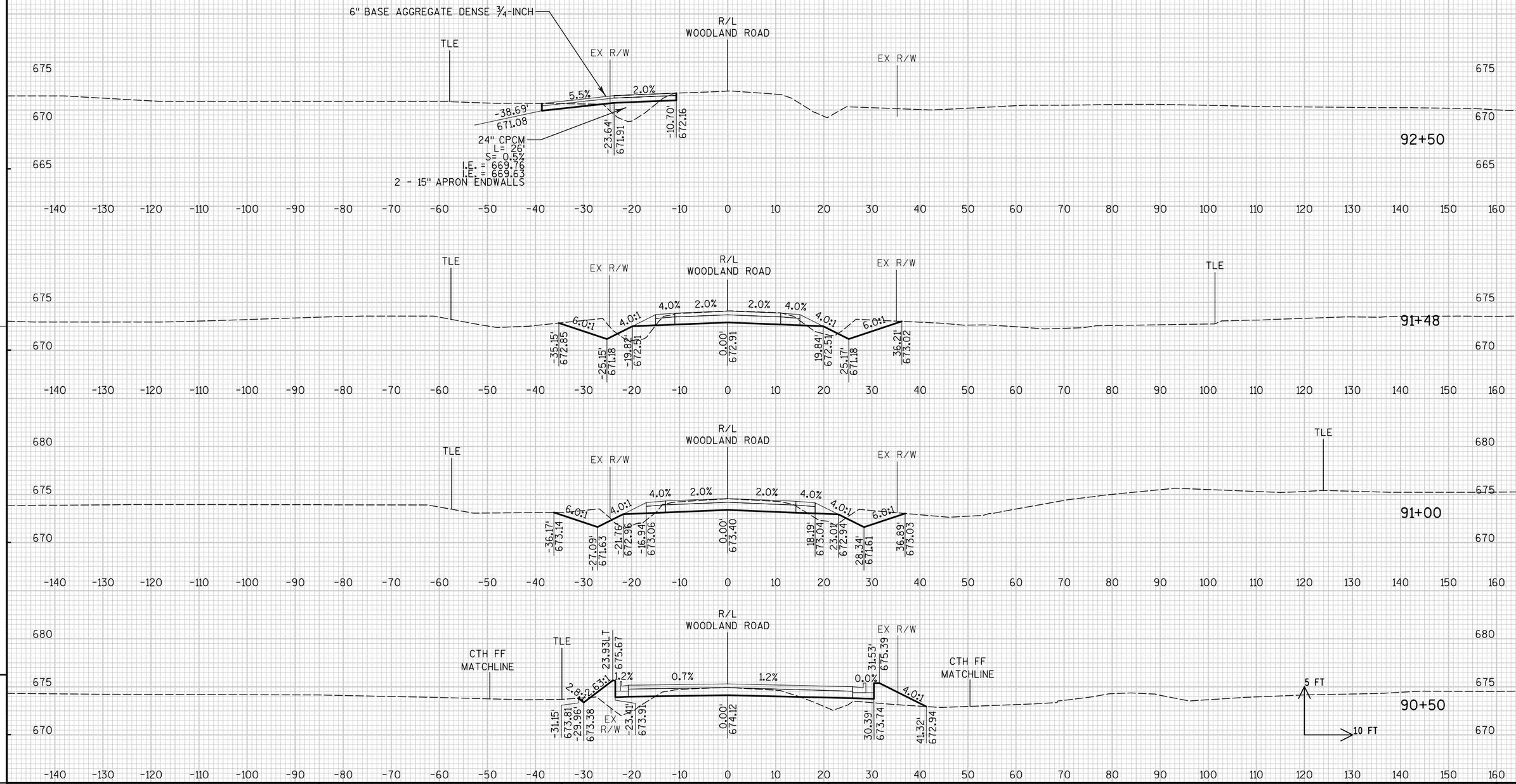
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 87+50 TO STA 89+50	SHEET 708	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090378_xs_woodland.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

WOODLAND ROAD



9

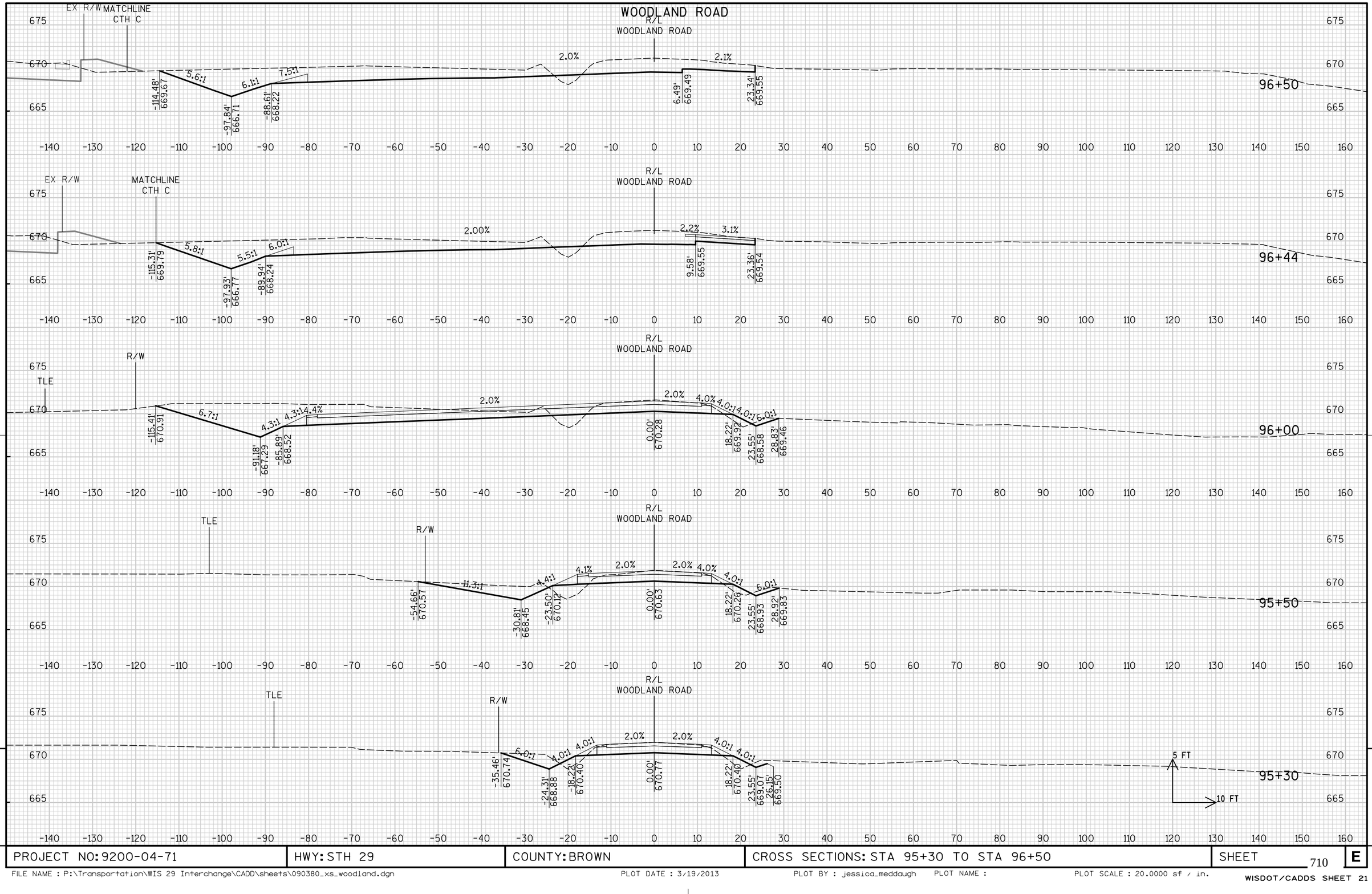
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 90+50 TO STA 92+50	SHEET 709	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090379_xs_woodland.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

WOODLAND ROAD

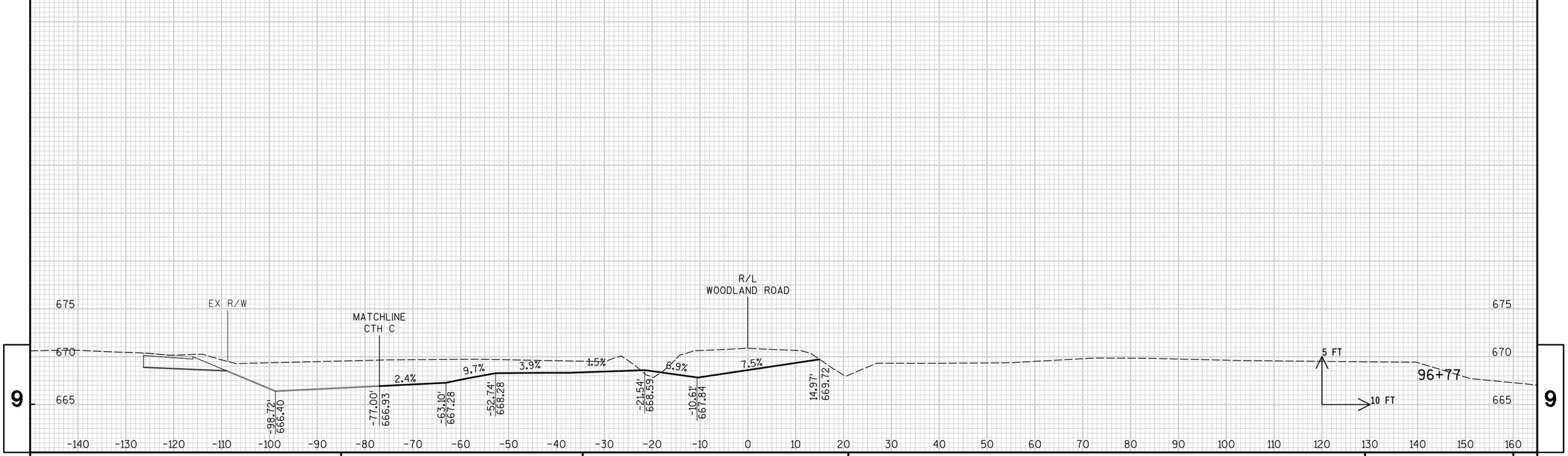


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 95+30 TO STA 96+50	SHEET 710	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090380_xs_woodland.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

WOODLAND ROAD



9 9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 96+77 TO STA 96+77	SHEET 711	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090381_xs_woodland.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

CATHERINE DRIVE
CUL DE SAC

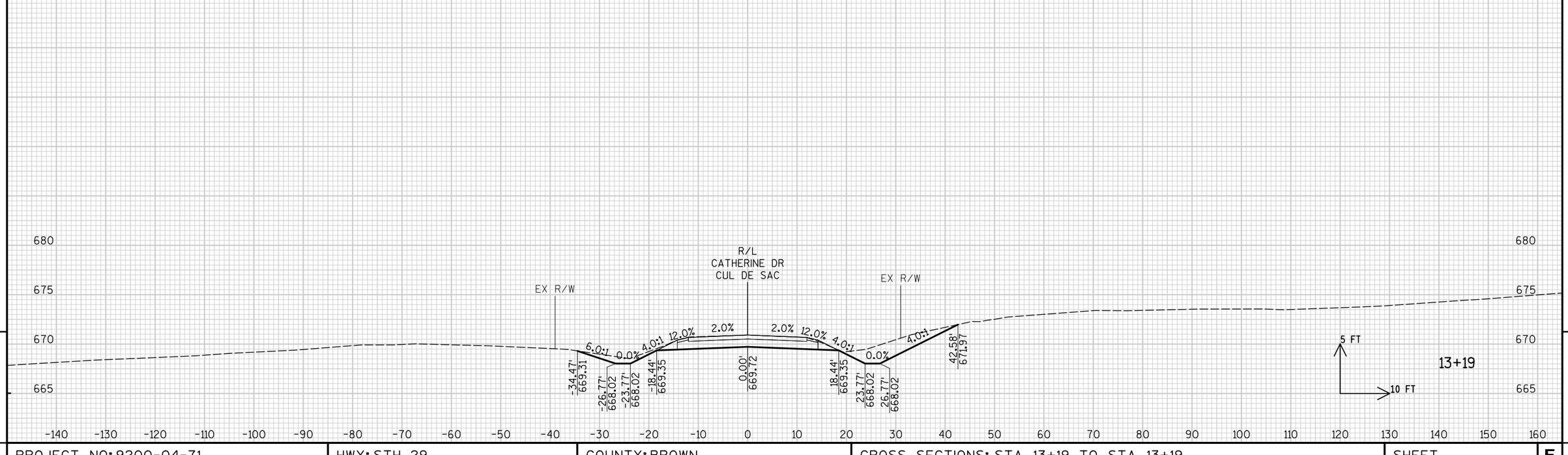
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 11+73 TO STA 13+00	SHEET 712	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090382_xs_CCDX.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

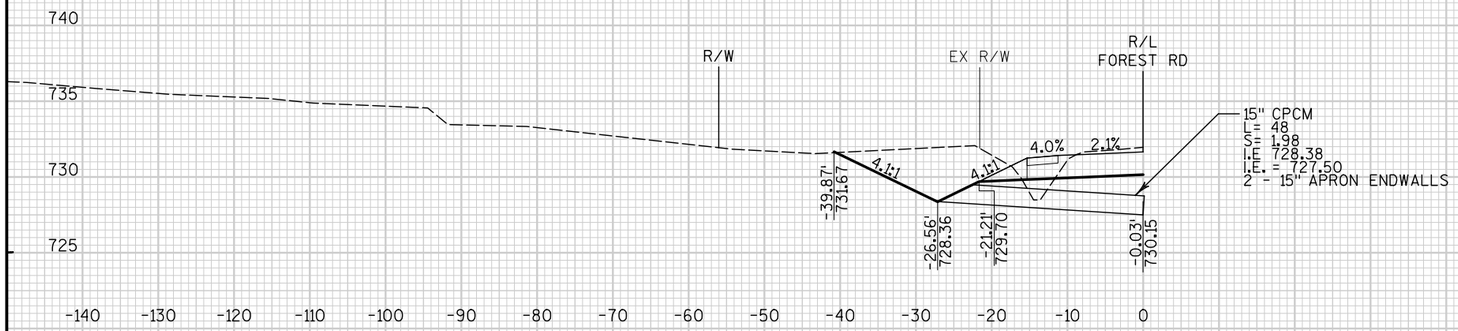
CATHERINE DRIVE
CUL DE SAC



9 9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 13+19 TO STA 13+19	SHEET	E

FOREST ROAD



344+98

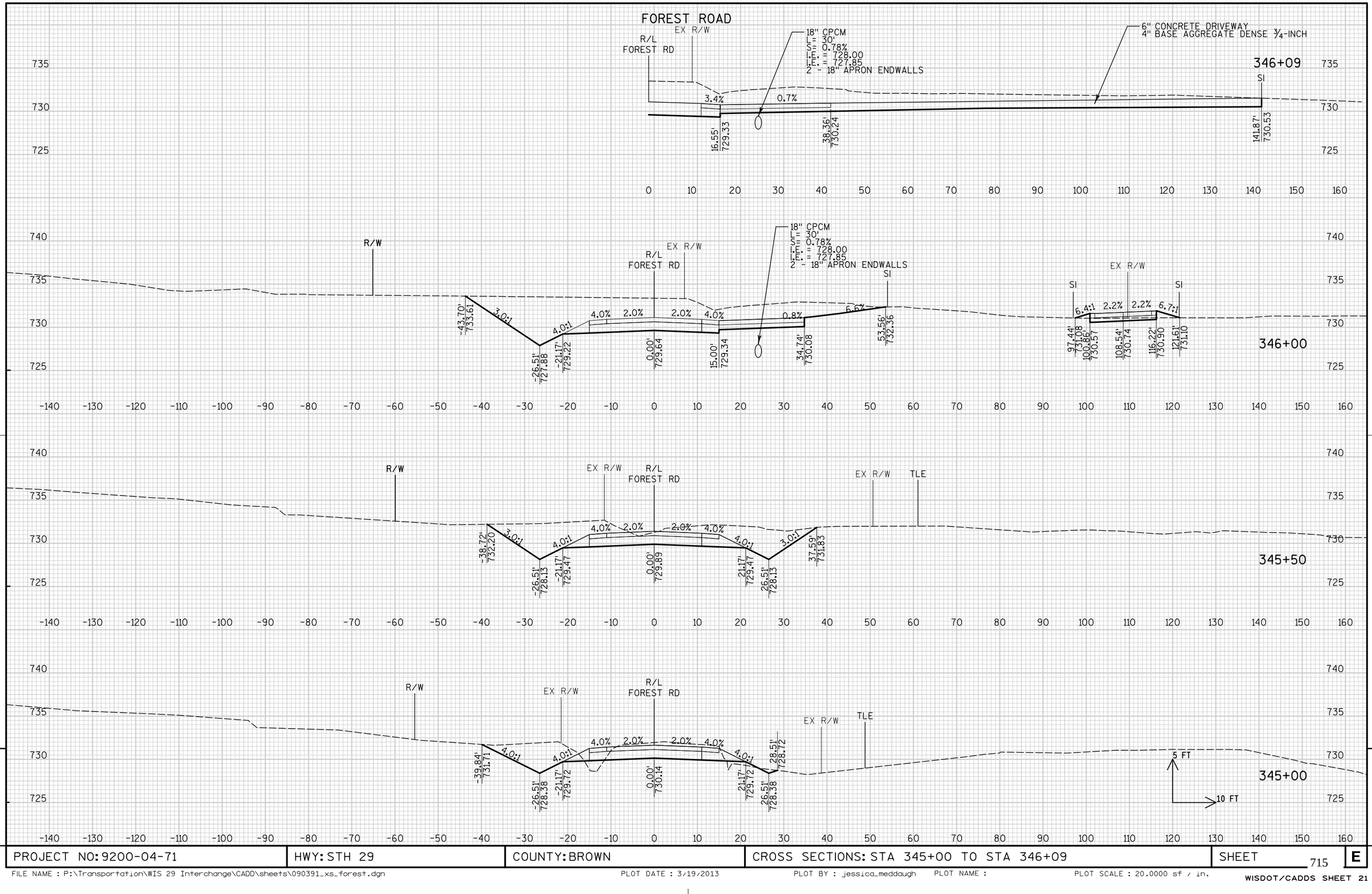
344+50

344+20

9

9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 344+20 TO STA 344+98	SHEET 714	E



9

9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 345+00 TO STA 346+09	SHEET 715	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090391_xs_forest.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

FOREST ROAD

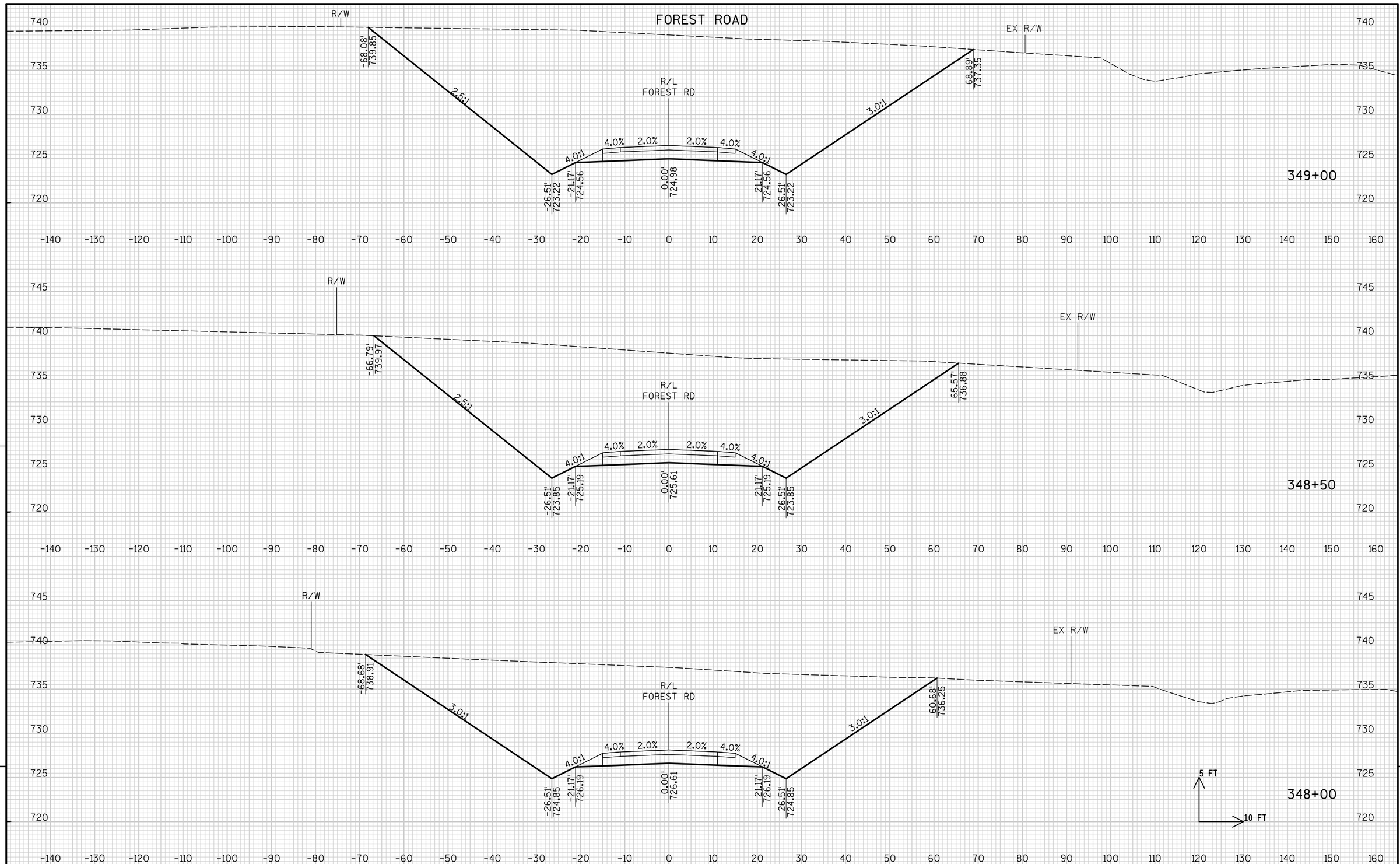
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 346+50 TO STA 347+50	SHEET 716	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090392_xs_forest.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

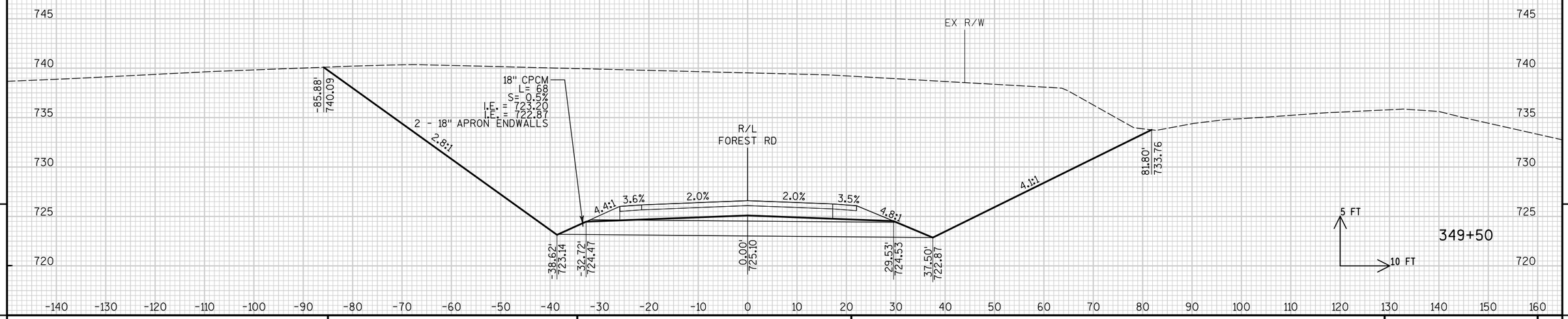


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 348+00 TO STA 349+00	SHEET 717	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090393_xs_forest.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

FOREST ROAD



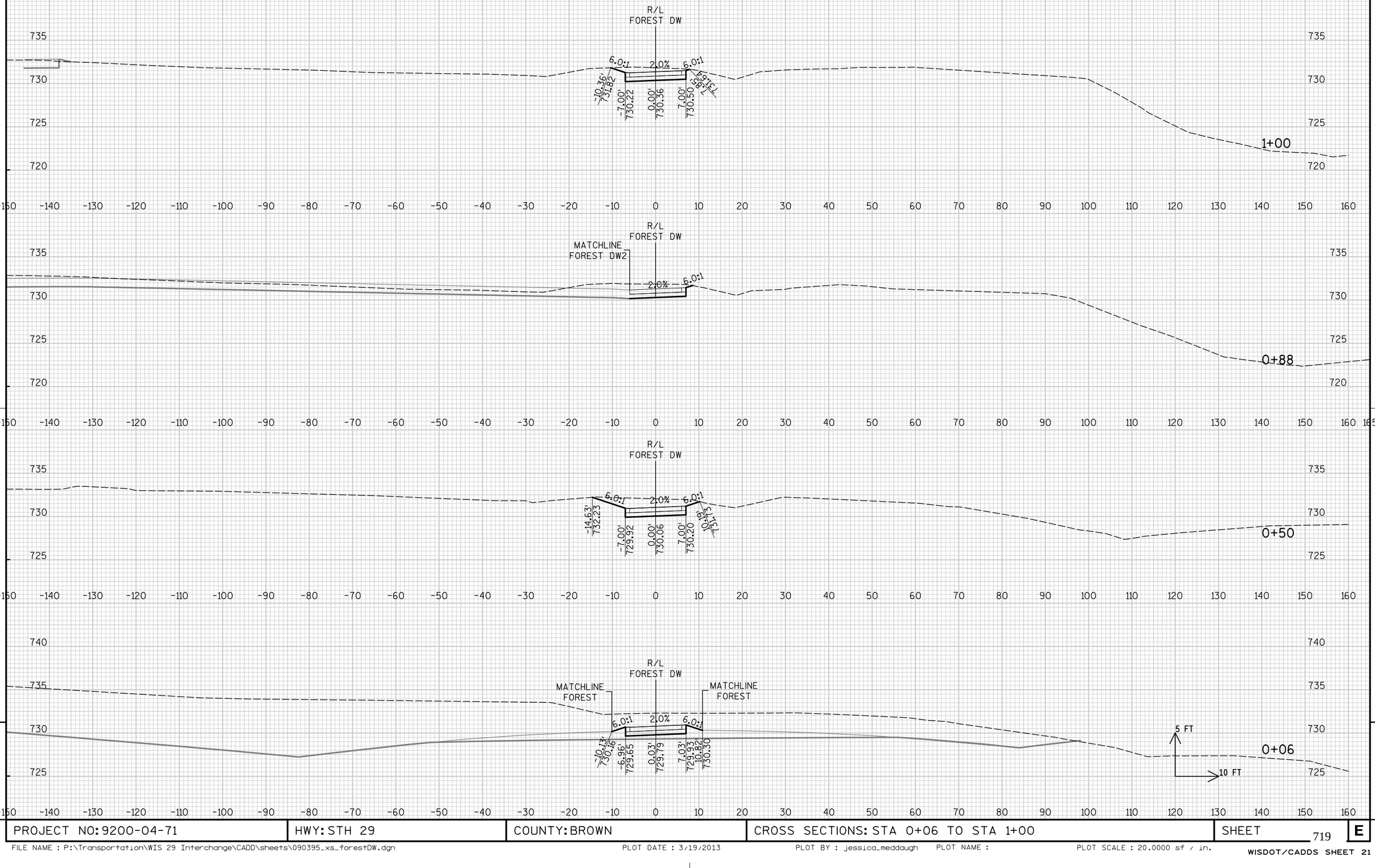
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 349+50 TO STA 349+50	SHEET 718	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090394_xs_forest.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

FOREST DRIVEWAY 1

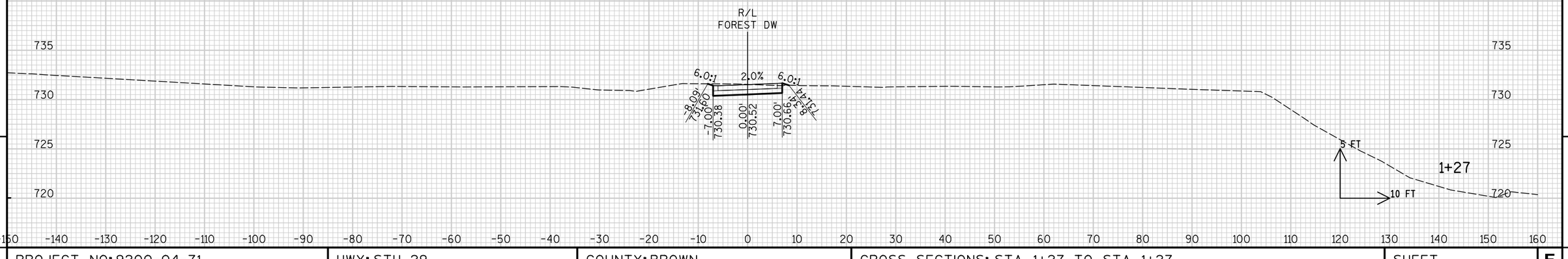


PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 0+06 TO STA 1+00	SHEET 719	E

FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090395_xs_forestDW.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

FOREST DRIVEWAY 1



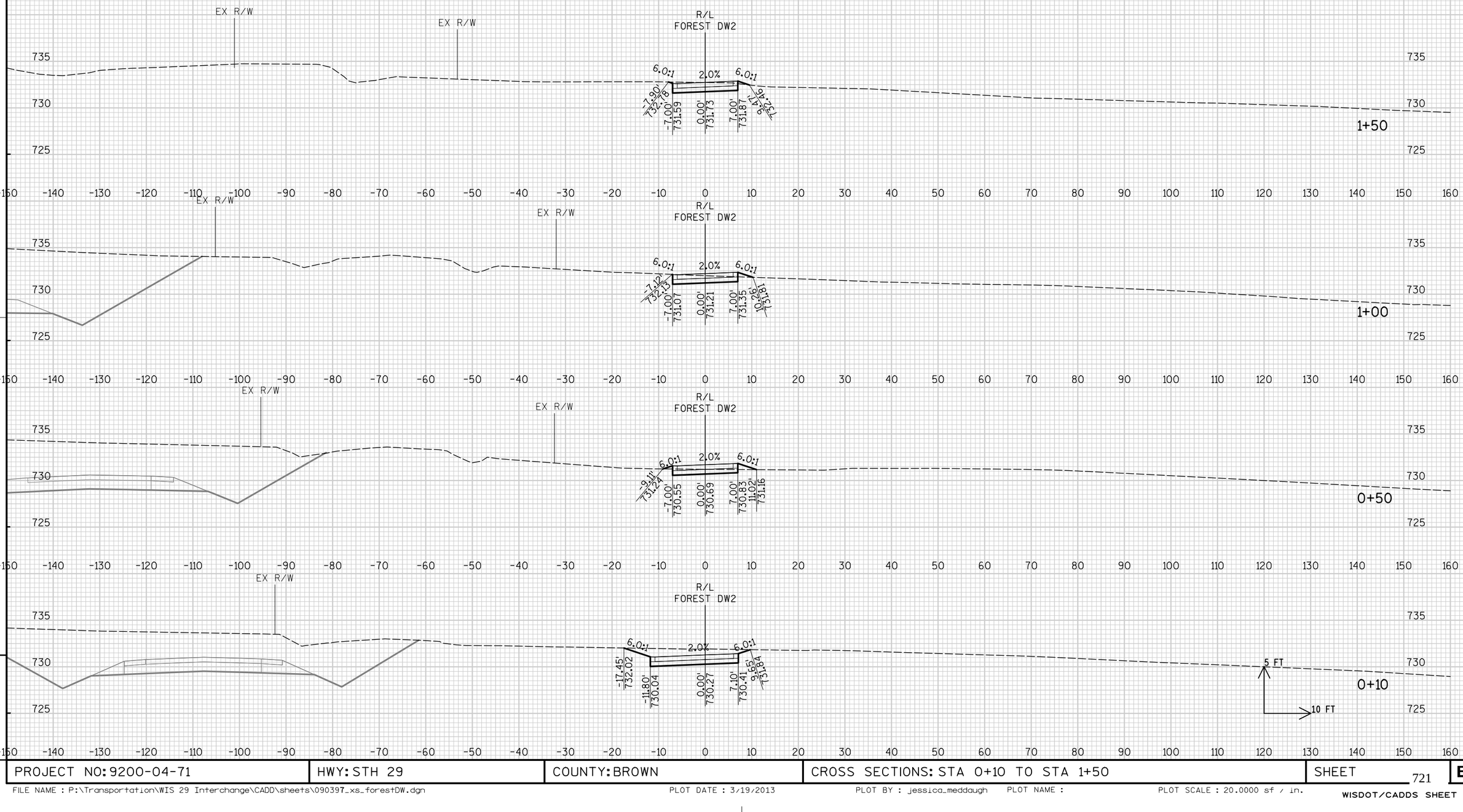
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PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 1+27 TO STA 1+27	SHEET 720	E

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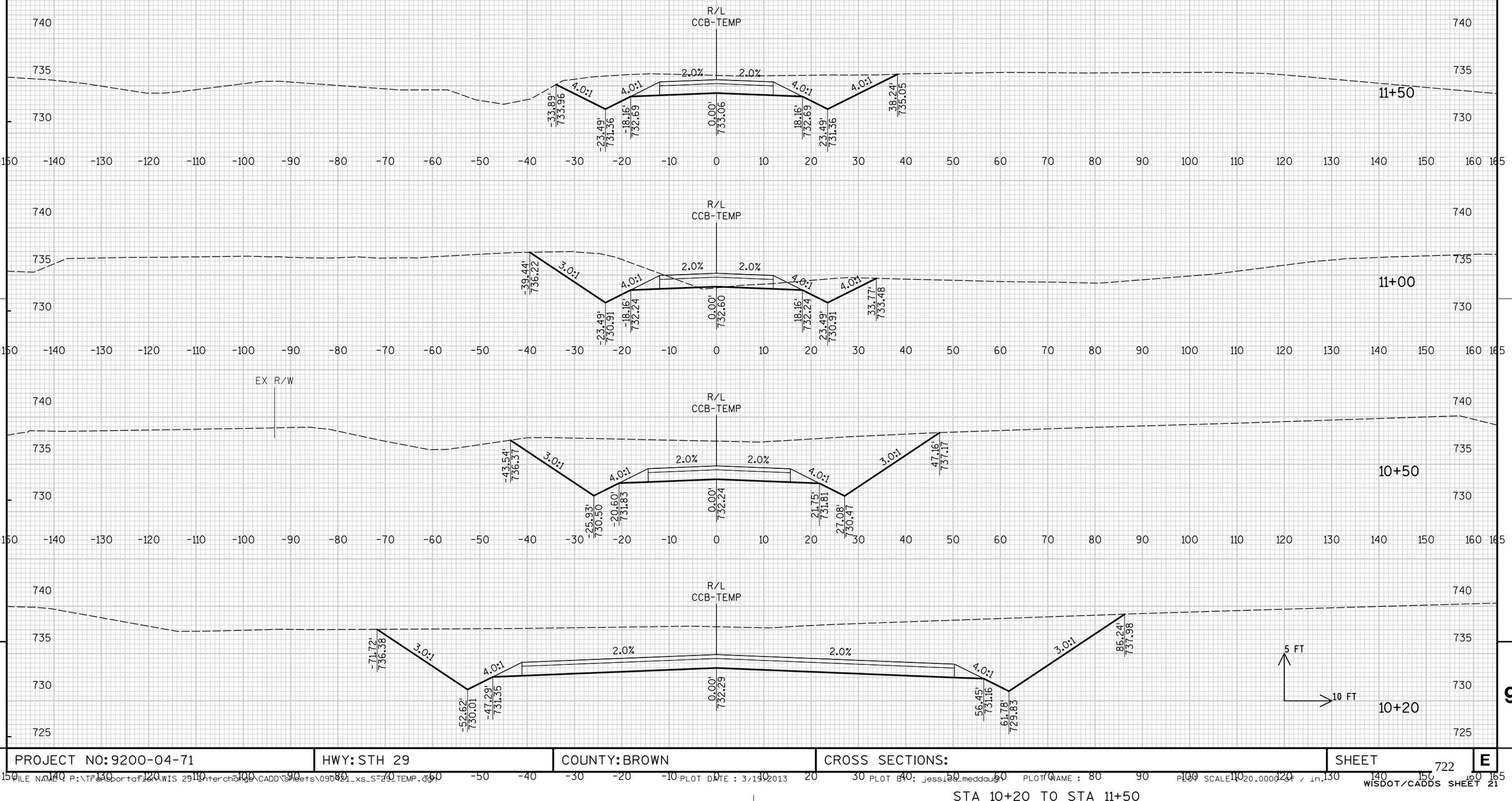
WISDOT/CADDS SHEET 21

FOREST DRIVEWAY 2



PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS: STA 0+10 TO STA 1+50	SHEET 721	E

CENTENNIAL CENTRE BOULEVARD-TEMP



9

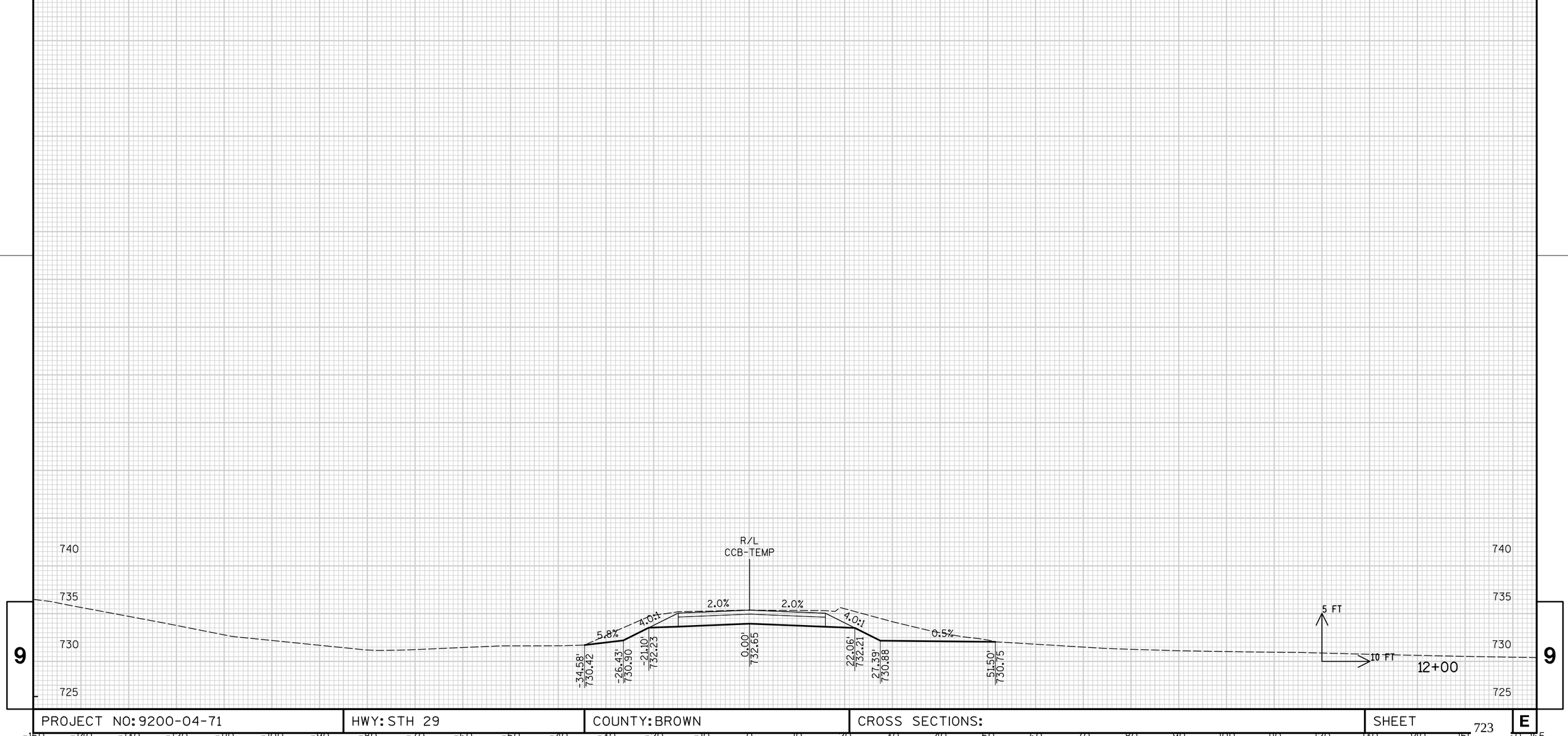
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FILE NAME : P:\Transportation\WIS 29 Interchange\CADD\sheets\090401_xs_S-29_TEMP.dgn PLOT DATE : 3/19/2013 PLOT BY : jessica.meddaugh PLOT NAME : PLOT SCALE : 20.0000 '/ in.

WISDOT/CADDS SHEET 21

STA 10+20 TO STA 11+50

CENTENNIAL CENTRE BOULEVARD TEMP



9 9

PROJECT NO: 9200-04-71	HWY: STH 29	COUNTY: BROWN	CROSS SECTIONS:	SHEET 723	E

STA 12+00 TO STA 12+00

Wisconsin Department of Transportation

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