

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

HILBERT - GREEN BAY

SOUTH COUNTY LINE - DUESTER STREET

STH 32

BROWN COUNTY

STATE PROJECT NUMBER
4085-33-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4085-33-71	WISC 2022014	1

ORDER OF SHEETS

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

TOTAL SHEETS = 230



18

DESIGN DESIGNATION 4085-33-71

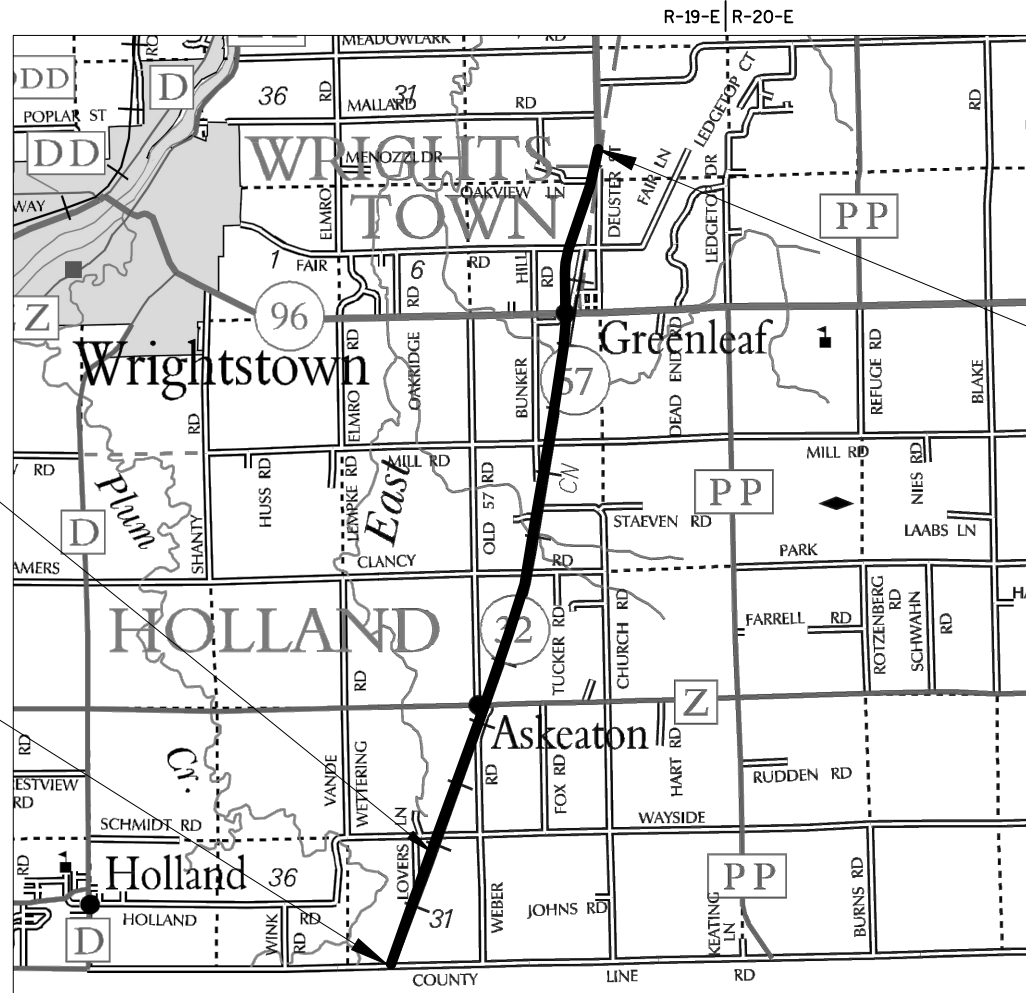
A.A.D.T. 2023	=	5100
A.A.D.T. 2043	=	5600
D.H.V.	=	611
D.D.	=	60/40
T.	=	9.6%
DESIGN SPEED	=	55 MPH
ESALS	=	1,400,000

CONVENTIONAL SYMBOLS

<p>PLAN</p> <p>CORPORATE LIMITS </p> <p>PROPERTY LINE </p> <p>LOT LINE </p> <p>LIMITED HIGHWAY EASEMENT </p> <p>EXISTING RIGHT OF WAY </p> <p>PROPOSED OR NEW R/W LINE </p> <p>SLOPE INTERCEPT </p> <p>REFERENCE LINE </p> <p>EXISTING CULVERT </p> <p>PROPOSED CULVERT (Box or Pipe) </p> <p>COMBUSTIBLE FLUIDS </p> <p>MARSH AREA </p> <p>WOODED OR SHRUB AREA </p>	<p>PROFILE</p> <p>GRADE LINE </p> <p>ORIGINAL GROUND </p> <p>MARSH OR ROCK PROFILE (To be noted as such) </p> <p>SPECIAL DITCH </p> <p>GRADE ELEVATION </p> <p>CULVERT (Profile View) </p> <p>UTILITIES</p> <p>ELECTRIC </p> <p>OVERHEAD UTILITY </p> <p>FIBER OPTIC </p> <p>GAS </p> <p>SANITARY SEWER </p> <p>STORM SEWER </p> <p>TELEPHONE </p> <p>WATER </p> <p>UTILITY PEDESTAL </p> <p>POWER POLE </p> <p>TELEPHONE POLE </p>
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NET EXCEPTION TO CL LENGTH
STA 117+35 - STA 117+77

BEGIN PROJECT
STA 61+79.34
X = 70603.0437
Y = 467006.8347



LAYOUT
SCALE 0 1.5 MILE
TOTAL NET LENGTH OF CENTERLINE = 6.818 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, BROWN COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES. ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NATIONAL AMERICAN VERTICAL DATUM OF 2012 (NAVD88).

END PROJECT
STA 422+21.77

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	WISDOT NE REGION
Surveyor	K. LORENZ
Designer	A. FULCER
Project Manager	D. SEGERSTROM
Regional Examiner	
Regional Supervisor	
APPROVED FOR THE DEPARTMENT	
DATE: 7/19/2021	 (Signature)

E

PROJECT ID: 4085-33-71

COUNTY: BROWN

WITH: N/A

GENERAL NOTES

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

UTILITIES

COMMUNICATIONS

AT&T WISCONSIN
JOSEPH KASSAB
205 S JEFFERSON ST
GREEN BAY, WI 54301
PHONE: 920-735-3206
EMAIL: JK572K@ATT.NET

CENTURYLINK
KEVIN ZICKERT
224 INDUSTRIAL DR
NORTH PRAIRIE, WI 53153
PHONE: 262-392-5200
EMAIL: KEVIN.ZICKERT@CENTURYLINK.COM

TDS TELECOM
STEVE JAKUBIEC
10 COLLEGE AVENUE
APPLETON, WI 54911
PHONE: 920-882-4166
EMAIL: STEVE.JAKUBIEC@TDSTELECOM.COM

CHARTER COMMUNICATIONS
VINCENT ALBIN
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APPLETON, WI 54915
PHONE: 920-831-9249
EMAIL: VINCE.ALBIN@CHARTER.COM

ELECTRICITY

ATC MANAGEMENT, INC.
MIKE OLSEN
801 O'KEEFE ROAD
P.O. BOX 6113
PHONE: 920-338-6582
EMAIL: MOLSEN@ATCLLC.COM

WISCONSIN PUBLIC SERVICE CORP.
RANDY STEIER
2850 S ASHLAND AVENUE
GREEN BAY, WI 54304
PHONE: 920-617-5167

GAS/PETROLEUM

WISCONSIN PUBLIC SERVICE CORP.
DAVE RETZLAFF
2850 S ASHLAND AVENUE
GREEN BAY, WI 54307
PHONE: 920-617-5237
EMAIL: DPRETZLAFF@WISCONSINPUBLICSERVICE.COM

SEWER/WATER

WRIGHTSTOWN SANITARY DISTRICT #1
TODD WEYENBERG
1250 CENTENNIAL CENTRE BLVD
HOBART, WI 54155
PHONE: 920-662-9641
EMAIL: TWEYENBERG@RELEEINC.COM

DNR AREA LIASION

JIM DOPERALSKI
DEPARTMENT OF NATURAL RESOURCES
NORTHEAST REGION
2984 SHAWANO AVE
GREEN BAY, WI 54313
920-412-0165
JAMES.DOPERALSKI@WISCONSIN.GOV

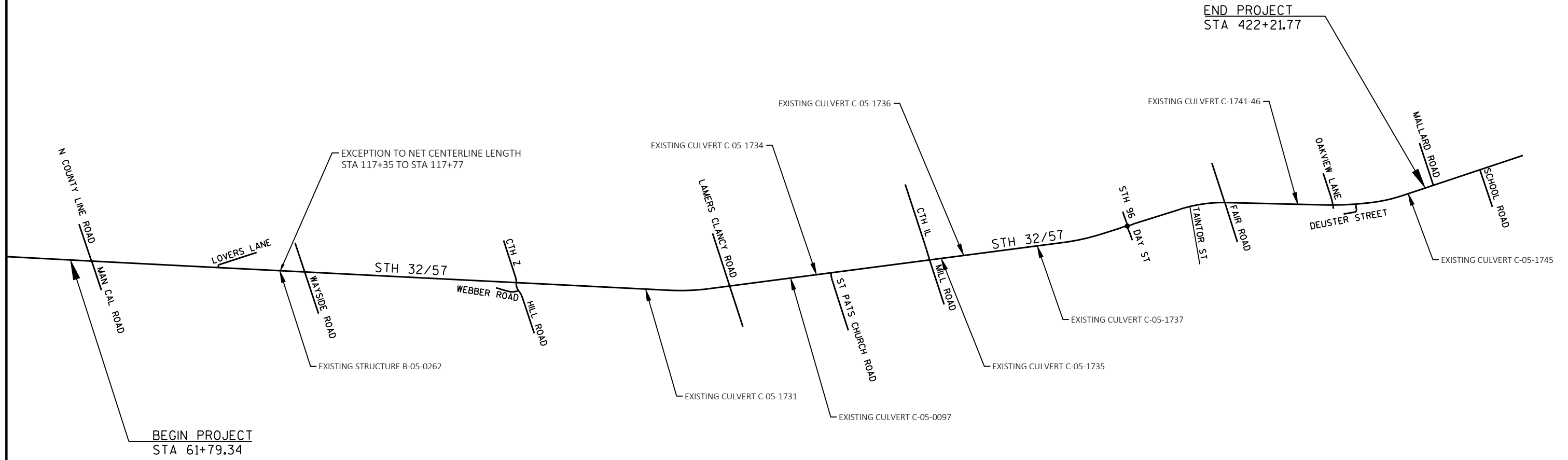
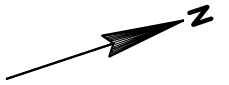
COUNTY SURVEYOR OR SURVEYS CONTACT PERSON

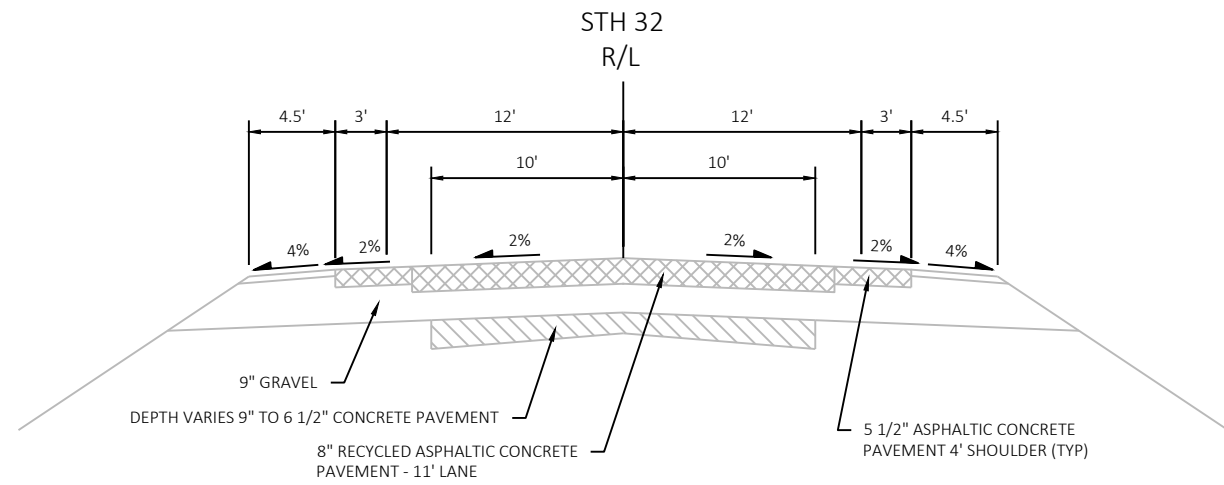
CONTACT: CORMAC MCINNIS
NORTHEAST REGION SURVEY COORDINATOR
944 VANDERPERREN WAY
GREEN BAY, WI 54304
920-492-5638
CORMAC.MCINNIS@DOT.WI.GOV

WISDOT CONTACT PERSON

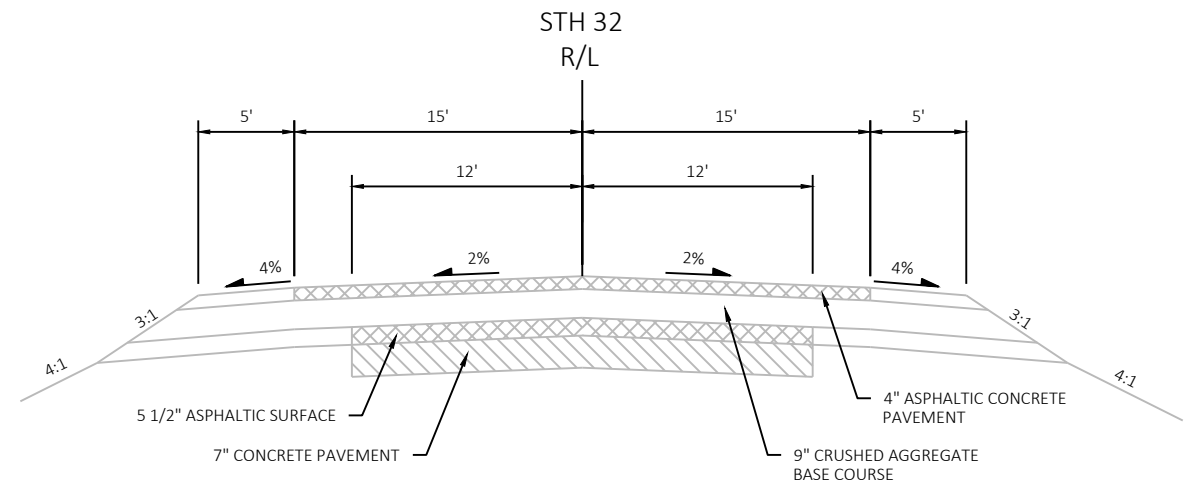
CONTACT: ANDREW FULCER, P.E.
NORTHEAST REGION PROJECT MANAGER
944 VANDERPERREN WAY
GREEN BAY, WI 54304
920-362-6162
ANDREW.FULCER@DOT.WI.GOV



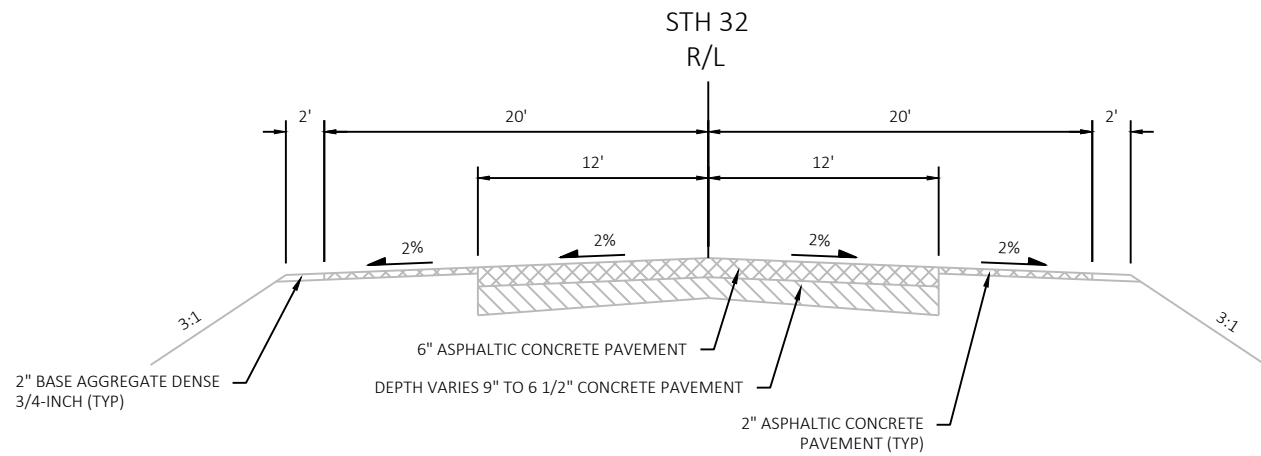




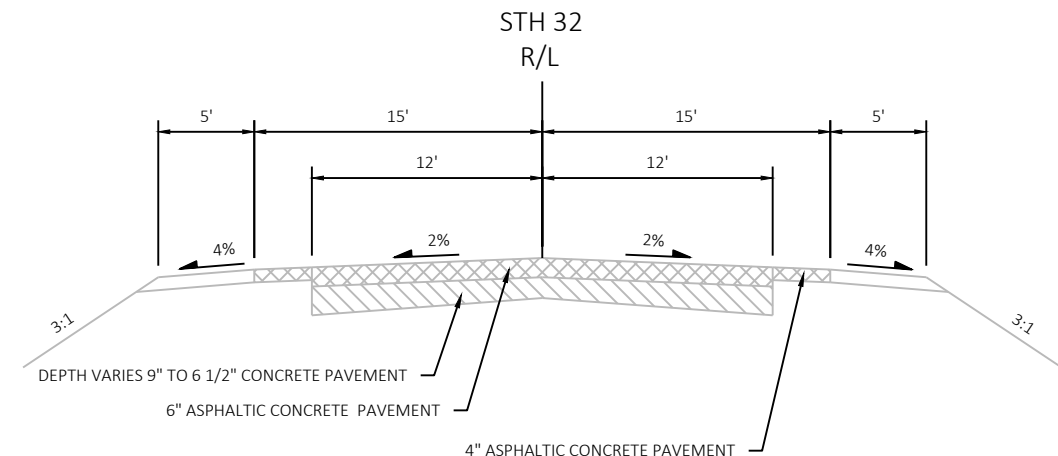
EXISTING TYPICAL CROSS SECTION STH 32
STA 61+79 TO STA 167+18



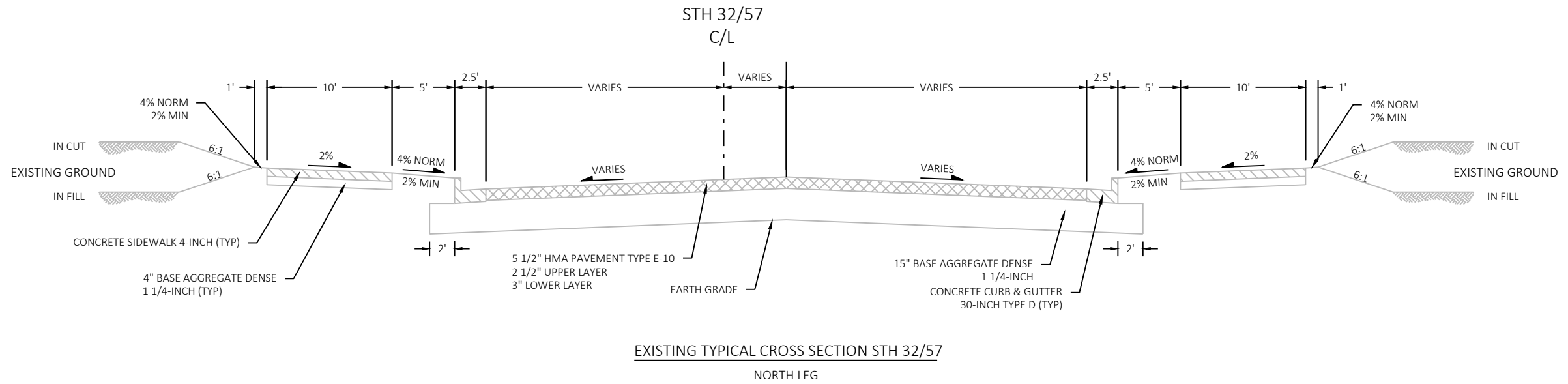
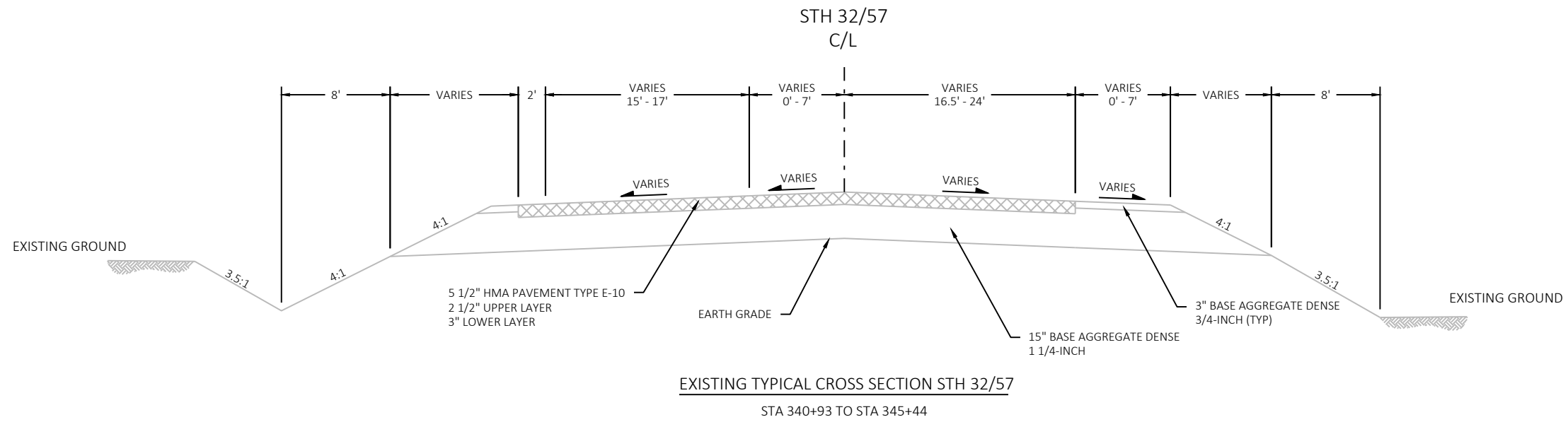
EXISTING TYPICAL CROSS SECTION STH 32
STA 167+18 TO STA 340+93

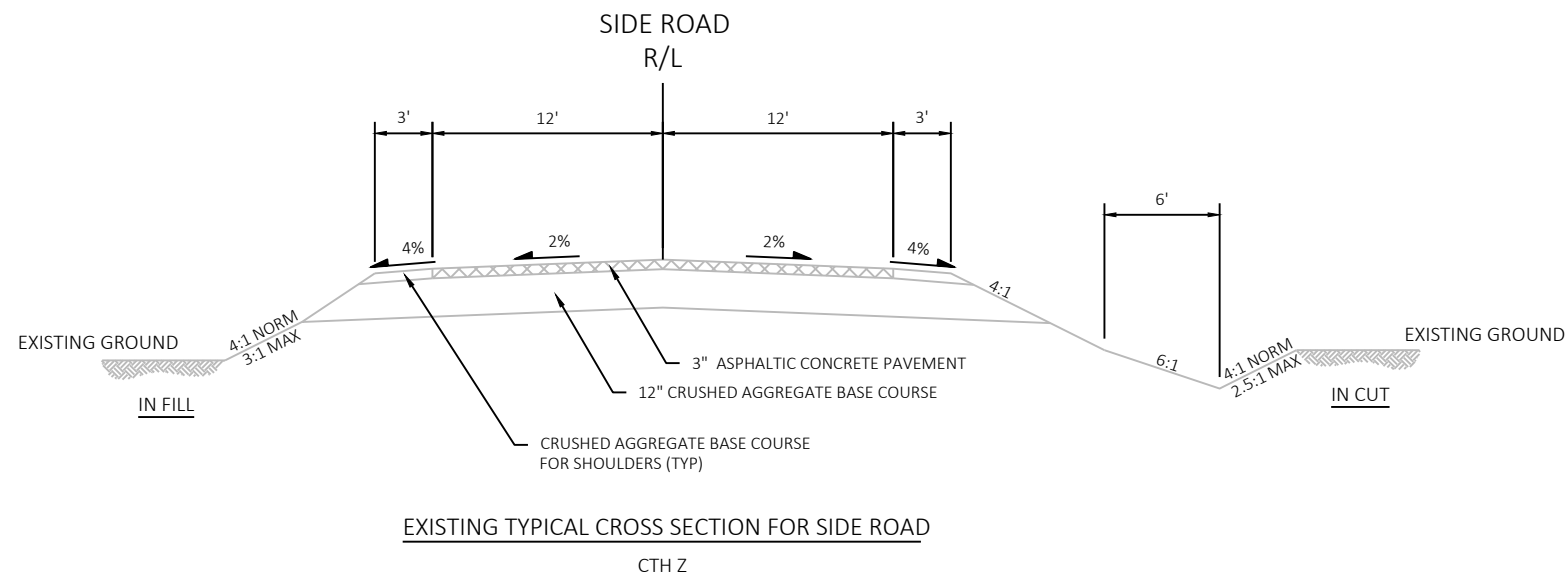
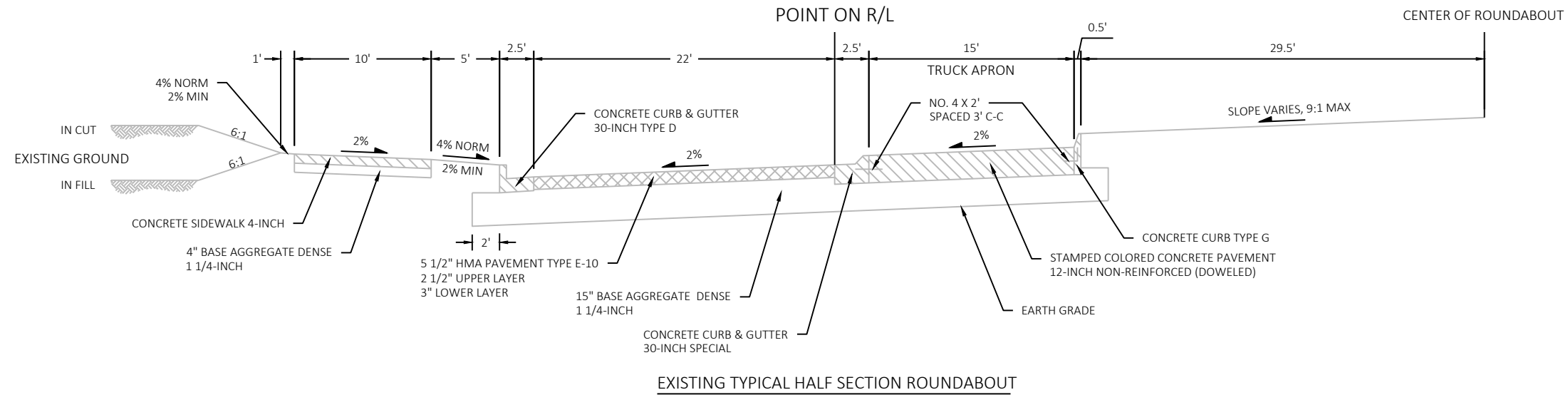


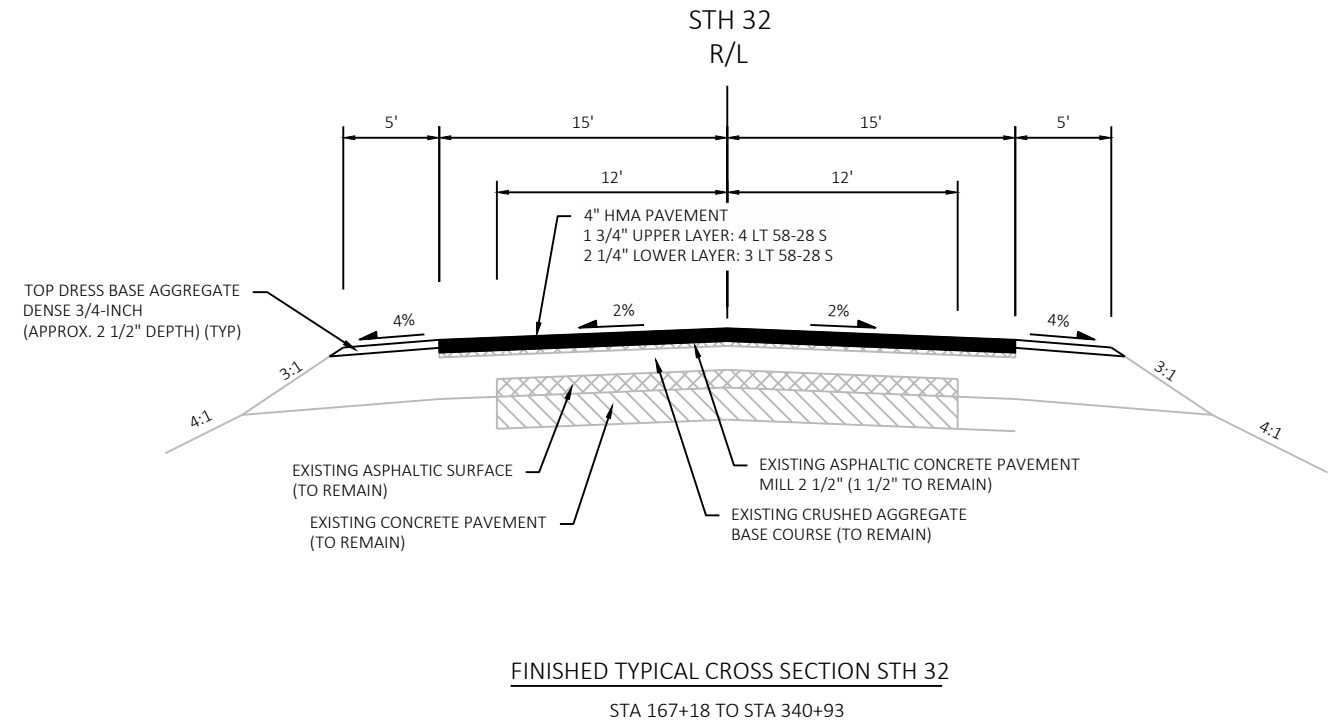
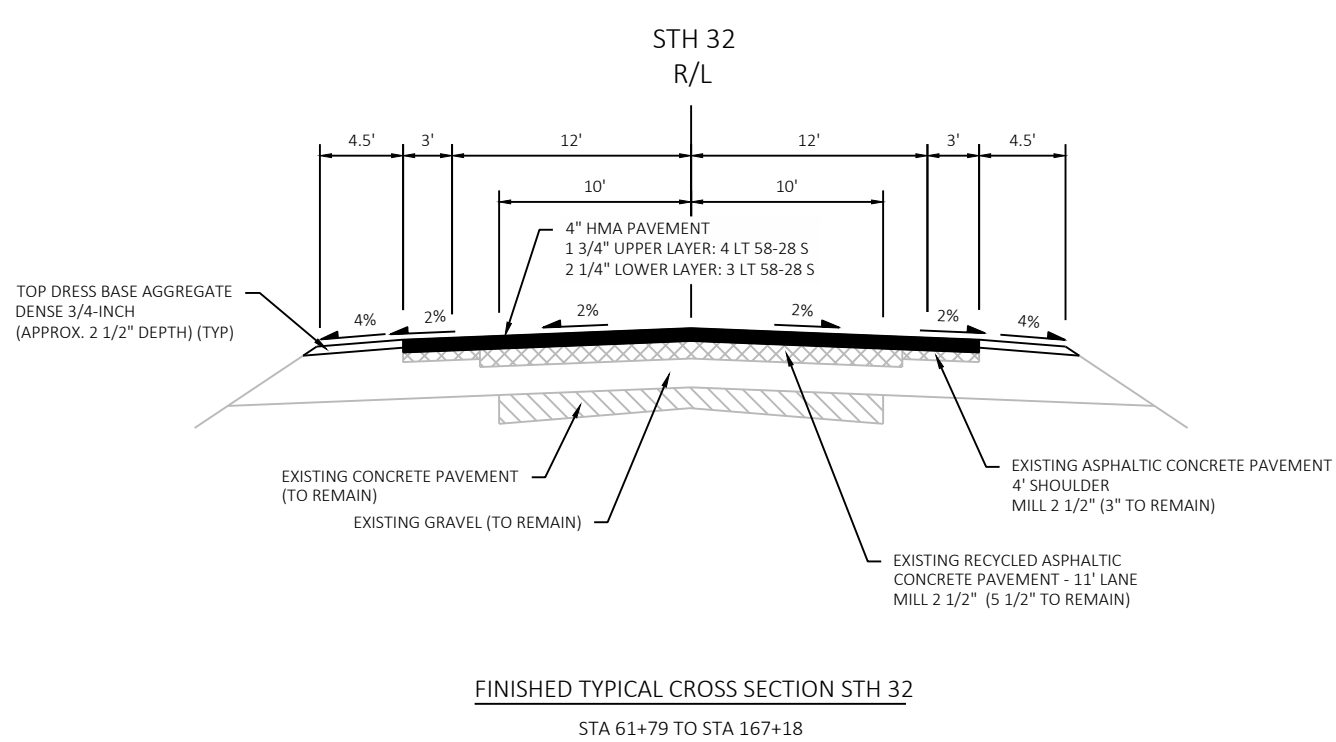
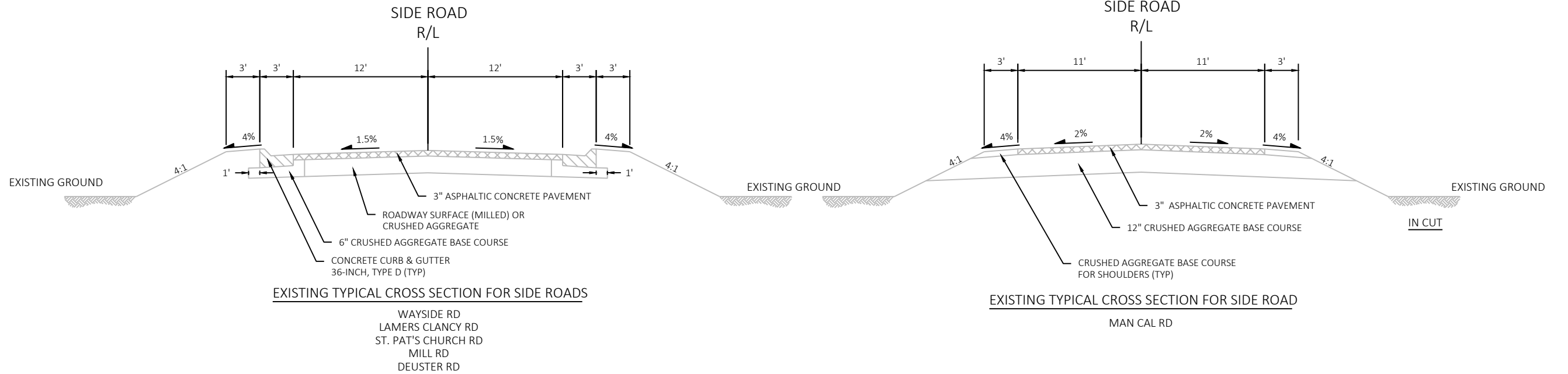
EXISTING TYPICAL CROSS SECTION STH 32
STA 345+44 TO STA 369+98

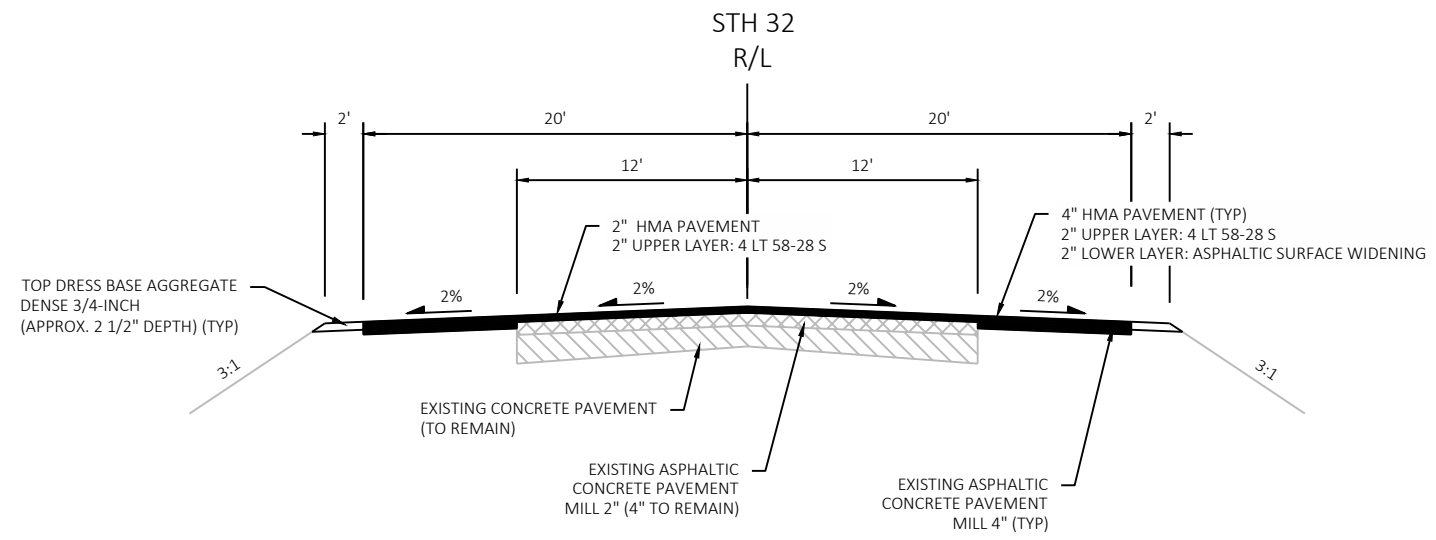


EXISTING TYPICAL CROSS SECTION STH 32
STA 369+98 TO STA 417+90

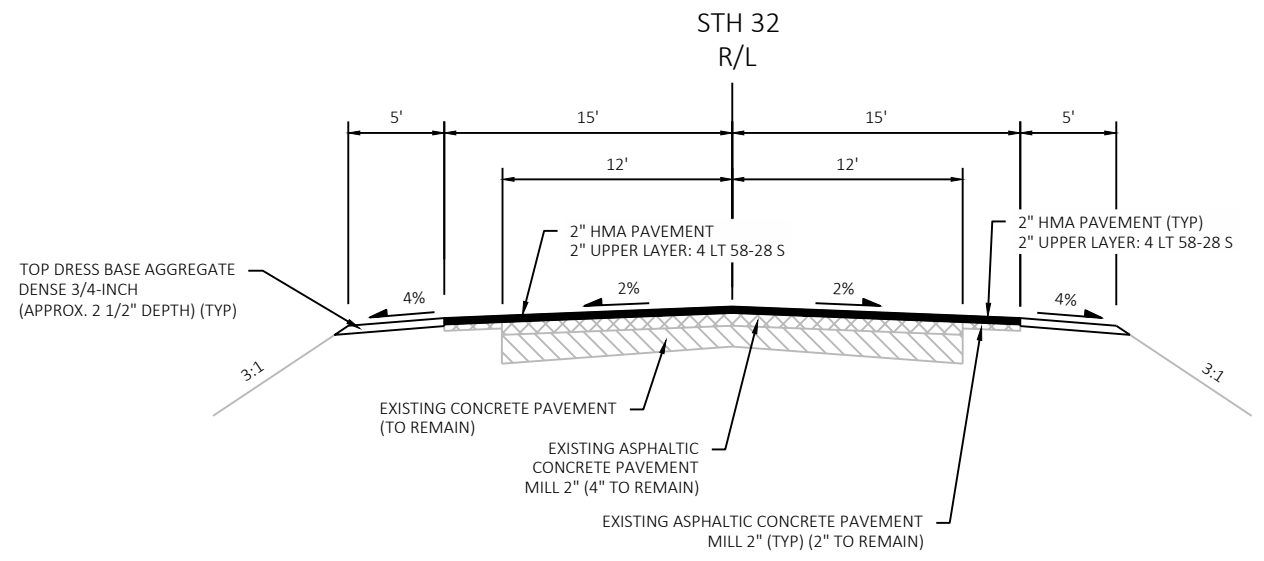




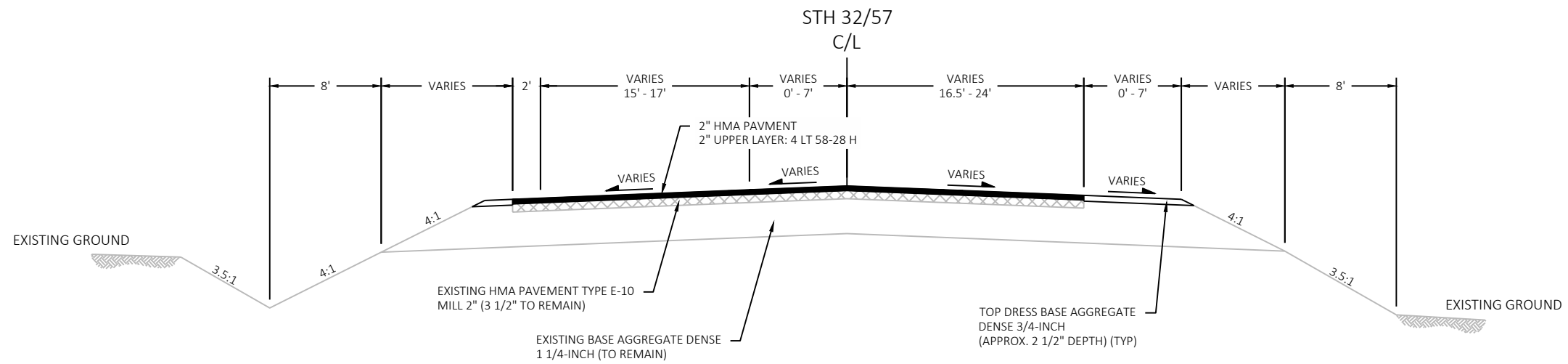




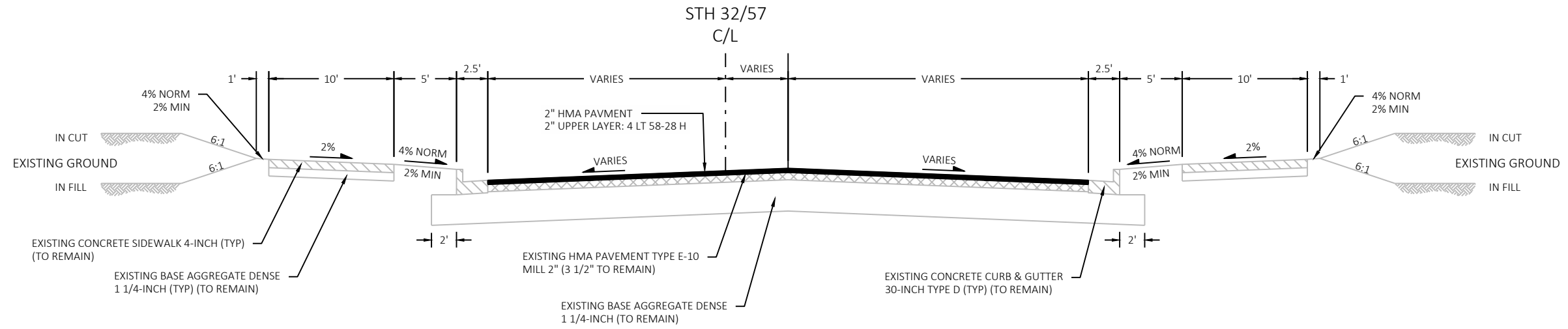
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STA 345+44 TO STA 369+98



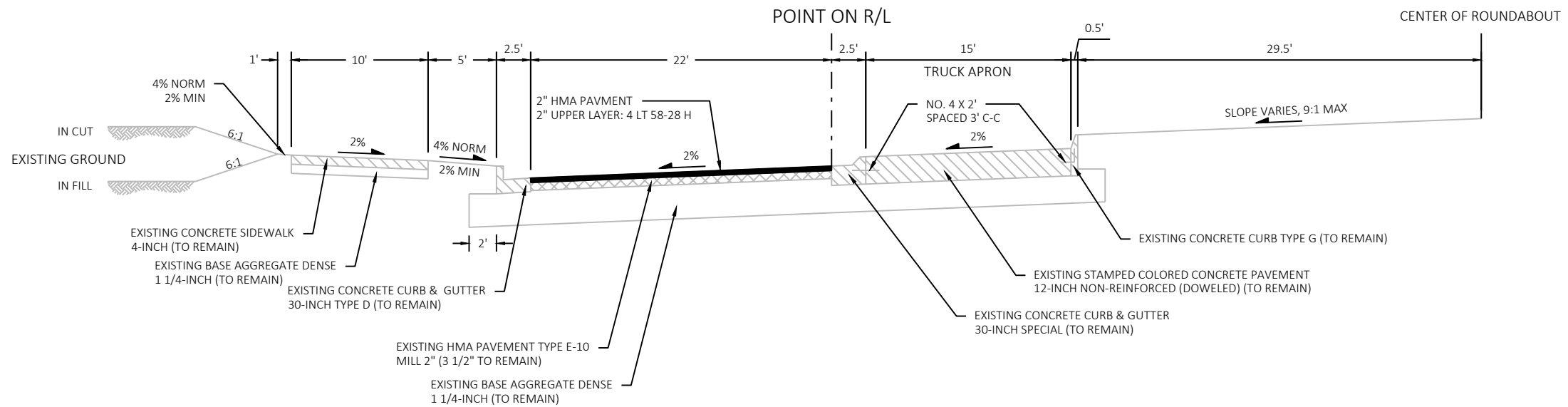
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STA 369+98 TO STA 417+90



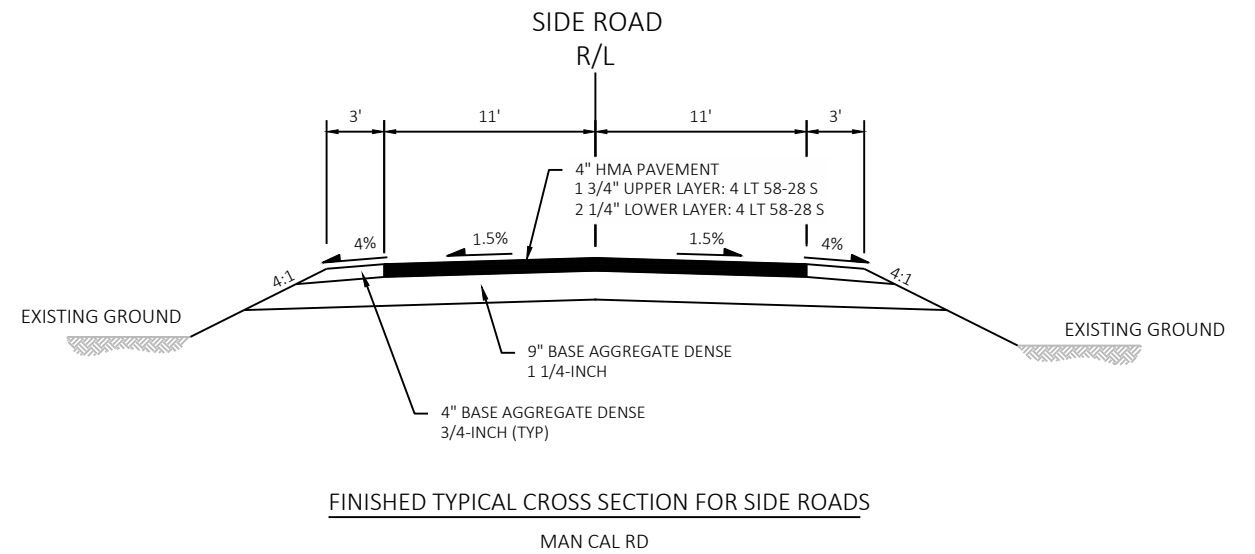
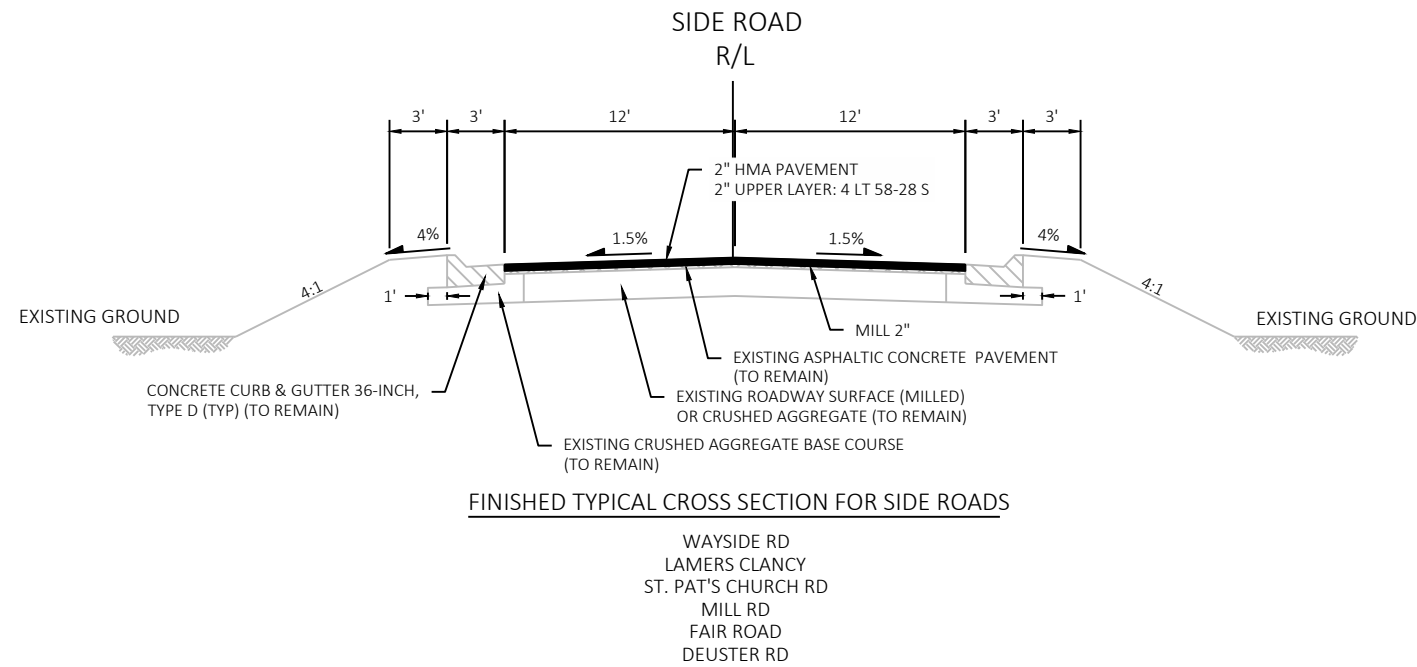
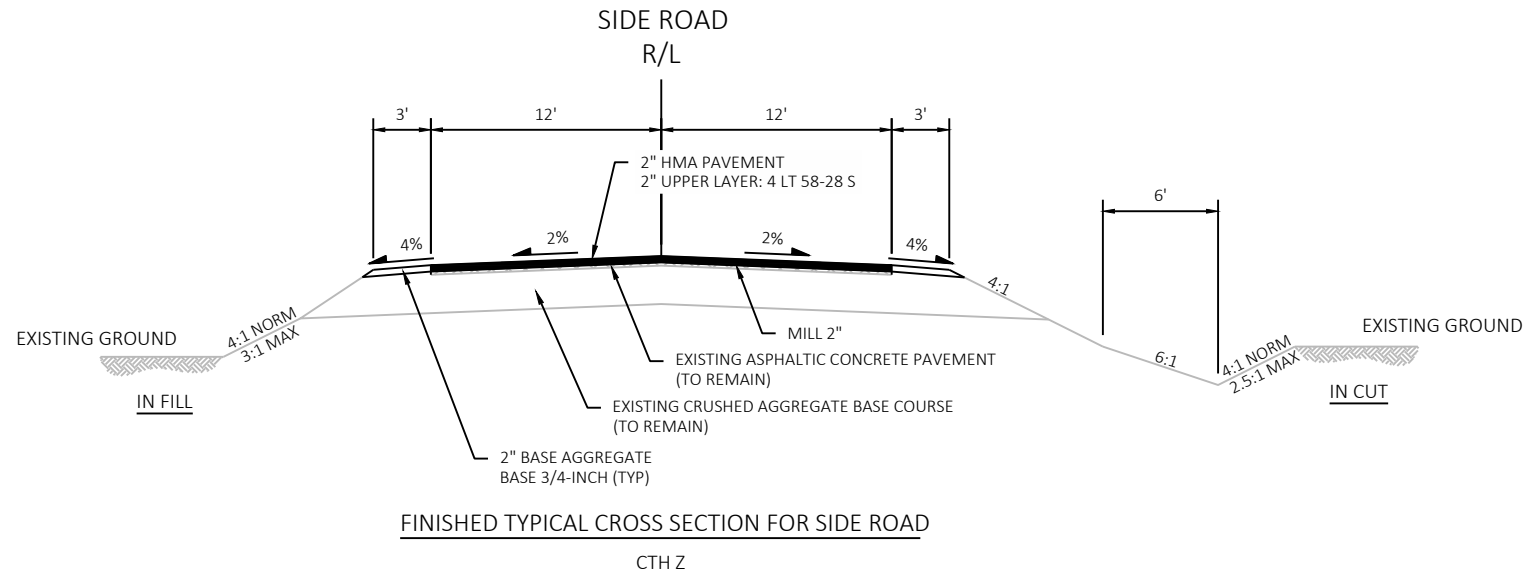
FINISHED TYPICAL CROSS SECTION STH 32/57
STA 340+93 TO STA 345+44

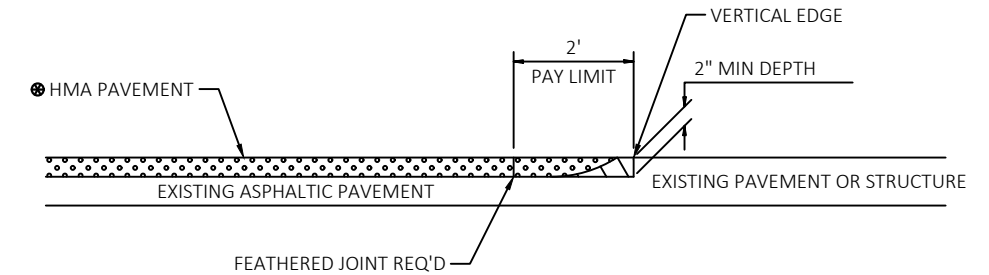
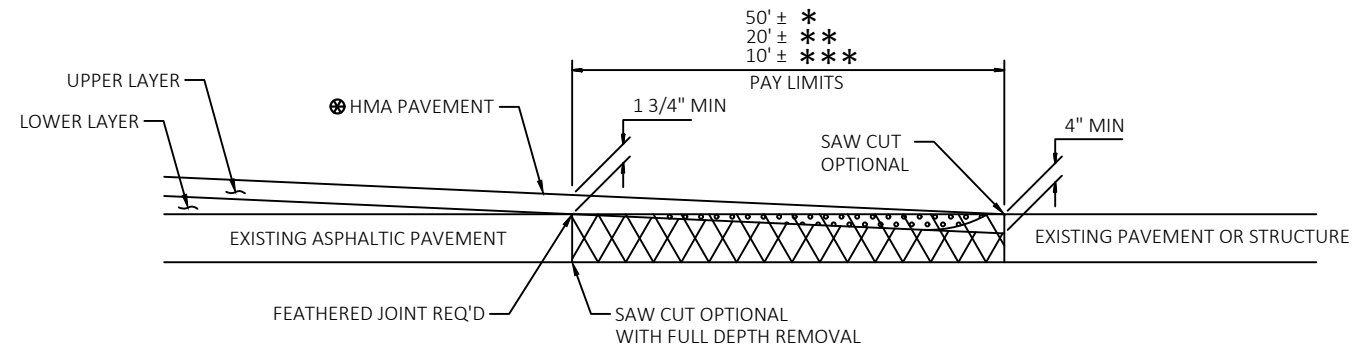


FINISHED TYPICAL CROSS SECTION STH 32/57
NORTH LEG



FINISHED TYPICAL HALF SECTION ROUNDABOUT





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

- REMOVING ASPHALTIC SURFACE, BUTT JOINTS (FULL DEPTH REMOVAL OPTIONAL)
- ASPHALTIC WEDGING (FULL DEPTH REMOVAL OPTION)
- REMOVING ASPHALTIC SURFACE, BUTT JOINTS (MILLING OPTION)

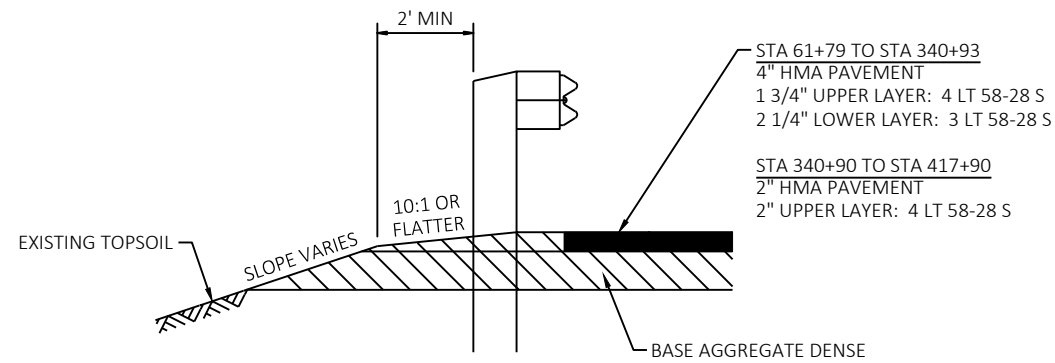
BUTT JOINT DETAIL FOR NON MILLED ASPHALTIC PAVEMENTS (PROFILE CHANGE)

- * MAINLINE
- ** SIDEROADS
- *** PRIVATE ENTRANCES

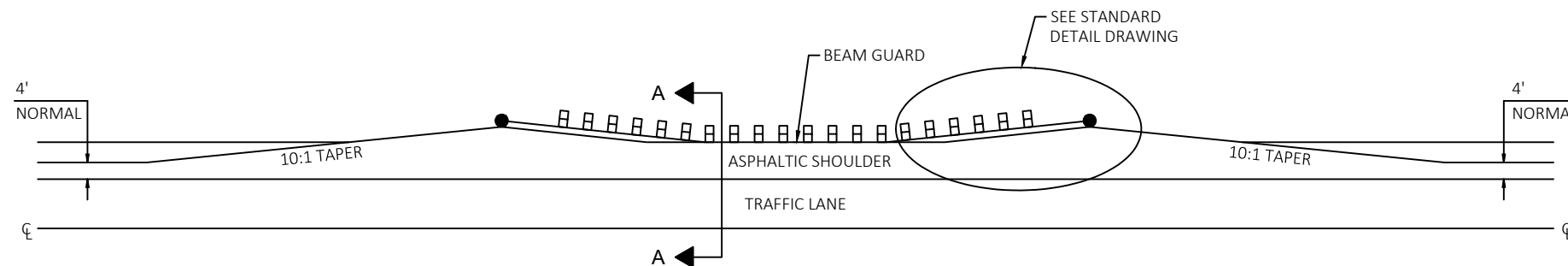
SEE TYPICAL CROSS SECTION FOR PAVEMENT TYPE AND THICKNESS OF INDIVIDUAL LAYERS

- REMOVING ASPHALTIC SURFACE, MILLING
- REMOVE ASPHALTIC SURFACE WEDGE AT BUTT JOINT TO CREATE VERTICAL EDGE

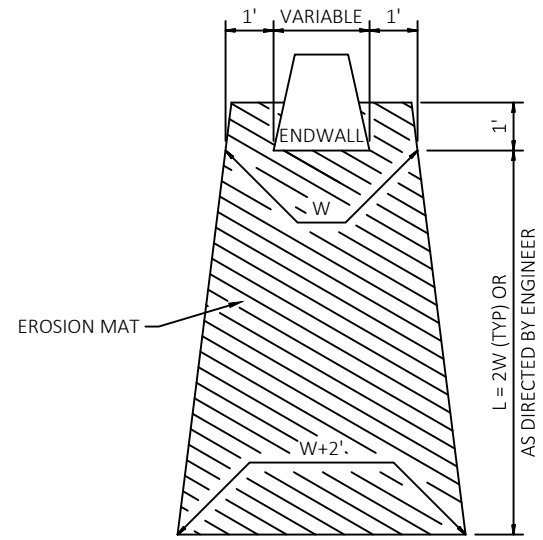
BUTT JOINT DETAIL FOR ASPHALTIC PAVEMENTS (NO PROFILE CHANGE)



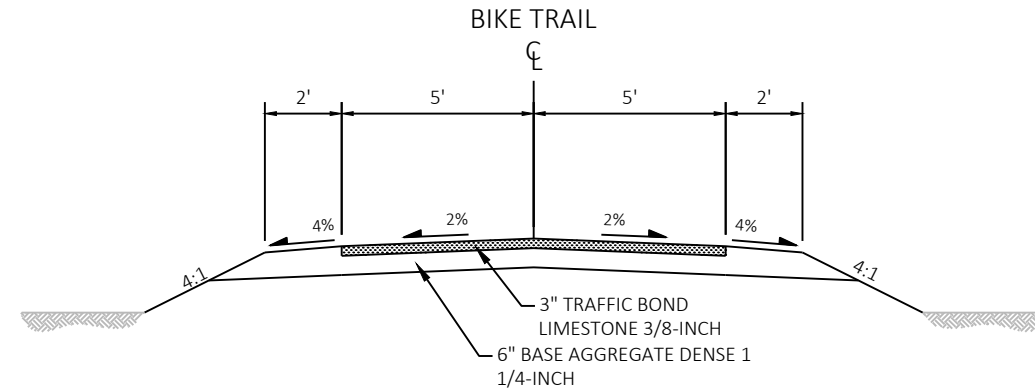
SECTION A-A



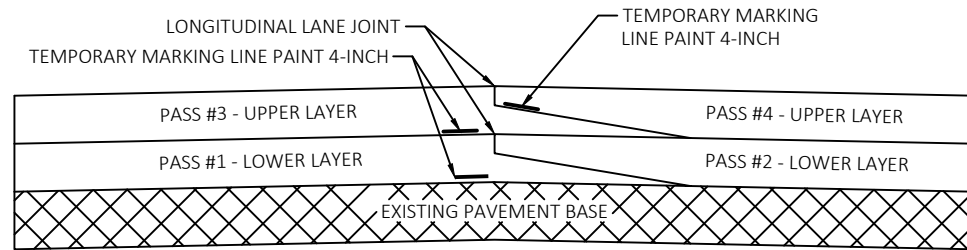
DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD



EROSION MAT TREATMENT AT CULVERTS

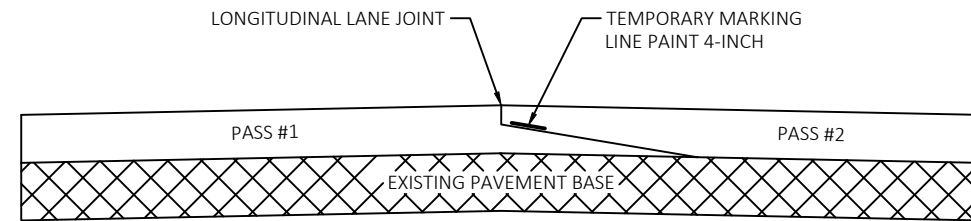


TYPICAL SECTION FOR BIKE TRAIL



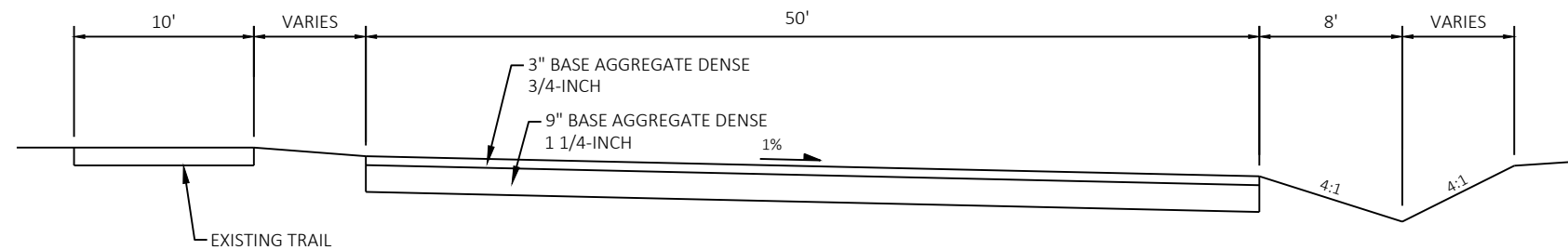
PAVEMENT MARKING DETAIL FOR TAPERED OVERLAPPING JOINTS IN HMA PAVEMENTS

STA 61+79 - STA 340+93



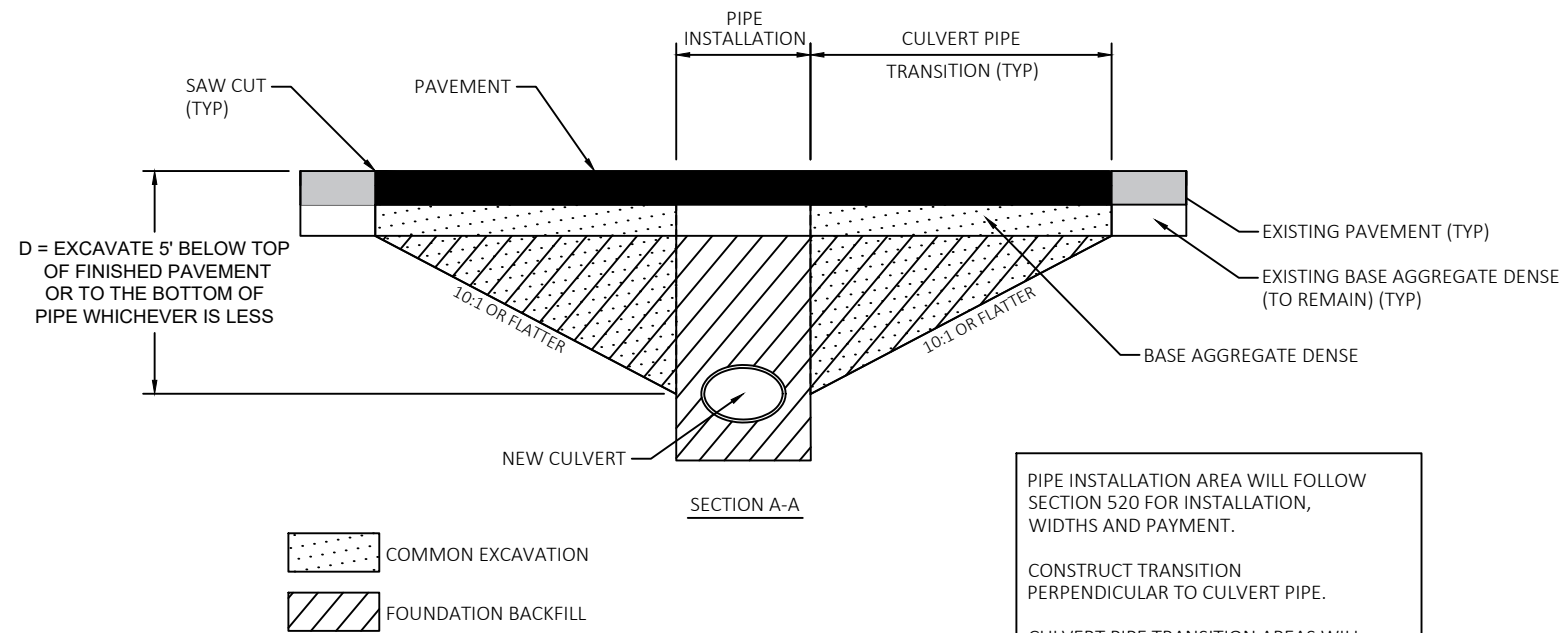
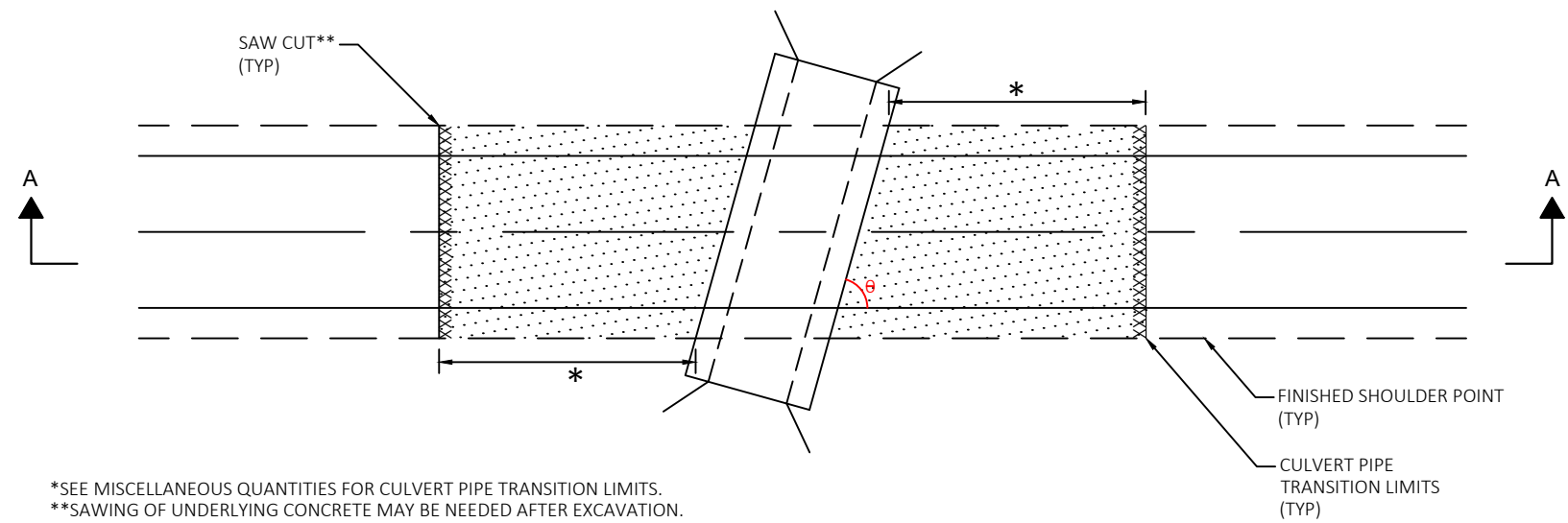
PAVEMENT MARKING DETAIL FOR TAPERED OVERLAPPING JOINTS IN HMA PAVEMENTS

STA 345+44 - STA 417+90



PROPOSED PARKING AREA

NOTE:
REMOVE ASPHALT AND VERIFY EXISTING BASE DEPTH.



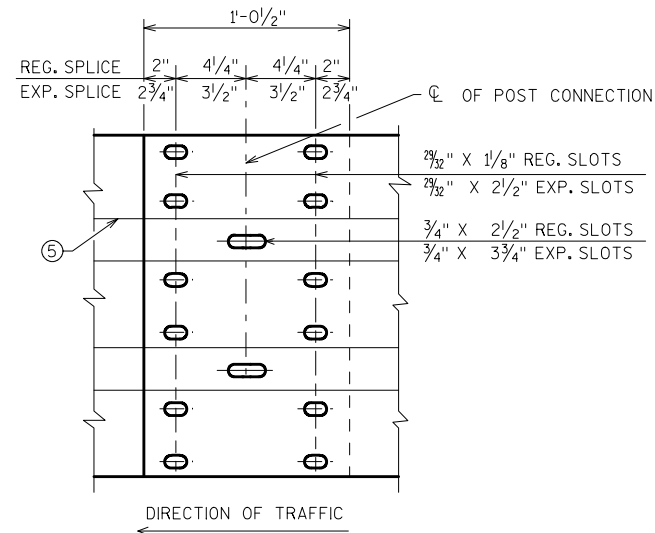
PIPE INSTALLATION AREA WILL FOLLOW SECTION 520 FOR INSTALLATION, WIDTHS AND PAYMENT.

CONSTRUCT TRANSITION PERPENDICULAR TO CULVERT PIPE.

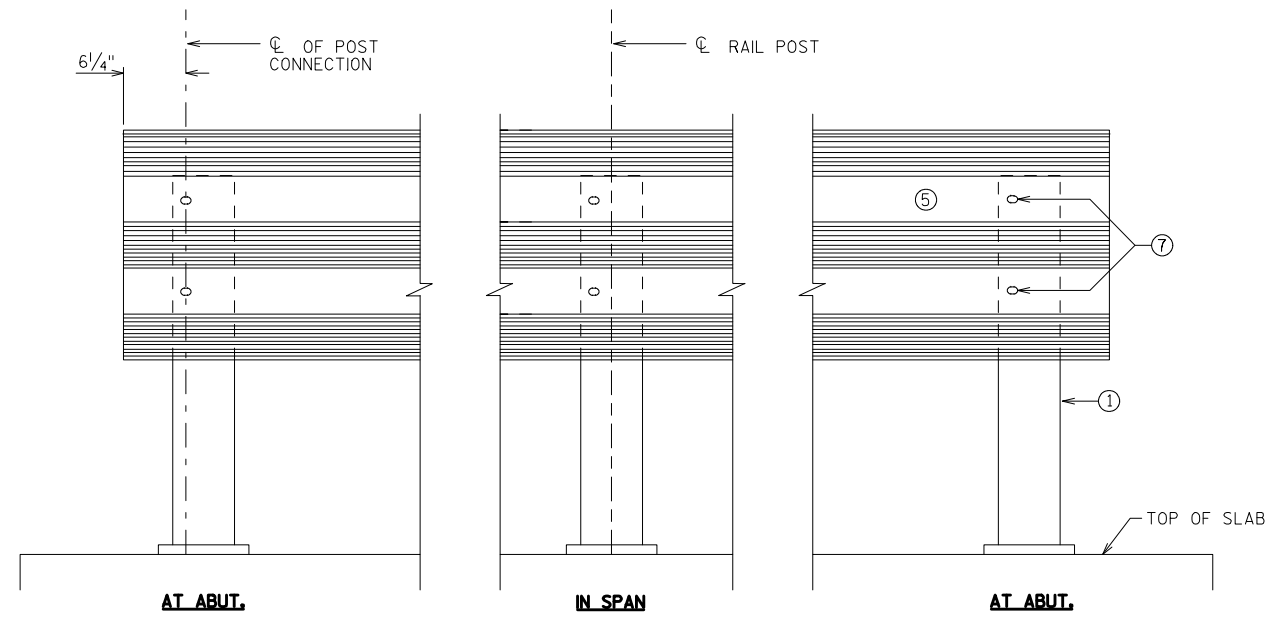
CULVERT PIPE TRANSITION AREAS WILL BE PAID BY COMMON EXCAVATION & SPV FOUNDATION BACKFILL.

PAVEMENT SAW CUT TO BE PERPENDICULAR TO ROADWAY ALIGNMENT.

NEW CULVERT PIPES WITH TRANSITION



RAIL MEMBER SPLICE
5/8" DIA. BUTTON HEAD OVAL SHOULDER BOLTS WITH HEX NUTS AT ALL SLOTS.



ELEVATION

LEGEND

- ① EXISTING W6 X 25. DRILL (2) 3/4" DIA. HOLES FOR BOLT NO. 7
- ② EXISTING C8 X 11.5. WITH 13/16" DIA. HOLES, ATTACH TO NO.4 WITH BOLTS NO. 8
- ③ EXISTING PLATE 1/2" X 5 3/4" X 6" WITH 1/4" DIA. HOLE FOR BOLTS NO. 8
- ④ STRUCTURAL TUBE 6" X 4" X 3/8" WITH 13/16" DIA. HOLES, 6" LONG, ATTACH TO NO. 3 WITH BOLTS NO. 8
- ⑤ NEW THRIE BEAM. ATTACH TO NO.1 WITH BOLTS NO. 7
- ⑥ 1 3/4" X 3" MOUNTING BOLT WASHER, EIGHT GAGE GALVANIZED.
- ⑦ 5/8" DIA. BUTTON HEAD RAIL MOUNTING BOLT WITH ROUND WASHER AND NUT, 2 PER POST.
- ⑧ 5/8" DIA. X 2" LG. HEX. BOLTS WITH NUT AND TWO WASHERS EACH, 4 REQUIRED PER POST CONNECTION, 8 REQUIRED PER SPLICE CONNECTION.
- ⑨ EXISTING PLATE 1/2" X 5 3/4" X 11 1/2" WITH 1/4" DIA. HOLES FOR BOLTS NO. 8.

NOTES

BID ITEM SHALL BE "RAILING STEEL TYPE "W" MODIFIED, B-05-262" WHICH SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY TO RAISE ITEMS NO.2 & NO.5 BETWEEN THE LONGIT. LIMITS OF RAILING AS SHOWN IN ELEVATION.

ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A709 GRADE 36 UNLESS NOTED OTHERWISE.

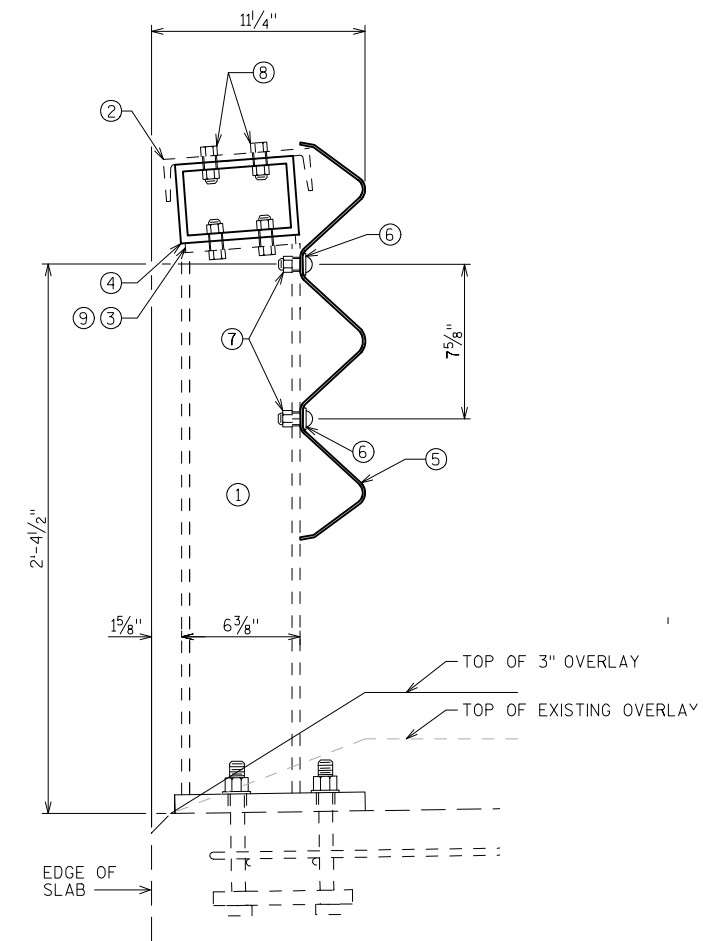
SHIM PLATES 6" X 1/16" X 6" MAY BE USED BETWEEN TOP OF POST AND CHANNEL MEMBER TO ACHIEVE VERTICAL ALIGNMENT.

ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION.

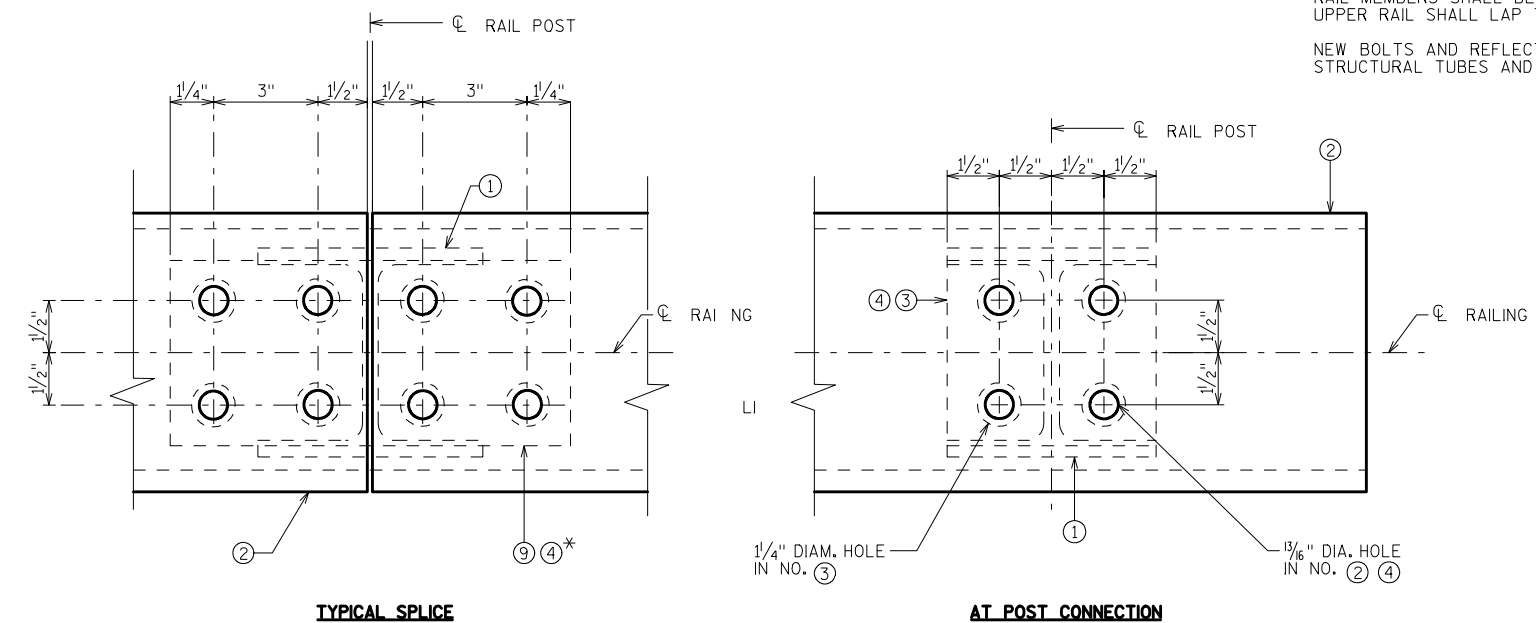
PRIOR TO GALVANIZING, ALL STEEL STRUCTURAL TUBE SHALL BE GIVEN A NO.6 BLAST CLEANING BY S.S.P.C SPECIFICATIONS.

RAIL MEMBERS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC AND THE UPPER RAIL SHALL LAP THE LOWER RAIL.

NEW BOLTS AND REFLECTORS SHALL BE FURNISHED AND USED TO RESET THE STRUCTURAL TUBES AND W-RAIL.



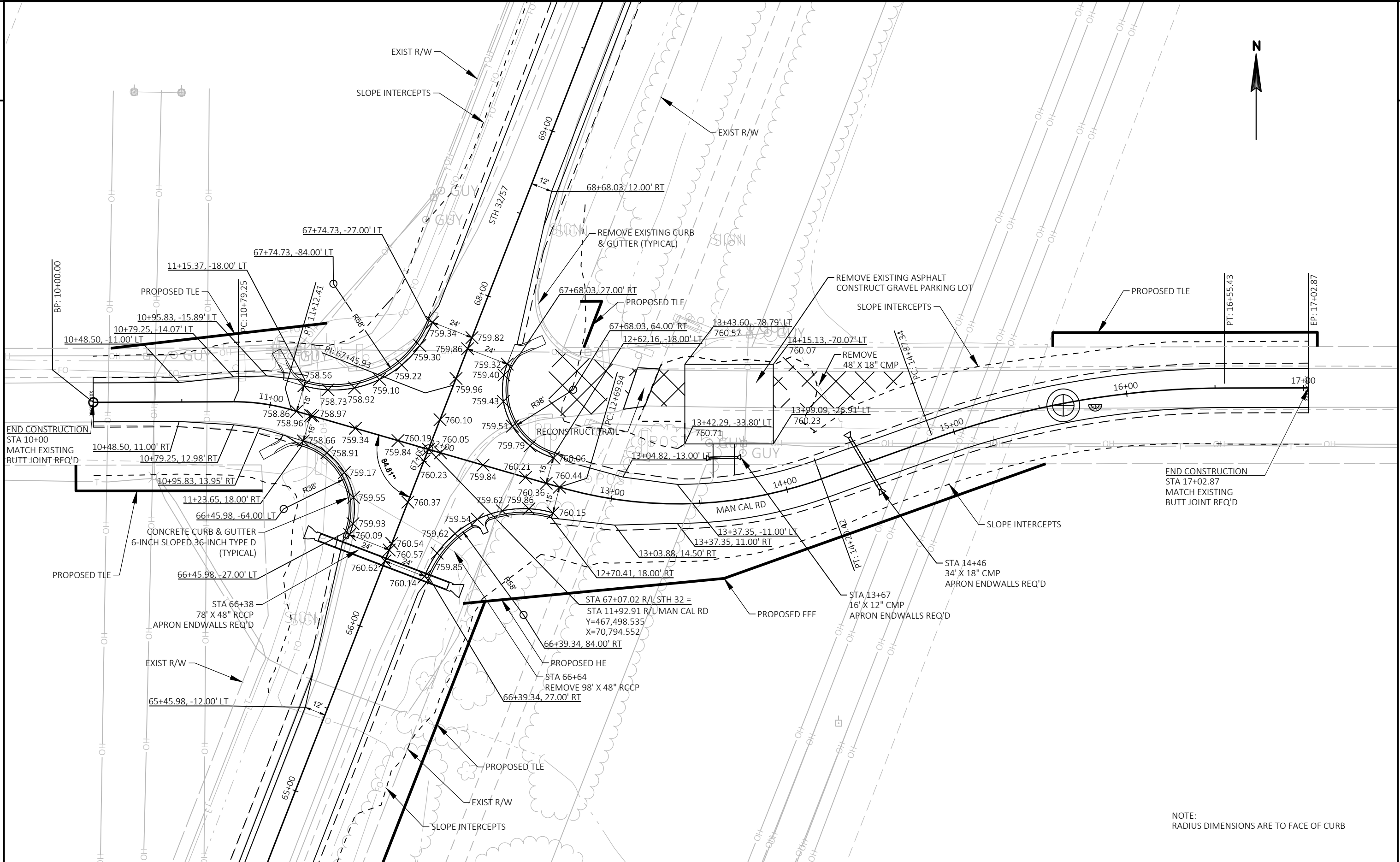
SECTION THRU RAILING

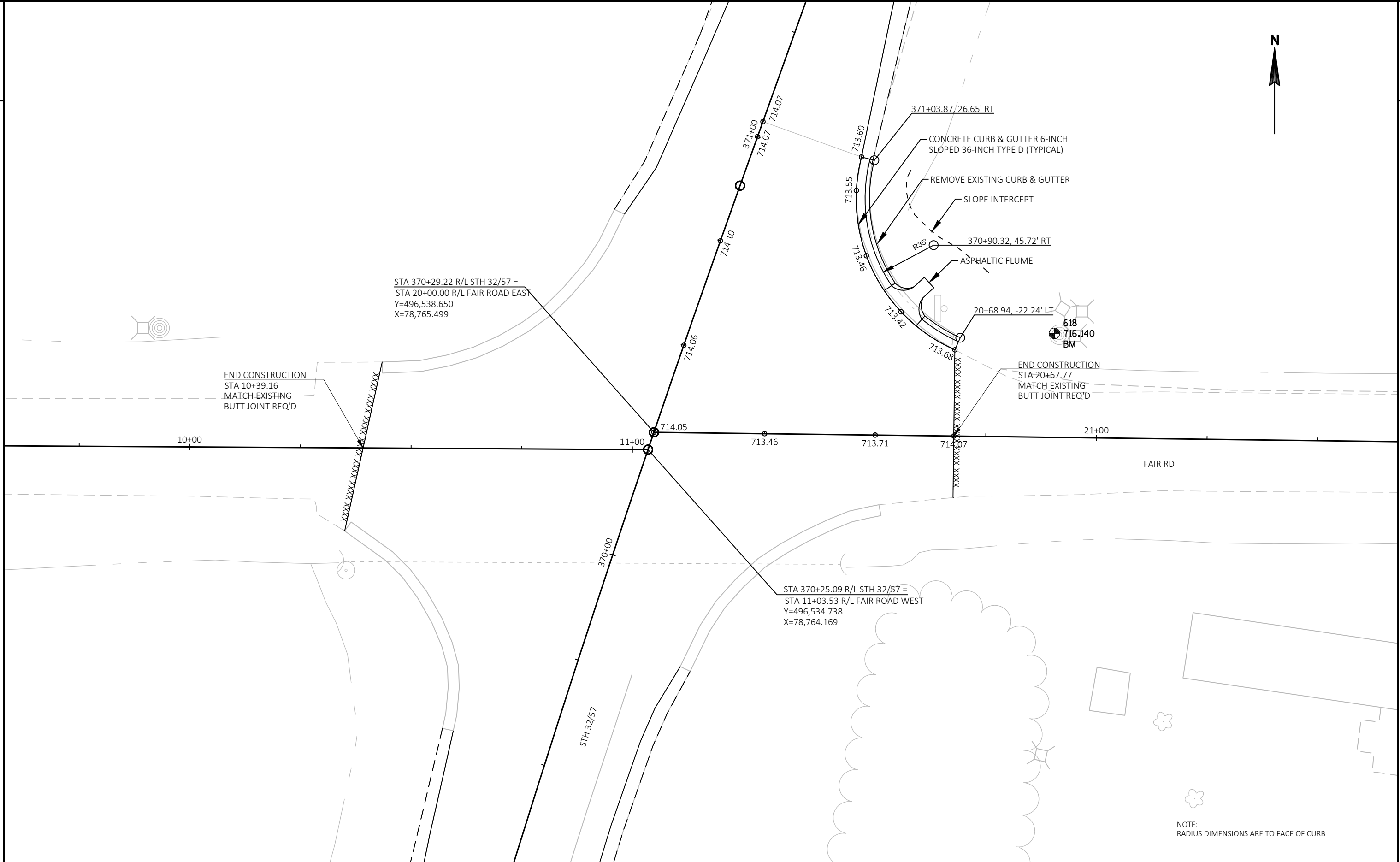


TYPICAL SPLICE
* INSTALL (2) NO.4 STRUCTURAL TUBES OR (1) MODIFIED NO.4, 11 1/2" LONG.

CHANNEL MEMBER DETAILS

RAILING TYPE W DETAILS





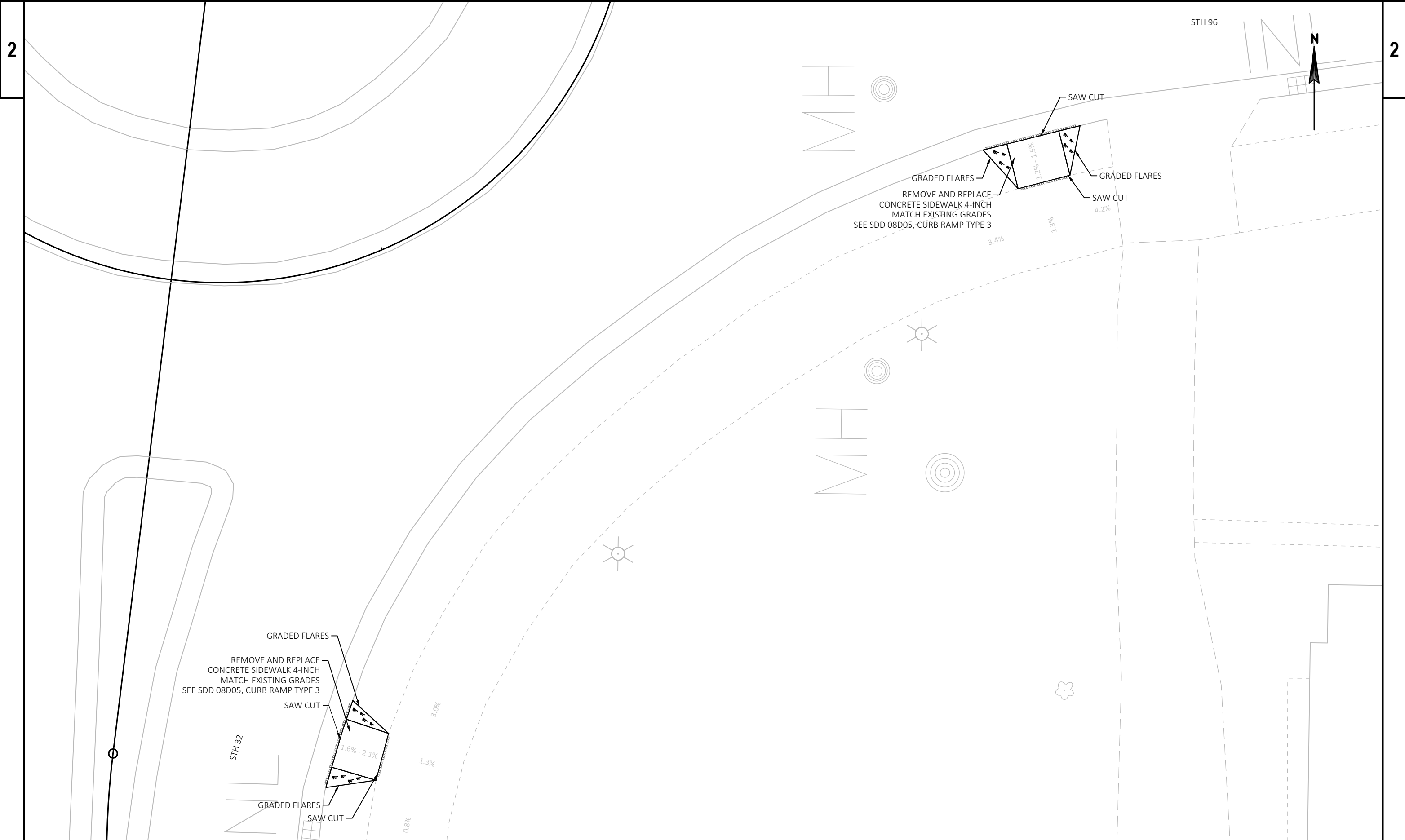
STA 370+29.22 R/L STH 32/57 =
 STA 20+00.00 R/L FAIR ROAD EAST
 Y=496,538.650
 X=78,765.499

END CONSTRUCTION
 STA 10+39.16
 MATCH EXISTING
 BUTT JOINT REQ'D

END CONSTRUCTION
 STA 20+67.77
 MATCH EXISTING
 BUTT JOINT REQ'D

STA 370+25.09 R/L STH 32/57 =
 STA 11+03.53 R/L FAIR ROAD WEST
 Y=496,534.738
 X=78,764.169

NOTE:
 RADIUS DIMENSIONS ARE TO FACE OF CURB



2

2

STH 96



SAW CUT
 GRADED FLARES
 REMOVE AND REPLACE
 CONCRETE SIDEWALK 4-INCH
 MATCH EXISTING GRADES
 SEE SDD 08D05, CURB RAMP TYPE 3
 1.2% - 1.5%
 3.4%
 1.3%
 SAW CUT
 GRADED FLARES
 4.2%

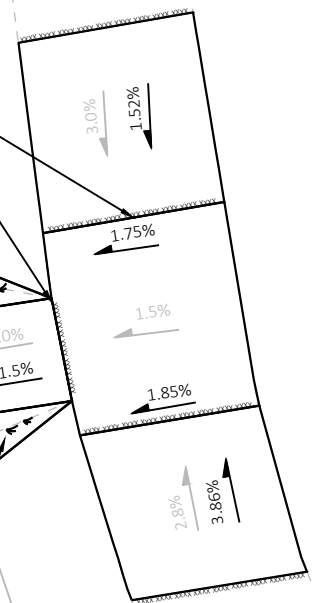
GRADED FLARES
 REMOVE AND REPLACE
 CONCRETE SIDEWALK 4-INCH
 MATCH EXISTING GRADES
 SEE SDD 08D05, CURB RAMP TYPE 3
 SAW CUT
 1.6% - 2.1%
 3.0%
 1.3%
 0.8%
 GRADED FLARES
 SAW CUT

STH 32

PROJECT NO: 4085-33-71	HWY: STH 32	COUNTY: BROWN	INTERSECTION DETAIL (STH 96 ROUNDABOUT)	SHEET	E
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SAW CUT
GRADED FLARES
REMOVE AND REPLACE
CONCRETE SIDEWALK 4-INCH
SEE SDD 08D05, CURB RAMP TYPE 3

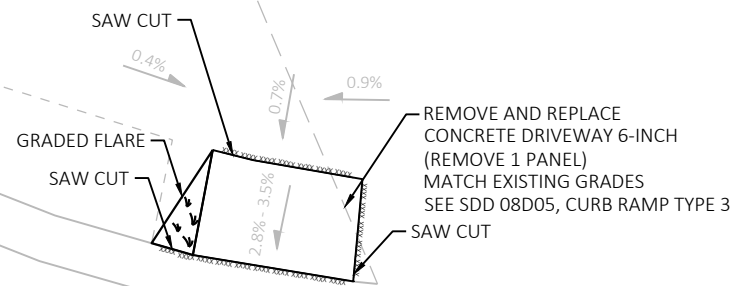
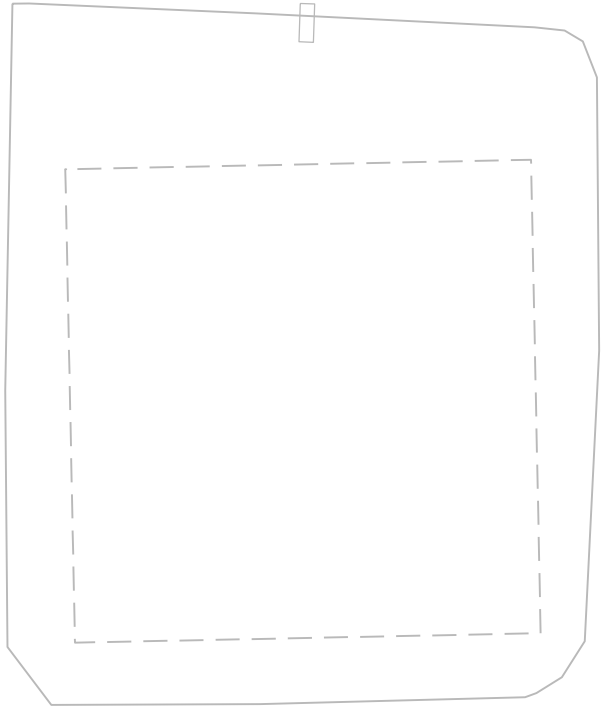
STH 32

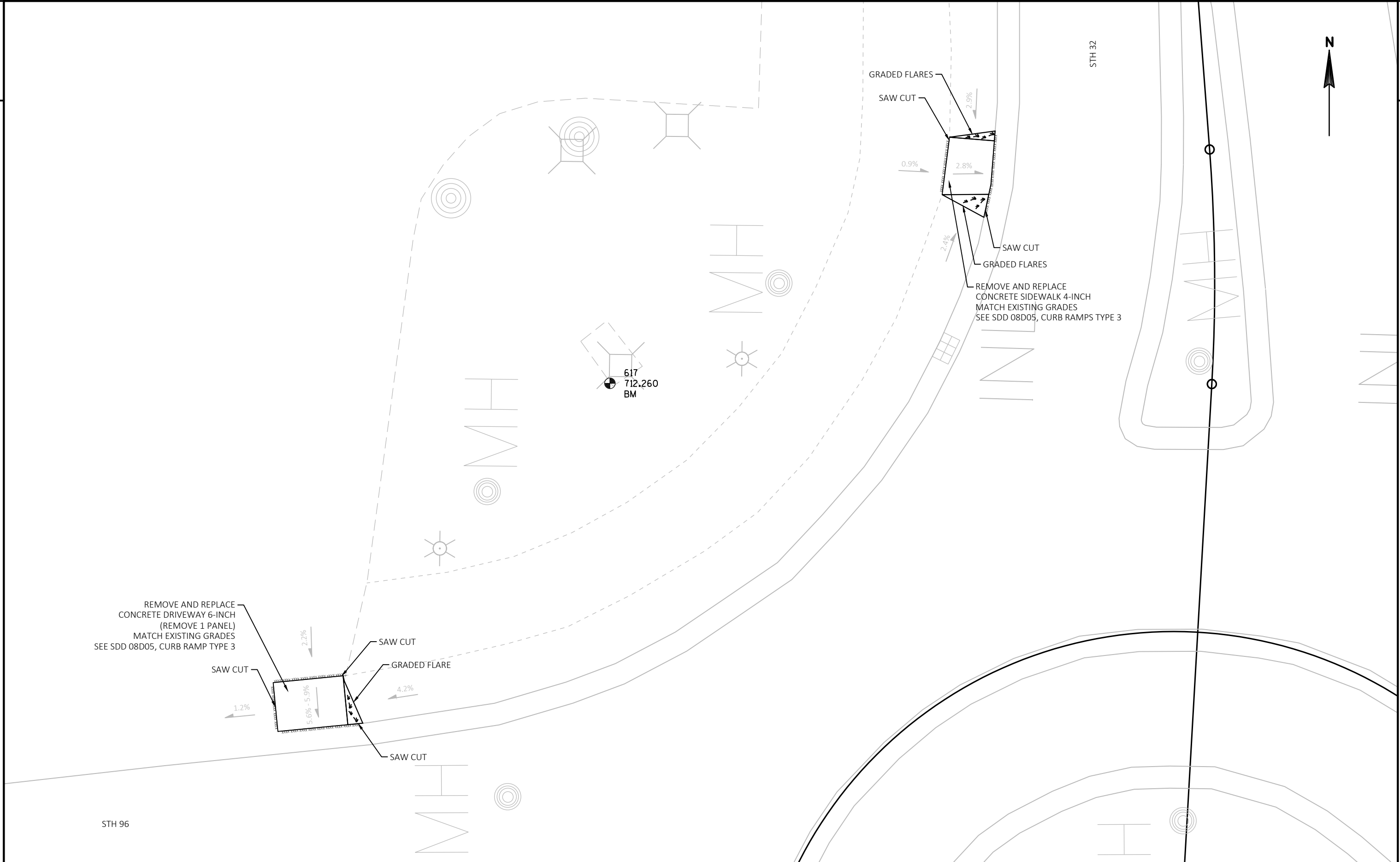


LEGEND
PROPOSED GRADES
EXISTING GRADES



CANOPY





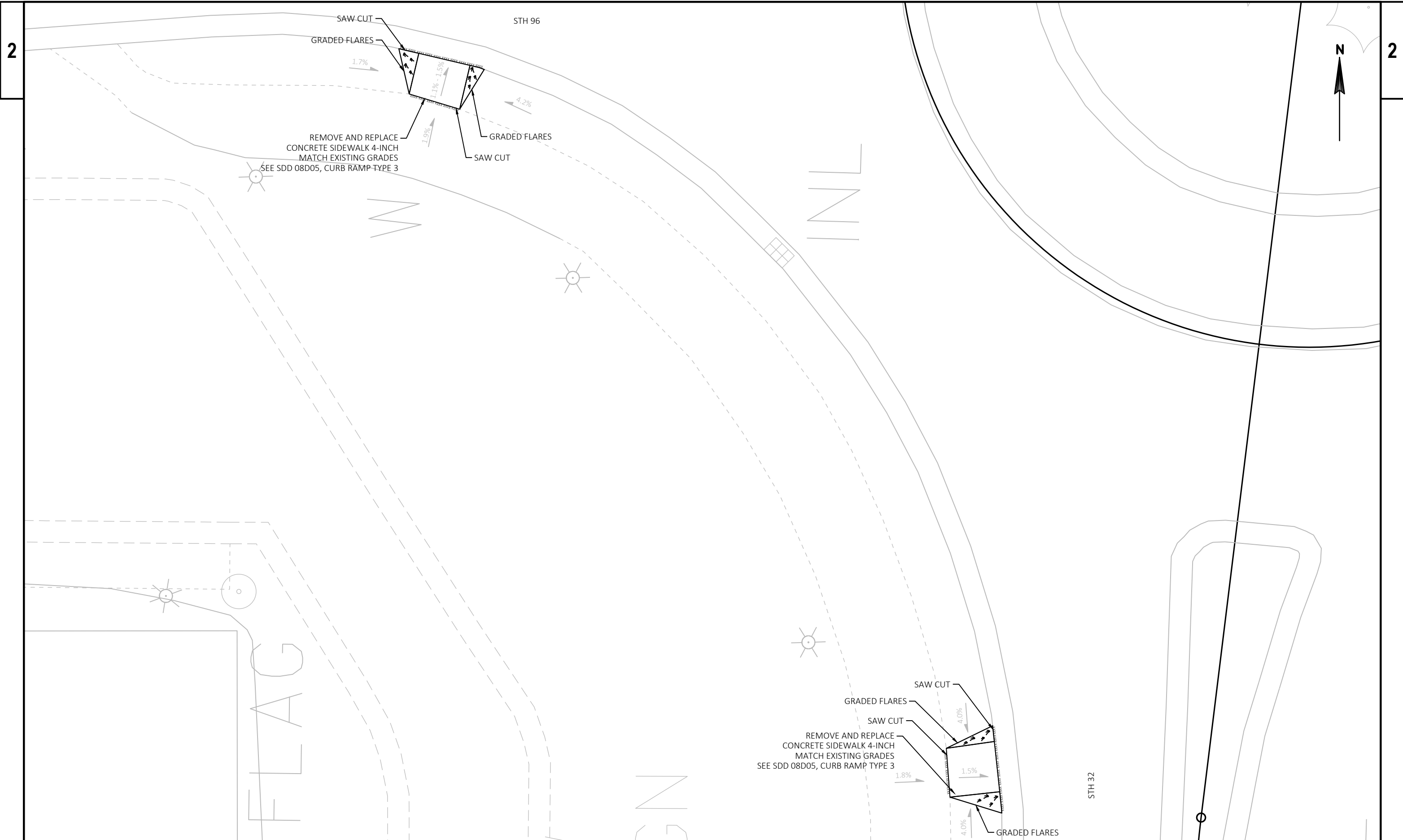
REMOVE AND REPLACE
CONCRETE DRIVEWAY 6-INCH
(REMOVE 1 PANEL)
MATCH EXISTING GRADES
SEE SDD 08D05, CURB RAMP TYPE 3

GRADED FLARES
SAW CUT
0.9%
2.8%
2.9%
2.4%
SAW CUT
GRADED FLARES
REMOVE AND REPLACE
CONCRETE SIDEWALK 4-INCH
MATCH EXISTING GRADES
SEE SDD 08D05, CURB RAMP TYPE 3

617
712.260
BM

STH 96

STH 32



2

2

PROJECT NO: 4085-33-71	HWY: STH 32	COUNTY: BROWN	INTERSECTION DETAIL (STH 96 ROUNDABOUT)	SHEET E
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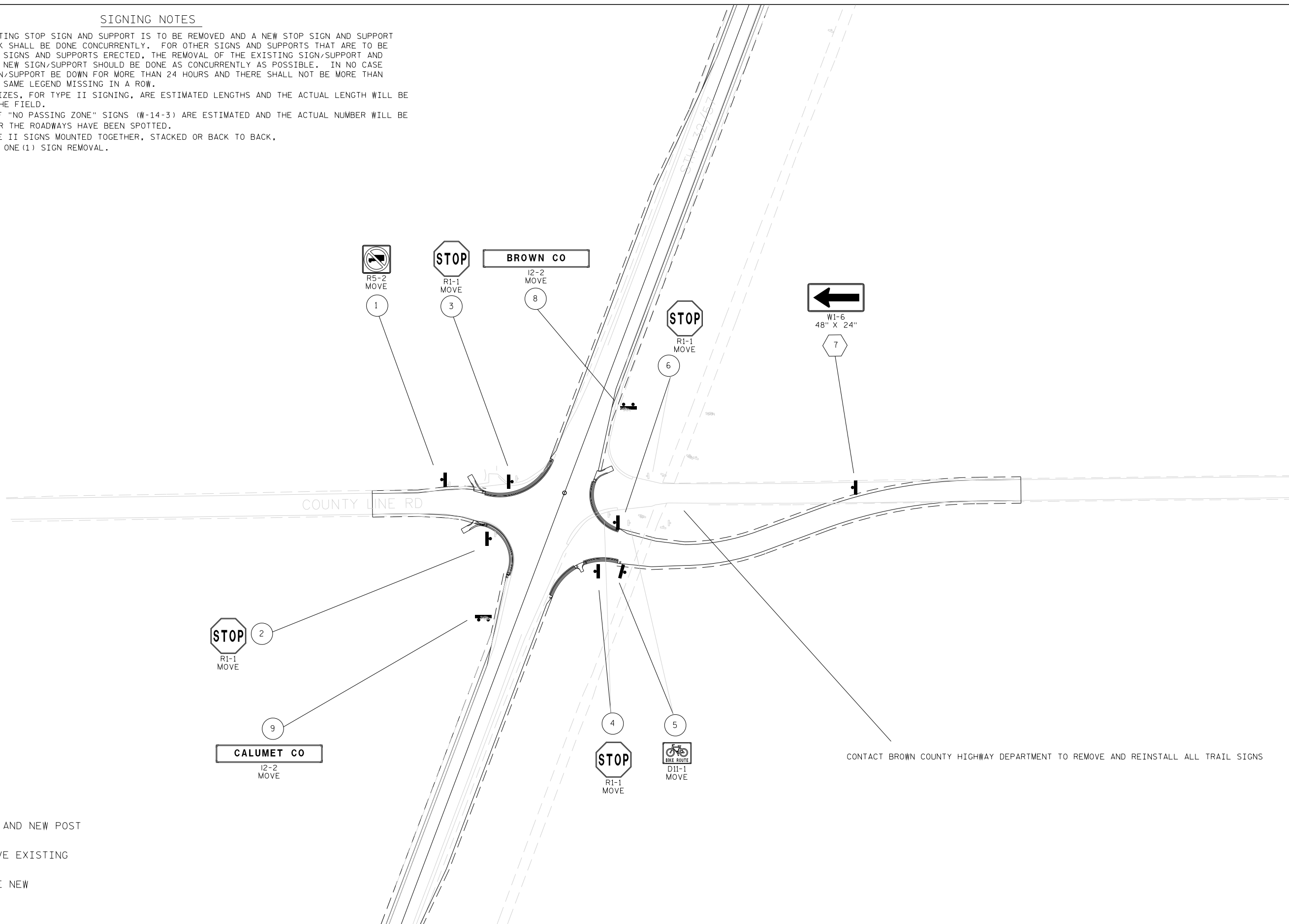
SIGNING NOTES

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

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

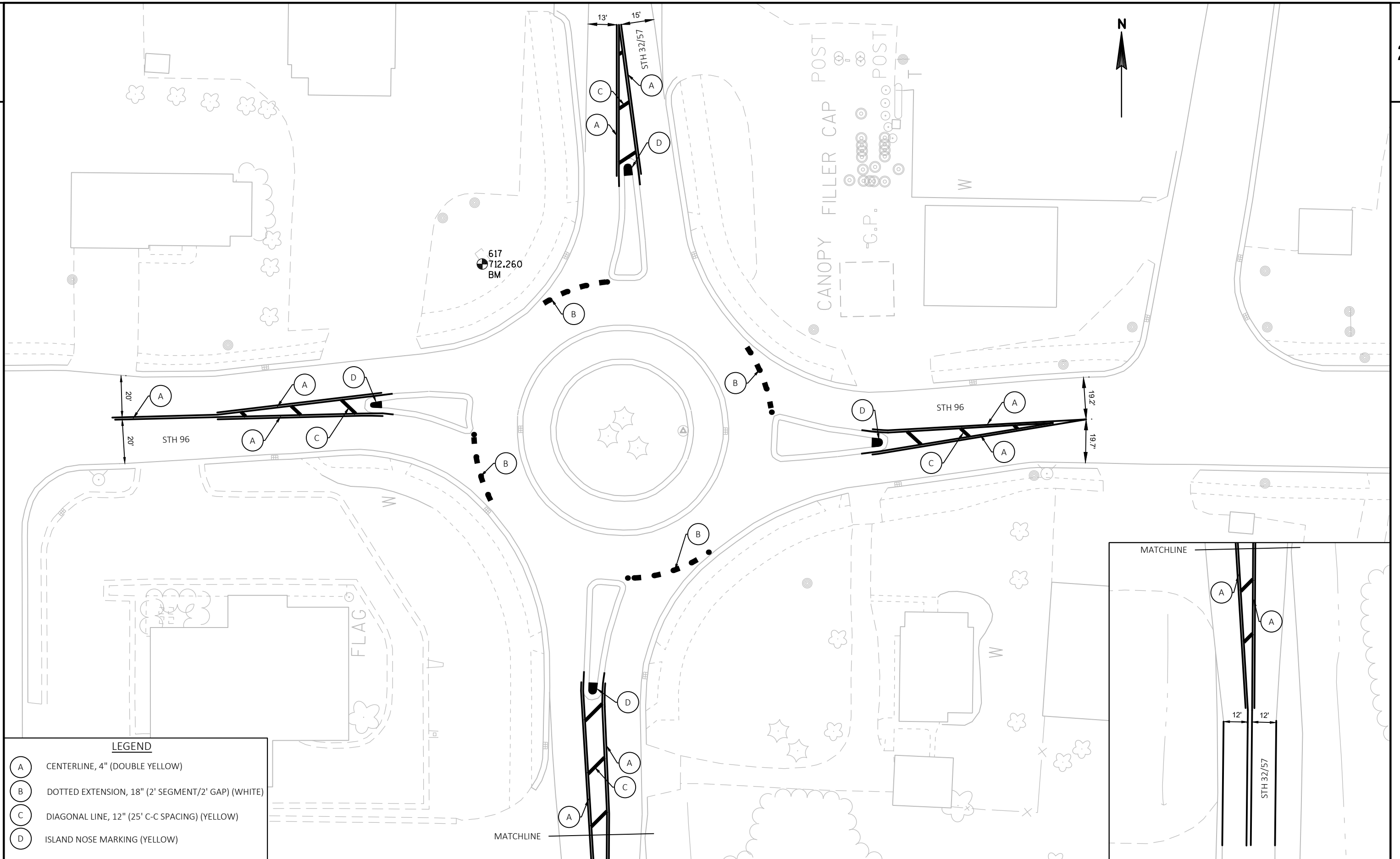
THE NUMBER OF "NO PASSING ZONE" SIGNS (W-14-3) ARE ESTIMATED AND THE ACTUAL NUMBER WILL BE DETERMINED AFTER THE ROADWAYS HAVE BEEN SPOTTED.

MULTIPLE TYPE II SIGNS MOUNTED TOGETHER, STACKED OR BACK TO BACK, WILL BE PAID AS ONE (1) SIGN REMOVAL.



- (X) SIGN-MOVE AND NEW POST
- [X] SIGN-REMOVE EXISTING
- (X) SIGN-PLACE NEW

CONTACT BROWN COUNTY HIGHWAY DEPARTMENT TO REMOVE AND REINSTALL ALL TRAIL SIGNS



LEGEND

- (A) CENTERLINE, 4" (DOUBLE YELLOW)
- (B) DOTTED EXTENSION, 18" (2' SEGMENT/2' GAP) (WHITE)
- (C) DIAGONAL LINE, 12" (25' C-C SPACING) (YELLOW)
- (D) ISLAND NOSE MARKING (YELLOW)

PROJECT NO: 4085-33-71

HWY: STH 32

COUNTY: BROWN

PAVEMENT MARKING

SHEET

E



R3-1
24"x24"



SEE SDD 15C02
BARRICADES AND SIGNS FOR
MAINLINE CLOSURES, DETAIL C

**ROAD
CLOSED**

R11-2
48"x30"

**ROAD
CLOSED**

R11-2
48"x30"

**ROAD
CLOSED**

R11-2
48"x30"

**ROAD
CLOSED**

R11-2
48"x30"

SEE SDD 15C02
BARRICADES AND SIGNS FOR
MAINLINE CLOSURE, DETAIL C

SYMBOLS	
	WORK AREA
	DIRECTION OF TRAFFIC FLOW
	SIGN ON TEMPORARY SUPPORT
	DRUM
	TYPE III BARRICADE WITH TYPE A WARNING LIGHTS WITH ATTACHED SIGN
	TYPE III BARRICADE WITH TYPE A WARNING LIGHTS

PROJECT NO: 4085-33-71

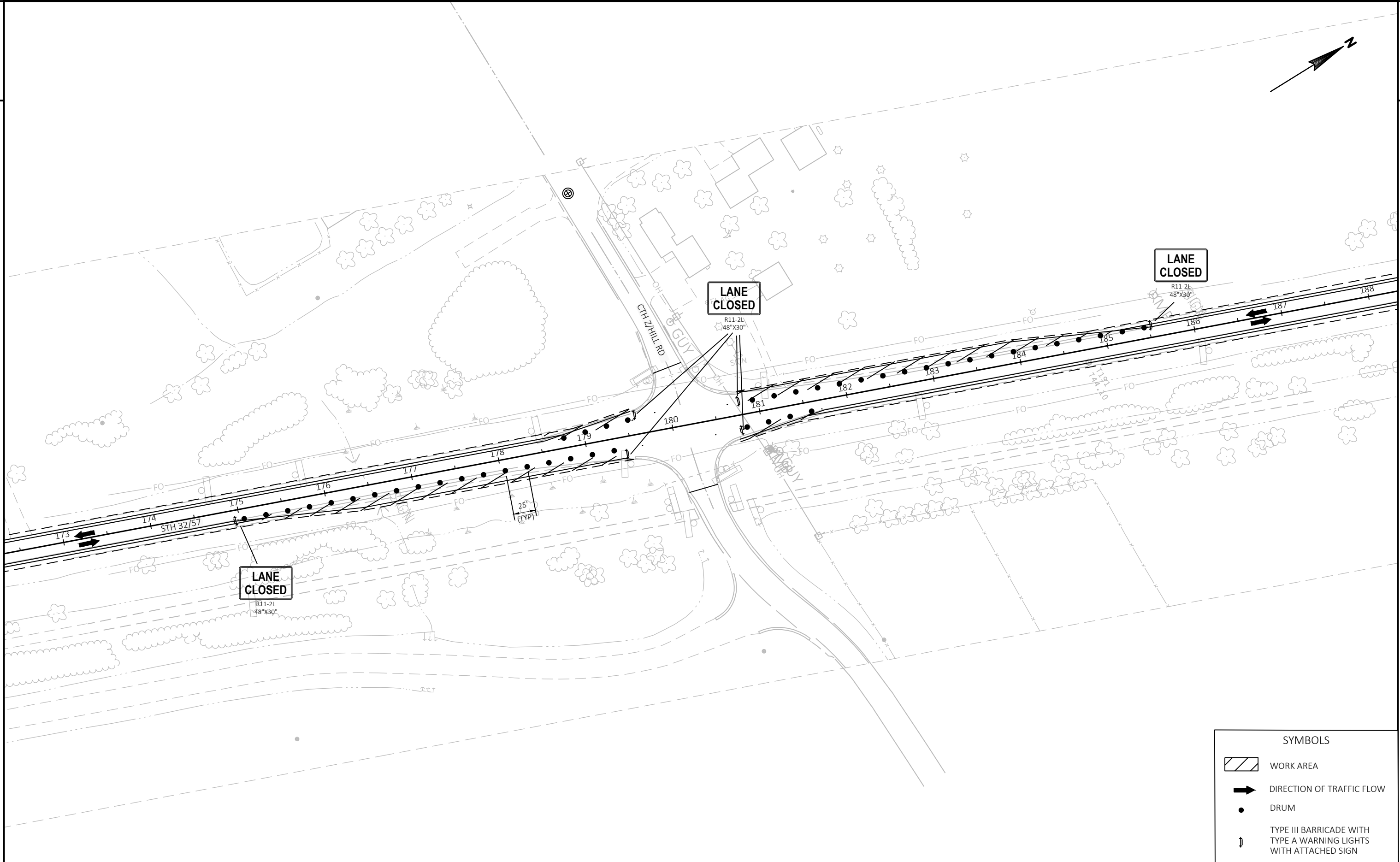
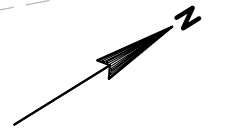
HWY: STH 32

COUNTY: BROWN

TRAFFIC CONTROL (MAN CAL RD)






SHEET

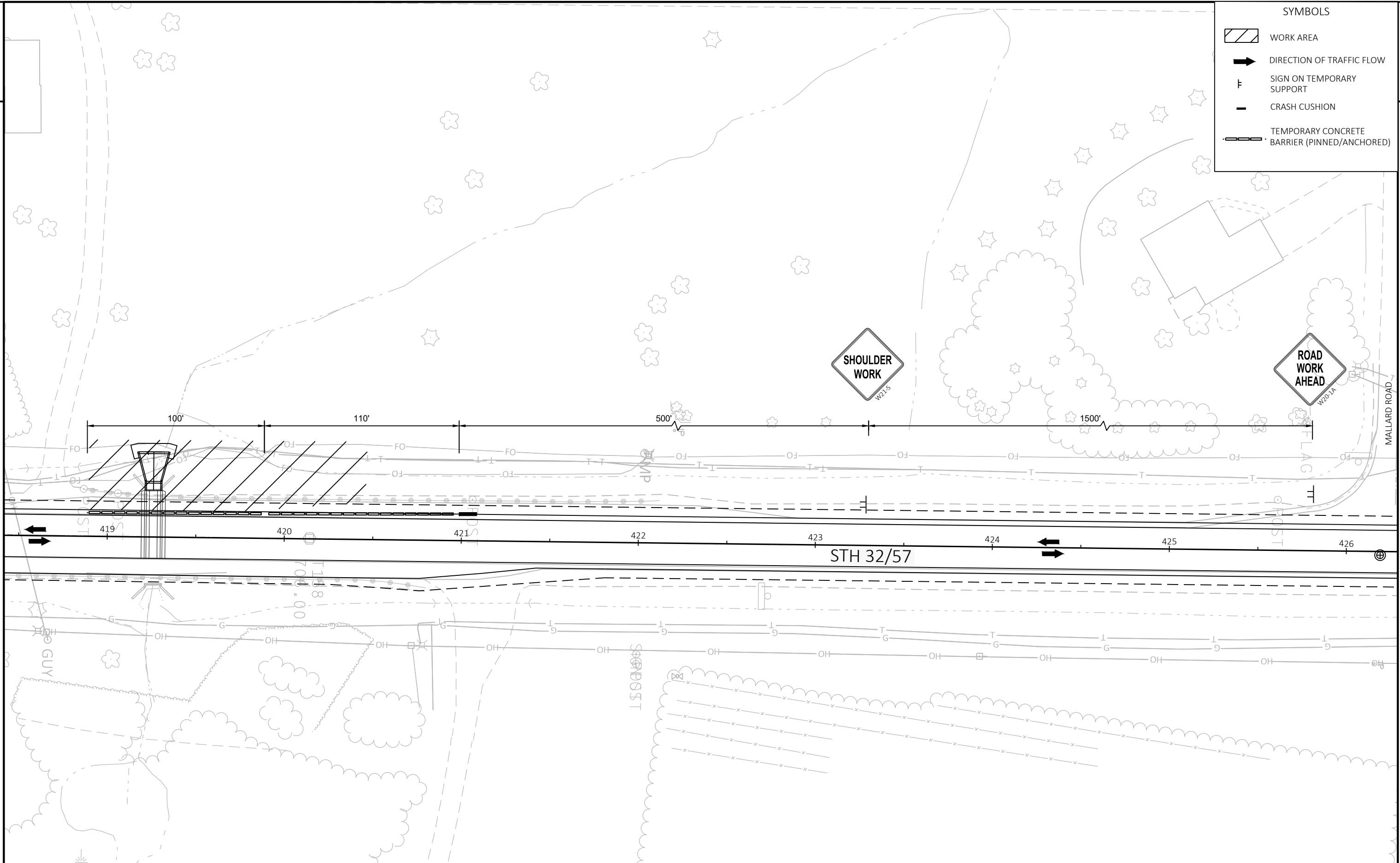
E



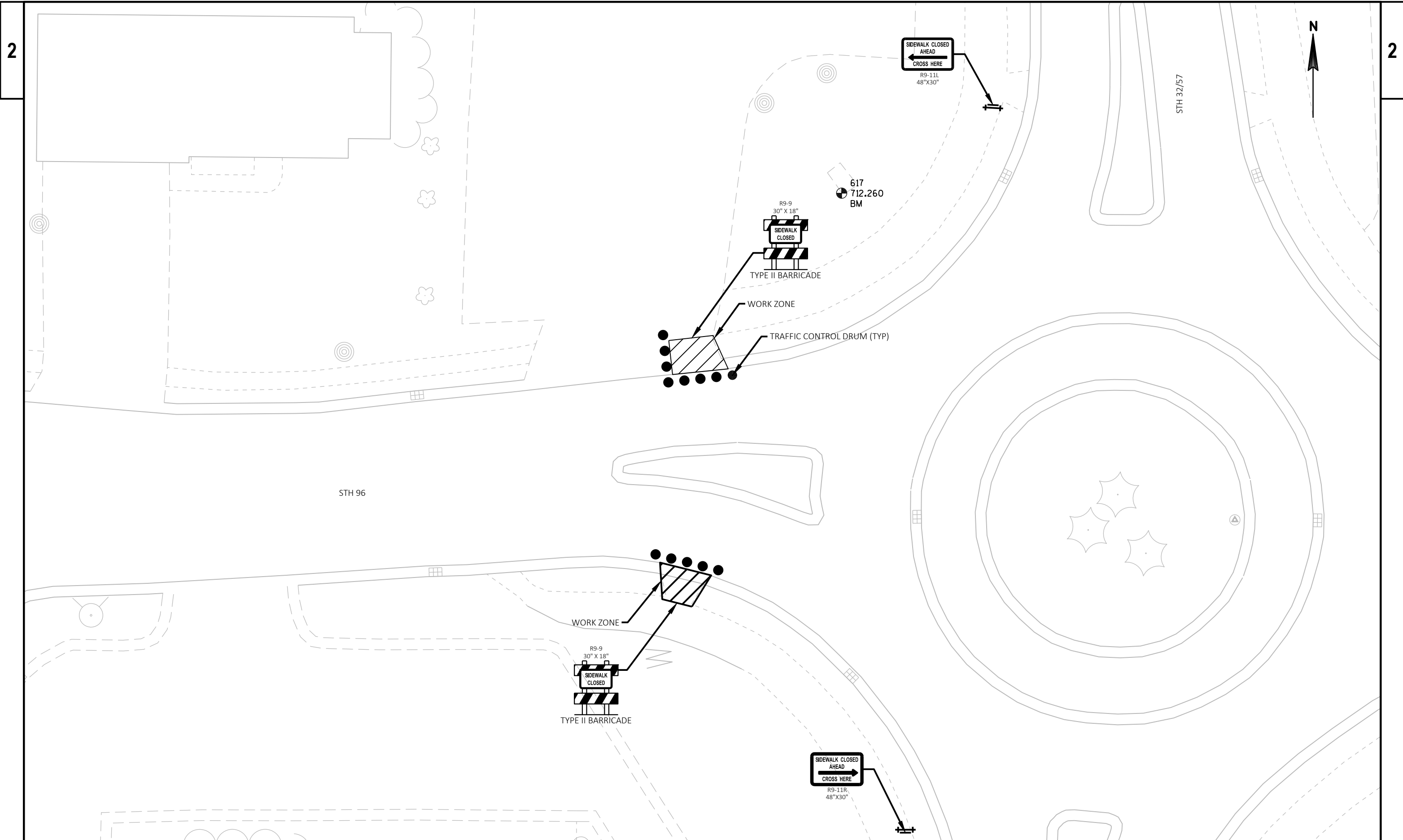
SYMBOLS	
	WORK AREA
	DIRECTION OF TRAFFIC FLOW
	DRUM
	TYPE III BARRICADE WITH TYPE A WARNING LIGHTS WITH ATTACHED SIGN

PROJECT NO: 4085-33-71	HWY: STH 32	COUNTY: BROWN	TRAFFIC CONTROL (CTH Z/HILL RD)	SHEET	E
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SYMBOLS	
	WORK AREA
	DIRECTION OF TRAFFIC FLOW
	SIGN ON TEMPORARY SUPPORT
	CRASH CUSHION
	TEMPORARY CONCRETE BARRIER (PINNED/ANCHORED)



PROJECT NO: 4085-33-71	HWY: STH 32	COUNTY: BROWN	TRAFFIC CONTROL (BOX CULVERT EXTENSION)	SHEET	E
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PROJECT NO: 4085-33-71

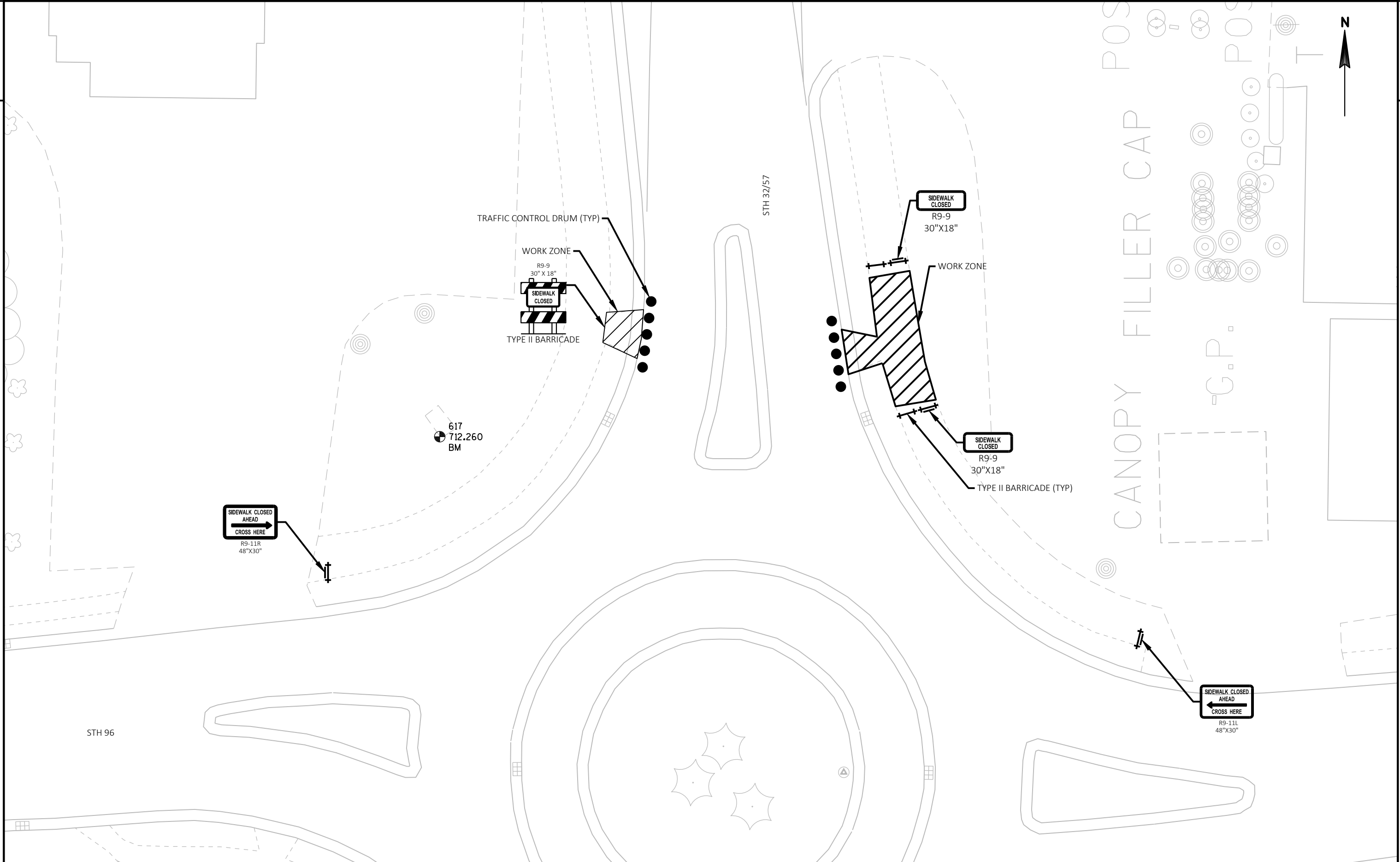
HWY: STH 32

COUNTY: BROWN

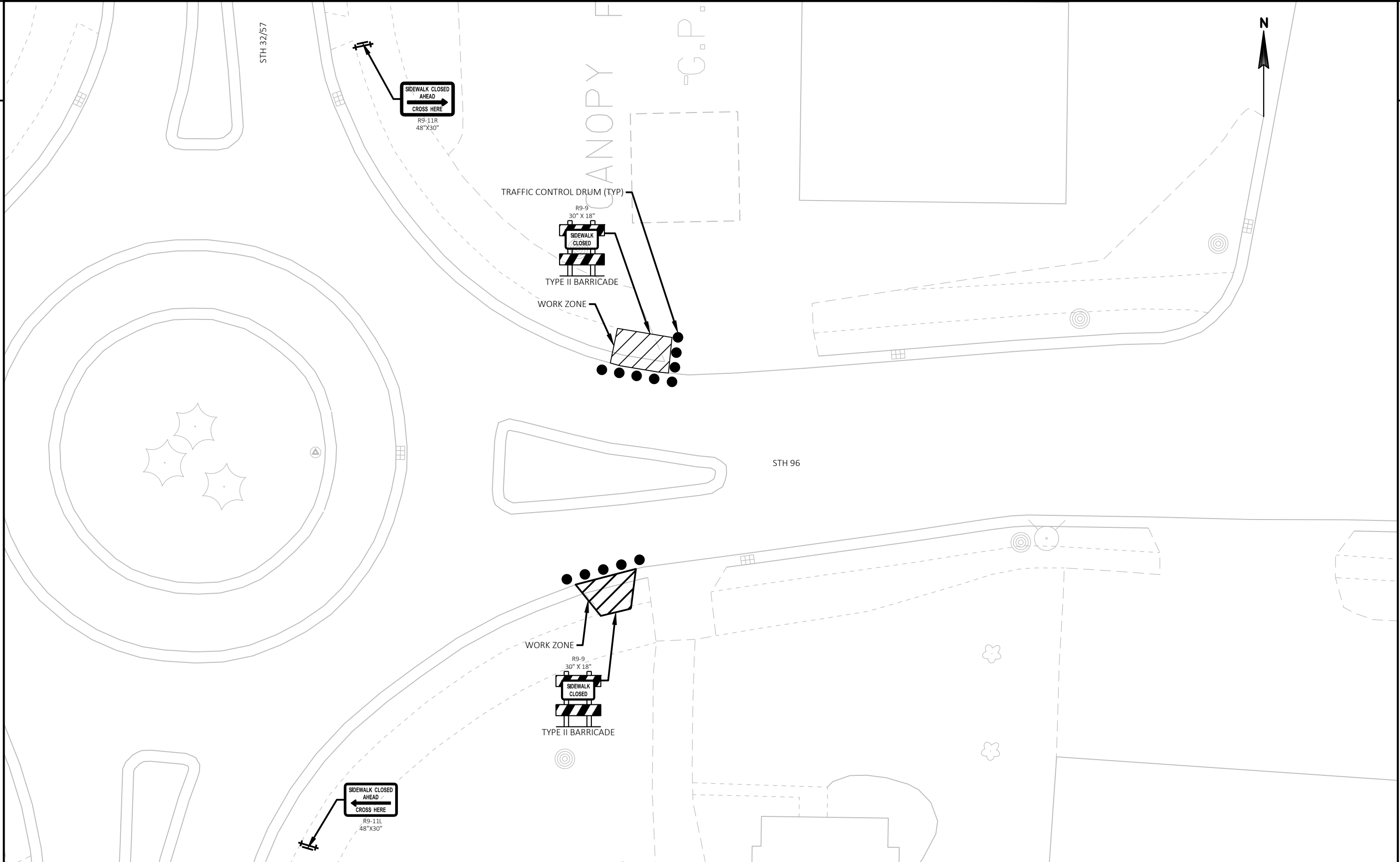
TRAFFIC CONTROL - SIDEWALK CLOSURE STAGE 1

SHEET

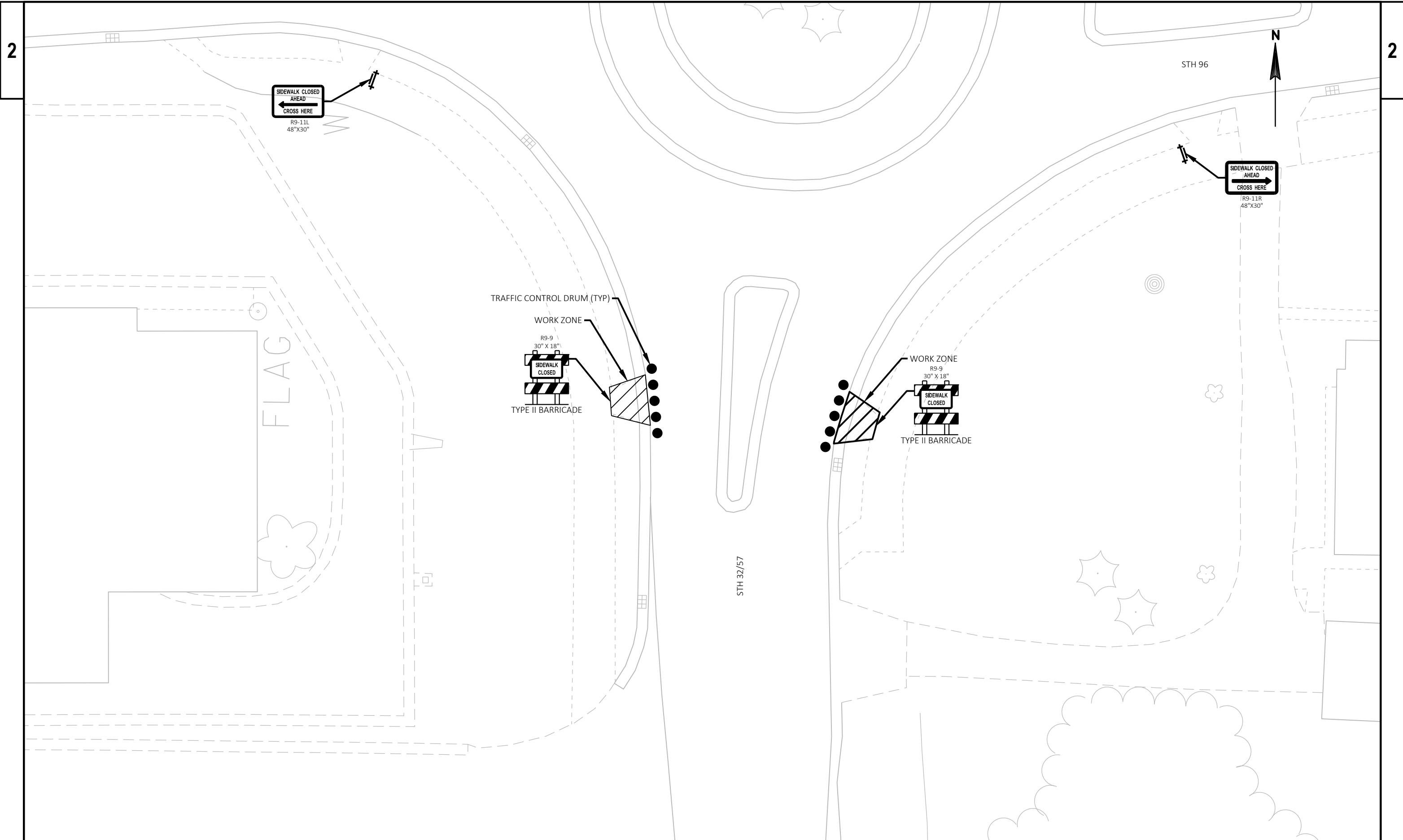
E



PROJECT NO: 4085-33-71	HWY: STH 32	COUNTY: BROWN	TRAFFIC CONTROL - SIDEWALK CLOSURE STAGE 2	SHEET E
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PROJECT NO: 4085-33-71	HWY: STH 32	COUNTY: BROWN	TRAFFIC CONTROL - SIDEWALK CLOSURE STAGE 3	SHEET E
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PROJECT NO: 4085-33-71

HWY: STH 32

COUNTY: BROWN

TRAFFIC CONTROL - SIDEWALK CLOSURE STAGE 4

SHEET

E



MATCH LINE (SEE SHEET 2 OF 3)



15

DETOUR MO4-8 24" X 12"

SOUTH M3-3 24" X 12"

32 MI-6B 24" X 24"

57 MI-6 24" X 24"

↑ MO6-1 21" X 21"

13

DETOUR MO4-8 24" X 12"

SOUTH M3-3 24" X 12"

32 MI-6B 24" X 24"

57 MI-6 24" X 24"

↑ MO6-1 21" X 21"

11

DETOUR MO4-8 24" X 12"

SOUTH M3-3 24" X 12"

32 MI-6B 24" X 24"

57 MI-6 24" X 24"

↑ MO6-1 21" X 21"

14

DETOUR MO4-8 24" X 12"

NORTH M3-1 24" X 12"

32 MI-6B 24" X 24"

57 MI-6 24" X 24"

↑ MO6-1 21" X 21"

12

DETOUR MO4-8 24" X 12"

NORTH M3-1 24" X 12"

32 MI-6B 24" X 24"

57 MI-6 24" X 24"

↑ MO6-1 21" X 21"

LEGEND

(X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET

▲ PCMS (X) PORTABLE CHANGEABLE MESSAGE SIGN

⇄ SIGN MOUNTED ON TYPE III BARRICADE

⊥ POST MOUNTED SIGN

OLD MARTIN RD

S BROADWAY DR

GREENLEAF RD

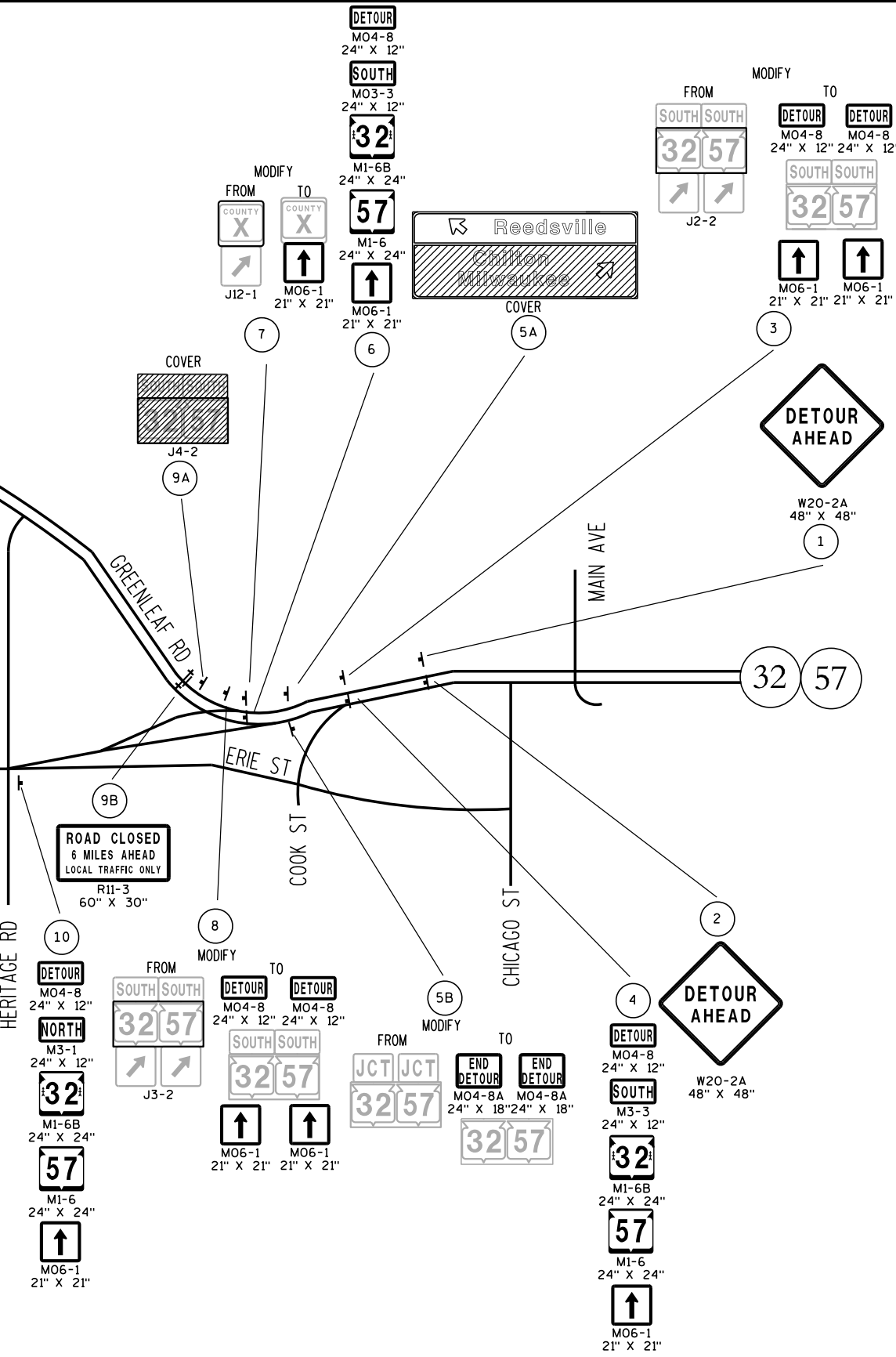
ERIE ST

COOK ST

CHICAGO ST

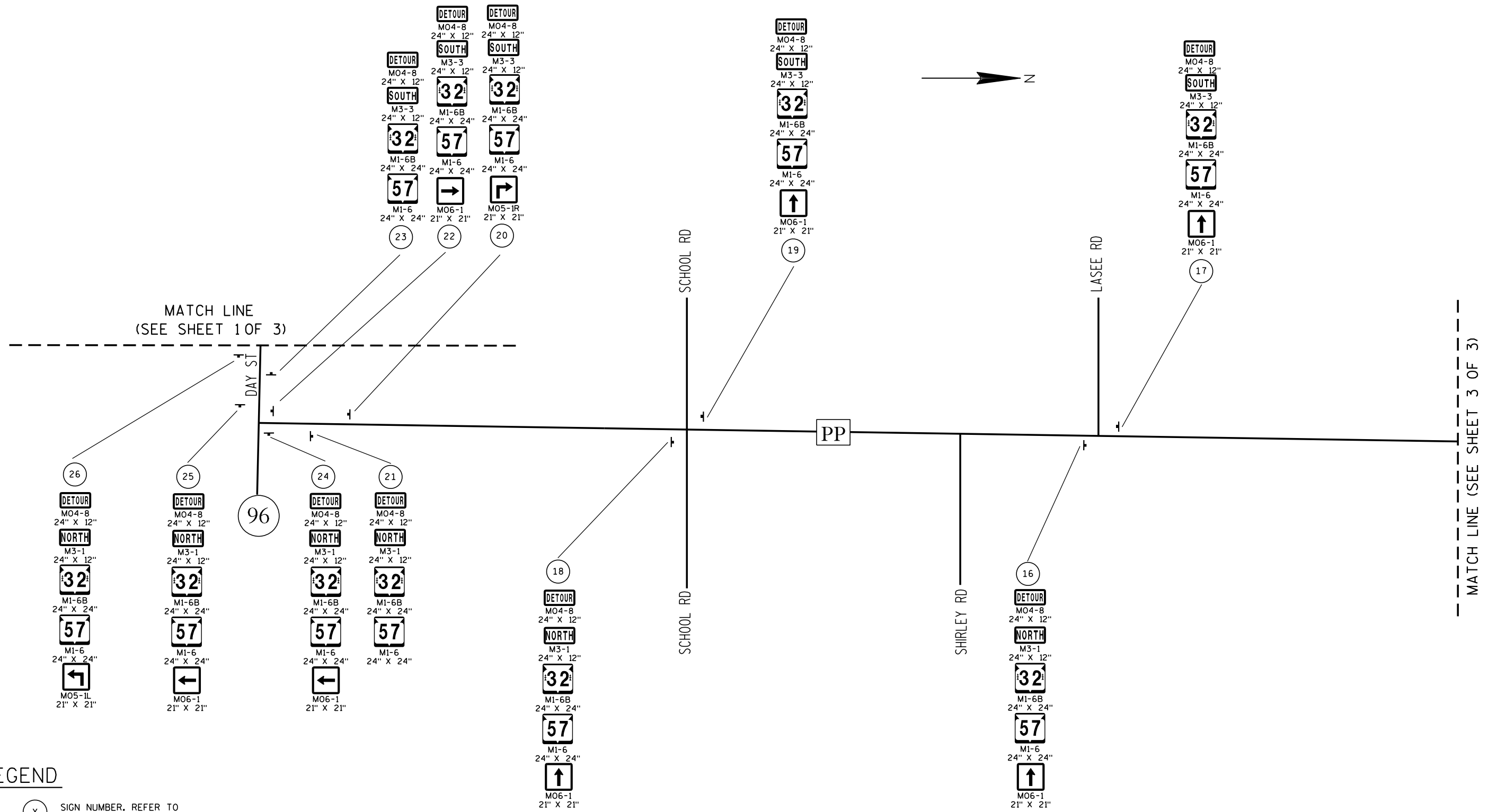
MAIN AVE

PP



SHEET 1 OF 3

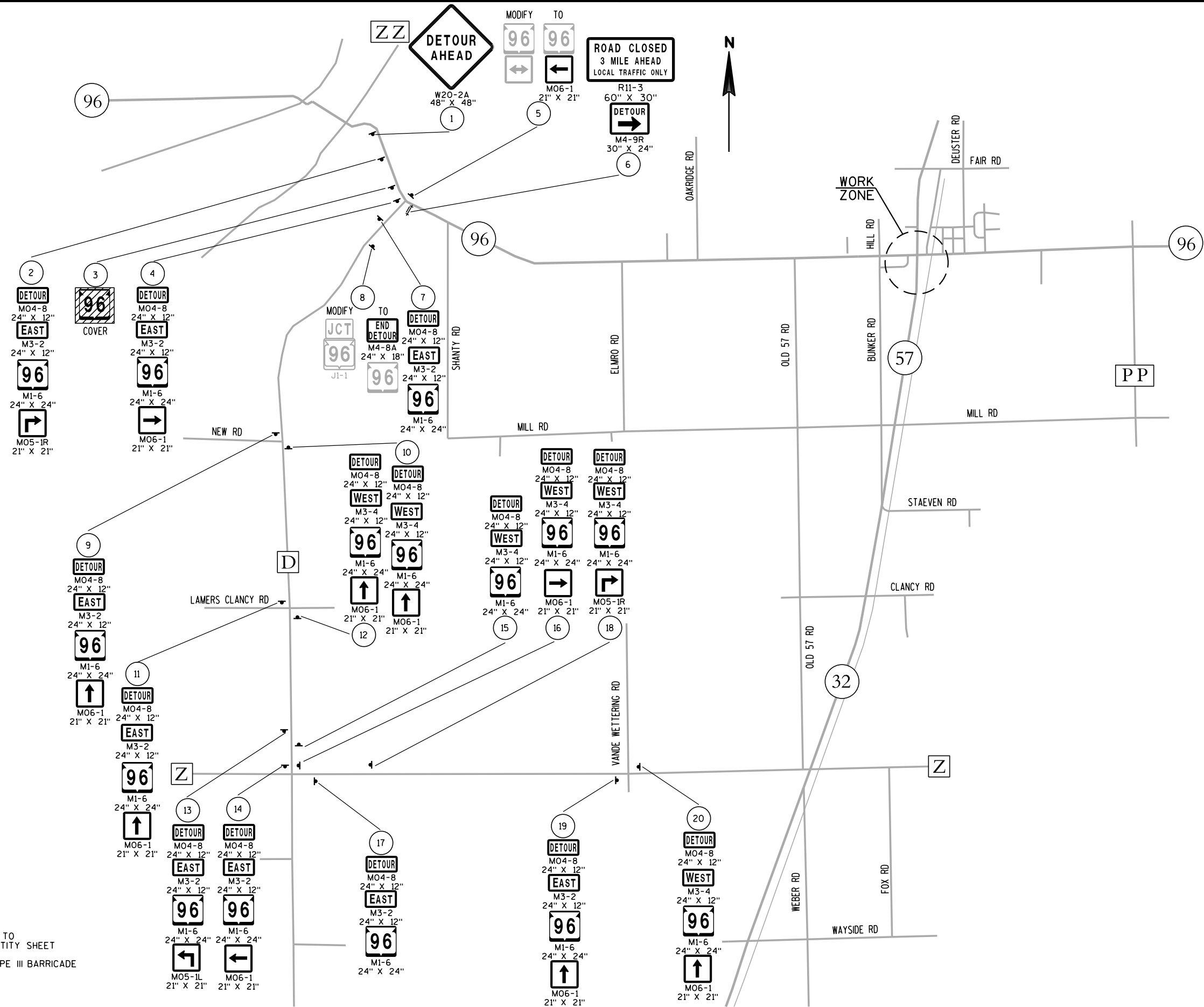
PLAN SHEET PRODUCED BY WISDOT-NE REGION



LEGEND

- SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET
- PORTABLE CHANGEABLE MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN

SHEET 2 OF 3
 PLAN SHEET PRODUCED
 BY WisDOT-NE REGION



LEGEND

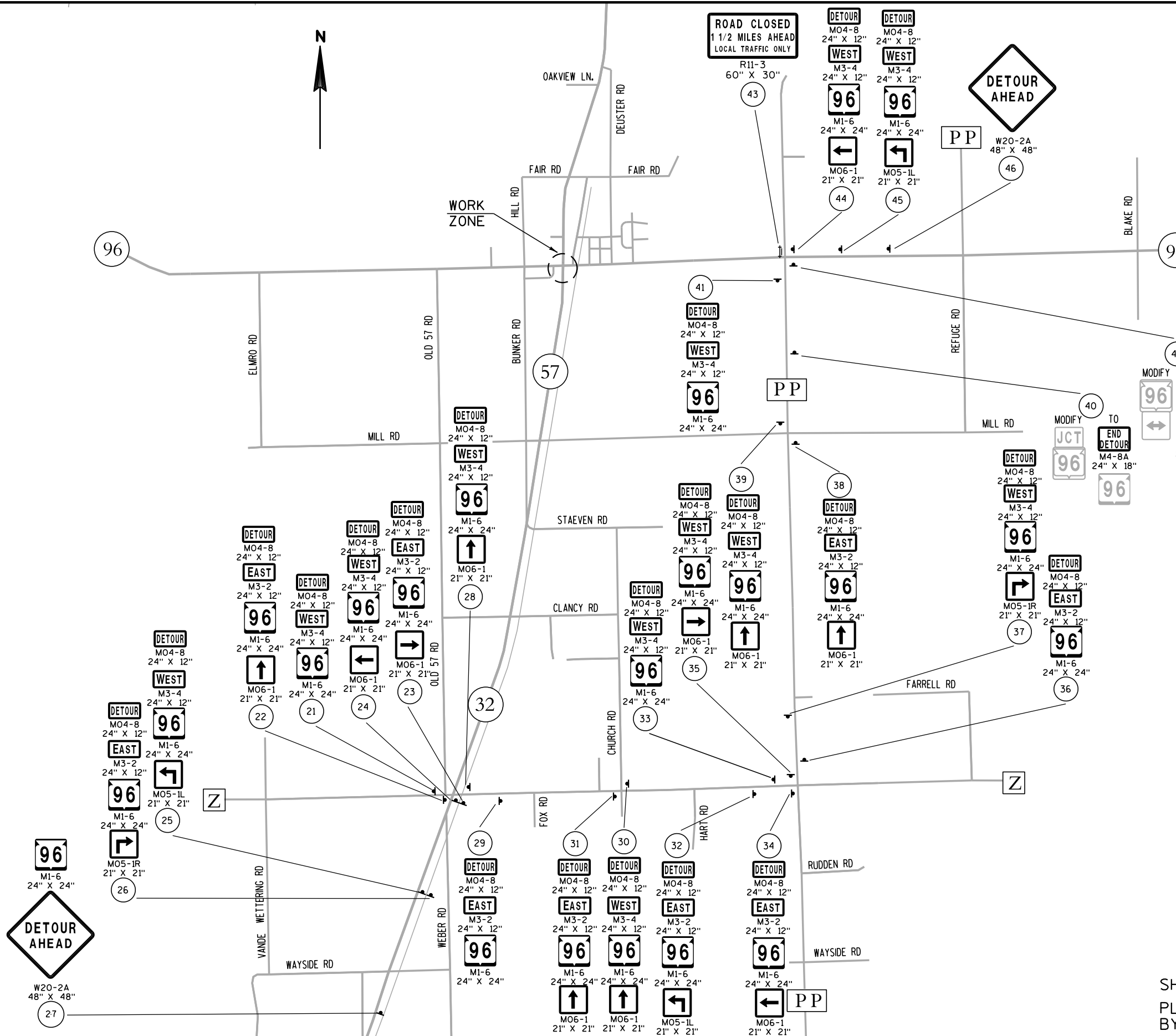
(X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET

⇌ SIGN MOUNTED ON TYPE III BARRICADE

▬ POST MOUNTED SIGN

SHEET 1 OF 2

PLAN SHEET PRODUCED BY WisDOT-NE REGION



- LEGEND**
- (X) SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET
 - ⇄ SIGN MOUNTED ON TYPE III BARRICADE
 - PP POST MOUNTED SIGN

SHEET 2 OF 2
 PLAN SHEET PRODUCED
 BY WisDOT-NE REGION

Estimate Of Quantities

4085-33-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	4.000	4.000
0004	201.0205	Grubbing	STA	4.000	4.000
0006	203.0100	Removing Small Pipe Culverts	EACH	4.000	4.000
0008	203.0220	Removing Structure (structure) 01. STA 419+25	EACH	1.000	1.000
0010	204.0100	Removing Concrete Pavement	SY	7.000	7.000
0012	204.0115	Removing Asphaltic Surface Butt Joints	SY	169.000	169.000
0014	204.0120	Removing Asphaltic Surface Milling	SY	127,222.000	127,222.000
0016	204.0150	Removing Curb & Gutter	LF	263.000	263.000
0018	204.0155	Removing Concrete Sidewalk	SY	40.000	40.000
0020	204.0165	Removing Guardrail	LF	3,241.000	3,241.000
0022	204.0185	Removing Masonry	CY	3.000	3.000
0024	205.0100	Excavation Common	CY	2,345.000	2,345.000
0026	206.2000	Excavation for Structures Culverts (structure) 01. C-05-1745	LS	1.000	1.000
0028	208.0100	Borrow	CY	1,523.000	1,523.000
0030	210.2500	Backfill Structure Type B	TON	162.000	162.000
0032	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 4085-33-71	LS	1.000	1.000
0034	305.0110	Base Aggregate Dense 3/4-Inch	TON	15,702.000	15,702.000
0036	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	3,137.000	3,137.000
0038	311.0115	Breaker Run	CY	14.000	14.000
0040	416.0160	Concrete Driveway 6-Inch	SY	10.000	10.000
0042	455.0605	Tack Coat	GAL	13,743.000	13,743.000
0044	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	2.000	2.000
0046	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0048	460.2005	Incentive Density PWL HMA Pavement	DOL	19,760.000	19,760.000
0050	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	25,196.000	25,196.000
0052	460.2010	Incentive Air Voids HMA Pavement	DOL	25,610.000	25,610.000
0054	460.5223	HMA Pavement 3 LT 58-28 S	TON	12,853.000	12,853.000
0056	460.5224	HMA Pavement 4 LT 58-28 S	TON	12,990.000	12,990.000
0058	460.5424	HMA Pavement 4 LT 58-28 H	TON	466.000	466.000
0060	465.0105	Asphaltic Surface	TON	1,432.000	1,432.000
0062	465.0110	Asphaltic Surface Patching	TON	250.000	250.000
0064	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	30.000	30.000
0066	465.0315	Asphaltic Flumes	SY	54.000	54.000
0068	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	30,681.000	30,681.000
0070	502.4205	Adhesive Anchors No. 5 Bar	EACH	28.000	28.000
0072	504.0100	Concrete Masonry Culverts	CY	21.000	21.000
0074	505.0400	Bar Steel Reinforcement HS Structures	LB	1,510.000	1,510.000
0076	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	1,480.000	1,480.000
0078	516.0500	Rubberized Membrane Waterproofing	SY	15.000	15.000
0080	520.8000	Concrete Collars for Pipe	EACH	4.000	4.000
0082	521.1012	Apron Endwalls for Culvert Pipe Steel 12-Inch	EACH	2.000	2.000
0084	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	6.000	6.000
0086	521.3112	Culvert Pipe Corrugated Steel 12-Inch	LF	16.000	16.000
0088	521.3118	Culvert Pipe Corrugated Steel 18-Inch	LF	92.000	92.000
0090	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	4.000	4.000
0092	522.0136	Culvert Pipe Reinforced Concrete Class III 36-Inch	LF	12.000	12.000
0094	522.0148	Culvert Pipe Reinforced Concrete Class III 48-Inch	LF	78.000	78.000
0096	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0098	522.1036	Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	EACH	2.000	2.000

Estimate Of Quantities

4085-33-71

Line	Item	Item Description	Unit	Total	Qty
0100	522.1048	Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	EACH	2.000	2.000
0102	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	313.000	313.000
0104	602.0405	Concrete Sidewalk 4-Inch	SF	196.000	196.000
0106	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	80.000	80.000
0108	603.8000	Concrete Barrier Temporary Precast Delivered	LF	212.500	212.500
0110	603.8125	Concrete Barrier Temporary Precast Installed	LF	212.500	212.500
0112	603.8500	Anchoring Concrete Barrier Temporary Precast	LF	212.500	212.500
0114	606.0300	Riprap Heavy	CY	11.000	11.000
0116	614.0905	Crash Cushions Temporary	EACH	1.000	1.000
0118	614.2300	MGS Guardrail 3	LF	1,726.000	1,726.000
0120	614.2330	MGS Guardrail 3 K	LF	425.000	425.000
0122	614.2340	MGS Guardrail 3 L	LF	112.500	112.500
0124	614.2610	MGS Guardrail Terminal EAT	EACH	12.000	12.000
0126	618.0100	Maintenance And Repair of Haul Roads (project) 01. 4085-33-71	EACH	1.000	1.000
0128	619.1000	Mobilization	EACH	1.000	1.000
0130	624.0100	Water	MGAL	144.490	144.490
0132	625.0100	Topsoil	SY	10,763.000	10,763.000
0134	628.1504	Silt Fence	LF	4,906.000	4,906.000
0136	628.1520	Silt Fence Maintenance	LF	4,906.000	4,906.000
0138	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0140	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0142	628.2004	Erosion Mat Class I Type B	SY	9,129.000	9,129.000
0144	628.2008	Erosion Mat Urban Class I Type B	SY	1,634.000	1,634.000
0146	628.7555	Culvert Pipe Checks	EACH	30.000	30.000
0148	629.0210	Fertilizer Type B	CWT	6.780	6.780
0150	630.0130	Seeding Mixture No. 30	LB	164.300	164.300
0152	630.0140	Seeding Mixture No. 40	LB	29.400	29.400
0154	630.0500	Seed Water	MGAL	241.090	241.090
0156	633.5200	Markers Culvert End	EACH	8.000	8.000
0158	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	2.000	2.000
0160	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	9.000	9.000
0162	637.2230	Signs Type II Reflective F	SF	8.000	8.000
0164	638.2102	Moving Signs Type II	EACH	5.000	5.000
0166	638.3000	Removing Small Sign Supports	EACH	10.000	10.000
0168	642.5001	Field Office Type B	EACH	1.000	1.000
0170	643.0300	Traffic Control Drums	DAY	2,163.000	2,163.000
0172	643.0410	Traffic Control Barricades Type II	DAY	119.000	119.000
0174	643.0420	Traffic Control Barricades Type III	DAY	624.000	624.000
0176	643.0705	Traffic Control Warning Lights Type A	DAY	1,248.000	1,248.000
0178	643.0900	Traffic Control Signs	DAY	1,523.000	1,523.000
0180	643.0920	Traffic Control Covering Signs Type II	EACH	4.000	4.000
0182	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0184	643.5000	Traffic Control	EACH	1.000	1.000
0186	645.0105	Geotextile Type C	SY	48.000	48.000
0188	645.0120	Geotextile Type HR	SY	27.000	27.000
0190	646.1020	Marking Line Epoxy 4-Inch	LF	26,699.000	26,699.000
0192	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	68,437.000	68,437.000
0194	646.3040	Marking Line Grooved Wet Ref Epoxy 8-Inch	LF	1,539.000	1,539.000
0196	646.6320	Marking Dotted Extension Epoxy 18-Inch	LF	157.000	157.000

Estimate Of Quantities

4085-33-71

Line	Item	Item Description	Unit	Total	Qty
0198	646.7120	Marking Diagonal Epoxy 12-Inch	LF	98.000	98.000
0200	646.8220	Marking Island Nose Epoxy	EACH	4.000	4.000
0202	649.0105	Temporary Marking Line Paint 4-Inch	LF	21,985.000	21,985.000
0204	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	24,935.000	24,935.000
0206	650.4500	Construction Staking Subgrade	LF	2,906.000	2,906.000
0208	650.5000	Construction Staking Base	LF	2,906.000	2,906.000
0210	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	366.000	366.000
0212	650.6000	Construction Staking Pipe Culverts	EACH	4.000	4.000
0214	650.6500	Construction Staking Structure Layout (structure) 01. C-05-1745	LS	1.000	1.000
0216	650.8000	Construction Staking Resurfacing Reference	LF	36,001.000	36,001.000
0218	650.9910	Construction Staking Supplemental Control (project) 01. 4085-33-71	LS	1.000	1.000
0220	650.9920	Construction Staking Slope Stakes	LF	5,914.000	5,914.000
0222	690.0150	Sawing Asphalt	LF	2,638.000	2,638.000
0224	690.0250	Sawing Concrete	LF	208.000	208.000
0226	715.0502	Incentive Strength Concrete Structures	DOL	500.000	500.000
0228	740.0440	Incentive IRI Ride	DOL	53,892.000	53,892.000
0230	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,000.000	2,000.000
0232	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,320.000	1,320.000
0234	SPV.0035	Special 01. Foundation Backfill	CY	237.000	237.000
0236	SPV.0090	Special 01. Railing Steel Type 'W' Modified, B-05-262	LF	80.000	80.000
0238	SPV.0195	Special 01. Traffic Bond Limestone 3/8-Inch	TON	20.000	20.000

CLEARING & GRUBBING

CATEGORY	STATION	TO	STATION	LOCATION	201.0105	201.0205	REMARKS
					CLEARING STA	GRUBBING STA	
0010	65+00	-	67+40	STH 32	2.4	2.4	
0010	12+15	-	13+70	MAN CAL ROAD	1.6	1.6	
TOTAL 0010					4.0	4.0	

REMOVING SMALL CULVERT PIPES

CATEGORY	STATION	LOCATION	203.0100	REMARKS
			REMOVING SMALL PIPE CULVERTS EACH	
0010	14+41	MAN CAL ROAD	1	18-INCH CMP
0010	66+64	STH 32	1	48-INCH RCCP
0010	181+22	STH 32	1	LT, 18-INCH CMP
0010	418+70	STH 32	1	LT, 18-INCH CMP
TOTAL 0010			4	

REMOVING ASPHALTIC SURFACE BUTT JOINTS

CATEGORY	STATION	LOCATION	204.0115	REMARKS
			REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	
0010	61+79	STH 32	7	
0010	1+00	MAN CAL ROAD	6	
0010	17+03	MAN CAL ROAD	6	
0010	10+20	LOVERS LANE	12	
0010	19+35	WAYSIDE ROAD	10	
0010	20+71	WAYSIDE ROAD	8	
0010	119+29	CTH Z	8	
0010	120+71	CTH Z	7	
0010	19+30	LAMERS CLANCY ROAD	8	
0010	20+68	LAMERS CLANCY ROAD	8	
0010	10+62	ST PAT'S CHURCH ROAD	8	
0010	20+35	CTH IL	11	
0010	21+69	MILL ROAD	9	
0010	46+68	STH 96	10	
0010	51+67	STH 96	8	
0010	10+39	FAIR ROAD	9	
0010	20+68	FAIR ROAD	8	
0010	18+36	OAKVIEW LANE	13	
0010	14+72	DEUSTER STREET	7	
0010	417+90	STH 32	8	
TOTAL 0010			169	

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	STATION	TO	STATION	LOCATION	204.0120	REMARKS
					REMOVING ASPHALTIC SURFACE MILLING SY	
0010	61+79	-	117+35	STH 32	18520	
0010	117+35	-	340+93	STH 32	74387	
0010	340+93	-	345+44	STH 32	3822	ROUNDAABOUT FOOTPRINT
0010	345+44	-	369+98	STH 32	10907	
0010	369+98	-	417+90	STH 32	15973	
0010				LOVERS LANE	59	LT
0010				WAYSIDE ROAD	258	RT
0010				WAYSIDE ROAD	256	LT
0010				HILL ROAD	288	RT
0010				CTH Z	264	LT
0010				LAMERS CLANCY ROAD	265	RT
0010				LAMERS CLANCY ROAD	291	LT
0010				ST PAT'S CHURCH ROAD	241	RT
0010				MILL ROAD	247	RT
0010				CTH IL	335	LT
0010				FAIR ROAD	254	RT
0010				FAIR ROAD	257	LT
0010				OAKVIEW LANE	372	LT
0010				DEUSTER STREET	227	RT
TOTAL 0010					127,222	

REMOVING CURB & GUTTER

204.0150 REMOVING CURB & GUTTER						
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	-			MAN CAL ROAD	70	SE QUAD
0010	-			MAN CAL ROAD	58	NE QUAD
0010	-			MAN CAL ROAD	64	NW QUAD
0010	-			MAN CAL ROAD	71	SW QUAD
TOTAL 0010					263	

REMOVING CONCRETE SIDEWALK

204.0155 REMOVING CONCRETE SIDEWALK					
CATEGORY	STATION	LOCATION	SY	REMARKS	
0010	49+00	STH 96 RAB	5		
0010	49+02	STH 96 RAB	5		
0010	50+94	STH 96 RAB	5		
0010	51+02	STH 96 RAB	7		
0010	342+57	STH 96 RAB	5		
0010	342+59	STH 96 RAB	5		
0010	344+52	STH 96 RAB	4		
0010	344+57	STH 96 RAB	5		
TOTAL 0010			40		

REMOVING GUARDRAIL

204.0165 REMOVING GUARDRAIL						
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	78+63	-	86+00	STH 32	738	RT
0010	79+36	-	84+47	STH 32	513	LT
0010	115+56	-	119+06	STH 32	351	RT
0010	116+31	-	119+81	STH 32	351	LT
0010	329+05	-	334+42	STH 32	536	LT
0010	416+56	-	420+80	STH 32	426	RT
0010	418+86	-	422+12	STH 32	326	LT
TOTAL 0010					3,241	

REMOVING MASONRY

204.0185 REMOVING MASONRY					
CATEGORY	STATION	LOCATION	CY	REMARKS	
0010	176+64	STH 32	0.7	RT	
0010	176+64	STH 32	1.0	LT	
0010	230+97	STH 32	0.7	RT	
0010	230+97	STH 32	0.5	LT	
TOTAL 0010			3		

REMOVING PAVEMENT

204.0100 REMOVING CONCRETE PAVEMENT						
CATEGORY	STATION	TO	STATION	LOCATION	SY	REMARKS
0010	66+00	-	66+39	STH 32	7	
TOTAL 0010					7	

PREP FOUNDATION FOR ASPHALTIC PAVING

211.0100.01 PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) (01. 4085-33-71)						
CATEGORY	STATION	TO	STATION	LOCATION	LS	REMARKS
0010	61+79	-	417+90	STH 32	1	
TOTAL 0010					1	

EARTHWORK SUMMARY

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)		SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	WASTE	208.0100 BORROW	SPV.0035.01 FOUNDATION BACKFILL
			CUT (2)	EBS EXCAVATION (3)								
DIVISION 1	STA 10+00 - STA 11+63	Man Cal Road	257	0	44	213	249	354	-141			
	STA 12+23 - STA 17+03	Man Cal Road	614	0	62	552	418	593	-41			
	STA 61+79 - STA 66+44	STH 32 - Man Cal Road Intersestion	220	0	63	157	311	442	-285			
	STA 66+00 - STA 66+78	STH 32 - Culvert Pipe	204	0	58	146	167	237	-91			237
	STA 67+68 - STA 72+35	STH 32 - Man Cal Road Intersection	408	0	65	343	141	200	144			
DIVISION 1 SUBTOTAL			1,703	0	292	1,411	1,286	1,826	-414	0	178	237
DIVISION 2	STA 77+55 - STA 87+09	STH 32 - Beamguard	79	0	51	28	74	105	-77			
	STA 114+98 - STA 116+56	STH 32 - Beamguard	12	0	10	2	35	49	-48			
	STA 118+67 - STA 120+89	STH 32 - Beamguard	26	0	22	4	48	68	-65			
	STA 174+90 - STA 179+56	STH 32 - Hill Road Intersection	214	0	63	151	403	572	-421			
	STA 180+72 - STA 185+51	STH 32 - Hill Road Intersection	270	0	70	200	402	571	-371			
	STA 327+99 - STA 329+57	STH 32 - Beamguard	8	0	7	1	72	102	-101			
	STA 333+84 - STA 335+42	STH 32 - Beamguard	14	0	7	7	16	22	-16			
DIVISION 2 SUBTOTAL			622	0	230	392	1,048	1,489	-1,097	0	1,097	0
DIVISION 3	STA 418+79 - STA 420+00	STH 32 - Box Culvert Extension	15	0	2	13	158	225	-211			
	STA 415+41 - STA 416+98	STH 32 - Beamguard	4	0	5	-1	25	36	-37			
DIVISION 3 SUBTOTAL			19	0	7	12	184	261	-248	0	248	0
GRAND TOTAL			2,345	0	529	1,816	2,518	3,575	-1,760	0	1,523	237
TOTAL COMMON EXC			2,345									

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

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

(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL

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

(13) EXPANDED FILL FACTOR = 1.15

DEPENDING ON SELECTIONS:

EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR

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

MINUS INDICATED A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

BASE AGGREGATE SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	305.0110	305.0120	REMARKS
					BASE AGGREGATE DENSE 3/4-INCH TON	BASE AGGREGATE DENSE 1 1/4-INCH TON	
0010				MAN CAL ROAD	48	137	PARKING AREA
0010	10+00	-	11+04	MAN CAL ROAD	16	108	LT
0010	10+00	-	11+11	MAN CAL ROAD	17	115	RT
0010	12+62	-	17+03	MAN CAL ROAD	69	457	LT
0010	12+70	-	17+03	MAN CAL ROAD	67	449	RT
0010	61+79	-	66+39	STH 32	81	258	RT
0010	61+79	-	66+44	STH 32	81	42	LT
0010	67+75	-	100+75	STH 32	578	40	LT
0010	67+80	-	117+35	STH 32	867	257	RT
0010	92+68	-	93+01	STH 32	3	-	DRIVEWAY, LT
0010	97+29	-	98+06	STH 32	7	-	DRIVEWAY, RT
0010	101+40	-	117+35	STH 32	279	-	LT
0010	117+77	-	123+18	STH 32	95	-	LT
0010	117+77	-	123+53	STH 32	101	-	RT
0010	124+44	-	167+18	STH 32	748	-	LT
0010	124+73	-	167+18	STH 32	743	-	RT
0010	167+18	-	174+90	STH 32	150	-	RT
0010	167+18	-	178+40	STH 32	218	-	LT
0010	174+90	-	179+52	STH 32	90	273	RT
0010	178+40	-	179+59	STH 32	23	44	LT
0010	180+73	-	181+72	STH 32	19	43	RT
0010	180+78	-	185+51	STH 32	92	286	LT
0010	181+16	-	181+26	STH 32	2	-	DRIVEWAY CULVERT, LT
0010	181+72	-	236+33	STH 32	1062	-	RT
0010	185+51	-	236+09	STH 32	984	-	LT
0010	237+35	-	289+51	STH 32	1014	-	LT
0010	237+53	-	263+23	STH 32	500	-	RT
0010	264+39	-	289+71	STH 32	492	-	RT
0010	267+84	-	268+28	STH 32	2	-	DRIVEWAY, LT
0010	290+91	-	340+93	STH 32	973	-	RT
0010	290+94	-	340+93	STH 32	972	-	LT
0010	295+74	-	296+09	STH 32	3	-	DRIVEWAY, LT
0010	309+40	-	309+73	STH 32	3	-	DRIVEWAY, RT
0010	345+44	-	369+51	STH 32	187	-	LT
0010	345+44	-	369+81	STH 32	190	-	RT
0010	370+73	-	398+29	STH 32	536	-	LT
0010	371+04	-	404+34	STH 32	648	-	RT
0010	399+53	-	417+90	STH 32	357	-	LT
0010	405+48	-	417+90	STH 32	242	-	RT
0010	418+63	-	418+76	STH 32	5	-	DRIVEWAY CULVERT, LT
0010				UNDISTRIBUTED	3,140	628	
				TOTAL 0010	15,702	3,137	

CONCRETE DRIVEWAY

CATEGORY	STATION	LOCATION	416.0160	REMARKS
			CONCRETE DRIVEWAY 6-INCH SY	
0010	49+02	STH 96 RAB	5	
0010	51+02	STH 96 RAB	5	
		TOTAL 0010	10	

ASPHALT CENTERLINE RUMBLE STRIPS

CATEGORY	STATION	TO	STATION	LOCATION	465.0475	REMARKS
					ASPHALT CENTERLINE RUMBLE STRIPS 2-LANE RURAL LF	
0010	61+79	-	65+07	STH 32	328	
0010	69+07	-	100+03	STH 32	3,096	
0010	102+03	-	117+10	STH 32	1,507	
0010	118+02	-	121+98	STH 32	396	
0010	125+98	-	178+15	STH 32	5,217	
0010	182+15	-	234+82	STH 32	5,267	
0010	238+82	-	261+88	STH 32	2,306	
0010	265+88	-	288+27	STH 32	2,239	
0010	292+27	-	340+93	STH 32	4,866	
0010	349+40	-	352+18	STH 32	278	
0010	356+05	-	368+25	STH 32	1,220	
0010	372+29	-	397+95	STH 32	2,566	
0010	399+95	-	403+00	STH 32	305	
0010	407+00	-	417+90	STH 32	1,090	
				TOTAL 0010	30,681	

HMA SUMMARY

CATEGORY	STATION TO	STATION	LOCATION	455.0605	460.0105.S	460.0110.S	460.5223	460.5224	460.5424	465.0105	REMARKS
				TACK COAT GAL	HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH	HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY EACH	HMA PAVEMENT 3 LT 58-28 S TON	HMA PAVEMENT 4 LT 58-28 S TON	HMA PAVEMENT 4 LT 58-28 H TON	ASPHALTIC SURFACE TON	
0010	61+79	- 417+90	PROJECT	-	2	2	-	-	-	-	1 EACH PER MIX TYPE
0010	61+79	- 117+35	STH 32	2,222			2,519	1,815	-	-	
0010		66+38	STH 32	-			-	-	-	210	CROSS CULVERT
0010	117+77	- 340+93	STH 32	8,926			10,117	7,290	-	-	
0010	340+93	- 345+44	STH 32	268			-	-	466	-	ROUNDAABOUT FOOTPRINT
0010	345+44	- 369+98	STH 32	763			-	1,331	-	1222	
0010	369+98	- 417+90	STH 32	1,118			-	1,949	-	-	
0010	10+00	- 11+69	MAN CAL ROAD	50			56	40	-	-	
0010	12+17	- 17+03	MAN CAL ROAD	143			162	116	-	-	
0010			LOVERS LANE	4			-	7	-	-	LT
0010			WAYSIDE ROAD	18			-	31	-	-	RT
0010			WAYSIDE ROAD	18			-	31	-	-	LT
0010			HILL ROAD	20			-	35	-	-	RT
0010			CTH Z	18			-	32	-	-	LT
0010			LAMERS CLANCY ROAD	19			-	32	-	-	RT
0010			LAMERS CLANCY ROAD	20			-	35	-	-	LT
0010			ST PATS CHURCH ROAD	17			-	29	-	-	RT
0010			MILL ROAD	17			-	30	-	-	RT
0010			CTH IL	23			-	41	-	-	LT
0010			FAIR ROAD	18			-	39	-	-	RT
0010			FAIR ROAD	18			-	31	-	-	LT
0010			OAKVIEW LANE	26			-	45	-	-	LT
0010			DEUSTER STREET	16			-	28	-	-	RT
TOTAL 0010				13743	2	2	12853	12990	466	1432	

PWL MIXTURE USE TABLE

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS
12 FOOT DRIVING LANE	61+79 TO 117+35	UPPER LAYER	3 LT 58-28 S	4 LT 58-28 S	1452	1 3/4"
12 FOOT DRIVING LANE	61+79 TO 117+35	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 LT 58-28 S	2015	2 1/4"
3 FOOT SHOULDER	61+79 TO 117+35	UPPER LAYER	3 LT 58-28 S	4 LT 58-28 S	363	1 3/4"
3 FOOT SHOULDER	61+79 TO 117+35	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 LT 58-28 S	504	2 1/4"
12 FOOT DRIVING LANE	117+77 TO 340+93	UPPER LAYER	3 LT 58-28 S	4 LT 58-28 S	5832	1 3/4"
12 FOOT DRIVING LANE	117+77 TO 340+93	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 LT 58-28 S	8093	2 1/4"
3 FOOT SHOULDER	117+77 TO 340+93	UPPER LAYER	3 LT 58-28 S	4 LT 58-28 S	1458	1 3/4"
3 FOOT SHOULDER	117+77 TO 340+93	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 LT 58-28 S	2024	2 1/4"
ROUNDABOUT	340+93 TO 345+44	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 LT 58-28 H	466	2"
12 FOOT DRIVING LANE	345+44 TO 369+98	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 LT 58-28 S	798	2"
10 FOOT SHOULDER	345+44 TO 369+98	UPPER LAYER	ASPHALTIC SURFACE (4 LT 58-28 S)	4 LT 58-28 S	533	2"
10 FOOT SHOULDER	345+44 TO 369+98	LOWER LAYER	BASE AGGREGATE	ASPHALTIC SURFACE	1222	2"
12 FOOT DRIVING LANE	369+98 TO 417+90	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 LT 58-28 S	1559	2"
3 FOOT SHOULDER	369+98 TO 417+90	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 LT 58-28 S	390	2"

QUALITY MANAGEMENT PROGRAM TO BE USED FOR:

MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
N/A	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
N/A	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE

ASPHALTIC SURFACE PATCHING

465.0110 ASPHALTIC SURFACE PATCHING					
CATEGORY	STATION	TO	STATION	LOCATION	REMARKS
0010	61+79	-	417+90	STH 32	POT HOLES /POP OUTS THROUGHOUT PAVING LIMITS
				TOTAL 0010	250

ASPHALTIC SURFACE DRIVEWAYS

465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES					
CATEGORY	STATION	TO	STATION	LOCATION	REMARKS
0010	91+19	-	91+66	STH 32	LT
0010	122+29	-	122+56	STH 32	LT
0010	259+53	-	260+08	STH 32	LT
0010	301+54	-	302+05	STH 32	LT
0010	305+40	-	306+08	STH 32	LT
0010	340+15	-	340+57	STH 32	LT
				TOTAL 0010	30

ASPHALTIC FLUMES

465.0315 ASPHALTIC FLUMES				
CATEGORY	STATION	LOCATION	SY	REMARKS
0010	11+15	MAN CAL ROAD	14	15' LT
0010	11+24	MAN CAL ROAD	14	15' RT
0010	12+30	MAN CAL ROAD	6	31' RT
0010	20+55	FAIR ROAD	6	29.5' LT
0010	67+68	STH 32	14	24' RT
			TOTAL 0010	54

CULVERT PIPE SUMMARY

CATEGORY	STATION	LOCATION	520.8000	521.1012	521.1018	521.3112	521.3118	522.0124	522.0136	522.0148	522.1024	522.1036	522.1048	633.5200	REMARKS
			CONCRETE COLLARS FOR PIPE EACH	APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH EACH	APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH EACH	CULVERT PIPE CORRUGATED STEEL 12-INCH* LF	CULVERT PIPE CORRUGATED STEEL 18-INCH* LF	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH LF	CULVERT PIPE REINFORCED CONCRETE CLASS III 48-INCH LF	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH EACH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 48-INCH EACH	MARKERS CULVERT END EACH	
0010	13+67	MAN CAL ROAD	-	2	-	16	-	-	-	-	-	-	-	-	LT - DRIVEWAY CULVERT
0010	14+46	MAN CAL ROAD	-	-	2	-	34	-	-	-	-	-	-	2	
0010	66+38	STH 32	-	-	-	-	-	-	-	78	-	-	-	2	
0010	176+39	STH 32	1	-	-	-	-	-	2	-	-	1	-	1	LT
0010	176+64	STH 32	1	-	-	-	-	-	10	-	-	1	-	1	RT
0010	181+22	STH 32	-	-	2	-	24	-	-	-	-	-	-	-	LT - DRIVEWAY CULVERT
0010	230+95	STH 32	1	-	-	-	-	2	-	-	1	-	-	1	LT
0010	230+97	STH 32	1	-	-	-	-	2	-	-	1	-	-	1	RT
0010	418+70	STH 32	-	-	2	-	34	-	-	-	-	-	-	-	LT - DRIVEWAY CULVERT
TOTAL 0010			4	2	6	16	92	4	12	78	2	2	2	8	

*Minimum wall thickness = 0.064"

BEAMGUARD SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	614.2300	614.2330	614.2340	614.2610	SPV.0090.01	REMARKS
					MGS GUARDRAIL 3 LF	MGS GUARDRAIL 3 K LF	MGS GUARDRAIL 3 L LF	MGS GUARDRAIL TERMINAL EAT EACH	SPECIAL (01. RAILING STEEL TYPE 'W' MODIFIED, B-05-262) LF	
0010	78+60	-	86+04	STH 32	637.5	-	-	2	-	RT
0010	79+32	-	84+50	STH 32	412.5	-	-	2	-	LT
0010	115+51	-	119+20	STH 32	225.0	-	-	2	40	RT
0010	116+03	-	119+84	STH 32	237.5	-	-	2	40	LT
0010	329+04	-	334+37	STH 32	-	425	-	2	-	LT
0010	416+46	-	420+76	STH 32	213.0	-	112.5	2	-	RT
TOTAL 0010					1,726	425	112.5	12	80	

CONCRETE CURB & GUTTER

601.0557

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

CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	-			MAN CAL ROAD	89	SE QUAD
0010	-			MAN CAL ROAD	66	NE QUAD
0010	-			MAN CAL ROAD	89	NW QUAD
0010	-			MAN CAL ROAD	69	SW QUAD
TOTAL 0010					313	

CURB RAMP DETECTABLE WARNING FIELD

602.0505

CURB RAMP DETECTABLE WARNING FIELD YELLOW

CATEGORY	STATION	LOCATION	SF	REMARKS
0010	49+00	STH 96 RAB	10	RT
0010	49+02	STH 96 RAB	10	LT
0010	50+94	STH 96 RAB	10	RT
0010	51+02	STH 96 RAB	10	LT
0010	342+57	STH 96 RAB	10	LT
0010	342+59	STH 96 RAB	10	RT
0010	344+52	STH 96 RAB	10	RT
0010	344+57	STH 96 RAB	10	LT
TOTAL 0010			80	

CONCRETE SIDEWALK

602.0405

CONCRETE SIDEWALK 4-INCH

CATEGORY	STATION	LOCATION	SF	REMARKS
0010	49+00	STH 96 RAB	32	RT
0010	50+94	STH 96 RAB	34	RT
0010	342+57	STH 96 RAB	33	LT
0010	342+59	STH 96 RAB	30	RT
0010	344+52	STH 96 RAB	30	RT
0010	344+57	STH 96 RAB	37	LT
TOTAL 0010			196	

CONCRETE BARRIER SUMMARY

603.8000	603.8125	603.8500
CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	ANCHORING CONCRETE BARRIER TEMPORARY PRECAST

CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	LF	REMARKS
0010	418+80	-	422+22	STH 32	212.5	212.5	212.5	LT SHOULDER CLOSURE
TOTAL 0010					212.5	212.5	212.5	

CRASH CUSHIONS

614.0905

CRASH CUSHIONS TEMPORARY

CATEGORY	STATION	TO	STATION	LOCATION	EACH	REMARKS	BACK WIDTH FT	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
0010	418+80	-	422+22	STH 32	1	LT SHOULDER CLOSURE	4	OM-3R (W05-58R)	TL-3	UNIDIRECTIONAL	L	TEMPORARY CONCRETE BARRIER ON SHOULDER
TOTAL 0010					1							

<u>WATER</u>					
CATEGORY	STATION	TO	STATION	LOCATION	REMARKS
				624.0100 WATER MGAL	
0010				MAN CAL ROAD	PARKING AREA, LT - BAD COMPACTION
0010	10+00	-	11+04	MAN CAL ROAD	RT - BAD COMPACTION
0010	10+00	-	11+11	MAN CAL ROAD	LT - BAD COMPACTION
0010	12+62	-	17+03	MAN CAL ROAD	LT - BAD COMPACTION
0010	12+70	-	17+03	MAN CAL ROAD	RT - BAD COMPACTION
0010	61+79	-	66+39	STH 32	RT - BAD COMPACTION
0010	61+79	-	66+44	STH 32	LT - BAD COMPACTION
0010	67+75	-	100+75	STH 32	LT - BAD COMPACTION
0010	67+80	-	117+35	STH 32	RT - BAD COMPACTION
0010	101+40	-	117+35	STH 32	LT - BAD COMPACTION
0010	117+77	-	123+18	STH 32	LT - BAD COMPACTION
0010	117+77	-	123+53	STH 32	RT - BAD COMPACTION
0010	124+44	-	167+18	STH 32	LT - BAD COMPACTION
0010	124+73	-	167+18	STH 32	RT - BAD COMPACTION
0010	167+18	-	174+90	STH 32	RT - BAD COMPACTION
0010	167+18	-	178+40	STH 32	LT - BAD COMPACTION
0010	174+90	-	179+52	STH 32	RT - BAD COMPACTION
0010	178+40	-	179+59	STH 32	LT - BAD COMPACTION
0010	180+73	-	181+72	STH 32	RT - BAD COMPACTION
0010	180+78	-	185+51	STH 32	LT - BAD COMPACTION
0010	181+72	-	236+33	STH 32	RT - BAD COMPACTION
0010	185+51	-	236+09	STH 32	LT - BAD COMPACTION
0010	237+35	-	289+51	STH 32	LT - BAD COMPACTION
0010	237+53	-	263+23	STH 32	RT - BAD COMPACTION
0010	264+39	-	289+71	STH 32	RT - BAD COMPACTION
0010	290+91	-	340+93	STH 32	RT - BAD COMPACTION
0010	290+94	-	340+93	STH 32	LT - BAD COMPACTION
0010	345+44	-	369+51	STH 32	LT - BAD COMPACTION
0010	345+44	-	369+81	STH 32	RT - BAD COMPACTION
0010	370+73	-	398+29	STH 32	LT - BAD COMPACTION
0010	371+04	-	404+34	STH 32	RT - BAD COMPACTION
0010	399+53	-	417+90	STH 32	LT - BAD COMPACTION
0010	405+48	-	417+90	STH 32	RT - BAD COMPACTION
				TOTAL 0010	144.49

EC MOBILIZATIONS

CATEGORY	STATION	TO	STATION	LOCATION	628.1905	628.1910	REMARKS
					MOBILIZATIONS EROSION CONTROL EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	
0010	61+79	-	422+22	STH 32	6	4	
				TOTAL 0010	6	4	

TRAFFIC BOND LIMESTONE 3/8-INCH

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0195.01	REMARKS
					SPECIAL (01. TRAFFIC BOND LIMESTONE 3/8-INCH) TON	
0010	12+85	-	13+17	MAN CAL ROAD	20	FOX RIVER TRAIL
				TOTAL 0010	20	

LANDSCAPING SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	625.0100	628.1504	628.1520	628.2004	628.2008	628.7555	629.0210	630.0130	630.0140	630.0500	REMARKS
					TOPSOIL SY	SILT FENCE LF	SILT FENCE MAINTENANCE LF	EROSION MAT CLASS I TYPE B SY	EROSION MAT URBAN CLASS I TYPE B SY	CULVERT PIPE CHECKS EACH	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 30 LB	SEEDING MIXTURE NO. 40 LB	SEED WATER MGAL	
0010				MAN CAL ROAD	195	-	-	195	-	-	0.12	3.5	-	4.37	PARKING LOT, LT
0010	10+00	-	11+15	MAN CAL ROAD	243	115	115	243	-	-	0.15	4.4	-	5.45	LT
0010	10+00	-	11+23	MAN CAL ROAD	334	100	100	334	-	-	0.21	6.0	-	7.48	RT
0010	12+62	-	17+03	MAN CAL ROAD	760	-	-	760	-	-	0.48	13.7	-	17.03	LT
0010	12+70	-	17+03	MAN CAL ROAD	792	-	-	792	-	-	0.50	14.3	-	17.74	RT
0010	61+79	-	66+39	STH 32	791	455	455	791	-	-	0.50	14.2	-	17.72	RT
0010	65+46	-	66+44	STH 32	212	90	90	212	-	-	0.13	3.8	-	4.75	LT
0010	67+68	-	68+68	STH 32	286	55	55	286	-	-	0.18	5.2	-	6.41	RT
0010	67+75	-	72+35	STH 32	666	455	455	666	-	-	0.42	12.0	-	14.93	LT
0010	77+55	-	79+13	STH 32	110	155	155	110	-	-	0.07	2.0	-	2.46	RT
0010	78+27	-	85+50	STH 32	443	710	710	443	-	-	0.28	8.0	-	9.93	LT
0010	85+51	-	87+09	STH 32	106	155	155	106	-	-	0.07	1.9	-	2.36	RT
0010	114+98	-	116+56	STH 32	159	160	160	159	-	-	0.10	2.9	-	3.56	LT
0010	118+67	-	120+25	STH 32	107	155	155	107	-	-	0.07	1.9	-	2.39	RT
0010	119+31	-	120+89	STH 32	166	160	160	-	166	-	0.10	-	3.0	3.71	LT
0010	174+90	-	179+50	STH 32	967	450	450	967	-	-	0.61	17.4	-	21.65	RT
0010	178+56	-	179+56	STH 32	269	120	120	-	269	-	0.17	-	4.8	6.02	LT
0010	180+72	-	181+72	STH 32	226	-	-	226	-	-	0.14	4.1	-	5.05	RT
0010	180+78	-	185+51	STH 32	1,051	460	460	-	1,051	-	0.66	-	18.9	23.54	LT
0010	327+99	-	329+57	STH 32	218	140	140	218	-	-	0.14	3.9	-	4.87	LT
0010	333+84	-	335+42	STH 32	166	140	140	166	-	-	0.10	3.0	-	3.73	LT
0010	415+41	-	416+98	STH 32	167	165	165	167	-	-	0.11	3.0	-	3.74	RT
0010	418+79	-	420+00	STH 32	413	80	80	413	-	-	0.26	7.4	-	9.24	LT
0010		13+67		MAN CAL ROAD	-	-	-	-	-	1	-	-	-	-	DRIVEWAY CULVERT, LT
0010		14+46		MAN CAL ROAD	-	-	-	-	-	2	-	-	-	-	
0010		66+38		STH 32	-	-	-	-	-	10	-	-	-	-	
0010		176+39		STH 32	70	-	-	70	-	7	0.04	1.3	-	1.57	
0010		181+22		STH 32	-	-	-	-	-	2	-	-	-	-	DRIVEWAY CULVERT, LT
0010		230+95		STH 32	88	-	-	88	-	3	0.06	1.6	-	1.98	
0010		418+70		STH 32	61	-	-	61	-	2	0.04	1.1	-	1.36	DRIVEWAY CULVERT, LT
0010				MAN CAL ROAD	218	55	55	218	-	-	0.14	3.9	-	4.88	SE QUAD
0010				MAN CAL ROAD	133	-	-	133	-	-	0.08	2.4	-	2.98	NE QUAD
0010				MAN CAL ROAD	126	25	25	126	-	-	0.08	2.3	-	2.83	SW QUAD
0010				MAN CAL ROAD	186	60	60	186	-	-	0.12	3.3	-	4.16	NW QUAD
0010				FAIR ROAD	56	-	-	56	-	-	0.04	1.0	-	1.26	NE QUAD
0010				UNDISTRIBUTED	978	446	446	830	149	3	0.62	14.9	2.7	21.92	
TOTAL 0010					10,763	4,906	4,906	9,129	1,634	30	6.78	164.3	29.4	241.09	

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	638.2102 MOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
1	COUNTY LINE RD/MAN CAL ROAD	R1-2	---	---	---	1	1	1
2	"	R1-1	---	---	---	1	1	1
3	"	R1-1	---	---	---	1	1	1
4	"	R1-1	---	---	---	1	1	1
5	"	D11-1	---	---	1	---	---	1
6	"	R1-1	---	---	---	1	1	1
7	"	W1-6	48" X 24"	8.00	1	---	---	---
8	"	I2-2	---	---	---	2	---	2
9	"	I2-2	---	---	---	2	---	2
TOTALS				8.00	2.00	9	5	10

TRAFFIC CONTROL SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	APPROX. SERVICE PERIOD DAY	643.0300 DRUMS		643.0410 BARRICADES TYPE II		* 643.0420 BARRICADES TYPE III		* 643.0705 WARNING LIGHTS TYPE A		* 643.0900 SIGNS		REMARKS
						NO. IN SERVICE	DAY	NO. IN SERVICE	DAY	NO. IN SERVICE	DAY	NO. IN SERVICE	DAY	NO. IN SERVICE	DAY	
0010	61+79	-	422+22	STH 32	35	-	-	-	-	-	-	-	-	10	350	FLAGGING OPERATIONS
0010	61+79	-	72+35	STH 32	25	50	1250	-	-	10	250	20	500	4	100	MAN CAL ROAD REALIGNMENT
0010				MAN CAL ROAD	25	-	-	-	-	8	200	16	400	12	300	MAN CAL ROAD REALIGNMENT
0010	174+90	-	185+51	STH 32	5	50	250	-	-	6	30	12	60	6	30	TURN LANES AT HILL ROAD INTERSECTION
0010	340+93	-	345+44	STH 32	1	-	-	-	-	8	8	16	16	12	12	ADVANCED SIGNING DURING DETOUR
0010	340+93	-	345+44	STH 32	5	13	65	4	20	-	-	4	-	4	20	STAGE 1 SIDEWALK CLOSURE AT STH 96 ROUNDABOUT
0010	340+93	-	345+44	STH 32	5	10	50	7	35	-	-	5	-	5	25	STAGE 2 SIDEWALK CLOSURE AT STH 96 ROUNDABOUT
0010	340+93	-	345+44	STH 32	5	13	65	4	20	-	-	4	-	4	20	STAGE 3 SIDEWALK CLOSURE AT STH 96 ROUNDABOUT
0010	340+93	-	345+44	STH 32	5	10	50	4	20	-	-	4	-	4	20	STAGE 4 SIDEWALK CLOSURE AT STH 96 ROUNDABOUT
0010	45+94	-	53+96	STH 96	1	-	-	-	-	8	8	16	16	12	12	ADVANCED SIGNING DURING DETOUR
0010	418+80	-	422+22	STH 32 UNDISTRIBUTED	19	-	-	-	-	-	-	-	-	2	38	LT SHOULDER CLOSURE FOR EXTENSION
				TOTAL 0010			2163		119		620		1,240		1,171	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 1 DAYS	643. 0900	643. 0420	643. 0705	643. 1050	NO. OF CYCLES	643. 0920	REMARKS
						SIGNS	BARRICADES TYPE III	WARNING LIGHTS TYPE A	SIGNS PORTABLE CHANGEABLE MESSAGE		COVERING SIGNS TYPE II	
						DAYS	DAYS	DAYS	DAYS			
1	200' E OF MICHIGAN ST ON STH 32/57	WD 20-2A	48"x48"	1	1	1						
2	ACROSS FROM SIGN # 1 (MEDIAN SIDE)	WD 20-2A	48"x48"	1	1	1						
3	MODIFY J 3-2 (S-32-TILT RT, S-57-TILT RT	MD 4-8	24"x12"	2	1	2						
	"	M 3-3	EXISTING									
	"	M 50-2	EXISTING									32/57
	"	MD 6-1	21"x21"	2	1	2						AHEAD
4	RT OF J 1-1 (JCT PP) (MEDIAN SIDE)	MD 4-8	24"x12"	1	1	1						
	"	M 3-3	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						AHEAD
5A	D1-3 (TILT LT-REEDSVILLE; CHILTON/MILWAUKEE-TILT RT										1	CHILTON/MILWAUKEE-TILT RT
5B	MODIFY J 1-1 (JCT 32, JCT 57)	MD 4-8A	24"x18"	2	1	2						
	"	MD 50-2	EXISTING									32/57
6	RT OF J 13-1 (S-PP-AH)	MD 4-8	24"x12"	1	1	1						
	"	M 3-3	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						AHEAD
7	MODIFY J 13-1 (X-TILT RT)	M 1-5A	EXISTING									
	"	MD 6-1	21"x21"	1	1	1						AHEAD
8	MODIFY J 3-2 (S-32-TILT RT, S-57-TILT RT	MD 4-8	24"x12"	2	1	2						
	"	M 3-3	EXISTING									
	"	M 50-2	EXISTING									32/57
	"	MD 6-1	21"x21"	2	1	2						AHEAD
9A	J4-2 (S-32, S-57)										1	S-32, S-57
9B	@ 32/57 SPLIT (RIGHT SHOULDER)	R 11-3	60"x30"	1	1	1	1	2				6 MILES
10	200' N OF CTY X INTERSECTION ON CTH PP	MD 4-8	24"x12"	1	1	1						
	"	M 3-1	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	2	1	2						AHEAD
11	200' S OF CTY X INTERSECTION ON CTH PP	MD 4-8	24"x12"	1	1	1						
	"	M 3-3	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						AHEAD
12	200' N OF OLD MARTIN RD INTERSECTION ON CTH PP	MD 4-8	24"x12"	1	1	1						
	"	M 3-1	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						AHEAD
13	200' S OF OLD MARTIN RD INTERSECTION ON CTH PP	MD 4-8	24"x12"	1	1	1						
	"	M 3-3	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						AHEAD
14	200' N OF CTY W INTERSECTION ON CTH PP	MD 4-8	24"x12"	1	1	1						
	"	M 3-1	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						AHEAD

PAGE SUBTOTALS

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 1 DAYS	643. 0900 SIGNS DAYS	643. 0420 BARRICADES TYPE III DAYS	643. 0705 WARNING LIGHTS TYPE A DAYS	643. 1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643. 0920 COVERING SIGNS TYPE II EACH	REMARKS
15	200' S OF CTY W INTERSECTION ON CTH PP	MD 4-8	24"x12"	1	1	1						
	" "	M 3-3	24"x12"	1	1	1						
	" "	M 1-6B	24"x24"	1	1	1						32
	" "	M 1-6	24"x24"	1	1	1						57
	" "	MD 6-1	21"x21"	1	1	1						AHEAD
16	200' N OF LASEE RD INTERSECTION ON CTH PP	MD 4-8	24"x12"	1	1	1						
	" "	M 3-1	24"x12"	1	1	1						
	" "	M 1-6B	24"x24"	1	1	1						32
	" "	M 1-6	24"x24"	1	1	1						57
	" "	MD 6-1	21"x21"	1	1	1						AHEAD
17	200' S OF LASEE RD INTERSECTION ON CTH PP	MD 4-8	24"x12"	1	1	1						
	" "	M 3-3	24"x12"	1	1	1						
	" "	M 1-6B	24"x24"	1	1	1						32
	" "	M 1-6	24"x24"	1	1	1						57
	" "	MD 6-1	21"x21"	1	1	1						AHEAD
18	200' N OF SCHOOL RD INTERSECTION ON CTH PP	MD 4-8	24"x12"	1	1	1						
	" "	M 3-1	24"x12"	1	1	1						
	" "	M 1-6B	24"x24"	1	1	1						32
	" "	M 1-6	24"x24"	1	1	1						57
	" "	MD 6-1	21"x21"	1	1	1						AHEAD
19	200' S OF SCHOOL RD INTERSECTION ON CTH PP	MD 4-8	24"x12"	1	1	1						
	" "	M 3-3	24"x12"	1	1	1						
	" "	M 1-6B	24"x24"	1	1	1						32
	" "	M 1-6	24"x24"	1	1	1						57
	" "	MD 6-1	21"x21"	1	1	1						AHEAD
20	RT OF J 1-1 (JCT 96) ON CTY PP SB	MD 4-8	24"x12"	1	1	1						
	" "	M 3-3	24"x12"	1	1	1						
	" "	M 1-6B	24"x24"	1	1	1						32
	" "	M 1-6	24"x24"	1	1	1						57
	" "	MD 5-1R	21"x21"	1	1	1						
21	200' N OF HWY 96 INTERSECTION ON CTH PP	MD 4-8	24"x12"	1	1	1						
	" "	M 3-1	24"x12"	1	1	1						
	" "	M 1-6B	24"x24"	1	1	1						32
	" "	M 1-6	24"x24"	1	1	1						57
22	200' N OF J4-2 (HWY 96-LT & RT, CTY PP-RT)	MD 4-8	24"x12"	1	1	1						
	" "	M 3-3	24"x12"	1	1	1						
	" "	M 1-6B	24"x24"	1	1	1						32
	" "	M 1-6	24"x24"	1	1	1						57
	" "	MD 6-1	21"x21"	1	1	1						RIGHT
23	ABOVE J 4-2 (W-96, S-PP)	MD 4-8	24"x12"	1	1	1						
	" "	M 3-3	24"x12"	1	1	1						
	" "	M 1-6B	24"x24"	1	1	1						32
	" "	M 1-6	24"x24"	1	1	1						57
PAGE SUBTOTALS				43		43	0	0	0		0	

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 1 DAYS	643. 0900 SIGNS DAYS	643. 0420 BARRICADES TYPE III DAYS	643. 0705 WARNING LIGHTS TYPE A DAYS	643. 1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643. 0920 COVERING SIGNS TYPE II EACH	REMARKS
24	ON BACK OF J 13-1 (CTH PP AH & RT)	MD 4-8	24"x12"	1	1	1						
	"	M 3-1	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						LEFT
25	RT OF J 13-1 (CTY PP-RT) ON HWY 96 EB	MD 4-8	24"x12"	1	1	1						
	"	M 3-1	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						LEFT
26	500' W OF SIGN # 25 ON HWY 96 EB	MD 4-8	24"x12"	1	1	1						
	"	M 3-1	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 5-1L	21"x21"	1	1	1						
27	250' E OF D1-1 (LT-BRILLION)	MD 4-8	24"x12"	1	1	1						
	"	M 3-3	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 5-1L	21"x21"	1	1	1						
28	RT OF J 3-1 (PP-LT)	MD 4-8	24"x12"	1	1	1						
	"	M 3-3	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						LEFT
29	ON BACK OF J 13-1 (CTH PP AH & RT) STH 96 WB	MD 4-8	24"x12"	1	1	1						
	"	M 3-3	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						LEFT
	GAP IN NUMBERING (30-33)											
34	RT OF J3-2 (96-LT & RT; PP-RT)	MD 4-8	24"x12"	1	1	1						
	"	M 3-1	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						RIGHT
35	250' S OF STH 96 INTERSECTION ON CTY PP	MD 4-8	24"x12"	1	1	1						
	"	M 3-3	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						AHEAD

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 1 DAYS	643. 0900 SIGNS DAYS	643. 0420 BARRICADES TYPE III DAYS	643. 0705 WARNING LIGHTS TYPE A DAYS	643. 1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643. 0920 COVERING SIGNS TYPE II EACH	REMARKS
36	200' N OF J1-1 (JCT 96)	MD 4-8	24"x12"	1	1	1						
	"	M 3-1	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 5-1R	21"x21"	1	1	1						
37	200' N OF PARK RD INTERSECTION ON CTY PP	MD 4-8	24"x12"	1	1	1						
	"	M 3-1	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						AHEAD
38	200' S OF PARK RD INTERSECTION ON CTY PP	MD 4-8	24"x12"	1	1	1						
	"	M 3-3	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						AHEAD
39	RT OF J1-1 (JCT Z)	MD 4-8	24"x12"	1	1	1						
	"	M 3-3	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 5-1R	21"x21"	1	1	1						
40	200' N OF CTY Z INTERSECTION ON CTY PP	MD 4-8	24"x12"	1	1	1						
	"	M 3-1	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						AHEAD
41	RT OF J3-2 (Z-LT & RT; PP-AH)	MD 4-8	24"x12"	1	1	1						
	"	M 3-3	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						RIGHT
42	ON BACK J3-2 (CTY PP LT & RT; CTH Z-AH) CTY Z (WB)	MD 4-8	24"x12"	1	1	1						
	"	M 3-1	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						LEFT
43	RT OF J3-2 (CTY PP LT & RT; CTH Z-AH) CTY Z (EB)	MD 4-8	24"x12"	1	1	1						
	"	M 3-1	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						LEFT
44	200' W OF CTY PP INTERSECTION ON CTH Z (WB)	MD 4-8	24"x12"	1	1	1						
	"	M 3-3	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						AHEAD

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 1 DAYS	643. 0900 SIGNS DAYS	643. 0420 BARRICADES TYPE III DAYS	643. 0705 WARNING LIGHTS TYPE A DAYS	643. 1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643. 0920 COVERING SIGNS TYPE II EACH	REMARKS
45	250' W OF SIGN # 42	MD 4-8	24"x12"	1	1	1						
	"	M 3-1	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 5-1L	21"x21"	1	1	1						AHEAD
46	MODIFY J1-1 (JCT 32/57)	MD 4-8A	24"x18"	2	1	2						
	"	M 50-2	EXISTING									
47	MODIFY J3-2 (32-LT & RT; 57-LT & RT)	M 50-2	EXISTING									
	"	MD 6-1	21"x21"	2	1	2						LEFT
48	J 4-2 (N-32; N-57)									1	1	NORTH 32, NORTH-57
49	250' E OF HWY 32/57 INTERSECTION ON CTH Z	MD 4-8	24"x12"	1	1	1						
	"	M 3-1	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						AHEAD
50	NE QUAD OF HWY 32/57 & CTY Z INTERSECTION	R 11-3	60"x30"	1	1	1	1	2				3 MILES
51	RT OF J 13-1 (CTY Z - LT & RT)	MD 4-8	24"x12"	1	1	1						
	"	M 3-1	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 6-1	21"x21"	1	1	1						RIGHT
52	200' S OF D1-2 (LT-KAUKAUNA; ASKEATON-RT)	MD 4-8	24"x12"	1	1	1						
	"	M 3-1	24"x12"	1	1	1						
	"	M 1-6B	24"x24"	1	1	1						32
	"	M 1-6	24"x24"	1	1	1						57
	"	MD 5-1R	21"x21"	1	1	1						
53	2600' S OF SIGN # 51	WO20-2G	48"x48"	1	1	1						
54	5300' S OF SIGN # 51	WO 20-2F	48"x48"	1	1	1						
55	FIELD DETERMINED - HWY 32/57 SB	PCMS		1					7			
56	FIELD DETERMINED - HWY 32/57 NB	PCMS		1					7			

PAGE SUBTOTALS	29	27	1	2	14	1
STH 32/57 DETOUR TOTALS	207	205	2	4	14	3

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 1 DAYS	643. 0900 SIGNS DAYS	643. 0420 BARRICADES TYPE III DAYS	643. 0705 WARNING LIGHTS TYPE A DAYS	643. 1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643. 0920 COVERING SIGNS TYPE II EACH	REMARKS
1	STH 96, N. OF CTH D, PLACE 1/4 MILE N. OF CTH D INTERSECTION	W 20-2A	48"X48"	1	1	1						
2	STH 96, N. OF CTH D, PLACE 750' N. OF CTH D INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-2	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 5-1R	21"X21"	1	1	1						
3	STH 96, N. OF CTH D, COVER EXISTING SIGN AS SHOWN									1	1	COVER ENTIRE SIGN
4	STH 96, N. OF CTH D, PLACE 150' N. OF CTH D INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-2	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						RIGHT
5	STH 96, AT CTH D, MODIFY EXISTING J13-2 AS SHOWN	MD 6-1	21"X21"	1	1	1						LEFT
6	STH 96, AT CTH D, PLACE IN SE QUADRANT BEHIND BACK OF CURB	R 11-3	60"X30"	1	1	1	1	2				3 MILE AHEAD
	"	M 4-9R	30"X24"	1	1	1						
7	CTH D, S. OF STH 96, PLACE 100' S. OF STH 96 INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-2	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
8	CTH D, S. OF STH 96, MODIFY EXISTING J1-1 SIGN AS SHOWN	M 4-8A	24"X18"	1	1	1						
9	CTH D, AT NEW RD, PLACE 100' N. OF NEW RD	MD 4-8	24"X12"	1	1	1						
	"	M 3-2	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						AHEAD
10	CTH D, AT NEW RD, PLACE 100' S. OF NEW RD	MD 4-8	24"X12"	1	1	1						
	"	M 3-4	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						AHEAD
11	CTH D, AT LAMERS CLANCY RD, PLACE 100' N. OF LAMERS CLANCY RD	MD 4-8	24"X12"	1	1	1						
	"	M 3-2	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						AHEAD
12	CTH D, AT LAMERS CLANCY RD, PLACE 100' S. OF LAMERS CLANCY RD	MD 4-8	24"X12"	1	1	1						
	"	M 3-4	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						AHEAD
13	CTH D, N. OF CTH Z, PLACE 750' N. OF CTH Z INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-2	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 5-1L	21"X21"	1	1	1						
14	CTH D, N. OF CTH Z, PLACE 100' N. OF CTH Z INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-2	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						LEFT
15	CTH D, N. OF CTH Z, PLACE 150' N. OF CTH Z INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-4	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 1 DAYS	643. 0900 SIGNS DAYS	643. 0420 BARRI CADES TYPE III DAYS	643. 0705 WARNING LI GHTS TYPE A DAYS	643. 1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643. 0920 COVERING SIGNS TYPE II EACH	REMARKS
16	CTH Z, AT CTH D, PLACE RIGHT OF EXISTING J13-2 SIGN	MD 4-8	24"X12"	1	1	1						
	"	M 3-4	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						RIGHT
17	CTH Z, E. OF CTH D, PLACE 150' E. OF CTH D INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-2	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
18	CTH Z, E. OF CTH D, PLACE 750' E. OF CTH D INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-4	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 5-1R	21"X21"	1	1	1						
19	CTH Z, W. OF VANDE WETTERING RD, PLACE 100' W. OF VANDE WETTERING RD	MD 4-8	24"X12"	1	1	1						
	"	M 3-2	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						AHEAD
20	CTH Z, E. OF VANDE WETTERING RD, PLACE 100' E. OF VANDE WETTERING RD	MD 4-8	24"X12"	1	1	1						
	"	M 3-4	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						AHEAD
21	CTH Z, W. OF OLD 57 RD, PLACE 100' W. OF OLD 57 RD	MD 4-8	24"X12"	1	1	1						
	"	M 3-4	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
22	CTH Z, AT STH 32/57, PLACE RIGHT OF EXISITNG J13-2 SIGN AT STH 32/57	MD 4-8	24"X12"	1	1	1						
	"	M 3-2	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						AHEAD
23	STH 32/57, AT CTH Z, PLACE RIGHT OF EXISTING J13-1 SIGN	MD 4-8	24"X12"	1	1	1						
	"	M 3-2	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						RIGHT
24	STH 32/57, AT CTH Z, PLACE LEFT OF EXISTING J13-1 SIGN	MD 4-8	24"X12"	1	1	1						
	"	M 3-4	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						LEFT
25	STH 32/57, S. OF CTH Z, PLACE 750' S. OF CTH Z INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-4	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 5-1L	21"X21"	1	1	1						
26	STH 32/57, S. OF CTH Z, PLACE 750' S. OF CTH Z INTERSECTION, PLACE RIGHT OF SIGN #25	MD 4-8	24"X12"	1	1	1						
	"	M 3-2	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 5-1R	21"X21"	1	1	1						
27	STH 32/57, S. OF CTH Z, PLACE 1/4 MILE S. OF CTH Z INTERSECTION	M 1-6	24"X24"	1	1	1						96
	"	W 20-2A	48"X48"	1	1	1						
28	CTH Z, AT STH 32/57, PLACE RIGHT OF EXISITNG J13-2 SIGN AT STH 32/57	MD 4-8	24"X12"	1	1	1						
	"	M 3-4	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						AHEAD

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 1 DAYS	643. 0900 SIGNS DAYS	643. 0420 BARRICADES TYPE III DAYS	643. 0705 WARNING LIGHTS TYPE A DAYS	643. 1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643. 0920 COVERING SIGNS TYPE II EACH	REMARKS
29	CTH Z, E. OF STH 32/57, PLACE 150' E. OF STH 32/57 INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-2	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
30	CTH Z, E. OF CHURCH RD, PLACE 100' E. OF CHURCH RD INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-4	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						AHEAD
31	CTH Z, W. OF CHURCH RD, PLACE 100' W. OF CHURCH RD INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-2	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						AHEAD
32	CTH Z, W. OF CTH PP, PLACE 750' W. OF CTH PP INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-2	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 5-1L	21"X21"	1	1	1						
33	CTH Z, W. OF CTH PP, PLACE 150' W. OF CTH PP INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-4	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
34	CTH Z, AT CTH PP, PLACE BETWEEN R1-1 AND J13-2 SIGNS AT CTH PP INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-2	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						LEFT
35	CTH PP, N. OF CTH Z, PLACE RIGHT OF EXISTING J13-2 SIGN	MD 4-8	24"X12"	1	1	1						
	"	M 3-4	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						RIGHT
36	CTH PP, N. OF CTH Z, PLACE 150' N. OF CTH Z INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-2	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
37	CTH PP, N. OF CTH Z, PLACE 1000' N. OF CTH Z INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-4	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 5-1R	21"X21"	1	1	1						
38	CTH PP, S. OF MILL RD, PLACE 100' S. OF MILL RD INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-2	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						AHEAD
39	CTH PP, N. OF MILL RD, PLACE 100' N. OF MILL RD INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-4	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						AHEAD
40	CTH PP, S. OF STH 96, MODIFY EXISTING J1-1 SIGN AS SHOWN	M 4-8A	24"X18"	1	1	1						
41	CTH PP, S. OF STH 96, PLACE 150' S. OF STH 96 INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-4	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 1 DAYS	643. 0900 SIGNS DAYS	643. 0420 BARRICADES TYPE III DAYS	643. 0705 WARNING LIGHTS TYPE A DAYS	643. 1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643. 0920 COVERING SIGNS TYPE II EACH	REMARKS
42	CTH PP, AT STH 96, MODIFY EXISTING J13-1 SIGN AS SHOWN	MD 6-1	21"X21"	1	1	1						RIGHT
43	STH 96, AT CTH PP, PLACE ON RIGHT SHOULDER IN NW QUADRANT OF INTERSECTION	R 11-3	60"X30"	1	1	1	1	2				1 1/2 MILES AHEAD
44	STH 96, AT CTH PP, PLACE RIGHT OF EXISTING J13-1 SIGN	MD 4-8	24"X12"	1	1	1						
	"	M 3-4	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 6-1	21"X21"	1	1	1						LEFT
45	STH 96, E. OF CTH PP, PLACE 750' E. OF CTH PP/LEDGETOP DR INTERSECTION	MD 4-8	24"X12"	1	1	1						
	"	M 3-4	24"X12"	1	1	1						
	"	M 1-6	24"X24"	1	1	1						96
	"	MD 5-1L	21"X21"	1	1	1						
46	STH 96, E. OF CTH PP, PLACE 1/4 MILE E. OF CTH PP/LEDGETOP DR INTERSECTION	W 20-2A	48"X48"	1	1	1						

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STH 96 DETOUR TOTALS

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EDGE LINE PAVEMENT MARKING SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	646.1040	646.3040	REMARKS
					MARKING LINE GROOVED WET REF EPOXY 4-INCH LF	MARKING LINE GROOVED WET REF EPOXY 8-INCH LF	
0010	61+79	-	66+39	STH 32	460	-	RT
0010	61+79	-	66+44	STH 32	465	-	LT
0010	63+29	-	66+39	STH 32	-	310	RT
0010	67+68	-	123+53	STH 32	5585	-	RT
0010	67+75	-	70+85	STH 32	-	310	LT
0010	67+75	-	100+75	STH 32	3300	-	LT
0010	101+40	-	123+18	STH 32	2178	-	LT
0010	124+44	-	179+59	STH 32	5515	-	LT
0010	124+73	-	179+52	STH 32	5479	-	RT
0010	176+40	-	179+52	STH 32	-	312	RT
0010	180+73	-	236+33	STH 32	5560	-	RT
0010	180+78	-	183+88	STH 32	-	310	LT
0010	180+78	-	236+09	STH 32	5531	-	LT
0010	237+35	-	289+51	STH 32	5216	-	LT
0010	237+53	-	263+23	STH 32	2570	-	RT
0010	264+39	-	289+71	STH 32	2532	-	RT
0010	288+64	-	289+71	STH 32	36	-	3' skips, 9' gap RT
0010	290+95	-	293+92	STH 32	-	297	LT
0010	290+91	-	340+93	STH 32	5002	-	RT
0010	290+94	-	340+93	STH 32	4999	-	LT
0010	345+44	-	369+51	STH 32	2407	-	LT
0010	345+44	-	369+81	STH 32	2437	-	RT
0010	370+73	-	398+29	STH 32	2756	-	LT
0010	371+04	-	404+34	STH 32	3,330	-	RT
0010	399+53	-	417+90	STH 32	1,837	-	LT
0010	405+48	-	417+90	STH 32	1,242	-	RT
TOTAL 0010					68,437	1,539	

PAVEMENT MARKING SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	646.1020	646.6320	646.7120	646.8220	649.0105	649.0120	REMARKS
					MARKING LINE EPOXY 4-INCH (YELLOW) LF	MARKING DOTTED EXTENSION EPOXY 18-INCH (YELLOW) LF	MARKING DIAGONAL EPOXY 12-INCH (YELLOW) LF	MARKING ISLAND NOSE EPOXY (YELLOW) EACH	TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW) LF	TEMPORARY MARKING LINE EPOXY 4-INCH (YELLOW) LF	
0010	61+79	-	82+38	STH 32	515	-	-	-	772	515	CENTERLINE
0010	82+38	-	104+03	STH 32	2706	-	-	-	1624	2706	CENTERLINE
0010	104+03	-	134+13	STH 32	752	-	-	-	2257	752	CENTERLINE
0010	134+13	-	140+99	STH 32	858	-	-	-	515	858	CENTERLINE
0010	140+99	-	145+21	STH 32	106	-	-	-	317	106	CENTERLINE
0010	145+21	-	152+61	STH 32	924	-	-	-	554	924	CENTERLINE
0010	152+61	-	215+97	STH 32	1,584	-	-	-	4,752	1,584	CENTERLINE
0010	215+97	-	238+67	STH 32	2,838	-	-	-	1,703	2,838	CENTERLINE
0010	238+67	-	300+45	STH 32	1,544	-	-	-	4,633	1,544	CENTERLINE
0010	300+45	-	306+78	STH 32	792	-	-	-	475	792	CENTERLINE
0010	306+78	-	311+53	STH 32	119	-	-	-	356	119	CENTERLINE
0010	311+53	-	317+87	STH 32	792	-	-	-	475	792	CENTERLINE
0010	317+87	-	321+04	STH 32	79	-	-	-	238	79	CENTERLINE
0010	321+04	-	331+07	STH 32	1,254	-	-	-	752	1,254	CENTERLINE
0010	331+07	-	340+93	STH 32	2,006	-	-	-	752	2,006	CENTERLINE
0010	345+44	-	351+25	STH 32	726	-	-	-	145	726	CENTERLINE
0010	351+25	-	353+36	STH 32	53	-	-	-	53	53	CENTERLINE
0010	353+36	-	361+81	STH 32	1,056	-	-	-	211	1,056	CENTERLINE
0010	361+81	-	366+56	STH 32	950	-	-	-	119	950	CENTERLINE
0010	366+56	-	377+65	STH 32	1,386	-	-	-	277	1,386	CENTERLINE
0010	377+65	-	394+02	STH 32	409	-	-	-	409	409	CENTERLINE
0010	394+02	-	405+10	STH 32	1,386	-	-	-	277	1,386	CENTERLINE
0010	405+10	-	411+97	STH 32	1,373	-	-	-	172	1,373	CENTERLINE
0010	411+97	-	417+90	STH 32	726	-	-	-	145	726	CENTERLINE
0010				STH 96	702	42	46	1	-	-	SOUTH LEG RAB
0010				STH 96	371	40	17	1	-	-	EAST LEG RAB
0010				STH 96	286	37	17	1	-	-	NORTH LEG RAB
0010				STH 96	405	38	18	1	-	-	WEST LEG RAB
TOTAL 0010					26,699	157	98	4	21,985	24,935	

CONSTRUCTION STAKING SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	650.4500	650.5000	650.5500	650.6000	650.8000	650.9920	650.9910.01	REMARKS
					CONSTRUCTION STAKING SUBGRADE LF	CONSTRUCTION STAKING BASE LF	CONSTRUCTION STAKING CURB AND GUTTER LF	CONSTRUCTION STAKING PIPE CULVERTS EACH	CONSTRUCTION STAKING RESURFACING REFERENCE LF	CONSTRUCTION STAKING SLOPE STAKES LF	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 4085-33-71) LS	
0010	10+00	-	11+15	MAN CAL ROAD	-	-	-	-	-	127	-	LT
0010	10+00	-	11+23	MAN CAL ROAD	-	-	-	-	-	111	-	RT
0010	10+00	-	11+69	MAN CAL ROAD	169	169	-	-	-	-	-	
0010	12+17	-	17+03	MAN CAL ROAD	486	486	-	-	-	-	-	
0010	12+62	-	17+03	MAN CAL ROAD	-	-	-	-	-	567	-	LT
0010	12+70	-	17+03	MAN CAL ROAD	-	-	-	-	-	445	-	RT
0010	61+79	-	422+22	STH 32	-	-	-	-	36,001	-	1	
0010	61+79	-	66+39	STH 32	460	460	-	-	-	470	-	RT
0010	65+46	-	66+44	STH 32	98	98	-	-	-	103	-	LT
0010	67+68	-	68+68	STH 32	100	100	-	-	-	106	-	RT
0010	67+75	-	72+35	STH 32	460	460	-	-	-	462	-	LT
0010	77+55	-	79+13	STH 32	-	-	-	-	-	160	-	RT
0010	78+27	-	85+50	STH 32	-	-	-	-	-	742	-	LT
0010	85+51	-	87+09	STH 32	-	-	-	-	-	162	-	RT
0010	114+98	-	116+56	STH 32	-	-	-	-	-	159	-	LT
0010	118+67	-	120+25	STH 32	-	-	-	-	-	160	-	RT
0010	119+31	-	120+89	STH 32	-	-	-	-	-	159	-	LT
0010	174+90	-	179+50	STH 32	460	460	-	-	-	464	-	RT
0010	178+56	-	179+56	STH 32	100	100	-	-	-	100	-	LT
0010	180+72	-	181+72	STH 32	100	100	-	-	-	101	-	RT
0010	180+78	-	185+51	STH 32	473	473	-	-	-	480	-	LT
0010	327+99	-	329+57	STH 32	-	-	-	-	-	170	-	LT
0010	333+84	-	335+42	STH 32	-	-	-	-	-	168	-	LT
0010	415+41	-	416+98	STH 32	-	-	-	-	-	160	-	RT
0010	418+79	-	420+00	STH 32	-	-	-	-	-	175	-	LT
0010	14+46			MAN CAL ROAD	-	-	-	1	-	-	-	
0010	66+38			STH 32	-	-	-	1	-	-	-	
0010	176+50			STH 32	-	-	-	1	-	-	-	
0010	230+96			STH 32	-	-	-	1	-	-	-	
0010				MAN CAL ROAD	-	-	89	-	-	42	-	SE QUAD
0010				MAN CAL ROAD	-	-	66	-	-	20	-	NE QUAD
0010				MAN CAL ROAD	-	-	89	-	-	49	-	NW QUAD
0010				MAN CAL ROAD	-	-	69	-	-	20	-	SW QUAD
0010				FAIR ROAD	-	-	53	-	-	32	-	NE QUAD
TOTAL 0010					2,906	2,906	366	4	36,001	5,914	1	

SAWING ASPHALT

CATEGORY	STATION	TO	STATION	LOCATION	690.0150 SAWING ASPHALT LF	REMARKS
0010	61+79	-	69+10	STH 32	731	RT
0010	65+43	-	72+35	STH 32	692	LT
0010	174+90	-	179+52	STH 32	478	RT
0010	178+40	-	179+58	STH 32	133	LT
0010	180+72	-	181+72	STH 32	116	RT
0010	180+78	-	185+51	STH 32	488	LT
TOTAL 0010					2,638	

SAWING CONCRETE

CATEGORY	STATION	LOCATION	690.0250 SAWING CONCRETE LF	REMARKS
0010	49+00	STH 96	16	RT, RAB
0010	49+02	STH 96	22	LT, RAB
0010	50+94	STH 96	18	RT, RAB
0010	51+02	STH 96	27	LT, RAB
0010	66+00	STH 32	30	
0010	66+78	STH 32	30	
0010	342+57	STH 32	16	LT, RAB
0010	342+59	STH 32	17	RT, RAB
0010	344+52	STH 32	15	RT, RAB
0010	344+57	STH 32	17	LT, RAB
TOTAL 0010			208	

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION TRANSPORTATION PROJECT PLAT TITLE SHEET 4085-33-21 HILBERT - GREEN BAY SCL - DEUSTER ST STH 32/57



CONVENTIONAL SYMBOLS

SECTION LINE	---	SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	●
QUARTER LINE	---	SECTION CORNER MONUMENT		NON-MONUMENTED R/W POINT	○
SIXTEENTH LINE	---	GEODETIC SURVEY MONUMENT		FOUND IRON PIN (1-INCH UNLESS NOTED)	IP ○
NEW REFERENCE LINE	---	SIXTEENTH CORNER MONUMENT		SIGN	
NEW R/W LINE	---	SIGN		OFF-PREMISE SIGN	
EXISTING R/W OR HE LINE	---	SIGN		COMPENSABLE	
PROPERTY LINE	---	SIGN		NON-COMPENSABLE	
LOT, TIE & OTHER MINOR LINES	---	SIGN		ELECTRIC POLE	
SLOPE INTERCEPT	---	SIGN		TELEPHONE POLE	
CORPORATE LIMITS	---	SIGN		PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)	
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)	---	SIGN		ACCESS RESTRICTED BY ACQUISITION	
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)	---	SIGN		NO ACCESS (BY STATUTORY AUTHORITY)	
TEMPORARY LIMITED EASEMENT AREA	---	SIGN		ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)	
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)	---	SIGN		NO ACCESS (NEW HIGHWAY)	
TRANSMISSION STRUCTURES	---	SIGN		PARCEL NUMBER (25)	
BUILDING	---	SIGN		UTILITY NUMBER (40)	
BRIDGE	---	SIGN		PARALLEL OFFSETS	

CONVENTIONAL ABBREVIATIONS

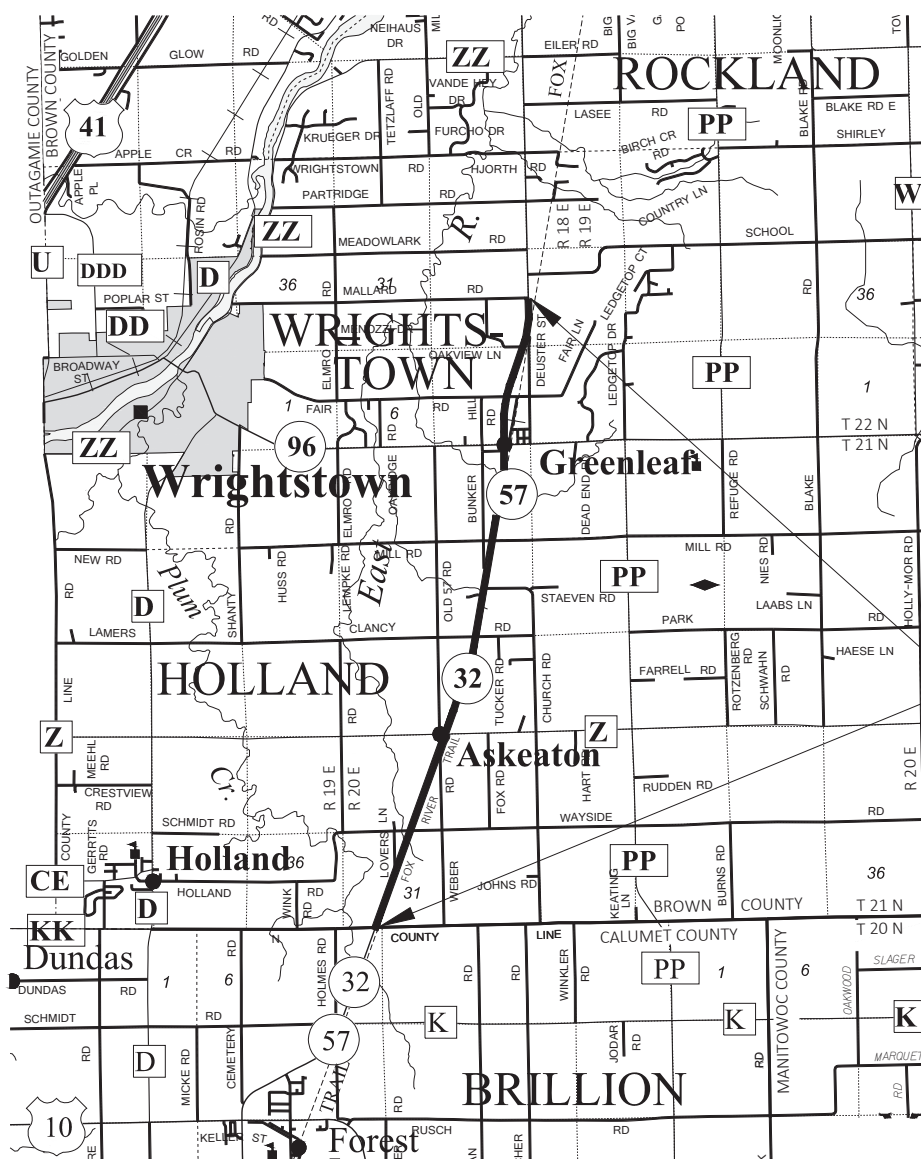
ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS (100')	
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTRICTIVE DEVELOPMENT	RDE
CENTERLINE	C/L	EASEMENT	
CERTIFIED SURVEY MAP	CSM	RIGHT	RT
CONCRETE	CONC	RIGHT OF WAY	R/W
COUNTY	CO	SECTION	SEC
COUNTY TRUNK HIGHWAY	CTH	SEPTIC VENT	SEPV
DISTANCE	DIST	SQUARE FEET	SF
CORNER	COR	STATE TRUNK HIGHWAY	STH
DOCUMENT NUMBER	DOC	STATION	STA
EASEMENT	EASE	TELEPHONE PEDESTAL	TP
EXISTING	EX	TEMPORARY LIMITED	TLE
GAS VALVE	GV	EASEMENT	
GRID NORTH	GN	TRANSPORTATION PROJECT	TPP
HIGHWAY EASEMENT	HE	PLAT	
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		
POINT OF COMPOUND CURVE	PCC		

CURVE DATA

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

CONVENTIONAL UTILITY SYMBOLS

---	WATER
---	GAS
---	TELEPHONE
---	OVERHEAD TRANSMISSION LINES
---	ELECTRIC
---	CABLE TELEVISION
---	FIBER OPTIC
---	SANITARY SEWER
---	STORM SEWER



PROJECT LOCATION

THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 4085-33-21.

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 1" I.D. X 24" IRON PIPES), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

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

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A HIGHWAY EASEMENT (HE) IS AN EASEMENT FOR HIGHWAY PURPOSES, AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

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

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

FOR EXISTING HIGHWAY RIGHT-OF-WAY AND ACCESS CONTROL POINTS OF REFERENCE SEE INDIVIDUAL TPP DETAIL PAGES.

PROJECT NUMBER 4085-33-21 - 4.01
SHEET 2 OF 2
AMENDMENT NO:

R/W COURSE TABLE

FROM POINT	TO POINT	BEARING	DISTANCE
33	301	S00°12'48"W	33.00'
301	302	S89°55'25"W	9.83'
302	303	S70°23'45"W	192.85'
303	304	S84°30'37"W	147.55'
304	305	S21°16'58"W	388.03'
306	307	N21°16'58"E	341.27'
307	308	N02°30'47"W	85.41'
308	309	S89°55'25"W	104.91'
309	310	N16°44'28"E	68.95'
310	311	N89°55'25"E	110.73'
311	312	N39°24'27"E	110.67'
312	313	N21°14'42"E	301.92'
314	315	S21°14'42"W	354.38'
315	316	N89°55'25"E	425.76'

TOWN

250' UTILITY EASEMENT
DOC. #622657

EASEMENT ASSIGNMENT
DOC. #521364

EASEMENT ASSIGNMENT
DOC. #2780724

CONVEYANCE OF RIGHTS
DOC. #1464327

TRANSPORTATION PROJECT PLAT NO: 4085-33-21 - 4.01

PART OF THE FRACTIONAL NE1/4-NE1/4 OF SECTION 5, T20N, R20E, TOWN OF BRILLION, CALUMET COUNTY,
AND PART OF THE SE1/4-SW1/4 OF SECTION 31, T21N, R20E, TOWN OF HOLLAND, BROWN COUNTY, WISCONSIN

RELOCATION ORDER STH 32/57 HILBERT - GREEN BAY (SCL - DEUSTER ST) BROWN COUNTY CALUMET 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), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 1" I.D. X 24" IRON PIPES), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

DOCUMENT # 536700

TAMARA ALTEN
REGISTER OF DEEDS
CALUMET COUNTY, WI
02/06/2019 03:03 PM
VOL: D PAGE: 118
RECORDING FEE: 25.00

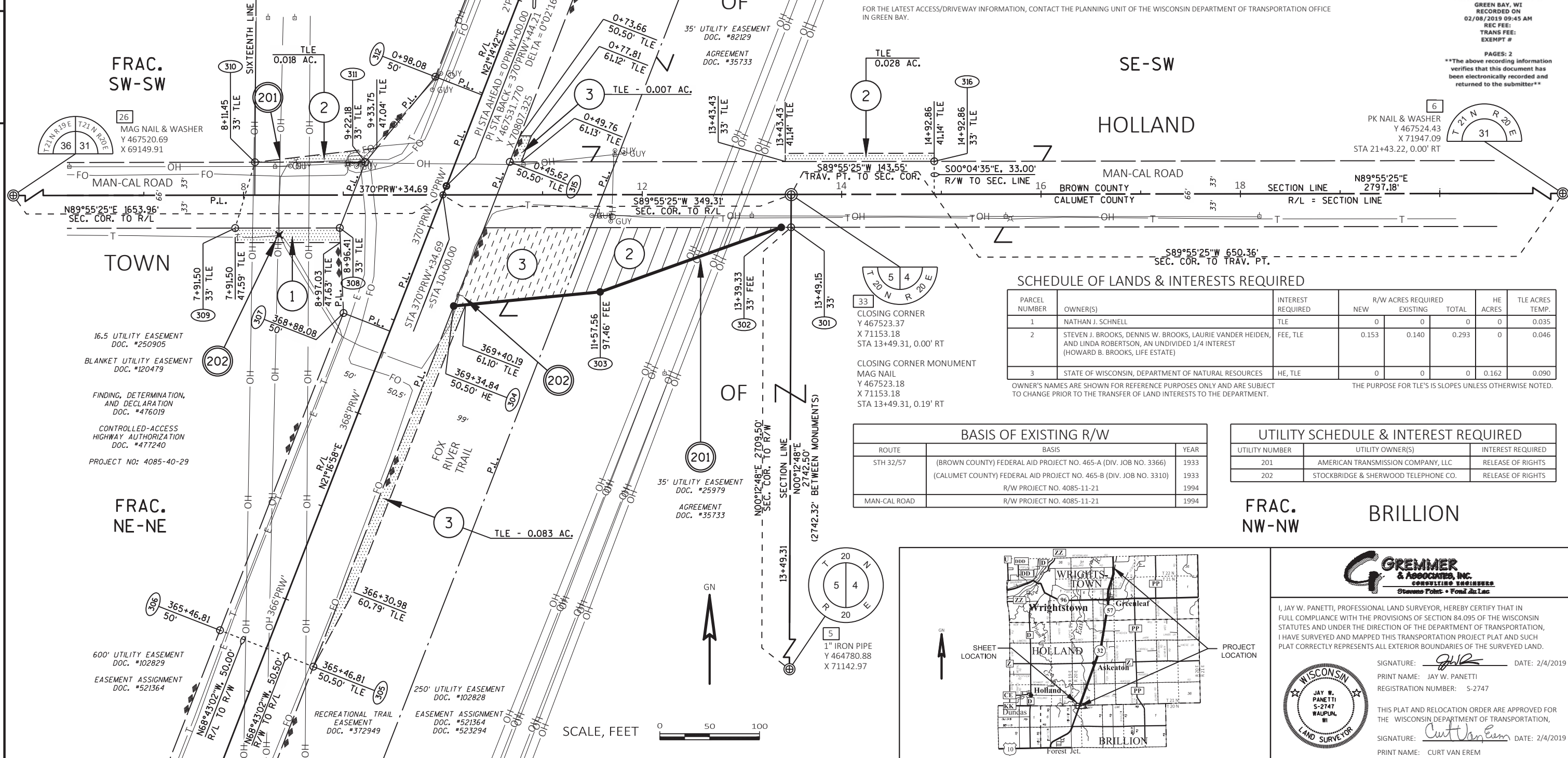
RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4085-33-21-4.01
SHEET 1 OF 2

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2.

2850556
CHERYL BERKEN
BROWN COUNTY RECORDER
GREEN BAY, WI
RECORDED ON
02/08/2019 09:45 AM
REC FEE:
TRANS FEE:
EXEMPT #

PAGES: 2
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PK NAIL & WASHER
Y 467524.43
X 71947.09
STA 21+43.22, 0.00' RT



SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	R/W ACRES REQUIRED EXISTING	TOTAL	HE ACRES	TLE ACRES TEMP.
1	NATHAN J. SCHNELL	TLE	0	0	0	0	0.035
2	STEVEN J. BROOKS, DENNIS W. BROOKS, LAURIE VANDER HEIDEN, AND LINDA ROBERTSON, AN UNDIVIDED 1/4 INTEREST (HOWARD B. BROOKS, LIFE ESTATE)	FEE, TLE	0.153	0.140	0.293	0	0.046
3	STATE OF WISCONSIN, DEPARTMENT OF NATURAL RESOURCES	HE, TLE	0	0	0	0.162	0.090

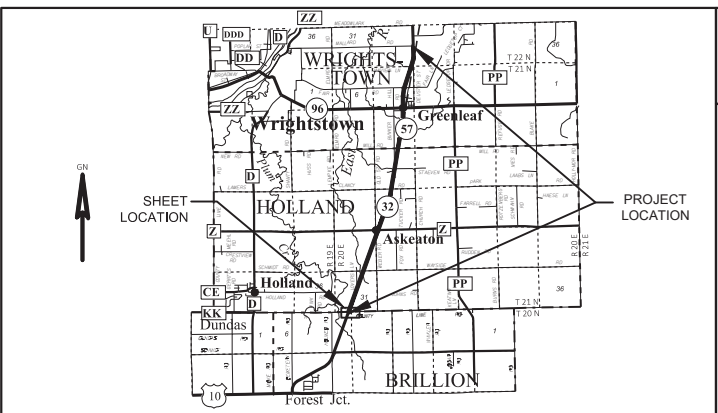
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT. THE PURPOSE FOR TLE'S IS SLOPES UNLESS OTHERWISE NOTED.

BASIS OF EXISTING R/W

ROUTE	BASIS	YEAR
STH 32/57	(BROWN COUNTY) FEDERAL AID PROJECT NO. 465-A (DIV. JOB NO. 3366)	1933
	(CALUMET COUNTY) FEDERAL AID PROJECT NO. 465-B (DIV. JOB NO. 3310)	1933
	R/W PROJECT NO. 4085-11-21	1994
MAN-CAL ROAD	R/W PROJECT NO. 4085-11-21	1994

UTILITY SCHEDULE & INTEREST REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
201	AMERICAN TRANSMISSION COMPANY, LLC	RELEASE OF RIGHTS
202	STOCKBRIDGE & SHERWOOD TELEPHONE CO.	RELEASE OF RIGHTS



G REMMER & ASSOCIATES, INC.
CONSULTING ENGINEERS
Stevens Point • Fond du Lac

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

SIGNATURE: *JWP* DATE: 2/4/2019
PRINT NAME: JAY W. PANETTI
REGISTRATION NUMBER: S-2747

SIGNATURE: *Curt Van Erem* DATE: 2/4/2019
PRINT NAME: CURT VAN EREM

WISCONSIN LAND SURVEYOR
JAY W. PANETTI
S-2747
WAUPUN, WI

TRANSPORTATION PROJECT PLAT NO: 4085-33-21 - 4.02

PART OF THE NE1/4-SE1/4 OF SECTION 32, T22N, R20E, TOWN OF WRIGHTSTOWN, BROWN COUNTY, WISCONSIN

RELOCATION ORDER STH 32/57 HILBERT - GREEN BAY (SCL - DEUSTER ST) BROWN COUNTY CALUMET 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), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

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

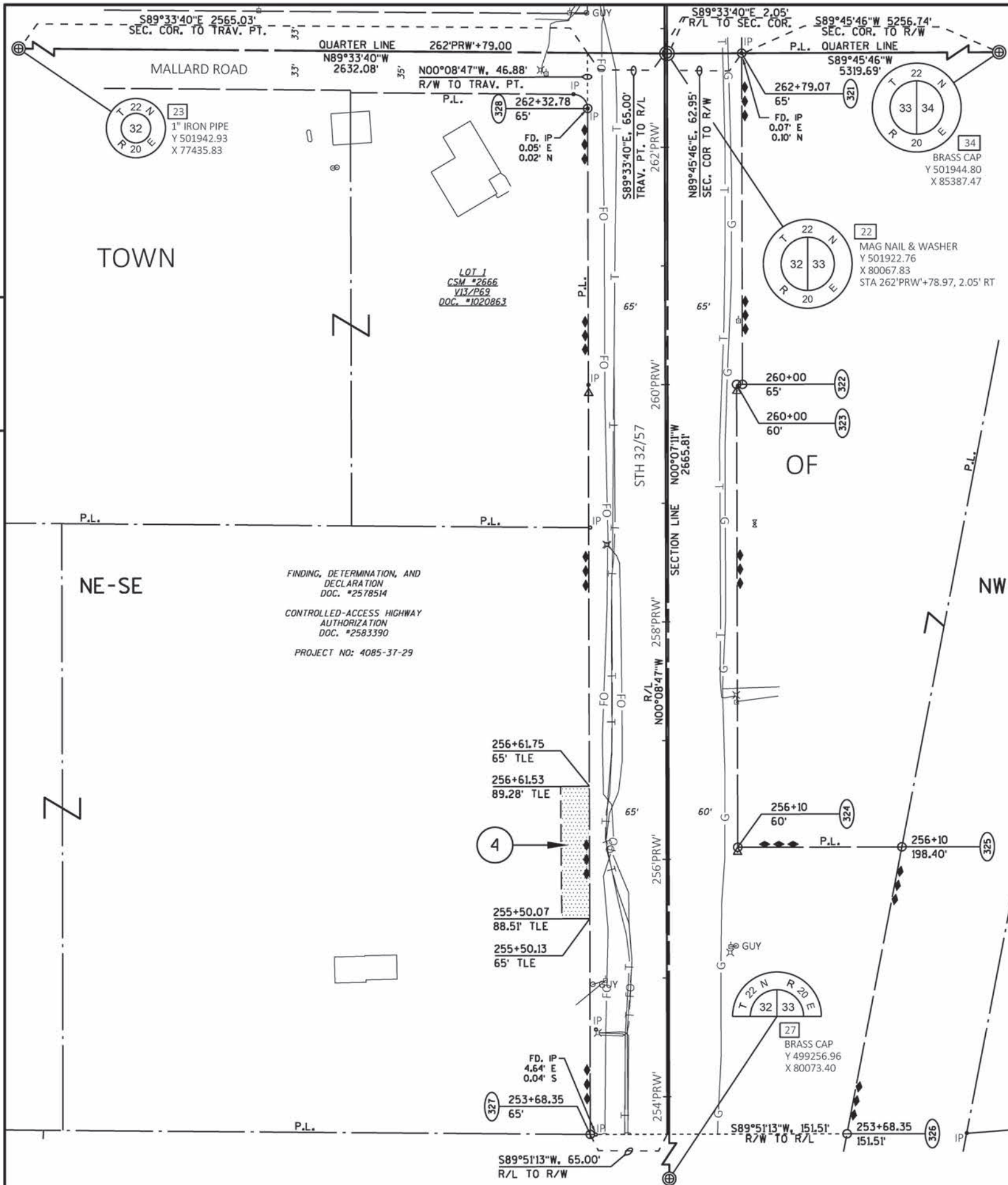
ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 1" I.D. X 24" IRON PIPES), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

2850909
 CHERYL BERKEN
 BROWN COUNTY RECORDER
 GREEN BAY, WI
 RECORDED ON
 02/13/2019 02:39 PM
 REC FEE: 25.00
 PAGES: 1
 *The above recording Informatic
 verifies that this document has
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 returned to the submitter**

RESERVED FOR REGISTER OF DEEDS
 PROJECT NUMBER 4085-33-21 - 4.02
 AMENDMENT NO:

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET,
 RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN
 BROWN COUNTY AS SHEET 2 OF 2 OF DOCUMENT #2850556.



R/W COURSE TABLE

FROM POINT	TO POINT	BEARING	DISTANCE
321	322	S00°08'47"E	279.07'
322	323	S89°51'13"W	5.00'
323	324	S00°08'47"E	390.00'
324	325	N89°51'13"E	138.40'
325	326	S10°50'13"W	246.16'
327	328	N00°08'47"W	864.42'

WRIGHTSTOWN

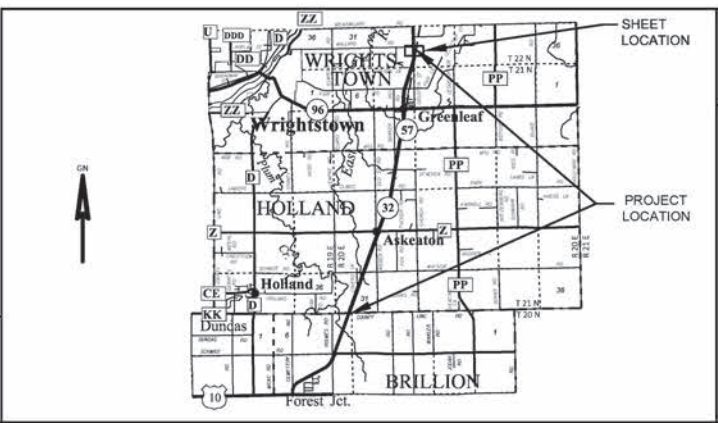
SCALE, FEET 0 50 100

BASIS OF EXISTING R/W		
ROUTE	BASIS	YEAR
STH 32/57	DIVISION JOB NO. 3940, PROJECT T 02-4 (9)	1946, 1955
MALLARD ROAD	CSM #2666	1984

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED			TLE ACRES TEMP.
			NEW	EXISTING	TOTAL	
4	JOSEPH P. LEONHARD	TLE	0	0	0	0.061

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT. THE PURPOSE FOR TLE'S IS SLOPES UNLESS OTHERWISE NOTED.



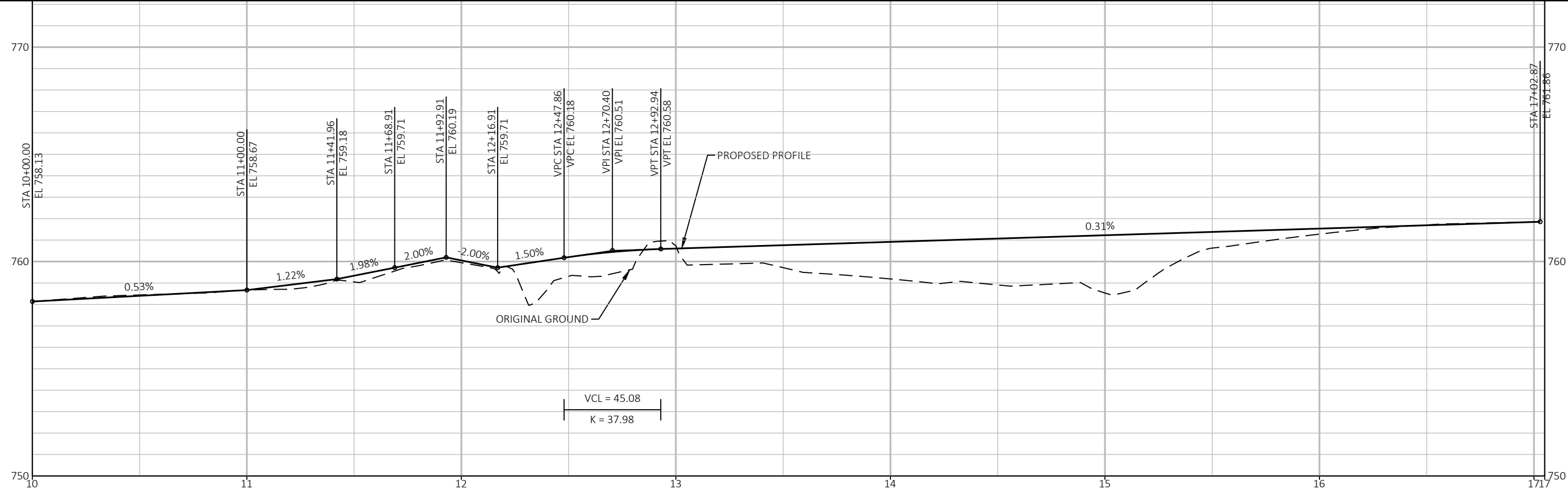
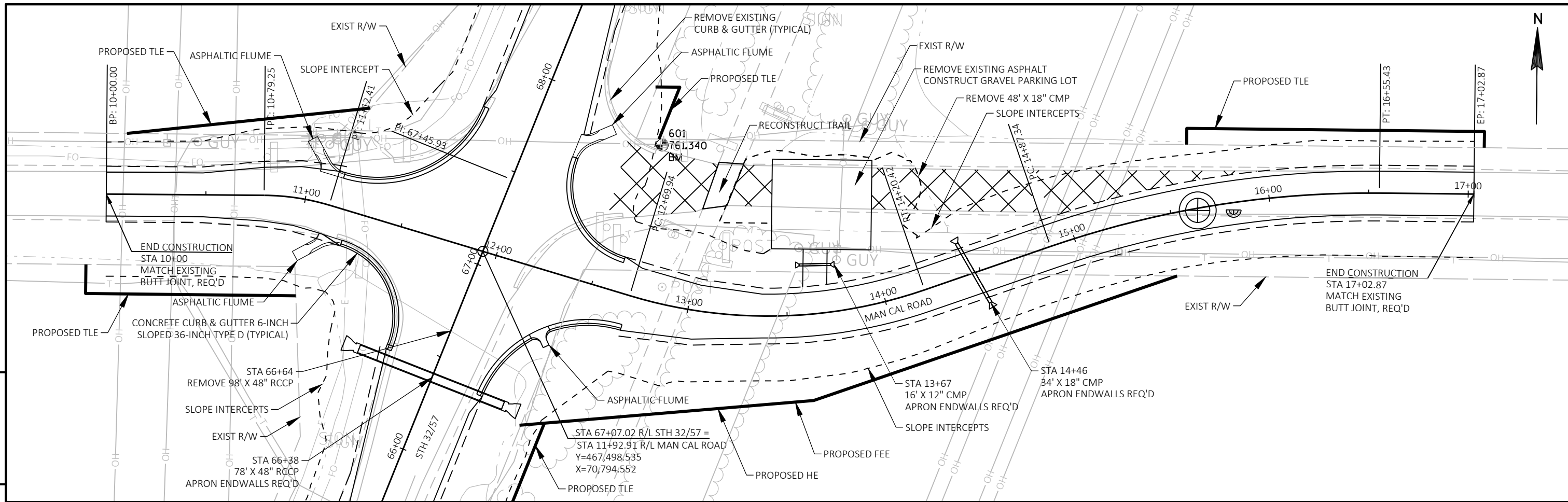
G GREMMER & ASSOCIATES, INC.
 CONSULTING ENGINEERS
 Stevens Point • Fond du Lac

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

SIGNATURE: *JWP* DATE: 2/13/2019
 PRINT NAME: JAY W. PANETTI
 REGISTRATION NUMBER: S-2747

SIGNATURE: *Curt Van Erem* DATE: 2/13/2019
 PRINT NAME: CURT VAN EREM

WISCONSIN LAND SURVEYOR



PROJECT NO: 4085-33-71

HWY: STH 32

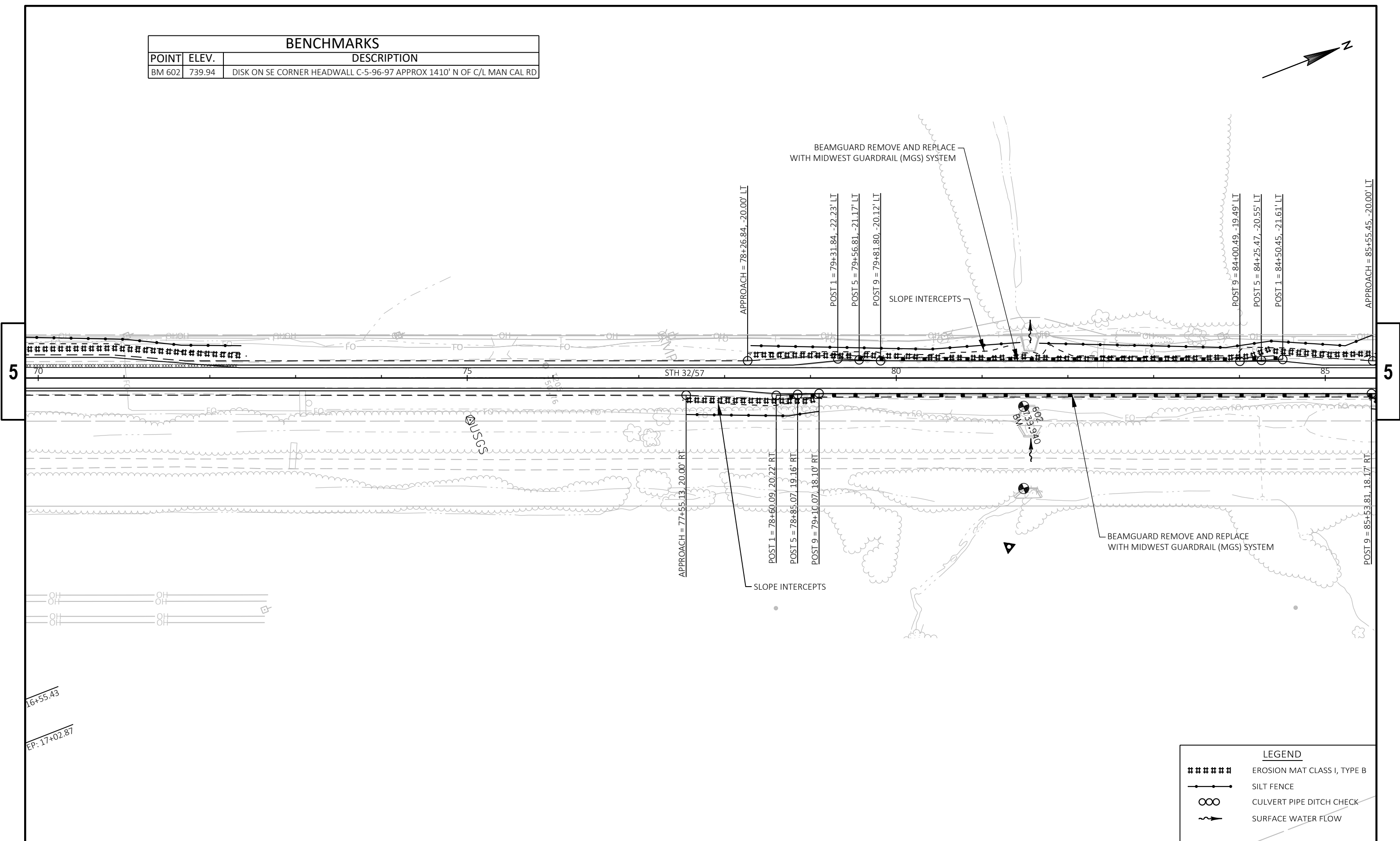
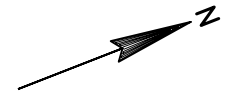
COUNTY: BROWN

PLAN AND PROFILE: MAN CAL ROAD

SHEET

E

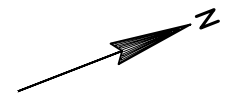
BENCHMARKS		
POINT	ELEV.	DESCRIPTION
BM 602	739.94	DISK ON SE CORNER HEADWALL C-5-96-97 APPROX 1410' N OF C/L MAN CAL RD



16+55.43
EP: 17+02.87

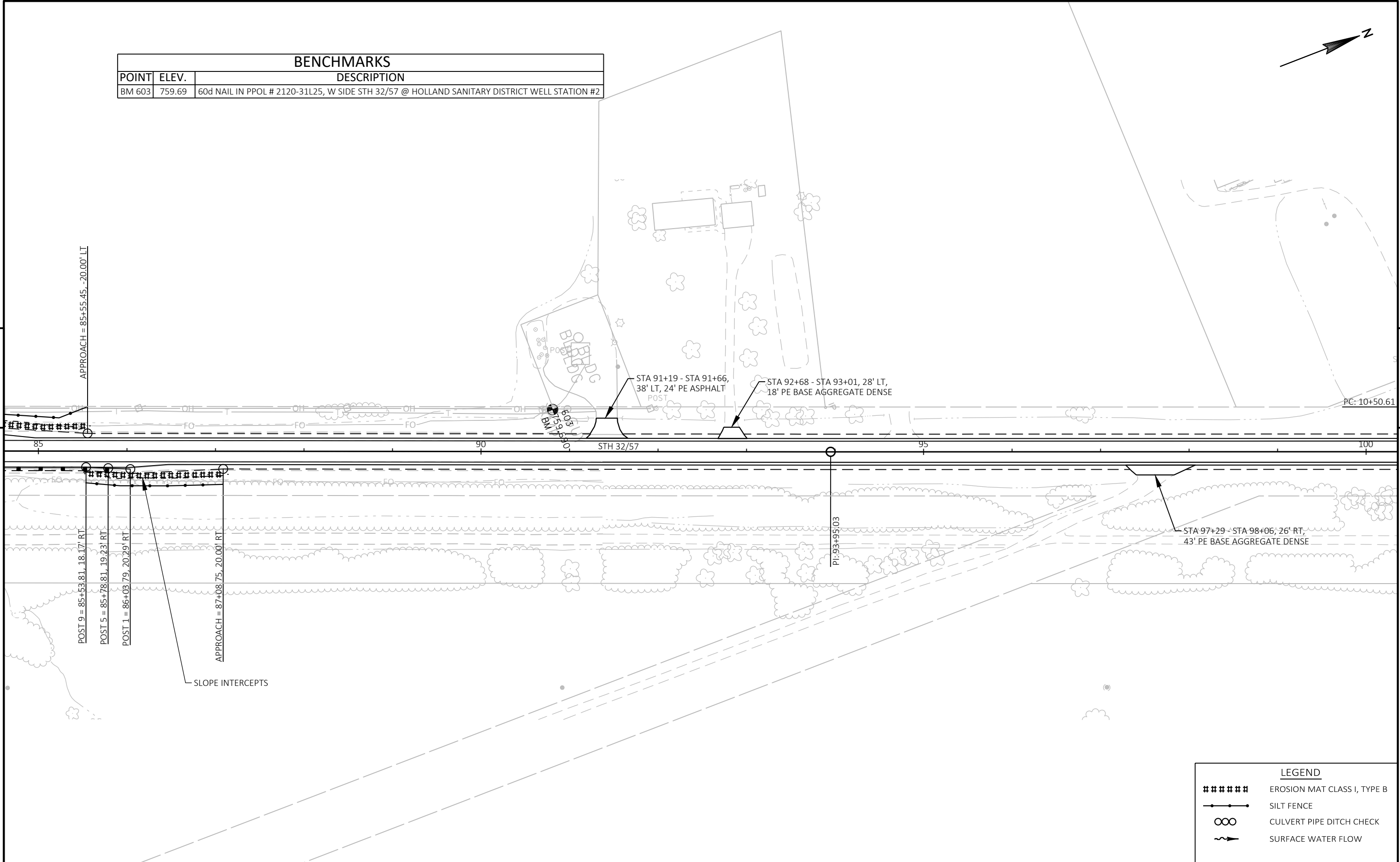
LEGEND	
#####	EROSION MAT CLASS I, TYPE B
—●—	SILT FENCE
OO	CULVERT PIPE DITCH CHECK
~	SURFACE WATER FLOW

BENCHMARKS		
POINT	ELEV.	DESCRIPTION
BM 603	759.69	60d NAIL IN PPOL # 2120-31L25, W SIDE STH 32/57 @ HOLLAND SANITARY DISTRICT WELL STATION #2



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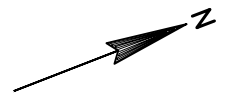
LEGEND	
#####	EROSION MAT CLASS I, TYPE B
—●—●—●—	SILT FENCE
∞	CULVERT PIPE DITCH CHECK
~>	SURFACE WATER FLOW

PROJECT NO: 4085-33-71 HWY: STH 32 COUNTY: BROWN PLAN SHEET E

FILE NAME : N:\PDS\C3D\40853300\SHEETSP\PLAN\050201_PN.DWG PLOT DATE : 8/5/2021 1:58 PM PLOT BY : LORENZ, KELSEY ANN PLOT NAME : PLOT SCALE : 1 IN:100 FT WISDOT/CADD SHEET 44

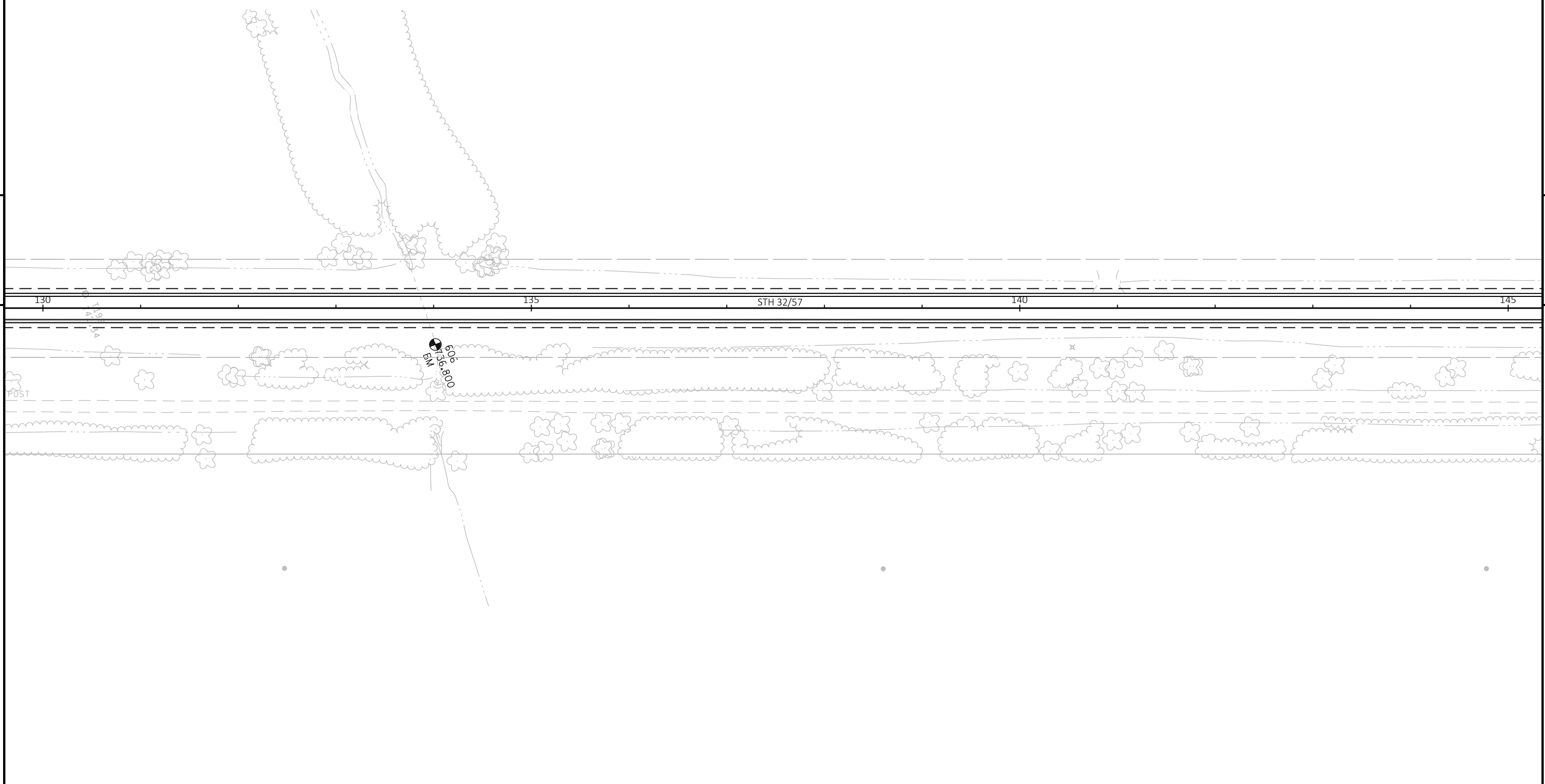
LAYOUT NAME - 050203-pn

BENCHMARKS		
POINT	ELEV.	DESCRIPTION
BM 606	736.8	CUT SQUARE TOP EAST END 48" RCCP APPROX 1000' NORTH OF WAYSIDE RD

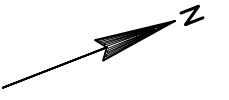


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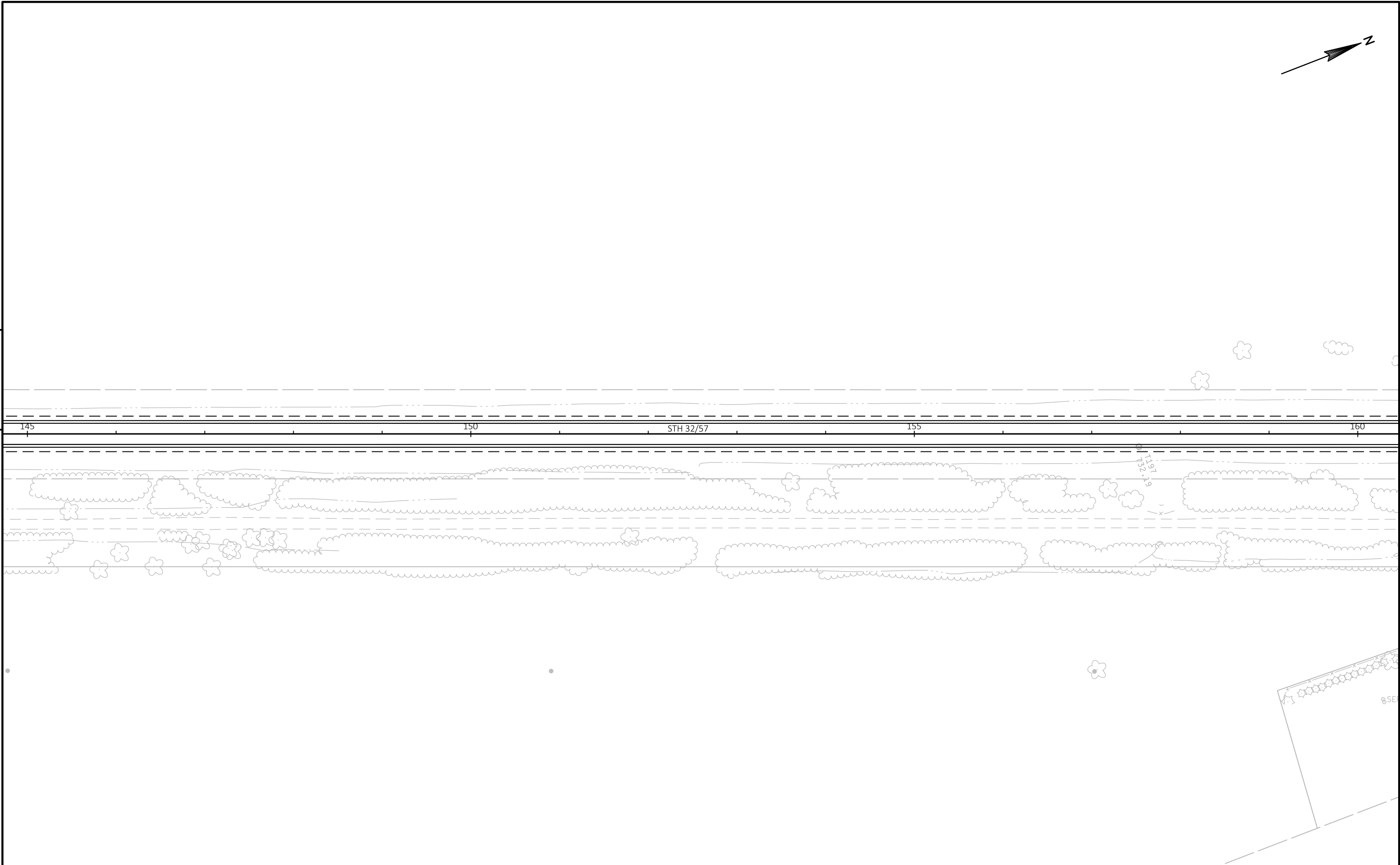


PROJECT NO: 4085-33-71	HWY: STH 32	COUNTY: BROWN	PLAN	SHEET	E
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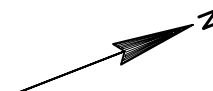
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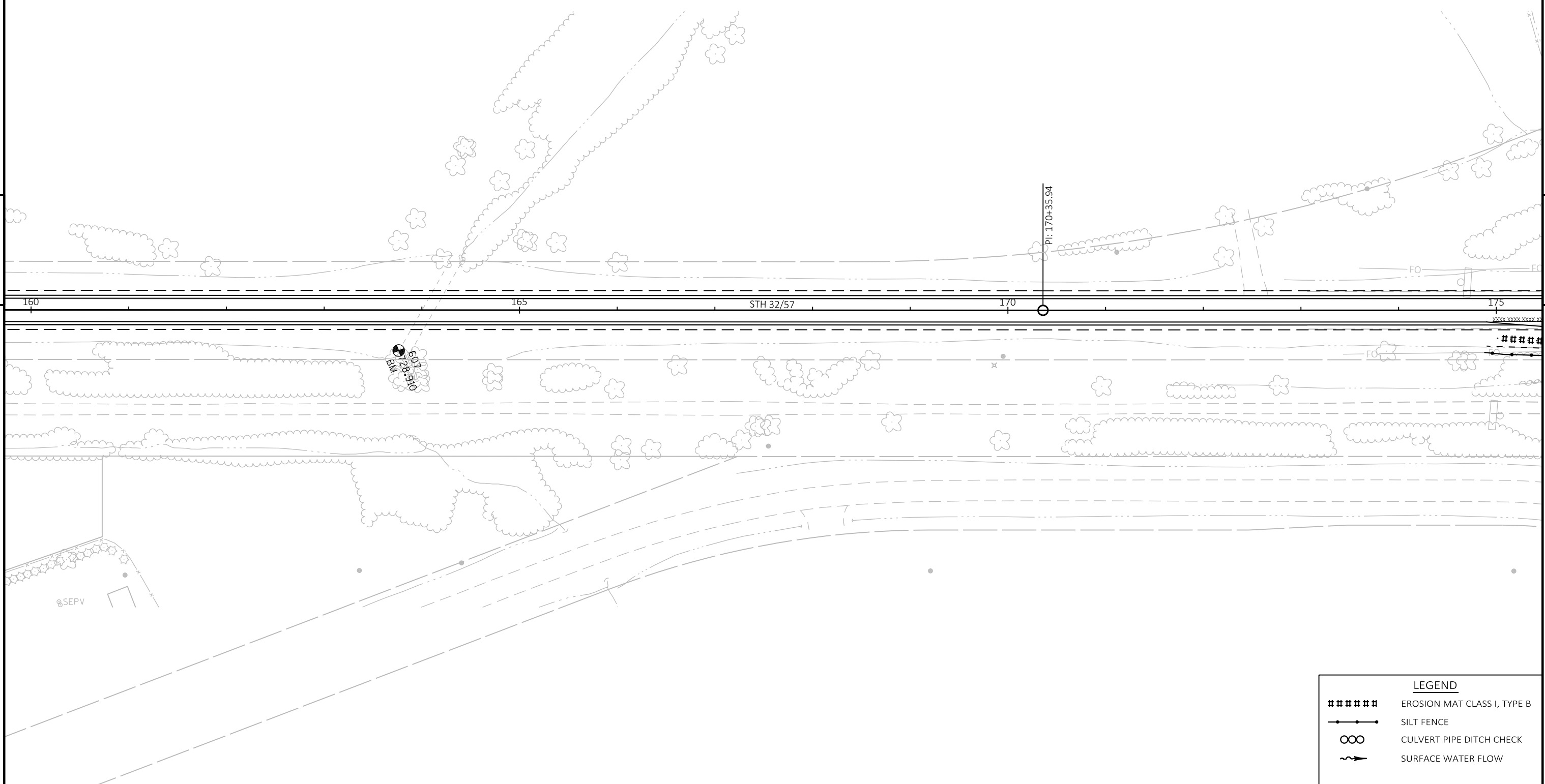
PROJECT NO: 4085-33-71	HWY: STH 32	COUNTY: BROWN	PLAN	SHEET	E
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BENCHMARKS		
POINT	ELEV.	DESCRIPTION
BM 607	728.91	CUT SQUARE TOP EAST END 60" RCCP APPROX 1640' SOUTH OF CTH Z



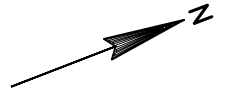
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LEGEND	
#####	EROSION MAT CLASS I, TYPE B
—▲—	SILT FENCE
○—	CULVERT PIPE DITCH CHECK
→	SURFACE WATER FLOW

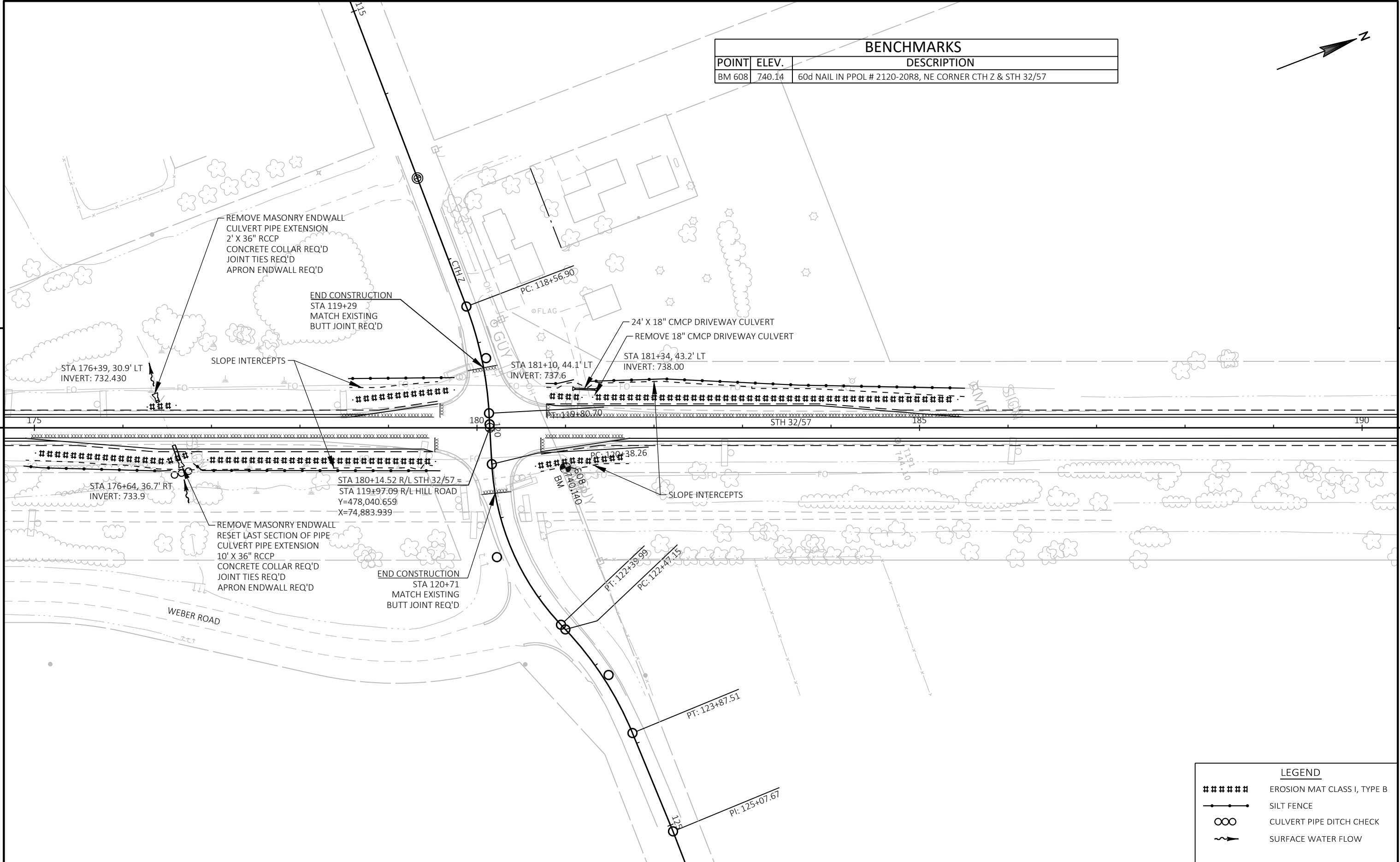
PROJECT NO: 4085-33-71	HWY: STH 32	COUNTY: BROWN	PLAN	SHEET	E
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BENCHMARKS		
POINT	ELEV.	DESCRIPTION
BM 608	740.14	60d NAIL IN PPOL # 2120-20R8, NE CORNER CTH Z & STH 32/57

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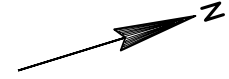
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LEGEND	
#####	EROSION MAT CLASS I, TYPE B
—●—●—●—	SILT FENCE
∞	CULVERT PIPE DITCH CHECK
~>	SURFACE WATER FLOW

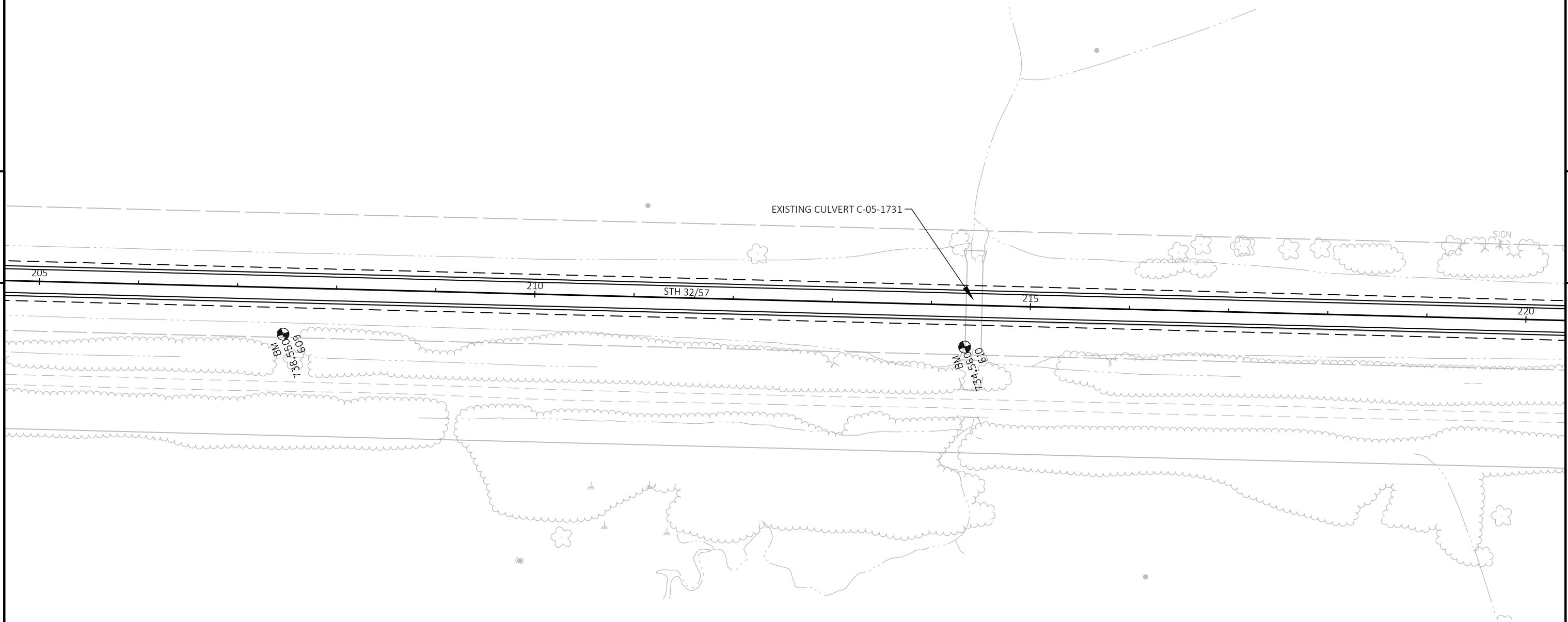
PROJECT NO: 4085-33-71	HWY: STH 32	COUNTY: BROWN	PLAN	SHEET	E
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BENCHMARKS		
POINT	ELEV.	DESCRIPTION
BM 610	734.56	DISK SE WING WALL C-5-1731-97, APPROX 3420' N OF C/L CTH Z
BM 609	738.55	60d NAIL IN ATC PPOL # 133356, E SIDE STH 32/57, APPROX 2730' N OF C/L CTH Z



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STH 32/57
 PI STA = 226+11.96
 Y = 482328.153
 X = 76543.422
 DELTA = 10°17'48"
 D = 1°00'00"
 T = 516.23'
 L = 1029.67'
 R = 5729.58'
 PC STA = 220+95.73
 PT STA = 231+25.41
 SE = 2.7% (MATCH EXISTING)

REMOVE MASONRY ENDWALL
 CULVERT PIPE EXTENSION
 2' X 24" RCCP
 CONCRETE COLLAR REQ'D
 JOINT TIES REQ'D
 APRON ENDWALL REQ'D

STA 230+95, 28.6' LT
 INVERT: 730.483

PT: 231+25.41

REMOVE MASONRY ENDWALL
 CULVERT PIPE EXTENSION
 2' X 24" RCCP
 CONCRETE COLLAR REQ'D
 JOINT TIES REQ'D
 APRON ENDWALL REQ'D

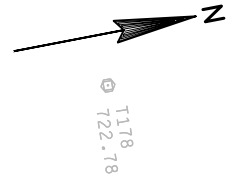
STA 230+97, 28.4' RT
 INVERT: 730.407

LEGEND	
#####	EROSION MAT CLASS I, TYPE B
—●—●—●—●—	SILT FENCE
∞ ∞	CULVERT PIPE DITCH CHECK
~>	SURFACE WATER FLOW

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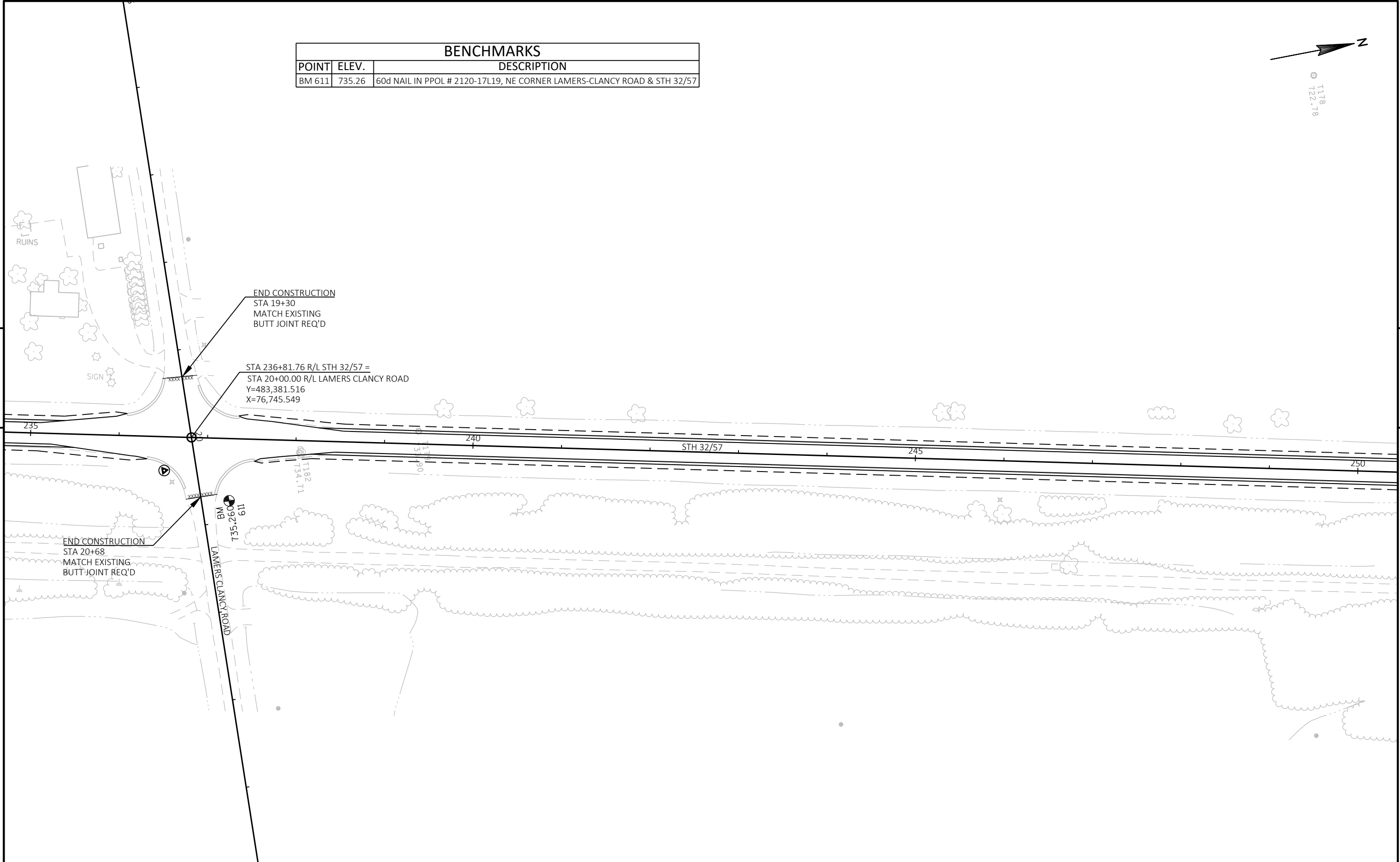
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BENCHMARKS		
POINT	ELEV.	DESCRIPTION
BM 611	735.26	60d NAIL IN PPOL # 2120-17L19, NE CORNER LAMERS-CLANCY ROAD & STH 32/57



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PROJECT NO: 4085-33-71	HWY: STH 32	COUNTY: BROWN	PLAN	SHEET	E
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BENCHMARKS		
POINT	ELEV.	DESCRIPTION
BM 613	713.80	60d NAIL IN PPOL # 2120-17W35, WEST SIDE STH 32/57 @ ST PATS CHURCH RD
BM 612	722.68	DISK SE WING WALL #C-5-97-97, APPROX 1115' S OF C/L ST PATS CHURCH RD

EXISTING CULVERT C-05-0097

STA 259+53 - STA 260+08,
22' LT, 58' PE ASPHALT

BRIGHT PENNY CT

BM 613
713.80

5

5

250 255 260 265
STH 32/57

BM 612
722.68

EXISTING CULVERT C-05-1734

STA 263+88.40 R/L STH 32/57 =
STA 10+00.00 R/L ST PATS CHURCH ROAD
Y=486,039.659
X=77,255.614

PC: 10+62.02

END CONSTRUCTION
STA 10+62
MATCH EXISTING
BUTT JOINT REQ'D

PT: 12+17.50

ST PATS CHURCH ROAD

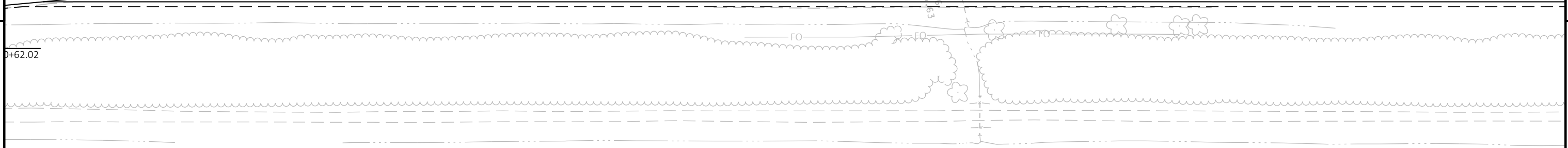
PI: 14+43



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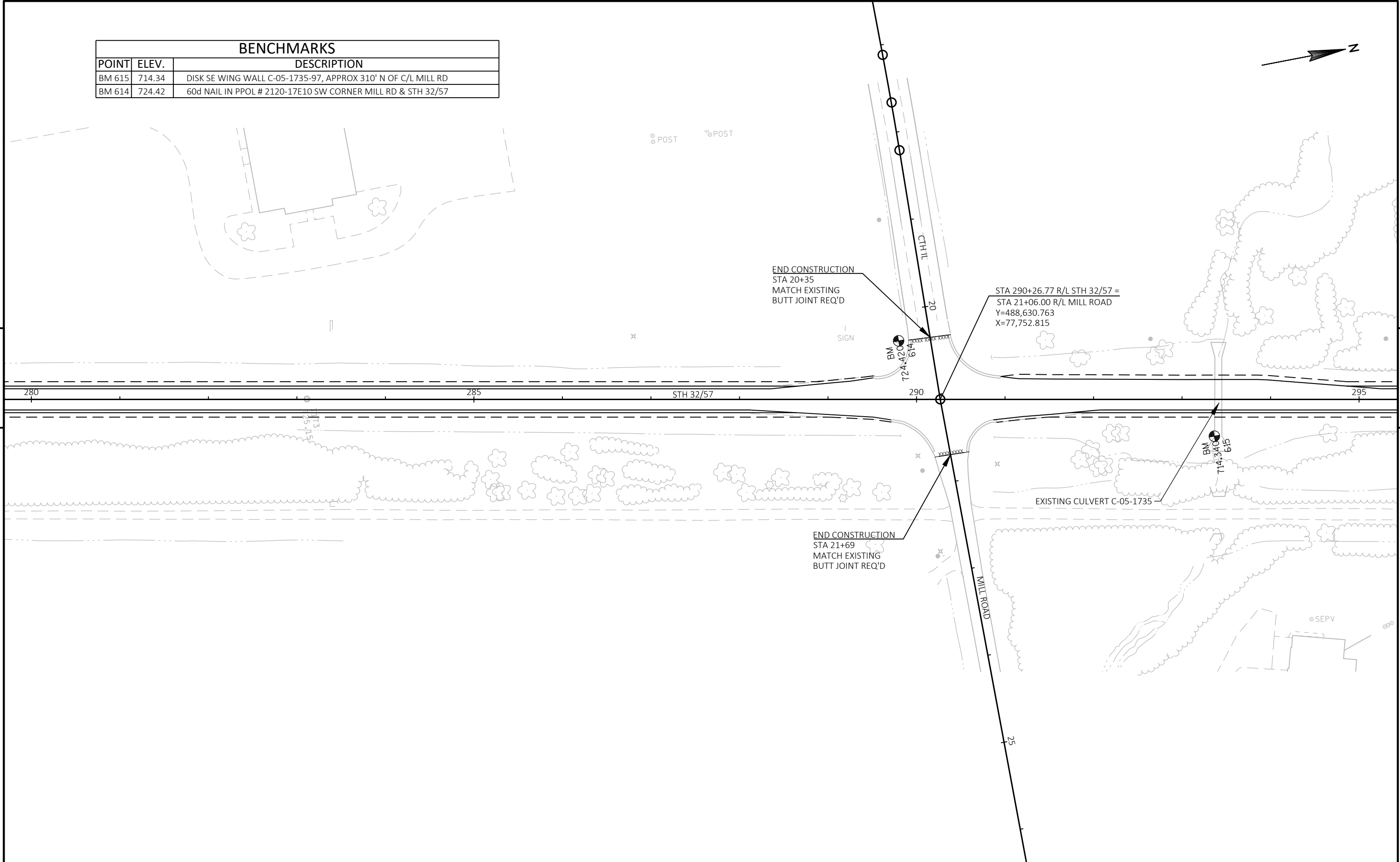
265 270 275 280
STH 32/57



LEGEND	
#####	EROSION MAT CLASS I, TYPE B
—●—●—●—	SILT FENCE
∞∞	CULVERT PIPE DITCH CHECK
~>	SURFACE WATER FLOW

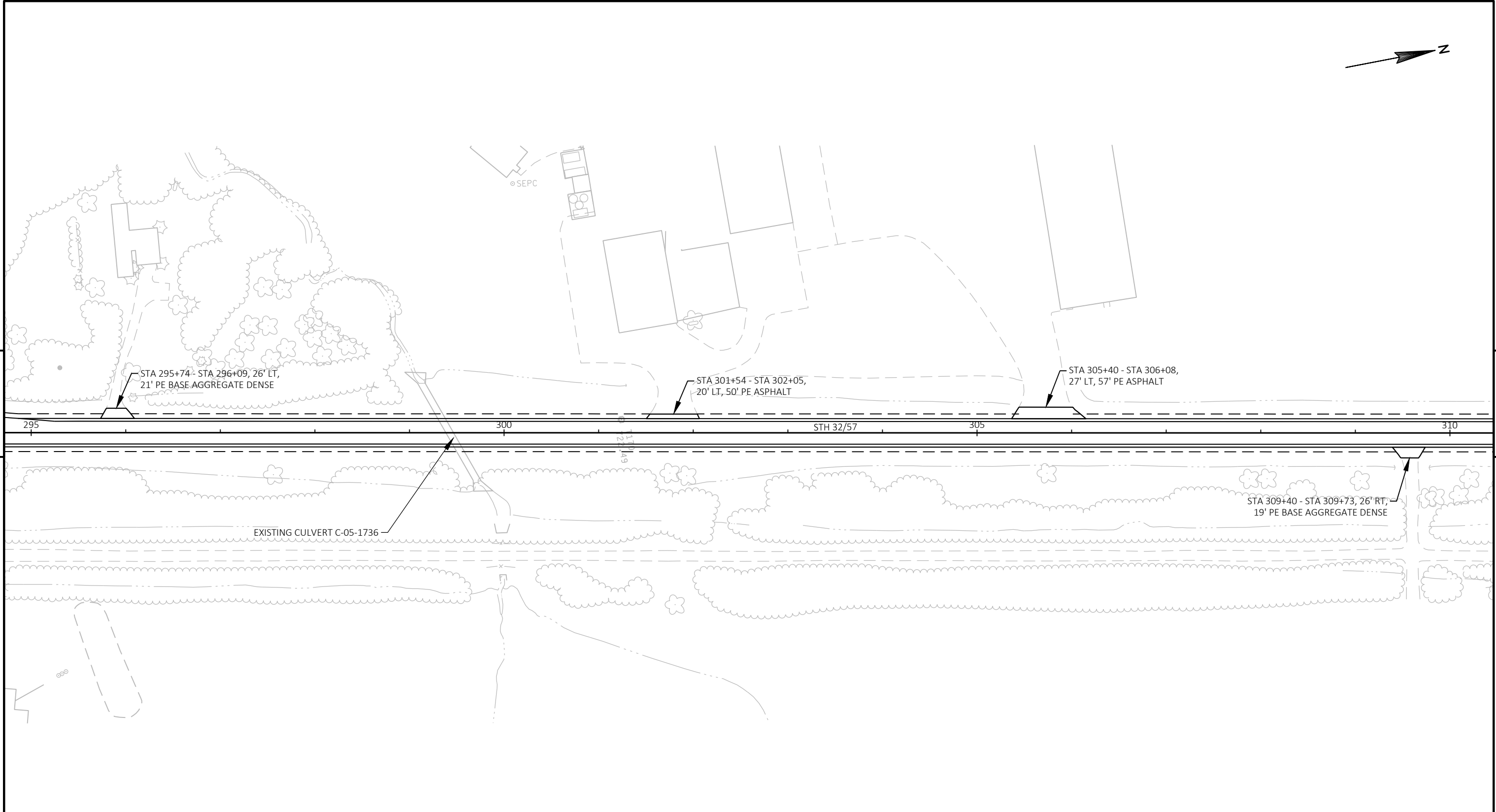
PROJECT NO: 4085-33-71	HWY: STH 32	COUNTY: BROWN	PLAN	SHEET	E
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BENCHMARKS		
POINT	ELEV.	DESCRIPTION
BM 615	714.34	DISK SE WING WALL C-05-1735-97, APPROX 310' N OF C/L MILL RD
BM 614	724.42	60d NAIL IN PPOL # 2120-17E10 SW CORNER MILL RD & STH 32/57



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LEGEND	
#####	EROSION MAT CLASS I, TYPE B
—●—●—●—	SILT FENCE
∞	CULVERT PIPE DITCH CHECK
~>	SURFACE WATER FLOW

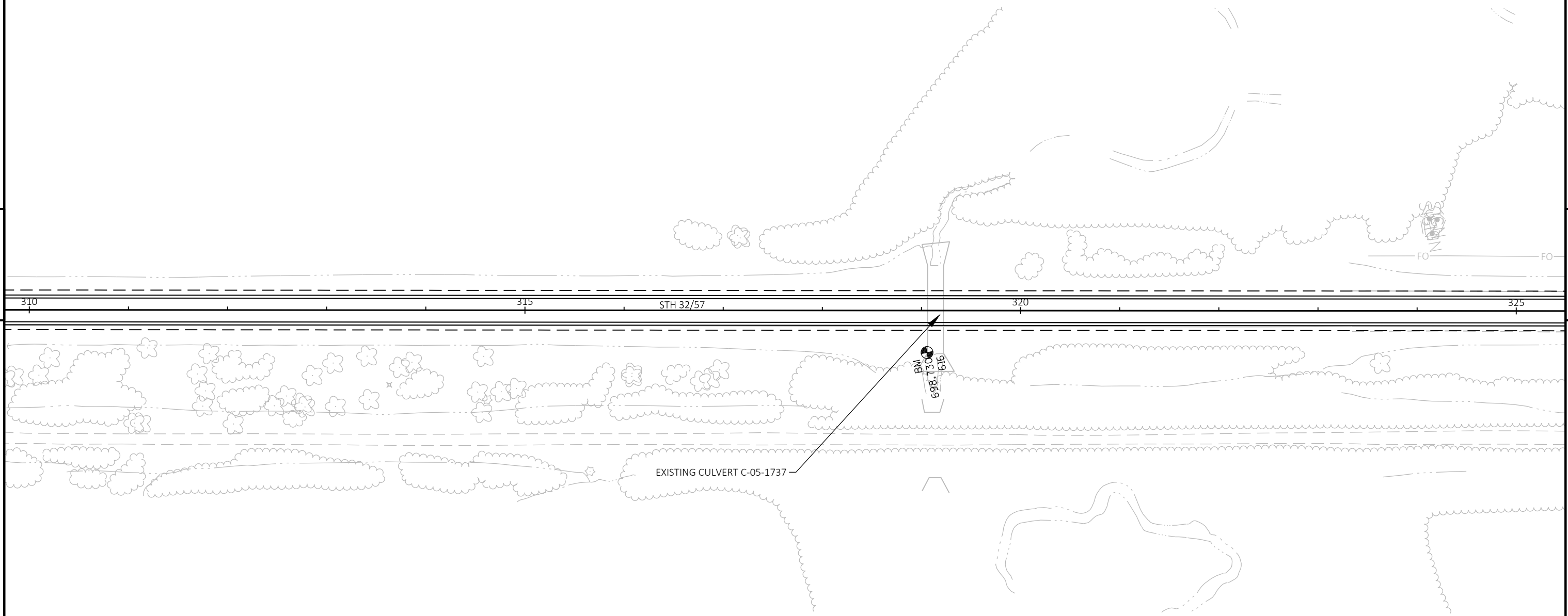
PROJECT NO: 4085-33-71	HWY: STH 32	COUNTY: BROWN	PLAN	SHEET	E
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BENCHMARKS		
POINT	ELEV.	DESCRIPTION
BM 616	698.73	DISK ON SE WING WALL C-5-1737-97, APPROX 2880' N OF C/L OF MILL RD



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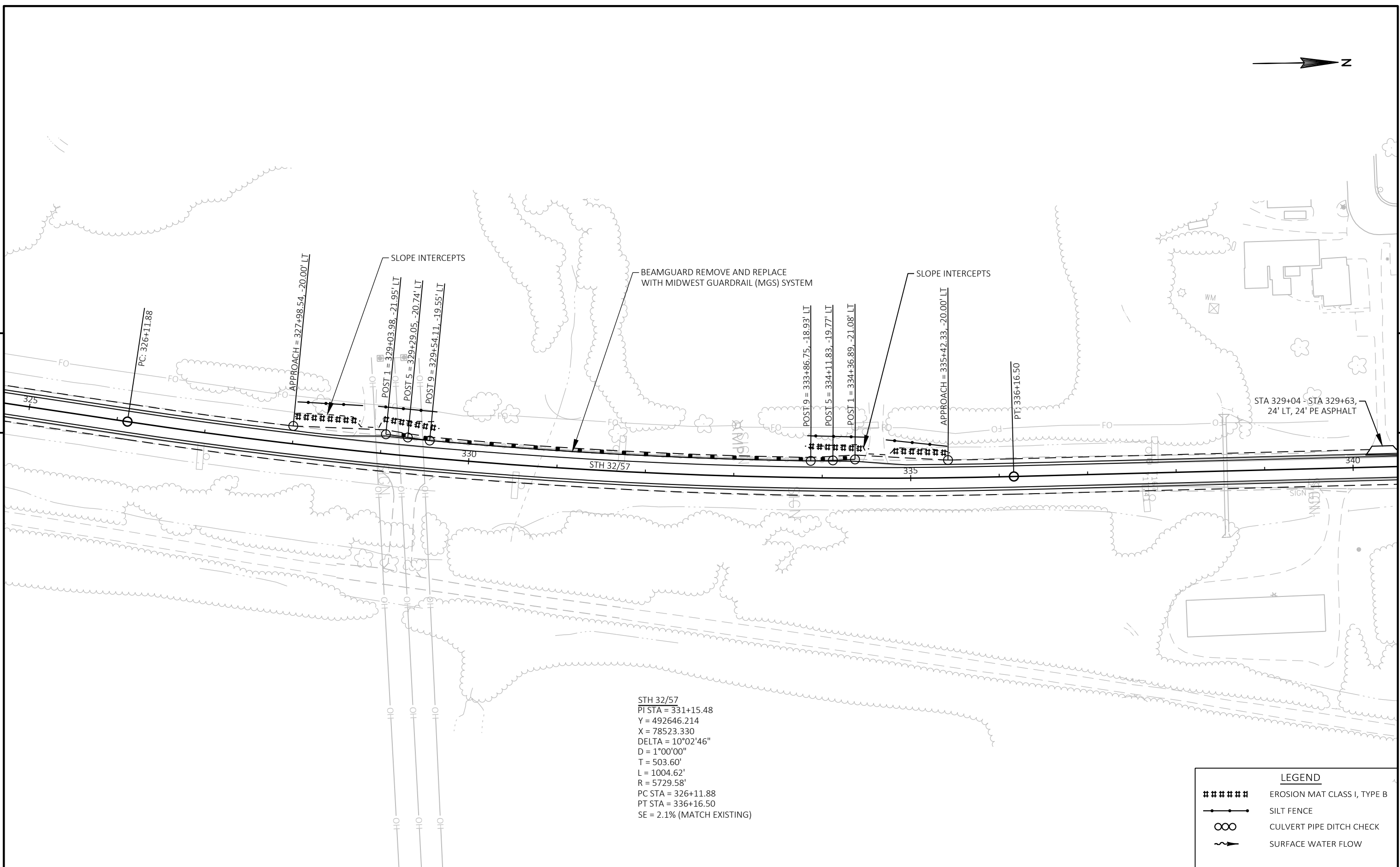
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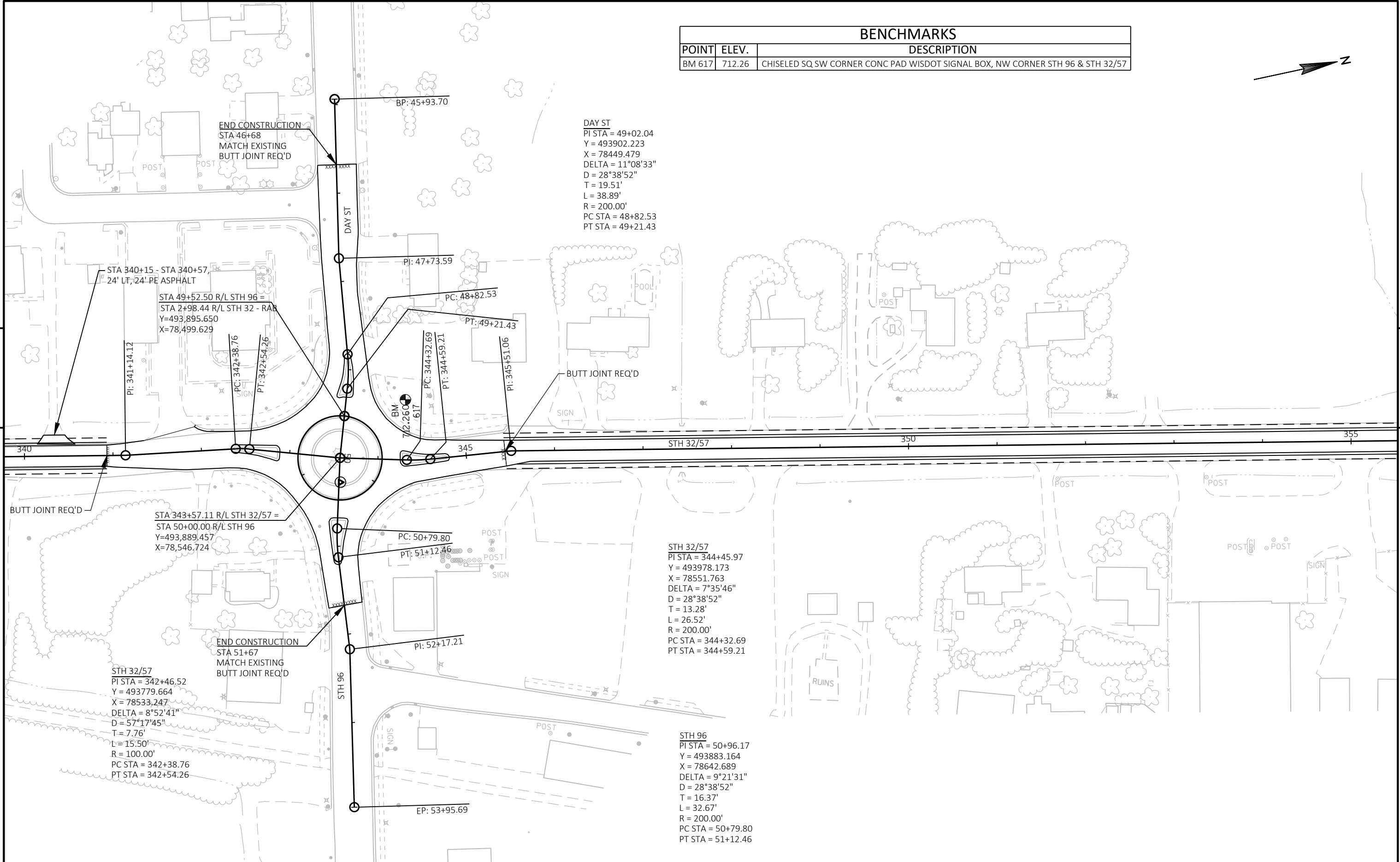
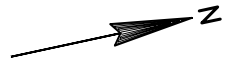
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STH 32/57
 PT STA = 331+15.48
 Y = 492646.214
 X = 78523.330
 DELTA = 10°02'46"
 D = 1°00'00"
 T = 503.60'
 L = 1004.62'
 R = 5729.58'
 PC STA = 326+11.88
 PT STA = 336+16.50
 SE = 2.1% (MATCH EXISTING)

LEGEND	
#####	EROSION MAT CLASS I, TYPE B
—●—●—●—	SILT FENCE
∞	CULVERT PIPE DITCH CHECK
~>	SURFACE WATER FLOW

BENCHMARKS		
POINT	ELEV.	DESCRIPTION
BM 617	712.26	CHISELED SQ SW CORNER CONC PAD WISDOT SIGNAL BOX, NW CORNER STH 96 & STH 32/57



DAY ST
 PI STA = 49+02.04
 Y = 493902.223
 X = 78449.479
 DELTA = 11°08'33"
 D = 28°38'52"
 T = 19.51'
 L = 38.89'
 R = 200.00'
 PC STA = 48+82.53
 PT STA = 49+21.43

STA 340+15 - STA 340+57,
 24' LT, 24' PE ASPHALT
 STA 49+52.50 R/L STH 96 =
 STA 2+98.44 R/L STH 32 - RAB
 Y=493,895.650
 X=78,499.629

STA 343+57.11 R/L STH 32/57 =
 STA 50+00.00 R/L STH 96
 Y=493,889.457
 X=78,546.724

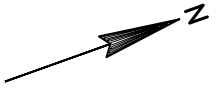
STH 32/57
 PI STA = 342+46.52
 Y = 493779.664
 X = 78533.247
 DELTA = 8°52'41"
 D = 57°17'45"
 T = 7.76'
 L = 15.50'
 R = 100.00'
 PC STA = 342+38.76
 PT STA = 342+54.26

STH 32/57
 PI STA = 344+45.97
 Y = 493978.173
 X = 78551.763
 DELTA = 7°35'46"
 D = 28°38'52"
 T = 13.28'
 L = 26.52'
 R = 200.00'
 PC STA = 344+32.69
 PT STA = 344+59.21

STH 96
 PI STA = 50+96.17
 Y = 493883.164
 X = 78642.689
 DELTA = 9°21'31"
 D = 28°38'52"
 T = 16.37'
 L = 32.67'
 R = 200.00'
 PC STA = 50+79.80
 PT STA = 51+12.46

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STH 32/57
PI STA = 364+64.88
Y = 495996.627
X = 78571.057
DELTA = 18°52'23"
D = 1°30'00"
T = 634.85'
L = 1258.20'
R = 3819.72'
PC STA = 358+30.03
PT STA = 370+88.23
SE = 3.7% (MATCH EXISTING)

ATHLETIC FIELD

END CONSTRUCTION
STA 10+39
MATCH EXISTING
BUTT JOINT REQ'D

STA 370+25.08 R/L STH 32/57 =
STA 11+03.51 R/L FAIR RD (WEST)
Y=496,534.738
X=78,764.148

STA 364+91
TIE LAST 2 JOINTS

STA 364+91
TIE LAST JOINT

STA 370+29.22 R/L STH 32/57 =
STA 20+00.00 R/L FAIR RD (EAST)
Y=496,538.650
X=78,765.499

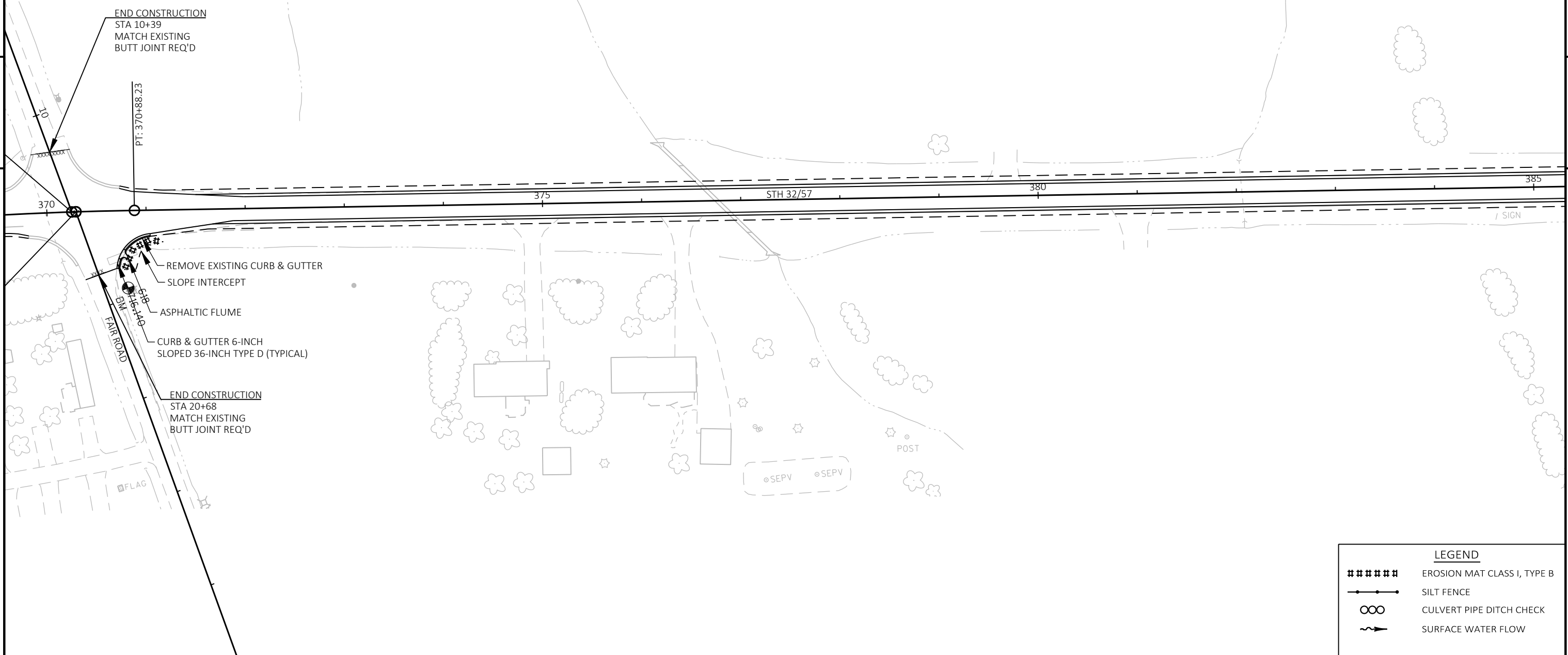
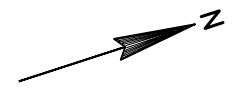
END CONSTRUCTION
STA 20+68
MATCH EXISTING
BUTT JOINT REQ'D

LEGEND	
#####	EROSION MAT CLASS I, TYPE B
— — — — —	SILT FENCE
∞	CULVERT PIPE DITCH CHECK
~>	SURFACE WATER FLOW

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BENCHMARKS		
POINT	ELEV.	DESCRIPTION
BM 618	716.14	60d NAIL IN PPOL # 2120-5E18, NE CORNER FAIR RD & STH 32/57



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LEGEND	
#####	EROSION MAT CLASS I, TYPE B
—+—+—+—	SILT FENCE
∞	CULVERT PIPE DITCH CHECK
- - - - ->	SURFACE WATER FLOW

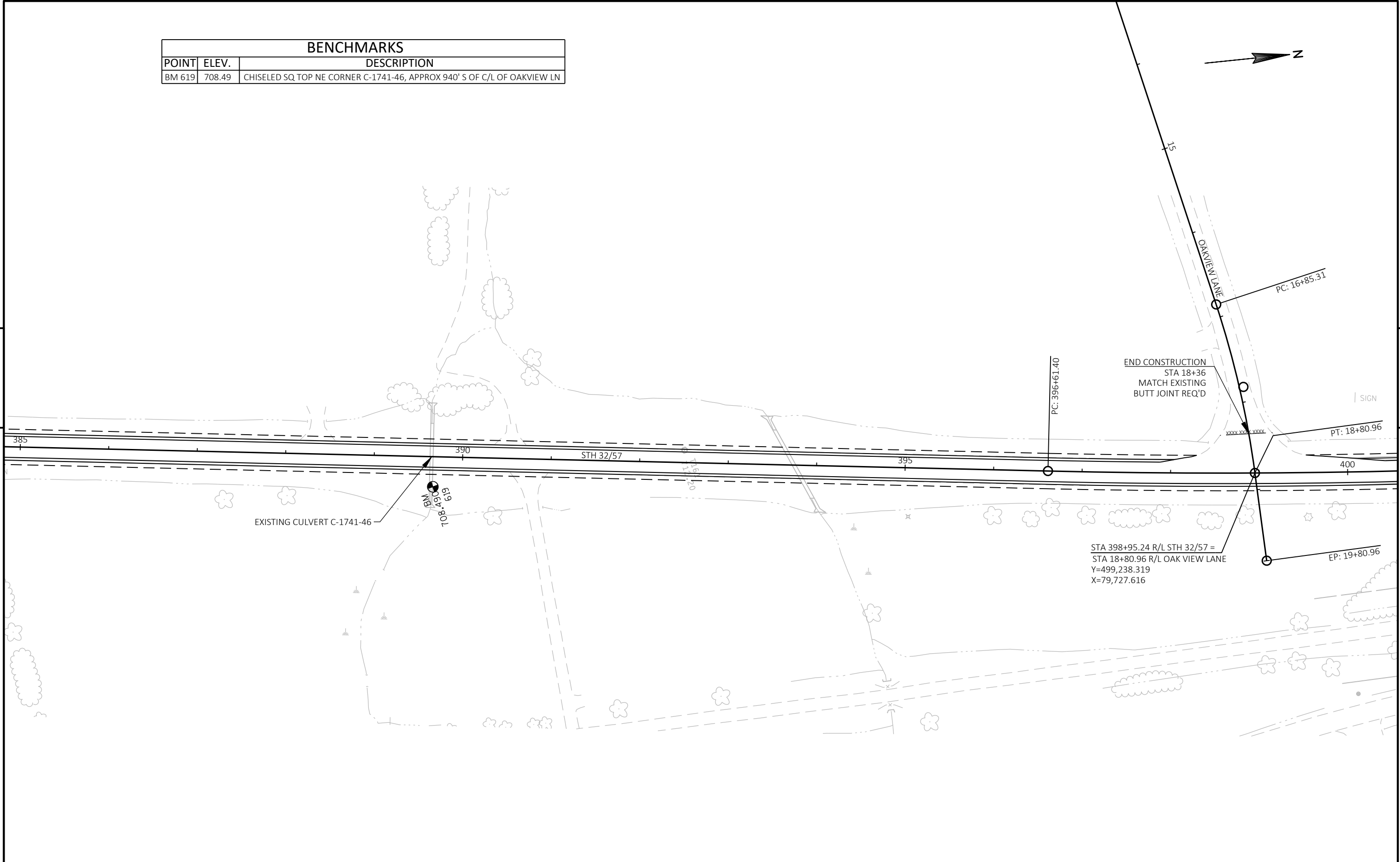
PROJECT NO: 4085-33-71	HWY: STH 32	COUNTY: BROWN	PLAN	SHEET	E
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BENCHMARKS		
POINT	ELEV.	DESCRIPTION
BM 619	708.49	CHISELED SQ TOP NE CORNER C-1741-46, APPROX 940' S OF C/L OF OAKVIEW LN



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PROJECT NO: 4085-33-71	HWY: STH 32	COUNTY: BROWN	PLAN	SHEET	E
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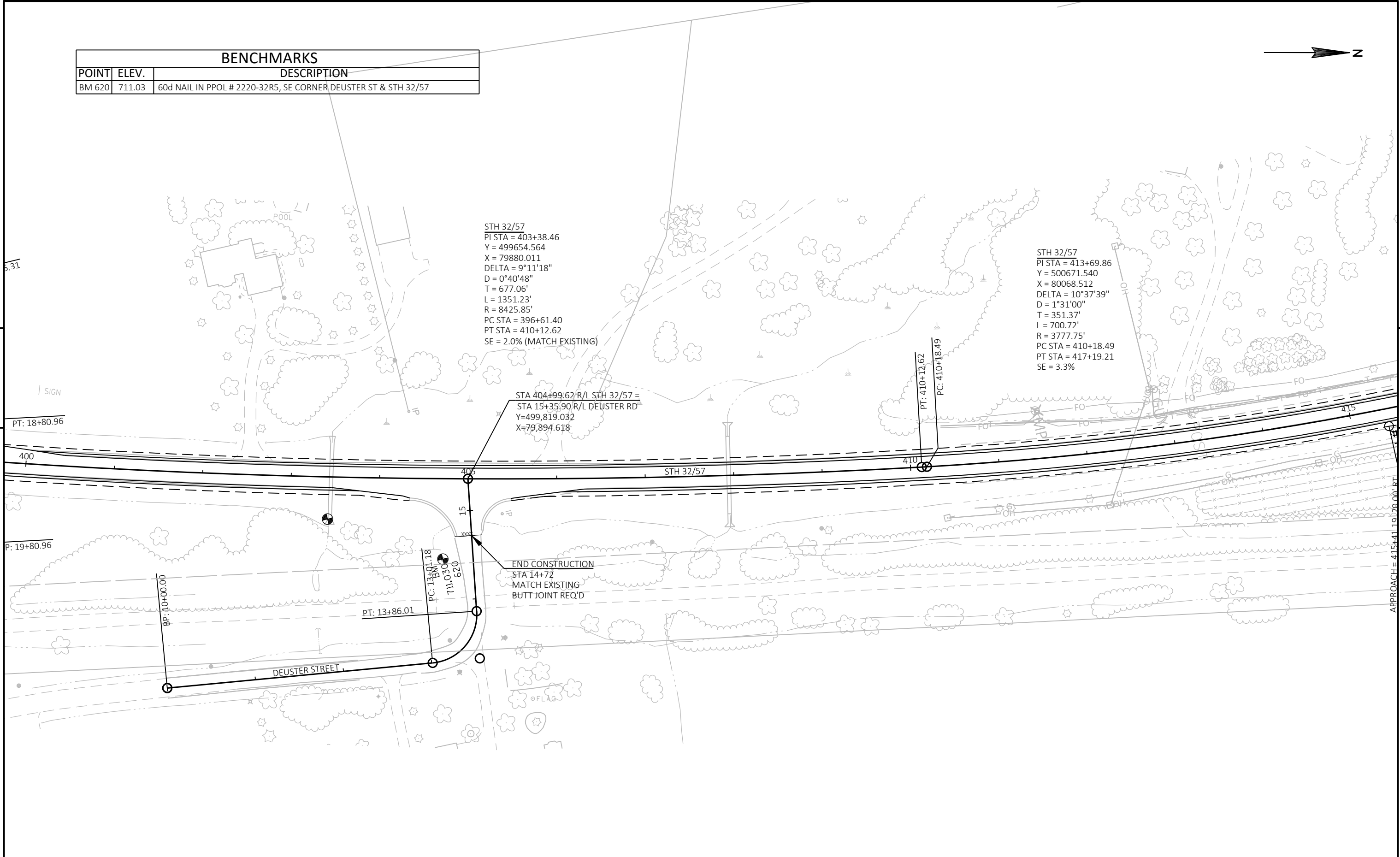
BENCHMARKS		
POINT	ELEV.	DESCRIPTION
BM 620	711.03	60d NAIL IN PPOL # 2220-32R5, SE CORNER DEUSTER ST & STH 32/57

STH 32/57
 PI STA = 403+38.46
 Y = 499654.564
 X = 79880.011
 DELTA = 9°11'18"
 D = 0°40'48"
 T = 677.06'
 L = 1351.23'
 R = 8425.85'
 PC STA = 396+61.40
 PT STA = 410+12.62
 SE = 2.0% (MATCH EXISTING)

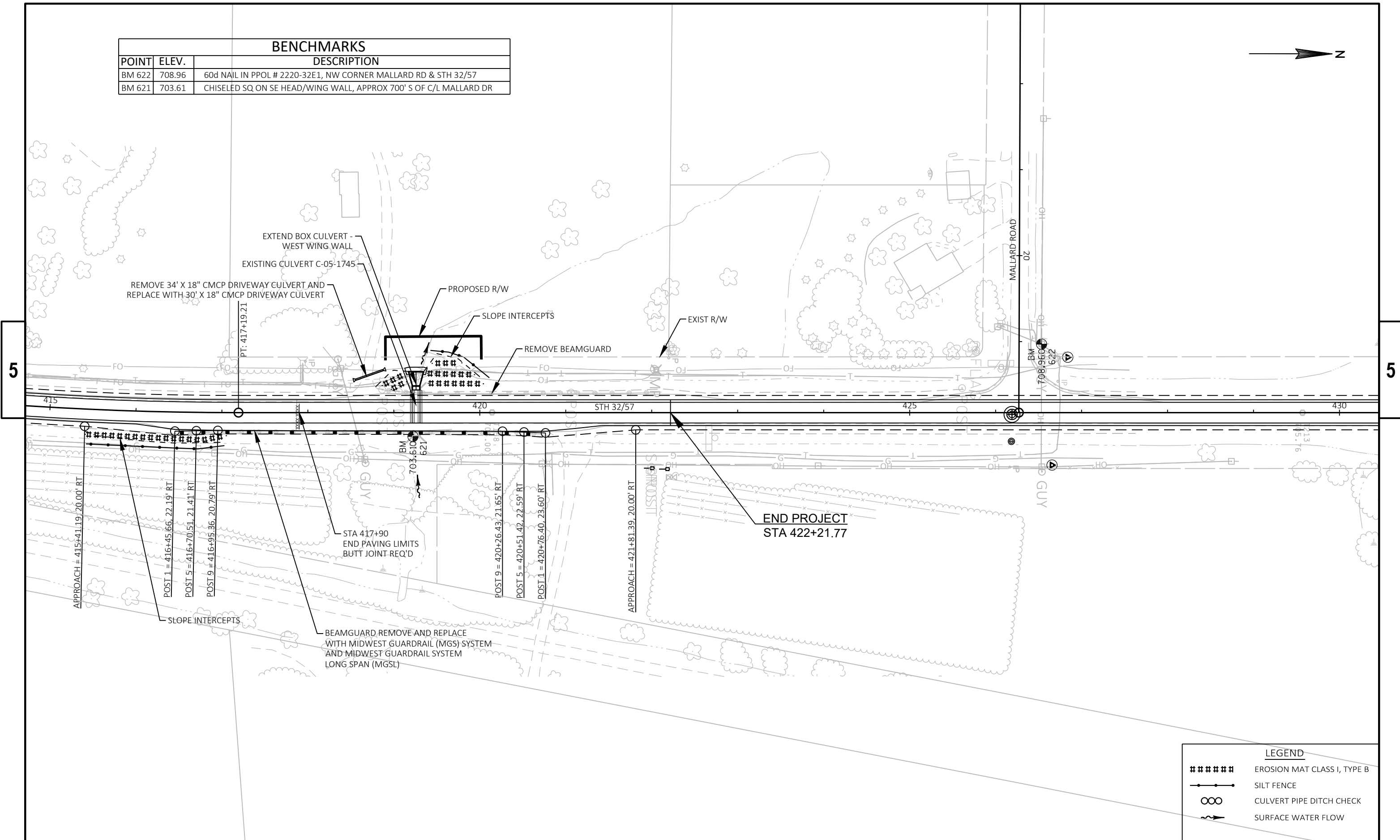
STH 32/57
 PI STA = 413+69.86
 Y = 500671.540
 X = 80068.512
 DELTA = 10°37'39"
 D = 1°31'00"
 T = 351.37'
 L = 700.72'
 R = 3777.75'
 PC STA = 410+18.49
 PT STA = 417+19.21
 SE = 3.3%

STA 404+99.62 R/L STH 32/57 =
 STA 15+35.90 R/L DEUSTER RD
 Y=499,819.032
 X=79,894.618

END CONSTRUCTION
 STA 14+72
 MATCH EXISTING
 BUTT JOINT REQ'D



BENCHMARKS		
POINT	ELEV.	DESCRIPTION
BM 622	708.96	60d NAIL IN PPOL # 2220-32E1, NW CORNER MALLARD RD & STH 32/57
BM 621	703.61	CHISELED SQ ON SE HEAD/WING WALL, APPROX 700' S OF C/L MALLARD DR



LEGEND	
#####	EROSION MAT CLASS I, TYPE B
—●—●—●—	SILT FENCE
∞	CULVERT PIPE DITCH CHECK
~	SURFACE WATER FLOW

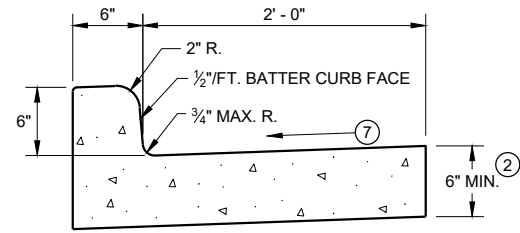
PROJECT NO: 4085-33-71 HWY: STH 32 COUNTY: BROWN PLAN SHEET E

FILE NAME: N:\PDS\C3D\40853300\SHEETSP\PLAN\050201_PN.DWG PLOT DATE: 8/5/2021 2:03 PM PLOT BY: LORENZ, KELSEY ANN PLOT NAME: PLOT SCALE: 1 IN:100 FT WISDOT/CADD SHEET 44

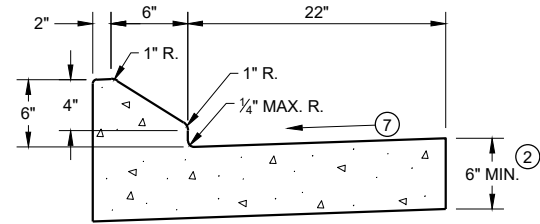
LAYOUT NAME - 050225-pn

Standard Detail Drawing List

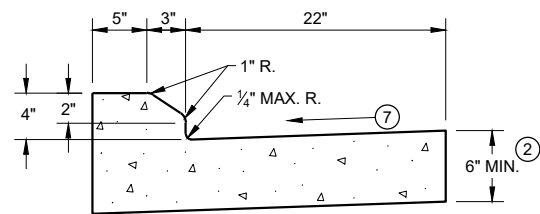
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-15D	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-15E	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-15F	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-15G	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-15H	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-15I	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B43-04A	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-04B	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-04C	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-08B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL



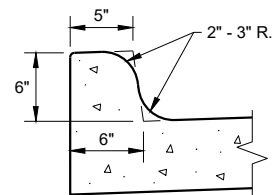
TYPES A^① & D



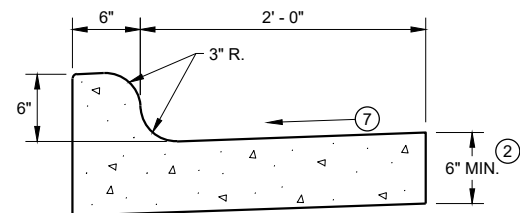
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

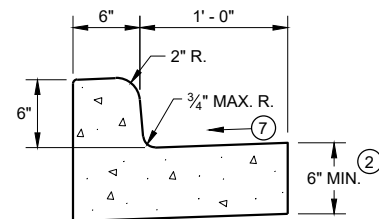


TYPES K^① & L
(OPTIONAL CURB SHAPE)



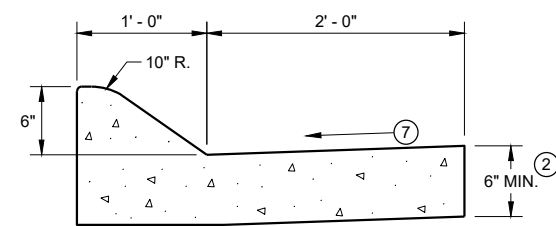
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

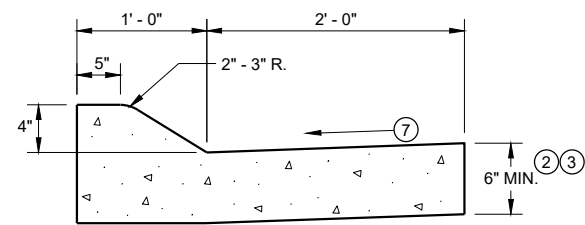


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

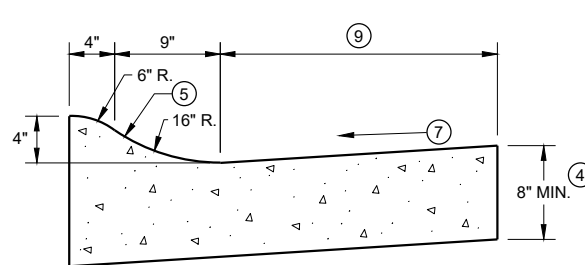


6" SLOPED CURB TYPES A^① & D



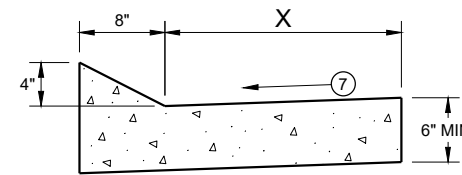
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T

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

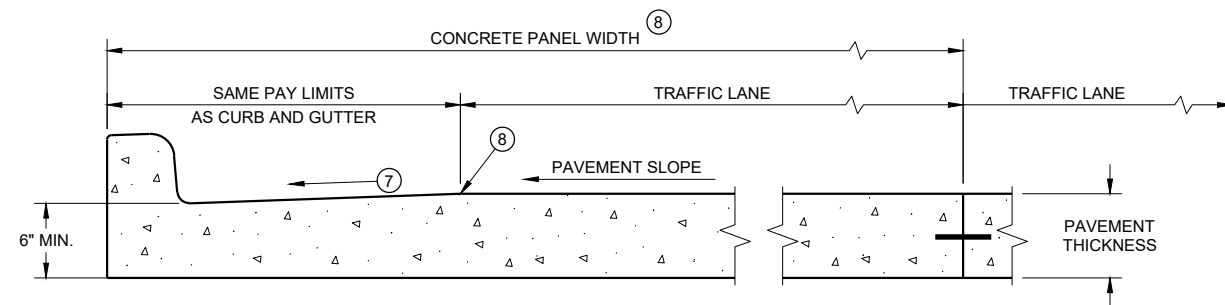


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

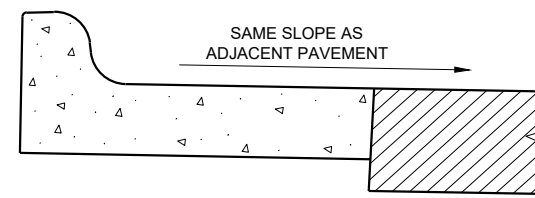
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

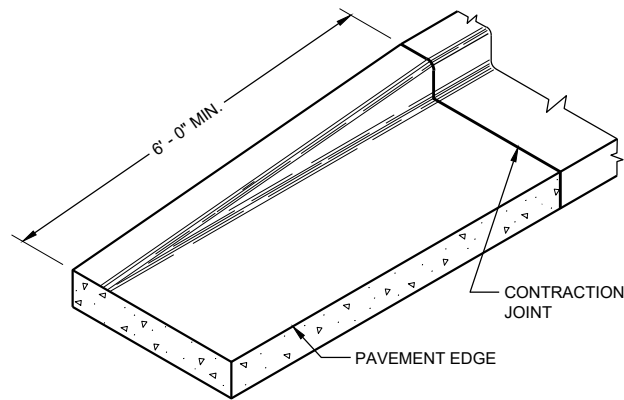
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

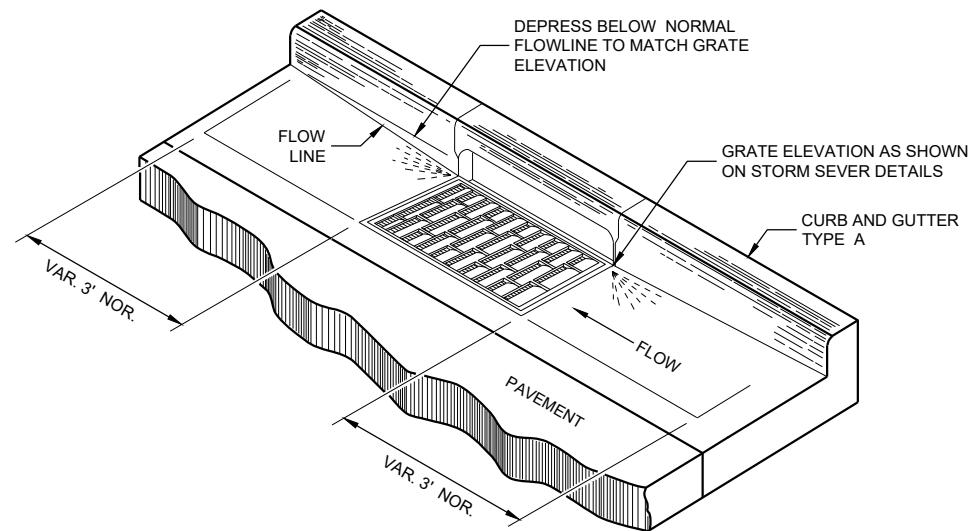
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS
(TYPICAL H INLET COVER SHOWN)

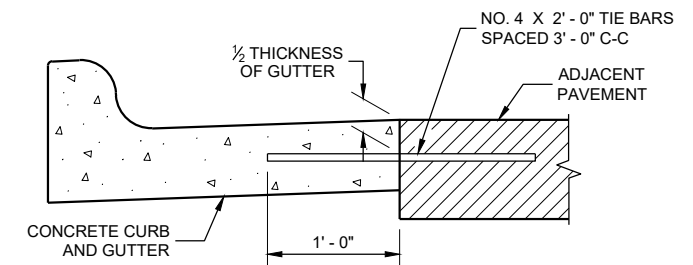
GENERAL NOTES

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

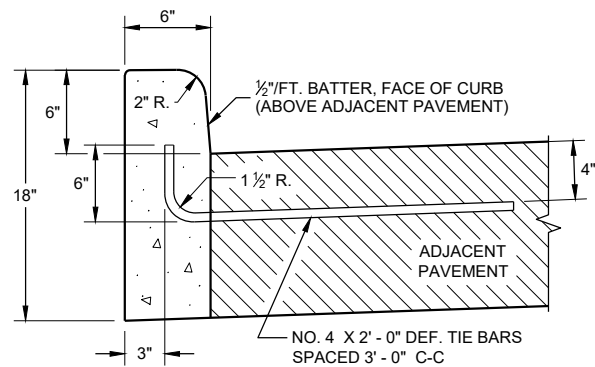
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

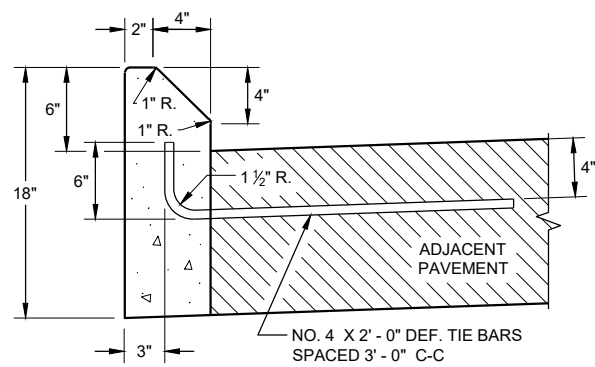
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑨ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION ①

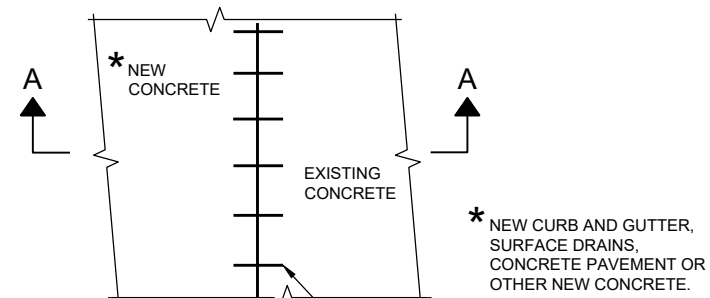


TYPES A ① & D

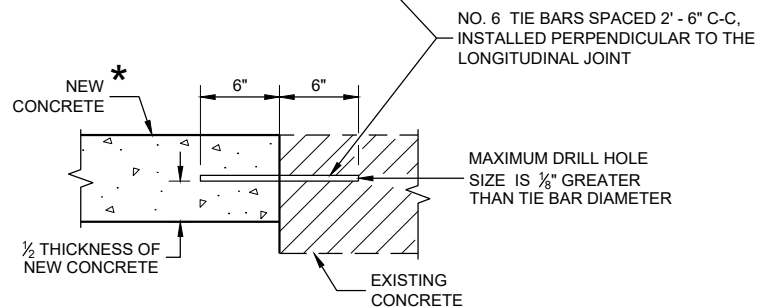


TYPES G ① & J

CONCRETE CURB

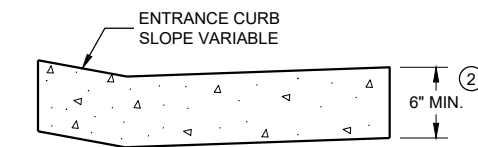


PLAN VIEW



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB ⑨
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

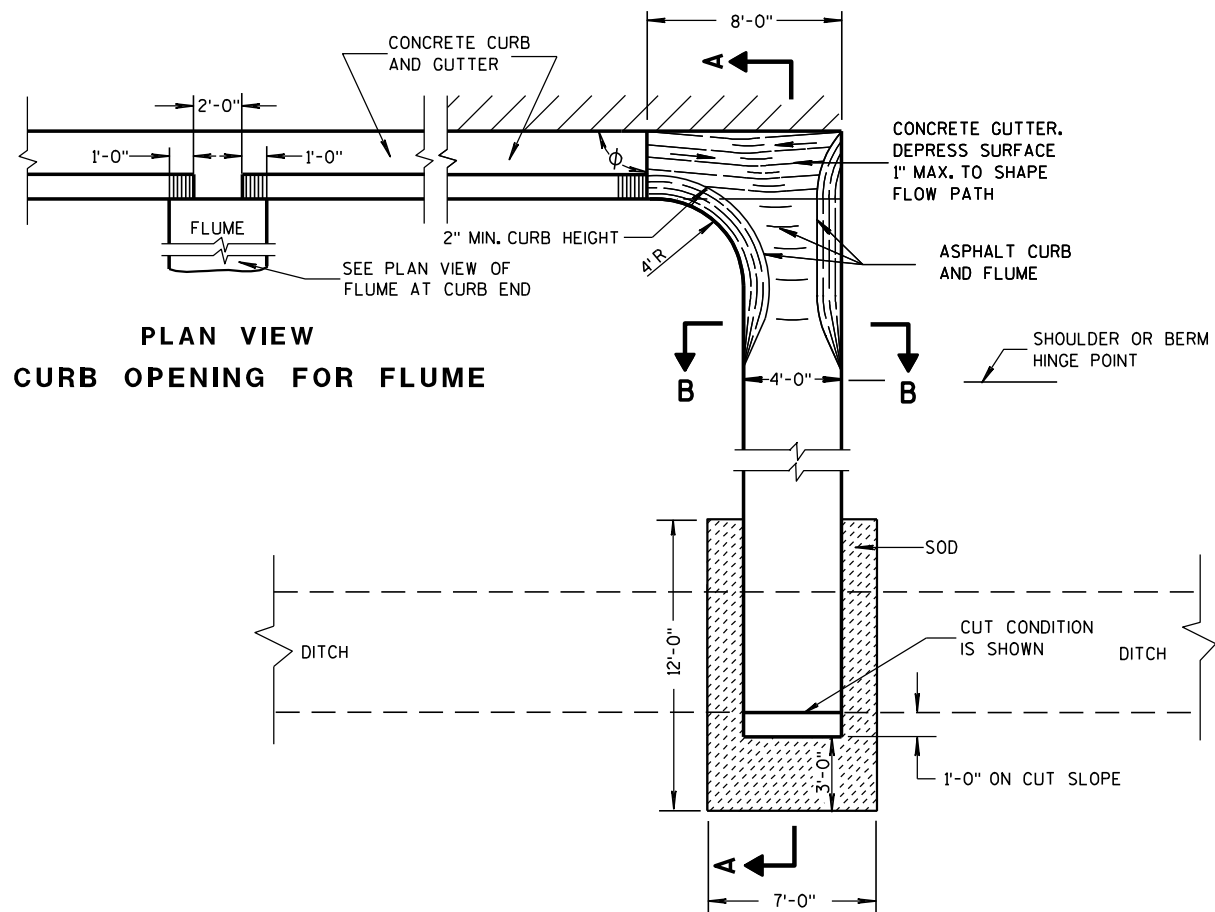
APPROVED
February 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER

FHWA

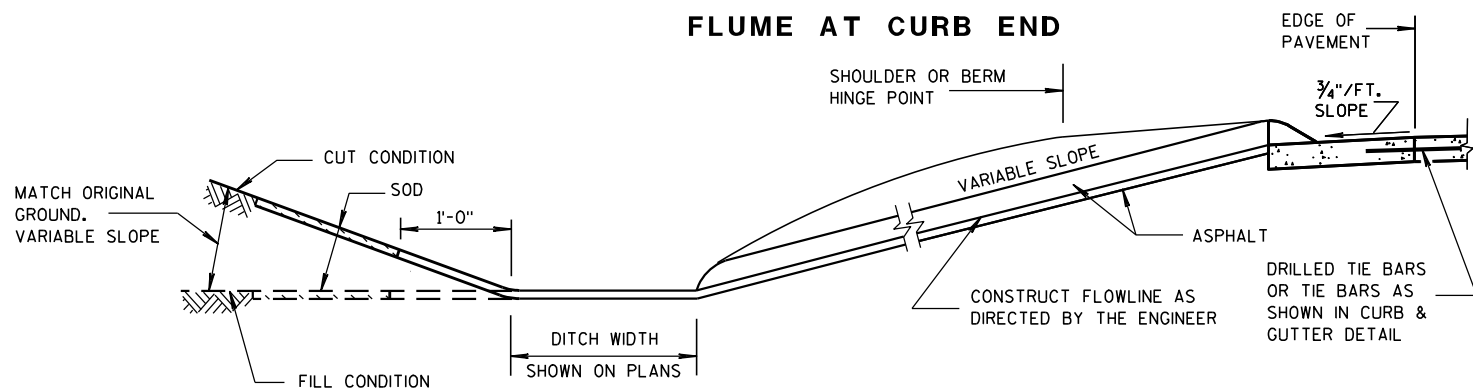
ASPHALTIC FLUME

NOTE: TAPER CURB ENDS TO GUTTER IN 1'-0"

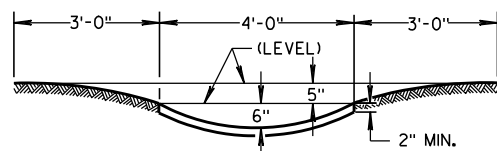
INCREASE ϕ FROM RIGHT ANGLE TO BEST FIT FIELD CONDITIONS



PLAN VIEW FLUME AT CURB END



SECTION B-B



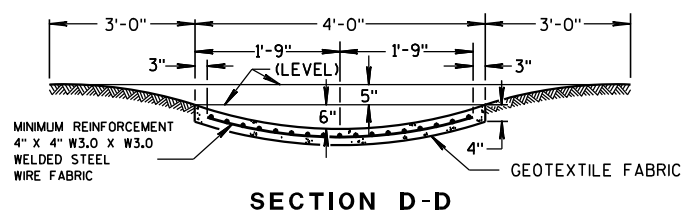
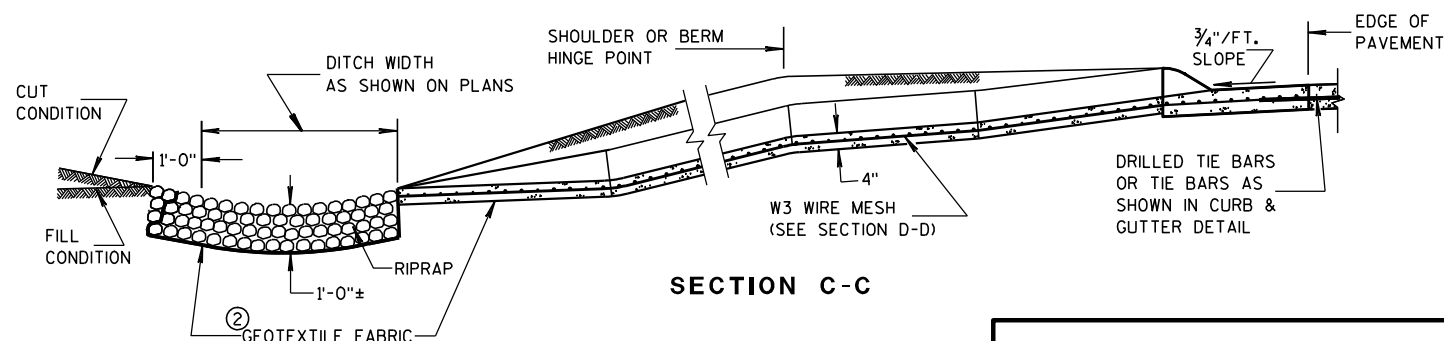
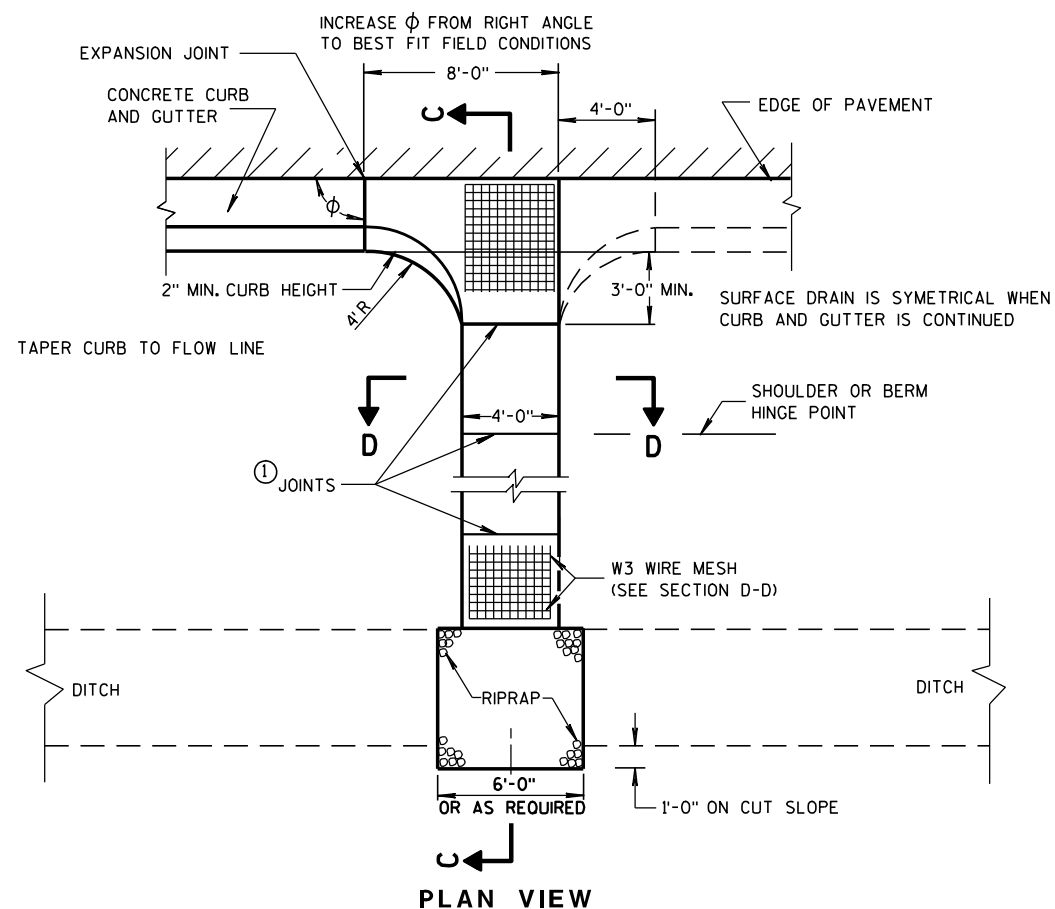
GENERAL NOTES

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 1/8 TO 1/4 INCH WIDE BY 1 1/2 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

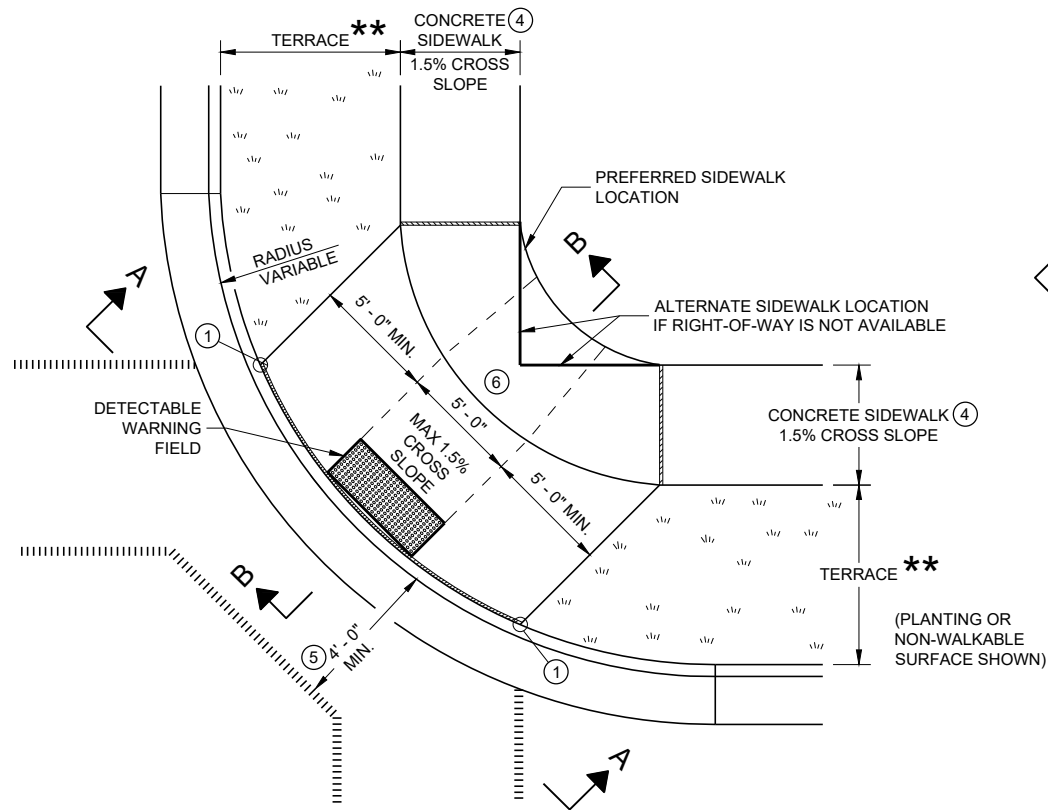
③ CONCRETE SURFACE DRAIN



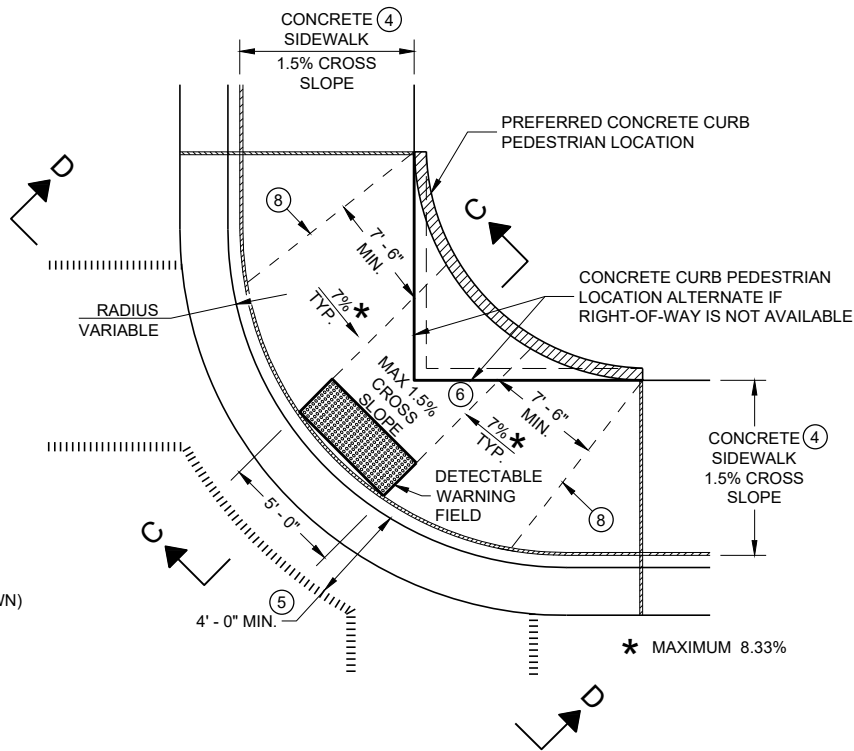
CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

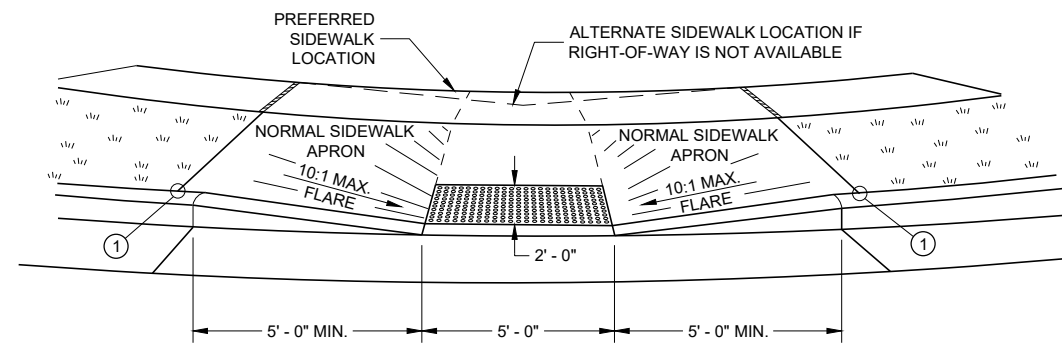
APPROVED
9-4-08 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA



PLAN VIEW
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)

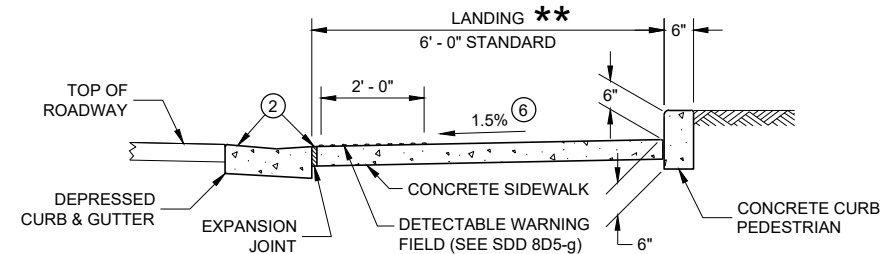


PLAN VIEW
CURB RAMP TYPE 1 - A
(NO TERRACE)

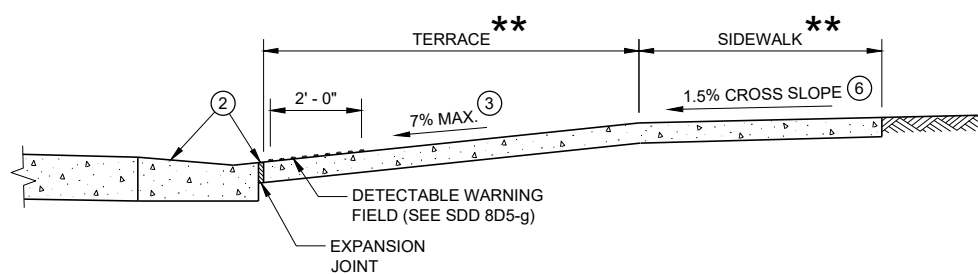


VIEW A - A FOR TYPE 1

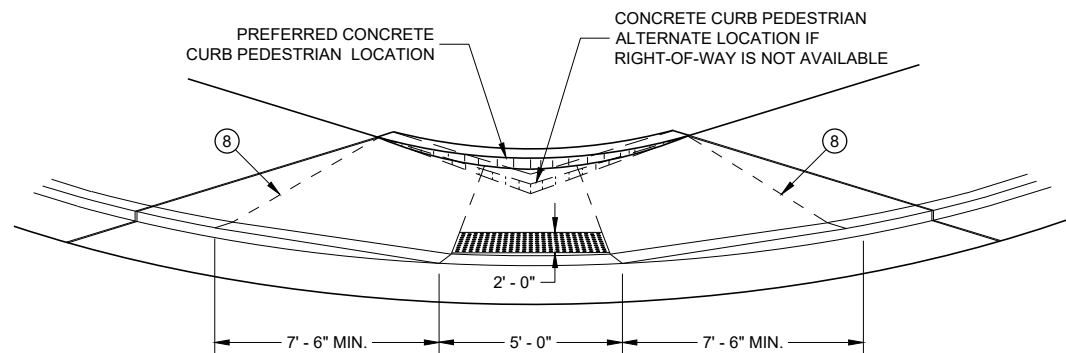
** WIDTH SHOWN ELSEWHERE
IN THE PLANS



SECTION C - C FOR TYPE 1 - A



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
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.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.
TYPE 1 CURB 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 LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

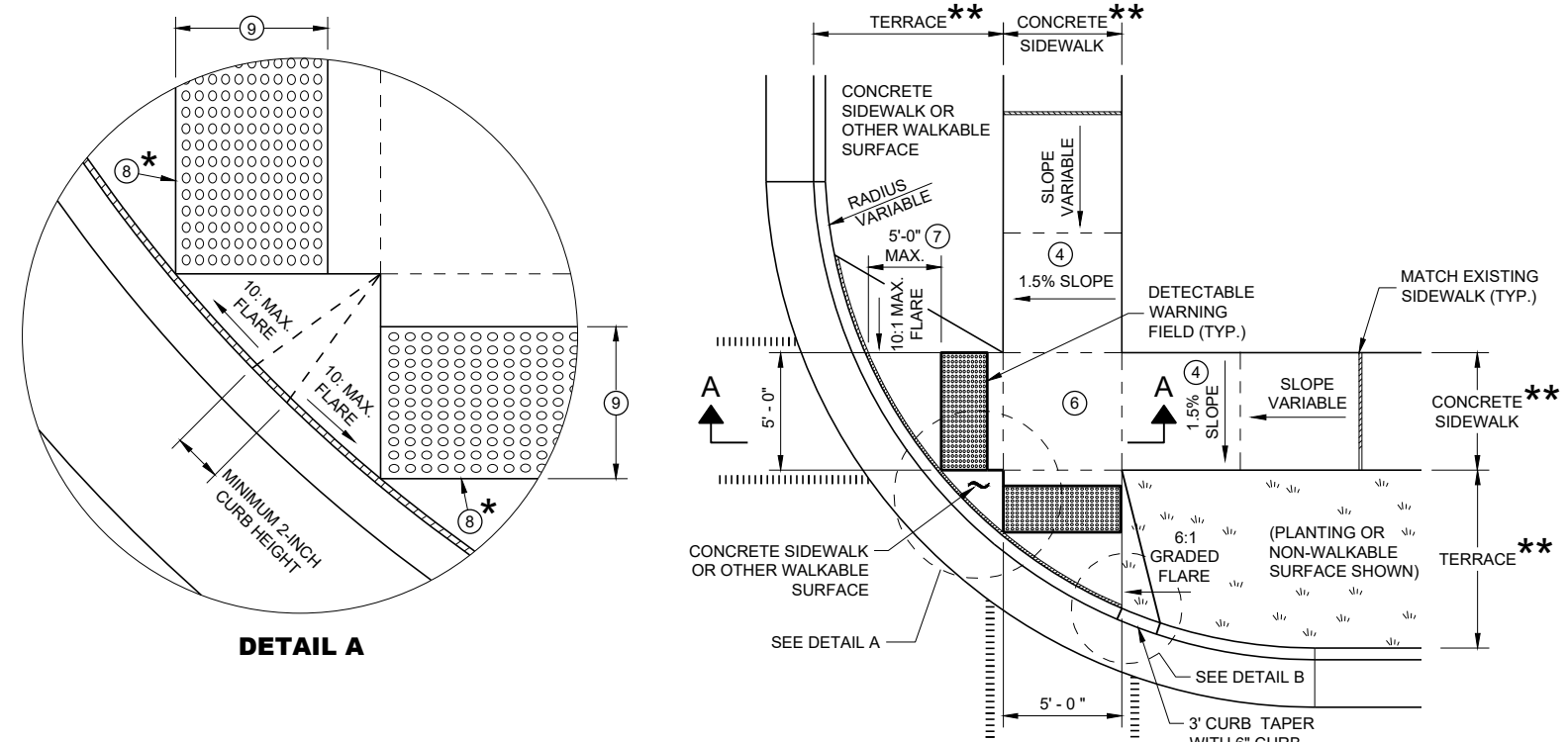
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑤ PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

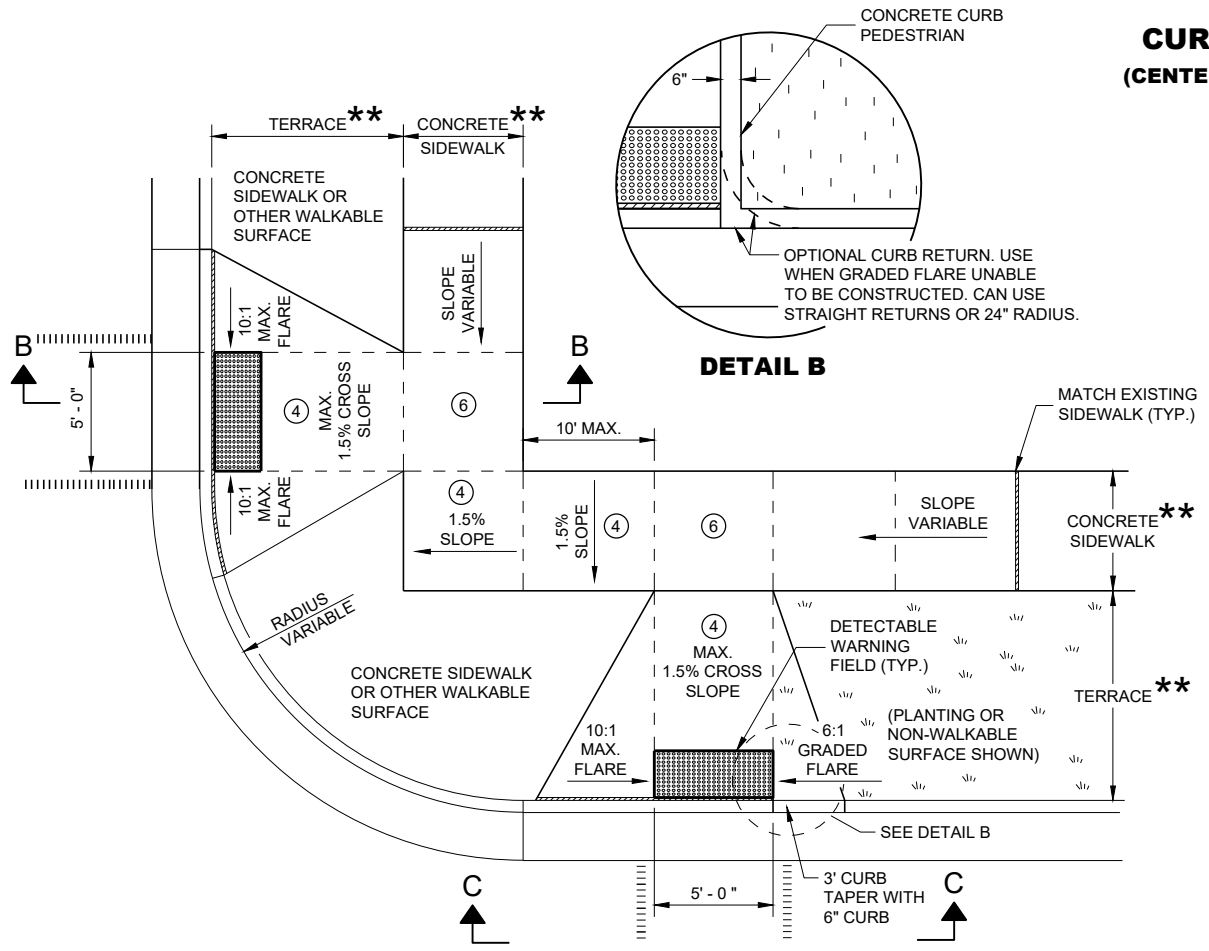
- 1/2" EXPANSION JOINT SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 1 AND 1-A

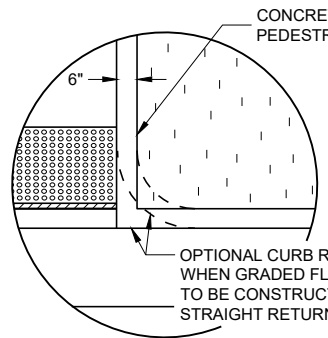
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW CURB RAMP TYPE 2 (CENTER OF CORNER RADIUS)



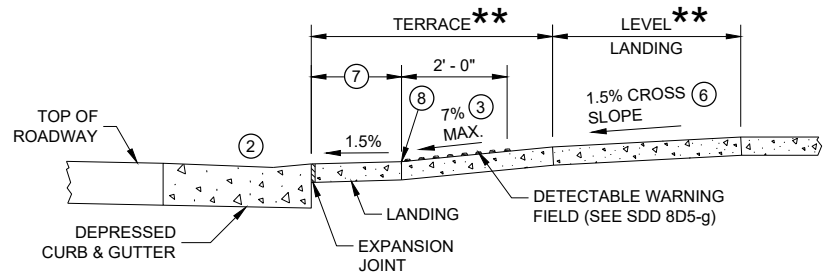
PLAN VIEW CURB RAMP TYPE 3 (OUTSIDE OF CROSSWALK AREA)



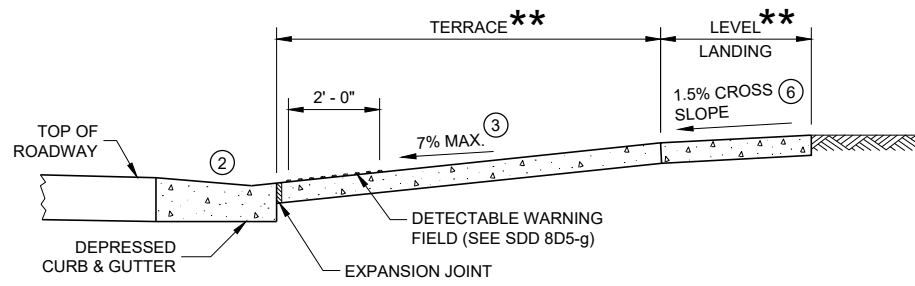
DETAIL B

GENERAL NOTES

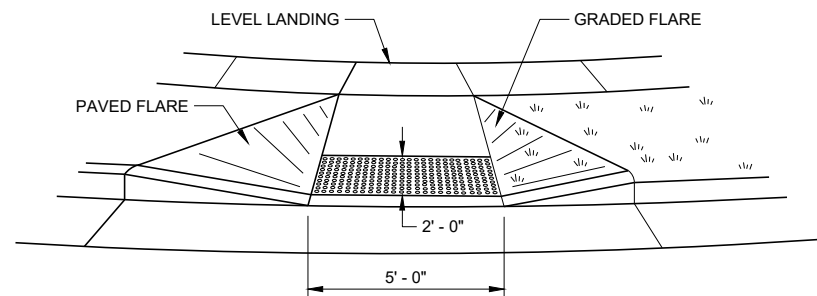
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



SECTION A - A FOR TYPE 2



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

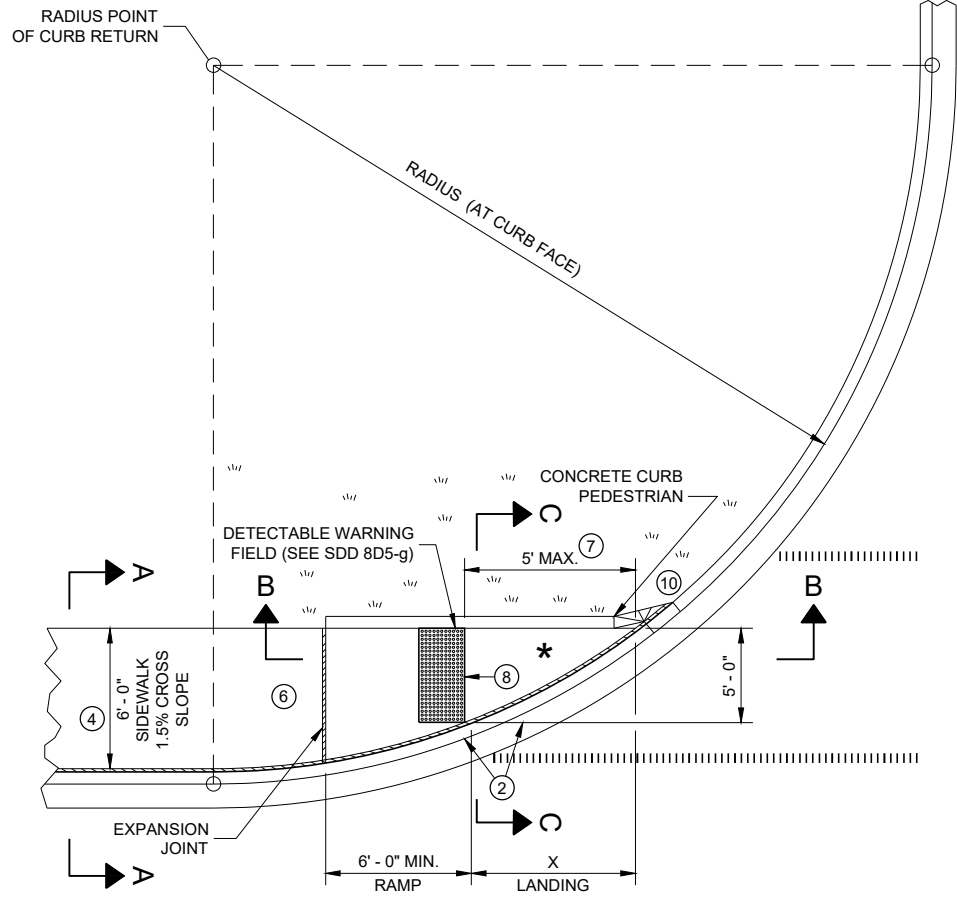
- * MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- ** WIDTH SHOWN ELSEWHERE IN THE PLANS

LEGEND

- 1/2" EXPANSION JOINT SIDEWALK
- - - CONTRACTION JOINT SIDEWALK
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

**CURB RAMPS
TYPE 2 AND 3**

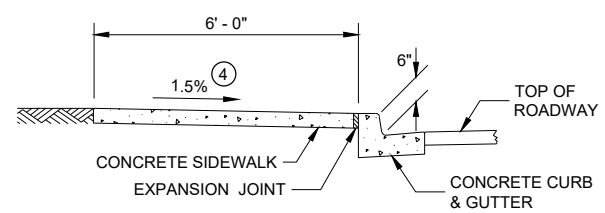
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**PLAN VIEW
CURB RAMP TYPE 4A**

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



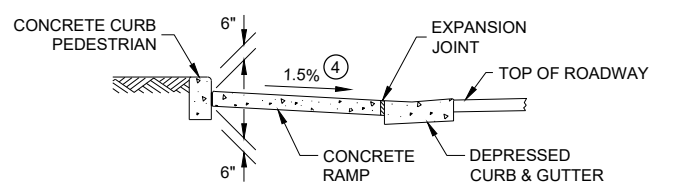
SECTION A - A FOR TYPE 4A

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- 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.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

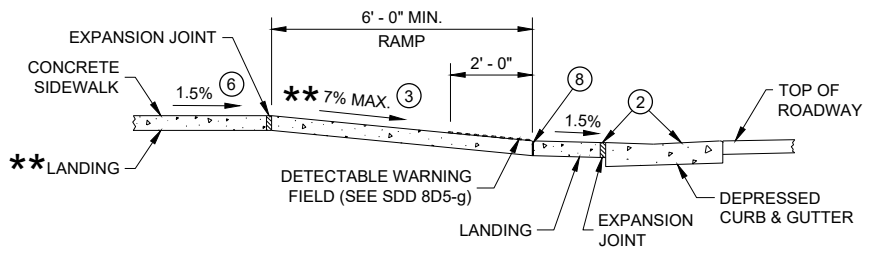
LEGEND

- 1/2" EXPANSION JOINT SIDEWALK
- - - CONTRACTION JOINT SIDEWALK
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)



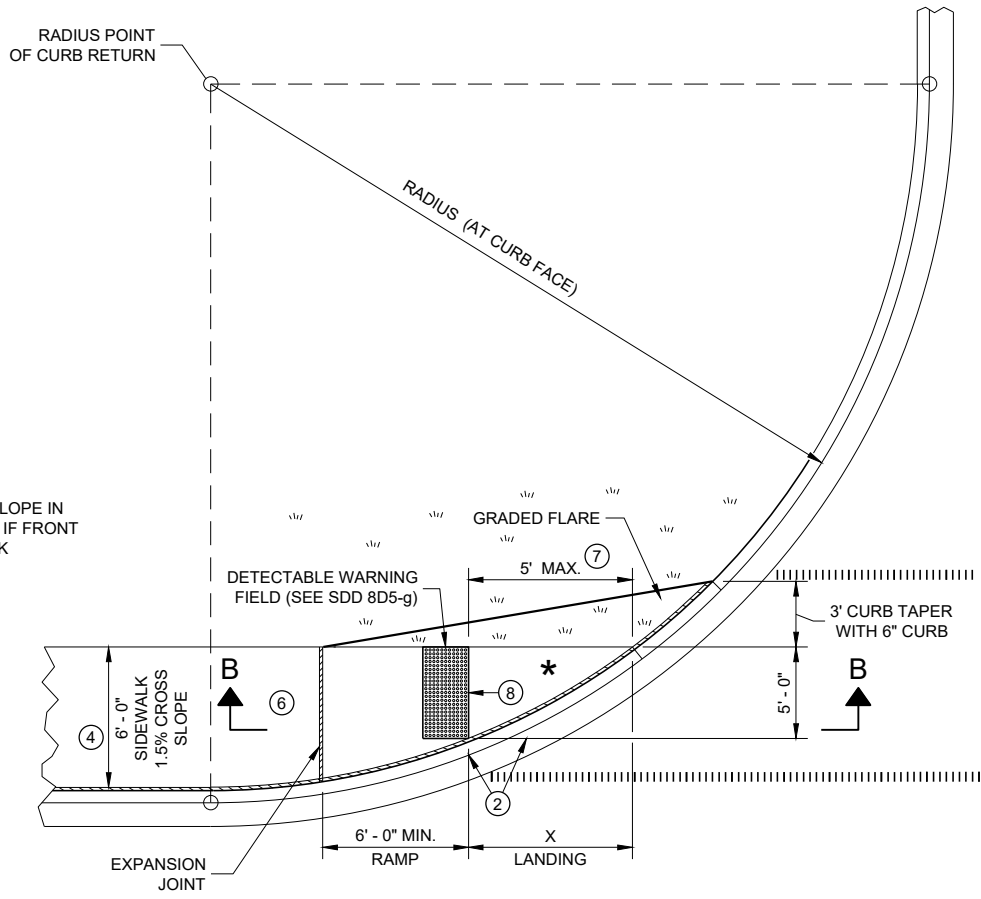
SECTION C - C FOR TYPE 4A

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

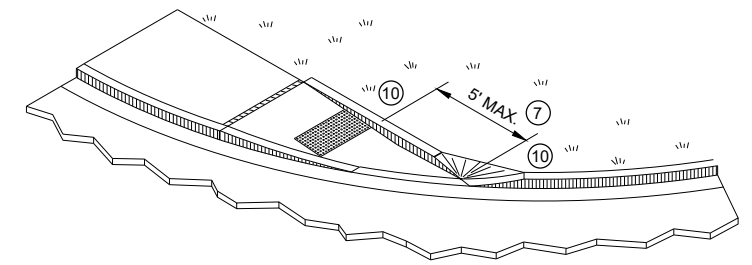


**SECTION B - B FOR
TYPE 4A AND TYPE 4A1**

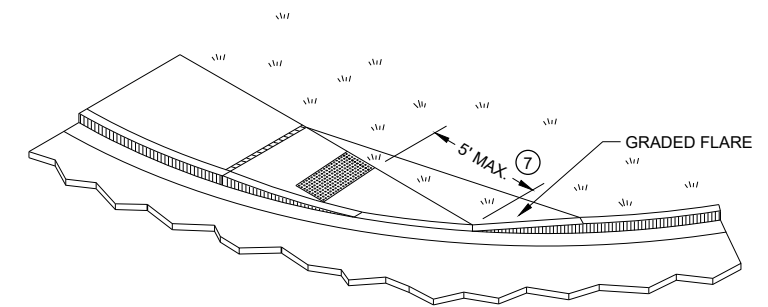
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED



**PLAN VIEW
CURB RAMP TYPE 4A1**



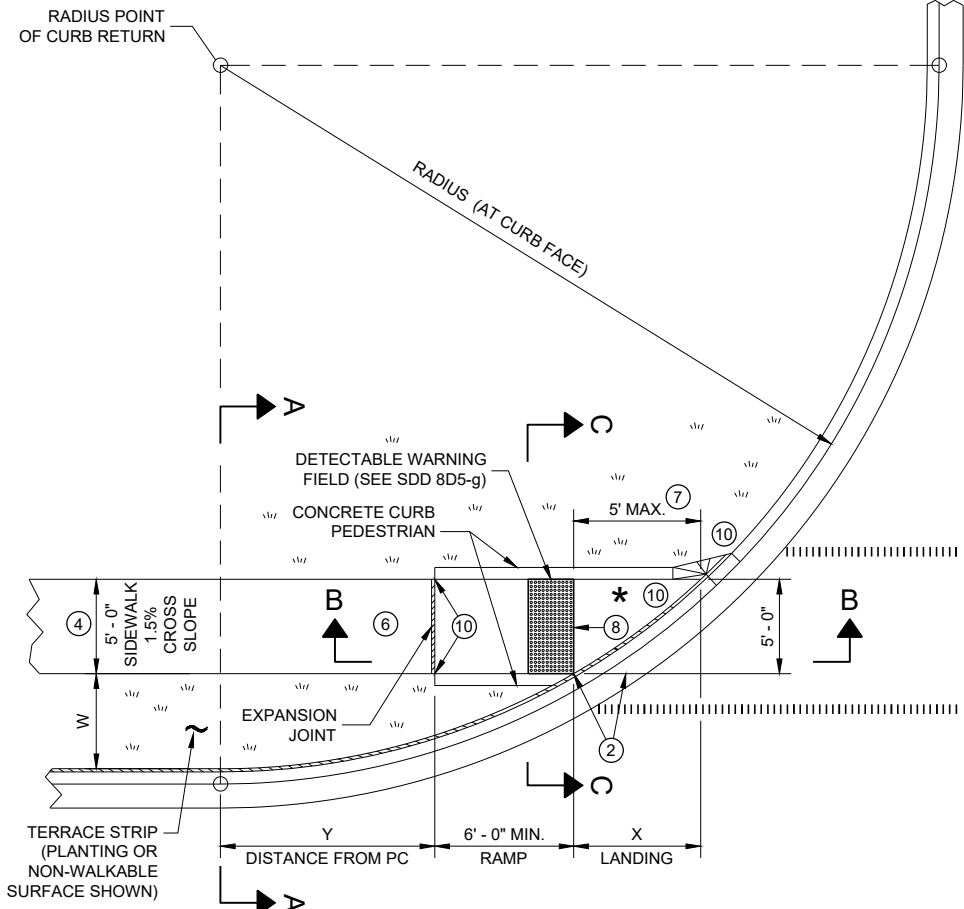
ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

**CURB RAMPS
TYPE 4A AND 4A1**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 1/4"	0' - 5"	2' - 1"	1' - 4 1/2"	1' - 5"	2' - 1"	0' - 10"	2' - 7 1/2"	0' - 3 1/4"	3' - 0 1/4"						
15 FEET	4' - 6 3/4"	2' - 1 3/4"	3' - 9"	3' - 5 3/4"	3' - 1 1/4"	4' - 6"	2' - 6 3/4"	5' - 4 1/2"	2' - 1"	6' - 1"	1' - 8"	6' - 8 1/2"	1' - 3 1/4"	7' - 2 1/2"	0' - 10 3/4"	7' - 7 1/4"
20 FEET	5' - 9 3/4"	3' - 6 1/2"	4' - 11 1/2"	5' - 1 3/4"	4' - 3 1/4"	6' - 5 1/2"	3' - 8 3/4"	7' - 7"	3' - 3"	8' - 6 1/2"	2' - 10"	9' - 4 1/2"	2' - 5 1/2"	10' - 1 1/4"	2' - 1 1/4"	10' - 9"
30 FEET			6' - 9 1/4"	7' - 11 1/4"	6' - 0 1/4"	9' - 8"	5' - 5"	11' - 1 3/4"	4' - 10 3/4"	12' - 5 3/4"	4' - 5 1/2"	13' - 7 3/4"	4' - 0 3/4"	14' - 8 1/2"	3' - 8 1/2"	15' - 8 1/4"
40 FEET									6' - 1 3/4"	15' - 8 1/2"	5' - 8"	17' - 2"	5' - 3"	18' - 5 3/4"	4' - 10 3/4"	19' - 8 1/4"
50 FEET															5' - 10 1/4"	23' - 2"

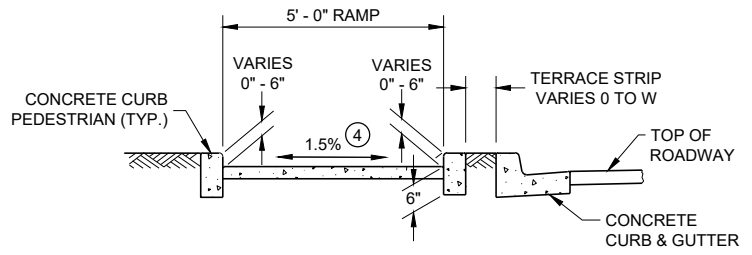
INTERMEDIATE RADII CAN BE INTERPOLATED
 DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
 DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH

LEGEND

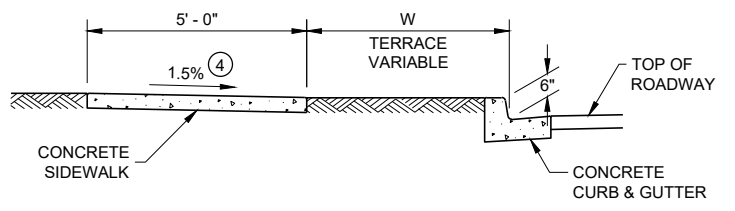
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- 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.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

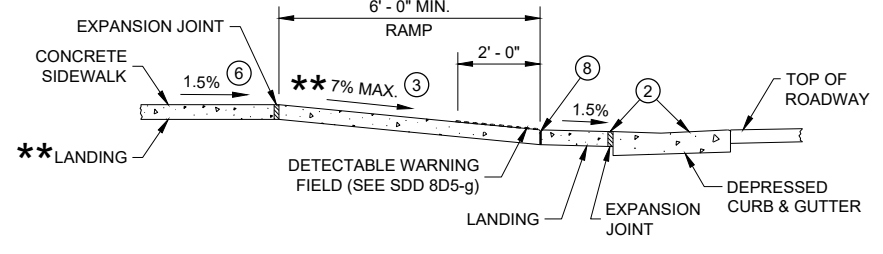


SECTION C - C FOR TYPE 4B



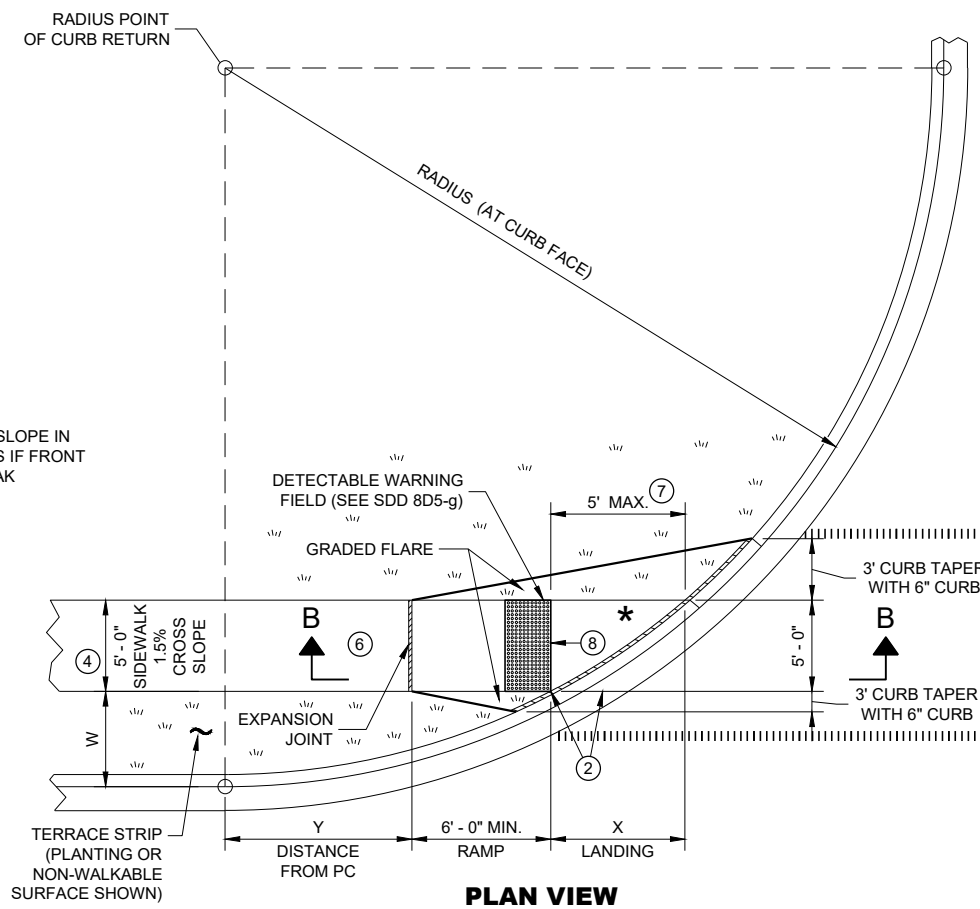
SECTION A - A FOR TYPE 4B

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

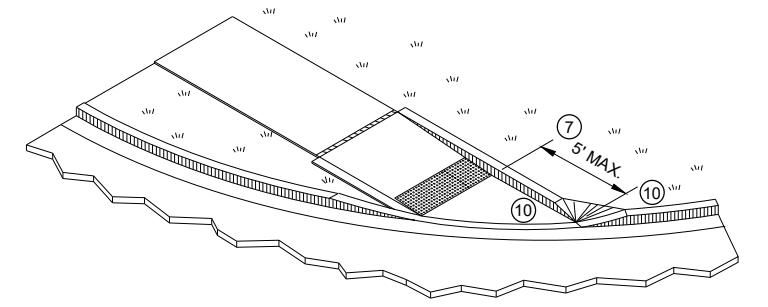


SECTION B - B FOR TYPE 4B AND TYPE 4B1

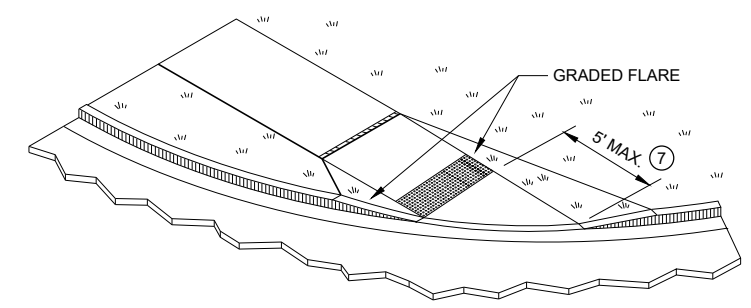
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED



PLAN VIEW CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



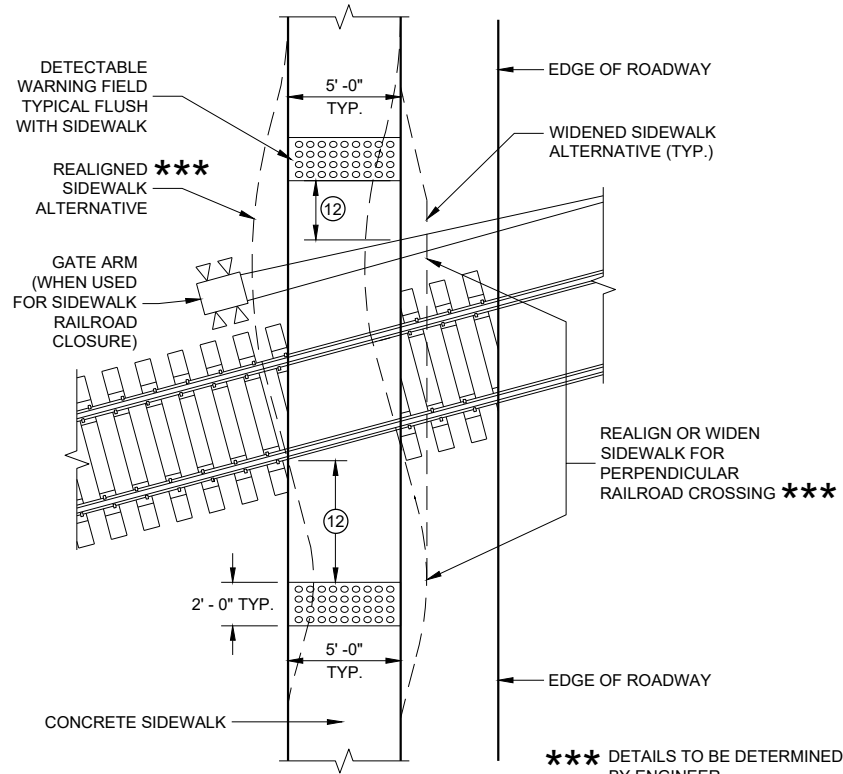
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

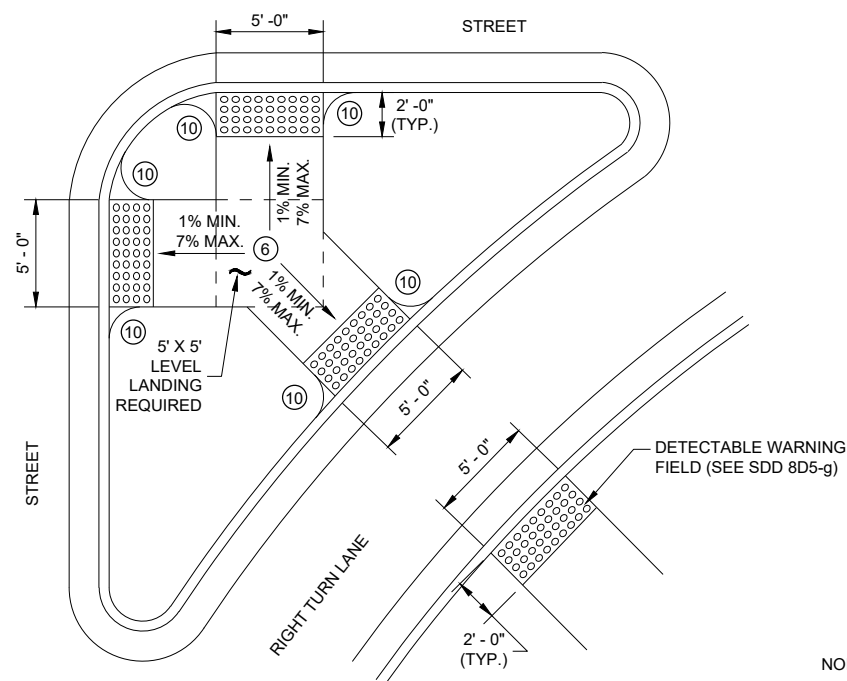
SDD 08D05 - 20d

SDD 08D05 - 20d



CURB RAMP TYPE 8

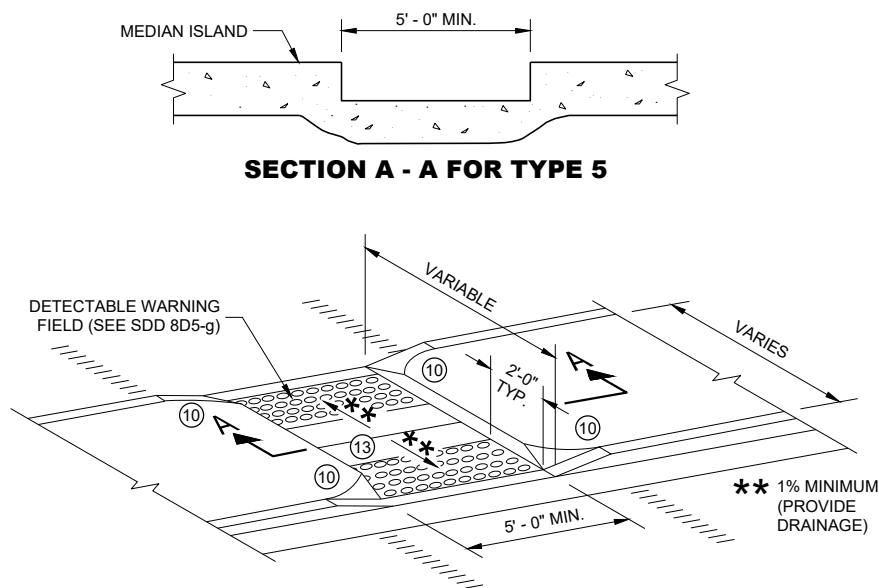
DETECTABLE WARNINGS AT RAILROAD CROSSING



CURB RAMP TYPE 6

DETECTABLE WARNING AT ISLANDS

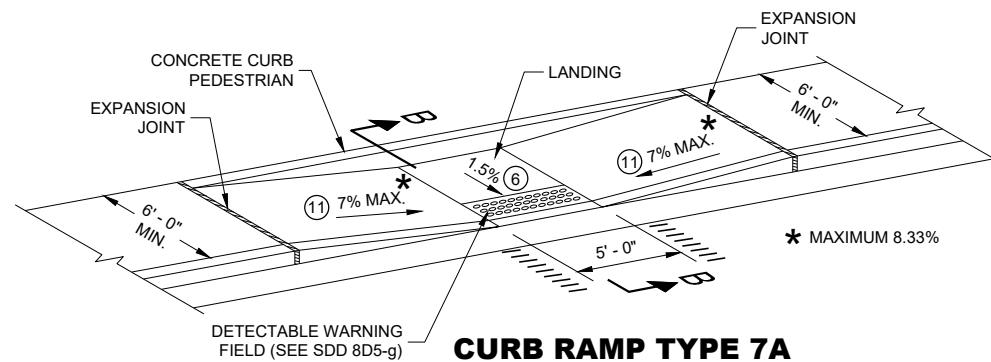
REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



SECTION A - A FOR TYPE 5

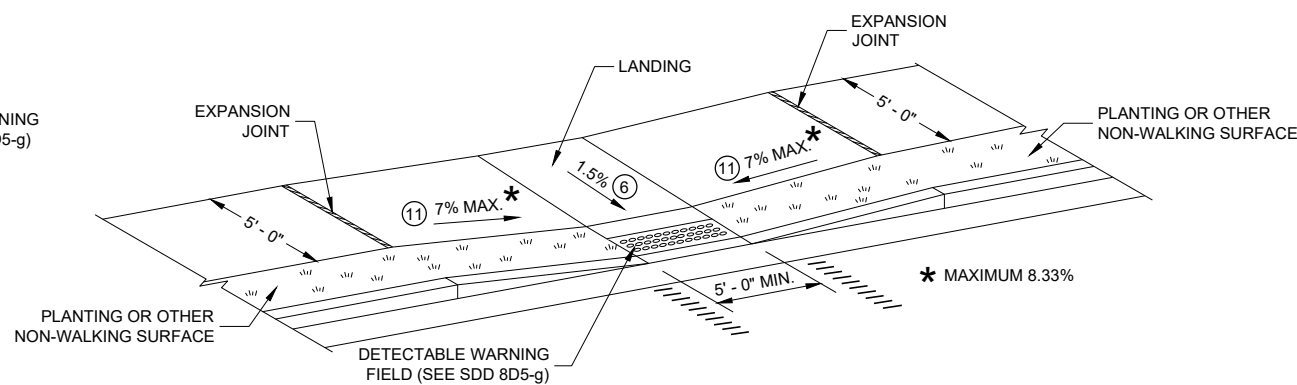
CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING



CURB RAMP TYPE 7A

MID BLOCK CROSSING



CURB RAMP TYPE 7B

MID BLOCK CROSSING

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

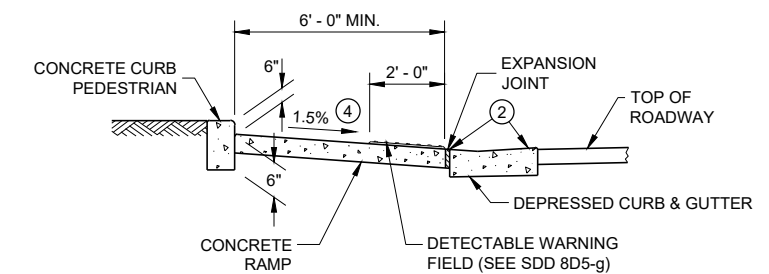
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- (2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- (3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- (4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- (6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- (10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- (11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- (12) 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.
- (13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

- ===== 1/2" EXPANSION JOINT SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)

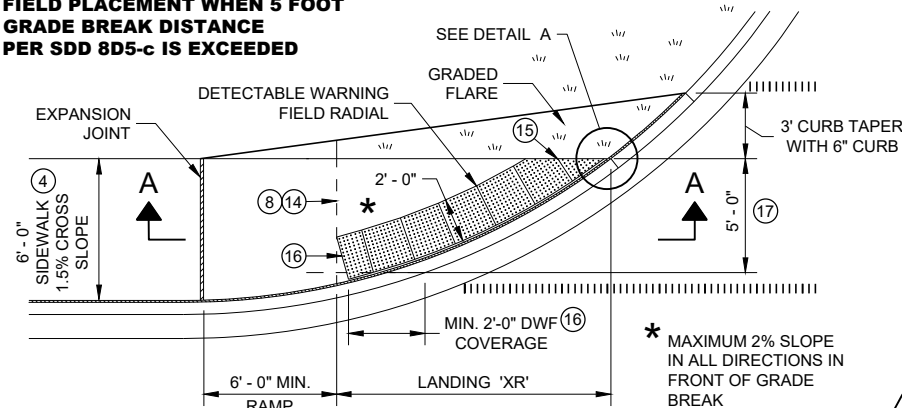


SECTION B - B FOR TYPE 7A

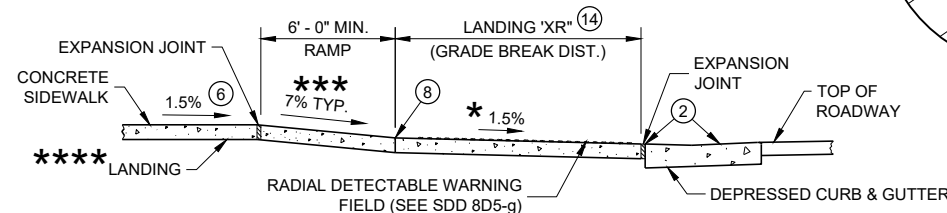
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



**PLAN VIEW
CURB RAMP TYPE 4A1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**

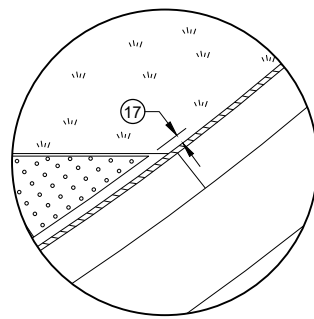


SECTION A - A FOR TYPE 4A1

**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

- LEGEND**
- 1/2" EXPANSION JOINT SIDEWALK
 - - - - CONTRACTION JOINT SIDEWALK
 - ||||| PAVEMENT MARKING CROSSWALK (WHITE)

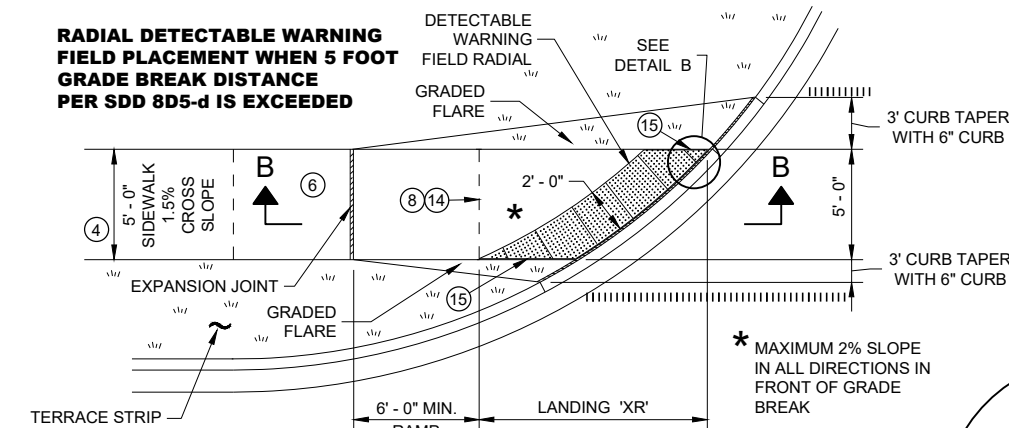


DETAIL A

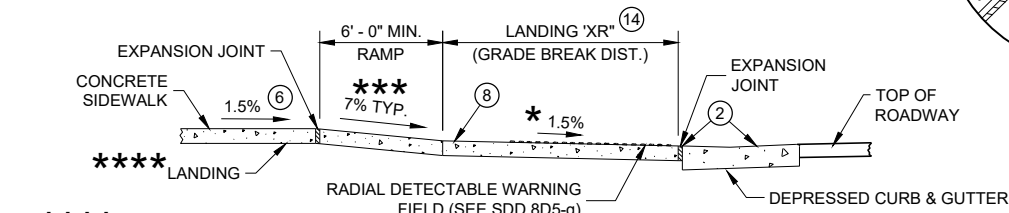
GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- 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.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B RAMPS ARE NOT SHOWN.
- REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.
- FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.
- DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.
- 2 GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- 3 AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- 4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- 6 PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.
- 8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- 14 CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
- 15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
- 16 USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.
- 17 A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



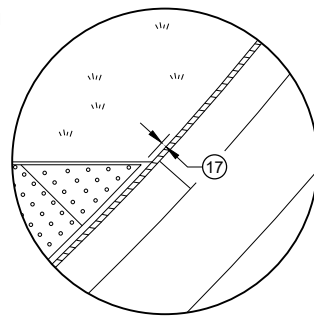
**PLAN VIEW
CURB RAMP TYPE 4B1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



SECTION B - B FOR TYPE 4B1

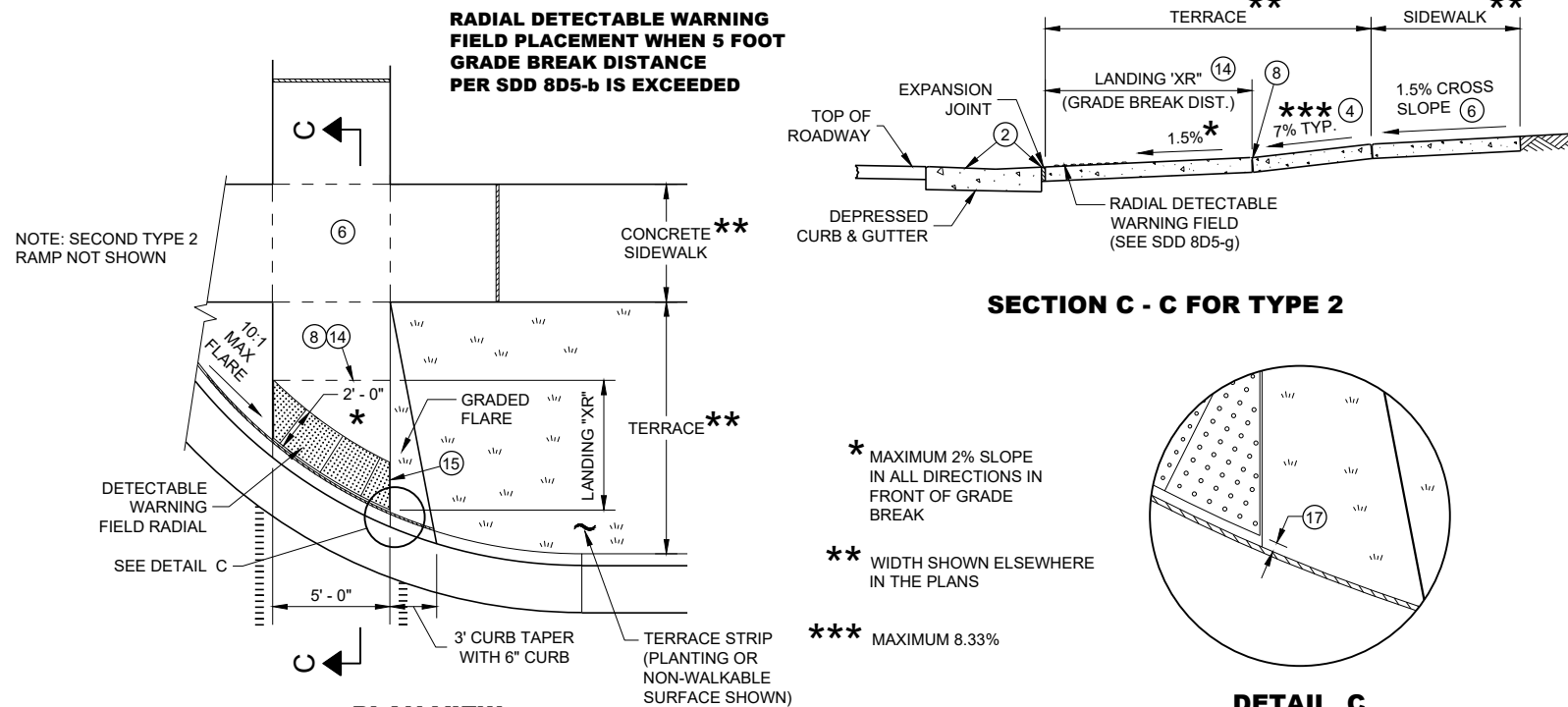
**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%



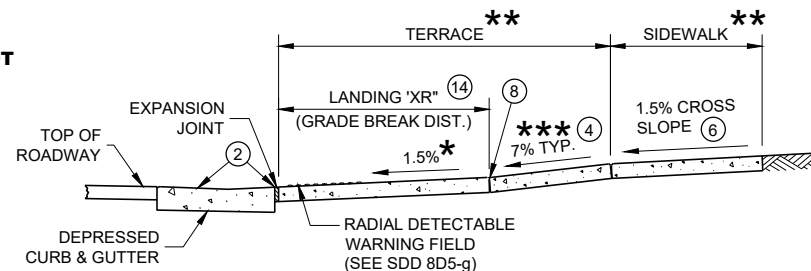
DETAIL B

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED



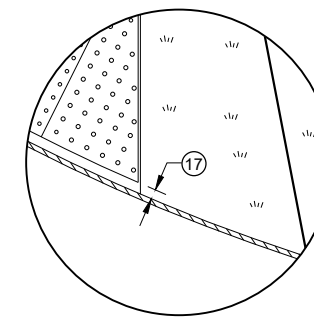
**PLAN VIEW
CURB RAMP TYPE 2
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)**

NOTE: SECOND TYPE 2 RAMP NOT SHOWN



SECTION C - C FOR TYPE 2

- * MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- ** WIDTH SHOWN ELSEWHERE IN THE PLANS
- *** MAXIMUM 8.33%



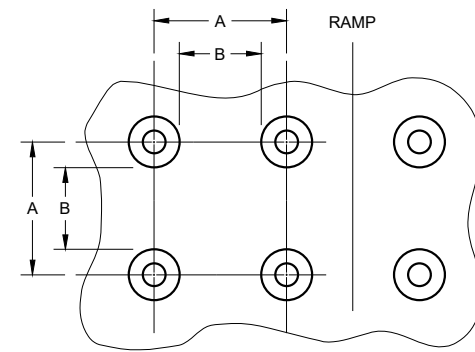
DETAIL C

**CURB RAMPS
RADIAL DETECTABLE WARNING
FIELD APPLICATIONS**

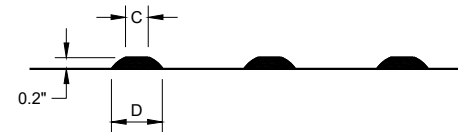
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

	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.

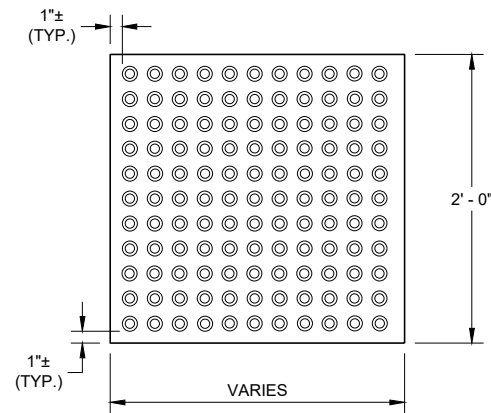


PLAN VIEW

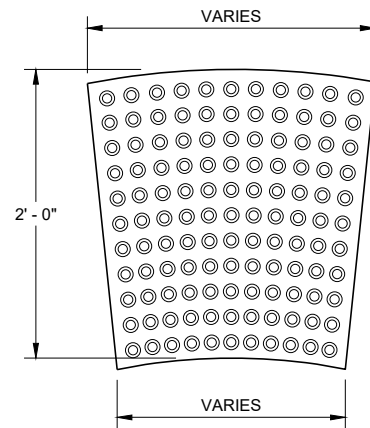


ELEVATION VIEW

**TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL**

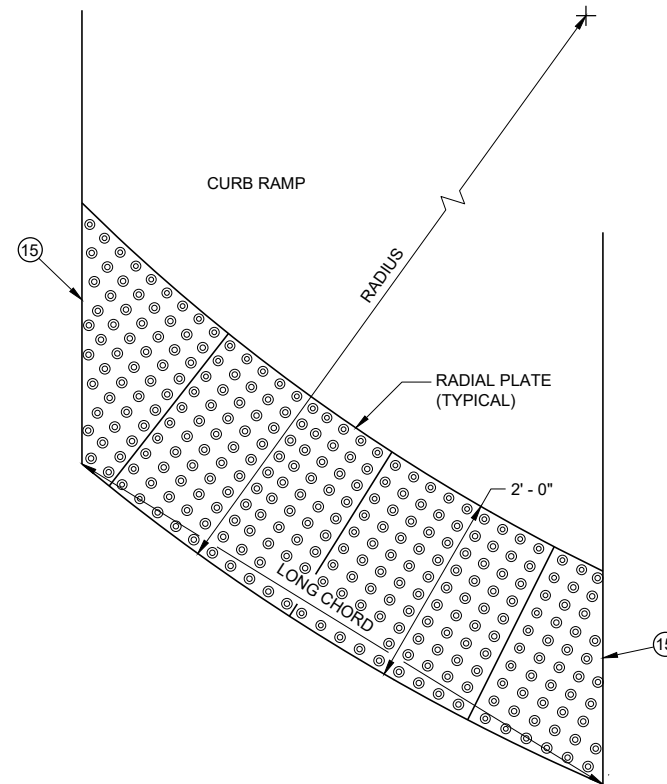


**RECTANGULAR
PLATES**

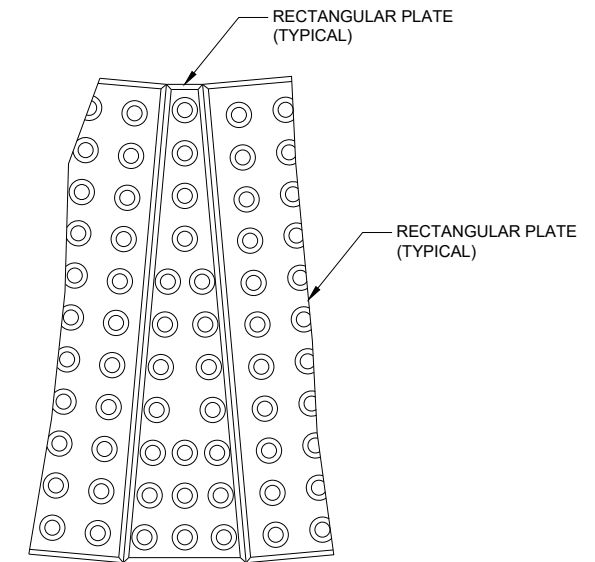


**RADIAL
PLATES**

**PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)**



**PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES**



**PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL**

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

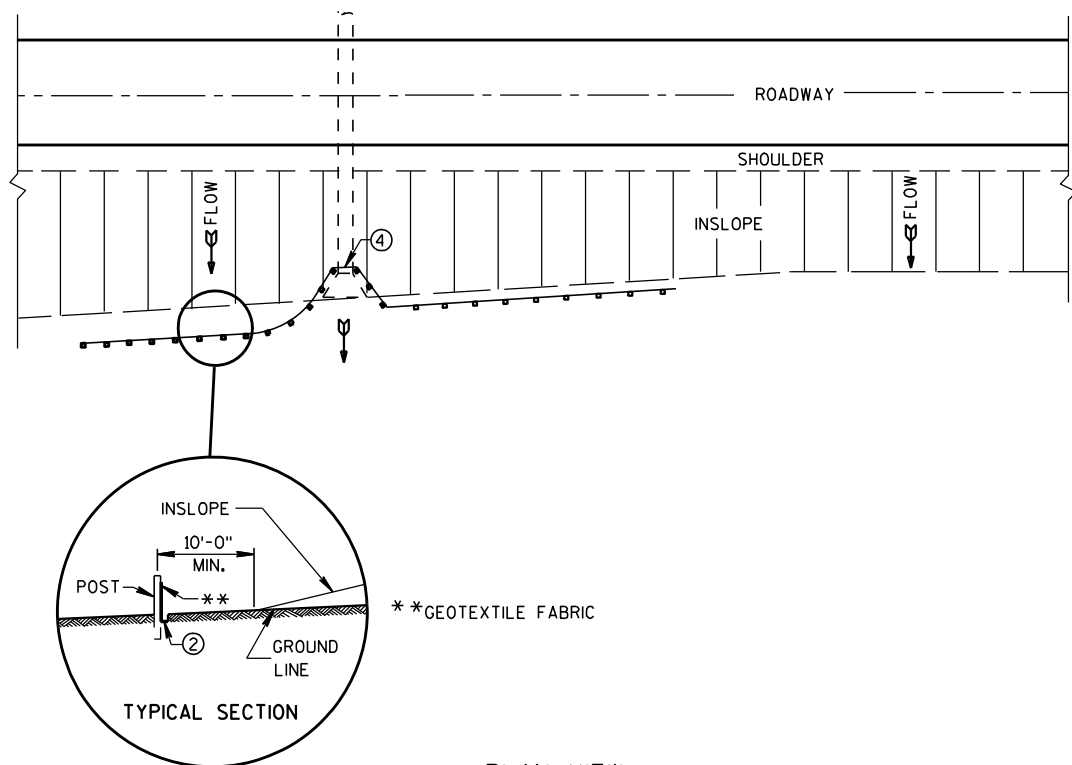
FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

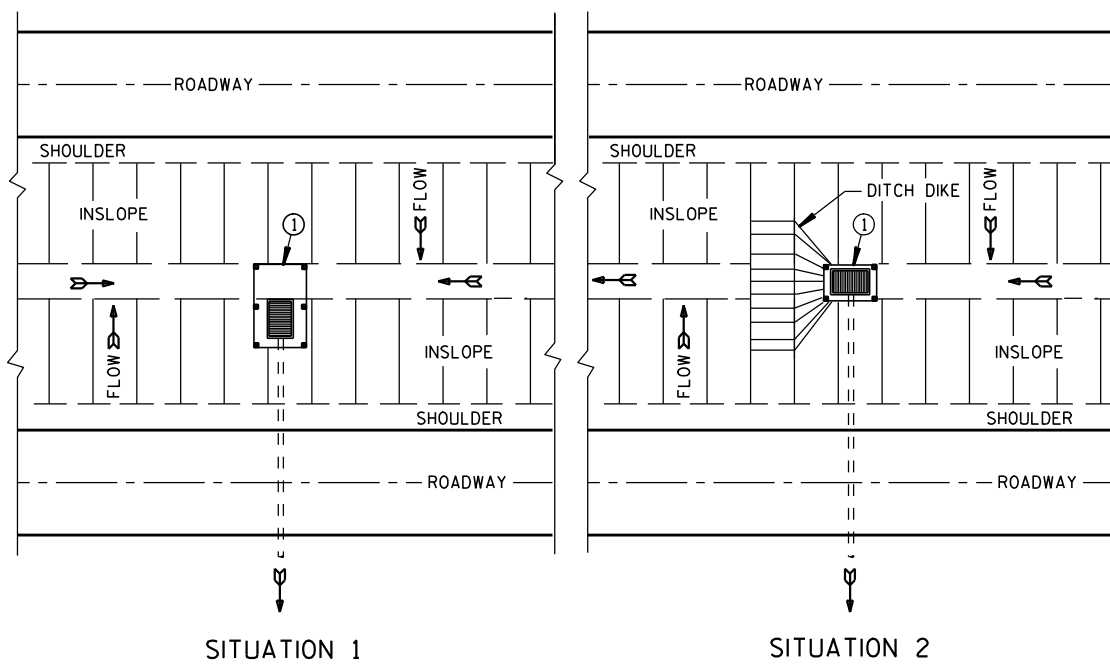
DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

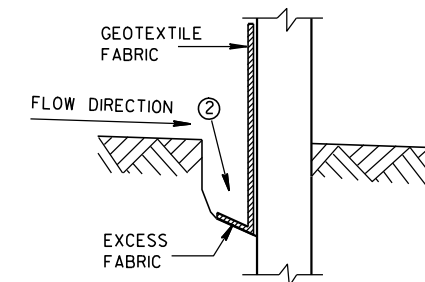


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

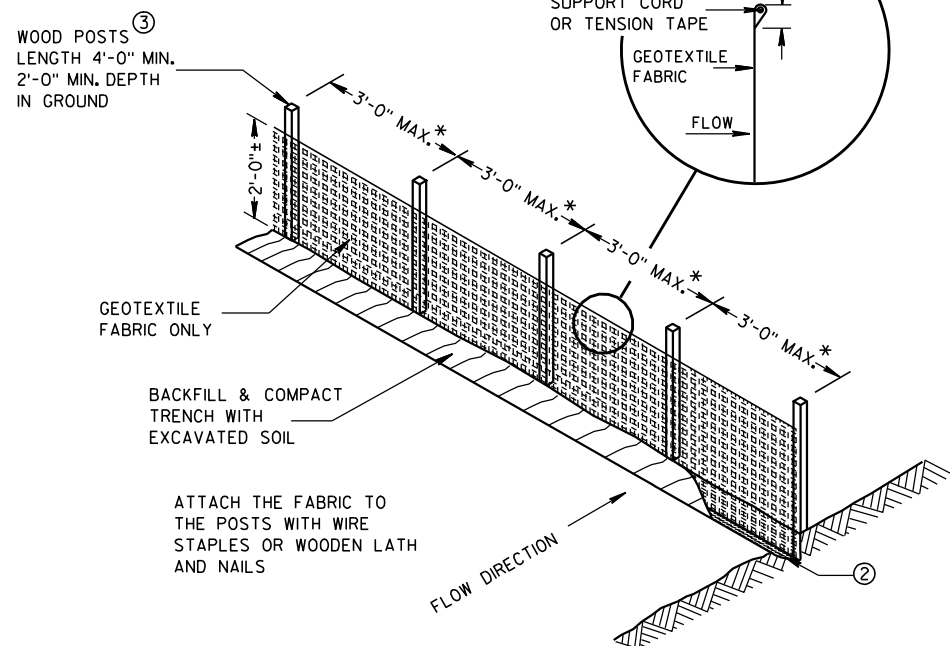
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- 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 1 1/8" X 1 1/8" 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.



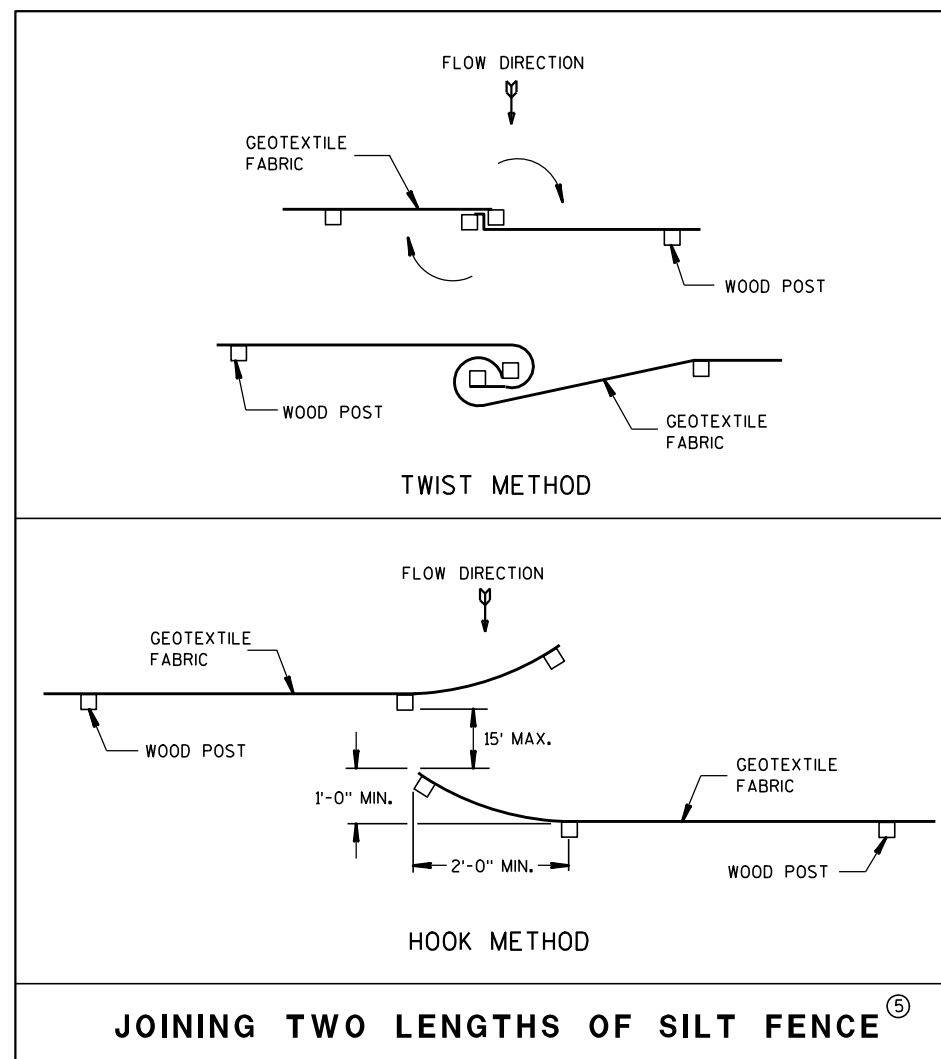
TRENCH DETAIL

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

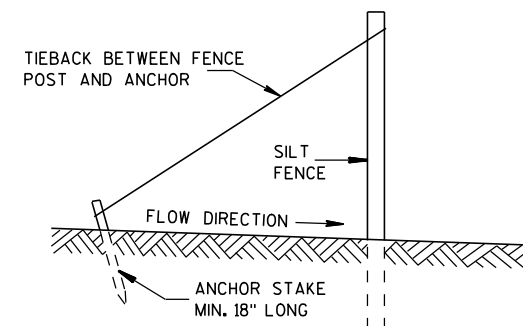


SILT FENCE

* NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.



JOINING TWO LENGTHS OF SILT FENCE ⑤

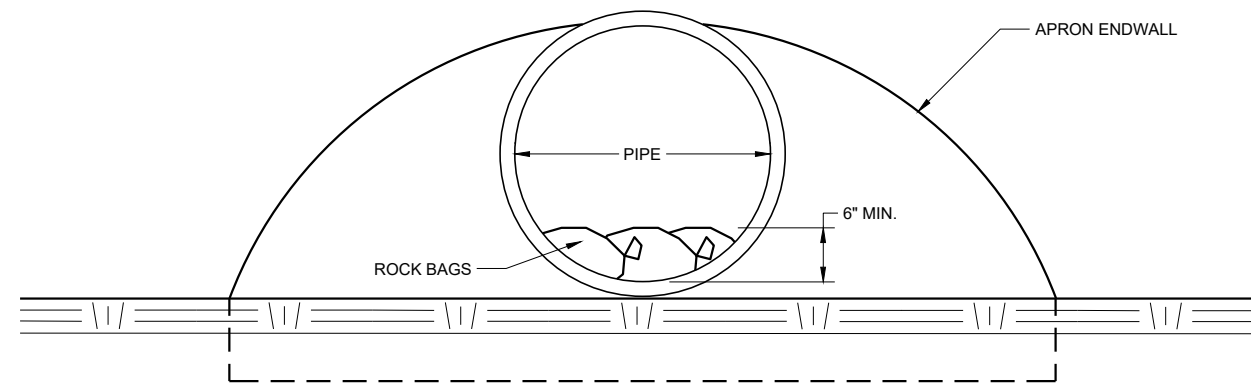


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

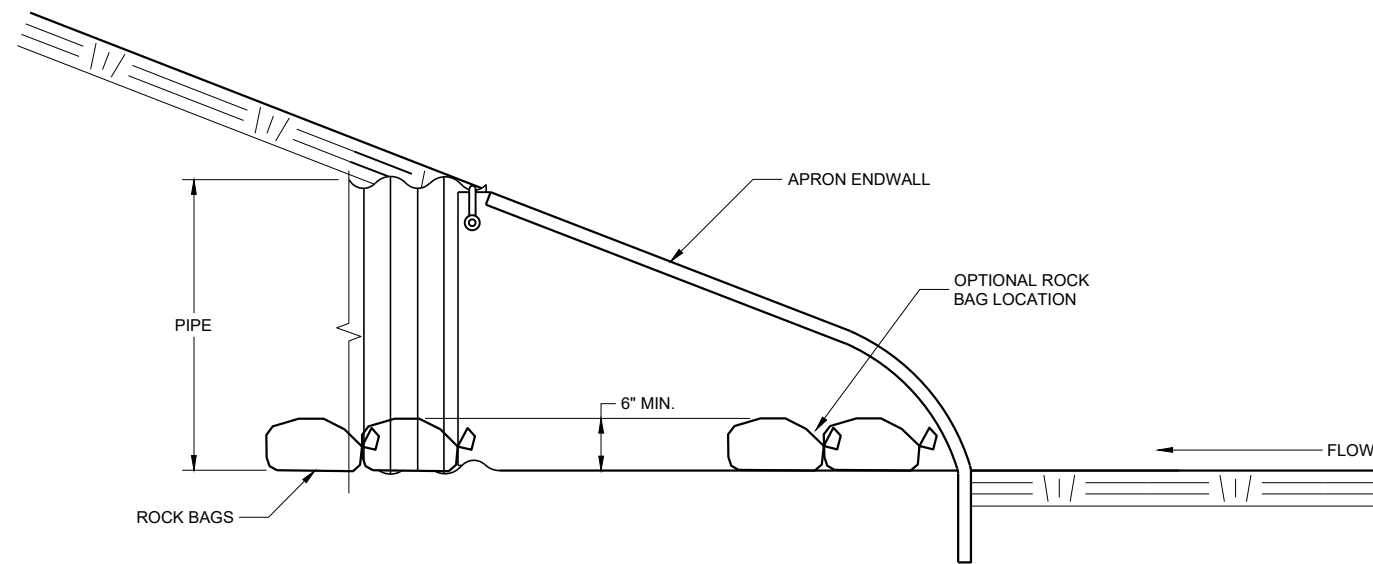
SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



END VIEW



SIDE VIEW

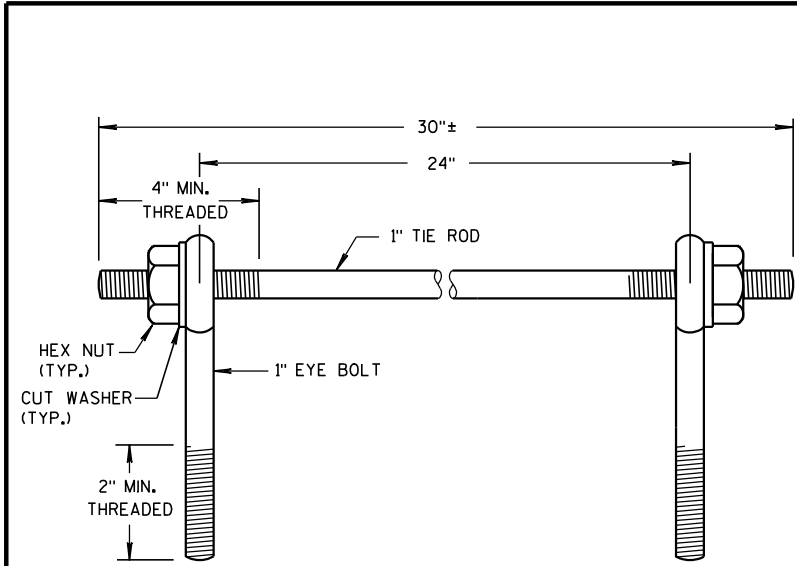
CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

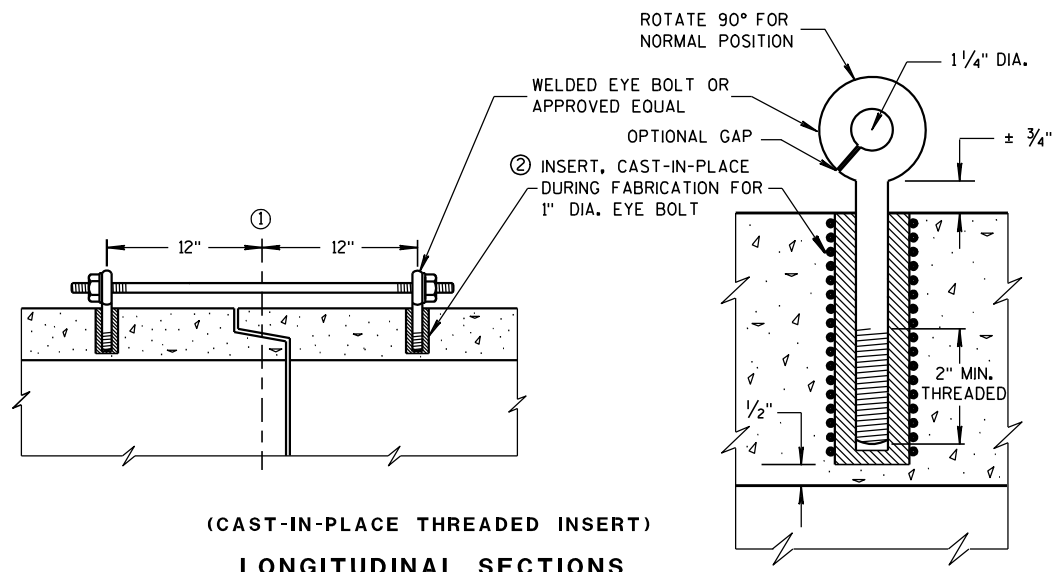
APPROVED
May 2019 /S/ Daniel Schave
DATE EROSION CONTROL ENGINEER

FHWA



EYE BOLTS AND TIE ROD

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



(CAST-IN-PLACE THREADED INSERT)
LONGITUDINAL SECTIONS

GENERAL NOTES

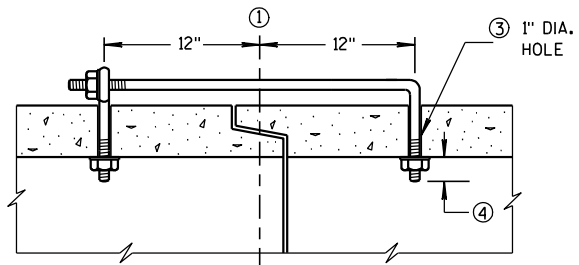
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.

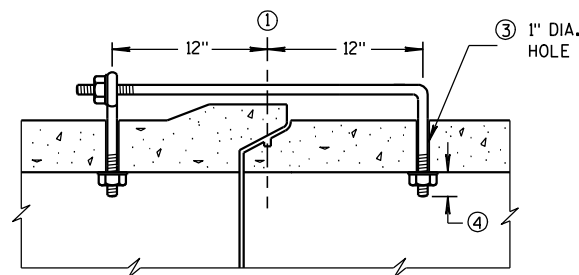
DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

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

- ① ϕ 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 ϕ 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 $\frac{1}{2}$ INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)



(MODIFIED BELL PIPE)
LONGITUDINAL SECTION

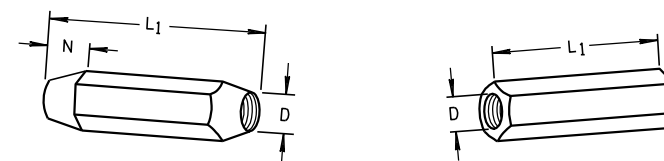
EYE BOLT DIMENSION TABLE

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"	

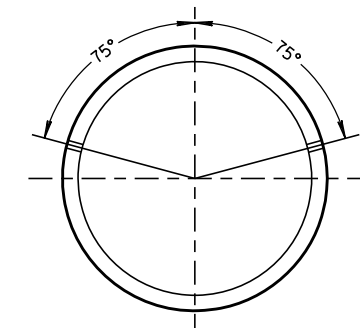
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L1	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 1/6

DIMENSIONS SHOWN ARE IN INCHES

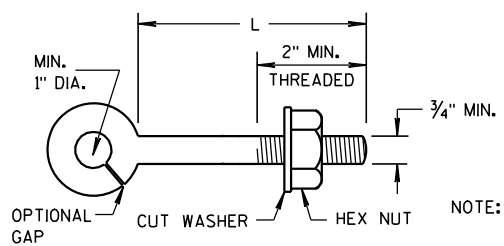


TAPERED PLAIN
RIGHT AND LEFT THREADS
SLEEVE NUTS



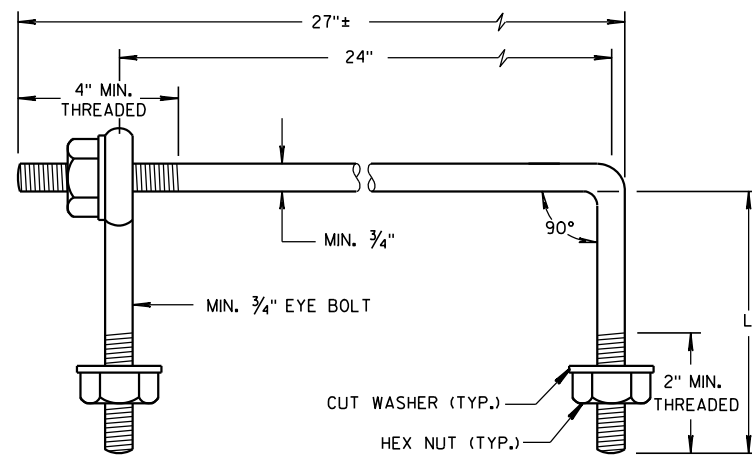
PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



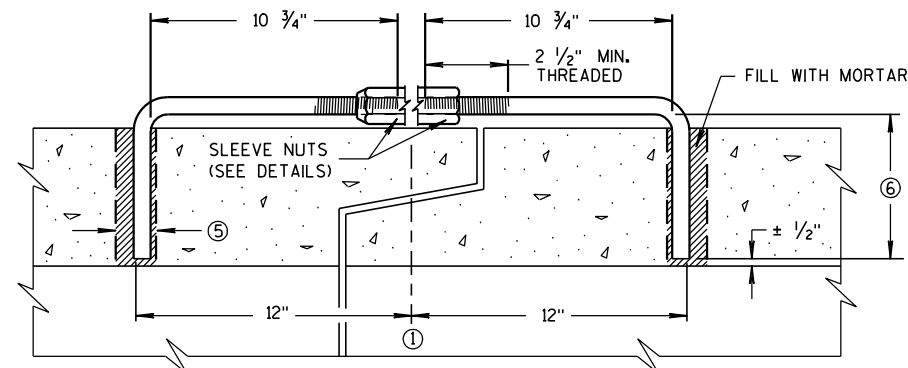
EYE BOLT

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

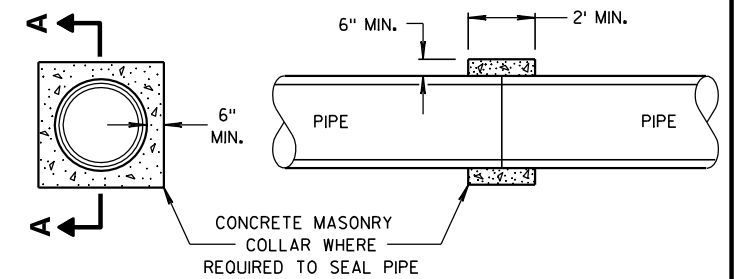


EYE BOLT AND TIE ROD

(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)
EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)



LONGITUDINAL SECTION
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)
ADJUSTABLE TIE ROD (ALTERNATE NO. 3)

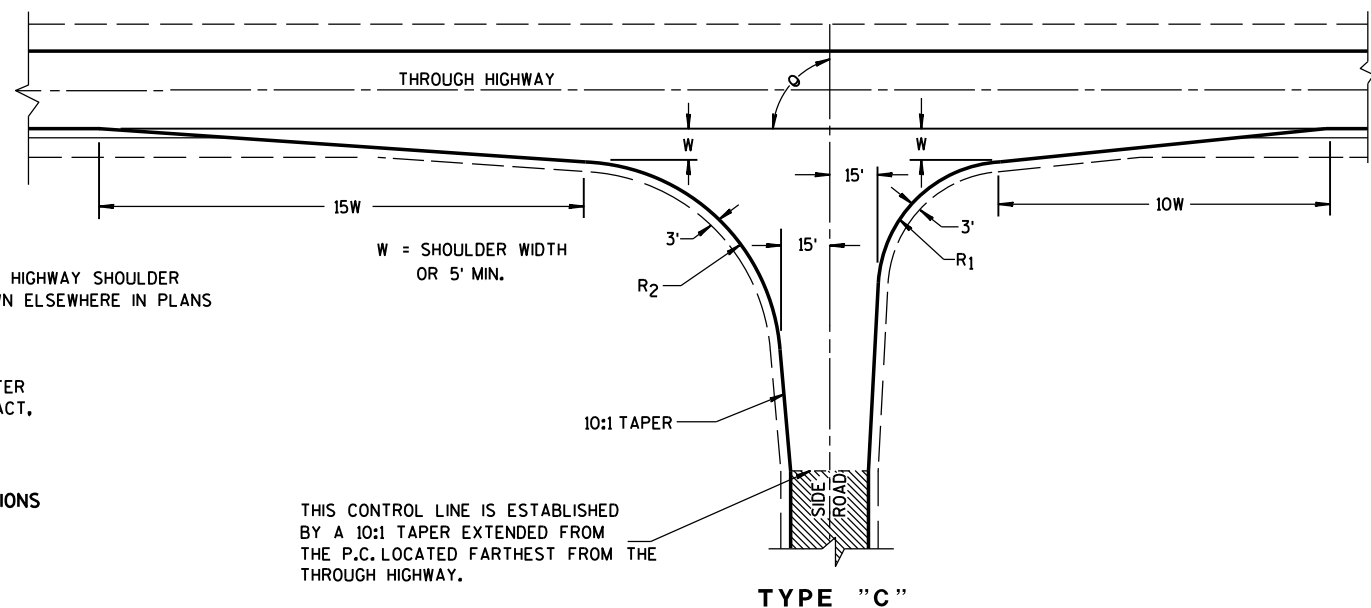
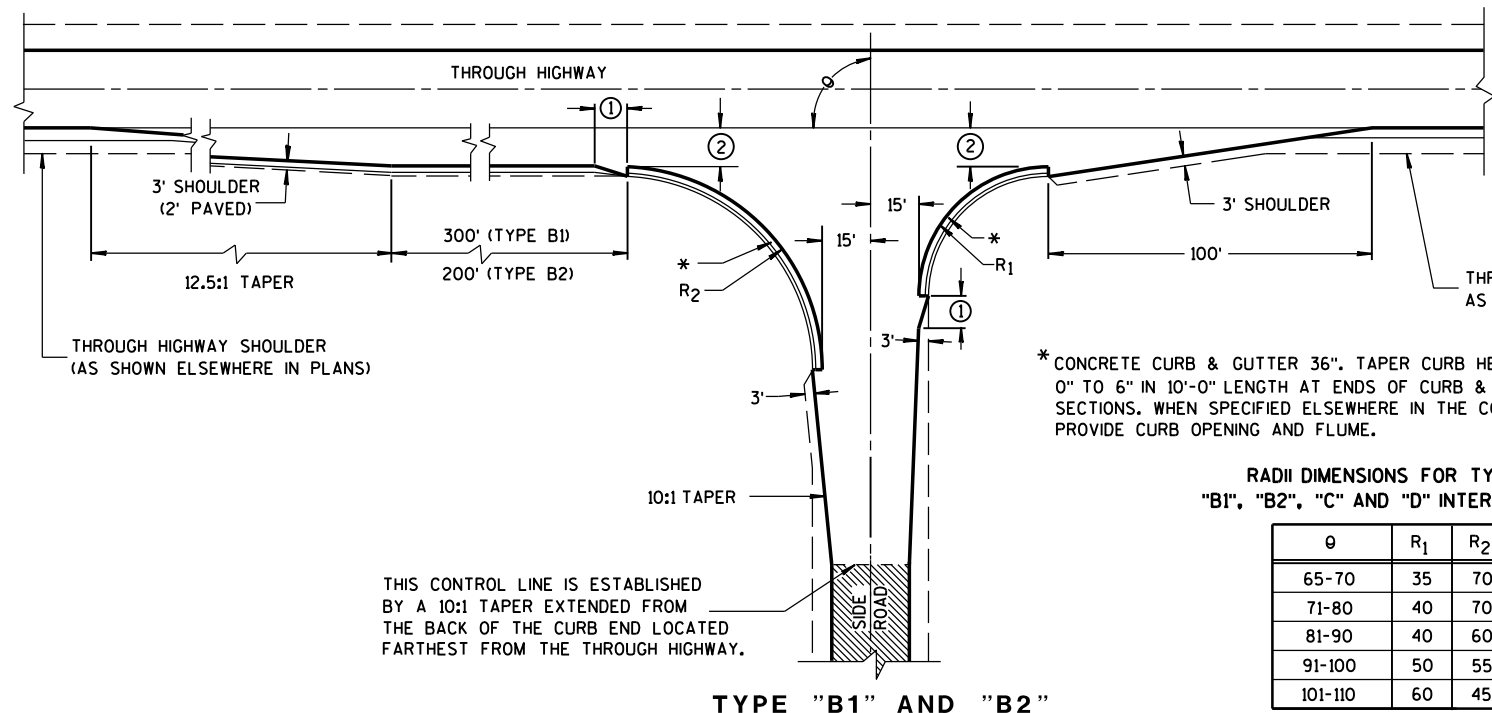


SECTION A-A
CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R ₁	R ₂
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45

THIS CONTROL LINE IS ESTABLISHED BY A 10:1 TAPER EXTENDED FROM THE BACK OF THE CURB END LOCATED FARTHEST FROM THE THROUGH HIGHWAY.

THIS CONTROL LINE IS ESTABLISHED BY A 10:1 TAPER EXTENDED FROM THE P.C. LOCATED FARTHEST FROM THE THROUGH HIGHWAY.

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

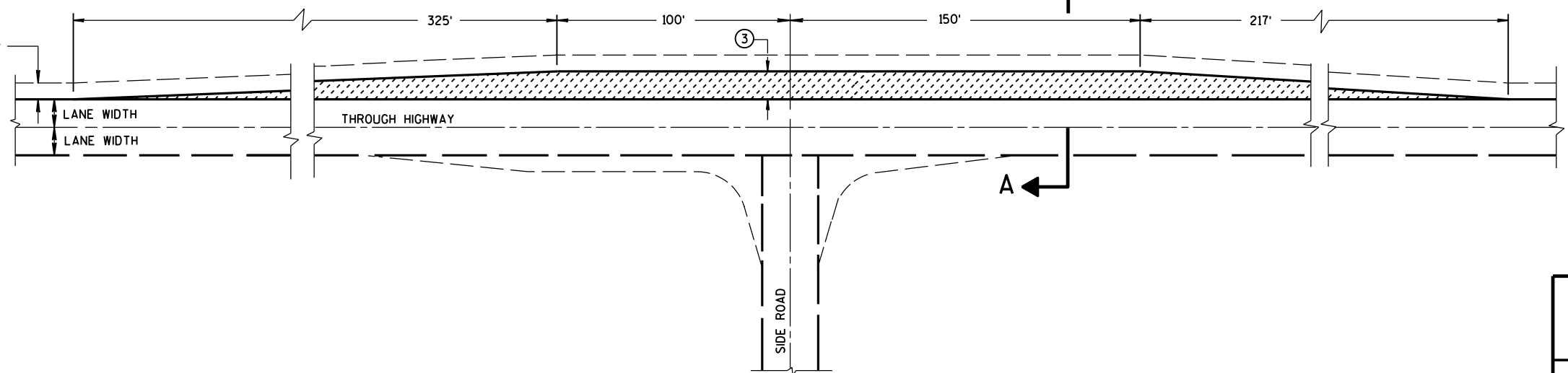
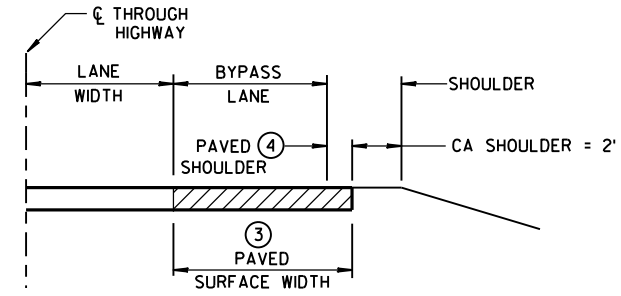
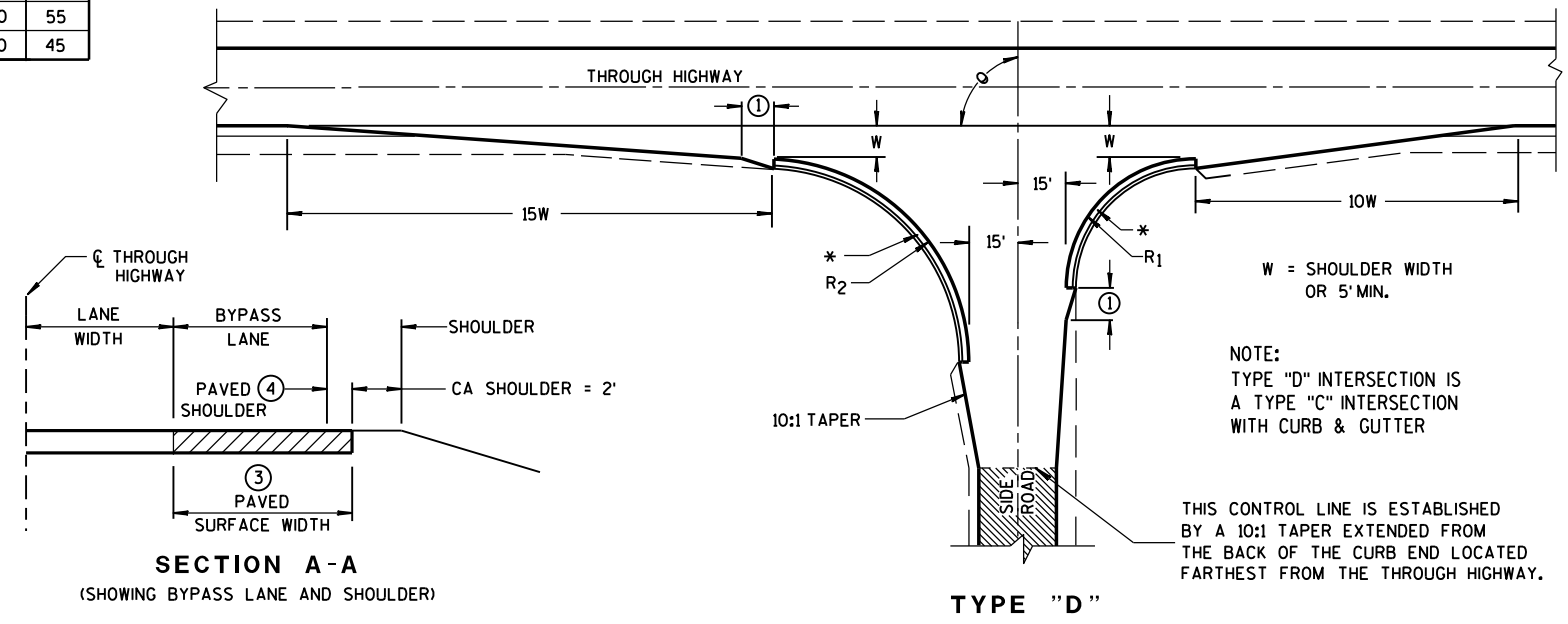
WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

BYPASS LANE

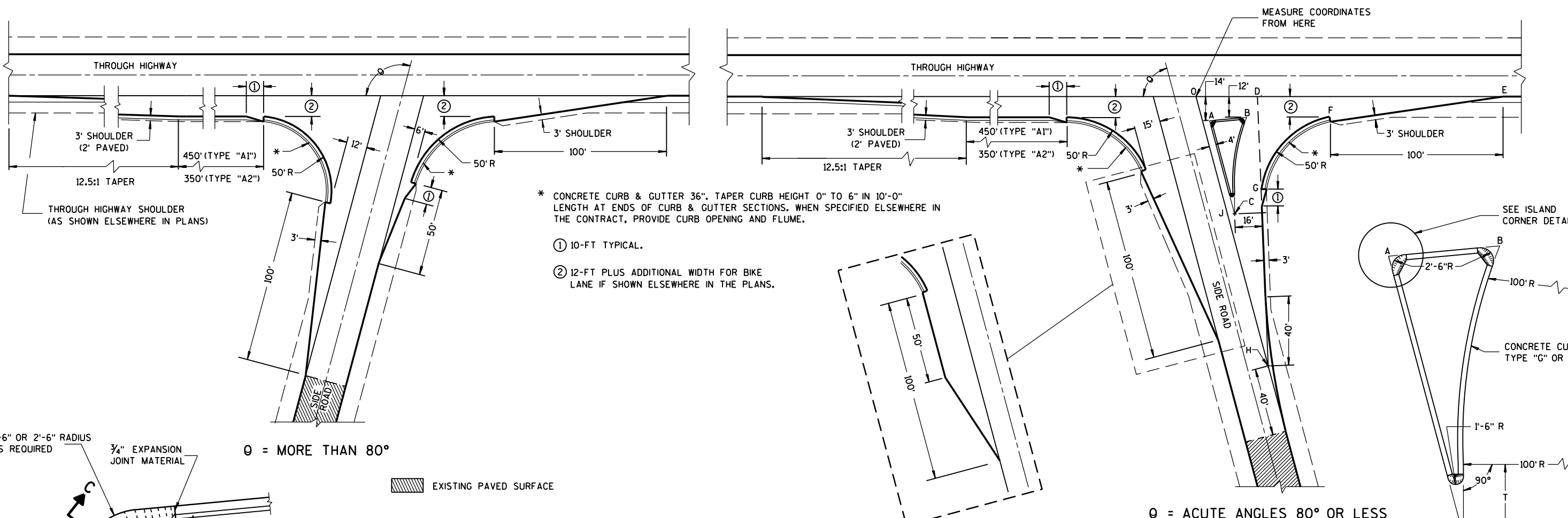
- ① 10-FT TYPICAL.
- ② 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.
- ③ BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.
- ④ BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



* CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

- ① 10-FT TYPICAL.
- ② 12-FT PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLANS.

EXISTING PAVED SURFACE

SIDE ROAD WIDENING AND TAPER REQUIRED WHERE THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
 $\theta =$ ACUTE ANGLES 70° OR LESS

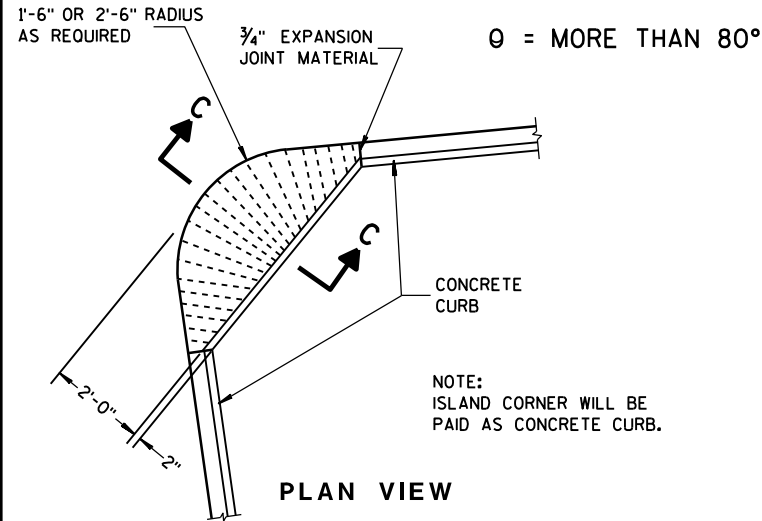
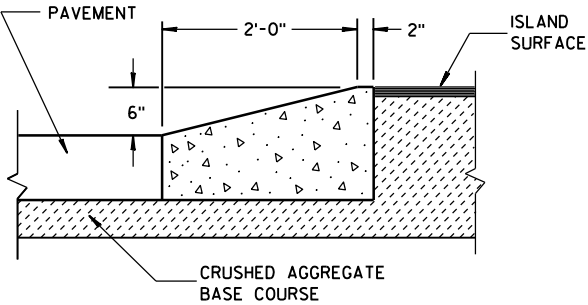


TABLE OF DIMENSIONS FOR VARIABLE SIDE ROAD INTERSECTION ANGLES
 (INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

ANGLE θ DEGREES	COORDINATES IN FEET (MEASURED FROM POINT "O")								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7	44.9	46.4	41.9	205.0	104.6	64.0	85.0	32.3	67.4	4.9	85.9	169.9
65	10.9	39.0	37.8	39.4	196.1	95.7	54.1	70.5	28.2	63.6	8.5	80.9	166.9
70	9.4	33.9	29.8	37.4	188.3	87.8	45.6	56.1	24.6	59.7	11.5	76.1	164.1
75	7.9	29.3	22.3	35.7	181.2	80.7	38.2	41.8	21.5	55.8	13.8	71.4	161.4
80	6.5	25.4	15.6	34.4	174.8	74.4	31.8	27.6	18.9	52.0	15.6	66.9	158.9

TYPE "A1" & "A2" SIDE ROAD INTERSECTION DETAILS



SECTION C-C

ISLAND CORNER DETAIL
 (TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

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

FHWA

GENERAL NOTES

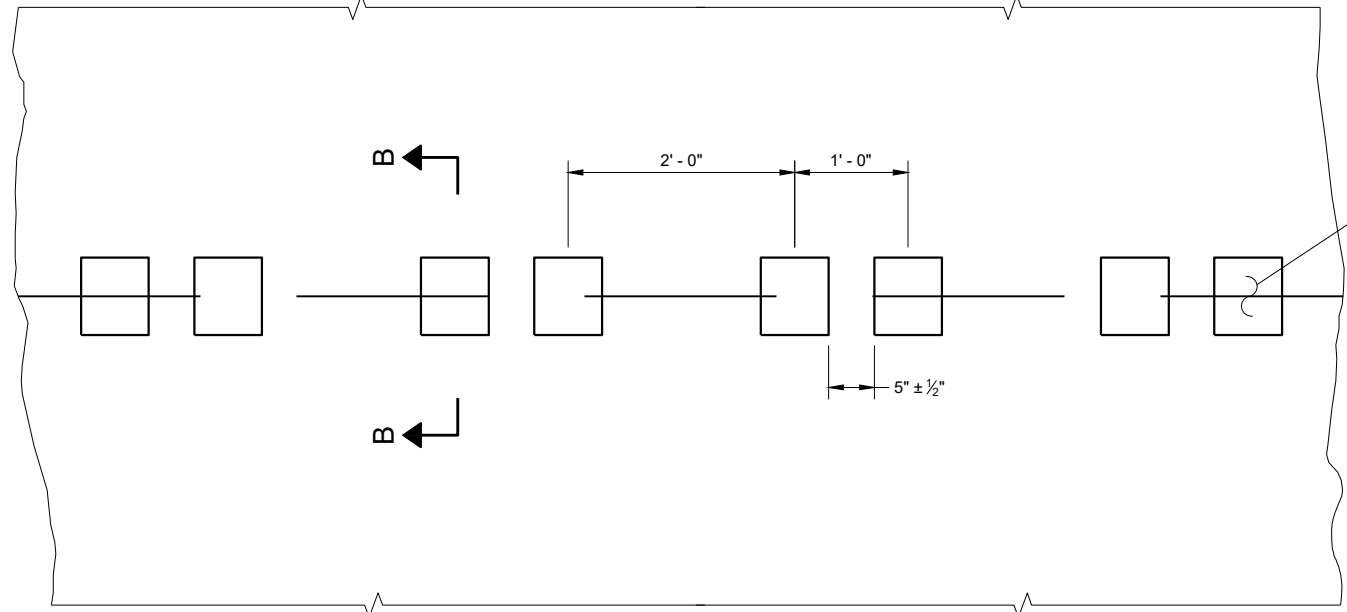
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTERLINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

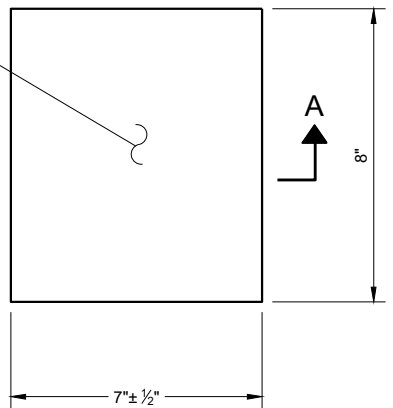
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

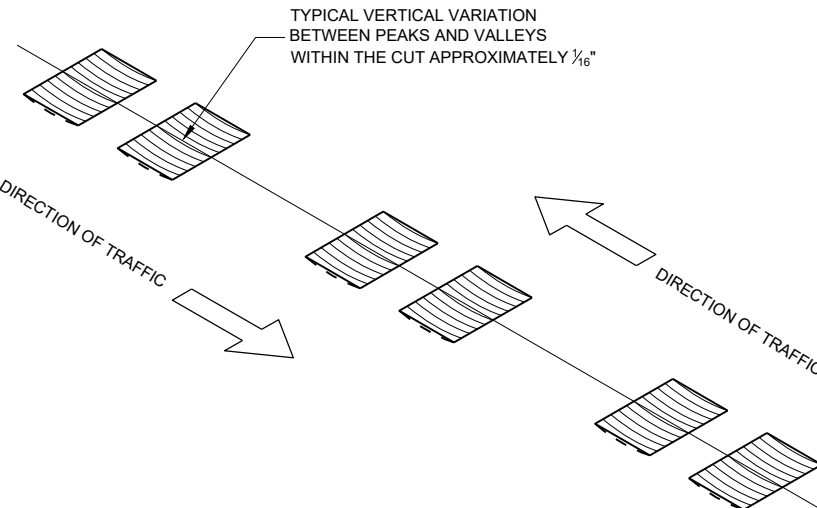
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



**PLAN VIEW
SHOULDER WITH GROOVES**

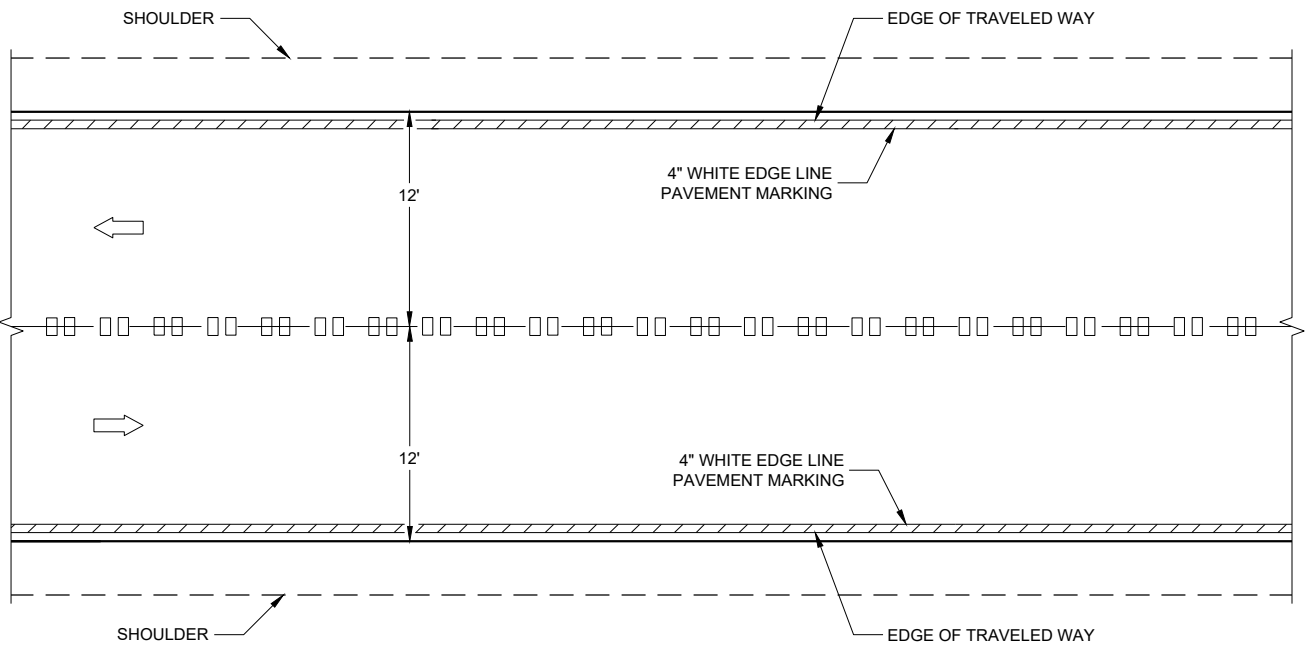


**PLAN VIEW
(SINGLE GROOVE)**

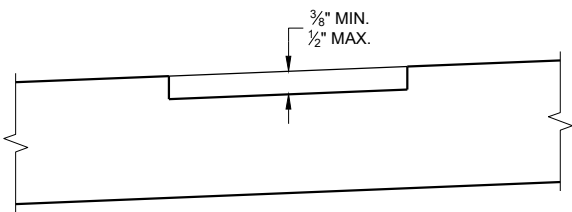


ISOMETRIC

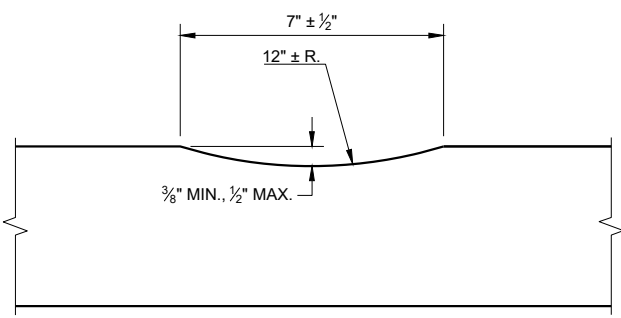
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



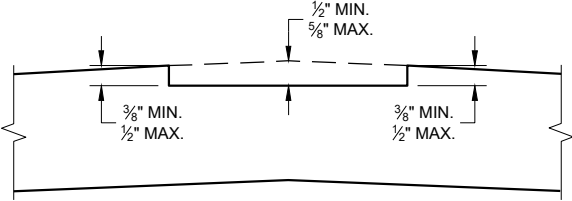
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



**SECTION B - B
SUPERELEVATED ROADWAY**



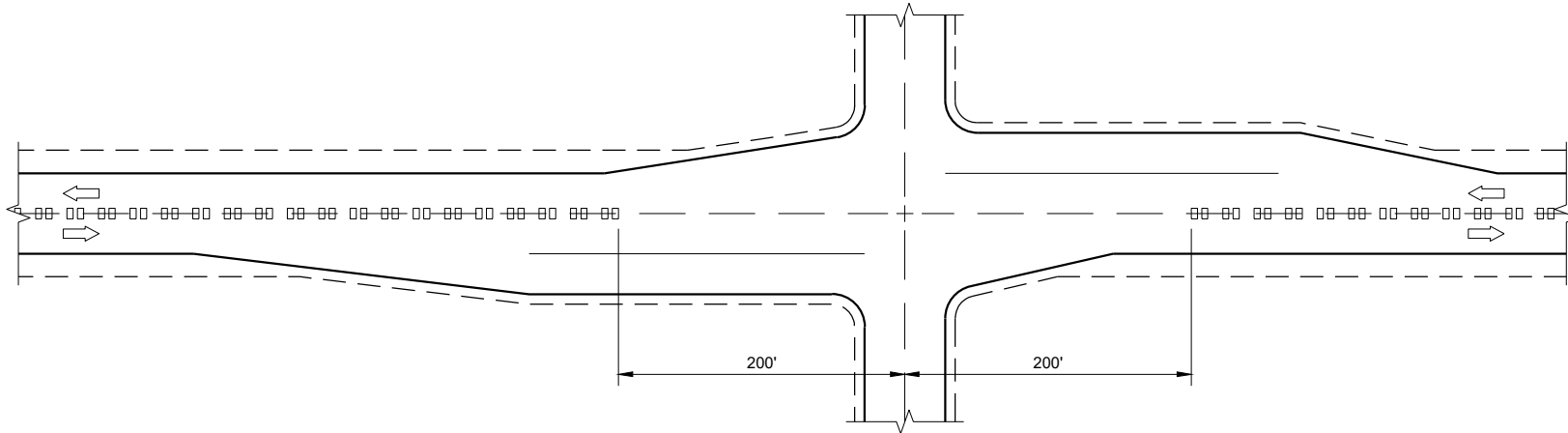
SECTION A - A



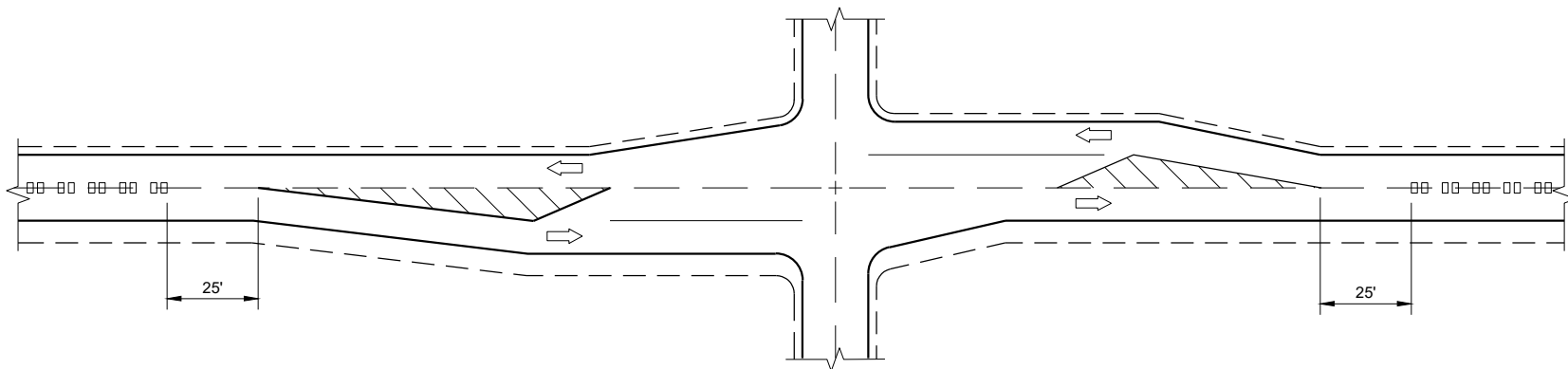
**SECTION B - B
CROWNED ROADWAY**

**2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING**

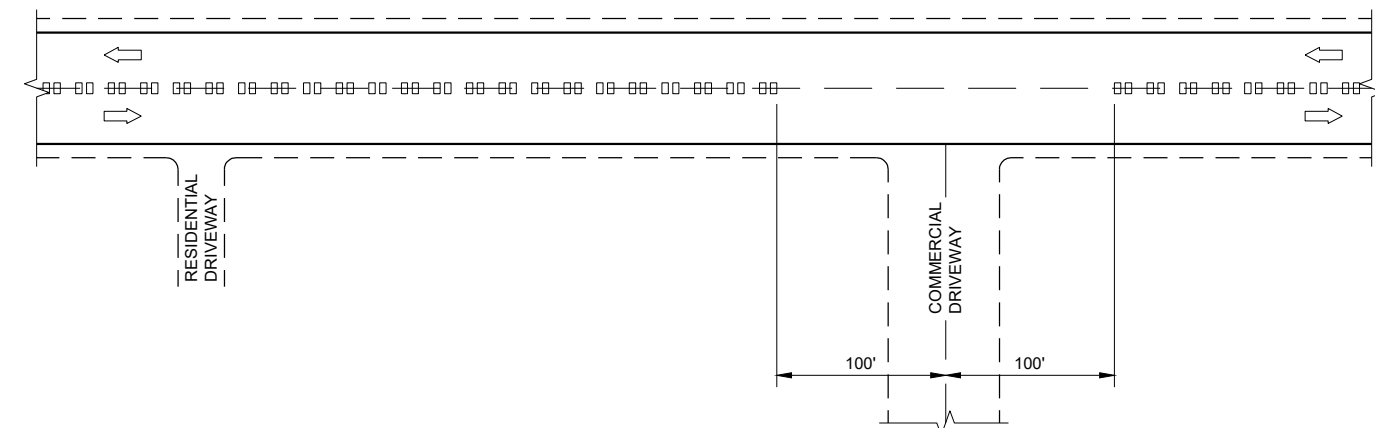
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



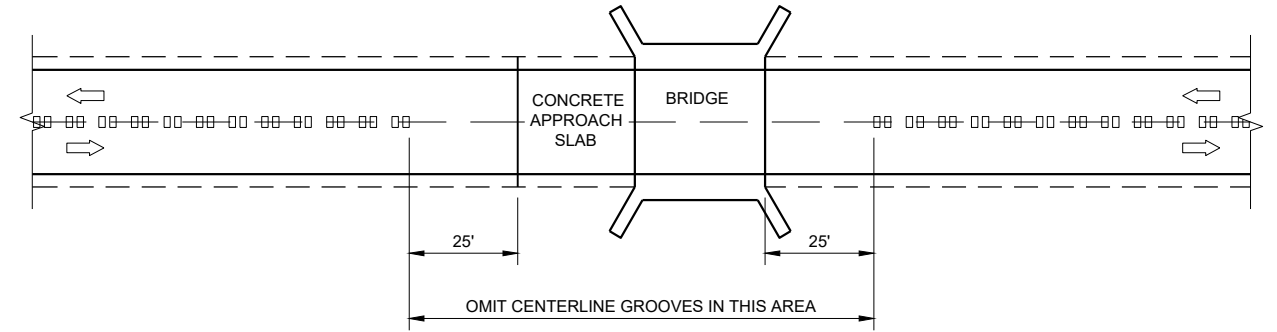
**CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)**



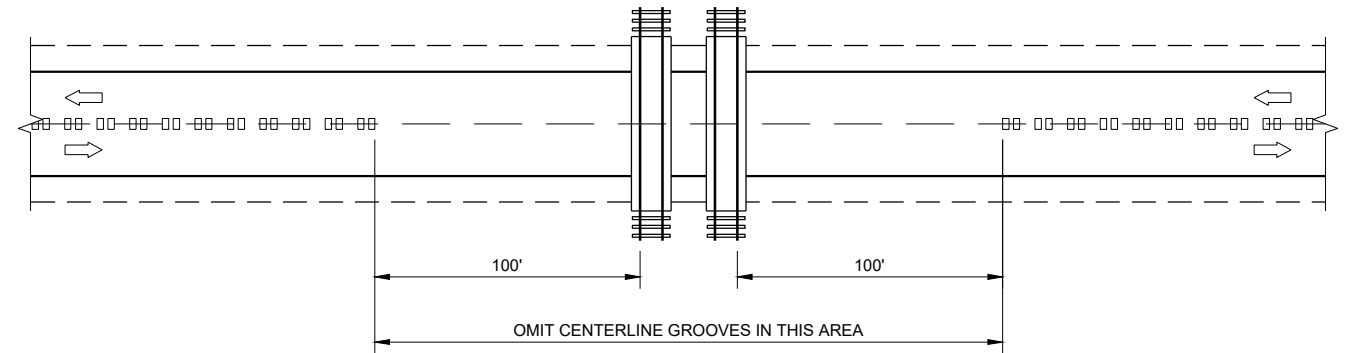
CENTERLINE GROOVES AT DRIVEWAYS^①

GENERAL NOTES

- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

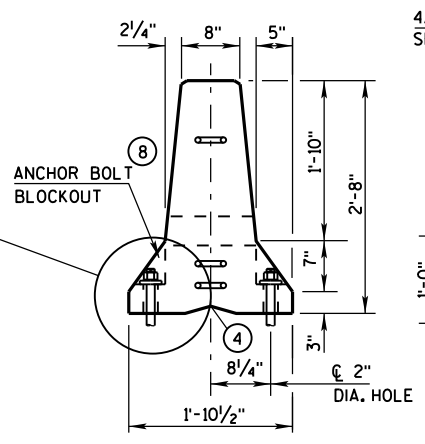
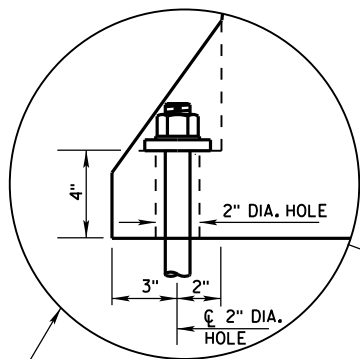
6

6

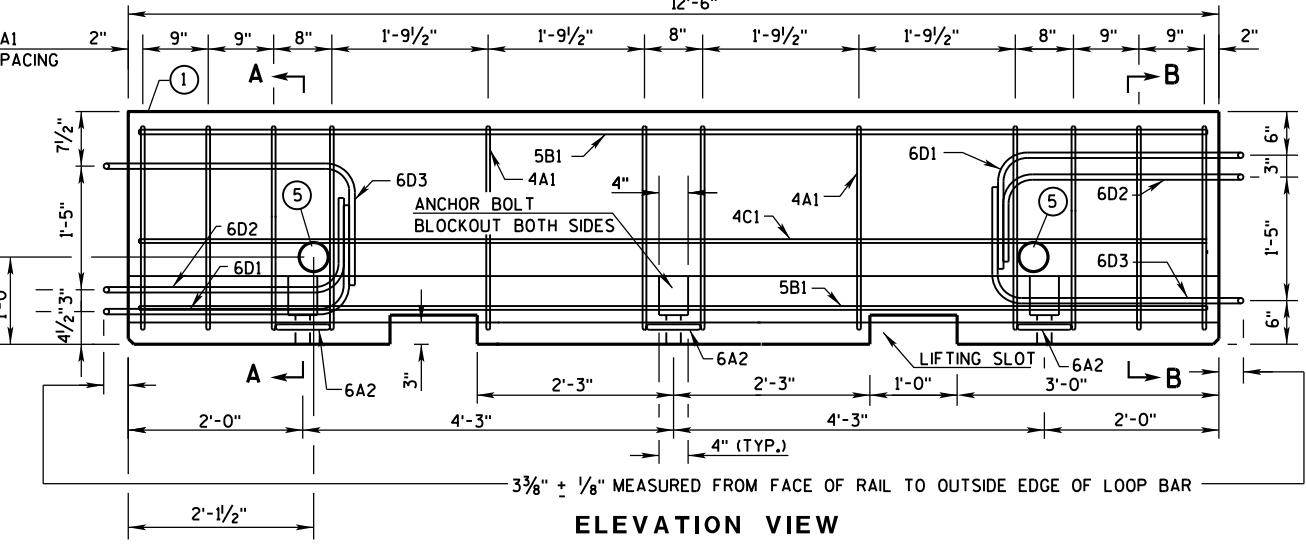
SDD 13A11 - 03b

SDD 13A11 - 03b

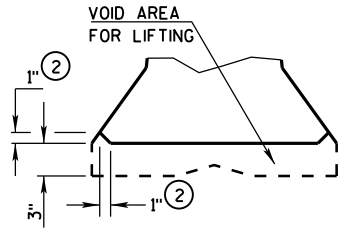
2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/2018 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



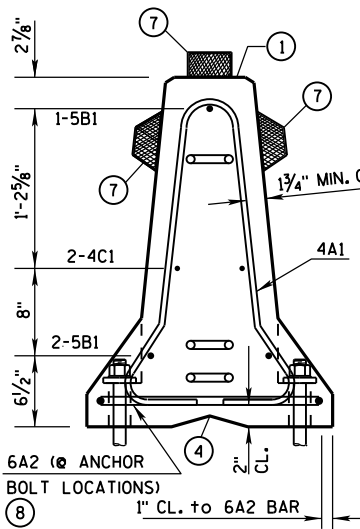
END VIEW



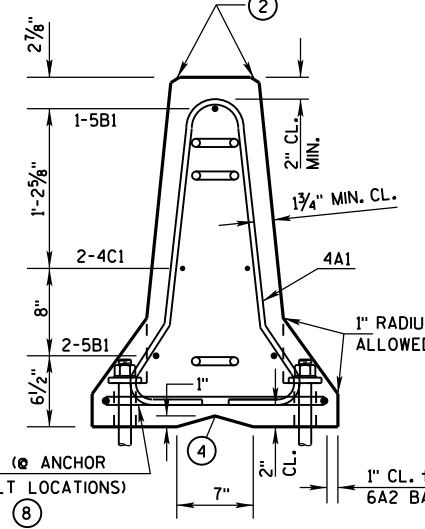
ELEVATION VIEW



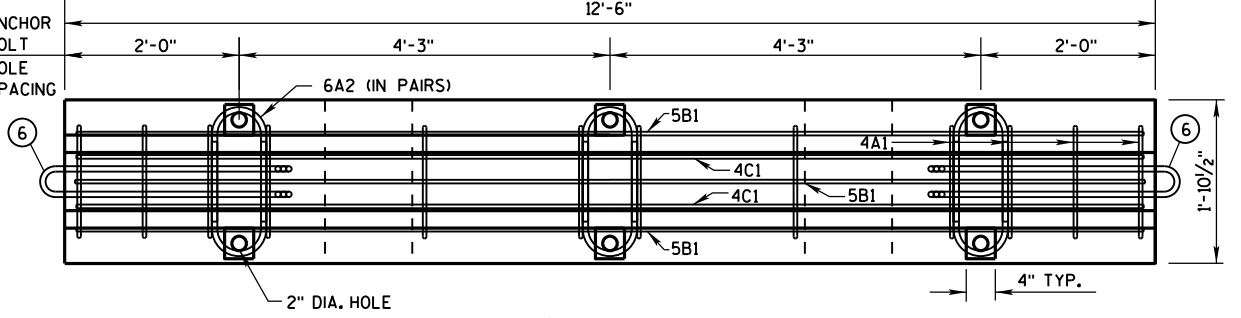
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)



PLAN VIEW

DETAILS OF BARRIER SECTION

GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-15(d) THRU 14B7-15(i).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRECAST, 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 3/4" 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 3-1/2" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN 1/8" OF THE PLAN DIMENSION.

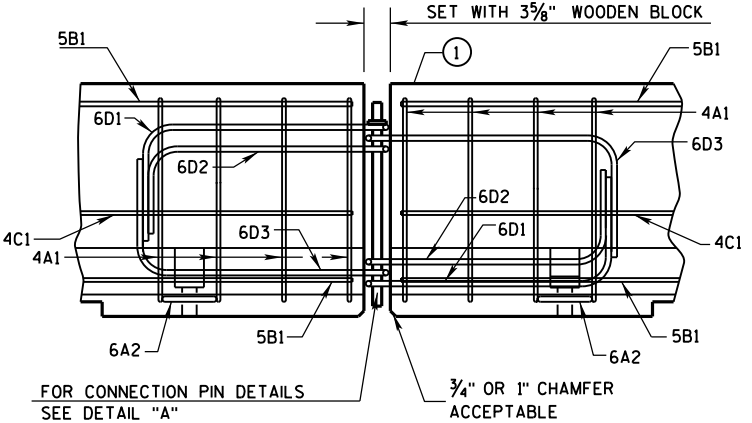
CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

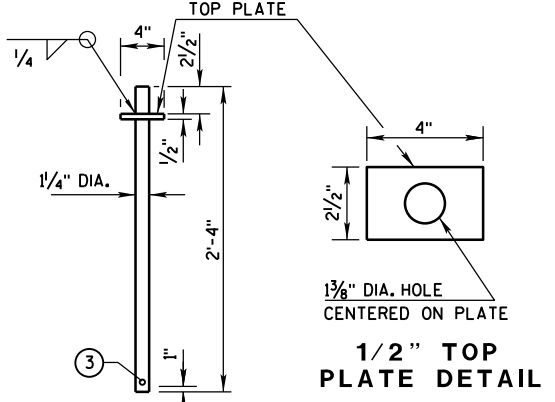
INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
a. TYPE: WICBTP
b. MANUFACTURER
c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ A 3/8" 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 MANUFACTURERS 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 HOW TO ANCHOR BARRIER. SEE SHEET E FOR WHEN TO ANCHOR BARRIER.
- ⑨ 1" CHAMFER OPTIONAL.

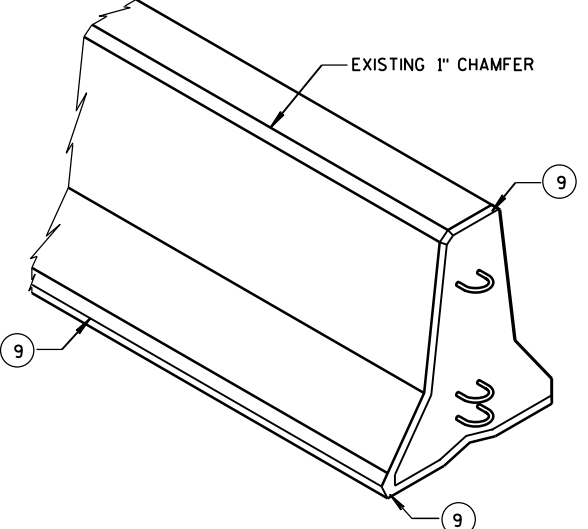
f'c = 4,000 psi



DETAILS OF BARRIER CONNECTION

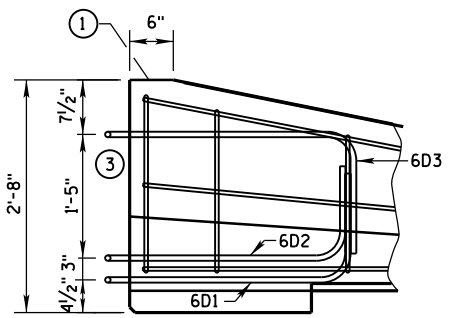
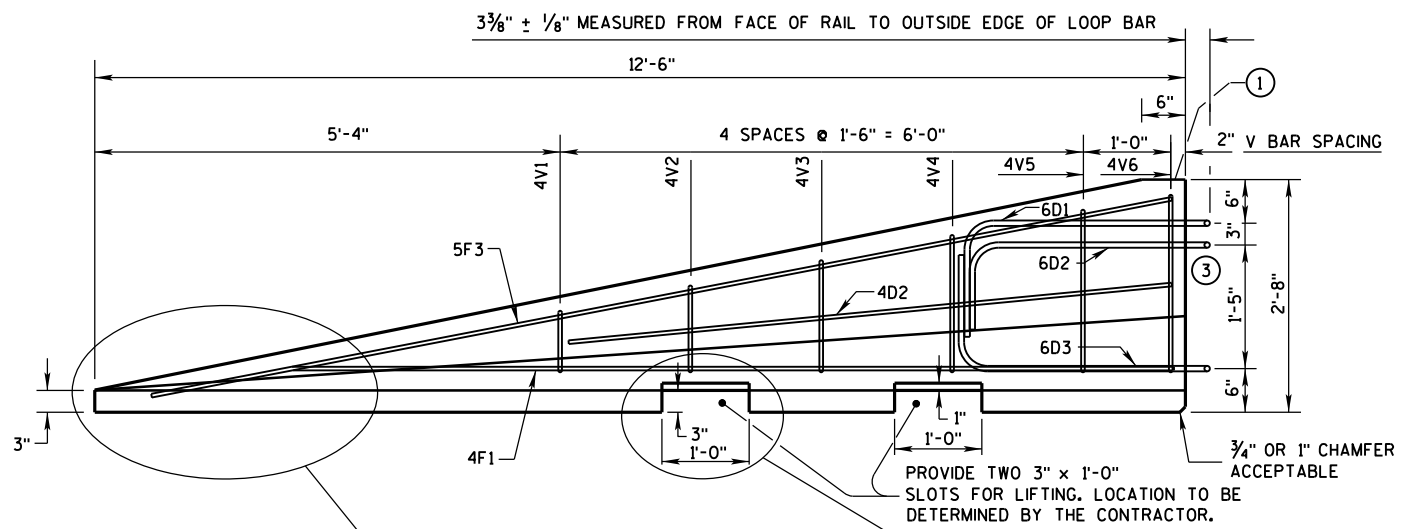


DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



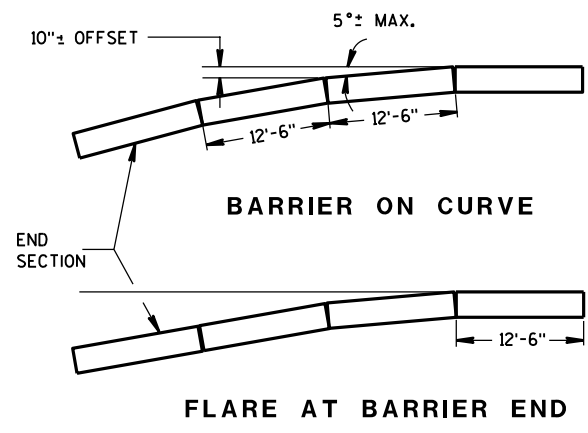
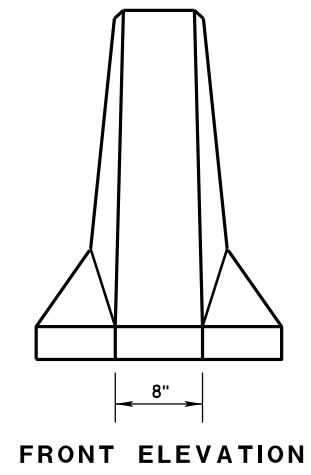
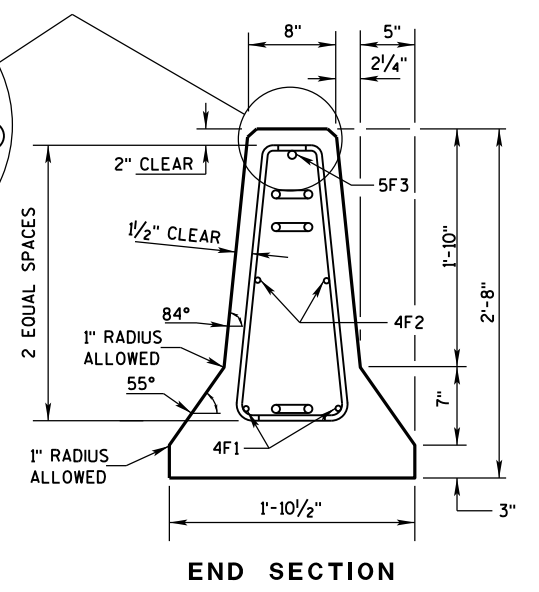
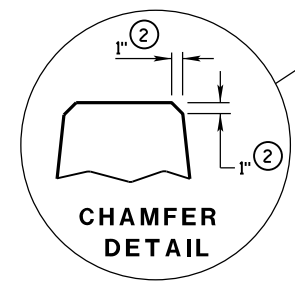
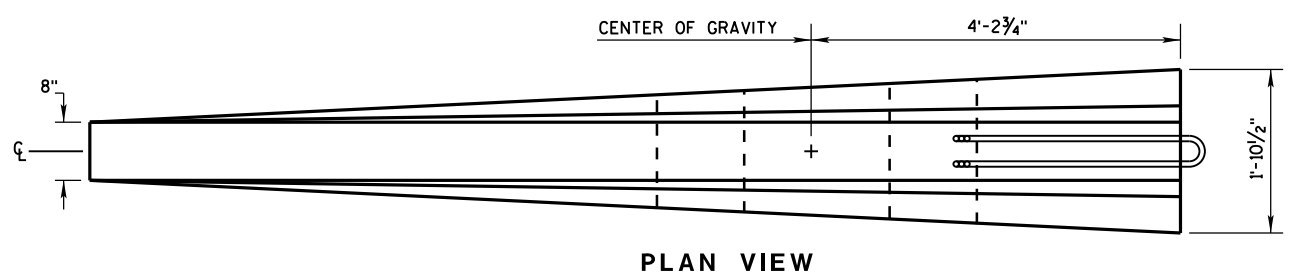
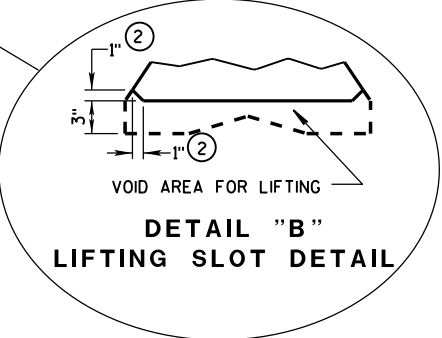
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



GENERAL NOTES

- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 - a. TYPE WICBTP
 - b. MANUFACTURER
 - c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
 TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

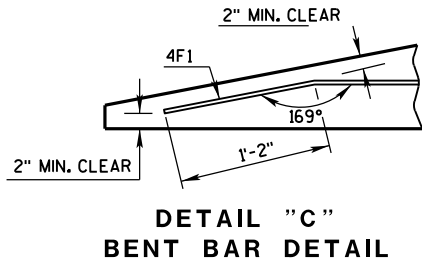
GENERAL NOTES

① NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

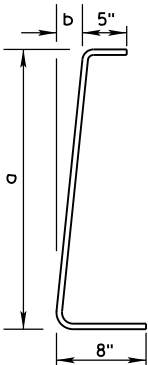
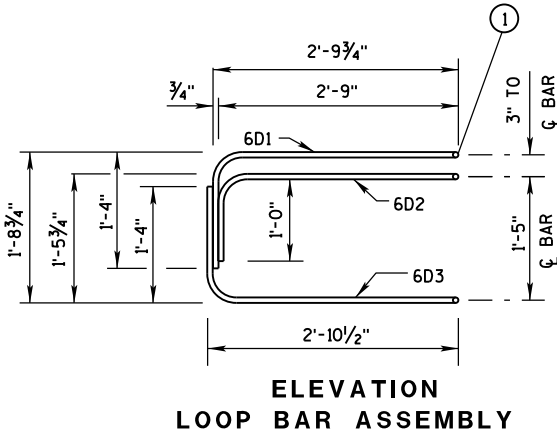
**BARRIER TAPER SECTION
BILL OF MATERIALS**
(PER 12'-6" BARRIER TAPER SECTION)

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"



TAPER BARRIER SECTION



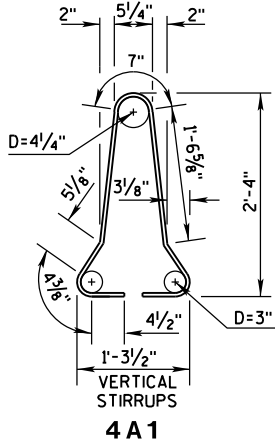
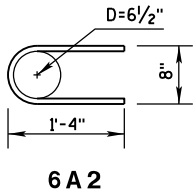
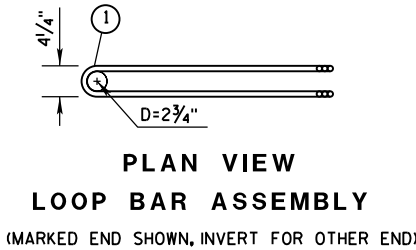
BAR	a	b
V1	10"	1"
V2	1'-1"	1/4"
V3	1'-5"	1 5/8"
V4	1'-8"	1 7/8"
V5	2'-0 1/2"	2 3/8"
V6	2'-3"	2 3/4"

4V BARS
2 AT EACH SIZE REQUIRED FOR STIRRUP ASSEMBLY

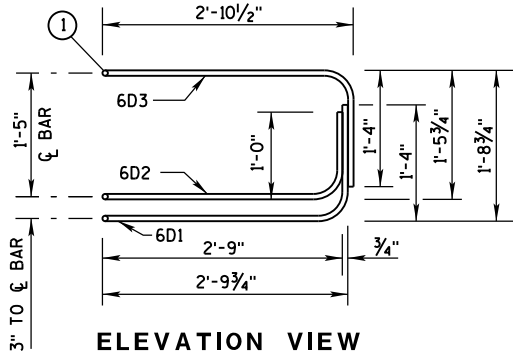
**BARRIER SECTION
BILL OF MATERIALS**
(PER 12'-6" BARRIER SECTION)

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"



BARRIER SECTION

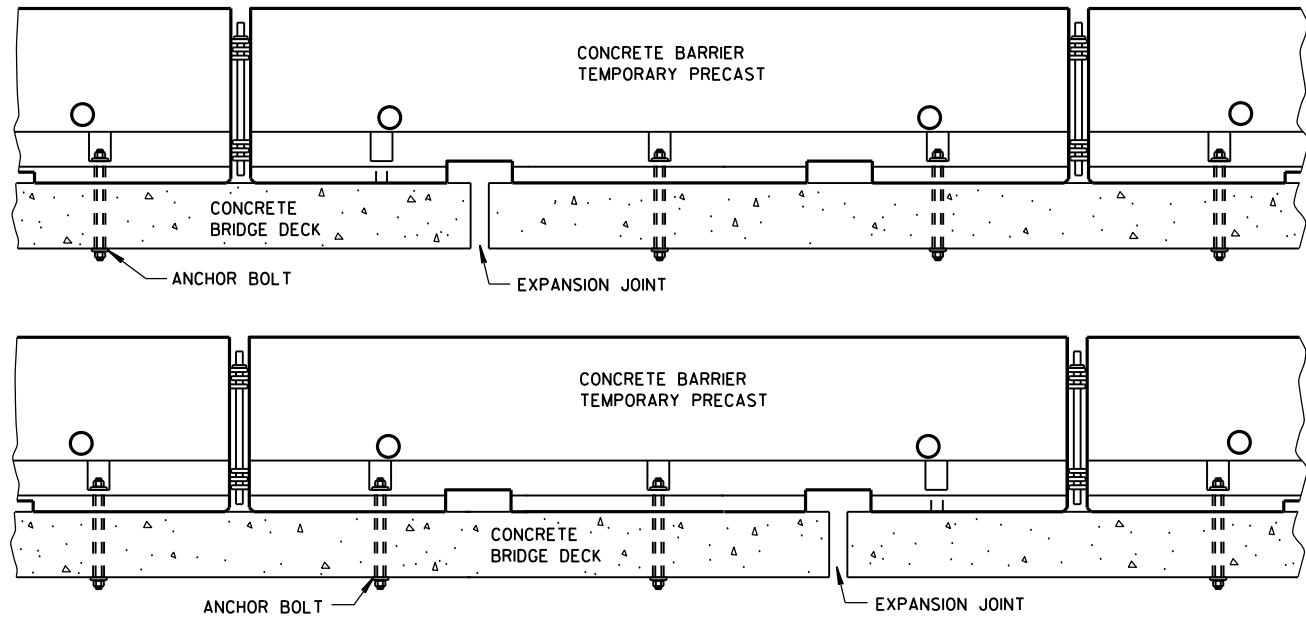


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6

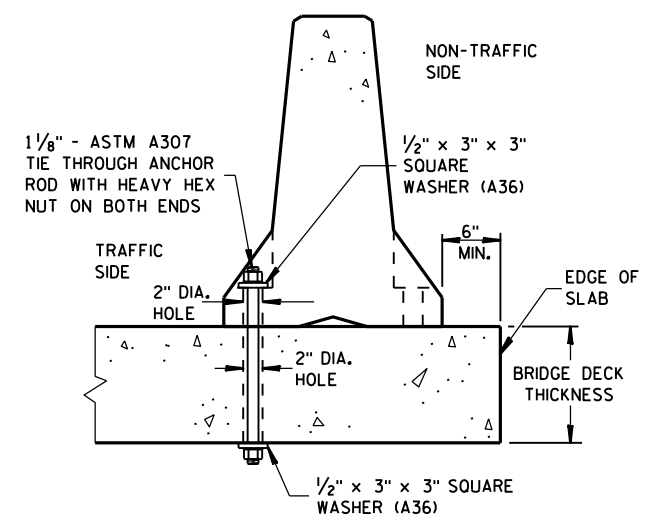
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



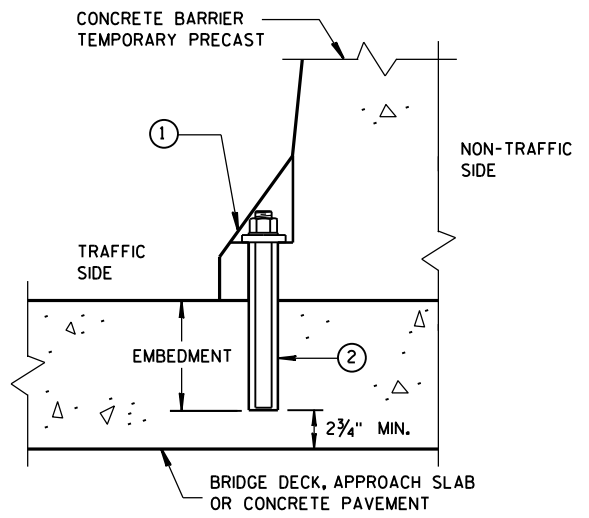
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(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 NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

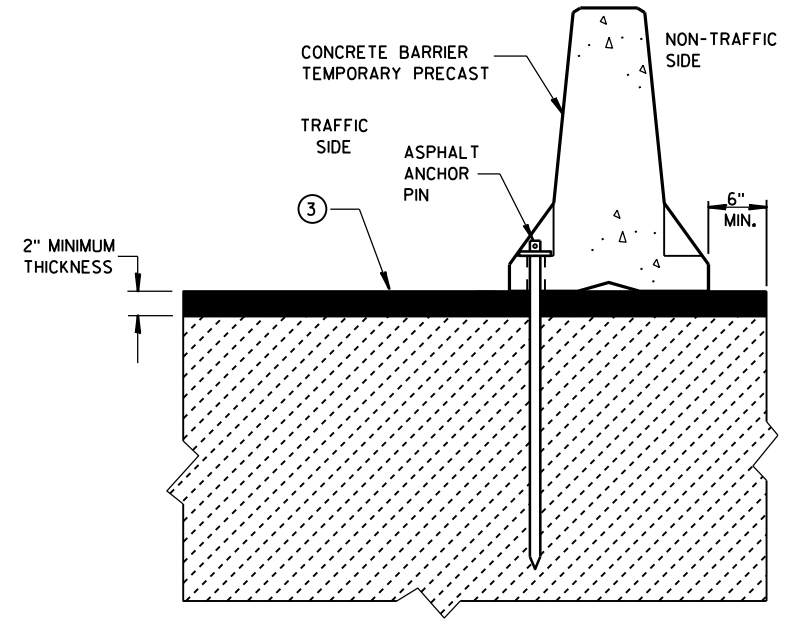
(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

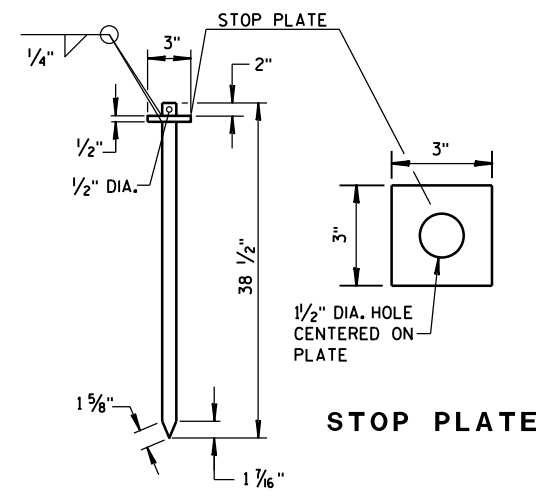
SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

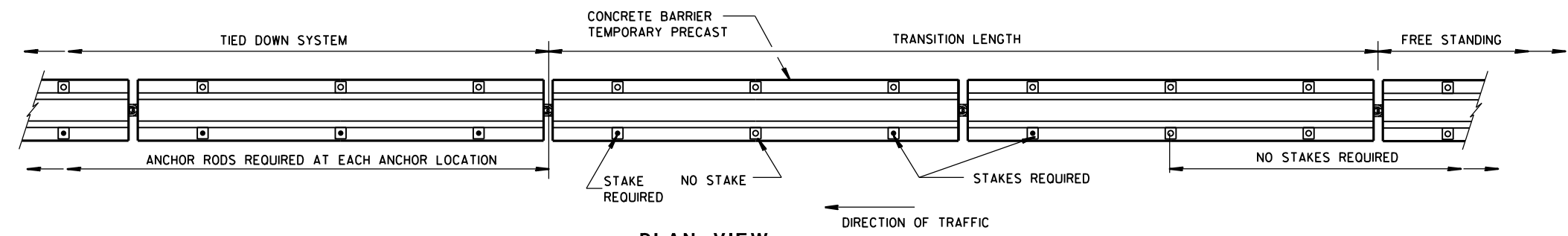
- ① 1/8" DIAMETER A307 THREADED ROD, 1/2" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.
- ② ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5/4" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.
- ③ ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THEN DRIVE ASPHALT ANCHOR PIN.



STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE



ASPHALT ANCHOR PIN (ASTM A36 STEEL)



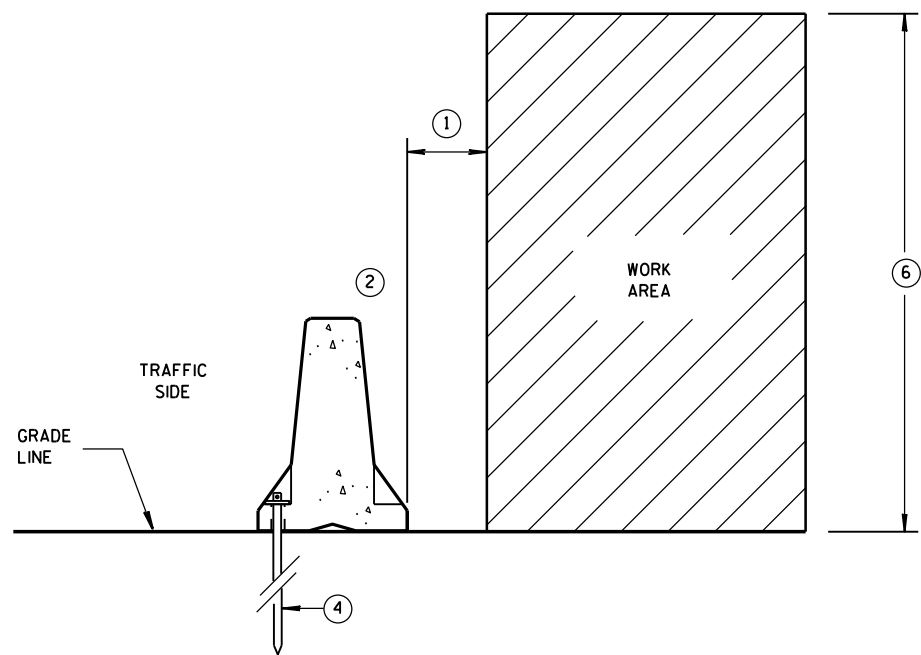
FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

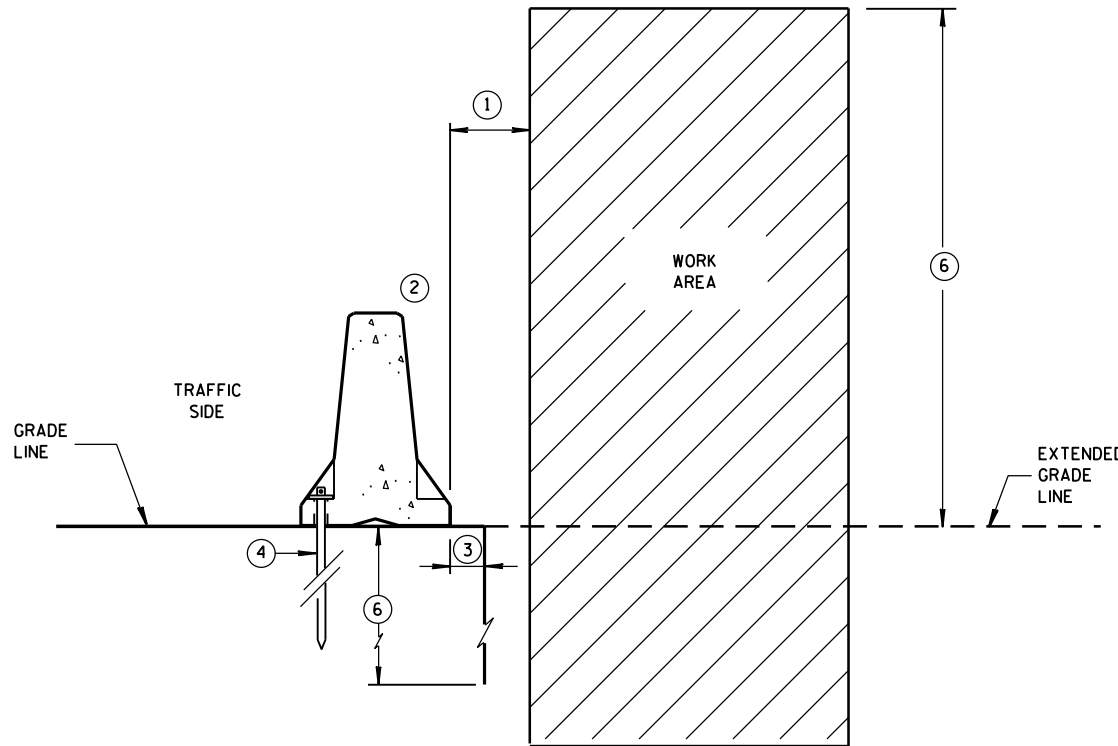
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

- ① WHEN OBJECTS EXTEND ABOVE THE GRADE, A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT. SEE OTHER DETAILS FOR THE MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR VERTICAL DROPS.
- ② OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR LEANED AGAINST THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.
- ③ SEE OTHER DETAIL ON SHEET "D" FOR SPACE REQUIREMENTS.
- ④ SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR A STAKE DOWN FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.
- ⑤ DEPTH OF 3 FEET OR MORE.
- ⑥ Y = 6'-6".

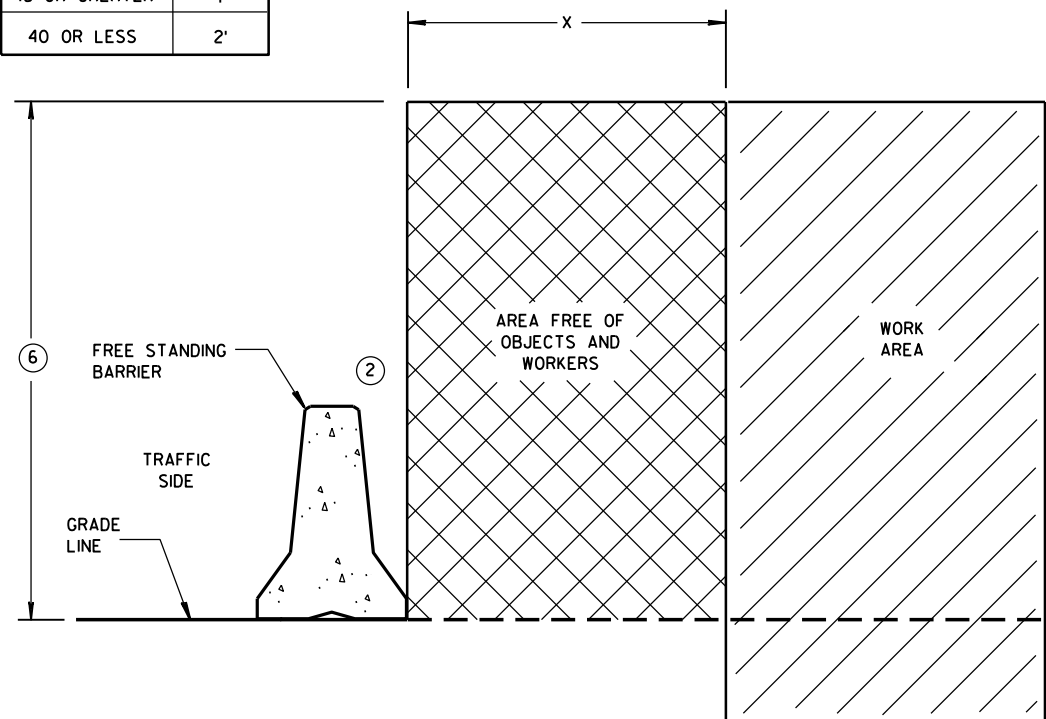


ANCHORED BARRIER SPACE REQUIREMENTS FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

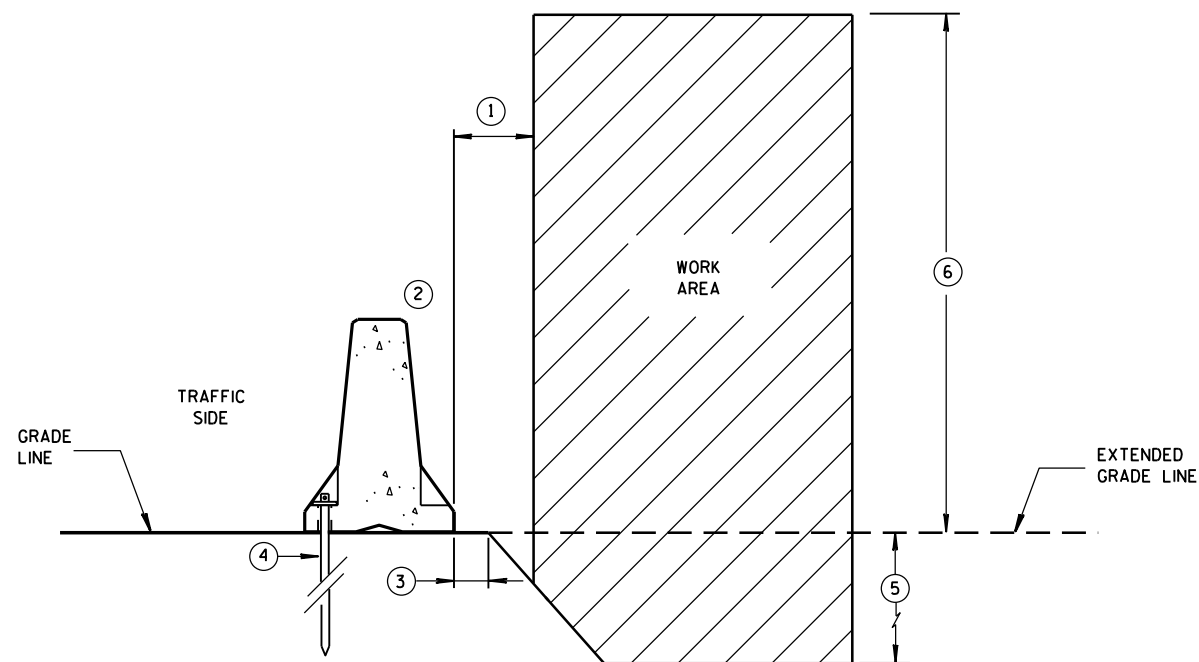


ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS

POSTED SPEED MPH	X
45 OR GREATER	4'
40 OR LESS	2'



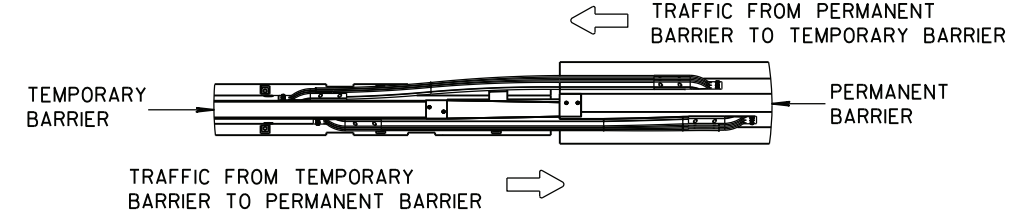
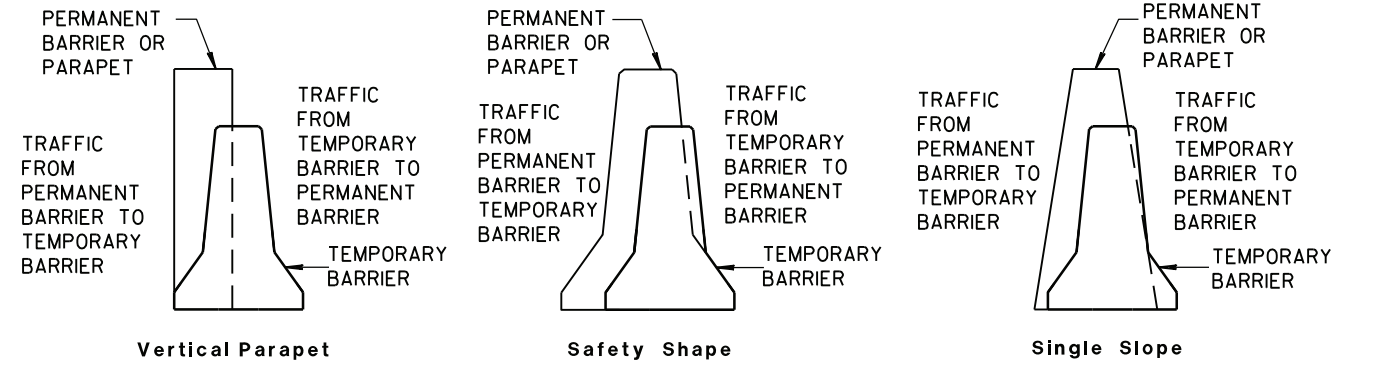
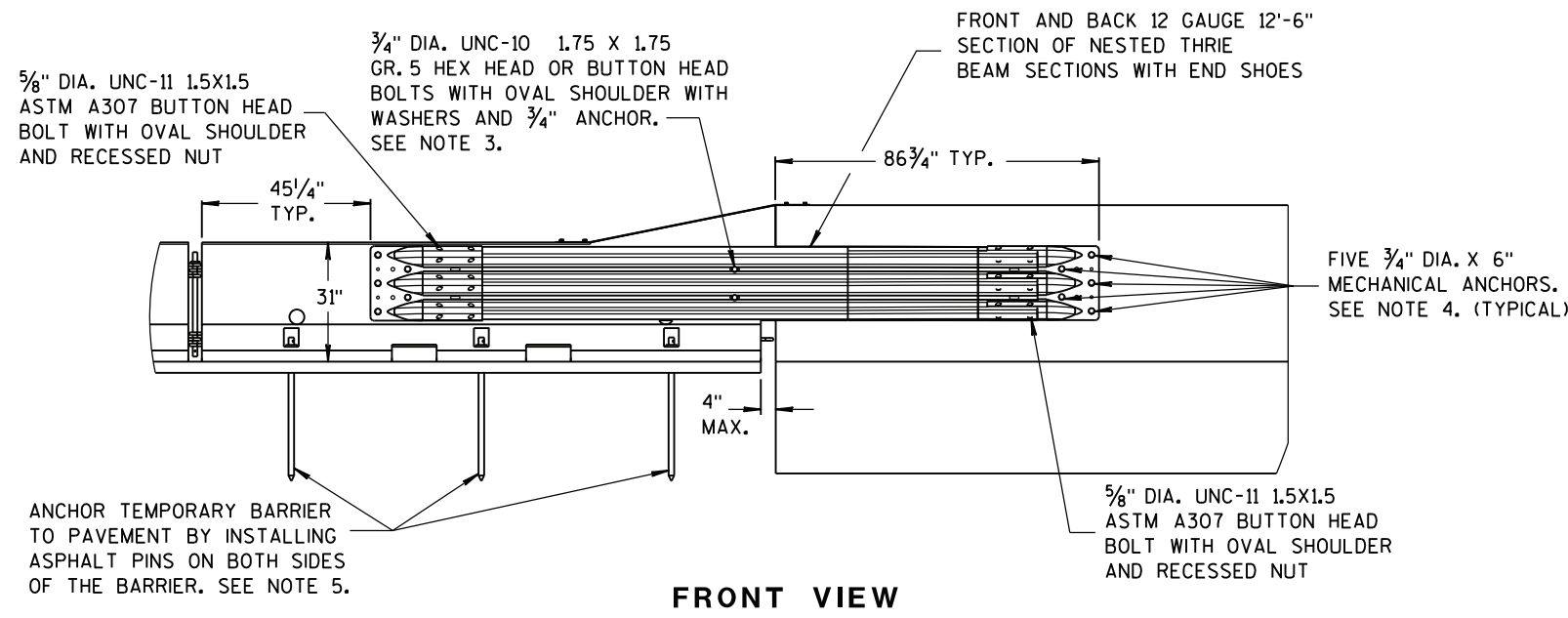
FREE STANDING BARRIER SPACE REQUIREMENTS



ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

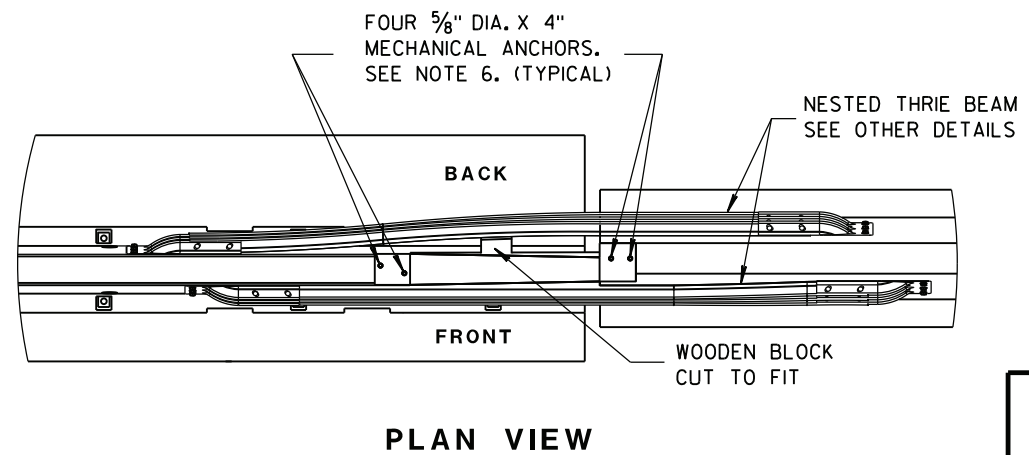
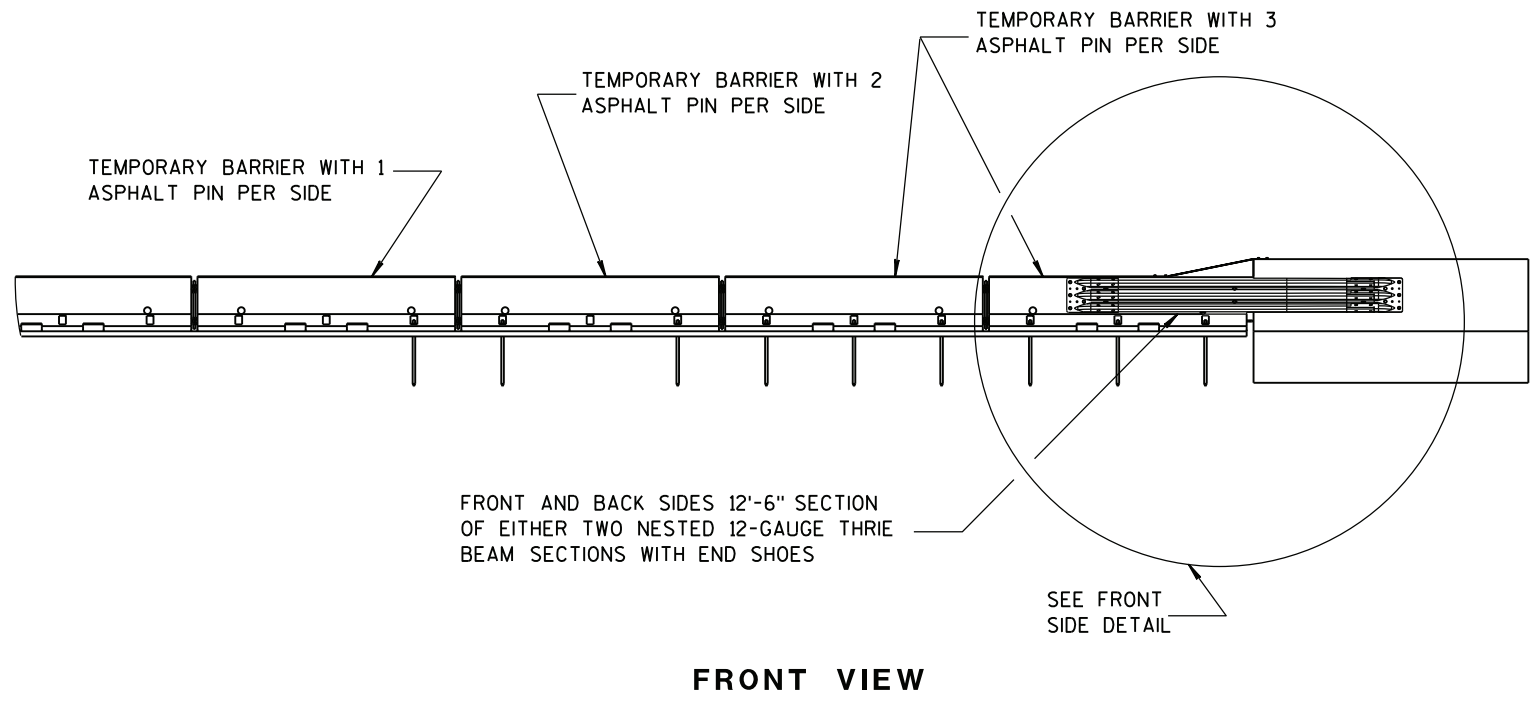
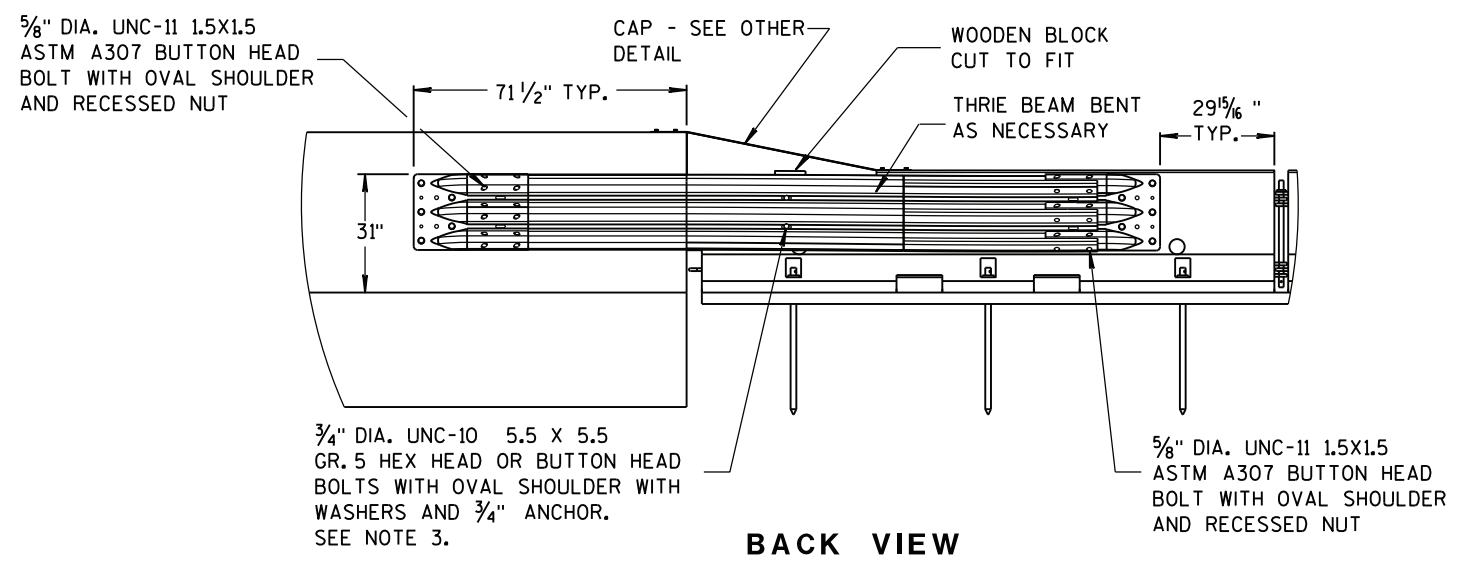
**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



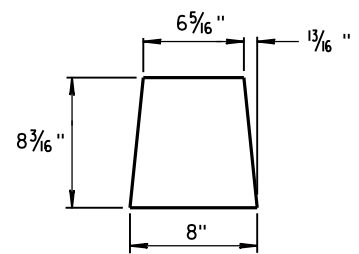
TEMPORARY BARRIER PLACEMENT FOR TRANSITION TO TIED DOWN SYSTEM

- 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 ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
 4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
 5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
 6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.

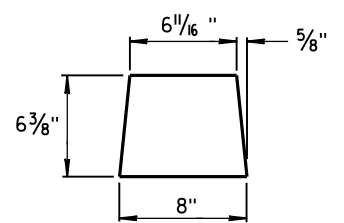


CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

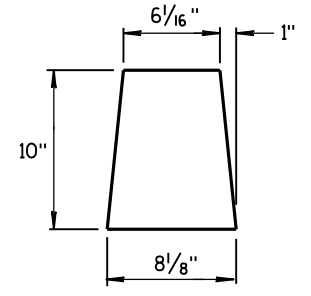
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



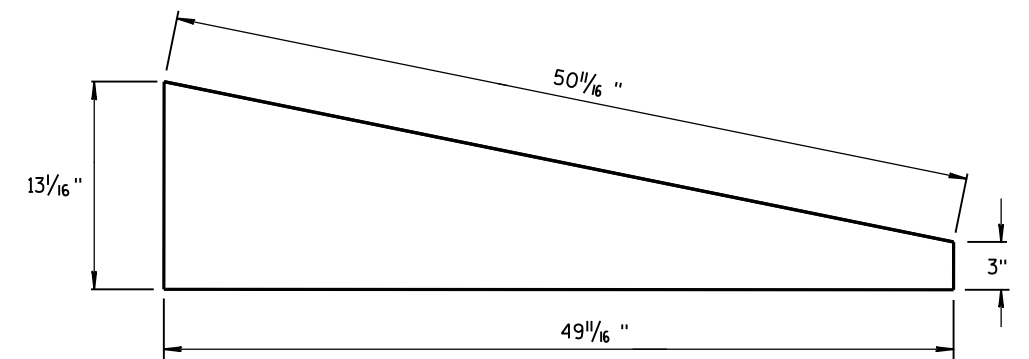
GUSSET 1



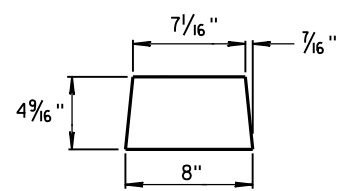
GUSSET 2



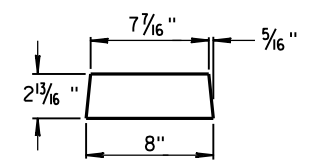
END PLATE



SIDE PLATE

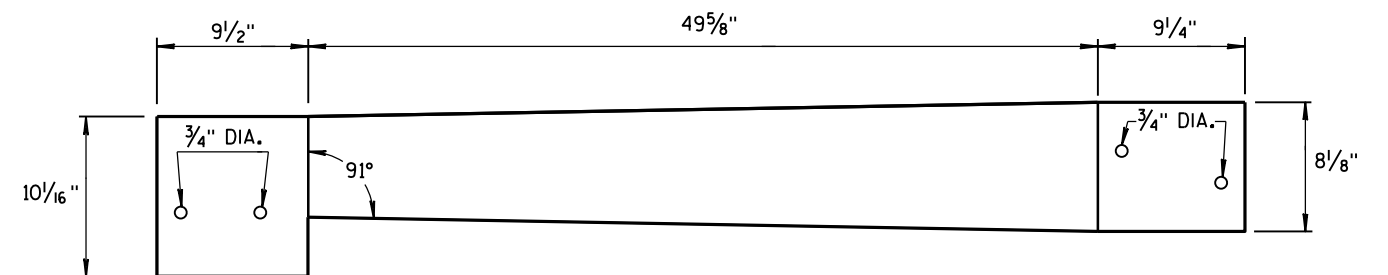


GUSSET 3

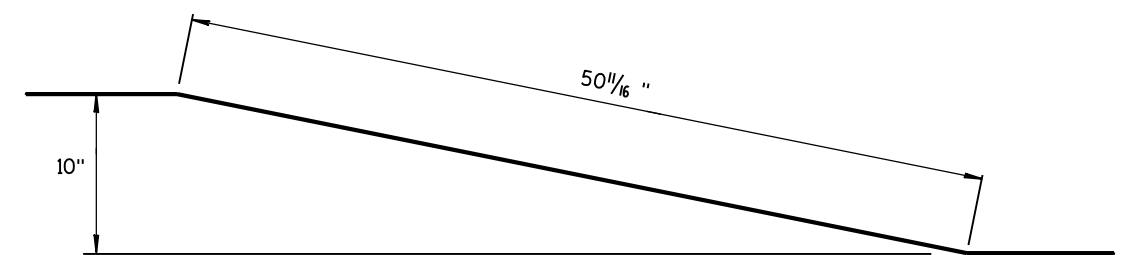


GUSSET 4

GUSSETS

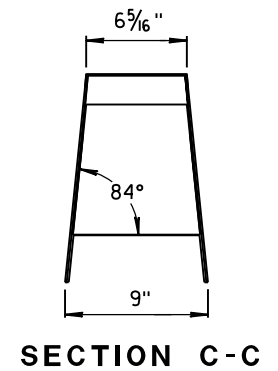
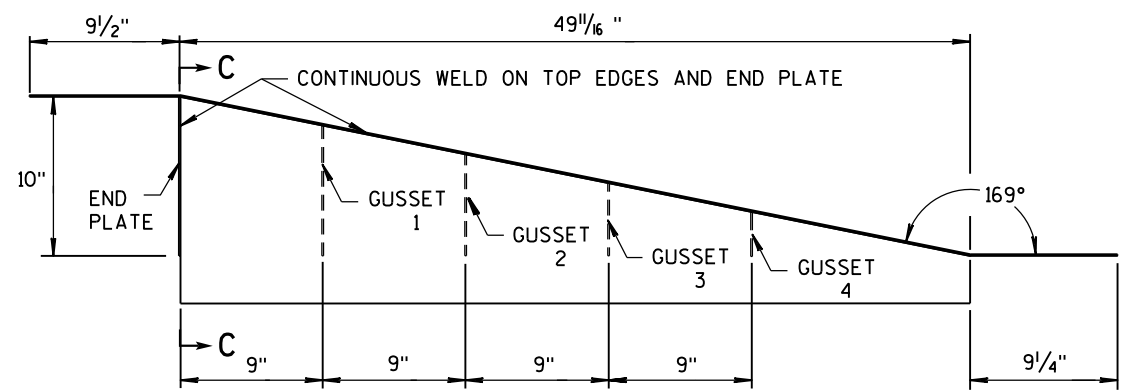
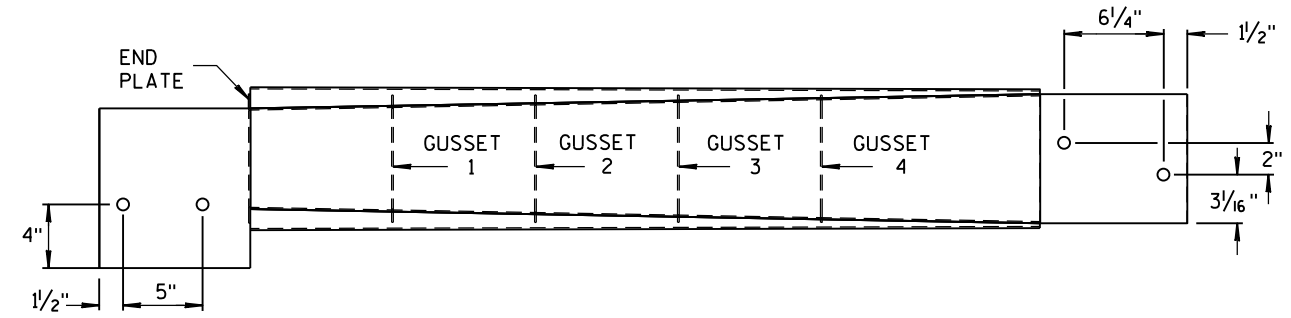


TOP PLATE



SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.



SECTION C-C

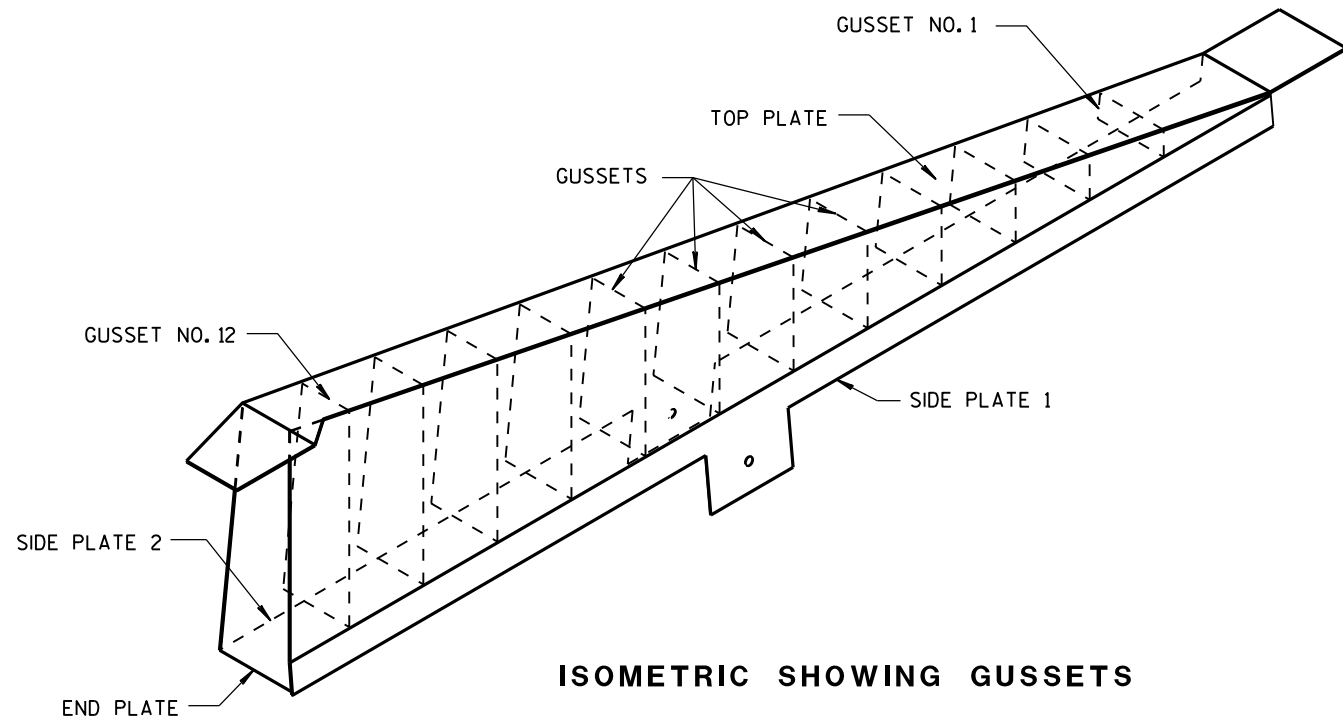
NOTES

- FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
- TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

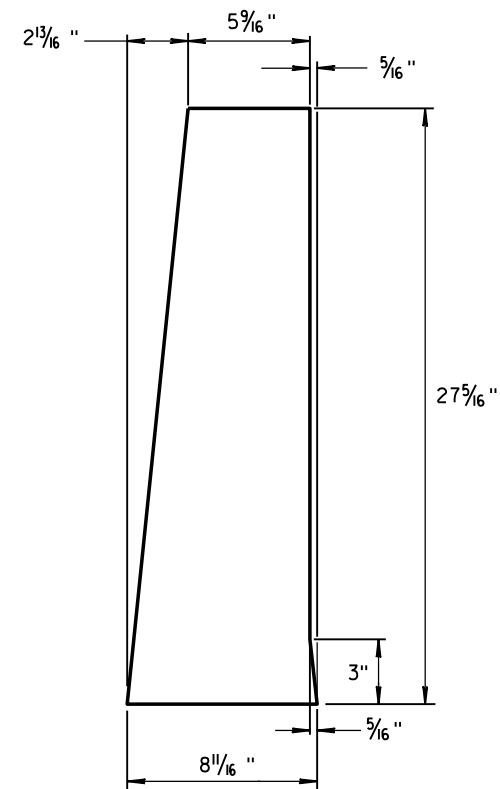
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

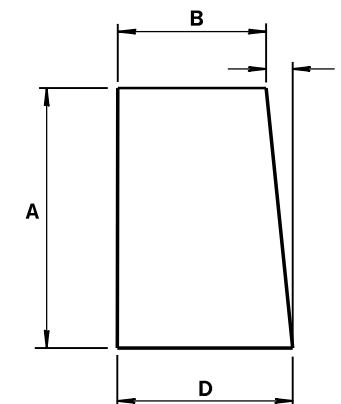


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



GUSSETS 1 - 12

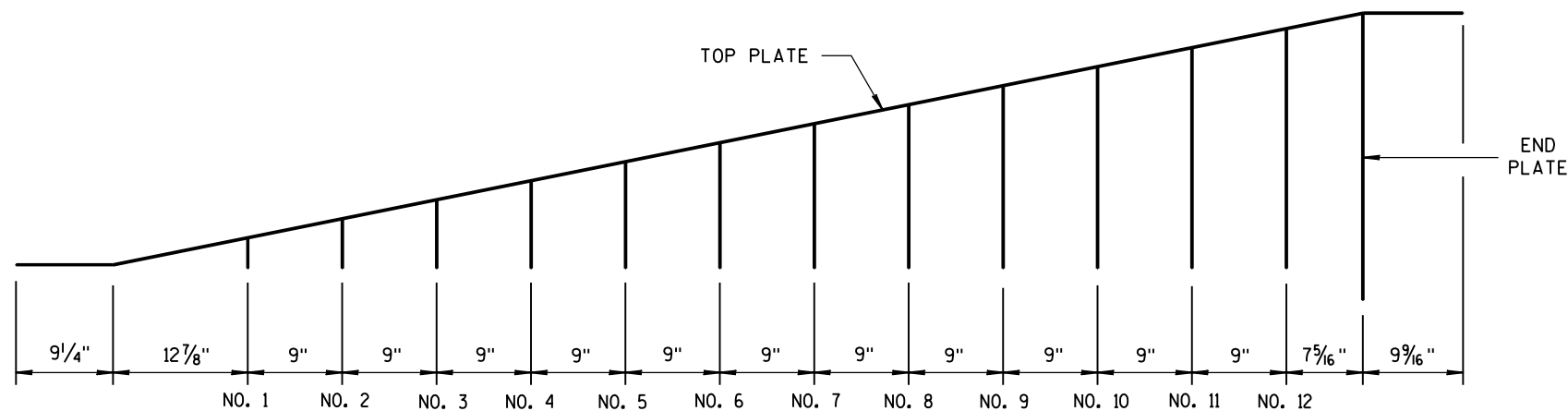
ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS

GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 1/16"	7 7/16"	1/2"	8
3	6 1/2"	7 3/8"	1 1/16"	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 5/16"	6 13/16"	1 1/4"	8 1/16"
7	13 3/4"	6 5/8"	1 7/16"	8 1/16"
8	15 3/16"	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.

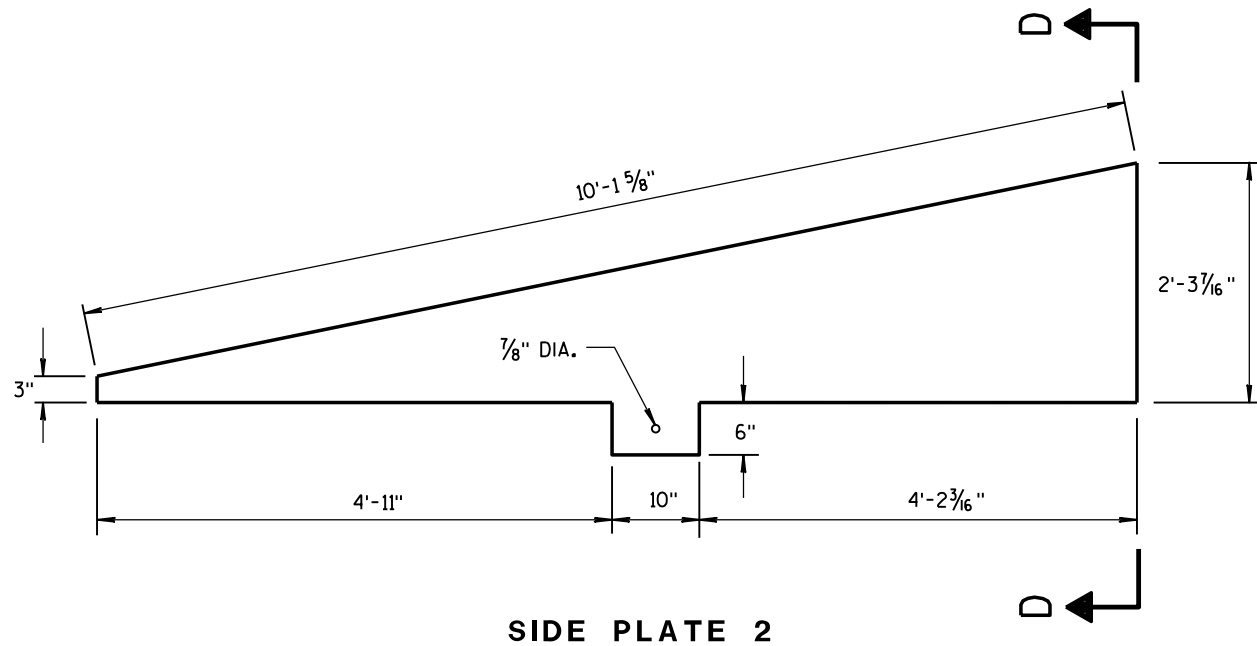


GUSSET LOCATION

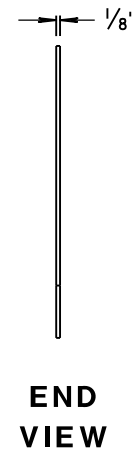
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

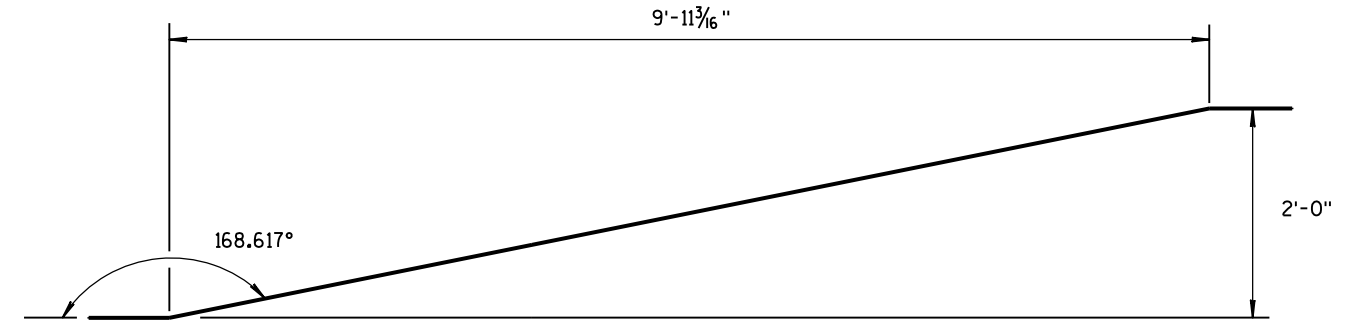
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



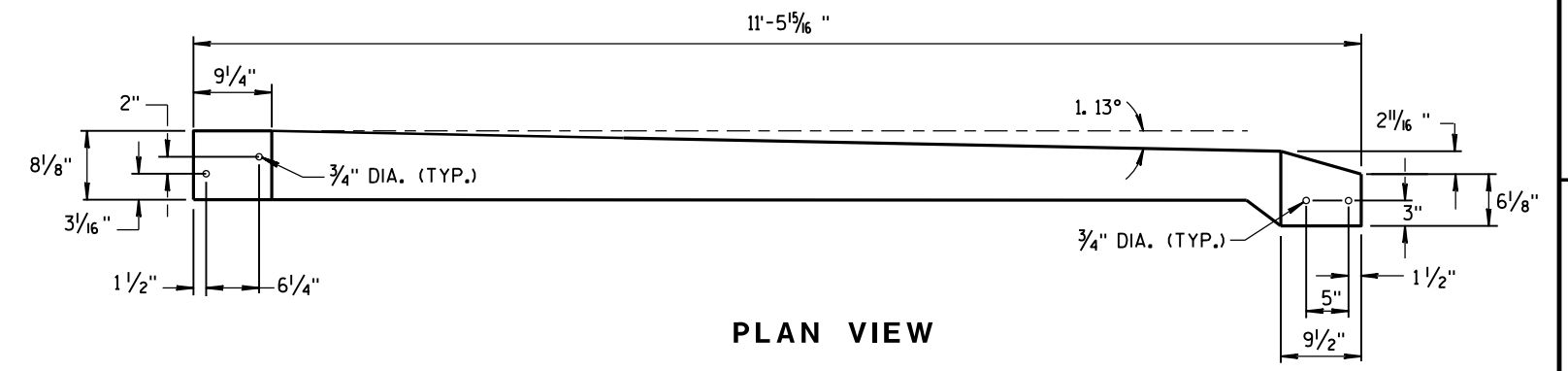
SIDE PLATE 2



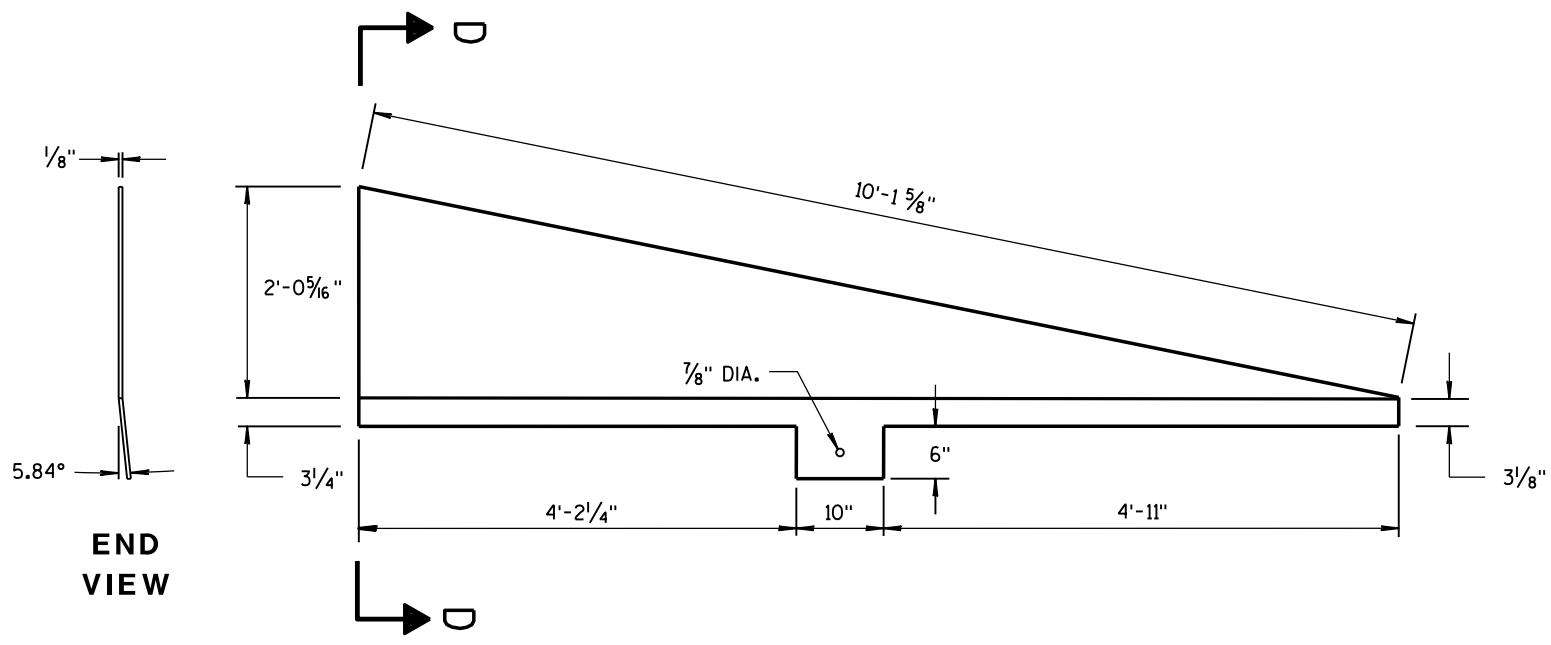
END VIEW



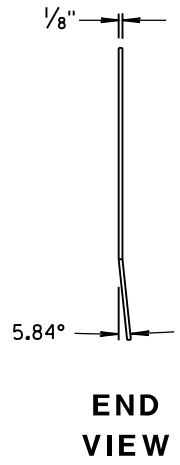
**SIDE VIEW
TOP PLATE**



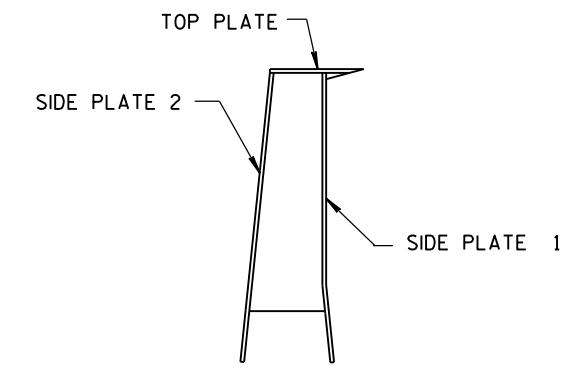
**PLAN VIEW
TOP PLATE**



SIDE PLATE 1



END VIEW



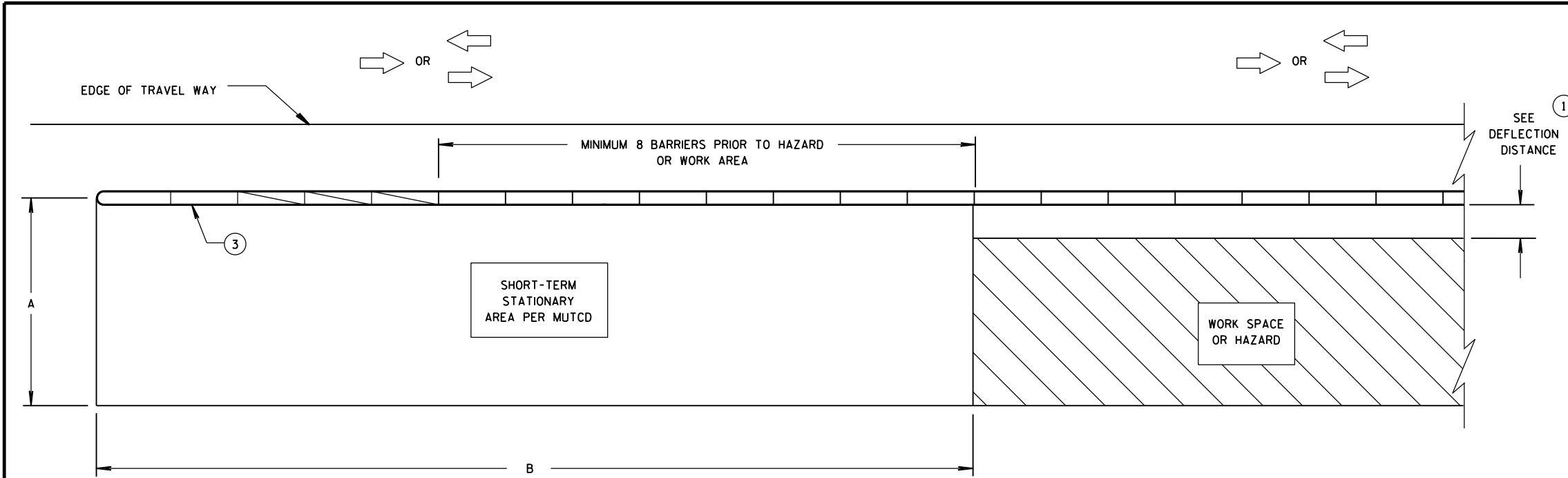
SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



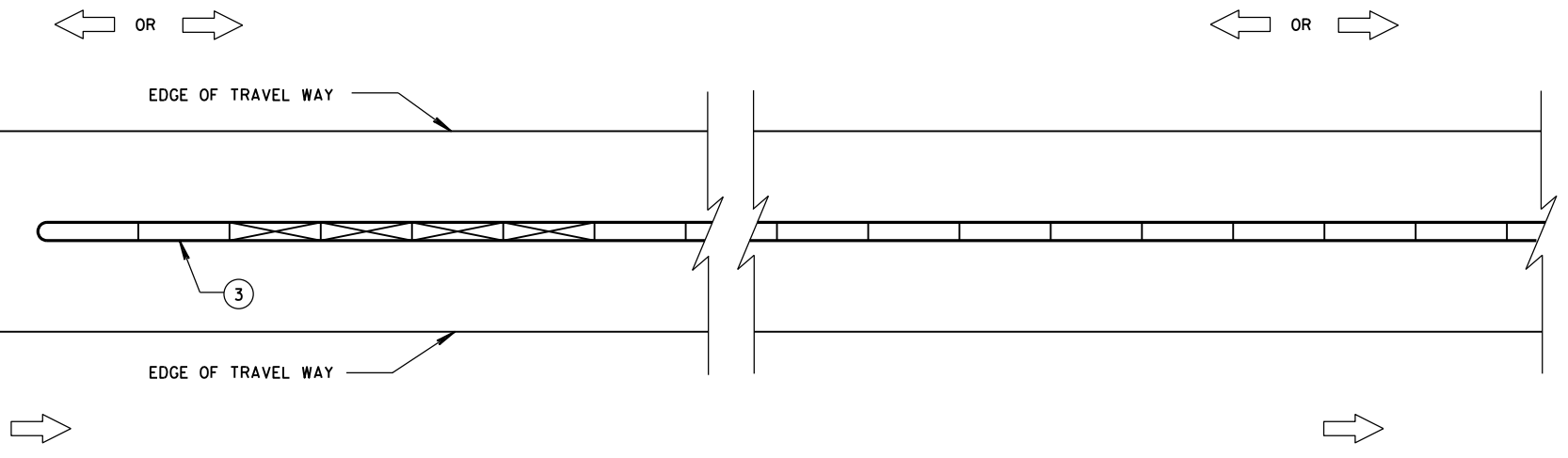
DIMENSION A TABLE ^②

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

**CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER
INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER**

DIMENSION B TABLE ^②

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



**CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER
INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER**

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

- ① FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.
- ② VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.
- ③ ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

**CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS**

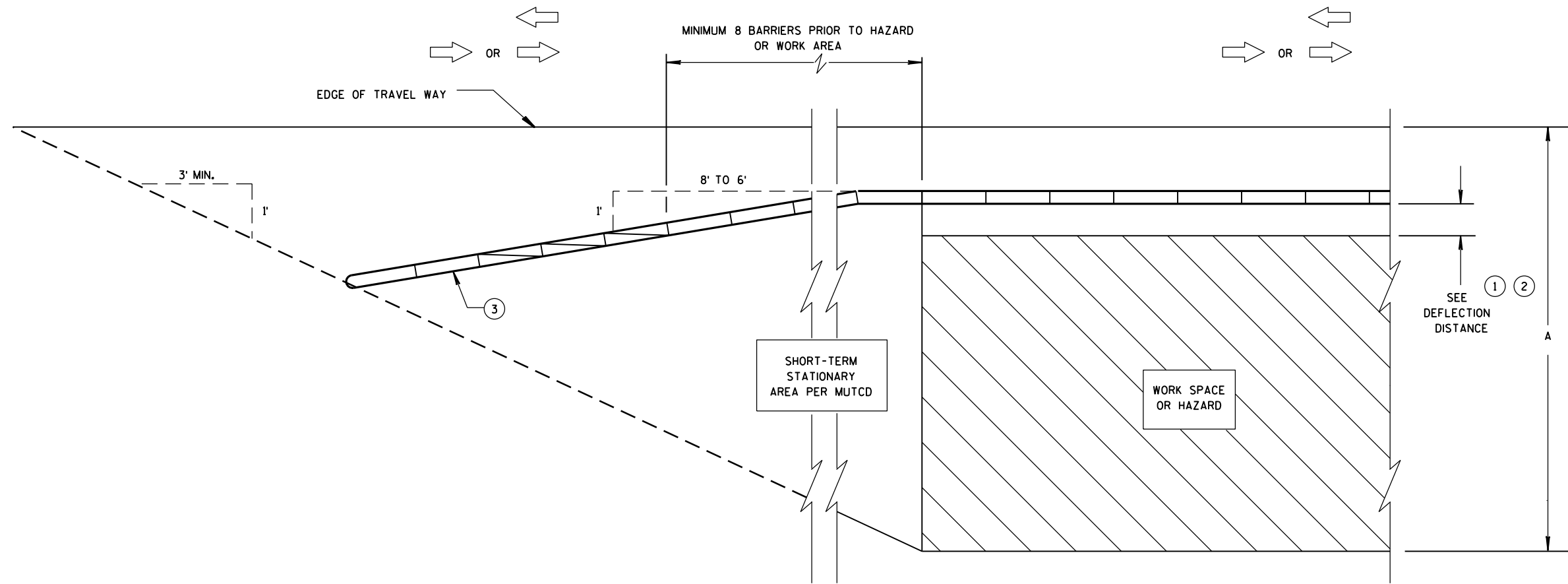
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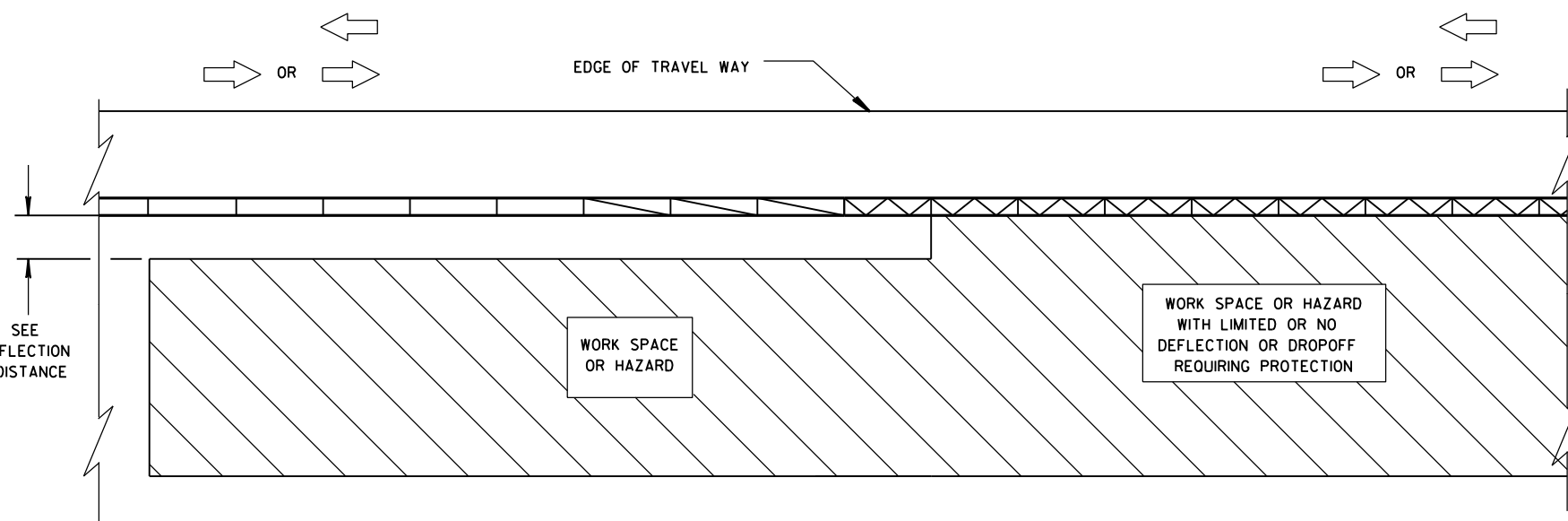
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S.D.D. 14 B 8-2a

S.D.D. 14 B 8-2a



**CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER
INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION**



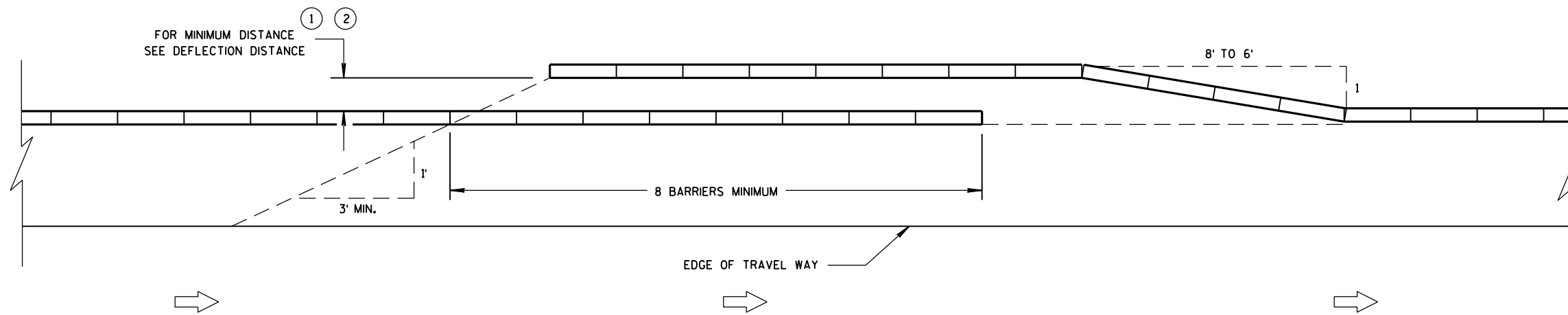
**TRANSITION FROM FREE STANDING TEMPORARY BARRIER
TO ANCHORED BARRIER**

LEGEND

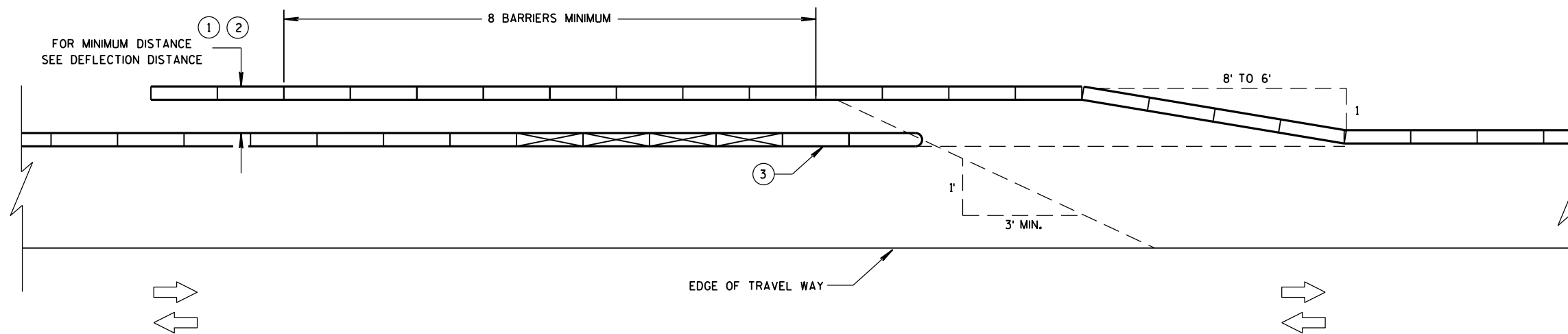
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

**CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS**

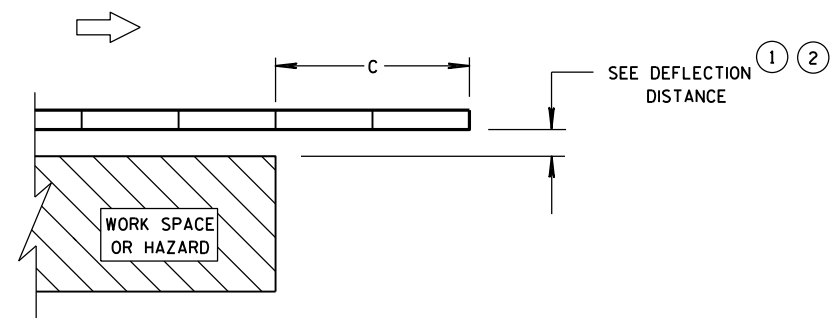
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



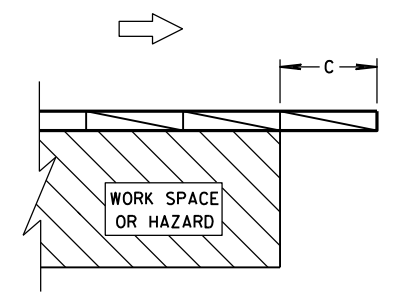
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



**ENDING TEMPORARY BARRIER
DOWNSTREAM - UNANCHORED**



**ENDING TEMPORARY BARRIER
DOWNSTREAM - ANCHORED**

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

**CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS**

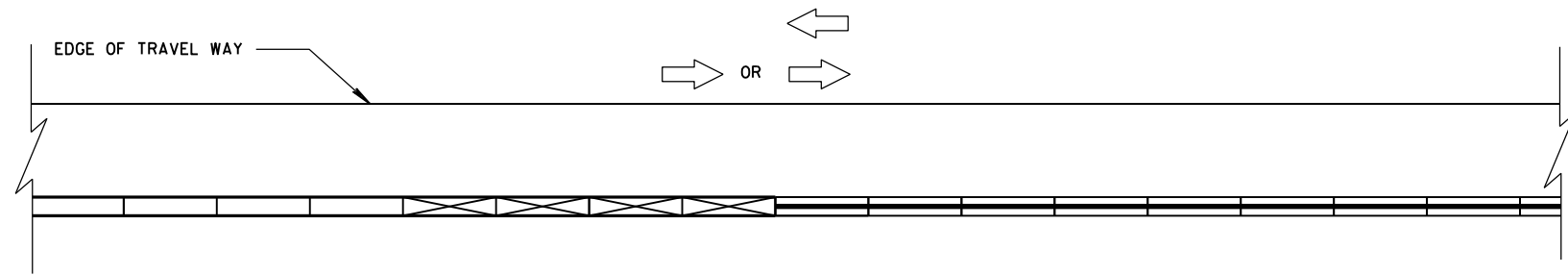
STATE OF WISCONSIN
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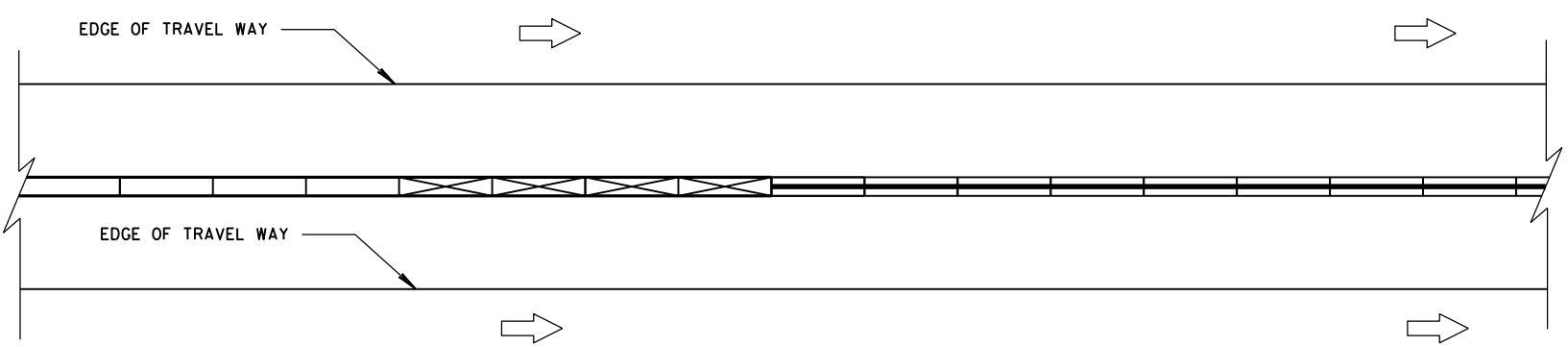
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S.D.D. 14 B 8-2c

S.D.D. 14 B 8-2c



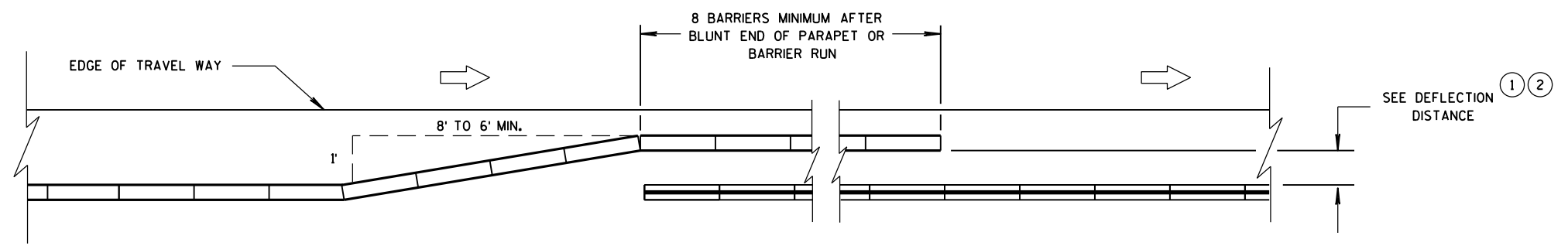
CONNECTING TEMPORARY BARRIER TO PERMANENT CONCRETE BARRIER-TRAFFIC ON ONE SIDE



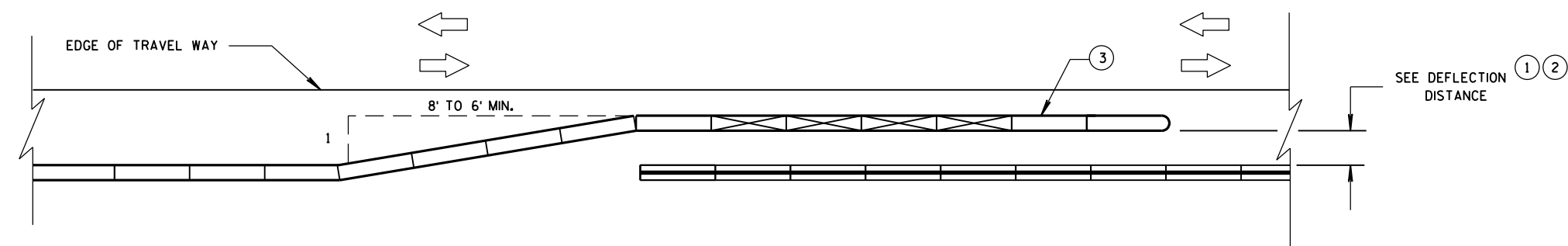
CONNECTING TEMPORARY BARRIER TO PERMANENT CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER - ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER - TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

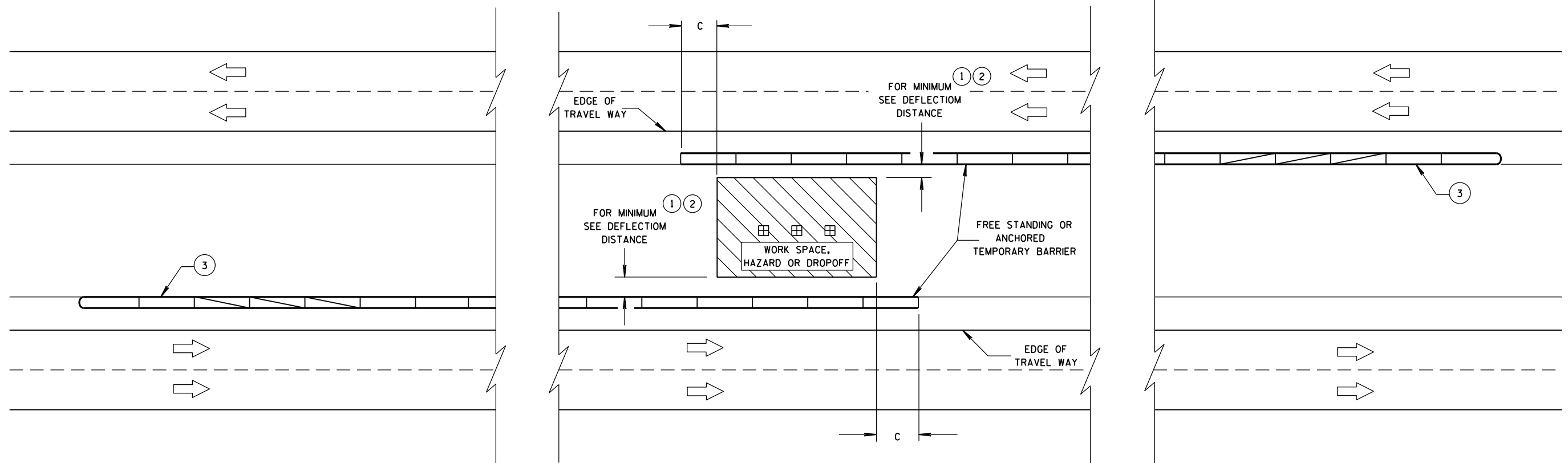
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE ²

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



6

6

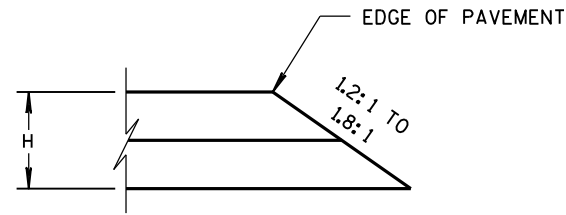
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S.D.D. 14 B 8-2e

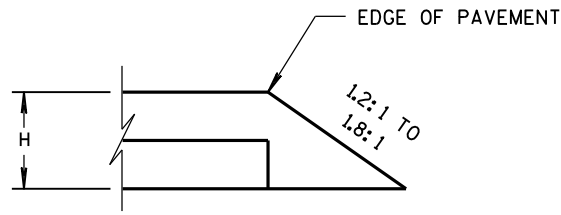
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

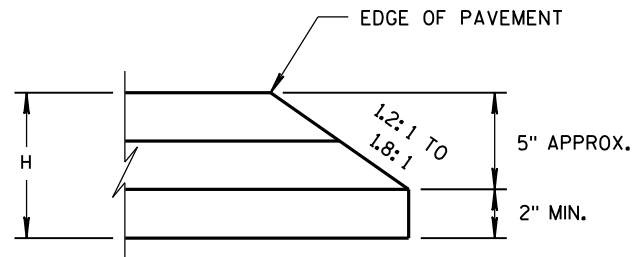
APPROVED
June, 2015 DATE /S/ Jerry H. Zogg
FHWA ROADWAY STANDARDS DEVELOPMENT ENGINEER



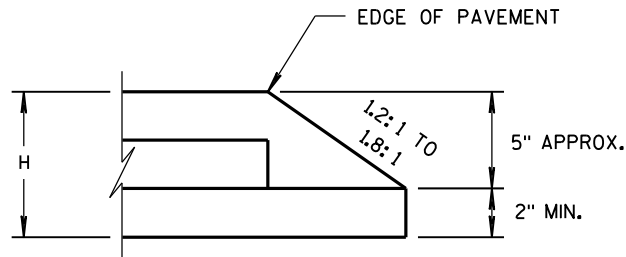
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

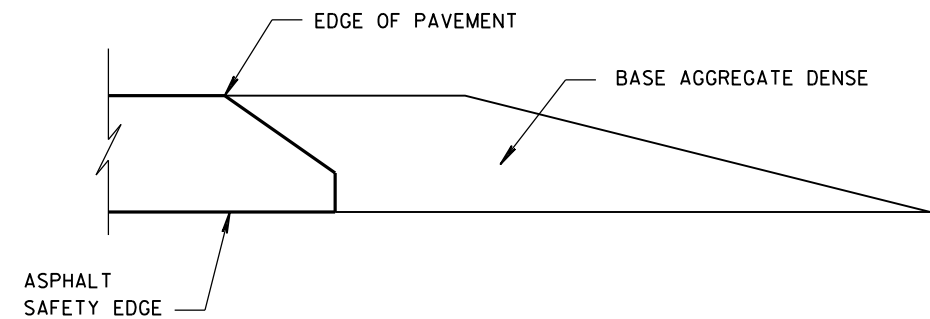


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

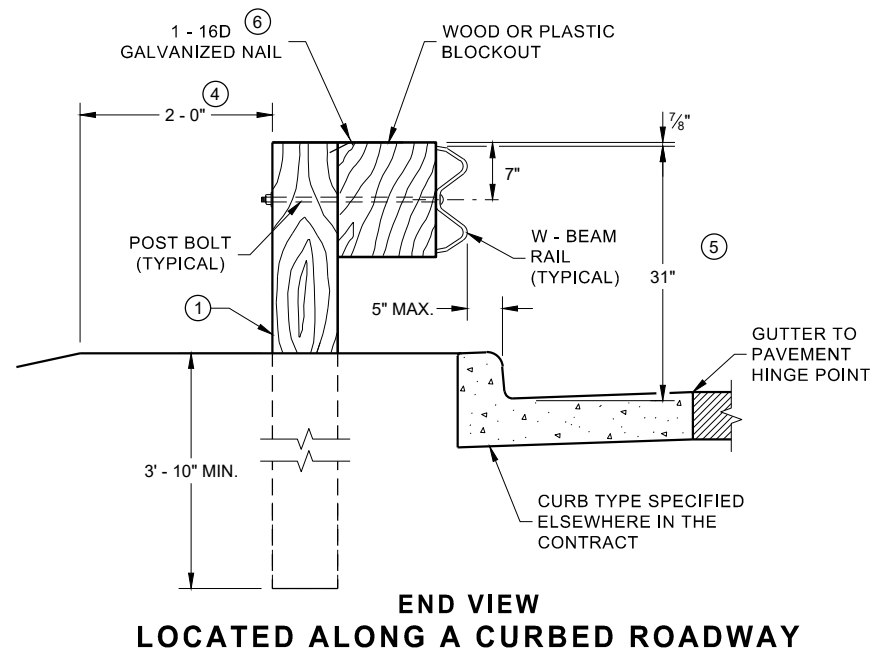
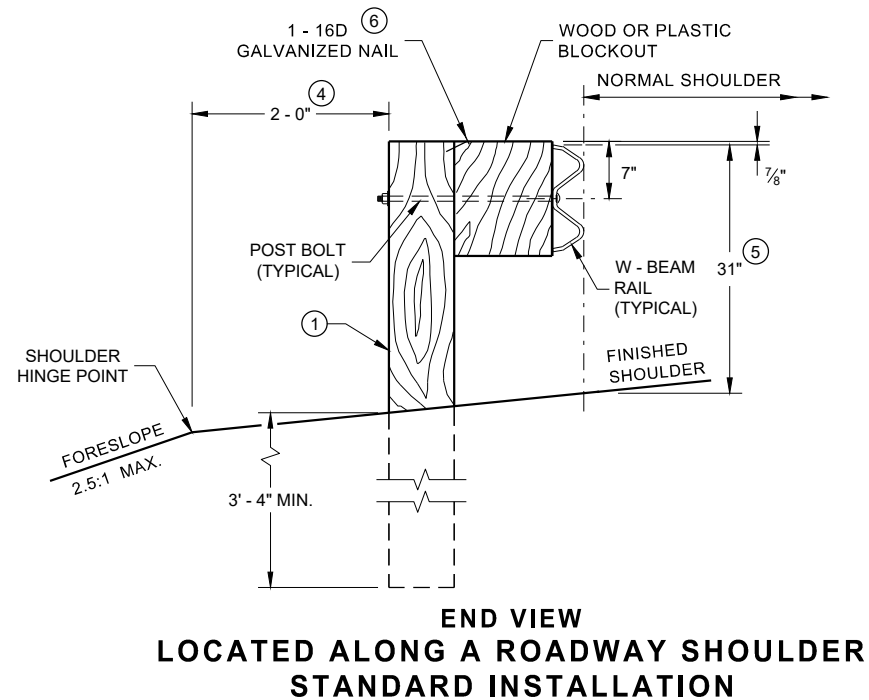
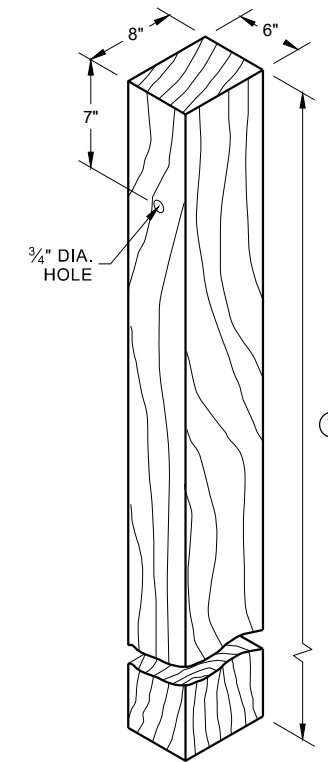
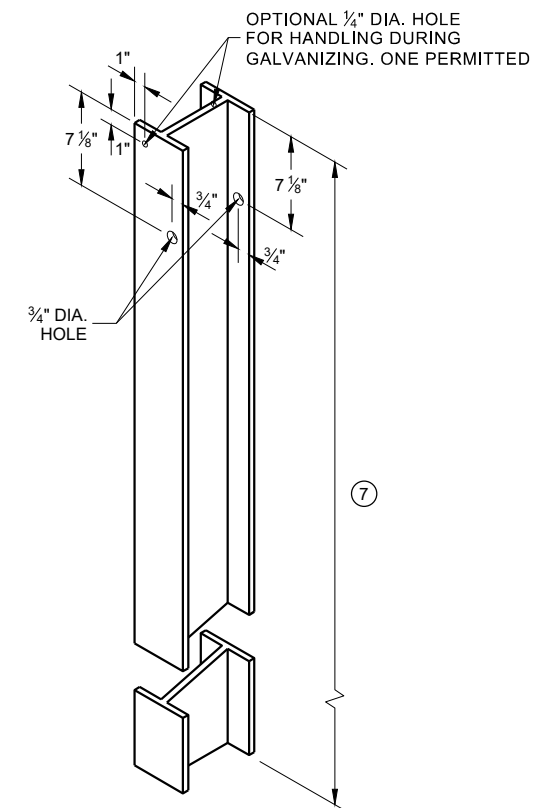
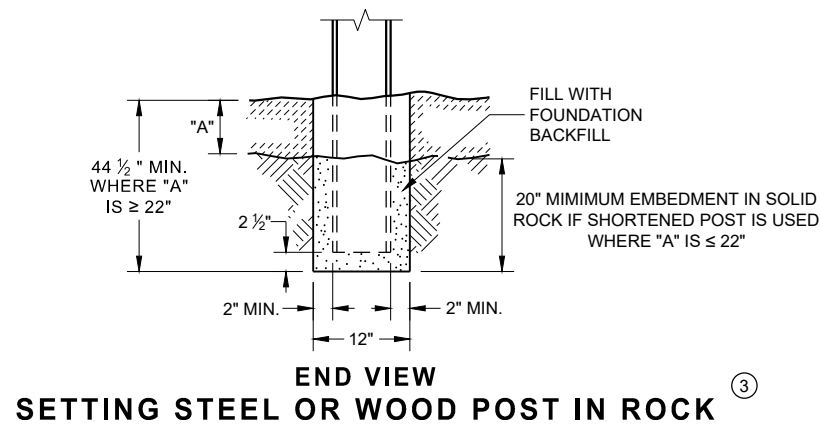
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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

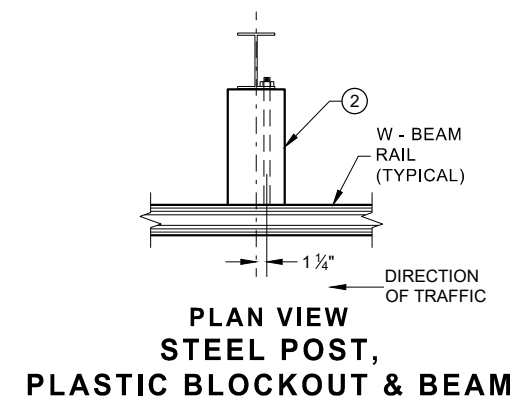
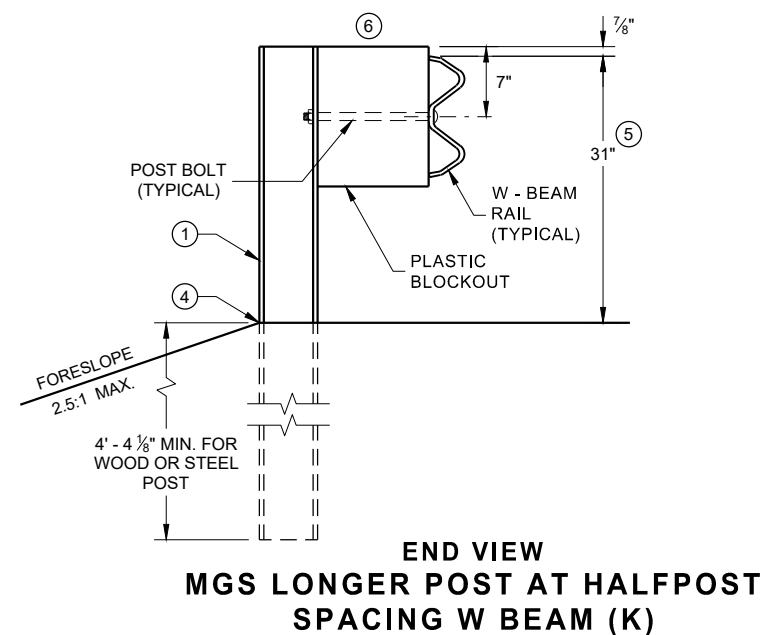
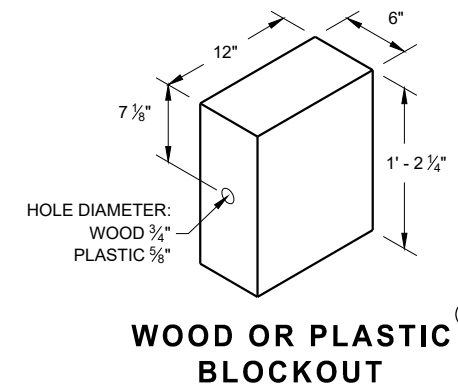
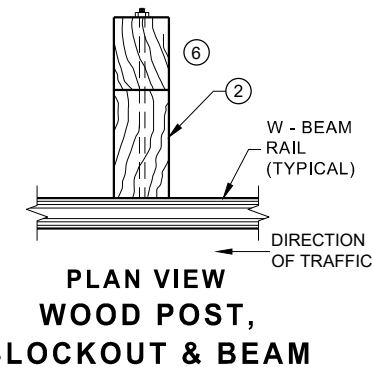
SAFETY EDGE _{SM}	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 11/30/2012	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

- ① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- ③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AND 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 $\pm 1"$. FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 3/4" TO 32".
- ⑥ WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- ⑦ TOTAL POST LENGTH FOR TYPE K IS 7' - 0". TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



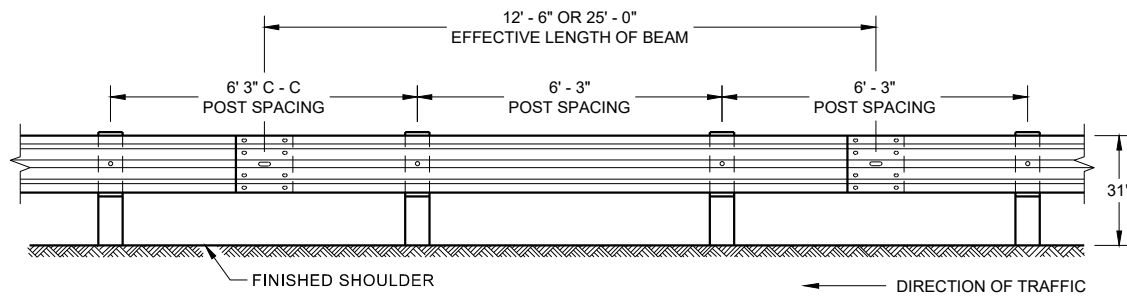
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9)

WOOD POST (6" X 8") NOMINAL

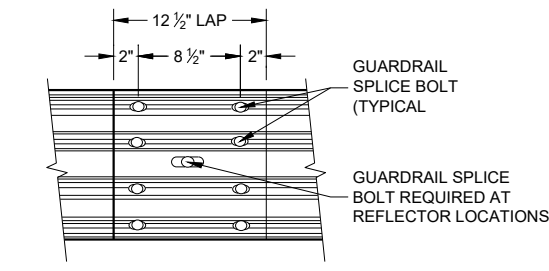


MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

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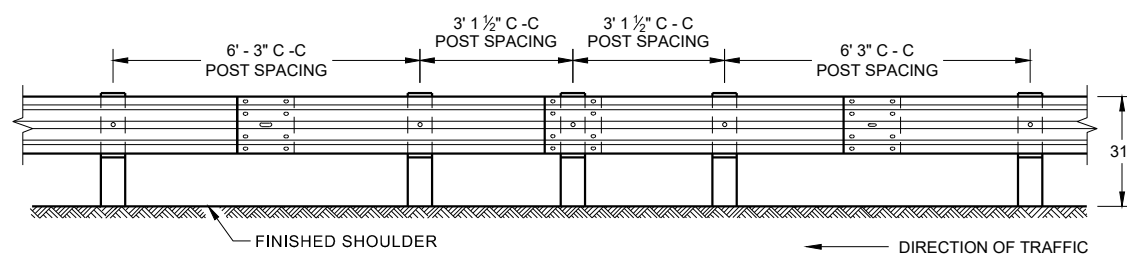
**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



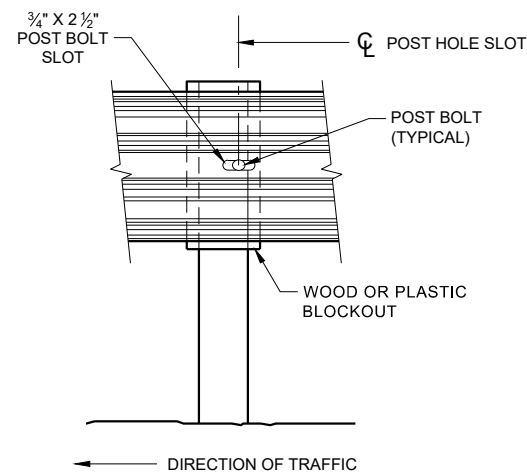
**FRONT VIEW
MID-SPAN BEAM SPLICE**

GENERAL NOTES

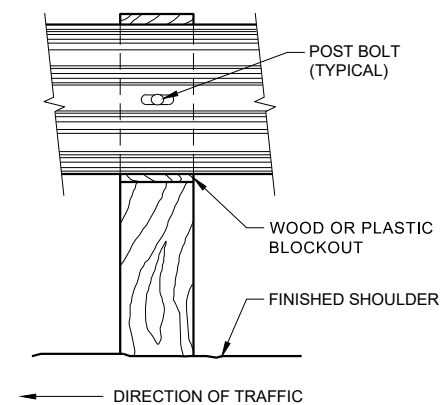
- ⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
 - ⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.
- POST BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 3/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.
- GUARD RAIL SPLICE BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 3/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



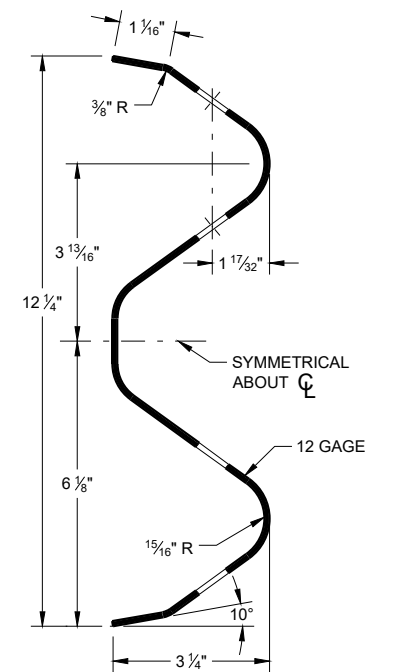
**FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)**



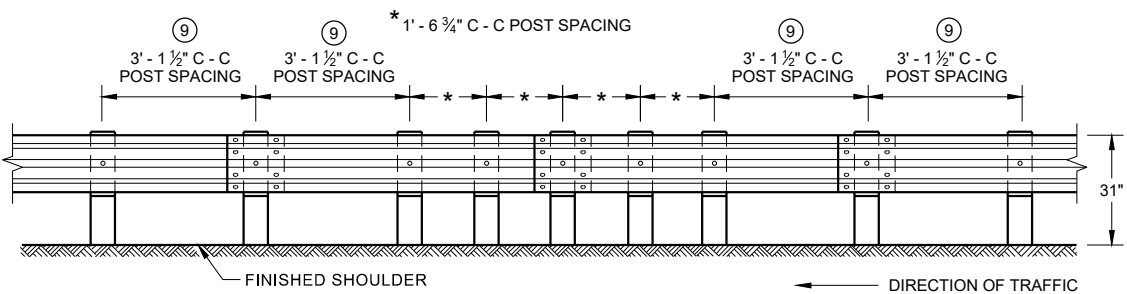
FRONT VIEW AT STEEL POST



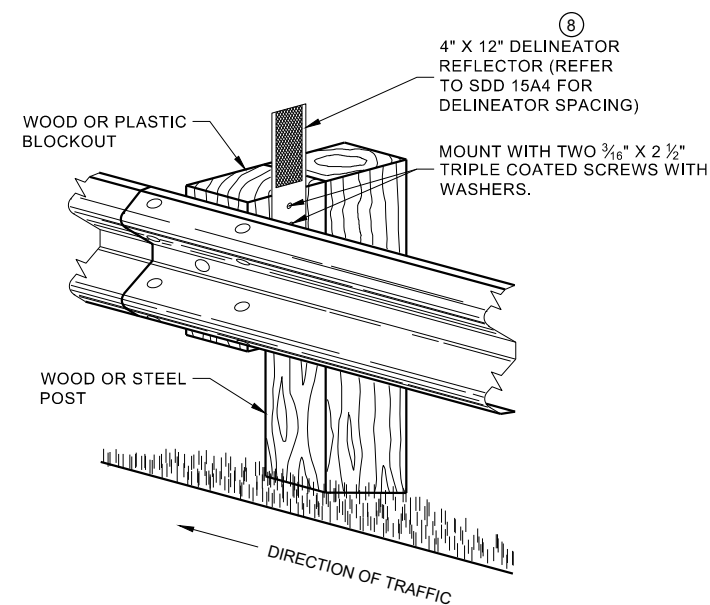
FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



**FRONT VIEW
QUARTER POST SPACING (QS)**



**ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION**

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

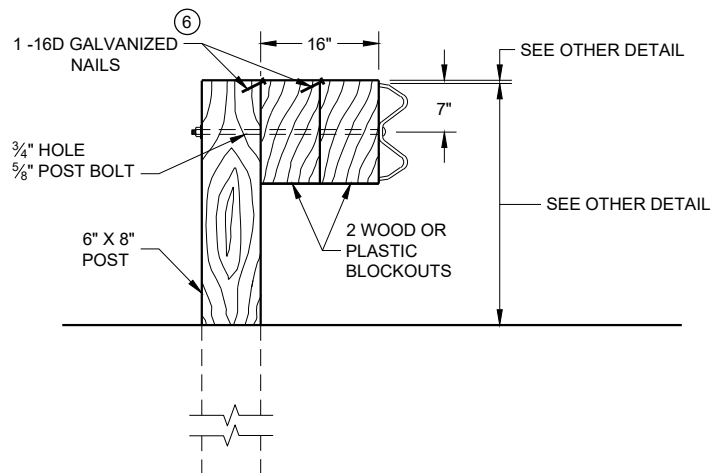
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B42 - 07b

SDD 14B42 - 07b

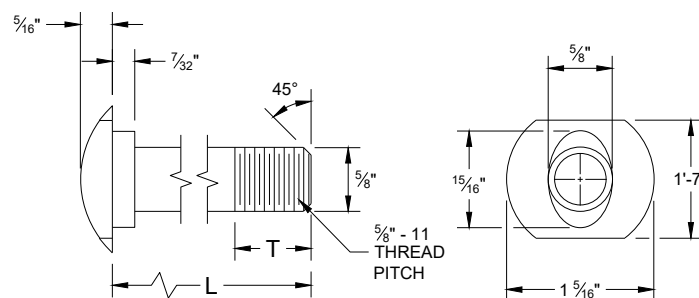


DETAIL FOR 16" BLOCKOUT DEPTH

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

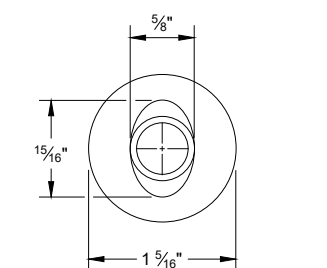
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

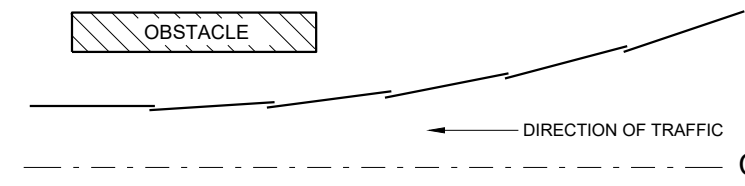


POST BOLT TABLE

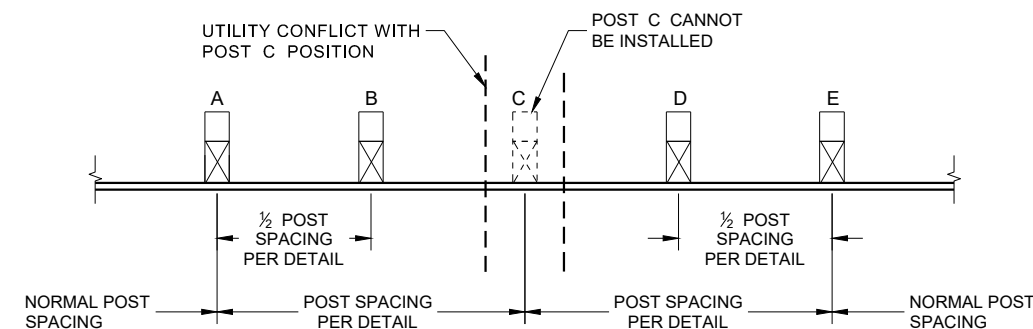
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



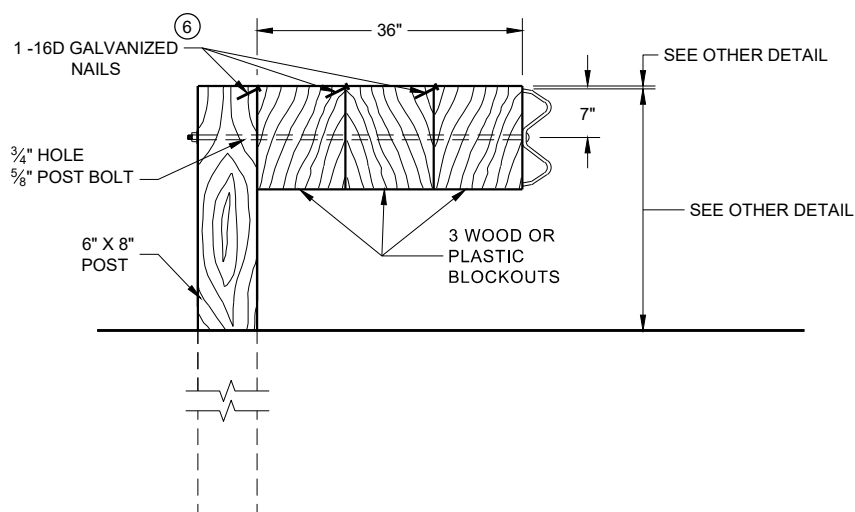
ALTERNATE BOLT HEAD



**PLAN VIEW
BEAM LAPPING DETAIL**

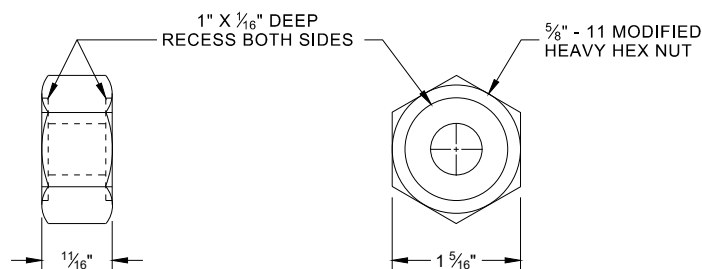


**POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION**

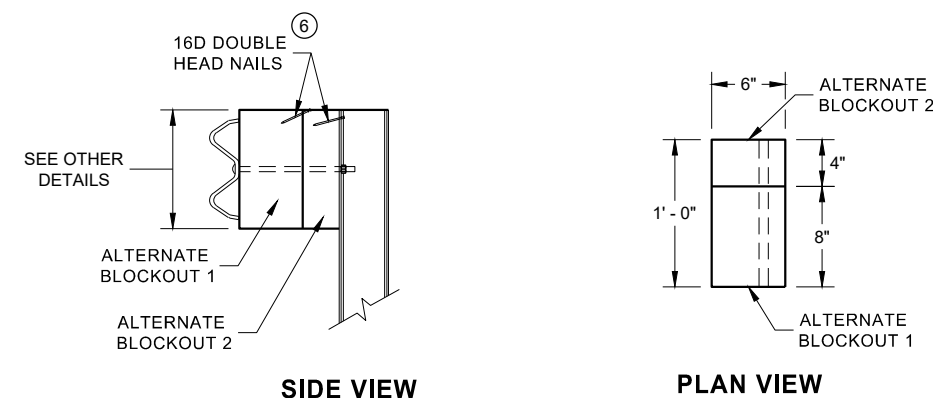


DETAIL FOR 36" BLOCKOUT DEPTH

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.



**POST BOLT, SPLICE BOLT
AND RECESS NUT**

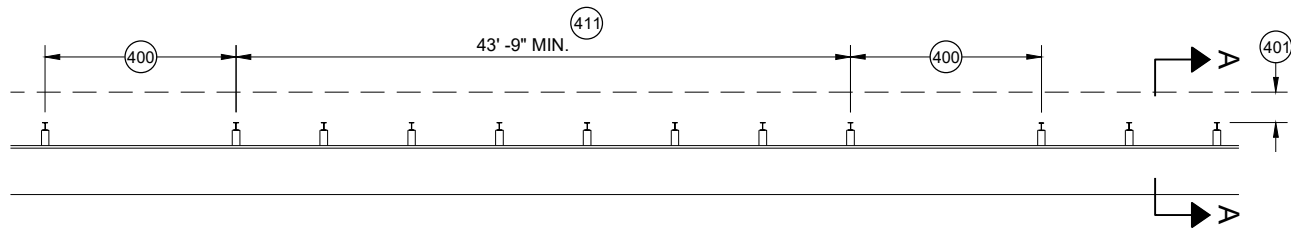


**ALTERNATE WOOD
BLOCKOUT DETAIL**

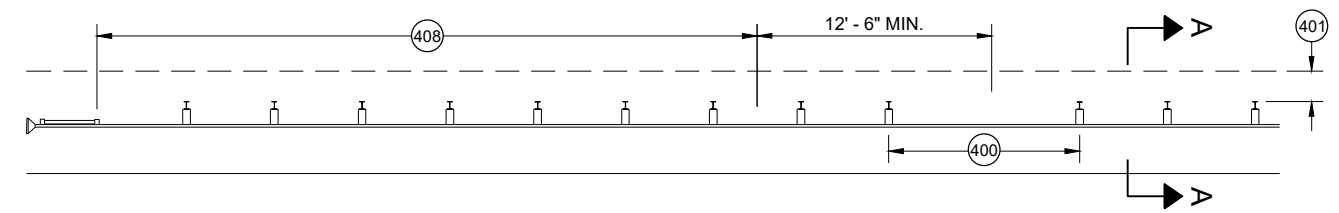
6 WHEN USING STEEL POST AND WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

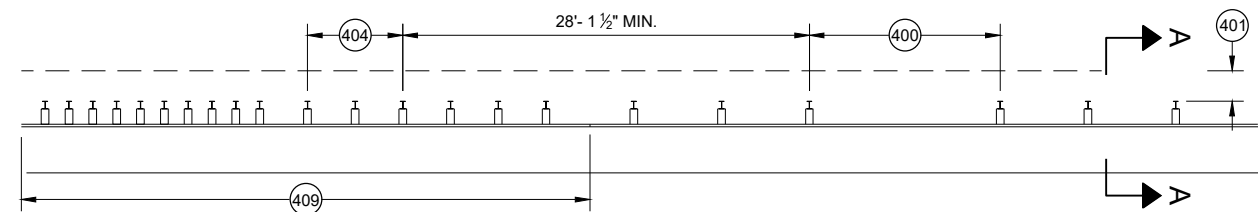
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



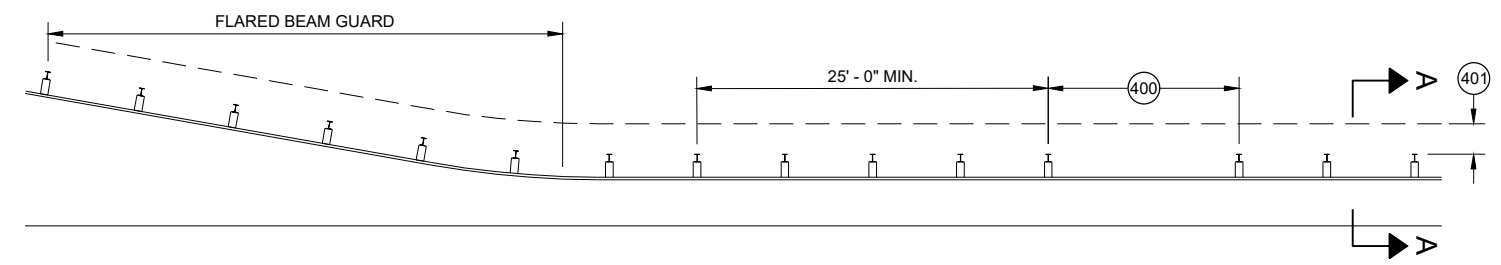
MISSING POST IN MGS GUARDRAIL



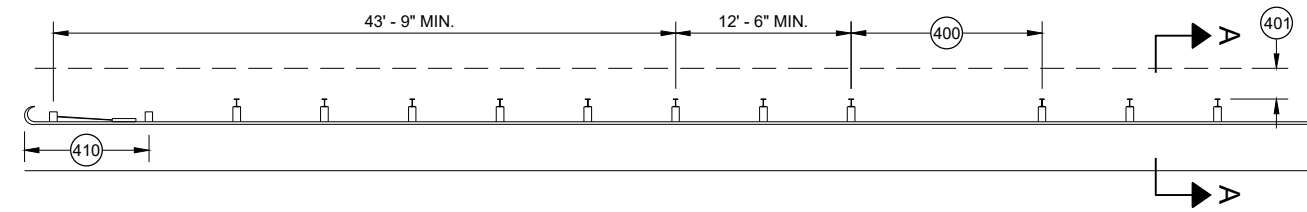
MISSING POST IN MGS GUARDRAIL NEAR EAT



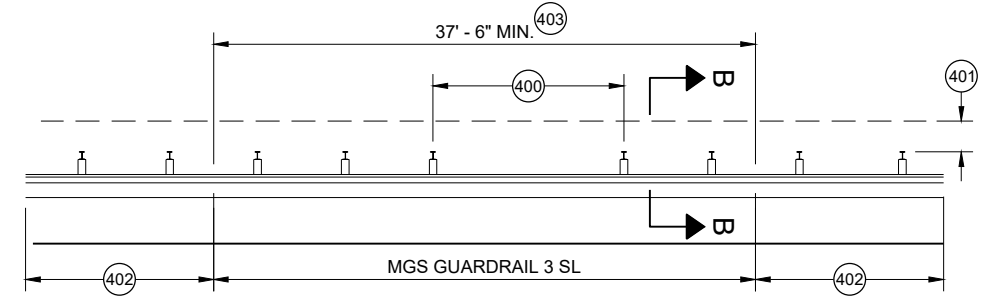
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

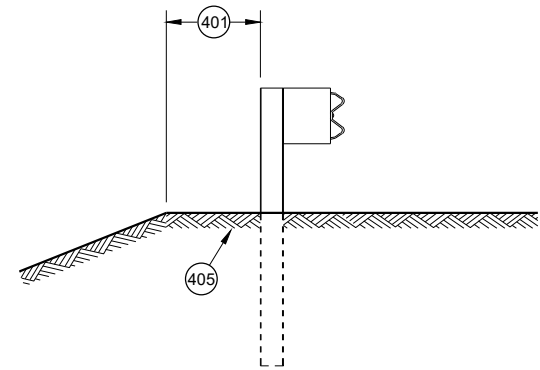


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

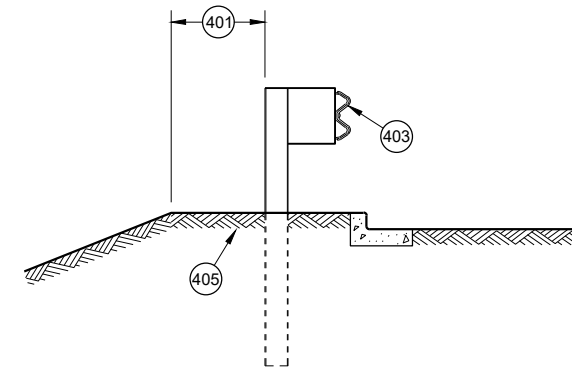


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL)

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



SECTION A - A



SECTION B - B

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2021 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
<small>FHWA</small>	

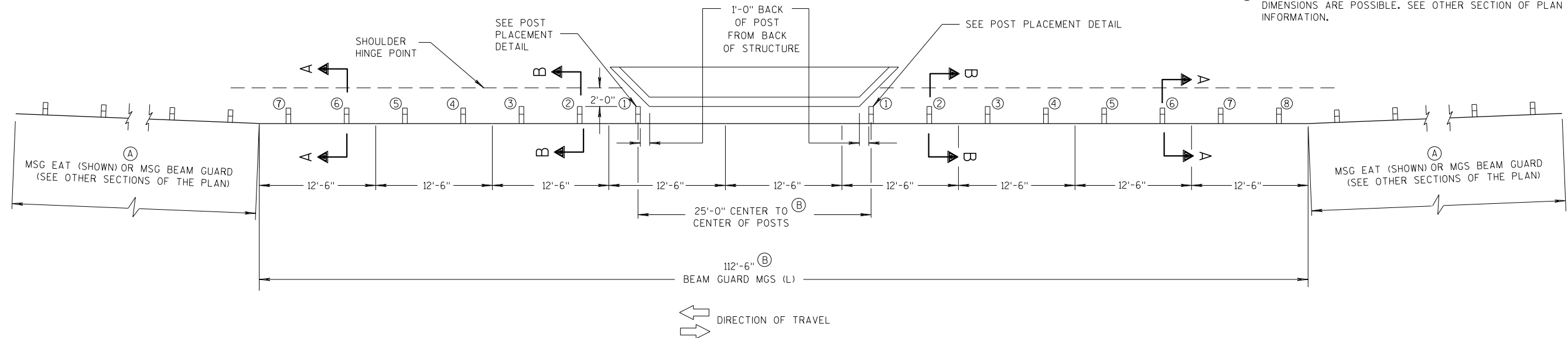
GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

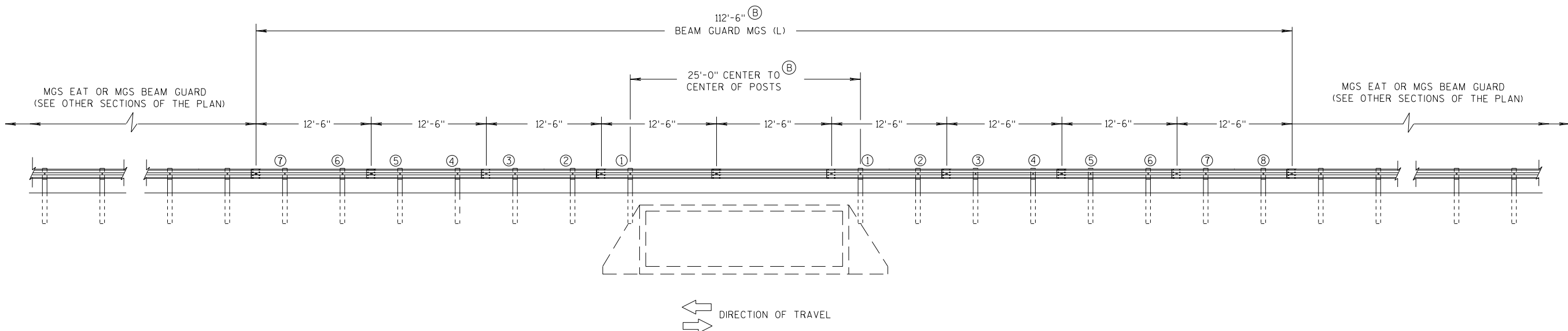
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN, IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) TWO-WAY TRAFFIC

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

6

6

S.D.D. 14 B 43-4a

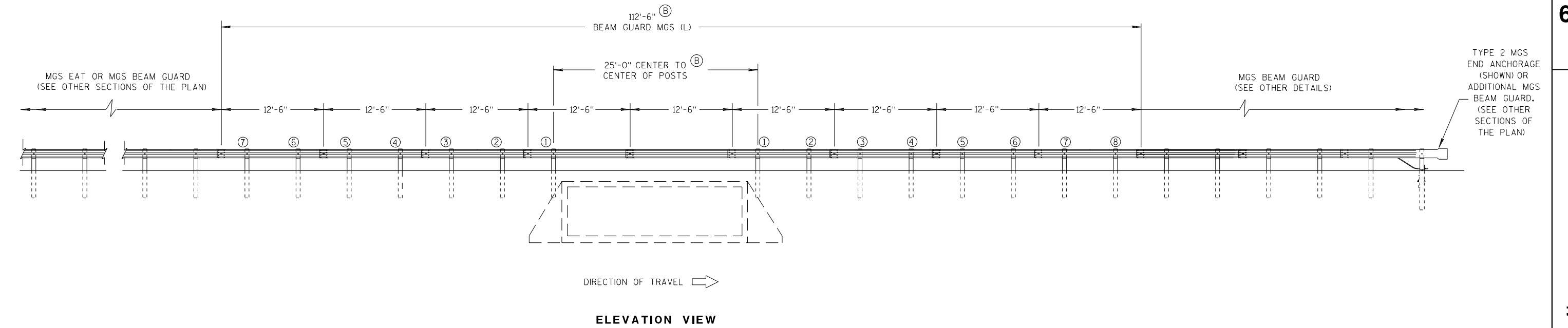
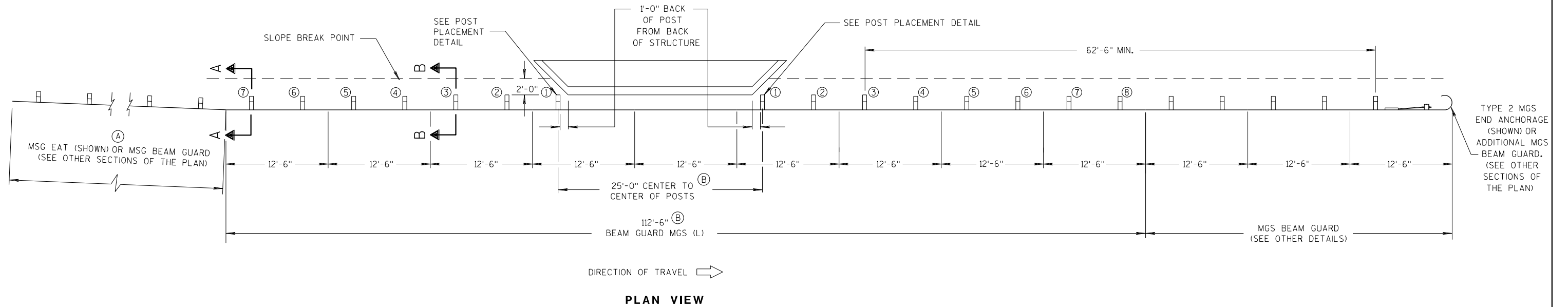
S.D.D. 14 B 43-4a

GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

SEE SDD 14 B 42 FOR MORE DETAILS.

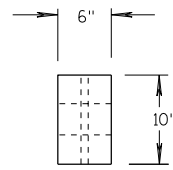
- (A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.
- (B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



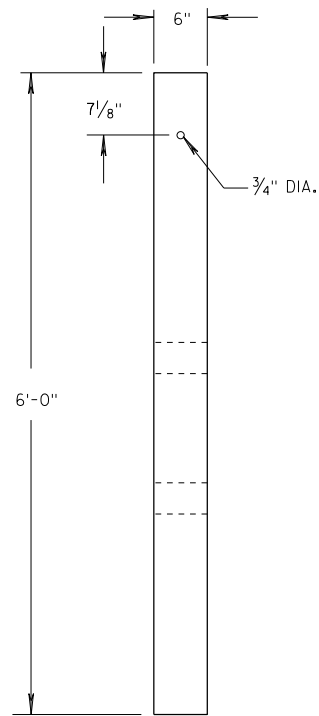
MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) ONE-WAY TRAFFIC

**MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)**

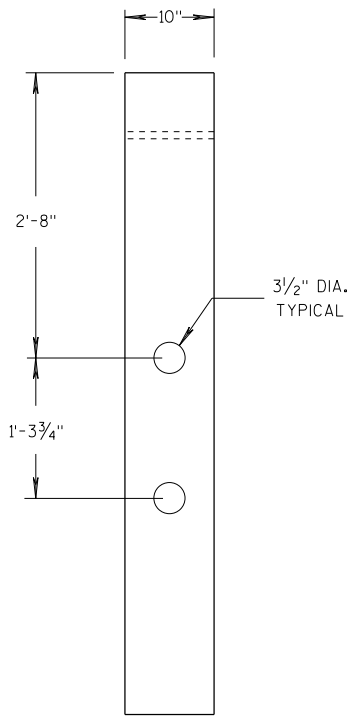
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW

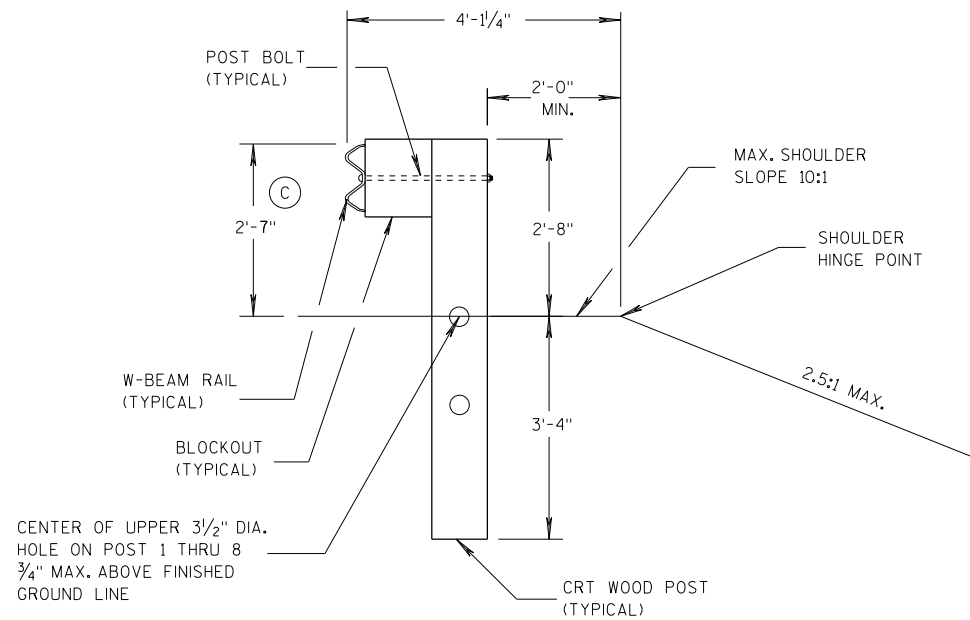


FRONT VIEW

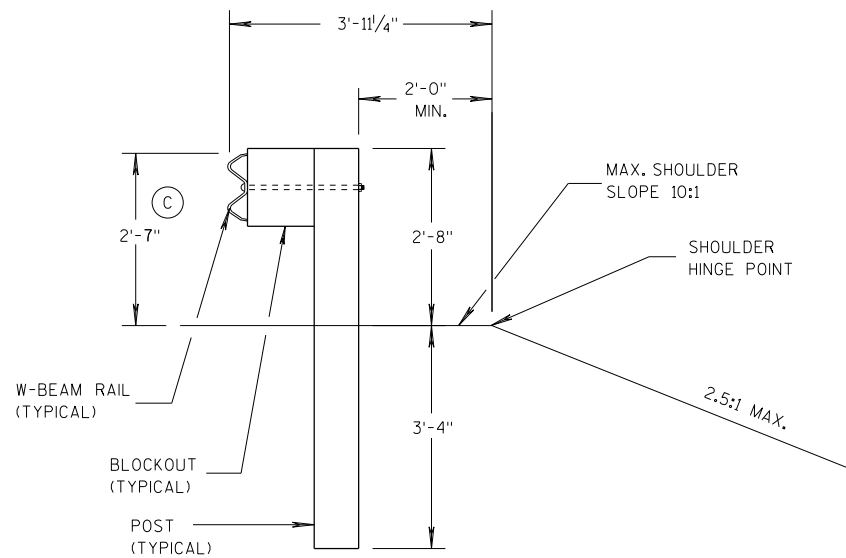


SIDE VIEW

CRT WOOD POST



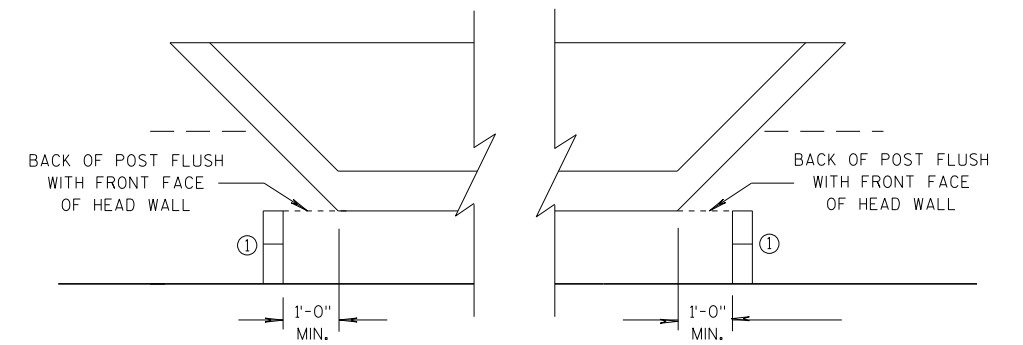
SECTION B-B
POSTS NO. 1-3
SEE OTHER DETAILS



SECTION A-A
POSTS NO. 4-8
SEE OTHER DETAILS

GENERAL NOTES

(C) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



POST PLACEMENT DETAIL

MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED	/S/ Rodney Taylor
07/2018	DATE
	ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

GENERAL NOTES

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
 - (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED
 - (C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.
 - (D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.
 - (E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.
- DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

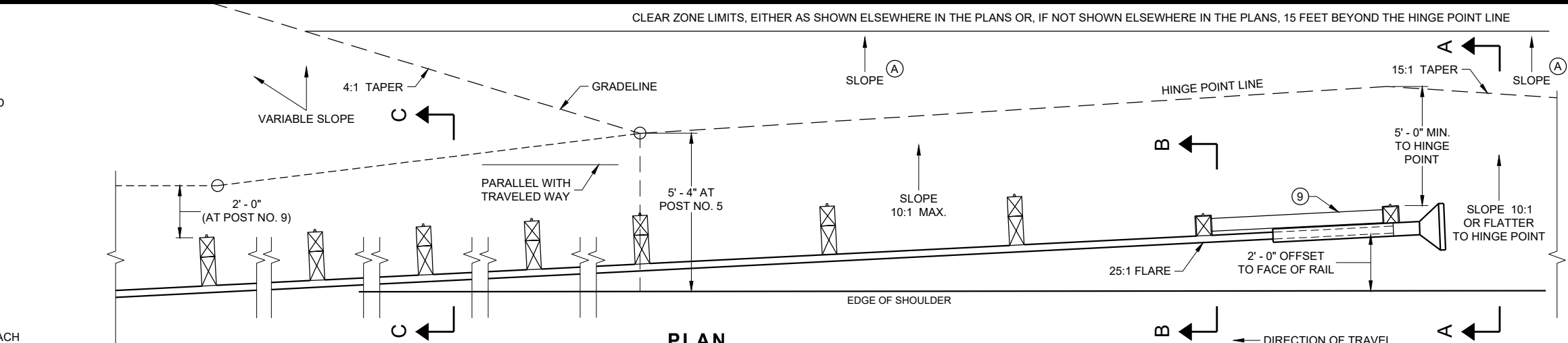
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

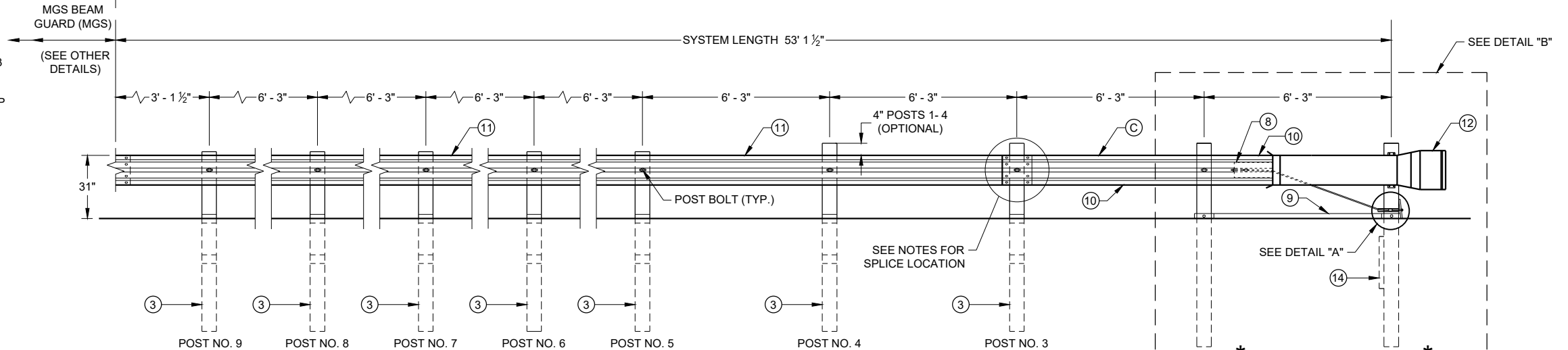
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

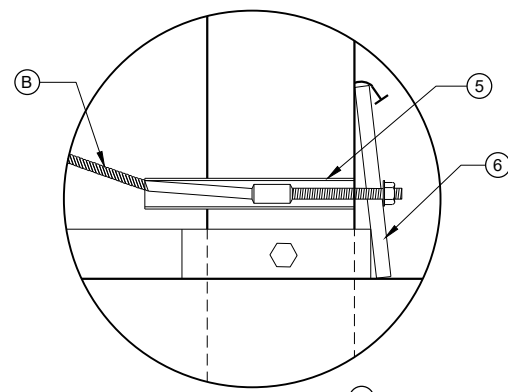
THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



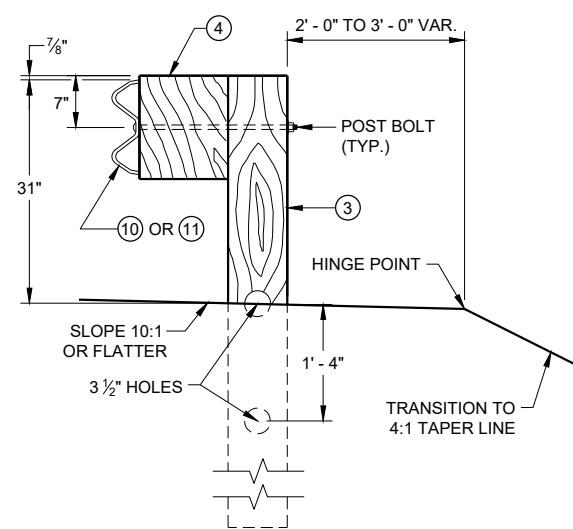
PLAN



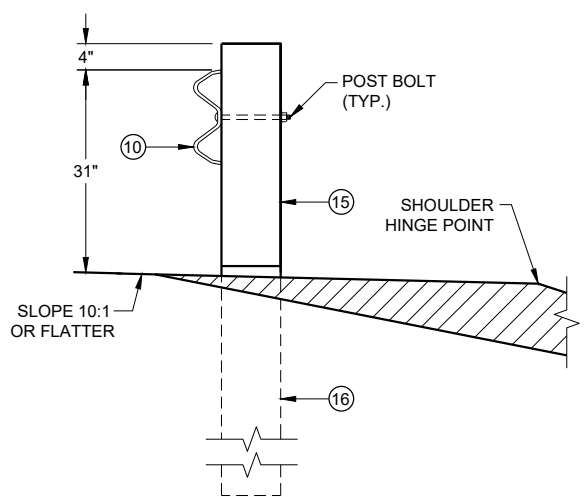
ELEVATION



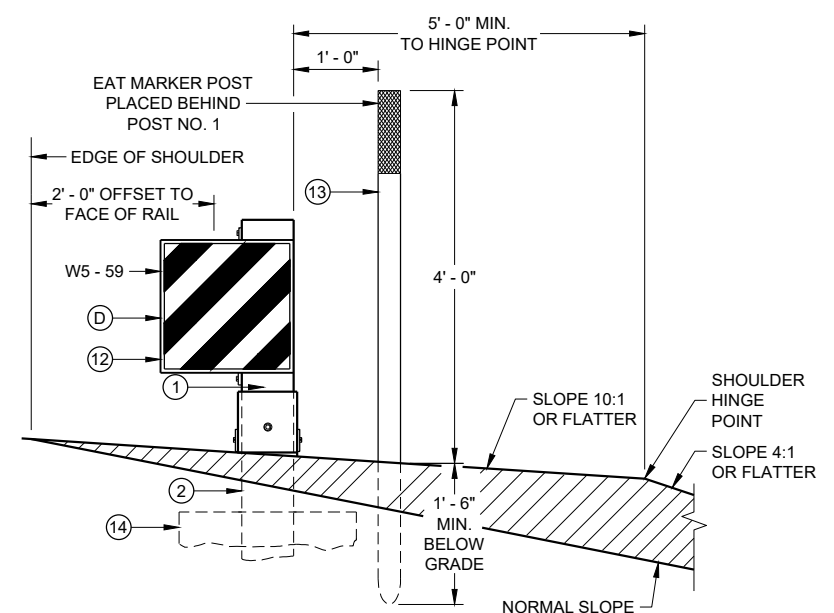
DETAIL "A"



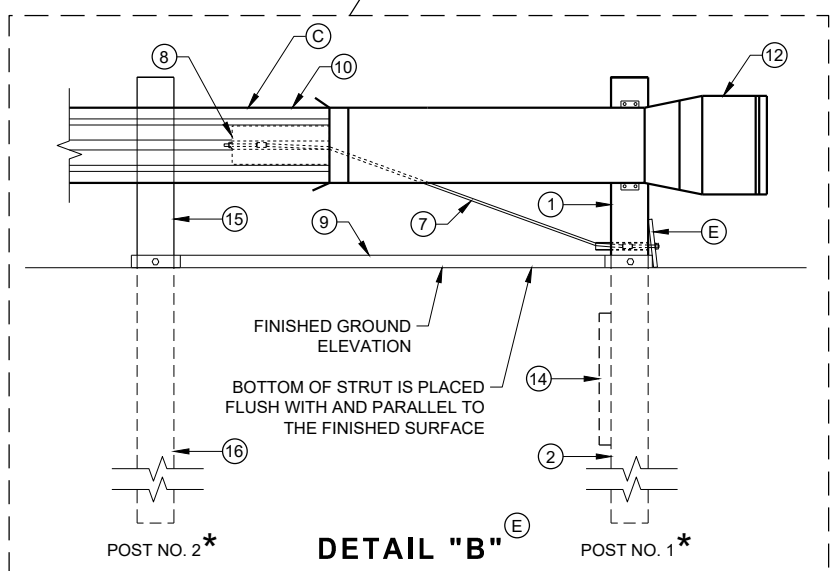
**SECTION C - C
TYPICAL AT POST NOS. 3 - 9**



**SECTION B - B
TYPICAL AT POST NO. 2***



**SECTION A - A
TYPICAL AT POST NO. 1***



DETAIL "B"

**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

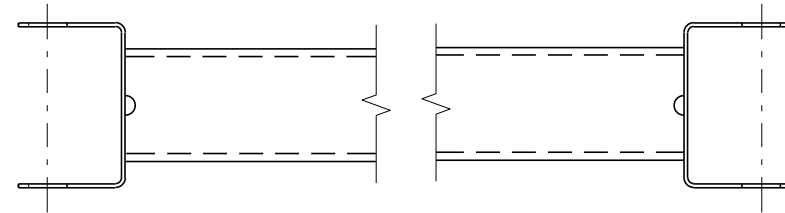
6

SDD 14B44 - 04a

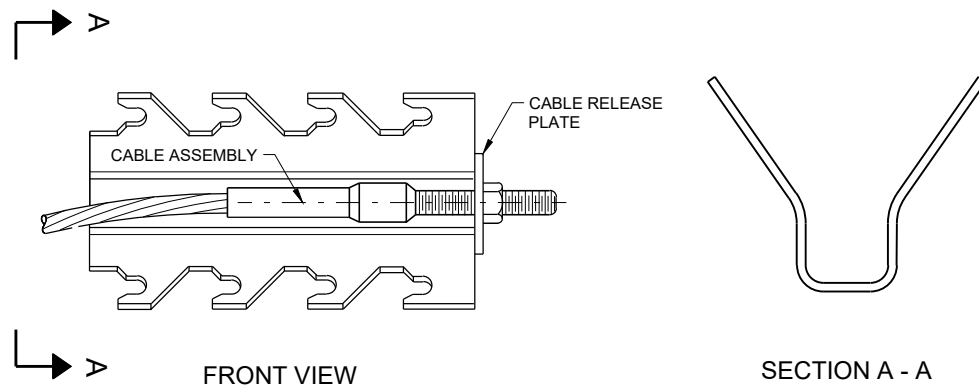
SDD 14B44 - 04a

BILL OF MATERIALS

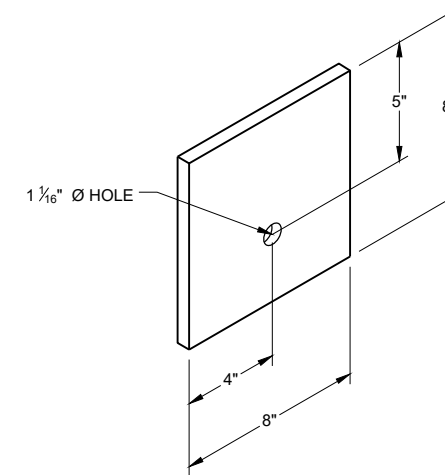
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC GROUND STRUT ⑨ ⑤



GENERIC ANCHOR CABLE BOX ⑨ ⑤



BEARING PLATE ⑥ ⑤

6

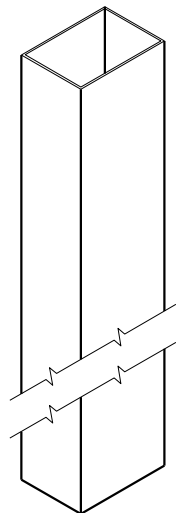
6

SDD 14B44 - 04b

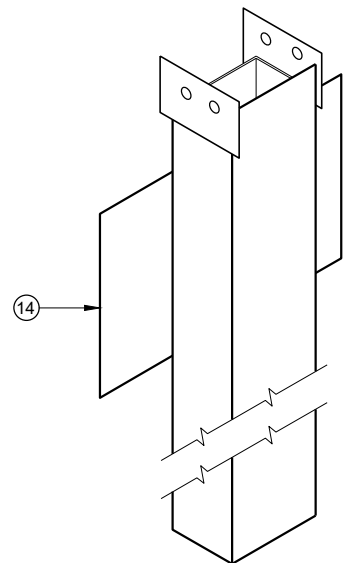
SDD 14B44 - 04b

**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

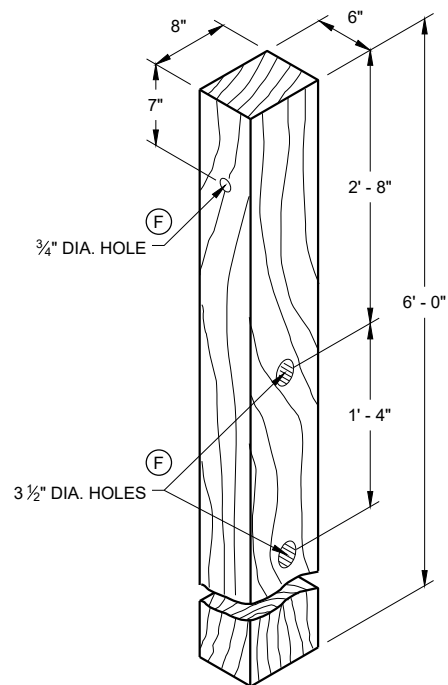
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



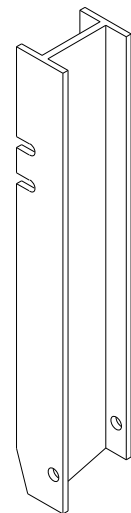
UPPER POST NO. 1 ⁽¹⁾ (E)



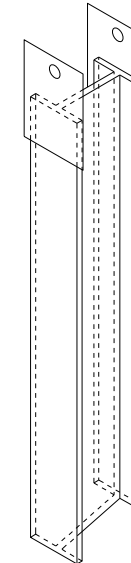
LOWER POST NO. 1 ⁽²⁾ (E)



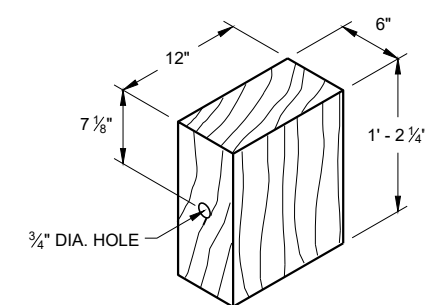
WOOD CRT POST ⁽³⁾ (E)
POSTS NUMBER 3-9



UPPER POST NO. 2 ⁽¹⁵⁾ (E)

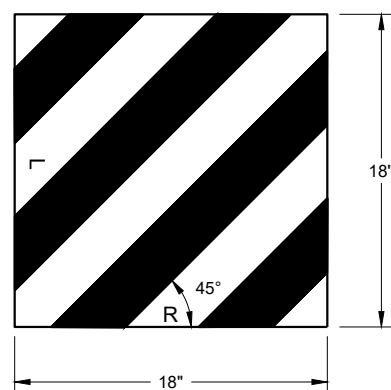


LOWER POST NO. 2 ⁽¹⁶⁾ (E)



WOOD BLOCKOUT ⁽⁴⁾
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

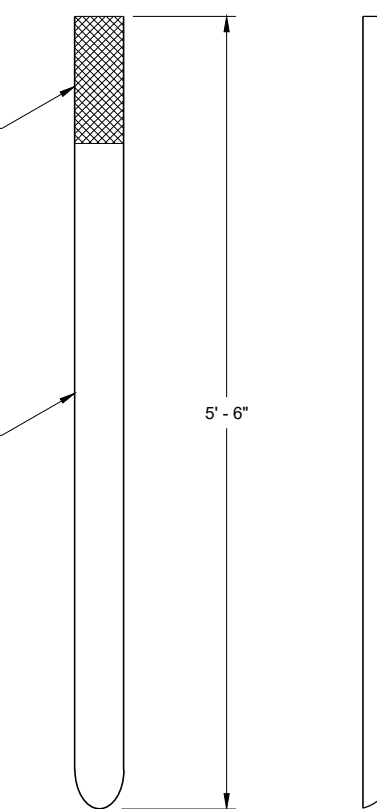
6



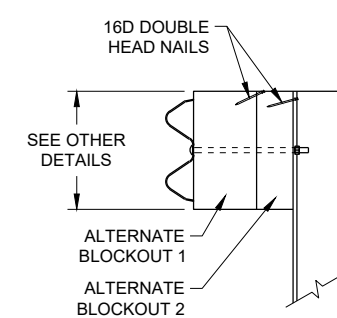
W5 - 59
REFLECTIVE SHEETING DETAIL ^(E)

TYPE H
YELLOW REFLECTIVE
SHEETING 3" X 9".
SEE STANDARD
SPECIFICATION 637.

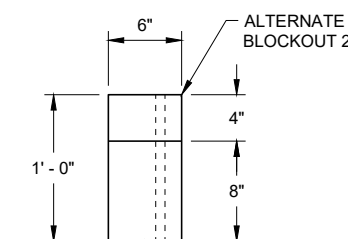
E.A.T. MARKER
POST (YELLOW)



FRONT VIEW SIDE VIEW
E.A.T. MARKER POST ⁽¹³⁾



SIDE VIEW



TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

6

SDD 14B44 - 04c

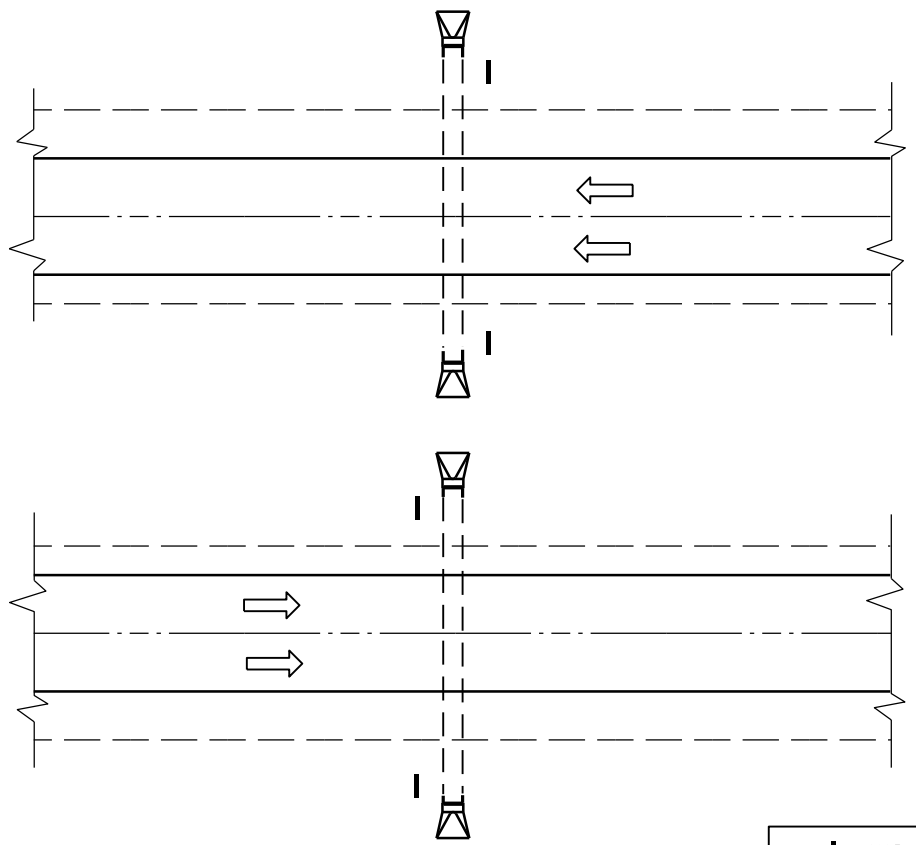
SDD 14B44 - 04c

**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

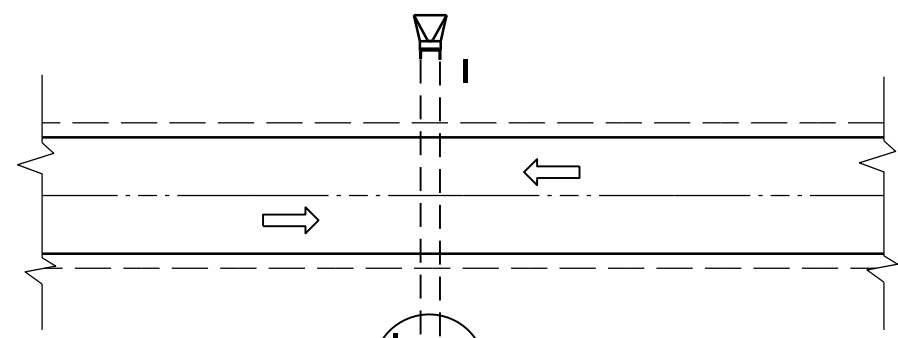
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

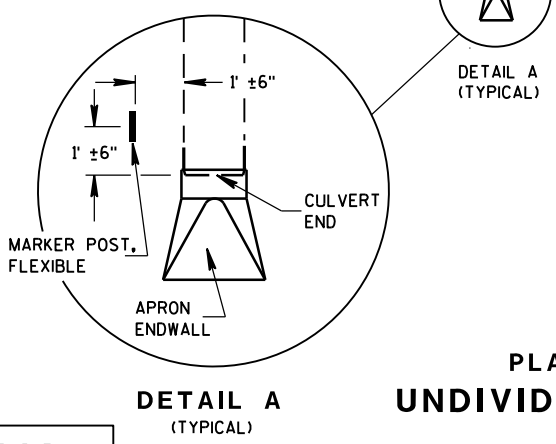
FHWA



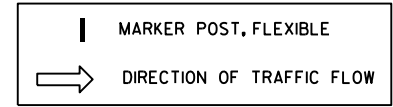
PLAN VIEW
DIVIDED HIGHWAY



PLAN VIEW
UNDIVIDED HIGHWAY

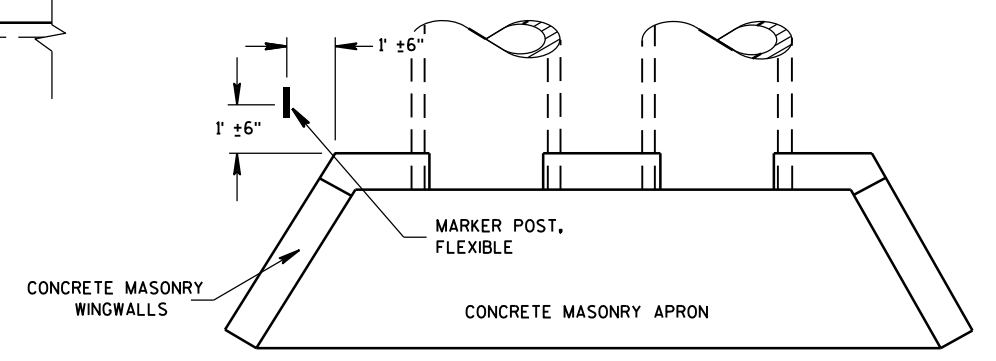


DETAIL A
(TYPICAL)



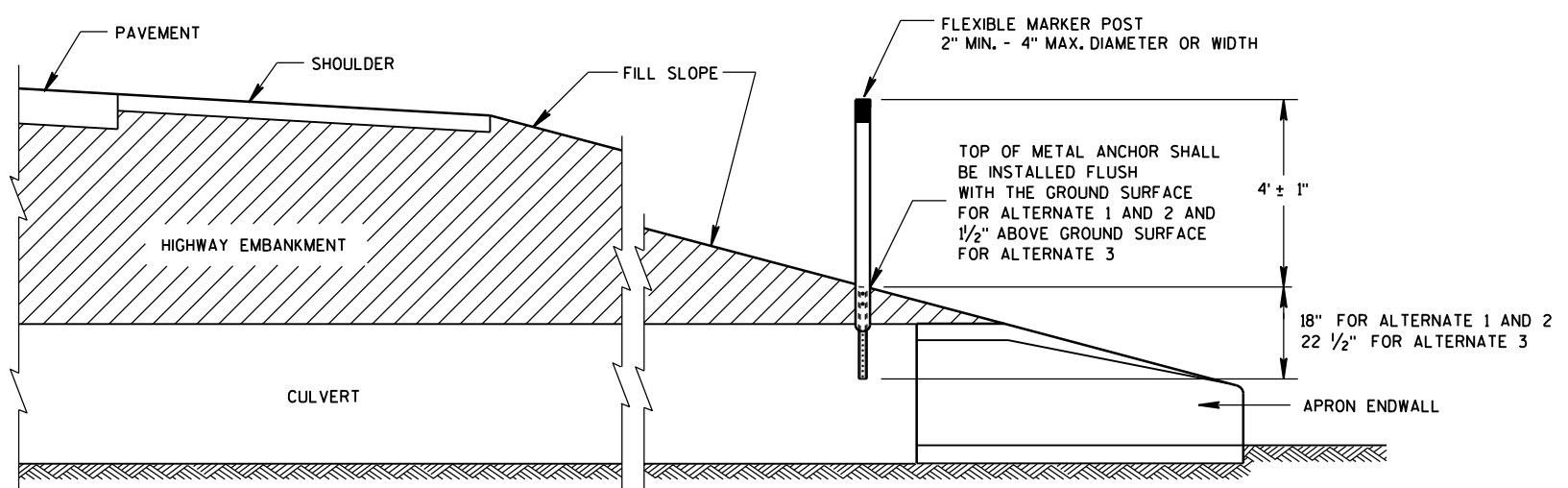
GENERAL NOTES

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**

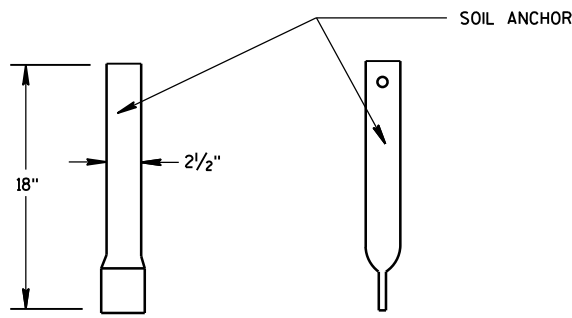
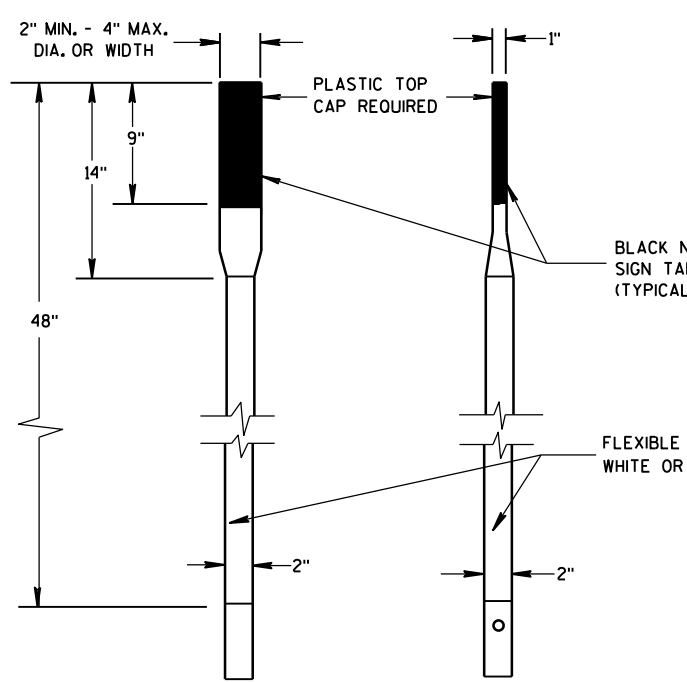
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

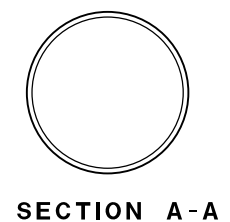
6

S.D.D. 15 A 3-2a

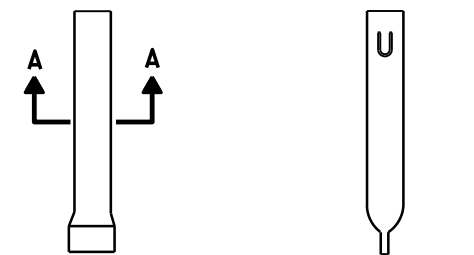
S.D.D. 15 A 3-2a



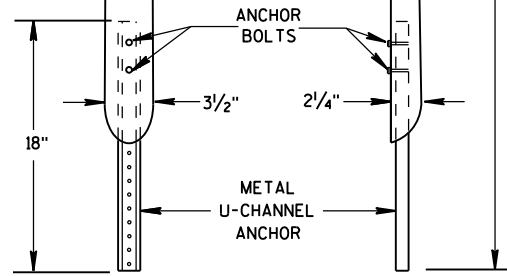
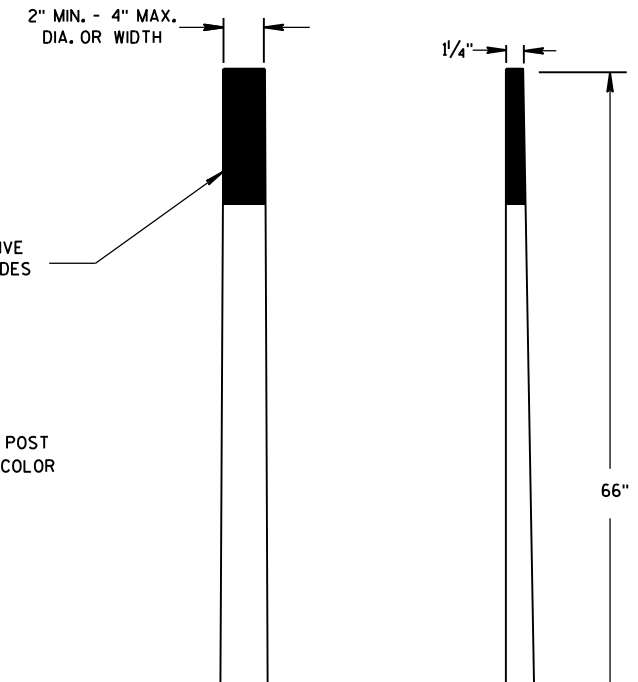
FRONT VIEW SIDE VIEW
ALTERNATE 1



SECTION A-A

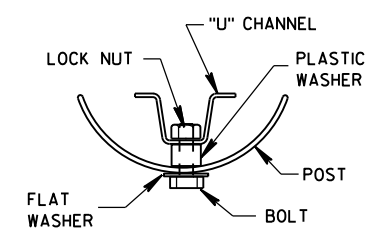


FRONT VIEW SIDE VIEW
ALTERNATE 1

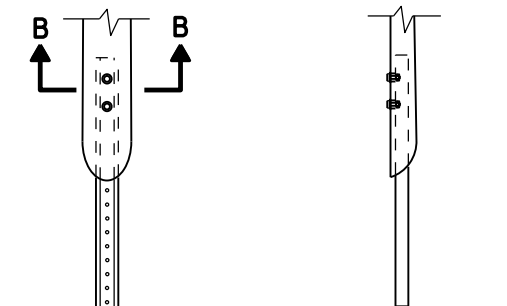


FRONT VIEW SIDE VIEW
ALTERNATE 2

FLEXIBLE MARKER POSTS

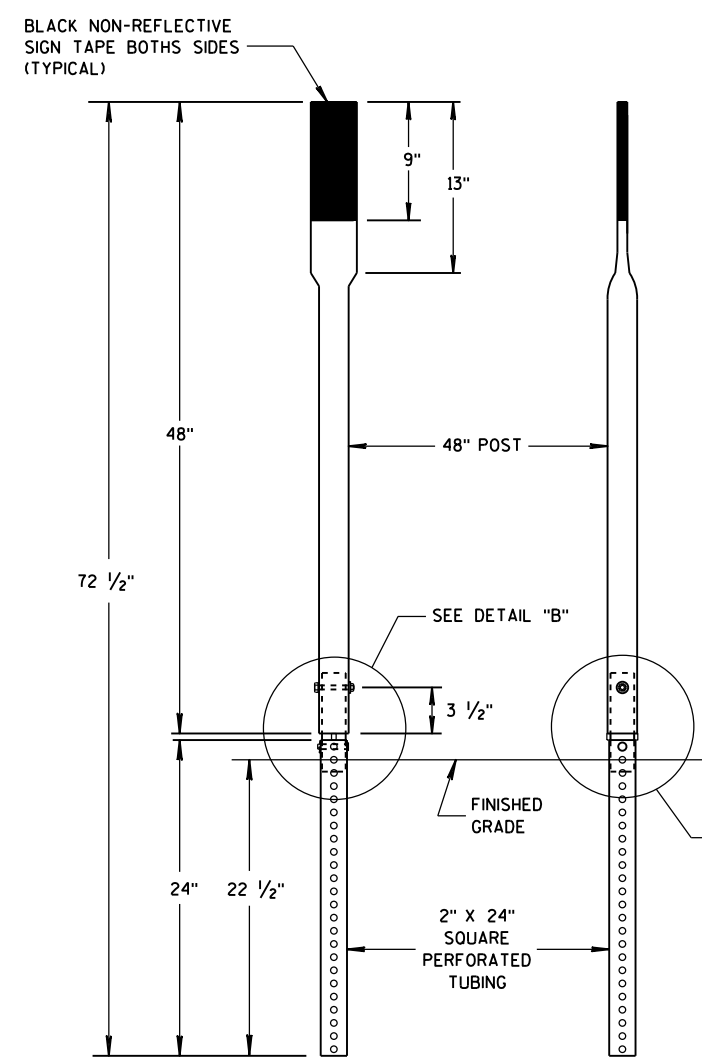


SECTION B-B

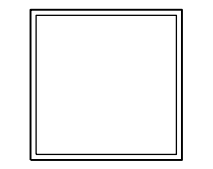


FRONT VIEW SIDE VIEW
ALTERNATE 2

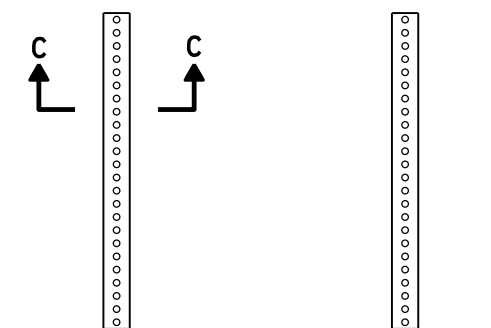
FLEXIBLE MARKER POST ANCHORS



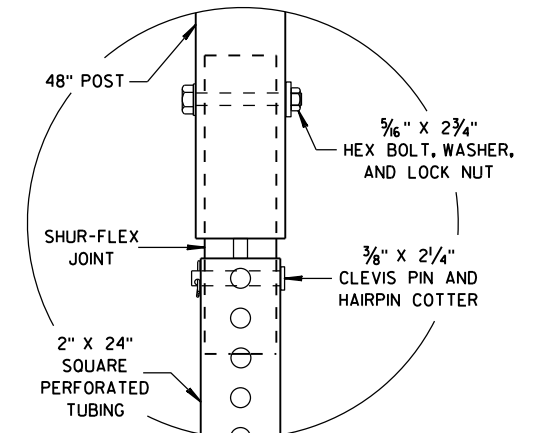
FRONT VIEW SIDE VIEW
ALTERNATE 3



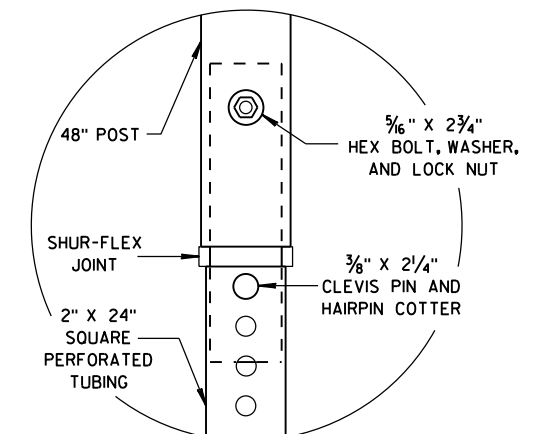
SECTION C-C



FRONT VIEW SIDE VIEW
ALTERNATE 3



DETAIL B

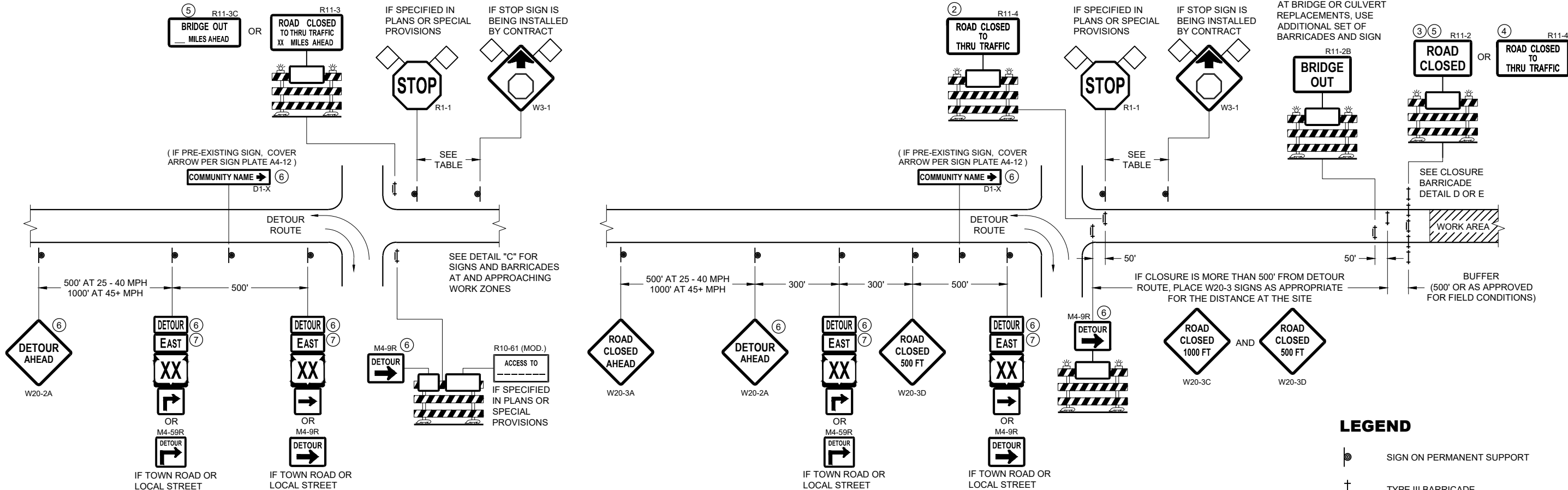


DETAIL C

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 DATE /S/ Travis Feltes
STATE TRAFFIC ENGINEER OF DESIGN
FHWA



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

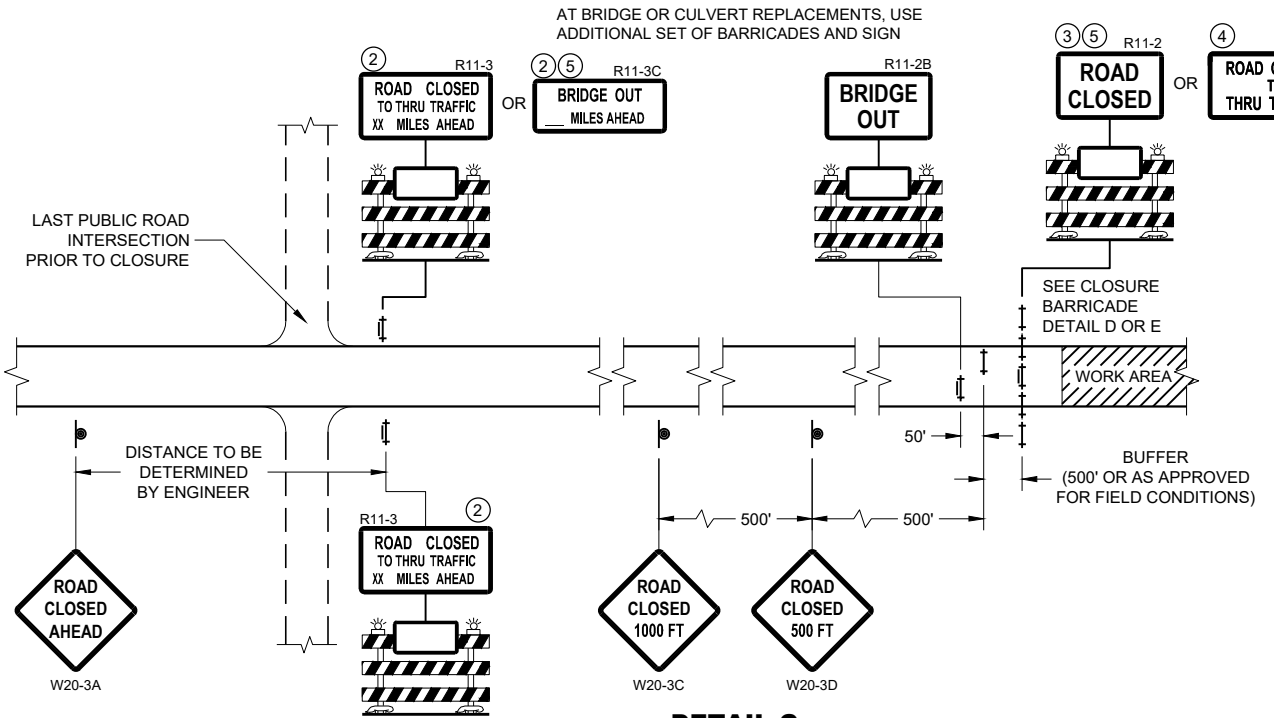
WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1



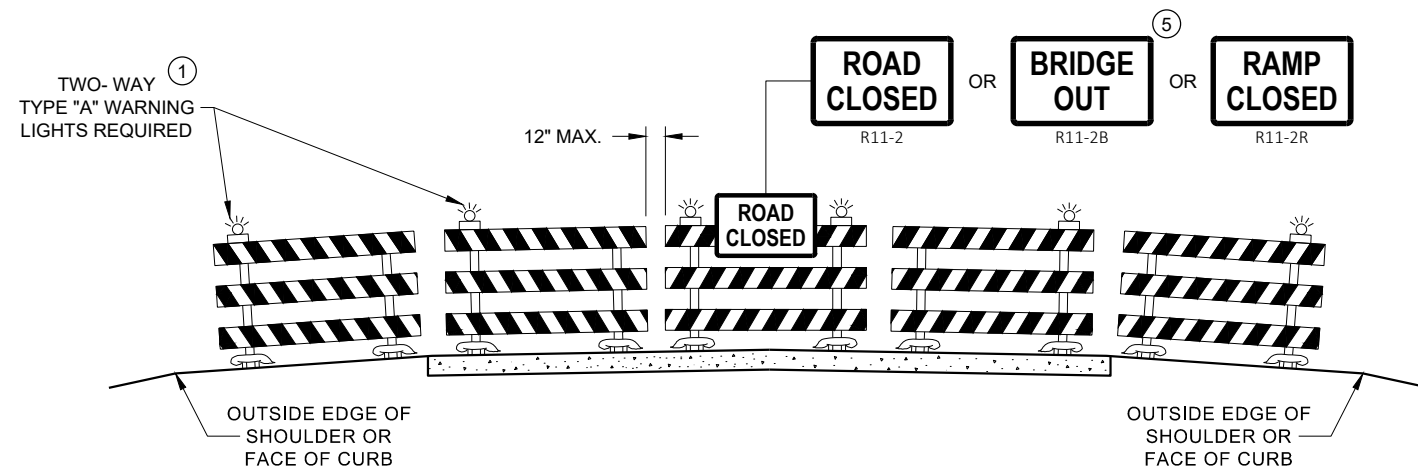
**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

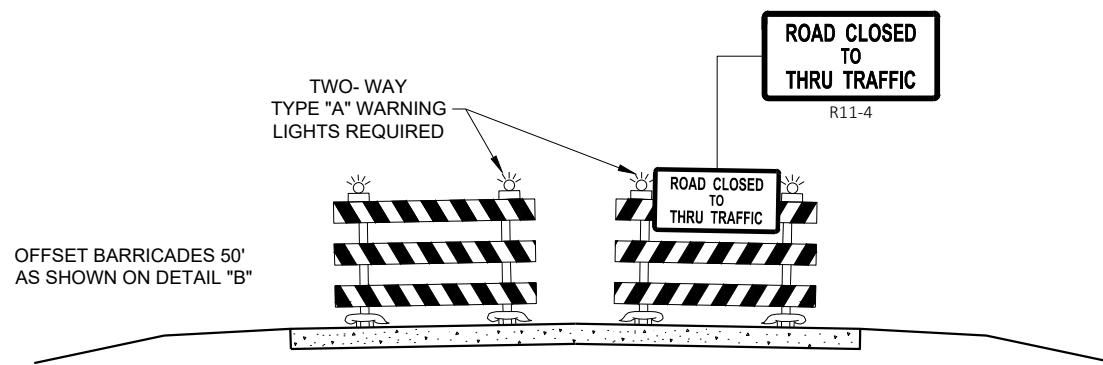
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE DATE WORK ZONE ENGINEER
FHWA



**DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW**



**DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

**BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1
- M06 - 1

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

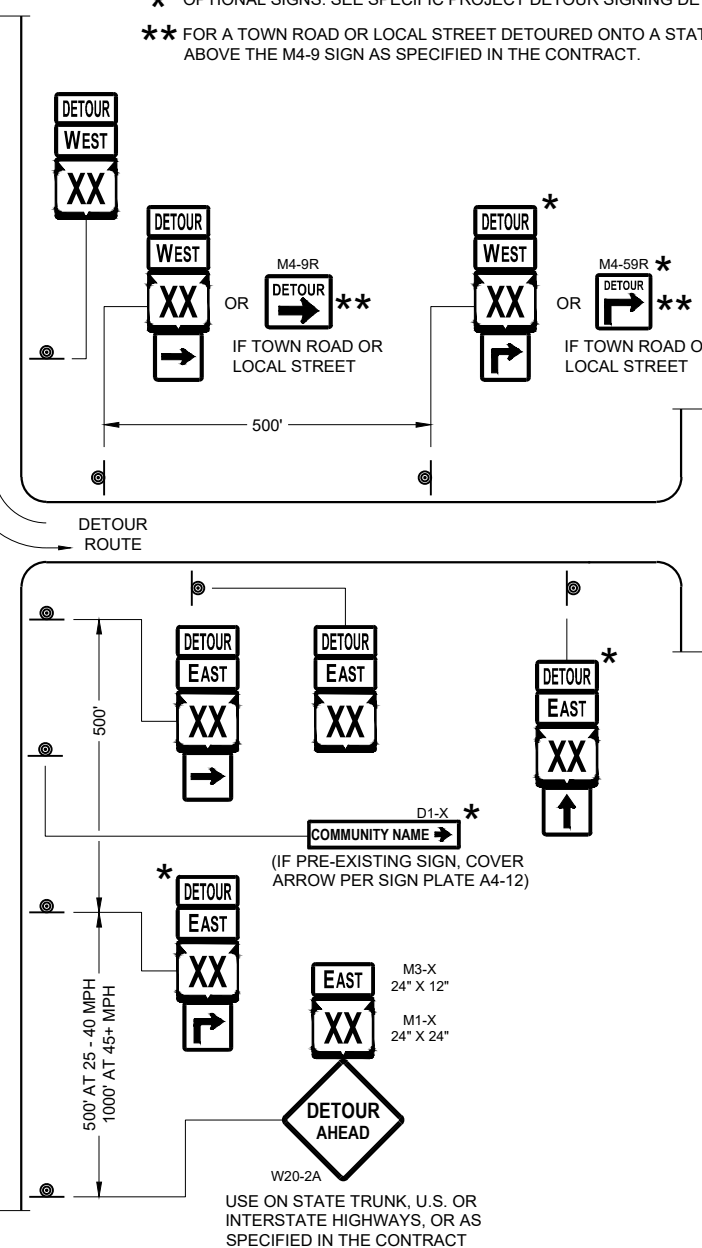
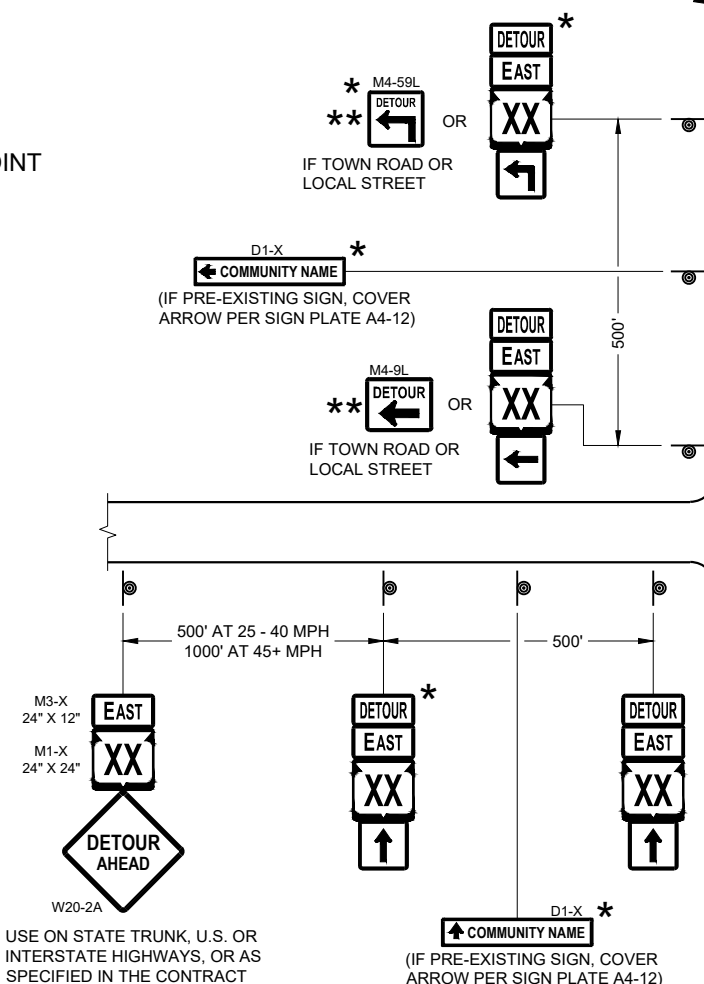
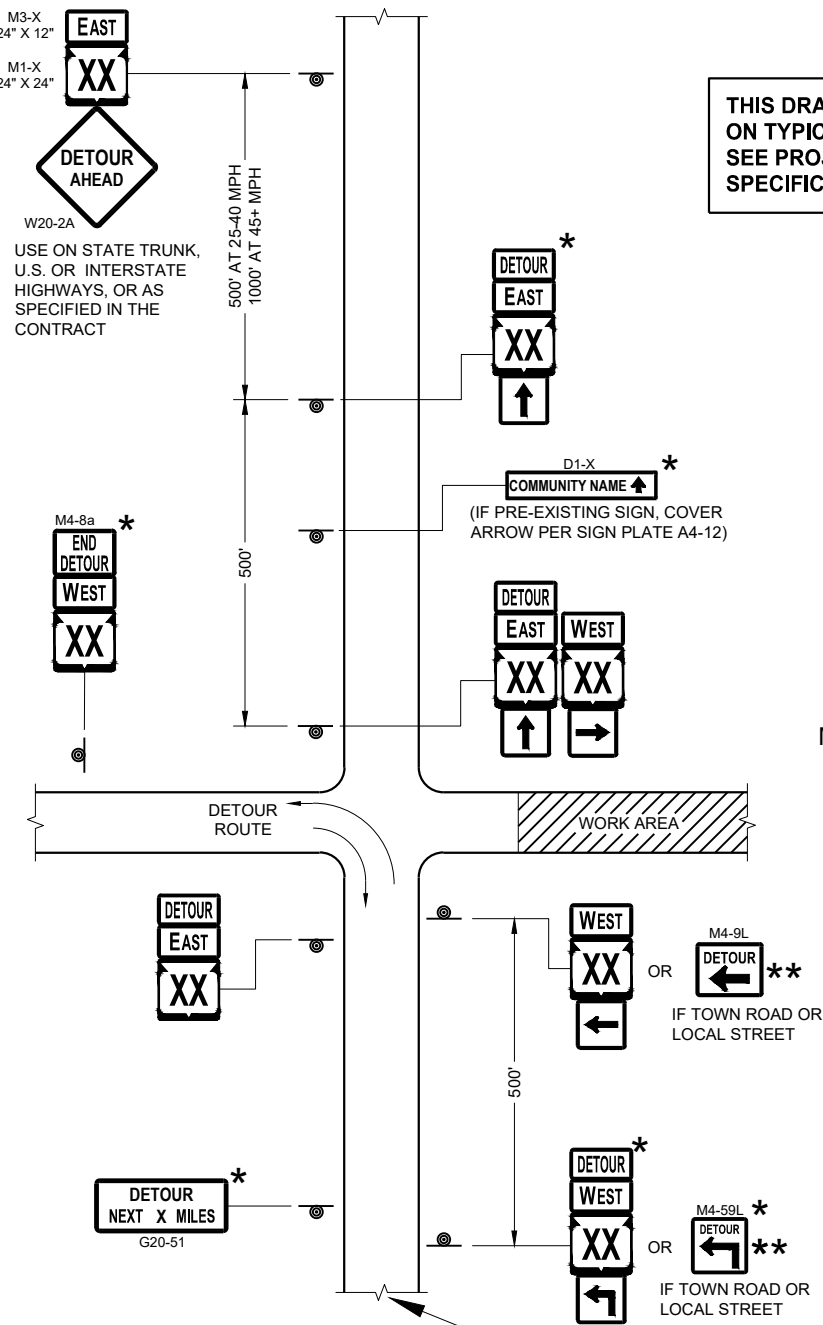
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

- * OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.
- ** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

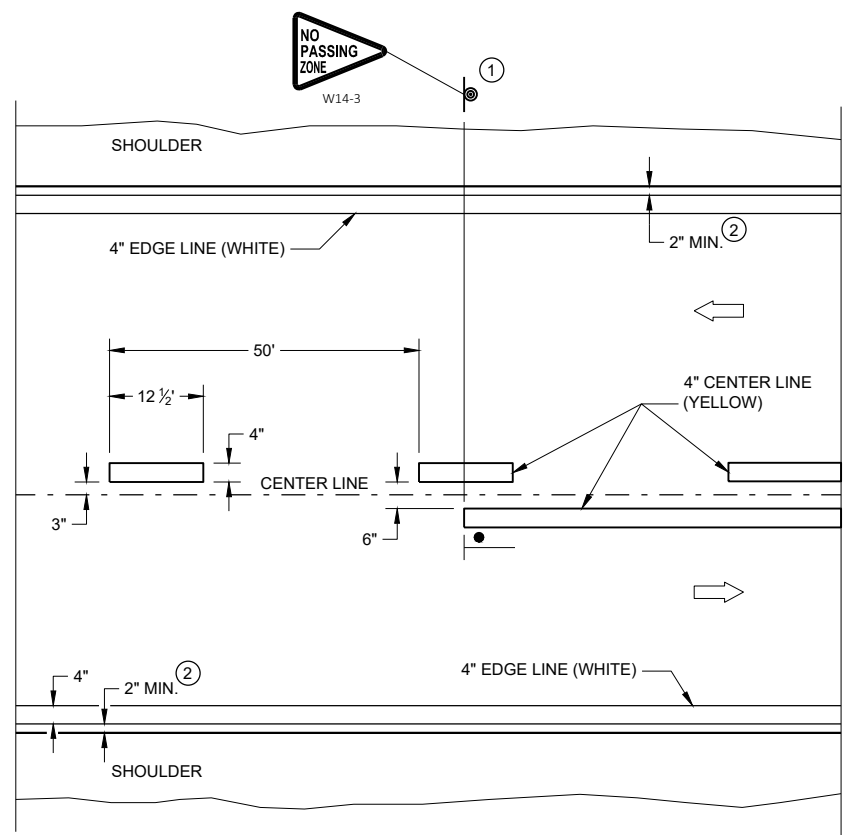
MATCH POINT

DETAIL F DETOUR SIGNING

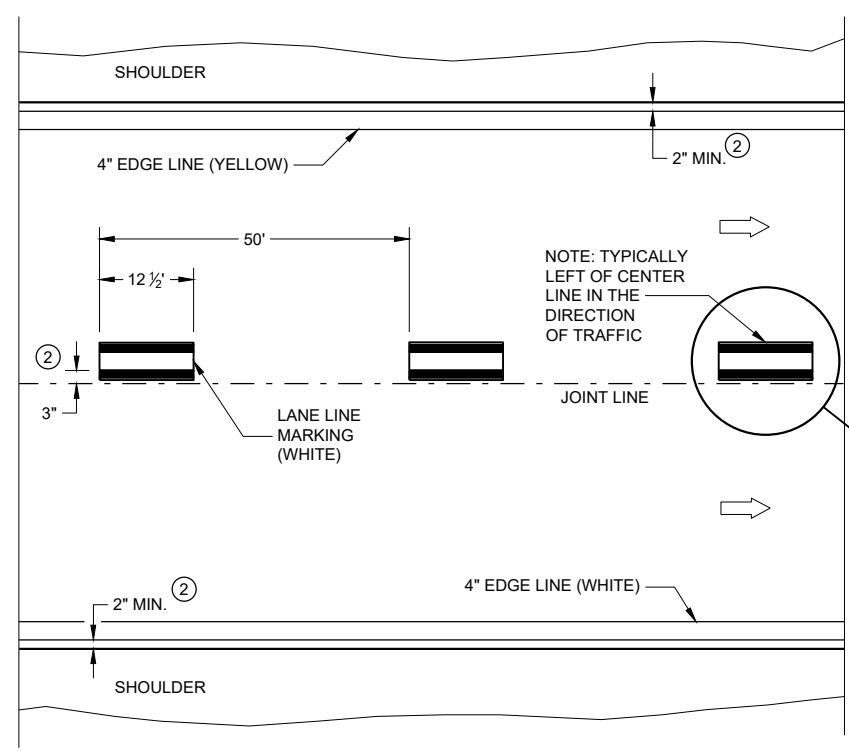


SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2020 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

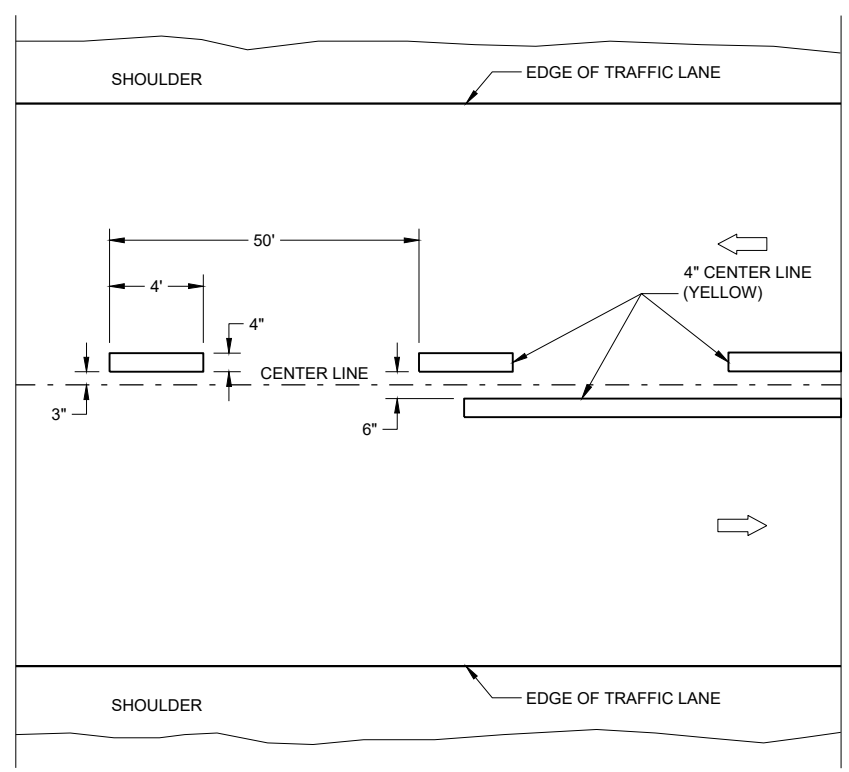


TWO WAY TRAFFIC

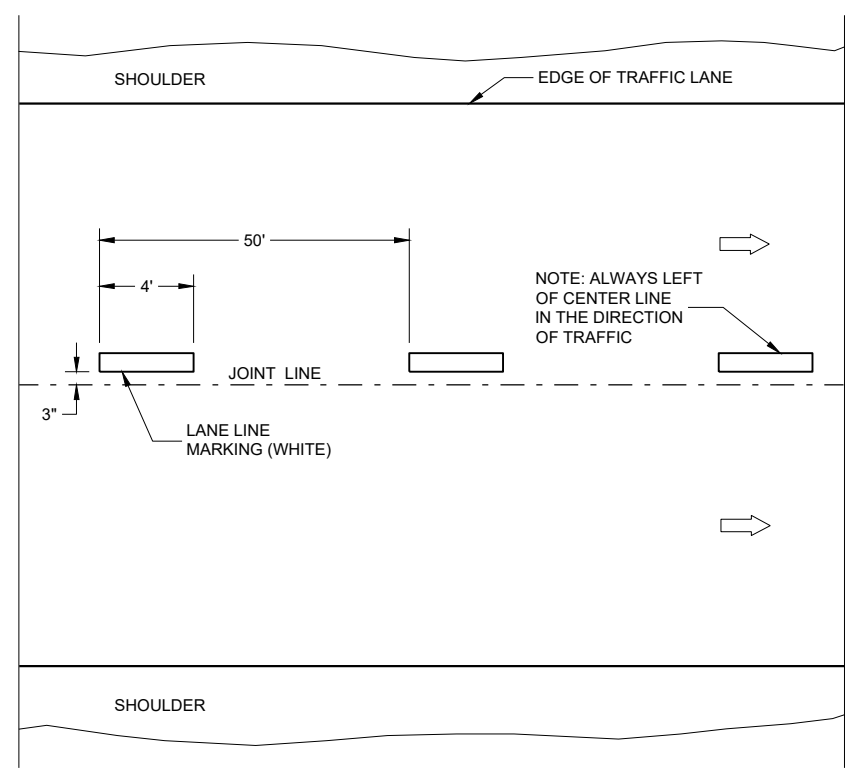


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

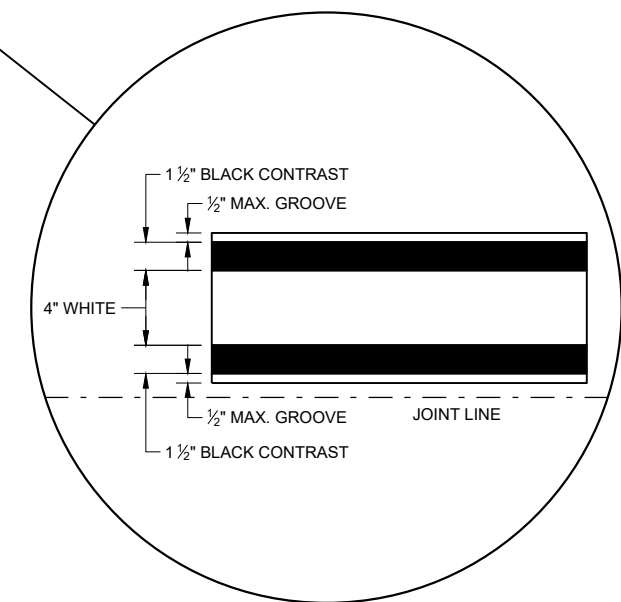
GENERAL NOTES

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

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

- |• "T" MARKING
- |⊙ SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

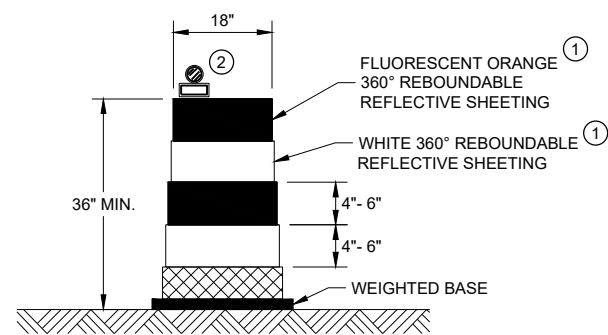


LONGITUDINAL MARKING (MAINLINE)

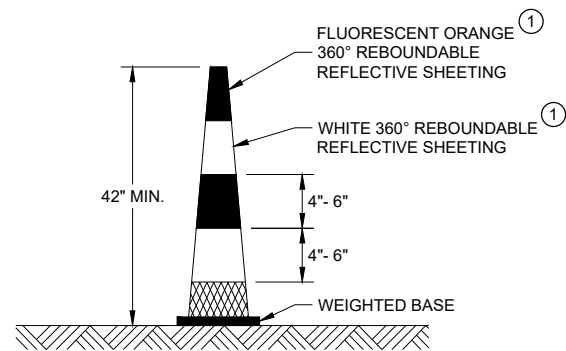
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Matthew Rauch
DATE STATEWIDE SIGNING AND MARKING
ENGINEER

FHWA

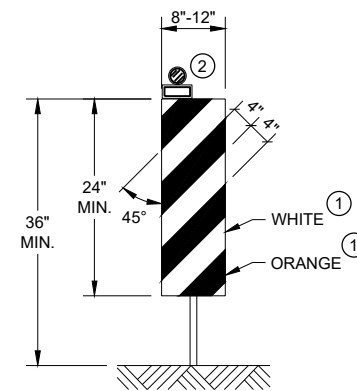


DRUM



42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

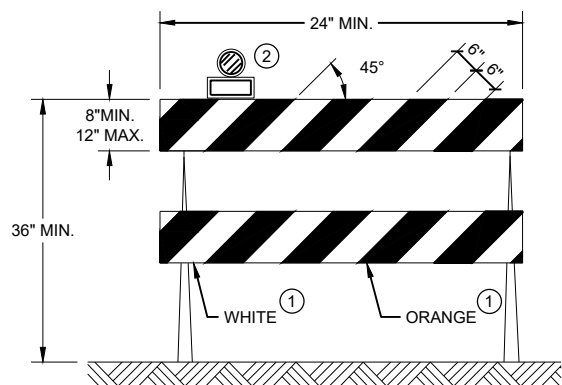


VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.

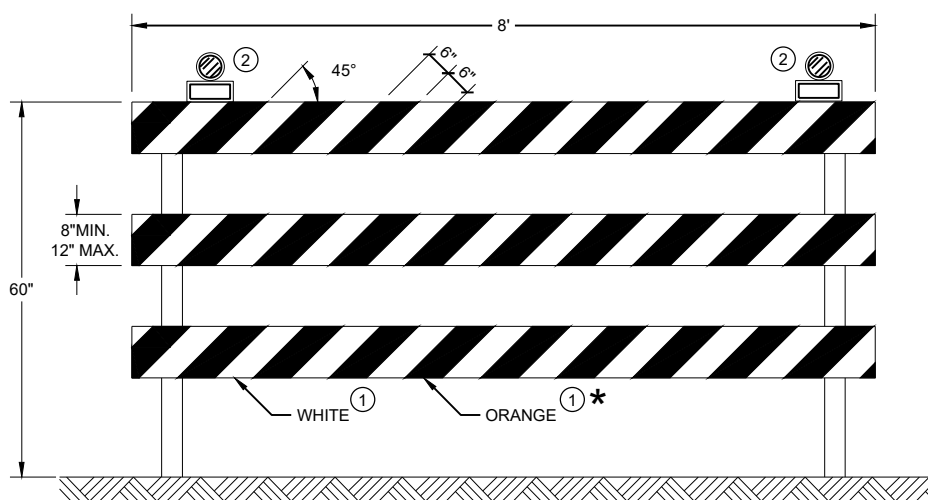
GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.






* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
 November 2020 /S/ Andrew Heidtke
 DATE WORK ZONE ENGINEER
 FHWA

LEGEND

-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  TEMPORARY PORTABLE RUMBLE STRIP ARRAY
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

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

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

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

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

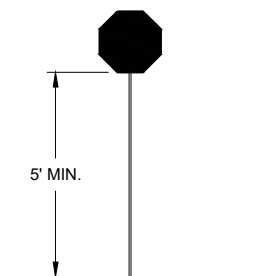
WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

- FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.
- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
 - ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.
- INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



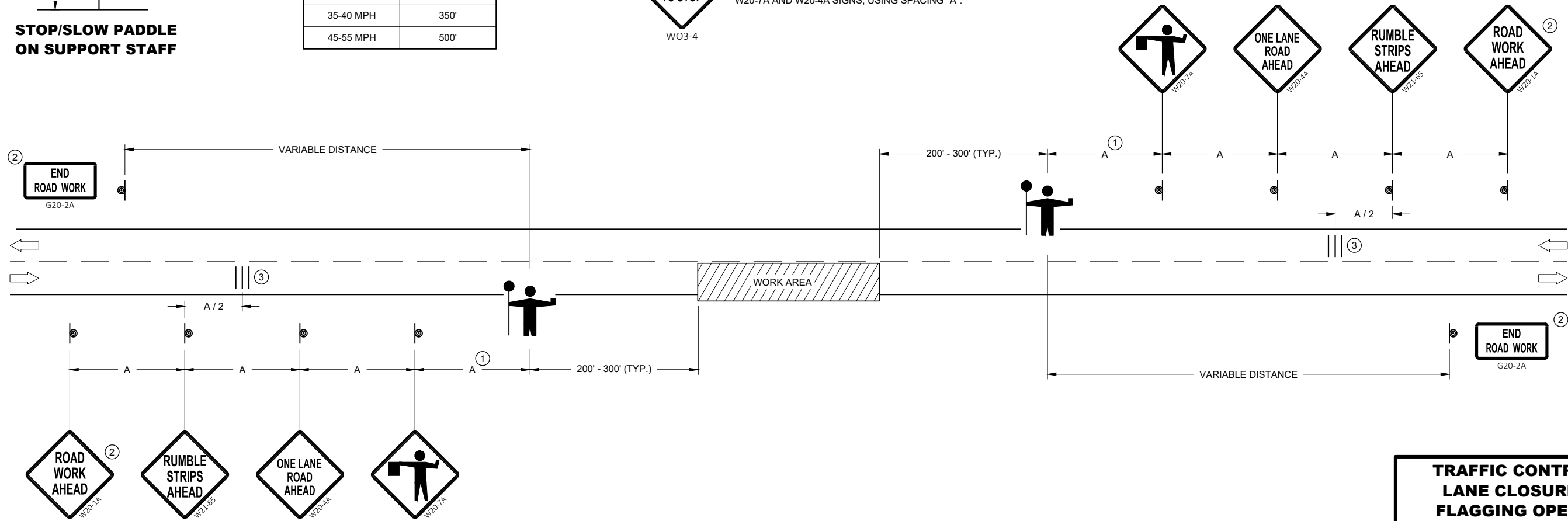
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE May 2019 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

6

SDD 15C12 - 07

SDD 15C12 - 07

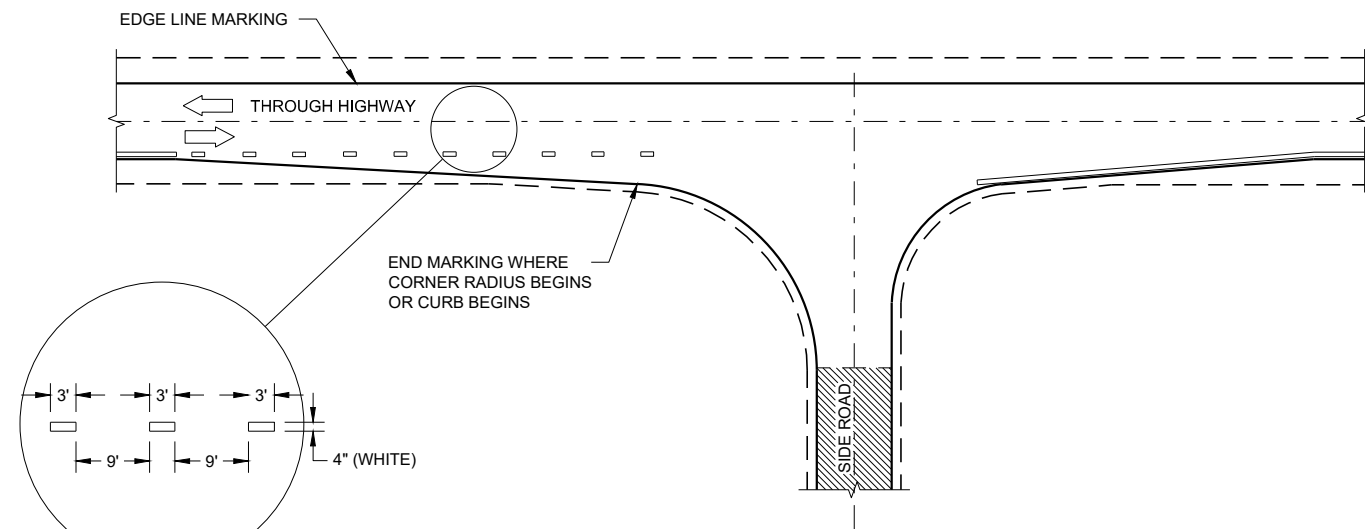
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

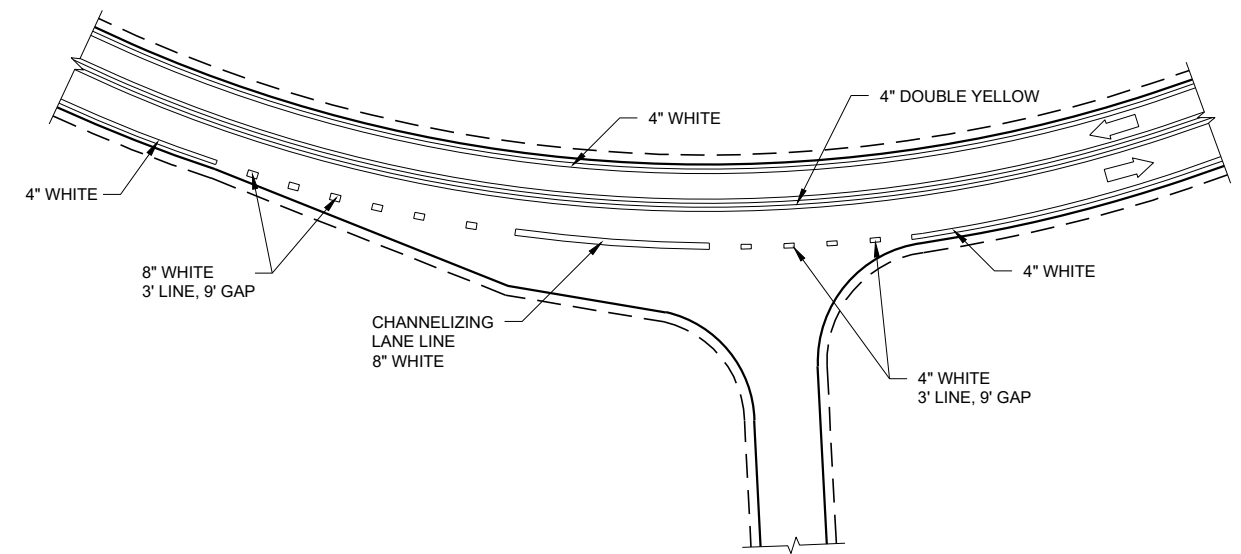
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

LEGEND

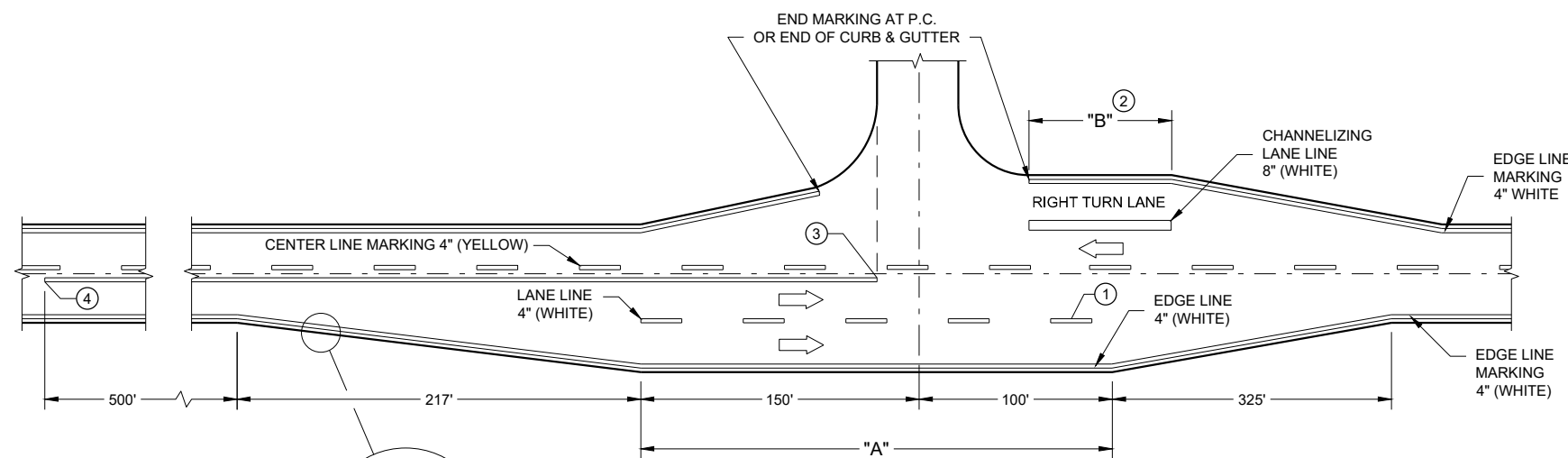
➡ DIRECTION OF TRAVEL



MINOR INTERSECTION



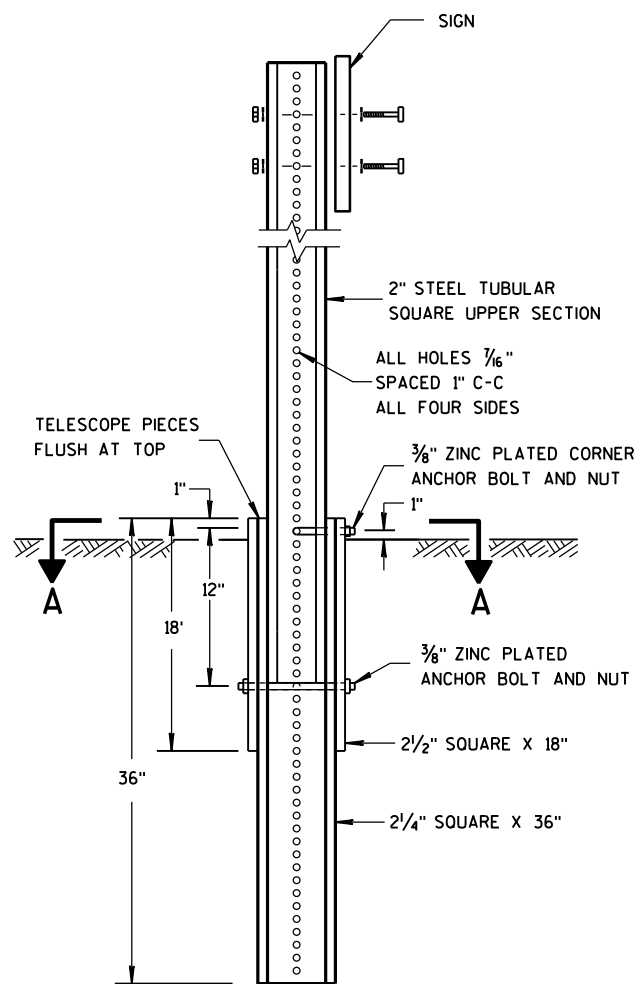
INTERSECTION ON OUTSIDE OF CURVE



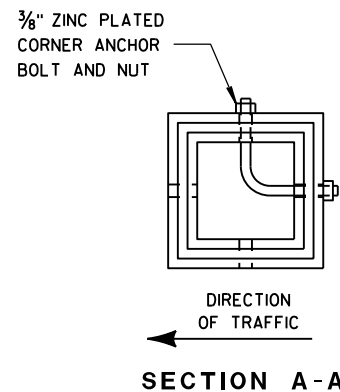
**MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)**

**PAVEMENT MARKING
(INTERSECTIONS)**

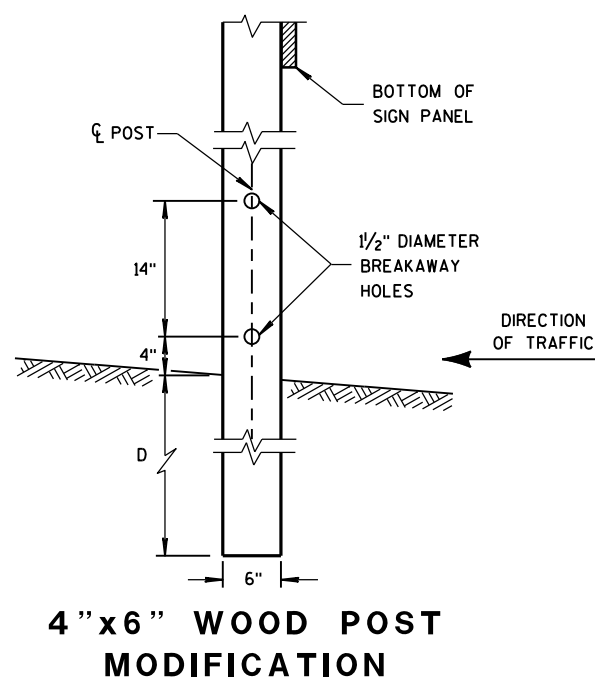
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL OF TUBULAR STEEL SIGN POST



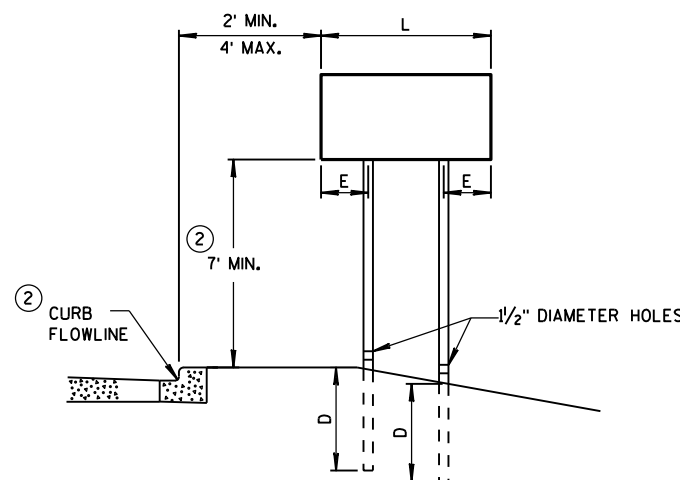
SECTION A-A



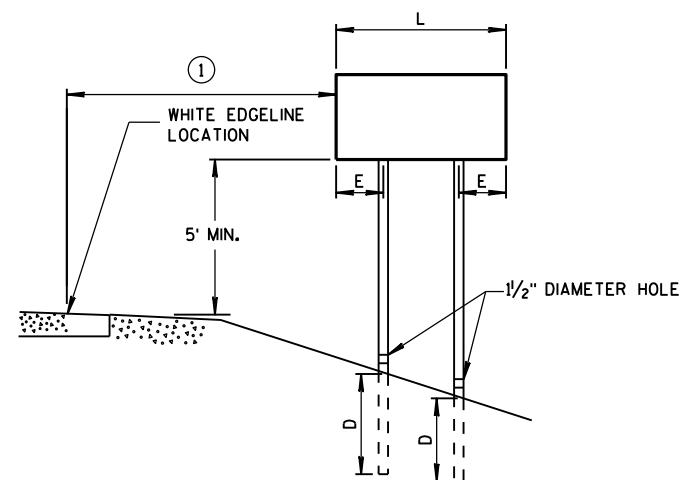
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- 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. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA



RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).
 SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

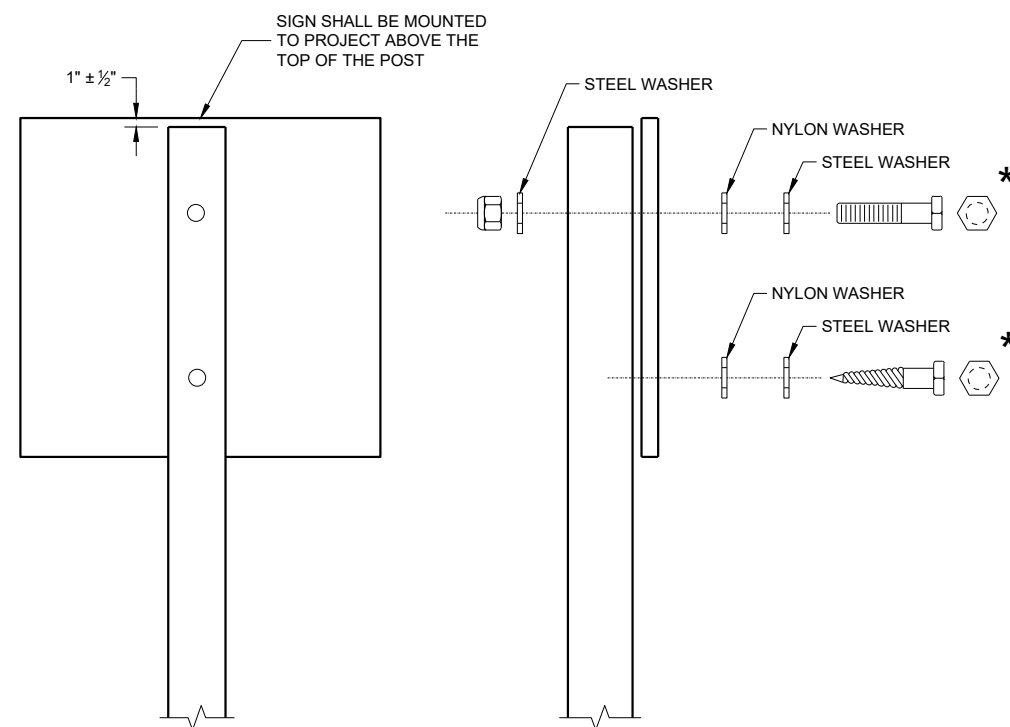
4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE ③

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION



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 POST (4" x 6")

- LAG SCREWS - 3/8" x 3"
- MACHINE BOLTS - 5/16" x 6 1/2" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")

- MACHINE BOLTS - 3/8" x 3 1/4" LENGTH W/NUTS
- RIVETS - 3/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH, GRIP RANGE 0.042 - 0.375 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 0.080 NYLON

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

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

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

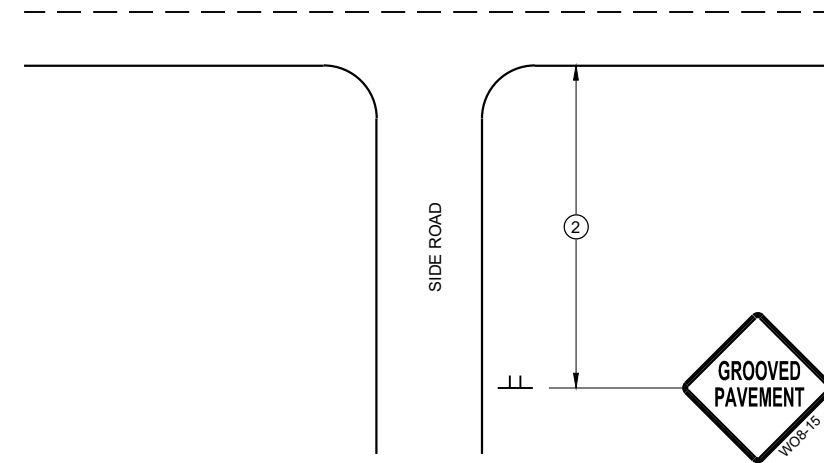
SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

- ① PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

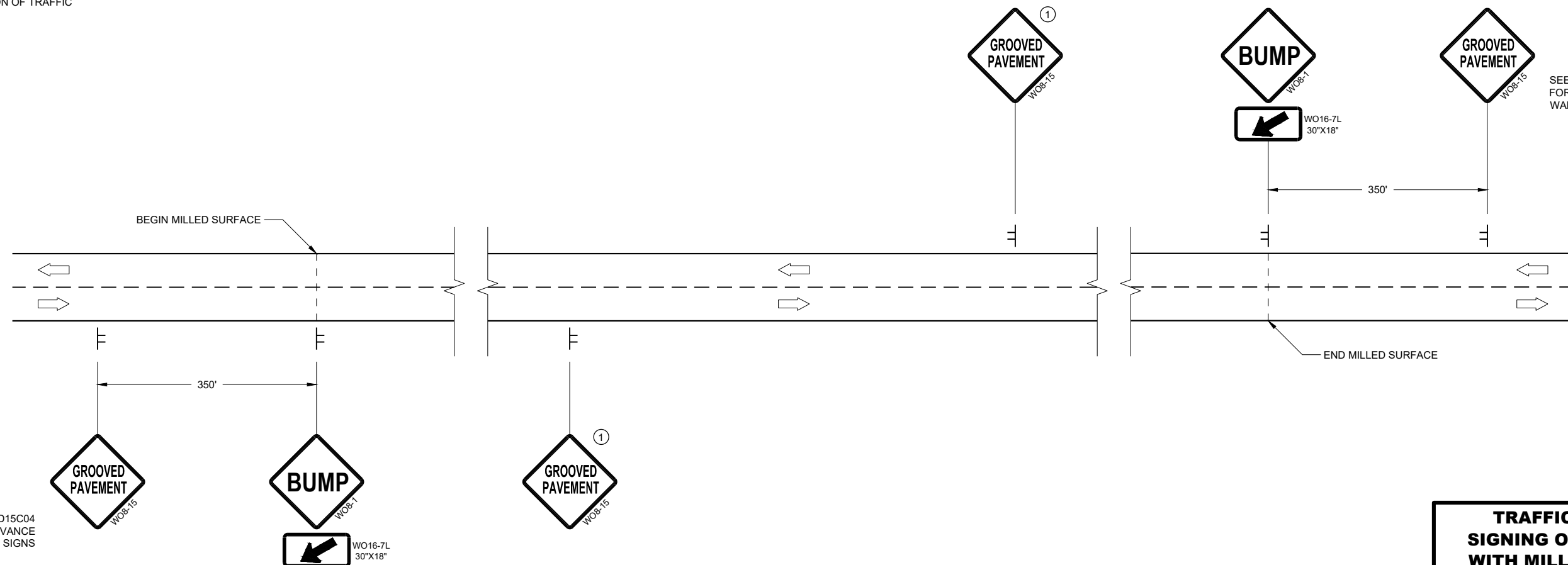
LEGEND

⊥ SIGN ON TEMPORARY SUPPORT

➡ DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



SEE SDD15C04 FOR ADVANCE WARNING SIGNS

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

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

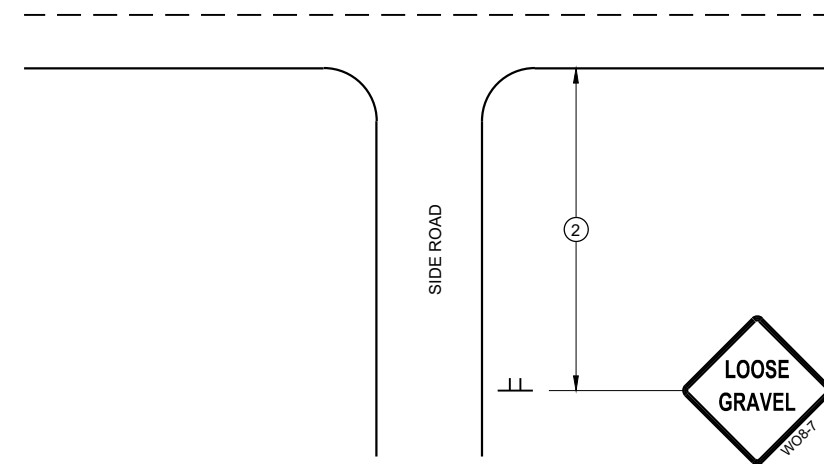
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

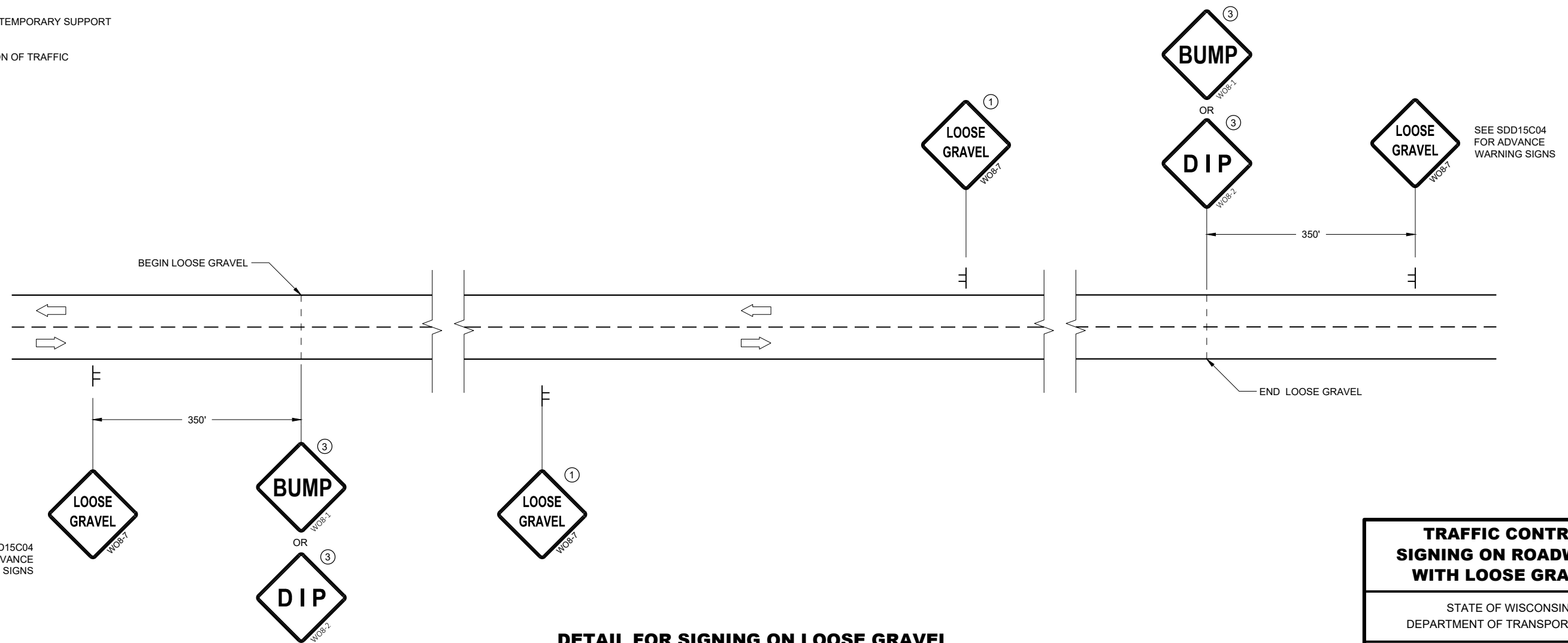
- ① PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- ③ ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

LEGEND

- ⊥ SIGN ON TEMPORARY SUPPORT
- ➡ DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

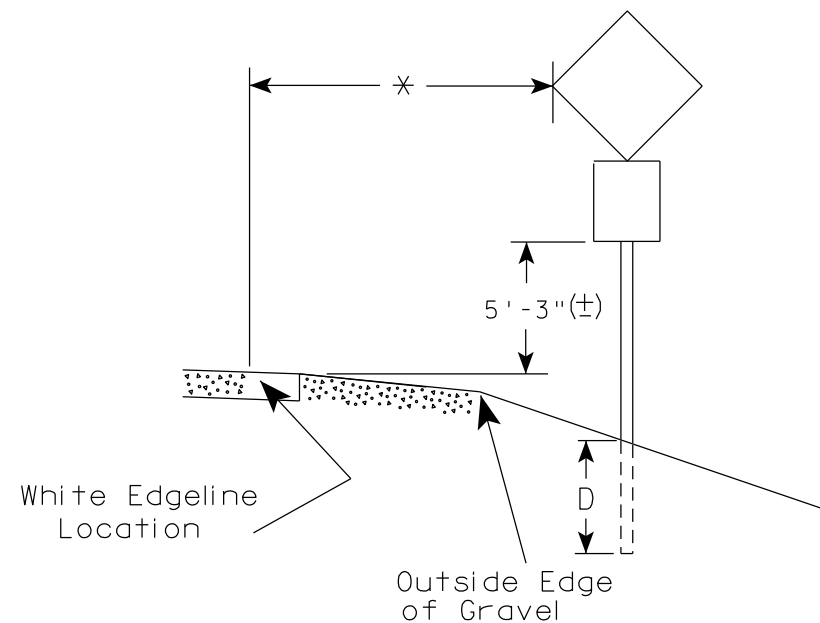
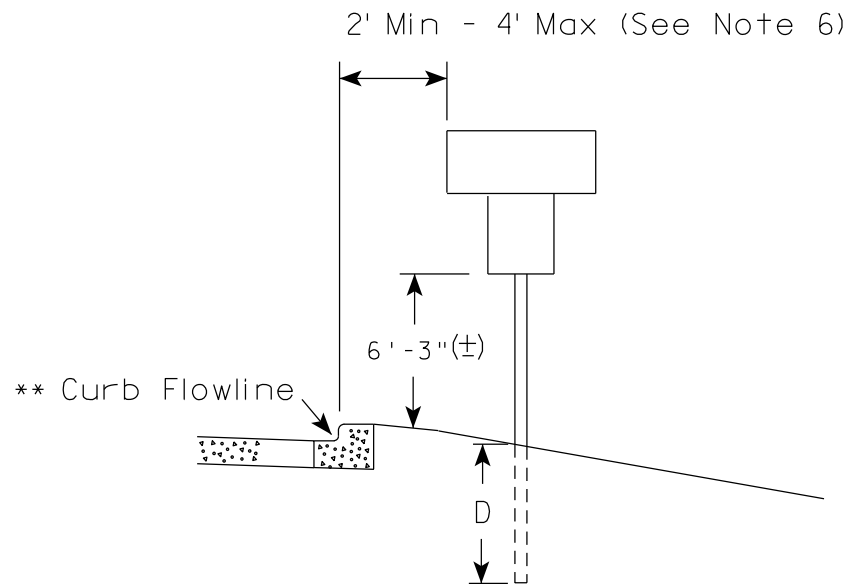
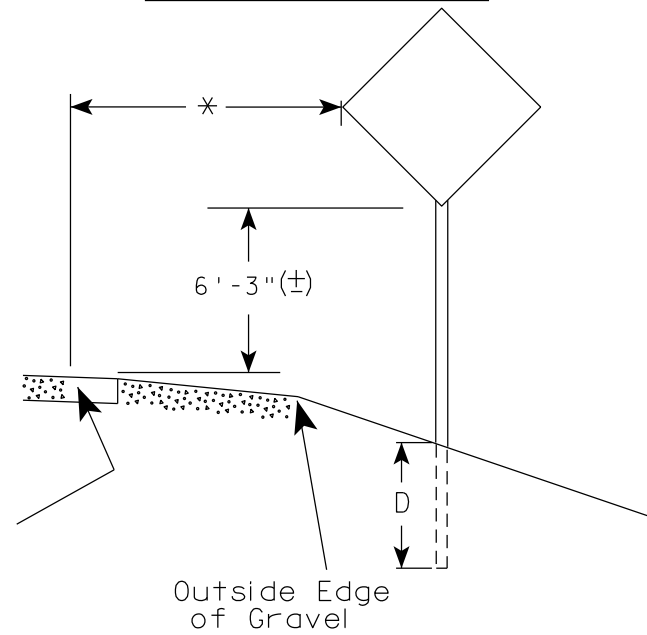
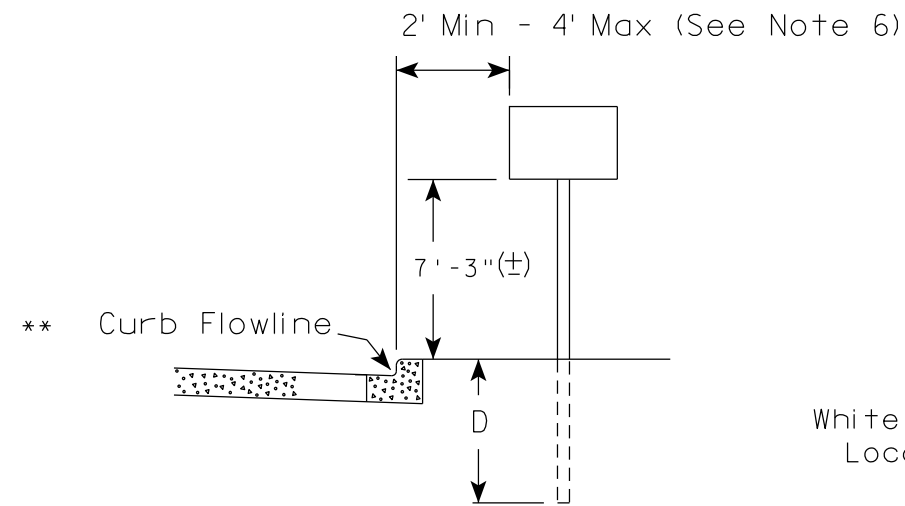
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

URBAN AREA

RURAL AREA (See Note 2)



POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

- GENERAL NOTES**
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
 2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
 3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
 4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
 5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
 6. The (±) tolerance for mounting height is 3 inches.
 7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the 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.

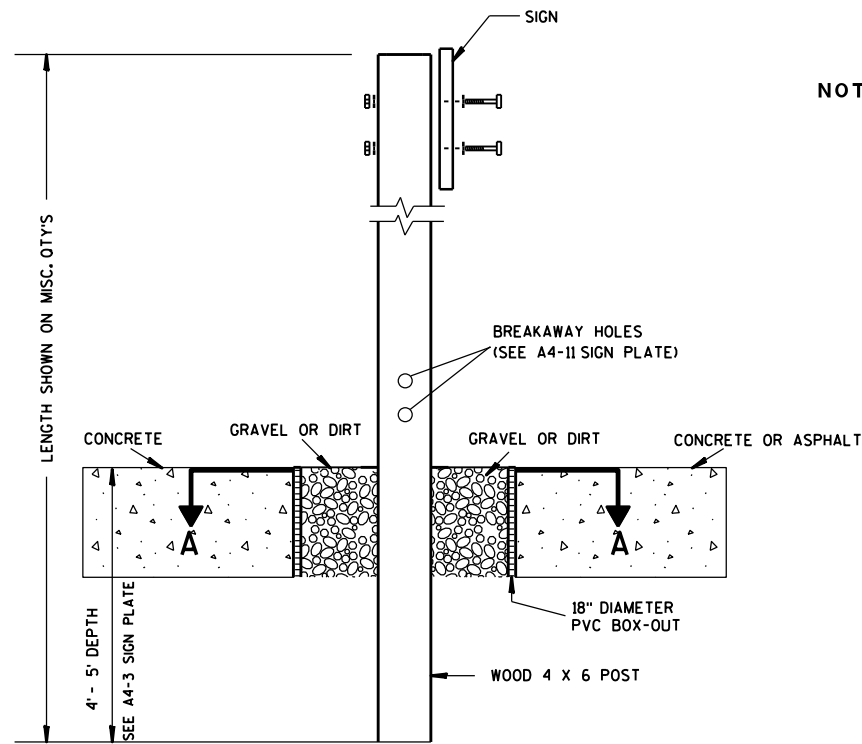
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

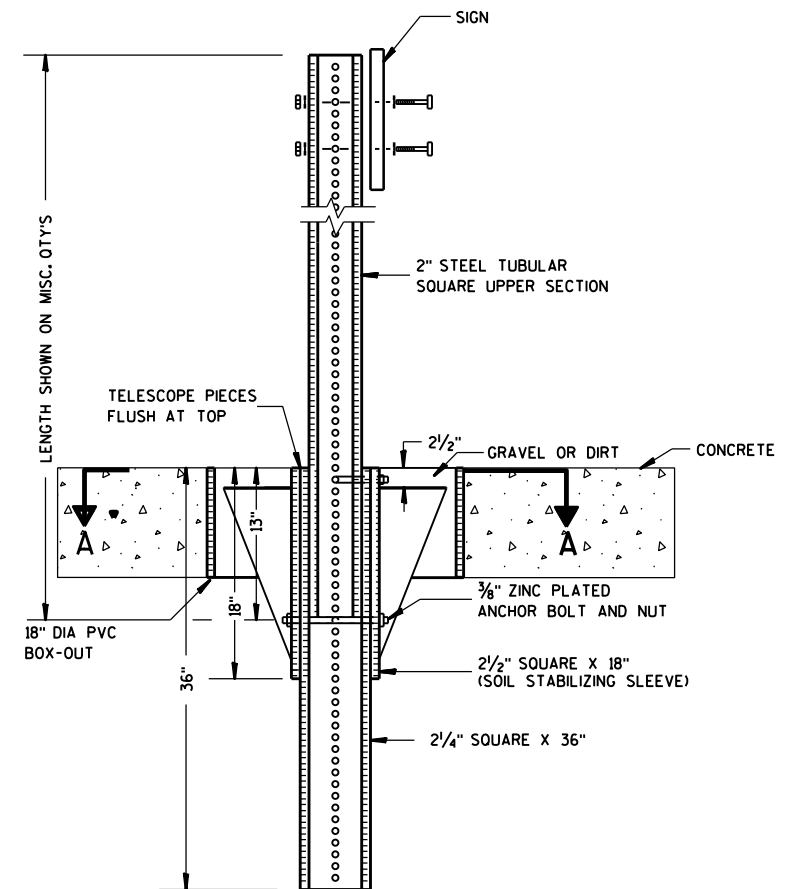
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

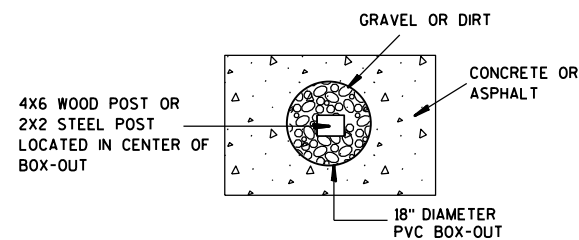
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES:**
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
 2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
 3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

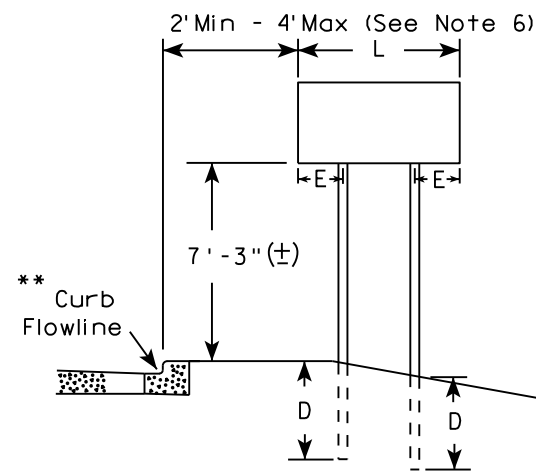
FOR NEW CONCRETE/ ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B	
<small>WISCONSIN DEPT OF TRANSPORTATION</small>	
APPROVED <i>Matthew R. Rauch</i> <small>for State Traffic Engineer</small>	
<small>DATE 1/27/14</small>	<small>PLATE NO. A4-3B.1</small>

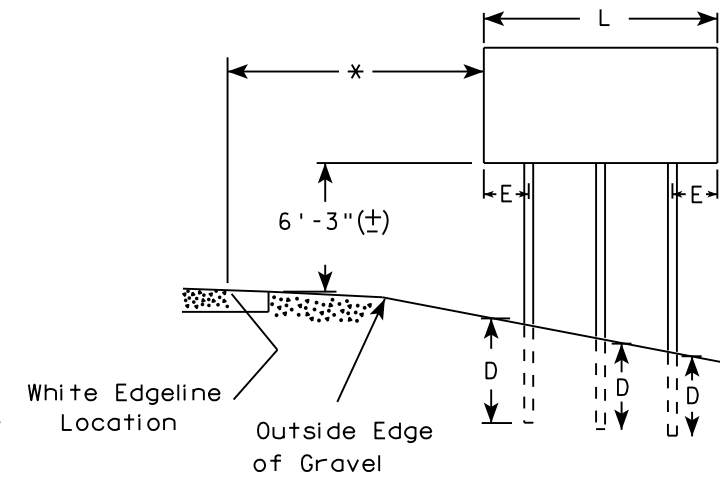
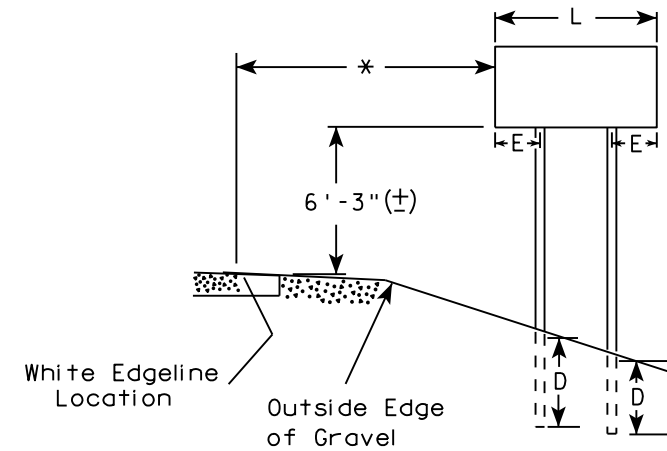
GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

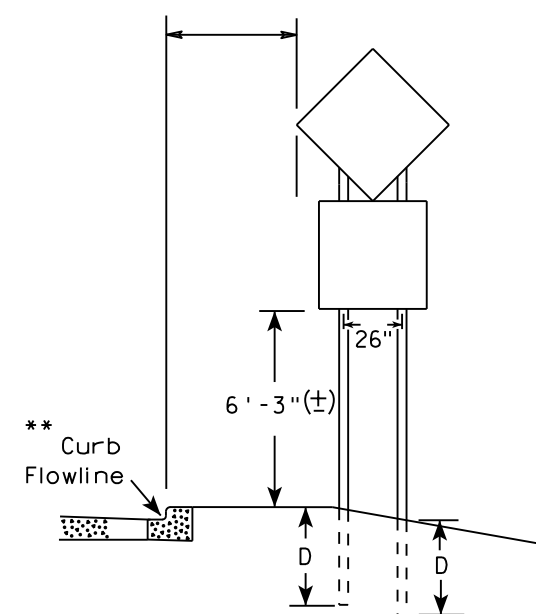
URBAN AREA



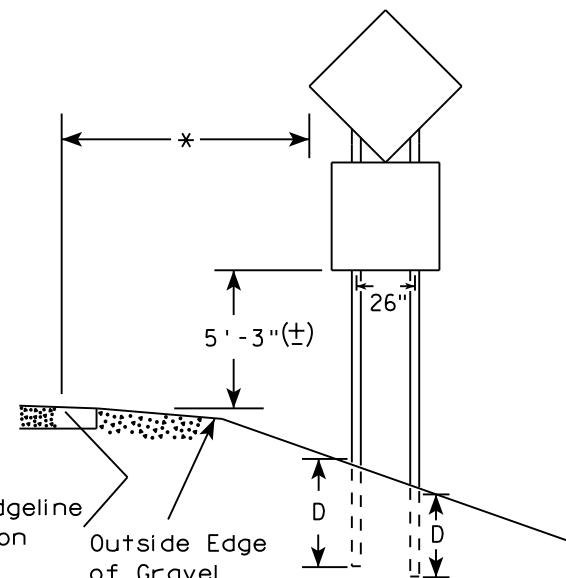
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

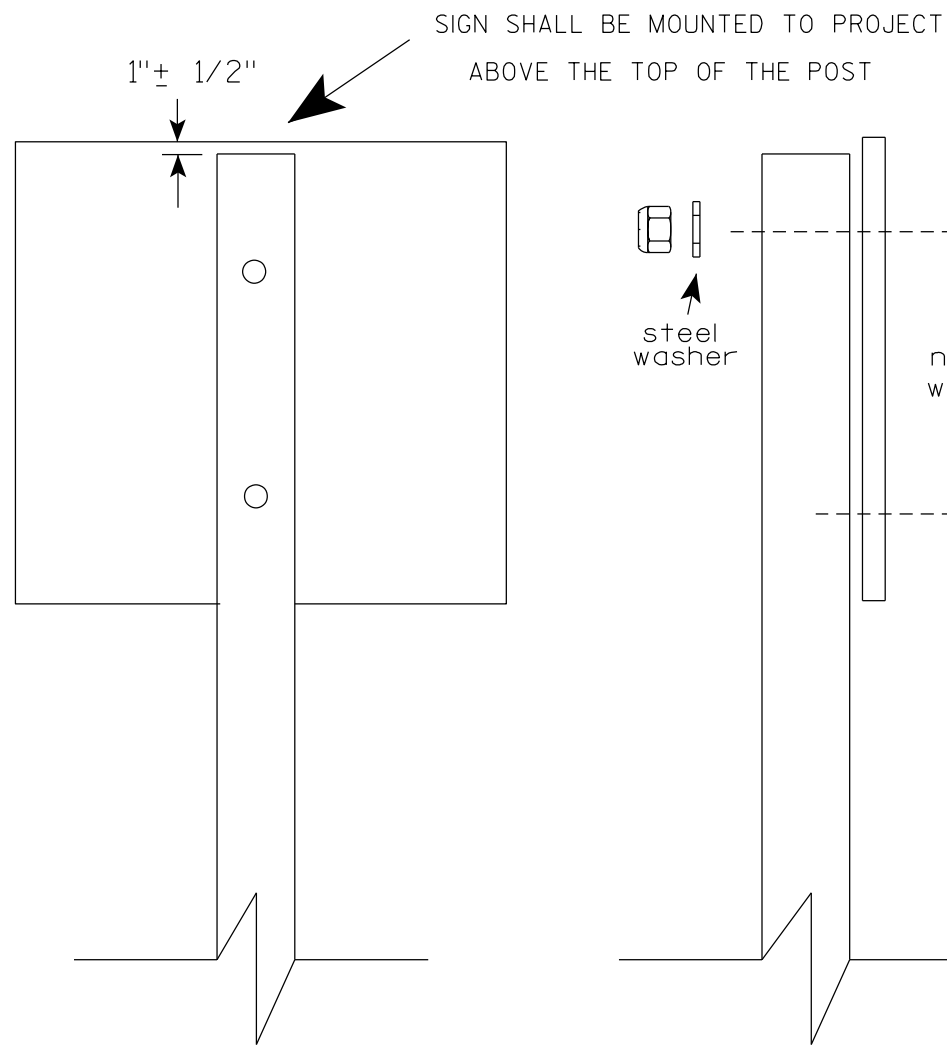
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION
 APPROVED *Matthew R. Rauch*
 For State Traffic Engineer
 DATE 8/21/17 PLATE NO. A4-4.15



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS
TO POSTS

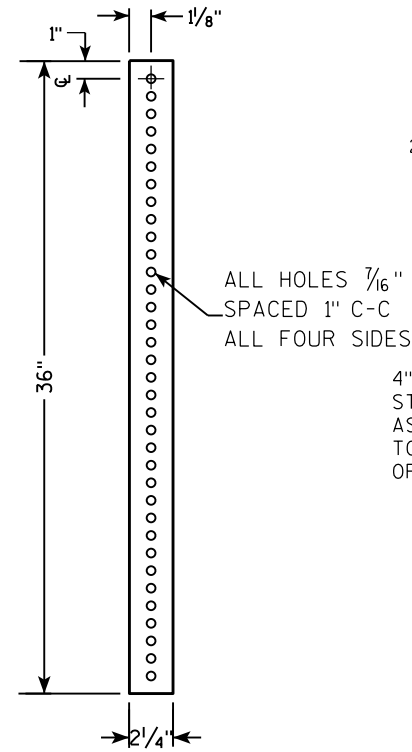
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

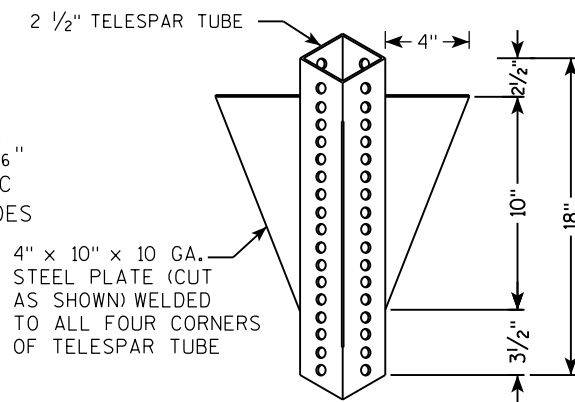
DATE 4/1/2020 PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

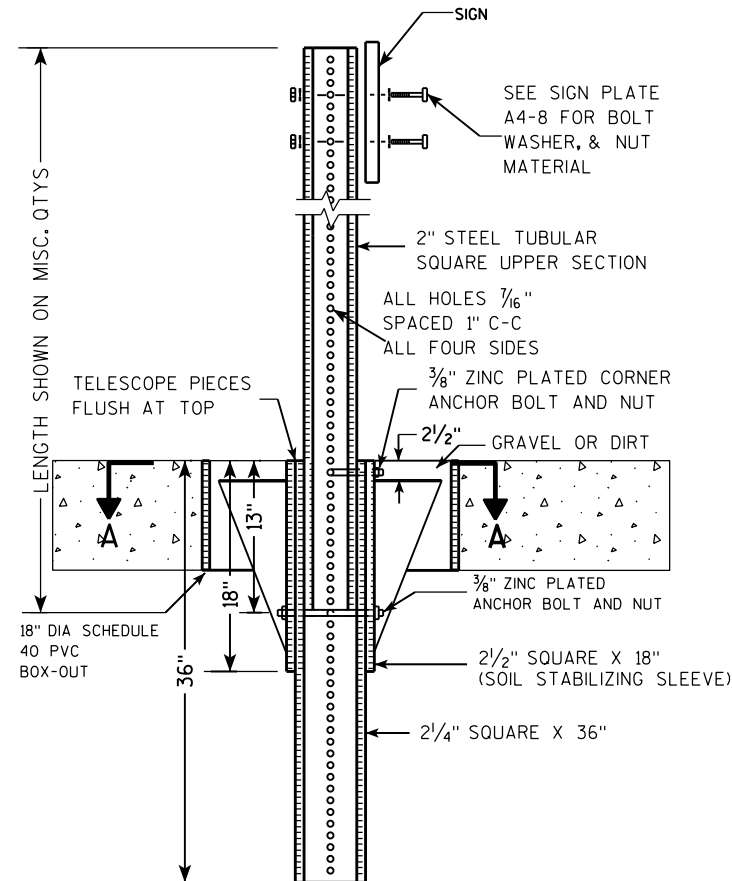
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



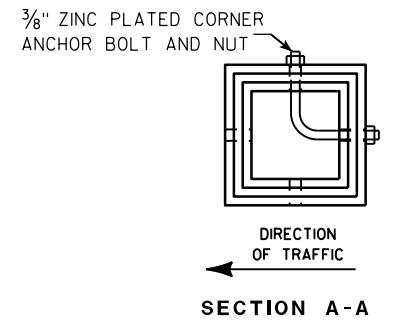
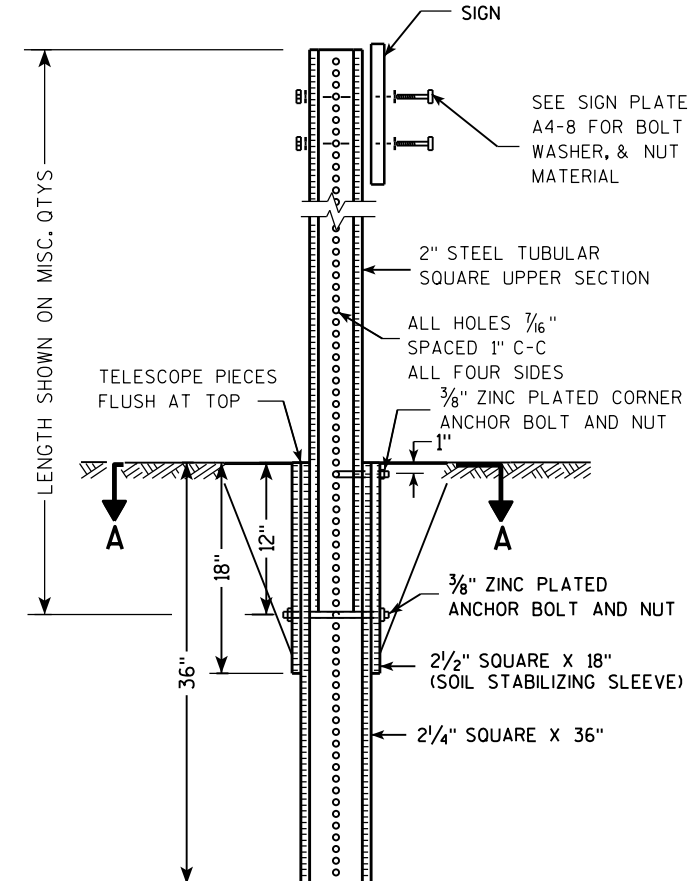
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



**DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)**



**DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)**



Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**TUBULAR STEEL
SIGN POST
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

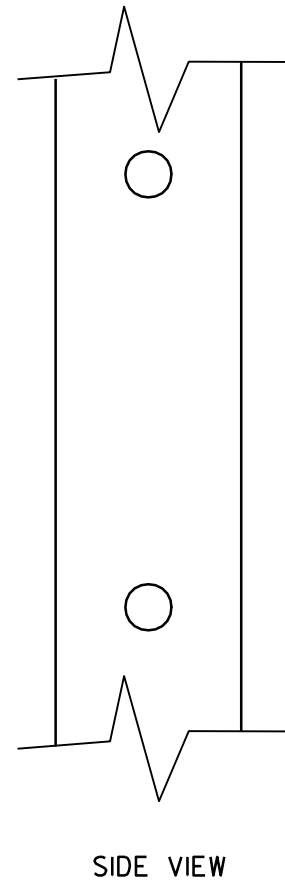
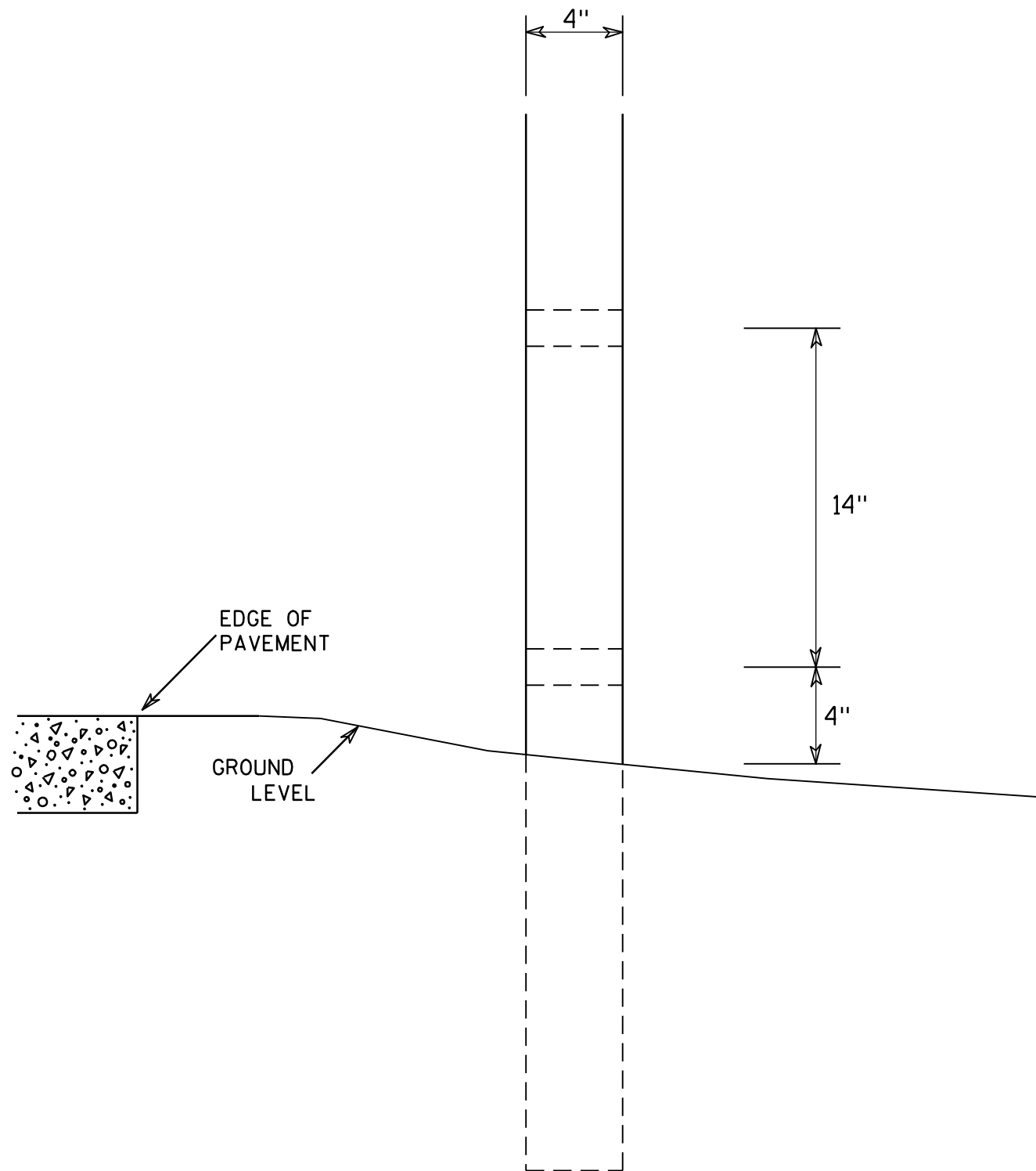
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

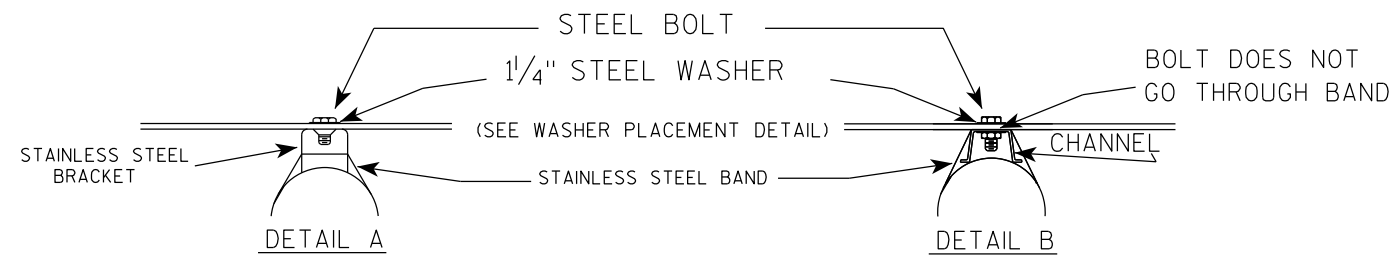
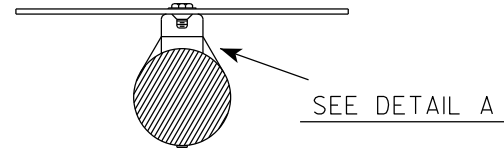
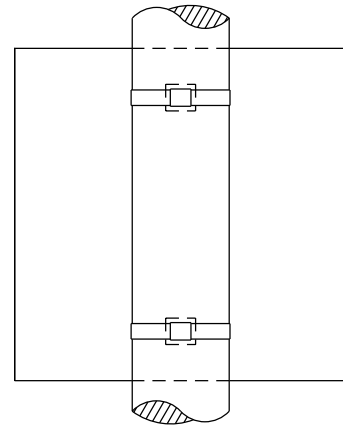
7

7

4 X 6 WOOD POST MODIFICATIONS	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>

BANDING

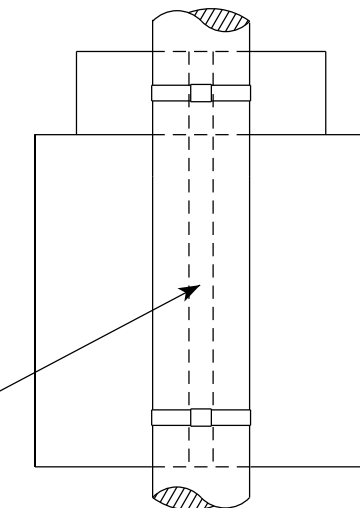
SINGLE SIGN



GENERAL NOTES

- Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
- Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
- Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
- ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

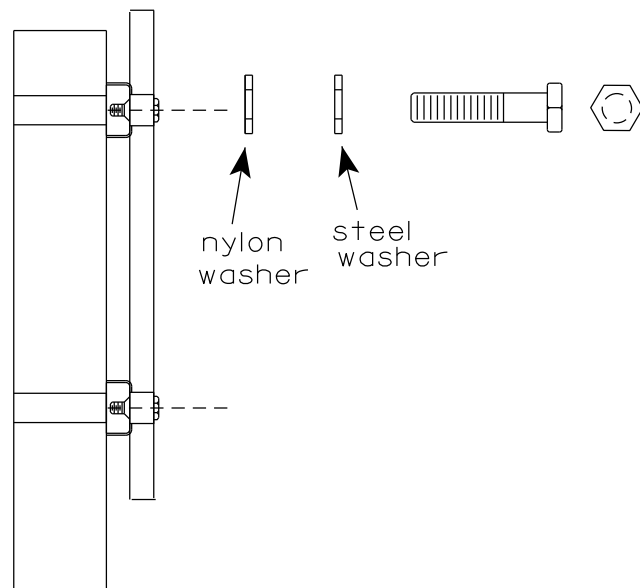
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



WASHER PLACEMENT



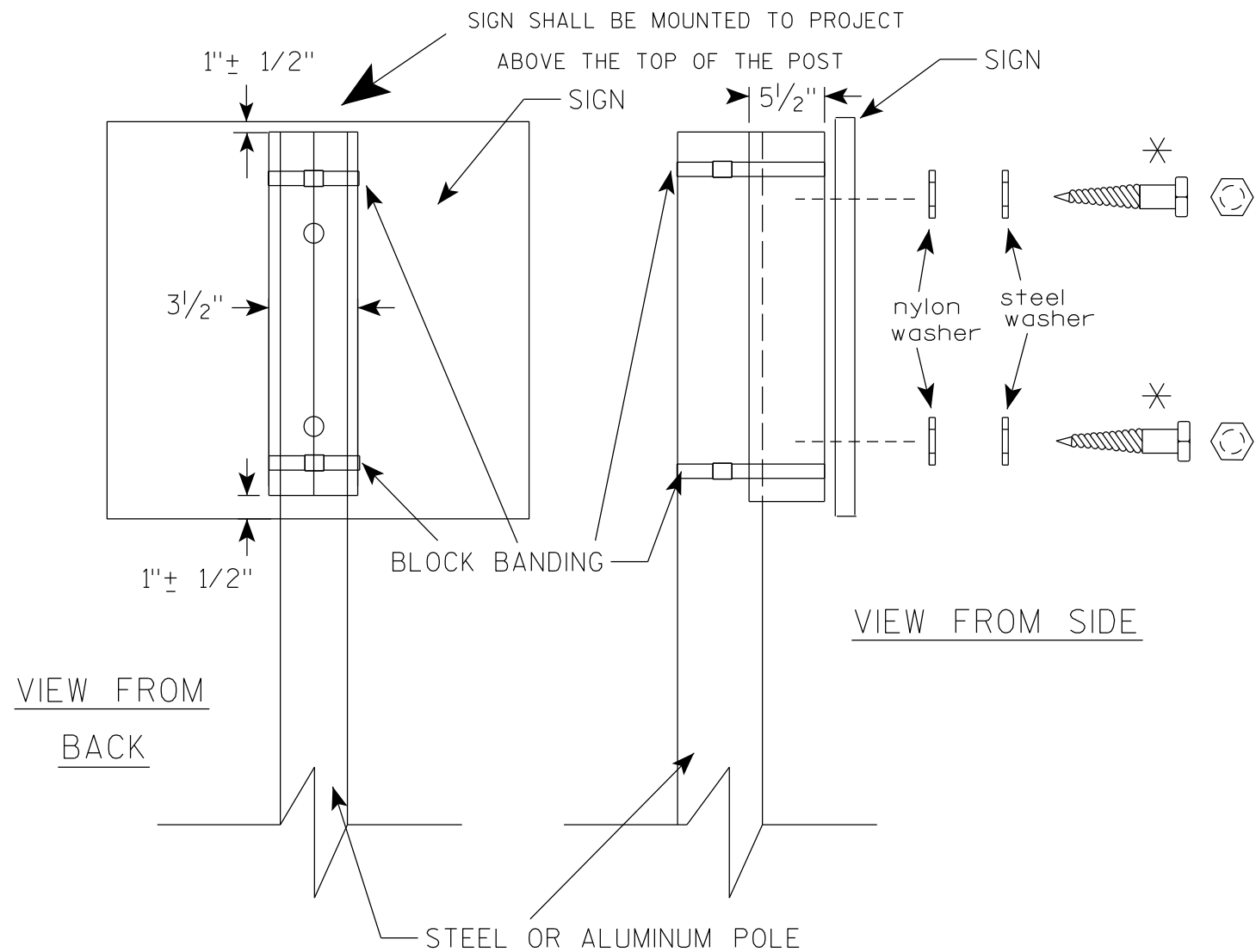
WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

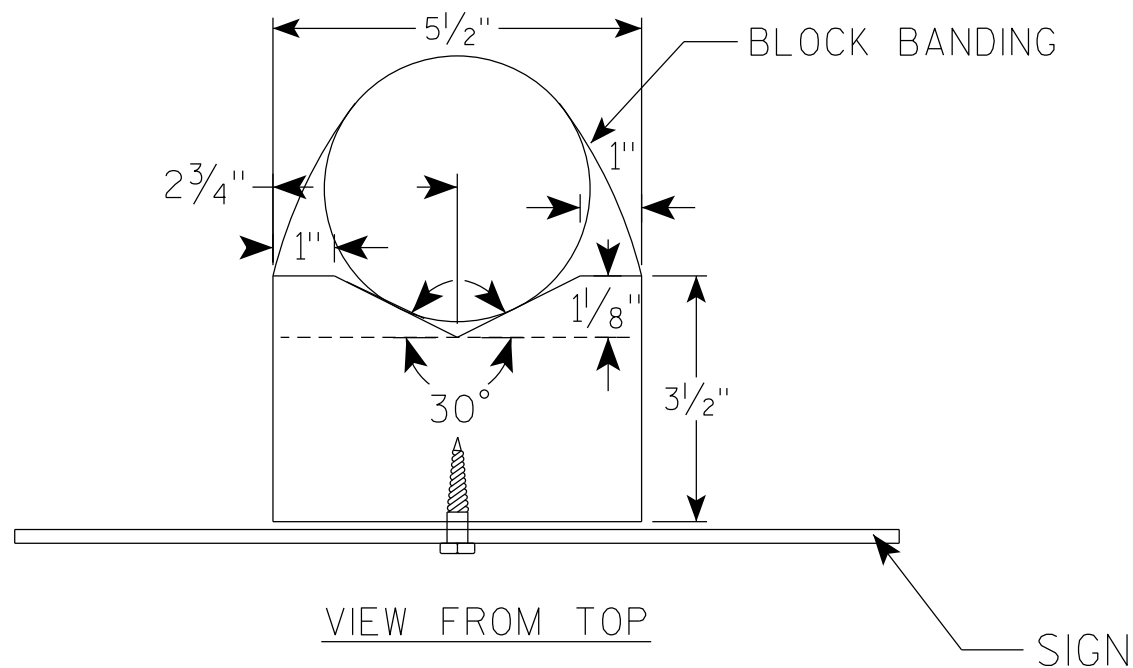
DATE 6/10/19 PLATE NO. A5-9.4



GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, 3/4" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

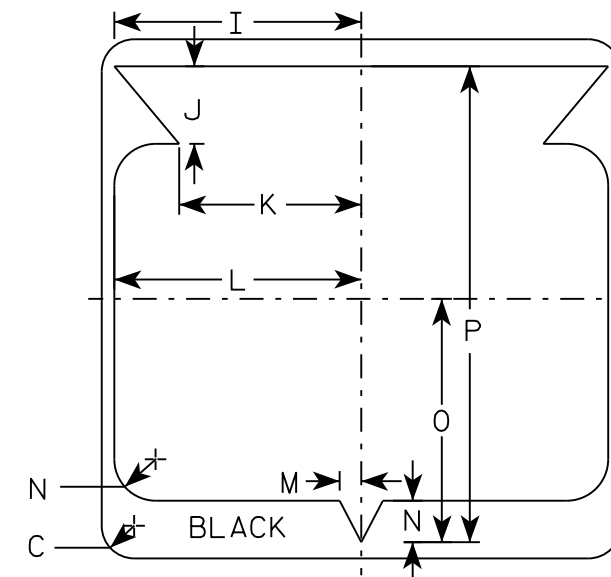
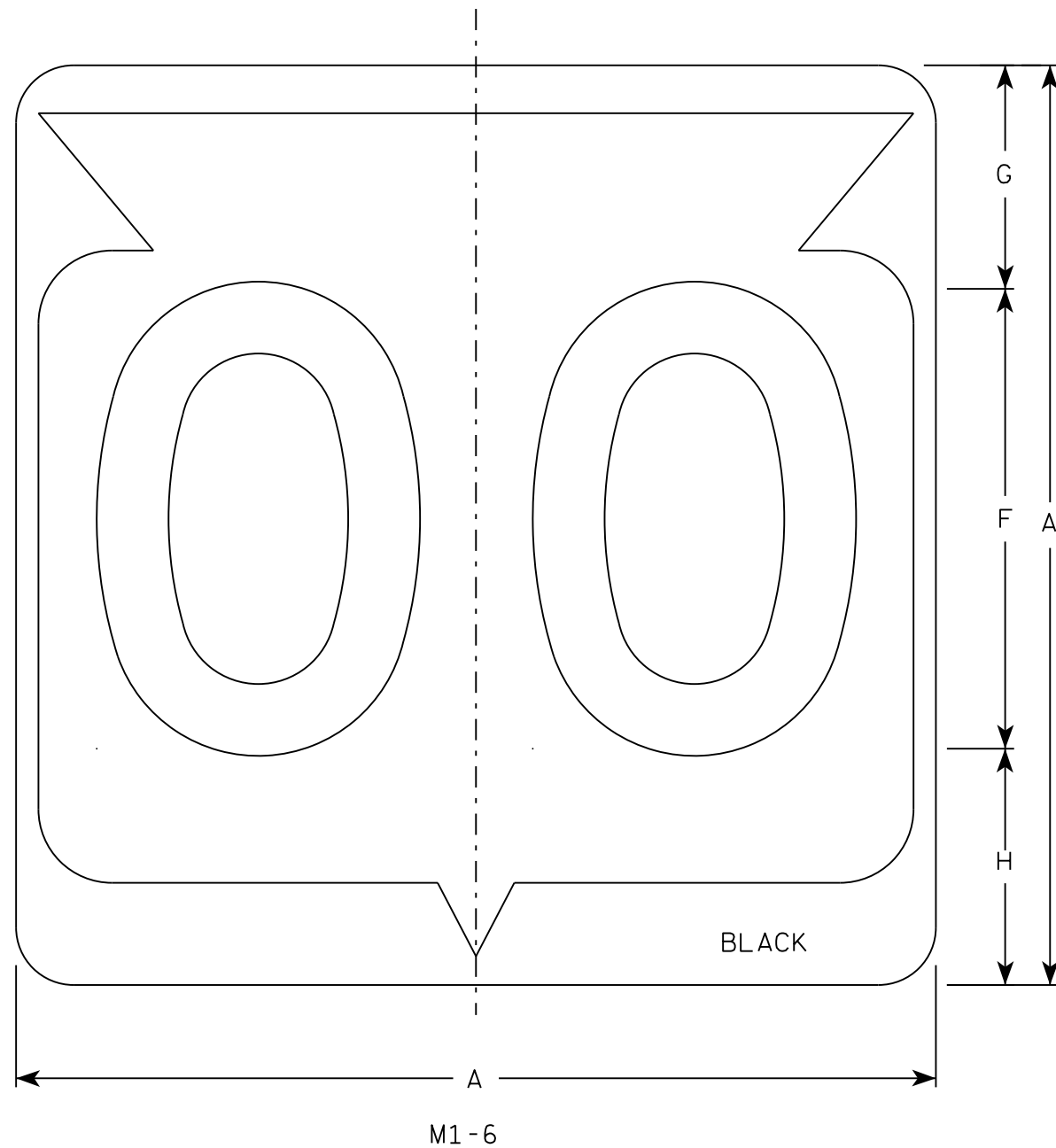
✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"



BLOCK BANDING DETAIL (V-BLOCK OPTION)	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> for State Traffic Engineer
DATE 6/10/19	PLATE NO. A5-10.2

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D except 3 number signs Series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

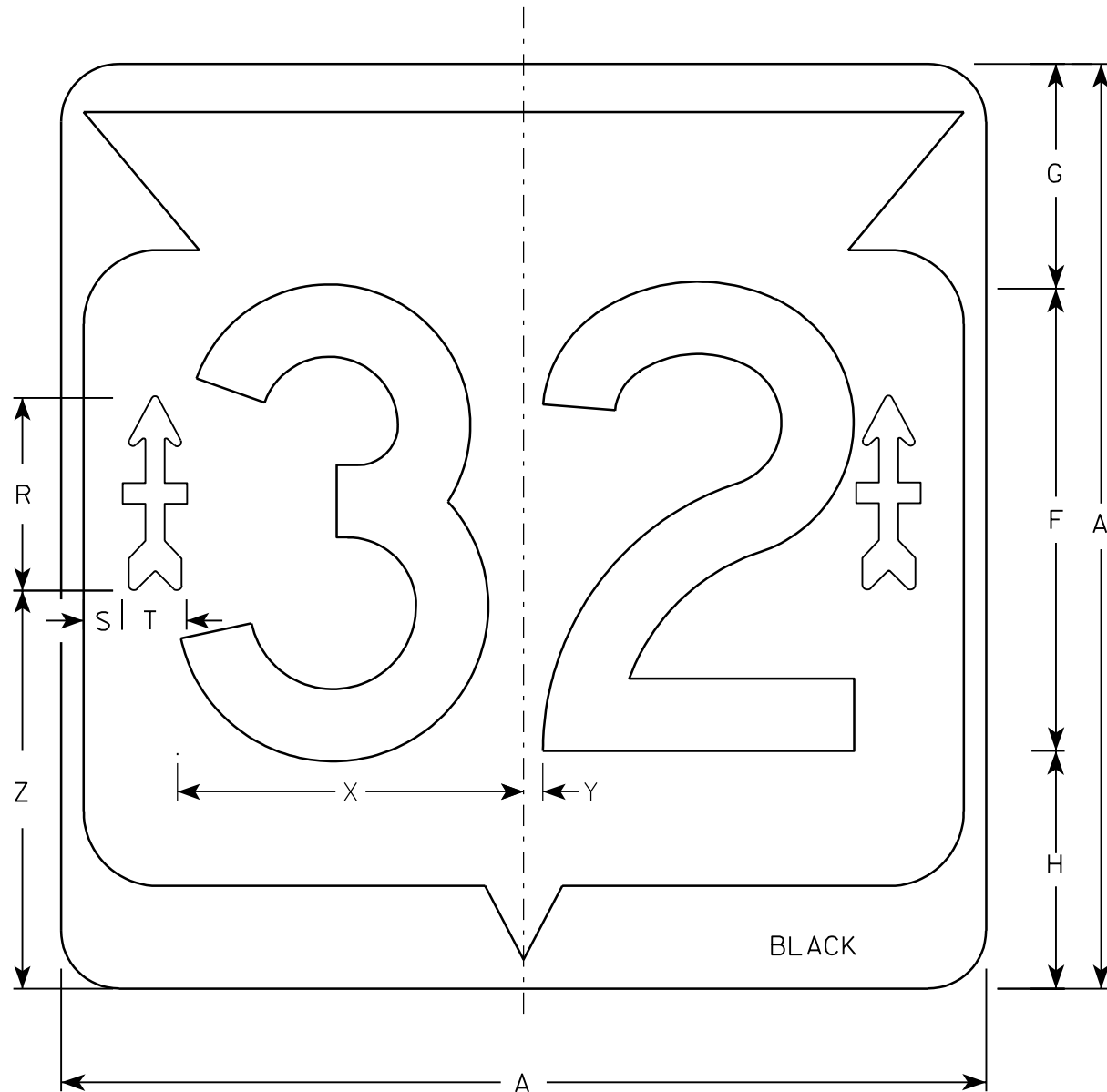
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E

7

7



M1-6B

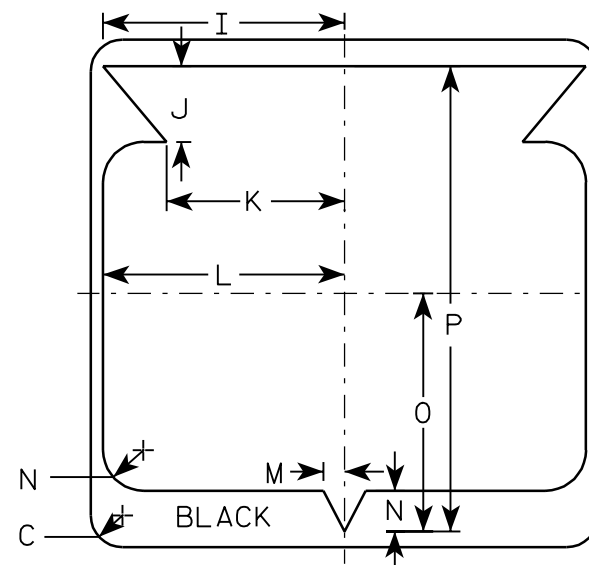
Metric equivalent for this sign is:

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

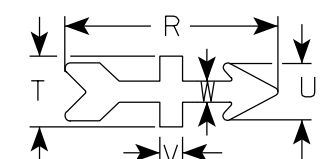
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8		5 1/8	3/4	1 7/8	1 1/2	5/8	5/8	9	1/2	10 1/2	4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33		7 1/2	1 1/2	2 1/2	2	7/8	3/4	13 1/2	3/4	15 1/2	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		7 1/2	1 1/2	2 1/2	2	7/8	3/4	13 1/2	3/4	15 1/2	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		7 1/2	1 1/2	2 1/2	2	7/8	3/4	13 1/2	3/4	15 1/2	9.0	.81

NOTES

- Sign is Type II - Type H - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - White & Black
Message - Black
Arrow - Type H Reflective Red
- Message Series - D
- 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



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:

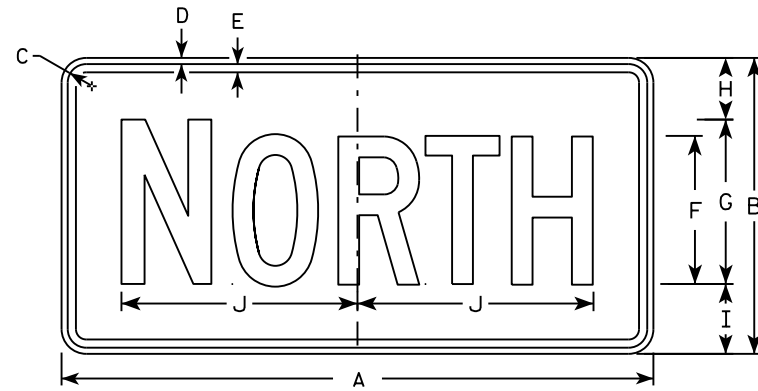
COUNTY:

SHEET NO:

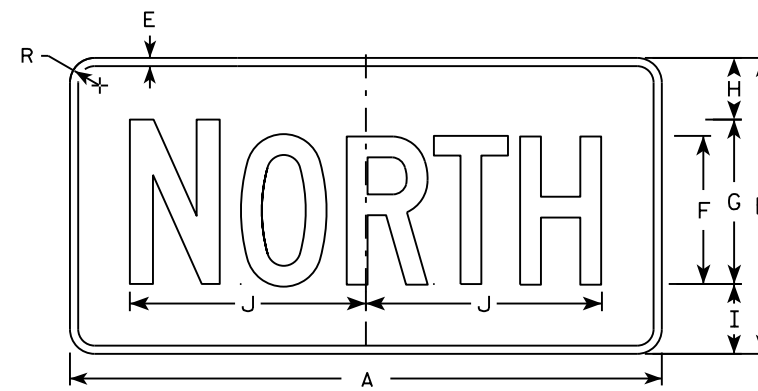
E

NOTES

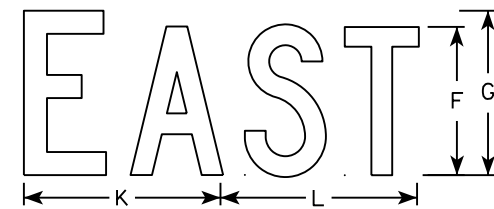
- All Signs Type II - Type H
- Color:
 - Background - See note 5
 - Message - See note 5
- Message Series - C
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M3-1 thru M3-4 Background - White
 Message - Black
 MB3-1 thru MB3-4 Background - Blue
 Message - White
 MK3-1 thru MK3-4 Background - Green
 Message - White
 MM3-1 thru MM3-4 Background - White
 Message - Green
 MN3-1 thru MN3-4 Background - Brown
 Message - White
 MP3-1 thru MP3-4 Background - White
 Message - Blue
- Note the first letter of each direction is larger than the remainder of the message.



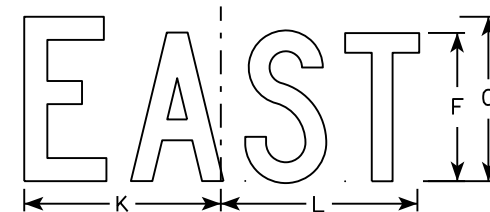
M3-1
MM3-1
MP3-1



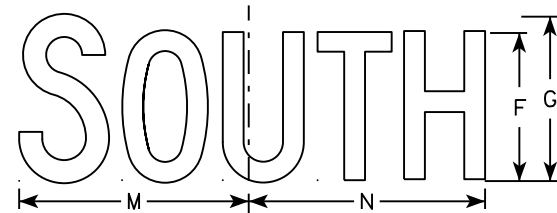
MB3-1
MK3-1
MN3-1



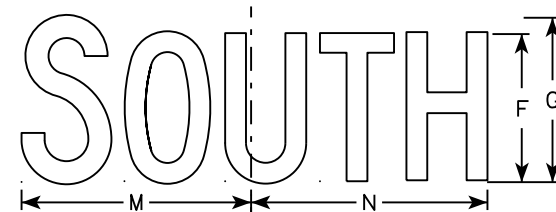
M3-2
MM3-2
MP3-2



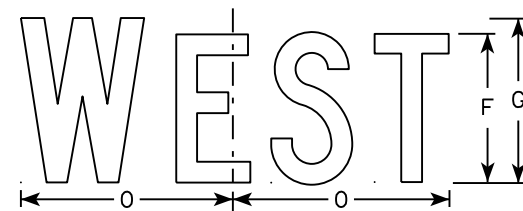
MB3-2
MK3-2
MN3-2



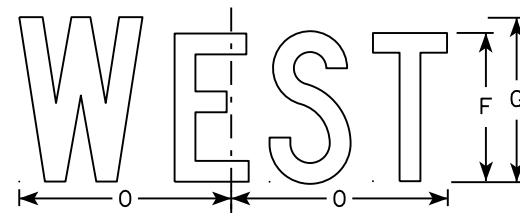
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

7

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 thru M3-4
SERIES

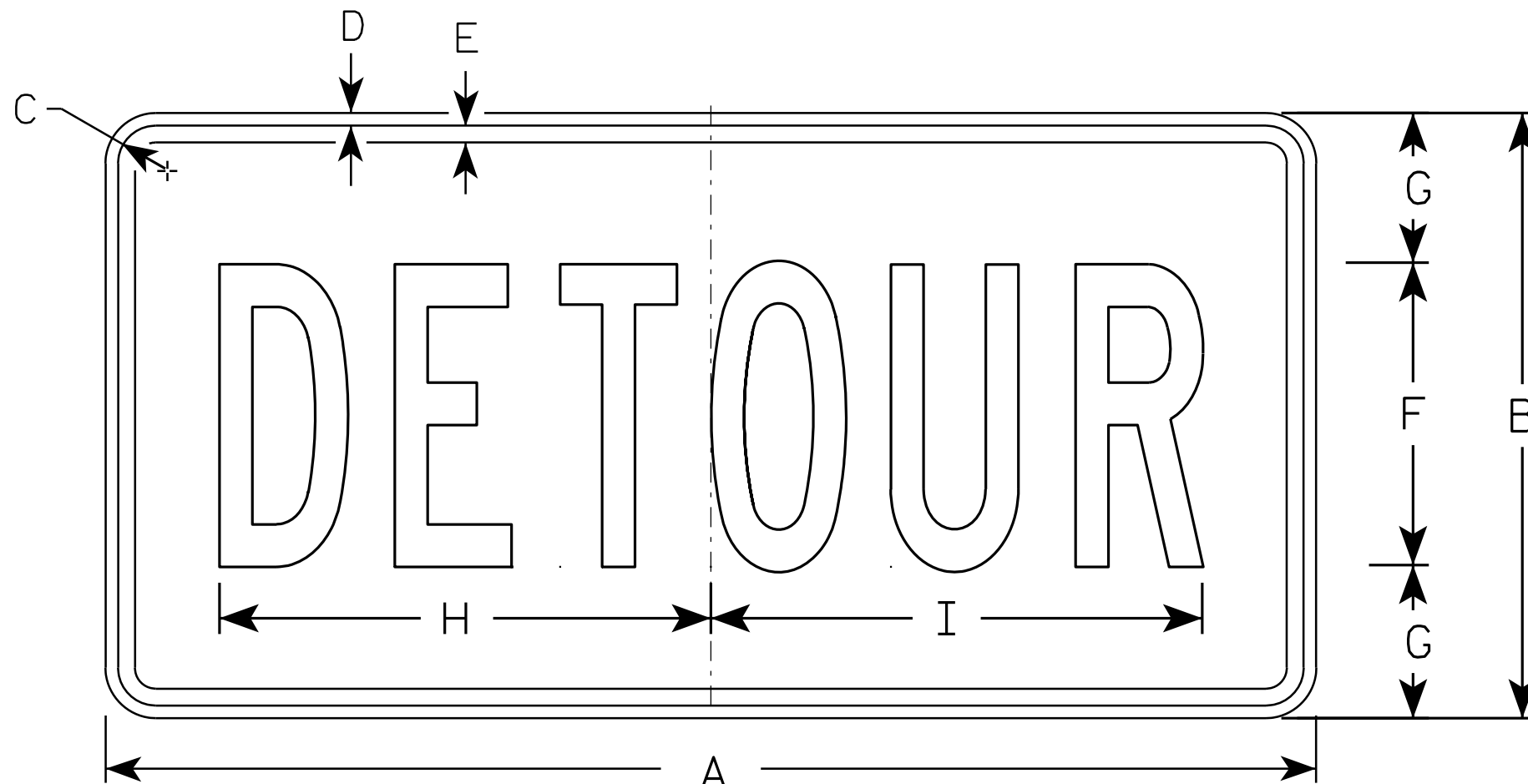
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M3-1.14

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



M4-8

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

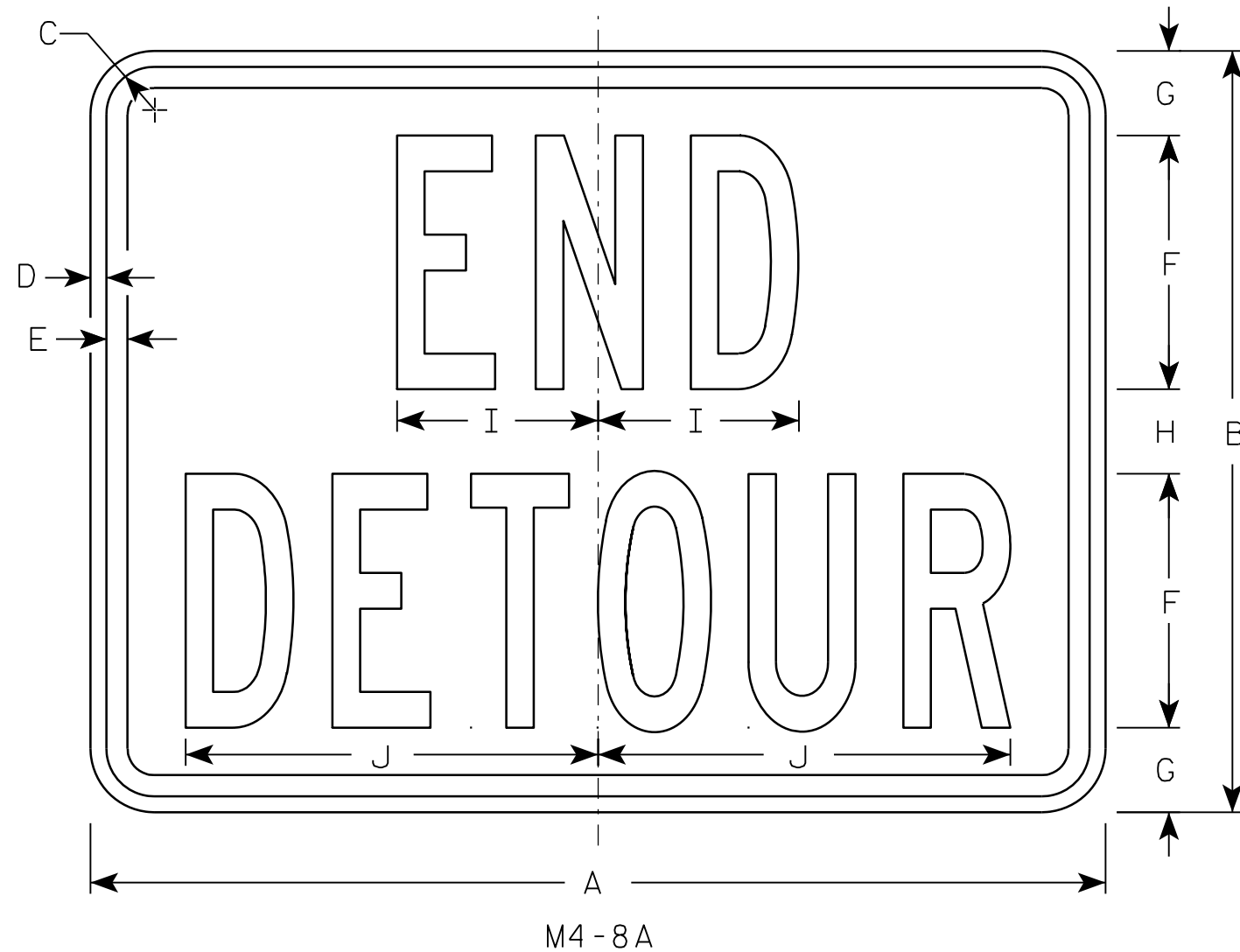
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

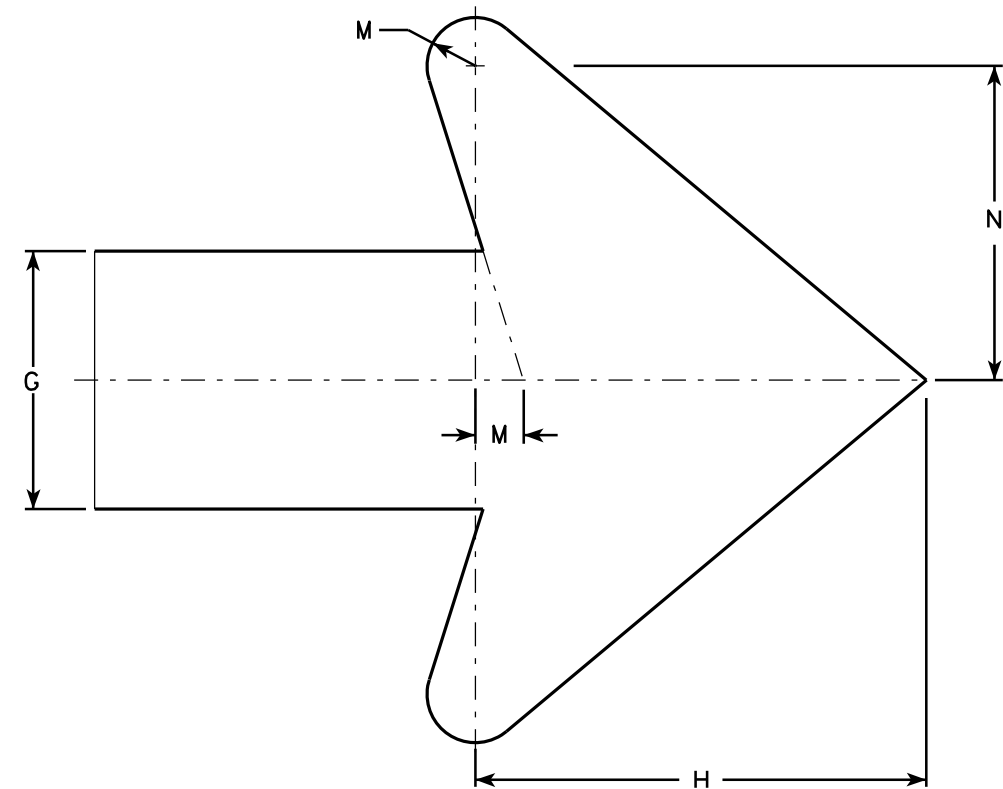
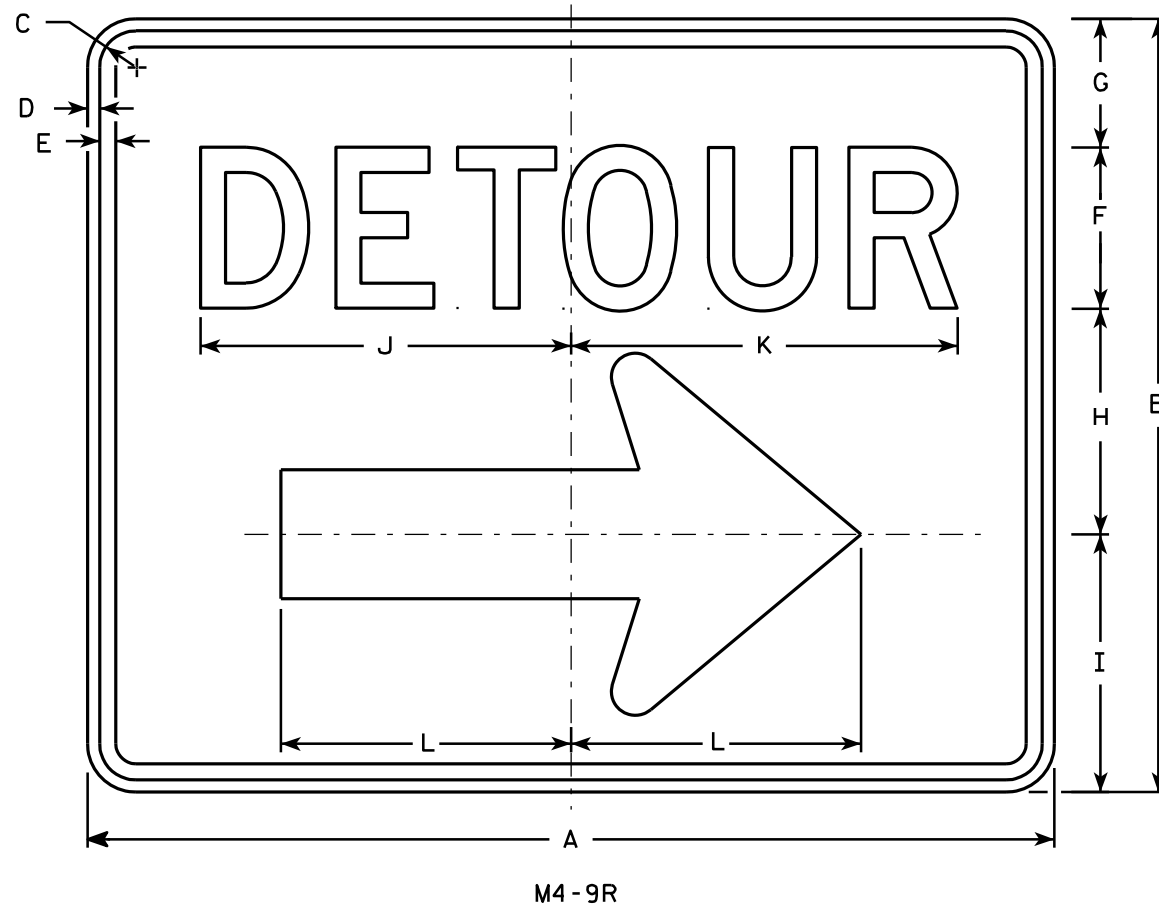
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

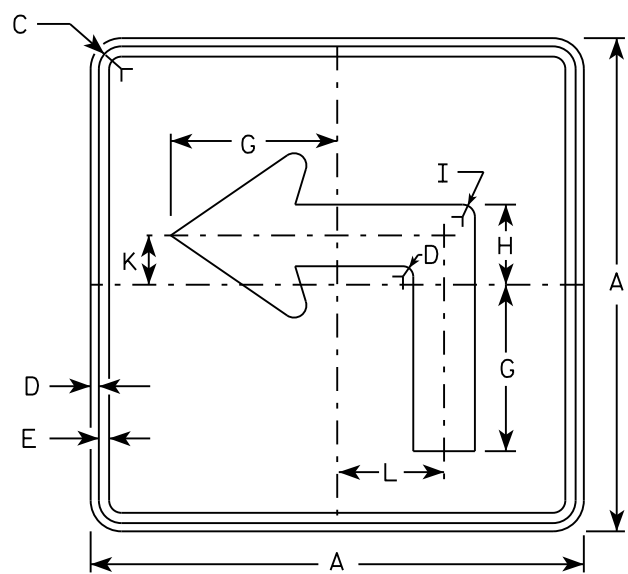
STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

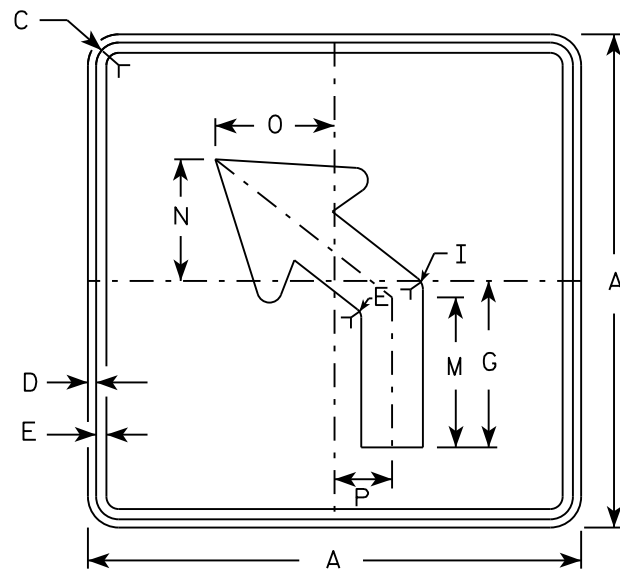
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

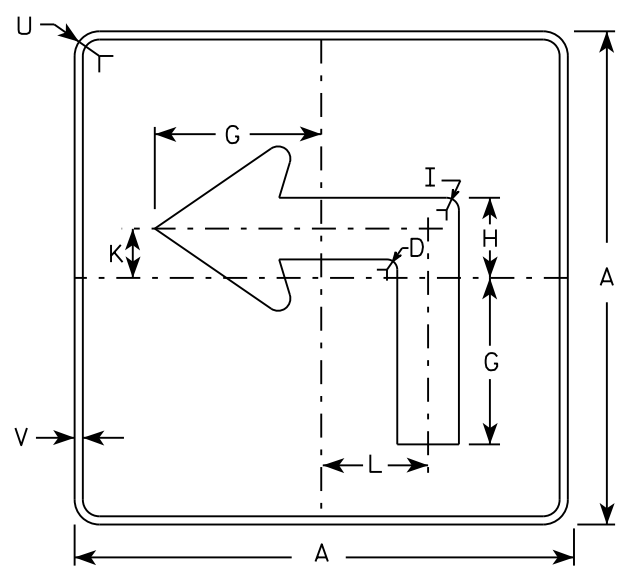
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



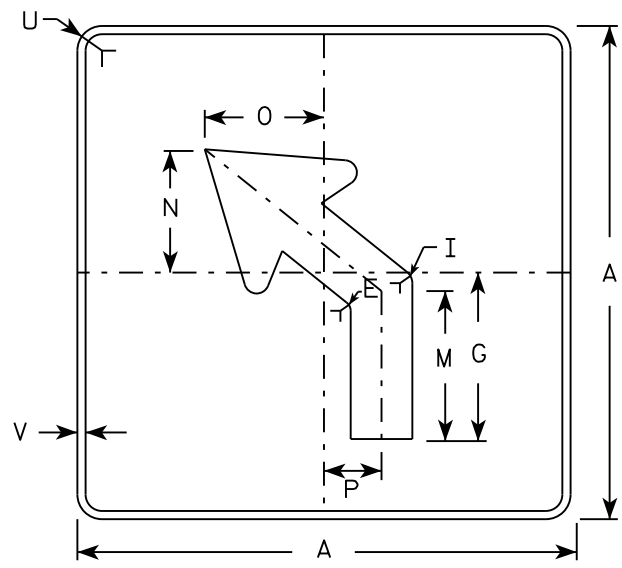
M5-1L
MM5-1L
M05-1L
MP5-1L



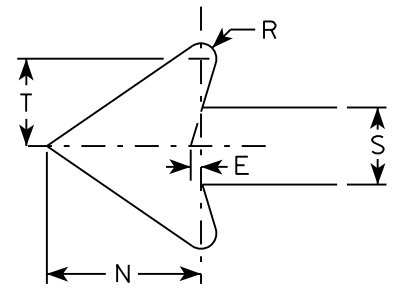
M5-2L
MM5-2L
M05-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

- Signs are Type II - Type H reflective except as shown
- Color:
 - Background - See note 4
 - Message - See note 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.
- M5-1 and M5-2 Background - White
Message - Black
 - MB5-1 and MB5-2 Background - Blue
Message - White
 - MK5-1 and MK5-2 Background - Green
Message - White
 - MM5-1 and MM5-2 Background - White
Message - Green
 - MN5-1 and MN5-2 Background - Brown
Message - White
 - M05-1 and M05-2 Background - Orange - Type F Reflective
Message - Black
 - MP5-1 and MP5-2 Background - White - Type H Reflective
Message - Blue
 - MR5-1 and MR5-2 Background - Brown
Message - Yellow
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

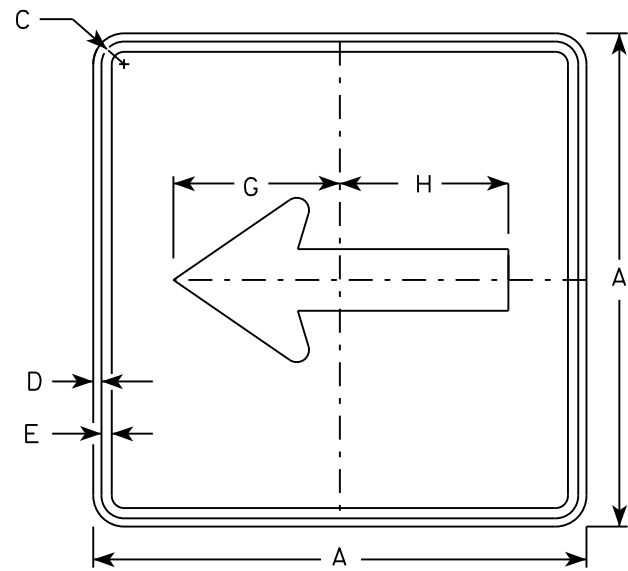
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

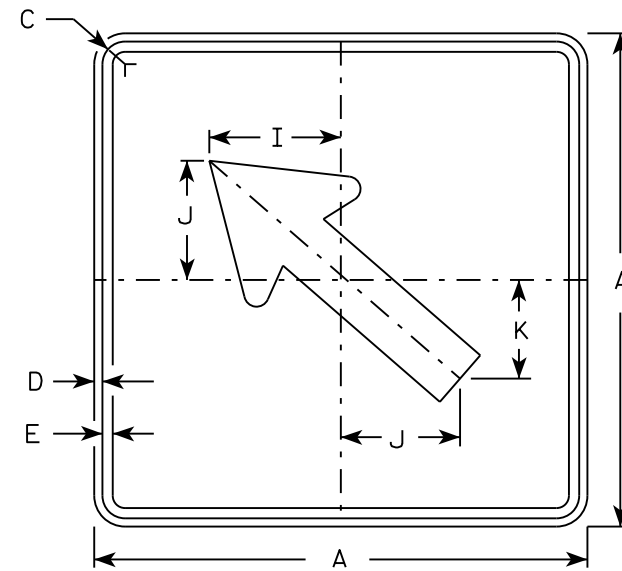
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

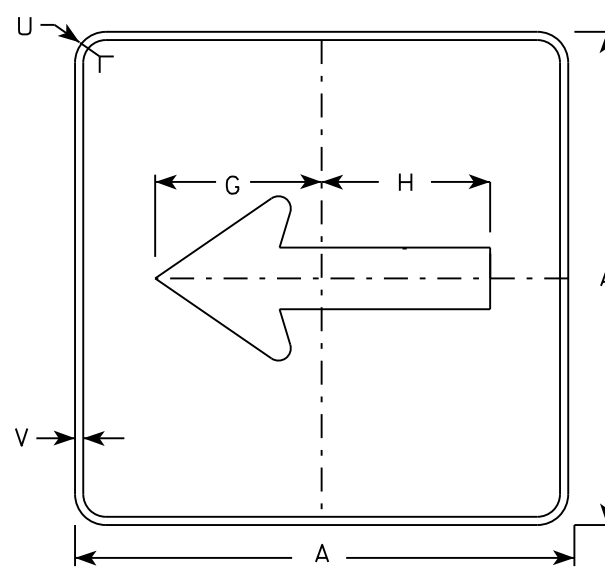
DATE 10/15/15 PLATE NO. M5-1.13



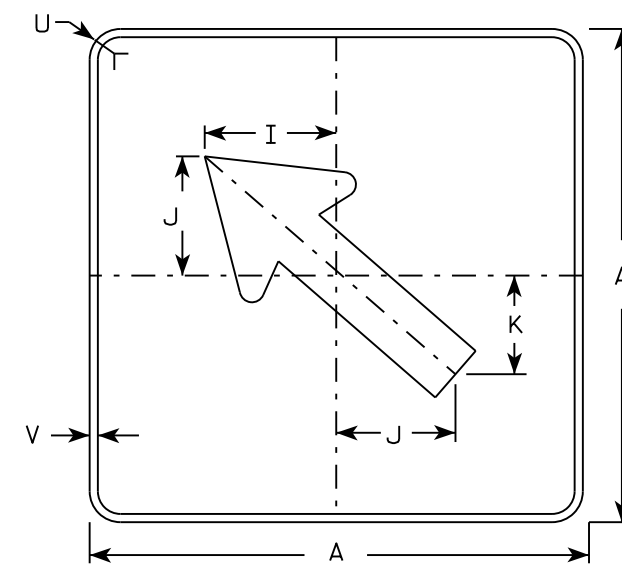
M6-1
MM6-1
M06-1
MP6-1



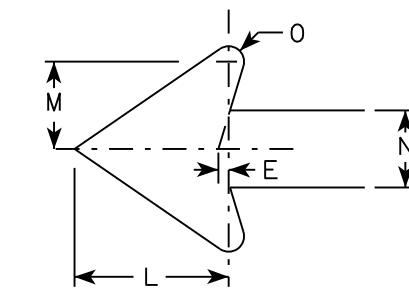
M6-2
MM6-2
M06-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



NOTES

- Signs are Type II - Type H except as Shown
- Color:
Background - See note 4
Message - See note 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.
- M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow

7

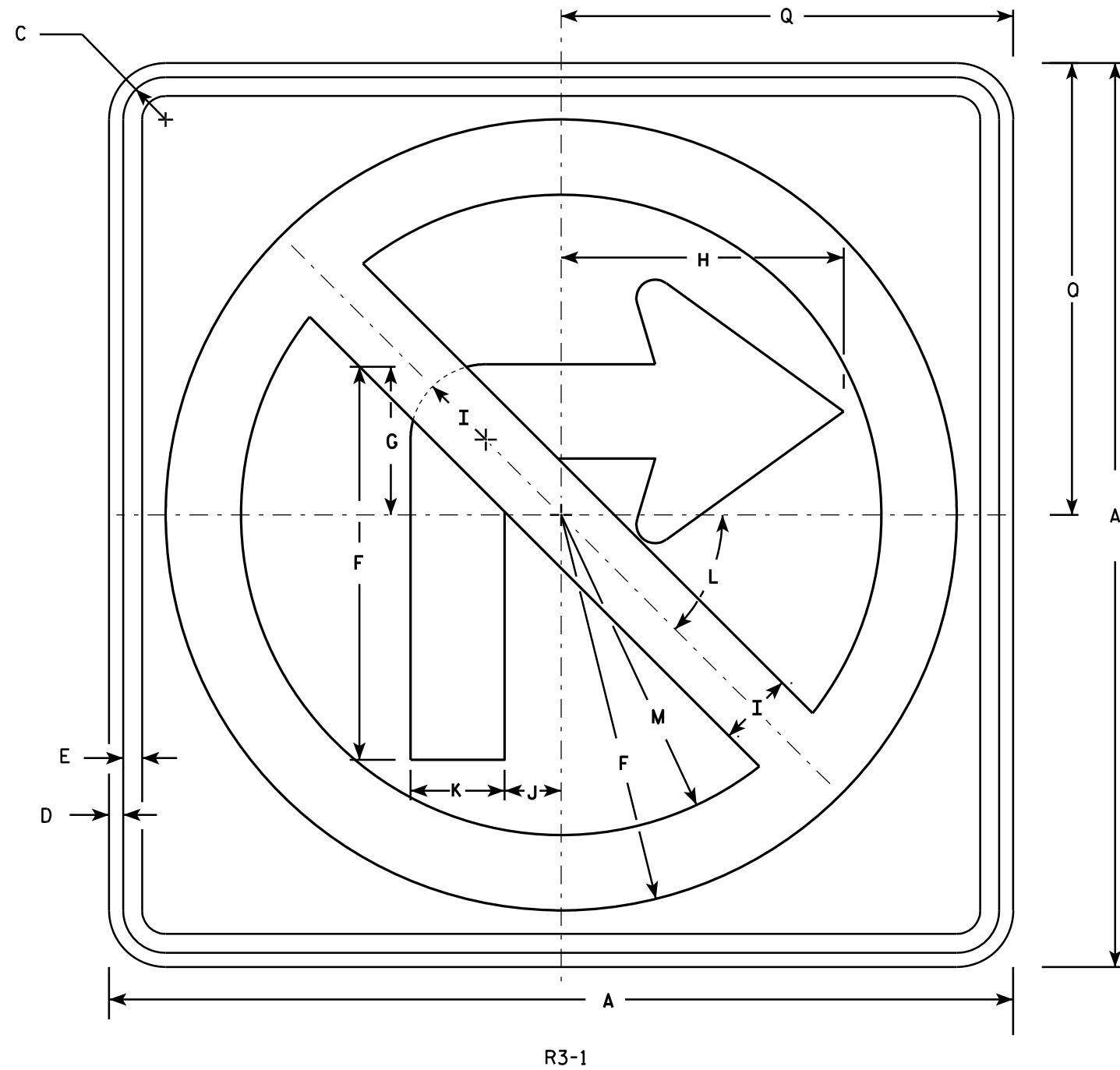
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1 1/2	1/2				3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1 7/8	1/2				6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1 7/8	1/2				6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1 7/8	1/2				6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

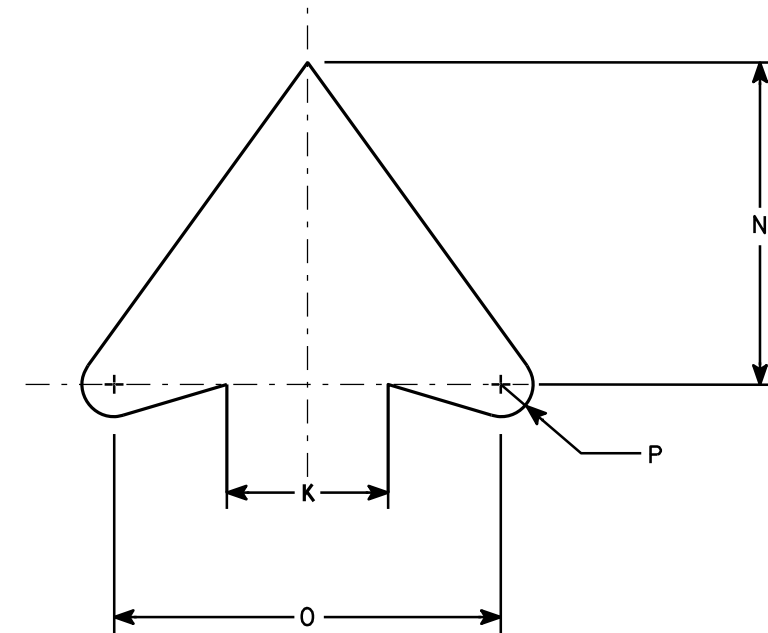
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15



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

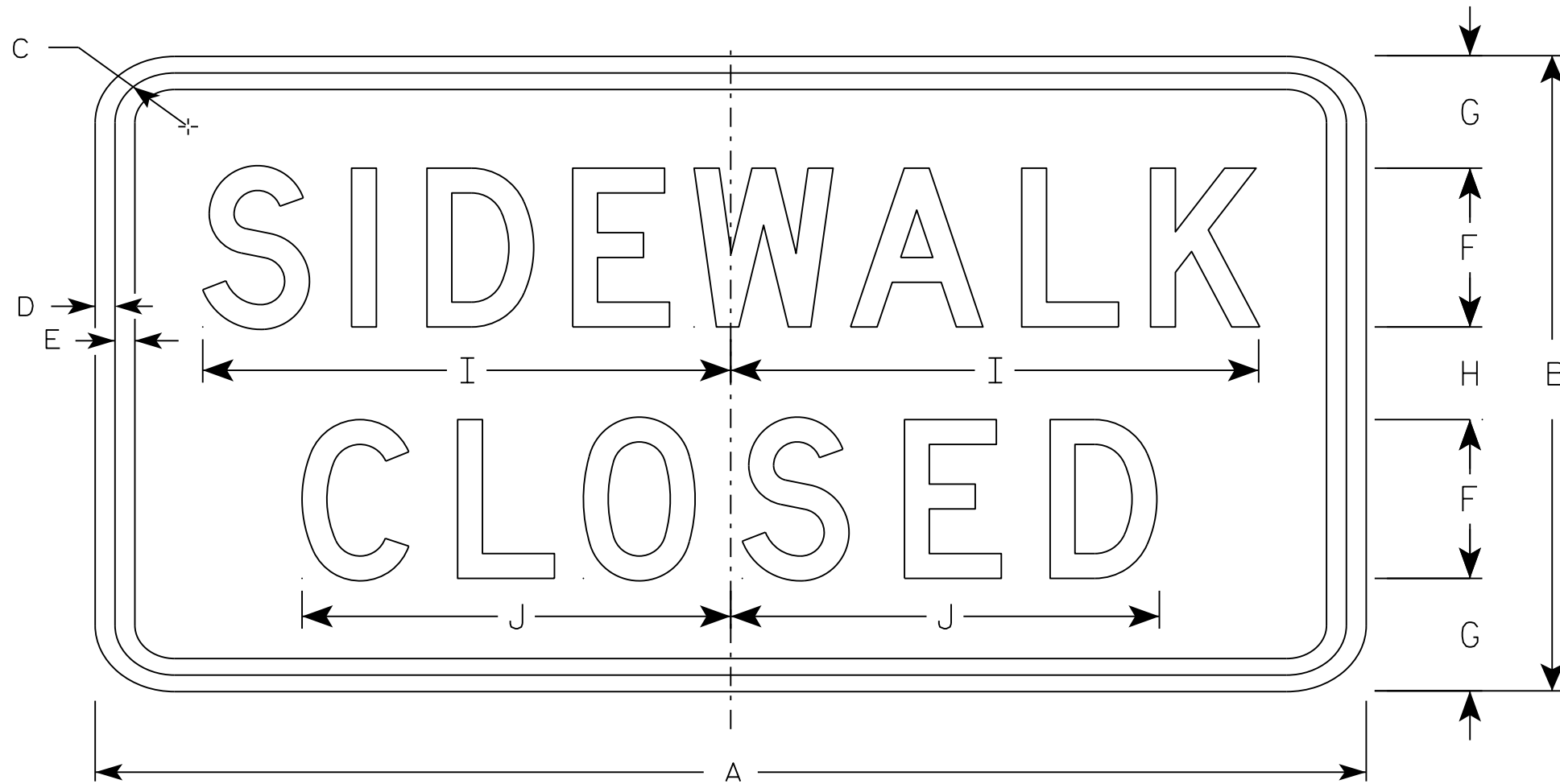
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **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. 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. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.



R9-9

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

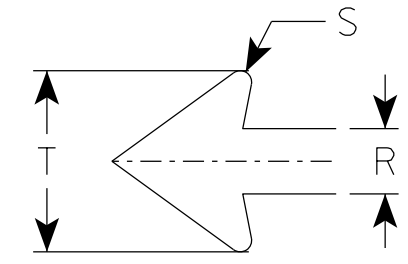
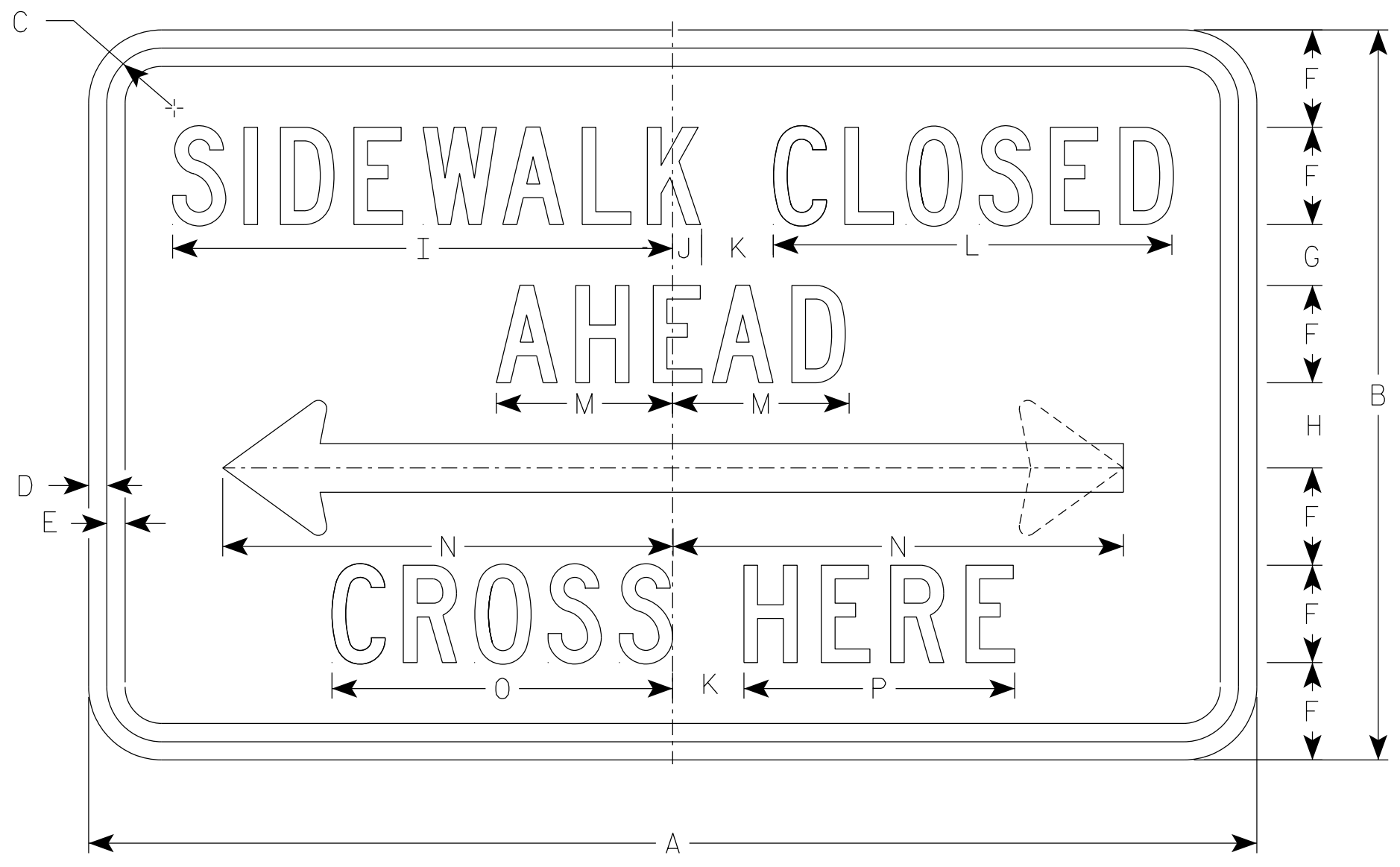
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 8/11/16 PLATE NO. R9-9.6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - C except Size 1 is 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. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.
6. R9-11D (double arrow)
R9-11L (left arrow)
R9-11R (right arrow)



R9-11

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
2M	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
3	30	15	1 1/8	3/8	1/2	2	1 1/2	1 1/2	13	3/4	2	10 1/4	4 5/8	12 3/8	8 7/8	6 7/8		1 1/4	1/4	3 5/8							3.125
4																											
5																											

STANDARD SIGN
R9-11

WISCONSIN DEPT OF TRANSPORTATION

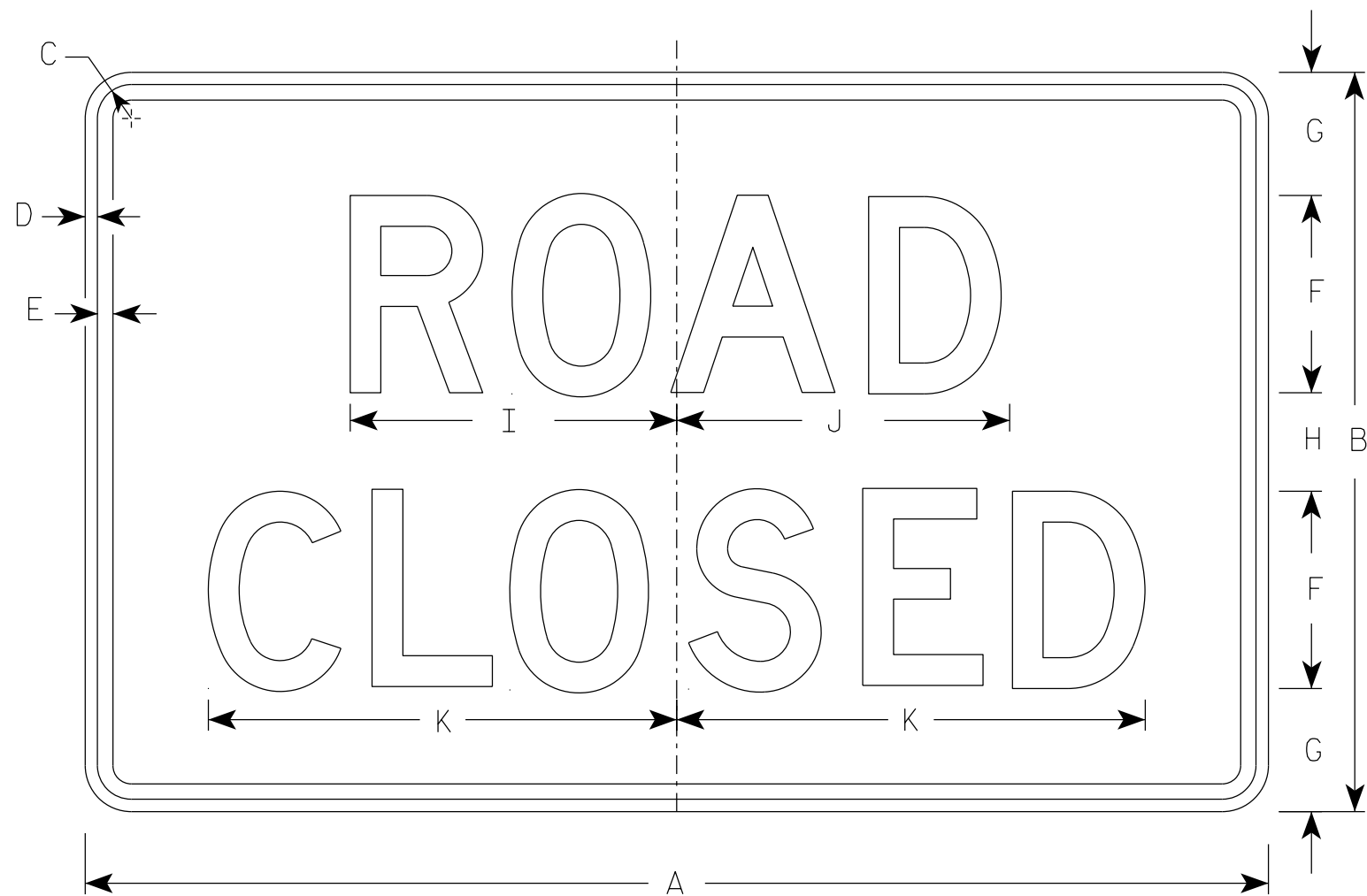
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/30/2021 PLATE NO. R9-11.4

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**

7

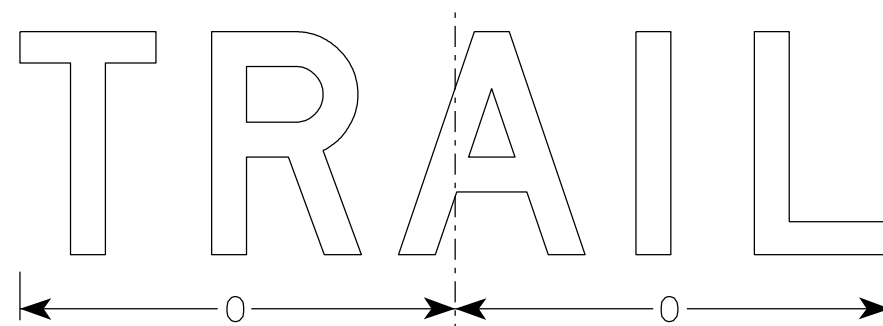
7



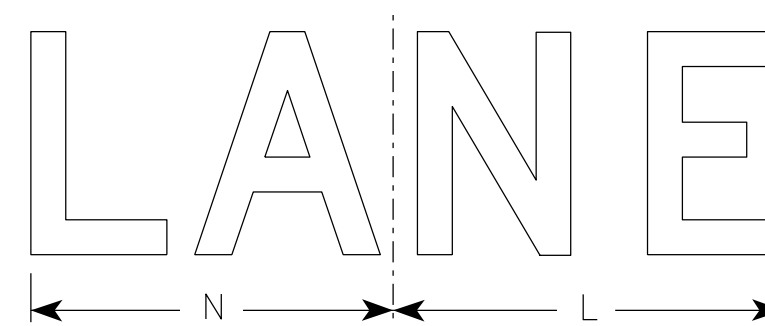
R11-2



R11-2R



R11-2T



R11-2L

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

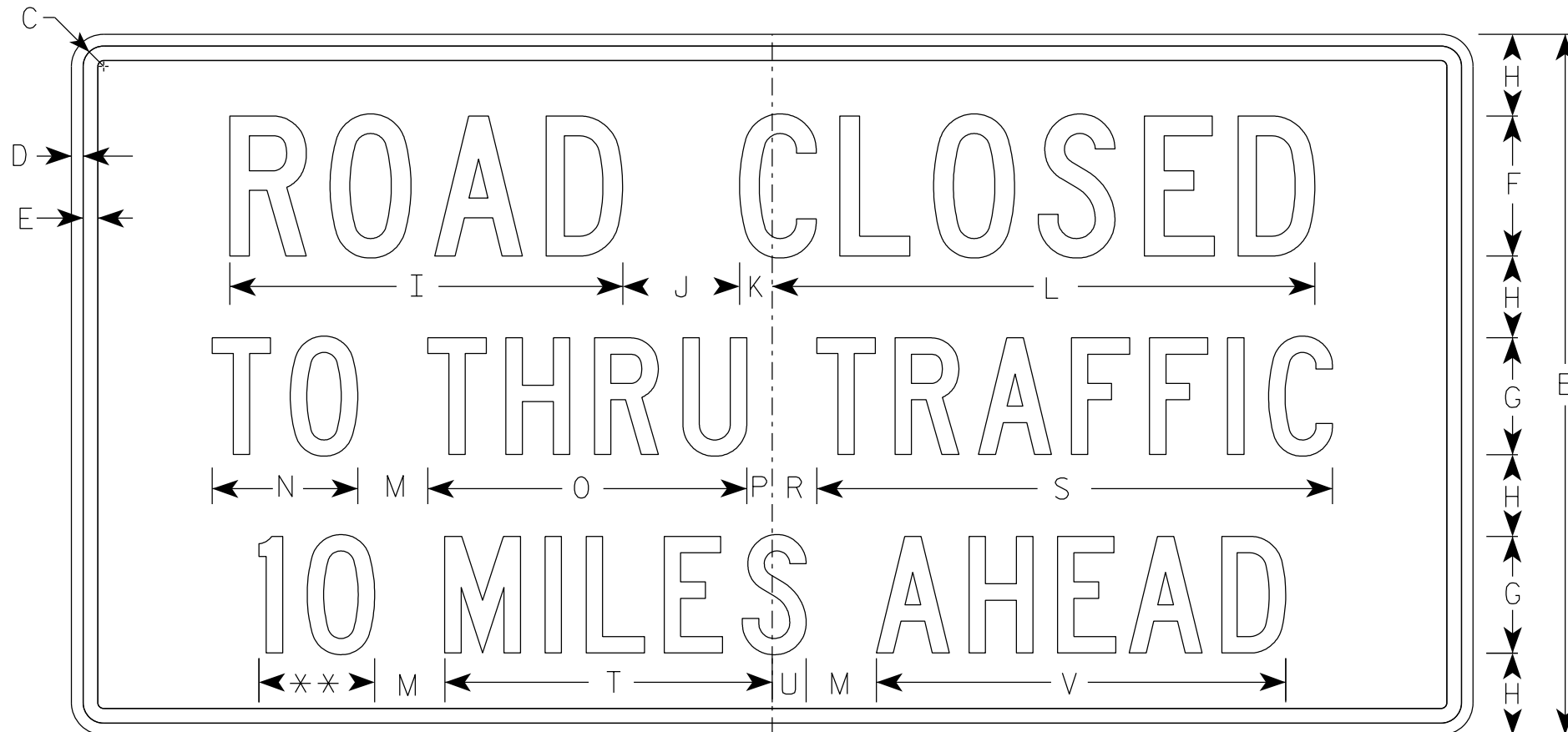
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

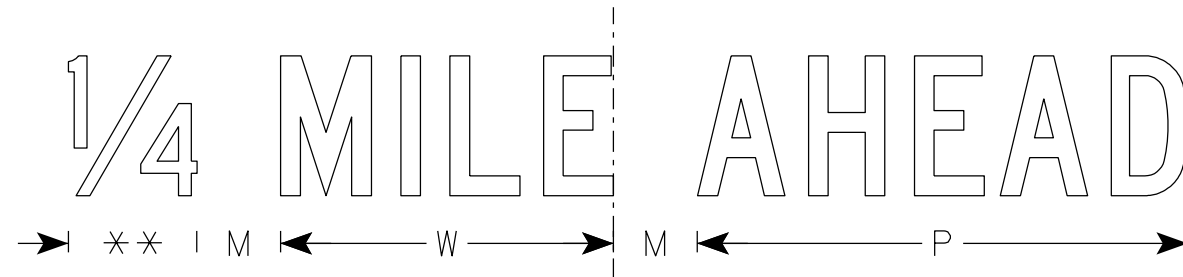
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/4	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8			4.5	
2S	60	30	1 3/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8			12.5	
2M	60	30	1 3/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8			12.5	
3																											
4																											
5																											

STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

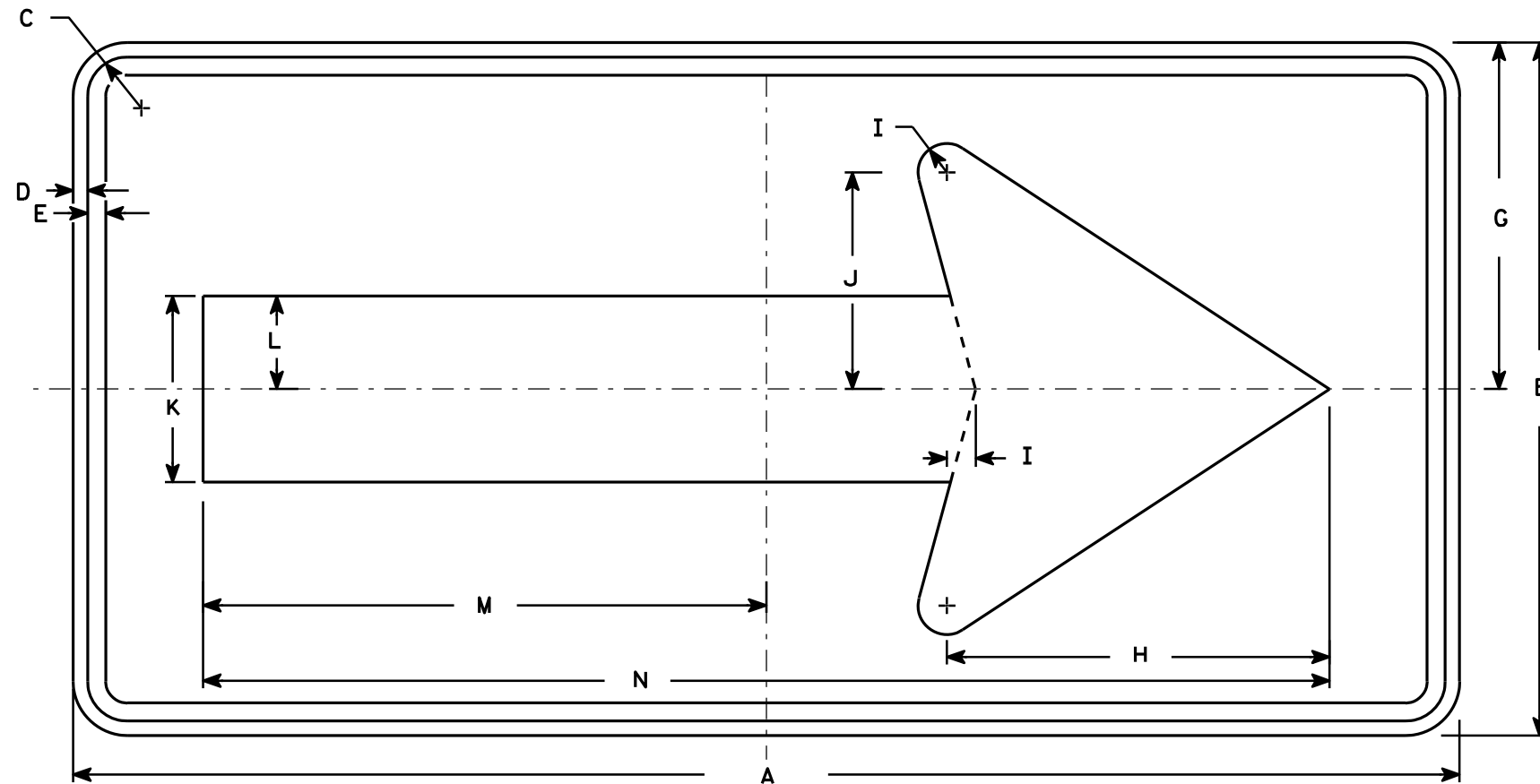
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/14/2021 PLATE NO. R11-3.9

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W1-6

7

7

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

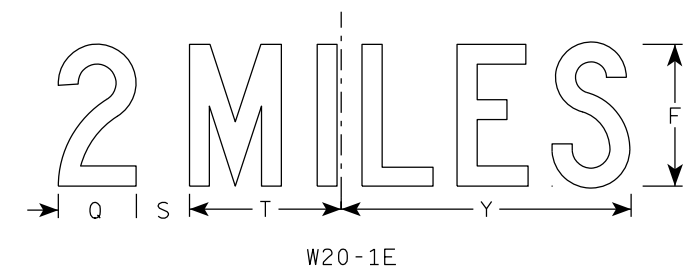
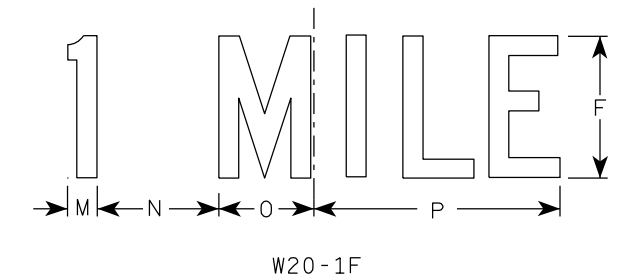
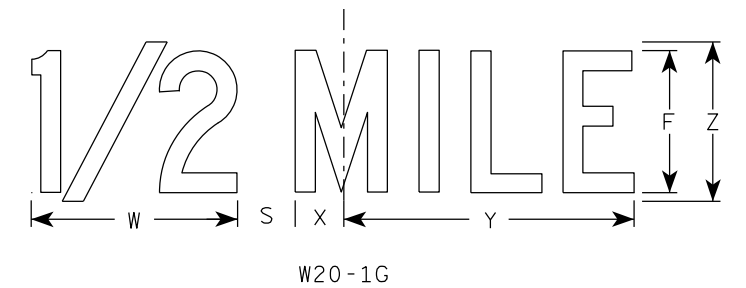
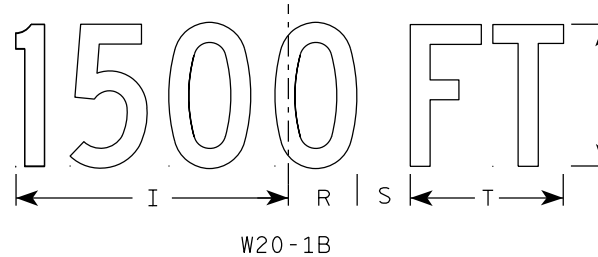
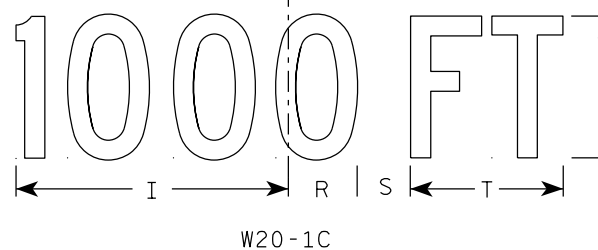
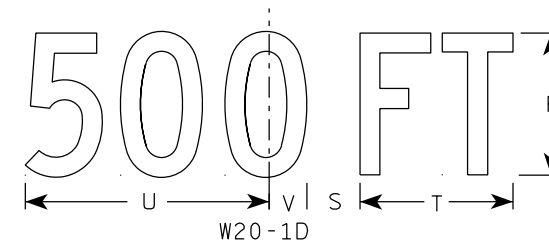
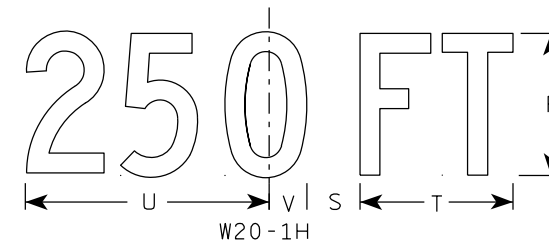
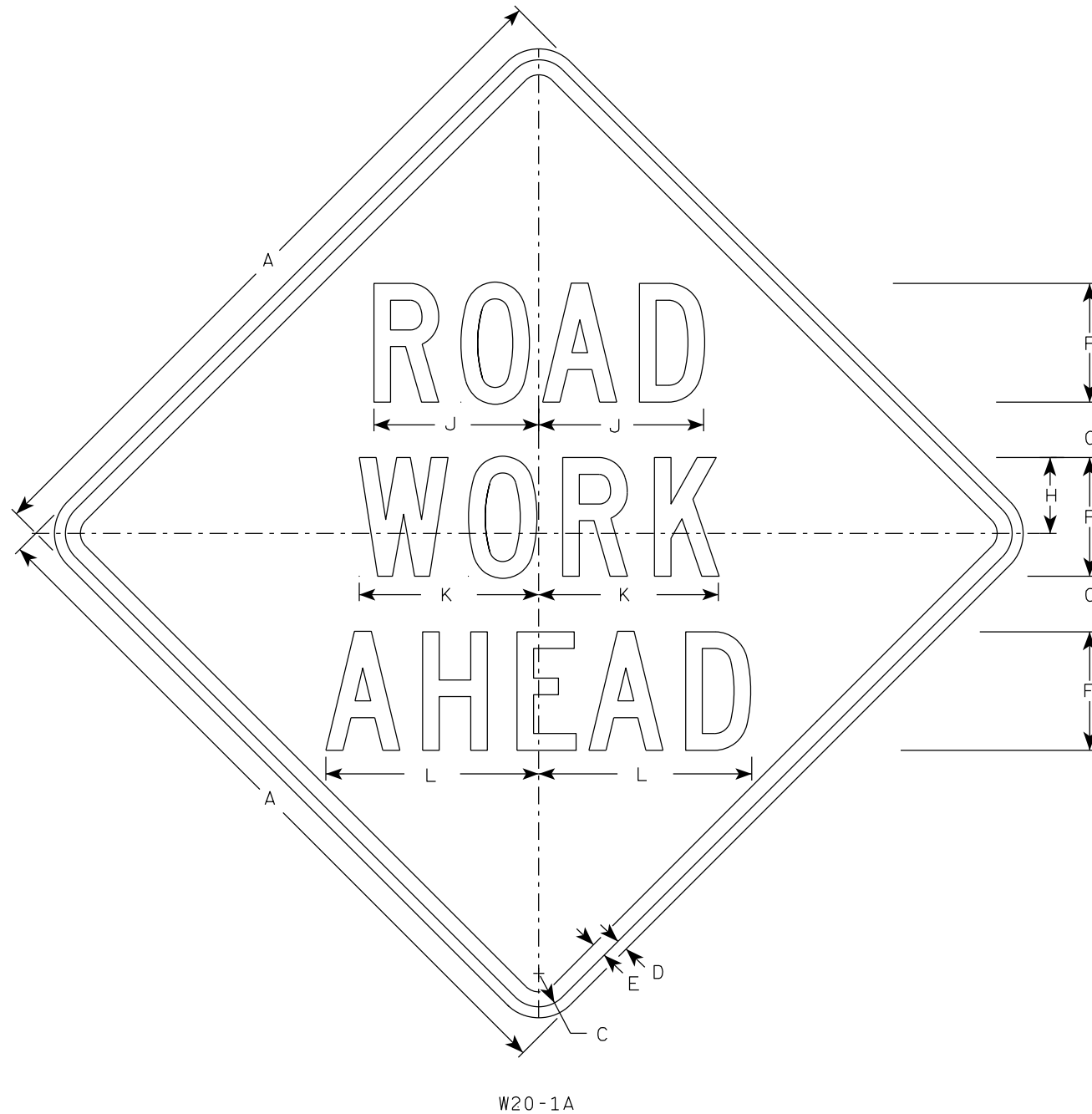
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1A

W20-1C

W20-1B

W20-1G

W20-1F

W20-1E

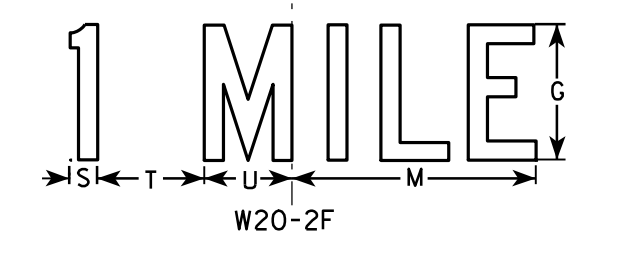
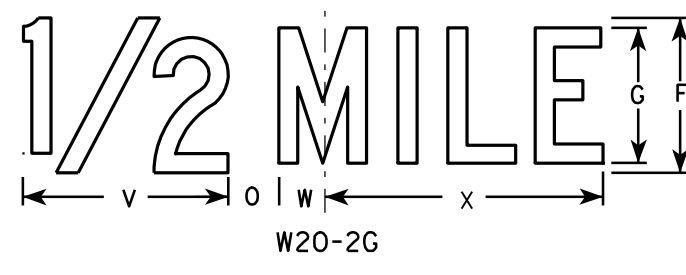
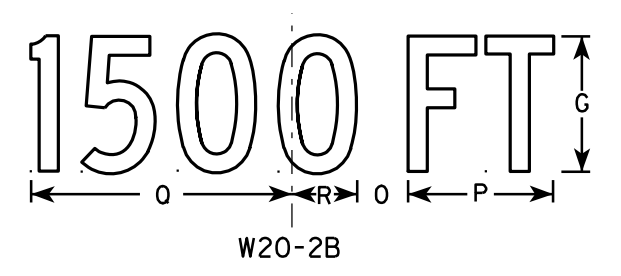
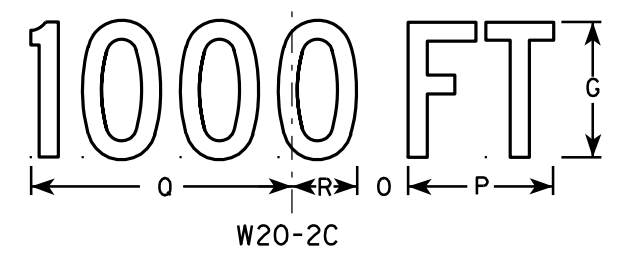
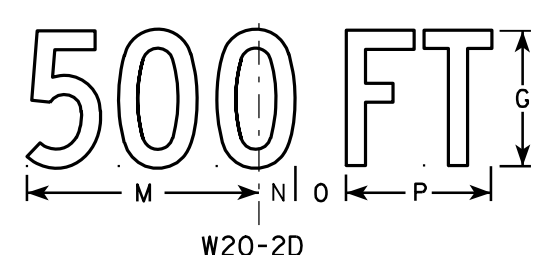
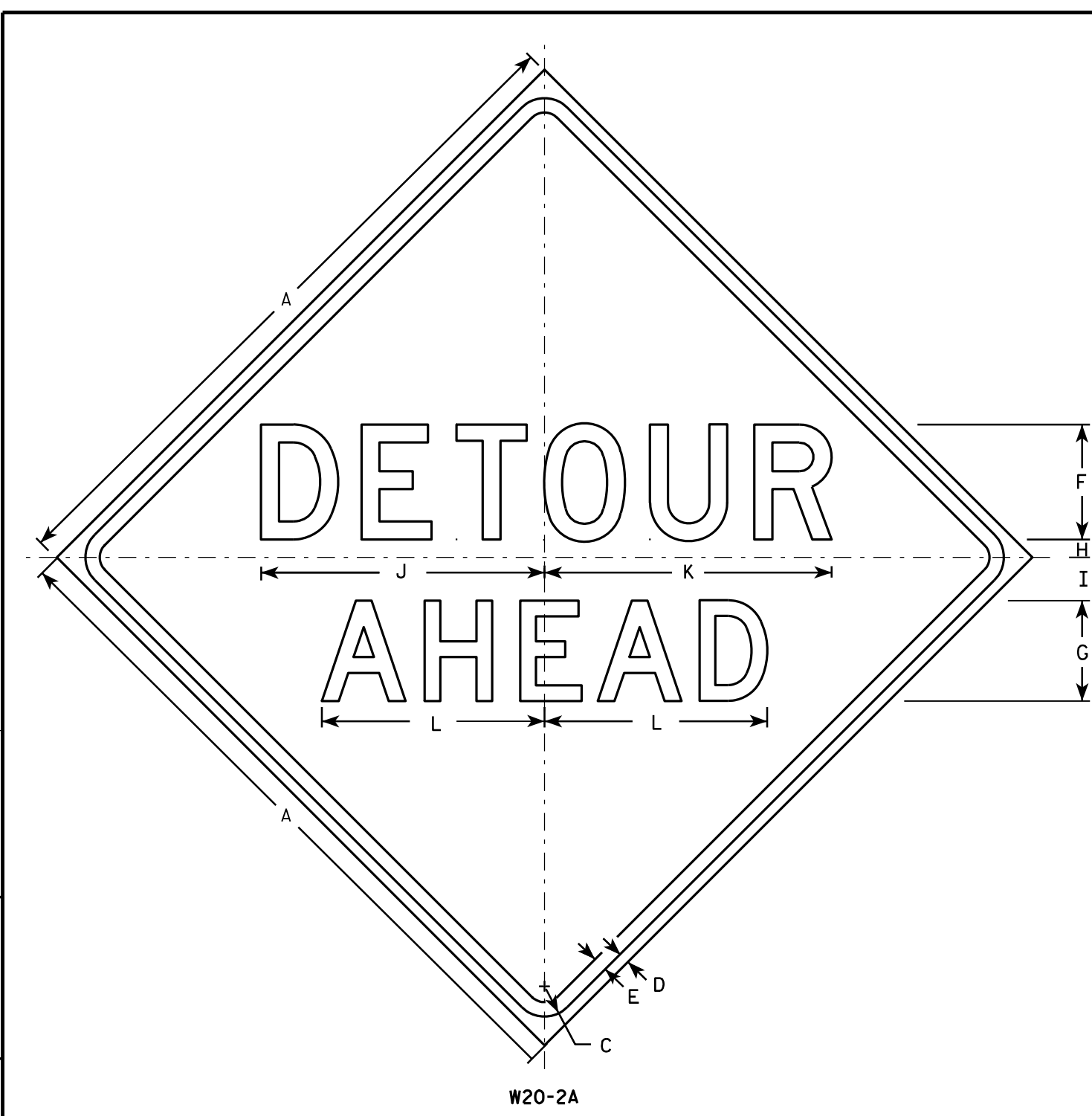
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
Line 2 is Series D for AHEAD and Series C for all other distances.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

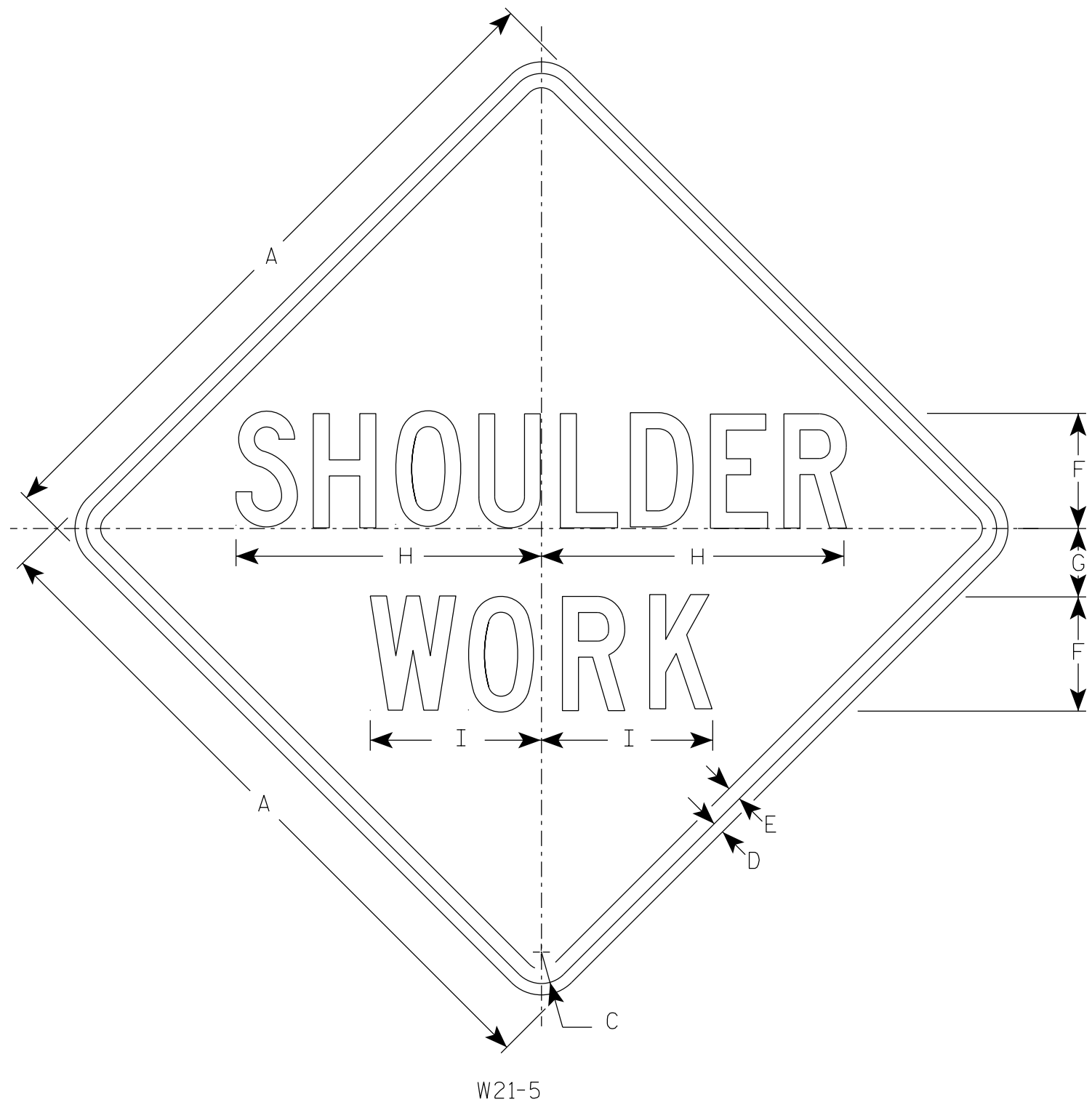
STANDARD SIGN
W20-2A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Raub*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	3 1/2	16	9																		9.0
2S	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
2M	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
3	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
4	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
5	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0

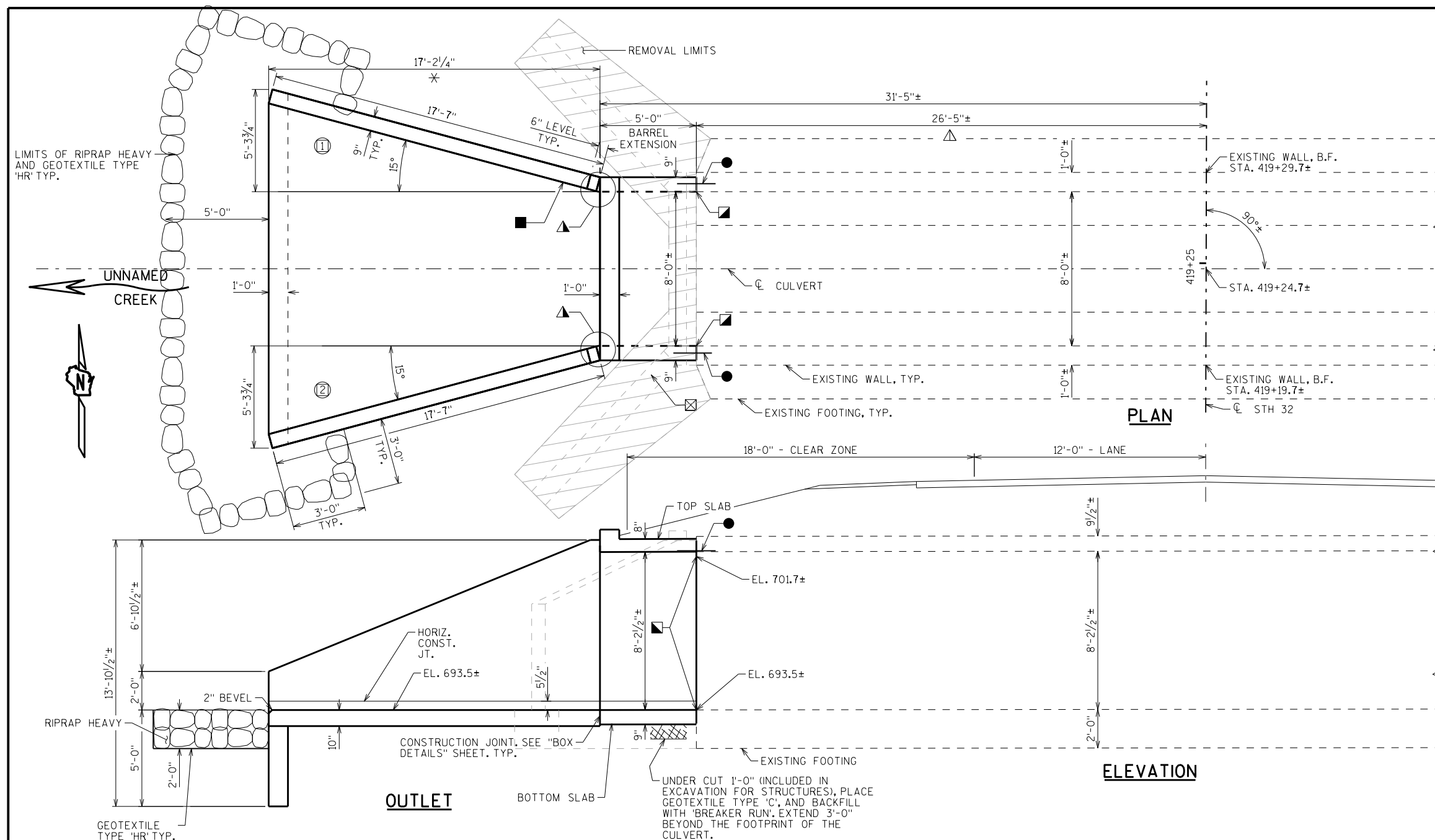
STANDARD SIGN
W21-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 4/30/2020 PLATE NO. W21-5.6

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



- ▲ SEE CORNER DETAILS ON "APRON DETAILS" SHEET (TYP.)
- NAME PLATE LOCATION (SEE "APRON DETAILS" SHEET)
- * BUILD APRON AND END OF BOX LEVEL
- INDICATES WING NUMBER
- △ EXIST. BARREL TO REMAIN IN PLACE
- ▣ INSIDE WALLS & SLABS TO MATCH EXISTING (TYP.)
- ☒ REMOVE EXISTING APRON AND WINGS.
- ADHESIVE ANCHORS NO. 5 BARS, EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" CENTERS. (TYP. IN ALL WALLS AND TOP SLAB)

LIST OF DRAWINGS

1. CULVERT EXTENSION
2. BOX DETAILS
3. APRON
4. APRON DETAILS

STRUCTURE DESIGN CONTACTS:

JOEL MAAS (608) 267-0273
 LAURA SHADEWALD (608) 267-9592

DESIGN DATA

LIVE LOAD:
 DESIGN LOADING: HL-93
 INVENTORY RATING FACTOR: RF = 1.05
 OPERATING RATING FACTOR: RF = 1.35
 WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 255(KIPS)

EARTHLOAD:
 DESIGNED FOR 2.5 TO 3.5 FT. OF FILL.

MATERIAL PROPERTIES:
 CONCRETE MASONRY: $f'_c = 3,500$ P.S.I.
 BAR STEEL REINFORCEMENT: $f_y = 60,000$ P.S.I.

TRAFFIC VOLUME

STH 32
 ADT = 6,200 (2043)
 R.D.S. = 55 M.P.H.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0220	REMOVING STRUCTURE C-5-1745	EACH	1
206.2000	EXCAVATION FOR STRUCTURES CULVERTS C-5-1745	LS	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	162
311.0115	BREAKER RUN	CY	14
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	28
504.0100	CONCRETE MASONRY CULVERTS	CY	21
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	1,510
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,480
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	15
606.0300	RIPRAP HEAVY	CY	11
645.0105	GEOTEXTILE TYPE C	SY	48
645.0120	GEOTEXTILE TYPE HR	SY	27
NON-BID ITEMS			
	FILLER	EACH	3/4"

GENERAL NOTES

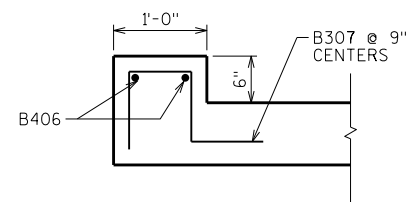
DRAWINGS SHALL NOT BE SCALED.
 BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED. THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
 BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.
 THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-5-1745" SHALL BE THE EXISTING GROUNDLINE.
 ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TYPE B WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.
 THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.
 THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.
 PLACE 18" (MIN.) WIDE SHEET OF "RUBBERIZED MEMBRANE WATERPROOFING" ON TOP SLAB OVER ALL CONSTRUCTION JOINTS AND EXTEND DOWN TO BOTTOM OF OUTSIDE WALLS.
 THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE FIELD ENGINEER, IN LIEU OF THE BREAKER RUN, TO BE UTILIZED AS A CONSTRUCTION PLATFORM FOR THE BOX. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL.

NO.	DATE	REVISION	BY
ACCEPTED		8/11/21	
CHIEF STRUCTURES DESIGN ENGINEER		DATE	
STRUCTURE C-5-1745			
STH 32 OVER UNNAMED CREEK			
COUNTY	BROWN	TOWN	ROCKLAND
DESIGN SPEC.	REHABILITATION		
DESIGNED BY	MJL	DESIGNED CK'D.	JDM
DRAWN BY	MJL	PLANS CK'D.	JDM
CULVERT EXTENSION			SHEET 1 OF 4

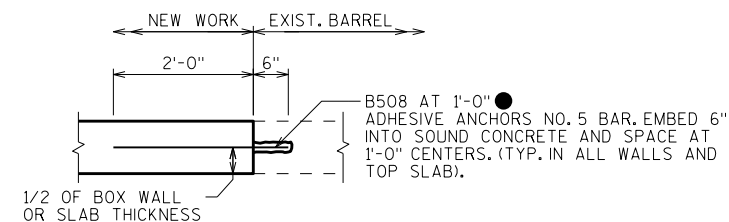
BILL OF BARS

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
B601		40	8'-5"	X		CORNERS
B502		20	9'-2"			TOP & BOTTOM SLAB TRANS.
B403		16	2'-1"			WALLS - DOWELS VERT.
B404		34	4'-8"			BOX - HORIZONTAL
B405		16	8'-3"			WALLS VERT.
B406		2	9'-2"			HEADER HORIZ.
B307		13	2'-6"	X		HEADER STIRRUPS VERT.
B508		28	2'-6"			VERTICAL CONST. JOINT
B509		10	4'-0"			BOX APRON CONNECTION

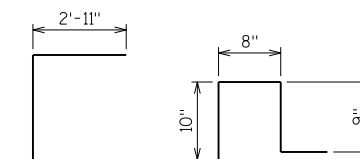


SECTION THRU TOP HEADER



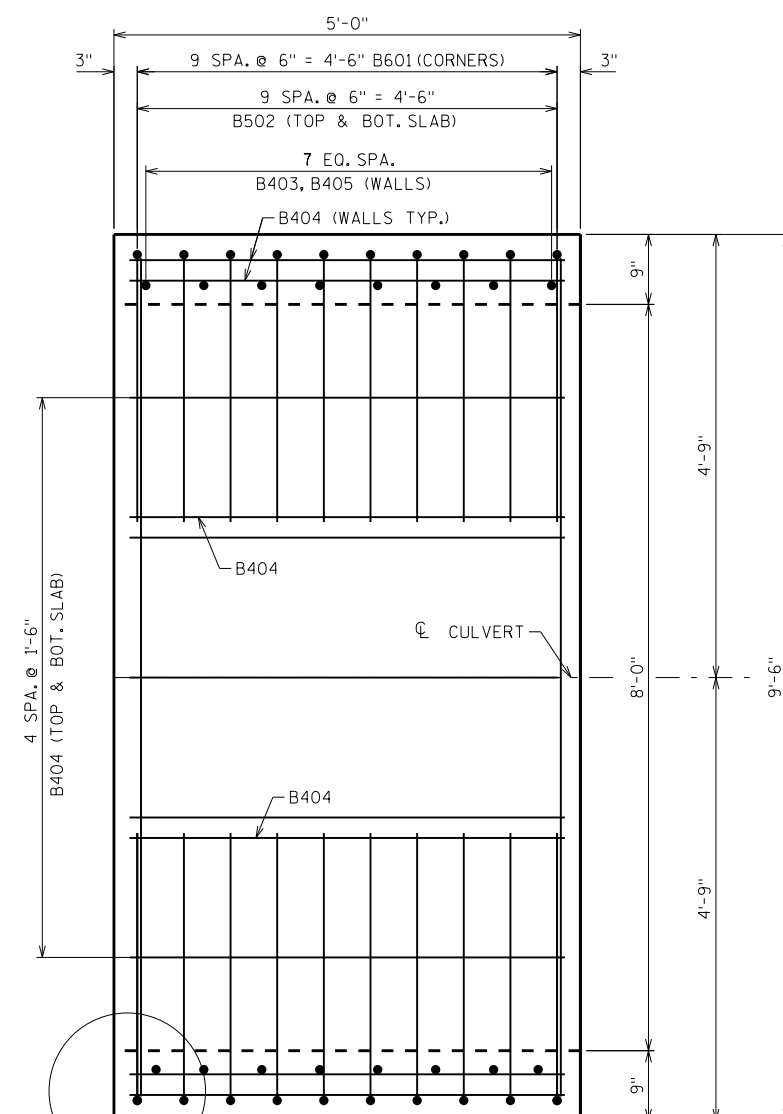
VERTICAL CONSTRUCTION JOINT

TYP. WALLS AND TOP SLAB



B307

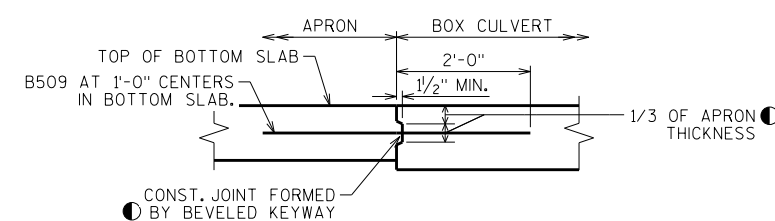
B601



PLAN VIEW OF PANEL

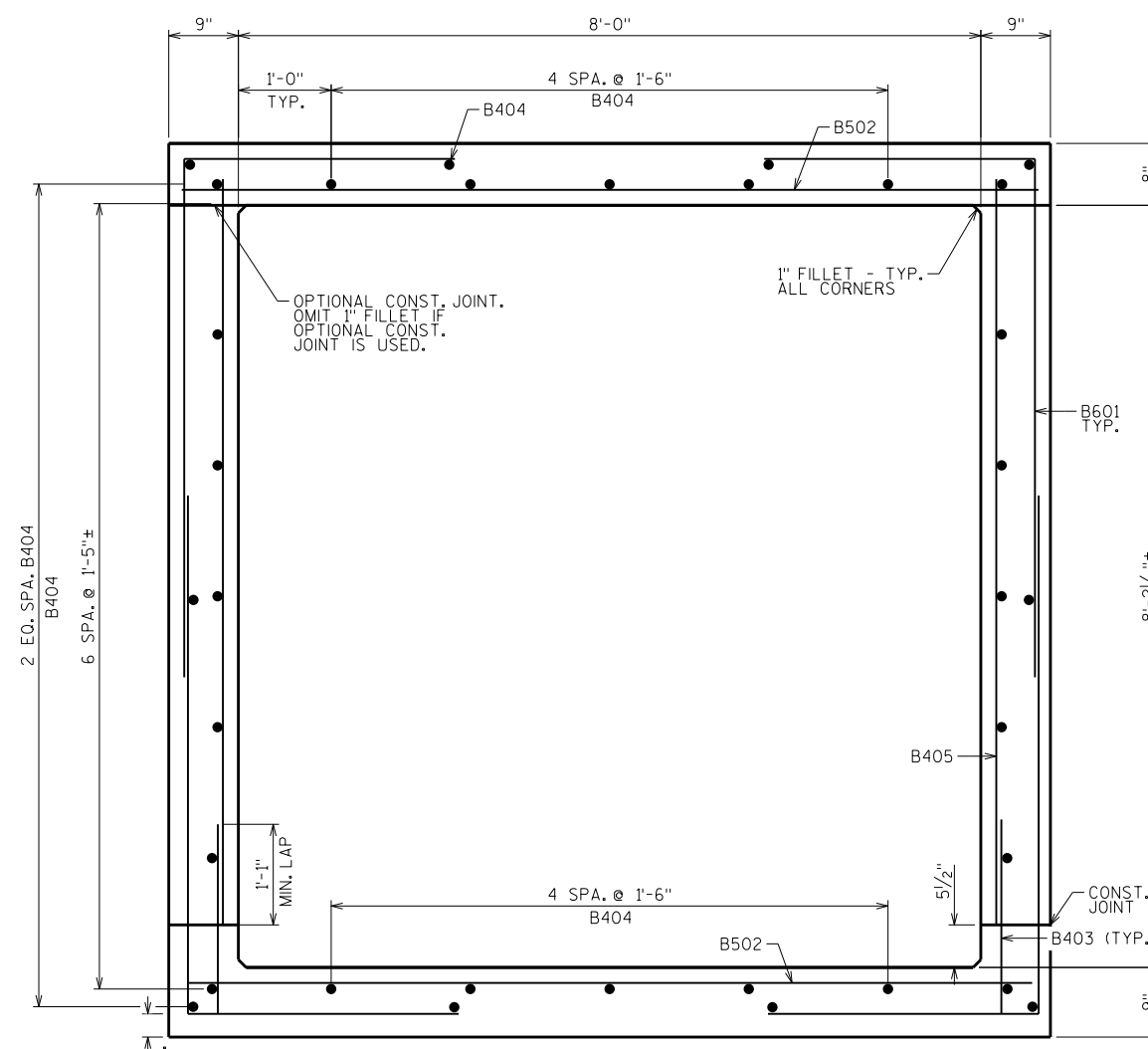
APRON AND HEADERS ARE NOT SHOWN

FOR CORNER DETAILS SEE "APRON DETAILS" SHEET



APRON CONNECTION DETAIL

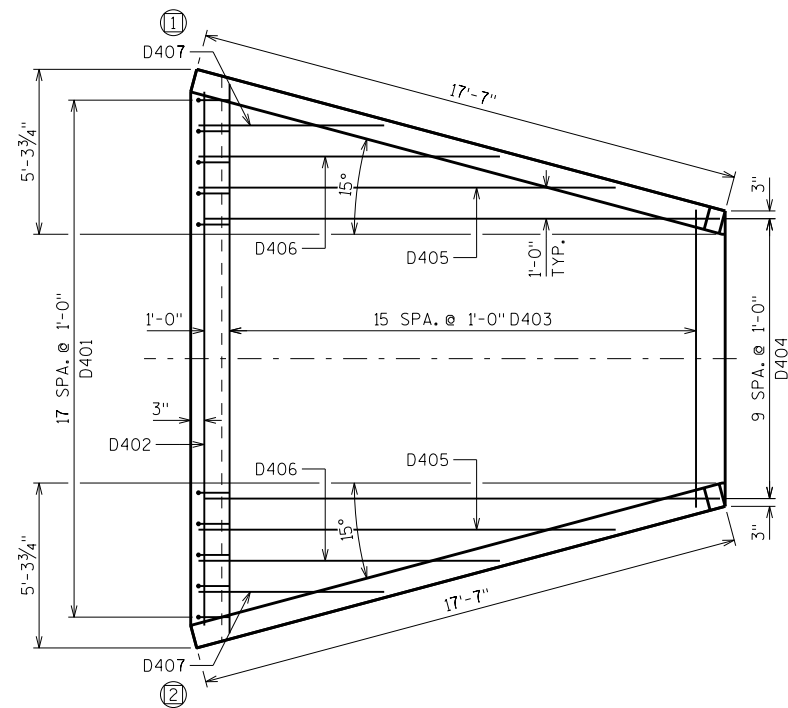
IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING.



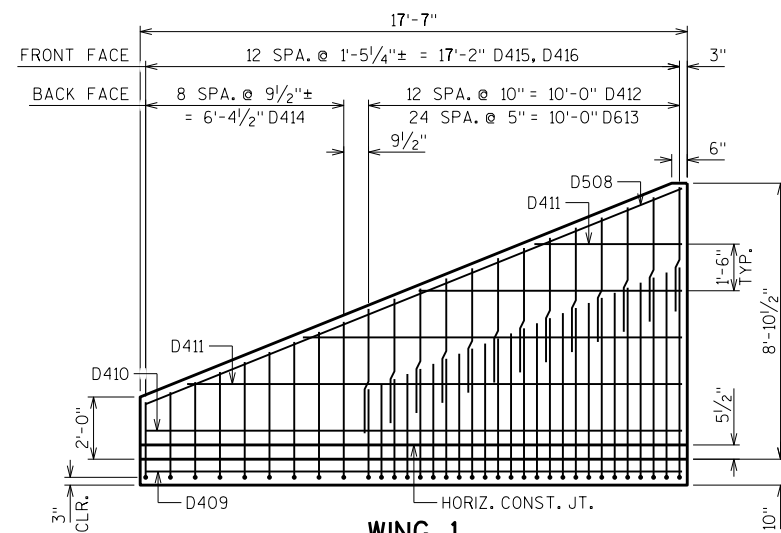
TYPICAL SECTION THRU BOX

ALL LONGITUDINAL BARS NOT LABELED ARE B404 BARS AS SHOWN

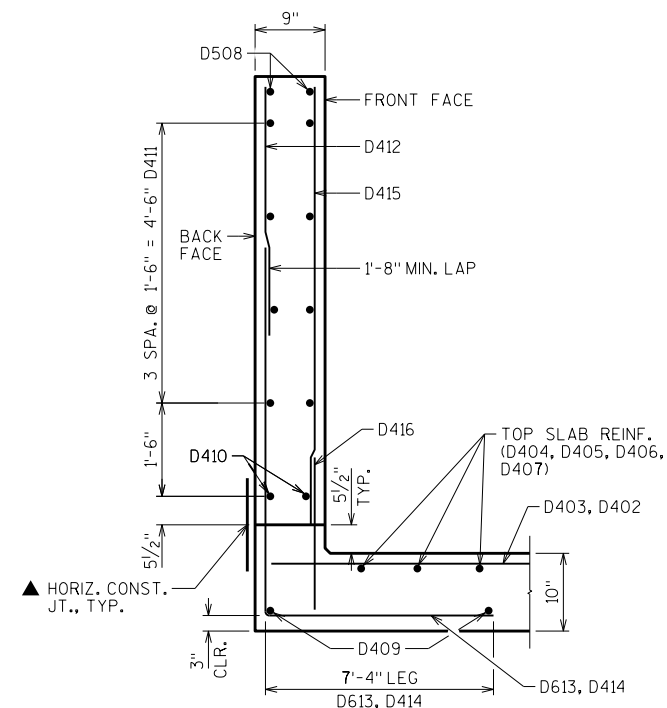
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-5-1745			
DRAWN BY		MJL	PLANS CK'D. JDM
BOX DETAILS		SHEET 2	



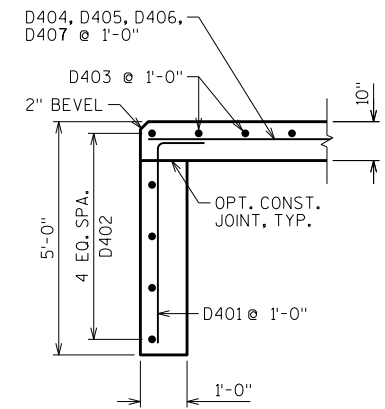
OUTLET APRON PLAN



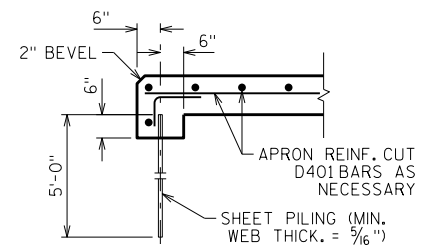
WING 1
SHOWING BACK FACE REINFORCEMENT
(WING 2 SIMILAR)



WING 1 SECTION
(WING 2 SIMILAR)



CUT-OFF WALL



ALTERNATE CUT-OFF WALL

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.

- ⊖ INDICATES WING NUMBER
- ▲ 18" RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM HORIZ. CONST. JT. TO TOP OF WALL.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-5-1745			
DRAWN BY		MJL	PLANS CK'D. JDM
APRON		SHEET 3	

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

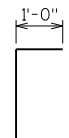
BAR MARK	COA ¹	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
D401		16	5'-6"	X		OUTLET APRON AND CUTOFF WALL VERT.
D402		5	16'-11"			OUTLET APRON AND CUTOFF WALL HORIZ.
D403		16	13'-5"		▲	OUTLET APRON SLAB HORIZ.
D404		10	16'-9"			OUTLET APRON AND BOX SLAB HORIZ.
D405		2	13'-5"			OUTLET APRON SLAB HORIZ.
D406		2	9'-8"			OUTLET APRON SLAB HORIZ.
D407		2	6'-0"			OUTLET APRON SLAB HORIZ.
D508	X	4	18'-6"			WINGS 1 & 2 HORIZ. TOP BOTH FACES
D409		4	17'-3"			WINGS 1 & 2 HORIZ. APRON SLAB
D410	X	4	17'-3"			WINGS 1 & 2 HORIZ. BOTTOM BOTH FACES
D411	X	16	10'-4"		▲	WINGS 1 & 2 HORIZ.
D412	X	26	4'-0"			WINGS 1 & 2 VERT. BACK FACE
D613	X	50	12'-3"	X	▲	WINGS 1 & 2 VERT. BACK FACE
D414	X	18	10'-11"	X	▲	WINGS 1 & 2 VERT. BACK FACE
D415	X	26	4'-10"		▲	WINGS 1 & 2 VERT. FRONT FACE
D416	X	26	2'-2"			WINGS 1 & 2 DOWELS FRONT FACE

BAR SERIES TABLE

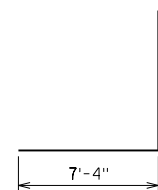
BAR MARK	NO. REQ'D	LENGTH
D403	1 SERIES OF 16	9'-4" TO 17'-5"
D411	4 SERIES OF 4	4'-9" TO 15'-11"
D613	2 SERIES OF 25	10'-3" TO 14'-2"
D414	2 SERIES OF 9	9'-7" TO 12'-2"
D415	2 SERIES OF 13	1'-4" TO 8'-3"

BUNDLE AND TAG EACH SERIES SEPARATELY

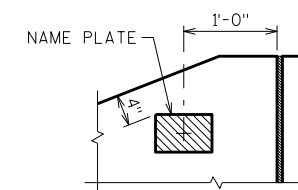
▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



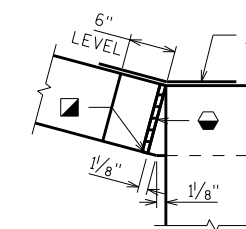
D401



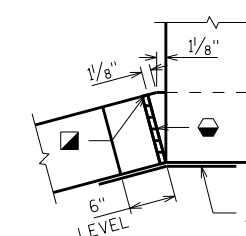
D613, D414



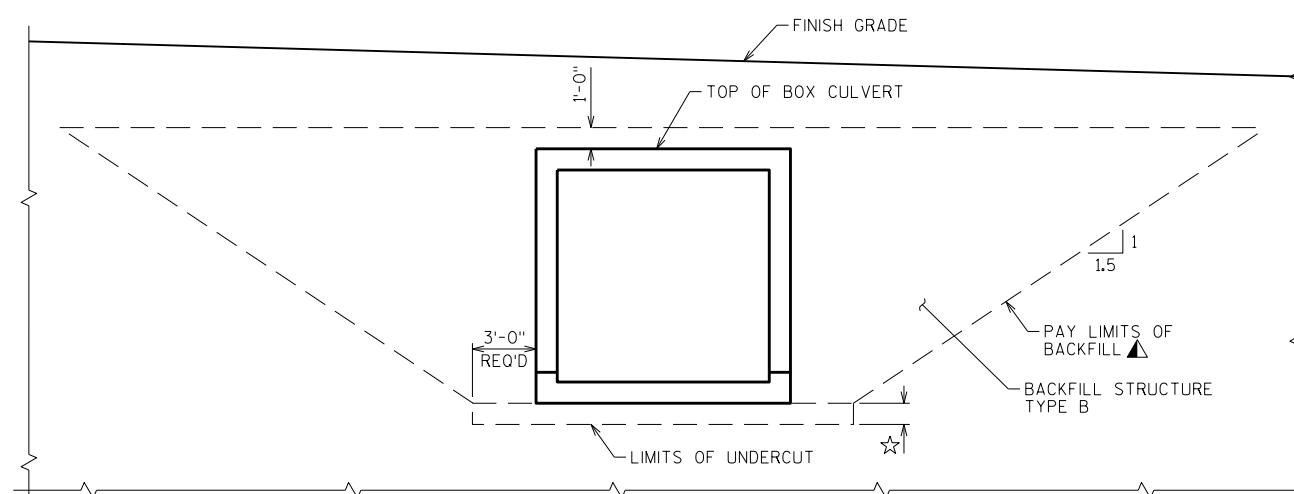
NAME PLATE LOCATION WING 1



WING 1 CORNER



WING 2 CORNER



TYPICAL SECTION THRU BOX CULVERT

▲ BACKFILL PAY LIMITS, BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

☆ UNDER CUT 1'-0" (INCLUDED IN EXCAVATION FOR STRUCTURES), PLACE GEOTEXTILE, TYPE 'C', AND BACKFILL WITH 'BREAKER RUN'. EXTEND 3'-0" BEYOND THE FOOTPRINT OF THE CULVERT.

● 3/4" FILLER, TYP. EXTEND FILLER FROM HORIZ. CONST. JT. TO TOP OF WING.

■ 1" BEVEL, TYP.

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING, EXTEND FROM HORIZ. CONST. JT. TO TOP OF WALL.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-5-1745			
DRAWN BY		MJL	PLANS CK'D. JDM
APRON DETAILS		SHEET 4	

Man Cal Road Realignment - West

STATION	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
	CUT	PAVEMENT MATERIAL	FILL	CUT	PAVEMENT MATERIAL	FILL	EXPANDED		
							NOTE 1	NOTE 2	NOTE 3
10+00	22.51	7.33	55.67	0	0	0	0	0	0
10+50	25.58	7.33	40.62	45	14	89	45	127	-96
11+00	39.40	7.33	35.42	60	14	70	105	227	-149
11+15.74	49.08	7.33	50.49	26	4	25	130	262	-163
11+41.43	82.10	7.33	45.98	62	7	46	193	327	-173
11+62.83	80.27	7.33	1.93	64	6	19	257	354	-141

Man Cal Road Realignment - East

STATION	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
	CUT	PAVEMENT MATERIAL	FILL	CUT	PAVEMENT MATERIAL	FILL	EXPANDED		
							NOTE 1	NOTE 2	NOTE 3
12+22.98	61.56	0.00	120.67	0	0	0	0	0	0
12+47.46	69.52	0.00	37.13	59	0	72	59	102	-42
12+70.42	31.23	0.00	3.82	43	0	17	102	126	-24
13+00	88.42	0.00	0.00	66	0	2	168	129	39
13+50	47.29	0.00	21.56	126	0	20	293	158	136
14+00	42.09	0.00	31.21	83	0	49	376	227	149
14+50	6.57	0.00	47.88	45	0	73	421	331	90
15+00	22.55	7.33	35.41	27	7	77	448	441	1
15+50	21.38	7.33	20.93	41	14	52	489	515	-46
16+00	17.93	7.33	9.50	36	14	28	525	555	-63
16+50	24.60	7.33	6.99	39	14	15	565	576	-59
17+02.87	25.46	7.33	5.02	49	14	12	614	593	-41

STH 32 - Man Cal Road Turn Lanes

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	PAVEMENT MATERIAL	FILL	CUT	PAVEMENT MATERIAL	FILL	EXPANDED		MASS ORDINATE
									1.00	1.42	
NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 8							
61+79.34	6179.34	0.00	11.38	3.50	1.48	0	0	0	0	0	0
62+00	6200.00	20.66	11.14	3.50	1.64	9	3	1	9	2	4
62+50	6250.00	50.00	10.84	3.50	4.41	20	6	6	29	10	10
63+00	6300.00	50.00	10.91	3.50	10.80	20	6	14	49	30	4
63+50	6350.00	50.00	11.33	3.50	14.69	21	6	24	70	63	-16
64+00	6400.00	50.00	12.04	3.50	15.49	22	6	28	91	103	-40
64+50	6450.00	50.00	12.42	3.50	17.48	23	6	31	114	146	-67
65+00	6500.00	50.00	12.84	3.50	20.84	23	6	35	137	197	-101
65+46.03	6546.03	46.03	11.25	3.50	3.13	21	6	20	158	226	-115
65+50	6550.00	3.97	17.62	3.50	33.77	2	1	3	160	229	-117
66+00	6600.00	50.00	12.53	3.50	16.20	28	6	46	188	295	-162
66+39.17	6639.17	39.17	28.39	7.00	109.91	30	8	91	218	425	-270
66+43.49	6643.49	4.32	2.70	2.50	36.76	2	1	12	220	442	-284

STH 32 - Man Cal Road Turn Lanes

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	PAVEMENT MATERIAL	FILL	CUT	PAVEMENT MATERIAL	FILL	EXPANDED		MASS ORDINATE
									1.00	1.42	
NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 8							
67+67.99	6767.99	0.00	80.92	3.50	0.00	0	0	0	0	0	0
67+75.5	6775.50	7.51	47.26	3.50	0.00	18	1	0	18	0	17
68+00	6800.00	24.50	113.48	3.50	0.00	73	3	0	91	0	87
68+50	6850.00	50.00	38.20	7.00	3.71	140	10	3	231	5	212
68+67.4	6867.40	17.40	13.10	3.50	0.00	17	3	1	248	7	224
69+00	6900.00	32.60	12.21	3.50	9.57	15	4	6	263	15	227
69+50	6950.00	50.00	11.02	3.50	13.71	22	6	22	285	45	211
70+00	7000.00	50.00	10.81	3.50	15.63	20	6	27	305	84	186
70+50	7050.00	50.00	11.20	3.50	16.09	20	6	29	325	126	158
71+00	7100.00	50.00	11.86	3.50	13.30	21	6	27	346	164	135
71+50	7150.00	50.00	12.54	3.50	4.76	23	6	17	369	188	127
72+00	7200.00	50.00	12.52	3.50	1.67	23	6	6	392	197	135
72+34.73	7234.73	34.73	12.27	3.50	1.76	16	5	2	408	200	144

Beamguard Replacement - STA 77+55

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	PAVEMENT MATERIAL	FILL	CUT	PAVEMENT MATERIAL	FILL	EXPANDED		MASS ORDINATE
									1.00	1.42	
NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 8							
77+55.13	7755.13	0.00	0.99	0.63	0.09	0	0	0	0	0	0
78+00	7800.00	44.87	1.25	0.63	2.58	2	1	2	2	3	-2
78+26.84	7826.84	26.84	1.24	0.63	1.95	1	1	2	3	6	-5
78+50	7850.00	23.16	4.00	2.30	6.41	2	1	4	5	11	-9
79+13.19	7913.19	63.19	5.87	1.67	2.70	12	5	11	17	27	-17
79+50	7950.00	36.81	3.27	1.67	2.89	6	2	4	23	32	-19
80+00	8000.00	50.00	2.52	1.67	0.74	5	3	3	28	37	-21
80+50	8050.00	50.00	2.05	1.67	1.30	4	3	2	33	39	-23
81+00	8100.00	50.00	2.34	1.67	1.84	4	3	3	37	44	-26
81+50	8150.00	50.00	1.31	1.67	2.66	3	3	4	40	49	-32
82+00	8200.00	50.00	1.81	1.67	1.20	3	3	4	43	55	-37
82+50	8250.00	50.00	1.90	1.67	0.23	3	3	1	46	56	-38
83+00	8300.00	50.00	1.81	1.67	0.21	3	3	0	50	57	-39
83+50	8350.00	50.00	1.60	1.67	0.30	3	3	0	53	58	-39
84+00	8400.00	50.00	1.66	1.67	1.06	3	3	1	56	59	-41
84+50	8450.00	50.00	2.17	1.67	8.56	4	3	9	60	72	-53
85+00	8500.00	50.00	1.61	0.63	2.72	3	2	10	63	87	-67
85+50.68	8550.68	50.68	2.65	1.67	0.00	4	2	3	67	91	-68
85+55.45	8555.45	4.77	1.20	0.63	0.02	0	0	0	67	91	-68
86+00	8600.00	44.55	3.57	1.67	0.66	4	2	1	71	91	-67
86+50	8650.00	50.00	1.60	0.63	4.13	5	2	4	76	98	-71
87+09.33	8709.33	59.33	1.21	0.63	0.48	3	1	5	79	105	-76

Beamguard Replacement - STA 114+98

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	PAVEMENT MATERIAL	FILL	CUT	PAVEMENT MATERIAL	FILL	EXPANDED		MASS ORDINATE
									1.00	1.42	
NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 8							
114+98.35	11498.35	0.00	1.62	0.63	2.52	0	0	0	0	0	0
115+50	11550.00	51.65	1.75	0.63	6.84	3	1	9	3	13	-11
116+00	11600.00	50.00	2.12	1.67	9.24	4	2	15	7	34	-30
116+56.44	11656.44	56.44	2.55	1.67	1.10	5	3	11	12	49	-44

Beamguard Replacement - STA 118+67

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	PAVEMENT MATERIAL	FILL	CUT	PAVEMENT MATERIAL	FILL	EXPANDED		MASS ORDINATE
									NOTE 1	NOTE 2	
118+66.82	11866.82	0.00	3.49	1.67	0.00	0	0	0	0	49	-44
119+00	11900.00	33.18	3.22	1.67	1.11	4	2	1	4	50	-43
119+31.38	11931.38	31.38	4.68	3.33	6.32	5	3	4	9	56	-48
120+00	12000.00	68.62	4.22	2.30	11.47	11	7	23	20	88	-76
120+24.9	12024.90	24.90	1.56	0.63	0.04	3	1	5	23	96	-82
120+50	12050.00	25.10	1.26	0.63	9.79	1	1	5	24	102	-88
120+89.46	12089.46	39.46	1.29	0.63	4.92	2	1	11	26	118	-102

STH 32 - Hill Road Turn Lanes

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	PAVEMENT MATERIAL	FILL	CUT	PAVEMENT MATERIAL	FILL	EXPANDED		MASS ORDINATE
									NOTE 1	NOTE 2	
174+90.1	17490.10	0.00	0.00	0.00	0.00	0	0	0	0	0	0
175+50	17550.00	59.90	11.48	3.50	8.88	13	4	10	13	14	-5
176+00	17600.00	50.00	11.04	3.50	22.03	21	6	29	34	55	-31
176+50	17650.00	50.00	11.03	3.50	38.20	20	6	56	54	134	-97
177+00	17700.00	50.00	11.64	3.50	32.52	21	6	65	75	227	-175
177+50	17750.00	50.00	12.05	3.50	28.51	22	6	57	97	307	-240
178+00	17800.00	50.00	12.00	3.50	29.34	22	6	54	119	383	-300
178+50	17850.00	50.00	11.86	3.50	25.03	22	6	50	141	455	-356
178+55.97	17855.97	5.97	5.96	3.50	15.08	2	1	4	143	461	-361
179+00	17900.00	44.03	24.89	7.00	37.07	25	9	43	168	521	-405
179+50	17950.00	50.00	20.01	3.50	0.08	42	10	34	210	570	-422
179+50.1	17950.10	0.10	20.02	3.50	0.08	0	0	0	210	570	-422
179+55.97	17955.97	5.87	13.78	3.50	9.41	4	1	1	214	572	-421

STH 32 - Hill Road Turn Lanes

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			SALVAGED/UNUSABLE			SALVAGED/UNUSABLE			EXPANDED		
			CUT	PAVEMENT MATERIAL	FILL	CUT	PAVEMENT MATERIAL	FILL	CUT 1.00	FILL 1.42	MASS ORDINATE
			NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8			
180+72.04	18072.04	0.00	35.56	3.50	1.20	0	0	0	0	0	0
180+78.42	18078.42	6.38	0.00	0.00	0.00	4	0	0	4	0	4
181+00	18100.00	21.58	39.04	7.00	26.71	16	3	11	20	15	1
181+50	18150.00	50.00	32.68	7.00	31.99	66	13	54	86	93	-23
181+71.85	18171.85	21.85	13.71	3.50	6.16	19	4	15	105	114	-30
182+00	18200.00	28.15	17.79	3.50	32.08	16	4	20	121	143	-45
182+50	18250.00	50.00	16.45	3.50	29.61	32	6	57	153	224	-101
183+00	18300.00	50.00	11.72	3.50	29.26	26	6	55	179	301	-159
183+50	18350.00	50.00	9.86	3.50	32.40	20	6	57	199	382	-227
184+00	18400.00	50.00	9.89	3.50	28.43	18	6	56	217	462	-295
184+50	18450.00	50.00	10.34	3.50	16.05	19	6	41	236	521	-341
185+00	18500.00	50.00	10.72	3.50	8.41	19	6	23	256	553	-360
185+50.93	18550.93	50.93	4.27	3.50	4.84	14	7	13	270	571	-370

Beamguard Replacement - STA 327+99

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			SALVAGED/UNUSABLE			SALVAGED/UNUSABLE			EXPANDED		
			CUT	PAVEMENT MATERIAL	FILL	CUT	PAVEMENT MATERIAL	FILL	CUT 1.00	FILL 1.42	MASS ORDINATE
			NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8			
327+98.54	32798.54	0.00	0.73	0.63	2.91	0	0	0	0	0	0
328+50	32850.00	51.46	0.64	0.63	14.95	1	1	17	1	24	-24
329+00	32900.00	50.00	2.29	1.67	11.66	3	2	25	4	59	-58
329+57.25	32957.25	57.25	1.38	1.67	16.50	4	4	30	8	102	-100

Beamguard Replacement - STA 333+84

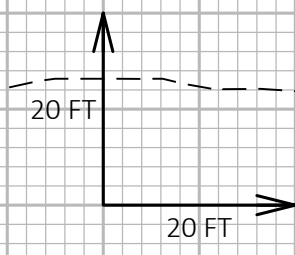
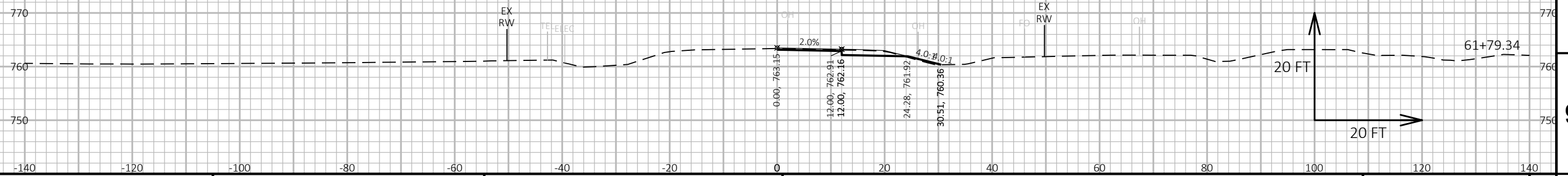
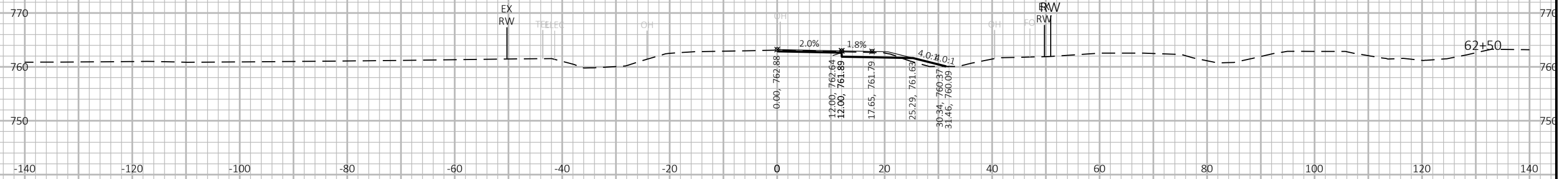
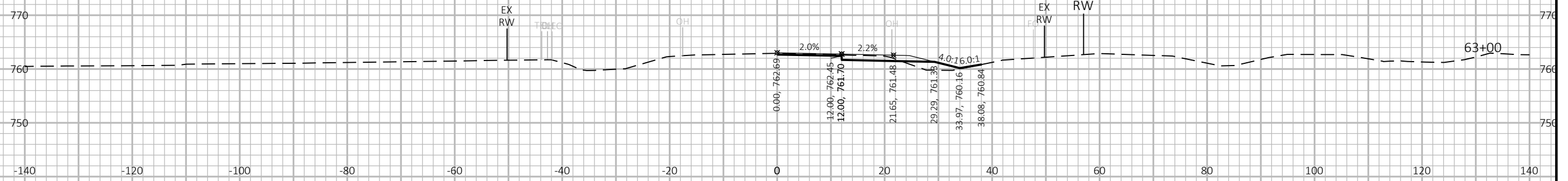
STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			SALVAGED/UNUSABLE			SALVAGED/UNUSABLE			EXPANDED		
			CUT	PAVEMENT MATERIAL	FILL	CUT	PAVEMENT MATERIAL	FILL	CUT	FILL	MASS ORDINATE
			NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8			
333+83.62	33383.62	0.00	2.51	1.67	4.07	0	0	0	0	102	-100
334+50	33450.00	66.38	3.96	1.67	0.00	8	4	5	8	109	-104
335+00	33500.00	50.00	0.89	0.63	5.57	4	2	5	12	116	-109
335+42.33	33542.33	42.33	0.67	0.63	1.38	1	1	5	14	124	-116

Beamguard Replacement - STA 415+41

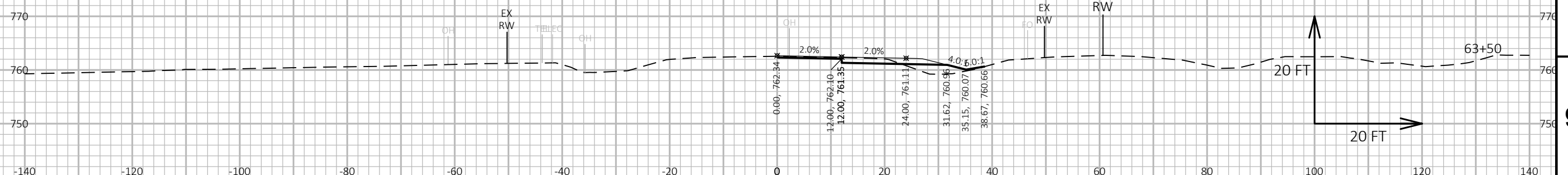
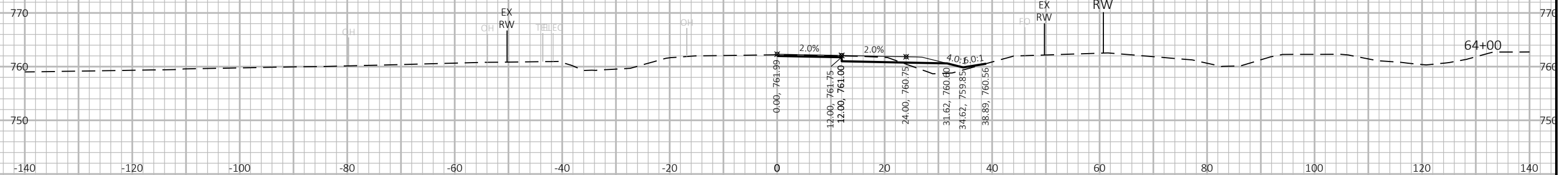
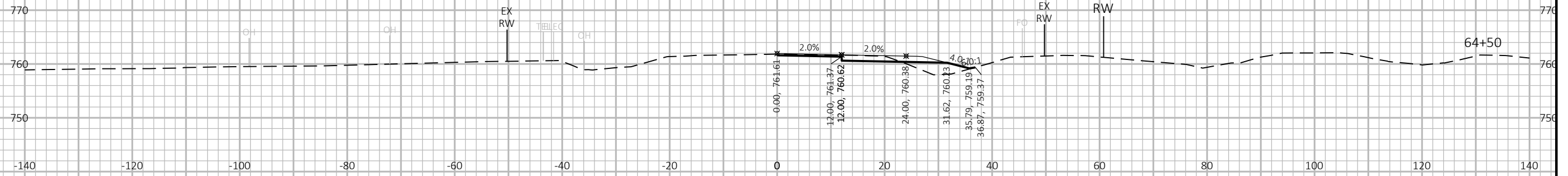
STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			SALVAGED/UNUSABLE			SALVAGED/UNUSABLE			EXPANDED		
			CUT	PAVEMENT MATERIAL	FILL	CUT	PAVEMENT MATERIAL	FILL	CUT	FILL	MASS ORDINATE
			NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8			
415+41.22	41541.22	0.00	0.56	0.50	1.11	0	0	0	0	0	0
416+00	41600.00	58.78	0.38	0.50	5.35	1	1	7	1	10	-10
416+50	41650.00	50.00	0.99	1.33	5.97	1	2	10	2	25	-25
416+98.47	41698.47	48.47	0.92	1.33	2.77	2	2	8	4	36	-37

Box Culvert Extension - STA 418+79

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			SALVAGED/UNUSABLE			SALVAGED/UNUSABLE			EXPANDED		
			CUT	PAVEMENT MATERIAL	FILL	CUT	PAVEMENT MATERIAL	FILL	CUT	FILL	MASS ORDINATE
			NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8			
418+78.76	41878.76	0.00	2.23	0.50	0.01	0	0	0	0	0	0
419+00	41900.00	21.24	2.78	0.50	35.95	2	0	14	2	20	-19
419+50	41950.00	50.00	3.11	0.50	58.07	5	1	87	7	144	-138
420+00.02	42000.02	50.02	5.58	0.50	3.60	8	1	57	15	225	-212



PROJECT NO: 4085-33-71 HWY: STH 32 COUNTY: BROWN CROSS SECTIONS: STH 32 SHEET 9



PROJECT NO: 4085-33-71

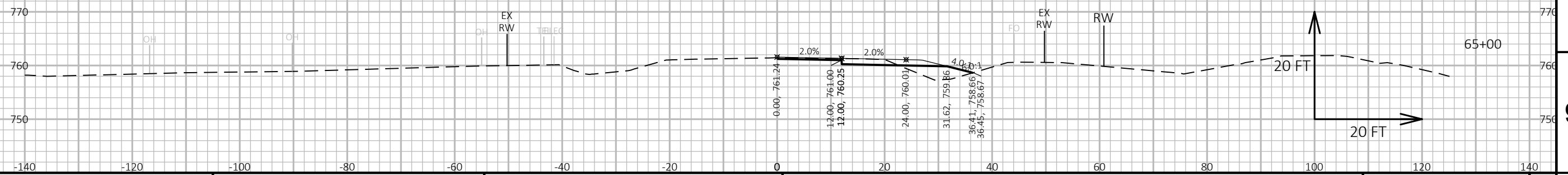
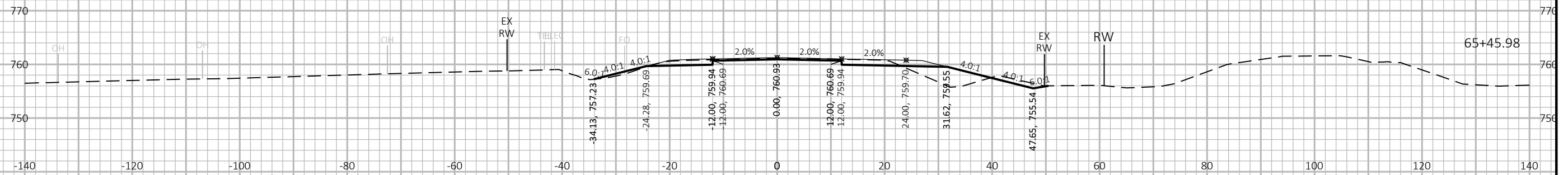
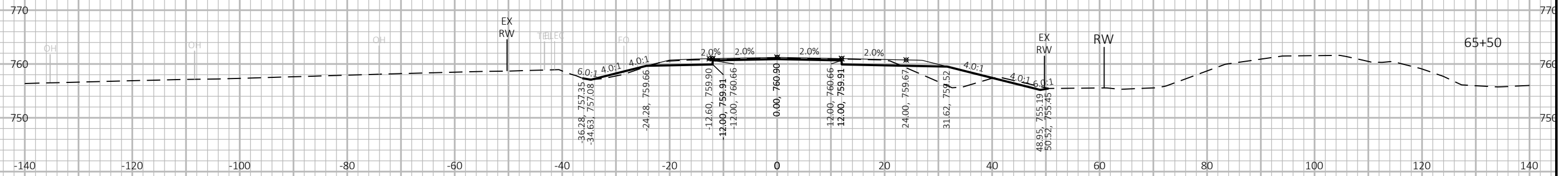
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

9



PROJECT NO: 4085-33-71

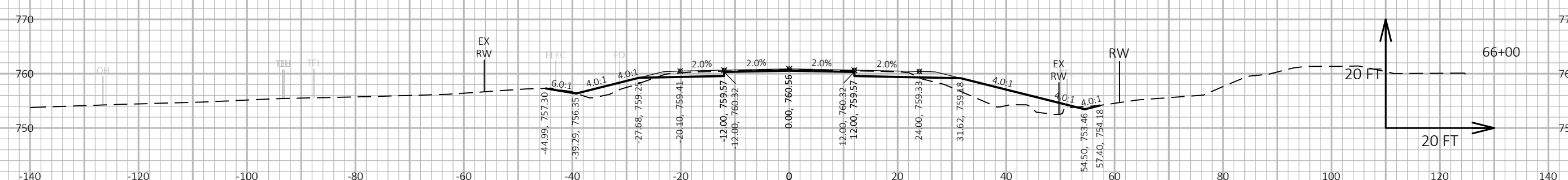
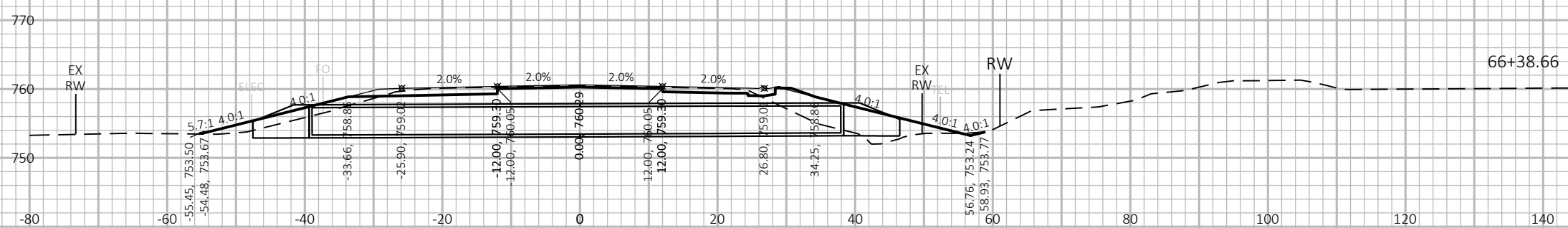
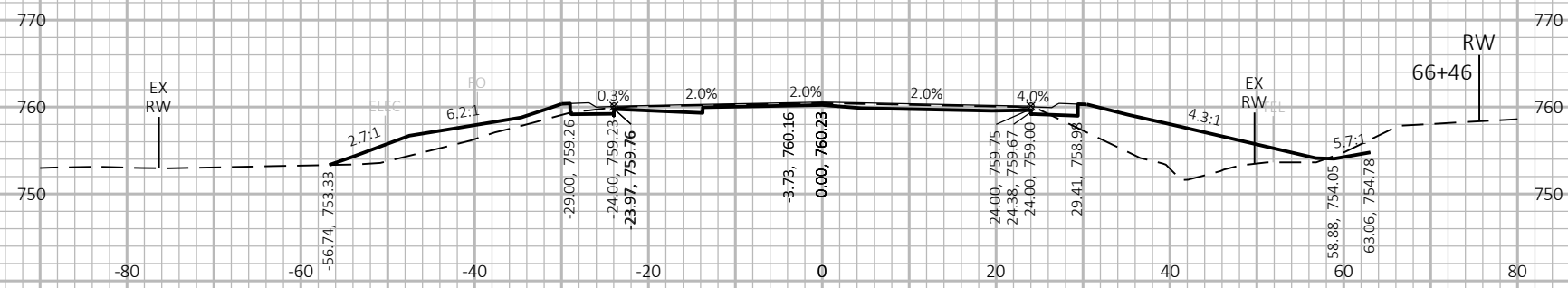
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

E



PROJECT NO: 4085-33-71

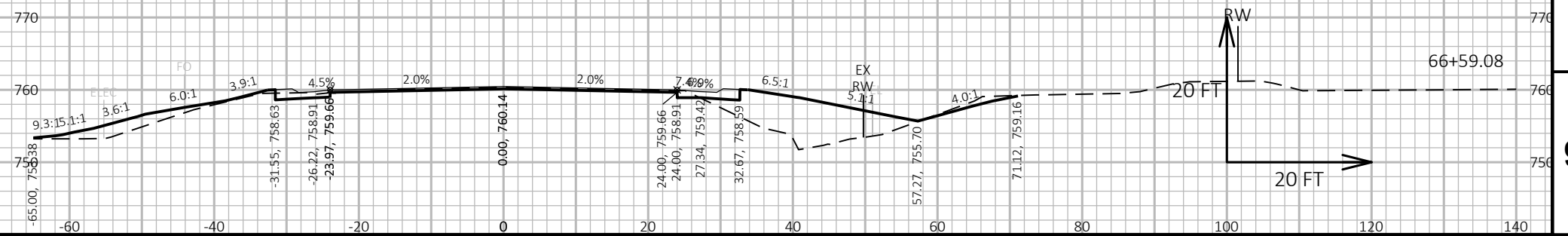
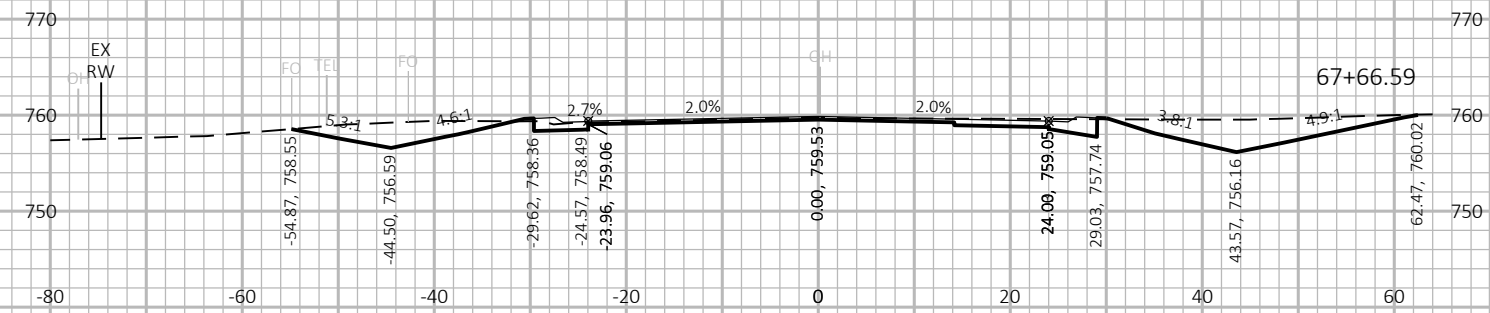
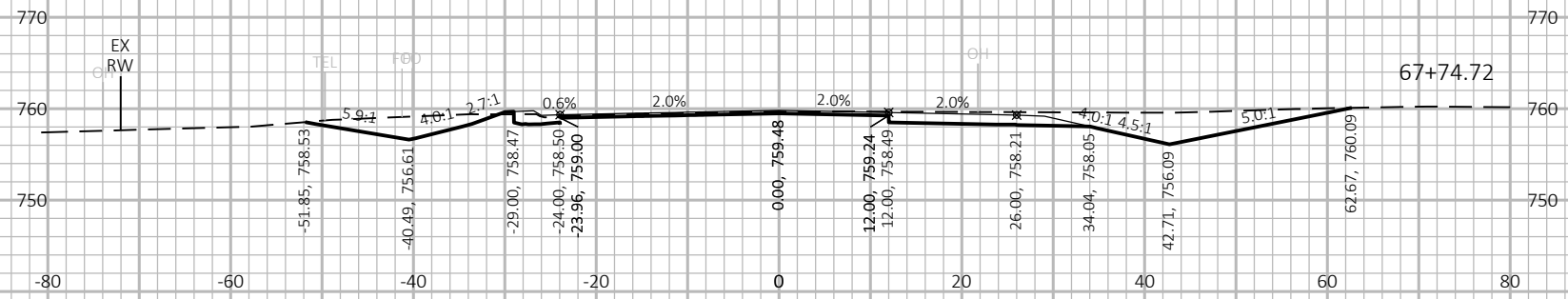
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

E



PROJECT NO: 4085-33-71

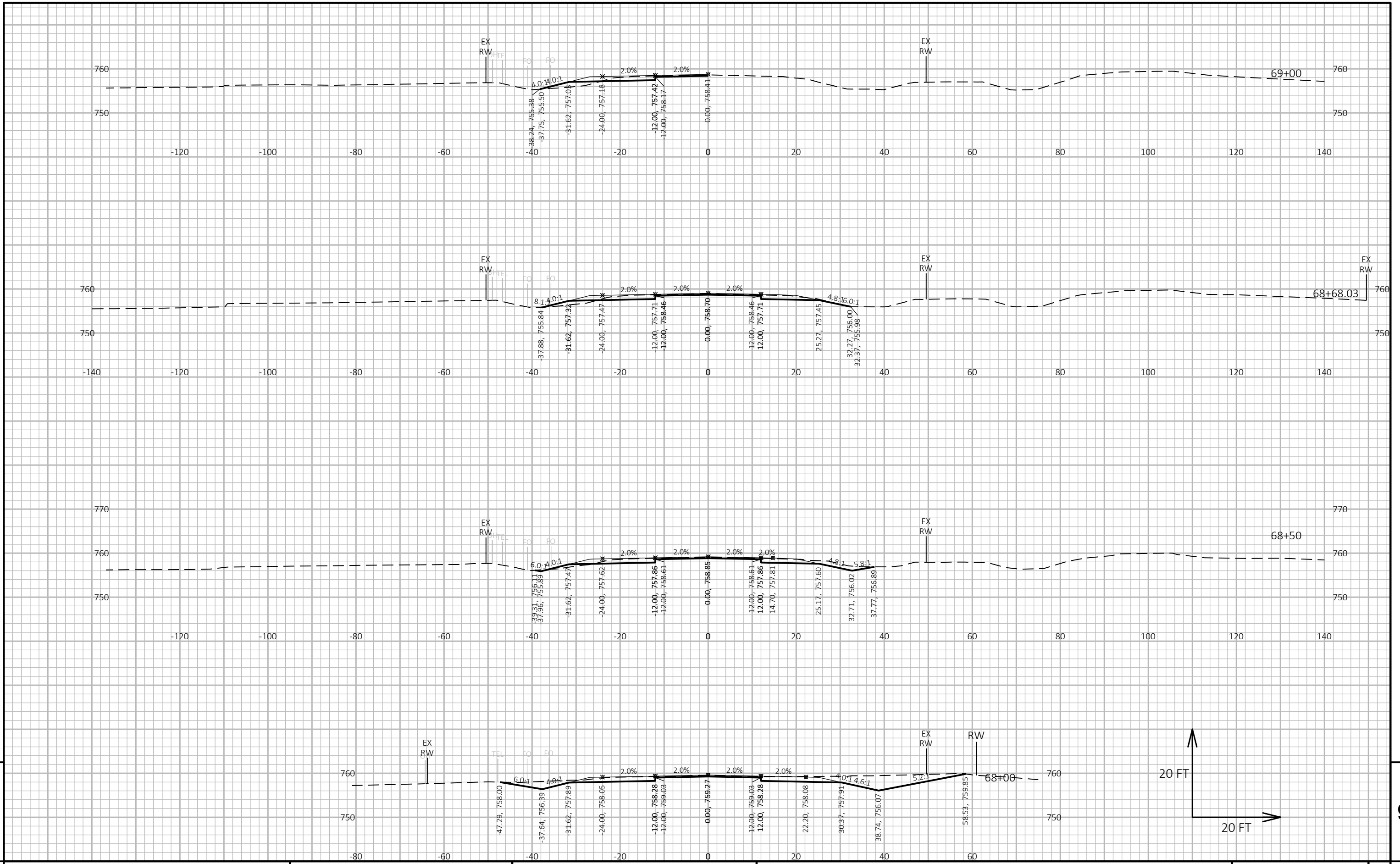
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

E



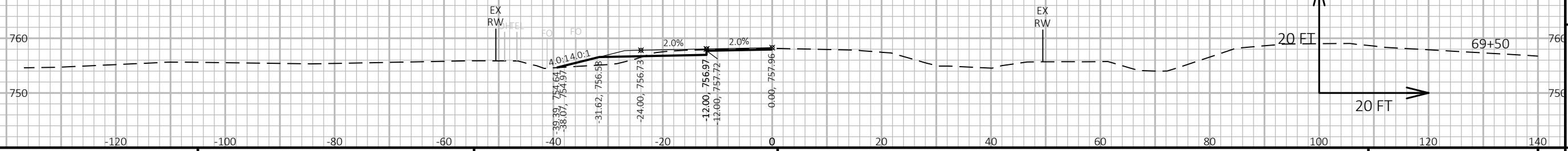
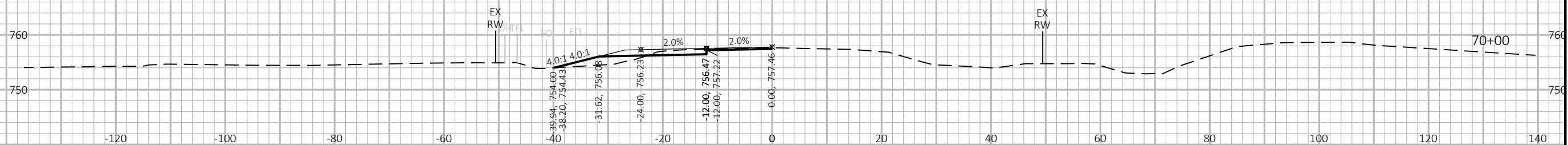
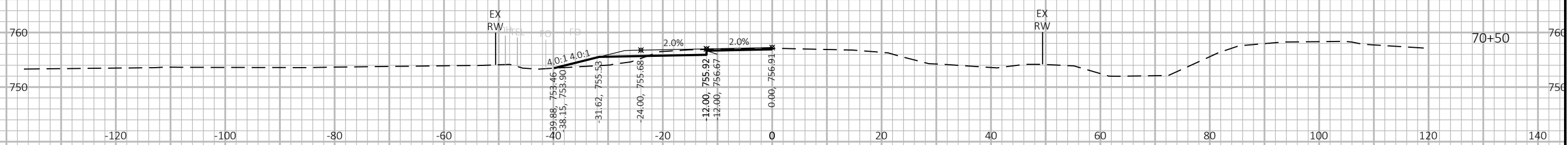
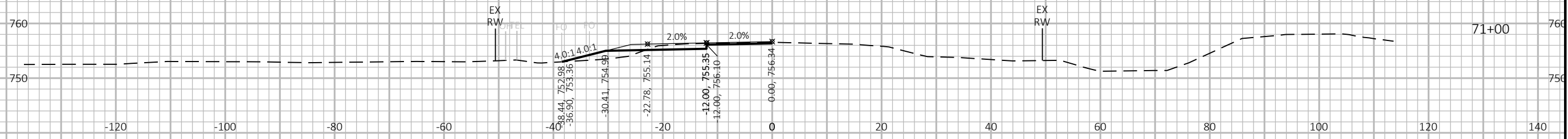
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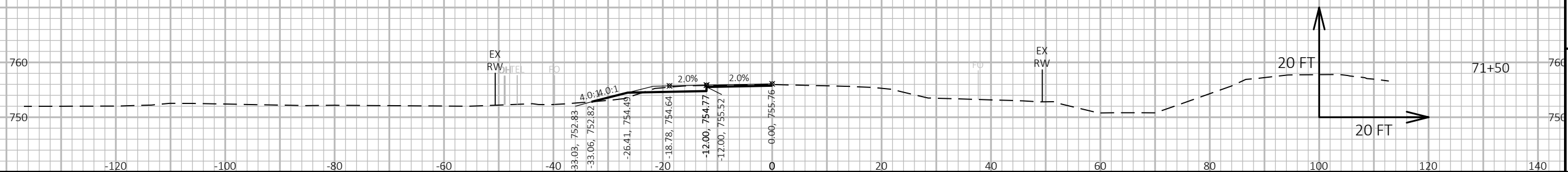
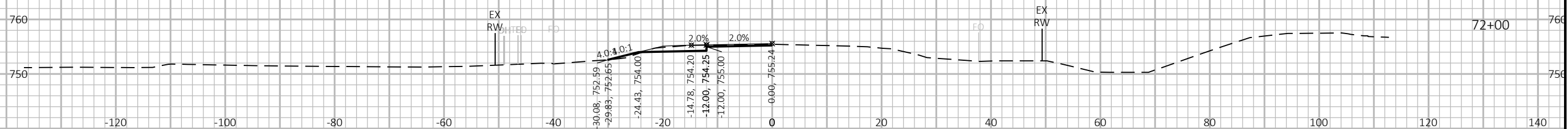
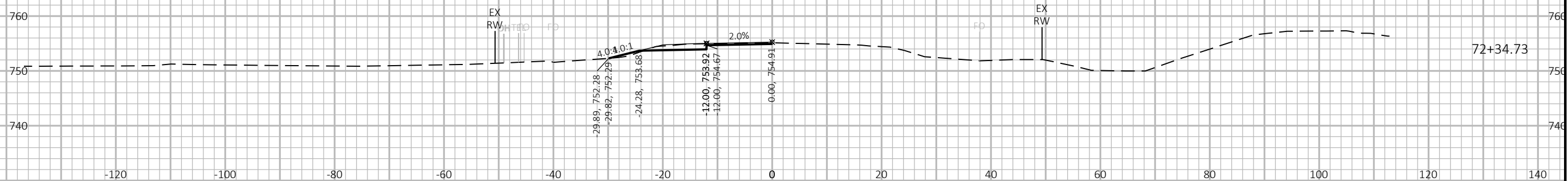
PROJECT NO: 4085-33-71 HWY: STH 32 COUNTY: BROWN CROSS SECTIONS: STH 32 SHEET E

FILE NAME : C:\USERS\DOTKZL\DESKTOP\C3D\40853300\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/9/2020 4:09 PM PLOT BY : LORENZ, KELSEY ANN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - Section Sheet - (6)



PROJECT NO: 4085-33-71 HWY: STH 32 COUNTY: BROWN CROSS SECTIONS: STH 32 SHEET E



PROJECT NO: 4085-33-71

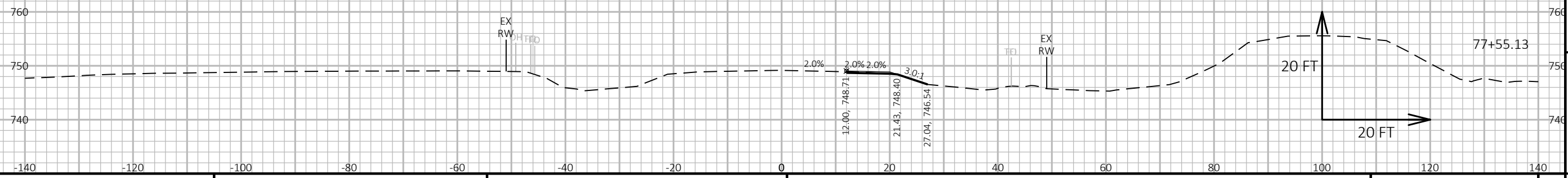
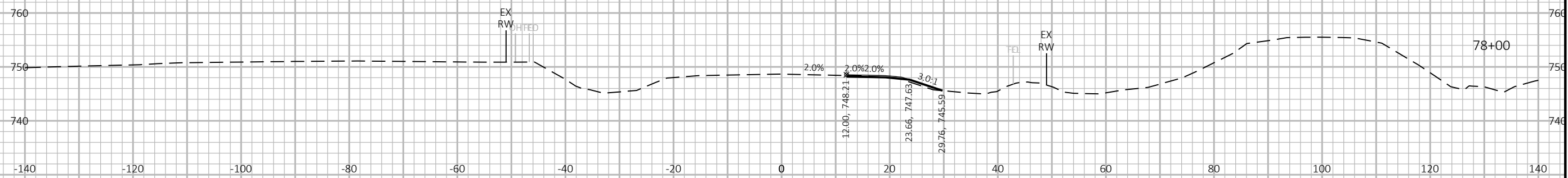
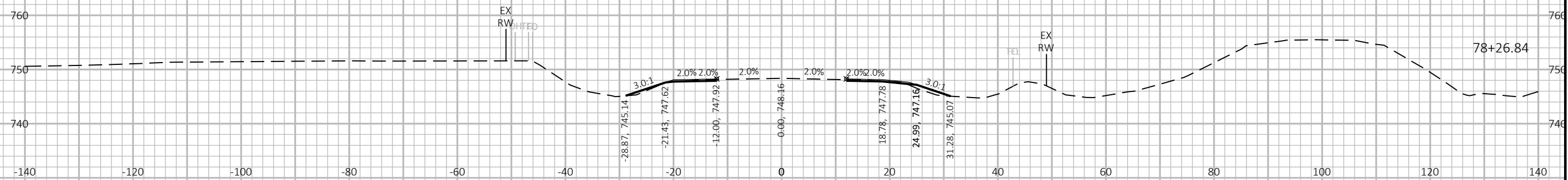
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

E



PROJECT NO: 4085-33-71

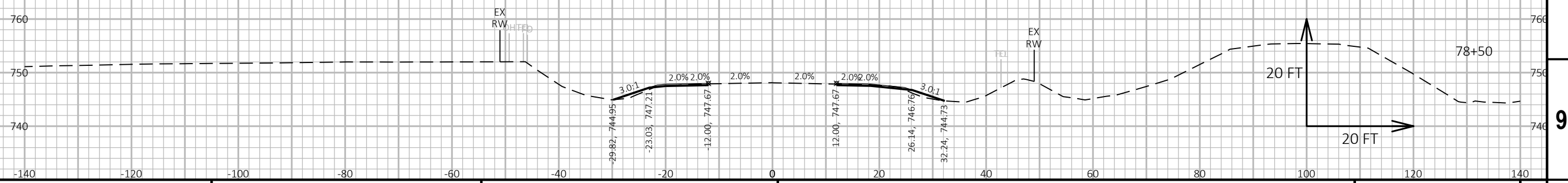
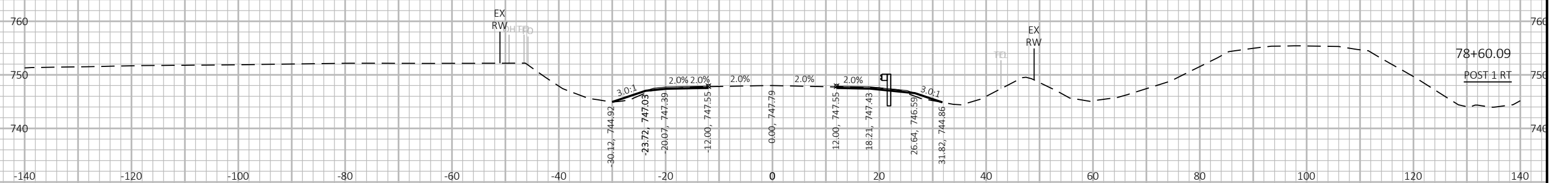
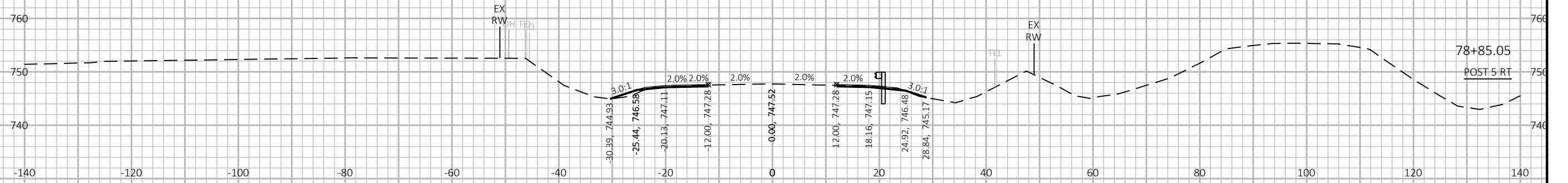
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

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PROJECT NO: 4085-33-71

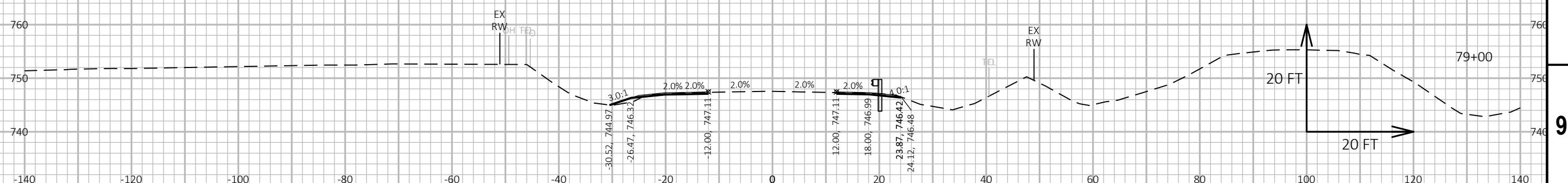
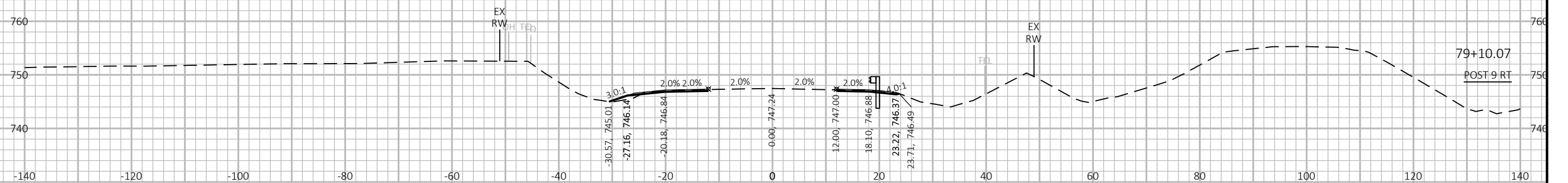
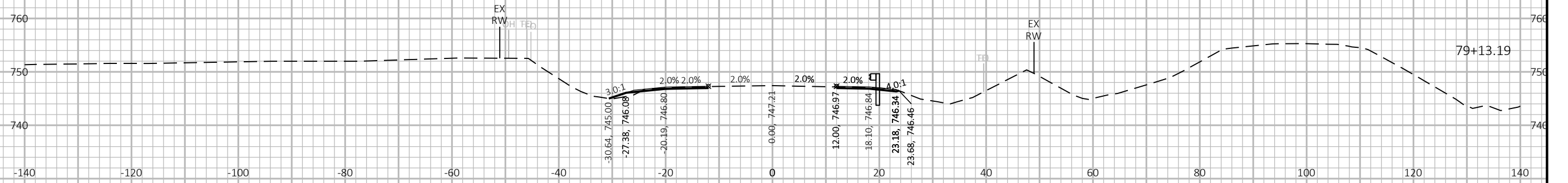
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

E



PROJECT NO: 4085-33-71

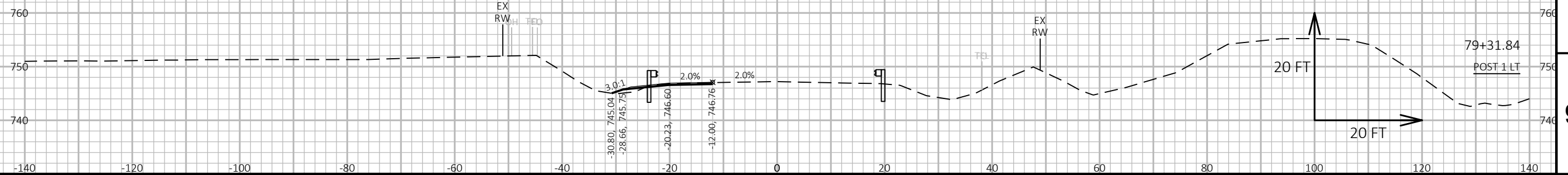
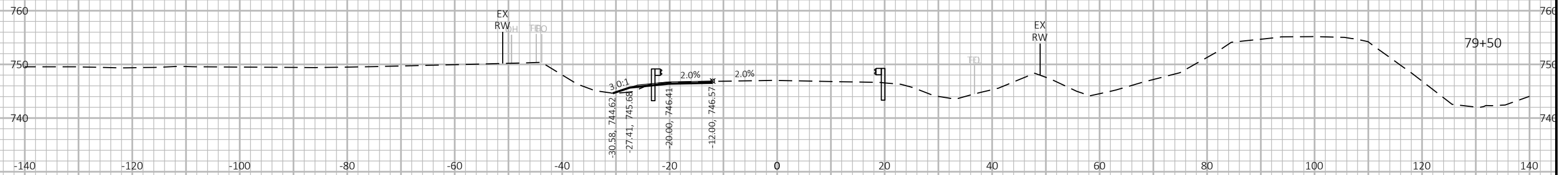
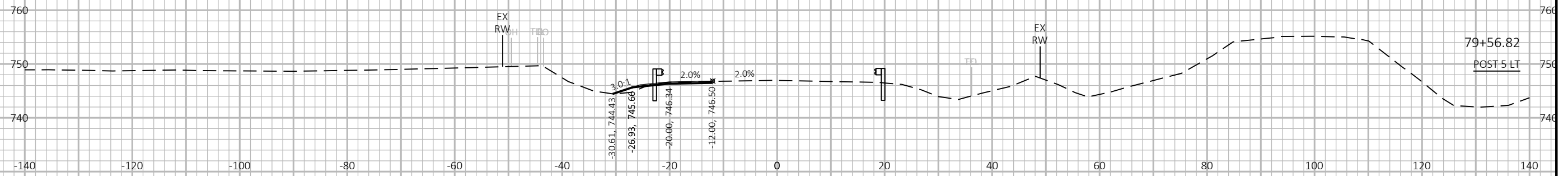
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

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PROJECT NO: 4085-33-71

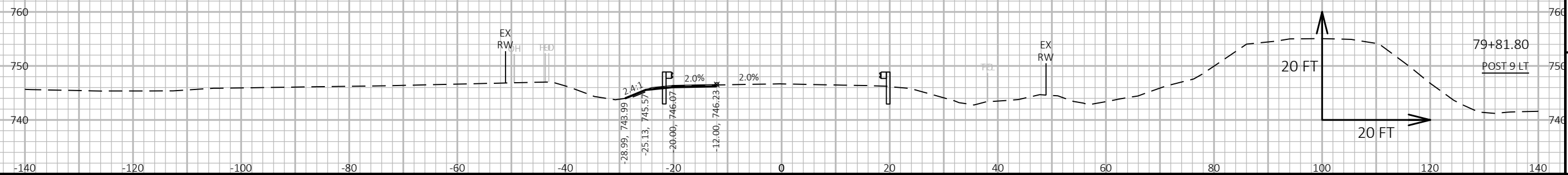
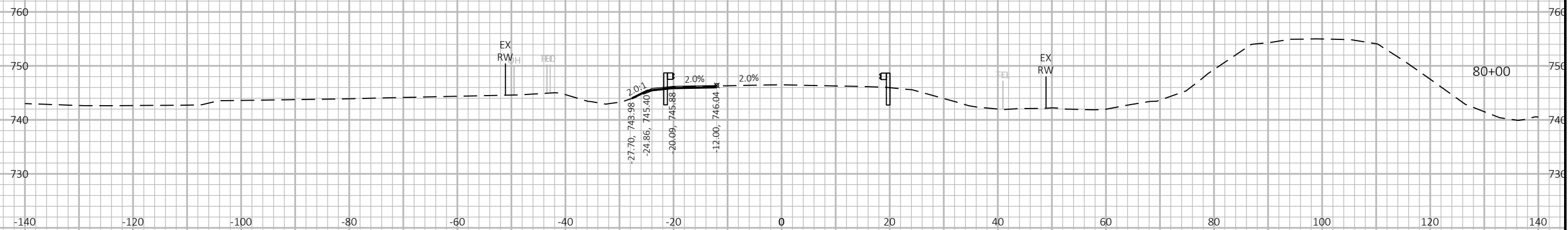
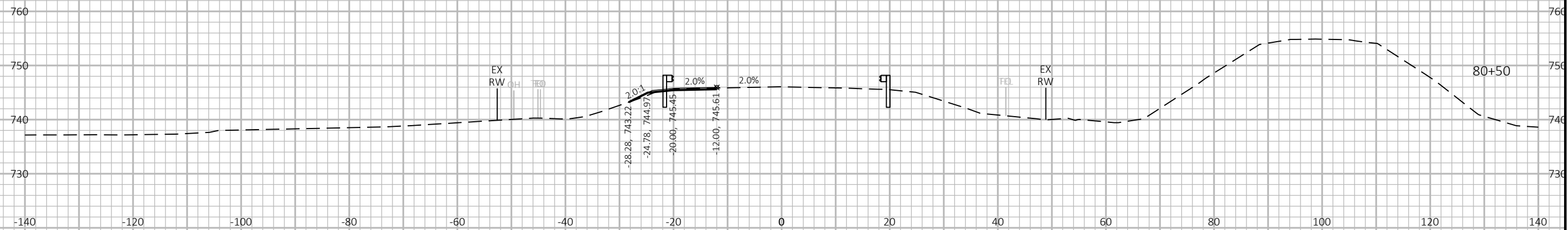
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COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

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PROJECT NO: 4085-33-71

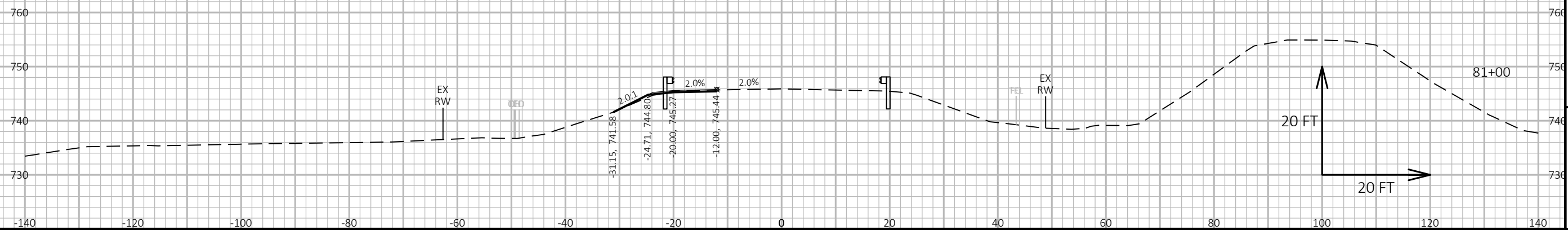
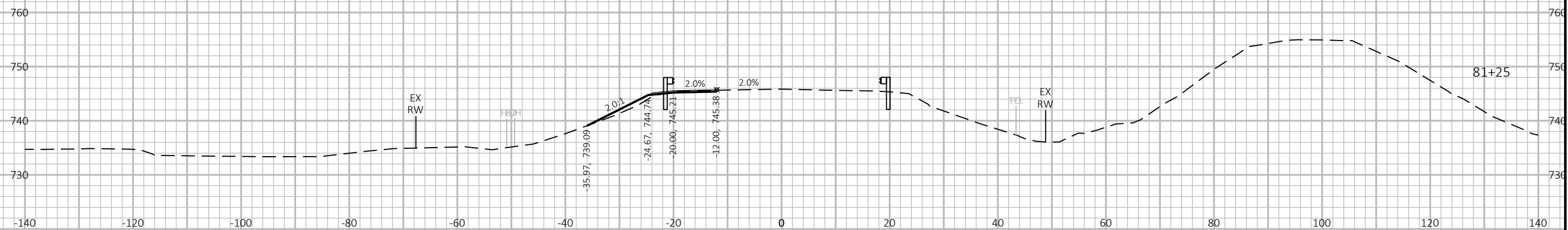
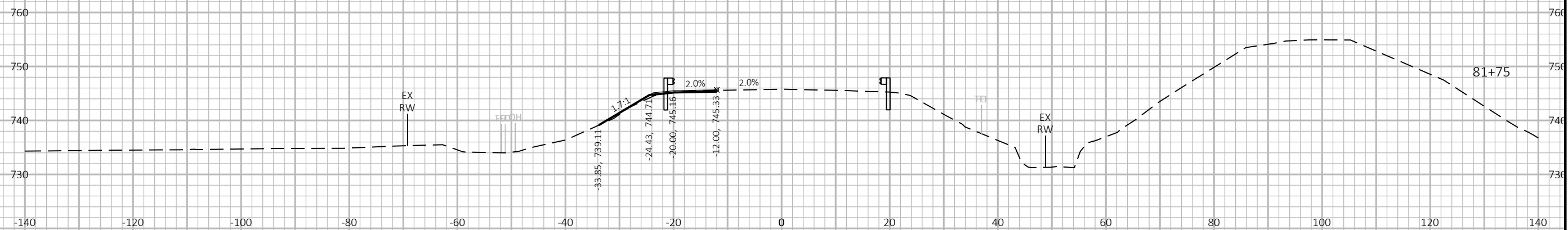
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CROSS SECTIONS: STH 32

SHEET

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PROJECT NO: 4085-33-71

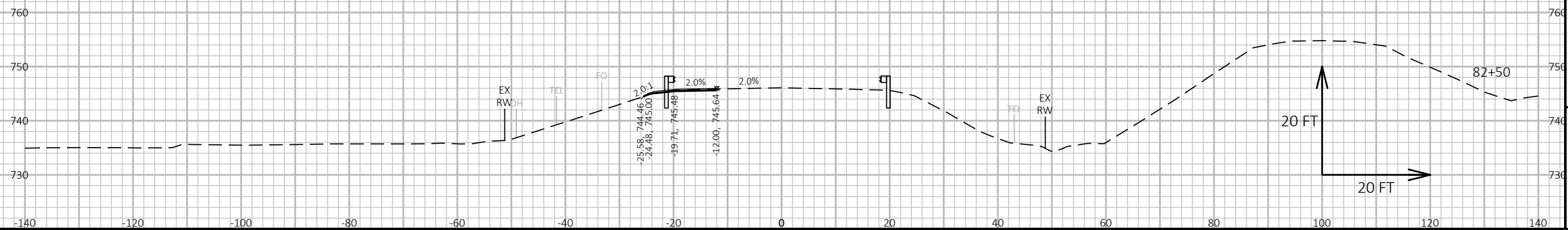
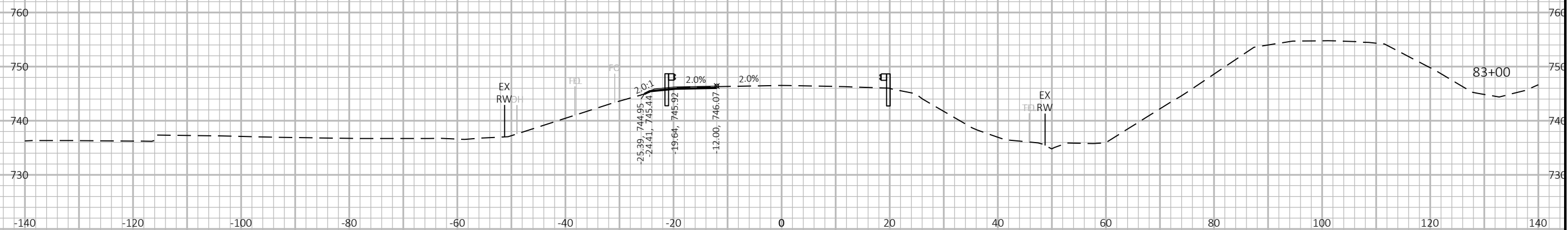
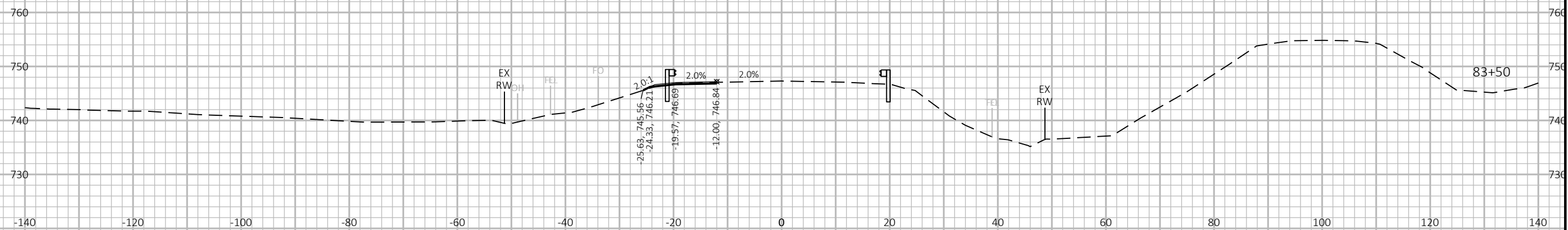
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COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

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PROJECT NO: 4085-33-71

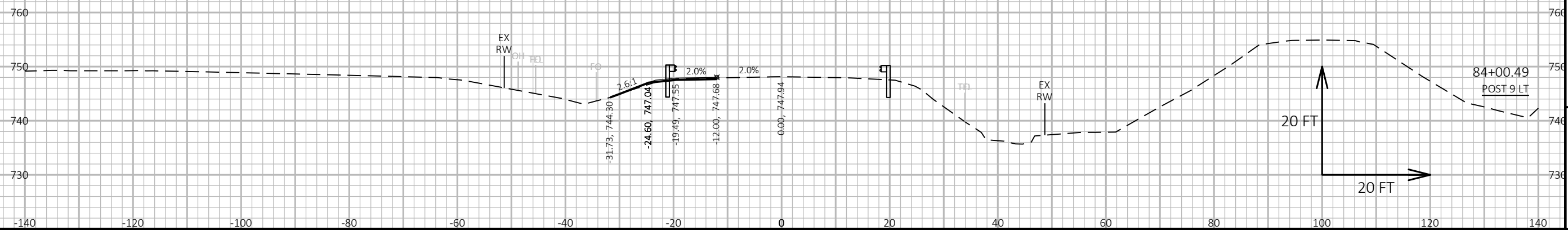
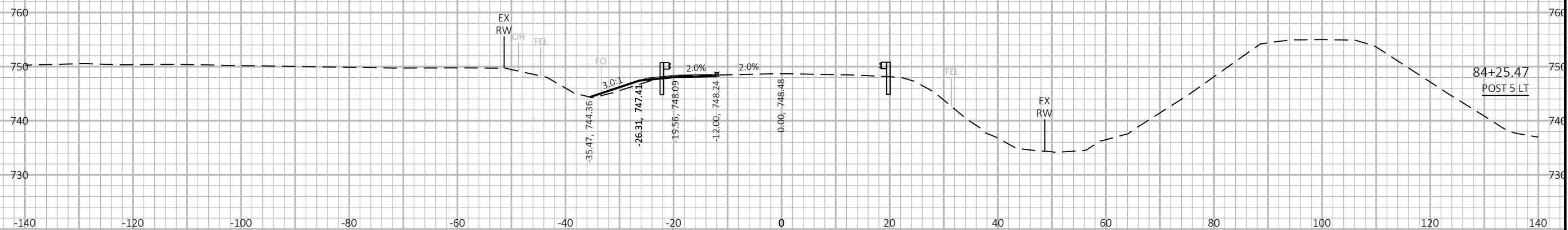
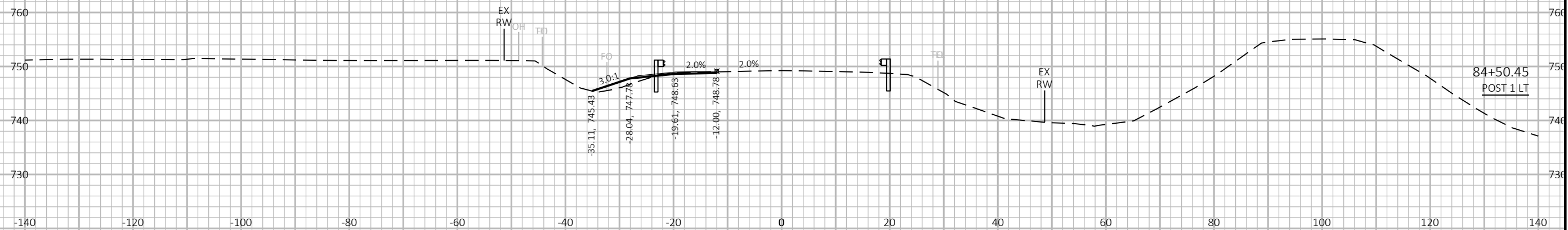
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CROSS SECTIONS: STH 32

SHEET

E



PROJECT NO: 4085-33-71

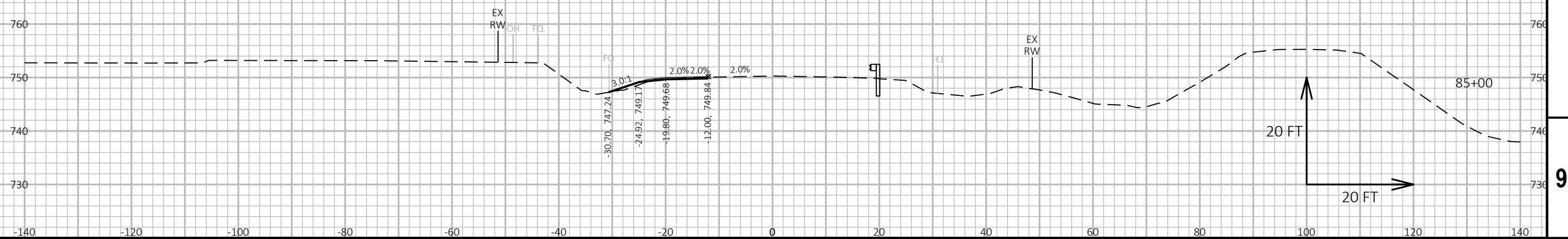
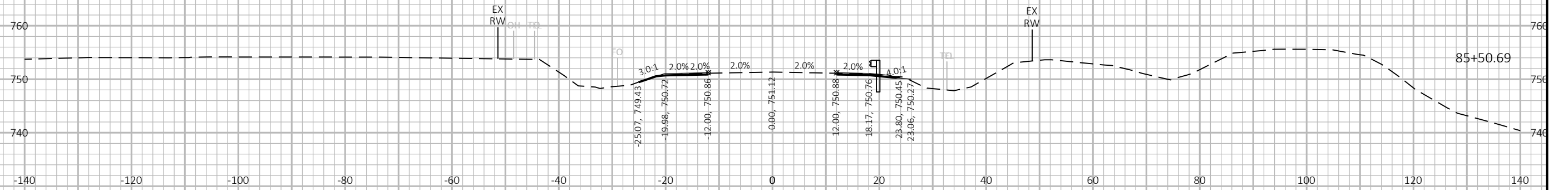
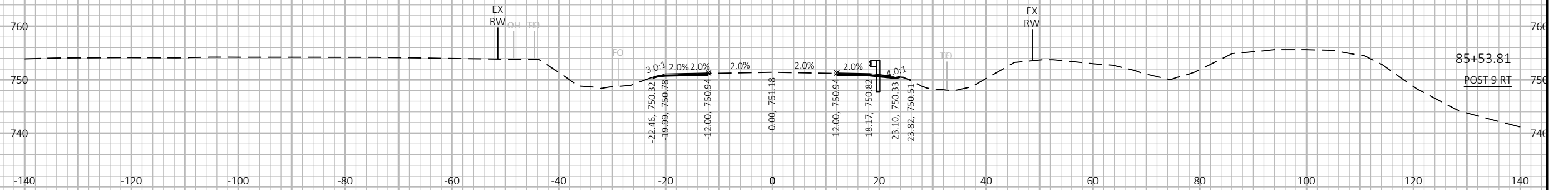
HWY: STH 32

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CROSS SECTIONS: STH 32

SHEET

E



PROJECT NO: 4085-33-71

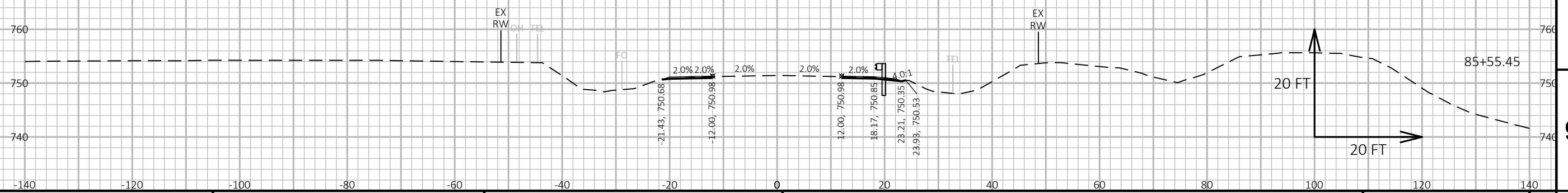
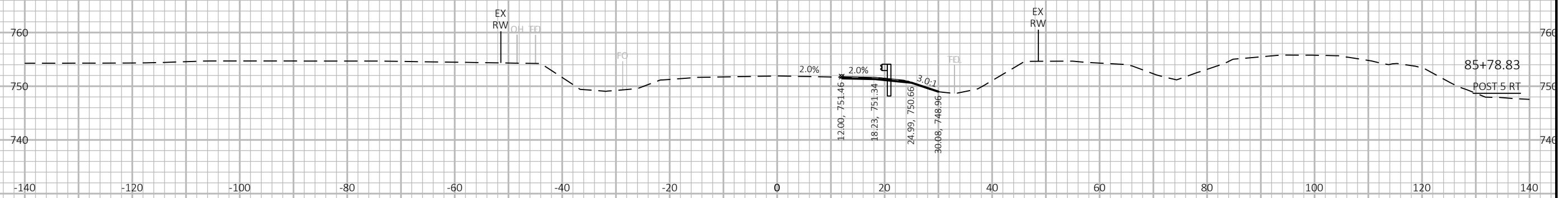
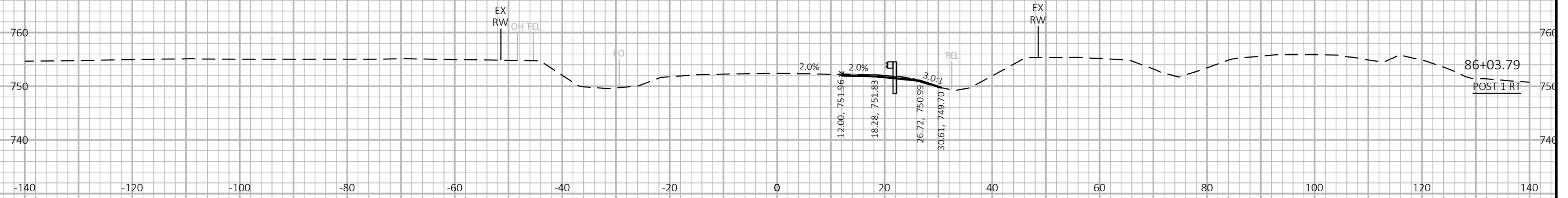
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

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PROJECT NO: 4085-33-71

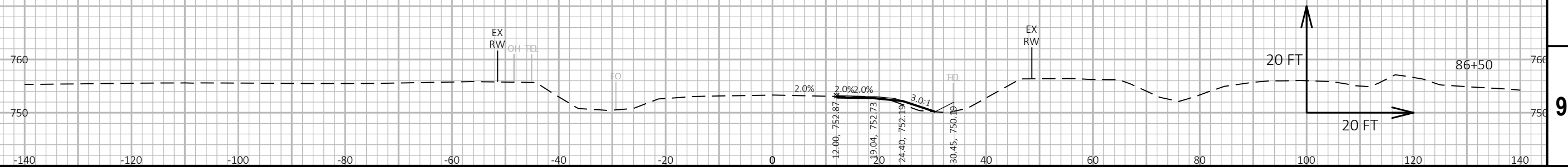
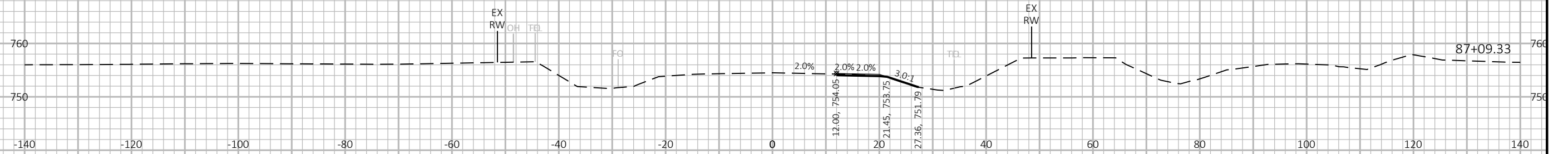
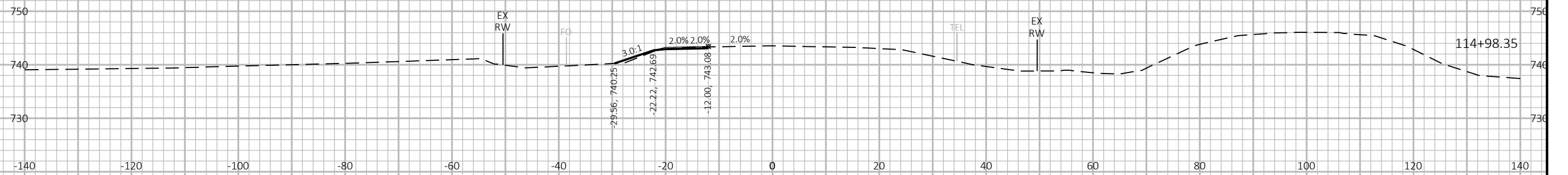
HWY: STH 32

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CROSS SECTIONS: STH 32

SHEET

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PROJECT NO: 4085-33-71

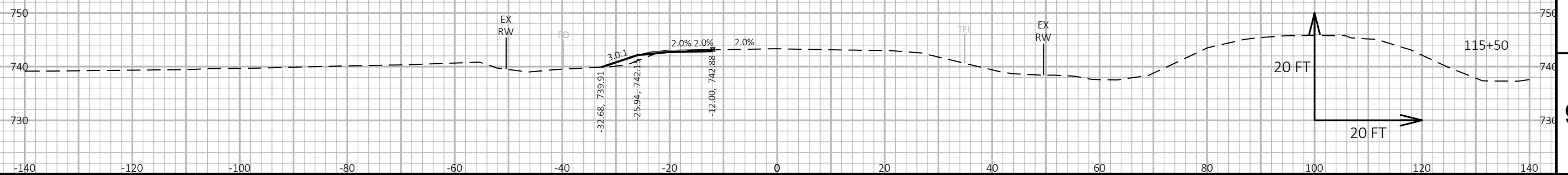
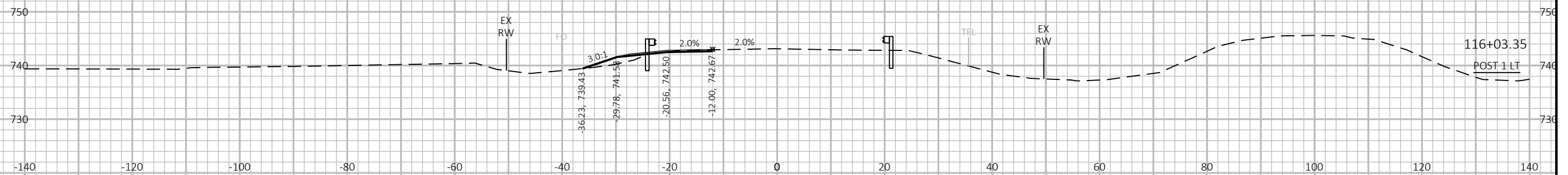
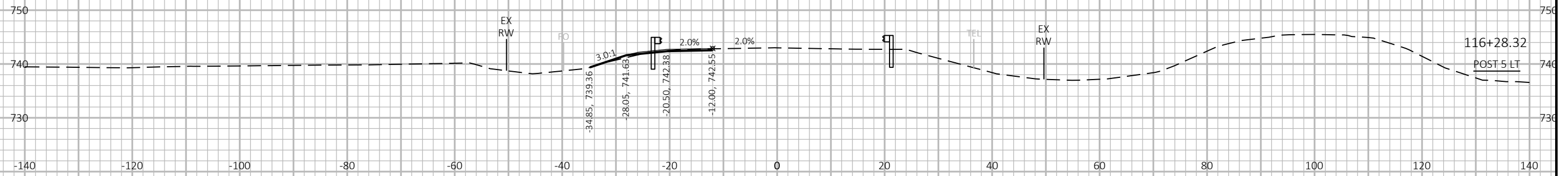
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COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

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PROJECT NO: 4085-33-71

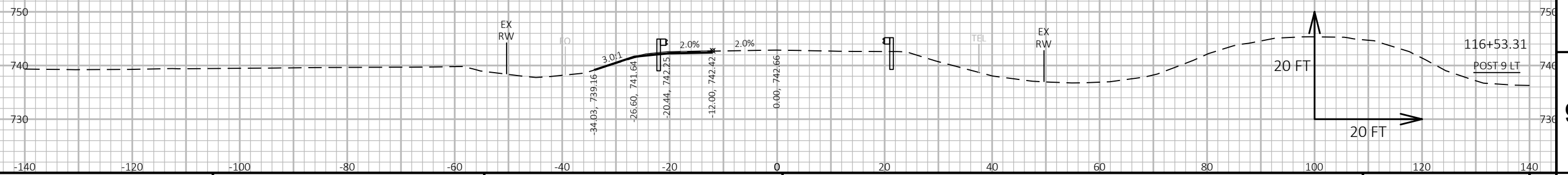
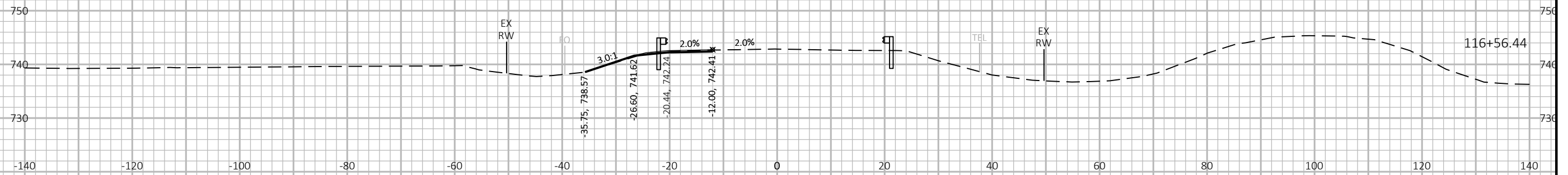
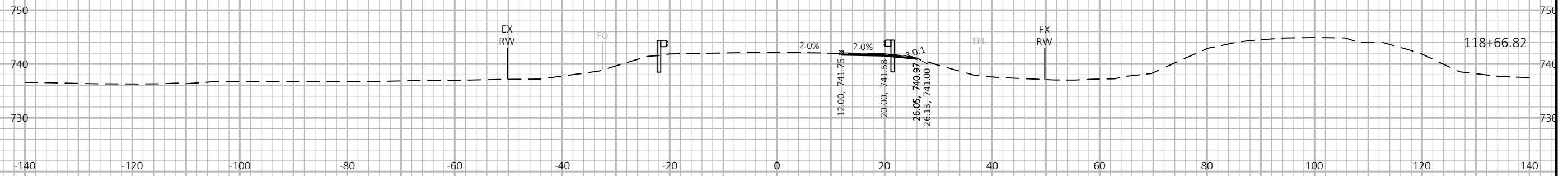
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CROSS SECTIONS: STH 32

SHEET

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PROJECT NO: 4085-33-71

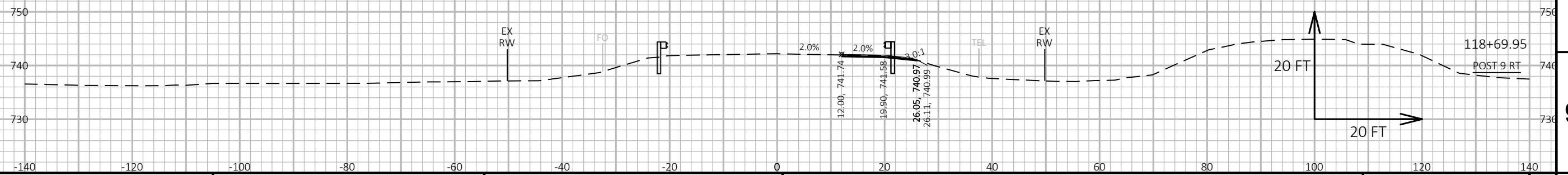
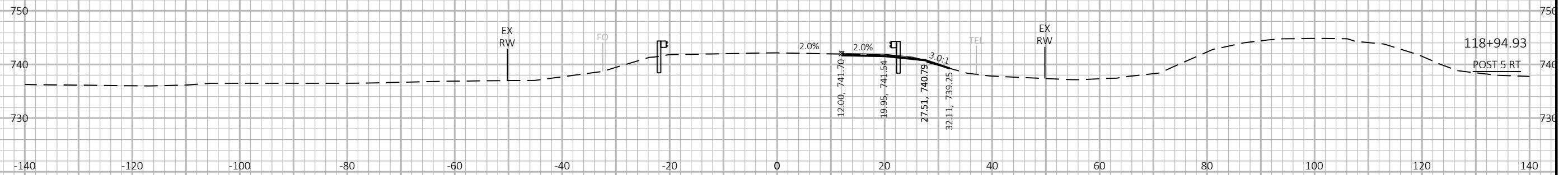
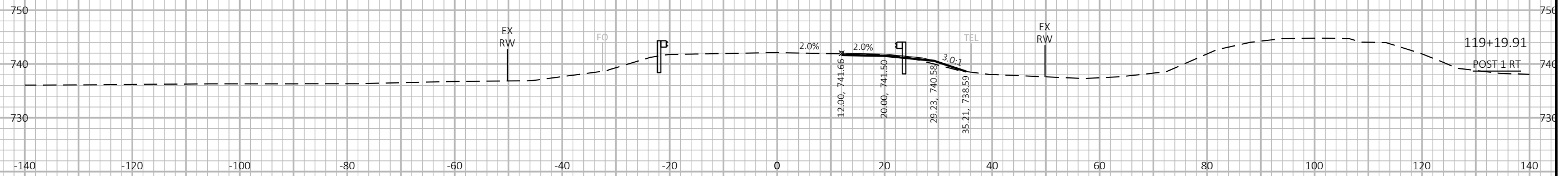
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CROSS SECTIONS: STH 32

SHEET

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PROJECT NO: 4085-33-71

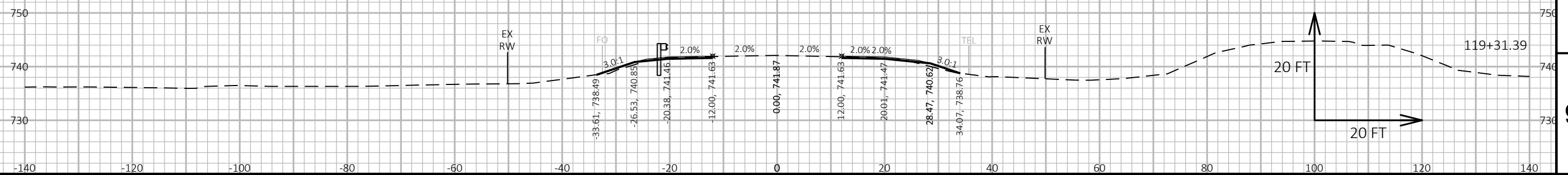
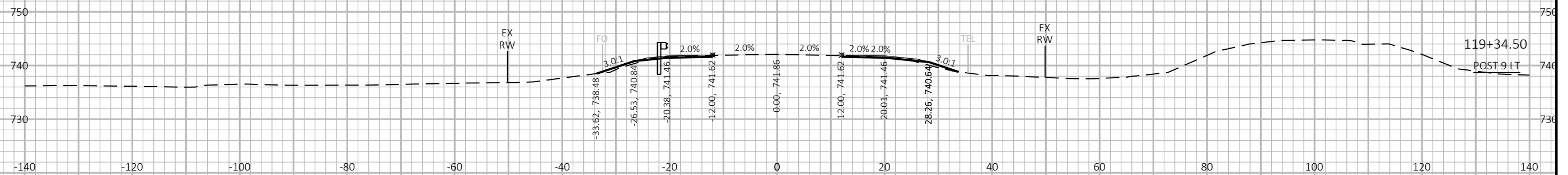
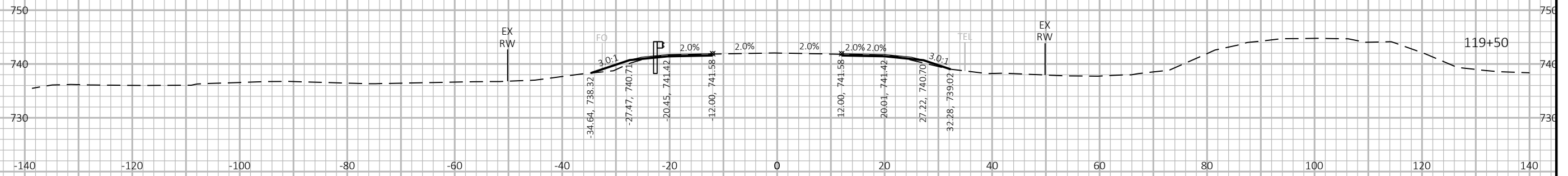
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CROSS SECTIONS: STH 32

SHEET

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PROJECT NO: 4085-33-71

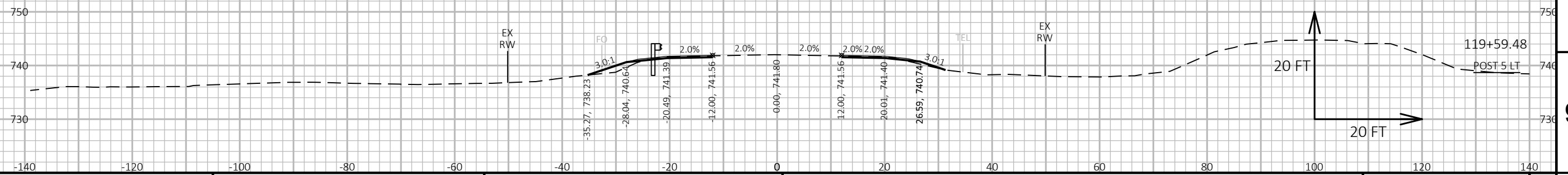
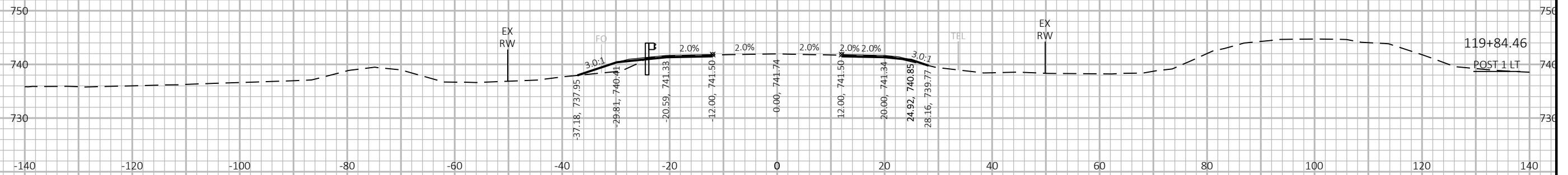
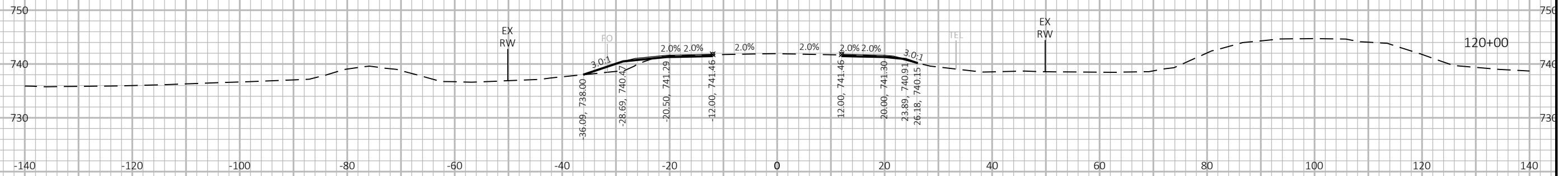
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COUNTY: BROWN

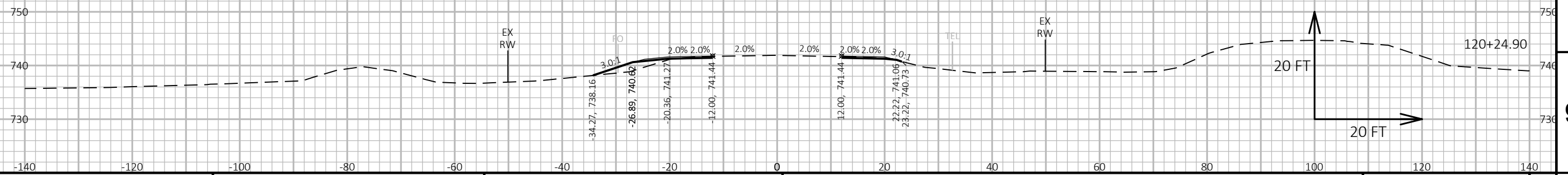
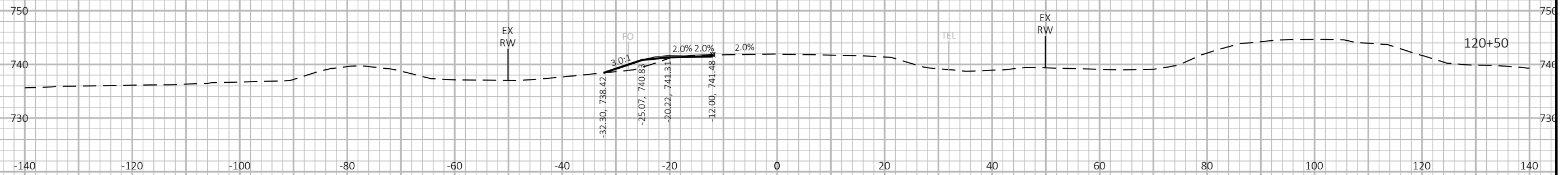
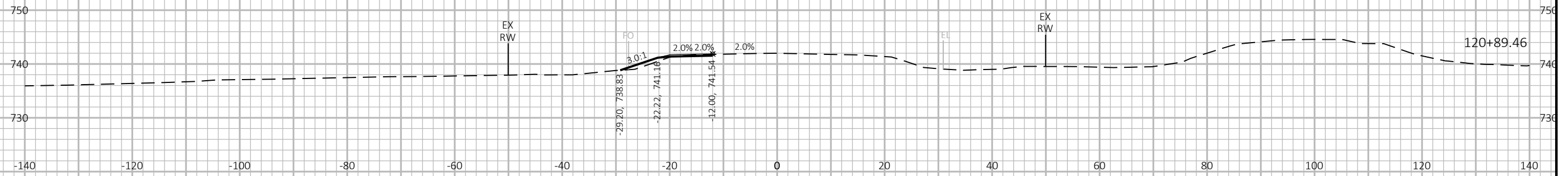
CROSS SECTIONS: STH 32

SHEET

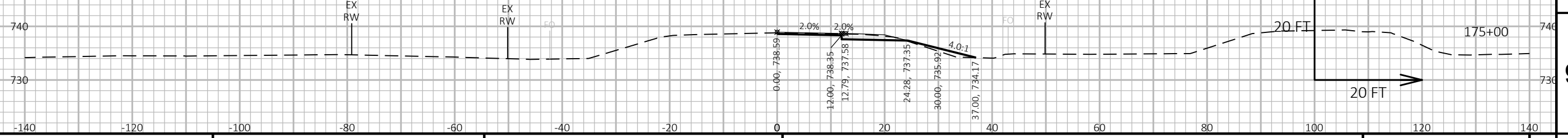
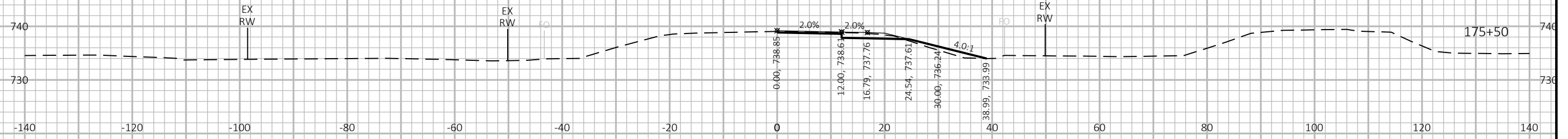
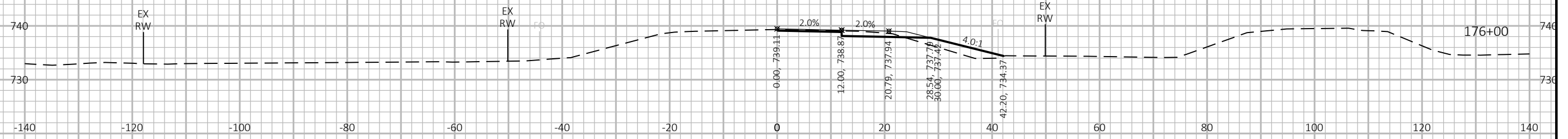
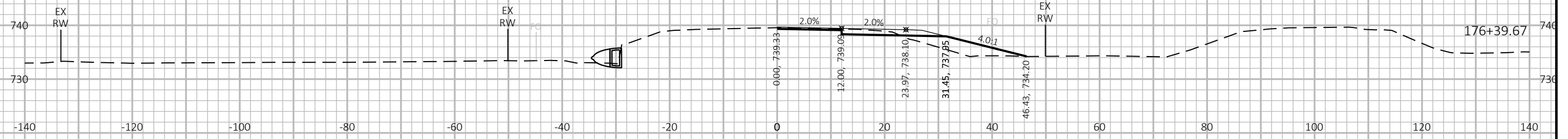
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PROJECT NO: 4085-33-71 HWY: STH 32 COUNTY: BROWN CROSS SECTIONS: STH 32 SHEET 9



PROJECT NO: 4085-33-71	HWY: STH 32	COUNTY: BROWN	CROSS SECTIONS: STH 32	SHEET 9
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PROJECT NO: 4085-33-71

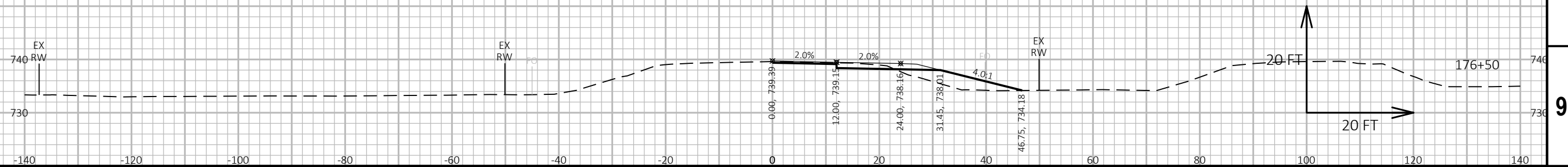
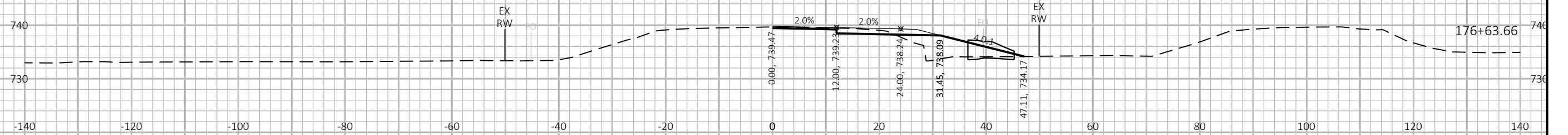
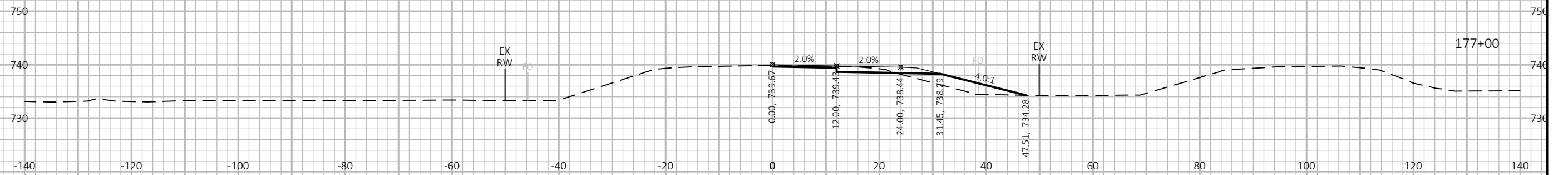
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

E



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PROJECT NO: 4085-33-71

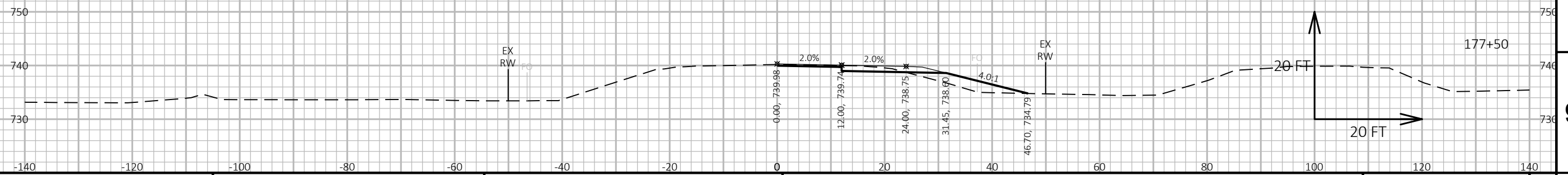
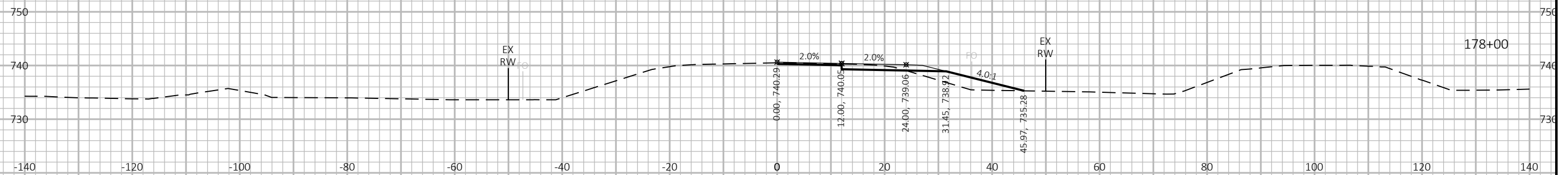
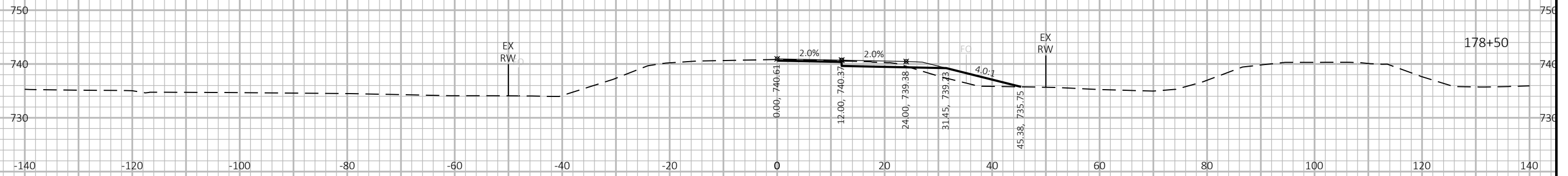
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

E



PROJECT NO: 4085-33-71

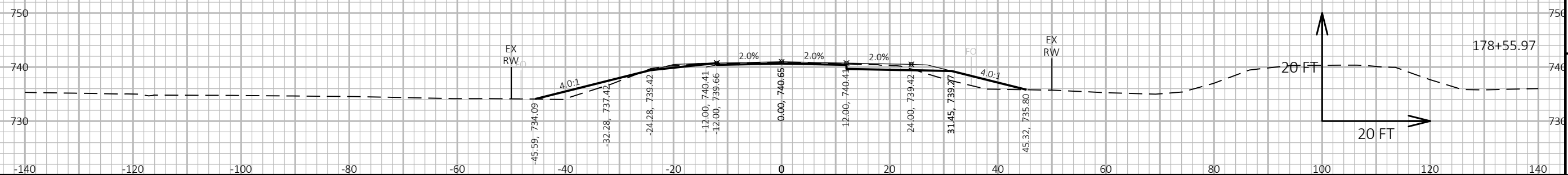
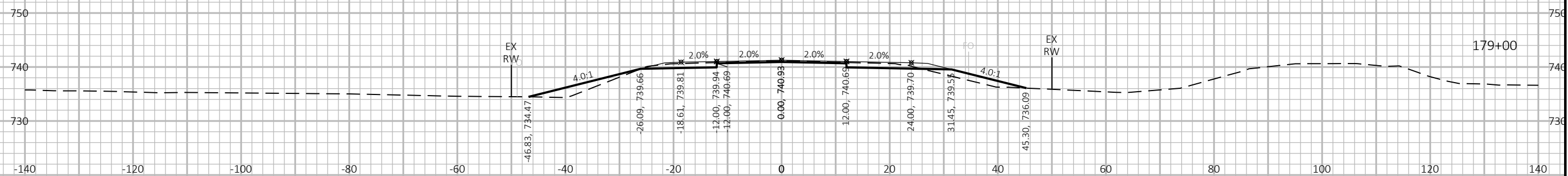
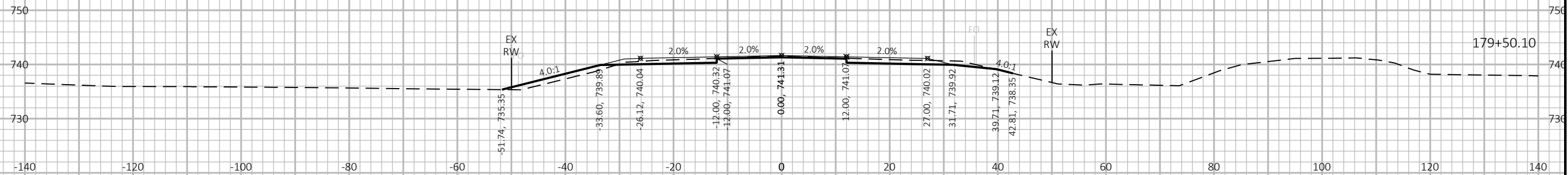
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

E



PROJECT NO: 4085-33-71

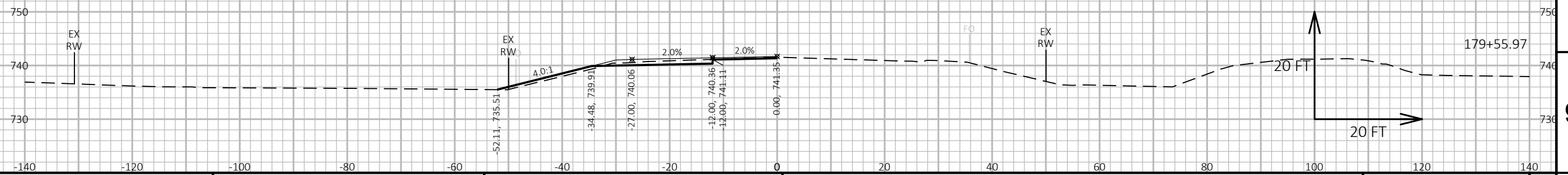
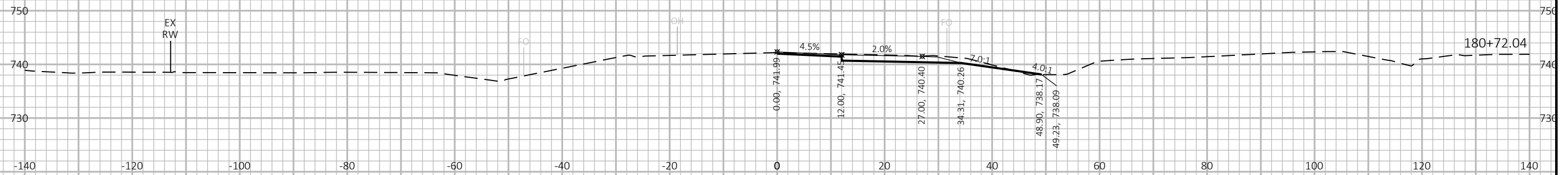
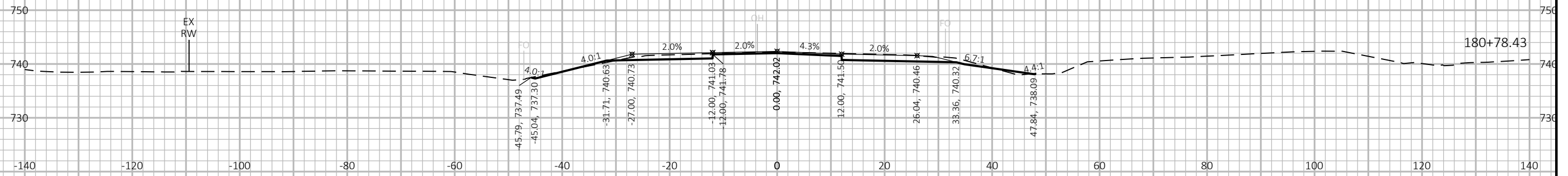
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

E



PROJECT NO: 4085-33-71

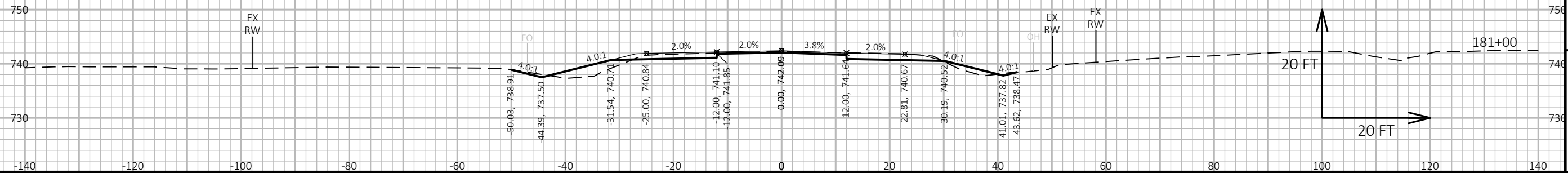
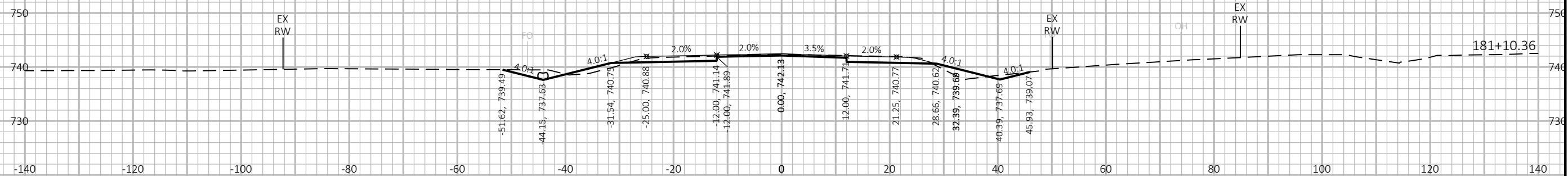
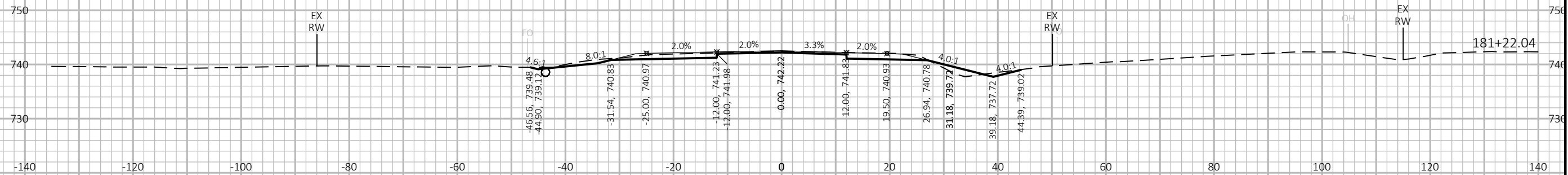
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

9



PROJECT NO: 4085-33-71

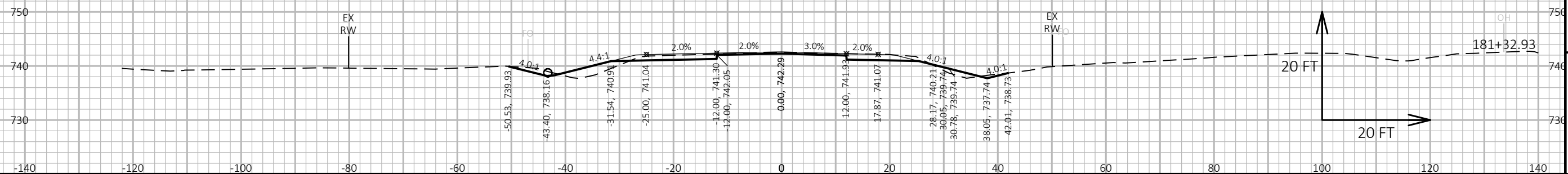
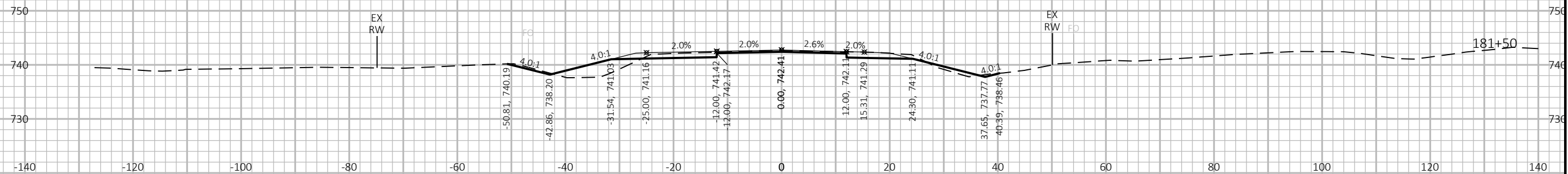
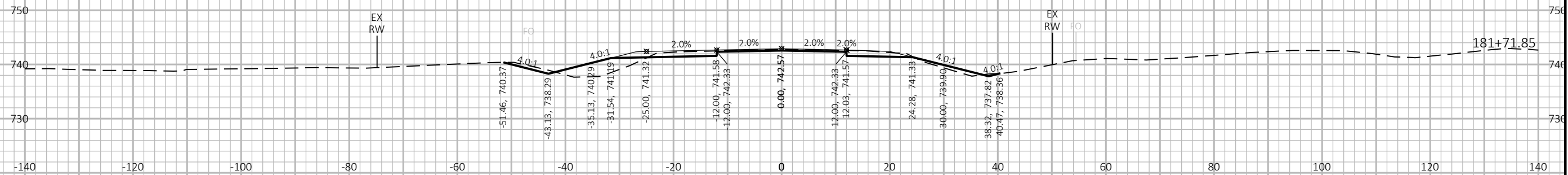
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

9



PROJECT NO: 4085-33-71

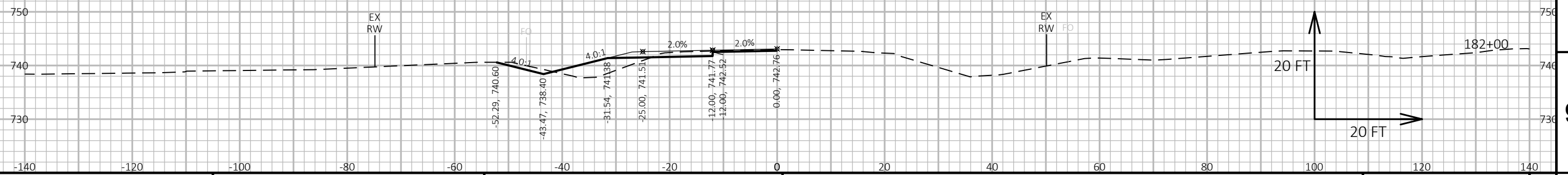
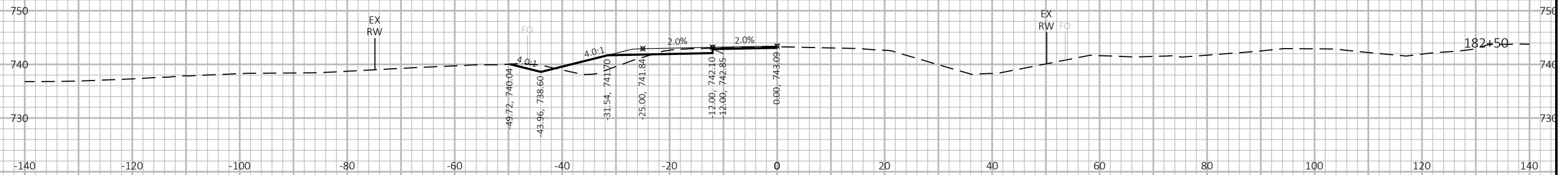
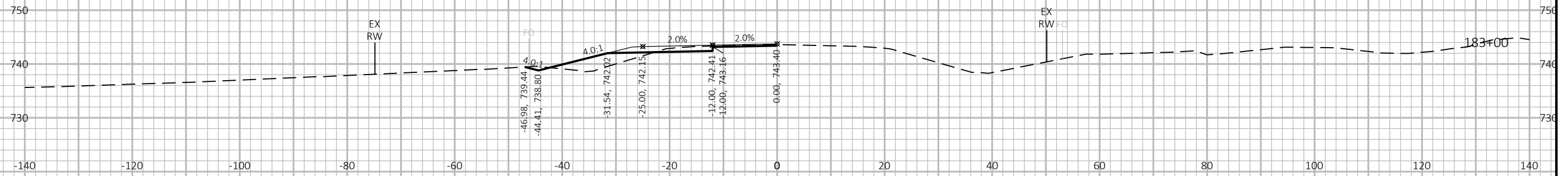
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

E



PROJECT NO: 4085-33-71

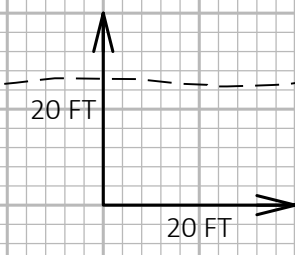
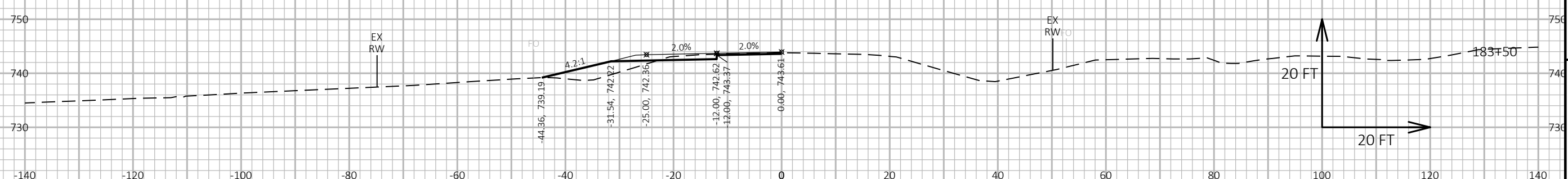
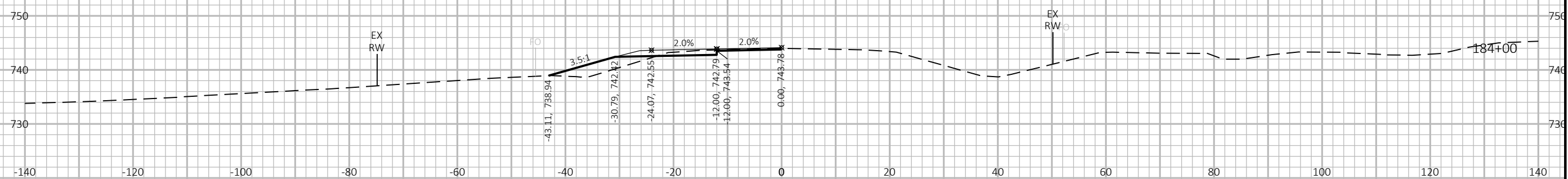
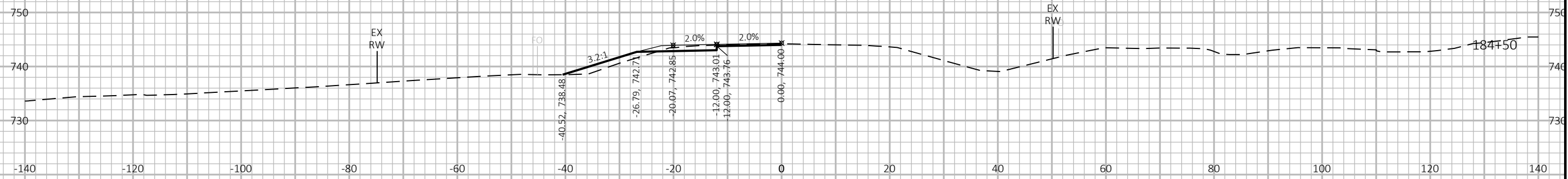
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

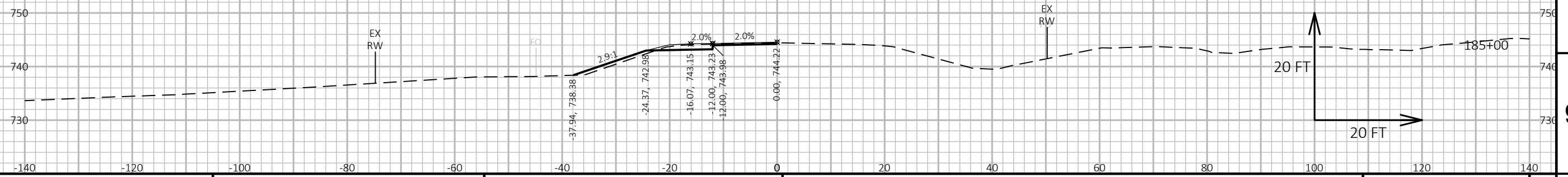
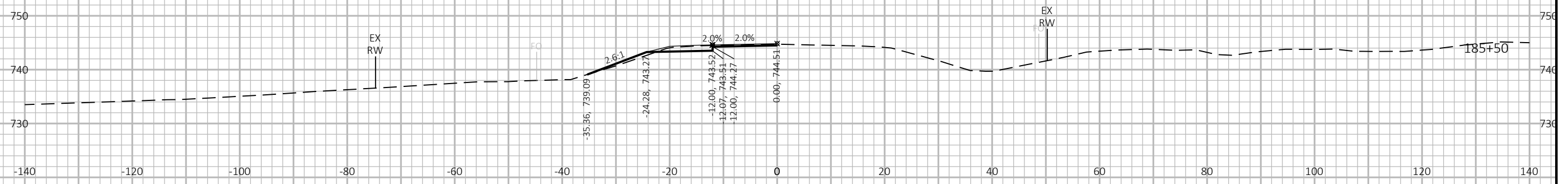
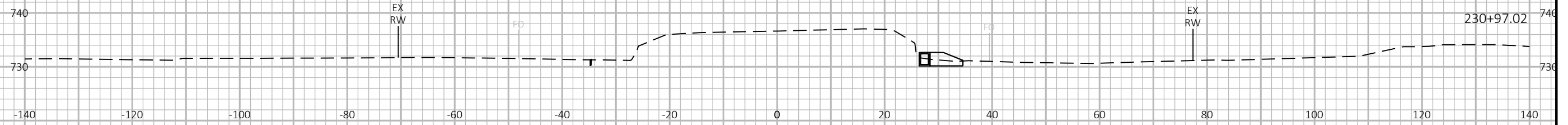
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PROJECT NO: 4085-33-71 HWY: STH 32 COUNTY: BROWN CROSS SECTIONS: STH 32 SHEET E

9

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PROJECT NO: 4085-33-71

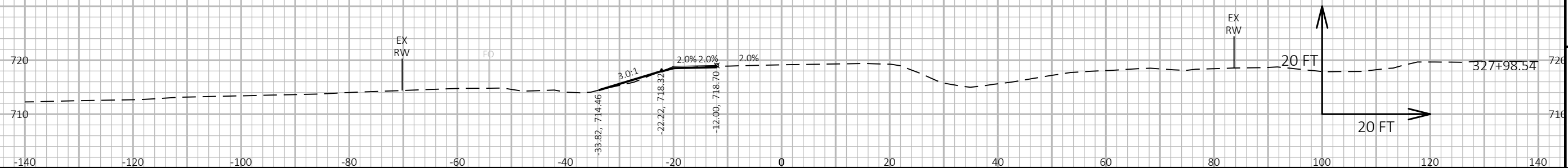
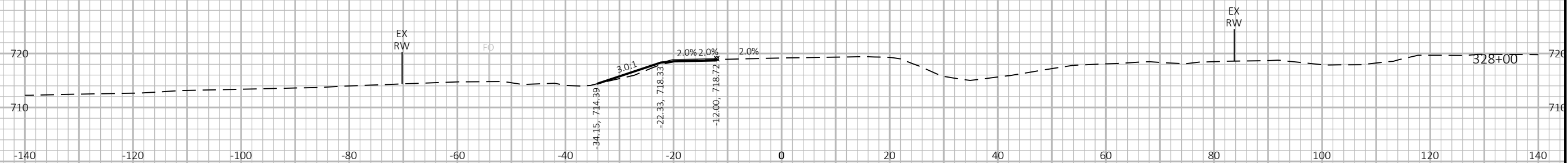
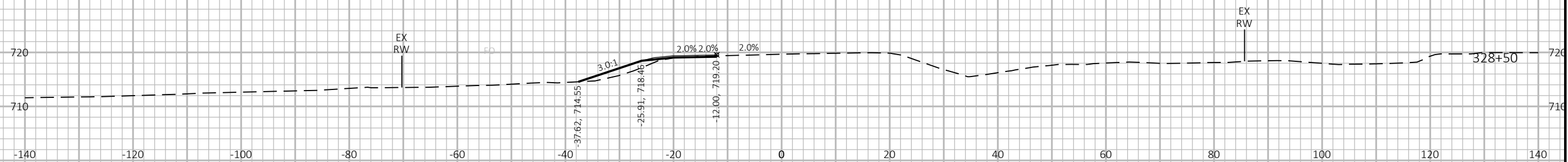
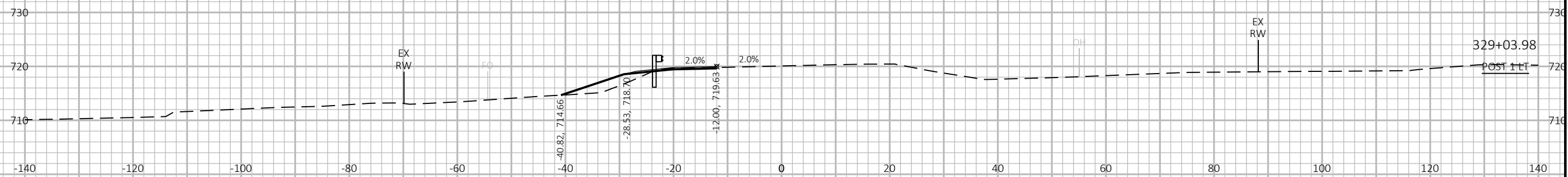
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

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PROJECT NO: 4085-33-71

HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

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FILE NAME : C:\USERS\DOTKZL\DESKTOP\C3D\40853300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (36)

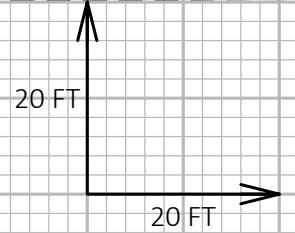
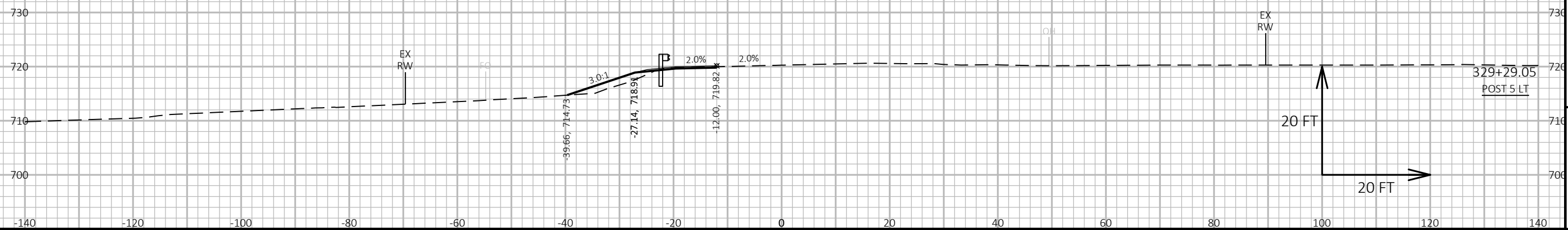
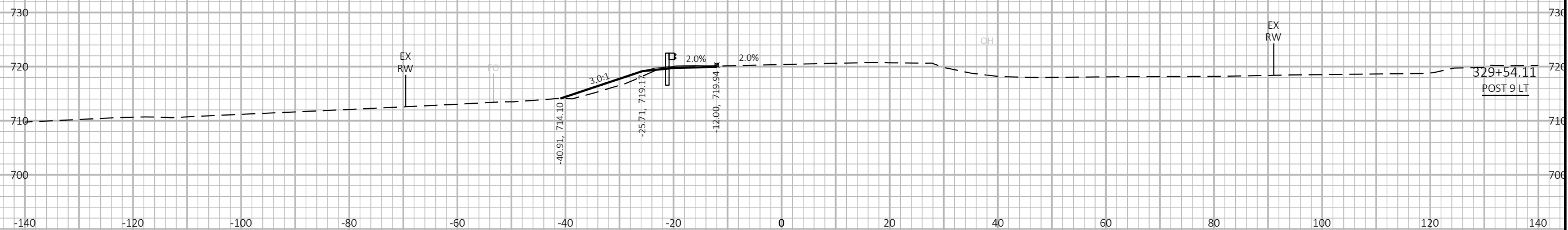
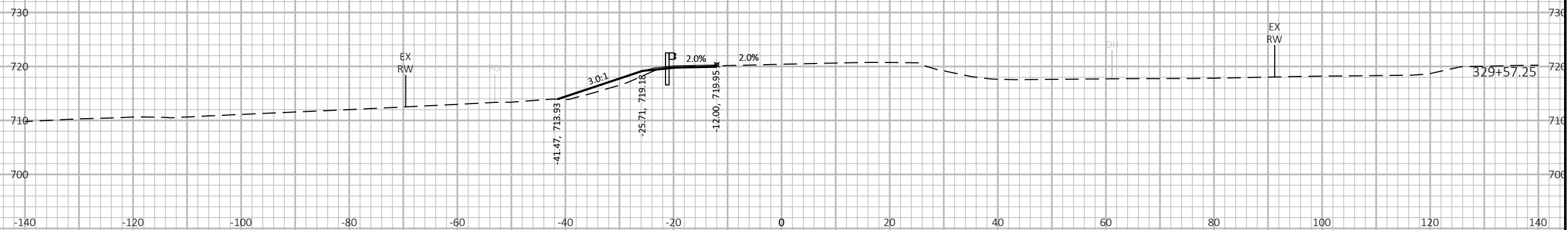
PLOT DATE : 4/9/2020 4:27 PM

PLOT BY : LORENZ, KELSEY ANN

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADD SHEET 49



PROJECT NO: 4085-33-71

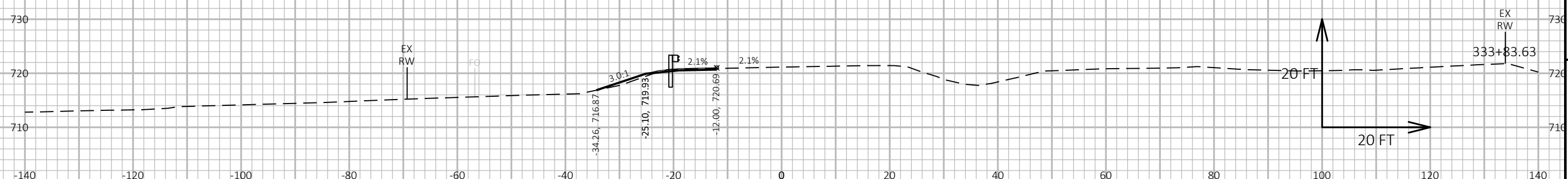
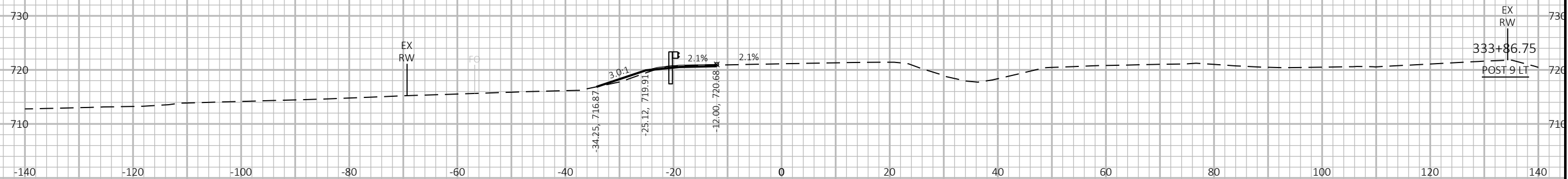
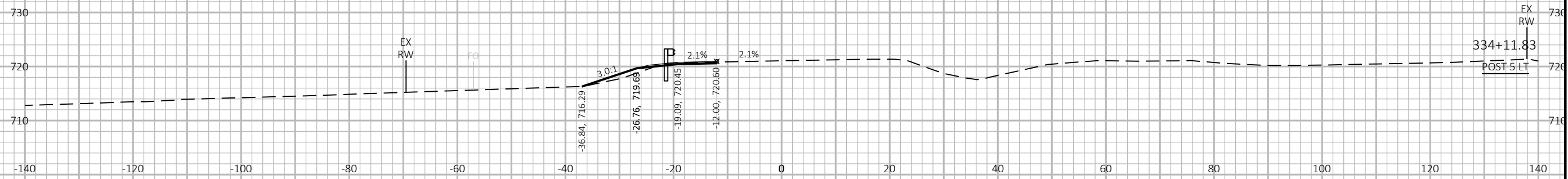
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

E



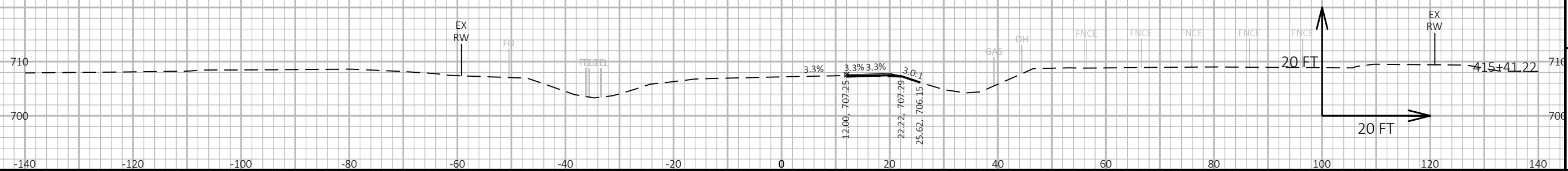
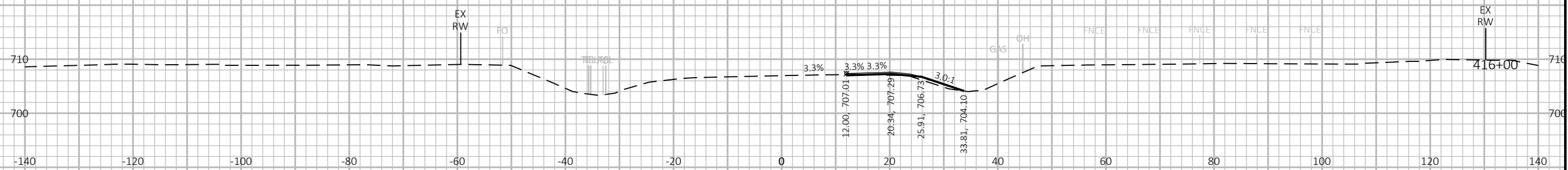
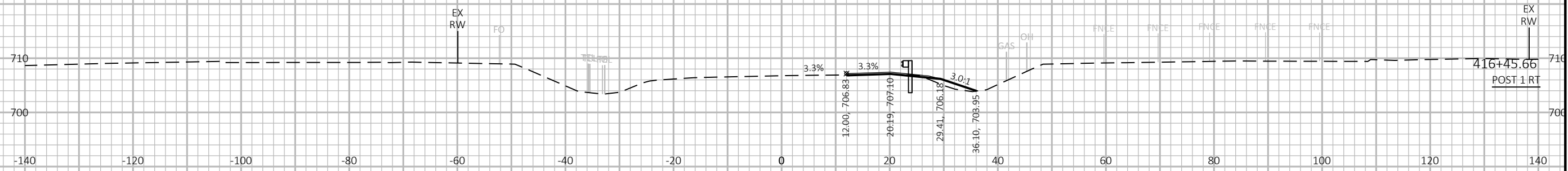
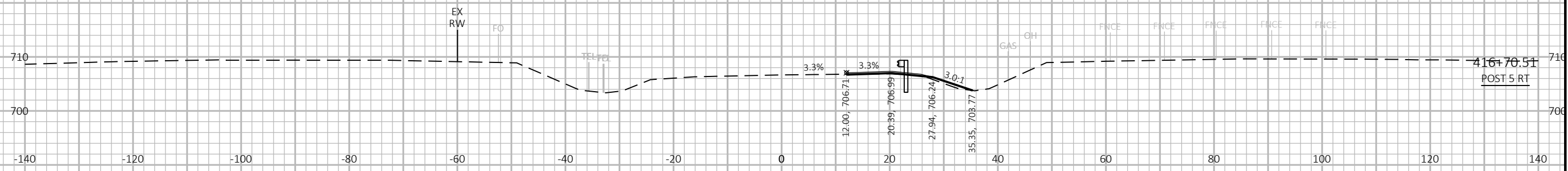
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PROJECT NO: 4085-33-71 HWY: STH 32 COUNTY: BROWN CROSS SECTIONS: STH 32 SHEET E

FILE NAME: C:\USERS\DOTKZL\DESKTOP\C3D\40853300\SHEETSPLAN\090201-XS.DWG PLOT DATE: 4/9/2020 4:28 PM PLOT BY: LORENZ, KELSEY ANN PLOT NAME: PLOT SCALE: 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME: Section Sheet - (38)



PROJECT NO: 4085-33-71

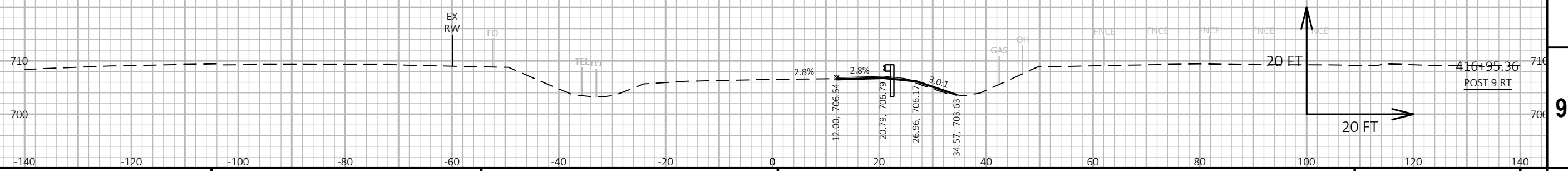
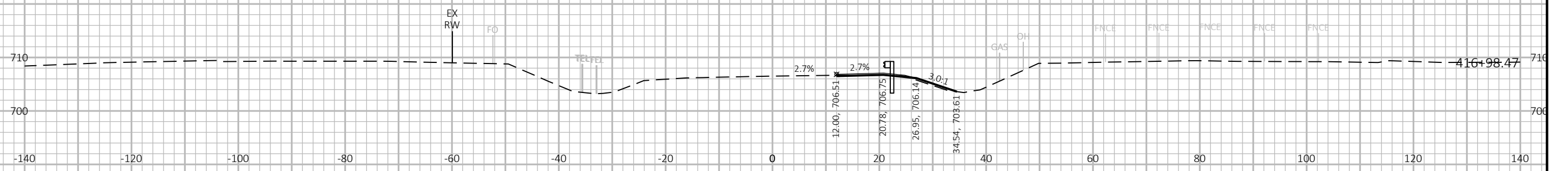
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

E



PROJECT NO: 4085-33-71

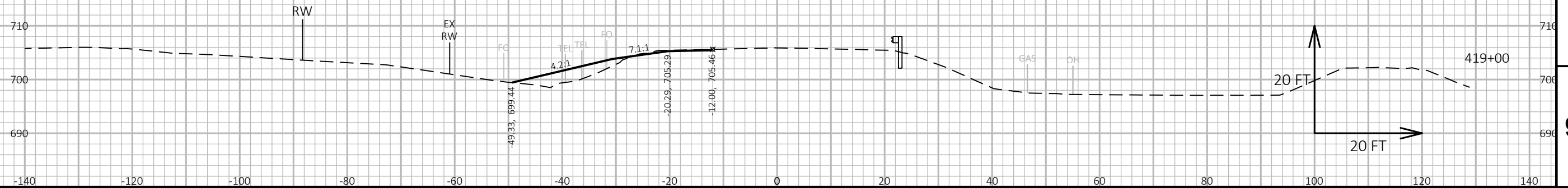
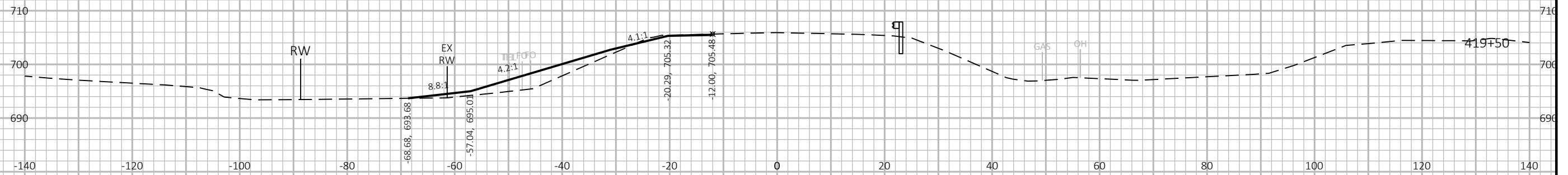
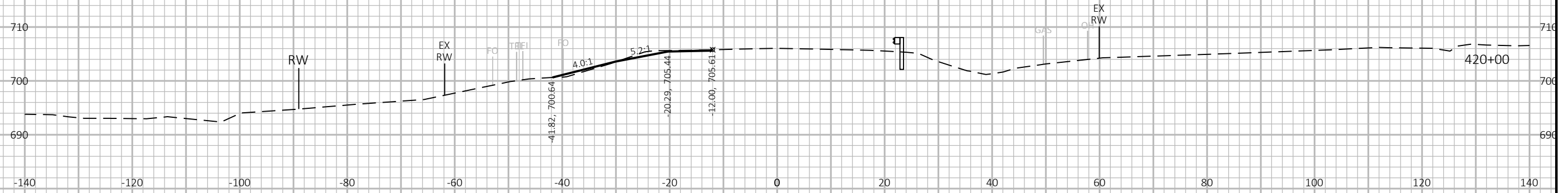
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

SHEET

E



PROJECT NO: 4085-33-71

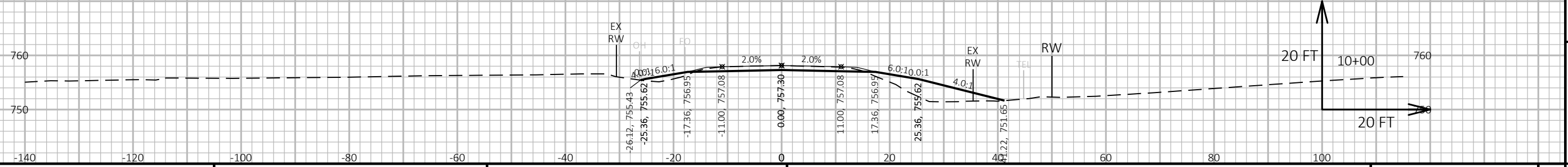
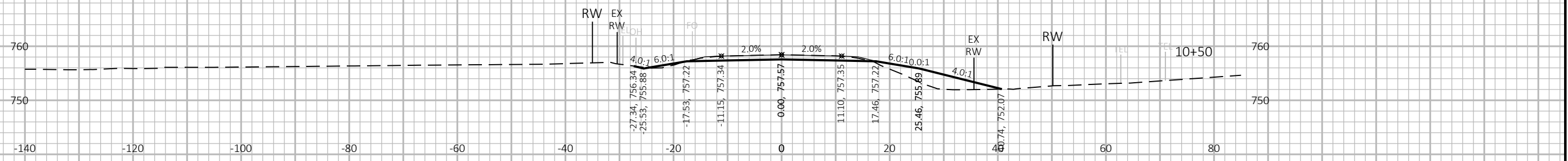
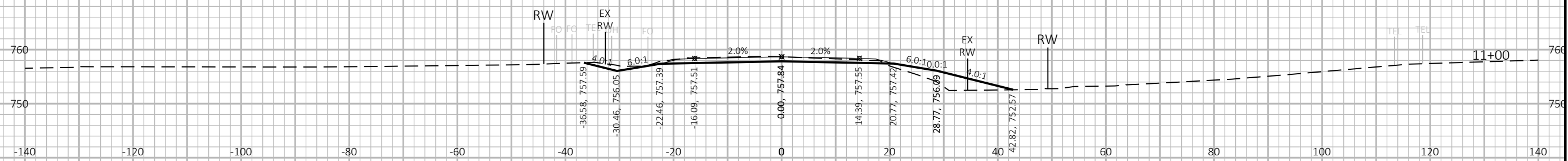
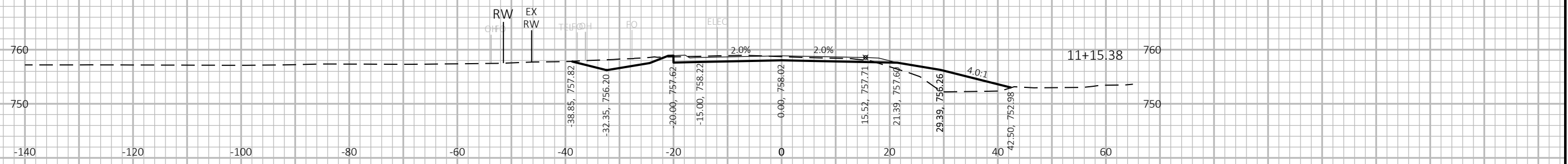
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32

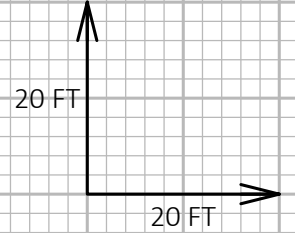
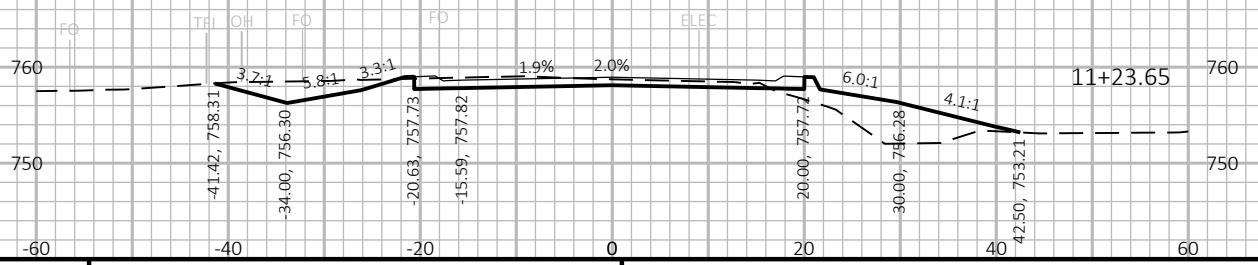
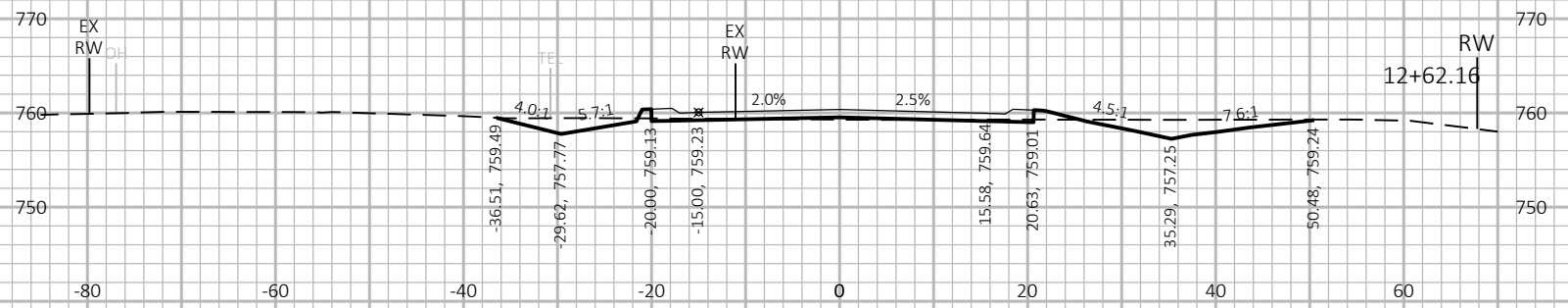
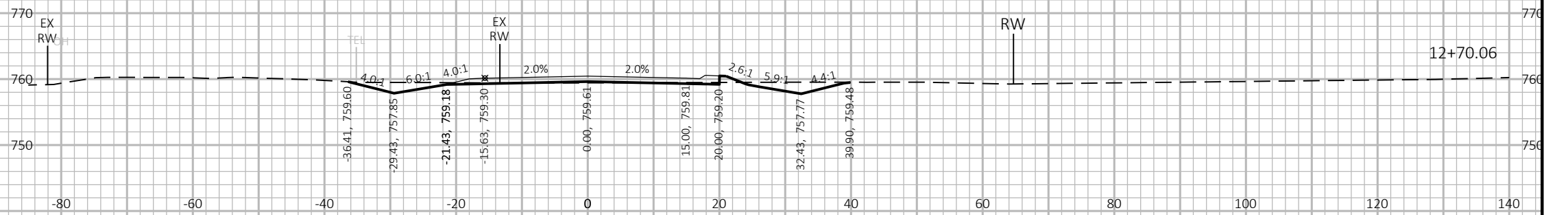
SHEET

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PROJECT NO: 4085-33-71 HWY: STH 32 COUNTY: BROWN CROSS SECTIONS: MAN CAL ROAD SHEET 9

FILE NAME: C:\USERS\DOTKZL\DESKTOP\C3D\40853300\SHEETSPLAN\090201-XS.DWG LAYOUT NAME: Section Sheet - (42) PLOT DATE: 4/9/2020 4:30 PM PLOT BY: LORENZ, KELSEY ANN PLOT NAME: PLOT SCALE: 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49



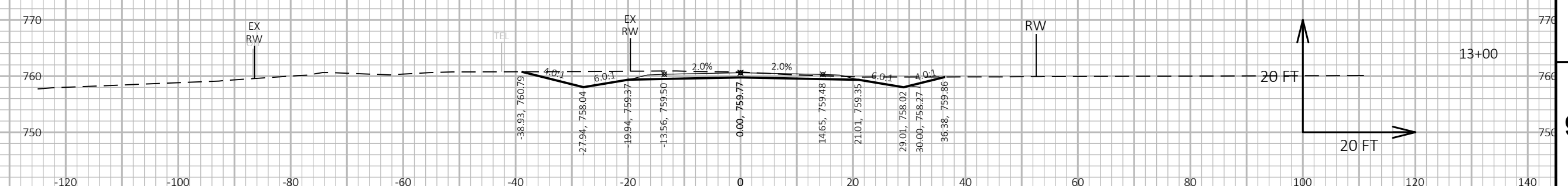
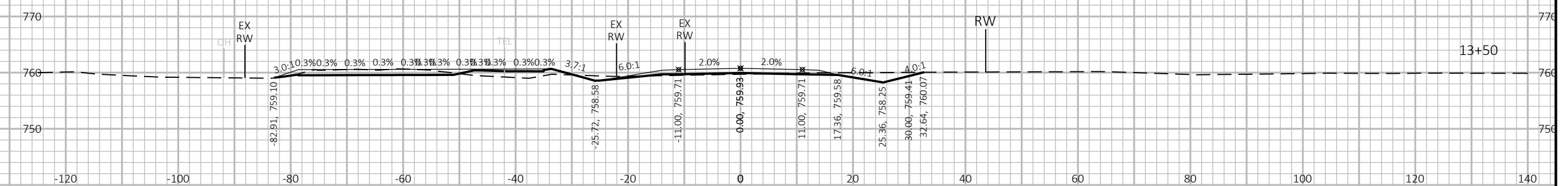
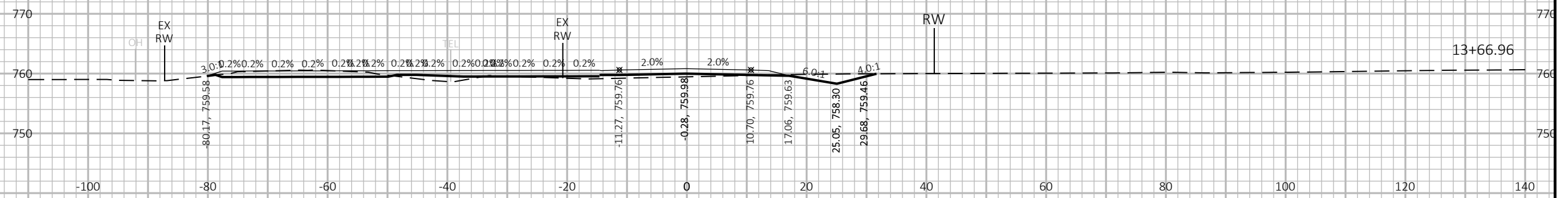
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PROJECT NO: 4085-33-71 HWY: STH 32 COUNTY: BROWN CROSS SECTIONS: MAN CAL ROAD SHEET E

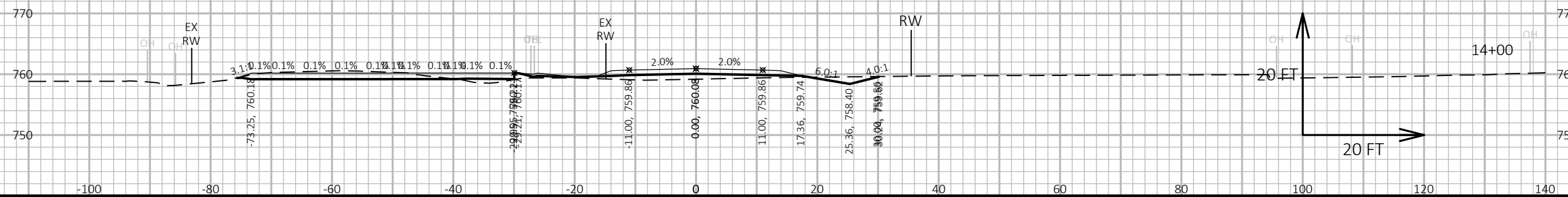
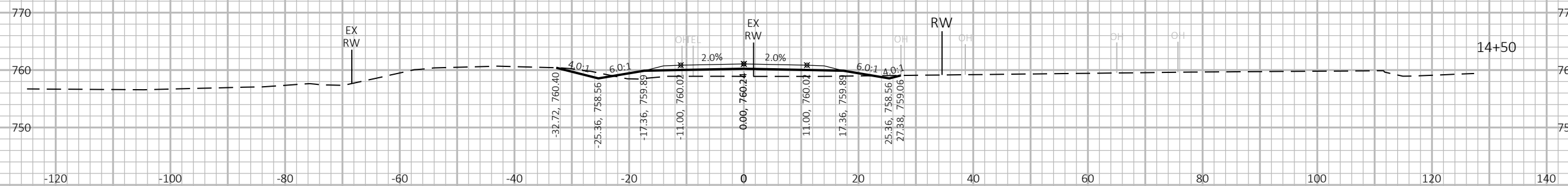
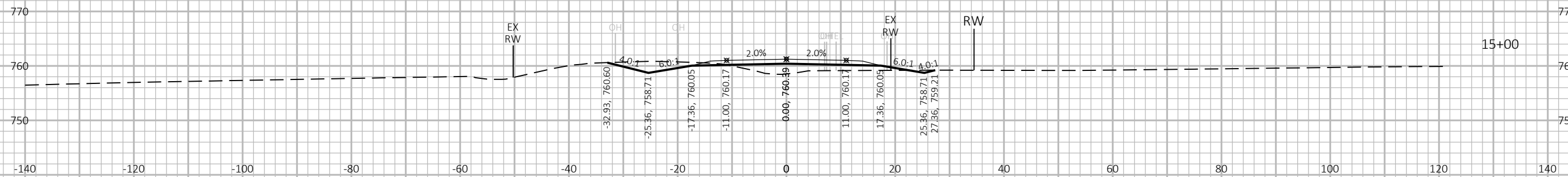
FILE NAME : C:\USERS\DOTKZL\DESKTOP\C3D\40853300\SHEETSPLAN\090201-XS.DWG PLOT DATE : 4/9/2020 4:30 PM PLOT BY : LORENZ, KELSEY ANN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - Section Sheet - (43)



PROJECT NO: 4085-33-71 HWY: STH 32 COUNTY: BROWN CROSS SECTIONS: MAN CAL ROAD SHEET 9

FILE NAME: C:\USERS\DOTKZL\DESKTOP\C3D\40853300\SHEETSPLAN\090201-XS.DWG LAYOUT NAME: Section Sheet - (44) PLOT DATE: 4/9/2020 4:31 PM PLOT BY: LORENZ, KELSEY ANN PLOT NAME: PLOT SCALE: 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49



PROJECT NO: 4085-33-71

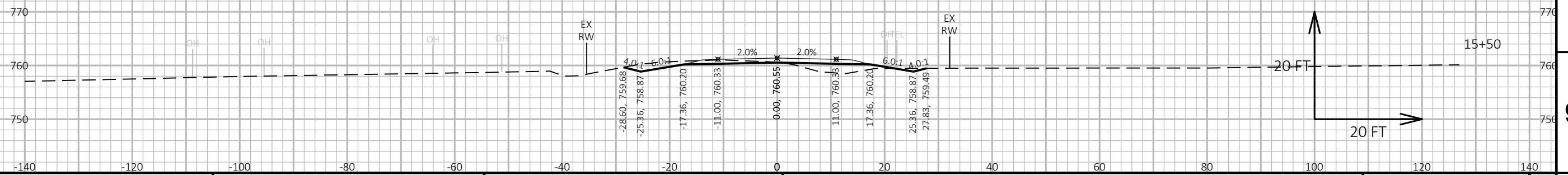
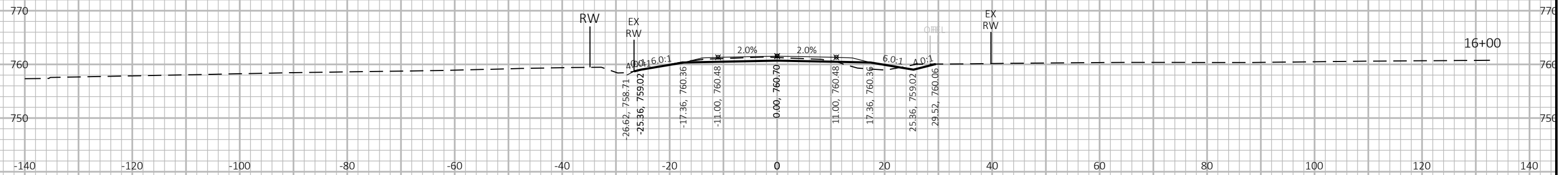
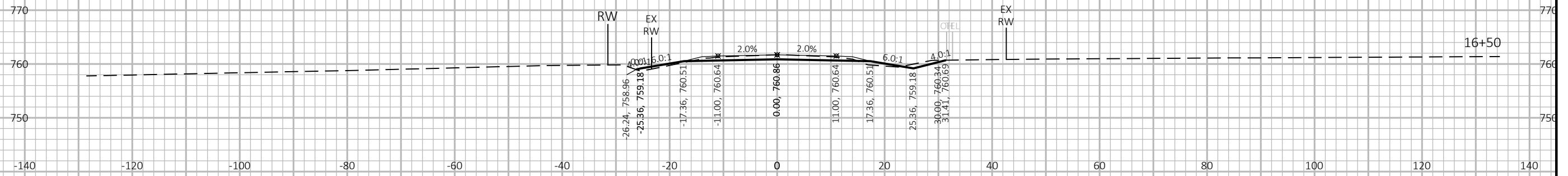
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: MAN CAL ROAD

SHEET

E



PROJECT NO: 4085-33-71

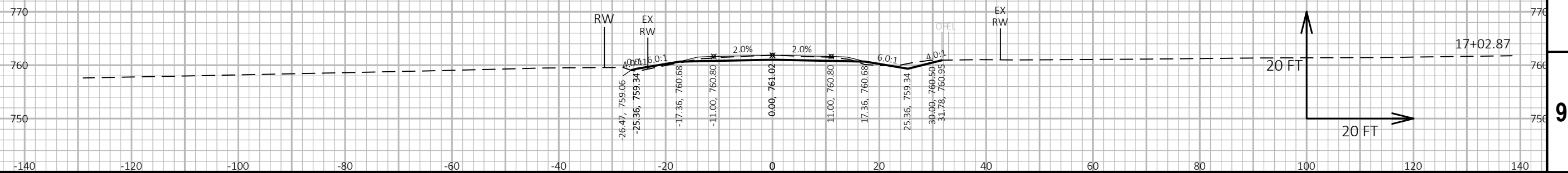
HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: MAN CAL ROAD

SHEET

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PROJECT NO: 4085-33-71

HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: MAN CAL ROAD

SHEET

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