LAX

AUGUST 2026

PROJECT ID: 5865-02-64

WITH: 5865-02-74

COUNTY: VERNON

ORDER OF SHEETS

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

TOTAL SHEETS = 432

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5865-02-64	WISC 2026436	1
5865-02-74		

STODDARD - COON VALLEY

VILLAGE PARK DRIVEWAY TO DEPOT STREET

STH 162

VERNON COUNTY

STATE PROJECT NUMBER

5865-02-64

STODDARD - COON VALLEY

VILLAGE PARK DRIVEWAY TO DEPOT STREET

STH 162

VERNON COUNTY

STATE PROJECT NUMBER

5865-02-74

(SANITARY SEWER AND WATER MAIN)

N

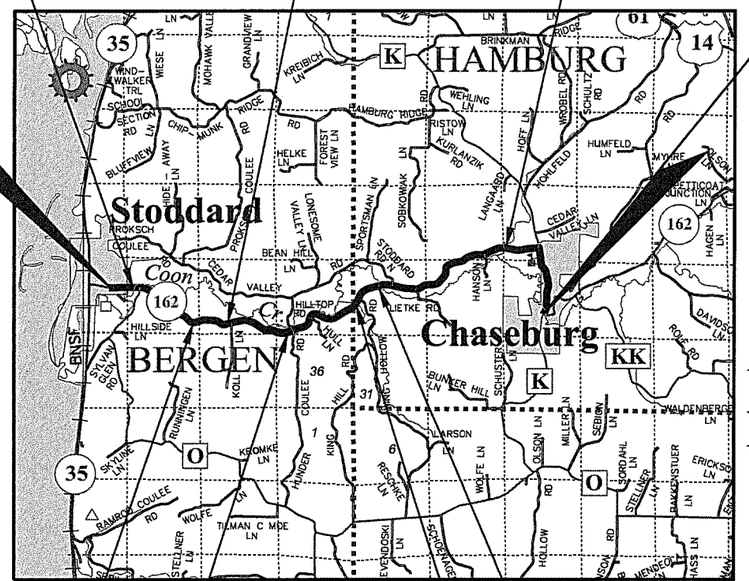
BEGIN PROJECT 5865-02-64
STA. 104+50.00
Y = 187,289.925
X = 615,159.709

STRUCTURE B-62-029
STA 131+04.3 - STA 133+29.9

STRUCTURE C-62-068
STA 208+41

STRUCTURE B-62-984
STA 431+26 - STA 431+80

END PROJECT 5865-02-64
STA. 486+00.00



STRUCTURE C-62-335
STA 184+01.40

STRUCTURE B-62-083
STA 2S2+83 - STA 2S3+14

NET EXCPTION TO RL LENGTH
STRUCTURE B-62-0S6
STA 329+90 - STA 331+64

STRUCTURE B-62-049
STA 308+00

LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 7.192 MI

DESIGN DESIGNATION			
A.A.D.T.	2026	=	S60
A.A.D.T.	2046	=	560
0.H.V.		=	60
0.0.		=	50/50
T.		=	7.8%
0ESIGN SPEED		=	60
ESALS		=	73,000

DESIGN DESIGNATION	STODDARD (URBAN)		
A.A.D.T.	2026	=	1200
A.A.D.T.	2046	=	1300
D.H.V.		=	120
D.0.		=	S0/S0
T.		=	7.8%
0ESIGN SPEED		=	3S
ESALS		=	180,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUN0	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL OITCH	LABEL
EXISTING RIGHT OF WAY		GRAOE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE	300'EB'	ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
MARSH AREA		TELEPHONE	T
		WATER	W
		UTILITY PEOESTAL	
WOODED OR SHRUB AREA		POWER POLE	
		TELEPHONE POLE	

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), VERNON COUNTY, NAO83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRIO COORDINATES, GRIO BEARINGS, ANO GRIO OISTANCES. GRIO OISTANCES ARE THE SAME AS GROUNO DISTANCES. ELEVATIONS ARE REFERENCEO TO NAVO 88 (2012). GPS OERIVEO ELEVATIONS ARE BASEO ON GEOIO 12A.

ORIGINAL PLANS PREPARED BY

Mead & Hunt

WISCONSIN
JAY P. WHEATON
E-36779
LA CROSSE, WI
PROFESSIONAL ENGINEER

DATE: 5/6/2026 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	MEAD & HUNT
Designer	MEAD & HUNT
Project Manager	JAY ADAMS
Regional Examiner	SW REGION
Regional Supervisor	REINY YAHNKE

APPROVED FOR THE DEPARTMENT

DATE: 05/07/2026 (Signature)

E

FILE NAME : X:\3231000\20192S.01\TECH\CA0\S86S0234\SHEETSPLAN\010101_TI.OWG

PLOT OATE : 6/23/2026 8:17 AM

PLOT BY : JEFF BREU

PLOT NAME :

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.

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

THE EXACT LOCATION OF THE EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD.

BEARINGS SHOWN ON THE PLANS ARE GROUND BEARINGS TO THE NEAREST SECOND.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING PAVEMENTS AT REMOVAL LIMITS.

APPLY TACK COAT AT A RATE OF 0.05 GAL/SY BETWEEN LAYERS OF HMA PAVEMENT.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

FILL EXPANSION OF EARTHWORK AT 25%.

KEEP ALL EQUIPMENT AND MATERIALS OUT OF ADJACENT WETLANDS.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIALS WILL NOT BE PERMITTED IN THE WETLANDS.

WETLANDS ARE PRESENT WITHIN THE PROJECT LIMITS. DO NOT OPERATE EQUIPMENT OUTSIDE THE SLOPE INTERCEPTS.

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
CURB RAMP DETAILS
EROSION CONTROL
STORM SEWER PLAN
PAVEMENT MARKING
TRAFFIC CONTROL
DETOUR
ALIGNMENT

STANDARD ABBREVIATIONS

ADT	AVERAGE DAILY TRAFFIC	M/L	MAINLINE
AGG	AGGREGATE	NO	NUMBER
ASPH	ASPHALTIC	PE	PRIVATE ENTRANCE
BM	BENCH MARK	PI	POINT OF INTERSECTION
BOC	BACK OF CURB	PL	PROPERTY LINE
C&G	CURB AND GUTTER	PP	POWER POLE
CE	COMMERCIAL ENTRANCE	QTY	QUANTITY
CL	CENTERLINE	RHF	RIGHT-HAND FORWARD
COR	CORNER	RT	RIGHT
CWT	HUNDREDWEIGHT	R/L	REFERENCE LINE
CY	CUBIC YARD	R/W	RIGHT-OF-WAY
DHV	DESIGN HOURLY VOLUME	SF	SQUARE FOOT
DWY	DRIVEWAY	SHLDR	SHOULDER
EL	ELEVATION	SS	STORM SEWER
EX	EXISTING	STA	STATION
EXC	EXCAVATION	SY	SQUARE YARD
FT	FOOT	T	TRUCKS (PERCENT OF)
FTG	FOOTING	TEL	TELEPHONE
HYD	HYDRANT	TLE	TEMPORARY LIMITED EASEMENT
INV	INVERT	TYP	TYPICAL
LB	POUND	UG	UNDERGROUND CABLE
LF	LINEAR FOOT	VAR	VARIABLE
LHF	LEFT-HAND FORWARD	VC	VERTICAL CURVE
LS	LUMP SUM	VPC	VERTICAL POINT OF CURVE
LT	LEFT	VPI	VERTICAL POINT OF INTERSECTION
Mgal	MEGAGALLON	VPT	VERTICAL POINT OF TANGENCY

CONTACTS

WISDOT CONTACT
WISCONSIN DEPARTMENT OF TRANSPORTATION
MR. RANDY BYOM
WISDOT SW REGION
3550 MORMON COULEE ROAD
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PHONE: (608) 785-9966
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CONSULTANT CONTACT
MEAD & HUNT, INC.
750 N. THIRD STREET
LA CROSSE, WI 54601
ATTN: MR. JAY WHEATON, P.E.
PHONE: (608) 784-6040
EMAIL: JAY.WHEATON@MEADHUNT.COM

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 57.34 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 26.50 ACRES

UTILITIES

CHASEBURG WATER & SEWER UTILITY - SEWER & WATER
MR. BRIAN DAYTON
400 DEPOT ST
CHASEBURG, WI 54621
PHONE: (608) 483-2660
EMAIL: VILCHASE@MWT.NET

COON VALLEY FARMERS TELEPHONE CO- COMMUNICATION
MR. BRAD PETERS
105 CENTRAL AVE.
P.O. BOX 398
COON VALLEY, WI 54623
PHONE: (608) 452-3101
EMAIL: BRADLEY.PETERS@COONVALLEYTEL.COM

DAIRYLAND POWER COOPERATIVE - ELECTRICITY
MR. MICHAEL LYDON
3200 EAST AVE SOUTH
P.O. BOX 817
LA CROSSE, WI 54602
PHONE: (608) 787-1381
EMAIL: MICHAEL.LYDON@DAIRYLANDPOWER.COM

MEDIACOM - COMMUNICATION
MR. CRAIG EGGERT
2140 HIGHWAY 52
CHATFIELD, MN 55923
PHONE: (563) 419-5160
EMAIL: CEGGERT@MEDIACOMCC.COM

VERNON ELECTRIC COOPERATIVE - ELECTRICITY
MR. COLE CARY
110 SAUGSTAD RD
WESTBY, WI 54667-1199
PHONE: (608) 634-7472
EMAIL: CCARY@VERNONELECTRIC.COM

VILLAGE OF STODDARD - SEWER & WATER
MAKEPEACE ENGINEERING
MR. MICHAEL RYAN
419 SAND LAKE ROAD
ONALASKA, WI 54650
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EMAIL: MICHAEL@MAKEPEACEENGINEERING.COM

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

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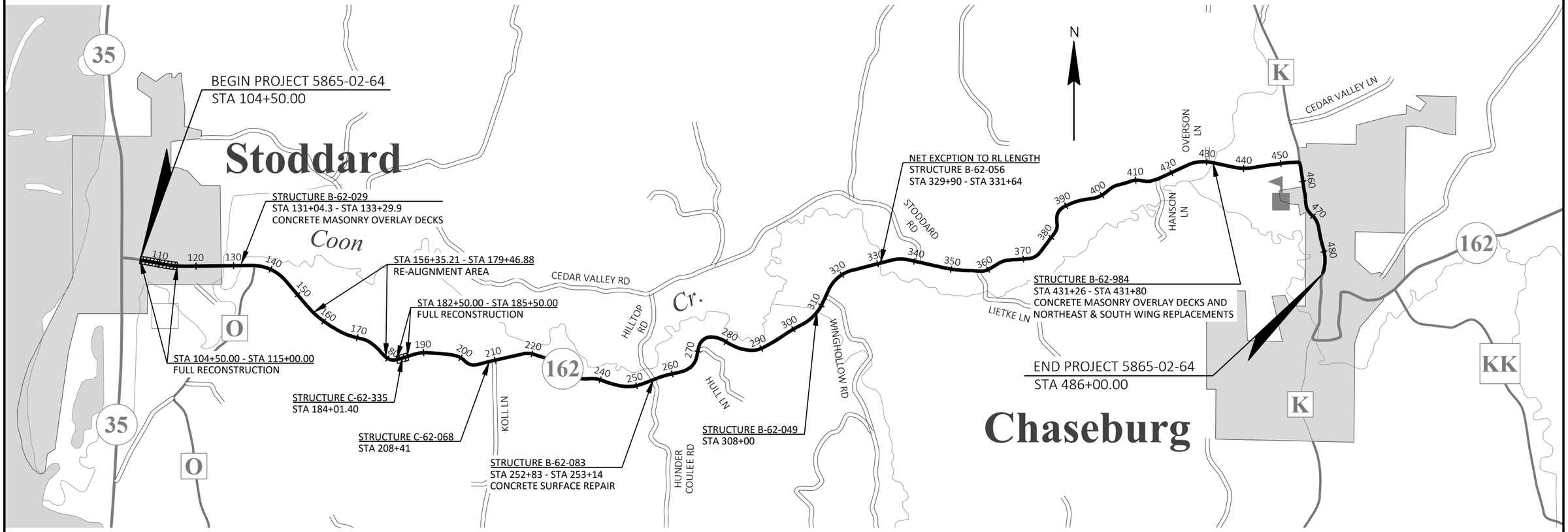
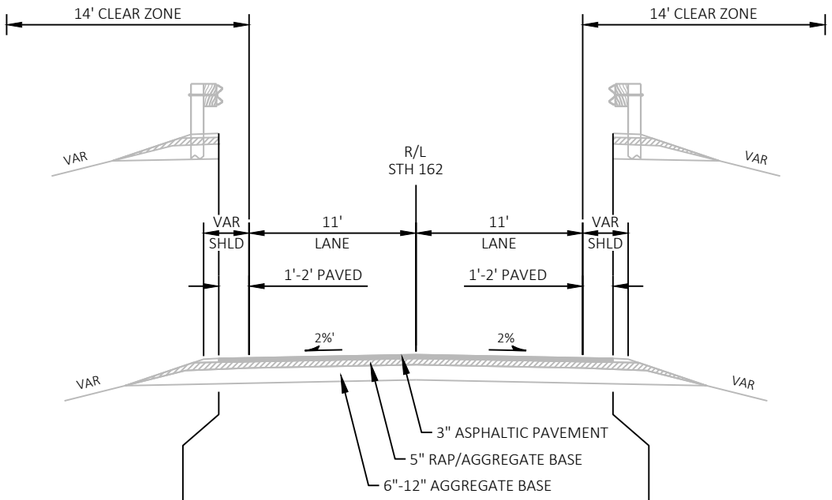


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PROJECT OVERVIEW	SHEET 3	E

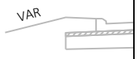
2

STA 127+85.8 TO STA 130+99.6
STA 133+44.6 TO STA 135+63.0
STA 183+47.3 TO STA 185+12.6
STA 195+02.0 TO STA 204+30.6
STA 218+74.2 TO STA 222+96.2
STA 225+26.4 TO STA 227+24.8
STA 236+87.1 TO STA 247+49.3
STA 252+09.3 TO STA 253+84.5
STA 306+99.2 TO STA 309+28.9
STA 328+46.4 TO STA 329+81.7
STA 331+72.2 TO STA 333+07.5
STA 373+78.5 TO STA 374+84.5
STA 430+34.5 TO STA 431+79.1
STA 431+79.1 TO STA 432+69.1

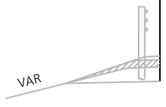


STA 127+85.5 TO STA 130+90.7
STA 133+35.6 TO STA 134+74.2
STA 182+90.8 TO STA 184+66.9
STA 252+05.4 TO STA 253+91.4
STA 306+36.1 TO STA 308+84.9
STA 328+46.7 TO STA 329+81.7
STA 331+72.2 TO STA 333+07.8
STA 352+36.8 TO STA 356+13.3
STA 360+63.8 TO STA 370+84.7
STA 373+57.7 TO STA 375+41.5
STA 376+03.2 TO STA 381+53.7
STA 430+34.3 TO STA 431+25.7
STA 431+79.1 TO STA 432+70.1
STA 468+50.3 TO STA 472+79.2

STA 179+07.3 TO STA 183+35.8
STA 211+77.0 TO STA 214+69.0
STA 357+41.2 TO STA 360+16.3
STA 381+11.5 TO STA 384+33.8
STA 451+93.5 TO STA 454+40.9
STA 454+96.1 TO STA 460+95.0
STA 466+30.6 TO STA 469+23.8

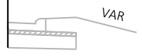


STA 160+05.9 TO STA 166+21.5
STA 169+86.3 TO STA 178+25.3



EXISTING TYPICAL SECTION

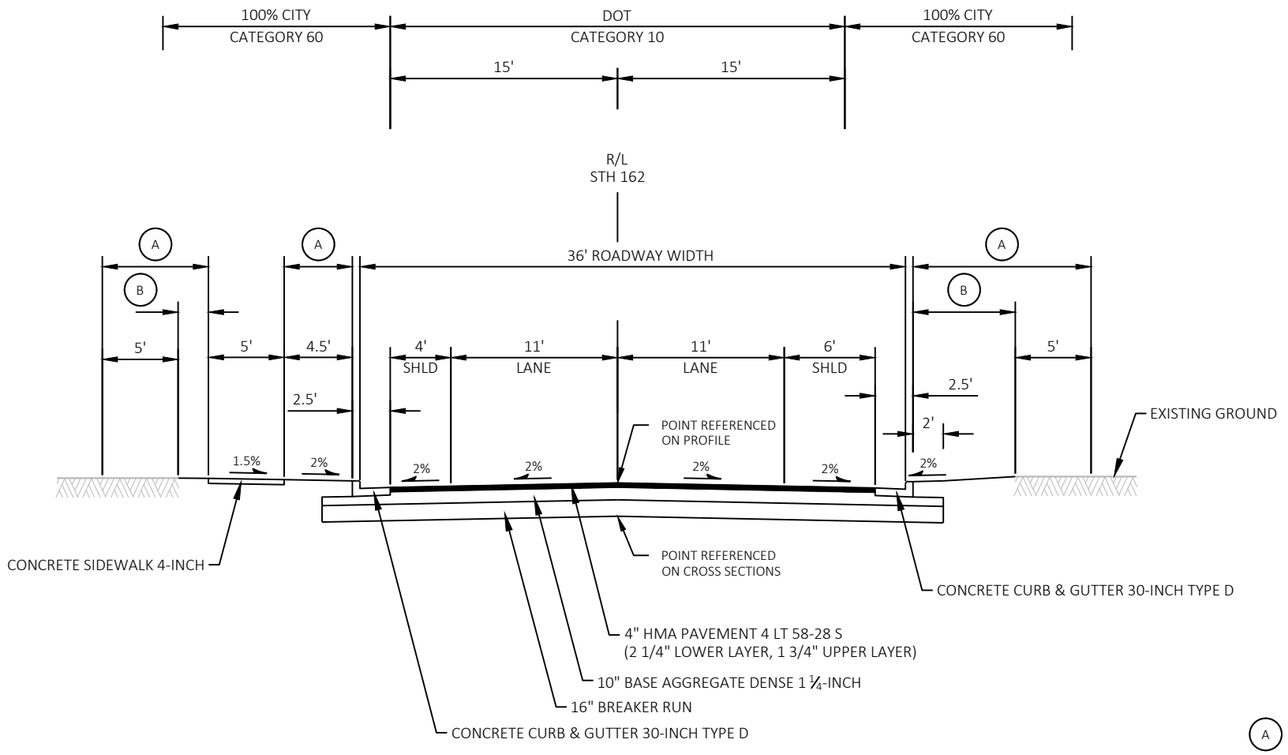
STA 104+50.0 TO STA 131+04.3
STA 133+29.9 TO STA 252+83.0
STA 253+14.0 TO STA 329+90.0
STA 331+64.0 TO STA 431+26.0
STA 431+80.0 TO STA 486+00.0



STA 189+19.7 TO STA 201+34.6
STA 211+77.6 TO STA 232+83.2
STA 236+24.6 TO STA 245+33.8
STA 254+87.1 TO STA 255+82.2
STA 272+20.0 TO STA 275+85.4
STA 454+08.2 TO STA 456+23.5
STA 461+34.7 TO STA 465+23.5

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	TYPICAL SECTIONS	SHEET 4	E

2



FINISHED TYPICAL SECTION

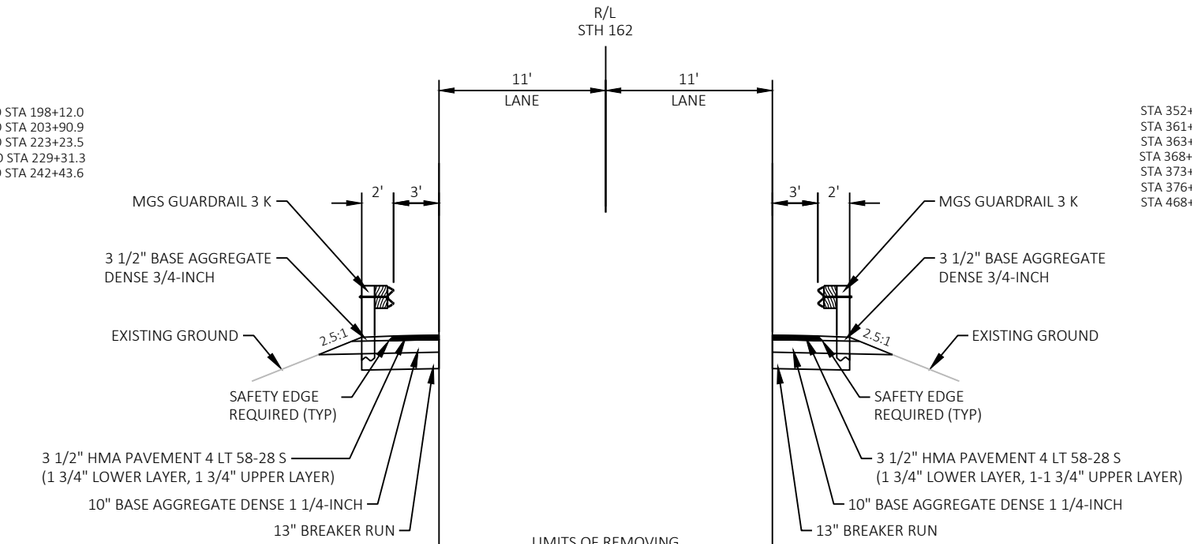
STA 104+50.0 TO STA 115+00.0

A SEEDING MIXTURE NO. 40 AND FERTILIZER TYPE B

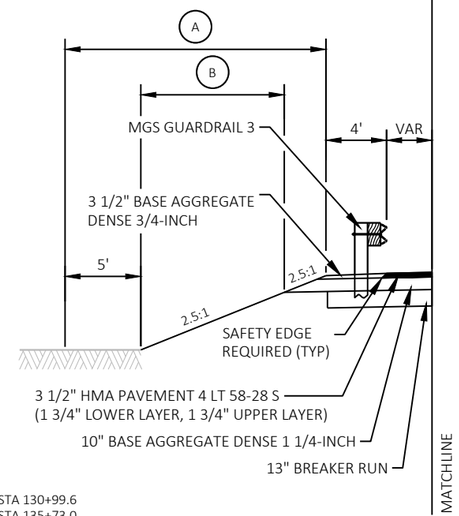
B SALVAGED TOPSOIL AND MULCHING

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	TYPICAL SECTIONS	SHEET 5	E

STA 195+40.8 TO STA 198+12.0
STA 201+81.9 TO STA 203+90.9
STA 219+26.2 TO STA 223+23.5
STA 225+34.6 TO STA 229+31.3
STA 237+24.2 TO STA 242+43.6



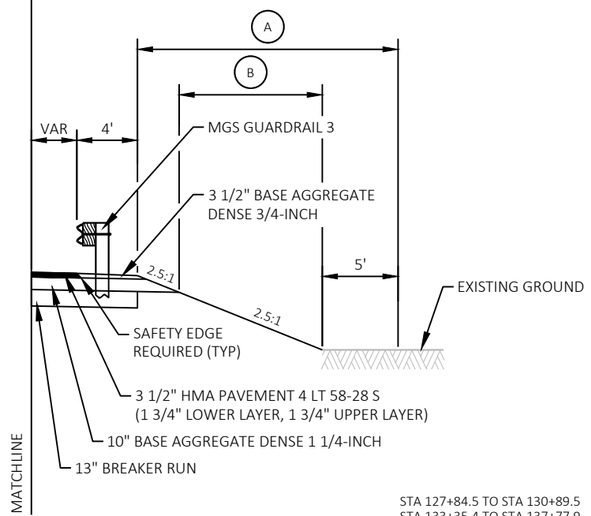
MGS GUARDRAIL 3 K



MGS GUARDRAIL 3

STA 127+82.0 TO STA 130+99.6
STA 133+44.3 TO STA 135+73.0
STA 194+87.6 TO STA 165+40.8
STA 198+12.0 TO STA 201+81.9
STA 203+90.9 TO STA 204+46.9
STA 218+74.2 TO STA 219+26.2
STA 223+23.5 TO STA 223+76.1
STA 225+17.2 TO STA 225+34.6
STA 229+31.3 TO STA 229+84.4
STA 236+66.7 TO STA 237+24.2
STA 242+43.6 TO STA 249+03.2
STA 251+79.1 TO STA 252+84.1
STA 253+12.7 TO STA 254+17.6
STA 306+69.3 TO STA 309+66.6
STA 328+51.7 TO STA 329+81.7
STA 331+72.9 TO STA 333+02.9
STA 373+28.2 TO STA 375+52.4
STA 430+49.7 TO STA 431+25.7
STA 431+79.1 TO STA 433+34.1

MGS GUARDRAIL 3 K

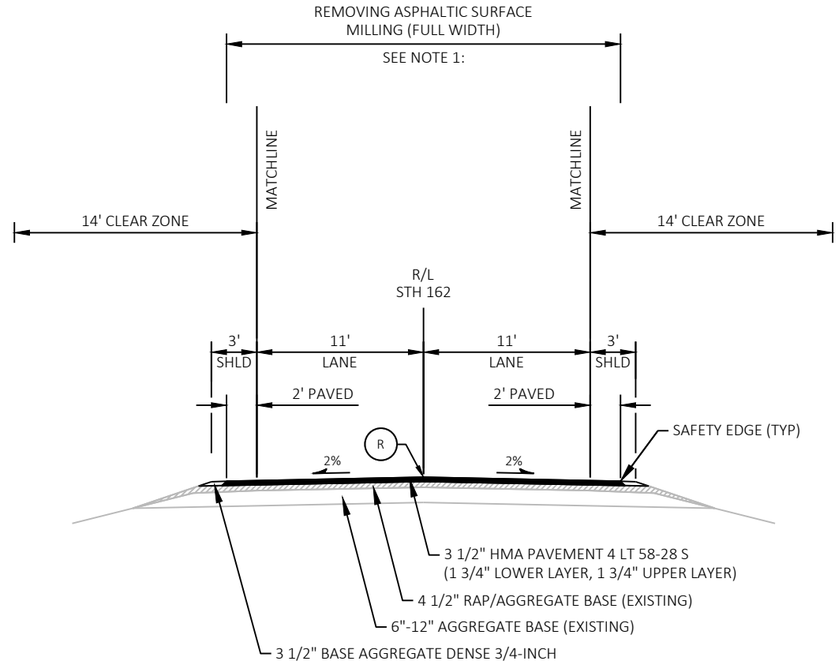


MGS GUARDRAIL 3

STA 127+84.5 TO STA 130+89.5
STA 133+35.4 TO STA 137+77.9
STA 251+54.1 TO STA 252+84.1
STA 253+12.7 TO STA 254+17.5
STA 306+22.4 TO STA 309+13.0
STA 328+51.7 TO STA 329+81.7
STA 331+72.9 TO STA 333+02.9
STA 352+09.8 TO STA 252+62.4
STA 355+87.7 STA TO 357+40.9
STA 359+92.7 TO STA 361+19.4
STA 362+19.4 TO STA 363+45.1
STA 365+99.3 TO STA 368+49.9
STA 370+49.7 TO STA 373+43.3
STA 375+00.8 TO STA 375+66.1
STA 375+90.9 TO STA 376+44.5
STA 380+94.5 TO STA 382+19.2
STA 429+68.9 TO STA 431+25.7
STA 431+79.1 TO STA 433+09.1
STA 468+02.5 TO STA 468+53.7
STA 472+34.9 TO STA 472+89.3

NOTE 1: REMOVING ASPHALTIC SURFACE MILLING, TO BE COMPLETED FOR THE TOP 3 1/2" OF EXISTING SURFACE (ASPHALTIC PAVEMENT AND RAP AND/OR BASE) PRIOR TO INSTALLATION OF NEW PAVEMENT.

STA 352+62.4 TO STA 355+87.7
STA 361+19.4 TO STA 362+19.4
STA 363+45.1 TO STA 365+99.3
STA 368+49.9 TO STA 370+49.7
STA 373+43.3 TO STA 375+00.8
STA 376+44.5 TO STA 380+94.5
STA 468+53.7 TO STA 472+34.9



FINISHED TYPICAL SECTION

STA 115+00.0 TO STA 131+04.3
STA 133+29.9 TO STA 156+35.2
STA 179+46.1 TO STA 182+50.0
STA 185+50.0 TO STA 252+83.0
STA 253+14.0 TO STA 329+90.0
STA 331+64.0 TO STA 431+26.0
STA 431+80.0 TO STA 486+00.00

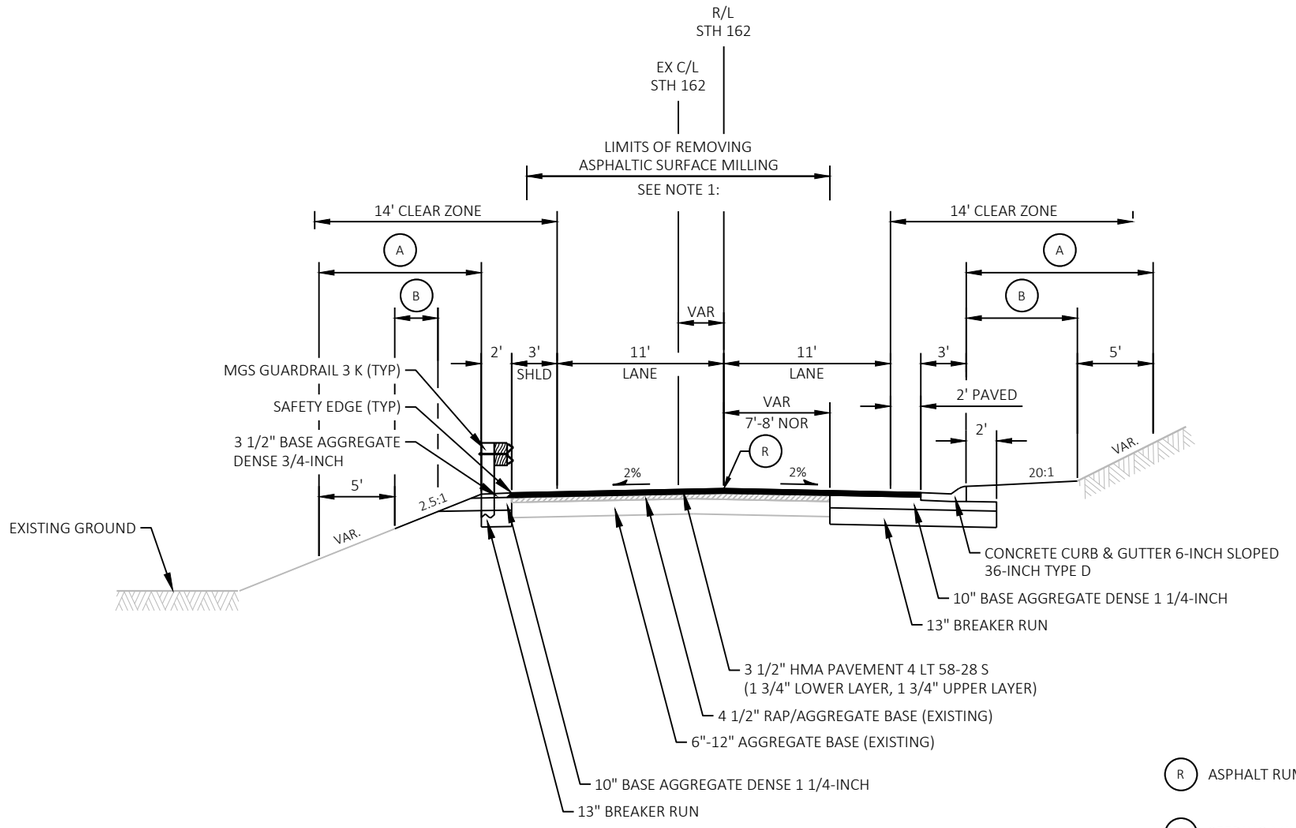
(R) ASPHALT RUMBLE STRIPS, CENTERLINE REQUIRED

(A) SEEDING MIXTURE NO. 30, TEMPORARY SEEDING, EXCEPT AS NOTED BELOW*, AND FERTILIZER TYPE B

(B) SALVAGED TOPSOIL AND EROSION MAT URBAN CLASS I TYPE B OR MULCHING

* DO NOT USE SEEDING MIXTURE NO. 30 AND TEMPORARY SEEDING IN WETLAND AREAS AND WITHIN 75' OF EXISTING WATER. USE SEEDING MIXTURE NO. 75.

2



FINISHED TYPICAL SECTION

STA 156+35.2 TO STA 179+46.9

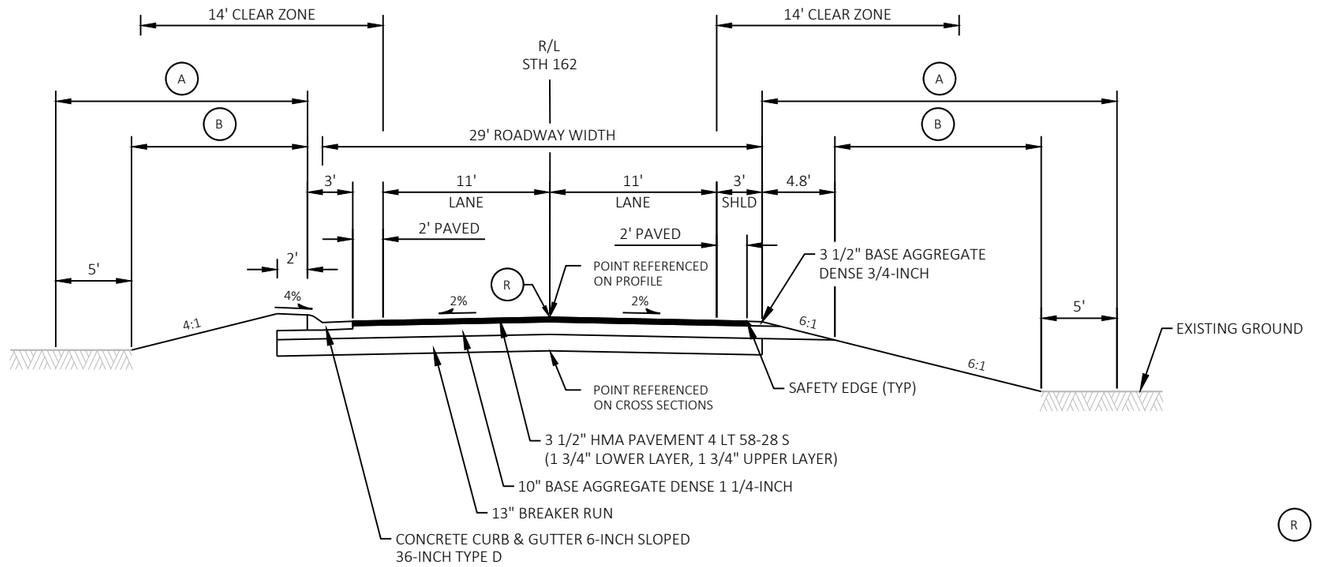
(R) ASPHALT RUMBLE STRIPS, CENTERLINE REQUIRED

(A) SEEDING MIXTURE NO. 30, TEMPORARY SEEDING, AND FERTILIZER TYPE B

(B) SALVAGED TOPSOIL AND EROSION MAT URBAN CLASS I TYPE B OR MULCHING

NOTE 1: REMOVING ASPHALTIC SURFACE MILLING, TO BE COMPLETED FOR THE TOP 3 1/2" OF EXISTING SURFACE (ASPHALTIC PAVEMENT AND RAP AND/OR BASE) PRIOR TO INSTALLATION OF NEW PAVEMENT.

2



FINISHED TYPICAL SECTION

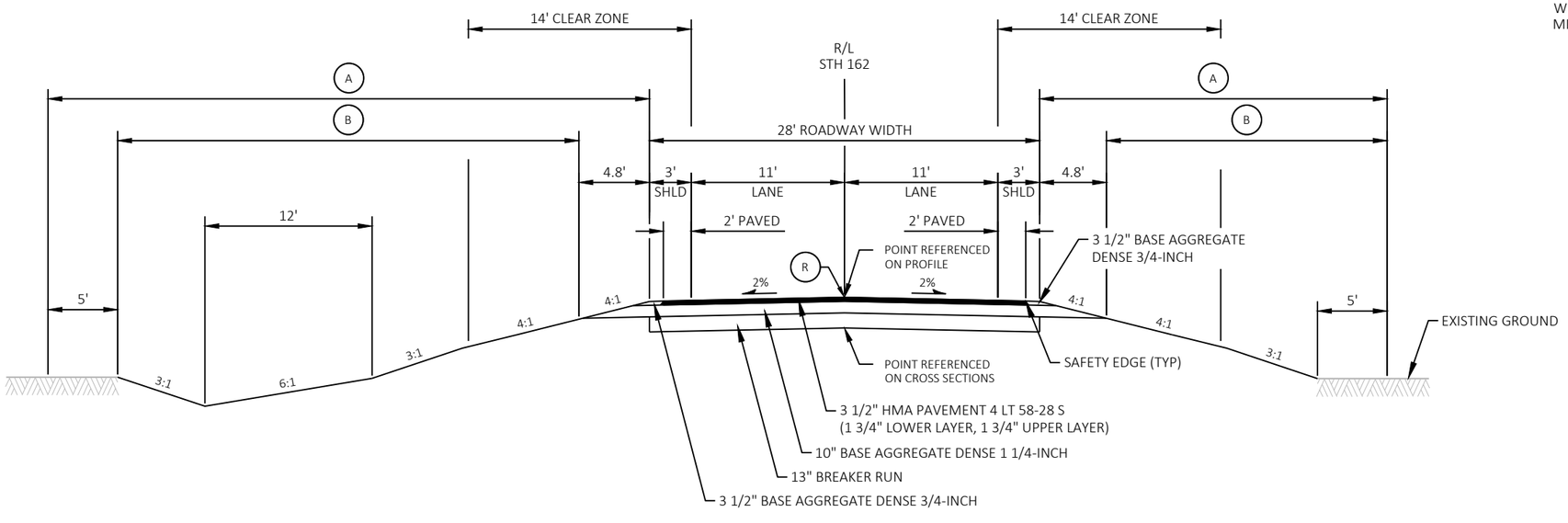
STA 182+50.00 TO STA 182+76.31

R ASPHALT RUMBLE STRIPS, CENTERLINE REQUIRED

A SEEDING MIXTURE NO. 30, TEMPORARY SEEDING, EXCEPT AS NOTED BELOW*, AND FERTILIZER TYPE B

B SALVAGED TOPSOIL AND EROSION MAT URBAN CLASS I TYPE B OR MULCHING

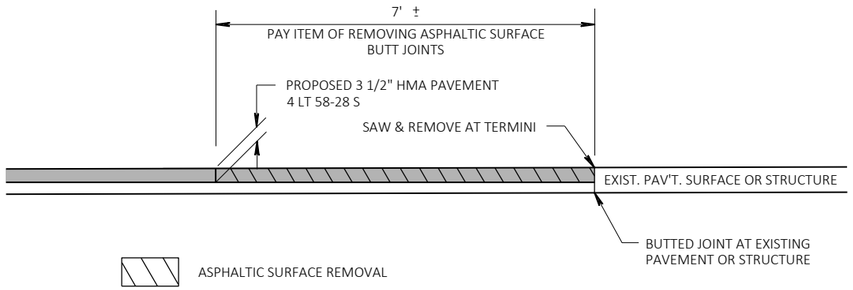
* DO NOT USE SEEDING MIXTURE NO. 30 AND TEMPORARY SEEDING IN WETLAND AREAS AND WITHIN 75' OF EXISTING WATER. USE SEEDING MIXTURE NO. 75.



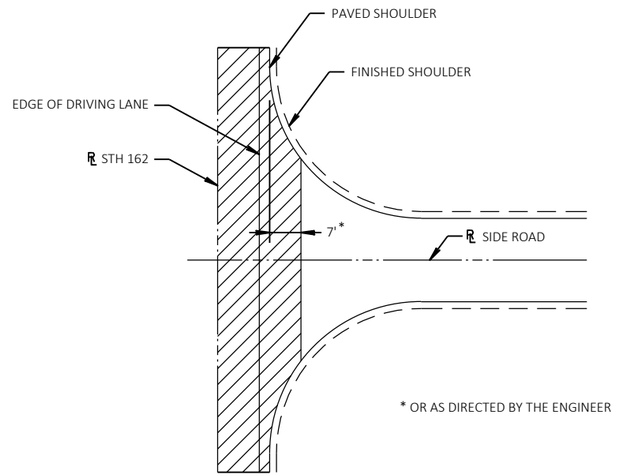
FINISHED TYPICAL SECTION

STA 182+76.31 TO STA 185+50.00

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	TYPICAL SECTIONS	SHEET 8	E

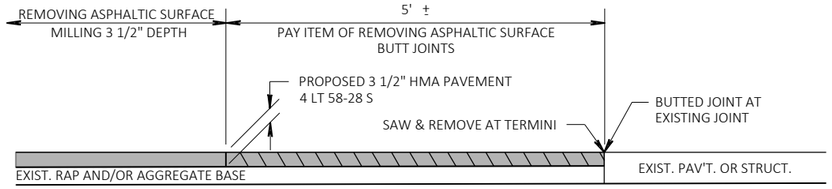


PROFILE VIEW

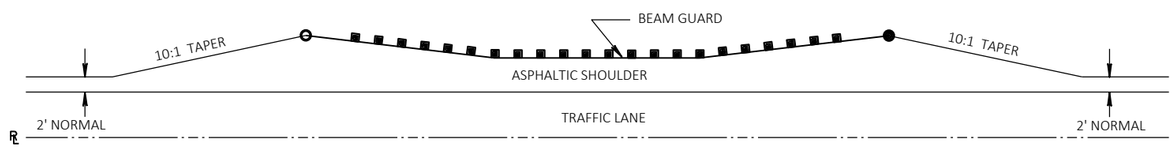


PLAN VIEW

INTERSECTION JOINT TRANSITION DETAIL

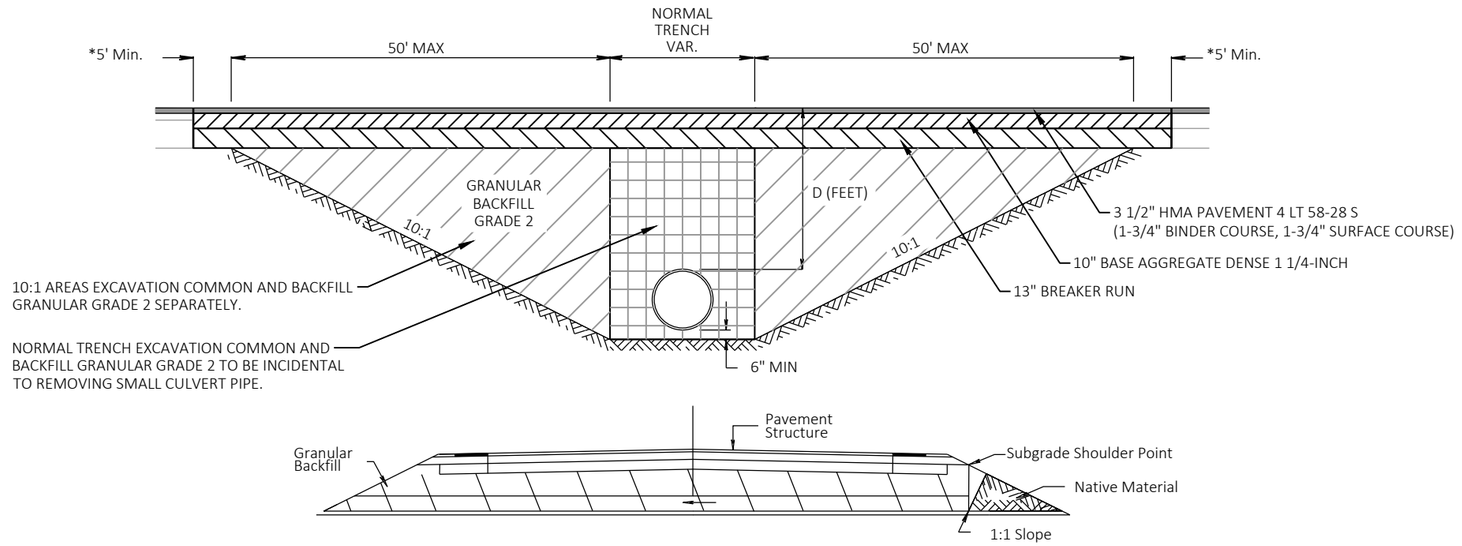


MAINLINE REMOVING ASPHALTIC SURFACE BUTT JOINT DETAIL



DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD

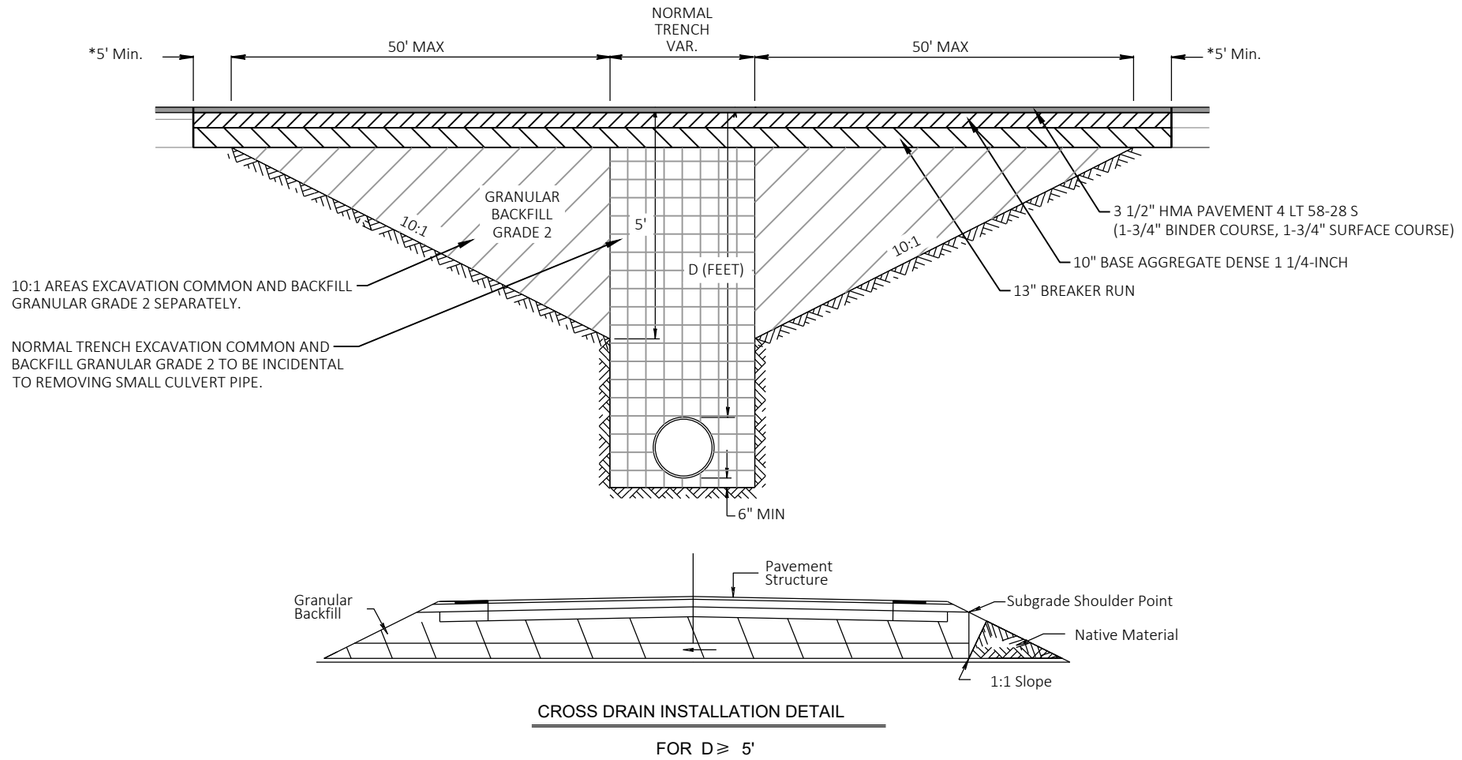
2



CROSS DRAIN INSTALLATION DETAIL

FOR D ≤ 5'

* Pavement Removal Limits (Typical)

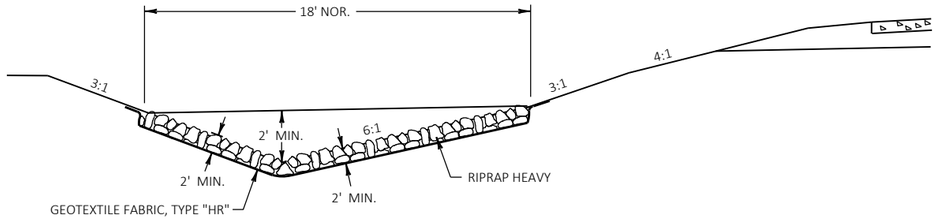


STA 144+49
STA 162+10
STA 168+75
STA 172+00
STA 261+57
STA 272+19
STA 290+83
STA 298+40
STA 395+64
STA 448+94
STA 483+77

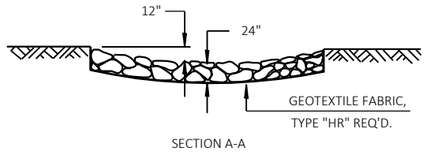
CROSS DRAIN INSTALLATION DETAIL

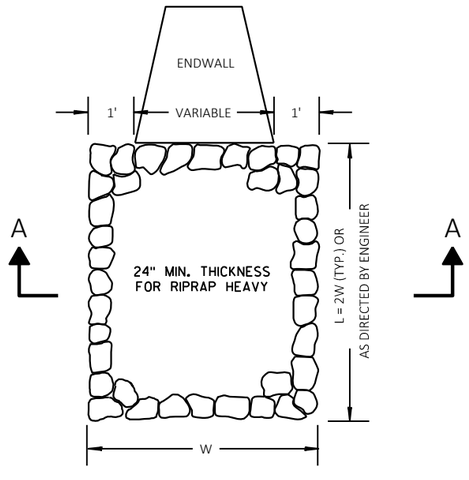
FOR D ≥ 5'

2

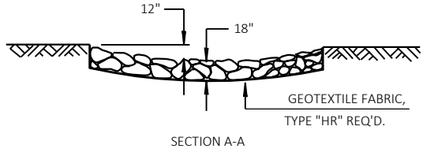


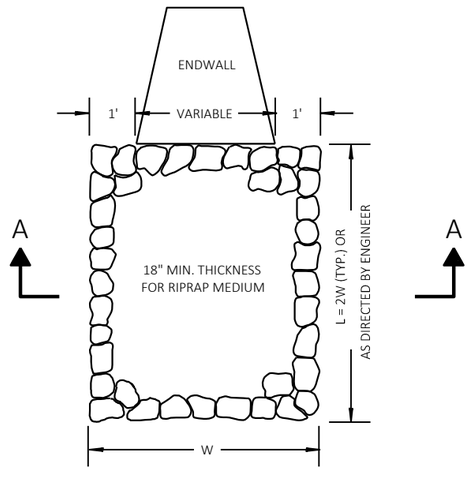
DETAIL OF RIPRAP HEAVY DITCH



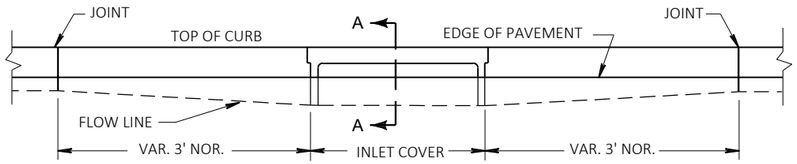


RIPRAP HEAVY TREATMENT AT CULVERTS

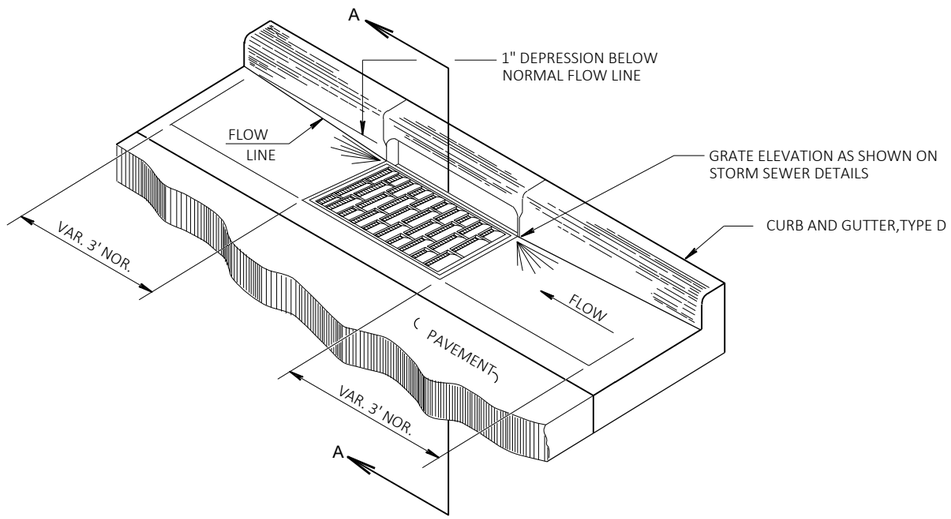


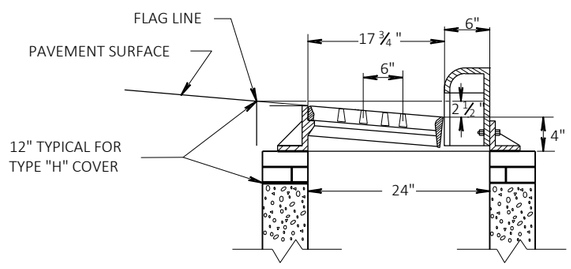


RIPRAP MEDIUM TREATMENT AT CULVERTS



ELEVATION

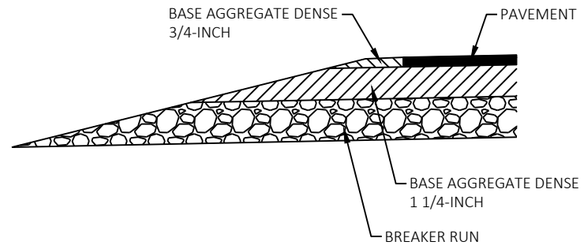




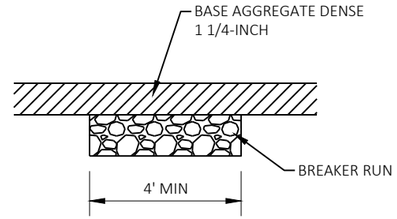
SECTION A-A

DETAIL OF CURB AND GUTTER AT INLETS

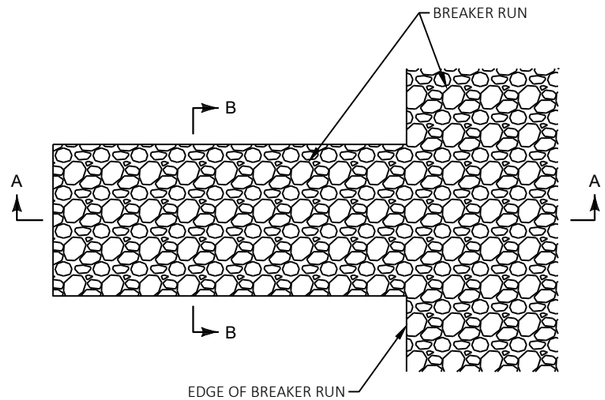
(TYPE 3-H INLET SHOWN)



SECTION A-A



SECTION B-B

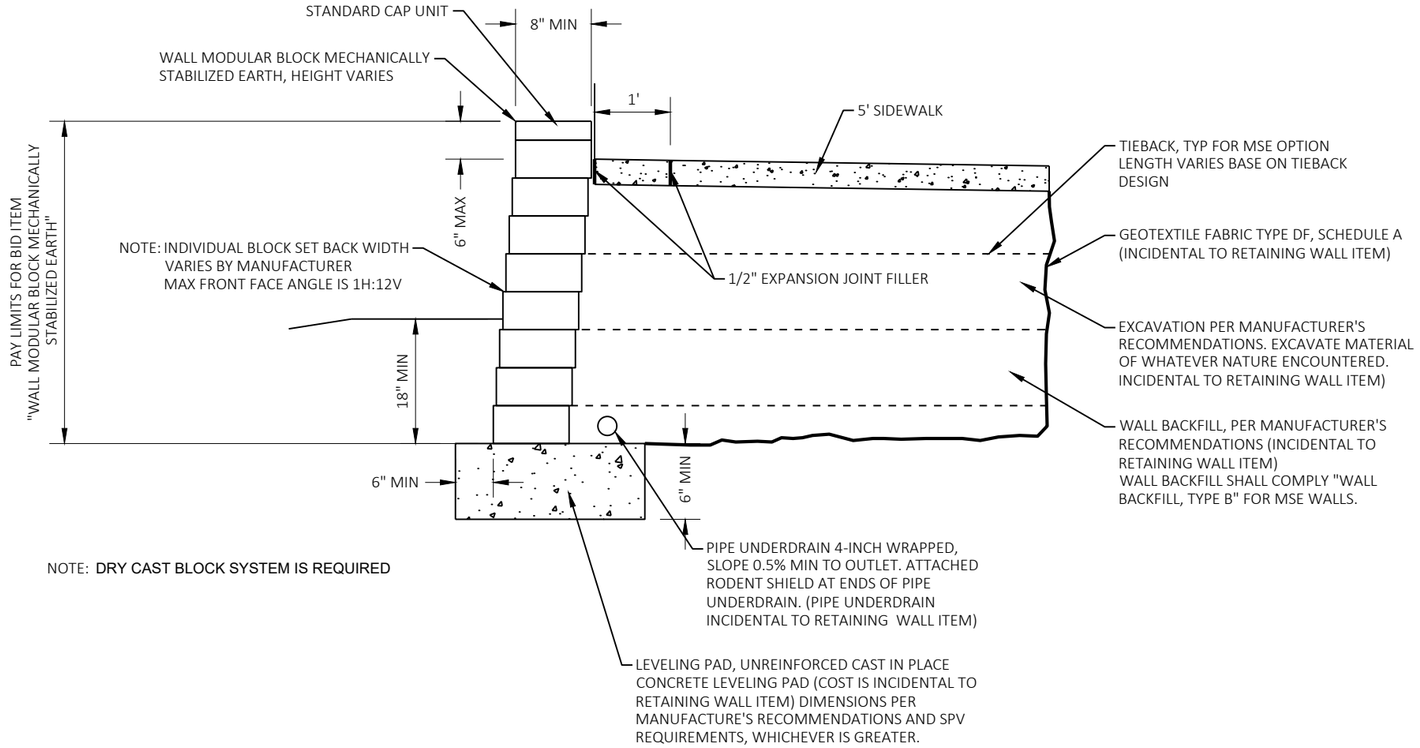


RELIEF TRENCH DETAIL

DRAINS ARE TO BE CONSTRUCTED AT LEAST EVERY 250'
AND AT EACH SAG VERTICAL CURVE IN THE PROFILE.

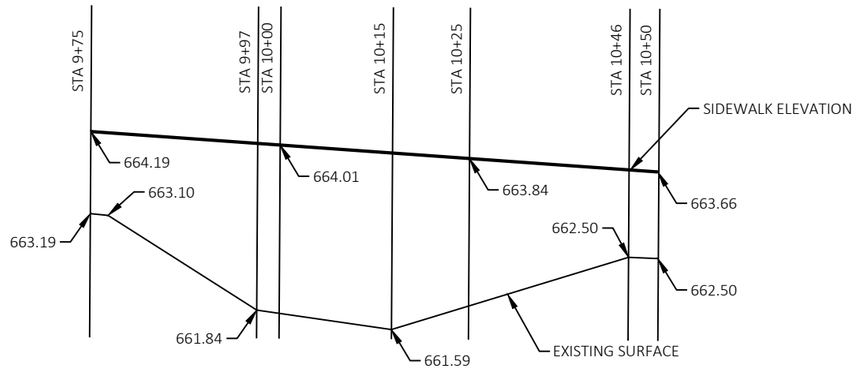
LOCATION TO BE ADJUSTED IN THE FIELD BY THE ENGINEER.

2



WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH WALL CROSS SECTION

SEE STODDARD PLAN AND PROFILE SHEET FOR PLAN VIEW.

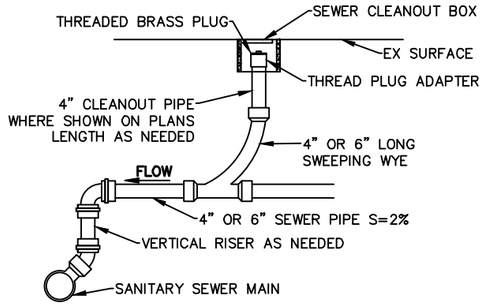


STA 109+75 TO STA 110+50, LT

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CONSTRUCTION DETAILS	SHEET 13	E

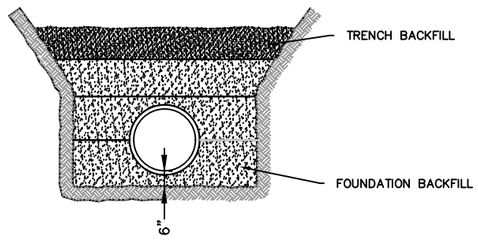
2

SANITARY SEWER MAIN CONNECTION DETAIL



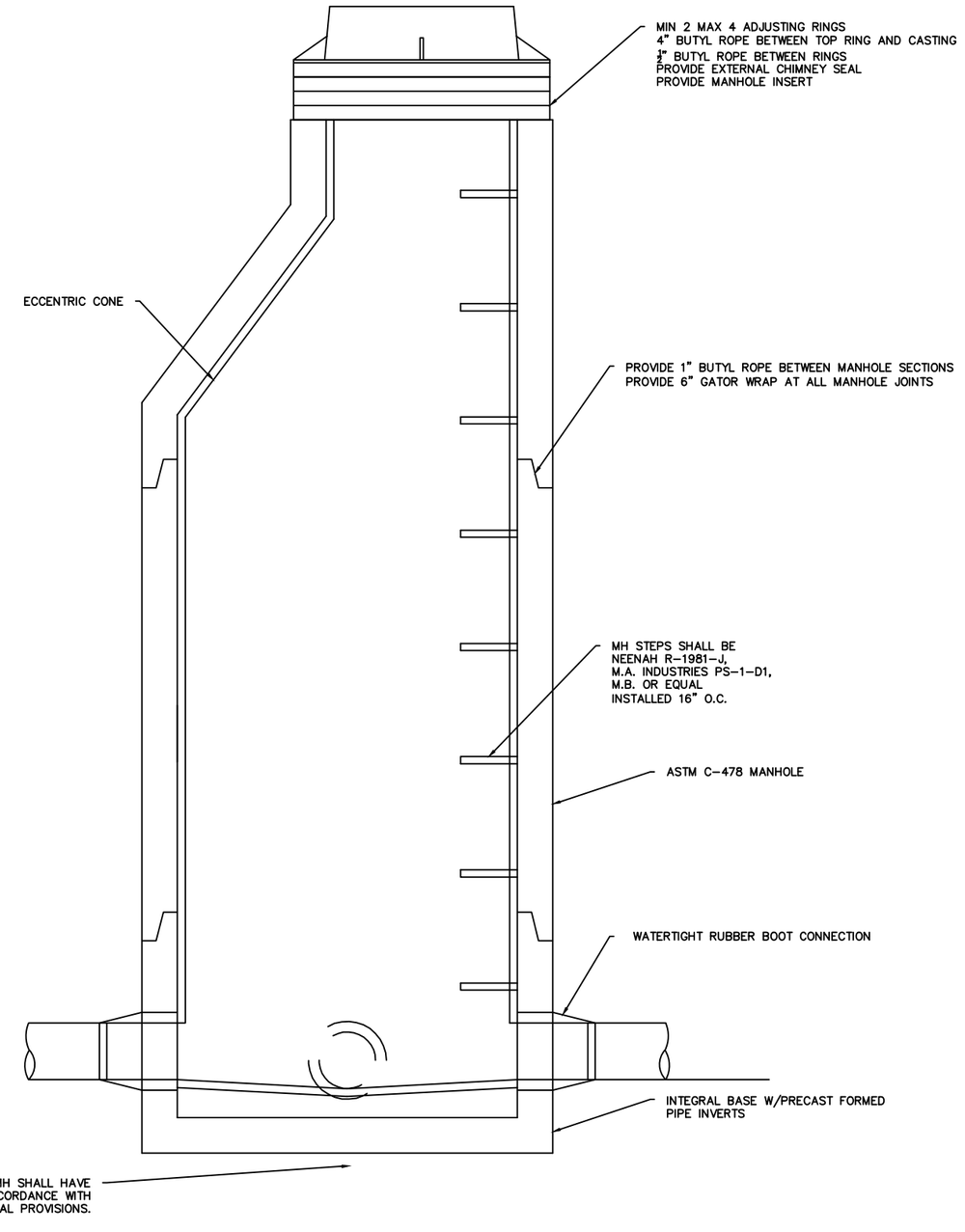
NOTES:
1. CLEANOUTS SHALL BE PLACED EVERY 100FT
2. ALL FITTINGS EXCLUDING THE CAP NEED TO BE RUBBER GASKETED
3. NO CLEANOUT SHALL BE INSTALLED IN ANY ROADWAY
4. ALLOWABLE PIPE MATERIAL IS PVC SDR-35

SEWERMAIN BEDDING



PIPE BEDDING
N.T.S.

SANITARY SEWER MANHOLE GENERAL DETAILS

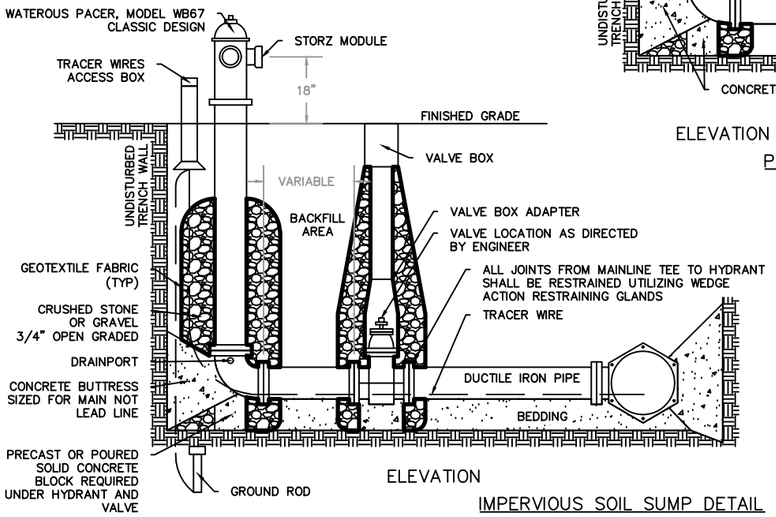


2

PROJECT NO: 5865-02-74	HWY: STH 162	COUNTY: VERNON	SANITARY SEWER DETAILS	SHEET 14	E

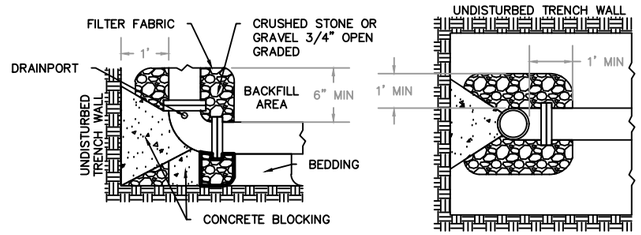
HYDRANT LEAD & CONNECTION DETAIL

NOTES:
1. POLY WRAP ALL DIP AND FITTINGS.



ELEVATION

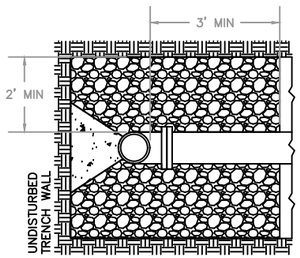
IMPERVIOUS SOIL SUMP DETAIL



ELEVATION

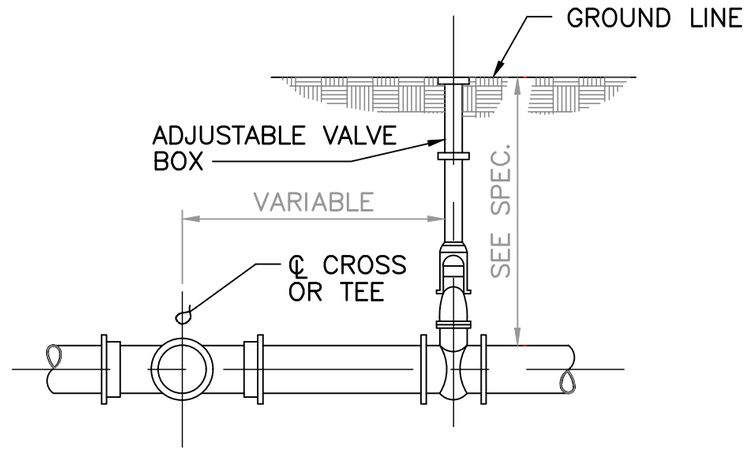
PLAN

PERVIOUS SOIL SUMP DETAIL



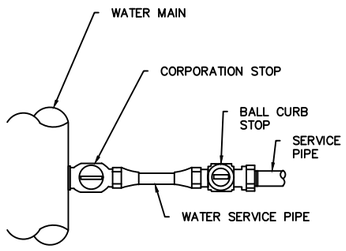
PLAN

TYPICAL VALVE SETTING



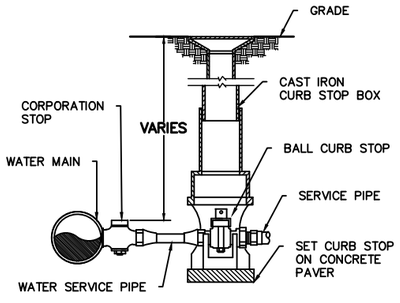
N.T.S.

WATER MAIN CONNECTION DETAIL



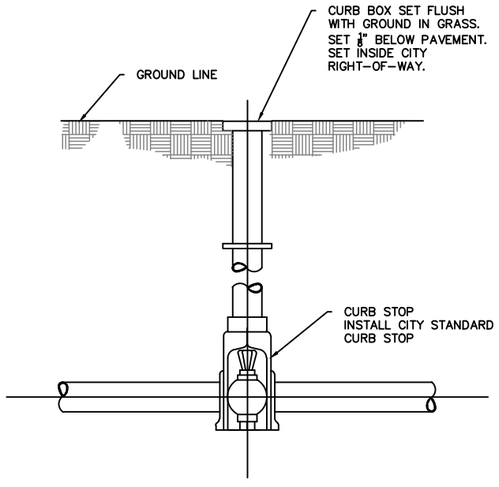
NOTE: CURB BOX NOT SHOWN FOR PURPOSE OF CLARITY ONLY

PLAN



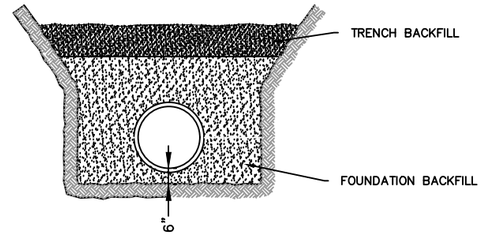
ELEVATION

CURB STOP & BOX



CURB STOP & BOX
N.T.S.

WATERMAIN BEDDING



PIPE BEDDING
N.T.S.

PROJECT NO: 5865-02-74	HWY: STH 162	COUNTY: VERNON	WATER MAIN DETAILS	SHEET 15	E

2

SLOPE INTERCEPT

+18.59, -14.00' LT

PC: 126+72.49

+22.04, -13.00' LT

PT: 127+27.51

+82.04, -19.00' LT

+07.04, -18.00' LT

MGS GUARDRAIL TERMINAL EATS

+32.04, -17.00' LT

COON VALLEY FARMERS TELEPHONE CO

MGS GUARDRAIL 3

REMOVING ASPHALTIC SURFACE
BUTT JOINT REQUIRED

MGS THRIE BEAM TRANSITION

PI: 131+09.57

N

6'

11'

11'

6'

126+00

127+00

STH 162

128+00

129+00

130+00

131+00

+21.04, 14.00' RT

+24.48, 13.00' RT

SLOPE INTERCEPT

+34.48, 17.00' RT

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL TERMINAL EATS

+09.48, 18.00' RT

COON VALLEY FARMERS TELEPHONE CO

STRUCTURE B-62-029
STA 131+04.3 - STA 133+29.9
CONCRETE MASONRY OVERLAY DECKS

+84.48, 19.00' RT

COON VALLEY FARMERS TELEPHONE CO

REMOVING ASPHALTIC SURFACE
BUTT JOINT REQUIRED

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

STRUCTURE B-62-029
STA 131+04.3 - STA 133+29.9
CONCRETE MASONRY OVERLAY DECKS

PC: 134+86.17

+23.75, -17.00' LT

+48.38, -18.00' LT

MGS GUARDRAIL TERMINAL EATS

STA 137+920, LT
AGGREGATE CE

SLOPE INTERCEPT

+72.99, -19.00' LT

+32.99, -13.00' LT

+04.11, -16.16' LT

N

6'

11'

11'

6'

133+00

134+00

135+00

136+00

137+00

STH 162

+01.51, 23.24' RT

+77.92, 19.00' RT

MGS GUARDRAIL TERMINAL EATS

SEE INTERSECTION JOINT
TRANSITION DETAIL

+52.92, 18.00' RT

SLOPE INTERCEPT

+27.92, 17.00' RT

CTH O

COON VALLEY FARMERS TELEPHONE CO

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CONSTRUCTION DETAILS EATS	SHEET 16	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\021050_CD.DWG
LAYOUT NAME - 01

PLOT DATE : 10/20/2025 9:28 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

2

STA 159+35, LT
ASPHALT PE

VERNON ELECTRIC COOPERATIVE

SEE RURAL ENTRANCE WITH
ASPHALTIC SURFACE DETAIL

+75.24, -14.00' LT

+00.38, -14.00' LT

MGS GUARDRAIL TERMINAL EATS

+25.52, -14.00' LT

COON VALLEY FARMERS
TELEPHONE CO

SLOPE INTERCEPT

MGS GUARDRAIL 3 K

PT: 161+98.14

159+00

160+00

161+00

11'

11'

3'

2'

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

COON VALLEY FARMERS
TELEPHONE CO

STA 166+50, LT
AGGREGATE PE

+97.11, -14.00' LT

MGS GUARDRAIL TERMINAL EATS

+71.90, -14.00' LT

MGS GUARDRAIL 3 K

PC: 164+70.14

COON VALLEY FARMERS TELEPHONE CO

+22.33, -14.00' LT

+32.25, -13.00' LT

PT: 165+48.65

PC: 166+57.91

+83.71, -14.00' LT

165+00

166+00

167+00

11'

11'

2'

3'

VERNON ELECTRIC COOPERATIVE

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

COON VALLEY FARMERS TELEPHONE CO

2

STA 169+30, LT
AGGREGATE PE

SSP CLASS III-A 18-INCH

+10.70, -14.00' LT

+60.70, -13.00' LT

+70.70, -14.00' LT

PT: 169+84.13

+95.79, -14.00' LT

MGS GUARDRAIL TERMINAL EATS

+20.79, -14.00' LT

SLOPE INTERCEPT

MGS GUARDRAIL 3 K

PC: 171+29.18

169+00

170+00

171+00

11'

11'

3'

2'

40.1 STA 169+00, 14.5' RT
INLETS 4-F

SSP CLASS III-A 18-INCH

40.2 STA 169+00, 22.0' RT
INLETS MEDIAN 2G-MS

SSP CLASS III-A 18-INCH

30.1 STA 168+75, 14.5' RT
INLETS 4-F

SSP CLASS III-A 15-INCH

COON VALLEY FARMERS TELEPHONE CO

50.1 STA 170+00, 14.5' RT
INLETS 2.5x3-F

SLOPE INTERCEPT

EXISTING 18-INCH CORRUGATED STEEL PIPE
REMOVING SMALL PIPE CULVERTS

STA 178+88, LT
AGGREGATE PE

+06.17, -15.00' LT

SLOPE INTERCEPT

MGS GUARDRAIL 3 K

MGS GUARDRAIL TERMINAL EATS

+81.17, -14.00' LT

PT: 177+18.50

+31.51, -16.00' LT

PC: 178+07.58

177+00

178+00

179+00

11'

11'

2'

3'

VERNON ELECTRIC COOPERATIVE

COON VALLEY FARMERS
TELEPHONE CO

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

SLOPE INTERCEPT

ASPHALT FLUMES

DAIRYLAND POWER COOPERATIVE

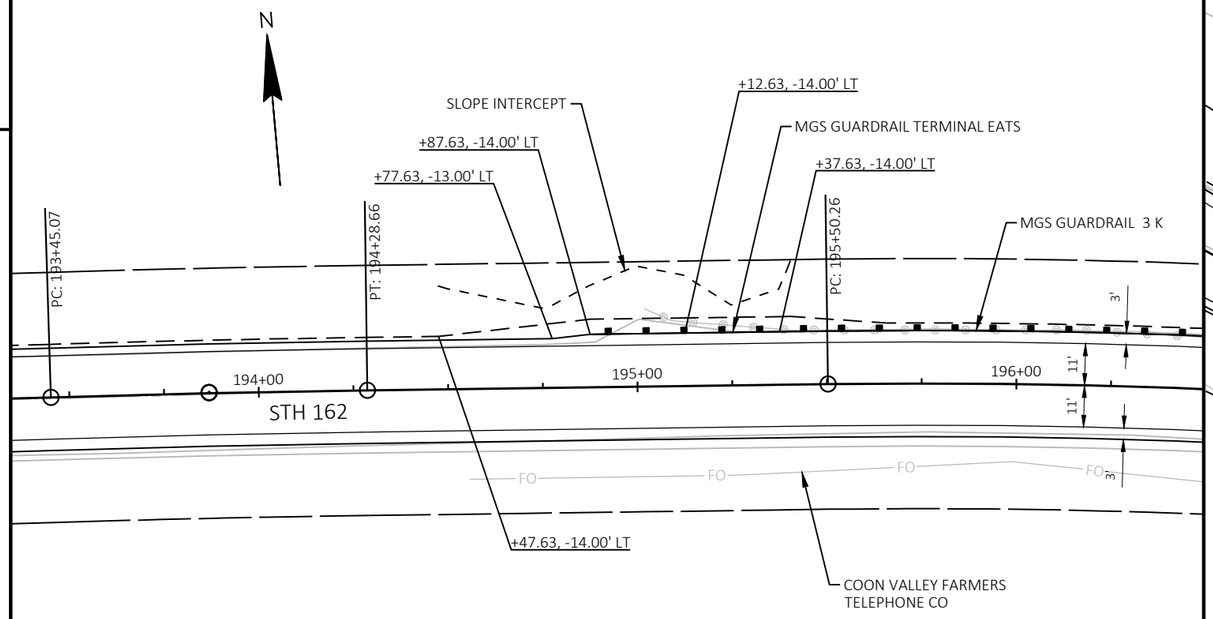
CAUTION

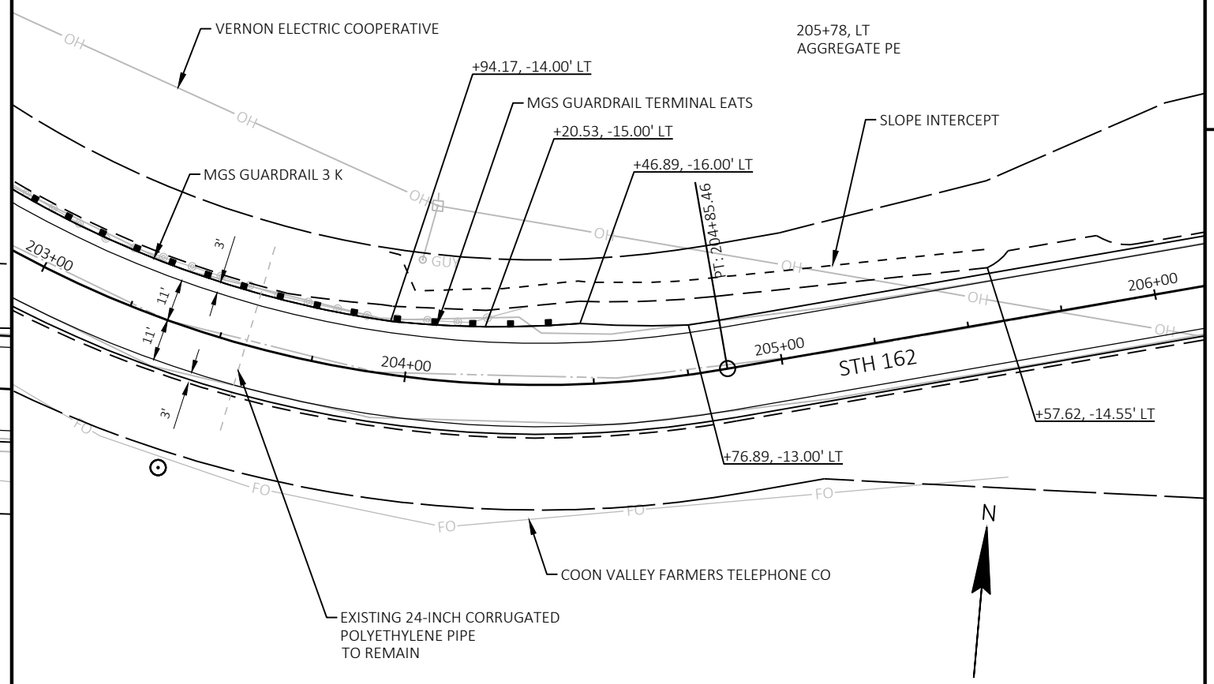
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CONSTRUCTION DETAILS EATS	SHEET 17	E

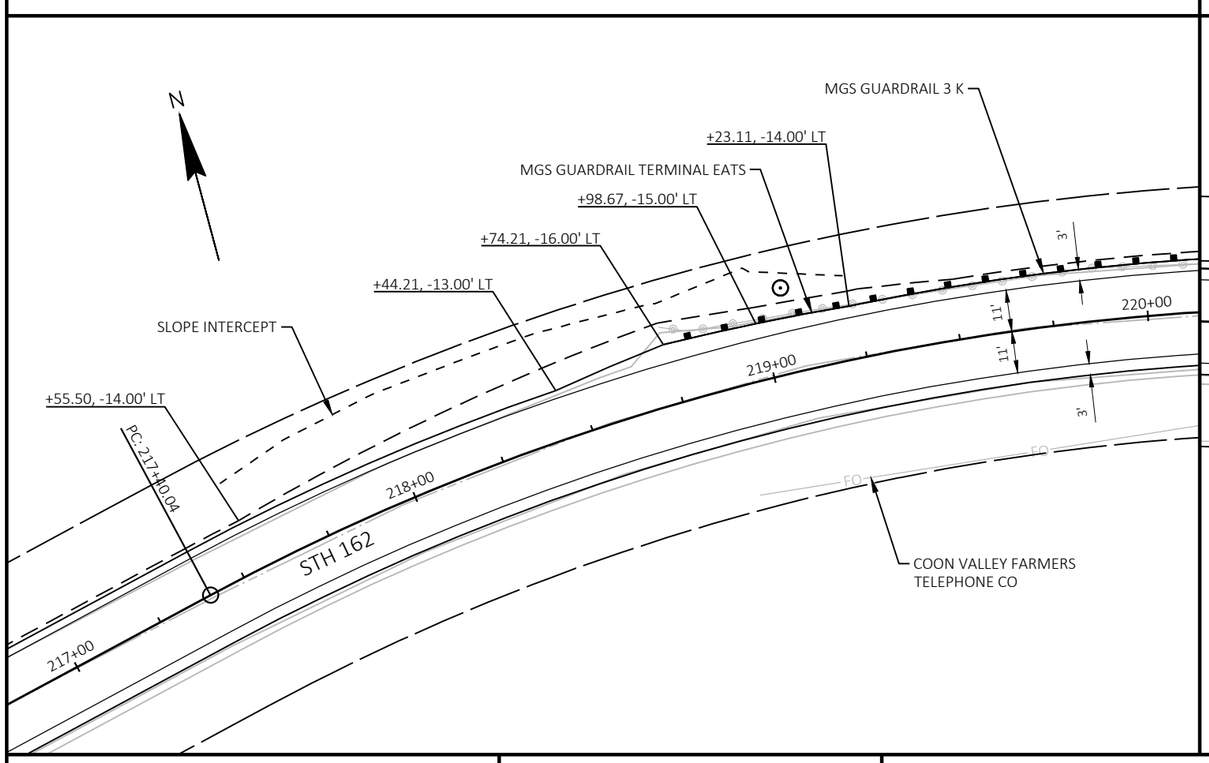
FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\021050_CD.DWG
LAYOUT NAME - 02

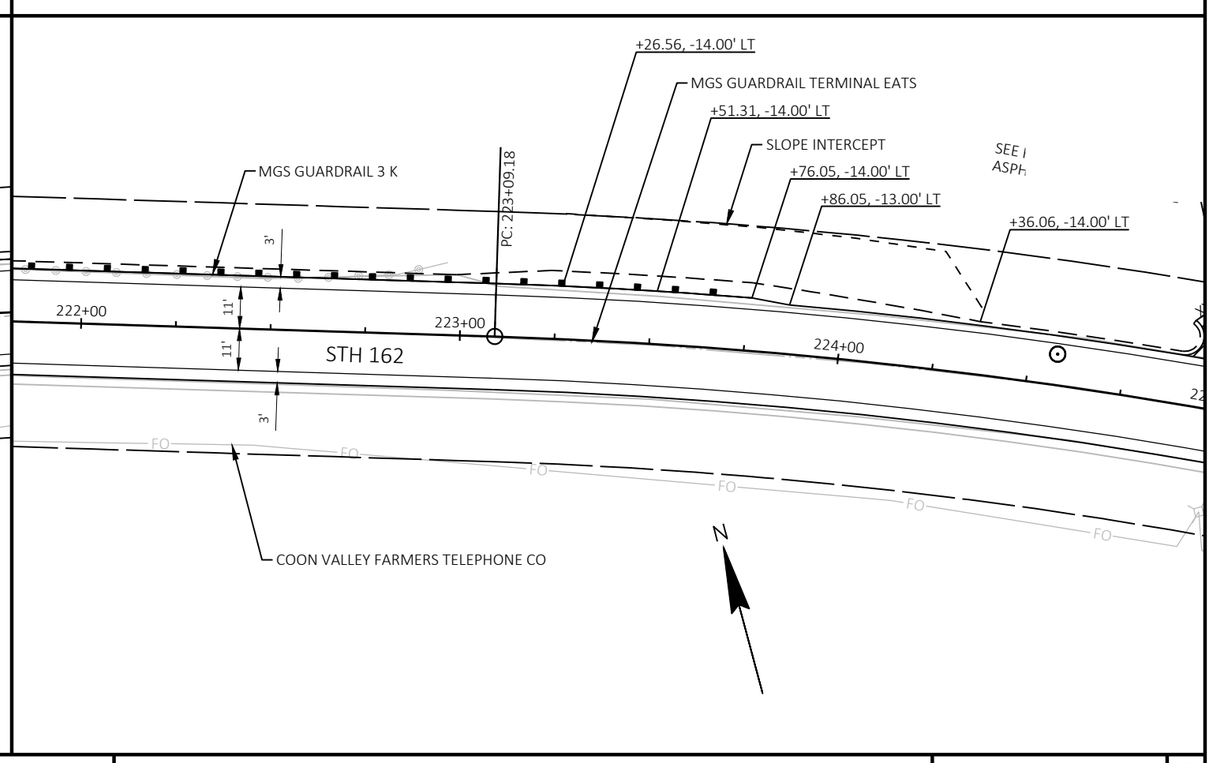
PLOT DATE : 10/20/2025 9:29 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

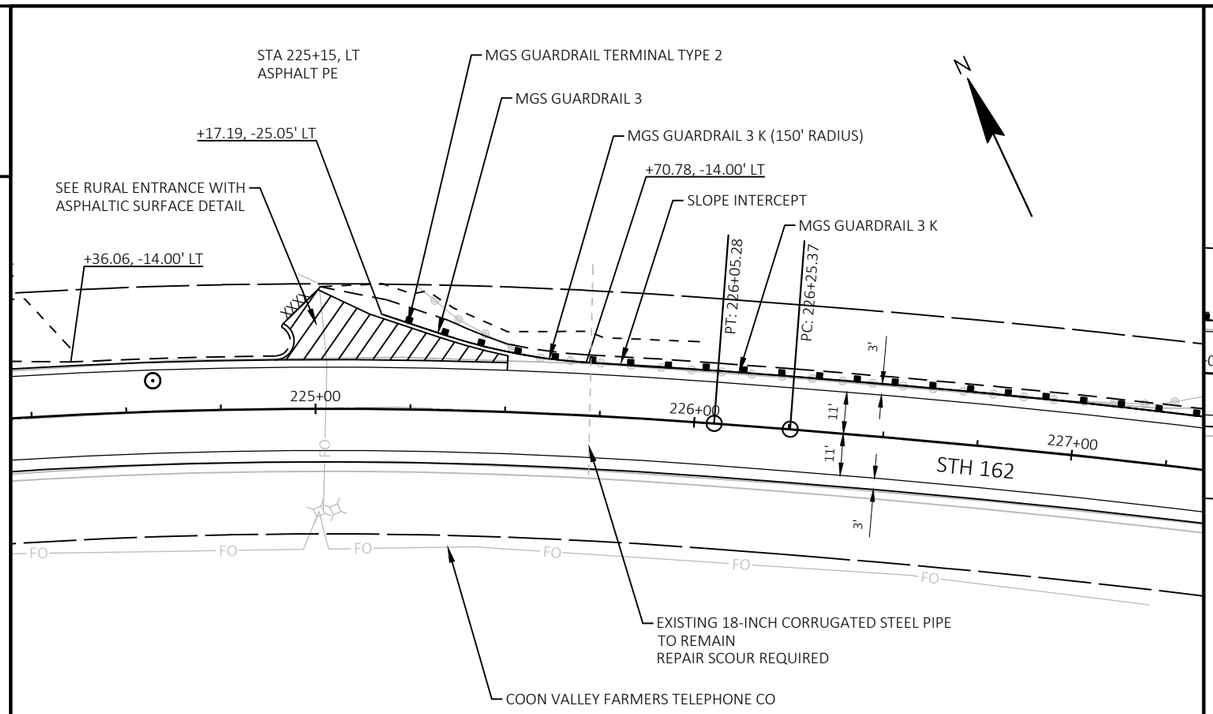


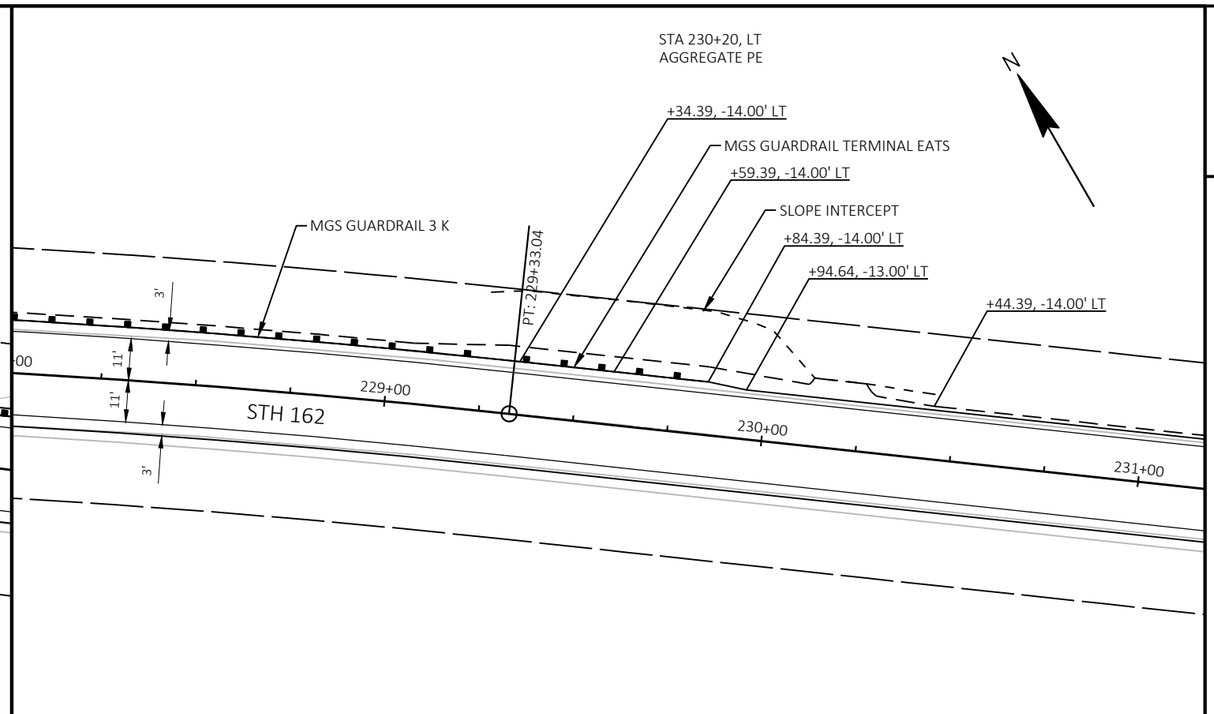


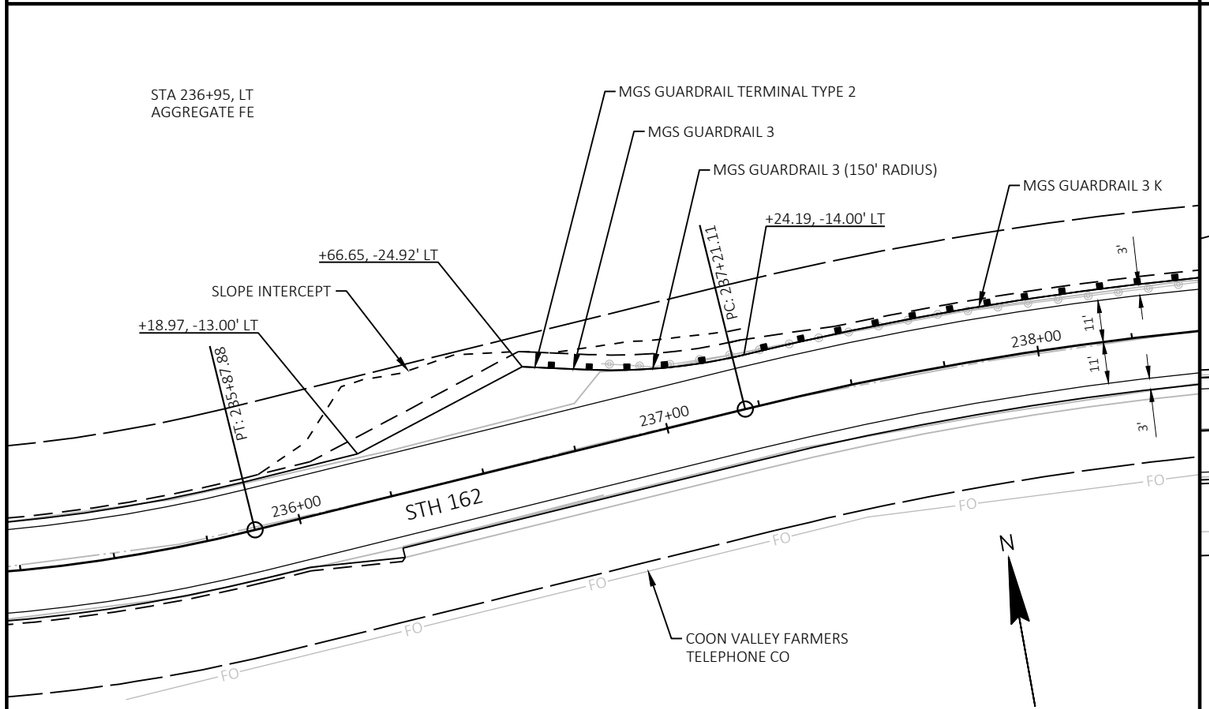


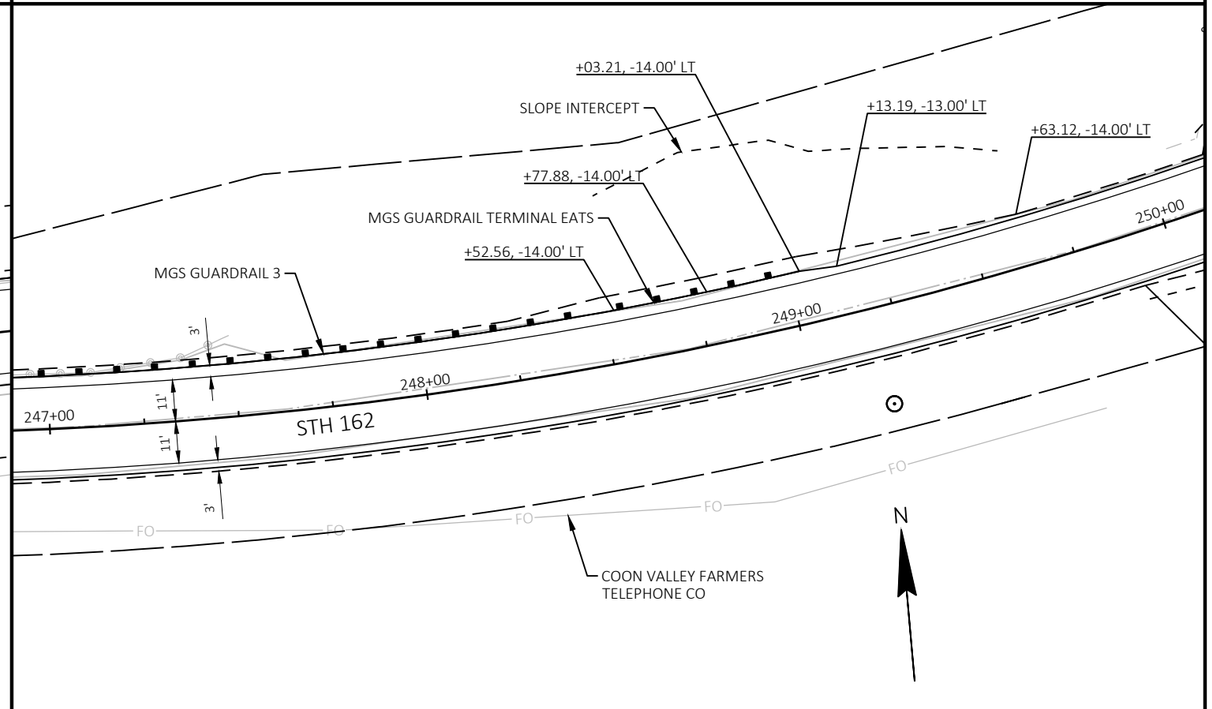


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CONSTRUCTION DETAILS EATS	SHEET 18	E









PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CONSTRUCTION DETAILS EATS	SHEET 19	E

2

2

3.00' LT

+63.12, -14.00' LT

+15.46, -14.00' LT

SLOPE INTERCEPT

WETLAND BOUNDARY

WETLAND IMPACTS

+19.08, -13.00' LT

+79.08, -19.00' LT

PT: 251+59.56

MGS GUARDRAIL TERMINAL EATS

+04.08, -18.00' LT

MGS THRIE BEAM TRANSITION

REMOVING ASPHALTIC SURFACE
BUTT JOINT REQUIRED

+29.08, -17.00' LT

MGS GUARDRAIL 3

+85.22, -13.00' LT

EP: 602+01.69

602+00

+45.22, -17.00' LT

SLOPE INTERCEPT

+20.22, -17.00' LT

MGS GUARDRAIL TERMINAL EATS

HILLTOP RD

601+00

+95.22, -17.00' LT

PT: 600+84.84

MGS GUARDRAIL 3

MGS GUARDRAIL SHORT RADIUS (40' R)
11 CRT POSTS REQUIRED

+14.42, -20.16' LT

+77.05, -17.00' LT

PC: 600+20.31

250+00

251+00

252+00

253+00

254+00

255+00

STH 162

STH 162

6'

11'

11'

6'

6'

11'

11'

6'

FO

FO

FO

FO

FO

FO

MGS THRIE BEAM TRANSITION

+90.29, 14.00' RT

SLOPE INTERCEPT

+94.09, 13.00' RT

WETLAND BOUNDARY

WETLAND IMPACTS

+54.10, 19.00' RT

COON VALLEY FARMERS
TELEPHONE CO

MGS GUARDRAIL 3

+04.08, 17.00' RT

MGS GUARDRAIL TERMINAL EATS

+79.08, 18.00' RT

STRUCTURE B-62-083
STA 252+83 - STA 253+14
CONCRETE SURFACE REPAIR

MGS GUARDRAIL 3

+67.68, 17.00' RT

MGS GUARDRAIL TERMINAL EATS

+92.59, 19.16' RT

+17.49, 21.31' RT

SEE INTERSECTION JOINT
TRANSITION DETAIL

HUNDER
COULEE RD

N

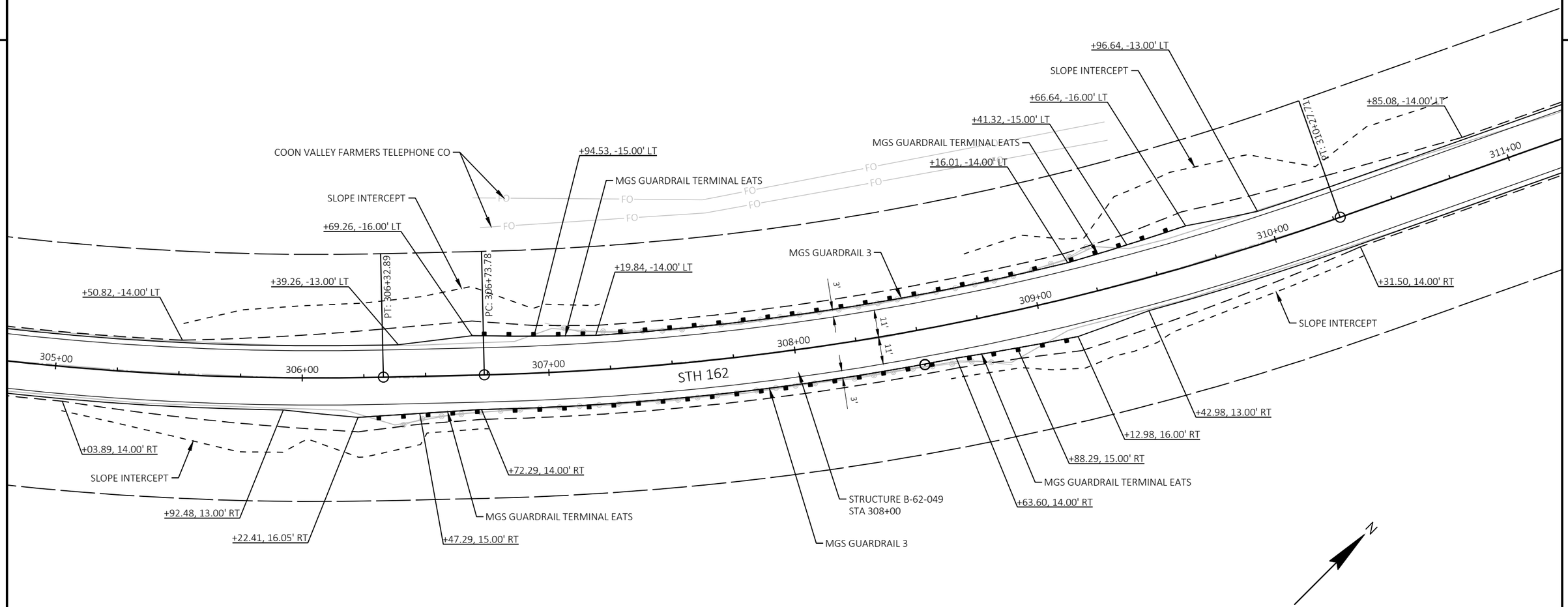
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CONSTRUCTION DETAILS EATS	SHEET 20	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\021050_CD.DWG
LAYOUT NAME - 05

PLOT DATE : 6/23/2026 10:26 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : ##########

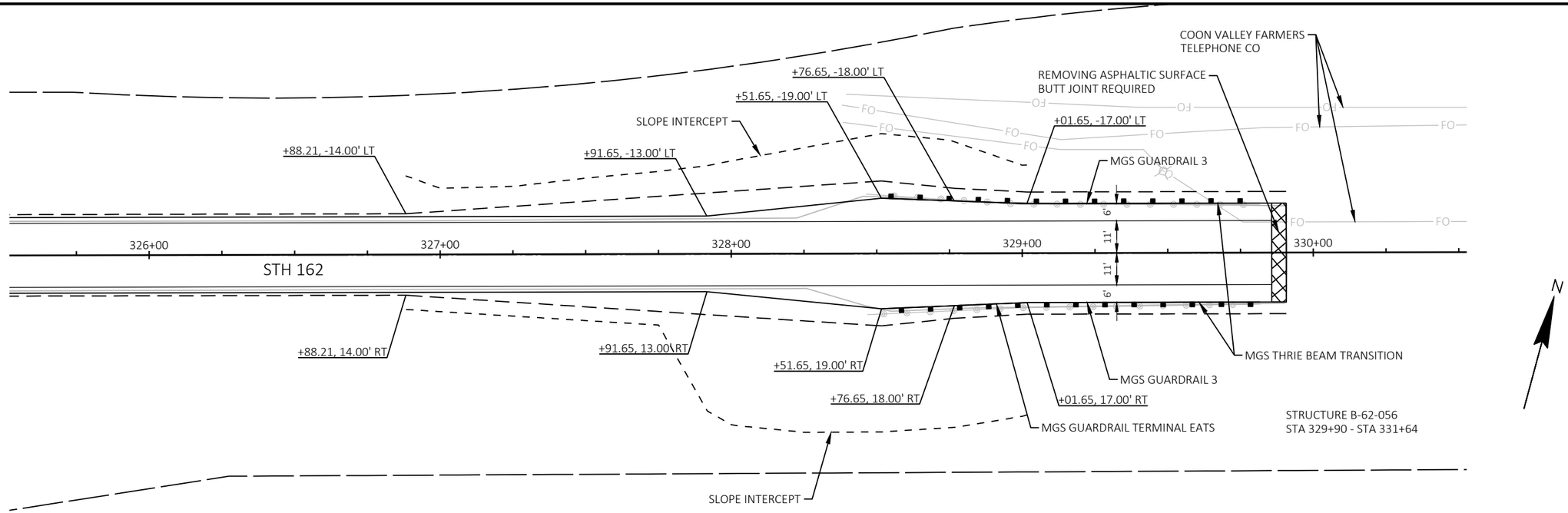
WISDOT/CADDS SHEET 44

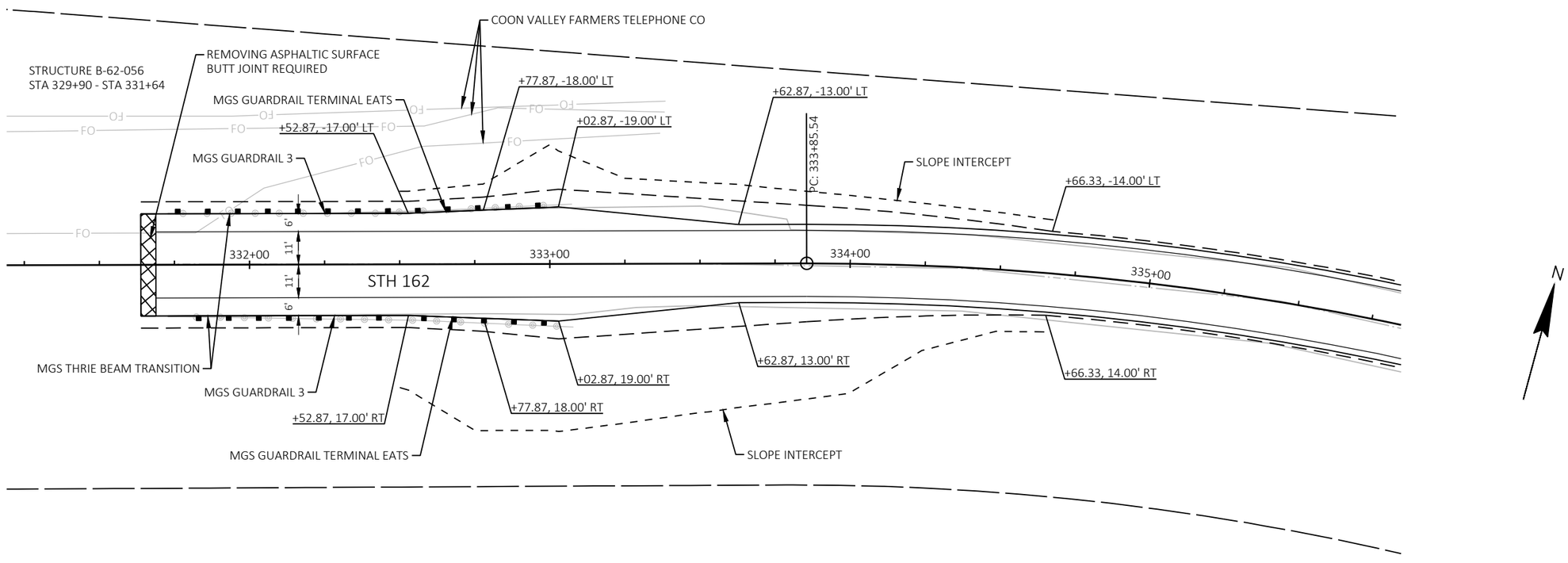
2



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CONSTRUCTION DETAILS EATS	SHEET 21	E

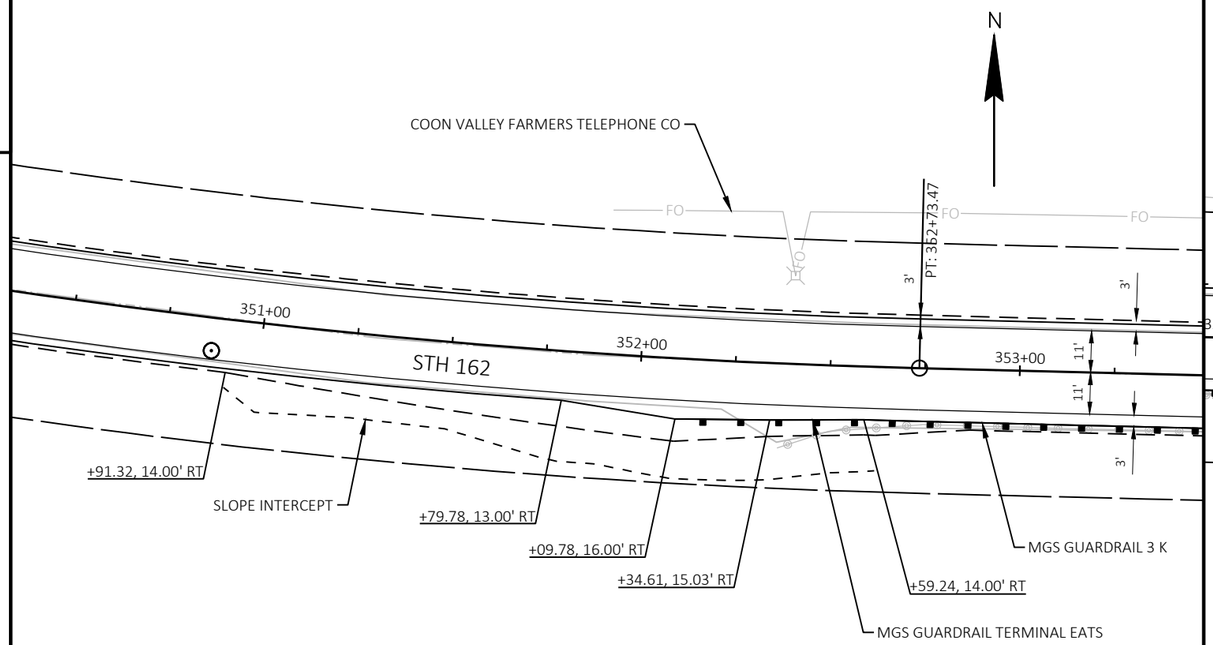
2

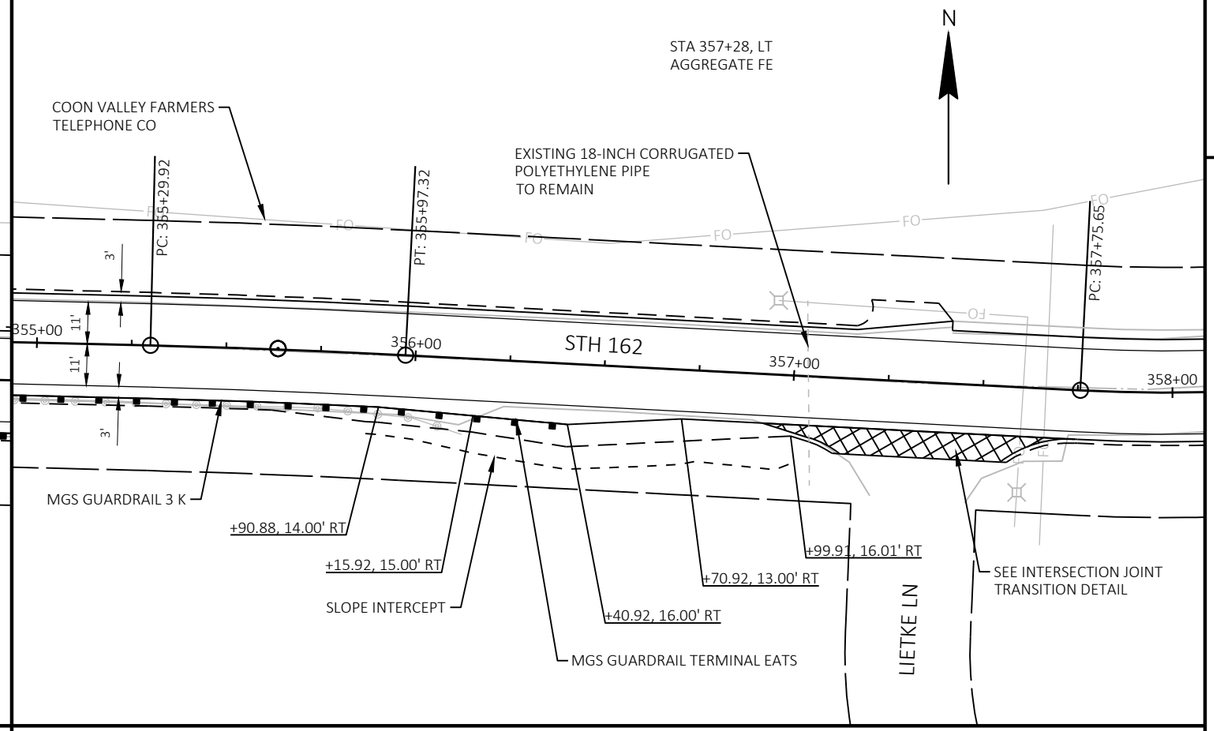


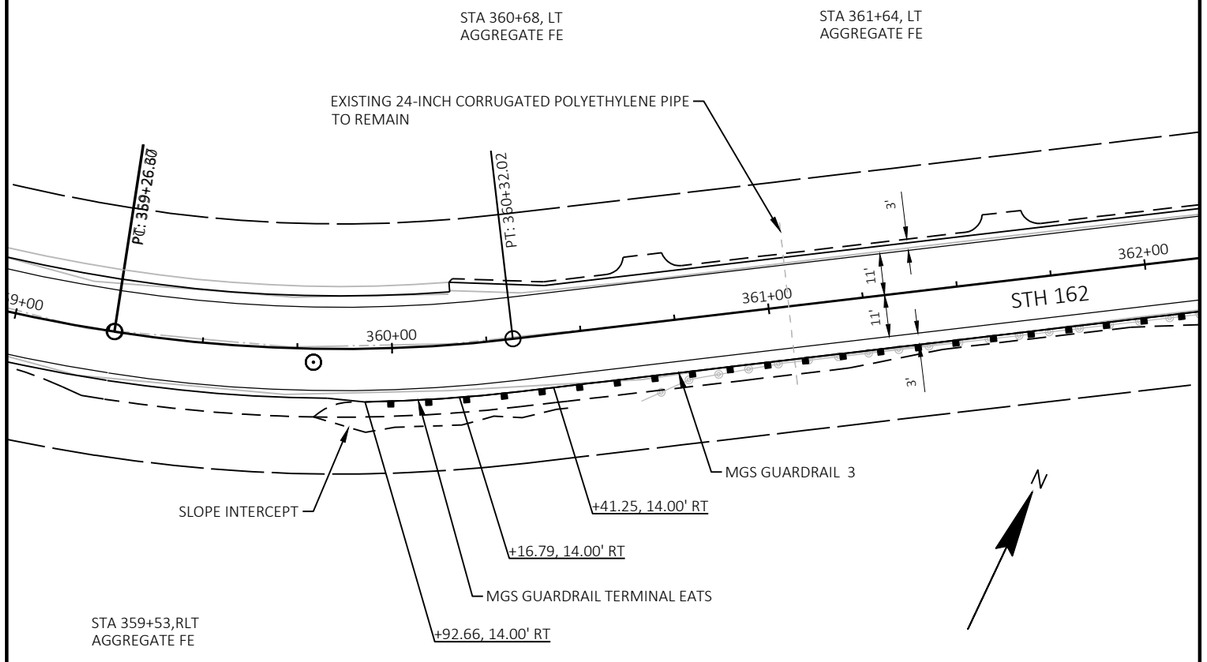


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CONSTRUCTION DETAILS EATS	SHEET 22	E

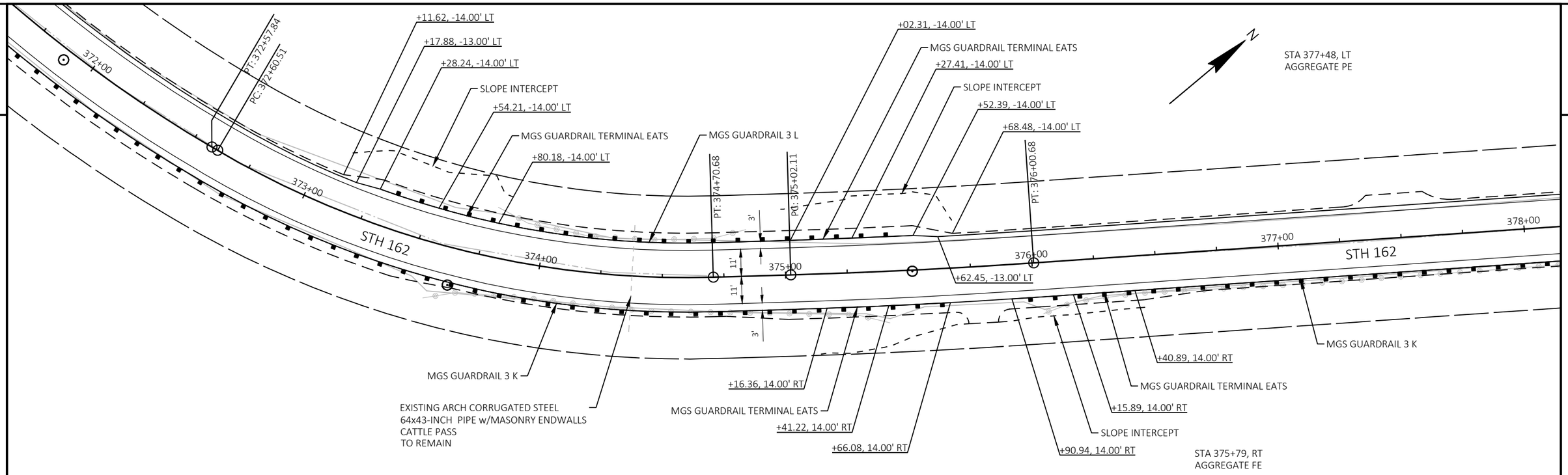
2

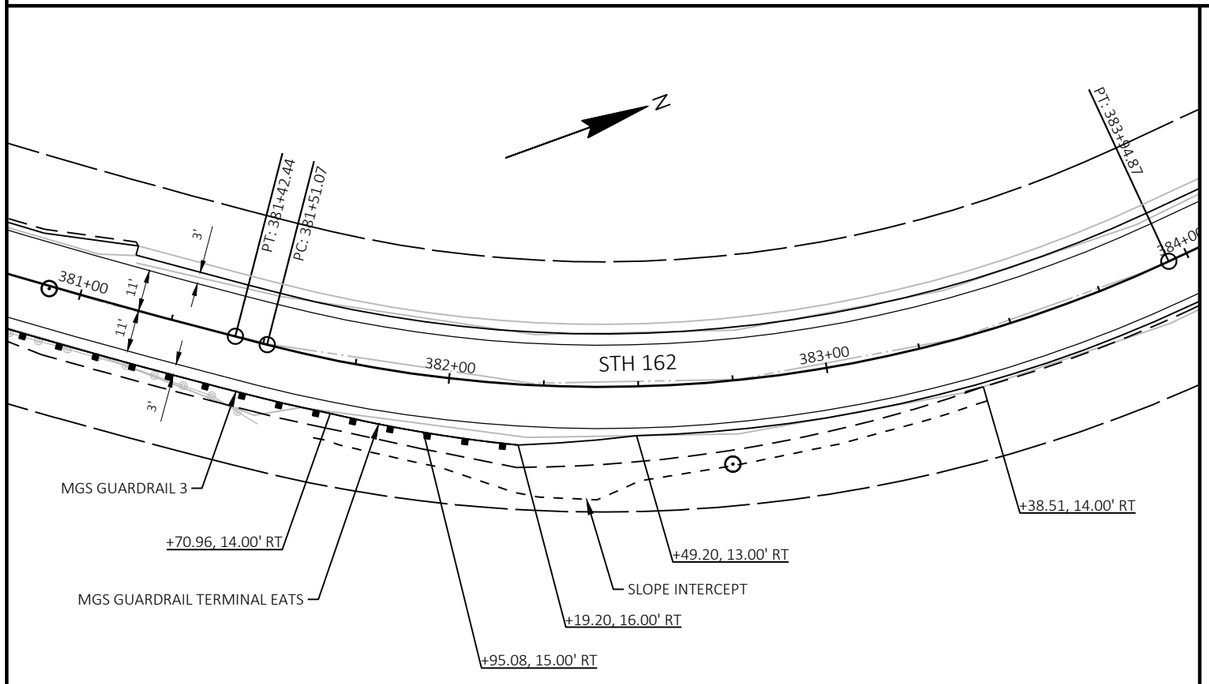






PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CONSTRUCTION DETAILS EATS	SHEET 23	E





PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CONSTRUCTION DETAILS EATS	SHEET 24	E

2

N

EP: 701+49.96

OVERSON LN

701+00

SLOPE INTERCEPT

WETLAND BOUNDARY

+64.74, 15.00' RT

WETLAND IMPACTS

MGS GUARDRAIL SHORT RADIUS TERMINAL

+36.74, 15.00' RT

MGS GUARDRAIL SHORT RADIUS (24')
6 CRT POSTS REQUIRED

MGS GUARDRAIL 3

SEE INTERSECTION JOINT
TRANSITION DETAIL

PC: 428+89.39

STH 162

429+00

430+00

BP: 700+00.00

431+00

STRUCTURE B-62-984
STA 431+26 - STA 431+80
CONCRETE MASONRY OVERLAY DECKS AND
NORTHEAST & SOUTH WING REPLACEMENTS

REMOVING ASPHALTIC SURFACE
BUTT JOINT REQUIRED

PT: 431+70.35

MGS GUARDRAIL TERMINAL EATS

+09.11, -15.00' LT

+34.11, -16.00' LT

+84.11, -14.00' LT

SLOPE INTERCEPT

+55.99, -13.00' LT

+64.11, -13.00' LT

MGS GUARDRAIL 3

WETLAND IMPACTS

WETLAND BOUNDARY

+52.55, -14.00' LT

2'

11'

11'

2'

432+00

433+00

434+00

STH 162

MGS THRIE BEAM TRANSITION

WETLAND BOUNDARY

+30.99, 13.00' RT

MGS GUARDRAIL 3

WETLAND IMPACTS

+59.11, 14.00' RT

MGS GUARDRAIL TERMINAL EATS

+39.11, 13.00' RT

+09.11, 16.00' RT

SLOPE INTERCEPT

+84.11, 15.00' RT

+27.55, 14.00' RT

MGS GUARDRAIL 3

+47.96, 13.00' RT

+19.51, 14.00' RT

MGS GUARDRAIL TERMINAL EATS

+38.94, 13.00' RT

WETLAND BOUNDARY

WETLAND IMPACTS

+68.94, 16.00' RT

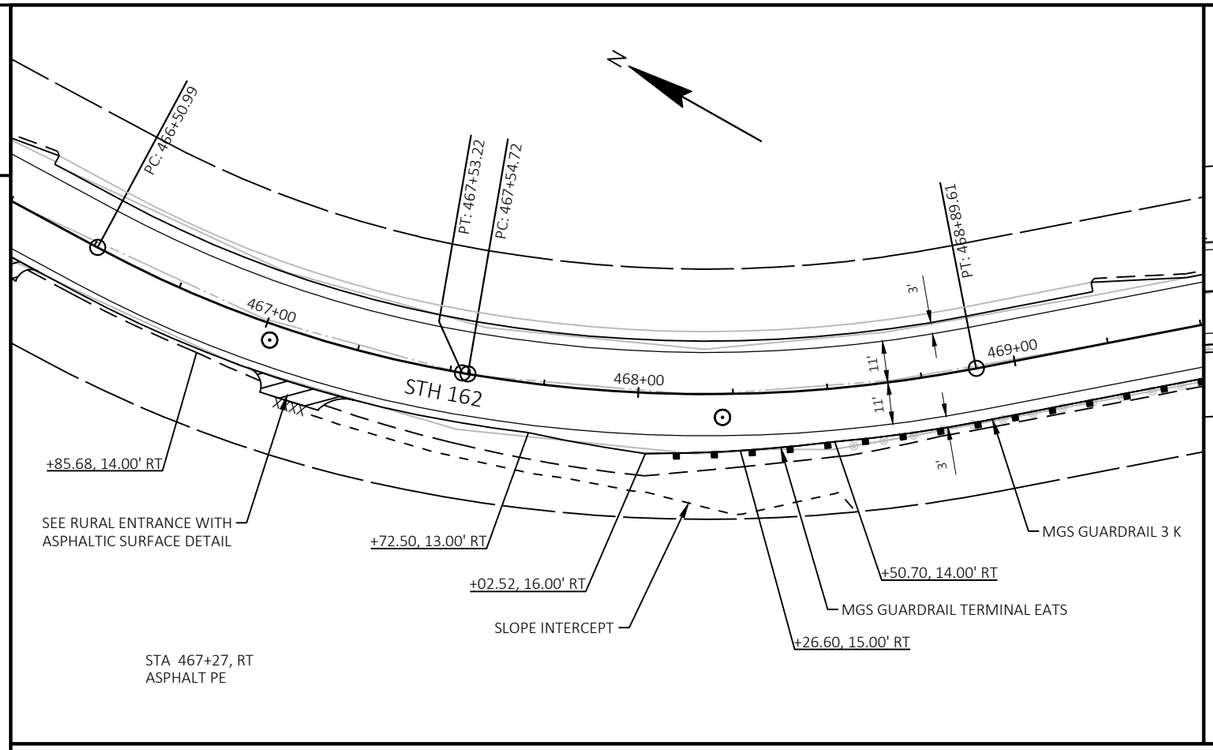
SLOPE INTERCEPT

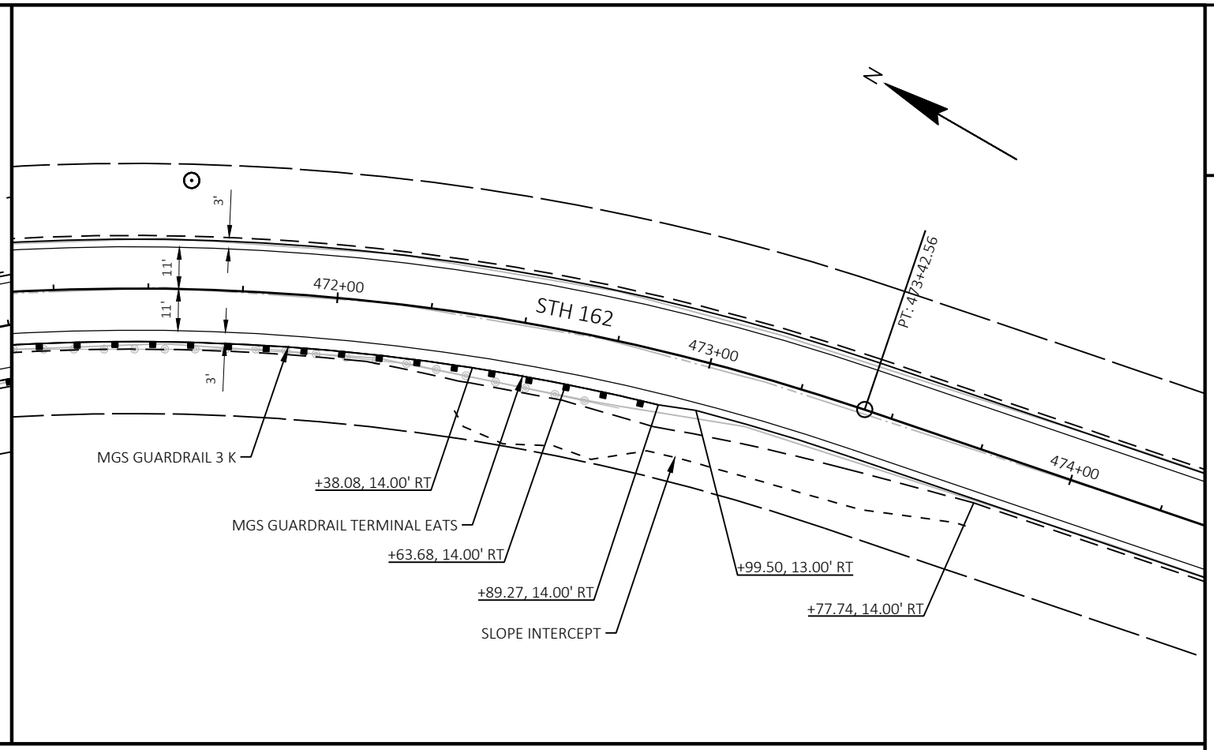
+94.23, 15.00' RT

+50.46, 14.00' RT

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CONSTRUCTION DETAILS EATS	SHEET 25	E

2





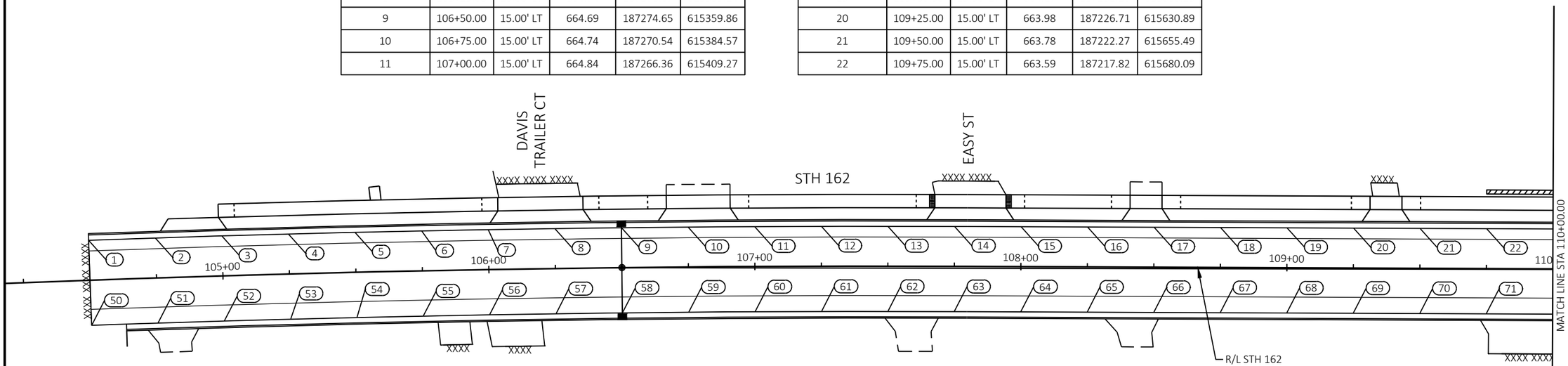
2

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CONSTRUCTION DETAILS EATS	SHEET 26	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\021050_CD.DWG
LAYOUT NAME - 11
PLOT DATE : 10/20/2025 9:41 AM
PLOT BY : JEFF BREU
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 44

STATION & OFFSET TABLE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1	104+50.00	15.00' LT	665.45	187304.78	615161.79
2	104+75.00	15.00' LT	665.35	187301.28	615186.58
3	105+00.00	15.00' LT	665.25	187297.70	615211.37
4	105+25.00	15.00' LT	665.15	187294.04	615236.15
5	105+50.00	15.00' LT	665.05	187290.31	615260.92
6	105+75.00	15.00' LT	664.94	187286.51	615285.67
7	106+00.00	15.00' LT	664.84	187282.63	615310.41
8	106+25.00	15.00' LT	664.74	187278.67	615335.14
9	106+50.00	15.00' LT	664.69	187274.65	615359.86
10	106+75.00	15.00' LT	664.74	187270.54	615384.57
11	107+00.00	15.00' LT	664.84	187266.36	615409.27

STATION & OFFSET TABLE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
12	107+25.00	15.00' LT	664.94	187262.11	615433.95
13	107+50.00	15.00' LT	665.00	187257.79	615458.62
14	107+75.00	15.00' LT	664.99	187253.38	615483.27
15	108+00.00	15.00' LT	664.91	187248.94	615507.88
16	108+25.00	15.00' LT	664.75	187244.49	615532.48
17	108+50.00	15.00' LT	664.56	187240.05	615557.09
18	108+75.00	15.00' LT	664.36	187235.60	615581.69
19	109+00.00	15.00' LT	664.17	187231.16	615606.29
20	109+25.00	15.00' LT	663.98	187226.71	615630.89
21	109+50.00	15.00' LT	663.78	187222.27	615655.49
22	109+75.00	15.00' LT	663.59	187217.82	615680.09



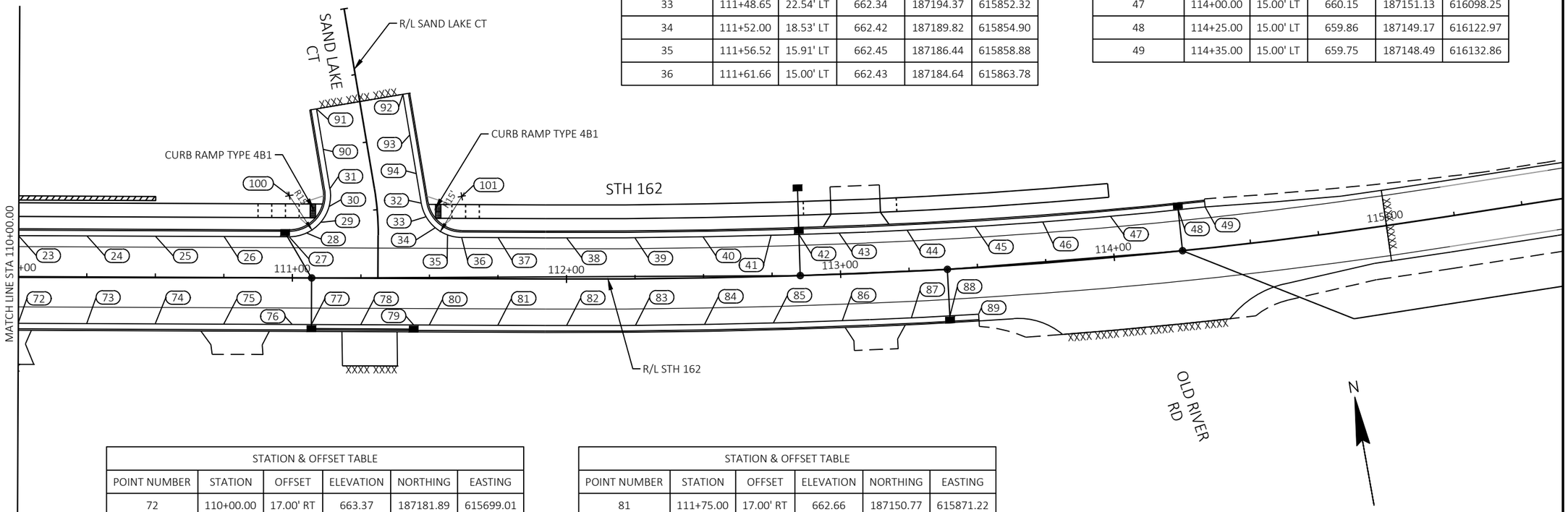
STATION & OFFSET TABLE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
50	104+50.00	17.00' RT	665.41	187273.09	615157.36
51	104+75.00	17.00' RT	665.31	187269.60	615182.06
52	105+00.00	17.00' RT	665.21	187266.03	615206.75
53	105+25.00	17.00' RT	665.11	187262.39	615231.43
54	105+50.00	17.00' RT	665.01	187258.68	615256.10
55	105+75.00	17.00' RT	664.90	187254.89	615280.76
56	106+00.00	17.00' RT	664.80	187251.02	615305.41
57	106+25.00	17.00' RT	664.70	187247.08	615330.05
58	106+50.00	17.00' RT	664.65	187243.07	615354.67
59	106+75.00	17.00' RT	664.70	187238.98	615379.28
60	107+00.00	17.00' RT	664.80	187234.82	615403.88

STATION & OFFSET TABLE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
61	107+25.00	17.00' RT	664.90	187230.59	615428.47
62	107+50.00	17.00' RT	664.96	187226.27	615453.04
63	107+75.00	17.00' RT	664.95	187221.89	615477.60
64	108+00.00	17.00' RT	664.87	187217.45	615502.19
65	108+25.00	17.00' RT	664.71	187213.00	615526.79
66	108+50.00	17.00' RT	664.52	187208.56	615551.40
67	108+75.00	17.00' RT	664.32	187204.11	615576.00
68	109+00.00	17.00' RT	664.13	187199.67	615600.60
69	109+25.00	17.00' RT	663.94	187195.22	615625.20
70	109+50.00	17.00' RT	663.74	187190.78	615649.80
71	109+75.00	17.00' RT	663.55	187186.33	615674.40

STATION & OFFSET TABLE (2)					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
90	20+50.00	16.00' LT	662.09	187225.07	615819.65
91	20+65.00	16.00' LT	662.02	187240.07	615819.77
92	20+65.00	16.00' RT	662.02	187239.81	615851.77
93	20+50.00	16.00' RT	662.09	187224.82	615851.65
94	20+35.64	16.00' RT	662.16	187210.46	615851.54

STATION & OFFSET TABLE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
23	110+00.00	15.00' LT	663.41	187213.38	615704.70
24	110+25.00	15.00' LT	663.23	187208.93	615729.30
25	110+50.00	15.00' LT	663.07	187204.49	615753.90
26	110+75.00	15.00' LT	662.90	187200.04	615778.50
27	110+98.75	15.00' LT	662.75	187195.82	615801.87
28	111+05.07	16.40' LT	662.57	187196.07	615808.34
29	111+10.22	20.34' LT	662.35	187199.03	615814.11
30	111+13.23	26.08' LT	662.24	187204.15	615818.09
31	111+13.53	32.55' LT	662.16	187210.46	615819.54
32	111+46.88	27.45' LT	662.26	187199.52	615851.45
33	111+48.65	22.54' LT	662.34	187194.37	615852.32
34	111+52.00	18.53' LT	662.42	187189.82	615854.90
35	111+56.52	15.91' LT	662.45	187186.44	615858.88
36	111+61.66	15.00' LT	662.43	187184.64	615863.78

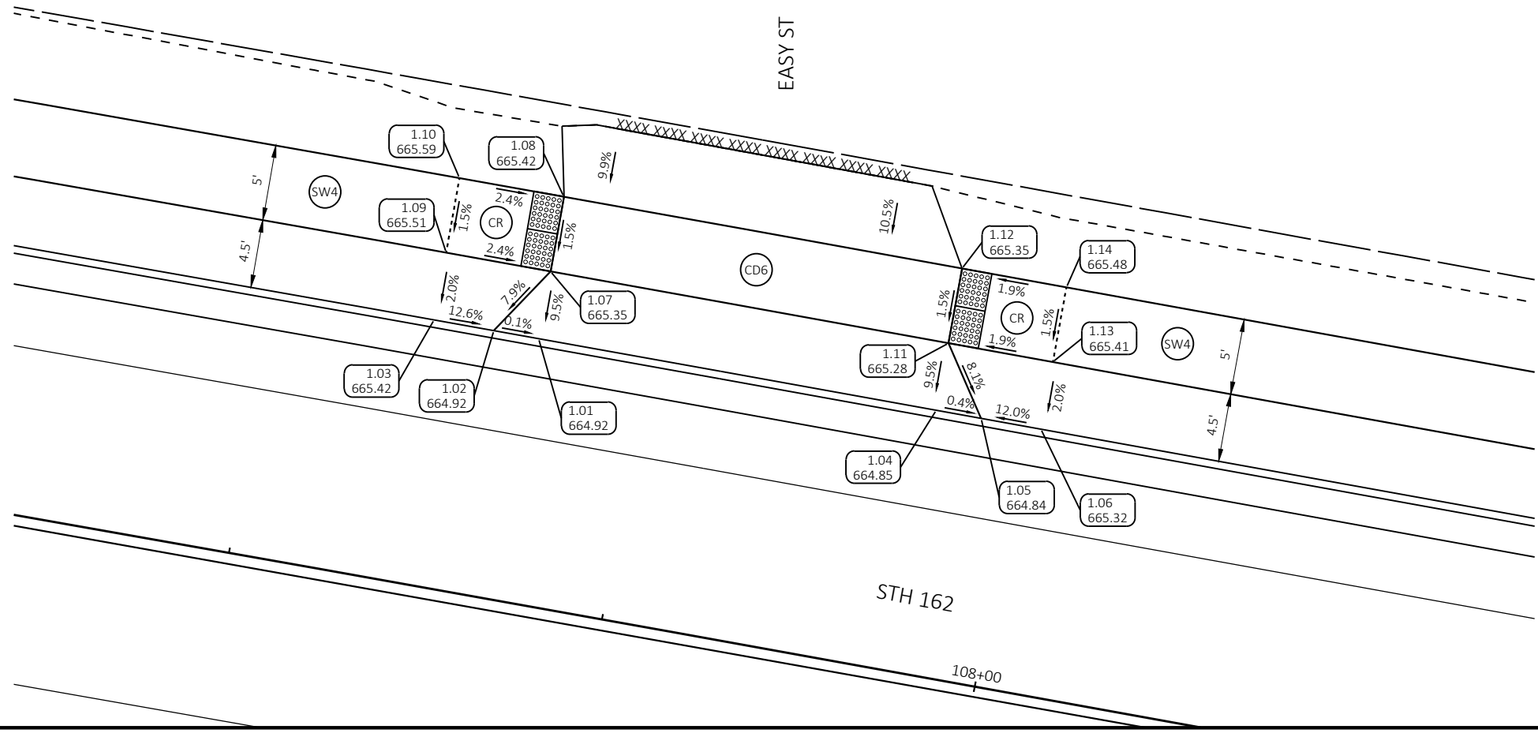
STATION & OFFSET TABLE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
37	111+75.00	15.00' LT	662.37	187182.26	615876.91
38	112+00.00	15.00' LT	662.25	187177.84	615901.47
39	112+25.00	15.00' LT	662.10	187173.60	615925.96
40	112+50.00	15.00' LT	661.92	187169.60	615950.50
41	112+75.00	15.00' LT	661.70	187165.83	615975.07
42	112+85.25	15.00' LT	661.60	187164.35	615985.15
43	113+00.00	15.00' LT	661.44	187162.29	615999.67
44	113+25.00	15.00' LT	661.05	187159.01	616024.28
45	113+50.00	15.00' LT	660.74	187156.05	616048.90
46	113+75.00	15.00' LT	660.44	187153.42	616073.56
47	114+00.00	15.00' LT	660.15	187151.13	616098.25
48	114+25.00	15.00' LT	659.86	187149.17	616122.97
49	114+35.00	15.00' LT	659.75	187148.49	616132.86



STATION & OFFSET TABLE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
72	110+00.00	17.00' RT	663.37	187181.89	615699.01
73	110+25.00	17.00' RT	663.19	187177.44	615723.61
74	110+50.00	17.00' RT	663.03	187173.00	615748.21
75	110+75.00	17.00' RT	662.86	187168.55	615772.81
76	111+00.00	17.00' RT	662.70	187164.11	615797.41
77	111+07.00	17.00' RT	662.66	187162.86	615804.30
78	111+25.00	17.00' RT	662.56	187159.66	615822.01
79	111+44.30	17.00' RT	662.47	187156.23	615841.01
80	111+50.00	17.00' RT	662.50	187155.22	615846.62

STATION & OFFSET TABLE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
81	111+75.00	17.00' RT	662.66	187150.77	615871.22
82	112+00.00	17.00' RT	662.80	187146.33	615895.87
83	112+25.00	17.00' RT	662.74	187142.05	615920.66
84	112+50.00	17.00' RT	662.56	187138.00	615945.49
85	112+75.00	17.00' RT	662.34	187134.18	615970.36
86	113+00.00	17.00' RT	662.11	187130.60	615995.27
87	113+25.00	17.00' RT	661.95	187127.26	616020.25
88	113+38.95	17.00' RT	607.84	187125.54	616034.22
89	113+49.35	17.00' RT	661.67	187124.33	616044.65

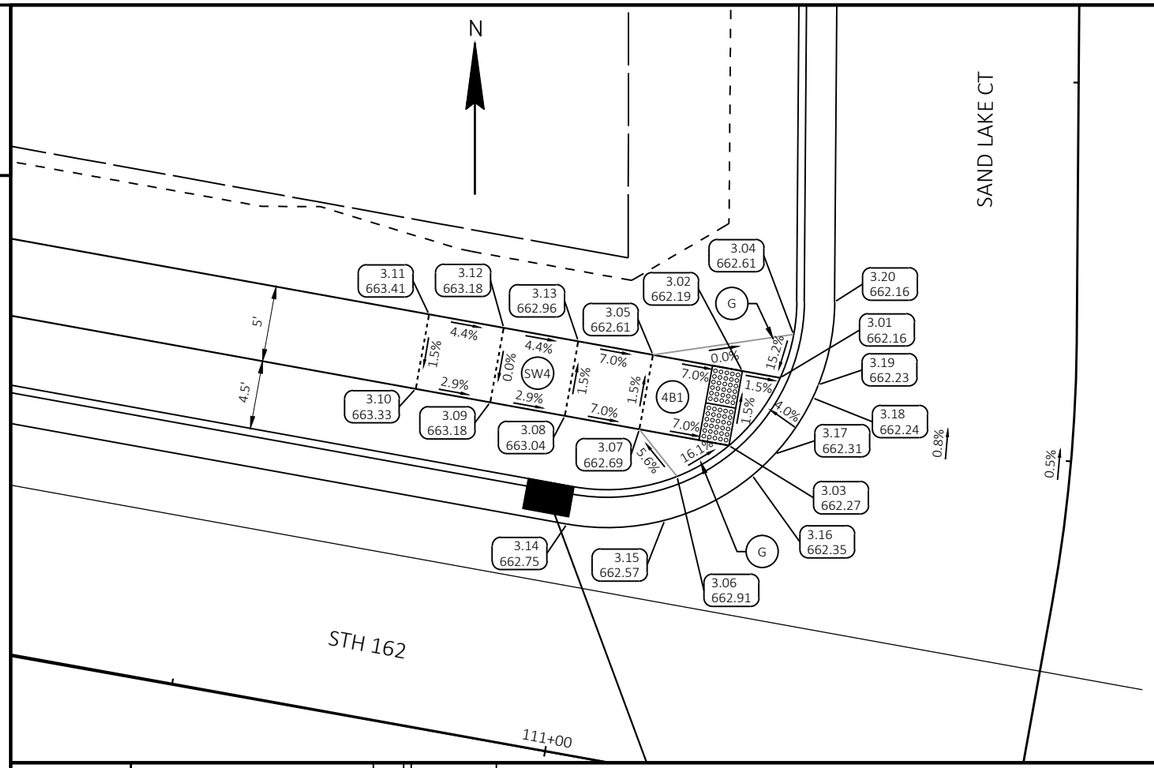
STATION & OFFSET TABLE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
100	110+98.75	30.00' LT	662.85	187210.58	615804.54
101	111+61.66	30.00' LT	0.00	187199.40	615866.45



STA 108+07 LT DWY					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1.01	107+67.62	17.50' LT	664.92	187257.15	615476.43
1.02	107+64.62	17.50' LT	664.92	187257.68	615473.48
1.03	107+60.63	17.50' LT	665.42	187258.38	615469.54
1.04	107+94.27	17.50' LT	664.85	187252.42	615502.69
1.05	107+97.27	17.50' LT	664.84	187251.88	615505.64
1.06	108+01.27	17.50' LT	665.32	187251.17	615509.58
1.07	107+67.62	22.00' LT	665.35	187261.58	615477.22
1.08	107+67.62	27.00' LT	665.42	187266.50	615478.11
1.09	107+60.63	22.00' LT	665.51	187262.81	615470.33
1.10	107+60.63	27.00' LT	665.59	187267.74	615471.21
1.11	107+94.27	22.00' LT	665.28	187256.85	615503.49
1.12	107+94.27	27.00' LT	665.35	187261.77	615504.38
1.13	108+01.27	22.00' LT	665.41	187255.60	615510.38
1.14	108+01.27	27.00' LT	665.48	187260.52	615511.27

LEGEND

- (X) CURB RAMP TYPE
- (G) GRASS
- (SW4) CONCRETE SIDEWALK 4-INCH
- (CD6) CONCRETE DRIVEWAY 6-INCH
- (X.XX / XXX.XX) POINT NUMBER AND ELEVATION



SAND LAKE CT NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
3.01	111+10.88	27.00' LT	662.16	187205.47	615815.94
3.02	111+08.35	27.00' LT	662.19	187205.92	615813.45
3.03	111+08.35	22.00' LT	662.27	187201.00	615812.57
3.04	111+11.25	29.97' LT	662.61	187208.33	615816.83
3.05	111+02.35	27.00' LT	662.61	187206.99	615807.55
3.06	111+05.35	19.38' LT	662.91	187198.96	615809.14
3.07	111+02.35	22.00' LT	662.69	187202.07	615806.66
3.08	110+97.35	22.00' LT	663.04	187202.96	615801.74
3.09	110+92.35	22.00' LT	663.18	187203.85	615796.82
3.10	110+87.35	22.00' LT	663.33	187204.74	615791.90

SAND LAKE CT NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
3.11	110+87.35	27.00' LT	663.41	187209.66	615792.78
3.12	110+92.35	27.00' LT	663.18	187208.77	615797.71
3.13	110+97.35	27.00' LT	662.96	187207.88	615802.63
3.14	110+98.75	15.00' LT	662.75	187195.82	615801.87
3.15	111+05.07	16.40' LT	662.57	187196.07	615808.34
3.16	111+10.22	20.34' LT	662.35	187199.03	615814.11
3.17	111+11.44	22.00' LT	662.31	187200.45	615815.60
3.18	111+13.23	26.08' LT	662.24	187204.15	615818.09
3.19	111+13.44	27.00' LT	662.23	187205.02	615818.47
3.20	111+13.53	32.55' LT	662.16	187210.46	615819.54

LEGEND

- (X) CURB RAMP TYPE
- (G) GRASS
- (SW4) CONCRETE SIDEWALK 4-INCH
- (CD6) CONCRETE DRIVEWAY 6-INCH
- (X.XX / XXX.XX) POINT NUMBER AND ELEVATION

NOTES

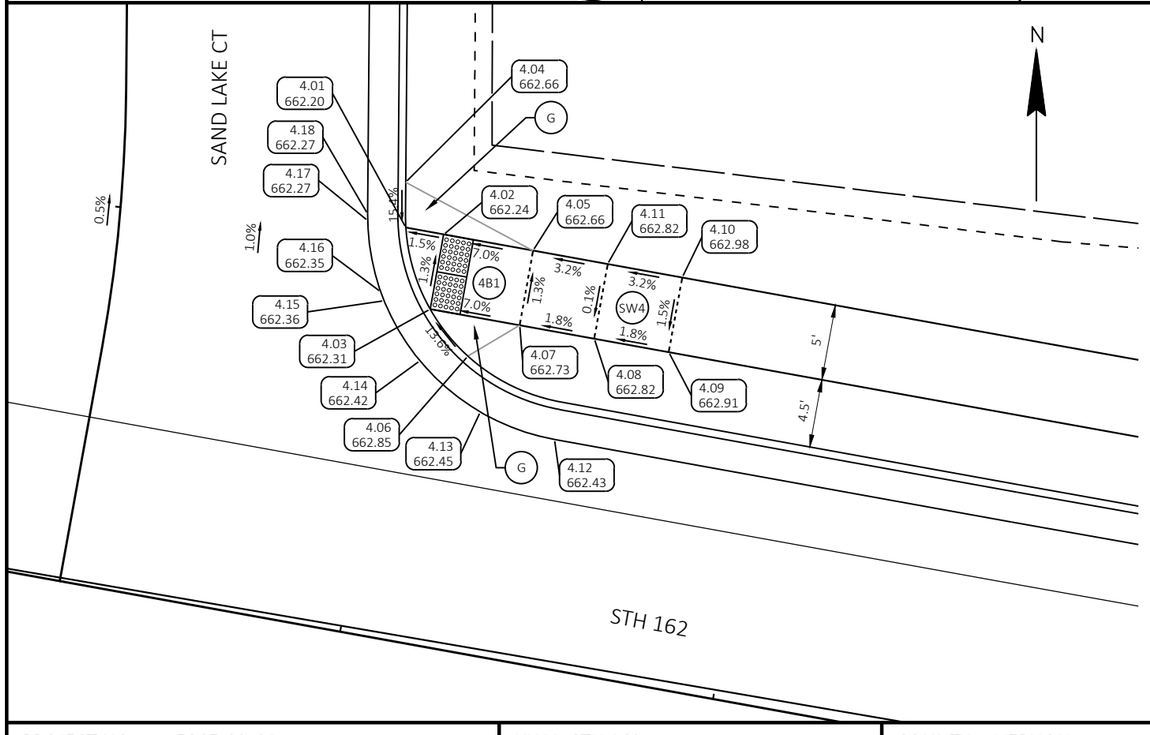
CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.

THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.

DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATION.

SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

ALL STATION AND OFFSET INFORMATION REFERENCE STH 162 R/L.



SAND LAKE CT NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
4.01	111+49.53	27.00' LT	662.20	187198.60	615853.97
4.02	111+52.06	27.00' LT	662.24	187198.15	615856.46
4.03	111+52.06	22.00' LT	662.31	187193.23	615855.58
4.04	111+48.99	29.95' LT	662.66	187201.60	615853.97
4.05	111+58.06	27.00' LT	662.66	187197.09	615862.37
4.06	111+55.06	19.38' LT	662.85	187190.12	615858.07
4.07	111+58.06	22.00' LT	662.73	187192.16	615861.48
4.08	111+63.06	22.00' LT	662.82	187191.28	615866.40
4.09	111+68.06	22.00' LT	662.91	187190.39	615871.32

SAND LAKE CT NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
4.10	111+68.06	27.00' LT	662.98	187195.31	615872.21
4.11	111+63.06	27.00' LT	662.82	187196.20	615867.29
4.12	111+61.66	15.00' LT	662.43	187184.64	615863.78
4.13	111+56.52	15.91' LT	662.45	187186.44	615858.88
4.14	111+52.00	18.53' LT	662.42	187189.82	615854.90
4.15	111+48.97	22.00' LT	662.36	187193.78	615852.54
4.16	111+48.65	22.54' LT	662.35	187194.37	615852.32
4.17	111+46.97	27.00' LT	662.27	187199.06	615851.45
4.18	111+46.88	27.45' LT	662.27	187199.52	615851.45

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CURB RAMP DETAILS	SHEET 30	E

2

BEGIN PROJECT 5865-02-64
STA 104+50.00

104+00 105+00 106+00 107+00 108+00 109+00 110

MATCH LINE STA 110+00.00

MATCH LINE STA 110+00.00

111+00 112+00 113+00 114+00 115+00 116

END FULL RECONSTRUCTION
STA 115+00.00

MATCH LINE STA 116+00.00

N

LEGEND

EROSION MAT URBAN CLASS I TYPE B	INLET PROTECTION
EROSION MAT CLASS II TYPE B	A B C INLET PROTECTION TYPE
SILT FENCE	TEMPORARY DITCH CHECK
RIPRAP MEDIUM (UNLESS NOTED)	CULVERT PIPE CHECK
SLOPE INTERCEPT	SURFACE WATER FLOW
ASPH ASPHALTIC FLUME	

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	EROSION CONTROL (STODDARD)	SHEET 31	E

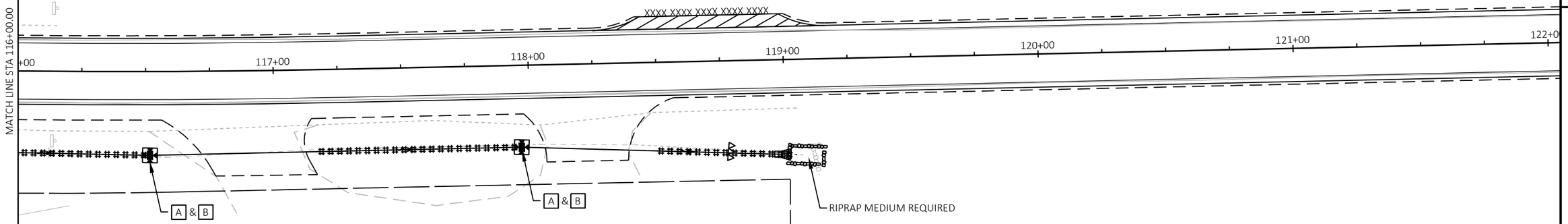
FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 01

PLOT DATE : 10/18/2025 5:34 PM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : ##########

2

2

MATCH LINE STA 116+00.00



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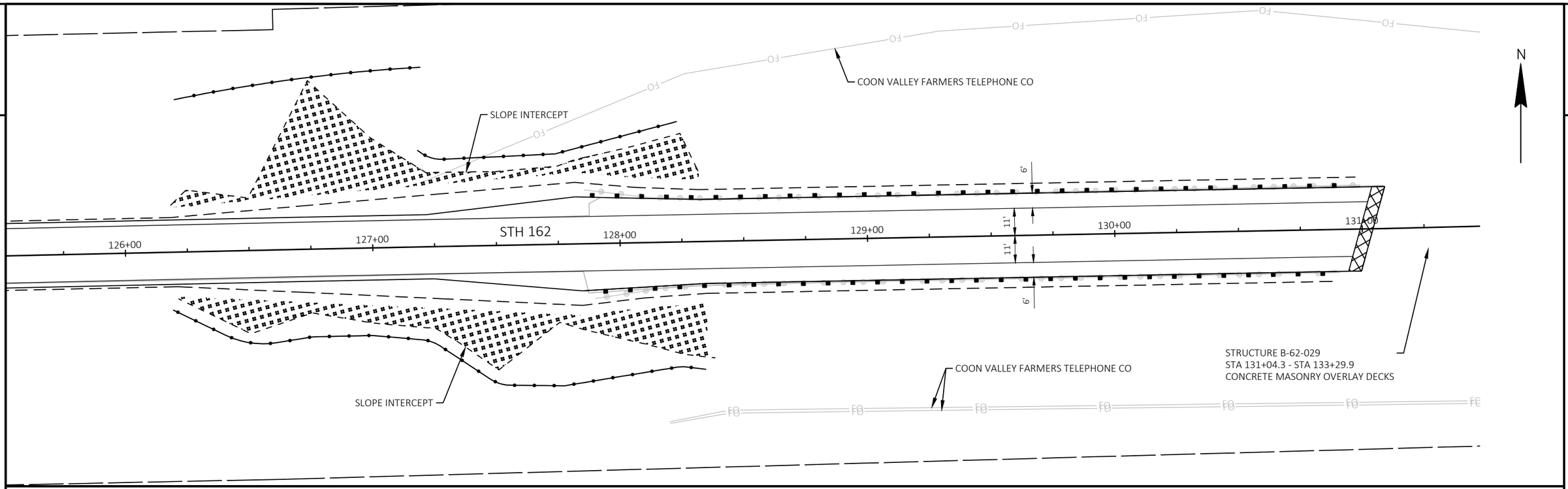
LEGEND

	EROSION MAT URBAN CLASS I TYPE B		INLET PROTECTION
	EROSION MAT CLASS II TYPE B	A B C	INLET PROTECTION TYPE
	SILT FENCE		TEMPORARY DITCH CHECK
	RIPRAP MEDIUM (UNLESS NOTED)		CULVERT PIPE CHECK
	SLOPE INTERCEPT		SURFACE WATER FLOW
ASPH	ASPHALTIC FLUME		

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	EROSION CONTROL (STODDARD)	SHEET 32	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 02

PLOT DATE : 10/18/2025 5:34 PM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : ##########



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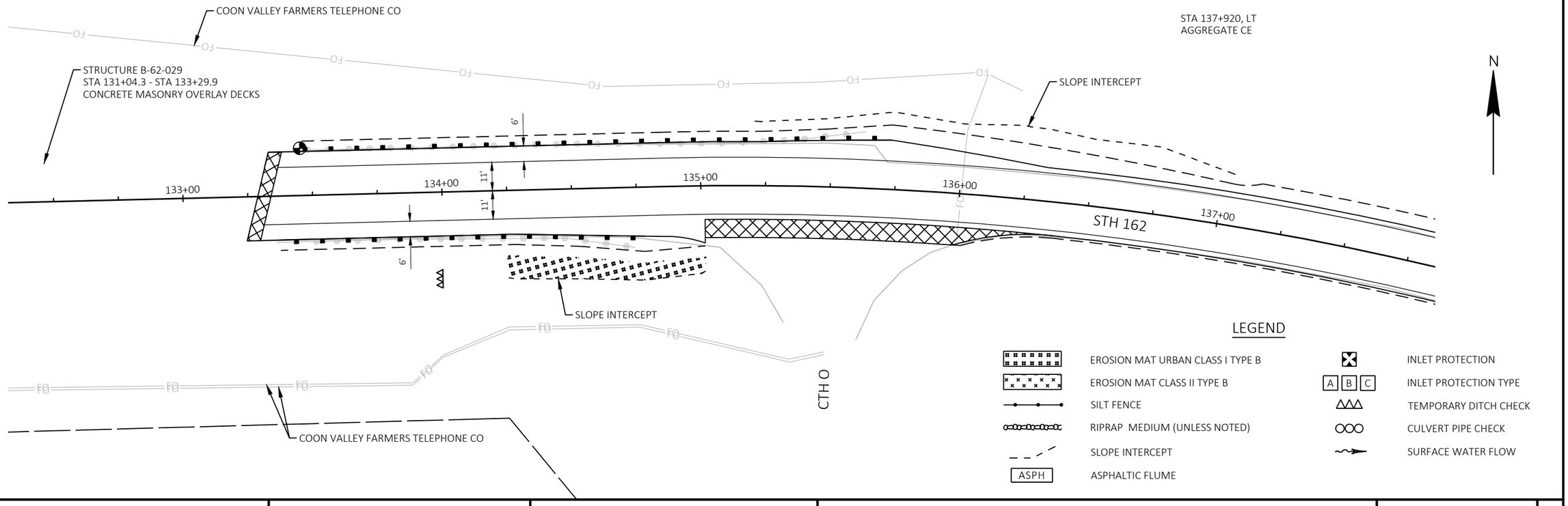


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	EROSION CONTROL (BEAMGUARD)	SHEET 33	E

2

LEGEND

- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SILT FENCE
- RIPRAP MEDIUM (UNLESS NOTED)
- SLOPE INTERCEPT
- ASPH — ASPHALTIC FLUME
- INLET PROTECTION
- A B C — INLET PROTECTION TYPE
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

N

156+00 157+00 158+00 159+00 160+00 161+00 162

MATCH LINE STA 162+00.00

ASPHALTIC FLUMES REQUIRED

BEGIN ROAD REALIGNMENT
STA 156+35.21

MATCH LINE STA 162+00.00

163+00 164+00 165+00 166+00 167+00 168

MATCH LINE STA 168+00.00

A & C

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	EROSION CONTROL (GUARDRAIL)	SHEET 34	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 03

PLOT DATE : 10/18/2025 5:43 PM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : ##########

2

MATCH LINE STA 168+00.00

+00

169+00

170+00

171+00

172+00

173+00

MATCH LINE STA 174+00.00

A & C

A & B

A & C

A & C

A & C

N

MATCH LINE STA 174+00.00

+00

175+00

176+00

177+00

178+00

179+00

180+00

GUY

ASPHALTIC FLUMES REQUIRED

END ROAD REALIGNMENT
STA 179+46.88

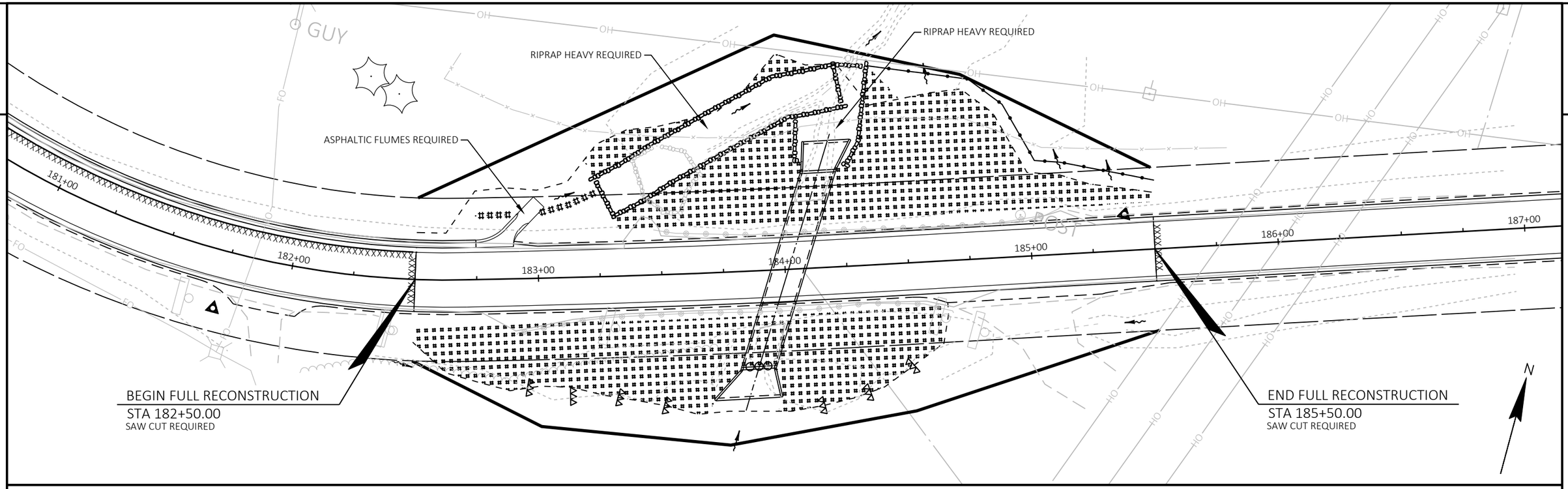
LEGEND

EROSION MAT URBAN CLASS I TYPE B	INLET PROTECTION
EROSION MAT CLASS II TYPE B	A B C INLET PROTECTION TYPE
SILT FENCE	TEMPORARY DITCH CHECK
RIPRAP MEDIUM (UNLESS NOTED)	CULVERT PIPE CHECK
SLOPE INTERCEPT	SURFACE WATER FLOW
ASPH ASPHALTIC FLUME	

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	EROSION CONTROL (GUARDRAIL)	SHEET 35	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 04

PLOT DATE : 10/18/2025 5:43 PM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : ##########



LEGEND

	EROSION MAT URBAN CLASS I TYPE B		INLET PROTECTION
	EROSION MAT CLASS II TYPE B	A B C	INLET PROTECTION TYPE
	SILT FENCE		TEMPORARY DITCH CHECK
	RIPRAP MEDIUM (UNLESS NOTED)		CULVERT PIPE CHECK
	SLOPE INTERCEPT		SURFACE WATER FLOW
ASPH	ASPHALTIC FLUME		

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	EROSION CONTROL (BOX CULVERT)	SHEET 36	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 05

PLOT DATE : 4/24/2026 8:23 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : ##########

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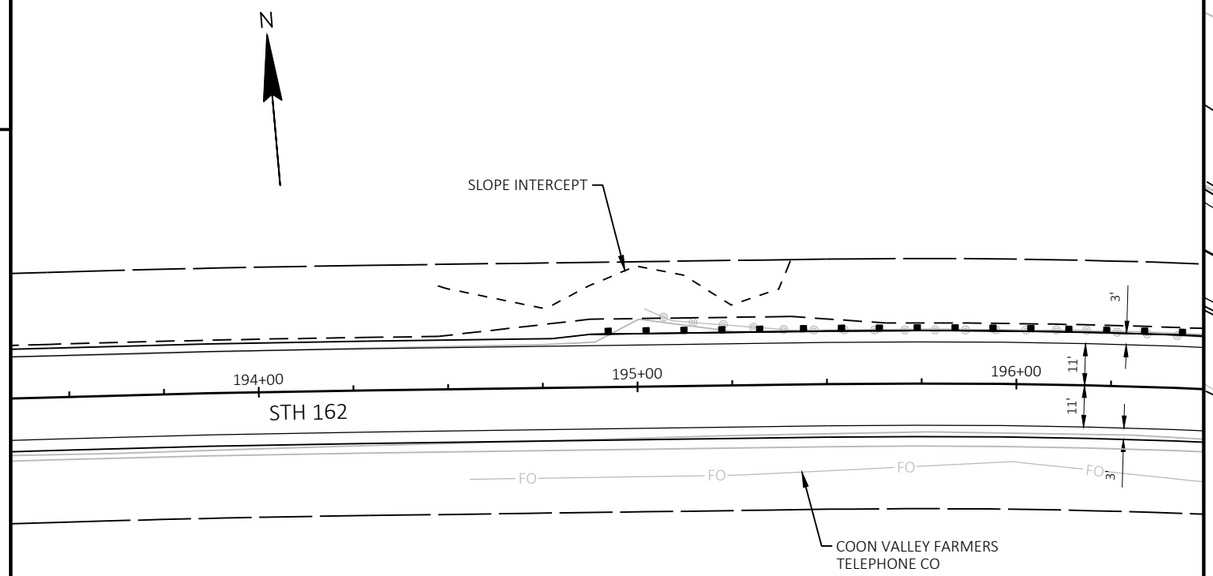

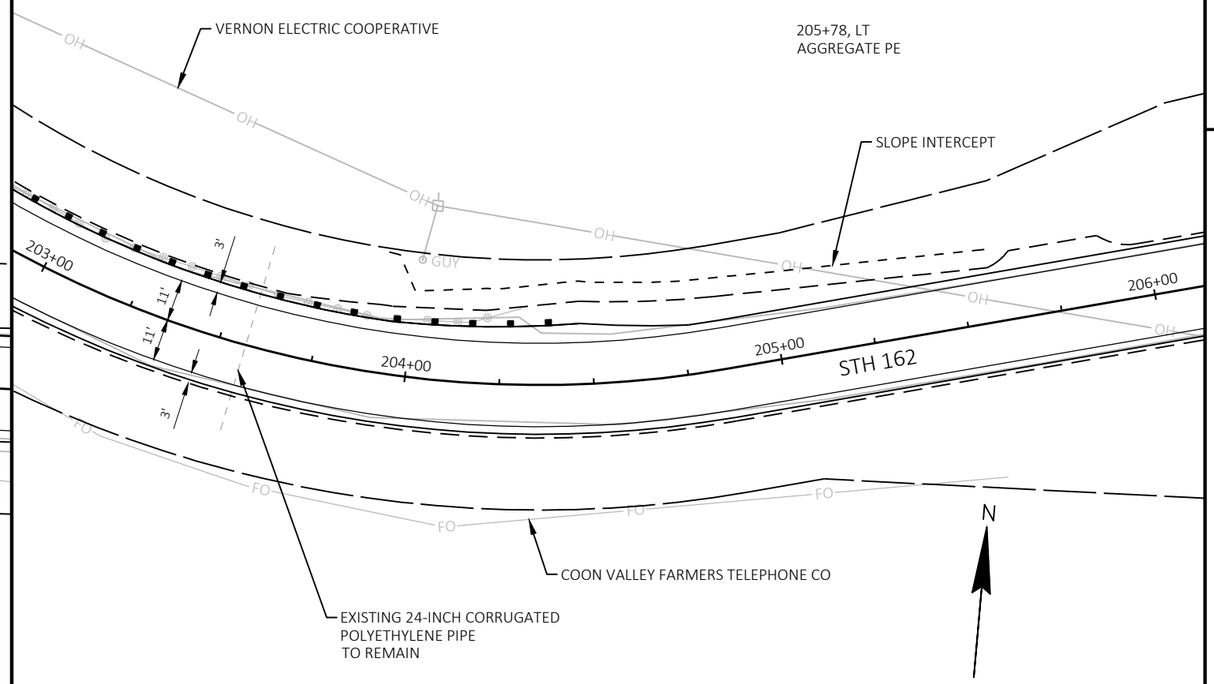

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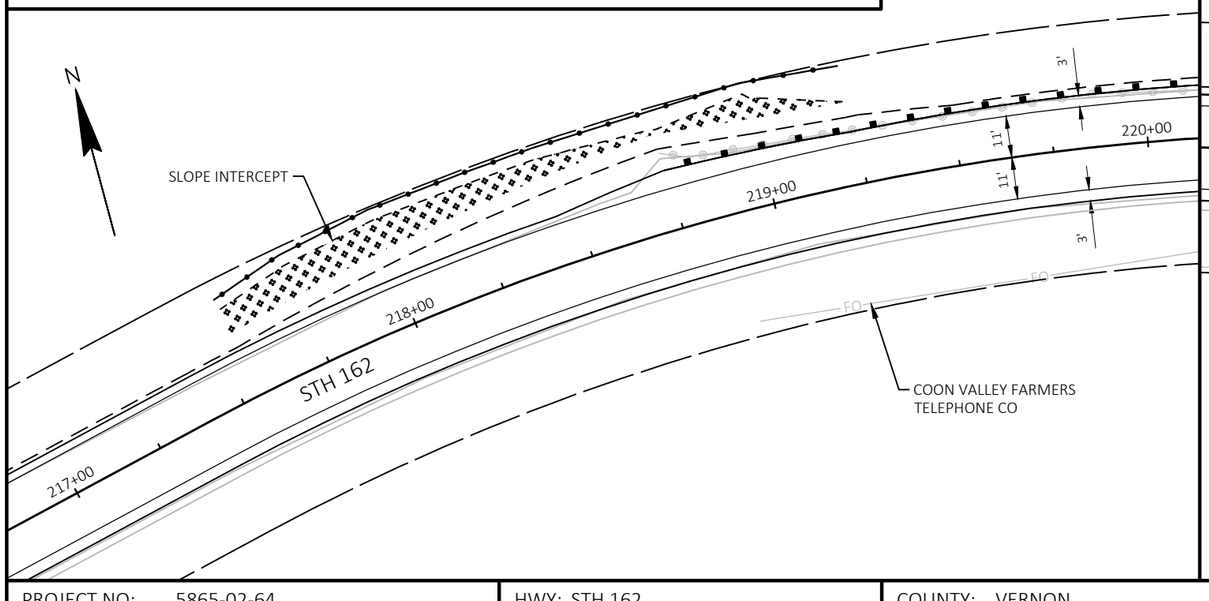
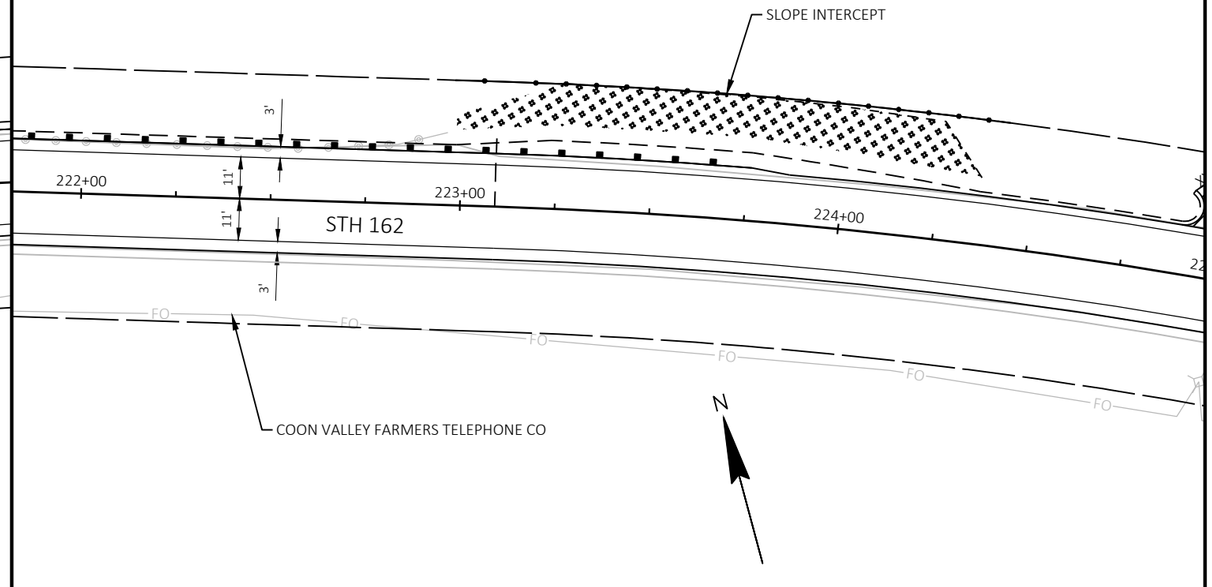
LEGEND

	EROSION MAT URBAN CLASS I TYPE B		INLET PROTECTION
	EROSION MAT CLASS II TYPE B	A B C	INLET PROTECTION TYPE
	SILT FENCE		TEMPORARY DITCH CHECK
	RIPRAP MEDIUM (UNLESS NOTED)		CULVERT PIPE CHECK
	SLOPE INTERCEPT		SURFACE WATER FLOW
ASPH	ASPHALTIC FLUME		





PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	EROSION CONTROL (BEAMGUARD)	SHEET 37	E

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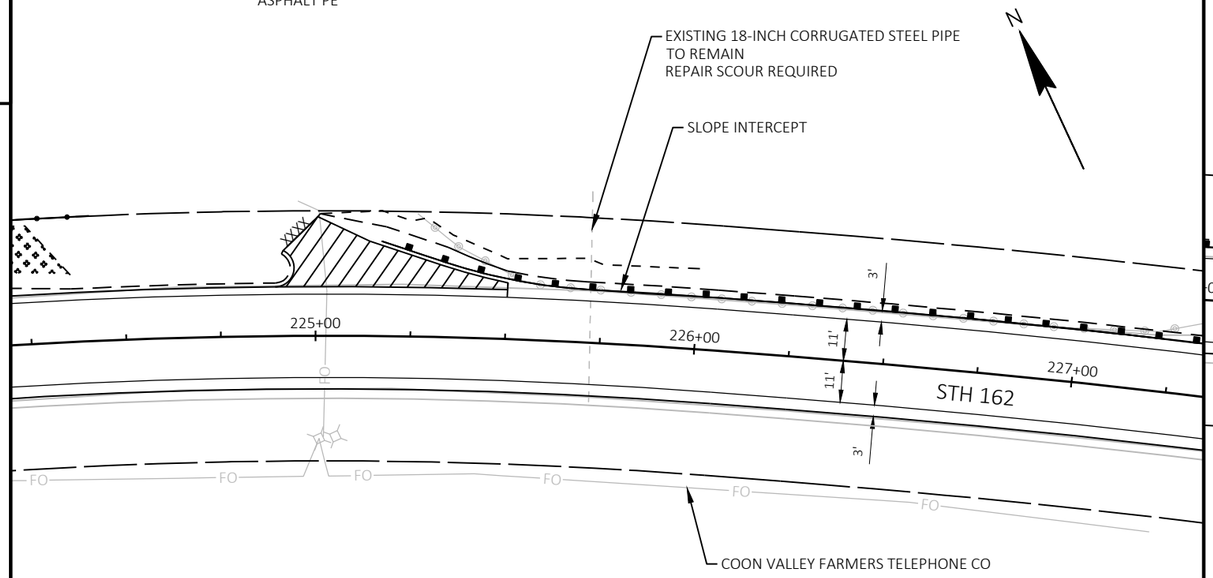
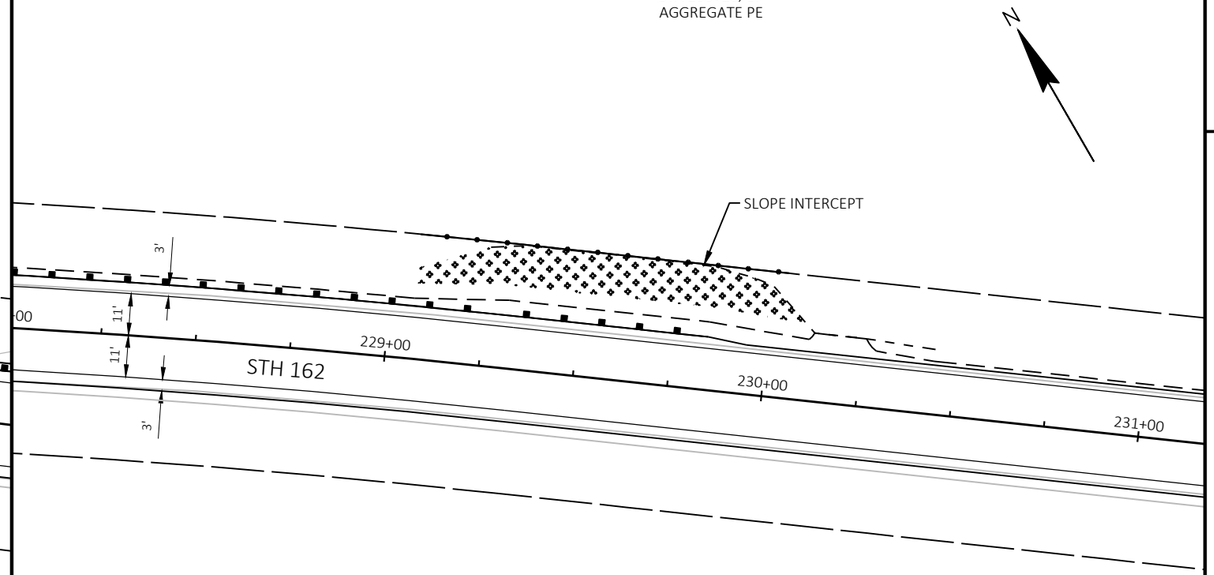
LAYOUT NAME - 02
PLOT DATE : 10/20/2025 11:13 AM
PLOT BY : JEFF BREU
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

STA 225+15, LT
ASPHALT PE



STA 230+20, LT
AGGREGATE PE



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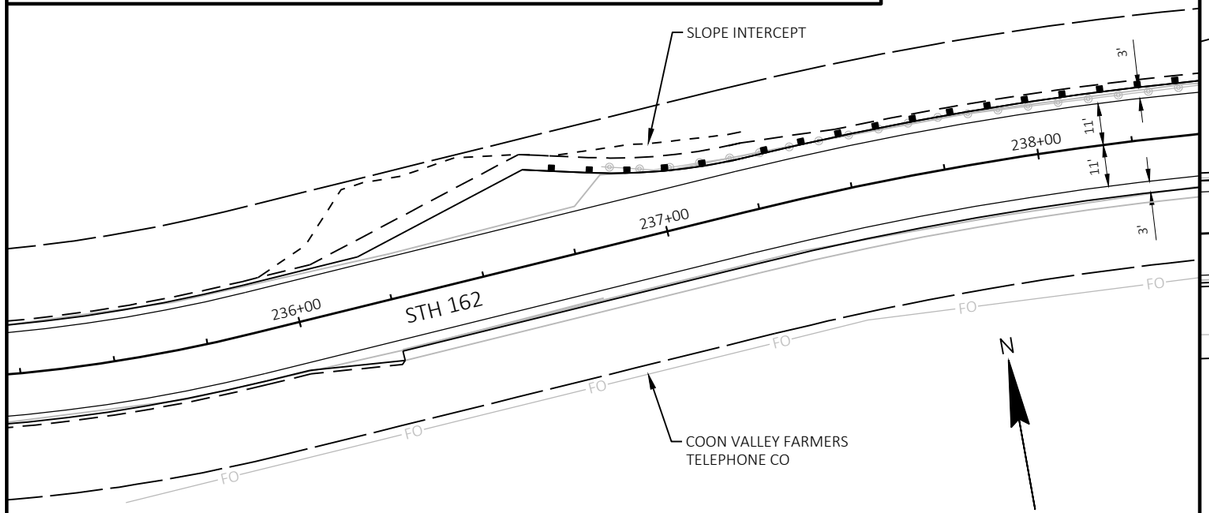
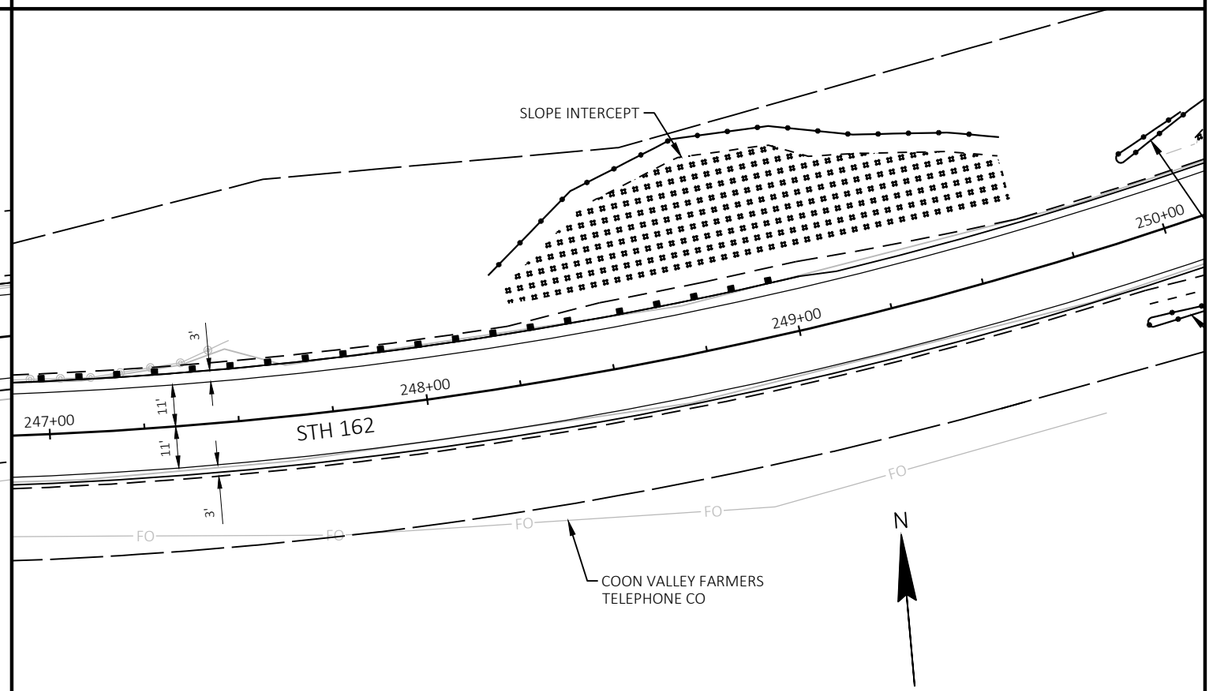
LEGEND

	EROSION MAT URBAN CLASS I TYPE B		INLET PROTECTION
	EROSION MAT CLASS II TYPE B	A B C	INLET PROTECTION TYPE
	SILT FENCE		TEMPORARY DITCH CHECK
	RIPRAP MEDIUM (UNLESS NOTED)		CULVERT PIPE CHECK
	SLOPE INTERCEPT		SURFACE WATER FLOW
ASPH	ASPHALTIC FLUME		





PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	EROSION CONTROL (BEAMGUARD)	SHEET 38	E

2

2

LEGEND

EROSION MAT URBAN CLASS I TYPE B
EROSION MAT CLASS II TYPE B
SILT FENCE
RIPRAP MEDIUM (UNLESS NOTED)
SLOPE INTERCEPT
ASPH — ASPHALTIC FLUME
INLET PROTECTION
A B C — INLET PROTECTION TYPE
TEMPORARY DITCH CHECK
CULVERT PIPE CHECK
SURFACE WATER FLOW

TEMPORARY TURTLE TURN-AROUND (SEE DETAIL)
SLOPE INTERCEPT
USE SEEDING MIXTURE NO. 75 IN WETLAND AREAS AND WITHIN 75' EXISTING WATER.
WETLAND BOUNDARY
HILLTOP RD
601+00
602+00
USE SEEDING MIXTURE NO. 75 IN WETLAND AREAS AND WITHIN 75' EXISTING WATER.
SLOPE INTERCEPT
WETLAND IMPACTS
WETLAND BOUNDARY
250+00
251+00
252+00
253+00
254+00
255+00
256+
STH 162
6'
11'
11'
6'
FO
WETLAND BOUNDARY
WETLAND IMPACTS
SLOPE INTERCEPT
USE SEEDING MIXTURE NO. 75 IN WETLAND AREAS AND WITHIN 75' EXISTING WATER.
TEMPORARY TURTLE TURN-AROUND (SEE DETAIL)
COON VALLEY FARMERS TELEPHONE CO
STRUCTURE B-62-083
STA 252+83 - STA 253+14
CONCRETE SURFACE REPAIR
TEMPORARY TURTLE TURN-AROUND (SEE DETAIL)
HUNDER COULEE RD
N

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CONSTRUCTION DETAILS EATS	SHEET 39	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\022002_EC.DWG
LAYOUT NAME - 04
PLOT DATE : 10/20/2025 11:14 AM
PLOT BY : JEFF BREU
PLOT NAME :
PLOT SCALE : ##########

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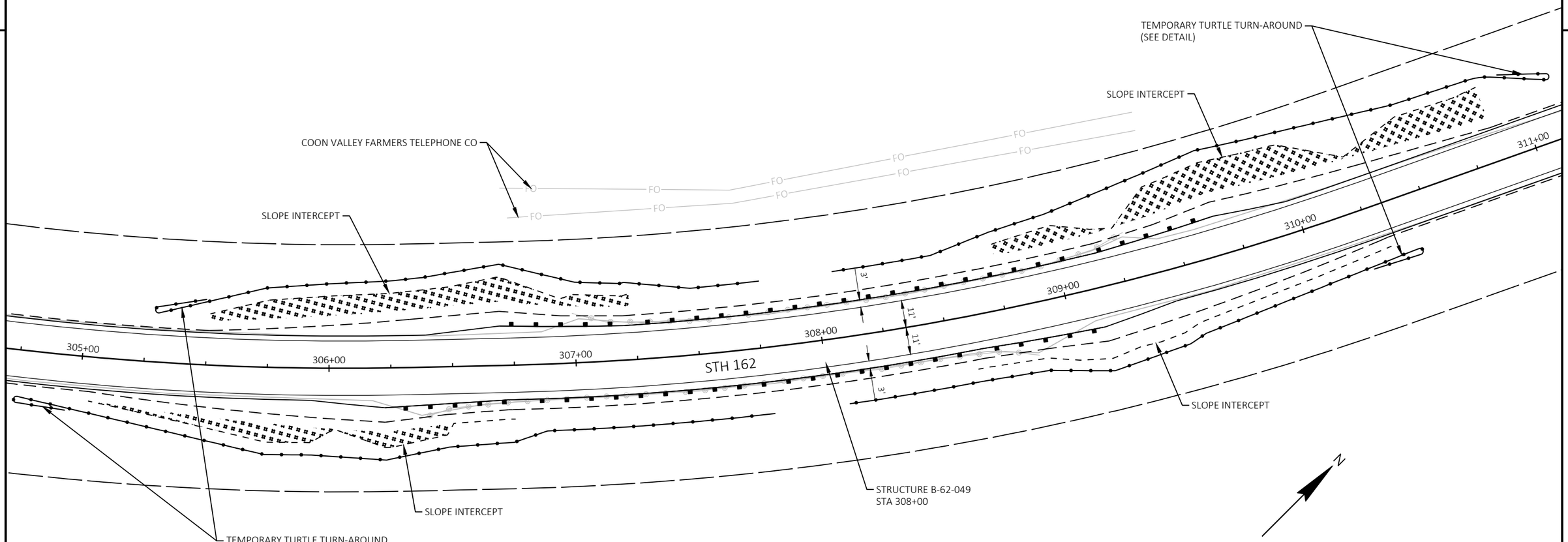
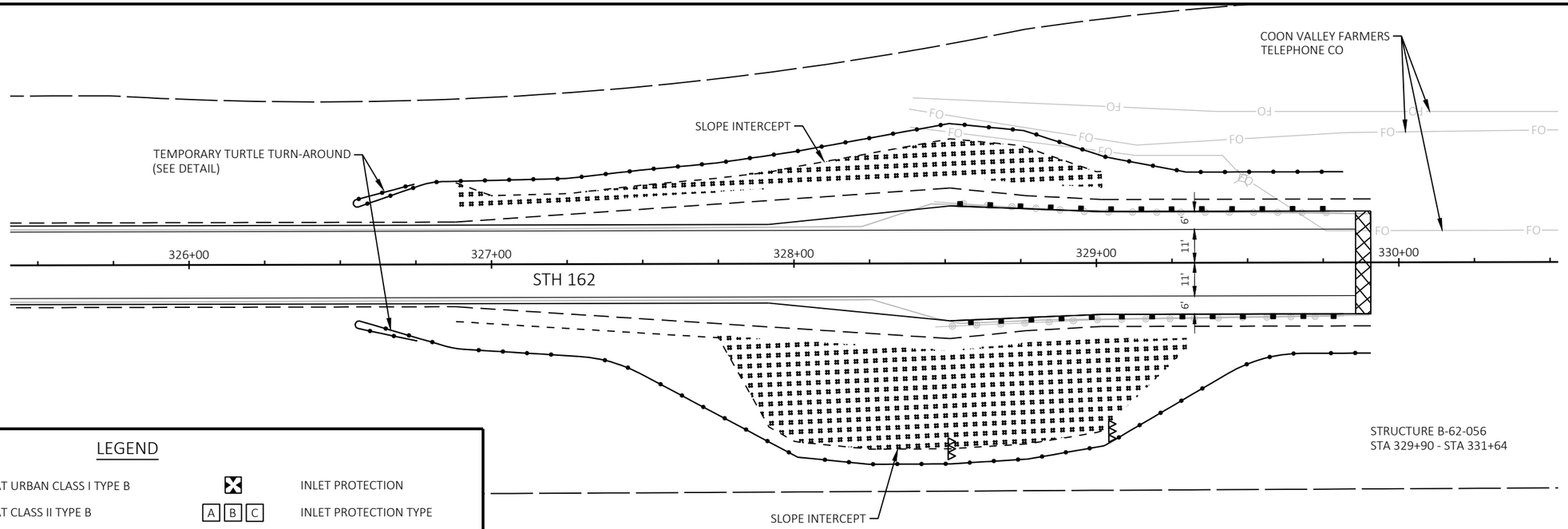


LEGEND

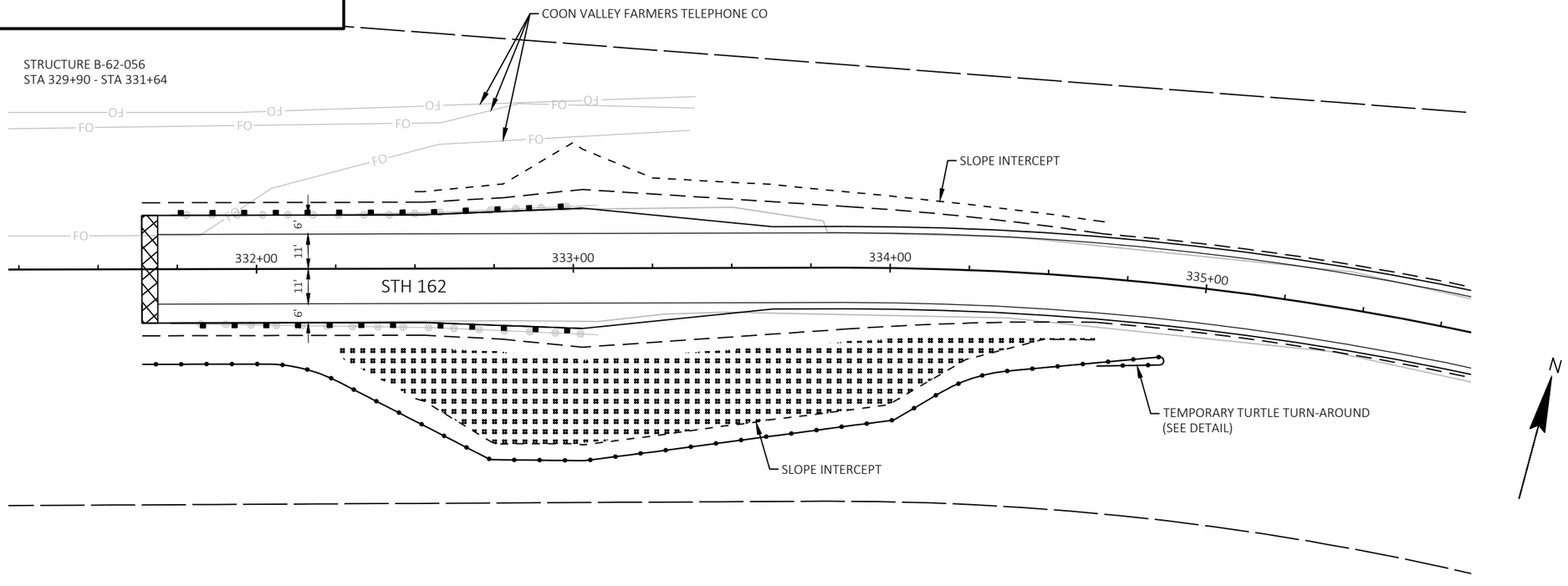
	EROSION MAT URBAN CLASS I TYPE B		INLET PROTECTION
	EROSION MAT CLASS II TYPE B	A B C	INLET PROTECTION TYPE
	SILT FENCE		TEMPORARY DITCH CHECK
	RIPRAP MEDIUM (UNLESS NOTED)		CULVERT PIPE CHECK
	SLOPE INTERCEPT		SURFACE WATER FLOW
ASPH	ASPHALTIC FLUME		

2

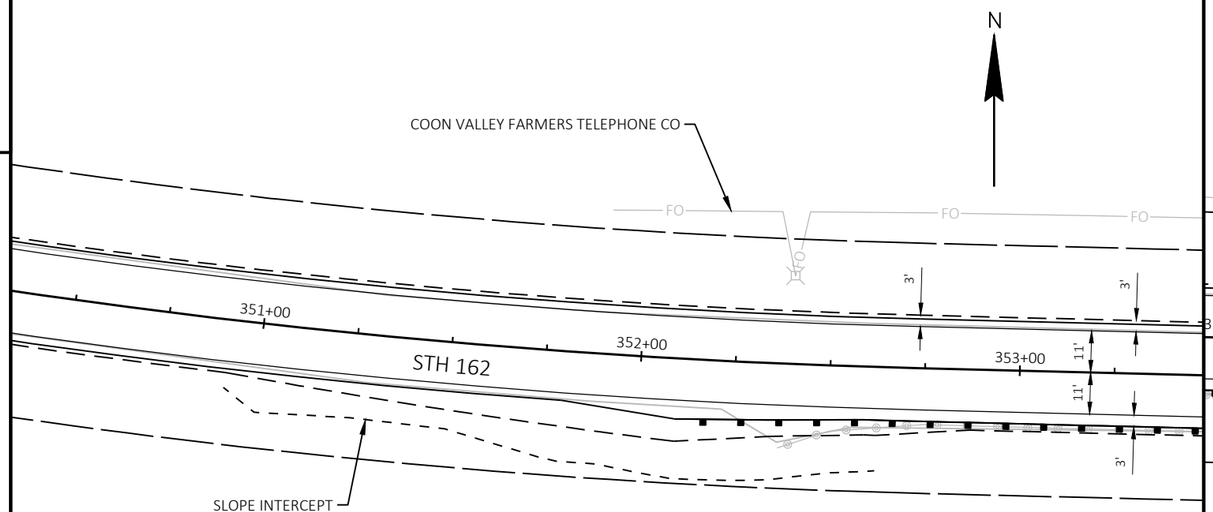


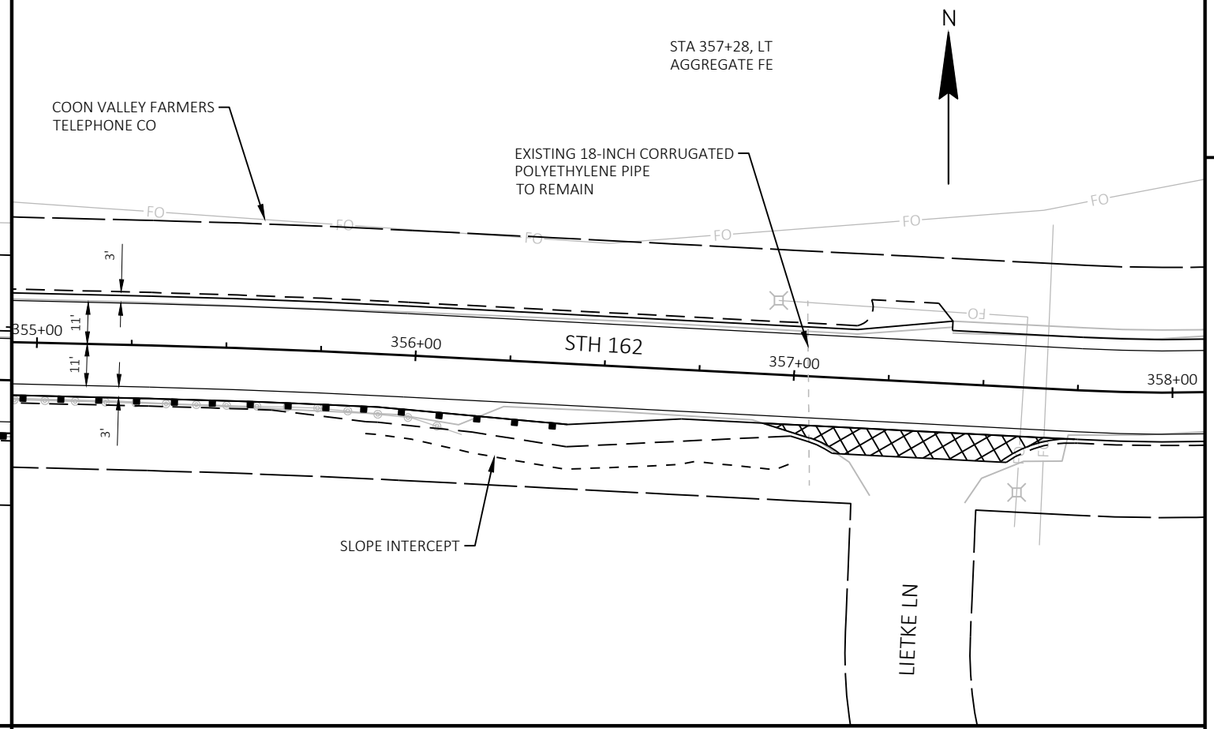
LEGEND

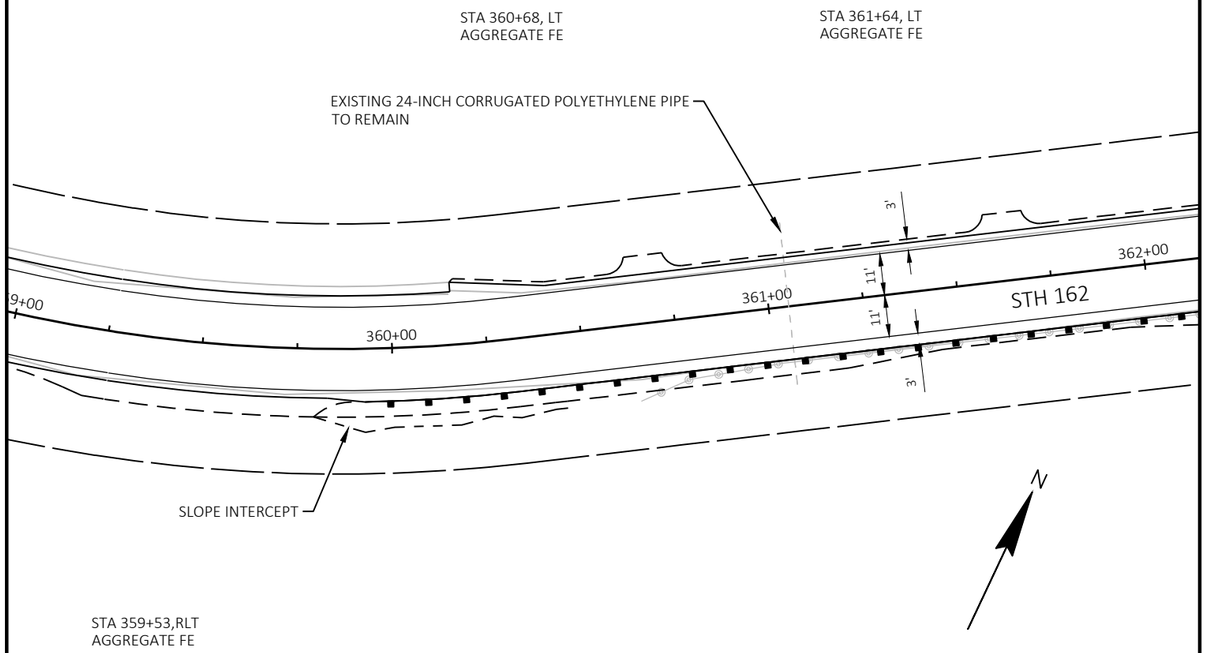
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SILT FENCE
- RIPRAP MEDIUM (UNLESS NOTED)
- SLOPE INTERCEPT
- ASPH — ASPHALTIC FLUME
- INLET PROTECTION
- A B C — INLET PROTECTION TYPE
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	EROSION CONTROL (BEAMGUARD)	SHEET 41	E

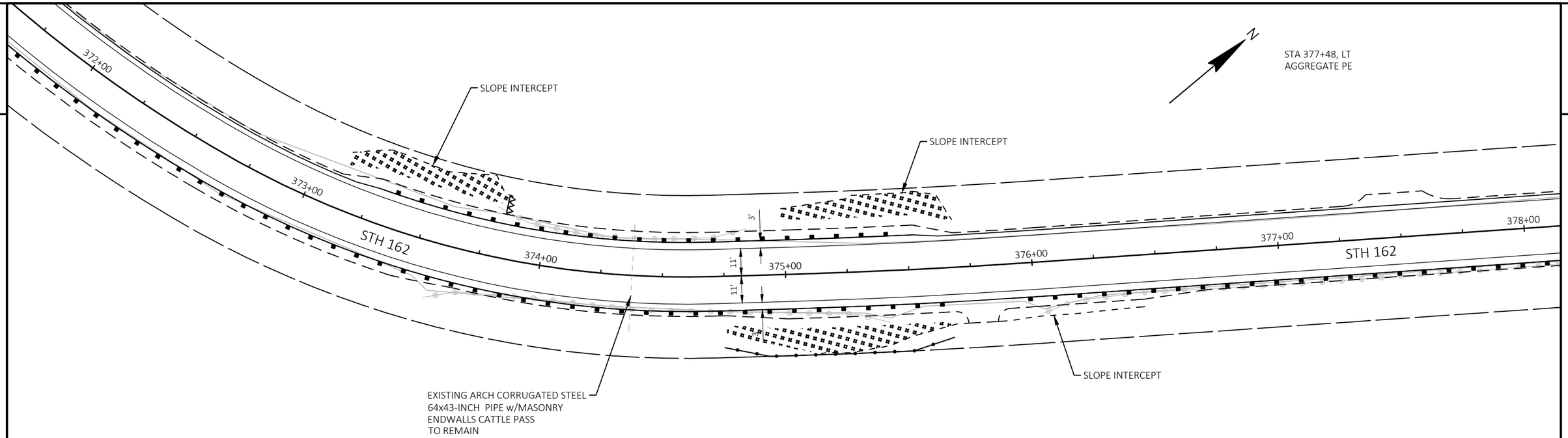


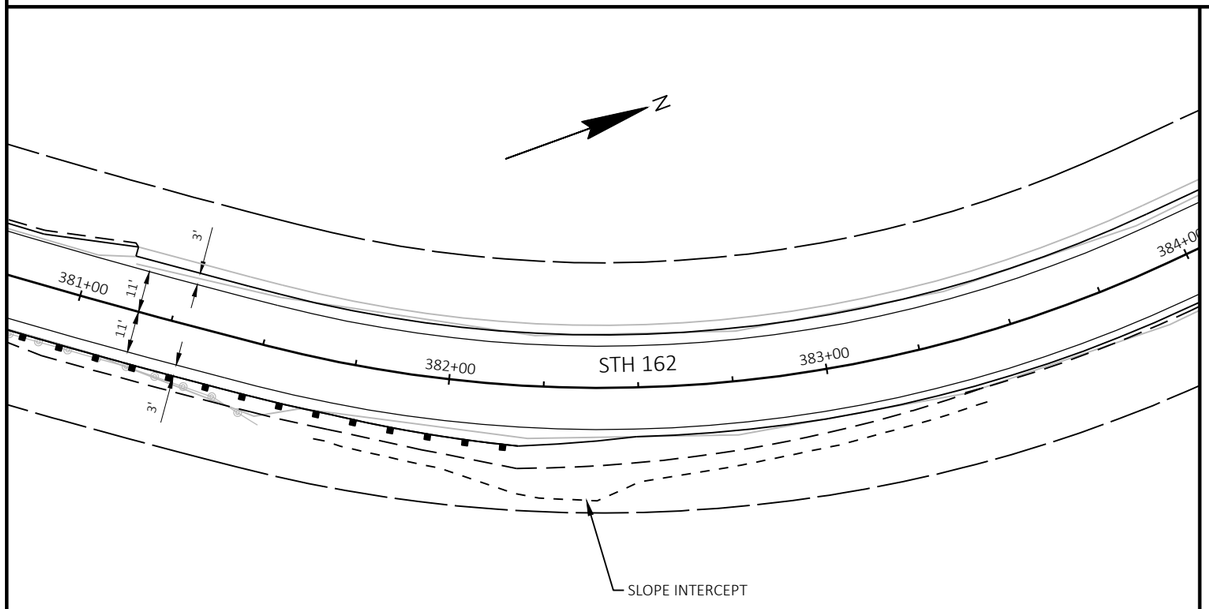




LEGEND

EROSION MAT URBAN CLASS I TYPE B	INLET PROTECTION
EROSION MAT CLASS II TYPE B	A B C INLET PROTECTION TYPE
SILT FENCE	TEMPORARY DITCH CHECK
RIPRAP MEDIUM (UNLESS NOTED)	CULVERT PIPE CHECK
SLOPE INTERCEPT	SURFACE WATER FLOW
ASPH ASPHALTIC FLUME	



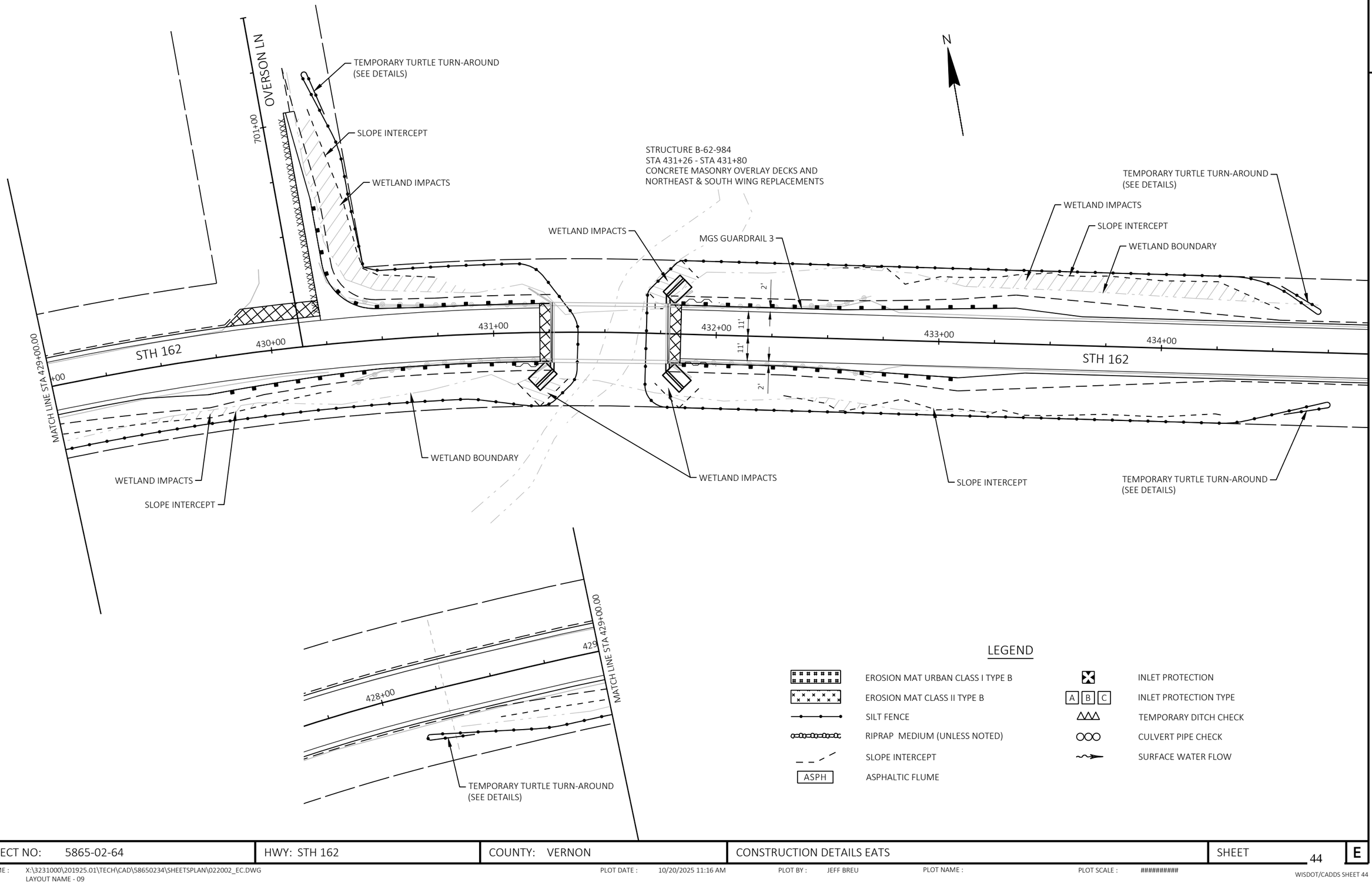


LEGEND

	EROSION MAT URBAN CLASS I TYPE B		INLET PROTECTION
	EROSION MAT CLASS II TYPE B	A B C	INLET PROTECTION TYPE
	SILT FENCE		TEMPORARY DITCH CHECK
	RIPRAP MEDIUM (UNLESS NOTED)		CULVERT PIPE CHECK
	SLOPE INTERCEPT		SURFACE WATER FLOW
ASPH	ASPHALTIC FLUME		

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	EROSION CONTROL (BEAMGUARD)	SHEET 43	E

2

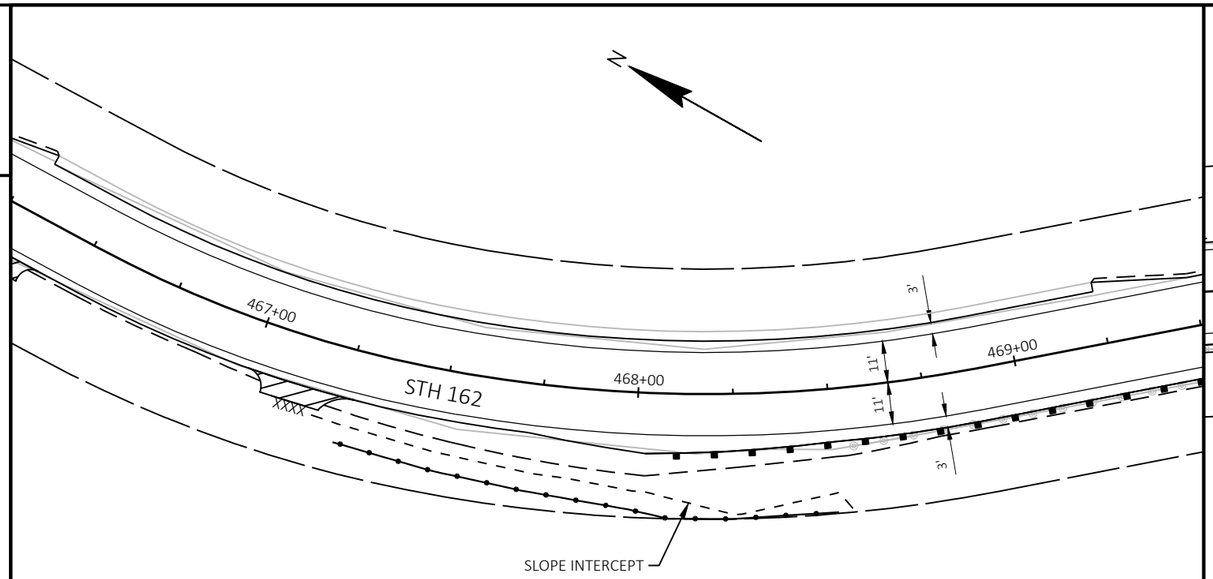


LEGEND

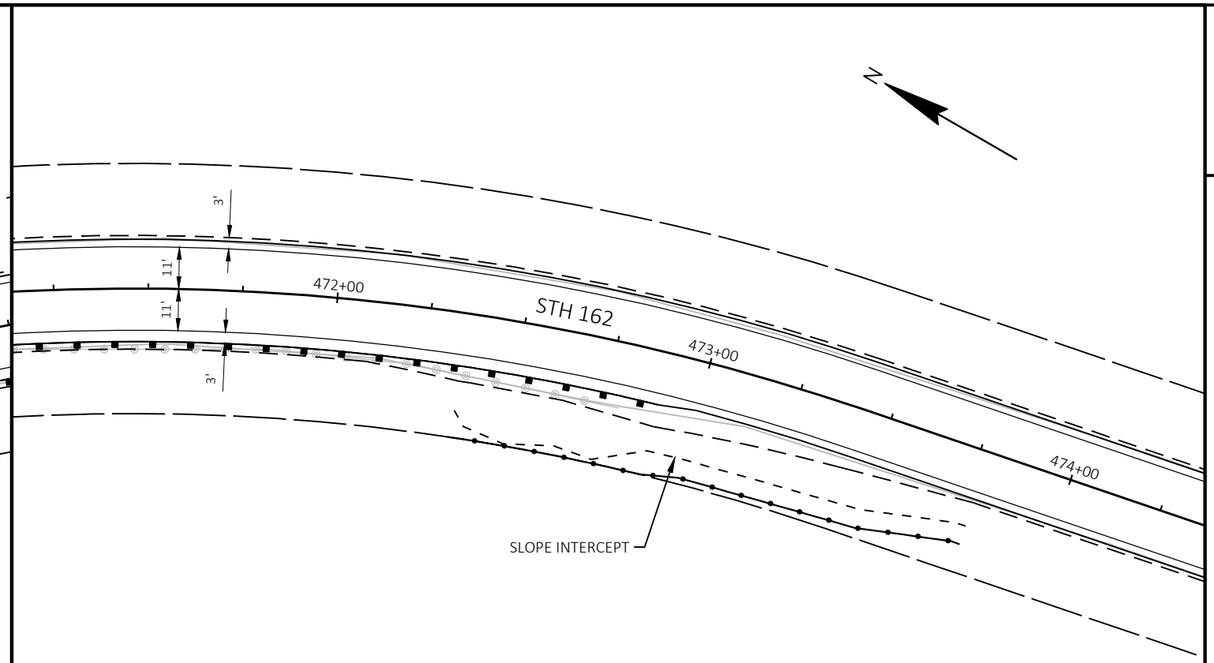
EROSION MAT URBAN CLASS I TYPE B	INLET PROTECTION
EROSION MAT CLASS II TYPE B	INLET PROTECTION TYPE (A B C)
SILT FENCE	TEMPORARY DITCH CHECK
RIPRAP MEDIUM (UNLESS NOTED)	CULVERT PIPE CHECK
SLOPE INTERCEPT	SURFACE WATER FLOW
ASPH — ASPHALTIC FLUME	

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CONSTRUCTION DETAILS EATS	SHEET 44	E

2



STA 467+27, RT
ASPHALT PE



2

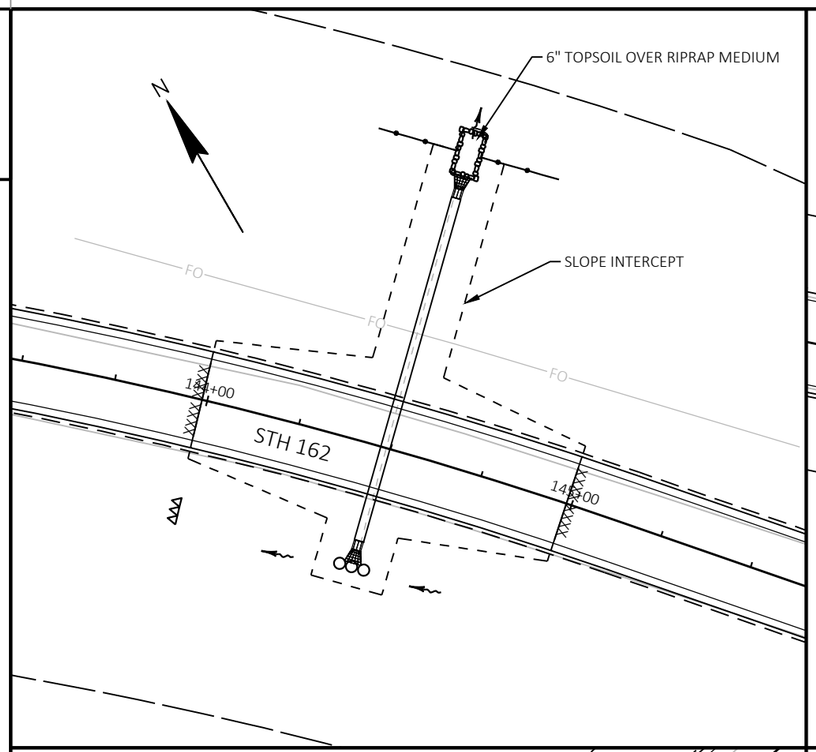
LEGEND

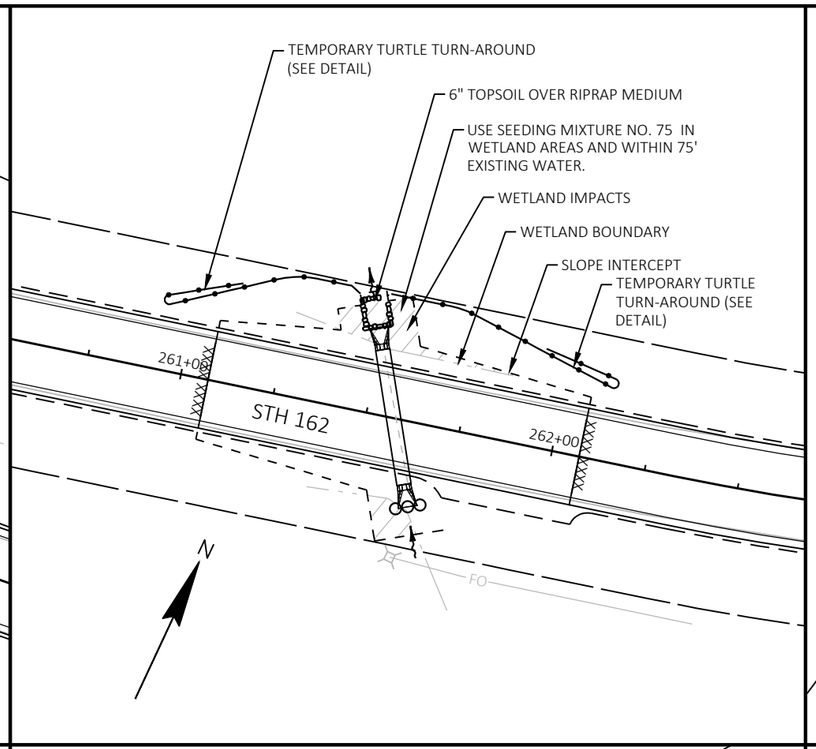
	EROSION MAT URBAN CLASS I TYPE B		INLET PROTECTION
	EROSION MAT CLASS II TYPE B	A B C	INLET PROTECTION TYPE
	SILT FENCE		TEMPORARY DITCH CHECK
	RIPRAP MEDIUM (UNLESS NOTED)		CULVERT PIPE CHECK
	SLOPE INTERCEPT		SURFACE WATER FLOW
ASPH	ASPHALTIC FLUME		

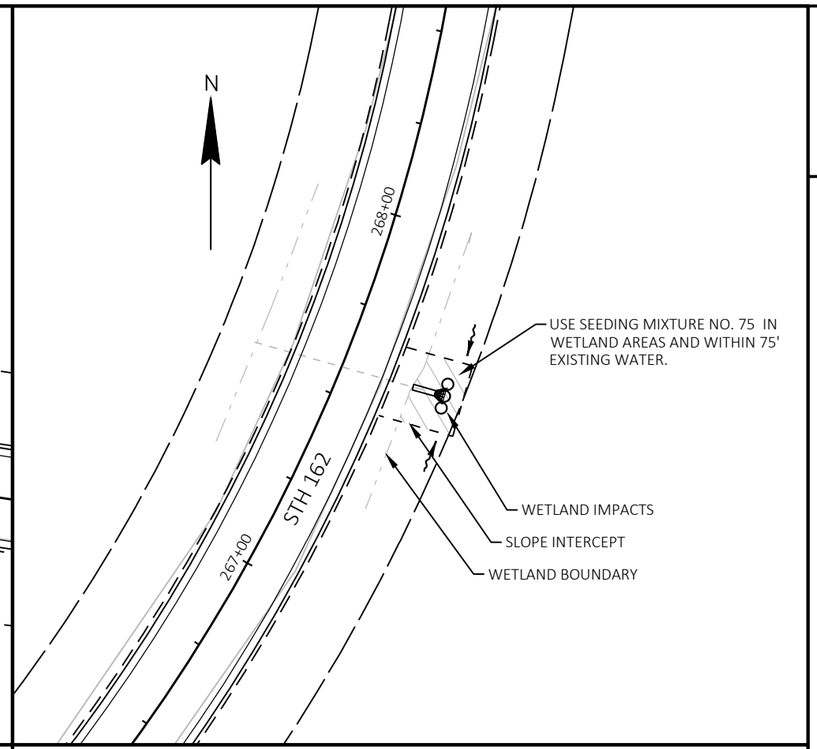
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	EROSION CONTROL (BEAMGUARD)	SHEET 45	E

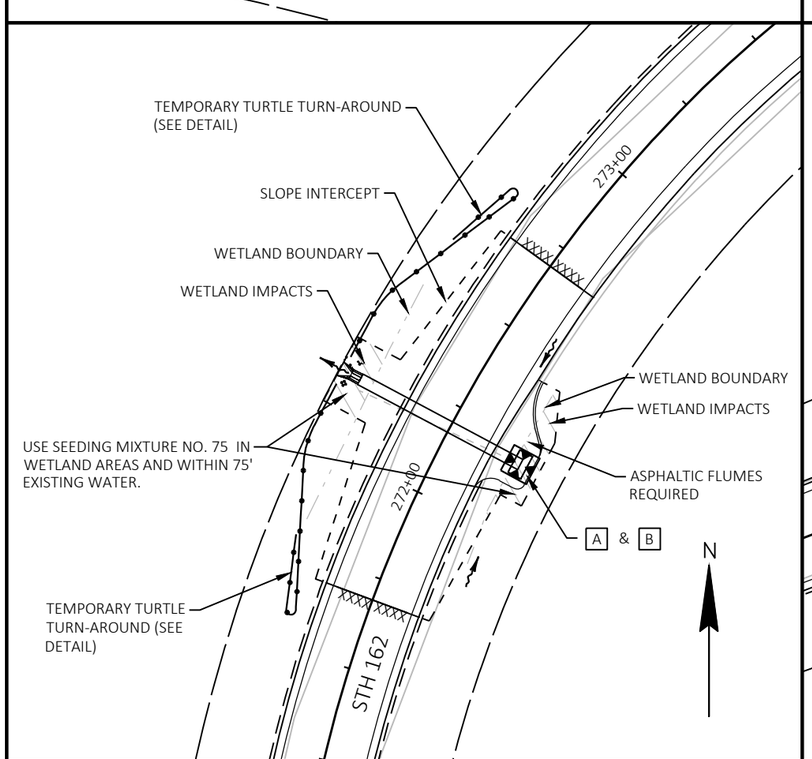
FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\022002_EC.DWG
LAYOUT NAME - 10

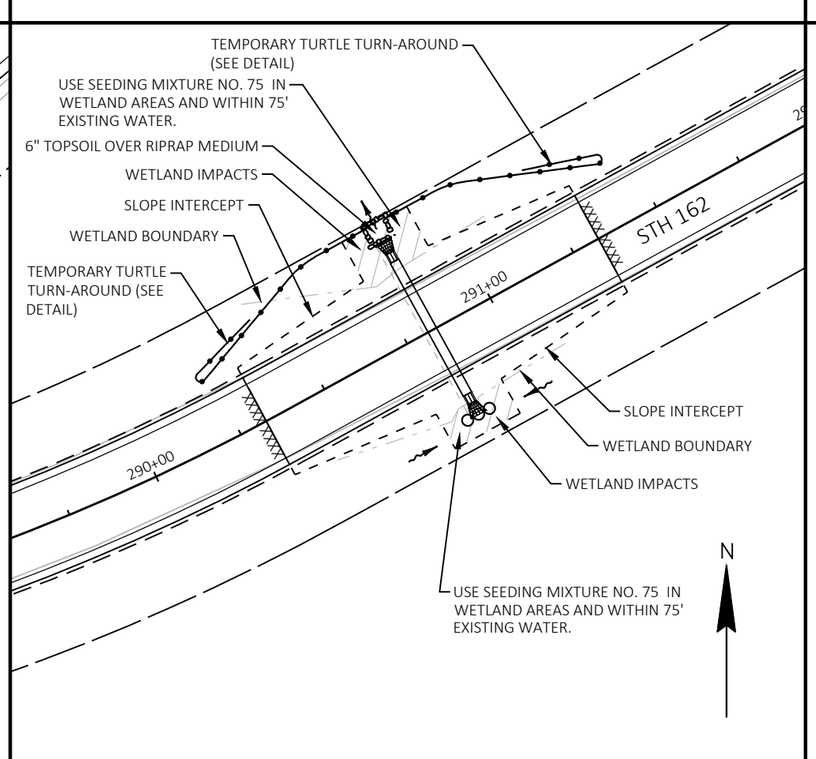
PLOT DATE : 10/20/2025 11:16 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : ##########







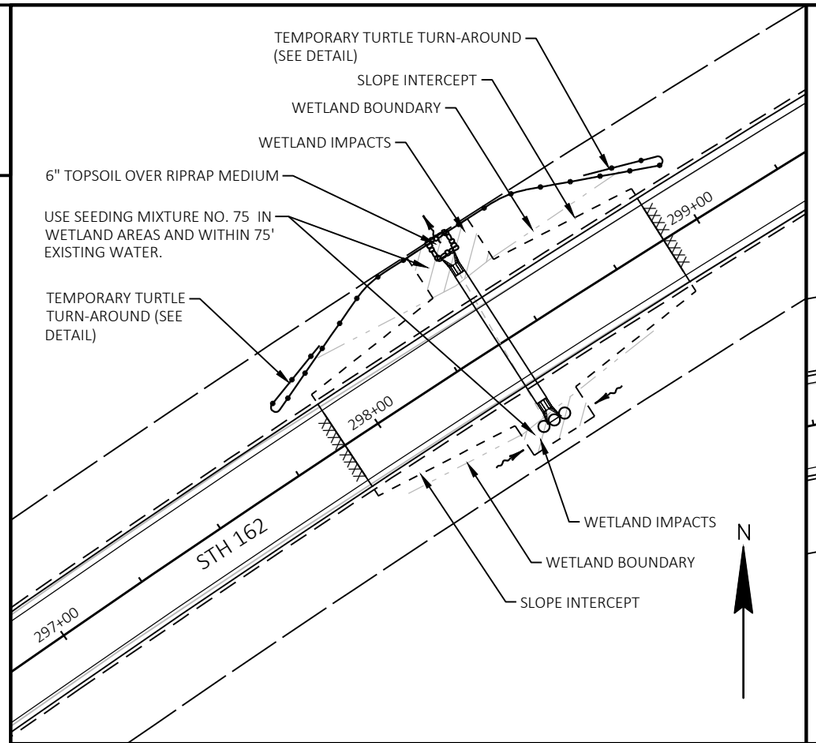


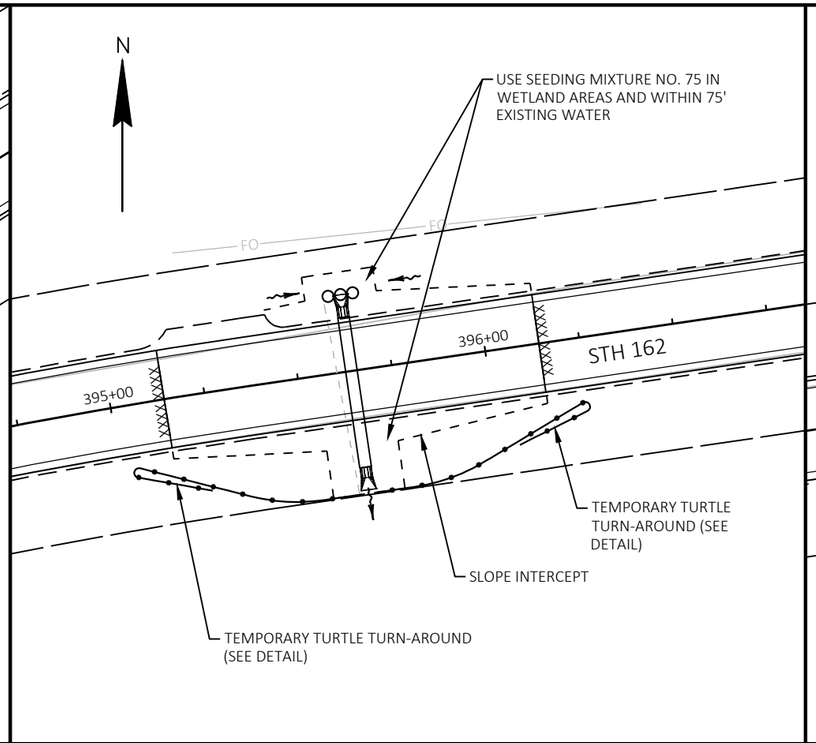


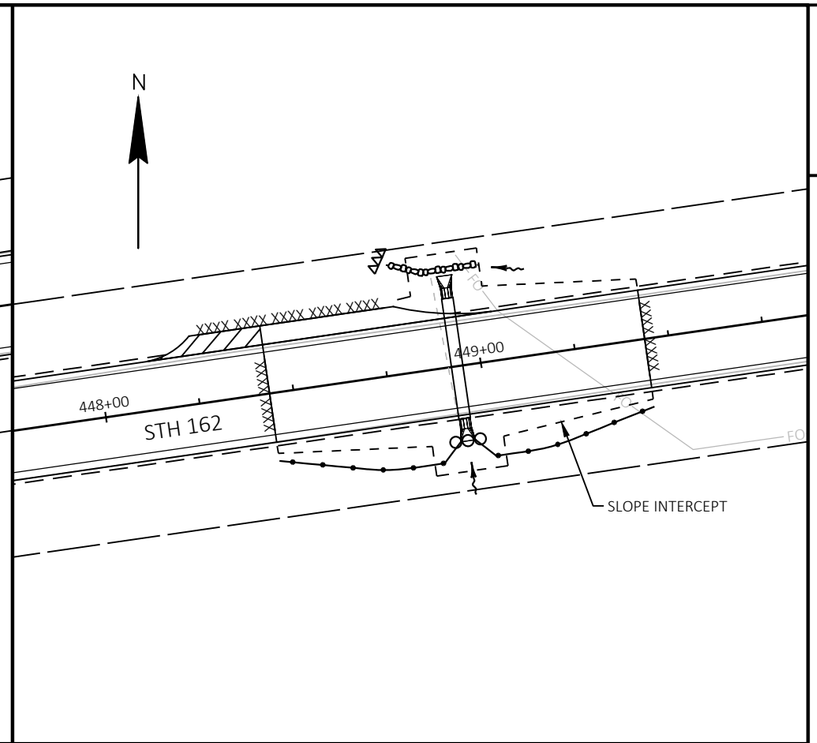
LEGEND

- SILT FENCE
- RIPRAP MEDIUM (UNLESS NOTED)
- SLOPE INTERCEPT
- ASPH — ASPHALTIC FLUME
- INLET PROTECTION
- A B C — INLET PROTECTION TYPE
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	EROSION CONTROL (CULVERTS)	SHEET 46	E







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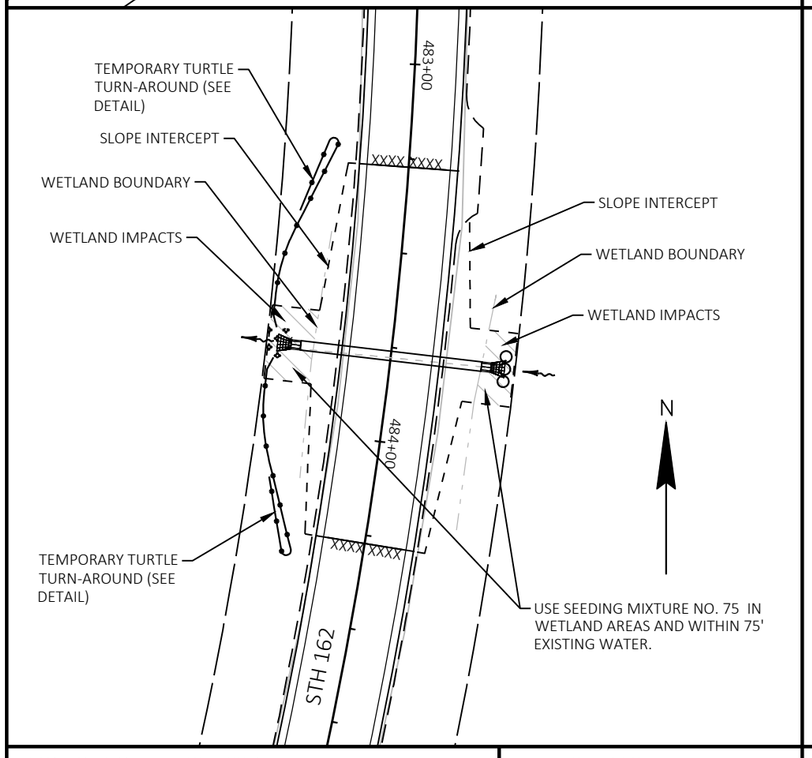
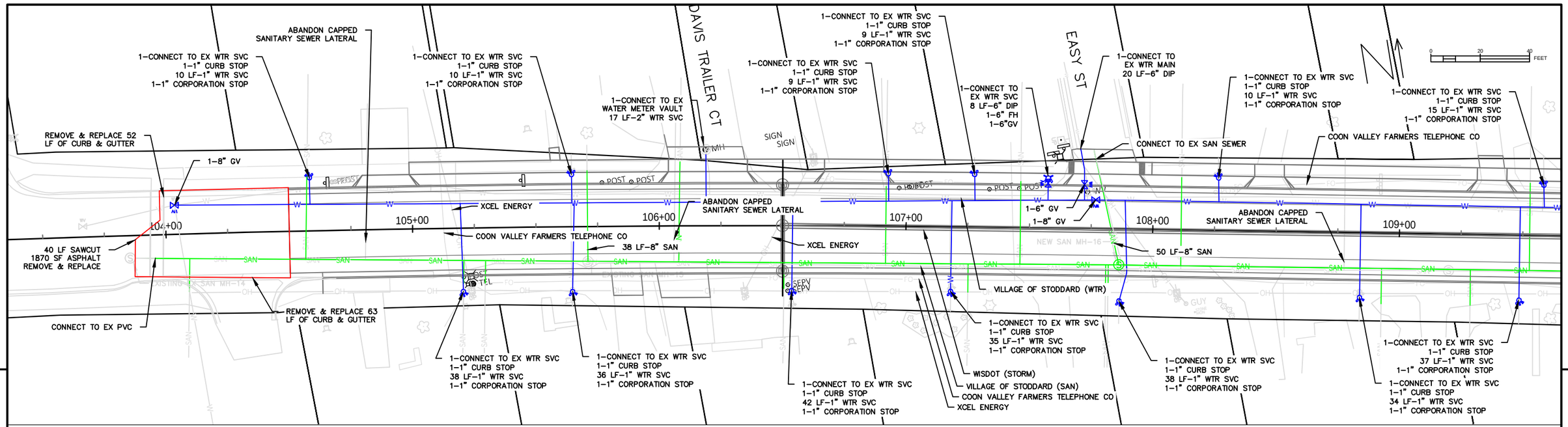


LEGEND

- SILT FENCE
- RIPRAP MEDIUM (UNLESS NOTED)
- SLOPE INTERCEPT
- ASPH — ASPHALTIC FLUME
- INLET PROTECTION
- A B C — INLET PROTECTION TYPE
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

PROJECT NO: 5865-02-64	HWY: STH 162		COUNTY: VERNON	EROSION CONTROL (CULVERTS)	SHEET 47	E



PROJECT NO: 5865-02-74	HWY: STH 162	COUNTY: VERNON	SANITARY SEWER AND WATER MAIN PLAN/PROFILE	SHEET 48	E

FILE NAME : U:\ME\2 CLIENTS\STODDARD VILLAGE 2\2026\STH 162 RECONSTRUCTION\CADWORKING\20260624 STODDARD.DWG PLOT DATE : 10/16/2025 PLOT BY : MAKEPEACE ENGINEERING LLC PLOT NAME :

WISDOT/CADDS SHEET 44

EX LANDSCAPED AREA

ABANDON CAPPED SANITARY SEWER LATERAL

1–CONNECT TO EX WTR SVC
1–1" CURB STOP
16 LF–1" WTR SVC
1–1" CORPORATION STOP

1–CONNECT TO EX WTR SVC
1–1" CURB STOP
15 LF–1" WTR SVC
1–1" CORPORATION STOP

COON VALLEY FARMERS TELEPHONE CO

1–CONNECT TO EX WTR SVC
18 LF–6" DIP
1–6" FH
1–6"GV

SAND LAKE CT

1–90° TEE
9 LF–8" DIP

1–22.5° BEND
15 LF–8" DIP

80'–2"
HDPE FM

1–8" GV
1–11.25° BEND
10 LF–8" DIP

ABANDON CAPPED SANITARY SEWER LATERAL

1–CONNECT TO EX WTR SVC
1–1" CURB STOP
15 LF–1" WTR SVC
1–1" CORPORATION STOP

XCEL ENERGY

1–CONNECT TO EX WTR SVC
1–1" CURB STOP
25 LF–1" WTR SVC
1–1" CORPORATION STOP

1–CONNECT TO EX WTR SVC
1–1" CURB STOP
15 LF–1" WTR SVC
1–1" CORPORATION STOP

1–CONNECT TO EX WTR SVC
11 LF–6" DIP
1–6" FH
1–6"GV

COON VALLEY FARMERS TELEPHONE CO

1–90° TEE

1–6" GV

1–22.5° BEND

CONNECT TO EX WATER MAIN

COON VALLEY FARMERS TELEPHONE CO

110+00

111+00

112+00

113+00

114+00

115+00

XCEL ENERGY

VILLAGE OF STODDARD (WTR)

1–8" GV

CONNECT FM TO MH

112+94
NEW SAN MH–18

XCEL ENERGY

WISDOT (STORM)

VILLAGE OF STODDARD (SAN)

COON VALLEY FARMERS TELEPHONE CO

XCEL ENERGY

1–8" GV

ABANDON CAPPED SANITARY SEWER LATERAL

1–CONNECT TO EX WTR SVC
1–1" CURB STOP
37 LF–1" WTR SVC
1–1" CORPORATION STOP

1–CONNECT TO EX WTR SVC
1–1" CURB STOP
40 LF–1" WTR SVC
1–1" CORPORATION STOP

1–CONNECT TO EX WTR SVC
1–1" CURB STOP
43 LF–1" WTR SVC
1–1" CORPORATION STOP

1–CONNECT TO EX WTR SVC
1–1" CURB STOP
43 LF–1" WTR SVC
1–1" CORPORATION STOP

110+00.00 111+00.00 112+00.00 113+00.00 114+00.00 115+00.00

665 660 655 650

NEW SAN MH–17
STA: 111+36.81 OS: 13.81R
RIM: 662.85
INV EL: 656.77 (W)
INV EL: 656.87 (E)

EXISTING GRADE

FINISHED GRADE

REMOVE EX MANHOLE

NEW SAN MH–18
STA: 112+93.66 OS: 14.70R
RIM: 661.80
INV EL: 657.50 (W)

INV: 656.77

INV: 656.87

INV: 657.50

4" LATERAL
STA: 109+53.80

4" LATERAL
STA: 109+78.22

4" LATERAL
STA: 110+34.85

4" LATERAL
STA: 110+58.41

350.34' of 8" PVC @ –0.40%

2" FORCEMAIN
STA: 111+35.62

4" LATERAL
STA: 111+37.67

4" LATERAL
STA: 111+84.53

4" LATERAL
STA: 111+91.50

4" LATERAL
STA: 111+97.18

157.39' of 8" PVC @ –0.40%

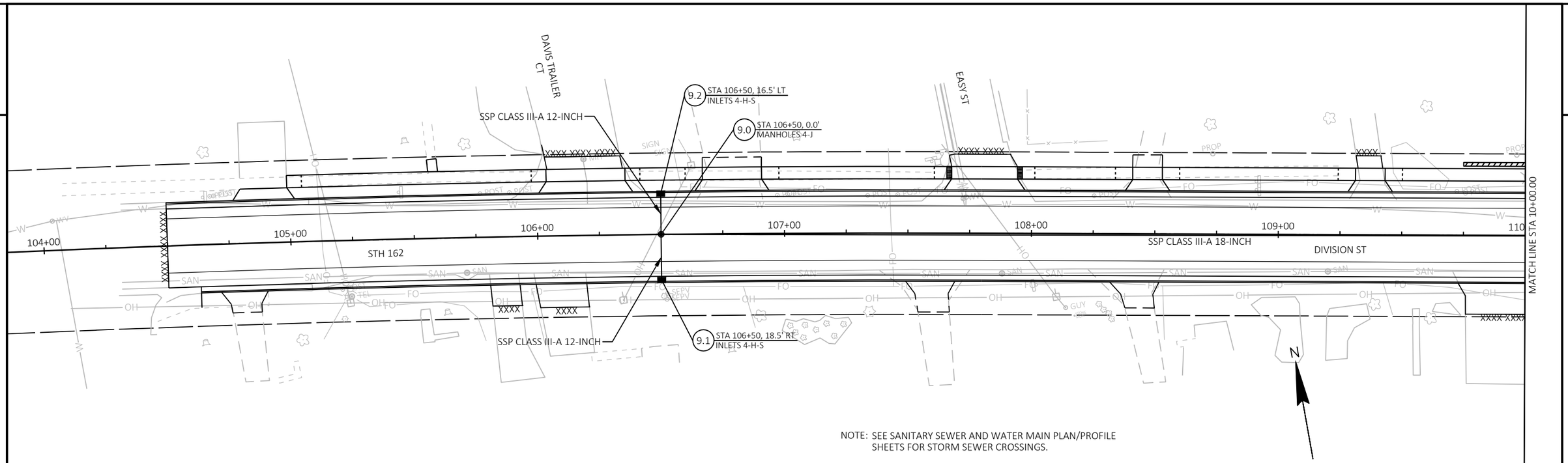
NEW DIP WTR MIN 7' BELOW PROPOSED SURFACE

2" FORCEMAIN
STA: 112+95.25

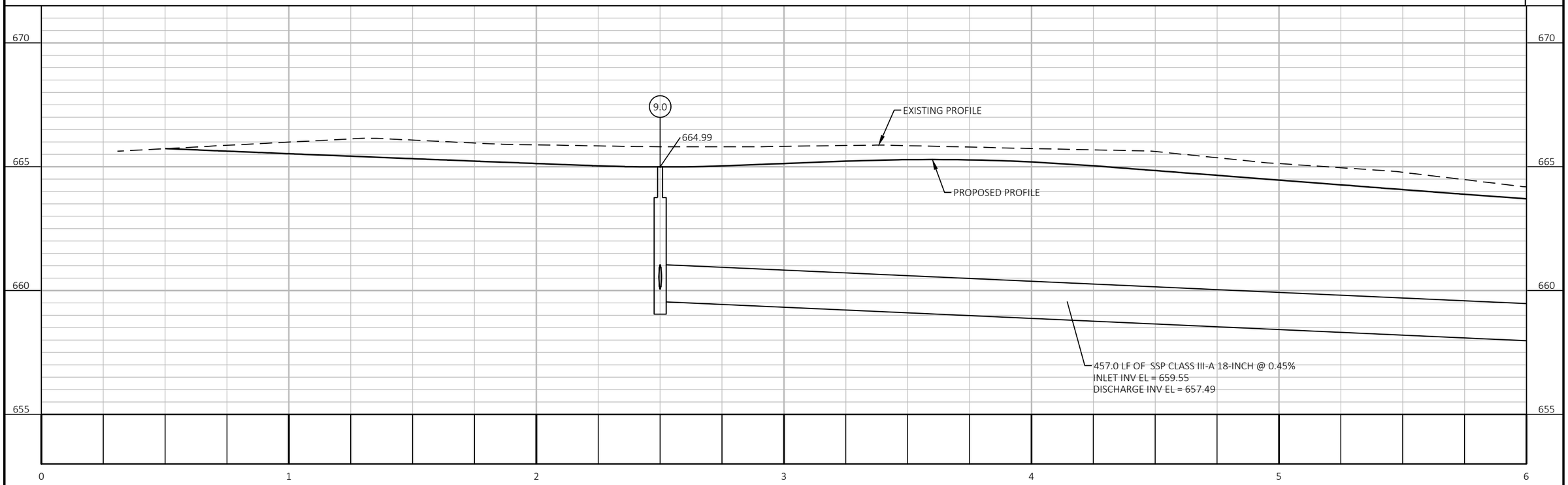
PROJECT NO: 5865-02-74	HWY: STH 162	COUNTY: VERNON	SANITARY SEWER AND WATER MAIN PLAN/PROFILE	SHEET 49	E

FILE NAME : U:\ME\2 CLIENTS\STODDARD VILLAGE 2\2026\STH 162 RECONSTRUCTION\CADWORKING\20250926 STODDARD.DWG PLOT DATE : 10/16/2025 PLOT BY : MAKEPEACE ENGINEERING LLC PLOT NAME :

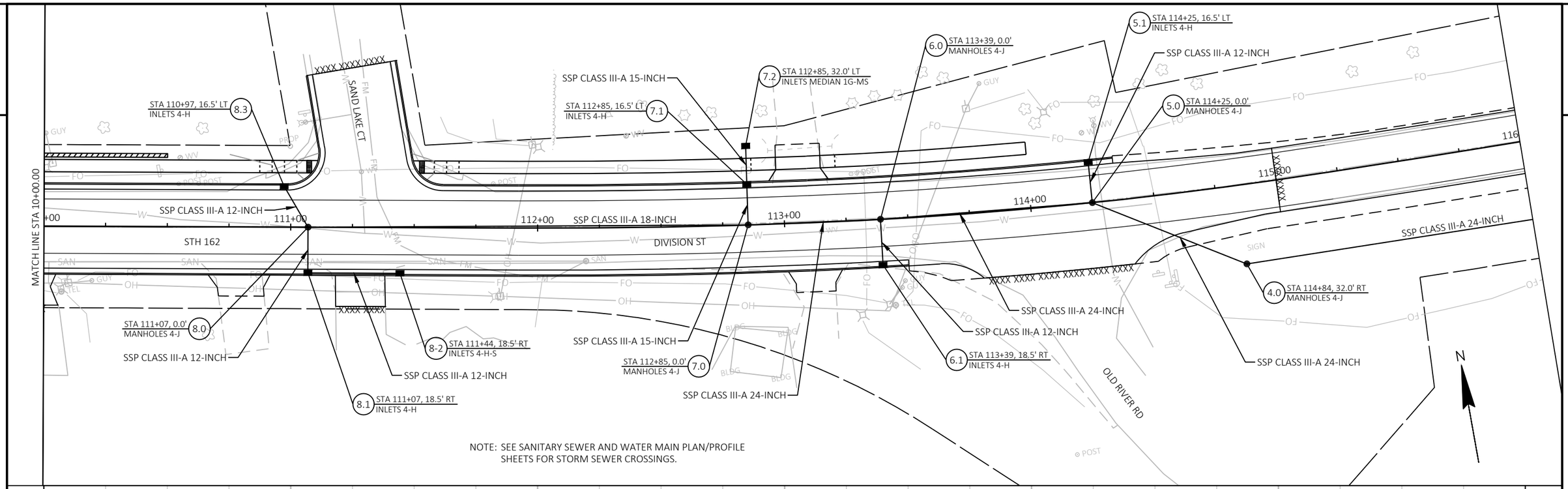
WISDOT/CADDS SHEET 44



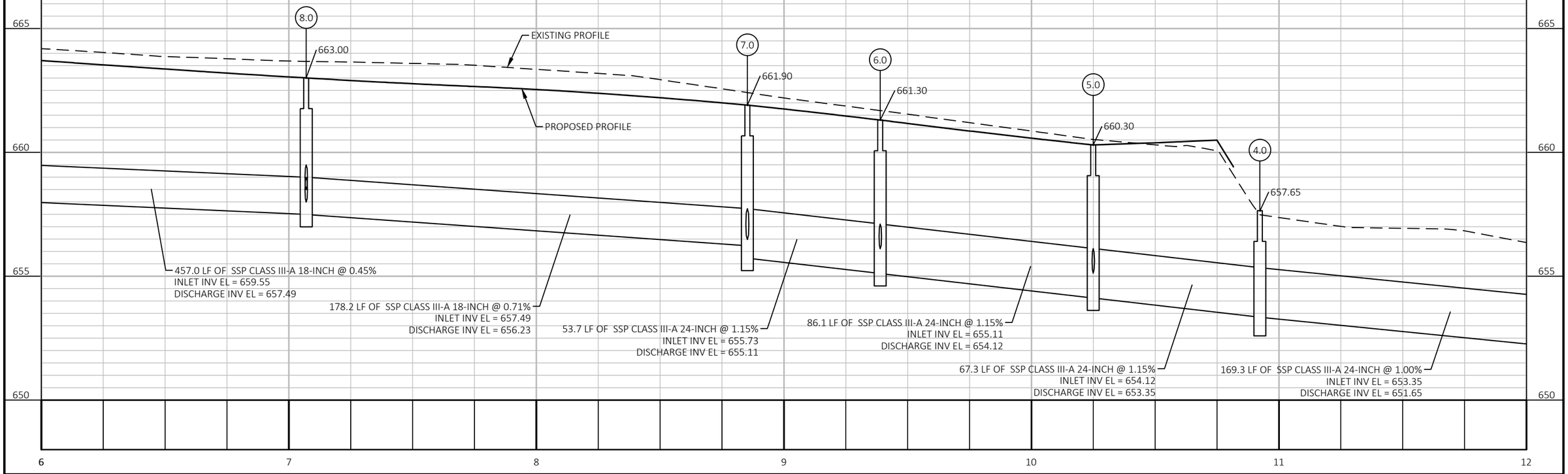
NOTE: SEE SANITARY SEWER AND WATER MAIN PLAN/PROFILE SHEETS FOR STORM SEWER CROSSINGS.



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	STORM SEWER PLAN (STODDARD)	SHEET 50	E



NOTE: SEE SANITARY SEWER AND WATER MAIN PLAN/PROFILE SHEETS FOR STORM SEWER CROSSINGS.



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	STORM SEWER PLAN (STODDARD)	SHEET 51	E

2

MATCH LINE STA 16+00.00

+00

117+00

118+00

119+00

120+00

DIVISION ST

STH 162

XXXX XXXX XXXX XXXX XXXX

SSP CLASS III-A 24-INCH

SSP CLASS III-A 24-INCH

3.0 STA 116+52, 32.7' RT
INLETS MEDIAN 1G-MS

2.0 STA 117+97, 32.0' RT
INLETS MEDIAN 1G-MS

STA 118+96, 36.9' RT
APRON ENDWALLS FOR CULVERT PIPE 24-INCH 1.0

SSP CLASS III-A 24-INCH

N

660

655

650

645

3.0

655.41

EXISTING PROFILE

2.0

653.69

1.0

169.3 LF OF SSP CLASS III-A 24-INCH @ 1.00%
INLET INV EL = 653.35
DISCHARGE INV EL = 651.65

145.8 LF OF SSP CLASS III-A 24-INCH @ 1.00%
INLET INV EL = 651.65
DISCHARGE INV EL = 650.19

99.2 LF OF SSP CLASS III-A 24-INCH @ 1.00%
INLET INV EL = 650.19
DISCHARGE INV EL = 649.20

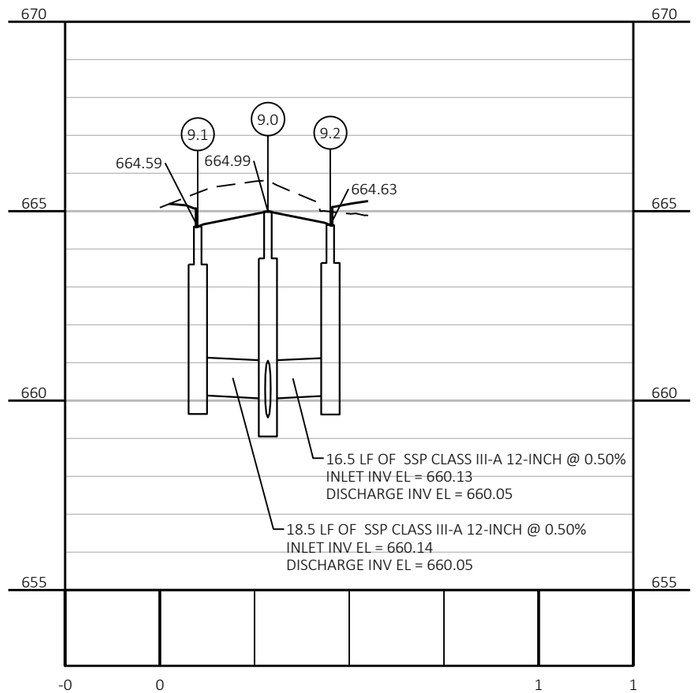
12 13 14 15 16 16

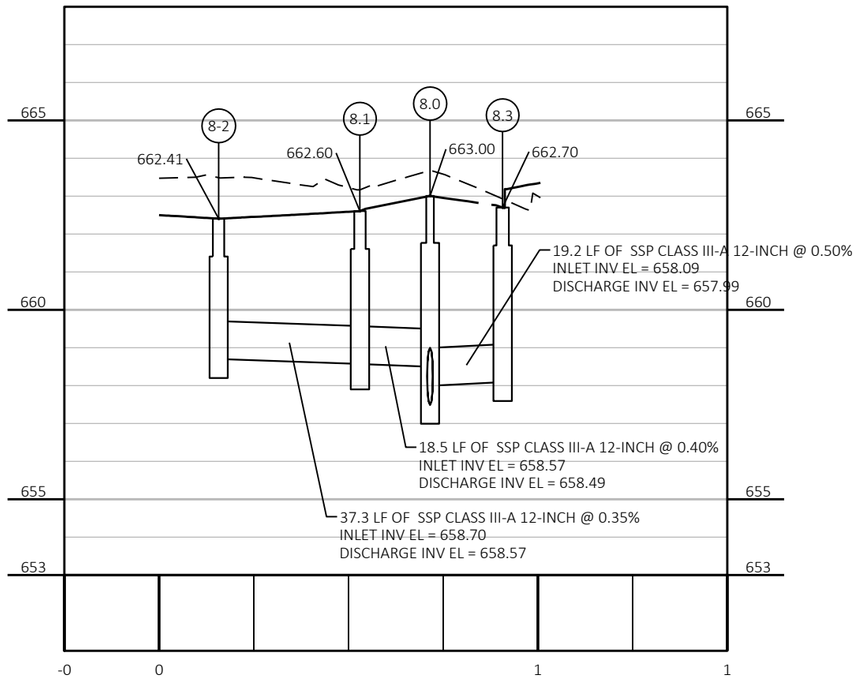
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	STORM SEWER PLAN (STODDARD)	SHEET 52	E

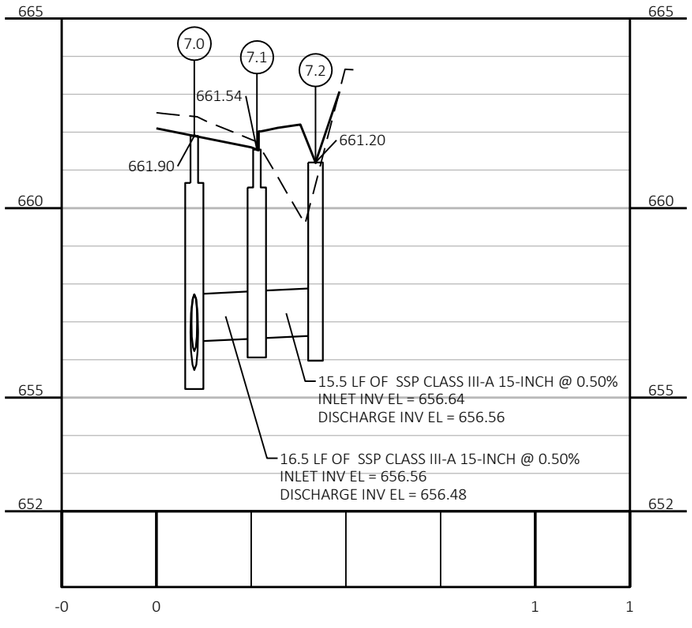
FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\022501_SS_STODDARD.DWG
LAYOUT NAME - 03

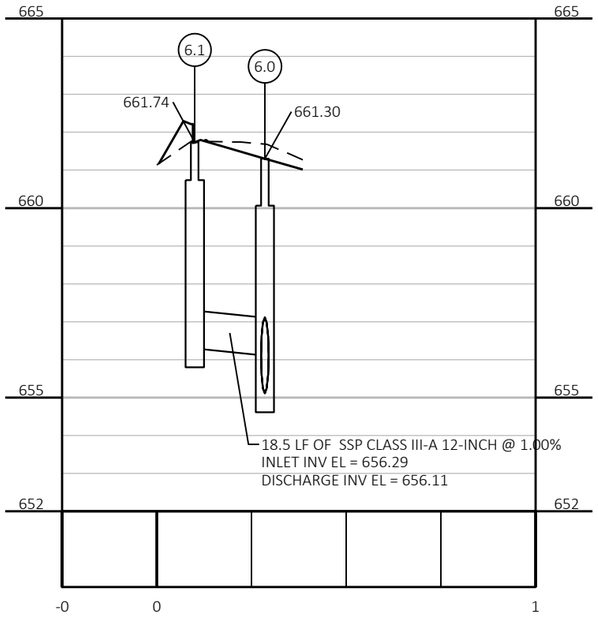
PLOT DATE : 10/18/2025 5:53 PM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : ##########

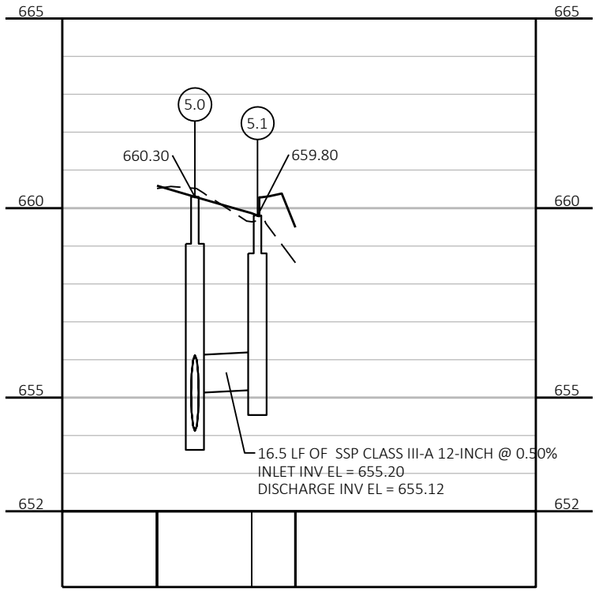
WISDOT/CADDS SHEET 41





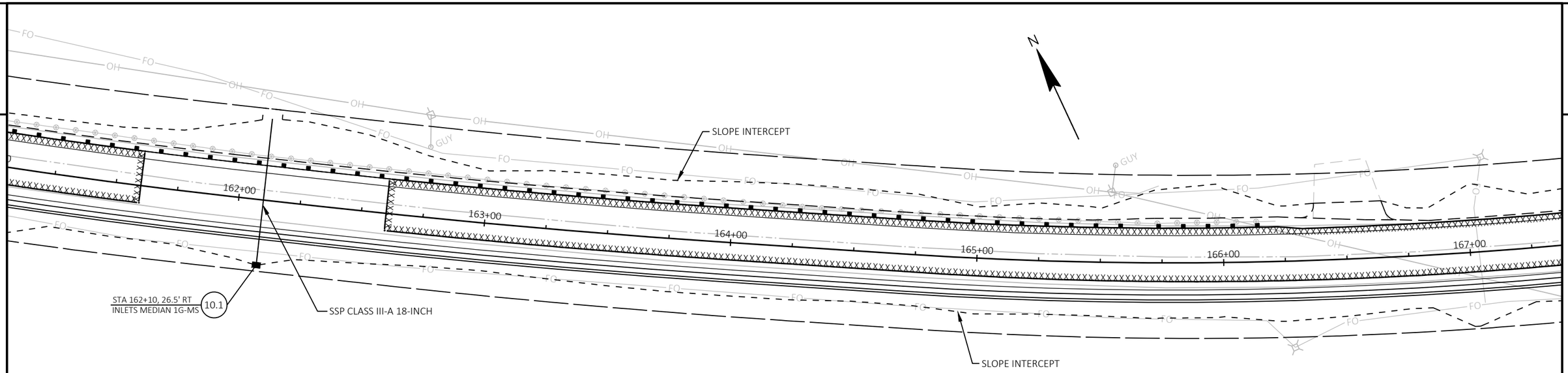


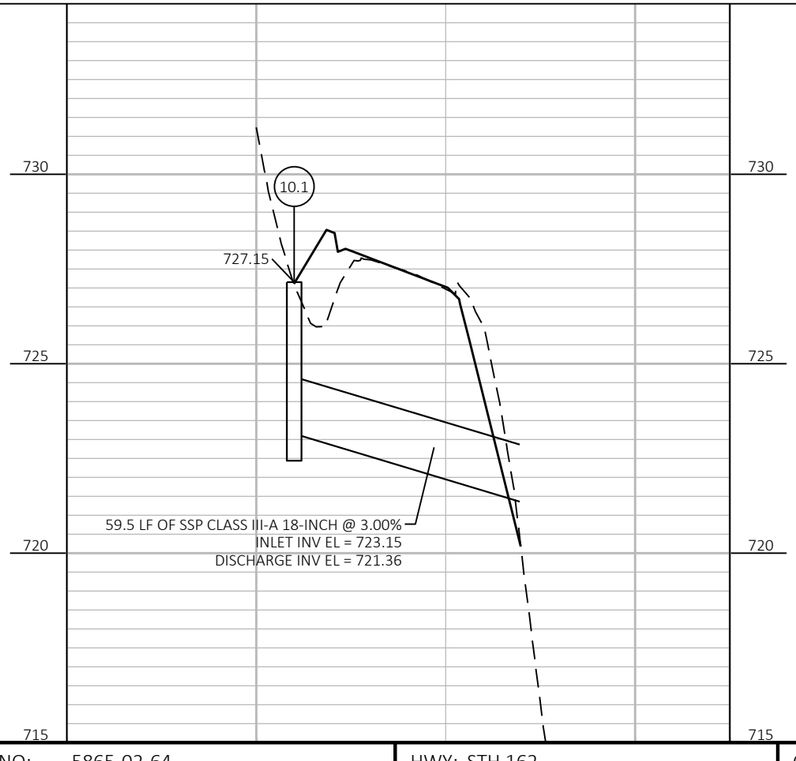




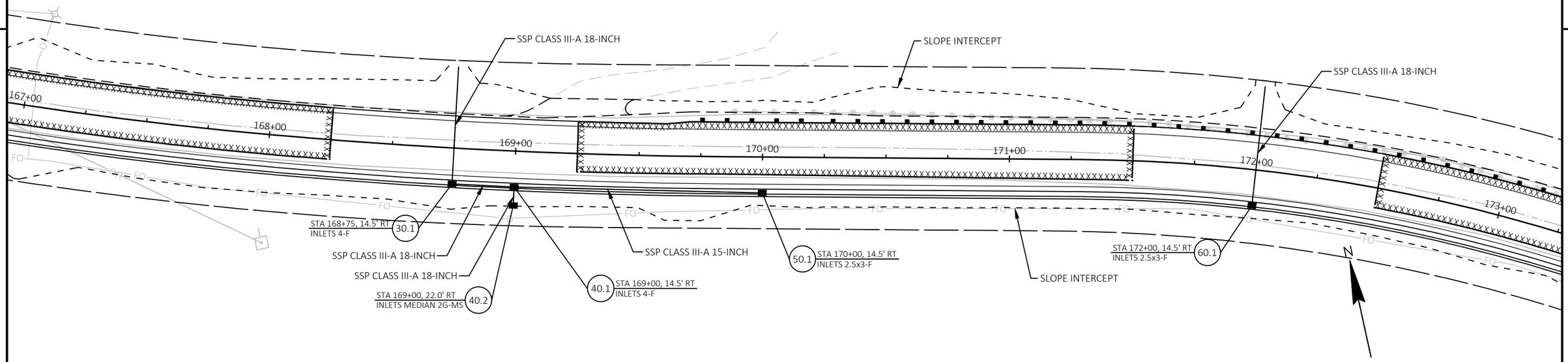
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	STORM SEWER PLAN (STODDARD)	SHEET 53	E

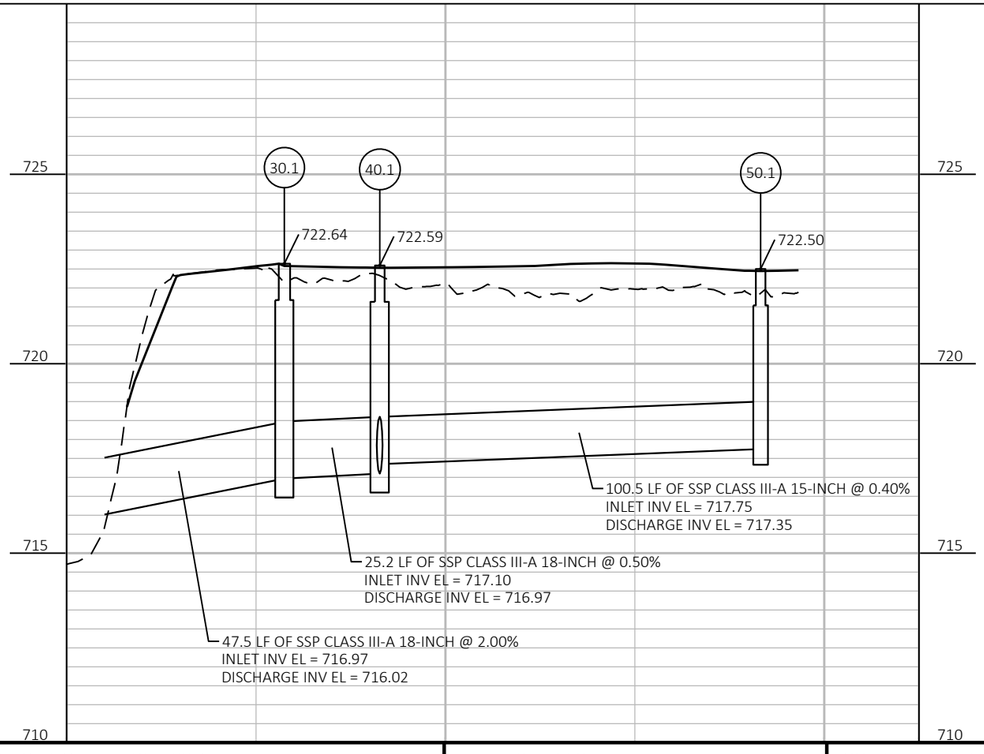
2

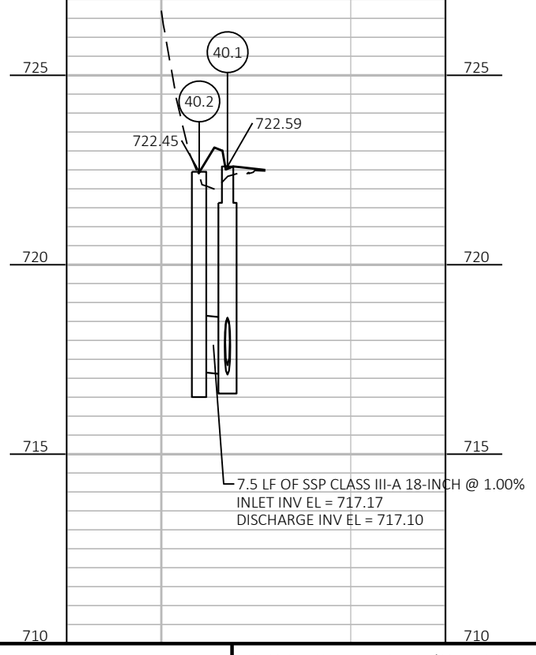


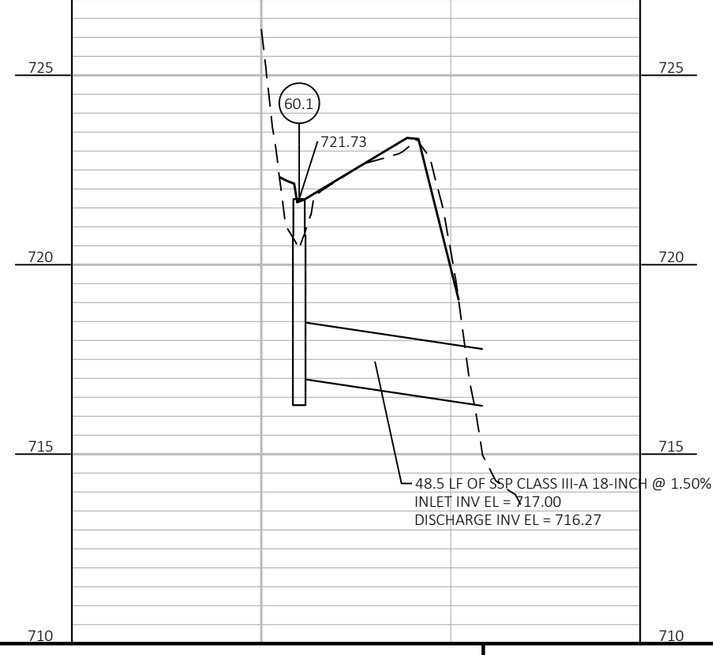


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	STORM SEWER PLAN (GUARDRAIL)	SHEET 54	E









PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	STORM SEWER PLAN (GUARDRAIL)	SHEET 55	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\022502_SS_GUARDRAIL.DWG
LAYOUT NAME - 02
PLOT DATE : 10/18/2025 5:54 PM
PLOT BY : JEFF BREU
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 41

2

N

1 MOVING SIGNS

2 MOVING SIGNS

3 MOVING SIGNS

4 MOVING SIGNS

5 MOVING SIGNS

6 MOVING SIGNS

7 MOVING SIGNS

DAVIS TRAILER CT

EASY ST

STODDARD STREET SIGN (MOVING SIGN BY OTHERS)

105+00

106+00

STH 162

107+00

108+00

109+00

DIVISION ST

110+00

4'

11'

11'

6'

E-6Y

E-6W

MATCH LINE STA 110+50.00

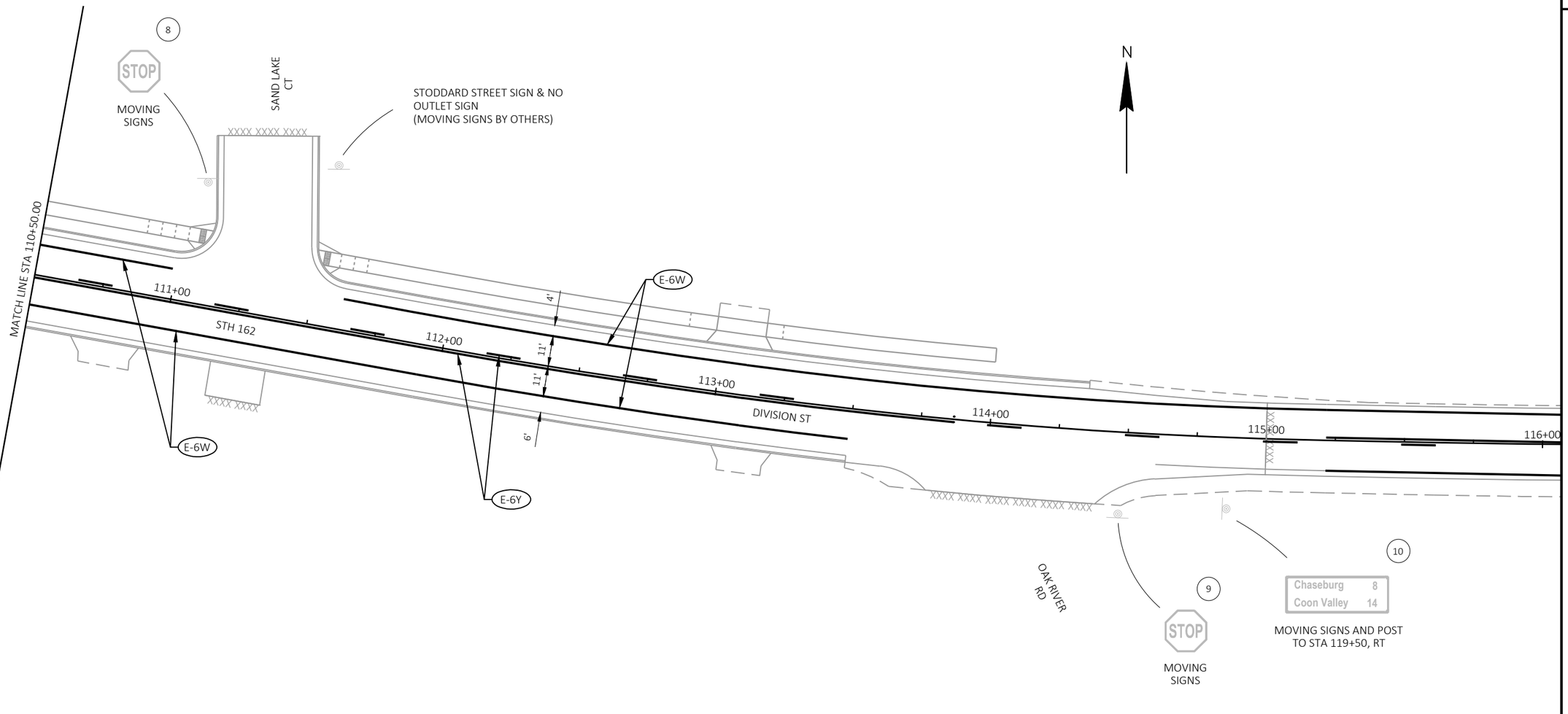
LEGEND

E-6Y MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)

E-6W MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PAVEMENT MARKING	SHEET 56	E

2



LEGEND

E-6Y	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)
E-6W	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)

NOTE:
ALL REMAINING PAVEMENT MARKING FOR PROJECT SHALL FOLLOW THE STANDARD DETAIL DRAWINGS.

Stoddard

BEGIN PROJECT 5865-02-64
STA 104+50.00

STODDARD RECONSTRUCTION AREA

SEE DETAIL SHEET FOR STODDARD RECONSTRUCTION AREA

SEE DETAIL SHEETS FOR STRUCTURE B-62-029 (OVERLAY)

SEE DETAIL SHEET FOR STRUCTURE C-62-335 (NEW BOX)

STRUCTURE C-62-335
STA 184+01.40

STRUCTURE B-62-029
STA 131+04.3 - STA 133+29.9

SHEET DETOUR PLAN (DETAIL A) FOR SIGN LAYOUT ALONG STH 35

PLACE AT LAST INTERSECTION PRIOR TO CLOSURE

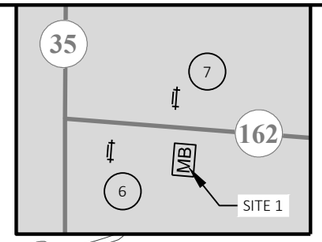
SEE DETAIL SHEET FOR STRUCTURE B-62-984 (OVERLAY/WINGWALLS) CLOSURE

STRUCTURE B-62-984
STA 431+26 - STA 431+80

END PROJECT 5865-02-64
STA 486+00.00

MATCH LINE (SEE BELOW)

Chaseburg



NOTES:

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

ALL SIGNS ARE 48"X48" UNLESS NOTED.

SITE 1 AND SITE 2 MESSAGE SIGNS ARE TO BE IN PLACE AND DISPLAYING THE "PRIOR TO CONSTRUCTION" MESSAGE FOR SEVEN DAYS PRIOR TO THE EXPECTED START OF WORK ON STH 162.

	7 DAYS PRIOR TO CONSTRUCTION	
PCMS SITE NO.	PHASE 1 (3 SEC)	PHASE 2 (3 SEC)
SITE 1 - STH 162 NB (WEST OF PROJECT LIMITS)	HWY 162 CLOSED	STARTING X/XX/XX
SITE 2 - STH 162 SB (EAST OF PROJECT LIMITS)	HWY 162 CLOSED	STARTING X/XX/XX

MATCH LINE (SEE ABOVE)

Coon Valley

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- MB — PORTABLE CHANGEABLE MESSAGE BOARD

1 — ROAD CLOSED AHEAD — W20-3A

1A — NORTH 162 (M3-1 24"X12", M1-6 24"X24") — ROAD CLOSED AHEAD — W20-3A

2 — ROAD CLOSED 1000 FT — W20-3C

3 — ROAD CLOSED 500 FT — W20-3D

5 — END ROAD WORK — G20-2A 48"X24"

6 — ROAD CLOSED TO THRU TRAFFIC — R11-4 60"X30"

7 — DETOUR — M4-9L 30"X24"

8 — BRIDGE OUT 1 1/4 MILES AHEAD — R11-3C 60"X24" — STRUCTURE C-62-335 (NEW BOX) ONLY

9 — BRIDGE OUT 1 1/2 MILES AHEAD — R11-3C 60"X24" — STRUCTURE B-62-984 (OVERLAY/WINGWALLS) ONLY

10 — BRIDGE OUT 5 MILES AHEAD — R11-3C 60"X24" — STRUCTURE C-62-335 (NEW BOX) ONLY
OR
BRIDGE OUT 1/2 MILES AHEAD — R11-3C 60"X24" — STRUCTURE B-62-984 (OVERLAY/WINGWALLS) ONLY

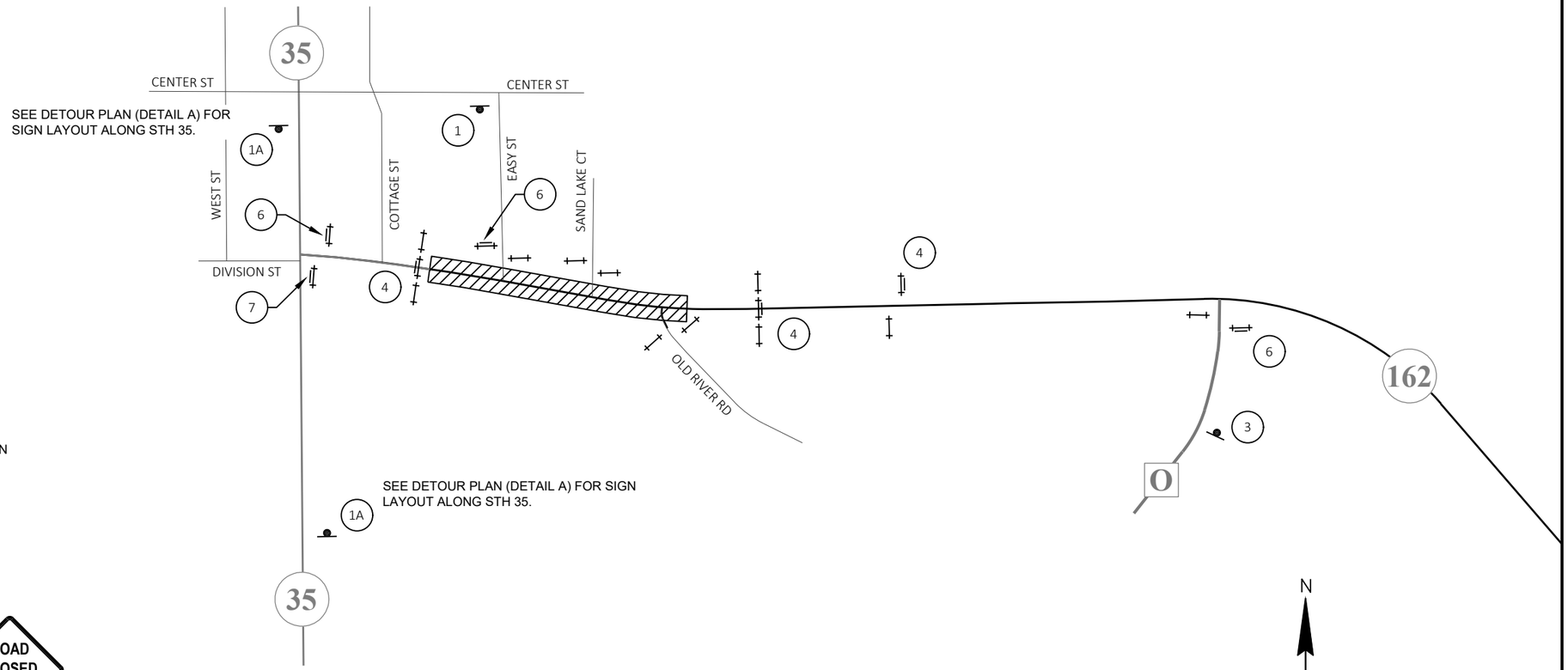
11 — ROAD CLOSED TO THRU TRAFFIC 5 MILES AHEAD — R11-3 60"X30"

12 — ROAD CLOSED TO THRU TRAFFIC 5 MILES AHEAD — R11-3 60"X30"

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	TRAFFIC CONTROL OVERVIEW	SHEET 58	E

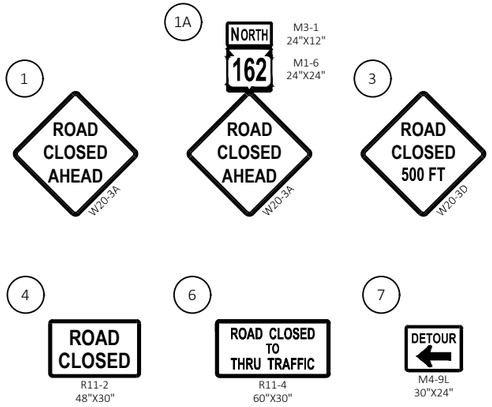
FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\025100_TC.DWG
LAYOUT NAME - 025100_tc
PLOT DATE : 4/24/2026 8:49 AM
PLOT BY : JEFF BREU
PLOT NAME :
PLOT SCALE : 1 IN:0.5 MI
WISDOT/CADDS SHEET 42

2



LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- WORK ZONE



NOTES:

SEE SDD 15C02-A AND 15C02-B FOR PLACEMENT OF BARRICADES AND SIGNS ON POSTED DETOUR.

ALL SIGNS ARE 48"X48: UNLESS NOTED.

2

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- WORK ZONE

1A — NORTH 162 — M3-1 24"X12" / M1-6 24"X24"

1 — ROAD CLOSED AHEAD — W20-3A

3 — ROAD CLOSED 500 FT — W20-3D

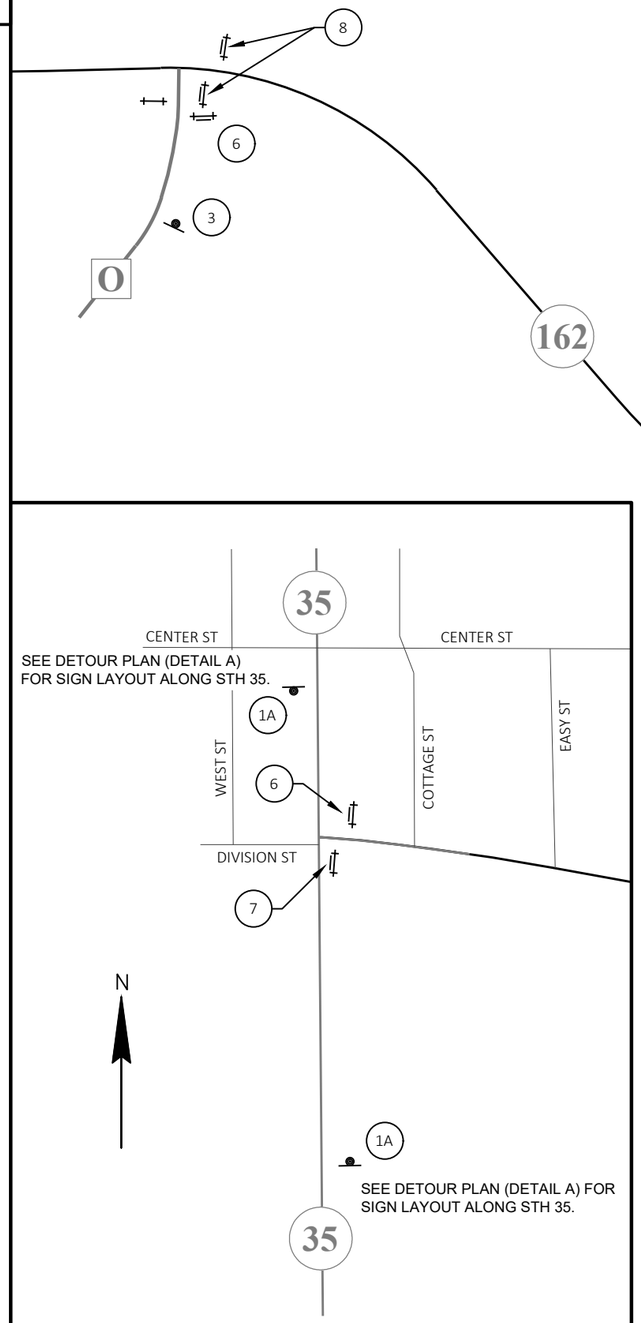
4 — BRIDGE OUT — R11-2B 48"X30"

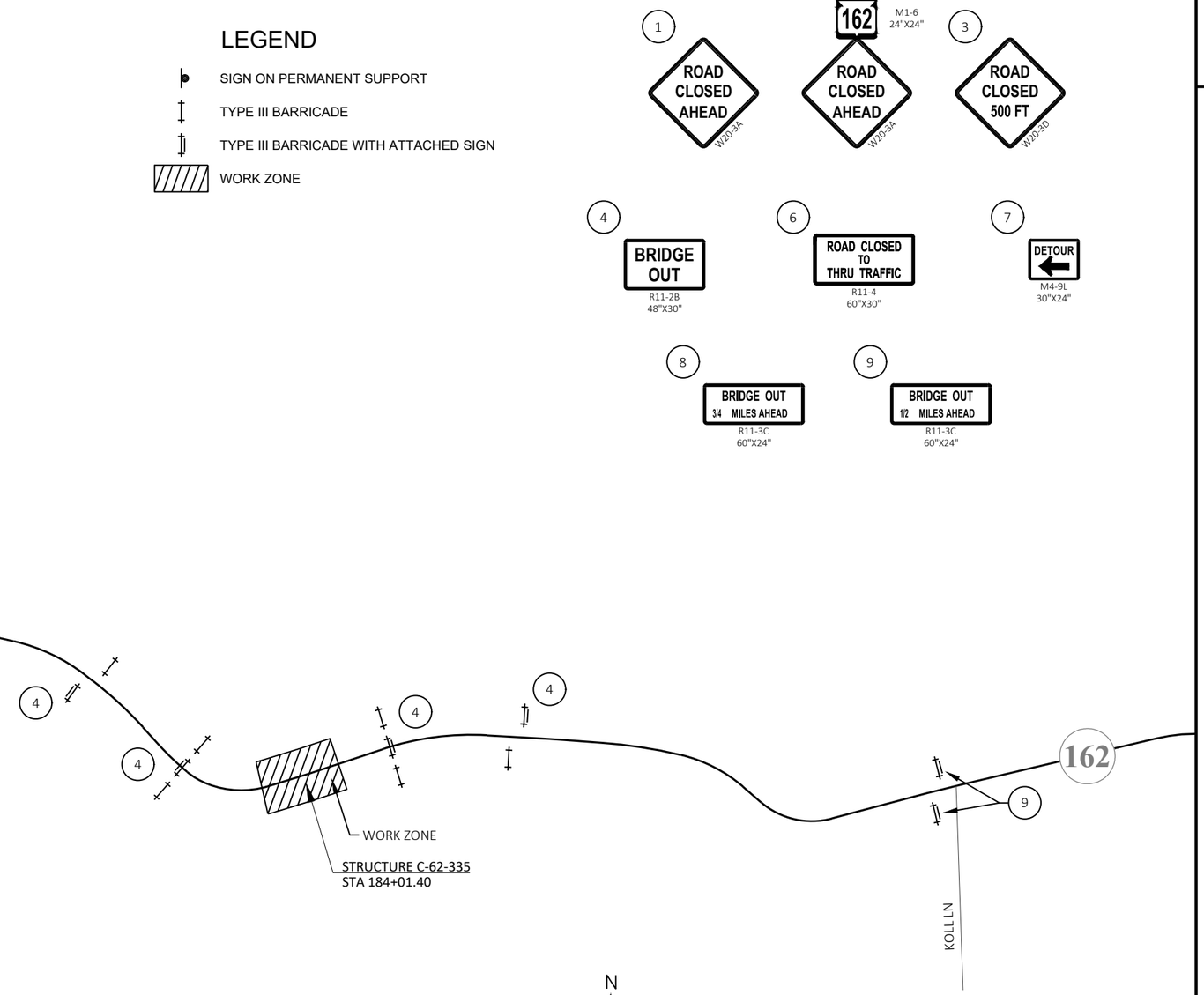
6 — ROAD CLOSED TO THRU TRAFFIC — R11-4 60"X30"

7 — DETOUR — M4-9L 30"X24"

8 — BRIDGE OUT 3/4 MILES AHEAD — R11-3C 60"X24"

9 — BRIDGE OUT 1/2 MILES AHEAD — R11-3C 60"X24"





NOTES:

ROAD CLOSURE FOR THIS SECTION OF STH 162 TO BE USED ONLY DURING THE CONSTRUCTION OF STRUCTURE C-62-335 (BOX CULVERT). ROAD TO BE REOPEN AFTER CONSTRUCT HAS BEEN COMPLETED.

SEE SDD 15C02-A AND 15C02-B FOR PLACEMENT OF BARRICADES AND SIGNS ON POSTED DETOUR.

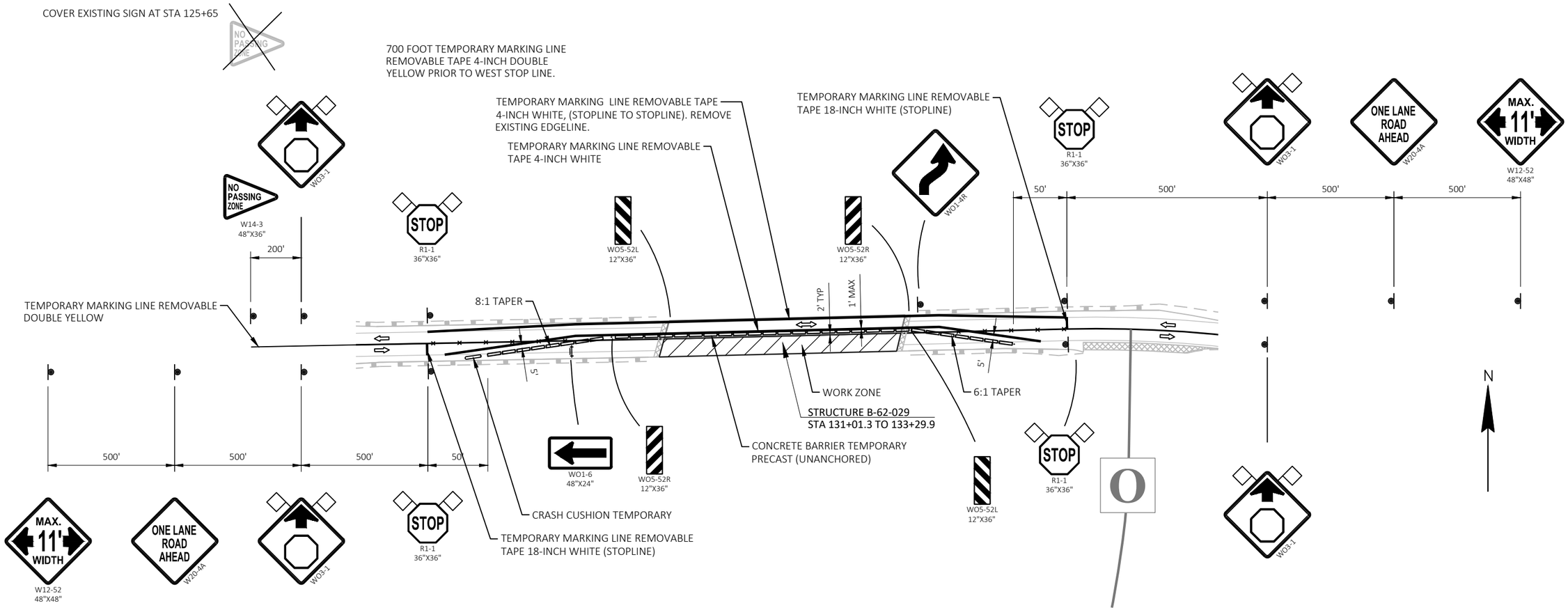
ALL SIGNS ARE 48"X48: UNLESS NOTED.

SEE TRAFFIC CONTROL OVERVIEW SHEET FOR LOCATIONS OF ALL R11-3 SIGN EAST OF KOLL LN.

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	TRAFFIC CONTROL STRUCTURE C-62-335 (NEW BOX)	SHEET 60	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\025102_TC.DWG
LAYOUT NAME - 02
PLOT DATE : 4/24/2026 8:51 AM
PLOT BY : JEFF BREU
PLOT NAME :
PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 42

2



LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGS, 16" X 16" MIN (ORANGE)
- REMOVE PAVEMENT MARKING
- DIRECTION TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHION TEMPORARY
- WORK ZONE

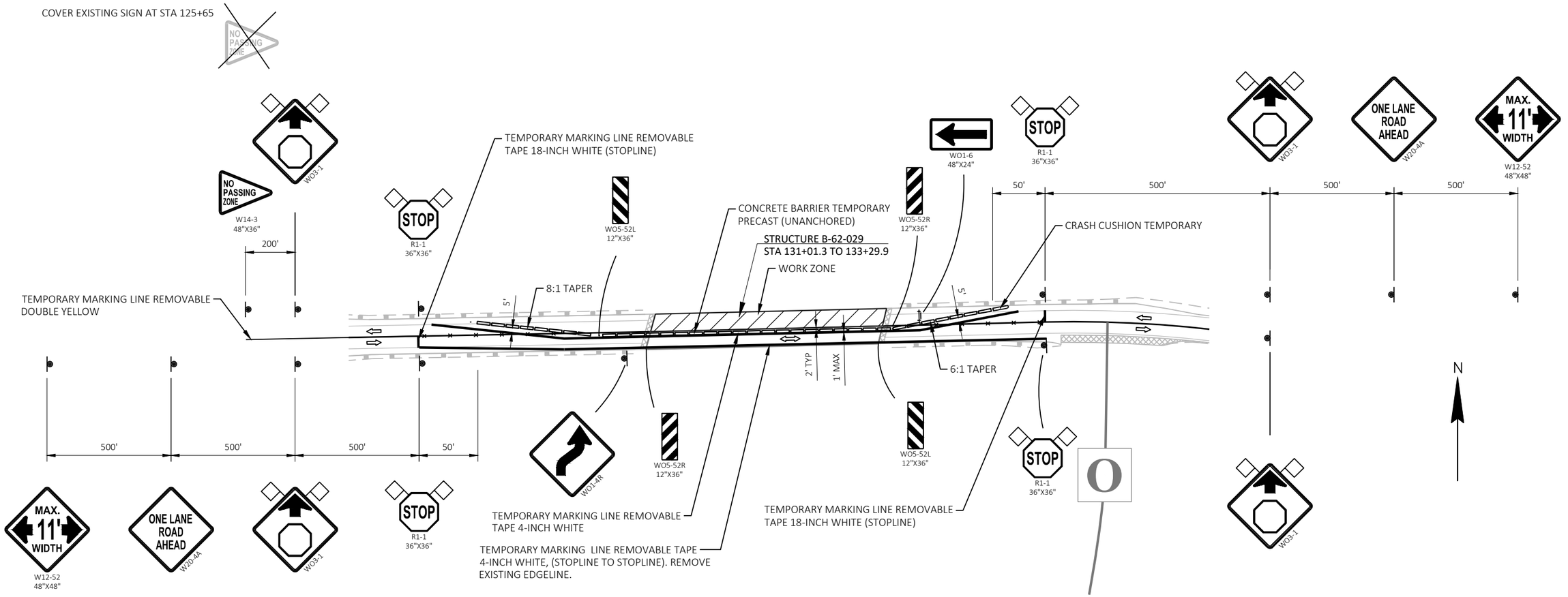
NOTES:

SEE SDD 15D32 FOR PLACEMENT FOR MORE INFORMATION.

ALL SIGNS ARE 48"X48: UNLESS NOTED.

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	TRAFFIC CONTROL STRUCTURE B-62-029 (OVERLAY) STAGE 1	SHEET 61	E

2



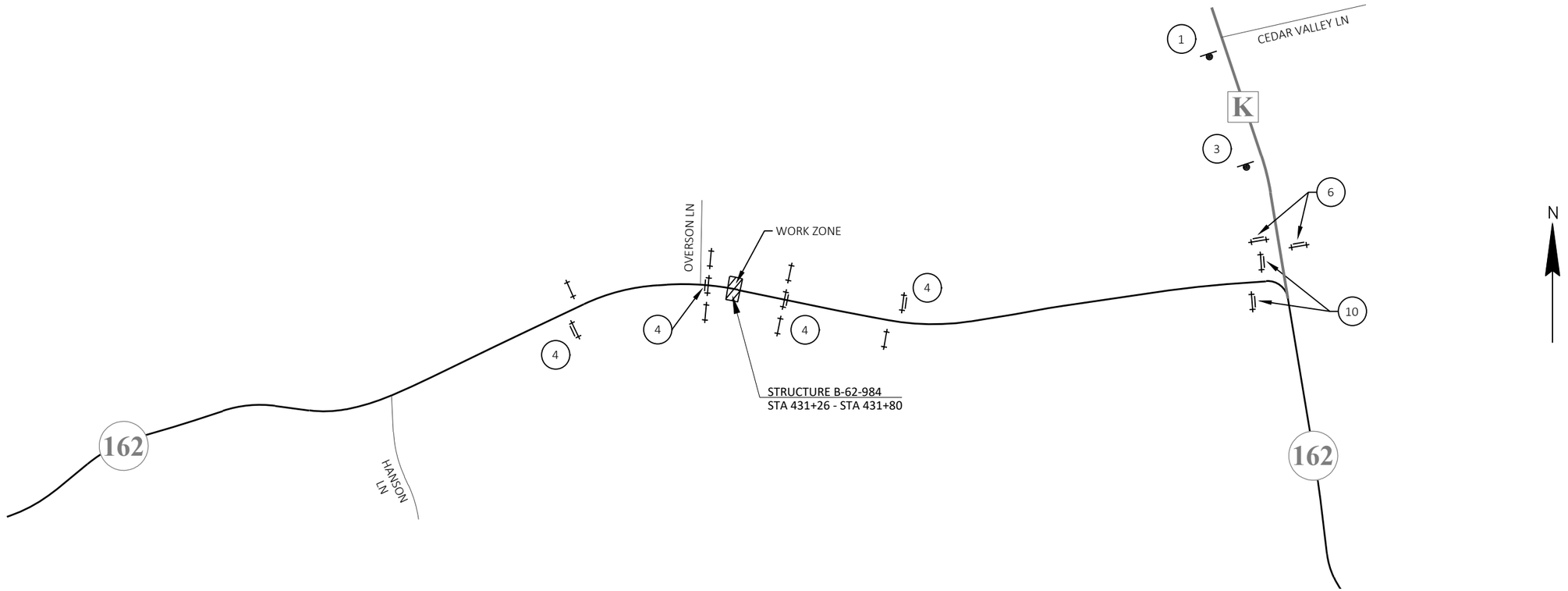
LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGS, 16" X 16" MIN (ORANGE)
- REMOVE PAVEMENT MARKING
- DIRECTION TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHION TEMPORARY
- WORK ZONE

NOTES:

SEE SDD 15D32FOR PLACEMENT FOR MORE INFORMATION.

ALL SIGNS ARE 48"X48: UNLESS NOTED.



NOTES:

ROAD CLOSURE FOR THIS SECTION OF STH 162 TO BE USED ONLY DURING THE OVERLAY AND WINGWALL CONSTRUCTION OF STRUCTURE B-62-984. ROAD TO BE REOPEN AFTER CONSTRUCT HAS BEEN COMPLETED.

SEE SDD 15C02-A AND 15C02-B FOR PLACEMENT OF BARRICADES AND SIGNS ON POSTED DETOUR.

ALL SIGNS ARE 48"X48: UNLESS NOTED.

SEE TRAFFIC CONTROL OVERVIEW SHEET FOR REMAIN LOCATIONS OF ALL R11-3 SIGN NOT SHOWN ON DETAIL SHEET.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- WORK ZONE

1

3

4

R11-2B
48"X30"

6

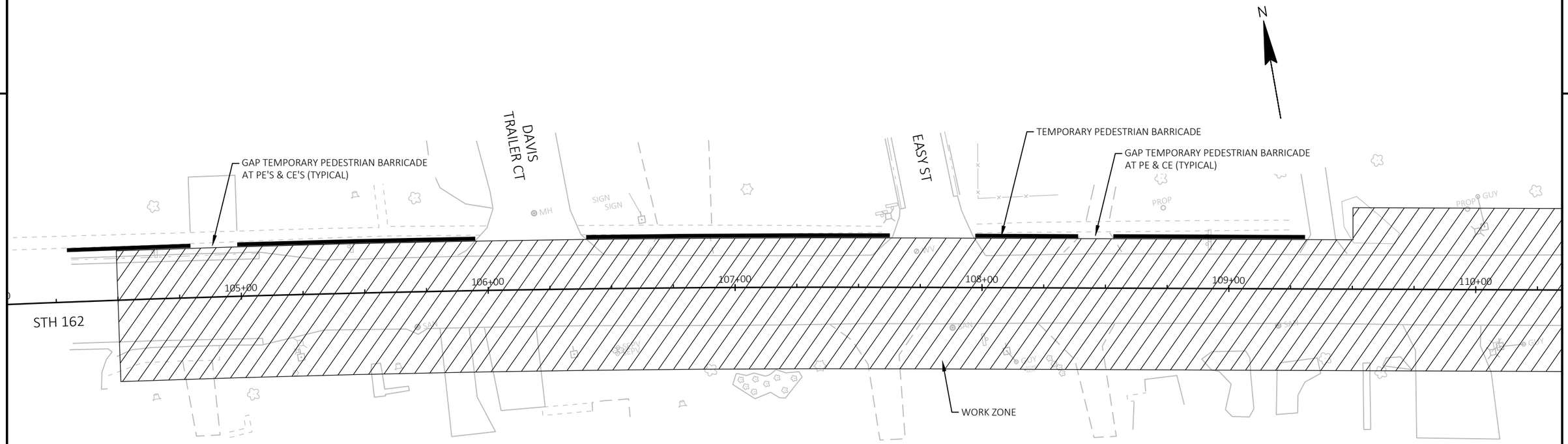
R11-4
60"X30"

10

R11-3C
60"X24"

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	TRAFFIC CONTROL STRUCTURE B-62-984 (OVERLAY/WINGWALLS)	SHEET 63	E

2



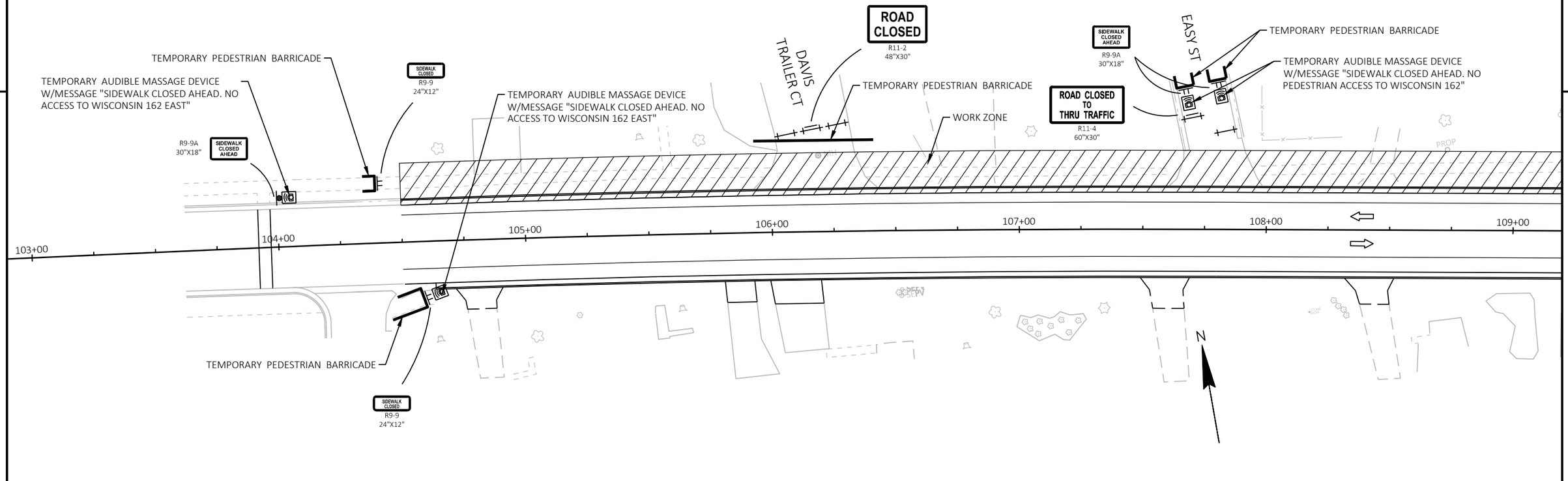
LEGEND

TEMPORARY PEDESTRIAN BARRICADE

WORK AREA

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	TRAFFIC CONTROL PEDESTRIAN ACCOMMODATIONS (STODDARD) STAGE 1	SHEET 64	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\025110_TC.DWG
LAYOUT NAME - 01
PLOT DATE : 4/24/2026 8:55 AM
PLOT BY : JEFF BREU
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

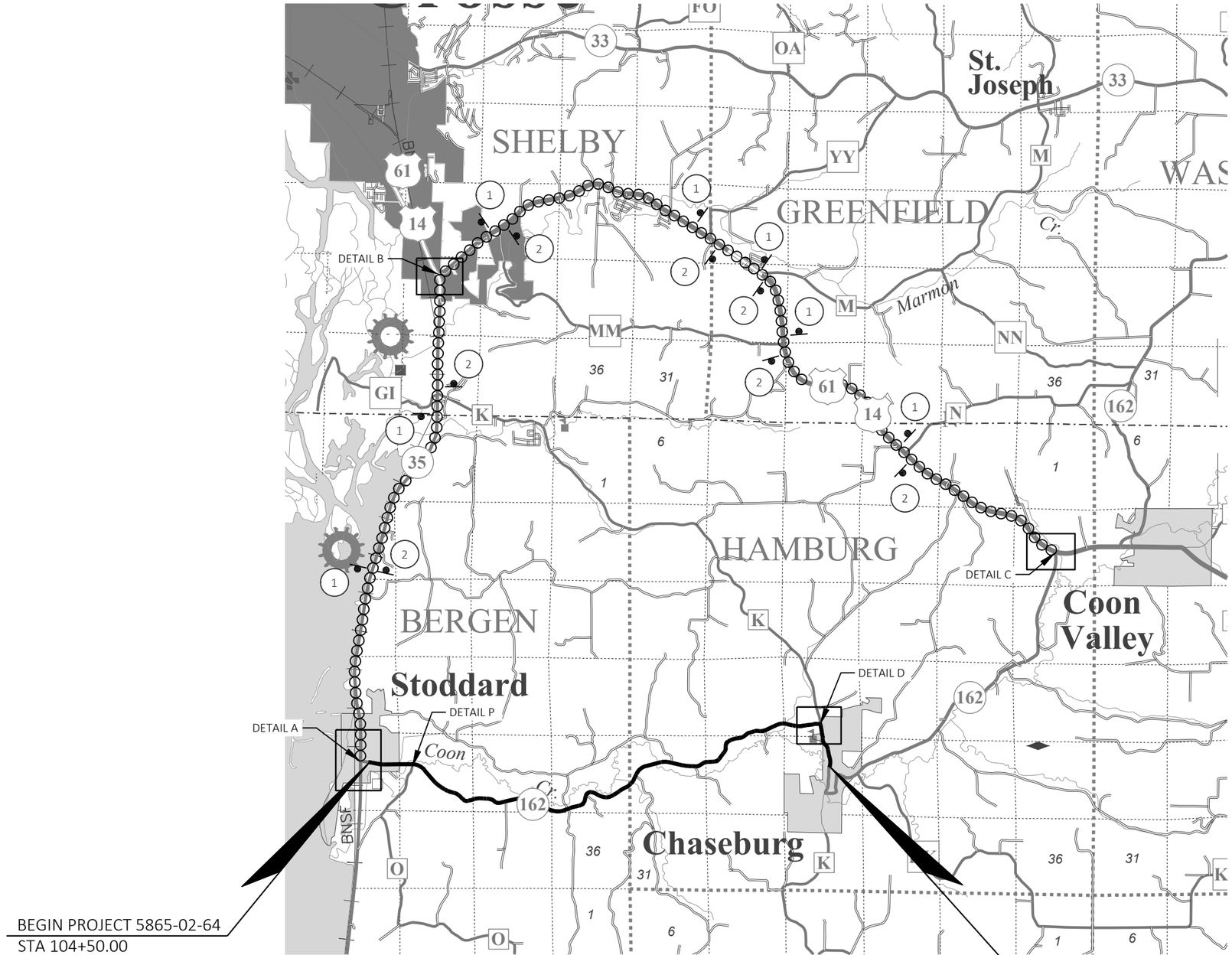


LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)
- DIRECTION OF TRAFFIC
- WORK AREA

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	TRAFFIC CONTROL PEDESTRIAN ACCOMMODATIONS (STODDARD) STAGE 2	SHEET 65	E

2



BEGIN PROJECT 5865-02-64
STA 104+50.00

END PROJECT 5865-02-64
STA 486+00.00

N

NOTES:

DETOUR SIGNING TO BE IN PLACE FOR THE LENGTH OF THE PROJECT.

LEGEND

DETOUR ROUTE

PROPOSED SIGN

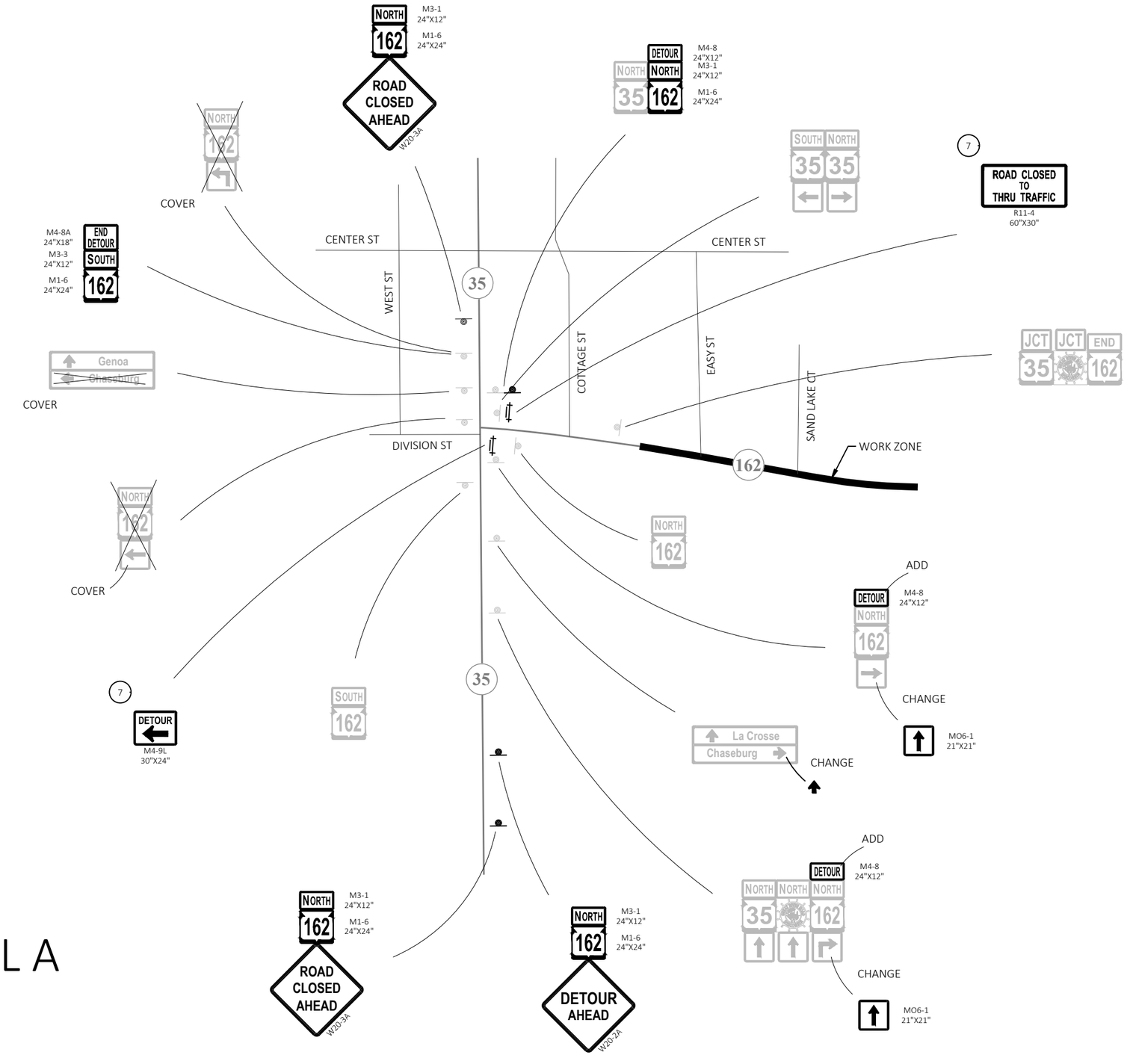
1 — DETOUR SOUTH 162 — M4-8 24"X12", M3-3 24"X12", M1-6 24"X24"

2 — DETOUR NORTH 162 — M4-8 24"X12", M3-1 24"X12", M1-6 24"X24"

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	DETOUR OVERVIEW	SHEET 66	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - 027001_dt
PLOT DATE : 4/24/2026 8:56 AM
PLOT BY : JEFF BREU
PLOT NAME :
PLOT SCALE : 1 IN:1.5 MI
WISDOT/CADDS SHEET 42

2



DETAIL A

NOTES:

DETOUR SIGNING TO BE IN PLACE FOR THE LENGTH OF THE PROJECT.

CHANGE SIGNS PAID FOR AS TRAFFIC CONTROL SIGNS.

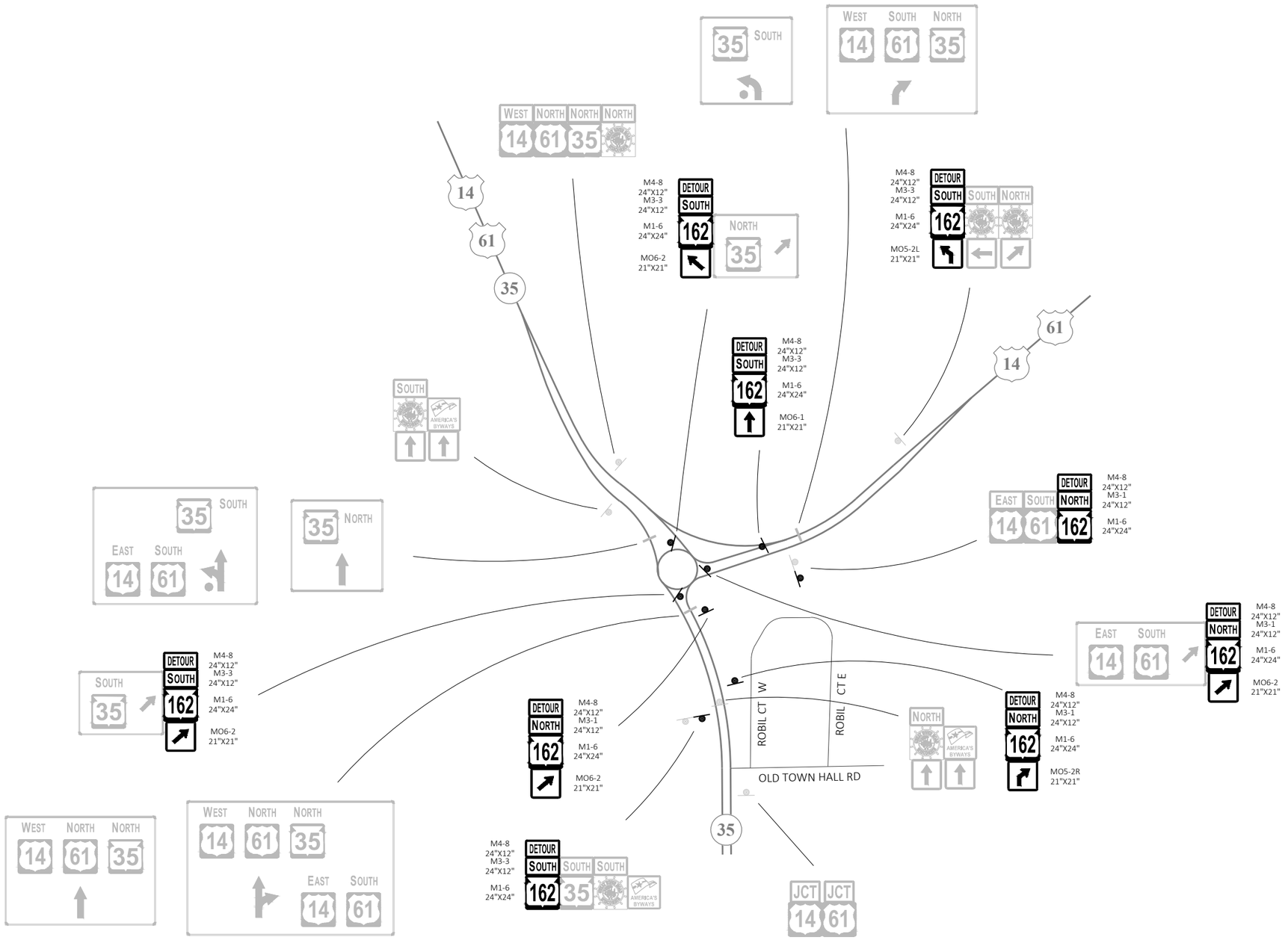
ALL SIGNS ARE 48"X48" UNLESS NOTED.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- EXISTING SIGN
- PROPOSED SIGN

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	DETOUR PLAN	SHEET 67	E

2



DETAIL B

NOTES:

DETOUR SIGNING TO BE IN PLACE FOR THE LENGTH OF THE PROJECT.

CHANGE SIGNS PAID FOR AS TRAFFIC CONTROL SIGNS.

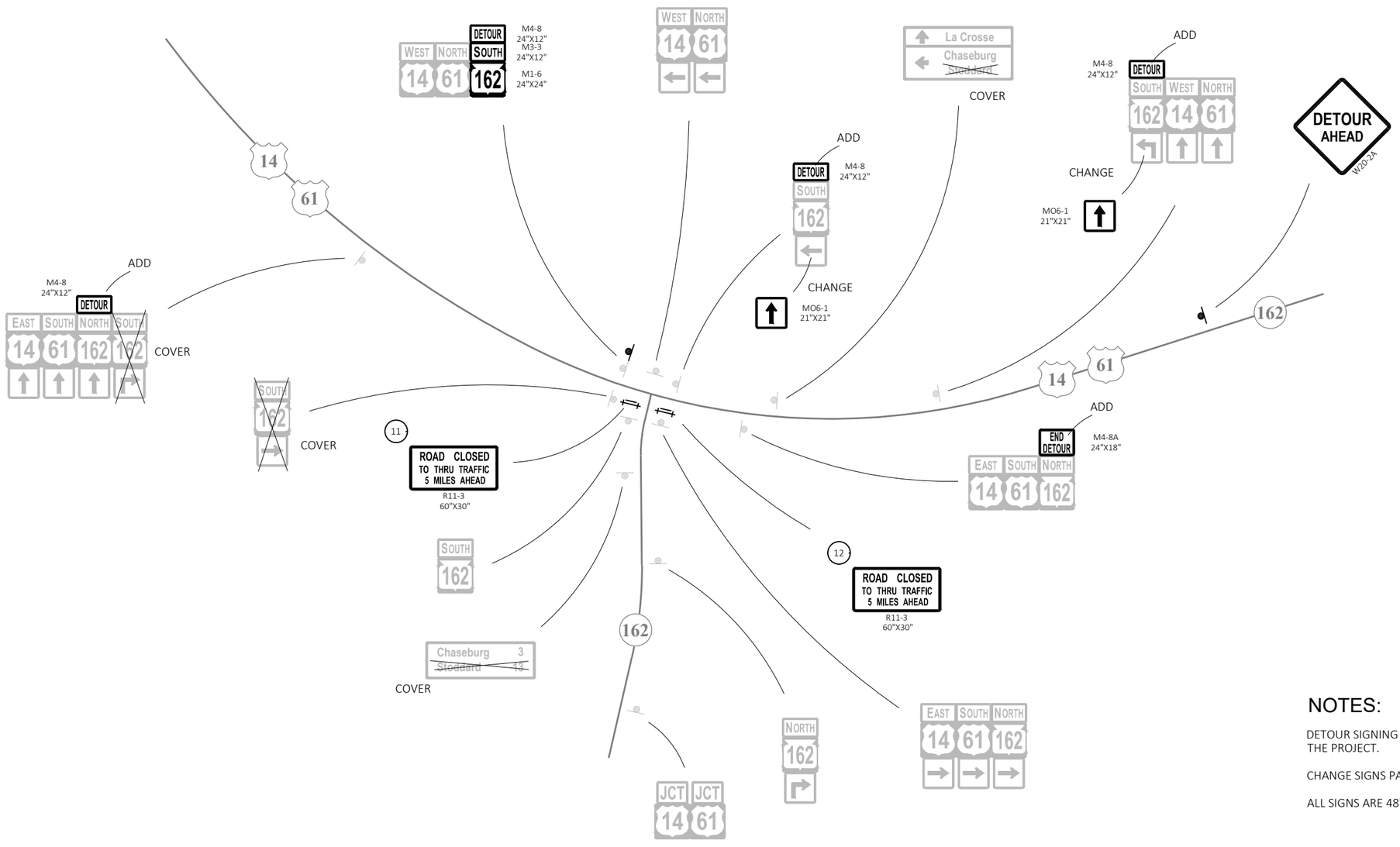
ALL SIGNS ARE 48"X48" UNLESS NOTED.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- EXISTING SIGN
- PROPOSED SIGN

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	DETOUR PLAN	SHEET 68	E

2



DETAIL C

NOTES:

DETOUR SIGNING TO BE IN PLACE FOR THE LENGTH OF THE PROJECT.

CHANGE SIGNS PAID FOR AS TRAFFIC CONTROL SIGNS.

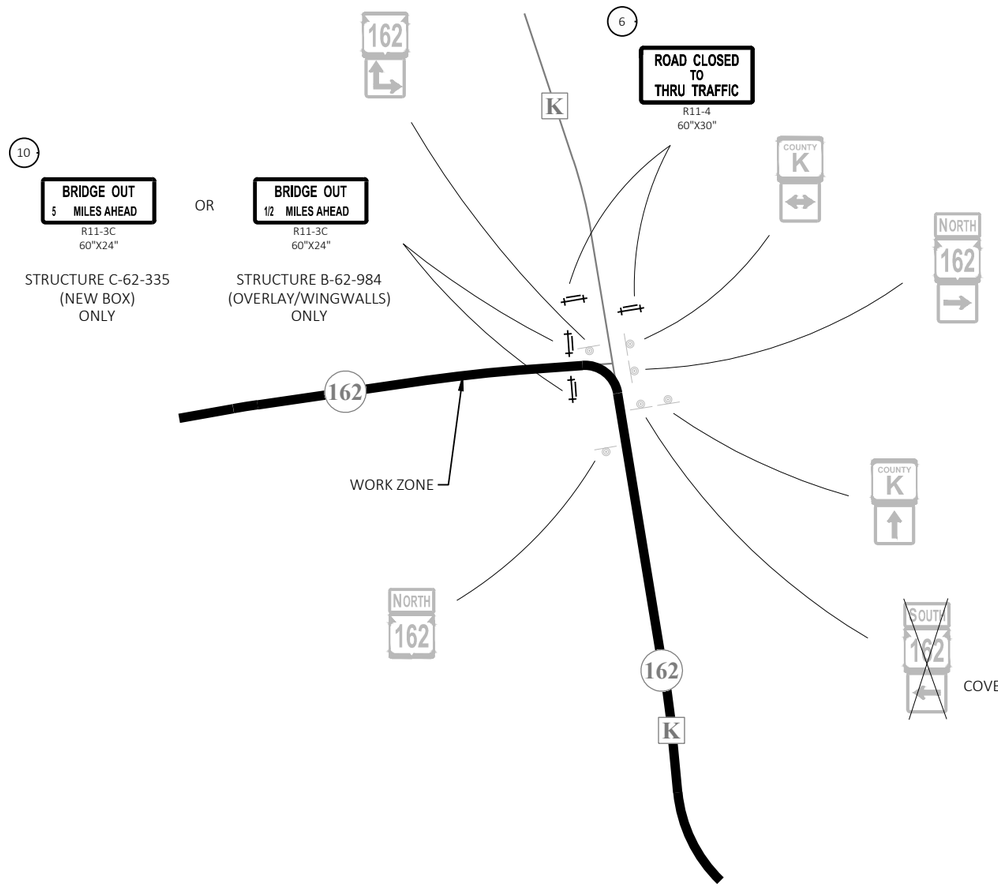
ALL SIGNS ARE 48"X48" UNLESS NOTED.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- EXISTING SIGN
- PROPOSED SIGN

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	DETOUR PLAN	SHEET 69	E

2



N

DETAIL D

NOTES:

DETOUR SIGNING TO BE IN PLACE FOR THE LENGTH OF THE PROJECT.

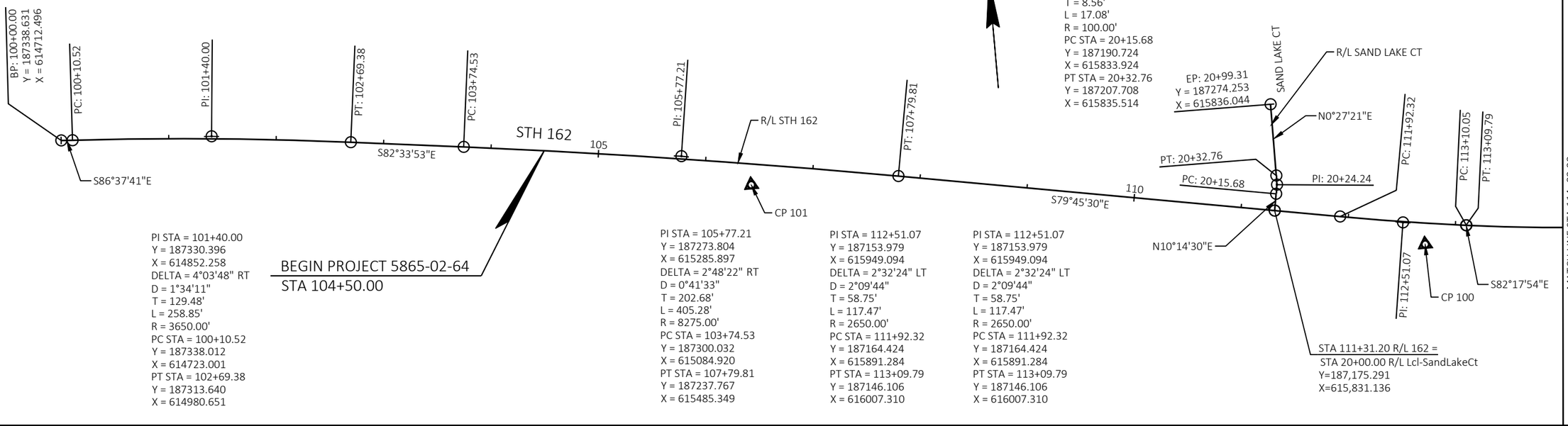
CHANGE SIGNS PAID FOR AS TRAFFIC CONTROL SIGNS.

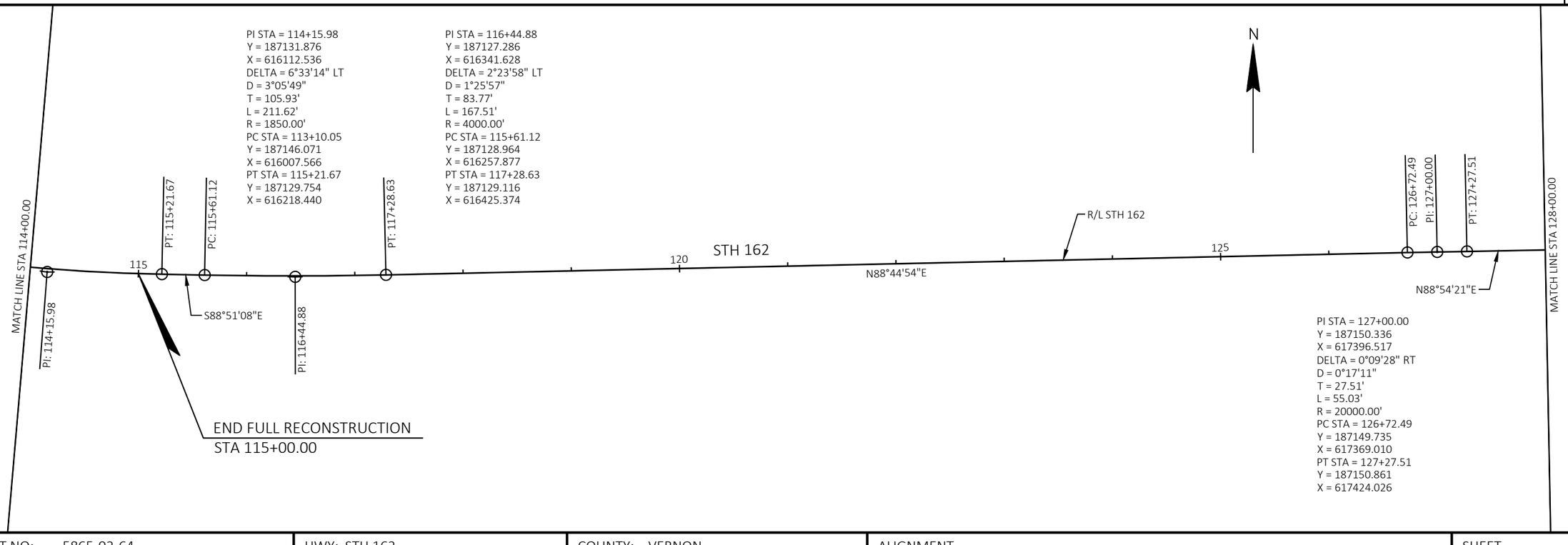
ALL SIGNS ARE 48"X48" UNLESS NOTED.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- EXISTING SIGN
- PROPOSED SIGN

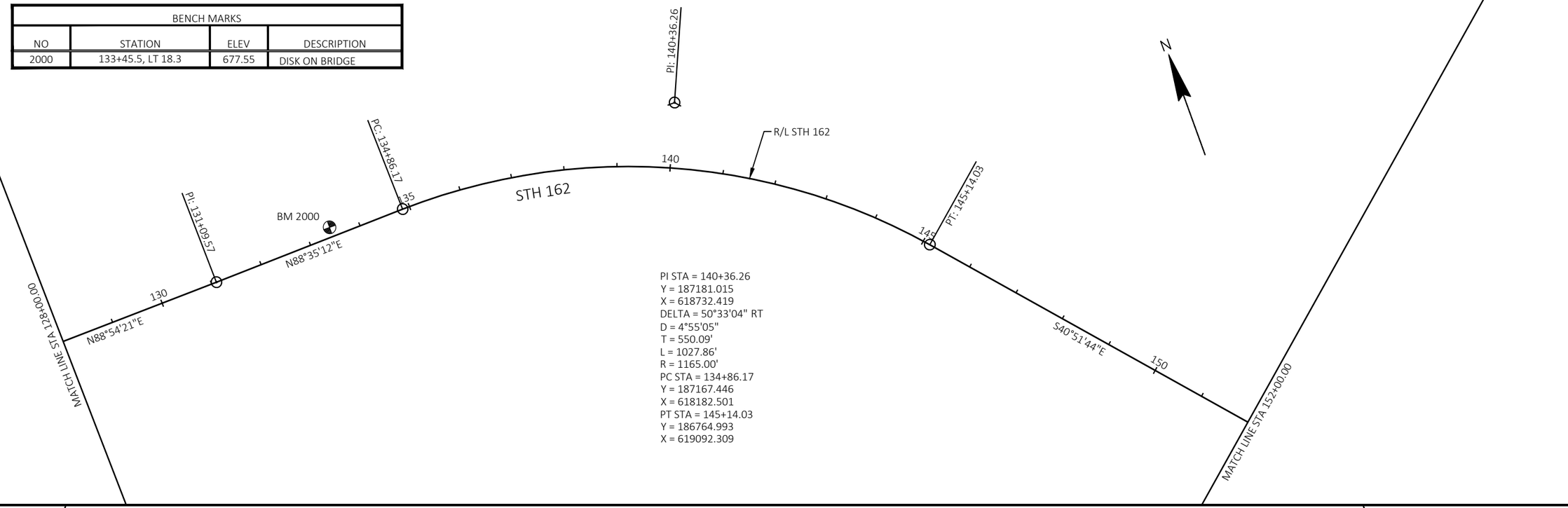
CONTROL POINTS				
NO	Y	X	ELEV	DESCRIPTION
100	615967.88	187131.92	662.56	3/4" REBAR
101	615348.31	187241.66	665.32	3/4" REBAR

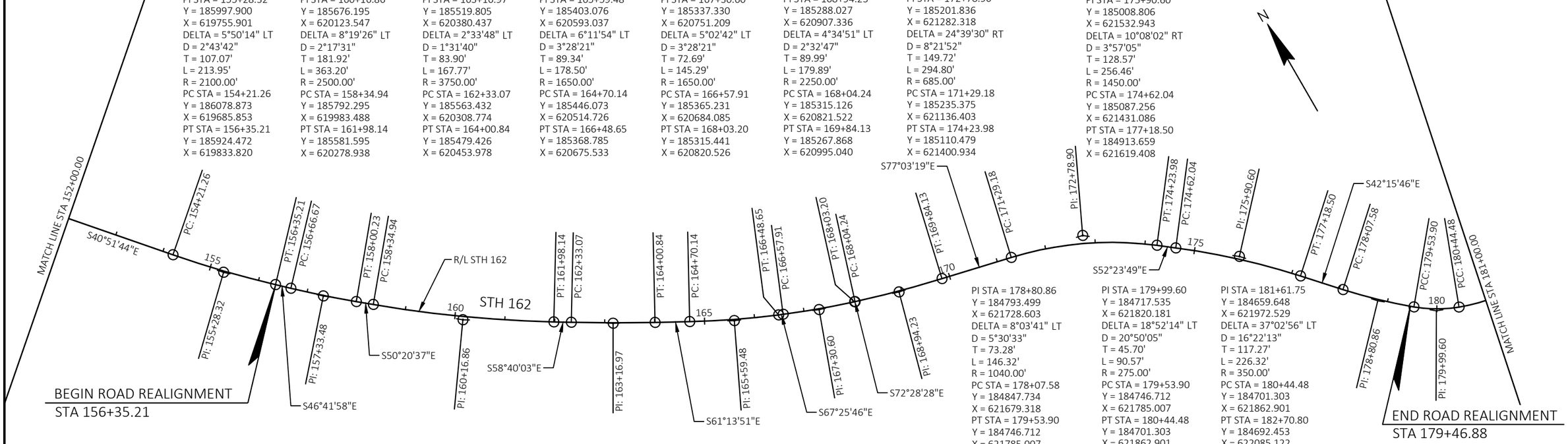




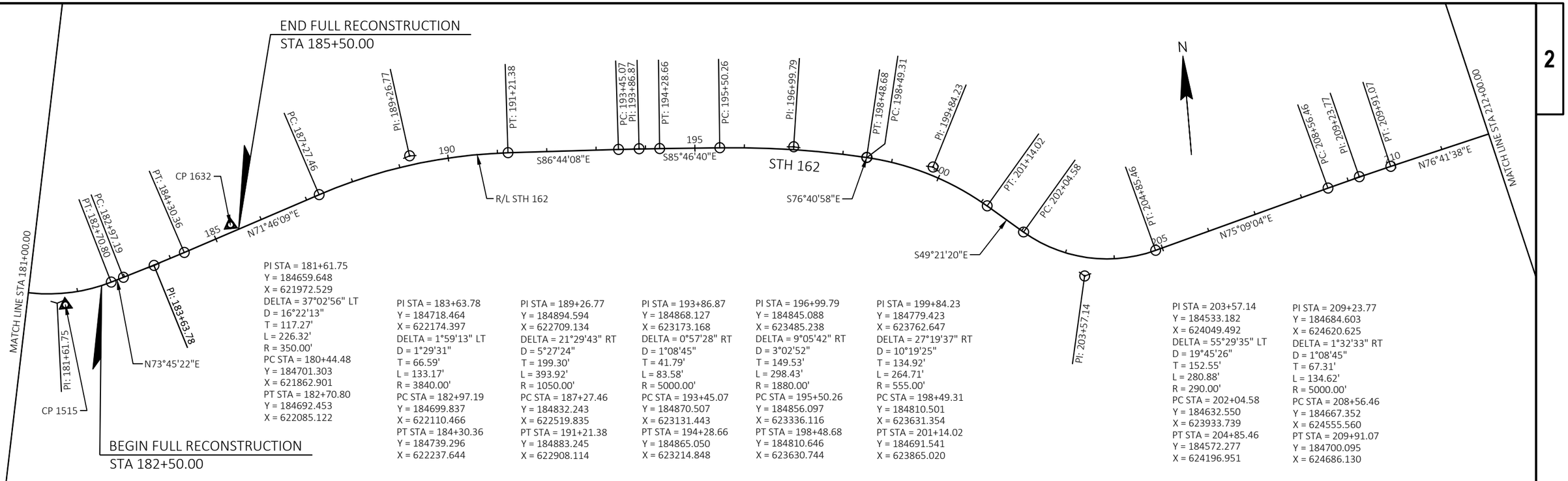
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	ALIGNMENT	SHEET 71	E

BENCH MARKS			
NO	STATION	ELEV	DESCRIPTION
2000	133+45.5, LT 18.3	677.55	DISK ON BRIDGE

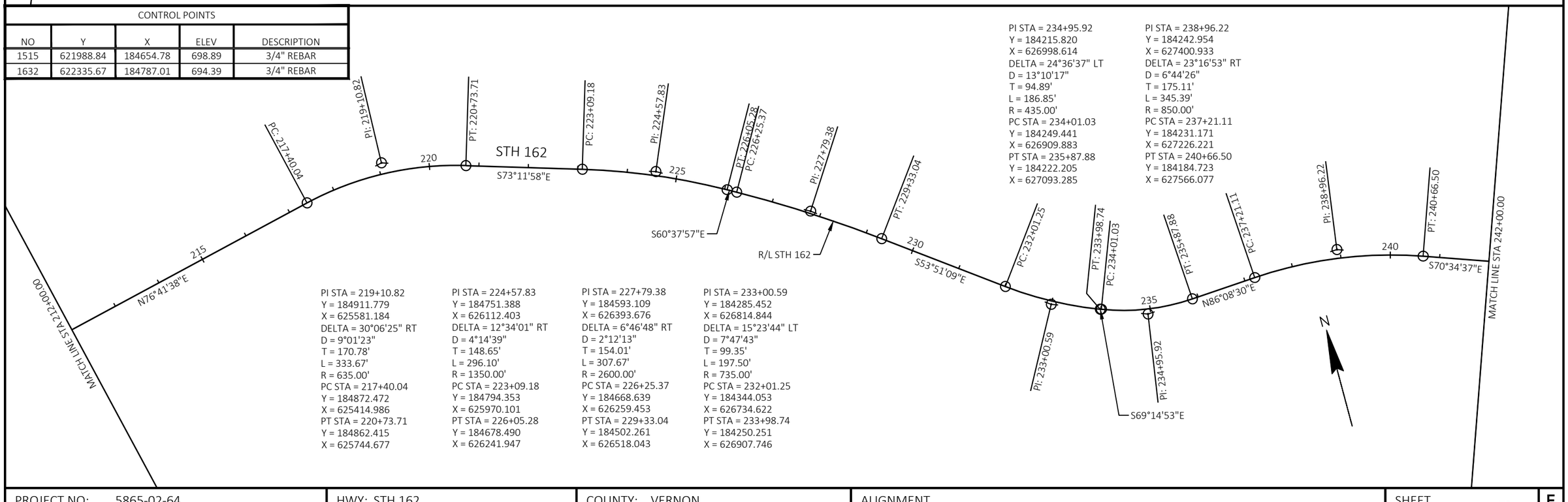




PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	ALIGNMENT	SHEET 72	E

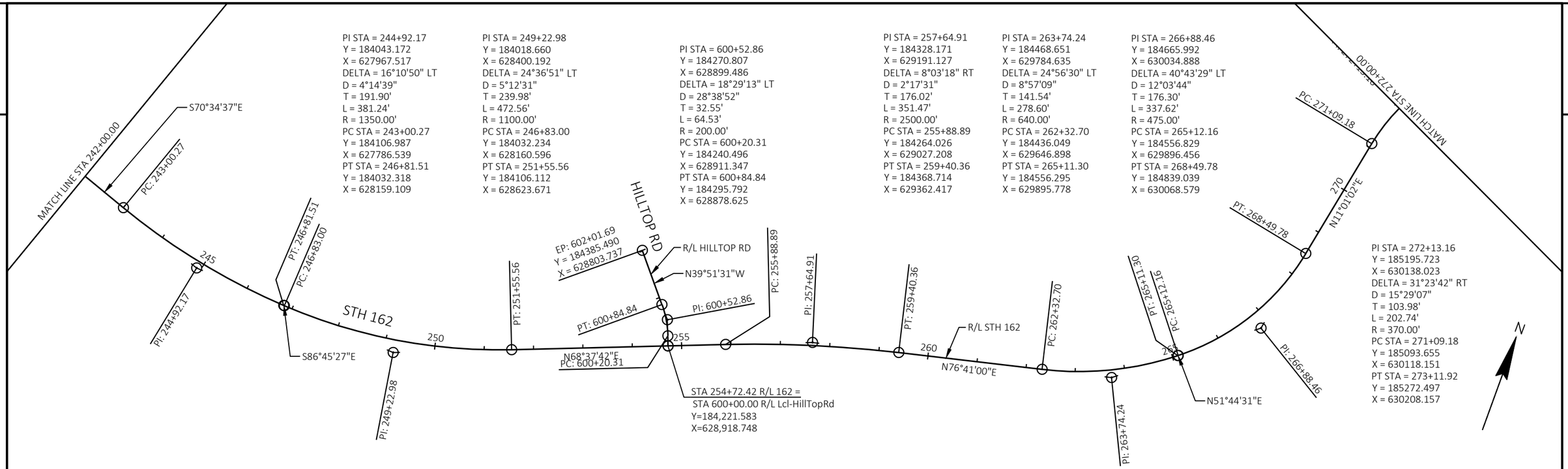


CONTROL POINTS				
NO	Y	X	ELEV	DESCRIPTION
1515	621988.84	184654.78	698.89	3/4" REBAR
1632	622335.67	184787.01	694.39	3/4" REBAR



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	ALIGNMENT	SHEET 73	E

2



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	ALIGNMENT	SHEET 74	E

CONTROL POINTS				
NO	Y	X	ELEV	DESCRIPTION
2040	633739.72	186780.25	698.96	3/4" REBAR

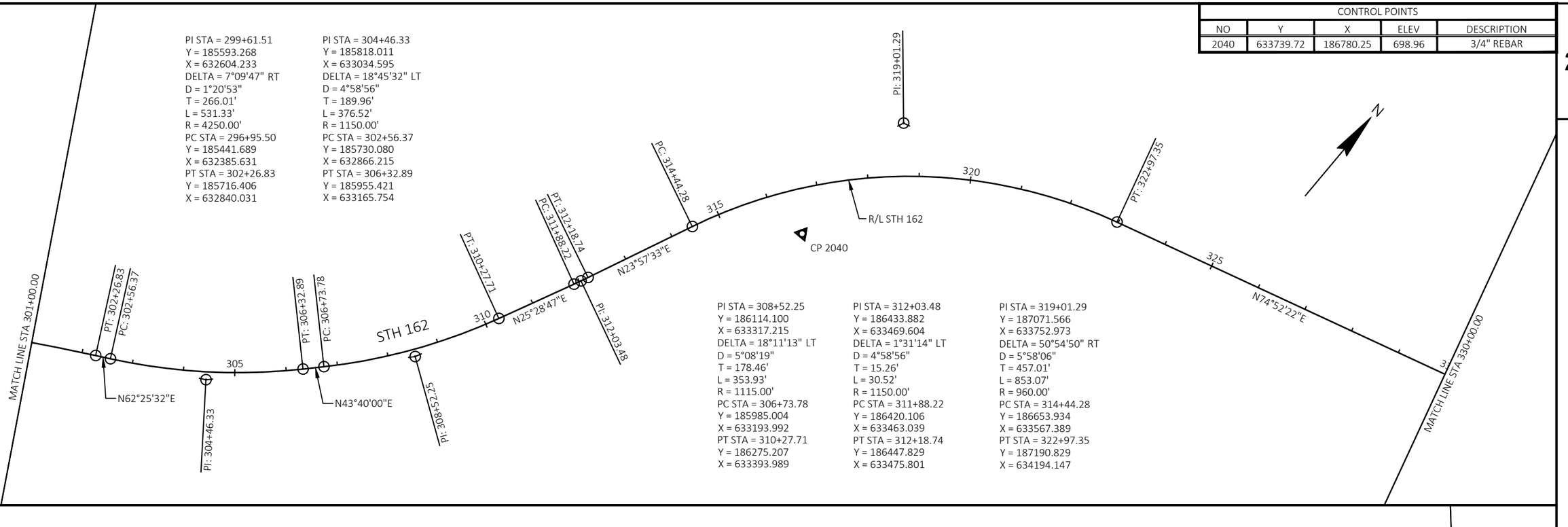
PI STA = 299+61.51
Y = 185593.268
X = 632604.233
DELTA = 7°09'47" RT
D = 1°20'53"
T = 266.01'
L = 531.33'
R = 4250.00'
PC STA = 296+95.50
Y = 185441.689
X = 632385.631
PT STA = 302+26.83
Y = 185716.406
X = 632840.031

PI STA = 304+46.33
Y = 185818.011
X = 633034.595
DELTA = 18°45'32" LT
D = 4°58'56"
T = 189.96'
L = 376.52'
R = 1150.00'
PC STA = 302+56.37
Y = 185730.080
X = 632866.215
PT STA = 306+32.89
Y = 185955.421
X = 633165.754

PI STA = 308+52.25
Y = 186114.100
X = 633317.215
DELTA = 18°11'13" LT
D = 5°08'19"
T = 178.46'
L = 353.93'
R = 1115.00'
PC STA = 306+73.78
Y = 185985.004
X = 633193.992
PT STA = 310+27.71
Y = 186275.207
X = 633393.989

PI STA = 312+03.48
Y = 186433.882
X = 633469.604
DELTA = 1°31'14" LT
D = 4°58'56"
T = 15.26'
L = 30.52'
R = 1150.00'
PC STA = 311+88.22
Y = 186420.106
X = 633463.039
PT STA = 312+18.74
Y = 186447.829
X = 633475.801

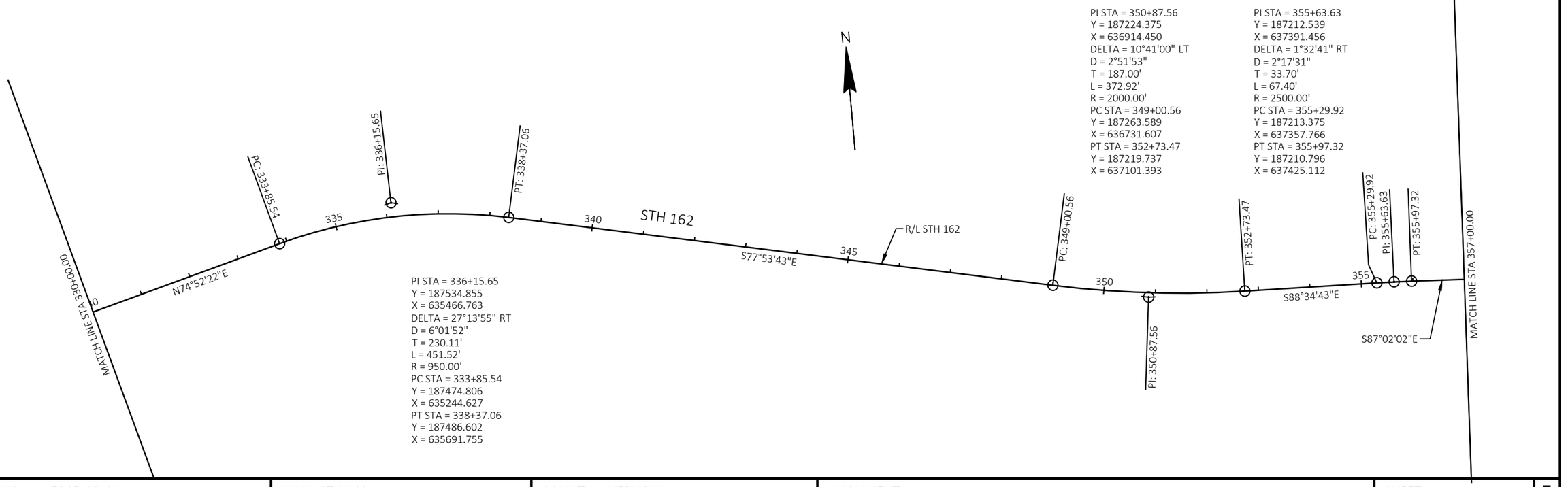
PI STA = 319+01.29
Y = 187071.566
X = 633752.973
DELTA = 50°54'50" RT
D = 5°58'06"
T = 457.01'
L = 853.07'
R = 960.00'
PC STA = 314+44.28
Y = 186653.934
X = 633567.389
PT STA = 322+97.35
Y = 187190.829
X = 634194.147



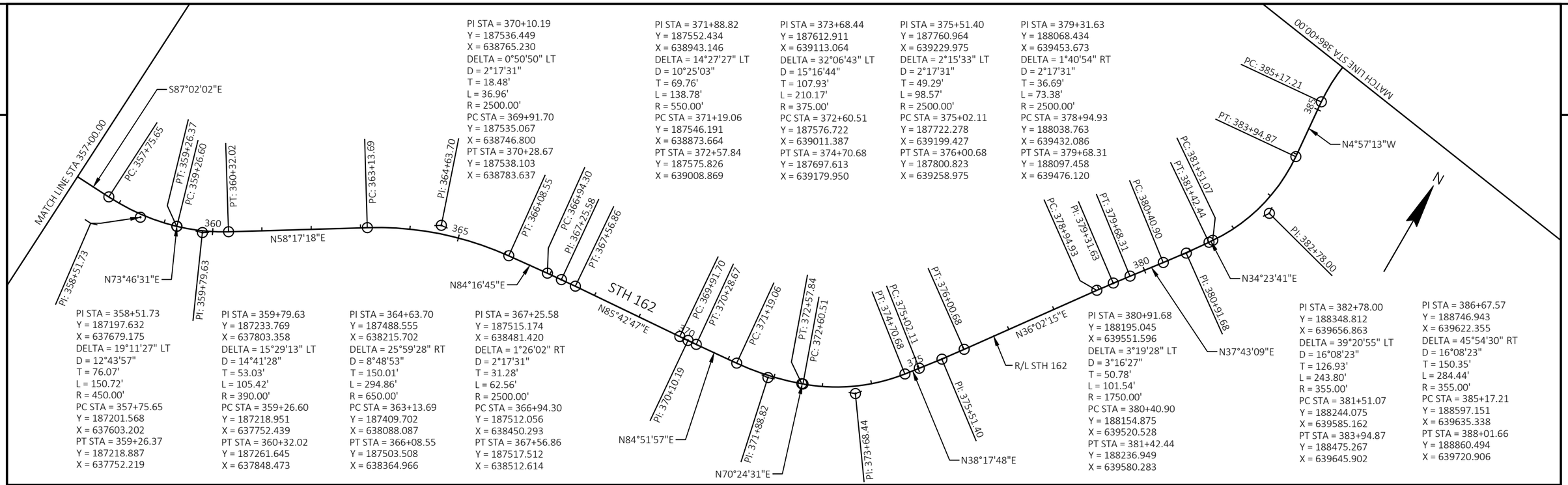
PI STA = 336+15.65
Y = 187534.855
X = 635466.763
DELTA = 27°13'55" RT
D = 6°01'52"
T = 230.11'
L = 451.52'
R = 950.00'
PC STA = 333+85.54
Y = 187474.806
X = 635244.627
PT STA = 338+37.06
Y = 187486.602
X = 635691.755

PI STA = 350+87.56
Y = 187224.375
X = 636914.450
DELTA = 10°41'00" LT
D = 2°51'53"
T = 187.00'
L = 372.92'
R = 2000.00'
PC STA = 349+00.56
Y = 187263.589
X = 636731.607
PT STA = 352+73.47
Y = 187219.737
X = 637101.393

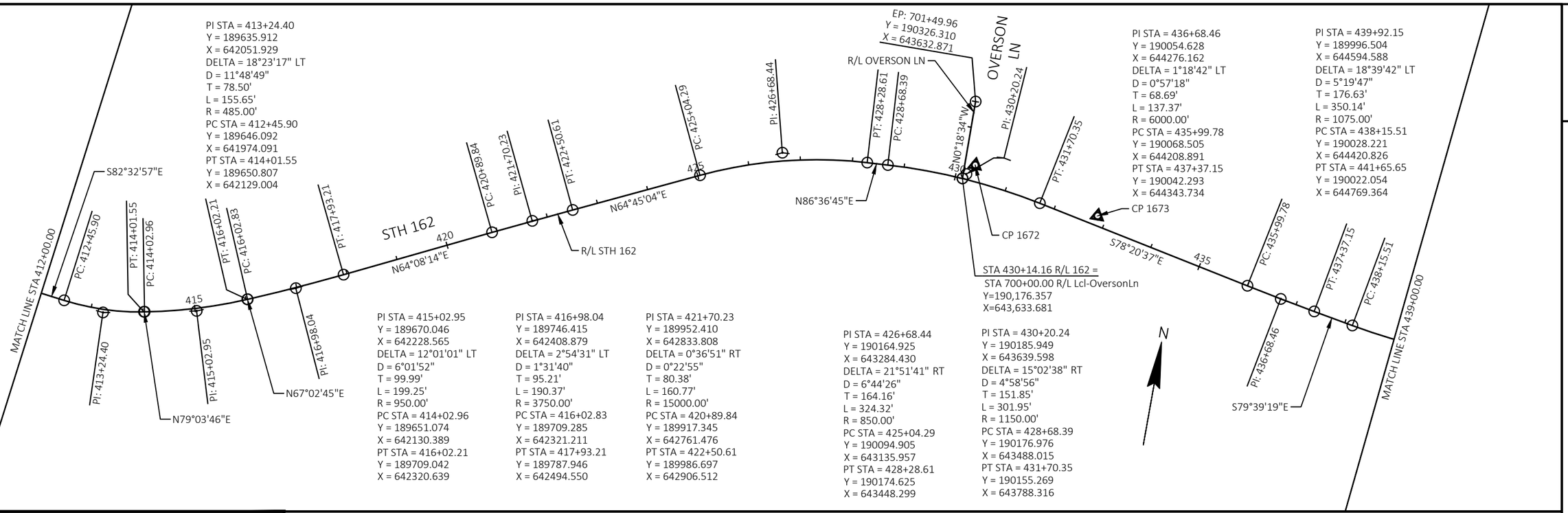
PI STA = 355+63.63
Y = 187212.539
X = 637391.456
DELTA = 1°32'41" RT
D = 2°17'31"
T = 33.70'
L = 67.40'
R = 2500.00'
PC STA = 355+29.92
Y = 187213.375
X = 637357.766
PT STA = 355+97.32
Y = 187210.796
X = 637425.112



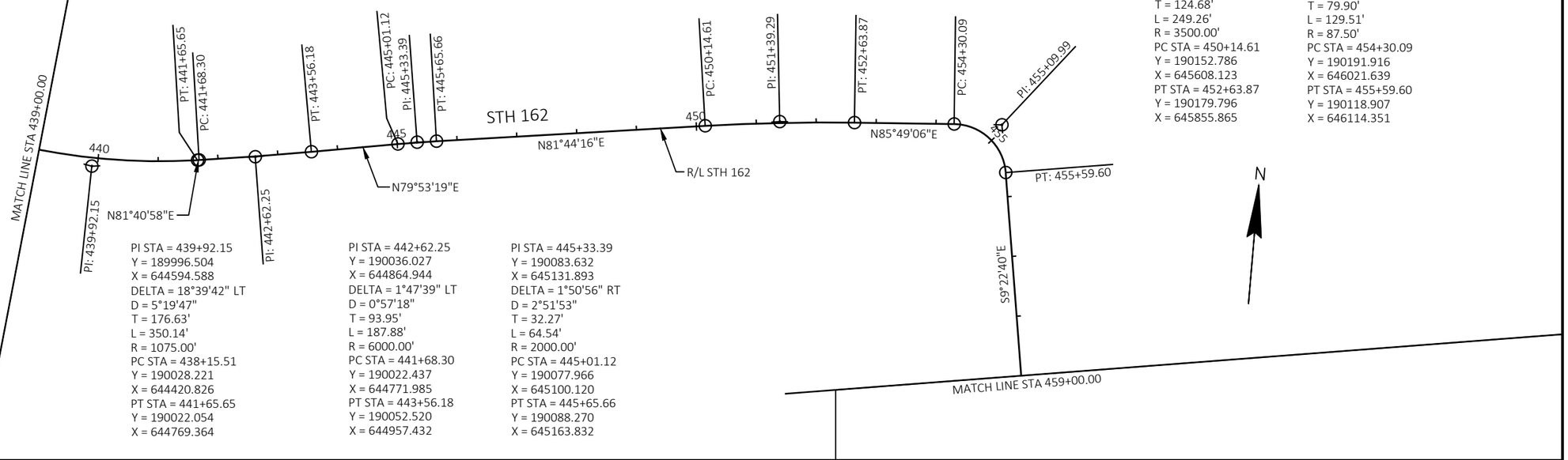
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	ALIGNMENT	SHEET 75	E



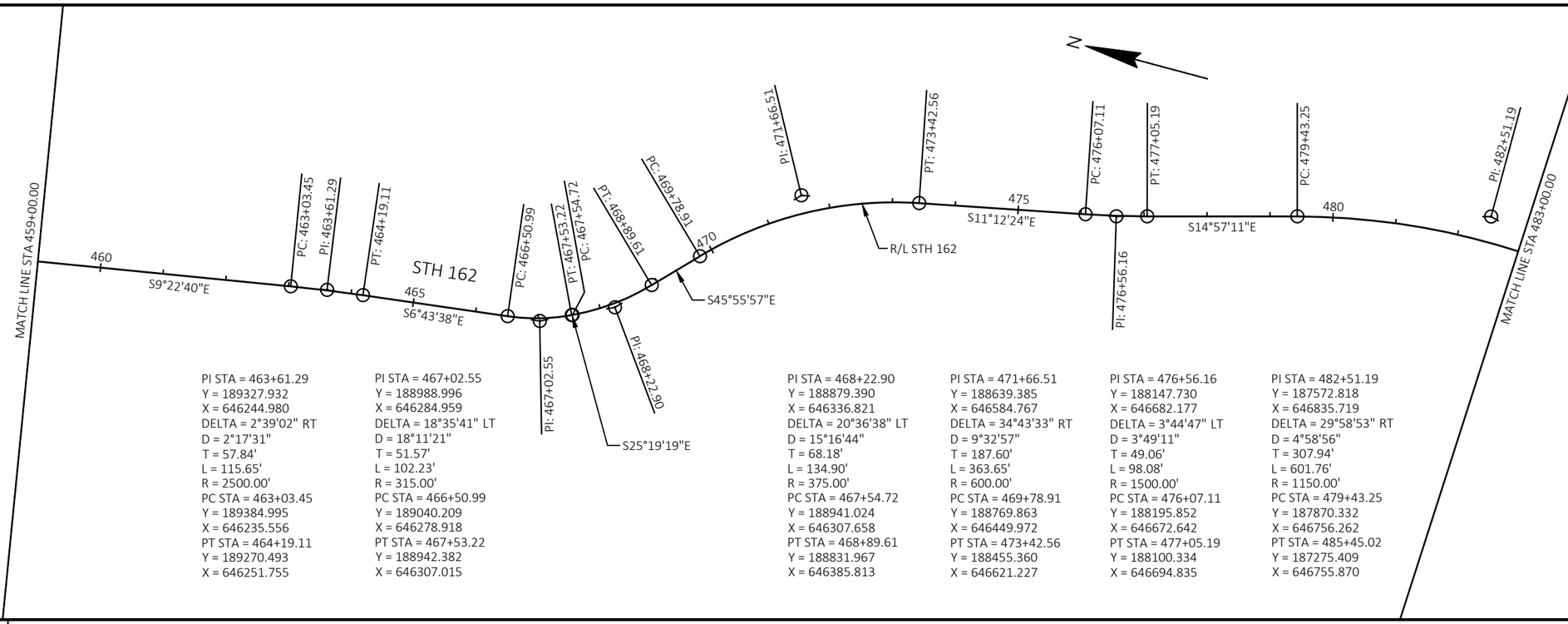
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	ALIGNMENT	SHEET 76	E



CONTROL POINTS				
NO	Y	X	ELEV	DESCRIPTION
1672	643653.40	190205.93	675.40	3/4" REBAR
1673	643901.73	190150.56	675.74	3/4" REBAR



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	ALIGNMENT	SHEET 77	E



PI STA = 463+61.29
Y = 189327.932
X = 646244.980
DELTA = 2°39'02" RT
D = 2°17'31"
T = 57.84'
L = 115.65'
R = 2500.00'
PC STA = 463+03.45
Y = 189384.995
X = 646235.556
PT STA = 464+19.11
Y = 189270.493
X = 646251.755

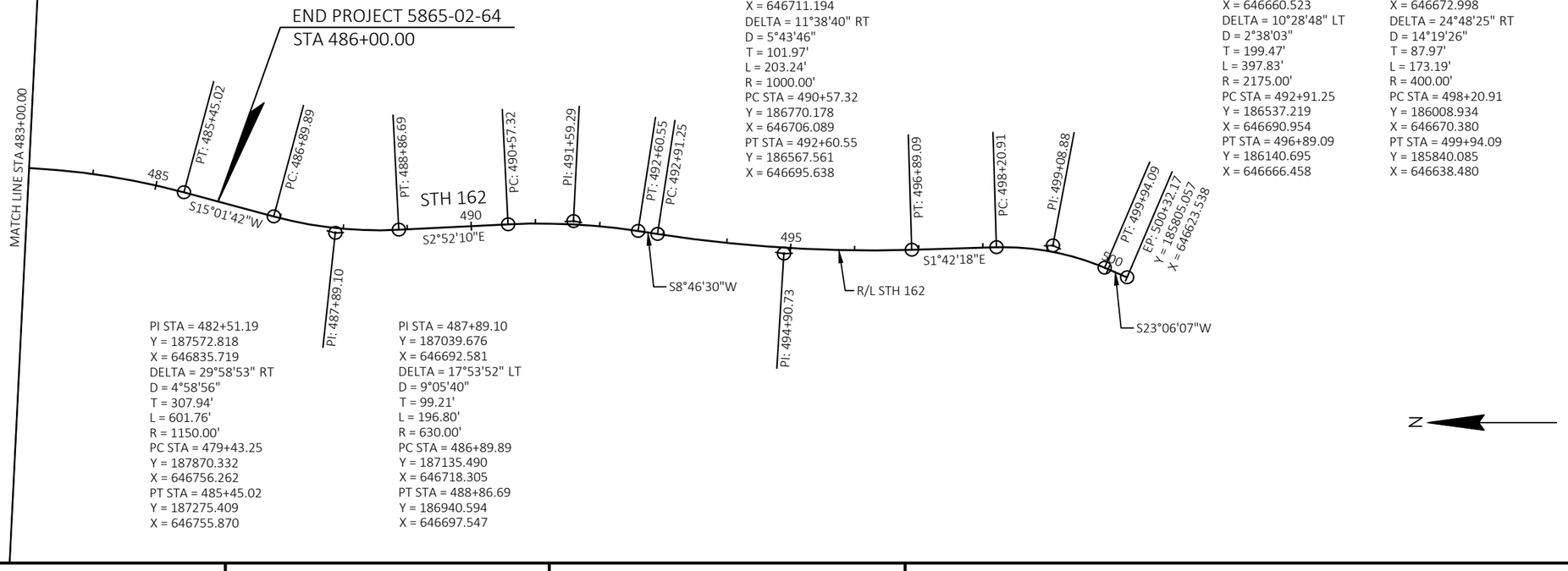
PI STA = 467+02.55
Y = 188988.996
X = 646284.959
DELTA = 18°35'41" LT
D = 18°11'21"
T = 51.57'
L = 102.23'
R = 315.00'
PC STA = 466+50.99
Y = 189040.209
X = 646278.918
PT STA = 467+53.22
Y = 188942.382
X = 646307.015

PI STA = 468+22.90
Y = 188879.390
X = 646336.821
DELTA = 20°36'38" LT
D = 15°16'44"
T = 68.18'
L = 134.90'
R = 375.00'
PC STA = 467+54.72
Y = 188941.024
X = 646307.658
PT STA = 468+89.61
Y = 188831.967
X = 646385.813

PI STA = 471+66.51
Y = 188639.385
X = 646584.767
DELTA = 34°43'33" RT
D = 9°32'57"
T = 187.60'
L = 363.65'
R = 600.00'
PC STA = 469+78.91
Y = 188769.863
X = 646449.972
PT STA = 473+42.56
Y = 188455.360
X = 646621.227

PI STA = 476+56.16
Y = 188147.730
X = 646682.177
DELTA = 3°44'47" LT
D = 3°49'11"
T = 49.06'
L = 98.08'
R = 1500.00'
PC STA = 476+07.11
Y = 188195.852
X = 646672.642
PT STA = 477+05.19
Y = 188100.334
X = 646694.835

PI STA = 482+51.19
Y = 187572.818
X = 646835.719
DELTA = 29°58'53" RT
D = 4°58'56"
T = 307.94'
L = 601.76'
R = 1150.00'
PC STA = 479+43.25
Y = 187870.332
X = 646756.262
PT STA = 485+45.02
Y = 187275.409
X = 646755.870



PI STA = 491+59.29
Y = 186668.337
X = 646711.194
DELTA = 11°38'40" RT
D = 5°43'46"
T = 101.97'
L = 203.24'
R = 1000.00'
PC STA = 490+57.32
Y = 186770.178
X = 646706.089
PT STA = 492+60.55
Y = 186567.561
X = 646695.638

PI STA = 494+90.73
Y = 186340.080
X = 646660.523
DELTA = 10°28'48" LT
D = 2°38'03"
T = 199.47'
L = 397.83'
R = 2175.00'
PC STA = 492+91.25
Y = 186537.219
X = 646690.954
PT STA = 496+89.09
Y = 186140.695
X = 646666.458

PI STA = 499+08.88
Y = 185921.002
X = 646672.998
DELTA = 24°48'25" RT
D = 14°19'26"
T = 87.97'
L = 173.19'
R = 400.00'
PC STA = 498+20.91
Y = 186008.934
X = 646670.380
PT STA = 499+94.09
Y = 185840.085
X = 646638.480

PI STA = 482+51.19
Y = 187572.818
X = 646835.719
DELTA = 29°58'53" RT
D = 4°58'56"
T = 307.94'
L = 601.76'
R = 1150.00'
PC STA = 479+43.25
Y = 187870.332
X = 646756.262
PT STA = 485+45.02
Y = 187275.409
X = 646755.870

PI STA = 487+89.10
Y = 187039.676
X = 646692.581
DELTA = 17°53'52" LT
D = 9°05'40"
T = 99.21'
L = 196.80'
R = 630.00'
PC STA = 486+89.89
Y = 187135.490
X = 646718.305
PT STA = 488+86.69
Y = 186940.594
X = 646697.547

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	ALIGNMENT	SHEET 78	E

Estimate Of Quantities

Line	Item	Item Description	Unit	Total	5865-02-64 Qty	5865-02-74 Qty
0002	201.0105	Clearing	STA	26.000	26.000	
0004	201.0205	Grubbing	STA	26.000	26.000	
0006	203.0100	Removing Small Pipe Culverts	EACH	12.000	12.000	
0008	203.0220	Removing Structure (structure) 01. C-62-302	EACH	1.000	1.000	
0010	203.0220	Removing Structure (structure) 02. B-62-984	EACH	1.000	1.000	
0012	204.0110	Removing Asphaltic Surface	SY	357.000	357.000	
0014	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,138.000	1,138.000	
0016	204.0150	Removing Curb & Gutter	LF	650.000	650.000	
0018	204.0155	Removing Concrete Sidewalk	SY	199.000	199.000	
0020	204.0165	Removing Guardrail	LF	8,364.000	8,364.000	
0022	204.0167	Removing Cable Barrier	LF	1,460.000	1,460.000	
0024	205.0100	Excavation Common	CY	15,754.000	15,754.000	
0026	206.1001	Excavation for Structures Bridges (structure) 01. B-62-984	EACH	1.000	1.000	
0028	206.2001	Excavation for Structures Culverts (structure) 01. C-62-335	EACH	1.000	1.000	
0030	208.1500.S	Temporary Lane Shift During Culvert Work	EACH	11.000	11.000	
0032	209.2500	Backfill Granular Grade 2	TON	4,650.000	4,650.000	
0034	210.1500	Backfill Structure Type A	TON	171.000	171.000	
0036	210.2500	Backfill Structure Type B	TON	1,153.000	1,153.000	
0038	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 5865-02-64	EACH	1.000	1.000	
0040	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	487.000	487.000	
0042	213.0100	Finishing Roadway (project) 01. 5865-02-64	EACH	1.000	1.000	
0044	305.0110	Base Aggregate Dense 3/4-Inch	TON	3,279.000	3,279.000	
0046	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	11,018.000	11,018.000	
0048	310.0110	Base Aggregate Open-Graded	TON	440.000	440.000	
0050	311.0110	Breaker Run	TON	11,995.000	11,995.000	
0052	455.0605	Tack Coat	GAL	6,260.000	6,260.000	
0054	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000	
0056	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000	
0058	460.2000	Incentive Density HMA Pavement	DOL	210.000	210.000	
0060	460.2005	Incentive Density PWL HMA Pavement	DOL	17,790.000	17,790.000	
0062	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	7,540.000	7,540.000	
0064	460.2010	Incentive Air Voids HMA Pavement	DOL	22,699.000	22,699.000	
0066	460.5224	HMA Pavement 4 LT 58-28 S	TON	22,808.000	22,808.000	
0068	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	78.000	78.000	
0070	465.0315	Asphaltic Flumes	SY	260.000	260.000	
0072	465.0560	Asphaltic Rumble Strips, Centerline	LF	31,293.000	31,293.000	
0074	502.0100	Concrete Masonry Bridges	CY	35.000	35.000	
0076	502.3200	Protective Surface Treatment	SY	994.000	994.000	
0078	502.3205	Pigmented Surface Sealer Reseal	SY	203.000	203.000	
0080	502.3210	Pigmented Surface Sealer	SY	47.000	47.000	
0082	502.3215	Protective Surface Treatment Reseal	SY	24.000	24.000	
0084	502.4205	Adhesive Anchors No. 5 Bar	EACH	72.000	72.000	
0086	504.0100	Concrete Masonry Culverts	CY	121.000	121.000	
0088	505.0400	Bar Steel Reinforcement HS Structures	LB	19,350.000	19,350.000	
0090	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	3,090.000	3,090.000	
0092	509.0301	Preparation Decks Type 1	SY	404.000	404.000	
0094	509.0302	Preparation Decks Type 2	SY	161.000	161.000	
0096	509.0500	Cleaning Decks	SY	144.000	144.000	
0098	509.0505.S	Cleaning Decks to Reapply Concrete Masonry Overlay	SY	850.000	850.000	

					5865-02-64	5865-02-74
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0100	509.1500	Concrete Surface Repair	SF	483.000	483.000	
0102	509.2500	Concrete Masonry Overlay Decks	CY	106.000	106.000	
0104	509.9005.S	Removing Concrete Masonry Deck Overlay (structure) 01. B-62-29	SY	850.000	850.000	
0106	511.1200	Temporary Shoring (structure) 01. B-62-984	SF	640.000	640.000	
0108	516.0500	Rubberized Membrane Waterproofing	SY	34.000	34.000	
0110	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	7.000	7.000	
0112	520.3324	Culvert Pipe Class III-A 24-Inch	LF	182.000	182.000	
0114	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	1.000	1.000	
0116	521.3118	Culvert Pipe Corrugated Steel 18-Inch	LF	6.000	6.000	
0118	522.2319	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 19x30-Inch	LF	160.000	160.000	
0120	522.2324	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 24x38-Inch	LF	36.000	36.000	
0122	522.2619	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	7.000	7.000	
0124	522.2624	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 24x38-Inch	EACH	2.000	2.000	
0126	550.2146	Piling CIP Concrete 14 X 0.375-Inch	LF	420.000	420.000	
0128	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	1,920.000	1,920.000	
0130	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	2,435.000	2,435.000	
0132	602.0405	Concrete Sidewalk 4-Inch	SF	3,685.000	3,685.000	
0134	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	40.000	40.000	
0136	602.0810	Concrete Driveway 6-Inch	SY	205.000	205.000	
0138	603.8000	Concrete Barrier Temporary Precast Delivered	LF	508.000	508.000	
0140	603.8125	Concrete Barrier Temporary Precast Installed	LF	1,016.000	1,016.000	
0142	606.0200	Riprap Medium	CY	17.000	17.000	
0144	606.0300	Riprap Heavy	CY	187.000	187.000	
0146	608.3012	Storm Sewer Pipe Class III-A 12-Inch	LF	147.000	147.000	
0148	608.3015	Storm Sewer Pipe Class III-A 15-Inch	LF	134.000	134.000	
0150	608.3018	Storm Sewer Pipe Class III-A 18-Inch	LF	825.000	825.000	
0152	608.3024	Storm Sewer Pipe Class III-A 24-Inch	LF	621.000	621.000	
0154	611.0530	Manhole Covers Type J	EACH	6.000	6.000	
0156	611.0615	Inlet Covers Type F	EACH	4.000	4.000	
0158	611.0624	Inlet Covers Type H	EACH	8.000	8.000	
0160	611.0642	Inlet Covers Type MS	EACH	6.000	6.000	
0162	611.0645	Inlet Covers Type MS-A	EACH	2.000	2.000	
0164	611.2004	Manholes 4-FT Diameter	EACH	6.000	6.000	
0166	611.3003	Inlets 3-FT Diameter	EACH	2.000	2.000	
0168	611.3004	Inlets 4-FT Diameter	EACH	8.000	8.000	
0170	611.3253	Inlets 2.5x3-FT	EACH	2.000	2.000	
0172	611.3901	Inlets Median 1 Grate	EACH	4.000	4.000	
0174	611.3902	Inlets Median 2 Grate	EACH	2.000	2.000	
0176	612.0106	Pipe Underdrain 6-Inch	LF	75.000	75.000	
0178	614.0905	Crash Cushions Temporary	EACH	2.000	2.000	
0180	614.2300	MGS Guardrail 3	LF	2,450.000	2,450.000	
0182	614.2330	MGS Guardrail 3 K	LF	5,900.000	5,900.000	
0184	614.2340	MGS Guardrail 3 L	LF	112.500	112.500	
0186	614.2350	MGS Guardrail Short Radius	LF	112.500	112.500	
0188	614.2500	MGS Thrie Beam Transition	LF	630.400	630.400	
0190	614.2610	MGS Guardrail Terminal EAT	EACH	38.000	38.000	
0192	614.2620	MGS Guardrail Terminal Type 2	EACH	2.000	2.000	
0194	614.2630	MGS Guardrail Short Radius Terminal	EACH	1.000	1.000	
0196	618.0100	Maintenance and Repair of Haul Roads (project) 01. 5865-02-64	EACH	1.000	1.000	

Estimate Of Quantities

Line	Item	Item Description	Unit	Total	5865-02-64 Qty	5865-02-74 Qty
0198	619.1000	Mobilization	EACH	1.000	1.000	
0200	624.0100	Water	MGAL	143.200	143.200	
0202	625.0100	Topsoil	SY	1,651.000	1,651.000	
0204	625.0500	Salvaged Topsoil	SY	10,380.000	10,380.000	
0206	627.0200	Mulching	SY	5,411.000	5,411.000	
0208	628.1504	Silt Fence	LF	11,800.000	11,800.000	
0210	628.1520	Silt Fence Maintenance	LF	23,600.000	23,600.000	
0212	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000	
0214	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000	
0216	628.2008	Erosion Mat Urban Class I Type B	SY	8,200.000	8,200.000	
0218	628.2023	Erosion Mat Class II Type B	SY	500.000	500.000	
0220	628.7005	Inlet Protection Type A	EACH	24.000	24.000	
0222	628.7010	Inlet Protection Type B	EACH	5.000	5.000	
0224	628.7015	Inlet Protection Type C	EACH	15.000	15.000	
0226	628.7504	Temporary Ditch Checks	LF	348.000	348.000	
0228	628.7555	Culvert Pipe Checks	EACH	45.000	45.000	
0230	629.0210	Fertilizer Type B	CWT	14.500	14.500	
0232	630.0130	Seeding Mixture No. 30	LB	663.000	663.000	
0234	630.0140	Seeding Mixture No. 40	LB	175.000	175.000	
0236	630.0175	Seeding Mixture No. 75	LB	21.800	21.800	
0238	630.0200	Seeding Temporary	LB	510.000	510.000	
0240	630.0500	Seed Water	MGAL	493.000	493.000	
0242	633.5200	Markers Culvert End	EACH	16.000	16.000	
0244	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	8.000	8.000	
0246	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	31.000	31.000	
0248	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	11.000	11.000	
0250	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	6.000	6.000	
0252	638.2102	Moving Signs Type II	EACH	57.000	57.000	
0254	642.5201	Field Office Type C	EACH	1.000	1.000	
0256	643.0300	Traffic Control Drums	DAY	24,500.000	24,500.000	
0258	643.0420	Traffic Control Barricades Type III	DAY	10,207.000	10,207.000	
0260	643.0705	Traffic Control Warning Lights Type A	DAY	20,414.000	20,414.000	
0262	643.0715	Traffic Control Warning Lights Type C	DAY	975.000	975.000	
0264	643.0900	Traffic Control Signs	DAY	54,504.000	54,504.000	
0266	643.0920	Traffic Control Covering Signs Type II	EACH	9.000	9.000	
0268	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000	
0270	643.3150	Temporary Marking Line Removable Tape 4-Inch	LF	5,152.000	5,152.000	
0272	643.3165	Temporary Marking Line Paint 6-Inch	LF	74,182.000	74,182.000	
0274	643.3850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	22.000	22.000	
0276	643.5000	Traffic Control	EACH	1.000	1.000	
0278	644.1440	Temporary Pedestrian Surface Matting	SF	240.000	240.000	
0280	644.1810	Temporary Pedestrian Barricade	LF	517.000	517.000	
0282	644.1900.S	Temporary Audible Message Devices	DAY	120.000	120.000	
0284	645.0105	Geotextile Type C	SY	252.000	252.000	
0286	645.0120	Geotextile Type HR	SY	424.000	424.000	
0288	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	150,482.000	150,482.000	
0290	646.9000	Marking Removal Line 4-Inch	LF	1,564.000	1,564.000	
0292	648.0100	Locating No-Passing Zones	MI	7.200	7.200	
0294	650.4000	Construction Staking Storm Sewer	EACH	23.000	23.000	

Estimate Of Quantities

Line	Item	Item Description	Unit	Total	5865-02-64 Qty	5865-02-74 Qty
0296	650.4500	Construction Staking Subgrade	LF	7,856.000	7,856.000	
0298	650.5000	Construction Staking Base	LF	7,856.000	7,856.000	
0300	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	4,355.000	4,355.000	
0302	650.6000	Construction Staking Pipe Culverts	EACH	9.000	9.000	
0304	650.6501	Construction Staking Structure Layout (structure) 01. C-62-335	EACH	1.000	1.000	
0306	650.6501	Construction Staking Structure Layout (structure) 01. STA 110+12, LT	EACH	1.000	1.000	
0308	650.6501	Construction Staking Structure Layout (structure) 02. B-62-984	EACH	1.000	1.000	
0310	650.8000	Construction Staking Resurfacing Reference	LF	38,150.000	38,150.000	
0312	650.9000	Construction Staking Curb Ramps	EACH	4.000	4.000	
0314	650.9500	Construction Staking Sidewalk (project) 01. 5865-02-64	EACH	1.000	1.000	
0316	650.9911	Construction Staking Supplemental Control (project) 01.5865-02-64	EACH	1.000	1.000	
0318	650.9920	Construction Staking Slope Stakes	LF	7,856.000	7,856.000	
0320	690.0150	Sawing Asphalt	LF	5,482.000	5,482.000	
0322	690.0250	Sawing Concrete	LF	78.000	78.000	
0324	715.0502	Incentive Strength Concrete Structures	DOL	936.000	936.000	
0326	740.0440	Incentive IRI Ride	DOL	28,800.000	28,800.000	
0328	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. 132+17.1	EACH	1.000	1.000	
0330	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 02. 184+01.4	EACH	1.000	1.000	
0332	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 03. 252+98.5	EACH	1.000	1.000	
0334	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 04. 431+53.0	EACH	1.000	1.000	
0336	999.2100.S	Installing and Maintaining Climbing Turtle Exclusion Fence	LF	7,200.000	7,200.000	
0338	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,400.000	2,400.000	
0340	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	3,200.000	3,200.000	
0342	SPV.0060	Special 001. Verify Landmark Reference Monuments	EACH	1.000	1.000	
0344	SPV.0060	Special 200. Remove Existing Sanitary Manhole	EACH	4.000		4.000
0346	SPV.0060	Special 201. 48" Sanitary Sewer Manhole	EACH	3.000		3.000
0348	SPV.0060	Special 202. 8" x 6" PVC Wye	EACH	1.000		1.000
0350	SPV.0060	Special 203. 8" x 4" PVC Wye	EACH	21.000		21.000
0352	SPV.0060	Special 204. Connect to Existing Sanitary Sewer Main	EACH	2.000		2.000
0354	SPV.0060	Special 206. Connect to Existing Sanitary Sewer Service	EACH	16.000		16.000
0356	SPV.0060	Special 207. Remove & Salvage Existing Hydrants & Valves	EACH	6.000		6.000
0358	SPV.0060	Special 209. 8" Gate Valves & Boxes	EACH	5.000		5.000
0360	SPV.0060	Special 210. 6" Gate Valves & Boxes	EACH	5.000		5.000
0362	SPV.0060	Special 211. Fire Hydrant	EACH	3.000		3.000
0364	SPV.0060	Special 212. 8" Tapping Saddle	EACH	22.000		22.000
0366	SPV.0060	Special 213. 1" Corporation Stop	EACH	21.000		21.000
0368	SPV.0060	Special 214. 2" Corporation Stop	EACH	1.000		1.000
0370	SPV.0060	Special 215. 1" Curb Stop & Box	EACH	21.000		21.000
0372	SPV.0060	Special 216. Connect to Existing Main	EACH	5.000		5.000
0374	SPV.0060	Special 217. Connect to Existing Service	EACH	3.000		3.000
0376	SPV.0060	Special 218. Temporary Water Services	EACH	1.000		1.000
0378	SPV.0085	Special 200. Special Fittings	LB	1,200.000		1,200.000
0380	SPV.0090	Special 200. Remove Existing Sanitary Sewer Pipe	LF	834.000		834.000
0382	SPV.0090	Special 201. 8" Sanitary Sewer Main	LF	906.000		906.000
0384	SPV.0090	Special 202. 2" HDPE Sanitary Sewer Forcemain	LF	96.000		96.000
0386	SPV.0090	Special 203. 6" Sanitary Sewer Service Pipe	LF	37.000		37.000
0388	SPV.0090	Special 204. 4" Sanitary Sewer Service Pipe	LF	495.000		495.000
0390	SPV.0090	Special 205. Remove Existing Watermain	LF	1,121.000		1,121.000
0392	SPV.0090	Special 206. 8" Watermain	LF	1,039.000		1,039.000

					5865-02-64	5865-02-74
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0394	SPV.0090	Special 207. 6" Watermain	LF	64.000		64.000
0396	SPV.0090	Special 208. 6" Class 52 Ductile Iron Pipe Hydrant Lead	LF	40.000		40.000
0398	SPV.0090	Special 209. 1" Copper Water Service	LF	484.000		484.000
0400	SPV.0090	Special 210. 2" Copper Water Service	LF	19.000		19.000
0402	SPV.0165	Special 001. Wall Modular Block Mechanically Stabilized	SF	350.000	350.000	
0404	SPV.0180	Special 001. Removing Asphaltic Surface Milling	SY	100,500.000	100,500.000	

DIVISION	FROM/TO STATION	LOCATION	205.0100 EXCAVATION COMMON	SALVAGED/UNUSABLE PAVEMENT MATERIAL	AVAILABLE MATERIAL (2)	UNEXPANDED FILL	EXPANDED FILL FACTOR 1.25	MASS ORDINATE +/- (3)	WASTE
STODDARD	104+50 - 115+00	M/L	4,160 +++	273	3,887	243	304	3,583	3,583
STODDARD - SAND LAKE CT	20+11 - 20+65	SAND LAKE CT	192	16	176	-	-	176	176
STODDARD - OLD RIVER RD	114+15	OLD RIVER ROAD	88	6	82	-	-	82	82
GUARDRAIL	156+67 - 179+47	M/L	2,406	81	2,325	114	143	2,183	2,183
BOX CULVERT	182+50 - 185+50	M/L	955	73	882	1,088	1,360	-478	-478
STH 162	126+18 - 130+97	M/L, LT	372	25	347	47	59	288	288
STH 162	126+21 - 130+87	M/L, RT	387	24	363	23	29	334	334
STH 162	133+46 - 137+04	M/L, LT	288	19	269	1	1	268	268
STH 162	133+37 - 135+00	M/L, RT	143	8	135	9	11	124	124
STH 162	194+47 - 205+58	M/L, LT	579	30	549	1	1	548	548
STH 162	217+55 - 224+36	M/L, LT	318	19	299	13	16	283	283
STH 162	225+17 - 230+44	M/L, LT	255	16	239	9	11	228	228
STH 162	236+06 - 249+63	M/L, LT	699	37	662	77	96	566	566
STH 162	250+15 - 252+83	M/L, LT	192	14	178	13	16	162	162
STH 162	249+90 - 252+84	M/L, RT	206	16	190	8	10	180	180
STH 162	253+14 - 601+85	M/L, LT	154	8	146	0	0	146	146
STH 162	253+14 -244+25	M/L, RT	110	5	105	0	0	105	105
STH 162	305+51 - 310+85	M/L, LT	290	16	274	124	155	119	119
STH 162	305+04 - 310+32	M/L, RT	323	15	308	10	13	295	295
STH 162	326+88 - 329+81	M/L, LT	224	15	209	14	18	191	191
STH 162	326+88 - 329+81	M/L, RT	217	15	202	274	343	-141	-141
STH 162	331+72 - 334+66	M/L, LT	239	15	224	2	3	221	221
STH 162	331+72 - 334+66	M/L, RT	217	15	202	69	86	116	116
STH 162	350+91 - 357+00	M/L, RT	340	18	322	0	0	322	322
STH 162	360+16 - 383+38	M/L, RT	1,201	66	1,135	10	13	1,122	1,122
STH 162	373+11 - 375+68	M/L, LT	179	7	172	0	0	172	172
STH 162	701+05 - 431+25	M/L, LT	111	5	106	5	6	100	100
STH 162	428+50 - 431+25	M/L, RT	182	8	174	0	0	174	174
STH 162	431+79 - 434+53	M/L, LT	196	8	188	0	0	188	188
STH 162	431+79 - 434+28	M/L, RT	184	7	177	1	1	176	176
STH 162	467+25 - 473+78	M/L, RT	347	20	327	0	0	327	327
		TOTAL	15,754						12,160

+++ EXCAVATION WITHIN THE VILLAGE OF STODDARD
TO BE IS SPLIT BETWEEN 2 CATEGORIES:

CATEGORY 0010 3192 CY
CATEGORY 0060 968 CY

NOTES:
(1) - SALVAGE/UNUSABLE PAVEMENT MATERIAL INCLUDED
(2) - AVAILABLE MATERIAL = CUT - SALVAGE/UNUSABLE PAVEMENT MATERIAL.
(3) - THE MASS ORDINATE + OR - QUANTITIES CALCULATED. PLUS QUANTITIES INDICATED AS EXCESS MATERIAL. MINUS INDICATED A SHORTAGE OF MATERIAL

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CLEARING & GRUBBING

STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
126+00	-	128+00	LT & RT	2	2
144+00	-	145+00	LT & RT	1	1
168+50	-	169+00	LT	1	1
171+75	-	172+25	LT	2	2
182+50	-	185+50	LT & RT	4	4
218+00	-	219+00	LT	1	1
225+00	-	226+00	LT	1	1
236+50		237+50	LT	2	2
290+50		291+00	LT & RT	1	1
296+00	-	297+00	LT & RT	1	1
327+00		329+00	RT	2	2
333+00		334+00	RT	1	1
371+00		372+00	RT	1	1
375+00		376+00	RT	1	1
381+00		383+00	RT	2	2
468+00		468+75	RT	1	1
472+25		473+80	RT	2	2
			ITEM TOTALS	26	26

REMOVING CULVERTS

STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	REMARKS
116+90	M/L, RT	1	18" CPCS
118+28	M/L, RT	1	18" CPCS
144+49	M/L	1	24" CPCS
162+07	M/L	1	18" CPCS
170+68	M/L	1	18" CPCS
261+58	M/L	1	30" CPCS
272+18	M/L	1	18" CPCS
290+80	M/L	1	18" CPCS
298+38	M/L	1	15" CPCS
395+60	M/L	1	18" CPCS
448+91	M/L	1	15" CPCS
483+78	M/L	1	18" CPCS
	ITEM TOTALS	12	

REMOVING ASPHALTIC SURFACE

STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY	REMARKS
118+71	M/L, LT	37	CE
153+55	M/L, LT	21	PE
153+80	M/L, RT	33	CE
159+35	M/L, LT	51	PE
191+87	M/L, LT	12	PE
225+15	M/L, LT	62	PE
233+94	M/L, LT	20	PE
246+47	M/L, RT	18	PE
257+31	M/L, RT	18	PE
401+80	M/L, LT	8	PE
404+86	M/L, RT	32	PE
448+52	M/L, LT	13	PE
462+87	M/L, LT	9	PE
466+27	M/L, RT	12	PE
467+12	M/L, RT	11	PE
	ITEM TOTAL	357	

REMOVING ASPHALTIC SURFACE BUTT JOINTS

STATION	TO	STATION	LOCATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	REMARKS
130+99	-	131+04	M/L	20	STRUCTURE B-62-029
133+30	-	133+35	M/L	20	STRUCTURE B-62-029
	135+50		M/L, RT	85	CTH O
	209+55		M/L, RT	103	KOLL LN
252+78	-	252+83	M/L	19	STRUCTURE B-62-083
253+14	-	253+19	M/L	19	STRUCTURE B-62-083
	254+70		M/L, LT	74	HILLTOP RD
	254+70		M/L, RT	62	HUNDER COULEE RD
	270+40		M/L, RT	72	HULL LN
	312+55		M/L, RT	98	WINGHOLLOW RD
329+86	-	329+91	M/L	19	STRUCTURE B-62-056
331+64	-	331+69	M/L	19	STRUCTURE B-62-056
	240+95		M/L, LT	93	N. STODDARD RD
	357+35		M/L, RT	45	LIETKE LN
	415+90		M/L, RT	60	HANSON LN
	430+13		M/L, LT	30	OVERSON LN
431+21	-	431+26	M/L	15	STRUCTURE B-62-984
431+79	-	431+84	M/L	15	STRUCTURE B-62-984
458+75	-	462+87	M/L, RT	255	RIGHT TURN TAPER
485+95	-	486+00	M/L	15	EOP
			ITEM TOTAL	1,138	

REMOVING CURB & GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	204.0150 REMOVING CURB & GUTTER LF	REMARKS
0060	104+50	-	105+08	M/L, LT	58	
0060	104+63	-	105+08	M/L, RT	45	
0060	111+90	-	20+65	M/L, LT	50	NW QUAD SANDLAKE CT
0060	20+65	-	111+69	M/L, LT	60	NE QUAD SANDLAKE CT
			0060 ITEM TOTAL		213	
0010	179+07	-	183+35	M/L, LT	415	
0010	272+20	-	272+42	M/L, RT	22	
			0010 ITEM TOTAL		437	
			PROJECT ITEM TOTAL		650	

REMOVING SIDEWALK

CATEGORY	STATION		STATION	LOCATION	204.0155 REMOVING CONCRETE SIDEWALK SY	REMARKS
0060	104+99	-	105+98	M/L, LT	55	
0060	106+37	-	107+65	M/L, LT	71	
0060	107+94	-	109+25	M/L, LT	73	
				ITEM TOTAL	199	

NOTE: ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

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REMOVING GUARDRAIL

STATION	TO	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF
127+86	-	131+00	M/L, LT	314
127+89	-	130+91	M/L, RT	302
133+36	-	134+74	M/L, RT	139
133+45	-	135+63	M/L, LT	220
182+91	-	184+67	M/L, RT	178
183+47	-	185+13	M/L, LT	166
195+02	-	204+31	M/L, LT	927
218+74	-	222+96	M/L, LT	428
225+26	-	227+35	M/L, LT	216
236+87	-	247+49	M/L, LT	1064
252+05	-	253+91	M/L, RT	187
252+09	-	253+85	M/L, LT	176
306+36	-	308+85	M/L, RT	253
306+99	-	309+29	M/L, LT	228
328+46	-	329+82	M/L, LT	135
328+47	-	329+82	M/L, RT	135
331+72	-	333+07	M/L, LT	135
331+73	-	333+08	M/L, RT	135
352+37	-	356+13	M/L, RT	378
360+64	-	370+85	M/L, RT	1015
373+58	-	375+42	M/L, RT	191
373+78	-	374+85	M/L, LT	103
376+03	-	381+54	M/L, RT	552
430+34	-	431+25	M/L, RT	91
430+36	-	431+26	M/L, LT	91
431+79	-	432+69	M/L, LT	91
431+80	-	432+70	M/L, RT	91
468+50	-	472+79	M/L, RT	423
			ITEM TOTAL	8364

REMOVING CABLE BARRIER

STATION	TO	STATION	LOCATION	204.0167 REMOVING CABLE BARRIER LF
160+06	-	166+22	M/L, LT	612
169+86	-	178+25	M/L, LT	848
			ITEM TOTAL	1460

GRANULAR BACKFILL

STATION	TO	STATION	LOCATION	209.2500 BACKFILL GRANULAR GRADE 2 TON
143+98	-	144+98	M/L	840
161+60	-	162+60	M/L	470
168+25	-	169+25	M/L	705
171+50	-	172+50	M/L	840
261+07	-	262+07	M/L	120
271+69	-	272+69	M/L	220
290+32	-	291+32	M/L	280
297+89	-	298+89	M/L	200
395+14	-	396+14	M/L	130
448+43	-	449+43	M/L	130
483+27	-	484+27	M/L	330
UNDISTRIBUTED				385
			ITEM TOTALS	4650

3/4-INCH BASE AGGREGATE

STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	624.0100* WATER MGAL
115+00	-	131+04	M/L, LT & RT	187	1.9
133+30	-	182+50	M/L, LT & RT	411	4.1
182+50	-	185+50	M/L, LT & RT	25	0.3
185+50	-	252+83	M/L, LT & RT	525	5.3
253+14	-	329+90	M/L, LT & RT	729	7.3
331+64	-	431+26	M/L, LT & RT	978	9.8
431+80	-	486+00	M/L, LT & RT	424	4.2
			ITEM TOTALS	3279	32.9

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

PREPARE FOUNDATION

STATION	TO	STATION	LOCATION	211.0101 PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) 01. 5865-02-64 EACH	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA
5865-02-64				1	-
115+00	-	126+19	M/L, LT	-	12
115+00	-	126+21	M/L. RT	-	12
136+38	-	156+67	M/L, RT	-	21
137+04	-	158+69	M/L, LT	-	22
179+47	-	182+50	M/L, RT	-	4
185+50	-	189+19	M/L, RT	-	5
185+50	-	194+48	M/L, LT	-	10
201+35	-	211+77	M/L, RT	-	11
205+58	-	211+77	M/L, LT	-	7
214+69	-	217+56	M/L, LT	-	4
230+11	-	236+06	M/L, LT	-	7
232+83	-	236+25	M/L, RT	-	5
245+34	-	249+90	M/L, RT	-	5
249+63	-	250+15	M/L, LT	-	2
255+82	-	272+11	M/L, RT	-	18
255+83	-	305+51	M/L, LT	-	51
275+85	-	305+04	M/L, RT	-	31
310+27	-	326+88	M/L, RT	-	17
310+87	-	326+88	M/L, LT	-	17
344+66	-	357+41	M/L, LT	-	14
334+66	-	351+91	M/L, RT	-	18
360+16	-	373+12	M/L, LT	-	14
375+68	-	381+11	M/L, LT	-	7
383+38	-	428+51	M/L, RT	-	46
384+34	-	429+81	M/L, LT	-	46
434+28	-	451+93	M/L, RT	-	18
434+53	-	454+08	M/L, LT	-	21
456+23	-	458+75	M/L, RT	-	3
460+95	-	466+31	M/L, LT	-	7
465+23	-	466+93	M/L, RT	-	2
469+24	-	486+00	M/L, LT	-	17
473+78	-	486+00	M/L, RT	-	13
			ITEM TOTALS	1	487

NOTE: ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

BREAKER RUN & 1 1/4-INCH BASE AGGREGATE

CATEGORY	STATION	TO	STATION	LOCATION	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	311.0110 BREAKER RUN TON	624.0100* WATER MGAL	REMARKS
0060	104+50	-	115+00	M/L, LT	114	380	1.1	STODDARD RECONSTRUCTION
0060	104+50	-	115+00	M/L, RT	358	485	3.6	STODDARD RECONSTRUCTION
0060	20+15	-	20+65	SAND LAKE CT	150	195	1.5	STODDARD RECONSTRUCTION
0060	DRIVEWAY				135	-	1.4	STODDARD RECONSTRUCTION
				0060 ITEM TOTALS	757	1060	7.6	
0010	104+50	-	115+00	M/L	1944	2800	19.4	STODDARD RECONSTRUCTION
0010	126+18	-	138+32	M/L, LT	148	142	1.5	EATS
0010	126+21	-	128+34	M/L, RT	148	152	1.5	EATS
0010	134+28	-	135+02	M/L, RT	64	64	0.6	EATS
0010	135+24	-	137+04	M/L, LT	137	133	1.4	EATS
0010	143+98	-	144+98	M/L	192	205	1.9	CULVERT REPLACEMENT
0010	156+67	-	179+47	M/L, RT	1260	1650	12.6	ROAD REALIGNMENT
0010	159+71	-	178+34	M/L, LT	510	395	5.1	ROAD REALIGNMENT
0010	161+60	-	162+60	M/L	130	152	1.3	STORM
0010	168+25	-	169+25	M/L	130	152	1.3	STORM
0010	179+07	-	182+50	M/L, LT	50	-	0.5	CURB & GUTTER
0010	182+50	-	185+50	M/L	574	610	5.7	BOX CULVERT
0010	171+50	-	172+50	M/L	136	160	1.4	STORM
0010	194+48	-	195+38	M/L, LT	45	40	0.5	EATS
0010	203+94	-	205+58	M/L, LT	95	88	1.0	EATS
0010	217+56	-	219+23	M/L, LT	100	92	1.0	EATS
0010	223+23	-	224+36	M/L, LT	56	49	0.6	EATS
0010	225+01	-	225+71	M/L, LT	29	24	0.3	EATS
0010	229+34	-	230+44	M/L, LT	54	47	0.5	EATS
0010	236+06	-	237+24	M/L, LT	94	92	0.9	EATS
0010	248+53	-	249+63	M/L, LT	54	47	0.5	EATS
0010	249+90	-	252+04	M/L, RT	150	143	1.5	EATS
0010	250+15	-	252+29	M/L, LT	146	141	1.5	EATS
0010	253+68	-	254+31	M/L, RT	62	64	0.6	EATS
0010	254+13	-	601+85	M/L, LT	173	178	1.7	EATS
				0010 ITEM SUBTOTALS	6,481	7,620	64.8	

CATEGORY	STATION	TO	STATION	LOCATION	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	311.0110 BREAKER RUN TON	624.0100* WATER MGAL	REMARKS
0010	261+07	-	262+07	M/L	192	205	1.9	CULVERT REPLACEMENT
0010	271+69	-	272+69	M/L	192	205	1.9	CULVERT REPLACEMENT
0010	290+32	-	291+32	M/L	192	205	1.9	CULVERT REPLACEMENT
0010	297+89	-	298+89	M/L	192	205	1.9	CULVERT REPLACEMENT
0010	305+04	-	306+72	M/L, RT	100	92	1.0	EATS
0010	305+51	-	307+20	M/L, LT	98	90	1.0	EATS
0010	308+64	-	310+28	M/L, RT	98	91	1.0	EATS
0010	309+16	-	310+85	M/L, LT	98	91	1.0	EATS
0010	326+88	-	329+02	M/L, RT	148	142	1.5	EATS
0010	326+88	-	326+88	M/L, LT	148	142	1.5	EATS
0010	332+53	-	332+53	M/L, LT	148	143	1.5	EATS
0010	332+53	-	334+66	M/L, RT	147	142	1.5	EATS
0010	350+91	-	352+59	M/L, RT	99	91	1.0	EATS
0010	355+91	-	357+00	M/L, RT	70	65	0.7	EATS
0010	359+83	-	360+41	M/L, RT	34	31	0.3	EATS
0010	373+12	-	373+80	M/L, LT	35	31	0.4	EATS
0010	375+02	-	375+69	M/L, LT	35	31	0.4	EATS
0010	375+16	-	376+41	M/L, RT	70	63	0.7	EATS
0010	381+71	-	383+39	M/L, RT	102	93	1.0	EATS
0010	395+14	-	396+14	M/L	192	205	1.9	CULVERT REPLACEMENT
0010	428+50	-	430+48	M/L, RT	113	104	1.1	EATS
0010	701+25	-	430+74	M/L, LT	89	84	0.9	EATS
0010	432+31	-	434+28	M/L, RT	113	104	1.1	EATS
0010	432+56	-	434+53	M/L, LT	113	104	1.1	EATS
0010	448+43	-	449+43	M/L	192	205	1.9	CULVERT REPLACEMENT
0010	467+23	-	468+51	M/L, RT	85	80	0.9	EATS
0010	472+38	-	473+78	M/L, RT	73	66	0.7	EATS
0010	483+27	-	484+27	M/L	192	205	1.9	CULVERT REPLACEMENT
0010	DRIVEWAY				420	-	4.3	
				0010 ITEM SUBTOTALS	3,780	3,315	37.9	
				0010 ITEM SUBTOTALS (FIRST COLUMN)	6,481	7,620	64.8	
				0010 ITEM TOTALS	10,261	10,935	102.7	
				PROJECT ITEM TOTALS	11,018	11,995	110.3	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

NOTE: ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

ASPHALT ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	460.0105.S HMA PERCENTAGE WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH	460.0110.S HMA PERCENTAGE WITHIN LIMITS (PWL) TEST STRIP DENSITY EACH	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	REMARKS
0060	104+50	-	115+00	M/L, RT	-	-	-	37	LOWER LAYER 2.25"
0060	20+15	-	20+65	SAND LAKE CT	-	-	-	24	LOWER LAYER SAND LAKE CT 2.25"
0060	104+50	-	115+00	M/L, RT	15	-	-	29	UPPER LAYER 1.75"
0060	20+15	-	20+65	SAND LAKE CT	10	-	-	19	SAND LAKE CT UPPER LAYER 1.75"
				0060 ITEM TOTALS	25	0	0	109	
0010	104+50	-	115+00	M/L	-	-	-	441	LOWER LAYER 2.25"
0010	115+00	-	131+04	M/L	-	-	-	487	LOWER LAYER 1.75"
0010	133+30	-	182+50	M/L	-	-	-	1,434	LOWER LAYER 1.75"
0010	182+50	-	185+50	M/L	-	-	-	86	LOWER LAYER 1.75"
0010	185+50	-	252+83	M/L	-	-	-	2,096	LOWER LAYER 1.75"
0010	253+14	-	329+90	M/L	-	-	-	2,230	LOWER LAYER 1.75"
0010	331+64	-	431+26	M/L	-	-	-	2,883	LOWER LAYER 1.75"
0010	431+80	-	486+00	M/L	-	-	-	1,622	LOWER LAYER 1.75"
0010	600+17	-	601+85	HILLTOP RD, LT	-	-	-	16	LOWER LAYER 1.75"
0010	700+13	-	701+05	OVERSON LN, RT	-	-	-	6	LOWER LAYER 1.75"
0010	104+50	-	115+00	M/L	175	-	-	343	UPPER LAYER 1.75"
0010	115+00	-	131+04	M/L	250	-	-	487	UPPER LAYER 1.75"
0010	133+30	-	182+50	M/L	735	-	-	1,434	UPPER LAYER 1.75"
0010	182+50	-	185+50	M/L	45	-	-	86	UPPER LAYER 1.75"
0010	185+50	-	252+83	M/L	1,070	-	-	2,096	UPPER LAYER 1.75"
0010	253+14	-	329+90	M/L	1,140	-	-	2,230	UPPER LAYER 1.75"
0010	331+64	-	431+26	M/L	1,975	-	-	2,883	UPPER LAYER 1.75"
0010	431+80	-	486+00	M/L	830	-	-	1,622	UPPER LAYER 1.75"
0010	600+17	-	600+85	HILLTOP RD, LT	10	-	-	16	UPPER LAYER 1.75"
0010	700+13	-	701+05	OVERSON LN, RT	5	-	-	6	UPPER LAYER 1.75"
0010	115+00	-	486+00	INTERSECTION	-	-	-	195	UPPER LAYER/LOWER LAYER 3 1/2"
0010	115+00	-	486+00	M/L	-	1	2	-	
				0010 ITEM TOTALS	6,235	1	2	22,699	
				PROJECT ITEM TOTALS	6,260	1	2	22,808	

NOTE: ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

ASPHALTIC FLUMES

STATION	LOCATION	465.0315 ASPHALTIC FLUMES SY
158+25	M/L, RT	18
179+07	M/L, RT	18
182+75	M/L, LT	21
272+42	M/L, RT	24
UNDISTRIBUTED		20
ITEM TOTAL		260

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

	STATION	LOCATION	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	REMARKS
0060	106+21	M/L, LT	3	DAVIS TRAILER CT
0060	170+80	M/L, LT	3	EASY ST
0060	109+37	M/L, LT	1	PE
0060	109+89	M/L, RT	7	PE
	0060 ITEM TOTAL		14	
0010	118+71	M/L, LT	6	CE
0010	153+55	M/L, LT	4	PE
0010	153+80	M/L, RT	6	CE
0010	159+35	M/L, LT	9	PE
0010	191+87	M/L, LT	2	PE
0010	225+15	M/L, LT	10	PE
0010	233+94	M/L, LT	3	PE
0010	246+47	M/L, RT	3	PE
0010	257+31	M/L, RT	3	PE
0010	401+80	M/L, LT	1	PE
0010	404+86	M/L, RT	5	PE
0010	448+52	M/L, LT	6	PE
0010	462+87	M/L, LT	2	PE
0010	466+27	M/L, RT	2	PE
0010	467+12	M/L, RT	2	PE
	0010 ITEM TOTAL		64	
	PROJECT ITEM TOTAL		78	

RUMBLE STRIPS

STA	TO	STA	LOCATION	465.0560 ASPHALTIC RUMBLE STRIPS CENTERLINE LF	REMARKS
119+65	-	130+79	M/L	1114	
137+50	-	152+85	M/L	1535	
154+85	-	187+47	M/L	3262	
189+47	-	207+55	M/L	1808	
211+55	-	233+70	M/L	2215	
235+70	-	252+58	M/L	1688	
256+75	-	268+30	M/L	1155	
272+30	-	310+50	M/L	3820	
314+50	-	329+65	M/L	1515	
331+89	-	339+00	M/L	711	
343+00	-	355+35	M/L	1235	
359+35	-	413+95	M/L	5460	
417+95	-	429+15	M/L	1120	
432+15	-	452+30	M/L	2015	
457+60	-	460+17	M/L	257	
462+17	-	486+00	M/L	2383	
			ITEM TOTALS	31,293	

STATION	TO	STATION	LOCATION	LAYER/USE	UNDERLAYING SURFACE	BID ITEM	QUANTITY (TONS)	LAYER THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
									MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
104+50 - 115+00			11' DRIVING LANE	UPPER LAYER	4 LT 58-28 S	4 LT 58-28 S	252 TONS	1-3/4"	460.2010 INCENTIVE AIR VOIDS HMA PAVEMENT (PWL)	460.2005 INCENTIVE DENSITY PWL HMA PAVEMENT
			SHOULDER	UPPER LAYER	4 LT 58-28 S	4 LT 58-28 S	120 TONS	1-3/4"	460.2010 INCENTIVE AIR VOIDS HMA PAVEMENT (PWL)	ACCEPTANCE TESTING BY THE DEPARTMENT. NOT ELIGIBLE FOR INCENTIVE.
			INTERSECTIONS/ SIDEROADS	UPPER LAYER	4 LT 58-28 S	4 LT 58-28 S	19 TONS	1-3/4"	460.2010 INCENTIVE AIR VOIDS HMA PAVEMENT (PWL)	ACCEPTANCE TESTING BY THE DEPARTMENT. NOT ELIGIBLE FOR INCENTIVE.
			11' DRIVING LANE	LOWER LAYER	BASE AGGREGATE	4 LT 58-28 S	323 TONS	2-1/4"	460.2010 INCENTIVE AIR VOIDS HMA PAVEMENT (PWL)	460.2000 INCENTIVE DENSITY HMA PAVEMENT
			SHOULDER	LOWER LAYER	BASE AGGREGATE	4 LT 58-28 S	155 TONS	2-1/4"	460.2010 INCENTIVE AIR VOIDS HMA PAVEMENT (PWL)	ACCEPTANCE TESTING BY THE DEPARTMENT. NOT ELIGIBLE FOR INCENTIVE.
			INTERSECTIONS/ SIDEROADS	LOWER LAYER	BASE AGGREGATE	4 LT 58-28 S	24 TONS	2-1/4"	460.2010 INCENTIVE AIR VOIDS HMA PAVEMENT (PWL)	ACCEPTANCE TESTING BY THE DEPARTMENT. NOT ELIGIBLE FOR INCENTIVE.
115+00 - 131+04 133+00 - 252+83 253+14 - 329+90 331+64 - 431+26 431+80 - 486+00			11' DRIVING LANE	UPPER LAYER	4 LT 58-28 S	4 LT 58-28 S	8770 TONS	1-3/4"	460.2010 INCENTIVE AIR VOIDS HMA PAVEMENT (PWL)	460.2005 INCENTIVE DENSITY PWL HMA PAVEMENT
			SHOULDER	UPPER LAYER	4 LT 58-28 S	4 LT 58-28 S	2068 TONS	1-3/4"	460.2010 INCENTIVE AIR VOIDS HMA PAVEMENT (PWL)	ACCEPTANCE TESTING BY THE DEPARTMENT. NOT ELIGIBLE FOR INCENTIVE.
			INTERSECTIONS/ SIDEROADS	UPPER LAYER	4 LT 58-28 S	4 LT 58-28 S	22 TONS	1-3/4"	460.2010 INCENTIVE AIR VOIDS HMA PAVEMENT (PWL)	ACCEPTANCE TESTING BY THE DEPARTMENT. NOT ELIGIBLE FOR INCENTIVE.
			11' DRIVING LANE	LOWER LAYER	BASE AGGREGATE	4 LT 58-28 S	8770 TONS	1-3/4"	460.2010 INCENTIVE AIR VOIDS HMA PAVEMENT (PWL)	460.2005 INCENTIVE DENSITY PWL HMA PAVEMENT
			SHOULDER	LOWER LAYER	BASE AGGREGATE	4 LT 58-28 S	2068 TONS	1-3/4"	460.2010 INCENTIVE AIR VOIDS HMA PAVEMENT (PWL)	ACCEPTANCE TESTING BY THE DEPARTMENT. NOT ELIGIBLE FOR INCENTIVE.
			INTERSECTIONS/ SIDEROADS	LOWER LAYER	BASE AGGREGATE	4 LT 58-28 S	22 TONS	1-3/4"	460.2010 INCENTIVE AIR VOIDS HMA PAVEMENT (PWL)	ACCEPTANCE TESTING BY THE DEPARTMENT. NOT ELIGIBLE FOR INCENTIVE.

3

CONCRETE CURB & GUTTER

CATELOG	STATION	TO	STATION	LOCATION	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	REMARKS
0060	104+50	-	110+99	M/L, LT	649	-	649	
0060	20+15	-	20+65	SAND LAKE CT, LT	52	-	52	
0060	20+15	-	20+65	SAND LAKE CT, RT	59	-	59	
0060	111+62	-	114+35	M/L, LT	273	-	273	
0060	104+63	-	113+50	M/L, RT	887	-	887	
				0060 ITEM TOTALS	1,920	0	1,920	
0010	158+25	-	179+07	M/L, RT	-	2,082	2,082	
0010	179+07	-	182+75	M/L, LT	-	353	353	
				0010 ITEM TOTALS	0	2,435	2,435	
				PROJECT ITEM TOTALS	1,920	2,435	4,355	

SIDEWALK

CATEGORY	STATION		STATION	LOCATION	602.0405 CONCRETE SIDEWALK 4-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	650.9500 CONSTRUCTION STAKING SIDEWALK PROJECT EACH
0060		107+68		M/L, LT	-	10	1	-
0060		107+94		M/L, LT	-	10	1	-
0060		111+08		M/L, LT	-	10	1	-
0060		111+52		M/L, LT	-	10	1	-
0060	104+99	-	106+04	M/L, LT	525	-	-	-
0060	106+36	-	106+67	M/L, LT	155	-	-	-
0060	106+91	-	107+68	M/L, LT	385	-	-	-
0060	107+94	-	108+41	M/L, LT	235	-	-	-
0060	108+53	-	109+31	M/L, LT	390	-	-	-
0060	109+43	-	111+10	M/L, LT	835	-	-	-
0060	111+50	-	112+97	M/L, LT	735	-	-	-
0060	113+15	-	114+00	M/L, LT	425	-	-	-
0060	104+50	-	115+00	M/L	-	-	-	1
				ITEM TOTAL	3,685	40	4	1

CONCRETE DRIVEWAYS

CATEGORY	STATION	LOCATION	602.0810 CONCRETE DRIVEWAY 6-INCH SY	REMARKS
0060	104+89	M/L, LT	11	PE
0060	105+87	M/L, RT	12	PE
0060	106+11	M/L, RT	13	PE
0060	106+21	M/L, LT	35	DAVIS TRAILER CT
0060	106+79	M/L, LT	27	PE
0060	107+80	M/L, LT	30	EASY ST
0060	108+46	M/L, LT	14	PE
0060	109+37	M/L, LT	14	PE
0060	111+28	M/L, RT	28	PE
0060	113+07	M/L, LT	21	PE
		ITEM TOTAL	205	

CONCRETE BARRIER TEMPORARY

STATION	TO	STATION	LOC	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	614.0905 **** CRASH CUSHIONS TEMPORARY EACH	REMARKS
	129+30			-	-	1	STRUCTURE B-62-029 OVERLAY (STAGE 1)
129+30	-	134+35	M/L	508	508	-	STRUCTURE B-62-029 OVERLAY (STAGE 1)
129+30	-	134+35	M/L	-	508	-	STRUCTURE B-62-029 OVERLAY (STAGE 2)
	134+35			-	-	1	STRUCTURE B-62-029 OVERLAY (STAGE 2)
			TOTALS	508	1,016	2	

****CRASH CUSHIONS TEMPORARY TL-3.

RIPRAP & GEOTEXTILE FABRIC

STATION	TO	STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	606.0300 RIPRAP HEAVY CY	645.0120 GEOTEXTILE TYPE HR SY	625.0100* TOPSOIL SY
	119+02		M/L, RT	5	-	16	-
	144+48		M/L, LT	5	-	16	16
183+25	-	184+30	M/L, LT	-	145	270	-
	261+57		M/L, LT	3	-	12	12
	290+83		M/L, LT	2	-	9	9
	298+40		M/L, RT	2	-	8	8
			ITEM TOTALS	17	145	331	45

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

NOTE: ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

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SIGN ITEMS

NUMBER	STATION	LOCATION	638.2102 MOVING SIGNS TYPE II EACH	634.0612 POSTS WOOD 4x6-INCH x 12-FT EACH	634.0614 POSTS WOOD 4x6-INCH x 14-FT EACH	634.0616 POSTS WOOD 4x6-INCH x 16-FT EACH	634.0618 POSTS WOOD 4x6-INCH x 18-FT EACH	COMMENTS
1	104+65	M/L, LT	1	-	-	1	-	STOP
2	105+45	M/L, LT	1	-	-	-	1	STH 35 ROUTE MARKER
3	107+64	M/L, LT	1	-	1	-	-	STOP
4	108+04	M/L, RT	1	-	1	-	-	SPEED LIMIT 30 MPH, NO PASSING ZONE
5	108+90	M/L, LT	1	-	-	2	-	NO PASSING ZONE (SAME POST AS 6)
6	-	-	1	-	-	-	-	STH 35 AND STH 162 ROUTE MARKERS
7	110+48	M/L, LT	1	-	1	-	-	SPEED LIMIT 30 MPH
8	111+05	M/L, LT	1	-	1	-	-	STOP
9	114+48	M/L, RT	1	-	1	-	-	STOP
10	114+85	M/L, RT	1	-	-	-	-	CITY DISTANCES (MOVE TO STA 119+50, RT)
11	134+40	M/L. LT	1	-	-	1	-	STH 162 ROUTE MARKER, SOUTH
12	134+87	M/L, RT	1	-	-	-	1	CTH O ROUTE MARKER, RIGHT
13	135+46	M/L, LT	1	-	1	-	-	TWO-DIRECTION LARGE ARROW
14	136+07	M/L, LT	1	-	-	1	-	CTH O ROUTE MARKER, LEFT
15	167+58	M/L, RT	1	-	-	1	-	ROAD CURVES AHEAD, 35 MPH
16	176+54	M/L, RT	1	-	-	1	-	ROAD CURVES LEFT, 35 MPH
17	178+47	M/L, RT	1	-	1	-	-	CHEVRONS
18	179+33	M/L, RT	1	-	1	-	-	CHEVRONS
19	182+42	M/L, RT	1	-	1	-	-	CHEVRONS
20	183+31	M/L, RT	1	-	1	-	-	CHEVRONS
21	184+64	M/L, RT	1	-	-	-	1	ROAD CURVES LEFT, 50 MPH
22	194+53	M/L, LT	1	-	-	1	-	ROAD CURVES LEFT, 45 MPH
23	195+74	M/L, LT	1	-	1	-	-	CHEVRONS
24	196+86	M/L, LT	1	-	1	-	-	CHEVRONS
25	197+97	M/L, LT	1	-	1	-	-	CHEVRONS
26	198+87	M/L, LT	1	-	1	-	-	CHEVRONS
27	199+67	M/L, LT	1	-	1	-	-	CHEVRONS
28	200+45	M/L, LT	1	-	1	-	-	CHEVRONS
29	201+25	M/L, LT	1	-	1	-	-	CHEVRONS
30	223+18	M/L, LT	1	-	-	1	-	ROAD CURVE LEFT, 45 MPH
	ITEM SUBTOTALS		30	0	17	9	3	

SIGN ITEMS

NUMBER	STATION	LOCATION	638.2102 MOVING SIGNS TYPE II EACH	634.0612 POSTS WOOD 4x6-INCH x 12-FT EACH	634.0614 POSTS WOOD 4x6-INCH x 14-FT EACH	634.0616 POSTS WOOD 4x6-INCH x 16-FT EACH	634.0618 POSTS WOOD 4x6-INCH x 18-FT EACH	COMMENTS
31	242+58	M/L, LT	1	-	-	-	1	ROAD CURVES AHEAD, 35 MPH
32	254+40	M/L, LT	1	-	1	-	-	STOP
33	261+44	M/L, RT	1	-	1	-	-	CHEVRONS
34	262+47	M/L, RT	1	-	1	-	-	CHEVRONS
35	267+71	M/L, RT	1	-	1	-	-	CHEVRONS
36	271+74	M/L, LT	1	-	1	-	-	CHEVRONS
37	272+50	M/L, LT	1	-	1	-	-	CHEVRONS
38	392+79	M/L, LT	1	1	-	-	-	BRIDGE HASH MARKS, RT
39	392+79	M/L, RT	1	1	-	-	-	BRIDGE HASH MARKS, LT
40	331+77	M/L, LT	1	1	-	-	-	BRIDGE HASH MARKS, LT
41	331+77	M/L, RT	1	1	-	-	-	BRIDGE HASH MARKS, RT
42	354+40	M/L, RT	1	-	-	-	1	ROAD SHARP CURVES, 40 MPH
43	372+50	M/L, RT	1	-	1	-	-	ON-DIRECTION LARGE ARROW
44	373+45	M/L, RT	1	-	1	-	-	ONE-DIRECTION LARGE ARROW
45	376+44	M/L, RT	1	-	-	1	-	ROAD CURVES AHEAD, 35 MPH
46	381+00	M/L, RT	1	-	1	-	-	CHEVRONS
47	381+85	M/L, RT	1	-	1	-	-	CHEVRONS
48	382+65	M/L, RT	1	-	1	-	-	CHEVRONS
49	395+42	M/L, RT	1	-	-	1	-	ROAD CURVES AHEAD, 40 MPH
50	431+22	M/L, LT	1	1	-	-	-	BRIDGE HASH MARKS, RT
51	431+22	M/L, RT	1	1	-	-	-	BRIDGE HASH MARKS, LT
52	431+83	M/L, LT	1	1	-	-	-	BRIDGE HASH MARKS, LT
53	431+83	M/L, RT	1	1	-	-	-	BRIDGE HASH MARKS, RT
54	448+30	M/L, RT	1	-	-	-	1	ROAD TURNS RIGHT, 20 MPH
55	467+70	M/L, RT	1	-	1	-	-	CHEVRONS
56	468+50	M/L, RT	1	-	1	-	-	CHEVRONS
57	469+20	M/L, RT	1	-	1	-	-	CHEVRONS
	ITEM SUBTOTALS		27	8	14	2	3	
ITEM SUBTOTALS (FIRST COLUMN)			30	0	17	9	3	
	ITEM TOTALS		57	8	31	11	6	

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NOTE: ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	MISCELLANEOUS QUANTITIES	SHEET 91	E

CULVERT PIPE SUMMARY

STATION	LOCATION	520.1024 APRON ENDWALLS FOR CULVERT PIPE 24-INCH EACH	520.3324 CULVERT PIPE CLASS III-A 24-INCH LF	521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH EACH	521.3118 CULVERT PIPE CORRUGATED STEEL 18-INCH LF	522.2319 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 19X30-INCH LF	522.2324 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 24X38-INCH LF	522.2619 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH EACH	522.2624 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 24X38-INCH EACH	611.0645 INLET COVERS TYPE MS-A EACH	611.3902* INLETS MEDIAN 2 GRATE EACH	633.5200 MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	STEEL THICKNESS (INCHES)	INLET** ELEVATION	OUTLET** ELEVATION
144+48.57	162	2	94	-	-	-	-	-	-	-	-	2	1	0.064	701.20	693.65
261+57.19	162	-	-	-	-	-	36	-	2	-	-	2	1	-	656.20	655.84
267+59.85' RT	162	-	-	1	6	-	-	-	-	-	-	1	1	0.064	654.55	654.49
272+19.14	162	-	-	-	-	48	-	1	-	2	1	1	1	-	655.15	654.75
290+82.52	162	2	40	-	-	-	-	-	-	-	-	2	1	0.064	662.25	659.00
298+39.61	162	-	-	-	-	40	-	2	-	-	-	2	1	-	663.25	661.70
395+64.31	162	-	-	-	-	40	-	2	-	-	-	2	1	-	670.75	669.85
448+93.67	162	-	-	-	-	32	-	2	-	-	-	2	1	-	691.80	690.90
483+77.21	162	2	48	-	-	-	-	-	-	-	-	2	1	0.064	675.50	675.00
	TOTALS	6	182	1	6	160	36	7	2	2	1	16	9			

**PIPE INVERT AT END OF PIPE FOR INFORMATION ONLY. FIELD VERIFY

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

STORM SEWER PIPES STODDARD

CATEGORY	FROM	-	TO	LOCATION	608.3012 STORM SEWER PIPE CLASS III-A 12-INCH LF	608.3015 STORM SEWER PIPE CLASS III-A 15-INCH LF	608.3018 STORM SEWER PIPE CLASS III-A 18-INCH LF	608.3024 STORM SEWER PIPE CLASS III-A 24-INCH LF	INLET ELEVATION	DISCHARGE ELEVATION
0060	2.0	-	1.0	162	-	-	-	99	650.19	649.20
0060	3.0	-	2.0	162	-	-	-	146	651.65	650.19
0060	4.0	-	3.0	162	-	-	-	169	653.35	651.65
0060	5.0	-	4.0	162	-	-	-	67	654.12	653.35
0060	5.1	-	5.0	162	17	-	-	-	655.20	655.12
0060	6.0	-	5.0	162	-	-	-	86	655.11	654.12
0060	6.1	-	6.0	162	19	-	-	-	656.29	656.11
0060	7.0	-	6.0	162	-	-	-	54	655.73	655.11
0060	7.1	-	7.0	162	-	17		-	656.56	656.48
0060	7.2	-	7.1	162	-	16	-	-	656.64	656.56
0060	8.2	-	8.1	162	37	-	-	-	658.70	658.57
0060	8.0	-	7.0	162	-	-	178	-	657.49	656.23
0060	8.1	-	8.0	162	19	-	-	-	658.57	658.49
0060	8.3	-	8.0	162	19	-	-	-	658.09	657.99
0060	9.0	-	8.0	162	-	-	457	-	659.55	657.49
0060	9.1	-	9.0	162	19	-	-	-	660.14	660.05
0060	9.2	-	9.0	162	17	-	-	-	660.13	660.05
				TOTALS	147	33	635	621		

STORM SEWER PIPES

FROM	-	TO	LOCATION	608.3015 STORM SEWER PIPE CLASS III-A 15-INCH LF	608.3018 STORM SEWER PIPE CLASS III-A 18-INCH LF	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT
10.1	-	OUTFALL	162	-	60	723.15	721.36	0.0300
30.1	-	OUTFALL	162	-	48	716.97	716.02	0.0200
40.1	-	30.1	162	-	25	717.10	716.97	0.0050
40.2	-	40.1	162	-	8	717.17	717.10	0.0100
50.1	-	40.1	162	101	-	717.75	717.35	0.0040
60.1	-	OUTFALL	162	-	49	717.00	716.27	-0.0150
			TOTALS	101	190			

NOTE: ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

STORM SEWER STRUCTURES STODDARD RECONSTRUCTION

CATEGORY	STRUCTURE	STATION	OFFSET*	LOCATION	520.1024 APRON ENDWALLS FOR CULVERT PIPE 24-INCH EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0624 INLET COVERS TYPE H EACH	611.0642 INLET COVERS TYPE MS EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	RIM** ELEVATION	INVERT*** ELEVATION	DEPTH**** FT
0060	1.0	118+95.93	36.88' RT	162	1	-	-	-	-	-	-	-		649.20	
0060	2.0	117+96.80	32.00' RT	162	-	-	-	1	-	-	1	1	653.69	650.19	3.74
0060	3.0	116+51.64	32.75' RT	162	-	-	-	1	-	-	1	1	655.41	651.65	4.00
0060	4.0	114+83.74	32.00' RT	162	-	1	-	-	1	-	-	1	657.65	653.35	3.31
0060	5.0	114+25.00	0	162	-	1	-	-	1	-	-	1	660.30	654.12	5.19
0060	5.1	114+25.00	16.50' LT	162	-	-	1	-	-	1	-	1	659.80	655.20	3.77
0060	6.0	113+38.94	0	162	-	1	-	-	1	-	-	1	661.30	655.11	5.21
0060	6.1	113+38.95	18.50' RT	162	-	-	1	-	-	1	-	1	661.74	656.29	4.61
0060	7.0	112+85.25	0	162	-	1	-	-	1	-	-	1	661.90	655.73	5.19
0060	7.1	112+85.25	16.50' LT	162	-	-	1	-	-	1	-	1	661.54	656.56	4.17
0060	7.2	112+85.25	32.00' LT	162	-	-	-	1	-	-	1	1	661.20	656.64	4.76
0060	8.2	111+44.30	18.50' RT	162	-	-	1	-	-	1	-	1	662.41	658.70	2.87
0060	8.0	111+07.00	0	162	-	1	-	-	1	-	-	1	663.00	657.49	4.48
0060	8.1	111+07.00	18.50' RT	162	-	-	1	-	-	1	-	1	662.60	658.40	3.20
0060	8.3	110+97.25	16.50' LT	162	-	-	1	-	-	1	-	1	662.70	658.09	3.78
0060	9.0	106+50.00	0	162	-	1	-	-	1	-	-	1	664.99	659.55	4.41
0060	9.1	106+50.00	18.50' RT	162	-	-	1	-	-	1	-	1	664.59	660.14	3.61
0060	9.2	106+50.00	16.50' LT	162	-	-	1	-	-	1	-	1	664.63	660.13	3.66
				TOTALS	1	6	8	3	6	8	3	17			

STORM SEWER STRUCTURES ROAD REALIGNMENT

STRUCTURE	STATION	OFFSET*****	LOCATION	611.0615 INLET COVERS TYPE F EACH	611.0642 INLET COVERS TYPE MS EACH	611.3003 INLETS 3-FT DIAMETER EACH	611.3253 INLETS 2.5X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902* INLETS MEDIAN 2 GRATE EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	RIM** ELEVATION	INVERT*** ELEVATION	DEPTH**** FT
10.1	162+10.00	26.50' RT	162	-	1	-	-	1	-	1	727.15	723.15	4.21
30.1	168+75.00	14.50' RT	162	1	-	1	-	-	-	1	722.64	716.97	4.92
40.1	169+00.00	14.50' RT	162	1	-	1	-	-	-	1	722.59	717.10	4.74
40.2	169+00.00	22.00' RT	162	-	2	-	-	-	1	1	722.45	717.17	5.49
50.1	170+00.00	14.50' RT	162	1	-	-	1	-	-	1	722.50	717.75	3.98
60.1	172+00.00	14.50' RT	162	1	-	-	1	-	-	1	721.73	716.71	4.06
			TOTALS	4	3	2	2	1	1	6			

REMARKS:

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

**RIM ELEV IS AT THE INLET COVER FLANGE LOCATION

***FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE

****DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT

*****STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

NOTE: ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

MGS GUARDRAIL ITEMS

STATION	TO	STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3 K LF	614.2340 MGS GUARDRAIL 3 L LF	614.2350 MGS GUARDRAIL SHORT RADIUS LF	614.2500 MGS THRIE BEAM TRANSITION EACH	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH	614.2630 MGS GUARDRAIL SHORT RADIUS TERMINAL EACH
127+82	-	131+00	M/L,LT	225	-	-	-	39.4	1	-	-
127+84	-	130+89	M/L, RT	212.5	-	-	-	39.4	1	-	-
133+44	-	135+73	M/L, LT	137.5	-	-	-	39.4	1	-	-
133+35	-	134+78	M/L, RT	50	-	-	-	39.4	1	-	-
159+75	-	166+22	M/L, LT	-	537.5	-	-	-	2	-	-
169+71	-	178+32	M/L, LT	-	762.5	-	-	-	2	-	-
194+88	-	204+47	M/L, LT	-	850	-	-	-	2	-	-
218+74	-	223+76	M/L, LT	-	400	-	-	-	2	-	-
225+17	-	225+71	M/L, LT	50	-	-	-	-	-	1	-
225+71		229+84	M/L, LT	-	362.5	-	-	-	1	-	-
236+67	-	237+24	M/L LT	50	-	-	-	-	-	1	-
237+24	-	249+03	M/L, LT	-	1125	-	-	-	1	-	-
251+79	-	252+84	M/L, LT	12.5	-	-	-	39.4	1	-	-
251+54	-	252+84	M/L, RT	37.5	-	-	-	39.4	1	-	-
253+13	-	254+17	M/L, RT	12.5	-	-	-	39.4	1	-	-
253+13	-	601+45	M/L, LT	75	-	-	75	39.4	1	-	-
306+22	-	309+13	M/L, RT	187.5	-	-	-	-	2	-	-
306+69		309+67	M/L, LT	187.5	-	-	-	-	2	-	-
328+52		329+82	M/L, RT	37.5	-	-	-	39.4	1	-	-
328+52		329+82	M/L, LT	37.5	-	-	-	39.4	1	-	-
331+73		333+03	M/L, LT	37.5	-	-	-	39.4	1	-	-
331+73		333+03	M/L, RT	37.5	-	-	-	39.4	1	-	-
352+10		356+41	M/L, RT	-	325	-	-	-	2	-	-
359+93		375+66	M/L, RT	787.5	712.5	-	-	-	2	-	-
373+28		375+52	M/L, LT	-	-	112.5	-	-	2	-	-
375+91		382+19	M/L, RT	75	450	-	-	-	2	-	-
429+69		431+26	M/L, RT	62.5	-	-	-	39.4	-	-	-
700+65		431+26	M/L, LT	37.5	-	-	37.5	39.4	-	-	1
431+79		433+09	M/L, RT	37.5	-	-	-	39.4	1	-	-
431+79		433+34	M/L, LT	62.5	-	-	-	39.4	1	-	-
468+03		472+89	M/L, RT	-	375	-	-	-	2	-	-
			ITEM TOTALS	2450	5900	112.5	112.5	630.4	38	2	1

EROSION MAT

CATEGORY	STA	TO	STA	LOCATION	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.2023 EROSION MAT CLASS II TYPE B SY	REMARKS
0060	111+70	-	114+10	M/L, LT	190	-	STODDARD
0060	114+85	-	119+00	M/L, RT	270	-	STORM SEWER
				0060 ITEM TOTALS	460	0	
0010	126+20	-	128+34	M/L, LT & RT	550	-	EATS STRUCTURE B-62-029
0010	134+25	-	135+02	M/L, RT	70	-	EATS STRUCTURE B-62-029
0010	158+25	-	170+50	M/L, RT	1100	-	ROAD REALINGMENT
0010	159+25	-	161+25	M/L, RT	-	100	ROAD REALINGMENT
0010	159+75	-	178+85	M/L, LT	970	-	ROAD REALINGMENT
0010	166+75	-	167+25	M/L, RT	-	20	ROAD REALINGMENT
0010	170+50	-	176+18	M/L, RT	-	310	ROAD REALINGMENT
0010	176+18	-	179+25	M/L, RT	280	-	ROAD REALINGMENT
0010	182+50	-	185+50	M/L, LT & RT	1420	-	BOX CULVERT
0010	217+50	-	219+23	M/L, LT	110	-	EATS
0010	222+98	-	224+36	M/L, LT	160	-	EATS
0010	229+06	-	230+10	M/L, LT	110	-	EATS
0010	248+24	-	249+63	M/L, LT	330	-	EATS
0010	250+15	-	252+29	M/L, LT & RT	250	-	EATS STRUCTURE B-62-083
0010	254+14	-	254+40	M/L, LT	60	-	EATS STRUCTURE B-62-083
0010		272+19		M/L, LT	4	-	CULVERT REPLACEMENT
0010	305+04	-	307+23	M/L, LT & RT	200	-	EATS STRUCTURE B-62-049
0010	308+75	-	310+85	M/L, LT	200	-	EATS STRUCTURE B-62-049
0010	326+88	-	329+30	M/L, LT & RT	650	-	EATS STRUCTURE B-62-056
0010	332+25	-	334+66	M/L, RT	490	-	EATS STRUCTURE B-62-056
0010	373+12	-	373+84	M/L, LT	60	-	EATS CATTLE PASS
0010	374+76	-	375+69	M/L, LT & RT	140	-	EATS CATTLE PASS
0010		448+93		M/L, LT	20	-	CULVERT REPLACEMENT
0010		483+77		M/L, RT	5	-	CULVERT REPLACEMENT
			UNDISTRIBUTED		561	70	
				0010 ITEM TOTALS	7,740	500	
				PROJECT ITEM TOTALS	8,200	500	

NOTE: ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

SILT FENCE

CATEGORY	STA	TO	STA	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	999.2100.S INSTALLING AND MAINTAINING TURTLE EXCLUSION FENCE LF	REMARKS
0060	104+90	-	105+79	M/L, RT	83	166	-	STODDARD
0060	105+00	-	106+02	M/L, LT	97	194	-	STODDARD
0060	106+34	-	106+77	M/L, LT	33	66	-	STODDARD
0060	108+54	-	109+31	M/L, LT	76	152	-	STODDARD
0060	109+42	-	110+98	M/L, LT	155	310	-	STODDARD
			0060 ITEM TOTALS		444	888	0	
0010	126+15	-	128+25	M/L, LT	240	480	-	EAT
0010	126+15	-	128+25	M/L, RT	235	470	-	EAT
0010	144+25	-	144+70	M/L, LT	50	100	-	CULVERT
0010	160+00	-	178+60	M/L, LT	1735	3470	-	GUARDRAIL
0010	184+35	-	185+50	M/L, LT	135	270	-	BOX CULVERT
0010	217+50	-	219+25	M/L, LT	175	350	-	EAT
0010	222+95	-	224+40	M/L, LT	145	290	-	EAT
0010	229+05	-	230+05	M/L, LT	100	200	-	EAT
0010	248+20	-	249+65	M/L, LT	150	300	-	EAT
0010	249+90	-	252+85	M/L, RT	325	650	325	BRIDGE
0010	249+95	-	252+80	M/L, LT	310	620	310	BRIDGE
0010	253+15	-	254+40	M/L, RT	155	310	155	BRIDGE
0010	253+15	-	602+00	M/L, LT	285	570	285	BRIDGE
0010	260+90	-	262+15	M/L, LT	170	340	170	CULVERT
0010	271+55	-	272+80	M/L, LT	170	340	170	CULVERT
0010	290+20	-	291+45	M/L, LT	170	340	170	CULVERT
0010	297+80	-	299+00	M/L, LT	170	340	170	CULVERT
0010	304+75	-	307+80	M/L, RT	335	670	335	BRIDGE
0010	305+25	-	307+75	M/L, LT	270	540	270	BRIDGE
0010	308+05	-	310+45	M/L, RT	265	530	265	BRIDGE
0010	308+05	-	311+15	M/L, LT	325	650	325	BRIDGE
0010	326+55	-	329+90	M/L, RT	375	750	375	BRIDGE
0010	326+55	-	329+85	M/L, LT	355	710	355	BRIDGE
0010	331+65	-	334+90	M/L, RT	355	710	355	BRIDGE
0010	374+75	-	375+70	M/L, RT	95	190	-	EAT
0010	395+05	-	396+25	M/L, RT	170	340	170	CULVERT
0010	428+15	-	431+40	M/L, LT & RT	590	1180	590	BRIDGE
0010	431+70	-	434+80	M/L, LT & RT	715	1430	715	BRIDGE
0010	448+45		449+45	M/L, RT	100	200	100	CULVERT
0010	467+25		468+50	M/L, RT	135	270	-	EAT
0010	472+35		473+80	M/L, RT	145	290	-	EAT
0010	483+20		484+35	M/L, RT	165	330	165	CULVERT
0010	UNDISTRIBUTED				2241	4482	1425	
			0010 ITEM TOTALS		11356	22712	7200	
			PROJECT ITEM TOTALS		11800	23600	7200	

MOBILIZATION EROSION CONTROL

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
PROJECT 5865-02-64	8	4
ITEM TOTALS	8	4

EROSION CONTROL ITEMS

CATEGORY	STA	TO	STA	LOCATION	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	REMARKS
0060	103+75	-	119+00	M/L, LT & RT	-	-	17	3	10	STODDARD RECONSTRUCTION
0060	111+75	-	114+00	M/L, LT	24	-	-	-	-	STODDARD RECONSTRUCTION
			0060 ITEM TOTALS		24	0	17	3	10	
0010			134+00	M/L, RT	8	-	-	-	-	EAT
0010			144+48	M/L, RT	8	3	-	-	-	CULVERT REPLACEMENT
0010	158+25	-	170+50	M/L, RT	120	-	-	-	-	GUARDRAIL
0010	162+10	-	172+00	M/L, RT	-	-	6	1	5	GUARDRAIL
0010	176+25	-	179+25	M/L, RT	32	-	-	-	-	GUARDRAIL
0010	182+50	-	185+50	M/L, RT	56	24	-	-	-	BOX CULVERT
0010			267+60	M/L, RT	-	3	-	-	-	CULVERT REPLACEMENT
0010			272+19	M/L, RT	-	-	1	1	-	CULVERT REPLACEMENT
0010			290+83	M/L, RT	-	3	-	-	-	CULVERT REPLACEMENT
0010			298+40	M/L, RT	-	3	-	-	-	CULVERT REPLACEMENT
0010	328+00	-	329+25	M/L, RT	16	-	-	-	-	EAT
0010			373+85	M/L, LT	8	-	-	-	-	EAT
0010			395+64	M/L, LT	-	3	-	-	-	CULVERT REPLACEMENT
0010			448+94	M/L, RT	8	3	-	-	-	CULVERT REPLACEMENT
0010			483+77	M/L, LT	-	3	-	-	-	CULVERT REPLACEMENT
	UNDISTRIBUTED				68	-	-	-	-	
			0010 ITEM TOTALS		324	45	7	2	5	
			PROJECT ITEM TOTALS		348	45	24	5	15	

NOTE: ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

STAKING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.6501 CONSTRUCTION STAKING STRUCTURE LAYOUT C-62-335 EA	650.6501 CONSTRUCTION STAKING STRUCTURE LAYOUT B-62-984 EA	650.9911 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 5865-02-64 EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	REMARKS
0060	104+50	-	115+00	M/L	1,050	1,050	-	-	-	-	1,050	STODDARD RECONSTRUCTION
				0060 ITEM TOTALS	1,050	1,050	0	0	0	0	1,050	
0010	104+50	-	486+00		-	-	-	-	-	1	-	
0010	115+00	-	486+00	M/L	-	-	38,150	-	-	-	-	
0010	126+19	-	128+35	M/L	216	216	-	-	-	-	216	EATS
0010	134+28	-	136+33	M/L	205	205	-	-	-	-	205	EATS
0010	156+35	-	179+47	M/L	2,312	2,312	-	-	-	-	2,312	ROAD REALIGNMENT
0010	182+50	-	185+50	M/L	300	300	-	-	-	-	300	BOX CULVERT
0010	194+47	-	195+38	M/L, LT	91	91	-	-	-	-	91	EATS
0010	203+94	-	205+58	M/L, LT	164	164	-	-	-	-	164	EATS
0010	217+55	-	219+23	M/L, LT	168	168	-	-	-	-	168	EATS
0010	223+27	-	224+36	M/L, LT	109	109	-	-	-	-	109	EATS
0010	225+00	-	225+71	M/L, LT	71	71	-	-	-	-	71	EATS
0010	229+34	-	230+44	M/L, LT	110	110	-	-	-	-	110	EATS
0010	236+00	-	237+24	M/L, LT	124	124	-	-	-	-	124	EATS
0010	248+52	-	249+63	M/L, LT	111	111	-	-	-	-	111	EATS
0010	249+90	-	252+05	M/L	215	215	-	-	-	-	215	EATS
0010	253+68	-	254+25	M/L, RT	57	57	-	-	-	-	57	EATS
0010	600+95	-	601+85	HILLTOP RD, LT	90	90	-	-	-	-	90	EATS
0010	305+04	-	307+20	M/L	216	216	-	-	-	-	216	EATS
0010	308+64	-	310+85	M/L,	221	221	-	-	-	-	221	EATS
0010	326+88	-	329+02	M/L	214	214	-	-	-	-	214	EATS
0010	332+53	-	334+66	M/L	213	213	-	-	-	-	213	EATS
0010	350+91	-	352+59	M/L, RT	168	168	-	-	-	-	168	EATS
0010	355+91	-	357+00	M/L, RT	109	109	-	-	-	-	109	EATS
0010	359+90	-	360+41	M/L, RT	51	51	-	-	-	-	51	EATS
0010	373+12	-	376+41	M/L	329	329	-	-	-	-	329	EATS
0010	381+71	-	383+39	M/L, RT	168	168	-	-	-	-	168	EATS
0010	428+50	-	430+48	M/L, RT	198	198	-	-	-	-	198	EATS
0010	700+37	-	701+25	OVERSON LN, RT	88	88	-	-	-	-	88	EATS
0010	432+31	-	434+53	M/L	222	222	-	-	-	-	222	EATS
0010	467+25	-	468+51	M/L, RT	126	126	-	-	-	-	126	EATS
0010	472+38	-	473+78	M/L, RT	140	140	-	-	-	-	140	EATS
				0010 ITEM TOTALS	6,806	6,806	38,150	0	0	1	6,806	
0020	184+01			M/L	-	-	-	1	-	-	-	
				0020 ITEM TOTALS	0	0	0	1	0	0	0	
0030	431+53			M/L	-	-	-	-	1	-	-	
				0030 ITEM TOTALS	0	0	0	0	1	0	0	
				PROJECT ITEM TOTALS	7,856	7,856	38,150	1	1	1	7,856	

NOTE: ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

LANDSCAPING ITEMS

CATEGORY	STA	TO	STA	LOCATION	625.0100* TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0175 SEEDING MIXTURE NO. 75 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL	REMARKS
0060	104+50	-	106+05	M/L, LT	115	-	115	0.1	-	8	-	5	4	STODDARD RECONSTRUCTION
0060	104+63	-	115+00	M/L, RT	637	-	637	0.7	-	49	-	30	25	STODDARD RECONSTRUCTION
0060	106+35	-	107+70	M/L, LT	115	-	115	0.1	-	8	-	5	4	STODDARD RECONSTRUCTION
0060	107+90	-	111+15	M/L, LT	304	-	304	0.3	-	22	-	13	11	STODDARD RECONSTRUCTION
0060	111+25	-	115+00	M/L, LT	435	-	435	0.4	-	29	-	17	14	STODDARD RECONSTRUCTION
0060	114+85	-	119+15	M/L, RT	-	880	880	0.6	-	40	-	24	20	STORM SEWER
				0060 ITEM TOTALS	1,606	880	2,486	2.2	0	156	0	94	78	
0010	126+20	-	128+34	M/L, LT & RT	-	545	-	0.6	46	-	-	27	23	EATS STRUCTURE B-62-029
0010	134+25	-	135+02	M/L, RT	-	65	-	0.1	6	-	-	4	3	EATS STRUCTURE B-62-029
0010	143+98	-	144+98	M/L, LT & RT	-	245	245	0.3	23	-	-	14	12	CULVERT REPLACEMENT
0010	158+00	-	179+50	M/L, RT	-	1,520	510	1.7	123	-	-	74	61	ROAD REALIGNMENT
0010	159+75	-	178+85	M/L, LT	-	965	-	1.6	113	-	-	68	56	ROAD REALIGNMENT
0010	179+06	-	182+50	M/L, LT	-	120	120	0.1	-	5	-	3	3	CURB & GUTTER REPLACEMENT
0010	182+50	-	185+50	M/L, LT & RT	-	1,520	95	1.4	102	-	-	61	51	BOX CULVERT
0010	194+48	-	195+41	M/L, LT	-	65	65	0.1	7	-	-	4	3	EATS
0010	203+91	-	205+58	M/L, LT	-	35	35	0.1	-	2	-	1	1	EATS
0010	217+55	-	219+26	M/L, LT	-	110	-	0.2	13	-	-	8	6	EATS
0010	222+98	-	224+36	M/L, LT	-	160	160	0.2	-	11	-	7	6	EATS
0010	225+01	-	226+00	M/L, LT	-	20	20	0.1	4	-	-	2	2	EATS
0010	229+06	-	230+12	M/L, LT	-	110	-	0.1	8	-	-	5	4	EATS
0010	235+93	-	237+24	M/L, LT	-	30	30	0.1	7	-	-	4	3	EATS
0010	248+24	-	249+63	M/L, LT	-	325	-	0.3	21	-	-	12	10	EATS
0010	249+90	-	252+29	M/L, LT & RT	-	250	-	0.4	-	-	4.3	-	15	EATS STRUCTURE B-62-083
0010	253+65	-	254+28	M/L, RT	-	15	15	0.1	-	-	0.3	-	1	EATS STRUCTURE B-62-083
0010	253+77	-	601+85	M/L, LT	-	55	-	0.2	-	-	1.7	-	6	EATS STRUCTURE B-62-083
0010	261+07	-	262+07	M/L, LT & RT	-	240	240	0.1	-	-	1.5	-	5	CULVERT REPLACEMENT
0010	267+49	-	267+68	M/L, RT	-	45	45	0.1	-	-	0.3	-	1	CULVERT EXTENSION
0010	271+69	-	272+69	M/L, LT & RT	-	70	70	0.1	-	-	1.4	-	5	CULVERT REPLACEMENT
0010	290+32	-	291+32	M/L, LT & RT	-	90	90	0.2	-	-	1.8	-	6	CULVERT REPLACEMENT
0010	297+89	-	298+89	M/L, LT & RT	-	90	90	0.2	-	-	1.8	-	6	CULVERT REPLACEMENT
0010	305+04	-	307+23	M/L, LT & RT	-	195	-	0.3	24	-	-	14	12	EATS STRUCTURE B-62-049
0010	308+61	-	310+85	M/L, LT & RT	-	235	40	0.4	27	-	-	16	13	EATS STRUCTURE B-62-049
0010	326+88	-	329+30	M/L, LT & RT	-	650	-	0.7	49	-	-	29	24	EATS STRUCTURE B-62-056
0010	332+25	-	334+66	M/L, LT & RT	-	530	50	0.6	44	-	-	27	22	EATS STRUCTURE B-62-056
0010	350+91	-	352+62	M/L, RT	-	40	40	0.1	2	-	-	1	1	EATS
0010	355+88	-	357+02	M/L, RT	-	30	30	0.1	6	-	-	4	3	EATS
0010	373+12	-	373+83	M/L, LT	-	60	-	0.1	5	-	-	3	3	EATS
0010	374+76	-	375+68	M/L, LT & RT	-	135	-	0.2	12	-	-	7	6	EATS
0010	381+68	-	383+38	M/L, RT	-	40	40	0.1	2	-	-	1	1	EATS
0010	395+14	-	396+14	M/L, LT & RT	-	80	80	0.2	-	-	1.5	7	5	CULVERT REPLACEMENT
0010	428+50	-	430+25	M/L, RT	-	40	40	0.1	-	-	0.2	-	1	EATS STRUCTURE B-62-984
0010	701+05	-	430+75	M/L, LT	-	95	95	0.1	-	-	1.2	-	4	EATS STRUCTURE B-62-984
0010	432+31	-	434+53	M/L, LT & RT	-	380	380	0.4	-	-	4.0	-	14	EATS STRUCTURE B-62-984
0010	448+43	-	449+43	M/L, LT & RT	-	70	70	0.1	10	-	-	6	5	CULVERT REPLACEMENT
0010	467+18	-	468+54	M/L, RT	-	35	35	0.1	-	1	-	1	1	EATS
0010	472+35	-	473+78	M/L, RT	-	100	100	0.1	9	-	-	6	5	EATS
0010	483+27	-	484+27	M/L, LT & RT	-	95	95	0.2	-	-	1.8	-	6	CULVERT REPLACEMENT
	UNDISTRIBUTED				-	-	-	-	-	-	-	-		
				0010 ITEM TOTALS	0	9,500	2,925	12.3	663	19	21.8	416	415	
				PROJECT ITEM TOTALS	1,606	10,380	5,411	14.5	663	175	21.8	510	493	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

NOTE: ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

3

TRAFFIC CONTROL SUMMARY

LOCATION	DURATION DAYS	643.0300 TRAFFIC CONTROL DRUMS QTY*	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III QTY*	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A QTY*	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C QTY*	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0900 TRAFFIC CONTROL SIGNS QTY*	643.0900 TRAFFIC CONTROL SIGNS DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS QTY*	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	643.5000 TRAFFIC CONTROL 5865-02-64 EACH	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II NO. OF CYCLES	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II NO. OF SIGNS	644.1900.S TEMPORARY AUDIBLE MESSAGE DEVICES QTY*	644.1900.S TEMPORARY AUDIBLE MESSAGE DEVICES DAY	REMARKS
STH 162 VERNON																					
	7	-	-	-	-	-	-	-	-	-	-	2	14	1	-	-	-	-	-	ADVANCED WARNING
	349	-	-	-	-	-	-	-	-	110	38,390	-	-	-	8	1	8	-	-	DETOUR ROUTE
	349	-	-	24	8,376	48	16,752	-	-	40	13,960	-	-	-	-	-	-	-	-	TRAFFIC CONTROL (DURATION)
	55	100	5,500	8	440	16	880	15	825	3	165	-	-	-	-	-	-	-	-	STODDARD RECONSTUCTION
	30	15	450	-	-	-	-	5	150	5	150	-	-	-	-	-	-	4	120	STODDARD PEDESTRIAN ACCOMMODATIONS STAGE 2
	42	-	-	18	756	36	1,512	-	-	12	504	-	-	-	-	-	-	-	-	STRUCTURE C-62-335 (NEW BOX)
	45	-	-	1	45	2	90	-	-	19	855	-	-	-	1	1	1	-	-	STRUCTURE B-62-029 (OVERLAY) STAGE 1 & 2
	35	30	1,050	14	490	28	980	-	-	8	280	-	-	-	-	-	-	-	-	STRUCTURE B-62-984 (OVERLAY/WINGWALLS)
	100	175	17,500	-	-	-	-	-	-	2	200	-	-	-	-	-	-	-	-	BEAM GUARD AREAS
UNDISTRIBUTED		-	-	-	100	-	200	-	-	-	-	-	-	-	-	-	-	-	-	
	ITEM TOTALS		24,500		10,207		20,414		975		54,504		14	1			9		120	

* FOR INFORMATION ONLY

TEMPORARY PEDESTRIAN SURFACE MATTING

STATION	STATION	LOCATION	644.1440 TEMPORARY PEDESTRIAN SURFACE MATTING SF	REMARKS
UNDISTRIBUTED		M/L, LT	240	STODDARD WATER SERVICES (STAGE 1)
		ITEM TOTAL	240	

TEMPORARY PEDESTRIAN BARRICADE

STATION		STATION	LOCATION	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF	REMARKS
104+30	-	104+80	M/L, LT	50	STODDARD RECONSTRUCTION (STAGE 1)
105+00	-	105+95	M/L, LT	95	STODDARD RECONSTRUCTION (STAGE 1)
106+40	-	107+62	M/L, LT	122	STODDARD RECONSTRUCTION (STAGE 1)
107+98	-	108+38	M/L, LT	40	STODDARD RECONSTRUCTION (STAGE 1)
108+54	-	109+30	M/L, LT	76	STODDARD RECONSTRUCTION (STAGE 1)
104+35			M/L, LT	16	STODDARD RECONSTRUCTION (STAGE 2)
104+50			M/L, RT	34	STODDARD RECONSTRUCTION (STAGE 2)
105+90	-	106+40	M/L, LT	50	STODDARD RECONSTRUCTION (STAGE 2)
107+67			M/L, LT	17	STODDARD RECONSTRUCTION (STAGE 2)
107+80			M/L, LT	17	STODDARD RECONSTRUCTION (STAGE 2)
			ITEM TOTAL	517	

NOTE: ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

PAVEMENT MARKING ITEMS

STATION	TO	STATION	LOCATION	643.3165 TEMPORARY MARKING LINE PAINT 6-INCH LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH YELLOW LF	643.3150 TEMPORARY MARKING LINE REMOVEABLE TAPE 4-INCH LF	643.3850 TEMPORARY MARKING STOP LINE REMOVEABLE TAPE 18-INCH LF	REMARKS
104+50	-	108+75	M/L	850	-	-	-	-	DOUBLE YELLOW (LOWER LAYER)
104+50	-	108+75	M/L	-	850	850	-	-	DOUBLE YELLOW, EDGELINE LT & RT
108+75	-	114+25	M/L	688	-	-	-	-	DASHED SB, SOLID NB (LOWER LAYER)
108+75	-	114+25	M/L	-	1,100	688	-	-	DASHED SB, SOLID NB
114+25	-	124+75	M/L	1,313	-	-	-	-	SOLID SB, DASHED NB (LOWER LAYER)
114+25	-	124+75	M/L	-	2,100	1,313	-	-	SOLID SB, DASHED NB
124+75	-	137+00	M/L	1,531	-	-	-	-	DASHED SB, SOLE NB (LOWER LAYER)
124+75	-	137+00	M/L	-	2,450	1,531	-	-	DASHED SB, SOLE NB
137+00	-	486+00	M/L	69,800	-	-	-	-	DOUBLE YELLOW)LOWER LAYER)
137+00	-	486+00	M/L	-	69,800	69,800	-	-	DOUBLE YELLOW
128+80			M/L, RT	-	-	-	-	11	STRUCTURE B-62-029 (STAGE 1)
134+85			M/L, RT	-	-	-	-	11	STRUCTURE B-62-029 (STAGE 1)
121+80	-	128+80	M/L	-	-	-	1,400	-	STRUCTURE B-62-029 DOUBLE YELLOW
128+93	-	134+61	M/L, RT	-	-	-	570	-	STRUCTURE B-62-029 (STAGE 1)
128+80	-	134+85	M/L, LT	-	-	-	605	-	STRUCTURE B-62-029 (STAGE 1)
128+93		134+61	M/L, LT	-	-	-	570	-	STRUCTURE B-62-029 (STAGE 2)
128+80		134+87	M/L, RT	-	-	-	607	-	STRUCTURE B-62-029 (STAGE 2)
135+43		142+43	M/L	-	-	-	1,400	-	STRUCTURE B-62-029 DOUBLE YELLOW
			SUBTOTALS	74,182	76,300	74,182	5,152	22	
			ITEM TOTALS	74,182	150,482		5,152	22	

PAVEMENT MARKING REMOVAL

STATION	TO	STATION	LOCATION	646.9000 MARKING REMOVAL LINE 4-INCH LF	REMARKS
128+80	-	130+32	M/L	190	STRUCTURE B-62-029 (STAGE 1) YELLOW CENTERLINE
133+56	-	134+85	M/L	162	STRUCTURE B-62-029 (STAGE 1) YELLOW CENTERLINE
128+80	-	134+85	M/L, LT	605	STRUCTURE B-62-029 (STAGE 1) WHITE EDGE LINE
128+80	-	134+87	M/L, RT	607	STRUCTURE B-62-029 (STAGE 2) WHITE EDGE LINE
			ITEM TOTALS	1,564	

LOCATING NO-PASSING ZONE

STATION	TO	STATION	LOCATION	648.0100 LOCATING NO-PASSING ZONE MI
104+50	-	486+00	M/L	7.2
			ITEM TOTALS	7.2

USE 0.21 FOR THE LOCATING NO PASSING ZONE SITE DISTANCE

NOTE: ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

SAWING

CATEGORY	STATION	TO	STATION	LOC	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	REMARKS
0060	104+50			M/L	32	-	BEGIN OF FULL RECONSTRUCTION
0060	104+50			M/L	-	3	CURB & GUTTER
0060	104+63			M/L, RT	-	9	CURB & GUTTER & SIDEWALK
0060	104+99			M/L, LT	-	5	SIDEWALK
0060	105+57			M/L, LT	-	4	CARRIAGE WALK
0060	105+87			M/L, RT	-	12	PE
0060	106+11			M/L, RT	-	20	PE
0060	106+21			M/L, LT	31	-	DAVIS TRAILER CT
0060	107+80			M/L, LT	23	-	EASY ST
0060	109+37			M/L, LT	10	-	PE
0060	109+89			M/L, RT	30	-	PE
0060	111+28			M/L, RT	-	20	PE
0060	20+65			SAND LAKE CT	32	-	SAND LAKE CT
0060	20+65			SAND LAKE CT, LT & RT	-	5	CURB & GUTTER
0060	114+00			M/L RT	61	-	OLD RIVER RD
0060	115+00			M/L	26	-	END OF FULL RECONSTRUCTION
				0060 ITEM TOTALS	245	78	
0010	118+71			M/L, LT	56	-	CE
0010	143+98			M/L	24	-	CULVERT REPLACEMENT
0010	144+98			M/L	24	-	CULVERT REPLACEMENT
0010	153+55			M/L, LT	33	-	PE
0010	153+80			M/L, RT	65	-	CE
0010	159+35			M/L, LT	84	-	PE
0010	156+67	-	161+60	M/L, RT	496	-	
0010	159+71	-	161+60	M/L, LT	192	-	GUARDRAIL
0010	161+60			M/L	21	-	STORM SEWER
0010	162+60			M/L	21	-	STORM SEWER
0010	162+60	-	168+25	M/L, LT	562	-	GUARDRAIL
0010	162+60	-	168+25	M/L, RT	567	-	
0010	168+25			M/L	21	-	STORM SEWER
0010	169+25			M/L	21	-	STORM SEWER
0010	169+25	-	171+50	M/L, LT	225	-	GUARDRAIL
0010	169+25	-	171+50	M/L, RT	225	-	
0010	171+50			M/L	21	-	STORM SEWER
0010	172+50			M/L	21	-	STORM SEWER
0010	172+50	-	178+34	M/L, LT	593	-	GUARDRAIL
0010	172+50	-	179+46	M/L, RT	695	-	
				ITEM SUBTOTAL	3,967	0	

CATEGORY	STATION	TO	STATION	LOC	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	REMARKS
0010	179+05	-	182+50	M/L, LT	340	-	CURB & GUTTER REPLACEMENT
0010	182+50			M/L	24	-	BEGIN FULL RECONSTRUCTION
0010	185+50			M/L	24	-	END FULL RECONSTRUCTION
0010	191+87			M/L, LT	17	-	PE
0010	225+15			M/L, LT	13	-	PE
0010	233+94			M/L, LT	28	-	PE
0010	246+47			M/L, RT	25	-	PE
0010	600+13	-	601+85	HILLTOP RD, LT	168	-	
0010	257+31			M/L, RT	24	-	PE
0010	261+07			M/L	24	-	CULVERT REPLACEMENT
0010	262+07			M/L	24	-	CULVERT REPLACEMENT
0010	271+69			M/L	24	-	CULVERT REPLACEMENT
0010	272+69			M/L	26	-	CULVERT REPLACEMENT
0010	290+32			M/L	24	-	CULVERT REPLACEMENT
0010	291+32			M/L	24	-	CULVERT REPLACEMENT
0010	297+89			M/L	24	-	CULVERT REPLACEMENT
0010	298+89			M/L	24	-	CULVERT REPLACEMENT
0010	395+14			M/L	24	-	CULVERT REPLACEMENT
0010	396+14			M/L	24	-	CULVERT REPLACEMENT
0010	401+80			M/L, LT	12	-	PE
0010	404+86			M/L, RT	47	-	PE
0010	700+13	-	701+05	OVERSON LN, RT	94	-	
0010	448+43			M/L	31	-	CULVERT REPLACEMENT
0010	449+43			M/L	24	-	CULVERT REPLACEMENT
0010	448+52			M/L. LT	55	-	PE
0010	462+87			M/L, LT	14	-	PE
0010	466+27			M/L, RT	20	-	PE
0010	467+12			M/L, RT	16	-	PE
0010	483+27			M/L	26	-	CULVERT REPLACEMENT
0010	484+27			M/L	26	-	CULVERT REPLACEMENT
				0010 ITEM SUBTOTALS	1,270	0	
				0010 ITEM SUBTOTALS (FIRST COLUMN)	3,967	0	
				0010 ITEM TOTALS	5,237	0	
				PROJECT ITEM TOTALS	5,482	78	

NOTE: ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

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REMOVING ASPHALT SURFACE SPECIAL

STATION	TO	STATION	LOCATION	SPV.0180.001 REMOVING ASPHALTIC SURFACE MILLING SY	REMARKS
115+00	-	131+04	M/L	4,300	
133+30	-	182+50	M/L	12,400	
185+50	-	252+83	M/L	19,600	
253+14	-	329+90	M/L	20,800	
331+64	-	431+26	M/L	27,800	
431+80	-	486+00	M/L	15,600	
			TOTALS	100,500	

TEMPORARY SHIFT DURING CULVERT WORK

STATION	LOCATION	208.1500.S TEMPORARY SHIFT DURING CULVERT WORK EACH	REMARKS
144+49	M/L	1	CULVERT REPLACEMENT
162+10	M/L	1	STORM CROSSING
168+75	M/L	1	STORM CROSSING
172+00	M/L	1	STORM CROSSING
261+57	M/L	1	CULVERT REPLACEMENT
272+19	M/L	1	CULVERT REPLACEMENT
290+83	M/L	1	CULVERT REPLACEMENT
298+40	M/L	1	CULVERT REPLACEMENT
395+64	M/L	1	CULVERT REPLACEMENT
448+94	M/L	1	CULVERT REPLACEMENT
483+77	M/L	1	CULVERT REPLACEMENT
		11	

BIRD DETERRENT SYSTEMS

CATEGORY	STATION	999.2000.S.01 INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM (01. 132+17.1) EACH	999.2000.S.02 INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM (02. 184+01.4) EACH	999.2000.S.03 INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM (03. 252+98.5) EACH	999.2000.S.04 INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM (04. 431+53.0) EACH
0010	132+17.1	1	-	-	-
0010	184+01.4	-	1	-	-
0010	252+98.5	-	-	1	-
0010	431+53.0	-	-	-	1
	ITEM TOTALS	1	1	1	1

WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH

CATEGORY	STATION		STATION	LOCATION	SPECIAL 0165.001 WALL MODULAR BLOCK MECHANICALLY STABILIZED SF	650.6501 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) STA 110+12, LT EACH	REMARKS
0060	109+75	-	110+50	M/L, LT	350	-	
0060		110+12		M/L, LT	-	1	
				ITEM TOTAL	350	1	

LANDMARK REFERENCE MONUMENTS

STATION	OFFSET	TOWN/RANGE/SECTION	SPV.0060.001 VERIFY LANDMARK REFERENCE MONUMENTS EACH	REMARKS
401+95.8	11.1 RT	14N6WSECTION20	1	SOUTH QUARTER CORNER
		ITEM TOTALS	1	

NOTE: ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

SANITARY SEWER STRUCTURES

STRUCTURE	STATION	SPV.0060.200 REMOVE SANITARY SEWER MANHOLE EACH	SPV.0060.201 48" SANITARY SEWER MANHOLE EACH	RIM** ELEVATION	INVERT*** ELEVATION	DEPTH**** FT
EX MH-15	105+70.91	1		665.57	655.12	10.95
EX MH-16	107+86.47	1		665.43	655.75	10.18
NEW MH-16	107+86.47		1	665.25	655.27	10.48
EX MH-17	109+20.20	1		664.71	656.27	8.94
NEW MH-17	111+36.81		1	662.85	656.77	6.58
EX-MH-18	112+19.52	1		663.20	657.19	6.51
NEW MH-18	112+93.66		1	661.80	657.50	4.82
		4	3			

SANITARY SEWER PIPE

FROM	-	TO	SPV.0090.200 REMOVE EXISTING SANITARY SEWER PIPE LF	SPV.0090.201 8" SANITARY SEWER MAIN LF	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT
EX MH-14	-	EX MH-15	185		655.12	653.85	0.007
EX MH-14	-	NEW MH-16		399	655.37	653.68	0.0040
EX MH-15	-	EX MH-16	217		655.72	655.12	0.0029
EX MH-16	-	EX MH-17	132		656.27	655.85	0.0032
NEW MH-16	-	NEW MH-17		350	656.77	655.37	0.0040
EX MH-17	-	EX MH-18	300		657.19	656.27	0.0031
NEW MH-17	-	NEW MH-18		157	657.50	656.87	0.0040
			834	906			

SANITARY SEWER WYE & LATERALS

ITEM	STATION	ORIENTATION	SPV.0060.203 8"X4" PVC WYE EACH	SPV.0090.204 4" SANITARY SEWER SERVICE PIPE LF	SPV.0090.202 2" HDPE SANITARY SEWER FORCEMAIN LF	SPV.0060.202 8"X6" PVC WYE EACH	SPV.0090.203 6" SANITARY SEWER SERVICE LF
WYE	104+09.84	RIGHT	1	13			
WYE	104+56.54	LEFT	1	34			
WYE	105+20.49	RIGHT	1	9			
WYE	105+29.90	RIGHT	1	9			
WYE	105+71.02	LEFT		38		1	37
WYE	106+13.34	LEFT	1	41			
WYE	106+50.05	RIGHT	1	10			
WYE	106+90.70	LEFT	1	31			
WYE	107+24.44	RIGHT	1	11			
WYE	107+45.64	LEFT	1	33			
WYE	107+79.58	RIGHT	1	13			
WYE	107+81.67	RIGHT	1	13			
WYE	108+11.77	LEFT	1	36			
WYE	108+92.86	RIGHT	1	14			
WYE	109+53.80	LEFT	1	35			
WYE	109+78.22	RIGHT	1	11			
WYE	110+34.85	RIGHT	1	12			
WYE	110+58.41	LEFT	1	36			
CORE	111+35.62	LEFT			80		
WYE	111+37.67	RIGHT	1	13			
WYE	111+84.53	LEFT	1	35			
WYE	111+91.50	RIGHT	1	13			
WYE	111+97.18	LEFT	1	35			
CORE	112+95.25	RIGHT			16		
			21	495	96	1	37

WATERMAIN STRUCTURES

STRUCTURE	STATION	SPV.0060.209 8" GATE VALVE & BOX EACH	SPV.0060.210 6" GATE VALVE & BOX EACH	SPV.0060.211 FIRE HYDRANT EACH	SPV.0090.208 6" CLASS 52 DIP HYDRANT LEAD LF	SPV.0060.212 8" TAPPING SADDLE EACH	SPV.0060.213 1" CORPORATION STOP EACH	SPV.0060.214 2" CORPORATION STOP EACH	SPV.0060.215 1" CURB STOP & BOX EACH	SPV.0090.209 1" COPPER WATER SERVICE LF	SPV.0090.210 2" COPPER WATER SERVICE LF
GATE VALVE	104+03.73	1									
CURB STOP	104+58.61					1	1		1	12	
CURB STOP	105+20.19					1	1		1	35	
CURB STOP	105+64.59					1	1		1	11	
CURB STOP	105+64.60					1	1		1	35	
VAULT	106+18.98					1		1			19
CURB STOP	106+53.66					1	1		1	37	
CURB STOP	106.92.71					1	1		1	10	
CURB STOP	107+18.28					1	1		1	38	
CURB STOP	107+27.62					1	1		1	10	
FIRE HYDRANT	107+57.40		1	1	8						
GATE VALVE	107+72.08		1								
GATE VALVE	107+76.72	1									
CURB STOP	107+86.80					1	1		1	41	
CURB STOP	108+26.41					1	1		1	9	
CURB STOP	108+84.23					1	1		1	37	
CURB STOP	109+48.89					1	1		1	37	
CURB STOP	109+58.26					1	1		1	10	
CURB STOP	110+55.02					1	1		1	9	
CURB STOP	110+60.49					1	1		1	37	
FIRE HYDRANT	111+05.95		1	1	21						
GATE VALVE	111+23.01	1									
GATE VALVE	111+27.36	1									
CURB STOP	111+35.38					1	1		1	37	
CURB STOP	111+72.79					1	1		1	8	
CURB STOP	112+08.23					1	1		1	38	
CURB STOP	112+36.68					1	1		1	8	
GATE VALVE	113+08.00	1									
CURB STOP	113+72.62					1	1		1	8	
FIRE HYDRANT	114+16.72		1	1	11						
CURB STOP	114+23.48					1	1		1	17	
GATE VALVE	114+24.47		1								
		5	5	3	40	22	21	1	21	484	19

WATER PIPE

FROM	-	TO	SPV.0090.205 REMOVING EXISTING WATERMAIN LF	SPV.0090.206 8" WATERMAIN LF	SPV.0090.207 6" WATERMAIN LF
104+03.73	-	107+76.69	373	373	
107+72.28	-	107+72.28	20		20
107+76.69	-	111+24.71	348	348	
111+20.51	-	111+20.51	20	20	
111+24.71	-	113+08.00	183	183	
113+08.00	-	114+23.47	115	115	
114+23.47	-	114+30.55	62		44
			1121	1039	64

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
5865-02-24
STODDARD - COON VALLEY
VILLAGE PARK DRIVEWAY TO DEPOT STREET
STH 162
VERNON COUNTY

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
TO BE REMOVED
BRIDGE
CULVERT

SECTION CORNER SYMBOL
SECTION CORNER MONUMENT
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN
OFF-PREMISE SIGN
R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED)

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
PARCEL NUMBER (25)
UTILITY NUMBER (40)
PARALLEL OFFSETS

CONVENTIONAL ABBREVIATIONS

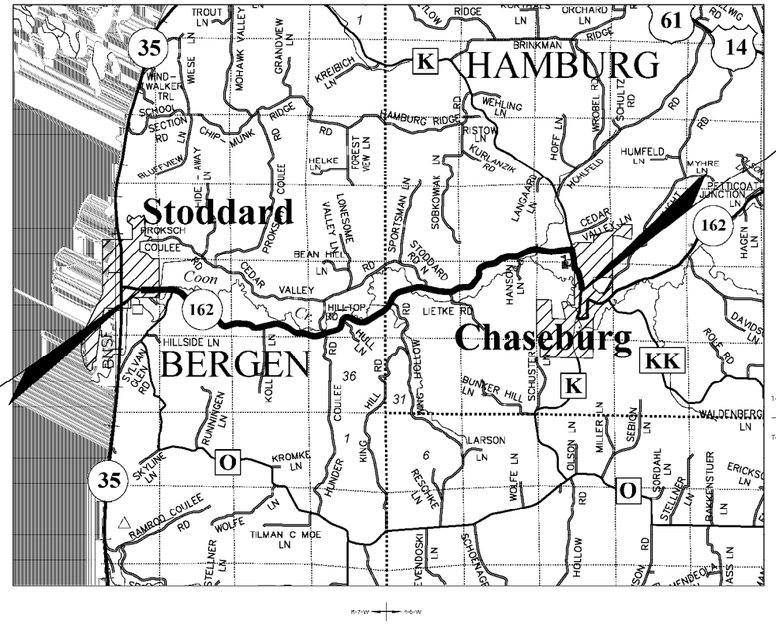
ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REEL / IMAGE	R/I
BACK	BK	REFERENCE LINE	R/L
BLOCK	BLK	REMAINING	REM
CENTERLINE	C/L	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
CERTIFIED SURVEY MAP	CSM	RIGHT	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 EASEMENT	TLE
GAS VALVE	GV	TRANSPORTATION PROJECT PLAT	TPP
GRID NORTH	GN	UNITED STATES HIGHWAY	USH
HIGHWAY EASEMENT	HE	VOLUME	V
IDENTIFICATION	ID		
LAND CONTRACT	LC		
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		

CURVE DATA ABBREVIATIONS

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	W
GAS	G
TELEPHONE	T
OVERHEAD TRANSMISSION LINES	OH
ELECTRIC	E
CABLE TELEVISION	TV
FIBER OPTIC	FO
SANITARY SEWER	SAN
STORM SEWER	SS
ELECTRIC TOWER	



LAYOUT
SCALE 0 1 MI.

THE NOTES,CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 5865-02-24

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), VERNON 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 ¾" X 24" IRON REBARS), 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, CENTERLINE OF EXISTING PAVEMENTS AND/OR EXISTING OCCUPATION LINES.

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 PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

PROPERTY LINES SHOWN ON THIS PLAT FOR PROPERTIES BEING IMPACTED ARE DRAWN FROM DATA DERIVED FROM FILED/RECORDED MAPS AND DOCUMENTS OF PUBLIC RECORD. 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 CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN LA CROSSE.

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.

PROJECT NUMBER 5865-02-24 -4. 01
SHEET 2 OF 2
103

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\040101_RP.DWG
LAYOUT NAME: 040101_rp
PLOT DATE : 2/26/2024 9:15 AM PLOT BY : JEFF BREU PLOT NAME :

Document Number: 535182
Map#/Cab: Page:
Lindsey Formanek, Register of Deeds
Vernon County, WI
Recorded: 02/29/2024 10:44:32 AM
Recording Fee Paid: 25.00
Number of Pages: 2
ELECTRONICALLY RECORDED

TRANSPORTATION PROJECT PLAT NO: 5865-02-24 - 4.01

THAT PART OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 27, TOWNSHIP 14 NORTH, RANGE 7 WEST, TOWN OF BERGEN, VERNON COUNTY, WISCONSIN

RELOCATION ORDER STH 162 STODDARD - COON VALLEY VILLAGE PARK DRIVEWAY TO DEPOT STREET VERNON 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.

UTILITY INTERESTS REQUIRED		
UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
80	VERNON ELECTRIC COOPERATIVE	RELEASE OF RIGHTS
81	DAIRYLAND POWER COOPERATIVE	RELEASE OF RIGHTS

STATION/OFFSET TABLE					
POINT	STATION	OFFSET	POINT	STATION	OFFSET
200	186+83.09	0.00' LT	215	173+90.68	0.00' LT
201	186+83.09	33.00' RT	216	173+68.46	33.00' LT
203	185+50.00	33.00' RT	217	174+70.88	33.00' LT
204	184+50.00	60.00' RT	218	175+37.94	33.00' LT
205	183+75.00	70.00' RT	219	177+32.52	33.00' LT
206	183+00.00	60.00' RT	220	178+58.72	33.00' LT
207	182+50.00	33.00' RT	221	179+46.95	33.00' LT
208	180+41.61	33.00' RT	222	180+41.61	33.00' LT
209	179+46.95	33.00' RT	223	182+50.00	33.00' LT
210	178+58.72	33.00' RT	224	184+00.00	95.00' LT
211	177+32.52	33.00' RT	225	184+75.00	75.00' LT
212	175+37.94	33.00' RT	226	185+50.00	33.00' LT
213	174+70.88	33.00' RT	227	186+83.09	33.00' LT
214	174+15.54	33.00' RT			

GN

SCALE, FEET
0 50 100

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5865-02-24 - 4.01
SHEET 1 OF 2

4

TOWN

1/16 LINE

PI: 172+97.63

PL

1/16 LINE

216-217
L = 106.99'
R = 773.00'
LCH = 106.90'
LCB = S53°39'37"E

215-PT
L = 80.19'
R = 740.00'
LCH = 80.16'
LCB = S52°48'00"E

216

N1° 18' 49"W
40.06'

215

N1° 18' 49"W
40.98'

214

213-214
L = 52.87'
R = 707.00'
LCH = 52.86'
LCB = N51°50'16"W

213

N49° 41' 43"W
67.06'

212

174

PT: 174+70.88

217

S49° 41' 43"E
67.06'

PC: 175+37.94

218

218-219
L = 198.86'
R = 1533.00'
LCH = 198.72'
LCB = S45°58'45"E

PI: 176+35.37

S49°41'43"E

33'

33'

176

PT: 177+32.52

219

S42° 15' 46"E
126.19'

RW

211-212
L = 190.30'
R = 1467.00'
LCH = 190.17'
LCB = N45°58'45"W

211

N42° 15' 46"W
126.19'

178

S42°15'46"E

PC: 178+58.72

220

220-221
L = 84.35'
R = 717.00'
LCH = 84.30'
LCB = S45°38'00"E

221-222
L = 83.30'
R = 242.00'
LCH = 82.89'
LCB = S58°51'53"E

PCC: 179+46.95

221

PCC: 180+41.61

222

222-223
L = 188.74'
R = 317.00'
LCH = 185.97'
LCB = S85°46'57"E

210

180

223

182

PI: 179+02.88

209

209-210
L = 92.12'
R = 783.00'
LCH = 92.06'
LCB = N45°38'00"W

208-209
L = 106.02'
R = 308.00'
LCH = 105.50'
LCB = N58°51'53"W

PI: 179+94.75

208

207-208
L = 228.04'
R = 383.00'
LCH = 224.68'
LCB = N85°46'57"W

RW

33'

33'

207

N73°45'22"E

58.90'
N78° 13' 03"W

206

PI: 181+60.48

PC - 215
(SUB CURVE OF CURVE
PI STA 172+97.63)
L = 273.17'
R = 740.00'
LCH = 271.62'
LCB = S66°28'48"E

OF

UTILITY EASEMENT TABLE

80 VERNON ELECTRIC COOPERATIVE - ELECTRICITY
V 98, P 471, DOC 202878 - PARCELS 1 & 2

81 DAIRYLAND POWER COOPERATIVE- ELECTRICITY
V 98, P 417, DOC 196762 - PARCELS 1 & 2
SUPPLEMENT V 299,106, DOC 303806
V 98, P 471, DOC 202878 - PARCELS 1 & 2
V 173, P 465, DOC 240337 - PARCELS 1 & 2

SCHEDULE OF LANDS & INTEREST'S REQUIRED							
PARCEL NUMBER	OWNER (S)	INTEREST'S REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	T.L.E. ACRES	P.L.E. ACRES
1	JEFFREY J. KABAT, ROBERT M. KABAT, MARK A. KABAT, WILLIAM K. KABAT, JR., JOSEPH J. KABAT AND PAUL A. KABAT	FEE	0.35	1.76	2.11	-	-
2	JEFFERY J. KABAT AND GRETCHEN M. KABAT	FEE	0.04	0.20	0.24	-	-

NOTE: OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

FEE
0.23 ACRES
1

N50° 24' 44"E
158.44'
BARN

N86° 55' 45"E
76.93'

224

PI: 184+30.36

PC: 182+97.19

65'

PI: 182+70.80

225

S78° 58' 55"E
85.96'

226

N71° 46' 09"E
133.09'

S18° 13' 51"E
33.00'

227

2041

IP 2041
0.2' N
0.3'W

200

PL

186

S88° 43' 55"W 227.79'

N71°46'09"E

S18° 13' 51"E
33.00'

201

184

PL

S71° 46' 09"W
133.09'

203

2

204

S56° 39' 35"W
103.58'

S64° 34' 31"W
76.61'

STRUCTURE C-62-335

PL

205

PI: 185+65.78

S80° 37' 27"W
76.92'

CSM
VOL 6 CSM, PAGE 242

PLAT OF SURVEY
JULY, 17, 1997

BRASS CAPPED MONUMENT (FOUND)
Y = 186,656.888
X = 622,664.829

T 14 N
R 7 W
27 26

S1° 16' 06"E 1833.94'

102

S1° 16' 06"E 263.87'

N1° 16' 06"W 803.93'

BRASS CAPPED MONUMENT (FOUND)
Y = 184,019.667
X = 622,723.214

T 14 N
R 7 W
27 26
34 35

FOUND MONUMENT TABLE			
POINT	Y	X	DECRIPTION
2041	184,849.943	622,467.000	3/4" IRON ROD

SE 1/4 SE 1/4
SECTION 27, T14N, R7W

BERGEN

FEE
0.12 ACRES
1

ALIGNMENT INFORMATION

PI STA = 172+97.63
Y = 185201.102
X = 621303.366
DELTA = 27°21'36" RT
D = 7°41'34"
T = 180.12'
L = 353.36'
R = 740.00'
LCH = 350.02'
LCB = S63°22'31"E
PC STA = 171+17.51
PT STA = 174+70.88
DB = S77°03'19"E

PI STA = 176+35.37
Y = 184978.192
X = 621566.169
DELTA = 7°25'57" RT
D = 3°49'11"
T = 97.43'
L = 194.58'
R = 1500.00'
LCH = 194.44'
LCB = S45°58'45"E
PC STA = 175+37.94
PT STA = 177+32.52

PI STA = 179+02.88
Y = 184780.010
X = 621746.266
DELTA = 6°44'26" LT
D = 7°38'22"
T = 44.17'
L = 88.24'
R = 750.00'
LCH = 88.18'
LCB = S45°38'00"E
PC STA = 178+58.72
PT STA = 179+46.95
DA = S49°00'13"E

PI STA = 179+94.75
Y = 184719.676
X = 621815.681
DELTA = 19°43'19" LT
D = 20°50'05"
T = 47.80'
L = 94.66'
R = 275.00'
LCH = 94.19'
LCB = S58°51'53"E
PC STA = 179+46.95
PT STA = 180+41.61
DB = S49°00'13"E
DA = S68°43'32"E

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 162 ESTABLISHED FROM STATUE 82.31 USING CENTERLINE OF EXISTING PAVEMENT, PRESUMED 66' WIDTH, PLAT OF SURVEY JULY 17,1997 AND CERTIFIED SURVEY MAP VOL 6 CSM PAGE 242.

EXISTING ACCESS CONTROL ALONG STH 162 HAS BEEN ESTABLISHED FROM VOLUME 577 PAGE 793 AS DOCUMENT NO. 399778.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN LA CROSSE.

SIXTEENTH LINES WERE ESTABLISHED BY SECTION BREAKDOWN OF OBSERVED PLSS MONUMENTS.

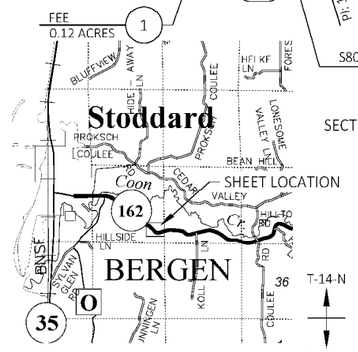
FOR ADDITIONAL INFORMATION REFER TO TITLE SHEET, RECORDED AS SHEET 2 OF 2, OF THIS DOCUMENT.

ALIGNMENT INFORMATION

PI STA = 181+60.48
Y = 184659.201
X = 621970.996
DELTA = 37°31'05" LT
D = 16°22'13"
T = 118.87'
L = 229.19'
R = 350.00'
LCH = 225.11'
LCB = S87°29'05"E
PC STA = 180+41.61
PT STA = 182+70.80
DB = S68°43'32"E

PI STA = 183+63.78
Y = 184718.464
X = 622174.397
DELTA = 1°59'13" LT
D = 1°29'31"
T = 66.59'
L = 133.17'
R = 3840.00'
LCH = 133.16'
LCB = N72°45'46"E
PC STA = 182+97.19
PT STA = 184+30.36

GN



LOCATION SKETCH
NOT TO SCALE

SHEET LOCATION

BERGEN

Mead & Hunt

MEAD & HUNT, INC.
750 N. THIRD STREET
LA CROSSE, WI 54601

I, SEAN M. WALSH 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 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: _____ DATE: 2/22/2024
PRINT NAME: SEAN M. WALSH
REGISTRATION NUMBER: S-2016

WISCONSIN
SEAN M. WALSH
S-2016
RICHLAND CENTER, WI
LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION SOUTHWEST REGION
SIGNATURE: _____ DATE: 2/29/2024
PRINT NAME: CORY SCHLAGEL

104

CONCRETE PE
STA 104+89, LT

CONSTRUCT ASPHALTIC CE
DAVIS TRAILER CT
STA 106+21, LT

CONSTRUCT AGGREGATE PE
STA 106+79, LT

CONSTRUCT ASPHALTIC CE
EASY ST
STA 107+80, LT

CONSTRUCT AGGREGATE PE
STA 108+46, LT

CONSTRUCT ASPHALTIC PE
STA 109+37, LT

STA 105+03 TO STA 106+00, LT
4-INCH CURB HEAD REQUIRED

DAVIS TRAILER CT

EASY ST

SLOPE INTERCEPT

COON VALLEY FARMERS TELEPHONE CO

VILLAGE OF STODDARD

DETECTABLE WARNING FIELDS REQUIRED

CONCRETE SIDEWALK 4-INCH

CONCRETE CURB & GUTTER 30-INCH TYPE D

WALL MODULAR BLOCK MSE

SAW CUT

MATCH LINE STA 110+00.00

STH 162

DIVISION ST

XCEL ENERGY

CONCRETE CURB & GUTTER 30-INCH TYPE D

CONSTRUCT AGGREGATE PE
STA 104+82, RT

BEGIN PROJECT 5865-02-64
STA 104+50.00
Y = 187,289.925
X = 615,159.709
SAW CUT REQUIRED

CONSTRUCT CONCRETE PE
STA 105+87, RT

CONSTRUCT CONCRETE PE
STA 106+11, RT

CONSTRUCT AGGREGATE PE
STA 107+60, RT

CONSTRUCT AGGREGATE PE
STA 108+44, RT

CONSTRUCT ASPHALTIC PE
STA 109+89, RT

N

VCL = 50.00
K = 62.29

VCL = 100.00
K = 883.49

VCL = 100.00
K = 85.47

STA 104+50.00
EL 665.75

LP STA 106+50.28
LP EL 664.99

VPC STA 107+25.00
VPC EL 665.24

VPI STA 107+75.00
VPI EL 665.44

VPT STA 108+25.00
VPT EL 665.05

VPC STA 106+25.00
VPC EL 665.04

VPI STA 106+50.00
VPI EL 664.94

VPT STA 106+75.00
VPT EL 665.04

HP STA 107+58.92
HP EL 665.30

VPC STA 109+50.00
VPC EL 664.08

VPI STA 110+00.00
VPI EL 663.70

EXISTING R/L PROFILE

PROPOSED R/L PROFILE

-0.41%

0.40%

-0.77%

EXISTING R/L ELEVATION

PROPOSED R/L ELEVATION

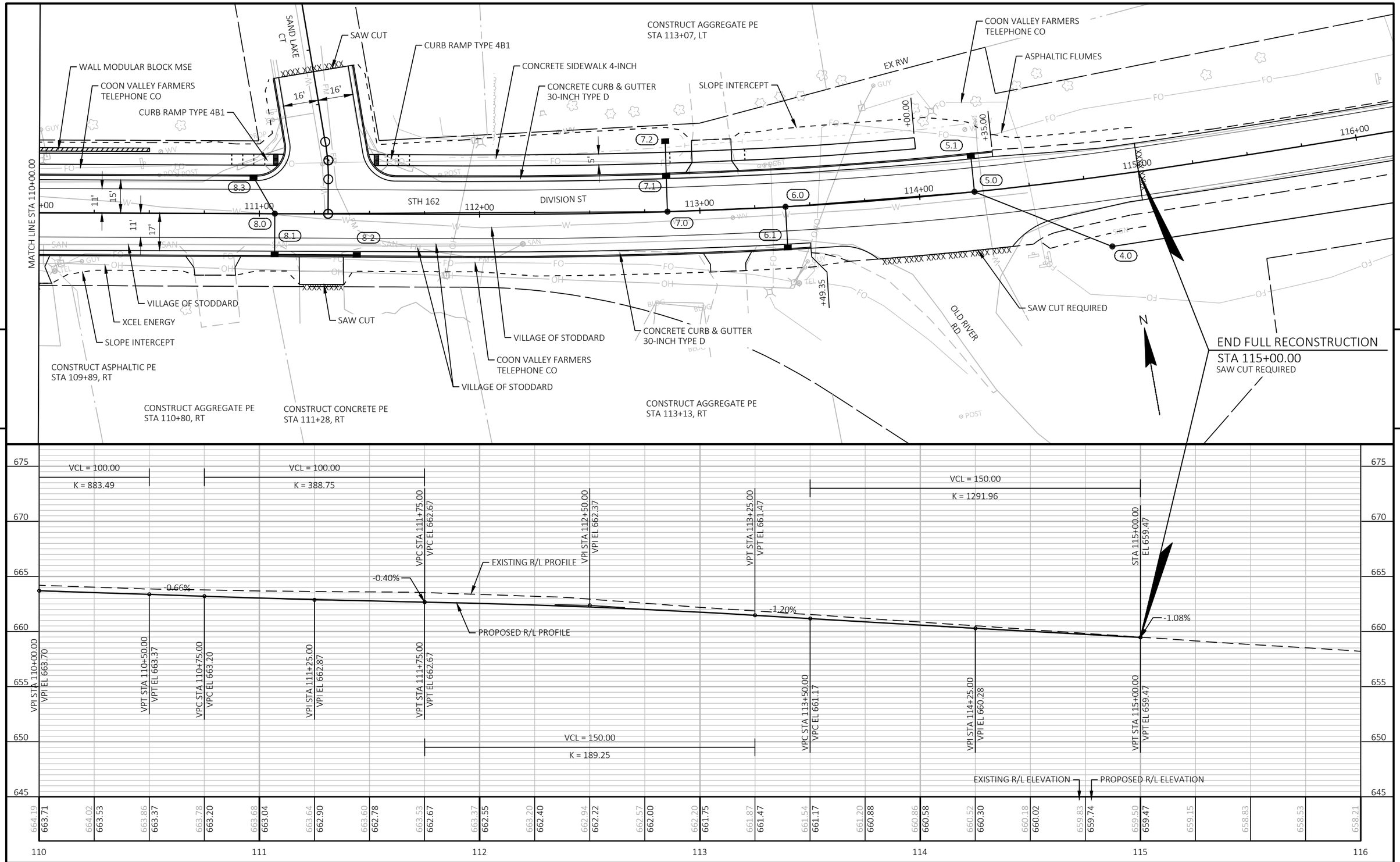
STA	EXISTING R/L ELEVATION	PROPOSED R/L ELEVATION
104+00	665.75	665.75
104+25	665.89	665.65
104+50	666.01	665.55
104+75	666.14	665.45
105+00	666.08	665.35
105+25	665.97	665.24
105+50	665.89	665.14
105+75	665.84	665.04
106+00	665.81	664.99
106+25	665.79	665.04
106+50	665.80	665.14
106+75	665.85	665.24
107+00	665.86	665.30
107+25	665.80	665.29
107+50	665.75	665.21
107+75	665.69	665.05
108+00	665.62	664.86
108+25	665.36	664.66
108+50	665.13	664.47
108+75	664.96	664.28
109+00	664.78	664.08
109+25	664.48	663.89
109+50	664.19	663.71

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN AND PROFILE: STH 162 (STODDARD)	SHEET 105	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\050101_PP_STODDARD.DWG
LAYOUT NAME - 01

PLOT DATE : 4/24/2026 9:01 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

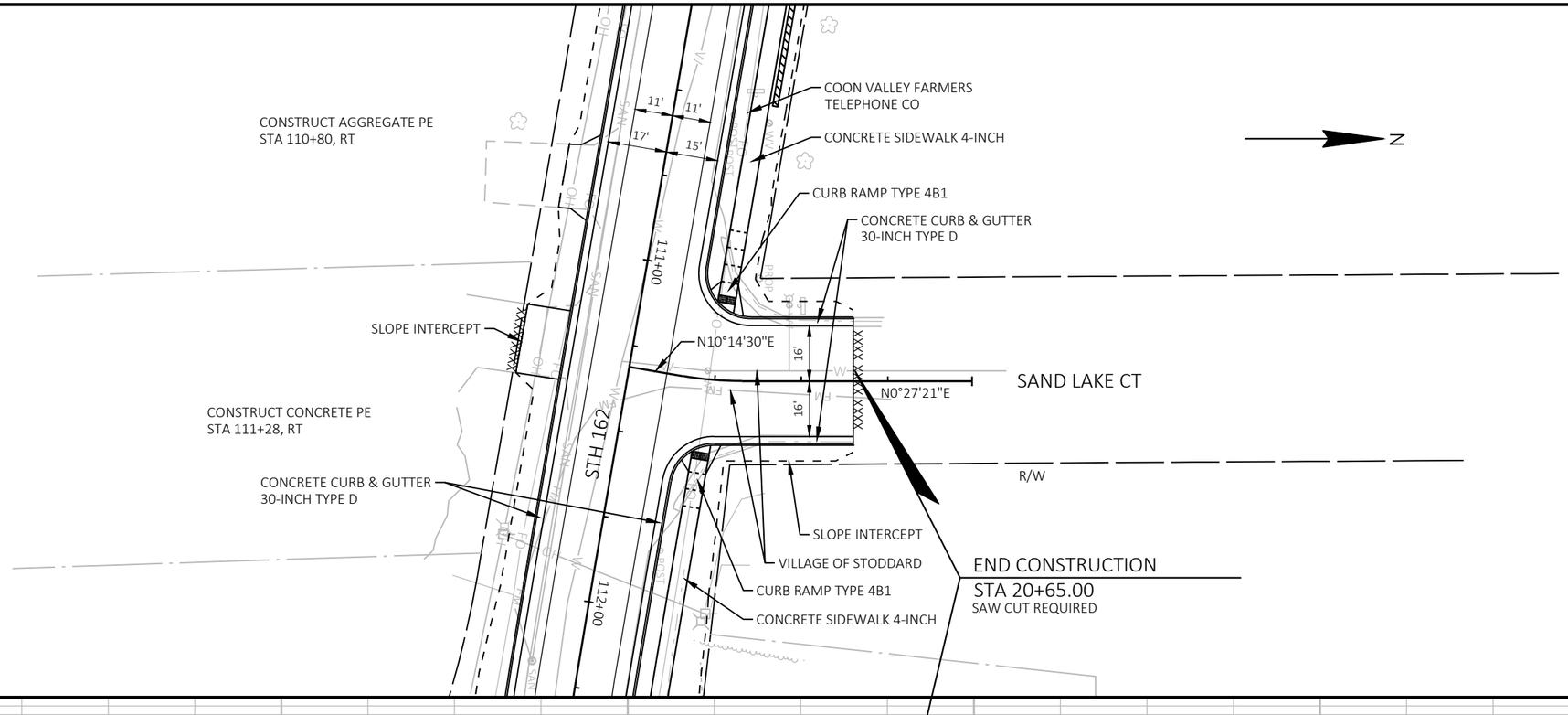


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN AND PROFILE: STH 162 (STODDARD)	SHEET 106	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\050101_PP_STODDARD.DWG
LAYOUT NAME - 02

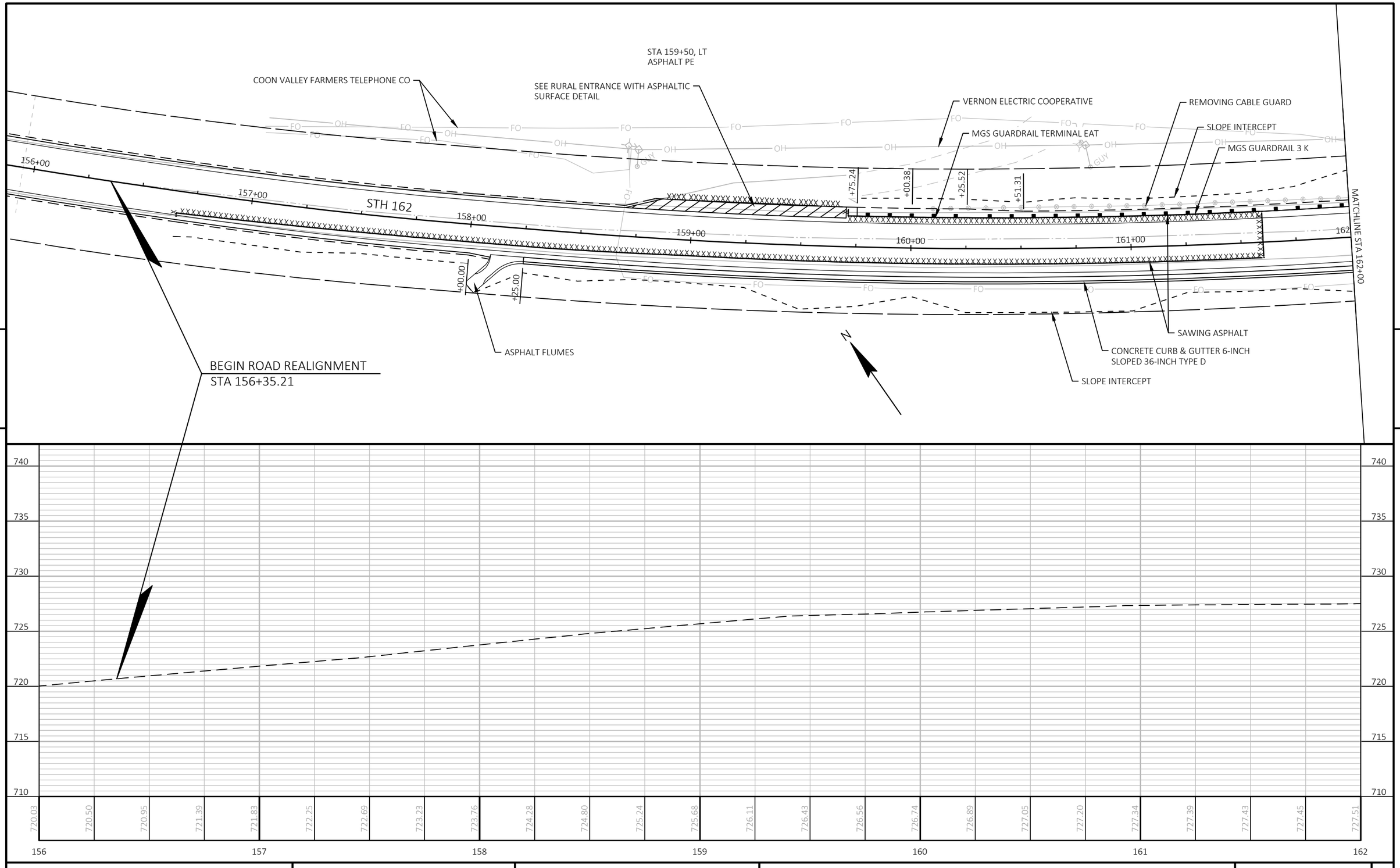
PLOT DATE : 10/20/2025 9:53 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN & PROFILES: SAND LAKE CT	SHEET 107	E

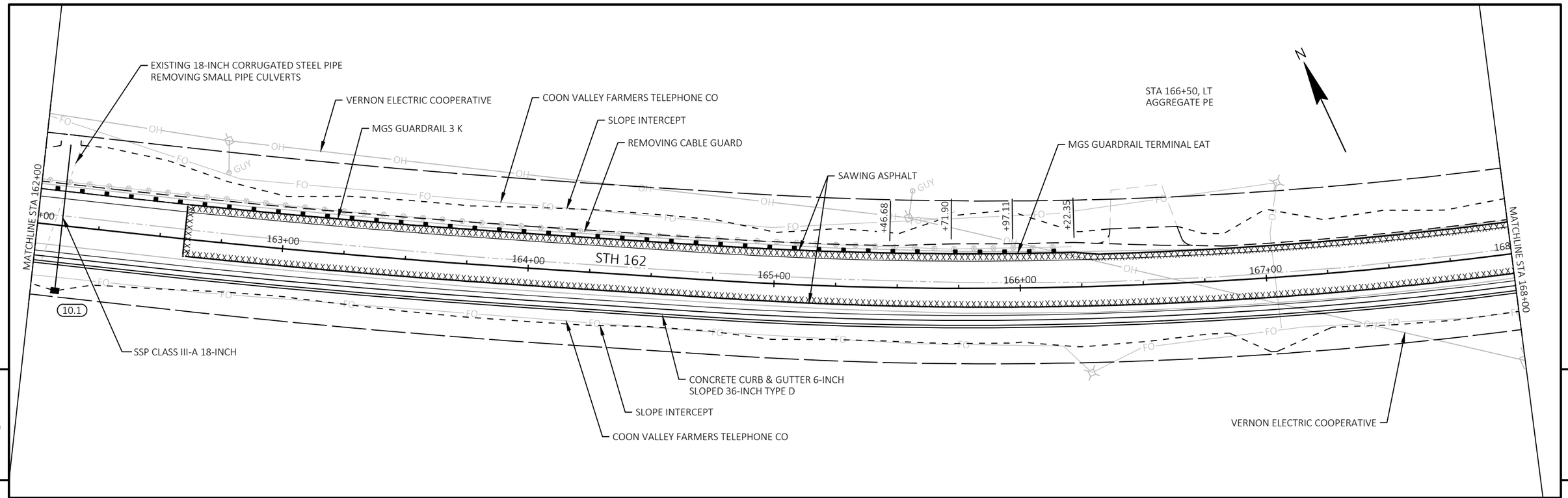
FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\050102_PP_STODDARD.DWG
LAYOUT NAME - 01
PLOT DATE : 10/20/2025 9:54 AM
PLOT BY : JEFF BREU
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 44



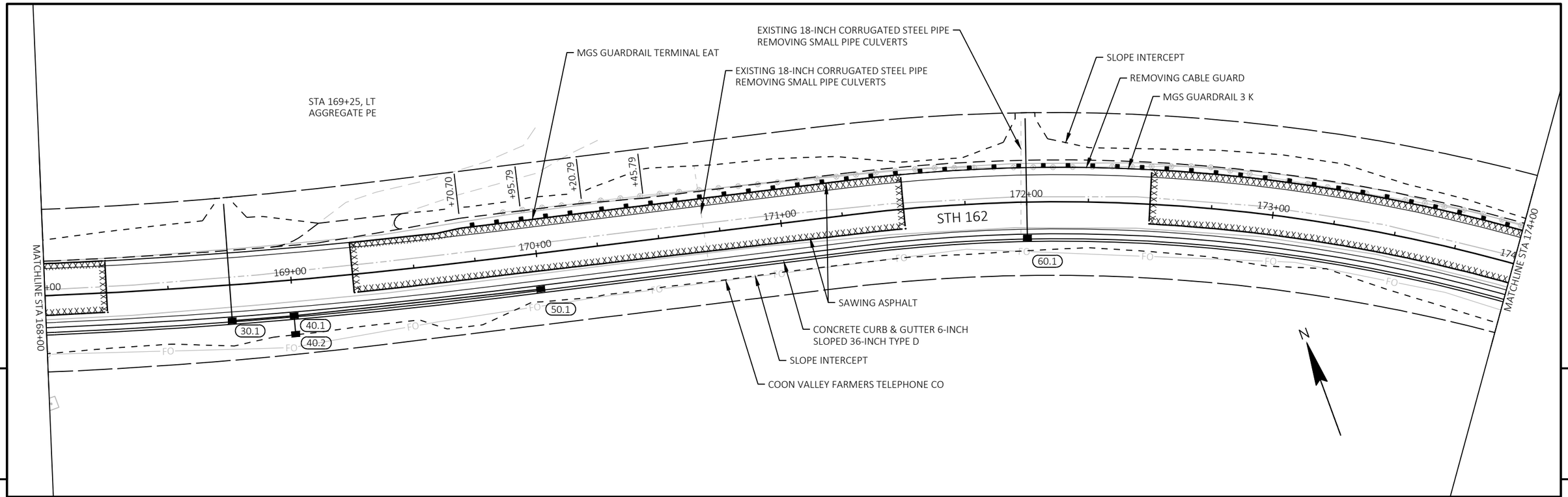
5

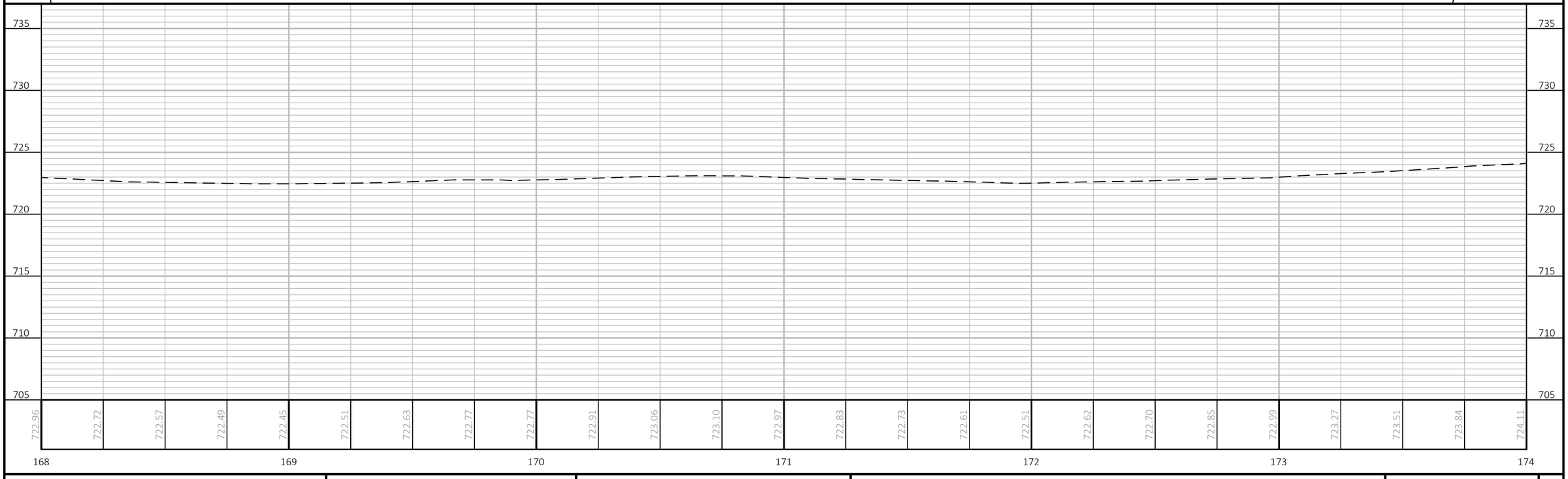
5

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN AND PROFILE: STH 162 (GUARDRAIL)	SHEET 108	E

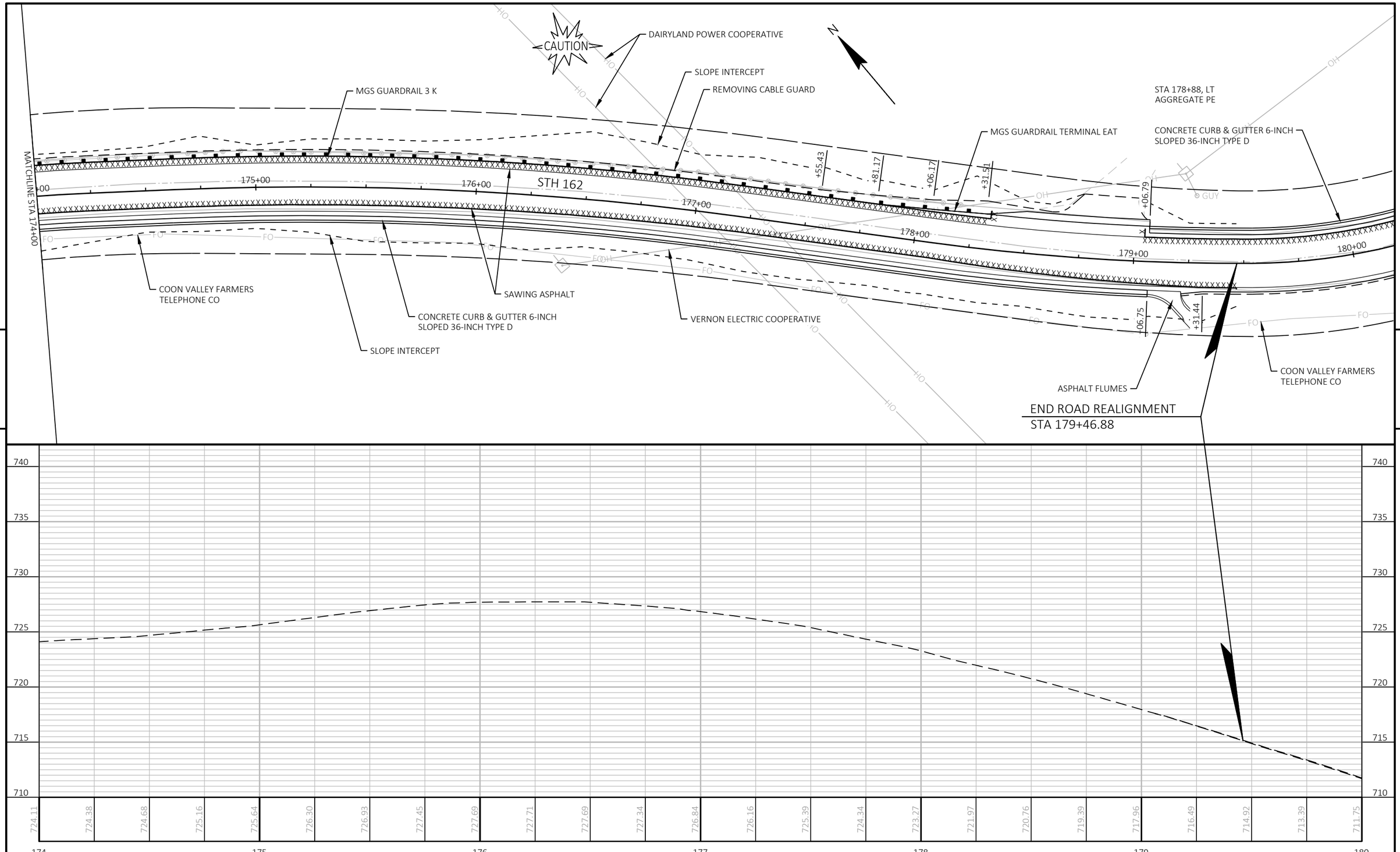


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN AND PROFILE: STH 162 (GUARDRAIL)	SHEET 109 E

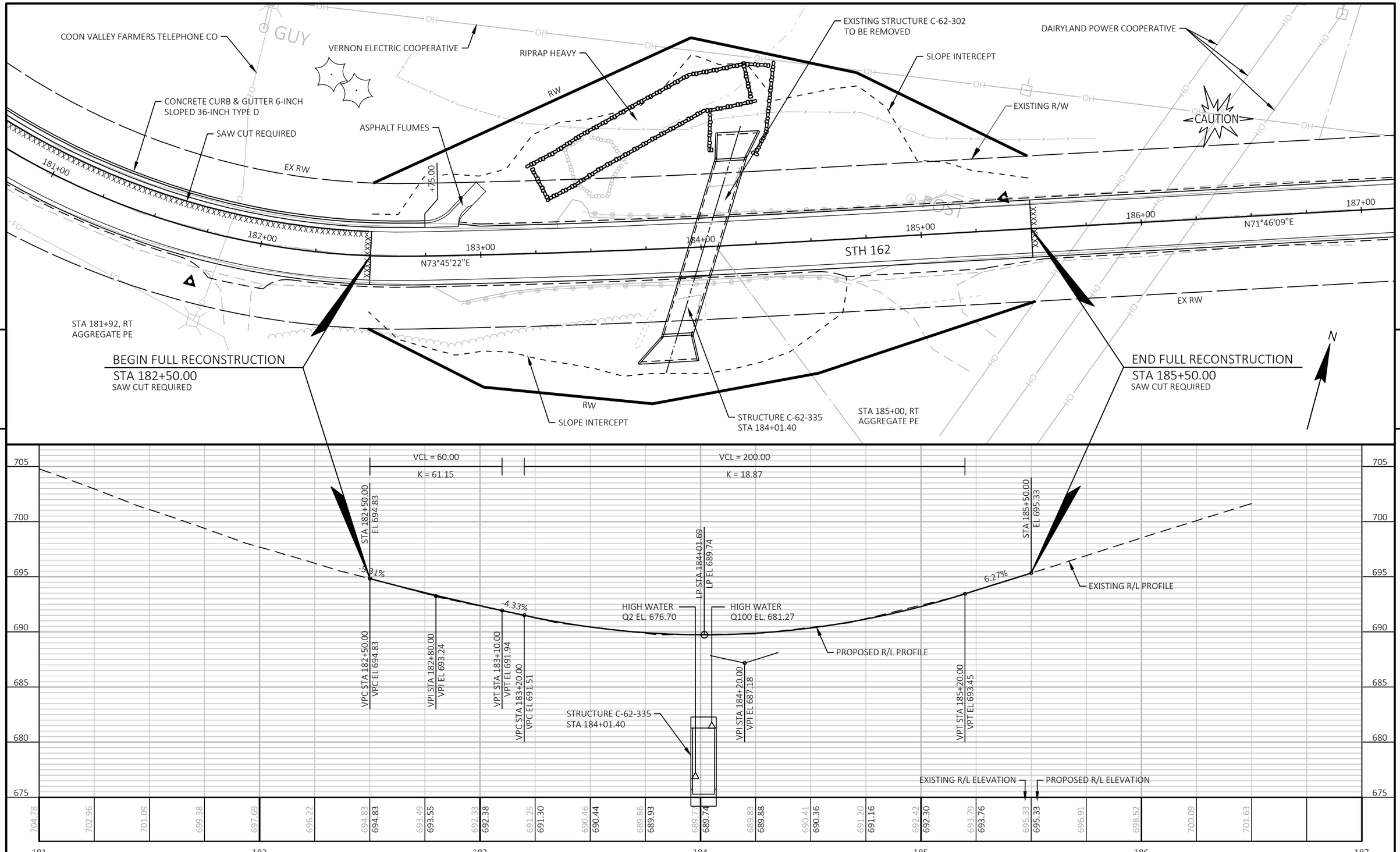




PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN AND PROFILE: STH 162 (GUARDRAIL)	SHEET 110	E



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN AND PROFILE: STH 162 (GUARDRAIL)	SHEET 111	E



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN AND PROFILE: STH 162	SHEET 112 E

COTTAGE ST

DAVIS TRAILER CT

EASY ST

SAND LAKE CT

N

BEGIN PROJECT 5865-02-64
STA 104+50.00
BEGIN FULL RECONSTRUCTION
SAW CUT REQUIRED
Y = 187,289.925
X = 615,159.709

VILLAGE OF STODDARD

WALL MODULAR BLOCK MSE

VILLAGE OF STODDARD

XCEL ENERGY

STH 162

COON VALLEY FARMERS TELEPHONE COM

COON VALLEY FARMERS TELEPHONE COM

COON VALLEY FARMERS TELEPHONE COM

FOR MORE DETAILS, SEE PLAN & PROFILE SHEETS FOR THE FULL RECONSTRUCTION AREA

END FULL RECONSTRUCTION
STA 115+00.00
SAW CUT REQUIRED

OLD RIVER RD

STA 116+90, RT
AGGREGATE CE

MATCHLINE STA 117+00

MATCHLINE STA 117+00

STA 118+71, LT
ASPHALT CE

SEE RURAL ENTRANCE WITH ASPHALTIC SURFACE DETAIL

REMOVING ASPHALTIC SURFACE BUTT JOINT REQUIRED

MGS GUARDRAIL TERMINAL EAT

COON VALLEY FARMERS TELEPHONE CO

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

STH 162

STA 118+28, RT
AGGREGATE CE

EXISTING 42-INCH CORRUGATED STEEL PIPE TO REMAIN

N

MGS GUARDRAIL TERMINAL EAT

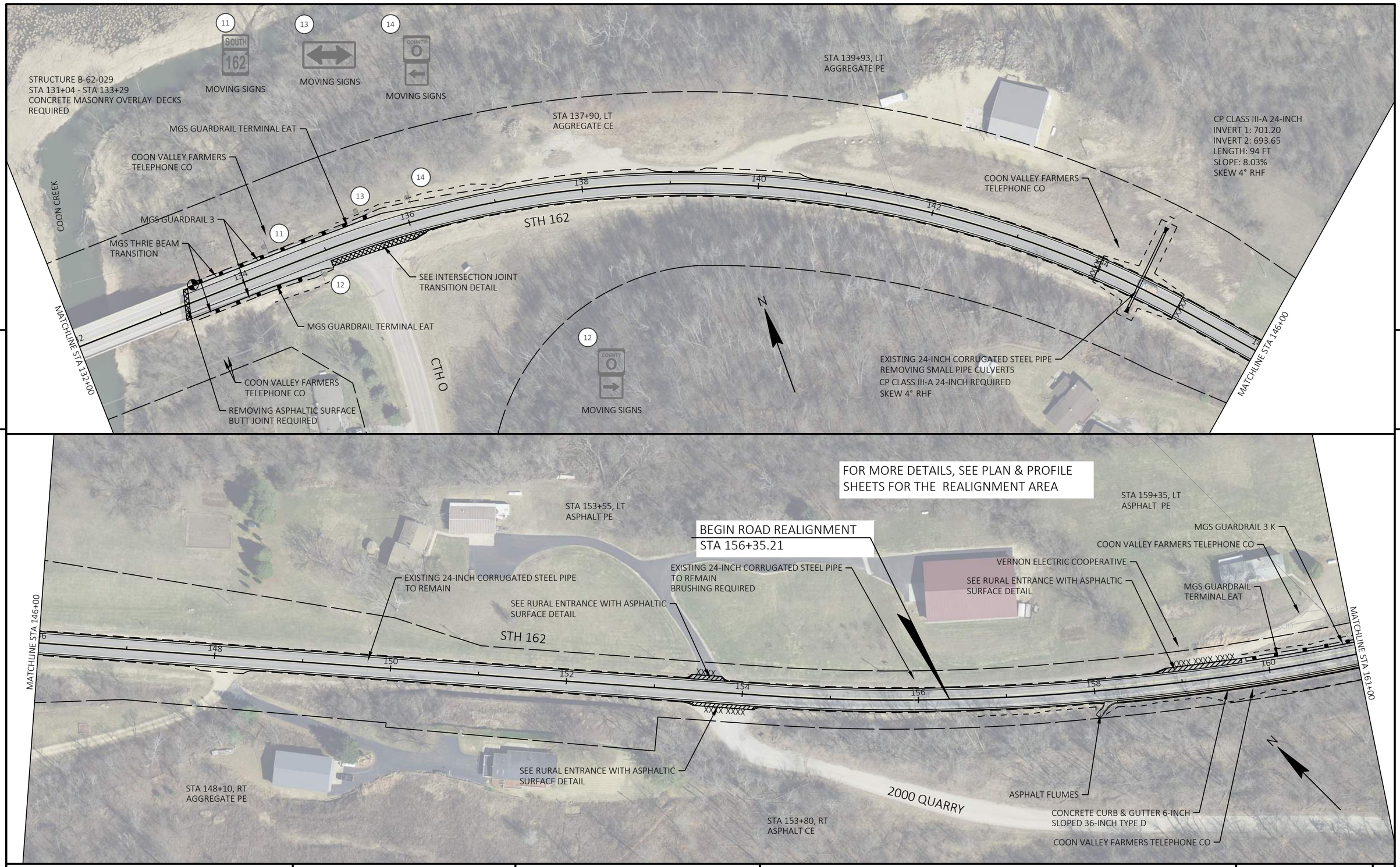
COON VALLEY FARMERS TELEPHONE CO

STRUCTURE B-62-029
STA 131+04 - STA 133+29
CONCRETE MASONRY OVERLAY DECKS REQUIRED

COON CREEK

MATCHLINE STA 132+00

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN VIEW: STH 162	SHEET 113	E



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN VIEW: STH 162	SHEET 114	E

FOR MORE DETAILS, SEE PLAN & PROFILE SHEETS FOR THE REALIGNMENT AREA

STA 166+50, LT
AGGREGATE PE

STA 169+30, LT
AGGREGATE PE

COON VALLEY FARMERS TELEPHONE CO

MGS GUARDRAIL TERMINAL EAT

VERNON ELECTRIC COOPERATIVE

MGS GUARDRAIL 3K

SSP CLASS III-A 18-INCH

EXISTING 18-INCH CORRUGATED STEEL PIPE
REMOVING SMALL PIPE CULVERTS
BRUSHING REQUIRED

MGS GUARDRAIL 3 K

MATCHLINE STA 161+00

MATCHLINE STA 175+00

162 164 166 168 170 172 174

10.1 30.1 40.1 50.1 60.1

15

STH 162

SSP CLASS III-A 18-INCH

EXISTING 18-INCH CORRUGATED STEEL PIPE
REMOVING SMALL PIPE CULVERTS

SSP CLASS III-A 18-INCH

EXISTING 18-INCH CORRUGATED STEEL PIPE
REMOVING SMALL PIPE CULVERTS

MGS GUARDRAIL TERMINAL EAT

SSP CLASS III-A 15-INCH

SSP CLASS III-A 18-INCH

COON VALLEY FARMERS TELEPHONE CO

40.2

15

35 MPH

MOVING SIGNS

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

N

EXISTING 18-INCH CORRUGATED STEEL PIPE
REMOVING SMALL PIPE CULVERTS

SSP CLASS III-A 18-INCH

MGS GUARDRAIL 3 K

DAIRYLAND POWER COOPERATIVE

STA 178+88, LT
AGGREGATE PE

MGS GUARDRAIL TERMINAL EAT

ASPHALT FLUMES

BEGIN FULL RECONSTRUCTION
STA 182+50.00
SAW CUT REQUIRED

ASPHALT FLUMES

RIPRAP HEAVY

MATCHLINE STA 175+00

176 178 180 182 184

16 17 18 19 20 21

COON VALLEY FARMERS
TELEPHONE CO

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

CAUTION

CAUTION

35 MPH

MOVING SIGNS

MOVING SIGNS
2 LOCATIONS

END ROAD REALIGNMENT
STA 179+46.88

STA 181+93, RT
AGGREGATE FE

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

EXISTING STRUCTURE C-60-302
STRUCTURE TO BE REPLACE

STRUCTURE C-62-335

EXISTING 18-INCH CORRUGATED STEEL PIPE
TO REMAIN
REPAIR SCOUR REQUIRED

STA 188+47, LT
AGGREGATE CE

DAIRYLAND POWER COOPERATIVE

VERNON ELECTRIC
COOPERATIVE

MATCHLINE STA 190+00

186 188

EXISTING CURB & GUTTER
TO REMAIN

STH 162

N

STA 185+05, RT
AGGREGATE PE

END FULL RECONSTRUCTION
STA 185+50.00
SAW CUT REQUIRED

19 12

MOVING SIGNS
2 LOCATIONS

21

50 MPH

MOVING SIGNS

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN VIEW: STH 162	SHEET 115	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\050201_PN.DWG
LAYOUT NAME - 03

PLOT DATE : 10/20/2025 10:10 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : ##########

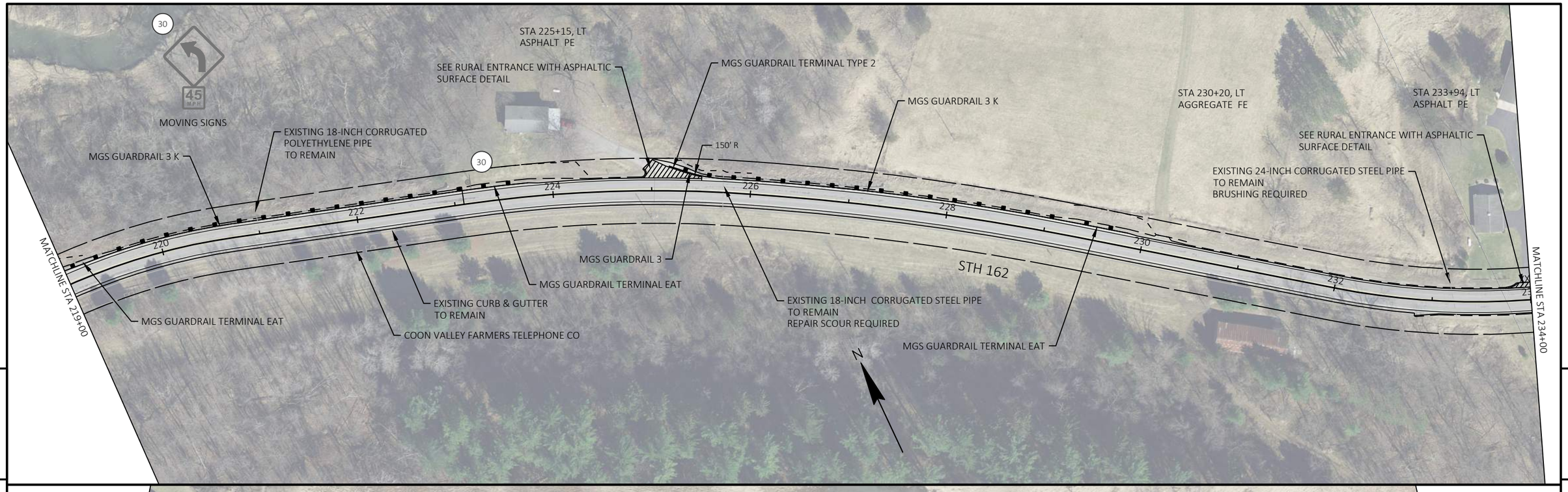
WISDOT/CADDS SHEET 44

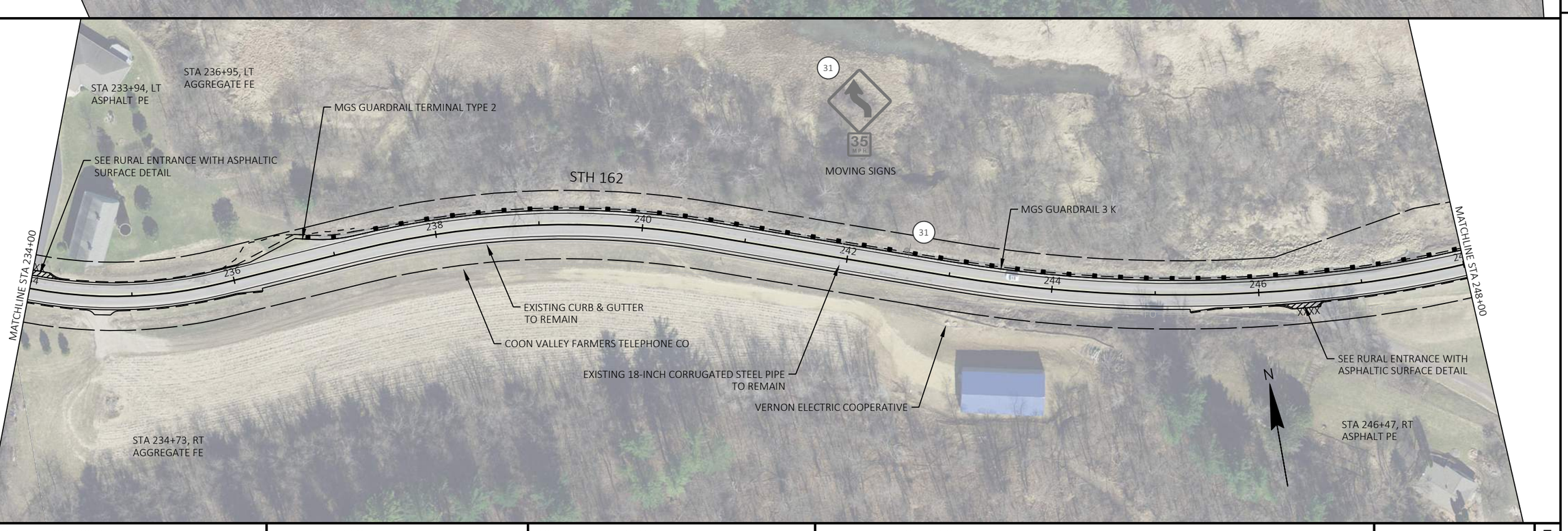
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN VIEW: STH 162	SHEET 116	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\050201_PN.DWG
LAYOUT NAME - 04

PLOT DATE : 10/20/2025 10:11 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44





PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN VIEW: STH 162	SHEET 117	E

STRUCTURE B-62-083
STA 252+83 - STA 253+14
CONCRETE SURFACE REPAIR

HUNDER COULEE CREEK

HILLTOP RD

MGS GUARDRAIL SHORT RADIUS (40' R)

MGS GUARDRAIL 3

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL 3

REMOVING ASPHALTIC SURFACE
BUTT JOINT REQUIRED

+45.22

+20.22

+95.22

WETLAND IMPACTS

MATCHLINE STA 248+00

STH 162

250

252

254

256

258

260

WETLAND IMPACTS

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

COON VALLEY FARMERS TELEPHONE CO

MGS GUARDRAIL TERMINAL EAT

HUNDER COULEE RD

EXISTING CURB & GUTTER TO REMAIN

EXISTING 30-INCH CORRUGATED STEEL PIPE TO REMAIN
DITCHING REQUIRED

SEE INTERSECTION JOINT TRANSITION DETAIL

STA 257+31, RT
ASPHALT PE

STA 259+67, RT
AGGREGATE PE

MOVING SIGNS

MOVING SIGNS

N

EXISTING 24-INCH CORRUGATED STEEL PIPE TO REMAIN
DITCHING REQUIRED

CPRCHE CLASS HE-III 24x38-INCH
INVERT 1: 656.20
INVERT 2: 655.84
LENGTH: 36 FT
SLOPE: 1.00%
SKEW 21° RHF

WETLAND IMPACTS

SEE RURAL ENTRANCE WITH ASPHALTIC SURFACE DETAIL

EXISTING 30-INCH CORRUGATED STEEL PIPE
REMOVING SMALL PIPE CULVERTS
CPRCHE CLASS HE-III 24x38-INCH REQUIRED
SKEW 21° RHF

COON VALLEY FARMERS TELEPHONE CO

STA 261+92, RT
AGGREGATE PE

MATCHLINE STA 262+00

5

MATCHLINE STA 262+00

EXISTING 18-INCH CORRUGATED STEEL PIPE TO REMAIN
DITCHING REQUIRED

EXISTING 18-INCH CORRUGATED STEEL PIPE TO REMAIN

EXISTING 18-INCH CORRUGATED STEEL PIPE TO REMAIN
DITCHING REQUIRED

CPRCHE CLASS HE-III 19x30-INCH
INVERT 1: 654.75
INVERT 2: 655.15
LENGTH: 48 FT
SLOPE: -0.84%
SKEW 0°

EXISTING 18-INCH CORRUGATED STEEL PIPE
REMOVING SMALL PIPE CULVERTS
CPRCHE CLASS HE-III 19x30-INCH REQUIRED
SKEW 0°
REPAIR EMBANKMENT REQUIRED

MOVING SIGNS
2 LOCATIONS

WETLAND IMPACTS

EXISTING 18-INCH CORRUGATED STEEL PIPE TO REMAIN
DITCHING REQUIRED

COON VALLEY FARMERS TELEPHONE CO

STH 162

264

266

268

270

272

274

ASPHALT FLUMES

N

EXISTING CURB & GUTTER TO REMAIN

MOVING SIGNS

SEE INTERSECTION JOINT TRANSITION DETAIL

COON VALLEY FARMERS TELEPHONE CO

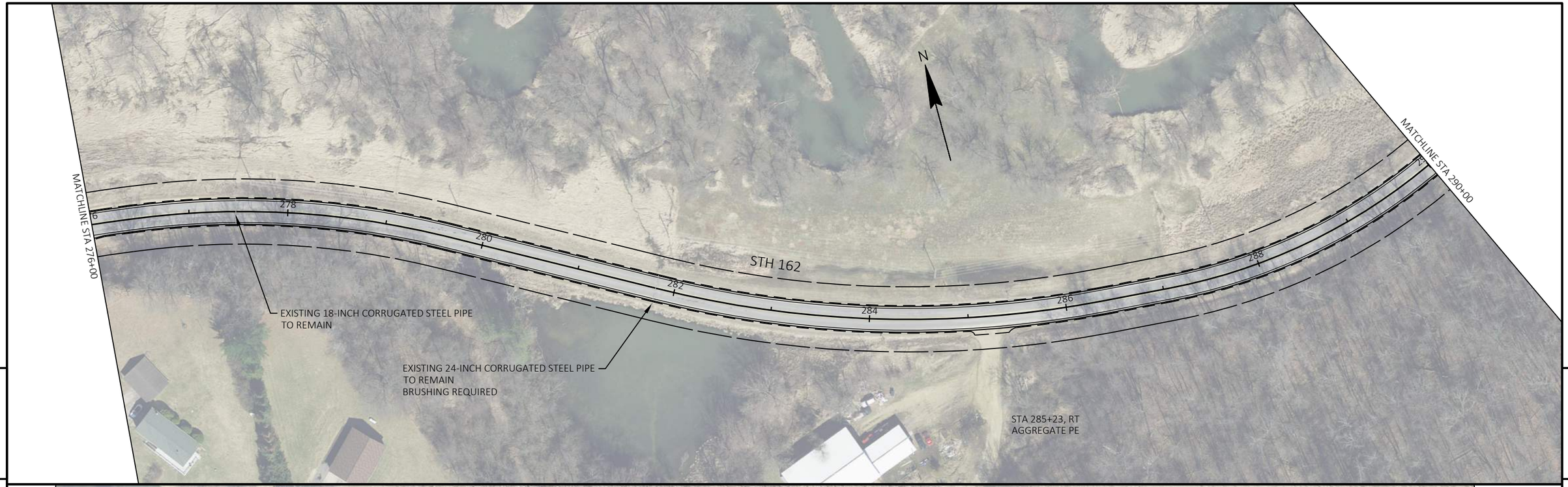
HULL LN

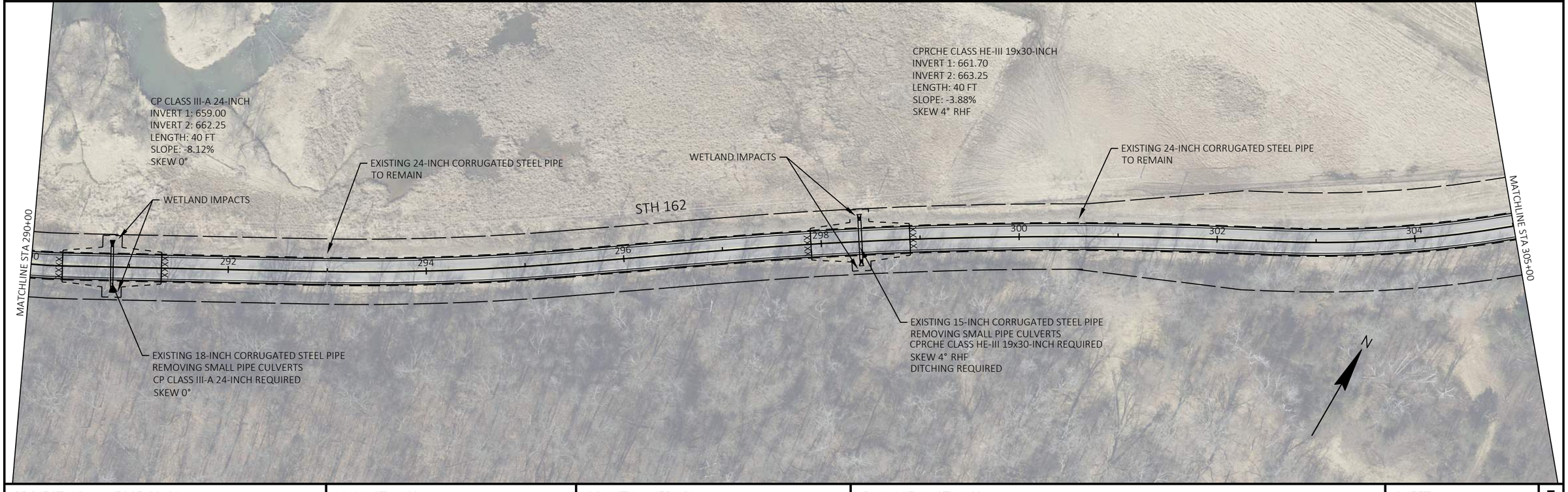
EXTEND PIPE 18-INCH CORRUGATED STEEL PIPE
CPCS 18-INCH REQUIRED

MOVING SIGNS

MATCHLINE STA 276+00

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN VIEW: STH 162	SHEET 118	E





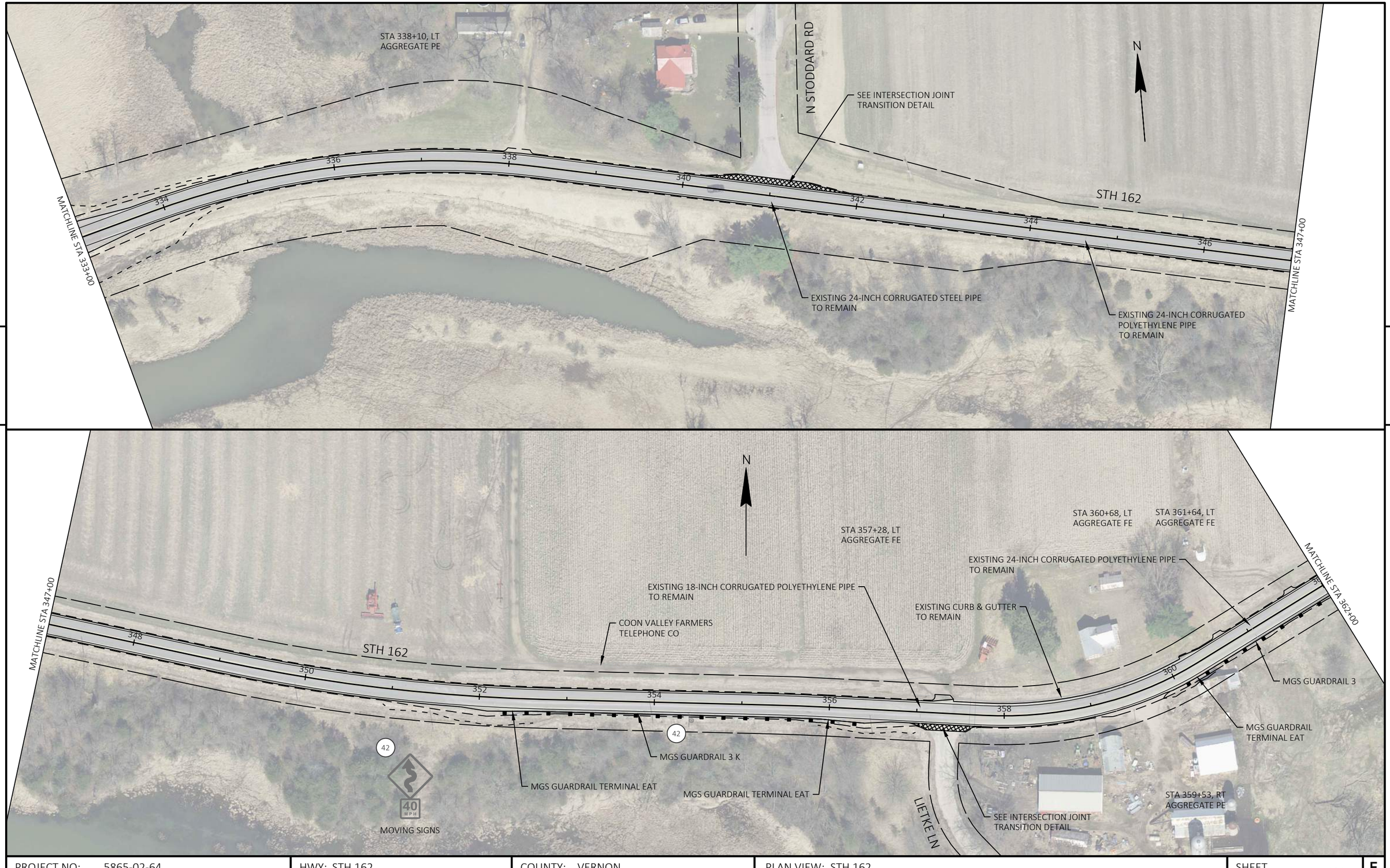
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN VIEW: STH 162	SHEET 119	E

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN VIEW: STH 162	SHEET 120 E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\050201_PN.DWG
LAYOUT NAME - 08

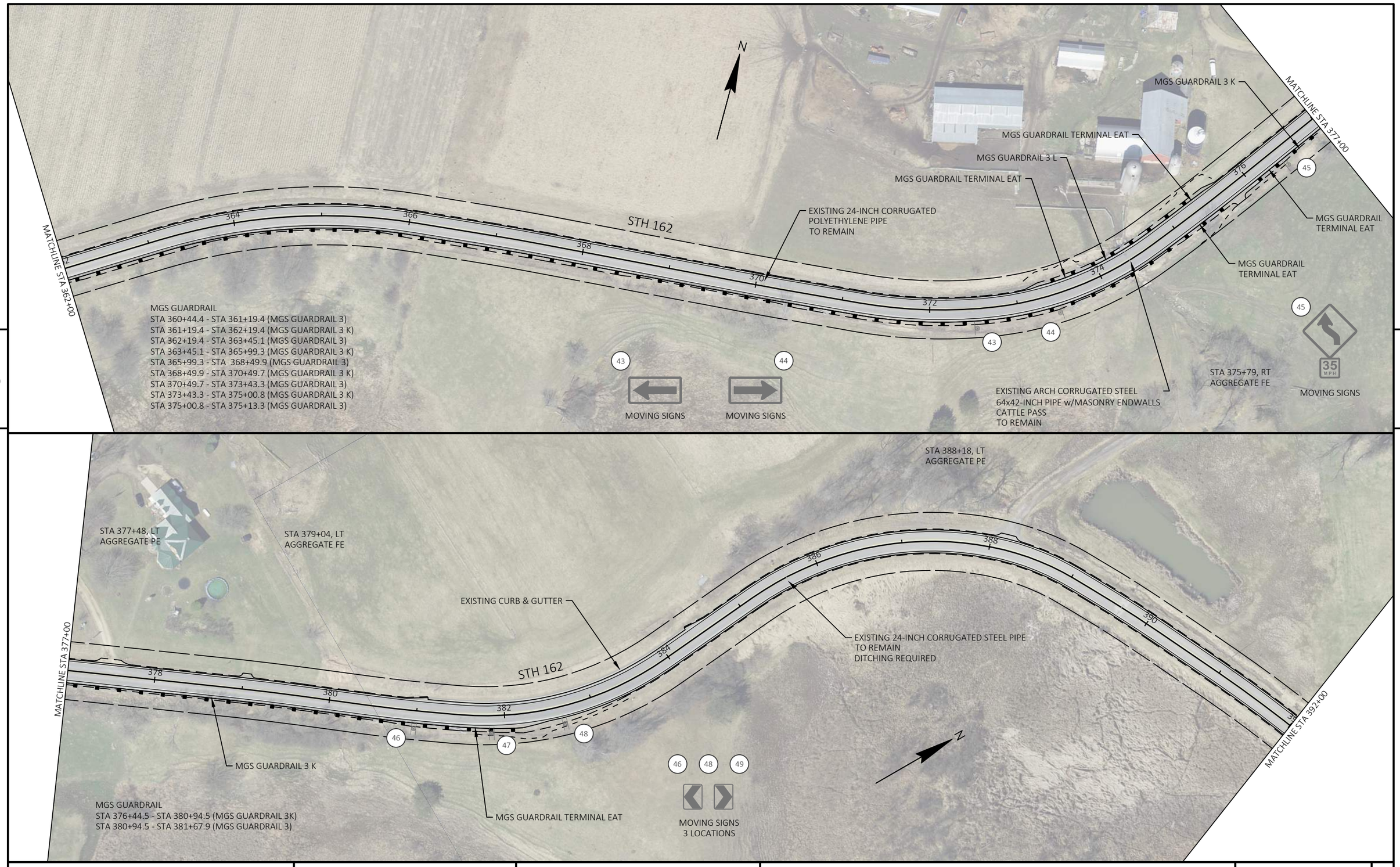
PLOT DATE : 10/20/2025 10:13 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN VIEW: STH 162	SHEET 121	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\050201_PN.DWG
LAYOUT NAME - 09
PLOT DATE : 10/20/2025 10:13 AM
PLOT BY : JEFF BREU
PLOT NAME :
PLOT SCALE : ############
WISDOT/CADDS SHEET 44



5

5

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN VIEW: STH 162	SHEET 122	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\050201_PN.DWG
LAYOUT NAME - 10

PLOT DATE : 10/20/2025 10:14 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

STA 395+30, LT
AGGREGATE PE

CPRCHE CLASS HE-III 19x30-INCH
INVERT 1: 670.75
INVERT 2: 669.85
LENGTH: 40 FT
SLOPE: 2.25%
SKEW 0°

STA 401+02, LT
AGGREGATE PE

STA 401+80, LT
ASPHALT PE

SEE RURAL ENTRANCE WITH ASPHALTIC SURFACE DETAIL

EXISTING TWIN 72-INCH CORRUGATED STEEL PIPES
TO REMAIN
CLEANING BOTH ENDS REQUIRED

COON VALLEY FARMERS
TELEPHONE CO

MATCHLINE STA 392+00

MATCHLINE STA 406+00

394 396 398 400 402 404

STH 162

49

EXISTING 18-INCH CORRUGATED STEEL PIPE
REMOVING SMALL PIPE CULVERTS
CPRCHE CLASS HE-III 19x30-INCH REQUIRED
SKEW 0°

SEE RURAL ENTRANCE WITH ASPHALTIC SURFACE DETAIL

STA 404+86, RT
ASPHALT PE

N

T 14 N
R 20 W
29 6

PRIOR TO MILLING OPERATION, VERIFY LANDMARK REFERENCE MONUMENTS. MILL AND PAVE ADJACENT TO MONUMENT WITHOUT DAMAGING THE MONUMENT (UTILIZED BID ITEM LANDMARK REFERENCE MONUMENTS SPECIAL IF EXISTING MONUMENT IS FOUND DAMAGED OR UNAVOIDABLE FOR CONSTRUCTION)

49
40 MPH
MOVING SIGNS

MATCHLINE STA 406+00

MATCHLINE STA 421+00

408 410 412 414 416 418 420

EXISTING 18-INCH CORRUGATED STEEL PIPE
TO REMAIN

STH 162

HANSON LN

EXISTING 24-INCH CORRUGATED STEEL PIPE
TO REMAIN

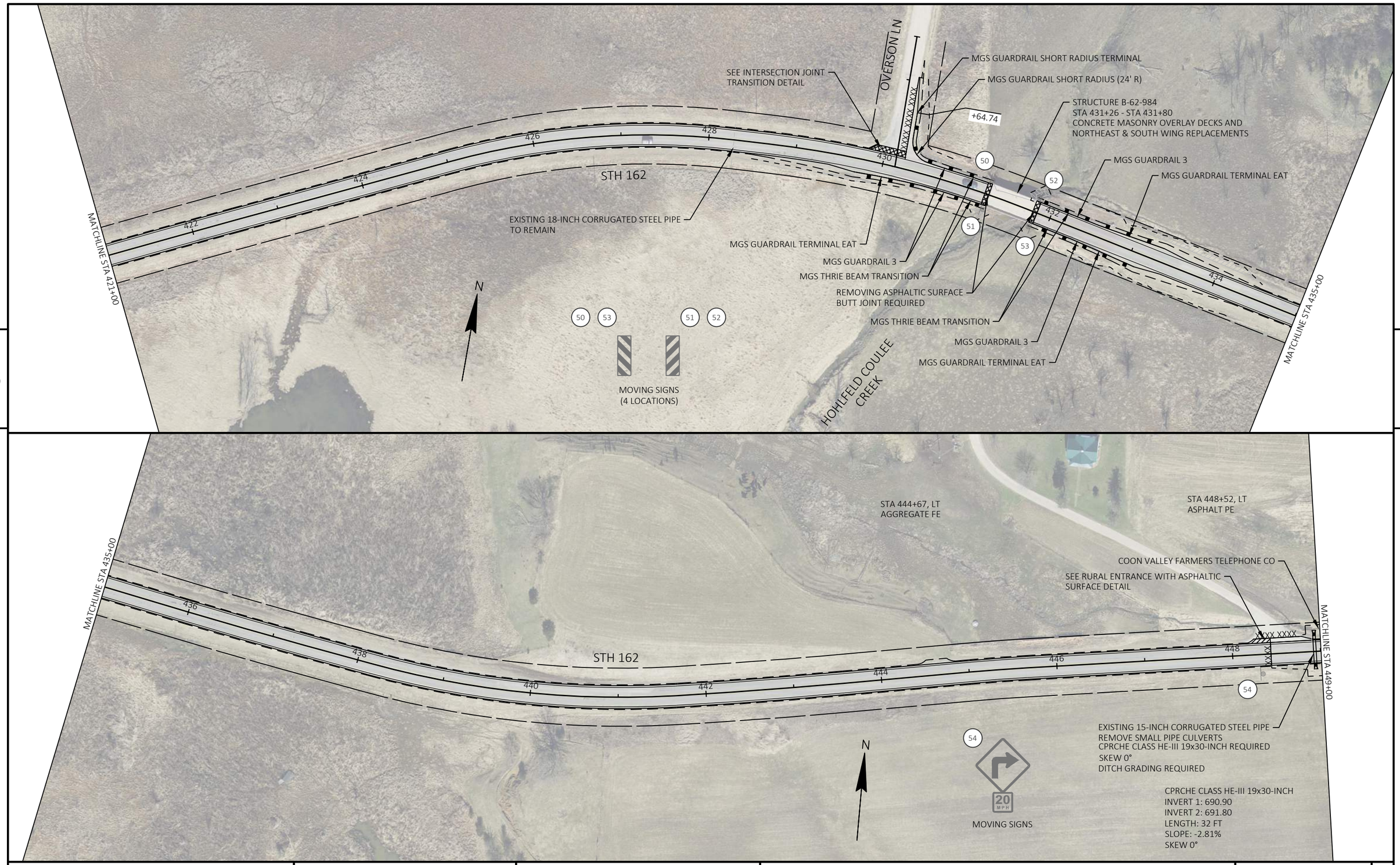
SEE INTERSECTION JOINT TRANSITION DETAIL

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN VIEW: STH 162	SHEET 123	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\050201_PN.DWG
LAYOUT NAME - 11

PLOT DATE : 6/24/2026 7:55 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

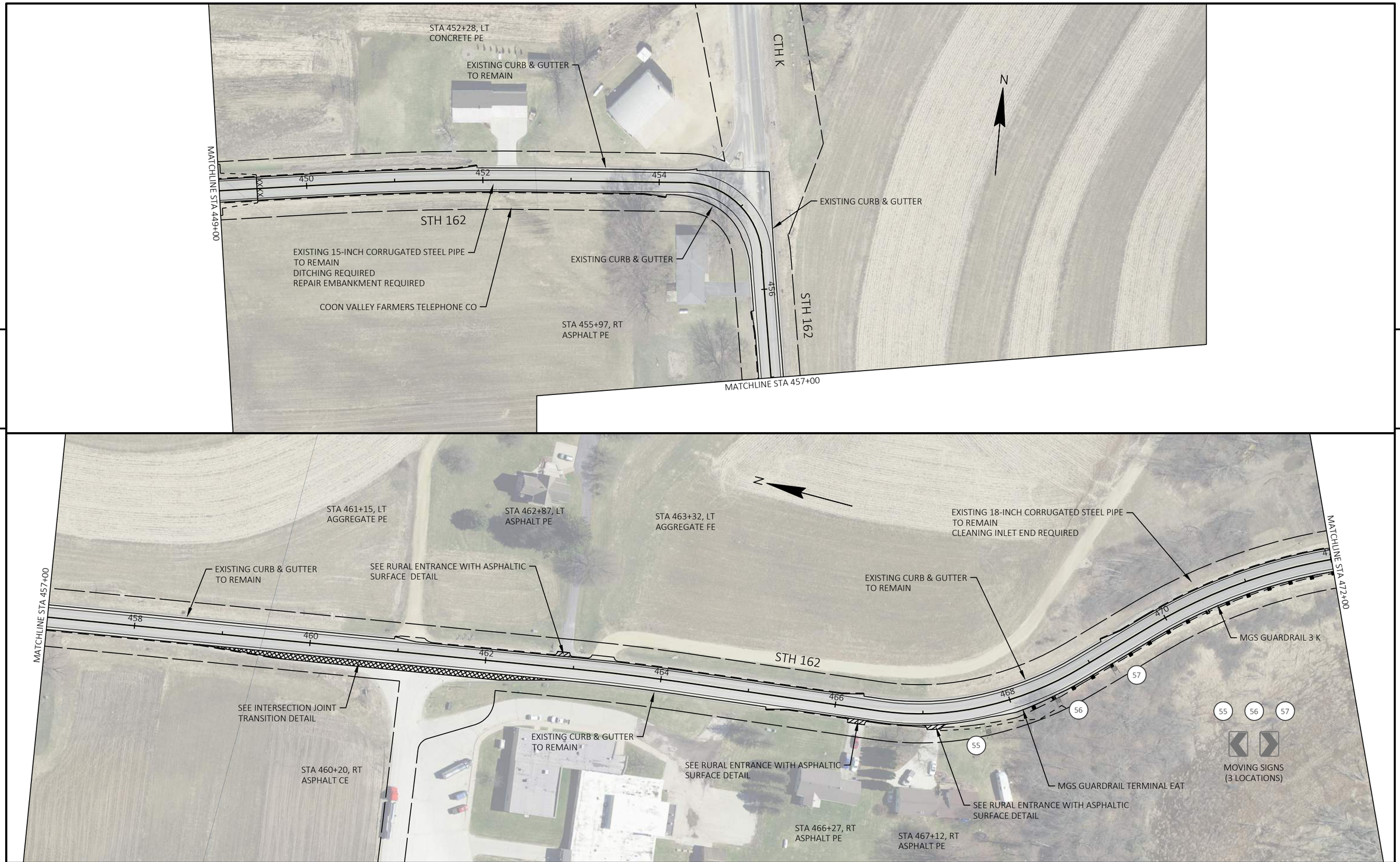


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN VIEW: STH 162	SHEET 124	E

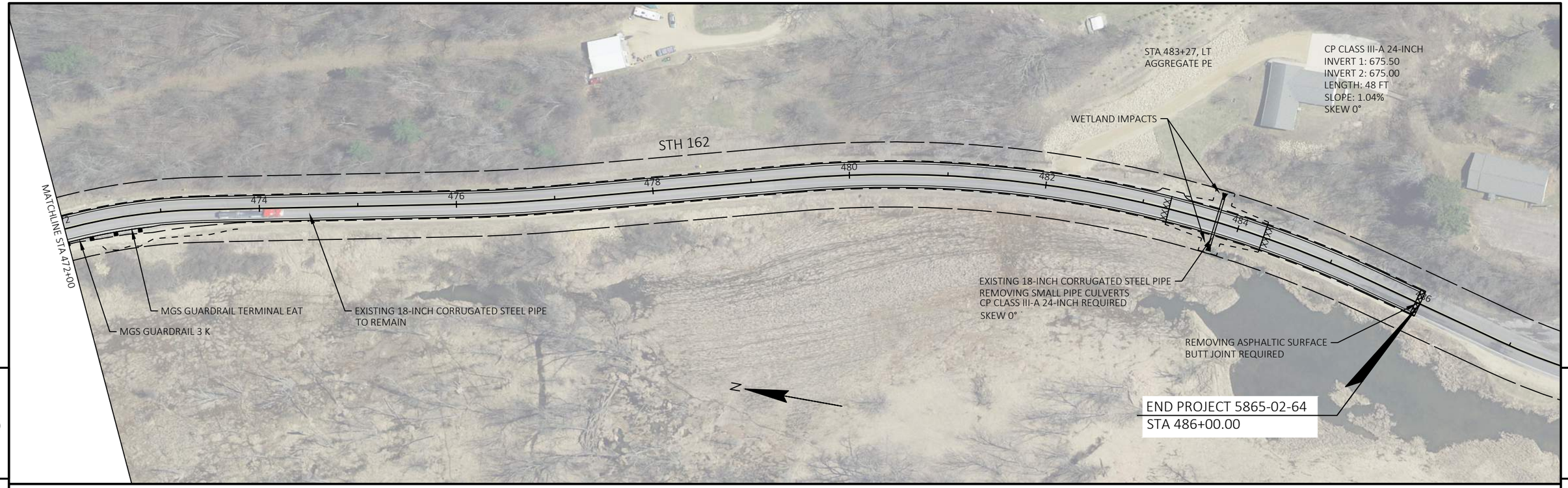
FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\050201_PN.DWG
LAYOUT NAME - 12

PLOT DATE : 6/24/2026 7:55 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN VIEW: STH 162	SHEET 125 E



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	PLAN VIEW: STH 162	SHEET 126	E

Standard Detail Drawing List

08A05-22A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-22B	INLET COVERS TYPE B, B-A, C, MS, MS-A, DW & WM
08A05-22C	INLET COVERS TYPE F, HM, HM-S, S, T, HM-GJ & HM-GJ-S
08A05-22E	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-04	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C06-03	INLETS 3-FT AND 4-FT DIAMETER
08C07-03	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT, 2.5X3-FT & 2X3.5-FT
08C08-03	INLETS MEDIAN 1 AND 2 GRATE
08C09-02	INLETS MEDIAN 3 AND 4 GRATE
08D01-24A	CONCRETE CURB & GUTTER
08D01-24B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-22A	CURB RAMPS TYPES 1 AND 1-A
08D05-22B	CURB RAMPS TYPES 2 AND 3
08D05-22C	CURB RAMPS TYPES 4A AND 4A1
08D05-22D	CURB RAMPS TYPES 4B AND 4B1
08D05-22E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-22F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-22G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09A01-14A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-14B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
09A11-01	DRIVEWAY AND SIDEWALK RAMPS TYPE X AND Y
09A12-01	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
09A13-01	DRIVEWAYS WITH CURB AND GUTTER RETURNS
09A14-01	DRIVEWAYS WITHOUT CURB AND GUTTER
09A15-01	DRIVEWAYS WITHOUT CURB AND GUTTER RESURFACING PROJECTS RURAL
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGITUDINAL JOINTS
14B07-16A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16J	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16K	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16L	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16M	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16N	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
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)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

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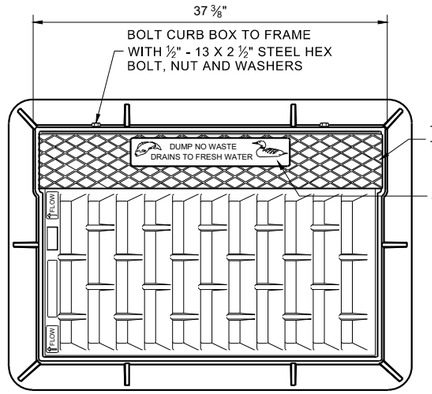
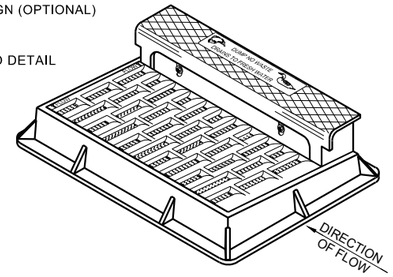
Standard Detail Drawing List

14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-06A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-06B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-06C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-06D	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-06E	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-06F	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-06G	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B53-03A	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03B	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03C	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03D	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03E	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03F	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03G	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03H	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03I	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-10A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-10B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-10C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-24C	PAVEMENT MARKING (TURN LANES)
15C08-24D	PAVEMENT MARKING (TURN LANES)
15C11-11A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-11B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C12-09B	TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE
15C19-11A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D27-05	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D30-12A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-12B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-12C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-12D	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-12E	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-12F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-12G	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-12H	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-12I	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-12J	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-12K	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-12L	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D31-05	TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY
15D32-07	TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION
15D48-01	TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION

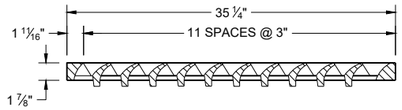
6

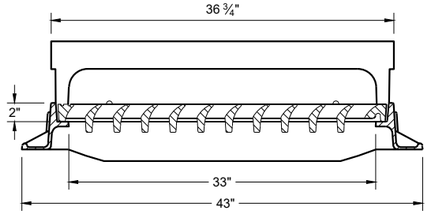


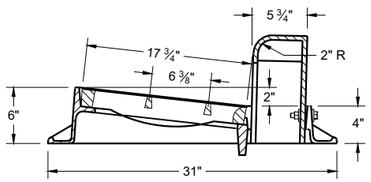
NOTE: EITHER CASTING IS ACCEPTABLE

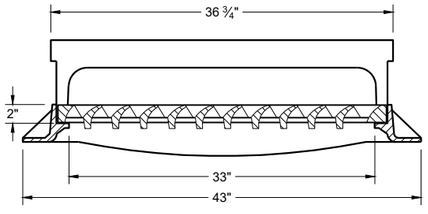


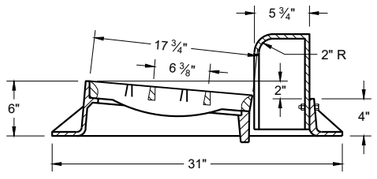
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"







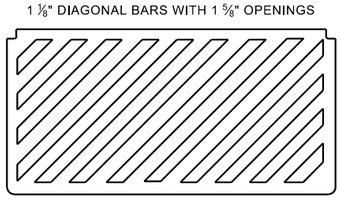




TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

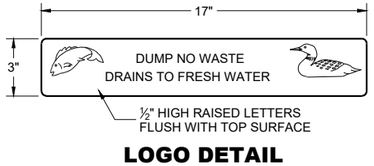
1 1/8" DIAGONAL BARS WITH 1 5/8" OPENINGS



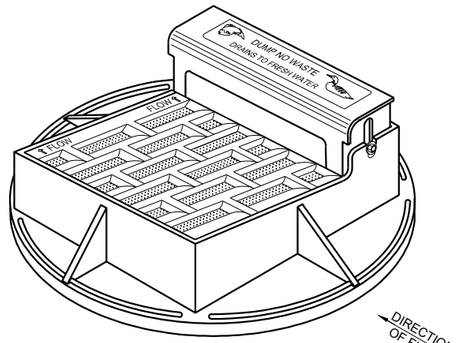
SPECIAL GRATE FOR TYPE "H" COVER

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

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

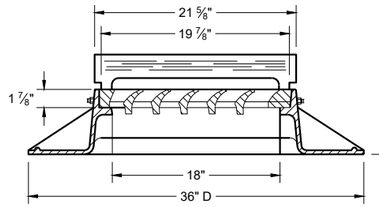


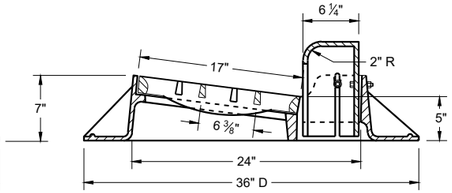
LOGO DETAIL



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

NOTE: EITHER CASTING IS ACCEPTABLE





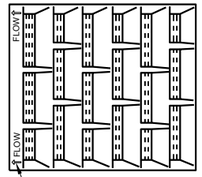
TYPE "A"

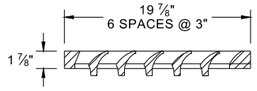
GENERAL NOTES

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

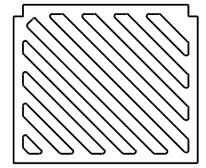
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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





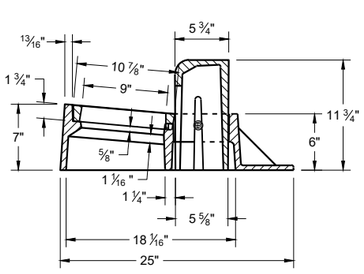
1" DIAGONAL BARS WITH 1 1/2" OPENINGS



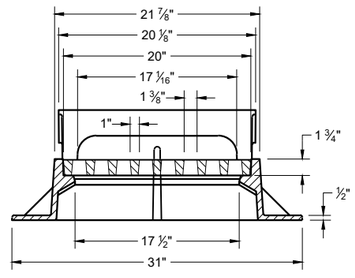
SPECIAL GRATE FOR TYPE "A" COVER

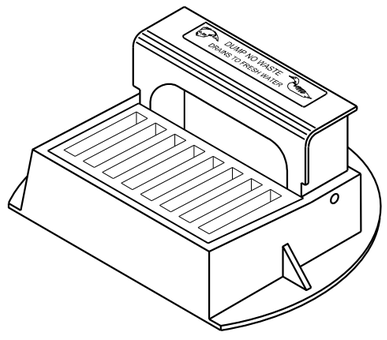
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "Z"





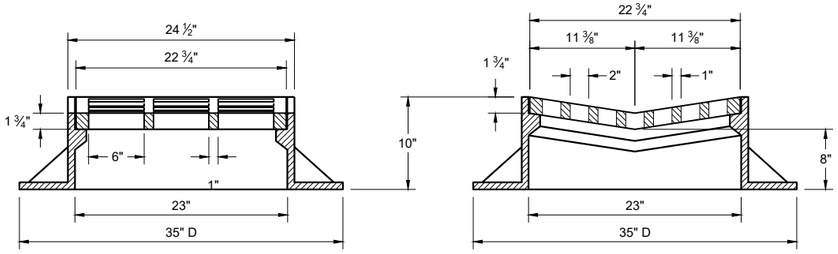
INLET COVERS
TYPES A, H, A-S, H-S AND Z

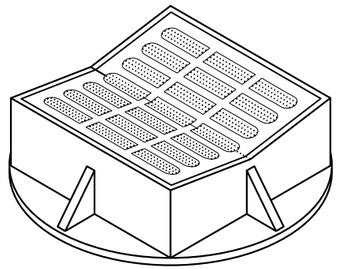
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025
DATE

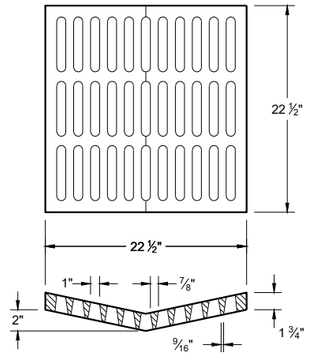
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA





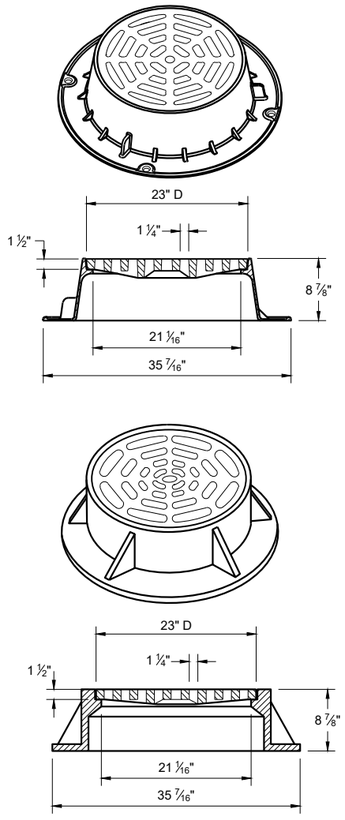
TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS POSSIBLE

NOTED AS TYPE B - A ON THE DRAINAGE TABLE



TYPE "C"

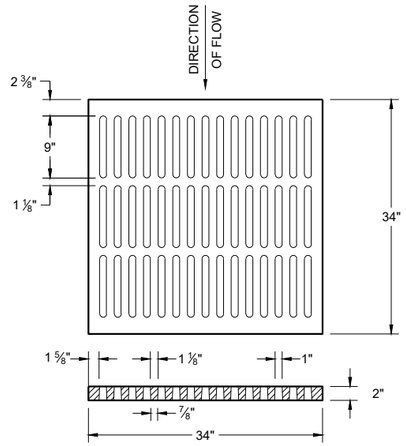
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

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

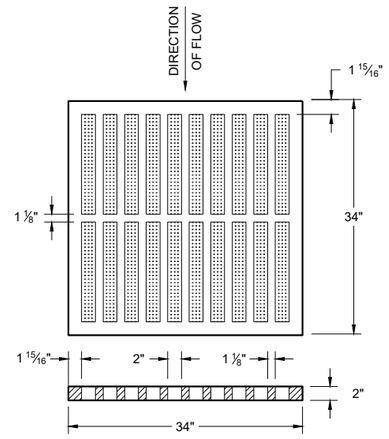
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS PERMITTED

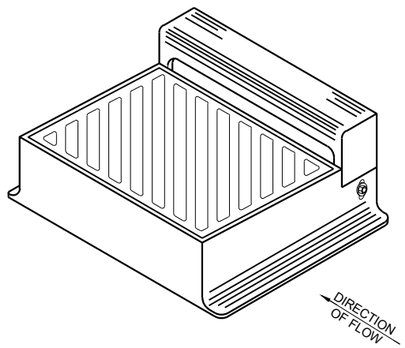
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



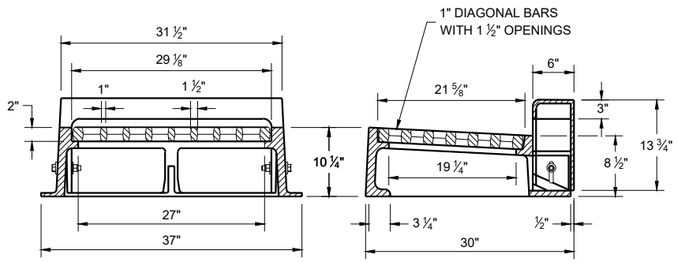
TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON THE DRAINAGE TABLE

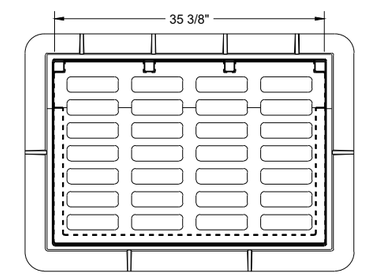


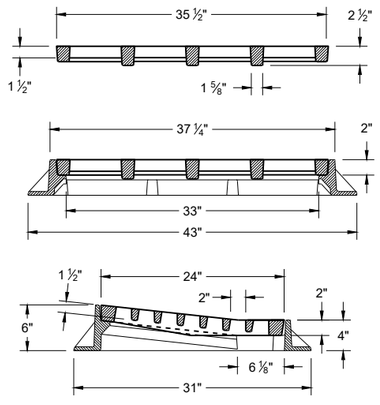
DIAGONAL SLOTS SHALL BE ORIENTEDTO THE DIRECTION OF FLOW AS ILLUSTRATED.
GRATES ARE MANUFACTURED TO BE REVERSIBLE.

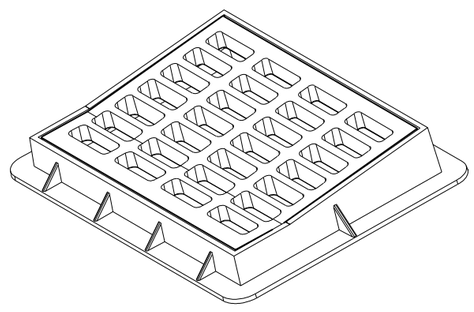


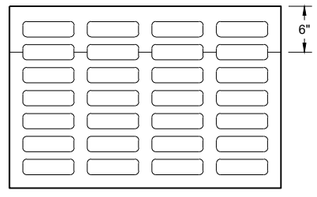
TYPE "WM"

NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"









TYPE "DW"

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

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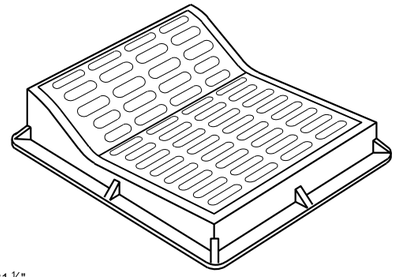
SDD 08A05-22b

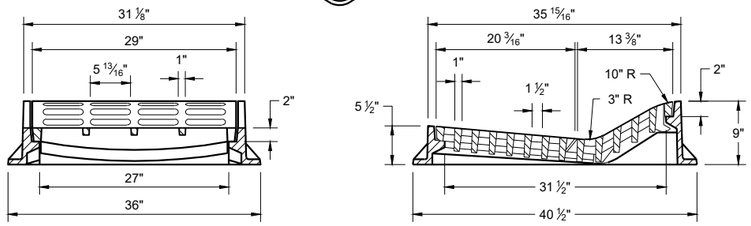
SDD 08A05-22b

GENERAL NOTES

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

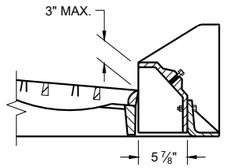
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.





TYPE "F"

USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"

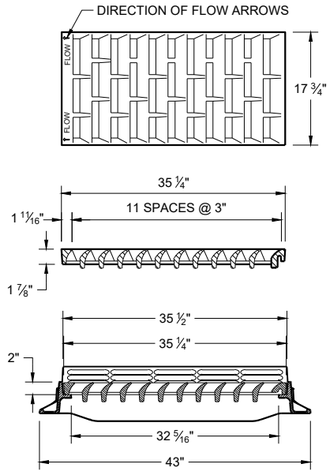


ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

USE WITH TYPES "G" AND "J" CONCRETE CURB AND GUTTER, 30 INCH
NOTED AS TYP "HM-GJ" ON DRAINAGE TABLE

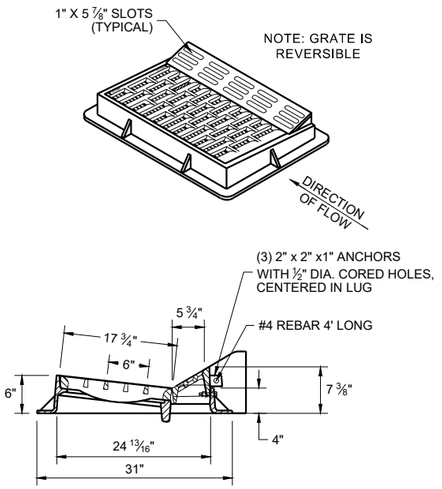
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.



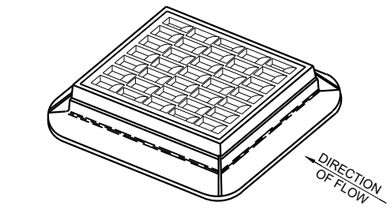
TYPE "HM"

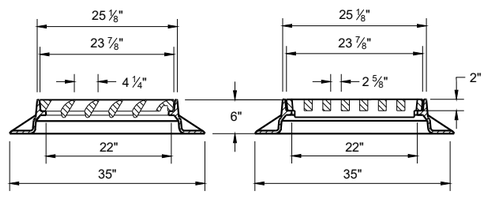
USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"



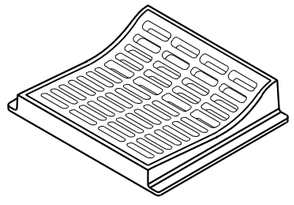
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

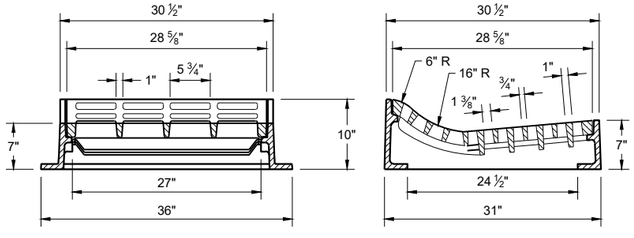
NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.





TYPE "S"





TYPE "T"

USE WITH TYPES "R" AND "T" CONCRETE CURB AND GUTTER, 36"

INLET COVERS
TYPES F, HM, HM-S, S, T, HM-GJ AND HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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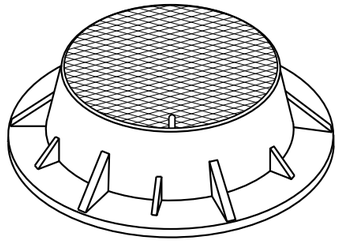
FHWA

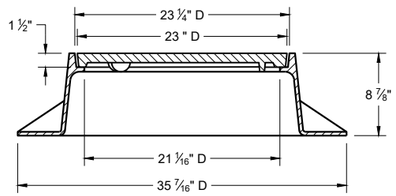
GENERAL NOTES

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

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

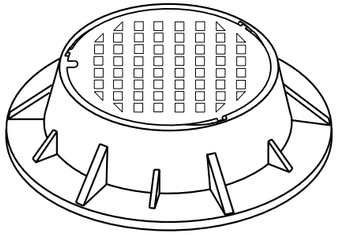
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

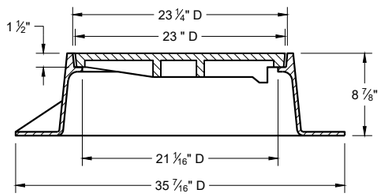




TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

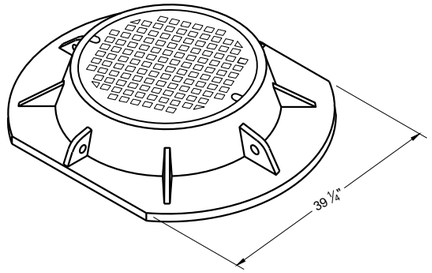


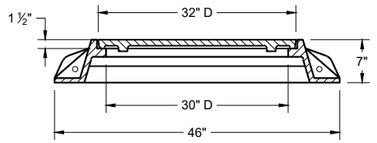


TYPE "J" SPECIAL

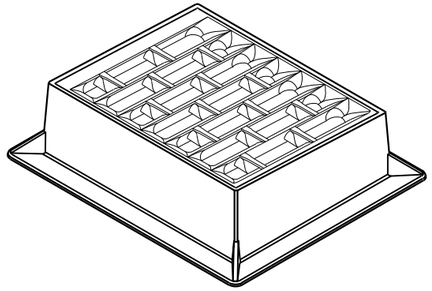
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

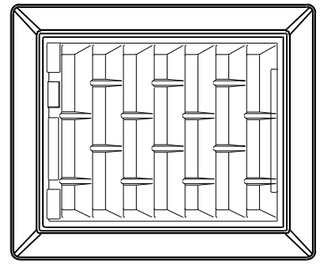
NOTE: EITHER CASTING IS ACCEPTABLE

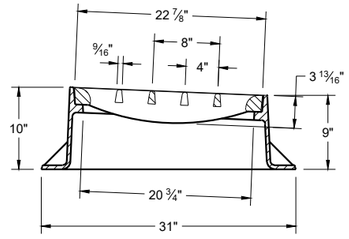


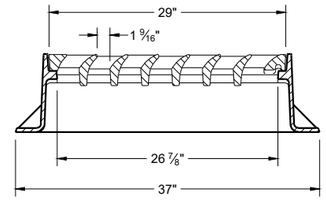


TYPE "K"

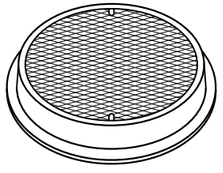


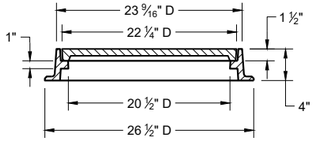




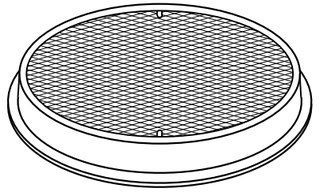


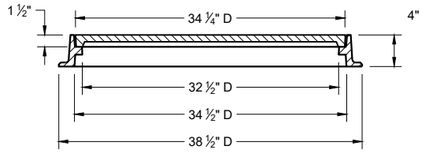
INLET COVER TYPE "BW"





TYPE "L"





TYPE "M"

INLET COVERS TYPES BW
MANHOLE COVERS TYPES K, J, J-S, L, AND M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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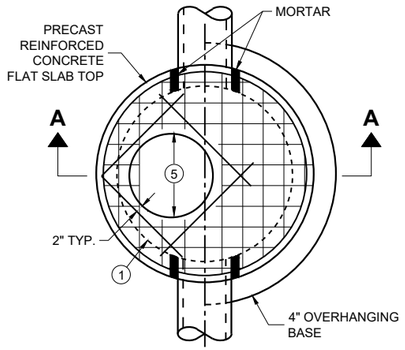
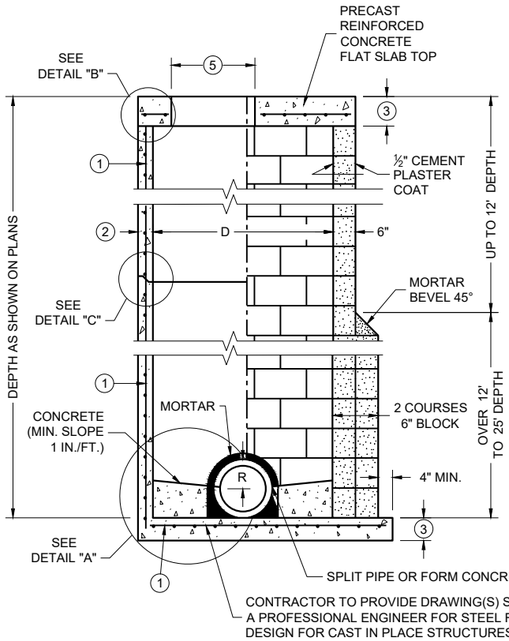


PLAN VIEW

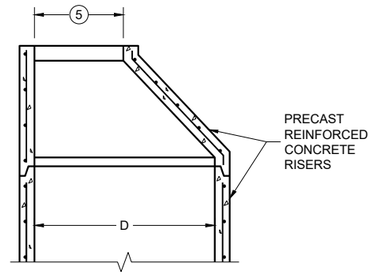
CIRCULAR OPENING



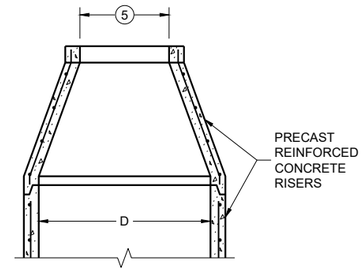
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

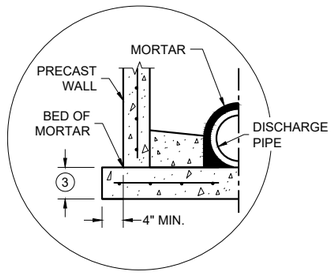
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)



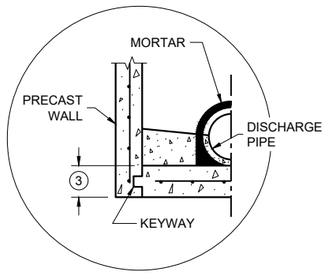
OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

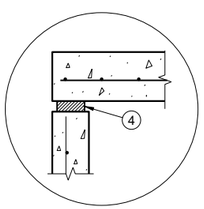


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

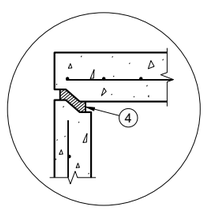


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

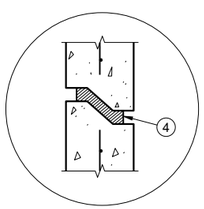
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

DETAIL "C"

MANHOLE COVER OPENING MATRIX

OPENING SIZE (FT.) (5) \ MANHOLE COVER TYPE	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42 *	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES. SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.

GENERAL NOTES

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

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

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

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

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

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL IMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

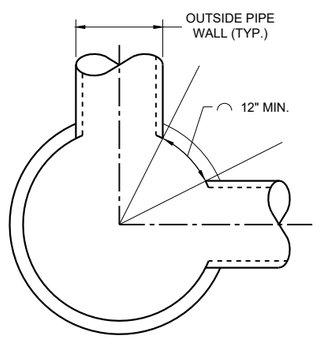
(1) FOR PRECAST MANHOLES AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(2) SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES

(3) SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.

(4) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.

(5) SEE MANHOLE COVER OPENING MATRIX.



MINIMUM HORIZONTAL PIPE SEPARATION

DETAIL "D"

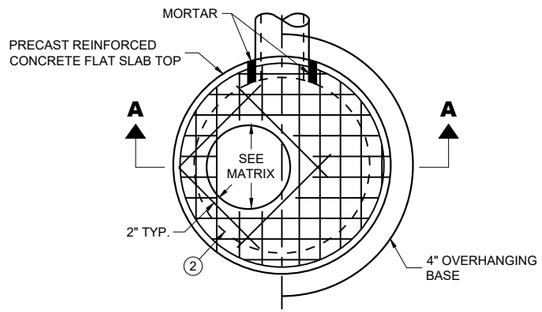
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

MANHOLES, 3-FT, 4-FT 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

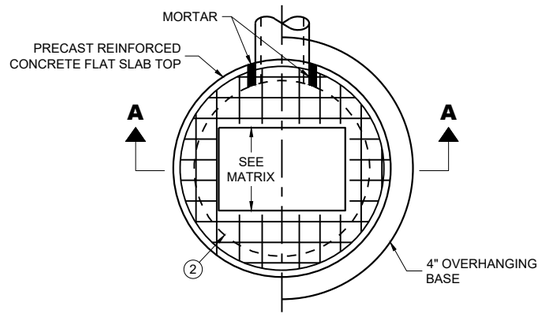
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

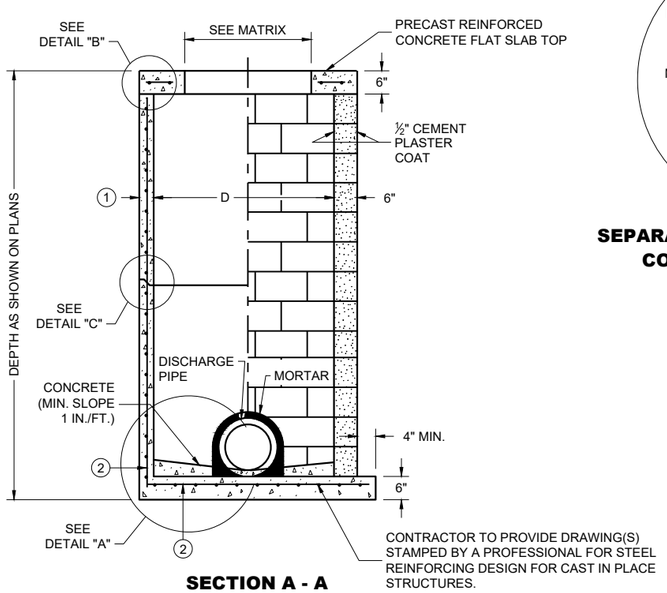
FHWA



PLAN VIEW CIRCULAR OPENING



PLAN VIEW RECTANGULAR OPENING



SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (2)

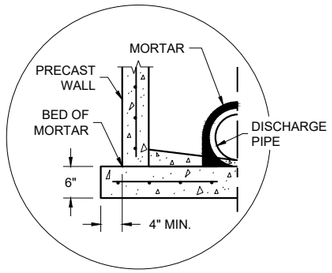
CIRCULAR INLETS WITH FLAT TOP

CATCH BASIN COVER OPENING MATRIX

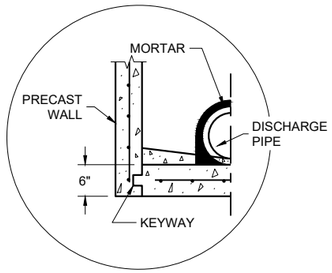
INLET SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V V-B	WM	Z
	OPENING SIZE (FT.)											
3-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
4-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
	2 X 2.5			X				X	X	X	X	
	2 X 3						X					
	2.5 X 3					X						

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

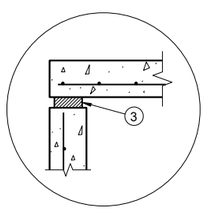


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

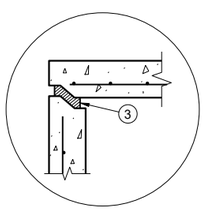


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

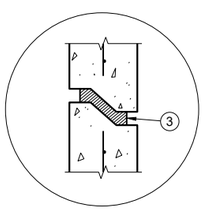
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B" **DETAIL "C"**

INLETS 3-FT AND 4-FT DIAMETER

GENERAL NOTES

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

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

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

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

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

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

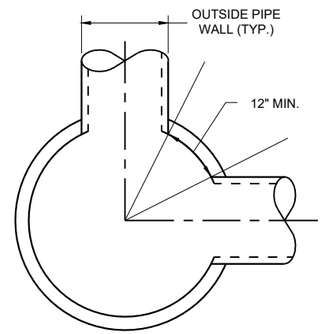
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

(1) MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT DIAMETER AND 5 INCHES FOR 4-FT DIAMTER PRECAST INLETS.

(2) FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(3) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.



MINIMUM HORIZONTAL PIPE SEPARATION

DETAIL "D"

INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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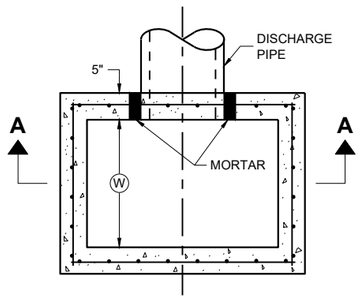
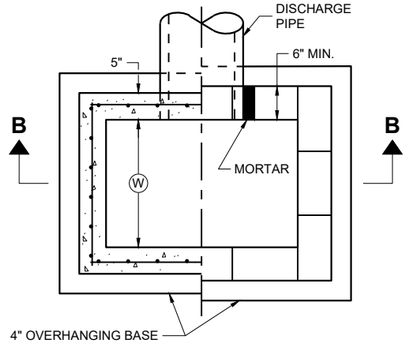
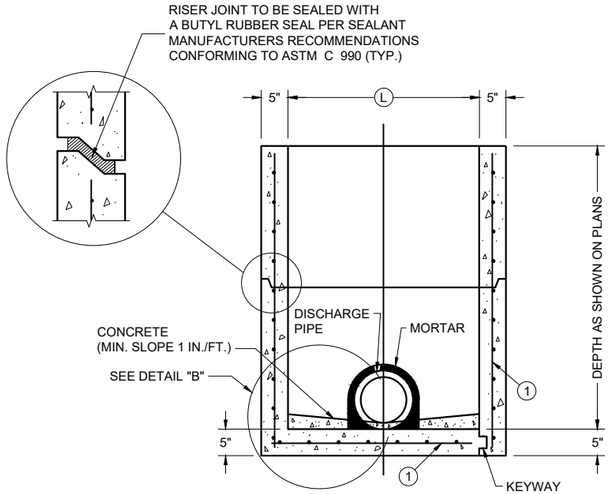
SDD 08C06-03



PLAN VIEW



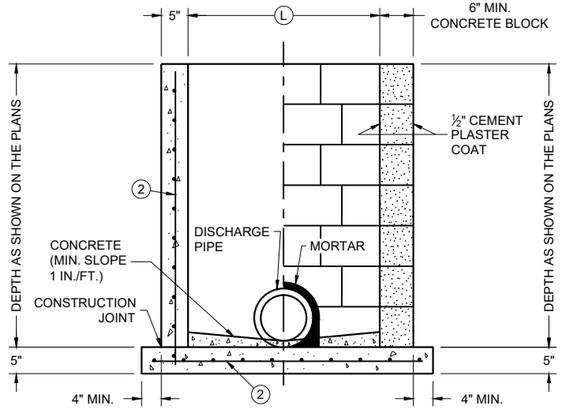
PLAN VIEW



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

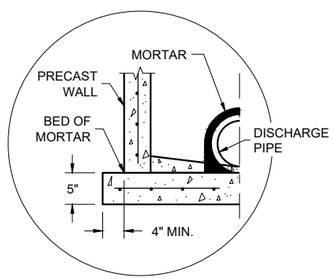
SECTION A - A



CAST IN PLACE REINFORCED CONCRETE

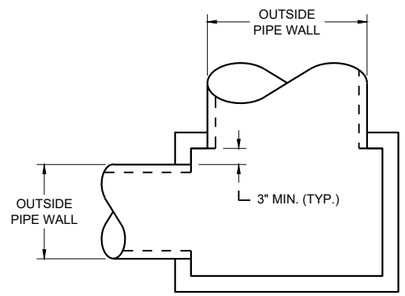
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)

SECTION B - B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "B"



DETAIL "A"

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

(1) FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913
(2) CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

CATCH BASIN COVER MATRIX

INLET SIZE	WIDTH (W) (FT.)	LENGTH (L) (FT.)	INLET COVER TYPE									
			ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM	V V-B
2 X 2-FT	2	2	X	X				X				
2 X 2.5-FT	2	2.5			X			X	X	X	X	
2 X 3-FT	2	3					X					
2.5 X 3-FT	2.5	3				X						
2 X 3.5-FT	2	3.5										X

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2 X 2-FT	12	12
2 X 2.5-FT	12	18
2 X 3-FT	12	24
2.5 X 3-FT	18	24
2 X 3.5-FT	12	30

INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2X3.5-FT

INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2 X 3.5-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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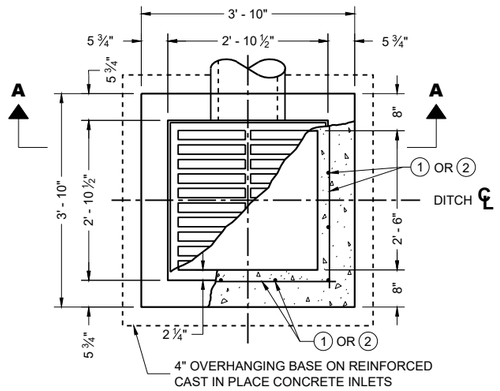
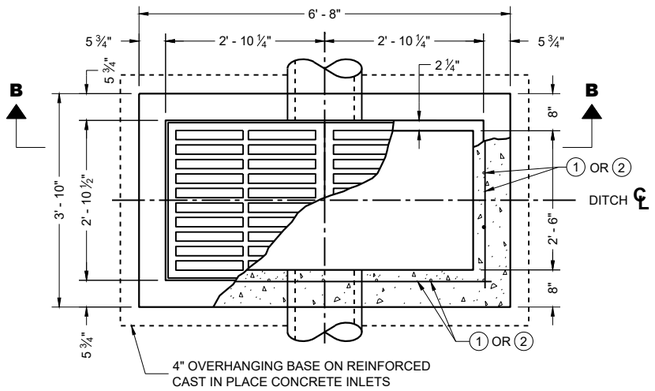
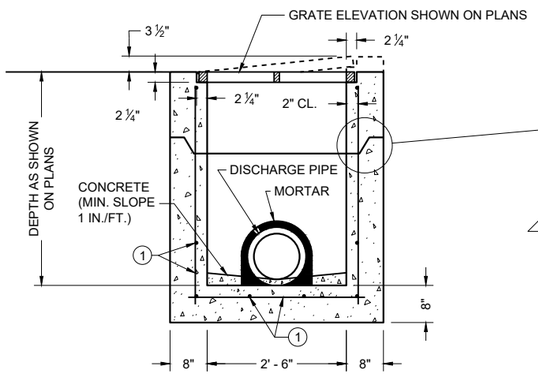
SDD 08C07-03



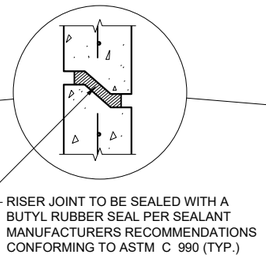
PLAN VIEW

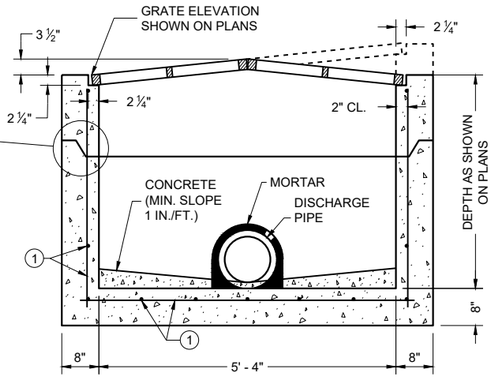


PLAN VIEW

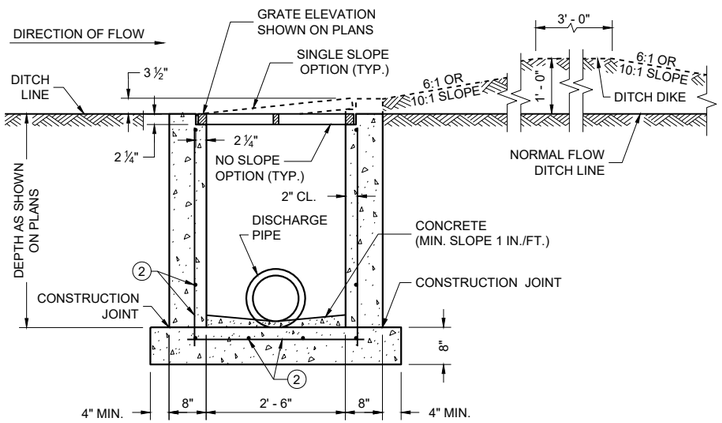


PRECAST REINFORCED CONCRETE SECTION A - A



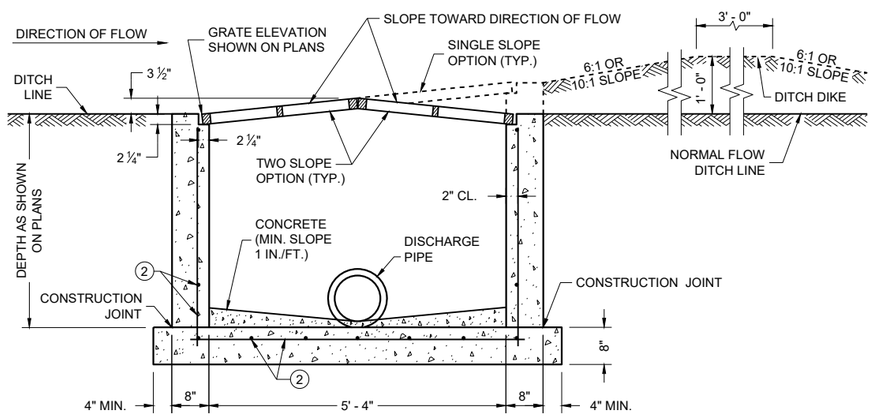


PRECAST REINFORCED CONCRETE SECTION B - B



REINFORCED CAST IN PLACE CONCRETE SECTION A - A

INLETS MEDIAN 1 GRATE



REINFORCED CAST IN PLACE CONCRETE SECTION B - B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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

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

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

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

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

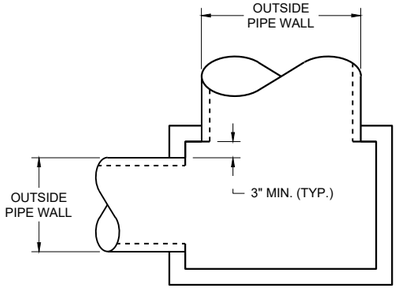
ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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

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

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

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



DETAIL "A"

PIPE MATRIX

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

INLETS
MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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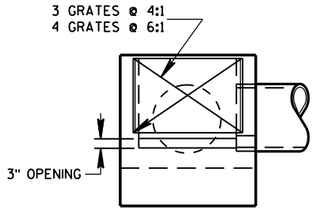
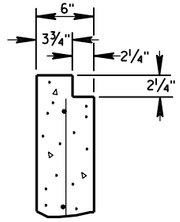
SDD 08C08-03



SECTION B-B



SECTION C-C

GENERAL NOTES

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

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

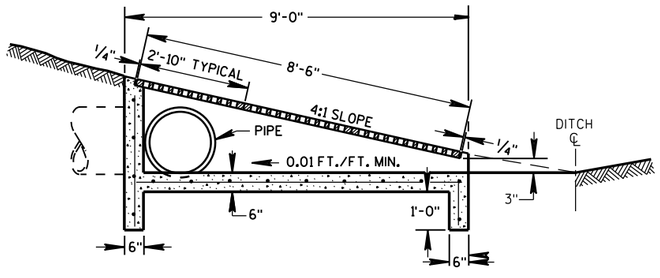
DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 3G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

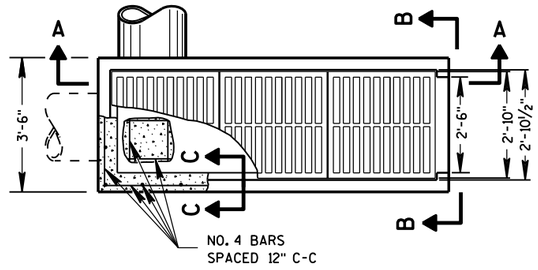
ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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

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

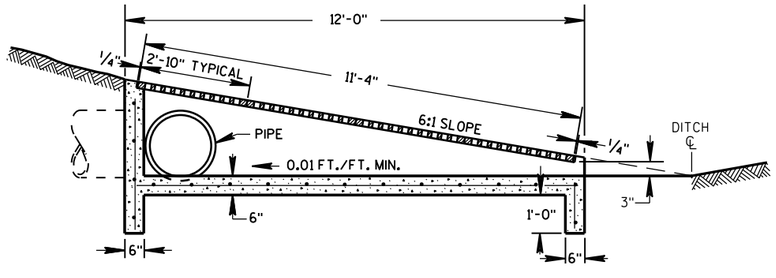


SECTION A-A

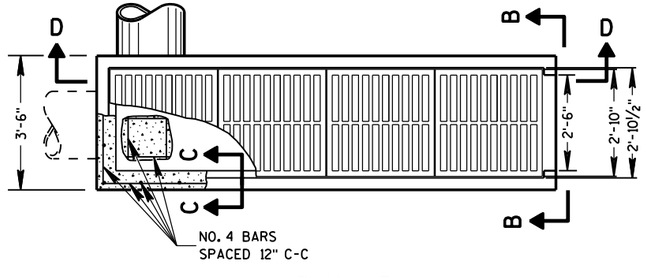


PLAN VIEW

INLETS MEDIAN 3 GRATE



SECTION D-D



PLAN VIEW

INLETS MEDIAN 4 GRATE

INLETS MEDIAN 3 AND 4 GRATE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED Sept., 2016 DATE FHWA	/S/ Rodney Taylor ROADWAY STANDARDS UNIT SUPERVISOR

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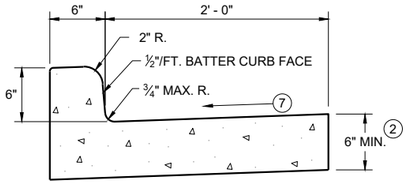
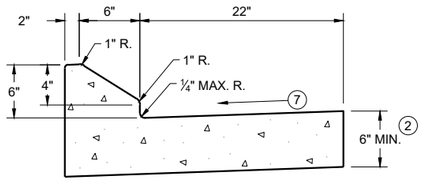
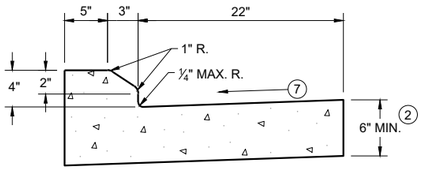
S.D.D. 8 C 9-2



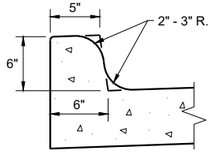
TYPES A (1) & D



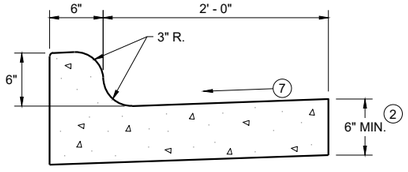
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

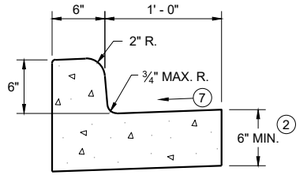


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



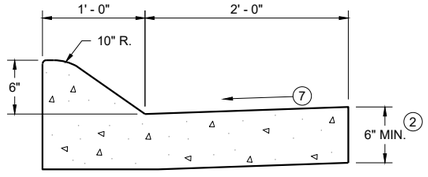
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

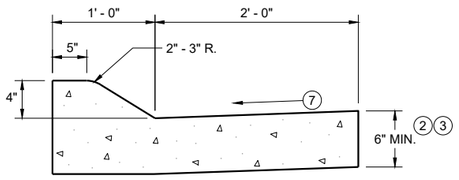


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

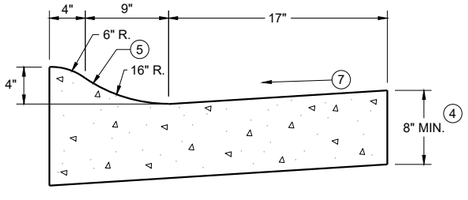


6" SLOPED CURB TYPES A (1) & D



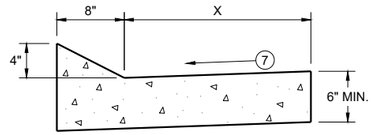
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



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

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

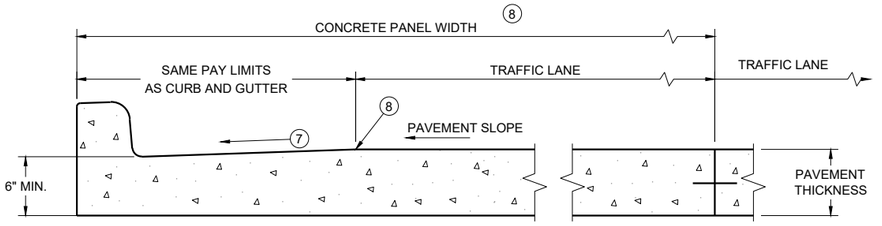


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

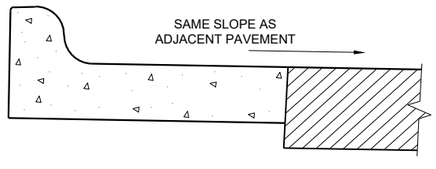
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER *

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

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

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

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

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

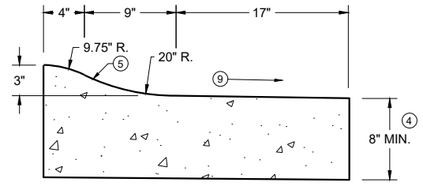
(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

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

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

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

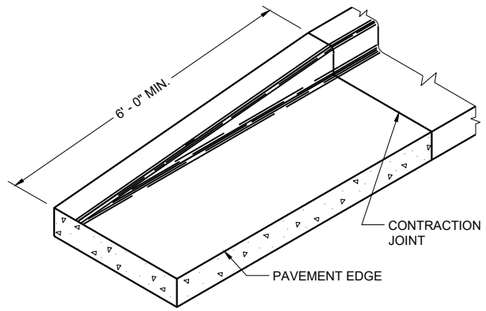
(9) SLOPE TO BE REVERSE SLOPE MATCHING THE SLOPE OF THE PAVEMENT AND THE CIRCULATORY ROADWAY



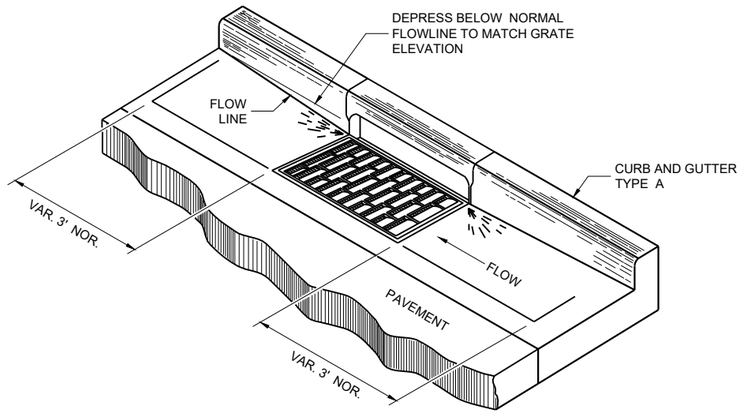
3" SLOPED CURB TYPES R (1) & T

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

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

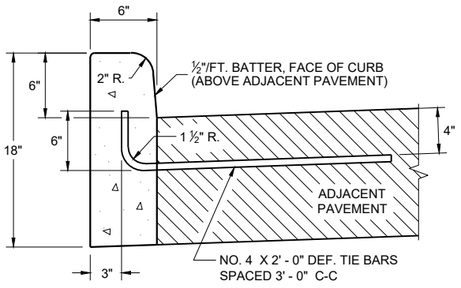
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

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

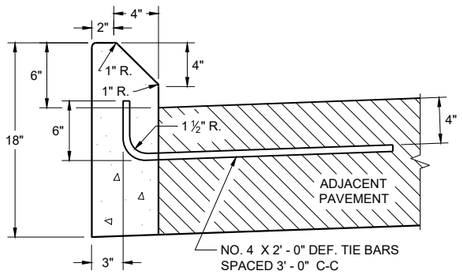
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

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

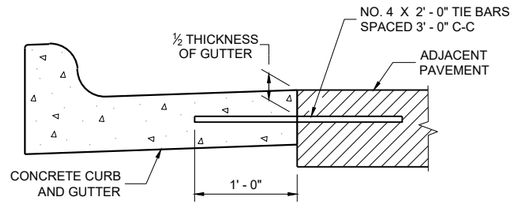


TYPES A (1) & D

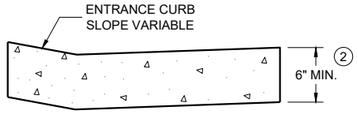


TYPES G (1) & J

CONCRETE CURB

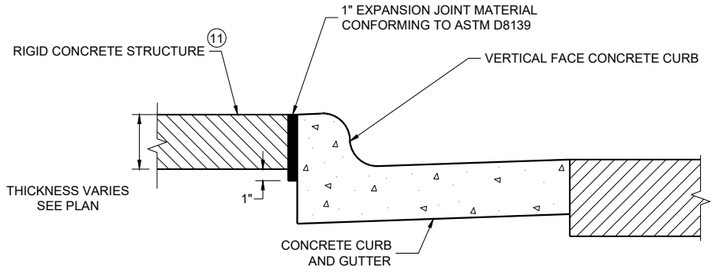


TYPICAL TIE BAR LOCATION (1)

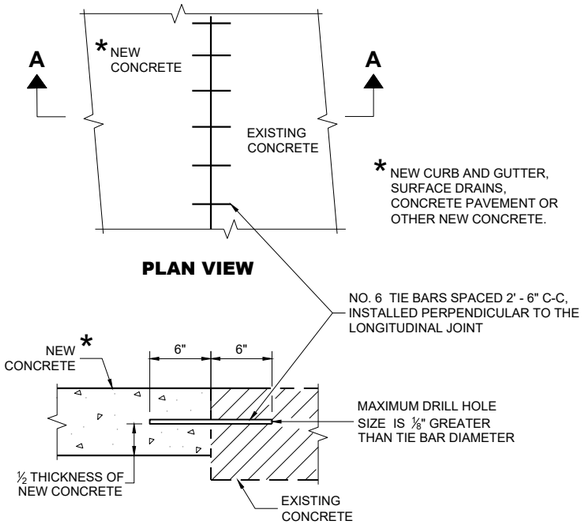


DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)



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



PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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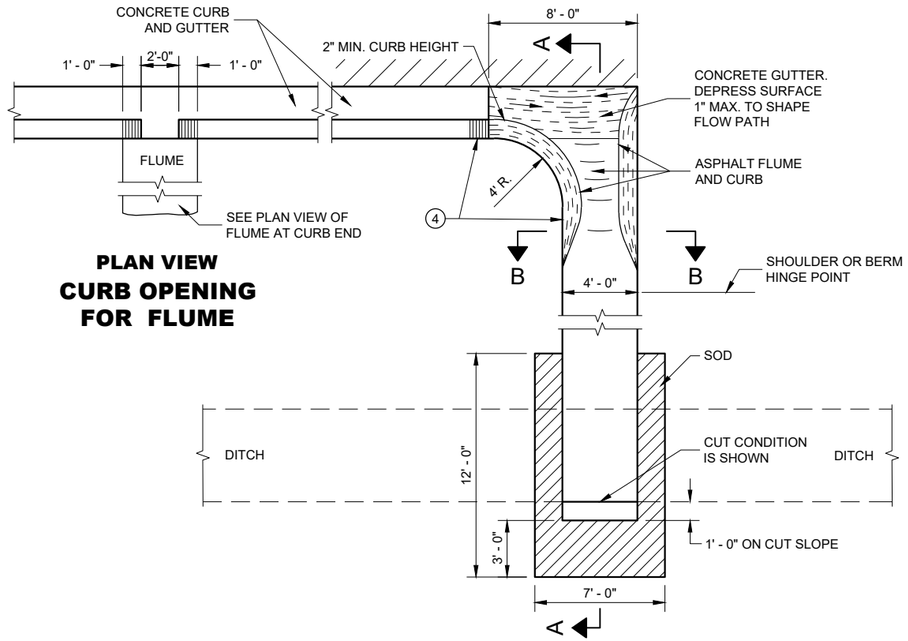
SDD 08D01-24b

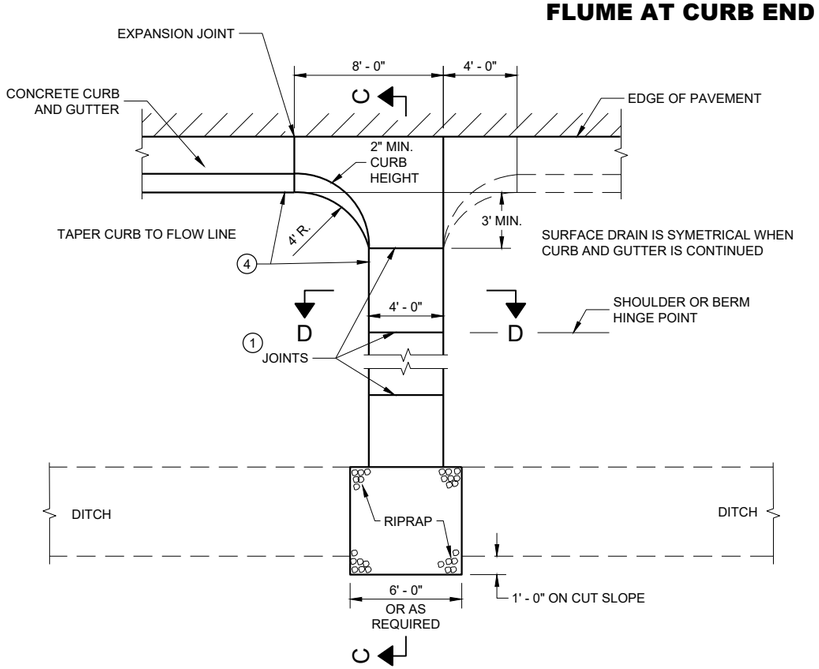
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



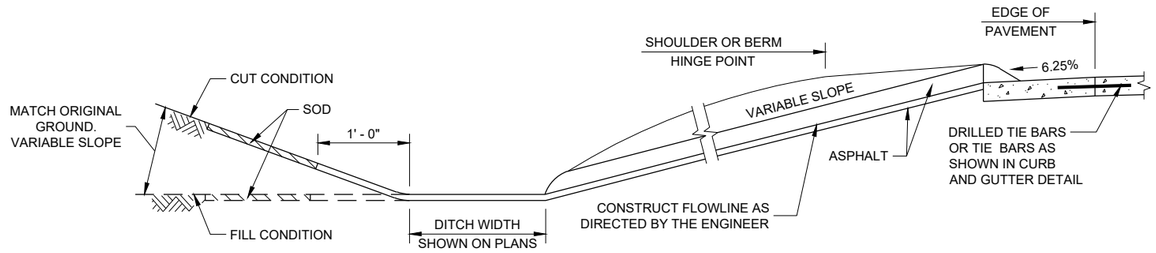
PLAN VIEW
CONCRETE SURFACE DRAIN

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.

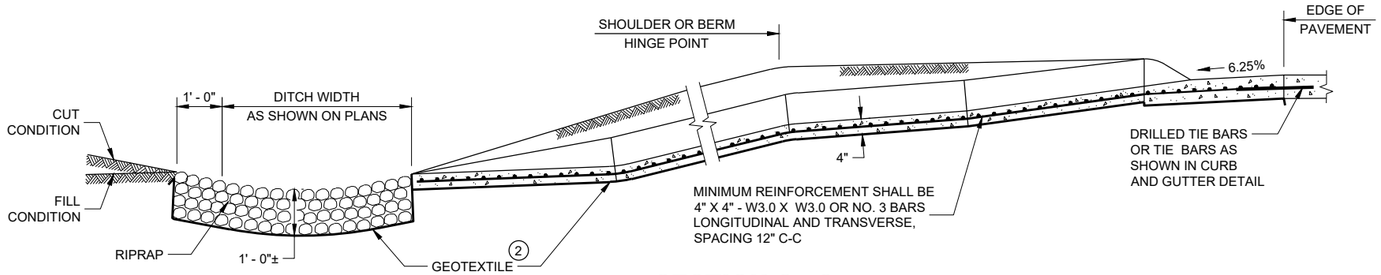
4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE 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.
4. ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.

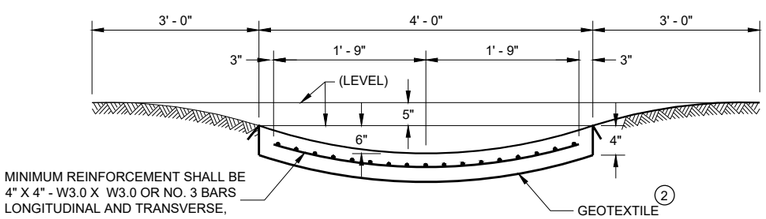


SECTION A - A

SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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SDD 08D04 - 07

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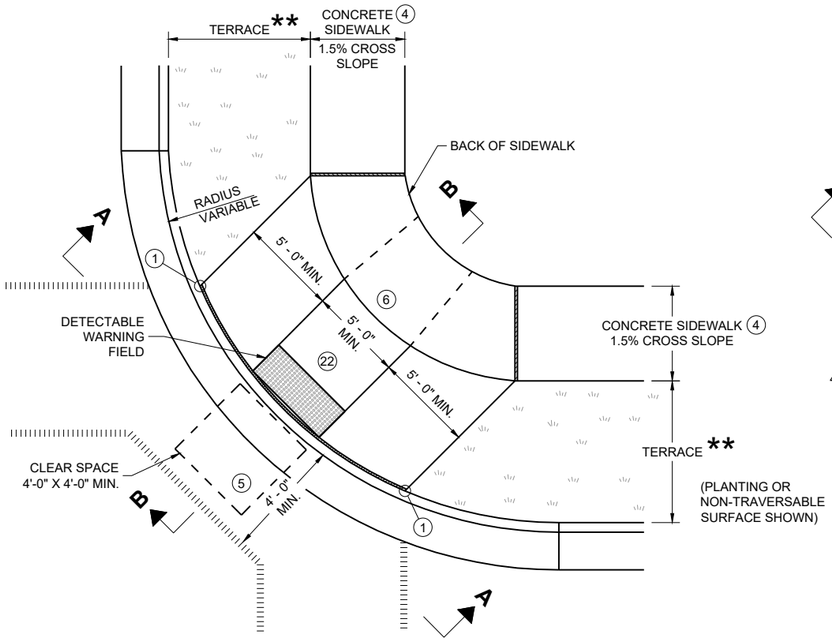
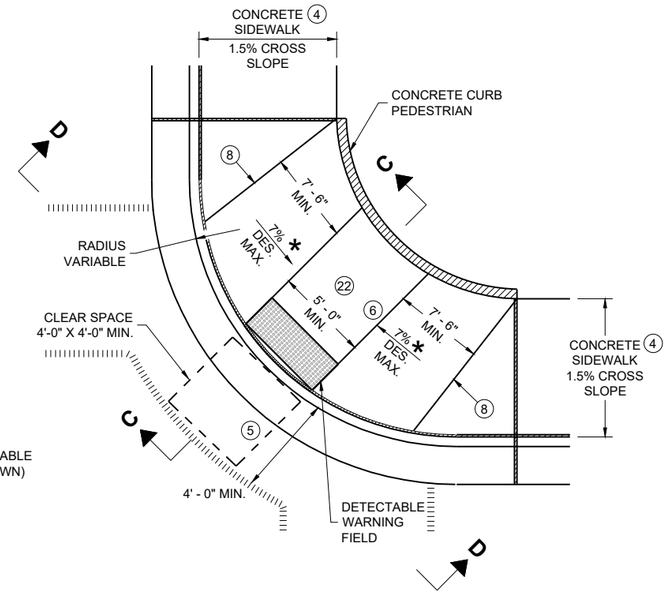
SDD 08D04 - 07



PLAN VIEW

CURB RAMP TYPE 1

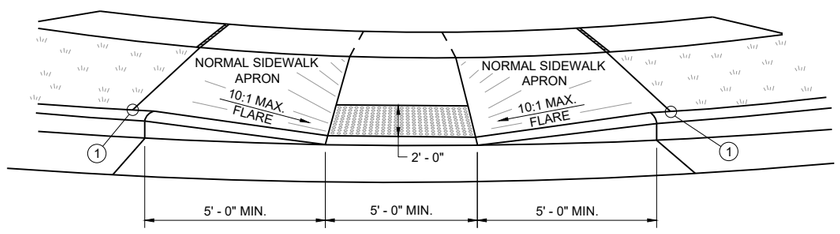
(CENTER OF CORNER RADIUS)



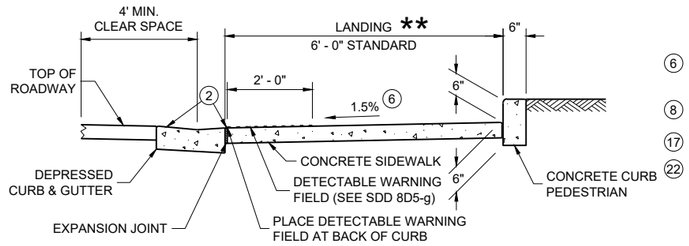
PLAN VIEW

CURB RAMP TYPE 1 - A

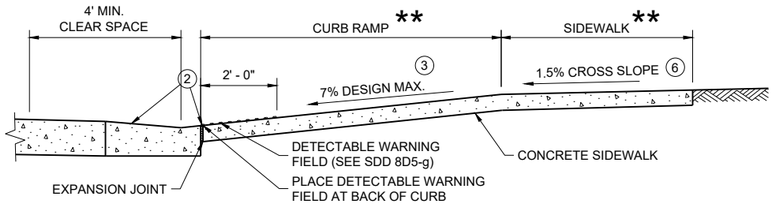
(NO TERRACE)



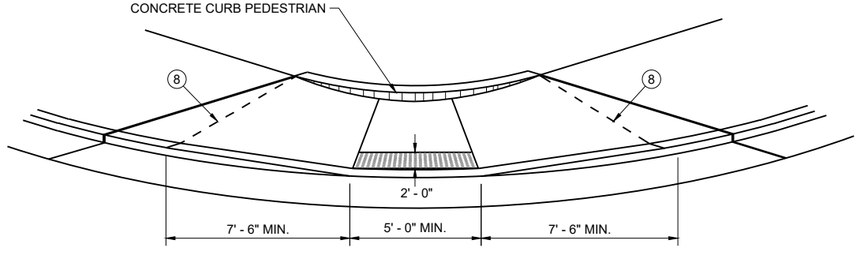
VIEW A - A FOR TYPE 1



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 CURB 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 CURB RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF CURB RAMP.

DETECTABLE WARNING FILED 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 CURB 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 COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A CLEAR SPACE IN THE STREET AND GUTTER AREA. WHEN THE GUTTER CROSS SLOPE EXCEEDS 2.1%, CONSTRUCT THE CLEAR SPACE IN THE STREET AREA AND THE 4 FOOT WIDTH IS MEASURED FROM THE FLANGE LINE. FOR RECONSTRUCTION AND MODERNIZATION PROJECTS THE CLEAR SPACE SLOPE PARALLEL TO THE CURBLINE SHOULD BE 2.1% MAX FOR CROSSINGS THAT ARE STOP AND YIELD CONTROLLED, AND 5% MAX FOR THOSE THAT ARE SIGNAL CONTROLLED. FOR PERPETUATION AND REHABILITATION PROJECTS THE SLOPE OF THE CLEAR SPACE PARALLEL TO THE CURBLINE WILL MATCH THE ROADWAY LONGITUDINAL SLOPE. THE SLOPE OF THE CLEAR SPACE PERPENDICULAR TO THE CURBLINE WILL MATCH THE ROADWAY CROSS SLOPE BUT SHOULD NOT EXCEED 5% UNLESS THE ROADWAY IS SUPERELEVATED (WHEN SUPERELEVATED THE ROADWAY CROSS SLOPE SHOULD MATCH THE SUPERELEVATION).

(6) PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

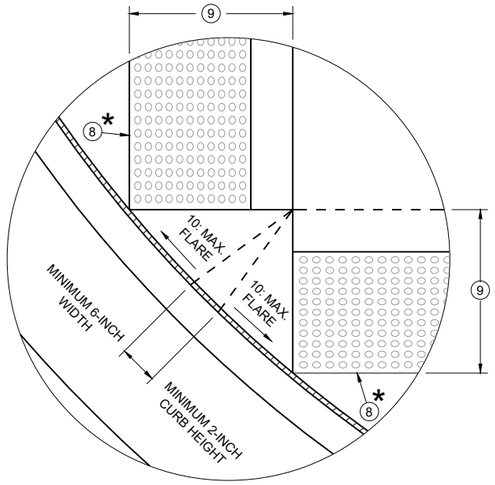
(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

LEGEND

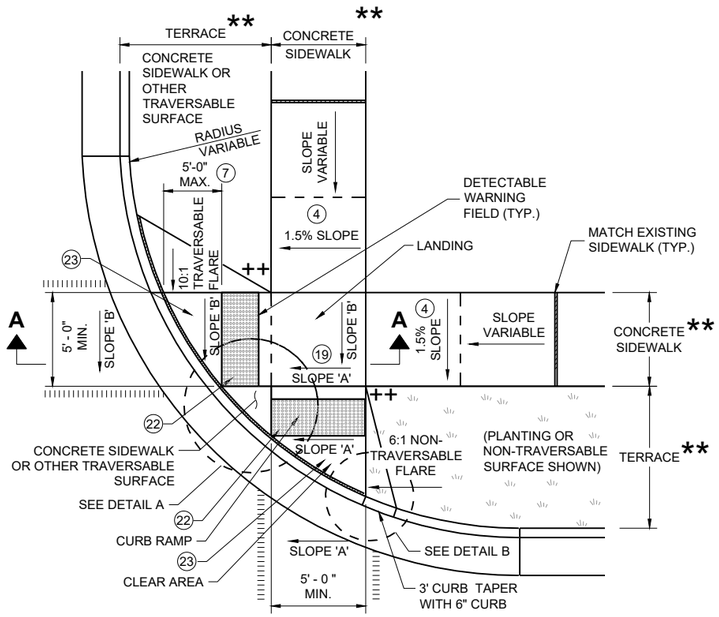
═══	½" EXPANSION JOINT SIDEWALK
– – – –	CONTRACTION JOINT FIELD LOCATED
ıı ıı ıı ıı	PAVEMENT MARKING CROSSWALK (WHITE)
*	MAXIMUM 8.3%
**	WIDTH SHOWN ELSEWHERE IN THE PLANS

CURB RAMPS TYPE 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



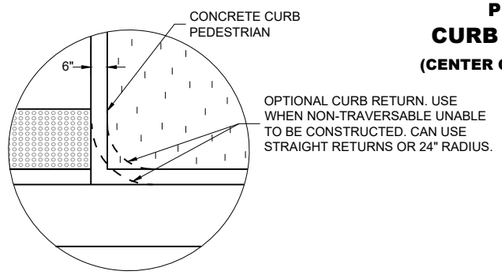
DETAIL A



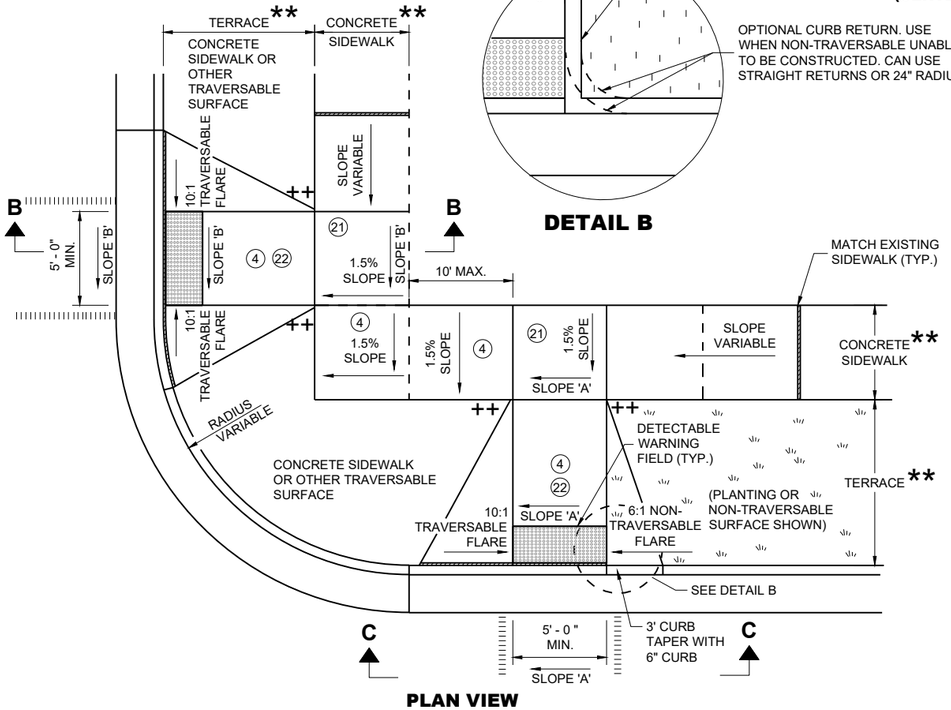
PLAN VIEW

CURB RAMP TYPE 2

(CENTER OF CORNER RADIUS)



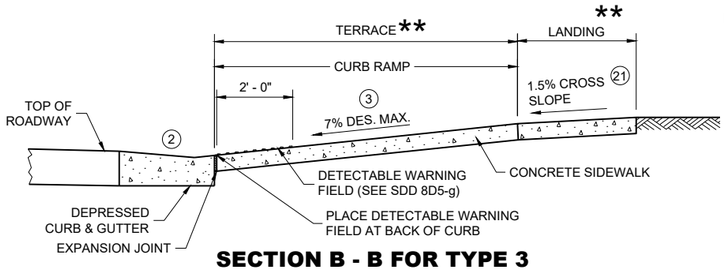
DETAIL B



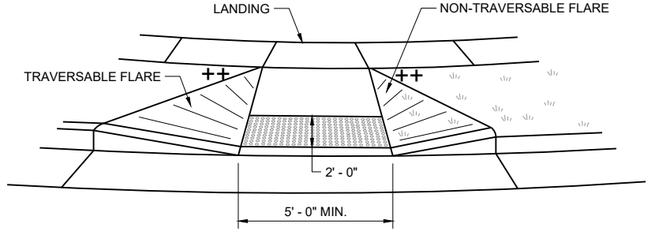
PLAN VIEW

CURB RAMP TYPE 3

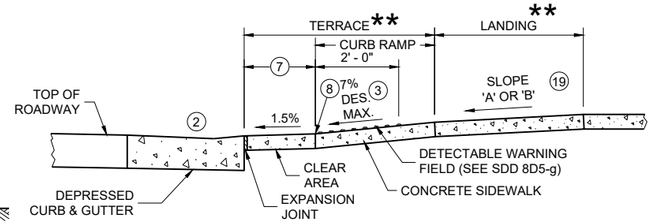
(OUTSIDE OF CROSSWALK AREA)



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3



SECTION A - A FOR TYPE 2

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB 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 COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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% DESIGN MAXIMUM SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% DESIGN MAXIMUM SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

(17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

(19) WHERE A LANDING SERVES TWO CURB RAMPS, THE LANDING SLOPE SHALL NOT EXCEED THE CROSS SLOPE AT THE BOTTOM OF THE RAMP OR WITHIN THE CROSSWALK PARALLEL TO THE DIRECTION OF TRAVEL.

(21) PROVIDE A LANDING WITH A SLOPE PARALLEL TO ROADWAY THAT MATCHES SLOPE AT THE BOTTOM OF THE ADJACENT RAMP. SLOPE PERPENDICULAR TO ROADWAY SHALL BE 2.1% MAXIMUM. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

(23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.

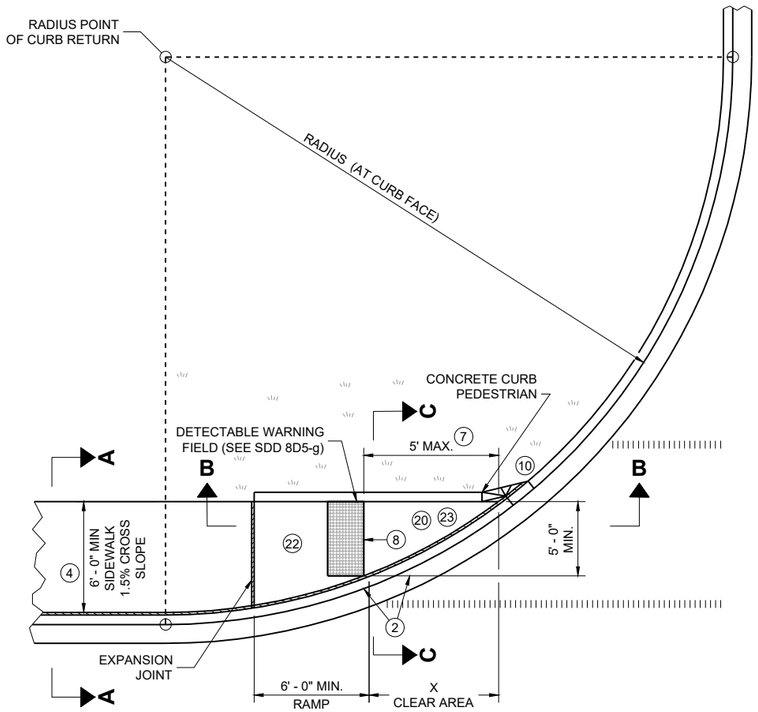
LEGEND

═══	½" EXPANSION JOINT SIDEWALK
– – – –	CONTRACTION JOINT SIDEWALK
ıllıllıllıllıl	PAVEMENT MARKING CROSSWALK (WHITE)
*	MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
**	WIDTH SHOWN ELSEWHERE IN THE PLANS
++	CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

CURB RAMPS TYPE 2 AND 3

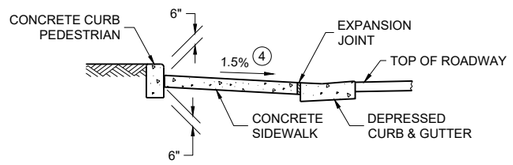
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 08D05-22b

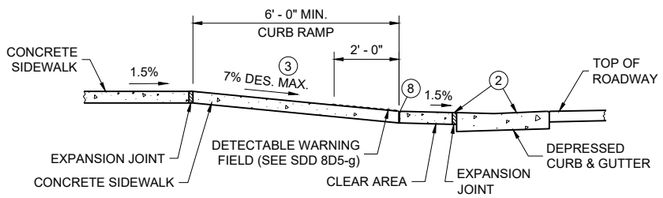


PLAN VIEW

CURB RAMP TYPE 4A



SECTION C - C FOR TYPE 4A



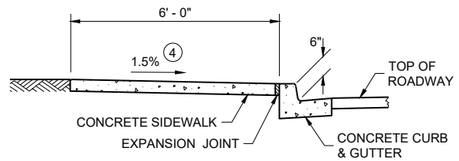
SECTION B - B FOR TYPE 4A AND TYPE 4A1

LEGEND

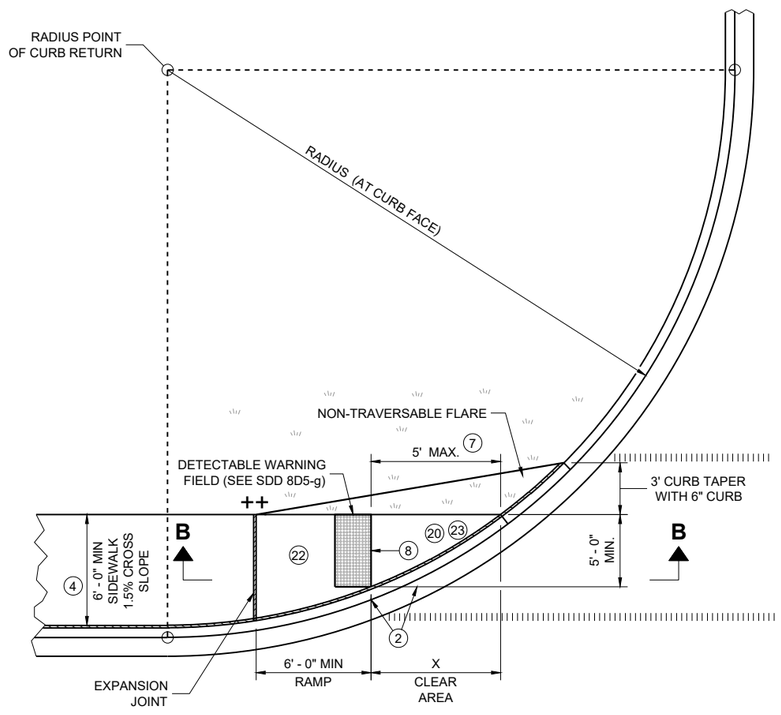
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)
- ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A



PLAN VIEW

CURB RAMP TYPE 4A1

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB 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 COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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.

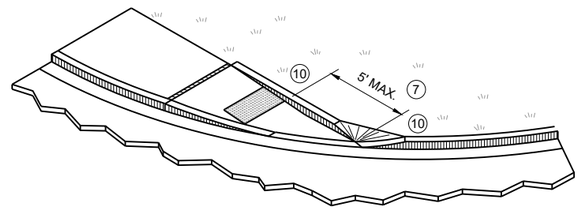
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

(17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

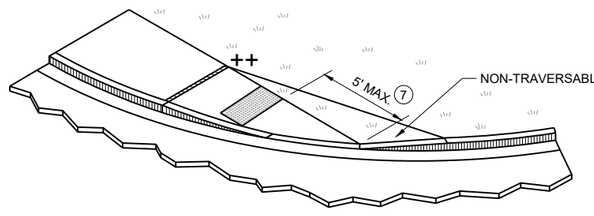
(20) MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.

(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

(23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.



ISOMETRIC VIEW FOR TYPE 4A



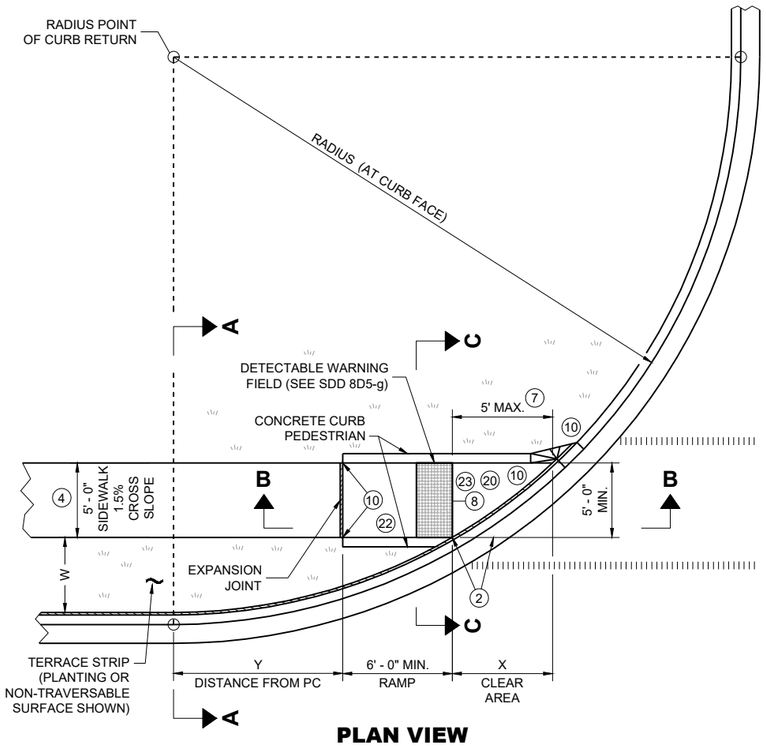
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

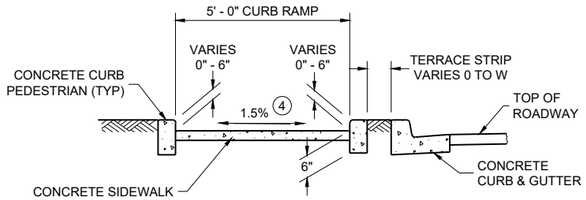
SDD 08D05-22c



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 ¼"	0' - 5"	2' - 1"	1' - 4 ½"	1' - 5"	2' - 1"	0' - 10"	2' - 7 ½"	0' - 3 ¼"	3' - 0 ¼"						
15 FEET	4' - 6 ¾"	2' - 1 ¾"	3' - 9"	3' - 5 ¾"	3' - 1 ¼"	4' - 6"	2' - 6 ¾"	5' - 4 ½"	2' - 1"	6' - 1"	1' - 8"	6' - 8 ½"	1' - 3 ¼"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ¼"
20 FEET			4' - 11 ½"	5' - 1 ¾"	4' - 3 ¼"	6' - 5 ½"	3' - 8 ¾"	7' - 7"	3' - 3"	8' - 6 ½"	2' - 10"	9' - 4 ½"	2' - 5 ½"	10' - 1 ¼"	2' - 1 ¼"	10' - 9"
30 FEET									4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ¼"
40 FEET															4' - 10 ¾"	19' - 8 ¼"

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



SECTION C - C FOR TYPE 4B

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)
- * MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK
- ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB 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 COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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.

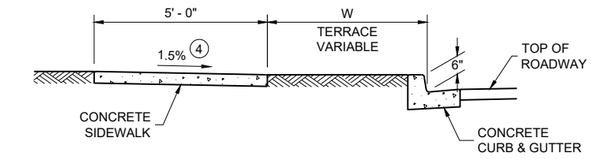
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

(17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

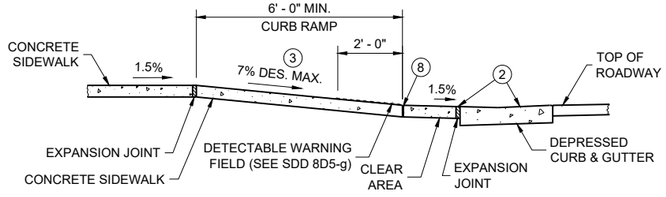
(20) MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.

(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

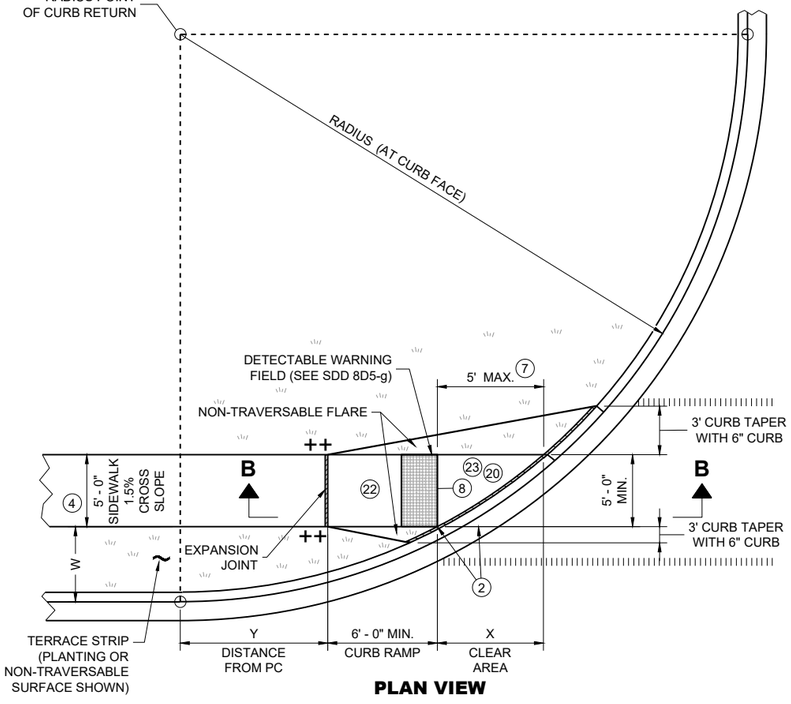
(23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.



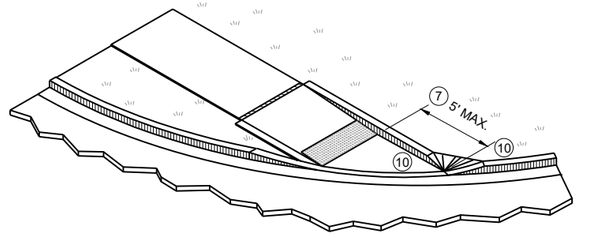
SECTION A - A FOR TYPE 4B



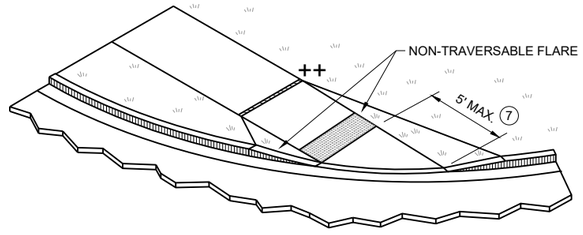
SECTION B - B FOR TYPE 4B AND TYPE 4B1



PLAN VIEW
CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



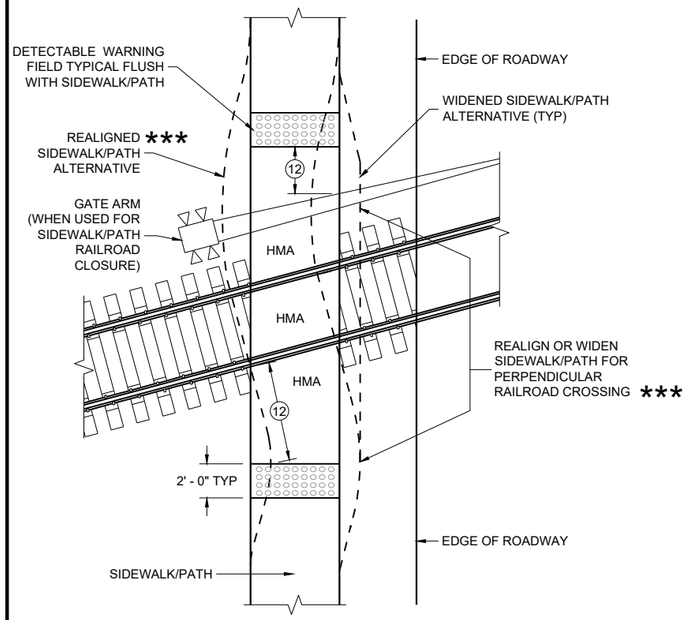
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

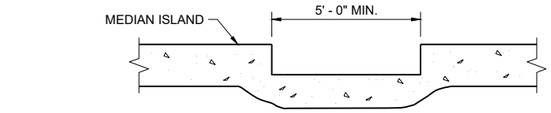
6

SDD 08D05-22d

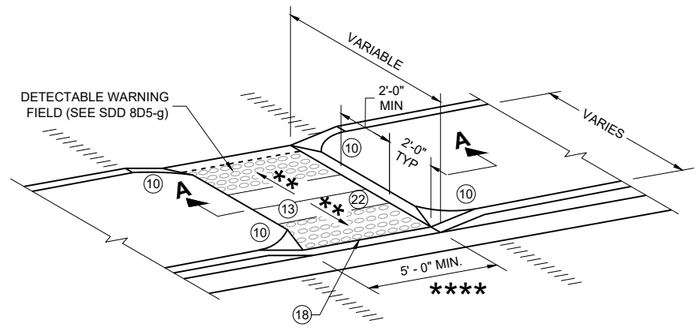


CURB RAMP TYPE 8

DETECTABLE WARNINGS FOR SIDEWALKS OR SHARED USE PATHS AT RAILROAD CROSSINGS



SECTION A - A FOR TYPE 5



CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB 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 2.1%.

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

(2) GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.

(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/PATH, WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

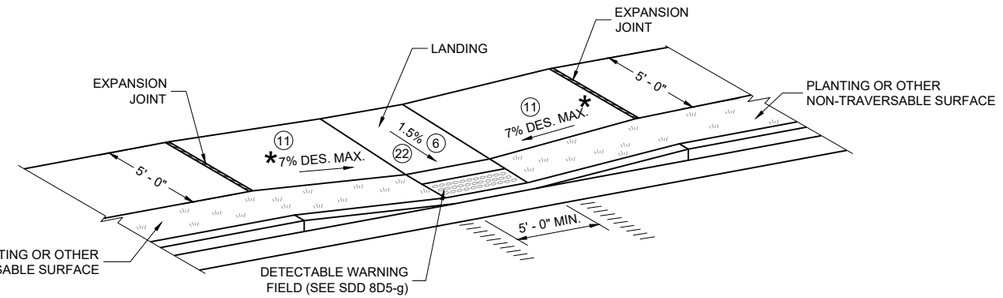
(17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

(18) WHEN THE DISTANCE BETWEEN THE BACK OF CURBS IS LESS THAN 6 FEET BUT THE FACE OF CURB TO FACE OF CURB DISTANCE IS 6 FEET OR GREATER THEN THE DETECTABLE WARNING FIELDS MAY BE MOVED SO THAT THE EDGE OF THE WARNING FIELD IS PLACED AT THE GUTTER FLOWLINE. MAINTAIN A MINIMUM OF TWO FEET BETWEEN DETECTABLE WARNING FIELD PANELS.

(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

CURB RAMP TYPE 7A

FOR INTERSECTIONS AND MID BLOCK CROSSINGS

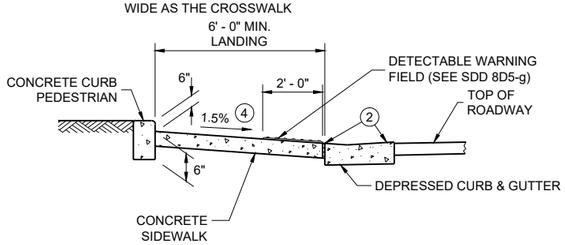


CURB RAMP TYPE 7B

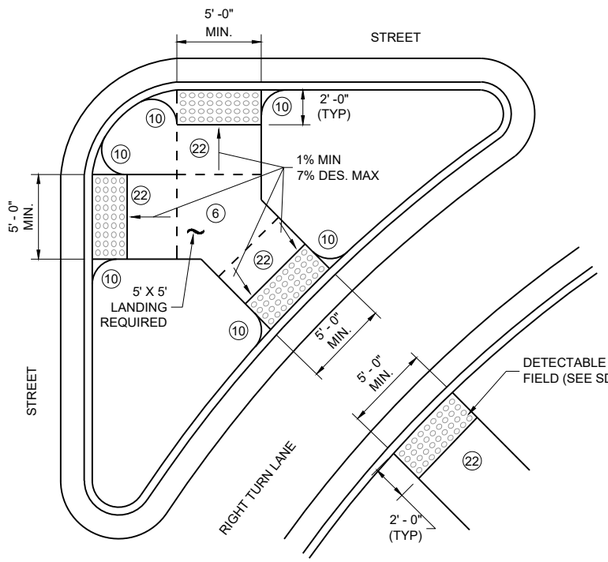
FOR INTERSECTIONS AND MID BLOCK CROSSINGS

LEGEND

═══	½" EXPANSION JOINT SIDEWALK
– – – –	CONTRACTION JOINT FIELD LOCATED
ıı ıı ıı ıı	PAVEMENT MARKING CROSSWALK (WHITE)
*	MAXIMUM 8.3%
**	1% MINIMUM (PROVIDE DRAINAGE)
***	DETAILS TO BE DETERMINED BY ENGINEER
****	FOR SHARED USE PATHS, WIDTH MUST BE AS WIDE AS THE CROSSWALK



SECTION B - B FOR TYPE 7A



CURB RAMP TYPE 6

DETECTABLE WARNING AT ISLANDS

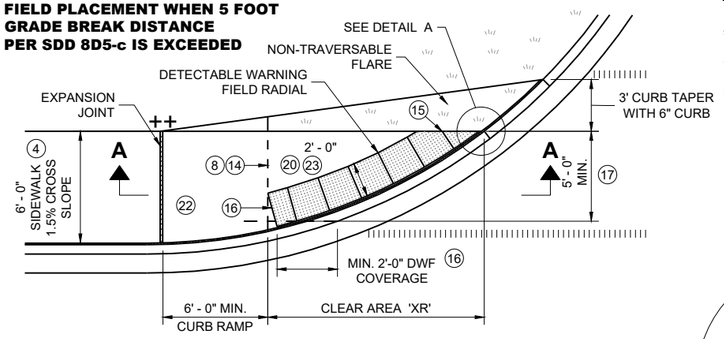
REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05-22e

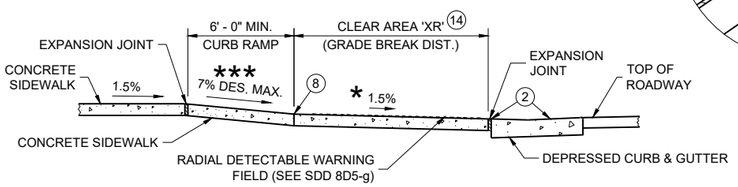
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



PLAN VIEW

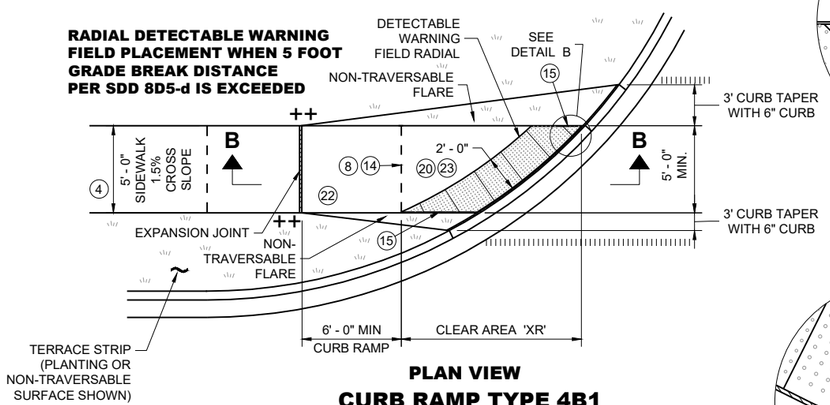
CURB RAMP TYPE 4A1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



SECTION A - A FOR TYPE 4A1

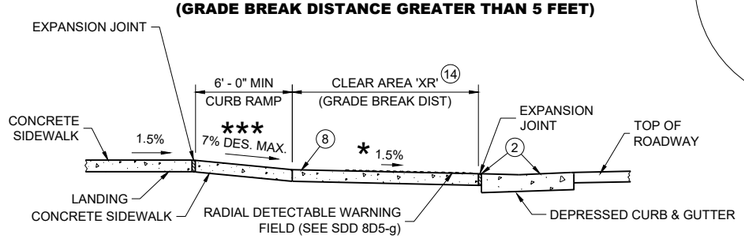
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



PLAN VIEW

CURB RAMP TYPE 4B1

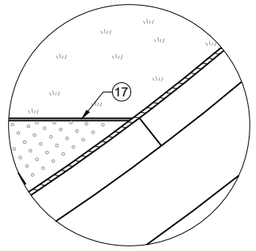
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



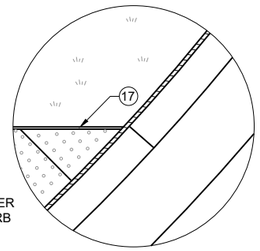
SECTION B - B FOR TYPE 4B1

LEGEND

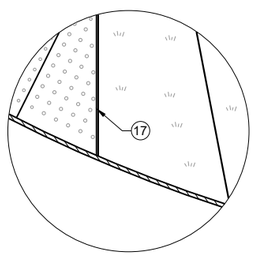
═══	½" EXPANSION JOINT SIDEWALK
– – – –	CONTRACTION JOINT SIDEWALK
ıı ıı ıı ıı	PAVEMENT MARKING CROSSWALK (WHITE)
**	WIDTH SHOWN ELSEWHERE IN THE PLANS
***	MAXIMUM 8.3%
++	CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



DETAIL A



DETAIL B



DETAIL C

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB 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 CURB 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 AD 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 COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.

(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 ⅛" 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 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

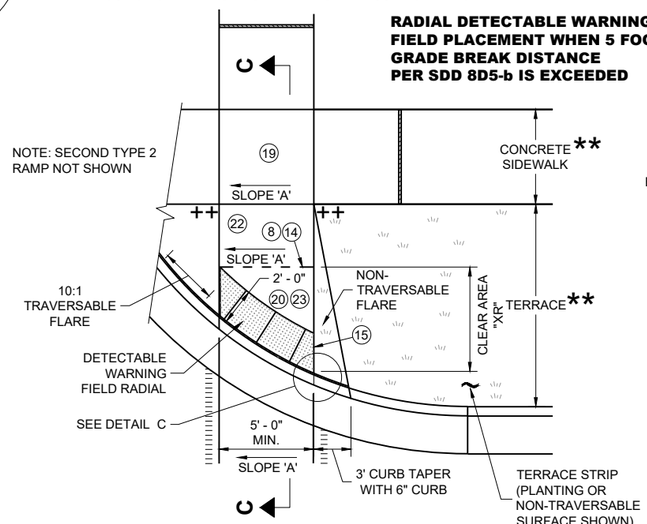
(19) WHERE A LANDING SERVES TWO CURB RAMPS, THE LANDING SLOPE SHALL NOT EXCEED THE CROSS SLOPE AT THE BOTTOM OF THE RAMP OR WITHIN THE CROSSWALK PARALLEL TO THE DIRECTION OF TRAVEL.

(20) MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.

(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

(23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.

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

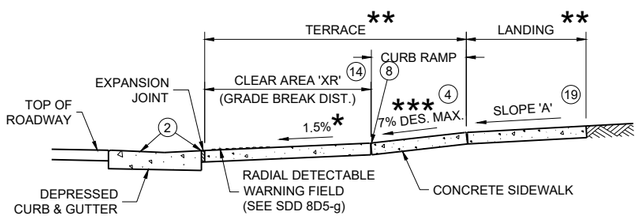


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)



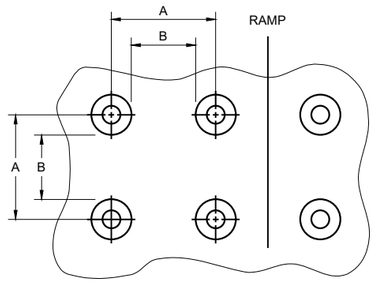
SECTION C - C FOR TYPE 2

CURB RAMPS
RADIAL DETECTABLE WARNING

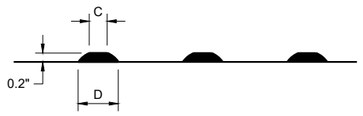
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

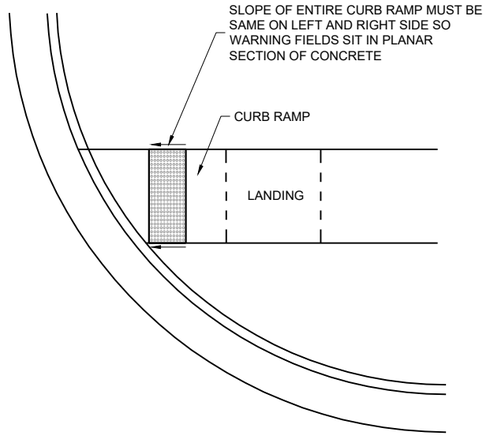
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



PLAN VIEW



ELEVATION VIEW



DETECTABLE WARNING FIELD
PLANAR INSTALLATION

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 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.

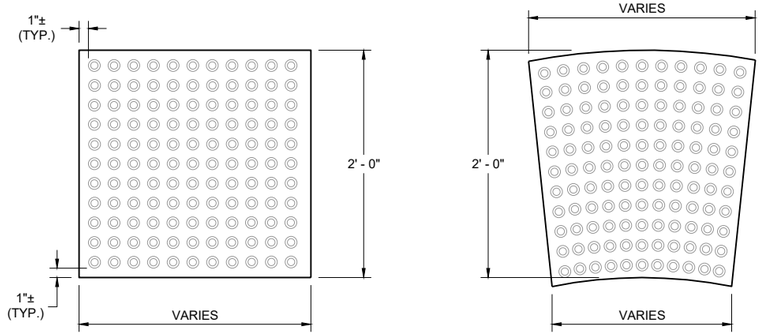
FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. 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 ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

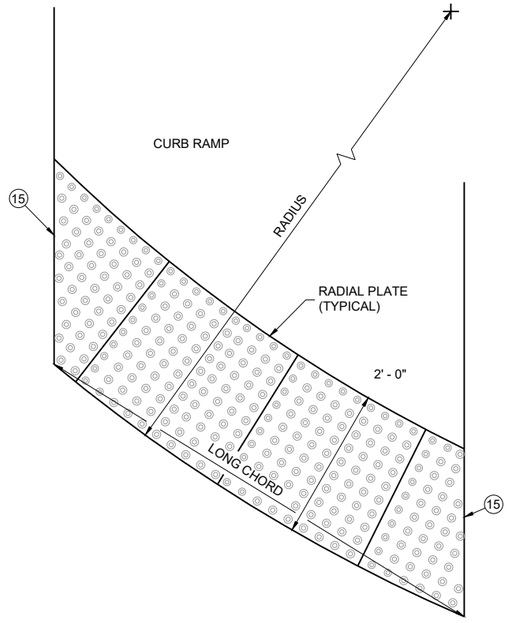
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



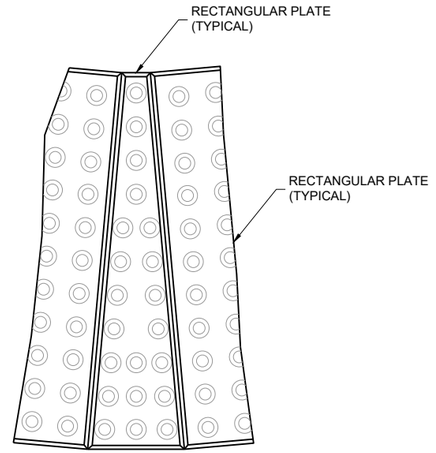
RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 — DATE
/S/ Rodney Taylor — <position>

FHWA

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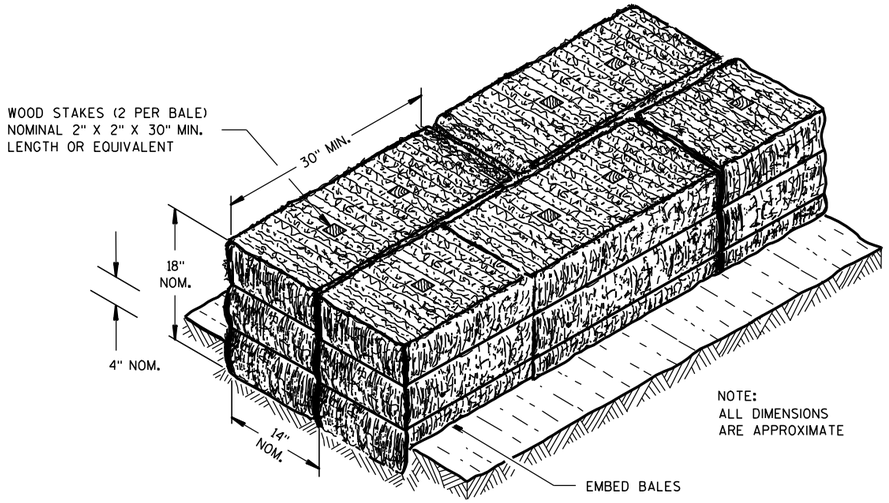
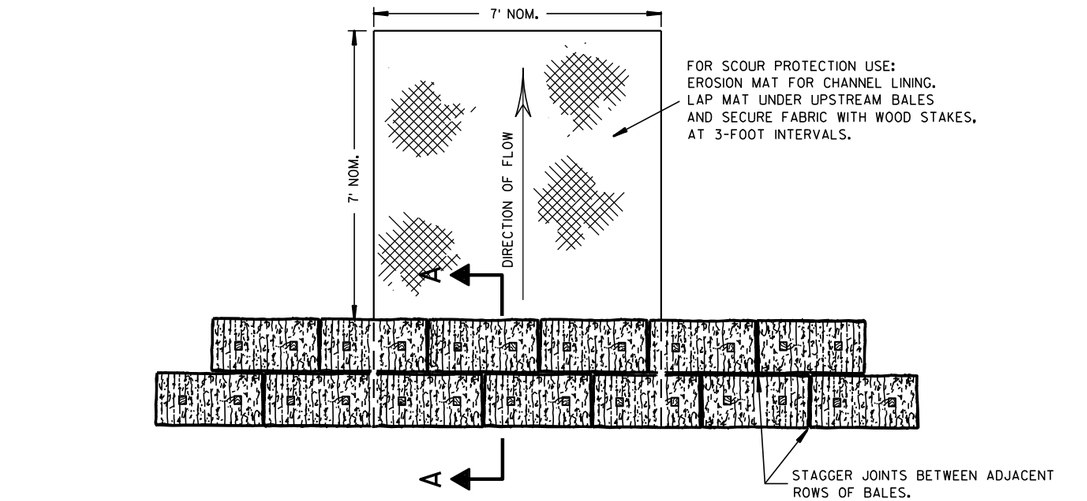
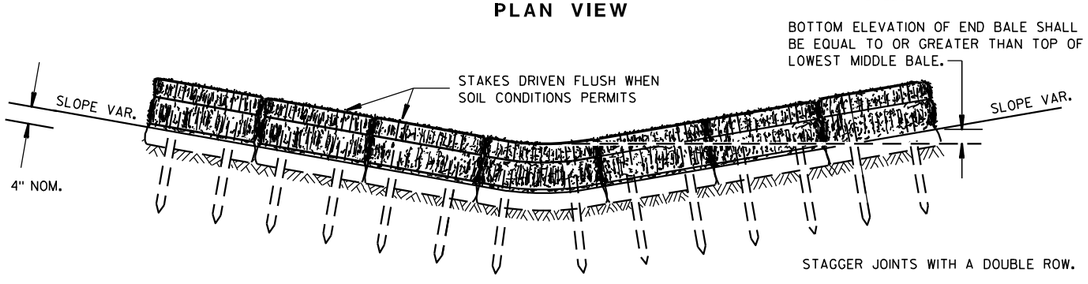
SDD 08D05-22g



SECTION A-A



PLAN VIEW



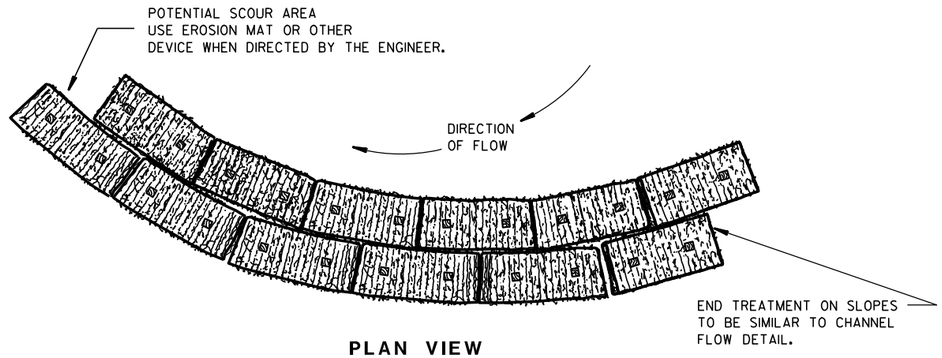
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

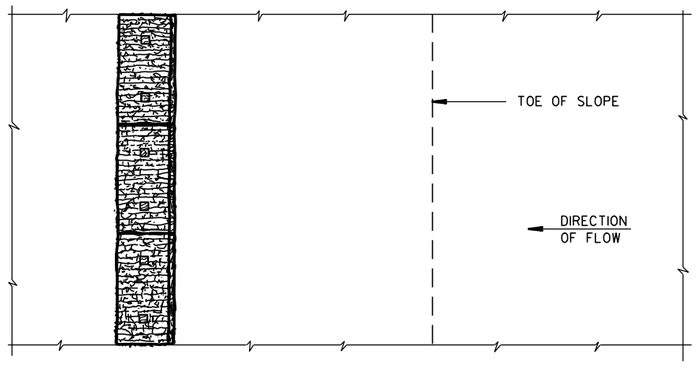
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

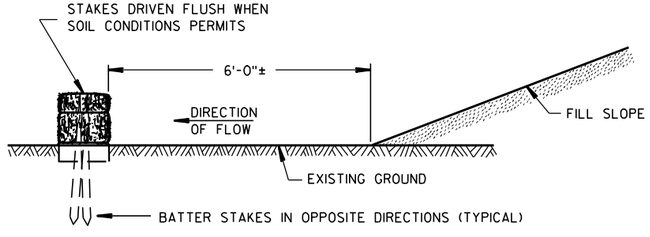


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

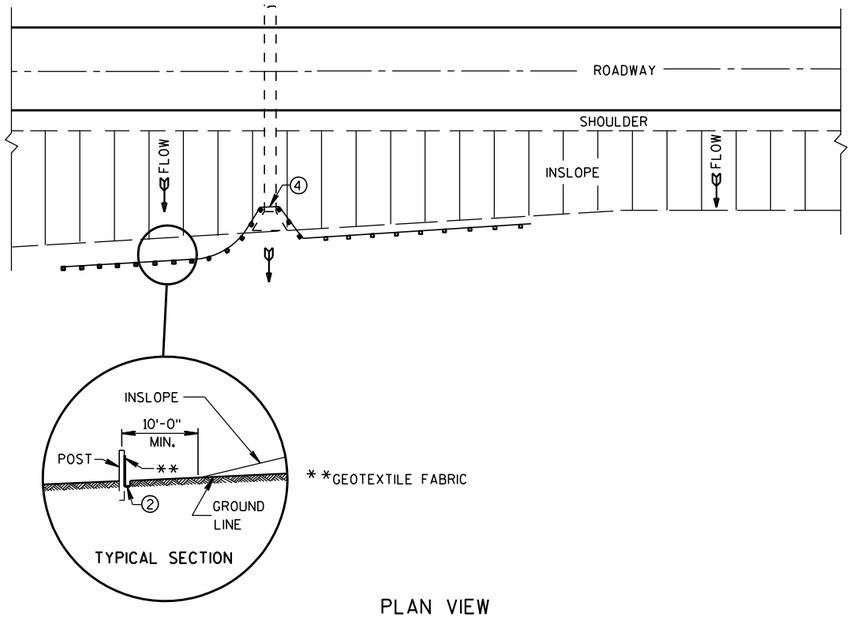
APPROVED
6/04/02 DATE
/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

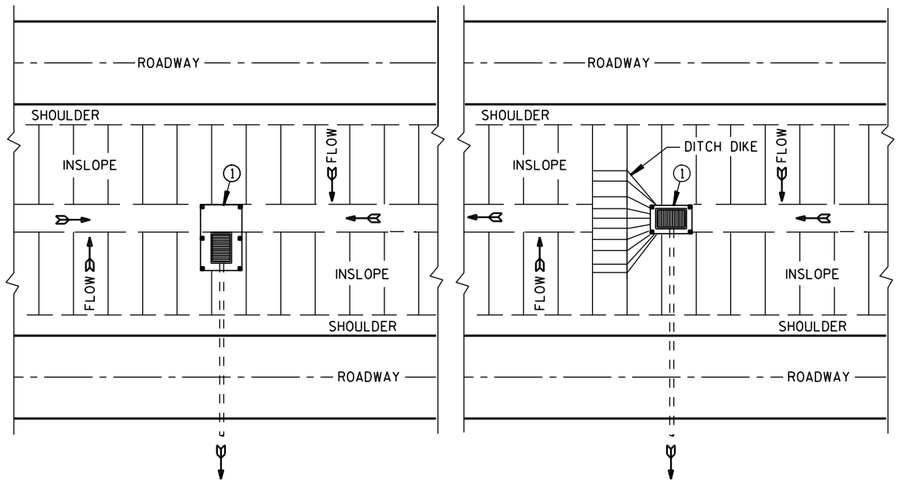
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



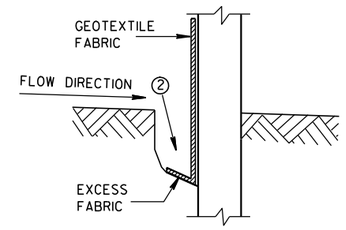
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

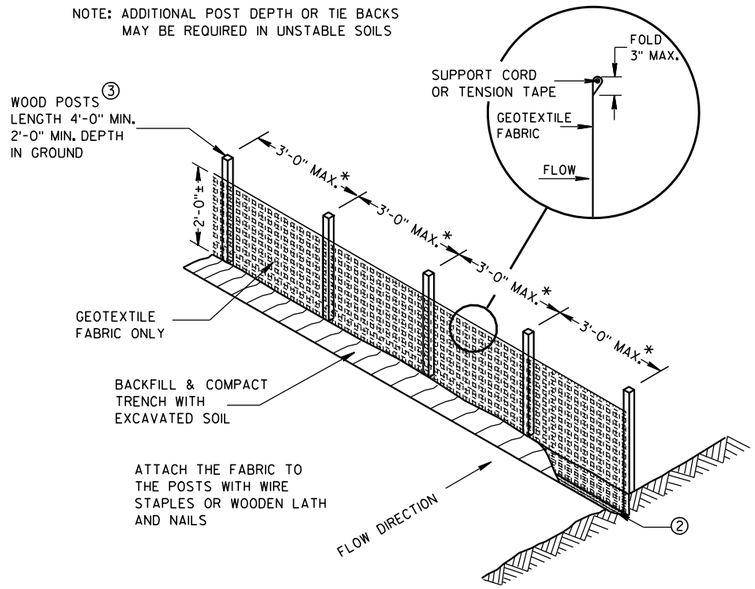
GENERAL NOTES

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

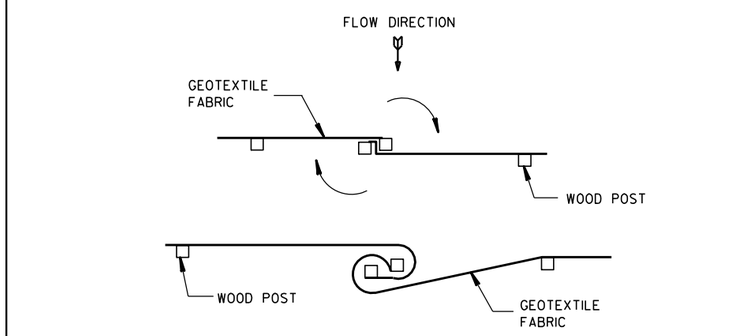
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



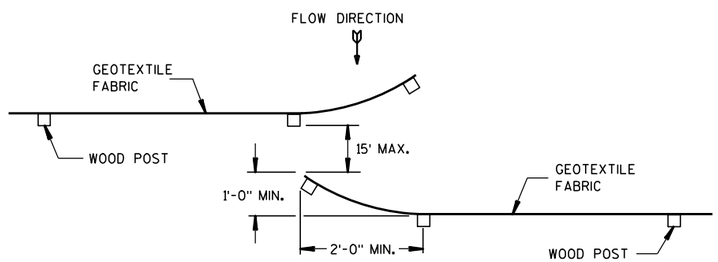
TRENCH DETAIL



SILT FENCE

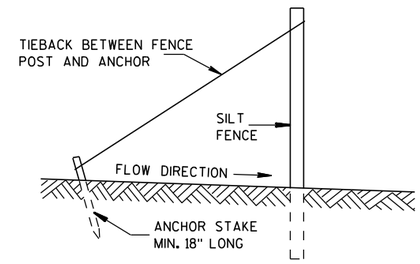


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

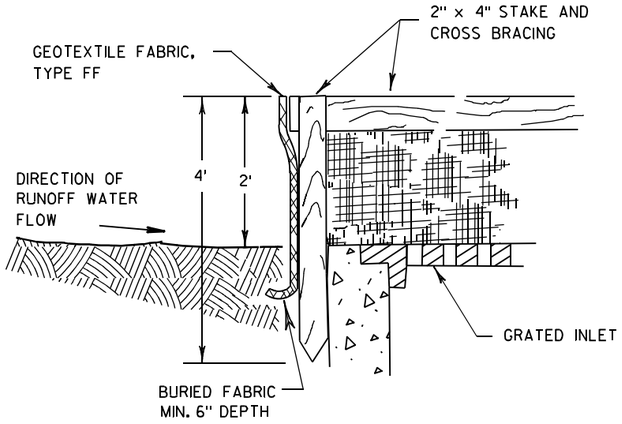
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

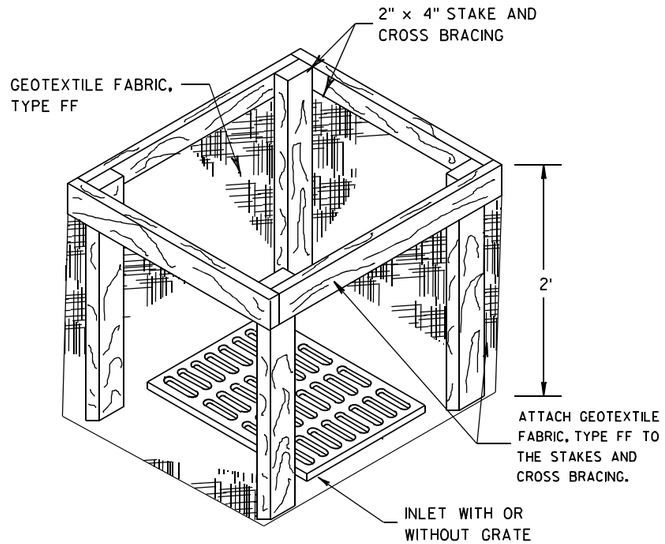
6

S.D.D. 8 E 9-6

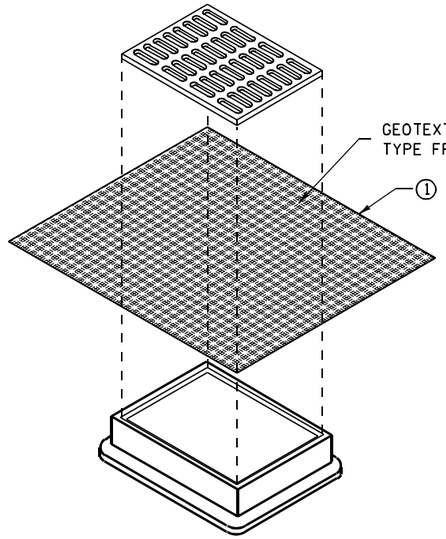
6

S.D.D. 8 E 9-6



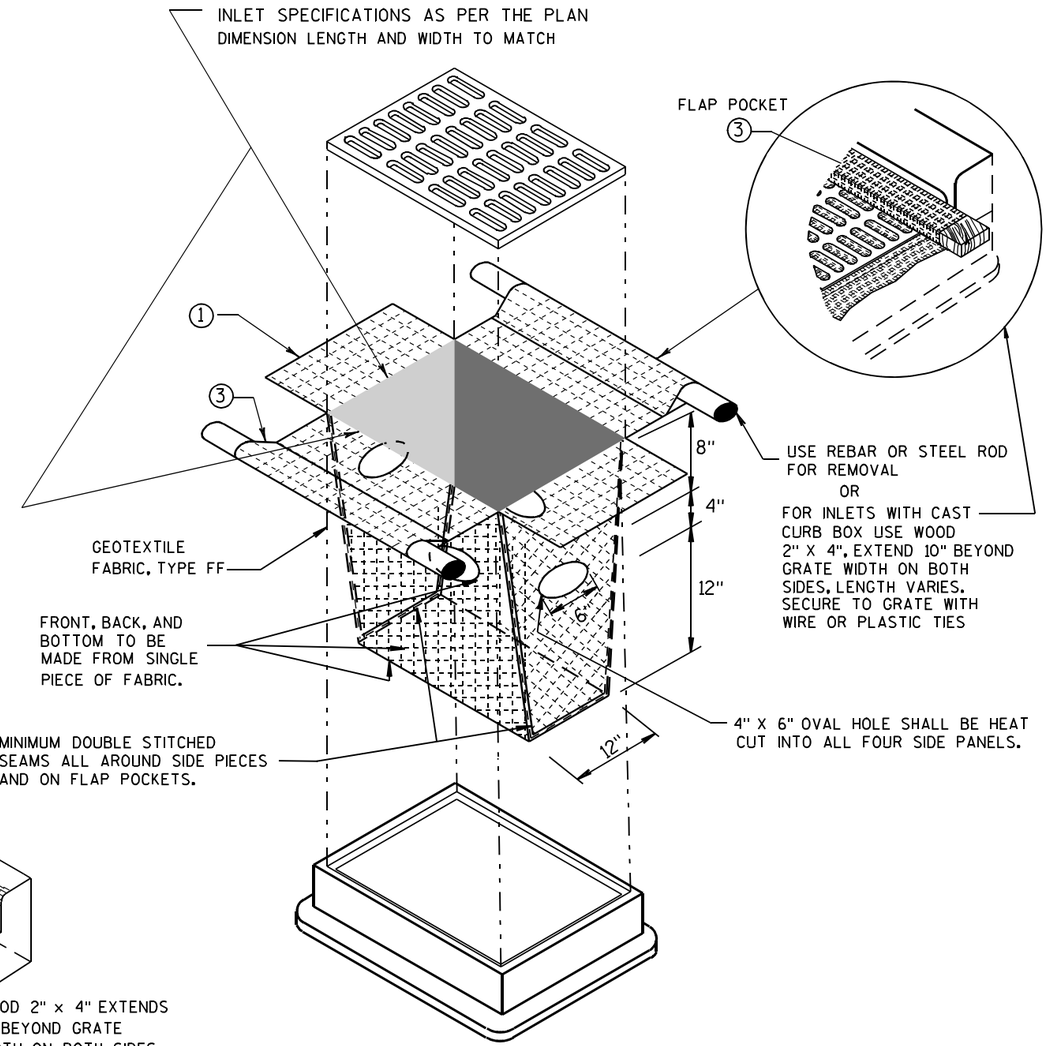


INLET PROTECTION, TYPE A



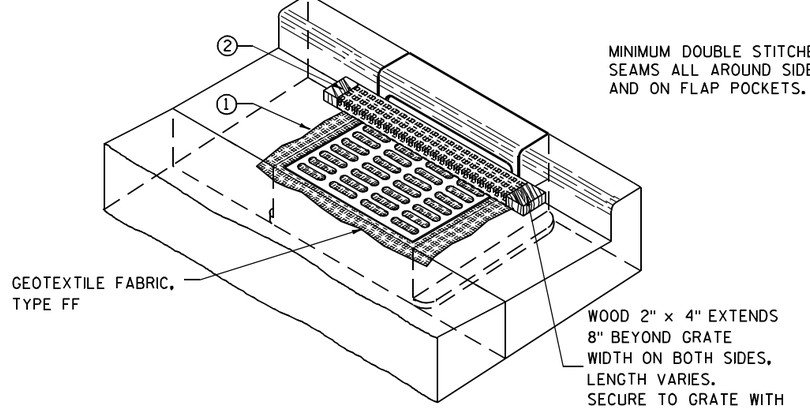
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE D

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

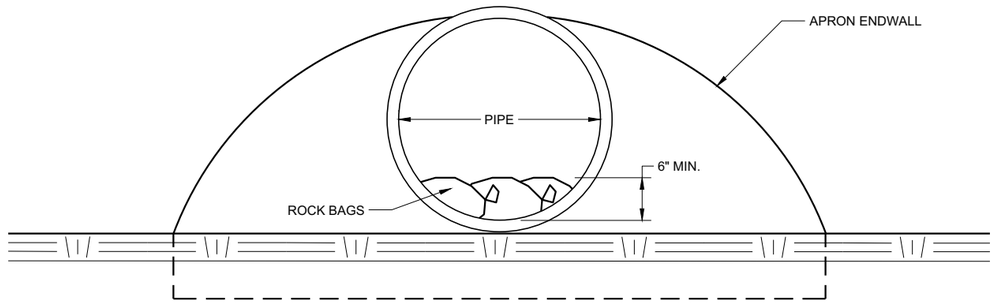
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

INLET PROTECTION
TYPE A, B, C, AND D

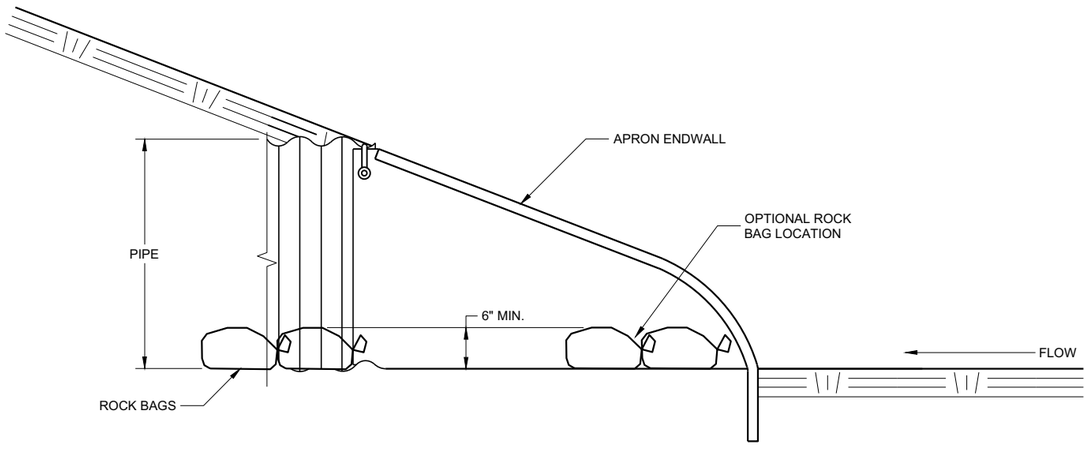
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 08E15 - 01

6

SDD 08E15 - 01

METAL APRON ENDWALLS

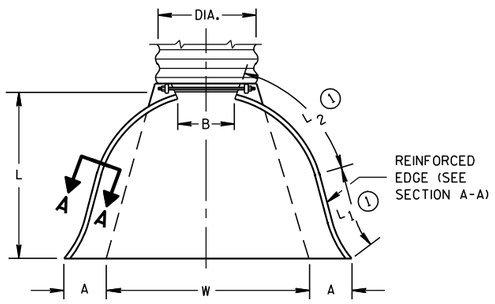
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

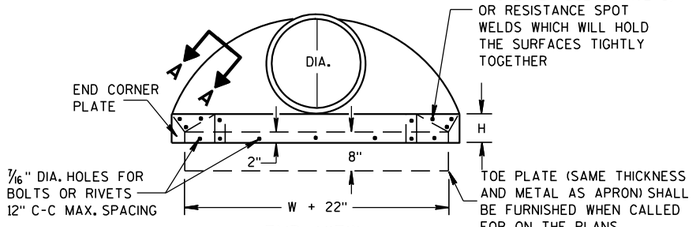
REINFORCED CONCRETE APRON ENDWALLS

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

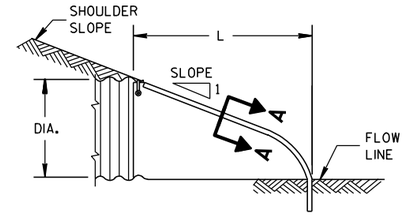
*MINIMUM
**MAXIMUM



PLAN VIEW

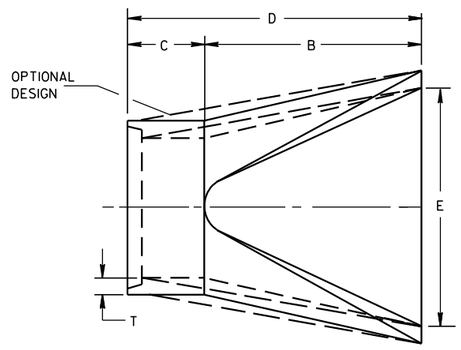


END VIEW

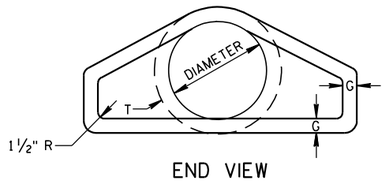


SIDE ELEVATION

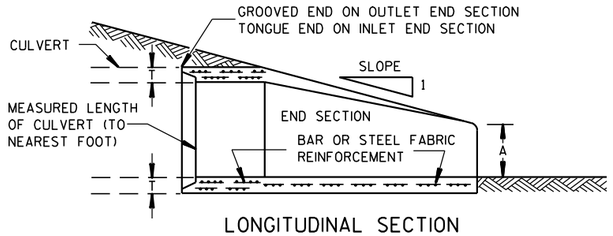
METAL ENDWALLS



PLAN

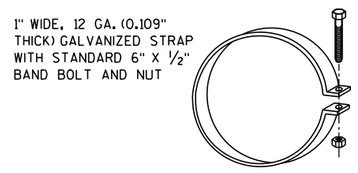


END VIEW



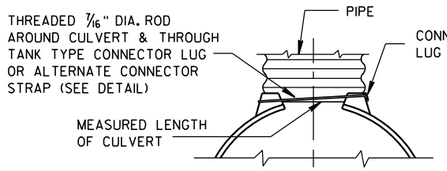
LONGITUDINAL SECTION

CONCRETE ENDWALLS

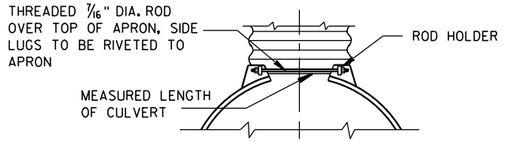


ALTERNATE FOR TYPE 1 CONNECTION

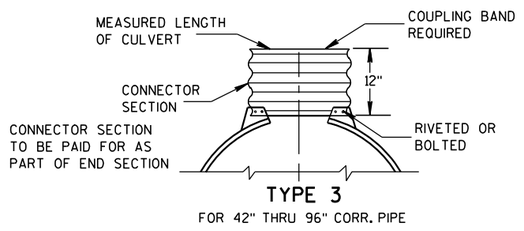
END SECTION CONNECTOR STRAP



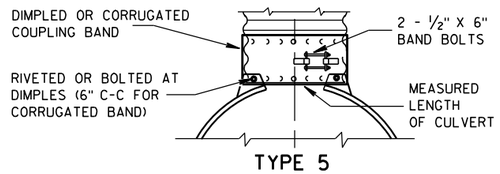
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

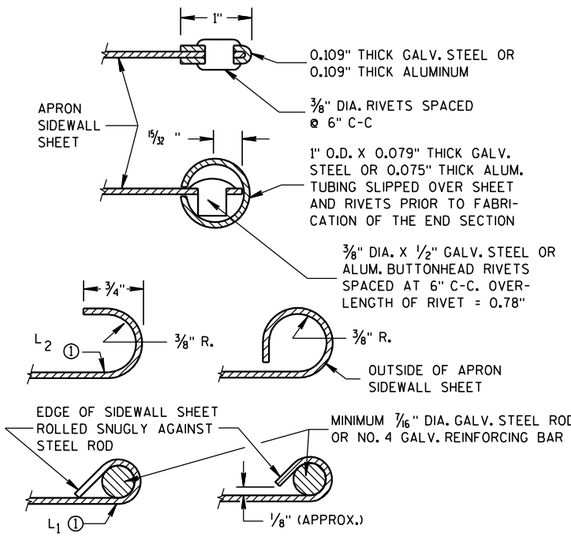
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

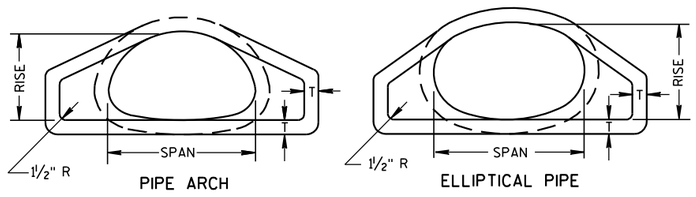
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

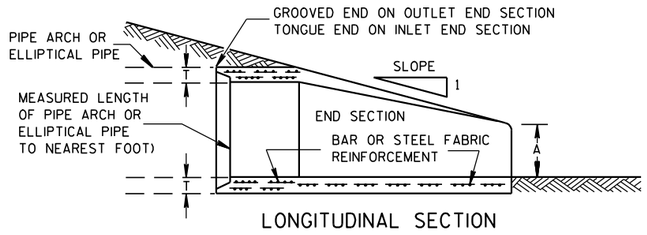
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

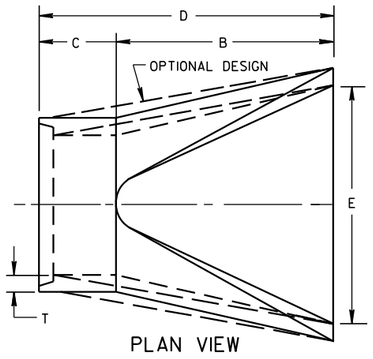
6
S.D.D. 8 F 1-11



END VIEW

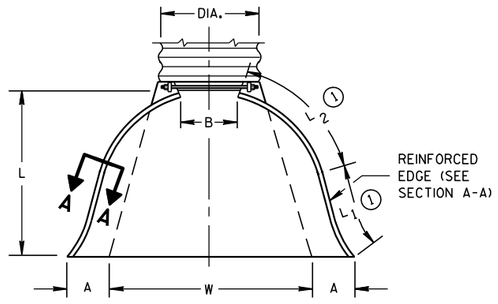


LONGITUDINAL SECTION

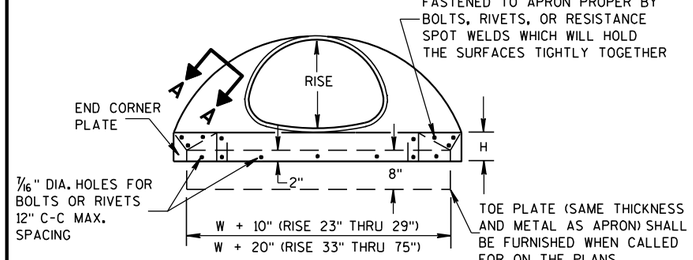


PLAN VIEW

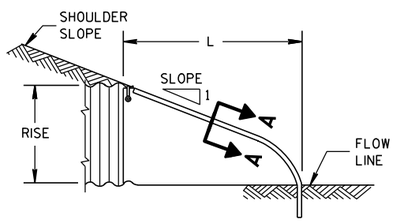
CONCRETE ENDWALLS



PLAN VIEW

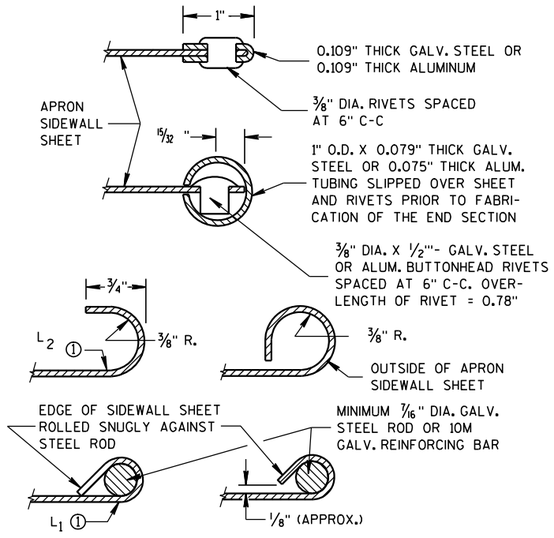


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

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

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

3" X 1" CORRUGATIONS

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

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

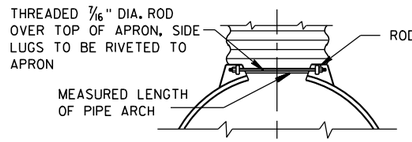
REINFORCED CONCRETE PIPE ARCH

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

REINFORCED CONCRETE ELLIPTICAL PIPE

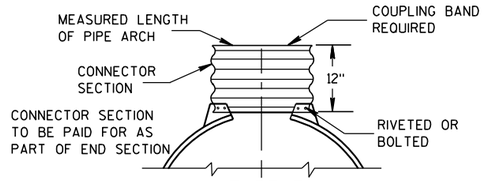
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48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

**NOMINAL SIZE



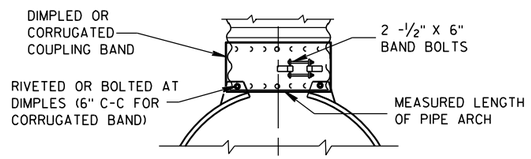
TYPE 2

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



TYPE 3

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



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

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

CONNECTION DETAILS

GENERAL NOTES

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

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

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

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

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

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

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/94 — DATE

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

FHWA

6

S.D.D. 8 F 2-1

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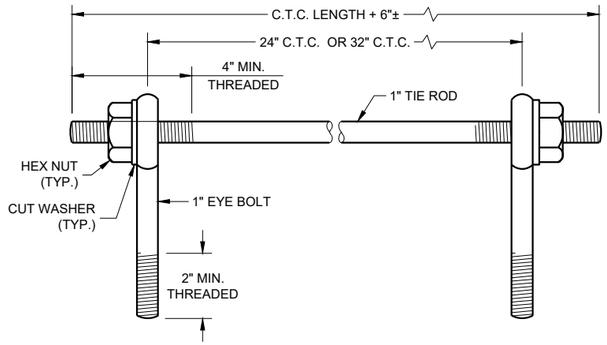
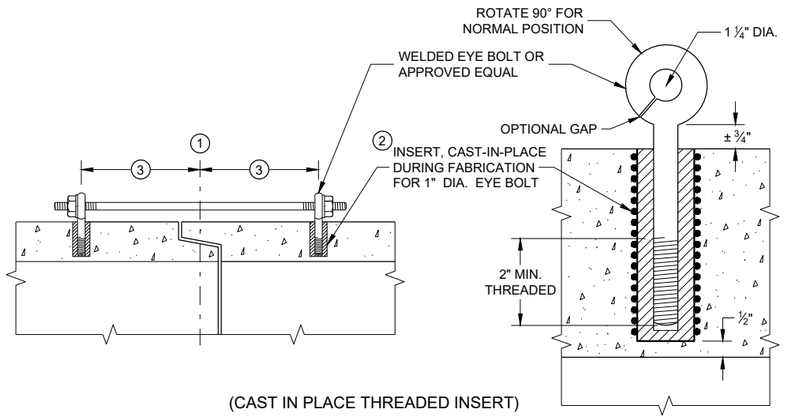
S.D.D. 8 F 2-1



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

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

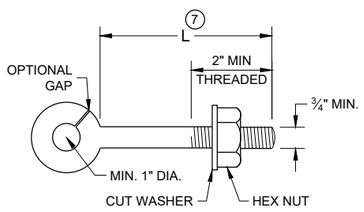
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

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

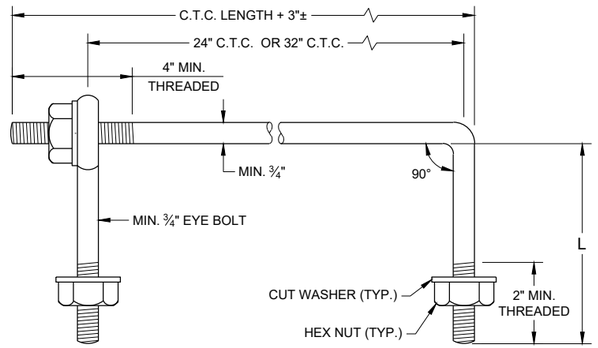
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

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

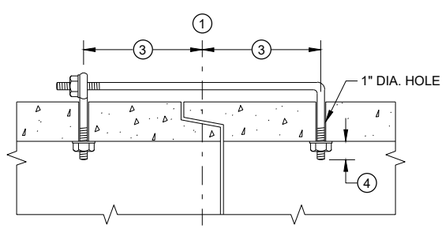


EYE BOLT (7)

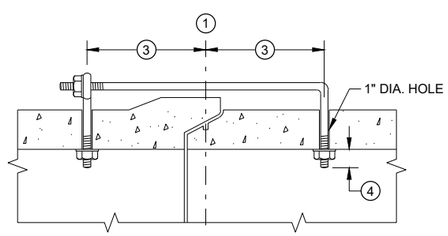
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

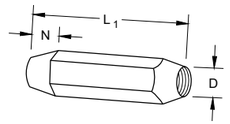
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

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

DIMENSIONS SHOWN ARE IN INCHES



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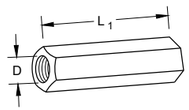
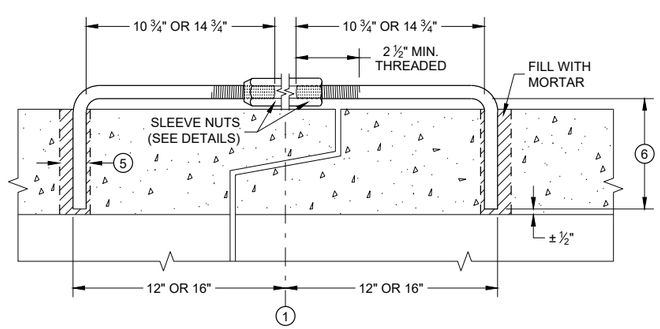


PLAIN

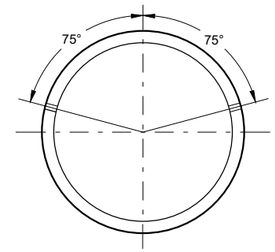
RIGHT AND LEFT THREADS

SLEEVE NUTS



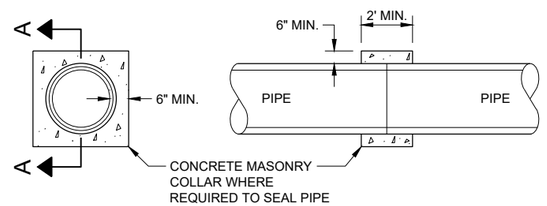
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

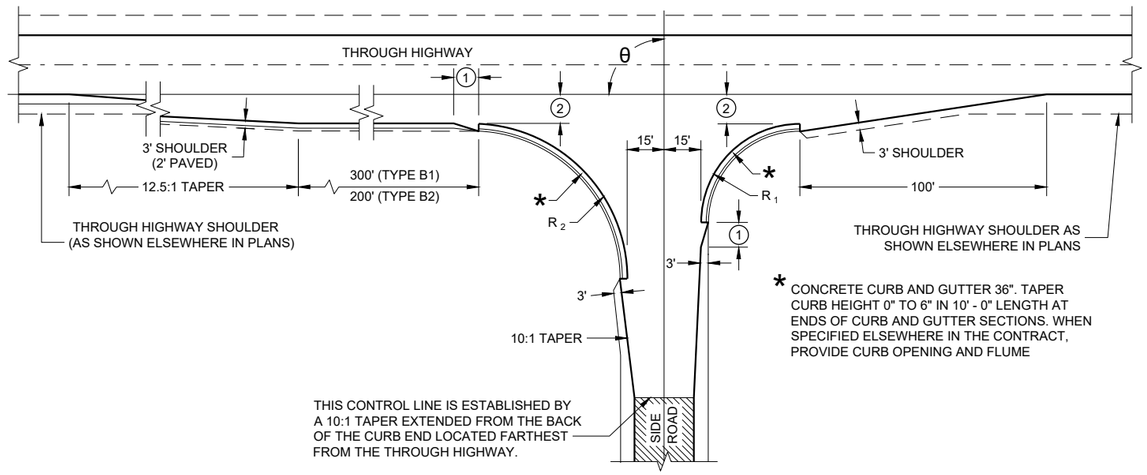
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 08F04 - 08

SDD 08F04 - 08



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

TYPE "B1" AND "B2"

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

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.

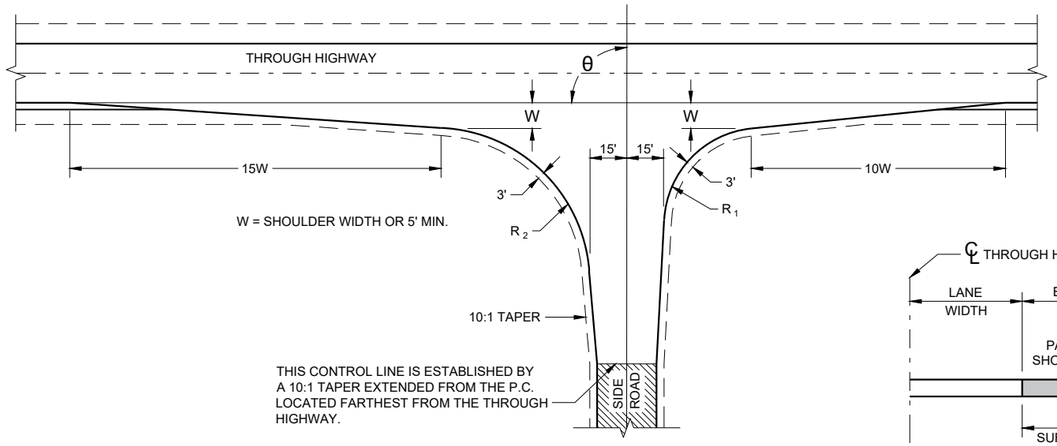
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

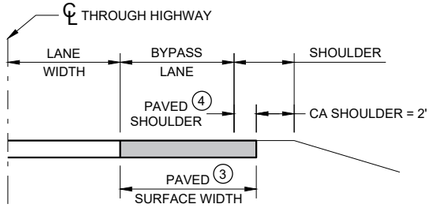
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
- ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH
- PC CONCRETE = 13-FT PLUS PAVED SHOULDER WIDTH

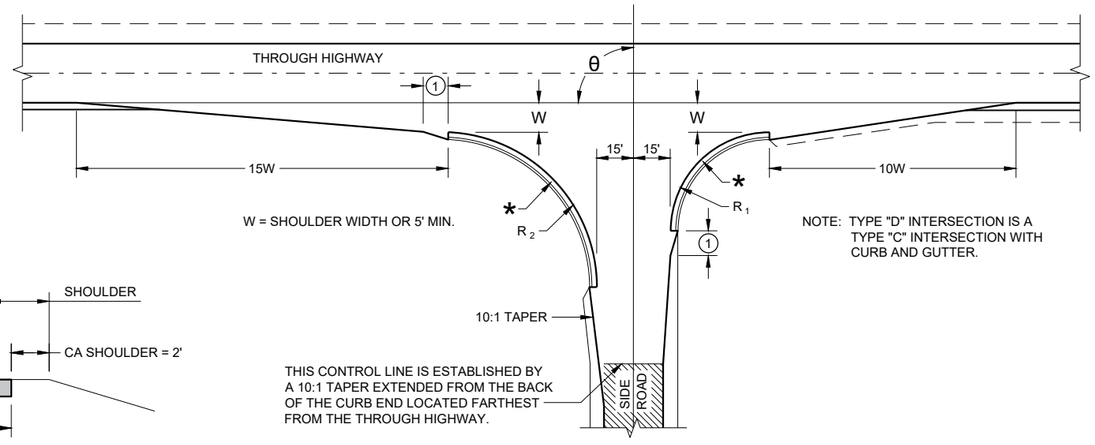
(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



TYPE "C"

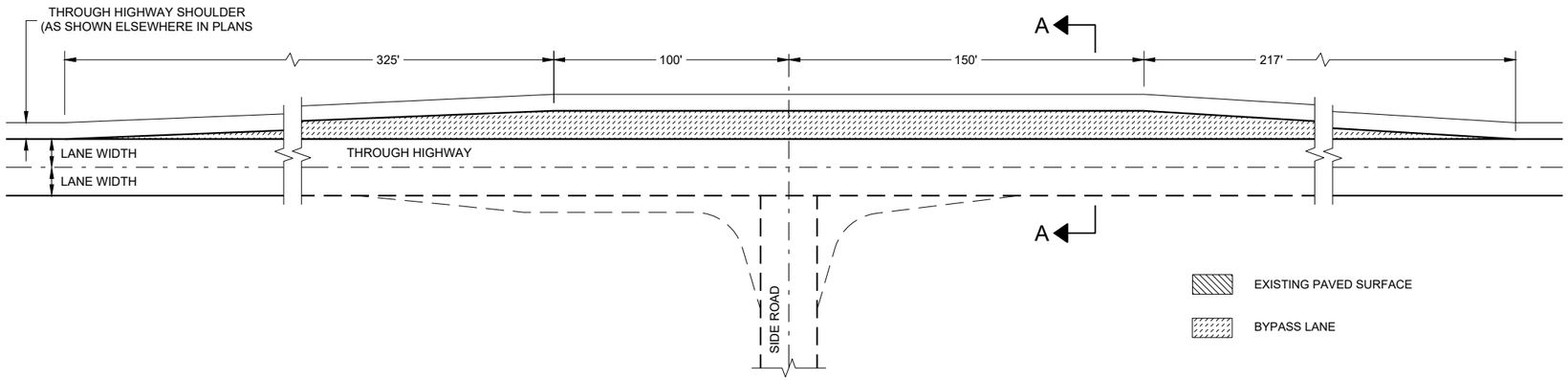


SECTION A - A
(SHOWING BYPASS LANE AND SHOULDER)



NOTE: TYPE "D" INTERSECTION IS A TYPE "C" INTERSECTION WITH CURB AND GUTTER.

TYPE "D"



TEE INTERSECTION BYPASS LANE DETAIL

AT GRADE SIDE ROAD INTERSECTION TYPES "B1", "B2", "C", "D" AND TEE INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 09A01 - 14a

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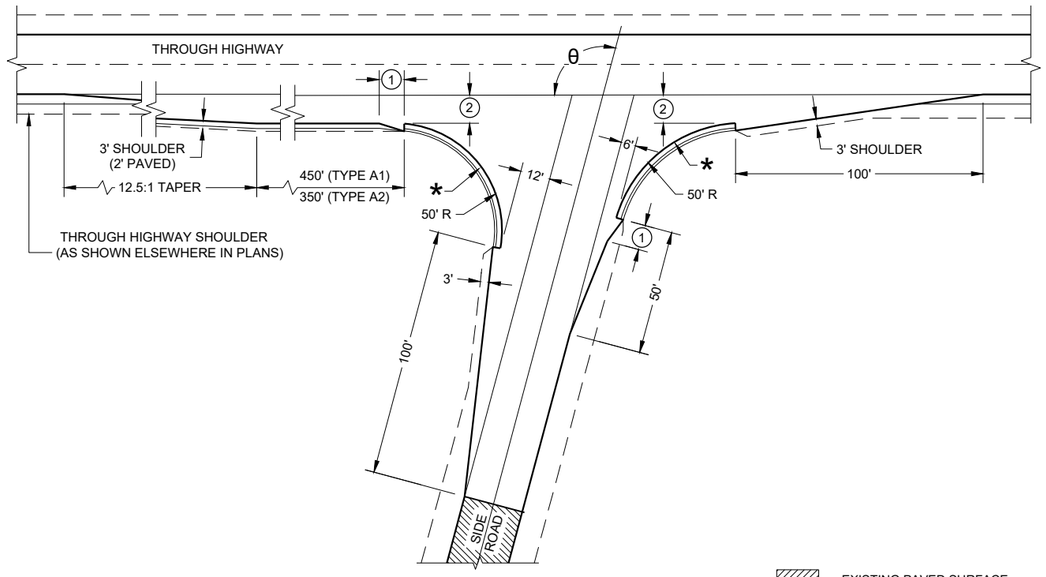
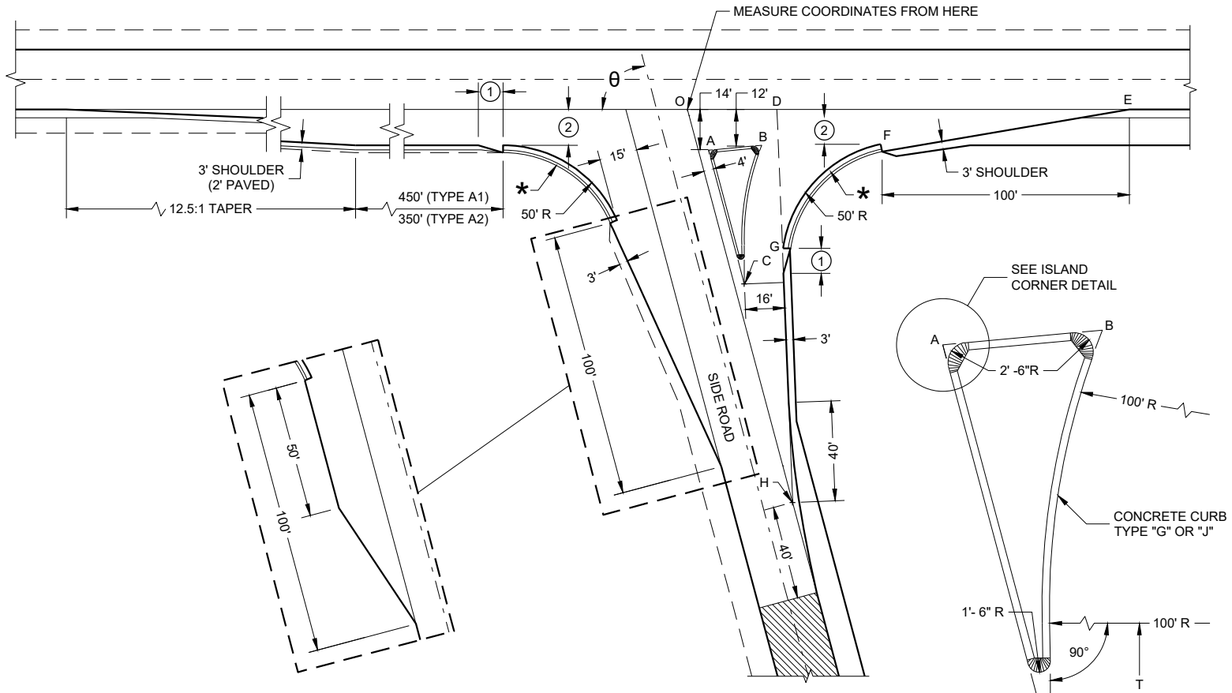
SDD 09A01 - 14a

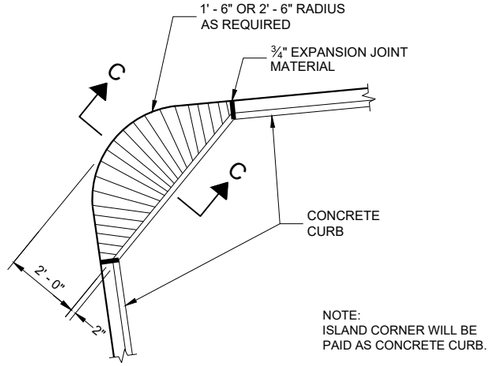


θ = MORE THAN 80°

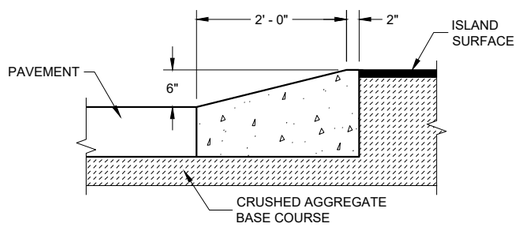


SIDE ROAD WIDENING AND TAPER REQUIRED WHERE
THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
θ = ACUTE ANGLES 70° OR LESS

θ = ACUTE ANGLES 80° OR LESS



PLAN VIEW



SECTION C - C

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

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') X / Y								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7 / -14.0	44.9 / -12.0	46.4 / -72.4	41.9 / 0.0	205.0 / 0.0	104.6 / -12.0	64.0 / -75.5	85.0 / -147.1	32.3	67.4	4.9	85.9	169.9
65	10.9 / -14.0	39.0 / -12.0	37.8 / -71.6	39.4 / 0.0	196.1 / 0.0	95.7 / -12.0	54.1 / -71.5	70.5 / -151.3	28.2	63.6	8.5	80.9	166.9
70	9.4 / -14.0	33.9 / -12.0	29.8 / -70.1	37.4 / 0.0	188.3 / 0.0	87.8 / -12.0	45.6 / -67.5	56.1 / -154.2	24.6	59.7	11.5	76.1	164.1
75	7.9 / -14.0	29.3 / -12.0	22.3 / -67.9	35.7 / 0.0	181.2 / 0.0	80.7 / -12.0	38.2 / -63.4	41.8 / -155.9	21.5	55.8	13.8	71.4	161.4
80	6.5 / -14.0	25.4 / -12.0	15.6 / -65.2	34.4 / 0.0	174.8 / 0.0	74.4 / -12.0	31.8 / -59.3	27.6 / -156.5	18.9	52.0	15.6	66.9	158.9

TYPE 'A1" AND "A2" SIDE ROAD INTERSECTION DETAILS

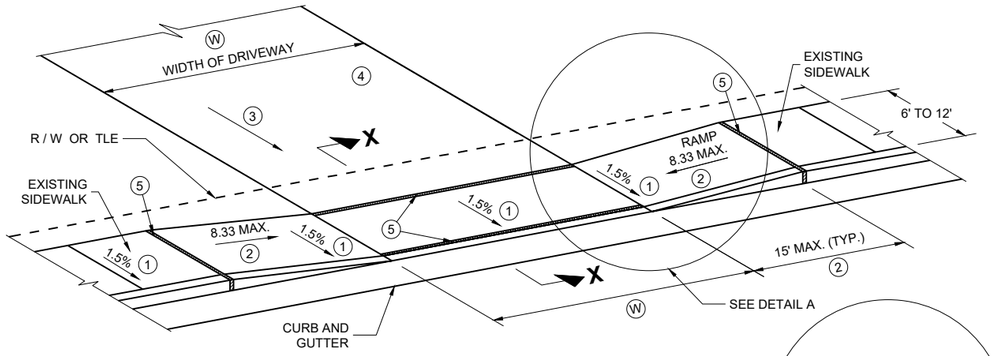
AT GRADE SIDE ROAD INTERSECTIONS TYPES "A1" AND "A2"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

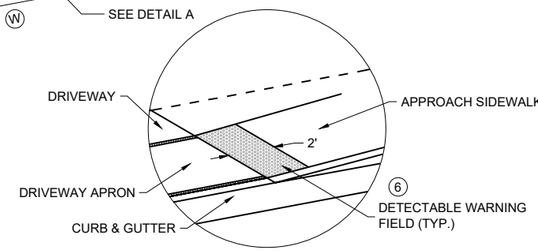
APPROVED
November 2022 — DATE
/S/ John Jenkins — ROADWAY STANDARDS DEVE ENGINEER
FHWA

SDD 09A01 - 14b

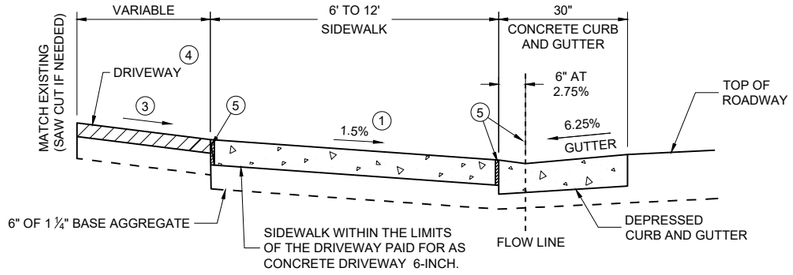
SDD 09A01 - 14b



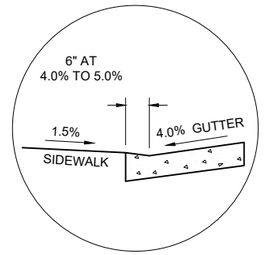
TYPE X
SIDEWALK ABUTS CURB AND GUTTER
TERRACE VARIES 0 TO 3 FEET



DETAIL A



SECTION X - X

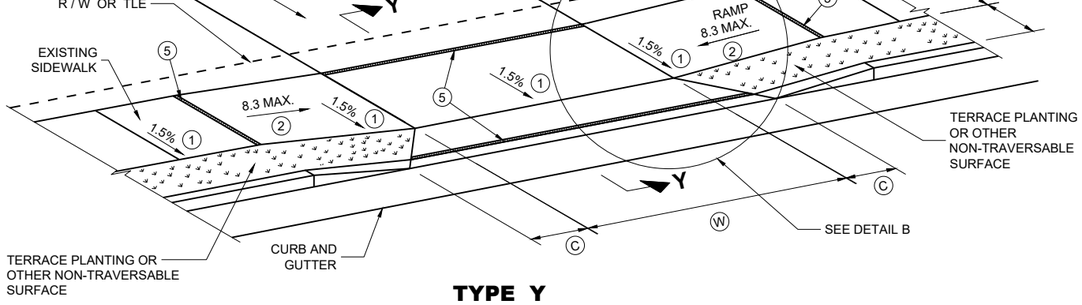


SECTION X - X
4% GUTTER SLOPE

Ⓦ : DRIVEWAY WIDTHS (MEASURED AT ROW LINE)
- ~ COMMERCIAL & INDUSTRIAL 16' MIN. - 35' MAX.
- ~ RESIDENTIAL & AGRICULTURAL (NONCOMMERCIAL) 16' MIN. - 24' MAX.

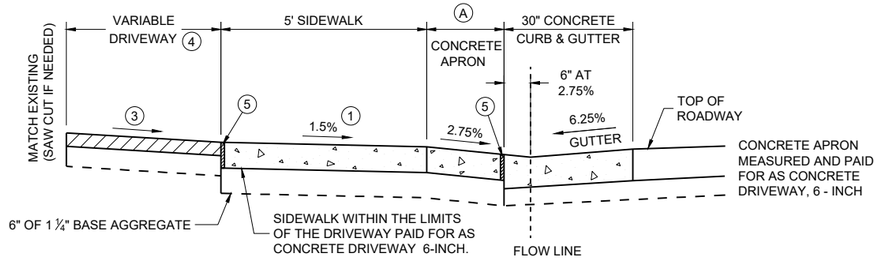
TABLE Y

Ⓐ FEET	Ⓒ FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'



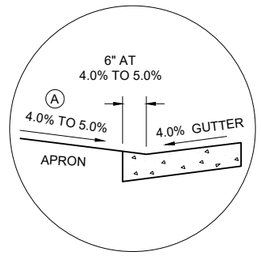
TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

Ⓐ:MEASURE FROM BACK OF CURB



NOTE: SIDEWALK MY BE DEPRESSED IN DRIVEWAY AREAS

SECTION Y - Y



SECTION Y - Y
4% GUTTER SLOPE

DRIVEWAY DETAIL WITH CONCRETE CURB AND GUTTER
(URBAN AND SUBURBAN)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

Ⓦ IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

① CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1%.

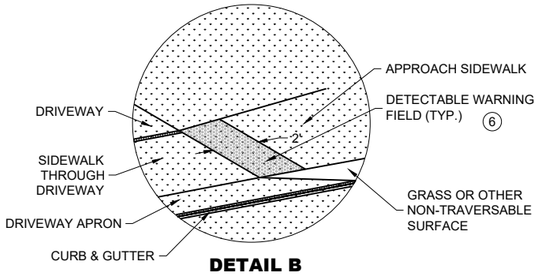
② THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

③ DRIVEWAY SLOPES: DESIRABLE MAXIMUM
10.5% UP AWAY FROM SIDEWALK (SAG)
8.5% DOWN AWAY FROM SIDEWALK (CREST)
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

④ DRIVEWAY TYPES
- * 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- * 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- * 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)

⑤ 1/2" EXPANSION JOINT FILLER

⑥ DETECABLE WARNING FIELDS ARE REQUIRED WHEN A PEDESTRIAN CIRCULATION ROUTE CROSSES A DRIVEWAY THAT IS TRAFFIC SIGNAL, STOP, OR YIELD SIGN CONTROLLED. DETECTABLE WARNING FIELDS TO BE 2 FT DEEP AND EXTEND THE WIDTH OF THE PEDESTRIAN CIRCULATION ROUTE.



DETAIL B

DRIVEWAY AND SIDEWALK RAMPS TYPES X AND Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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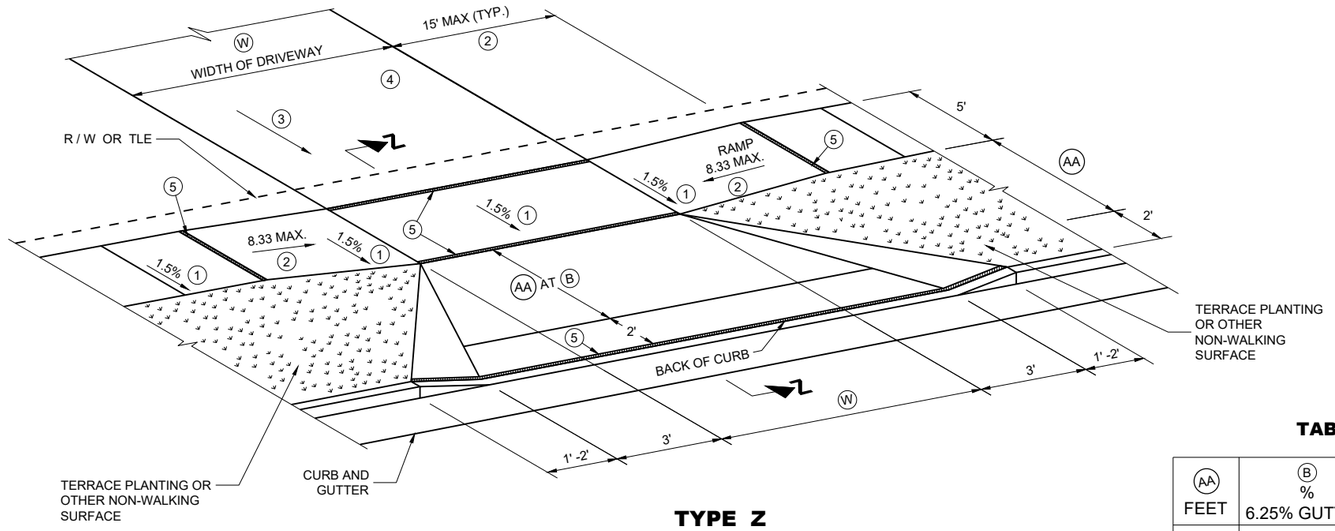


TYPE Z

SIDEWALK WITH WIDER TERRACE
TERRACE VARIES 7 TO 12 FEET

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.

(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM
10.5% UP AWAY FROM SIDEWALK (SAG)
8.5% DOWN AWAY FROM SIDEWALK (CREST)
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

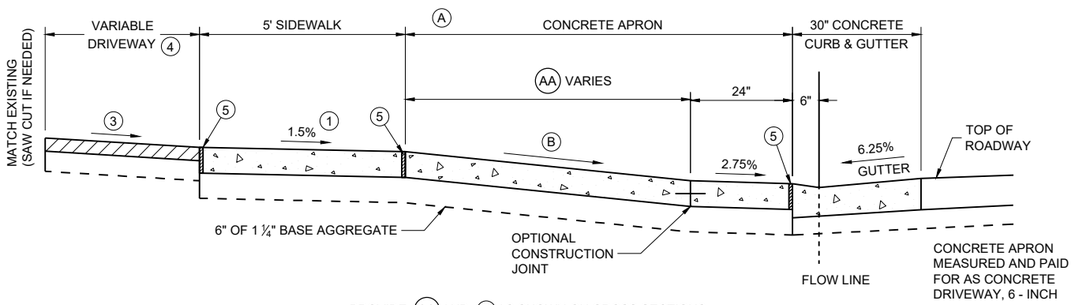
(4) DRIVEWAY TYPES
* 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE 2-INCH
* TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE 6-INCH BASE
* AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)

(5) 1/2" EXPANSION JOINT FILLER.

TABLE Z

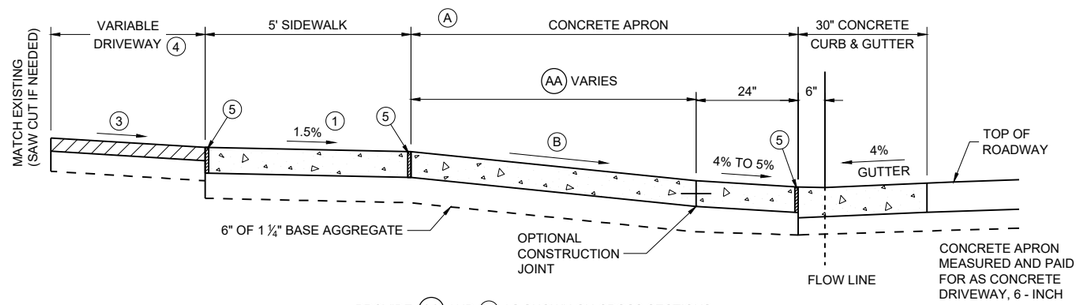
(AA) FEET	(B) % 6.25% GUTTER	(B) % 4% GUTTER
4.5'	11.5%	9% TO 11.5%
5.5'	9% TO 11.5%	8% TO 11.5%
6.5'	8% TO 11.5%	6% TO 11.5%
7.5'	7% TO 11.5%	6% TO 11.5%
8.5'	6% TO 11.5%	5% TO 11.5%
9.5'	5% TO 11.5%	4% TO 11.5%

(W) : DRIVEWAY WIDTHS (MEASURED AT ROW LINE)
~ COMMERCIAL & INDUSTRIAL 16' MIN. - 35' MAX.
~ RESIDENTIAL & AGRICULTURAL (NONCOMMERCIAL) 16' MIN. - 24' MAX.



PROVIDE (AA) AND (B) AS SHOWN ON CROSS SECTIONS.

6.25% GUTTER SLOPE



PROVIDE (AA) AND (B) AS SHOWN ON CROSS SECTIONS.

4% GUTTER SLOPE

NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS FOR (B) VALUES NOT SHOWN IN TABLE Z.

SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY 6-INCH.

SECTION Z - Z

DRIVEWAY DETAIL WITH CONCRETE CURB AND GUTTER

(URBAN AND SUBURBAN)

DRIVEWAY AND SIDEWALK RAMPS TYPE Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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GENERAL NOTES

A MAXIMUM RADIUS OF 10 FEET SHALL BE USED FOR NON-COMMERCIAL PRIVATE ENTRANCES. RADII FOR COMMERCIAL DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER BASED ON TRAFFIC AND DRIVEWAY PERMIT RESTRICTIONS.

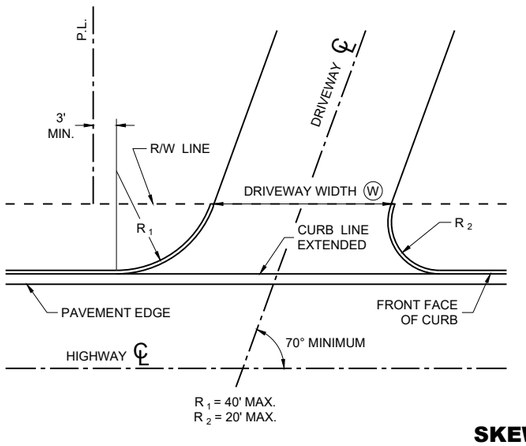
THE MINIMUM ANGLE OF INTERSECTION BETWEEN THE DRIVEWAY AND HIGHWAY CENTERLINES SHALL BE 70°.

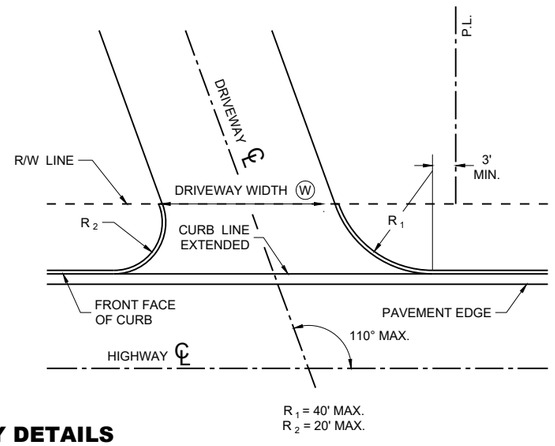
ALL CURVILINEAR PRIVATE ENTRANCE OUTLINES SHALL BE CONTAINED WITHIN THE HIGHWAY R/W.

NO DRIVEWAY SHALL BE BUILT WITHIN 3 FEET OF THE PROPERTY LINE EXCEPT FOR EXISTING JOINT DRIVEWAY SHARED BY TWO OWNERS.

DETECTABLE WARNING FIELDS ARE REQUIRED WHEN A PEDESTRIAN CIRCULATION ROUTE CROSSES A DRIVEWAY THAT IS TRAFFIC SIGNAL, STOP, OR YIELD CONTROLLED.

DETECTABLE WARNING FIELDS TO BE 2' DEEP AND EXTEND THE WIDTH OF THE PEDESTRIAN CIRCULATION ROUTE.

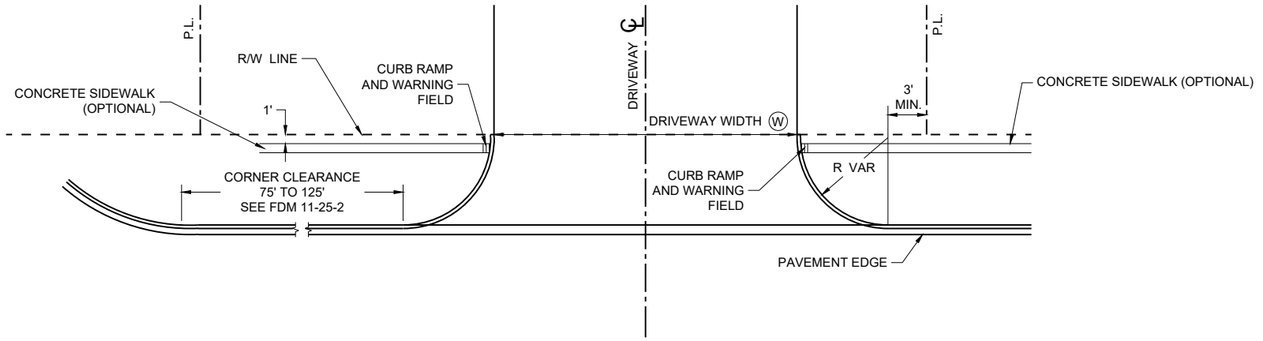




SKEWED DRIVEWAY DETAILS (COMMERCIAL AND NON-COMMERCIAL)

SIDEWALK NOT SHOWN

Ⓦ : DRIVEWAY WIDTHS (MEASURED AT ROW LINE)
- ~ COMMERCIAL & INDUSTRIAL 16' MIN. - 35' MAX.
- ~ RESIDENTIAL & AGRICULTURAL (NONCOMMERCIAL) 16' MIN. - 24' MAX.



DRIVEWAY LOCATION AND SPACING

DRIVEWAY CENTERLINE MAY BE A COMMON PROPERTY LINE FOR SHARED DRIVEWAYS

DRIVEWAYS WITH CURB AND GUTTER RETURNS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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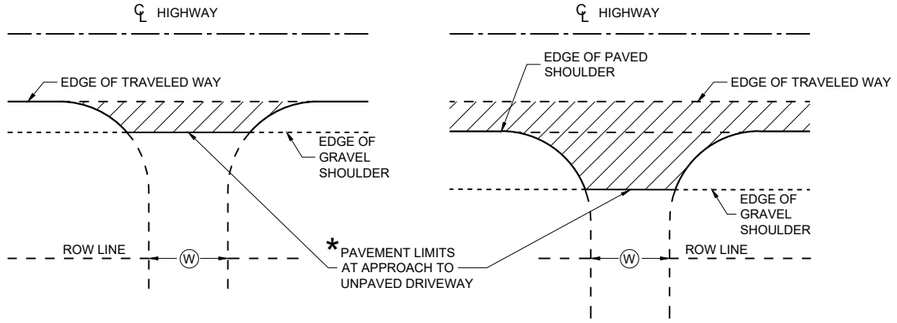
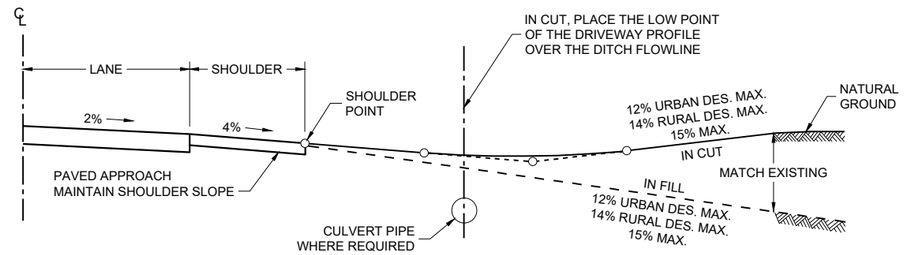


* WHERE DRIVEWAY IS PAVED, APPROACH PAVEMENT SHOULD BE EXTENDED TO MATCH DRIVEWAY PAVEMENT.

PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

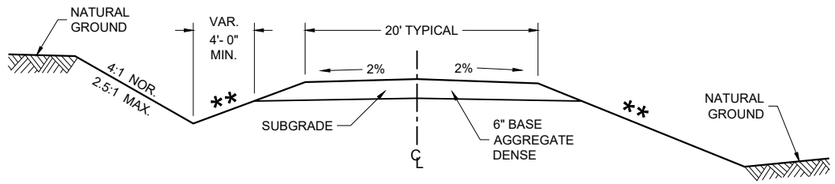
PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL (NO CURB AND GUTTER OR SIDEWALK)



TYPICAL DRIVEWAY PROFILES

Ⓦ : DRIVEWAY WIDTHS (MEASURED AT ROW LINE)
~ COMMERCIAL & INDUSTRIAL 16' MIN. - 35' MAX.
~ RESIDENTIAL & AGRICULTURAL (NONCOMMERCIAL) 16' MIN. - 24' MAX.

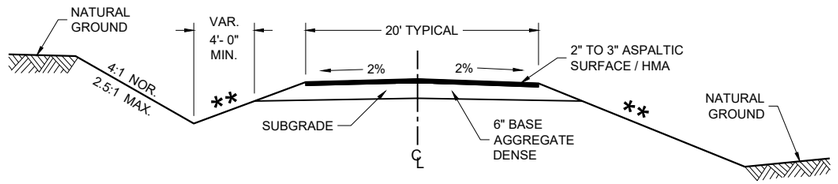


IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

DRIVEWAYS WITHOUT CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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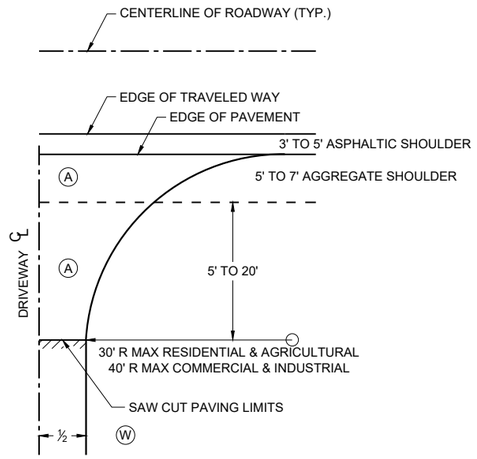
GENERAL NOTES

(1) DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.



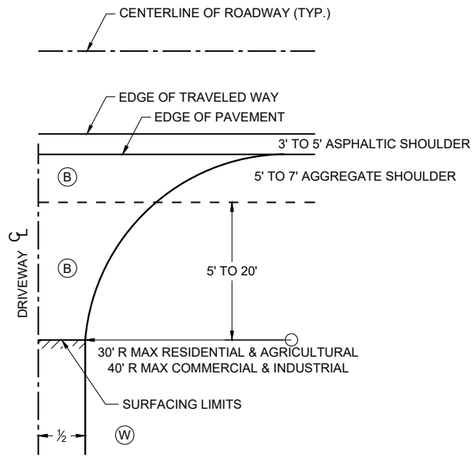
PLAN VIEW

HALF SECTION

Ⓐ : PAID FOR AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES. (TON)

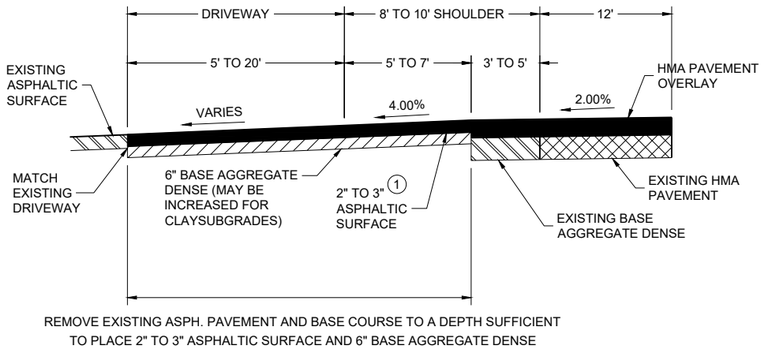
Ⓑ : PAID FOR AS BASE AGGREGATE DENSE 1 1/4" (TON)

Ⓦ : DRIVEWAY WIDTHS (MEASURED AT ROW LINE)
- ~ COMMERCIAL & INDUSTRIAL 16' MIN. - 35' MAX.
- ~ RESIDENTIAL & AGRICULTURAL (NONCOMMERCIAL) 16' MIN. - 24' MAX.



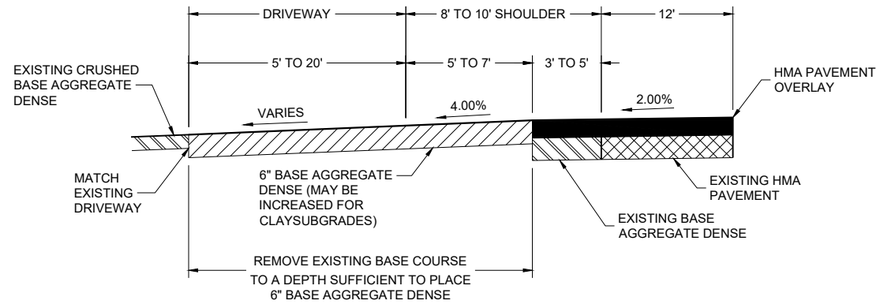
PLAN VIEW

HALF SECTION



PROFILE VIEW

RURAL ENTRANCE WITH ASPHALTIC SURFACE RESURFACING PROJECTS



PROFILE VIEW

RURAL ENTRANCE WITH AGGREGATE SURFACE 6" BASE AGGREGATE DENSE RESURFACING PROJECTS

DRIVEWAYS WITHOUT CURB AND GUTTER RESURFACING PROJECTS RURAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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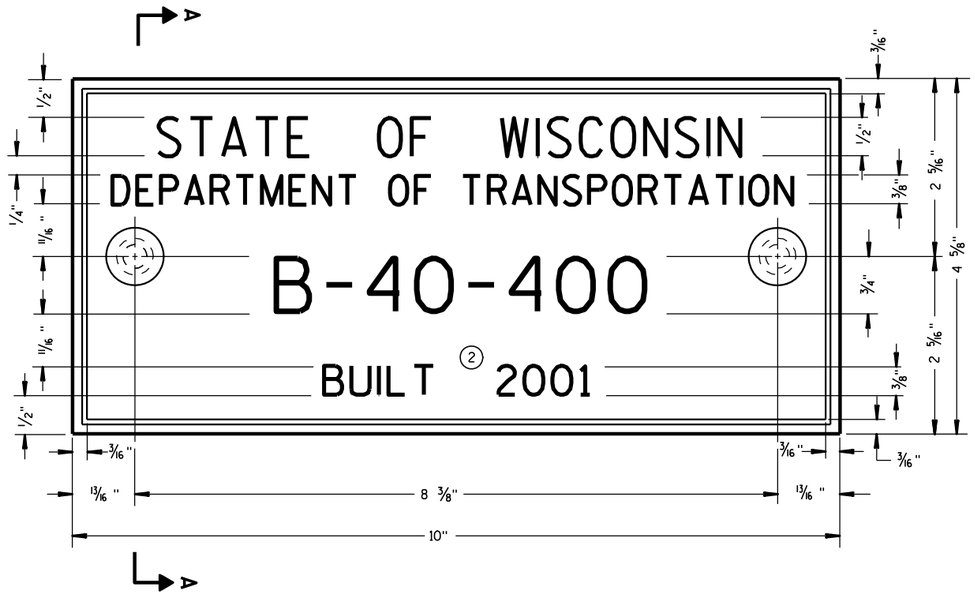
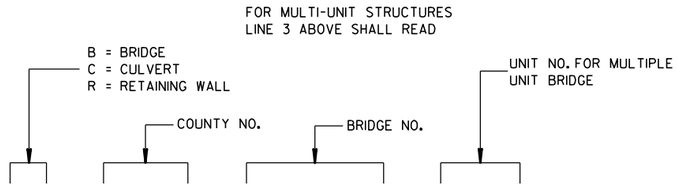
SDD 09A15-01



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

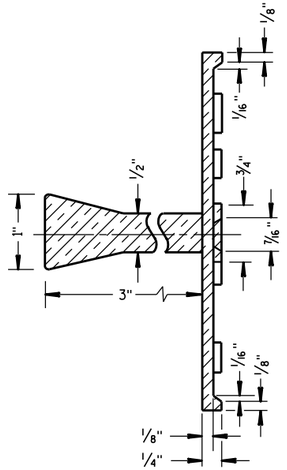
GENERAL NOTES

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

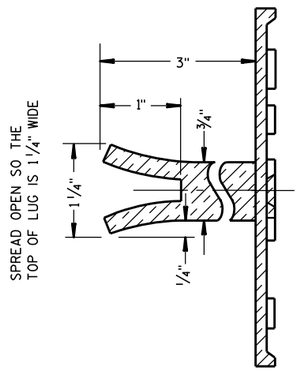
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

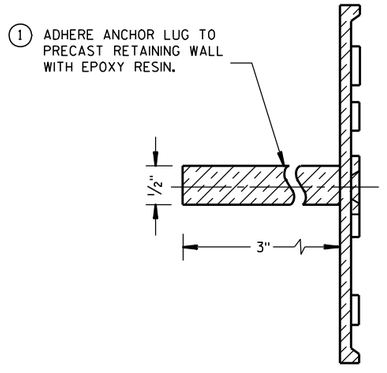
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/26/10 DATE	/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER
FHWA	

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S.D.D. 12 A 3-10

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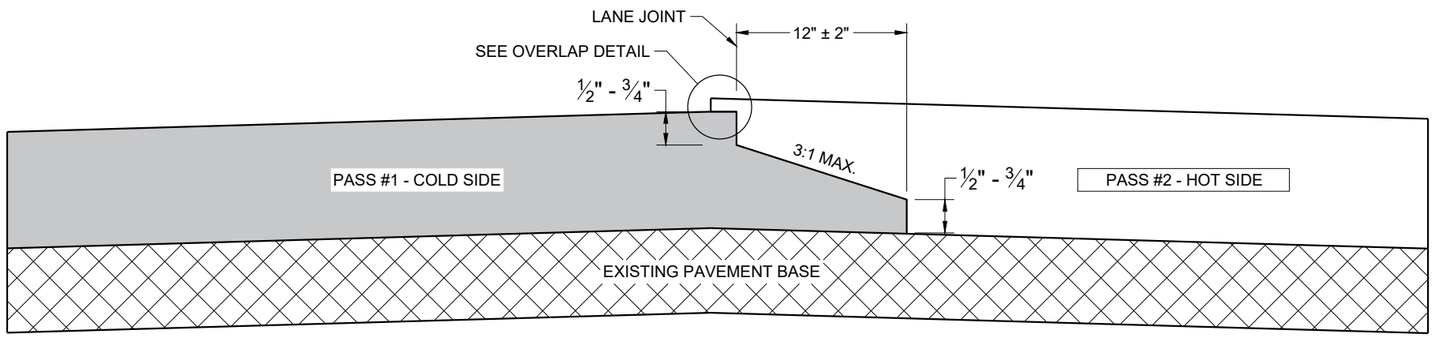
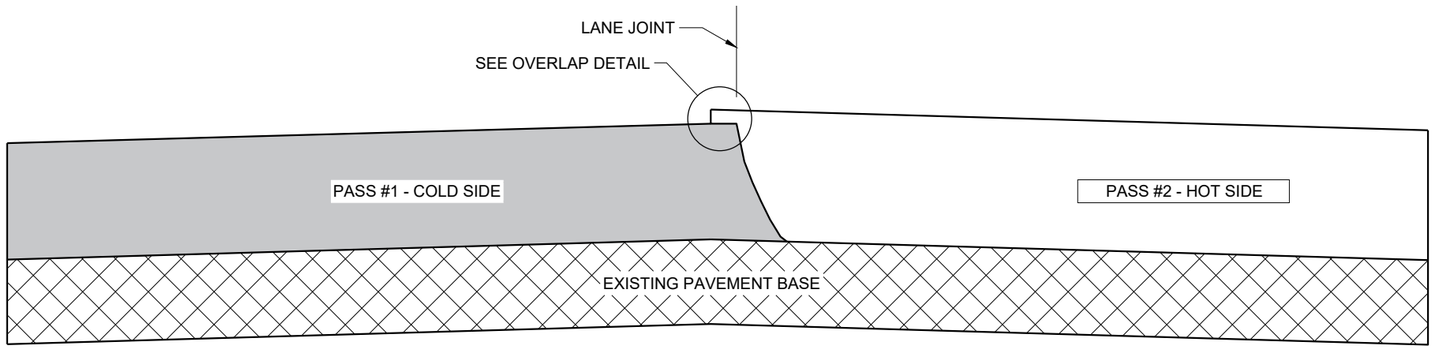
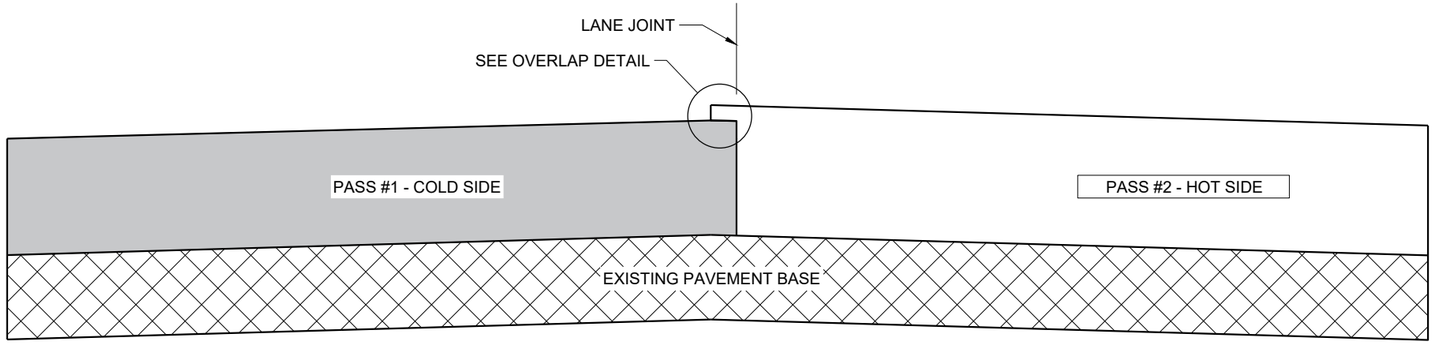
S.D.D. 12 A 3-10



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

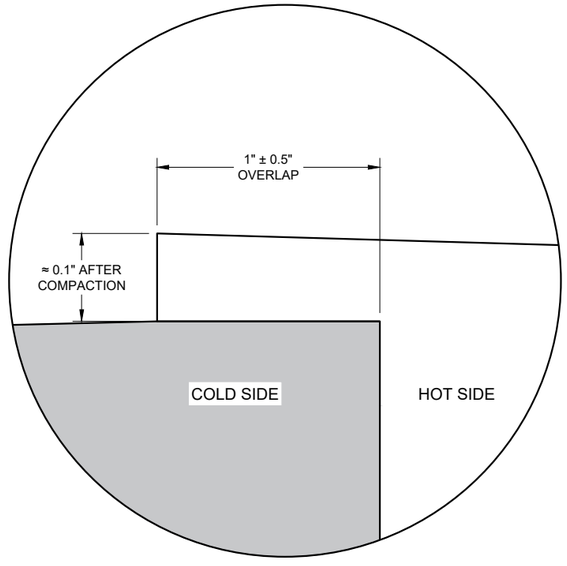
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

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SDD 13C19 - 03

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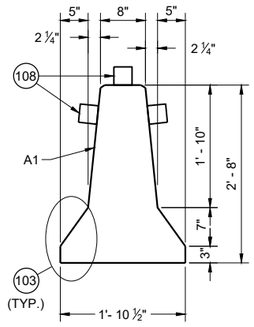
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

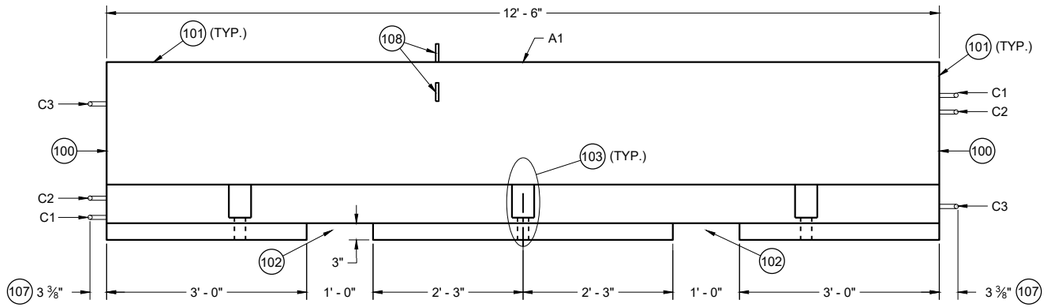
APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



CROSS SECTION



PROFILE VIEW

GENERAL NOTES

PLACE BARRIER ON PAVED SURFACE. BEFORE PLACEMENT OF TEMPORARY BARRIER, REMOVE ALL LOOSE MATERIAL FROM PAVED SURFACE.

LOOP BARS C1, C2 AND C3 ARE NOT FOR PLACEMENT OR MOVEMENT OF BARRIER.

(100) PERMANENTLY FORM INTO ONE END OF BARRIER THE FOLLOWING INFORMATION:
- A. TYPE OF BARRIER: WI-CBTP
- B. MANUFACTURER
- C. DATE OF MANUFACTURE (MONTH AND YEAR)

(101) 1" OPTIONAL CHAMFER

(102) SEE LIFTING SLOT DETAIL

(103) SEE ANCHOR BLOCK DETAIL

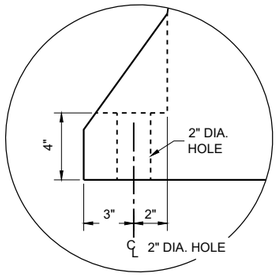
(104) 1 ¾" MIN. CLEAR COVER

(105) 2" MIN. CLEAR COVER

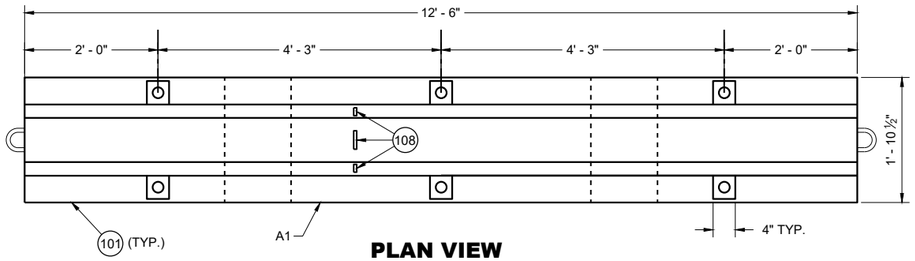
(106) 1" MIN. CLEAR COVER

(107) ± ⅛" MEASURED FROM FACE OF CONCRETE BARRIER TO OUTSIDE OF LOOP BAR (TYP.)

(108) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURERS INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED LEFT OF TRAFFIC AND WHITE WHEN BARRIER IS LOCATED RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART, PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO SIDE MOUNTED DELINEATORS ON BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAT 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

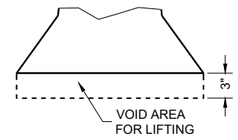


ANCHOR BLOCK DETAIL

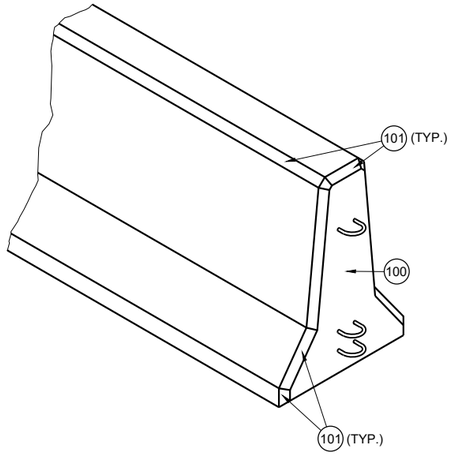


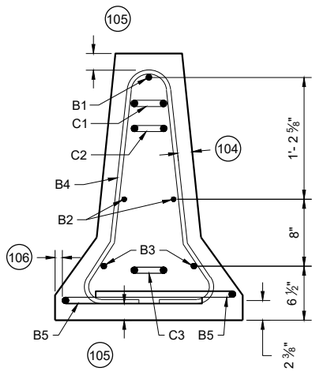
PLAN VIEW

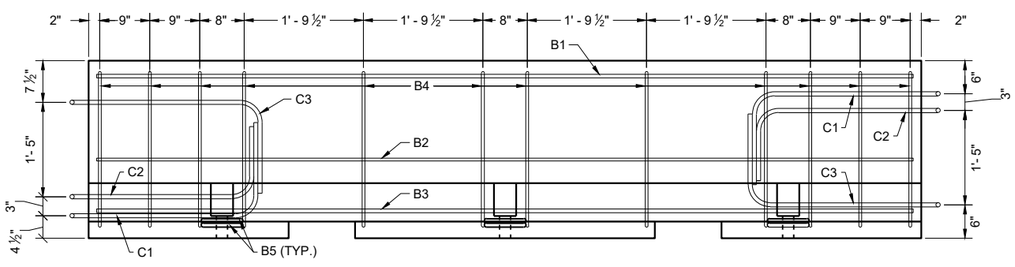
TEMPORARY BARRIER



LIFTING SLOT DETAIL (TYP.)







PROFILE VIEW

TEMPORARY BARRIER REINFORCEMENT

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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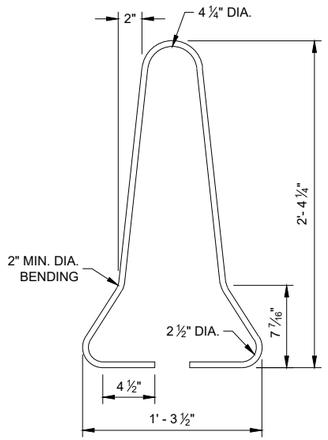
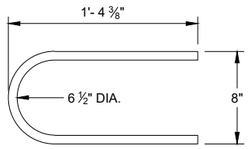
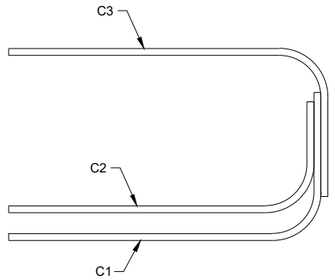


B4 BAR DETAIL

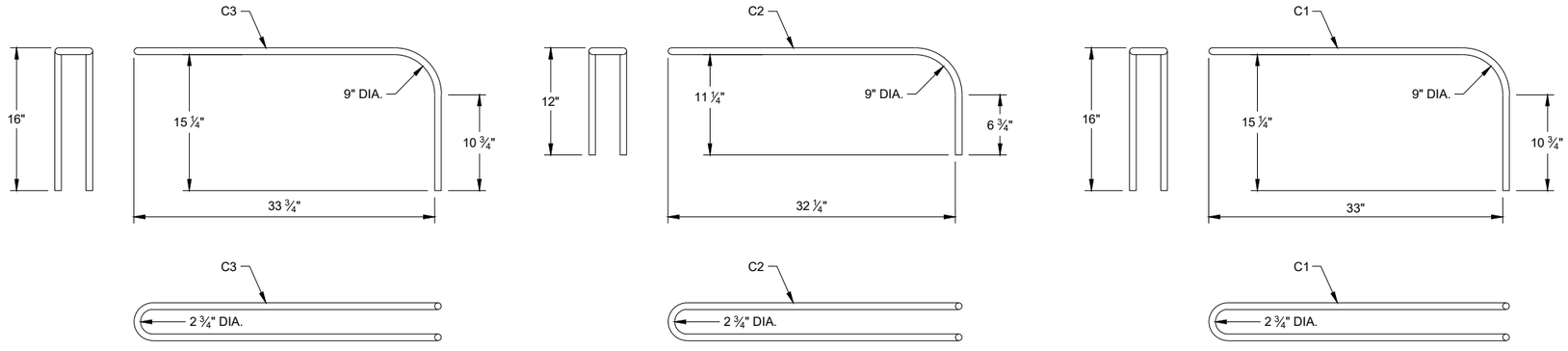


B5 BAR DETAIL



PROFILE VIEW

LOOP BAR ASSEMBLY



C BAR DETAILS

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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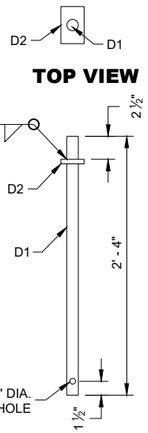
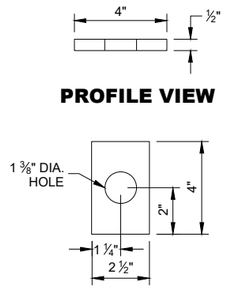


TOP VIEW

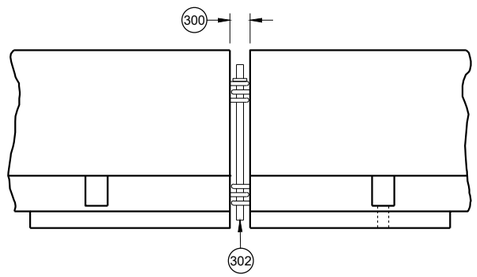
PROFILE VIEW

CONNECTOR PIN ASSEMBLY



PROFILE VIEW

TOP VIEW D2



CONNECTING TEMPORARY BARRIER SECTIONS

GENERAL NOTES

300 SET WITH 3 ⅝" WOOD BLOCK.

301 HOLE IS OPTIONAL.

302 CONNECTOR PIN ASSEMBLY.

303 CONCRETE PAVEMENT, APPROACH SLAB, OR DECK.

304 CONCRETE DECK.

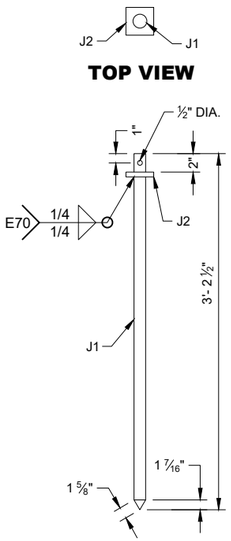
305 DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.

306 MINIMUM OF 2" OF ASPHALT.

307 ASPHALT ANCHOR PIN ASSEMBLY

308 IF DRILLING A PILOT HOLE, THE MAX, DIA. OF THE HOLE IS 3/4"

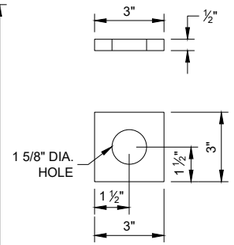
309 WHEN THERE IS ASPHALT OVERLAYING CONCRETE PAVEMENT, A 1 5/8" DIA. PILOT HOLE CAN BE DRILLED INTO THE OVERLAY AND CONCRETE. IF NEEDED DRILL A 3/4" PILOT HOLE IN BASE COURSE.



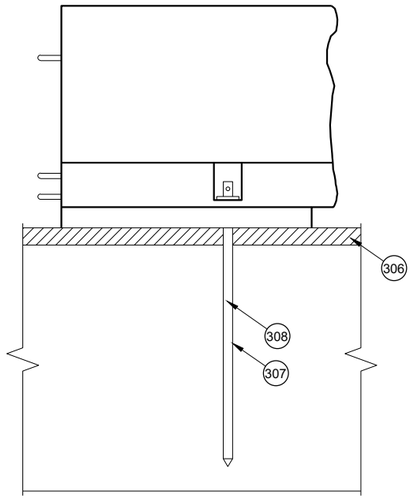
TOP VIEW

PROFILE VIEW

ASPHALT ANCHOR PIN ASSEMBLY

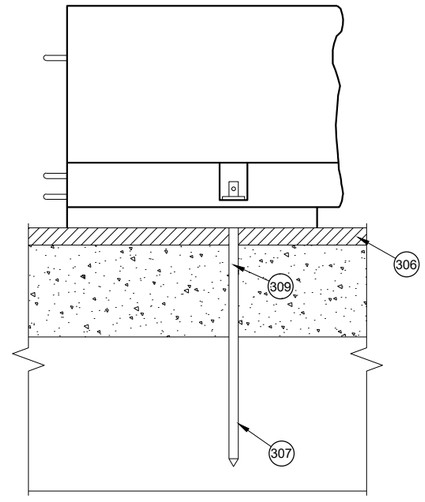


TOP VIEW J2



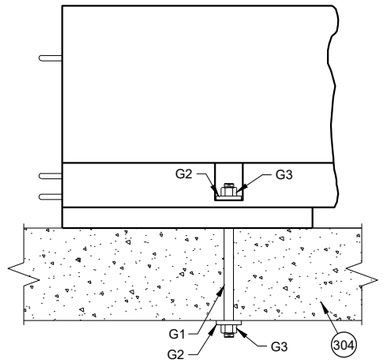
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT PAVEMENT



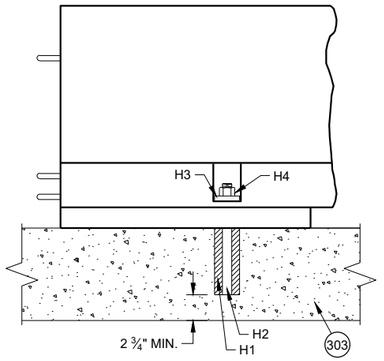
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT OVERLAY ON TOP OF CONCRETE PAVEMENT



SIDE VIEW

THROUGH BOLT ANCHOR INSTALLATION (305)



SIDE VIEW

ADHESIVE ANCHOR INSTALLATION (305)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

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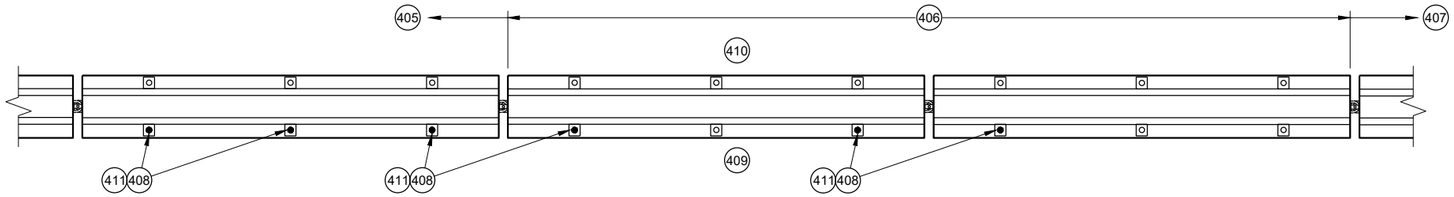
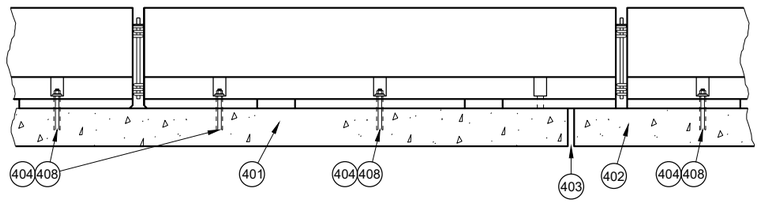


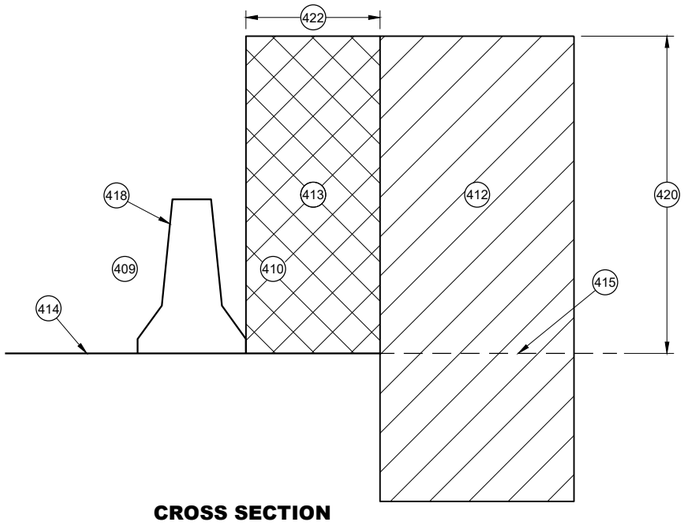
PLAN VIEW

TRANSITION FROM FREE STANDING TO ANCHORED BARRIER



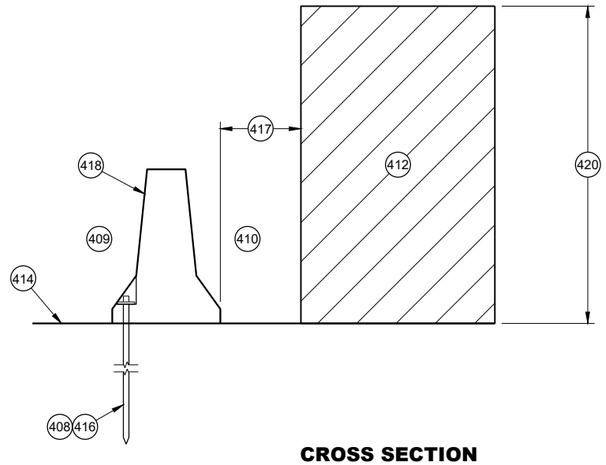
PROFILE VIEW

ANCHORED BARRIER NEAR EXPANSION JOINT (400)



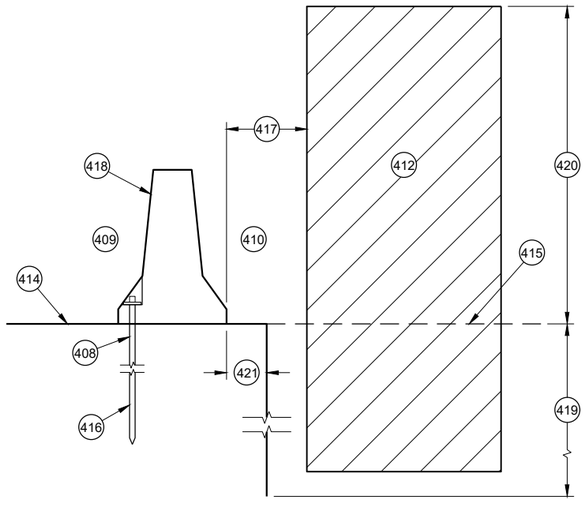
CROSS SECTION

FREE STANDING BARRIER



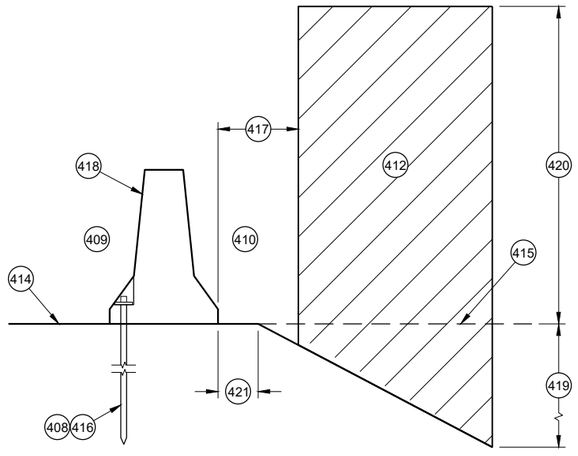
CROSS SECTION

ANCHORED BARRIER FOR OBJECTS ABOVE THE GRADE LINE AND NEAR THE BARRIER



CROSS SECTION

ANCHORED BARRIER NEAR VERTICAL DROP OFF



CROSS SECTION

ANCHORED BARRIER NEAR A SLOPE

GENERAL NOTES

(400) NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.

(401) CONCRETE DECK

(402) CONCRETE DECK OR APPROACH SLAB.

(403) EXPANSION JOINT

(404) ADHESIVE ANCHOR SHOWN. SEE ANCHOR DETAILS.

(405) ANCHORED TEMPORARY BARRIER

(406) TRANSITION FROM ANCHORED TEMPORARY BARRIER TO FREE STANDING

(407) FREE STANDING BARRIER

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

(409) TRAFFIC SIDE

(410) NON-TRAFFIC SIDE

(411) ANCHOR LOCATION. SEE ANCHORING DETAILS.

(412) WORK AREA

(413) AREA FREE OF OBJECTS AND WORKERS

(414) GRADE LINE

(415) EXTENDED GRADE LINE

(416) ANCHORED TEMPORARY BARRIER. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR AN ASPHALT ANCHOR ROD DETAILS FOR MORE INFORMATION. ASPHALT ANCHOR ROD SHOWN.

(417) WHEN OBJECTS EXTEND ABOVE THE GRADE. A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT.

(418) OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR ALLOWED TO LEAN AGAINST THE BARRIER WITHOUT WRITTEN PERMISSION OF THE PROJECT ENGINEER.

(419) DEPTHS OF 3 FEET OR MORE.

(420) Y = 6.5'

(421) OFFSET FROM BACK OF BARRIER EDGE:

CONCRETE PAVEMENT	0.5'
ASPHALT	0.5'

(422) POSTED SPEED (MPH):

45 OR GREATER	4.0'
40 OR LOWER	2.0'

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

GENERAL NOTES

(500) EXISTING RIGID BARRIERS (VARIES)

(501) TEMPORARY BARRIER

(502) SEE OTHER DETAIL ON HOW TO ANCHOR TEMPORARY BARRIER (BARRIER ASPHALT ANCHOR SHOWN).

(503) ANCHORS ARE REQUIRED ON BOTH SIDE OF THE TEMPORARY BARRIER.

(504) NESTED RAILS ARE REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

(505) TRAFFIC TRAVELS FROM PERMANENT BARRIER TO TEMPORARY BARRIER.

(506) TRAFFIC TRAVELS FROM TEMPORARY BARRIER TO PERMANENT BARRIER.

(507) VERTICAL BARRIER

(508) SAFETY SHAPE BARRIER

(509) SINGLE SLOPE BARRIER

(510) CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF RIGID BARRIER.

(511) BENT THRIE BEAM TO FIT.

(512) THRIE BEAM PIECES ARE OFFSET 15 ¼" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.

(513) TWO (2) P1, P2 AND P3 ARE REQUIRED

(514) FIVE (5) N1, N2 AND N3 ARE REQUIRED

(515) TWO (2) R1, R2 AND R3 ARE REQUIRED

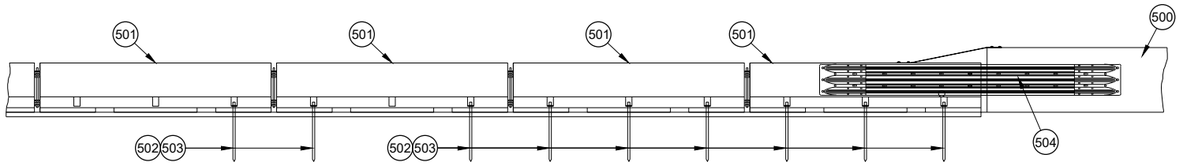
(516) CUT WOOD BLOCK TO FIT.

(517) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL ASSEMBLY.

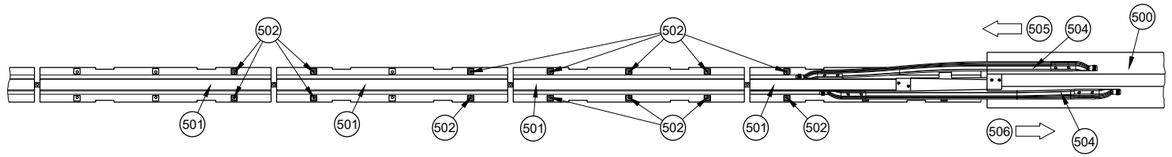
(518) CAP ASSEMBLY

(519) 4" MAX. GAP BETWEEN TEMPORARY BARRIER AND RIGID BARRIER.

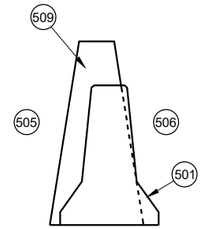
(520) ALL TWELVE SPLICE HOLES REQUIRE M1 AND M2



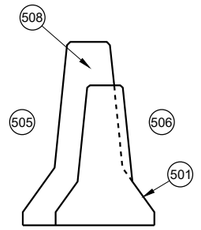
PROFILE VIEW



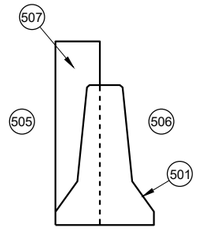
PLAN VIEW
TRANSITION TO RIGID BARRIER



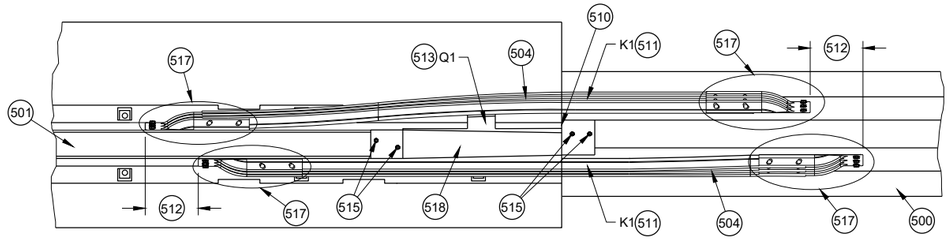
CROSS SECTION TEMPORARY BARRIER PLACEMENT SINGLE SLOPE



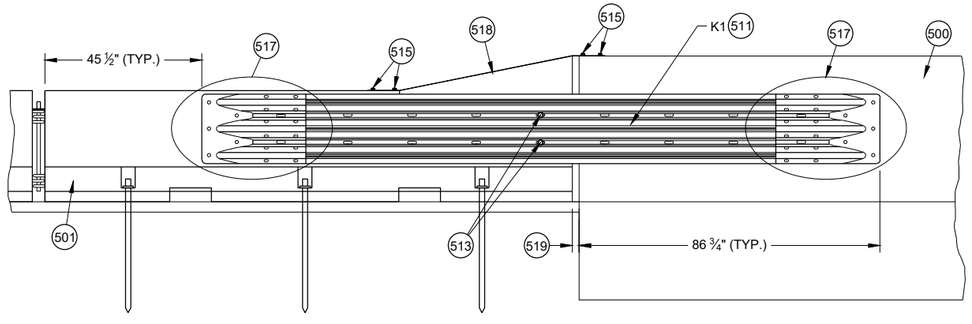
CROSS SECTION TEMPORARY BARRIER PLACEMENT SAFETY SHAPE



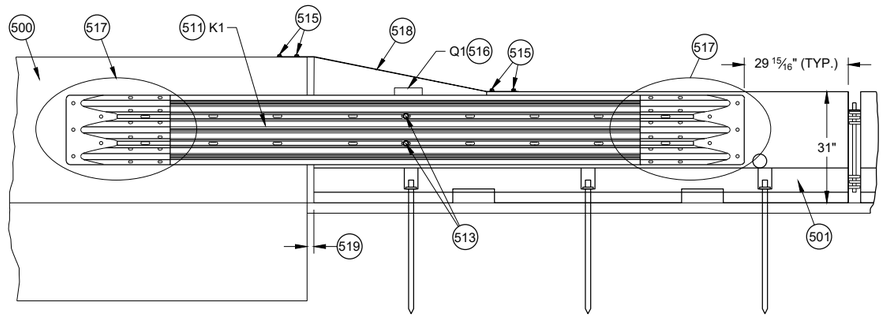
CROSS SECTION TEMPORARY BARRIER PLACEMENT VERTICAL



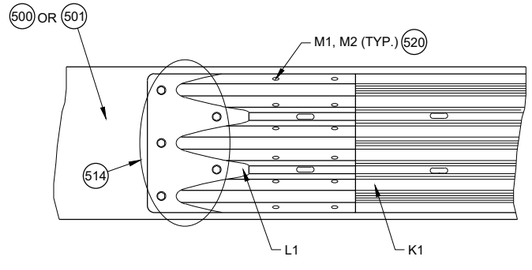
PLAN DETAIL VIEW
TRANSITION TO RIGID BARRIER



FRONT DETAIL VIEW
TRANSITION TO RIGID BARRIER



BACK DETAIL VIEW
TRANSITION TO RIGID BARRIER



(517) DETAIL PLAN VIEW
THRIE BEAM RAIL TERMINAL CONNECTOR ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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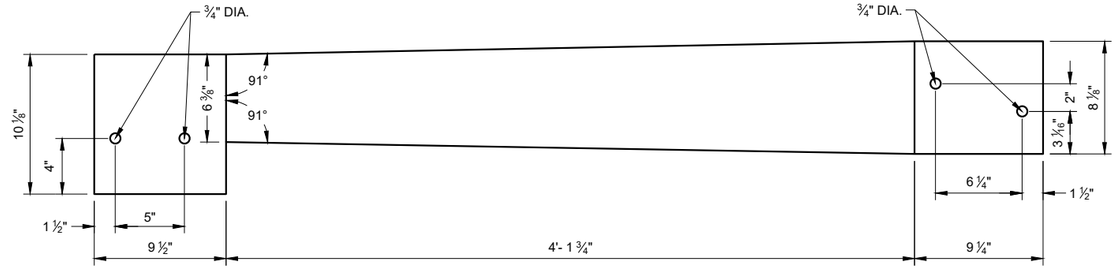
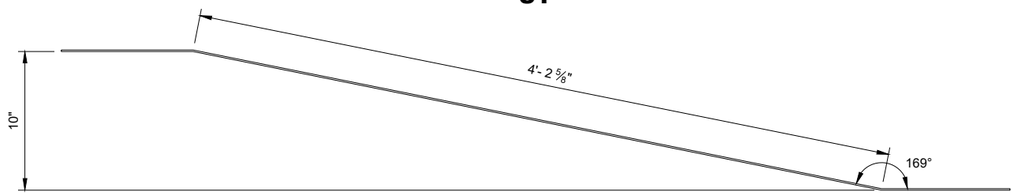
SDD 14B07-16e



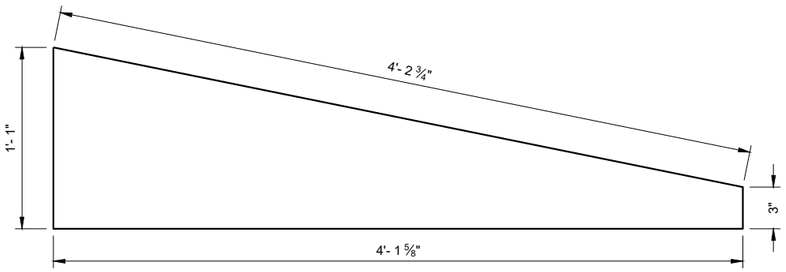
TOP VIEW

S1



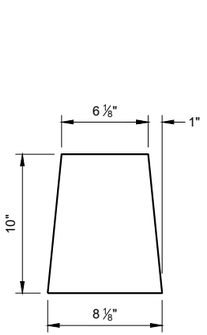
ELEVATION VIEW

S1



SIDE VIEW

S3



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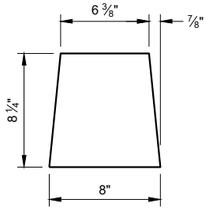

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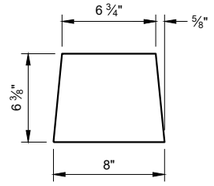

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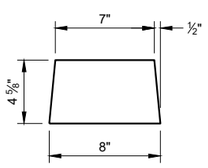

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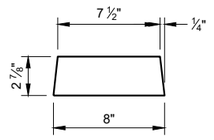

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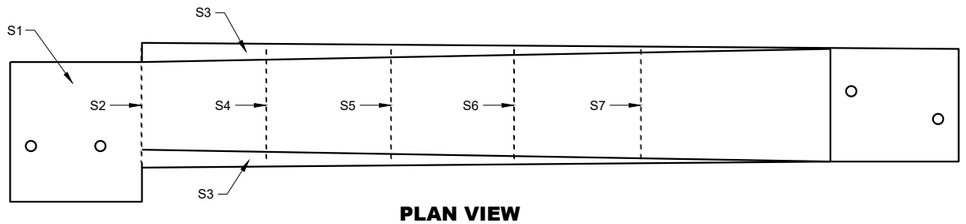
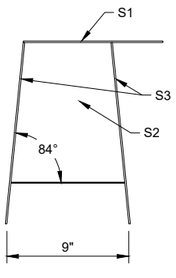
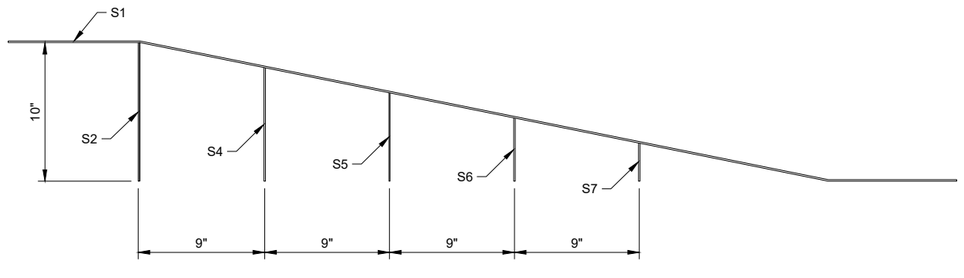


PLAN VIEW



BACK VIEW



SIDE VIEW (600)

42" TOP CAP ASSEMBLY

GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THREE SIDES

STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

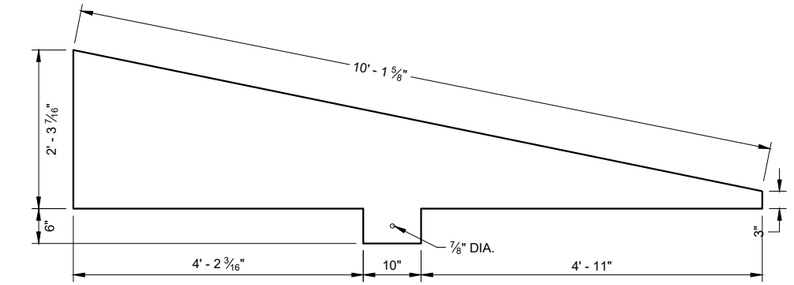
(600) SIDE PLATES (S3) NOT SHOWN FOR CLARITY.

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

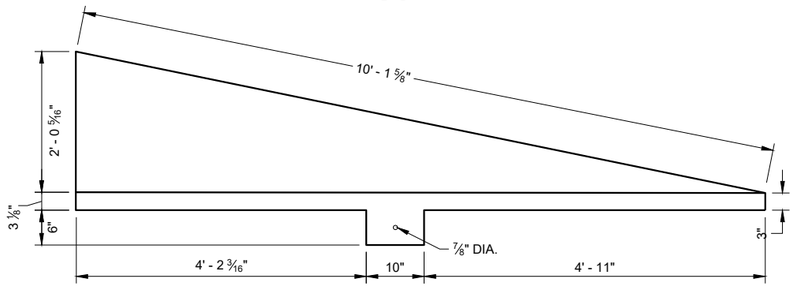
6

SDD 14B07-16f



SIDE VIEW
T4

END VIEW



SIDE VIEW
T3

END VIEW

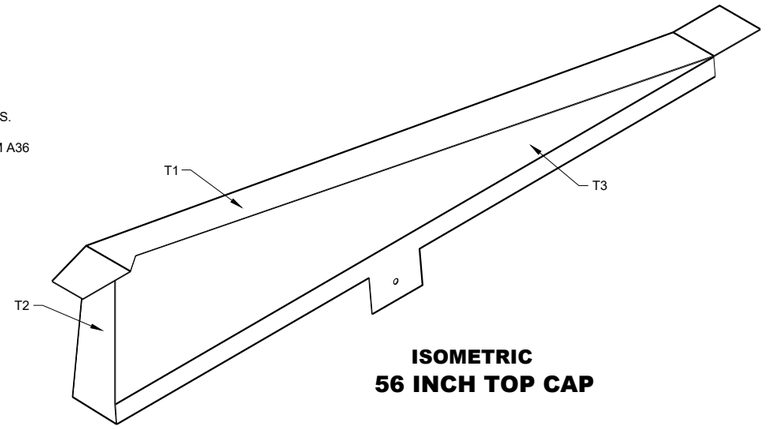
GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THRIE SIDES

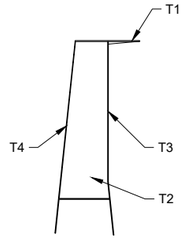
STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

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

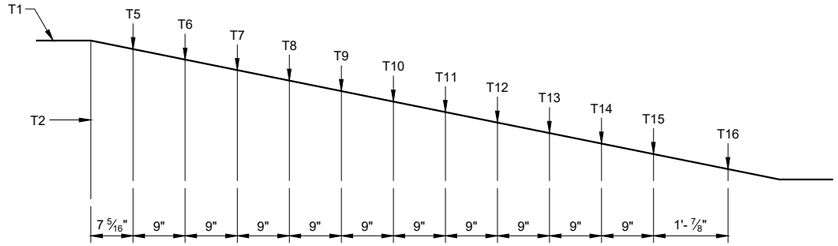
(700) SIDE PLATES (T3 AND T4) NOT SHOWN FOR CLARITY.



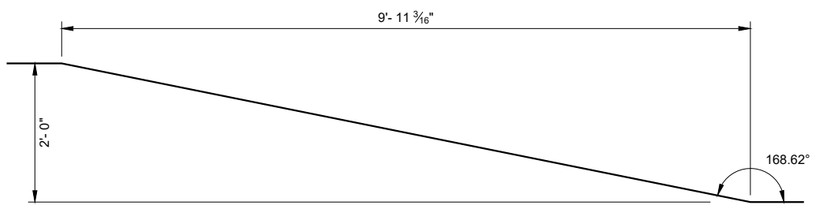
ISOMETRIC
56 INCH TOP CAP



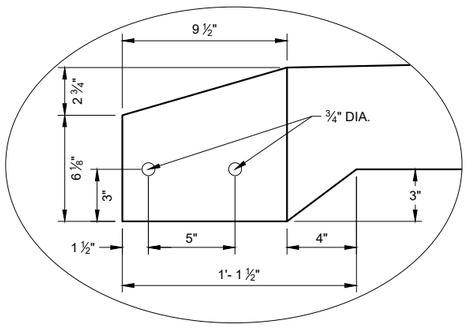
END VIEW
56 INCH TOP CAP



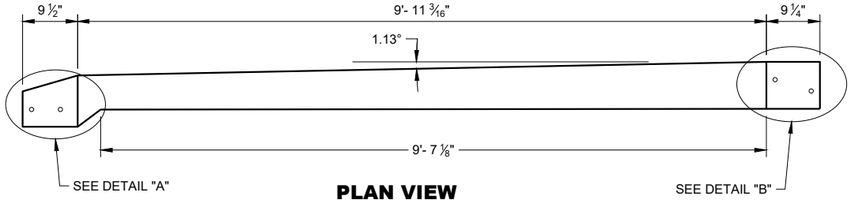
SIDE VIEW (700)
56 INCH TOP CAP



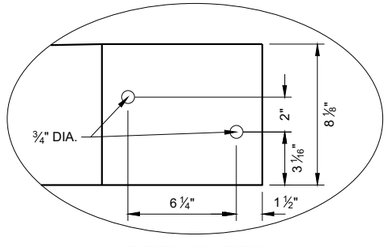
SIDE VIEW
TOP PLATE T1



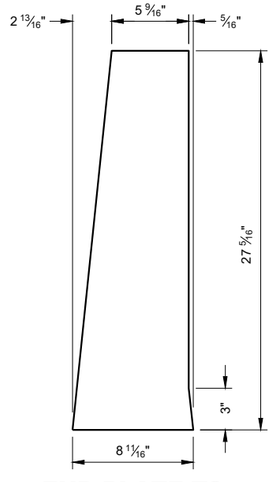
DETAIL "A"



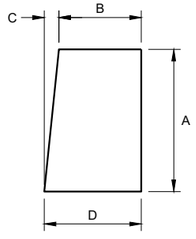
PLAN VIEW
TOP PLATE T1



DETAIL "B"



END PLATE T2



GUSSET PLATES
T5 - T16

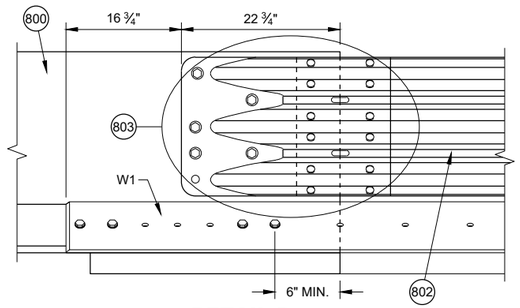
GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
T5	22 13/16"	5 1/16"	2 5/16"	8 1/16"
T6	21"	5 7/8"	2 3/16"	8 1/16"
T7	19 3/16"	6 1/16"	1 15/16"	8 1/16"
T8	17 3/8"	6 1/4"	1 13/16"	8 1/16"
T9	15 5/16"	6 7/16"	1 9/16"	8 1/16"
T10	13 3/4"	6 5/8"	1 7/16"	8 1/16"
T11	11 15/16"	6 13/16"	1 1/4"	8 1/16"
T12	10 1/8"	7"	1 1/16"	8 1/16"
T13	8 5/16"	7 3/16"	7/8"	8 1/16"
T14	6 1/2"	7 3/8"	1 1/16"	8 1/16"
T15	4 11/16"	7 9/16"	1/2"	8"
T16	2 7/8"	7 3/4"	1/4"	8"

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

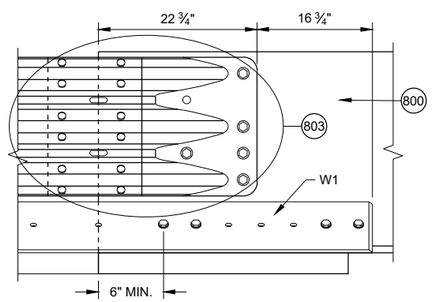
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07-16g



DETAIL D



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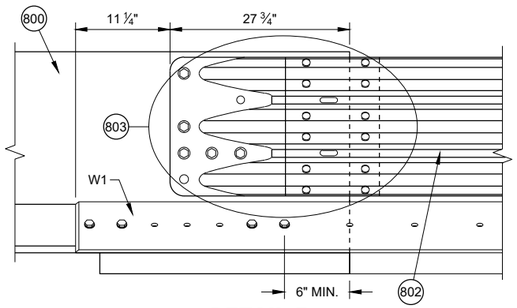

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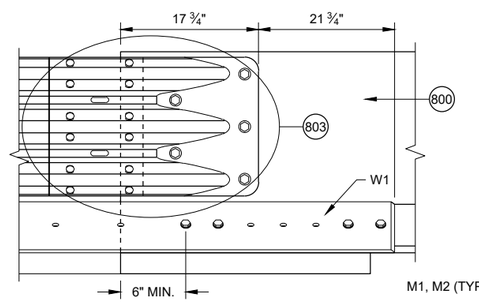
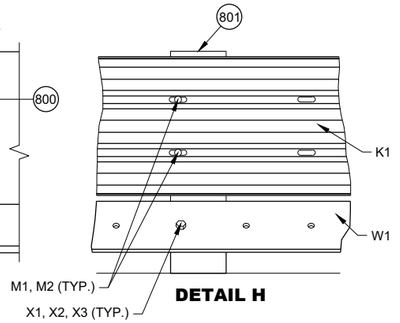
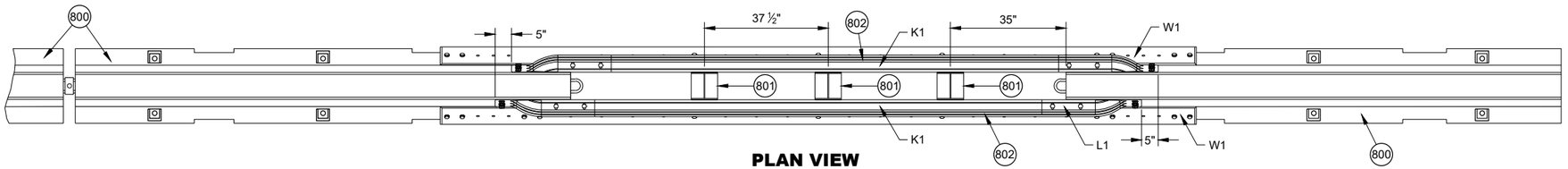


DETAIL G



DETAIL H



PLAN VIEW

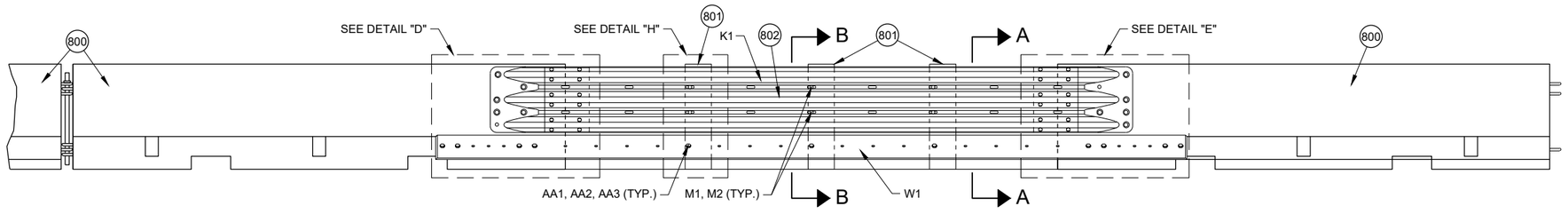
GENERAL NOTES

(800) FREE STANDING TEMPORARY BARRIER

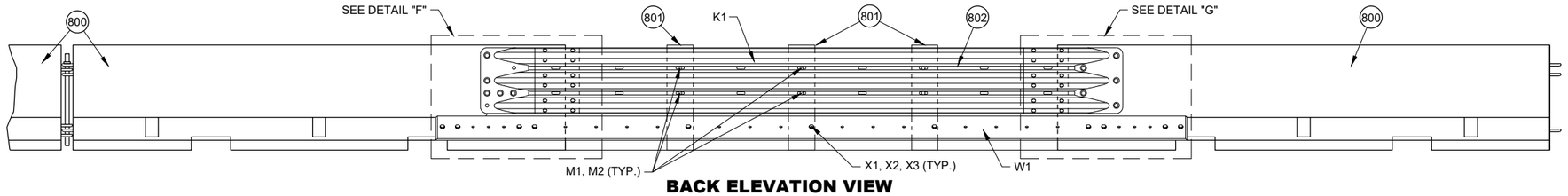
(801) GAP STIFFENER ASSEMBLY

(802) THRIE BEAMS ARE NESTED ON BOTH SIDES OF THE TEMPORARY BARRIER.

(803) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL



FRONT ELEVATION VIEW



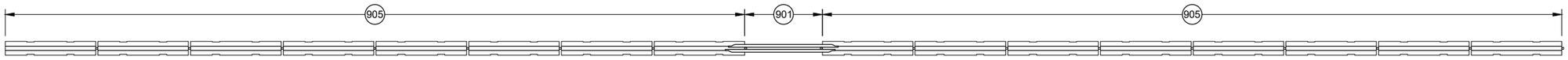
BACK ELEVATION VIEW

PORTABLE CONCRETE BARRIER GAP THRIE BEAM COVER

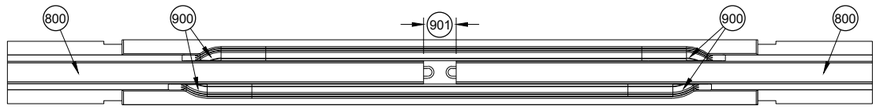
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16h



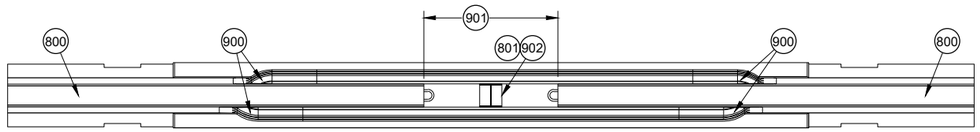
PLAN VIEW
GAP WITHIN SPACING



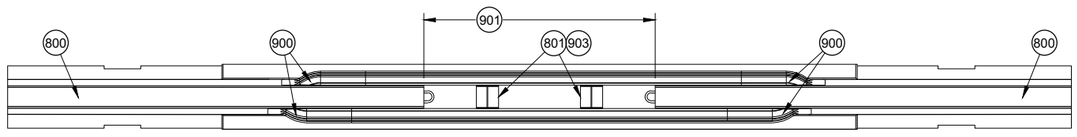
PLAN VIEW
TEMPORARY BARRIER GAP OVER 4" TO 1' MAX. (904)

GENERAL NOTES

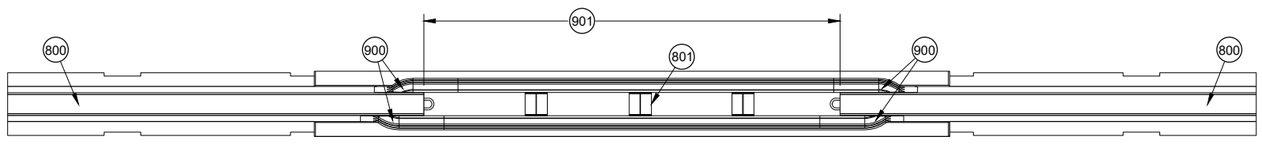
(900) SEE OTHER DETAILS FOR TEMPORARY GAP HARDWARE (TYP.)
(901) TEMPORARY BARRIER GAP
(902) GAP STIFFENER ASSEMBLY CENTERED IN THE GAP.
(903) GAP STIFFENER ASSEMBLY IS OFFSET 18 ¾" FROM CENTER
(904) MINIMUM NUMBER OF GAP STIFFENERS SHOWN FOR THE GAP RANGE SHOWN.
(905) MINIMUM OF 8 CONTINUOUS FREE STANDING TEMPORARY BARRIERS



PLAN VIEW
TEMPORARY BARRIER GAP OVER 1' TO 4' MAX. (904)



PLAN VIEW
TEMPORARY BARRIER GAP OVER 4' TO 7' MAX. (904)

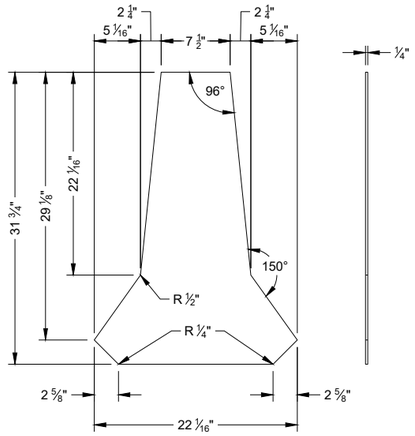


PLAN VIEW
TEMPORARY BARRIER GAP OVER 7' TO 12.5' MAX. (904)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

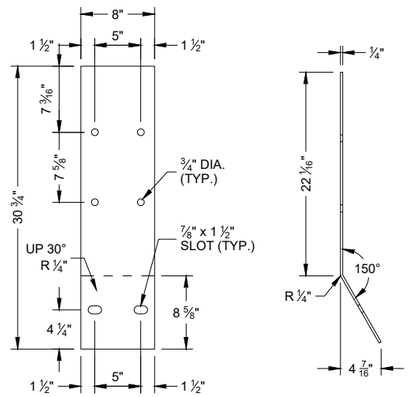
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16i



PROFILE VIEW SIDE VIEW

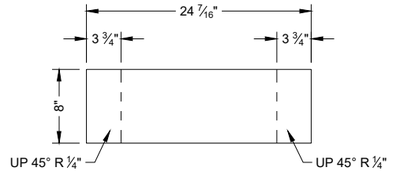
STIFFENER ASSEMBLY CENTER PANEL U1



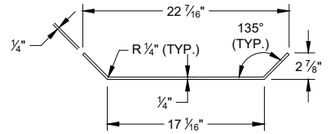
FLAT PATTERN

SIDE VIEW

STIFFENER ASSEMBLY SIDE PANEL U2

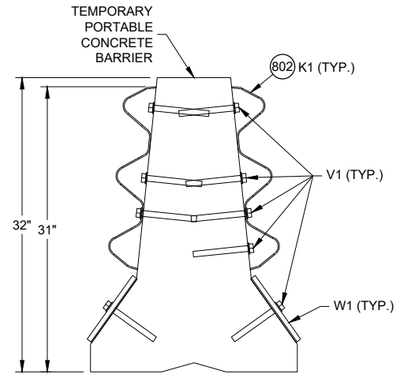


FLAT PATTERN

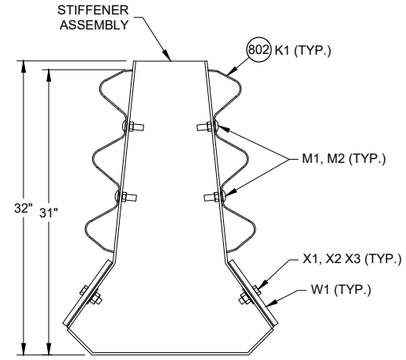


PROFILE VIEW

STIFFENER ASSEMBLY BOTTOM PANEL U3

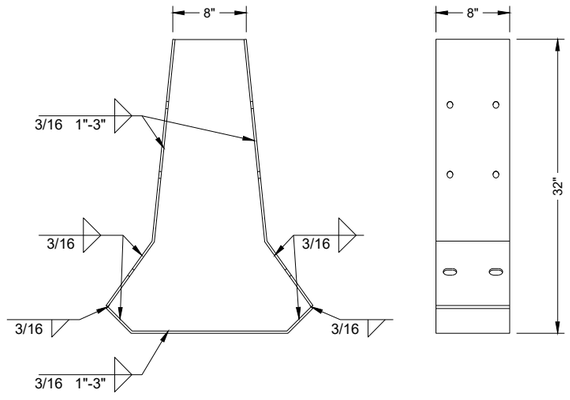


SECTION A - A



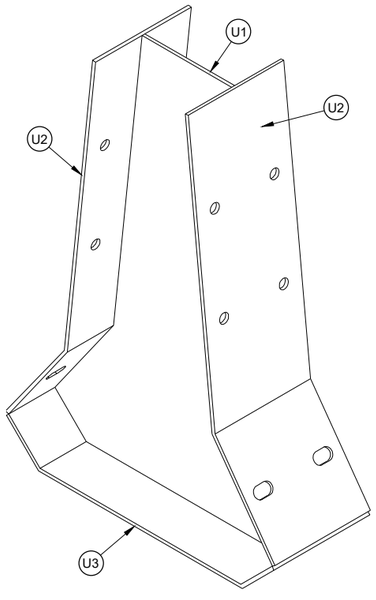
SECTION B - B

PLAN VIEW



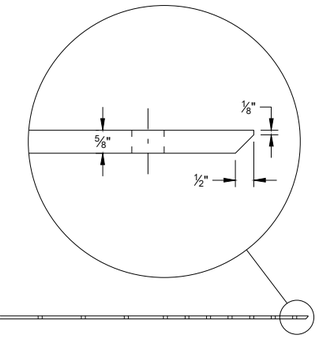
PROFILE VIEW

SIDE VIEW

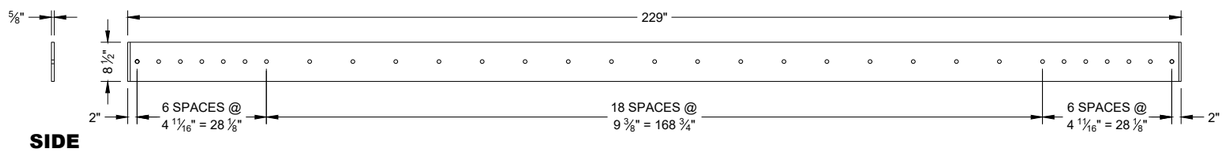


ISOMETRIC

GAP STIFFENER ASSEMBLY



PLAN VIEW



SIDE VIEW

ELEVATION VIEW

W1 TOE PLATE

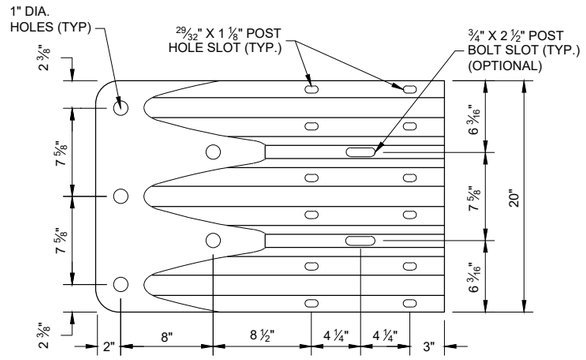
6

SDD 14B07-16j

6

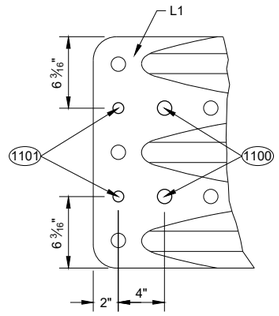
SDD 14B07-16j

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"



ELEVATION VIEW

THRIE BEAM TERMINAL CONNECTOR



ELEVATION VIEW

ADDITIONAL THRIE BEAM (1102) TERMINAL CONNECTOR HOLE DETAIL

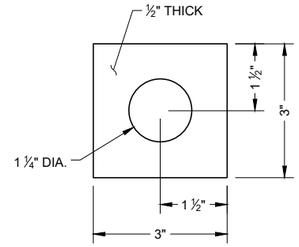


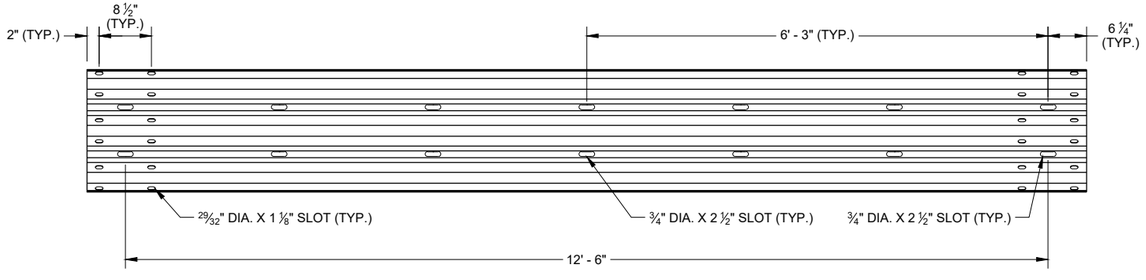
PLATE WASHER DETAIL G2, H3

GENERAL NOTES

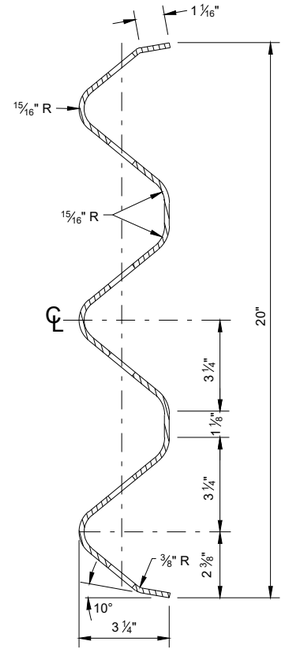
(1100) 1" DIA. HOLE

(1101) 3/4" DIA. HOLE

(1102) PROVIDE HOLES IN THRIE BEAM TERMINAL CONNECTOR TO LIMIT STEEL REINFORCEMENT OR LOOP BAR CONFLICT. CONTRACTOR MAY FIELD DRILL ADDITIONAL HOLE OR PROVIDE THRIE BEAM TERMINAL CONNECTOR WITH ADDITIONAL HOLES FROM SUPPLIER.



SLOTTED THRIE BEAM RAIL K1



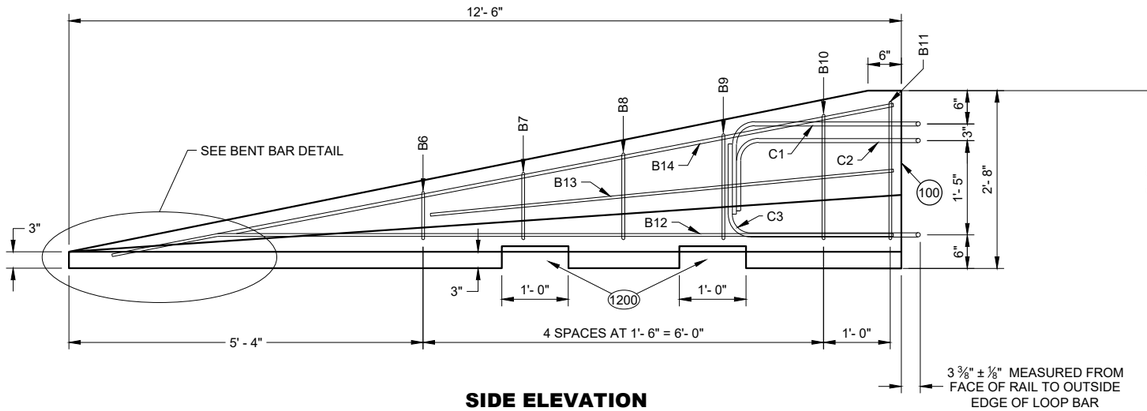
SECTION THROUGH BEAM K1

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

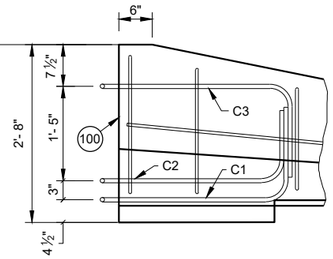
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07-16k



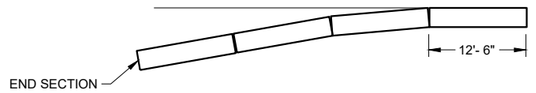
SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED FOR OPPOSITE END
(FOR CONNECTION TO RIGHT END OF BARRIER)

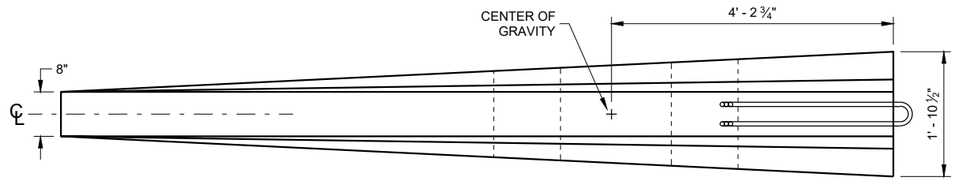
GENERAL NOTES

(1200) SEE LIFTING SLOT DETAIL. LOCATION OF LIFTING SLOTS DETERMINED BY CONTRACTOR.

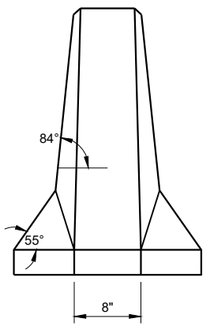


FLARE AT BARRIER END

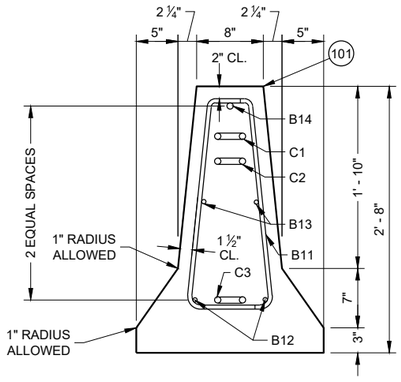
POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1



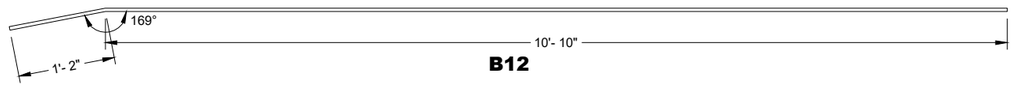
PLAN VIEW



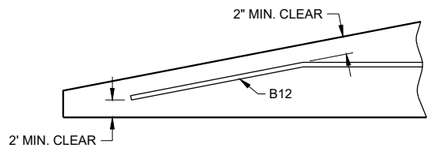
FRONT ELEVATION



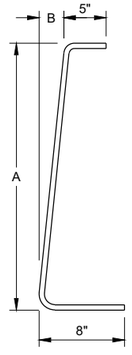
END SECTION



B12



BENT BAR DETAIL



BAR	A	B
B6	10"	1"
B7	1'- 1"	1 ¼"
B8	1'- 5"	1 ⅝"
B9	1'- 8"	1 ⅞"
B10	2'- 0 ½"	2 ⅜"
B11	2'- 3"	2 ¾"

B BARS
2 OF EACH SIZE REQUIRED FOR STIRRUP ASSEMBLY

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B07-16I

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	PRECAST TEMPORARY BARRIER - CONCRETE	MIN. = f'c 5000 PSI	
B1	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B2	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-2"
B3	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B4	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 6'-0"
B5	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#6 REBAR, LENGTH 2'-11"
B6	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 1'-11"
B7	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-2"
B8	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-6"
B9	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-9"
B10	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-2"
B11	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-4"
B12	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-0"
B13	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 7'-9"
B14	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 11'-9"
C1	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C2	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C3	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
D1	CONNECTION PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ¼" DIA.
D2	CONNECTION PIN - TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G1	BOLT THROUGH ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A OR SAE J429 GRADE 2 UNC	1 ⅛" DIA.
G2	BOLT THROUGH ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G3	BOLT THROUGH ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
H1	ADHESIVE ANCHOR - ADHESIVE	ICC-ES-AC308 5 ¼" EMBEDMENT WITH A MIN. BOND STRENGTH OF 1,650 PSI. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
H2	ADHESIVE ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A / SAE J429 GRADE 2 UNC	1 ⅛" DIA.
H3	ADHESIVE ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
H4	ADHESIVE ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
J1	ASPHALT ANCHOR PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ½" DIA.
J2	ASPHALT ANCHOR PIN - STOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
K1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE
L1	THRIE BEAM RAIL - TERMINAL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
M1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	⅝" DIA.
M2	SPLICE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
N1	THRIE BEAM RAIL TERMINAL - MECHANICAL ANCHOR	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA. LENGTH 6"
N2	THRIE BEAM RAIL TERMINAL - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
N3	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
P1	THRIE BEAM RAIL CONNECTION 1-BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA.
P2	THRIE BEAM RAIL CONNECTION 1-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
P3	THRIE BEAM RAIL CONNETION 1- MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
Q1	BLOCK WOOD	SEE STANDARD SPEC. 614	
R1	CAP - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	⅝" DIA.
R2	CAP- BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
R3	CAP - BOLT - MECHANICAL ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	12 GAUGE
S1	CAP 42-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S2	CAP 42-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S3	CAP 42-INCH SIDE PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S4	CAP 42-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S5	CAP 42-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S6	CAP 42-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S7	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE

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SDD 14B07-16m

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07-16m

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
T1	CAP 56-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T2	CAP 56-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T3	CAP 56-INCH SIDE PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T4	CAP 56-INCH SIDE PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T5	CAP 56-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T6	CAP 56-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T7	CAP 56-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T8	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T9	CAP 42-INCH GUSSET 5	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T10	CAP 42-INCH GUSSET 6	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T11	CAP 42-INCH GUSSET 7	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T12	CAP 42-INCH GUSSET 8	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T13	CAP 42-INCH GUSSET 9	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T14	CAP 42-INCH GUSSET 10	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T15	CAP 42-INCH GUSSET 11	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T16	CAP 42-INCH GUSSET 12	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
U1	GAP STIFFENER	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U2	GAP STIFFENER - CONNECTOR PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U3	GAP STIFFENER - CONNECTOR PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
V1	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 24.0 KIPS AND ULTIMATE SHEAR LOAD 21.5 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	¾" DIA.
V2	GAP STIFFENER - BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C O R MECHANICAL GALVANIZE TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
W1	TOE PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
X1	TOE PLATE - CONNECTION BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC HEAVY HEX HEAD OR AASTHO M180 HEAD, ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED. PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	¾" DIA.
X2	TOE PLATE - CONNECTION BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1 (HARDEN WASHER ONLY)	
X3	TOE PLATE - CONNECTION BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	

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SDD 14B07-16n

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

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SDD 14B07-16n

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

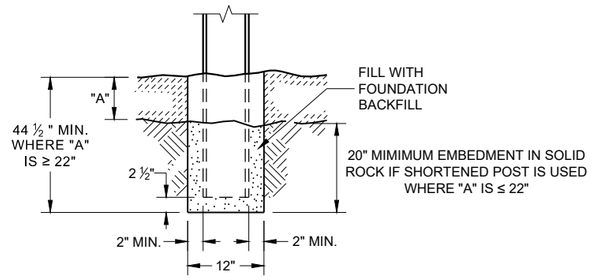
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

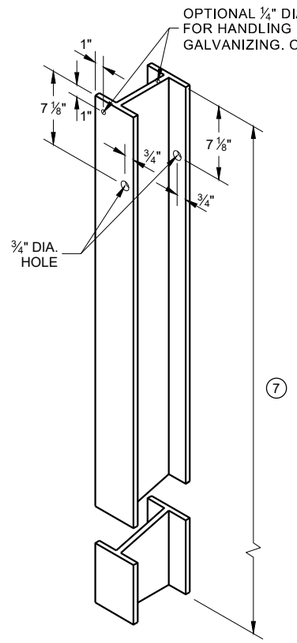
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

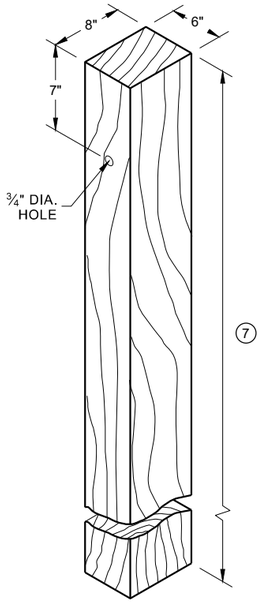
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



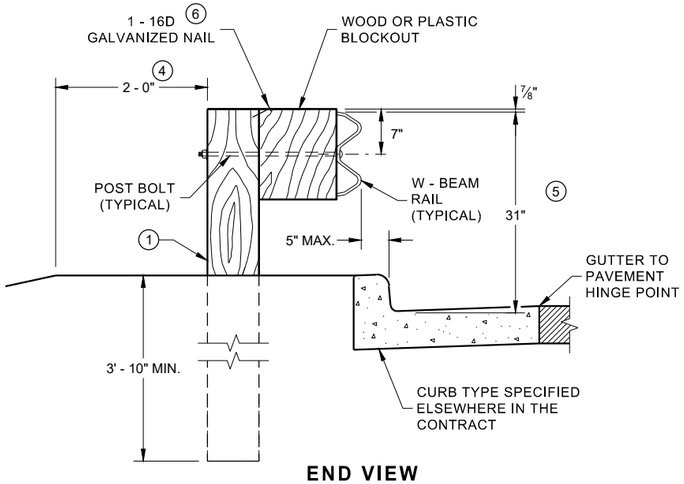
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



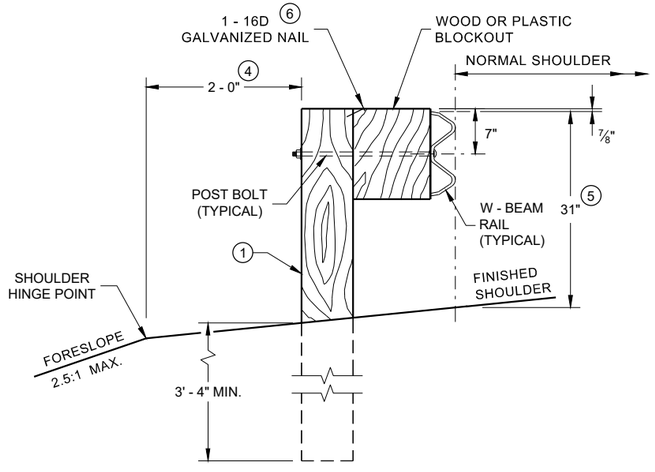
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



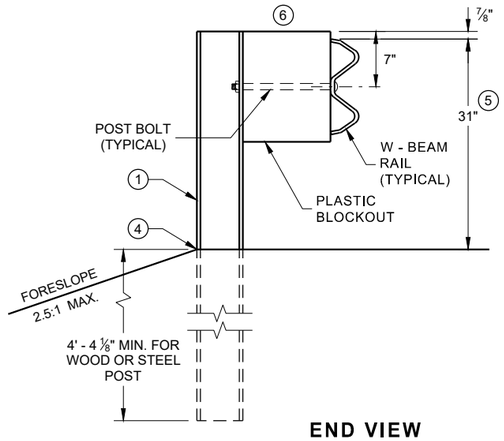
WOOD POST (6" X 8") NOMINAL (1)



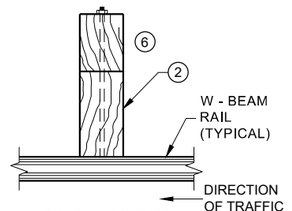
END VIEW
LOCATED ALONG A CURBED ROADWAY



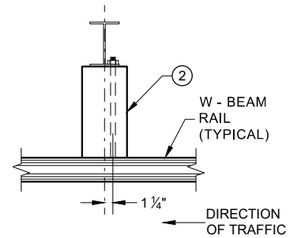
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



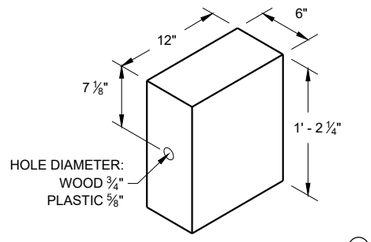
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B42 - 07a

6

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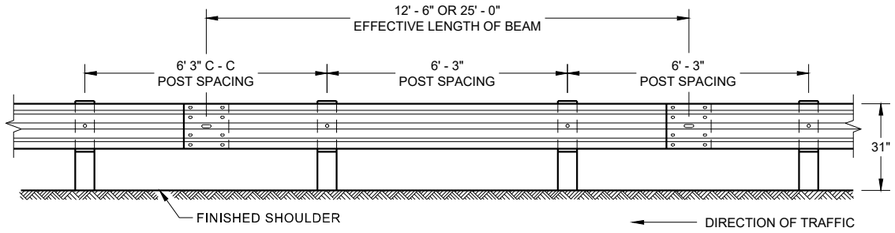
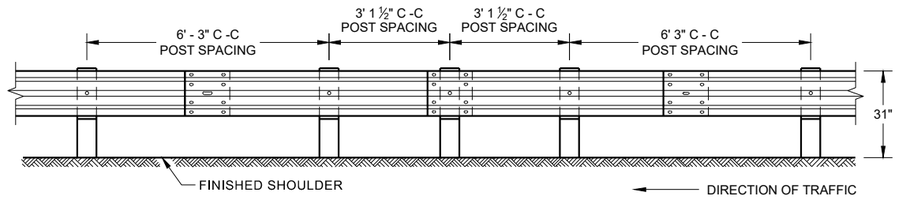
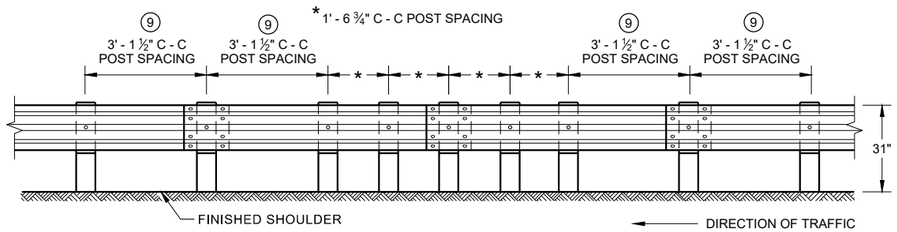


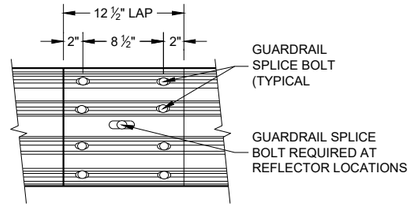
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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



FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE

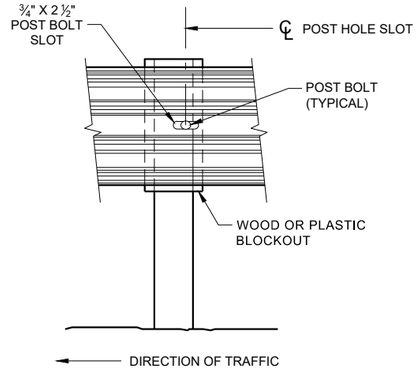
GENERAL NOTES

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

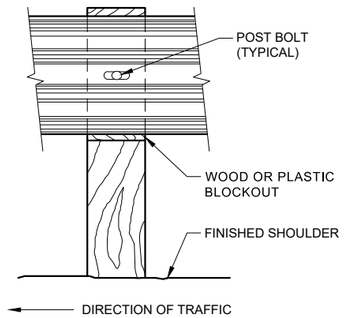
(9) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

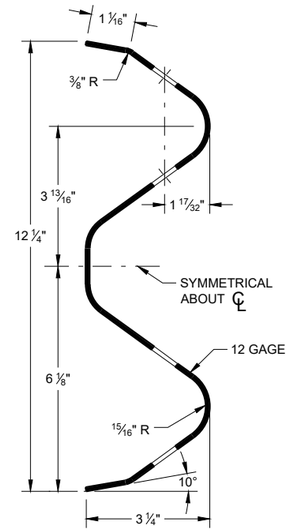
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



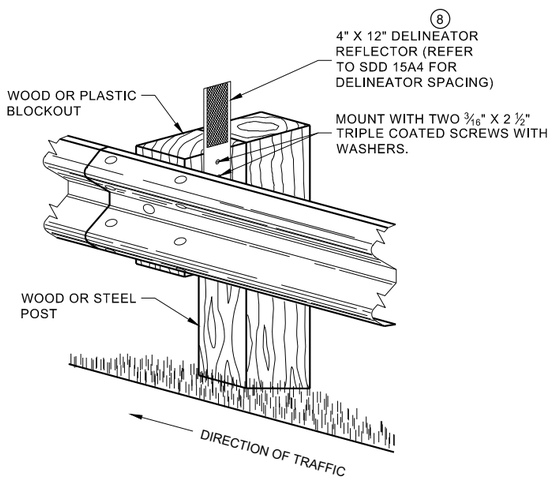
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



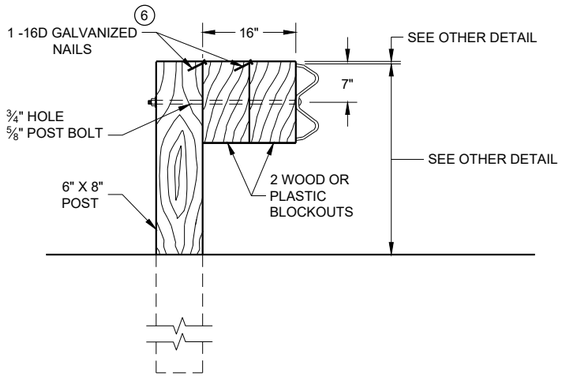
ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 07b
SDD 14B42 - 07b

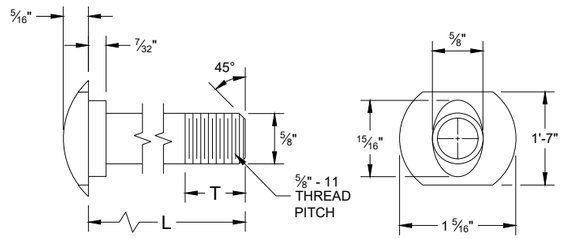


DETAIL FOR 16" BLOCKOUT DEPTH

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

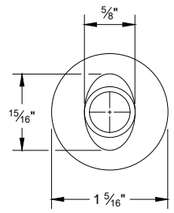
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

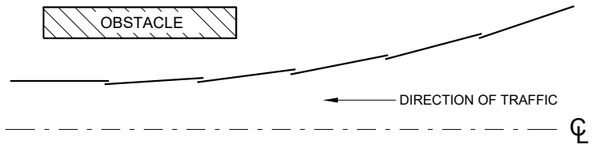


POST BOLT TABLE

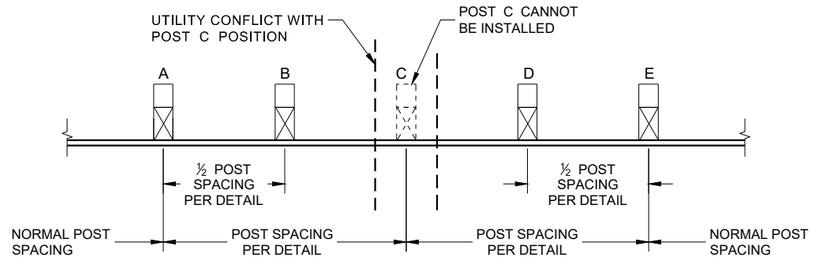
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



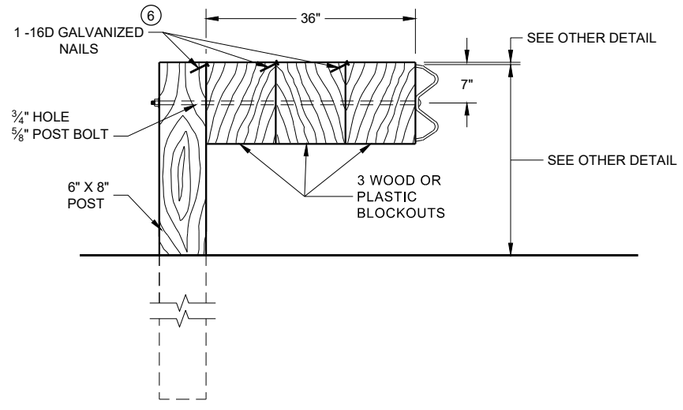
ALTERNATE BOLT HEAD



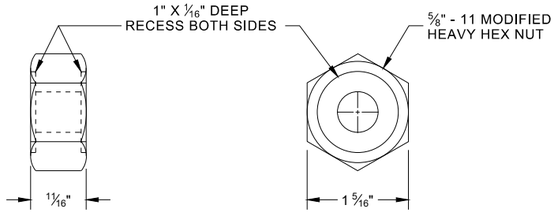
PLAN VIEW
BEAM LAPPING DETAIL



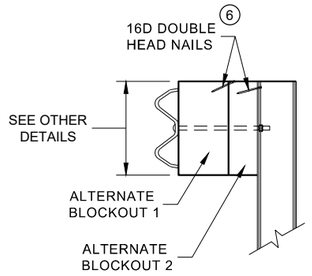
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



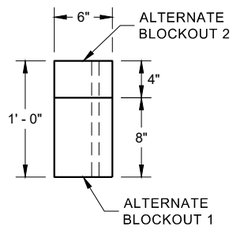
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

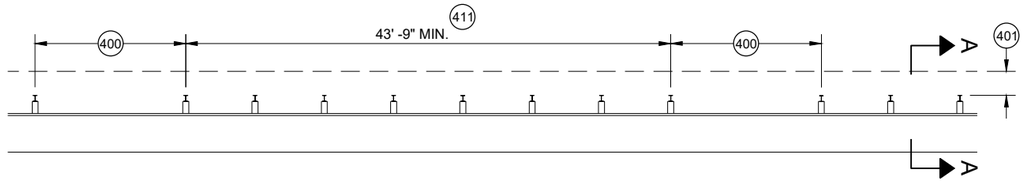
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

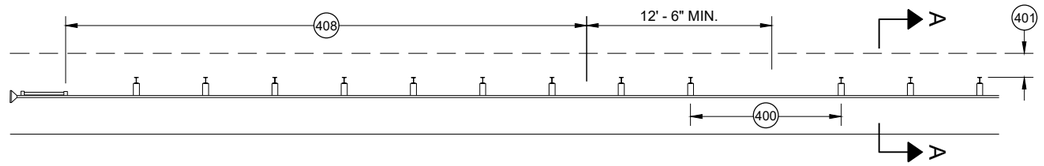
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

6

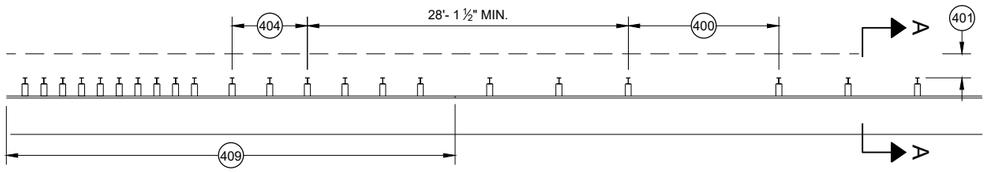
SDD 14B42 - 07c



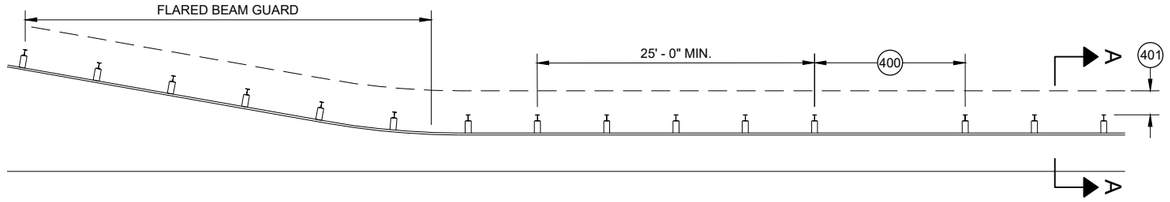
MISSING POST IN MGS GUARDRAIL



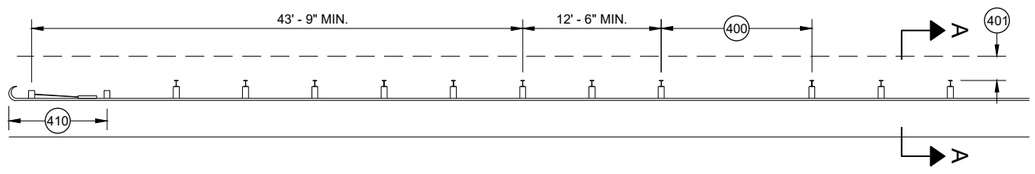
MISSING POST IN MGS GUARDRAIL NEAR EAT



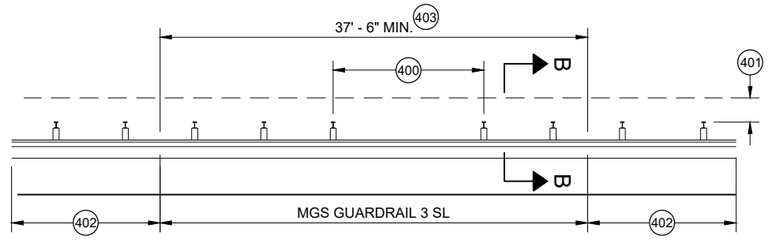
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

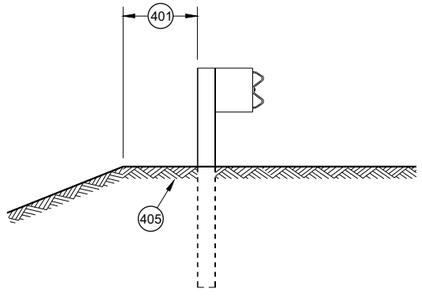


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

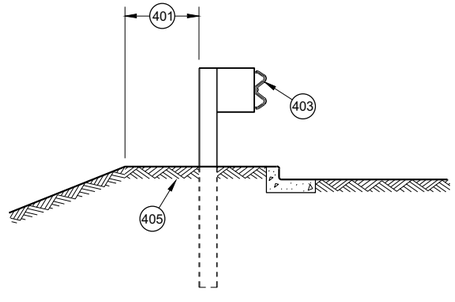


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

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



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

6

SDD 14B42 - 07d

SDD 14B42 - 07d

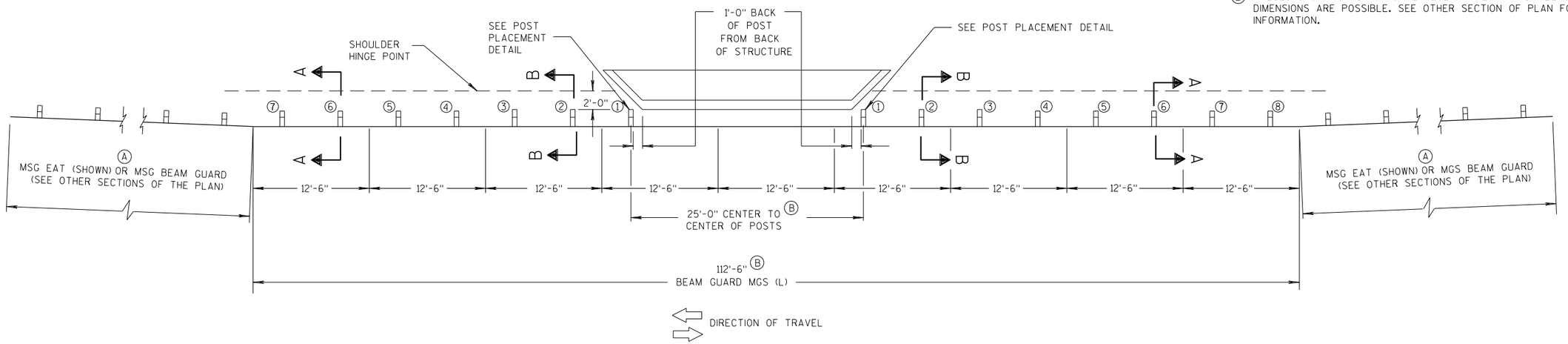
GENERAL NOTES

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

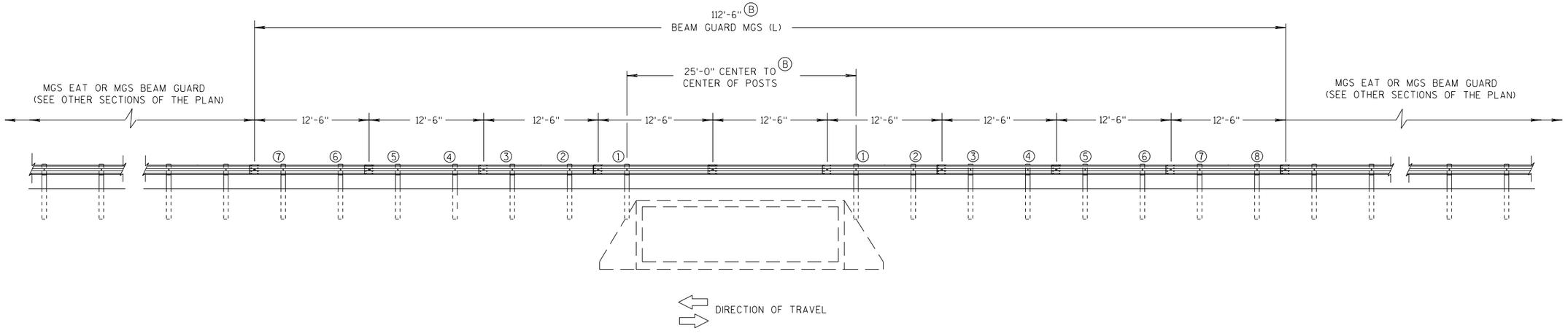
SEE SDD 14 B 42 FOR MORE DETAILS.

(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

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

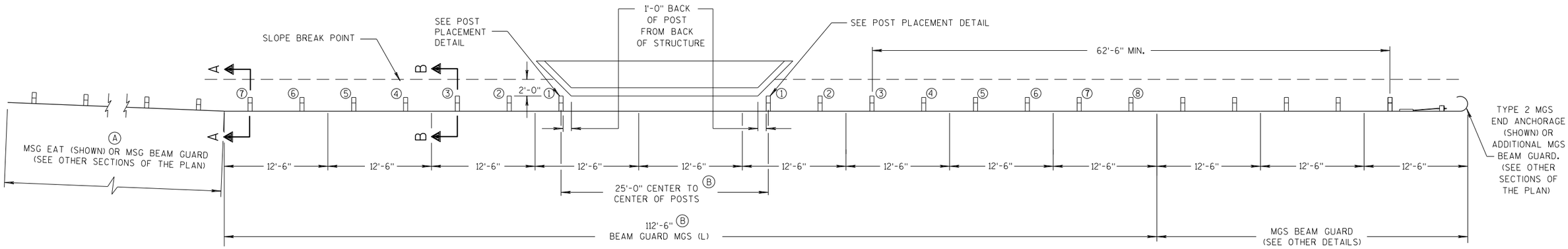
GENERAL NOTES

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

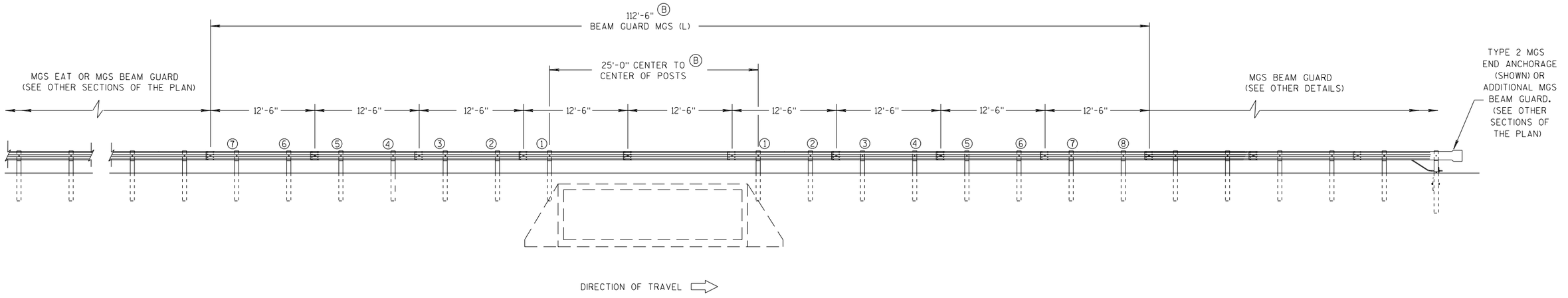
SEE SDD 14 B 42 FOR MORE DETAILS.

(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.



PLAN VIEW



ELEVATION VIEW

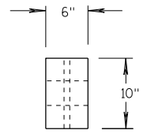
MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) ONE-WAY TRAFFIC

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)

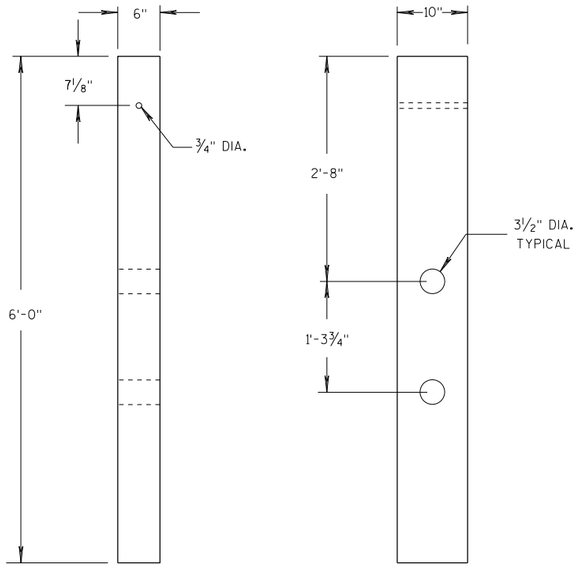
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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

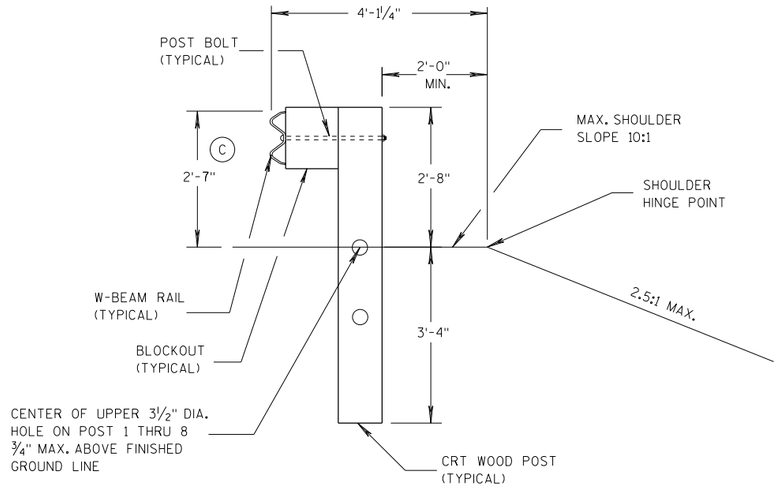


PLAN VIEW



FRONT VIEW SIDE VIEW

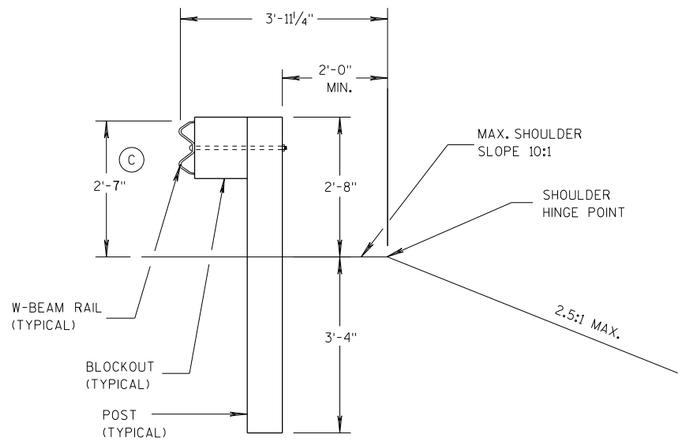
CRT WOOD POST



SECTION B-B

POSTS NO. 1-3

SEE OTHER DETAILS



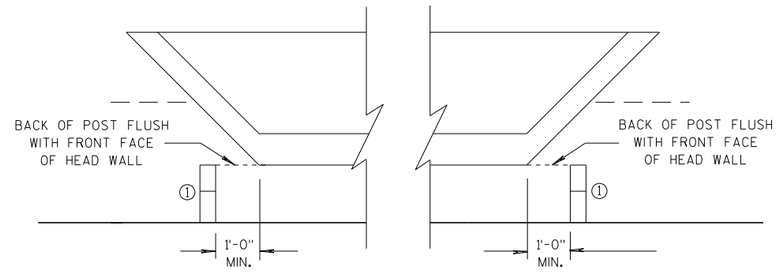
SECTION A-A

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
07/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

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

6

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

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

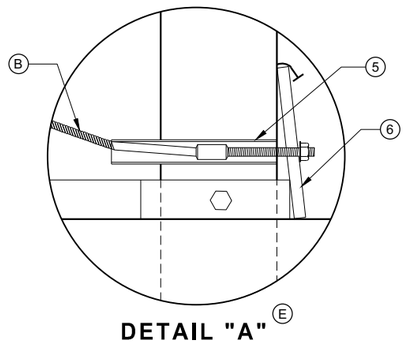
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

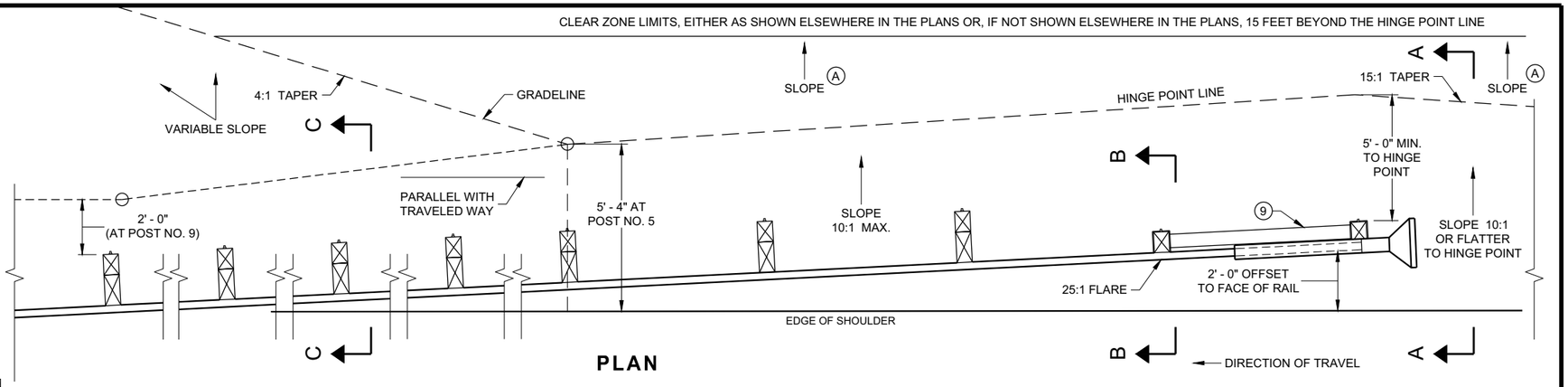
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

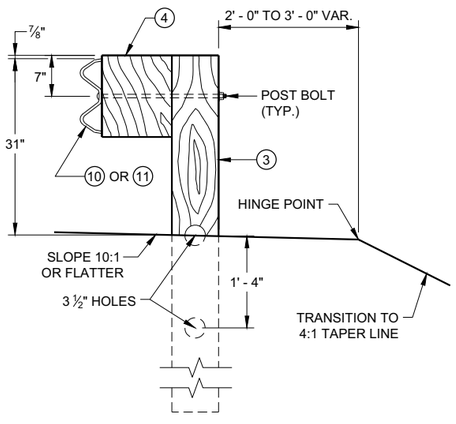
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.

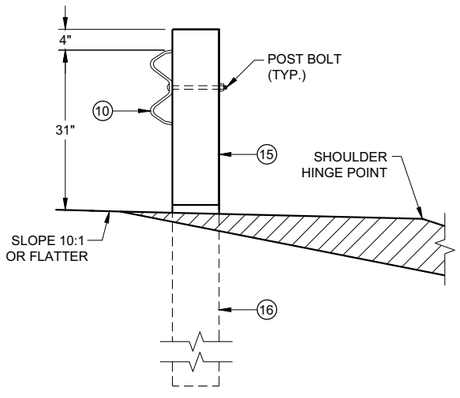


DETAIL "A" (E)

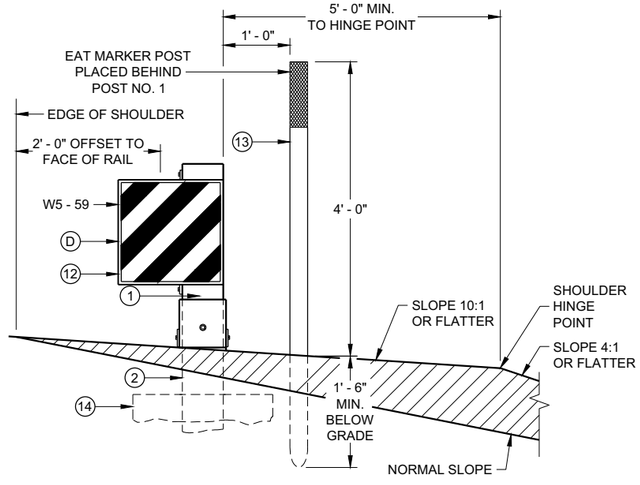




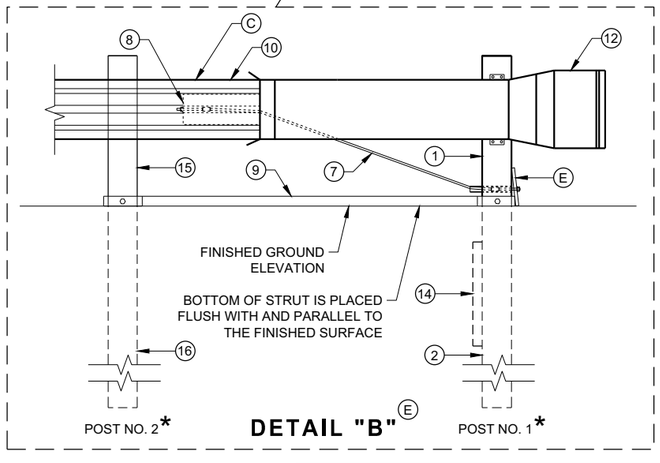
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

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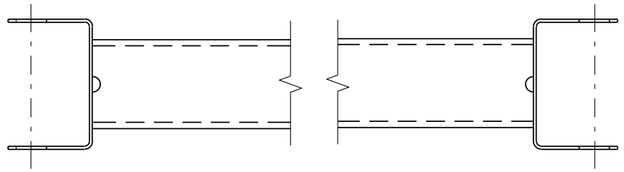
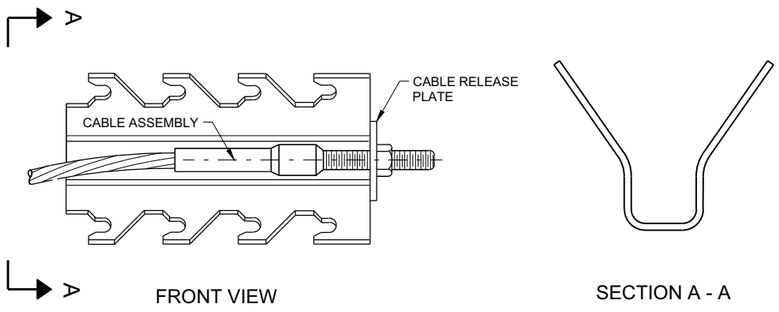


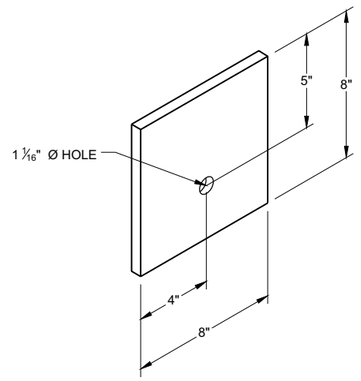
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

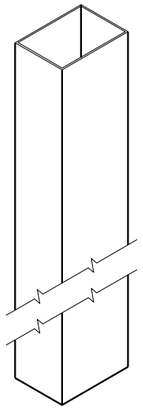
6

SDD 14B44 - 04b

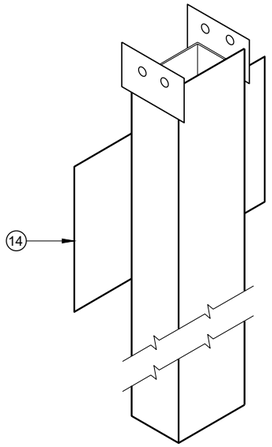
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

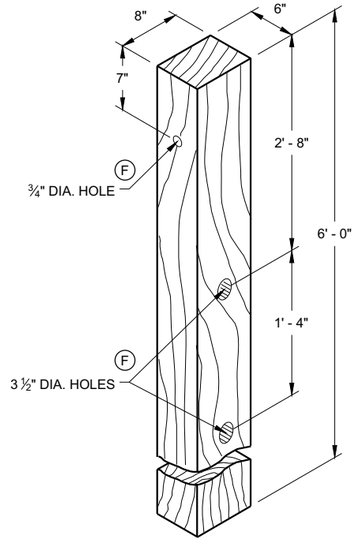
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA



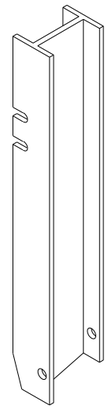
UPPER POST NO. 1 (1) (E)



LOWER POST NO. 1 (2) (E)



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



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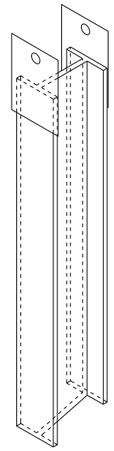
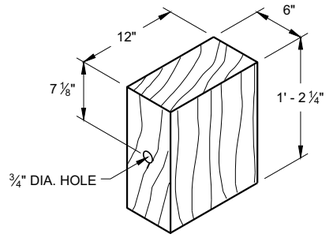
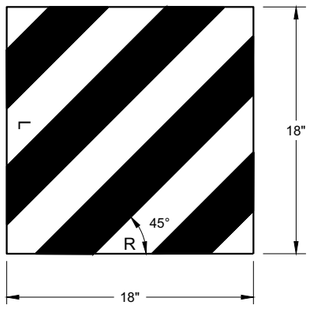


LOWER POST NO. 2 (16) (E)

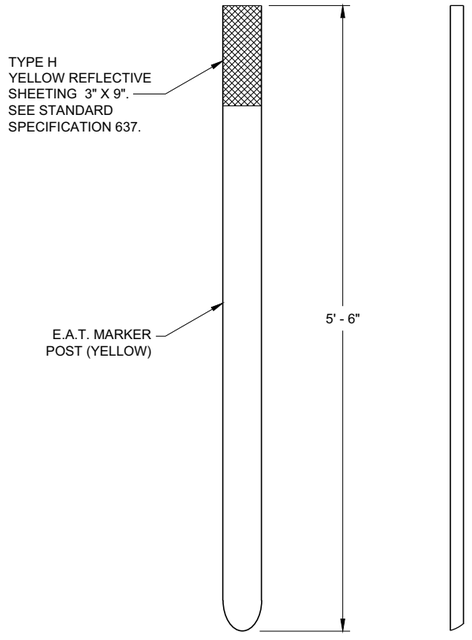


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



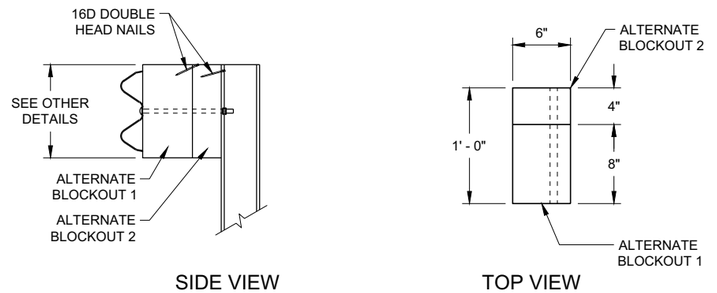
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

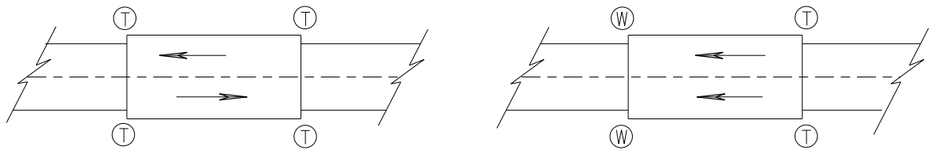
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

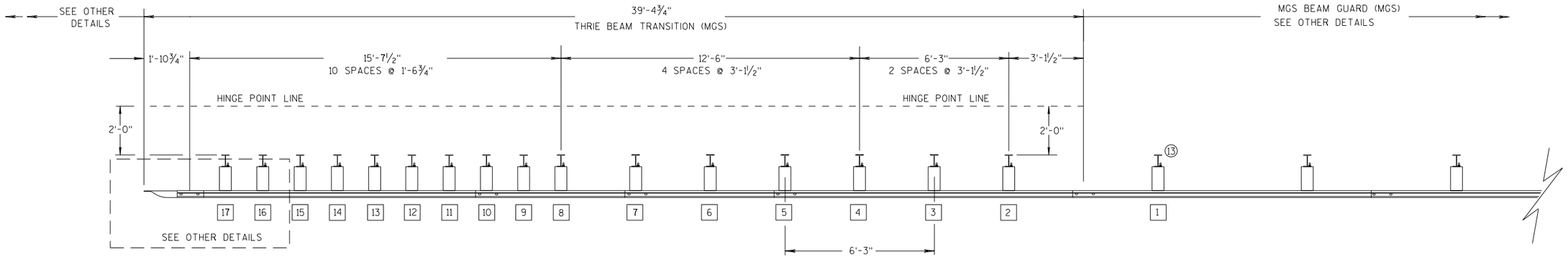
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

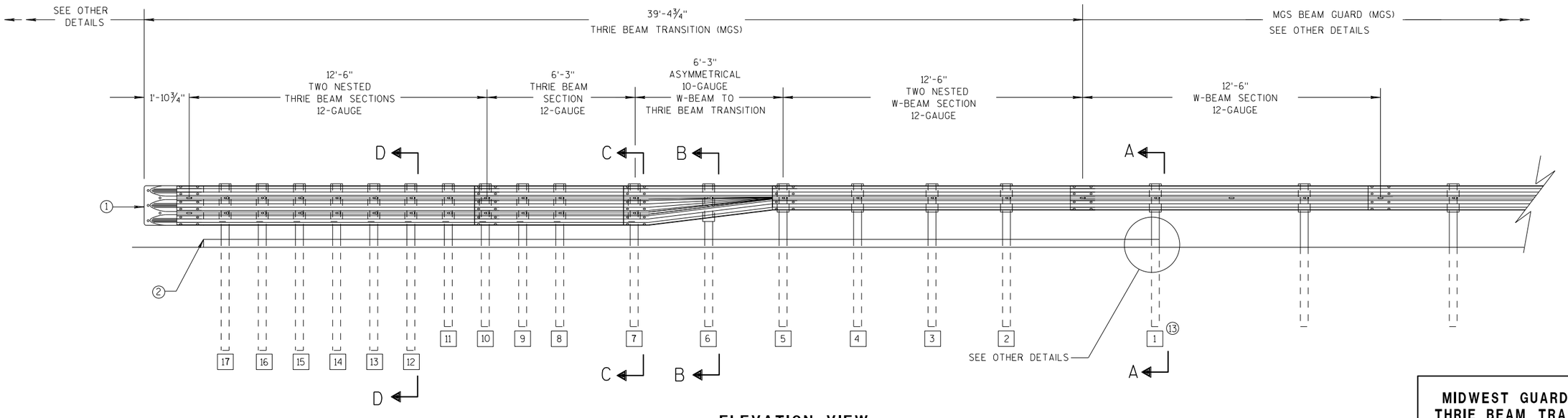
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-5a

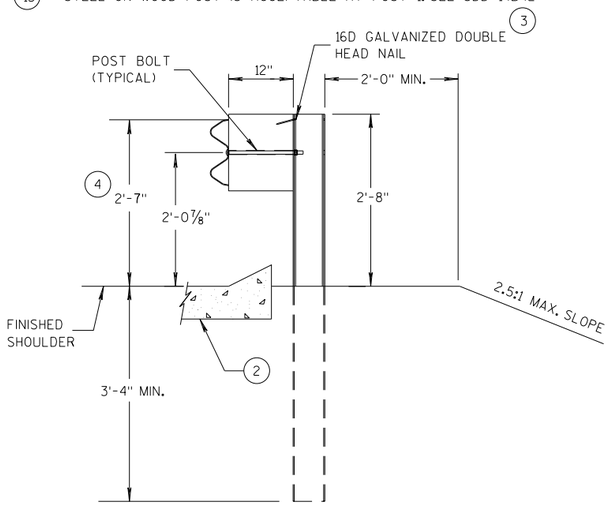
GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

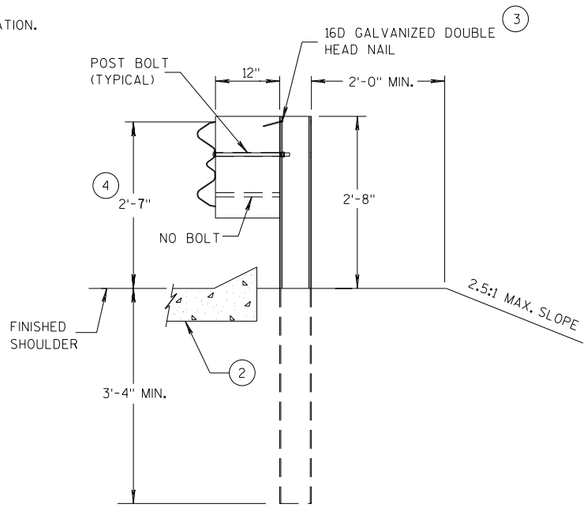
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



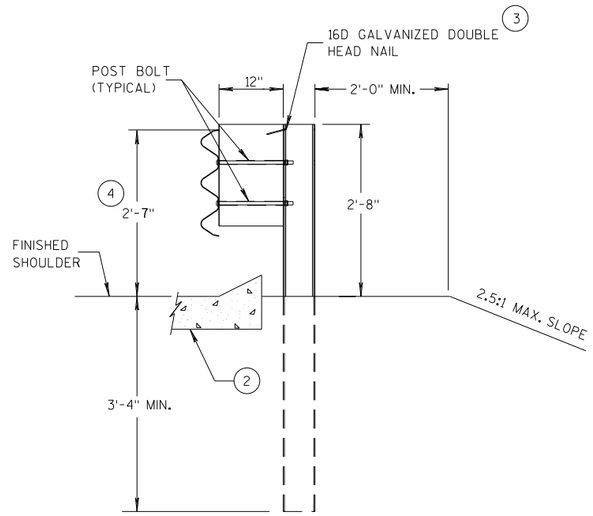
SECTION A-A (13)

POSTS 1-5



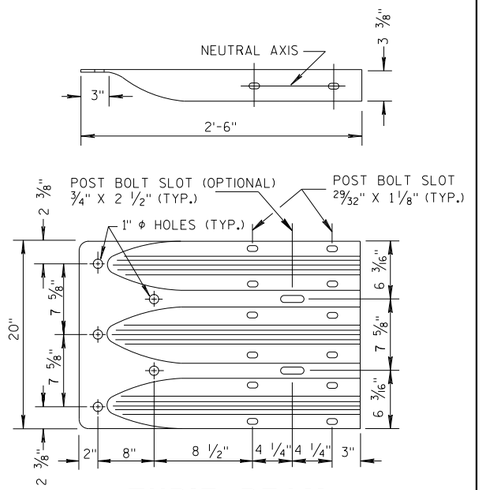
SECTION B-B

POST 6

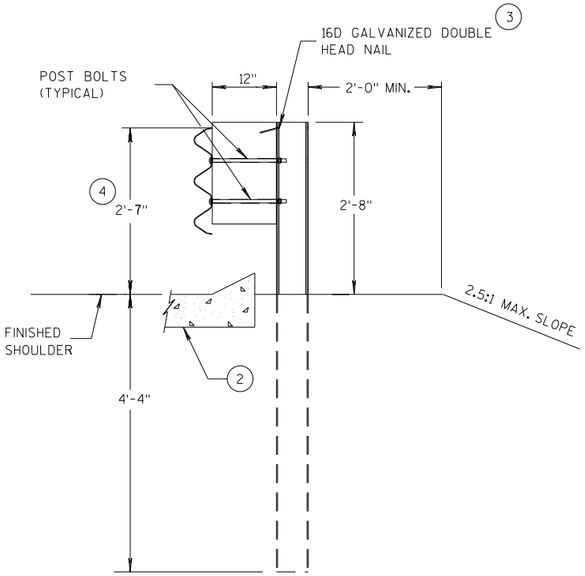


SECTION C-C

POSTS 7-11

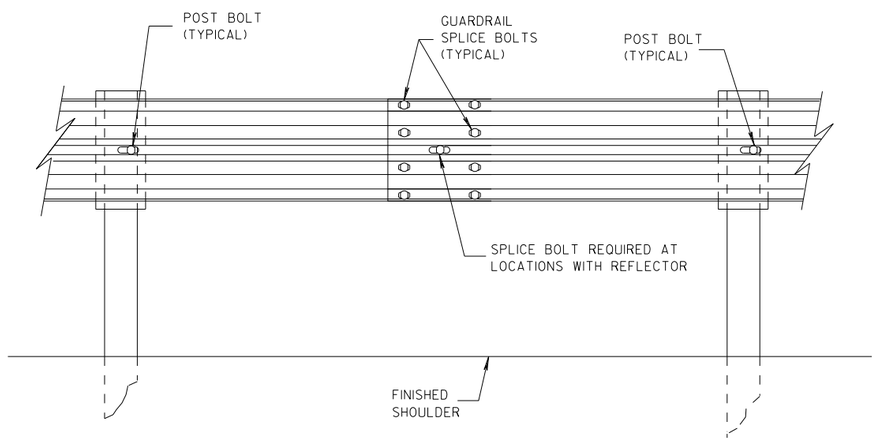


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

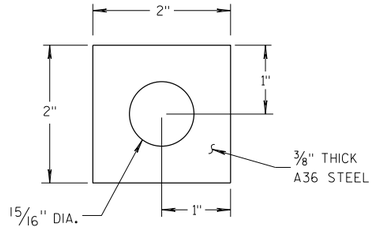
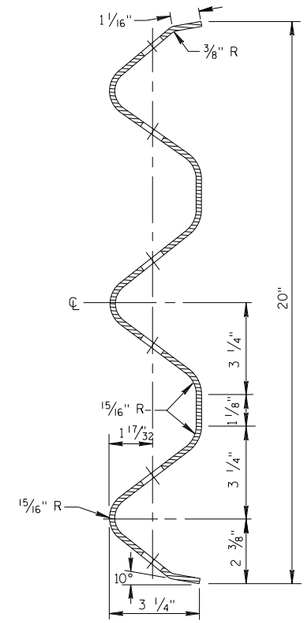


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 189

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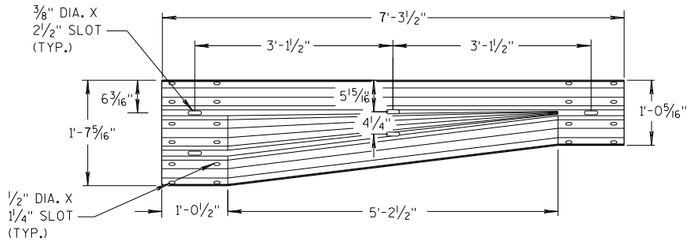
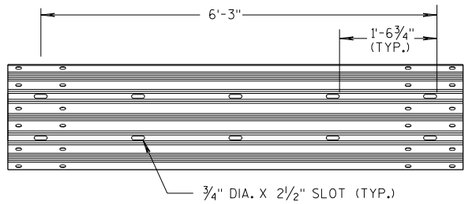
S.D.D. 14 B 45-5b

6

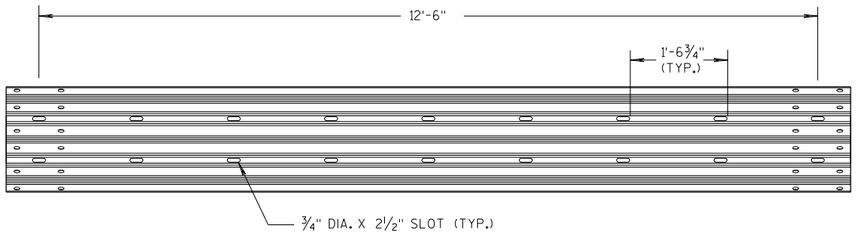
S.D.D. 14 B 45-5b



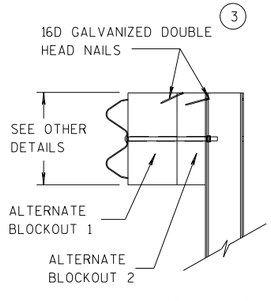
W-BEAM TO THRIE BEAM TRANSITION SECTION



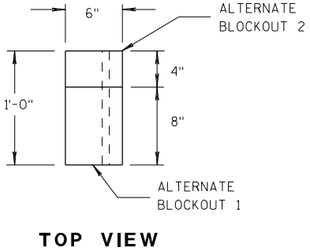
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

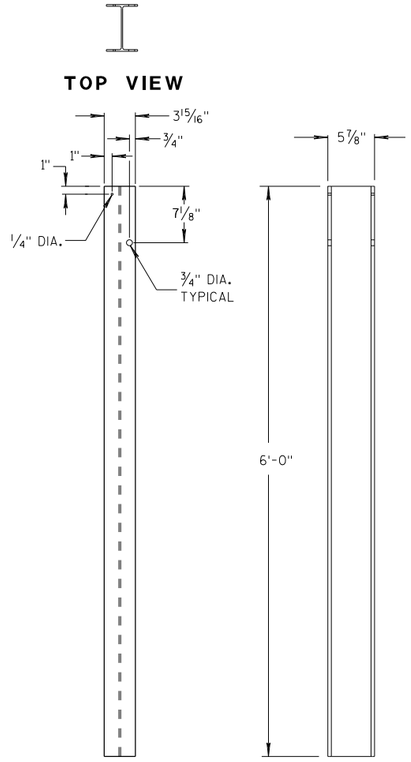


SIDE VIEW



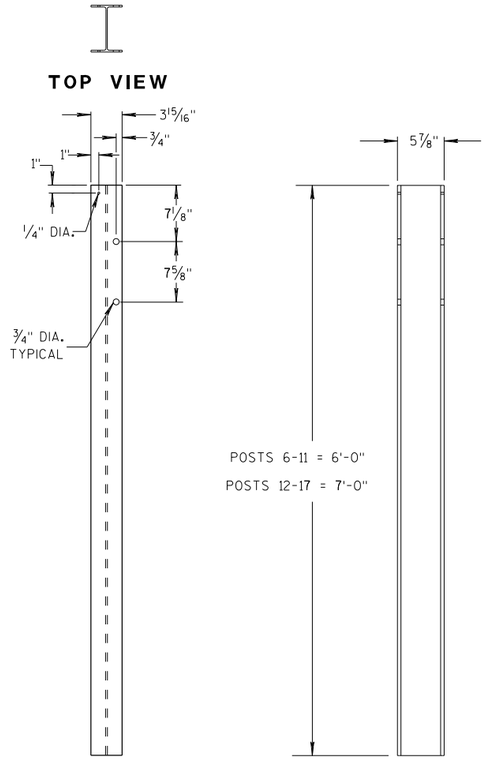
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



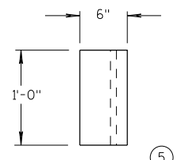
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

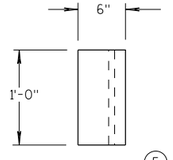


FRONT VIEW SIDE VIEW

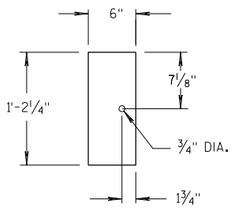
STEEL POSTS 6-17



TOP VIEW (5)

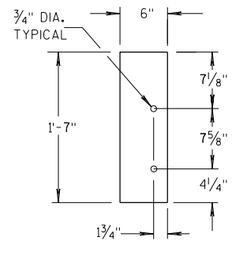


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

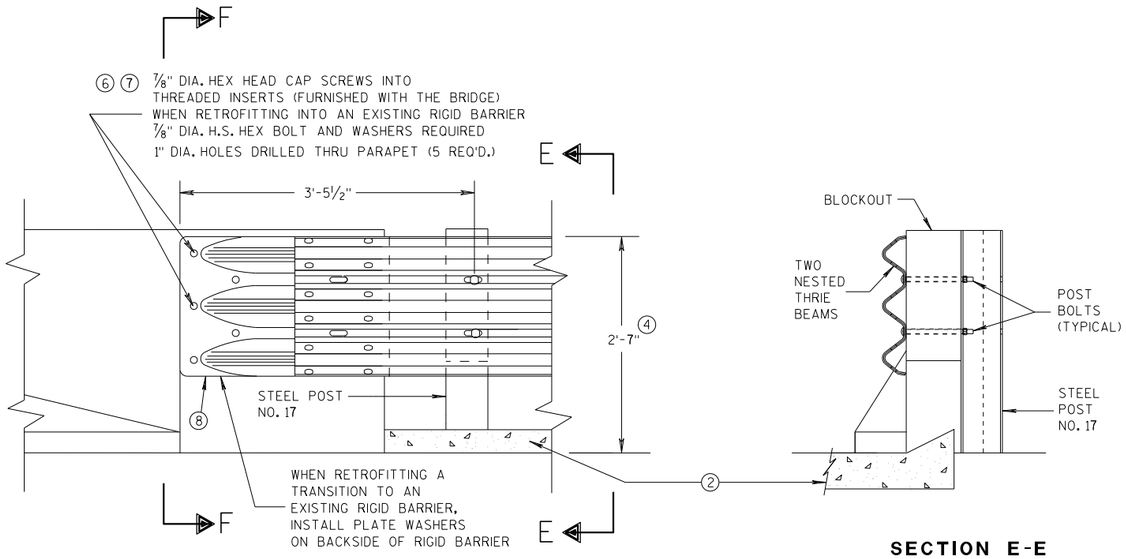
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

S.D.D. 14 B 45-5c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

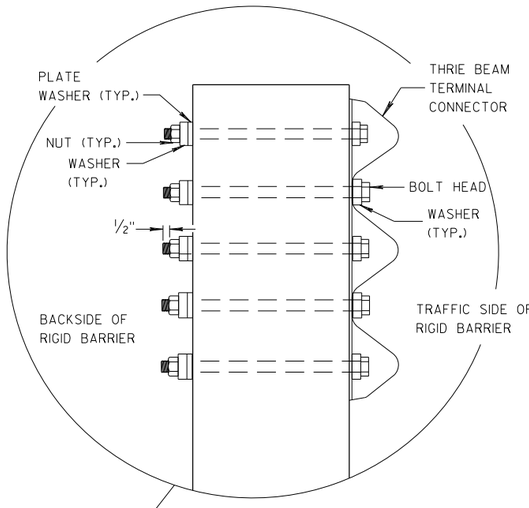
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

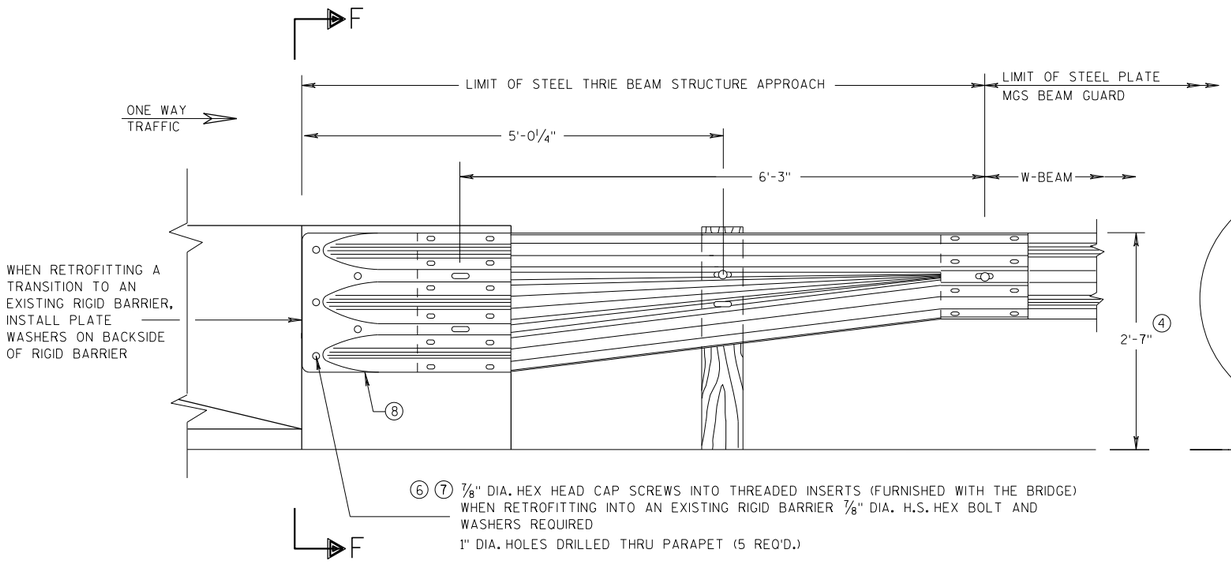
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

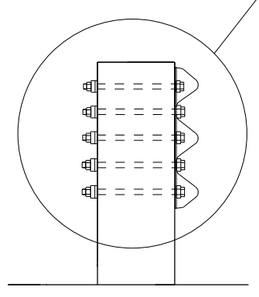
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

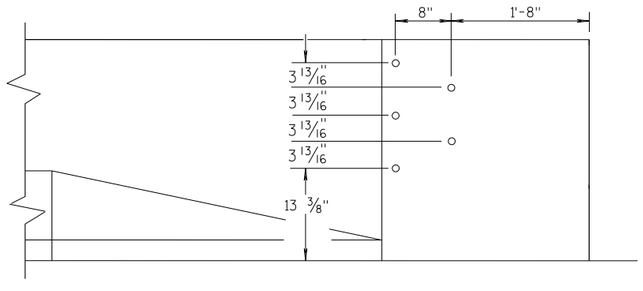




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D
UNIT SUPERVIS
NT
FHWA

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S.D.D. 14 B 45-5d

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S.D.D. 14 B 45-5d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

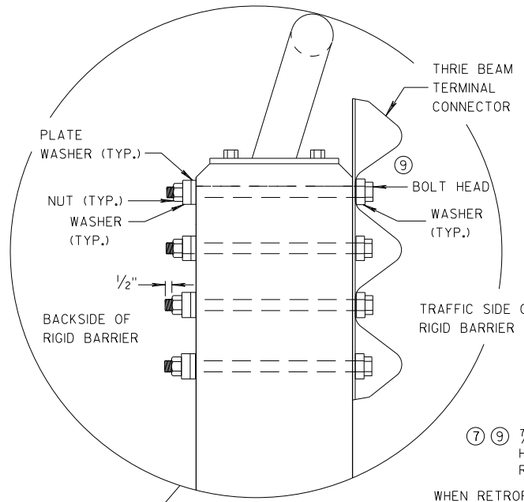
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

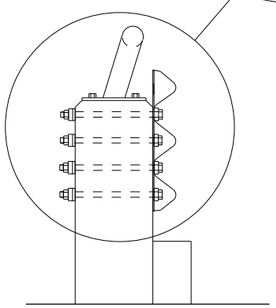
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

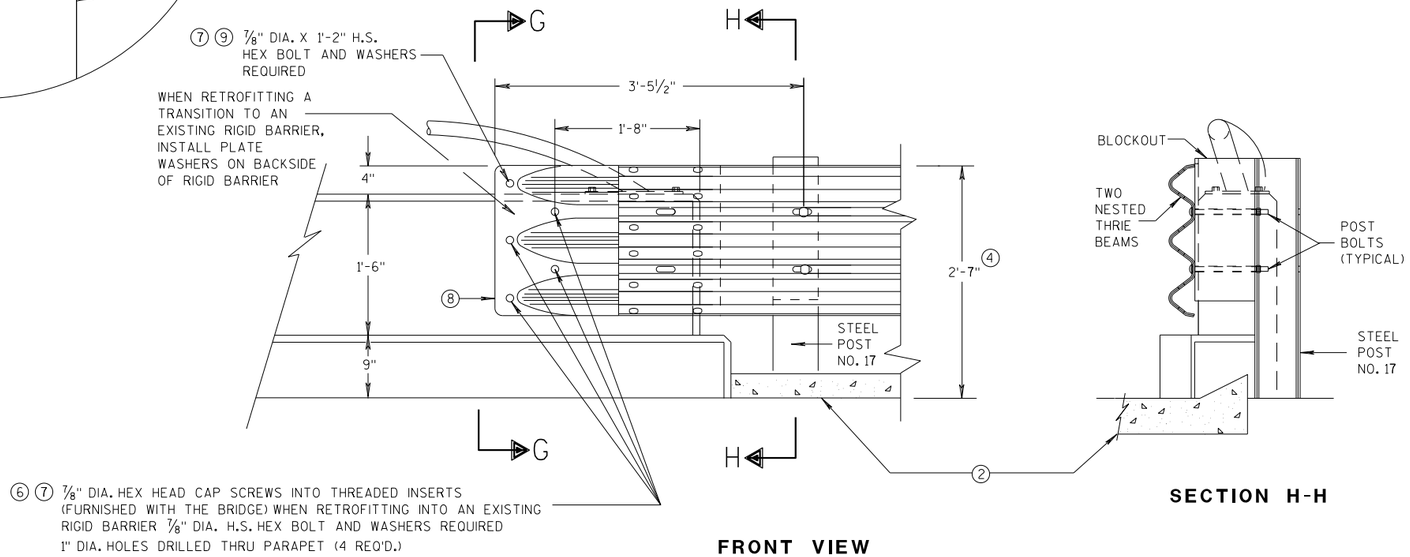
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





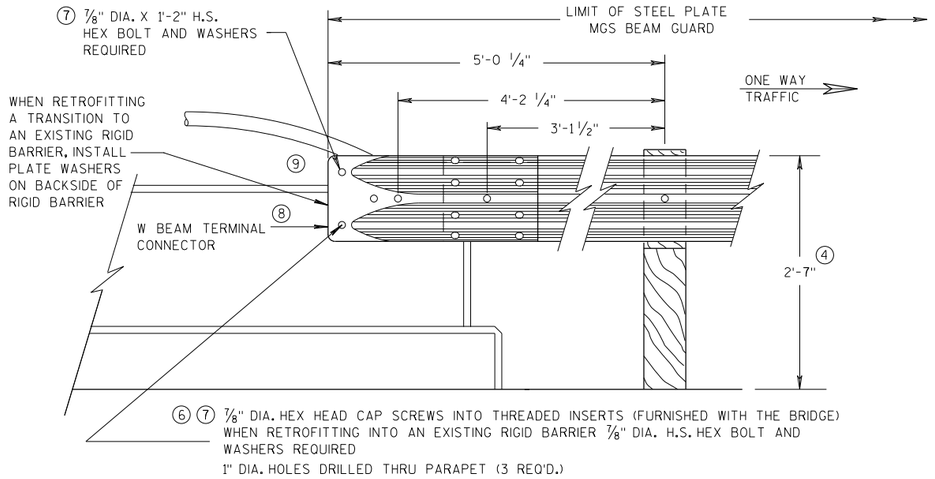
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D[illegible] UNIT SUPERVIS[illegible]
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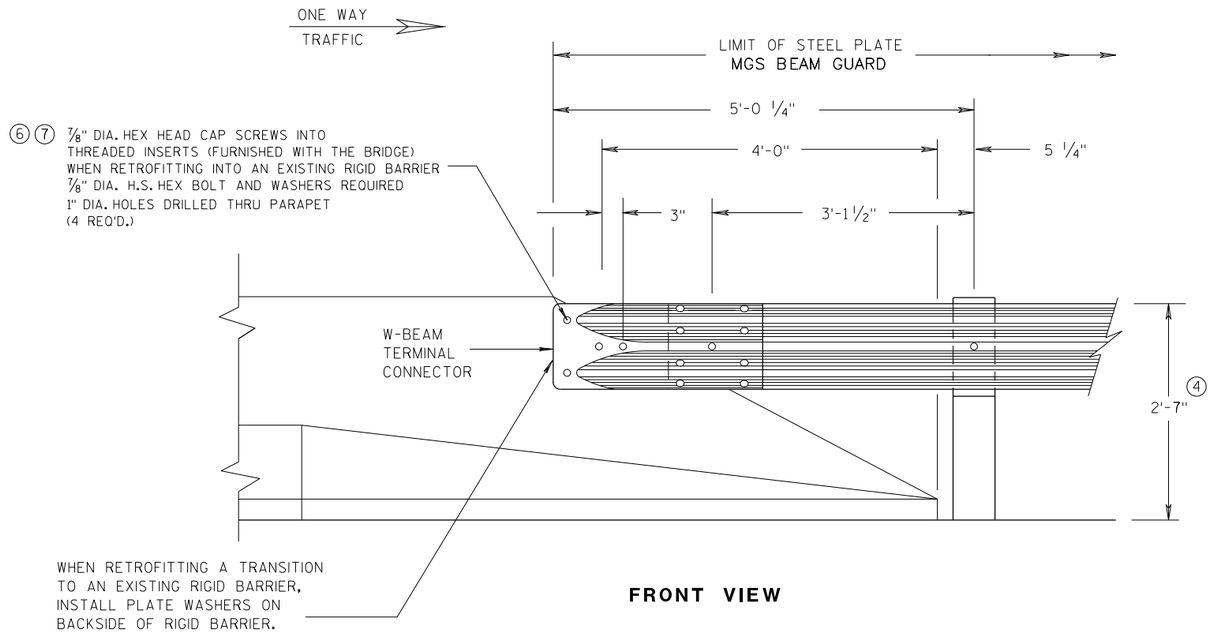


FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

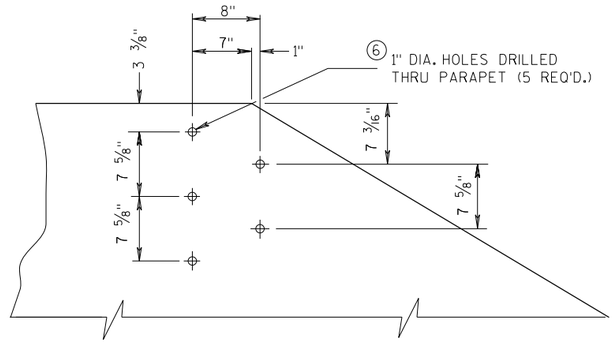
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

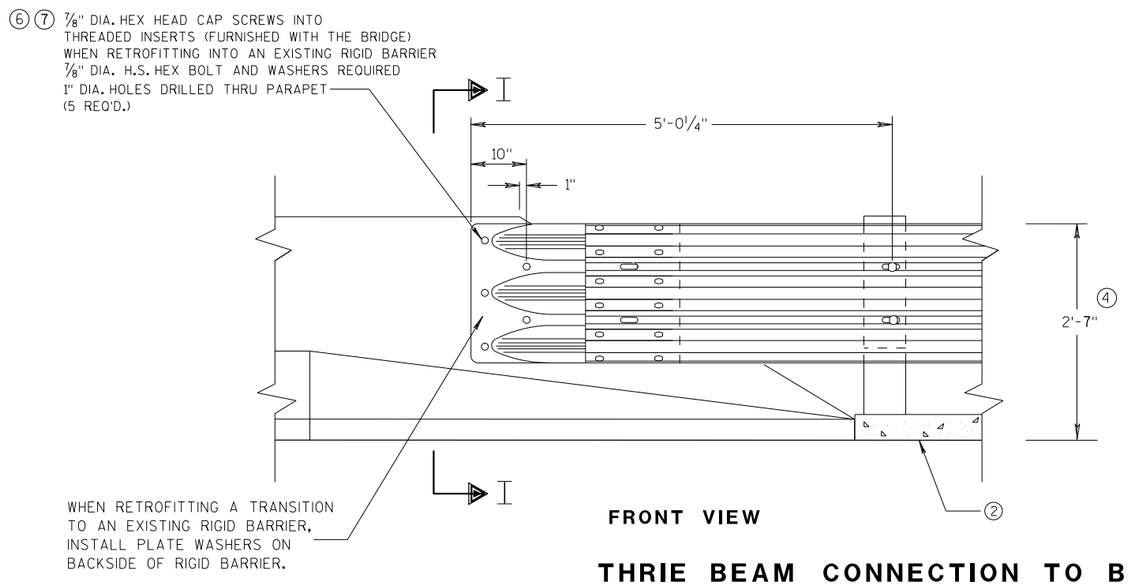
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

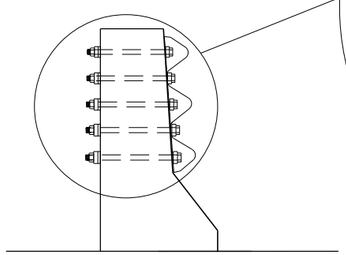
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



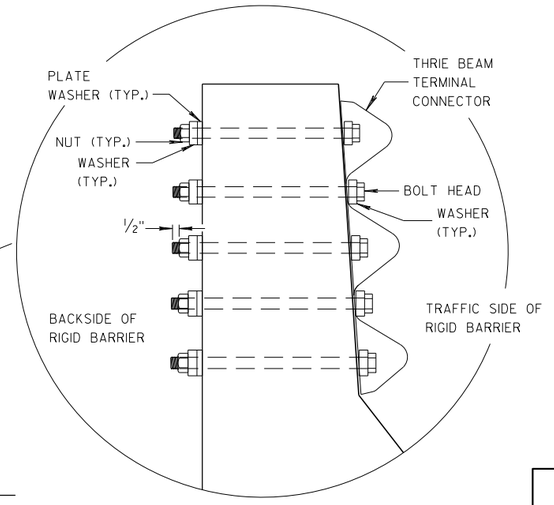
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS [illegible] UNIT SUPERVI[illegible]ENT
FHWA

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S.D.D. 14 B 45-5f

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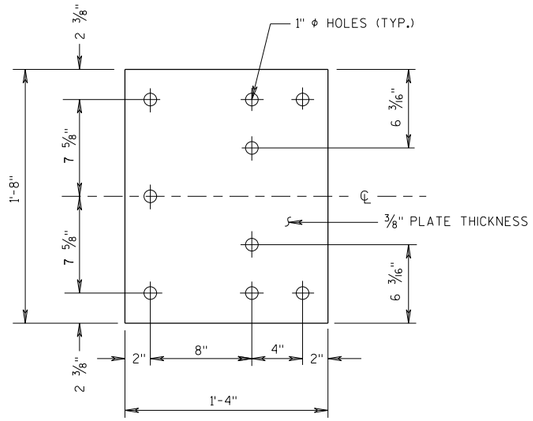
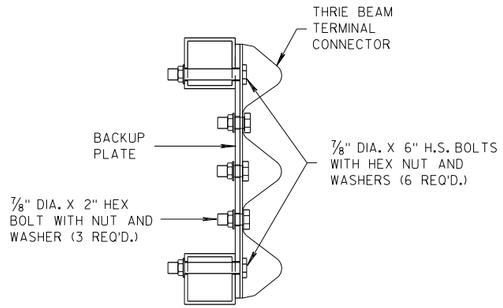
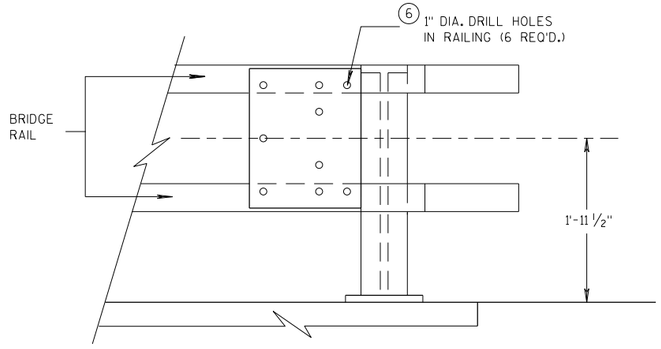


BACK-UP PLATE DETAIL



SECTION J-J

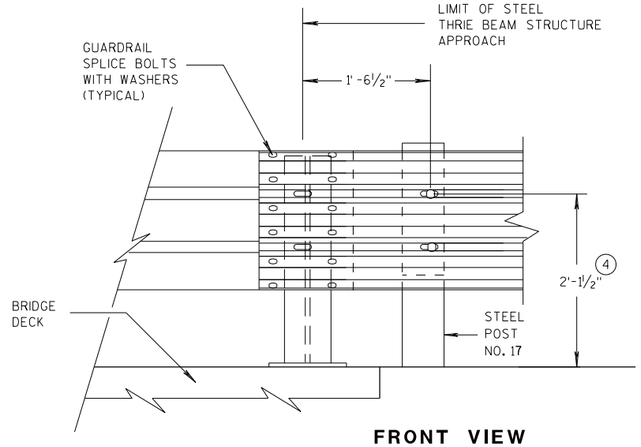


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

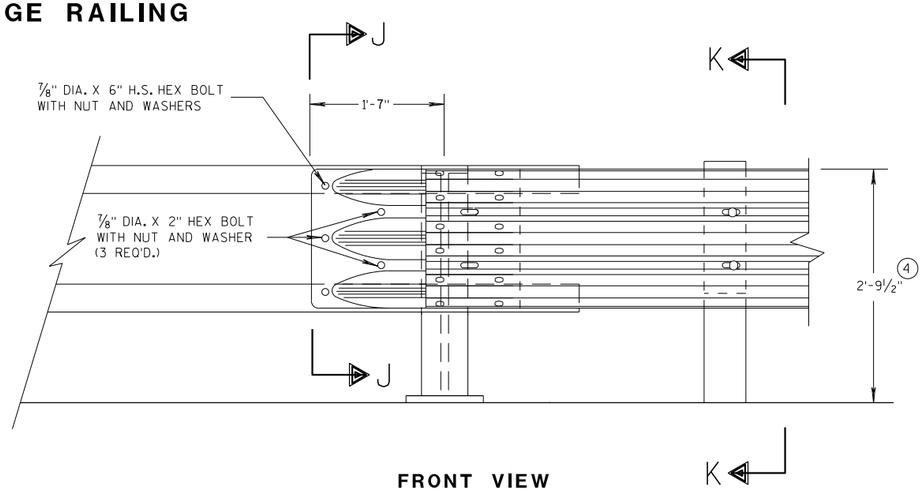
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

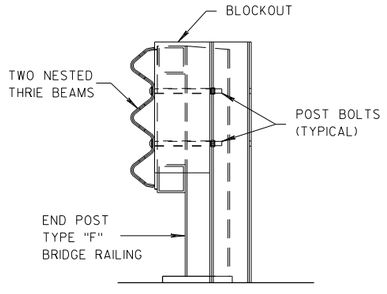


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 — DATE
FHWA

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194

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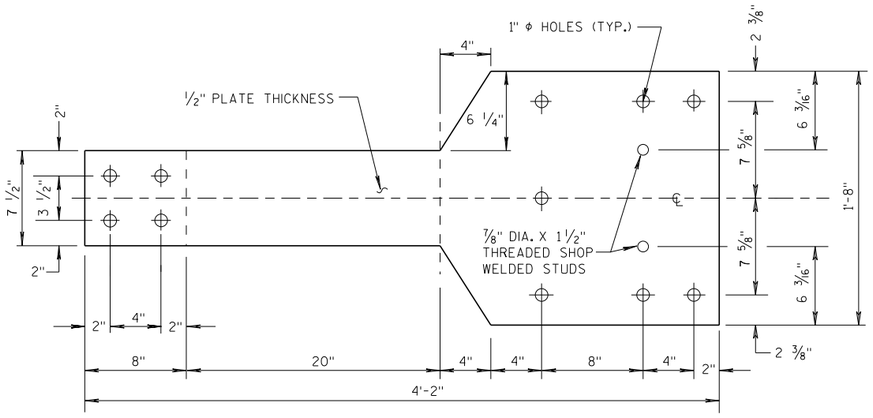
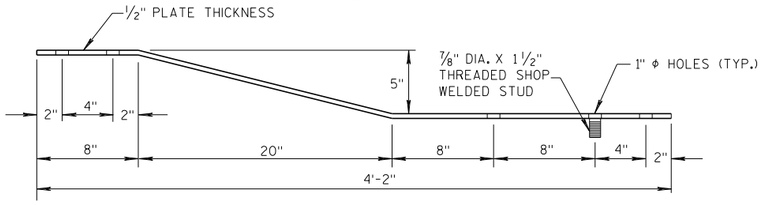
S.D.D. 14 B 45-5g

GENERAL NOTES

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

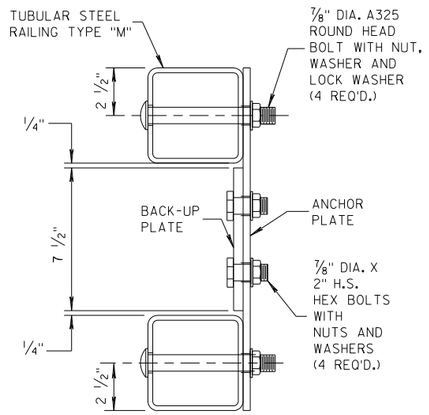


FRONT VIEW

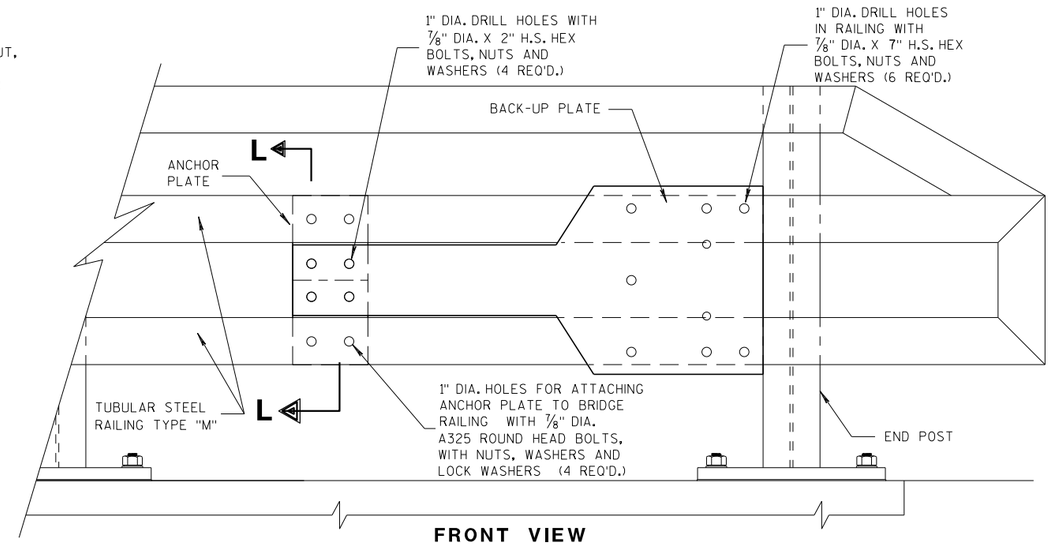


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

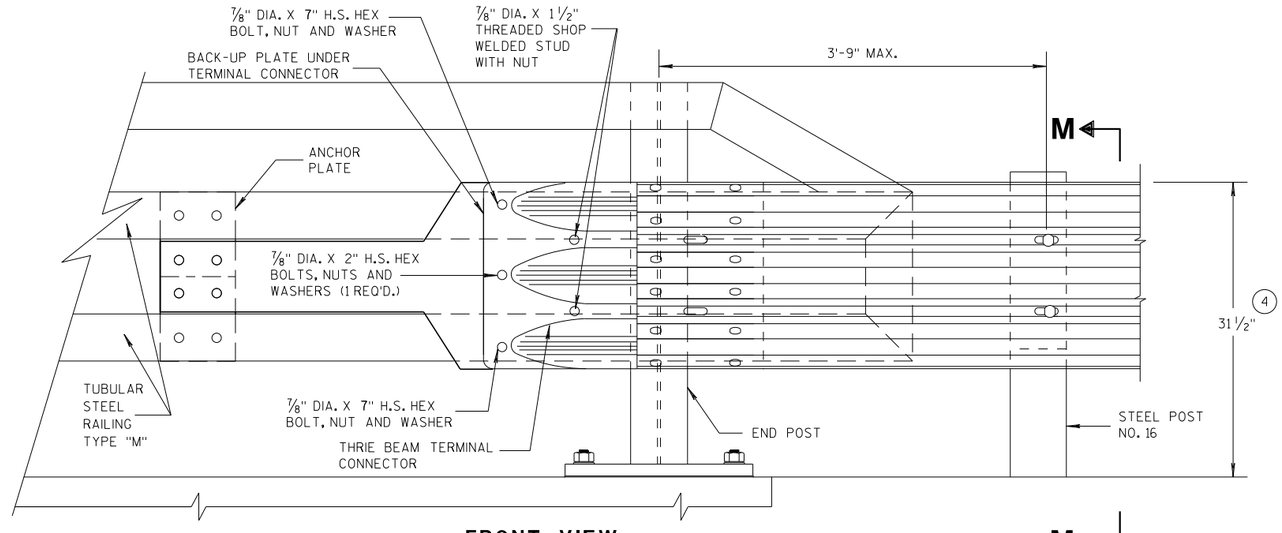


SECTION L-L

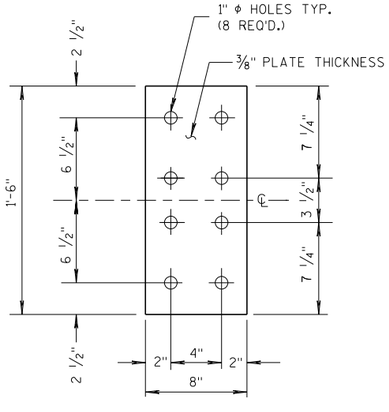


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

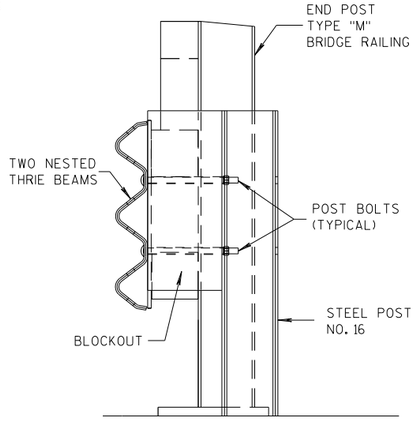


FRONT VIEW

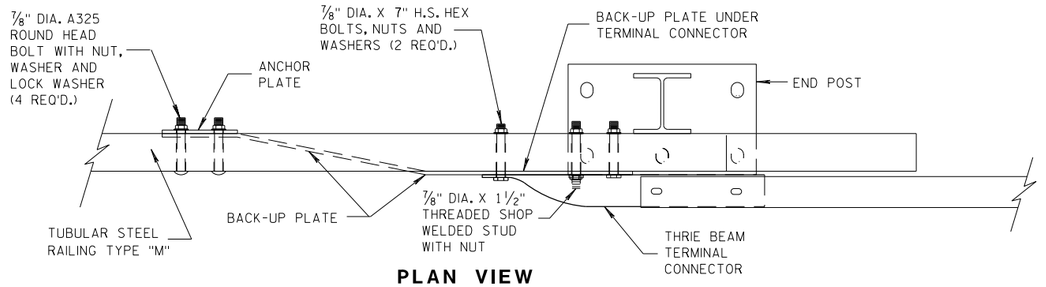


FRONT VIEW

ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVI ENT
FHWA

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S.D.D. 14 B 45-5h

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

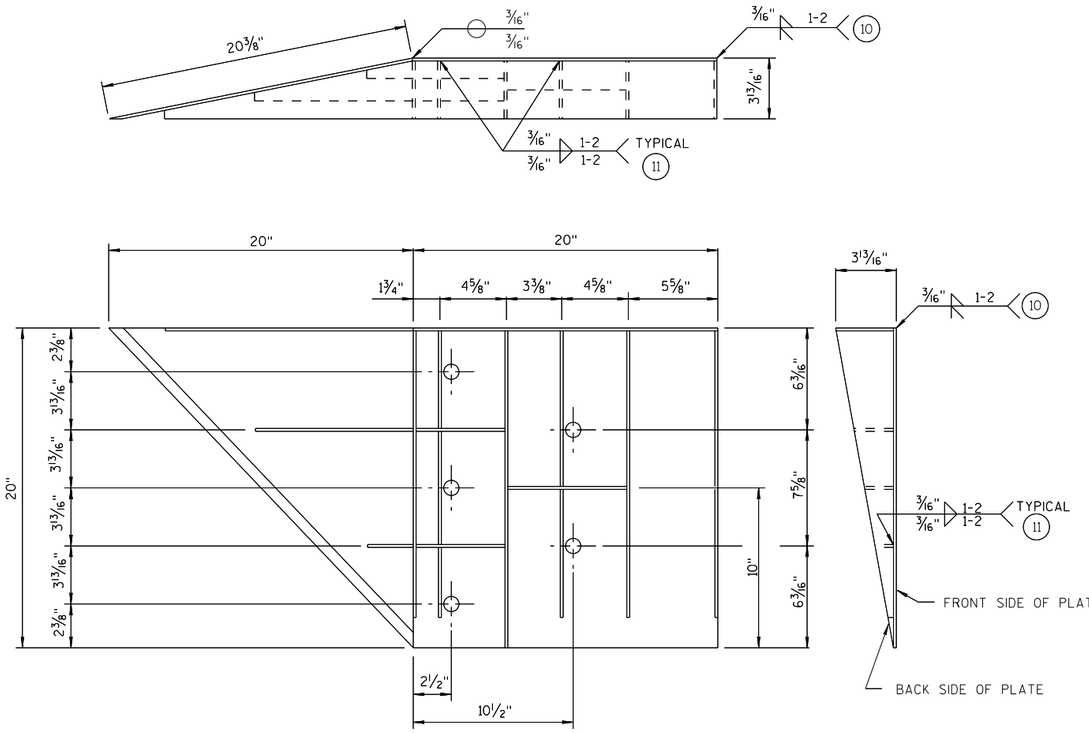
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

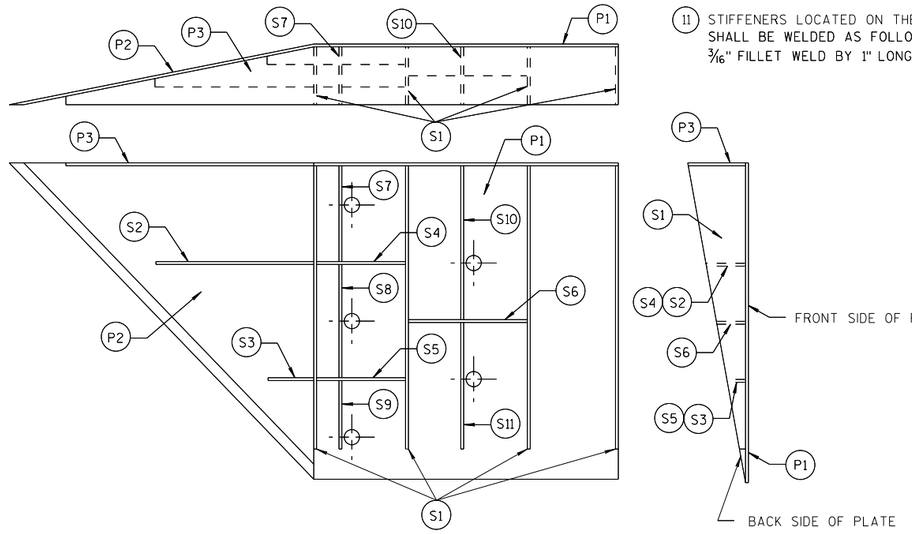


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

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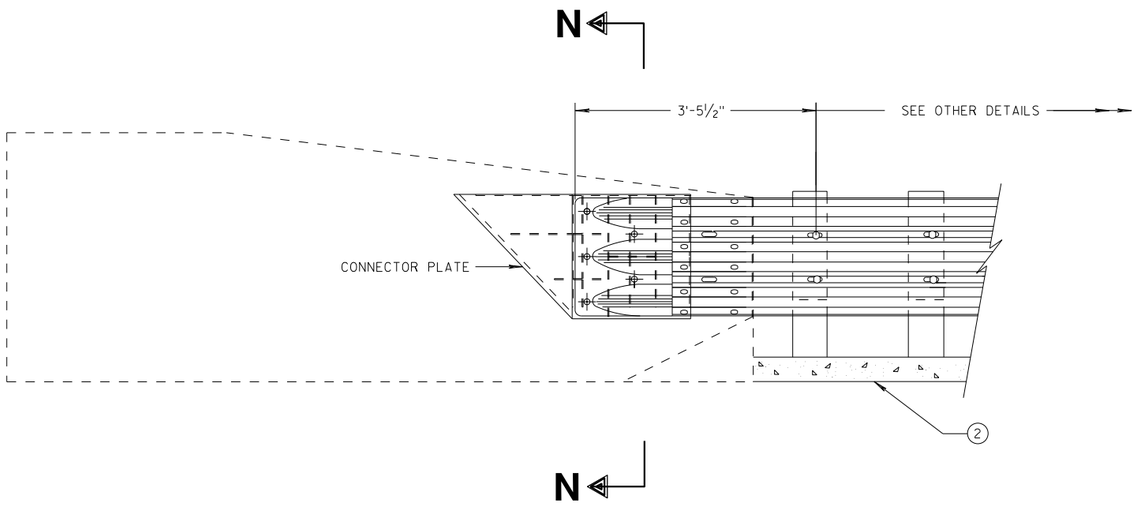
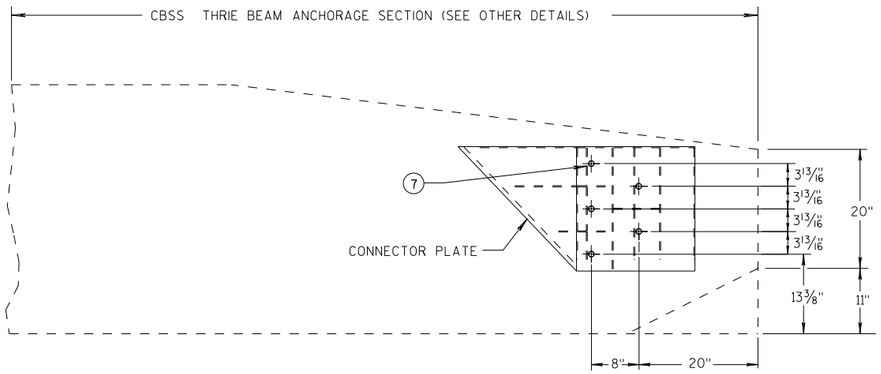
S.D.D. 14 B 45-5i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



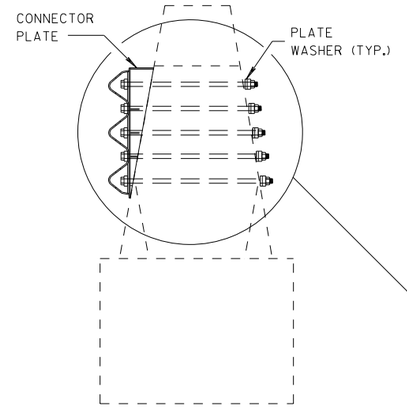
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

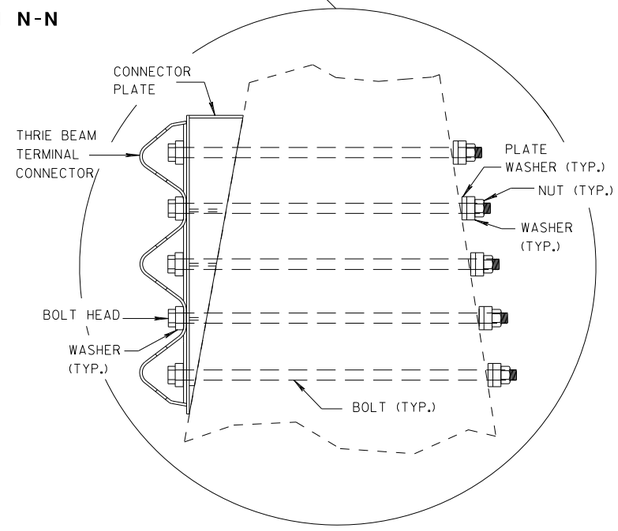
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DI
UNIT SUPERVIS
FHWA

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S.D.D. 14 B 45-5j

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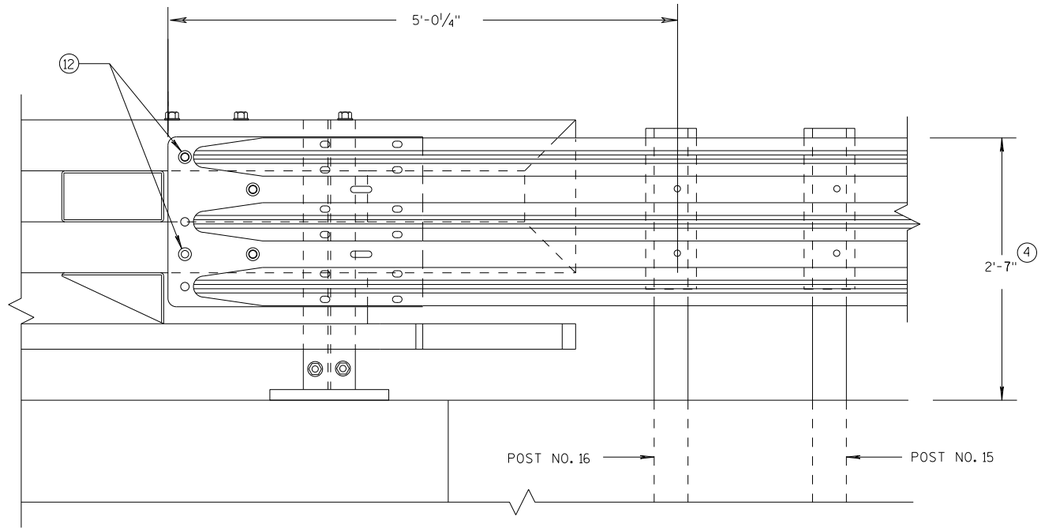
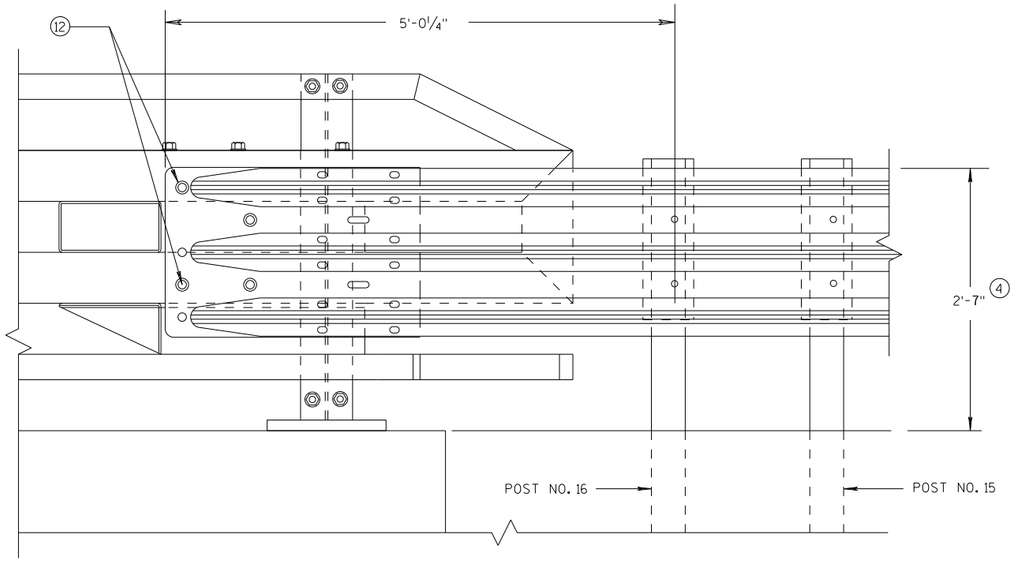
S.D.D. 14 B 45-5j



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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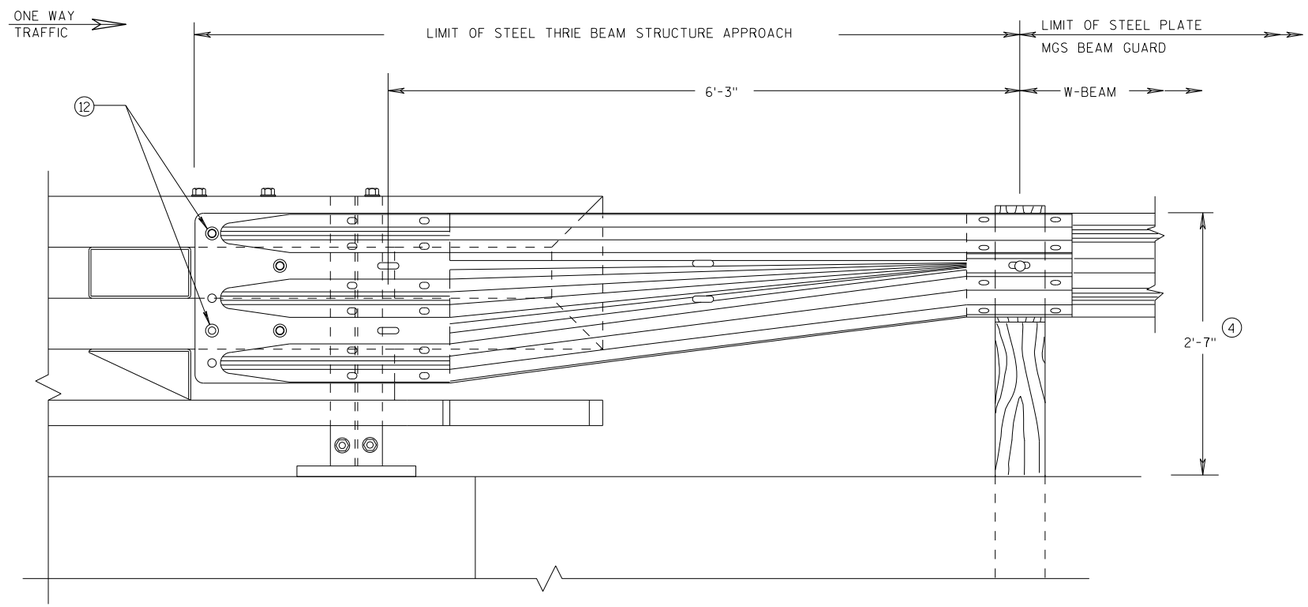
S.D.D. 14 B 45-5k



FRONT VIEW

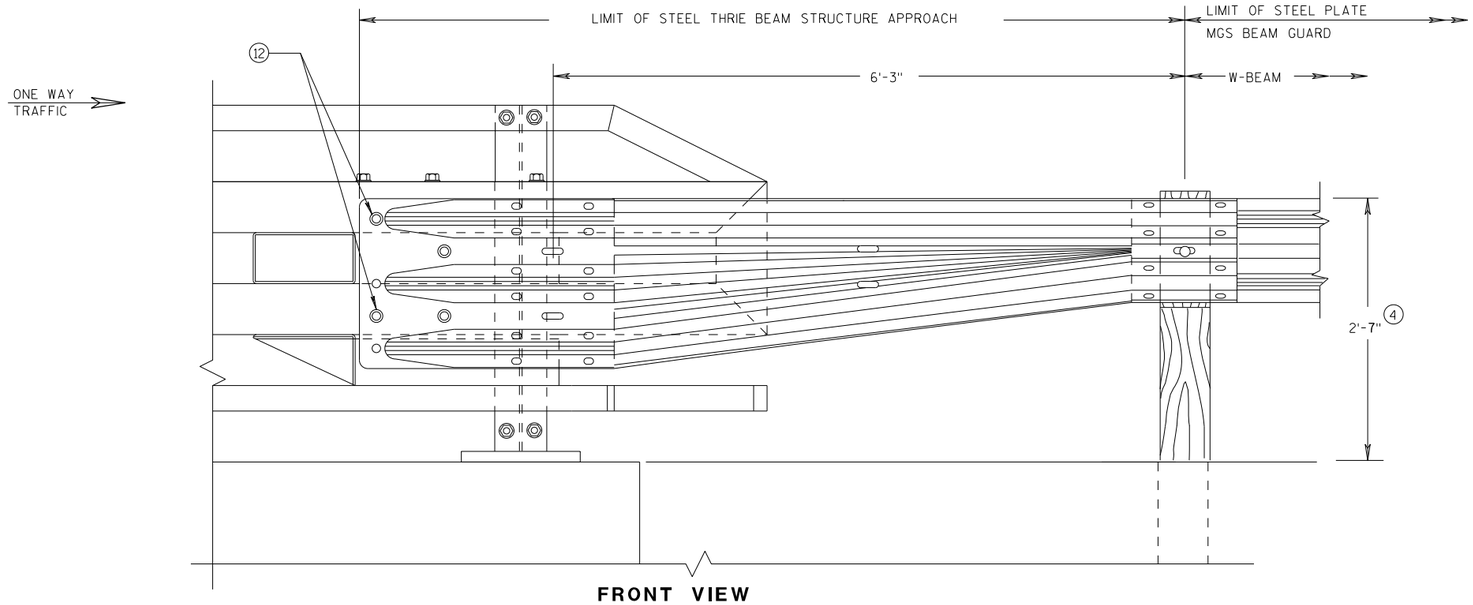
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS D
UNIT SUPERVIS

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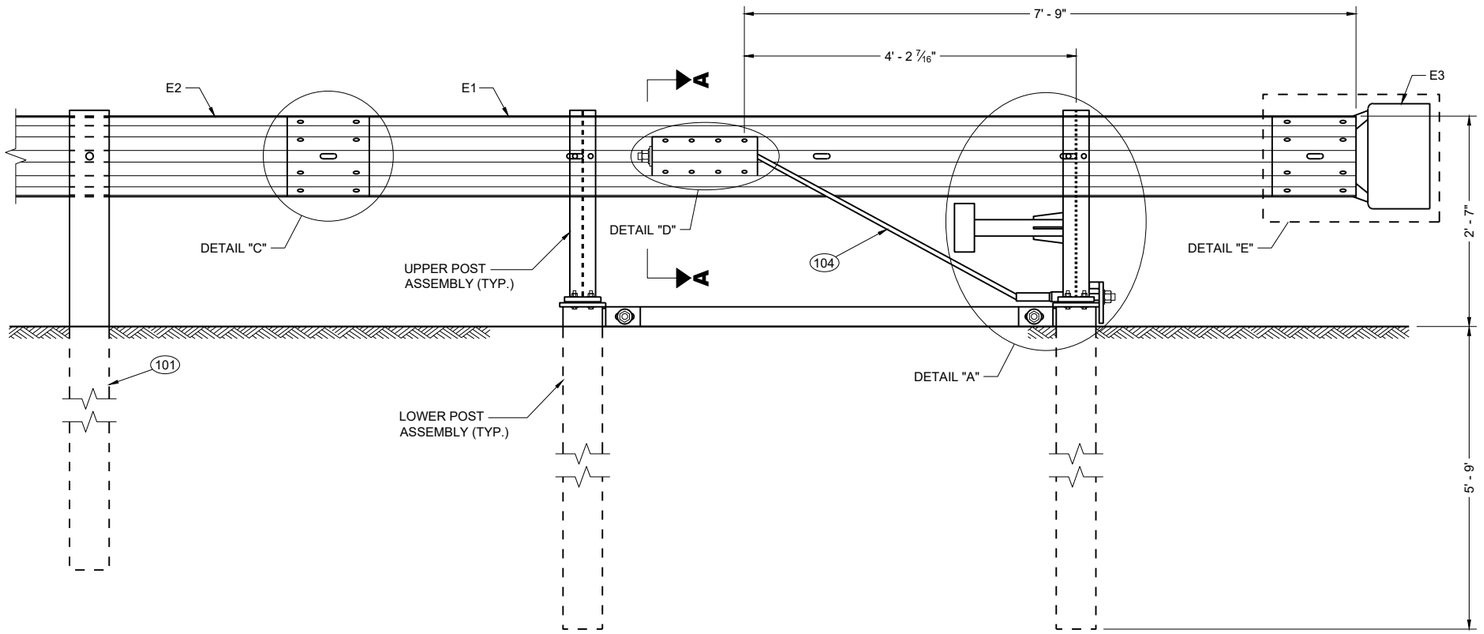
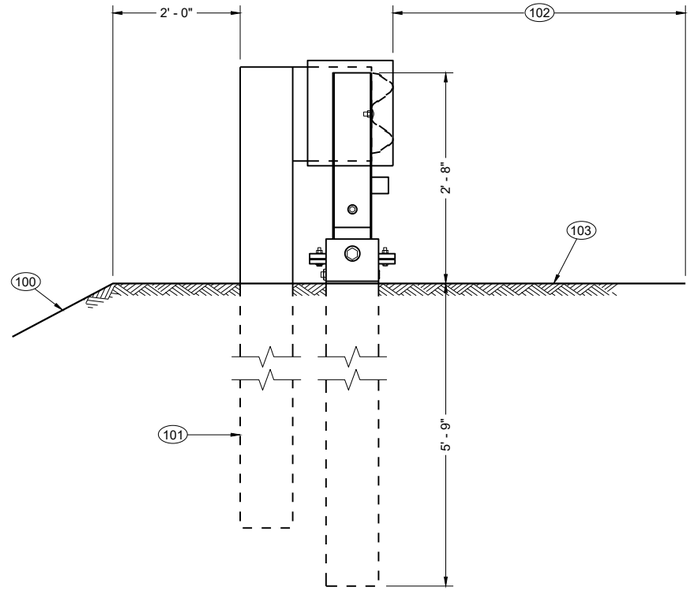
S.D.D. 14 B 45-5L



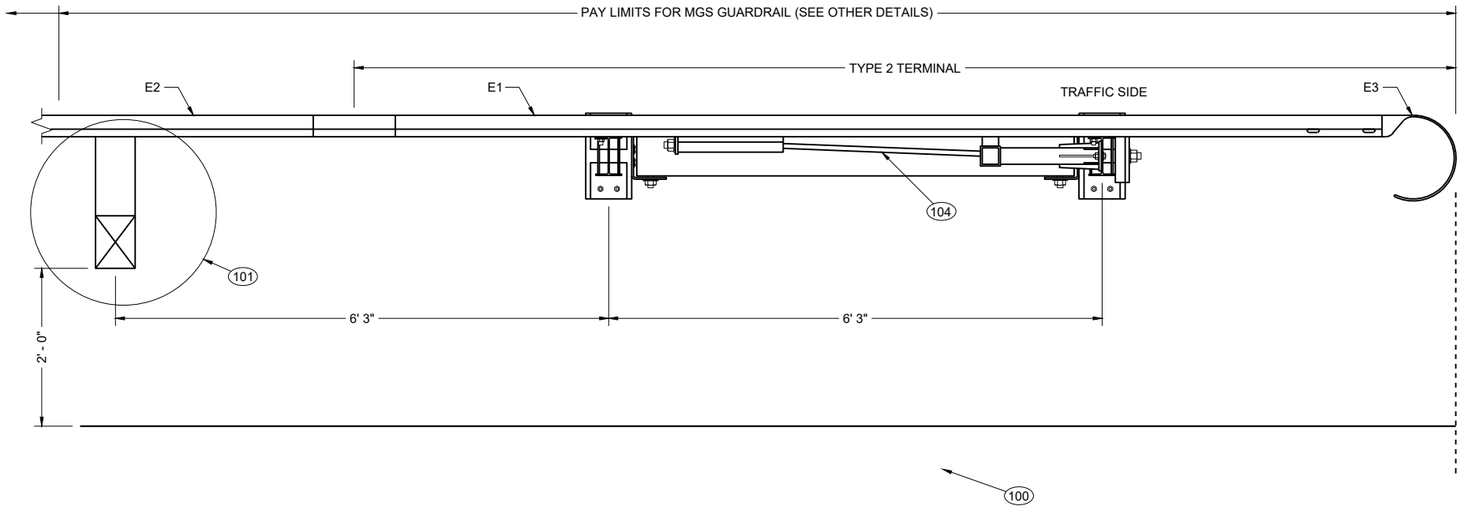
BACK VIEW

TYPE 2 TERMINAL



SIDE VIEW

TYPE 2 TERMINAL



TOP VIEW

TYPE 2 TERMINAL

GENERAL NOTES

SEE SDD 14B42 FOR MORE INFORMATION

(100) MAXIMUM SLOPE IS 2.5:1.

(101) SEE SDD 14B42 FOR MORE INFORMATION.

(102) SHOULDER

(103) MAXIMUM SLOPE IS 10:1.

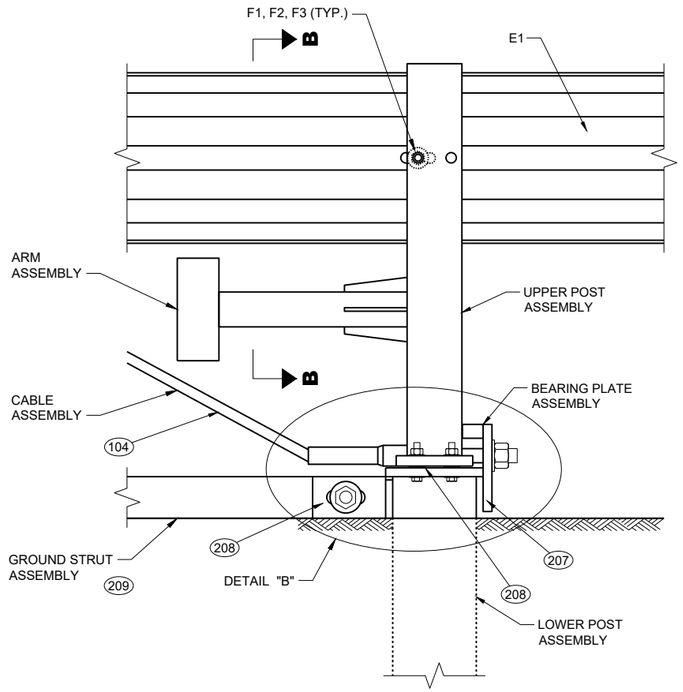
(104) AFTER ASSEMBLY, CABLE IS TO BE TIGHTENED WITHOUT TWISTING THE CABLE.

MIDWEST GUARDRAIL SYSTEM (MGS)
TYPE 2 TERMINAL

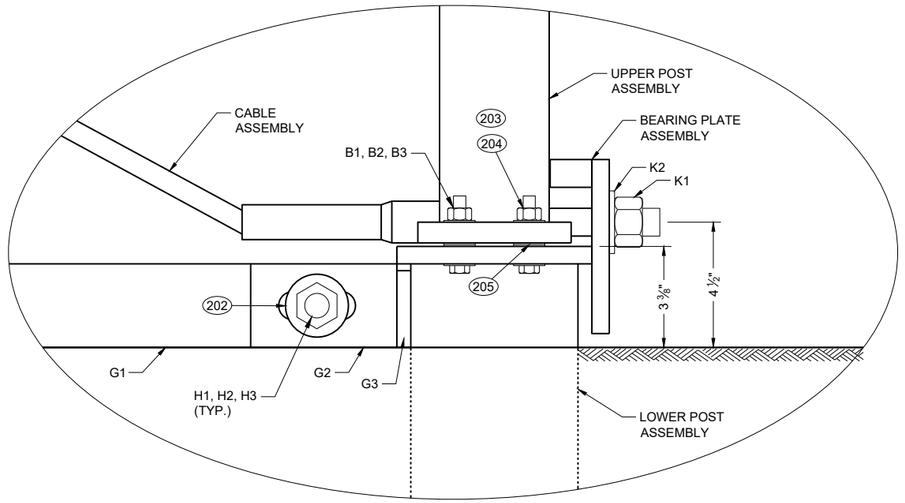
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B47-07a



DETAIL "A"



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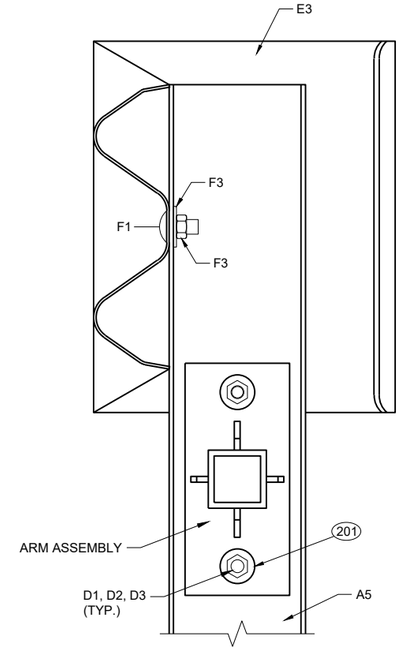
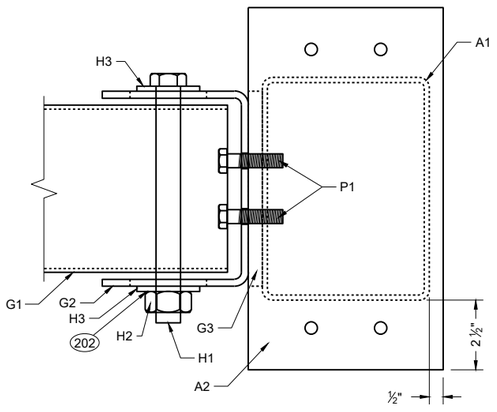
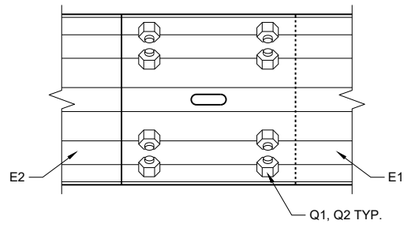


SECTION B - B

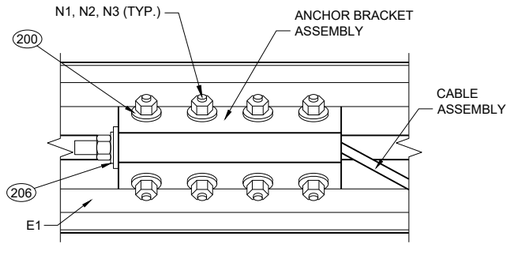


TOP VIEW

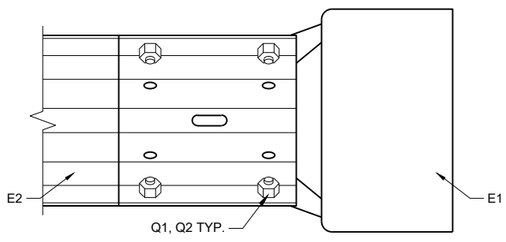
GROUND STRUT CONNECTION DETAIL



DETAIL "C"



DETAIL "D"



DETAIL "E"

GENERAL NOTES

200 INSTALL ONE WASHER UNDER BOLT HEAD AND RAIL AND ON WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

201 INSTALL ONE WASHER UNDER BOLT HEAD AND UPPER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND ARM PLATE.

202 INSTALL ONE WASHER UNDER BOLT HEAD AND GROUND STRUT CONNECTOR AND ONE WASHER BETWEEN NUT AND GROUND STRUT CONNECTOR.

203 INSTALL ONE WASHER UNDER BOLT HEAD AND LOWER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND UPPER POST ASSEMBLY.

204 TORQUE VALUE IS BETWEEN 60 - 75 FT-LB.

205 TWO WASHERS BETWEEN UPPER AND LOWER POST ASSEMBLY.

206 INSTALL ONE WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

207 NO MATERIAL IS TO BE PLACED AGAINST THE VERTICAL FACES OF BEARING PLATE.

208 PREVENT OR REMOVE MATERIALS THAT BLOCK ACCESS TO BOLTS FOR POST ASSEMBLIES AND GROUND STRUT.

209 PREVENT OR REMOVE MATERIALS THAT IMPEDE REMOVAL OF GROUND STRUT.

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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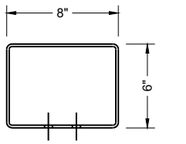
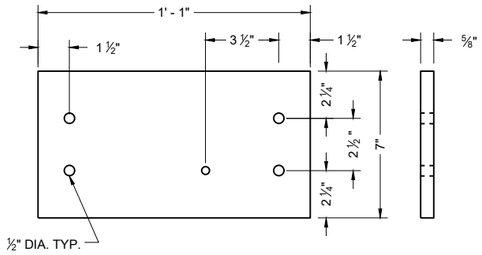
SDD 14B47-07b

GENERAL NOTES

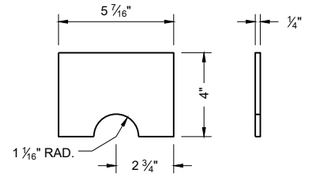
(300) TAP FOR 1/2" AFTER GALVANIZATION



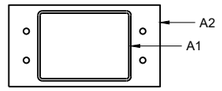
TOP VIEW



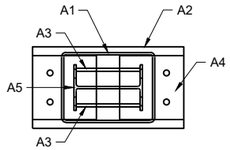
LOWER PLATE (A2)

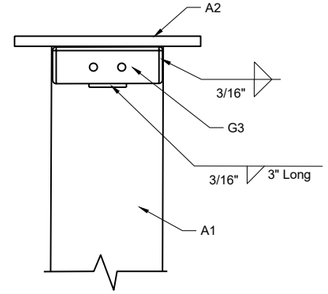


POST GUSSET (A3)

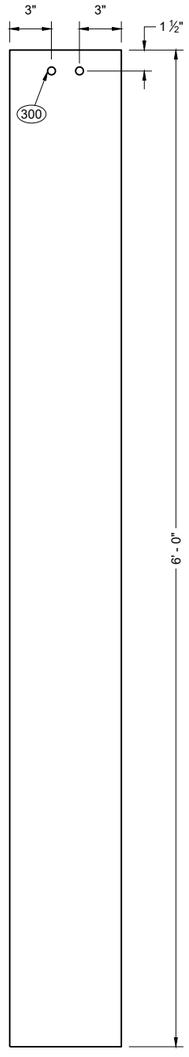


PLAN VIEW



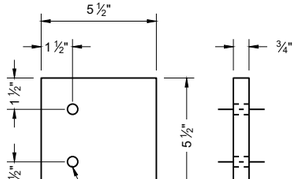


WELDING DETAIL
G3 AND A1

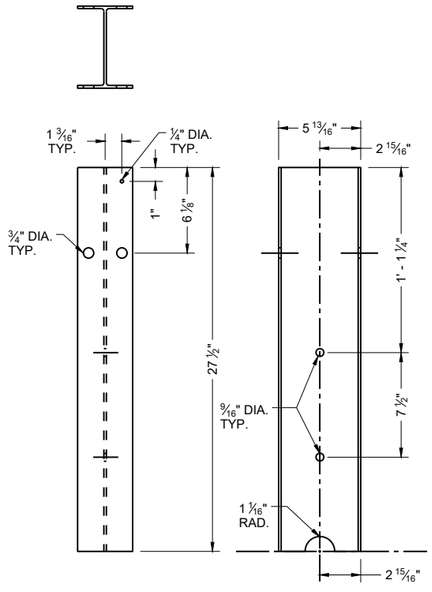


SIDE VIEW

FOUNDATION TUBE (A1)

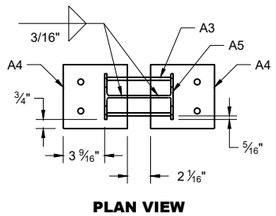


UPPER PLATE (A4)

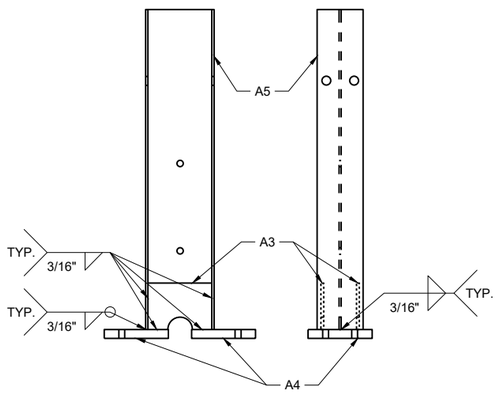


FRONT VIEW SIDE VIEW

TYPE 2 POST (A5)

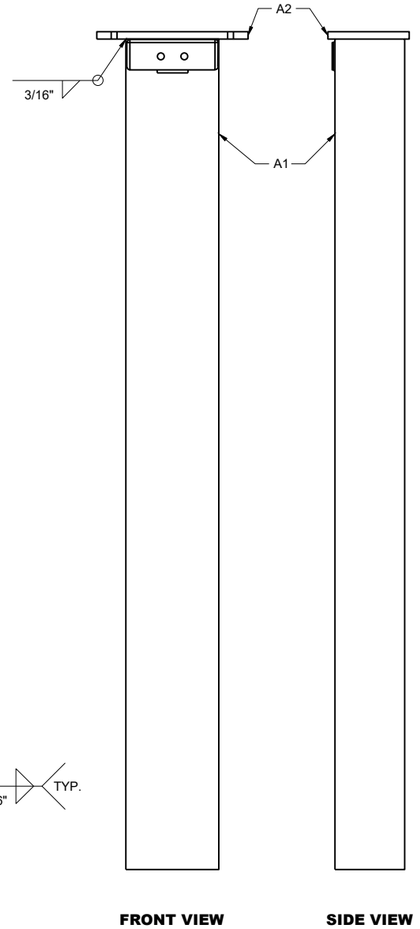


PLAN VIEW



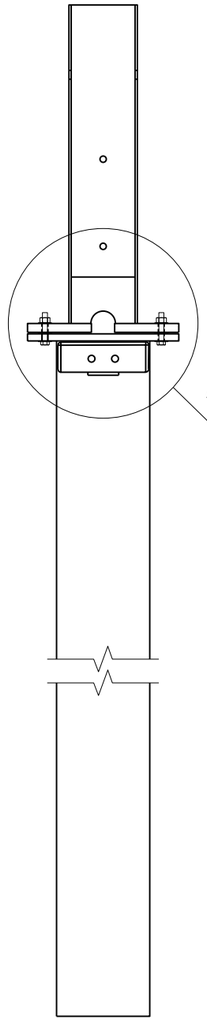
SIDE VIEW FRONT VIEW

UPPER POST ASSEMBLY

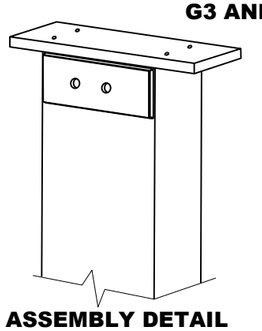


FRONT VIEW SIDE VIEW

LOWER POST ASSEMBLY

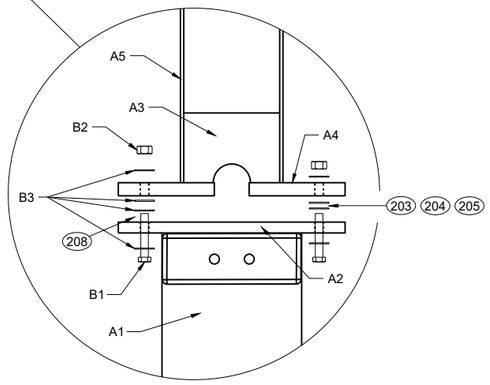


ASSEMBLED POST



ASSEMBLY DETAIL ISOMETRIC

A1

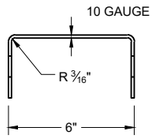


POST CONNECTION DETAIL

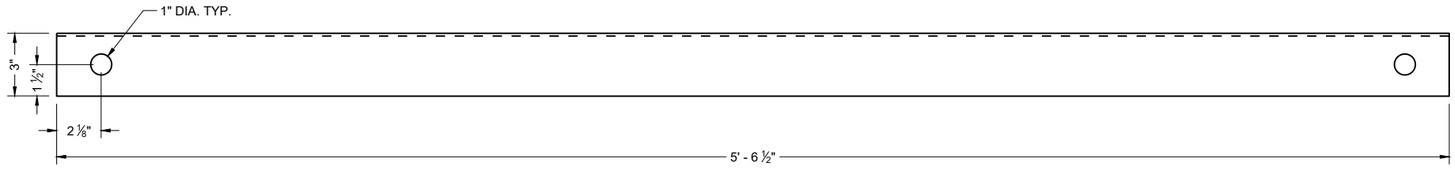
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	

6

SDD 14B47-07c

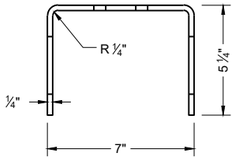


SIDE VIEW

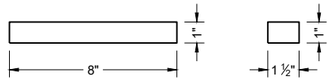


FRONT VIEW

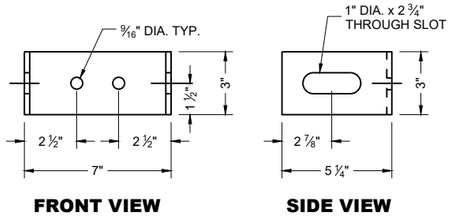
GROUND STRUT CHANNEL (G1)



TOP VIEW



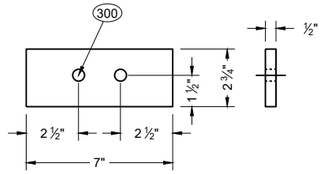
BEARING PLATE FLANGE (L2)



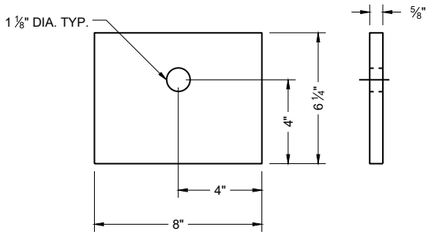
FRONT VIEW

SIDE VIEW

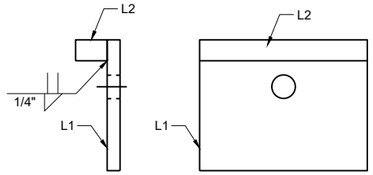
GROUND STRUT CONNECTOR (G2)



GROUND STRUT PLATE (G3)



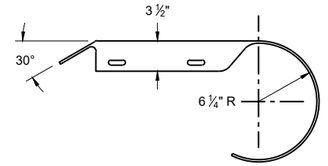
BEARING PLATE (L1)



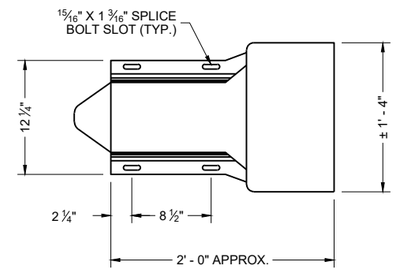
SIDE VIEW

FRONT VIEW

BEARING PLATE ASSEMBLY

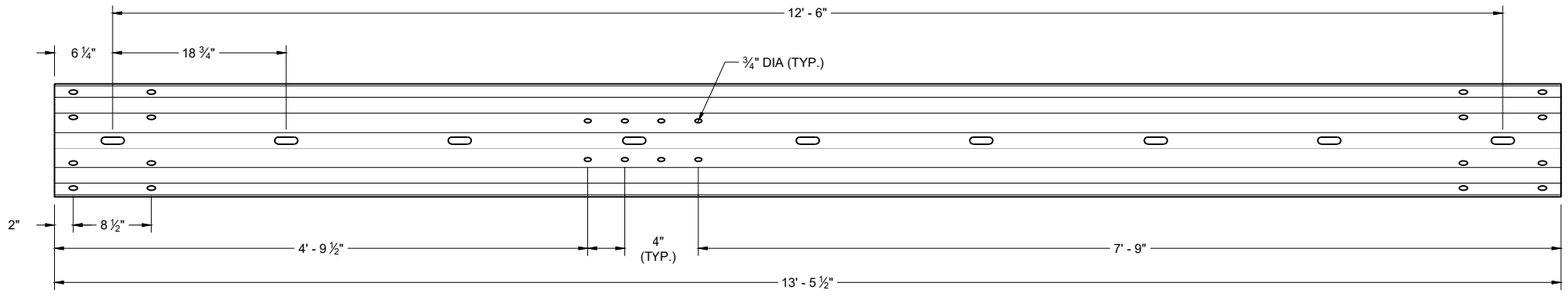


PLAN VIEW

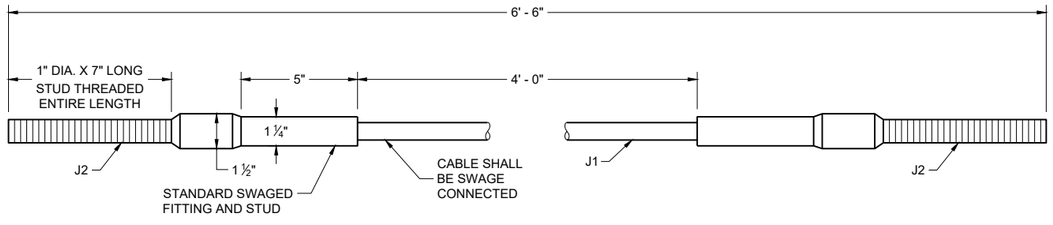


ELEVATION VIEW

ROUNDED BUFFER END (E3)



TYPE 2 GUARDRAIL (E1)



CABLE ASSEMBLY

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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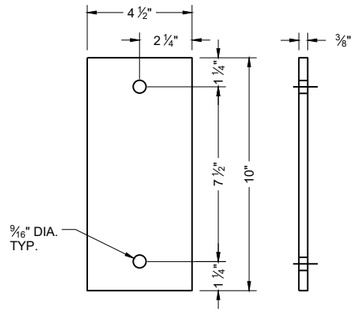
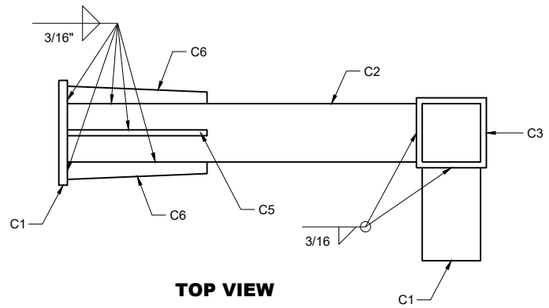
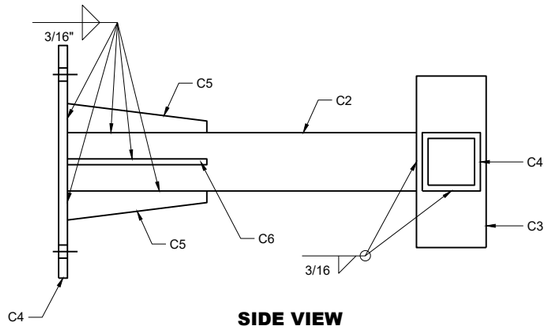


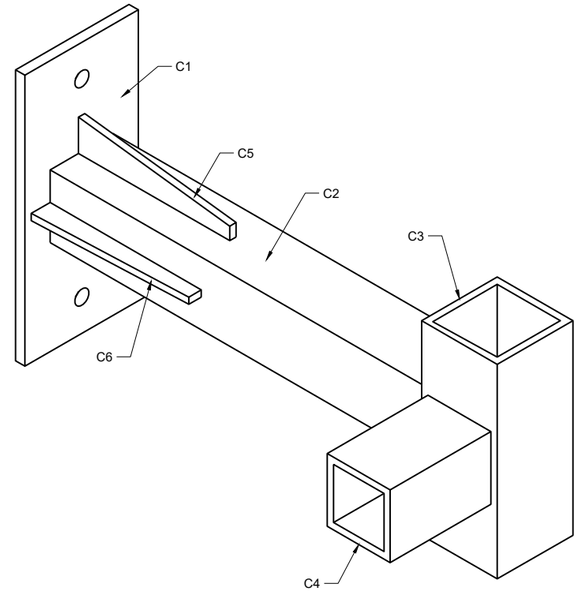
ARM PLATE (C1)



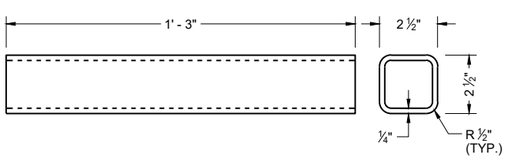
TOP VIEW
ARM ASSEMBLY



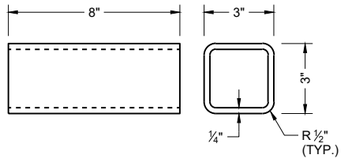
SIDE VIEW
ARM ASSEMBLY



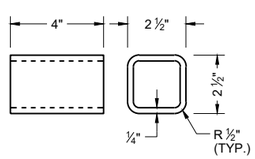
ISOMETRIC VIEW
ARM ASSEMBLY



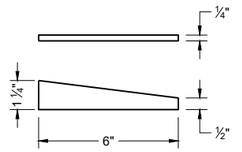
ARM TUBE 1 (C2)



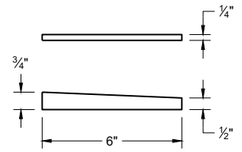
ARM TUBE 2 (C3)



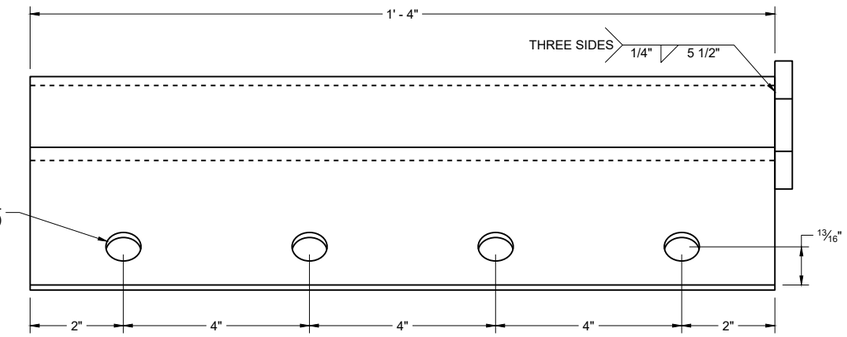
ARM TUBE 3 (C4)

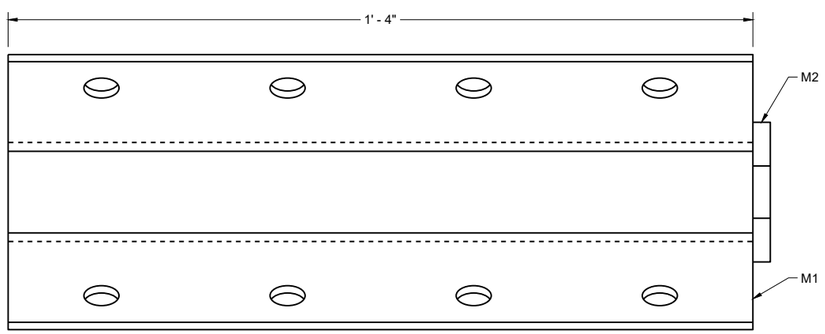


ARM GUSSET PLATE 1 (C5)

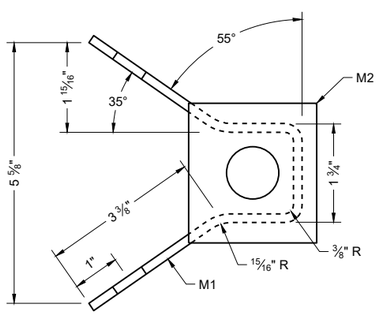


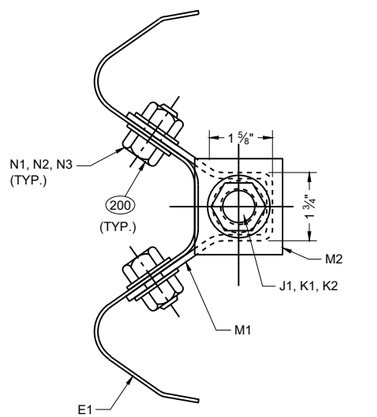
ARM GUSSET PLATE 2 (C6)

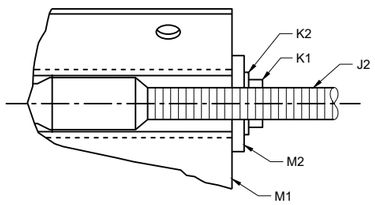




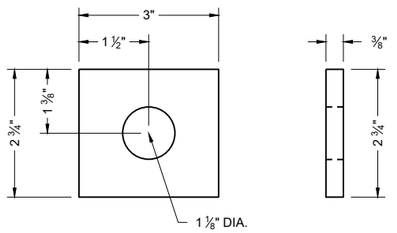
ANCHOR BRACKET (M1, M2)







SECTION A - A



ANCHOR BRACKET BEARING PLATE (M2)

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	TYPE 2 FOUNDATION TUBE	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
A2	LOWER PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	5/8" THICKNESS
A3	POST GUSSET	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
A4	UPPER PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/4" THICKNESS
A5	TYPE 2 POST	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI, w6x9 or w6x8.5	
B1	BREAKAWAY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED . PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	7/16" DIA.
B2	BREAKAWAY BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/16" DIA.
B3	BREAKAWAY BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
C1	ARM ASSEMBLY PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/8" THICKNESS
C2	ARM ASSEMBLY TUBE 1	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
C3	ARM ASSEMBLY TUBE 2	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 3" x 3" x 1/4"
C4	ARM ASSEMBLY TUBE 3	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 2 1/2" x 2 1/2" X 1/4"
C5	ARM ASSEMBLY GUSSET PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
C6	ARM ASSEMBLY GUSSET PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
D1	ARM ASSEMBLY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	1/2" DIA.
D2	ARM ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	1/2" DIA.
D3	ARM ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1/2" DIA.
E1	TYPE 2 GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E2	BEAM GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E3	BEAM GUARD ROUNDED BUFFER END	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
F1	POST BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
F2	POST BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
F3	POST BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
G1	GROUND STRUT CHANNEL	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/2" x 11 3/4" x 10 GAUGE
G2	GROUND STRUT CONNECTOR	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
G3	GROUND STRUT PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/2" THICKNESS

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
H1	GROUND STRUT BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	7/8" DIA.
H2	GROUND STRUT BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/8" DIA.
H3	GROUND STRUT BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD 5/8" ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
J1	BCT CABLE	AASHTO M30 / ASTM A741 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS), 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS) TYPE II OR IIC, CLASS C ZINC COATED MIN. BREAKING STRENGTH OF 42.7 KIPS	3/4" DIA.
J2	BCT CABLE	UNC 1" ASTM A576 GRADE 1035 SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. MIN BREAKING STRENGTH OF 42.7 KIPS ASME B30.26 "FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING IN TO CONNECTION: NAME OF MANUFACTURE OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE FOR ALLOY EYEBOLTS."	
K1	CABLE ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1" DIA.
K2	CABLE ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1	1" DIA.
L1	BEARING PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	5/8" THICKNESS
L2	BEARING PLATE FLANGE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1" THICKNESS
M1	BEAM GUARD ANCHOR BRACKET	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	
M2	BEAM GUARD ANCHOR END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/8" THICKNESS
N1	ANCHOR BRACKET BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
N2	ANCHOR BRACKET BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
N3	ANCHOR BRACKET BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 /ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
P1	FOUNDATION TUBE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1/2" DIA.
Q1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
Q2	SPLICE NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	5/8" DIA.

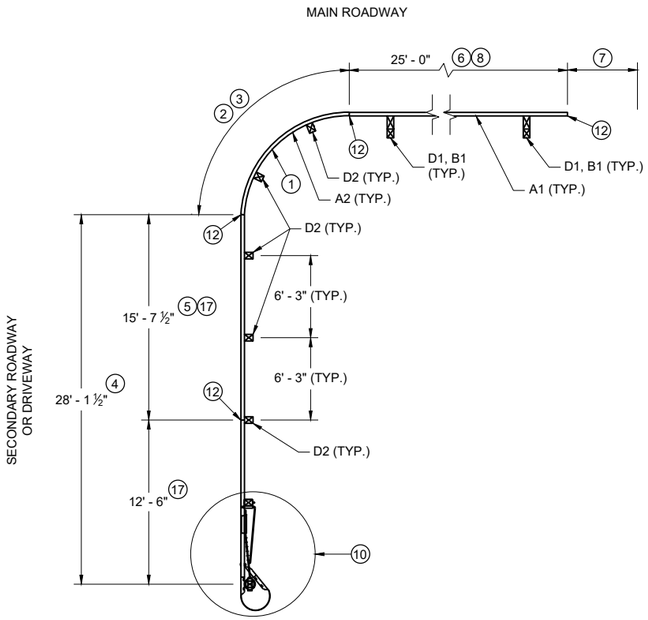
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2025 — DATE
/S/ Rodney Taylor — <position>
FHWA

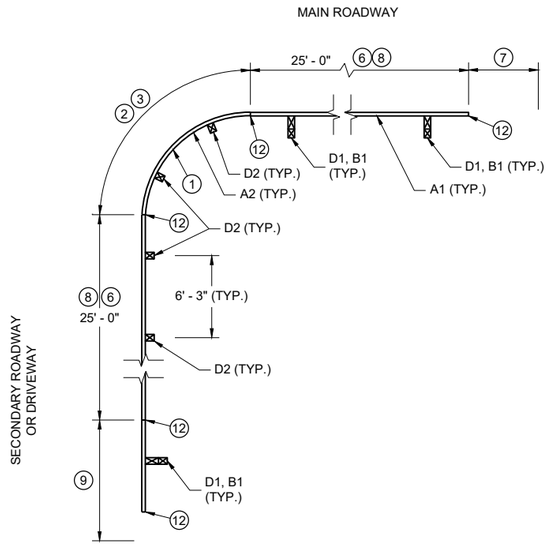
6

SDD 14B47-07g



PLAN VIEW

SHORT RADIUS BEAM GUARD WITH SHORT RADIUS TERMINAL ON SECONDARY ROAD OR DRIVEWAY

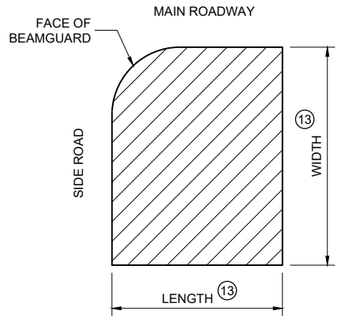


PLAN VIEW

SHORT RADIUS BEAM GUARD WITH EAT, ADDITIONAL BEAM GUARD OR TRANSITION TO RIGID BARRIER ON SECONDARY ROAD OR DRIVEWAY

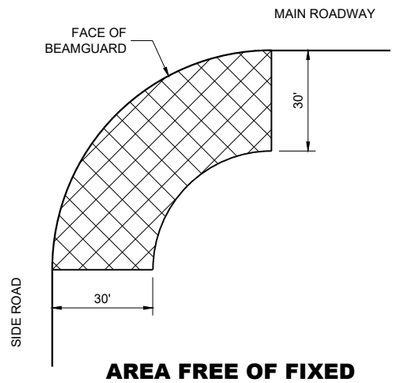
TABLE FOR RADIUS OF 32' AND LESS

RADIUS (FT)	LENGTH (FT)	WIDTH (FT)
8	25	15
16	30	15
24	40	20
32	50	30



16

AREA FREE OF FIXED OBJECTS FOR RADIUS 32' AND LESS



AREA FREE OF FIXED OBJECTS FOR RADIUS GREATER THAN 32'

GENERAL NOTES

SEE PLANS FOR OTHER BARRIER SYSTEM AND LOCATION SPECIFICS.

SEE SDD 14B42 FOR MORE INFORMATION ON BEAM GUARD INSTALLATION, PARTS, MATERIALS, AND INSTALLATION INFORMATION.

GALVANIZE PARTS AFTER FABRICATION.

WELDING TO FOLLOW CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI / AWS D1.1.

UNLESS NOTED OTHERWISE, ALL PLATES ARE FLAT AND FREE OF WARP.

UNLESS NOTED OTHERWISE, ALL EDGES ARE SMOOTH, STRAIGHT AND VERTICAL.

ALL CUTS AND HOLES, EXCEPT IN BEAM GUARD RAIL ARE TO BE MACHINED OR MACHINE FLAME CUT.

UNLESS NOTED OTHERWISE, CUT OR PROVIDE BOLTS THAT ARE ¼" TO ½" BEYOND THE NUT.

DRAWINGS ARE NOT TO SCALE.

(1) RADIUS MEASURE FROM INSIDE OF RAIL. LENGTH OF BEAM GUARD SHORT RADIUS GUARD MEASURED ALONG TRAFFIC SIDE OF RAIL. RADIUS BETWEEN 8 FEET TO 150 FEET. SEE PLAN FOR REQUIRED RADIUS. BEAM GUARD RAIL IN RADIUS IS SHOP BENT. ODD RAIL LENGTH OR FIELD CUTS MAY BE REQUIRED.

(2) CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE USED IN THE RADIUS. CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE SPACED 6' - 3". SEE PLAN FOR NUMBER OF CONTROLLED RELEASE (CRT) POSTS.

(3) WITHIN RADIUS BEAM GUARD RAILS ARE NOT BOLTED TO POSTS. BEAM GUARD RAIL IS RESTED ON TOP OF LAG SCREW.

(4) MINIMUM LENGTH OF BEAM GUARD ALONG SIDE ROAD OR DRIVEWAY TO INSTALL SHORT RADIUS TERMINAL. BEAM GUARD IS PAID WITH BEAM GUARD ITEM.

(5) ODD LENGTH OF BEAM GUARD REQUIRED TO INSTALL SHORT RADIUS TERMINAL.

(6) MINIMUM AMOUNT OF BEAM GUARD TO BE INSTALLED PRIOR TO TRANSITION TO RIGID BARRIER. ADDITIONAL BEAM GUARD, OR EAT. BEAM GUARD PAID FOR WITH BEAM GUARD ITEM. SEE PLANS FOR MORE DETAIL.

(7) BEAM GUARD, EAT, OR TRANSITION TO RIGID BARRIER. SEE PLAN.

(8) TOP OF BEAM GUARD BY THE RADIUS IS 27". HEIGHT OF BEAM GUARD IS 31" BY TRANSITION TO RIGID BARRIER, ADDITIONAL BEAM GUARD OR EAT.

(9) ADDITIONAL BEAM GUARD, EAT OR TRANSITION TO RIGID BARRIER. BEAM GUARD SHOWN. SEE PLAN FOR DETAILS.

(10) SHORT RADIUS TERMINAL (SEE OTHER DETAILS).

(11) HEIGHT VARIES. SEE NOTE (8) AND (17).

(12) BEAM GUARD RAIL SPLICE LOCATION. SPLICE LOCATION REQUIRES PART F1 AND F2. SEE SDD 14B42 FOR DETAILS.

(13) SEE TABLE FOR VALUES.

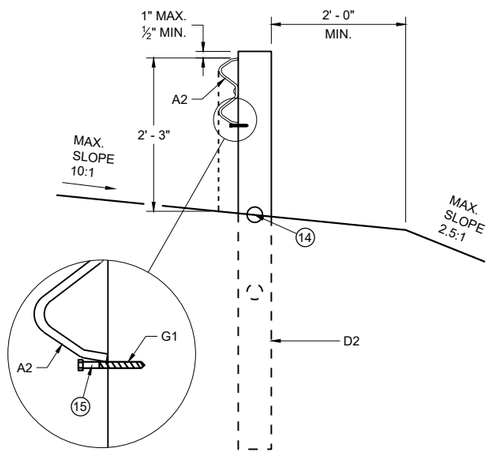
(14) MAXIMUM HEIGHT FOR CENTER OF HOLE IS ¾ " ABOVE FINISHED GROUND ±1".

(15) DRILL POST $^{15}/_{64}$ " DIA. PILOT HOLE. DO NOT HAMMER LAG SCREW INTO POST.

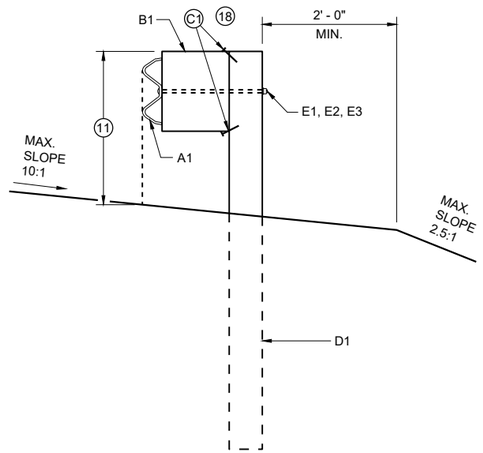
(16) SMALL SIGNS ON BREAKAWAY HARDWARE ARE ACCEPTABLE.

(17) TOP OF RAIL HEIGHT IS 27" WHEN USING A SHORT RADIUS TERMINAL (CRT).

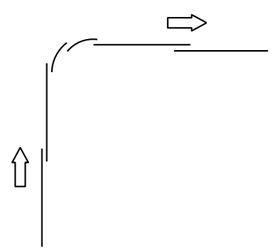
(18) INITIAL 1 NAIL AT EACH CORNER OF THE BLOCK TO CONNECT BLOCKS.



CONTROLLED RELEASE TERMINAL POST (CRT) IN RADIUS



BEAM GUARD POSTS IN HEIGHT TRANSITION



LAP SPLICE DETAIL

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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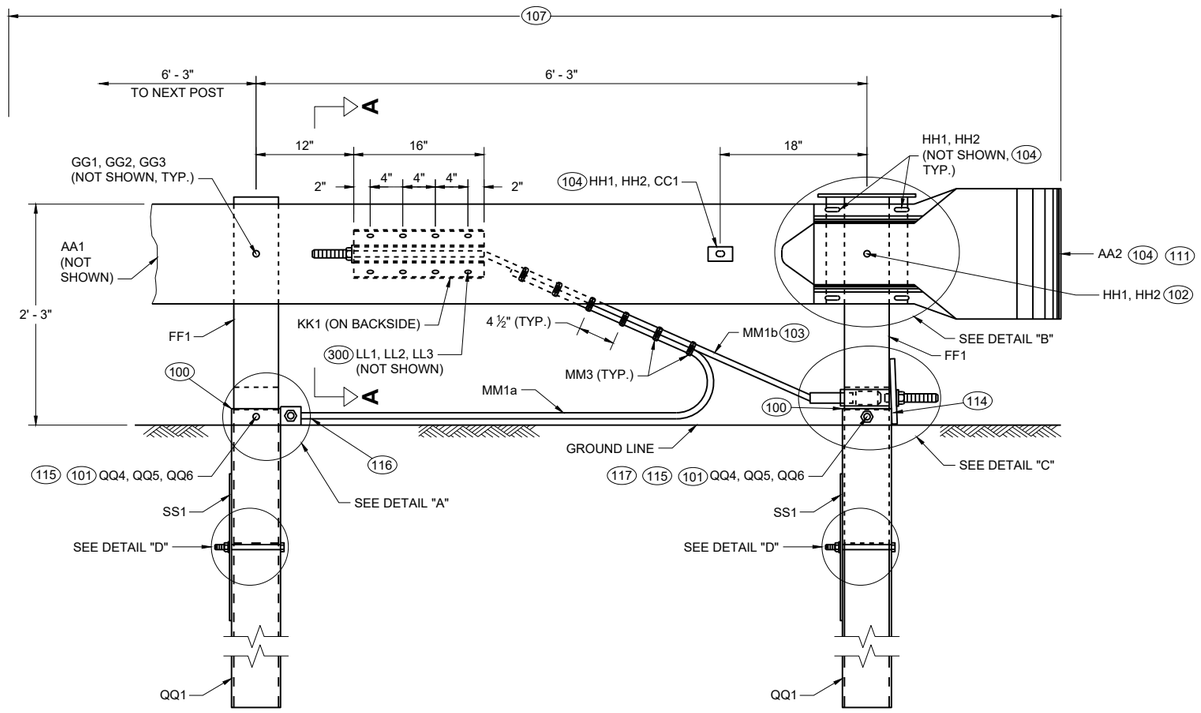
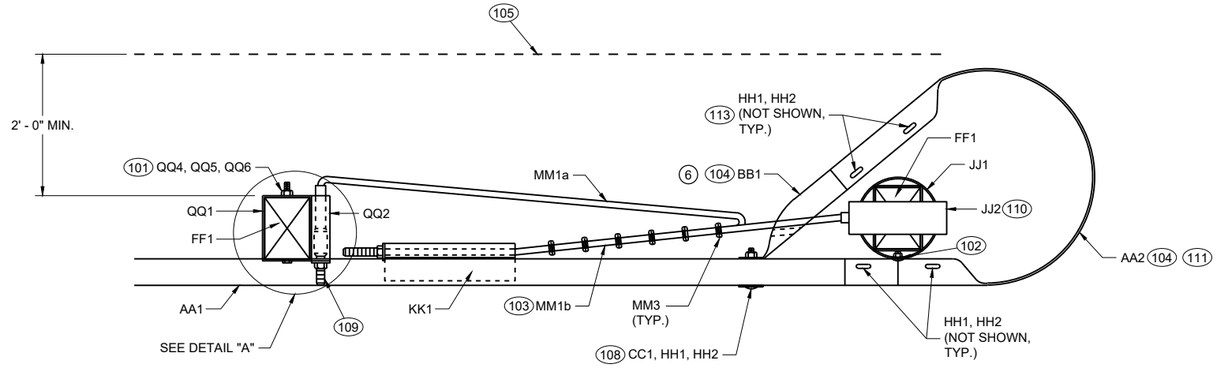
SDD 14B53-04a



PROFILE VIEW

SHORT RADIUS TERMINAL



TOP VIEW

SHORT RADIUS TERMINAL

GENERAL NOTES

(100) TOP OF FOUNDATION TUBE 2 INCHES MAXIMUM ABOVE FINISHED GROUND.

(101) WASHERS REQUIRED BETWEEN BOLT HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

(102) SPLICE BOLT AND NUT CONNECTS BEAM GUARD RAIL, W-BEAM SECTION BUFFER, AND STEEL PIPE ASSEMBLY. NO WASHER REQUIRED. SEE DETAIL "B".

(103) CABLE IS TAUT.

(104) ADJUST AA2 AND BB1 TO FIT.

(105) BREAK POINT OF SHOULDER.

(106) TACK WELD CABLE CONNECTOR TUBE PLATE TO CABLE CONNECTION TUBE. SEE DETAIL "A" PROFILE VIEW.

(107) PAY LIMIT FOR BEAM GUARD.

(108) SQUARE WASHER BETWEEN HEAD OF BOLT AND TRAFFIC FACE OF BEAM GUARD. ROUND WASHER REQUIRED BETWEEN NUT AND BB1.

(109) CUT OR PROVIDE THREADED STUD THAT IS FLUSH WITH FACE OF BEAM GUARD RAIL KK1 (PLUS OR MINUS 1/2" TOLERANCE). DEBURR AFTER CUTTING.

(110) SEE STEEL PIPE ASSEMBLY DETAILS.

(111) ATTACH UU2 WITH UU3. SHOP APPLY UU1 TO UU2.

(112) FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA1 TO AA2.

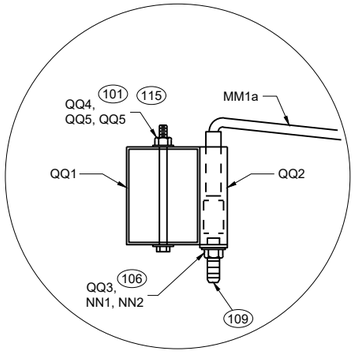
(113) FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA2 TO BB1.

(114) NO MATERIAL IS TO BE PLACED AGAINST THE VERTICAL FACES OF BEARING PLATE.

(115) PREVENT OR REMOVE MATERIALS THAT BLOCK ACCESS TO BOLTS FOR POST AND SOIL TUBE.

(116) PREVENT OR REMOVE MATERIALS THAT BLOCK ACCESS TO BOLT. PLACE CABLE ON TOP OF MATERIAL.

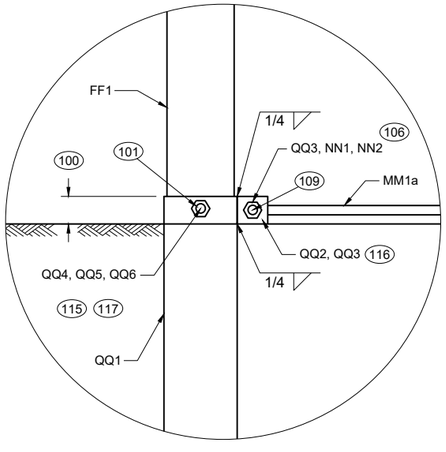
(117) ONE WASHER BETWEEN BOLD HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.



TOP VIEW

DETAIL "A"

(WOOD BREAKAWAY AND BEAM GUARD RAIL POSTS NOT SHOWN)



PROFILE VIEW

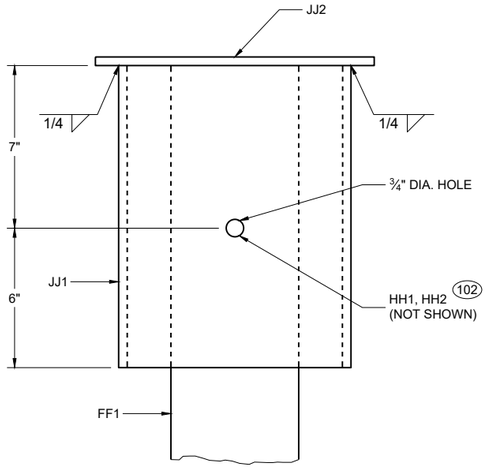
DETAIL "A"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

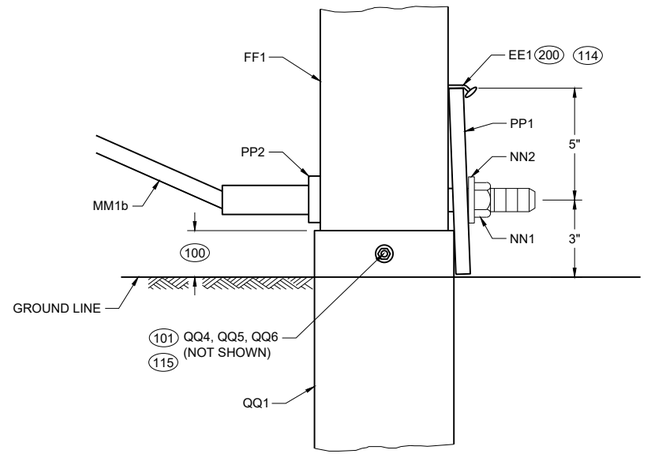
GENERAL NOTES

(200) TWO (2) NAILS SPACED 4 INCHES CENTER TO CENTER.



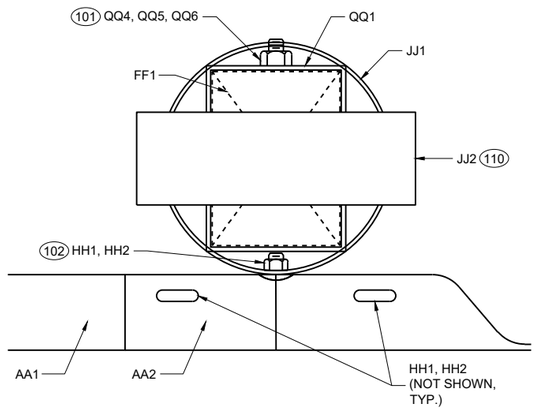
PROFILE VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY
(BEAM GUARD AND W BEAM END SECTION NOT SHOWN)



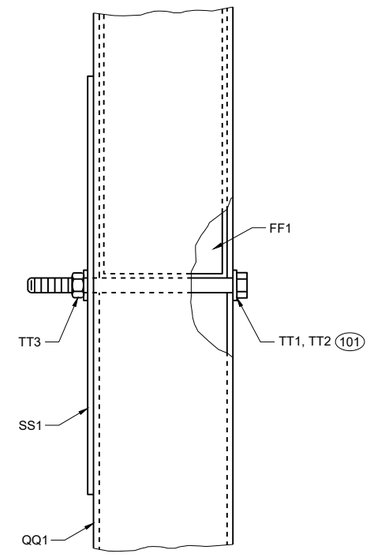
PROFILE VIEW

DETAIL "C"



PLAN VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY



PROFILE VIEW

DETAIL "D"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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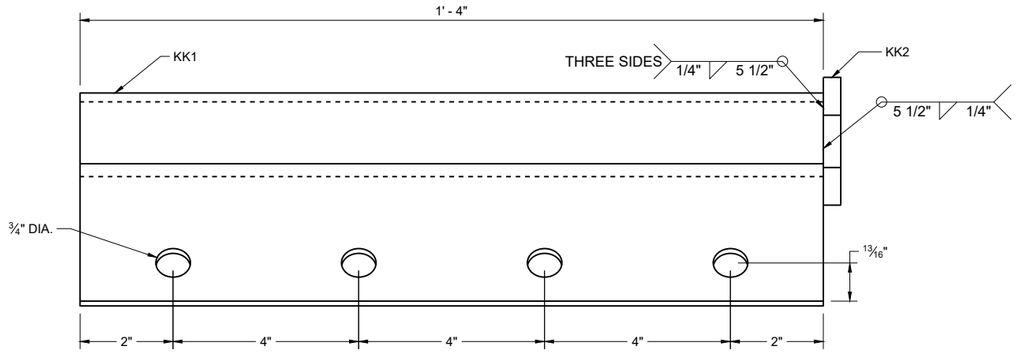
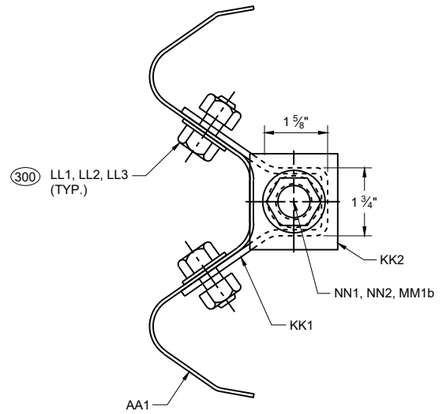
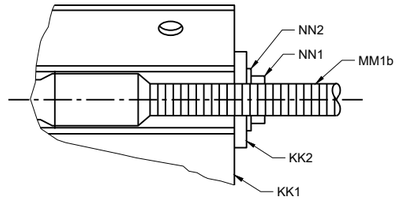
GENERAL NOTES

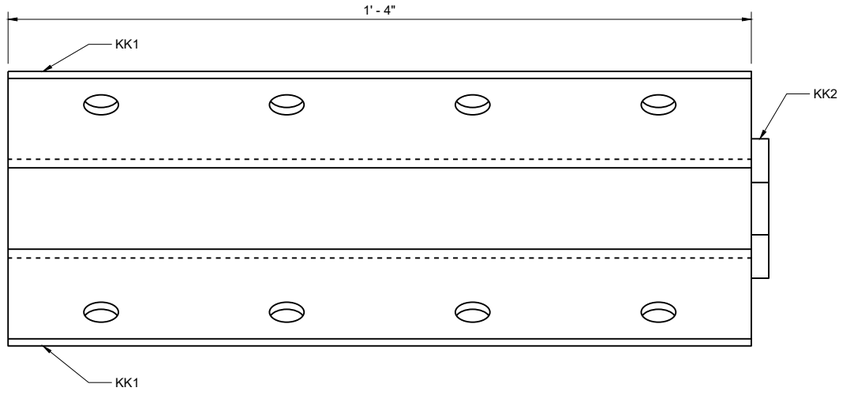
(300) WASHERS REQUIRED BETWEEN BOLT HEAD AND BEAM GUARD RAIL AND BETWEEN NUT AND ANCHOR BRACKET. EIGHT (8) LL1 AND LL3 REQUIRED. SIXTEEN (16) LL2 REQUIRED.

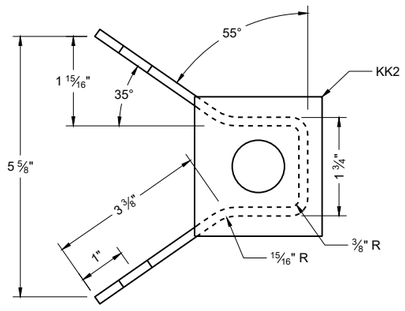




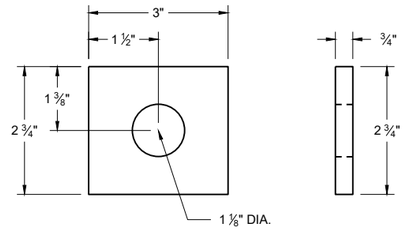


SECTION A - A





ANCHOR BRACKET (KK1, KK2)



ANCHOR BRACKET BEARING PLATE (KK2)

6

SDD 14B53-04d

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

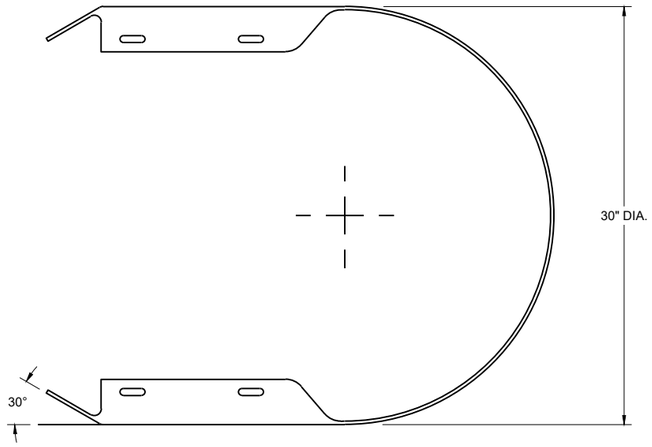
6

SDD 14B53-04d

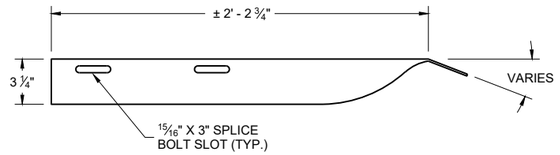
GENERAL NOTES

(400) CROSS SECTION OF PART IS TO FIT OVER AA1 .

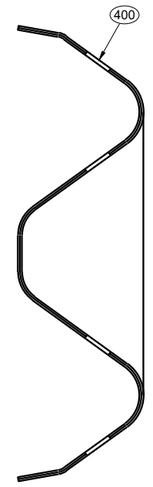
(401) CROSS SECTION OF PART IS TO FIT OVER OR UNDER AA1 .



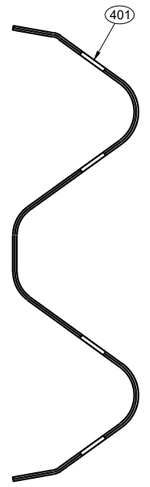
TOP VIEW



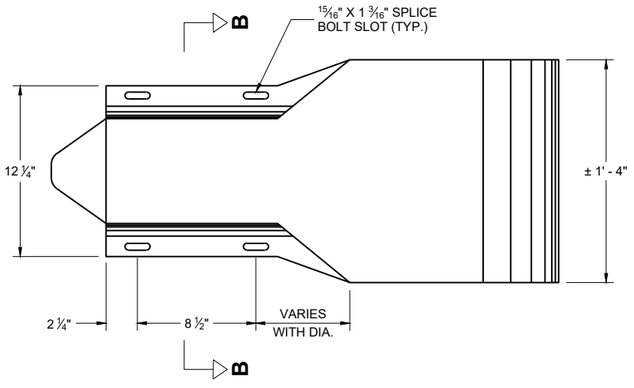
TOP VIEW



SECTION B -B

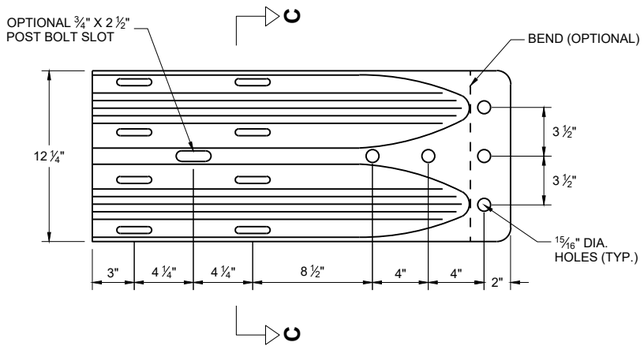


SECTION C -C



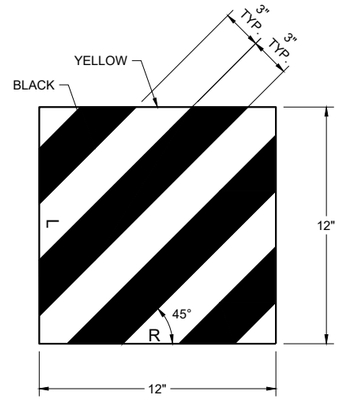
PROFILE VIEW

W BEAM
END SECTION BUFFER (AA2)



PROFILE VIEW

W BEAM
TERMINAL CONNECTOR (BB1)



REFLECTIVE SHEETING (UU1, UU2)

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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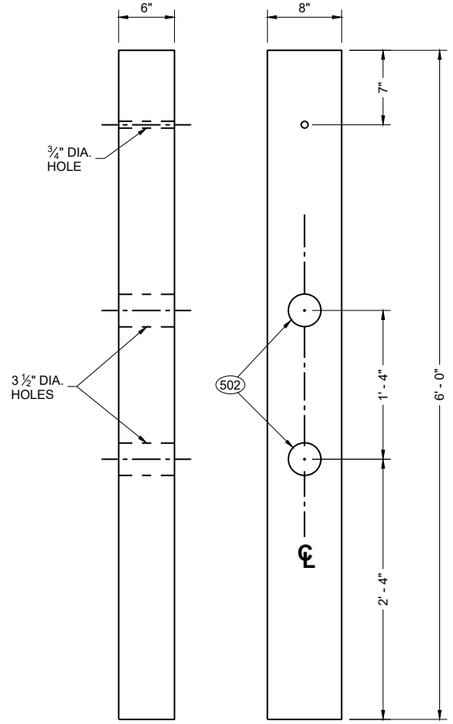
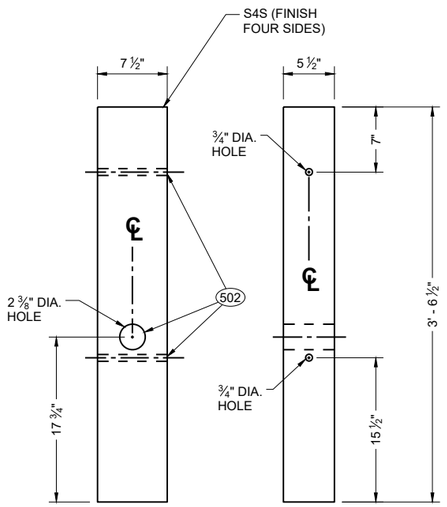
SDD 14B53-04e



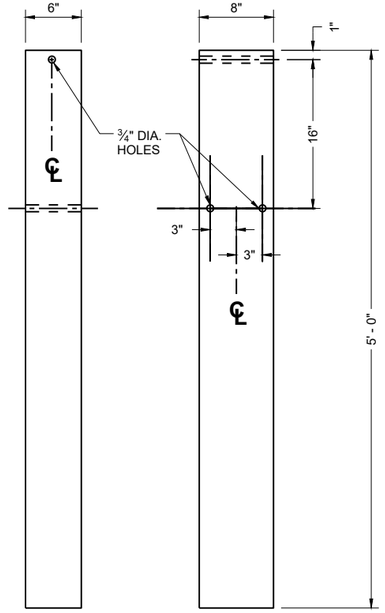
FRONT VIEW SIDE VIEW

CONTROLLED RELEASE POST (CRT) (DD2)



FRONT VIEW SIDE VIEW

WOOD BREAKAWAY POST (FF1)



FRONT VIEW SIDE VIEW

FOUNDATION TUBE (QQ1) (500)

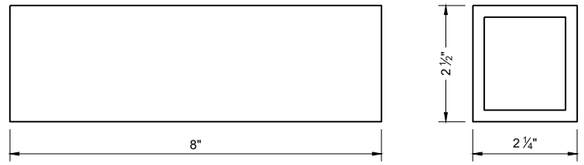
GENERAL NOTES

(500) SEE DETAIL "D" FOR LOCATION AND ATTACHMENT OF SS1.

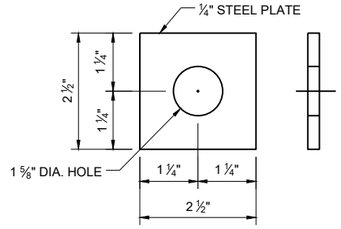
(501) FOR MM1a THREADED STUD ONLY REQUIRED ON ONE END. SWAGED FITTING REQUIRED.

(502) LOCATE HOLES ON THE CENTERLINE OF THE SIDE OF THE POST.

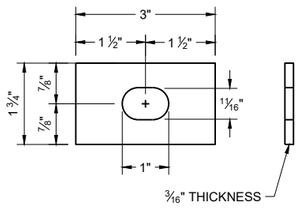
(503) MM1a MAY HAVE ONE THREADED STUD 4 INCHES LONG. SEE NOTE (109)



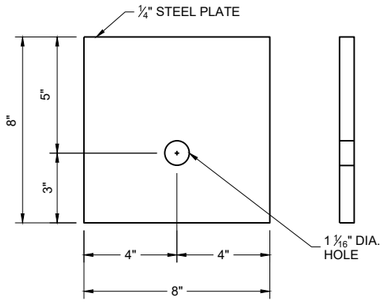
FOUNDATION TUBE - ANCHOR CABLE TUBE (QQ2)



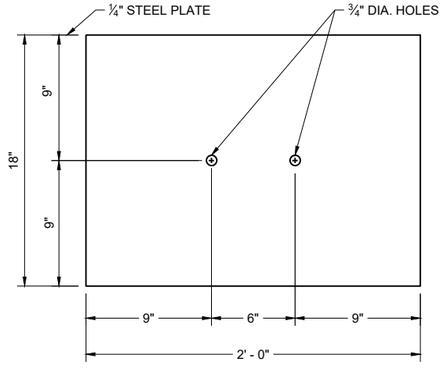
ANCHOR CABLE TUBE END PLATE (QQ3)



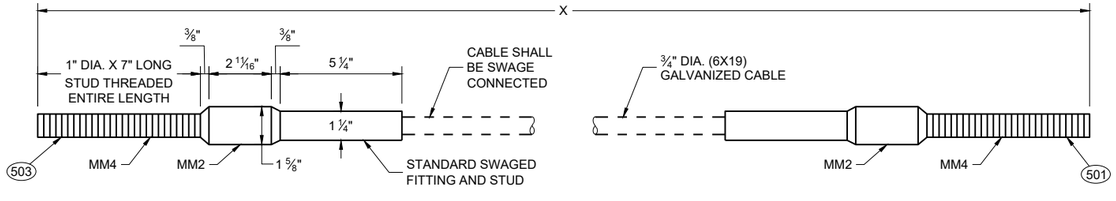
RECTANGULAR PLATE WASHER (CC1)



BEARING PLATE (PP1)



SOIL PLATE (SS1)



CABLE ASSEMBLY (MM1a, MM1b)

"X" LENGTH

MM1b	9' - 0"
MM1b	6' - 8"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	BEAM GUARD RAIL	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
A2	BEAM GUARD RAIL - SHOP BENT	INDICATE ON BACK OF RAIL THE RADIUS THAT RAIL WAS BENT TO. SHOP BEND RADIUS IS TO THE NEAREST FOOT. FOLLOW AASHTO M180 ON HOW TO MARK RADIUS INFORMATION.	
		AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
B1	BLOCK - WOOD	WISDOT SPEC. 614	SEE SDD 14B42
C1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEAD)	
D1	POST-STRONG POST-WOOD	WISDOT SPEC. 614	SEE SDD 14B42
D2	POST-CRT-WOOD	WISDOT SPEC. 614	
E1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
E2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	5/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
E3	POST BOLT - NUT	AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
F1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
F2	SPLICE BOLT - NUT	ASTM A563 GRADE A	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
G1	LAG SCREW	ASTM A308 GRADE A ASTM A153 CLASS D	1/2" DIA. 6" LONG
H1	DELINEATOR - BEAM GUARD		SEE SDD 14B42 FOR MORE INFORMATION
H2	DELINEATION - SHEETING	YELLOW OR WHITE	
		WISDOT SPEC 637 TYPE SH	
		APPROVED PRODUCT LIST	
J1	FOUNDATION BACKFILL	STANDARD SPEC. 614	
AA1	BEAM GUARD RAIL - PUNCHED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
AA2	BEAM GUARD RAIL - END SECTION BUFFER	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
BB1	BEAM GUARD RAIL - TERMINAL CONNECTOR MODIFIED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
CC1	SHORT RADIUS - SQUARE WASHER	AASHTO M180	
		GALV. AASHTO M111 / ASTM A123	
EE1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)	
FF1	POST - BCT - WOOD	S4S FINISH ON 4 SIDES	
		WISDOT SPEC. 614	
GG1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
GG2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	3/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B53-04g

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
GG3	POST BOLT - NUT	ASTM A563 GRADE A	3/8" DIA. SEE 14B42 FOR GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
HH1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180 HEAD GEOMETRY	
HH2	SPLICE BOLT - NUT	ASTM A563 GRADE A	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
JJ1	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	10" O.D.
JJ2	TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 3/8" X 4" X 1' - 0"
		GALV. AASHTO M111 / ASTM A123	
KK1	ANCHOR BRACKET	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
KK2	ANCHOR BRACKET - BEARING PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
LL1	ANCHOR BRACKET - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	5/8" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
LL2	ANCHOR BRACKET - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
LL3	ANCHOR BRACKET - NUT	ASTM A563 GRADE A	5/8" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
MM1a	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM1b	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM2	ANCHOR CABLE - SWAGE FITTING	ASTM A576 GRADE 1035	
		SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. WITH A BREAKING STRENGTH 40,000 LBS.	
		GALV. AASHTO M111 / ASTM A123	
		ASME B30.26 FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING INTO CONNECTION: NAME OF MANUFACTURER OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE.	
MM3	WIRE ROPE CABLE CLAMPS	FF-C-450D TYPE 1 CLASS 1	3/4"
		ASTM A153 HOT DIP CLASS D	
MM4	ANCHOR CABLE - SWAGE FITTING - STUD	ASTM F3125 GRADE A325 TYPE 1 OR SAE GRADE 5 OR ASTM A449 TYPE 1 HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
NN1	ANCHOR CABLE - NUT	ASTM A563 GRADE A	1" DIA.
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
NN2	ANCHOR CABLE - NUT - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	1" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B53-04h

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
PP1	BEARING PLATE AT POST	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
PP2	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	2" DIA. x 6" LONG
QQ1	FOUNDATION TUBE	ASTM A500 GRADE B	8" X 6" X 3/16"
		GALV. AASHTO M111 / ASTM A123	
QQ2	SHORT RADIUS - FOUNDATION TUBE - ANCHOR CABLE - TUBE	ASTM A500 GRADE B	DIMENSIONS 2 1/2" X 2 1/4" X 1/4" X 8"
		GALV. AASHTO M111 / ASTM A123	
QQ3	SHORT RADIUS - SOIL TUBE - ANCHOR CABLE - TUBE - END PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 2 1/2" X 2 1/2" X 1/4"
		GALV. AASHTO M111 / ASTM A123	
QQ4	GROUND STRUT AND YOKE - BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
		ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	
		UNC	
QQ5	GROUND PLATE AND YOKE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
QQ6	GROUND STRUT AND YOKE - NUT	HEAVY HEX	5/8 DIA.
		UNC	
		ASTM A563 GRADE A	
		OVER TAPPED NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
SS1	SOIL PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / A123	
TT1	SOIL PLATE - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	5/8 DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
TT2	SOIL PLATE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
TT3	SOIL PLATE - NUT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
UU1	OBJECT MARKER - SHEETING	MUTCD / WISDOT OBJECT MARKER TYPE 3	PATTERN AND COLOR FOR SHEETING. SHEETING TYPE FOR MARKER.
		WISDOT SPEC 637 TYPE F	
		APPROVED PRODUCT LIST	
UU2	OBJECT MARKER - ALUMINUM PLATE	WISDOT SPEC 637 ALUMINUM PLATE	MATERIAL AND THICKNESS OF MATERIALS
UU3	OBJECT MARKER - SCREWS	STAINLESS SELF-TAPPING SCREWS	
VV1	FOUNDATION BACKFILL	WISDOT SPEC 614	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

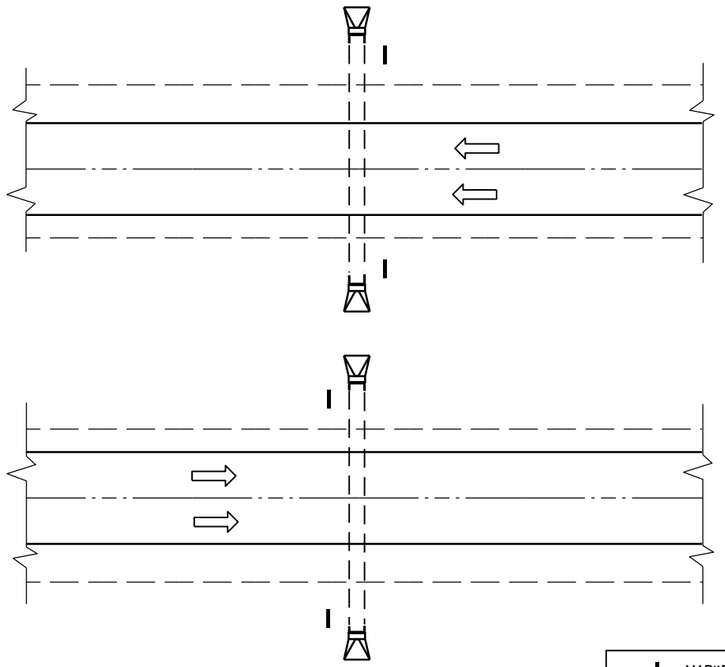
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

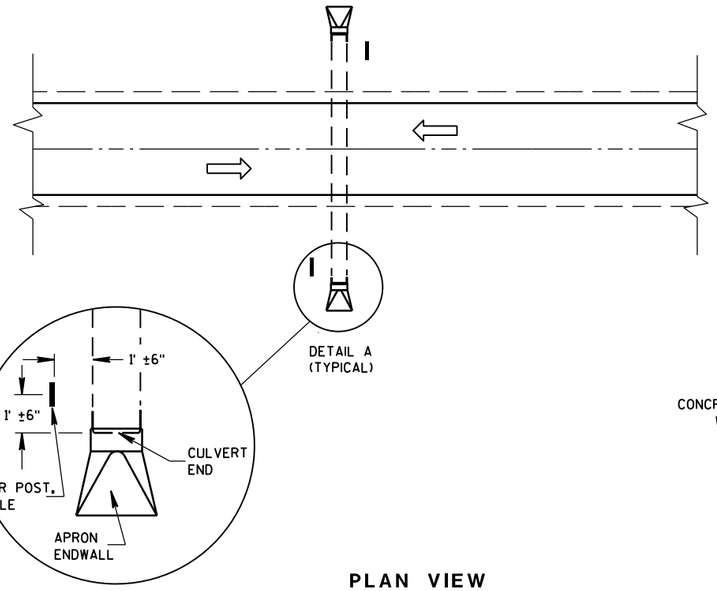
6

SDD 14B53-04i



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

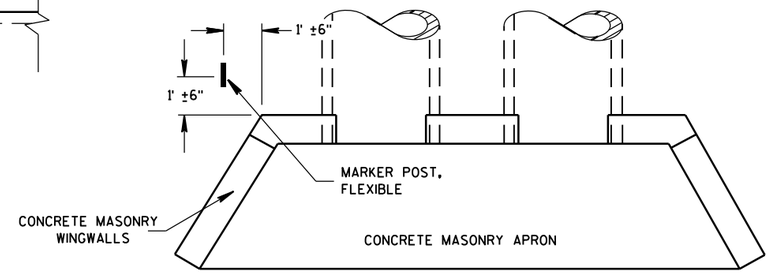
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

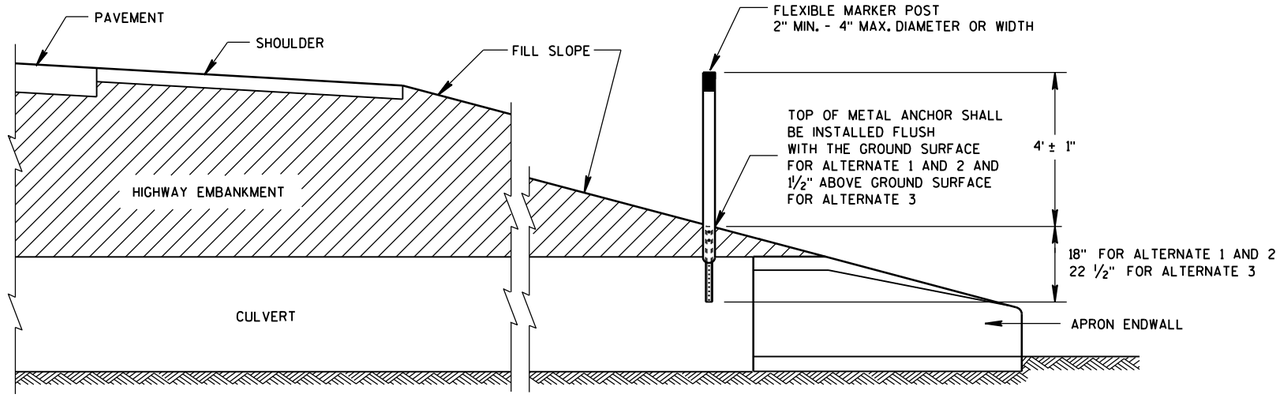
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

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

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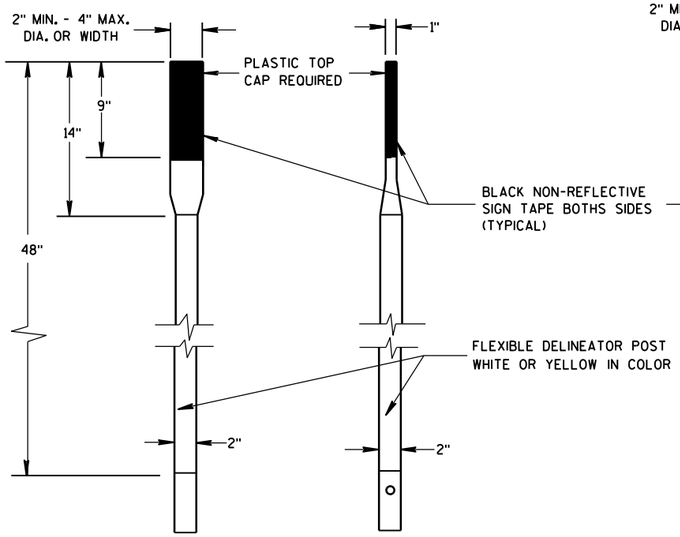
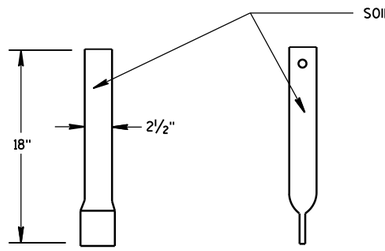
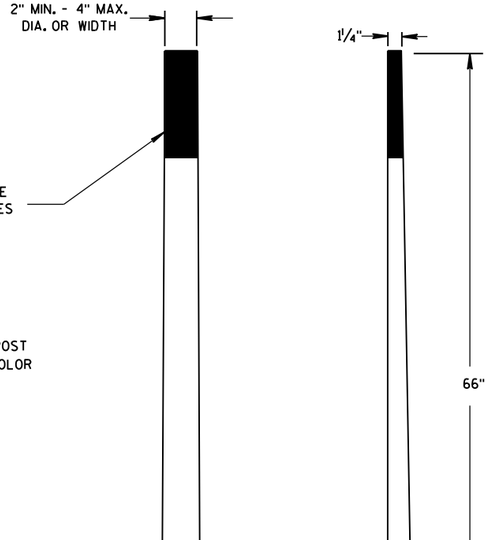
S.D.D. 15 A 3-2a





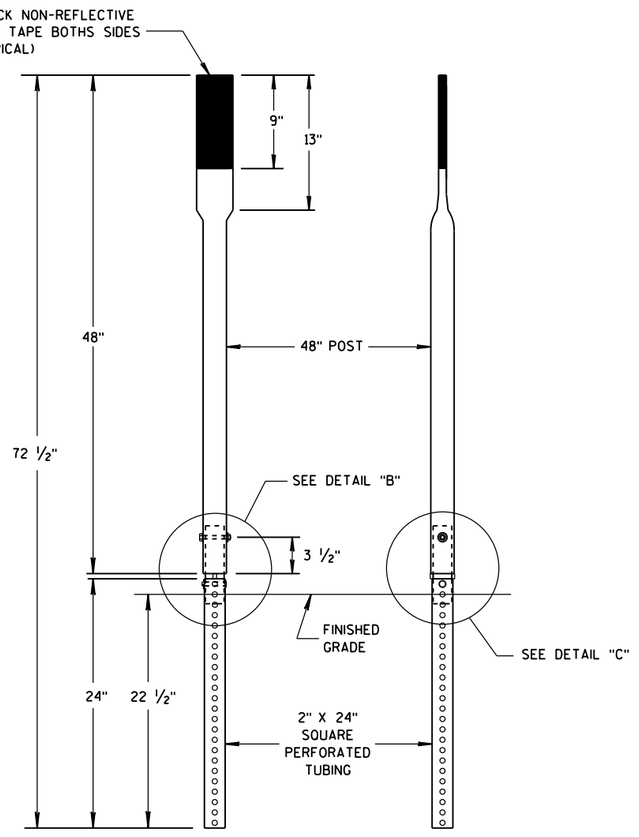
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

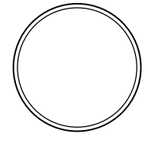
ALTERNATE 2



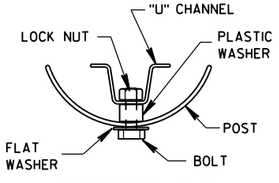
FRONT VIEW SIDE VIEW

ALTERNATE 3

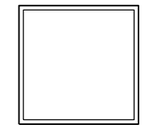
FLEXIBLE MARKER POSTS



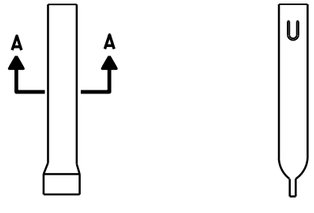
SECTION A-A



SECTION B-B

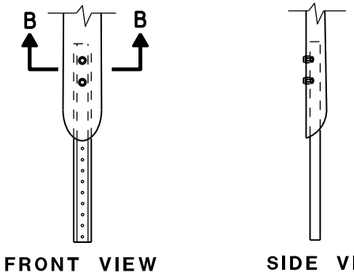


SECTION C-C



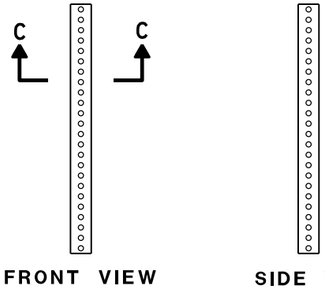
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

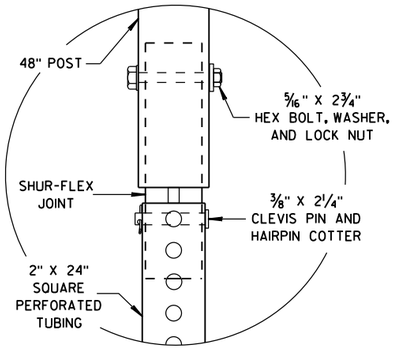
ALTERNATE 2



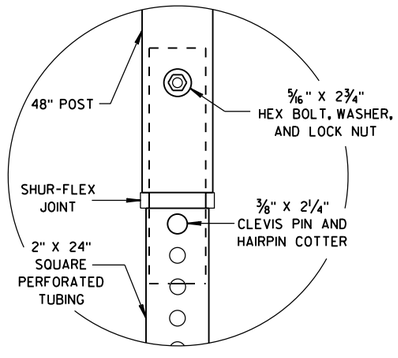
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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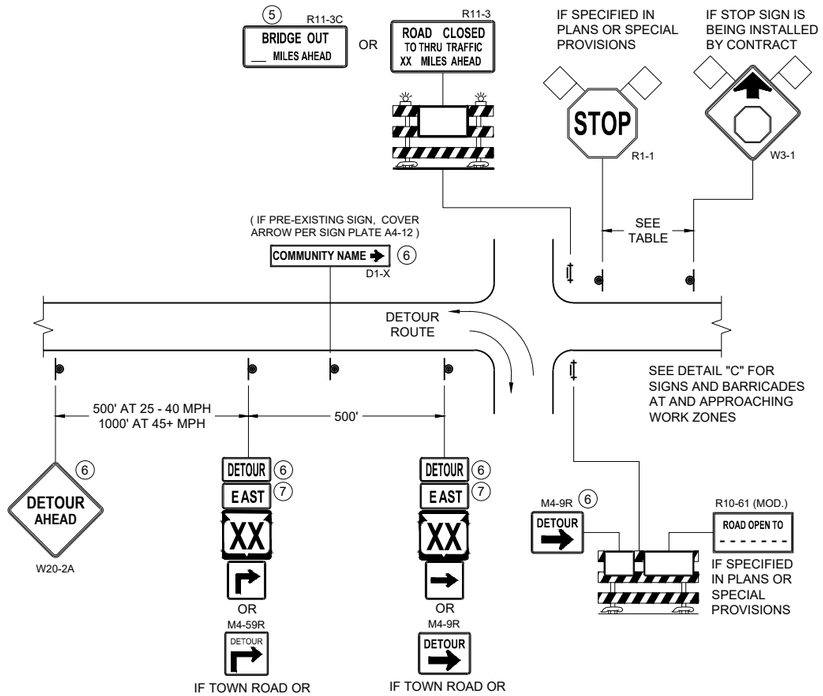
S.D.D. 15 A 3-2b

6

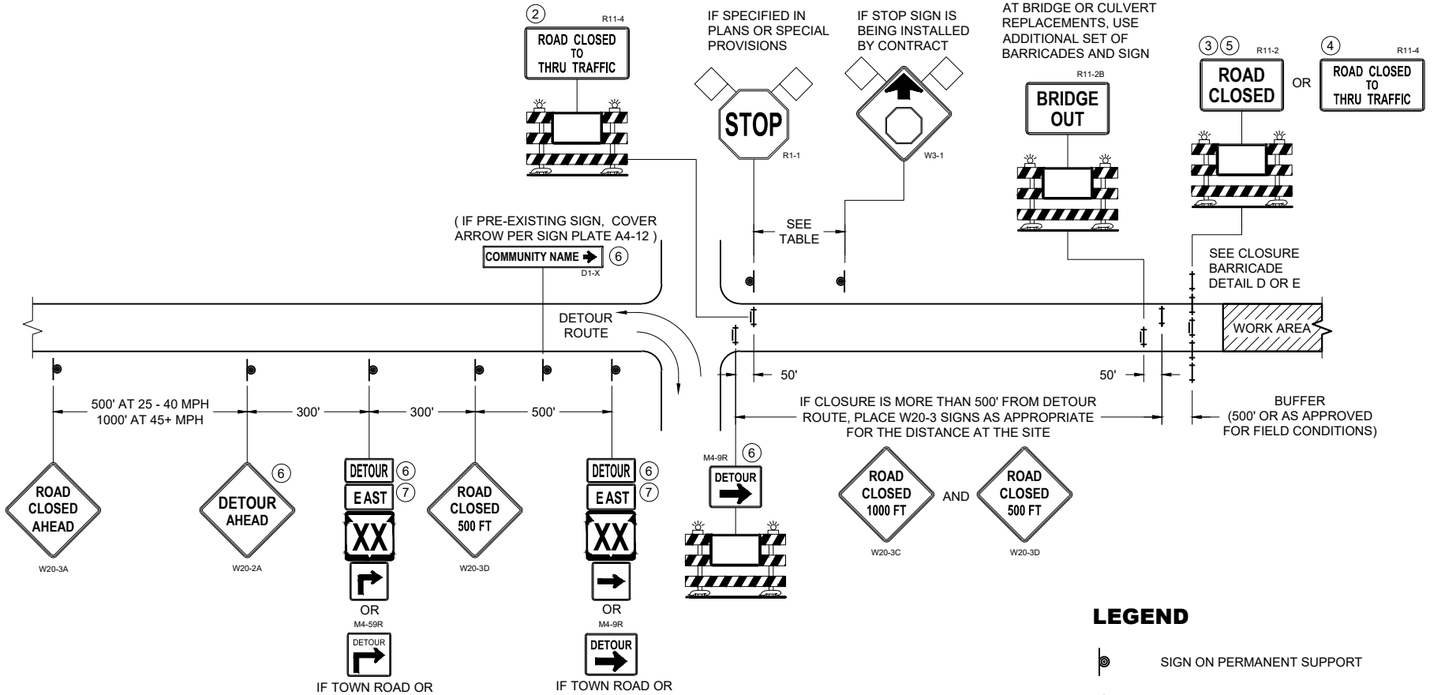
S.D.D. 15 A 3-2b



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

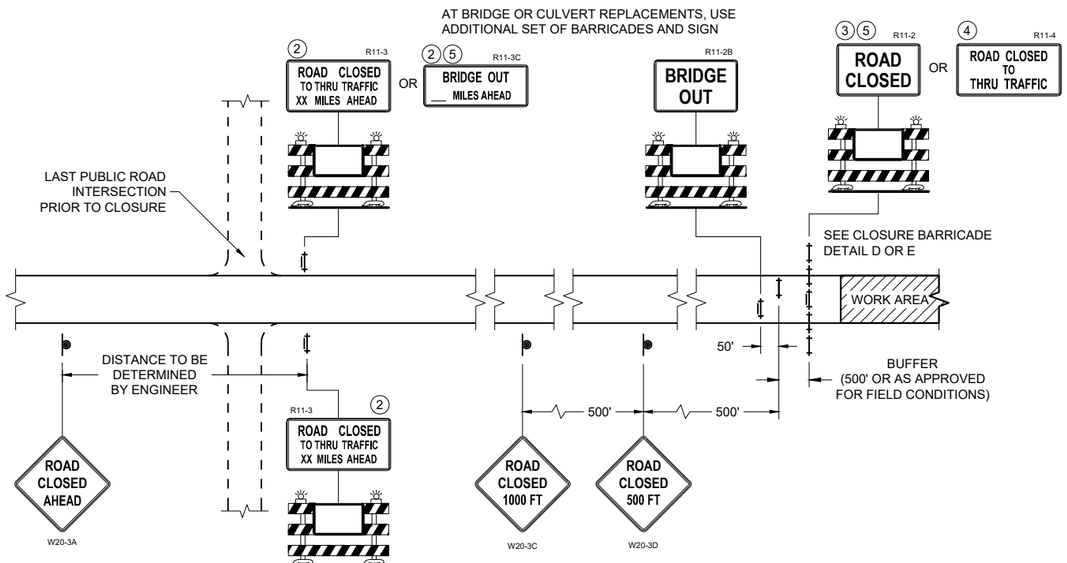
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

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

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

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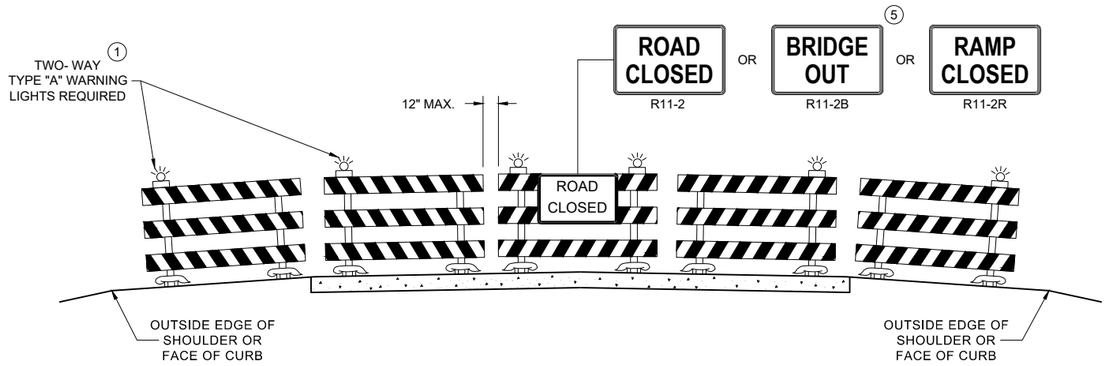
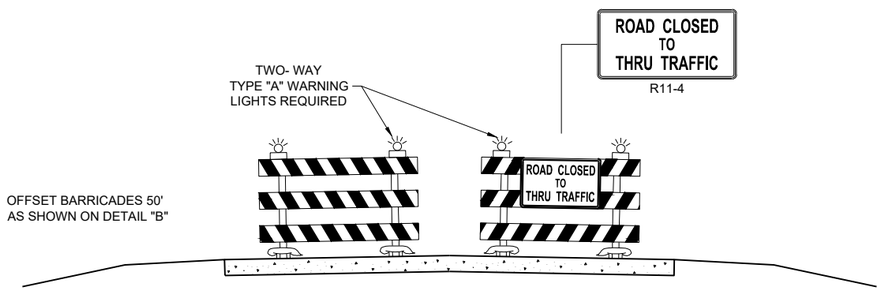
SDD 15C02-10a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

PARTIAL NUMBERS ON SIGNS SHALL BE DISPLAYED AS A WHOLE NUMBER(AS NEEDED) FOLLOWED BY A FRACTION. SIGNS SHALL NOT DISPLAY NUMBERS IN DECIMAL FORM.

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

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

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

SIGNS PLACED ON TYPE III BARRICADES THAT ARE SIZES OTHER THAN 48"X30" SHALL HAVE A CORRUGATED POLYPROPYLENE OR POLYETHYLENE PLASTIC SIGN BASE.

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

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SDD 15C02-10b

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR M4 - 8
- EAST M3 - X
- XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
- M05 - 1 OR M06 - 1 OR 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.

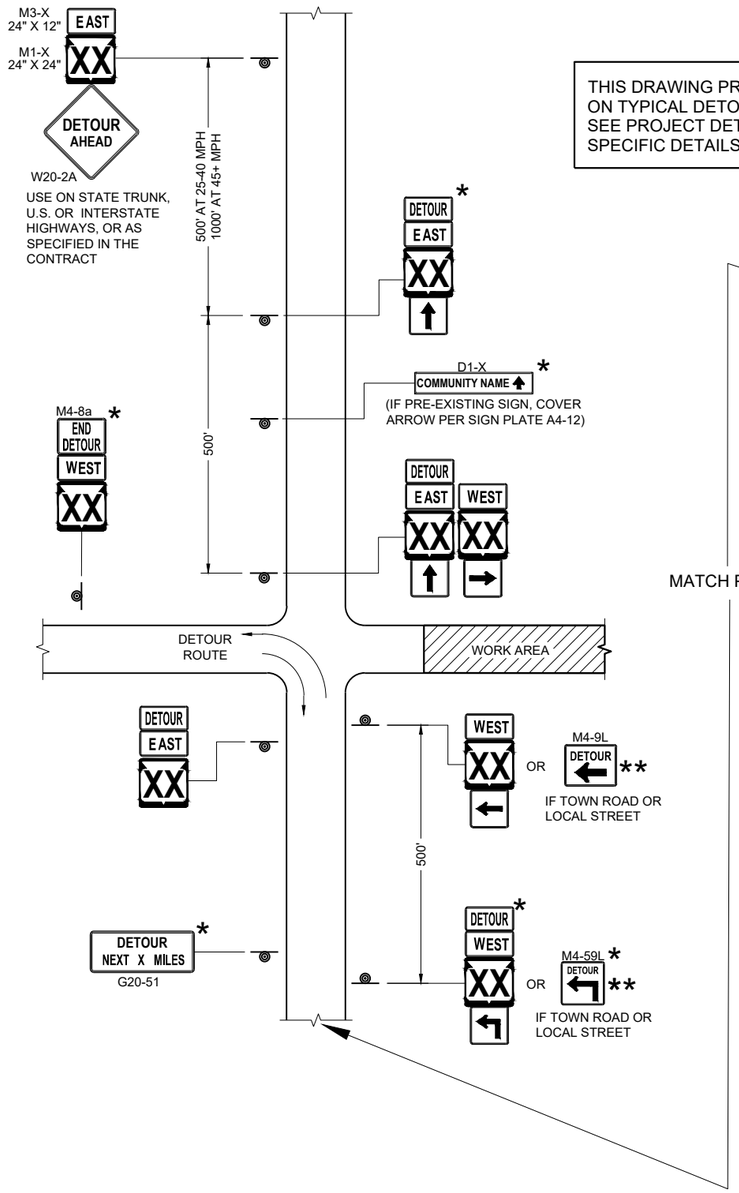
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

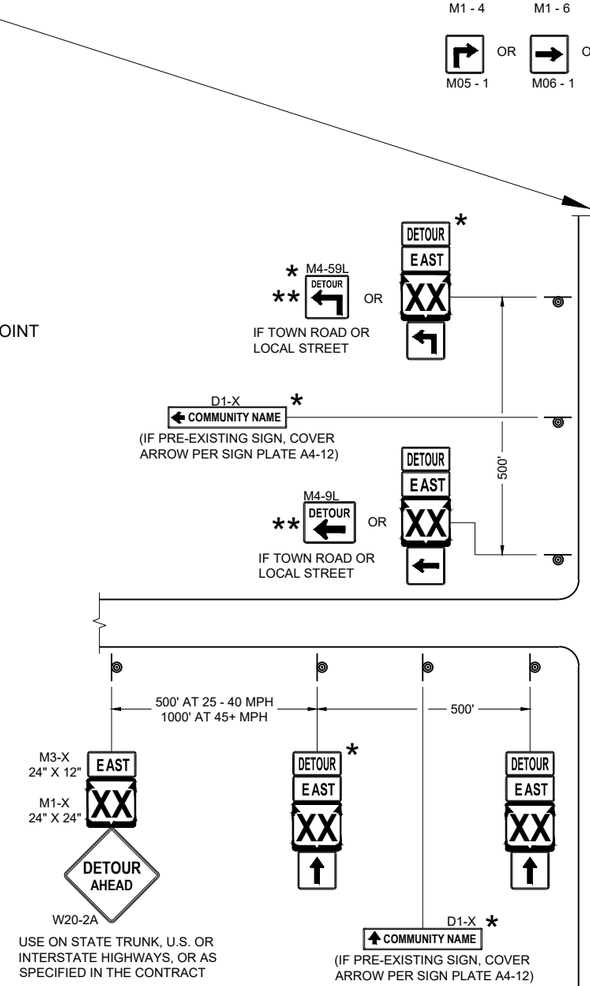
SIGN SIZES SHALL BE AS FOLLOWS:

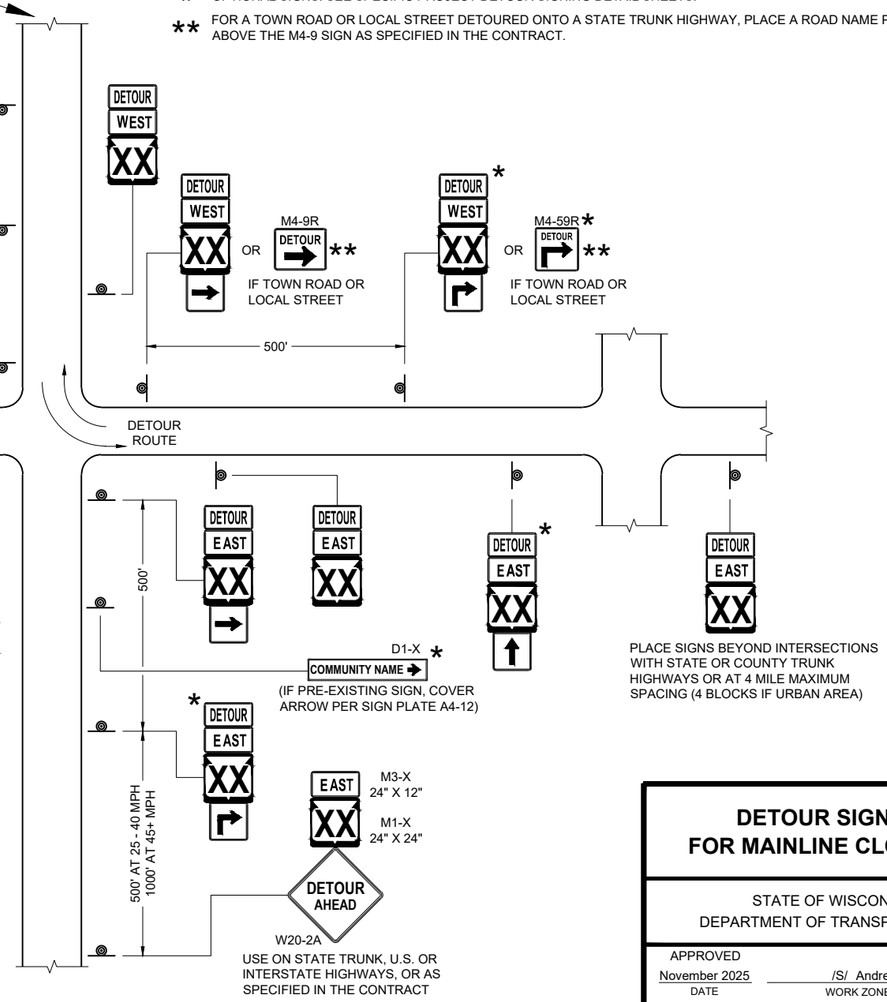
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING 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.







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

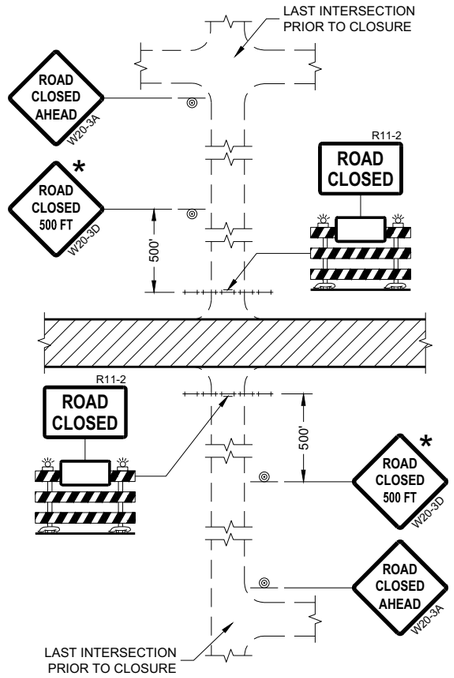
DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

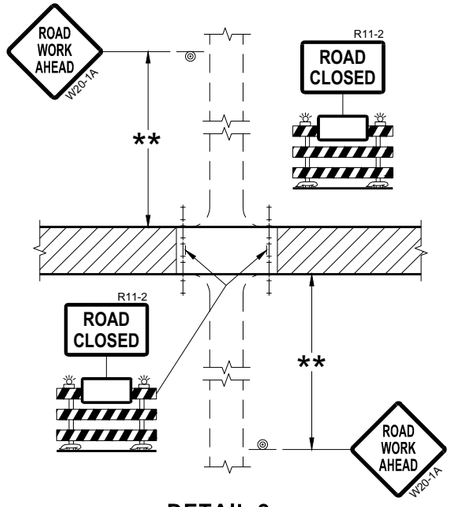
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

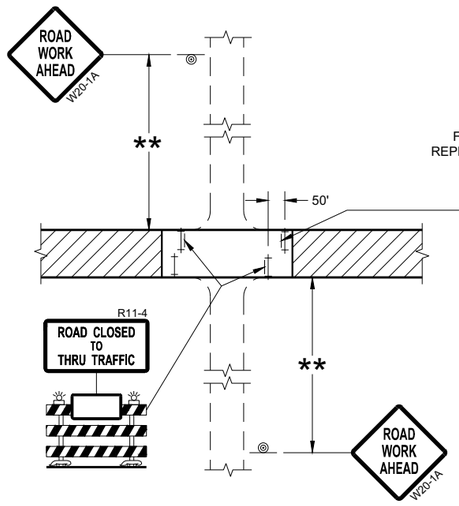
FHWA



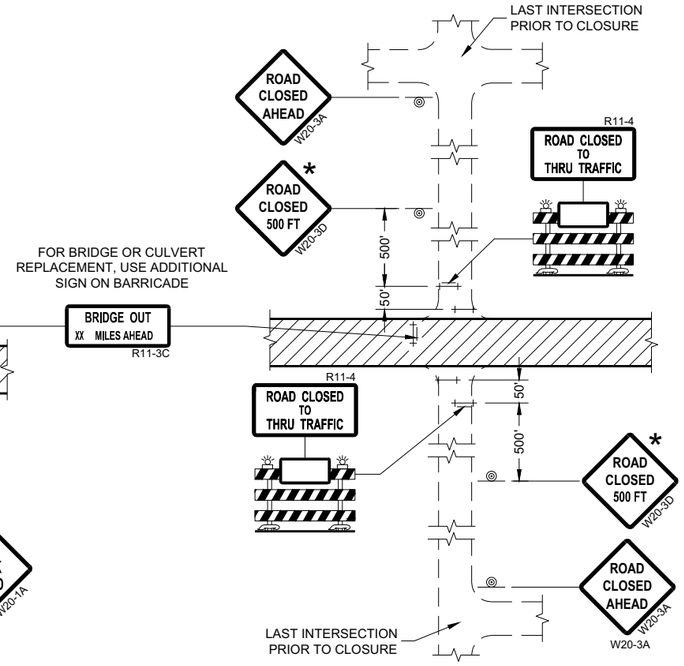
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C03 - 05

6

SDD 15C03 - 05

GENERAL NOTES

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

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

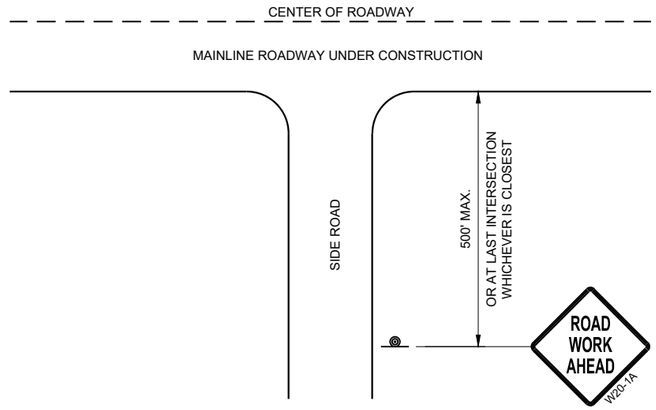
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS

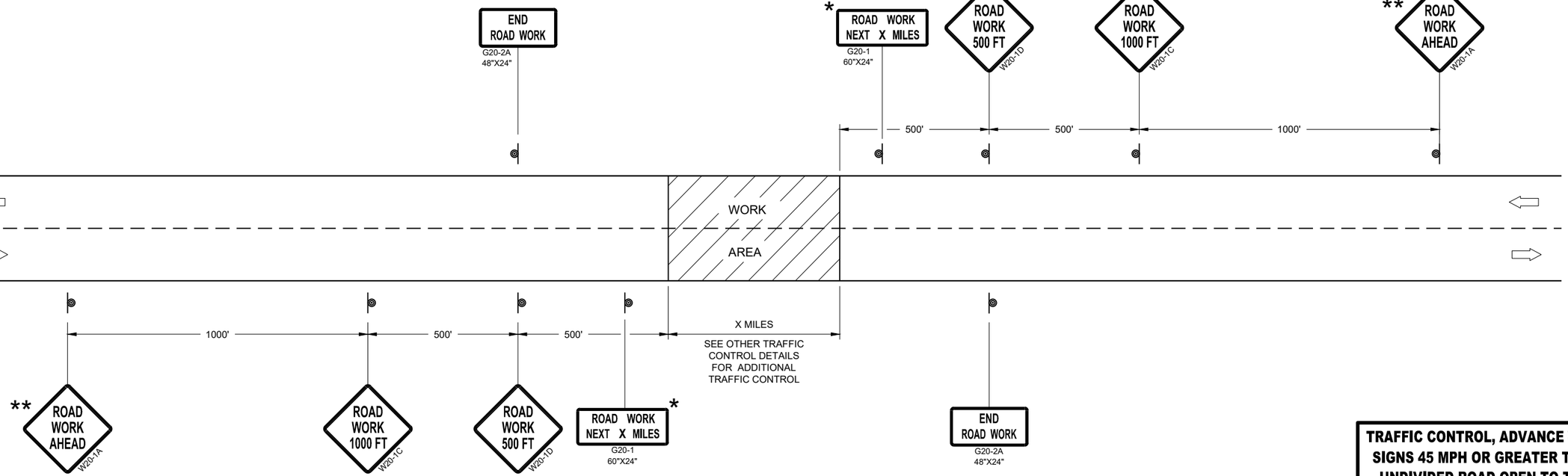
** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

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SDD 15C04 - 05

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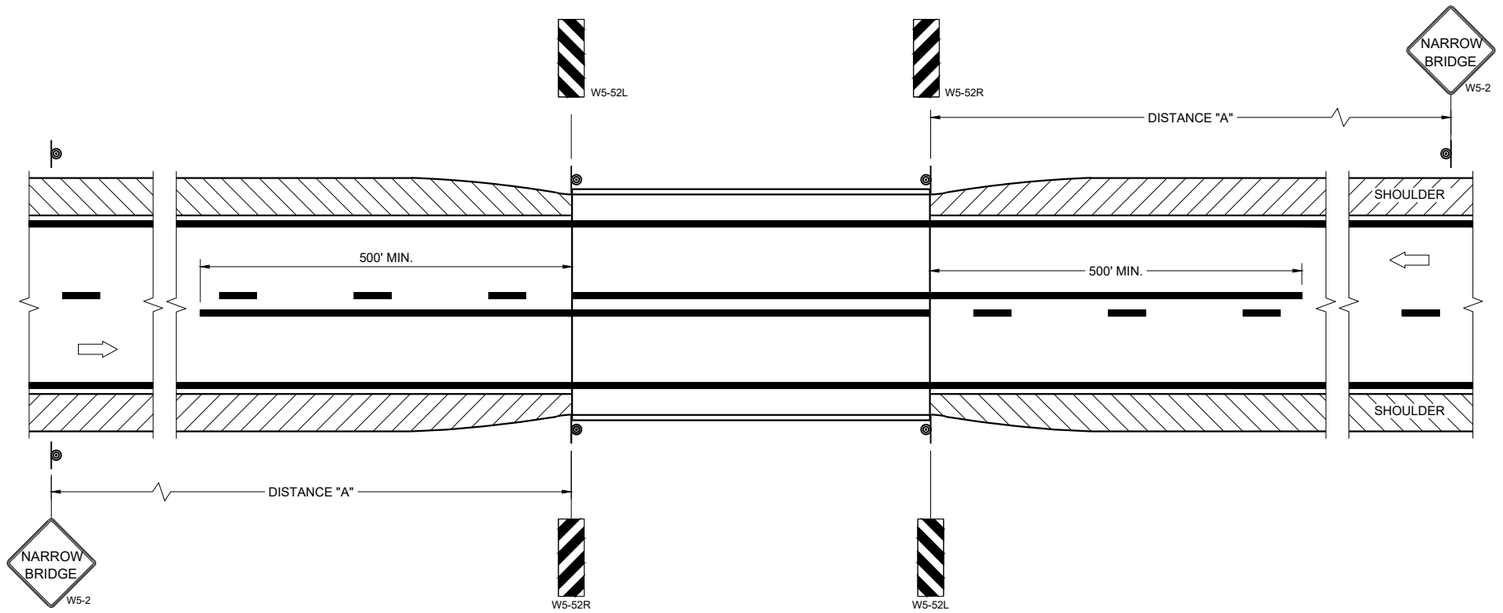
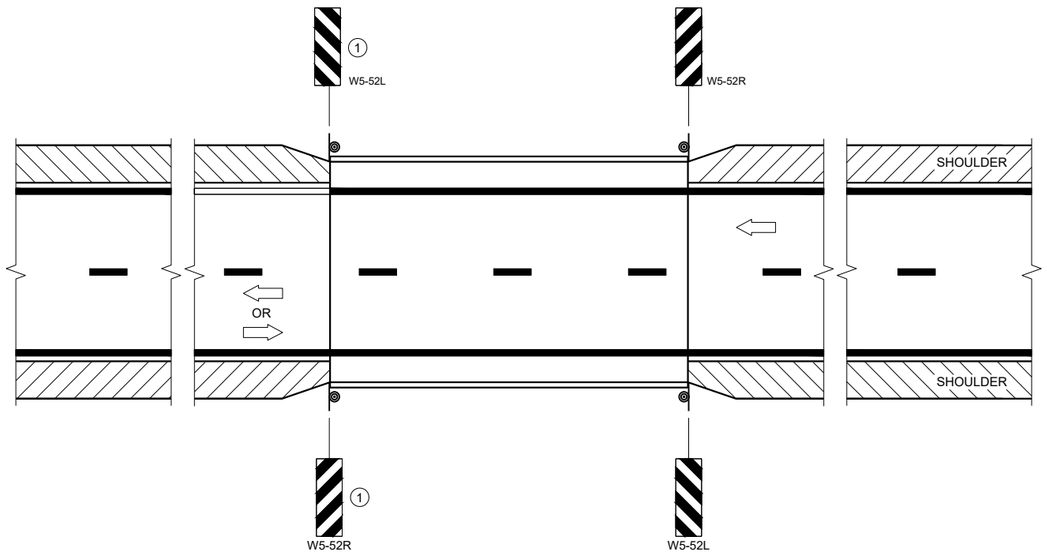
SDD 15C04 - 05



SITUATION 1

WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.



SITUATION 2

WARRANTING CRITERIA:
1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET

GENERAL NOTES

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

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

(1) OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	700'

SIGNING AND MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer
FHWA

6
SDD 15C06-12

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

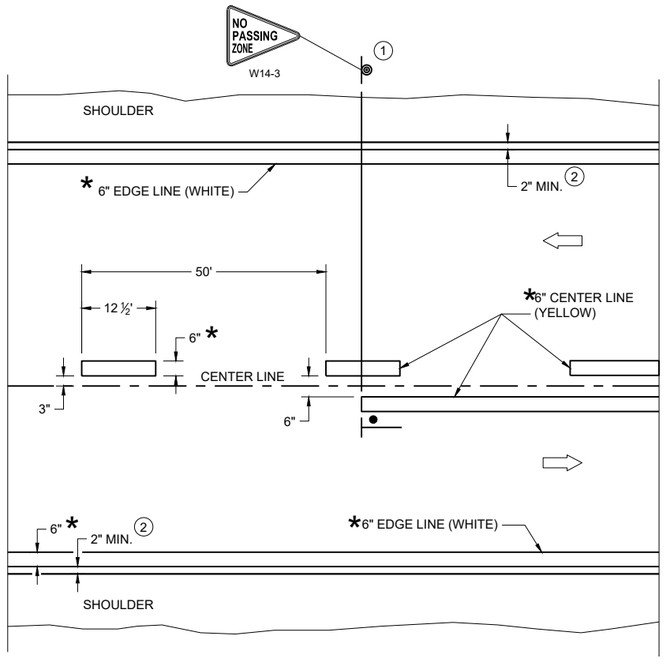
LEGEND

"T" MARKING

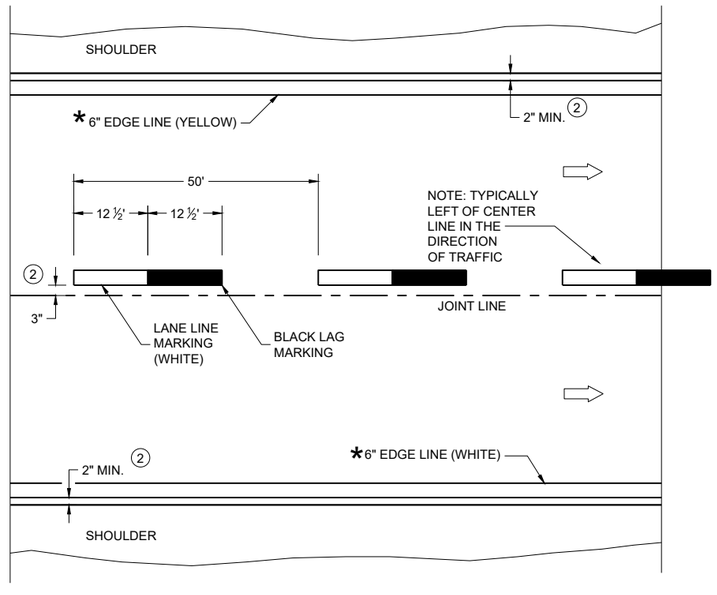
SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

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SDD 15C08-24a

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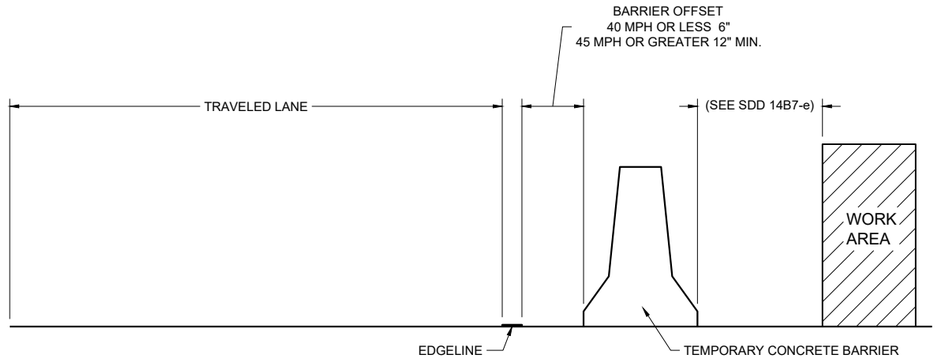
SDD 15C08-24a



TEMPORARY BARRIER OFFSET FROM EDGELINE

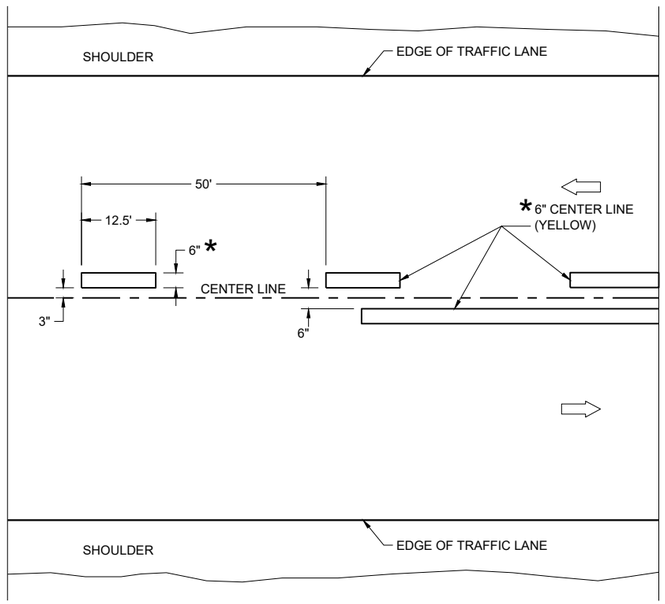
GENERAL NOTES

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

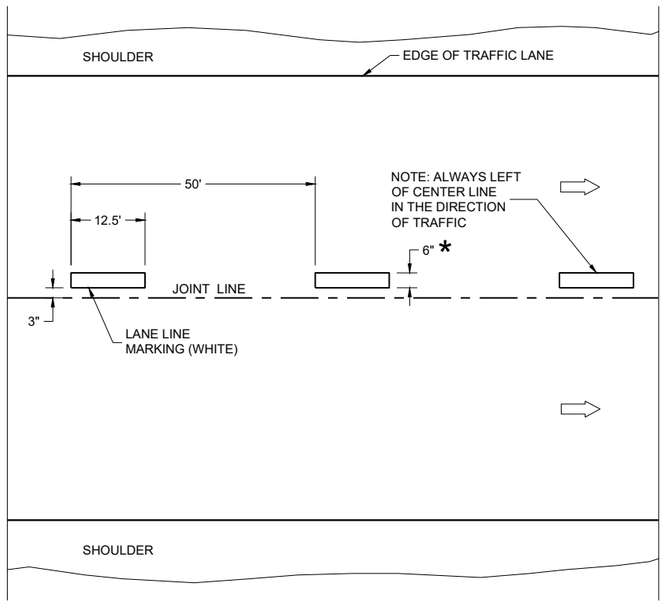
LEGEND

⇨ DIRECTION OF TRAFFIC

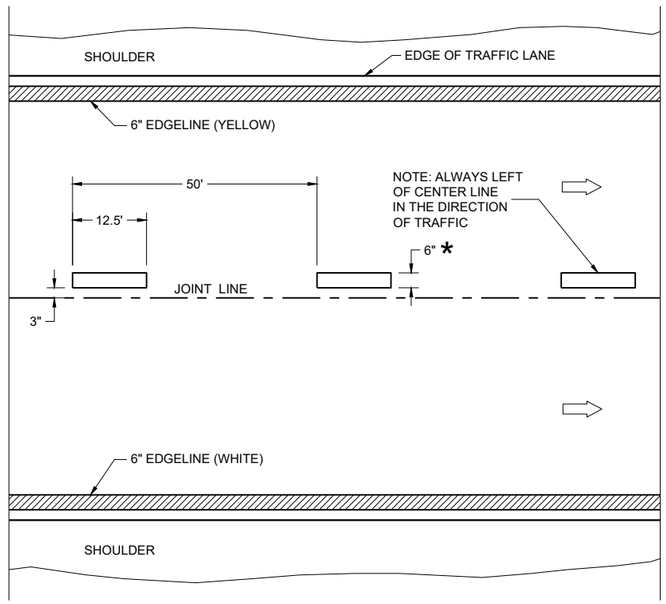
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

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SDD 15C08-24b

6

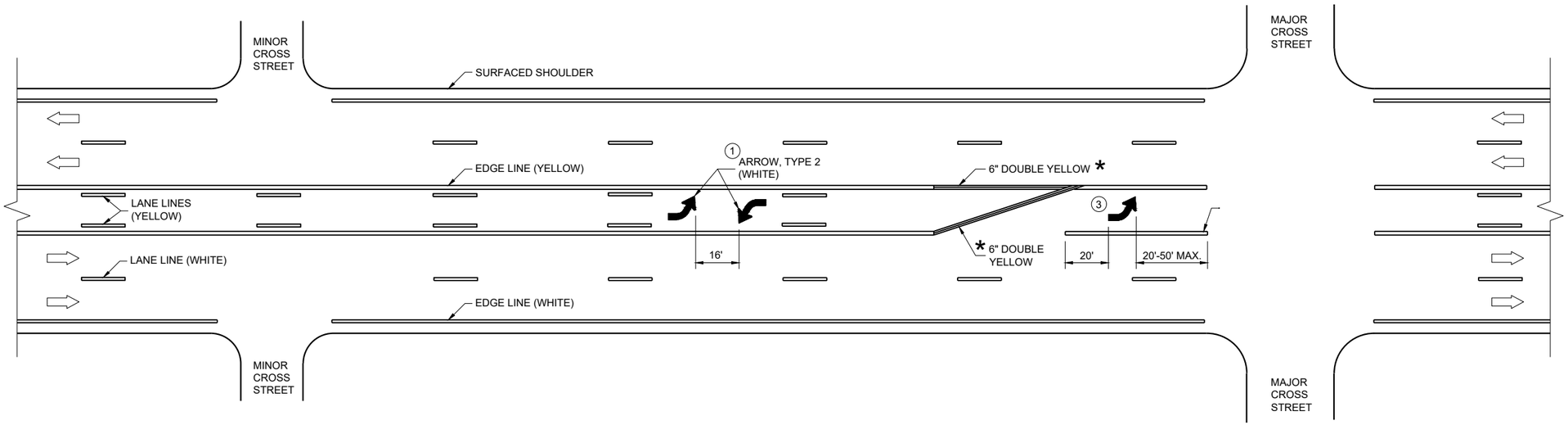
SDD 15C08-24b

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 10" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

⇨ DIRECTION OF TRAFFIC

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



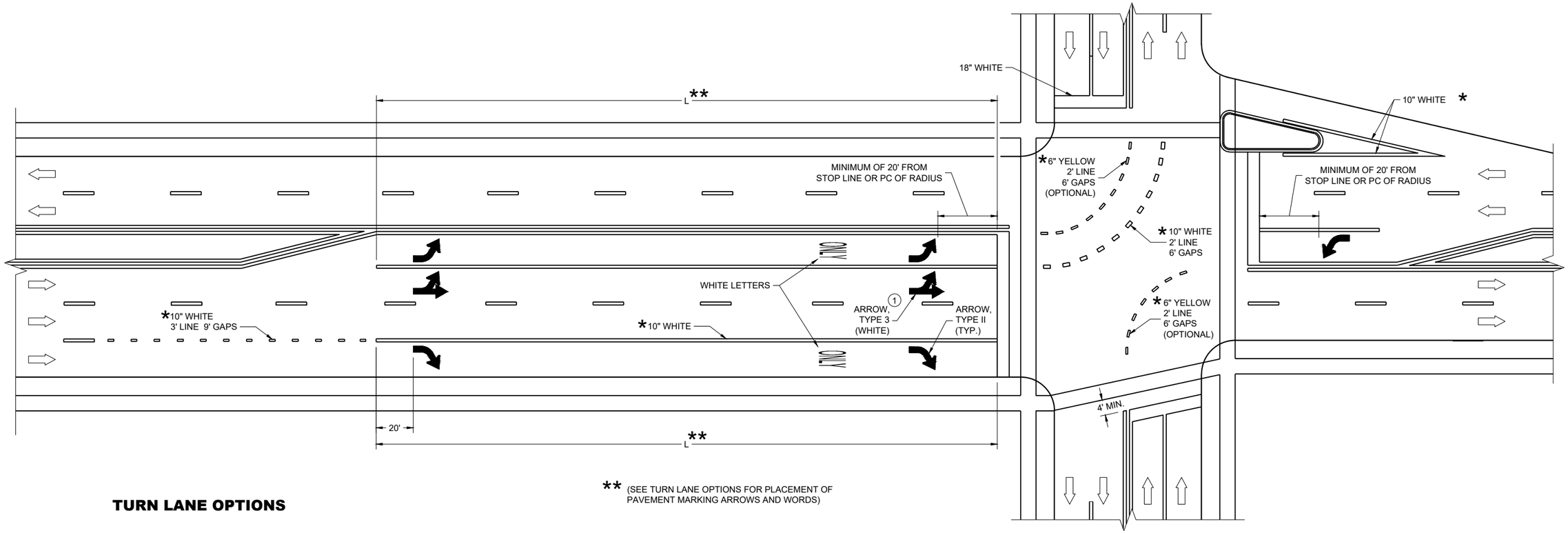
TWO WAY LEFT TURN LANE

6

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

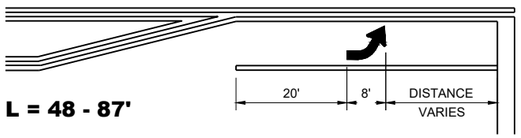
SDD 15C08-24c



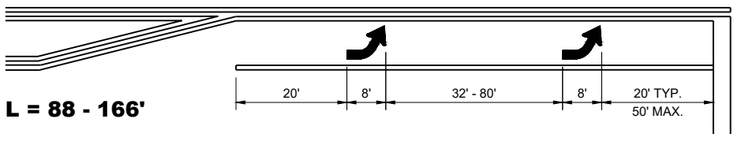
** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

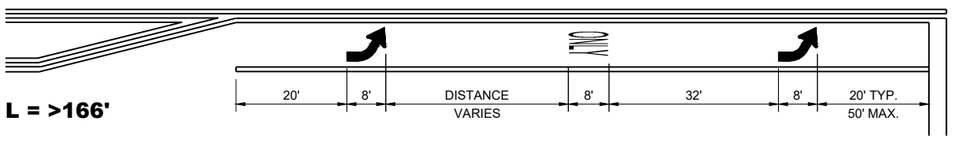
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT
REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

1. QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

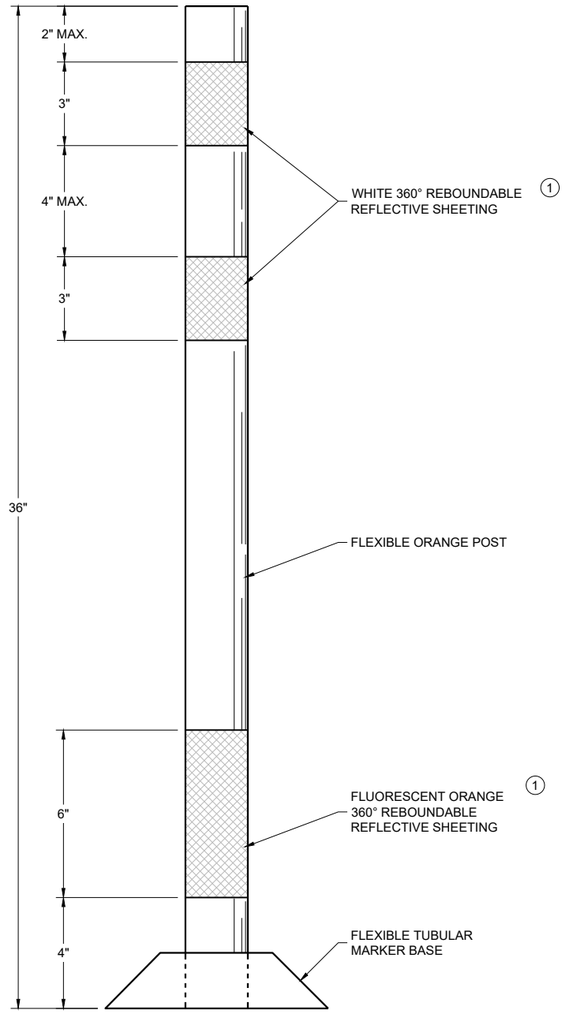
DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



FLEXIBLE TUBULAR MARKER POST WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

6

CHANNELIZING DEVICES
FLEXIBLE TUBULAR
MARKER POST

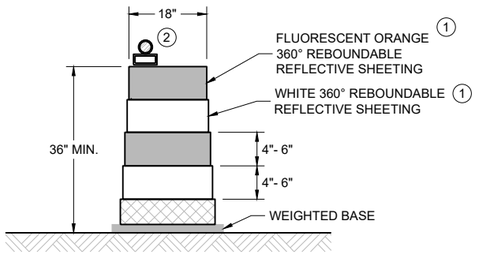
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 15C11-11a

GENERAL NOTES

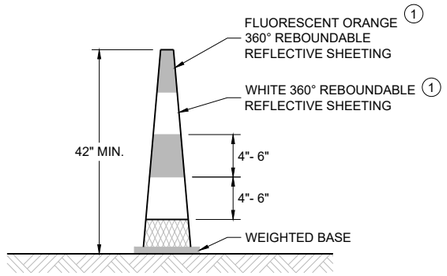
(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

(2) LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



DRUM

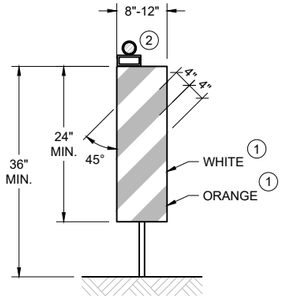
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

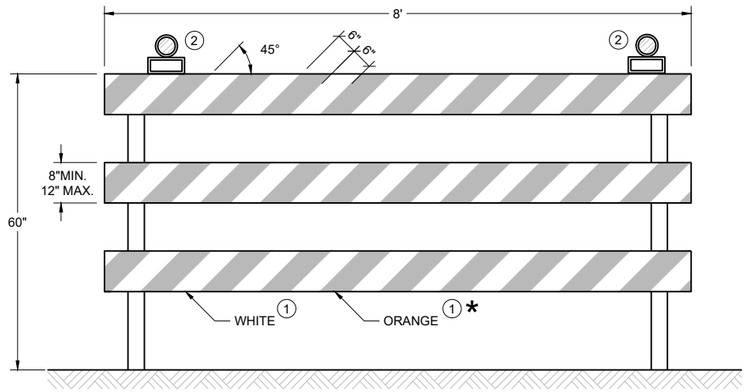
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



VERTICAL PANEL

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

February 2026
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15C11-11b

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.

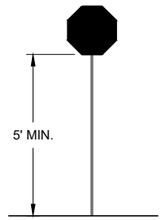
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM 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.



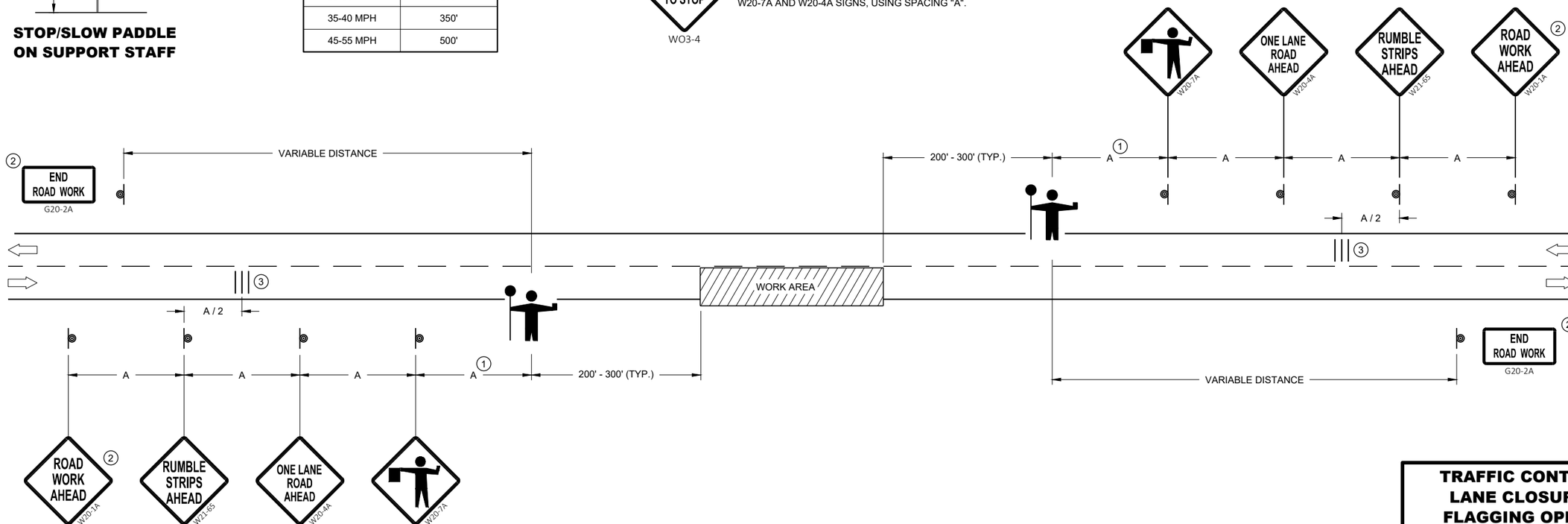
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

USE OF WO3-4 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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

6

SDD 15C12 - 09a

6

SDD 15C12 - 09a

GENERAL NOTES

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL CONE 42-INCH

TRAFFIC CONTROL DRUM

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

AFAD — AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)

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

IF THE AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) STOPS WORKING, 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.

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.

(1) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

(2) IF FLAGGERS ARE PHYSICALLY NEEDED TO FLAG, REPLACE WO3-4 SIGNS WITH W20-7A SIGNS.

TEMPORARY PORTABLE RUMBLE STRIPS

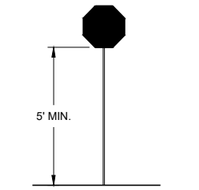
UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

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.

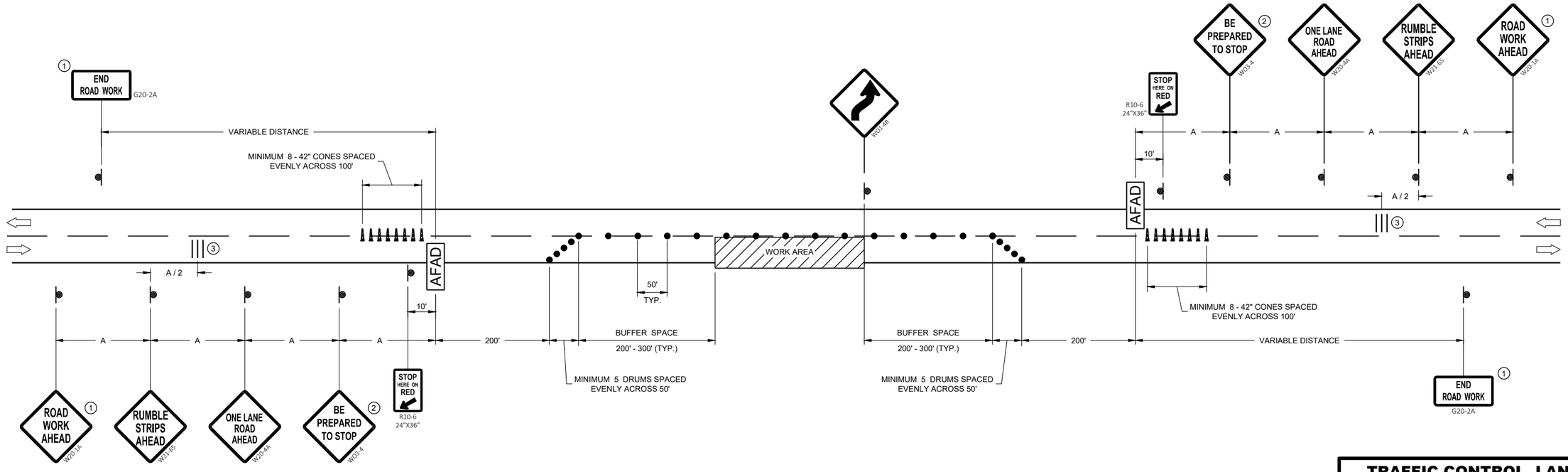
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSELY AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER.



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'



TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C12 - 09b

SDD 15C12 - 09b

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH

WORKERS SHALL NOT PERFORM WORK FROM ANY SHADOW OR PROTECTION VEHICLES.

UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

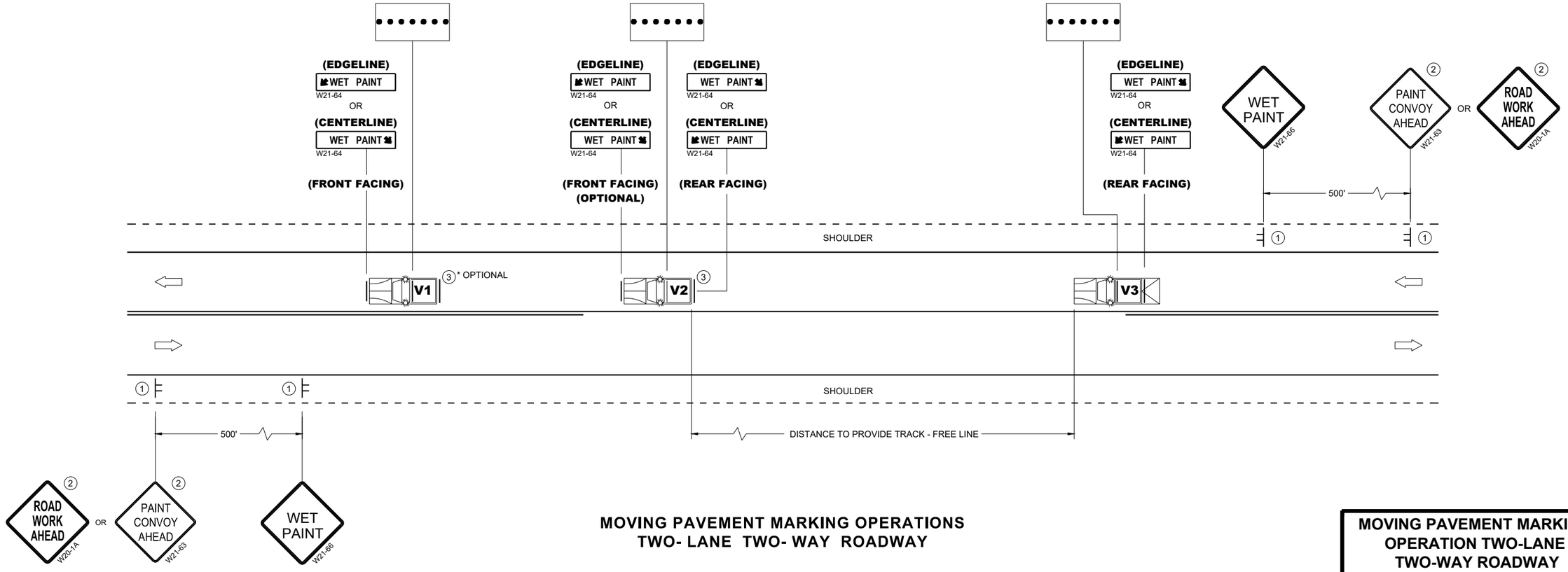
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING .

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY MAJOR INTERSECTION.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.

(3) V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.



MOVING PAVEMENT MARKING OPERATIONS
TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — STATE ELECTRICAL ENGINEER

FHWA

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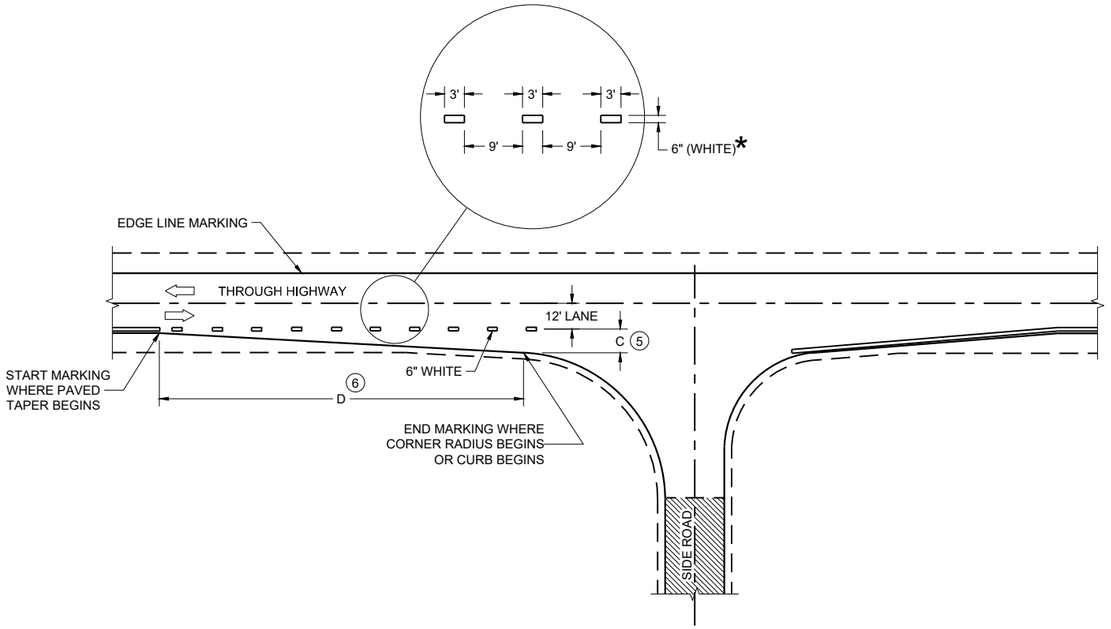
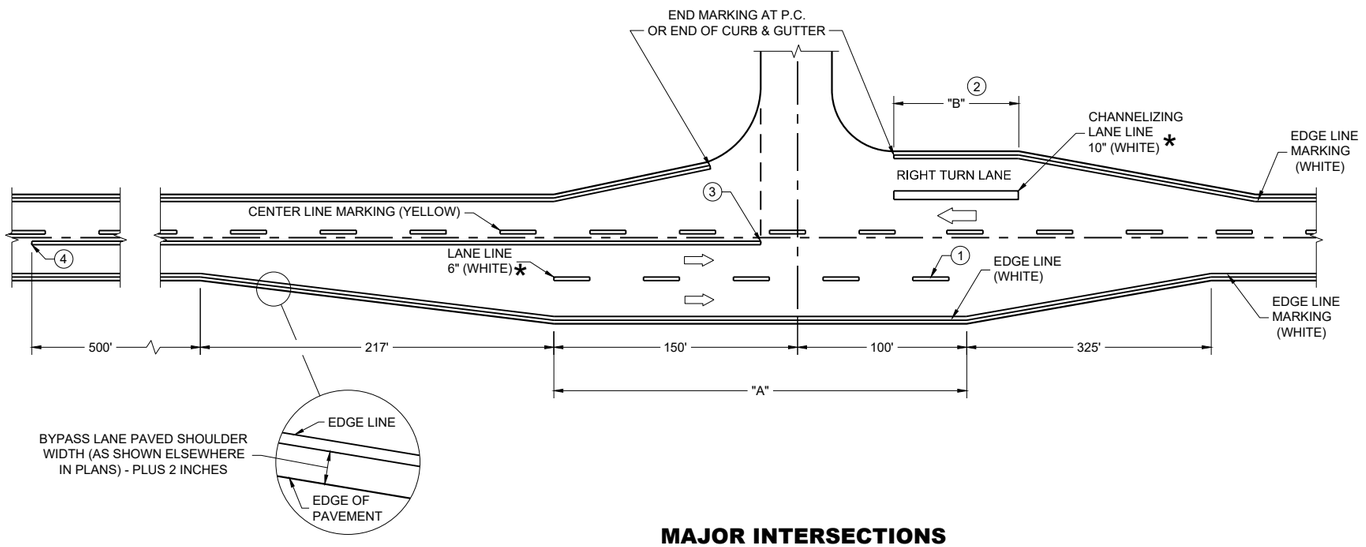
SDD 15C19-11a

SDD 15C19-11a



MINOR INTERSECTION



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

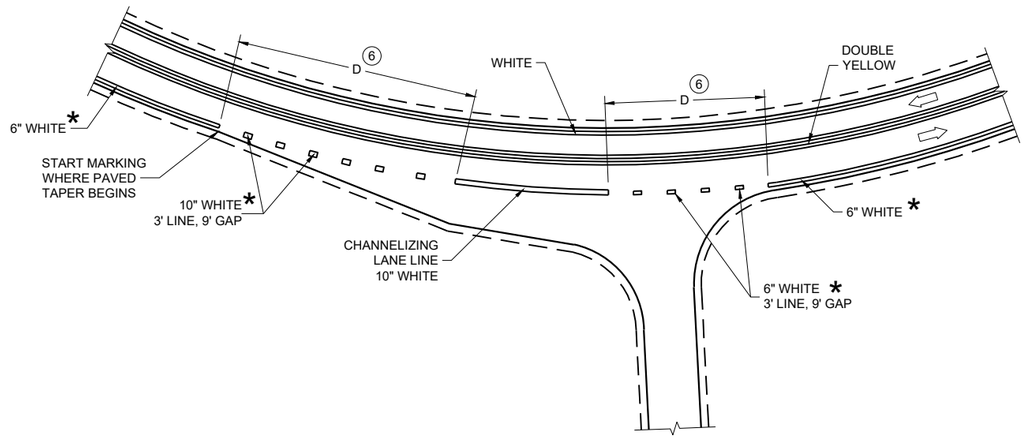
GENERAL NOTES

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.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
6. WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DIRECTION OF TRAFFIC
- CONNECTED ARROW BOARD
- WORK AREA
- (S) WZ START LOCATION MARKER
- (E) WZ END LOCATION MARKER

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

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

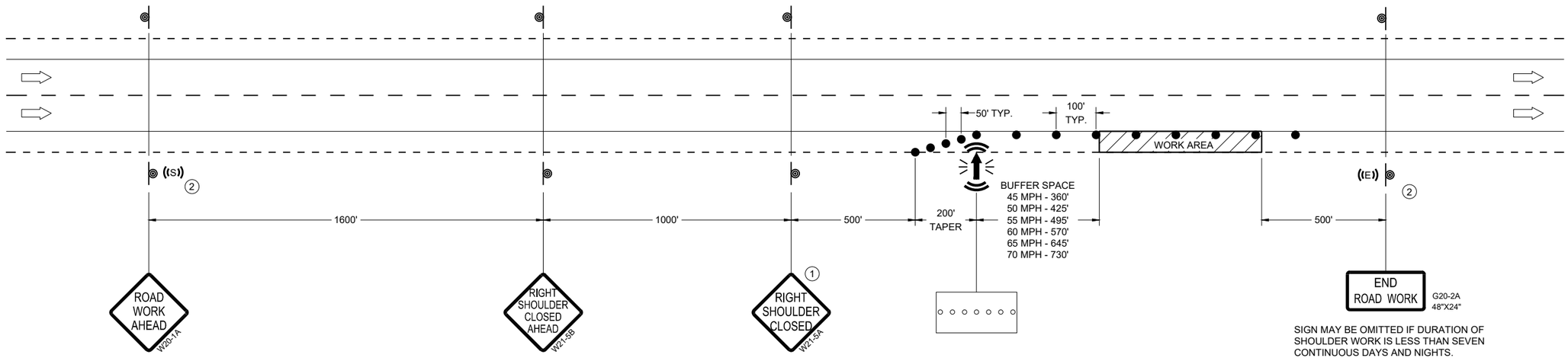
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

(1) FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR THE W21-5A SIGN MAY BE OMITTED.

(2) IF ALREADY PRESENT WITHIN PROJECT , DO NOT INCLUDE ADDITIONAL DEVICE.



SIGN MAY BE OMITTED IF DURATION OF SHOULDER WORK IS LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS.

TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Noveber 2025
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

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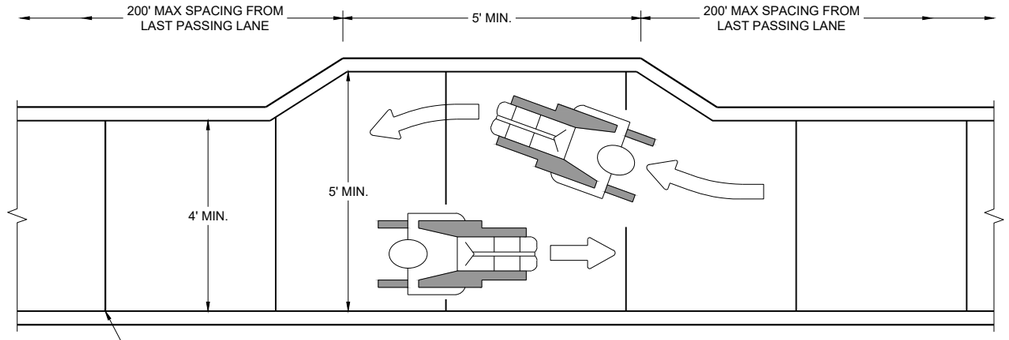
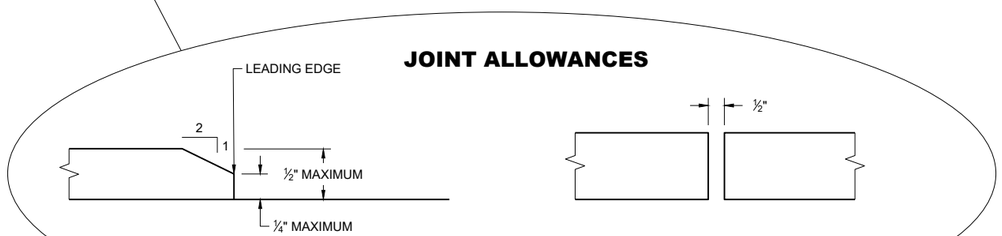
SDD 15D27-05



NARROW SIDEWALK PASSING DETAIL



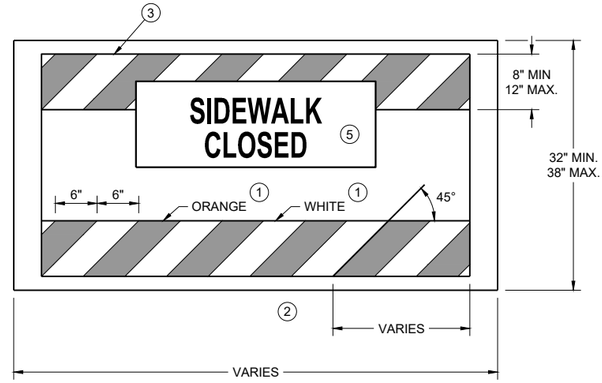
MAXIMUM VERTICAL GAP

MAXIMUM HORIZONTAL GAP

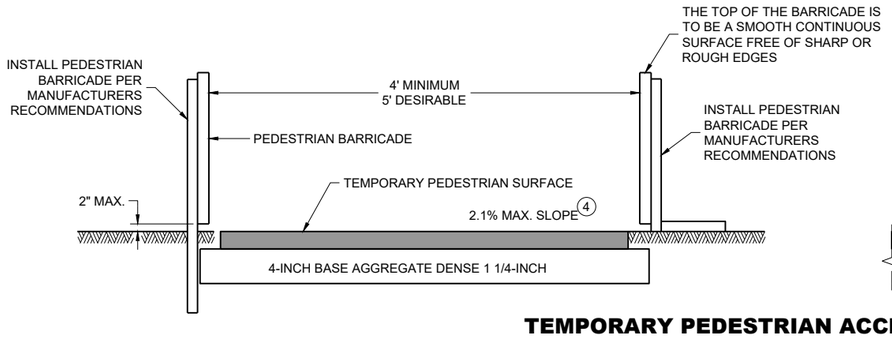
GENERAL NOTES

BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

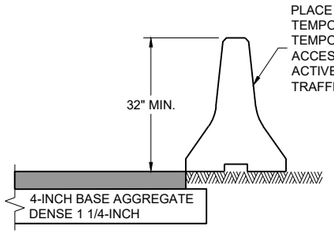
1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
3. PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.
* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.
4. WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.
5. WHERE SIGNS FOR TEMPORARY PEDESTRIAN ACCOMMODATIONS ARE SHOWN BEING PLACED BEHIND TEMPORARY PEDESTRIAN BARRICADE, THE SIGNS MAY BE MOUNTED ON THE TEMPORARY PEDESTRIAN BARRICADE INSTEAD. A CORRUGATED POLYPROPYLENE OR POLYETHYLENE PLASTIC SIGN BASE SHALL BE USED IF MOUNTED ON THE BARRICADE. THE TOP OF THE SIGN SHALL BE MOUNTED BELOW THE TOP OF THE BARRICADE TO ALLOW A CONTINUOUS HAND-TRAILING EDGE.



TEMPORARY PEDESTRIAN BARRICADE *



TEMPORARY PEDESTRIAN ACCESS



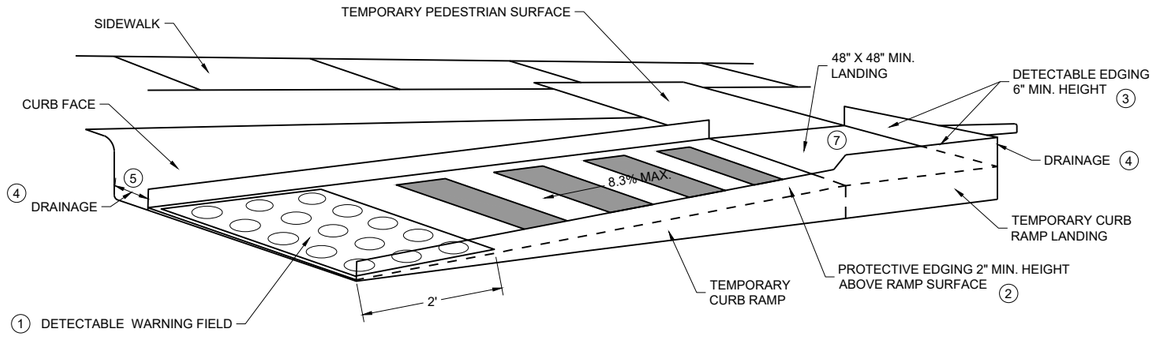
TEMPORARY PEDESTRIAN FLAGGING

LEGEND

- TEMPORARY PEDESTRIAN BARRICADE
- AUDIBLE MESSAGE DEVICE
- TEMPORARY SIGN SUPPORT
- WORK AREA

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PERSPECTIVE VIEW

GENERAL NOTES

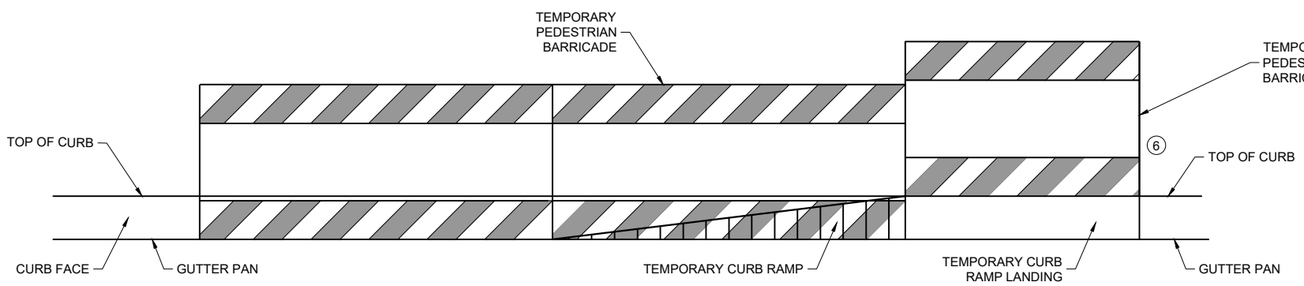
CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.

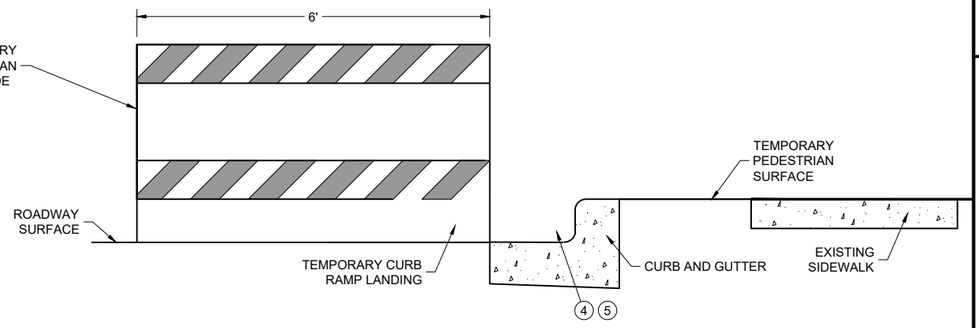
CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

1. INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.
2. PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
5. ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.
6. IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.
7. LANDING TO BE SLOPED A MAXIMUM OF 2.1% IN ALL DIRECTIONS OF PEDESTRIAN TRAVEL.



FRONT VIEW



SIDE VIEW

TEMPORARY CURB RAMP PARALLEL TO CURB

6

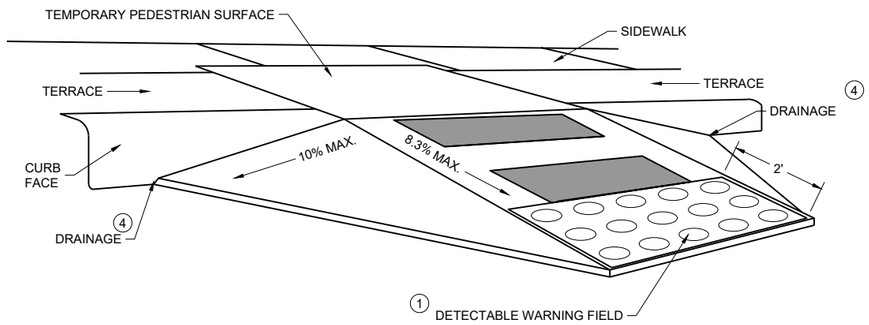
SDD 15D30-12b

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

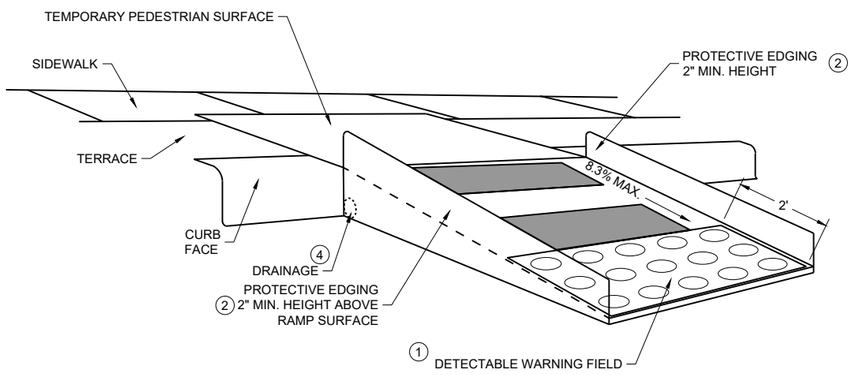
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30-12b



WITH SIDE APRON (5)



WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

(1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS

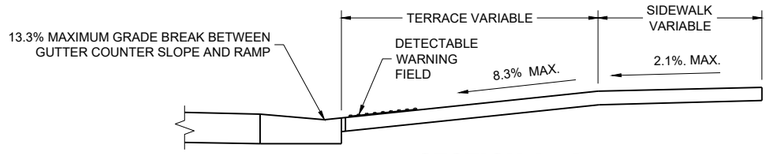
(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

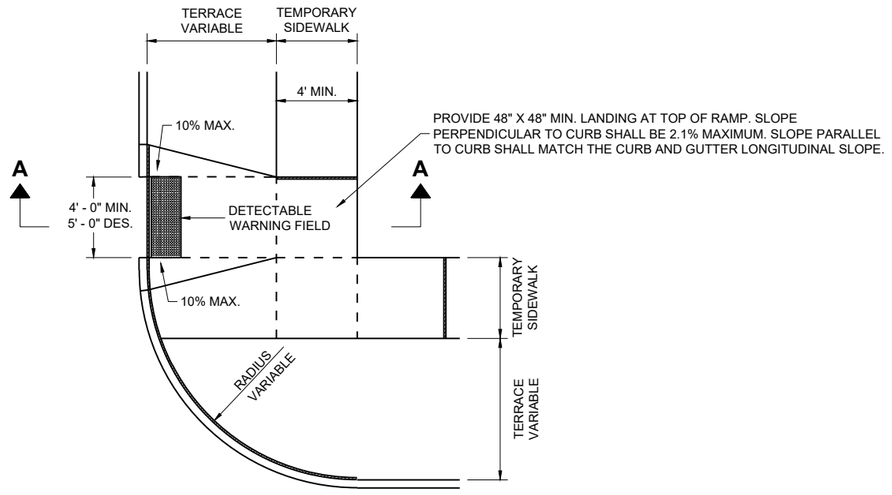
(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

GENERAL NOTES



SECTION A - A



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

6

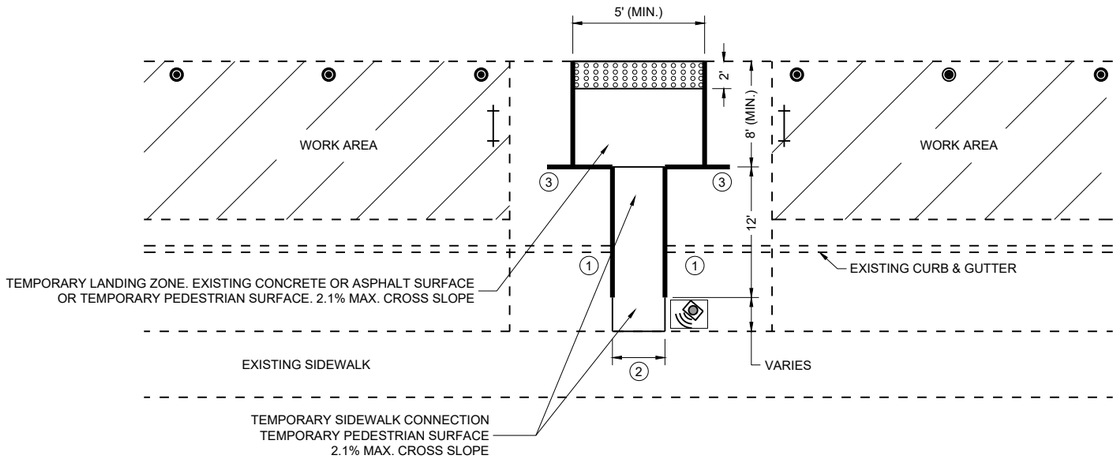
SDD 15D30-12d

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

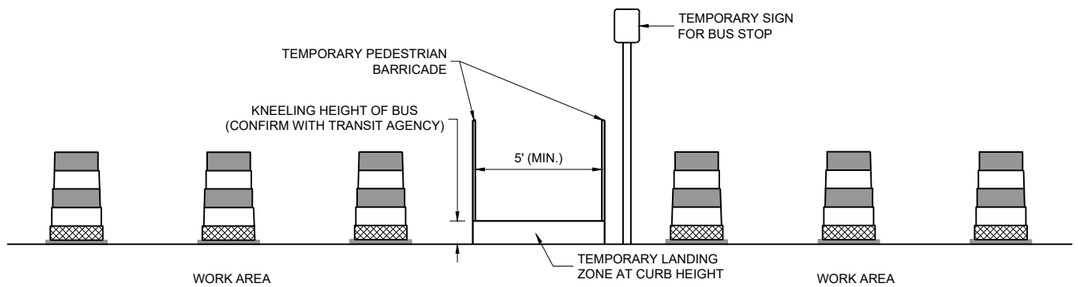
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30-12d



PLAN VIEW



PROFILE VIEW TEMPORARY BUS STOP PAD

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.

(1) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(2) 5' WIDE MIN. WITH TEMPORARY PEDESTRIAN BARRICADE, 10' WIDE MIN. WITHOUT TEMPORARY PEDESTRIAN BARRICADE.

(3) PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE INTO THIS SPACE.

LEGEND

- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY DETECTABLE WARNING FIELD
- WORK AREA
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

6

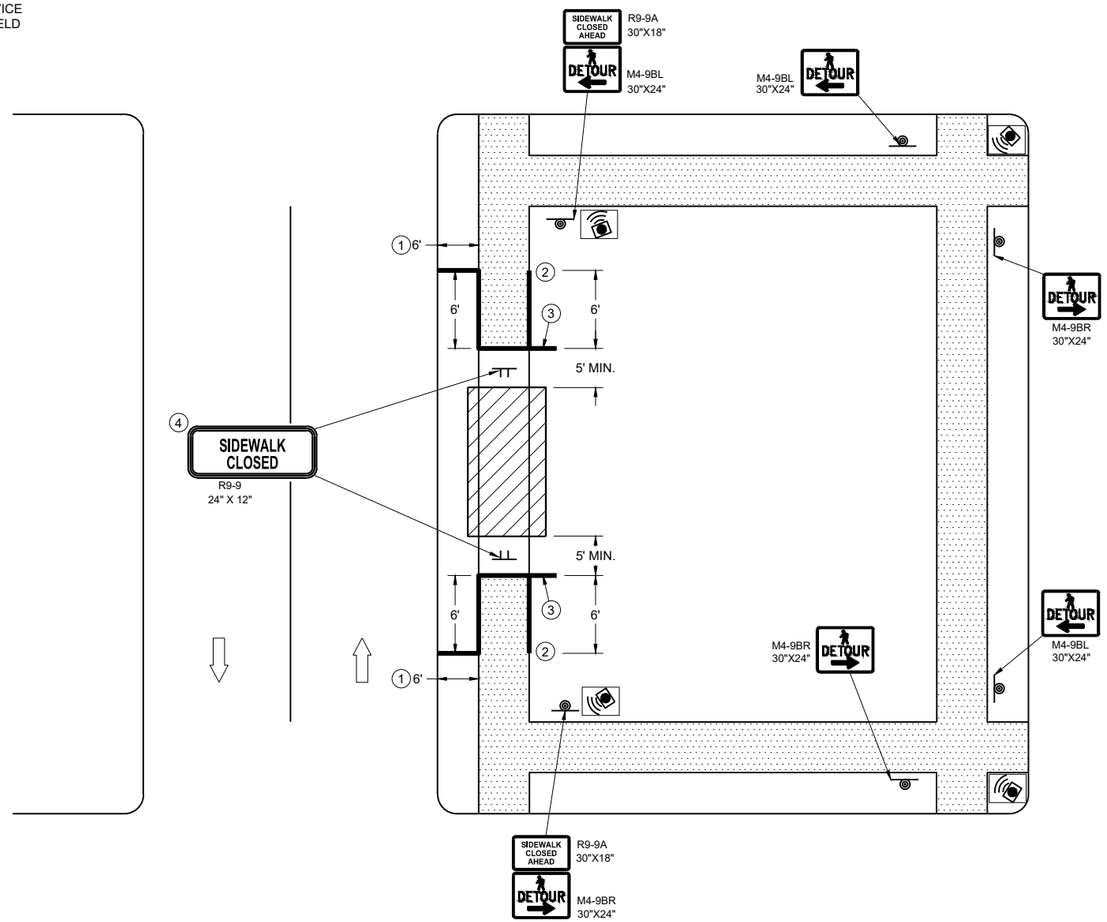
SDD 15D30-12e

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)



SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

GENERAL NOTES

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICTS WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

1. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
2. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
3. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
4. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 15D30-12f

LEGEND

- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY PEDESTRIAN SURFACE
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

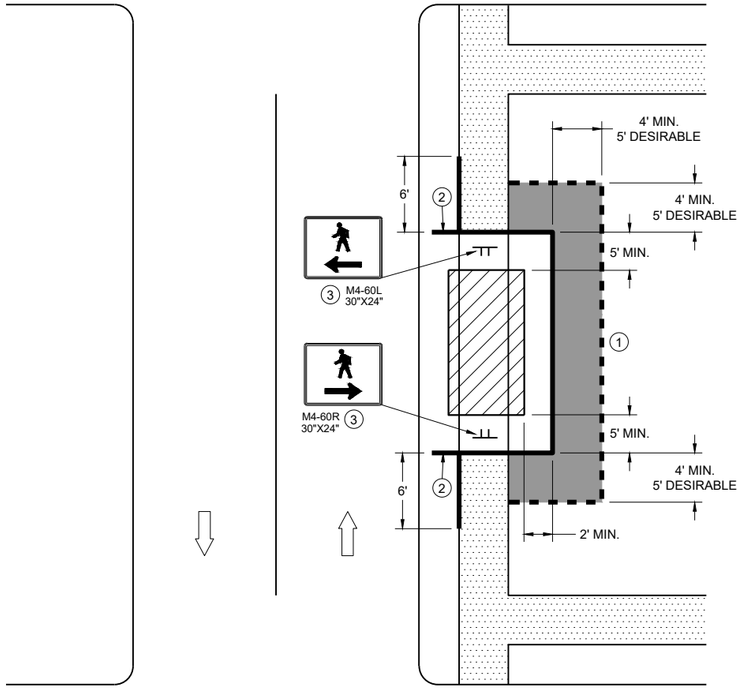
WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

(1) USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.

(2) IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.

(3) MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



SIDEWALK BYPASS
SINGLE SIDE

6

SDD 15D30-12g

6

SDD 15D30-12g

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

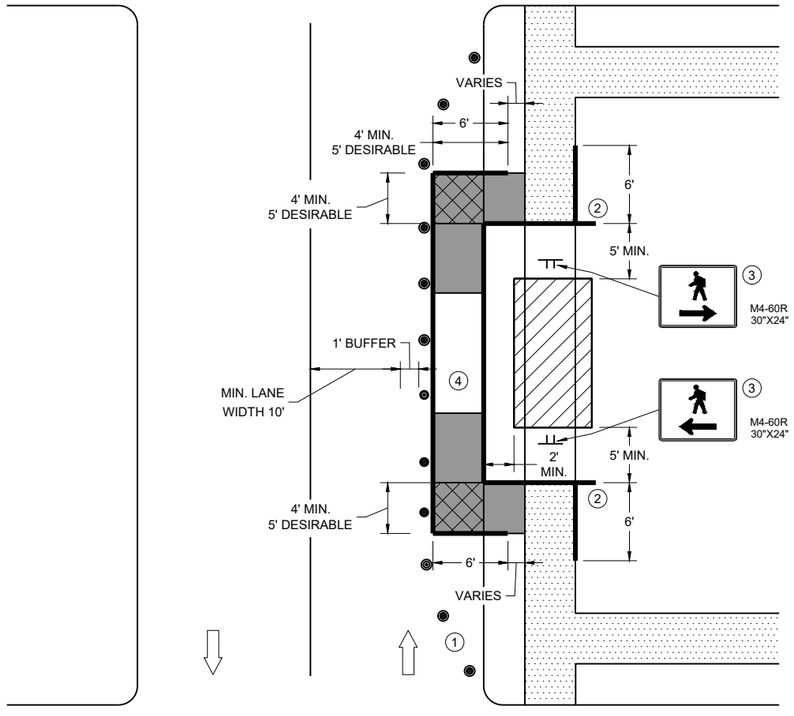
WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

(1) SHOULDER OR LANE CLOSURE ADVANCE WARNING AND BUFFER SPACE REQUIRED.

(2) PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL PAST THE SIDEWALK ON THE SIDE AWAY FROM THE ROAD.

(3) MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

(4) USE EXISTING PAVEMENT SURFACE. IF EXISTING PAVEMENT SURFACE HAS BEEN REMOVED, USE A TEMPORARY PEDESTRIAN SURFACE. WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.



SIDEWALK BYPASS, SINGLE SIDE

6

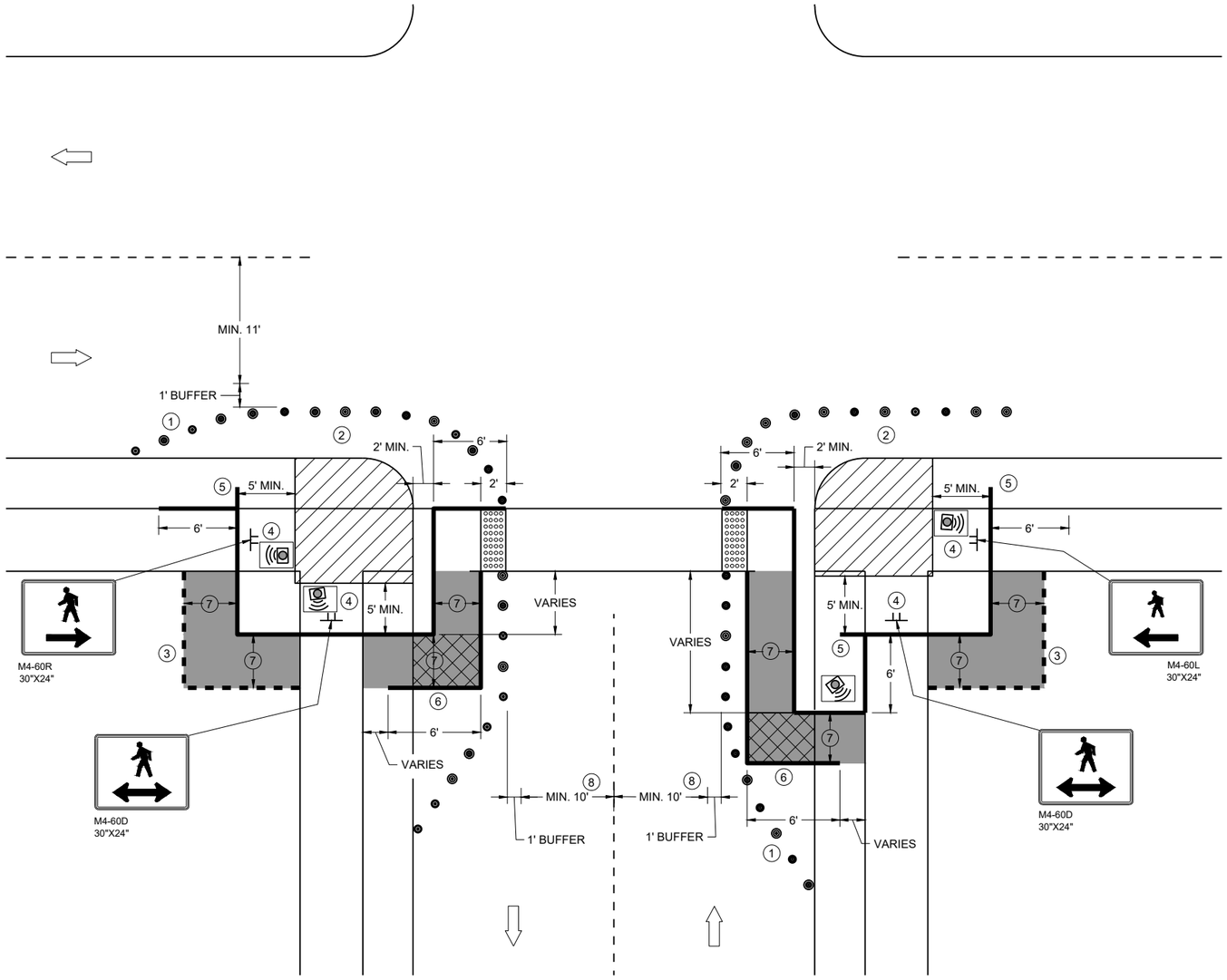
SDD 15D30-12h

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30-12h



CURB RAMP PEDESTRIAN TRAFFIC CONTROL
SIDEWALK ON SINGLE SIDE

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
2. PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
3. USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
4. MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
5. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
6. IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
7. 4 FEET MINIMUM, 5 FEET DESIRABLE
8. IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

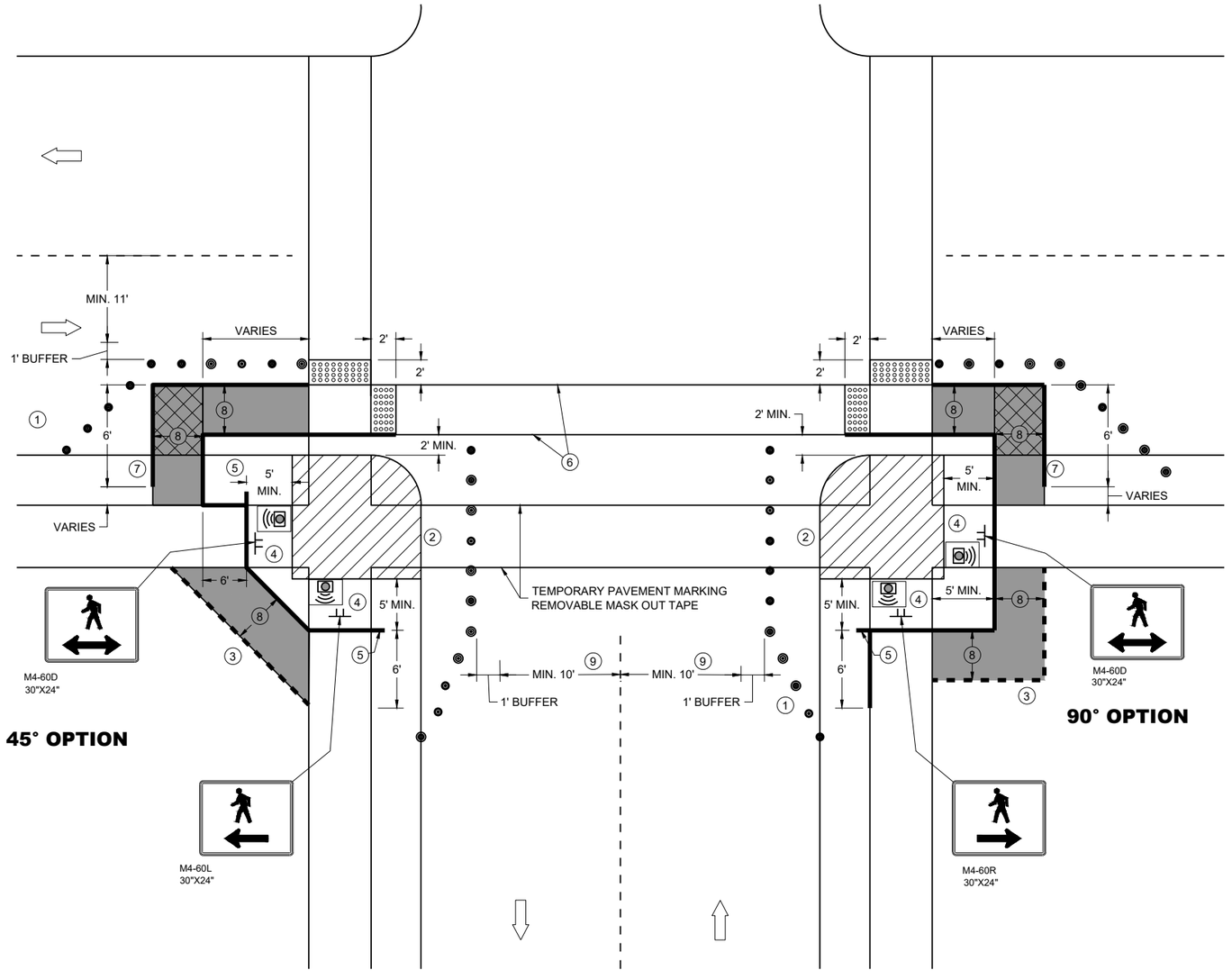
LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 15D30-12i



CURB RAMP PEDESTRIAN TRAFFIC CONTROL

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

(1) SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.

(2) PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS

(3) USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.

(4) MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.

(5) PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.

(6) WHITE 6" TEMPORARY PAVEMENT MARKING

(7) IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.

(8) 4 FEET MINIMUM, 5 FEET DESIRABLE

(9) IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

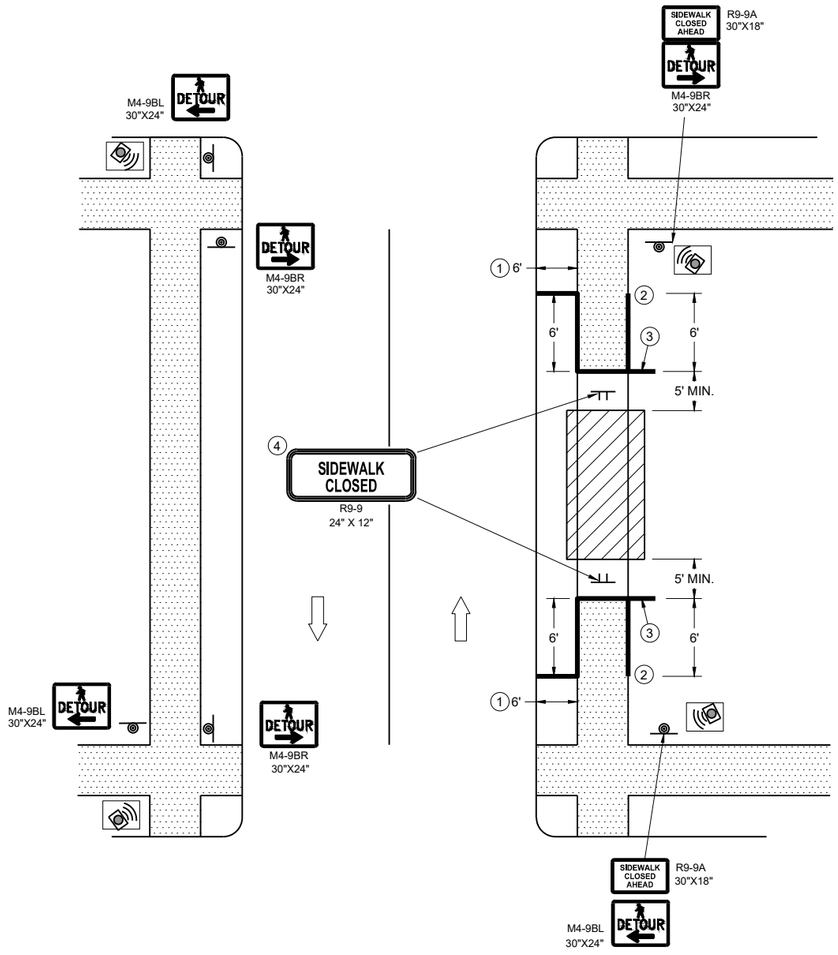
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 15D30-12j

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)



SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES

GENERAL NOTES

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICT WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

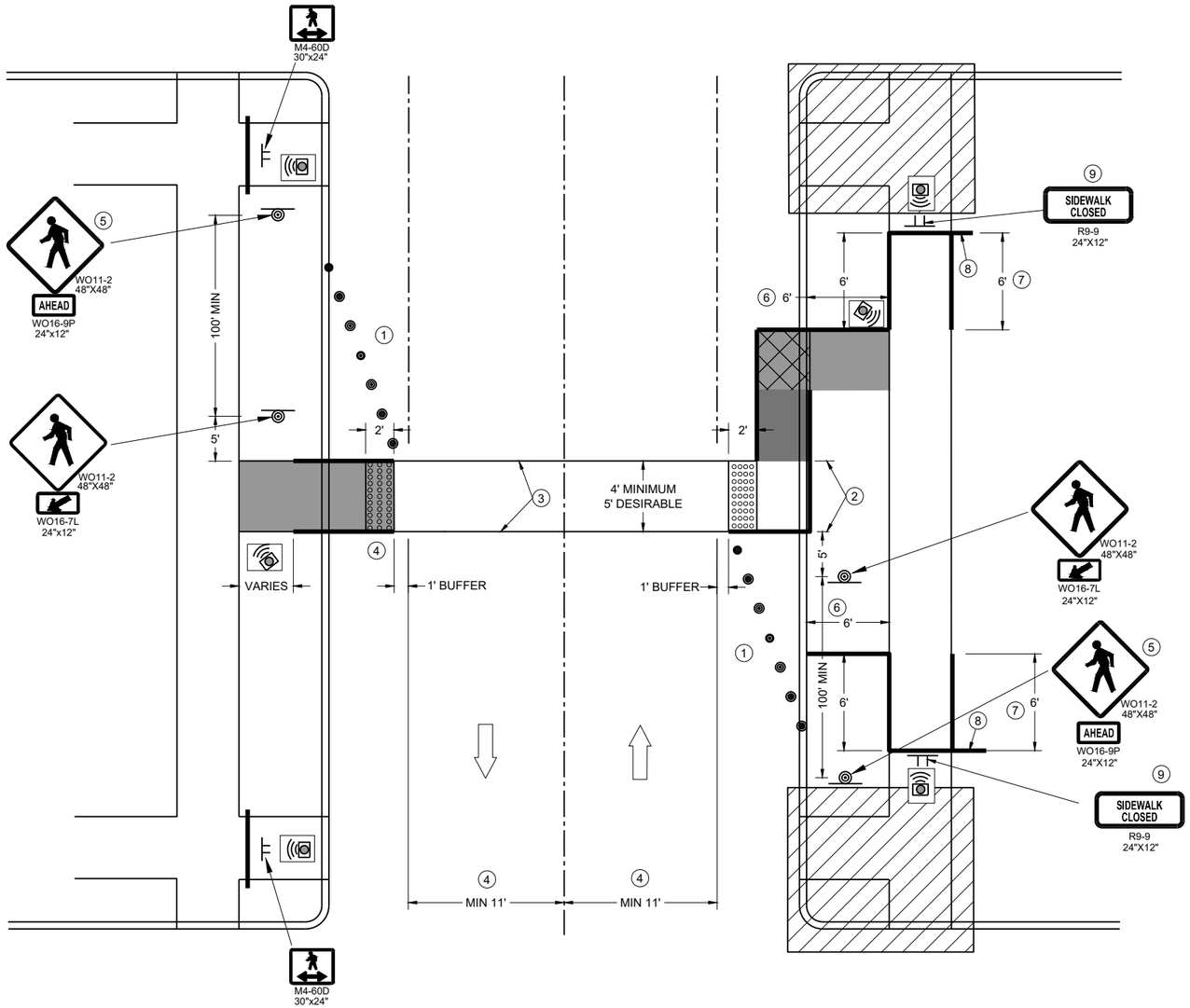
1. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
2. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
3. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
4. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30-12k



TEMPORARY PEDESTRIAN CROSSING

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SEE OTHER PEDESTRIAN ACCOMMODATION DETAILS FOR SIGNING AND DEVICES FOR DIFFERENT PEDESTRIAN FACILITIES CLOSURES.

WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

1. SHOULDER OR LANE CLOSURE ADVANCED WARNING AND PROPER BUFFER SPACE REQUIRED.
2. 4 FEET MINIMUM, 5 FEET DESIRABLE.
3. WHITE 6" TEMPORARY PAVEMENT MARKING.
4. IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, PERPENDICULAR CURB RAMPS MAY NEED TO BE UTILIZED.
5. IF MINIMUM 100' SPACING FROM THE MID-BLOCK CROSSING CANNOT BE ATTAINED BEFORE THE INTERSECTION, REMOVE THIS SIGN ASSEMBLY.
6. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
7. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
8. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF THE EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
9. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF THE SIGN.

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

6

SDD 15D30-12I

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TEMPORARY DELINEATOR (WHITE, SINGLE DELINEATOR)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY RAISED PAVEMENT MARKERS (TWO WAY YELLOW)
- TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKINGS
- WORK AREA

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL ON STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

EQUIPMENT, VEHICLES, OR MATERIAL SHOULD NOT BE STORED IN BUFFER SPACE.

(1) IF ADVISORY SPEED IS GREATER THAN 30 MPH, USE THE WO1-4 SIGN. IF ADVISORY SPEED IS 30 MPH OR LESS, USE THE WO1-3 SIGN.

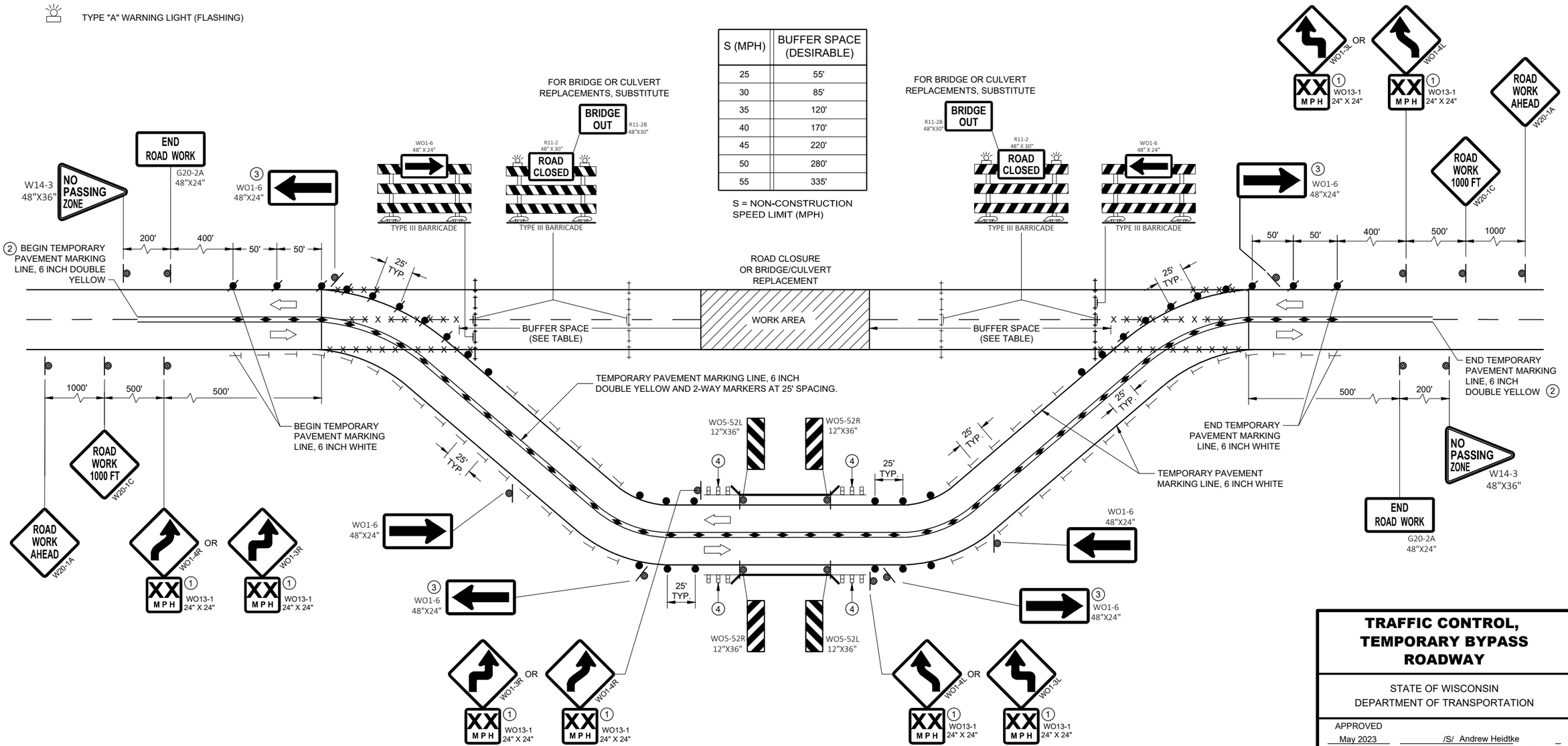
(2) WHEN THE DISTANCE TO / FROM THE NEXT CLOSEST NO-PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.

(3) OMIT THESE W01-6 SIGNS IF THE ADVISORY SPEED OF THE CURVE IS GREATER THAN 30 MPH.

(4) TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT WHEN INCLUDED IN THE CONTRACT. FOR LAYOUT, SEE DETAILS ELSEWHERE IN THE PLAN.

S (MPH)	BUFFER SPACE (DESIRABLE)
25	55'
30	85'
35	120'
40	170'
45	220'
50	280'
55	335'

S = NON-CONSTRUCTION SPEED LIMIT (MPH)



TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

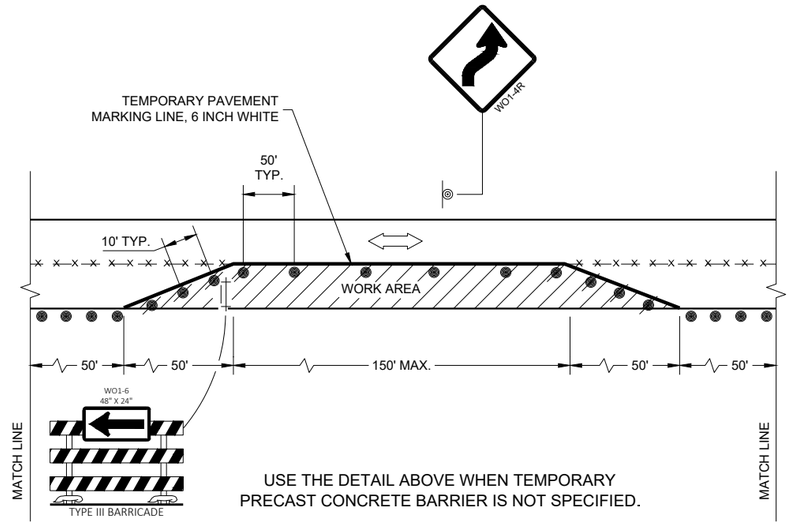
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6 SDD 15D31-05

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLAGS, 16" X 16" MIN. (ORANGE)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- ASPHALTIC PAVEMENT WIDENING
- CONCRETE BARRIER TEMPORARY PRECAST



USE THE DETAIL ABOVE WHEN TEMPORARY PRECAST CONCRETE BARRIER IS NOT SPECIFIED.

GENERAL NOTES

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

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

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

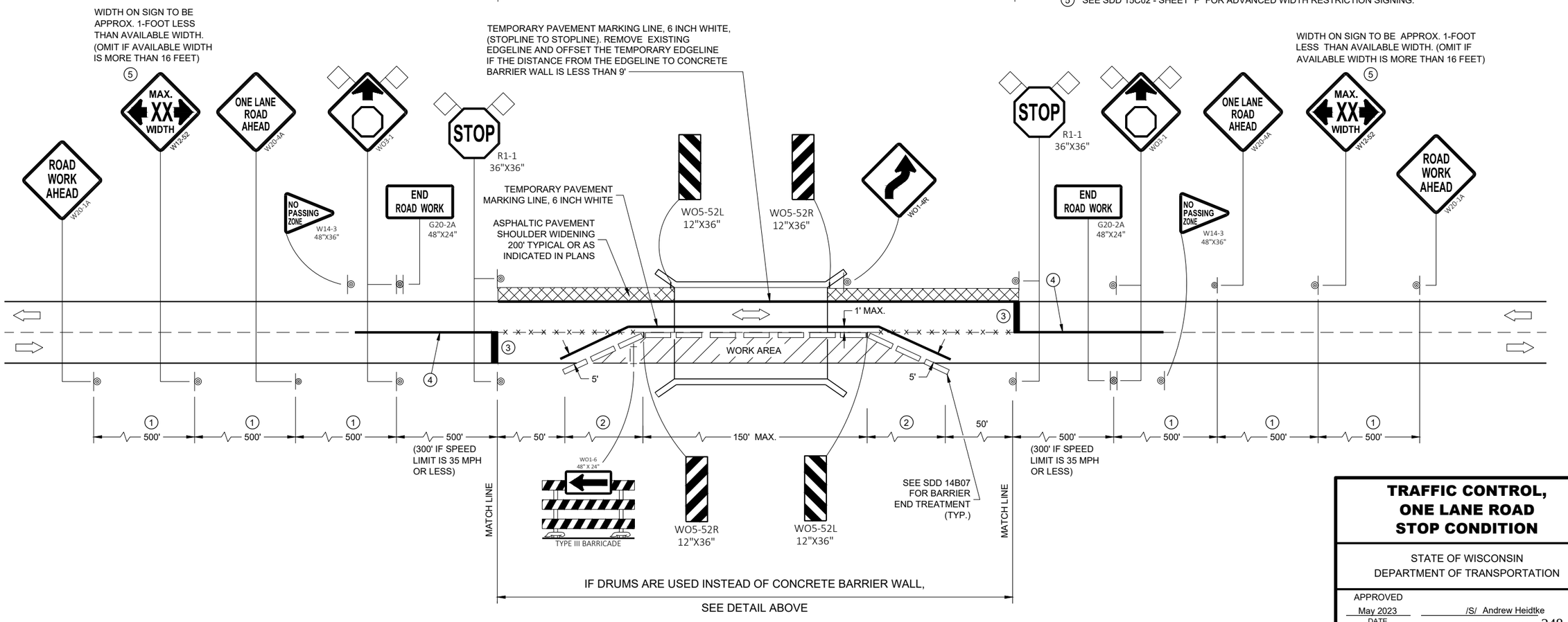
ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

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

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

1. 500 FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35 - 40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25 - 30 MPH, USE 200 FOOT TYPICAL SPACING.
2. DIMENSION DETERMINED BY CBTP TAPER FROM EDGE LINE TO TANGENT SECTION OF THE ROAD.
3. TEMPORARY PAVEMENT MARKING LINE, 18 INCH WHITE STOP LINE.
4. 700 FOOT TEMPORARY PAVEMENT MARKING LINE, 6 INCH DOUBLE YELLOW. WHEN THE DISTANCE FOR THE PRECEDING NO - PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.
5. SEE SDD 15C02 - SHEET "F" FOR ADVANCED WIDTH RESTRICTION SIGNING.



TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION

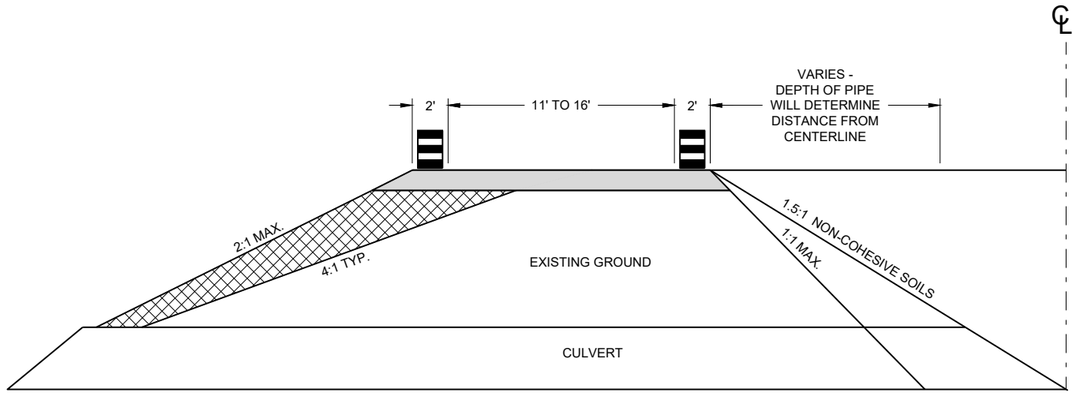
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6
SDD 15D32-07



CROSS SECTION

GENERAL NOTES

USE 1:1 FOR COHESIVE CLAYS AND SILTS, LOAMS, SANDY CLAYS AND ANGULAR GRAVEL SOILS.
USE 1.5:1 FOR NON-COHESIVE SOILS.

THE TAPER SHOULD EXTEND ACROSS THE SHOULDER UNLESS DOING SO WOULD GREATLY CONFLICT WITH THE WORK OPERATION.

ALL LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL DEVICES REMOVED BEYOND THE SHOULDER WHEN WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

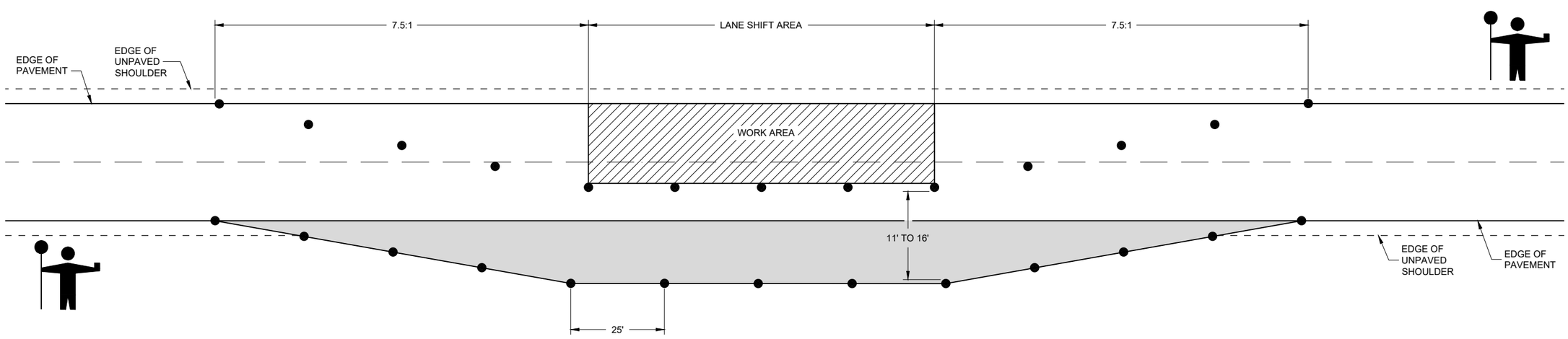
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

USE WITH SDD 15C12 "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS"

USE WITH SDD 15D45 "SIGNING ON ROADWAYS WITH LOOSE GRAVEL"

LEGEND

- DRUM WITHOUT WARNING LIGHT
- 6" BASE AGGREGATE DENSE 1 ¼" -INCIDENTAL TO LANE SHIFT ITEM
- FILL - INCIDENTAL TO LANE SHIFT ITEM
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



LANE SHIFT IN FLAGGING OPERATION

TRAFFIC CONTROL, TEMPORARY LANE SHIFT DURING CULVERT WORK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

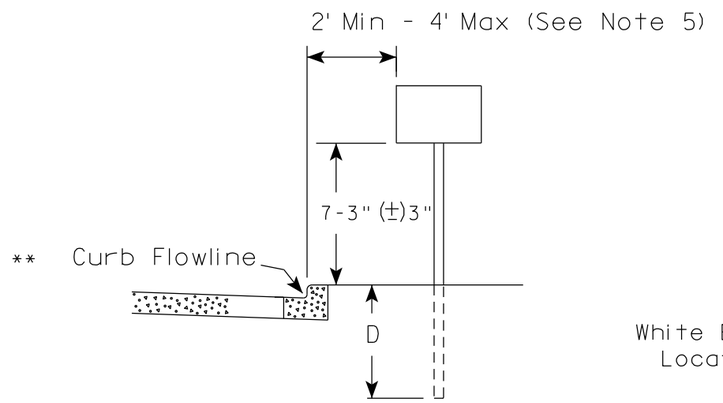
6

SDD 15D48 - 01

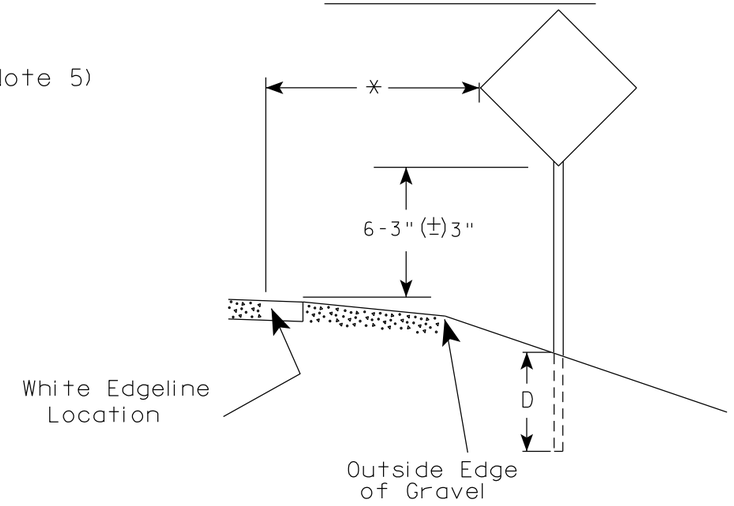
6

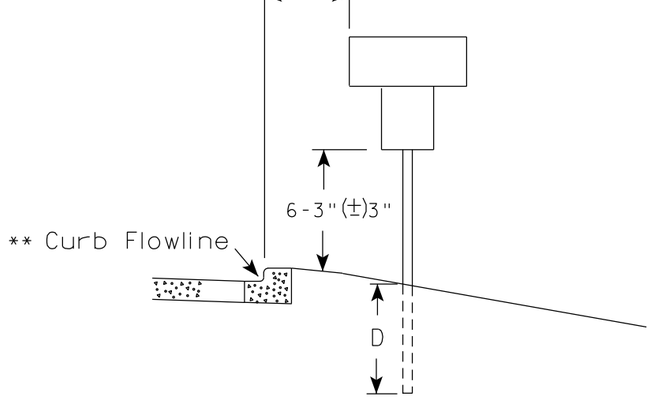
SDD 15D48 - 01

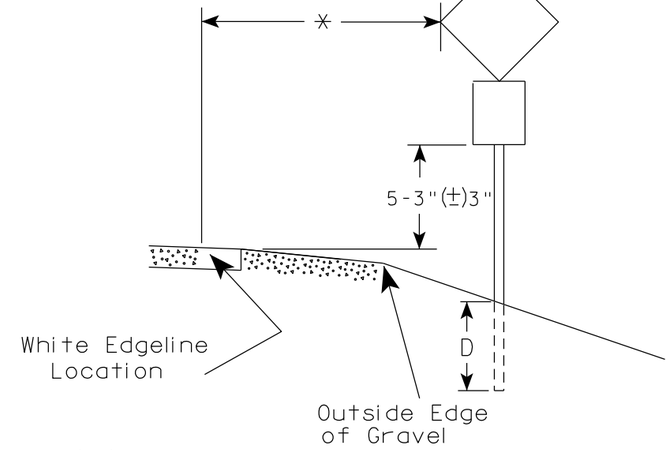
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

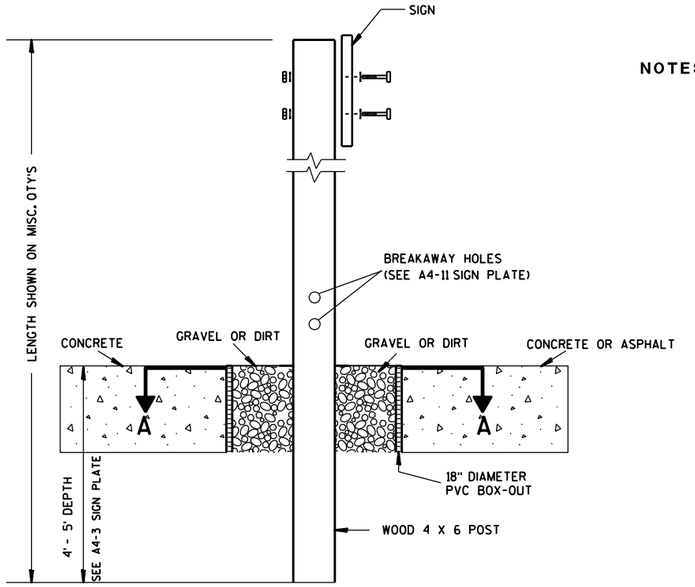
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

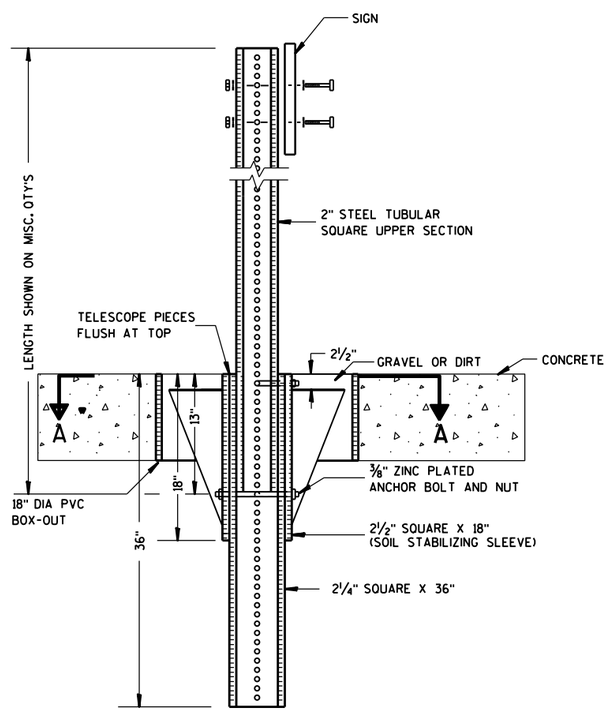
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 250	E



ELEVATION VIEW

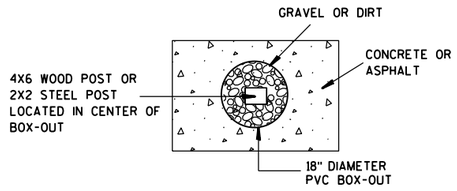
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

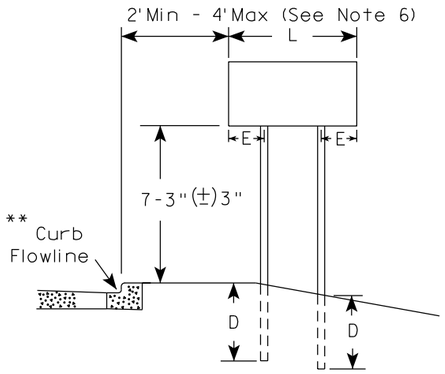
APPROVED Matthew R Rauch
for State Traffic Engineer

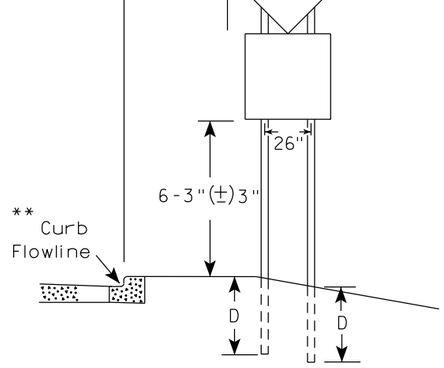
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

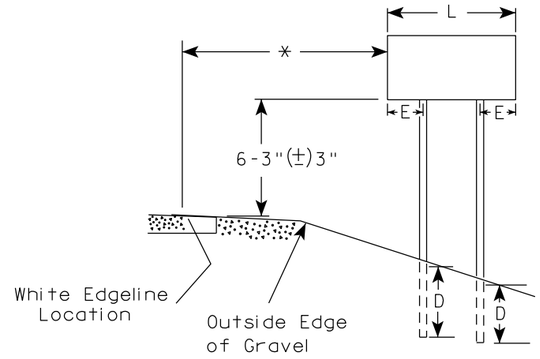
URBAN AREA

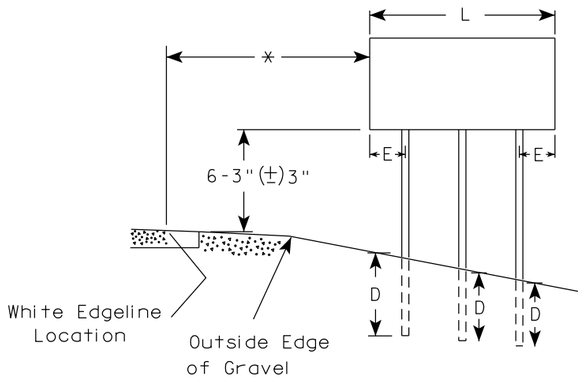


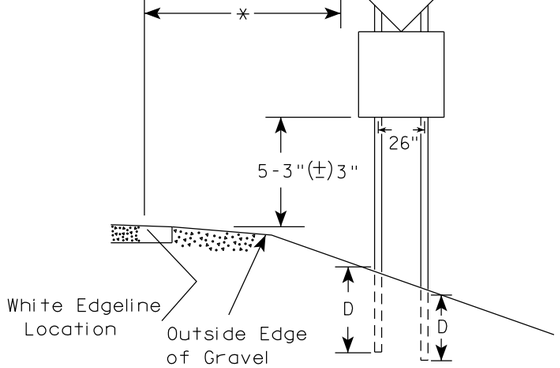


48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

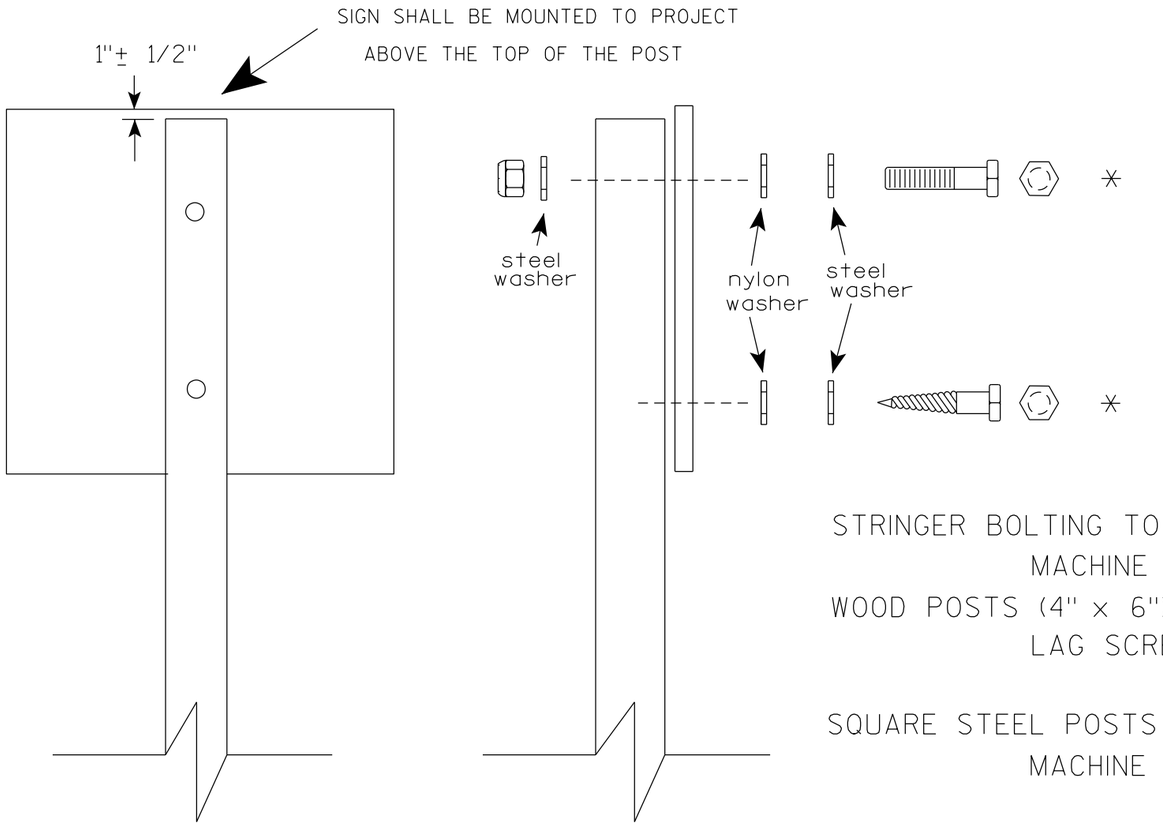
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 252	E



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

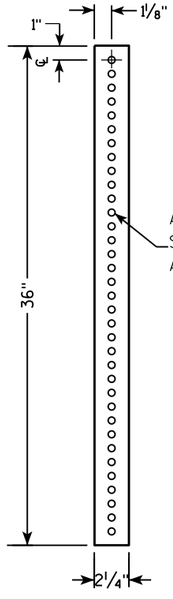
DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

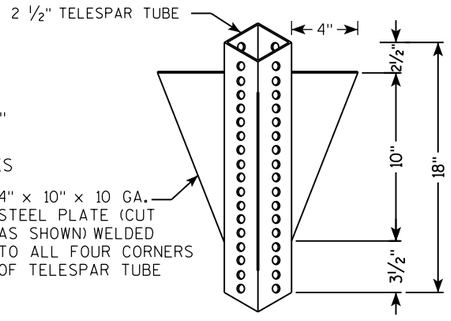
SHEET NO: 253 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

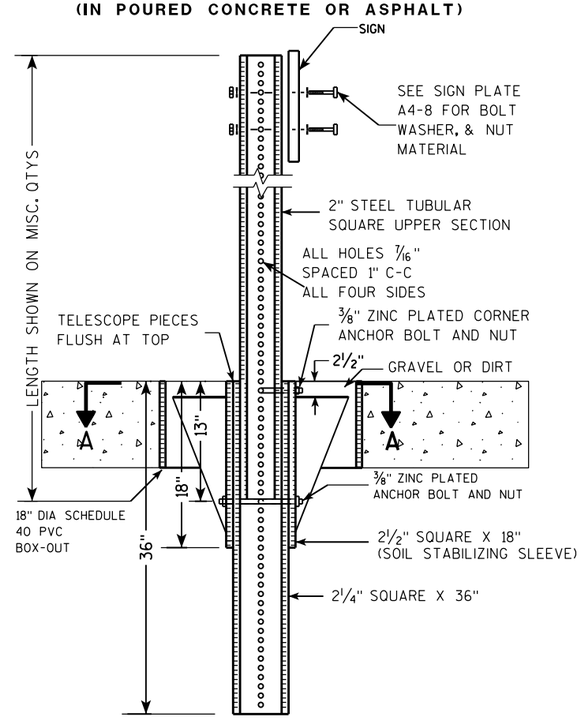
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



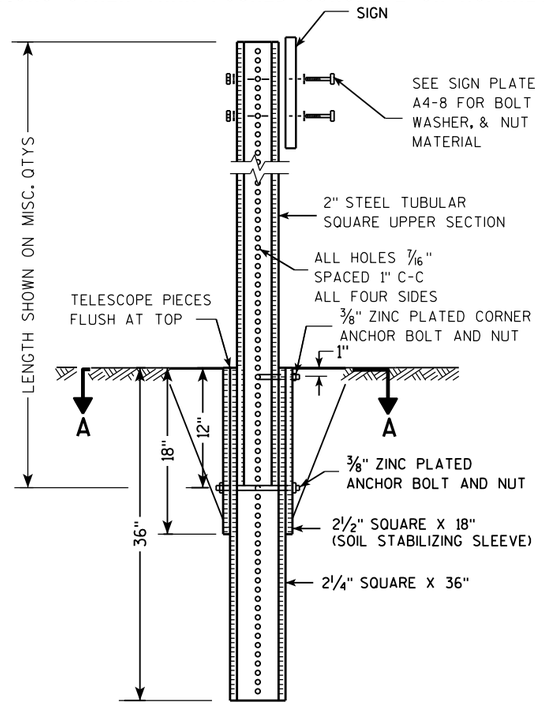
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

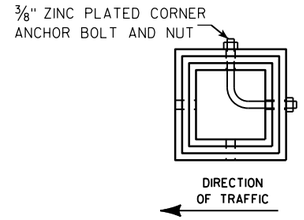


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

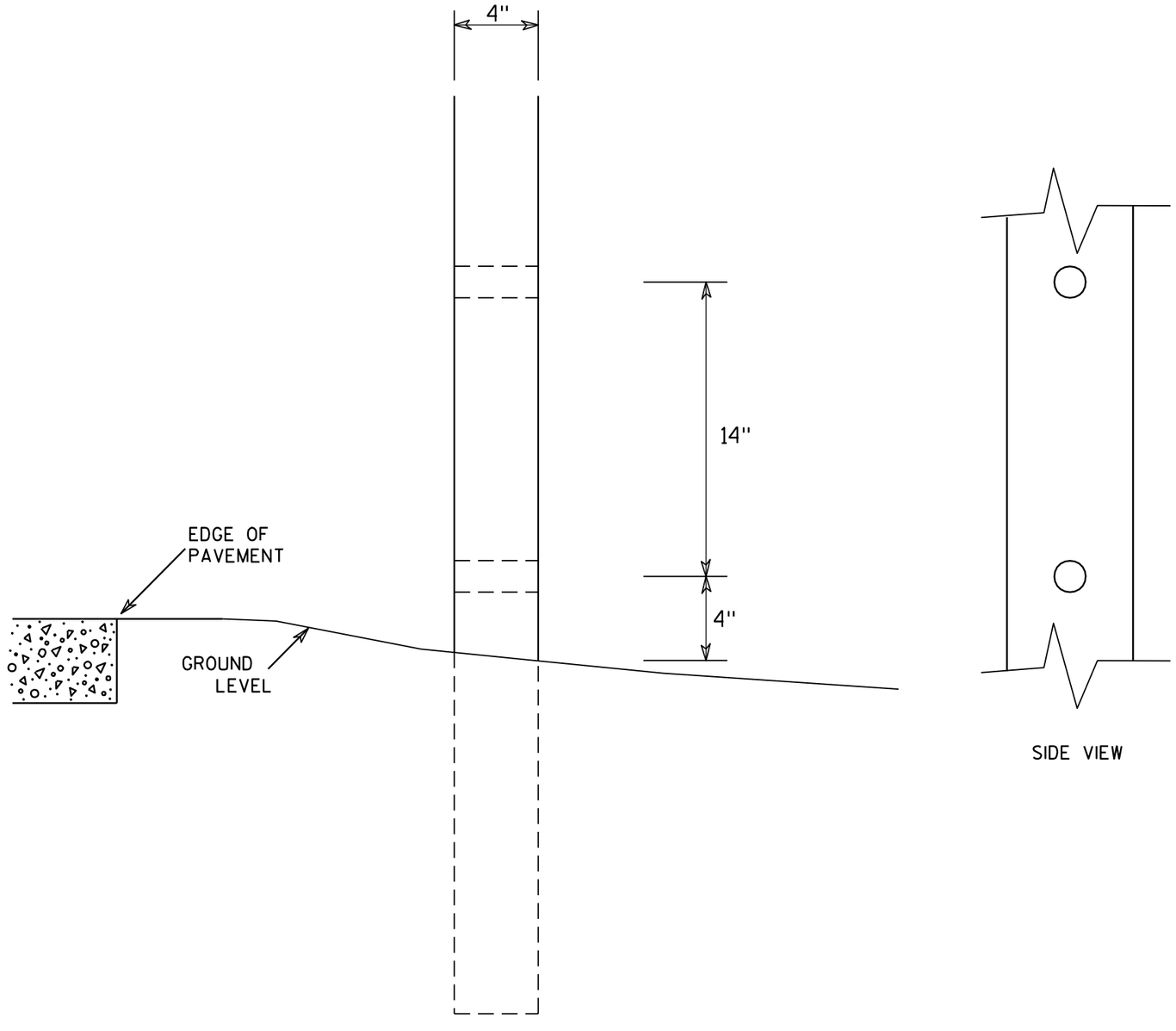
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 254 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000

WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

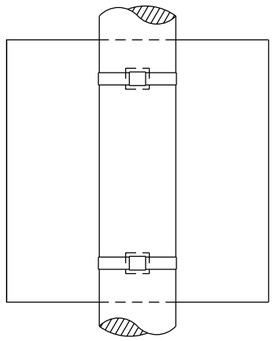
APPROVED Chester J Spang
for State Traffic Engineer

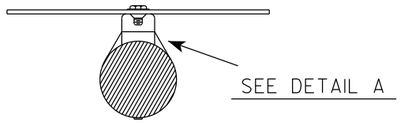
DATE 3/27/97 PLATE NO. A4-11.2

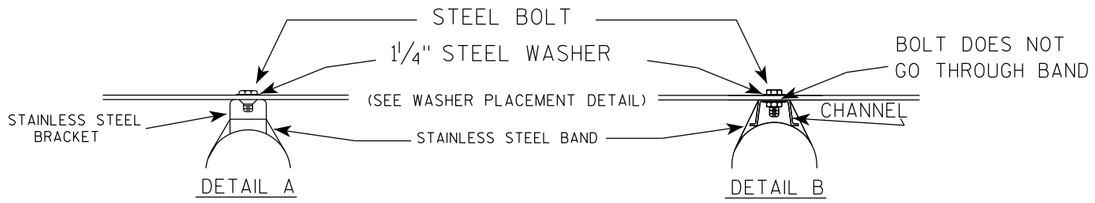
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 255	E

BANDING

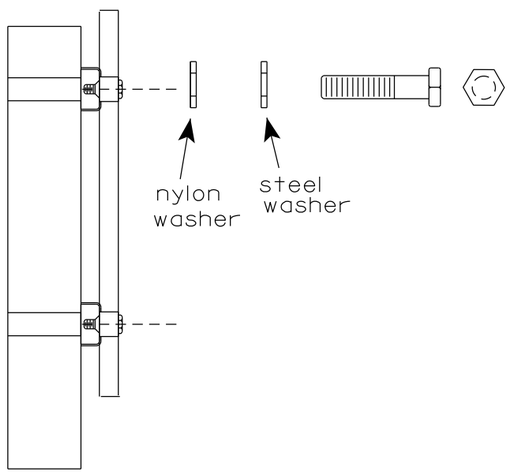
SINGLE SIGN







WASHER PLACEMENT

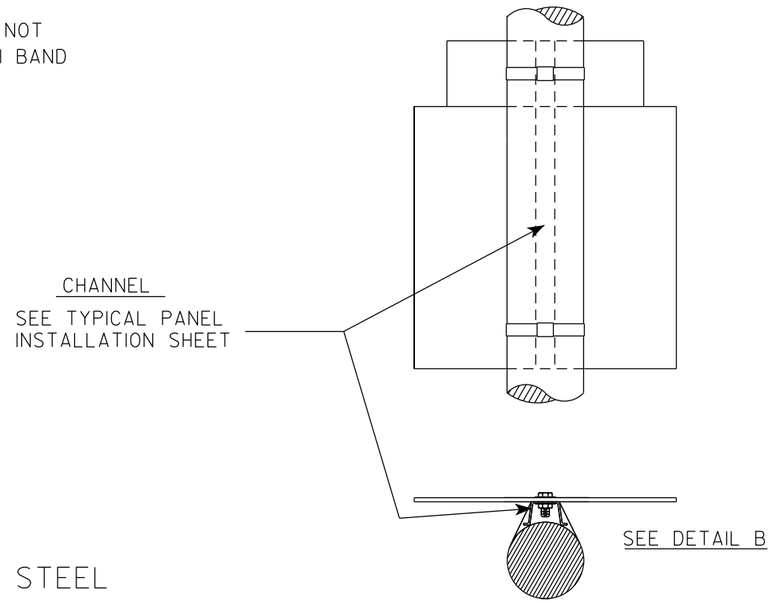


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

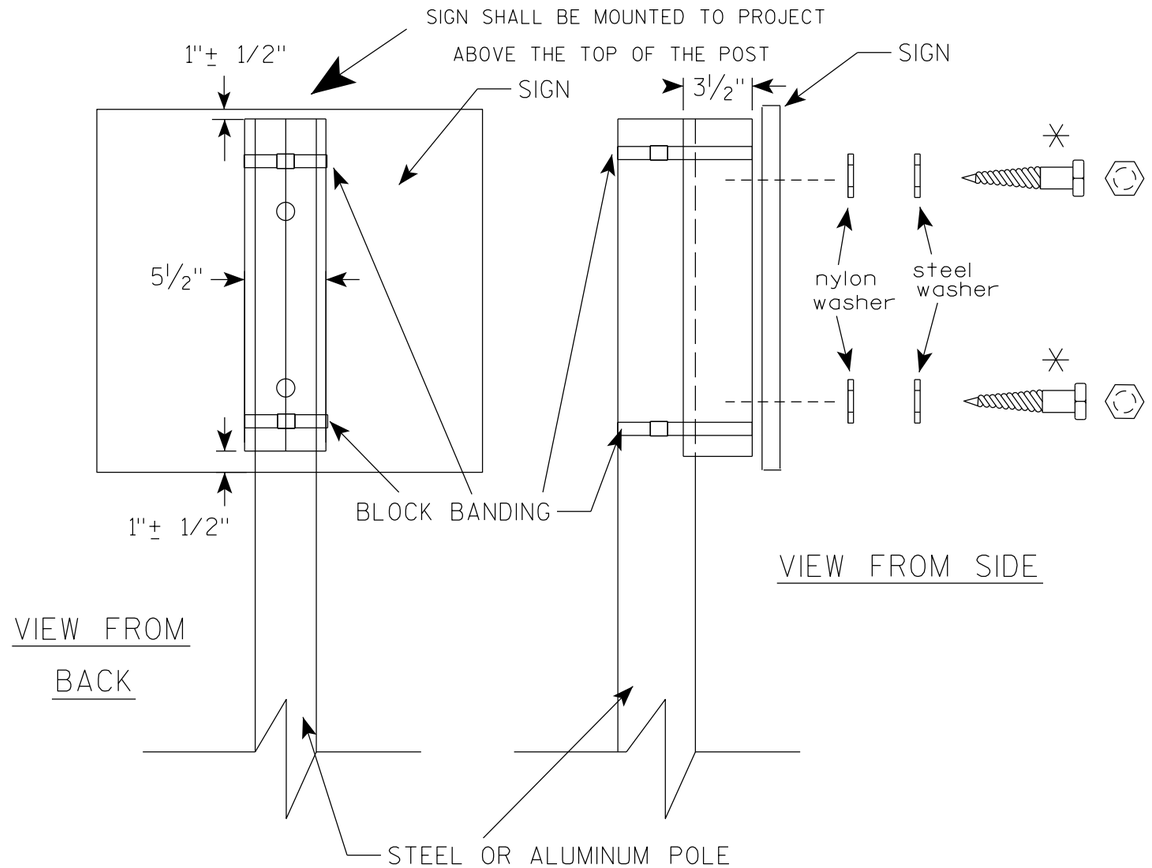
DATE 6/10/19 PLATE NO. A5-9.4

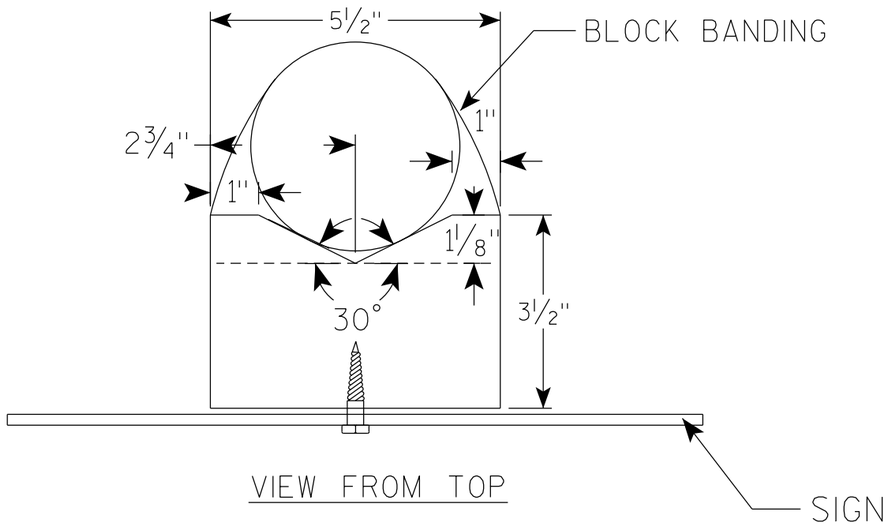
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 256	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

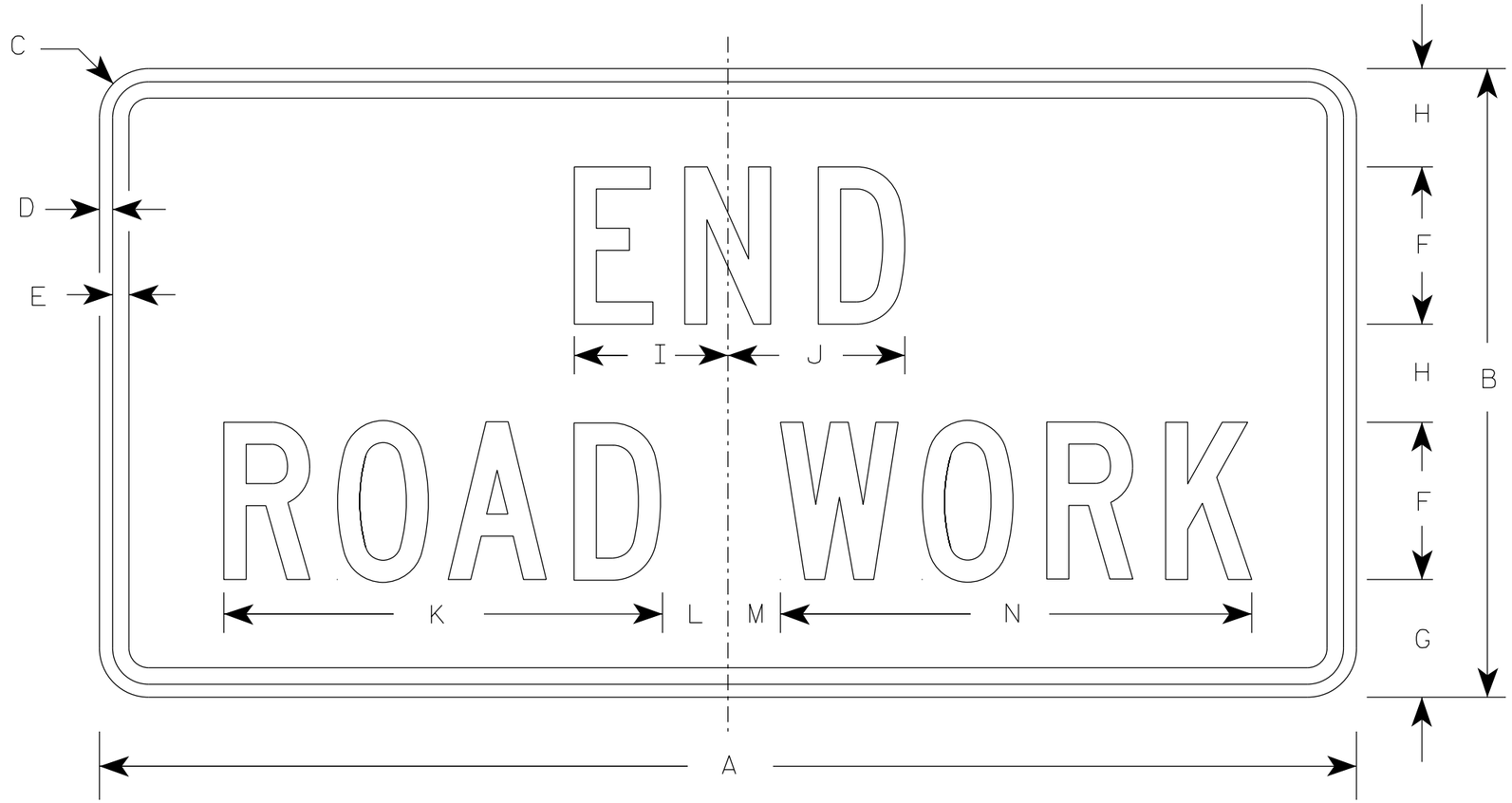
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 257 E



G20-2A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5
2	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
2M	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
3	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
4	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
5	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0

STANDARD SIGN

G20-2A

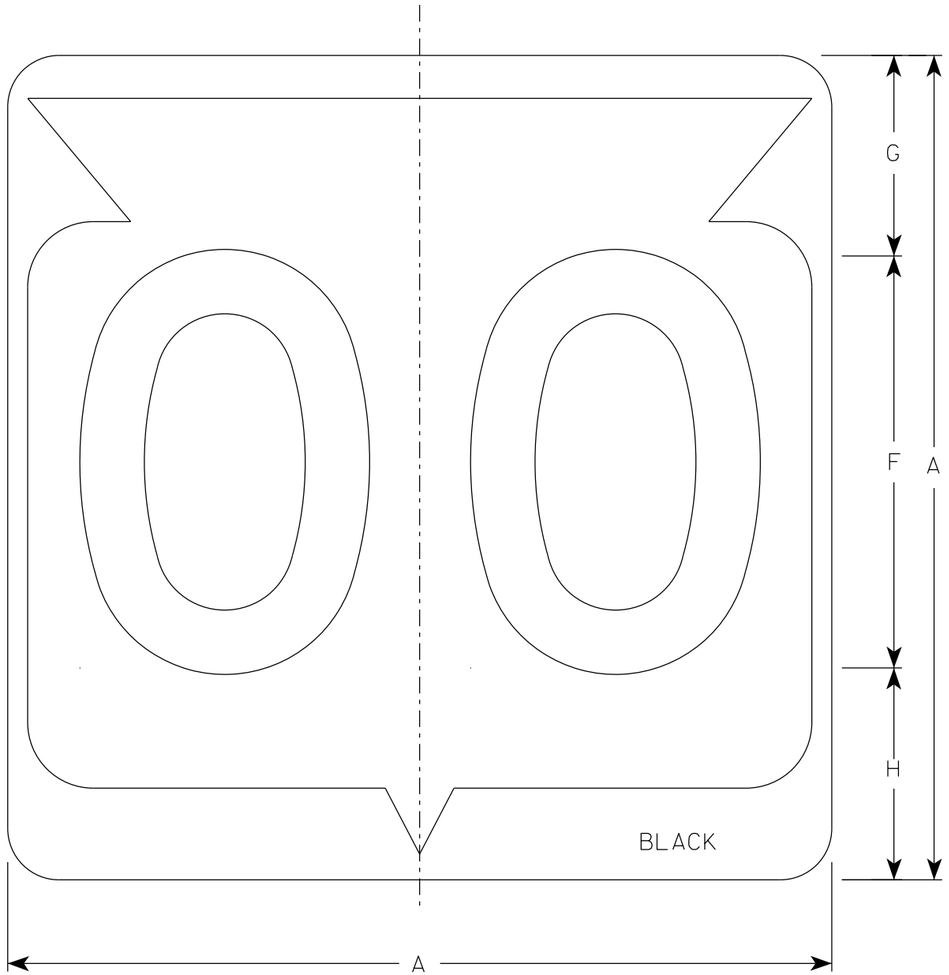
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-2A.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 258 E

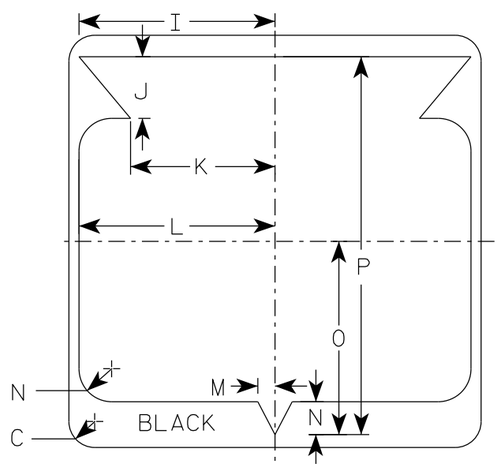
7



M1-6

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



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
2M	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

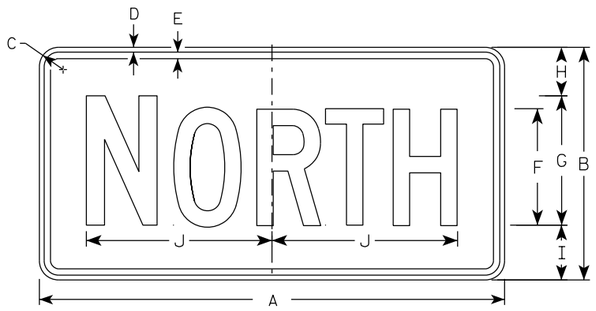
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

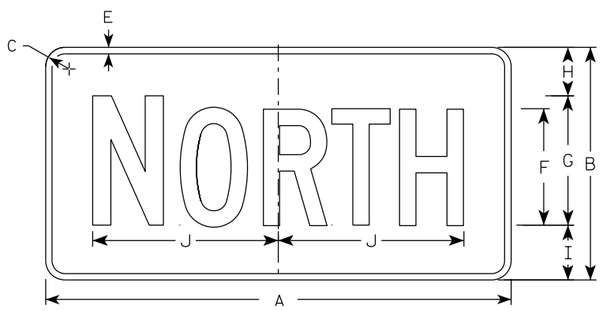
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-6.11

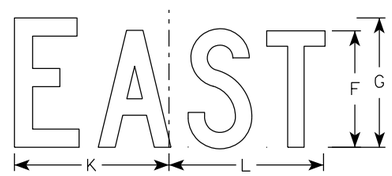
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 259	E



M3-1
MM3-1
MP3-1

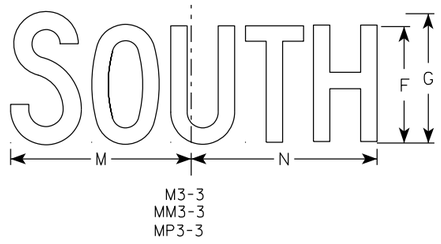


MB3-1
MK3-1
MN3-1

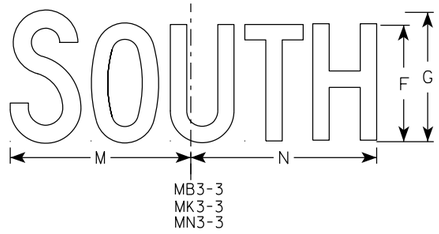


M3-2
MM3-2
MP3-2

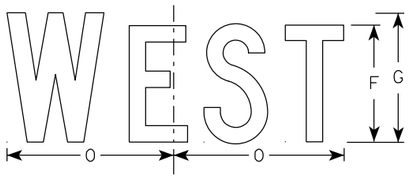
MB3-2
MK3-2
MN3-2



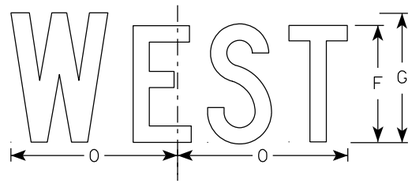
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	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												2.00
2M	24	12	1 1/2	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												2.00
3	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
4	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
5	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5

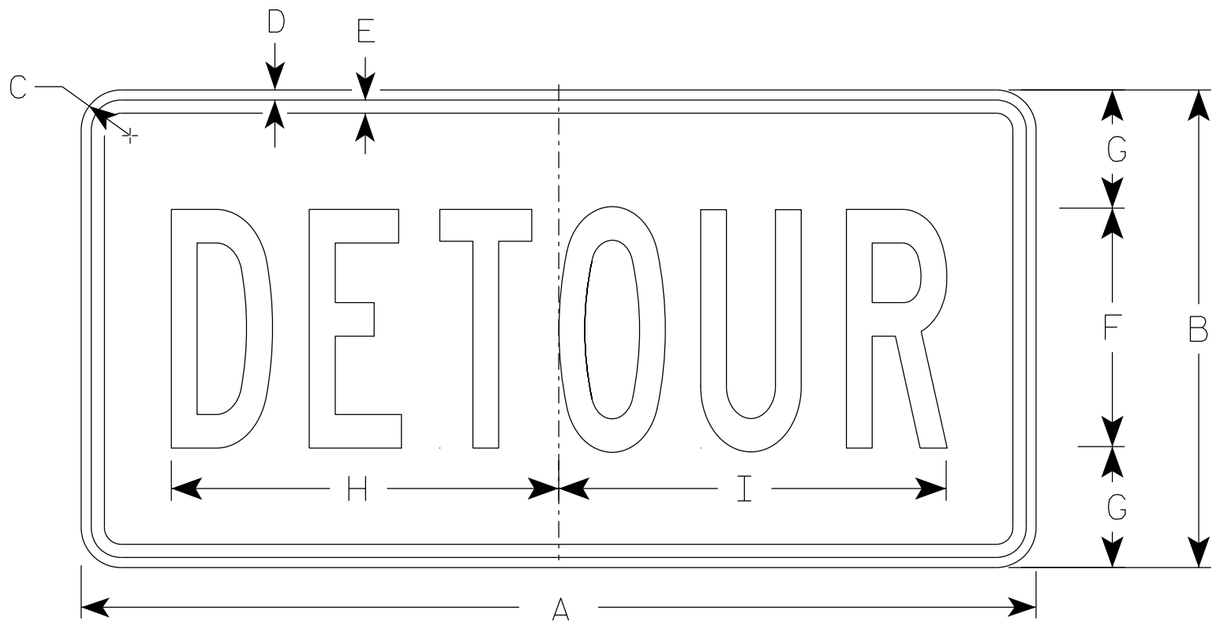
STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/8/2023 PLATE NO. M3-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 260 | E



M4-8

NOTES

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

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

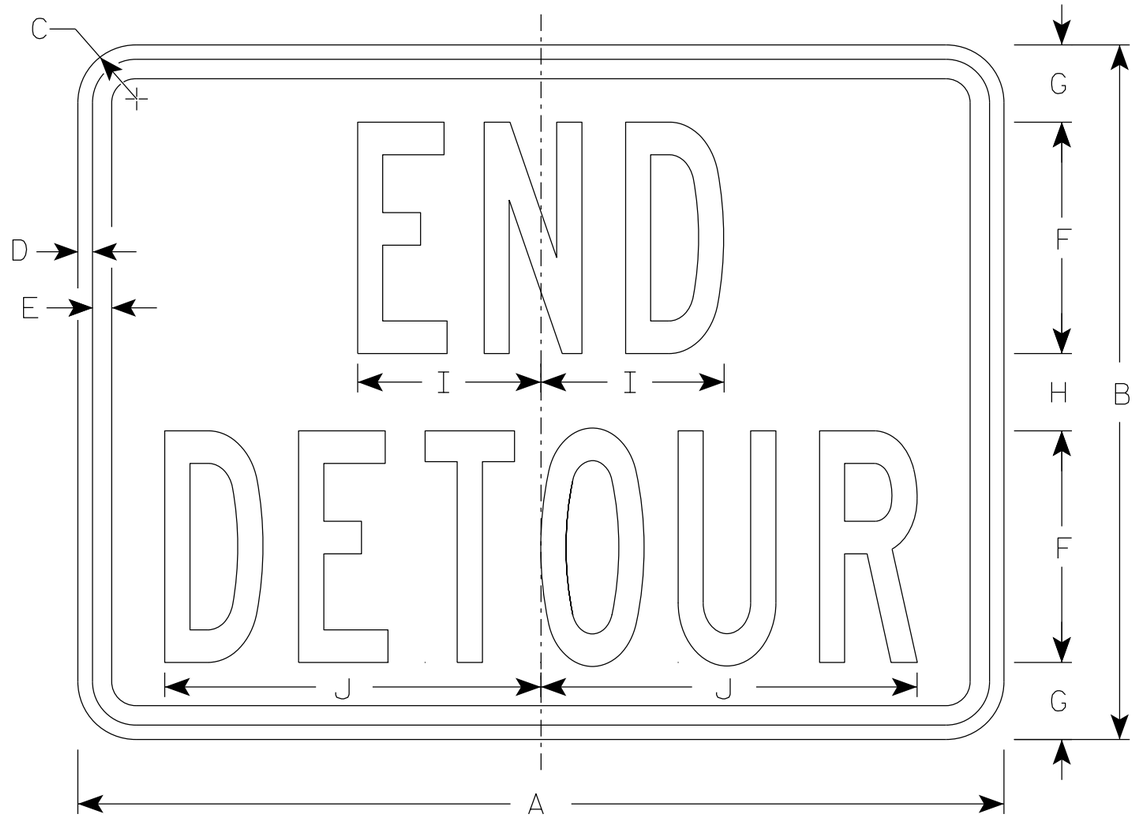
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



M4-8A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
2M	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
3	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
4	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
5	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0

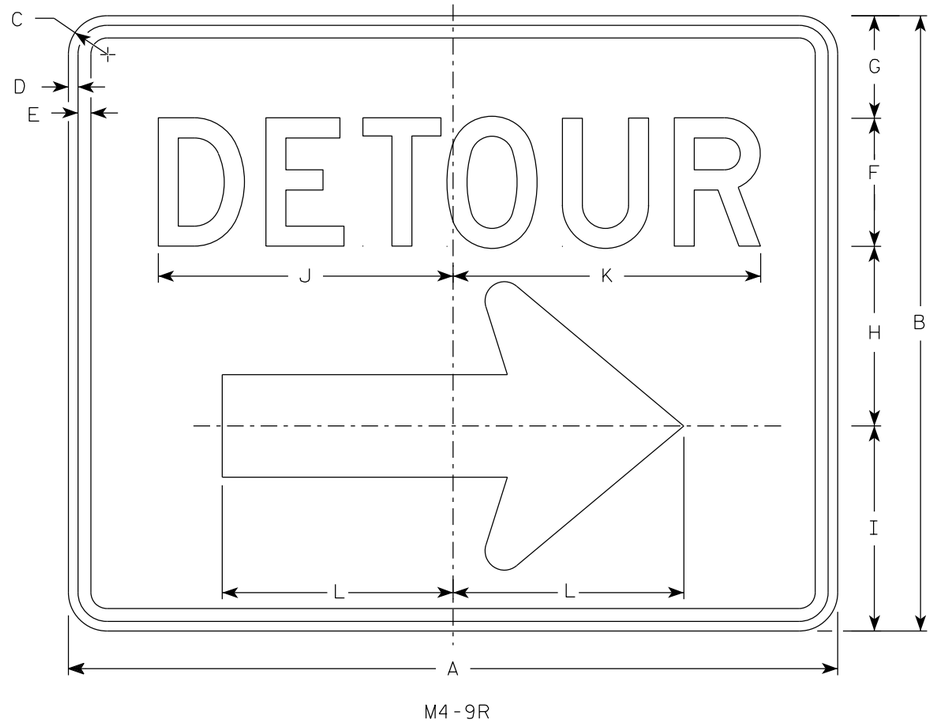
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8A.4

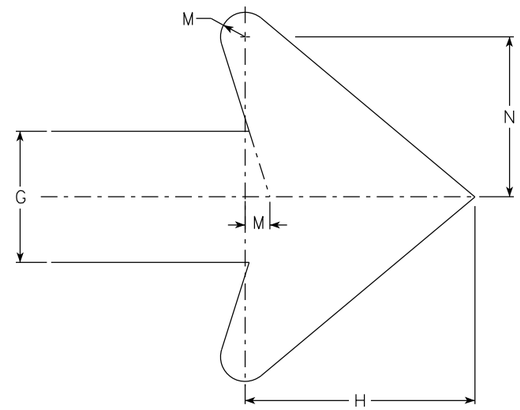
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 262 | E



M4-9R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. 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 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
2M	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 7/8	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 7/8	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

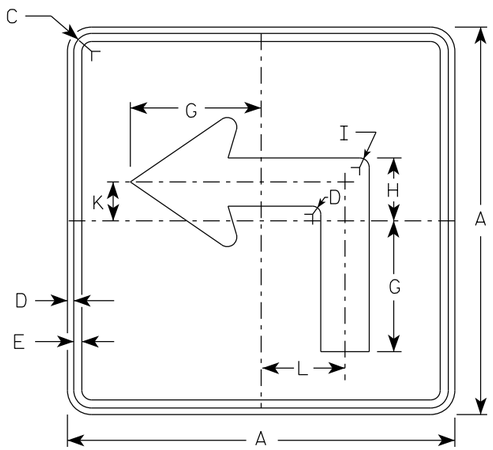
STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

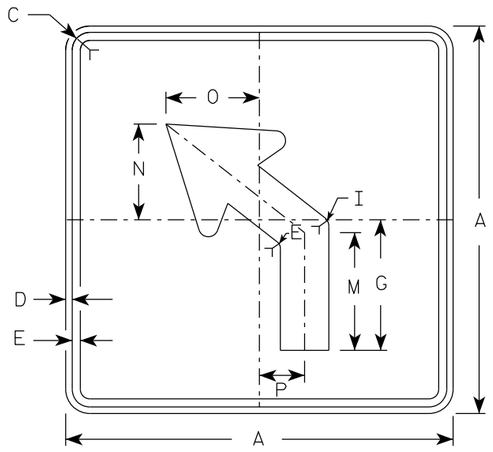
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-9R.6

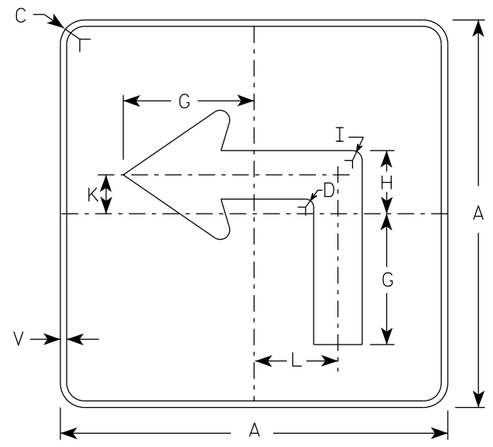
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



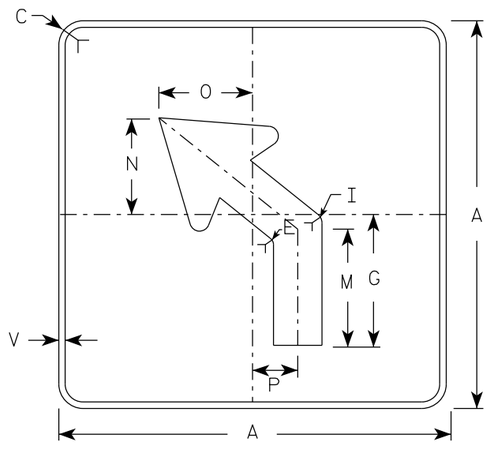
M5-1L
MM5-1L
MO5-1L
MP5-1L



M5-2L
MM5-2L
MO5-2L
MP5-2L



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

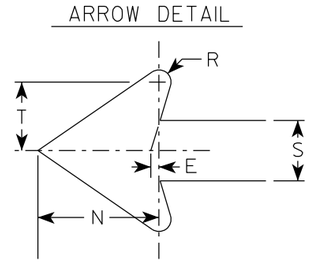


MB5-2L
MK5-2L
MN5-2L
MR5-2L

NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

ARROW DETAIL



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

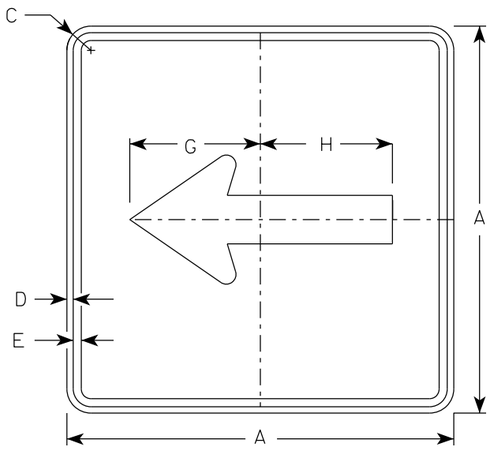
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

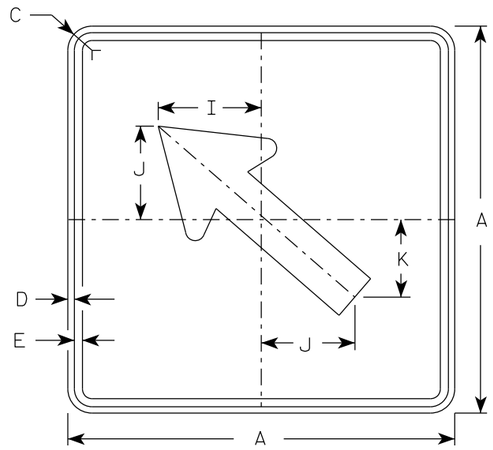
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M5-1.15

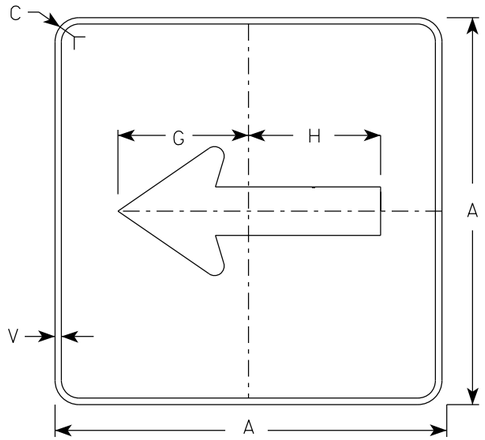
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 264 | E



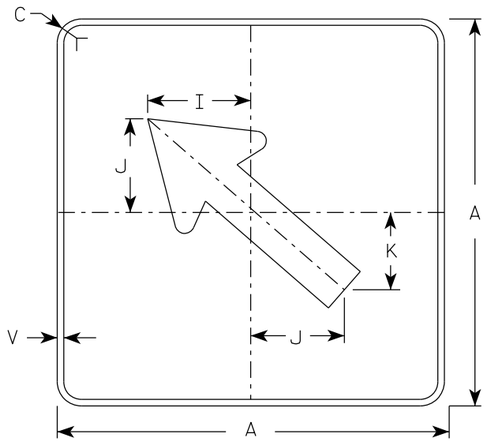
M6-1
MM6-1
MO6-1
MP6-1



M6-2
MM6-2
MO6-2
MP6-2



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

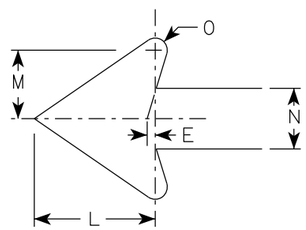


MB6-2
MK6-2
MN6-2
MR6-2

NOTES

1. Signs are Type II - Type H Reflective except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow

ARROW DETAIL



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

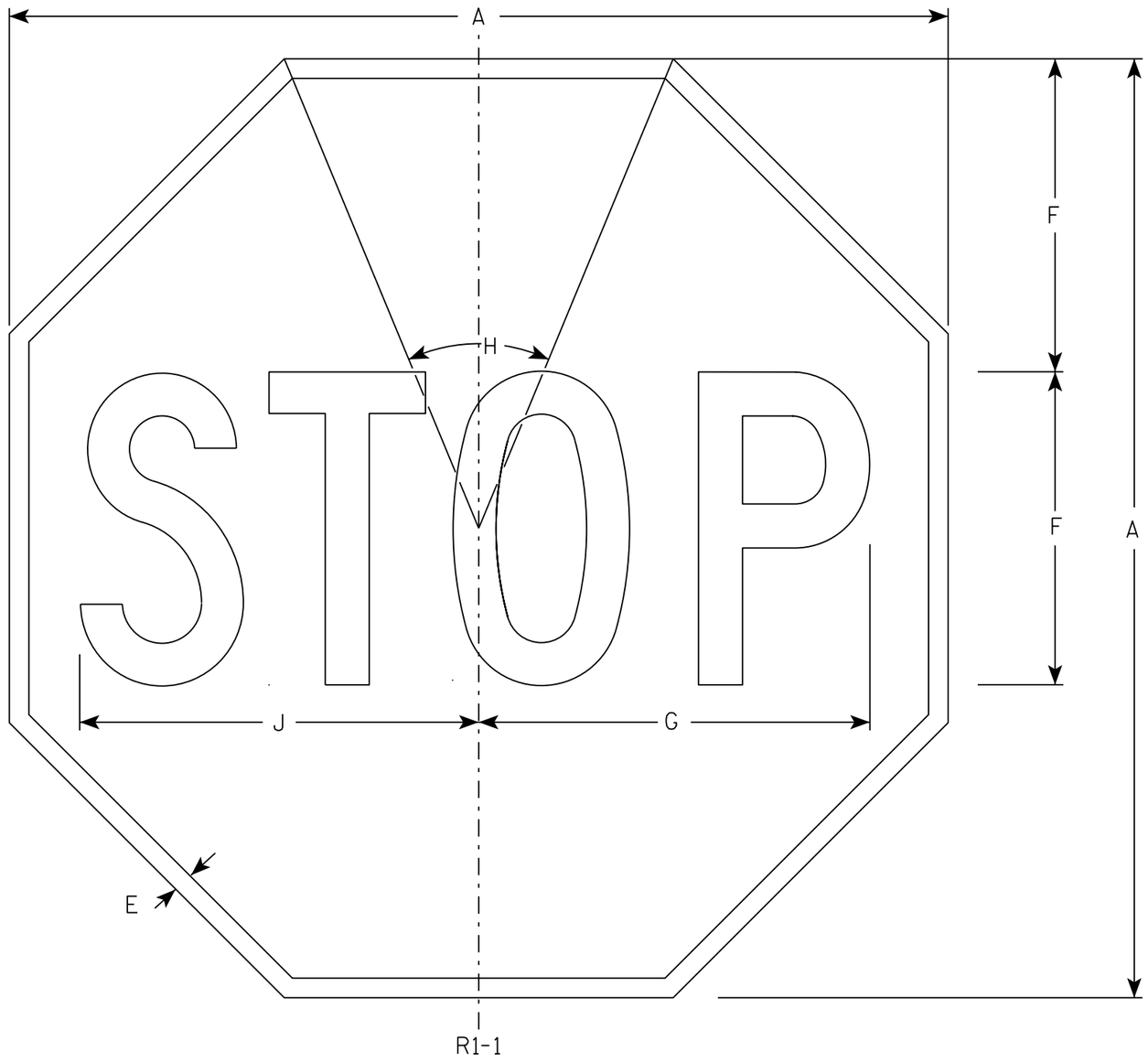
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 265 | E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

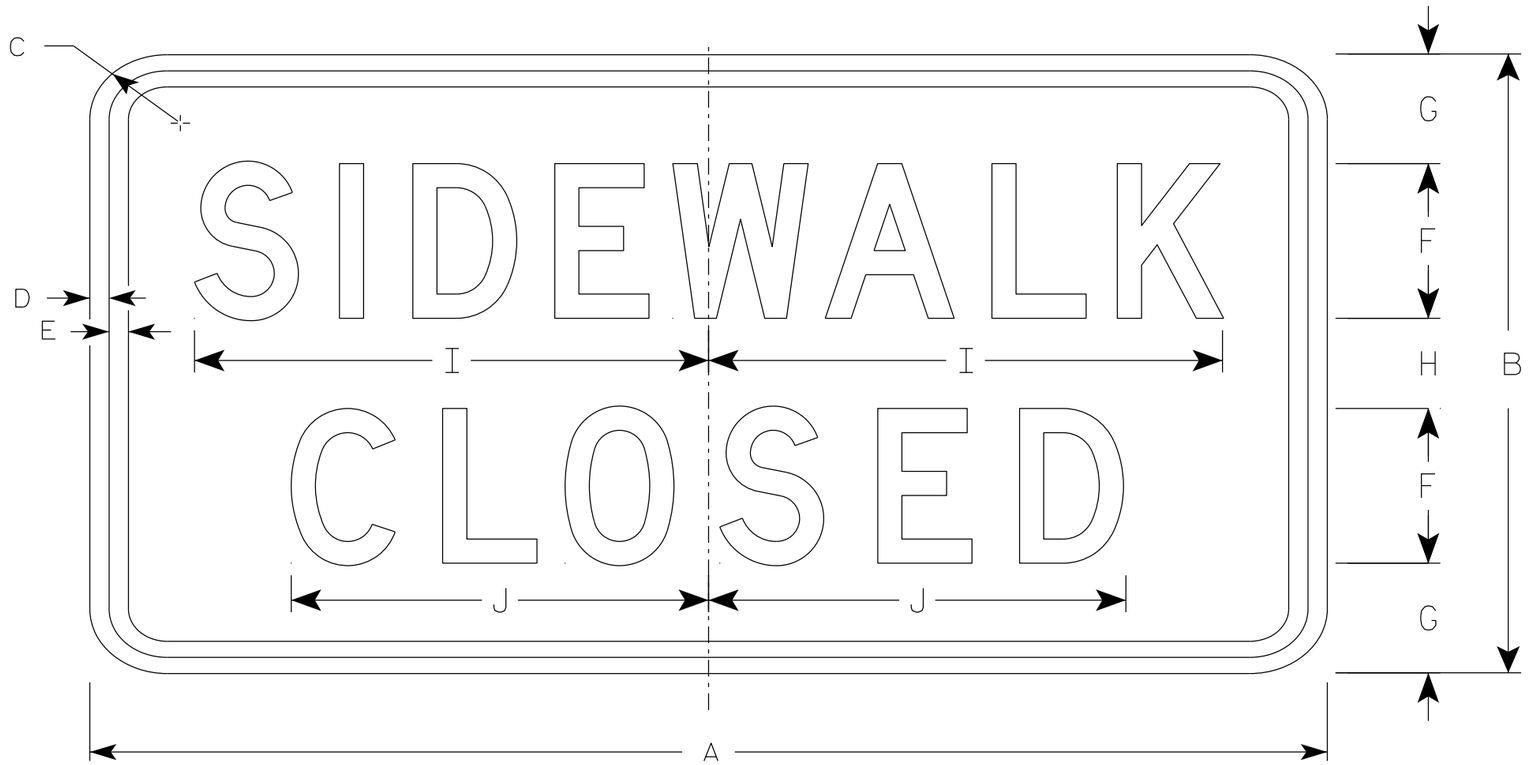
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 266	E



R9-9

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 ½	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
2M	24	12	1 ½	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
3	30	18	1 ½	½	½	4	3 ½	3	12 ½	10 ¼																	3.75
4																											
5																											

STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

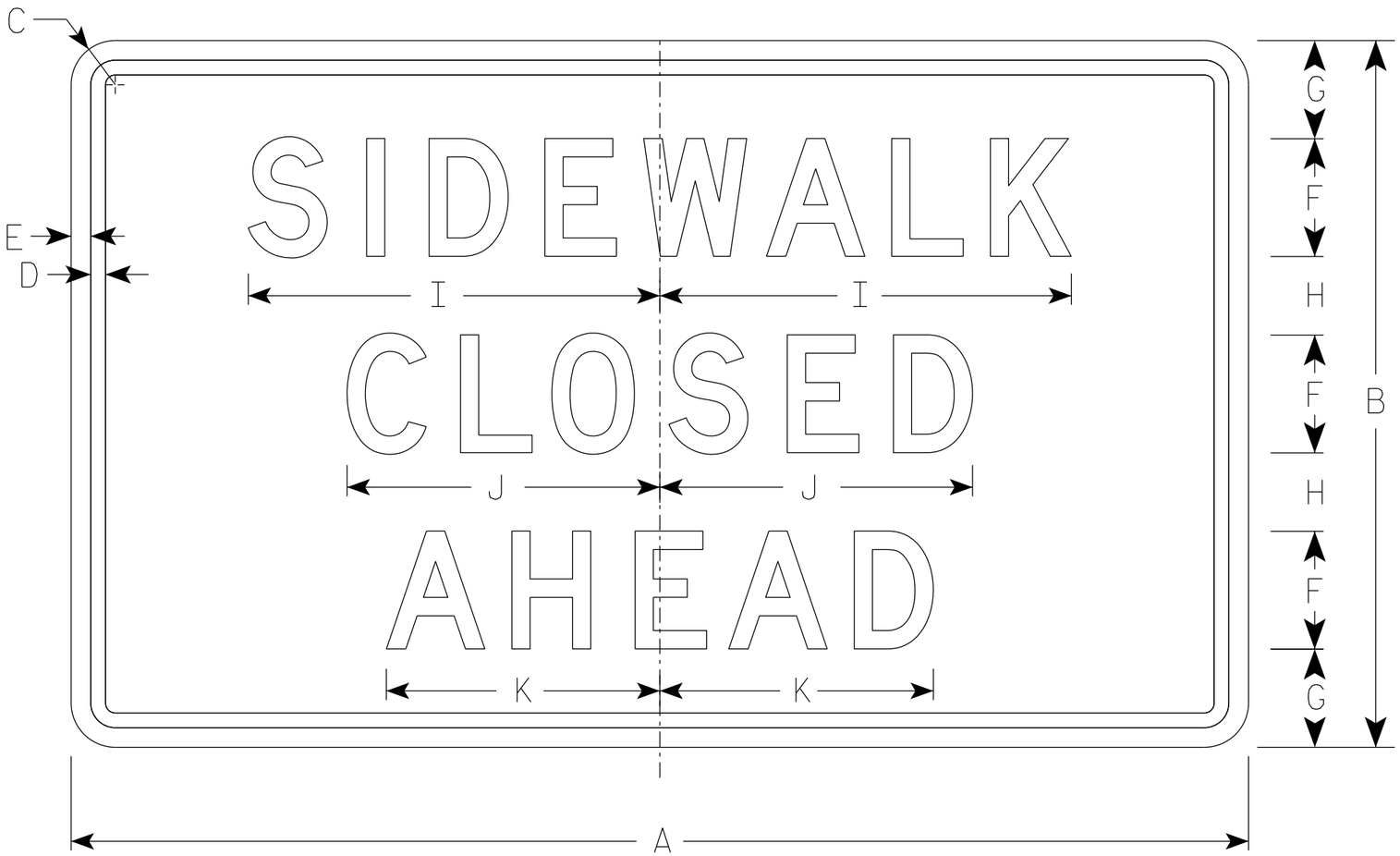
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/24 PLATE NO. R9-9.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 267 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



R9-9A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 ½	⅜	½	3	2 ½	2	10 ½	8	7																3.75
2M	30	18	1 ½	⅜	½	3	2 ½	2	10 ½	8	7																3.75
3																											
4																											
5																											

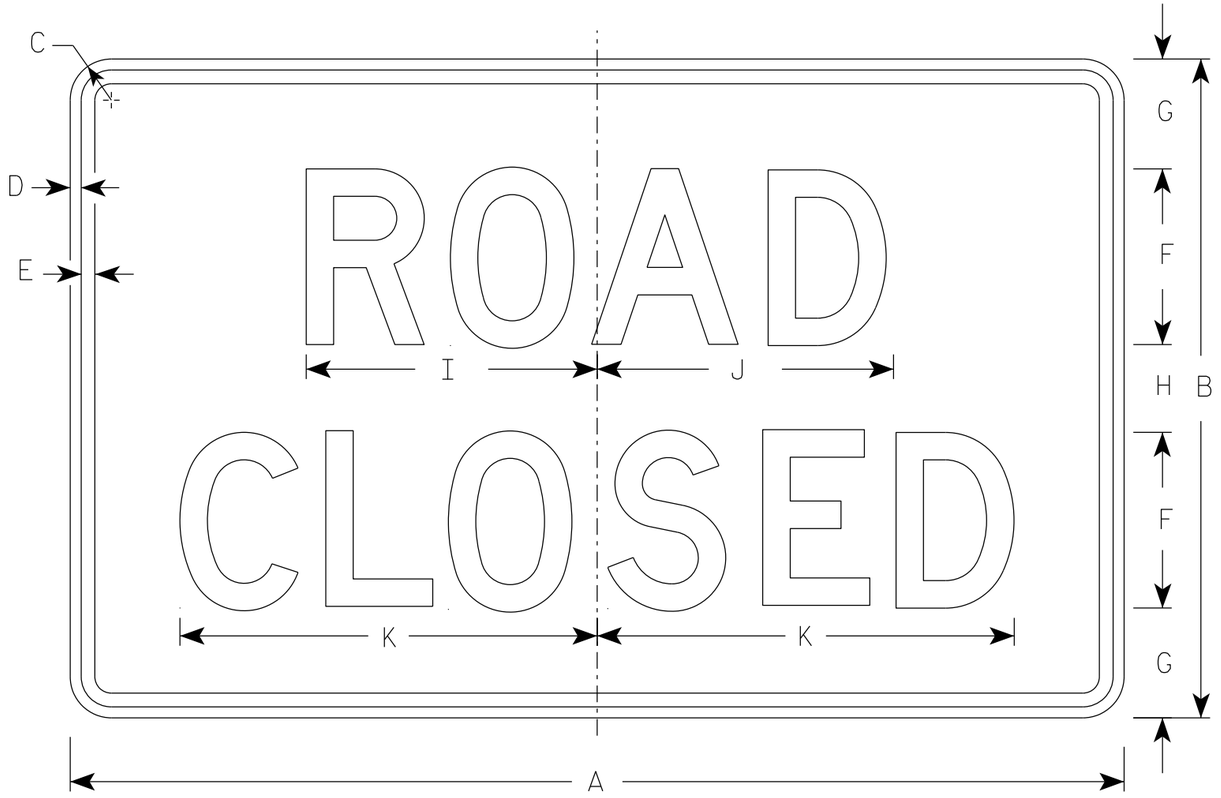
STANDARD SIGN
R9-9A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/24 PLATE NO. R9-9A.2

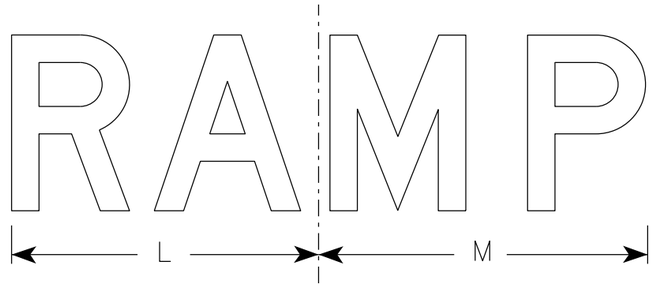
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 268	E



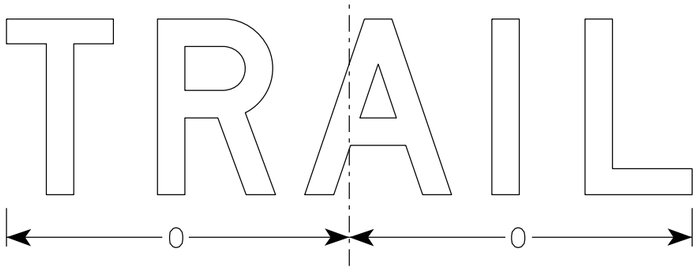
R11-2

NOTES

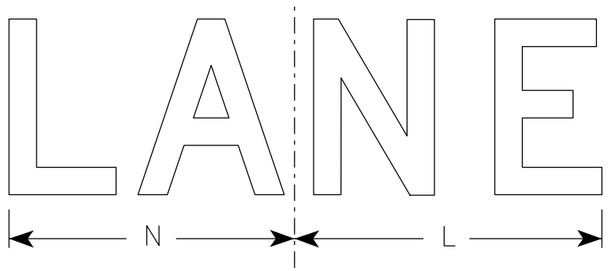
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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



R11-2R



R11-2T



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

STANDARD SIGN
R11-2

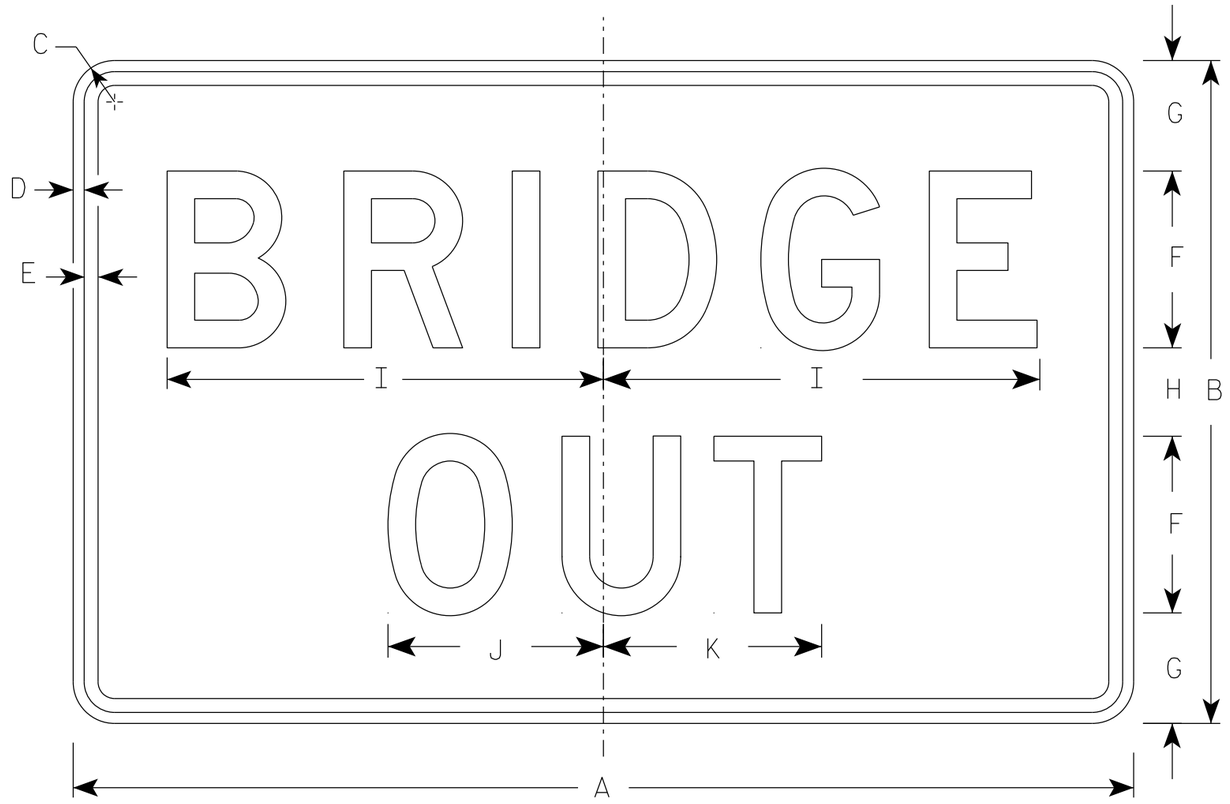
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-2.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112.dgn PLOT DATE : 5-FEB 2024 2:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



R11-2B

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.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

STANDARD SIGN
R11-2B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

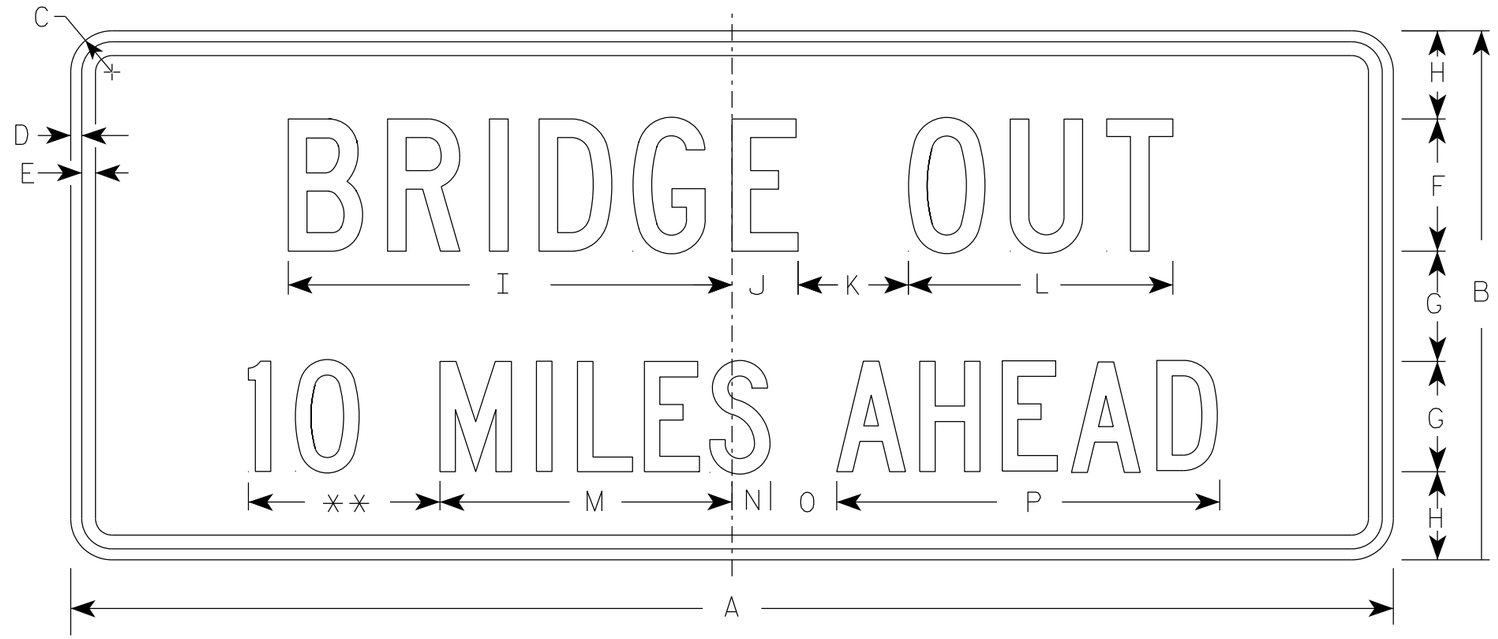
DATE 2/5/24 PLATE NO. R11-2B.3

PROJECT NO:

SHEET NO: 270 E

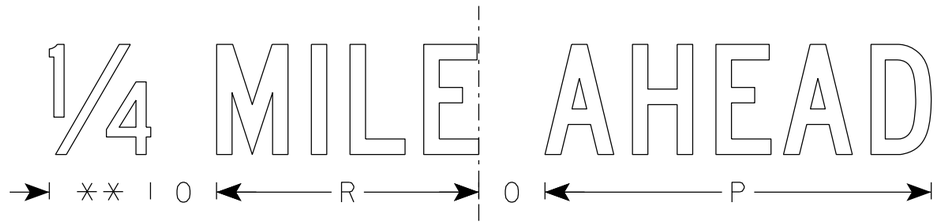
NOTES

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.



R11-3C

** 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	15	1 1/2	1/2	5/8	4	3	2 1/2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4		7 1/8									3.75
2S	60	24	1 7/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
2M	60	24	1 7/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
3																											
4																											
5																											

STANDARD SIGN
R11-3C

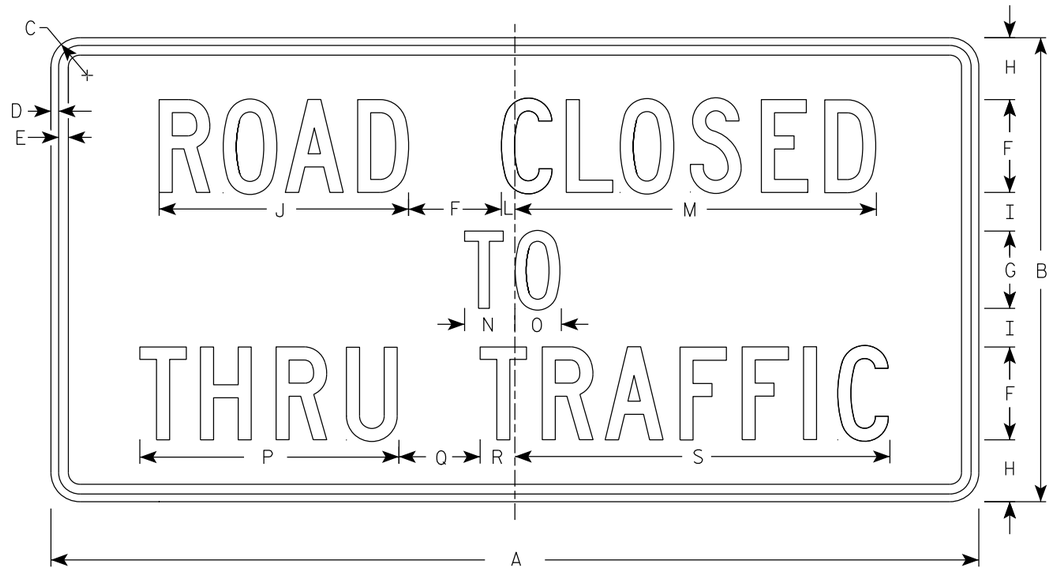
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-3C.4

PROJECT NO:

SHEET NO: 271 E



R11-4

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.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

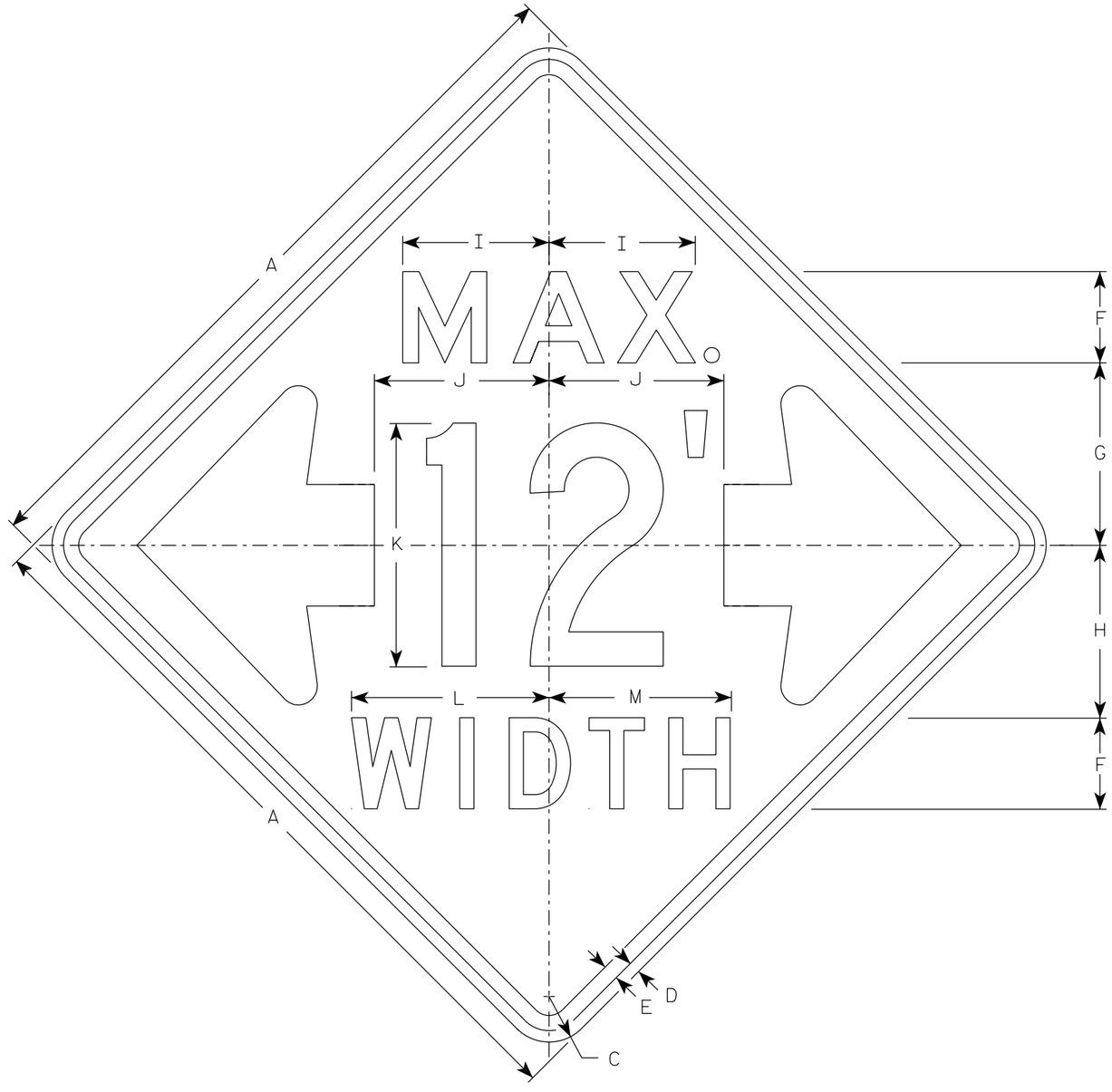
STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-4.4

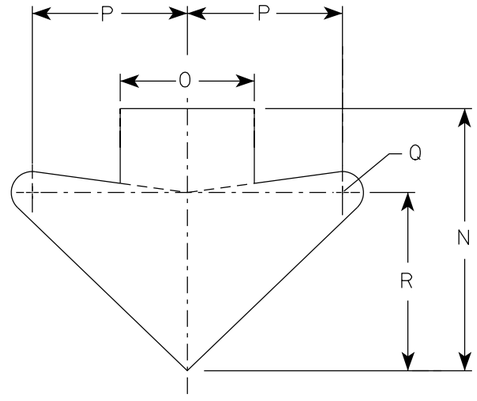
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 272 | E



W12-52

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. The top line is series E, the numerals are series C, and the bottom line is series D.
5. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		3	¾	1	6	12	11 ⅜	9 ⅝	11 ½	16	13	12	15 ⅝	8	9 ¼	1 ¼	10 ⅝									16.0
2M	48		3	¾	1	6	12	11 ⅜	9 ⅝	11 ½	16	13	12	15 ⅝	8	9 ¼	1 ¼	10 ⅝									16.0
3																											
4																											
5																											

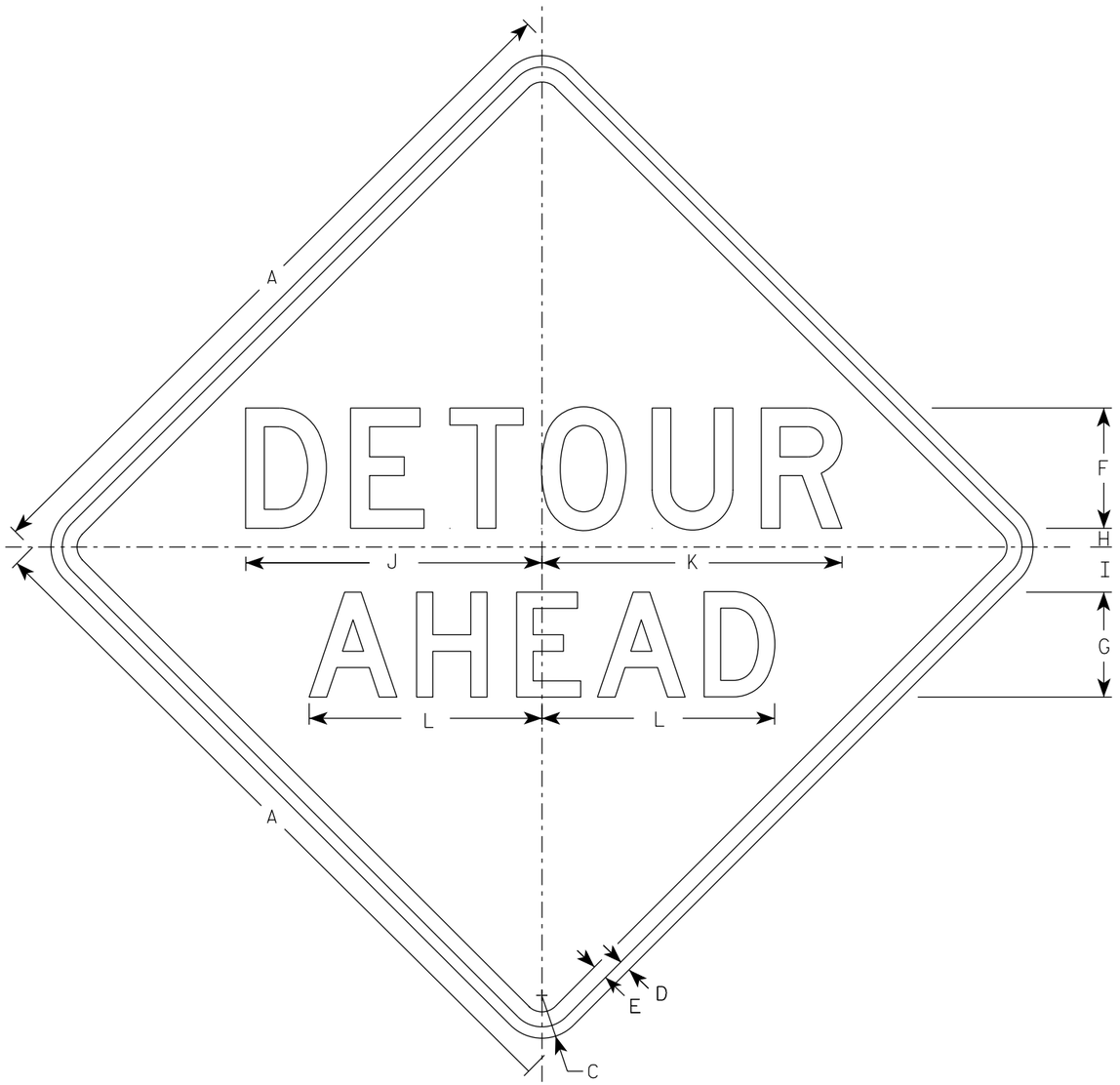
STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

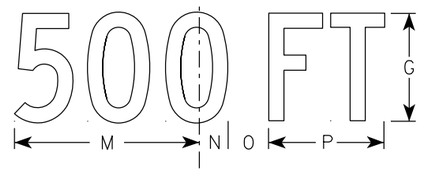
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/10/2024 PLATE NO. W12-52.8

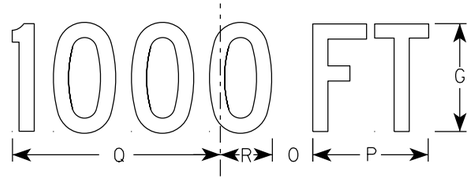
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 273 | E



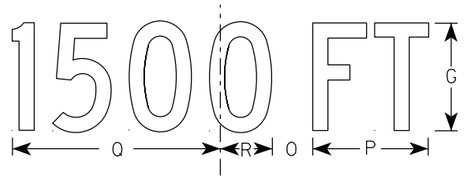
W20-2A



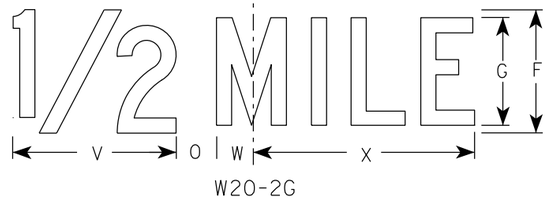
W20-2D



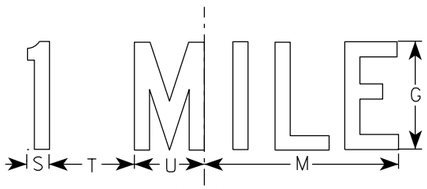
W20-2C



W20-2B



W20-2G



W20-2F

NOTES

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

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

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

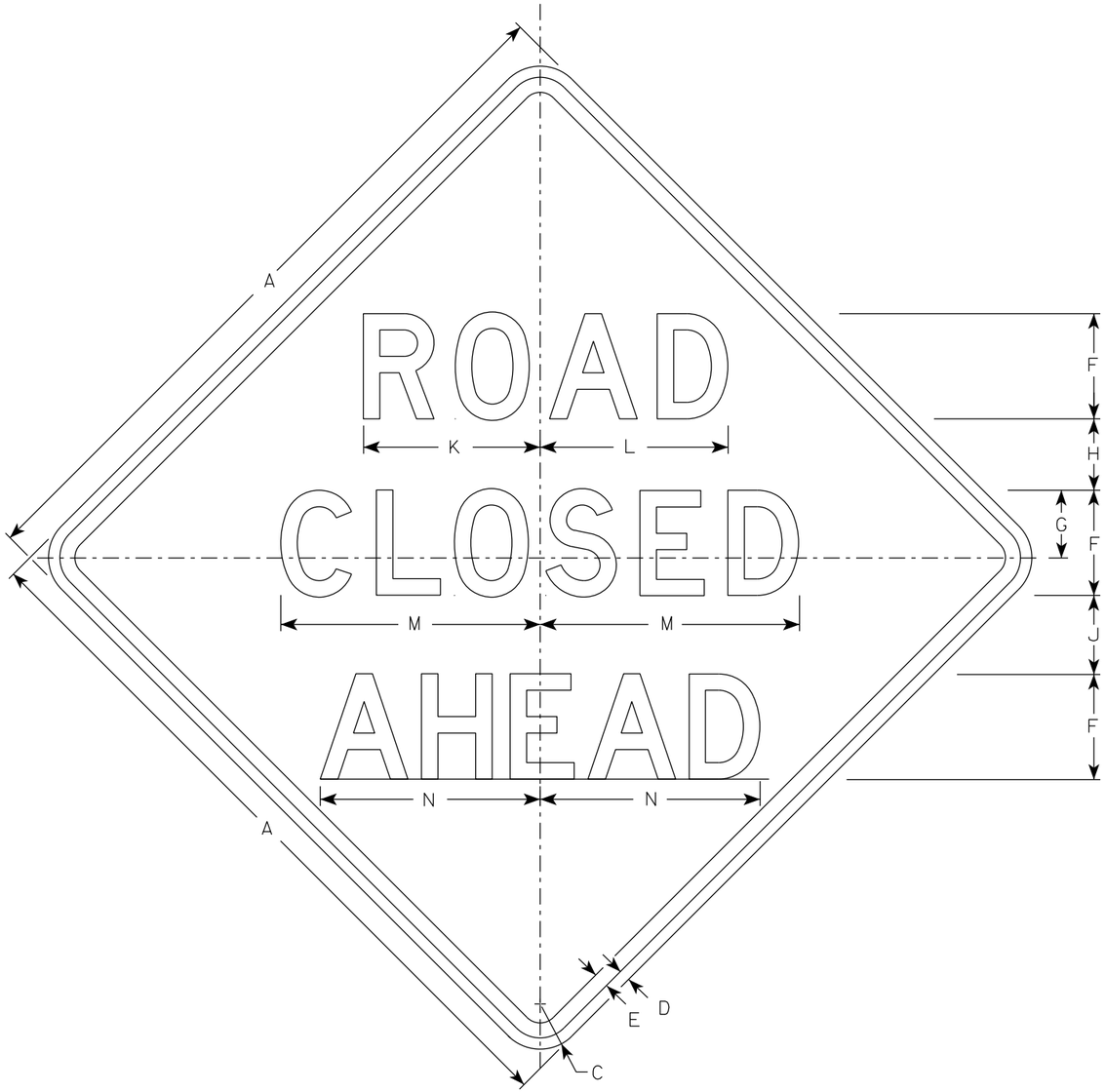
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

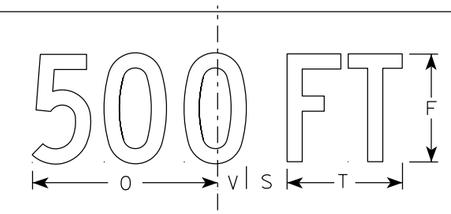
DATE 1/10/2024 PLATE NO. W20-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

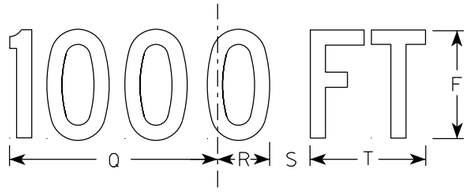
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W202.DGN PLOT DATE : 10-JAN 2024 11:36 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



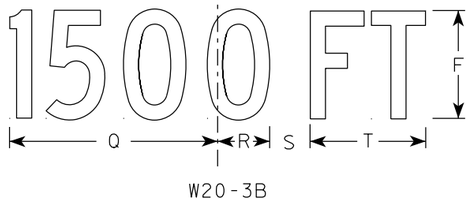
W20-3A



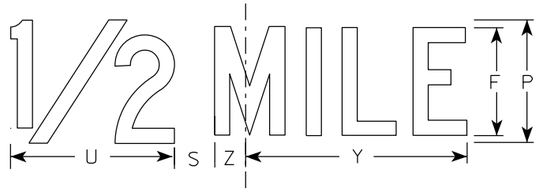
W20-3D



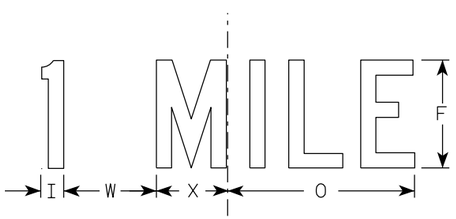
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

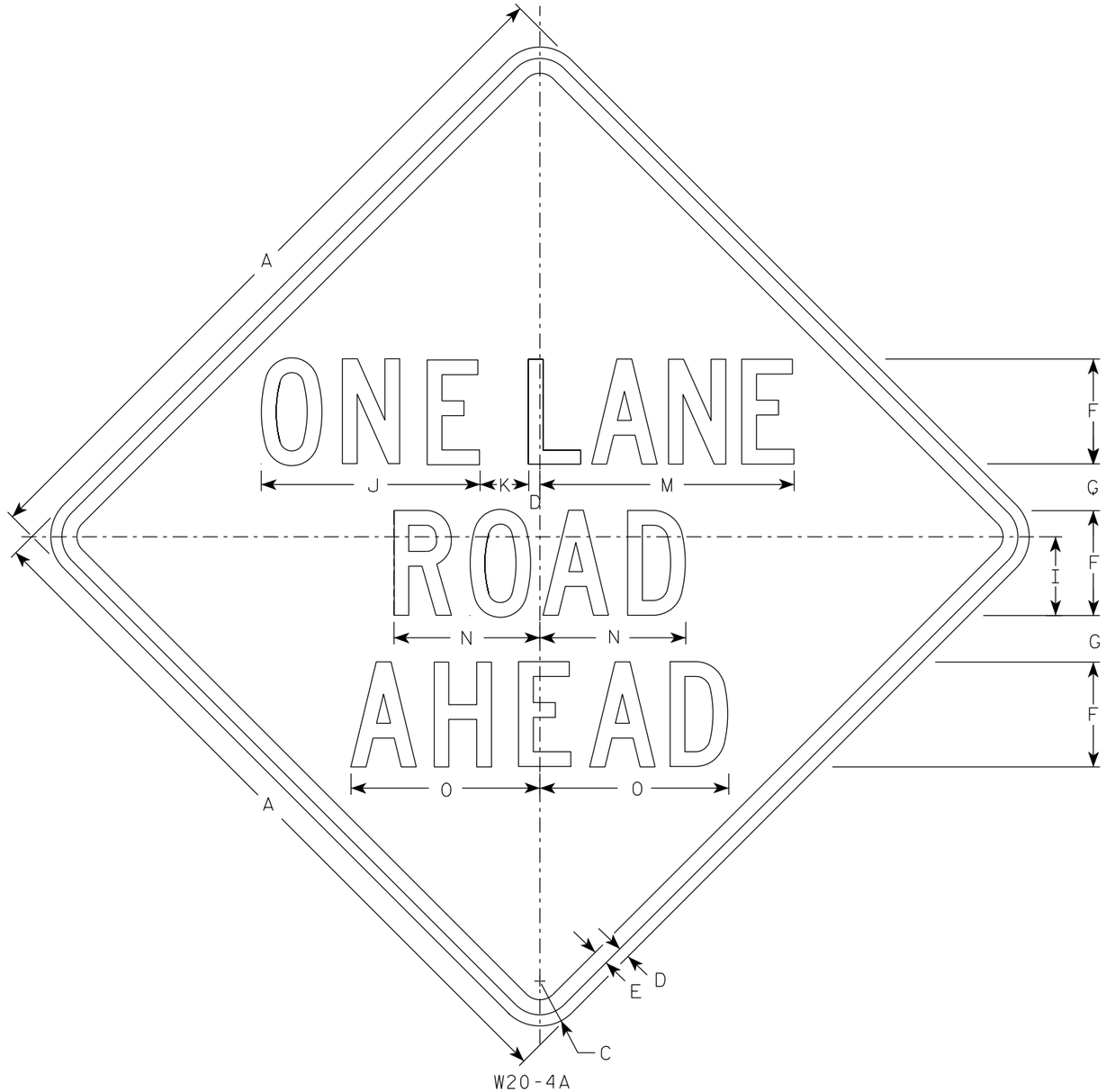
STANDARD SIGN
W20-3A, B, C, D, F & G

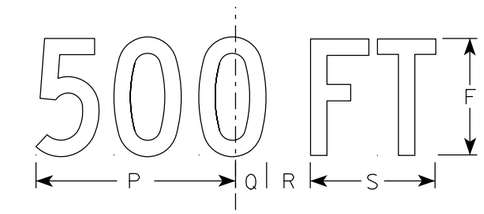
WISCONSIN DEPT OF TRANSPORTATION

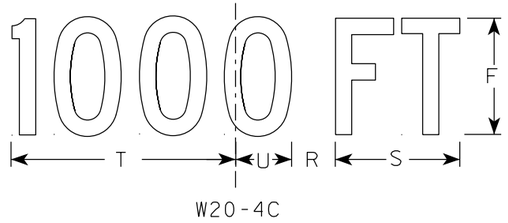
APPROVED Matthew R Rauch
for State Traffic Engineer

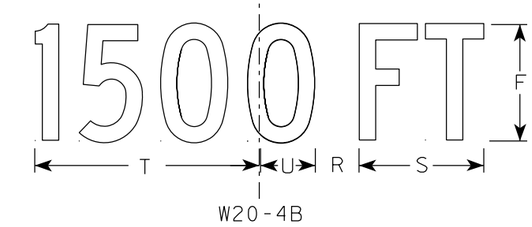
DATE 1/10/2024 PLATE NO. W20-3.8

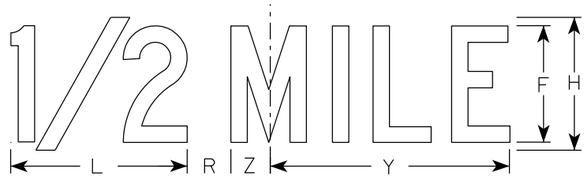
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 275 | E

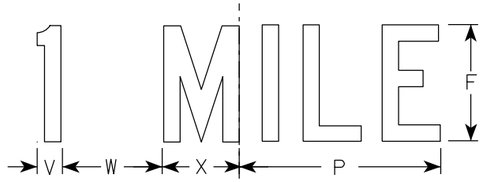












NOTES

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.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	2 3/8	6	3 3/4	10 3/8	2 3/8	8	13 1/2	7	8 7/8	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	10 3/4	1 3/4	9.0
2S	48		3	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		3	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
3	48		3	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
4	48		3	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
5	48		3	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-4A, B, C, D, F & G

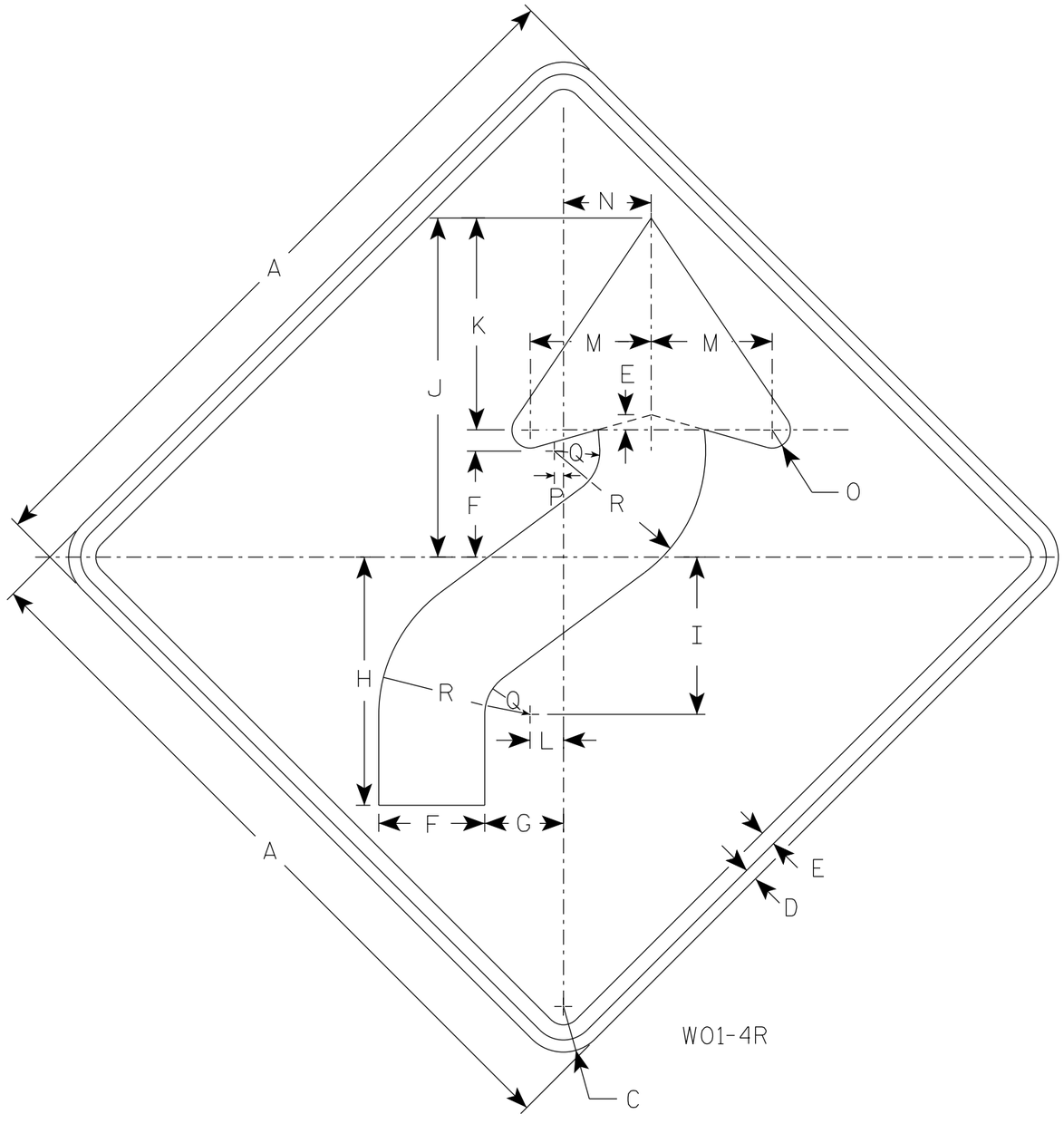
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-4.10

PROJECT NO:

SHEET NO: 276 E



W01-4R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

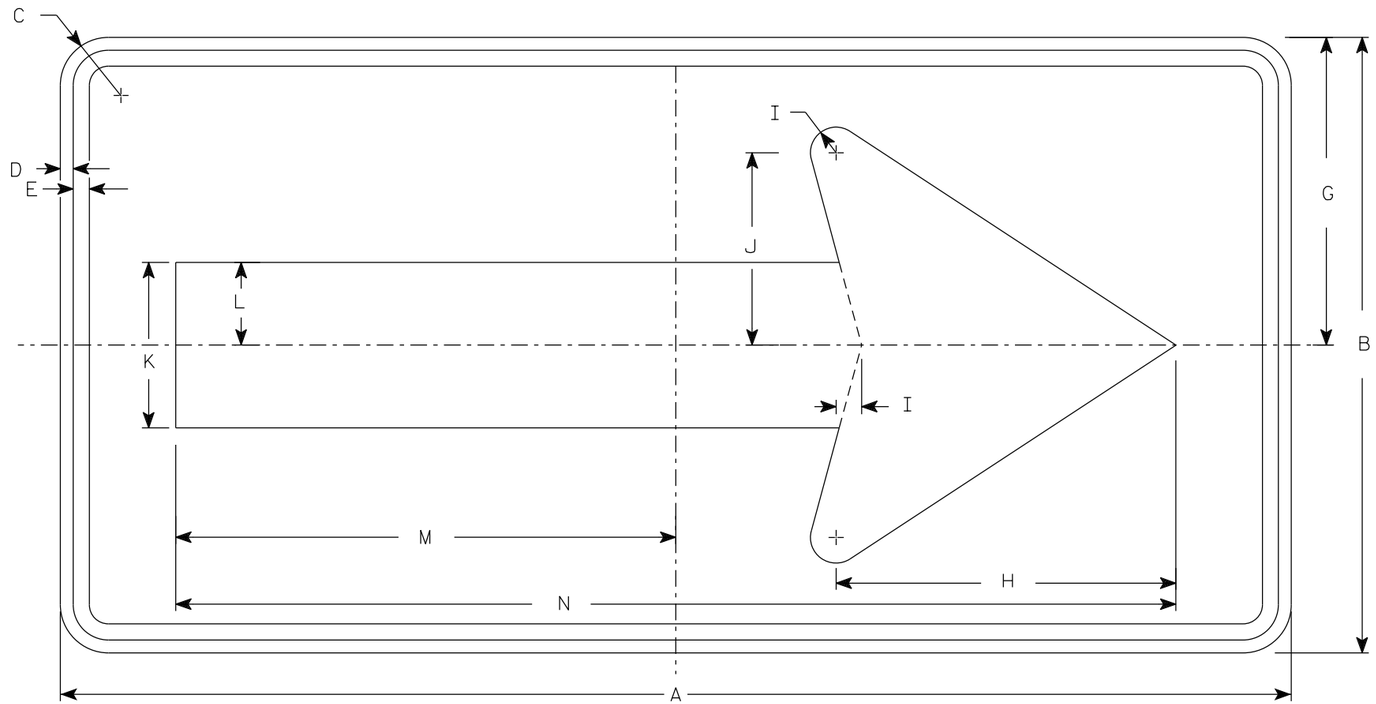
STANDARD SIGN
W01-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/24/2024 PLATE NO. W01-4.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 277 E



WO1-6

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

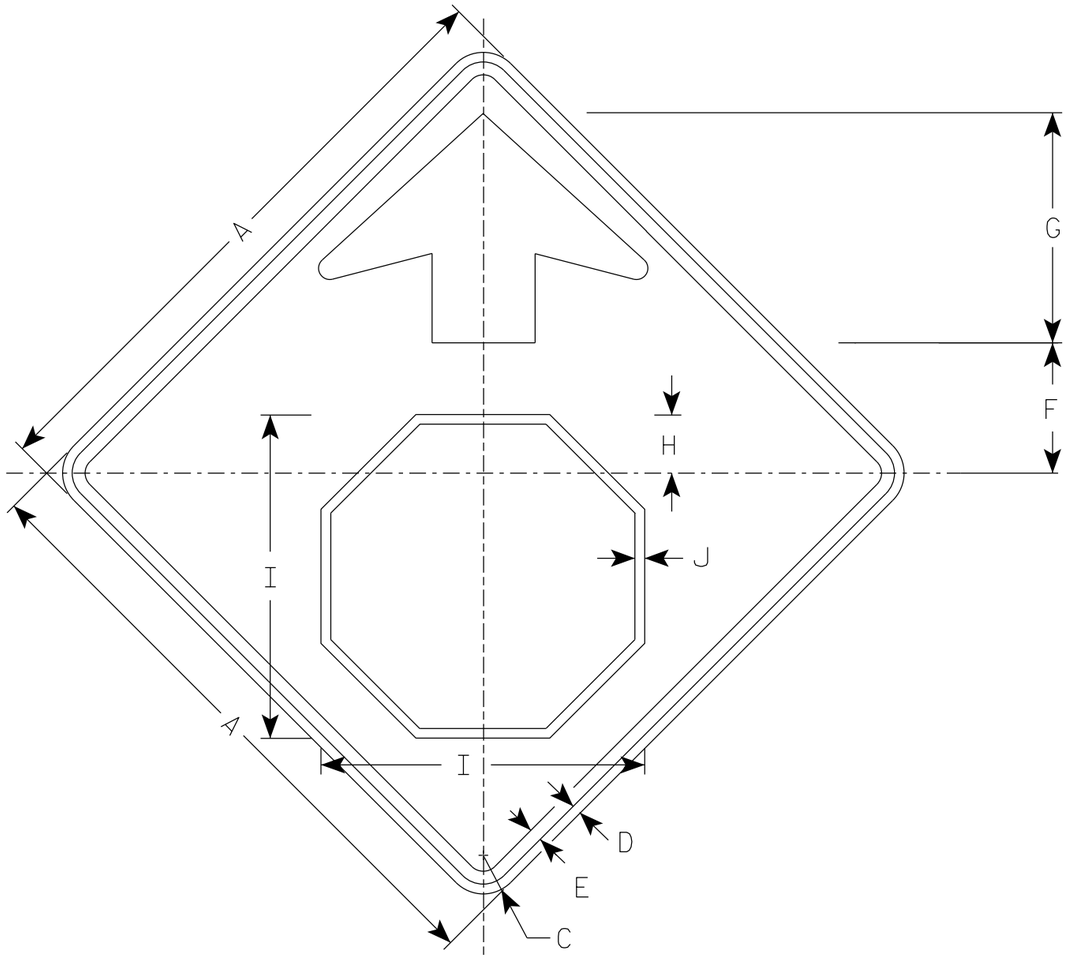
STANDARD SIGN
WO1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. WO1-6.2

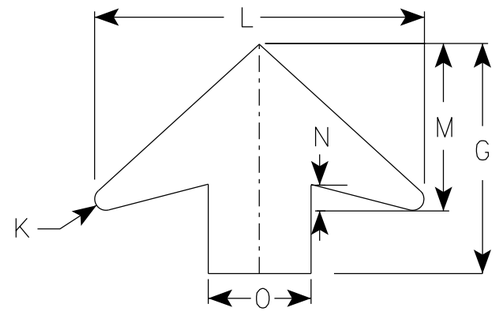
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



W03-1

NOTES

1. All Signs Type II - Type F Reflective
2. Color:
   Background - ORANGE
   Arrow & Border - BLACK
   Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2S	48		3	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
2M	48		3	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
3	48		3	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
4	48		3	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		3	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W03-1

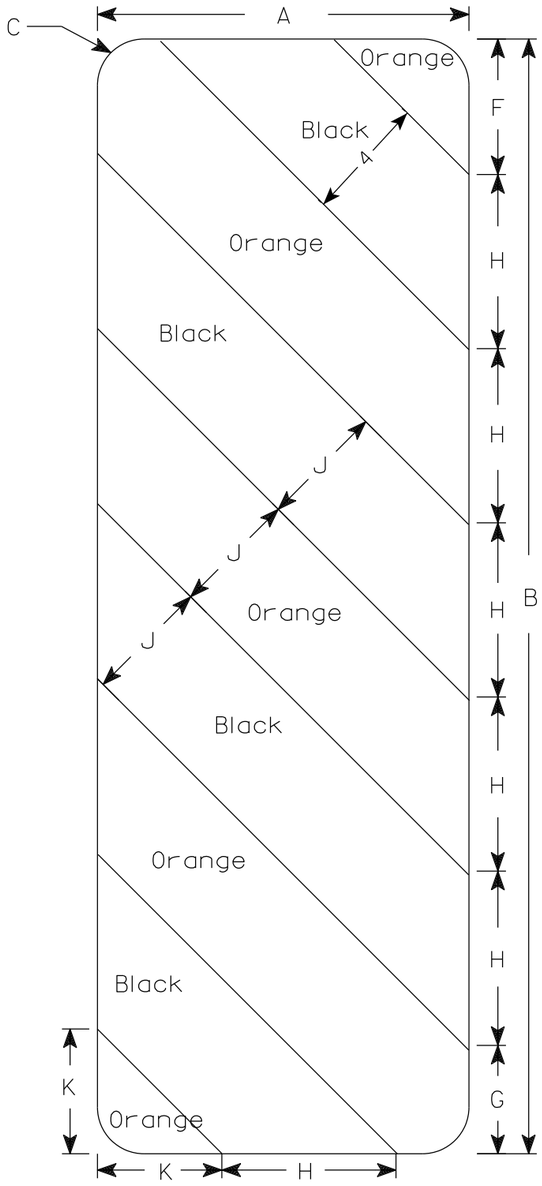
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

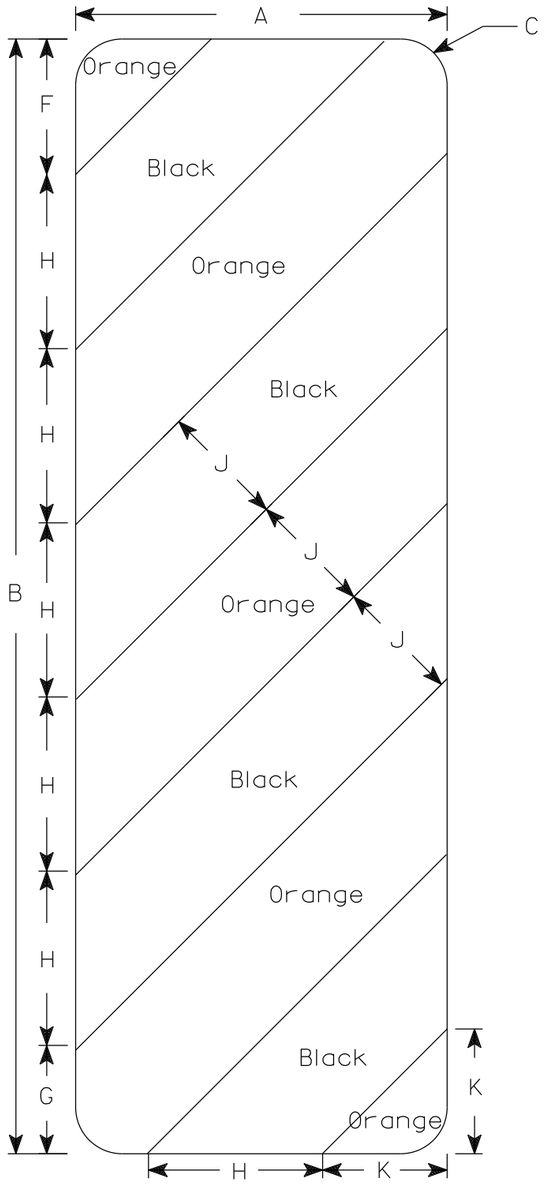
DATE 1/24/2024 PLATE NO. W03-1.2

PROJECT NO:

SHEET NO: 279 E



W05-52L



W05-52R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN
W05-52L & W05-52R

WISCONSIN DEPT OF TRANSPORTATION

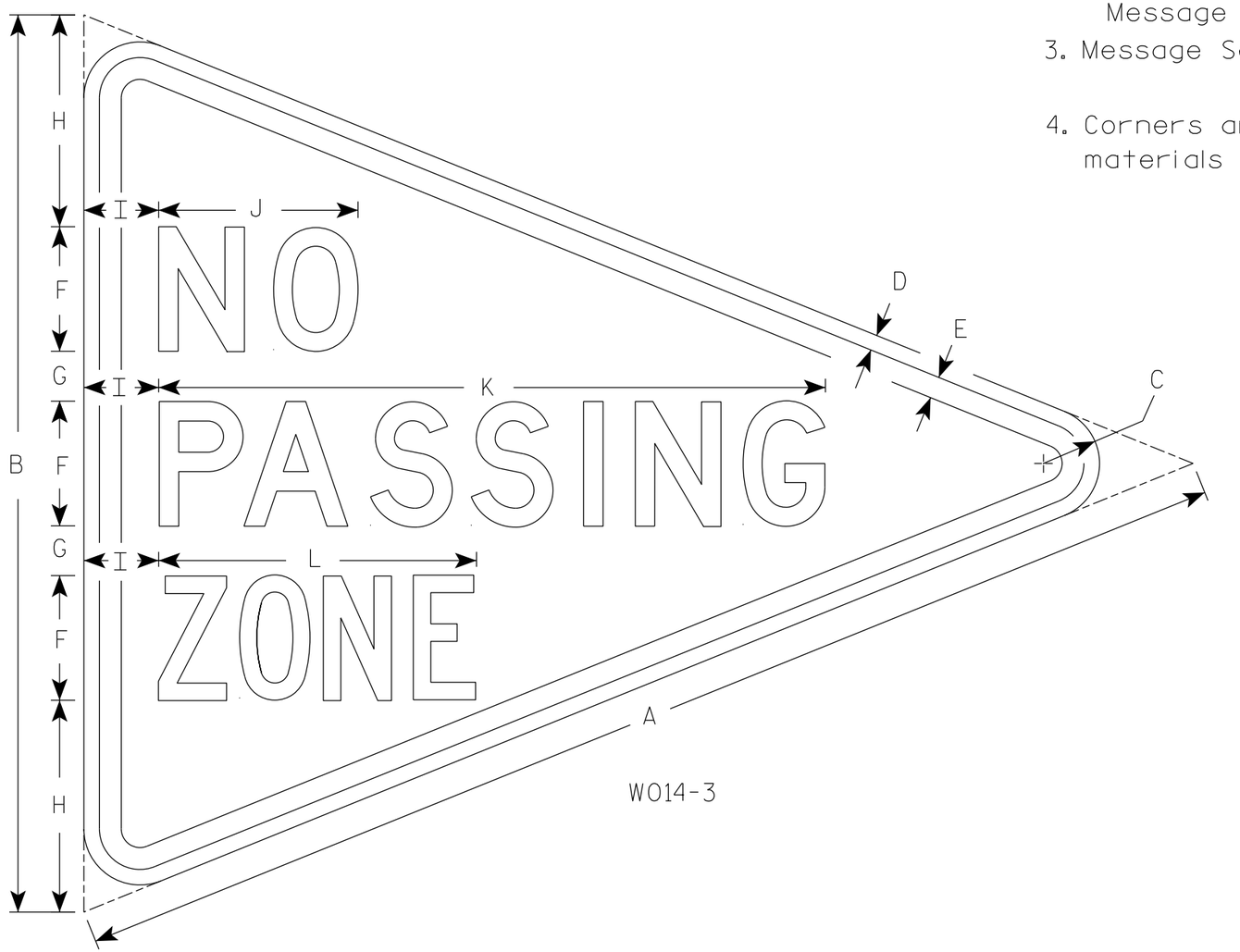
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/2024 PLATE NO. W05-52.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 280	E

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - Lines 1 and 2 are Series D.
   Line 3 is series C.
4. Corners and borders shall be rounded on all base materials for this sign.



W014-3

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	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															5.56
2M																											
3																											
4																											
5																											

STANDARD SIGN
W014-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/7/21 PLATE NO. W014-3.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 281 | E

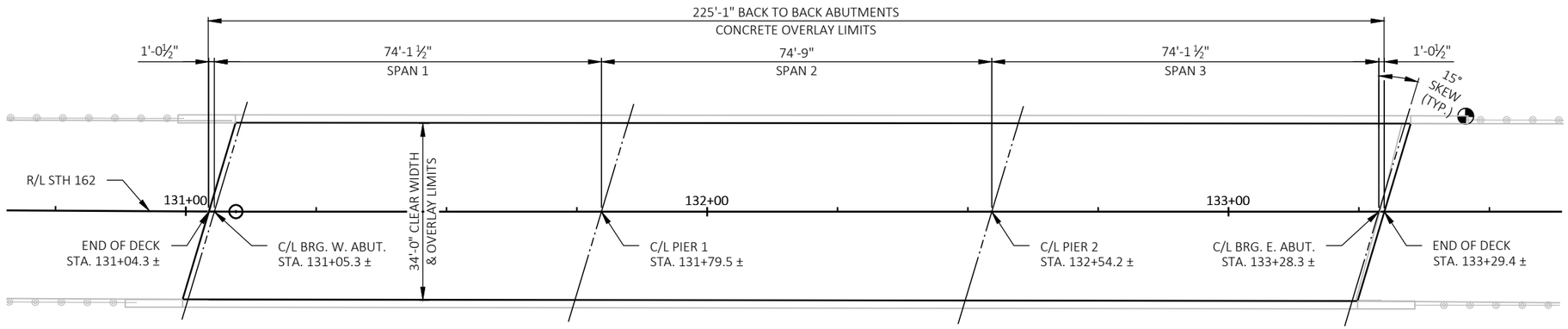
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W0143.dgn PLOT DATE : 7-OCT 2021 10:33 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7

STATE PROJECT NUMBER

5865-02-64



PLAN

(THREE-SPAN PRESTRESSED CONCRETE GIRDER BRIDGE)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON FIELD SURVEY, MEASUREMENTS AND AS-BUILT PLANS.

THE ORIGINAL STRUCTURE WAS BUILT IN 1969. IN 1996 A DECK OVERLAY AND FULL DEPTH DECK REPAIRS AT ENDS OF STRUCTURE WERE COMPLETED.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE NEW CONCRETE OVERLAY.

PIGMENTED SURFACE SEALER RESEAL SHALL BE APPLIED TO ROADWAY FACE AND TOP OF CURB AND PARAPET.

EXISTING CONCRETE COVER (1" MIN.) SHALL BE MAINTAINED AND CONSIDERED WHEN DETERMINING CONCRETE REMOVALS, INCLUDED IN THE BID ITEM "REMOVING CONCRETE MASONRY DECK OVERLAY B-62-29". BASED ON EXISTING PLANS THE REMOVAL LIMITS SHOULD NOT EXTEND BEYOND THE BOTTOM OF EXISTING OVERLAY TO KEEP THE MINIMUM COVER.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED OVERLAY THICKNESS IS 1½" AT EDGES AND 3½" AT CROWN. IF EXPECTED OVERLAY IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

THE AVERAGE OVERLAY THICKNESS WAS BASED ON THE AVERAGE DIMENSIONS AT EDGES AND CROWN.

SEAL OVERLAY CONSTRUCTION JOINTS ACCORDING TO SECTION 502.3.13.1 OF THE STANDARD SPECIFICATIONS. COST IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

PREPARATION DECKS TYPE 1 AND PREPARATION DECKS TYPE 2 AREAS ARE ESTIMATES BASED ON INSPECTION REPORTS AND FINAL LIMITS TO BE DETERMINED BY THE ENGINEER. DECK PREPARATION AREAS TO BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS = 12
OPERATING RATING: HS = 21
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 130 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY:
OVERLAY DECKS ——— f'c = 4,000 P.S.I.

TRAFFIC DATA:

ADT (2026) =	1,200
ADT (2046) =	1,300
DESIGN SPEED =	55 MPH

LIST OF DRAWINGS:

1. GENERAL PLAN
2. TYPICAL SECTION
3. STAGING SECTIONS
4. NORTH PARAPET REPAIRS
5. SOUTH PARAPET REPAIRS
6. DECK SCAN

BRIDGE OFFICE CONTACT
AARON BONK, P.E.
TELEPHONE: (608) 261-0261

CONSULTANT CONTACT
MATTHEW BUCKLI, P.E.
TELEPHONE: (608) 443-0441

NO.	DATE	REVISION	BY

Mead & Hunt, Inc.
2440 Deming Way
Middleton, WI 53562
608.273.6380
www.meadhunt.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED JLR 11/11/25
CHIEF STRUCTURES DESIGN ENGINEER — DATE

WISCONSIN MATTHEW J. BUCKLI E-39849 MADISON WI 9/19/25 PROFESSIONAL ENGINEER

STRUCTURE B-62-29

STH 162 OVER COON CREEK

COUNTY	TOWN ~~CITY/VILLAGE~~
VERNON	BERGEN

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JLA	MJB	JLA	MJB

GENERAL PLAN

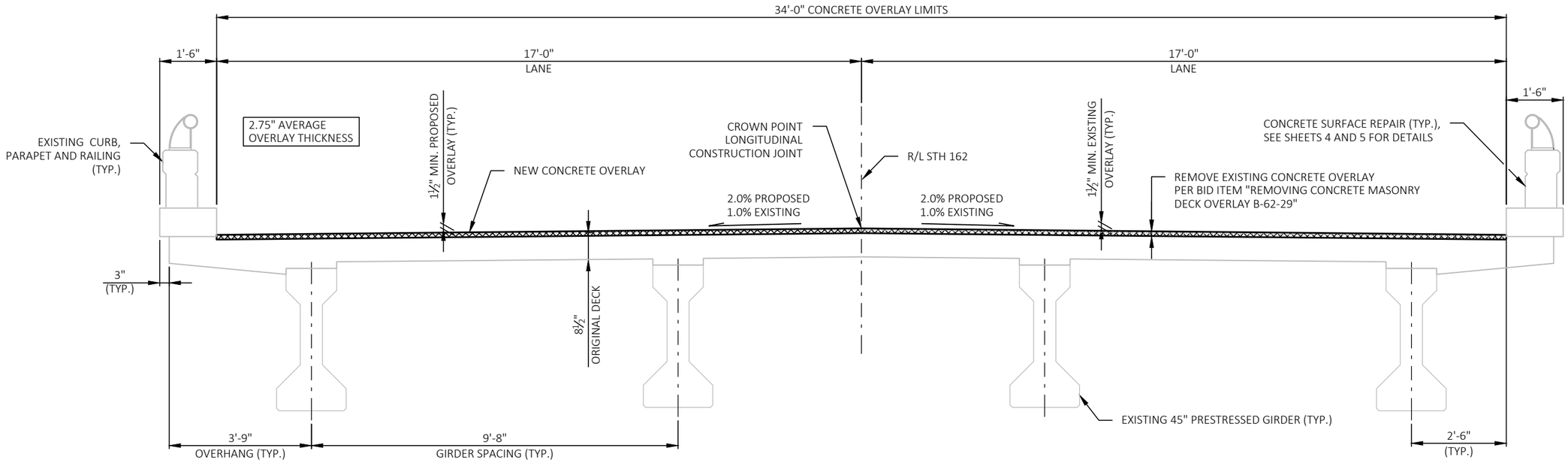
SHEET 1 OF 6
282

8

8

STATE PROJECT NUMBER

5865-02-64

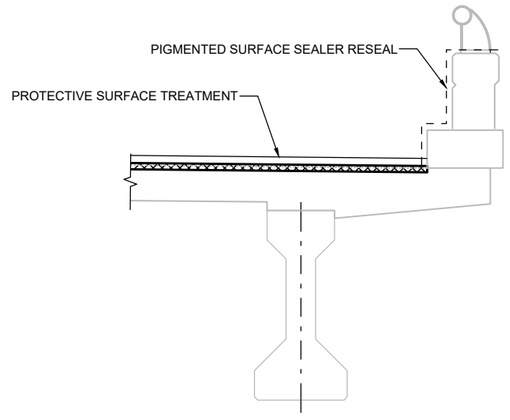


CROSS SECTION THRU BRIDGE

CONCRETE OVERLAY DETAILS
(LOOKING UPSTATION)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
502.3200	PROTECTIVE SURFACE TREATMENT	SY	850
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	203
509.0301	PREPARATION DECKS TYPE 1	SY	391
509.0302	PREPARATION DECKS TYPE 2	SY	156
509.0505.S	CLEANING DECKS TO REAPPLY CONCRETE MASONRY OVERLAY	SY	850
509.1500	CONCRETE SURFACE REPAIR	SF	344
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	95
509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY B-62-29	SY	850



SURFACE TREATMENT DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-29

DRAWN BY JLA | PLANS CK'D. MJB

TYPICAL SECTION

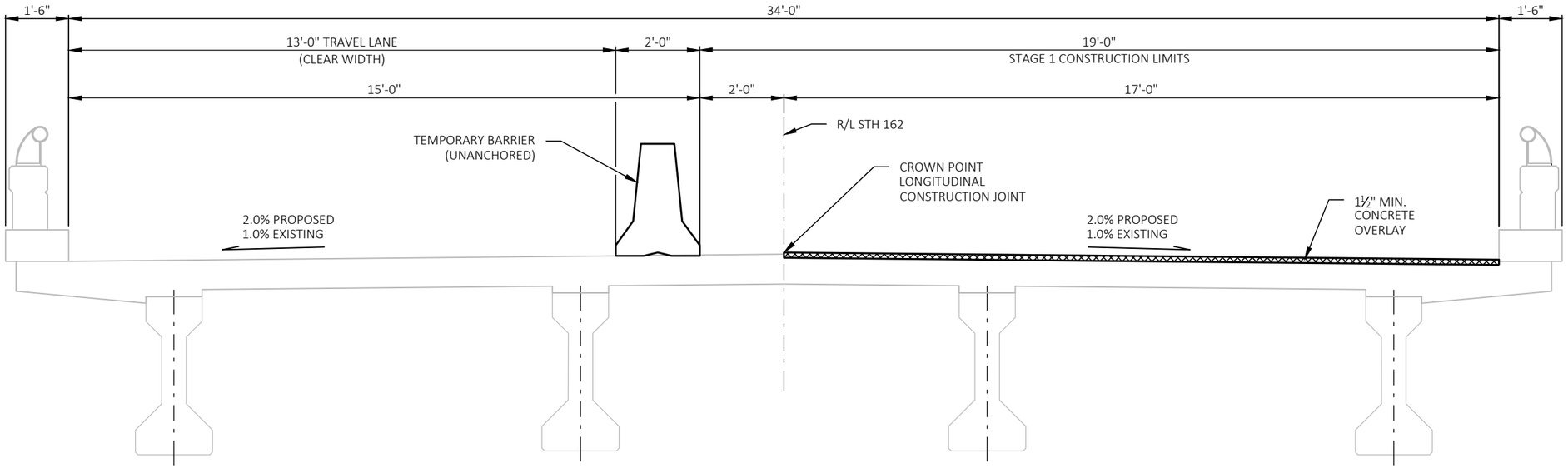
SHEET 283

8

8

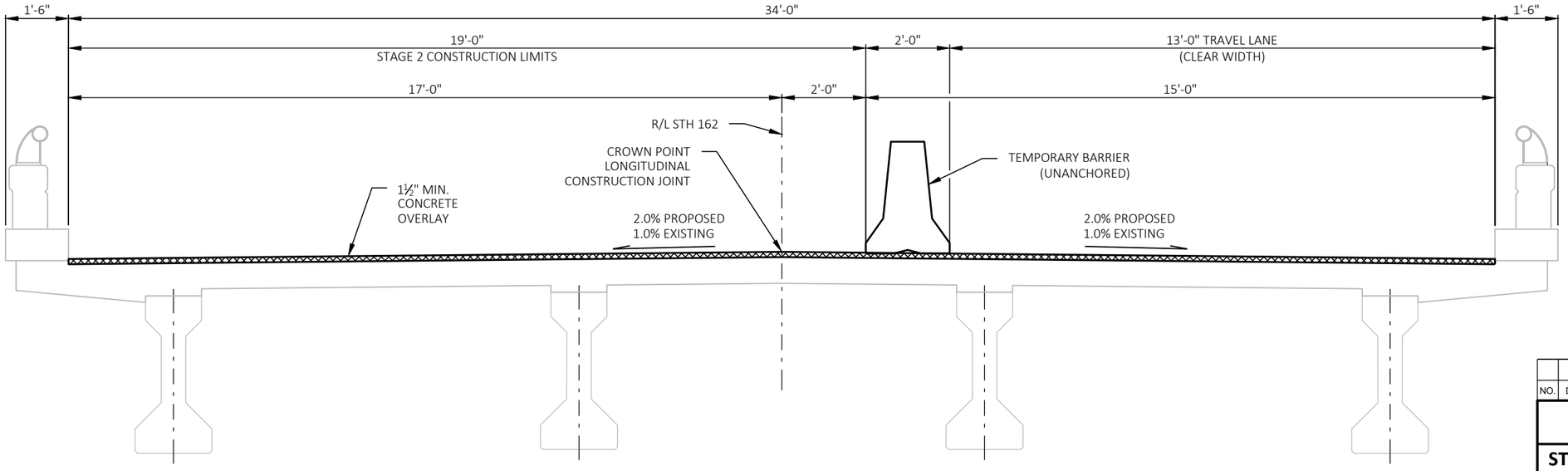
STATE PROJECT NUMBER

5865-02-64



STAGE 1 CONSTRUCTION

(LOOKING UPSTATION)



STAGE 2 CONSTRUCTION

(LOOKING UPSTATION)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-29

DRAWN BY JLA | PLANS CK'D MJB

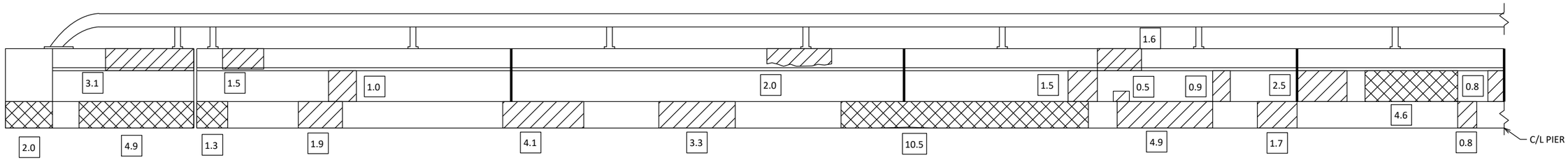
STAGING SECTION

SHEET 3
284

SCALE =

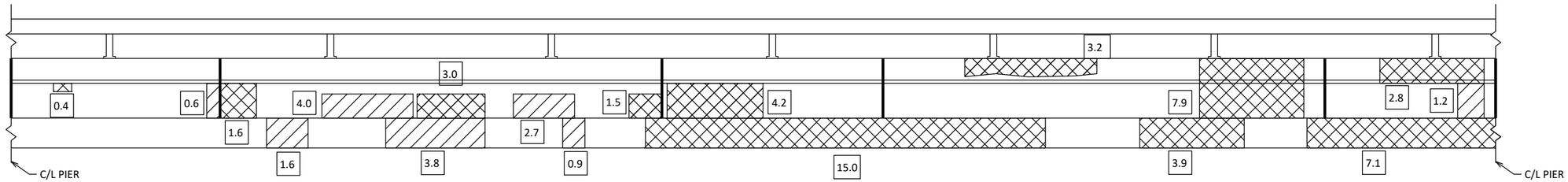
STATE PROJECT NUMBER

5865-02-64

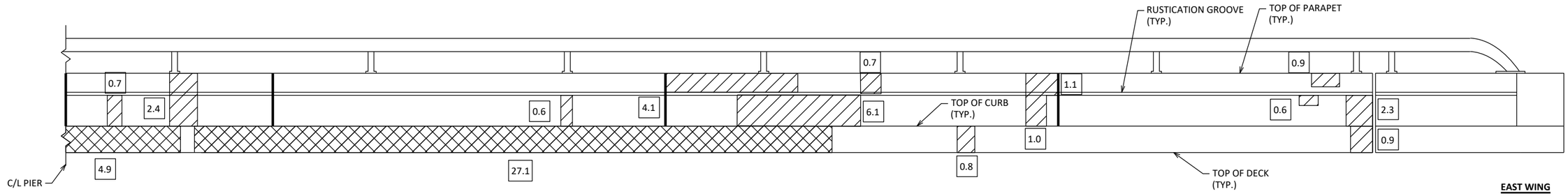


WEST WING

SPAN 1



SPAN 2



EAST WING

NOTES:

DRAWINGS SCALED VERTICALLY BY A FACTOR OF 2 FOR REPAIR AREA CLARITY

LEGEND:

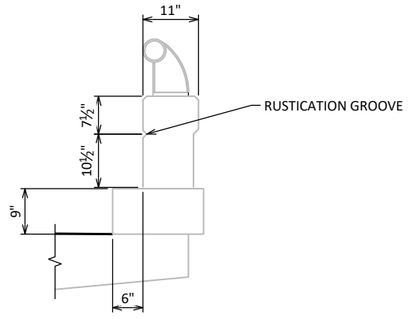
CAULKED PARAPET JOINT

SPALLING

DELAMINATION

XX — DETERIORATED AREA IN SF

SPAN 3



TYPICAL SECTION AT PARAPET

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-29

DRAWN BY JLA | PLANS CK'D MJB

NORTH PARAPET REPAIRS

SHEET 4

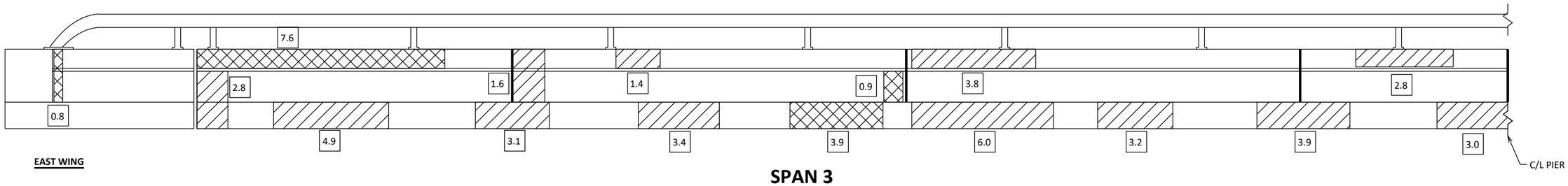
285

8

8

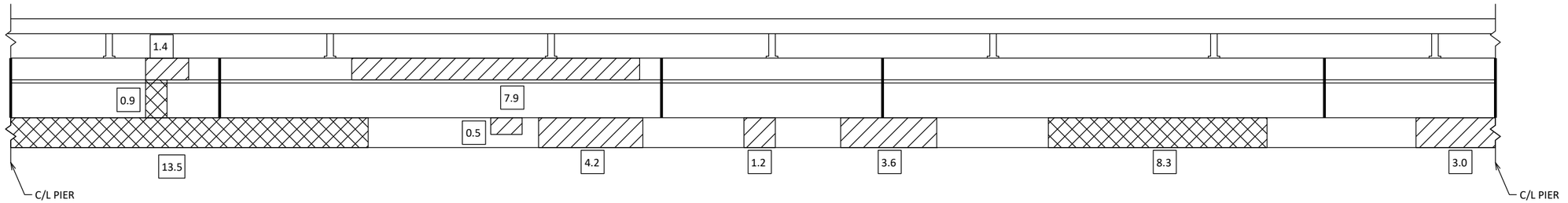
STATE PROJECT NUMBER

5865-02-64

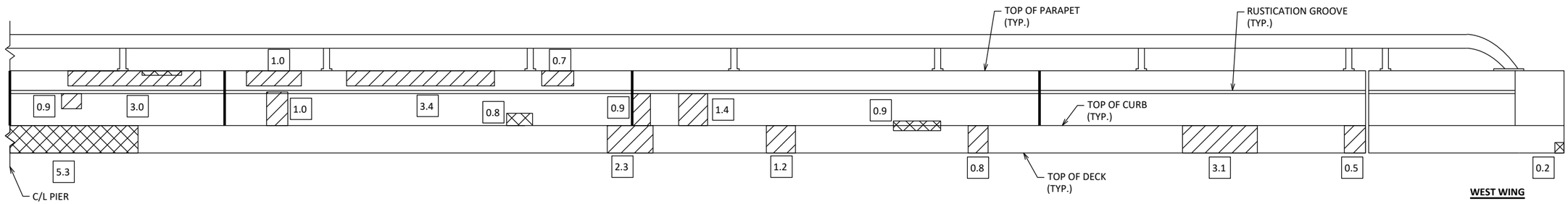


EAST WING

SPAN 3



SPAN 2



WEST WING

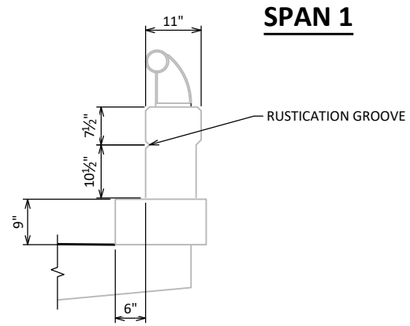
SPAN 1

NOTES:

DRAWINGS SCALED VERTICALLY BY A FACTOR OF 2 FOR REPAIR AREA CLARITY

LEGEND:

- CAULKED PARAPET JOINT
- SPALLING
- DELAMINATION
- XX — DETERIORATED AREA IN SF



TYPICAL SECTION AT PARAPET

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-29

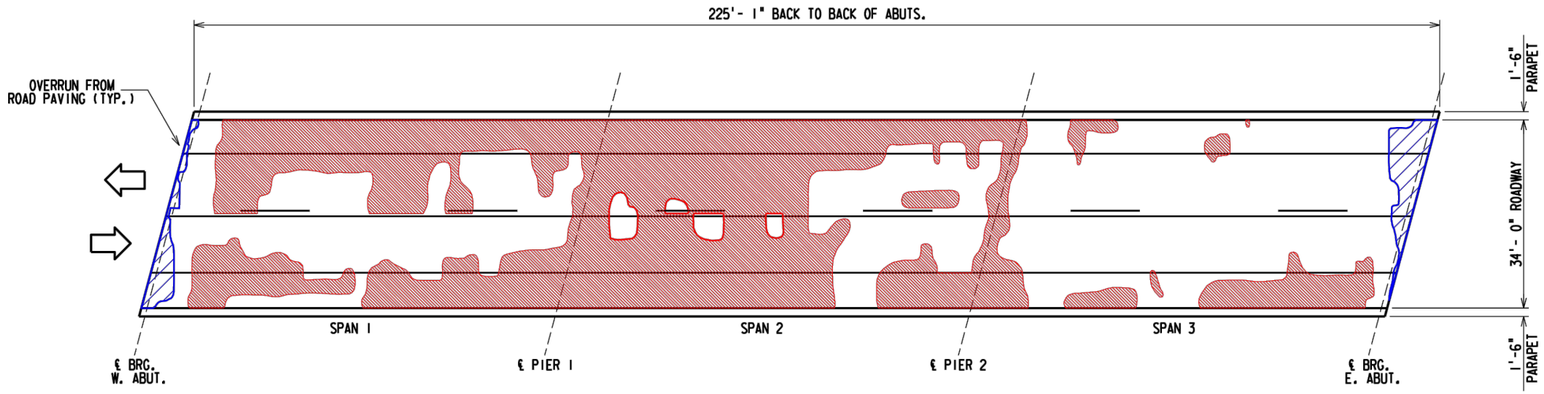
DRAWN BY JLA | PLANS CK'D MJB

SOUTH PARAPET REPAIRS

SHEET 5
286

STATE PROJECT NUMBER

5865-02-64



PLAN

INFRARED THERMOGRAPHIC SURVEY RESULTS

N

FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-62-29	
ITEM	UNIT	QUANT.	%
TOTAL AREA	ft^2	7653	
SHADE/DEBRIS	ft^2	0	
DELAMINATION	ft^2	3516	45.9
SPALL	ft^2	0	0
DEBOND	ft^2	0	0
ASPHALT PATCH	ft^2	0	0
PCC PATCH	ft^2	0	0

LEGEND
- DELAMINATION
- SPALL
- DEBOND
- ASPHALT PATCH
- PCC PATCH
- SHADE/DEBRIS

SCALE 0' 5' 10' 20'

SURFACE TYPE: CONCRETE OVERLAY
INFRARED INSPECTION DATE: 6/27/22

NO	REVISIONS	DRN	CHK	DATE

DATA COL DO/AT
ANALYSIS TC
CADD TG
CHECKED BS

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AECOM

INFRARED THERMOGRAPHIC INVESTIGATION OF STH 162 OVER COON CREEK STRUCTURE NO. B-62-29

PREPARED FOR WISCONSIN DEPARTMENT OF TRANSPORTATION BUREAU OF STRUCTURES

DATE 11/16/22
PROJECT NO 60685190
FILENAME B-62-29-IR.DGN
SHEET NO 1 OF 1
DRAWING NO

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-29

DRAWN BY JLA | PLANS CK'D MJB

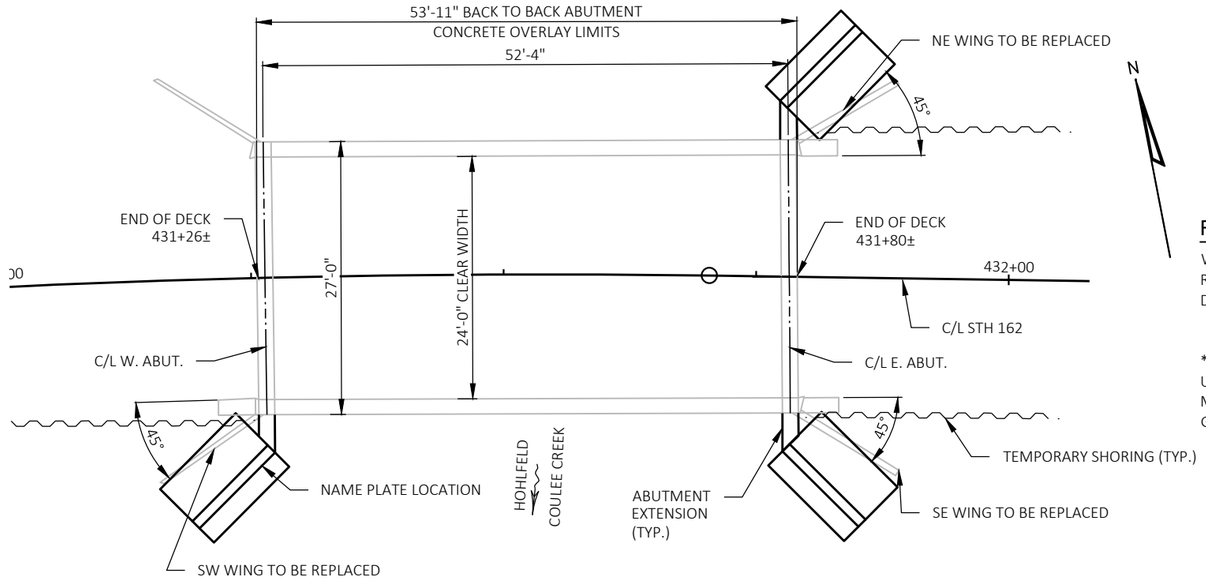
DECK SCAN

SHEET 6
287

SCALE =

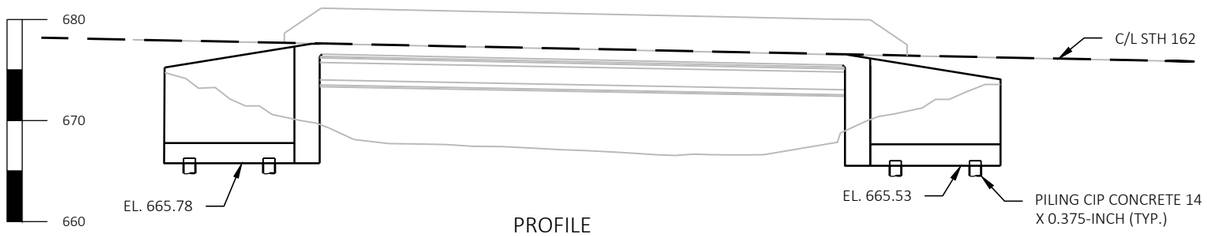
STATE PROJECT NUMBER

5865-02-64



PLAN

(SINGLE-SPAN STEEL GIRDER BRIDGE)



PROFILE

(LOOKING UPSTREAM)

FOUNDATION DATA

WINGS TO BE SUPPORTED ON 14" OD X ⅜" CIP PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 120 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
ESTIMATED 70'-0" LONG.

**THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE PILE CAPACITY.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON FIELD SURVEY AND MEASUREMENTS.

THE ORIGINAL STRUCTURE WAS BUILT IN 1939. IN 1974 A NEW DECK WAS BUILT ON TOP OF THE EXISTING ABUTMENTS. NO PLANS ARE AVAILABLE FOR ORIGINAL WINGS AND ABUTMENTS.

ALL CONCRETE REMOVAL NOT COVERED BY A CONCRETE OVERLAY SHALL BE DEFINED BY A ½ INCH DEEP SAW CUT, UNLESS SPECIFIED OTHERWISE.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE QUANTITY OF BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF THE DECK/OVERLAY. PIGMENTED SURFACE SEALER RESEAL TO BE APPLIED TO THE FRONT FACE AND TOP OF THE PARAPETS.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE DECK SURFACE BETWEEN TOE OF PARAPETS AND SHALL BE INCLUDED UNDER THE BID ITEM "CLEANING DECKS".

SEAL OVERLAY CONSTRUCTION JOINTS ACCORDING TO SECTION 502.3.13.1 OF THE STANDARD SPECIFICATIONS. COST IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

THE AVERAGE OVERLAY THICKNESS IS BASED ON THE MINIMUM OVERLAY THICKNESS PLUS 1/2-INCH TO ACCOUNT FOR VARIATIONS IN THE DECK SURFACE.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 2½". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

PREPARATION DECKS TYPE 1 AND PREPARATION DECKS TYPE 2 AREAS ARE ESTIMATES BASED ON INSPECTION REPORTS AND DECK SCANS ON SHEET 4. FINAL LIMITS TO BE DETERMINED BY THE ENGINEER. DECK PREPARATION AREAS TO BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

CONCRETE SURFACE REPAIR AREA IS ESTIMATE BASED ON INSPECTION REPORTS.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-62-984" SHALL BE THE EXISTING GROUNDLINE.

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS = 16
OPERATING RATING: HS = 27
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 240 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY:
OVERLAY DECKS — f'c = 4,000 P.S.I.
ALL OTHER — f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT:
GRADE 60 — fy = 60,000 P.S.I.

TRAFFIC DATA:

STH 162:
ADT (2026) = 570
ADT (2046) = 570
DESIGN SPEED = 55 MPH

LIST OF DRAWINGS:

1. GENERAL PLAN AND ELEVATION
2. TYPICAL SECTIONS
3. QUANTITIES AND DETAILS
4. DECK SCANS
5. SUBSURFACE EXPLORATION
6. WING DETAILS
7. ABUTMENT EXTENSION DETAILS

SCOPE OF WORK:

- REMOVAL OF EXISTING CONCRETE OVERLAY AND PLACEMENT OF A NEW OVERLAY
- WING REPLACEMENT AT NE, SE, AND SW WING
- CONCRETE SURFACE REPAIR

BRIDGE OFFICE CONTACT
AARON BONK, P.E.
TELEPHONE: (608) 261-0261

CONSULTANT CONTACT
MATTHEW BUCKLI, P.E.
TELEPHONE: (608) 443-0441

NO.	DATE	REVISION	BY

Mead & Hunt, Inc.
2440 Deming Way
Middleton, WI 53562
608.273.6380
www.meadhunt.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED JLR 05/19/26
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-62-984

STH 162 OVER HOHLFELD COULEE CREEK

COUNTY: VERNON | TOWN/~~CITY/VILLAGE~~: HAMBURG

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JLA	MJB	JLA	MJB

GENERAL PLAN AND ELEVATION

SHEET 1 OF 7

288

WISCONSIN
MATTHEW J. BUCKLI
E-39849
MADISON
WI
5/18/26
PROFESSIONAL ENGINEER

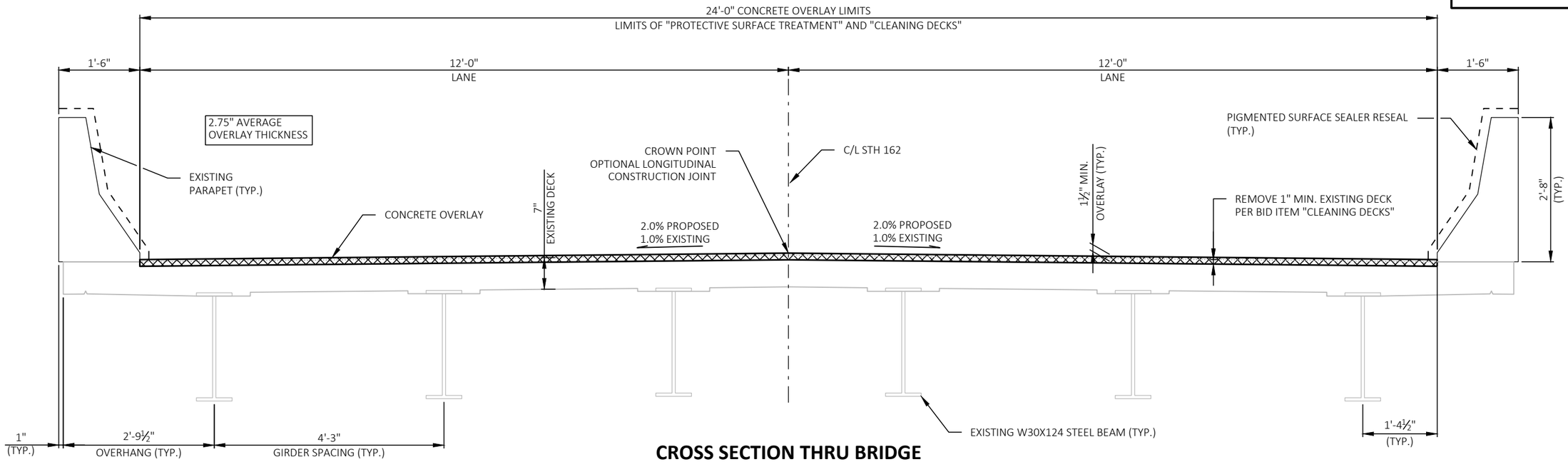
8

8

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\DESIGN\STRUCTURE\B-62-984\B-62-984.DWG PLOT DATE : 5/18/2026 PLOT BY : JACOB ARMSTRONG PLOT SCALE :

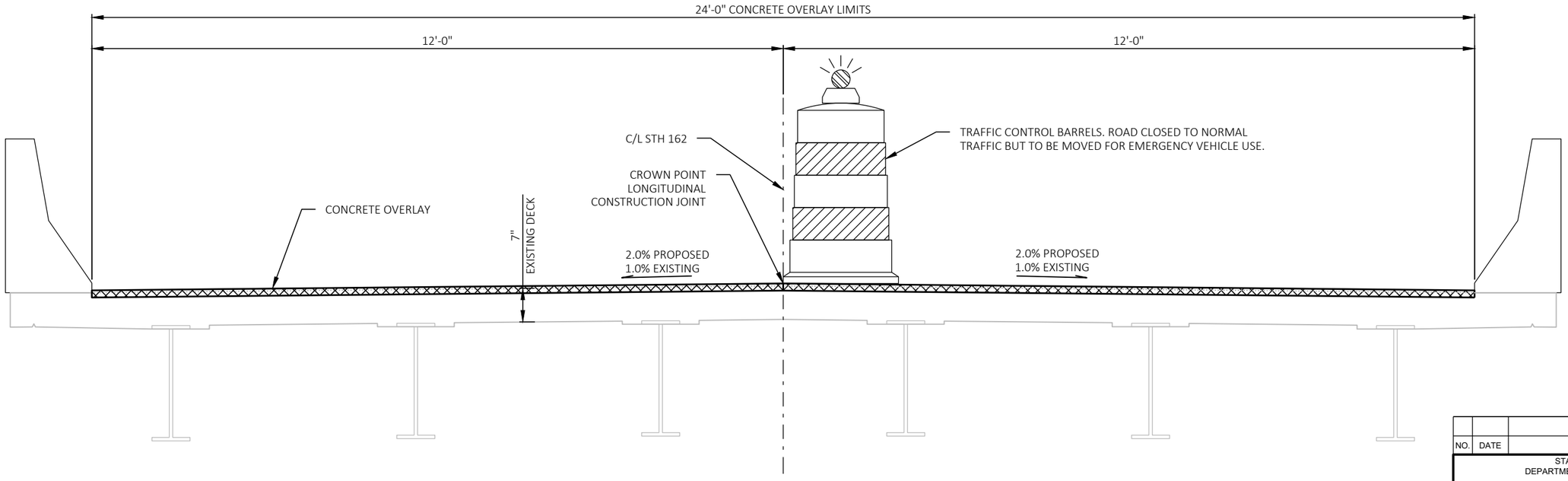
STATE PROJECT NUMBER

5865-02-64



CROSS SECTION THRU BRIDGE

CONCRETE OVERLAY DETAILS
(LOOKING UPSTATION)



STAGING DETAIL

STAGE 1 SHOWN. STAGE 2 MIRRORED ABOUT CENTERLINE

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-984

DRAWN BY JLA | PLANS CK'D MJB

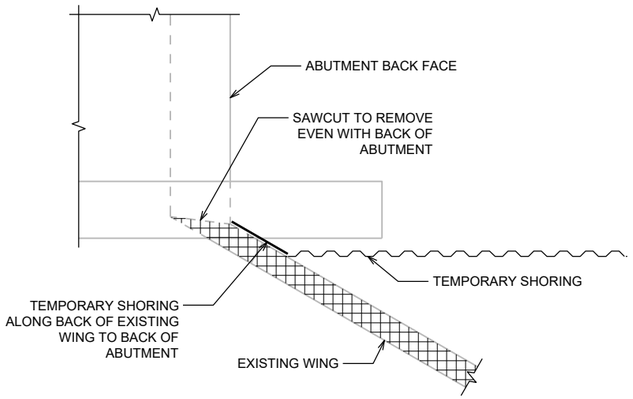
TYPICAL SECTIONS

SHEET 2
289

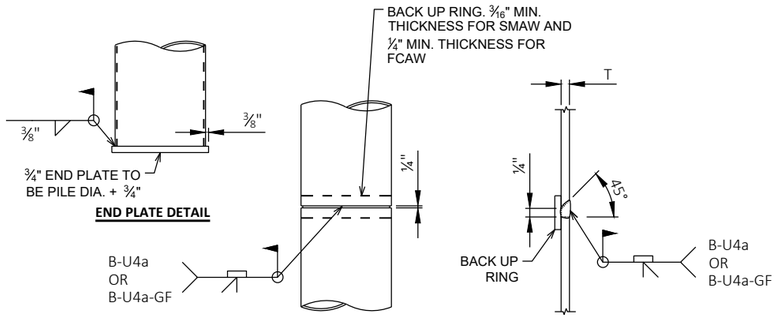
SCALE =

STATE PROJECT NUMBER

5865-02-64



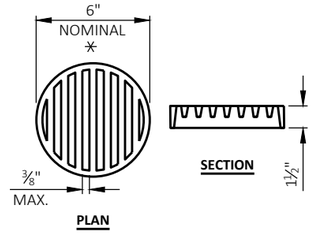
SHORING AND REMOVAL DETAIL



CIP PILE DETAILS

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER	W. ABUT.	E. ABUT.	TOTALS
203.0220	REMOVING STRUCTURE B-62-984	EA	---	---	---	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-62-984	EA	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	---	57	114	171
502.0100	CONCRETE MASONRY BRIDGES	CY	---	11.7	23.4	35
502.3200	PROTECTIVE SURFACE TREATMENT	SY	144	---	---	144
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	47	---	---	47
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EA	---	24	48	72
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	---	280	550	830
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	---	600	1180	1780
509.0301	PREPARATION DECKS TYPE 1	SY	13	---	---	13
509.0302	PREPARATION DECKS TYPE 2	SY	5	---	---	5
509.0500	CLEANING DECKS	SY	144	---	---	144
509.1500	CONCRETE SURFACE REPAIR	SF	---	3	---	3
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	11	---	---	11
511.1200	TEMPORARY SHORING B-62-984	SF	---	215	425	640
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	---	4	7	11
550.2146	PILING CIP CONCRETE 14 X 0.375-INCH	LF	---	140	280	420
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	---	25	50	75
	NON-BID ITEMS					
	FILLER	SIZE	---	---	---	½", ¾"

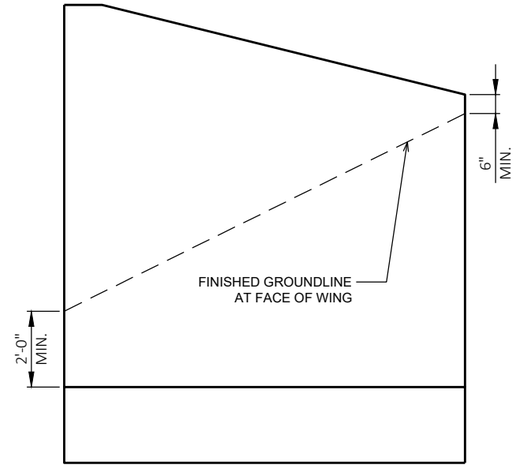


RODENT SHIELD DETAIL

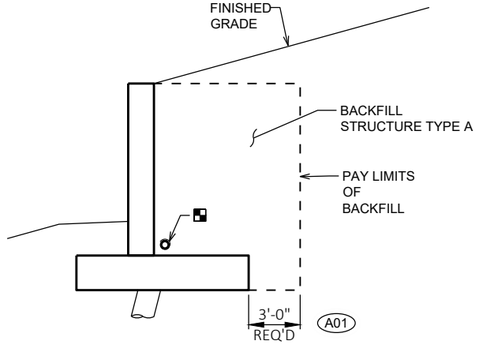
* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

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



WING FILL GEOMETRY



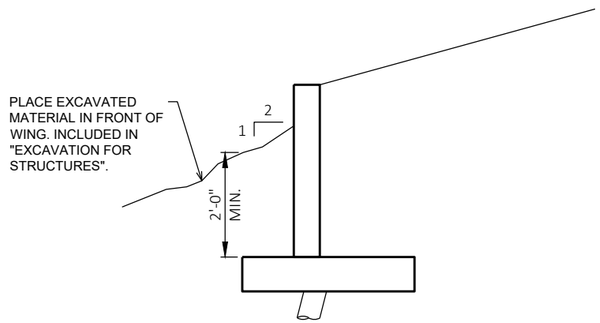
TYPICAL SECTION THRU WING WALL

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

▪ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

NOTES:

(A01) WHERE TEMPORARY SHORING IS WITHIN THESE LIMITS USE "BACKFILL STRUCTURE TYPE A" UP TO TEMPORARY SHORING FACE.



WING FILL DETAIL

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-984

DRAWN BY JLA | PLANS CK'D MJB

QUANTITIES AND DETAILS

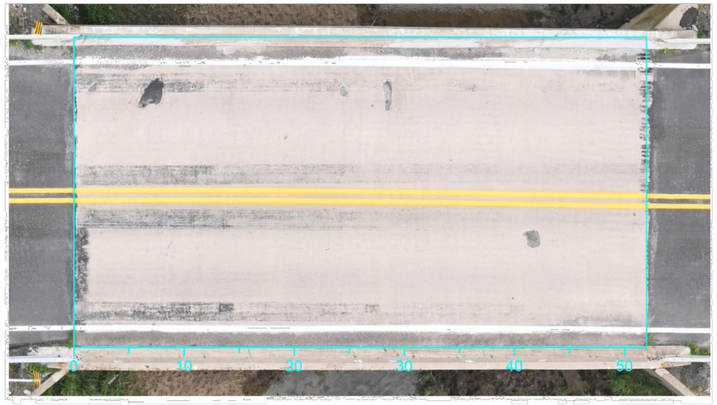
SHEET 3
290

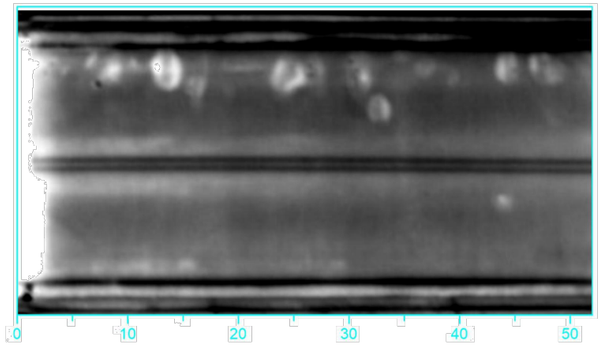
SCALE =

STATE PROJECT NUMBER

5865-02-64

Bridge Inventory/ Survey Data	Infrared Data (Temperature, F)
Survey Level: 0	Average: 80.0
Wearing Surface: Bare	Standard Deviation: 2.67





Orientation	Quantity Summary		General Information
N Direction of traffic 1-in = 10-ft 0 10	Delamination Quantity (%)	8	Bridge ID: B620984 STH 162 over HOHLFELD COULEE CREEK
	Delamination Quantity (ft²)	112	
	Patching Quantity (%)	<1	Scanned: 6/28/22, 10:32am Analyzed by: AR Completed: 11/28/22
	Patching Quantity (ft²)	9	

INFRASENSE

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

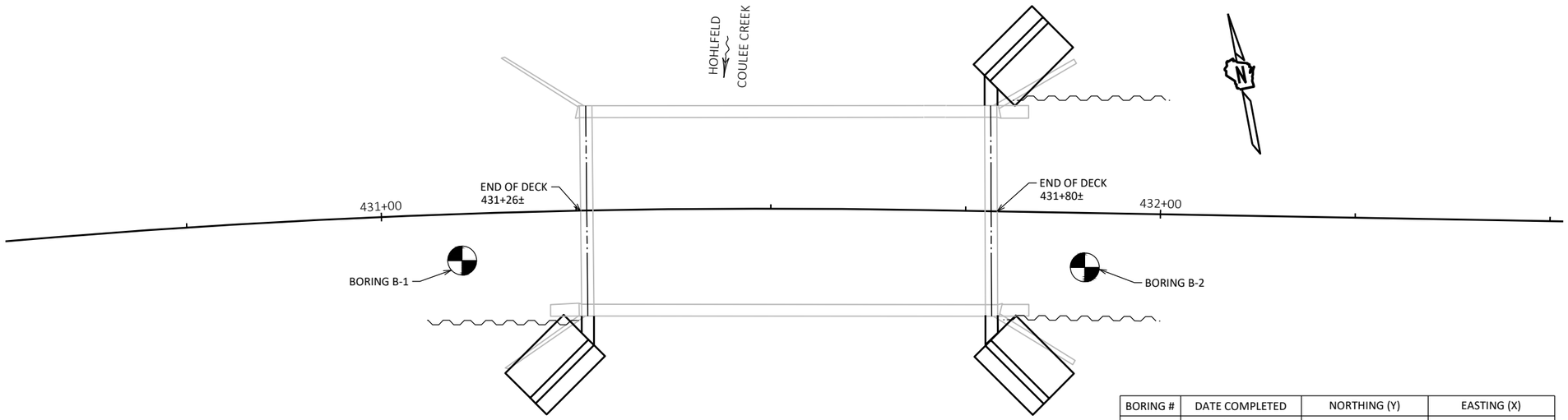
STRUCTURE B-62-984

DRAWN BY JLA | PLANS CK'D MJB

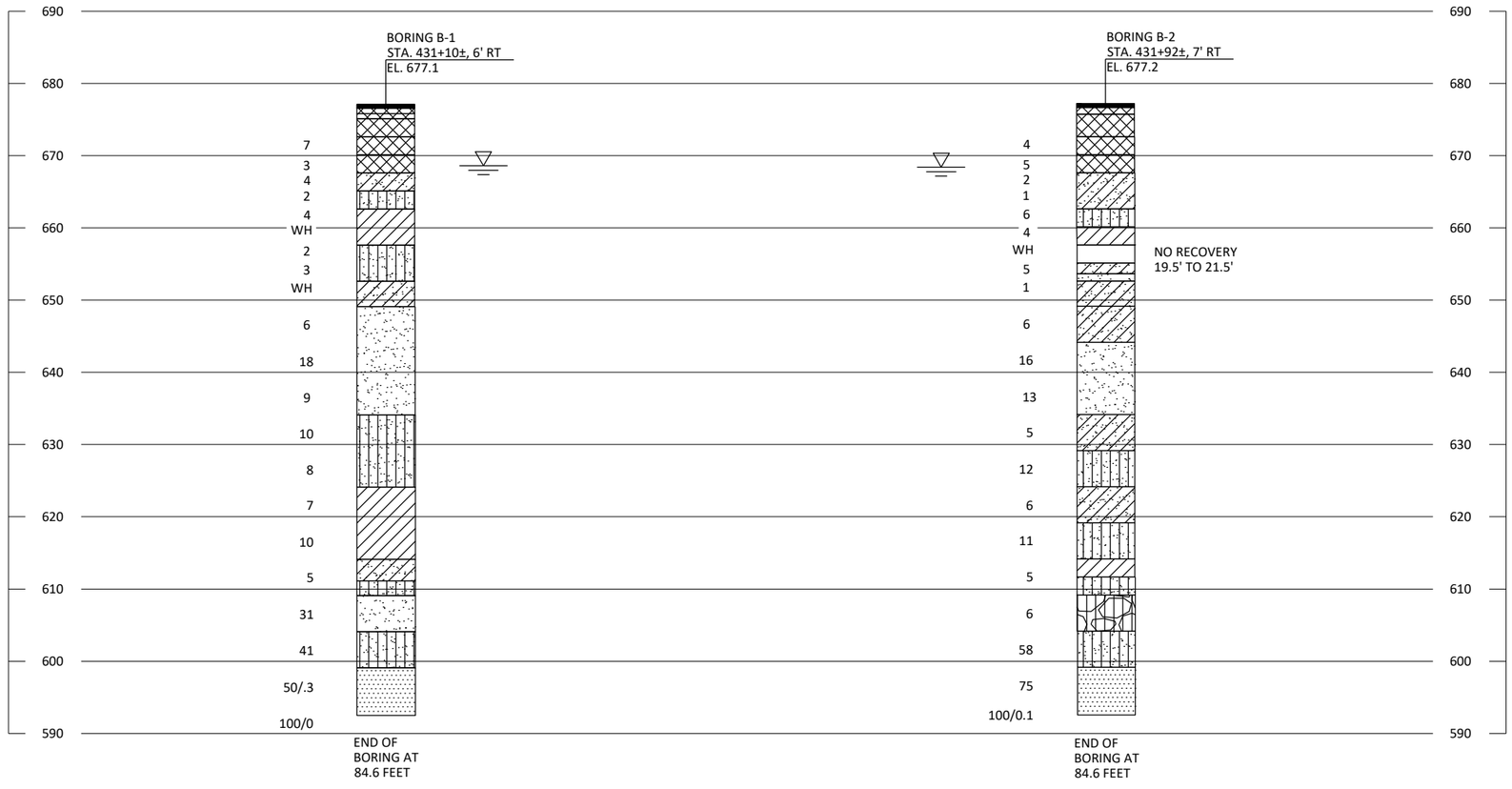
DECK SCANS

SHEET 4
291

SCALE =



BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-1	2/26/2026	190160.0	643728.2
B-2	2/25/2026	190144.4	643806.5
BORINGS COMPLETED BY: AMERICAN ENGINEERING TESTING			
REPORT COMPLETED BY: AMERICAN ENGINEERING TESTING			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) VERNON COUNTY			



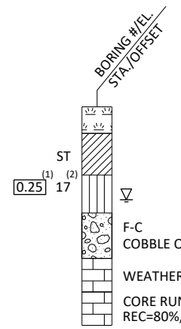
STATE PROJECT NUMBER

5865-02-64

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

AT TIME OF DRILLING
END OF DRILLING
AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-984

DRAWN BY JLA | PLANS CK'D MJB

SUBSURFACE EXPLORATION

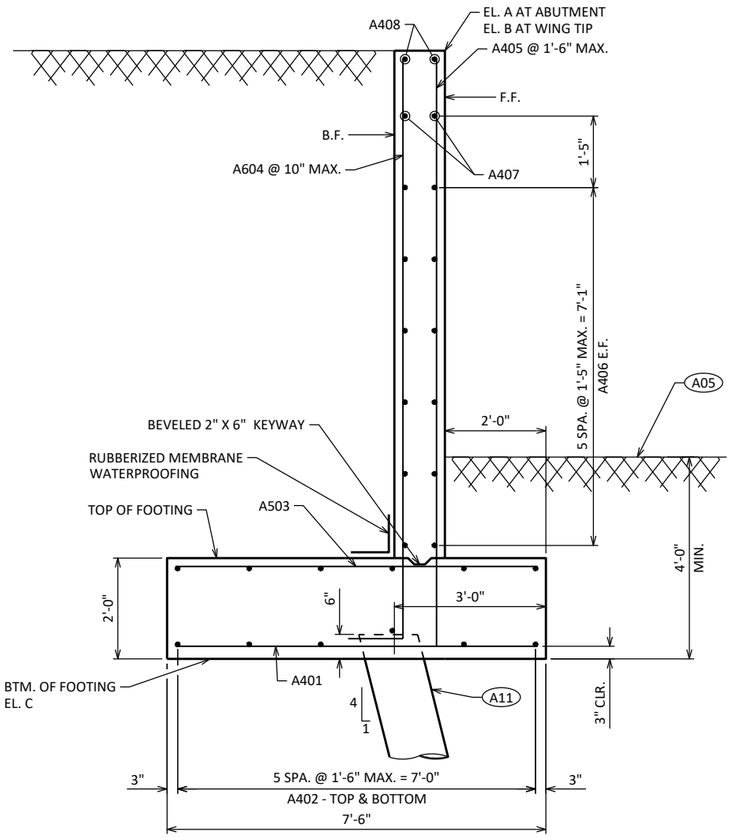
SHEET 5
292

8

8

STATE PROJECT NUMBER

5865-02-64



SECTION A-A THRU WING

WING ELEVATIONS

WING	ELEVATION A	ELEVATION B	ELEVATION C
SW WING	677.86	675.49	665.78
NE WING	677.61	675.24	665.53
SE WING	677.61	675.24	665.53

NOTES:

(A01) IF NEEDED, CLIP CORNER FOR CLEAR TO TEMPORARY SHORING. IF MORE THAN 1'-0" IS NEEDED IN EITHER DIRECTION, CONTACT THE DESIGN ENGINEER. CUT BARS FOR 2" CLEAR TO CLIPPED EDGE.

(A02) ABUTMENT EXTENSION. SEE SHEET 6 FOR DETAILS.

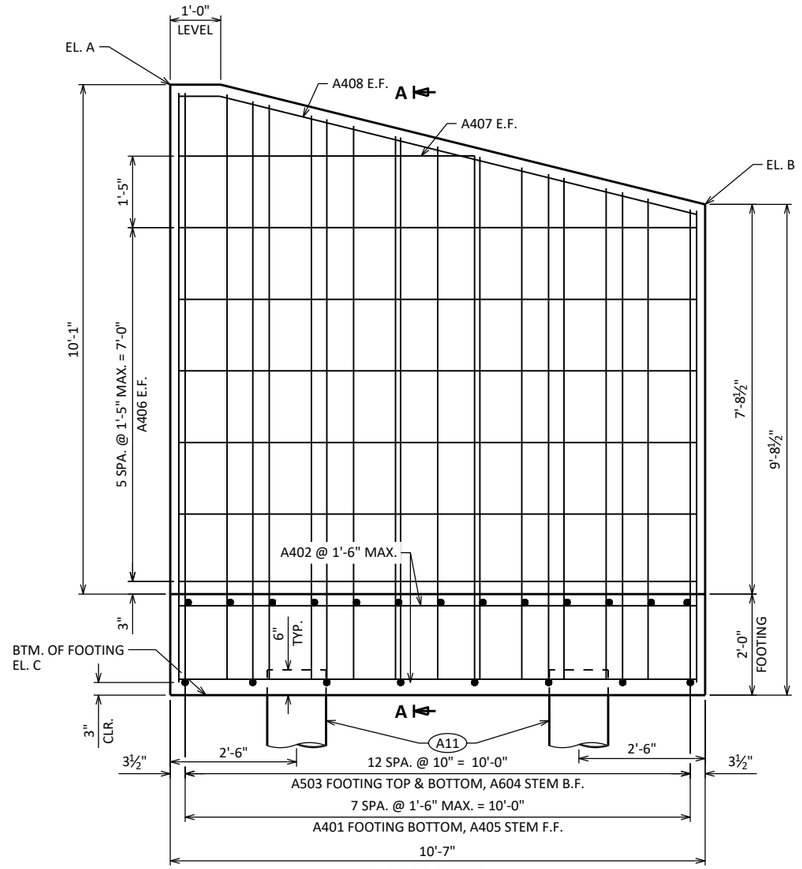
(A05) REPLACE EXCAVATED MATERIAL IN FRONT OF WINGS TO APPROXIMATELY MATCH EXISTING. TO BE INCLUDED IN "EXCAVATION FOR STRUCTURES".

(A11) SUPPORT WING ON 14" DIA. X 0.375" CIP CONCRETE PILING, ESTIMATED 70'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 120 TONS PER PILE. BATTER AT 4V:1H

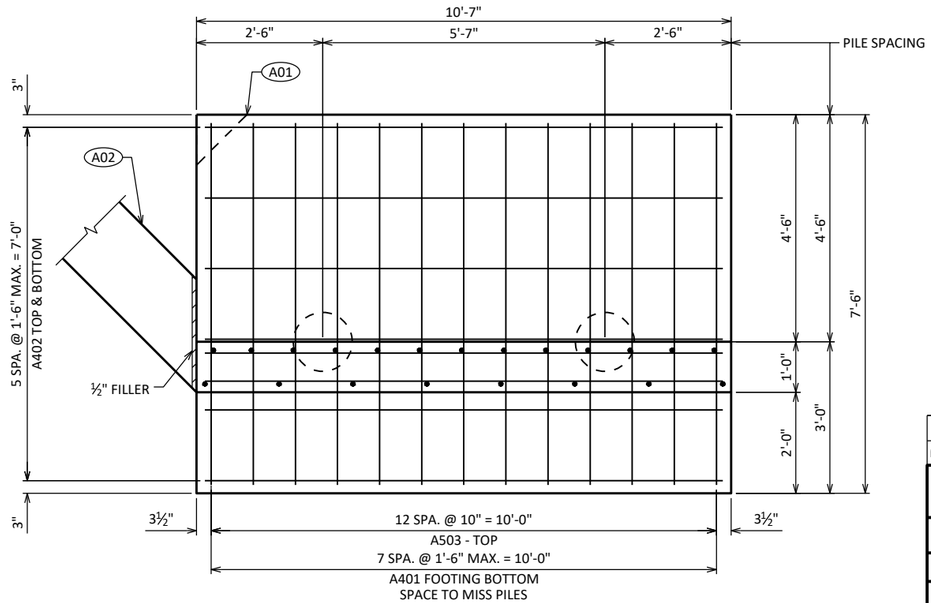
F.F = FRONT FACE

B.F. = BACK FACE

E.F. = EACH FACE



ELEVATION



WING PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-984

DRAWN BY JLA | PLANS CK'D MJB

WING DETAILS

SHEET 6

8

8

STATE PROJECT NUMBER

5865-02-64

BILL OF BARS

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

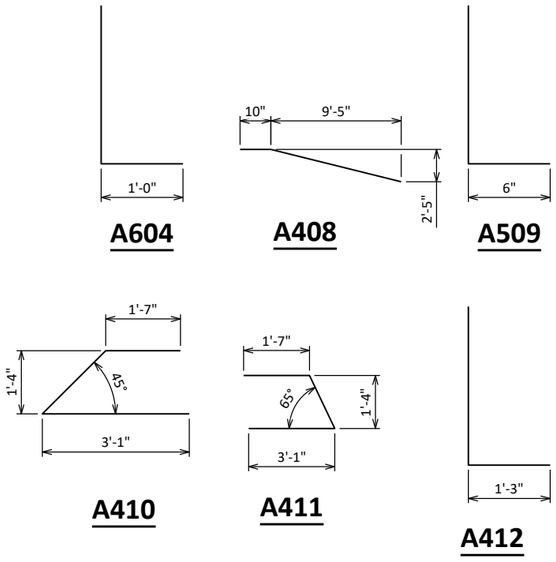
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION	
A401		24	7'-2"			WING FOOTING - TRANSVERSE BOTTOM	HORIZ.
A402		36	10'-3"			TOP & BOT. WING FOOTING - LONGITUDINAL	HORIZ.
A503		39	7'-2"			WING FOOTING - TRANSVERSE TOP	HORIZ.
A604	X	39	11'-4"	X	⚠	WING B.F.	VERT.
A405	X	24	10'-6"		⚠	WING F.F.	VERT.
A406	X	36	10'-3"			WING E.F.	HORIZ.
A407	X	6	5'-10"			WING E.F.	HORIZ.
A408	X	6	10'-7"	X		WING E.F.	HORIZ.
A509		72	2'-4"	X		ABUTMENT DOWEL	HORIZ.
A410	X	39	6'-5"	X		ABUTMENT EXTENSION STIRRUP	HORIZ.
A411	X	39	7'-5"	X		ABUTMENT EXTENSION STIRRUP	HORIZ.
A412	X	54	7'-6"	X		ABUTMENT EXTENSION E.F.	VERT.

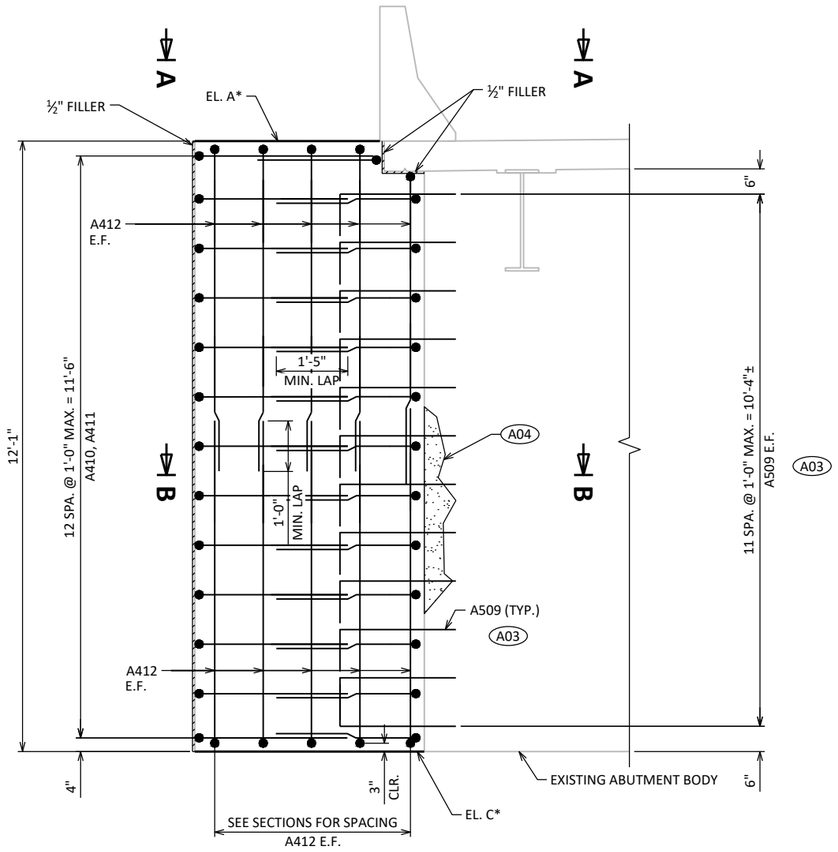
⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

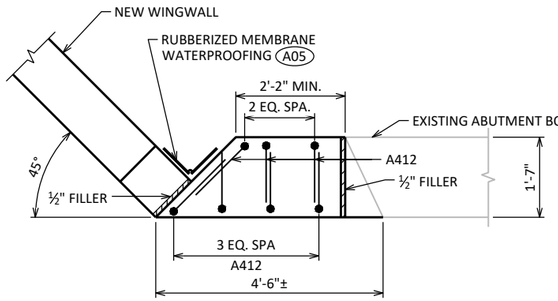
BAR MARK	NO. REQ'D.	LENGTH
A604	3 SERIES OF 13	10'-1" TO 12'-6"
A405	3 SERIES OF 8	9'-3" TO 11'-8"



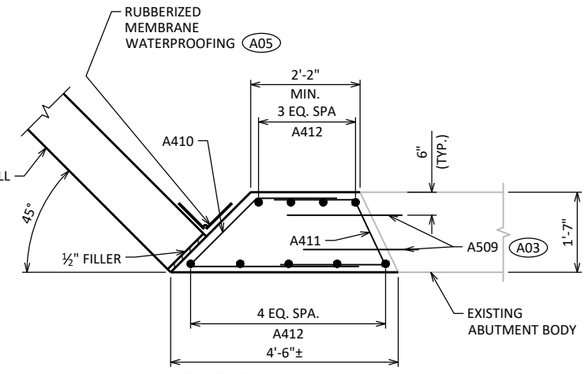


ELEVATION - ABUTMENT EXTENSION

* SEE SHEET 5 FOR ELEVATIONS



SECTION A-A



SECTION B-B

NOTES:

NO PLANS AVAILABLE FOR THE EXISTING ABUTMENTS. FIELD ADJUSTMENTS CAN BE MADE TO GET NECESSARY CLEARANCES.

A03 ADHESIVE ANCHORS NO. 5 BAR. EMBED 8" INTO CONCRETE.

A04 "CONCRETE SURFACE REPAIR" AT SOUTH END OF WEST ABUTMENT. SAW CUT MAY BE ELIMINATED AND CONCRETE TO BE PLACED WITH ABUTMENT EXTENSION.

A05 CREATE ¾" BULGE AT JOINT LOCATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-984

DRAWN BY JLA | PLANS CK'D MJB

ABUTMENT EXTENSION DETAILS

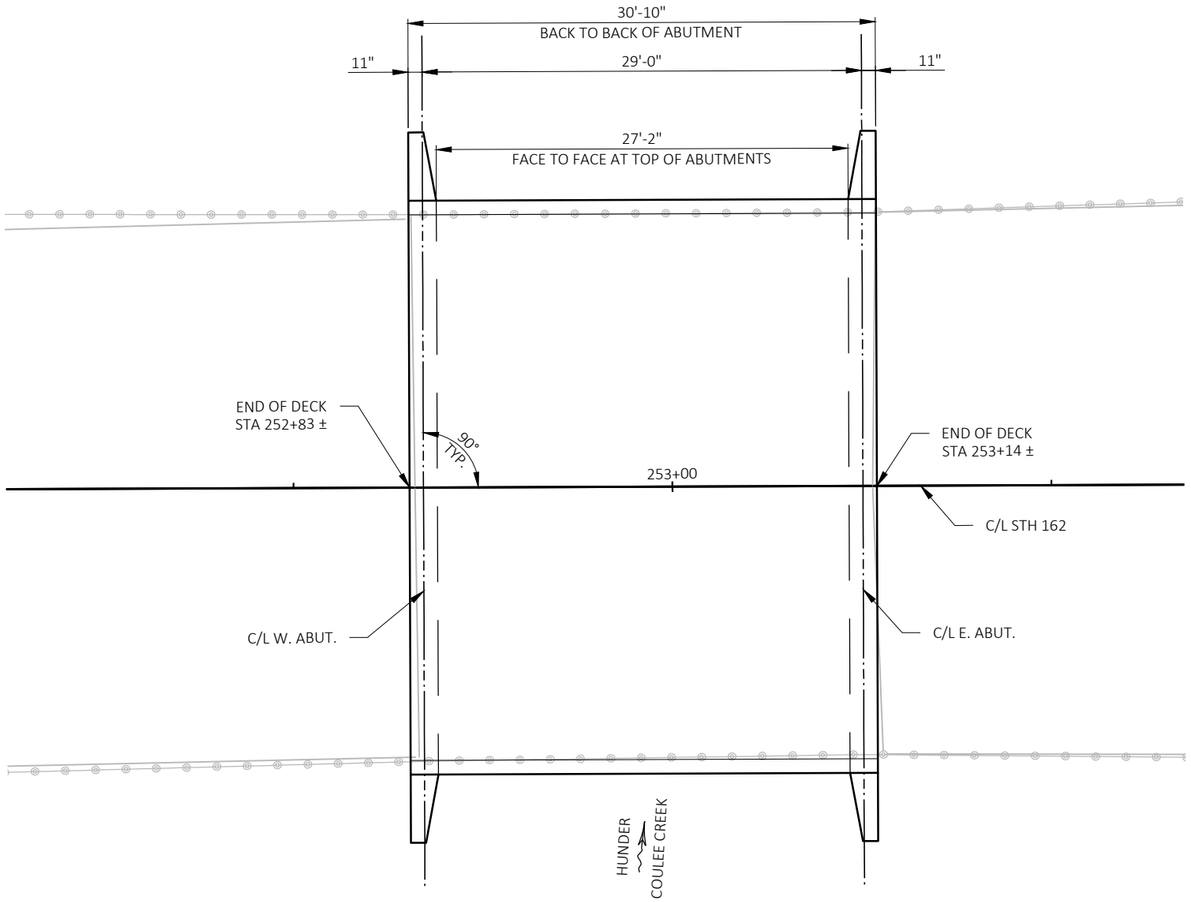
SHEET 7
294

8

8

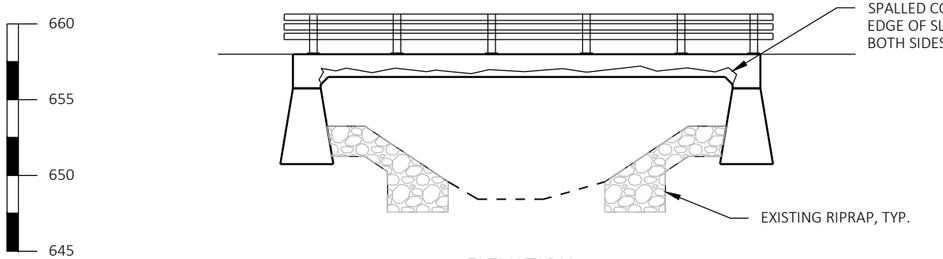
STATE PROJECT NUMBER

5865-02-64



PLAN

(SINGLE-SPAN REINFORCED CONCRETE FLAT SLAB BRIDGE)



ELEVATION

(LOOKING DOWNSTREAM)

DESIGN DATA

LIVE LOAD:

TAKEN FROM HSI, 06/12/2025
DESIGN LOADING: HS-20
INVENTORY RATING: HS = 22
OPERATING RATING: HS = 37
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY ——— f'c = 4,000 P.S.I.

TRAFFIC DATA

STH 162

ADT = 1,200 (2026)
ADT = 1,300 (2046)
R.D.S. = 55 M.P.H.

LIST OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTION, QUANTITIES AND GENERAL NOTES

STRUCTURE DESIGN CONTACTS:

CONSULTANT: MATT BUCKLI 608-443-0441
BUREAU OF STRUCTURES: AARON BONK 608-261-0261

NO.	DATE	REVISION	BY

Mead & Hunt, Inc.
2440 Deming Way
Middleton, WI 53562
608.273.6380
www.meadhunt.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORATION

ACCEPTED JLR 11/12/25
CHIEF STRUCTURES DESIGN ENGINEER DATE

WISCONSIN MATTHEW J. BUCKLI E-39849 MADISON WI 11/12/25 PROFESSIONAL ENGINEER

STRUCTURE B-62-83

STH 162 OVER HUNDER COULEE CREEK

COUNTY	TOWN
VERNON	BERGEN

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
JLA	RCP	JLA	RCP

GENERAL PLAN

SHEET 1 OF 2
295

SCALE =1:10

I.D. 5865-02-34

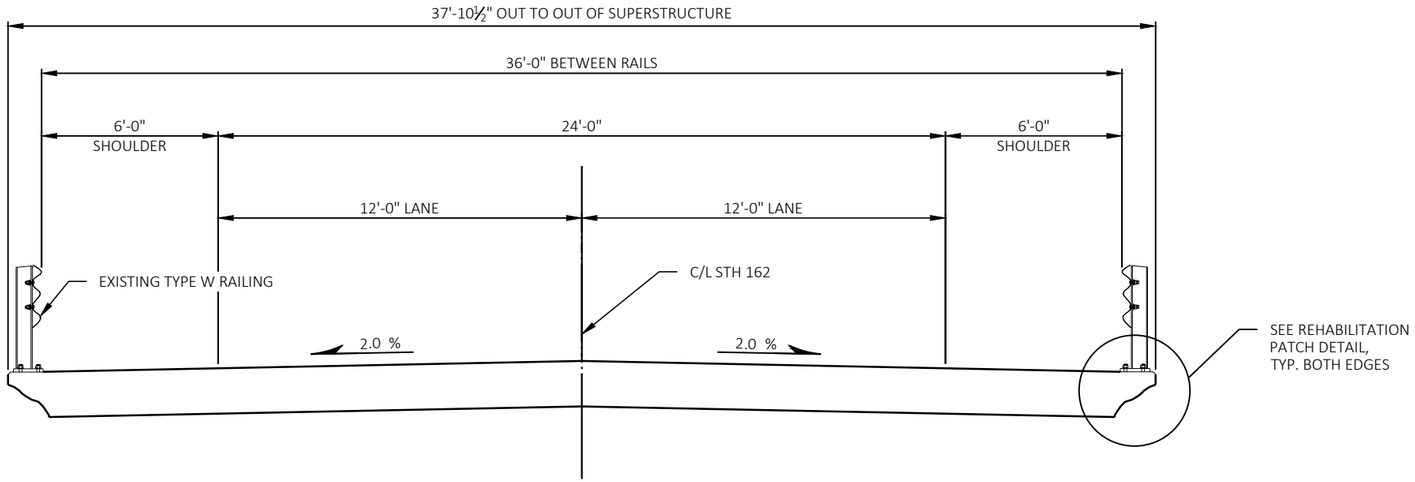
DATE: JUNE 2025

8

8

STATE PROJECT NUMBER

5865-02-64



CROSS SECTION THRU BRIDGE

(LOOKING EAST)

GENERAL NOTES

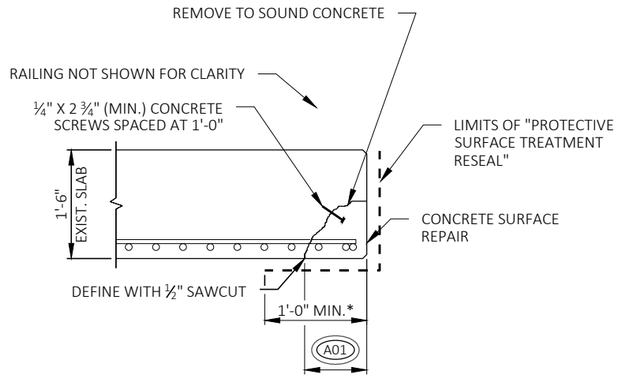
DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

CONCRETE SCREWS SHALL BE 410 STAINLESS STEEL. INCLUDED IN THE BID ITEM "CONCRETE SURFACE REPAIR".

EXISTING REINFORCEMENT SHALL BE INCORPORATED INTO THE CONCRETE SURFACE REPAIR UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

COORDINATE THE FIELD IDENTIFICATION AND DETERMINATION OF CONCRETE SURFACE REPAIR LOCATIONS WITH THE ENGINEER.



REHABILITATION PATCH DETAIL

* OR TO LIMITS OF CONCRETE SURFACE REPAIR

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	SUPER	TOTALS
502.3215	PROTECTIVE SURFACE TREATMENT RESEAL	SY	24	24
509.1500	CONCRETE SURFACE REPAIR	SF	136	136

(A01) WIDTH MEASUREMENT USED FOR "CONCRETE SURFACE REPAIR" QUANTITY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-83

DRAWN BY JLA | PLANS CK'D RCP

TYPICAL SECTION, QUANTITIES, AND GENERAL NOTES

SHEET 2

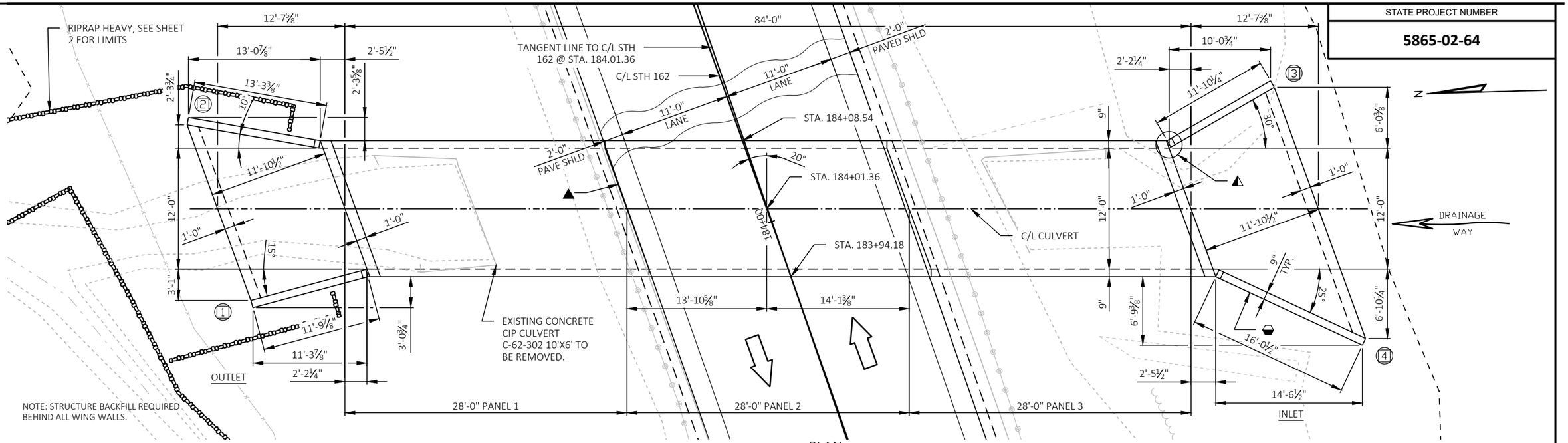
296

8

8

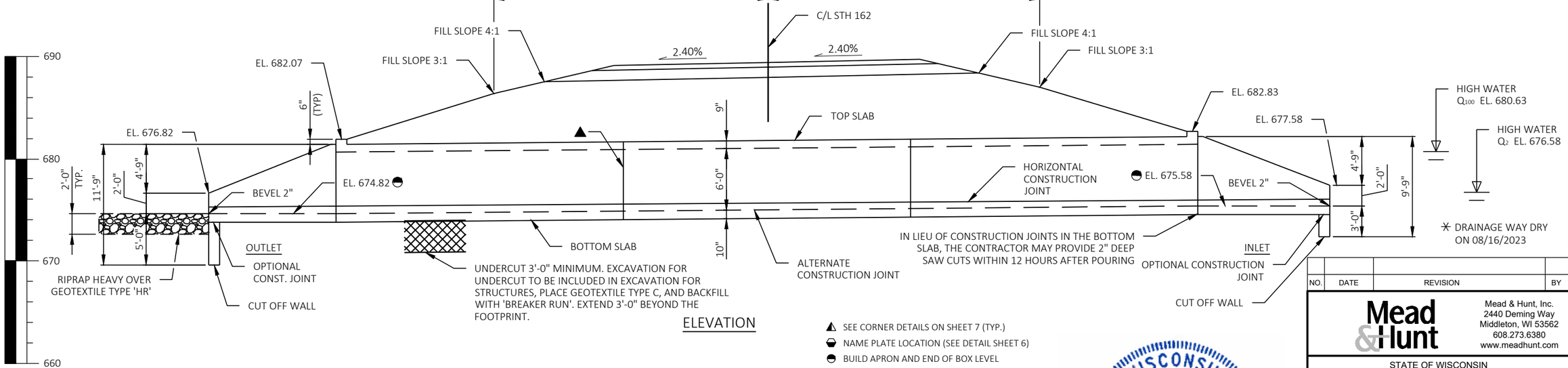
STATE PROJECT NUMBER

5865-02-64



PLAN

(SINGLE-CELL BOX CULVERT)



ELEVATION

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.24
OPERATING RATING: RF = 1.61
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 (KIPS)

EARTHLOAD:

DESIGNED FOR 7.0 TO 8.0 FT. OF FILL.

MATERIAL PROPERTIES:

CONCRETE MASONRY ——— f'_c = 3,500 PSI
BAR STEEL REINFORCEMENT ——— f_y = 60,000 PSI

TRAFFIC DATA

STH 162:

ADT = 1,200 (2026)
ADT = 1,300 (2046)
R.D.S. = 55 MPH

CURVE DATA

STH 162:

P.I. = 183+63.78
Δ = 1°59'13"
D = 1°29'31"
T = 66.59
L = 133.17'
R = 3,840.00'
S.E. = 0.024 FT/FT
P.C. = 182+97.19
P.T. = 184+30.36

HYDRAULIC DATA

100-YEAR FREQUENCY:

Q_{100}= 400 C.F.S.
VEL.= 13.30 F.P.S.
HW_{100}= EL. 680.63
WATERWAY AREA = 30.0 SQ. FT.
DRAINAGE AREA = 0.4 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 8

2-YEAR FREQUENCY:

Q_2= 35 C.F.S.
VEL.= 6.46 F.P.S.
HW_2= EL. 676.58

- ◭ SEE CORNER DETAILS ON SHEET 7 (TYP.)
- ◒ NAME PLATE LOCATION (SEE DETAIL SHEET 6)
- ◓ BUILD APRON AND END OF BOX LEVEL
- (#) INDICATES WING NUMBER
- ▲ VERT. CONST. JOINT (TYP.)

LIST OF DRAWINGS:

1. GENERAL PLAN
2. GENERAL NOTES & QUANTITIES
3. SUBSURFACE EXPLORATION
4. BOX DETAILS
5. APRON DETAILS
6. WINGWALL DETAILS
7. BILL OF BARS & DETAILS

WISCONSIN TRAVIS J REFF E-102016 MADISON WI 11/12/2025 PROFESSIONAL ENGINEER

STRUCTURE DESIGN CONTACTS:

CONSULTANT: TRAVIS REFF 952-641-8811
BUREAU OF STRUCTURES: AARON BONK 608-261-0261

NO.	DATE	REVISION	BY

Mead & Hunt, Inc.
2440 Deming Way
Middleton, WI 53562
608.273.6380
www.meadhunt.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED JLR 11/12/25
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE C-62-335

STH 162 OVER DRAINAGE WAY

COUNTY	TOWN
VERNON	BERGEN

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGN CK'D	DRAWN BY	PLANS CK'D
TJR	RCP	TJR	RCP

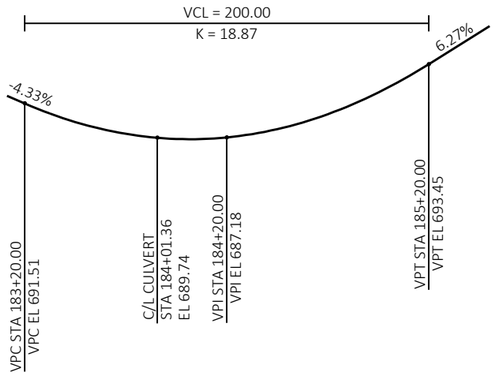
GENERAL PLAN

SHEET 1 OF 7
297

I.D. DATE:

8

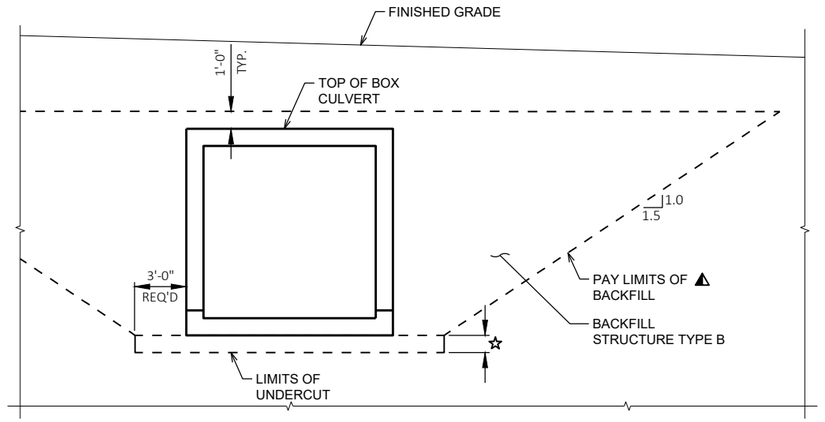
8



PROFILE GRADE LINE - C/L STH 162

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTALS
203.0220	REMOVING STRUCTURE C-62-302	EACH	1
206.2001	EXCAVATION FOR STRUCTURES CULVERTS C-62-335	EACH	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	1,153
311.0110	BREAKER RUN	TON	440
504.0100	CONCRETE MASONRY CULVERTS	CY	121
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	18,520
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,310
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	23
606.0300	RIPRAP HEAVY	CY	42
645.0105	GEOTEXTILE TYPE C	SY	252
645.0120	GEOTEXTILE TYPE HR	SY	93
	NON BID ITEMS		
	FILLER	SIZE	3/4"

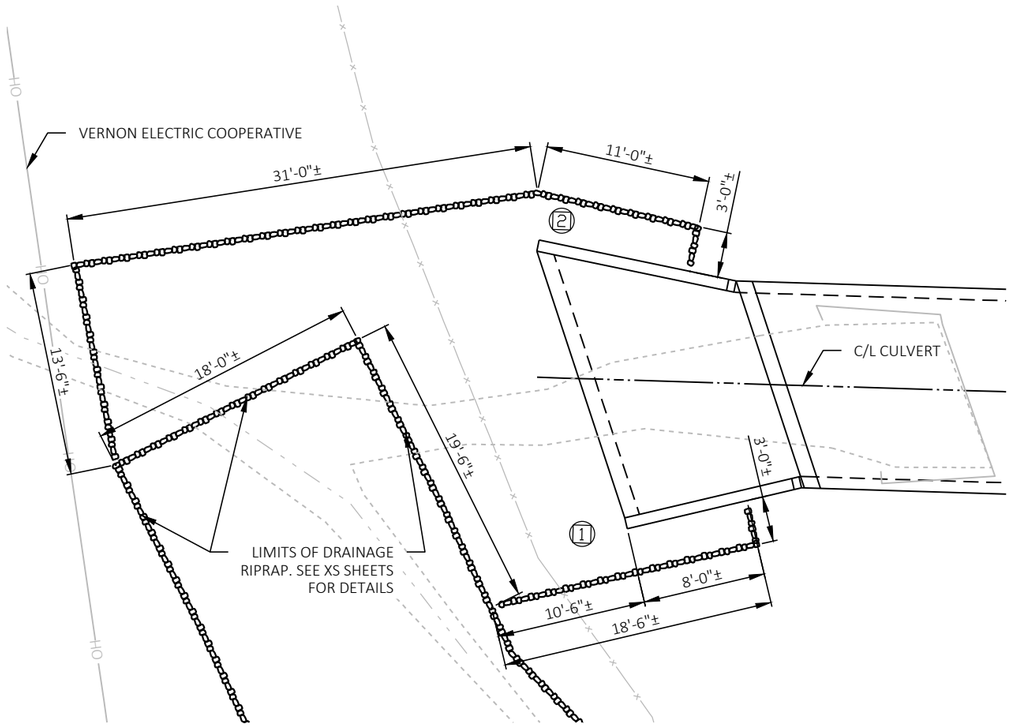


TYPICAL SECTION THRU BOX CULVERT

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

☆ UNDERCUT 3'-0". EXCAVATION FOR UNDERCUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN".

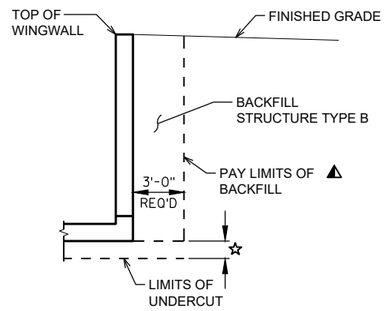
IN LIEU OF USING BREAKER RUN FOR THE BOX CONSTRUCTION PLATFORM, THE CONTRACTOR MAY ELECT TO SUBSTITUTE COARSE AGGREGATE AASHTO NO. 67 OR AASHTO NO. 4 IN ACCORDANCE WITH STANDARD SPEC 310 AND 604, RESPECTIVELY, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL. THE REGION GEOTECHNICAL ENGINEER MAY BE CONTACTED TO DETERMINE IF "OTHER GRANULAR MATERIAL" IS ACCEPTABLE.



OUTLET RIPRAP LIMITS

STATE PROJECT NUMBER

5865-02-64



TYPICAL SECTION THRU BOX CULVERT WINGWALL

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-62-335" 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 WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE B" REQUIRED ON THE BOX CULVERT SIDES AND BEHIND APRON WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

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 6" MIN. BELOW TOP OF BOTTOM SLAB.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES MAINTENANCE SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 36 STANDARDS OF THE CURRENT WISCONSIN DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CULVERT SYSTEM SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES" FOR THE CAST-IN-PLACE CULVERT SYSTEM. ADDITIONAL ITEMS REQUIRED FOR THE PRECAST SYSTEM SHALL BE INCIDENTAL TO "CONCRETE MASONRY CULVERTS".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-62-335

DRAWN BY TJR | PLANS CK'D RCP

GENERAL NOTES & QUANTITIES

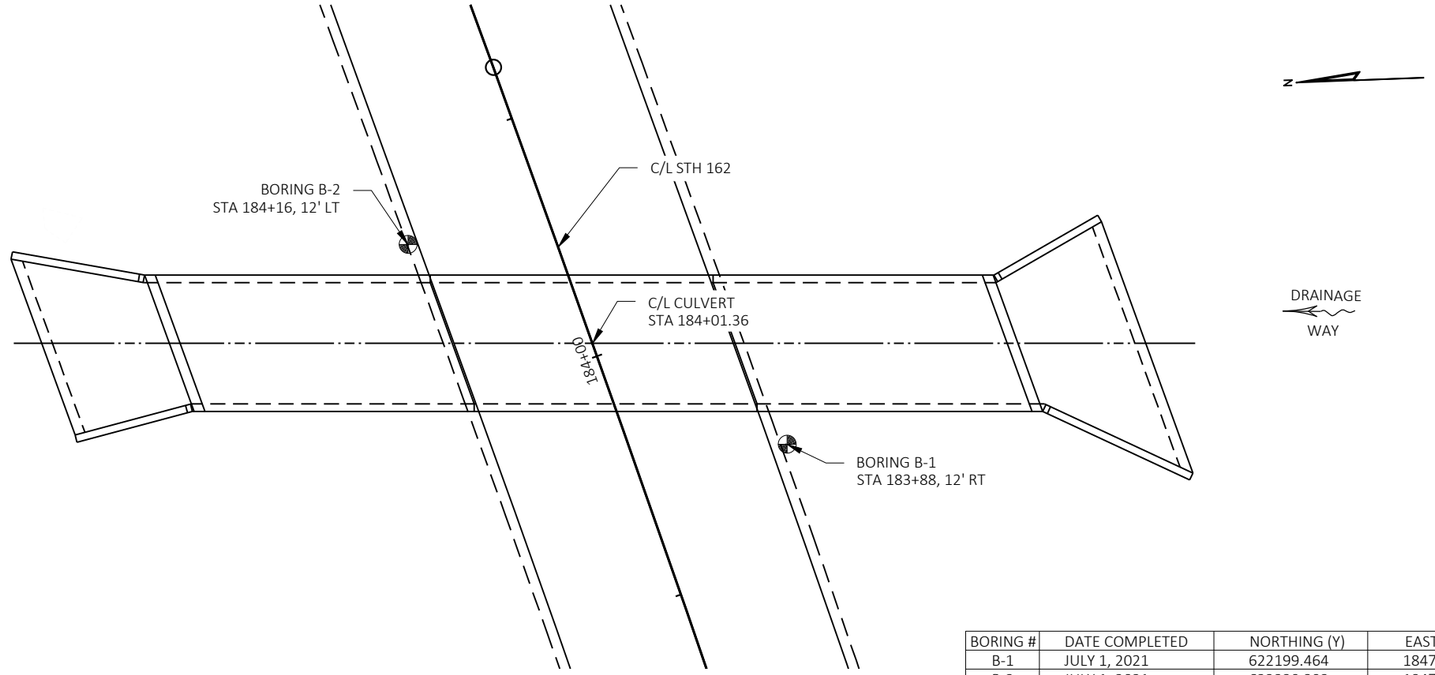
SHEET 2
298

8

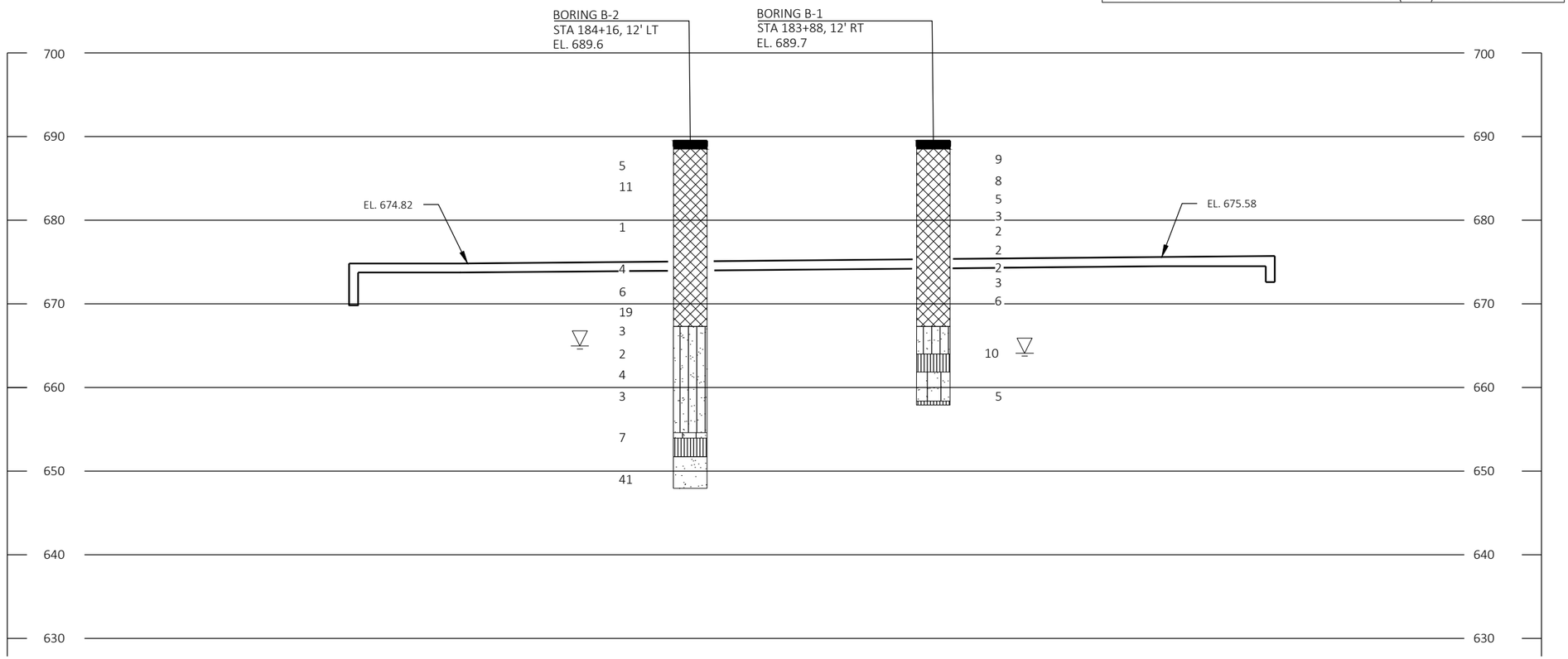
8

STATE PROJECT NUMBER

5865-02-64



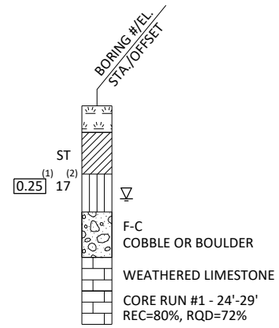
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-1	JULY 1, 2021	622199.464	184711.397
B-2	JULY 1, 2021	622220.392	184748.282
BORINGS COMPLETED BY: AMERICAN ENGINEERING TESTING, INC.			
REPORT COMPLETED BY: AMERICAN ENGINEERING TESTING, INC.			
ALL COORDINATES REFERENCED TO WISCRS NAD 83(2011) VERNON COUNTY			



MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

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

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-62-335

DRAWN BY TJR · PLANS CK'D MJB

SUBSURFACE EXPLORATION

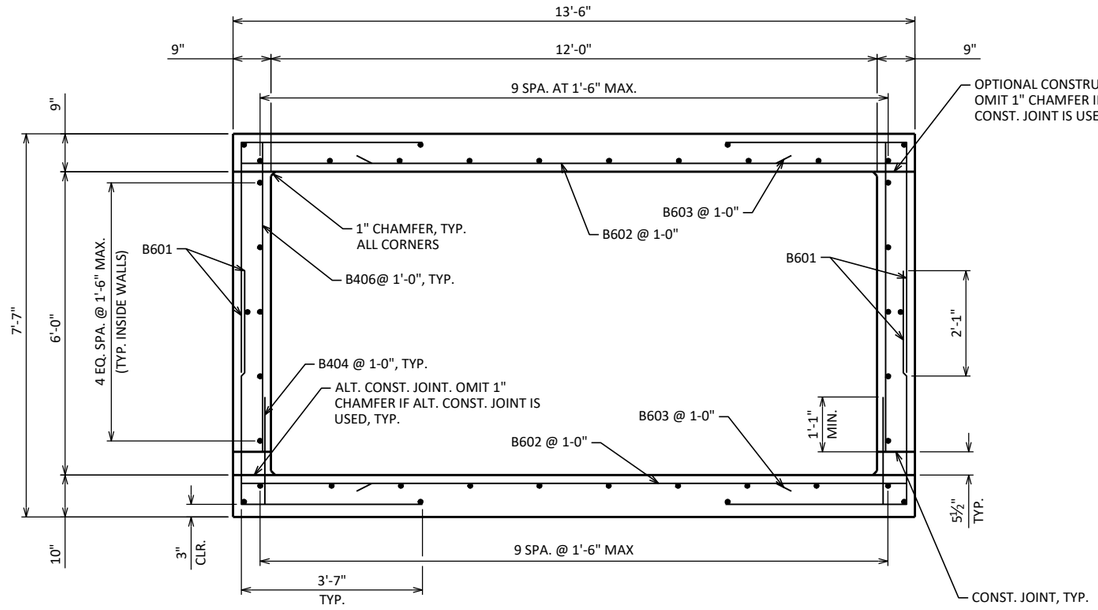
SHEET 3
299

8

8

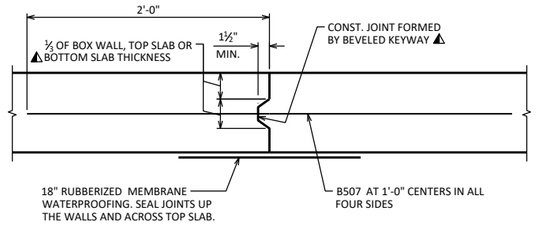
STATE PROJECT NUMBER

5865-02-64



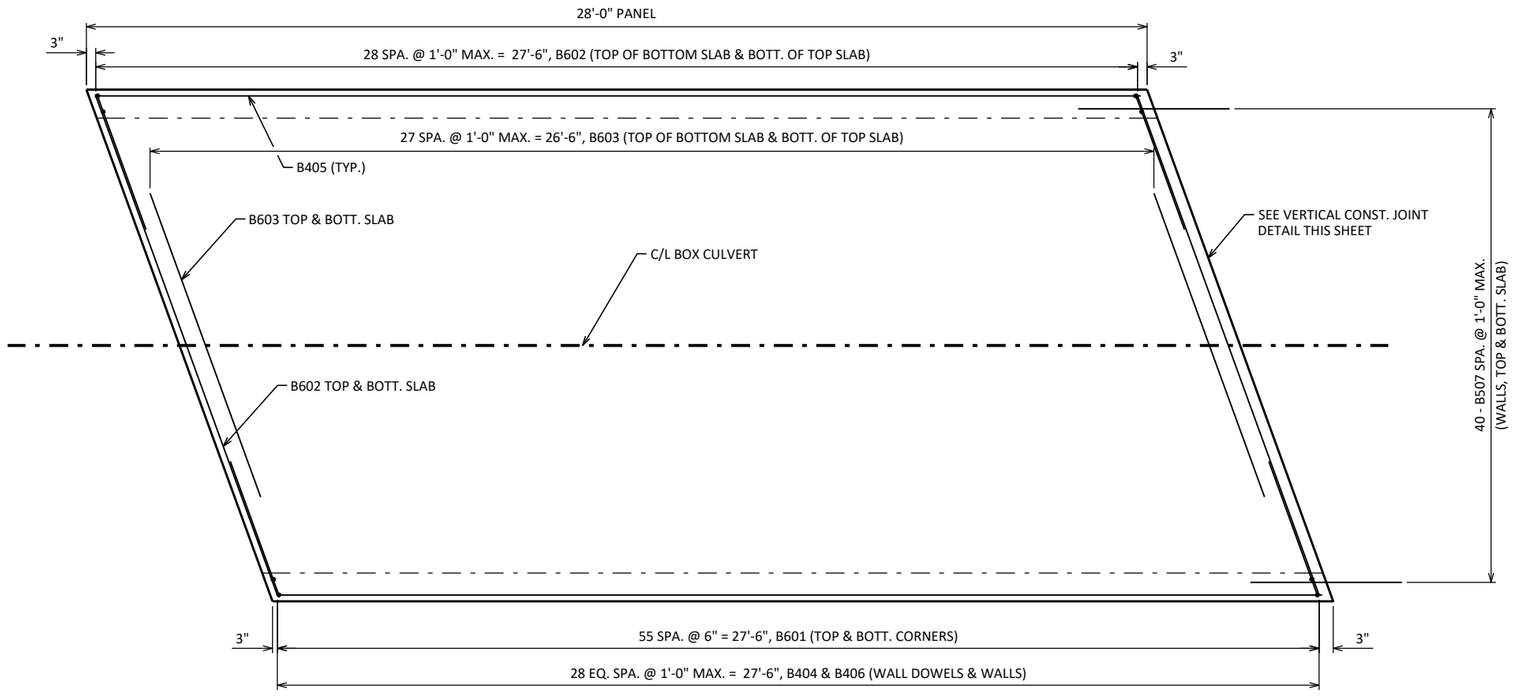
TYPICAL SECTION THRU BOX

ALL LONGITUDINAL BARS NOT LABELED ARE B405



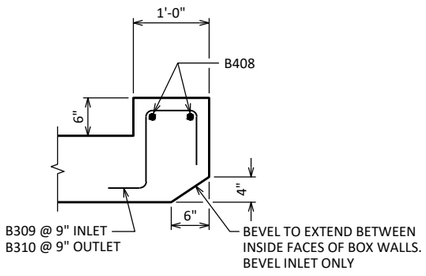
VERTICAL CONSTRUCTION JOINT

IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.



PLAN VIEW TYPICAL PANEL

USE IDENTICAL STEEL IN OTHER PANELS.
APRON AND HEADER ARE NOT SHOWN



SECTION THRU HEADER

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-62-335

DRAWN BY TJR | PLANS CK'D RCP

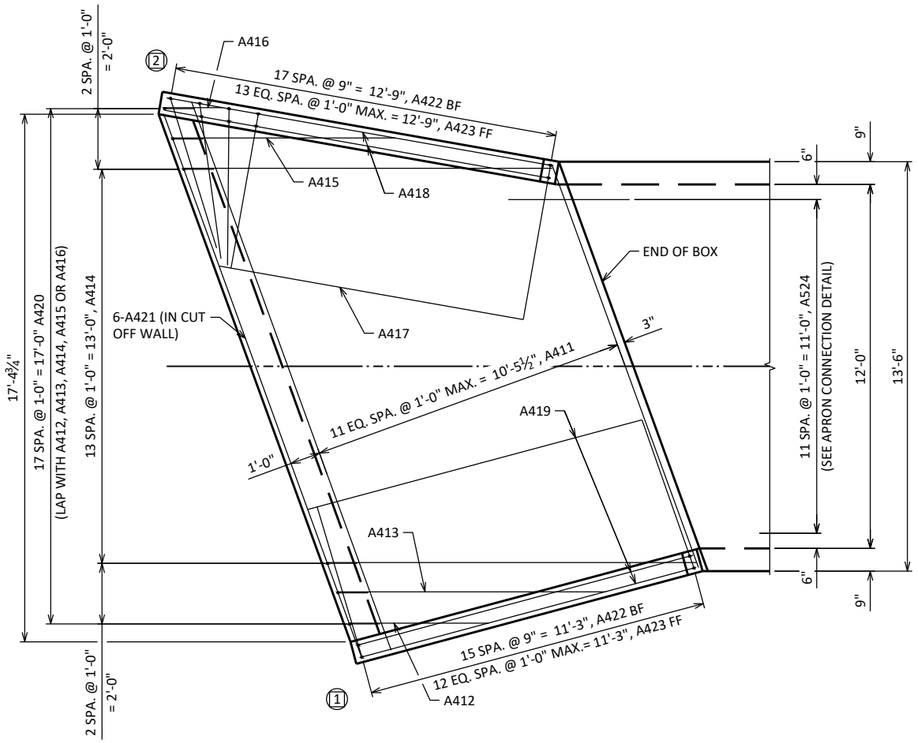
BOX DETAILS

SHEET 4

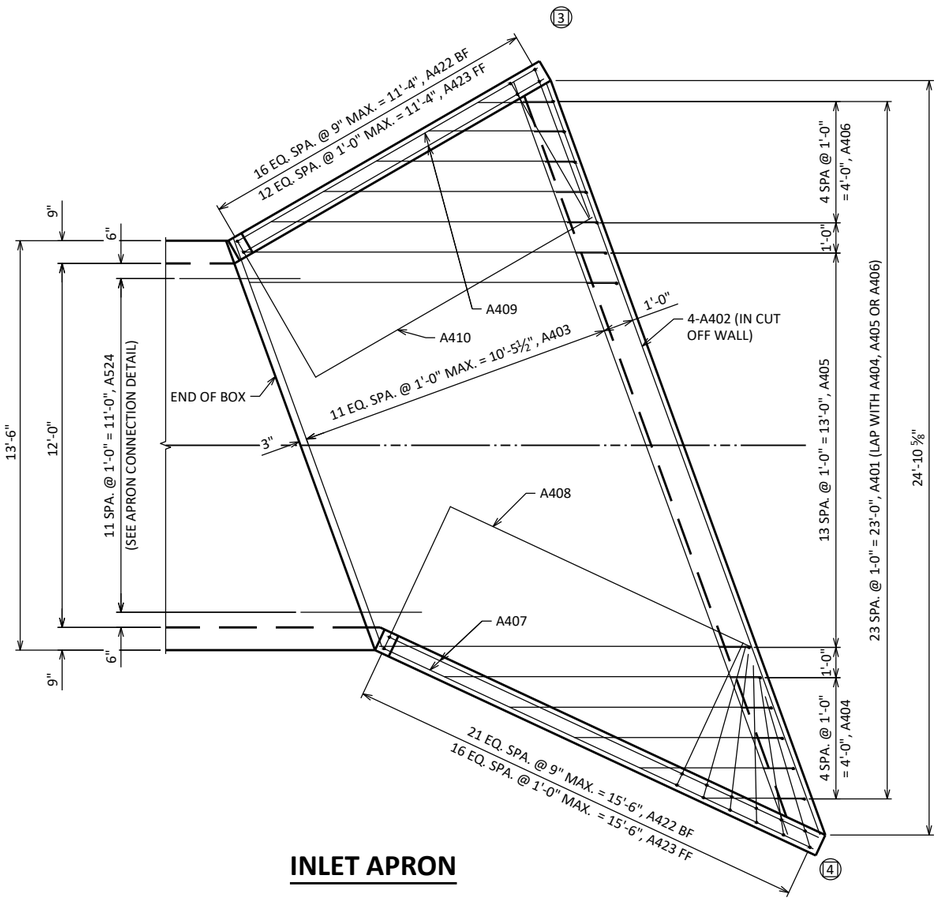
300

STATE PROJECT NUMBER

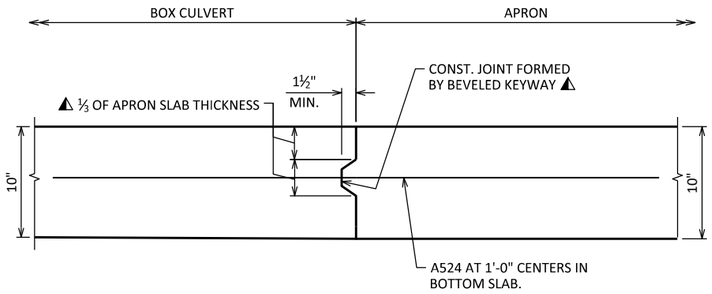
5865-02-64



OUTLET APRON

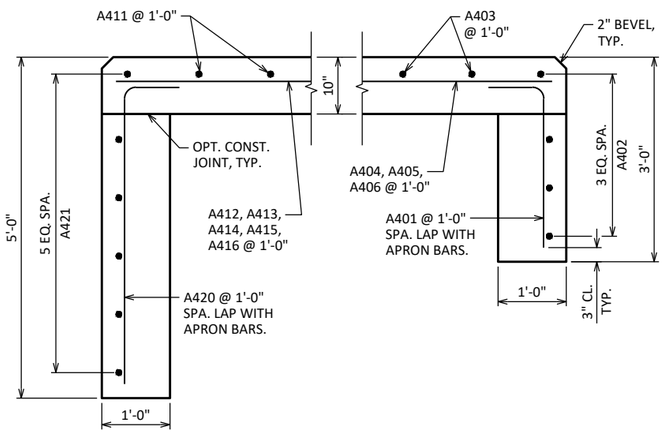


INLET APRON



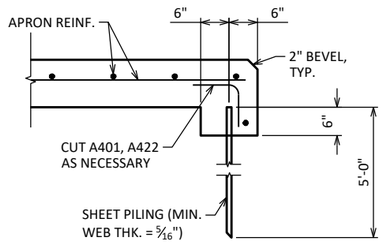
APRON CONNECTION DETAIL

⚠ IN LIEU OF KEYED CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED FOR KEYED CONST. JOINTS AND SAW CUT JOINTS.



OUTLET **INLET**

CUT-OFF WALLS



ALTERNATE CUT-OFF WALLS

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.

BF - BACK FACE
EF - EACH FACE
FF - FRONT FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-62-335

DRAWN BY TJR | PLANS CK'D RCP

APRON DETAILS

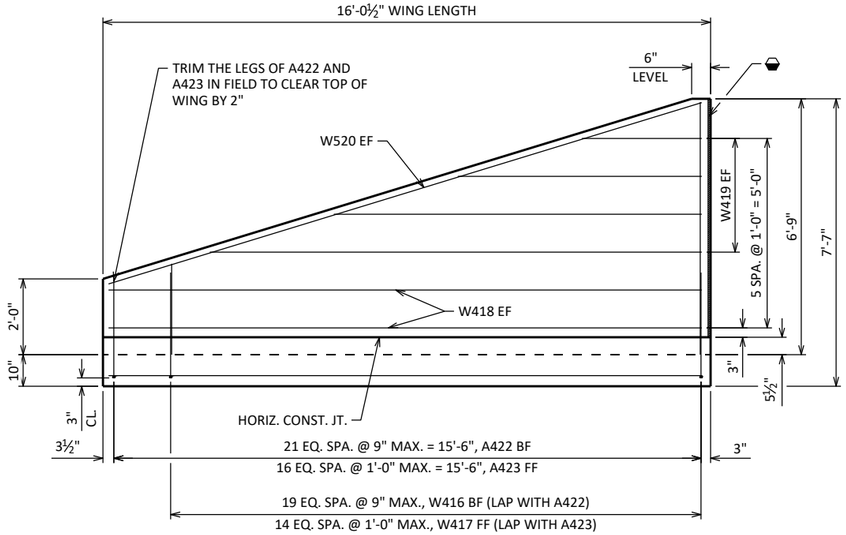
SHEET 5
301

8

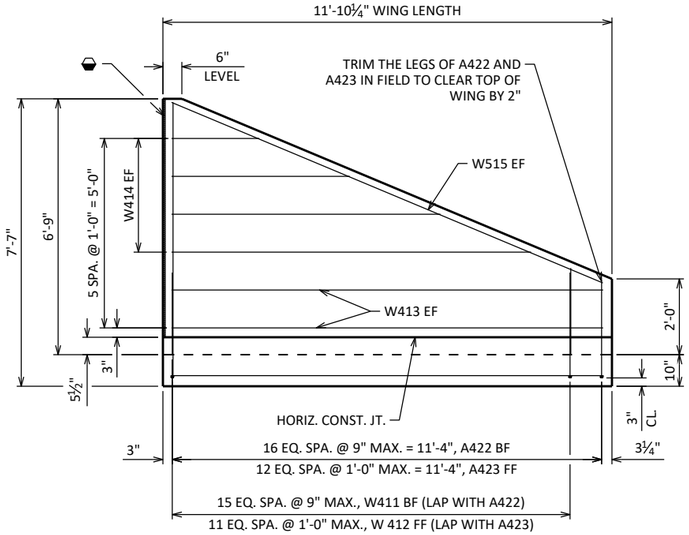
8

STATE PROJECT NUMBER

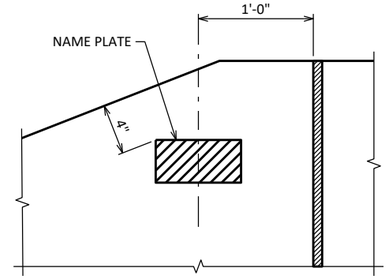
5865-02-64



WING 4

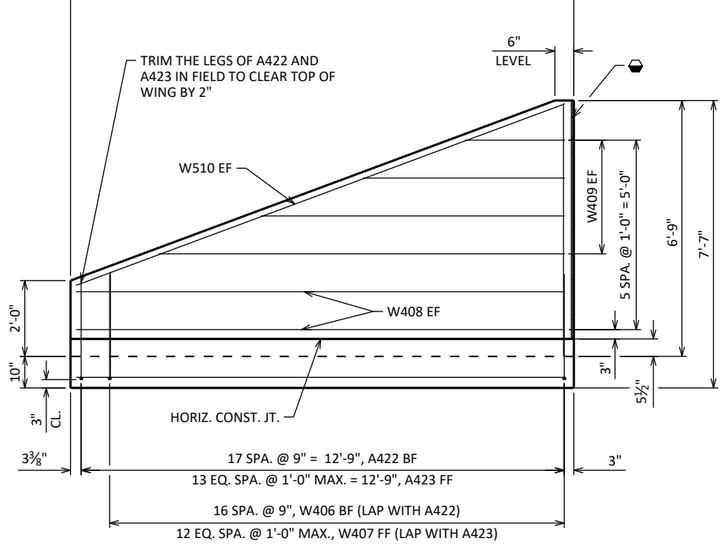


WING 3

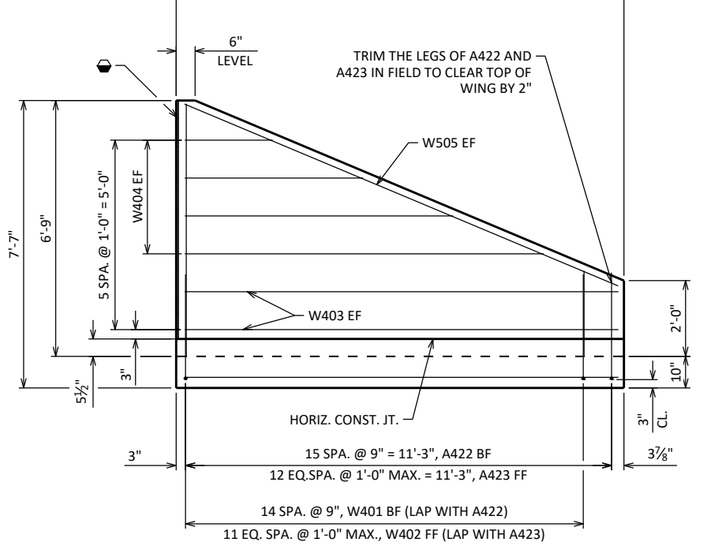


NAME PLATE DETAIL

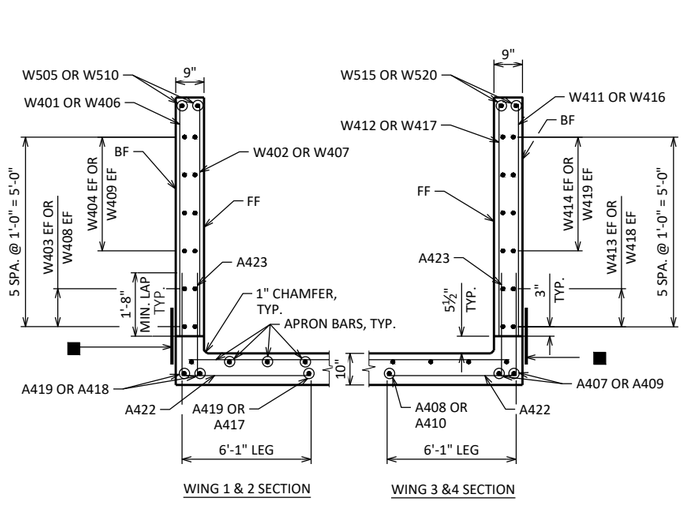
WING 4



WING 2



WING 1



SECTION THROUGH WINGWALLS

■ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZ. CONSTR. JT. IN WING.

¾" FILLER, TYP. EXTEND FILLER FROM HORIZ. CONST. JT. TO TOP OF WING.

BF - BACK FACE
EF - EACH FACE
FF - FRONT FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-62-335

DRAWN BY TJR | PLANS CK'D RCP

WINGWALL DETAILS

SHEET 6
302

8

8

STATE PROJECT NUMBER

5865-02-64

BILL OF BARS

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

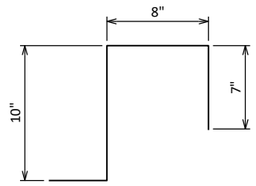
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B601		672	8'-1"	X		BOX - CORNERS
B602		174	14'-0"			BOX - TOP & BOTTOM SLAB - TRANS.
B603		168	8'-6"			BOX - TOP & BOTTOM SLAB - TRANS.
B404		174	2'-2"			BOX - WALL DOWELS
B405		120	27'-7"			BOX - WALLS, TOP & BOTT. SLAB - LONG.
B406		174	6'-1"			BOX - WALLS - VERT.
B507		80	4'-0"			BOX - DOWEL AT VERT. CONST. JT.
B408	X	4	14'-0"			BOX - HEADER
B309	X	19	2'-4"	X		BOX - HEADER INLET - STIRRUPS
B310	X	19	2'-7"	X		BOX - HEADER OUTLET - STIRRUPS
A401		24	3'-5"	X		INLET APRON CUTOFF WALL - VERT.
A402		4	26'-4"			INLET APRON CUTOFF WALL - HORIZ.
A403		12	20'-4"		⚠	INLET APRON - HORIZ.
A404		5	7'-2"		⚠	INLET APRON - HORIZ.
A405		14	12'-3"			INLET APRON - HORIZ.
A406		5	6'-4"		⚠	INLET APRON - HORIZ.
A407		2	15'-8"			INLET APRON - HORIZ.
A408		1	10'-10"			INLET APRON - HORIZ.
A409		2	11'-5"			INLET APRON - HORIZ.
A410		1	10'-7"			INLET APRON - HORIZ.
A411		12	16'-8"		⚠	OUTLET APRON - HORIZ.
A412		1	4'-5"			OUTLET APRON - HORIZ.
A413		1	8'-7"			OUTLET APRON - HORIZ.
A414		14	12'-3"			OUTLET APRON - HORIZ.
A415		1	7'-6"			OUTLET APRON - HORIZ.
A416		1	2'-2"			OUTLET APRON - HORIZ.
A417		1	10'-2"			OUTLET APRON - HORIZ.
A418		2	12'-10"			OUTLET APRON - HORIZ.
A419		3	11'-5"			OUTLET APRON - HORIZ.
A420		18	5'-5"	X		OUTLET APRON CUTOFF WALL - VERT.
A421		6	19'-1"			OUTLET APRON CUTOFF WALL - HORIZ.
A422	X	73	8'-9"	X		INLET & OUTLET WINGWALL BF TIE - VERT.
A423	X	57	2'-9"			INLET & OUTLET WINGWALL FF TIE - VERT.
A524		24	4'-0"			INLET & OUTLET APRON - DOWEL AT CONST. JOINT
W401	X	15	3'-11"		⚠	WING WALL 1 - VERT. BF
W402	X	12	4'-0"		⚠	WING WALL 1 - VERT. FF
W403	X	4	11'-5"			WING WALL 1 - HORIZ. EF
W404	X	8	5'-11"		⚠	WING WALL 1 - HORIZ. EF
W505	X	2	12'-1"			TOP OF WING 1 - SLOPED
W406	X	17	3'-11"		⚠	WING WALL 2 - VERT. BF
W407	X	13	4'-0"		⚠	WING WALL 2 - VERT. FF
W408	X	4	12'-10"			WING WALL 2 - HORIZ. EF
W409	X	8	6'-8"		⚠	WING WALL 2 - HORIZ. EF
W510	X	2	13'-6"			TOP OF WING 2 - SLOPED
W411	X	16	3'-11"		⚠	WING WALL 3 - VERT. BF
W412	X	12	4'-0"		⚠	WING WALL 3 - VERT. FF
W413	X	4	11'-5"			WING WALL 3 - HORIZ. EF
W414	X	8	6'-0"		⚠	WING WALL 3 - HORIZ. EF
W515	X	2	12'-2"			TOP OF WING 3 - SLOPED
W416	X	20	4'-0"		⚠	WING WALL 4 - VERT. BF
W417	X	15	4'-1"		⚠	WING WALL 4 - VERT. FF
W418	X	4	15'-7"			WING WALL 4 - HORIZ. EF
W419	X	8	8'-1"		⚠	WING WALL 4 - HORIZ. EF
W520	X	2	16'-1"			TOP OF WING 4 - SLOPED

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

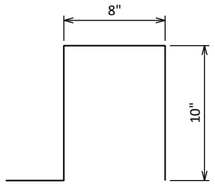
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
A403	1 SERIES OF 12	14'-2" TO 26'-6"
A404	1 SERIES OF 5	3'-7" TO 10'-9"
A406	1 SERIES OF 5	2'-1" TO 10'-6"
A411	1 SERIES OF 12	14'-1" TO 19'-2"
W401	1 SERIES OF 15	1'-9" TO 6'-1"
W402	1 SERIES OF 12	1'-11" TO 6'-1"
W404	2 SERIES OF 4	2'-4" TO 9'-6"
W406	1 SERIES OF 17	1'-9" TO 6'-1"
W407	1 SERIES OF 13	1'-10" TO 6'-1"
W409	2 SERIES OF 4	2'-8" TO 10'-8"
W411	1 SERIES OF 16	1'-9" TO 6'-1"
W412	1 SERIES OF 12	1'-10" TO 6'-1"
W414	2 SERIES OF 4	2'-5" TO 9'-6"
W416	1 SERIES OF 20	1'-11" TO 6'-1"
W417	1 SERIES OF 15	2'-0" TO 6'-1"
W419	2 SERIES OF 4	3'-2" TO 12'-11"

BUNDLE AND TAG EACH SERIES SEPARATELY.



B309



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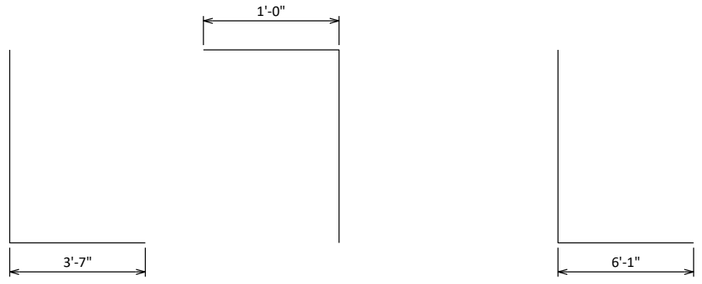
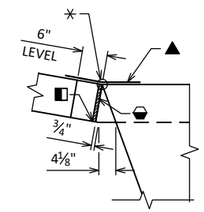
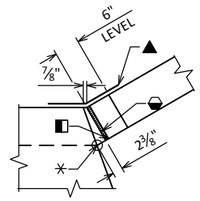


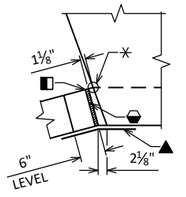
B601 **A401, A420** **A422**



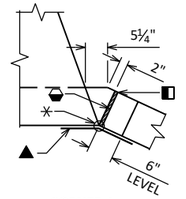
CORNER 2



CORNER 3



CORNER 1



CORNER 4

CORNER DETAILS

- ¾" 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.
- WORKING POINT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-62-335

DRAWN BY TJR | PLANS CK'D RCP

BILL OF BARS & DETAILS

SHEET 7
303

8

8

DIVISION - 162-STODDARD

STATION	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
				NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
104+50.00	80.18	7.00	0.00	0	0	0	0	0	0
104+82.00	104.63	7.00	0.00	110	8	0	110	0	102
104+89.00	108.12	7.00	0.00	28	2	0	138	0	128
105+00.00	113.17	7.00	0.06	45	3	0	183	0	170
105+50.00	110.01	7.00	6.06	207	13	6	390	8	357
105+87.00	118.77	7.00	2.49	157	10	6	547	15	496
106+00.00	118.74	7.00	1.11	57	3	1	604	16	549
106+11.00	122.11	7.00	0.00	49	3	0	653	16	595
106+20.54	123.85	7.00	0.00	43	2	0	696	16	636
106+50.00	120.68	7.00	3.52	133	8	2	829	19	758
106+79.00	121.25	7.00	0.00	130	8	2	959	21	878
107+00.00	117.54	7.00	2.96	93	5	1	1,052	23	965
107+50.00	114.22	7.00	3.85	215	13	6	1,267	30	1,159
107+60.00	115.62	7.00	3.54	43	3	1	1,310	31	1,198
107+79.81	114.87	7.00	0.00	85	5	1	1,395	33	1,277
108+00.00	109.59	7.00	5.50	84	5	2	1,479	35	1,353
108+46.00	123.86	7.00	0.01	199	12	5	1,678	41	1,534
108+50.00	124.49	7.00	0.00	18	1	0	1,696	41	1,551
109+00.00	121.72	7.00	1.40	228	13	1	1,924	43	1,765
109+37.00	120.07	7.00	0.29	166	10	1	2,090	44	1,919
109+50.00	118.49	7.00	3.55	57	3	1	2,147	45	1,972
109+89.00	113.22	7.00	8.31	167	10	9	2,314	56	2,118
110+00.00	110.21	7.00	12.54	46	3	4	2,360	61	2,156
110+50.00	99.93	7.00	8.63	195	13	20	2,555	86	2,313
110+80.00	106.86	7.00	8.75	115	8	10	2,670	99	2,407
111+00.00	89.26	7.00	0.37	73	5	3	2,743	103	2,472
111+07.00	90.61	7.00	0.22	23	2	0	2,766	103	2,493
111+27.50	98.63	7.00	0.00	72	5	0	2,838	103	2,560
111+44.32	99.44	7.00	0.00	62	4	0	2,900	103	2,618
111+50.00	99.77	7.00	0.00	21	1	0	2,921	103	2,638
112+00.00	116.76	7.00	11.57	200	13	11	3,121	116	2,811
112+50.00	111.82	7.00	16.56	212	13	26	3,333	149	2,977
112+85.25	103.91	7.00	24.01	141	9	26	3,474	181	3,077
113+00.00	102.52	7.00	3.02	56	4	7	3,530	190	3,120
113+07.00	102.33	7.00	1.10	27	2	1	3,557	191	3,144
113+13.00	101.96	7.00	0.68	23	2	0	3,580	191	3,165
113+38.94	98.80	7.00	25.29	96	7	12	3,676	206	3,239
113+50.00	88.15	7.00	25.24	38	3	10	3,714	219	3,261
114+00.00	81.21	7.00	26.92	157	13	48	3,871	279	3,345
114+25.00	79.02	7.00	10.82	74	6	17	3,945	300	3,392
114+35.00	79.19	7.00	1.86	29	3	2	3,974	303	3,416
114+50.00	76.71	7.00	0.00	43	4	1	4,017	304	3,453
115+00.00	78.06	7.00	0.10	143	13	0	4,160	304	3,583
				4,160	273	243			

+++ EXCAVATION WITHIN THE VILLAGE OF STODDARD TO BE IS SPLIT BETWEEN 2 CATEGORIES:

CATEGORY 0010 3192 CY
CATEGORY 0060 968 CY

NOTES:
1 - CUT (SALVAGE/UNUSABLE PAVEMENT MATERIAL INCLUDED)
2 - SALVAGE/UNUSABLE PAVEMENT MATERIAL. (THIS DOES NOT SHOW UP IN THE CROSS SECTIONS)
3 - FILL (DOES NOT INCLUDE UNUSABLE PAVEMENT VOLUME)
4 - THE MASS ORDINATE + OR - QUANTITIES CALCULATED. PLUS QUANTITIES AS EXCESS MATERIAL. MINUS A SHORTAGE OF MATERIAL

NO MARSH OR EBS IS ANTICIPATED.

DIVISION - 162-GUARDRAIL

STATION	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
				NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
156+66.67	8.00	0.25	0.29	0	0	0	0	0	0
157+00.00	10.09	0.38	0.27	11	0	0	11	0	11
157+50.00	12.17	0.50	0.00	21	1	0	32	0	31
158+00.00	11.87	0.44	4.15	22	1	4	54	5	47
158+50.00	13.74	0.45	0.00	24	1	4	78	10	65
159+00.00	19.44	0.88	0.94	31	1	1	109	11	94
159+50.00	25.64	1.00	0.83	42	2	2	151	14	131
159+75.24	34.61	1.00	1.05	28	1	1	179	15	157
160+00.00	27.56	1.00	2.32	29	1	2	208	18	183
160+25.52	31.45	1.00	1.15	28	1	2	236	20	207
160+50.00	32.48	1.00	0.63	29	1	1	265	21	234
161+00.00	30.96	1.00	1.01	59	2	2	324	24	288
161+50.00	26.04	1.00	0.00	53	2	1	377	25	338
162+00.00	34.96	1.00	0.00	56	2	0	433	25	392
162+10.00	44.09	1.00	0.00	15	0	0	448	25	407
162+50.00	34.21	1.00	0.00	58	1	0	506	25	464
163+00.00	26.84	1.00	0.61	57	2	1	563	26	518
163+50.00	26.20	1.00	2.50	49	2	3	612	30	561
164+00.00	29.73	1.00	0.00	52	2	2	664	33	609
164+50.00	29.34	1.00	0.00	55	2	0	719	33	662
165+00.00	22.66	1.00	0.00	48	2	0	767	33	708
165+50.00	23.75	1.00	0.00	43	2	0	810	33	749
165+71.90	25.58	1.00	3.51	20	1	1	830	34	766
165+75.00	25.01	1.00	3.93	3	0	0	833	34	769
165+97.11	26.48	1.00	2.58	21	1	3	854	38	786
166+00.00	26.30	1.00	2.11	3	0	0	857	38	789
166+22.33	30.07	1.00	0.00	23	1	1	880	39	809
166+50.00	30.07	1.00	0.00	31	1	0	911	39	839
167+00.00	36.04	1.00	2.07	61	2	2	972	41	896
167+50.00	26.09	1.00	2.20	58	2	4	1,030	46	947
168+00.00	23.76	1.00	2.78	46	2	5	1,076	53	985
168+50.00	28.67	1.00	1.58	49	2	4	1,125	58	1,027
168+75.00	31.84	1.00	2.87	28	1	2	1,153	60	1,051
169+00.00	26.06	1.00	2.68	27	1	3	1,180	64	1,073
169+25.00	25.78	1.00	1.96	24	1	2	1,204	66	1,094
169+50.00	65.59	1.00	2.45	42	1	2	1,246	69	1,132
169+70.70	70.68	1.00	1.11	52	1	1	1,298	70	1,182
169+95.79	28.38	1.00	1.04	46	1	1	1,344	71	1,226
170+00.00	28.69	1.00	0.80	4	0	0	1,348	71	1,230
170+20.79	28.92	1.00	2.10	22	1	1	1,370	73	1,250

DIVISION - 162-GUARDRAIL (CONTINUED)

STATION	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
				NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
170+50.00	33.03	1.00	1.12	34	1	2	1,404	75	1,280
171+00.00	30.74	1.00	0.64	59	2	2	1,463	78	1,335
171+50.00	25.41	1.00	0.66	52	2	1	1,515	79	1,383
172+00.00	28.36	1.00	1.06	50	2	2	1,565	81	1,429
172+50.00	26.55	1.00	0.32	51	2	1	1,616	83	1,477
173+00.00	27.89	1.00	1.28	50	2	1	1,666	84	1,523
173+50.00	32.54	1.00	0.00	56	2	1	1,722	85	1,576
174+00.00	30.44	1.00	0.00	58	2	0	1,780	85	1,632
174+50.00	29.79	1.00	0.09	56	2	0	1,836	85	1,686
175+00.00	28.64	1.00	0.10	54	2	0	1,890	85	1,738
175+50.00	28.96	1.00	5.41	53	2	5	1,943	91	1,783
176+00.00	29.33	1.00	5.51	54	2	10	1,997	104	1,822
176+50.00	35.56	1.00	3.96	60	2	9	2,057	115	1,869
177+00.00	31.76	1.00	4.33	62	2	8	2,119	125	1,919
177+50.00	34.42	1.00	0.00	61	2	4	2,180	130	1,973
177+81.17	30.35	1.00	0.00	37	1	0	2,217	130	2,009
178+00.00	27.96	1.00	0.00	20	1	0	2,237	130	2,028
178+06.17	28.04	1.00	0.00	6	0	0	2,243	130	2,034
178+31.51	35.87	1.00	0.00	30	1	0	2,273	130	2,063
178+50.00	38.86	0.25	0.00	26	0	0	2,299	130	2,089
178+88.00	29.73	0.25	0.00	48	0	0	2,347	130	2,137
179+00.00	27.40	0.25	9.43	13	0	2	2,360	133	2,148
179+46.67	25.33	1.00	0.00	46	1	8	2,406	143	2,183
				2,406	81	114			

NOTES:
1 - CUT (SALVAGE/UNUSABLE PAVEMENT MATERIAL INCLUDED)
2 - SALVAGE/UNUSABLE PAVEMENT MATERIAL. (THIS DOES NOT SHOW UP IN THE CROSS SECTIONS)
3 - FILL (DOES NOT INCLUDE UNUSABLE PAVEMENT VOLUME)
4 - THE MASS ORDINATE + OR - QUANTITIES CALCULATED. PLUS QUANTITIES AS EXCESS MATERIAL. MINUS A SHORTAGE OF MATERIAL

NO MARSH OR EBS IS ANTICIPATED.

DIVISION - 162 -BOX CULVERT

STATION	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
				NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
182+50.00	78.25	6.50	0.00	0	0	0	0	0	0
182+75.00	82.51	7.00	0.00	74	6	0	74	0	68
183+00.00	116.19	7.00	0.00	92	6	0	166	0	154
183+25.00	148.26	7.00	0.01	122	6	0	288	0	270
183+50.00	118.26	7.00	18.91	123	6	9	411	11	376
183+75.00	63.30	7.00	188.76	84	6	96	495	131	334
184+01.36	65.78	7.00	516.67	63	7	344	558	561	-40
184+25.00	59.41	7.00	244.54	55	6	333	613	978	-408
184+50.00	68.71	7.00	104.52	59	6	162	672	1,180	-557
184+75.00	74.42	7.00	102.95	66	6	96	738	1,300	-617
185+00.00	84.35	7.00	0.00	74	6	48	812	1,360	-609
185+25.00	76.41	6.00	0.00	74	6	0	886	1,360	-541
185+50.00	72.11	6.00	0.00	69	6	0	955	1,360	-478
				955	73	1,088			

NOTES:
1 - CUT (SALVAGE/UNUSABLE PAVEMENT MATERIAL INCLUDED)
2 - SALVAGE/UNUSABLE PAVEMENT MATERIAL. (THIS DOES NOT SHOW UP IN THE CROSS SECTIONS)
3 - FILL (DOES NOT INCLUDE UNUSABLE PAVEMENT VOLUME)
4 - THE MASS ORDINATE + OR - QUANTITIES CALCULATED. PLUS QUANTITIES AS EXCESS MATERIAL. MINUS A SHORTAGE OF MATERIAL

NO MARSH OR EBS IS ANTICIPATED.

STA 104+50.00
BEGIN PROJECT 5865-02-64
(FULL RECONSTRUCTION)

9

9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (STODDARD)	SHEET 307	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090201_XS_STODDARD.DWG
LAYOUT NAME - 01

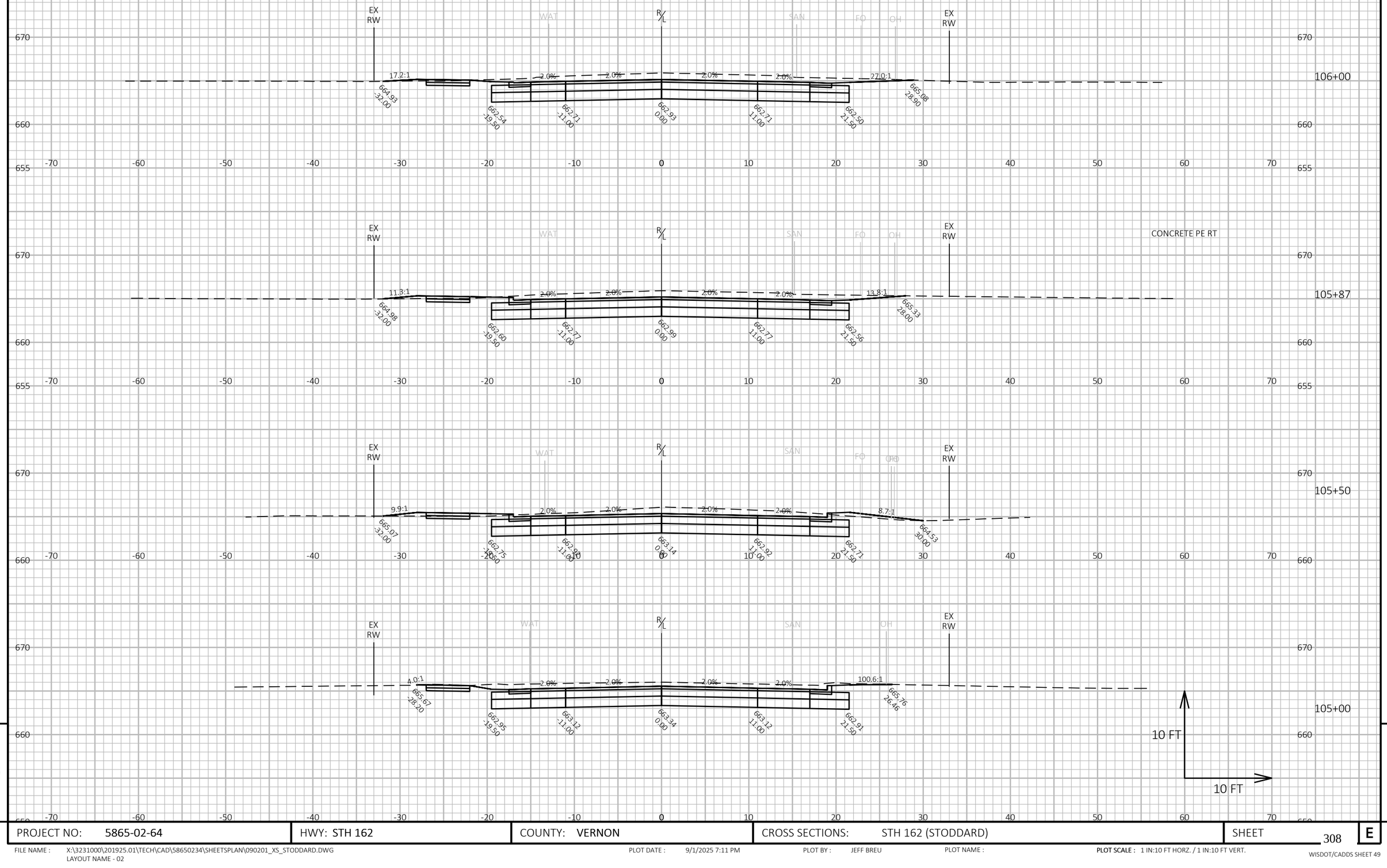
PLOT DATE : 9/1/2025 7:11 PM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (STODDARD)	SHEET 308	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090201_XS_STODDARD.DWG
LAYOUT NAME - 02

PLOT DATE : 9/1/2025 7:11 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

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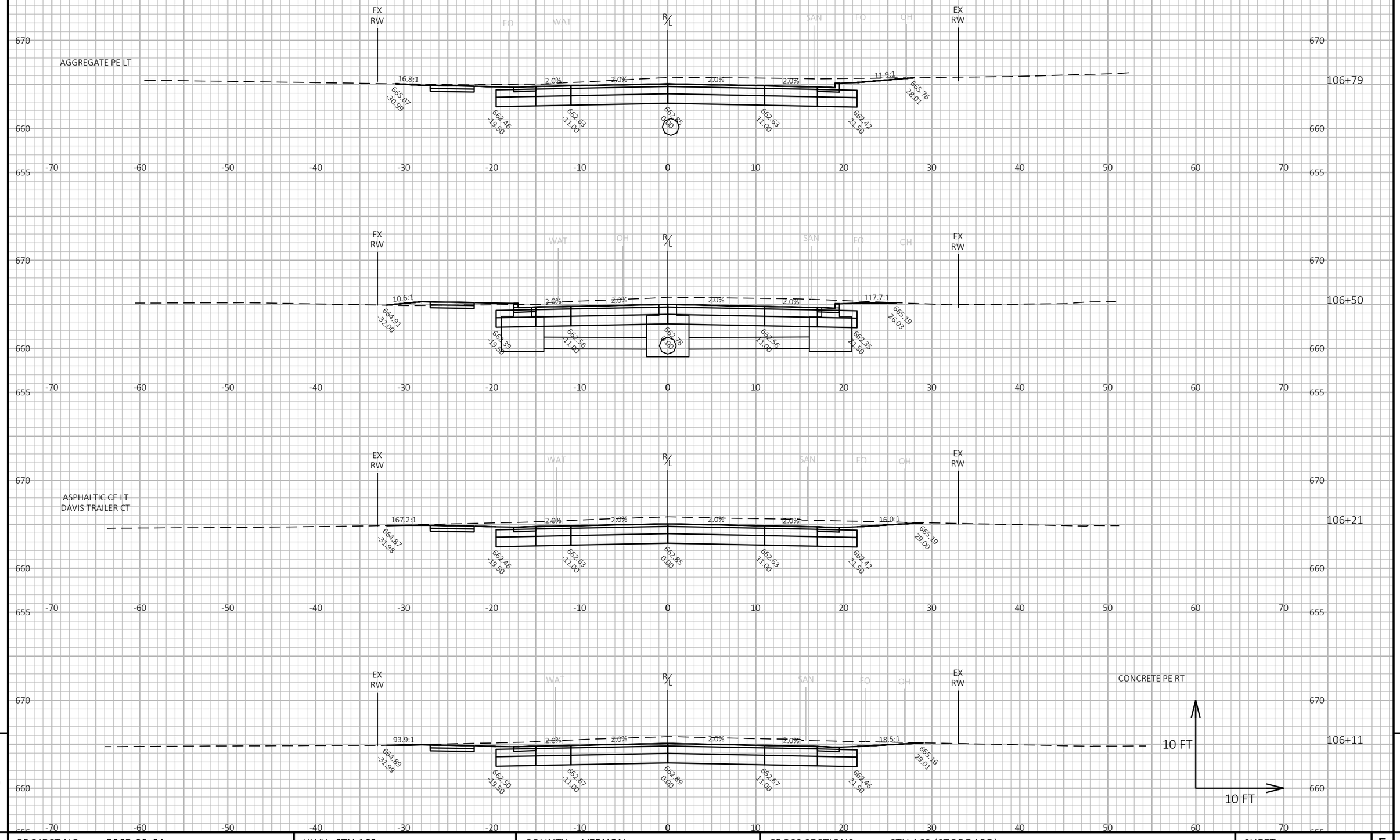

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PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (STODDARD)	SHEET 309	E

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LAYOUT NAME - 03

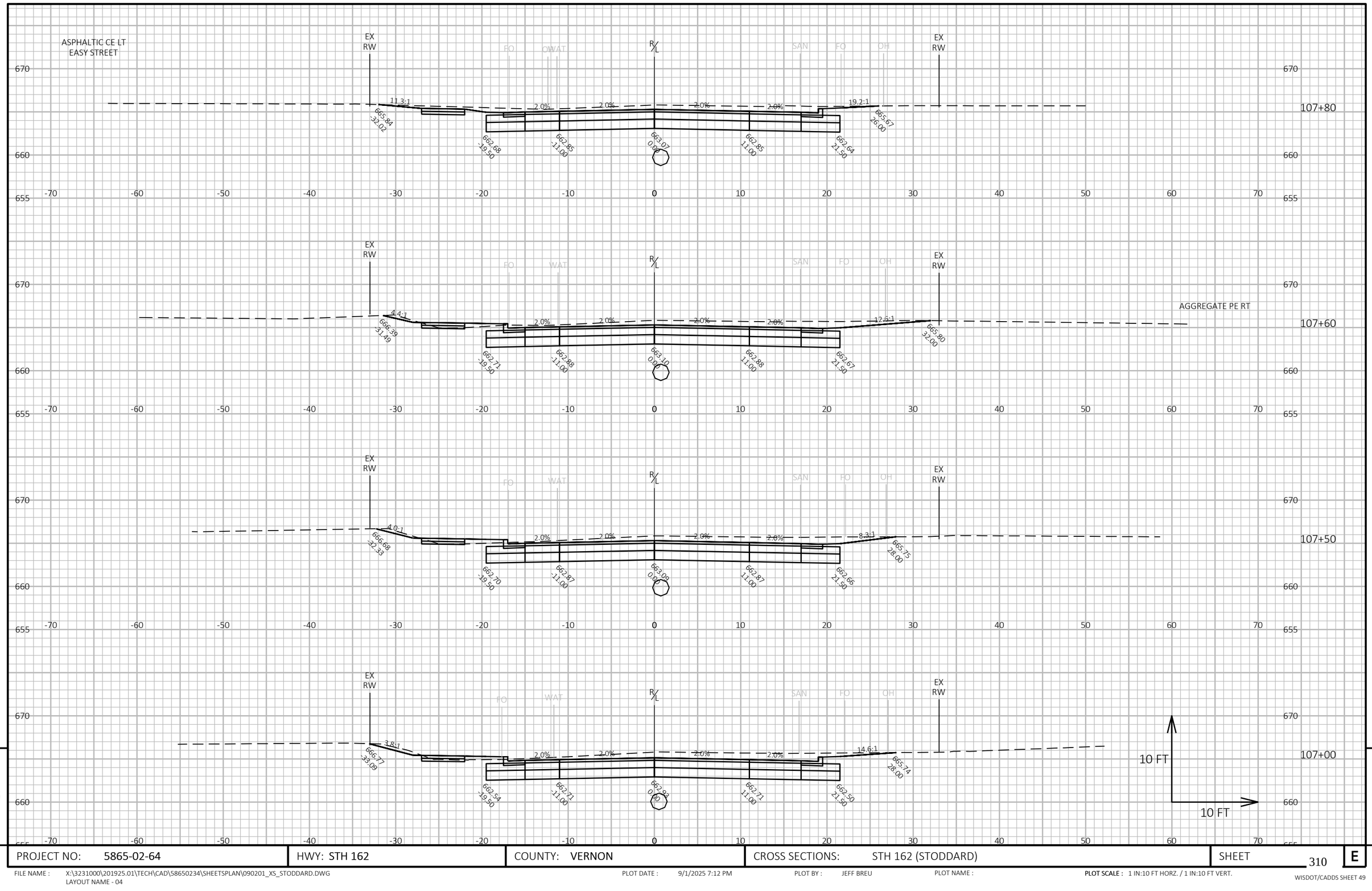
PLOT DATE : 9/1/2025 7:12 PM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (STODDARD)	SHEET 310 E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090201_XS_STODDARD.DWG
LAYOUT NAME - 04

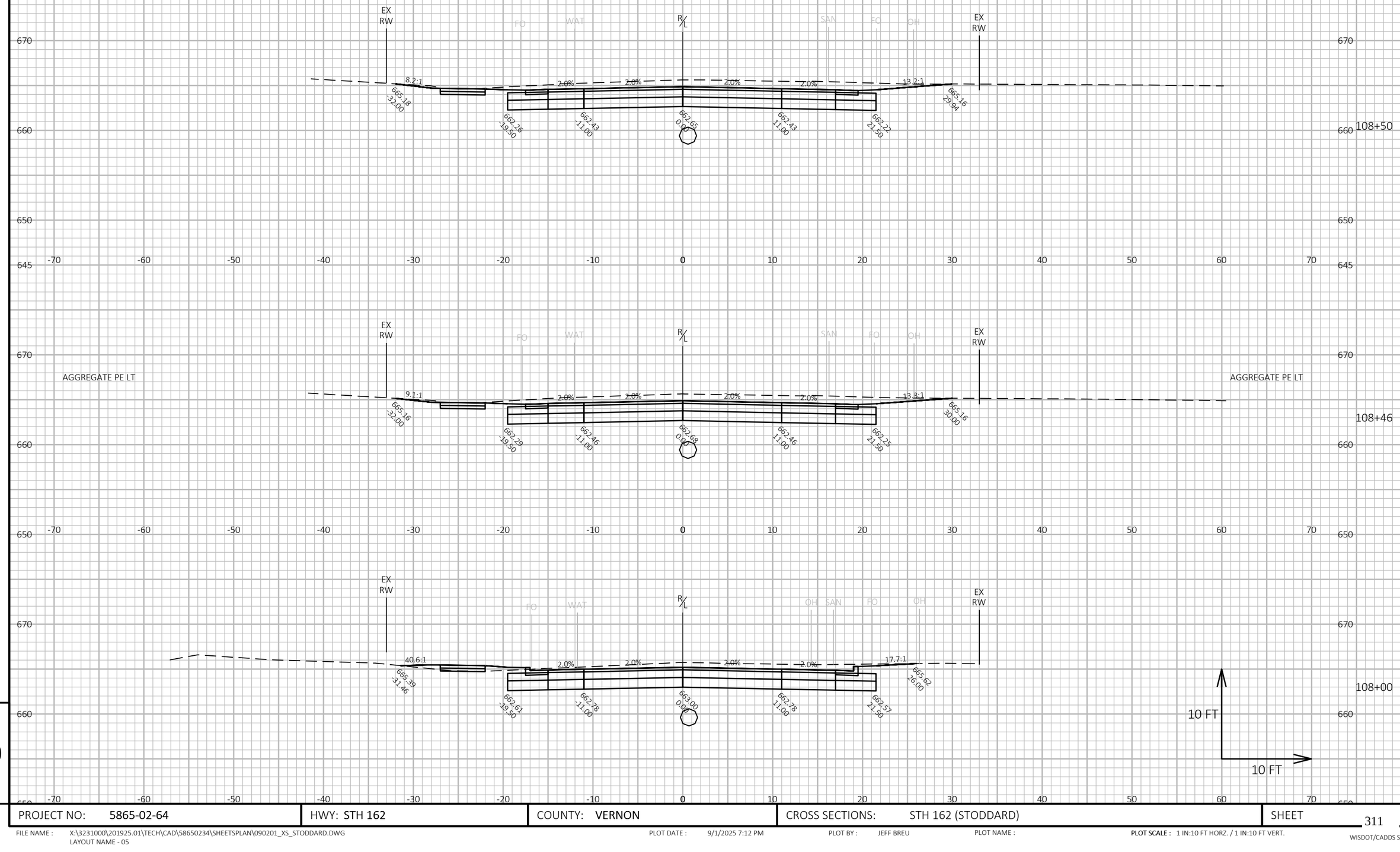
PLOT DATE : 9/1/2025 7:12 PM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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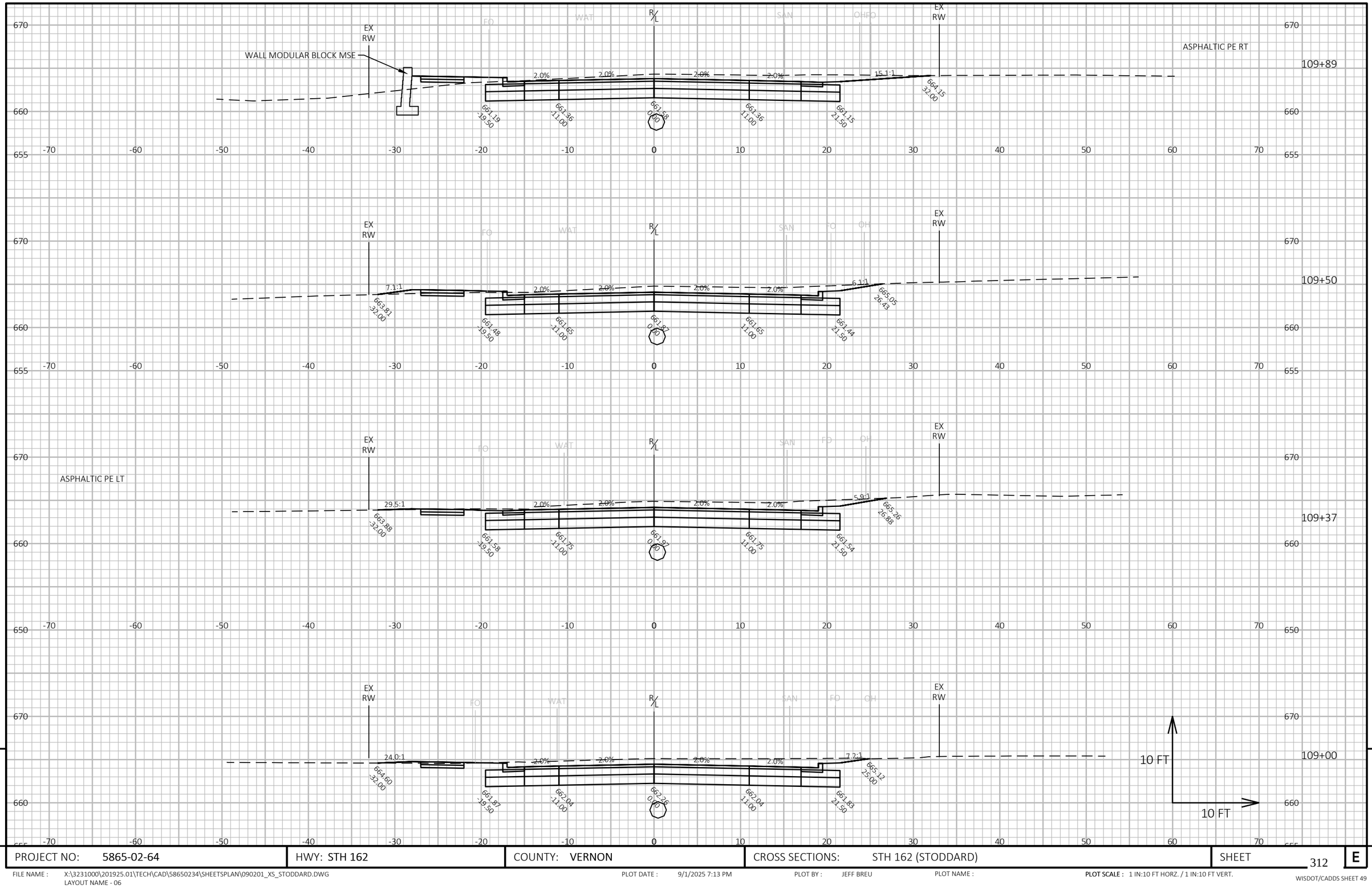
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (STODDARD)	SHEET 311	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090201_XS_STODDARD.DWG
LAYOUT NAME - 05

PLOT DATE : 9/1/2025 7:12 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (STODDARD)	SHEET 312	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090201_XS_STODDARD.DWG
LAYOUT NAME - 06

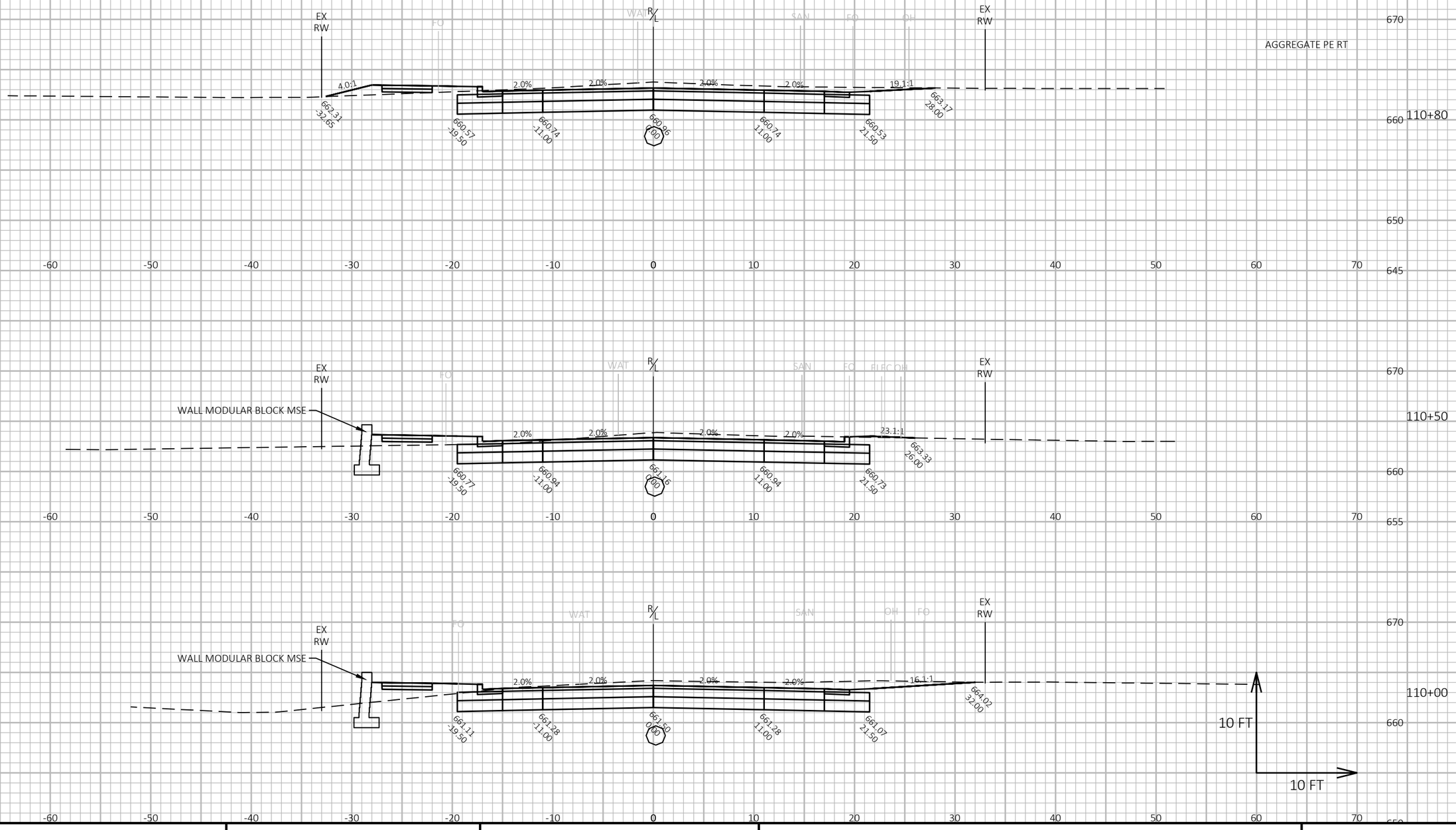
PLOT DATE : 9/1/2025 7:13 PM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

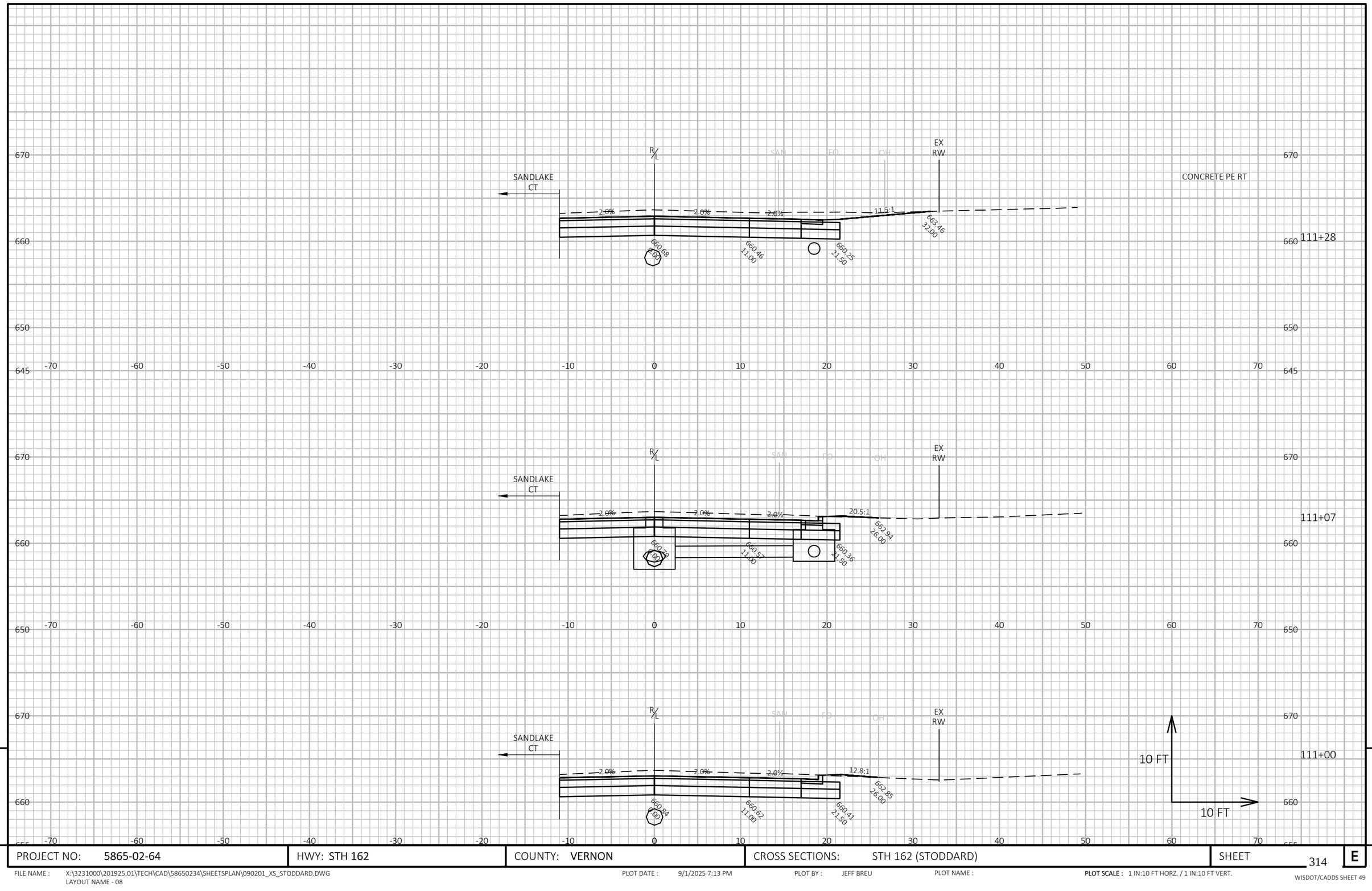


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (STODDARD)	SHEET 313	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090201_XS_STODDARD.DWG
LAYOUT NAME - 07

PLOT DATE : 9/1/2025 7:13 PM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (STODDARD)	SHEET 314	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090201_XS_STODDARD.DWG
LAYOUT NAME - 08

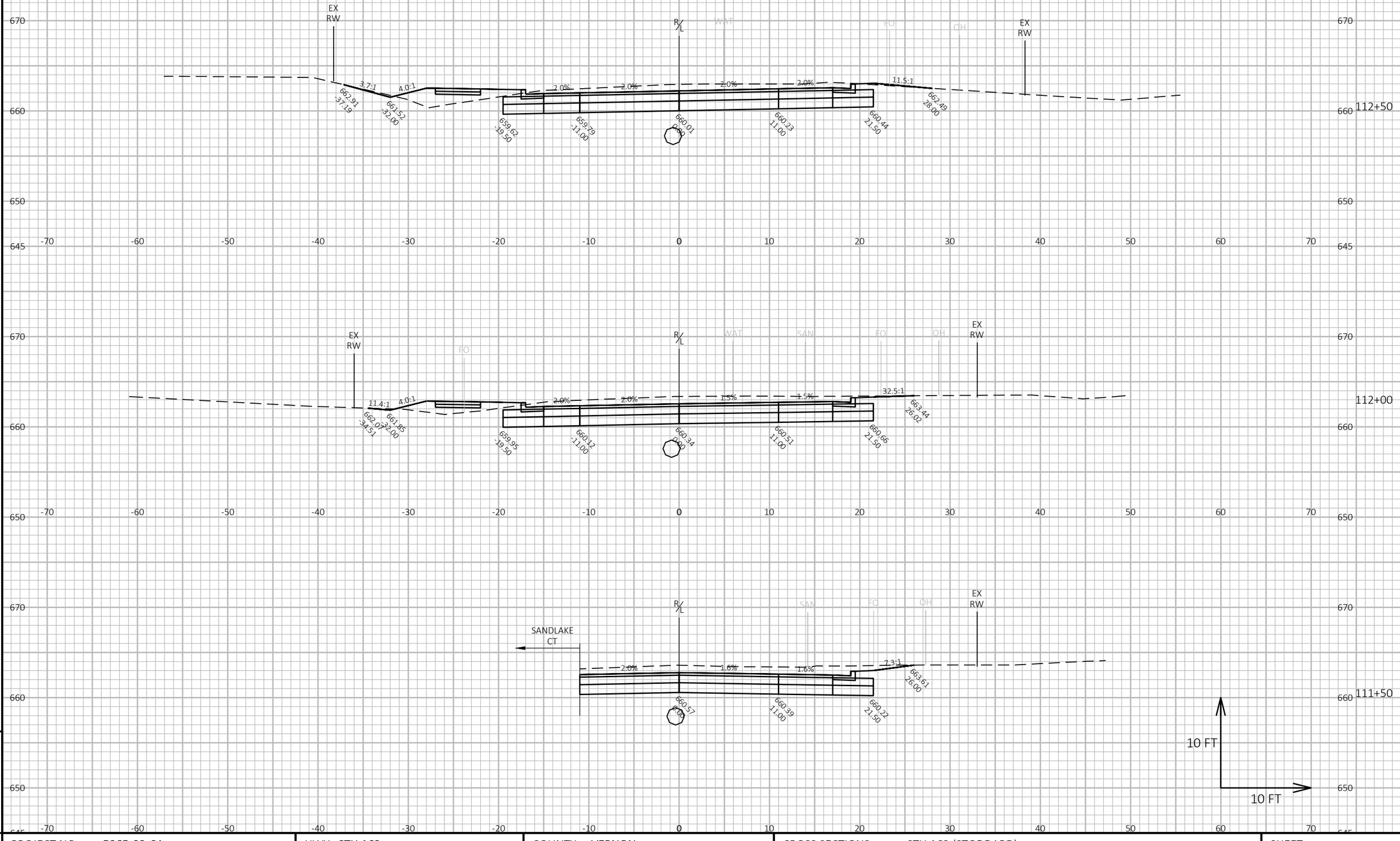
PLOT DATE : 9/1/2025 7:13 PM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (STODDARD)	SHEET 315	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090201_XS_STODDARD.DWG
LAYOUT NAME - 09

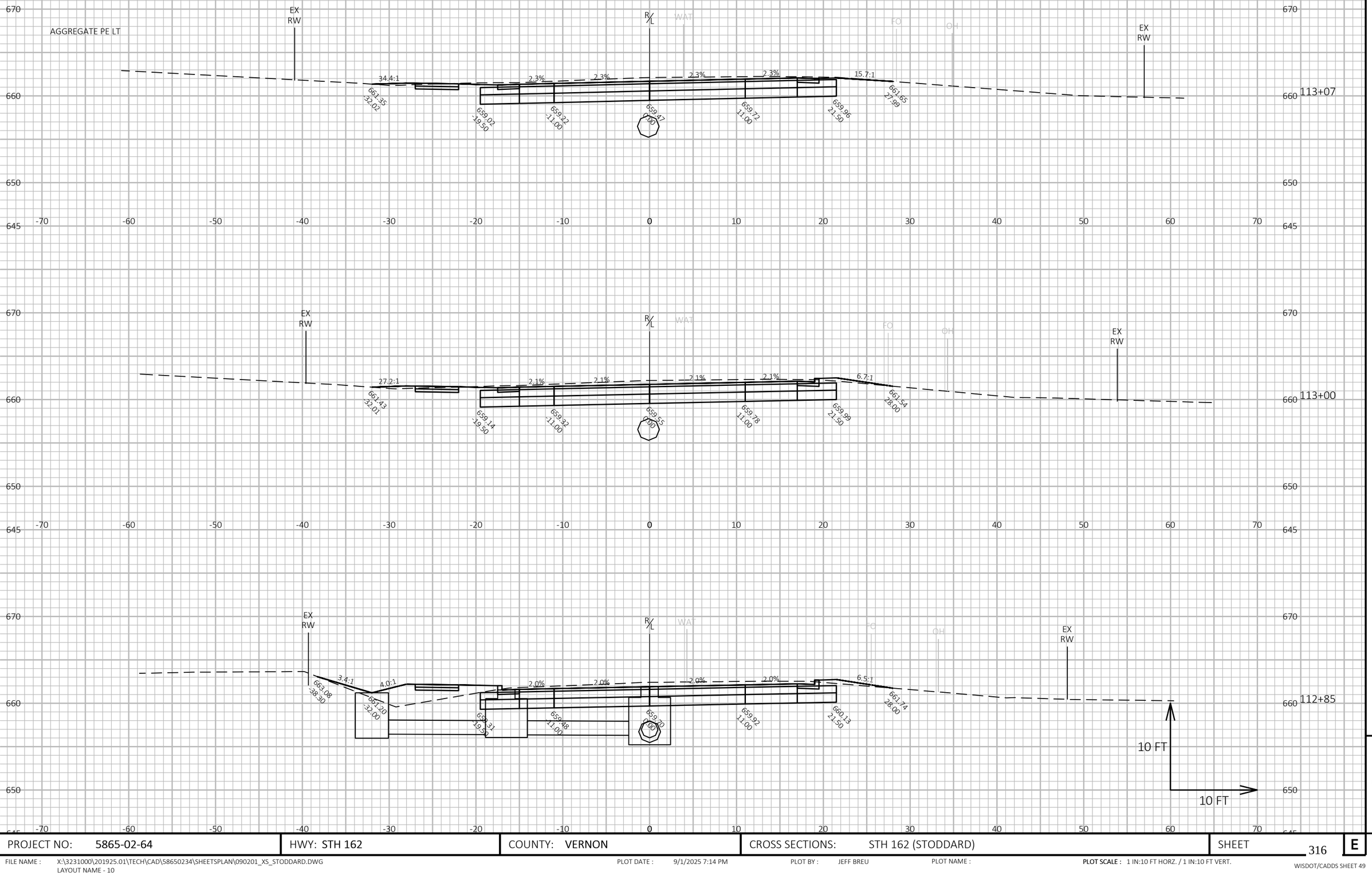
PLOT DATE : 9/1/2025 7:13 PM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (STODDARD)	SHEET 316	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090201_XS_STODDARD.DWG
LAYOUT NAME - 10

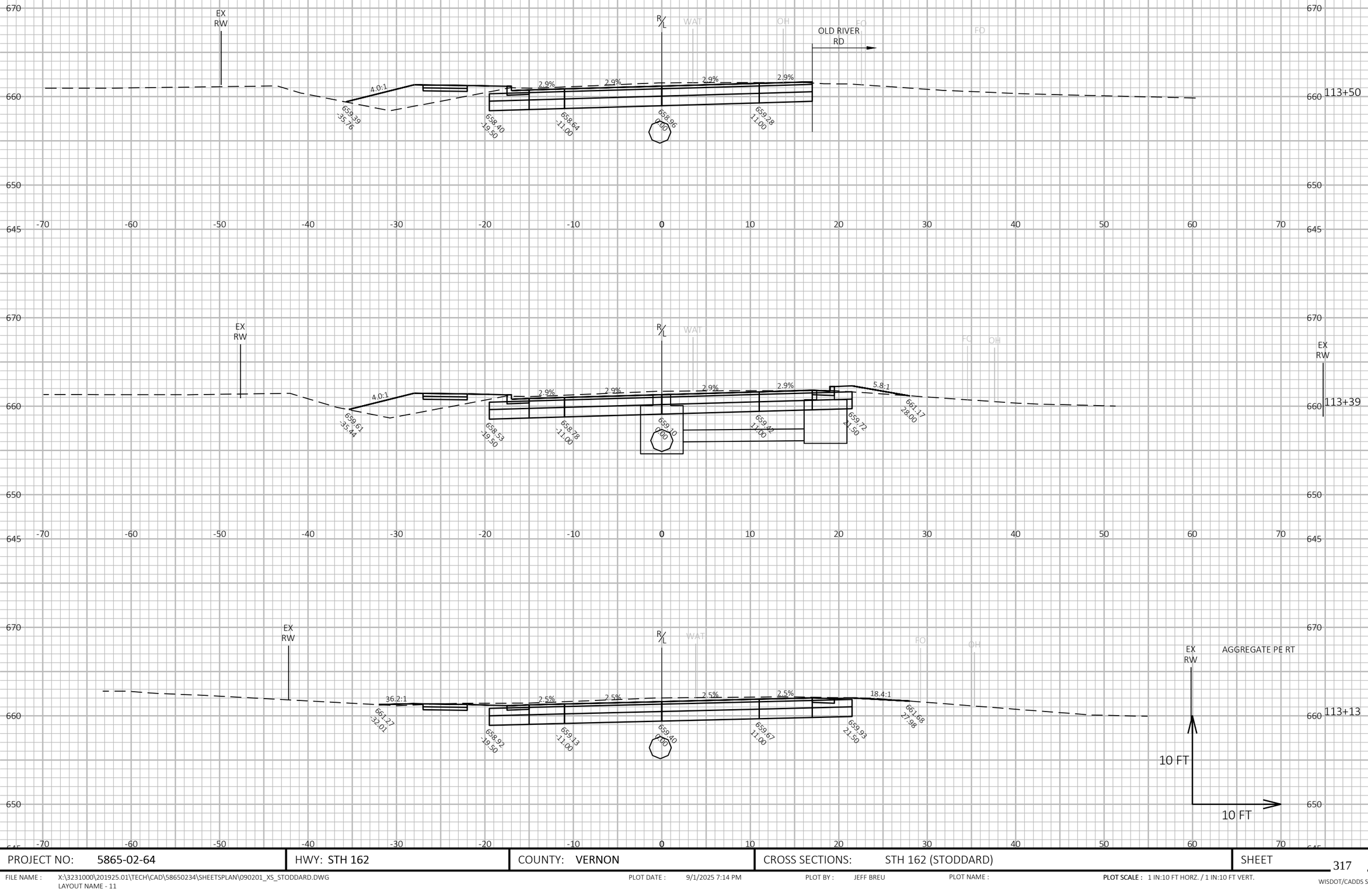
PLOT DATE : 9/1/2025 7:14 PM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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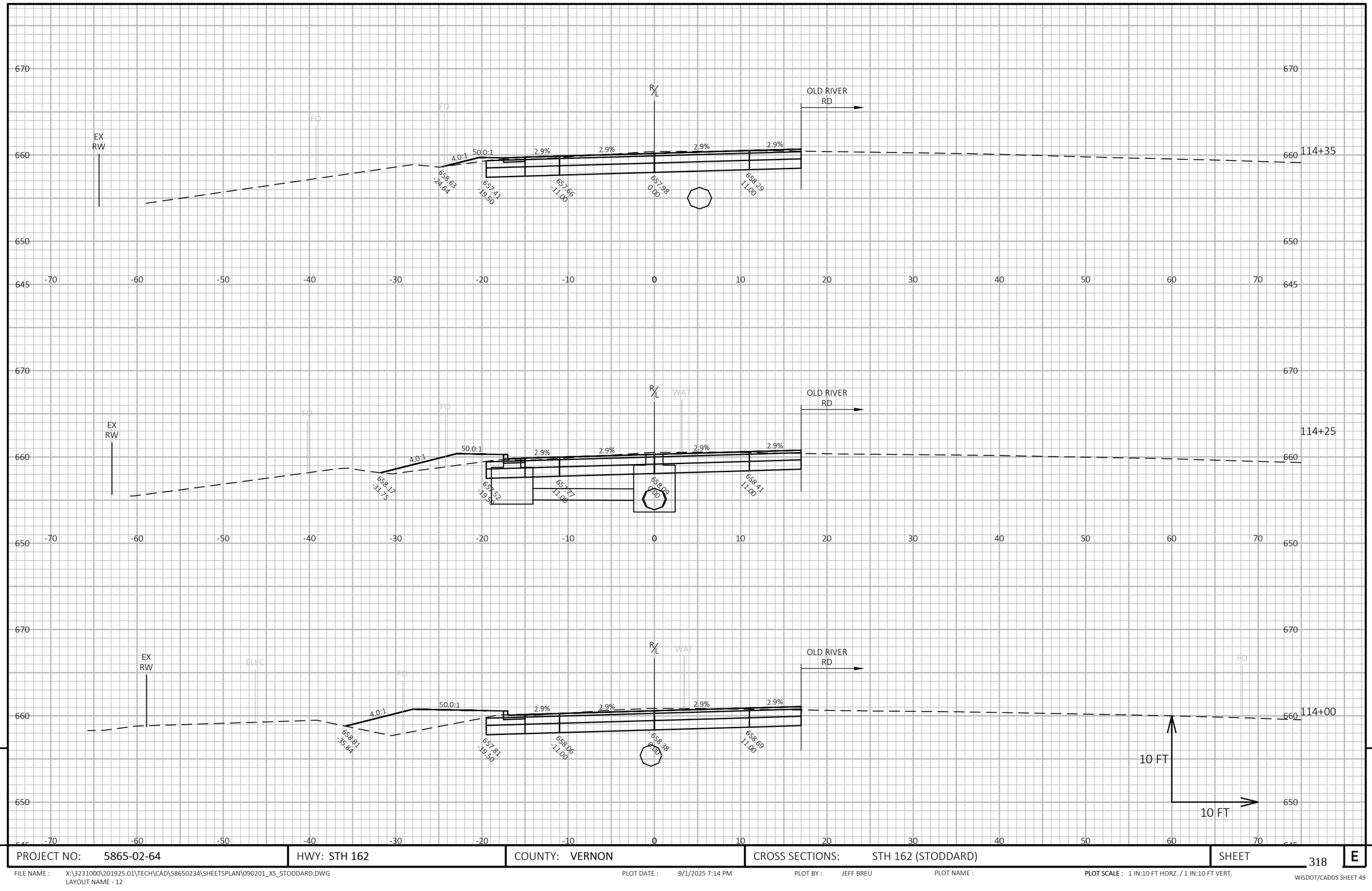
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (STODDARD)	SHEET 317	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090201_XS_STODDARD.DWG
LAYOUT NAME - 11

PLOT DATE : 9/1/2025 7:14 PM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (STODDARD)	SHEET 318	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090201_XS_STODDARD.DWG
LAYOUT NAME - 12

PLOT DATE : 9/1/2025 7:14 PM

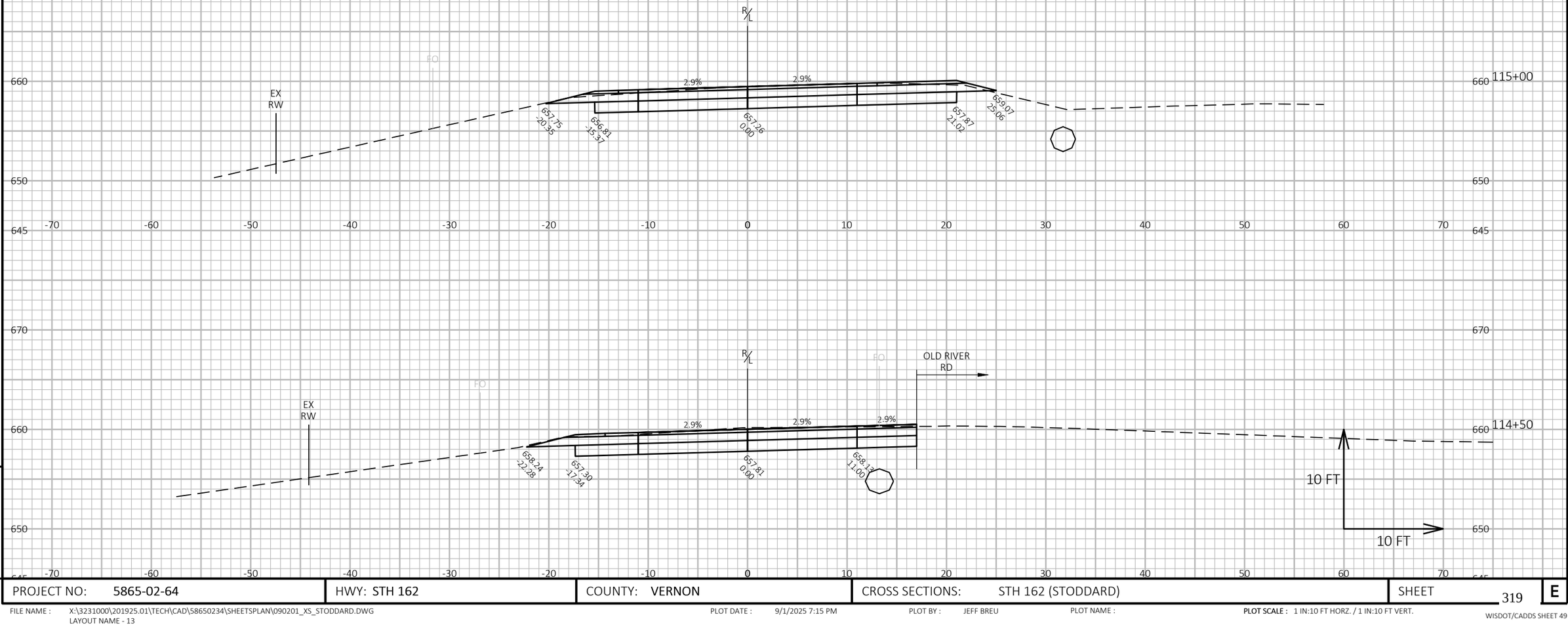
PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

STA 115+00.00
END FULL RECONSTRUCTION

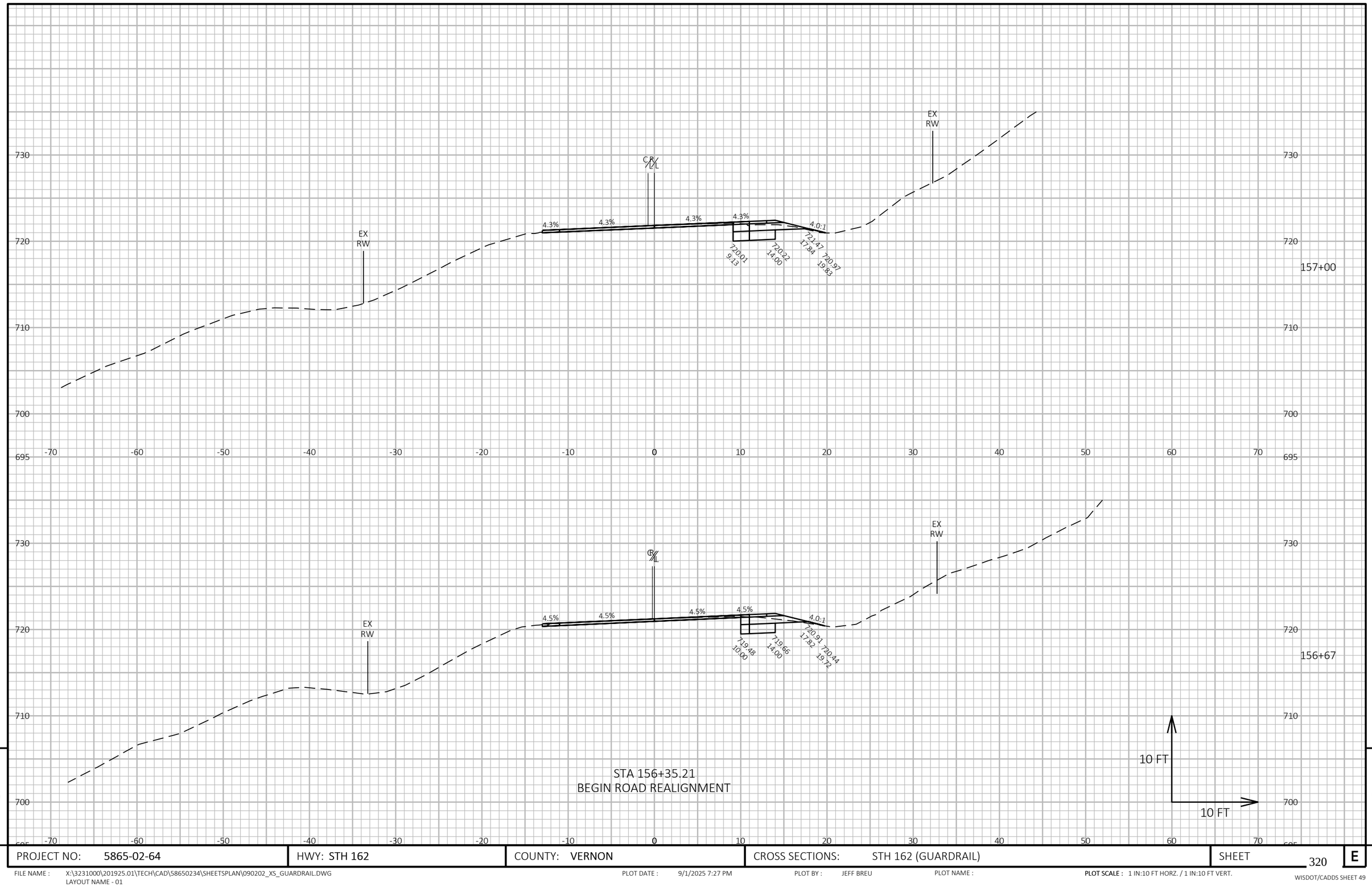


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (STODDARD)	SHEET 319	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090201_XS_STODDARD.DWG
LAYOUT NAME - 13

PLOT DATE : 9/1/2025 7:15 PM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

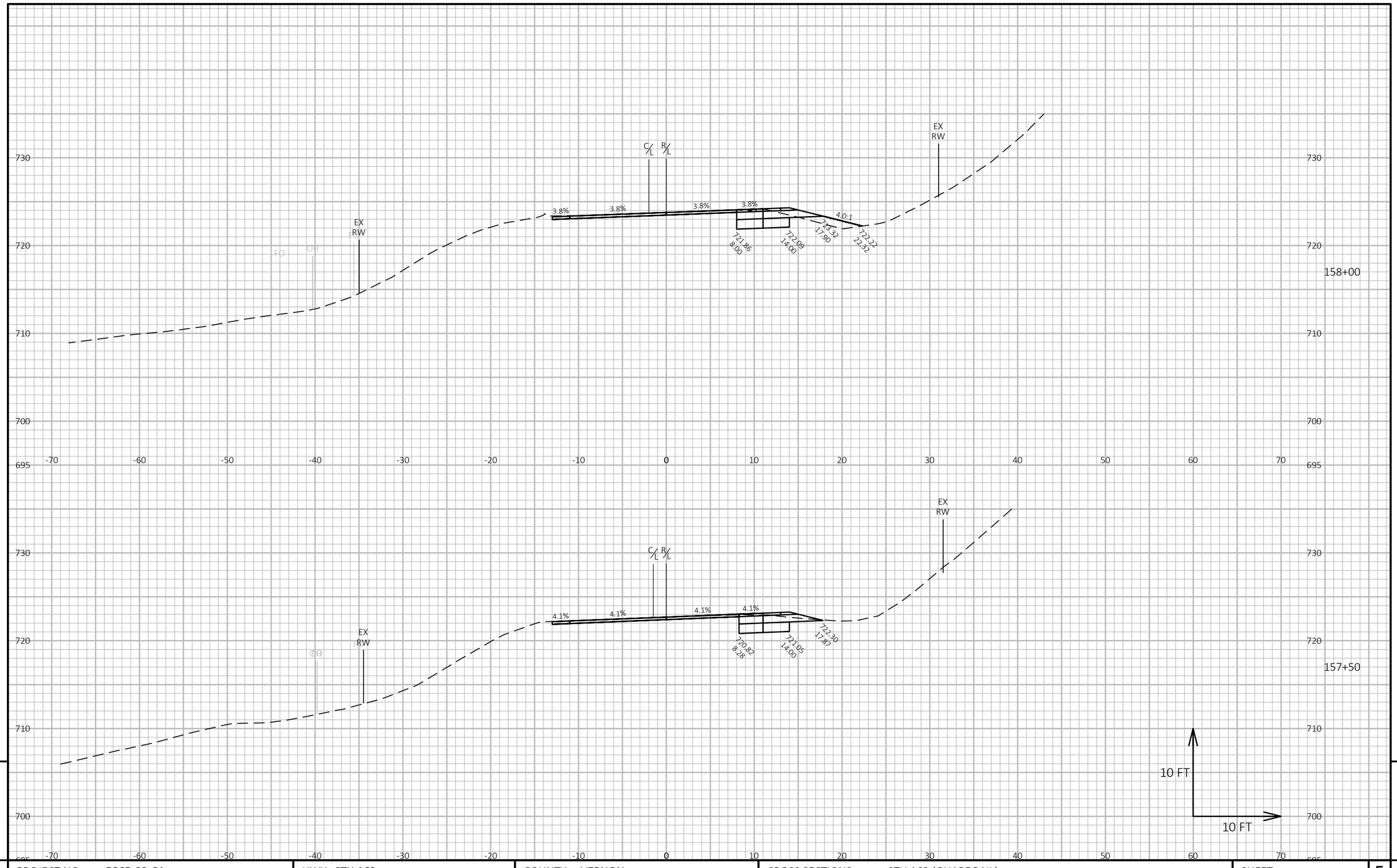


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 320	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 01

PLOT DATE : 9/1/2025 7:27 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

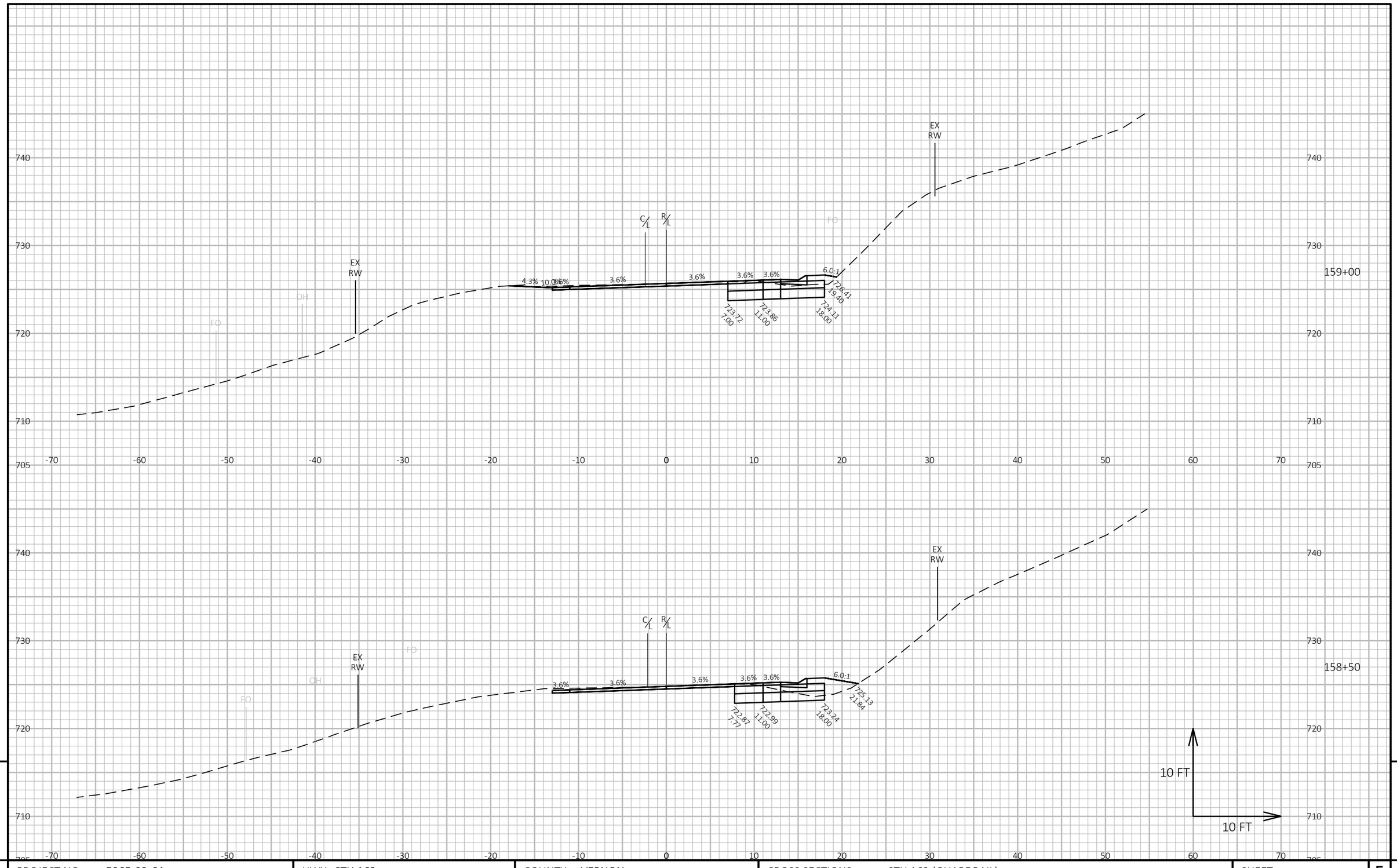


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 321	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 02

PLOT DATE : 9/1/2025 7:27 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 322	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 03

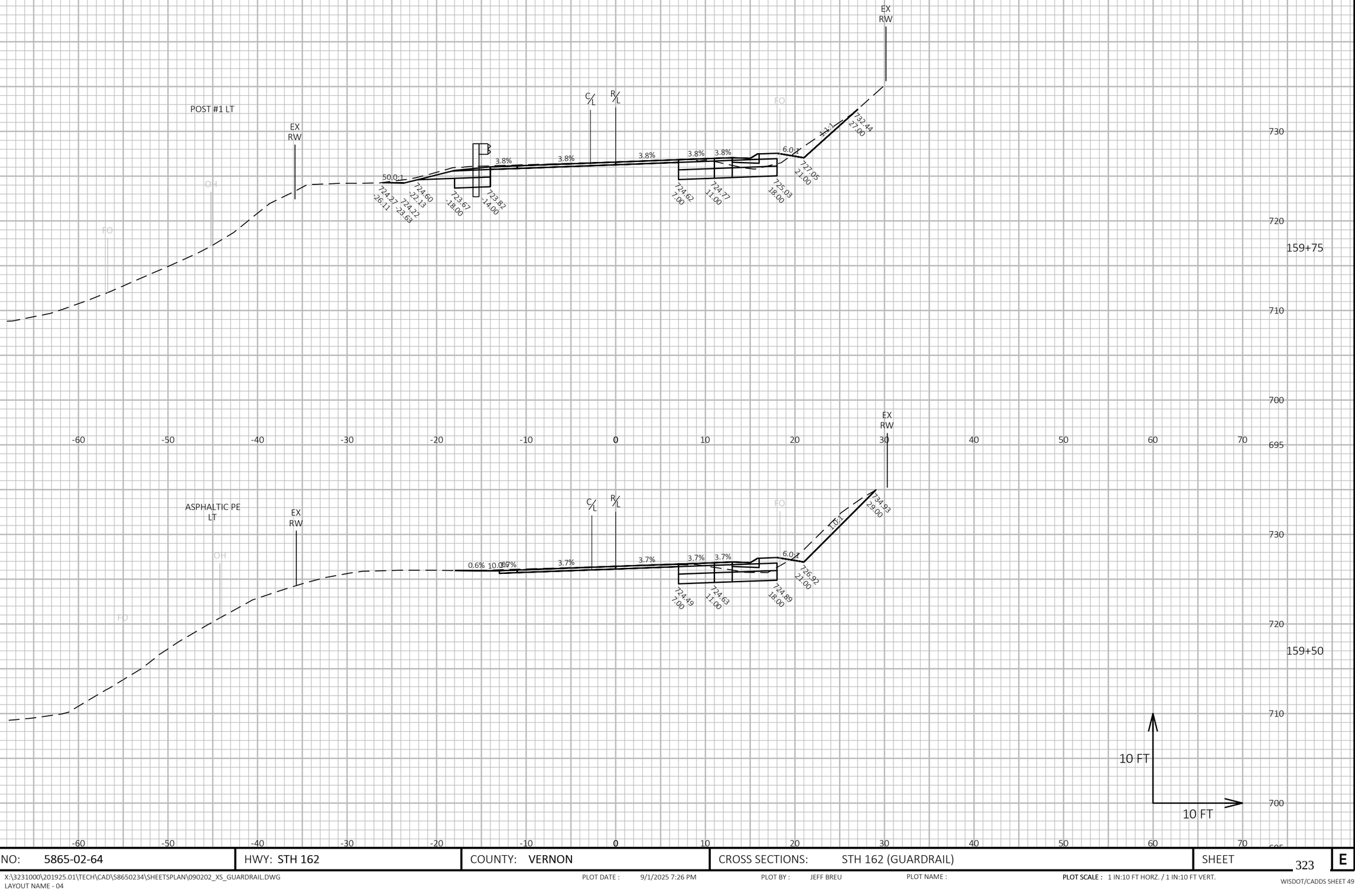
PLOT DATE : 9/1/2025 7:26 PM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

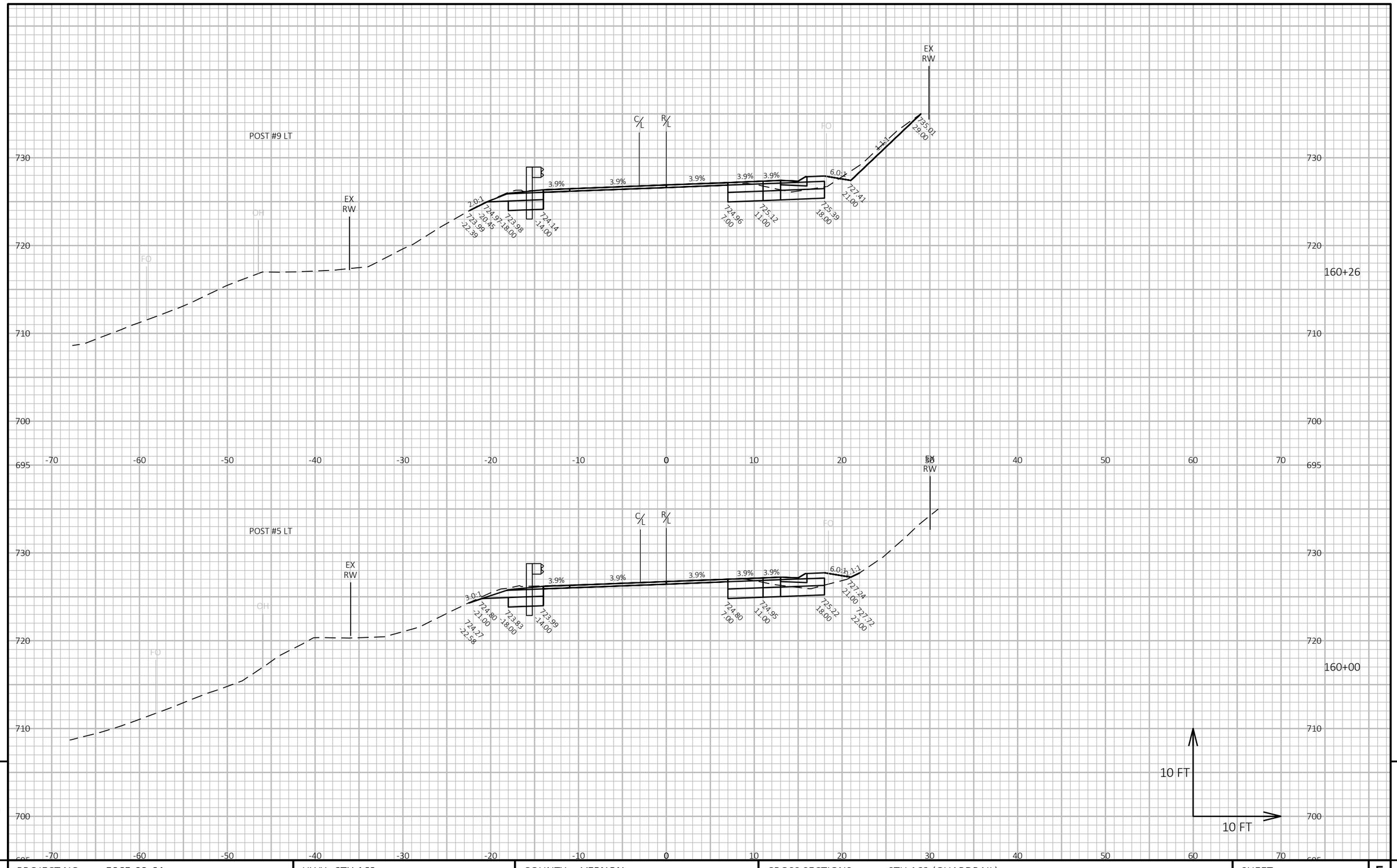


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 323	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 04

PLOT DATE : 9/1/2025 7:26 PM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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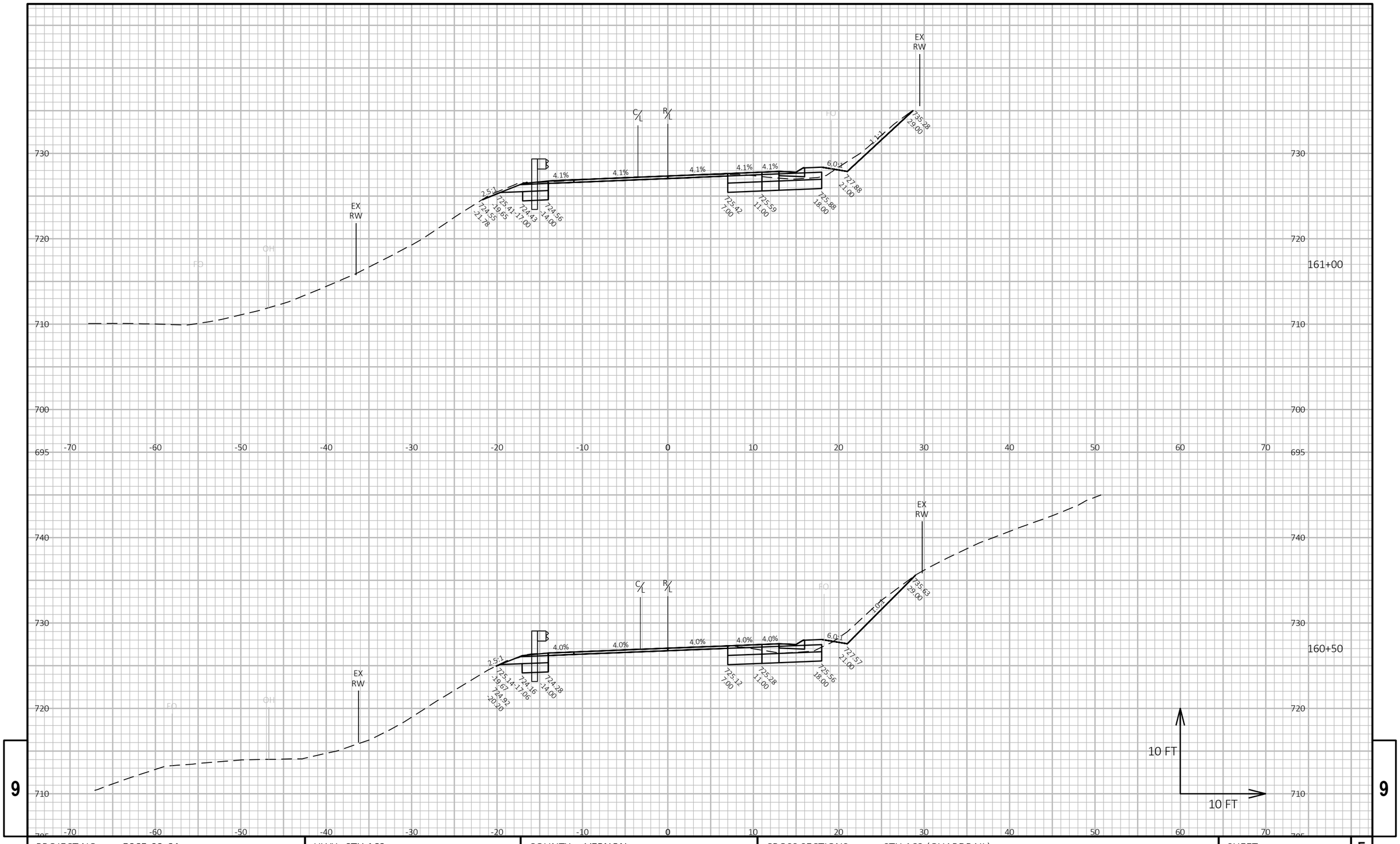
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 324	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 05

PLOT DATE : 9/1/2025 7:26 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

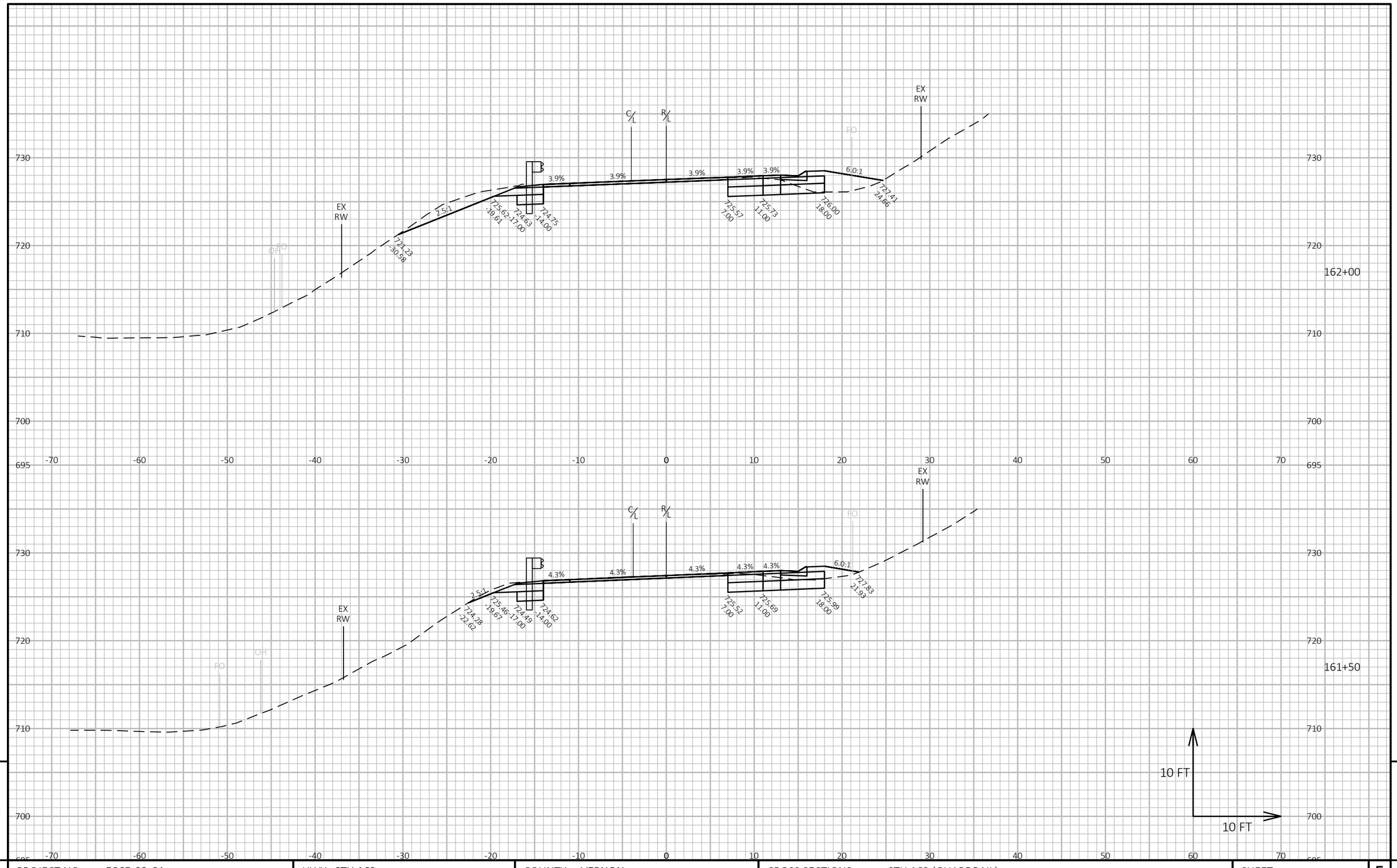


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 325	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 06

PLOT DATE : 9/1/2025 7:25 PM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 326	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 07

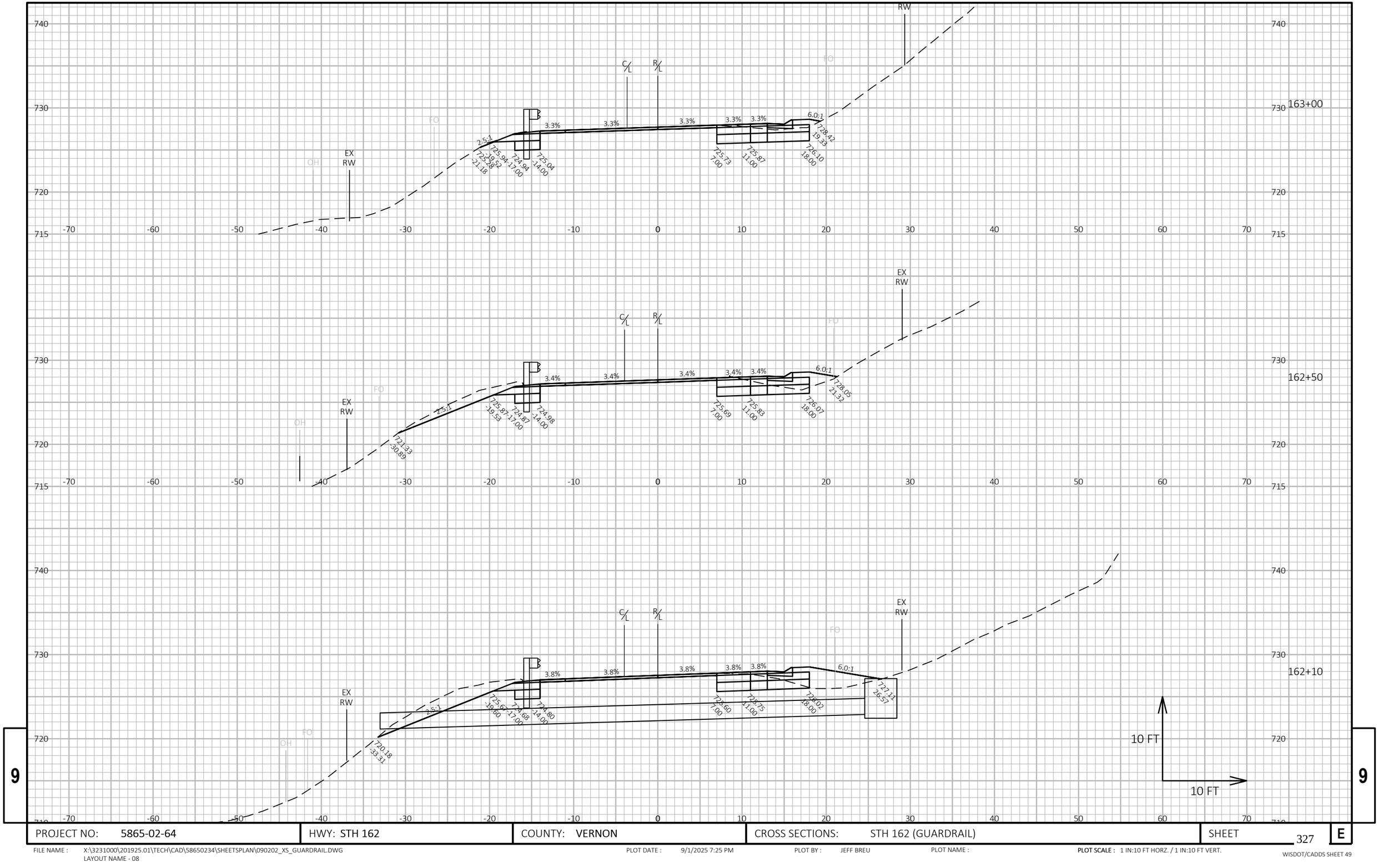
PLOT DATE : 9/1/2025 7:25 PM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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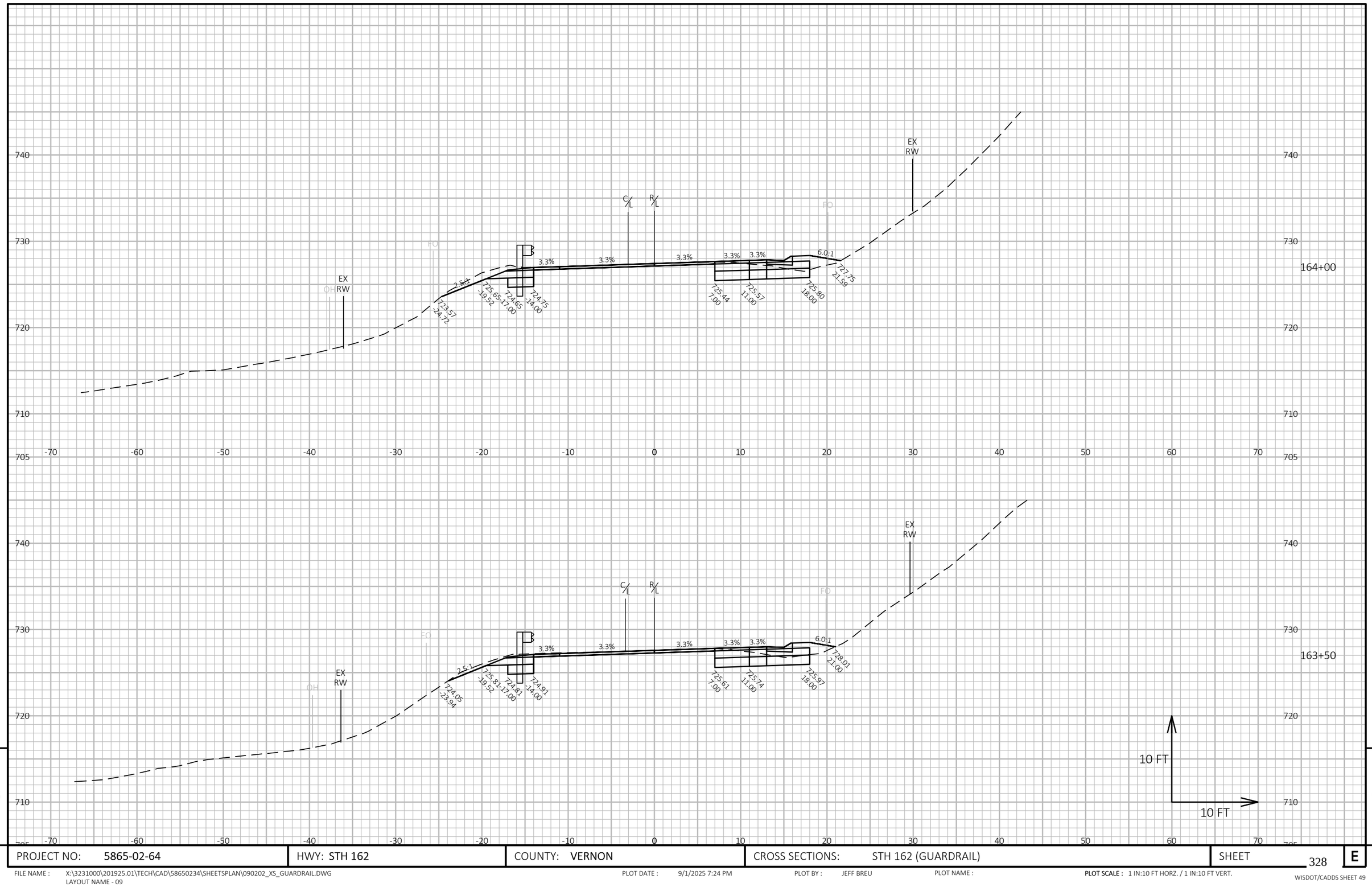
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 327	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 08

PLOT DATE : 9/1/2025 7:25 PM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

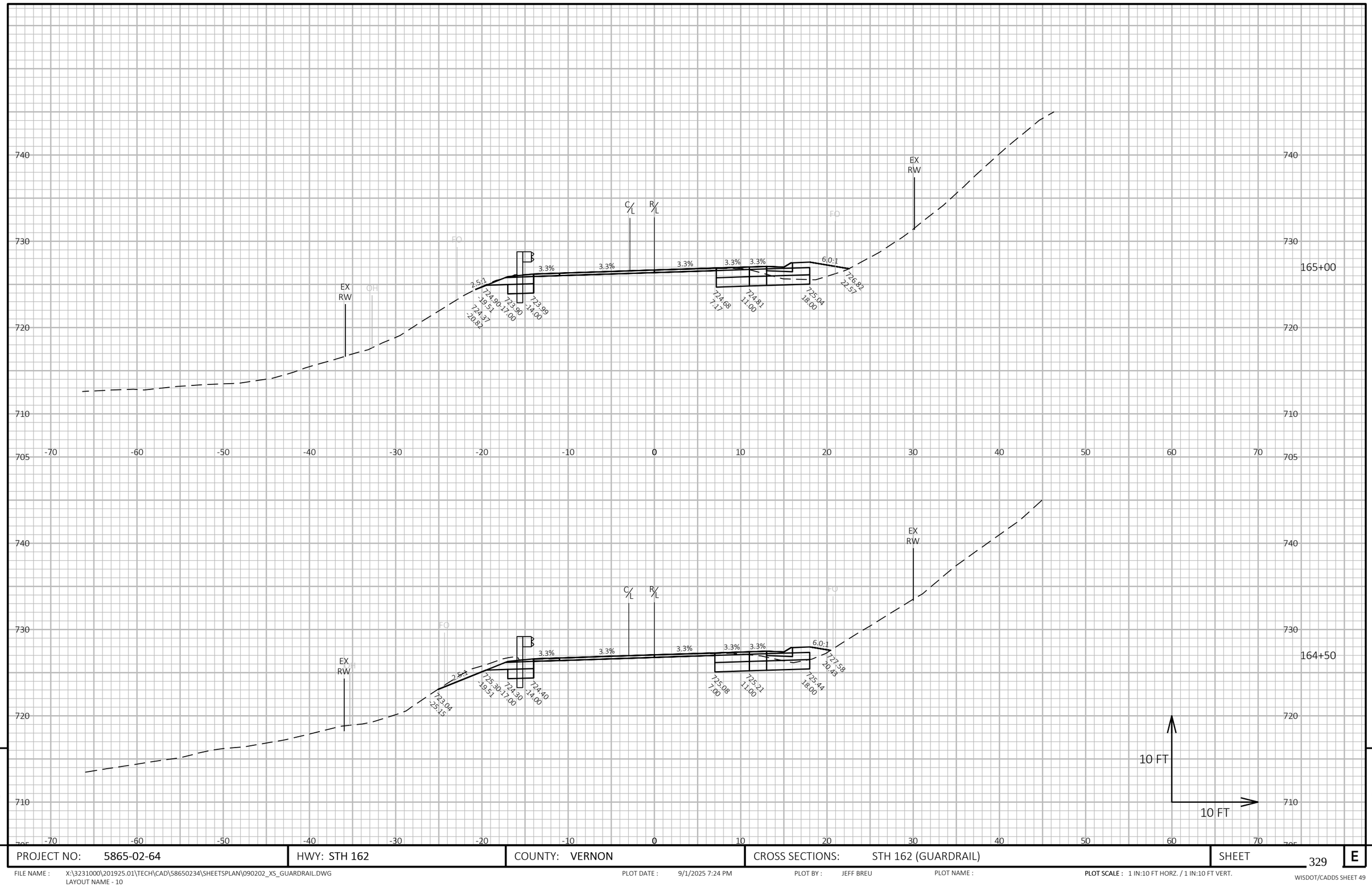


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 328	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 09

PLOT DATE : 9/1/2025 7:24 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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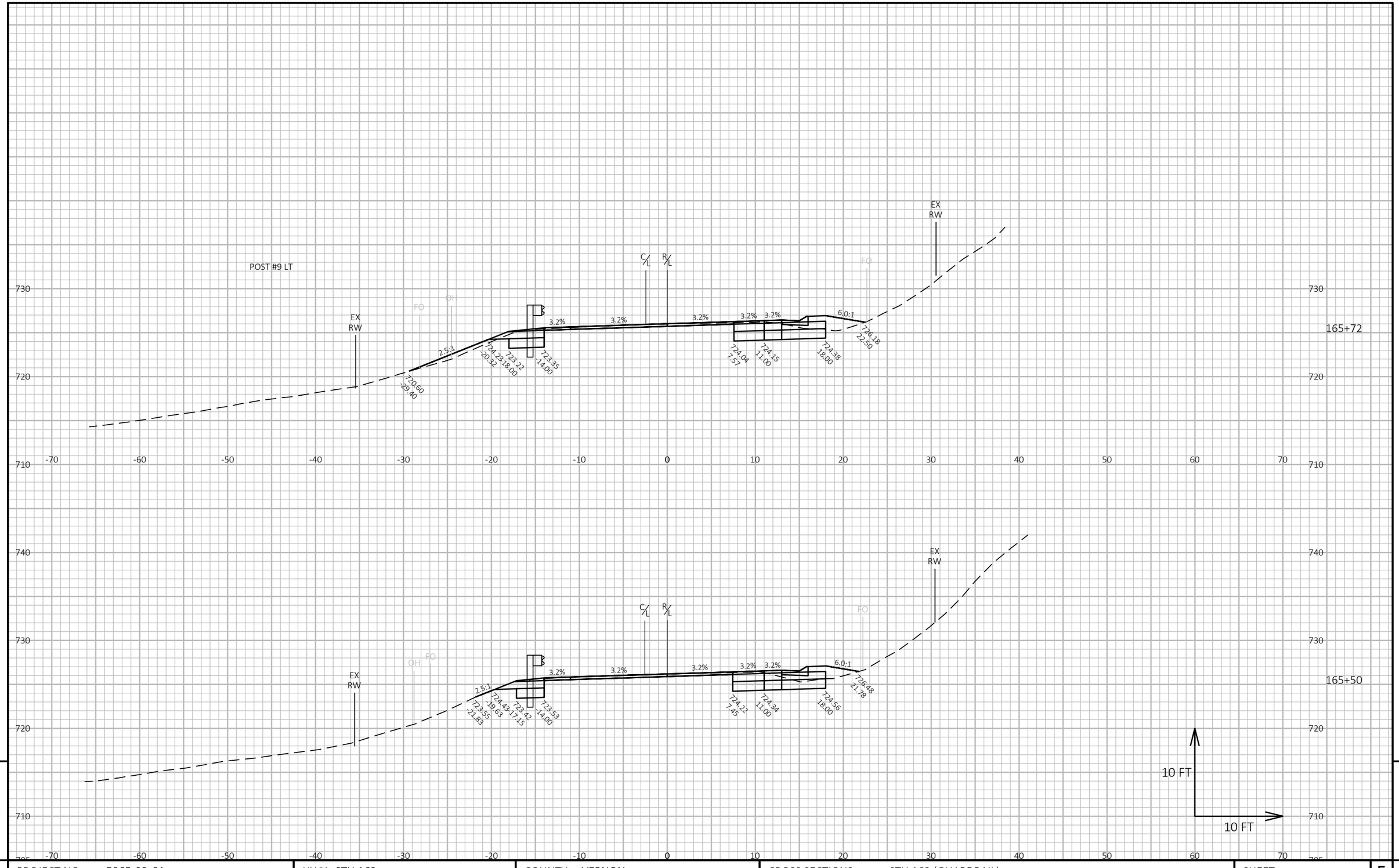
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 329	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 10

PLOT DATE : 9/1/2025 7:24 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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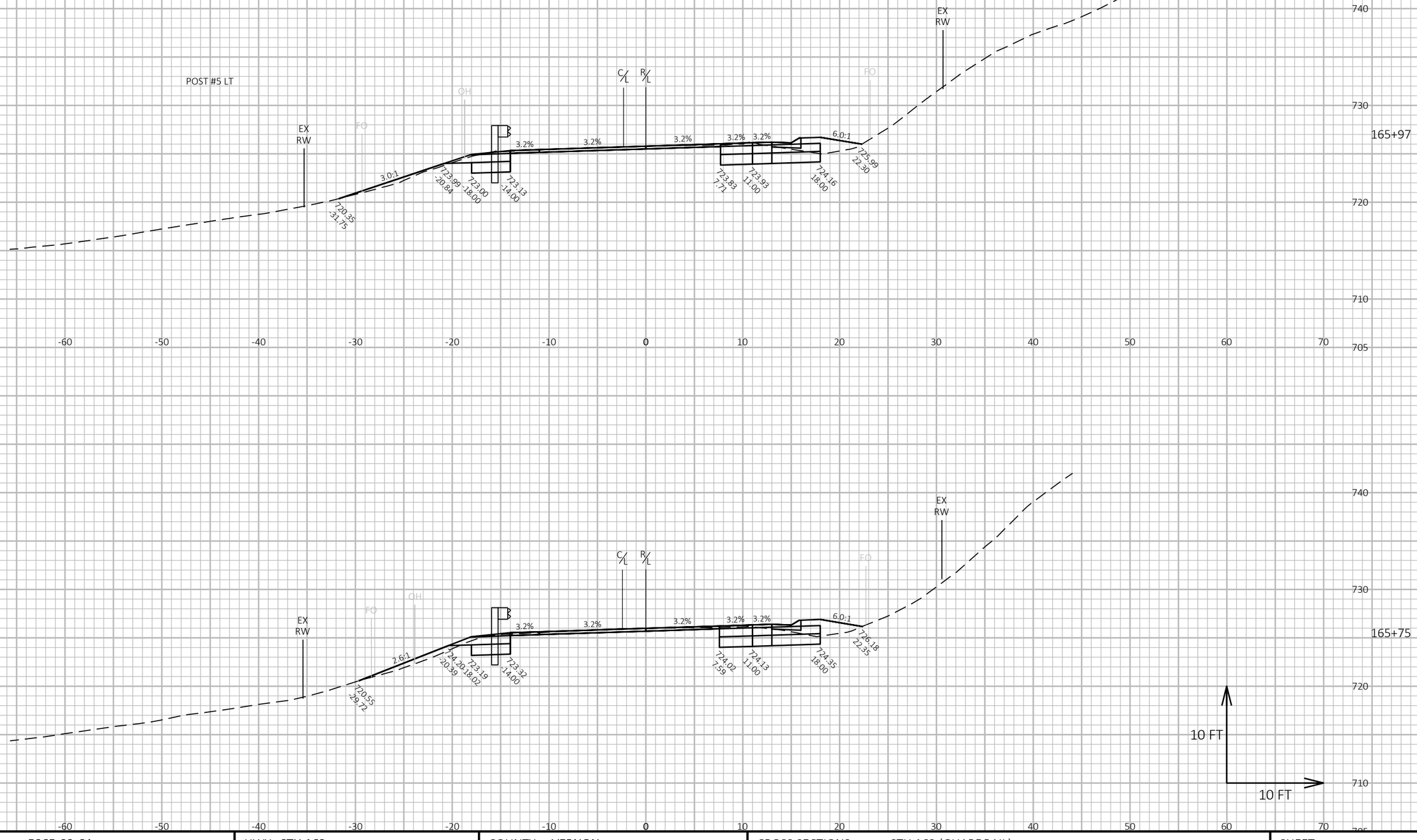
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 330	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 11

PLOT DATE : 9/1/2025 7:24 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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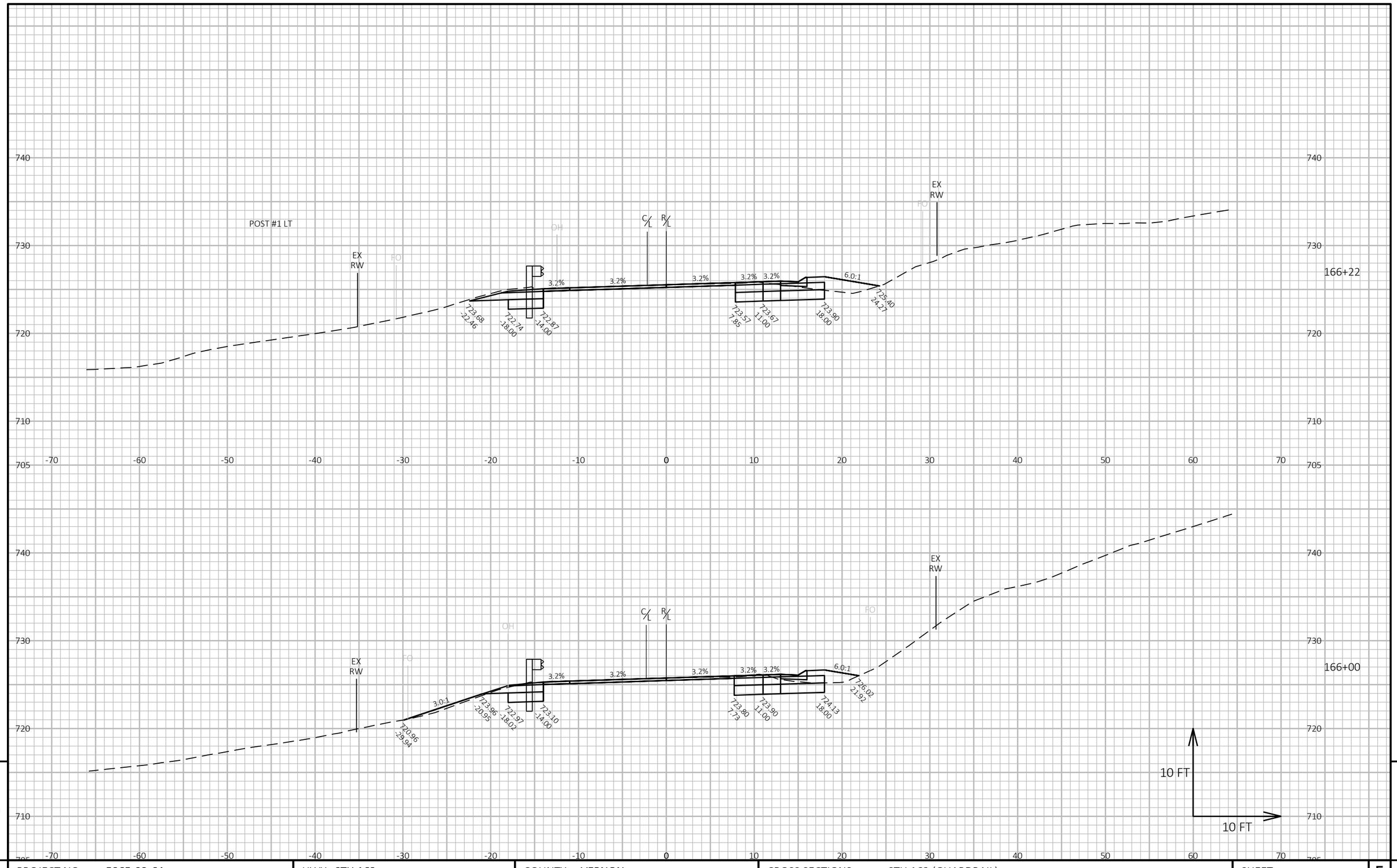
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 331	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 12

PLOT DATE : 9/1/2025 7:23 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 332	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 13

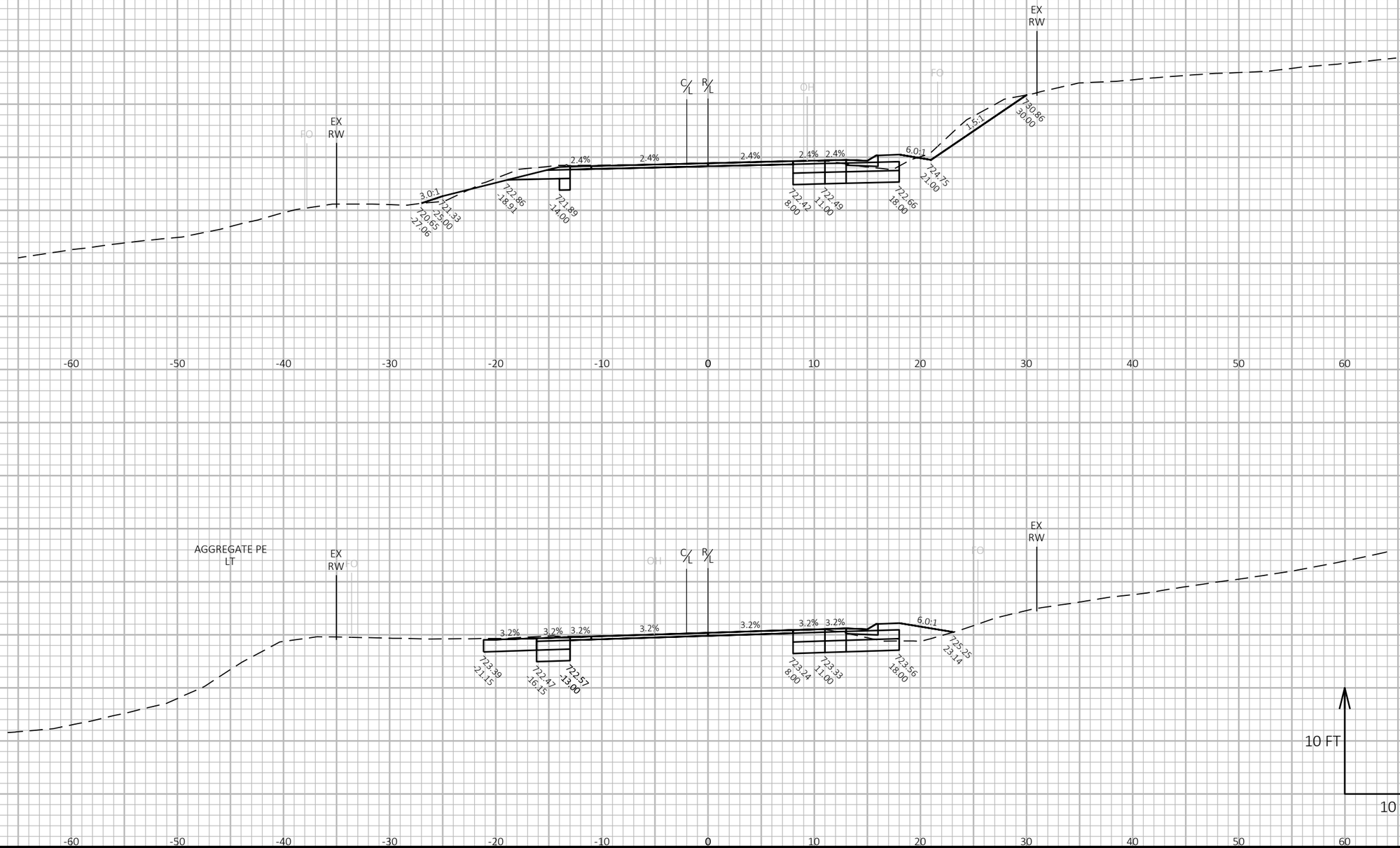
PLOT DATE : 9/1/2025 7:23 PM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

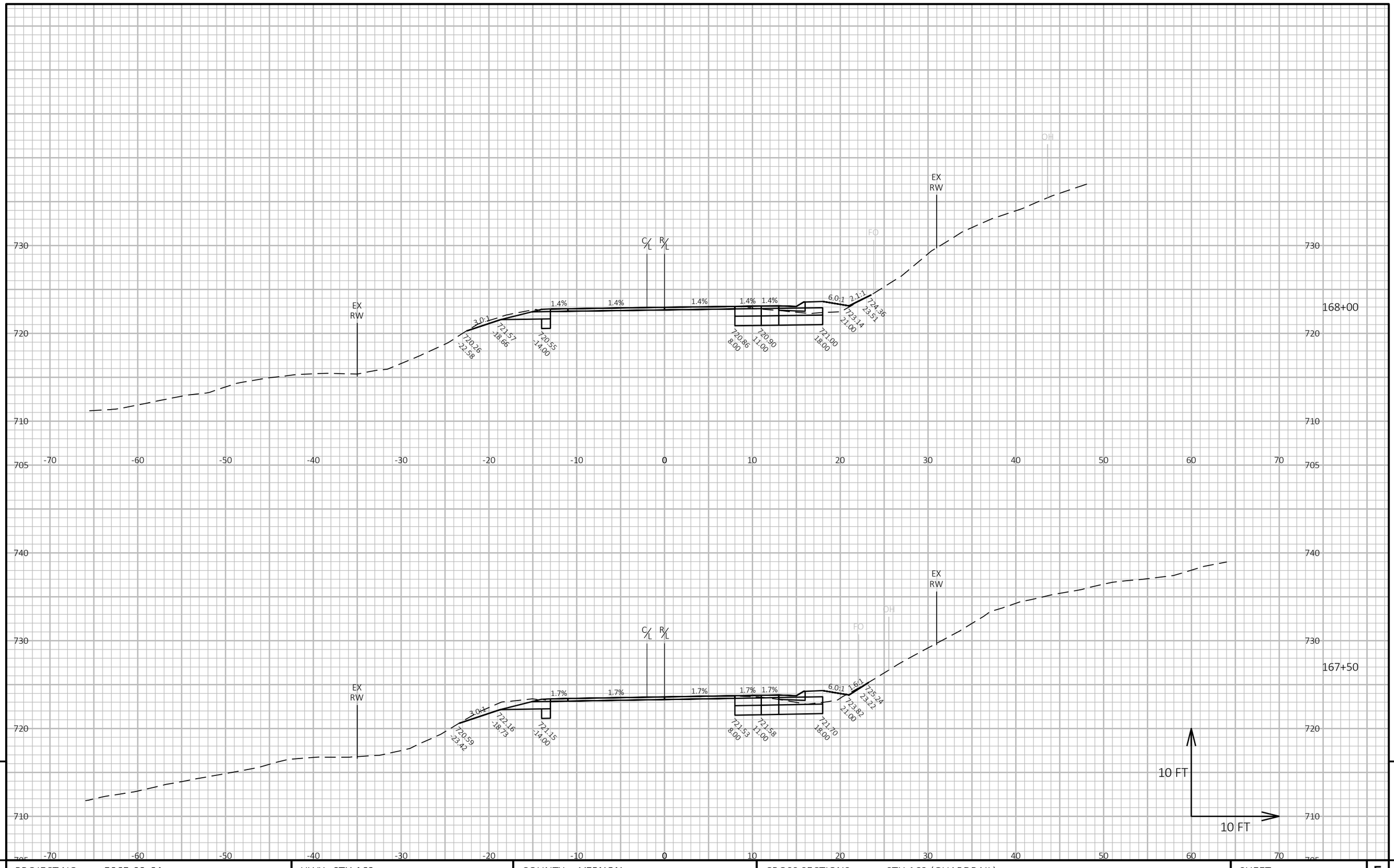


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 333	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 14

PLOT DATE : 9/1/2025 7:23 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

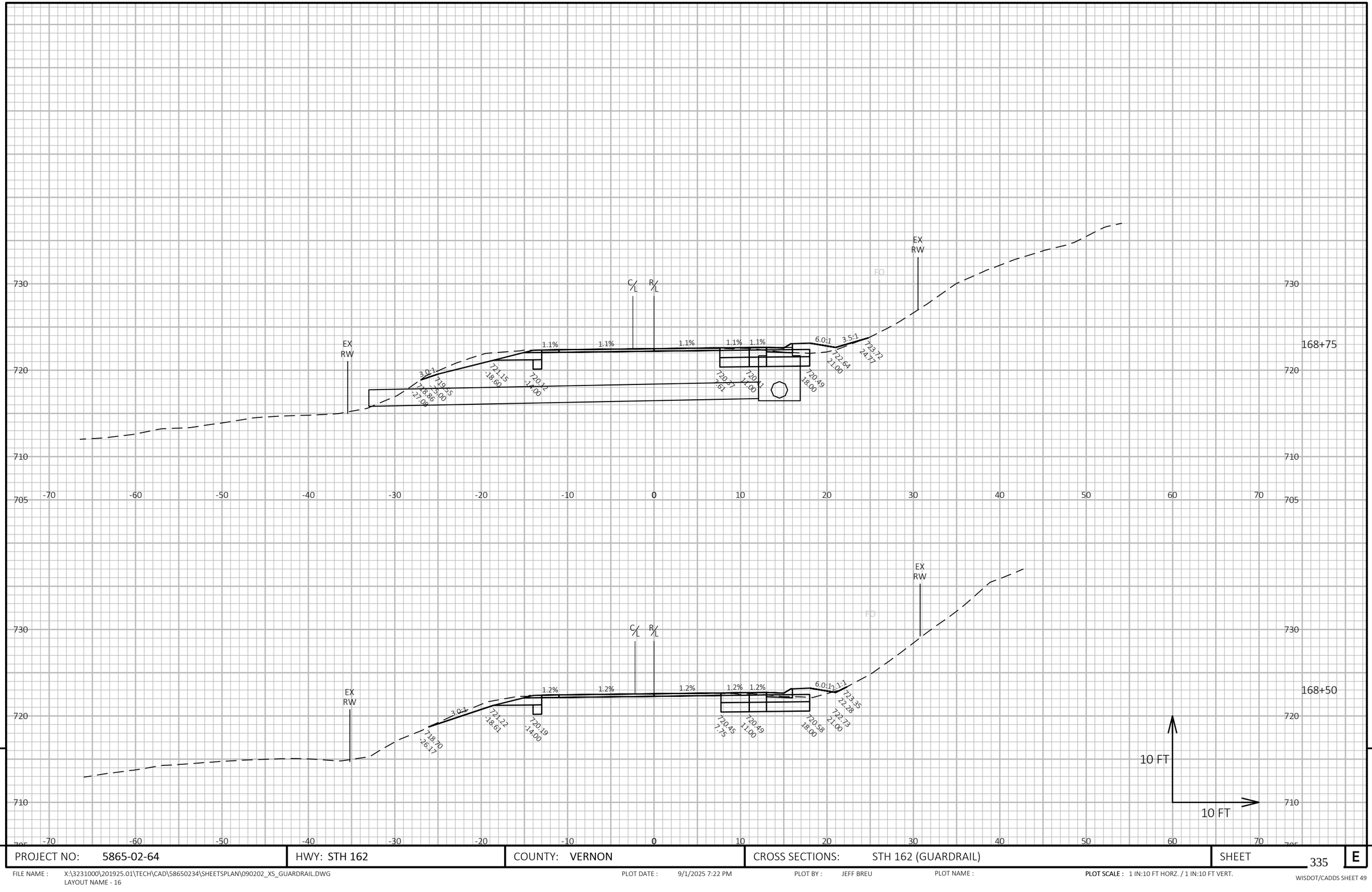


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 334	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 15

PLOT DATE : 9/1/2025 7:22 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

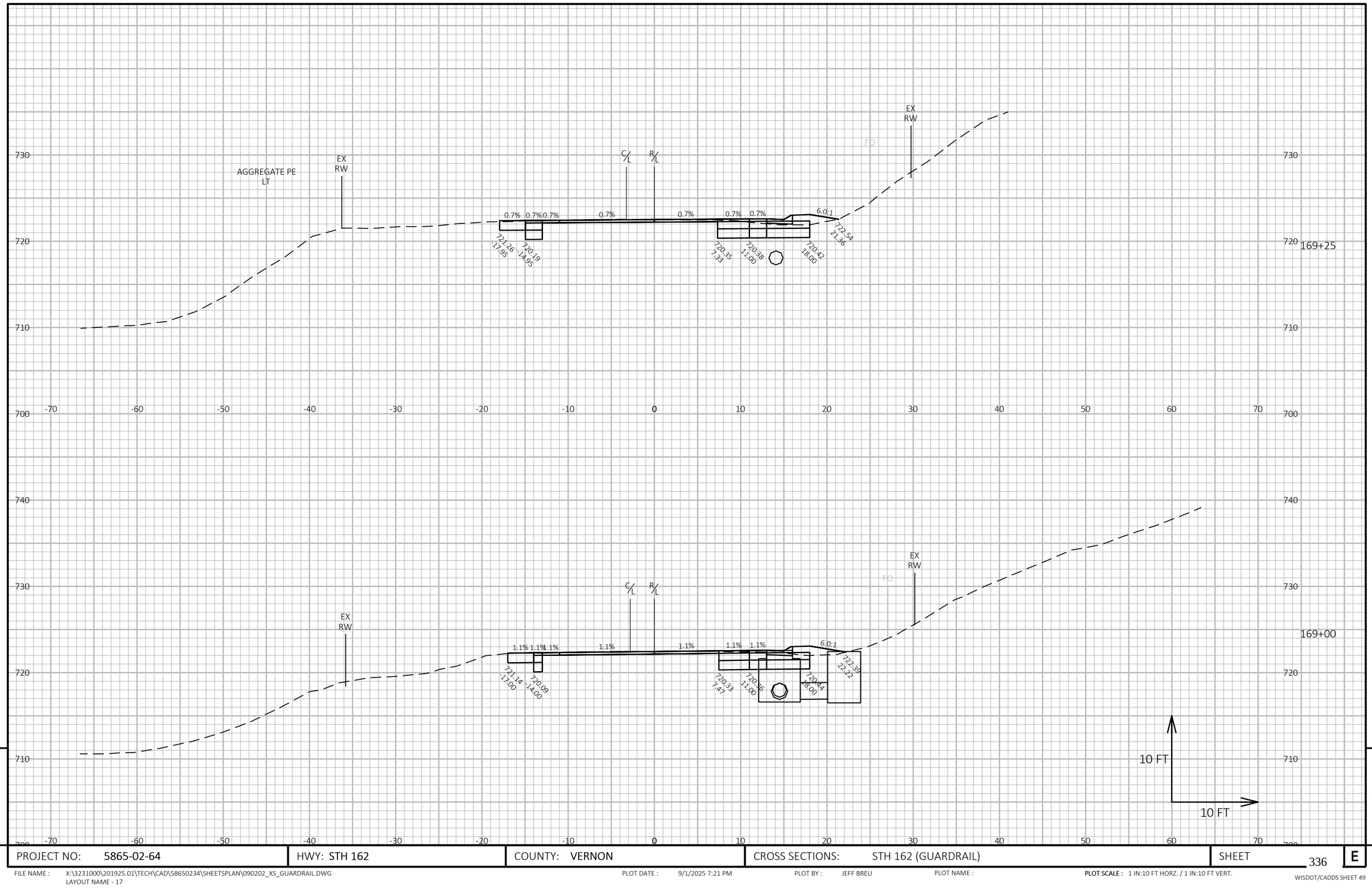


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 335	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 16

PLOT DATE : 9/1/2025 7:22 PM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 336 E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 17

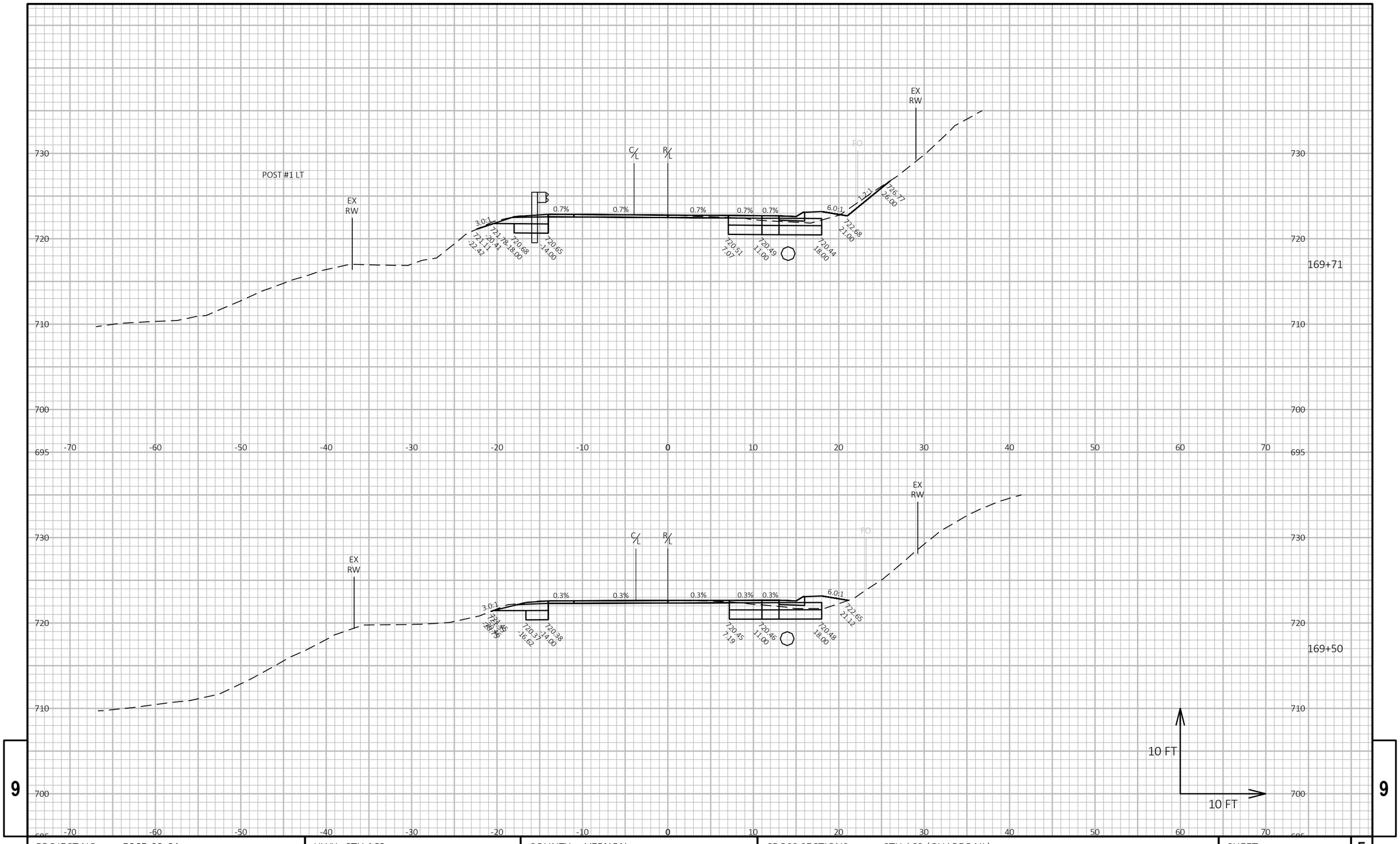
PLOT DATE : 9/1/2025 7:21 PM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 337	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 18

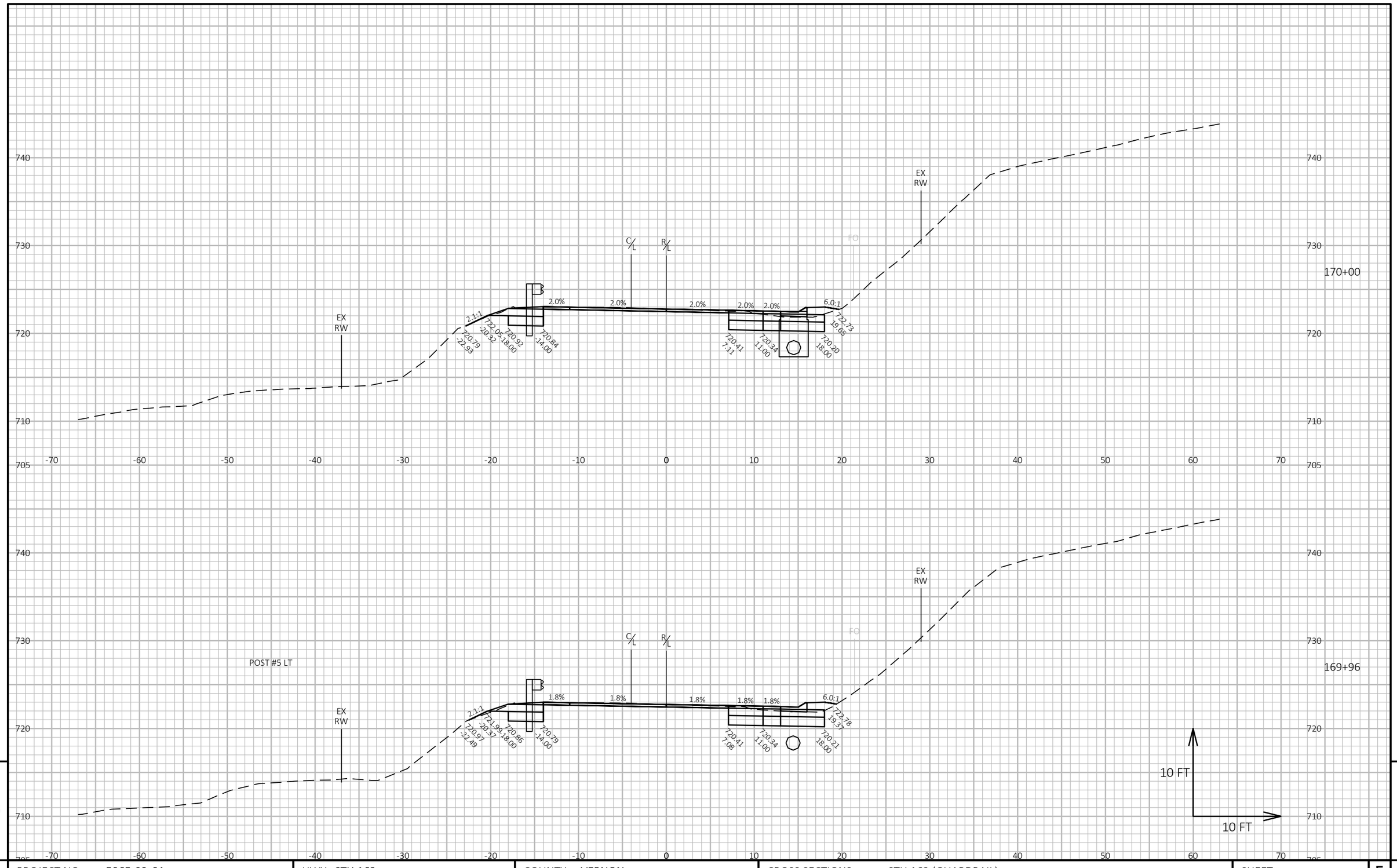
PLOT DATE : 9/1/2025 7:21 PM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 338	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 19

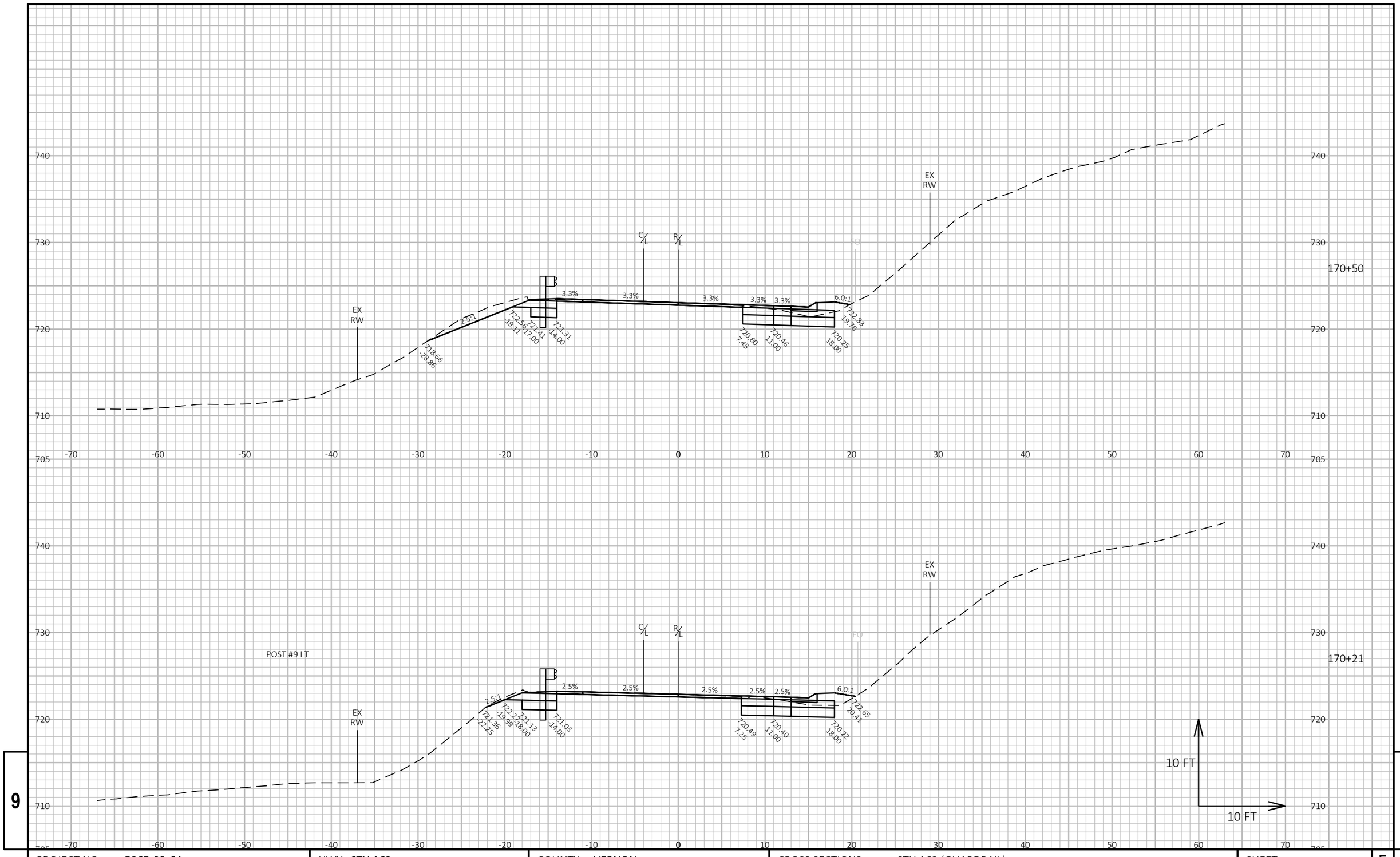
PLOT DATE : 9/1/2025 7:20 PM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

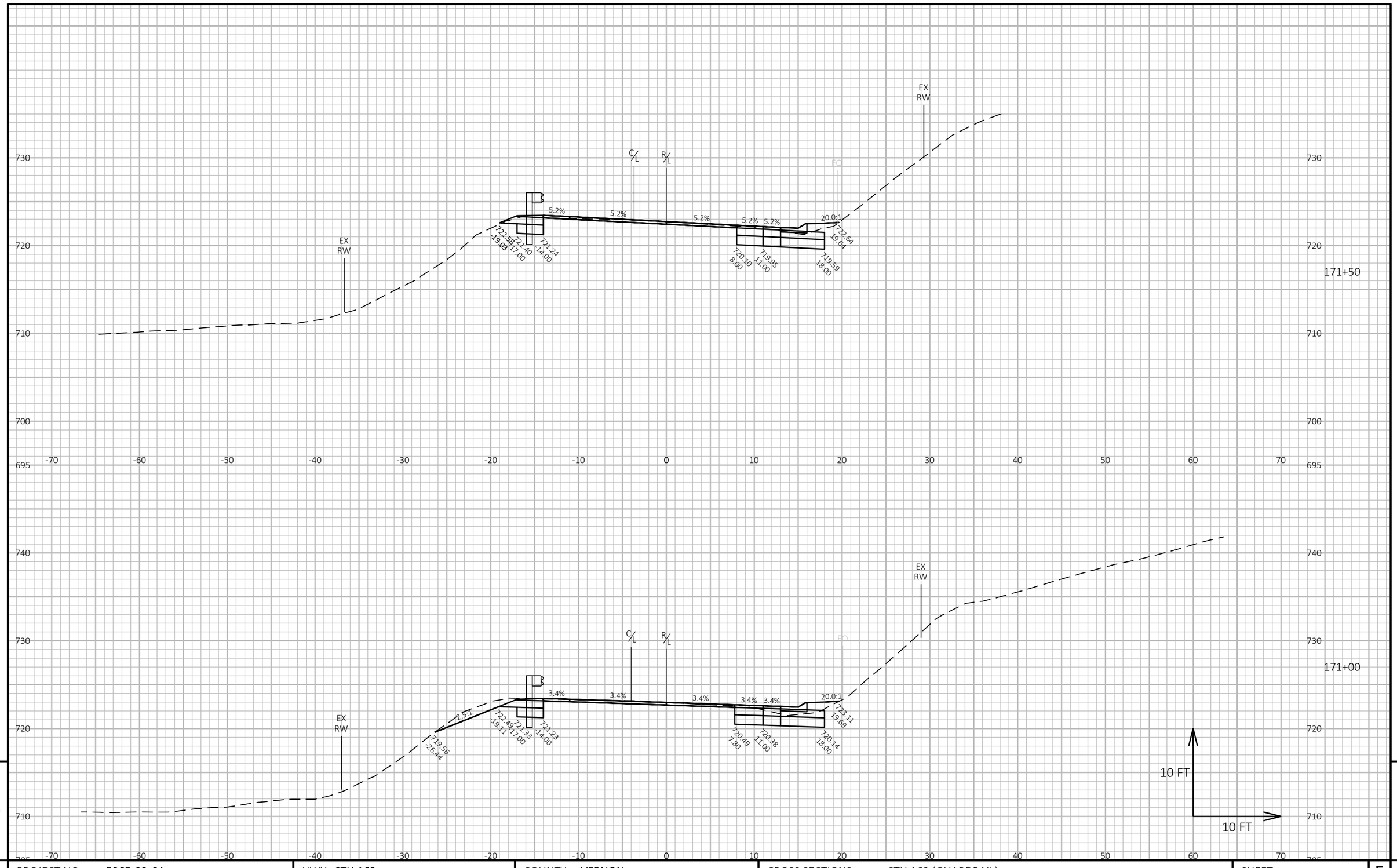


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 339	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 20

PLOT DATE : 9/1/2025 7:20 PM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 340	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 21

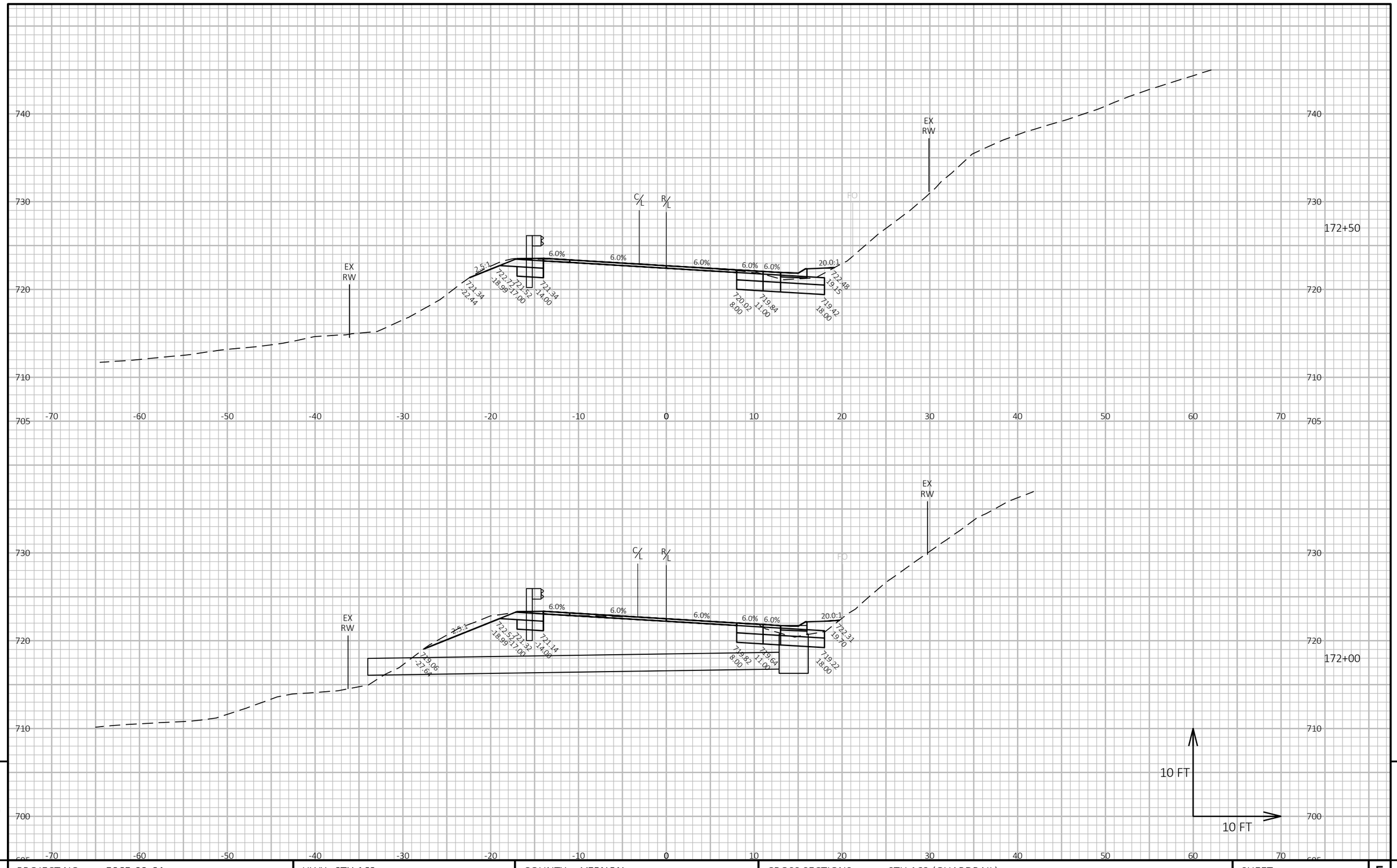
PLOT DATE : 9/1/2025 7:20 PM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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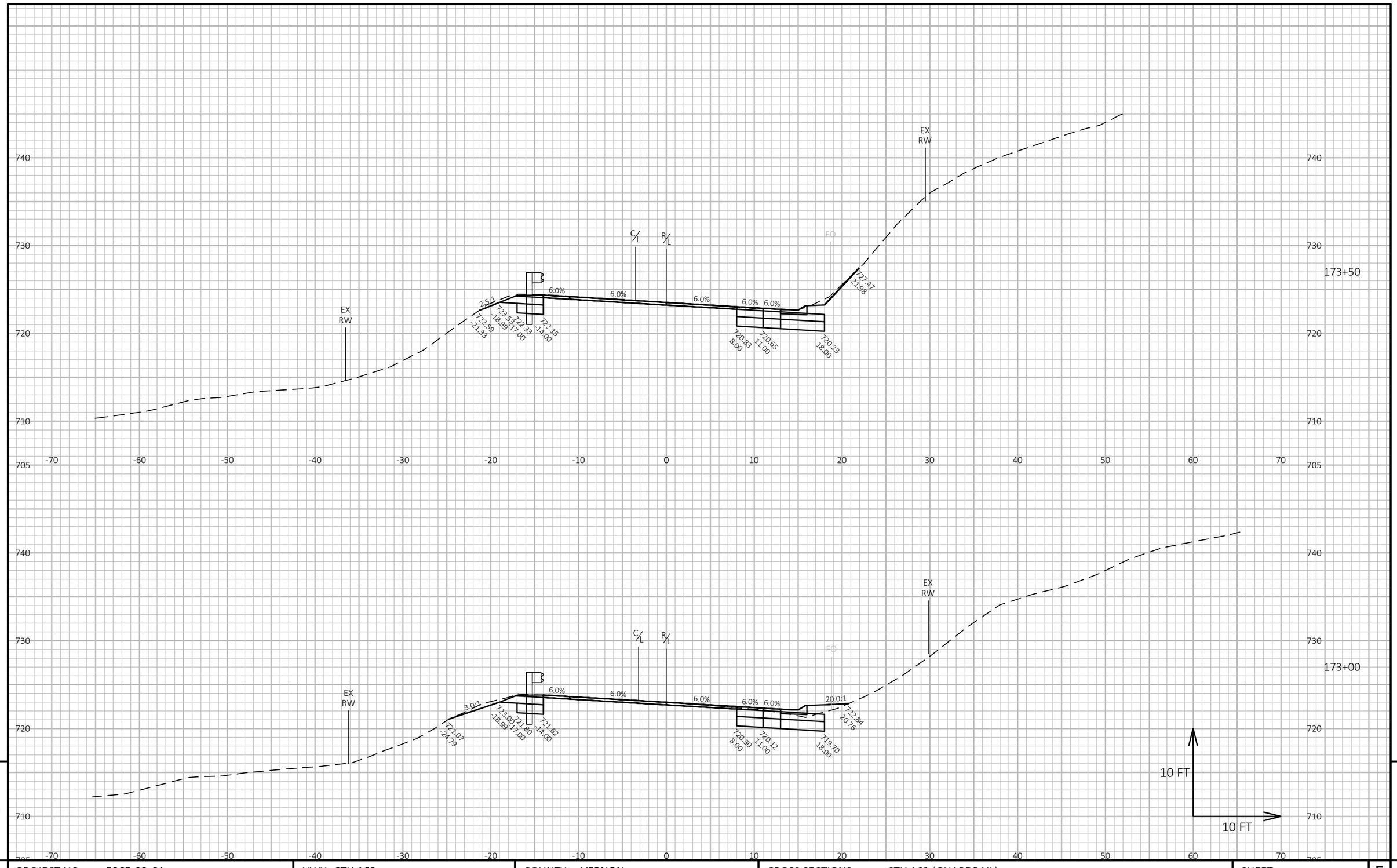
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 341	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 22

PLOT DATE : 9/1/2025 7:19 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

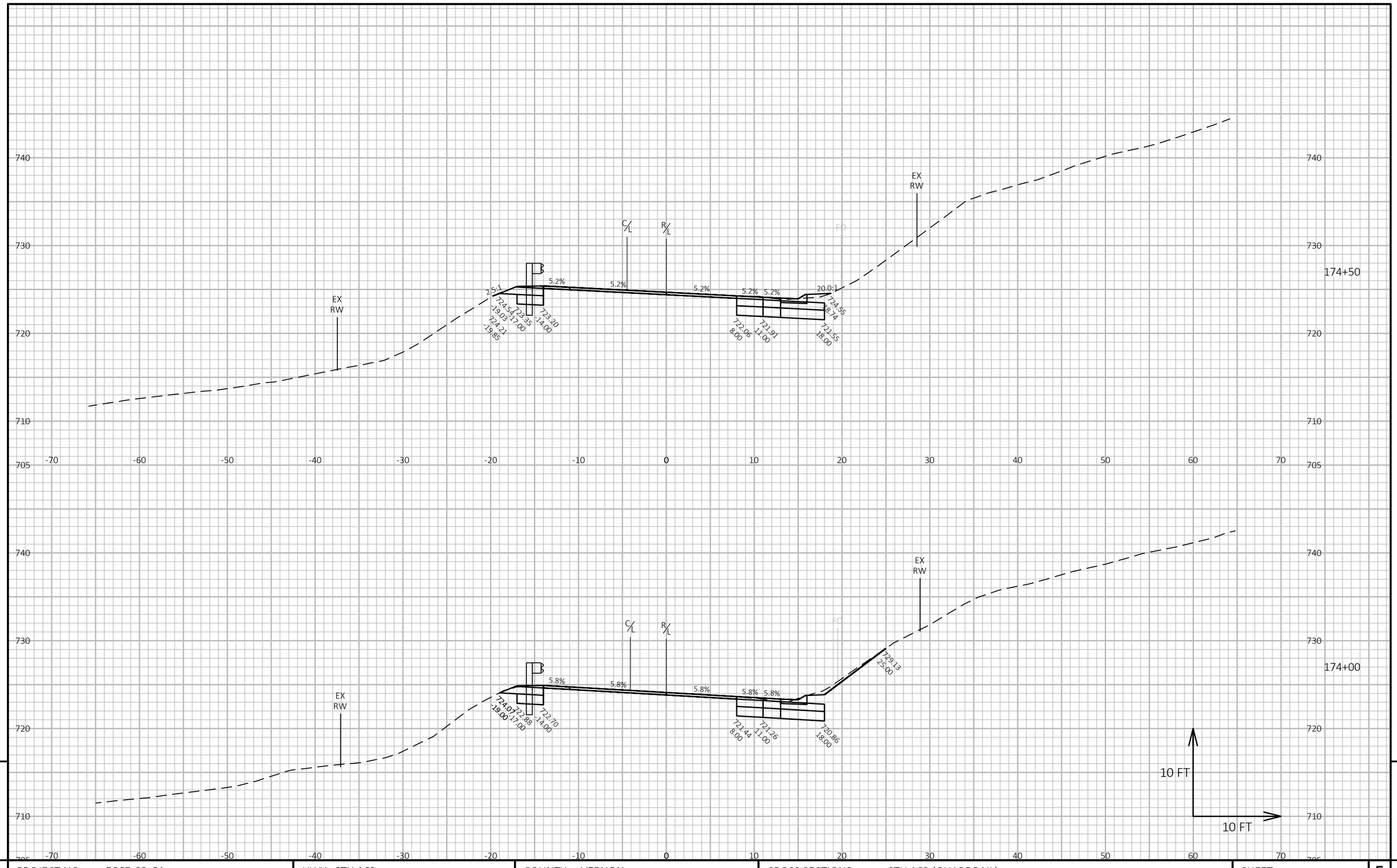


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 342	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 23

PLOT DATE : 9/1/2025 7:19 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 343	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 24

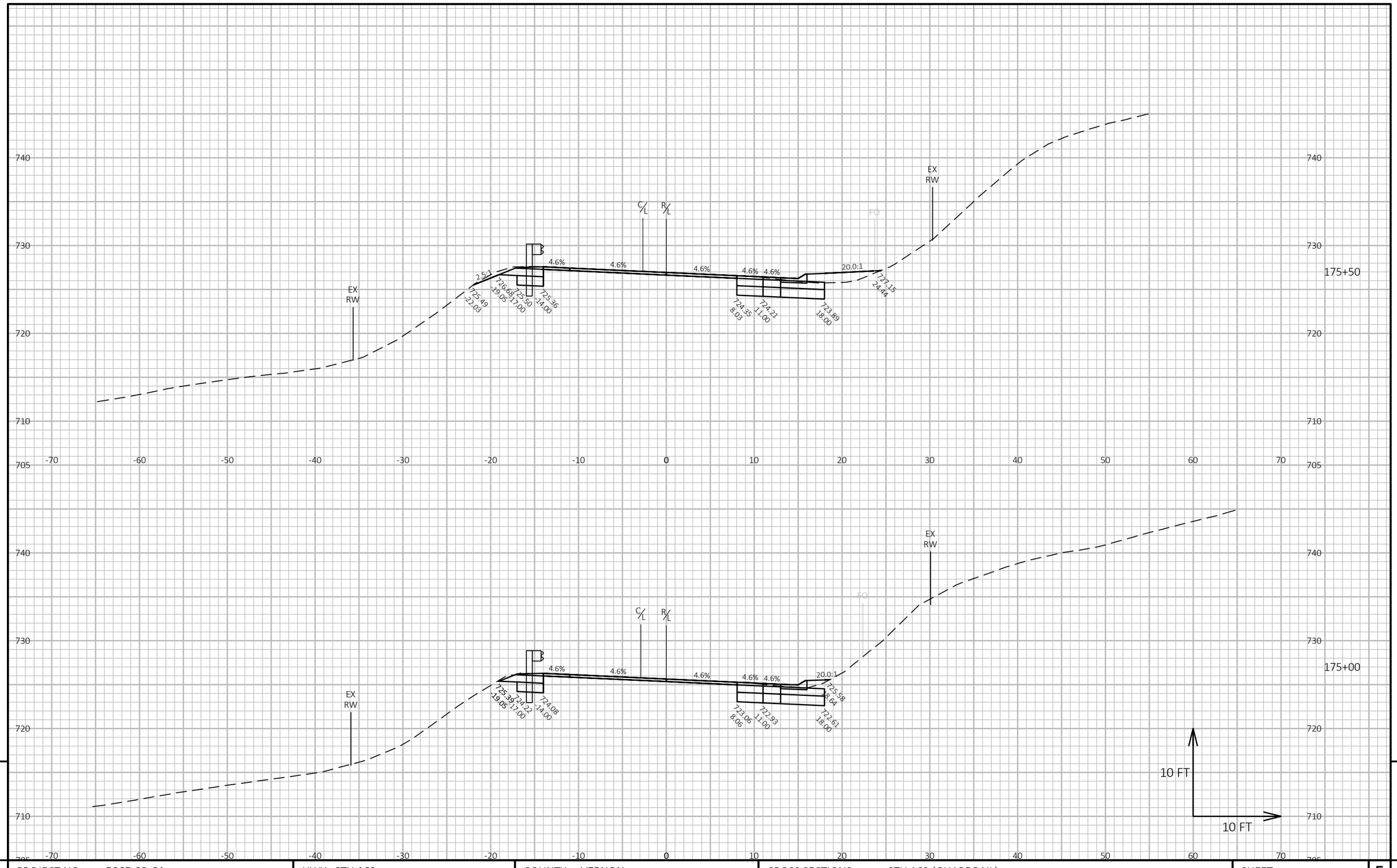
PLOT DATE : 9/1/2025 7:19 PM

PLOT BY : JEFF BREU

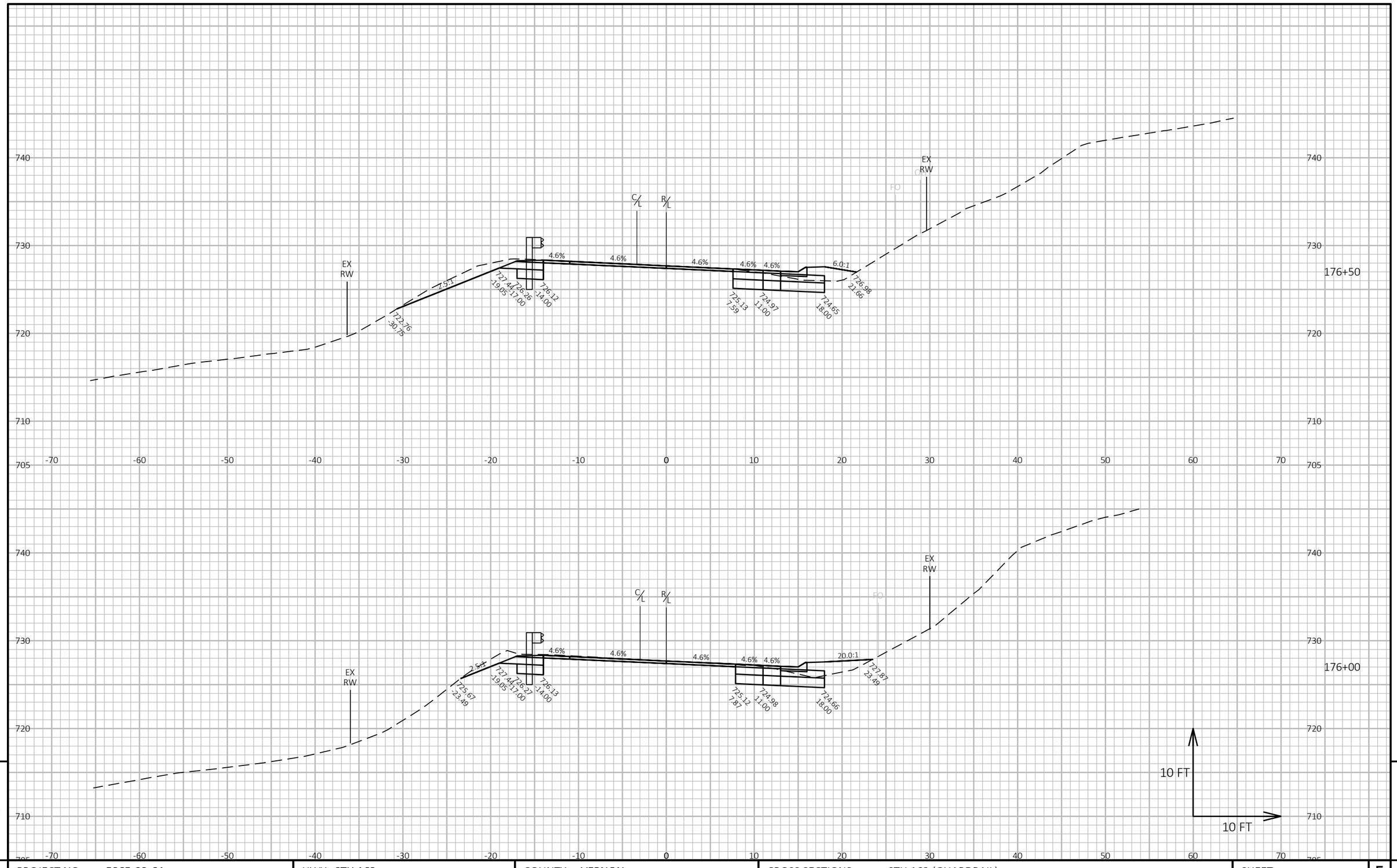
PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 344	E



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PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 345	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 26

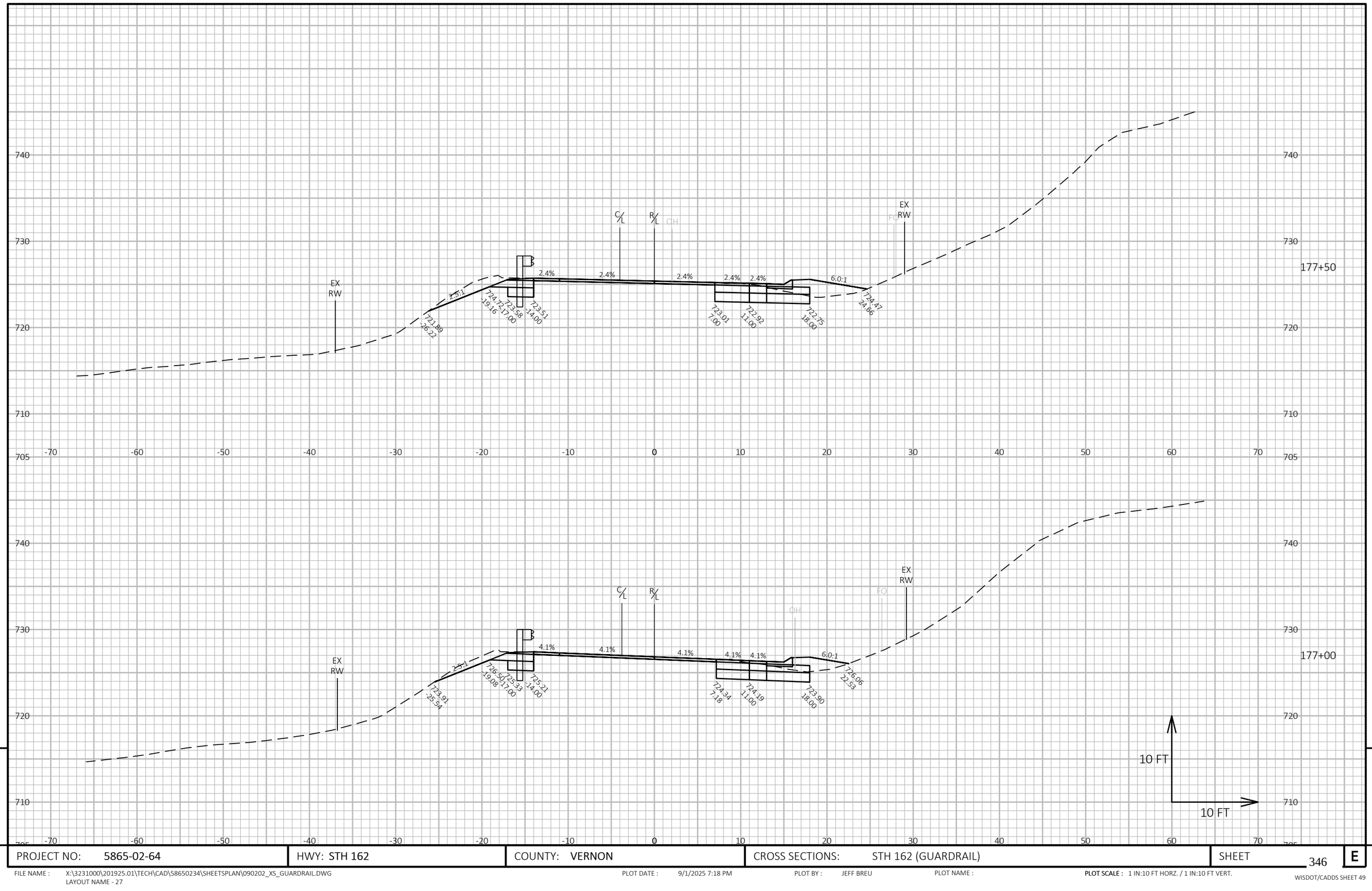
PLOT DATE : 9/1/2025 7:18 PM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

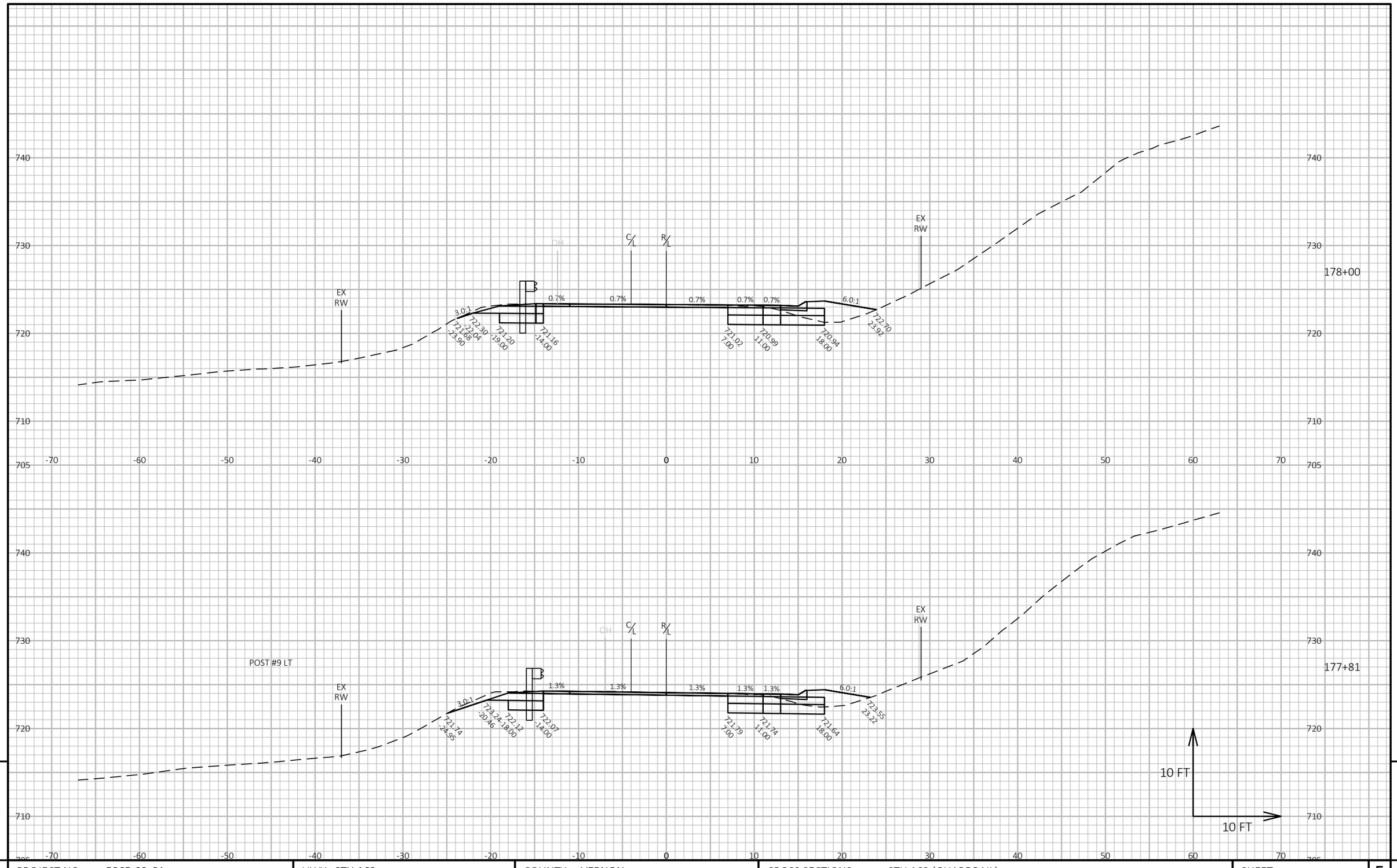


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 346	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 27

PLOT DATE : 9/1/2025 7:18 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 347	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 28

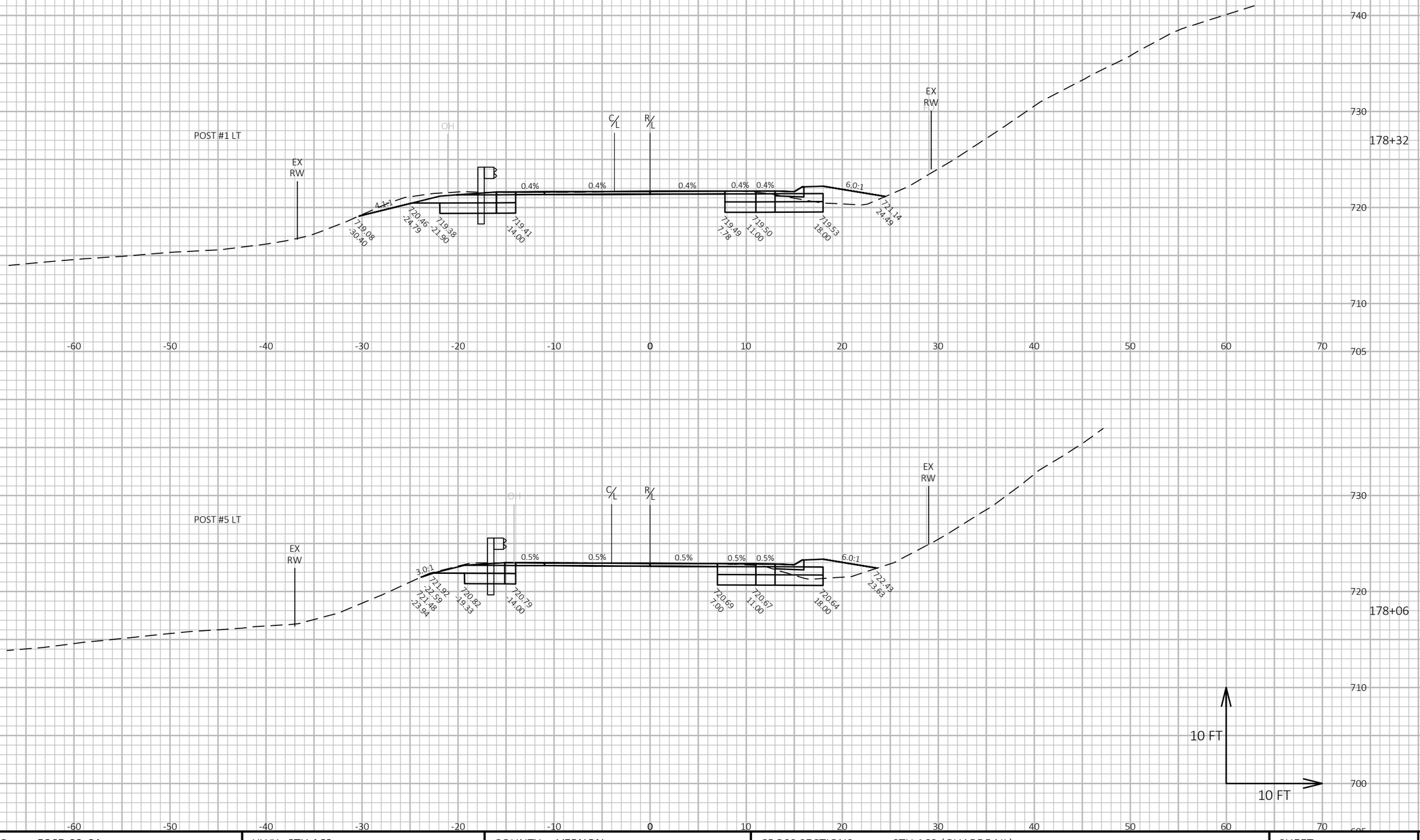
PLOT DATE : 9/1/2025 7:17 PM

PLOT BY : JEFF BREU

PLOT NAME :

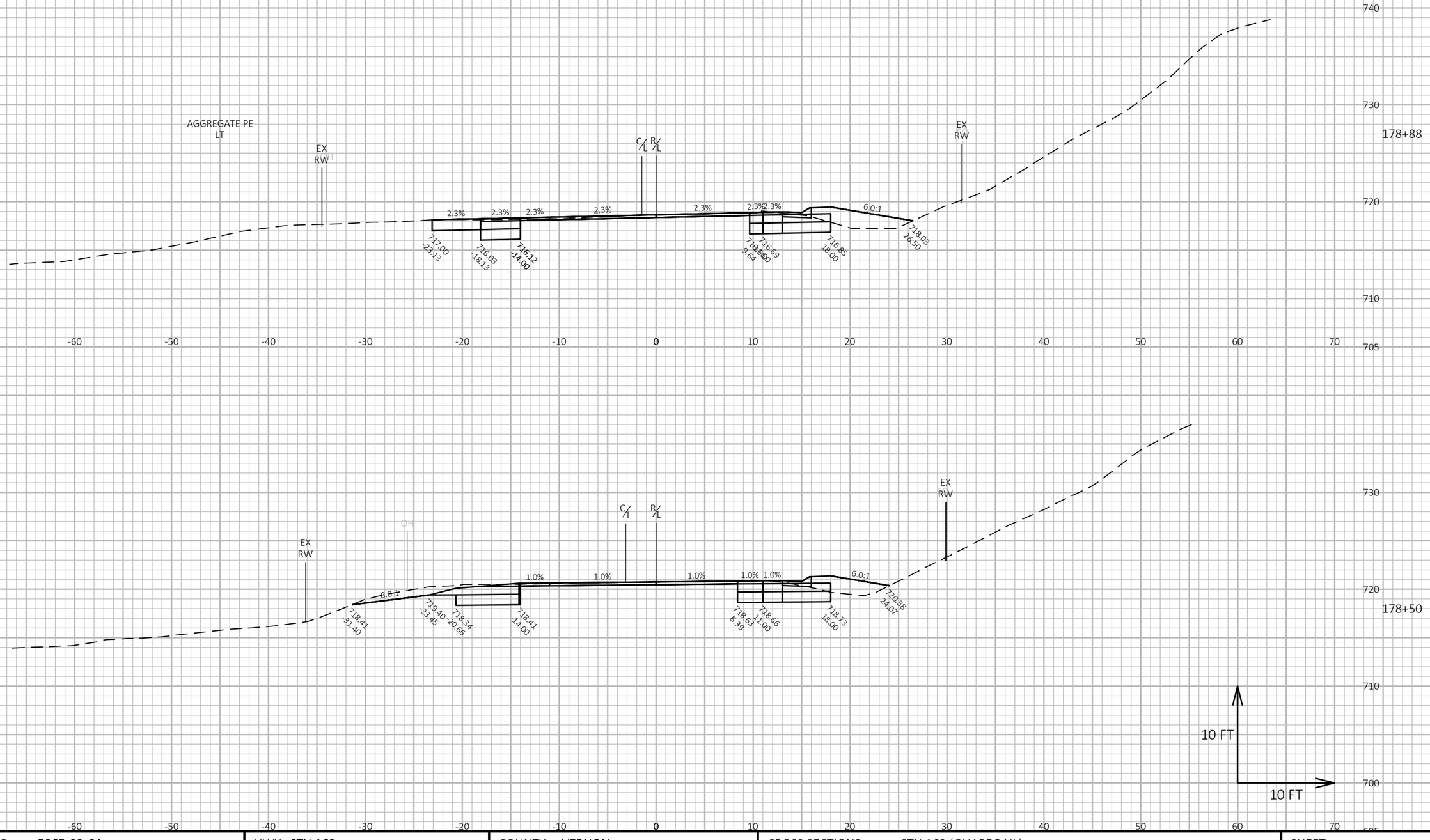
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

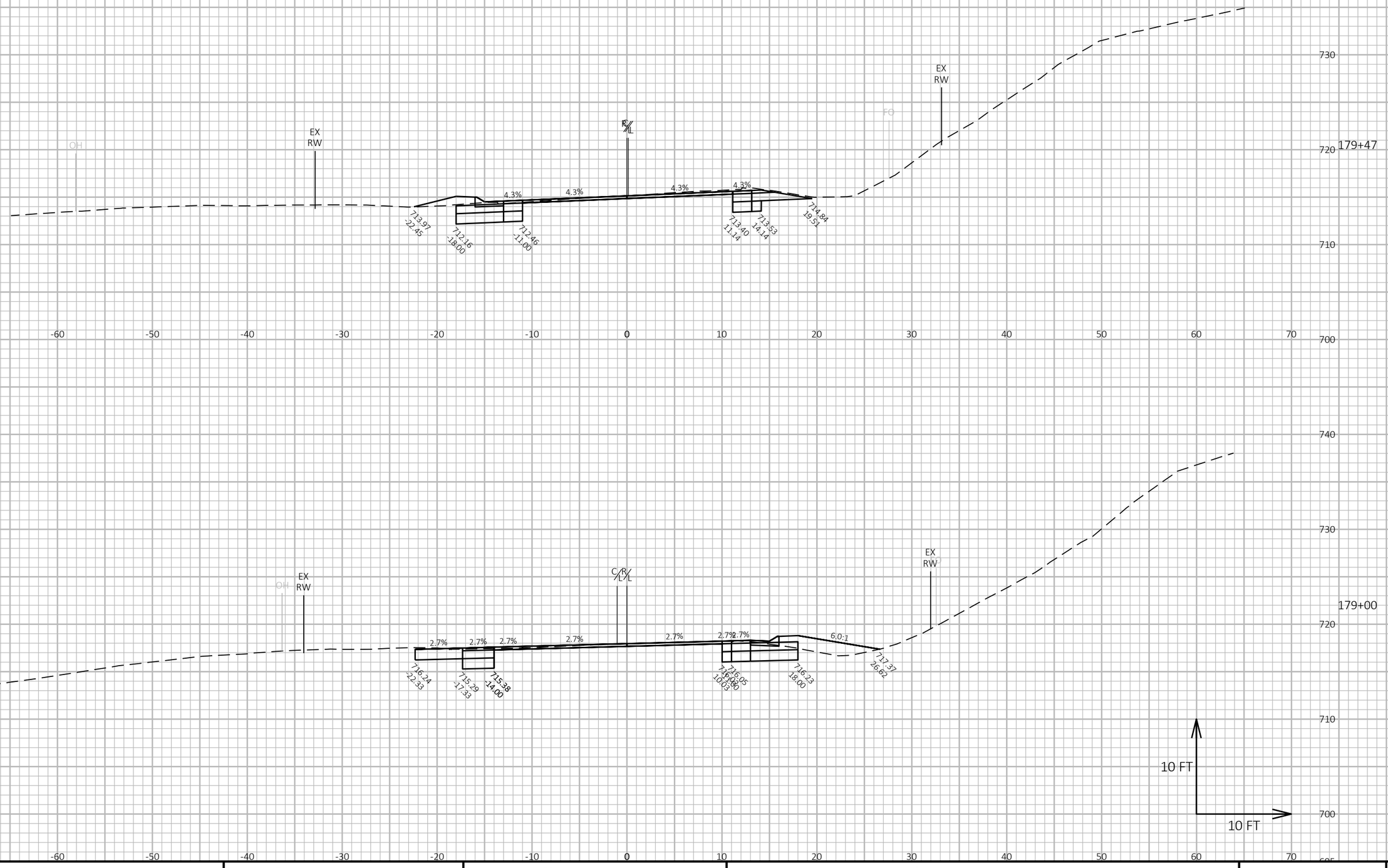


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 348	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 29
PLOT DATE : 9/1/2025 7:17 PM
PLOT BY : JEFF BREU
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49


740
730
720
710
705
-70
-60
-50
-40
-30
-20
-10
0
10
20
30
40
50
60
70
AGGREGATE PE
LT
EX
RW
C/L
R/L
2.3%
6.0:1
717.00
-23.13
716.03
-18.13
716.12
-14.00
716.69
716.85
18.00
718.03
26.50
178+88
8.0:1
1.0%
718.41
-31.40
719.40
-23.45
718.24
-20.66
718.41
-14.00
718.63
8.39
718.66
11.00
718.73
18.00
720.38
24.07
178+50
10 FT
9
PROJECT NO: 5865-02-64
HWY: STH 162
COUNTY: VERNON
CROSS SECTIONS: STH 162 (GUARDRAIL)
SHEET 349
E
FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 30
PLOT DATE : 9/1/2025 7:17 PM
PLOT BY : JEFF BREU
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

STA 179+46.88
END ROAD REALIGNMENT



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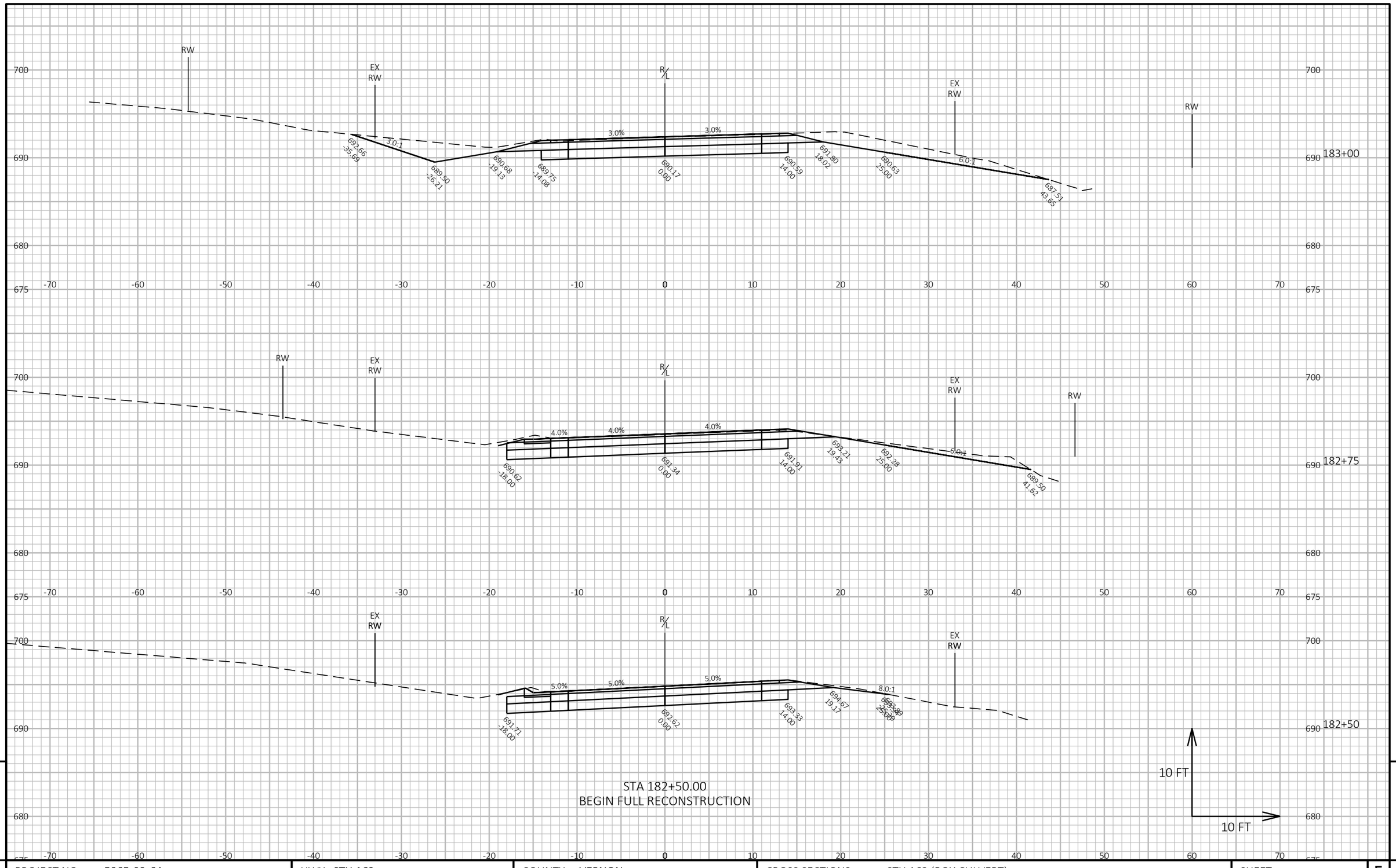
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (GUARDRAIL)	SHEET 350	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090202_XS_GUARDRAIL.DWG
LAYOUT NAME - 31

PLOT DATE : 4/24/2026 10:09 AM PLOT BY : JEFF BREU PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

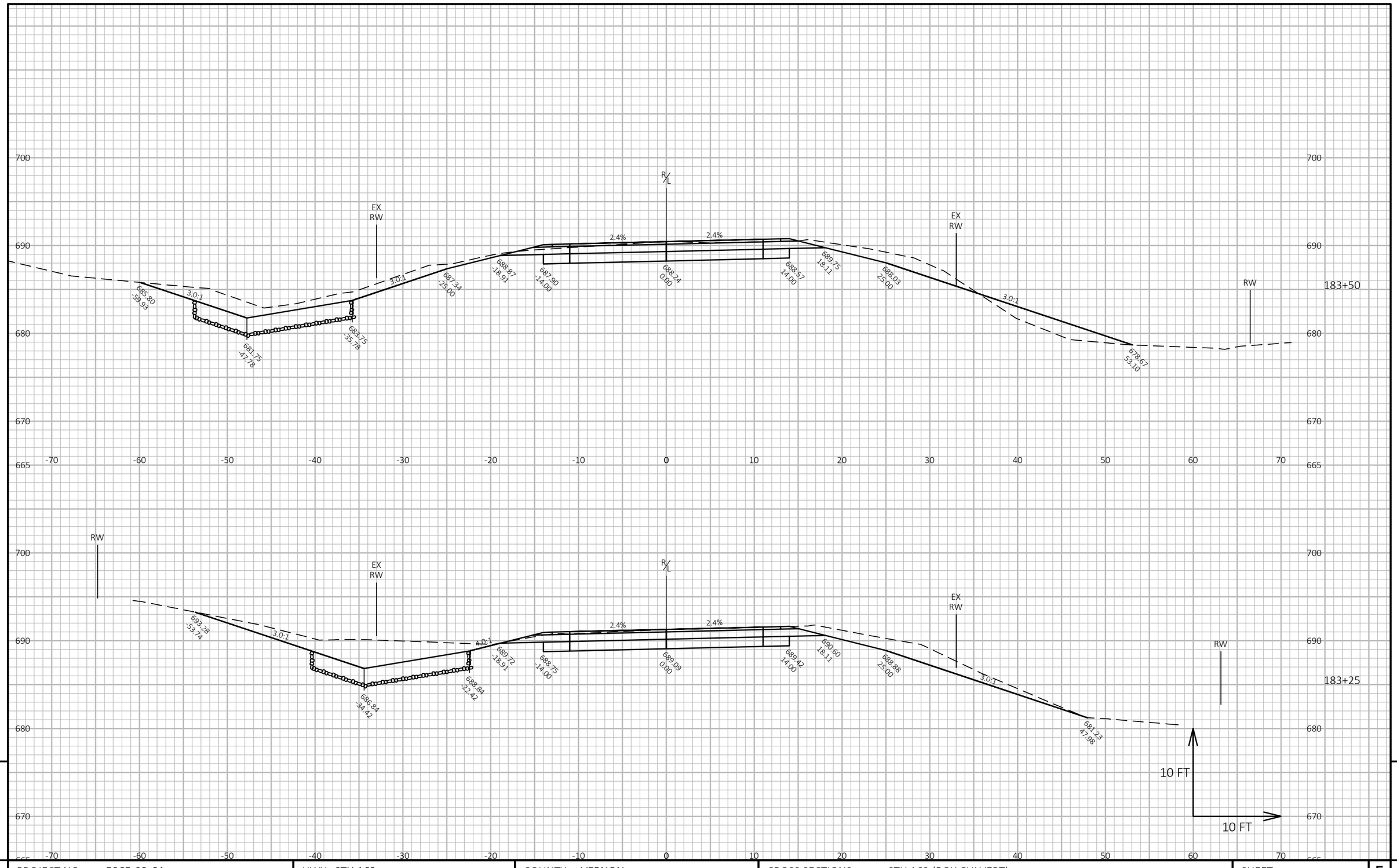
WISDOT/CADDS SHEET 49



STA 182+50.00
BEGIN FULL RECONSTRUCTION

9 9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (BOX CULVERT)	SHEET 351	E



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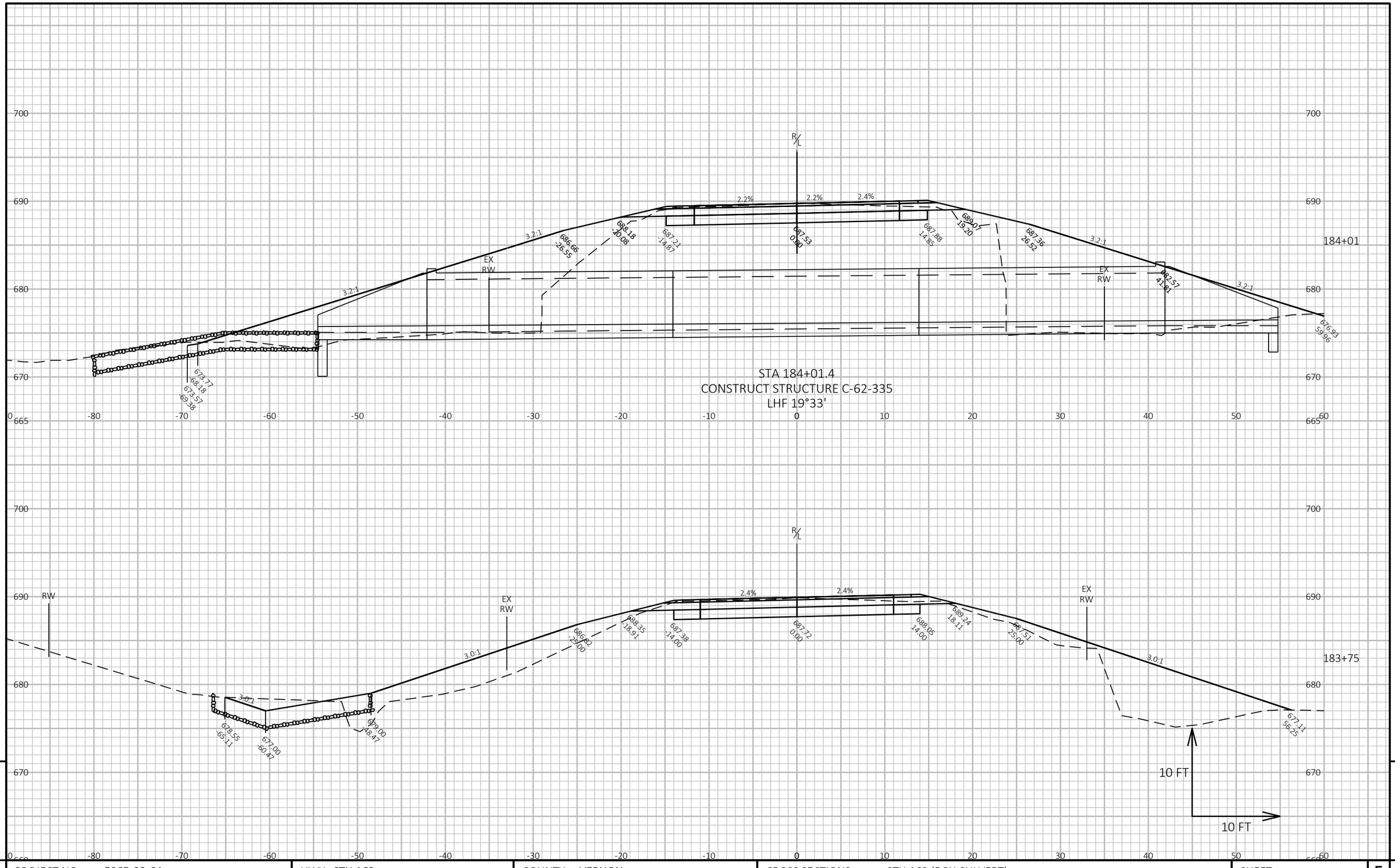
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (BOX CULVERT)	SHEET 352	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090210_XS_BOXCULVERT.DWG
LAYOUT NAME - 52

PLOT DATE : 4/24/2026 10:20 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

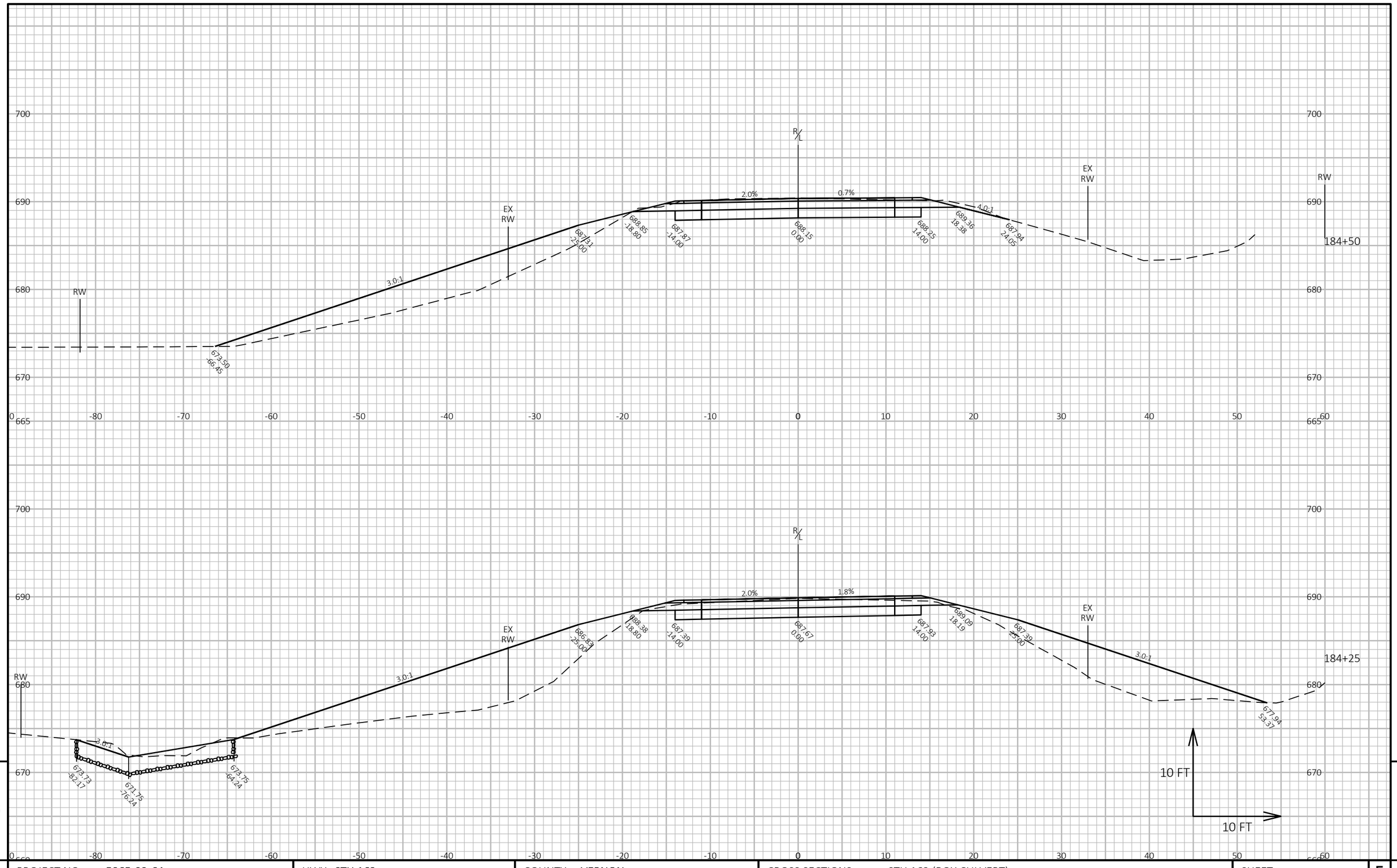


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (BOX CULVERT)	SHEET 353 E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090210_XS_BOXCULVERT.DWG
LAYOUT NAME - 53

PLOT DATE : 4/24/2026 10:20 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

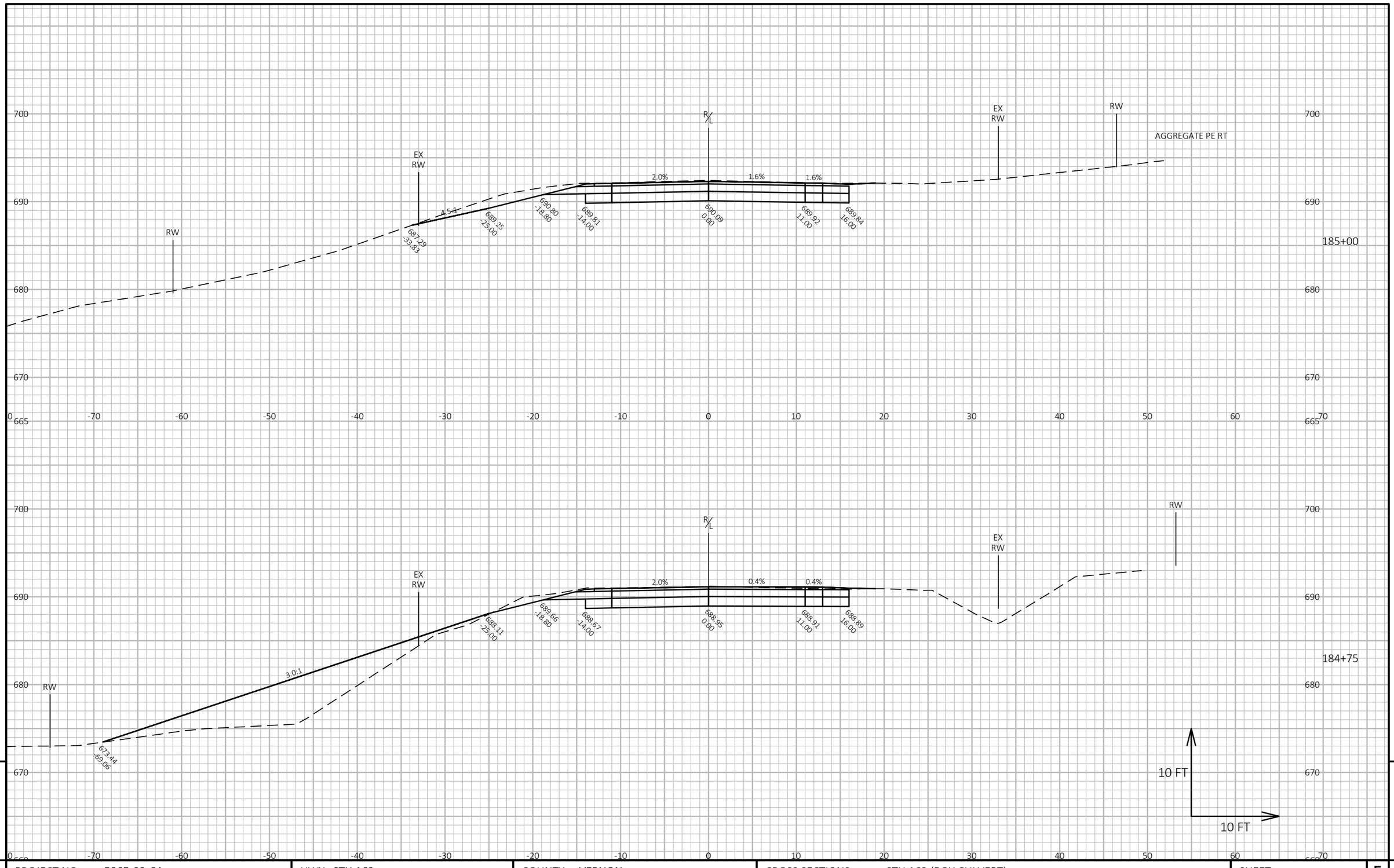


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (BOX CULVERT)	SHEET 354	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090210_XS_BOXCULVERT.DWG
LAYOUT NAME - 54

PLOT DATE : 4/27/2026 3:07 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (BOX CULVERT)	SHEET 355	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090210_XS_BOXCULVERT.DWG
LAYOUT NAME - 55

PLOT DATE : 9/1/2025 7:29 PM

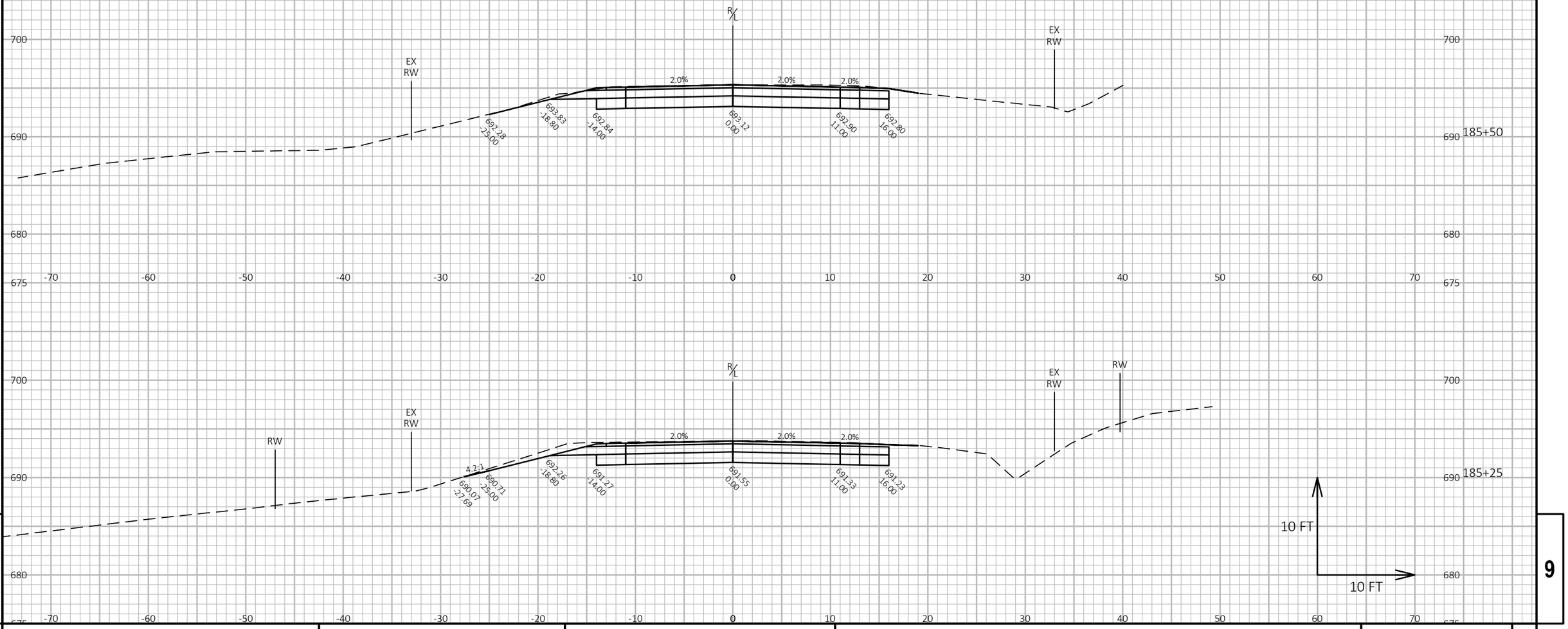
PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

STA 185+50.00
END FULL RECONSTRUCTION



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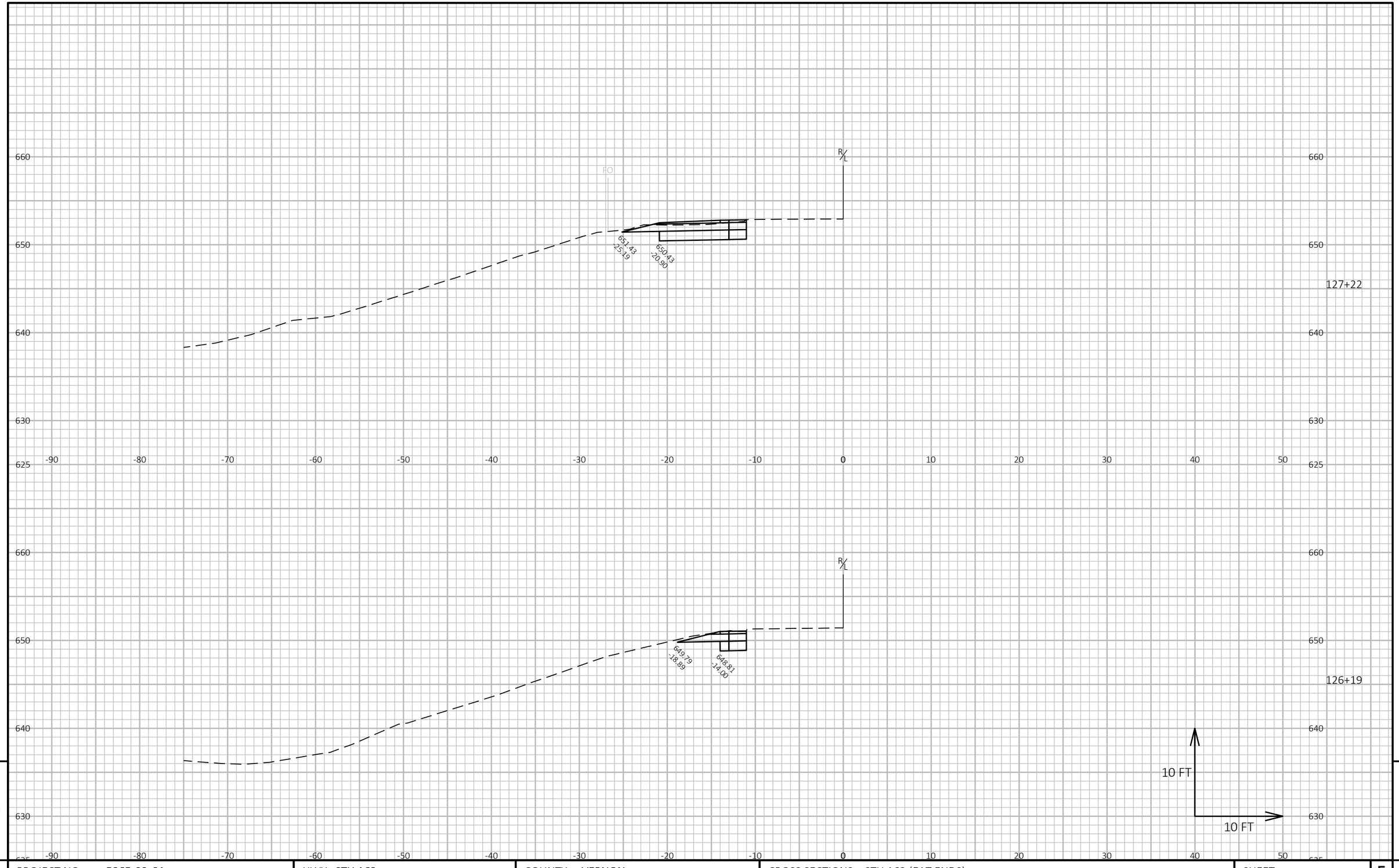
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (BOX CULVERT)	SHEET 356	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090210_XS_BOXCULVERT.DWG
LAYOUT NAME - 56
PLOT DATE : 9/1/2025 7:28 PM
PLOT BY : JEFF BREU
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 357	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 01

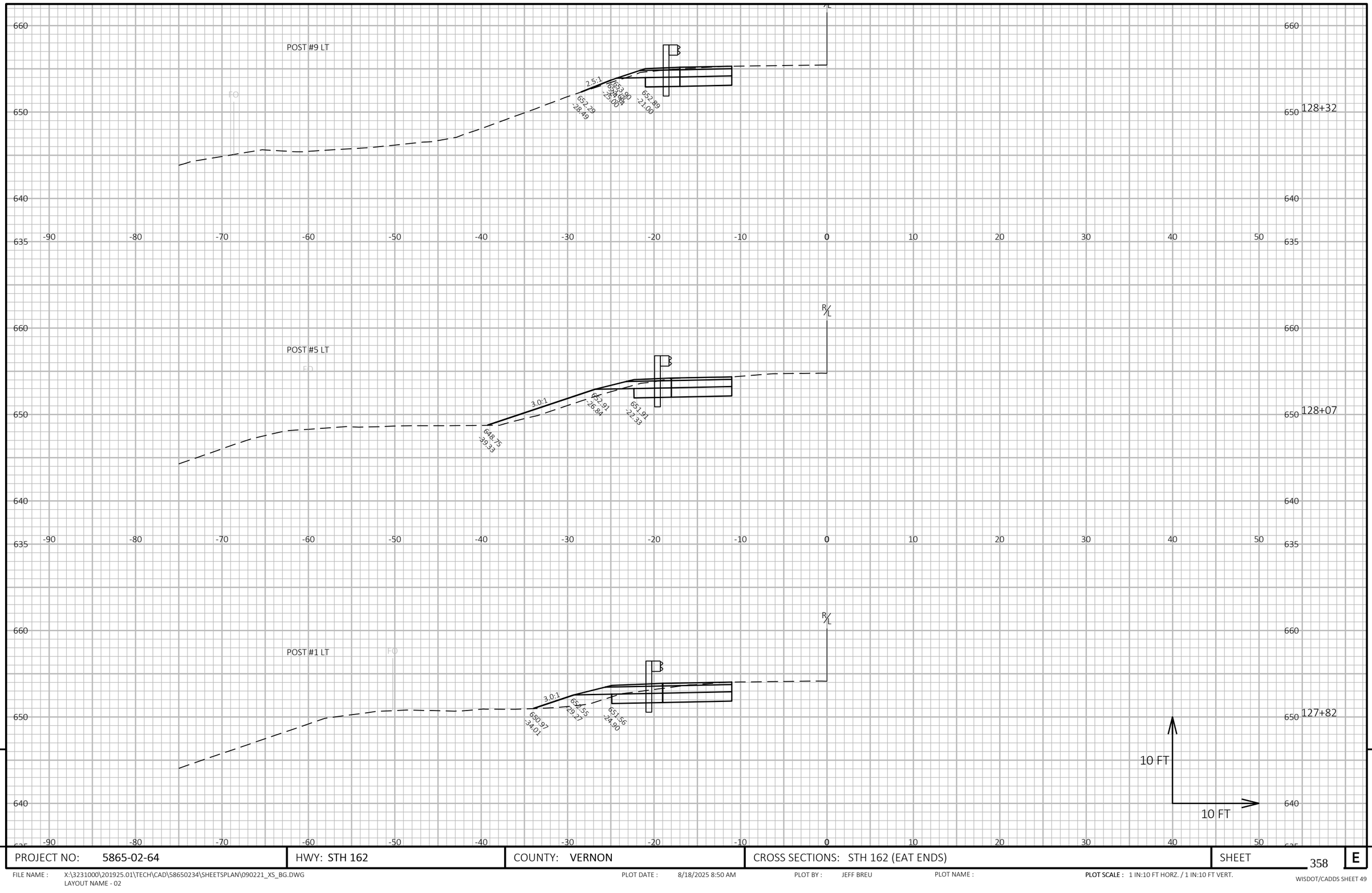
PLOT DATE : 8/18/2025 8:50 AM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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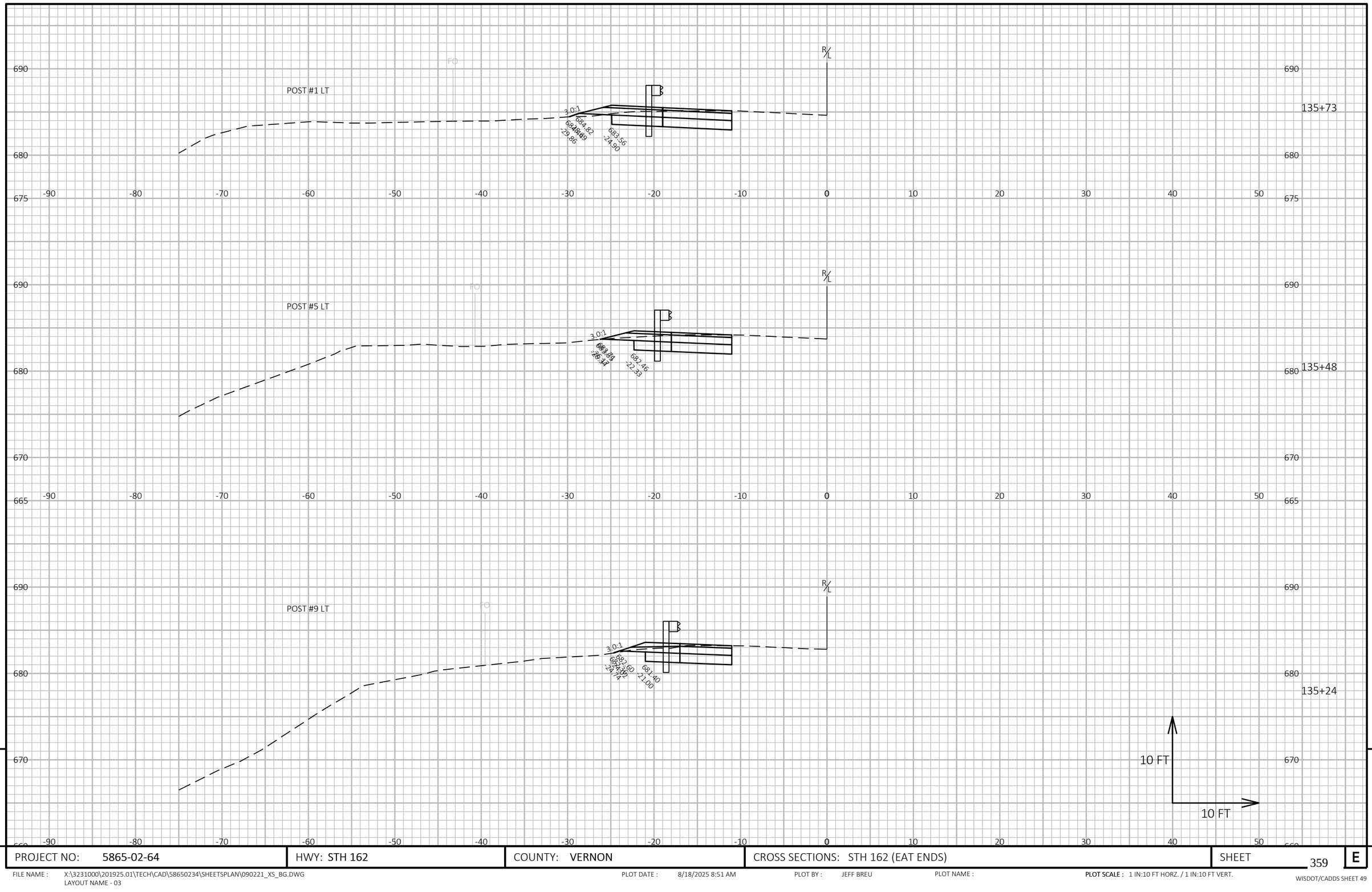
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 358	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 02

PLOT DATE : 8/18/2025 8:50 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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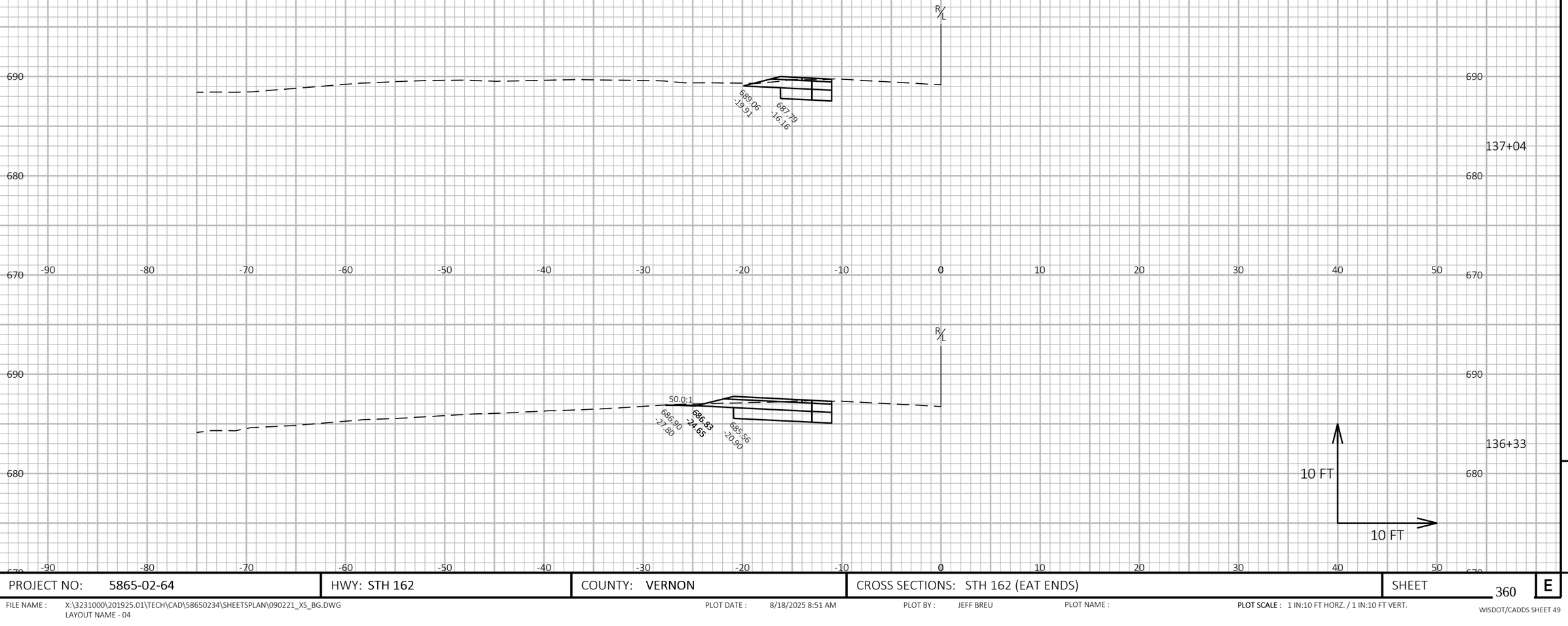
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 359	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 03

PLOT DATE : 8/18/2025 8:51 AM PLOT BY : JEFF BREU PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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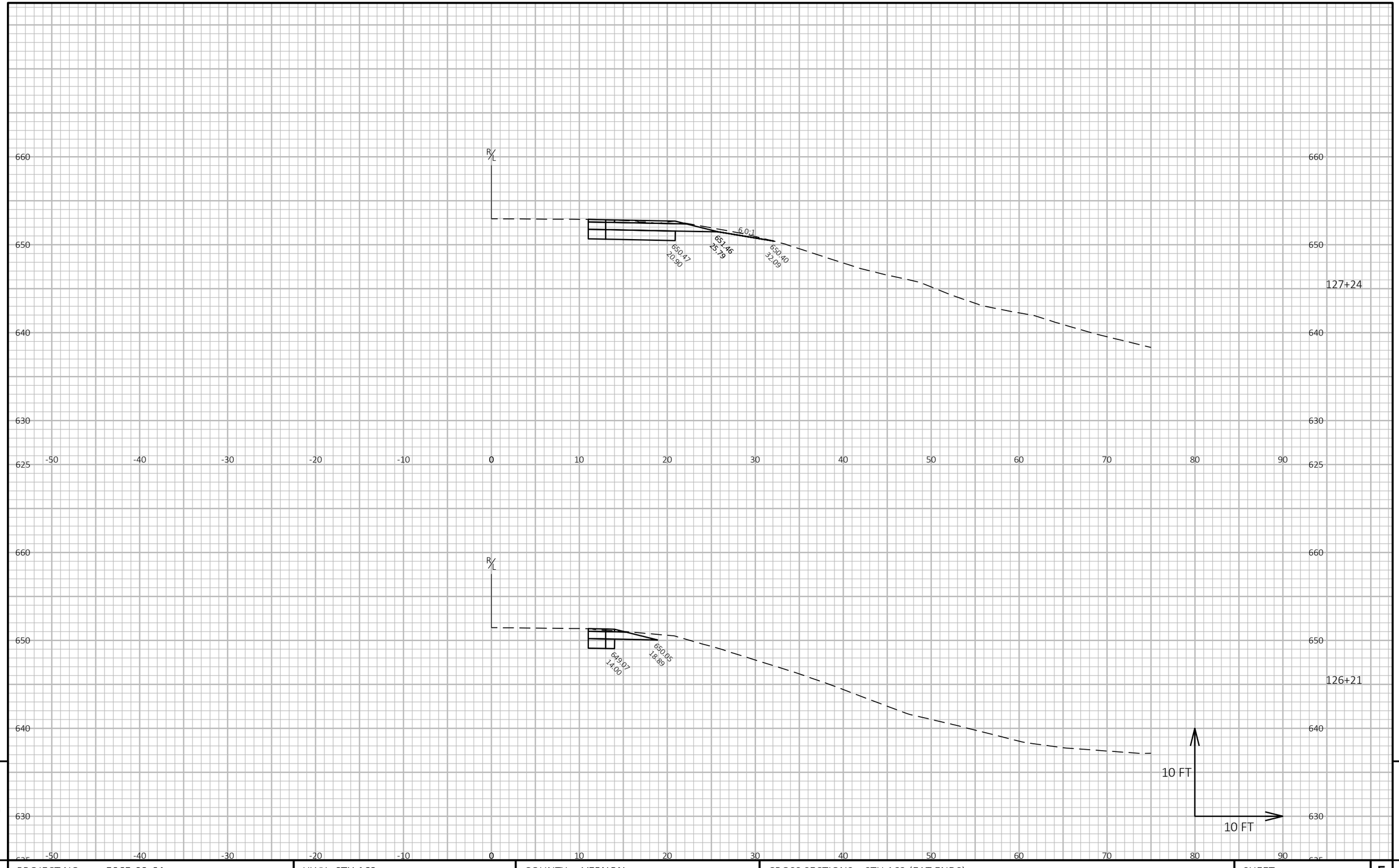
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 360	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 04

PLOT DATE : 8/18/2025 8:51 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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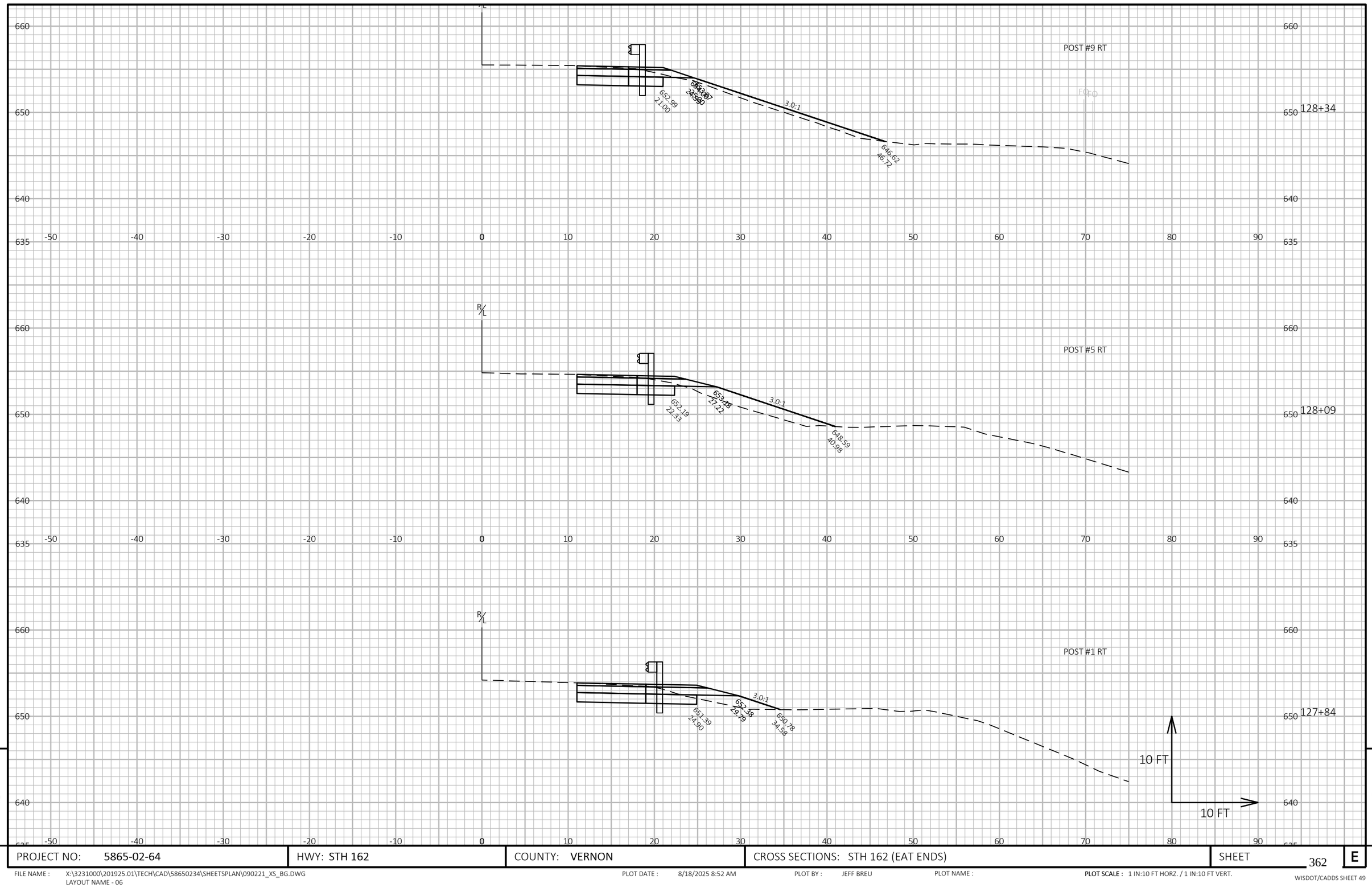
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 361	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 05

PLOT DATE : 8/18/2025 8:51 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

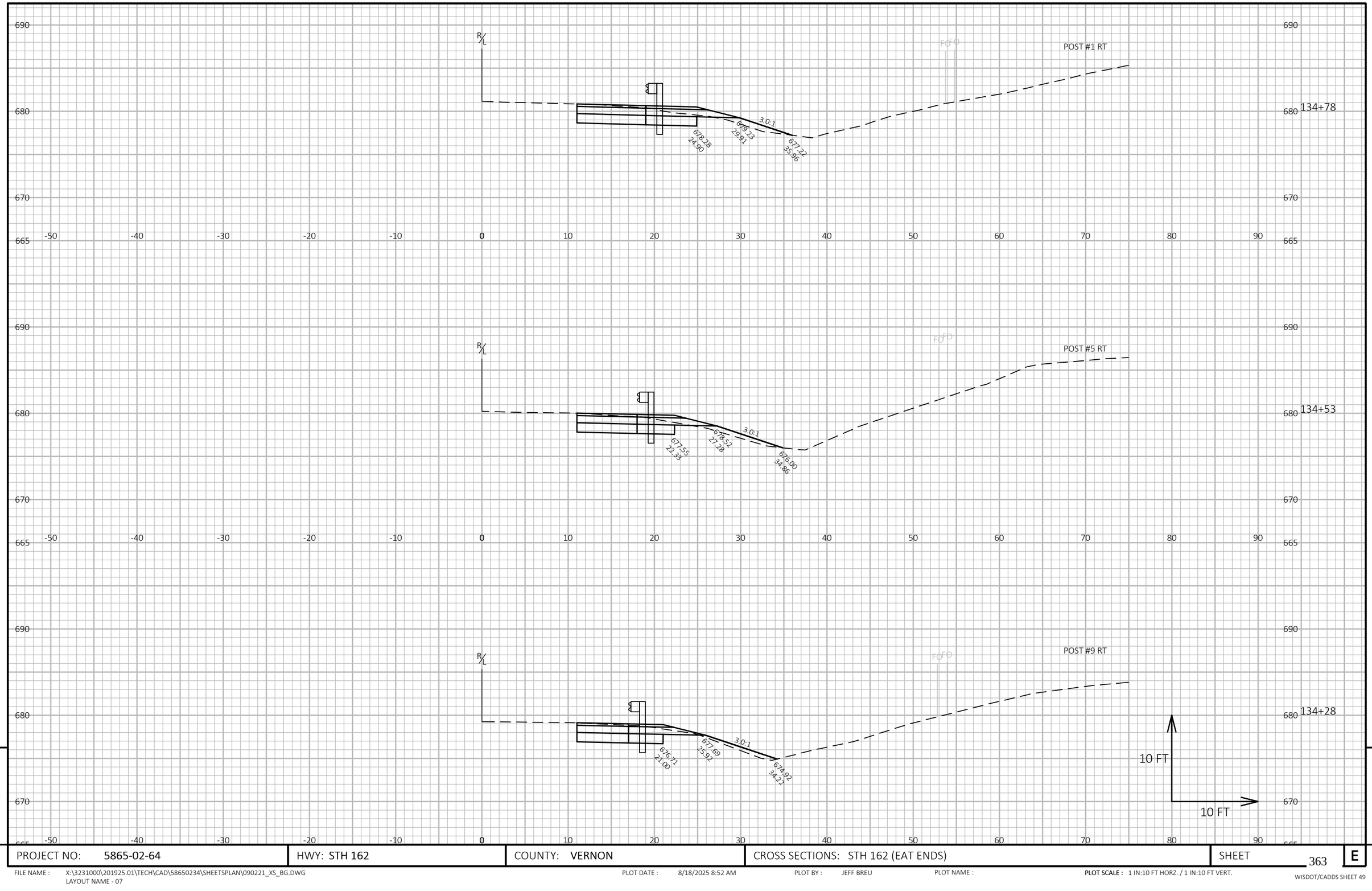
9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 362	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 06

PLOT DATE : 8/18/2025 8:52 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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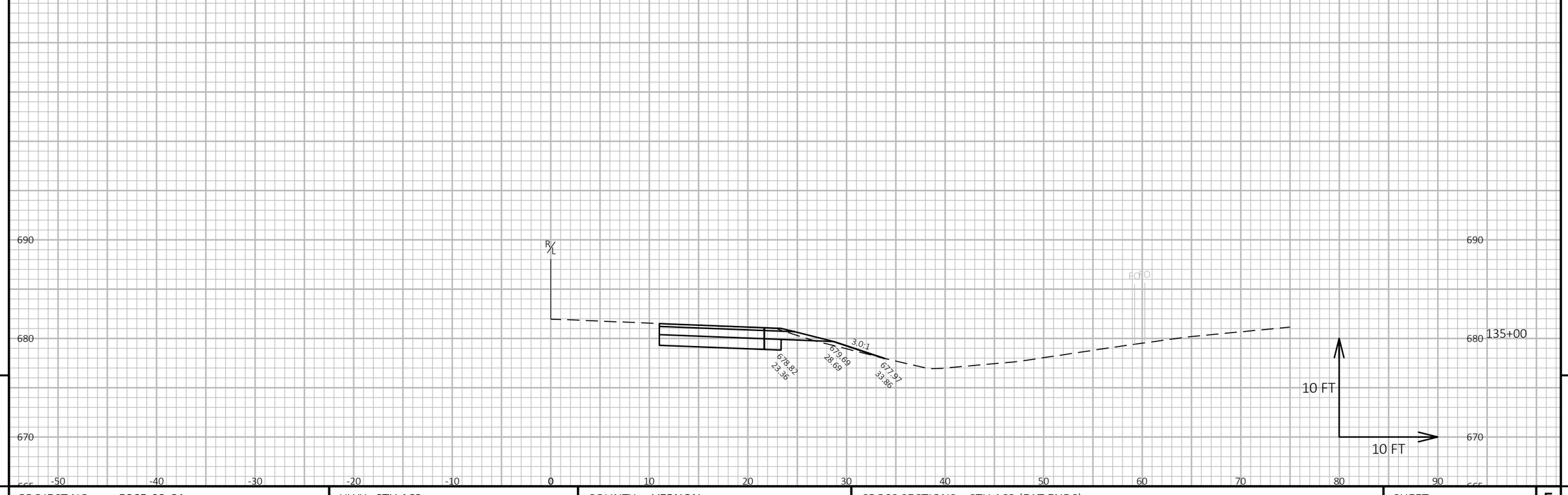
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 363	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 07

PLOT DATE : 8/18/2025 8:52 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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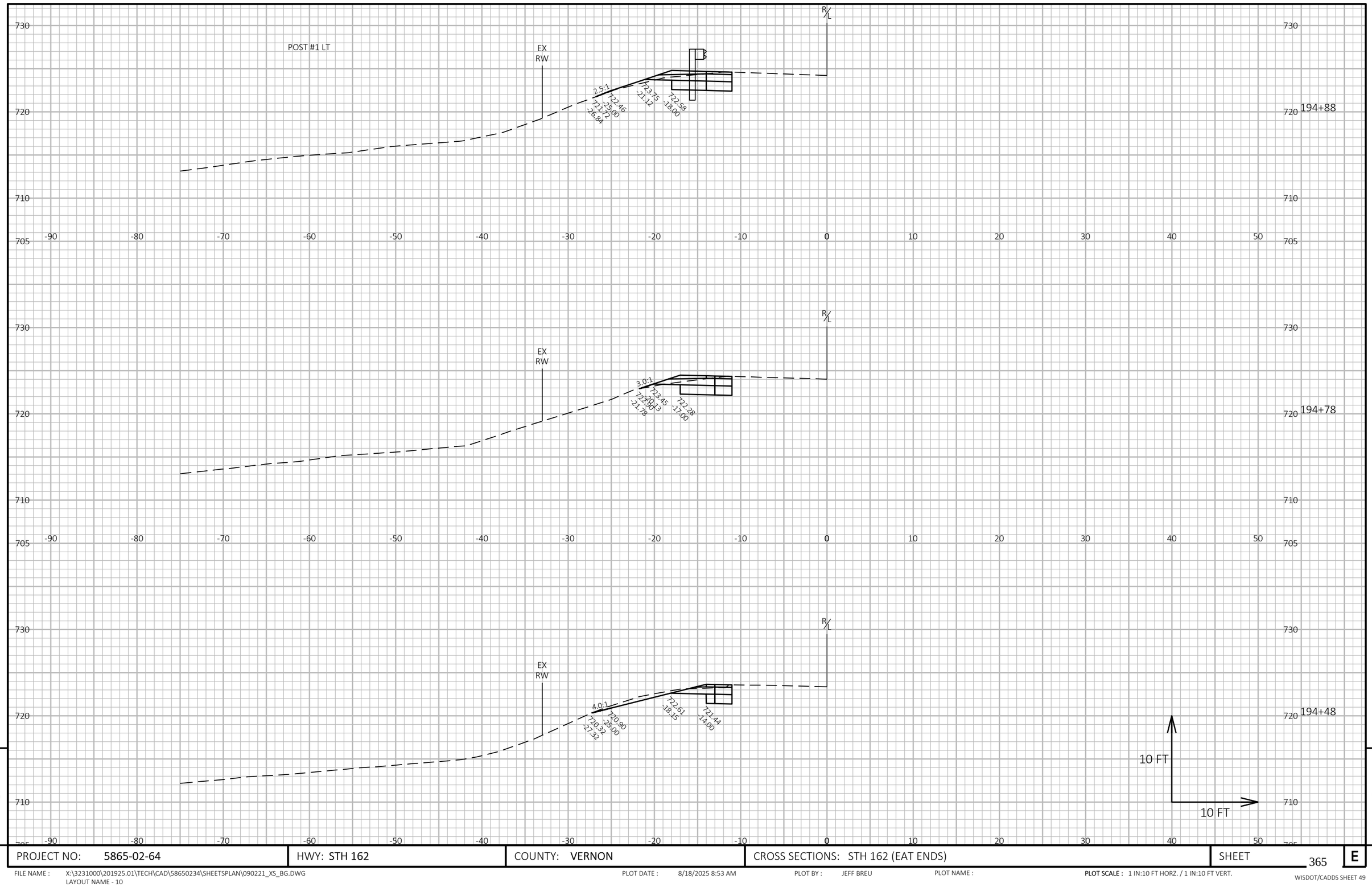
9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 364	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 08

PLOT DATE : 8/18/2025 8:52 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 365	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 10

PLOT DATE : 8/18/2025 8:53 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

POST #9 LT

730
720
710
705

-90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

EX RW

R/L

2.57
724.74
-20.58
723.57
-18.00
723.88
-25.00
723.46
-25.46

730
720
710
705

195+38

POST #5 LT

730
720
710
705

-90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

EX RW

R/L

3.01
724.19
-21.09
723.01
-18.00
722.89
-25.00
721.46
-29.29

730
720
710
705

195+13

10 FT

10 FT

9

9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 366	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 11

PLOT DATE : 8/18/2025 8:53 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

POST #1 LT

EX RW

R/L

O/H

3.0:1

705.47 -22.38

704.54 -21.90

204+47

POST #5 LT

EX RW

R/L

O/H

3.0:1

705.58 -22.50

704.73 -19.33

204+21

POST #9 LT

EX RW

R/L

O/H

3.0:1

705.38 -22.07

704.40 -25.00

704.53 -18.00

702.15 -31.75

203+94

10 FT

10 FT

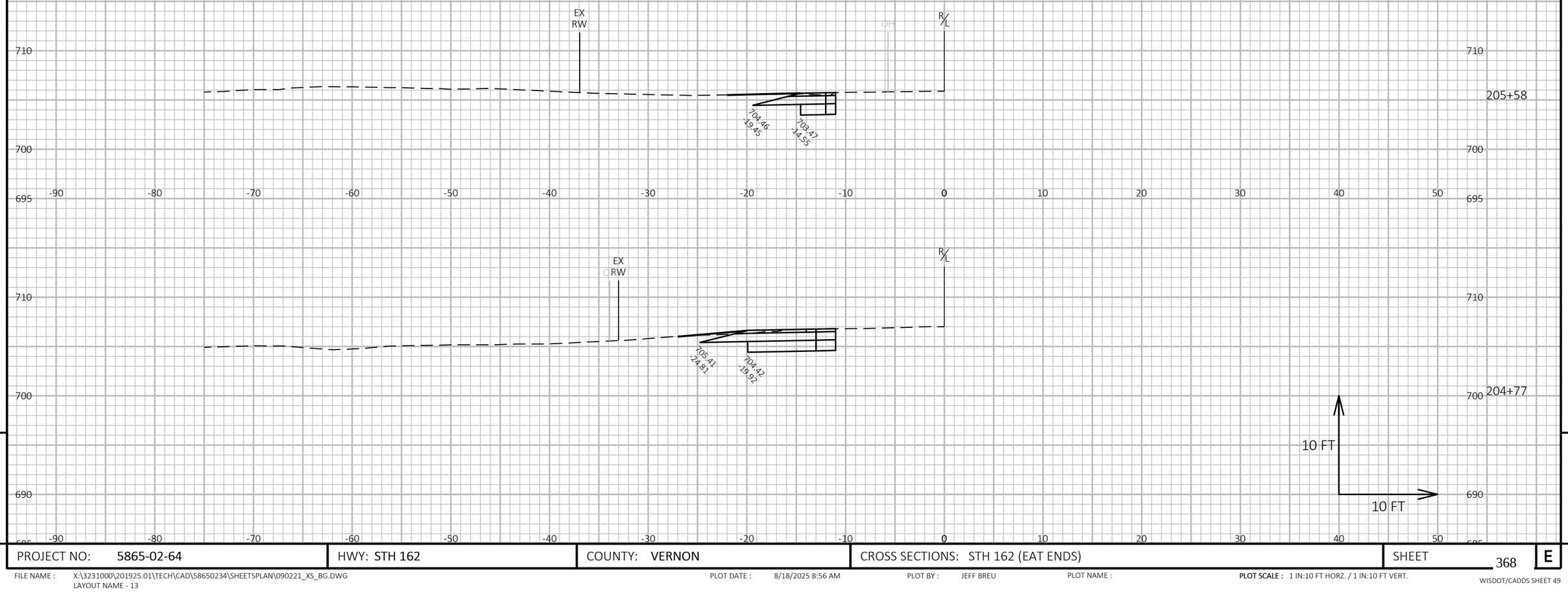
9

9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 367	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 12

PLOT DATE : 8/18/2025 8:53 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 368	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 13

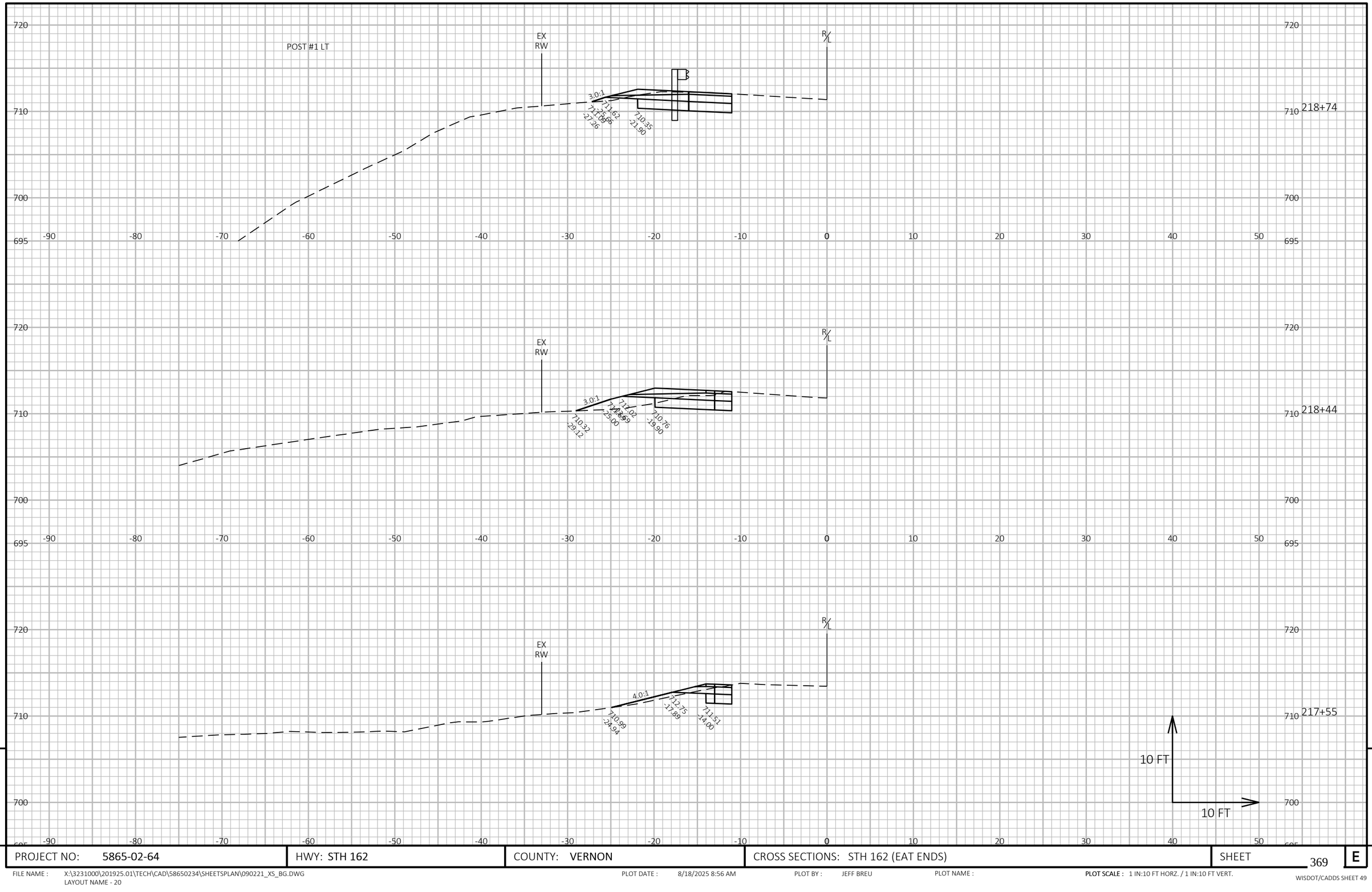
PLOT DATE : 8/18/2025 8:56 AM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 369	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 20

PLOT DATE : 8/18/2025 8:56 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

POST #9 LT

EX RW

R/L

3.0:1

710.72 -21.18

711.09 -22.18

709.48 -18.00

219+23

POST #5 LT

EX RW

R/L

3.0:1

711.15 -23.07

710.67 -25.00

708.97 -30.09

709.88 -19.53

218+99

720 710 700 690 685

-90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

10 FT

10 FT

9

9

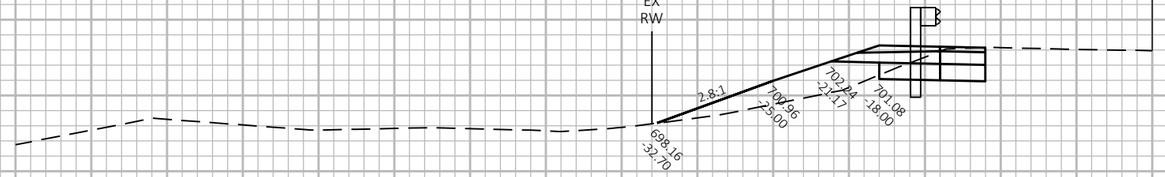
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 370	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 21

PLOT DATE : 8/18/2025 8:56 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

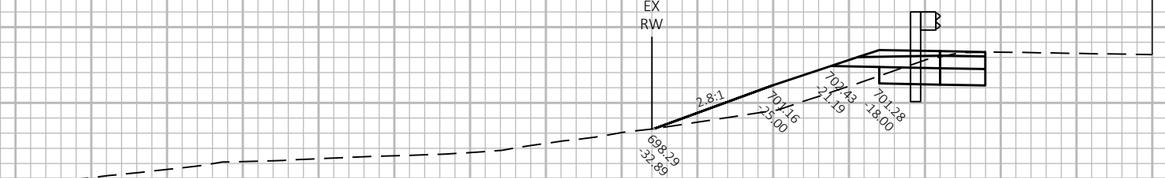
WISDOT/CADDS SHEET 49

POST #1 LT



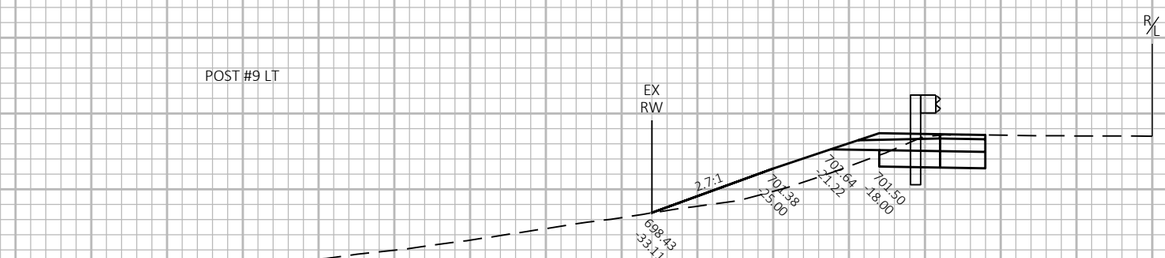
223+76

POST #5 LT

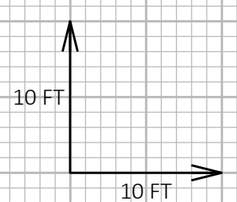


223+51

POST #9 LT



223+27



9

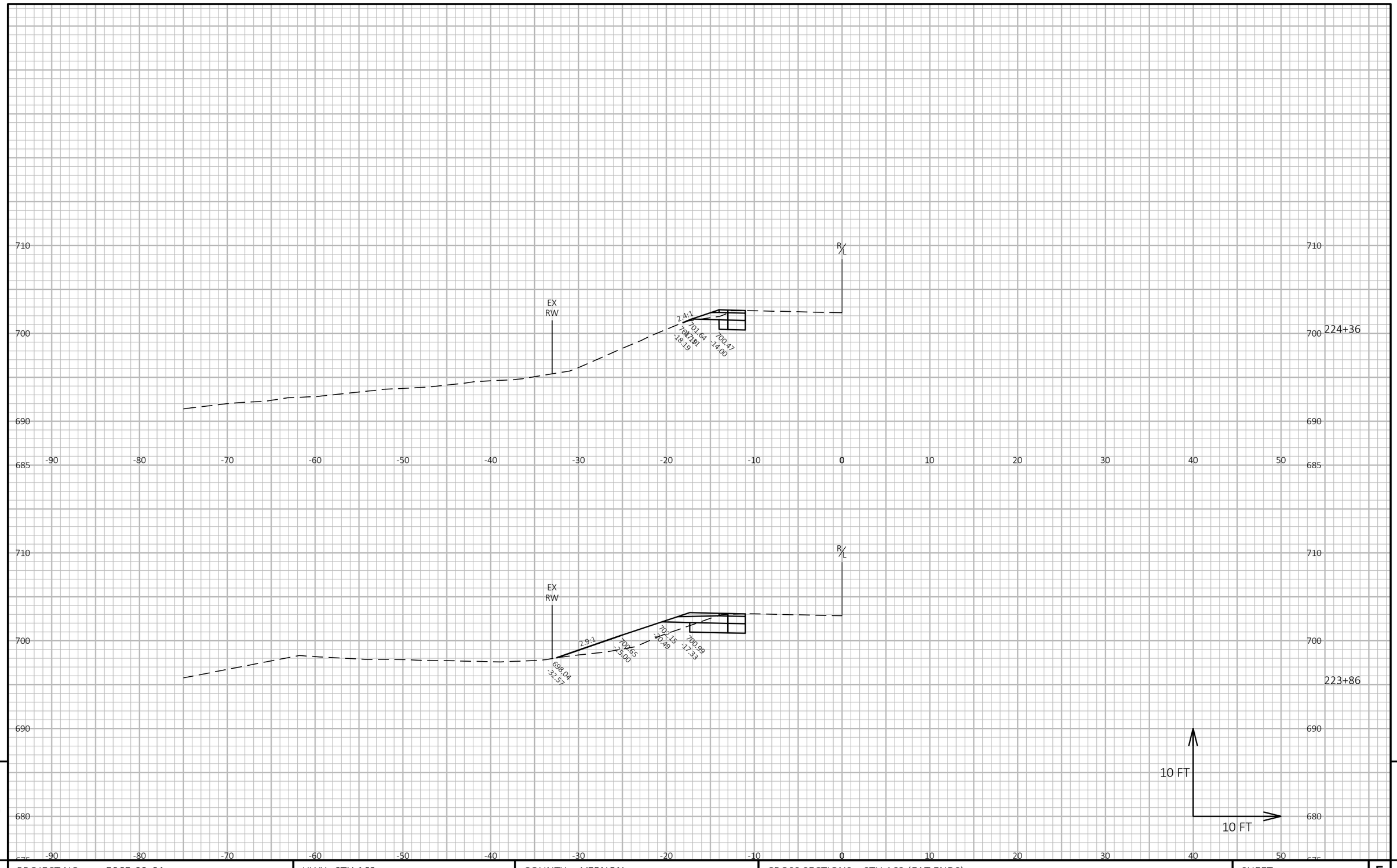
9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 371	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 22

PLOT DATE : 8/18/2025 8:57 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 372	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 23

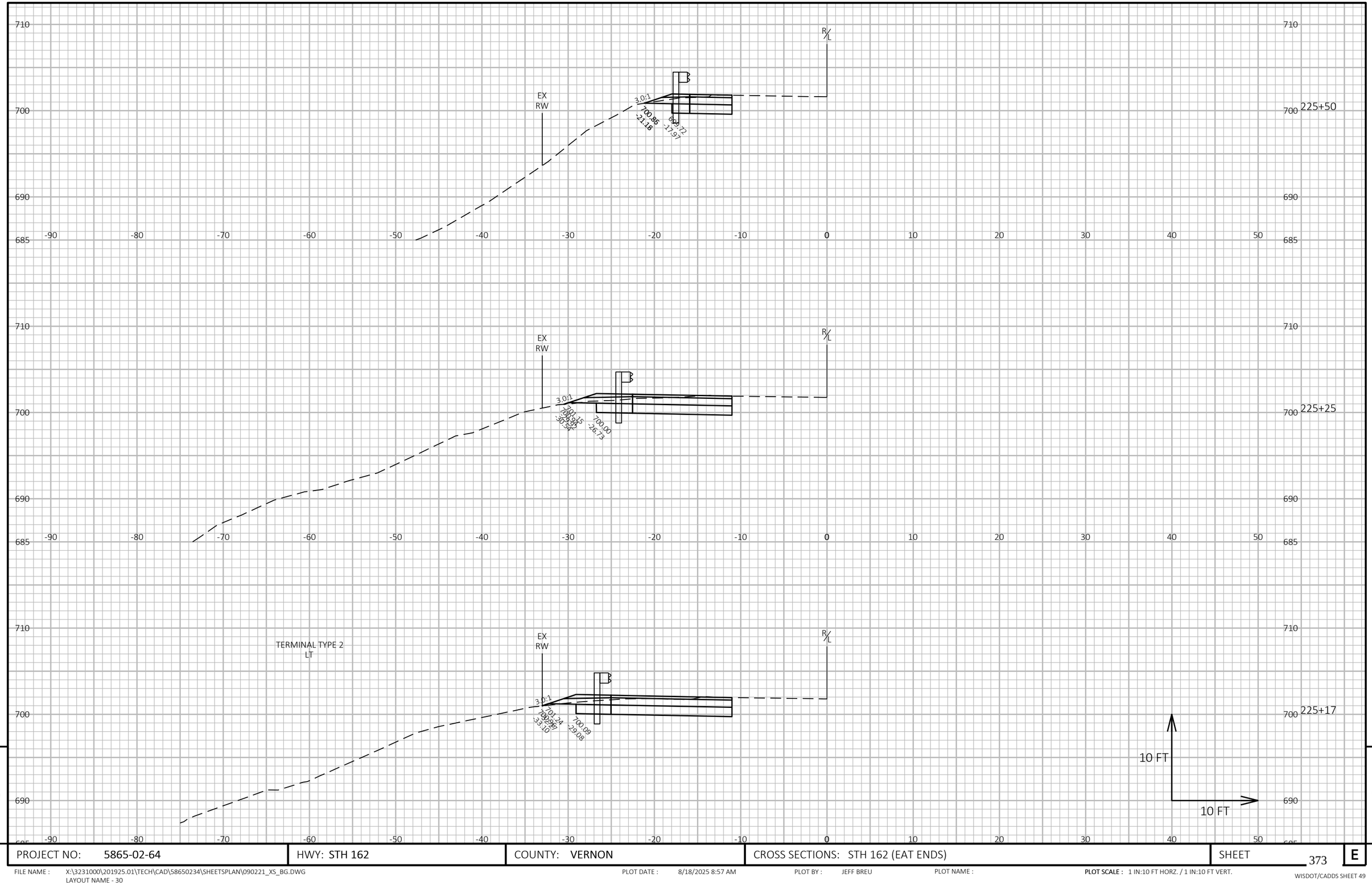
PLOT DATE : 8/18/2025 8:57 AM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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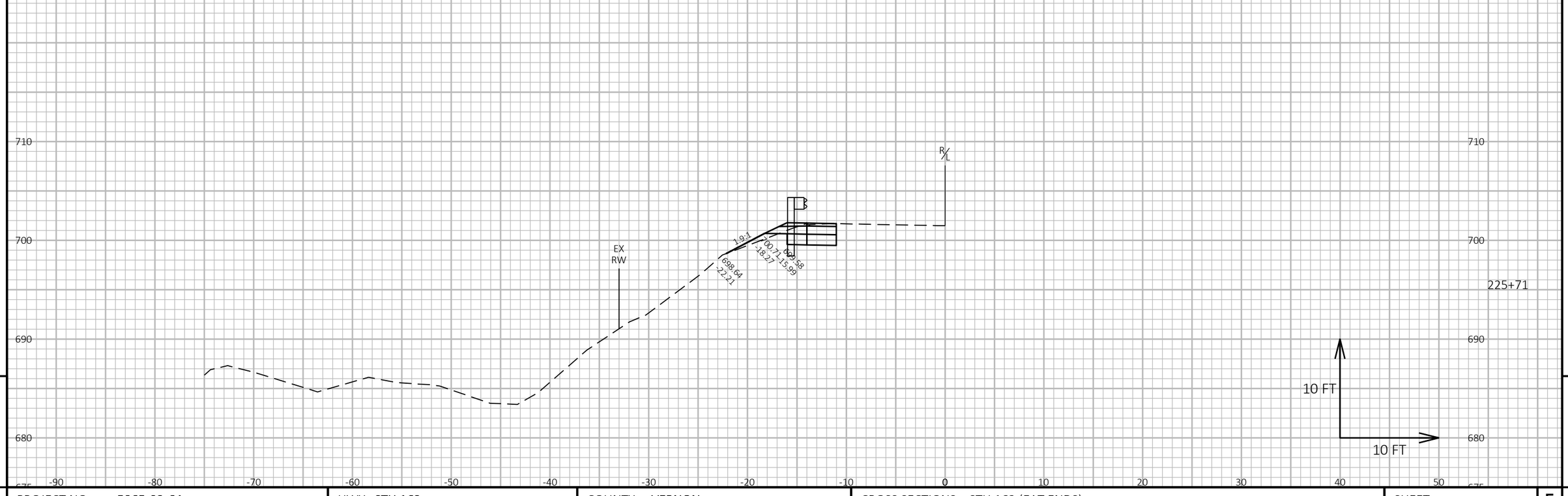
9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 373	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 30

PLOT DATE : 8/18/2025 8:57 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



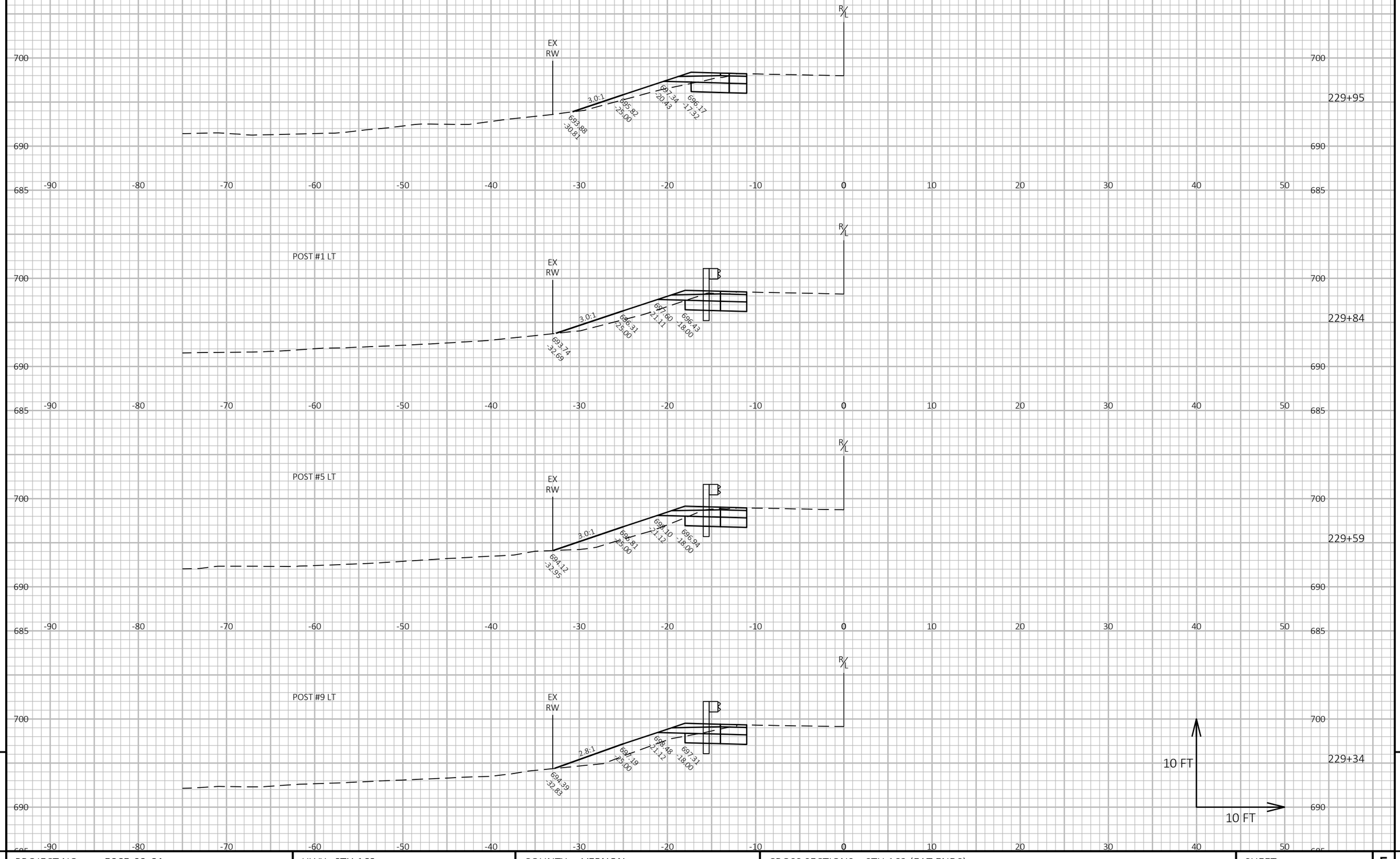
9

9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 374	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 31

PLOT DATE : 8/18/2025 8:57 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

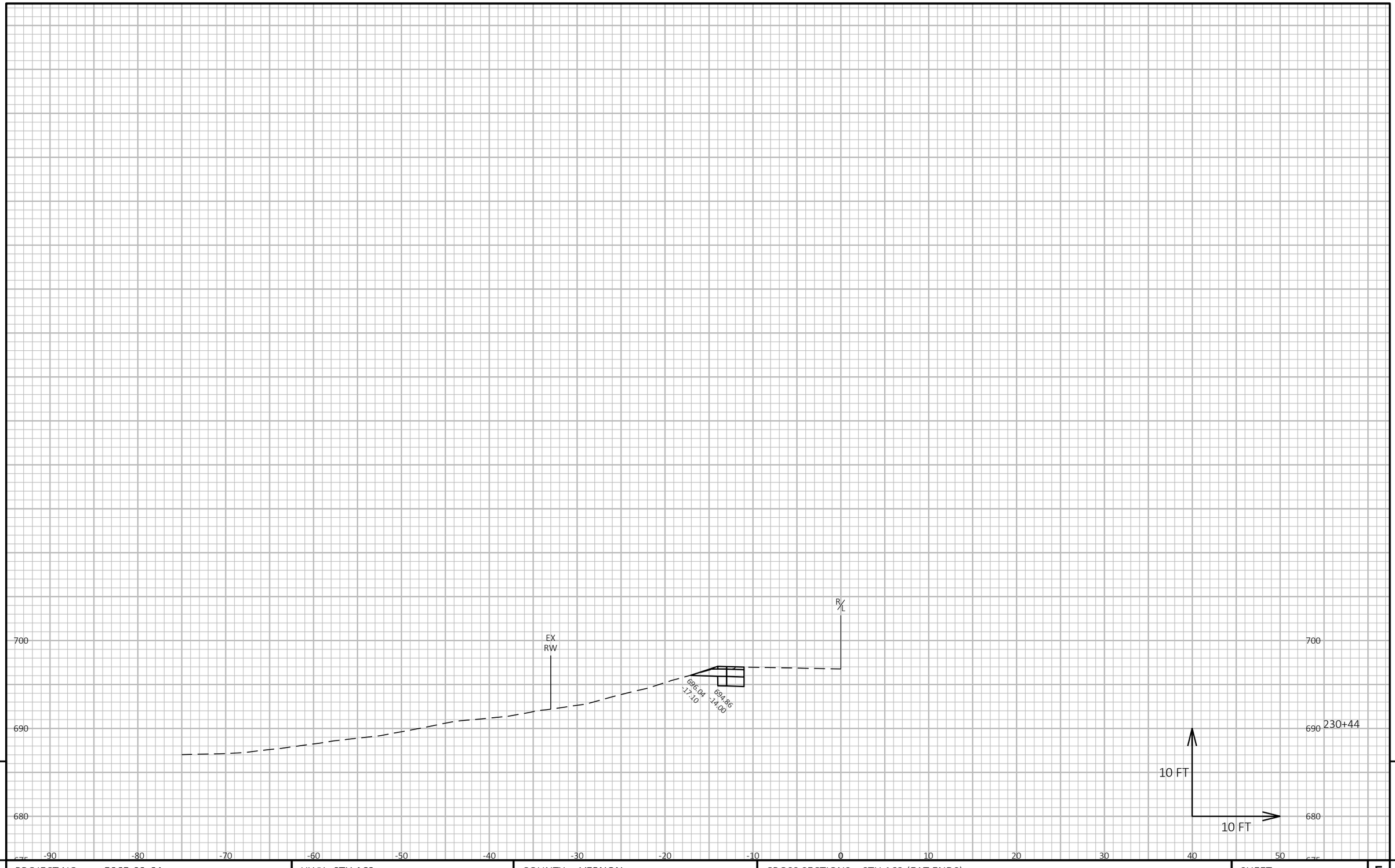


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 375	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 32

PLOT DATE : 8/18/2025 8:58 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

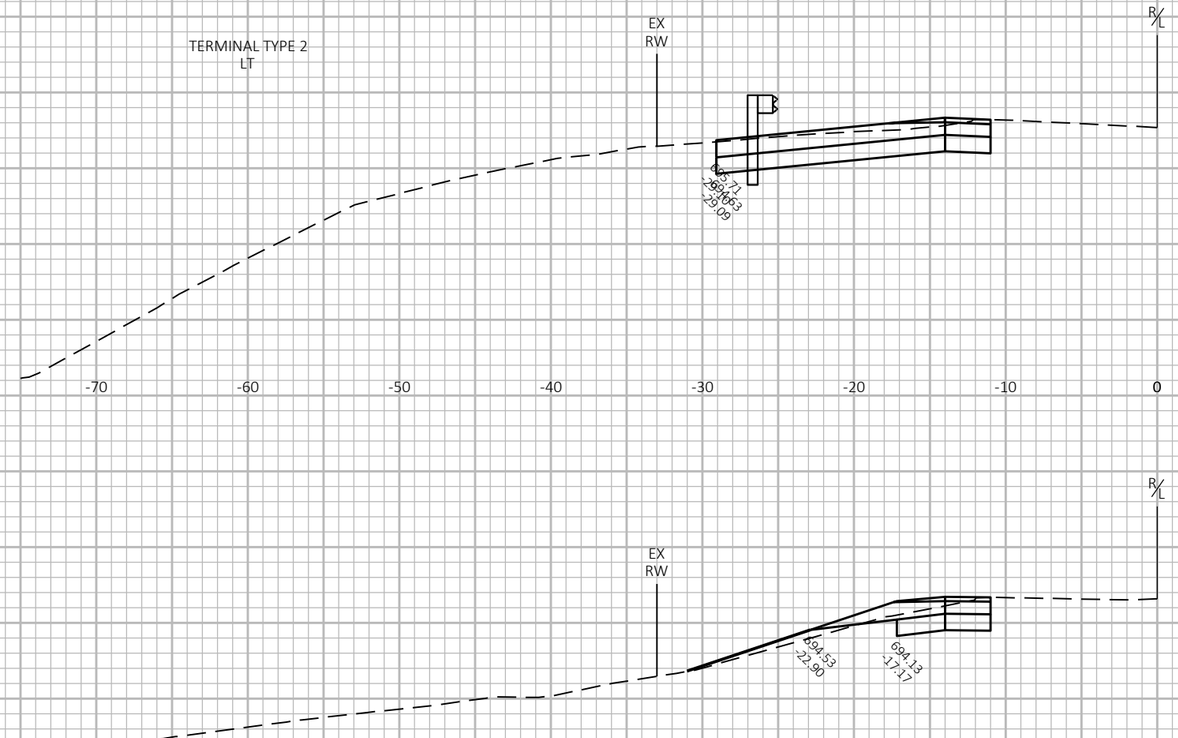
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 376	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090221_XS_BG.DWG
LAYOUT NAME - 33

PLOT DATE : 8/18/2025 8:58 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

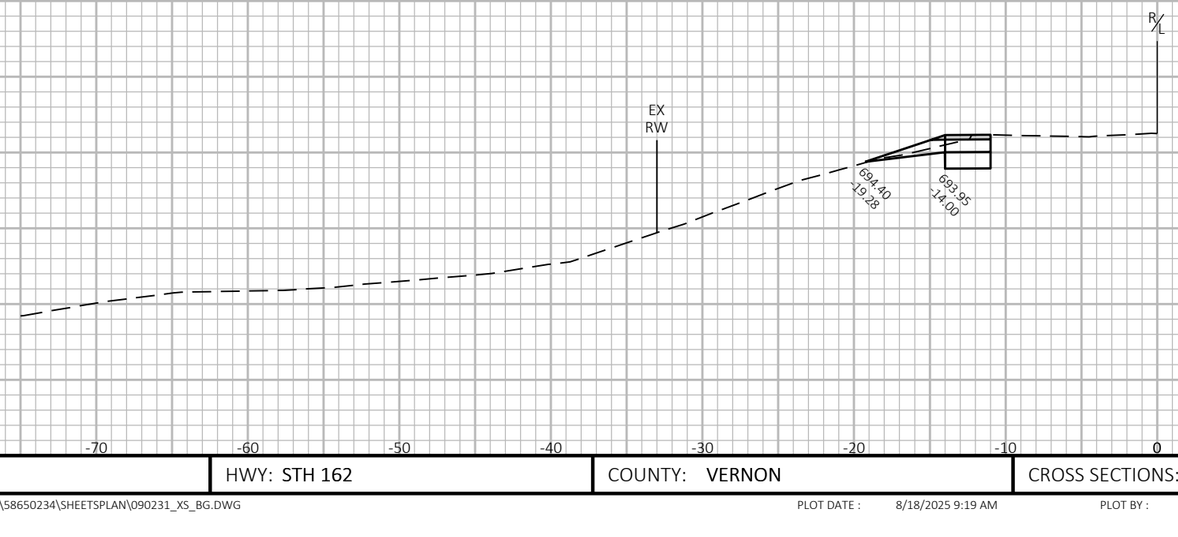
WISDOT/CADDS SHEET 49

TERMINAL TYPE 2
LT

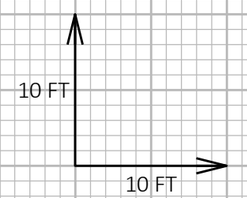


236+67

236+19



236+06



9

9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 377	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 01

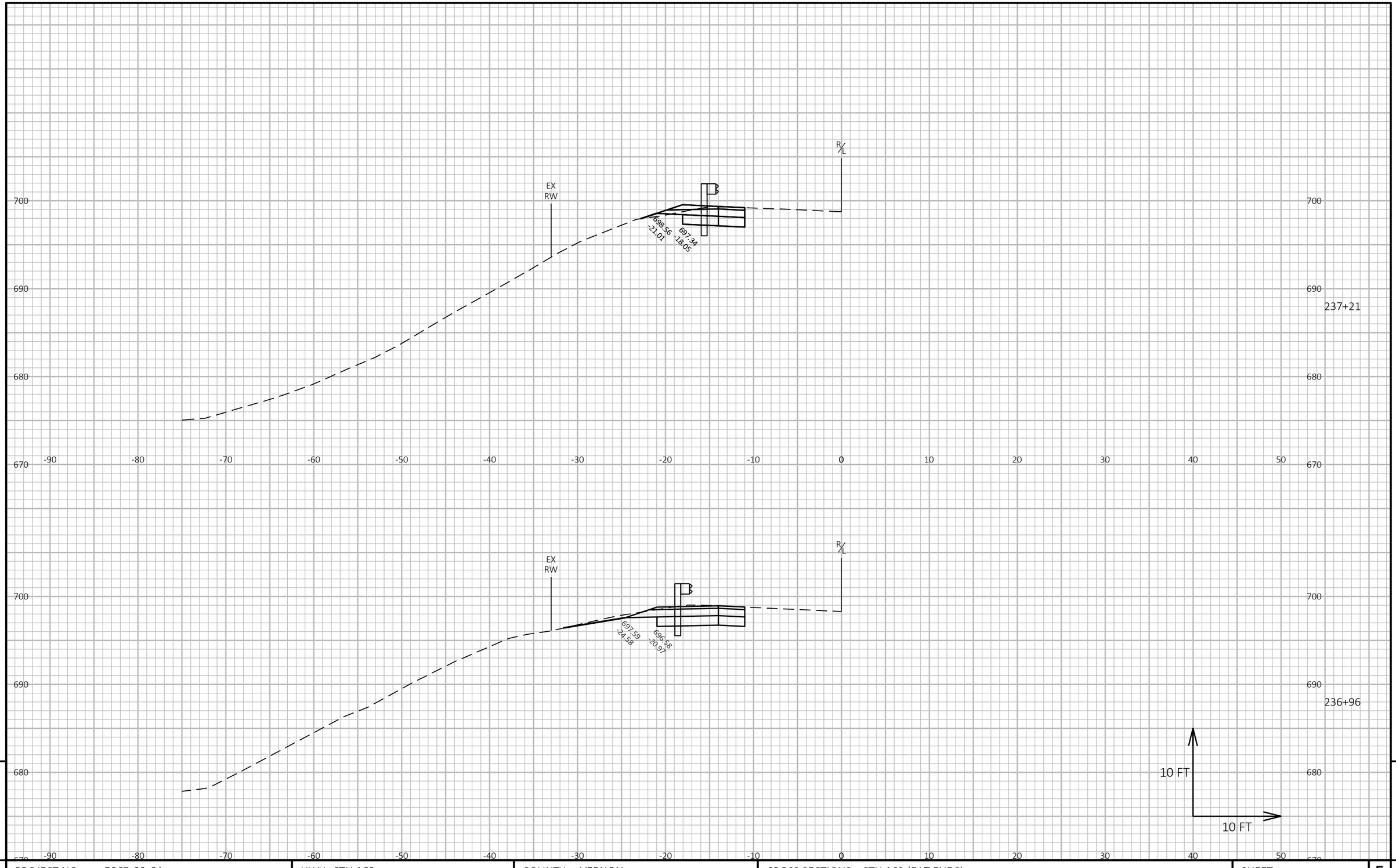
PLOT DATE : 8/18/2025 9:19 AM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 378	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 02

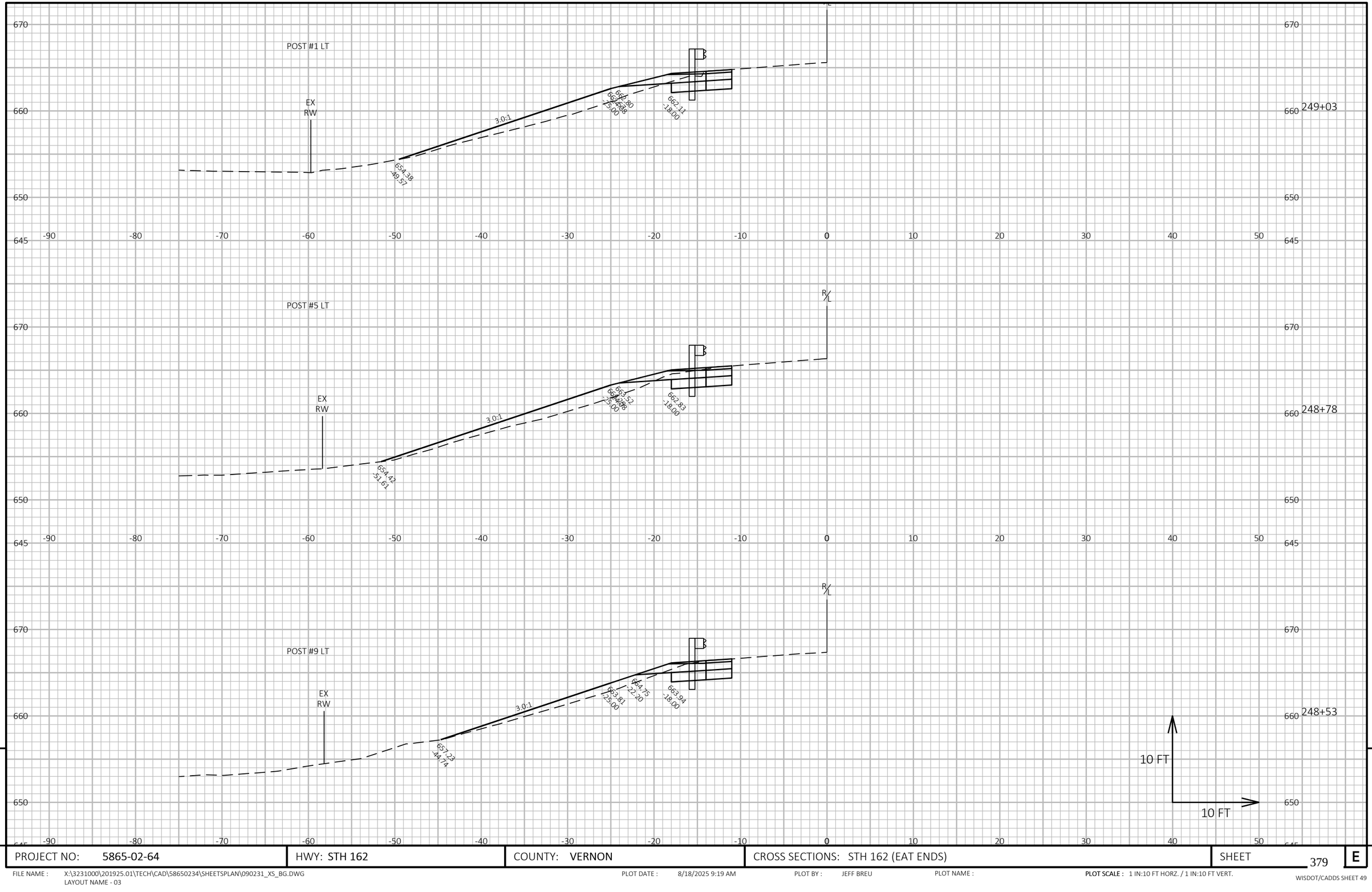
PLOT DATE : 8/18/2025 9:19 AM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

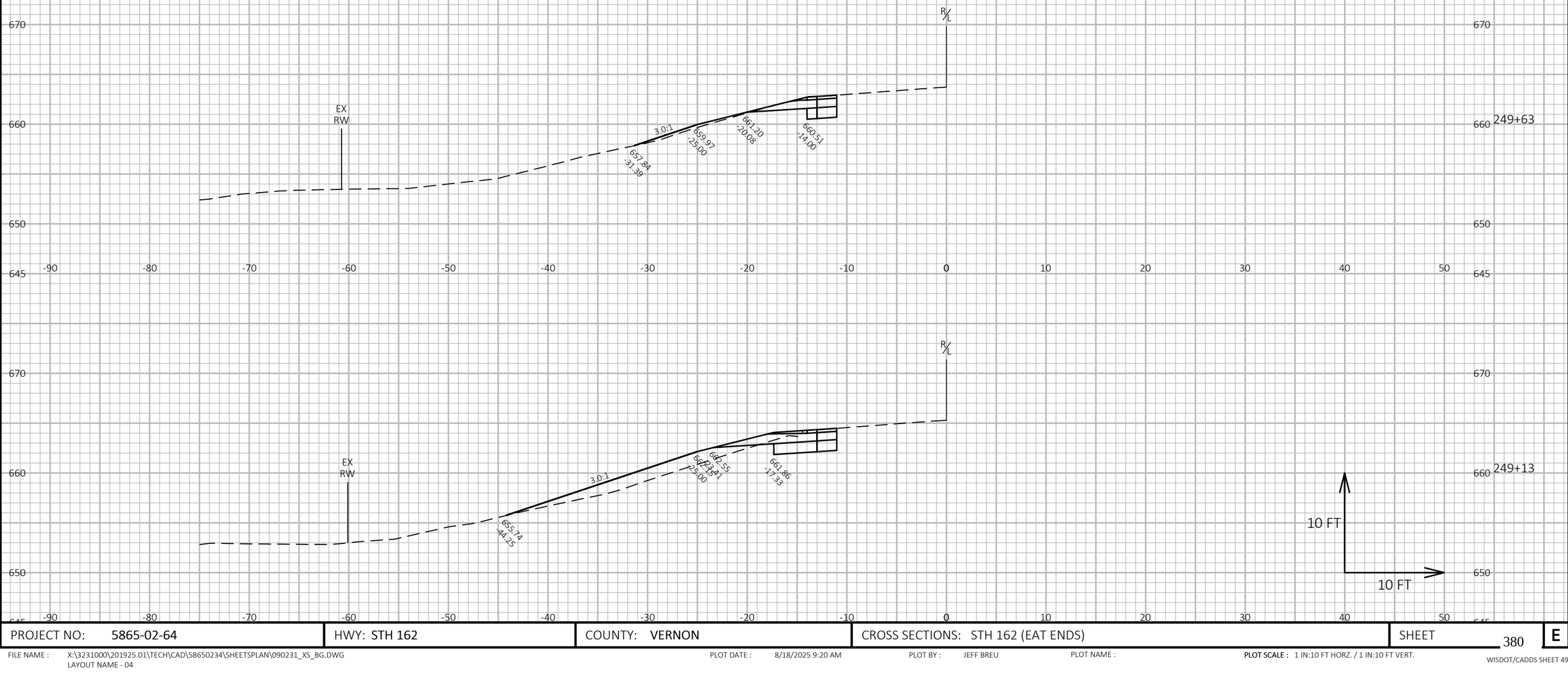


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 379	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 03

PLOT DATE : 8/18/2025 9:19 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 380	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 04

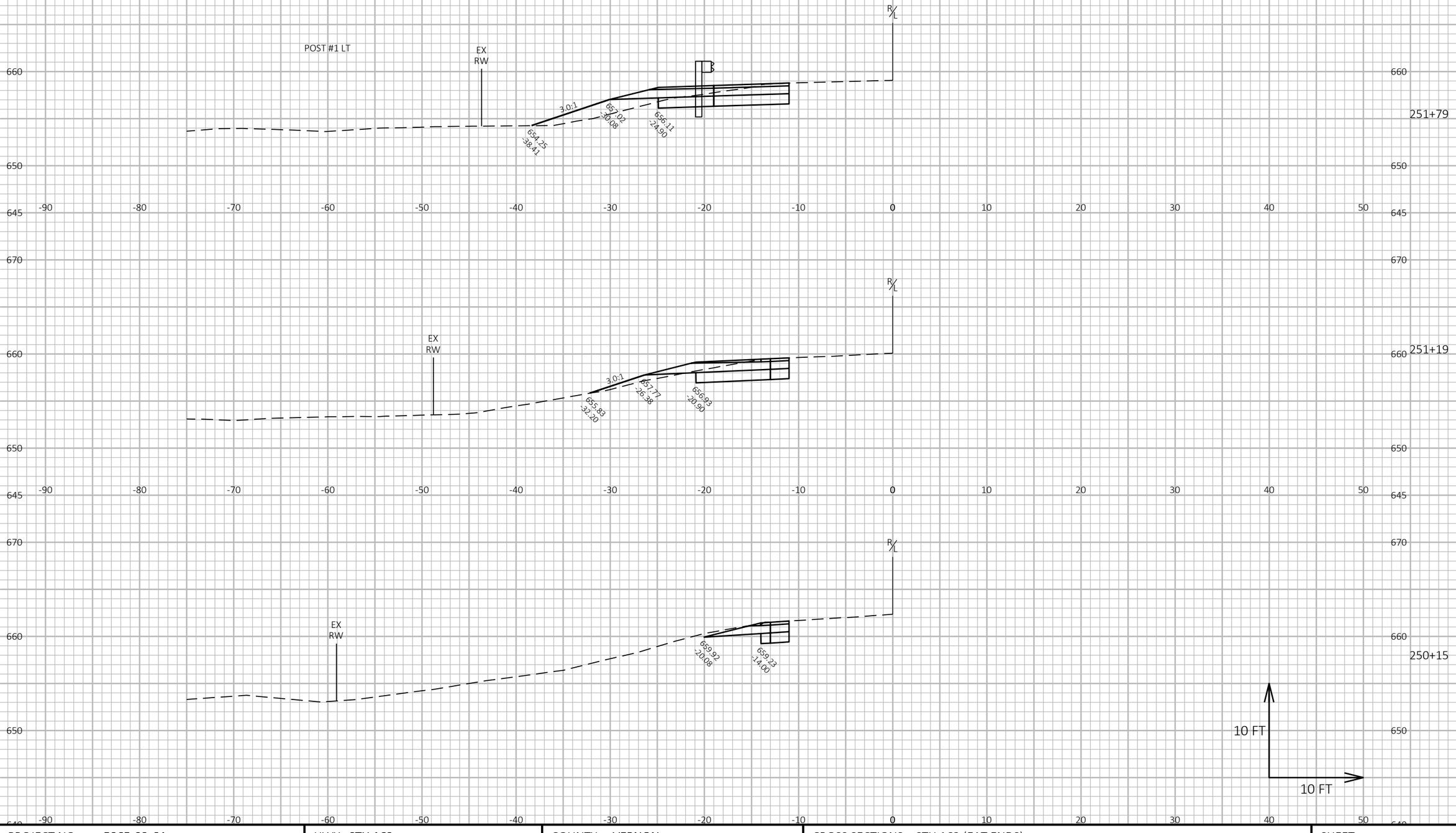
PLOT DATE : 8/18/2025 9:20 AM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

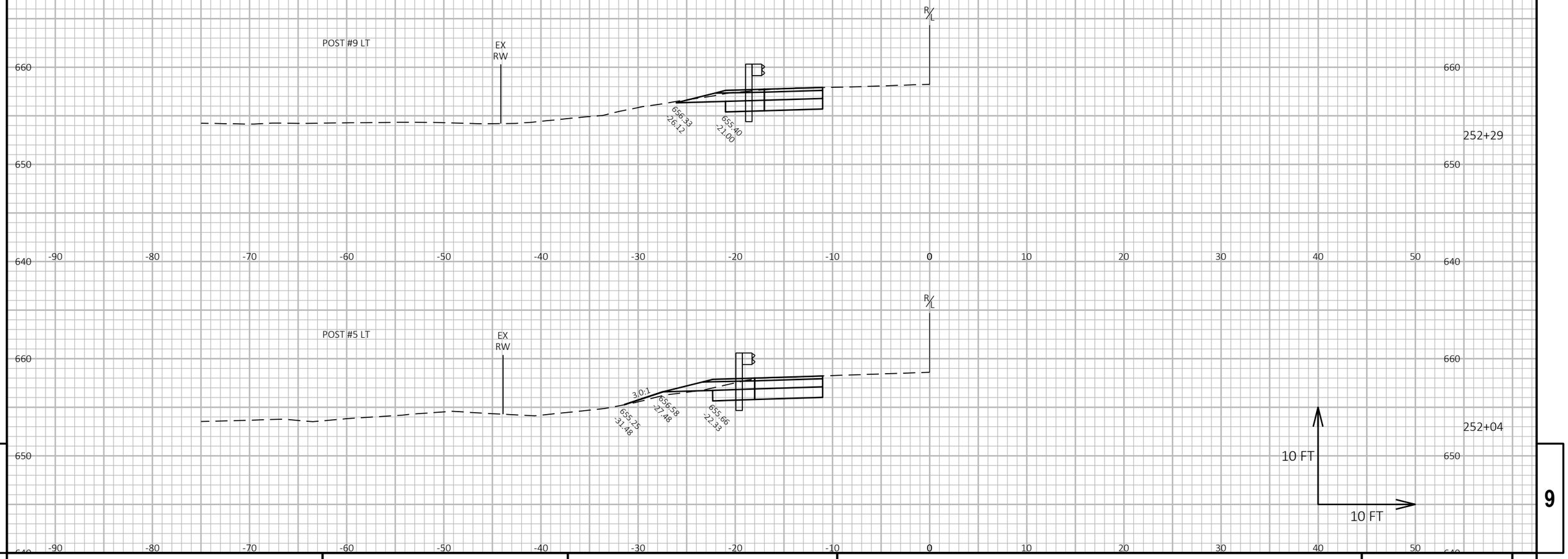


9

9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 381	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 10
PLOT DATE : 8/18/2025 12:51 PM
PLOT BY : JEFF BREU
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

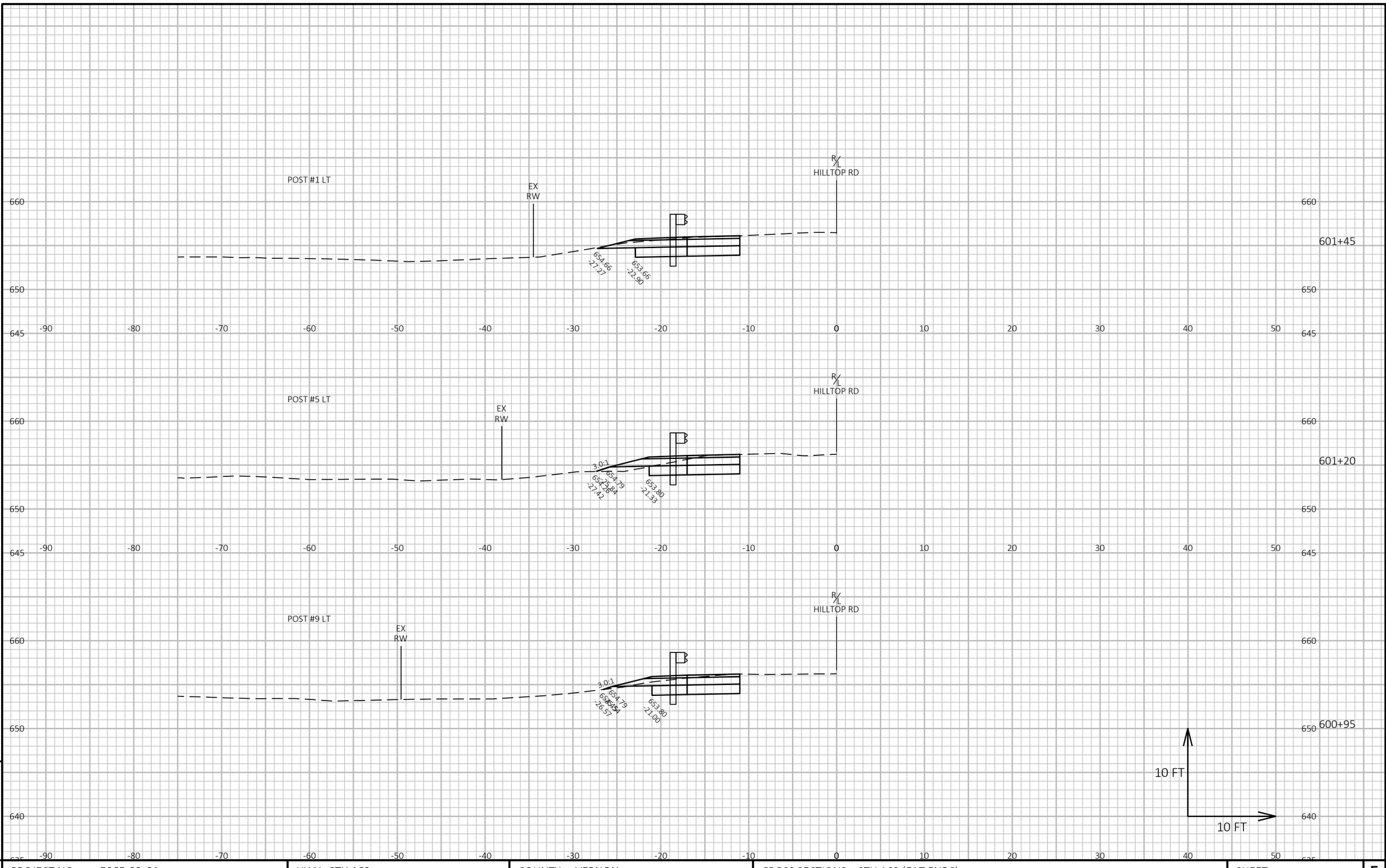


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 382	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 11

PLOT DATE : 8/18/2025 9:21 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

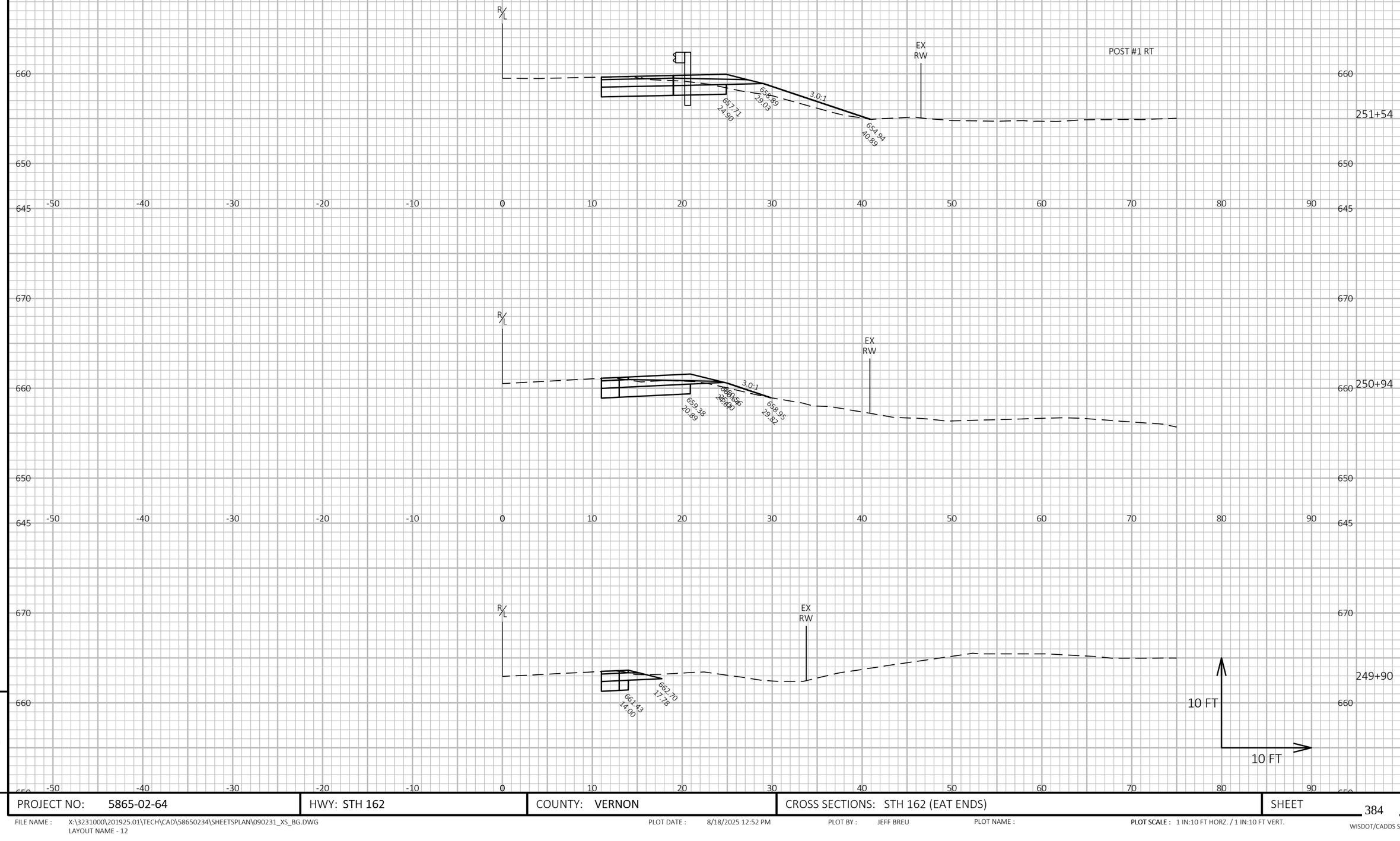
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 383	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 11a

PLOT DATE : 8/18/2025 12:51 PM PLOT BY : JEFF BREU PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

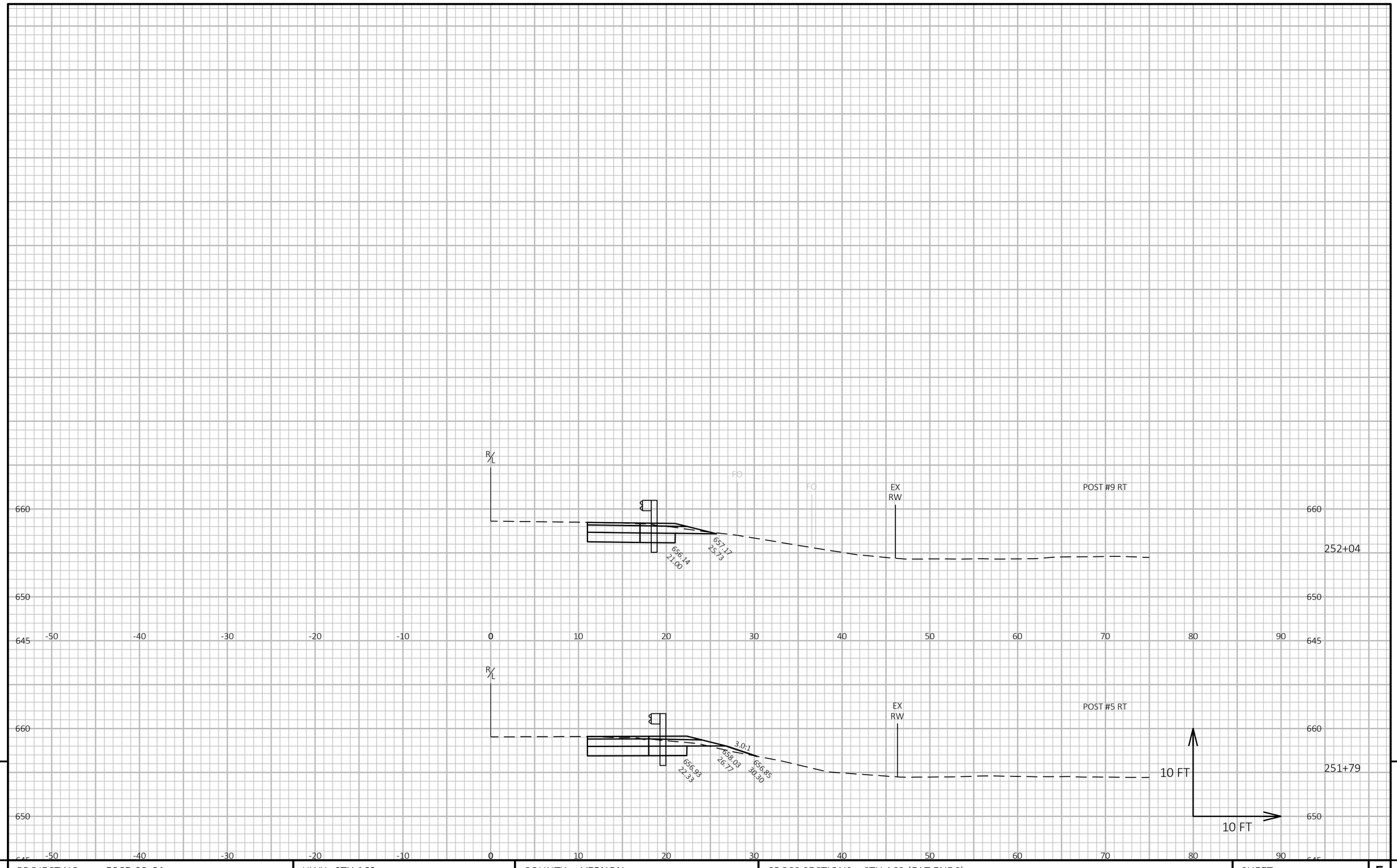
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 384	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 12

PLOT DATE : 8/18/2025 12:52 PM PLOT BY : JEFF BREU PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

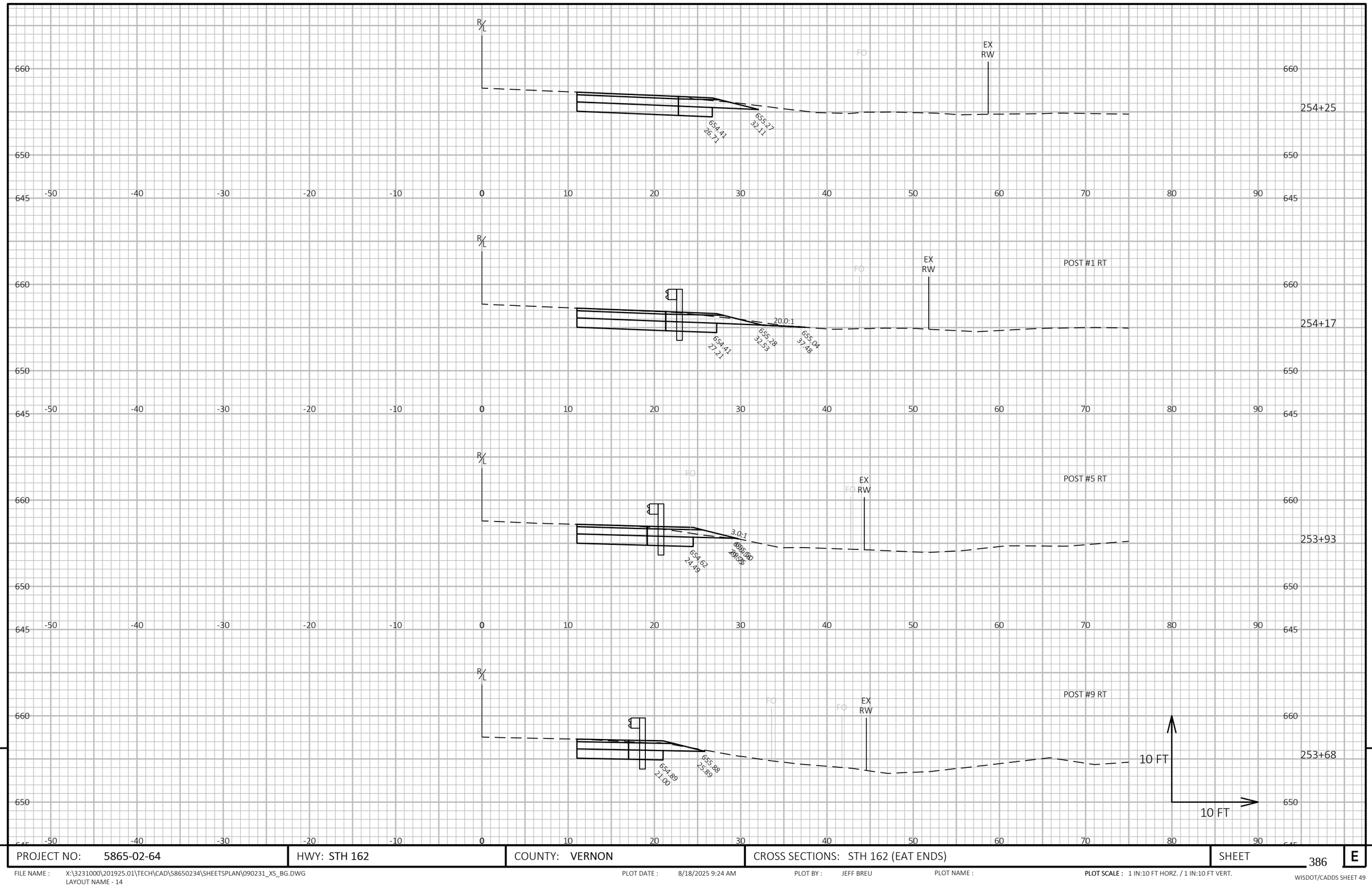
9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 385	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 13

PLOT DATE : 8/18/2025 9:23 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

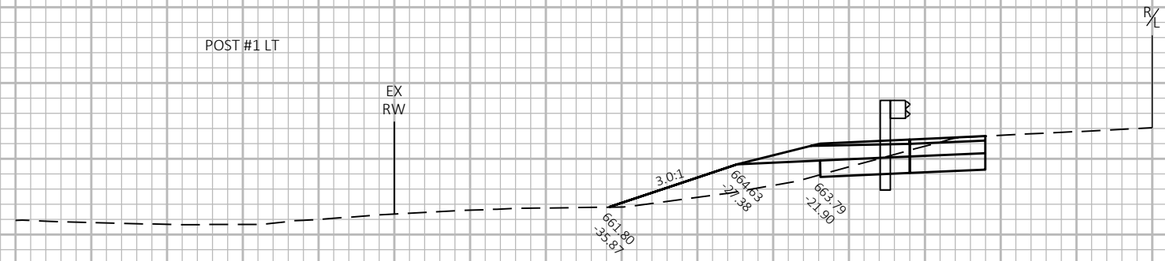
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 386	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 14

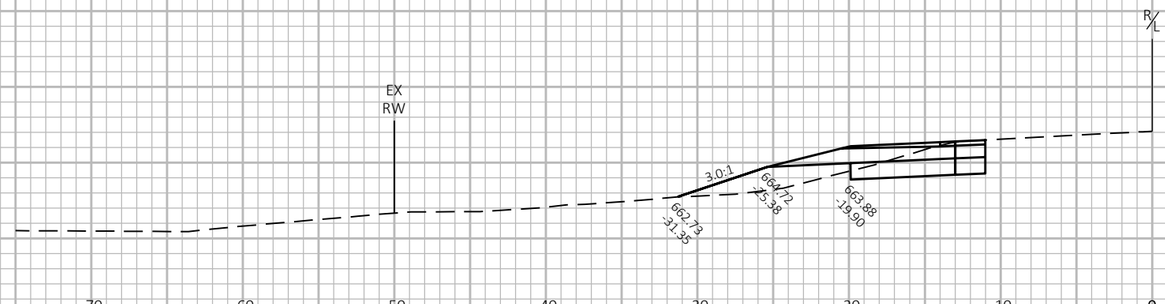
PLOT DATE : 8/18/2025 9:24 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

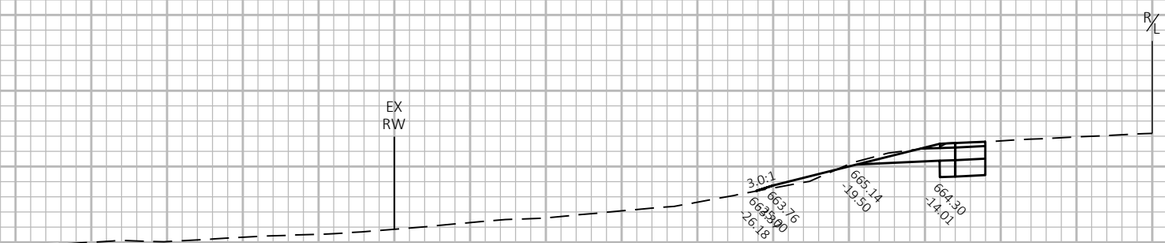
POST #1 LT



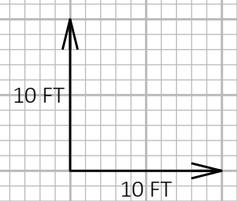
306+69



306+39



305+51



9

9

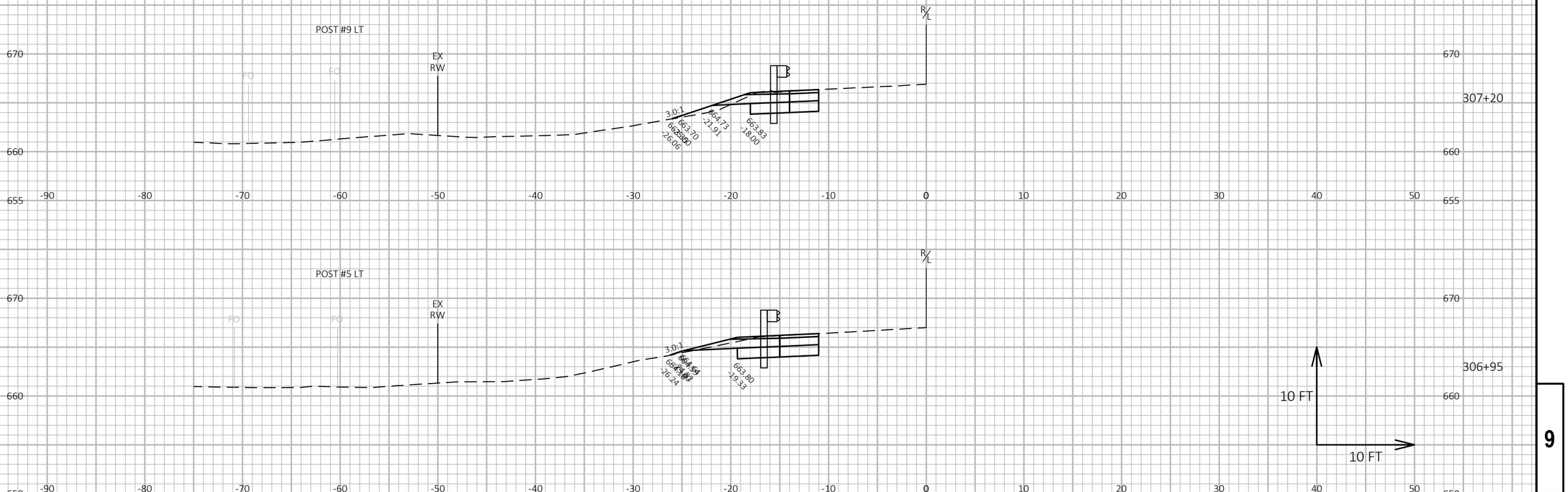
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 387	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 20

PLOT DATE : 8/18/2025 12:53 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

POST #9 LT



POST #5 LT

9

9

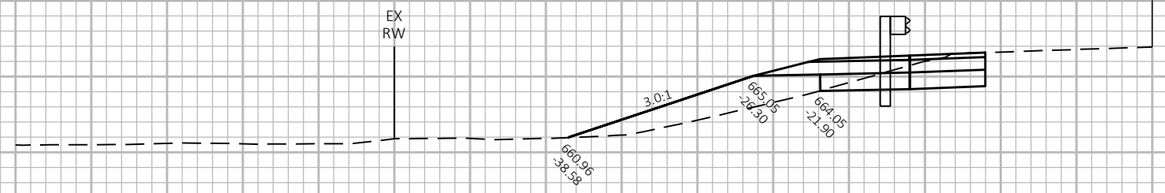
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 388	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 21

PLOT DATE : 8/18/2025 9:25 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

POST #1 LT

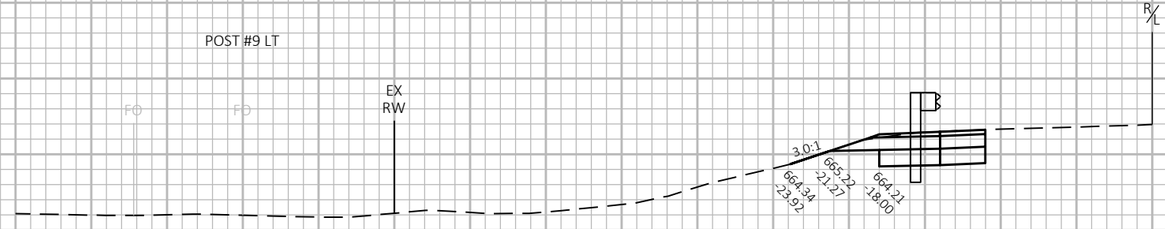


309+67

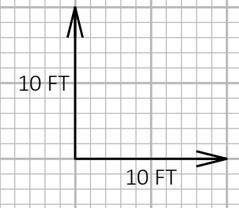
POST #5 LT

309+41

POST #9 LT



309+16



9

9

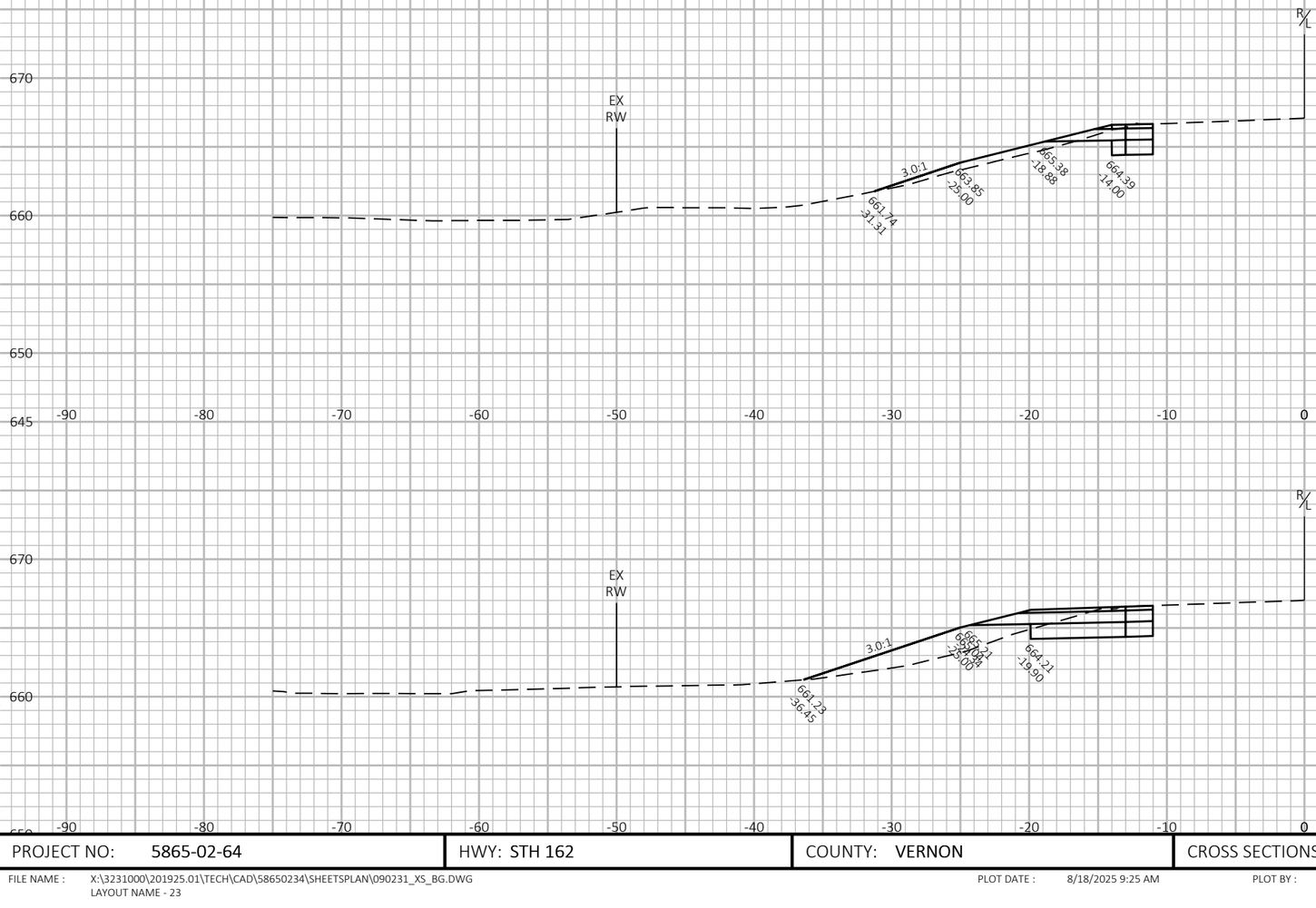
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 389	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 22

PLOT DATE : 8/18/2025 9:25 AM PLOT BY : JEFF BREU PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



310+85

309+97

9

9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 390	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 23

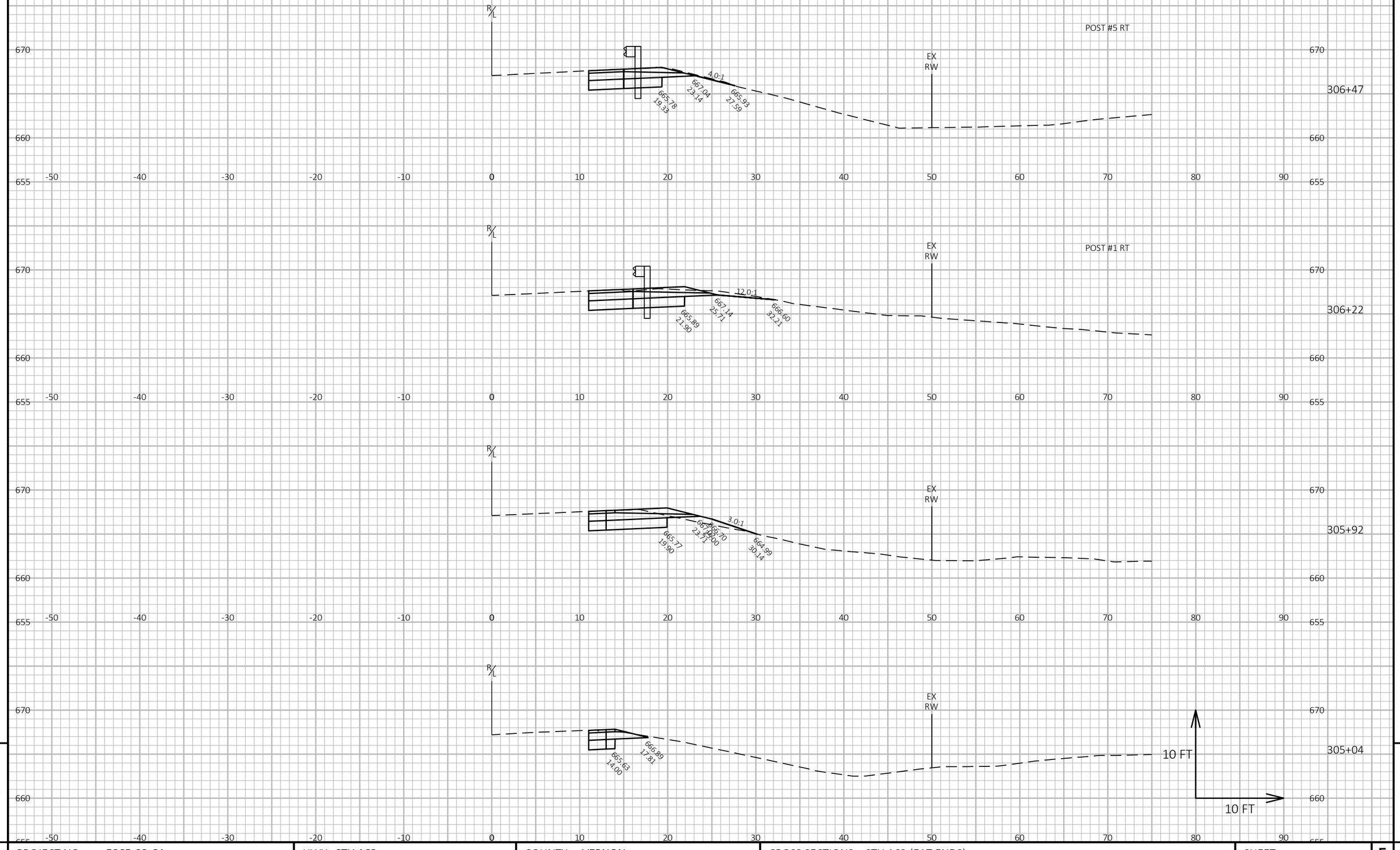
PLOT DATE : 8/18/2025 9:25 AM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



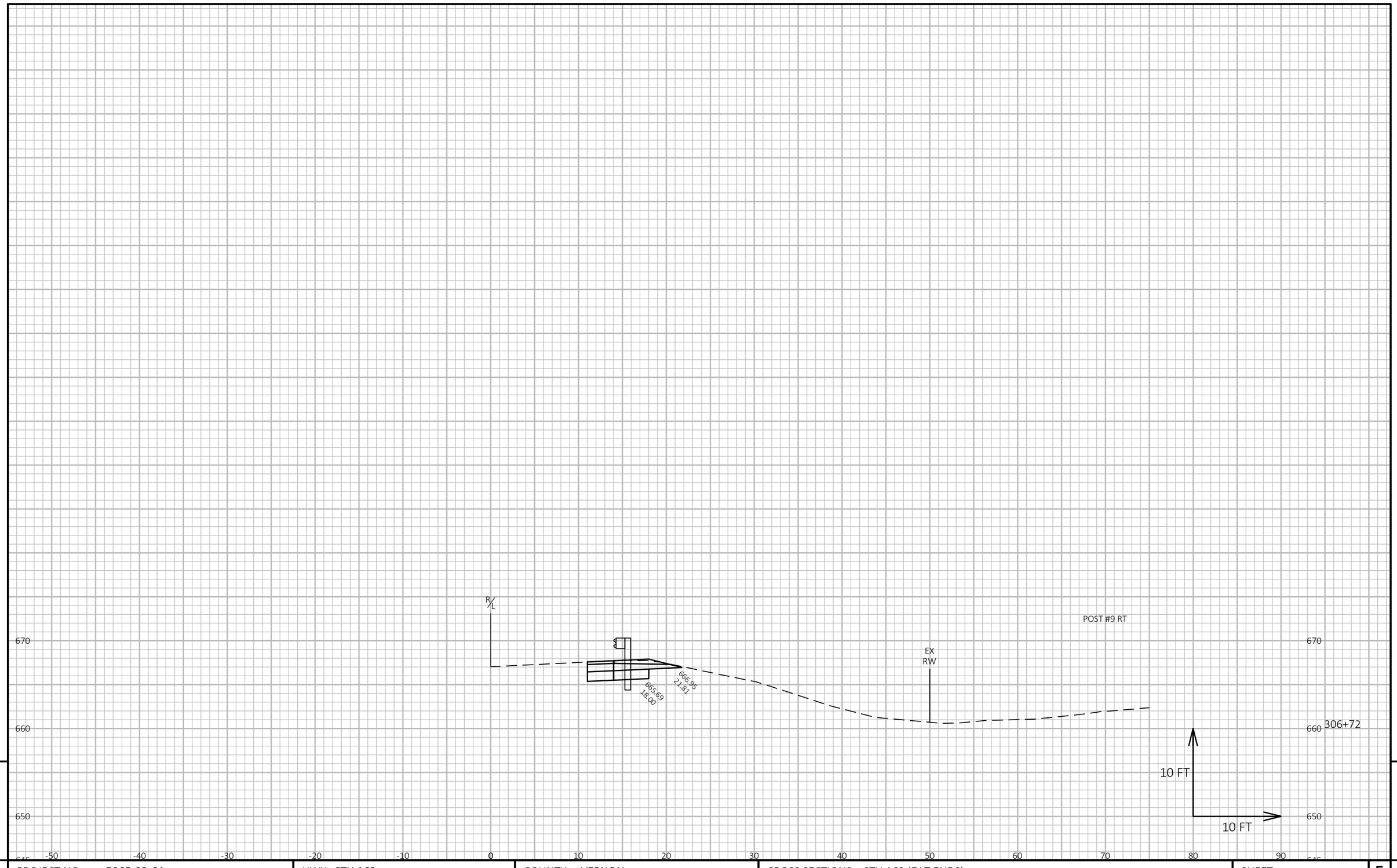
9

9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 391	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 24

PLOT DATE : 8/18/2025 12:54 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

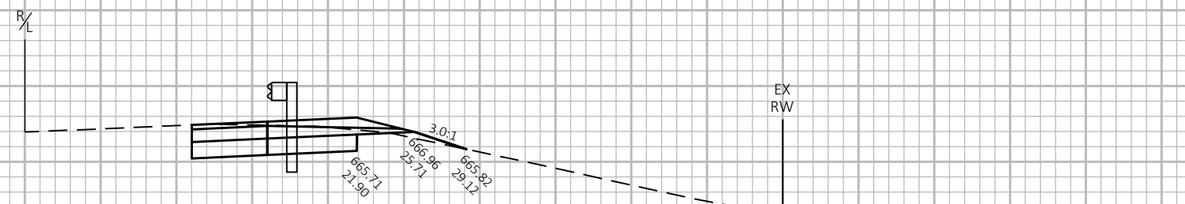
9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 392	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 25

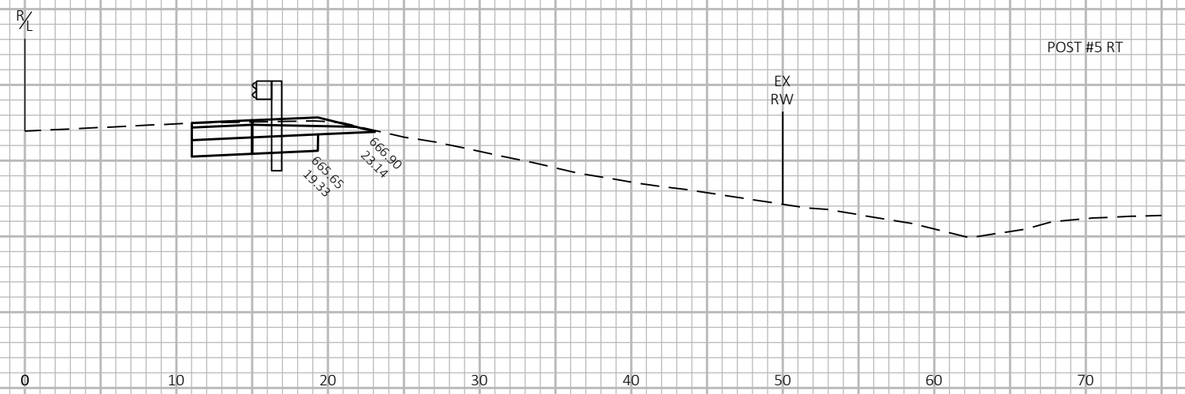
PLOT DATE : 8/18/2025 9:26 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

POST #1 RT



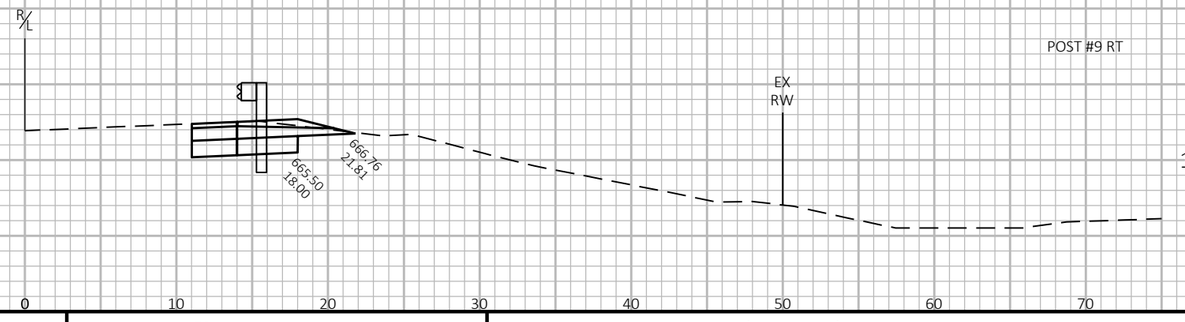
309+13

POST #5 RT



308+88

POST #9 RT



308+64

9

9

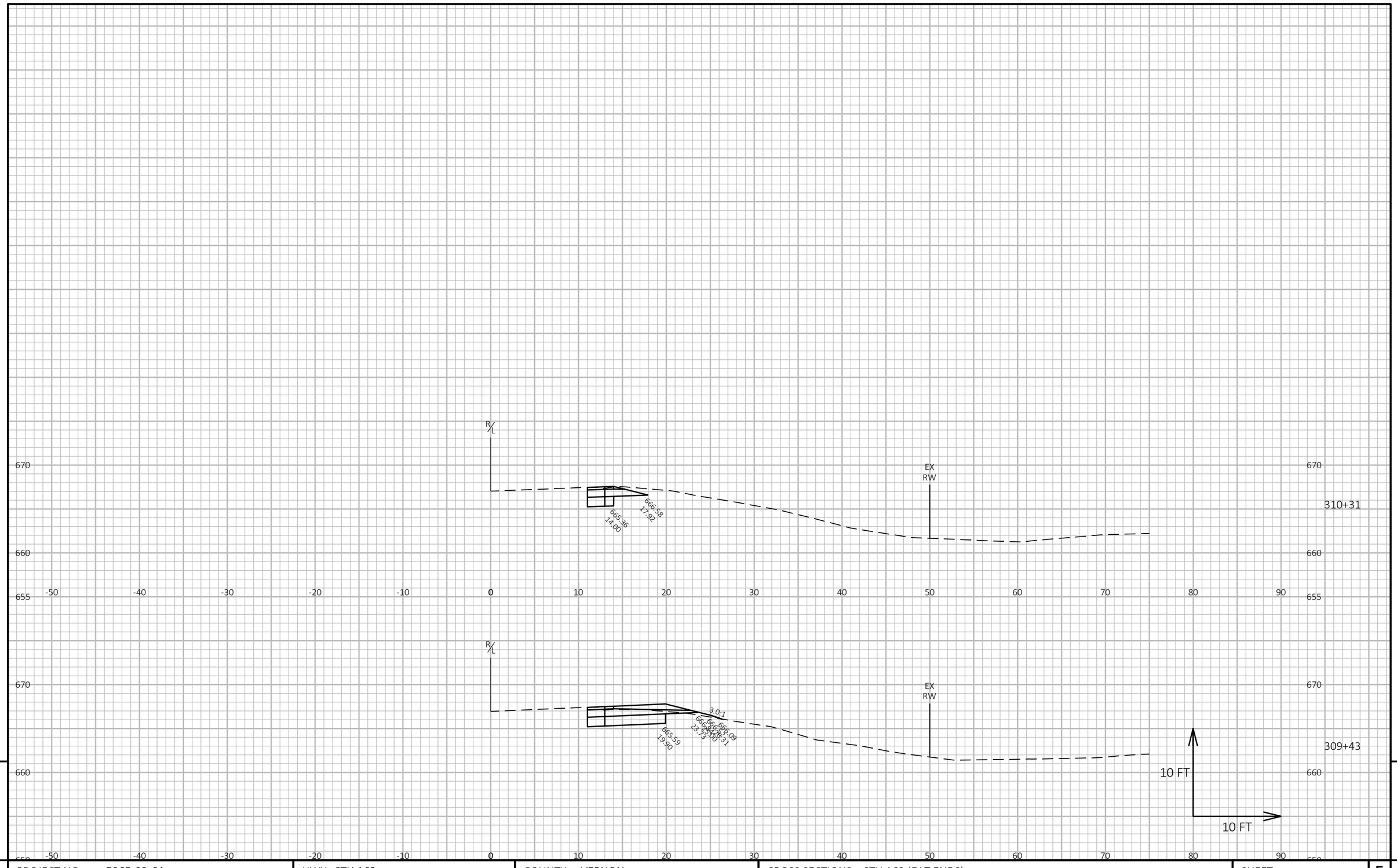
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 393	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 26

PLOT DATE : 8/18/2025 9:27 AM PLOT BY : JEFF BREU PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

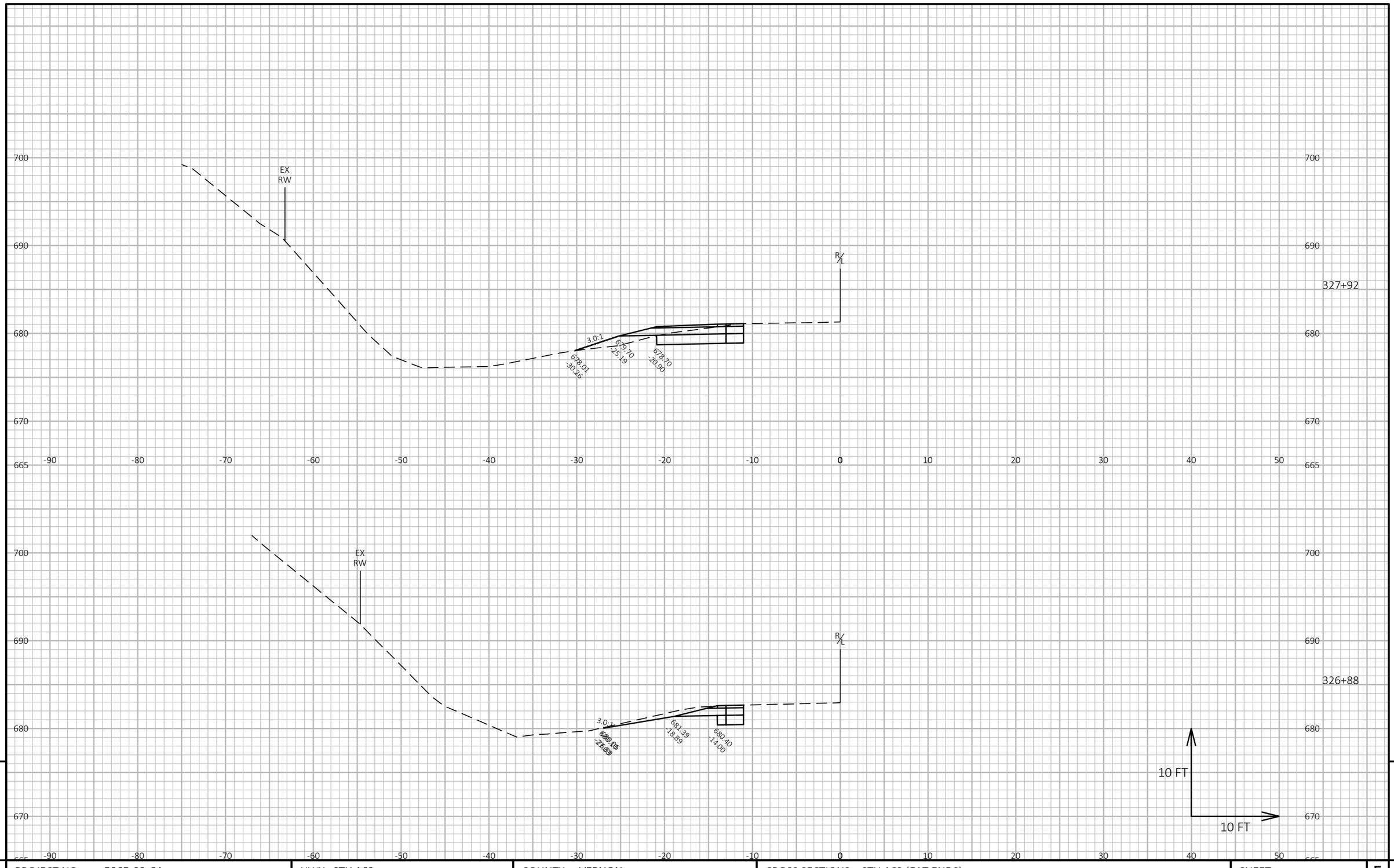
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 394	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 27

PLOT DATE : 8/18/2025 9:28 AM PLOT BY : JEFF BREU PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 395	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 30

PLOT DATE : 8/18/2025 9:28 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

POST #9 LT

329+02

R/L

680
670
665

-90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

FO FO FO

3.0:1
677.83
-24.64
676.82
-21.00
675.86
-30.27
-25.00

690
680
670
665

POST #5 LT

328+77

R/L

FO FO FO

3.0:1
678.18
-25.84
677.29
-22.33
674.50
-36.20

EX
RW

POST #1 LT

328+52

R/L

FO FO FO

3.0:1
678.65
-29.27
677.66
-24.90
674.69
-41.18

10 FT
10 FT

9

9

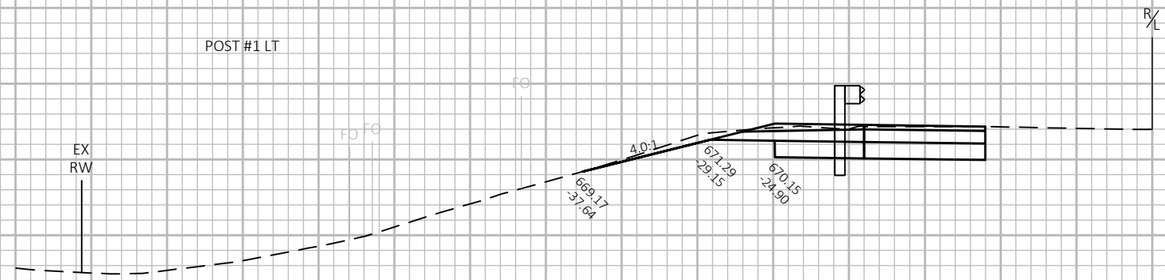
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 396	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 31

PLOT DATE : 8/18/2025 9:29 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

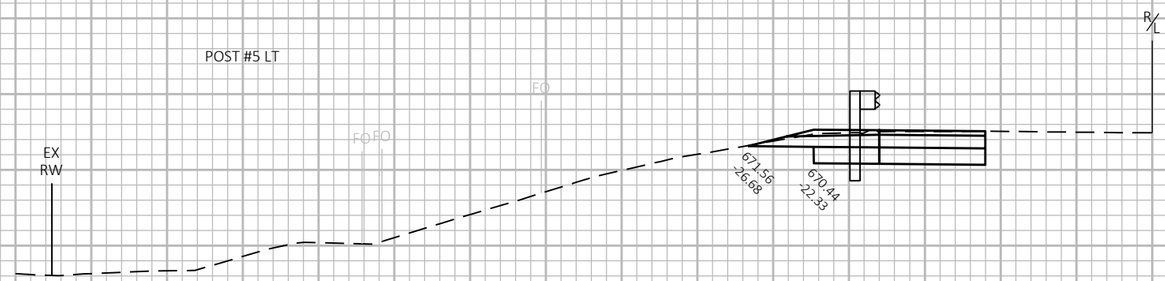
WISDOT/CADDS SHEET 49

POST #1 LT



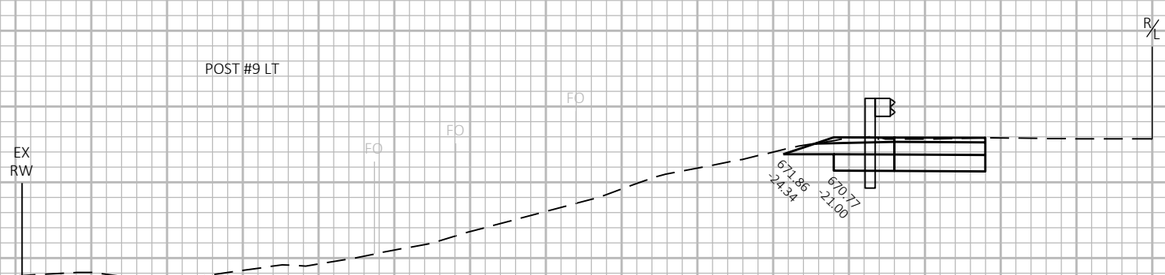
333+03

POST #5 LT

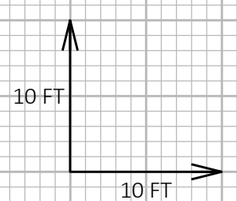


332+78

POST #9 LT



332+53



9

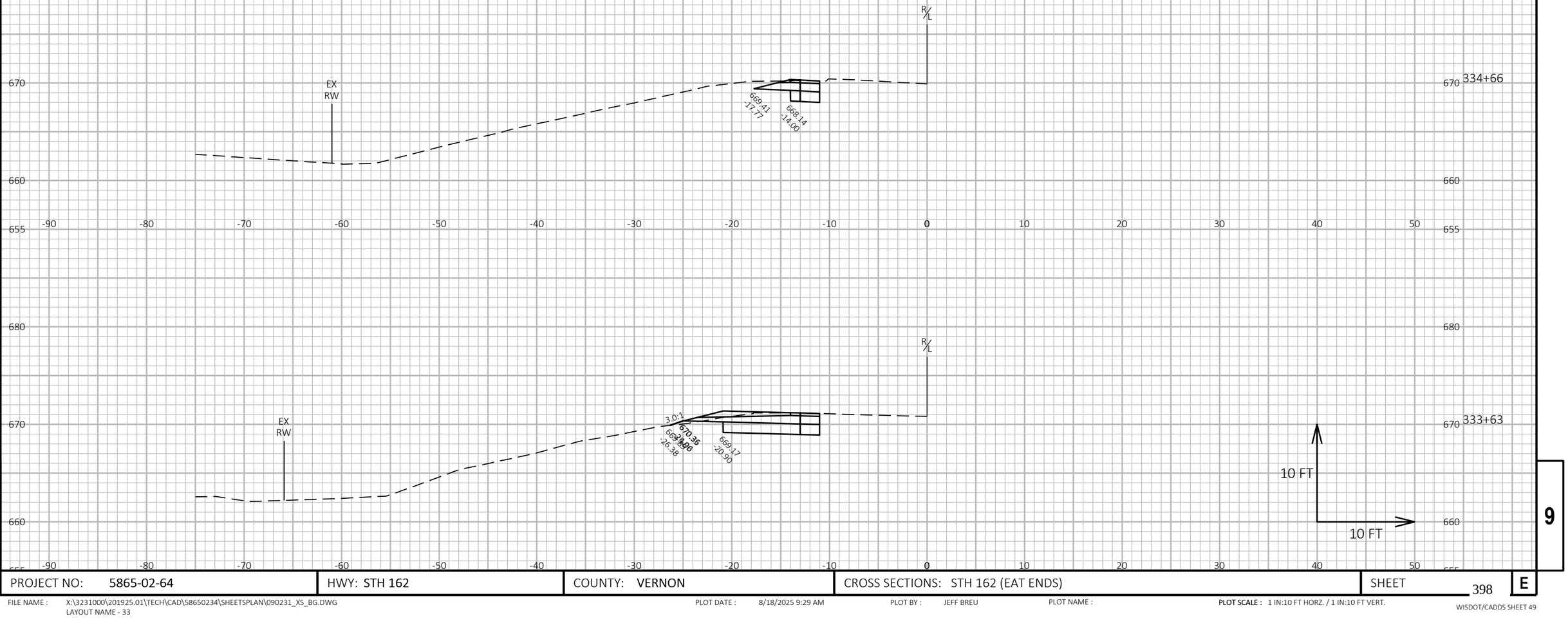
9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 397	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 32

PLOT DATE : 8/18/2025 9:29 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

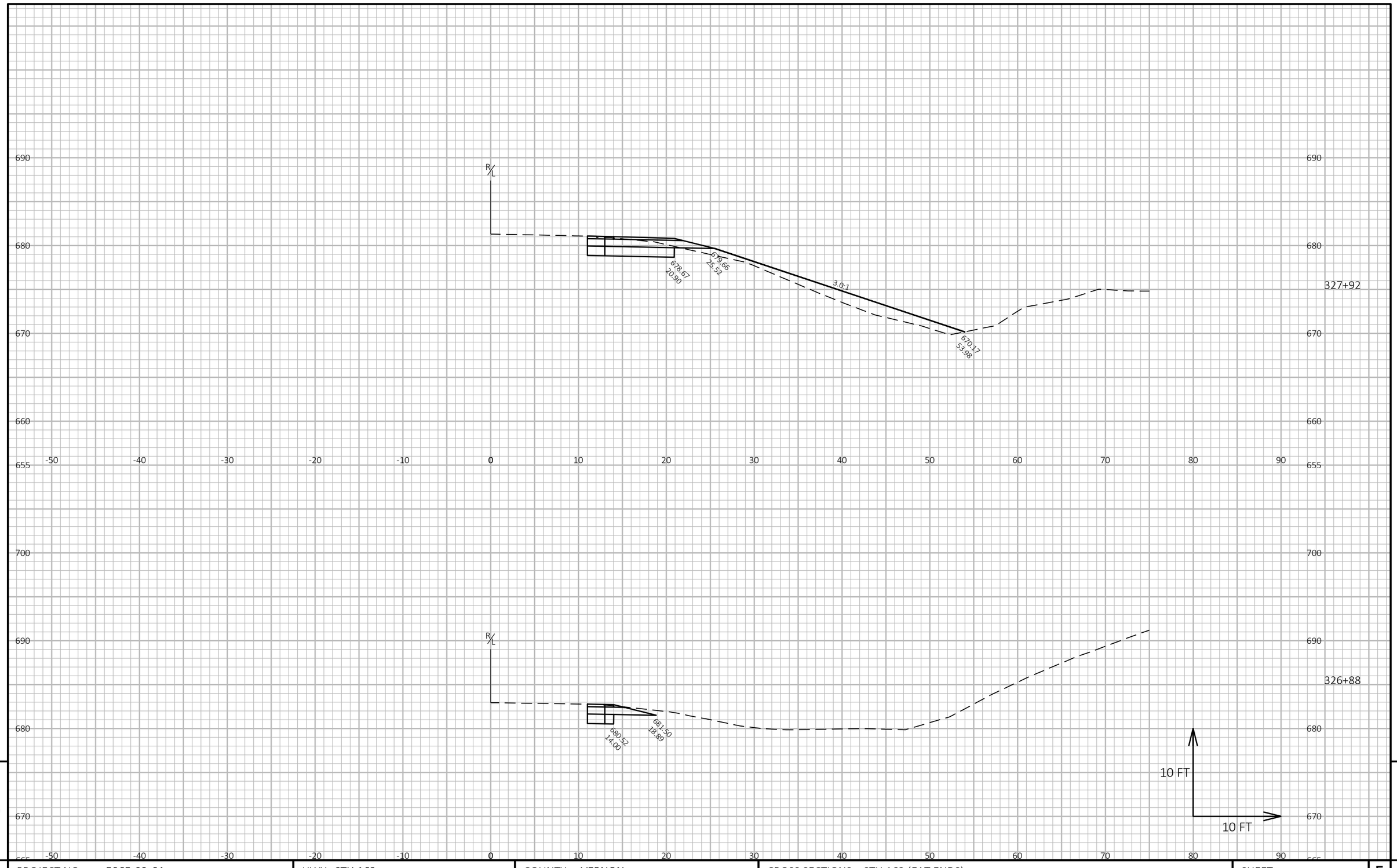
9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 398	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 33

PLOT DATE : 8/18/2025 9:29 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



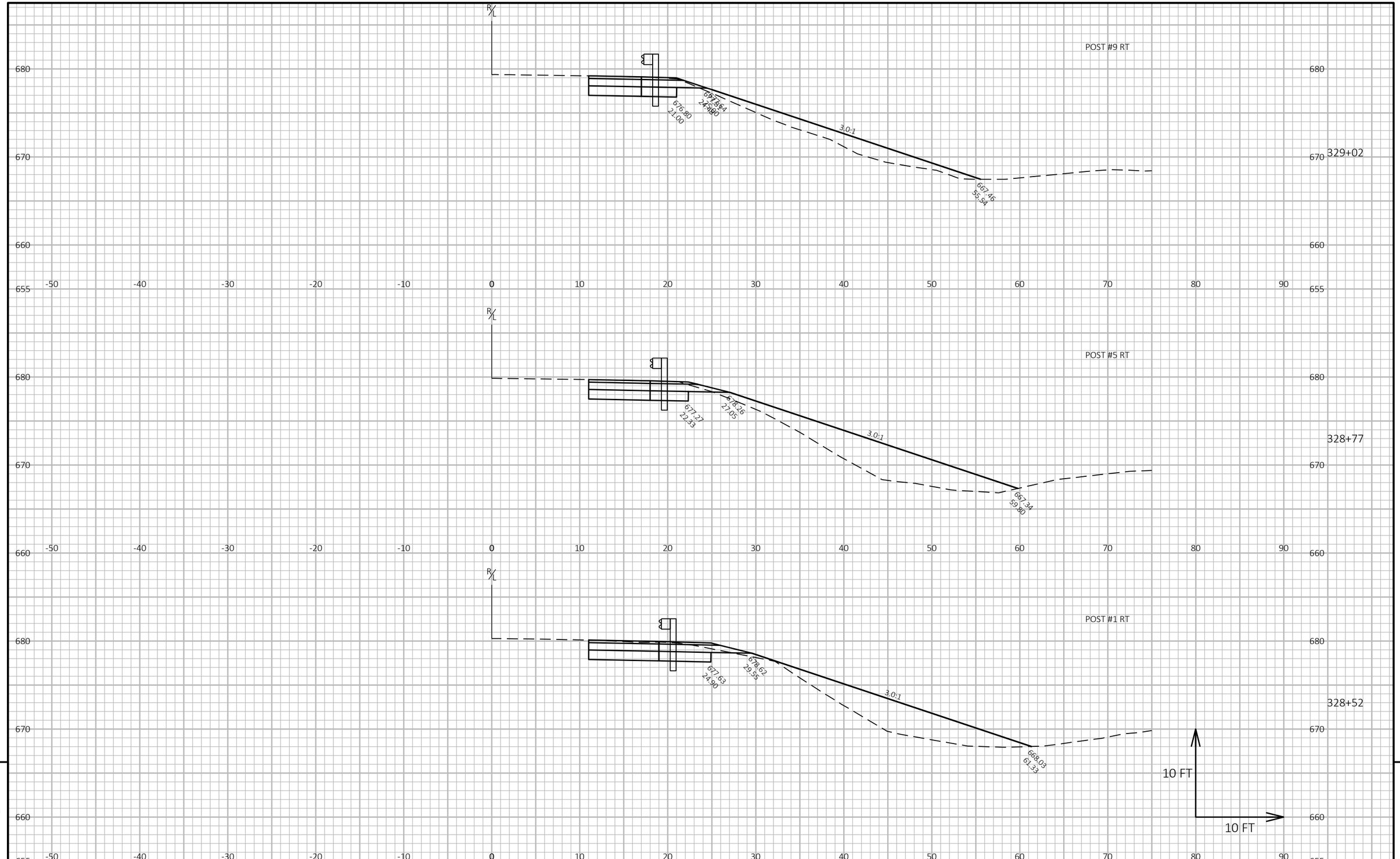
9

9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 399	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 34

PLOT DATE : 8/18/2025 12:55 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

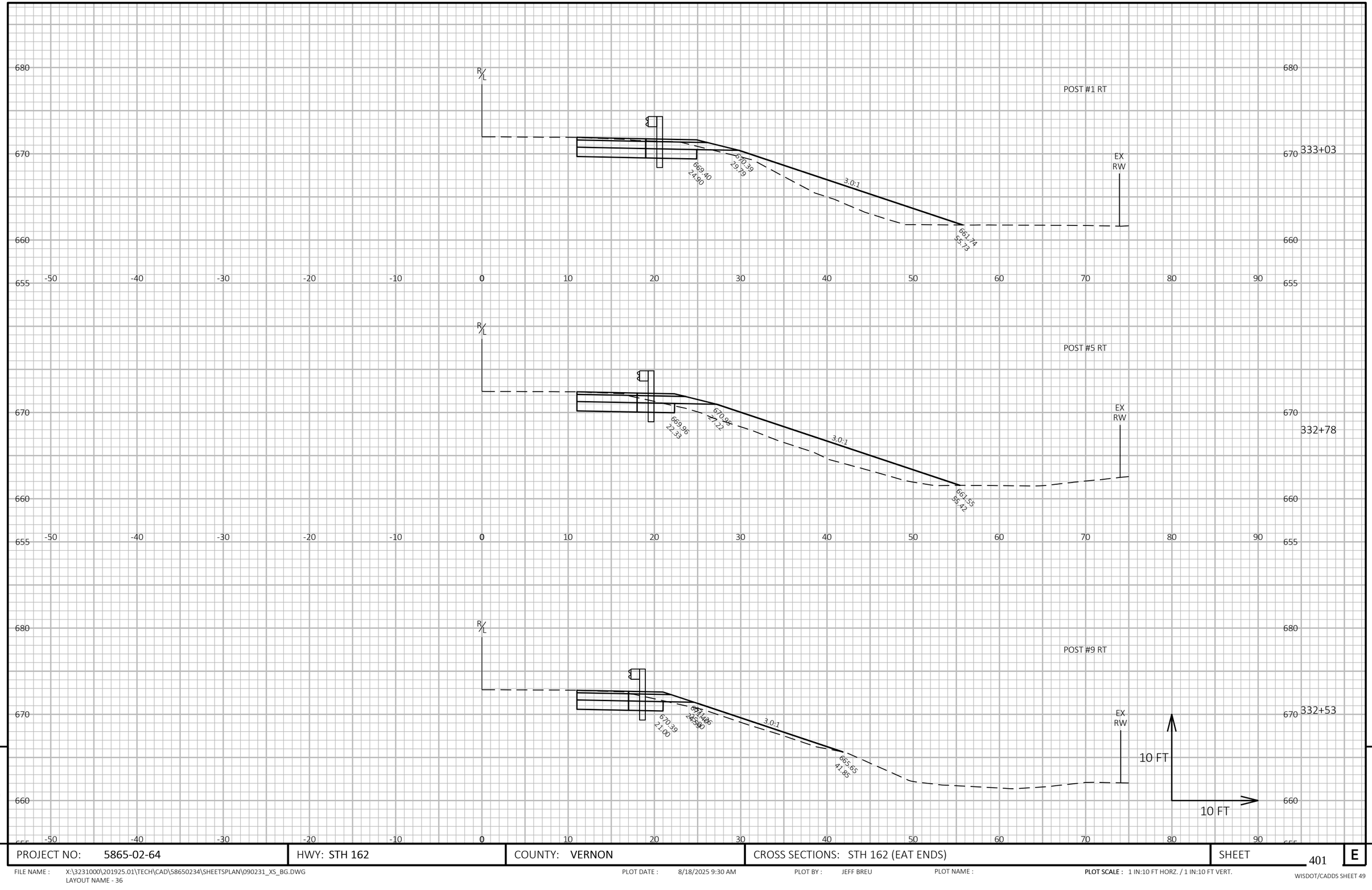


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 400	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 35

PLOT DATE : 8/18/2025 9:30 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

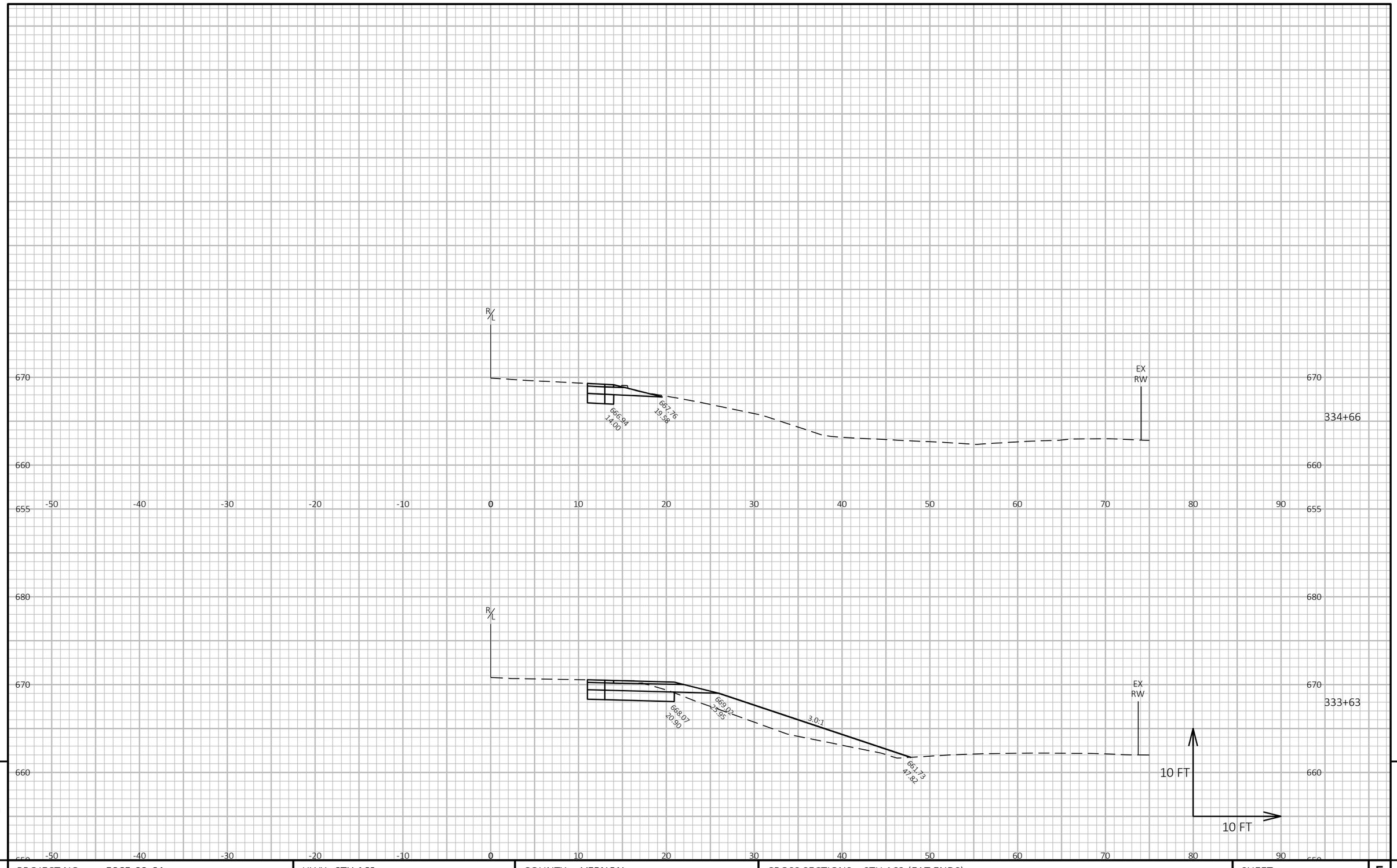
9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 401	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 36

PLOT DATE : 8/18/2025 9:30 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

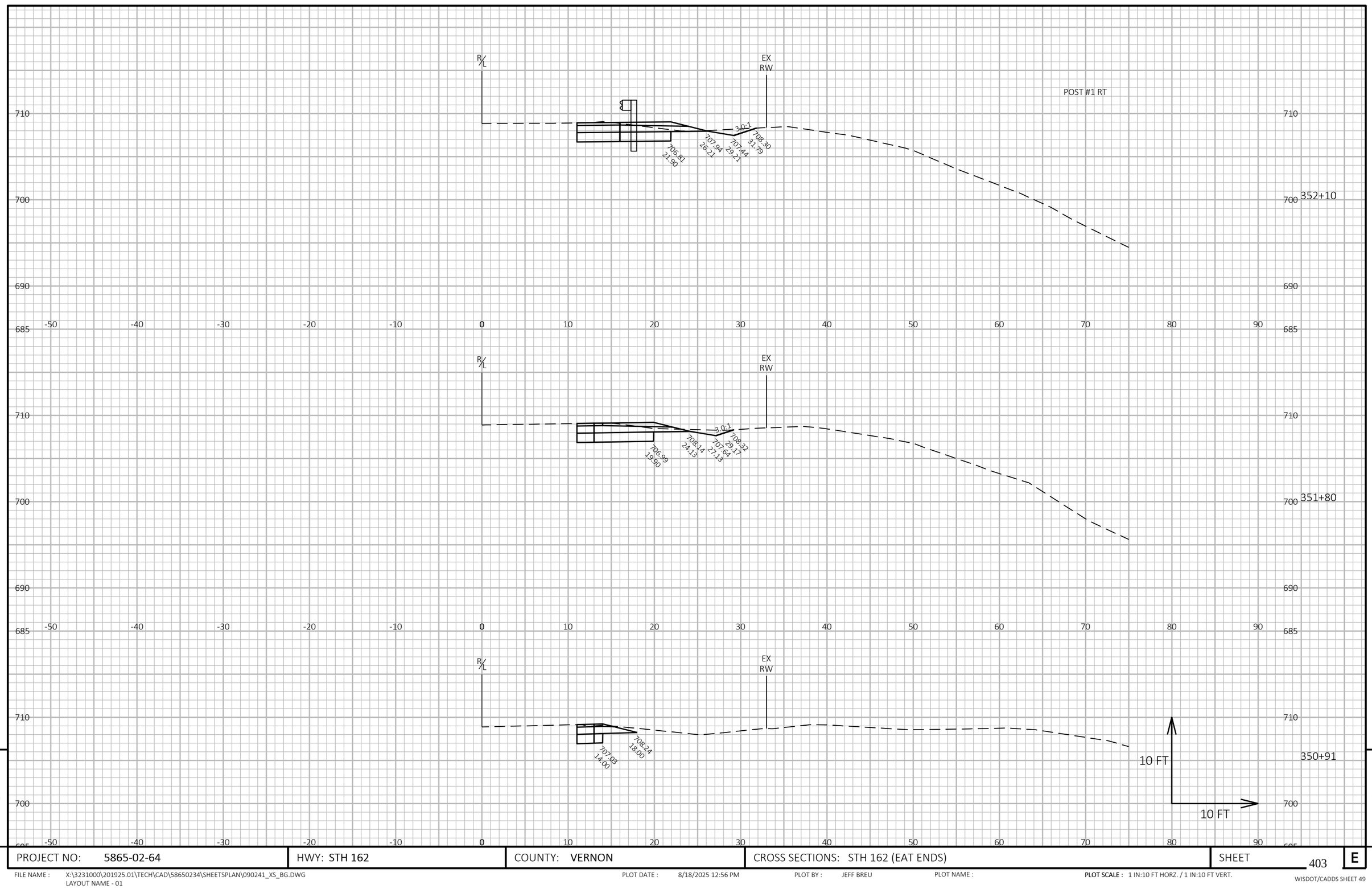
9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 402	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090231_XS_BG.DWG
LAYOUT NAME - 37

PLOT DATE : 8/18/2025 9:31 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



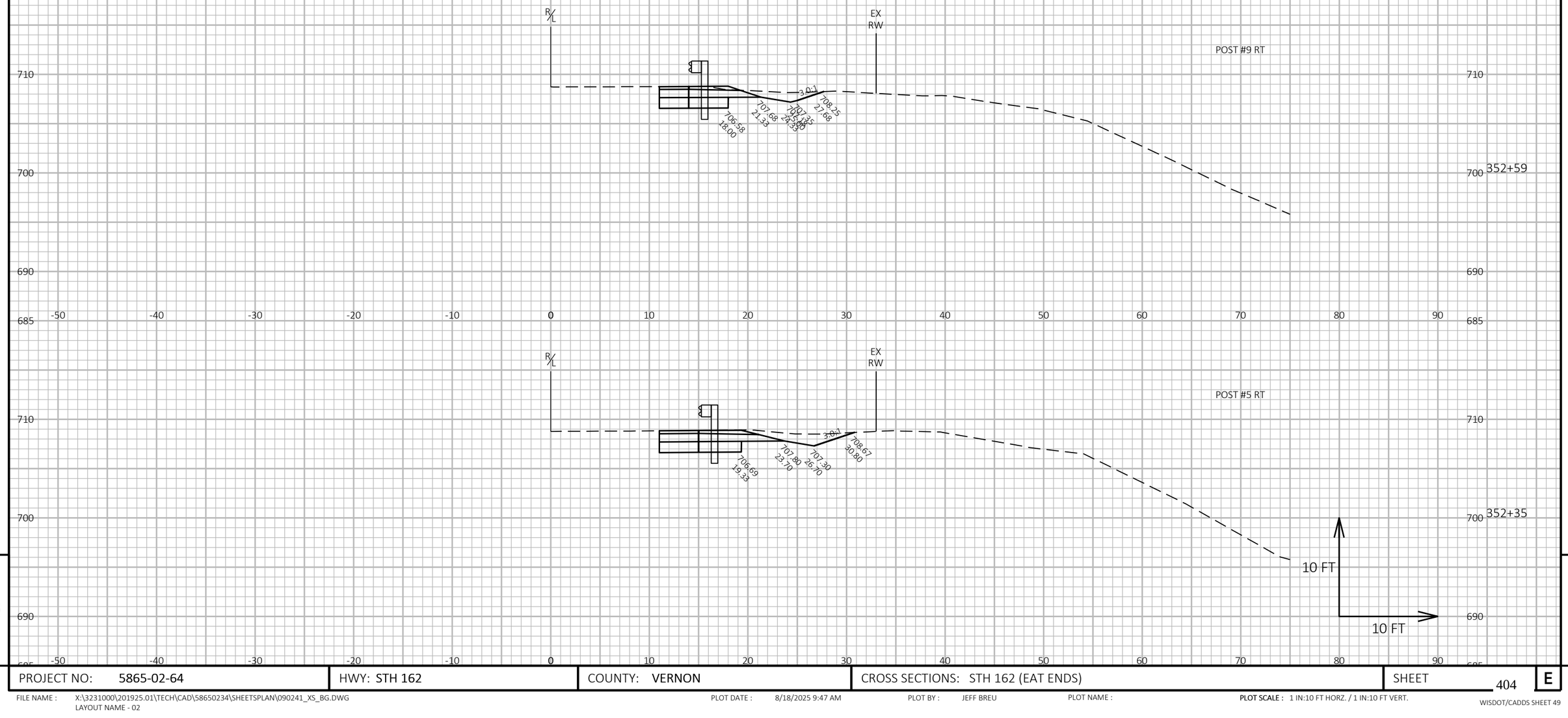
9

9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 403	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090241_XS_BG.DWG
LAYOUT NAME - 01

PLOT DATE : 8/18/2025 12:56 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 404	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090241_XS_BG.DWG
LAYOUT NAME - 02

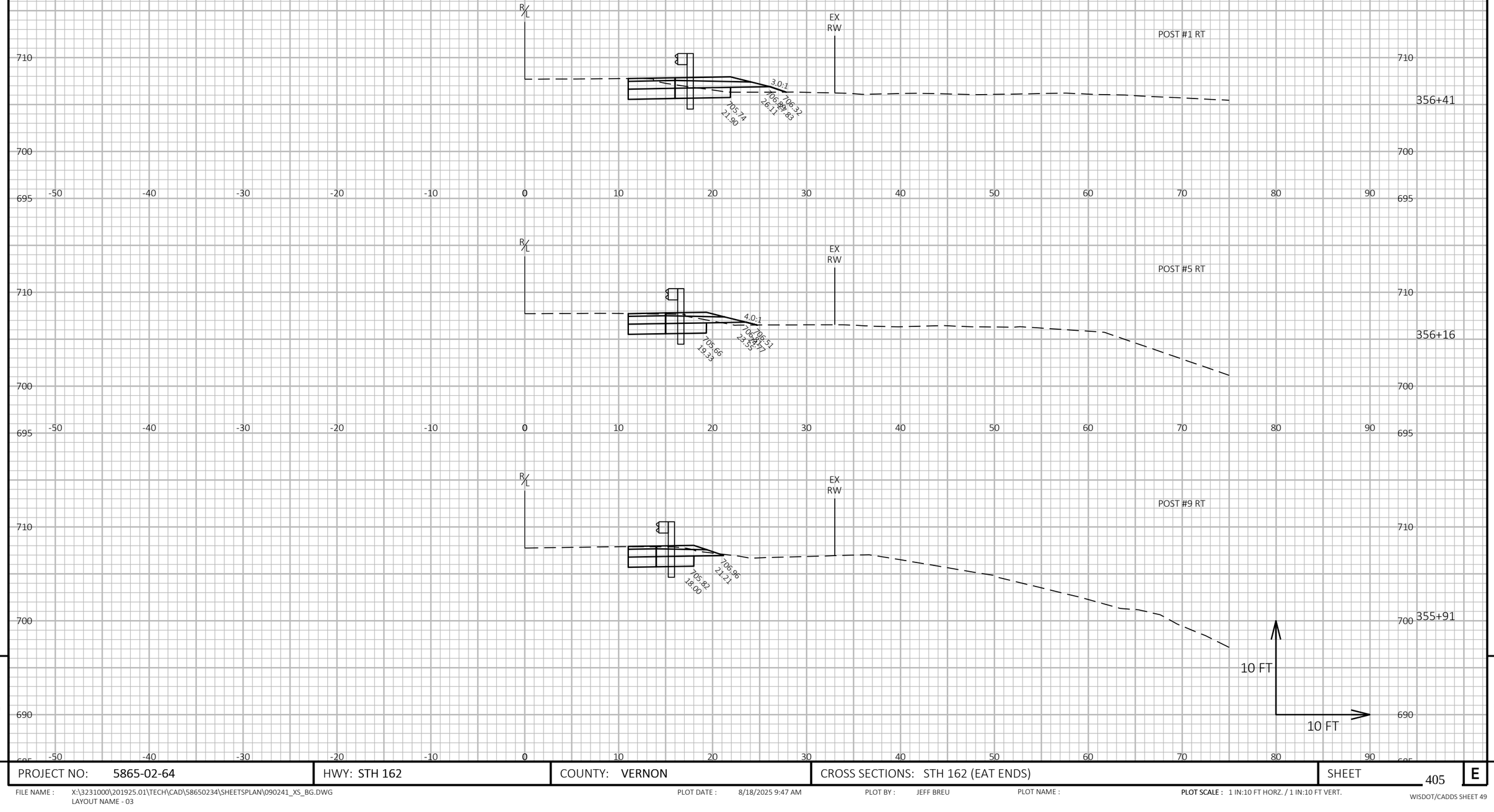
PLOT DATE : 8/18/2025 9:47 AM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

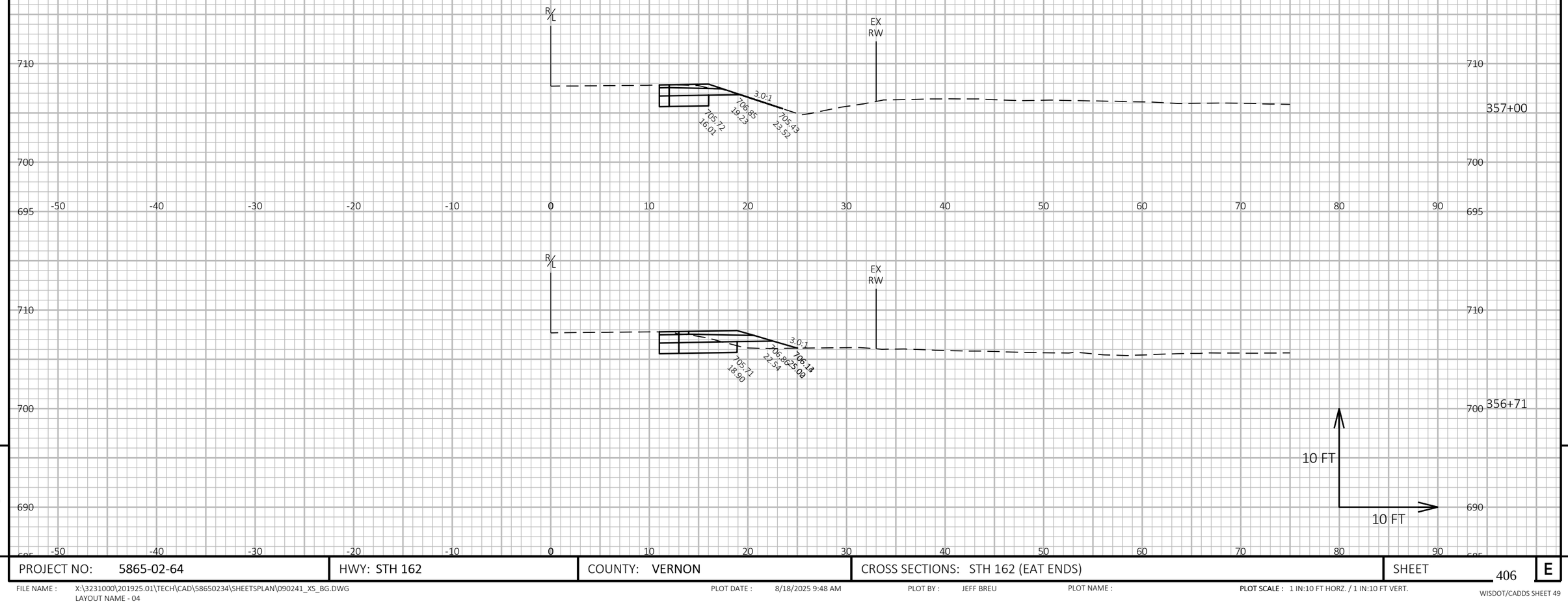
9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 405	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090241_XS_BG.DWG
LAYOUT NAME - 03

PLOT DATE : 8/18/2025 9:47 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

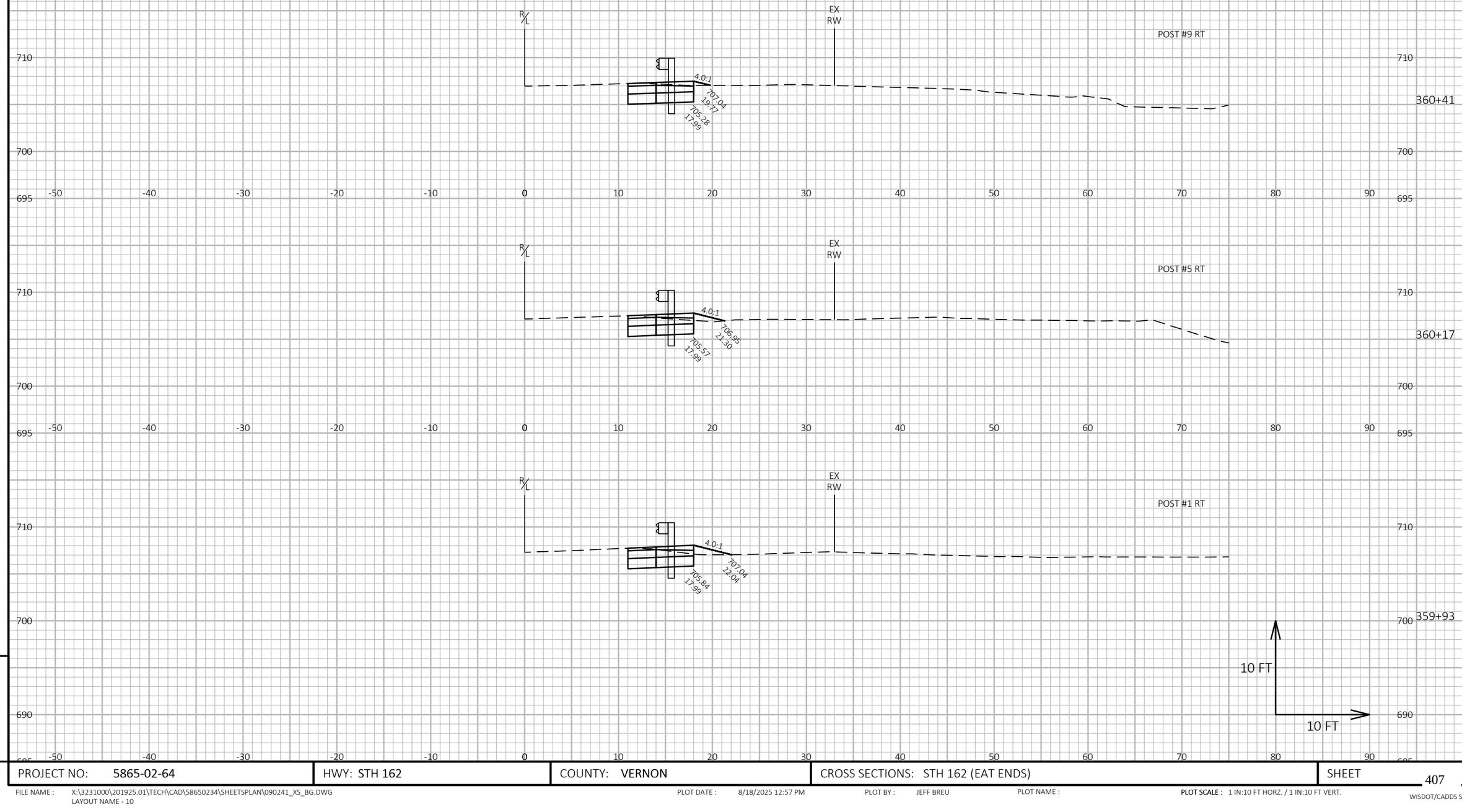


PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 406	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090241_XS_BG.DWG
LAYOUT NAME - 04

PLOT DATE : 8/18/2025 9:48 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

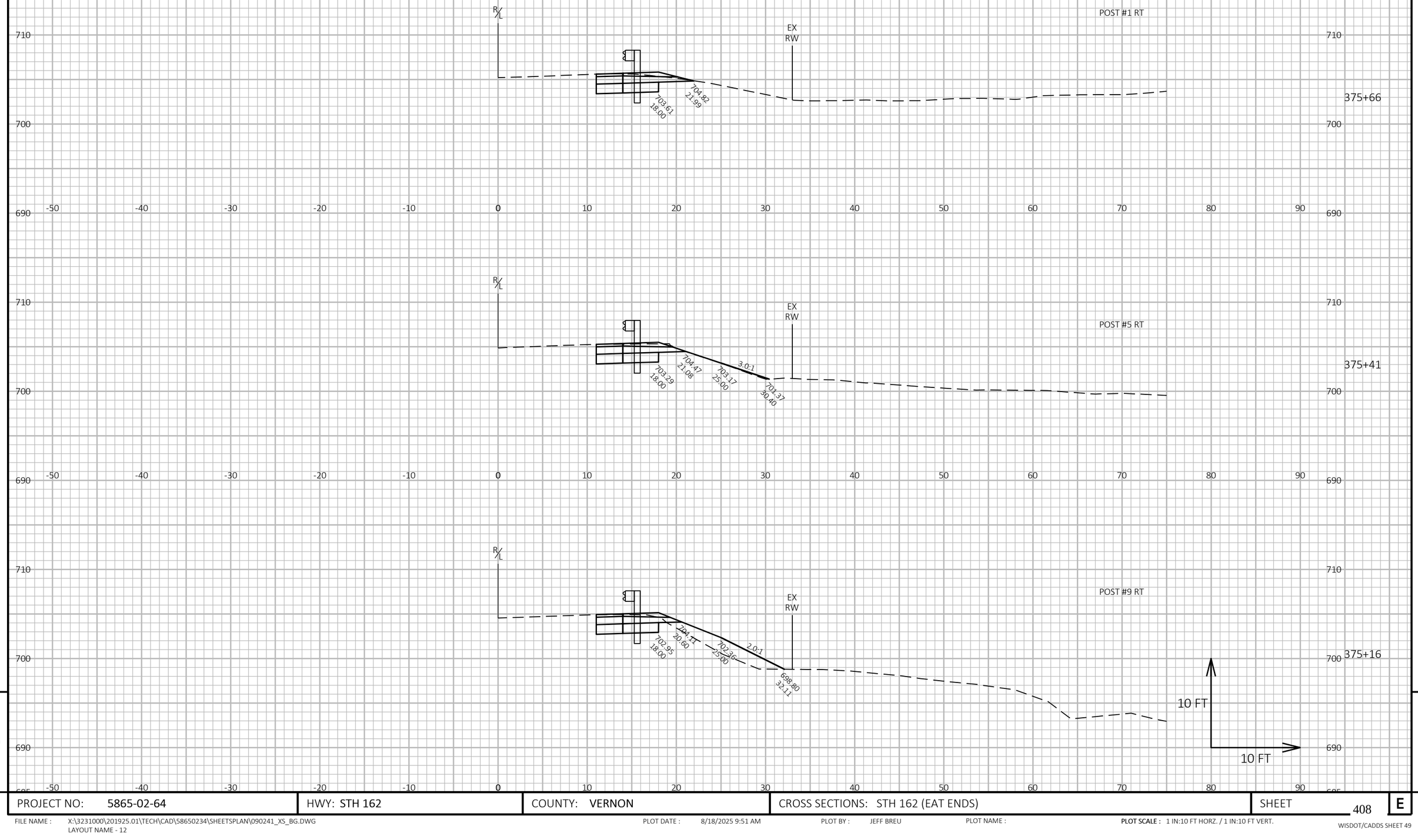
9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 407	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090241_XS_BG.DWG
LAYOUT NAME - 10

PLOT DATE : 8/18/2025 12:57 PM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



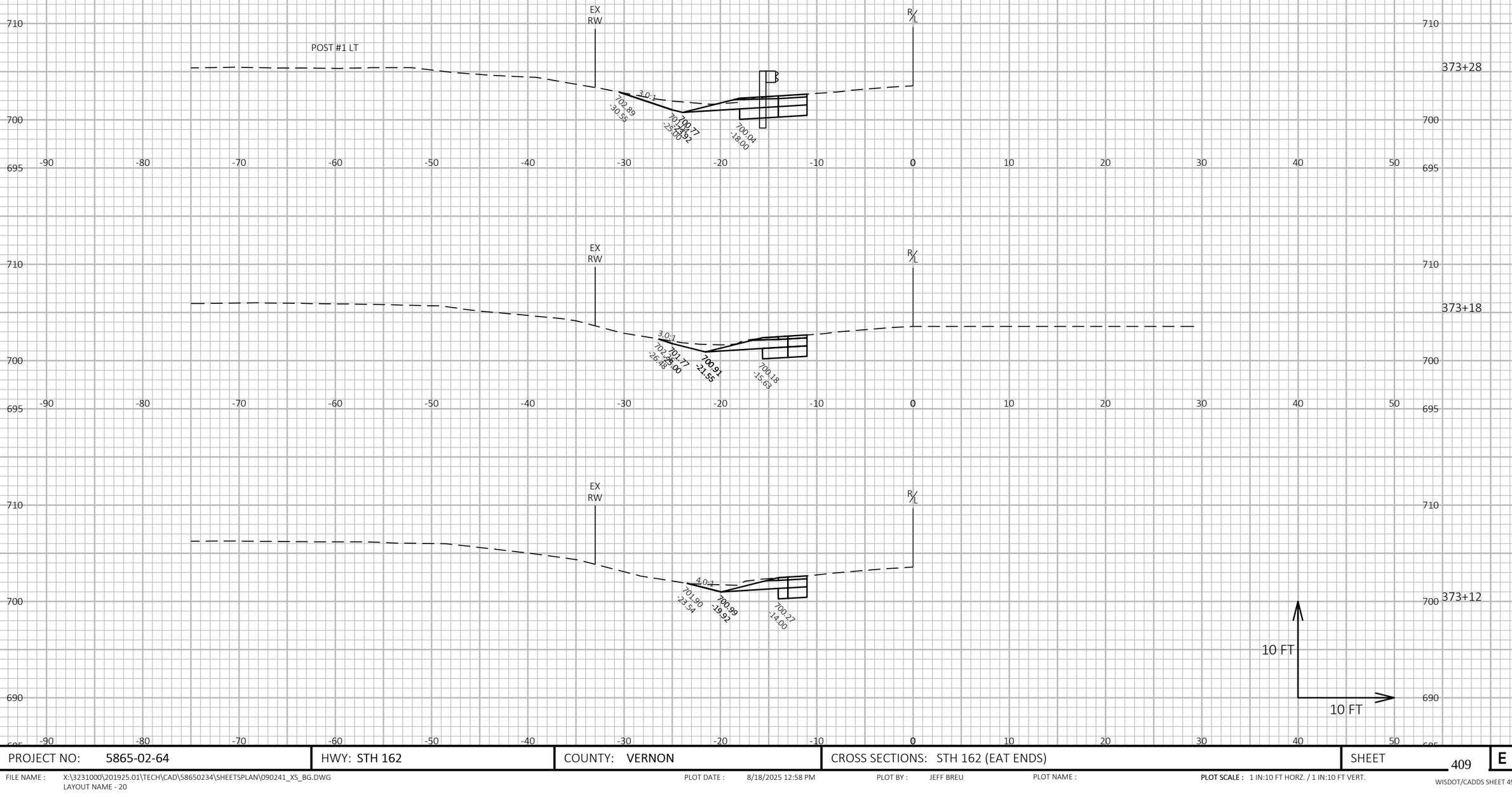
9

9

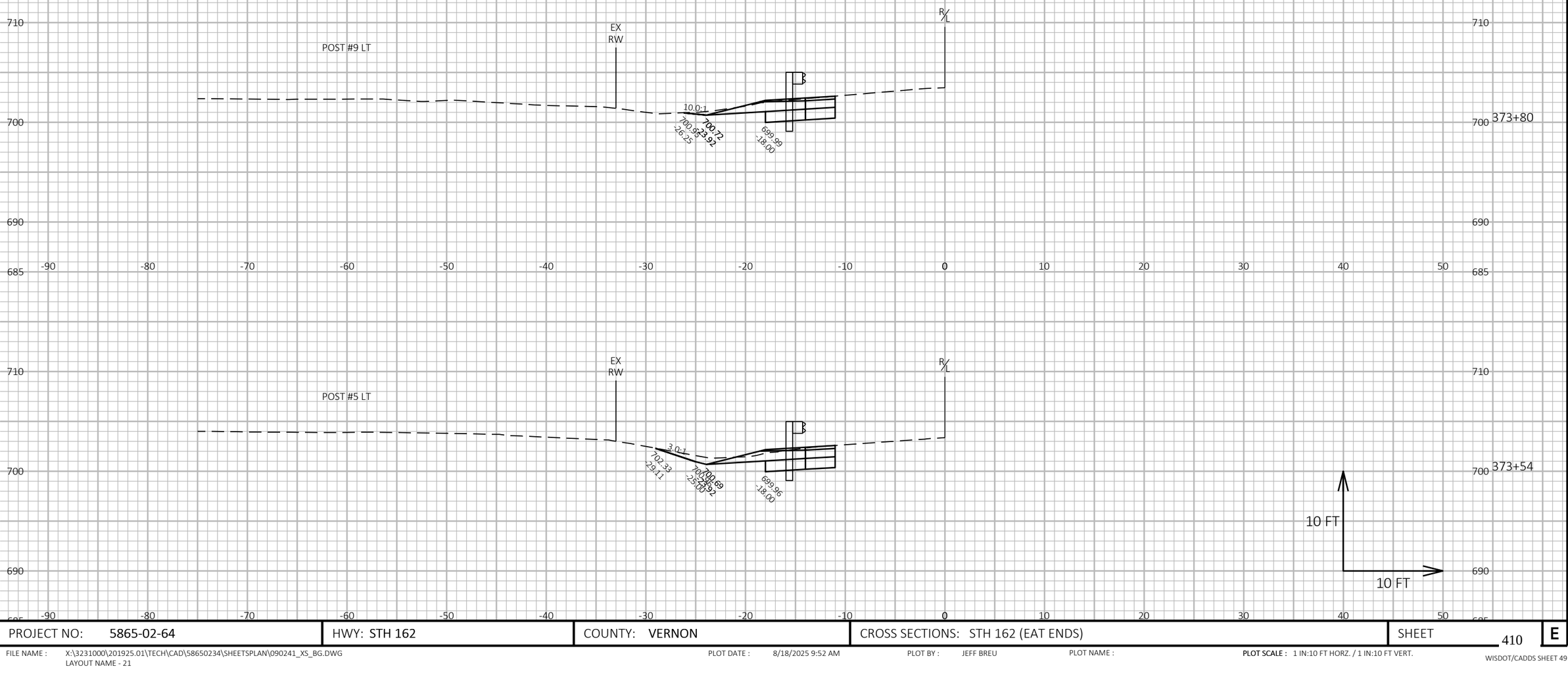
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 408	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090241_XS_BG.DWG
LAYOUT NAME - 12

PLOT DATE : 8/18/2025 9:51 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 409	E



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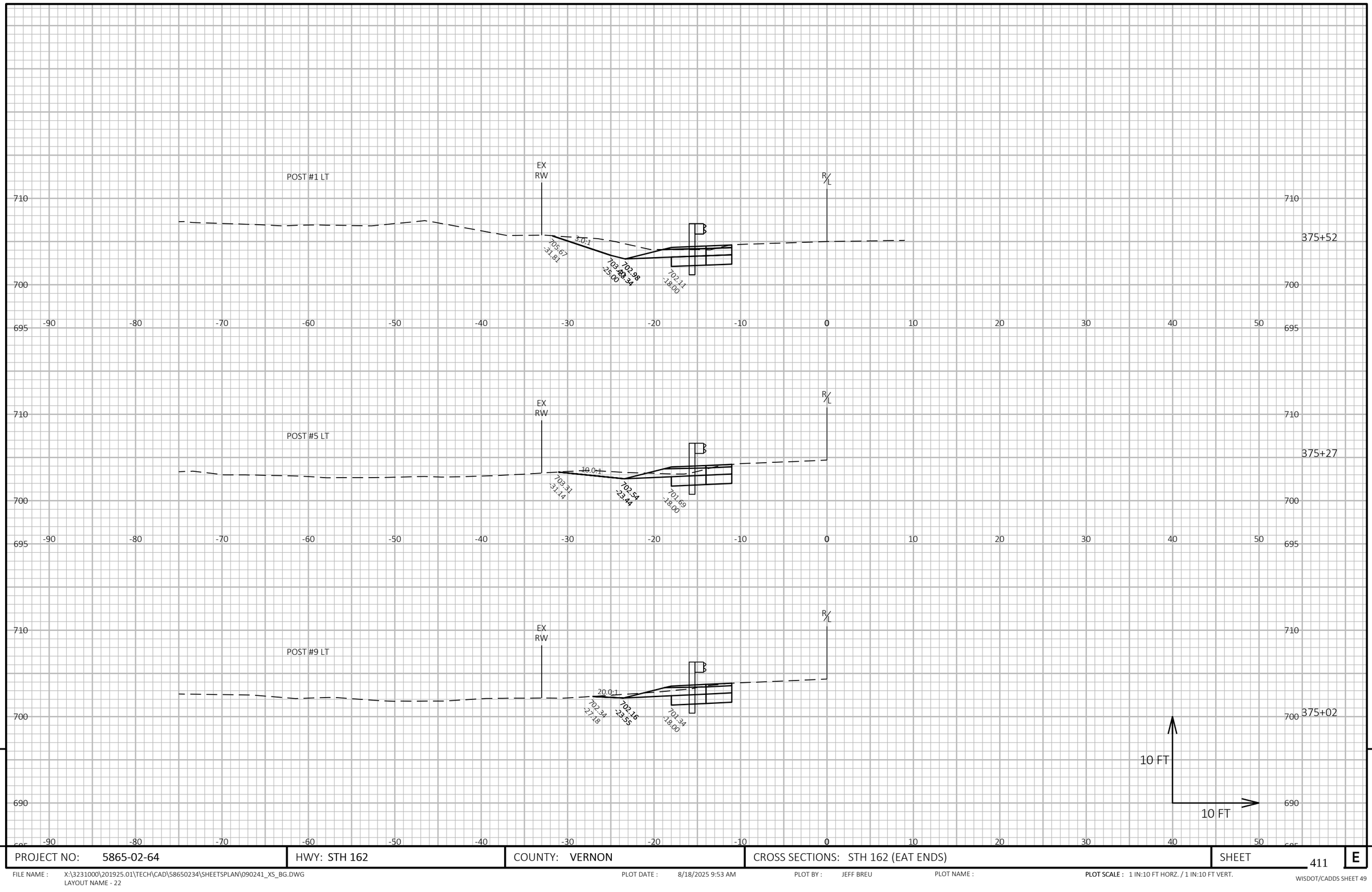
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 410	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090241_XS_BG.DWG
LAYOUT NAME - 21

PLOT DATE : 8/18/2025 9:52 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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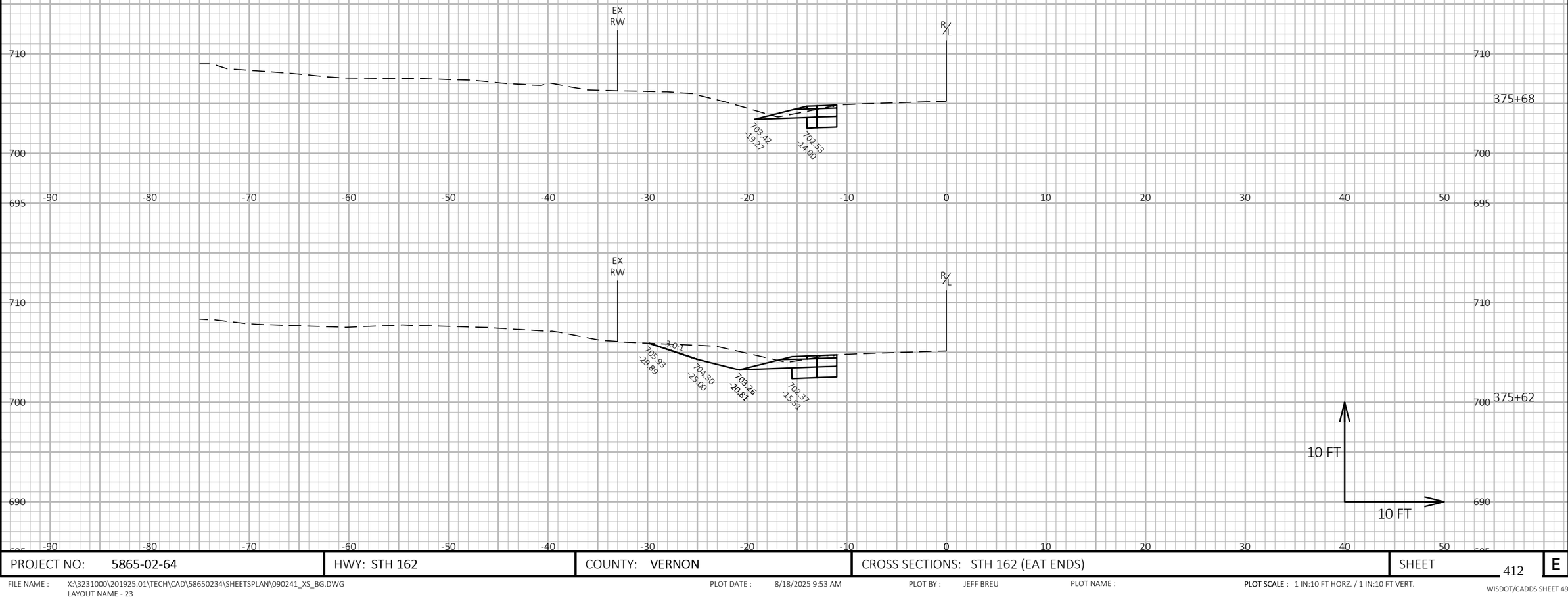
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 411	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090241_XS_BG.DWG
LAYOUT NAME - 22

PLOT DATE : 8/18/2025 9:53 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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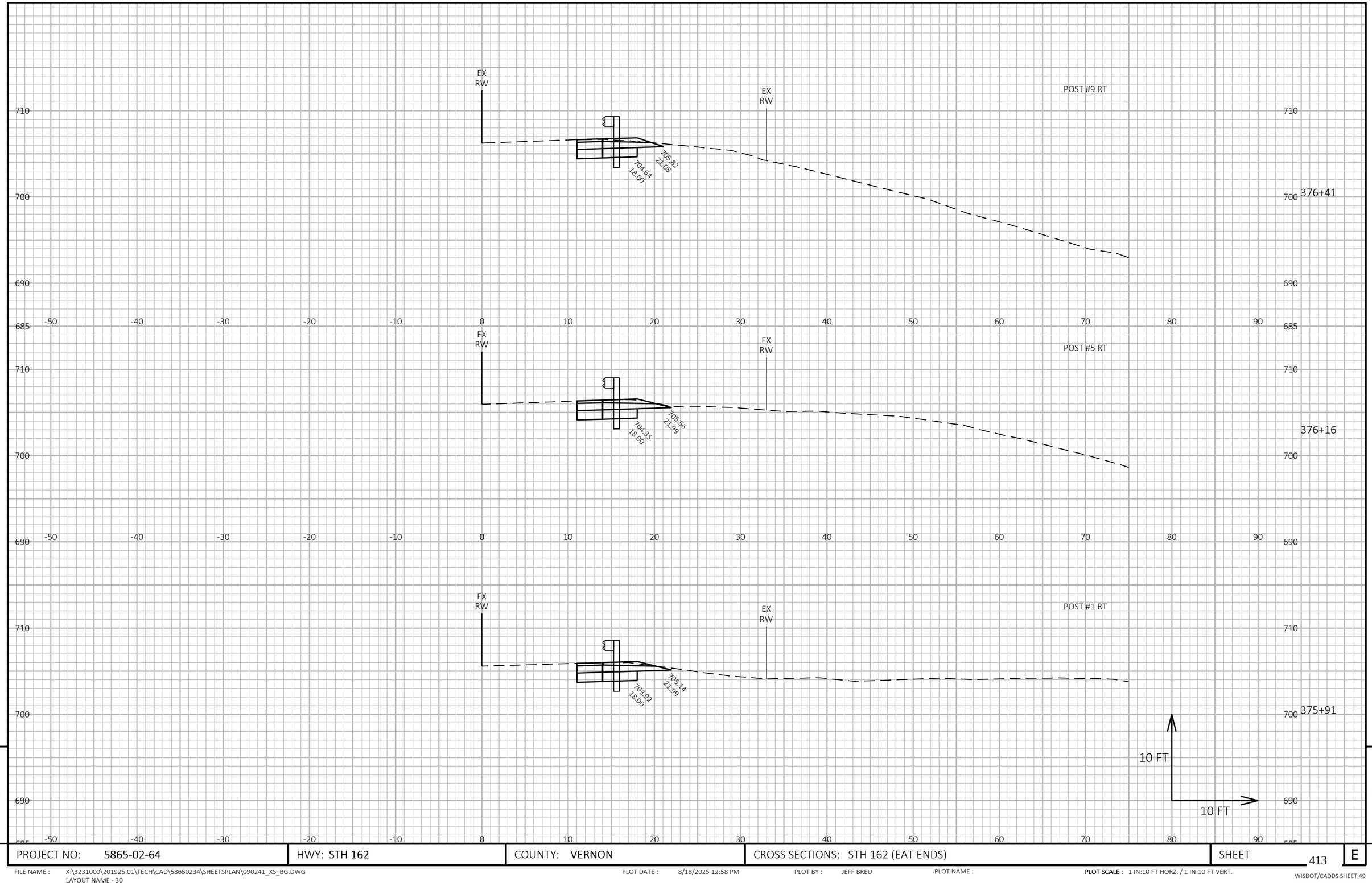
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 412	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090241_XS_BG.DWG
LAYOUT NAME - 23

PLOT DATE : 8/18/2025 9:53 AM PLOT BY : JEFF BREU PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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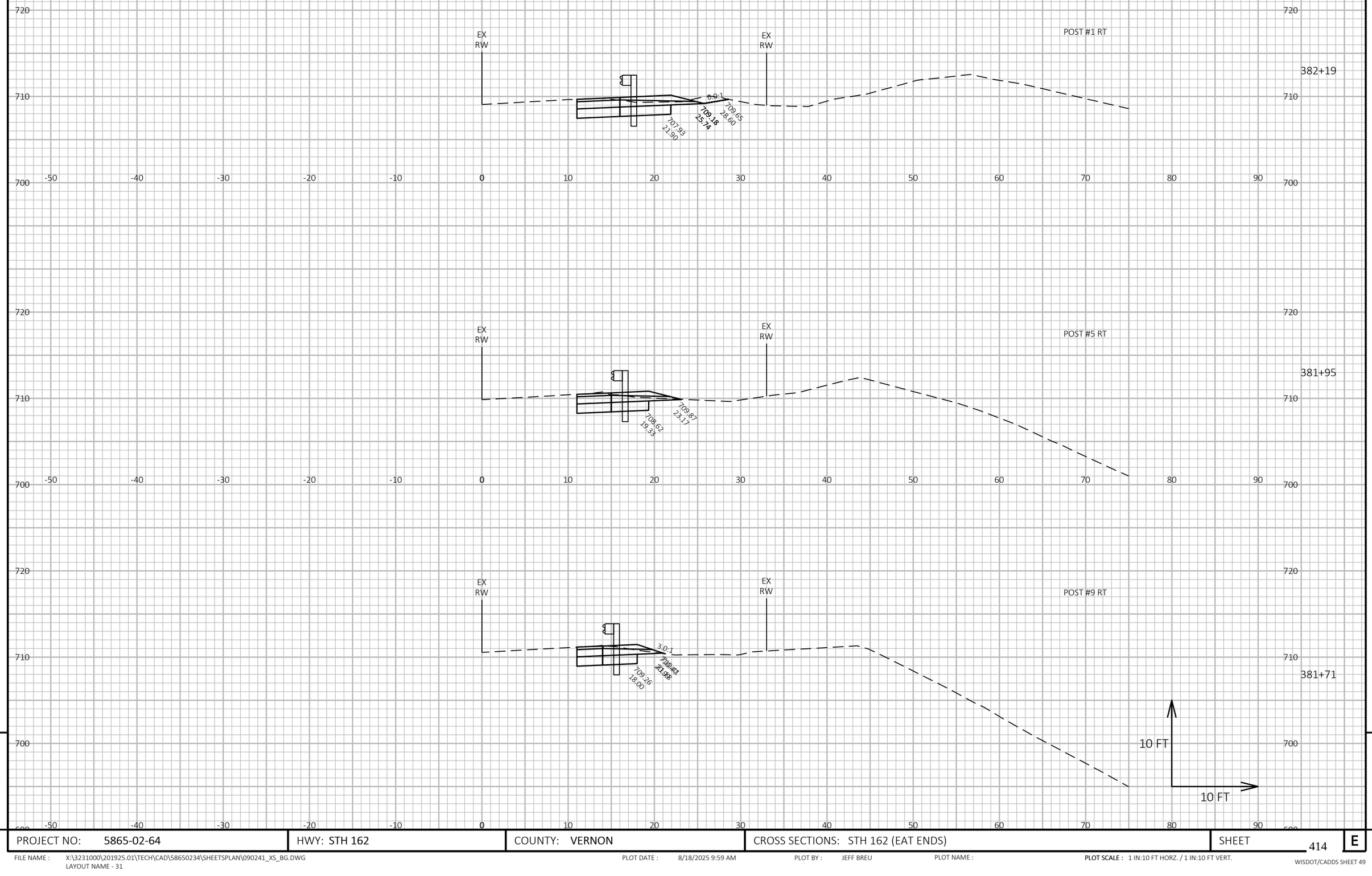
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 413	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090241_XS_BG.DWG
LAYOUT NAME - 30

PLOT DATE : 8/18/2025 12:58 PM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

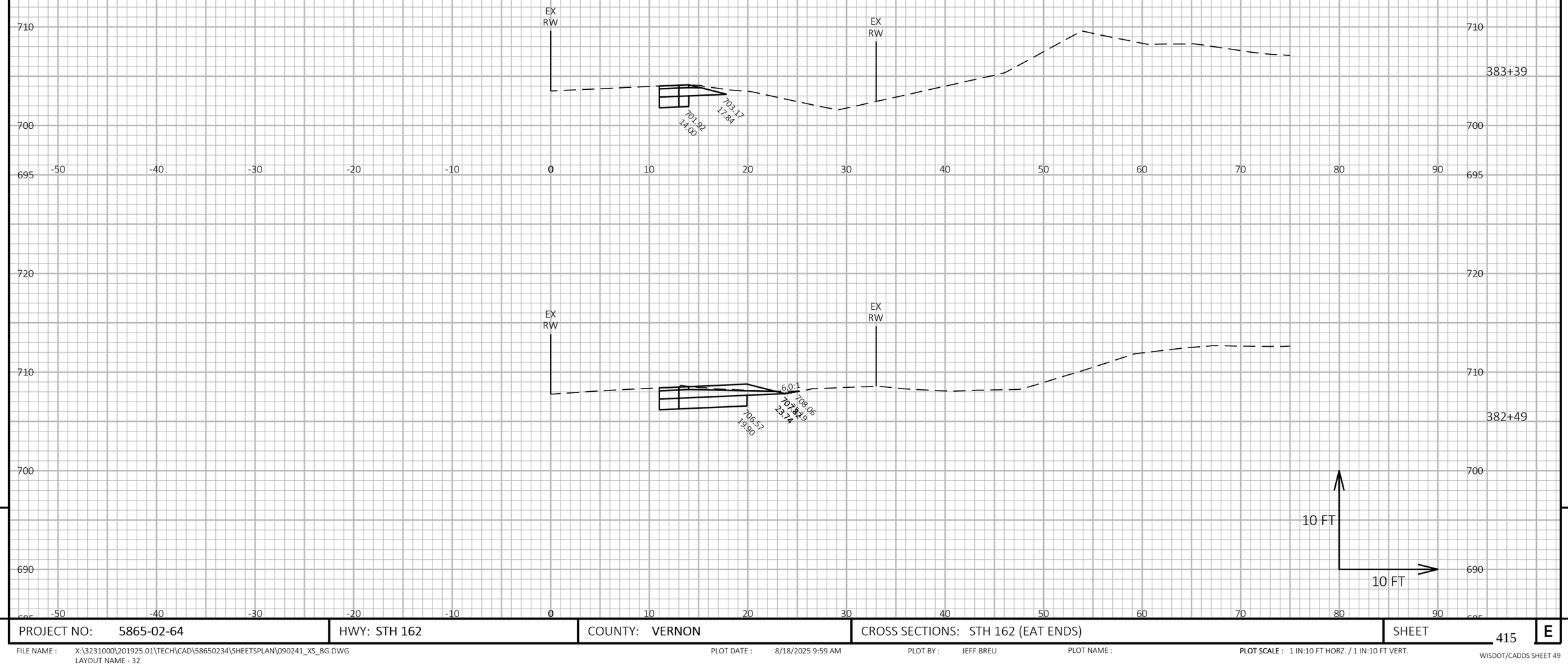
9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 414	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090241_XS_BG.DWG
LAYOUT NAME - 31

PLOT DATE : 8/18/2025 9:59 AM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 415	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090241_XS_BG.DWG
LAYOUT NAME - 32

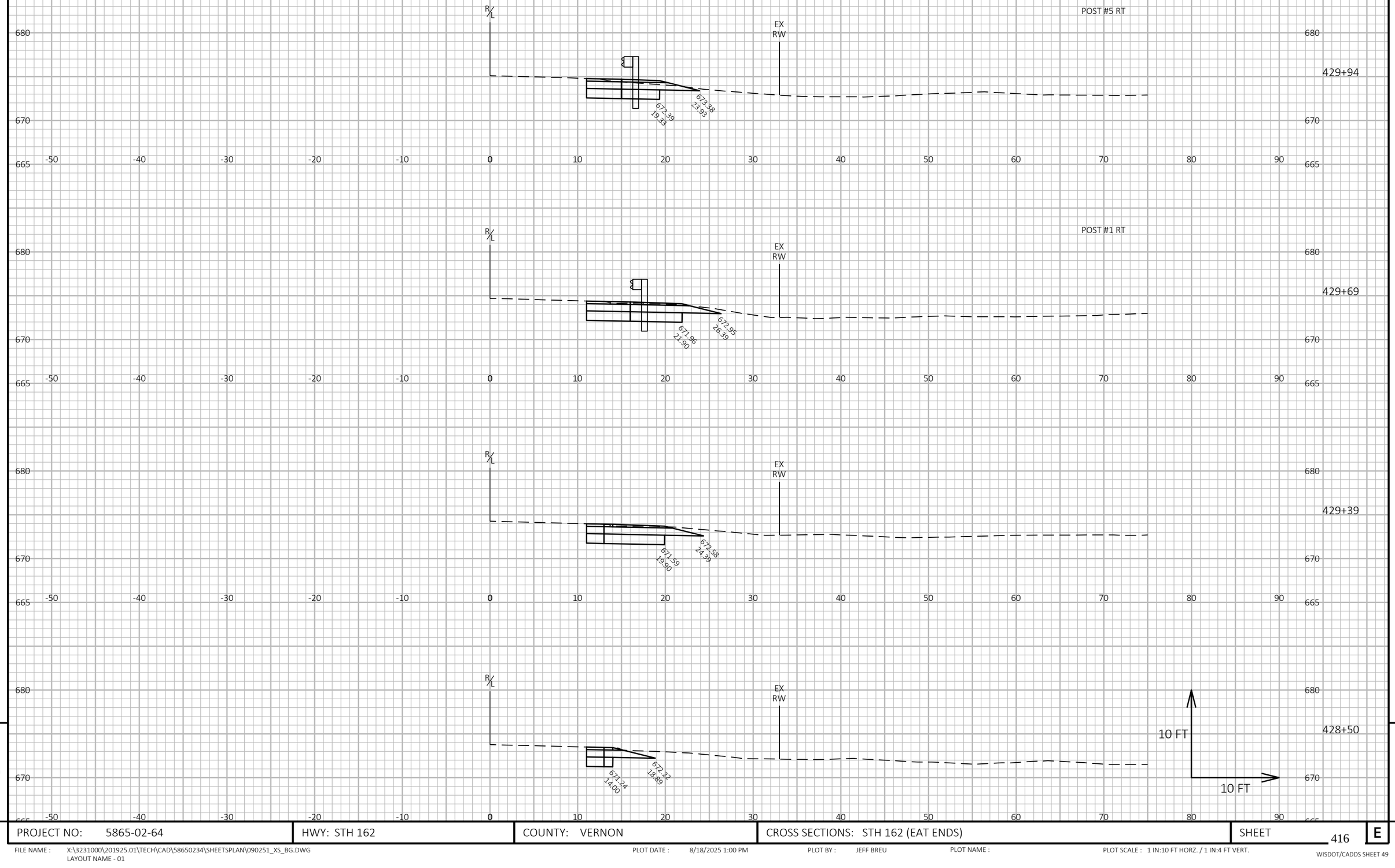
PLOT DATE : 8/18/2025 9:59 AM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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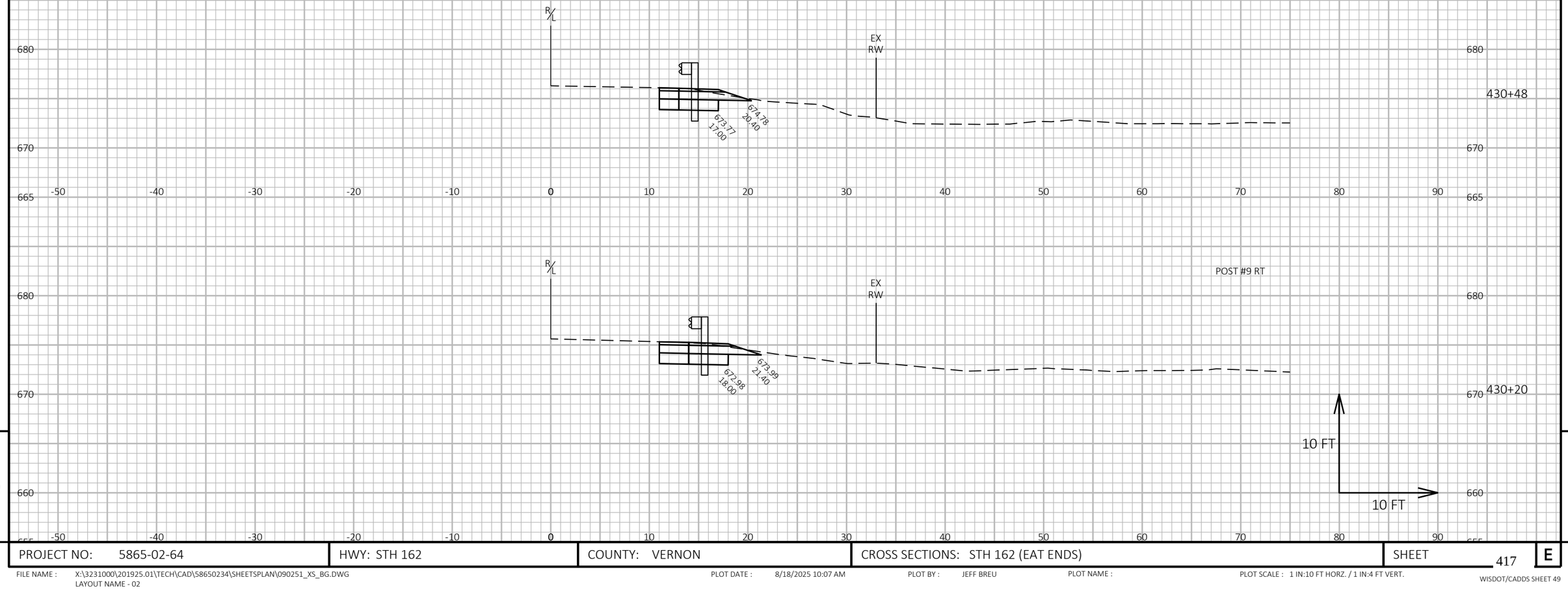
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 416	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090251_XS_BG.DWG
LAYOUT NAME - 01

PLOT DATE : 8/18/2025 1:00 PM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:4 FT VERT.



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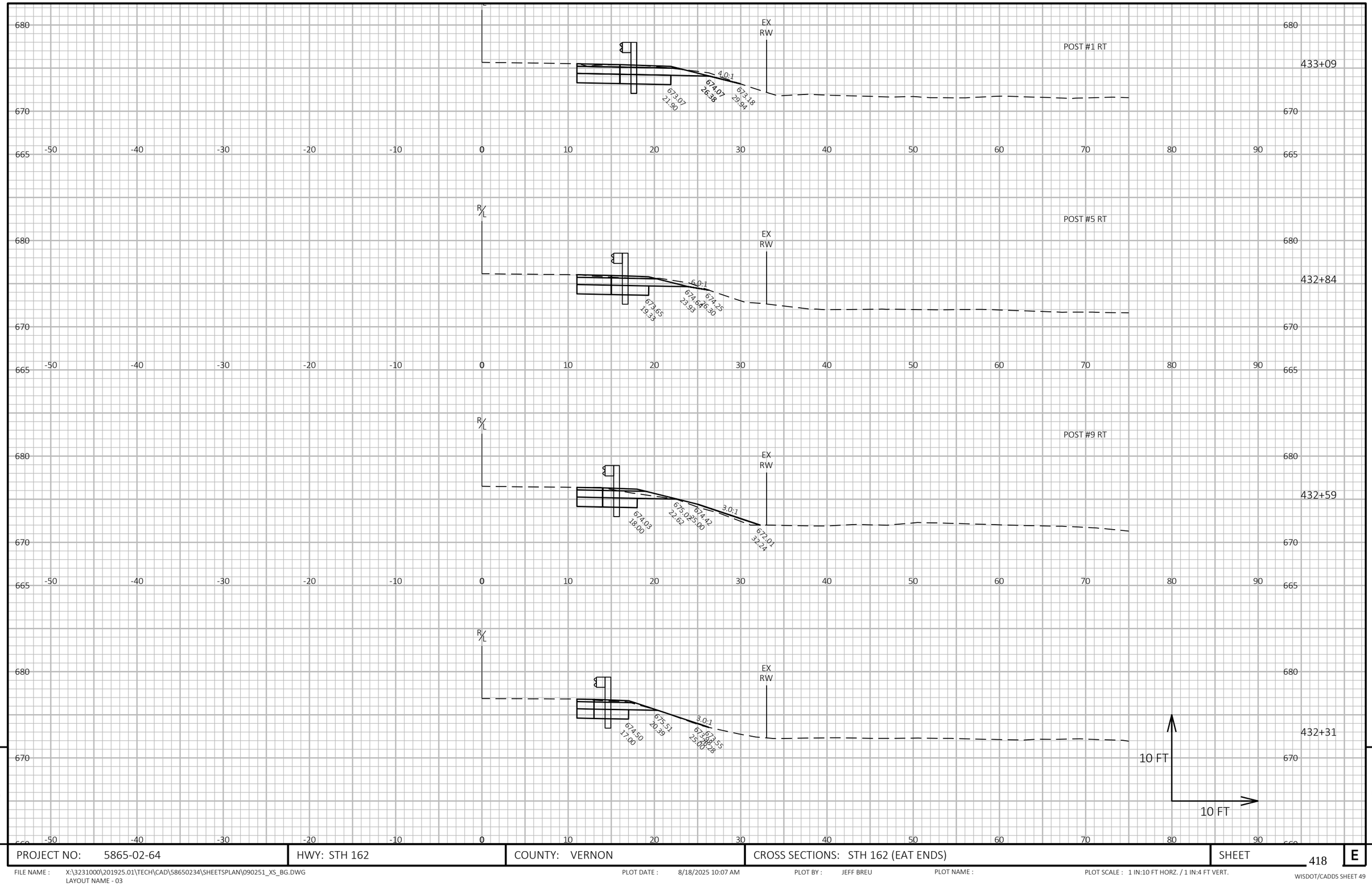
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 417	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090251_XS_BG.DWG
LAYOUT NAME - 02

PLOT DATE : 8/18/2025 10:07 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:4 FT VERT.



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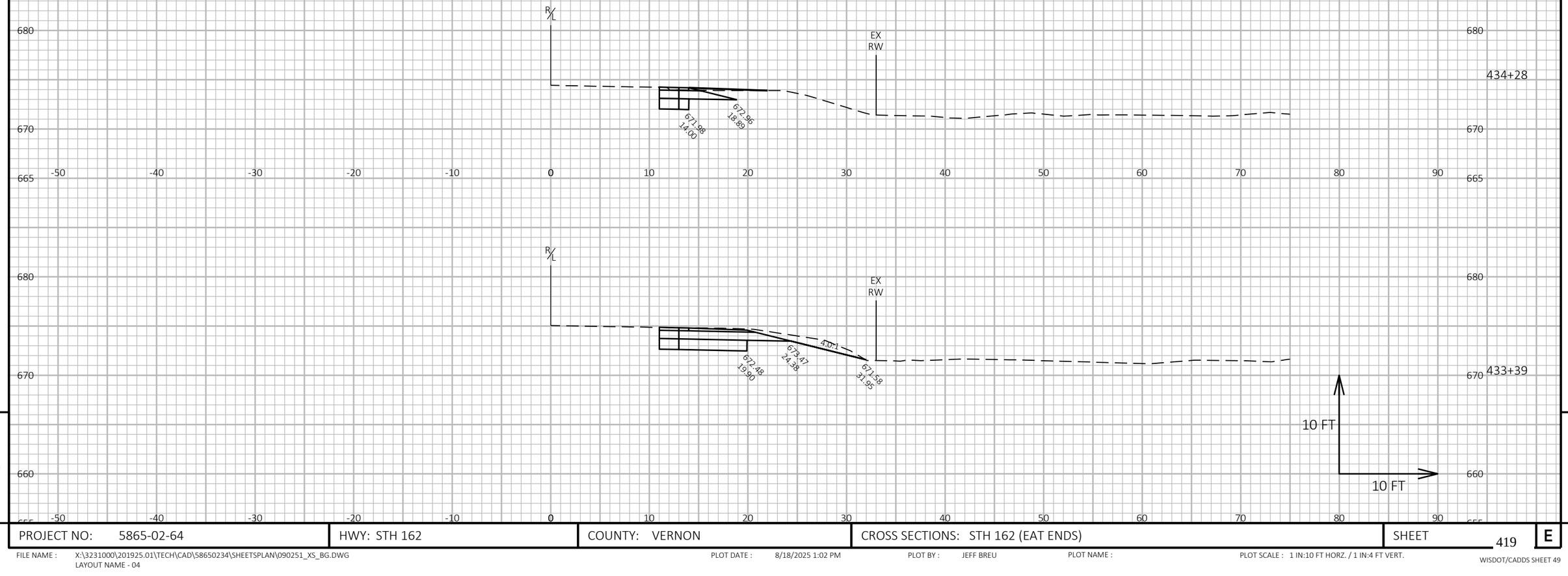
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 418	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090251_XS_BG.DWG
LAYOUT NAME - 03

PLOT DATE : 8/18/2025 10:07 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:4 FT VERT.

WISDOT/CADDS SHEET 49



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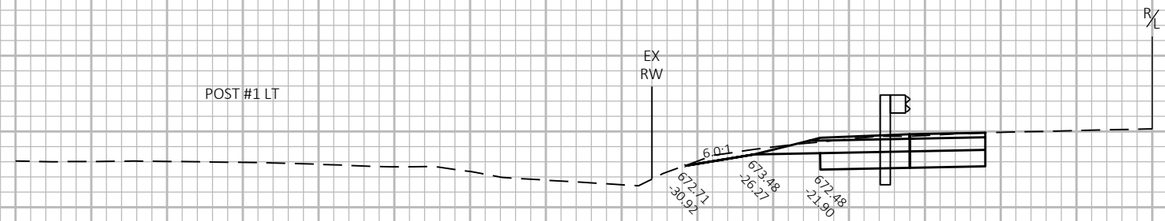
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 419	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090251_XS_BG.DWG
LAYOUT NAME - 04

PLOT DATE : 8/18/2025 1:02 PM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:4 FT VERT.

WISDOT/CADDS SHEET 49

POST #1 LT



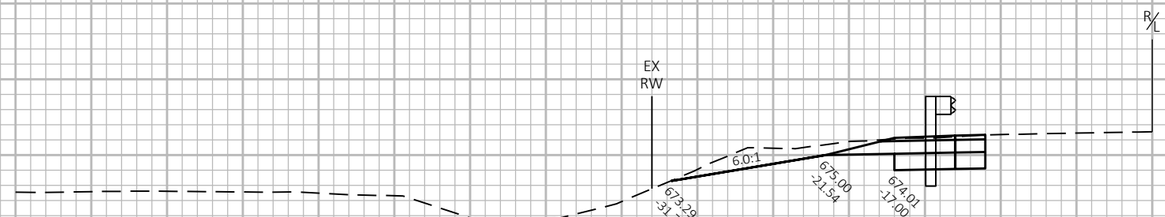
433+34

POST #5 LT

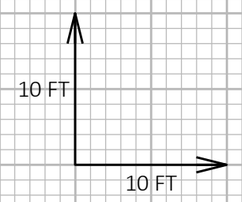
433+09

POST #9 LT

432+84



432+56



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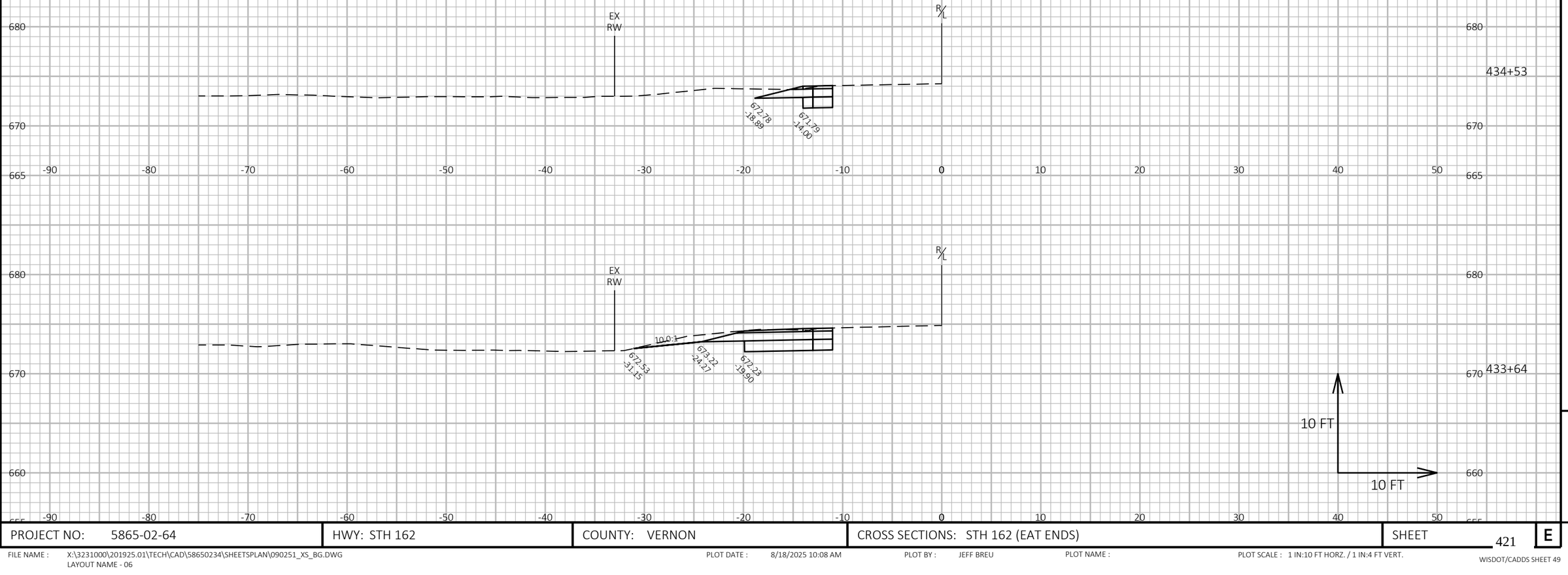
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 420	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090251_XS_BG.DWG
LAYOUT NAME - 05

PLOT DATE : 8/18/2025 10:08 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:4 FT VERT.



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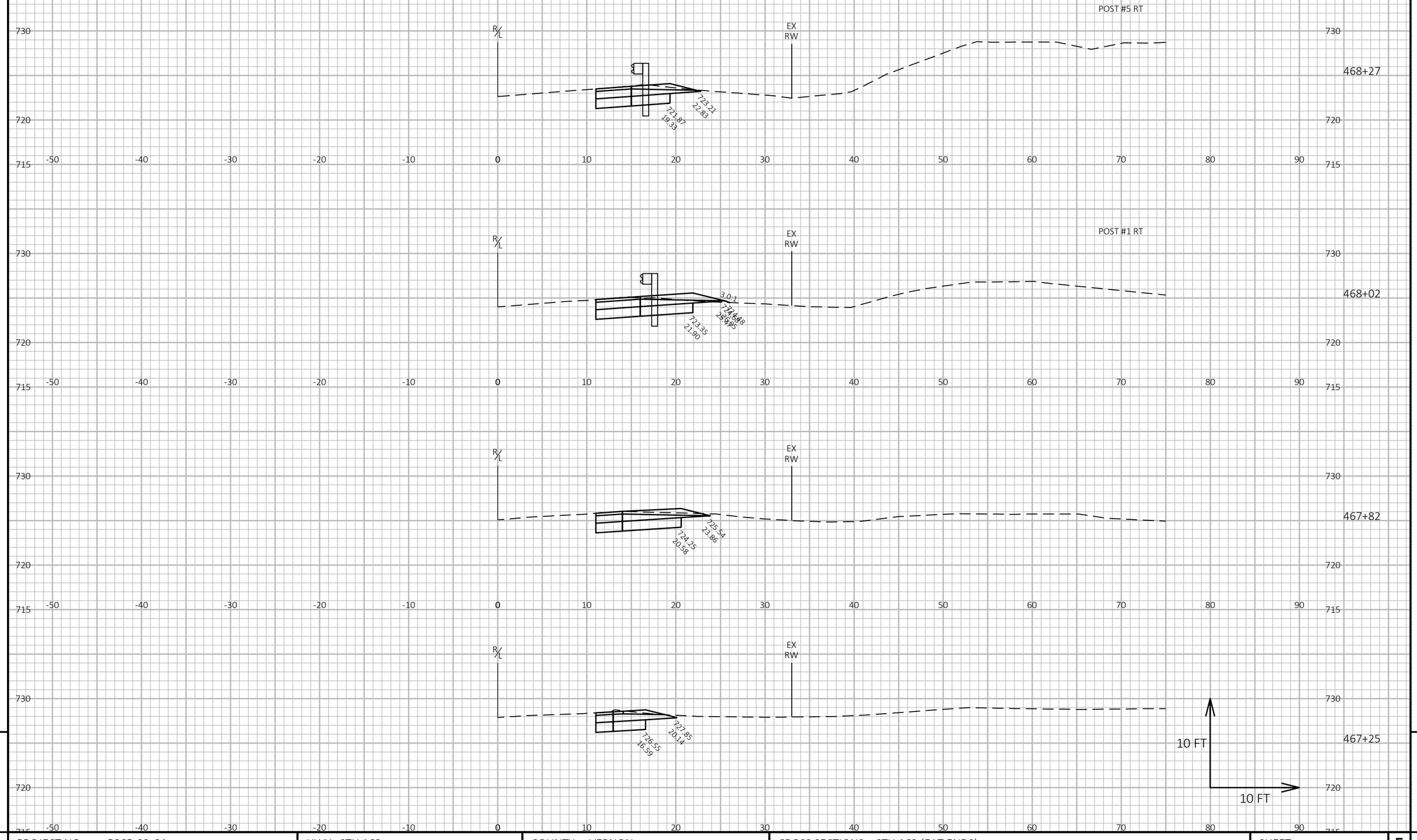
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 421	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090251_XS_BG.DWG
LAYOUT NAME - 06

PLOT DATE : 8/18/2025 10:08 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:4 FT VERT.

WISDOT/CADDS SHEET 49



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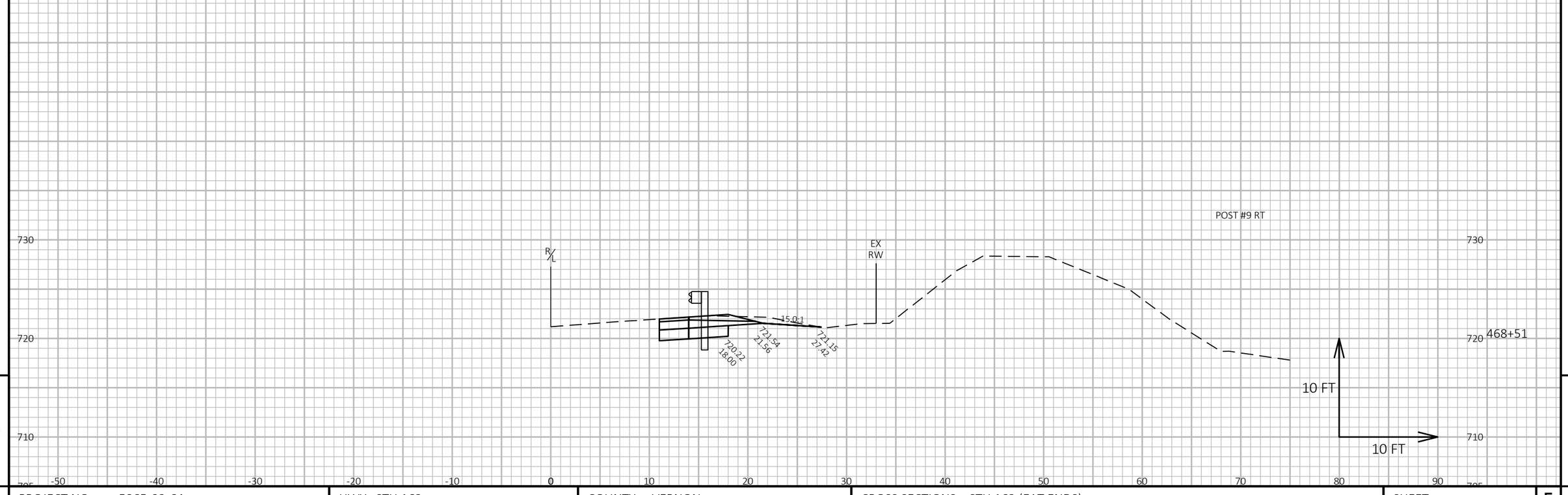
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 422	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090251_XS_BG.DWG
LAYOUT NAME - 10

PLOT DATE : 8/18/2025 1:03 PM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:4 FT VERT.



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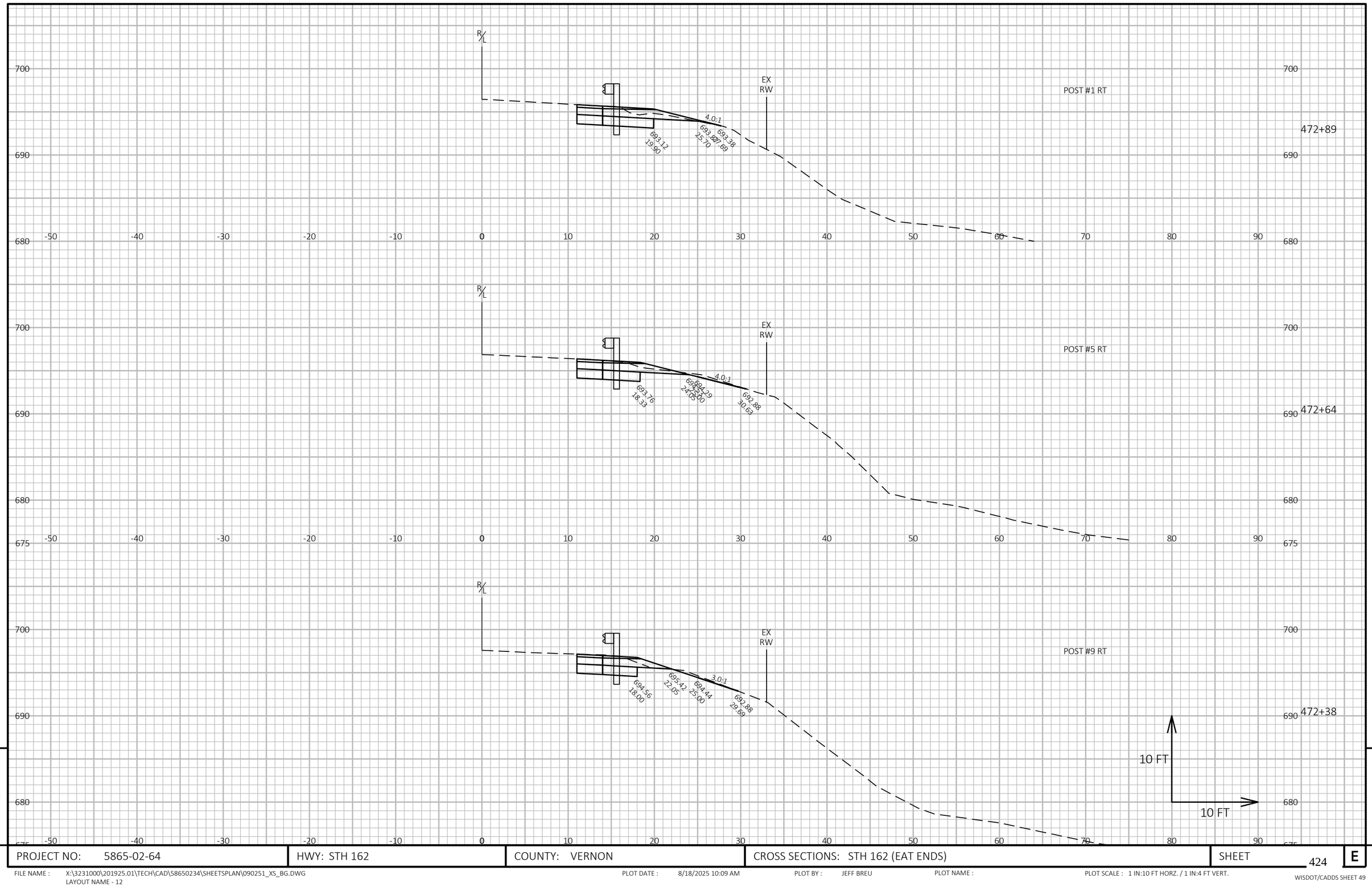
9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 423	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090251_XS_BG.DWG
LAYOUT NAME - 11
PLOT DATE : 8/18/2025 10:09 AM
PLOT BY : JEFF BREU
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:4 FT VERT.
WISDOT/CADDS SHEET 49



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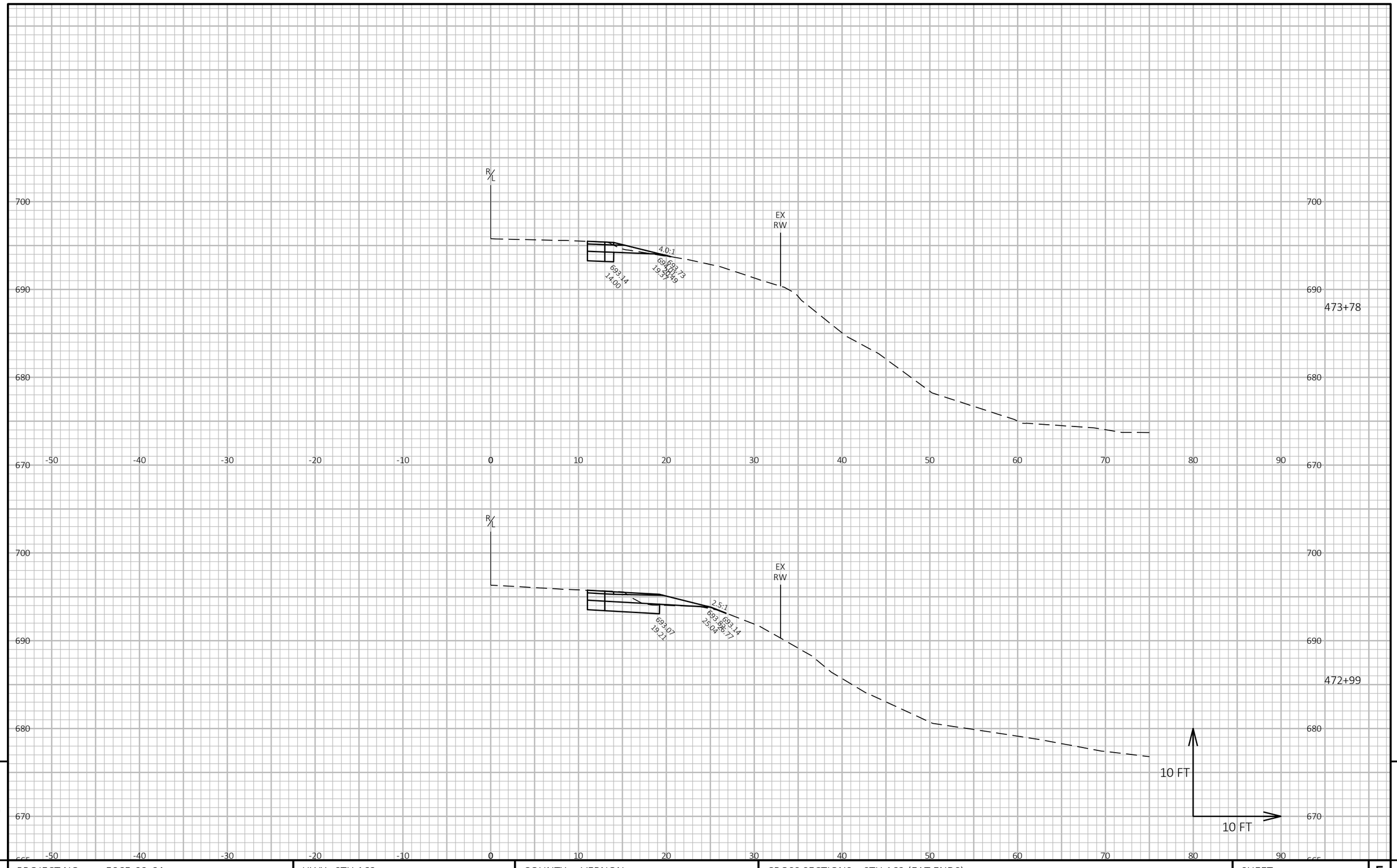
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 424	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090251_XS_BG.DWG
LAYOUT NAME - 12

PLOT DATE : 8/18/2025 10:09 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:4 FT VERT.



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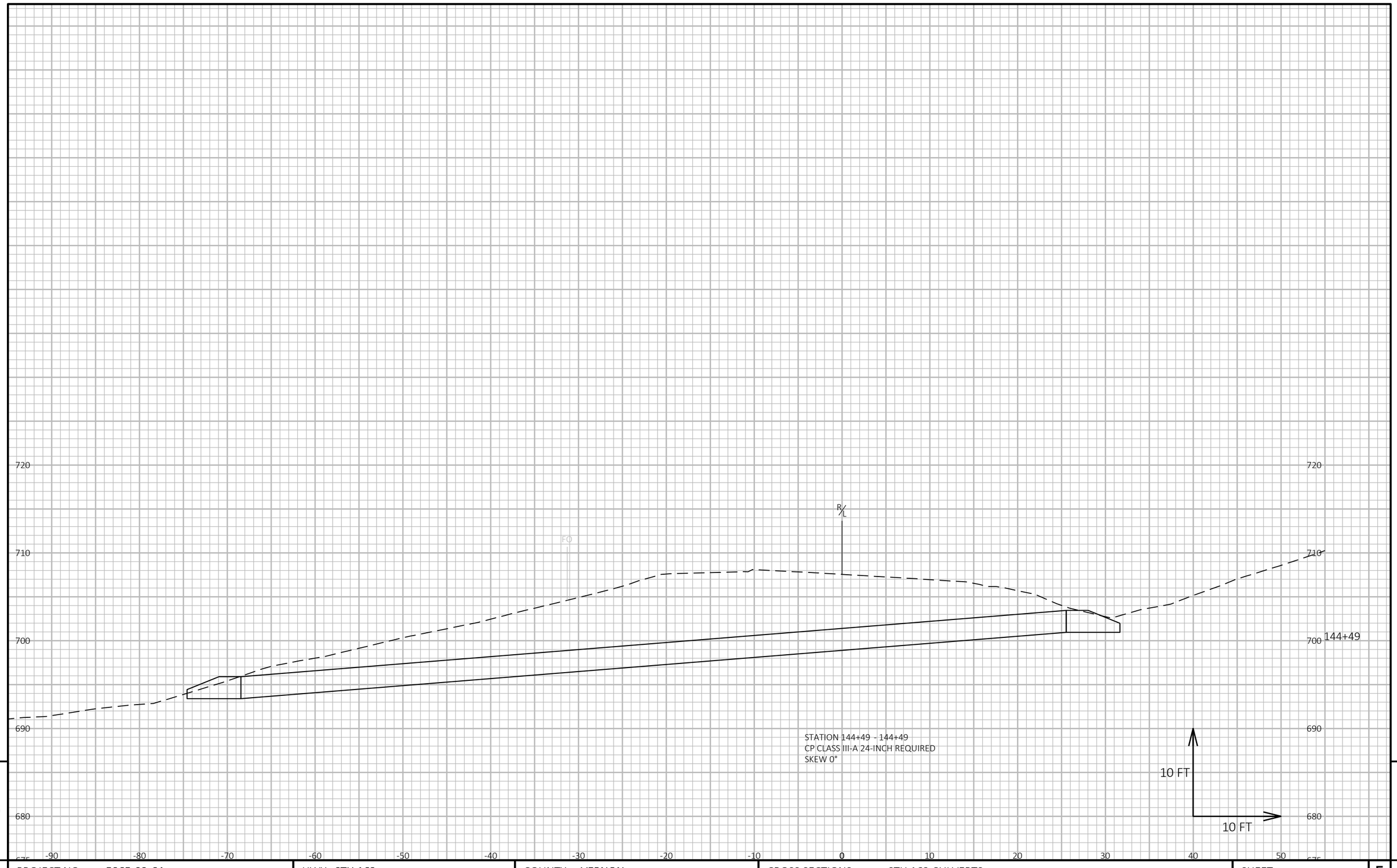
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 (EAT ENDS)	SHEET 425	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090251_XS_BG.DWG
LAYOUT NAME - 13

PLOT DATE : 8/18/2025 10:09 AM PLOT BY : JEFF BREU PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:4 FT VERT.



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9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 CULVERTS	SHEET 426	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090271_XS_CULVERTS.DWG
LAYOUT NAME - 01

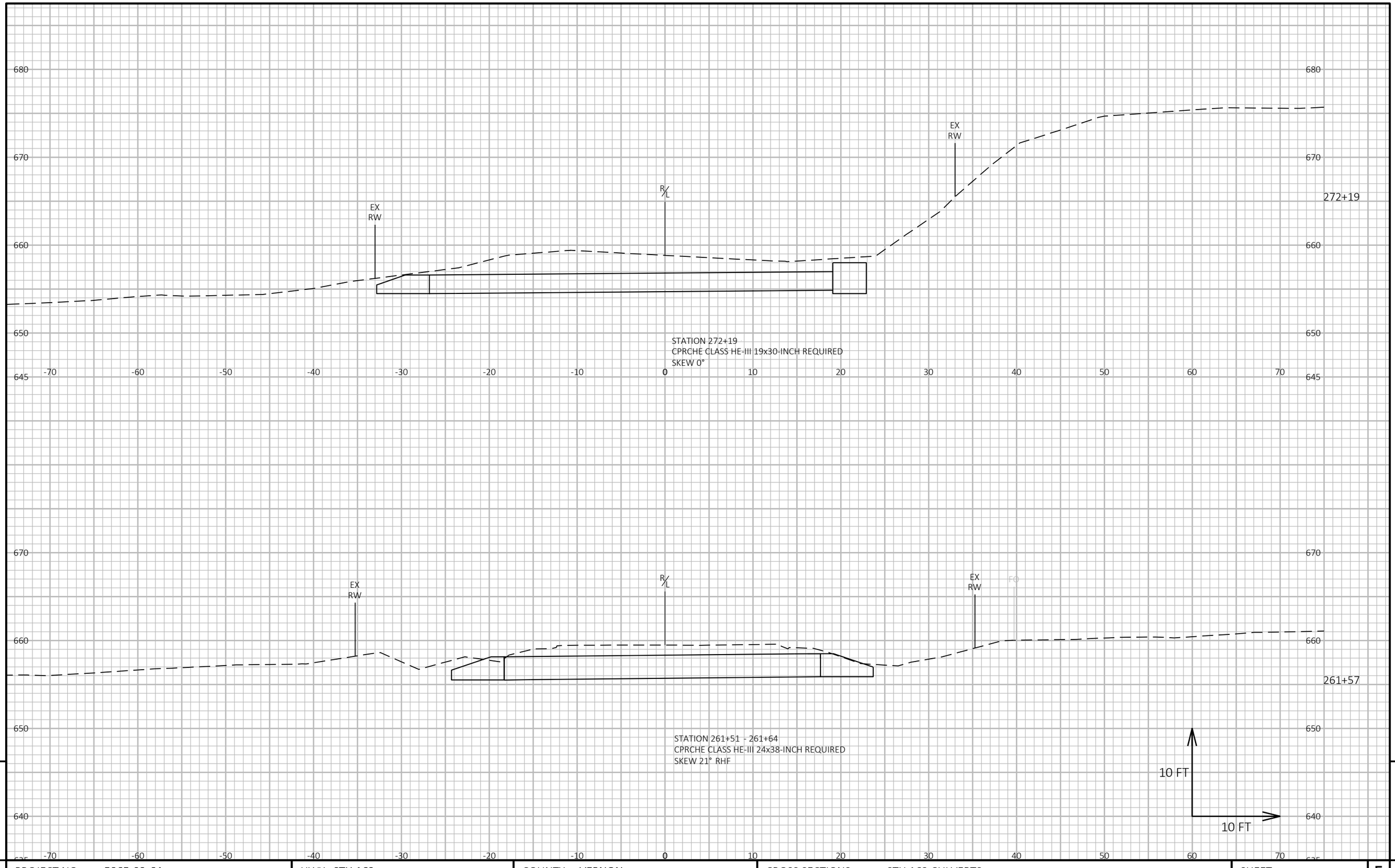
PLOT DATE : 6/23/2026 2:54 PM

PLOT BY : JEFF BREU

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

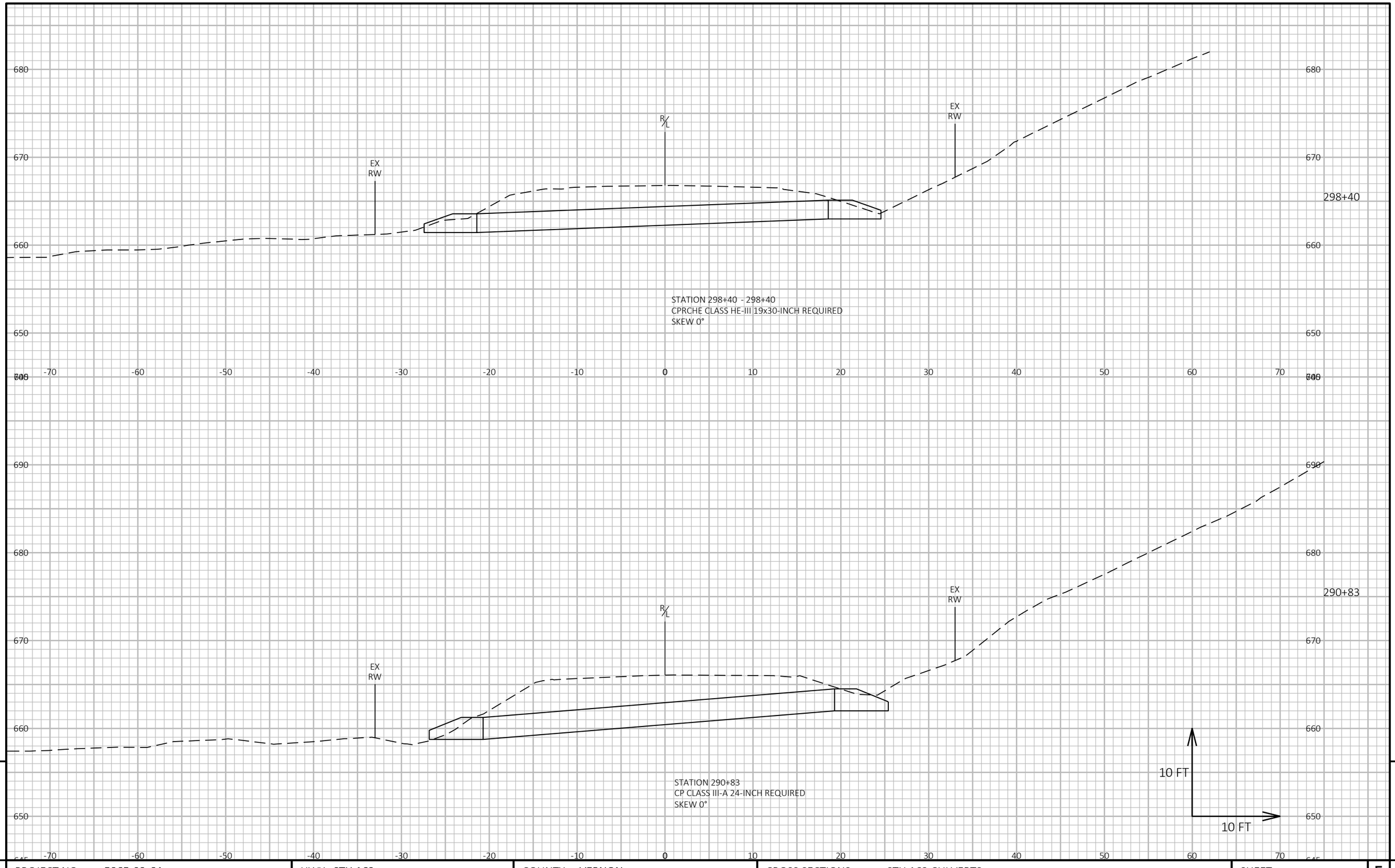
9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 CULVERTS	SHEET 427	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090271_XS_CULVERTS.DWG
LAYOUT NAME - 02

PLOT DATE : 6/23/2026 2:54 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

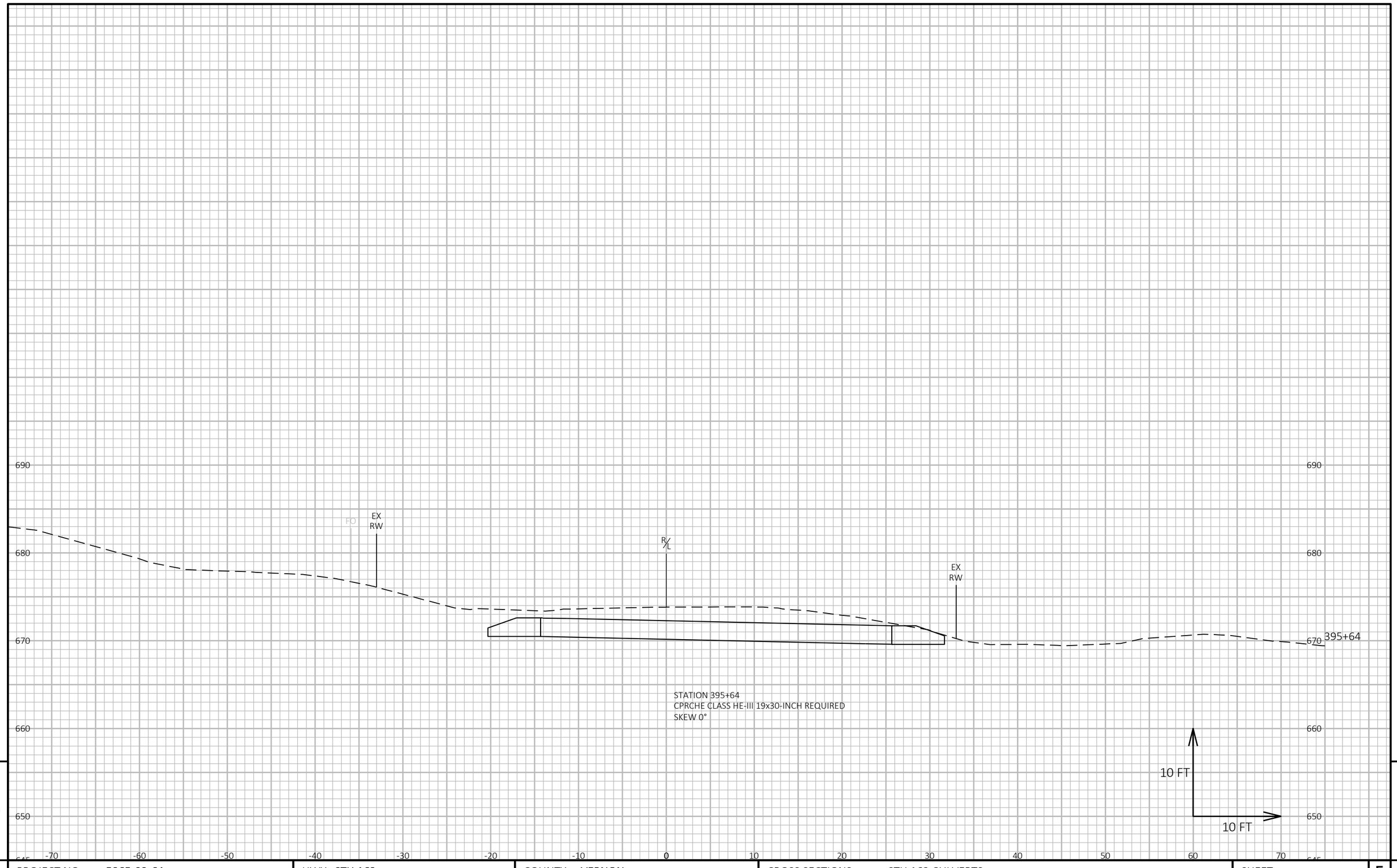
WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 CULVERTS	SHEET 428	E



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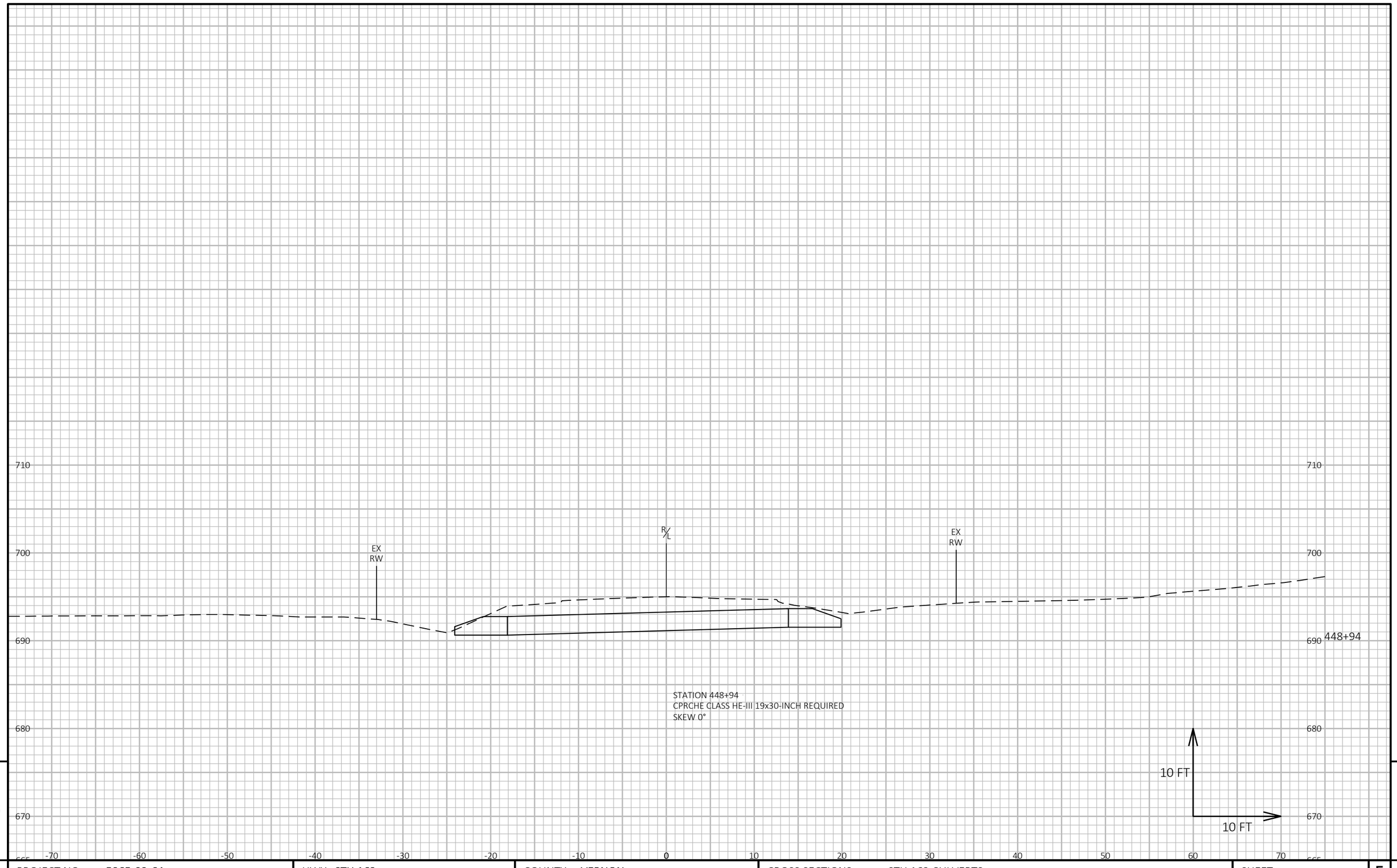
PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 CULVERTS	SHEET 429	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090271_XS_CULVERTS.DWG
LAYOUT NAME - 04

PLOT DATE : 6/23/2026 2:55 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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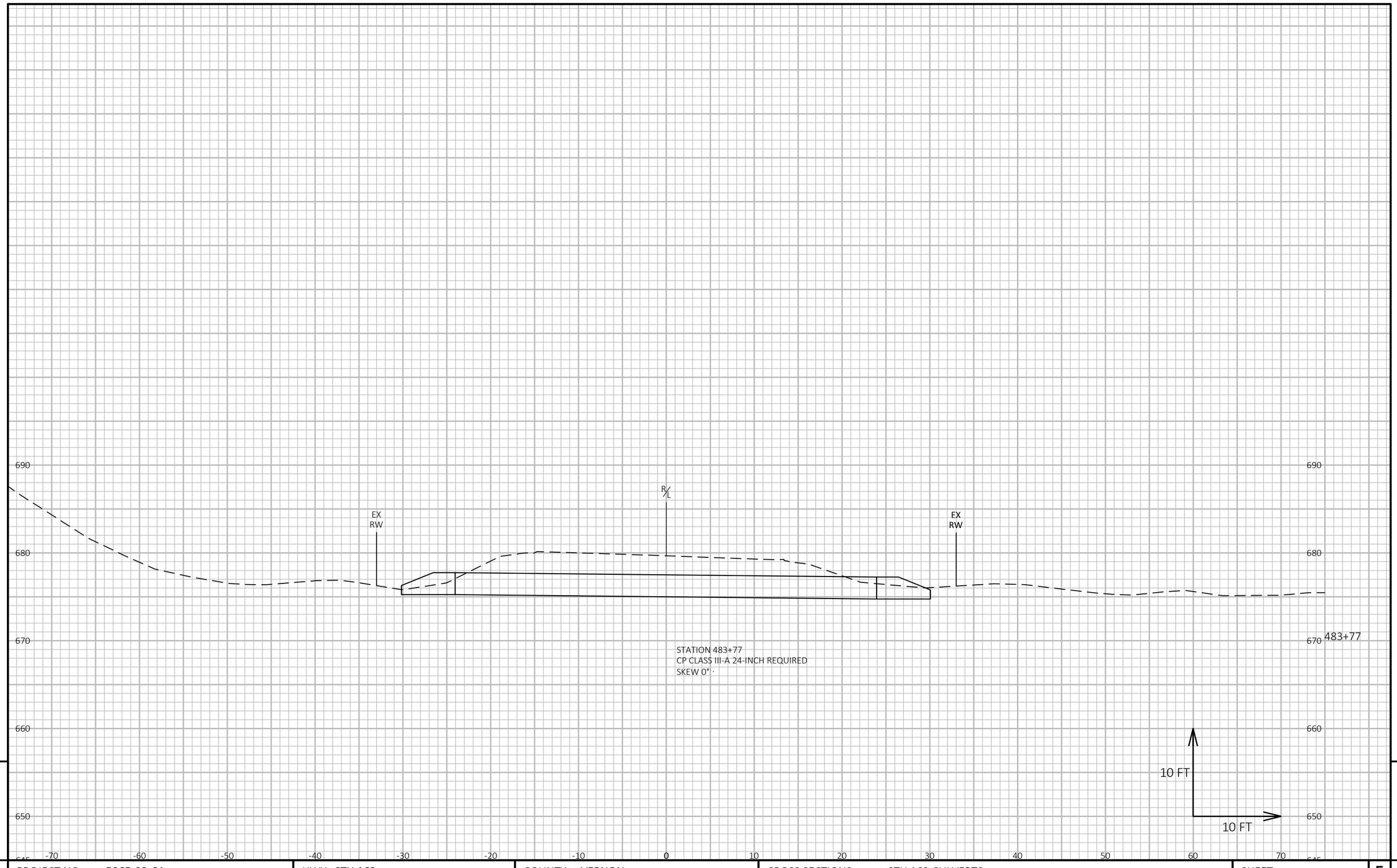
9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 CULVERTS	SHEET 430	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090271_XS_CULVERTS.DWG
LAYOUT NAME - 05

PLOT DATE : 6/23/2026 2:56 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 5865-02-64	HWY: STH 162	COUNTY: VERNON	CROSS SECTIONS: STH 162 CULVERTS	SHEET 431	E

FILE NAME : X:\3231000\201925.01\TECH\CAD\58650234\SHEETSPLAN\090271_XS_CULVERTS.DWG
LAYOUT NAME - 06

PLOT DATE : 6/23/2026 2:57 PM PLOT BY : JEFF BREU PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

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