

EAU

MARCH 2022

PROJECT ID: 8939-08-76
WITH: N/A

ORDER OF SHEETS

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

TOTAL SHEETS = 224



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

HOULTON - STH 65

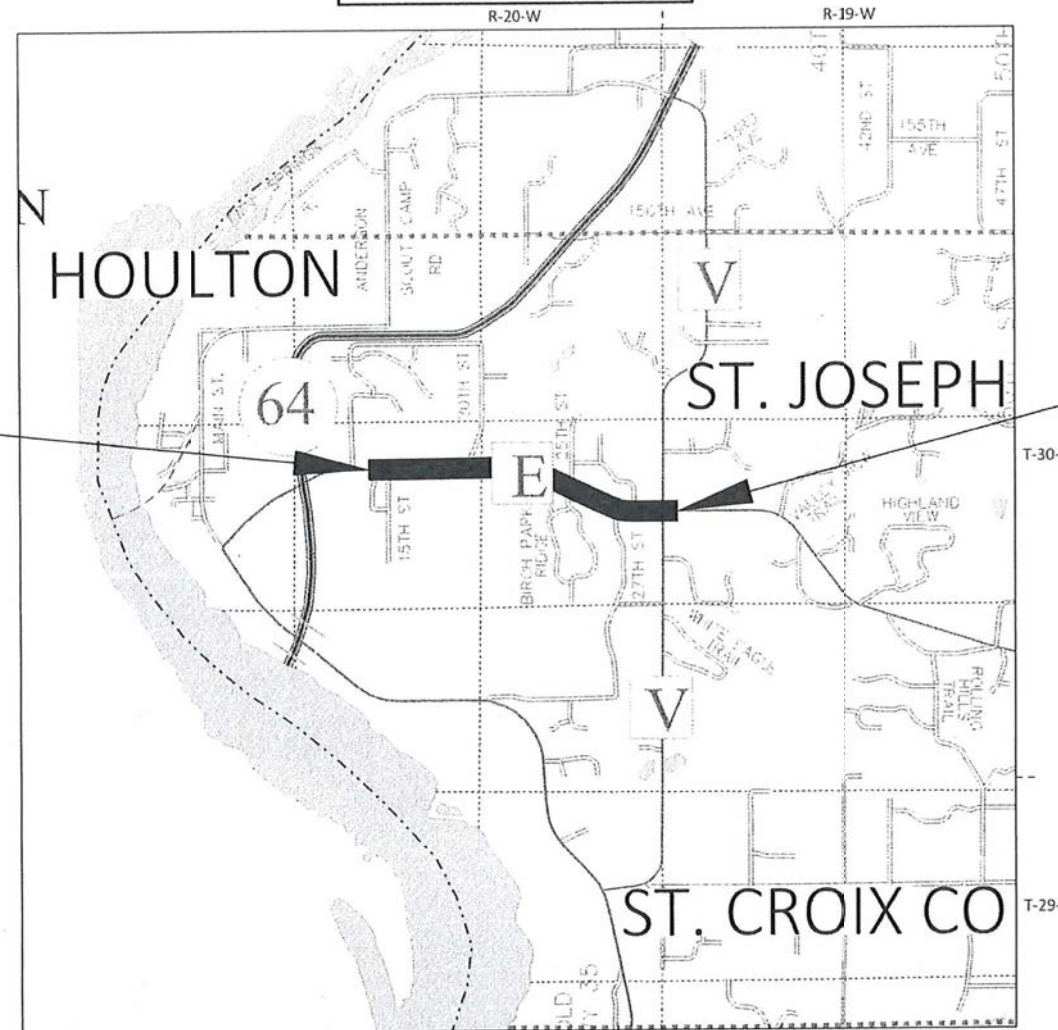
14TH STREET TO CTH V

CTH E

ST. CROIX COUNTY

STATE PROJECT NUMBER
8939-08-76

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8939-08-76	WISC 2022264	1



END PROJECT
STA 140+17.00
Y=372336.250
X=517133.849

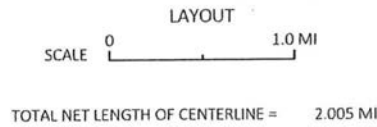
BEGIN PROJECT
STA 34+29.00
Y=373559.271
X=506816.241

DESIGN DESIGNATION

A.A.D.T. (2022)	=	4420
A.A.D.T. (2042)	=	6120
D.H.V.	=	777
D.D.	=	62/38
T.	=	4.5%
DESIGN SPEED	=	45 MPH (STA 34+85 TO STA 45+75)
DESIGN SPEED	=	55 MPH (STA 45+75 TO STA 140+13)
ESALS	=	630,000

CONVENTIONAL SYMBOLS

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



HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), ST. CROIX COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ACCEPTED FOR
ST CROIX COUNTY

DATE: 10/12/2021 *[Signature]*
(Signature and Title of Official)

ORIGINAL PLANS PREPARED BY
JT ENGINEERING, INC.

WISCONSIN
★ BRIAN E. SMITS E-27284 ★
CHIPPEWA FALLS WIS.
PROFESSIONAL ENGINEER

DATE: 10/11/2021 *[Signature]*
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	JT ENGINEERING, INC
Designer	JT ENGINEERING, INC
Project Manager	MATTHEW THORNSEN, PE
Regional Examiner	TOU YANG, PE
Regional Supervisor	TYLER RONGSTAD, PE

APPROVED FOR THE DEPARTMENT

DATE: 10/13/2021 *[Signature]*
(Signature)

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RUNOFF COEFFICIENT TABLE

LAND USE:	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
	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 = 21.53 ACRES
 TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 12.38 ACRES

GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGER'S HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA.

MATCH EXISTING SUPERELEVATIONS ALONG HORIZONTAL CURVES. STAKING SUPERELEVATION TRANSITIONS IN THE FIELD SHALL BE INCIDENTAL TO THE PROJECT IF NEEDED.

WHEN THE QUANTITY OF BASE AGGREGATE IS MEASURED 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.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS, SIDEROADS, AND MAINLINE PAVEMENT AT FULL DEPTH REMOVAL LIMITS.

THE LOCATION OF THE CONSTRUCTION MATCH POINTS ON THE SIDE ROADS SHALL BE AT THE FURTHEST OUT RADIUS RETURN POINT AS SHOWN IN THE DETAILS OR AS DETERMINED BY THE ENGINEER.

RESHAPE, SEED, AND FERTILIZE ANY PREVIOUSLY GRASSED AREAS THAT ARE DISTURBED BY OPERATIONS OUTSIDE THE NORMAL CONSTRUCTION LIMITS.

ALL TRAFFIC CONTROL SIGNING AND DEVICES SHALL BE IN CONFORMANCE WITH THE "WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (WMUTCD), THE STANDARD DETAIL DRAWINGS (SDD), AND THE GENERAL NOTES LISTED IN THE SDD'S.

ALL CURB AND GUTTER RADII, PAVEMENT DIMENSIONS, AND STATIONS ARE SHOWN TO THE EDGE OF GUTTER UNLESS NOTED OTHERWISE.

THE EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS AS NEEDED. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NEEDED.

PIPE ELEVATIONS, LENGTHS, AND LOCATIONS AS SHOWN ON THE PLANS, MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYER THICKNESS:

PAVEMENT THICKNESS (INCH)	LOWER LAYER (INCH)	UPPER LAYER (INCH)
3.50	1.75	1.75

UTILITY CONTACTS

JUSTIN JACOBS
 MIDWEST NATURAL GAS - GAS
 611 SHAY STREET
 SOMERSET, WI 54025
 (715) 797-0590
 JUSTINJ@MIDWESTNATURALGAS.COM

ROB DOOLEY
 ST CROIX ELECTRIC COOPERATIVE - ELECTRICITY
 1925 RIDGEWAY STREET
 P.O. BOX 160
 HAMMOND, WI 54015
 (715) 796-5637
 ROBD@SCECNET.NET

RICK PODOLAK
 AT&T - COMMUNICATION LINE
 304 S DEWEY STREET
 EAU CLAIRE, WI, 54701
 (715) 839-5565
 RP4514@ATT.COM

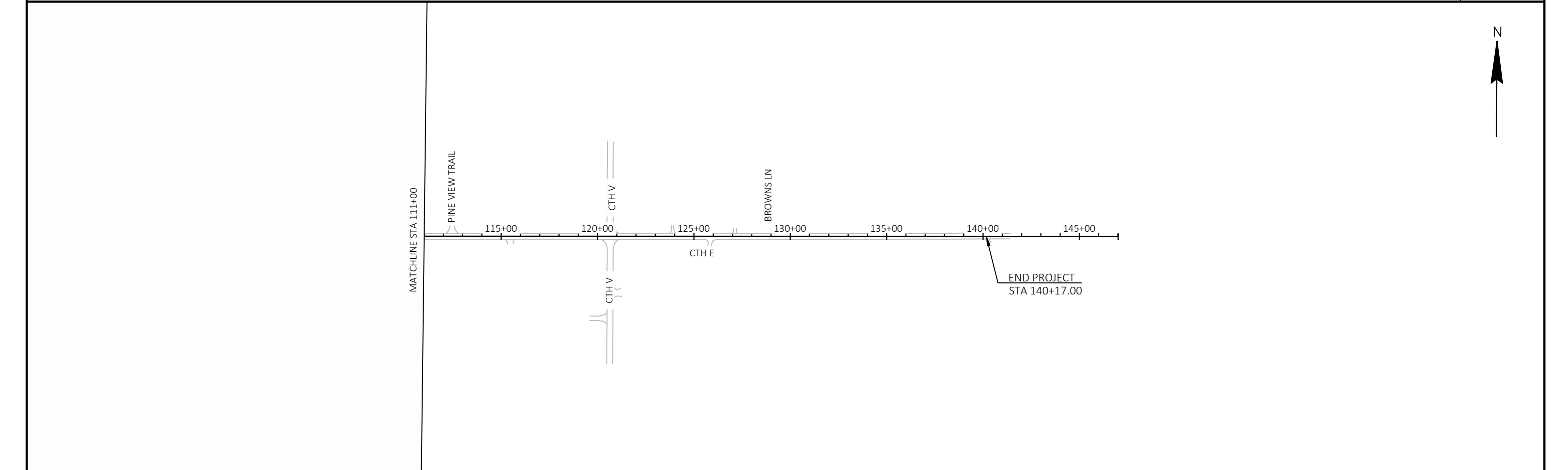
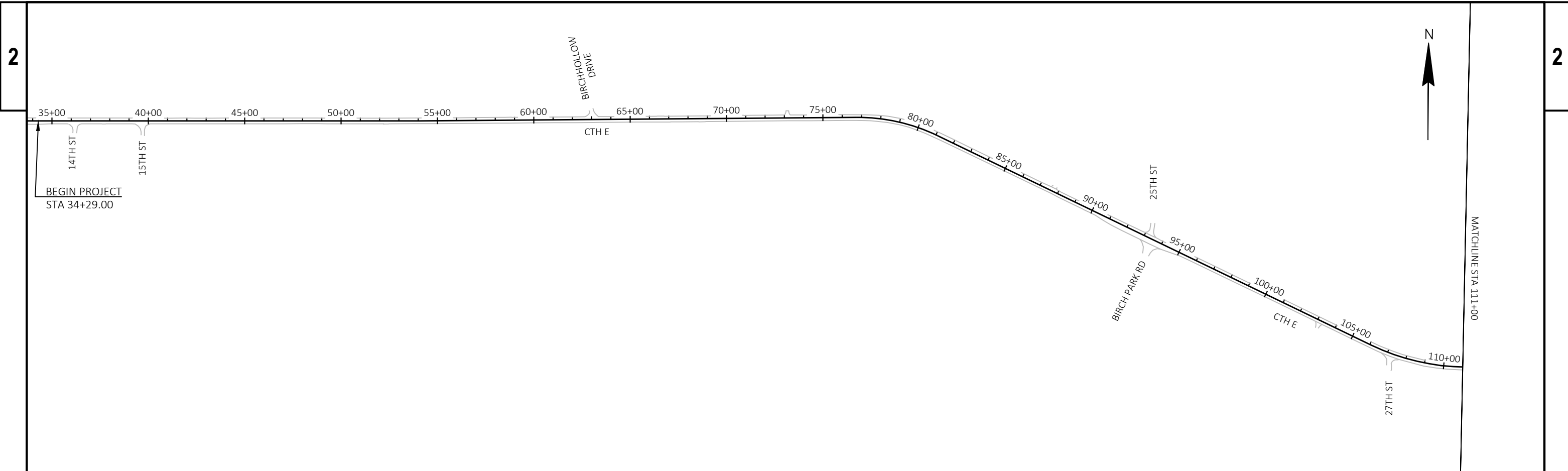
GREG CARDINAL
 NORTHWEST COMMUNICATIONS - COMMUNICATION LINE
 116 HARRIMAN AVE N
 AMERY, WI 54001
 (715) 268-3379
 GREGCARDINAL@AMERYTEL.NET



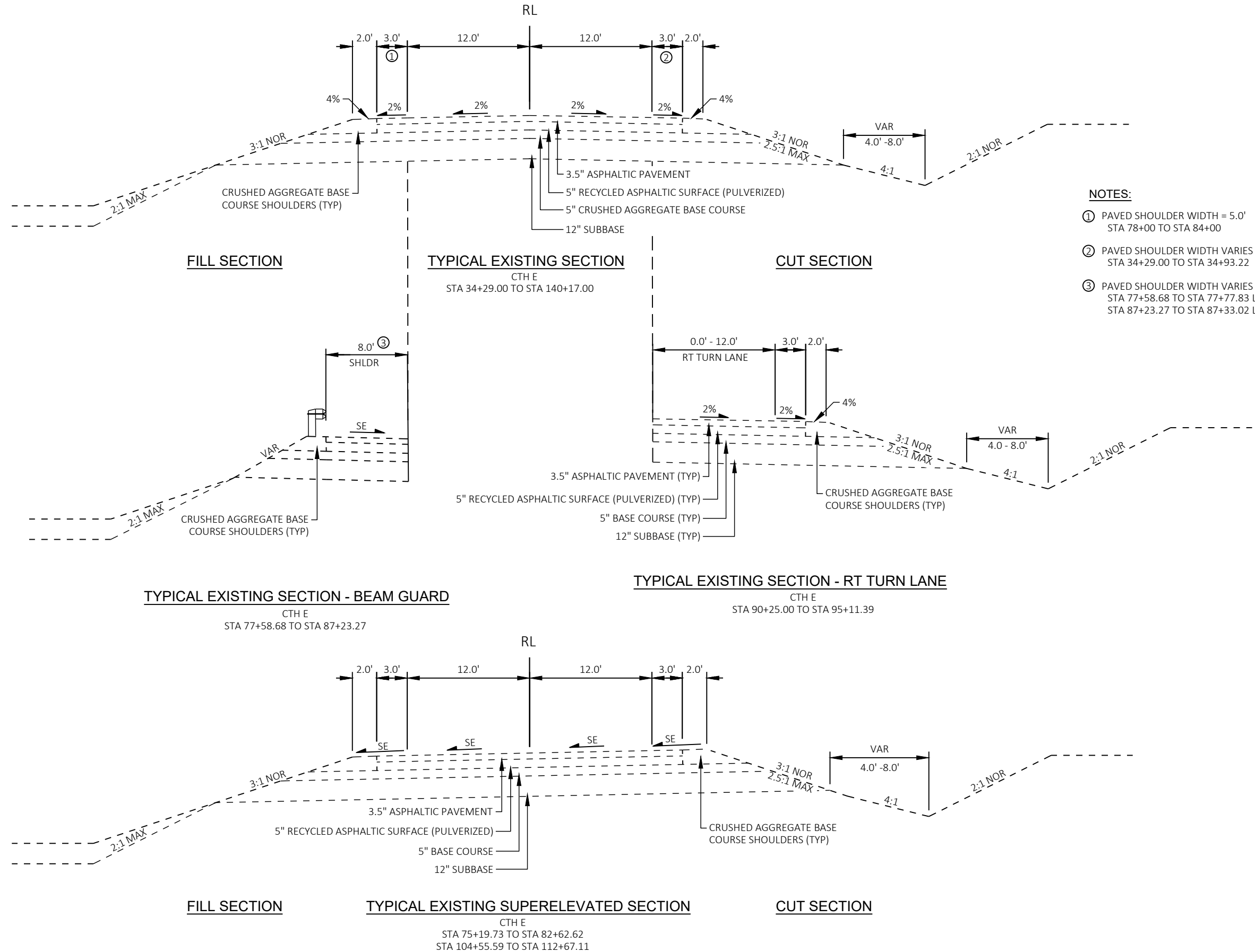
Dial **811** or (800)242-8511
www.DiggersHotline.com

WISCONSIN DNR LIAISON

AMY LESIK
 DNR NORTHWEST
 1300 WEST CLAIREMONT AVENUE
 EAU CLAIRE, WI 54701
 (715) 836-6571
 (715) 495-1903
 AMYL.LESIK@WISCONSIN.GOV

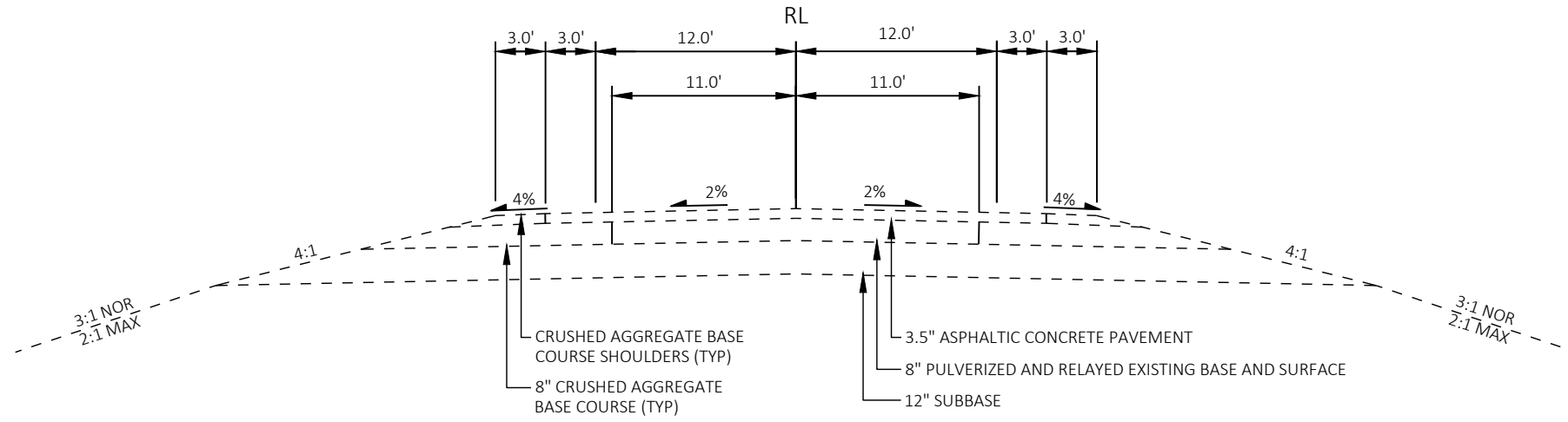


PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST CROIX	PROJECT OVERVIEW	SHEET	E
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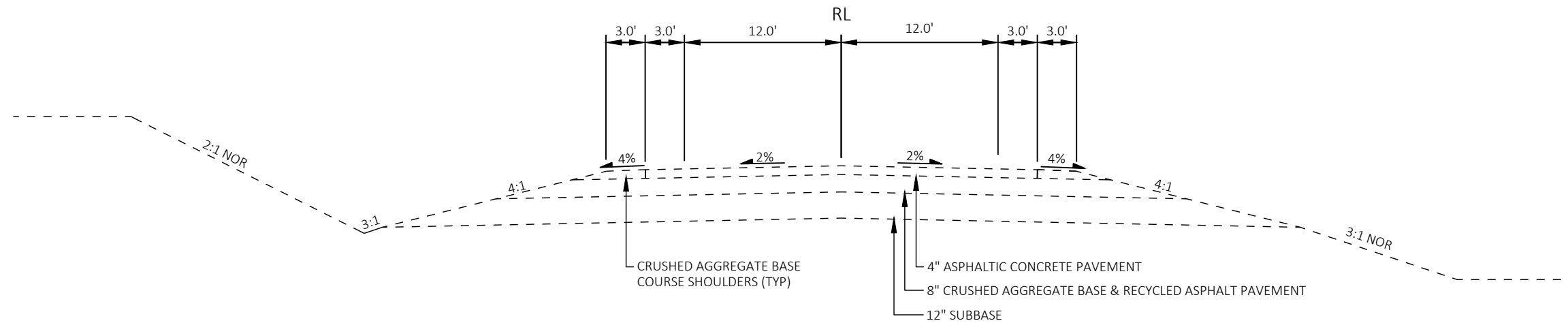
NOTES:

- ① PAVED SHOULDER WIDTH = 5.0'
STA 78+00 TO STA 84+00
- ② PAVED SHOULDER WIDTH VARIES 3.0' - 5.0'
STA 34+29.00 TO STA 34+93.22
- ③ PAVED SHOULDER WIDTH VARIES
STA 77+58.68 TO STA 77+77.83 LT
STA 87+23.27 TO STA 87+33.02 LT



TYPICAL EXISTING SECTION

CTH V
STA 48+26.00 TO STA 49+25.68

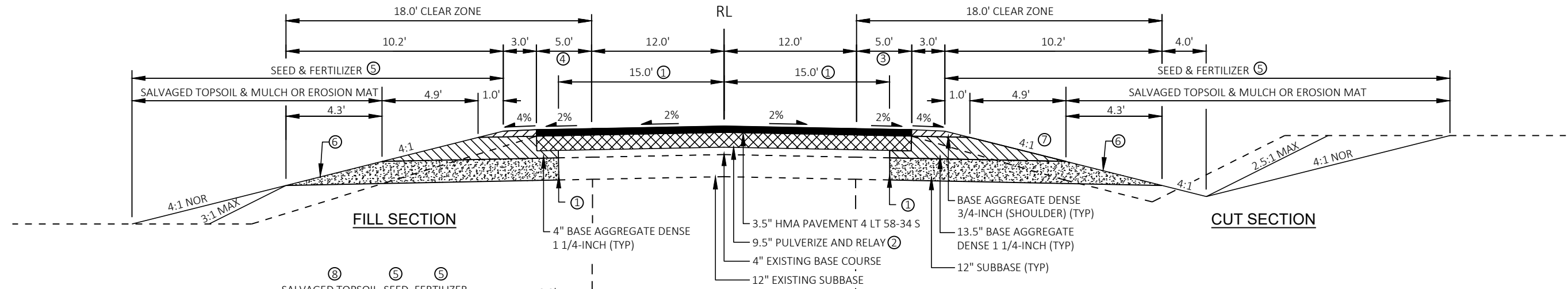


CUT SECTION

TYPICAL EXISTING SECTION

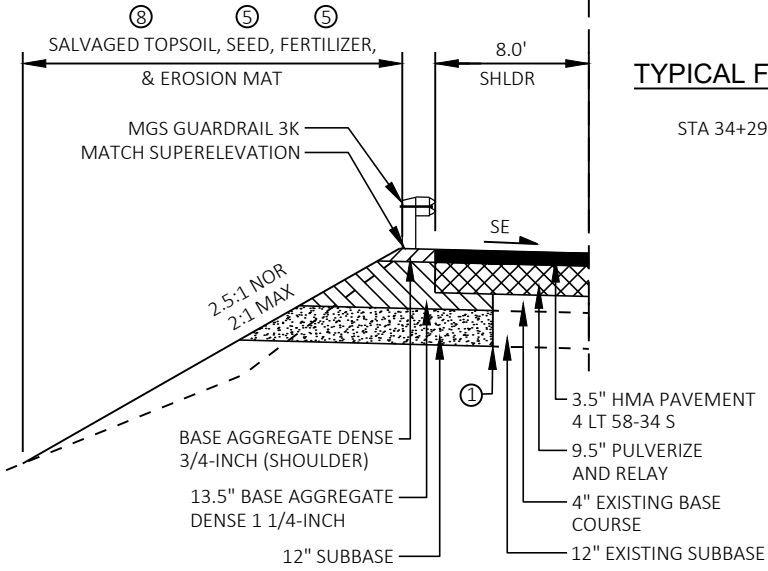
CTH V
STA 50+73+71 TO STA 51+74.00

FILL SECTION

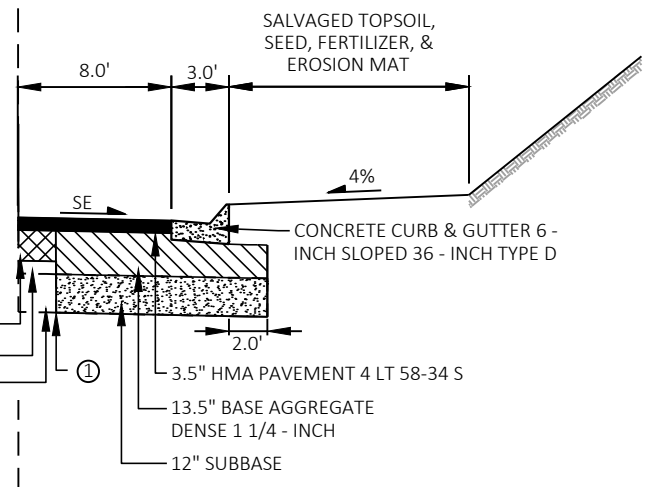


- NOTES:**
- ① VERTICAL BENCH CUT AT EDGE OF EXISTING PAVEMENT (TYPICALLY 15.0')
 - ② FROM STA 121+39.88 TO STA 140+17.00 PULVERIZE EXISTING PAVEMENT AND GRAVEL TO A DEPTH OF 9.5" AND RELAY TO A DEPTH OF 8.5" TO THE WIDTH SHOWN. HAUL EXCESS 1.0" OF PULVERIZED MATERIAL TO CTH E & CTH V INTERSECTION AS NEEDED FOR WIDENED INTERSECTION. FINAL DEPTH OF PULVERIZED AND RELAI D MATERIAL BETWEEN STA 121+39.88 AND STA 140+17.00 = 8.5". HAULING OF EXCESS PULVERIZED MATERIAL TO INTERSECTION TO ACHIEVE REQUIRED DEPTH OF RELAI D MATERIALS IS INCIDENTAL TO THE PULVERIZE AND RELAY ITEM.
 - ③ PAVED SHOULDER WIDTH VARIES 5.0' - 11.0'
STA 76+22.13 TO STA 76+58.11
STA 81+71.08 TO STA 82+01.08
 - ④ PAVED SHOULDER WIDTH VARIES 5.0' - 8.0'
STA 77+58.68 TO STA 77+77.83
STA 87+23.27 TO STA 87+03.02

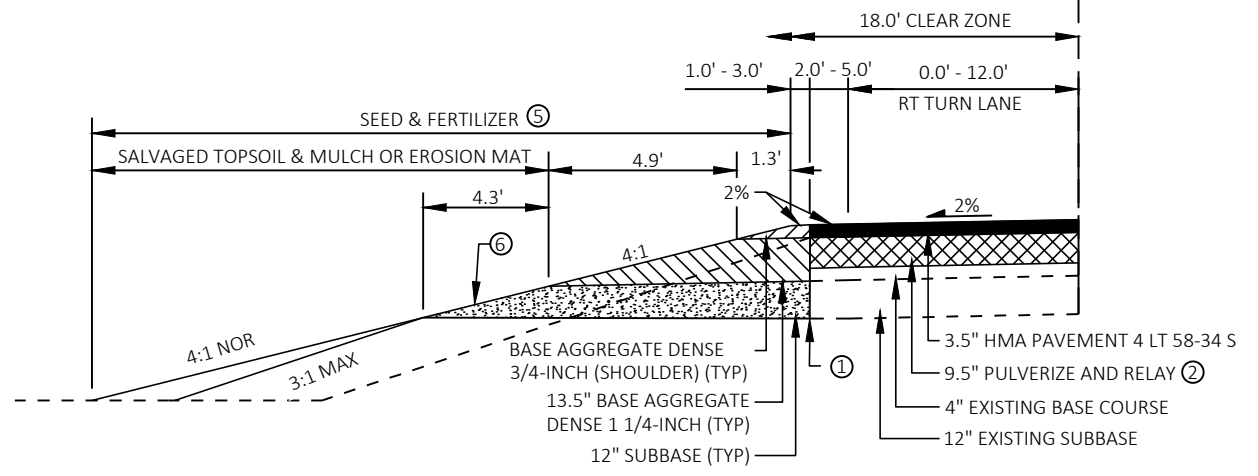
- NOTES (CONTINUED):**
- ⑤ EXTEND SEED AND FERTILIZER APPLICATION 5' BEYOND SLOPE INTERCEPT OR AS DIRECTED BY ENGINEER
 - ⑥ THIN SALVAGED TOPSOIL TO 2" DEPTH OVER GRANULAR BASE
 - ⑦ SLOPE = 3:1
STA 34+50.00 TO STA 35+75.00
 - ⑧ THIN SALVAGED TOPSOIL TO 2" DEPTH OVER GRANULAR SUBBASE AND AGGREGATE BASE PAST SUPERELEVATION WHERE 2% NORMAL CROWN OCCURS



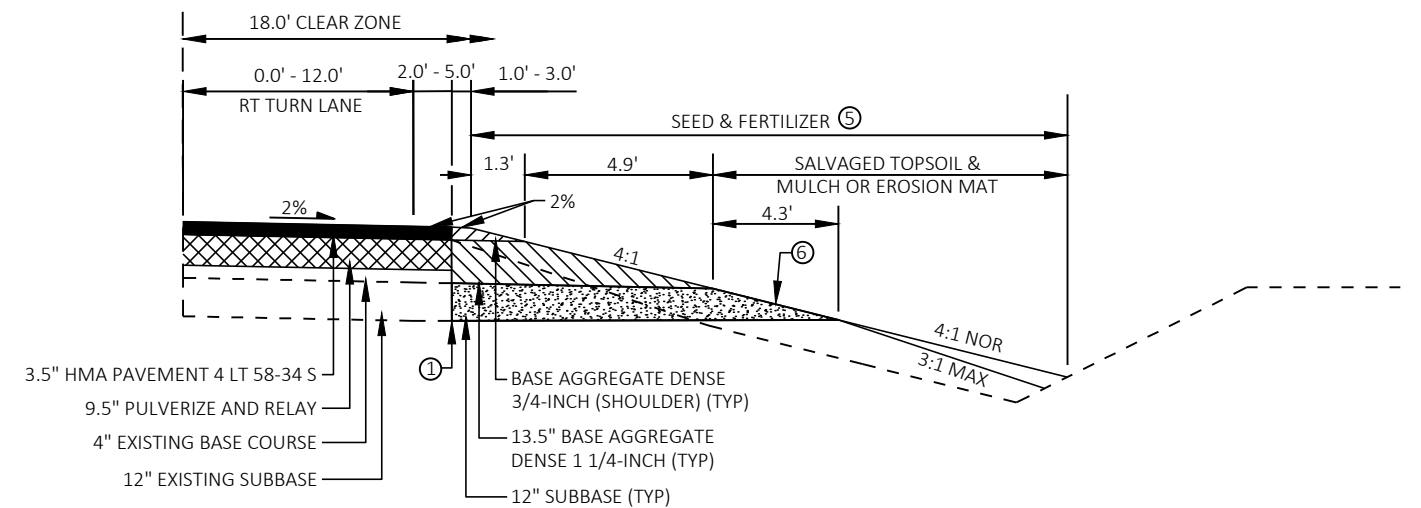
TYPICAL FINISHED SECTION - GUARDRAIL
CTH E
STA 77+58.68 TO STA 87+23.27



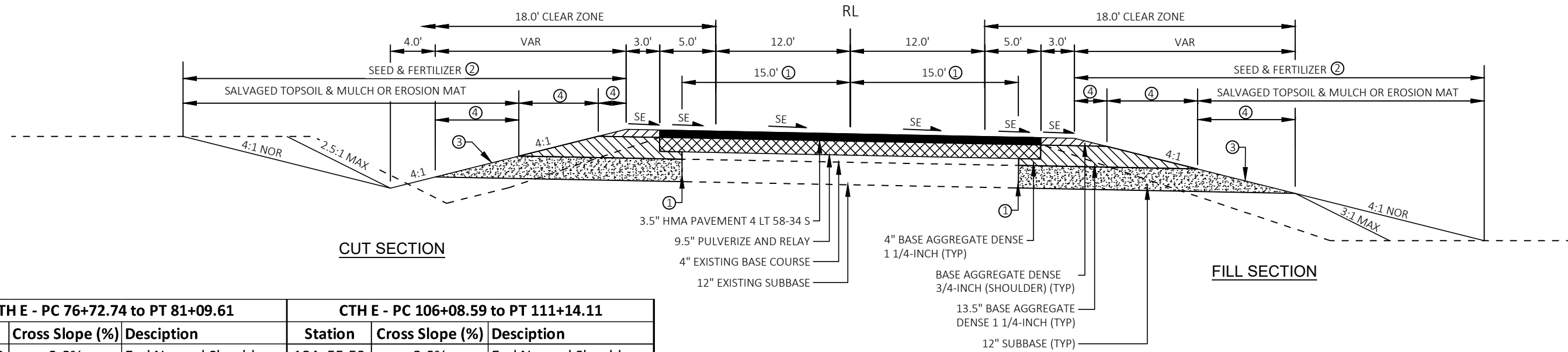
TYPICAL FINISHED SECTION - CURB & GUTTER
CTH E
STA 76+58.11 TO STA 81+19.98



TYPICAL FINISHED SECTION - WB RT TURN LANE
CTH E
STA 119+31.21 TO STA 123+52.54



TYPICAL FINISHED SECTION - EB RT TURN LANE
CTH E
STA 90+09.14 TO STA 94+80.30
STA 117+78.86 TO STA 122+00.11



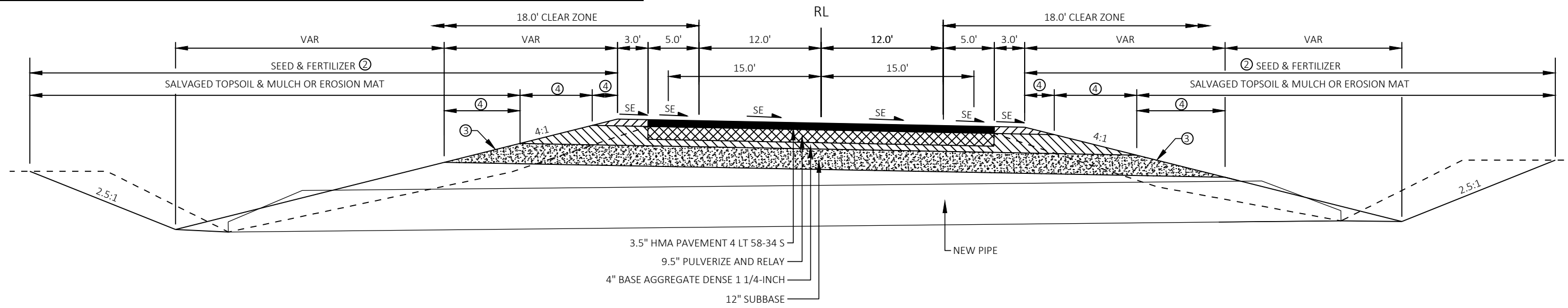
TYPICAL FINISHED SUPERELEVATED SECTION

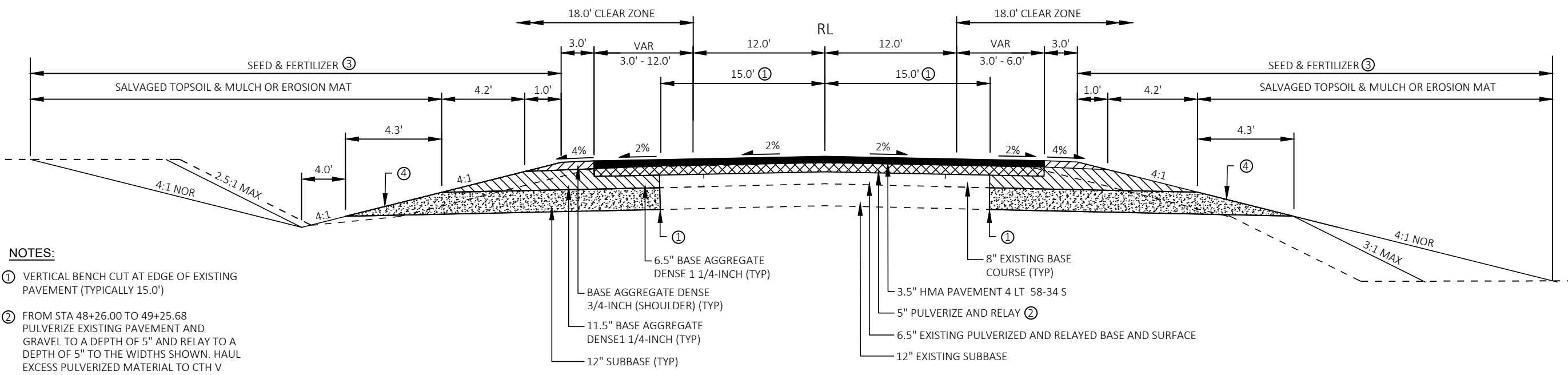
CTH E
 STA 75+19.73 TO STA 82+62.62
 STA 104+55.59 TO STA 112.67.11

CTH E - PC 76+72.74 to PT 81+09.61			CTH E - PC 106+08.59 to PT 111+14.11		
Station	Cross Slope (%)	Description	Station	Cross Slope (%)	Description
75+19.73	2.0%	End Normal Shoulder	104+55.59	2.0%	End Normal Shoulder
75+19.73	2.0%	End Normal Crown	104+55.59	2.0%	End Normal Crown
75+70.73	0.0%	Level Crown	105+06.59	0.0%	Level Crown
76+21.73	2.0%	Reverse Crown	105+57.59	2.0%	Reverse Crown
77+23.73	4.9%	Begin Full Super	106+59.59	6.0%	Begin Full Super
80+58.62	4.9%	End Full Super	110+63.11	6.0%	End Full Super
81+60.62	2.0%	Reverse Crown	111+65.11	2.0%	Reverse Crown
82+11.62	0.0%	Level Crown	112+16.11	0.0%	Level Crown
82+62.62	2.0%	Begin Normal Crown	112+67.11	2.0%	Begin Normal Crown
82+62.62	2.0%	Begin Normal Shoulder	112+67.11	2.0%	Begin Normal Shoulder

NOTES:

- ① VERTICAL BENCH CUT AT EDGE OF EXISTING PAVEMENT (TYPICALLY 15.0')
- ② EXTEND SEED AND FERTILIZER APPLICATION 5' BEYOND SLOPE INTERCEPT OR AS DIRECTED BY ENGINEER
- ③ THIN SALVAGED TOPSOIL TO 2" DEPTH OVER GRANULAR BASE
- ④ WIDTHS VARY TO MAINTAIN 4:1 INSLOPES THRU SUPERELEVATIONS AND TRANSITIONS

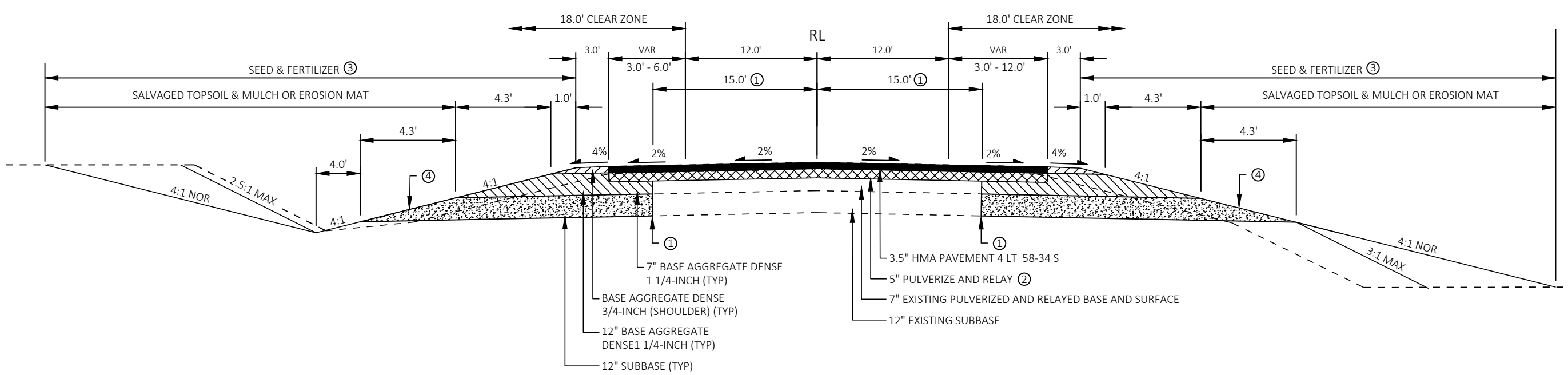




TYPICAL FINISHED SECTION

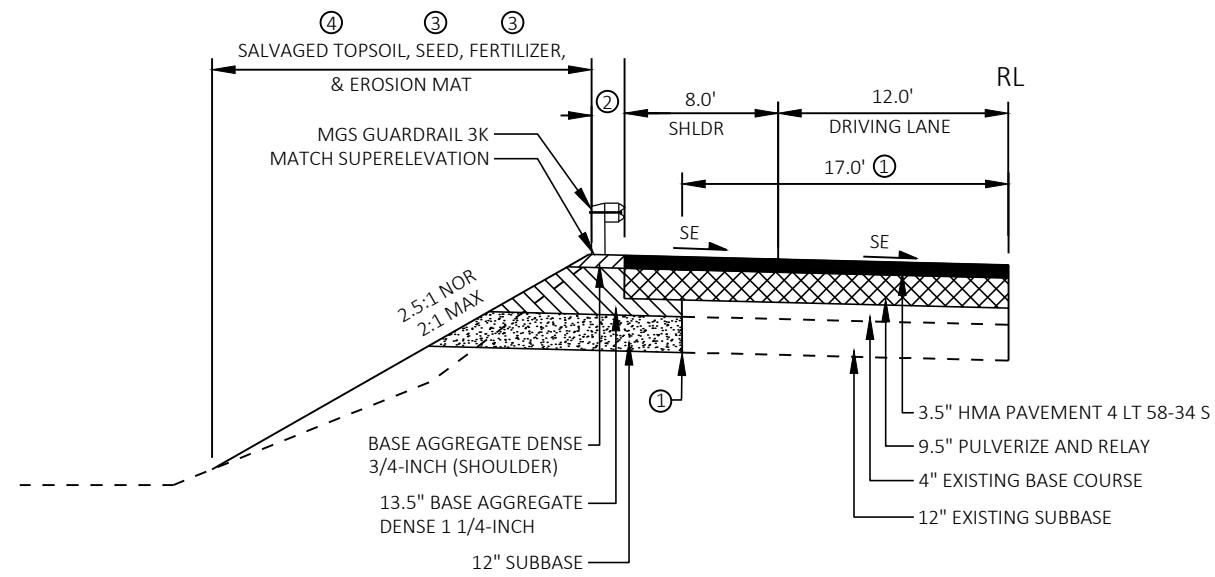
CTH V
STA 48+26.00 TO STA 49+25.68

- NOTES:**
- ① VERTICAL BENCH CUT AT EDGE OF EXISTING PAVEMENT (TYPICALLY 15.0')
 - ② FROM STA 48+26.00 TO 49+25.68 PULVERIZE EXISTING PAVEMENT AND GRAVEL TO A DEPTH OF 5" AND RELAY TO A DEPTH OF 5" TO THE WIDTHS SHOWN. HAUL EXCESS PULVERIZED MATERIAL TO CTH V BETWEEN STA 50+73.71 AND STA 51+74.00 AS NEEDED TO ACHIEVE REQUIRED DEPTH ON CTH V NORTH OF CTH E. HAULING OF EXCESS PULVERIZED MATERIAL TO CTH V NORTH OF CTH E TO ACHIEVE REQUIRED DEPTH OF RELAID MATERIAL IS INCIDENTAL TO THE PULVERIZE AND RELAY ITEM.
 - ③ EXTEND SEED AND FERTILIZER APPLICATION 5' BEYOND SLOPE INTERCEPT OR AS DIRECTED BY ENGINEER
 - ④ THIN SALVAGED TOPSOIL TO 2" DEPTH OVER GRANULAR BASE



TYPICAL FINISHED SECTION

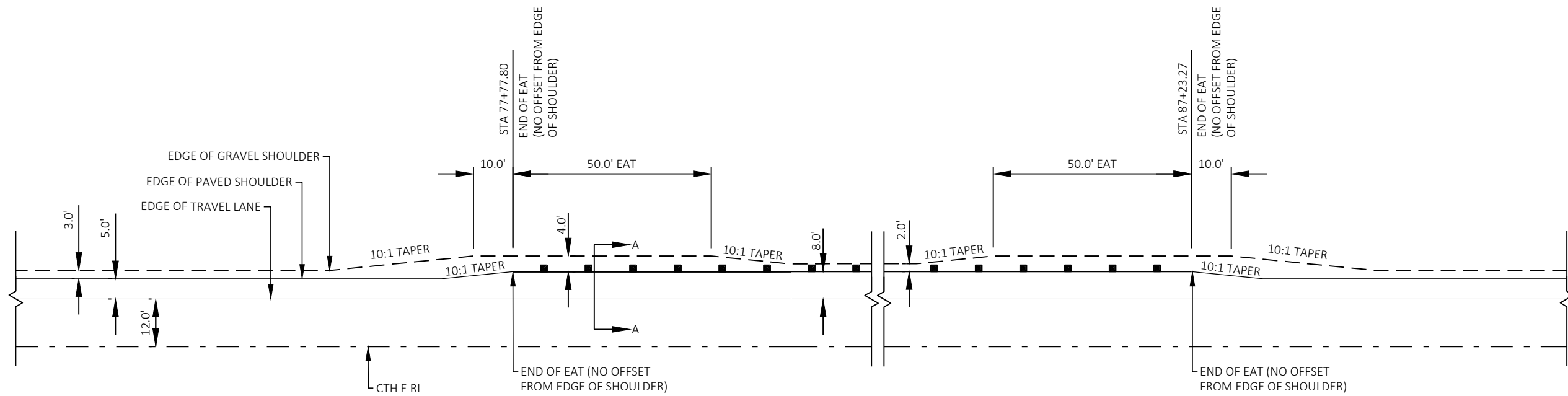
CTH V
STA 50+73.71 TO STA 51+74.00



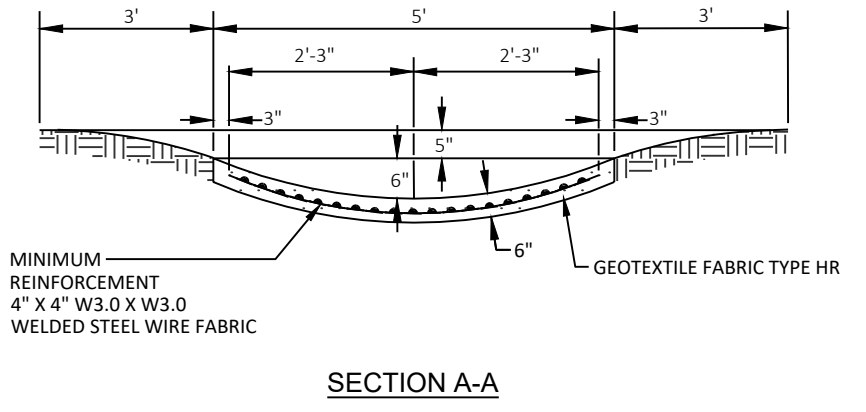
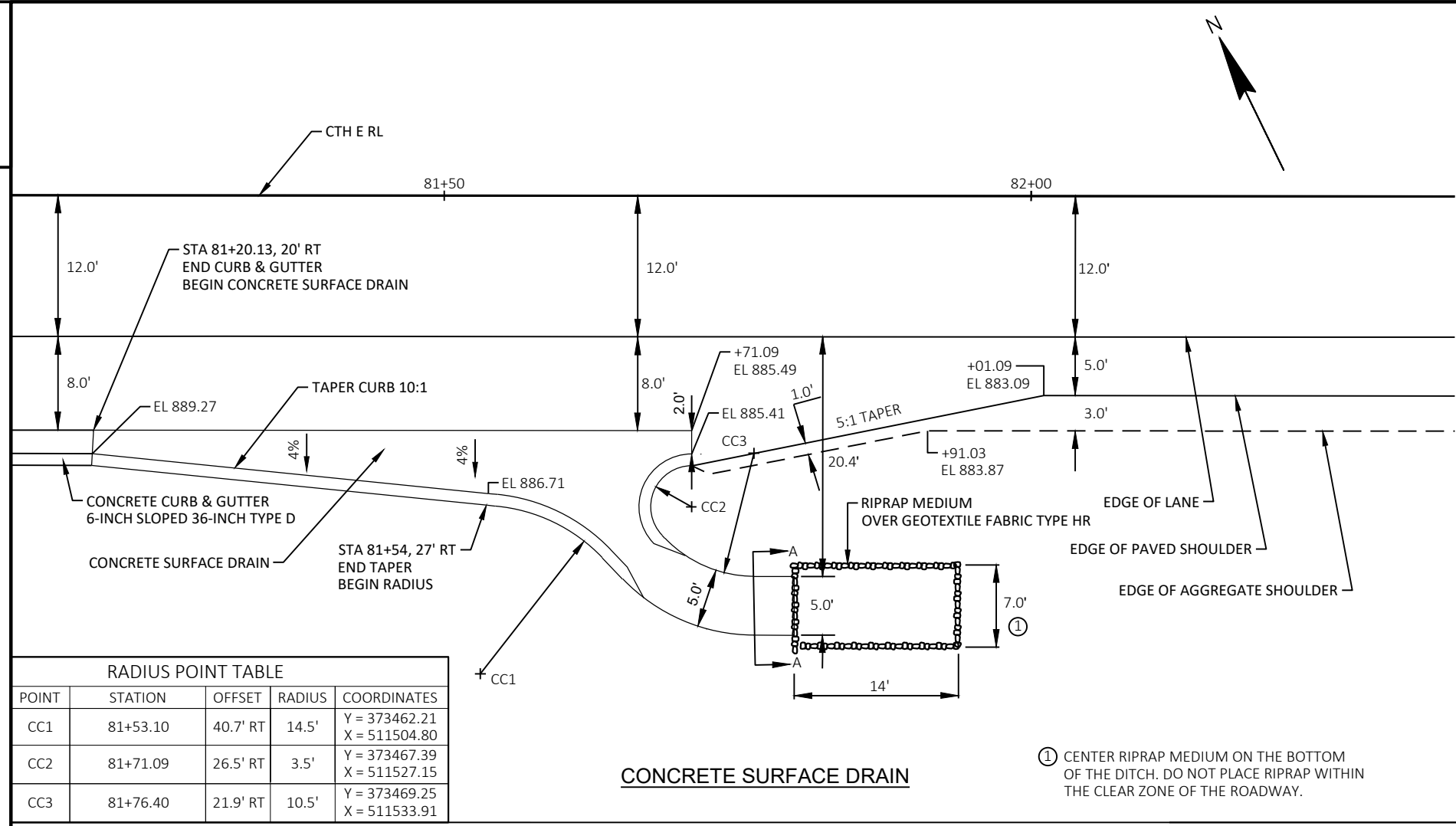
SECTION A-A

NOTES:

- ① VERTICAL BENCH CUT AT EDGE OF EXISTING PAVEMENT (TYPICALLY 17.0' IN FRONT OF BEAM GUARD)
- ② 4' IN MGS GUARDRAIL TERMINAL EAT AREAS
2' IN NON-EAT AREAS
- ③ EXTEND SEED AND FERTILIZER APPLICATION 5' BEYOND SLOPE INTERCEPT OR AS DIRECTED BY ENGINEER
- ④ THIN SALVAGED TOPSOIL TO 2" DEPTH OVER GRANULAR SUBBASE AND AGGREGATE BASE PAST SUPERELEVATION WHERE 2% NORMAL CROWN OCCURS



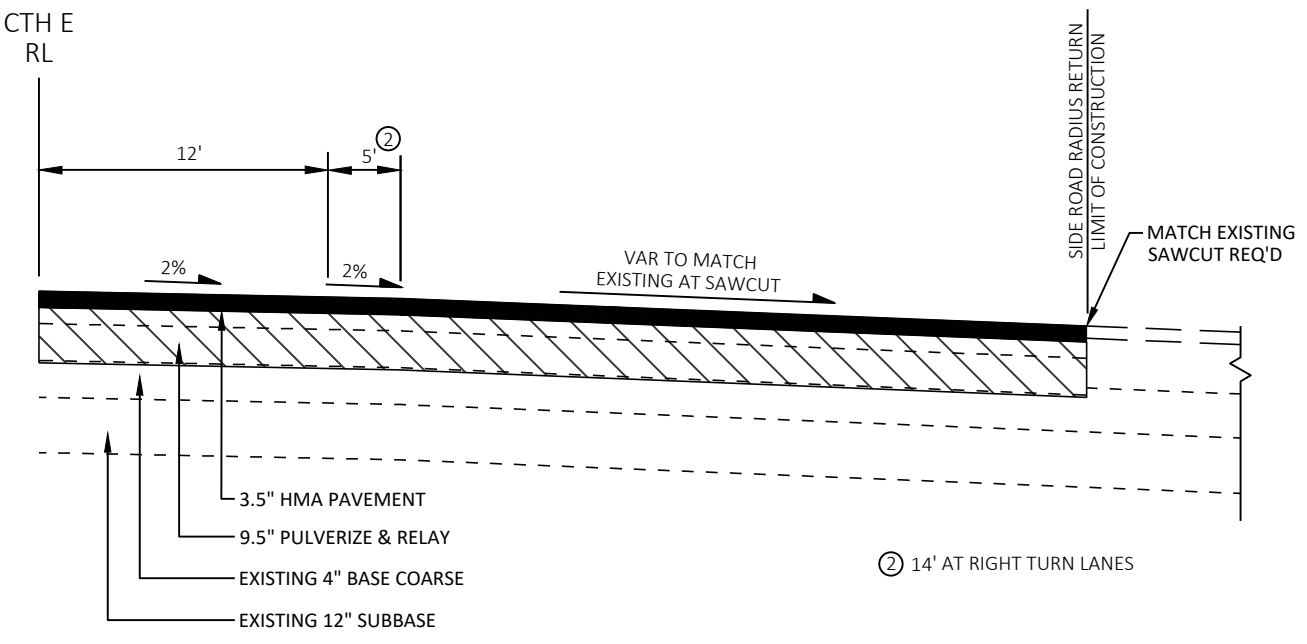
ASPHALTIC SHOULDER AT GUARDRAIL



RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	81+53.10	40.7' RT	14.5'	Y = 373462.21 X = 511504.80
CC2	81+71.09	26.5' RT	3.5'	Y = 373467.39 X = 511527.15
CC3	81+76.40	21.9' RT	10.5'	Y = 373469.25 X = 511533.91

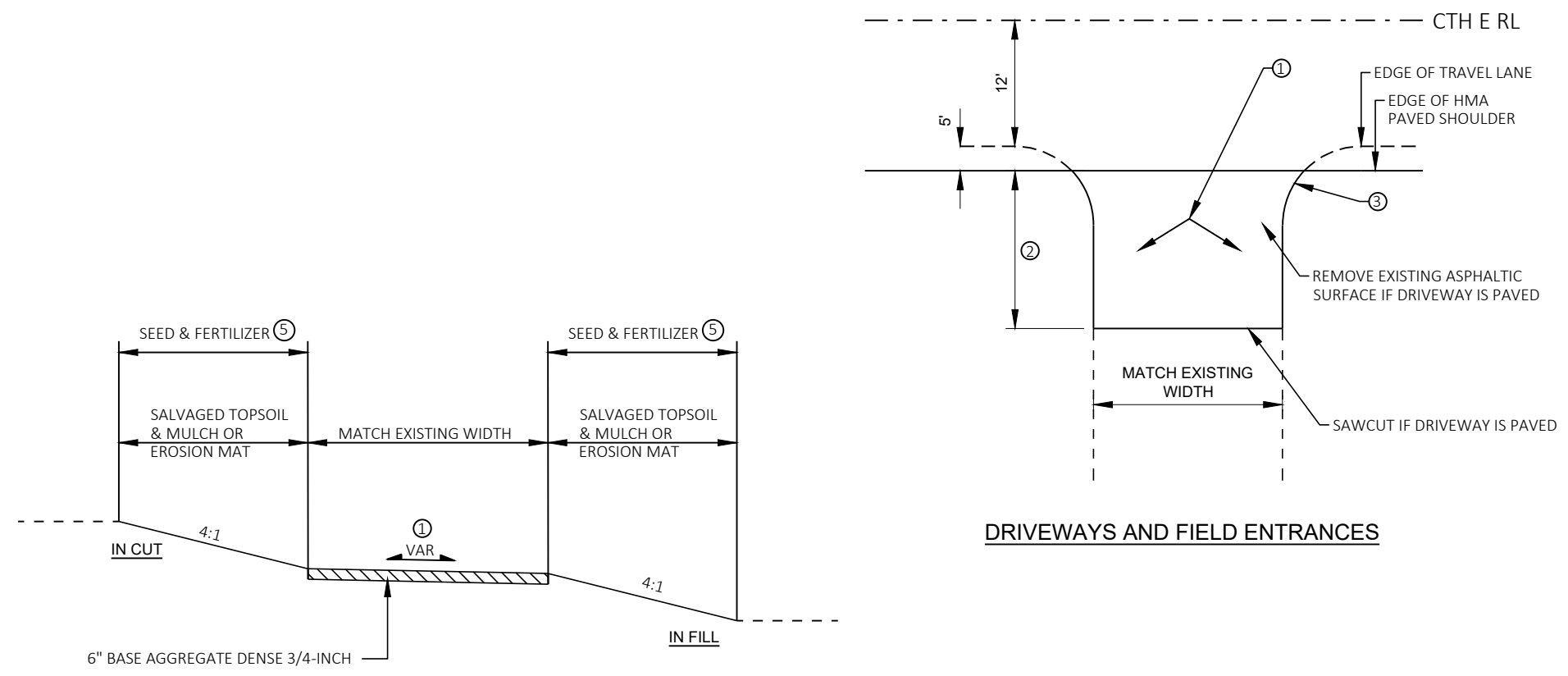
CONCRETE SURFACE DRAIN

① CENTER RIPRAP MEDIUM ON THE BOTTOM OF THE DITCH. DO NOT PLACE RIPRAP WITHIN THE CLEAR ZONE OF THE ROADWAY.

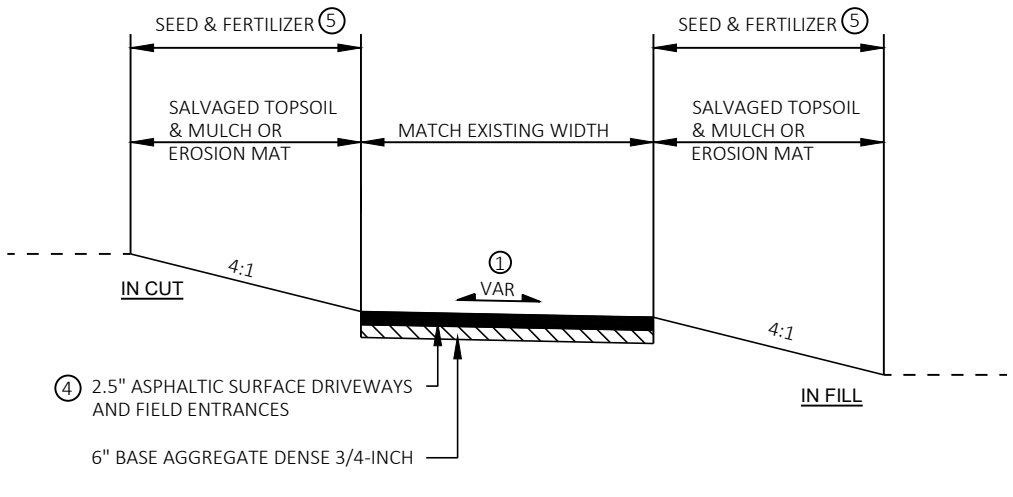


SIDE ROAD TIE-IN

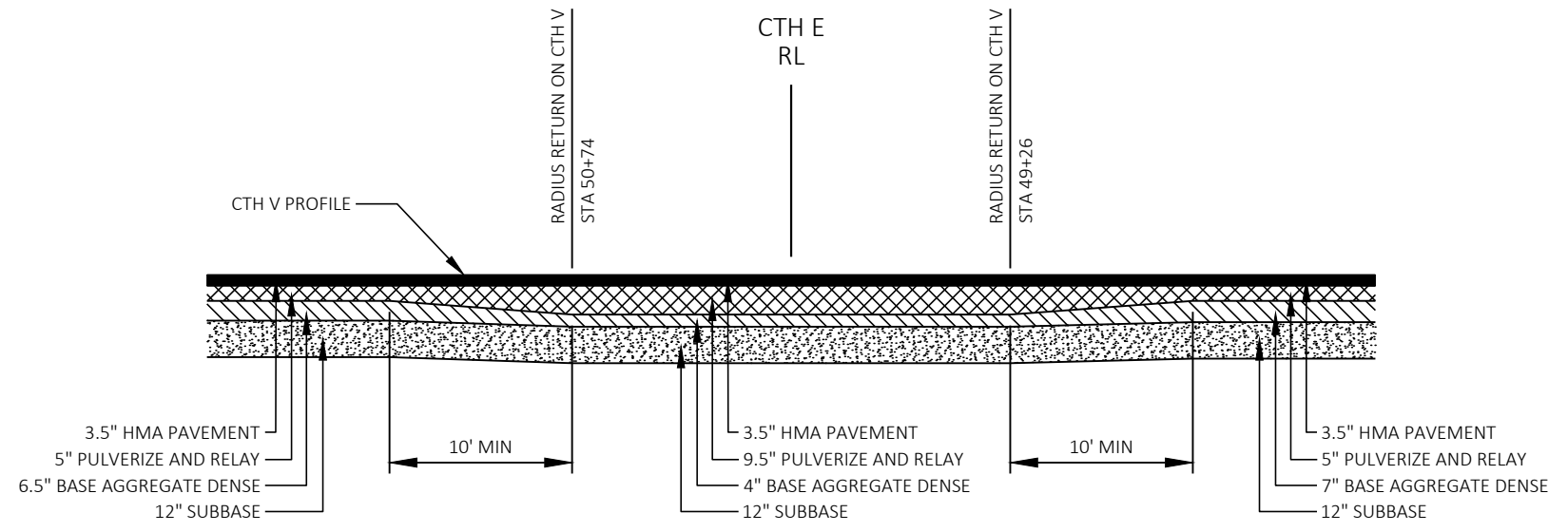
- NOTES:**
- ① FIELD VERIFY DRAINAGE DIRECTION FOR DRIVEWAY
 - ② REFER TO DRIVEWAY PROFILES IN CROSS SECTIONS
 - ③ REFER TO PLAN AND PROFILE SHEETS FOR RADIUS OF EACH DRIVEWAY
 - ④ MATCH EXISTING THICKNESS IF EXISTING IS GREATER THAN 2.5"
 - ⑤ EXTEND SEED AND FERTILIZER APPLICATION 5' BEYOND SLOPE INTERCEPT OR AS DIRECTED BY ENGINEER



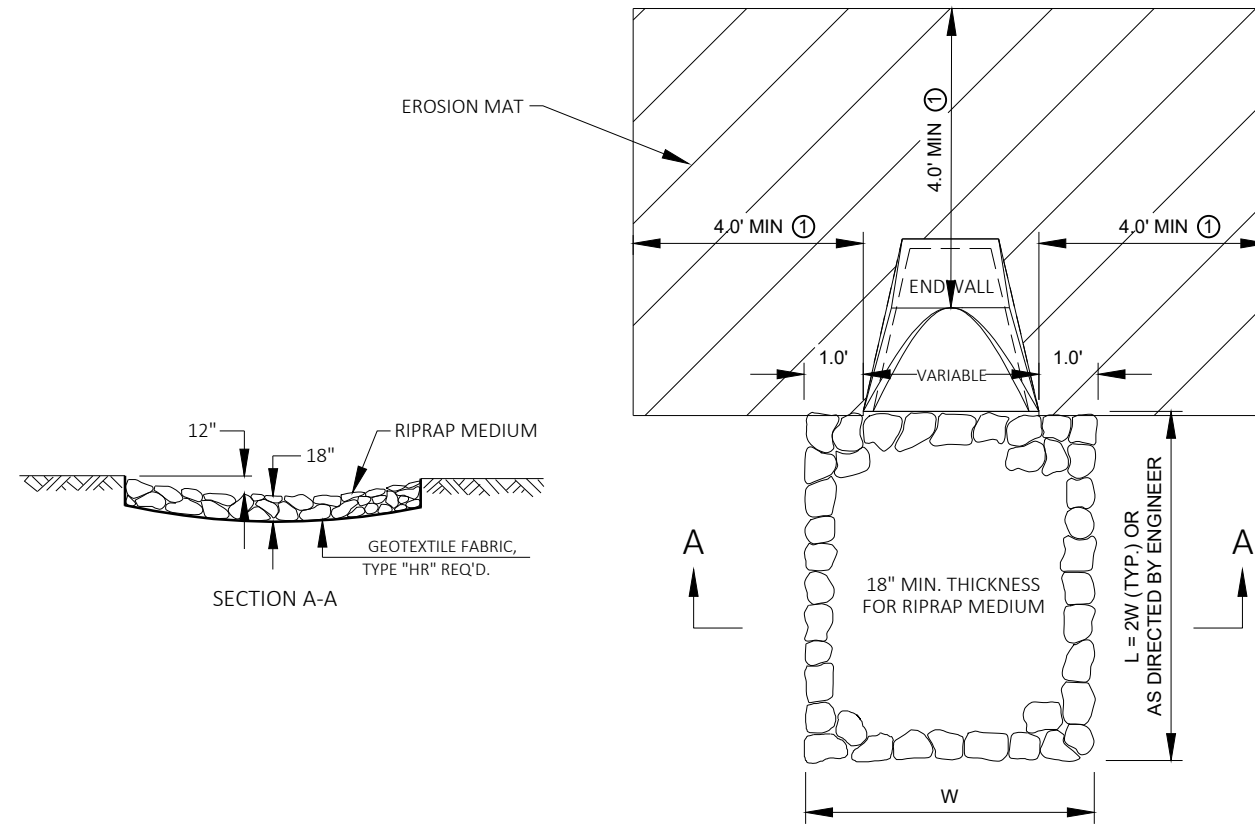
TYPICAL FINISHED SECTION - GRAVEL DRIVEWAYS



TYPICAL FINISHED SECTION - ASPHALTIC DRIVEWAYS

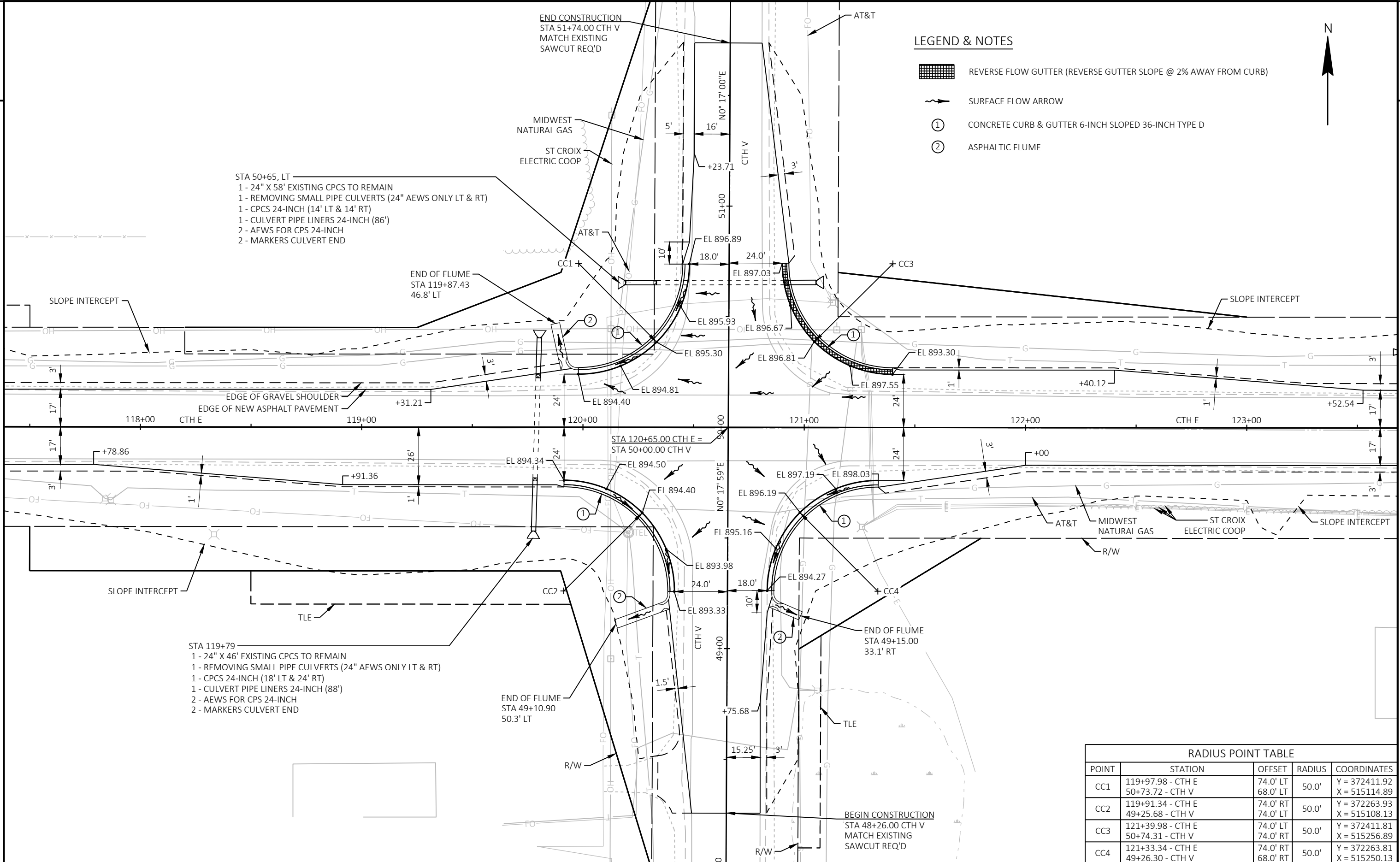


CTH E TO CTH V PAVEMENT DEPTHS TRANSITION



- NOTES:**
- ① INSTALL EROSION MAT TO LIMITS OF GROUND DISTURBANCE (4' MIN) OR AS SHOWN IN THE EROSION CONTROL PLANS OR AS DIRECTED BY ENGINEER.





RIPRAP AND EROSION MAT TREATMENT AT CULVERT ENDWALLS



STA 50+65, LT
 1 - 24" X 58' EXISTING CPCS TO REMAIN
 1 - REMOVING SMALL PIPE CULVERTS (24" AEWS ONLY LT & RT)
 1 - CPCS 24-INCH (14' LT & 14' RT)
 1 - CULVERT PIPE LINERS 24-INCH (86')
 2 - AEWS FOR CPS 24-INCH
 2 - MARKERS CULVERT END

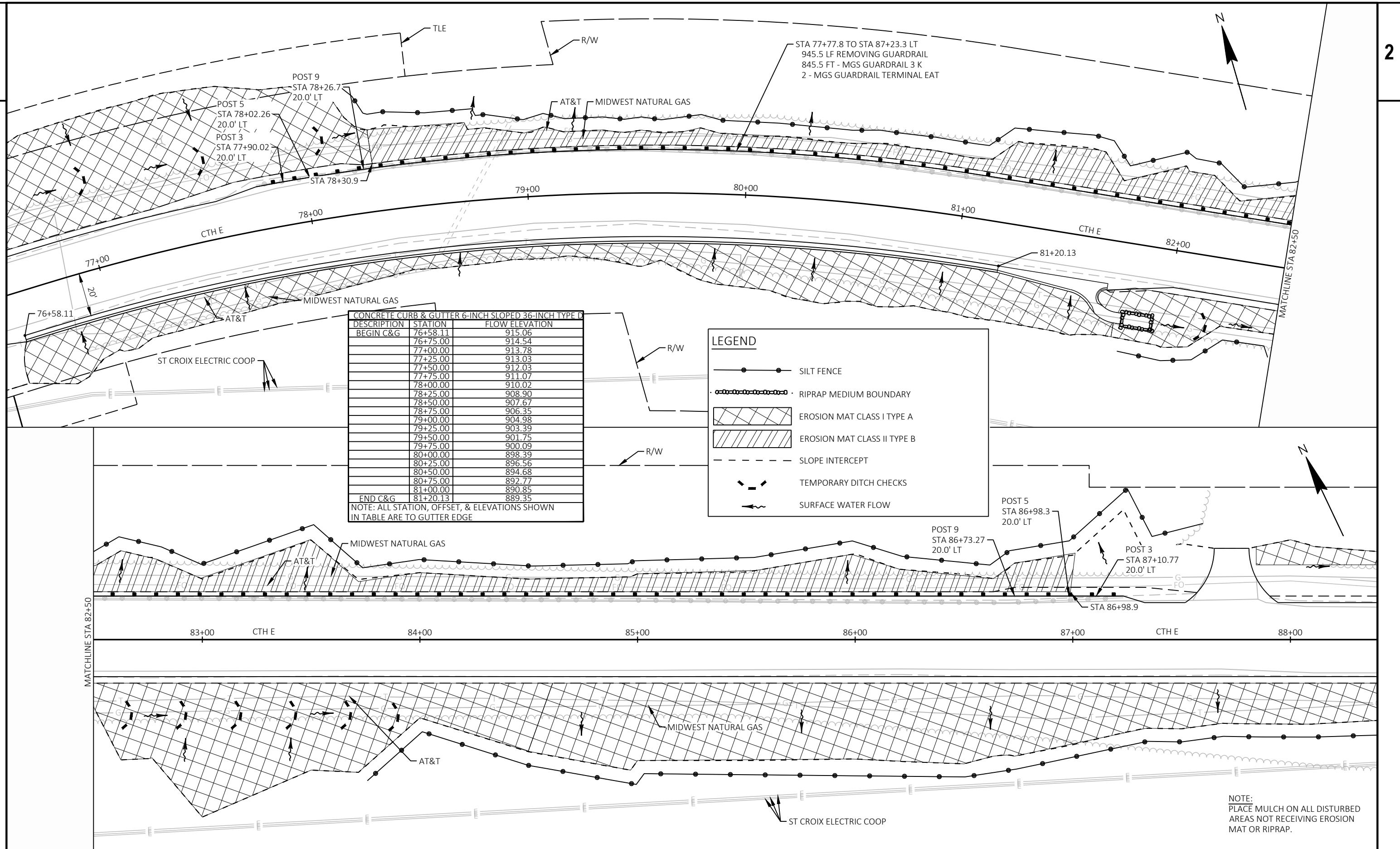
STA 119+79
 1 - 24" X 46' EXISTING CPCS TO REMAIN
 1 - REMOVING SMALL PIPE CULVERTS (24" AEWS ONLY LT & RT)
 1 - CPCS 24-INCH (18' LT & 24' RT)
 1 - CULVERT PIPE LINERS 24-INCH (88')
 2 - AEWS FOR CPS 24-INCH
 2 - MARKERS CULVERT END

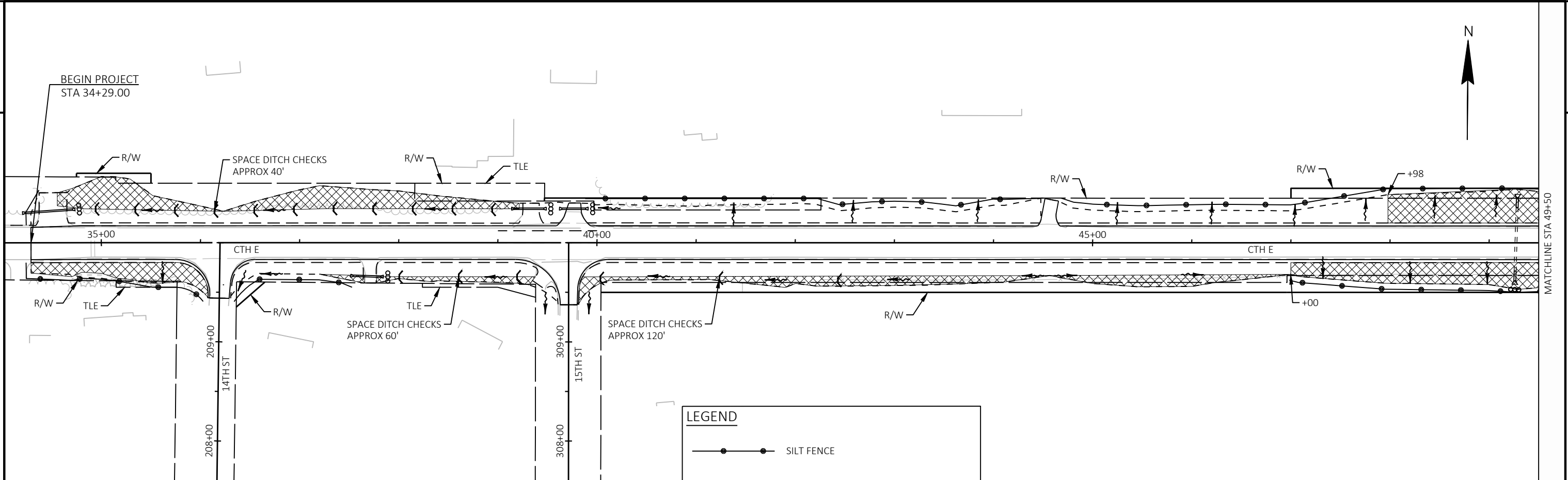
LEGEND & NOTES

-  REVERSE FLOW GUTTER (REVERSE GUTTER SLOPE @ 2% AWAY FROM CURB)
-  SURFACE FLOW ARROW
-  CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
-  ASPHALTIC FLUME



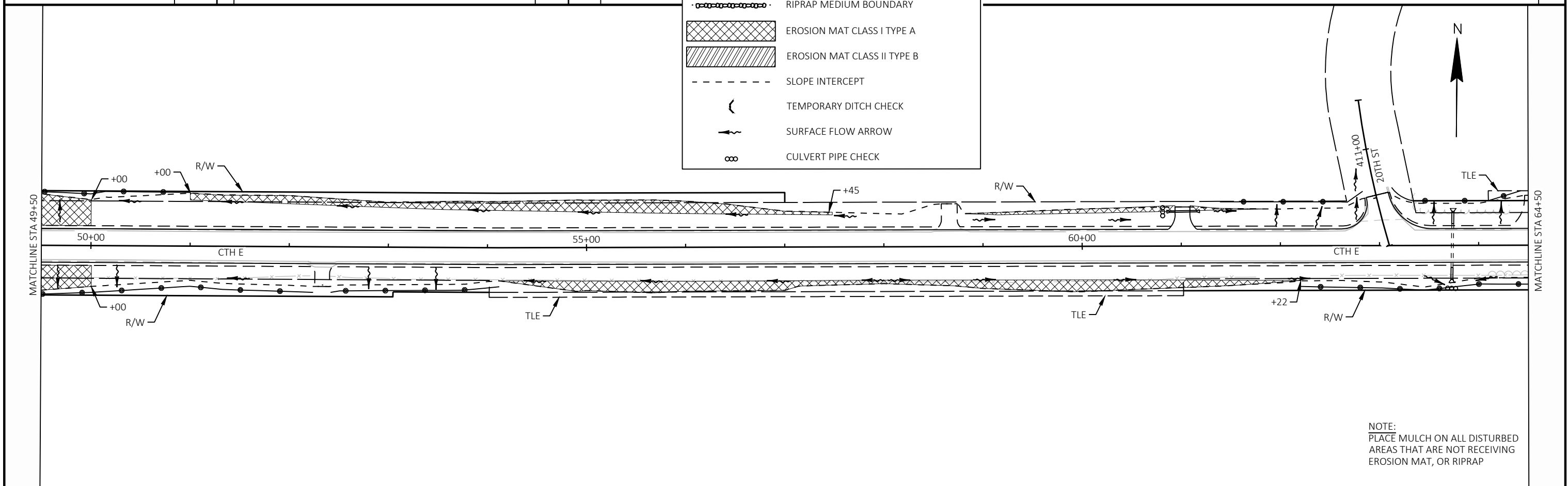
RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	119+97.98 - CTH E 50+73.72 - CTH V	74.0' LT 68.0' RT	50.0'	Y = 372411.92 X = 515114.89
CC2	119+91.34 - CTH E 49+25.68 - CTH V	74.0' RT 74.0' LT	50.0'	Y = 372263.93 X = 515108.13
CC3	121+39.98 - CTH E 50+74.31 - CTH V	74.0' LT 74.0' RT	50.0'	Y = 372411.81 X = 515256.89
CC4	121+33.34 - CTH E 49+26.30 - CTH V	74.0' RT 68.0' RT	50.0'	Y = 372263.81 X = 515250.13





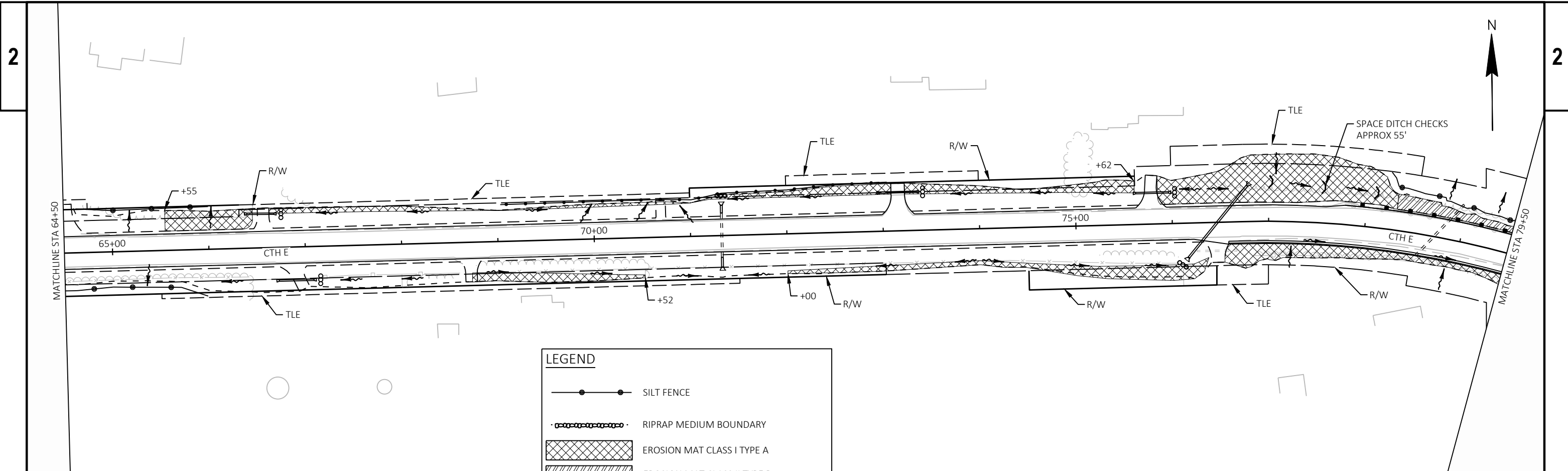
LEGEND

- SILT FENCE
- RIPRAP MEDIUM BOUNDARY
- ▨ EROSION MAT CLASS I TYPE A
- ▩ EROSION MAT CLASS II TYPE B
- - - SLOPE INTERCEPT
- ⌋ TEMPORARY DITCH CHECK
- SURFACE FLOW ARROW
- ∞ CULVERT PIPE CHECK



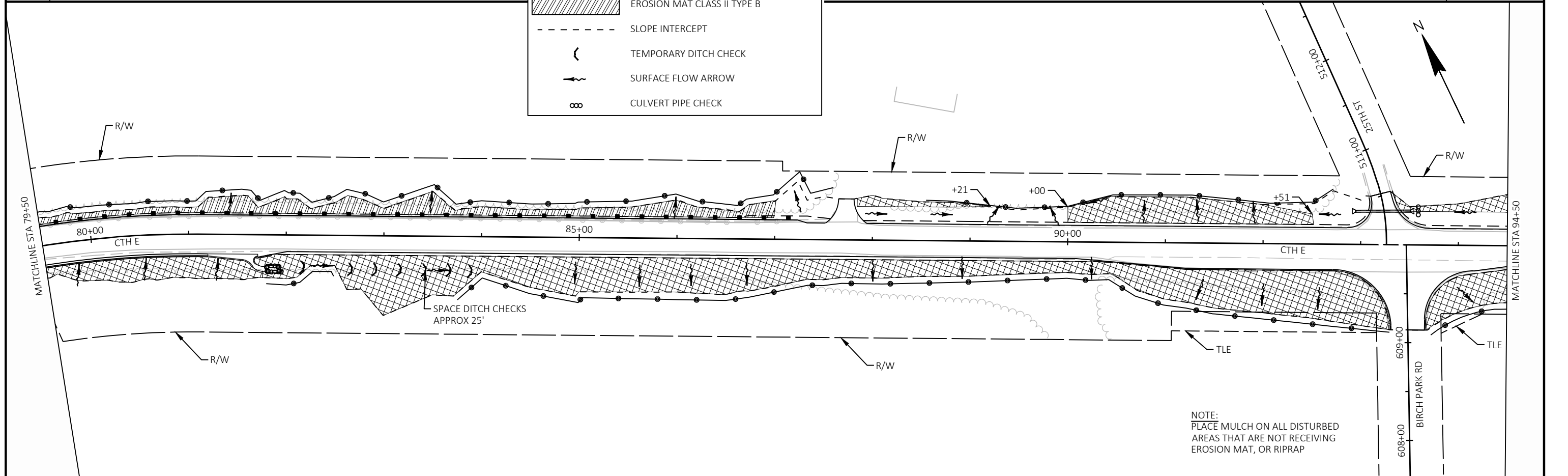
NOTE:
PLACE MULCH ON ALL DISTURBED
AREAS THAT ARE NOT RECEIVING
EROSION MAT, OR RIPRAP

PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	EROSION CONTROL	SHEET
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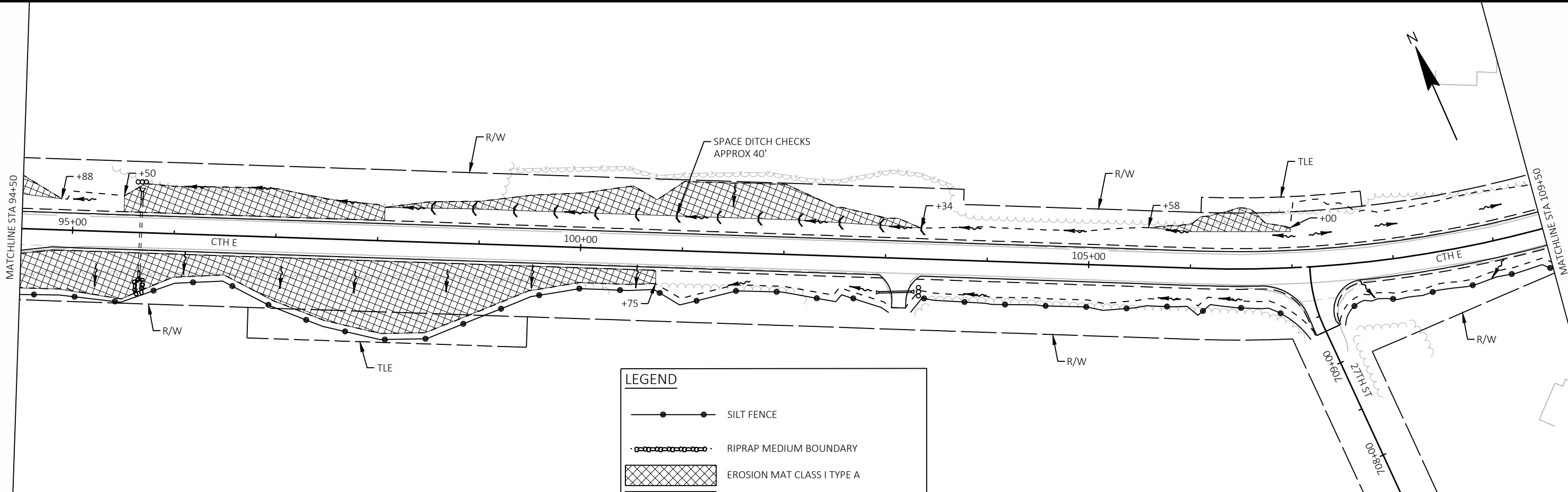


LEGEND

	SILT FENCE
	RIPRAP MEDIUM BOUNDARY
	EROSION MAT CLASS I TYPE A
	EROSION MAT CLASS II TYPE B
	SLOPE INTERCEPT
	TEMPORARY DITCH CHECK
	SURFACE FLOW ARROW
	CULVERT PIPE CHECK

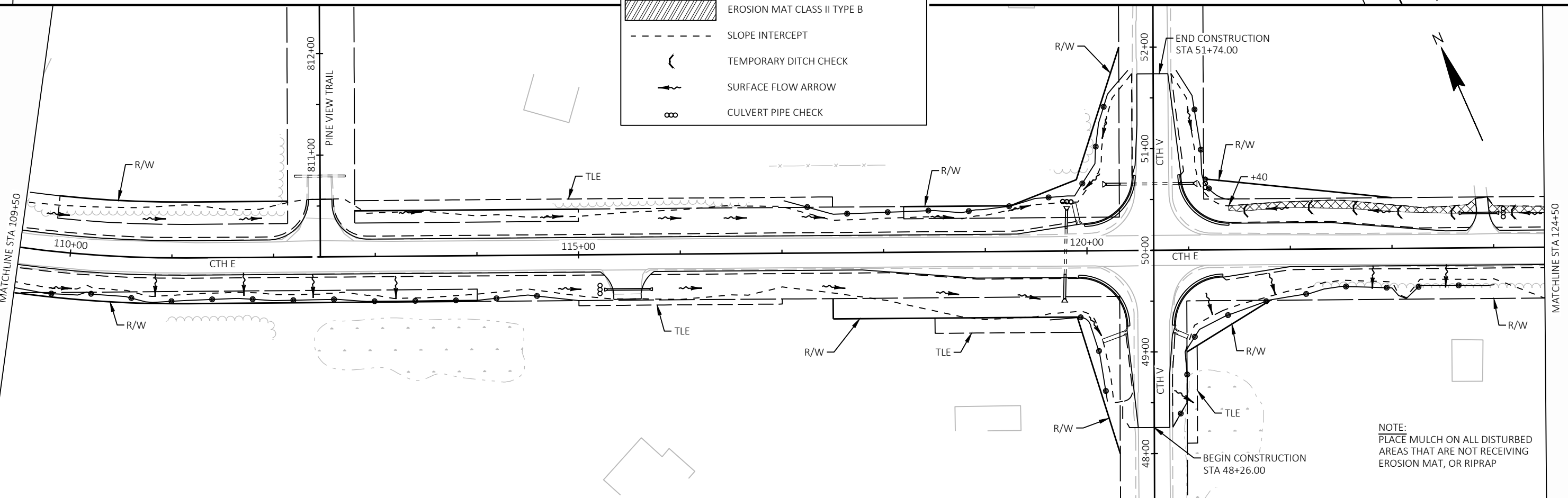


PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	EROSION CONTROL	SHEET	E
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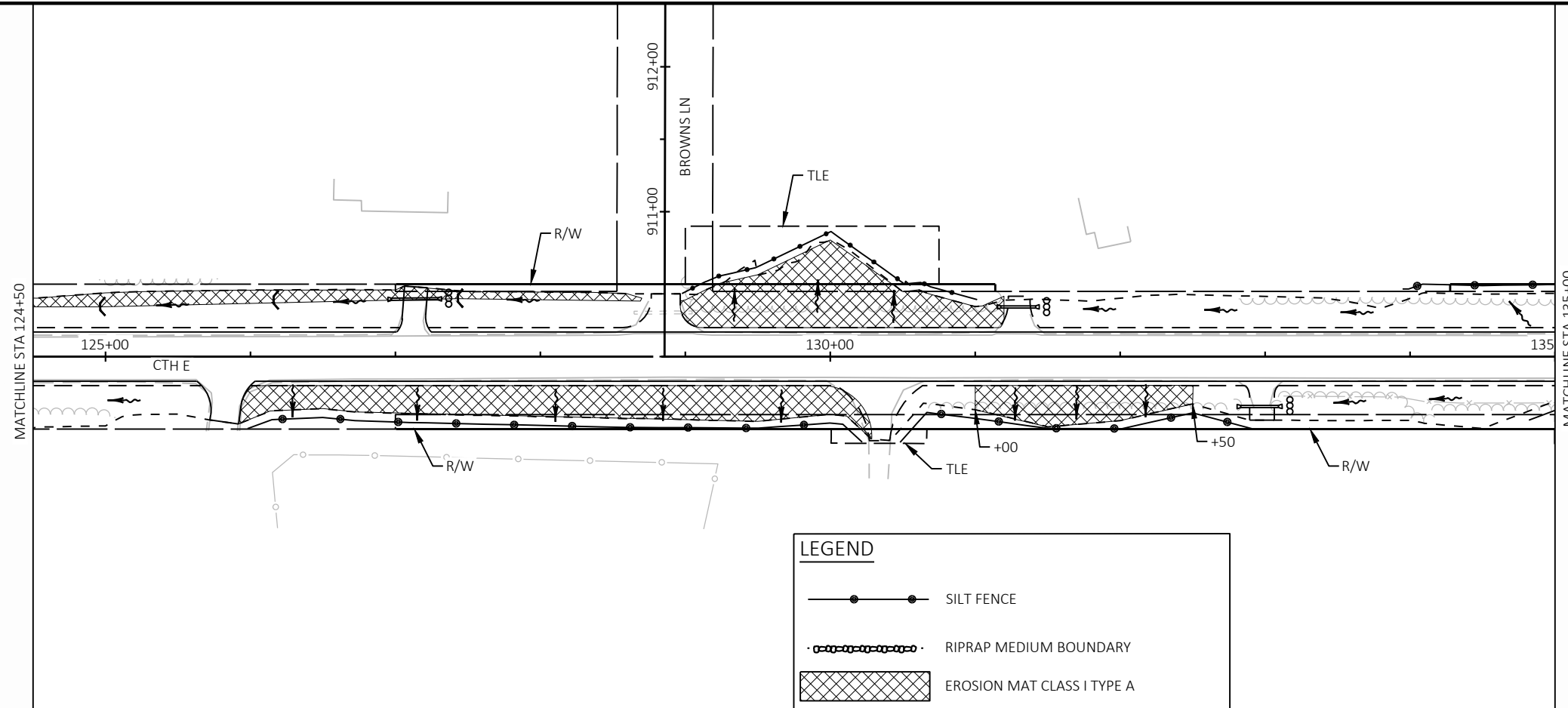


LEGEND

- SILT FENCE
- RIPRAP MEDIUM BOUNDARY
- EROSION MAT CLASS I TYPE A
- EROSION MAT CLASS II TYPE B
- SLOPE INTERCEPT
- TEMPORARY DITCH CHECK
- SURFACE FLOW ARROW
- CULVERT PIPE CHECK

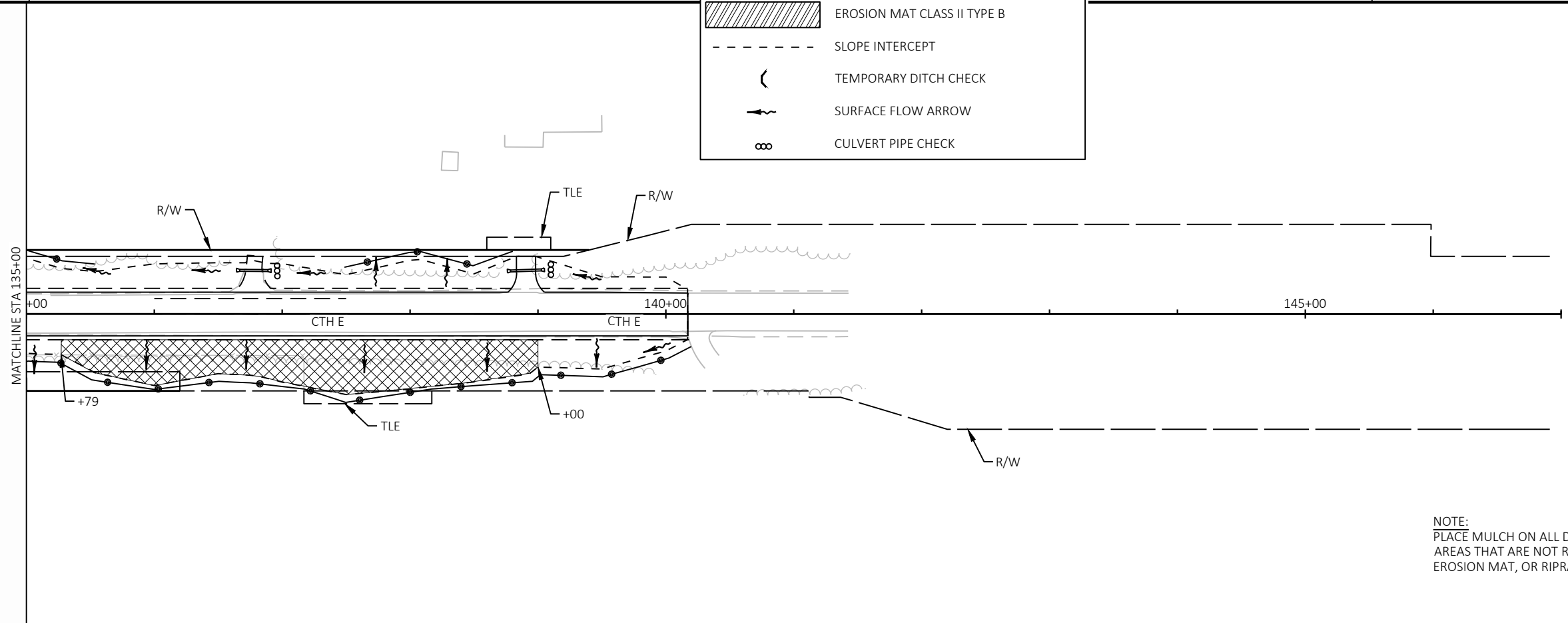


NOTE:
PLACE MULCH ON ALL DISTURBED
AREAS THAT ARE NOT RECEIVING
EROSION MAT, OR RIPRAP



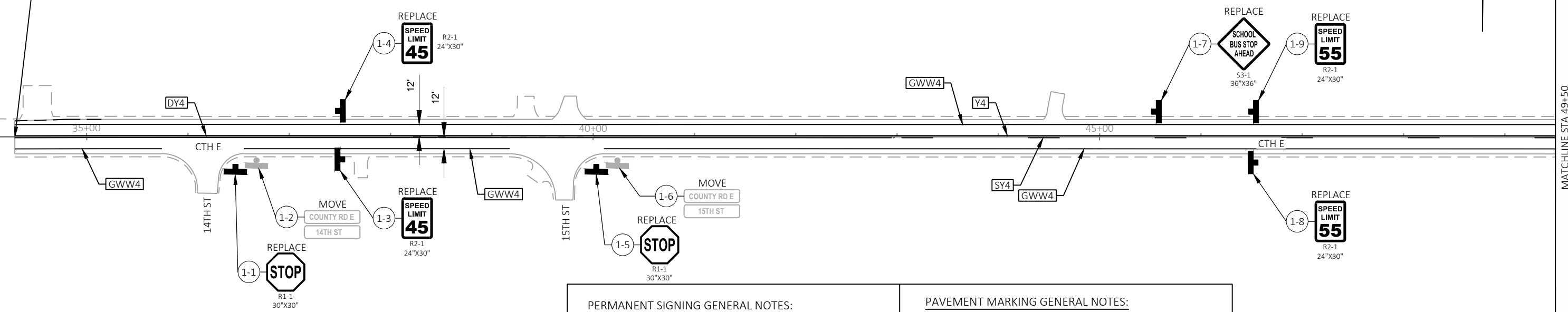
LEGEND

- SILT FENCE
- - - - - RIPRAP MEDIUM BOUNDARY
- ▨ EROSION MAT CLASS I TYPE A
- ▩ EROSION MAT CLASS II TYPE B
- - - - - SLOPE INTERCEPT
- () TEMPORARY DITCH CHECK
- SURFACE FLOW ARROW
- ∞ CULVERT PIPE CHECK



NOTE:
PLACE MULCH ON ALL DISTURBED
AREAS THAT ARE NOT RECEIVING
EROSION MAT, OR RIPRAP

BEGIN PROJECT
STA 34+29.00



PAVEMENT MARKING LEGEND

ARW2	MARKING ARROW EPOXY (TYPE 2, WHITE)
DY4	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
GWW4	MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
SLW18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
SY4	MARKING LINE EPOXY 4-INCH (SKIP, YELLOW) (12.5' LINE 37.5' GAP)
W8	MARKING LINE EPOXY 8-INCH (WHITE)
WW	MARKING WORD EPOXY (WHITE)
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)

PERMANENT SIGNING GENERAL NOTES:
 THE EXACT LOCATION OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY ENGINEER.

REMOVE = REMOVING SIGNS TYPE II, REMOVING SMALL SIGN SUPPORTS (WHEN ON EXISTING POST)

REPLACE = REMOVING SIGNS TYPE II, REMOVING SMALL SIGN SUPPORTS (WHEN ON EXISTING POST), SIGNS TYPE II REFLECTIVE H/F AND POSTS WOOD.

MOVE = MOVING SIGNS TYPE II, MOVING SMALL SIGN SUPPORTS.

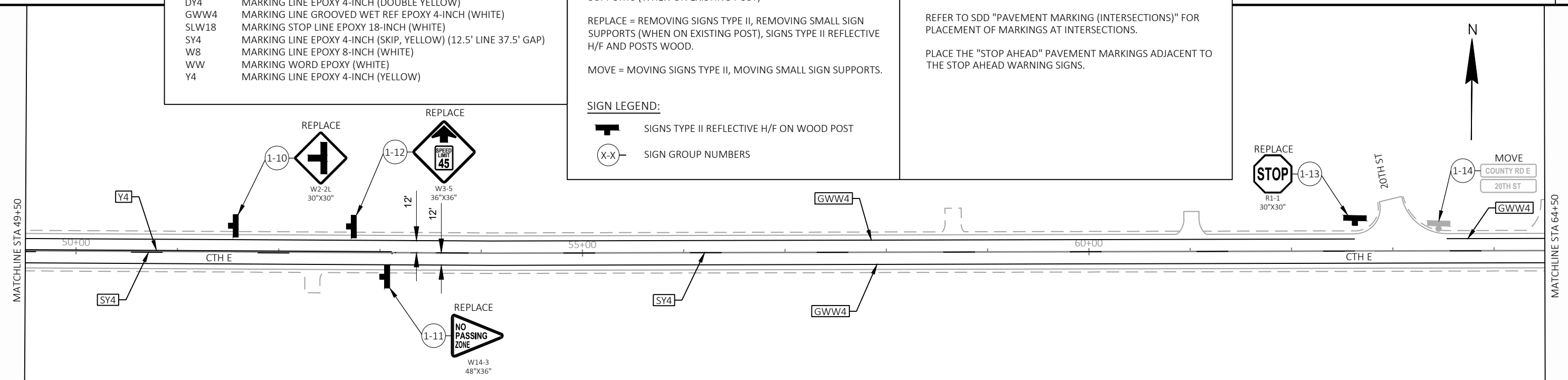
SIGN LEGEND:
 SIGNS TYPE II REFLECTIVE H/F ON WOOD POST
 SIGN GROUP NUMBERS

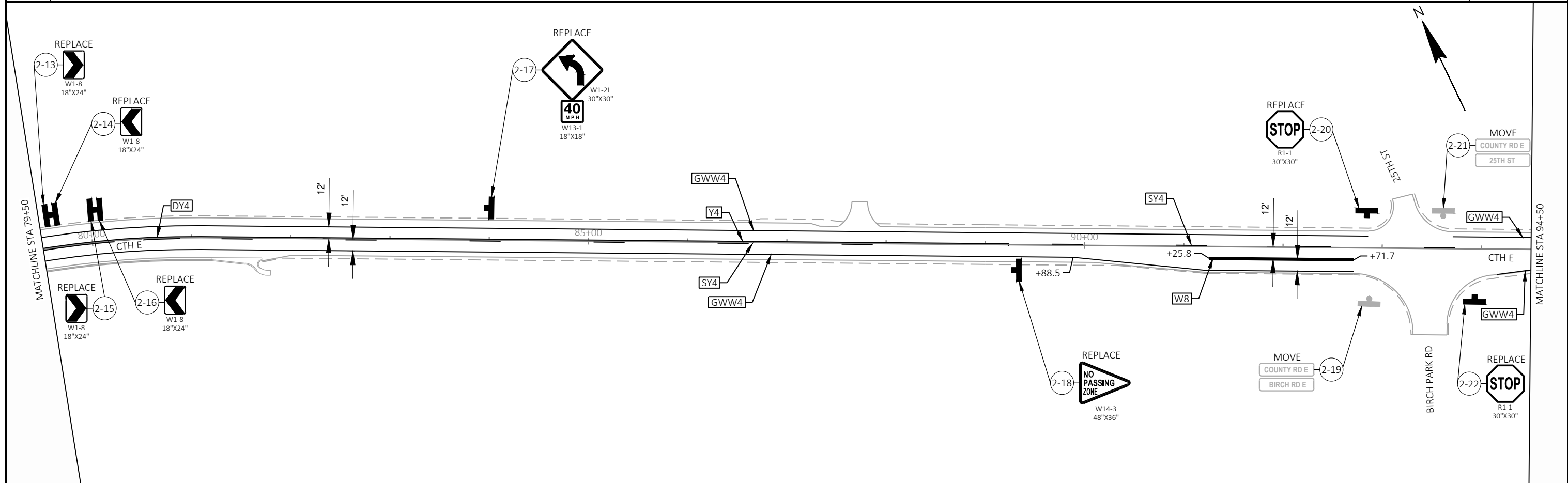
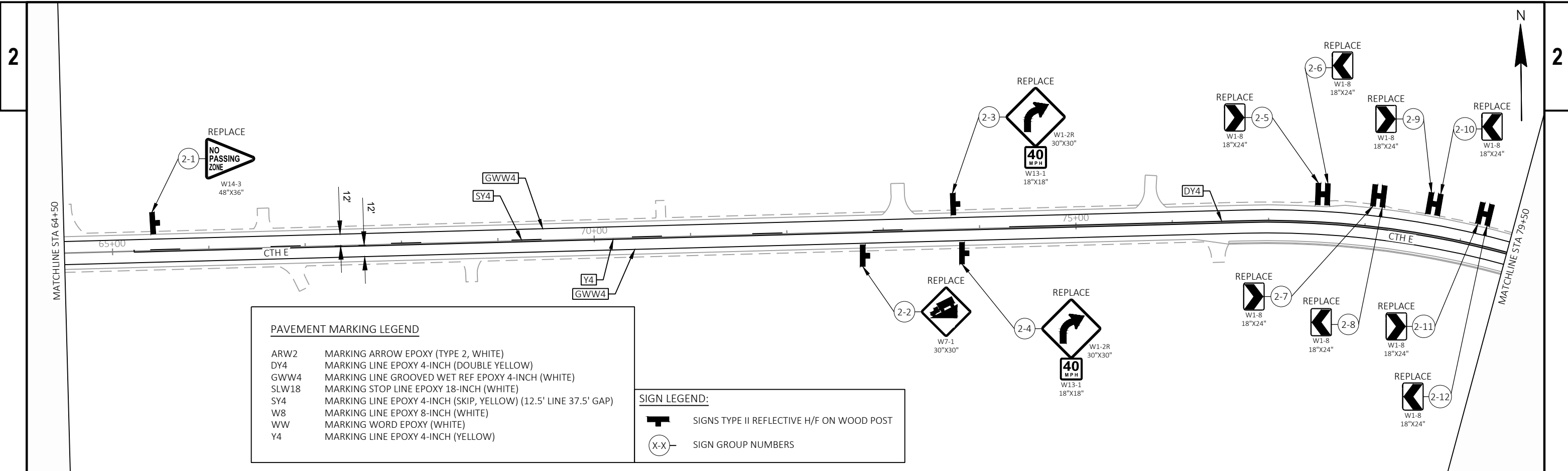
PAVEMENT MARKING GENERAL NOTES:
 ALL PAVEMENT MARKINGS SHALL BE EPOXY.

REFER TO SDD "LONGITUDINAL MARKING (MAINLINE)" FOR PLACEMENT OF LONGITUDINAL CENTERLINE AND EDGE LINE MARKINGS.

REFER TO SDD "PAVEMENT MARKING (INTERSECTIONS)" FOR PLACEMENT OF MARKINGS AT INTERSECTIONS.

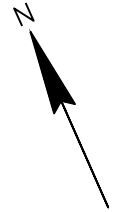
PLACE THE "STOP AHEAD" PAVEMENT MARKINGS ADJACENT TO THE STOP AHEAD WARNING SIGNS.





MATCHLINE STA 94+50

MATCHLINE STA 104+50

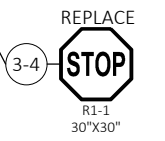
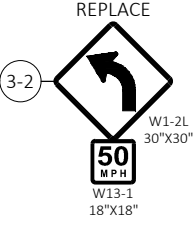
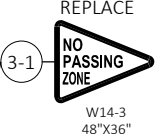


PAVEMENT MARKING LEGEND

- ARW2 MARKING ARROW EPOXY (TYPE 2, WHITE)
- DY4 MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- GWW4 MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
- SLW18 MARKING STOP LINE EPOXY 18-INCH (WHITE)
- SY4 MARKING LINE EPOXY 4-INCH (SKIP, YELLOW) (12.5' LINE 37.5' GAP)
- W8 MARKING LINE EPOXY 8-INCH (WHITE)
- WW MARKING WORD EPOXY (WHITE)
- Y4 MARKING LINE EPOXY 4-INCH (YELLOW)

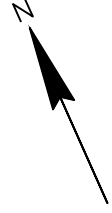
SIGN LEGEND:

- SIGNS TYPE II REFLECTIVE H/F ON WOOD POST
- SIGN GROUP NUMBERS



MATCHLINE STA 109+50

MATCHLINE STA 124+50



NOTES:

- ① PLACE THE "STOP AHEAD" PAVEMENT MARKINGS ADJACENT TO THE EXISTING STOP AHEAD WARNING SIGNS ON CTH V
- ② REPLACE EXISTING STOP SIGN WITH SOLAR POWERED LED FLASHING STOP SIGN

PROJECT NO: 8939-08-76

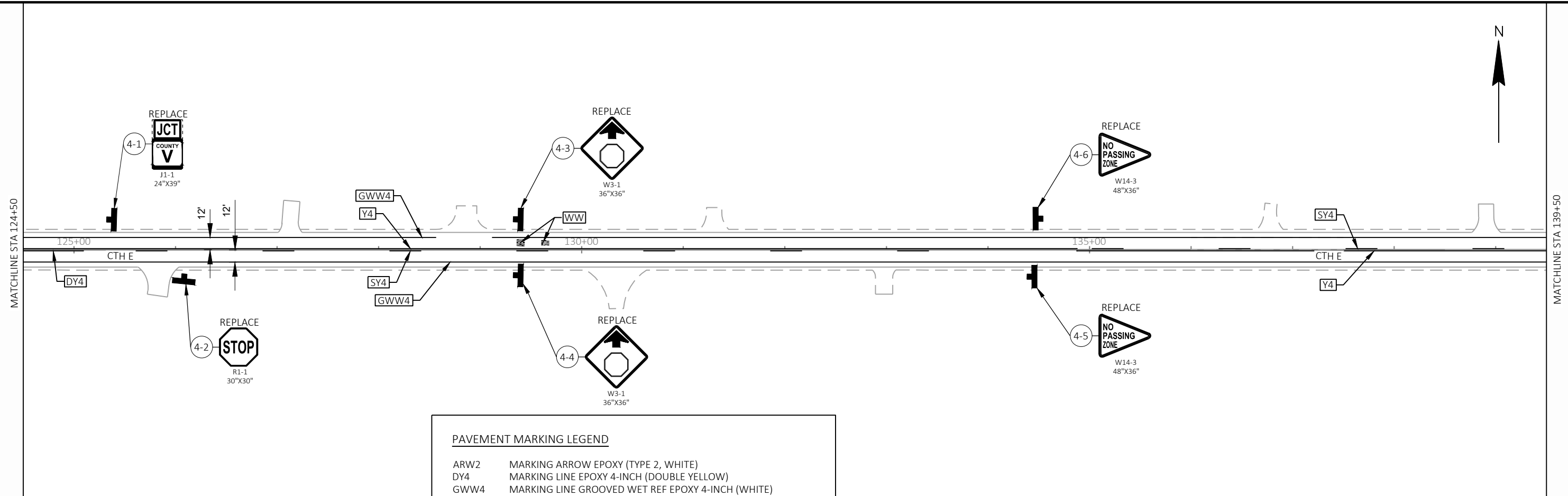
HWY: CTH E

COUNTY: ST. CROIX

PERMANENT SIGNING & PAVEMENT MARKING

SHEET

E

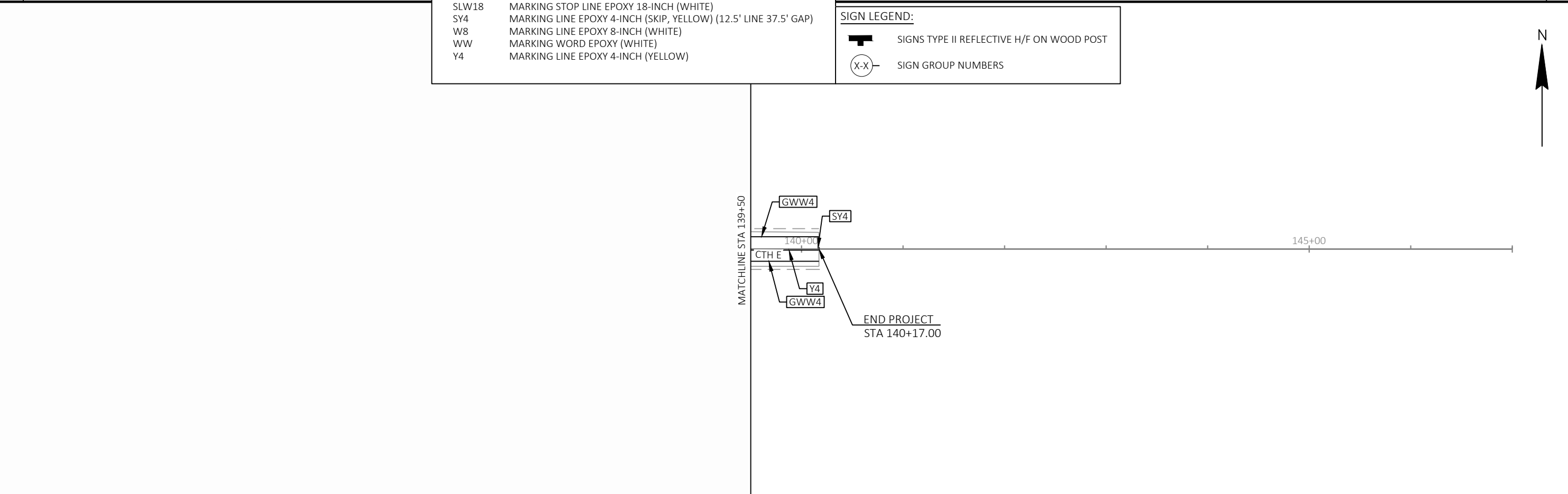


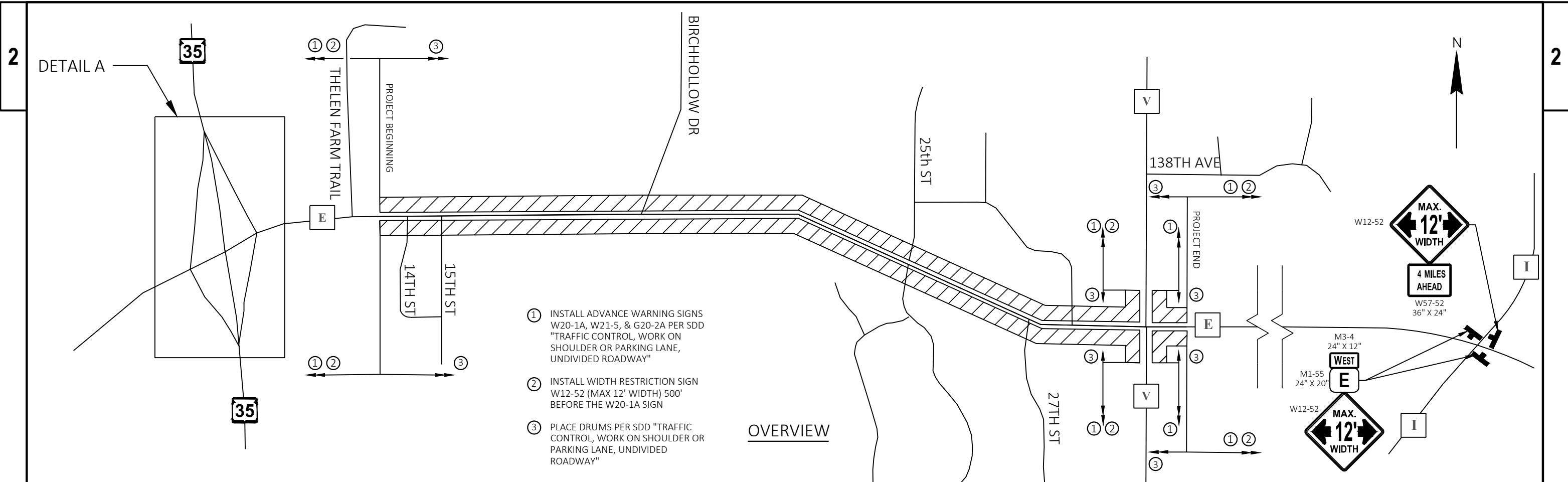
PAVEMENT MARKING LEGEND

ARW2	MARKING ARROW EPOXY (TYPE 2, WHITE)
DY4	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
GWW4	MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
SLW18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
SY4	MARKING LINE EPOXY 4-INCH (SKIP, YELLOW) (12.5' LINE 37.5' GAP)
W8	MARKING LINE EPOXY 8-INCH (WHITE)
WW	MARKING WORD EPOXY (WHITE)
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)

SIGN LEGEND:

	SIGNS TYPE II REFLECTIVE H/F ON WOOD POST
	SIGN GROUP NUMBERS





STAGE 1 GENERAL NOTES:
DRAWING IS NOT TO SCALE.

SHOULDER DROP OFF SIGNS W8-9A SHALL BE IN PLACE ON CTH E AND CTH V PER SDD "TRAFFIC CONTROL, DROP-OFF SIGNING" DURING STAGE 1.

ALL TRAFFIC CONTROL SIGNS AND DEVICES AND THEIR LOCATIONS SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD), THE PLANS, STANDARD SPECIFICATIONS AND APPLICABLE STANDARD DETAIL DRAWINGS.

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

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

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

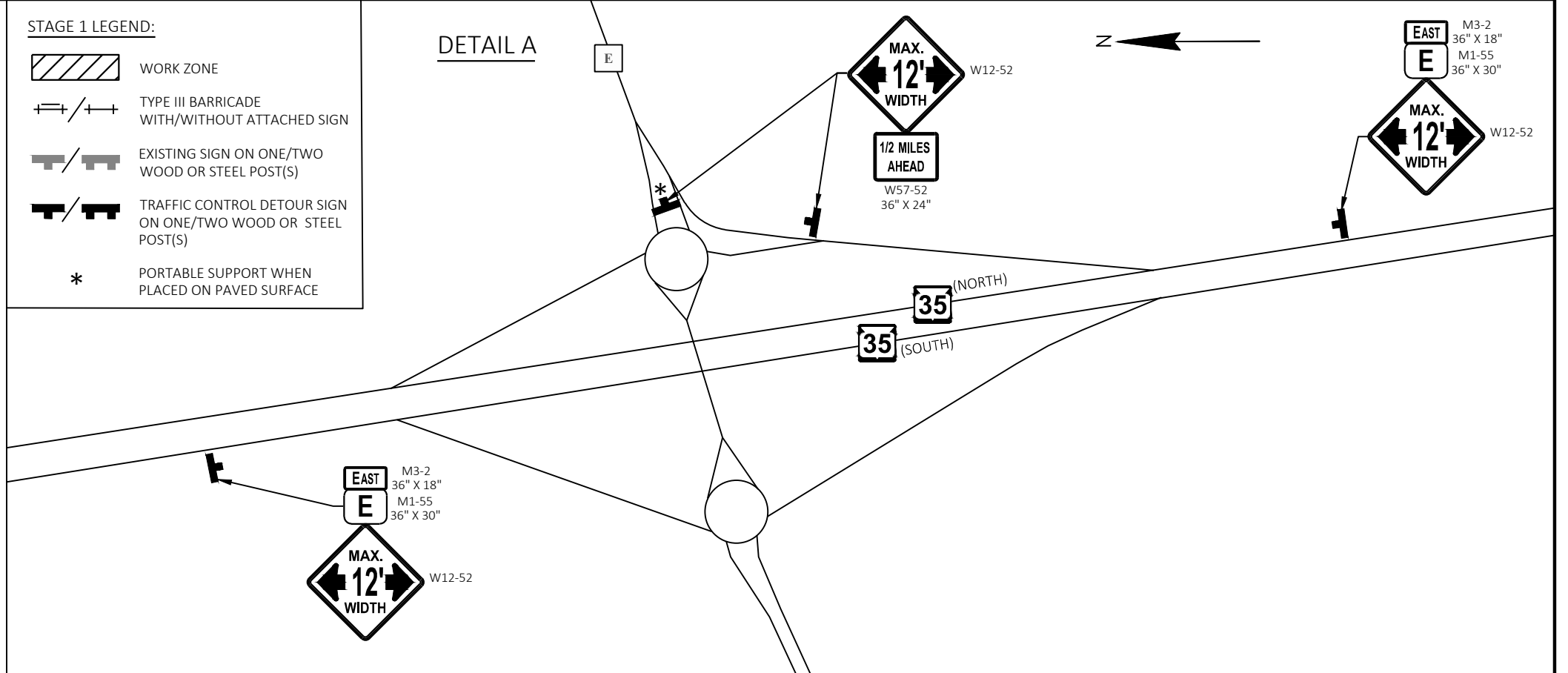
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACK GROUND IS ORANGE.

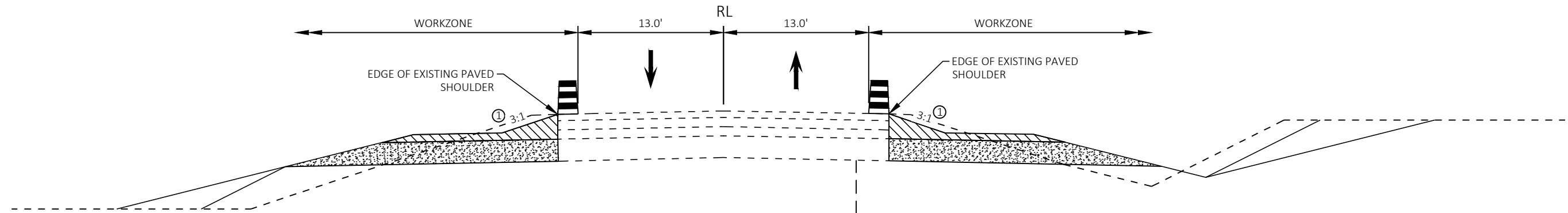
ALL SIDEROADS WITHIN PROJECT LIMITS SHALL BE BARRICADED AND SIGNED IN ACCORDANCE WITH DETAIL 3 OF SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES".

STAGE 1 LEGEND:

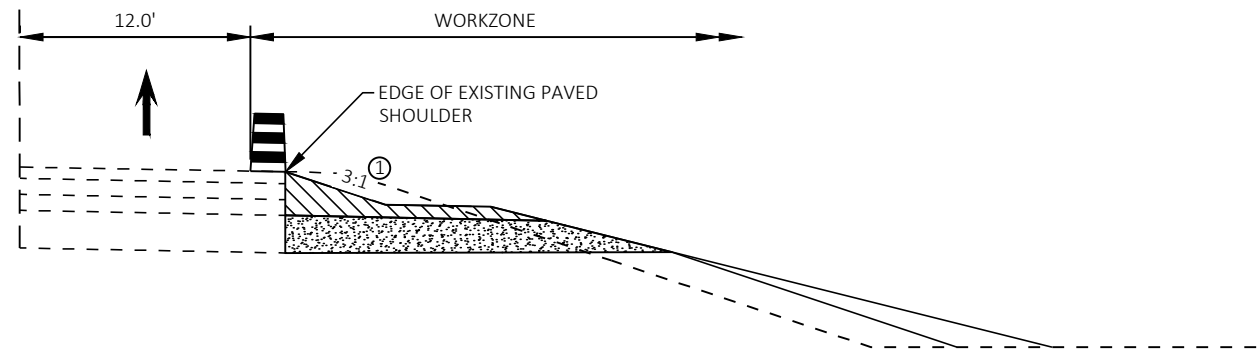
- WORK ZONE
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- EXISTING SIGN ON ONE/TWO WOOD OR STEEL POST(S)
- TRAFFIC CONTROL DETOUR SIGN ON ONE/TWO WOOD OR STEEL POST(S)
- PORTABLE SUPPORT WHEN PLACED ON PAVED SURFACE

DETAIL A










TYPICAL SECTION - STAGE 1
 CTH E
 STA 34+29.00 TO STA 140+17.00

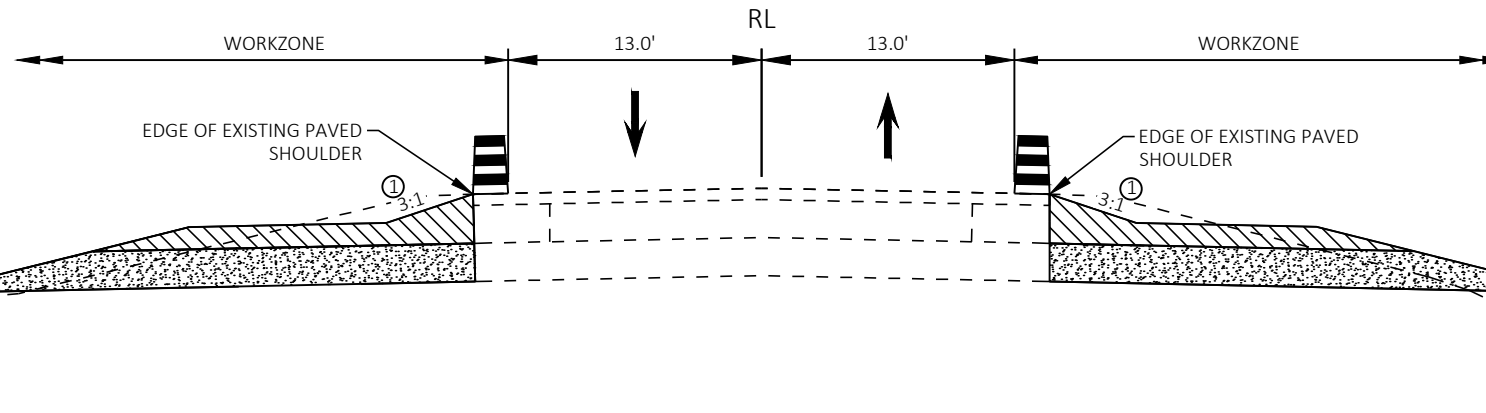


TYPICAL SECTION - STAGE 1 - RT TURN LANE
 CTH E
 STA 90+25.00 TO STA 95+11.39

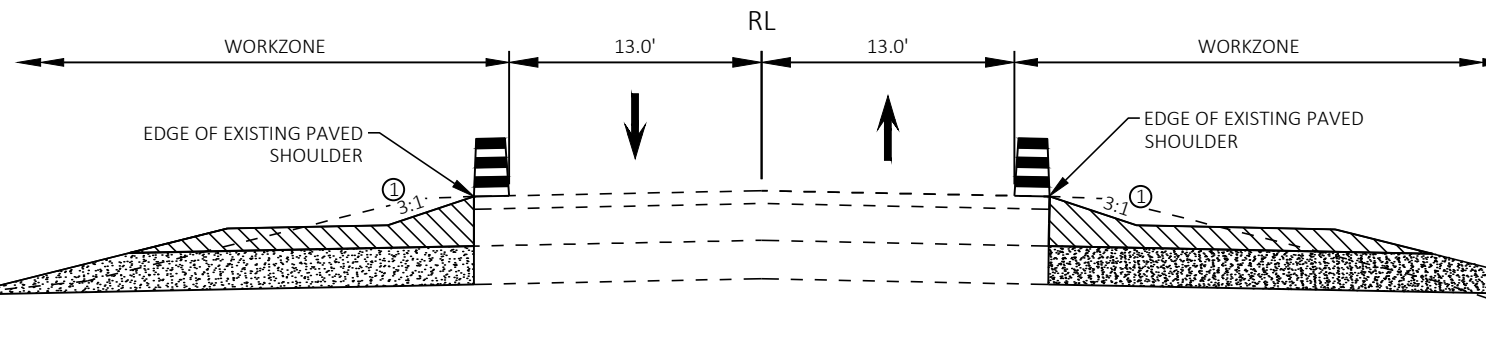
NOTES & LEGEND:

① TEMPORARY 3:1 SAFETY SLOPE SHALL BE IN PLACE AT THE END OF EACH DAY

-  = SUBBASE
-  = CRUSHED AGGREGATE BASE COURSE
-  = HMA PAVEMENT
-  = TRAFFIC CONTROL DRUM
-  = THROUGH TRAFFIC FLOW








TYPICAL SECTION - STAGE 1
 CTH V
 STA 48+26.00 TO STA 50+00.00

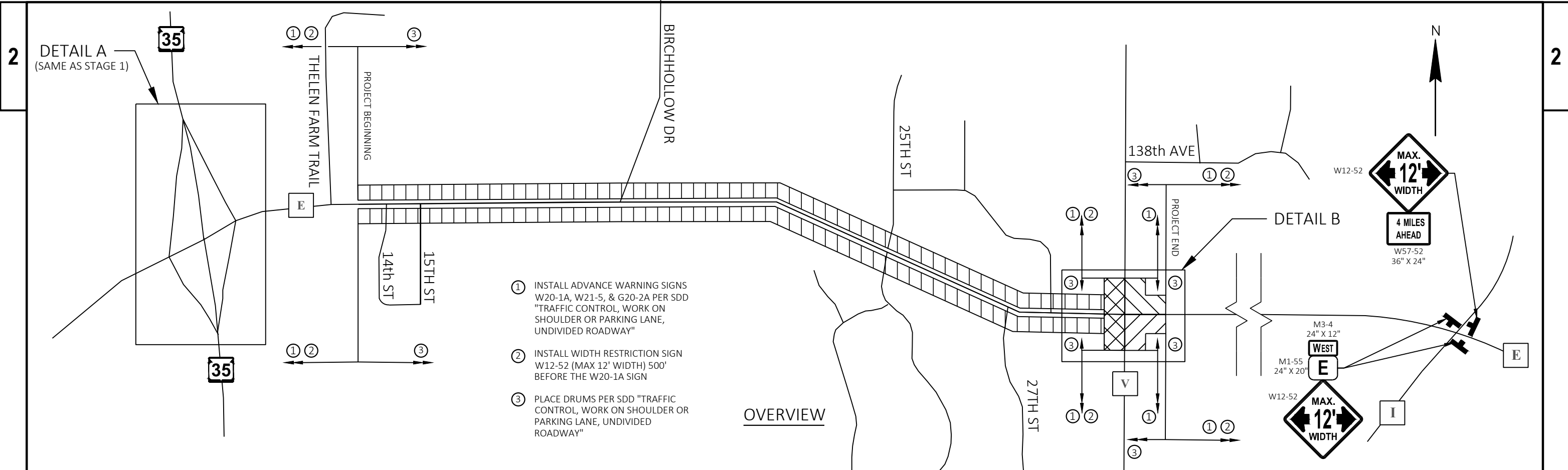


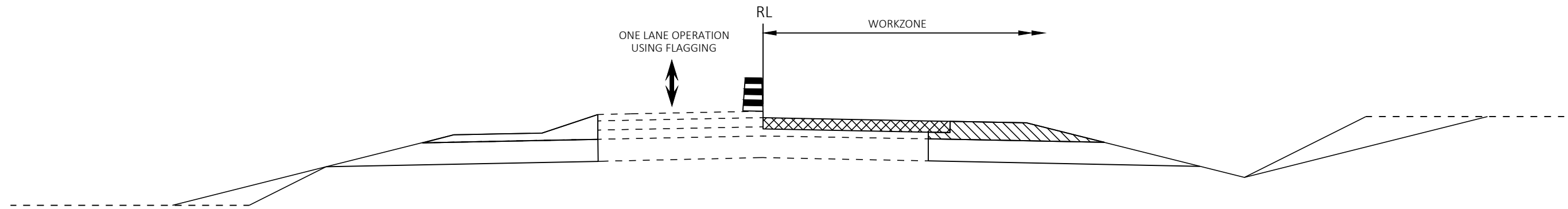
TYPICAL SECTION - STAGE 1
 CTH V
 STA 50+00.00 TO STA 51+74.00

NOTES & LEGEND:

① TEMPORARY 3:1 SAFETY SLOPE SHALL BE IN PLACE AT THE END OF EACH DAY

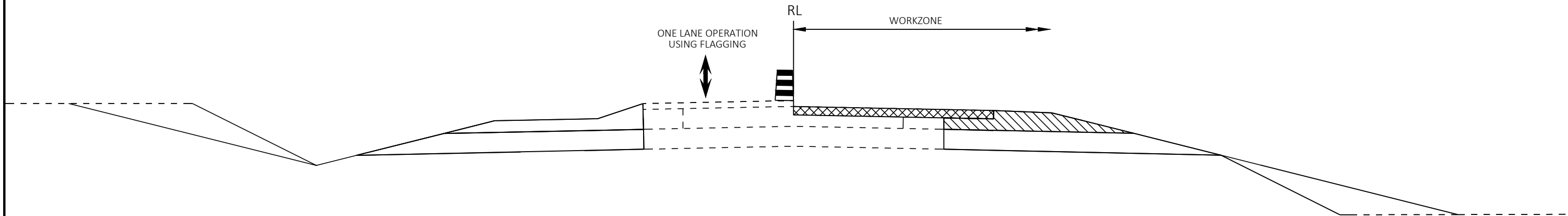
-  = SUBBASE
-  = CRUSHED AGGREGATE BASE COURSE
-  = HMA PAVEMENT
-  = TRAFFIC CONTROL DRUM
-  = THROUGH TRAFFIC FLOW





TYPICAL SECTION - STAGE 2A

CTH E
STA 120+65.00 TO STA 140+17.00








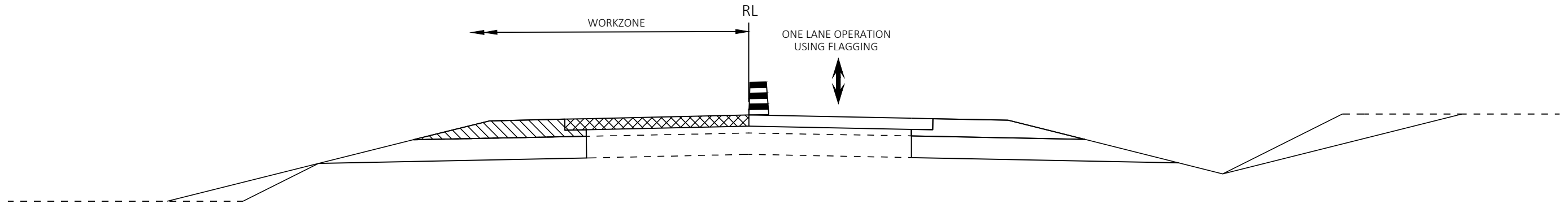
TYPICAL SECTION - STAGE 2A

CTH V
STA 48+26.00 TO STA 50+00

NOTES & LEGEND:

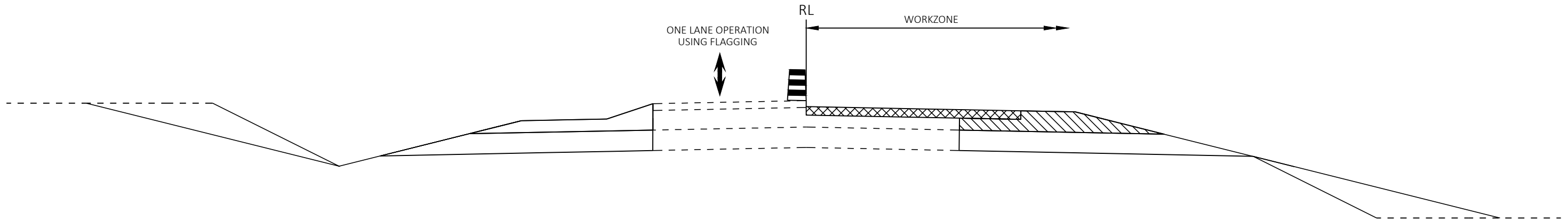
① TEMPORARY 3:1 SAFETY SLOPE SHALL BE IN PLACE AT THE END OF EACH DAY

-  = SUBBASE
-  = CRUSHED AGGREGATE BASE COURSE
-  = HMA PAVEMENT
-  = TRAFFIC CONTROL DRUM
-  = THROUGH TRAFFIC FLOW



TYPICAL SECTION - STAGE 2B

CTH E
STA 120+65.00 TO STA 140+17.00








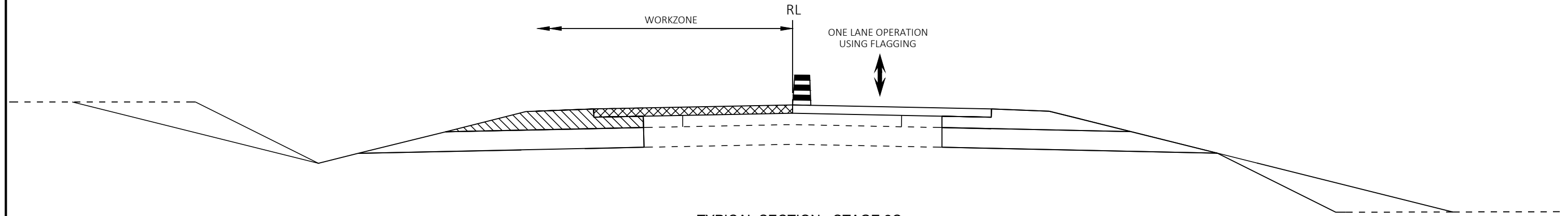
TYPICAL SECTION - STAGE 2B

CTH V
STA 50+00.00 TO STA 51+74.00

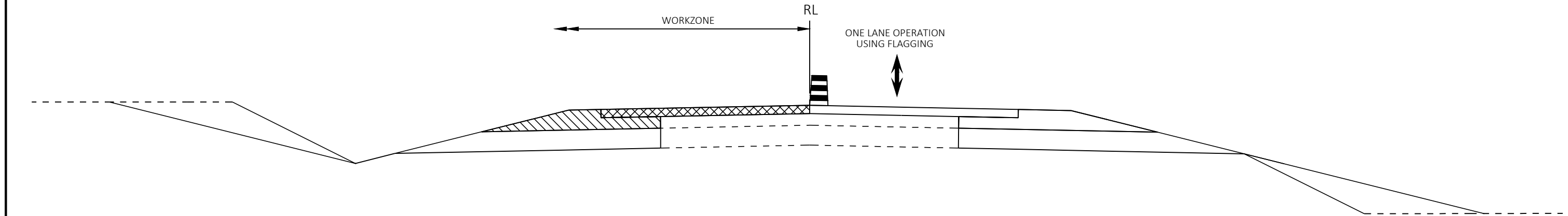
NOTES & LEGEND:

① TEMPORARY 3:1 SAFETY SLOPE SHALL BE IN PLACE AT THE END OF EACH DAY

-  = SUBBASE
-  = CRUSHED AGGREGATE BASE COURSE
-  = HMA PAVEMENT
-  = TRAFFIC CONTROL DRUM
-  = THROUGH TRAFFIC FLOW








TYPICAL SECTION - STAGE 2C
 CTH V
 STA 48+26.00 TO STA 50+00



TYPICAL SECTION - STAGE 2C
 CTH V
 STA 50+00.00 TO STA 51+74.00

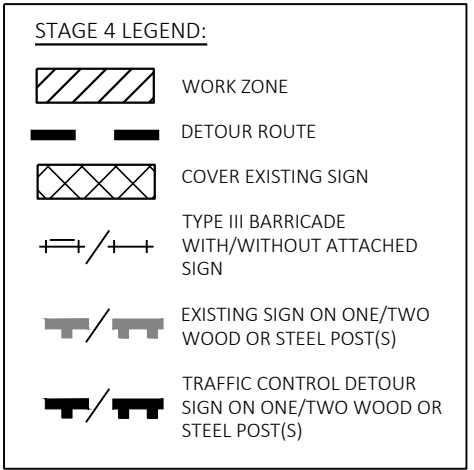
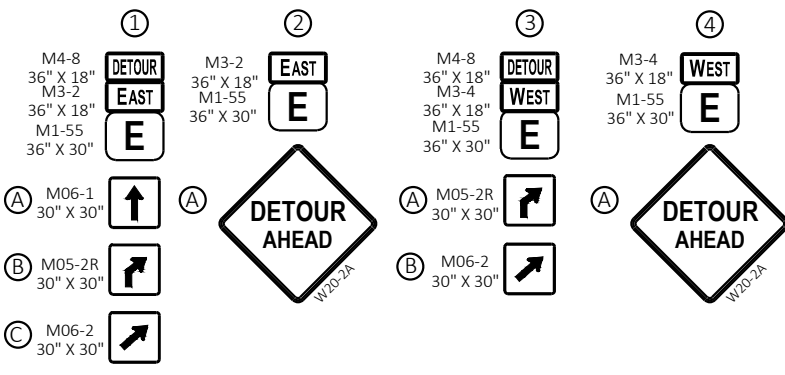
NOTES & LEGEND:

① TEMPORARY 3:1 SAFETY SLOPE SHALL BE IN PLACE AT THE END OF EACH DAY

-  = SUBBASE
-  = CRUSHED AGGREGATE BASE COURSE
-  = HMA PAVEMENT
-  = TRAFFIC CONTROL DRUM
-  = THROUGH TRAFFIC FLOW

SIGN SIZES FOR USE ON STH 35/64

SIGN SIZES FOR USE ON ALL OTHER HIGHWAYS & RAMPS



STAGE 4 GENERAL NOTES:
DRAWING IS NOT TO SCALE.

UNEVEN LANES SIGNS W8-11 SHALL BE IN PLACE ON CTH E BETWEEN STATIONS 119+90 AND 140+17 AND ON CTH V PER SDD "TRAFFIC CONTROL, DROP-OFF SIGNING" DURING STAGE 4.

ALL SIDEROADS WITHIN PROJECT LIMITS SHALL BE BARRICADED AND SIGNED IN ACCORDANCE WITH DETAIL 4 OF SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES".

ALL TRAFFIC CONTROL SIGNS AND DEVICES AND THEIR LOCATIONS SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD), THE PLANS, STANDARD SPECIFICATIONS AND APPLICABLE STANDARD DETAIL DRAWINGS .

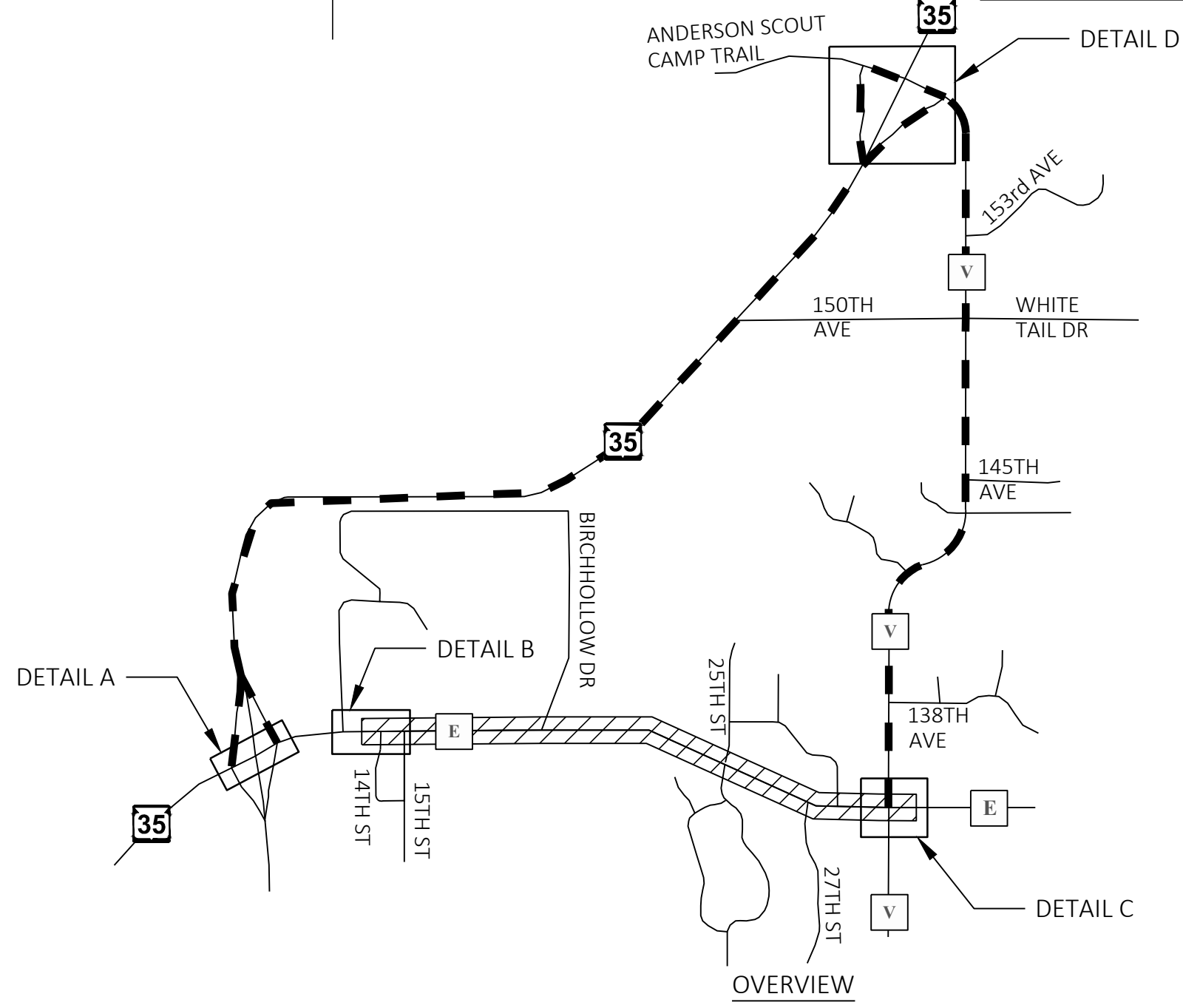
THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

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

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

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

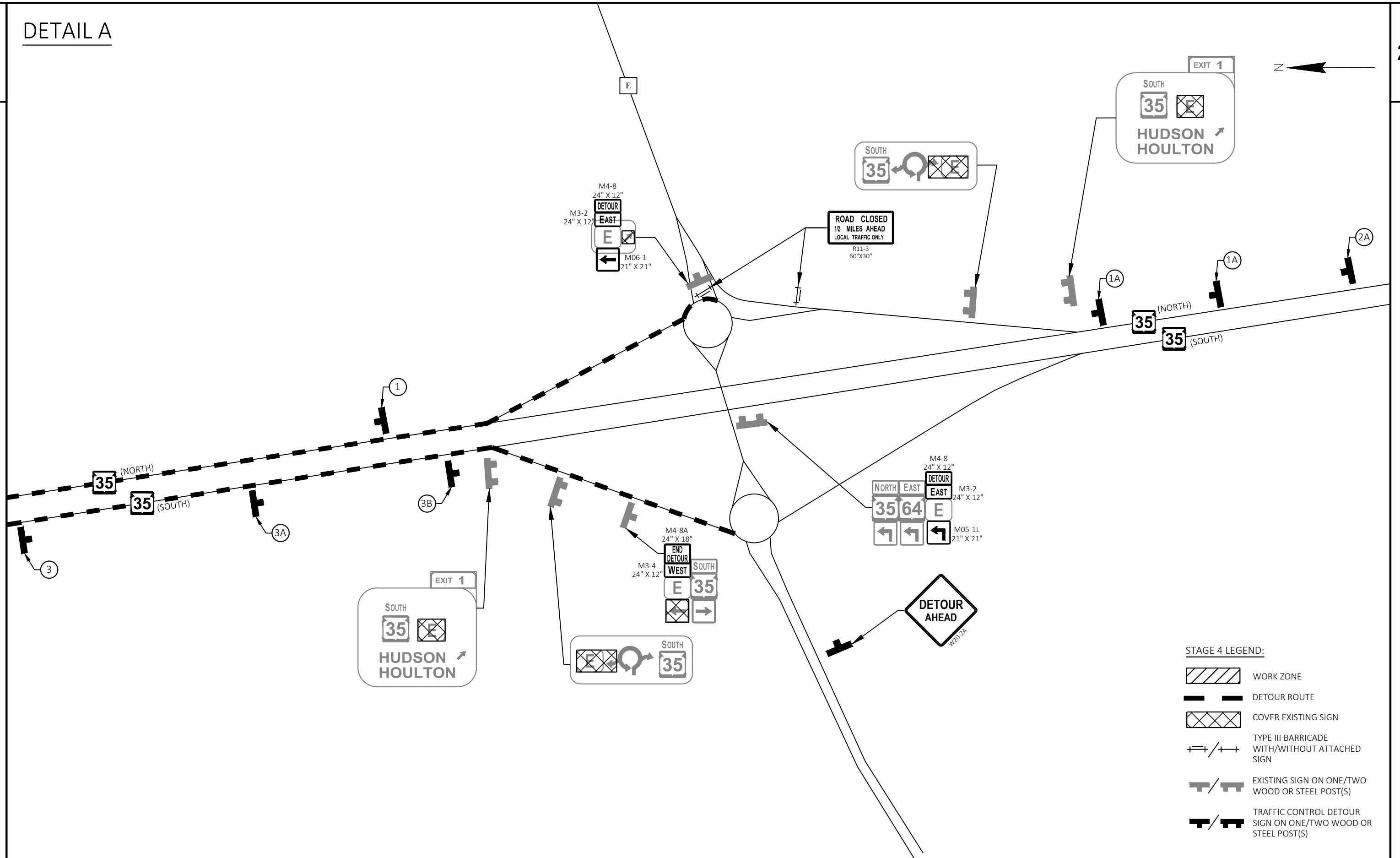
ALL SIGNS INAPPROPRIATE TO THE WORK ZONE, INCLUDING PRE-EXISTING SIGNS, SHALL BE COVERED, REMOVED, OR ALTERED AS SPECIFIED IN THE PLANS AND/OR SPECIALS PROVISIONS OR AS DIRECTED BY THE ENGINEER.



DETAIL A

2

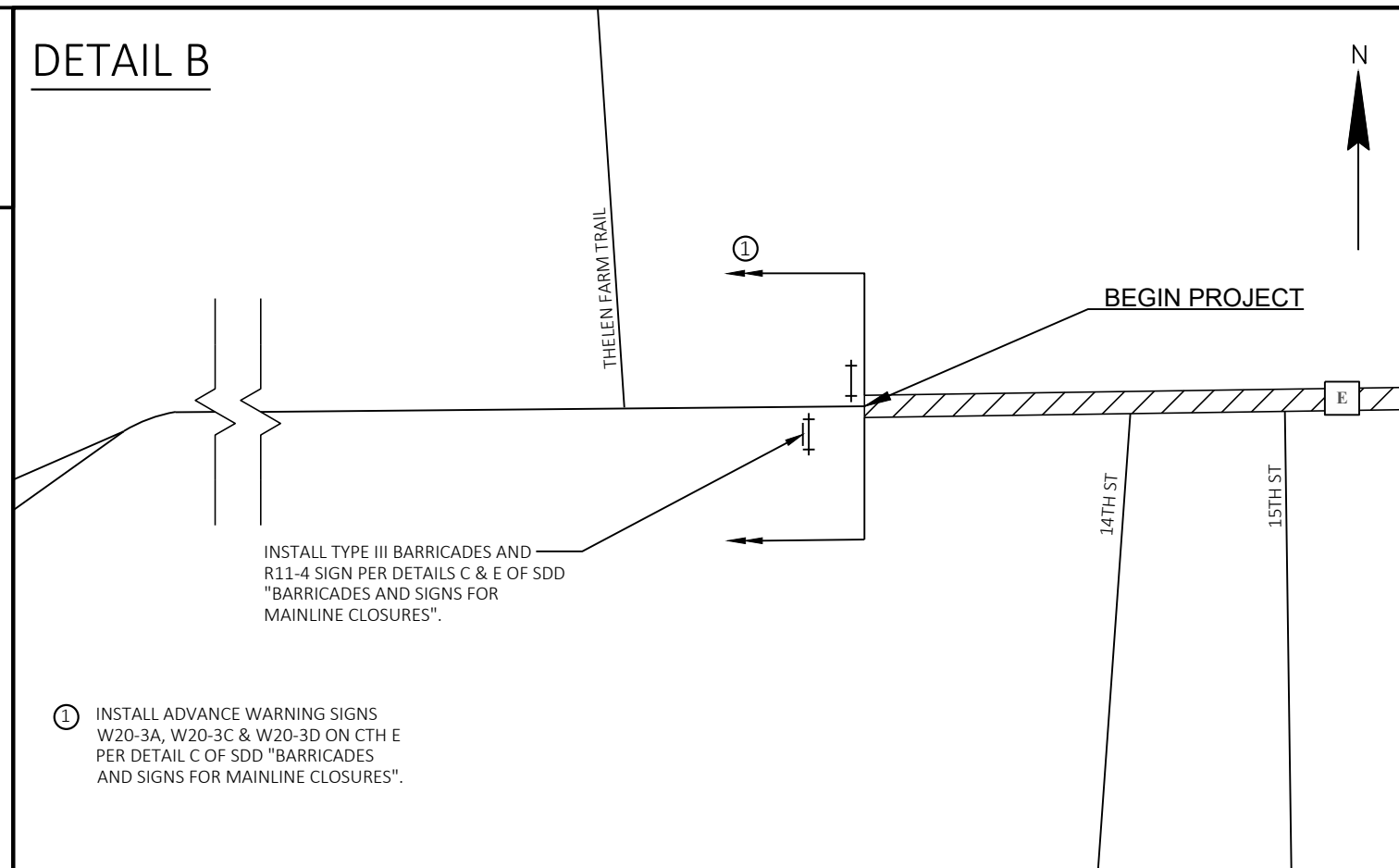
2



- STAGE 4 LEGEND:**
- WORK ZONE
 - DETOUR ROUTE
 - COVER EXISTING SIGN
 - TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
 - EXISTING SIGN ON ONE/TWO WOOD OR STEEL POST(S)
 - TRAFFIC CONTROL DETOUR SIGN ON ONE/TWO WOOD OR STEEL POST(S)

DETAIL B

2

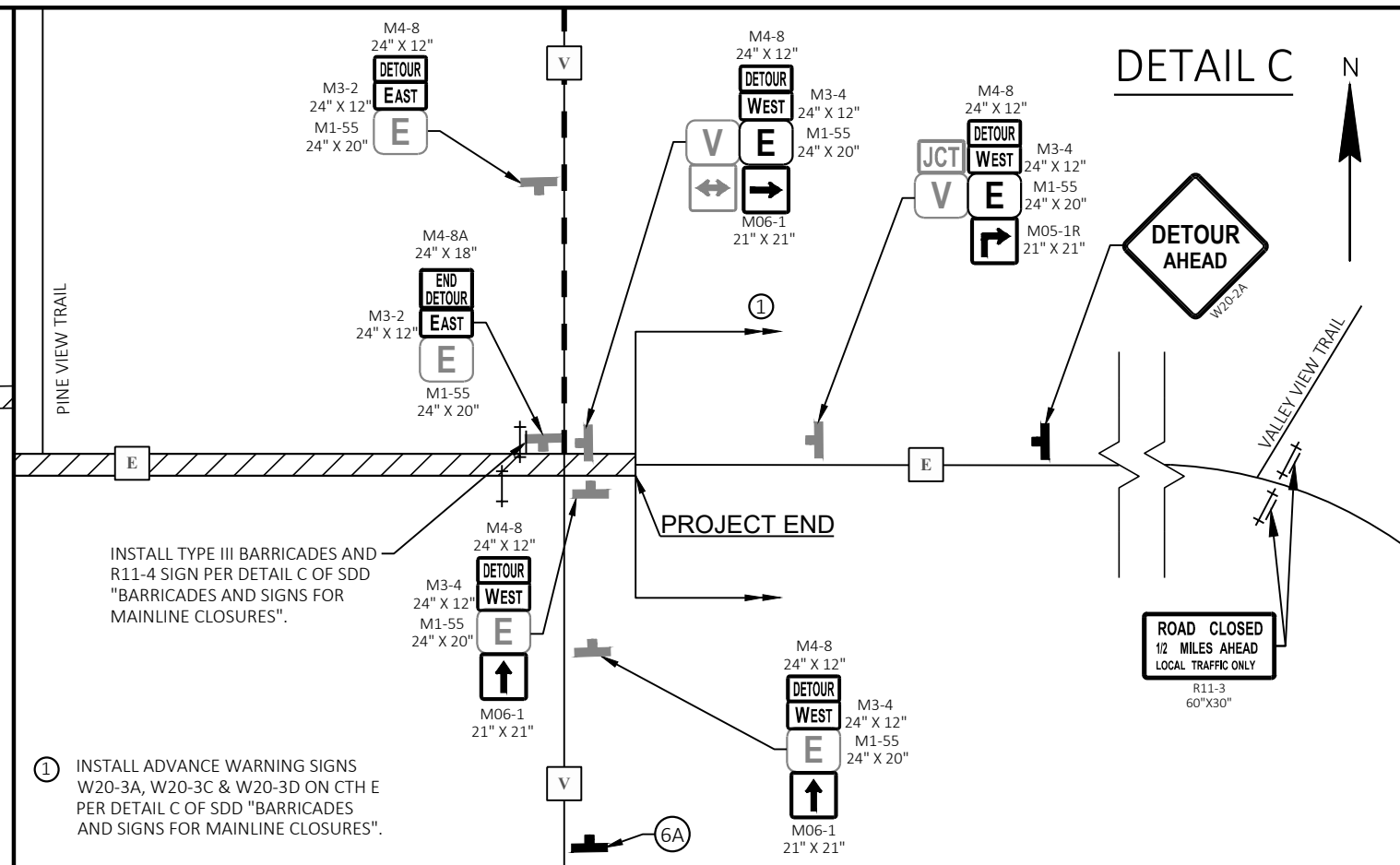


INSTALL TYPE III BARRICADES AND R11-4 SIGN PER DETAILS C & E OF SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES".

- ① INSTALL ADVANCE WARNING SIGNS W20-3A, W20-3C & W20-3D ON CTH E PER DETAIL C OF SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES".

DETAIL C

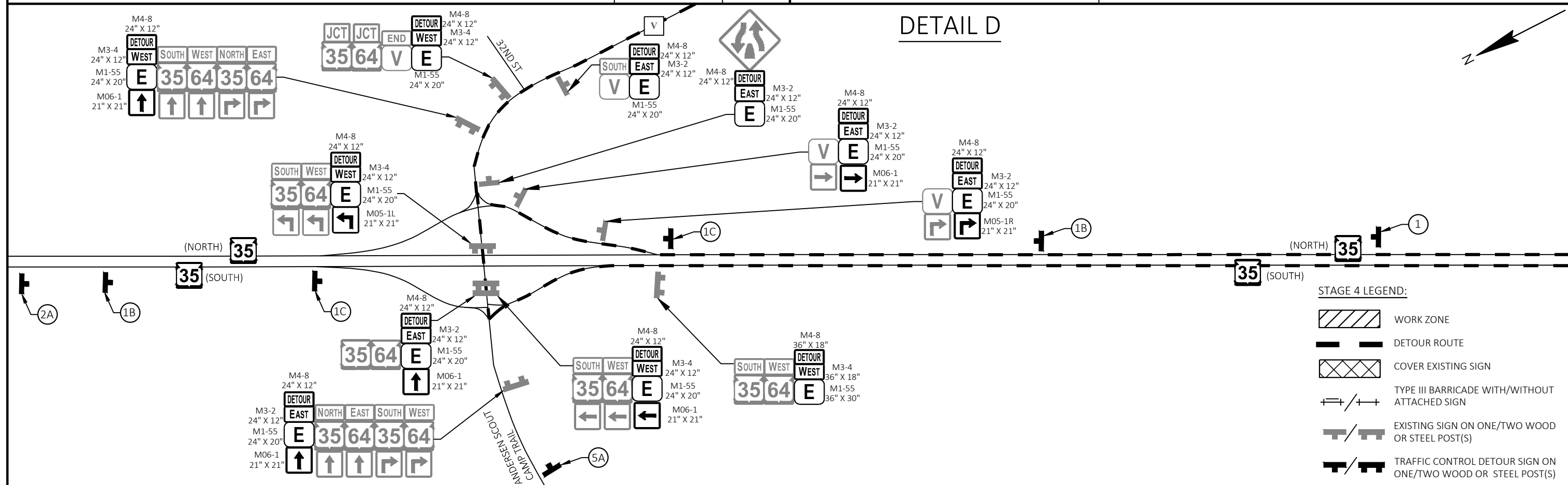
2



INSTALL TYPE III BARRICADES AND R11-4 SIGN PER DETAIL C OF SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES".

- ① INSTALL ADVANCE WARNING SIGNS W20-3A, W20-3C & W20-3D ON CTH E PER DETAIL C OF SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES".

DETAIL D



STAGE 4 LEGEND:

- WORK ZONE
- DETOUR ROUTE
- COVER EXISTING SIGN
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- EXISTING SIGN ON ONE/TWO WOOD OR STEEL POST(S)
- TRAFFIC CONTROL DETOUR SIGN ON ONE/TWO WOOD OR STEEL POST(S)

PROJECT NO: 8939-08-76

HWY: CTH E

COUNTY: ST CROIX

TRAFFIC CONTROL - STAGE 4 DETOUR ROUTE SIGNING

SHEET

E

Estimate Of Quantities

8939-08-76

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	106.000	106.000
0004	201.0205	Grubbing	STA	106.000	106.000
0006	203.0100	Removing Small Pipe Culverts	EACH	23.000	23.000
0008	204.0110	Removing Asphaltic Surface	SY	2,020.000	2,020.000
0010	204.0170	Removing Fence	LF	3,335.000	3,335.000
0012	205.0100	Excavation Common	CY	18,340.000	18,340.000
0014	213.0100	Finishing Roadway (project) 01. 8939-08-76	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,780.000	1,780.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	12,000.000	12,000.000
0020	325.0100	Pulverize and Relay	SY	44,460.000	44,460.000
0022	350.0104	Subbase	TON	19,500.000	19,500.000
0024	374.1020.S	QMP Pulverize and Relay Compaction	SY	44,460.000	44,460.000
0026	416.1010	Concrete Surface Drains	CY	8.000	8.000
0028	455.0605	Tack Coat	GAL	3,120.000	3,120.000
0030	460.2000	Incentive Density HMA Pavement	DOL	5,600.000	5,600.000
0032	460.5244	HMA Pavement 4 LT 58-34 S	TON	8,730.000	8,730.000
0034	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	98.000	98.000
0036	465.0315	Asphaltic Flumes	SY	29.000	29.000
0038	520.9700.S	Culvert Pipe Liners (size) 01. 24-Inch	LF	174.000	174.000
0040	521.1015	Apron Endwalls for Culvert Pipe Steel 15-Inch	EACH	2.000	2.000
0042	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	32.000	32.000
0044	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	16.000	16.000
0046	521.3115	Culvert Pipe Corrugated Steel 15-Inch	LF	28.000	28.000
0048	521.3118	Culvert Pipe Corrugated Steel 18-Inch	LF	432.000	432.000
0050	521.3124	Culvert Pipe Corrugated Steel 24-Inch	LF	298.000	298.000
0052	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	770.000	770.000
0054	606.0200	Riprap Medium	CY	9.000	9.000
0056	614.0920	Salvaged Rail	LF	954.000	954.000
0058	614.2330	MGS Guardrail 3 K	LF	846.000	846.000
0060	614.2610	MGS Guardrail Terminal EAT	EACH	2.000	2.000
0062	619.1000	Mobilization	EACH	1.000	1.000
0064	624.0100	Water	MGAL	570.000	570.000
0066	625.0500	Salvaged Topsoil	SY	49,600.000	49,600.000
0068	627.0200	Mulching	SY	31,500.000	31,500.000
0070	628.1504	Silt Fence	LF	12,100.000	12,100.000
0072	628.1520	Silt Fence Maintenance	LF	12,100.000	12,100.000
0074	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000
0076	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0078	628.2002	Erosion Mat Class I Type A	SY	20,600.000	20,600.000
0080	628.2023	Erosion Mat Class II Type B	SY	1,150.000	1,150.000
0082	628.7504	Temporary Ditch Checks	LF	800.000	800.000
0084	628.7555	Culvert Pipe Checks	EACH	75.000	75.000
0086	629.0210	Fertilizer Type B	CWT	49.000	49.000
0088	630.0130	Seeding Mixture No. 30	LB	500.000	500.000
0090	630.0140	Seeding Mixture No. 40	LB	720.000	720.000
0092	630.0500	Seed Water	MGAL	1,330.000	1,330.000
0094	633.5200	Markers Culvert End	EACH	16.000	16.000
0096	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	53.000	53.000
0098	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	14.000	14.000

Estimate Of Quantities

8939-08-76

Line	Item	Item Description	Unit	Total	Qty
0100	637.2210	Signs Type II Reflective H	SF	135.440	135.440
0102	637.2230	Signs Type II Reflective F	SF	176.110	176.110
0104	638.2102	Moving Signs Type II	EACH	15.000	15.000
0106	638.2602	Removing Signs Type II	EACH	65.000	65.000
0108	638.3000	Removing Small Sign Supports	EACH	66.000	66.000
0110	638.4000	Moving Small Sign Supports	EACH	7.000	7.000
0112	642.5001	Field Office Type B	EACH	1.000	1.000
0114	643.0300	Traffic Control Drums	DAY	25,140.000	25,140.000
0116	643.0420	Traffic Control Barricades Type III	DAY	2,230.000	2,230.000
0118	643.0705	Traffic Control Warning Lights Type A	DAY	2,280.000	2,280.000
0120	643.0900	Traffic Control Signs	DAY	9,760.000	9,760.000
0122	643.0920	Traffic Control Covering Signs Type II	EACH	8.000	8.000
0124	643.5000	Traffic Control	EACH	1.000	1.000
0126	645.0120	Geotextile Type HR	SY	31.000	31.000
0128	646.1020	Marking Line Epoxy 4-Inch	LF	15,360.000	15,360.000
0130	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	19,560.000	19,560.000
0132	646.3020	Marking Line Epoxy 8-Inch	LF	590.000	590.000
0134	646.5020	Marking Arrow Epoxy	EACH	6.000	6.000
0136	646.5120	Marking Word Epoxy	EACH	8.000	8.000
0138	646.6120	Marking Stop Line Epoxy 18-Inch	LF	110.000	110.000
0140	648.0100	Locating No-Passing Zones	MI	2.000	2.000
0142	650.4500	Construction Staking Subgrade	LF	10,790.000	10,790.000
0144	650.5000	Construction Staking Base	LF	21,580.000	21,580.000
0146	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	770.000	770.000
0148	650.6000	Construction Staking Pipe Culverts	EACH	8.000	8.000
0150	650.8000	Construction Staking Resurfacing Reference	LF	10,790.000	10,790.000
0152	650.9910	Construction Staking Supplemental Control (project) 01. 8939-08-76	LS	1.000	1.000
0154	650.9920	Construction Staking Slope Stakes	LF	10,790.000	10,790.000
0156	690.0150	Sawing Asphalt	LF	510.000	510.000
0158	740.0440	Incentive IRI Ride	DOL	8,000.000	8,000.000
0160	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	800.000	800.000
0162	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	630.000	630.000
0164	SPV.0060	Special 01. Signs Solar Powered Flashing	EACH	8.000	8.000

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CLEARING & GRUBBING ITEMS

STATION TO STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
CATEGORY 0010			
34+00 - 39+00	LT	5	5
39+00 - 40+00	RT	1	1
41+00 - 46+00	RT	5	5
47+00 - 48+00	RT	1	1
51+00 - 53+00	RT	2	2
62+00 - 63+00	LT	1	1
63+00 - 64+00	LT	1	1
64+00 - 65+00	LT & RT	2	2
65+00 - 67+00	LT & RT	4	4
68+00 - 71+00	RT	3	3
75+00 - 79+00	LT & RT	8	8
79+00 - 81+00	RT	2	2
81+00 - 84+00	LT & RT	6	6
84+00 - 85+00	RT	1	1
85+00 - 88+00	LT & RT	6	6
88+00 - 90+00	LT	2	2
90+00 - 93+00	LT & RT	6	6
94+00 - 96+00	RT	2	2
96+00 - 100+00	LT & RT	8	8
100+00 - 103+00	RT	3	3
106+00 - 108+00	LT	2	2
109+00 - 113+00	LT	4	4
114+00 - 117+00	LT	3	3
119+00 - 120+00	RT	1	1
123+00 - 123+52	RT	1	1
123+52 - 125+00	RT	1	1
CATEGORY 0010 SUBTOTAL		81	81
CATEGORY 0020			
125+00 - 129+00	LT	4	4
129+00 - 130+00	LT	1	1
130+00 - 140+00	LT & RT	20	20
CATEGORY 0020 SUBTOTAL		25	25
ITEM TOTAL		106	106

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	203.0100 EACH	REMARKS
CATEGORY 0010			
CTH E			
34+50	LT	1	DRIVEWAY CULVERT, 18" x 30 LF
34+93	RT	1	DRIVEWAY CULVERT, 15" x 38 LF
37+72	RI	1	DRIVEWAY CULVERT, 18" x 24 LF
39+32	LT	1	DRIVEWAY CULVERT, 18" x 36 LF
39+76	LT	1	DRIVEWAY CULVERT, 18" x 28 LF
60+95	LT	1	DRIVEWAY CULVERT, 18" x 26 LF
63+73	LT & RT	1	MAINLINE CULVERT, REMOVE AEWS ONLY, LT & RT
66+52	LT	1	DRIVEWAY CULVERT, 18" x 28 LF
66+90	RT	1	DRIVEWAY CULVERT, 18" x 34 LF
71+32	LT & RT	1	MAINLINE CULVERT, REMOVE AEWS ONLY, LT & RT
73+16	LT	1	DRIVEWAY CULVERT, 18" x 38 LF
76+45	RT	1	DRIVEWAY CULVERT, 18" x 42 LF
78+72	LT & RI	1	MAINLINE CULVERT, 24" x 72 LF
103+14	RT	1	DRIVEWAY CULVERT, 18" x 34 LF
115+48	RT	1	DRIVEWAY CULVERT, 18" x 42 LF
119+79	LT & RT	1	MAINLINE CULVERT, REMOVE AEWS ONLY, LT & RT
251H SI			
510+34	LT & RT	1	SIDEROAD CULVERT, 24" x 58 LF
CTH V			
50+56	LT & RT	1	SIDEROAD CULVERT, REMOVE AEWS ONLY, LT & RT
CATEGORY 0010 SUBTOTAL		18	
CATEGORY 0020			
CTH E			
123+89	LT	1	DRIVEWAY CULVERT, 18" x 34 LF
128+85	LT	1	DRIVEWAY CULVERT, 18" x 40 LF
131+29	LT	1	DRIVEWAY CULVERT, 18" x 28 LF
132+98	RT	1	DRIVEWAY CULVERT, 18" x 30 LF
138+84	LT	1	DRIVEWAY CULVERT, 18" x 30 LF
CATEGORY 0020 SUBTOTAL		5	
ITEM TOTAL		23	

REMOVING ASPHALTIC SURFACE

STATION TO STATION	SY
① 204.0110	
34+29 - 60+00	384
60+00 - 88+00	358
88+00 - 113+50	952
113+50 - 123+52	85
CATEGORY 0010 SUBTOTAL	
1,780	
CTH V	
48+26 - 50+00	-
50+00 - 51+74	-
CATEGORY 0020 SUBTOTAL	
240	
ITEM TOTAL	
2,020	

① QUANTITY INCLUDES DRIVEWAYS AND INTERSECTIONS, (NON-PULVERIZING AREAS)

REMOVING FENCE

STATION TO STATION	LOCATION	204.0170 LF	REMARKS
CATEGORY 0020			
41+47 - 52+41	RT	1,006	WIRE/WOOD FENCE
52+41 - 59+31	RT	692	WIRE FENCE
59+72 - 61+76	RT	206	WIRE FENCE
62+51 - 67+01	RT	430	WIRE/WOOD FENCE
67+01 - 68+76	RT	174	WOOD FENCE
68+76 - 76+11	RT	167	WIRE/WOOD FENCE
76+84 - 78+52	RT	226	CHAIN FENCE
133+13 - 137+18	RT	434	WIRE FENCE
CATEGORY 0020 SUBTOTAL		3,335	
ITEM TOTAL		3,335	

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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BASE AND SUBBASE ITEMS

STATION TO STATION	305.0110	305.0120	350.0104
	3/4-INCH TON	1 1/4-INCH TON	SUBBASE TON
CATEGORY 0010			
CTH E			
34+29 - 60+00	467	3,020	4,971
60+00 - 88+00	432	2,844	4,967
88+00 - 113+50	367	2,885	4,076
113+50 - 123+52	112	960	1,717
CATEGORY 0010 SUBTOTAL	1,440	10,120	16,420
CTH V			
48+26 - 50+00	31	206	332
50+00 - 51+74	31	205	357
CATEGORY 0010 SUBTOTAL	1,440	10,120	16,420
CATEGORY 0020			
CTH E			
123+52 - 140+17	340	1,880	3,080
CATEGORY 0020 SUBTOTAL	340	1,880	3,080
ITEM TOTAL	1,780	12,000	19,500

CONCRETE SURFACE DRAIN ITEMS

STATION	LOCATION	416.1010	606.0200	645.0120	
		CONCRETE SURFACE DRAINS CY	RIPRAP MEDIUM CY	GEOTEXTILE TYPE HR SY	
CTH E	81+80	RT	8	5	18
ITEM TOTAL			8	5*	18*

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

ASPHALTIC FLUME

STATION	LOCATION	465.0315	
		SY	
CTH E	119+88	LT	10
ITEM TOTAL			29

ASPHALTIC ITEMS

STATION TO STATION	455.0605	① 460.5244	465.0120
	TACK COAT GAL	HMA PAVEMENT 4 LT 58-34 S TON	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
CATEGORY 0010			
CTH E			
34+29 - 60+00	702	1,963	12
60+00 - 88+00	789	2,205	30
88+00 - 113+50	771	2,156	9
113+50 - 123+52	352	983	12
CATEGORY 0010 SUBTOTAL	2,680	7,490	64
CTH V			
48+26 - 50+00	30	85	-
50+00 - 51+74	35	99	-
CATEGORY 0010 SUBTOTAL	2,680	7,490	64
CATEGORY 0020			
CTH E			
123+52 - 140+17	440	1,240	34
CATEGORY 0020 SUBTOTAL	440	1,240	34
ITEM TOTAL	3,120	8,730	97

① QUANTITY INCLUDES PAVEMENT TO SIDE ROAD RADIUS RETURN.

EARTHWORK SUMMARY

CATEGORY	FROM/TO STATION	205.0100	SALVAGED/UNUSABLE PAVEMENT MATERIAL (2)	AVAILABLE MATERIAL (3)	UNEXPANDED FILL	EXPANDED	MASS ORDINATE +/- (4)	WASTE
		COMMON EXCAVATION (1) CUT				FILL FACTOR 1.25		
CTH E	34+29 - 127+50	14,790	0	14,790	7,464	9,330	5,460	5,460
0020	127+50 - 140+17	2,740	0	2,740	1,660	2,075	665	665
CTH V	48+26 - 51+74	779	0	779	384	480	299	299
CATEGORY 0010 SUBTOTAL		15,569	0	15,569	7,848	9,810	5,759	5,759
CATEGORY 0020 SUBTOTAL		2,740	0	2,740	1,660	2,075	665	665
GRAND TOTAL		18,309	0	18,309	9,508	11,885	6,424	6,424
TOTAL COMMON EXC		18,309						

NOTES:

- (1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
- (2) SALVAGED/UNUSABLE PAVEMENT MATERIAL
- (3) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
- DEPENDENT ON SELECTIONS:
 - EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH - REDUCED EBS) * FILL FACTOR
 - OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED EBS) * FILL FACTOR
 - OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH) * FILL FACTOR
 - OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK) * FILL FACTOR
- (4) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

PULVERIZE AND RELAY ITEMS

STATION TO STATION	325.0100	374.1020.S
	PULVERIZE AND RELAY SY	QMP PULVERIZE AND RELAY COMPACTION SY
CATEGORY 0010		
CTH E		
34+29 - 60+00	10,004	10,004
60+00 - 88+00	11,240	11,240
88+00 - 113+50	10,990	10,990
113+50 - 123+52	5,005	5,005
CATEGORY 0010 SUBTOTAL	38,170	38,170
CTH V		
48+26 - 50+00	426	426
50+00 - 51+74	504	504
CATEGORY 0010 SUBTOTAL	38,170	38,170
CATEGORY 0020		
CTH E		
123+52 - 140+17	6,290	6,290
CATEGORY 0020 SUBTOTAL	6,290	6,290
ITEM TOTAL	44,460	44,460

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

PROJECT NO: 8939-08-76

HWY: CTH E

COUNTY: ST. CROIX

MISCELLANEOUS QUANTITIES

SHEET

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CULVERT PIPE ITEMS

STATION	LOCATION	520.9700.S.01	521.1015	521.1018	521.1024	521.3115	521.3118	521.3124	WALL THICKNESS INCH	606.0200	628.7555	633.5200	645.0120	650.6000	REMARKS
		CULVERT PIPE LINERS (24-INCH) LF	APRON ENDWALLS FOR CULVERT PIPE STEEL			CULVERT PIPE CORRUGATED STEEL				RIPRAP MEDIUM CY	CULVERT PIPE CHECKS EACH	MARKERS CULVERT END EACH	GEOTEXTILE TYPE HR SY	CONSTRUCTION STAKING PIPE CULVERTS EACH	
			15-INCH EACH	18-INCH EACH	24-INCH EACH	15-INCH LF	18-INCH LF	24-INCH LF							
CATEGORY 0010															
CTH E															
34+50	LT	-	-	2	-	-	48	-	0.064	-	3	-	-	-	DRIVEWAY CULVERT
37+72	RT	-	2	-	-	28	-	-	0.064	-	3	-	-	-	DRIVEWAY CULVERT
39+32	LT	-	-	2	-	-	30	-	0.064	-	3	-	-	-	DRIVEWAY CULVERT
39+76	LT	-	-	2	-	-	24	-	0.064	-	3	-	-	-	DRIVEWAY CULVERT
49+27	LT&RT	-	-	-	2	-	-	20	0.064	-	3	2	-	1	MAINLINE CULVERT
60+95	LT	-	-	2	-	-	28	-	0.064	-	3	-	-	-	DRIVEWAY CULVERT
63+73	LT&RT	-	-	-	2	-	-	24	0.064	-	3	2	-	1	MAINLINE CULVERT
66+52	LT	-	-	2	-	-	28	-	0.064	-	3	-	-	-	DRIVEWAY CULVERT
66+90	RT	-	-	2	-	-	36	-	0.064	-	3	-	-	-	DRIVEWAY CULVERT
71+32	LT&RT	-	-	-	2	-	-	18	0.064	-	3	2	-	1	MAINLINE CULVERT
73+16	LT	-	-	2	-	-	38	-	0.064	-	3	-	-	-	DRIVEWAY CULVERT
75+80	LT	-	-	2	-	-	32	-	0.064	-	3	-	-	-	DRIVEWAY CULVERT
76+47	LT&RT	-	-	-	2	-	-	96	0.064	-	3	2	-	1	MAINLINE CULVERT
95+67	LT&RT	-	-	-	2	-	-	14	0.064	4	3	2	13	1	MAINLINE CULVERT
103+14	RT	-	-	2	-	-	32	-	0.064	-	3	-	-	-	DRIVEWAY CULVERT
115+48	RT	-	-	2	-	-	42	-	0.064	-	3	-	-	-	DRIVEWAY CULVERT
119+79	LT&RT	88	-	-	2	-	-	42	0.064	-	3	2	-	1	MAINLINE CULVERT
25TH ST															
510+34	LT&RT	-	-	-	2	-	-	56	0.064	-	3	2	-	1	SIDEROAD CULVERT
CTH V															
50+65	LT&RT	86	-	-	2	-	-	28	0.064	-	3	2	-	1	SIDEROAD CULVERT
CATEGORY 0010 SUBTOTAL		174	2	20	16	28	270	298		4	57	16	13	8	
CATEGORY 0020															
CTH E															
123+89	LT	-	-	2	-	-	34	-	0.064	-	3	-	-	-	DRIVEWAY CULVERT
127+14	LT	-	-	2	-	-	32	-	0.064	-	3	-	-	-	DRIVEWAY CULVERT
131+29	LT	-	-	2	-	-	24	-	0.064	-	3	-	-	-	DRIVEWAY CULVERT
132+98	RT	-	-	2	-	-	26	-	0.064	-	3	-	-	-	DRIVEWAY CULVERT
136+78	LT	-	-	2	-	-	22	-	0.064	-	3	-	-	-	DRIVEWAY CULVERT
138+84	LT	-	-	2	-	-	24	-	0.064	-	3	-	-	-	DRIVEWAY CULVERT
CATEGORY 0020 SUBTOTAL		-	-	12	-	-	162	-		-	18	-	-	-	
ITEM TOTAL		174	2	32	16	28	432	298		4*	75	16	13*	8	

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH

STATION TO STATION	LOCATION	601.0557 LF
CTH E		
76+59 - 81+20	RT	454
CTH V		
49+26 - 49+75	LT	79
49+26 - 49+75	RT	79
50+26 - 50+74	LT	79
50+26 - 50+75	RT	79
ITEM TOTAL		770

GUARDRAIL ITEMS

STATION TO STATION	LOCATION	614.0920	614.2330	614.2610
		SALVAGED RAIL LF	3 K LF	TERMINAL EAT EACH
77+89 - 87+24	LT	945	846	2
ITEM TOTAL		954	846	2

EROSION MOBILIZATION ITEMS

STATION TO STATION	LOCATION	628.1905	628.1910
		MOBILIZATIONS EROSION CONTROL EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
CATEGORY 0010			
34+29 - 123+52		6	4
CATEGORY 0010 SUBTOTAL		6	4
CATEGORY 0020			
123+52 - 140+17		2	1
CATEGORY 0020 SUBTOTAL		2	1
ITEM TOTAL		8	5

WATER

CATEGORY	STATION TO STATION	624.0100 MGAL
CATEGORY 0010		
CTH E		
0010	34+29 - 60+00	132
0010	60+00 - 88+00	139
0010	88+00 - 113+50	137
0010	113+50 - 123+52	56
CTH V		
0010	48+26 - 50+00	8
0010	50+00 - 51+74	8
CATEGORY 0010 SUBTOTAL		480
CATEGORY 0020		
CTH E		
0020	123+52 - 140+17	90
CATEGORY 0020 SUBTOTAL		90
ITEM TOTAL		570

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EROSION CONTROL ITEMS

STATION TO STATION	LOCATION	625.0500	627.0200	628.1504	628.1520	628.2002	628.2023	628.7504	629.0210	630.0130	630.0140	630.0500
		SALVAGED TOPSOIL SY	MULCHING SY	SILT FENCE MAINTENANCE LF		EROSION MAT CLASS I TYPE A SY CLASS II TYPE B SY		TEMPORARY DITCH CHECKS LF	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 30 LB 40 LB		SEED WATER MGAL
CATEGORY 0010												
CTH E												
34+29 - 60+00		11,875	7,768	2,160	2,160	4,107	-	255	10	104	155	318
60+00 - 88+00		12,446	6,212	2,732	2,732	6,234	1,050	150	10	110	183	338
88+00 - 113+50		13,227	6,558	2,996	2,996	6,668	-	195	11	116	173	358
113+50 - 123+52		4,482	4,311	760	760	171	-	62	6	42	51	104
CTH V												
48+26 - 50+00		491	491	277	277	-	-	-	2	5	5	12
50+00 - 51+74		390	390	215	215	-	-	-	2	4	4	10
UNDISTRIBUTED		-	1,200	920	920	800	100	48	1	40	40	-
CATEGORY 0010 SUBTOTAL		42,910	26,930	10,060	10,060	17,980	1,150	710	42	420	610	1,140
CATEGORY 0020												
CTH E												
123+52 - 140+17		6,690	4,270	1,810	1,810	2,420	-	78	6	70	100	190
UNDISTRIBUTED		-	300	230	230	200	-	12	1	10	10	-
CATEGORY 0020 SUBTOTAL		6,690	4,570	2,040	2,040	2,620	-	90	7	80	110	190
ITEM TOTAL		49,600	31,500	12,100	12,100	20,600	1,150	800	50	500	720	1,330

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

PROJECT NO: 8939-08-76

HWY: CTH E

COUNTY: ST. CROIX

MISCELLANEOUS QUANTITIES

SHEET

E

SIGNING ITEMS

SIGN GROUP NUMBER	SIGN CODE	SIGN MESSAGE	SIZE	634.0614 POSTS WOOD		634.0616		637.2210 637.2230 SIGNS TYPE II REFLECTIVE		638.2102	638.2602 638.3000 REMOVING		638.4000	SPV.0060.01	REMARKS
				4X6-INCH X 14-FT	4X6-INCH X 16-FT	H	F	MOVING SIGNS TYPE II	SIGNS TYPE II	SMALL SIGN SUPPORTS	MOVING SMALL SIGN SUPPORTS	SIGNS SOLAR POWERED FLASHING			
				EACH	EACH	SF	SF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
CATEGORY 0010															
CTH E															
1-1	R1-1	STOP	30 X 30	1	-	5.18	-	-	-	1	1	-	-	-	REPLACE
1-2		COUNTY RD E 14TH ST		-	-	-	-	1	-	-	-	1	-	-	MOVE
1-3	R2-1	SPEED LIMIT 45	24 X 30	1	-	5.00	-	-	1	-	1	-	-	-	MOVE
1-4	R2-1	SPEED LIMIT 45	24 X 30	1	-	5.00	-	-	-	1	1	-	-	-	REPLACE
1-5	R1-1	STOP	30 X 30	1	-	5.18	-	-	-	1	1	-	-	-	REPLACE
1-6		COUNTY RD E 13TH ST		-	-	-	-	1	-	-	-	1	-	-	MOVE
1-7	S3-1	SCHOOL BUS STOP AHEAD	36 X 36	1	-	-	9.00	-	-	1	1	-	-	-	MOVE
1-8	R2-1	SPEED LIMIT 45	24 X 30	1	-	5.00	-	-	-	1	1	-	-	-	REPLACE
1-9	R2-1	SPEED LIMIT 45	24 X 30	1	-	5.00	-	-	-	1	1	-	-	-	REPLACE
1-10	W2-2	SIDE ROAD (90 DEGREES)	30 X 30	1	-	-	6.25	-	-	1	1	-	-	-	REPLACE
1-11	W3-5	SPEED LIMIT AHEAD (ARROW)	36 X 36	1	-	-	9.00	-	-	1	1	-	-	-	REPLACE
1-12	W14-3	NO PASSING ZONE	48 X 36	1	-	-	5.56	-	-	1	1	-	-	-	REPLACE
1-13	R1-1	STOP	30 X 30	1	-	5.18	-	-	-	1	1	-	-	-	REPLACE
1-14		COUNTY RD E 20TH ST		-	-	-	-	1	-	-	-	1	-	-	MOVE
2-1	W14-3	NO PASSING ZONE	48 X 36	-	1	-	5.56	-	-	1	1	-	-	-	MOVE
2-2	W7-1	HILL	30 x 30	1	-	-	6.25	-	-	1	1	-	-	-	REPLACE
2-3	W1-2R	RIGHT CURVE	30 X 30	1	-	-	6.25	-	-	1	1	-	-	-	REPLACE
2-4	W13-1	ADVISORY SPEED PLATE (YELLOW BLACK)	18 X 18	-	-	-	2.25	-	-	1	1	-	-	-	REPLACE
2-4	W1-2R	RIGHT CURVE	30 X 30	1	-	-	6.25	-	-	1	1	-	-	-	REPLACE
2-4	W13-1	ADVISORY SPEED PLATE (YELLOW BLACK)	18 X 18	-	-	-	2.25	-	-	1	1	-	-	-	REPLACE
2-5	W1-8	CHEVRON	18 X 24	1	-	-	3.00	-	-	1	1	-	-	-	REPLACE
2-6	W1-8	CHEVRON	18 X 24	1	-	-	3.00	-	-	1	1	-	-	-	REPLACE
2-7	W1-8	CHEVRON	18 X 24	1	-	-	3.00	-	-	1	1	-	-	-	REPLACE
2-8	W1-8	CHEVRON	18 X 24	1	-	-	3.00	-	-	1	1	-	-	-	REPLACE
2-9	W1-8	CHEVRON	18 X 24	1	-	-	3.00	-	-	1	1	-	-	-	REPLACE
2-10	W1-8	CHEVRON	18 X 24	1	-	-	3.00	-	-	1	1	-	-	-	REPLACE
2-11	W1-8	CHEVRON	18 X 24	1	-	-	3.00	-	-	1	1	-	-	-	REPLACE
2-12	W1-8	CHEVRON	18 X 24	1	-	-	3.00	-	-	1	1	-	-	-	REPLACE
2-13	W1-8	CHEVRON	18 X 24	1	-	-	3.00	-	-	1	1	-	-	-	REPLACE
2-14	W1-8	CHEVRON	18 X 24	1	-	-	3.00	-	-	1	1	-	-	-	REPLACE
2-15	W1-8	CHEVRON	18 X 24	1	-	-	3.00	-	-	1	1	-	-	-	REPLACE
2-16	W1-8	CHEVRON	18 X 24	1	-	-	3.00	-	-	1	1	-	-	-	REPLACE

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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3

SIGNING ITEMS (CONTINUED)

SIGN GROUP NUMBER	SIGN CODE	SIGN MESSAGE	SIZE	634.0614		634.0616		637.2210		637.2230		638.2102	638.2602		638.3000		638.4000	SPV.0060.01		REMARKS
				POSTS WOOD				SIGNS TYPE II REFLECTIVE				MOVING SIGNS TYPE II EACH	REMOVING		MOVING SMALL SIGN SUPPORTS EACH	SIGN SOLAR POWERED FLASHING				
				4X6-INCH X 14-FT EACH	4X6-INCH X 16-FT EACH	H SF	F SF	SIGNS TYPE II EACH	SMALL SIGN SUPPORTS EACH	SUPPORTS EACH	EACH									
2-17	W1-2L	LEFT CURVE	30 X 30	1	-	-	6.25	-	-	1	1	-	-	-	-	-	-	-	REPLACE	
	W13-1	ADVISORY SPEED PLATE (YELLOW BLACK)	18 X 18	-	-	-	2.25	-	-	1	1	-	-	-	-	-	-	-	REPLACE	
2-18	W14-3	NO PASSING ZONE	48 X 36	-	1	-	5.56	-	-	1	1	-	-	-	-	-	-	-	REPLACE	
2-19		COUNTY RD E		-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	MOVE	
		BIRCH RD E		-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	MOVE	
2-20	R1-1	STOP	30 X 30	1	-	5.18	-	-	-	1	1	-	-	-	-	-	-	-	REPLACE	
2-21		COUNTY RD E		-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	MOVE	
		25TH STREET		-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	MOVE	
2-22	R1-1	STOP	30 X 30	1	-	5.18	-	-	-	1	1	-	-	-	-	-	-	-	REPLACE	
3-1	W14-3	NO PASSING ZONE	48 X 36	-	1	-	5.56	-	-	1	1	-	-	-	-	-	-	-	REPLACE	
3-2	W1-2L	LEFT CURVE	30 X 30	1	-	-	6.25	-	-	1	1	-	-	-	-	-	-	-	REPLACE	
	W13-1	ADVISORY SPEED PLATE (YELLOW BLACK)	18 X 18	-	-	-	2.25	-	-	1	1	-	-	-	-	-	-	-	REPLACE	
3-3		COUNTY RD E		-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	MOVE	
		27TH ST		-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	MOVE	
3-4	R1-1	STOP	30 X 30	1	-	5.18	-	-	-	1	1	-	-	-	-	-	-	-	REPLACE	
3-5	R1-1	STOP	30 X 30	1	-	5.18	-	-	-	1	1	-	-	-	-	-	-	-	REPLACE	
3-6		COUNTY RD E		-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	MOVE	
		PINE VIEW TRAIL		-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	MOVE	
3-7	W3-1	STOP AHEAD	36 X 36	1	-	-	9.00	-	-	1	1	-	-	-	-	-	-	-	REPLACE	
3-8	W3-1	STOP AHEAD	36 X 36	1	-	-	9.00	-	-	1	1	-	-	-	-	-	-	-	REPLACE	
3-9	W1-2R	RIGHT CURVE	30 X 30	1	-	-	6.25	-	-	1	1	-	-	-	-	-	-	-	REPLACE	
	W13-1	ADVISORY SPEED PLATE (YELLOW BLACK)	18 X 18	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	MOVE	
3-10	J1-1	JUNCTION ASSEMBLY	24 X 39	1	-	6.50	-	-	-	1	1	-	-	-	-	-	-	-	REPLACE	
3-11	J1-1	JUNCTION ASSEMBLY	24 X 36	1	-	6.00	-	-	-	1	1	-	-	-	-	-	-	-	REPLACE	
3-12	R1-1	STOP	30 X 30	1	1	-	-	-	-	1	1	-	-	-	-	-	-	1	REPLACE	
	R1-3P	ALL WAY	18 X 6	-	-	1.50	-	-	-	-	-	-	-	-	-	-	-	-	REPLACE	
3-13	R1-1	STOP	30 X 30	1	1	-	-	-	-	1	1	-	-	-	-	-	-	1	REPLACE	
	R1-3P	ALL WAY	18 X 6	-	-	1.50	-	-	-	-	-	-	-	-	-	-	-	-	REPLACE	
3-14	J12-1	ROUTE TURN WITHOUT CARDINAL	24 X 45	-	1	7.50	-	-	-	1	1	-	-	-	-	-	-	-	REPLACE	
3-15	J12-1	ROUTE TURN WITHOUT CARDINAL	24 X 45	-	1	7.50	-	-	-	1	1	-	-	-	-	-	-	-	REPLACE	
3-21	J12-1	ROUTE TURN WITHOUT CARDINAL	24 X 45	-	1	7.50	-	-	-	1	1	-	-	-	-	-	-	-	REPLACE	
3-22	R1-1	STOP	30 X 30	1	1	-	-	-	-	1	1	-	-	-	-	-	-	1	REPLACE	
	R1-3P	ALL WAY	18 X 6	-	-	1.50	-	-	-	-	-	-	-	-	-	-	-	-	REPLACE	
3-23	R1-1	STOP	30 X 30	1	-	-	-	-	-	1	1	-	-	-	-	-	-	1	REPLACE	
	R1-3P	ALL WAY	18 X 6	-	-	1.50	-	-	-	-	-	-	-	-	-	-	-	-	REPLACE	

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

PROJECT NO: 8939-08-76

HWY: CTH E

COUNTY: ST. CROIX

MISCELLANEOUS QUANTITIES

SHEET

E

3

3

SIGNING ITEMS (CONTINUED)

SIGN GROUP NUMBER	SIGN CODE	SIGN MESSAGE	SIZE	634.0614 POSTS WOOD		637.2210 637.2230 SIGNS TYPE II REFLECTIVE		638.2102	638.2602 638.3000 REMOVING		638.4000	SPV.0060.01	REMARKS
				4X6-INCH X 14-FT EACH	4X6-INCH X 16-FT EACH	H SF	F SF	MOVING SIGNS TYPE II EACH	SIGNS TYPE II EACH	SMALL SIGN SUPPORTS EACH	MOVING SMALL SIGN SUPPORTS EACH	SIGNS SOLAR POWERED FLASHING EACH	
CTH V													
3-15	J12-1	ROUTE TURN WITHOUT CARDINAL	24 X 45	-	1	7.50	-	-	1	1	-	-	REPLACE
3-16	R1-1	STOP	30 X 30	1	1	-	-	-	1	1	-	1	REPLACE
	R1-3P	ALL WAY	18 X 6	-	-	1.50	-	-	-	-	-	-	REPLACE
3-17	R1-1	STOP	30 X 30	1	-	-	-	-	1	1	-	1	REPLACE
	R1-3P	ALL WAY	18 X 6	-	-	1.50	-	-	-	-	-	-	REPLACE
3-18	R1-1	STOP	30 X 30	1	1	-	-	-	1	1	-	1	REPLACE
	R1-3P	ALL WAY	18 X 6	-	-	1.50	-	-	-	-	-	-	REPLACE
3-19	R1-1	STOP	30 X 30	1	1	-	-	-	1	1	-	1	REPLACE
	R1-3P	ALL WAY	18 X 6	-	-	1.50	-	-	-	-	-	-	REPLACE
3-20	J12-1	ROUTE TURN WITHOUT CARDINAL	24 X 45	-	1	7.50	-	-	1	1	-	-	REPLACE
CATEGORY 0010 SUBTOTAL				45	14	118.26	146.99	14	58	58	7	8	
CATEGORY 0020													
CTH E													
3-24		WILLOW RIVER STATE PARK/AHEAD ARROW		1	-	-	-	1	-	1	-	-	
3-25	J1-1	JUNCTION ASSEMBLY	24 x 36	1	-	6.00	-	-	1	1	-	-	REPLACE
4-1	J1-1	JUNCTION ASSEMBLY	24 x 36	1	-	6.00	-	-	1	1	-	-	REPLACE
4-2	R1-1	STOP	30 X 30	1	-	5.18	-	-	1	1	-	-	REPLACE
4-3	W3-1	STOP AHEAD	36 X 36	1	-	-	9.00	-	1	1	-	-	REPLACE
4-4	W3-1	STOP AHEAD	36 X 36	1	-	-	9.00	-	1	1	-	-	REPLACE
4-5	W14-3	NO PASSING ZONE	48 X 36	1	-	-	5.56	-	1	1	-	-	REPLACE
4-6	W14-3	NO PASSING ZONE	48 X 36	1	-	-	5.56	-	1	1	-	-	REPLACE
CATEGORY 0020 SUBTOTAL				8	-	17.18	29.12	1	7	8	-	-	
ITEM TOTAL				53	14	135.44	176.11	15	65	66	7	8	

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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TRAFFIC CONTROL

STATION TO	STATION	643.0300 DRUMS DAY	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.0900 SIGNS DAY	643.0920 COVERING SIGNS TYPE II EACH	643.5000 EACH
CATEGORY 0010							
STAGE 1							
CTH E/STH 64							
-	-	-	-	-	600	-	-
CTH E							
34+29	- 60+00	4168	484	488	900	-	1
60+00	- 88+00	3,360	240	240	240	-	-
88+00	- 113+50	3,065	720	720	660	-	-
113+50	- 123+52	1,202	-	-	540	-	-
CTH V							
48+26	- 50+00	240	-	-	300	-	-
50+00	- 51+74	240	-	-	300	-	-
CTH E/CTH I							
-	-	-	-	-	480	-	-
STAGE 2							
CTH E/STH 64							
-	-	-	-	-	200	-	-
CTH E							
34+29	- 60+00	1388	160	160	360	-	-
60+00	- 88+00	1,120	80	80	140	-	-
88+00	- 113+50	1,120	240	240	280	-	-
113+50	- 123+52	401	-	-	400	-	-
CTH V							
48+26	- 50+00	80	-	-	260	-	-
50+00	- 51+74	80	-	-	260	-	-
CTH E/CTH I							
-	-	-	-	-	160	-	-
STAGE 3							
CTH E/STH 64							
-	-	-	-	-	70	-	-

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL (CONTINUED)

STATION TO	STATION	643.0300 DRUMS DAY	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.0900 SIGNS DAY	643.0920 COVERING SIGNS TYPE II EACH	643.5000 EACH
CTH E							
34+29	- 60+00	486	56	56	114	-	-
60+00	- 88+00	392	28	28	35	-	-
88+00	- 113+50	392	84	84	84	-	-
113+50	- 123+52	554	-	-	126	-	-
CTH V							
48+26	- 50+00	316	-	-	91	-	-
50+00	- 51+74	316	-	-	91	-	-
CTH E/CTH I							
-	- -	-	-	-	56	-	-
STAGE 4							
CTH E/STH 64							
-	- -	-	46	-	851	8*	-
CTH E/14TH & 15TH ST							
-	- -	-	46	92	115	-	-
CTH E/CTH V							
-	- -	-	46	92	598	-	-
STH 64/CTH V							
-	- -	-	-	-	1,449	-	-
CATEGORY 0010 SUBTOTAL		18,920	2,230	2,280	9,760	8	1
CATEGORY 0020							
STAGE 1							
CTH E							
123+52	- 140+17	2,024	-	-	-	-	-
STAGE 2							
CTH E							
123+52	- 140+17	1,026	-	-	-	-	-
STAGE 3							
CTH E							
123+52	- 140+17	3,170	-	-	-	-	-
CATEGORY 0020 SUBTOTAL		6,220	-	-	-	-	-
ITEM TOTAL		25,140	2,230	2,280	9,760	8	1

* NUMBER OF CYCLES = 1

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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PAVEMENT MARKING ITEMS

STATION TO STATION	646.1020	646.1040		646.3020	646.5020	646.5120	646.6120
	EPOXY 4-INCH LF	MARKING LINE		EPOXY 8-INCH LF	MARKING ARROW EPOXY EACH	MARKING WORD EPOXY EACH	MARKING STOP LINE EPOXY 18-INCH LF
CATEGORY 0010							
CTH E							
34+29 - 60+00	3,173	4,968	-	-	-	-	-
60+00 - 88+00	3,470	5,509	-	-	-	-	-
88+00 - 113+50	3,283	4,670	340	2	-	-	-
113+50 - 123+52	1,733	1,808	250	4	2	-	60
CTH V							
48+26 - 50+00	258	202	-	-	2	-	25
50+00 - 51+74	162	202	-	-	2	-	25
CATEGORY 0010 SUBTOTAL	12,080	17,360	590	6	6	-	110
CATEGORY 0020							
CTH E							
123+52 - 140+17	3,280	2,200	-	-	2	-	-
CATEGORY 0020 SUBTOTAL	3,280	2,200	-	-	2	-	-
ITEM TOTAL	15,360	19,560	590	6	8	-	110

LOCATING NO-PASSING ZONES

STATION TO STATION	648.0100 MI
CATEGORY 0010	
34+29 - 123+52	1.68
CATEGORY 0010 SUBTOTAL	1.68
CATEGORY 0020	
123+52 - 140+17	0.32
CATEGORY 0020 SUBTOTAL	0.32
ITEM TOTAL	2.00

CONSTRUCTION STAKING*

STATION TO STATION	650.4500	650.5000		650.5500	650.8000	650.9910.01	650.9920
	SUBGRADE LF	BASE LF	COURSE LF	CURB GUTTER AND CURB & GUTTER LF	RESURFACING REFERENCE LF	SUPPLEMENTAL CONTROL (8939-08-76) LS	SLOPE STAKES LF
CATEGORY 0010							
CTH E							
34+29 - 123+52	8,923	8,923	8,923	770	8,923	1	8,923
CTH V							
48+26 - 49+28	102	102	102	-	102	-	102
50+74 - 51+74	100	100	100	-	100	-	100
CATEGORY 0010 SUBTOTAL	9,125	18,250	-	770	9,125	1	9,125
CATEGORY 0020							
CTH E							
123+52 - 140+17	1,665	1,665	1,665	770	1,665	-	1,665
CATEGORY 0020 SUBTOTAL	1,665	3,330	-	770	1,665	-	1,665
ITEM TOTAL	10,790	21,580	-	770	10,790	1	10,790

* ADDITIONAL STAKING QUANTITIES LISTED ELSEWHERE

SAWING ASPHALT

CATEGORY	STATION TO STATION	690.0150 LF
CATEGORY 0010		
CTH E		
0010	34+29 - 60+00	96
0010	60+00 - 88+00	80
0010	88+00 - 113+50	142
0010	113+50 - 123+52	30
CTH V		
0010	48+26 - 50+00	31
0010	50+00 - 51+74	31
CATEGORY 0010 SUBTOTAL		410
CATEGORY 0020		
CTH E		
0020	123+52 - 140+17	100
CATEGORY 0020 SUBTOTAL		100
ITEM TOTAL		510

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

PROJECT NO: XXXX-XX-XX

HWY: XXX

COUNTY: XXX

MISCELLANEOUS QUANTITIES

SHEET

E

RIGHT-OF-WAY PLAT COUNTY TRUNK HIGHWAY "E" (14TH STREET TO COUNTY TRUNK HIGHWAY "V")

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
8939-08-06	4.01	10
PLAT OF RIGHT-OF-WAY REQUIRED FOR TOWN OF ST. JOSEPH 14TH STREET - C.T.H. "V" C.T.H. "E" ST. CROIX COUNTY		
DATE: 07-02-2021		

CONVENTIONAL SYMBOLS

- PUBLIC LAND SURVEY SYSTEM CORNER FOUND AND MONUMENTED AS LABELED
- 1-5/16" DIAMETER X 18" IRON PIPE SET, WEIGHING 1.68 LBS. PER LINEAR FOOT
- 1" DIAMETER IRON PIPE FOUND, UNLESS OTHERWISE NOTED
- 1-5/16" DIAMETER IRON PIPE FOUND
- 2-3/8" DIAMETER IRON PIPE FOUND
- 1-1/4" DIAMETER IRON REBAR FOUND
- 3/4" DIAMETER IRON REBAR FOUND
- ALIGNMENT OR RIGHT-OF-WAY POINT NUMBER
- PREVIOUS HIGHWAY RIGHT-OF-WAY RECORD
- QUARTER SECTION OR QUARTER-QUARTER SECTION LINE AS LABELED
- HIGHWAY CENTERLINE ALIGNMENT WITH STATION VALUE
- EXISTING PROPERTY LINE
- EXISTING HIGHWAY/ROAD RIGHT-OF-WAY
- PROPOSED HIGHWAY/ROAD RIGHT-OF-WAY
- PROPOSED/DESIGNED SLOPE INTERCEPT
- PROPOSED HIGHWAY EASEMENT (HATCHING VARIES BY LANDOWNER)
- TEMPORARY LIMITED EASEMENT
- PROPOSED TEMPORARY LIMITED EASEMENT
- INDEXED LANDOWNER INTEREST
- INDEXED UTILITY OWNER INTEREST
- DENOTES ST. CROIX COUNTY COORDINATE VALUE (Y: NORTHING AND X: EASTING)
- DENOTES CENTERLINE
- DENOTES POINT OF INTERSECTION
- DENOTES POINT OF CURVATURE
- DENOTES POINT OF TANGENCY
- DENOTES POINT ON CURVE
- DENOTES POINT ON TANGENT
- DENOTES DEGREE OF CURVE (ARC DEFINITION)
- DENOTES RADIUS LENGTH
- DENOTES CENTRAL ANGLE
- DENOTES CHORD BEARING
- DENOTES CHORD LENGTH
- DENOTES ARC LENGTH
- TANGENT BEARING INTO CURVE
- TANGENT BEARING OUT OF CURVE
- EXISTING ELECTRICAL POWER POLE
- EXISTING GUY ANCHOR
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING UTILITY JUNCTION BOX
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING UNDERGROUND FIBER-OPTIC LINE
- EXISTING UNDERGROUND GAS LINE
- EXISTING GAS VALVE
- COMPENSABLE ELECTRICAL POWER POLE
- COMPENSABLE GUY ANCHOR
- COMPENSABLE UTILITY JUNCTION BOX
- COMPENSABLE GAS VALVE

PLAT NOTES

HORIZONTAL POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN, ST. CROIX COUNTY COORDINATES, NAD83 (1991), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS FOUND OR PLACED ARE DENOTED IN THE CONVENTIONAL SYMBOLS AND MAPPED OR SHOWN ON THE DETAIL SHEETS OF THIS PLAT. RIGHT-OF-WAY MONUMENTS PLACED, SHALL BE PLACED FOLLOWING THE CONSTRUCTION OF THIS PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS, REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM, AS MAPPED OR SHOWN ON THE DETAIL SHEETS OF THIS PLAT.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM PLATS, MAPS AND DOCUMENTS OF PUBLIC RECORD.

EXISTING HIGHWAY RIGHT-OF-WAY AND ALIGNMENT AS SHOWN ON THIS PLAT IS BASED ON THE FOLLOWING:

- ~ '1947' PLAT DIMENSIONING FROM STATE HIGHWAY COMMISSION OF WISCONSIN, PROJECT S0556(1) FOR COUNTY TRUNK HIGHWAY "E".
- ~ '1952' HIGHWAY CONVEYANCES AND '1953' PLAN DIMENSIONING FROM STATE HIGHWAY COMMISSION OF WISCONSIN, PROJECT S0899(2) FOR COUNTY TRUNK HIGHWAY "V".
- ~ '1962' HIGHWAY CONVEYANCES AND PLAN DIMENSIONING FROM STATE HIGHWAY COMMISSION OF WISCONSIN, PROJECT S0556(1) FOR COUNTY TRUNK HIGHWAY "E".
- ~ '1970' HIGHWAY CONVEYANCES AND PLAN DIMENSIONING FROM STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION, PROJECT 8939-8-70&71, FEDERAL PROJECT S0556(8) FOR COUNTY TRUNK HIGHWAY "E".
- ~ '2013' PLAT DIMENSIONING FROM TRANSPORTATION PROJECT PLAT NO: 8110-02-21-4.09 AMENDMENT NO. 1, DOCUMENT NUMBER 989463 RECORDED AT THE ST. CROIX COUNTY REGISTER OF DEEDS OFFICE FOR COUNTY TRUNK HIGHWAY "E".
- ~ THE COMPILATION OF RECORDED PLATS, RECORDED CERTIFIED SURVEY MAPS AND FILED MAPS OF SURVEY IN ST. CROIX COUNTY.
- ~ VERIFIED WITH THE EXISTING AND TRAVELED CENTERLINE OF COUNTY TRUNK HIGHWAY "E".

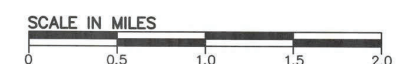
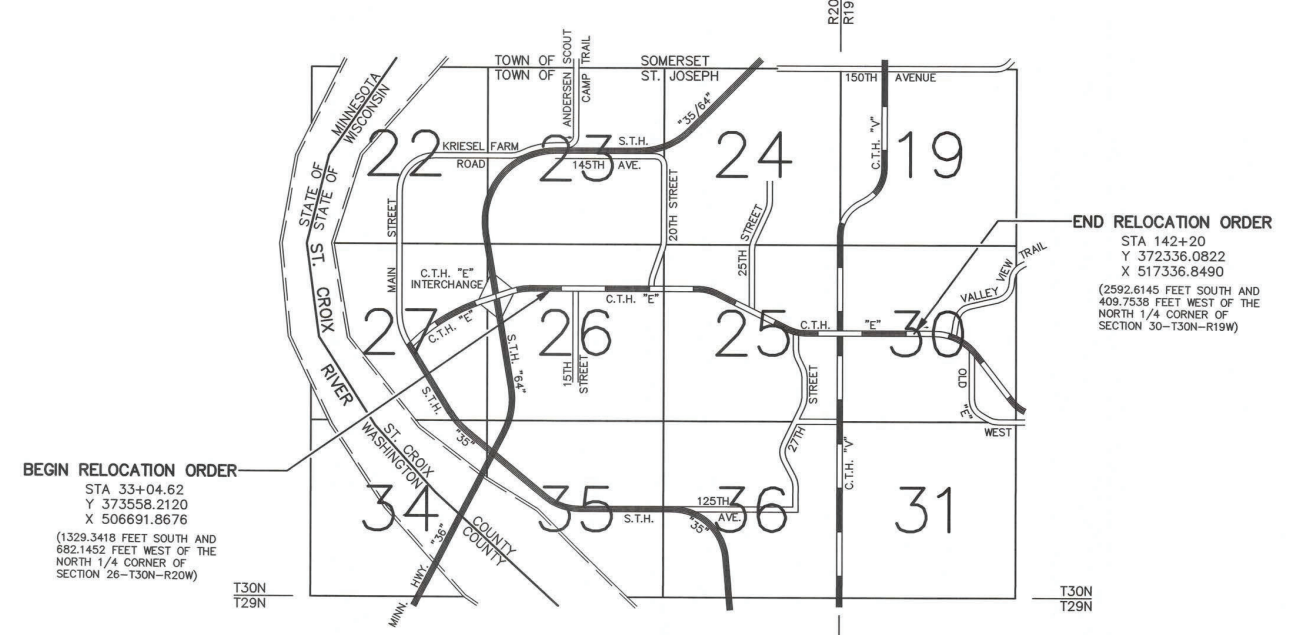
A HIGHWAY EASEMENT (HE) IS AN EASEMENT FOR HIGHWAY PURPOSES, AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE.

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

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE EXISTING CENTERLINE ALIGNMENT, AS SHOWN ON THIS PLAT.



LOCATION SKETCH



LENGTH OF PROJECT CENTERLINE= 10,915.38 FEET OR 2.0673 MILES

PLAT REVISIONS

05/25/21: REMOVED HIGHWAY EASEMENT AND REVISED TEMPORARY LIMITED EASEMENT ON LAND INTEREST NUMBER 2. MODIFIED RIGHT-OF-WAY BOUNDARY ON SHEETS 4.03 AND 4.04.

07/01/21: REMOVED LAND INTEREST NUMBER 6 (TEMPORARY LIMITED EASEMENT), REMOVED LAND INTEREST NUMBER 28 (HIGHWAY EASEMENT), MODIFIED RIGHT-OF-WAY BOUNDARY ON SHEETS 4.09 AND 4.10. REVISED SLOPE INTERCEPT THROUGHOUT THE PLAT, PER JT ENGINEERING, INC. 05/23/21 REDESIGN.

ACCEPTED FOR ST. CROIX COUNTY

DATE: 07-2-21 *Robbie Krejci*
 ROBBIE KREJCI, PE
 COUNTY HIGHWAY COMMISSIONER

PLAT PREPARED BY:

DATE: 07/02/21 *Francis W. Bleskacek*
 FRANCIS W. BLESKACEK, PLS

PREPARED BY:

SURVEYOR ST. CROIX COUNTY HIGHWAY DEPARTMENT
 DESIGNER JT ENGINEERING, INC.
 REVIEW WISCONSIN DEPARTMENT OF TRANSPORTATION
 AUTHORITY NORTHWEST REGION
 REAL ESTATE CONSULTANT CORRE, INC.

E

SCHEDULE OF LANDOWNER INTERESTS					
PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	HIGHWAY EASEMENT	TEMPORARY LIMITED EASEMENT
1	4.03	ROBERT D. AND SHEENA M. WOLFE	HE	0.012 ACRES OR 504 SQ. FT.	
2	4.03	BENJAMIN H. GERMAIN	TLE		0.054 ACRES OR 2,357 SQ. FT.
3	4.03, 4.04 & 4.05	KENNETH J. KNEFELKAMP AND BARBARA M. McCONAUGHEY	HE	0.294 ACRES OR 12,811 SQ. FT.	
4	4.03	TIMOTHY AND LAVONNE McPHERSON	TLE		0.011 ACRES OR 484 SQ. FT.
5	4.03	KIM L. AND RONALD L. MORK	HE	0.008 ACRES OR 364 SQ. FT.	
7	4.03	KENNETH L. AND KATHLEEN M. BEALE	TLE		0.013 ACRES OR 588 SQ. FT.
8	4.03 & 4.04	GLENN S. ANDERSON AND MARIANNE M. ANDERSON REVOCABLE TRUST	HE	0.396 ACRES OR 17,272 SQ. FT.	
9	4.04	JUDY KNEFELKAMP	HE	0.002 ACRES OR 83 SQ. FT.	
10	4.04 & 4.05	ANDERSON REVOCABLE TRUST	HE & TLE	0.172 ACRES OR 7,499 SQ. FT.	0.089 ACRES OR 3,901 SQ. FT.
11	4.05	ANTHONY R. AND LISA L. RAMBO	HE & TLE	0.082 ACRES OR 3,560 SQ. FT.	0.015 ACRES OR 650 SQ. FT.
12	4.05	RICHARD C. PRESCOTT, JR.	TLE		0.032 ACRES OR 1,375 SQ. FT.
13	4.05 & 4.06	RICHARD AND JOAN PRESCOTT	HE & TLE	0.091 ACRES OR 3,973 SQ. FT.	0.068 ACRES OR 2,964 SQ. FT.
14	4.05 & 4.06	EDWARD AND MARY GILLSTROM	HE & TLE	0.274 ACRES OR 11,961 SQ. FT.	0.060 ACRES OR 2,601 SQ. FT.
15	4.06	ERIC J. DAILEY	HE & TLE	0.015 ACRES OR 648 SQ. FT.	0.121 ACRES OR 5,260 SQ. FT.
16	4.06	DANNER C. DUGGAN	TLE		0.025 ACRES OR 1,072 SQ. FT.
17	4.07	BIRCH PARK, LLC	TLE		0.096 ACRES OR 4,199 SQ. FT.
18	4.07	ROBERT ANTHONY GERHARD AND JENNIFER LYNN DONAHUE	TLE		0.199 ACRES OR 8,674 SQ. FT.
19	4.08	HARRISON K. AND ASHLEY E. KOEHNEN	TLE		0.014 ACRES OR 593 SQ. FT.
20	4.08	QUAN THI ANDERSON REVOCABLE LIVING TRUST	HE & TLE	0.114 ACRES OR 4,952 SQ. FT.	0.041 ACRES OR 1,767 SQ. FT.
21	4.08 & 4.09	LARRY D. AND DONNA M. AMUNDSON	HE & TLE	0.061 ACRES OR 2,639 SQ. FT.	0.088 ACRES OR 3,851 SQ. FT.
22	4.08	SHELDON AND SALLY JOHNSON	HE	0.075 ACRES OR 3,259 SQ. FT.	
23	4.08 & 4.09	FAMILY OF CHRIST LUTHERAN CHURCH	HE & TLE	0.073 ACRES OR 3,158 SQ. FT.	0.023 ACRES OR 1,000 SQ. FT.
24	4.09	TERRENCE J. BARRETTE AND CAROLYN E. BARRETTE TRUST AGREEMENT	HE & TLE	0.164 ACRES OR 7,162 SQ. FT.	0.019 ACRES OR 848 SQ. FT.
25	4.09	ROBERT P. ROGALLA, CAROL J. ROALLA & SANDRA J. OLSON	HE	0.042 ACRES OR 1,848 SQ. FT.	
26	4.09	TIMOTHY SPEARMAN	HE	0.021 ACRES OR 929 SQ. FT.	
27	4.09	CANYON ANDREW SCHULTZ AND RIKKA ANN ZABEL	HE & TLE	0.026 ACRES OR 1,140 SQ. FT.	0.161 ACRES OR 7000 SQ. FT.
29	4.09	WISCONSIN TELEPHONE COMPANY	HE & TLE	0.156 ACRES OR 6,814 SQ. FT.	0.049 ACRES OR 2,134 SQ. FT.
30	4.09	TOWN OF ST. JOSEPH	HE & TLE	0.116 ACRES OR 5,067 SQ. FT.	0.021 ACRES OR 931 SQ. FT.
31	4.09	JERRY AND KATHLEEN PRIESS	HE & TLE	0.015 ACRES OR 660 SQ. FT.	0.015 ACRES OR 660 SQ. FT.
32	4.09 & 4.10	ANDREW J. AND JAISA M. RIEMENSCHNEIDER	HE	0.141 ACRES OR 6,133 SQ. FT.	
33	4.10	MICHAEL O. AND JENNIFER J. JOHNSON	HE	0.034 ACRES OR 1,500 SQ. FT.	
34	4.10	KEVIN S. AND TAMMIE L. NELSON	HE & TLE	0.023 ACRES OR 1,011 SQ. FT.	0.011 ACRES OR 500 SQ. FT.
35	4.10	ANTHONY M. QUALANTONE	TLE		0.023 ACRES OR 1,000 SQ. FT.

INTEREST KEY

HIGHWAY EASEMENT	HE
TEMPORARY LIMITED EASEMENT	TLE
CONVEYANCE OF RIGHTS	COR
TEMPORARY CONSTRUCTION EASEMENT	TCE

SCHEDULE OF UTILITY OWNER INTERESTS			
UTILITY NUMBER	UTILITY OWNER	INTEREST REQUIRED	SHEET NUMBER
40	MIDWEST NATURAL GAS	COR	4.04, 4.05, 4.08 & 4.09
		TCE	4.08 & 4.09
41	AT&T DISTRIBUTION	COR	4.09 & 4.10
		TCE	4.09
42	ST. CROIX ELECTRIC COOPERATIVE	COR	4.03, 4.04, 4.05, 4.06, 4.08, 4.09 & 4.10
		TCE	4.03, 4.05, 4.06 & 4.08

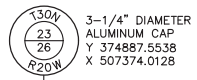
NOTE: OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY.

NE1/4-NW1/4-SEC. 26-T30N-R20W

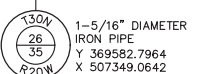
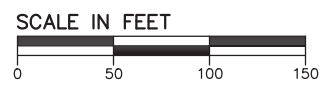
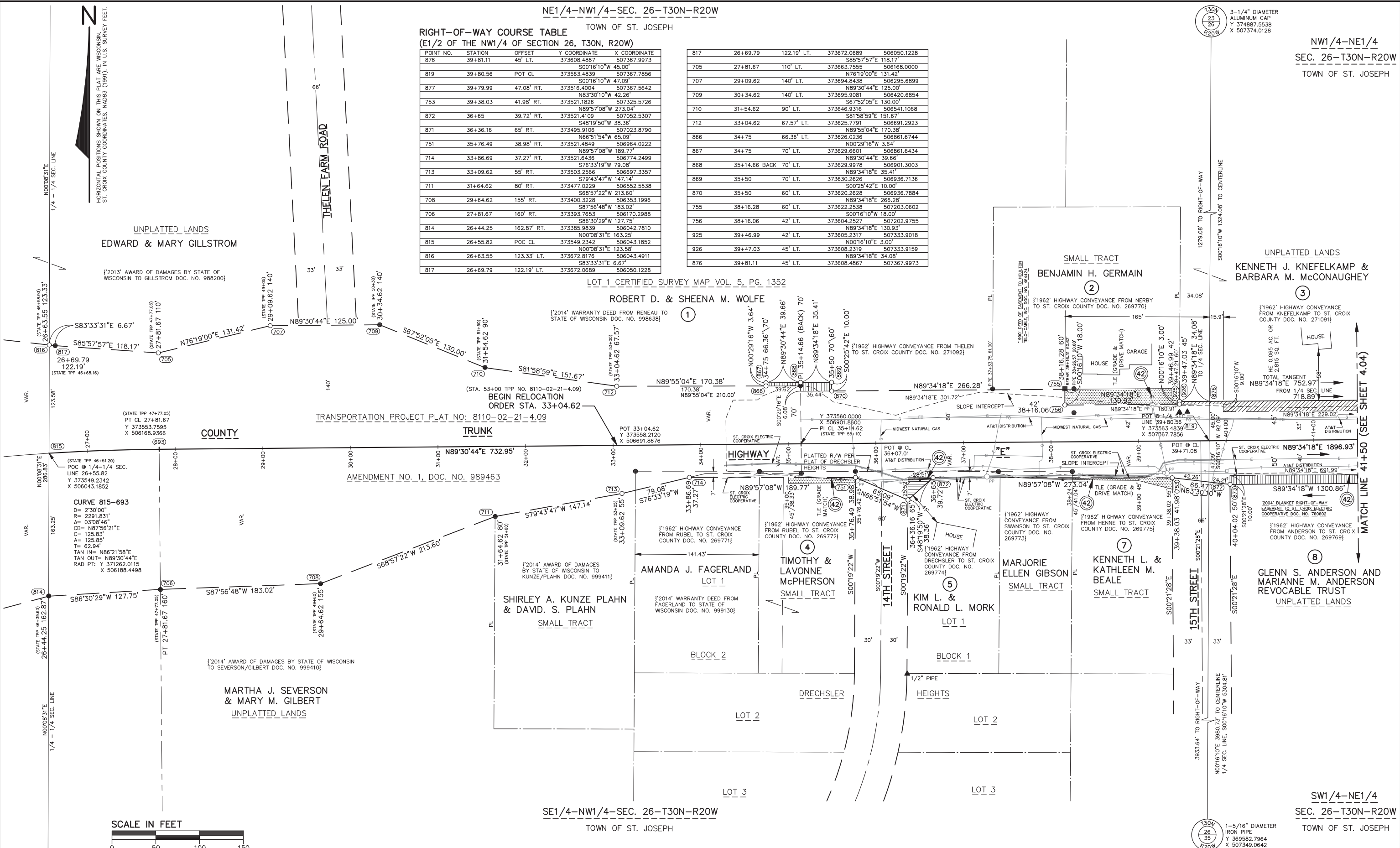
TOWN OF ST. JOSEPH
RIGHT-OF-WAY COURSE TABLE
(E1/2 OF THE NW1/4 OF SECTION 26, T30N, R20W)

POINT NO.	STATION	OFFSET	Y COORDINATE	X COORDINATE
876	39+81.11	45' LT.	373608.4867	507367.9973
			S00°16'10"W 45.00'	
819	39+80.56	POT CL	373563.4839	507367.7856
			S00°16'10"W 47.09'	
877	39+79.99	47.08' RT.	373516.4004	507367.5642
			N83°30'10"W 42.26'	
753	39+38.03	41.98' RT.	373521.1826	507325.5726
			N89°57'08"W 273.04'	
872	36+65	39.72' RT.	373521.4109	507052.5307
			S48°19'50"W 38.36'	
871	36+36.16	65' RT.	373495.9106	507023.8790
			N66°51'54"W 65.09'	
751	35+76.49	38.98' RT.	373521.4849	506964.0222
			N89°57'08"W 189.77'	
714	33+86.69	37.27' RT.	373521.6436	506774.2499
			S76°33'19"W 79.08'	
713	33+09.62	55' RT.	373503.2566	506697.3357
			S79°43'47"W 147.14'	
711	31+64.62	80' RT.	373477.0229	506552.5538
			S68°57'22"W 213.60'	
708	29+64.62	155' RT.	373400.3228	506353.1996
			S87°56'48"W 183.02'	
706	27+81.67	160' RT.	373393.7653	506170.2988
			S86°30'29"W 127.75'	
814	26+44.25	162.87' RT.	373385.9839	506042.7810
			N00°08'31"E 163.25'	
815	26+55.82	POC CL	373549.2342	506043.1852
			N00°08'31"E 123.58'	
816	26+63.55	123.33' LT.	373672.8176	506043.4911
			S83°33'31"E 6.67'	
817	26+69.79	122.19' LT.	373672.0689	506050.1228

817	26+69.79	122.19' LT.	373672.0689	506050.1228
			S85°57'57"E 118.17'	
705	27+81.67	110' LT.	373663.7555	506168.0000
			N76°19'00"E 131.42'	
707	29+09.62	140' LT.	373694.8438	506295.6899
			N89°30'44"E 125.00'	
709	30+34.62	140' LT.	373695.9981	506420.6854
			S67°52'05"E 130.00'	
710	31+54.62	90' LT.	373646.9316	506541.1068
			S81°58'59"E 151.67'	
712	33+04.62	67.57' LT.	373625.7791	506691.2923
			N89°55'04"E 170.38'	
866	34+75	66.36' LT.	373626.0236	506861.6744
			N00°29'16"W 3.64'	
867	34+75	70' LT.	373629.6601	506861.6434
			N89°30'44"E 39.66'	
868	35+14.66	BACK 70' LT.	373629.9978	506901.3003
			N89°34'18"E 35.41'	
869	35+50	70' LT.	373630.2828	506936.7136
			S00°25'42"E 10.00'	
870	35+50	60' LT.	373620.2628	506936.7884
			N89°34'18"E 266.28'	
755	38+16.28	60' LT.	373622.2538	507203.0602
			S00°16'10"W 18.00'	
756	38+16.06	42' LT.	373604.2527	507202.9755
			N89°34'18"E 130.93'	
925	39+46.99	42' LT.	373605.2317	507333.9018
			N00°16'10"E 3.00'	
926	39+47.03	45' LT.	373608.2319	507333.9159
			N89°34'18"E 34.08'	
876	39+81.11	45' LT.	373608.4867	507367.9973



NW1/4-NE1/4
SEC. 26-T30N-R20W
TOWN OF ST. JOSEPH

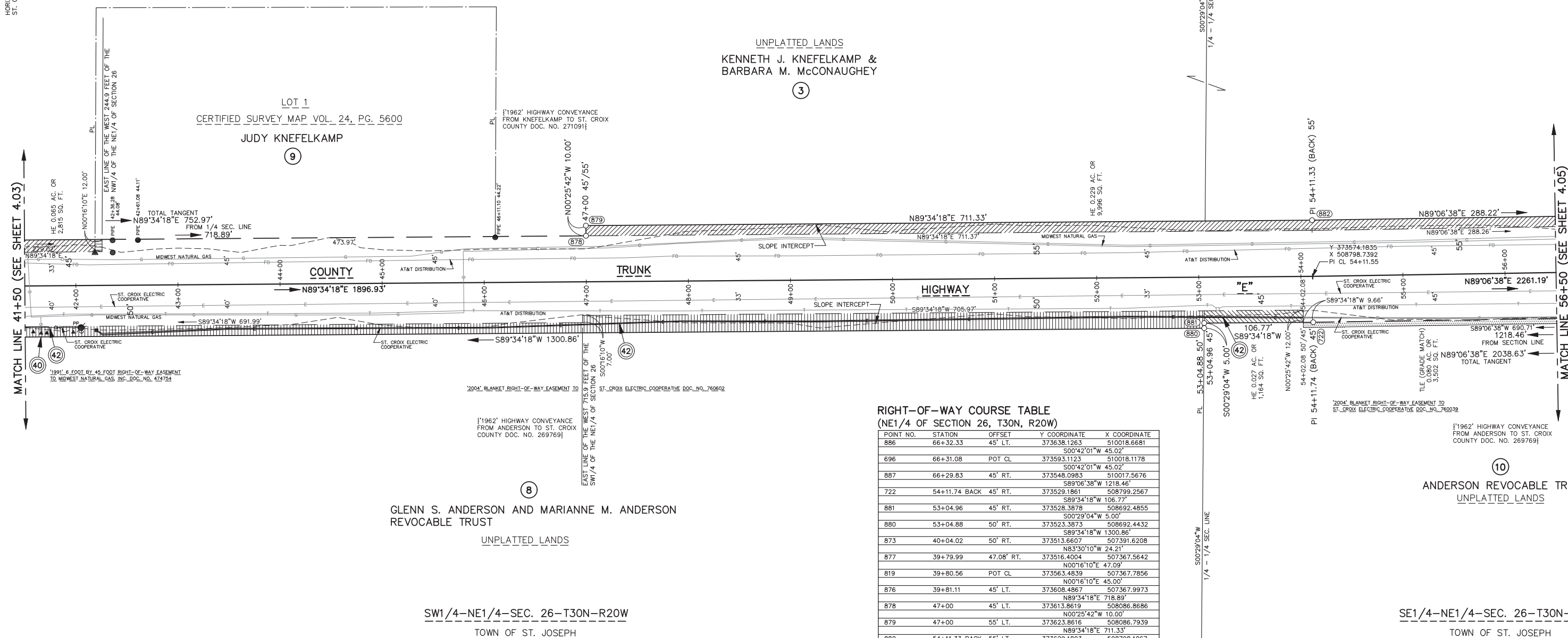


SW1/4-NE1/4
SEC. 26-T30N-R20W
TOWN OF ST. JOSEPH

N
HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN,
ST. CROIX COUNTY COORDINATES, NAD83 (1997), IN U.S. SURVEY FEET.

NW1/4-NE1/4-SEC. 26-T30N-R20W
TOWN OF ST. JOSEPH

NE1/4-NE1/4-SEC. 26-T30N-R20W
TOWN OF ST. JOSEPH



RIGHT-OF-WAY COURSE TABLE
(NE1/4 OF SECTION 26, T30N, R20W)

POINT NO.	STATION	OFFSET	Y COORDINATE	X COORDINATE
886	66+32.33	45' LT.	373638.1263	510018.6681
			S00°42'01"W 45.02'	
696	66+31.08	POT CL	373593.1123	510018.1178
			S00°42'01"W 45.02'	
887	66+29.83	45' RT.	373548.0983	510017.5676
			S89°06'38"W 1218.46'	
722	54+11.74 BACK	45' RT.	373529.1861	508799.2567
			S89°34'18"W 106.77'	
881	53+04.96	45' RT.	373528.3878	508692.4855
			S00°29'04"W 5.00'	
880	53+04.88	50' RT.	373523.3873	508692.4432
			S89°34'18"W 1300.86'	
873	40+04.02	50' RT.	373513.6607	507391.6208
			N83°30'10"W 24.21'	
877	39+79.99	47.08' RT.	373516.4004	507367.5642
			N00°16'10"E 47.09'	
819	39+80.56	POT CL	373563.4839	507367.7856
			N00°16'10"E 45.00'	
876	39+81.11	45' LT.	373608.4867	507367.9973
			N89°34'18"E 718.89'	
878	47+00	45' LT.	373613.8619	508086.8686
			N00°25'42"W 10.00'	
879	47+00	55' LT.	373623.8616	508086.7939
			N89°34'18"E 711.33'	
882	54+11.33 BACK	55' LT.	373629.1803	508798.1067
			N89°06'38"E 288.22'	
883	57+00	55' LT.	373633.6540	509086.2968
			S00°53'22"E 10.00'	
884	57+00	45' LT.	373623.6552	509086.4520
			N89°06'38"E 932.33'	
886	66+32.33	45' LT.	373638.1263	510018.6681



PROJECT NUMBER: 8939-08-06

HIGHWAY: C.T.H. "E"

ST. CROIX COUNTY, WISCONSIN

DETAIL SHEET

DATE: 07-02-2021

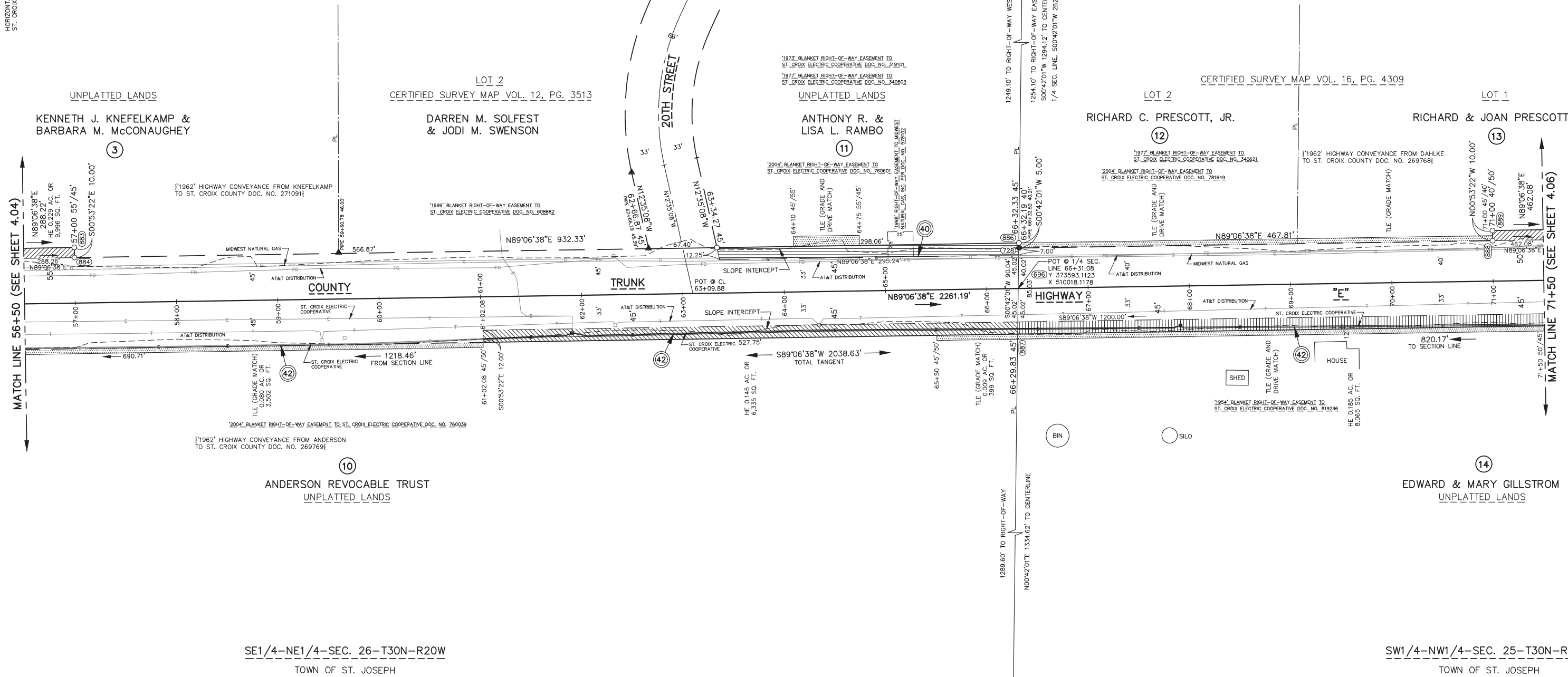
SHEET 4.04

E

N
HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN, ST. CROIX COUNTY COORDINATES, NAD83 (1997), IN U.S. SURVEY FEET.

NE1/4-NE1/4-SEC. 26-T30N-R20W
TOWN OF ST. JOSEPH

NW1/4-NW1/4-SEC. 25-T30N-R20W
TOWN OF ST. JOSEPH



1" DIAMETER STEEL
"SURVEY MARK" NAIL
Y 374887.1350
X 510033.9357

3-1/4" DIAMETER
ALUMINUM CAP
Y 372258.5893
X 510001.8049

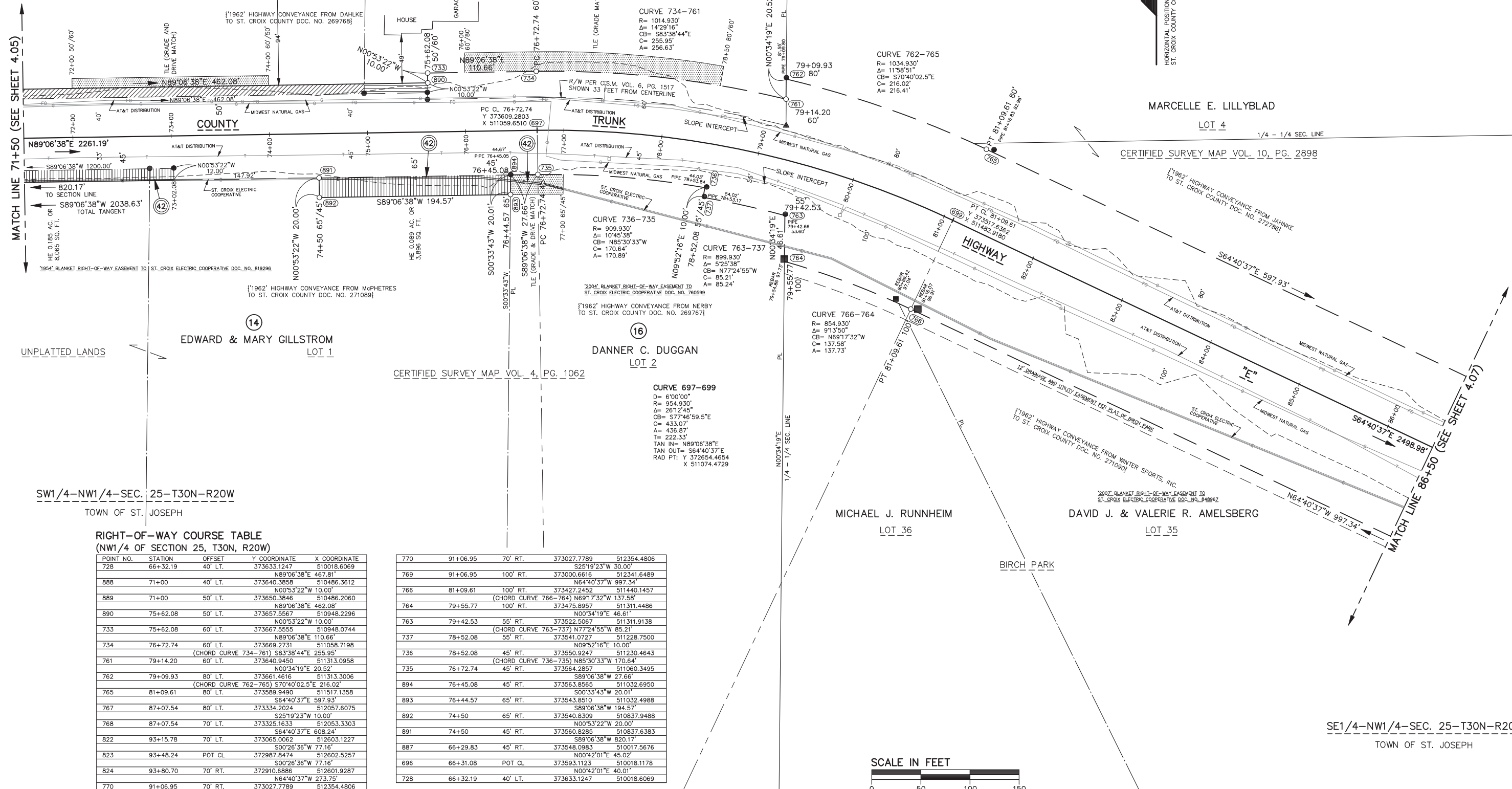


NW1/4-NW1/4-SEC. 25-T30N-R20W
TOWN OF ST. JOSEPH

NE1/4-NW1/4-SEC. 25-T30N-R20W
TOWN OF ST. JOSEPH

LOT 1
CERTIFIED SURVEY MAP VOL. 16, PG. 4309
RICHARD & JOAN PRESCOTT

LOT 1
CERTIFIED SURVEY MAP VOL. 6, PG. 1517
ERIC J. DAILEY



N
HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN
ST. CROIX COUNTY COORDINATES, NAD83 (1993), IN U.S. SURVEY FEET.

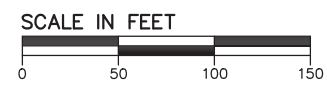
MATCH LINE 71+50 (SEE SHEET 4.05)

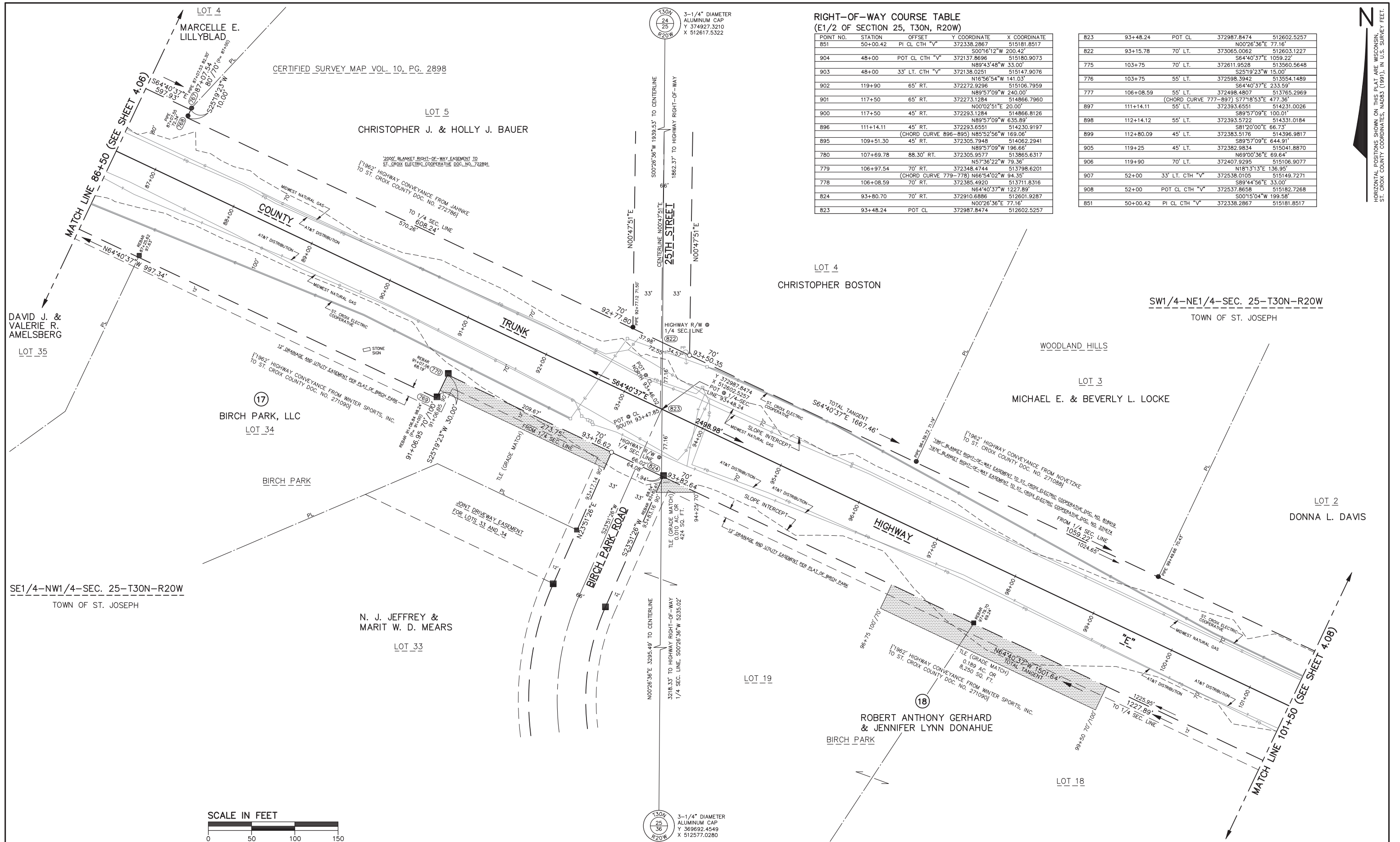
MATCH LINE 86+50 (SEE SHEET 4.07)

RIGHT-OF-WAY COURSE TABLE
(NW1/4 OF SECTION 25, T30N, R20W)

POINT NO.	STATION	OFFSET	Y COORDINATE	X COORDINATE
728	66+32.19	40' LT.	373633.1247	510018.6069
888	71+00	40' LT.	373640.3858	510486.3612
889	71+00	50' LT.	373650.3846	510486.2060
890	75+62.08	50' LT.	373657.5567	510948.2296
733	75+62.08	60' LT.	373667.5555	510948.0744
734	76+72.74	60' LT.	373669.2731	511058.7198
761	79+14.20	60' LT.	373640.9450	511313.0958
762	79+09.93	80' LT.	373661.4616	511313.3006
765	81+09.61	80' LT.	373589.9490	511517.1358
767	87+07.54	80' LT.	373334.2024	512057.6075
768	87+07.54	70' LT.	373325.1633	512053.3303
822	93+15.78	70' LT.	373065.0062	512603.1227
823	93+48.24	POT CL.	372987.8474	512602.5257
824	93+80.70	70' RT.	372910.6886	512601.9287
770	91+06.95	70' RT.	373027.7789	512354.4806

770	91+06.95	70' RT.	373027.7789	512354.4806
769	91+06.95	100' RT.	373000.6616	512341.6489
766	81+09.61	100' RT.	373427.2452	511440.1457
764	79+55.77	100' RT.	373475.8957	511311.4486
763	79+42.53	55' RT.	373522.5067	511311.9138
737	78+52.08	55' RT.	373541.0727	511228.7500
736	78+52.08	45' RT.	373550.9247	511230.4643
735	76+72.74	45' RT.	373564.2857	511060.3495
894	76+45.08	45' RT.	373563.8565	511032.6950
893	76+44.57	65' RT.	373543.8510	511032.4988
892	74+50	65' RT.	373540.8309	510837.9488
891	74+50	45' RT.	373560.8285	510837.6383
887	66+29.83	45' RT.	373548.0983	510017.5676
696	66+31.08	POT CL.	373593.1123	510018.1178
728	66+32.19	40' LT.	373633.1247	510018.6069



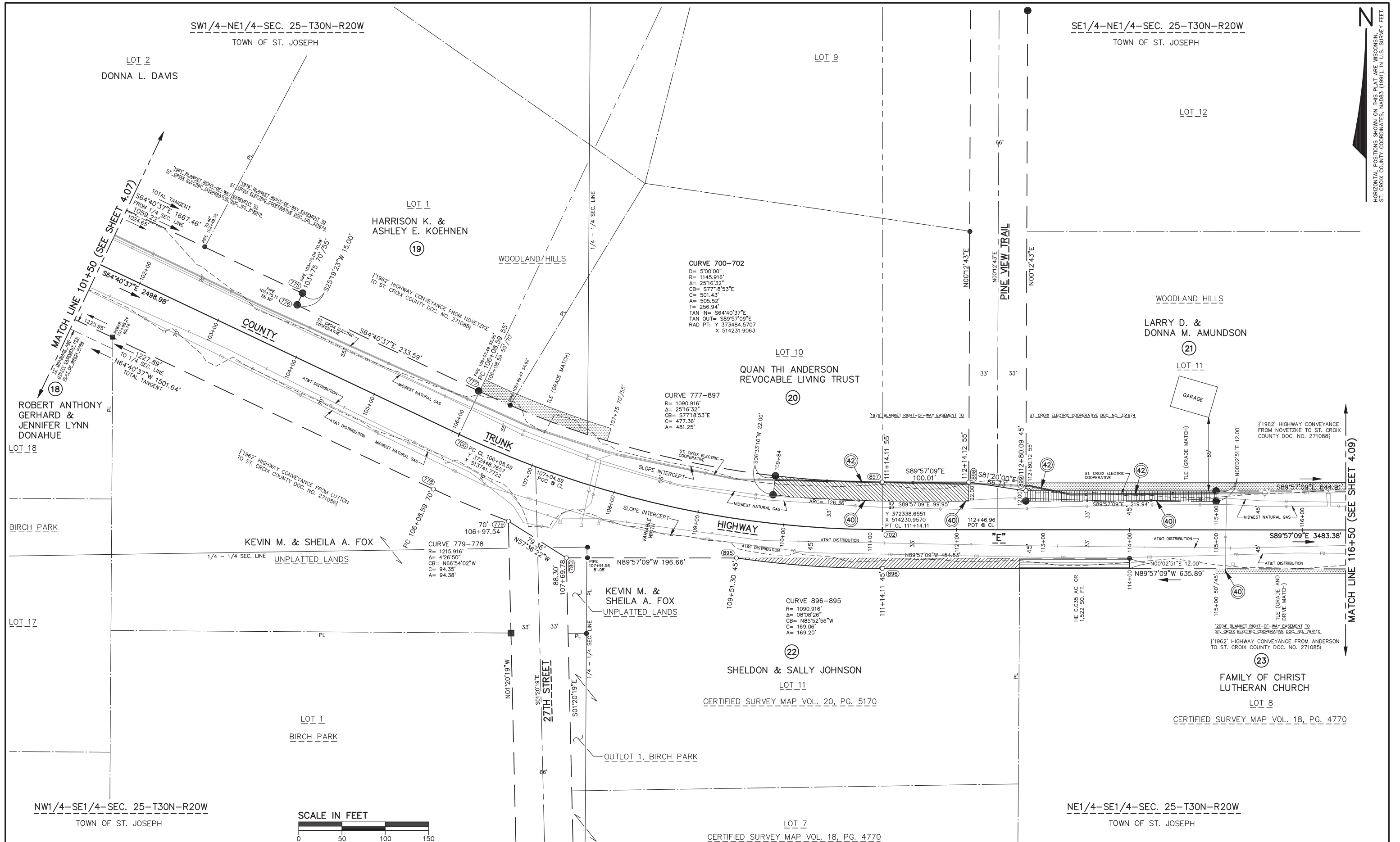


RIGHT-OF-WAY COURSE TABLE
(E1/2 OF SECTION 25, T30N, R20W)

POINT NO.	STATION	OFFSET	Y COORDINATE	X COORDINATE
851	50+00.42	PI CL CTH "V"	372338.2867	515181.8517
			S00°16'12"W 200.42'	
904	48+00	POT CL CTH "V"	372137.8696	515180.9073
			N89°43'48"W 33.00'	
903	48+00	33' LT. CTH "V"	372138.0251	515147.9076
			N16°56'54"W 141.03'	
902	119+90	65' RT.	372272.9296	515106.7959
			N89°57'09"W 240.00'	
901	117+50	65' RT.	372273.1284	514866.7960
			N00°02'51"E 20.00'	
900	117+50	45' RT.	372293.1284	514866.8126
			N89°57'09"W 635.89'	
896	111+14.11	45' RT.	372293.6551	514230.9197
			(CHORD CURVE 896-895) N65°52'56"W 169.06'	
895	109+51.30	45' RT.	372305.7948	514082.2941
			N89°57'09"W 196.66'	
780	107+69.78	88.30' RT.	372305.9577	513865.6317
			N57°36'22"W 79.36'	
779	106+97.54	70' RT.	372348.4744	513798.6201
			(CHORD CURVE 779-778) N66°54'02"W 94.35'	
778	106+08.59	70' RT.	372385.4920	513711.8316
			N64°40'37"W 1227.89'	
824	93+80.70	70' RT.	372910.6886	512601.9287
			N00°26'36"E 77.16'	
823	93+48.24	POT CL	372987.8474	512602.5257

823	93+48.24	POT CL	372987.8474	512602.5257
			N00°26'36"E 77.16'	
822	93+15.78	70' LT.	373065.0062	512603.1227
			S64°40'37"E 1059.22'	
775	103+75	70' LT.	372811.9528	513560.5648
			S25°19'23"W 15.00'	
776	103+75	55' LT.	372598.3942	513554.1489
			S64°40'37"E 233.59'	
777	106+08.59	55' LT.	372498.4807	513765.2969
			(CHORD CURVE 777-897) S77°18'53"E 477.36'	
897	111+14.11	55' LT.	372393.6551	514231.0026
			S89°57'09"E 100.01'	
898	112+14.12	55' LT.	372393.5722	514331.0184
			S81°20'00"E 66.73'	
899	112+80.09	45' LT.	372383.5176	514396.9817
			S89°57'09"E 644.91'	
905	119+25	45' LT.	372382.9834	515041.8870
			N69°00'36"E 69.64'	
906	119+90	70' LT.	372407.9295	515106.9077
			N18°13'13"E 136.95'	
907	52+00	33' LT. CTH "V"	372538.0105	515149.7271
			S89°44'56"E 33.00'	
908	52+00	POT CL CTH "V"	372537.8658	515182.7268
			S00°15'04"W 199.58'	
851	50+00.42	PI CL CTH "V"	372338.2867	515181.8517

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN, ST. CROIX COUNTY COORDINATES, NAD83 (1991), IN U.S. SURVEY FEET.

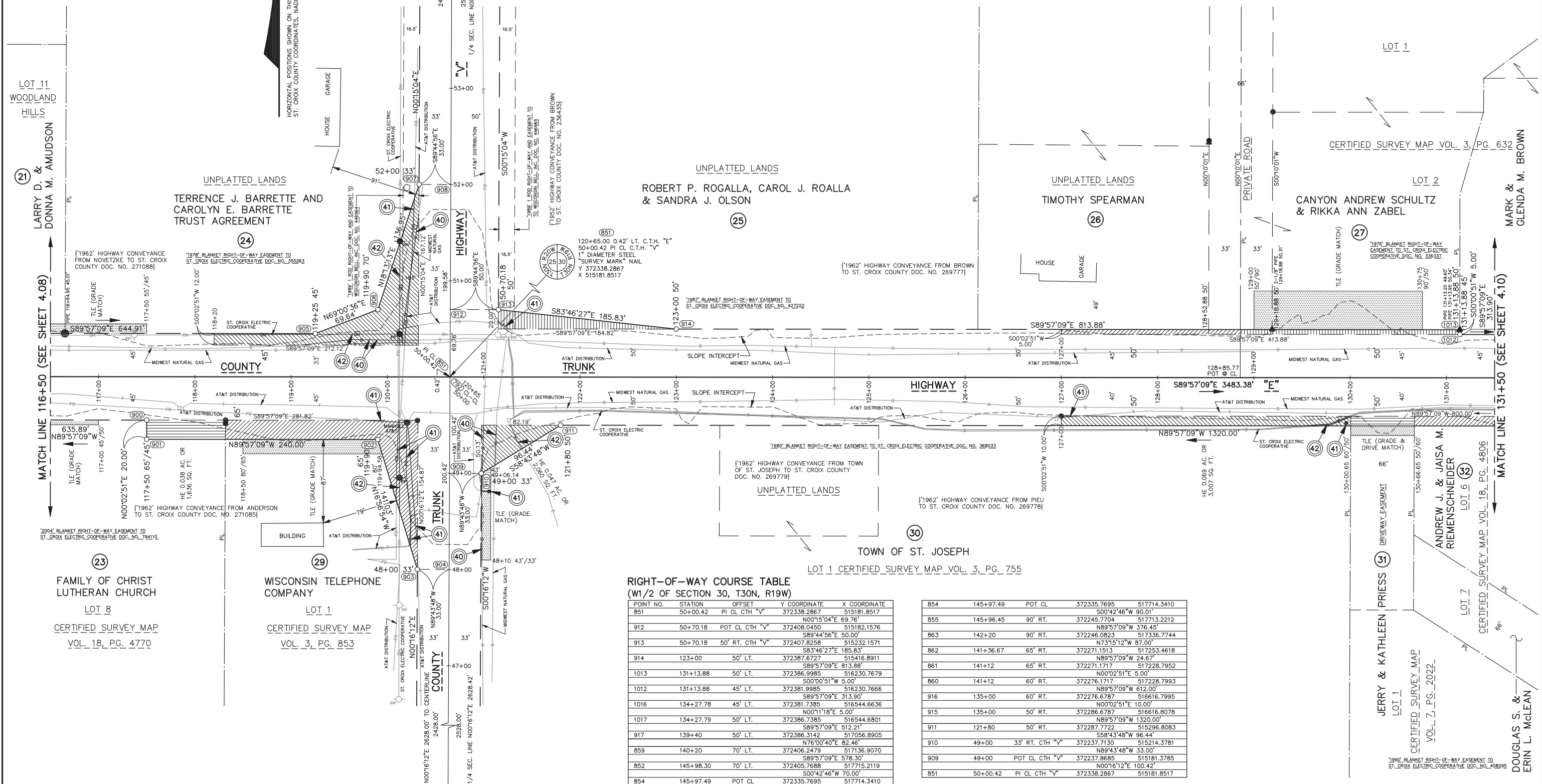


N
 HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN, ST. CROIX COUNTY COORDINATES, NAD83 (1997), IN U.S. SURVEY FEET.



SE1/4-NE1/4-SEC. 25-T30N-R20W
TOWN OF ST. JOSEPH

SW1/4-NW1/4-SEC. 30-T30N-R19W
TOWN OF ST. JOSEPH



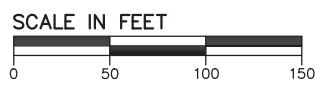
RIGHT-OF-WAY COURSE TABLE
(W1/2 OF SECTION 30, T30N, R19W)

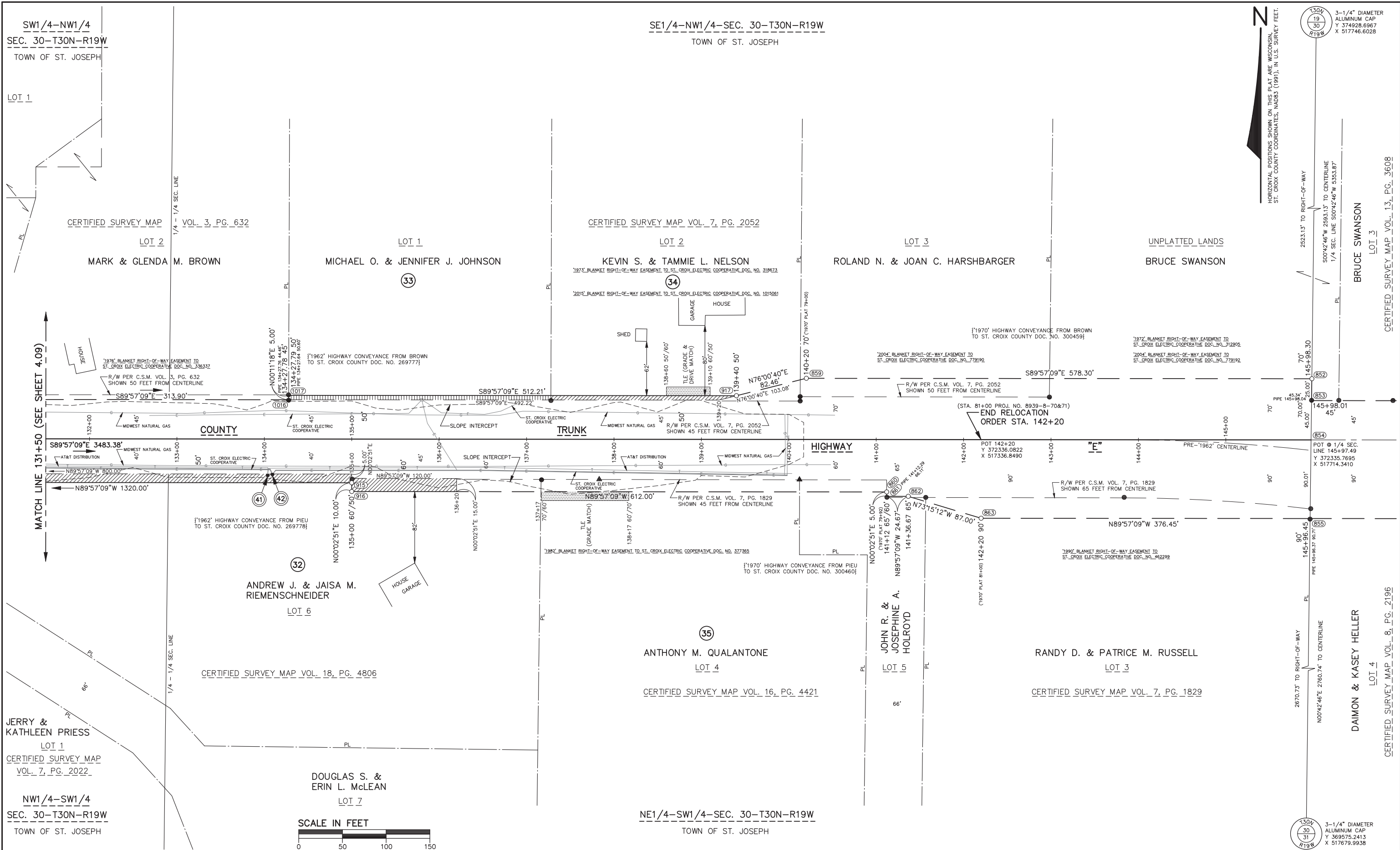
POINT NO.	STATION	OFFSET	Y COORDINATE	X COORDINATE
851	50+00.42	PI CL CTH "V"	372338.2867	515181.8517
912	50+70.18	POT CL CTH "V"	372408.0450	515182.1576
913	50+70.18	50' RT. CTH "V"	372407.8258	515232.1571
914	123+00	50' LT.	372387.6727	515416.8911
1013	131+13.88	50' LT.	372386.9985	516230.7679
1012	131+13.88	45' LT.	372381.9985	516230.7666
1016	134+27.78	45' LT.	372381.7385	516544.6636
1017	134+27.78	50' LT.	372386.7385	516544.6801
917	139+40	50' LT.	372386.3142	517056.8905
859	140+20	70' LT.	372406.2479	517136.9070
852	145+98.30	70' LT.	372405.7688	517715.2119
854	145+97.49	POT CL	372335.7695	517714.3410

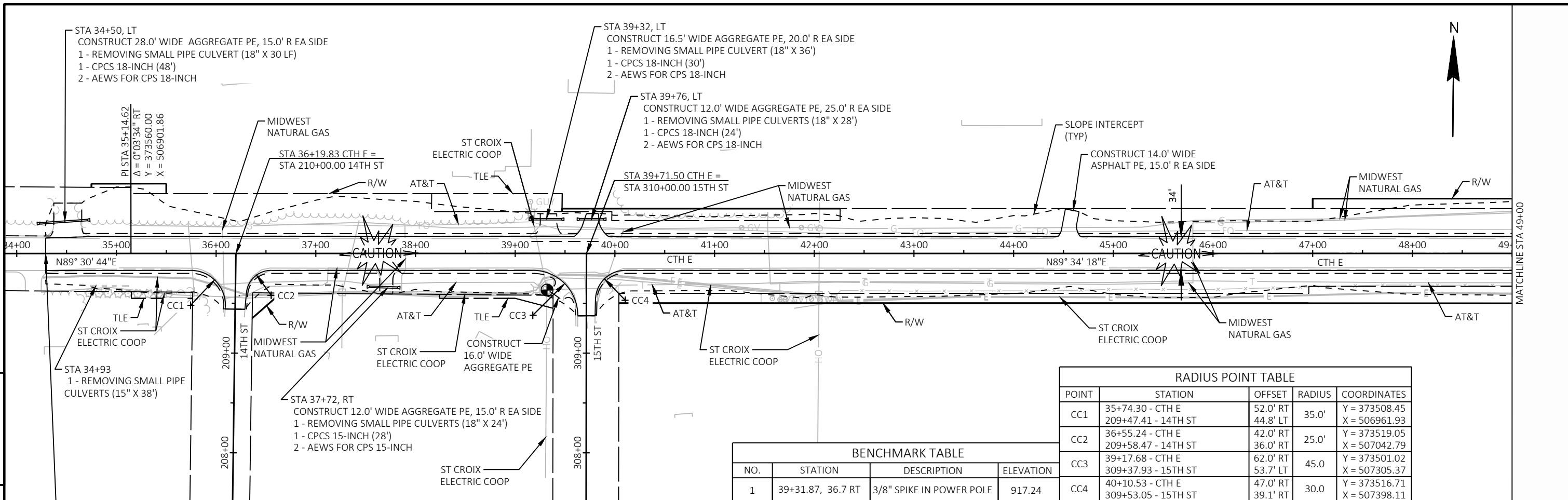
854	145+97.49	POT CL	372335.7695	517714.3410
855	145+96.45	90' RT.	372245.7704	517713.2212
863	142+20	90' RT.	372246.0823	517336.7744
862	141+36.67	65' RT.	372271.1513	517253.4618
861	141+12	65' RT.	372271.1717	517228.7952
860	141+12	60' RT.	372276.1717	517228.7993
916	135+00	60' RT.	372276.6787	516616.7995
915	135+00	50' RT.	372286.6787	516616.8078
911	121+80	50' RT.	372287.7722	515296.8083
910	49+00	33' RT. CTH "V"	372237.7130	515214.3781
909	49+00	POT CL CTH "V"	372237.8685	515181.3785
851	50+00.42	PI CL CTH "V"	372338.2867	515181.8517

NE1/4-SE1/4-SEC. 25-T30N-R20W
TOWN OF ST. JOSEPH

NW1/4-SW1/4-SEC. 30-T30N-R19W
TOWN OF ST. JOSEPH

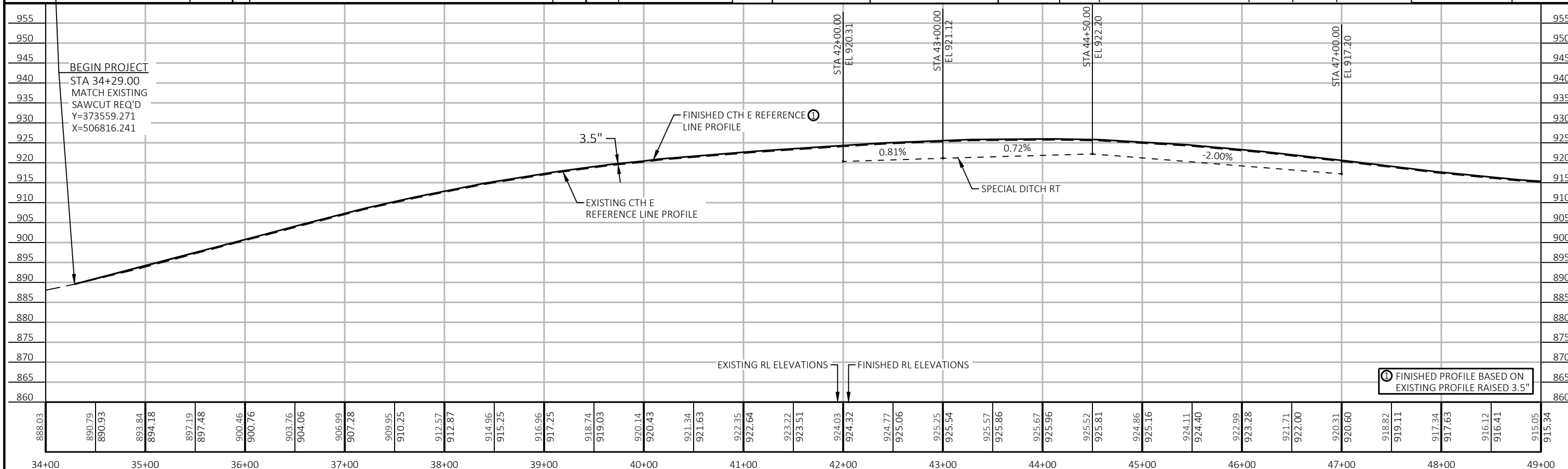






NO.	STATION	DESCRIPTION	ELEVATION
1	39+31.87, 36.7 RT	3/8" SPIKE IN POWER POLE	917.24

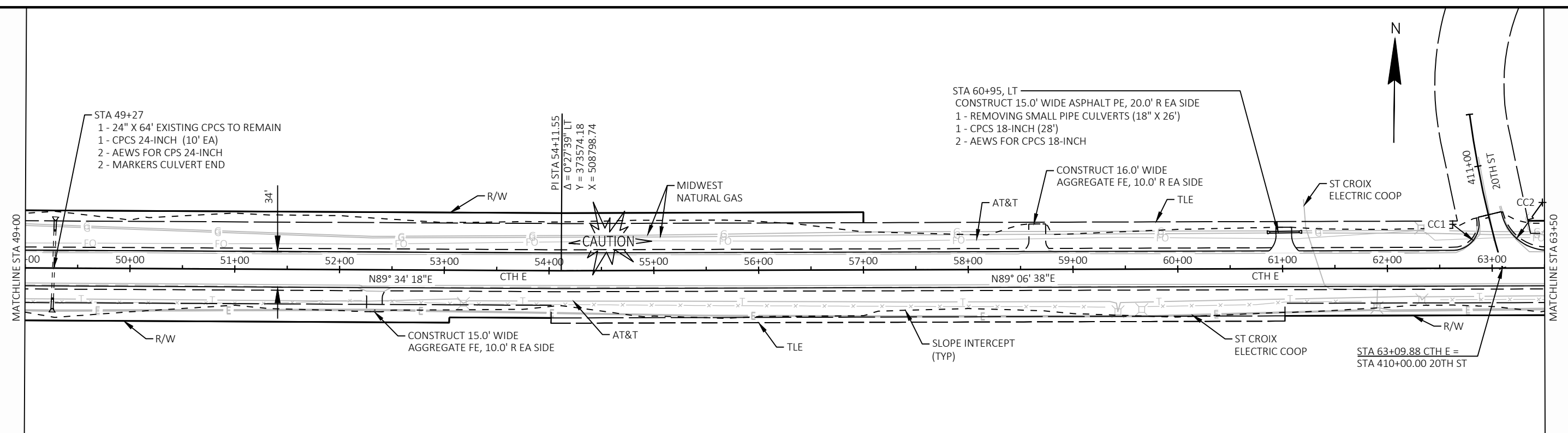
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	35+74.30 - CTH E 209+47.41 - 14TH ST	52.0' RT 44.8' LT	35.0'	Y = 373508.45 X = 506961.93
CC2	36+55.24 - CTH E 209+58.47 - 14TH ST	42.0' RT 36.0' RT	25.0'	Y = 373519.05 X = 507042.79
CC3	39+17.68 - CTH E 309+37.93 - 15TH ST	62.0' RT 53.7' LT	45.0	Y = 373501.02 X = 507305.37
CC4	40+10.53 - CTH E 309+53.05 - 15TH ST	47.0' RT 39.1' RT	30.0	Y = 373516.71 X = 507398.11



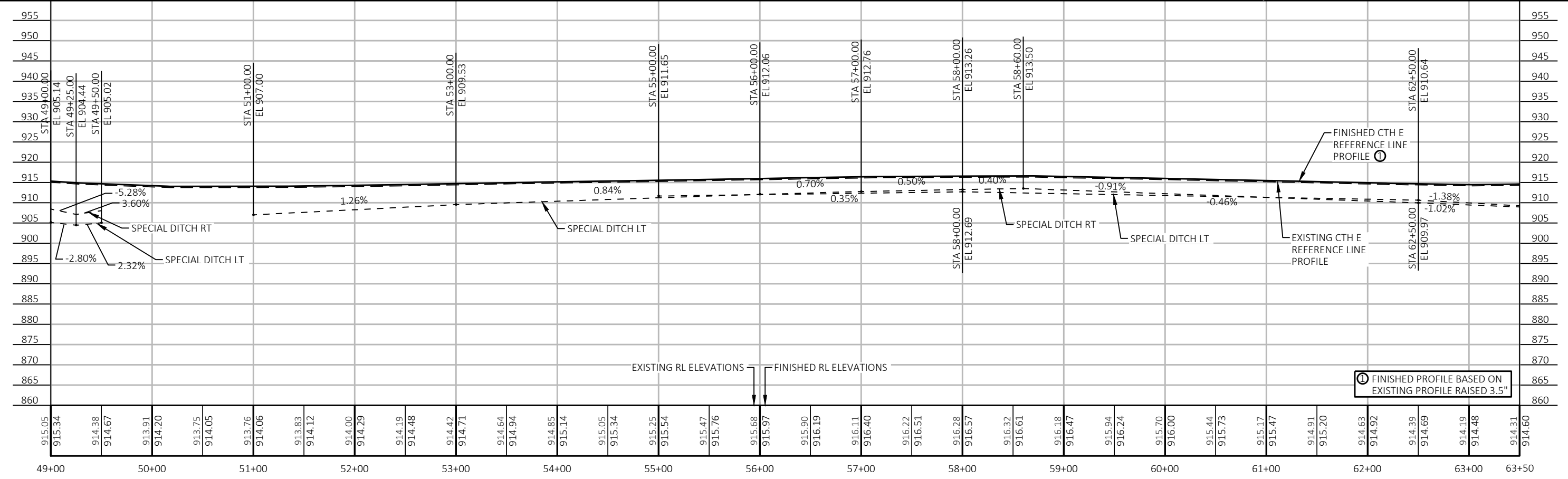
PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST CROIX	PLAN AND PROFILE:	SHEET	E
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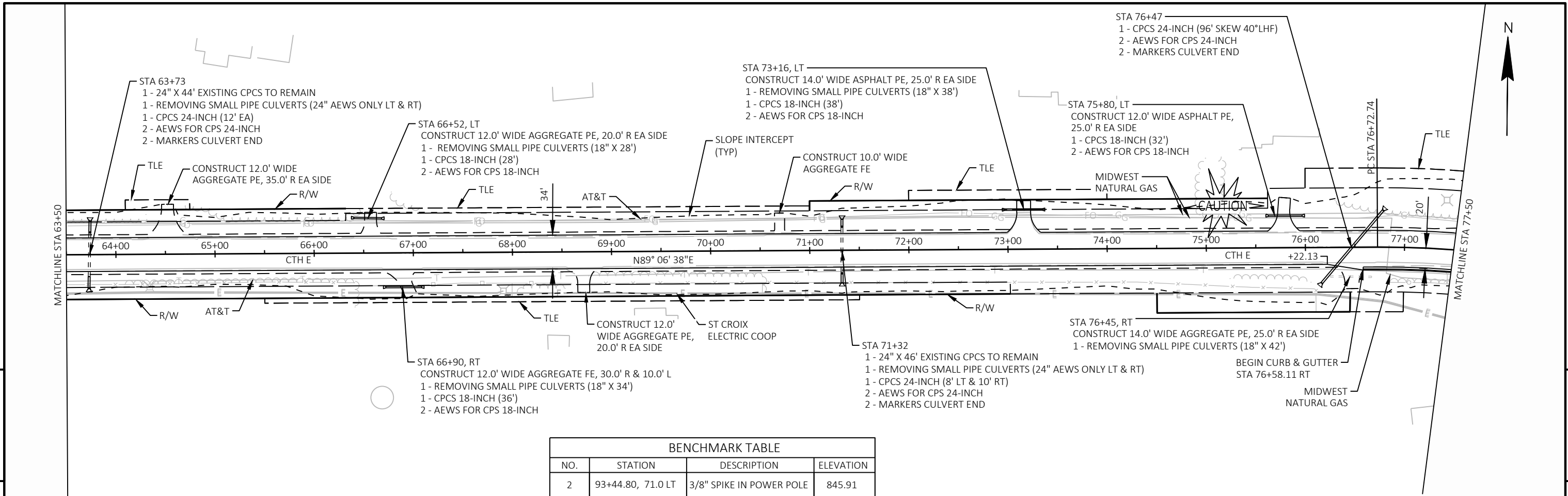
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5



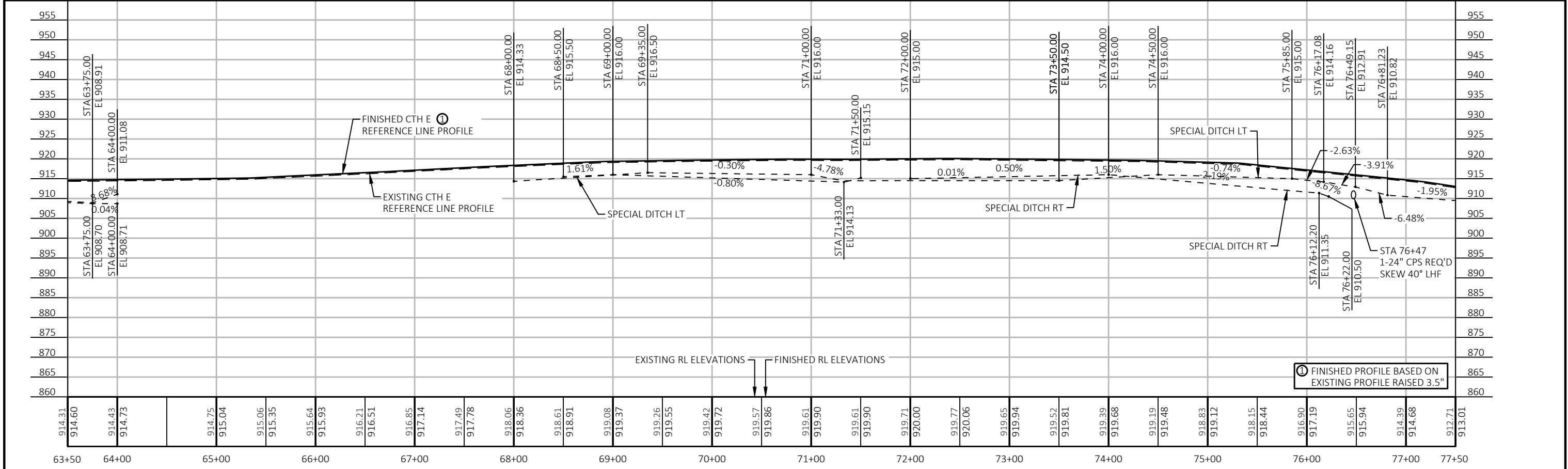
BENCHMARK TABLE				RADIUS POINT TABLE				
NO.	STATION	DESCRIPTION	ELEVATION	POINT	STATION	OFFSET	RADIUS	COORDINATES
1	39+31.87, 36.7 RT	3/8" SPIKE IN POWER POLE	917.24	CC1	62+62.41 - CTH E 410+51.83 - 20TH ST	42.0' LT 35.2' LT	25.0'	Y = 373629.39 X = 509648.84
				CC2	63+53.11 - CTH E 410+50.30 - 12TH ST	62.0' LT 57.7' RT	45.0'	Y = 373650.79 X = 509739.22



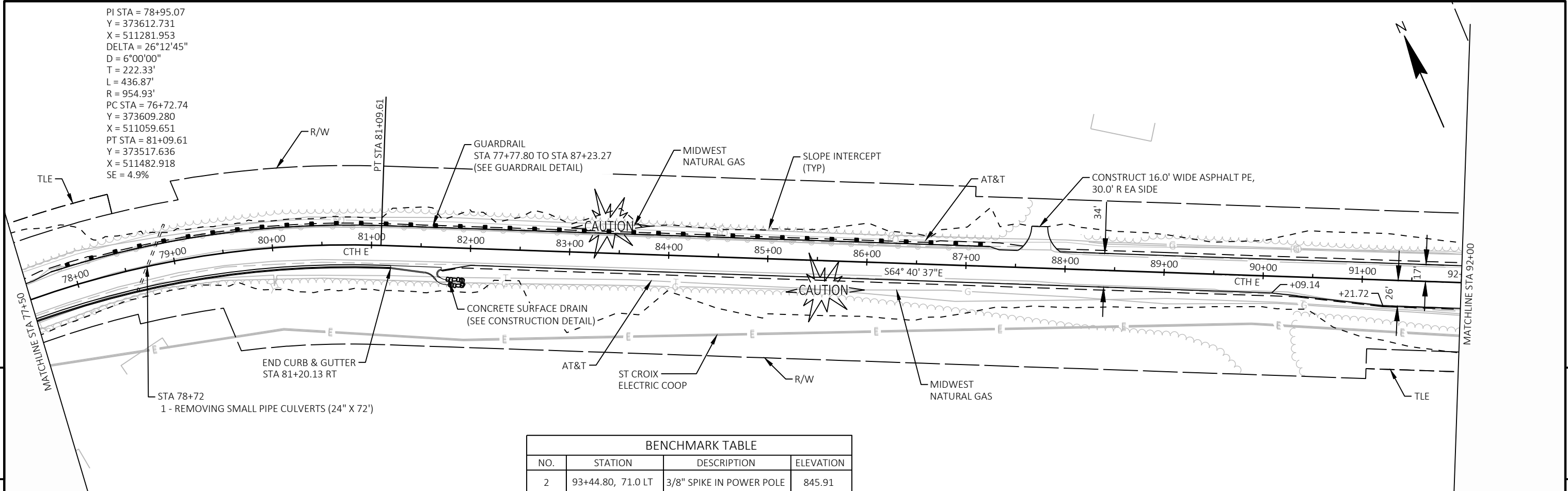


BENCHMARK TABLE

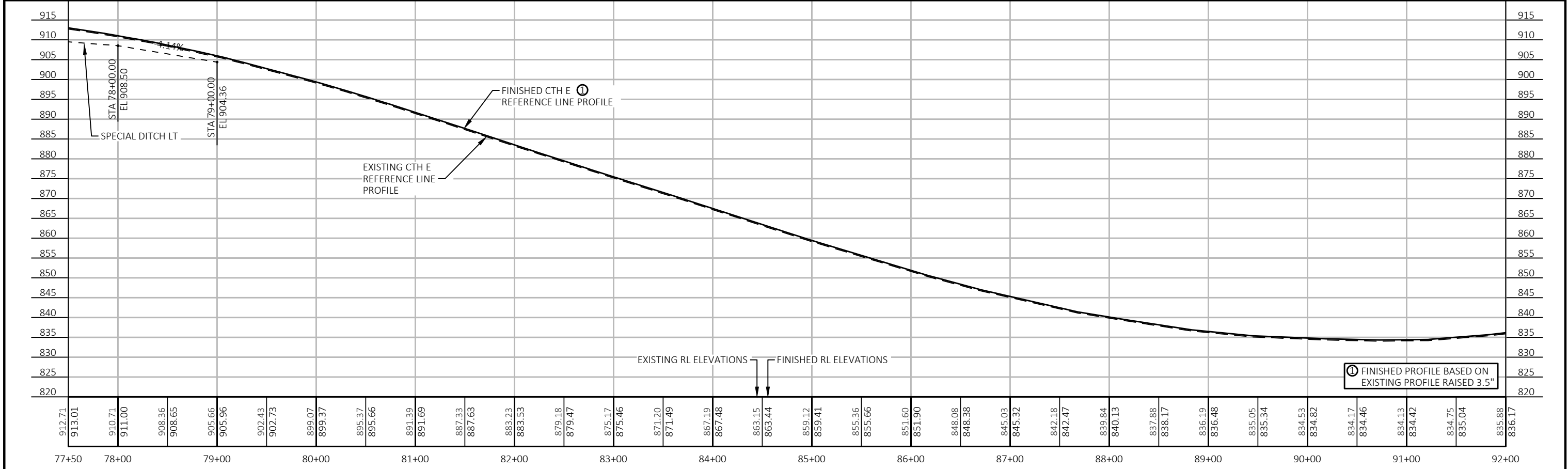
NO.	STATION	DESCRIPTION	ELEVATION
2	93+44.80, 71.0 LT	3/8" SPIKE IN POWER POLE	845.91



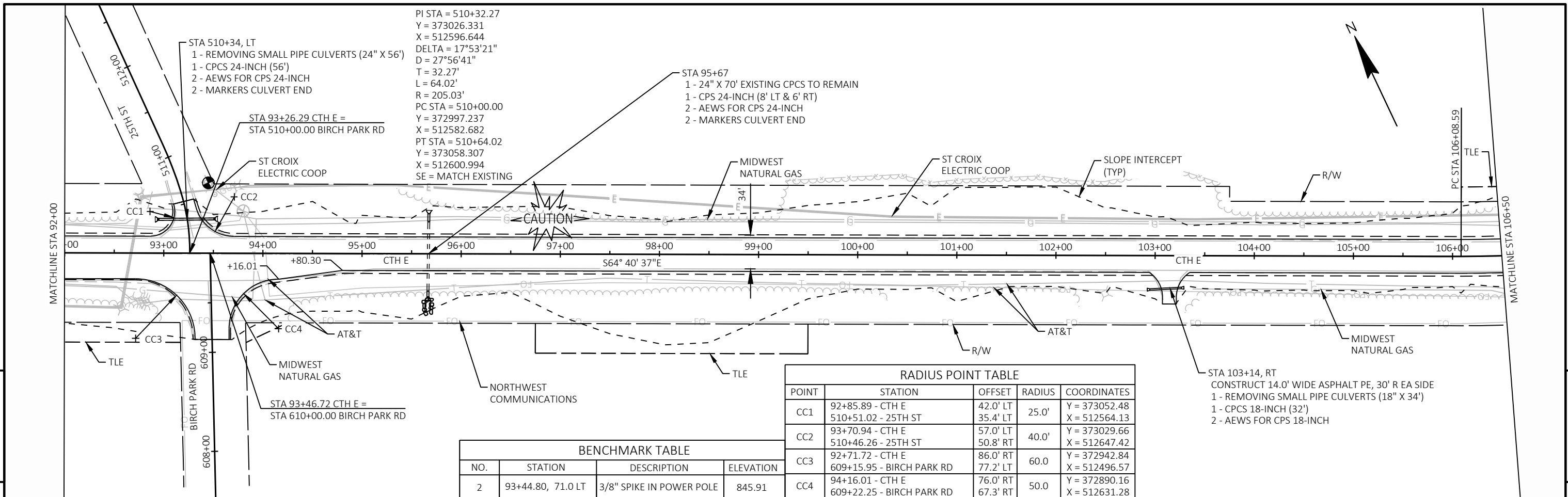
PI STA = 78+95.07
 Y = 373612.731
 X = 511281.953
 DELTA = 26°12'45"
 D = 6°00'00"
 T = 222.33'
 L = 436.87'
 R = 954.93'
 PC STA = 76+72.74
 Y = 373609.280
 X = 511059.651
 PT STA = 81+09.61
 Y = 373517.636
 X = 511482.918
 SE = 4.9%



BENCHMARK TABLE			
NO.	STATION	DESCRIPTION	ELEVATION
2	93+44.80, 71.0 LT	3/8" SPIKE IN POWER POLE	845.91

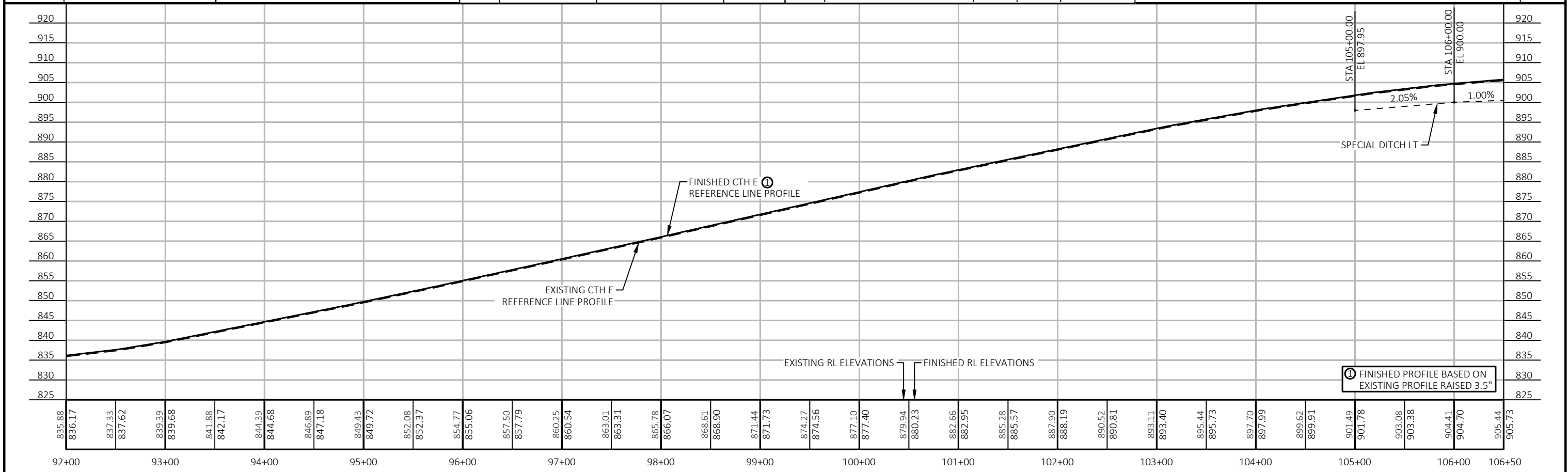


PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST CROIX	PLAN AND PROFILE:	SHEET	E
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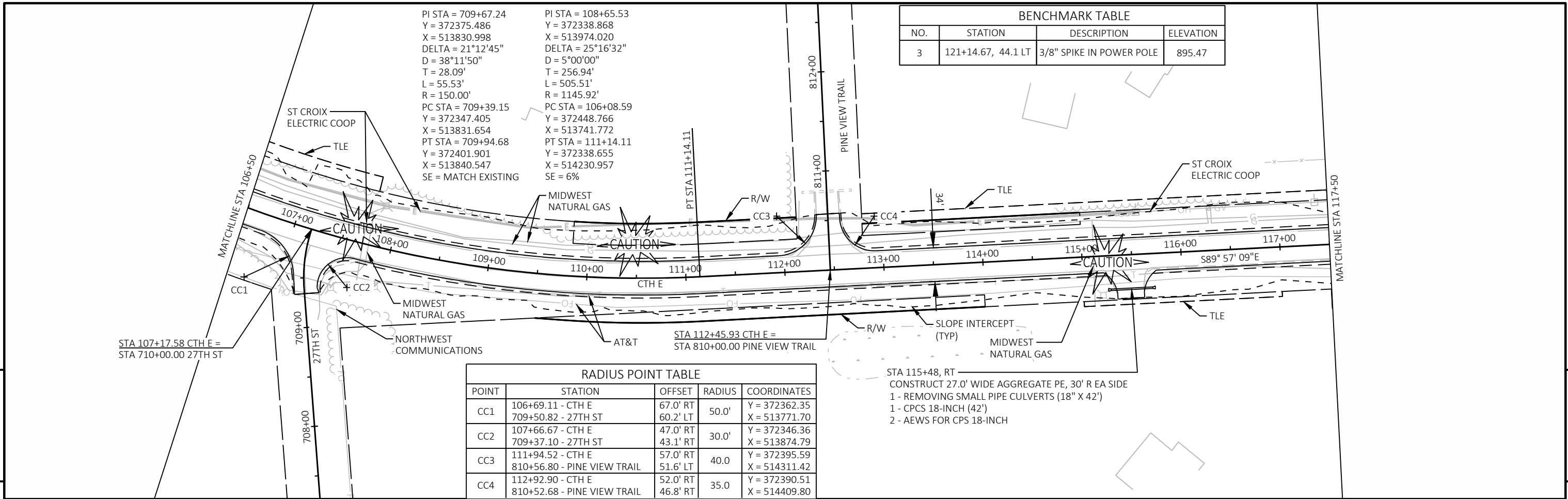


BENCHMARK TABLE			
NO.	STATION	DESCRIPTION	ELEVATION
2	93+44.80, 71.0 LT	3/8" SPIKE IN POWER POLE	845.91

RADIUS POINT TABLE					
POINT	STATION	OFFSET	RADIUS	COORDINATES	
CC1	92+85.89 - CTH E 510+51.02 - 25TH ST	42.0' LT 35.4' LT	25.0'	Y = 373052.48 X = 512564.13	
CC2	93+70.94 - CTH E 510+46.26 - 25TH ST	57.0' LT 50.8' RT	40.0'	Y = 373029.66 X = 512647.42	
CC3	92+71.72 - CTH E 609+15.95 - BIRCH PARK RD	86.0' RT 77.2' LT	60.0'	Y = 372942.84 X = 512496.57	
CC4	94+16.01 - CTH E 609+22.25 - BIRCH PARK RD	76.0' RT 67.3' RT	50.0'	Y = 372890.16 X = 512631.28	



PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST CROIX PLAN AND PROFILE: SHEET E

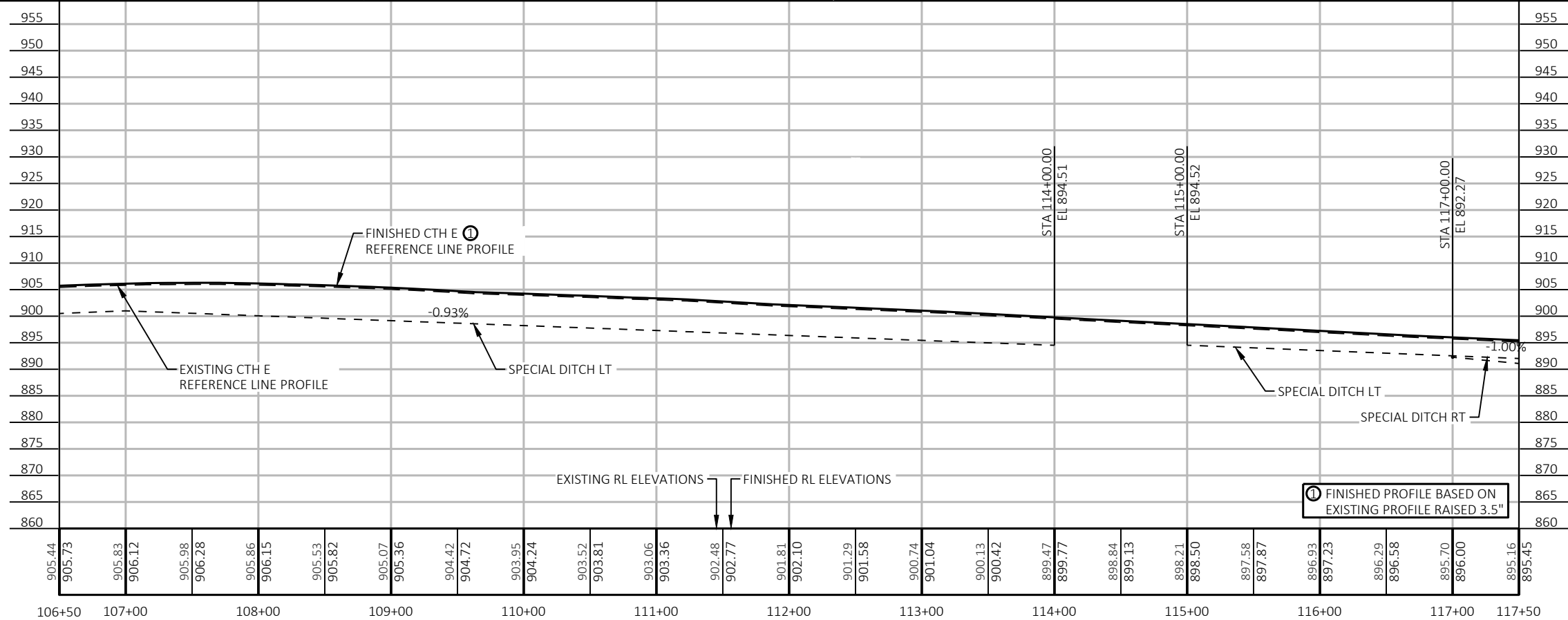


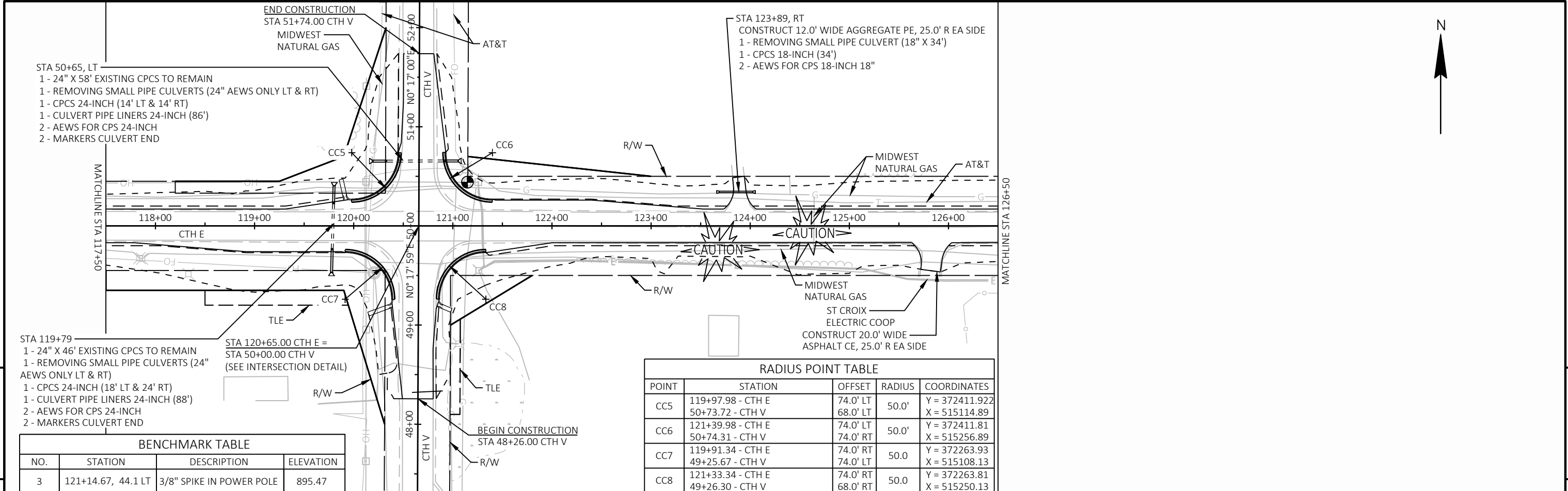
PI STA = 709+67.24 PI STA = 108+65.53
 Y = 372375.486 Y = 372338.868
 X = 513830.998 X = 513974.020
 DELTA = 21°12'45" DELTA = 25°16'32"
 D = 38°11'50" D = 5°00'00"
 T = 28.09' T = 256.94'
 L = 55.53' L = 505.51'
 R = 150.00' R = 1145.92'
 PC STA = 709+39.15 PC STA = 106+08.59
 Y = 372347.405 Y = 372448.766
 X = 513831.654 X = 513741.772
 PT STA = 709+94.68 PT STA = 111+14.11
 Y = 372401.901 Y = 372338.655
 X = 513840.547 X = 514230.957
 SE = MATCH EXISTING SE = 6%

BENCHMARK TABLE			
NO.	STATION	DESCRIPTION	ELEVATION
3	121+14.67, 44.1 LT	3/8" SPIKE IN POWER POLE	895.47

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	106+69.11 - CTH E	67.0' RT	50.0'	Y = 372362.35
	709+50.82 - 27TH ST	60.2' LT		X = 513771.70
CC2	107+66.67 - CTH E	47.0' RT	30.0'	Y = 372346.36
	709+37.10 - 27TH ST	43.1' RT		X = 513874.79
CC3	111+94.52 - CTH E	57.0' RT	40.0	Y = 372395.59
	810+56.80 - PINE VIEW TRAIL	51.6' LT		X = 514311.42
CC4	112+92.90 - CTH E	52.0' RT	35.0	Y = 372390.51
	810+52.68 - PINE VIEW TRAIL	46.8' RT		X = 514409.80

STA 115+48, RT
 CONSTRUCT 27.0' WIDE AGGREGATE PE, 30' R EA SIDE
 1 - REMOVING SMALL PIPE CULVERTS (18" X 42")
 1 - CPCS 18-INCH (42")
 2 - AEWS FOR CPS 18-INCH



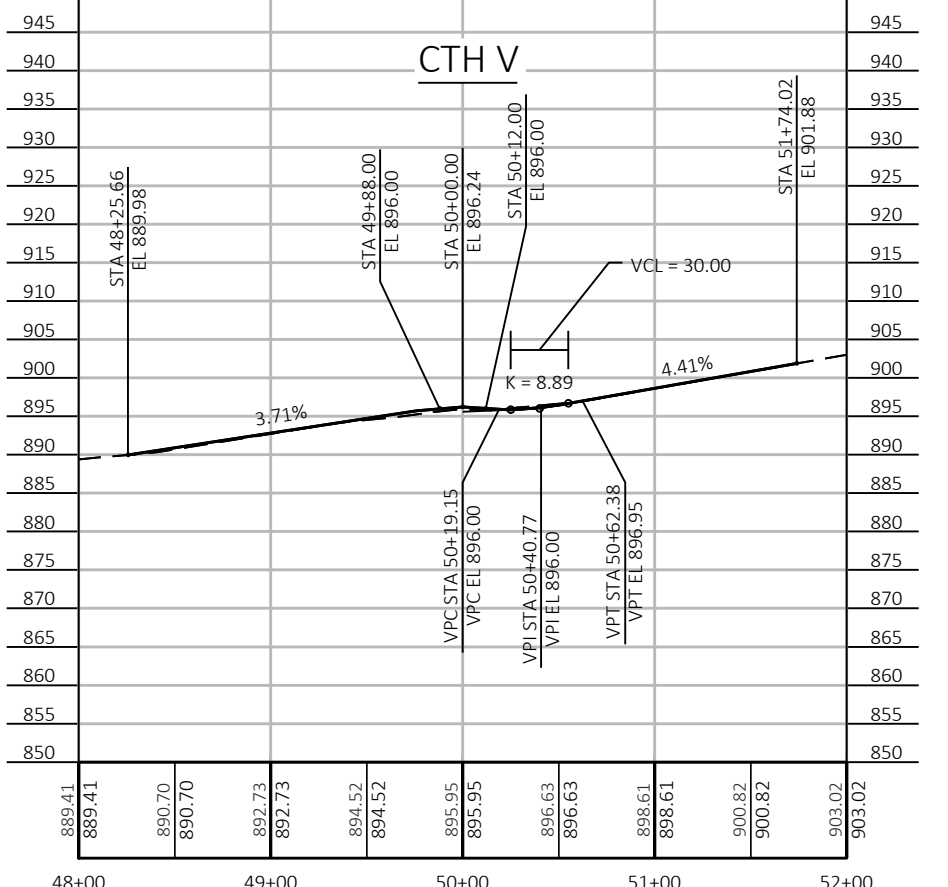
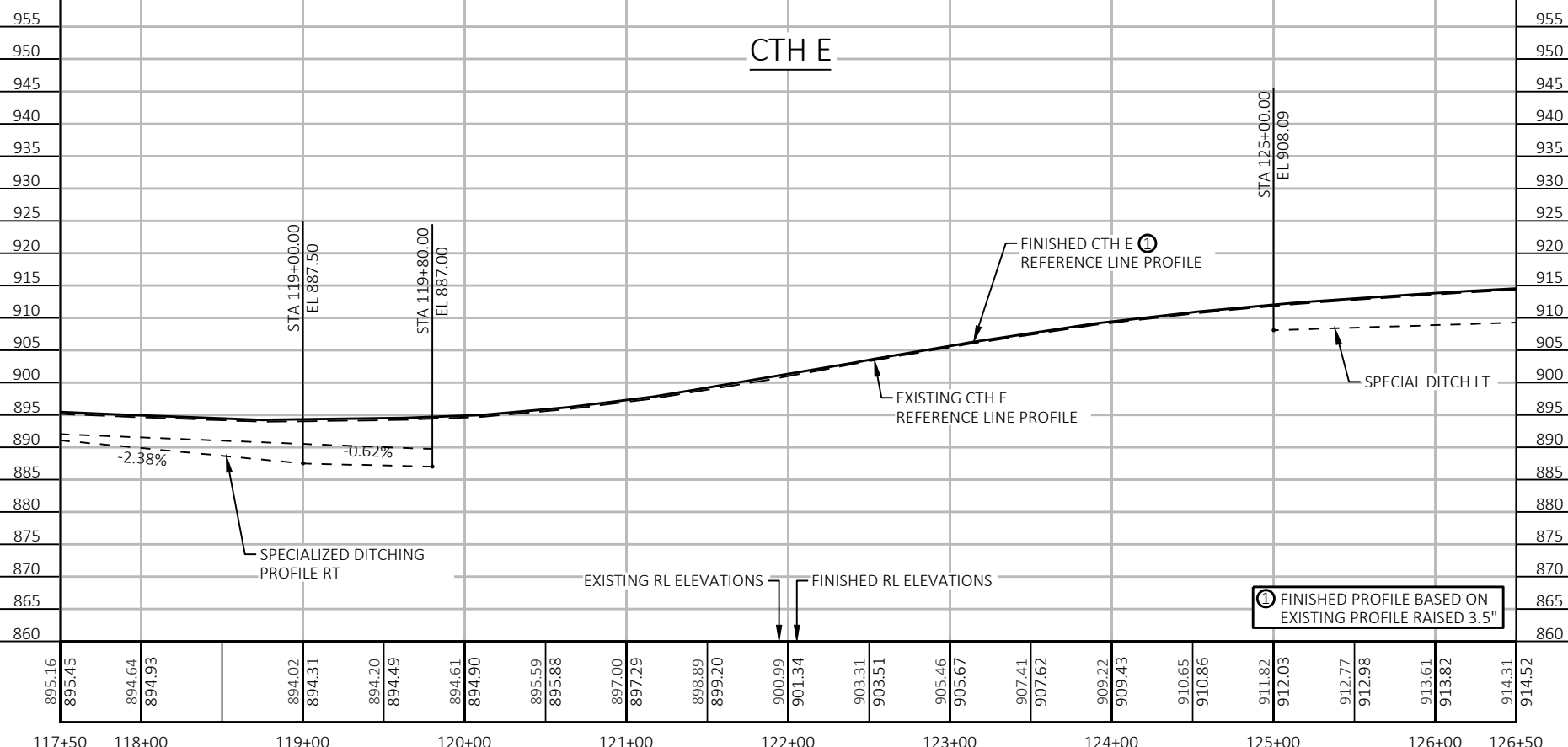


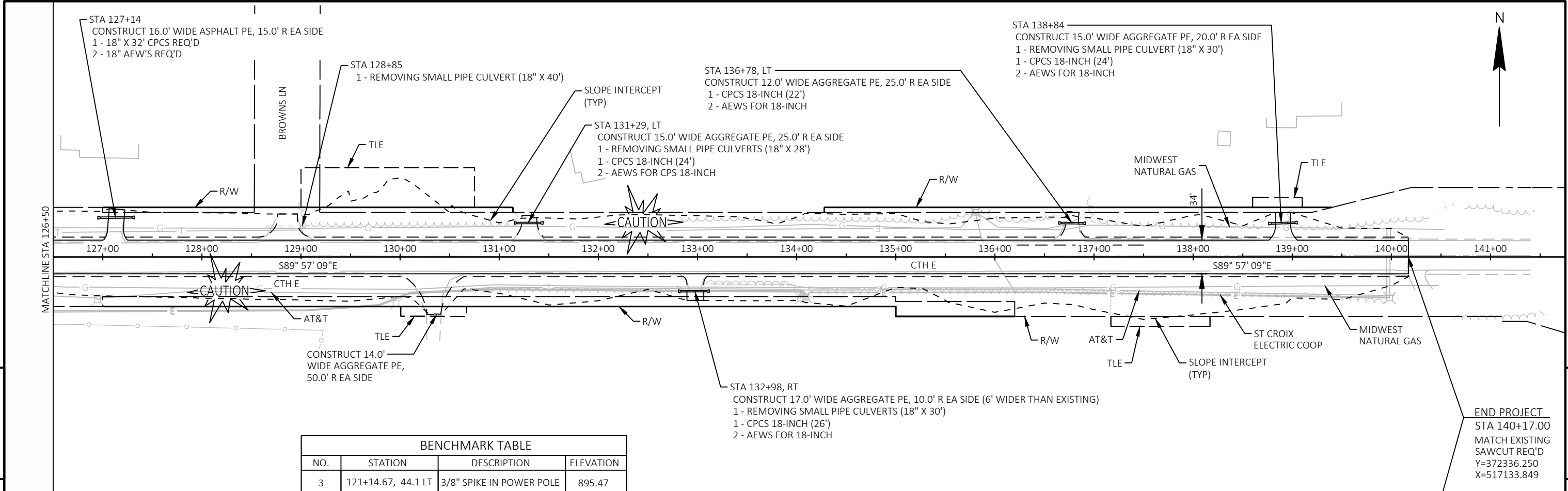
RADIUS POINT TABLE

POINT	STATION	OFFSET	RADIUS	COORDINATES
CC5	119+97.98 - CTH E 50+73.72 - CTH V	74.0' LT 68.0' LT	50.0'	Y = 372411.922 X = 515114.89
CC6	121+39.98 - CTH E 50+74.31 - CTH V	74.0' LT 74.0' RT	50.0'	Y = 372411.81 X = 515256.89
CC7	119+91.34 - CTH E 49+25.67 - CTH V	74.0' RT 74.0' LT	50.0	Y = 372263.93 X = 515108.13
CC8	121+33.34 - CTH E 49+26.30 - CTH V	74.0' RT 68.0' RT	50.0	Y = 372263.81 X = 515250.13

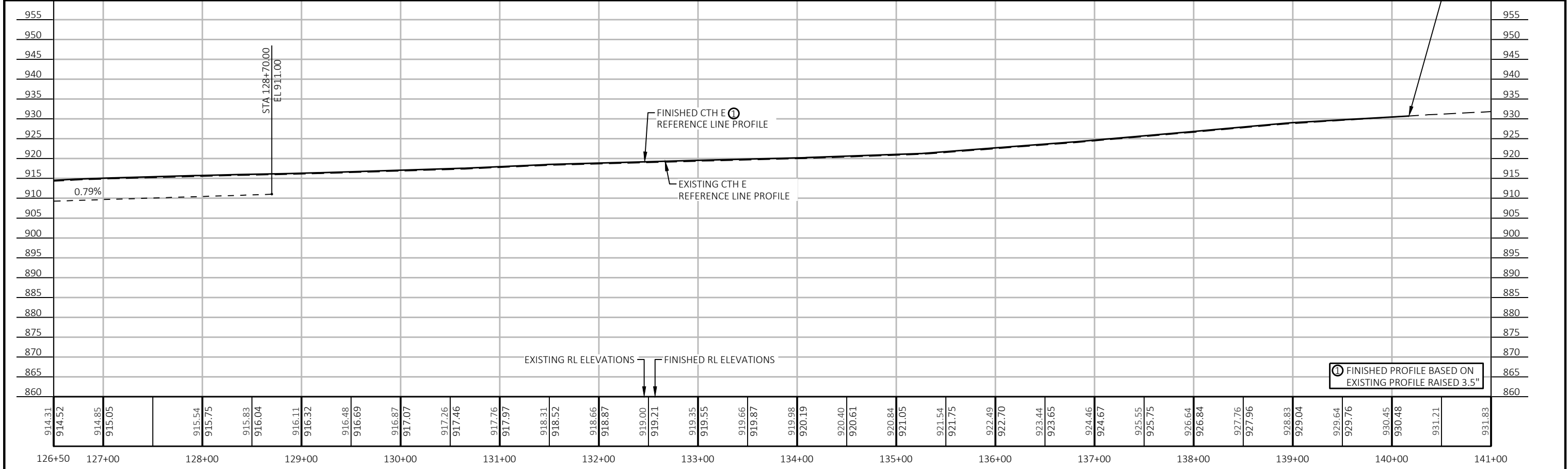
BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
3	121+14.67, 44.1 LT	3/8" SPIKE IN POWER POLE	895.47





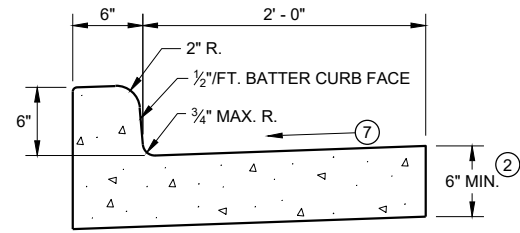
BENCHMARK TABLE			
NO.	STATION	DESCRIPTION	ELEVATION
3	121+14.67, 44.1 LT	3/8" SPIKE IN POWER POLE	895.47



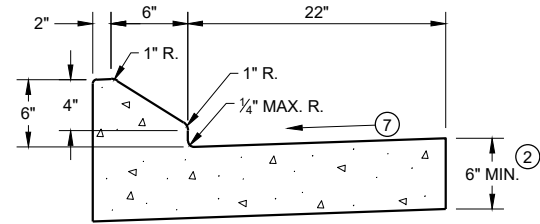
PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST CROIX PLAN AND PROFILE: SHEET: 5

Standard Detail Drawing List

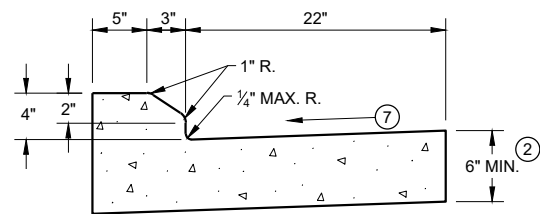
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
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
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-08F	ADVANCED WIDTH RESTRICTION SIGNING
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
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL



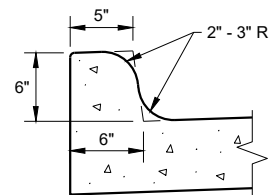
TYPES A^① & D



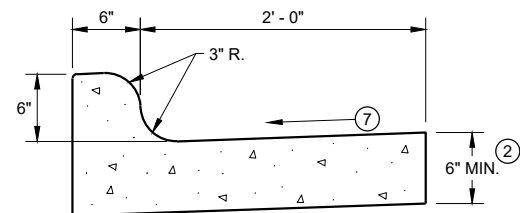
6" SLOPED CURB TYPES G^① & J



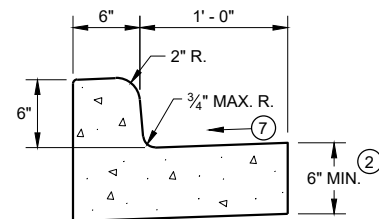
4" SLOPED CURB TYPES G^① & J



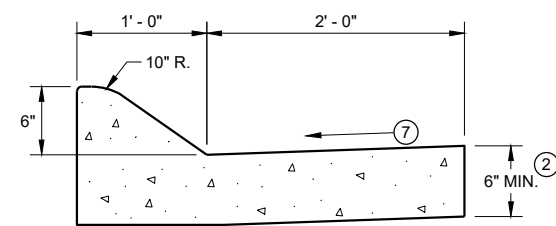
TYPES K^① & L
(OPTIONAL CURB SHAPE)



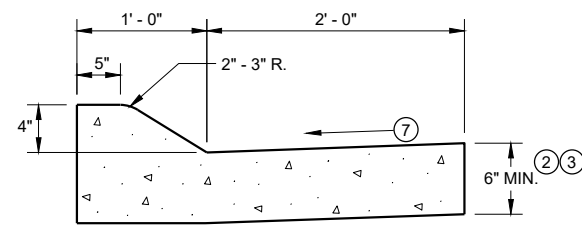
TYPES K^① & L
CONCRETE CURB AND GUTTER 30"



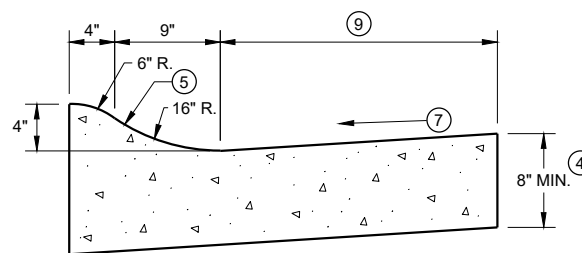
TYPES A^① & D
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A^① & D

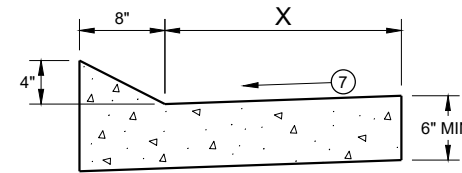


4" SLOPED CURB TYPES A^① & D
CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T

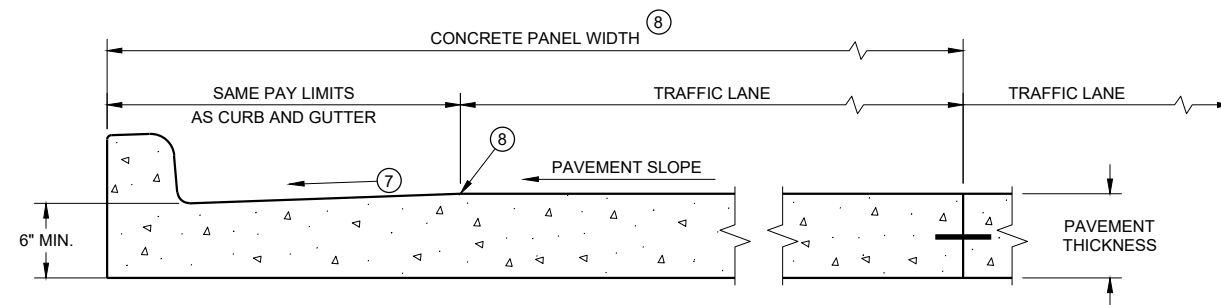
TBT & TBTT	X
30"	22"
36"	28"



TYPES TBT & TBTT^①
CONCRETE CURB AND GUTTER

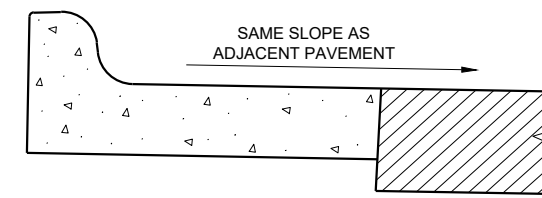
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

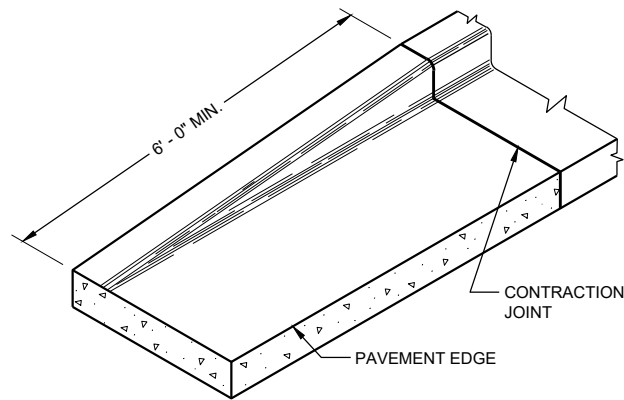
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

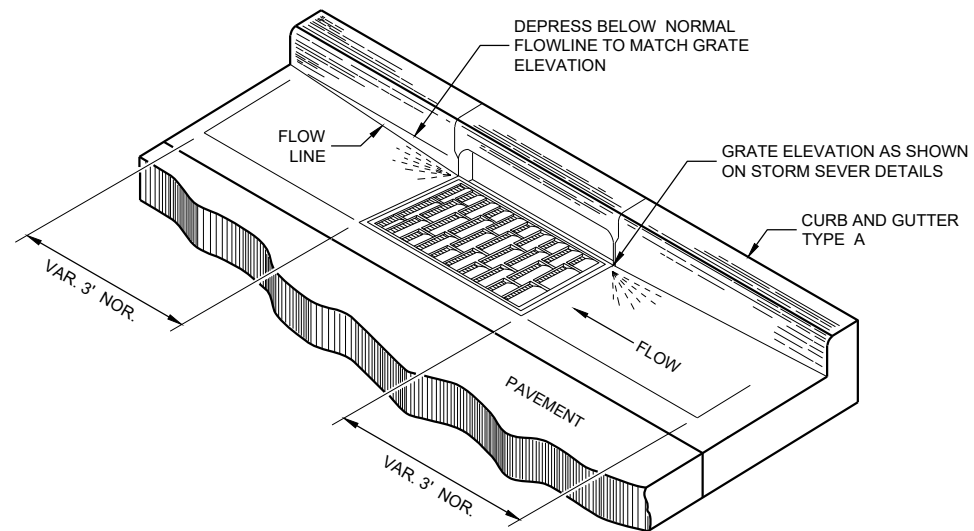
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

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



END SECTION CURB AND GUTTER



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

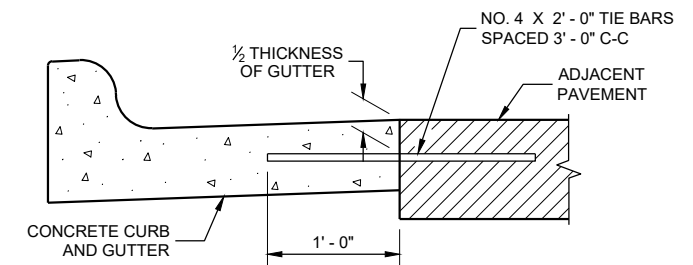
GENERAL NOTES

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

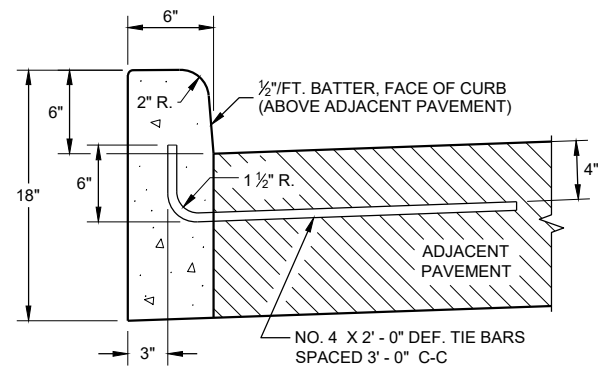
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

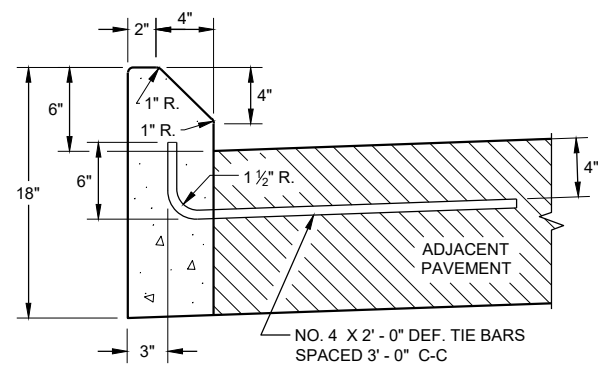
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑨ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL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



TYPICAL TIE BAR LOCATION ①

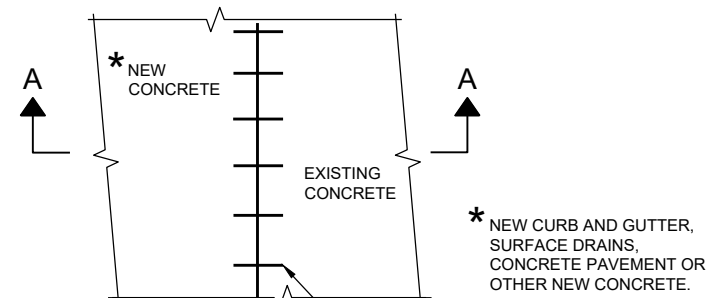


TYPES A ① & D

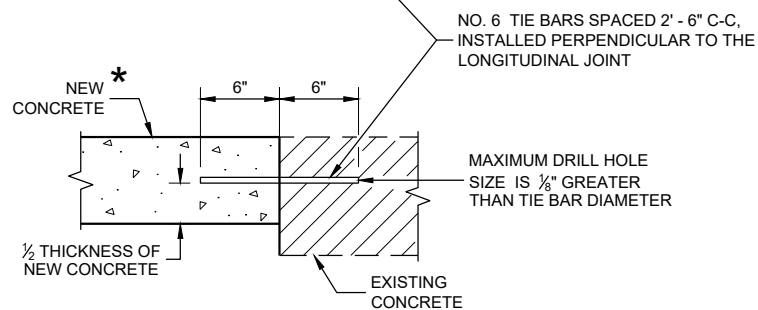


TYPES G ① & J

CONCRETE CURB

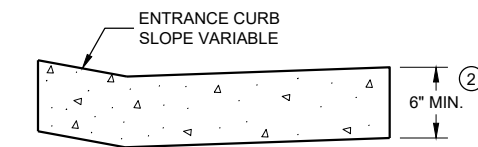


PLAN VIEW



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB ⑨
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

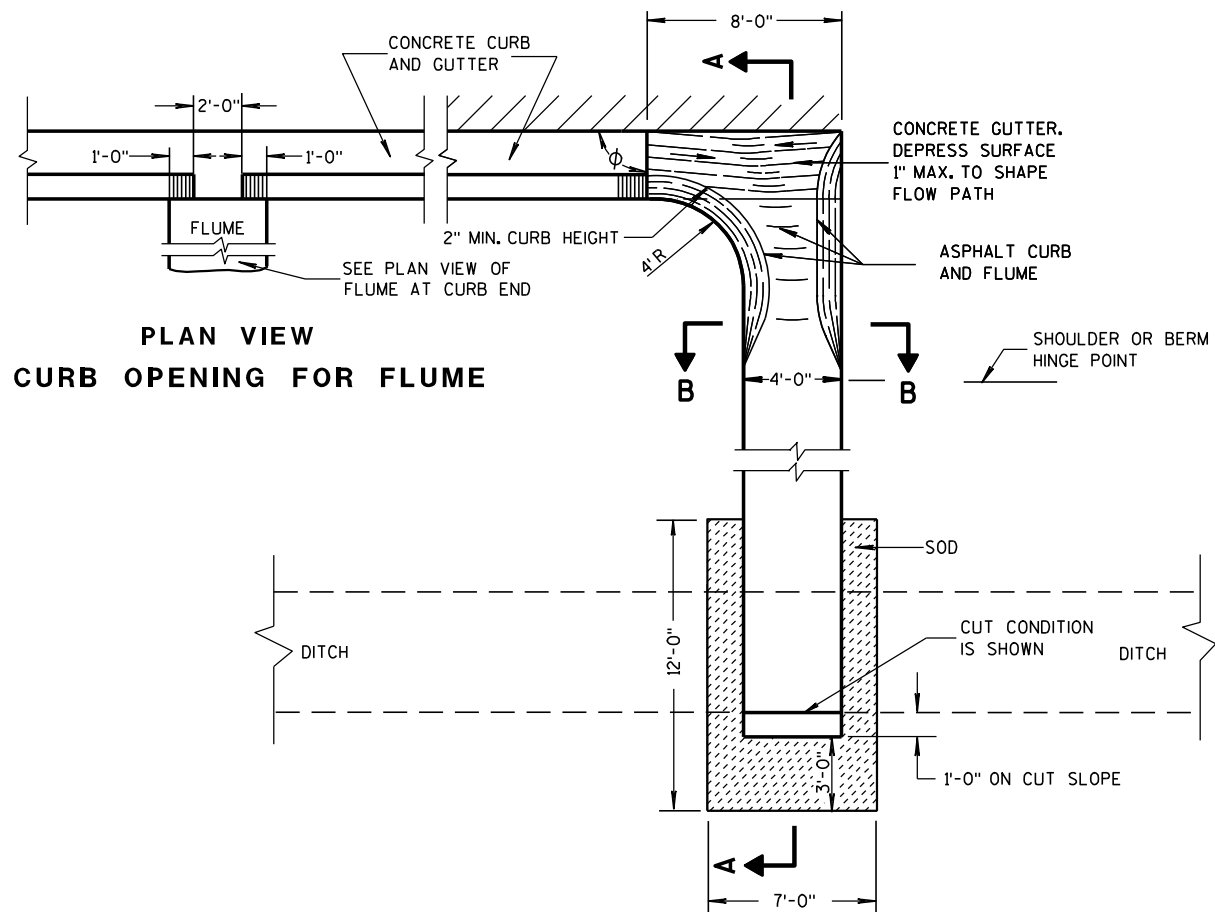
APPROVED
February 2021 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

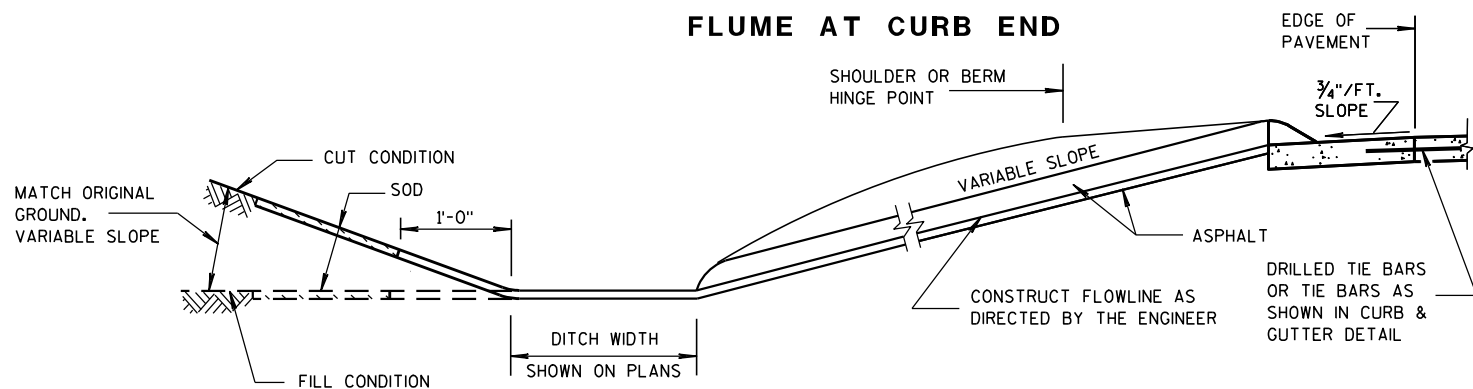
ASPHALTIC FLUME

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

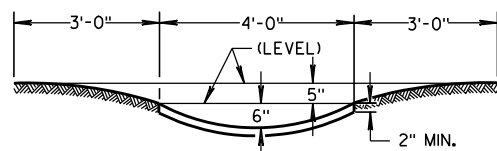
INCREASE ϕ FROM RIGHT ANGLE TO BEST FIT FIELD CONDITIONS



PLAN VIEW FLUME AT CURB END



SECTION B-B



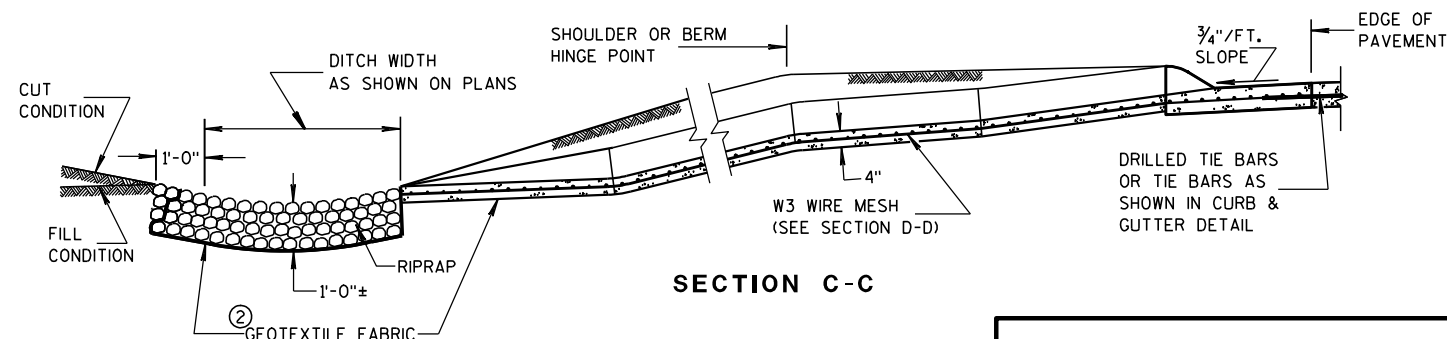
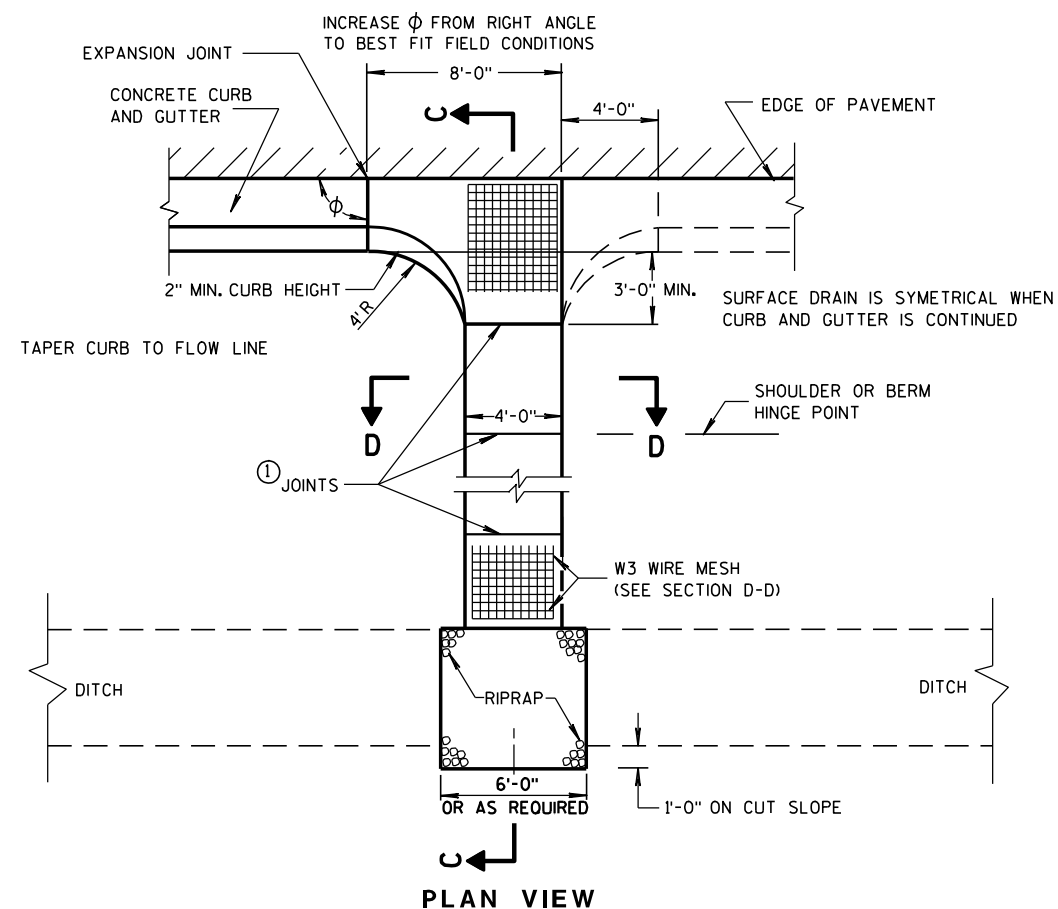
GENERAL NOTES

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

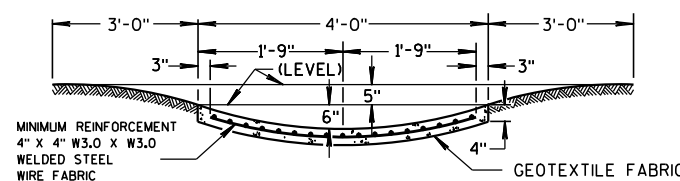
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

- ① JOINTS SHALL BE 1/8 TO 1/4 INCH WIDE BY 1 1/2 INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

③ CONCRETE SURFACE DRAIN



SECTION D-D

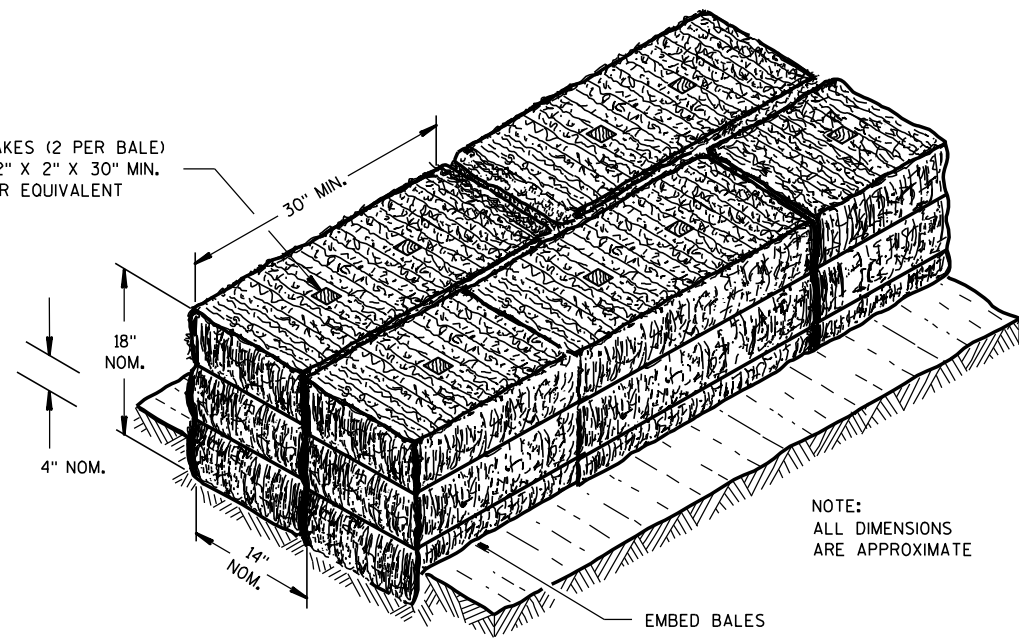


CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

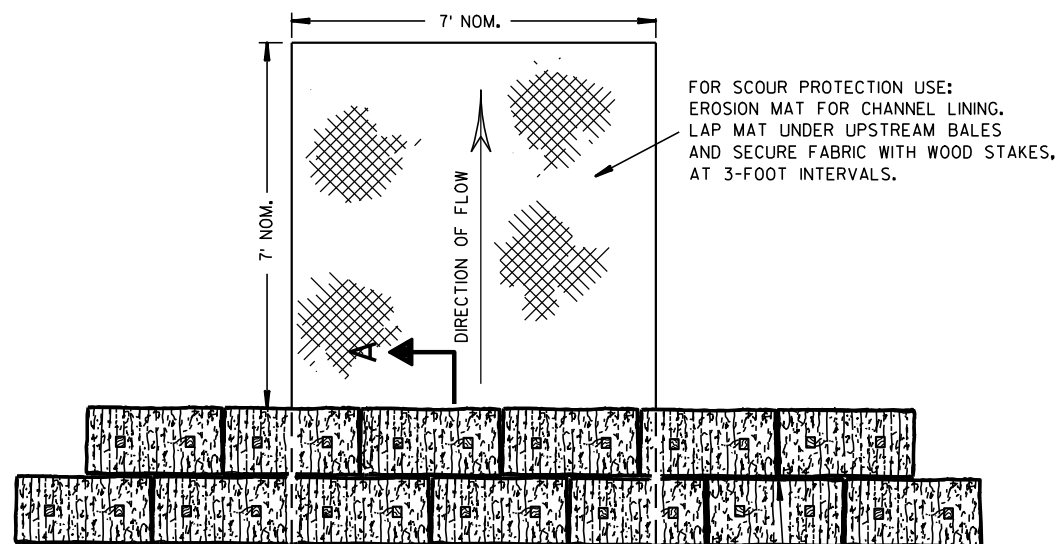
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

EMBED BALES

SECTION A-A

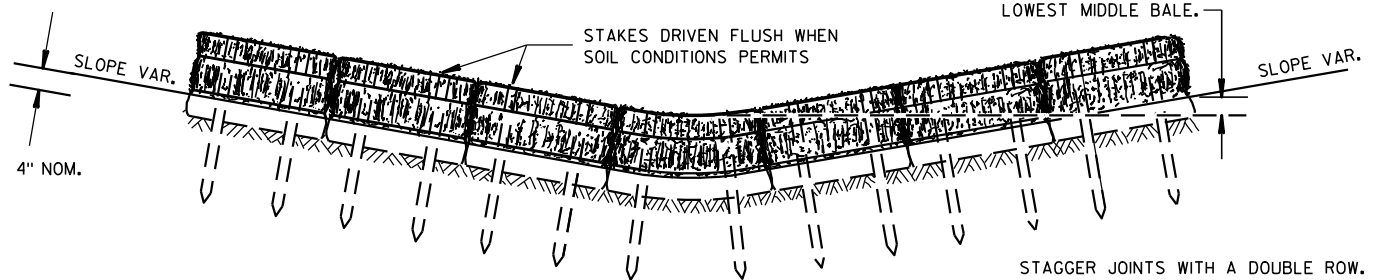


FOR SCOUR PROTECTION USE:
EROSION MAT FOR CHANNEL LINING.
LAP MAT UNDER UPSTREAM BALES
AND SECURE FABRIC WITH WOOD STAKES,
AT 3-FOOT INTERVALS.

STAGGER JOINTS BETWEEN ADJACENT
ROWS OF BALES.

PLAN VIEW

BOTTOM ELEVATION OF END BALE SHALL
BE EQUAL TO OR GREATER THAN TOP OF
LOWEST MIDDLE BALE.



FRONT ELEVATION

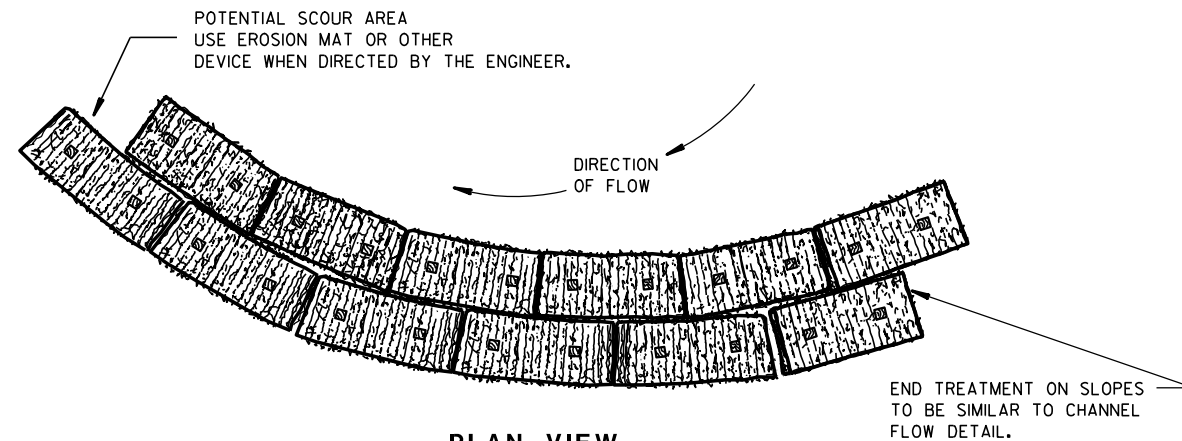
STAGGER JOINTS WITH A DOUBLE ROW.

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

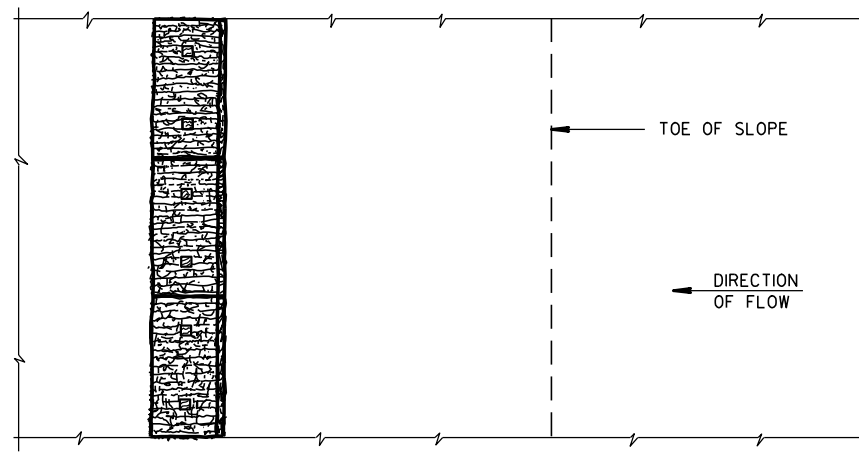
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

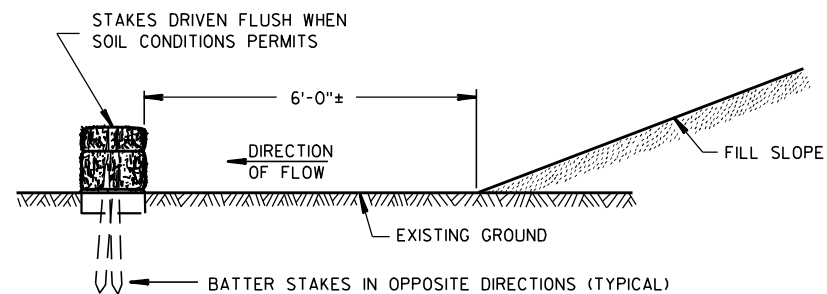


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

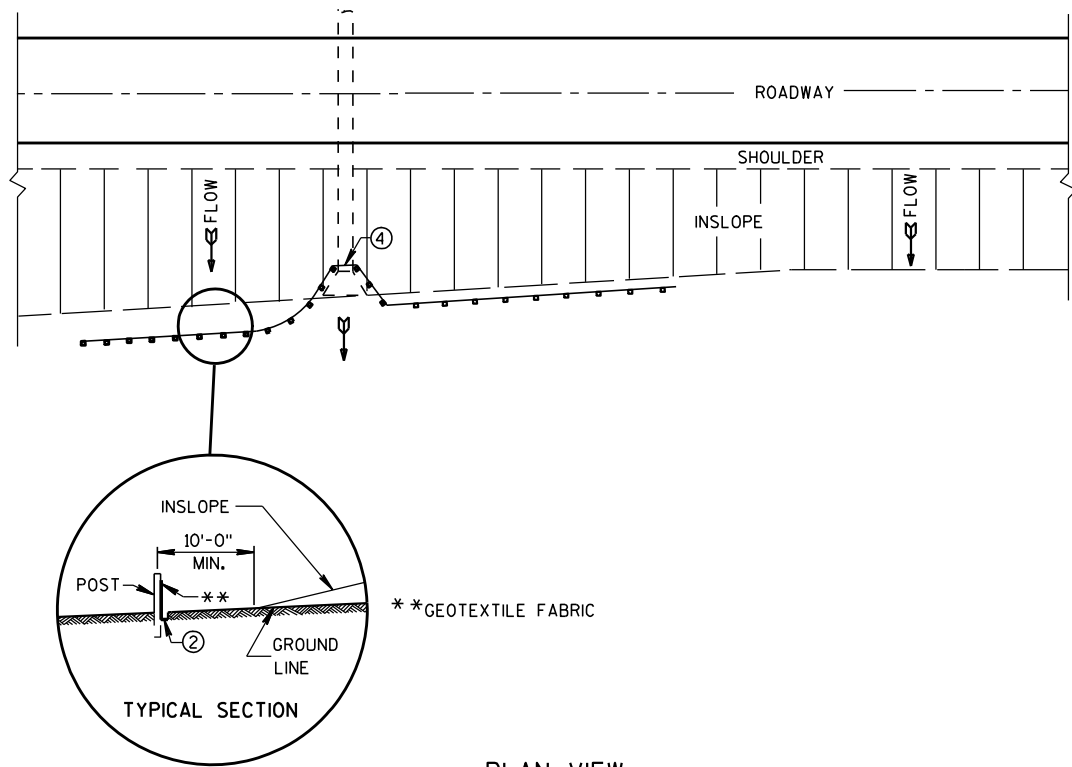
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

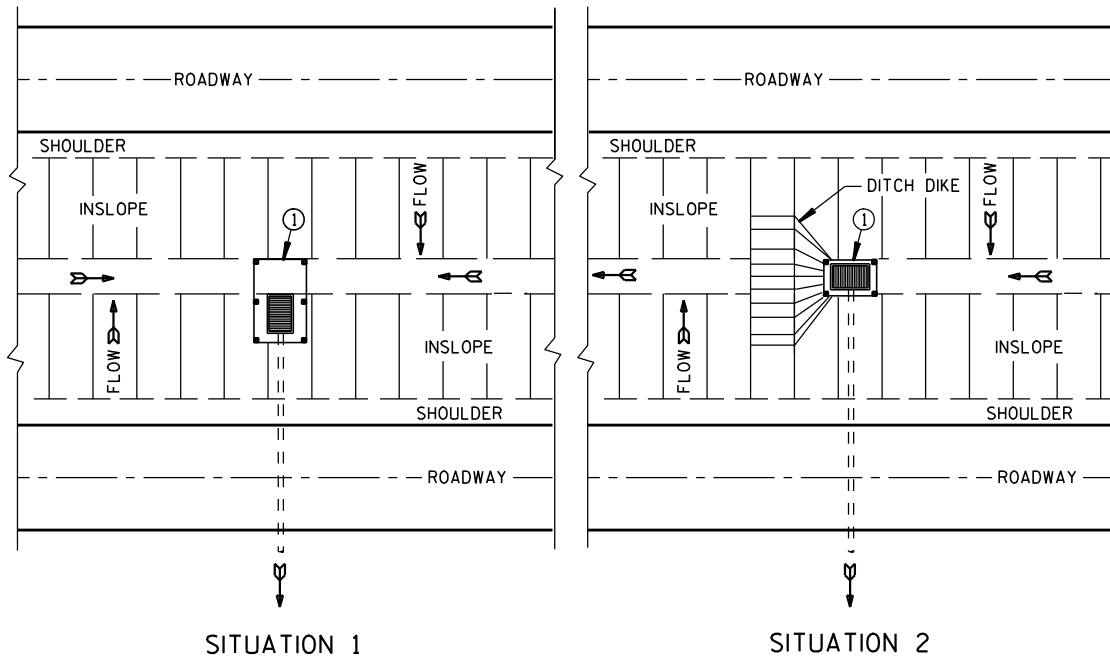
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

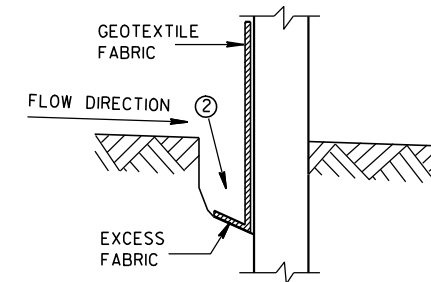


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

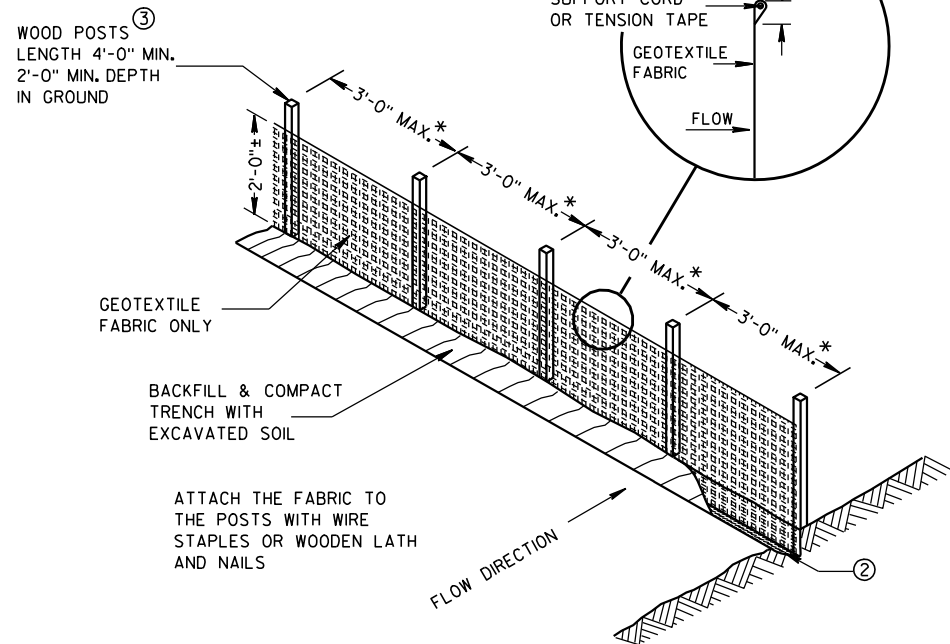
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



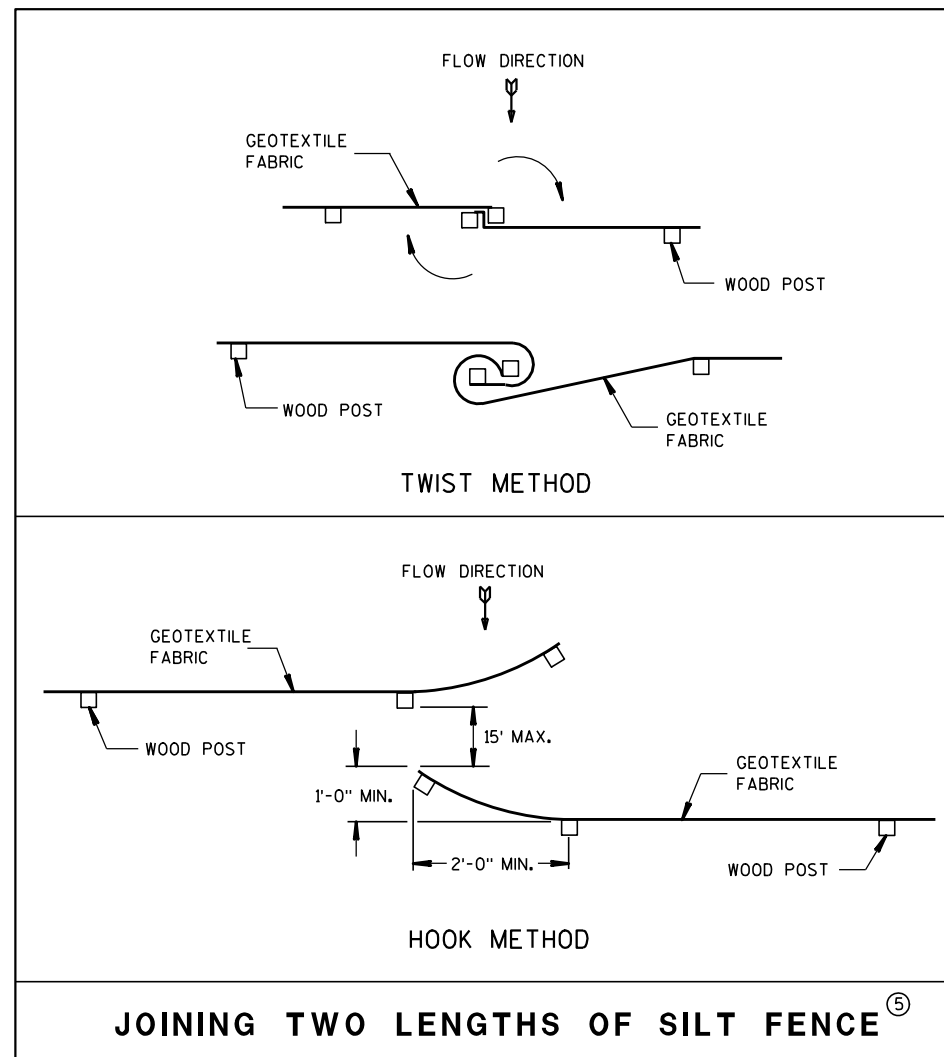
TRENCH DETAIL

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

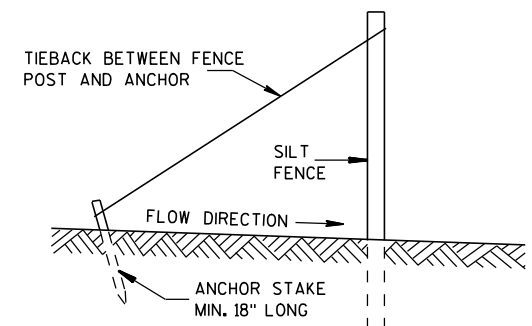


SILT FENCE

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



JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

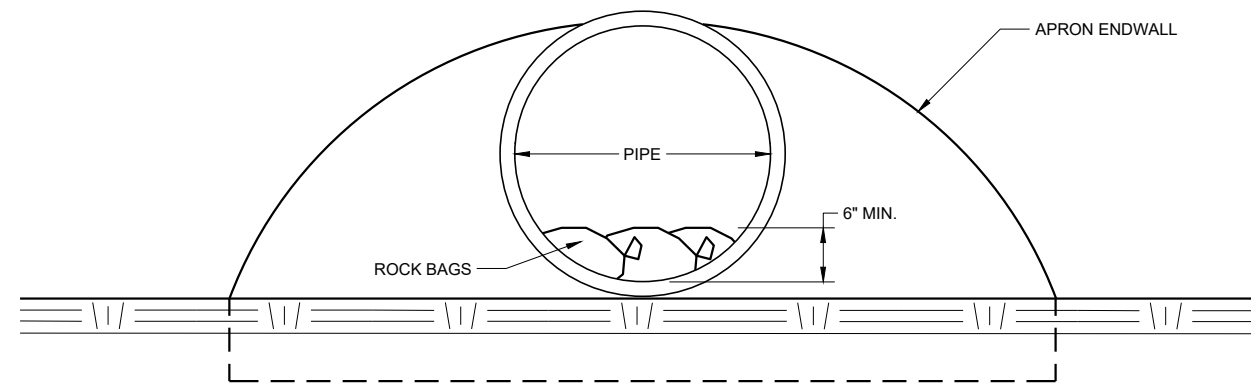
APPROVED

4-29-05

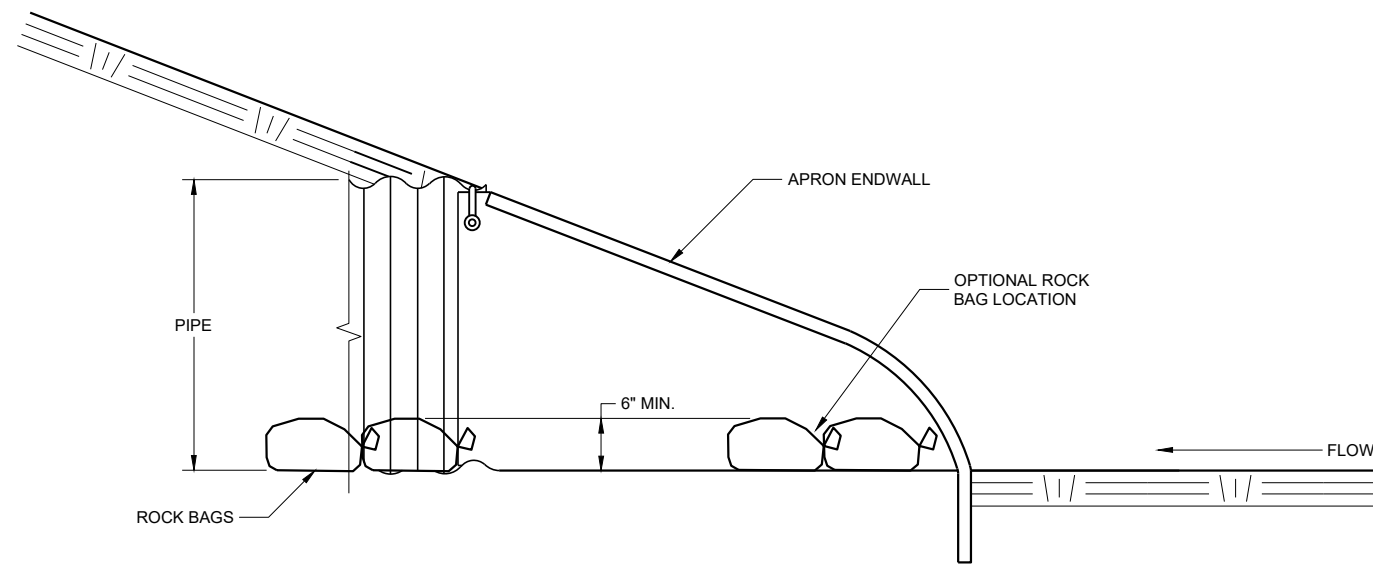
DATE

FHWA

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



END VIEW



SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

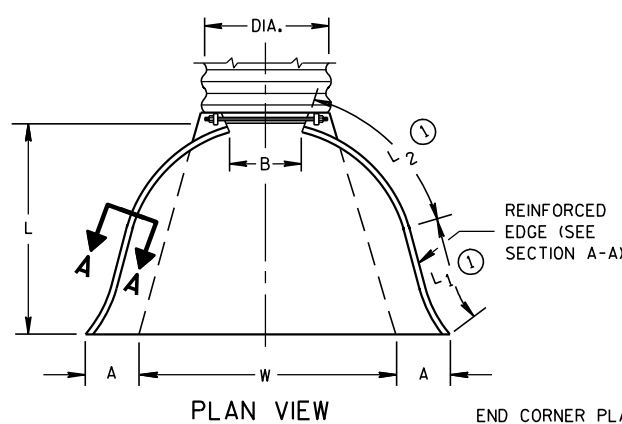
FHWA

METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1	L2	W (±2")		
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	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

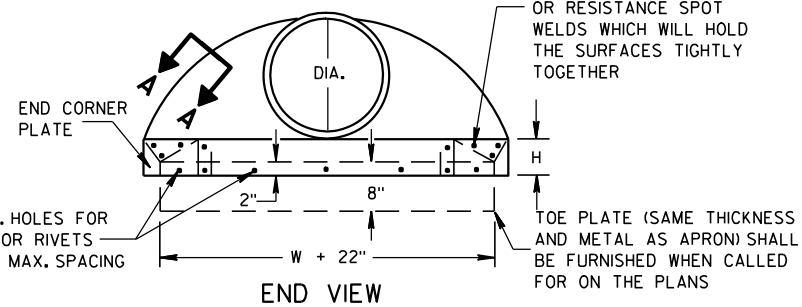
* EXCEPT CENTER PANEL SEE GENERAL NOTES

REINFORCED CONCRETE APRON ENDWALLS									
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE	
	T	A	B	C	D	E	G		
12	2	4	24	48 1/8	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 1/2 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	

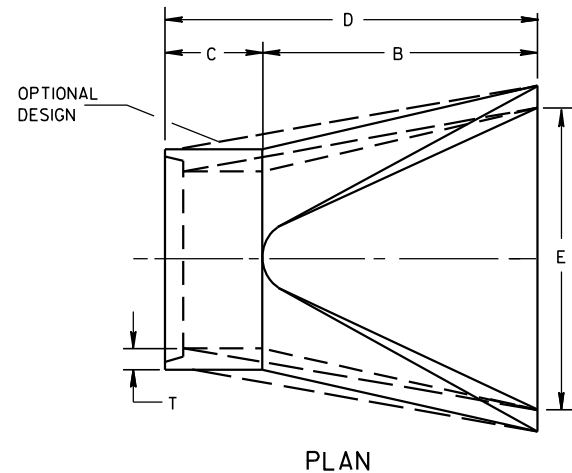
* MINIMUM
** MAXIMUM



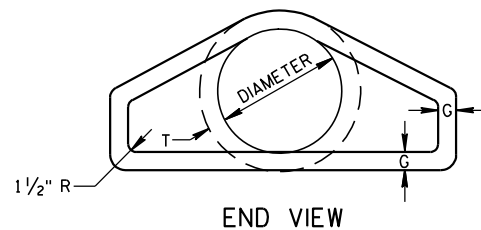
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



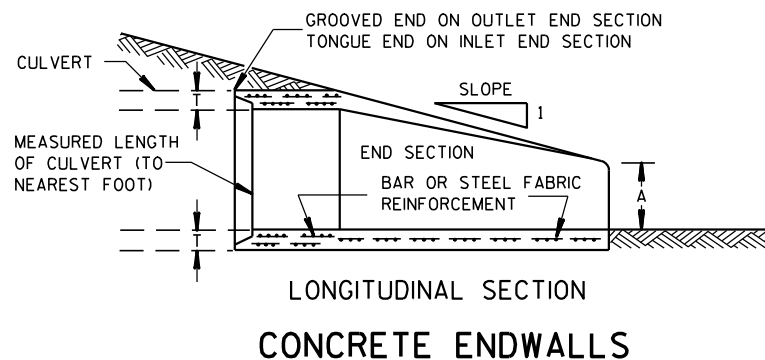
SIDE ELEVATION
METAL ENDWALLS



PLAN

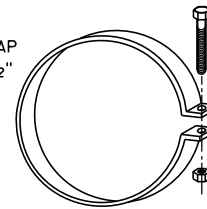


END VIEW

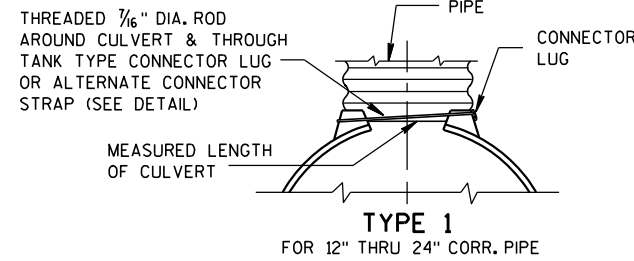


LONGITUDINAL SECTION
CONCRETE ENDWALLS

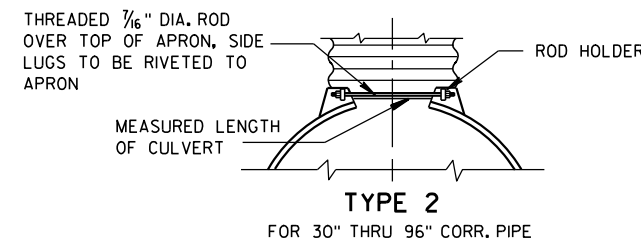
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



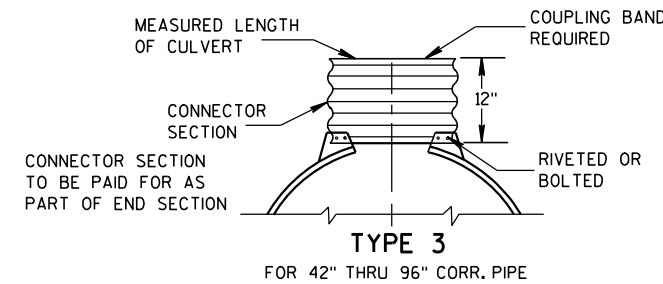
ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



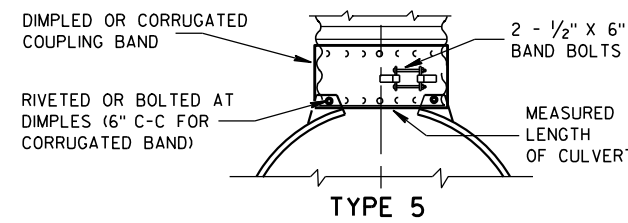
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

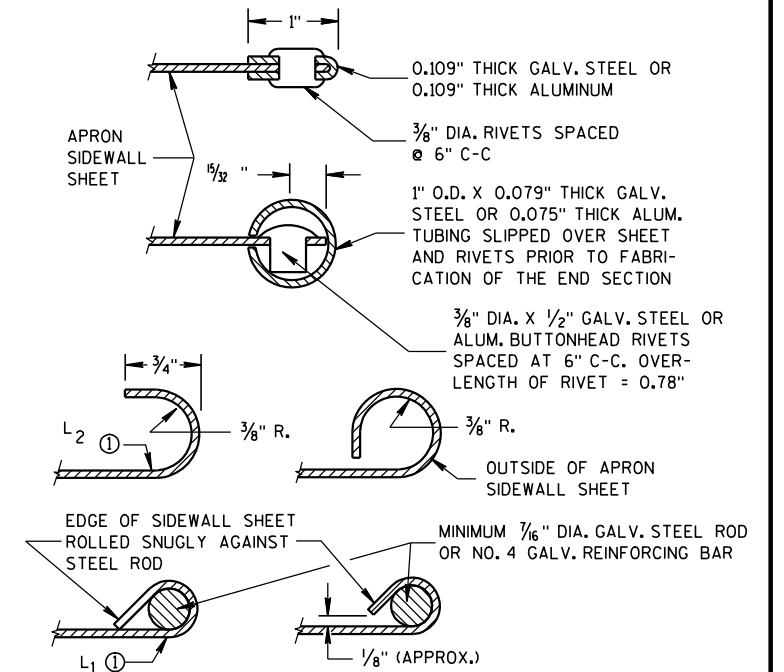
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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 VICE 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.

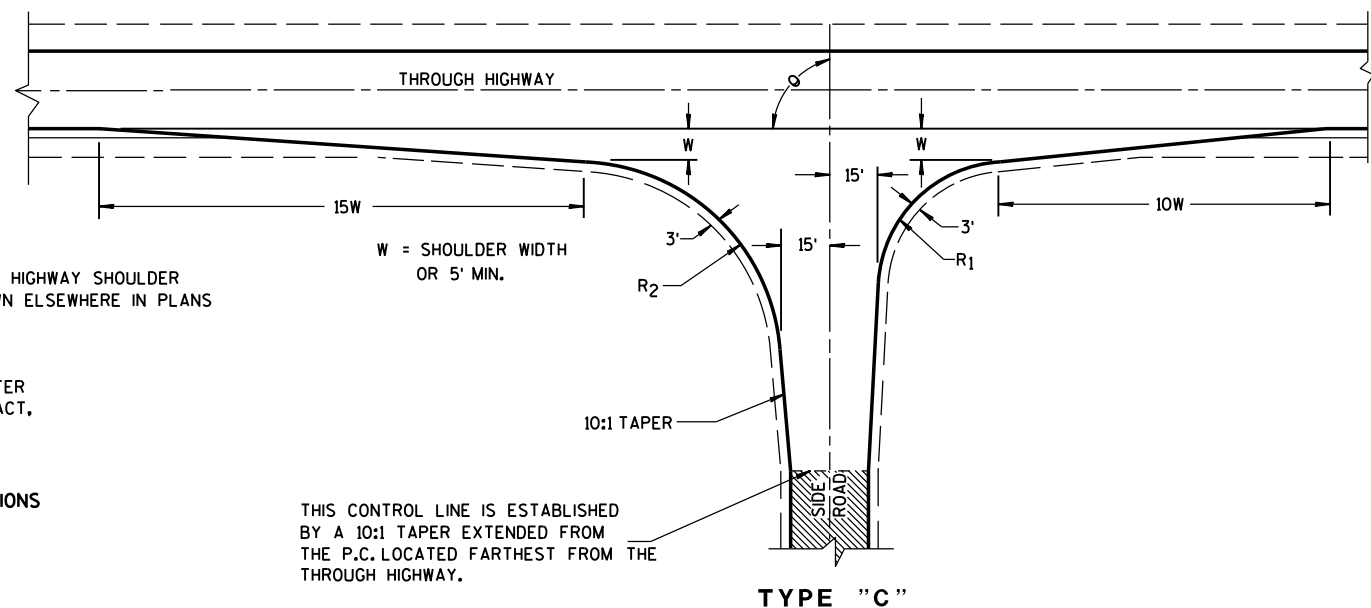
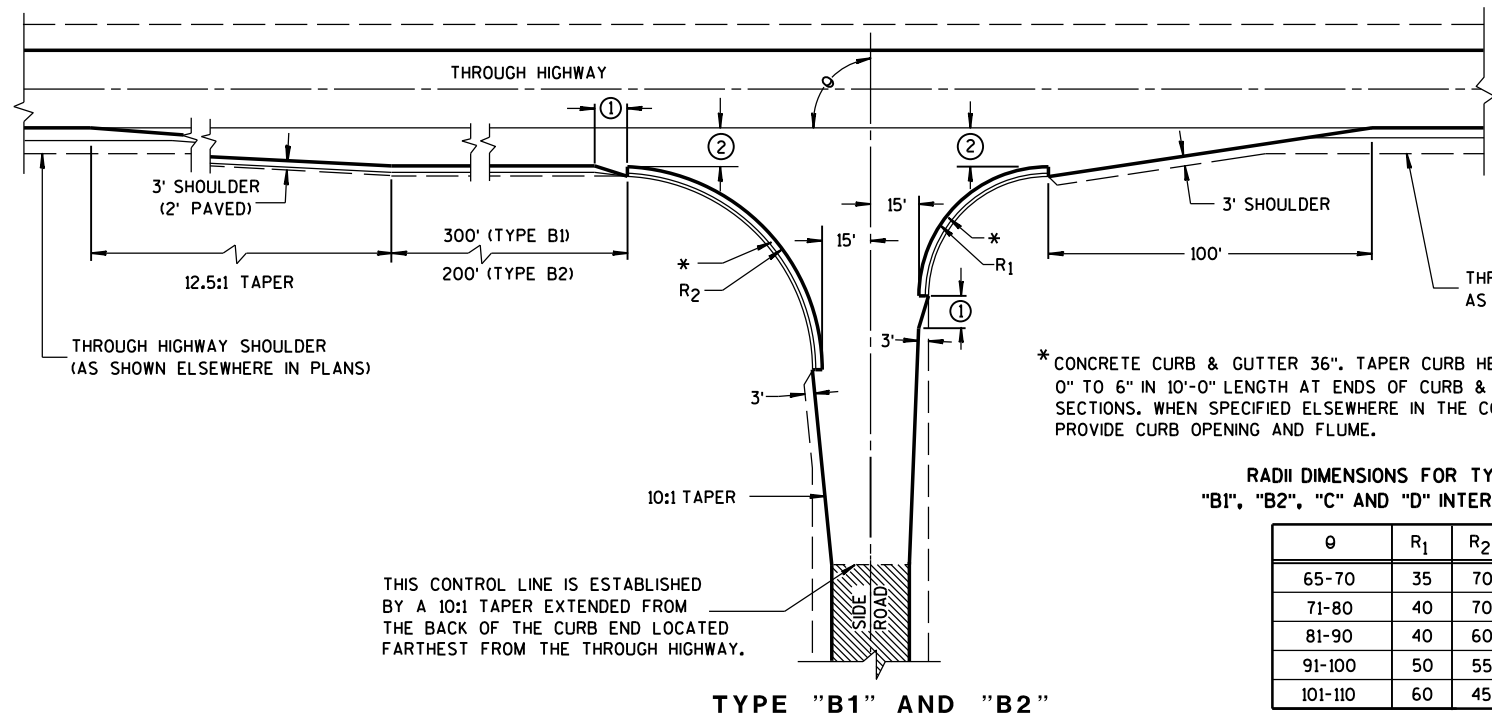
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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 /S/ Rory L. Rhinesmith
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



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

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

GENERAL NOTES

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

SIDE ROAD SURFACING NOTE

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

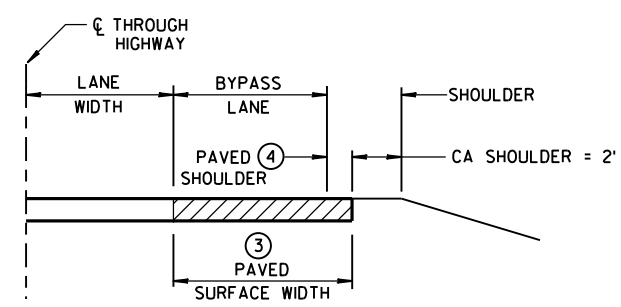
WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

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

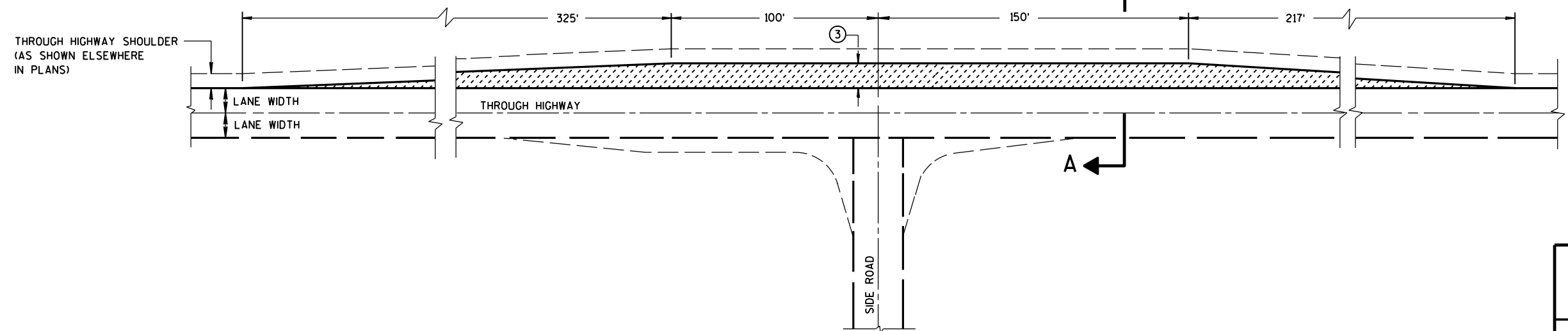
- EXISTING PAVED SURFACE
- BYPASS LANE

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

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

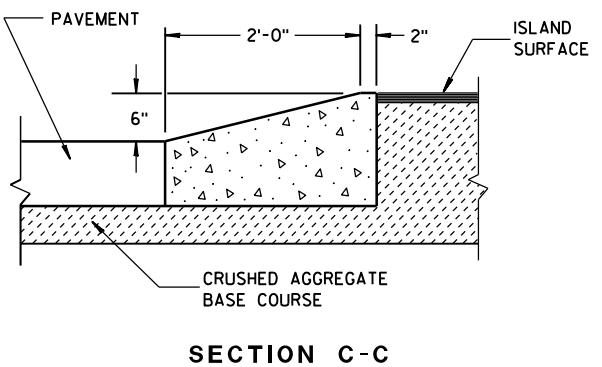
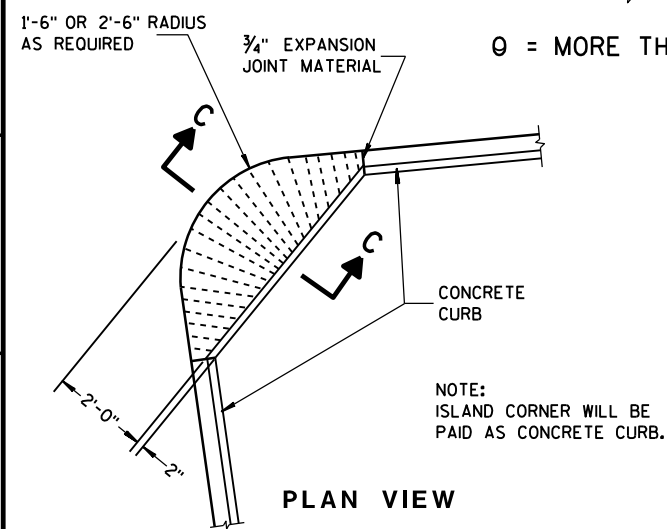
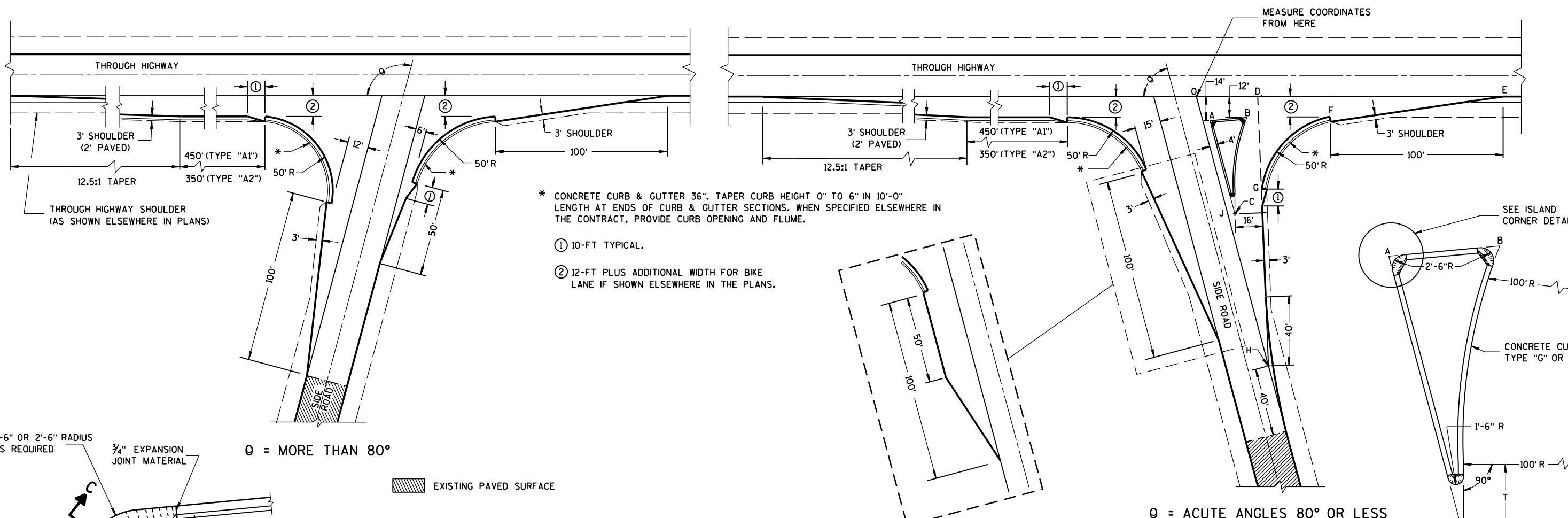


SECTION A-A (SHOWING BYPASS LANE AND SHOULDER)



TEE INTERSECTION BYPASS LANE DETAIL

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



SIDE ROAD WIDENING AND TAPER REQUIRED WHERE THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC

$\theta =$ ACUTE ANGLES 70° OR LESS

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

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

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

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

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

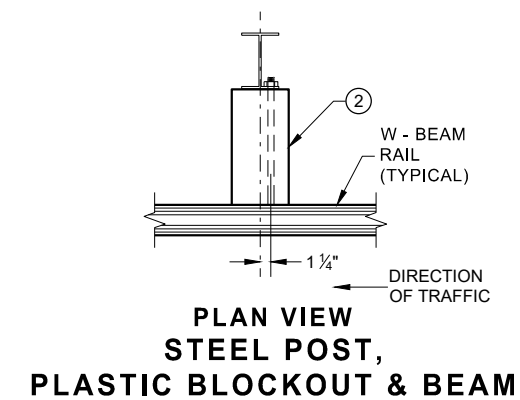
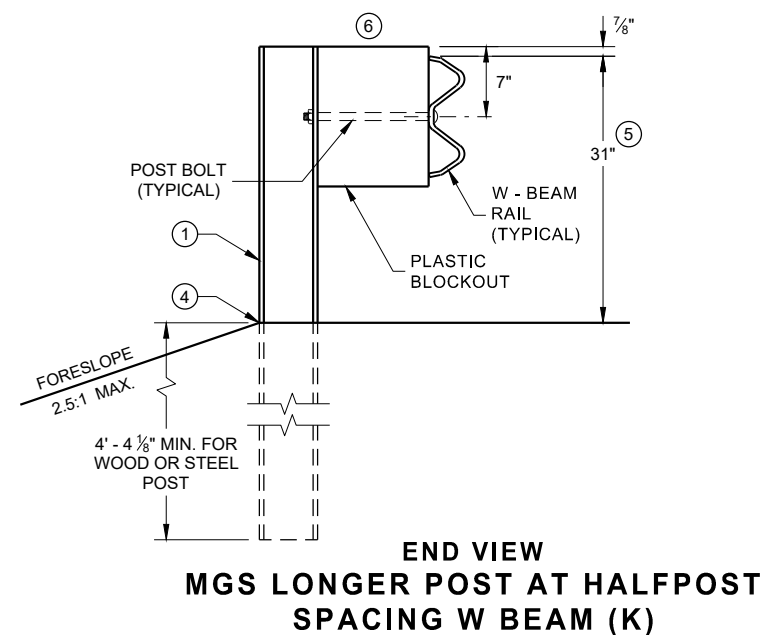
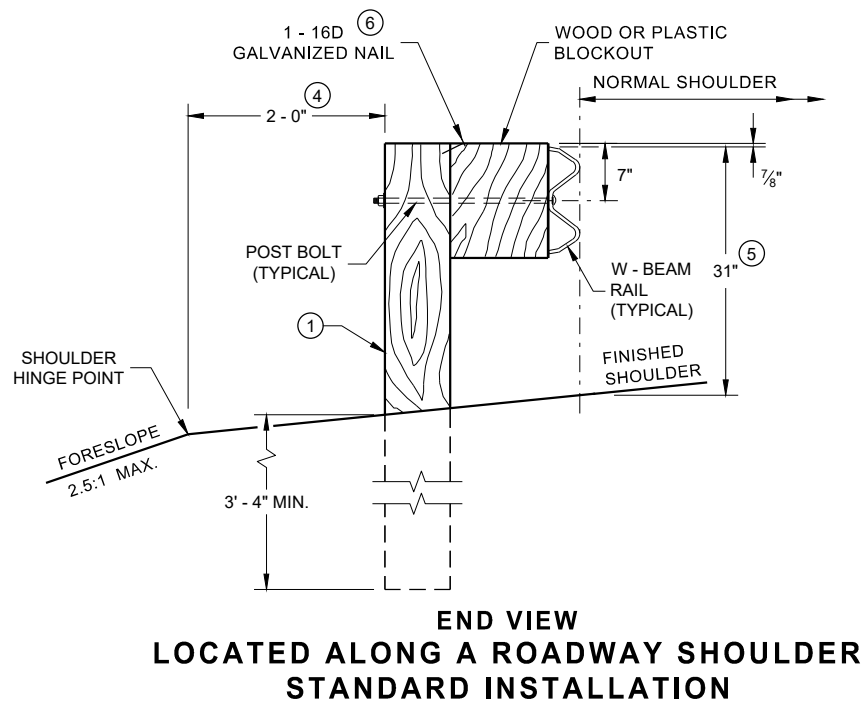
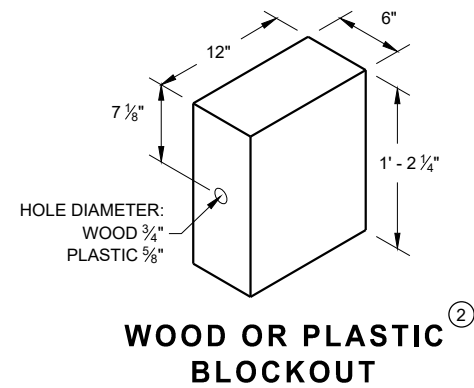
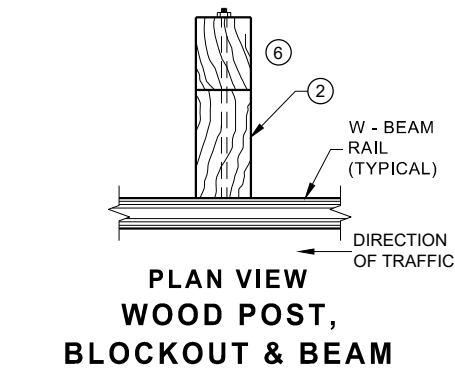
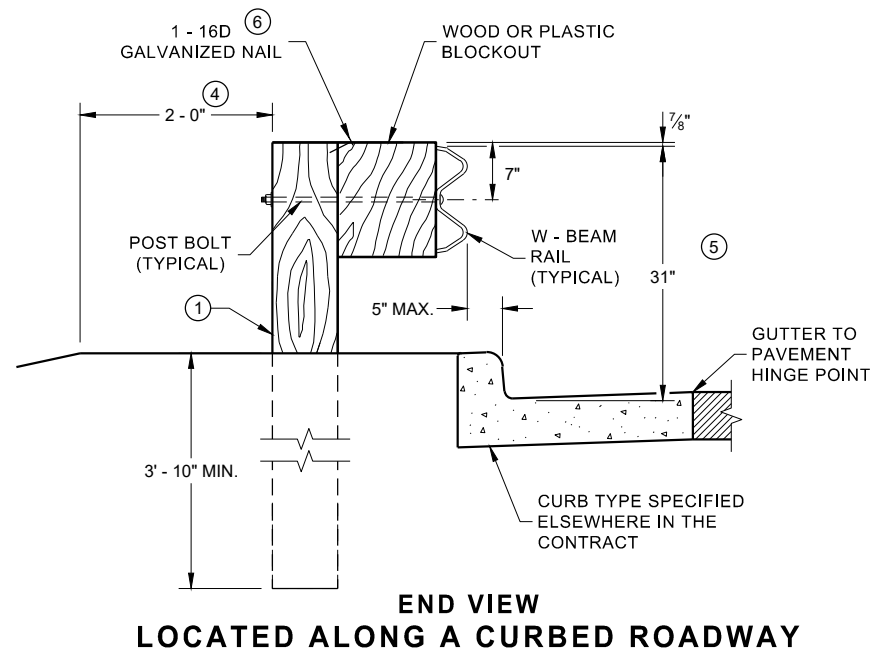
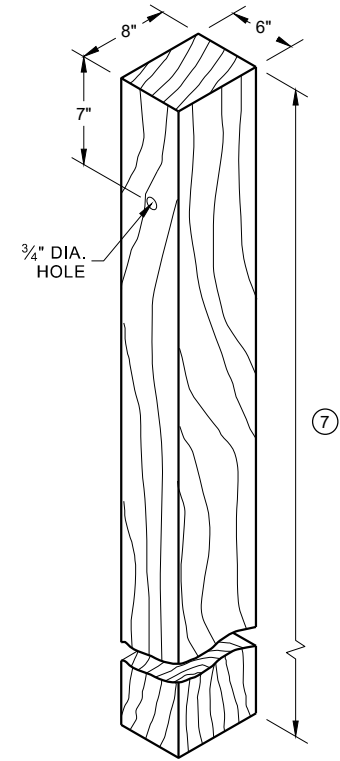
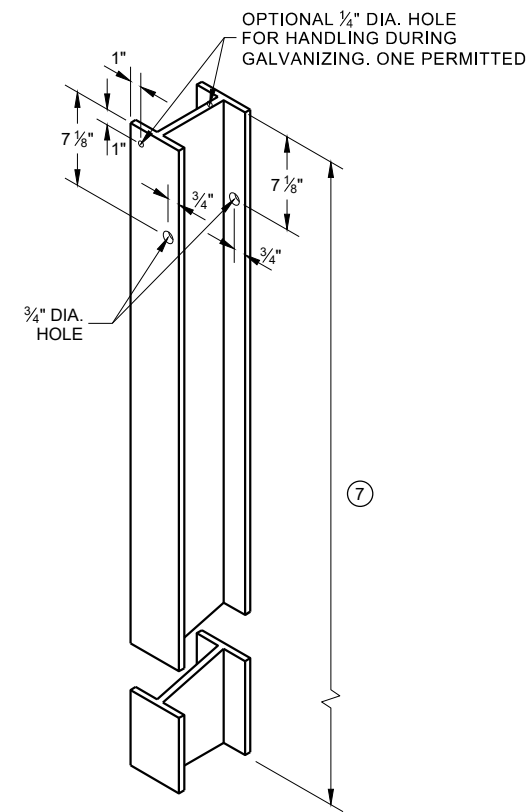
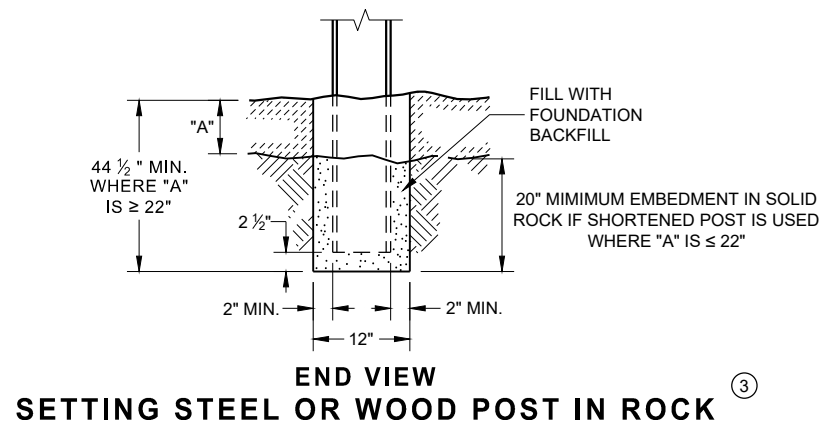
APPROVED 12/18/12 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

S.D.D. 9 A 1-13b

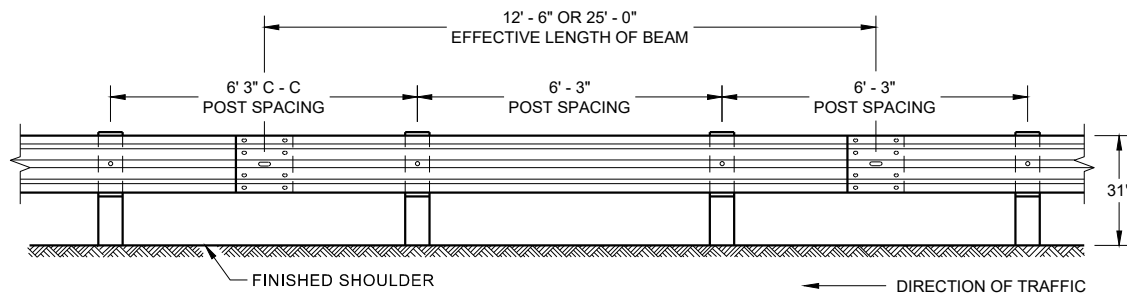
S.D.D. 9 A 1-13b

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

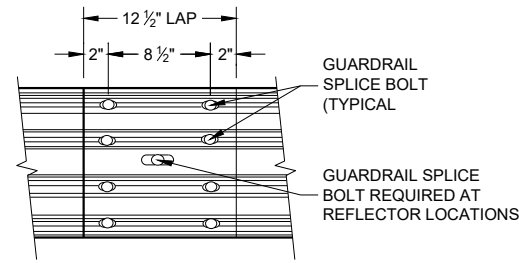


**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



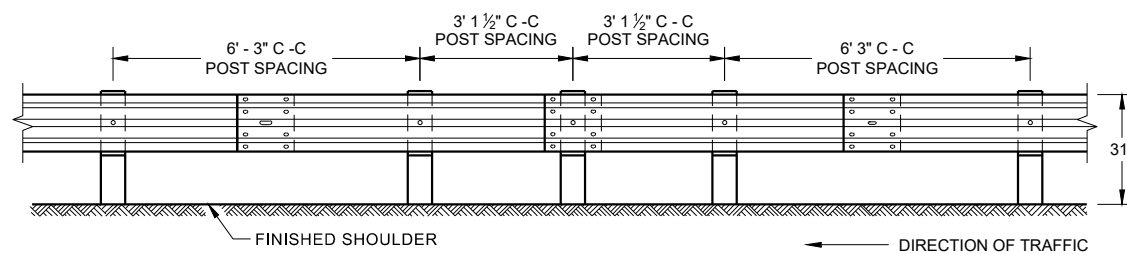
**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



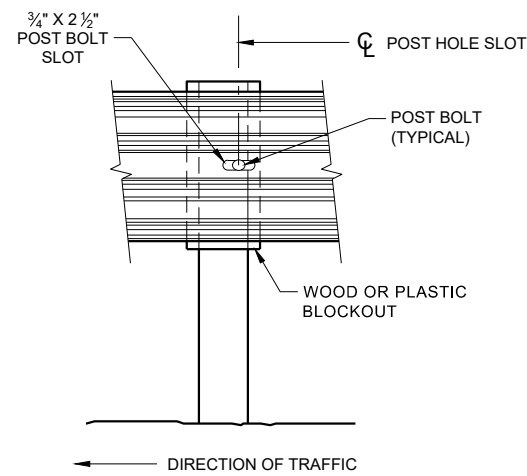
**FRONT VIEW
MID-SPAN BEAM SPLICE**

GENERAL NOTES

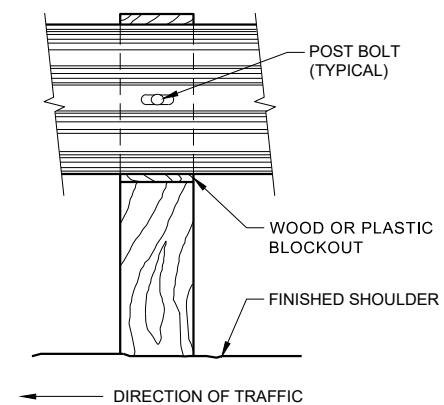
- ⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
 - ⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.
- POST BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/4" DIAMETER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



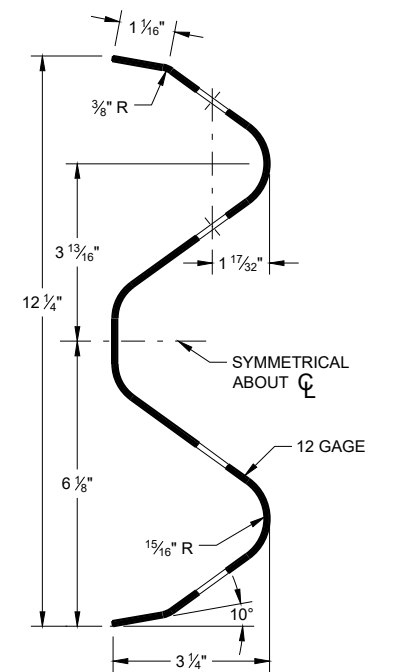
**FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)**



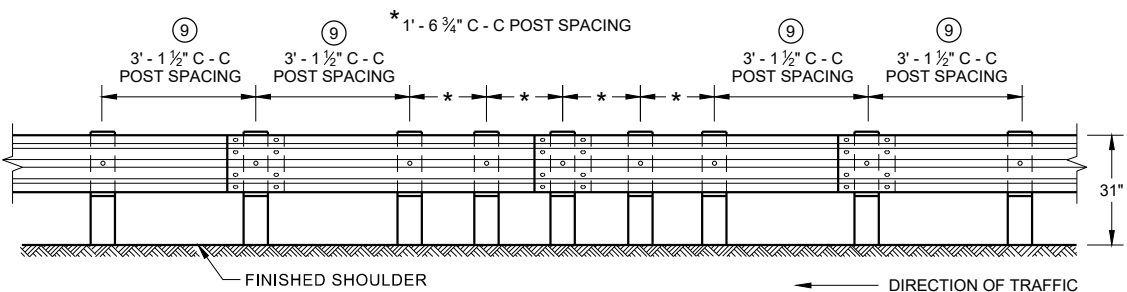
FRONT VIEW AT STEEL POST



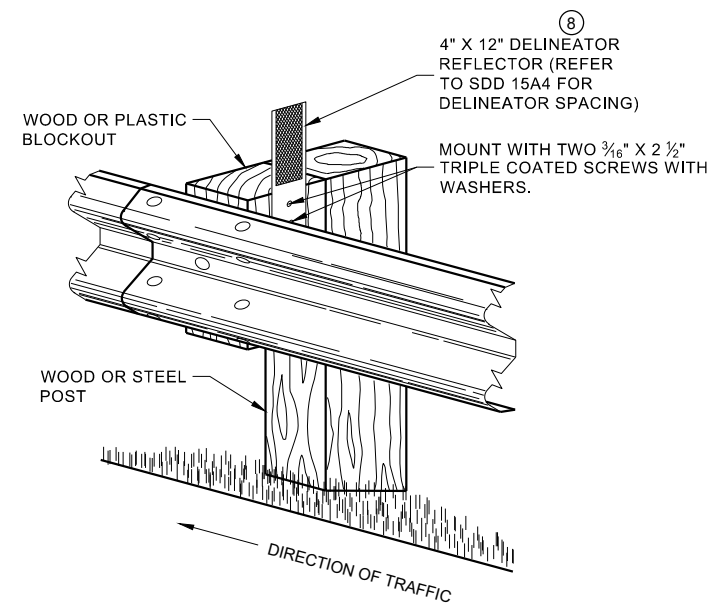
FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



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



**ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION**

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

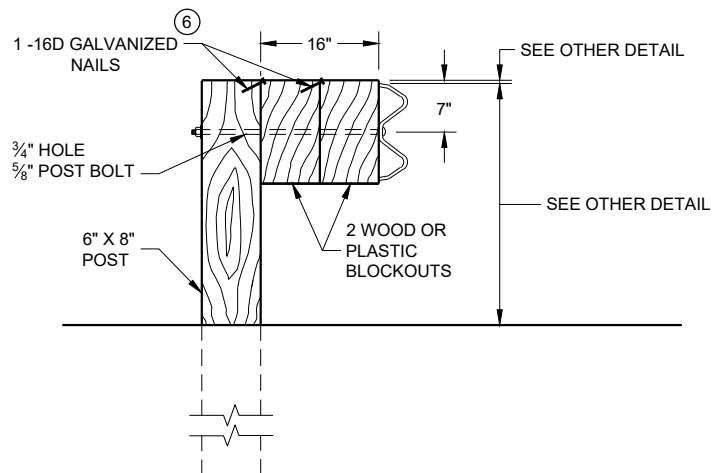
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

6

SDD 14B42 - 07b

SDD 14B42 - 07b

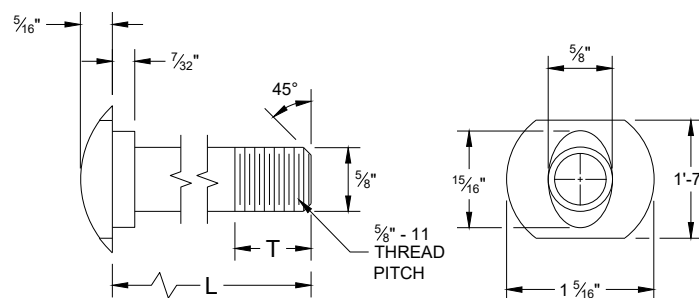


DETAIL FOR 16" BLOCKOUT DEPTH

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.

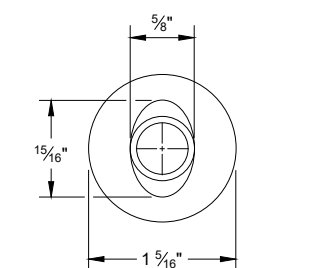
NOTE:

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

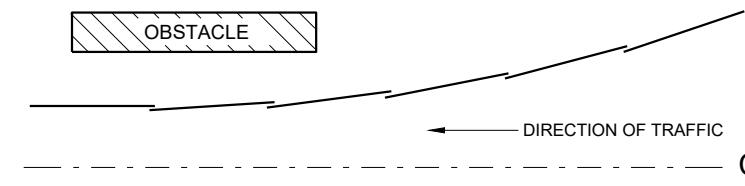


POST BOLT TABLE

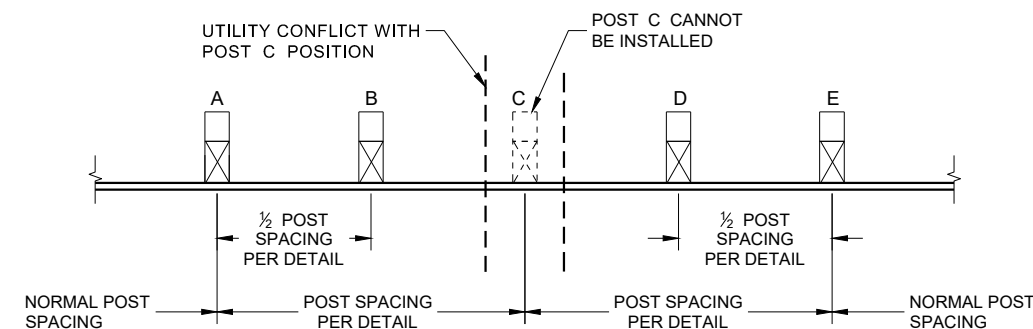
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



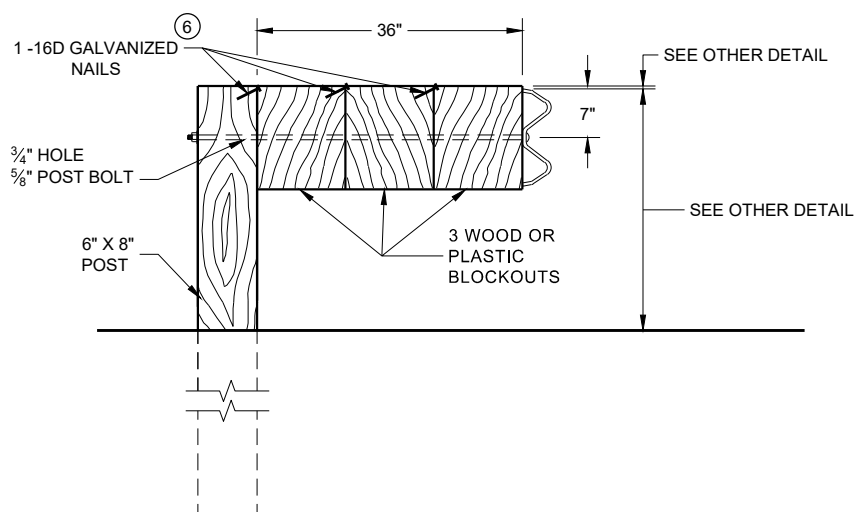
ALTERNATE BOLT HEAD



**PLAN VIEW
BEAM LAPPING DETAIL**

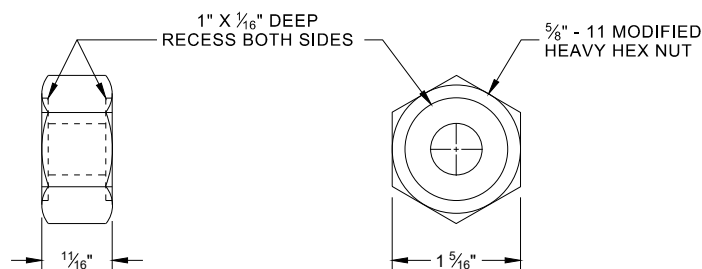


**POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION**

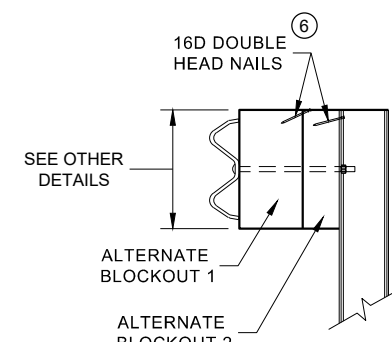


DETAIL FOR 36" BLOCKOUT DEPTH

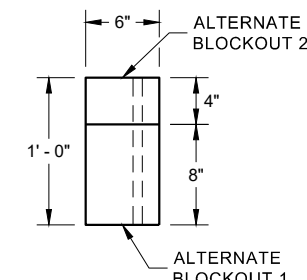
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



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



SIDE VIEW



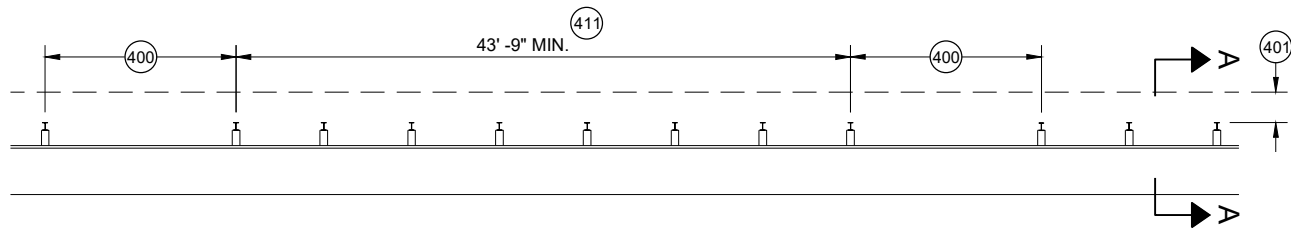
PLAN VIEW

**ALTERNATE WOOD
BLOCKOUT DETAIL**

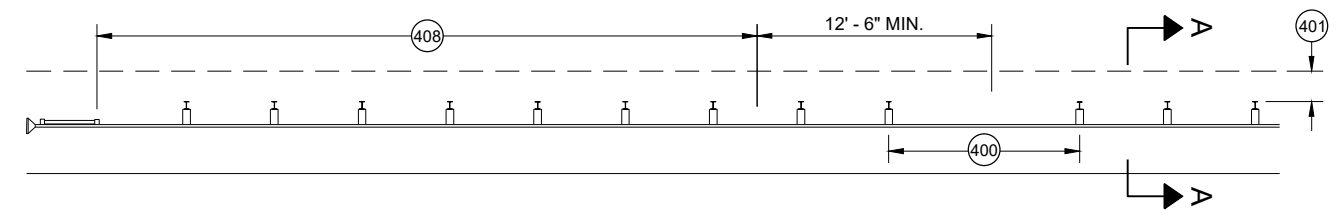
6 WHEN USING STEEL POST AND WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

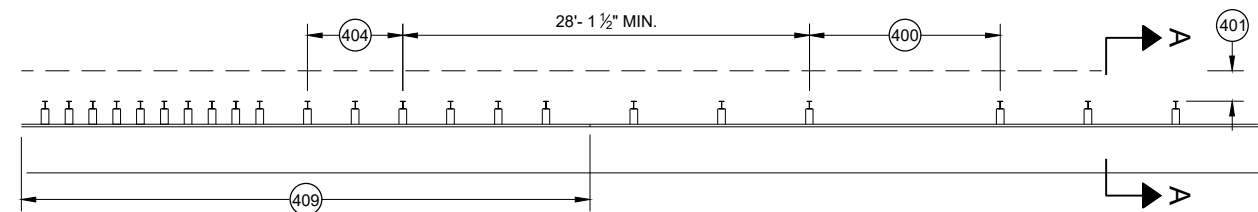
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



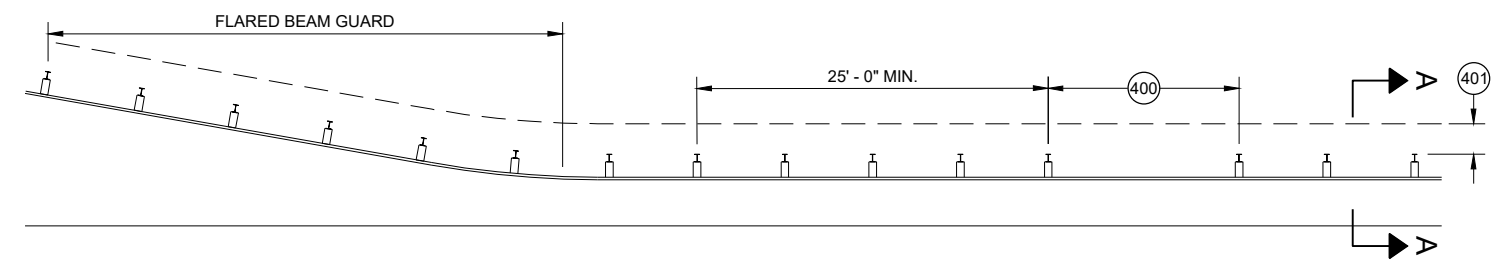
MISSING POST IN MGS GUARDRAIL



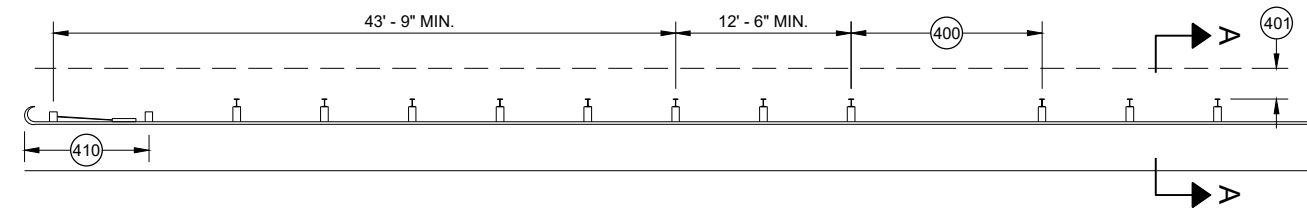
MISSING POST IN MGS GUARDRAIL NEAR EAT



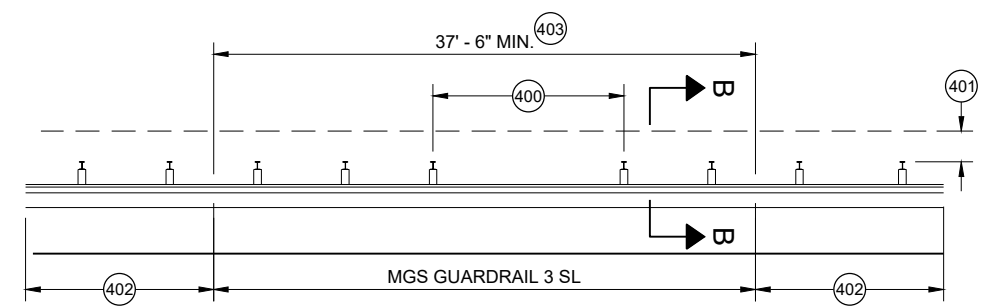
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

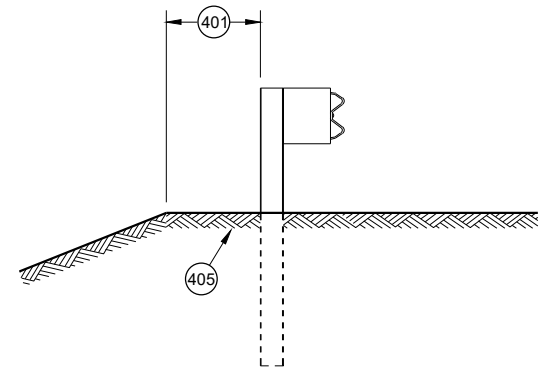


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

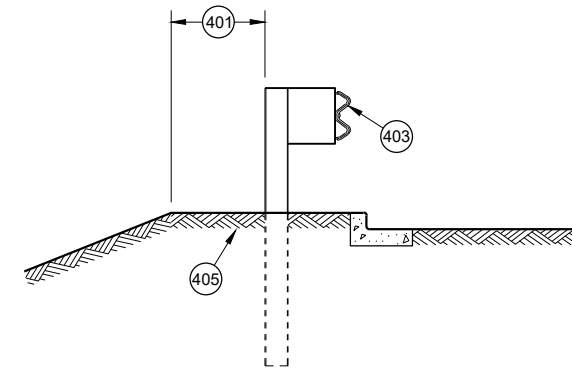


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL)

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



SECTION A - A



SECTION B - B

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

GENERAL NOTES

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

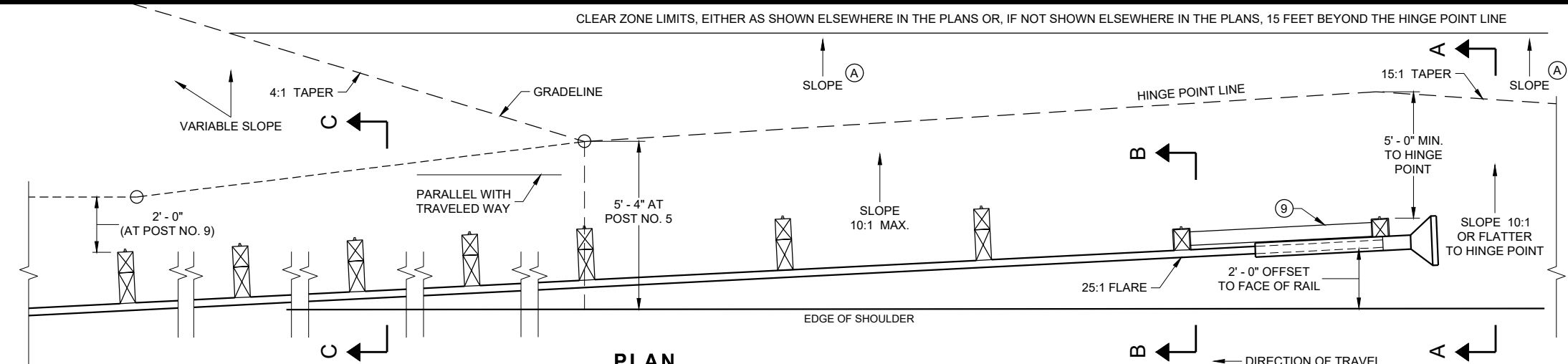
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

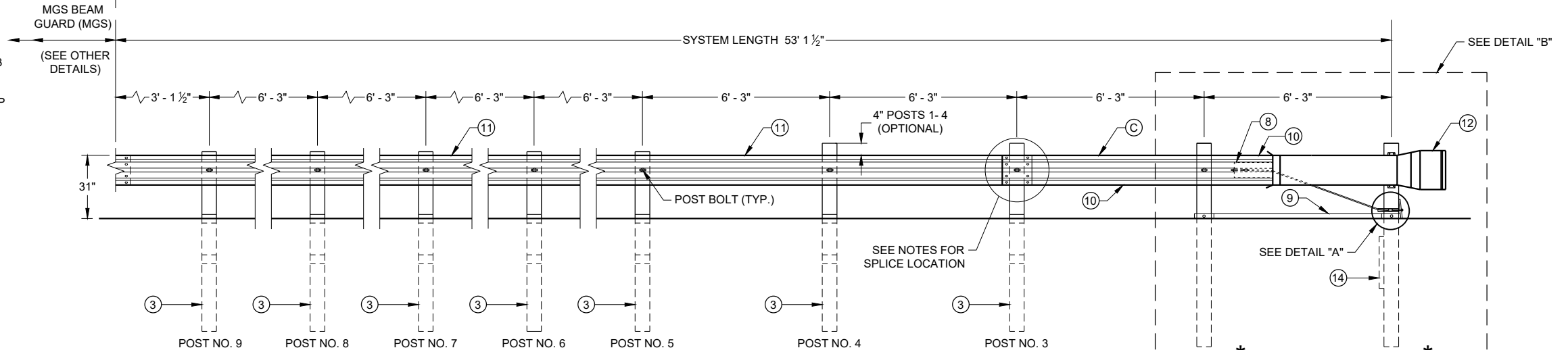
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

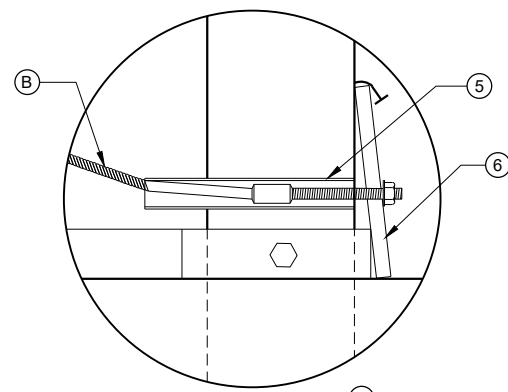
THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



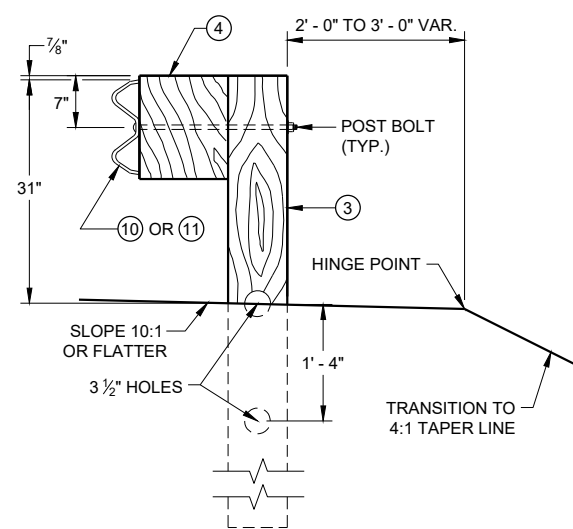
PLAN



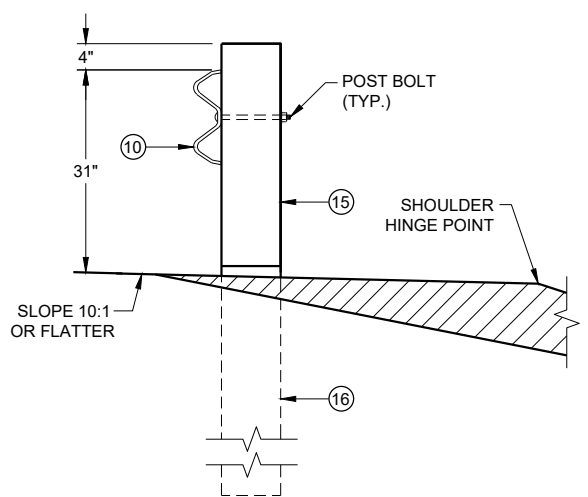
ELEVATION



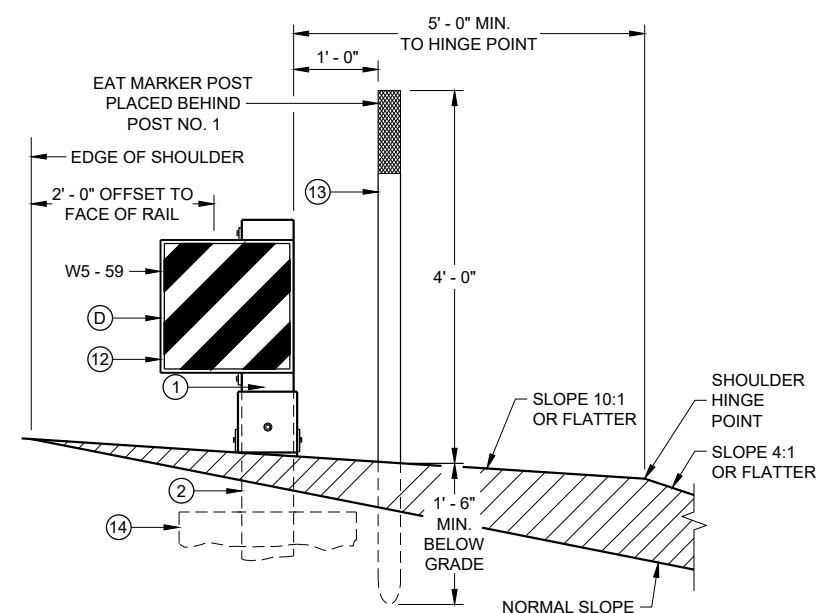
DETAIL "A"



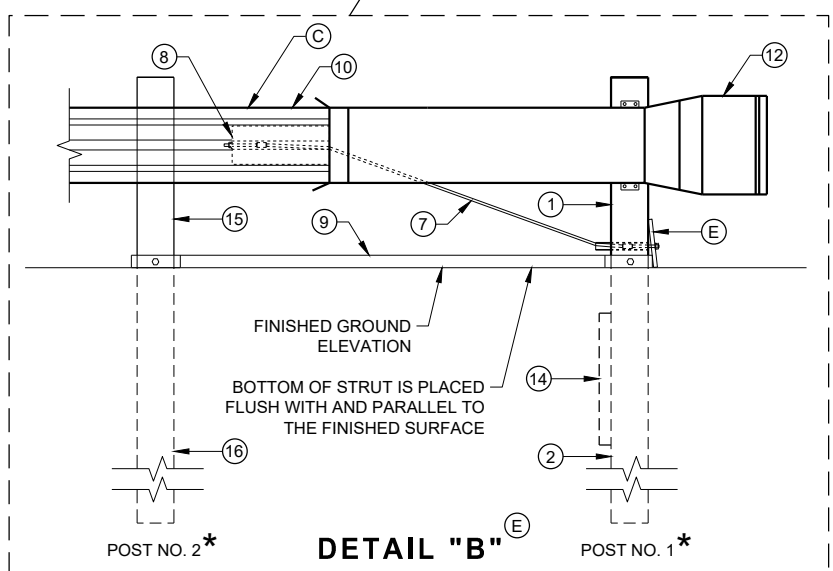
**SECTION C - C
TYPICAL AT POST NOS. 3 - 9**



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



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



DETAIL "B"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

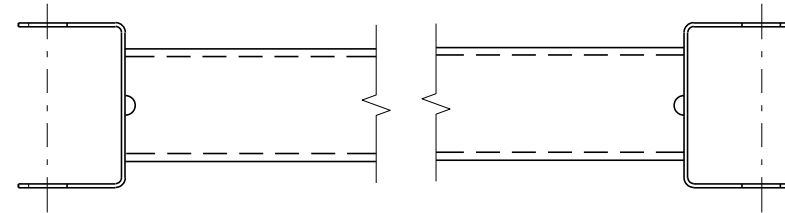
6

SDD 14B44 - 04a

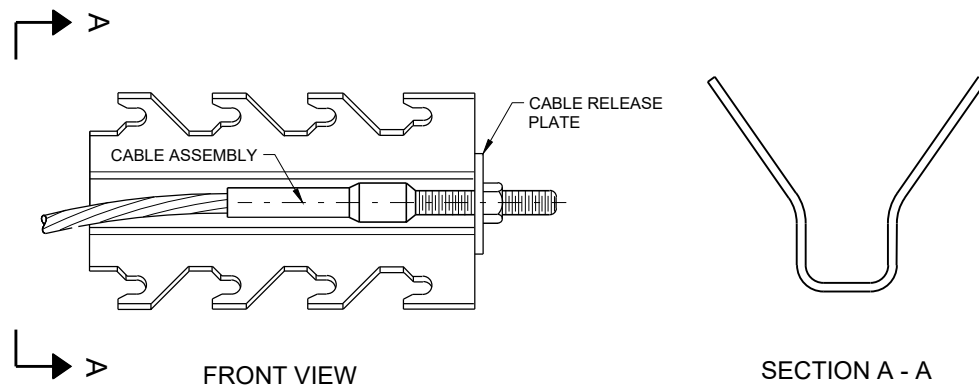
SDD 14B44 - 04a

BILL OF MATERIALS

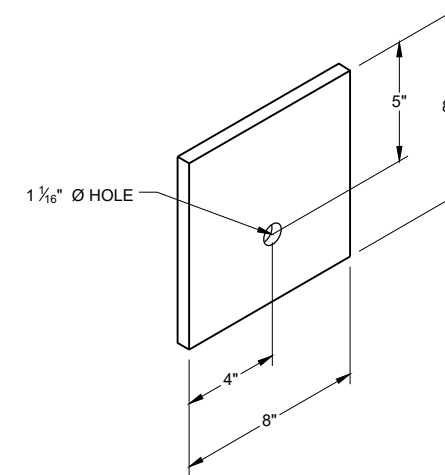
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL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



GENERIC GROUND STRUT ⑨ ⑤



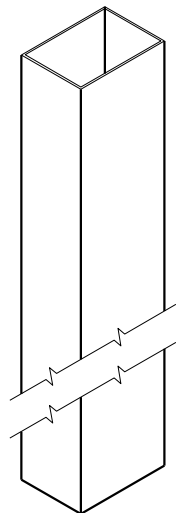
GENERIC ANCHOR CABLE BOX ⑨ ⑤



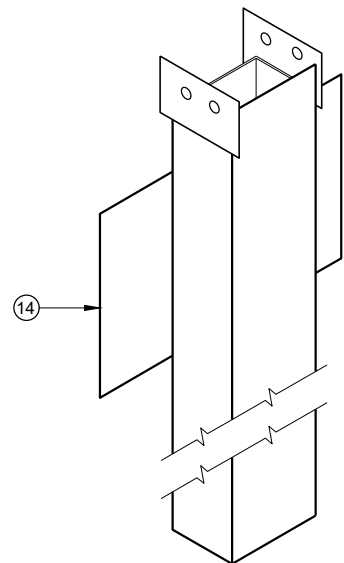
BEARING PLATE ⑥ ⑤

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

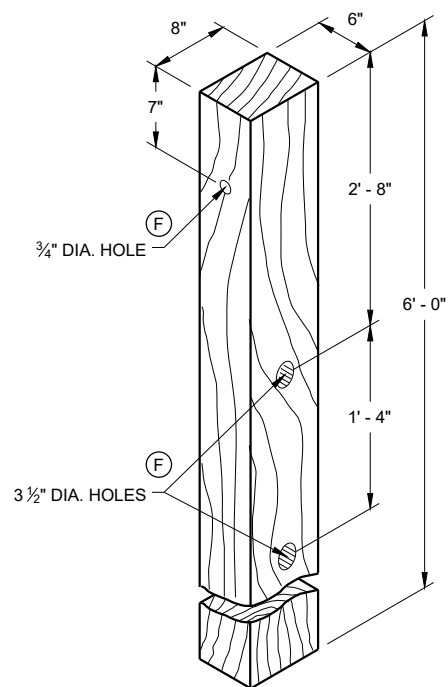
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



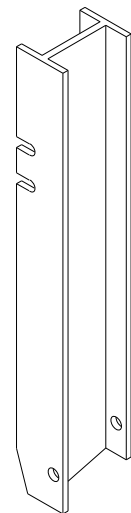
UPPER POST NO. 1 ⁽¹⁾ (E)



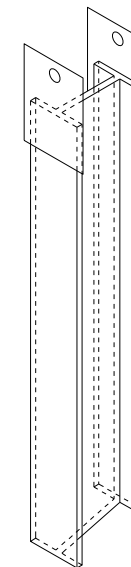
LOWER POST NO. 1 ⁽²⁾ (E)



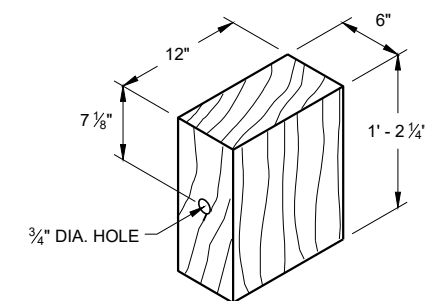
WOOD CRT POST ⁽³⁾ (E)
POSTS NUMBER 3-9



UPPER POST NO. 2 ⁽¹⁵⁾ (E)

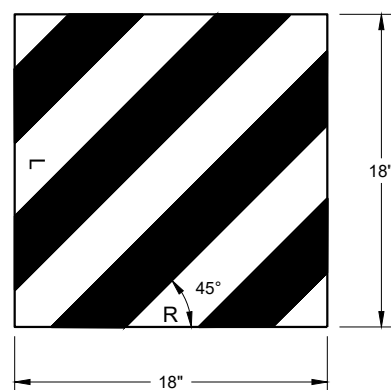


LOWER POST NO. 2 ⁽¹⁶⁾ (E)



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

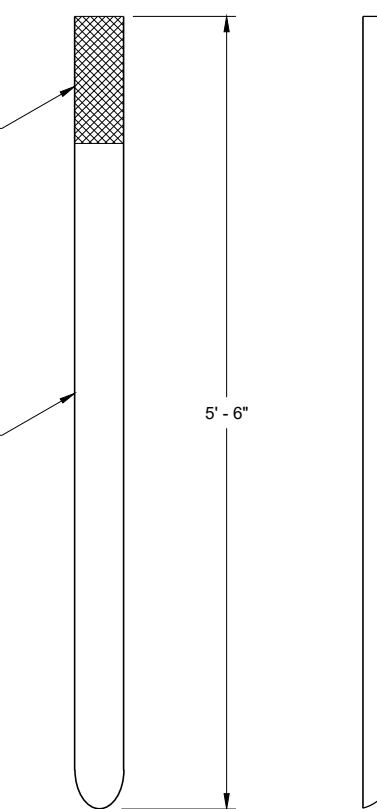
6



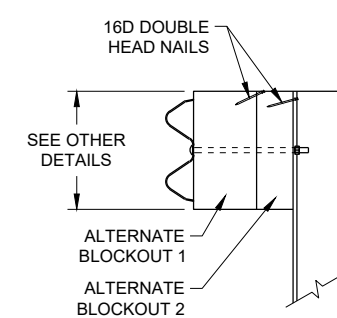
REFLECTIVE SHEETING DETAIL ^(E)

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

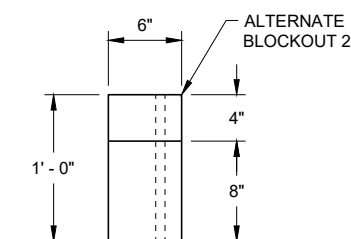
E.A.T. MARKER
POST (YELLOW)



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



SIDE VIEW



TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

6

SDD 14B44 - 04c

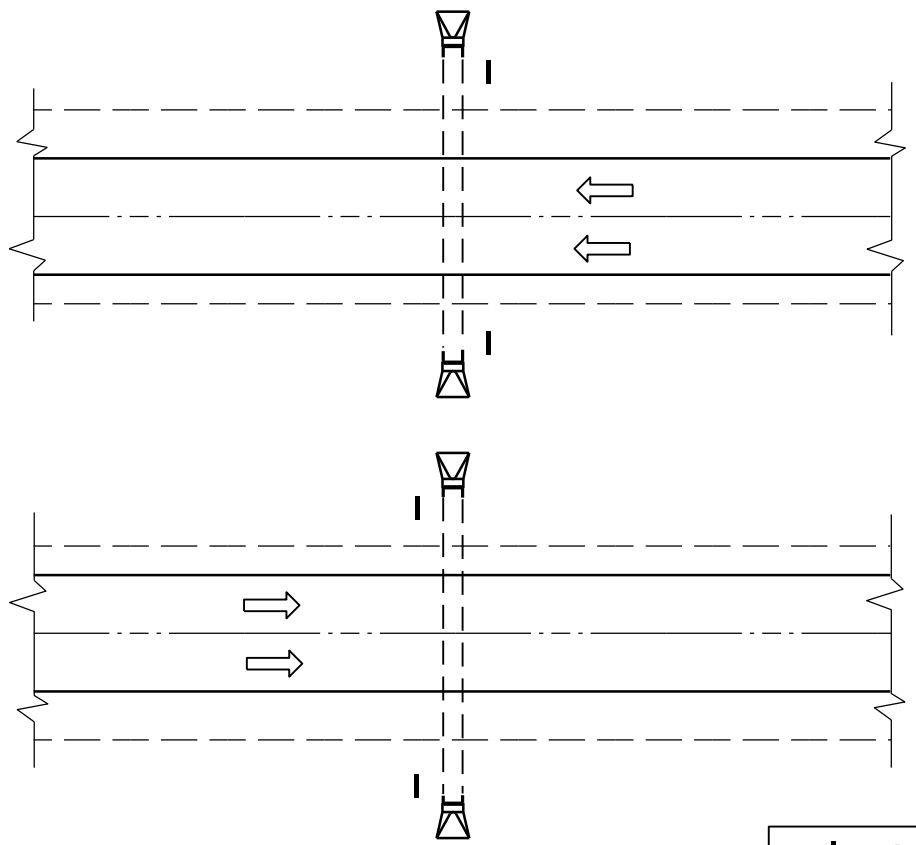
SDD 14B44 - 04c

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

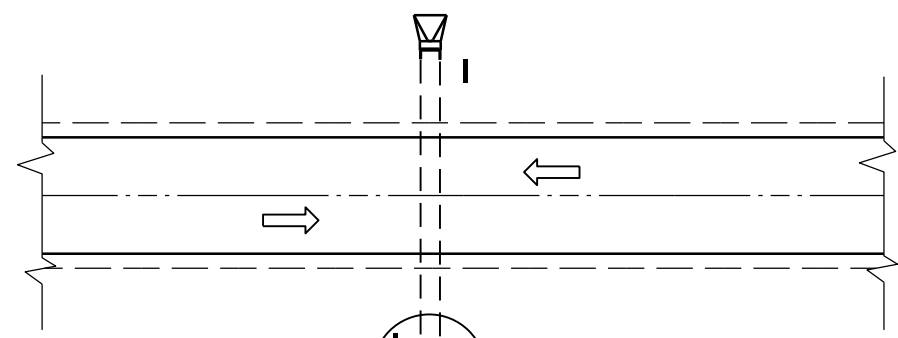
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

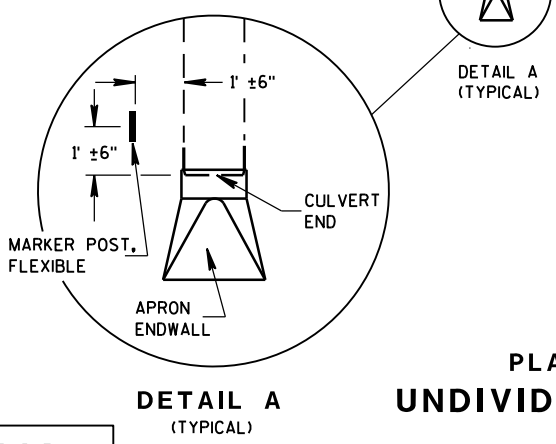
FHWA



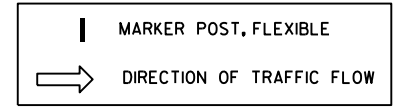
PLAN VIEW
DIVIDED HIGHWAY



PLAN VIEW
UNDIVIDED HIGHWAY

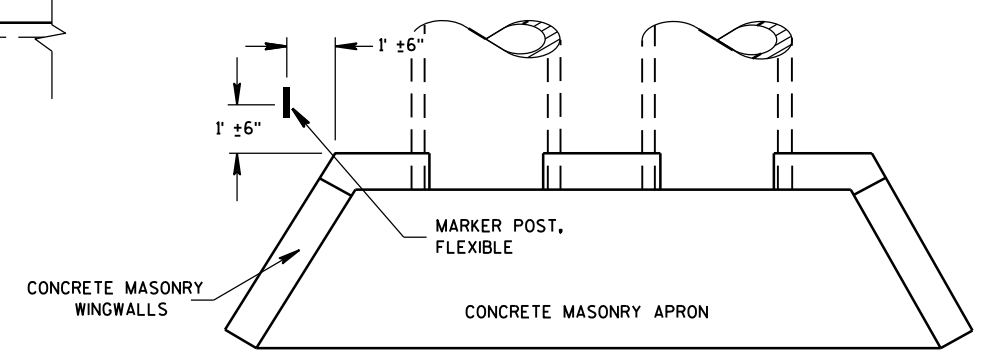


DETAIL A
(TYPICAL)



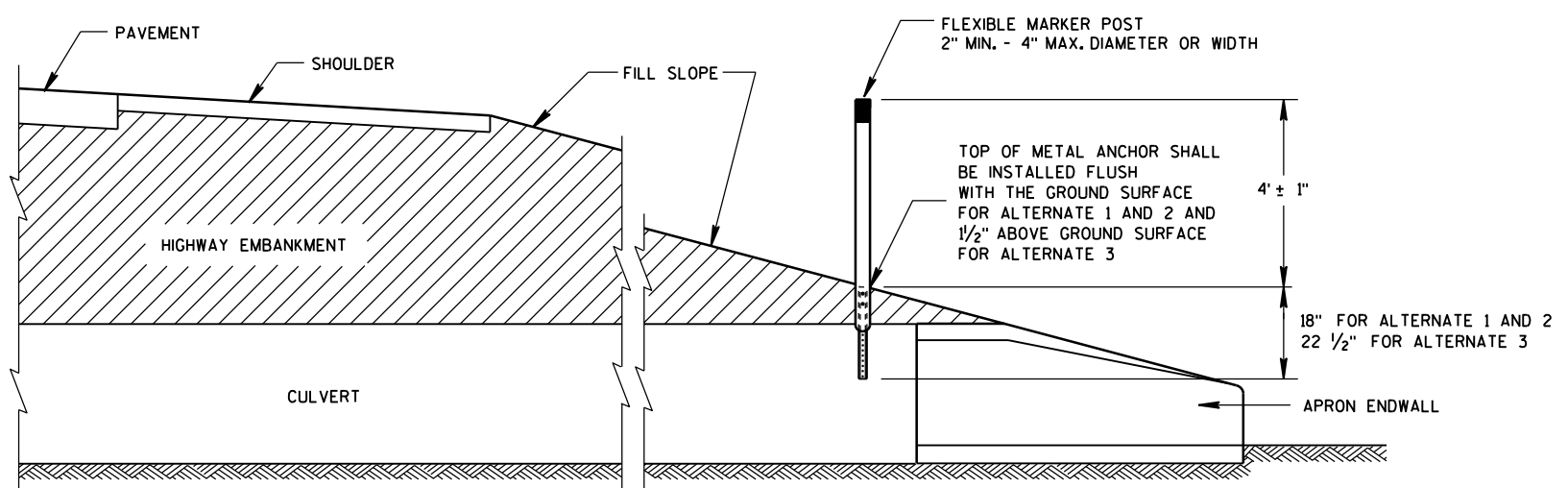
GENERAL NOTES

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



PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION
FLEXIBLE MARKER POST

**FLEXIBLE MARKER POST
FOR CULVERT END**

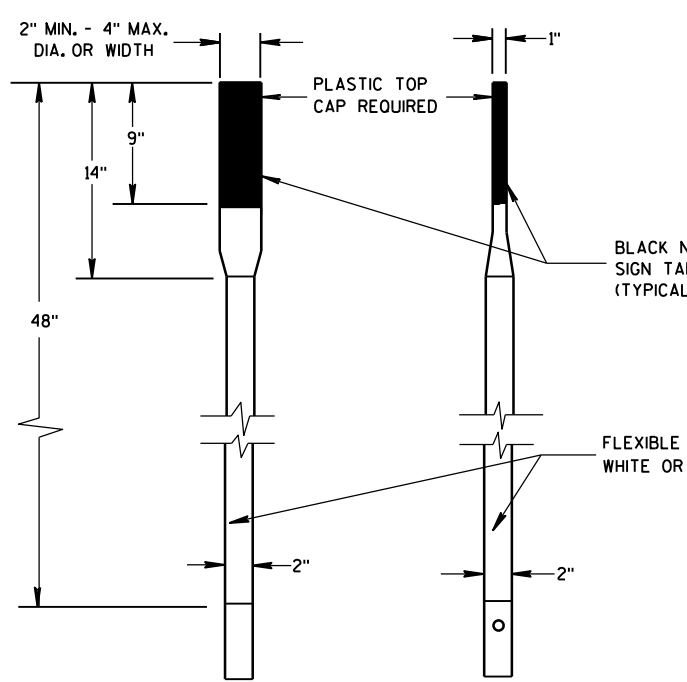
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

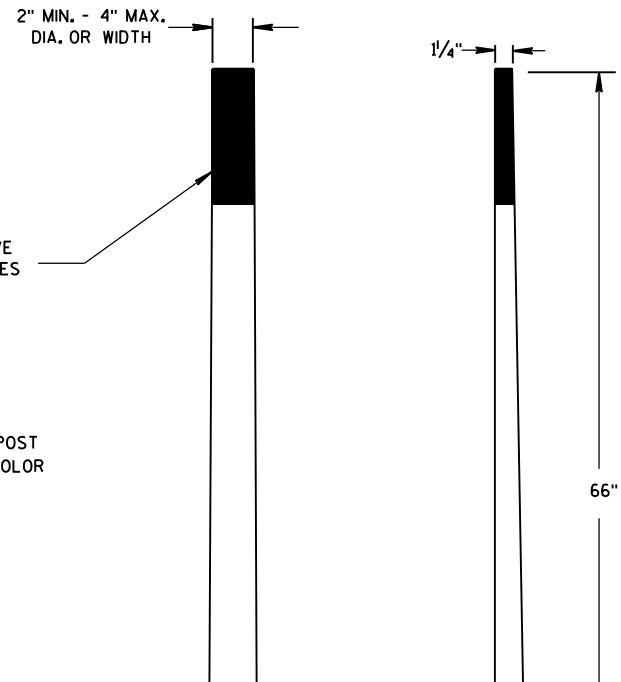
6

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

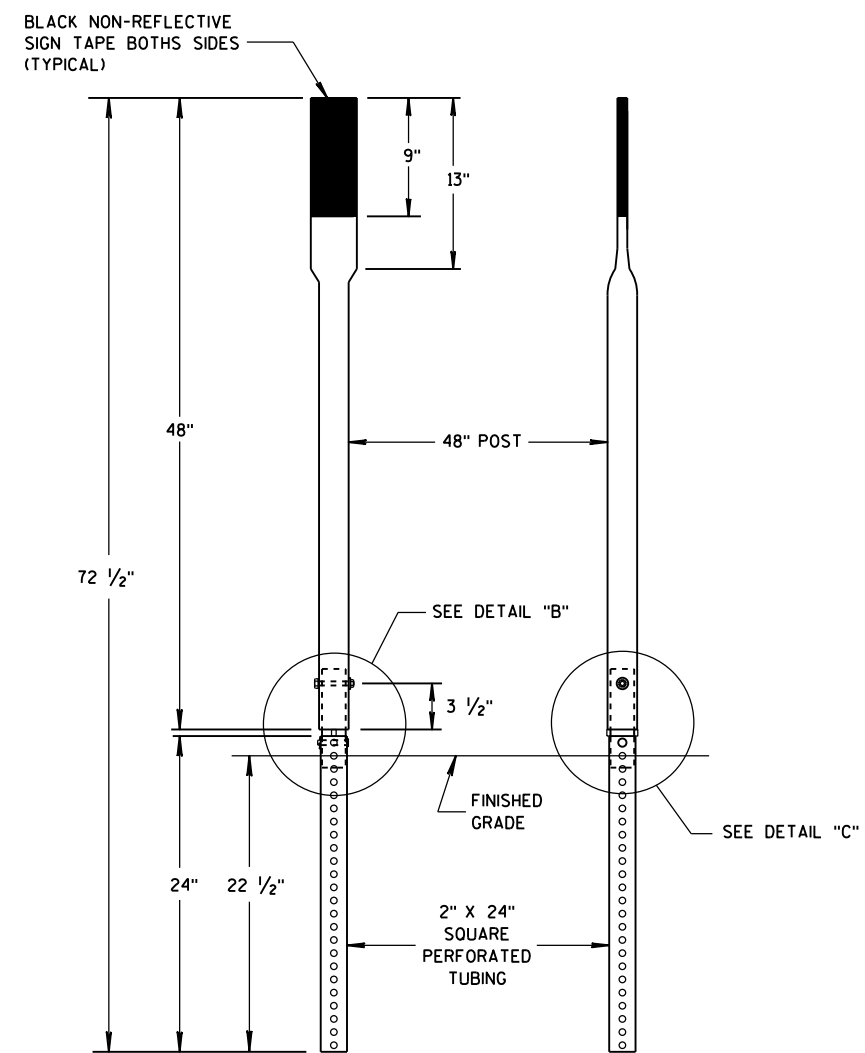
S.D.D. 15 A 3-2a



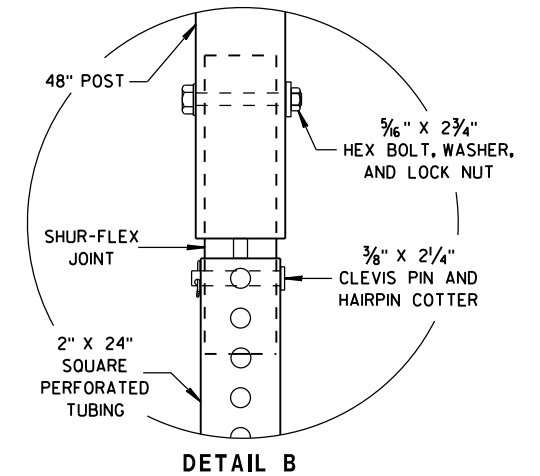
FRONT VIEW SIDE VIEW
ALTERNATE 1



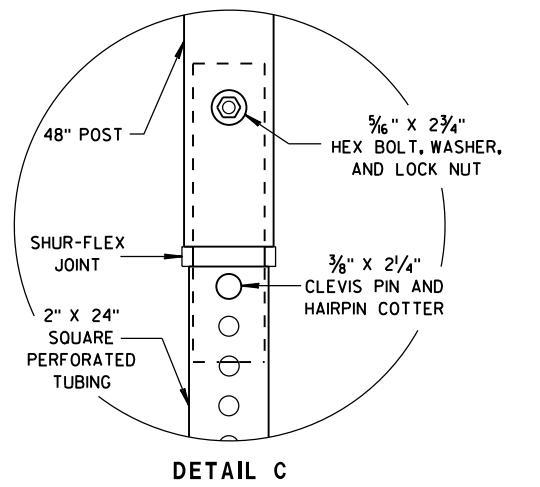
FRONT VIEW SIDE VIEW
ALTERNATE 2



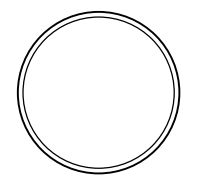
FRONT VIEW SIDE VIEW
ALTERNATE 3



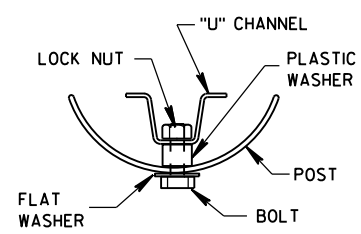
DETAIL B



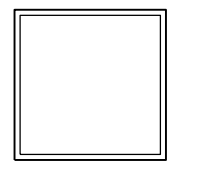
DETAIL C



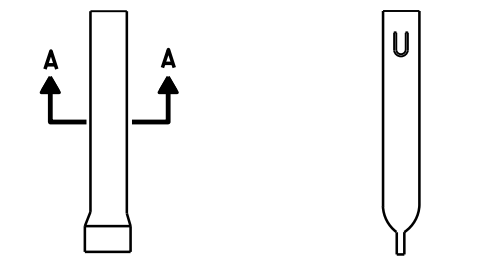
SECTION A-A



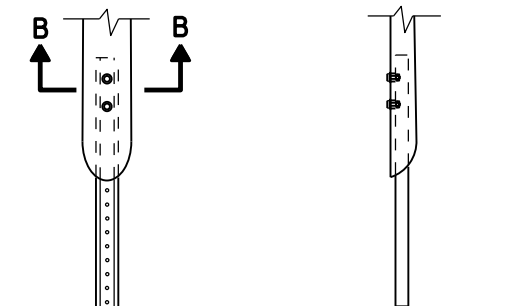
SECTION B-B



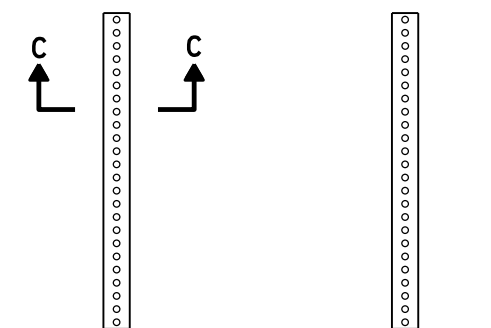
SECTION C-C



FRONT VIEW SIDE VIEW
ALTERNATE 1



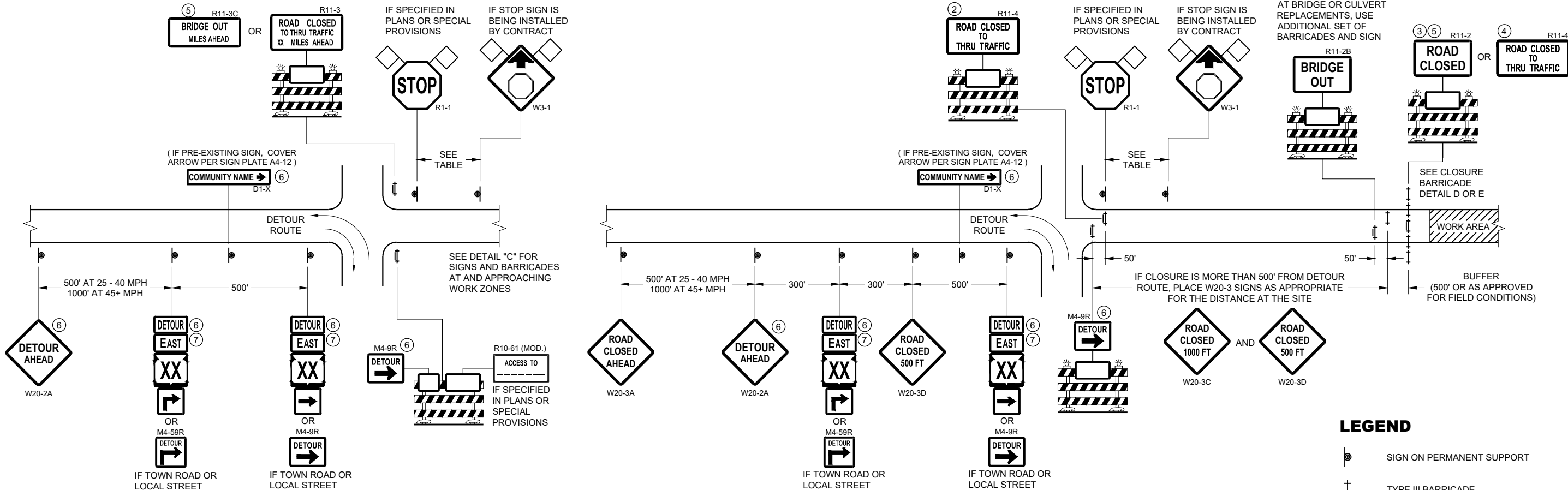
FRONT VIEW SIDE VIEW
ALTERNATE 2



FRONT VIEW SIDE VIEW
ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

FLEXIBLE MARKER POST FOR CULVERT END	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/1/2012 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

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

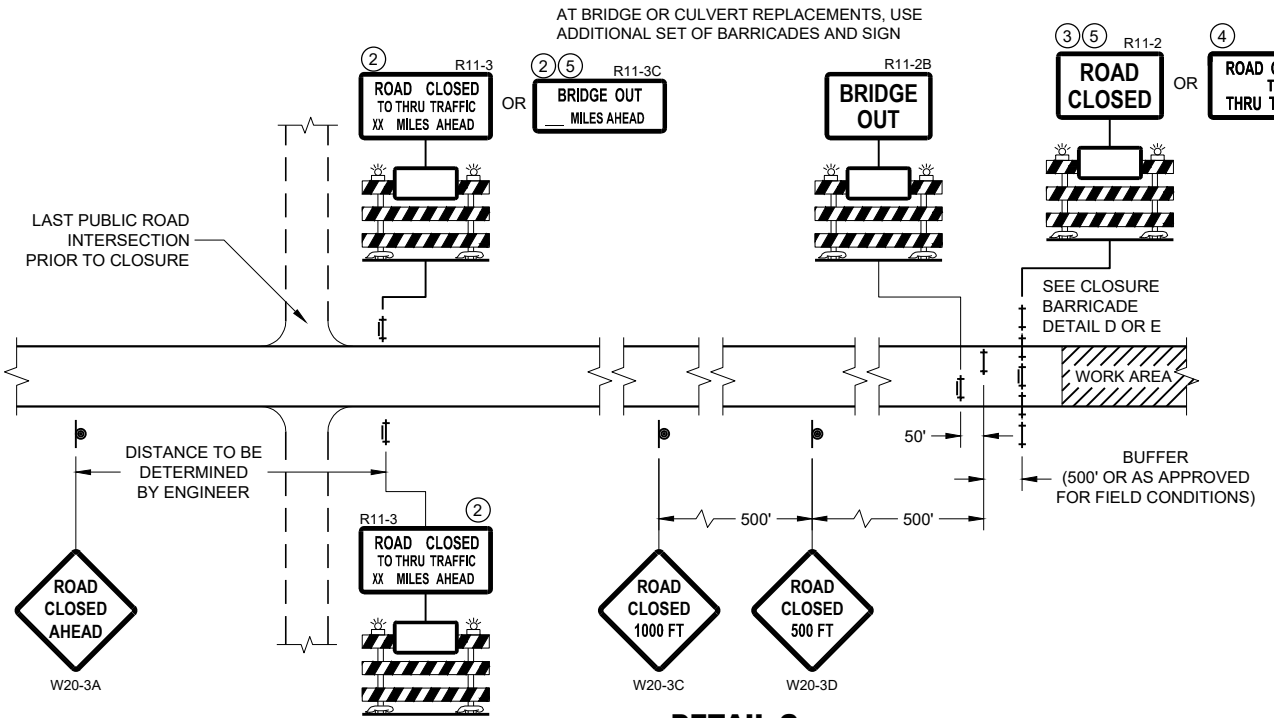
**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)
- M4 - 8
- M3 - X
- M1 - 4 OR M1 - 6 OR M1 - 5A
- M05 - 1 OR M06 - 1

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



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

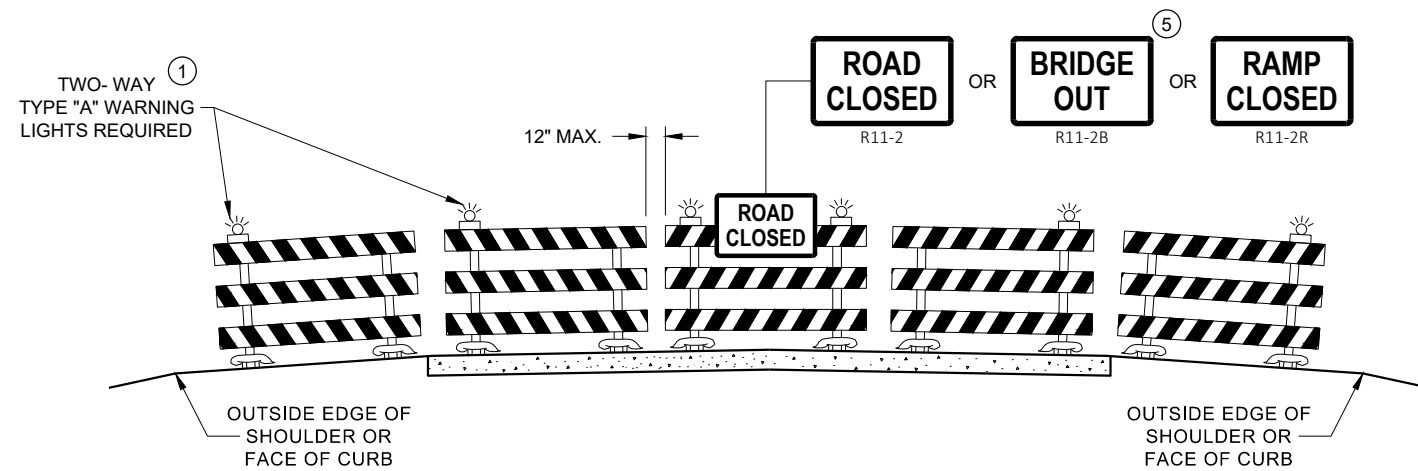
SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

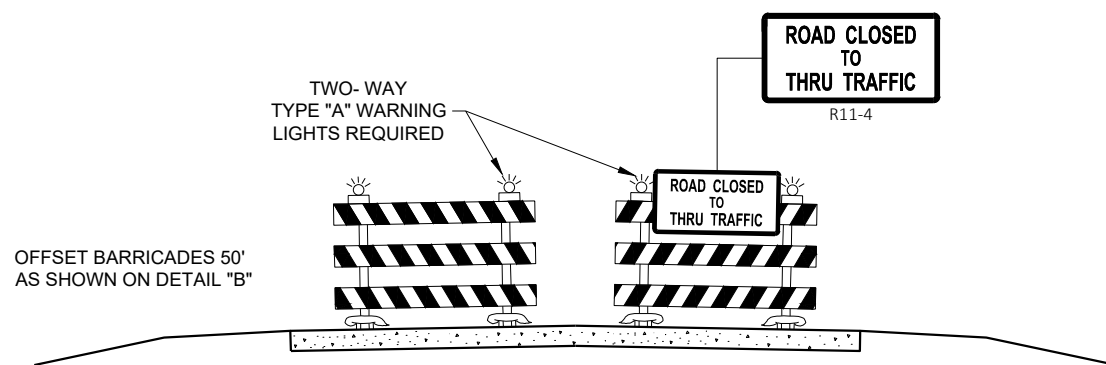
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



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



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

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

**BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOWS:

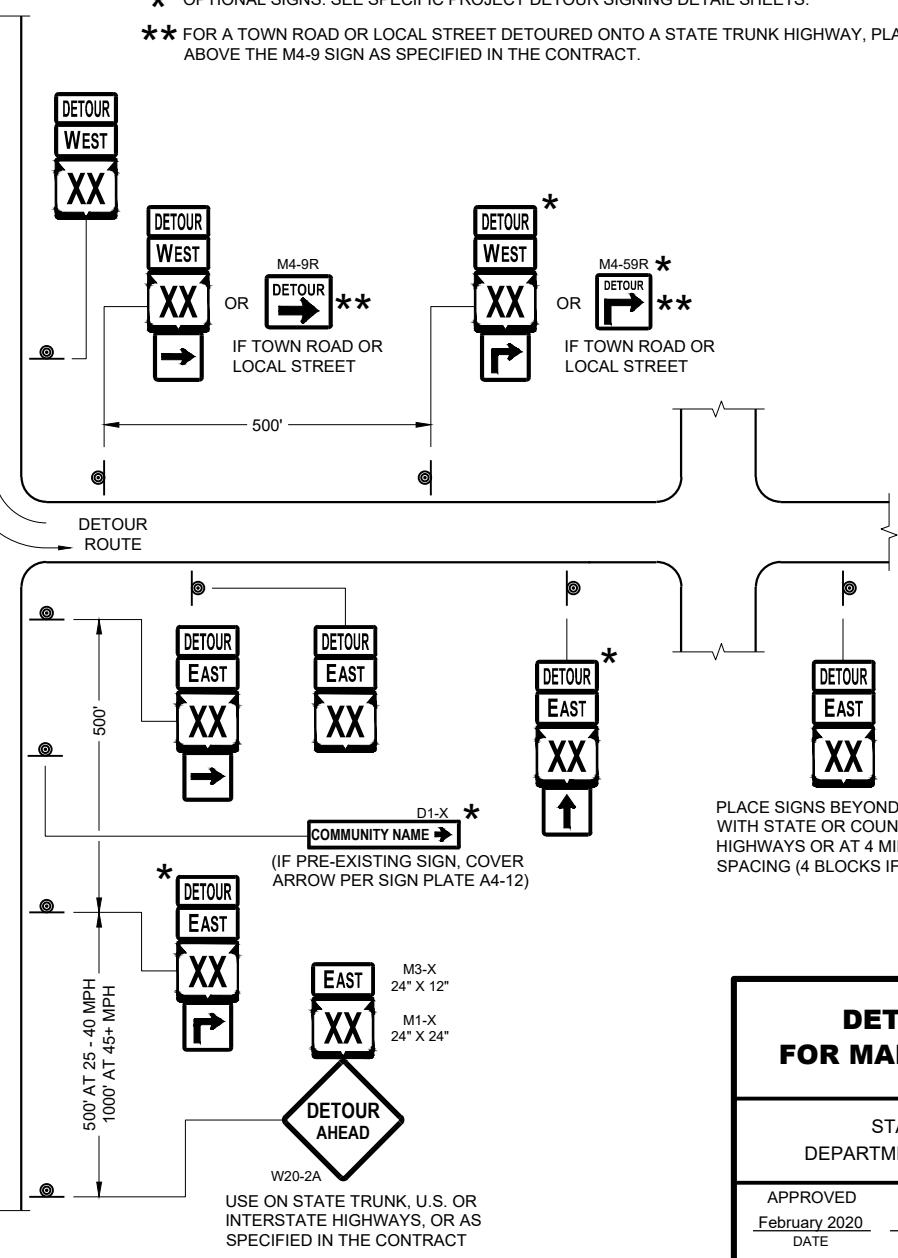
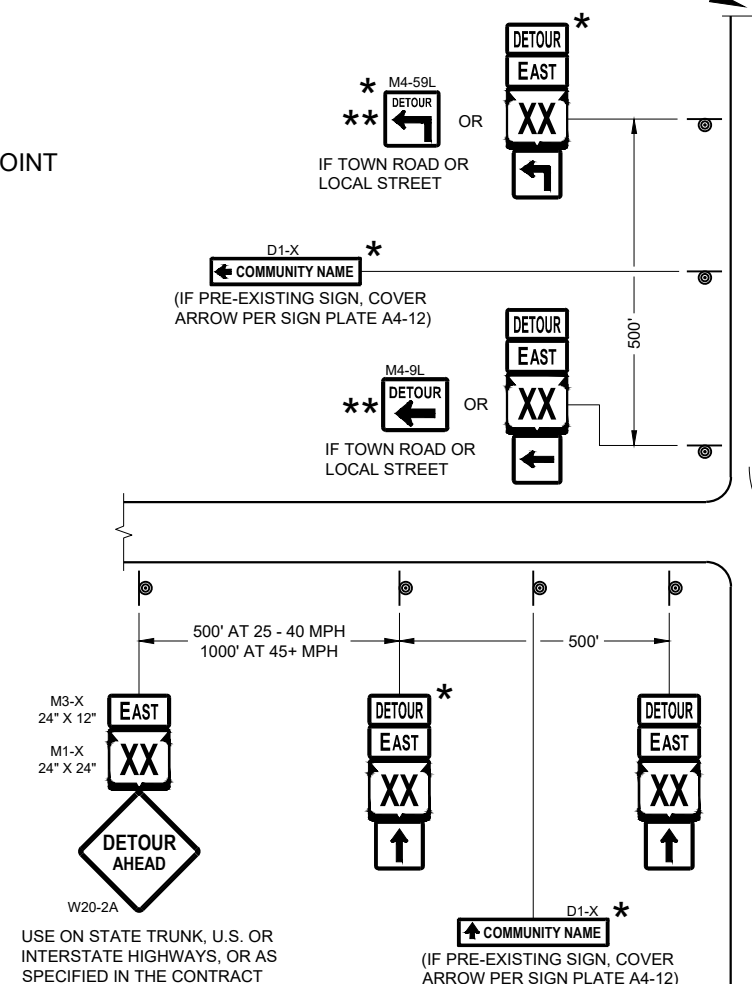
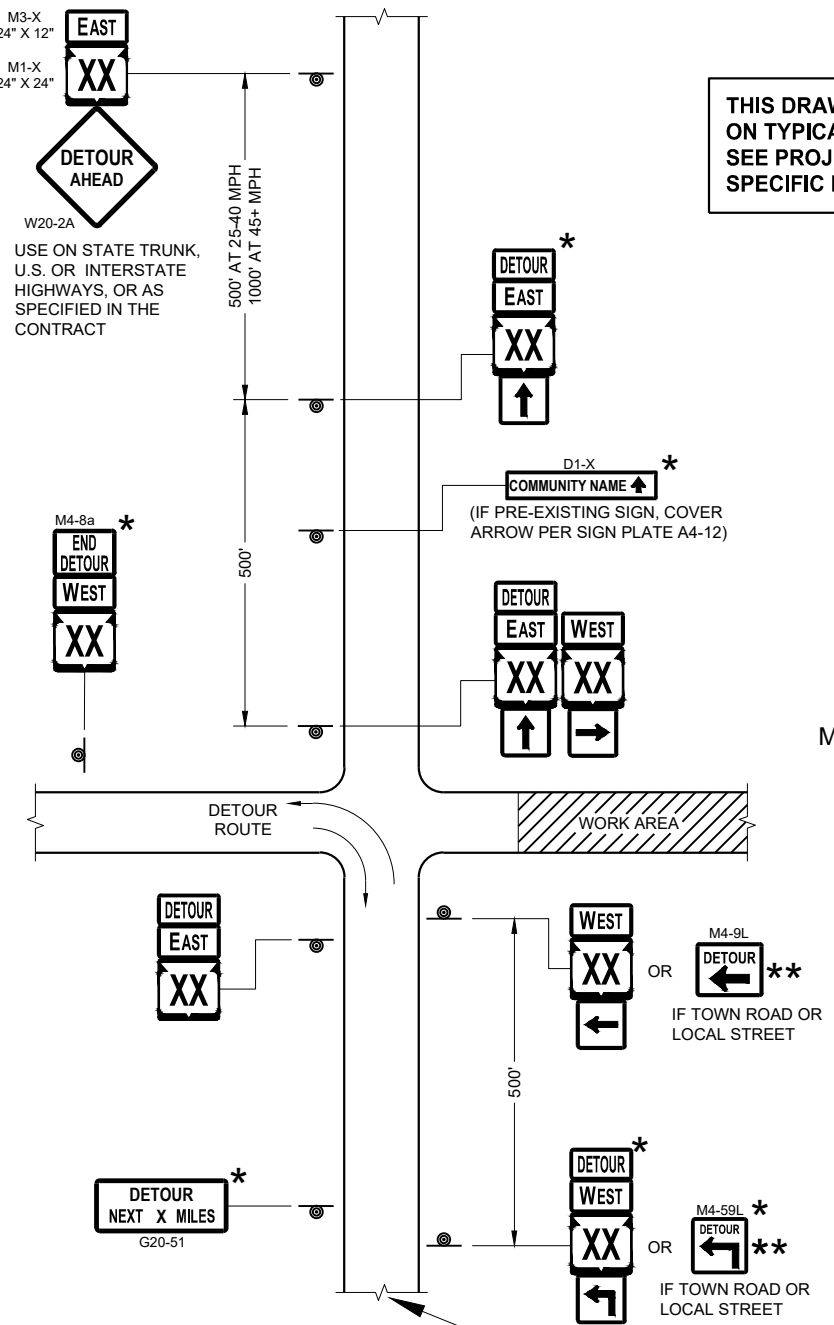
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING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

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

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

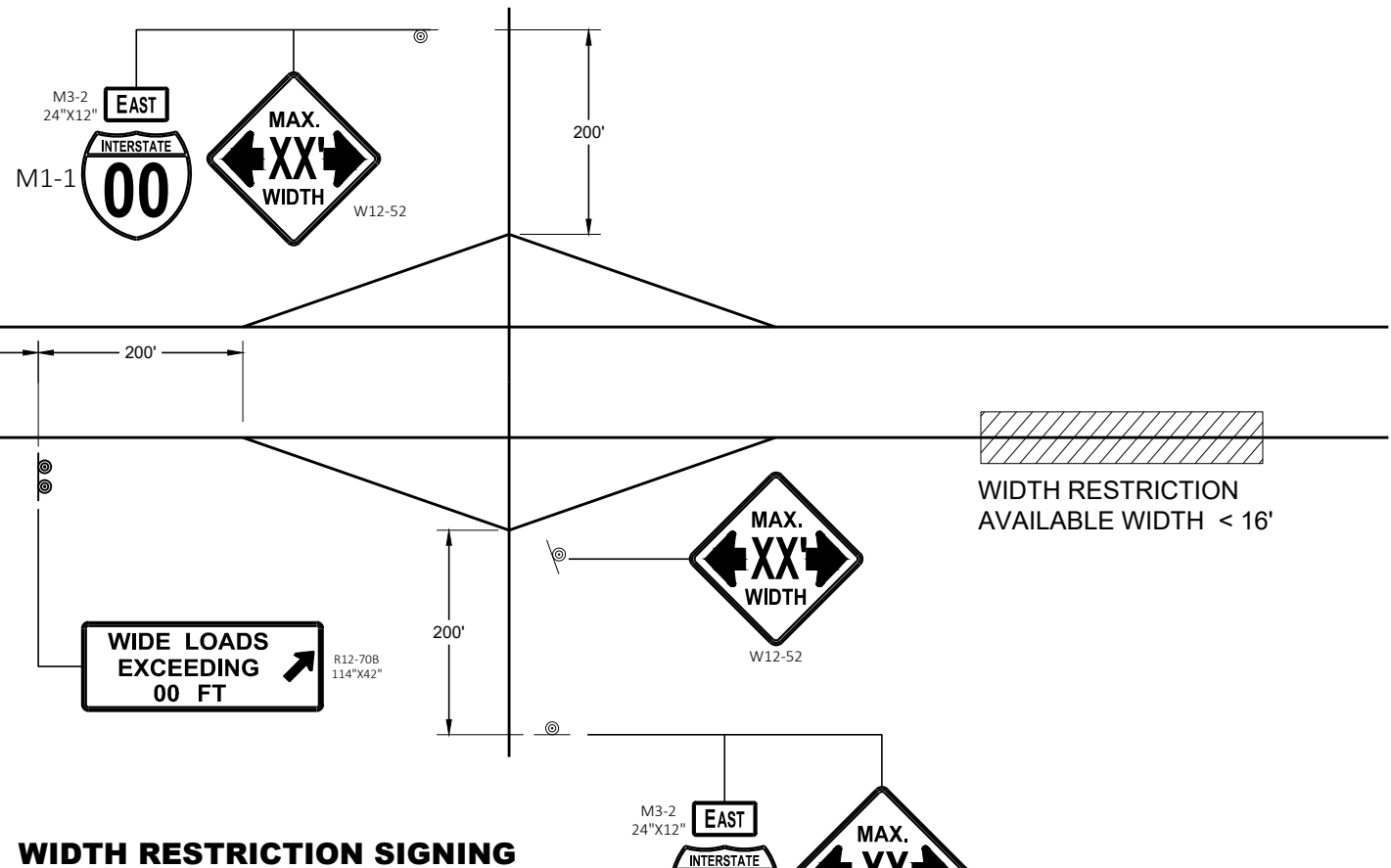
MATCH POINT

DETAIL F DETOUR SIGNING

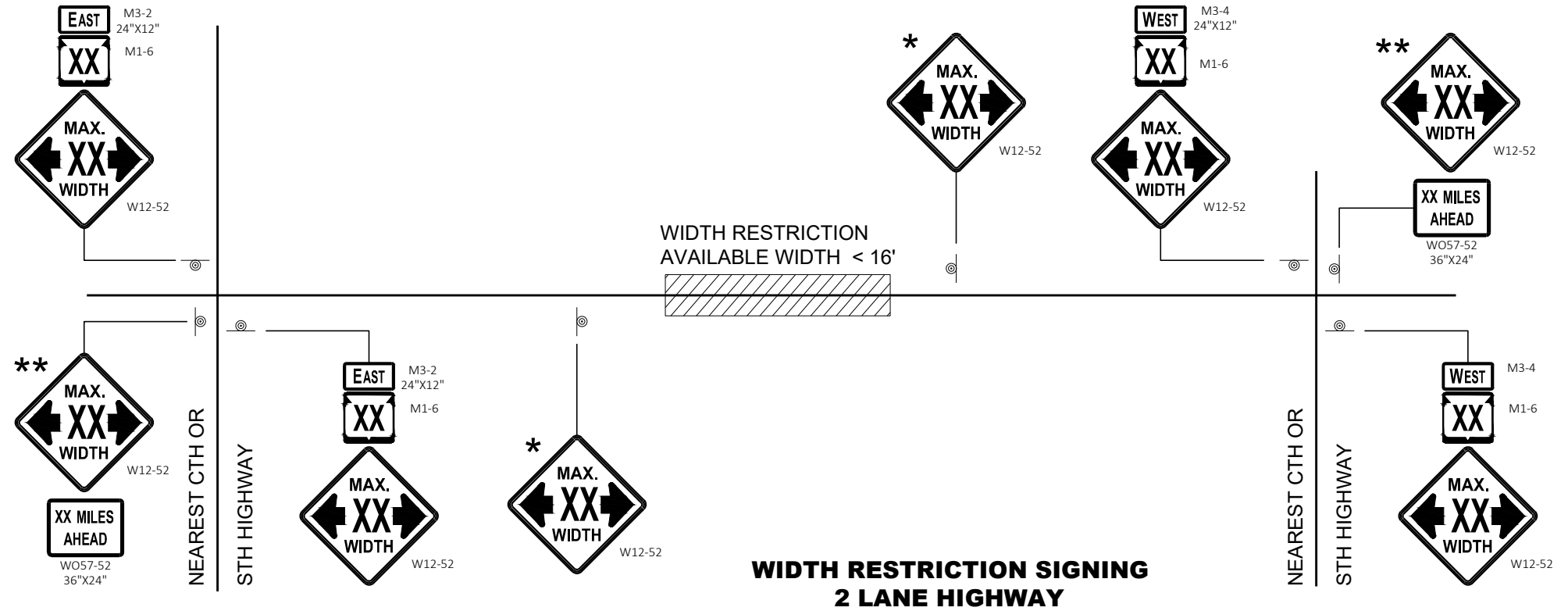


SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

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



WIDTH RESTRICTION SIGNING



**WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY**

LEGEND

⊙ SIGN ON PERMANENT SUPPORT

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS 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 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.

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

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

WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION 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.

** SIGN SHALL BE VISIBLE FROM ROADWAY.

*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.

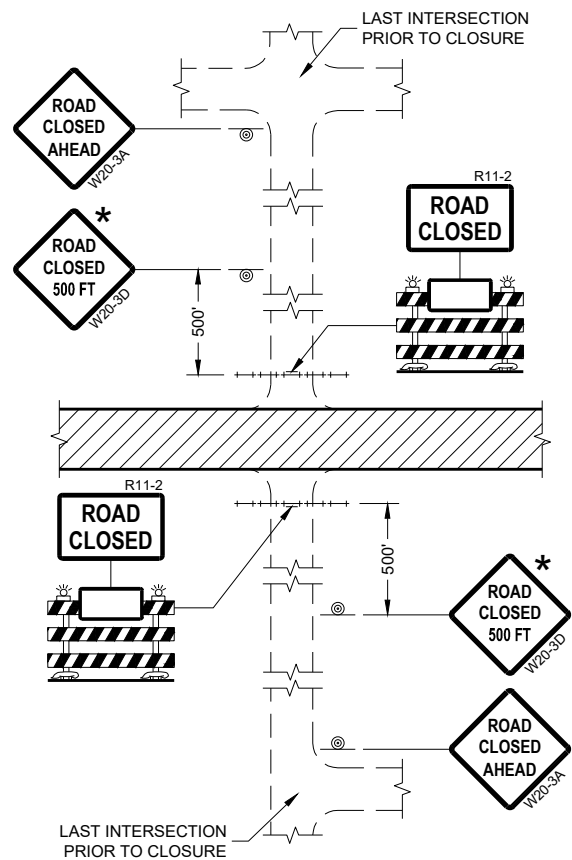


WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH

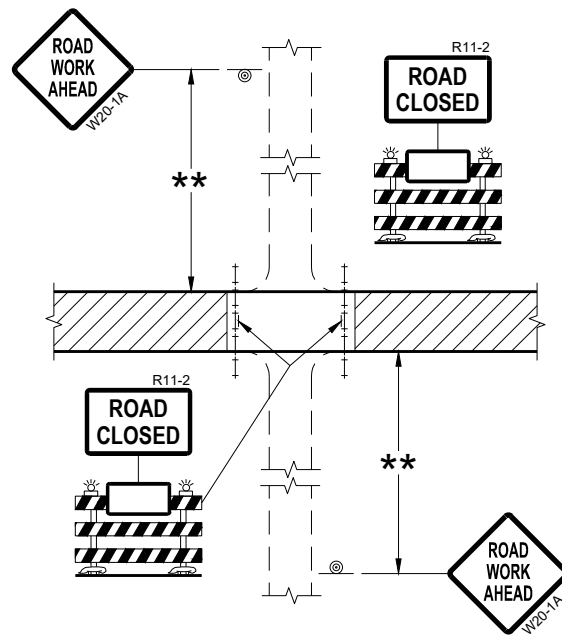
ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

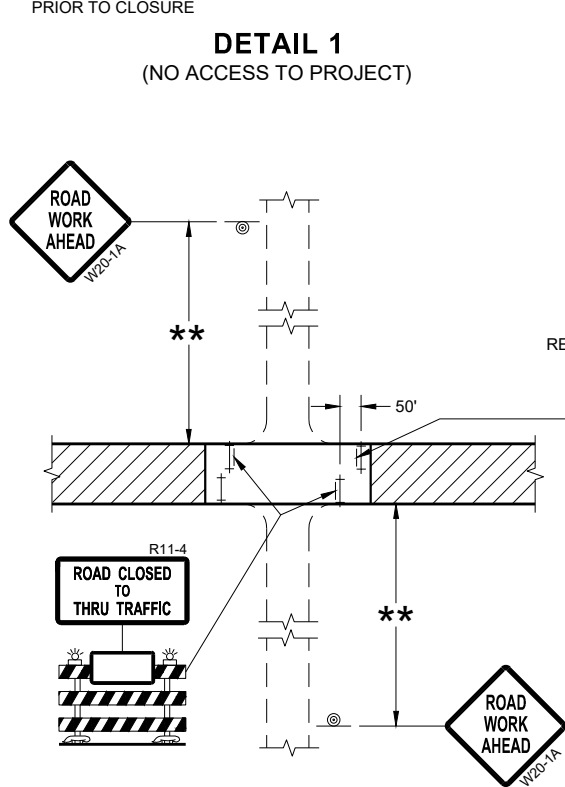
APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA



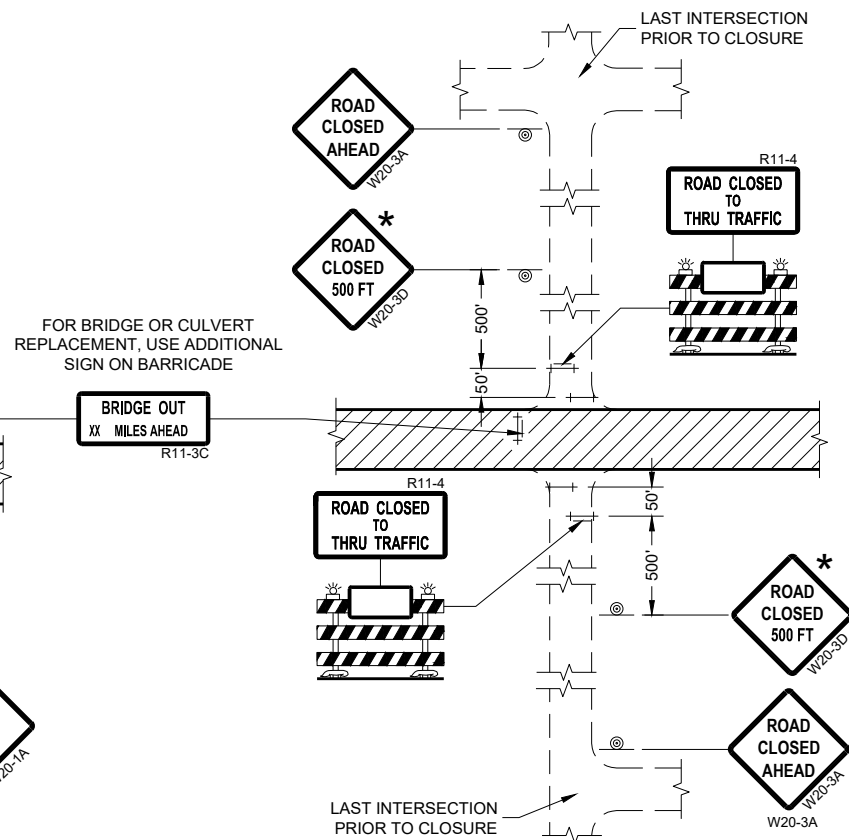
DETAIL 1
(NO ACCESS TO PROJECT)



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 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

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.

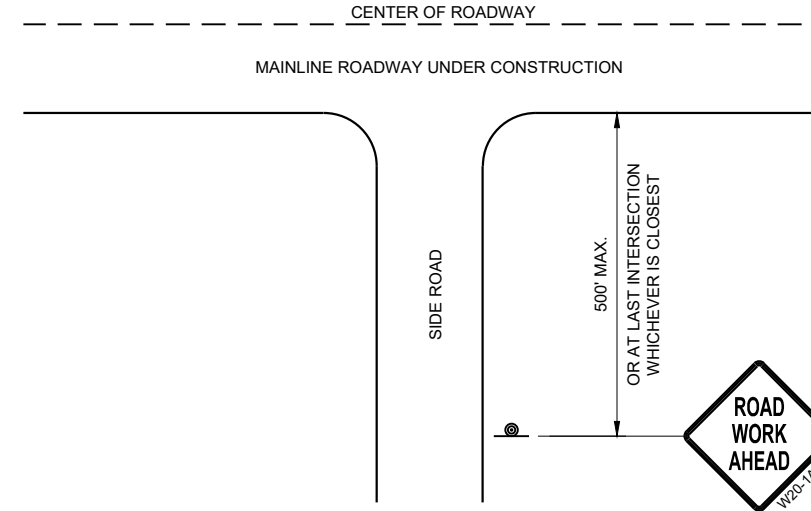
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

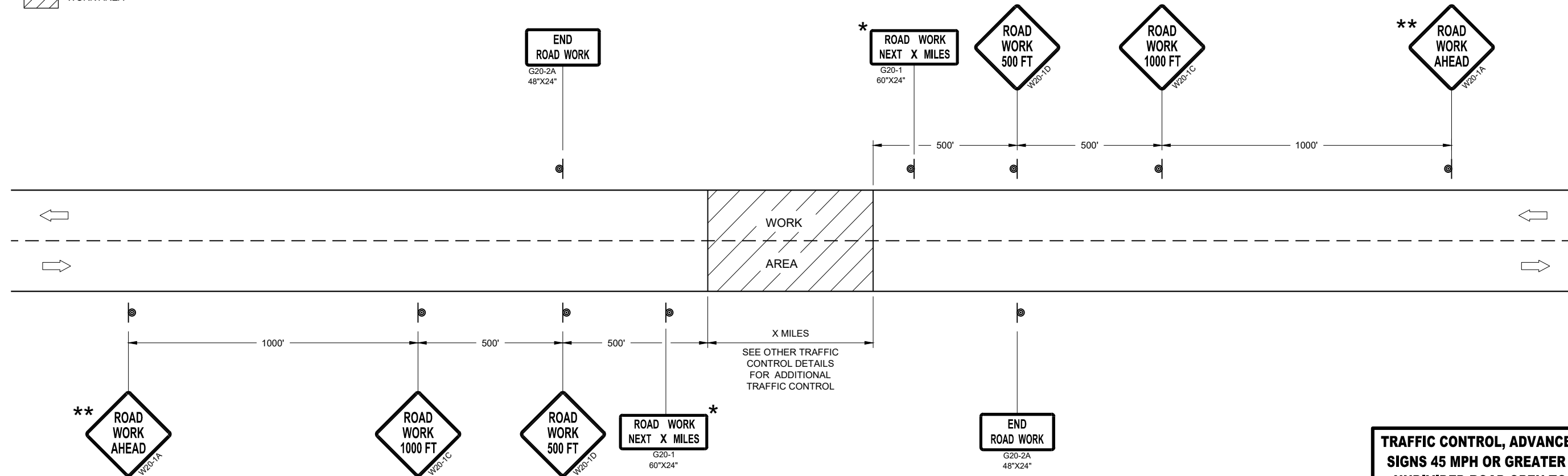
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA



**TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL**



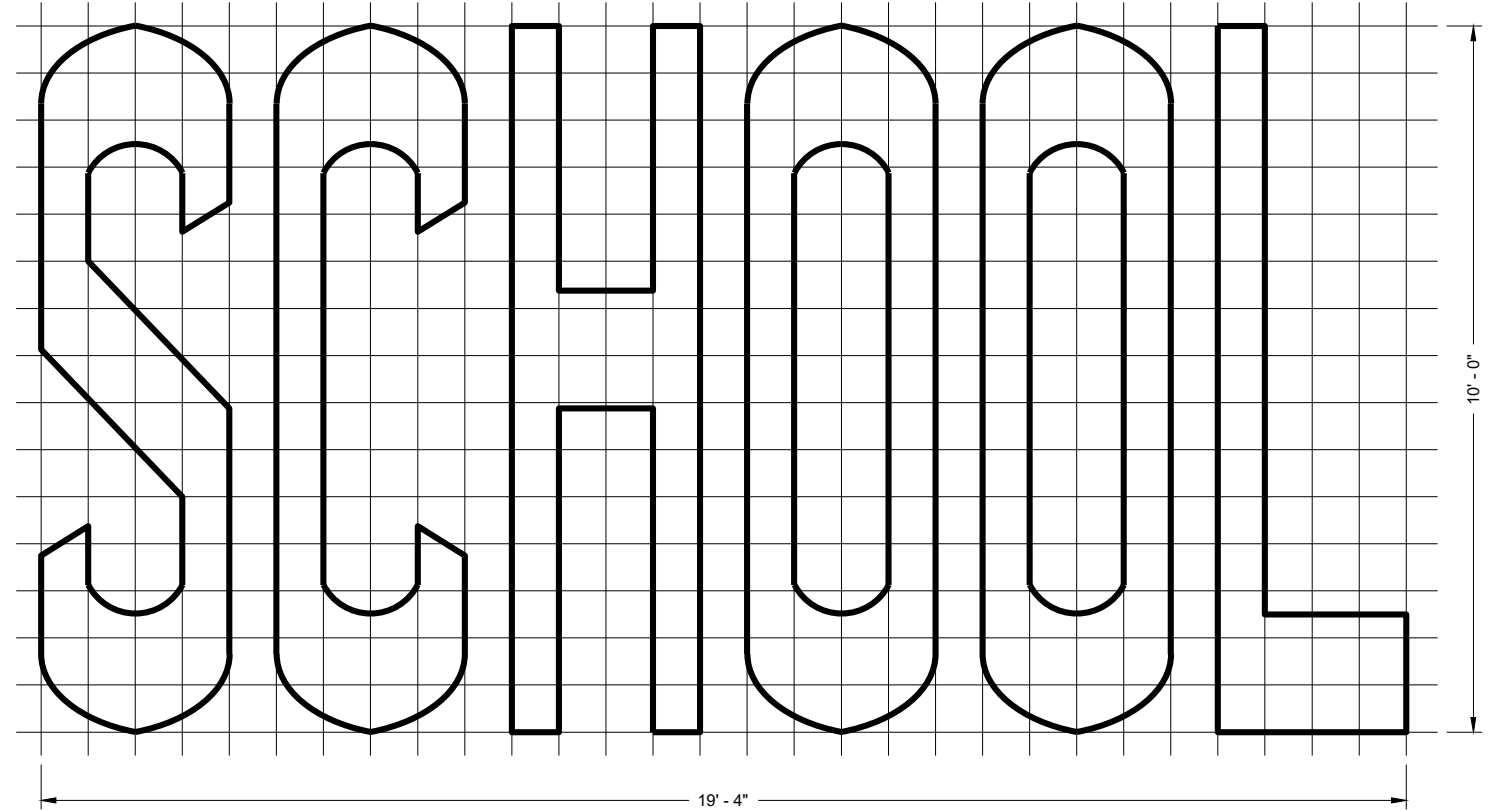
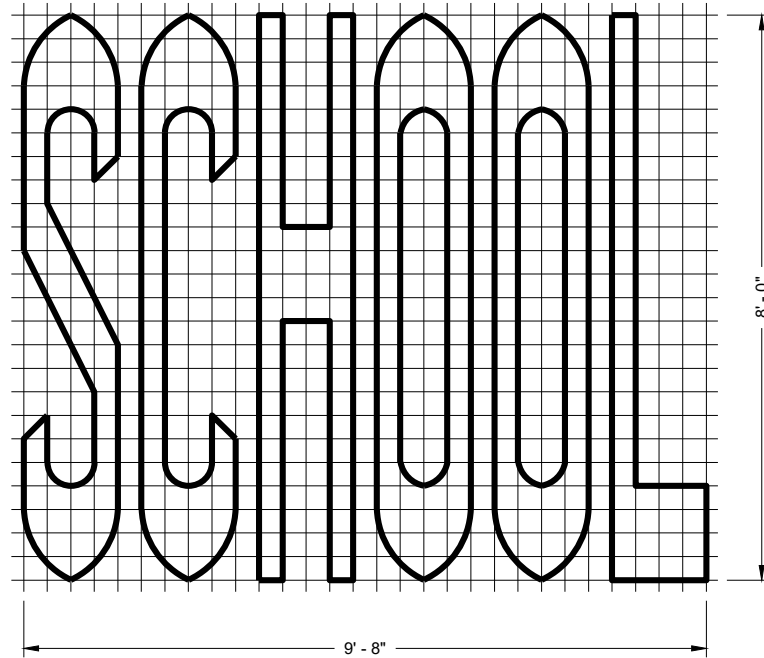
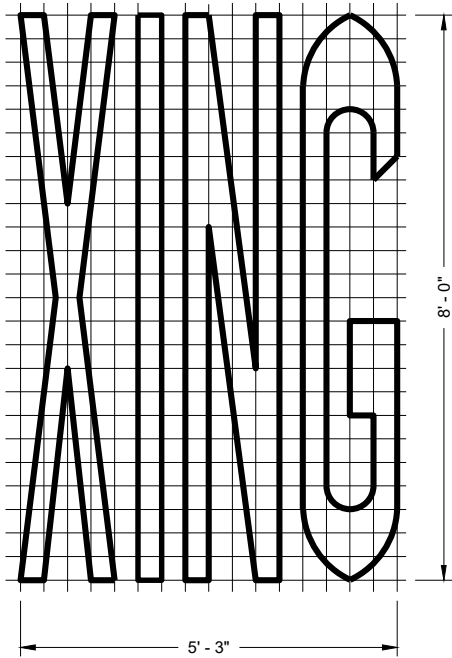
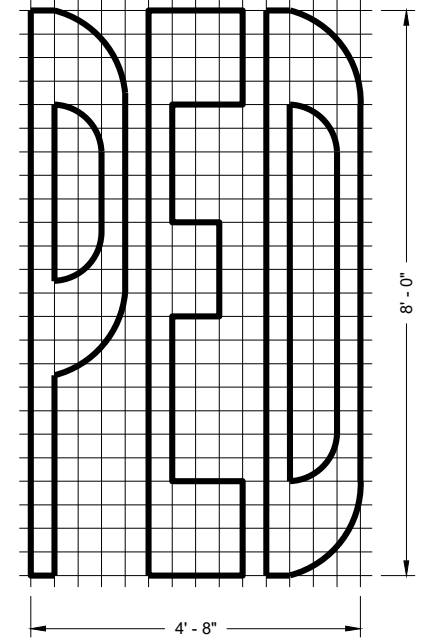
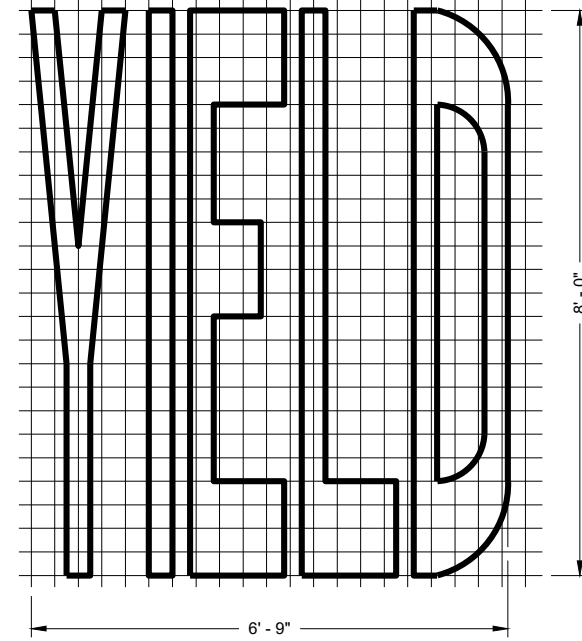
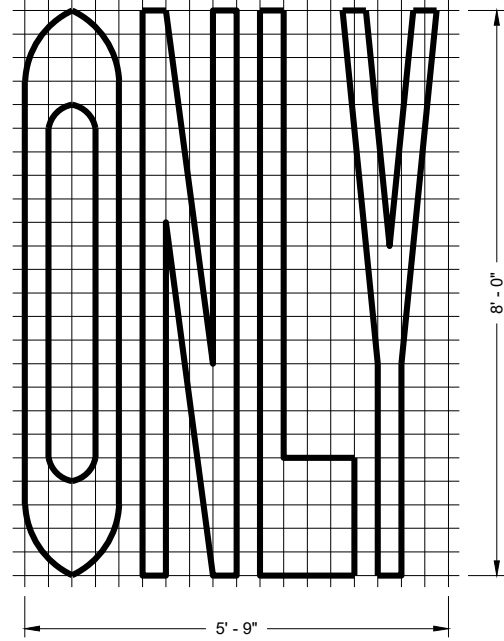
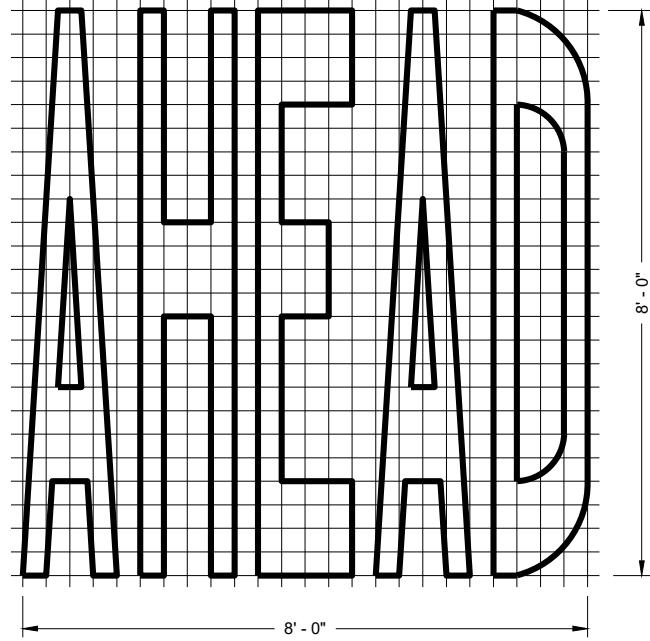
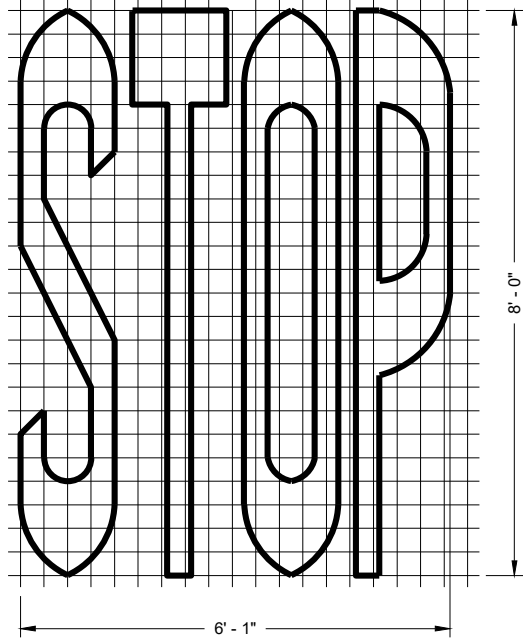
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

**TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 45 MPH OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC**

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DATE July 2018 WORK ZONE ENGINEER

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SINGLE LANE

TWO - LANE

GENERAL NOTES

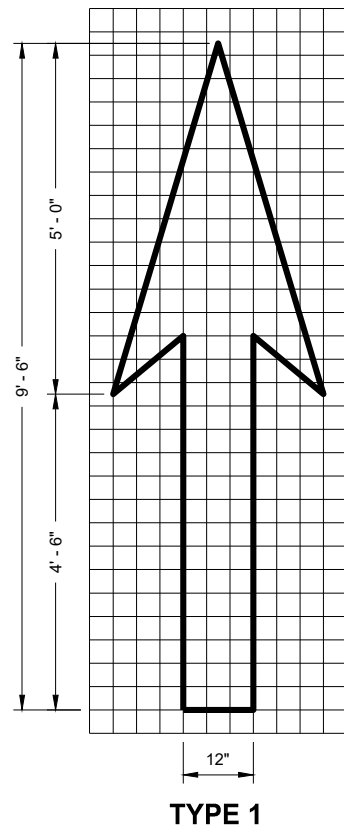
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING WORDS

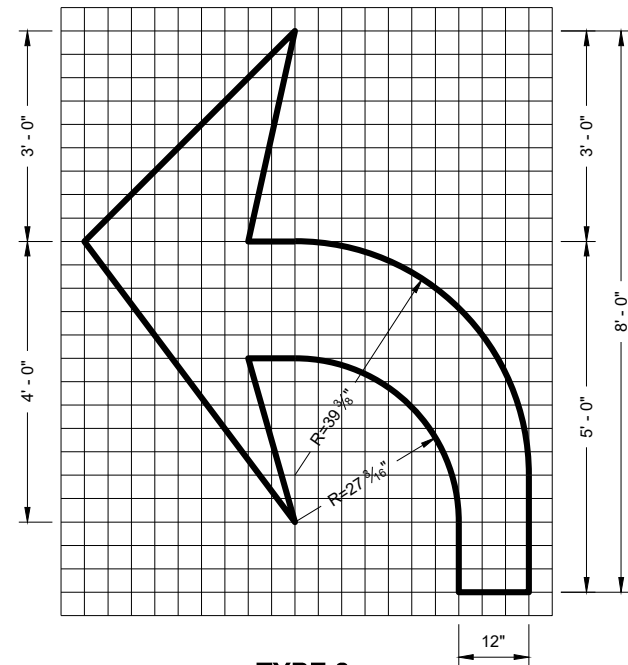
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING
ENGINEER

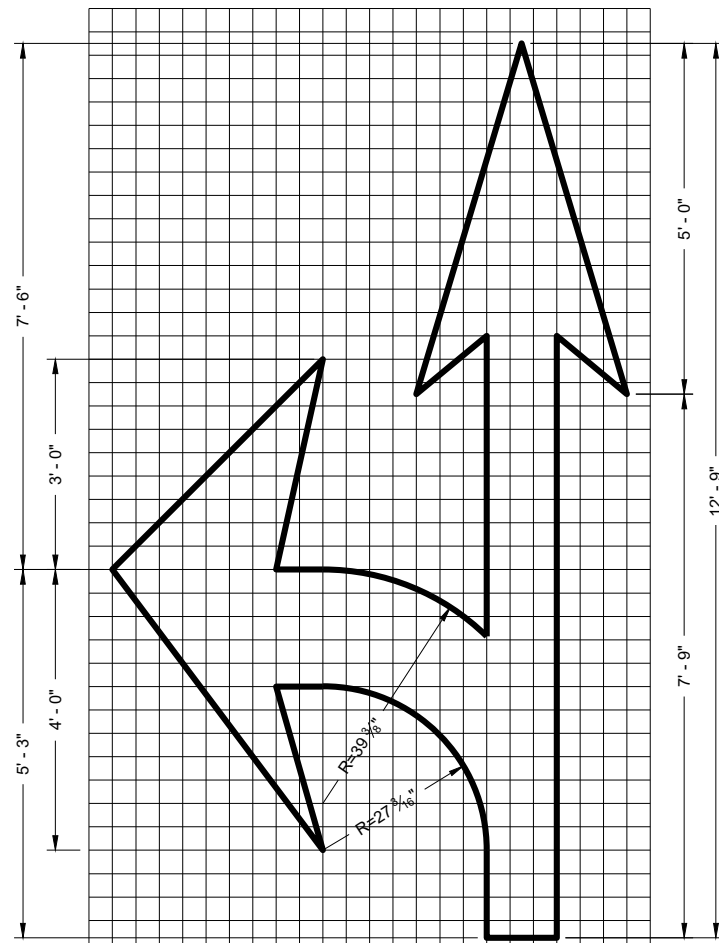
FHWA



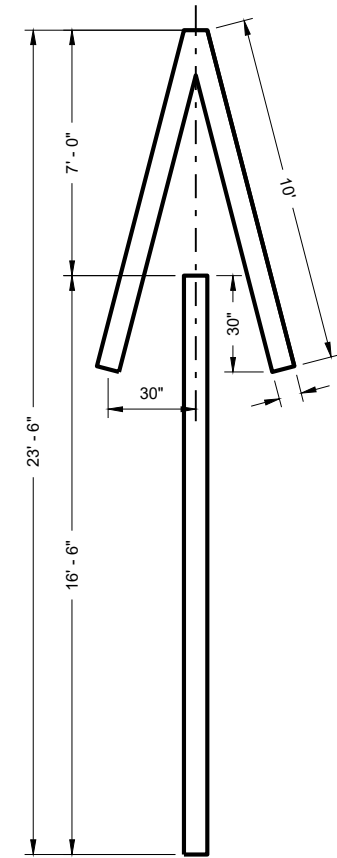
TYPE 1



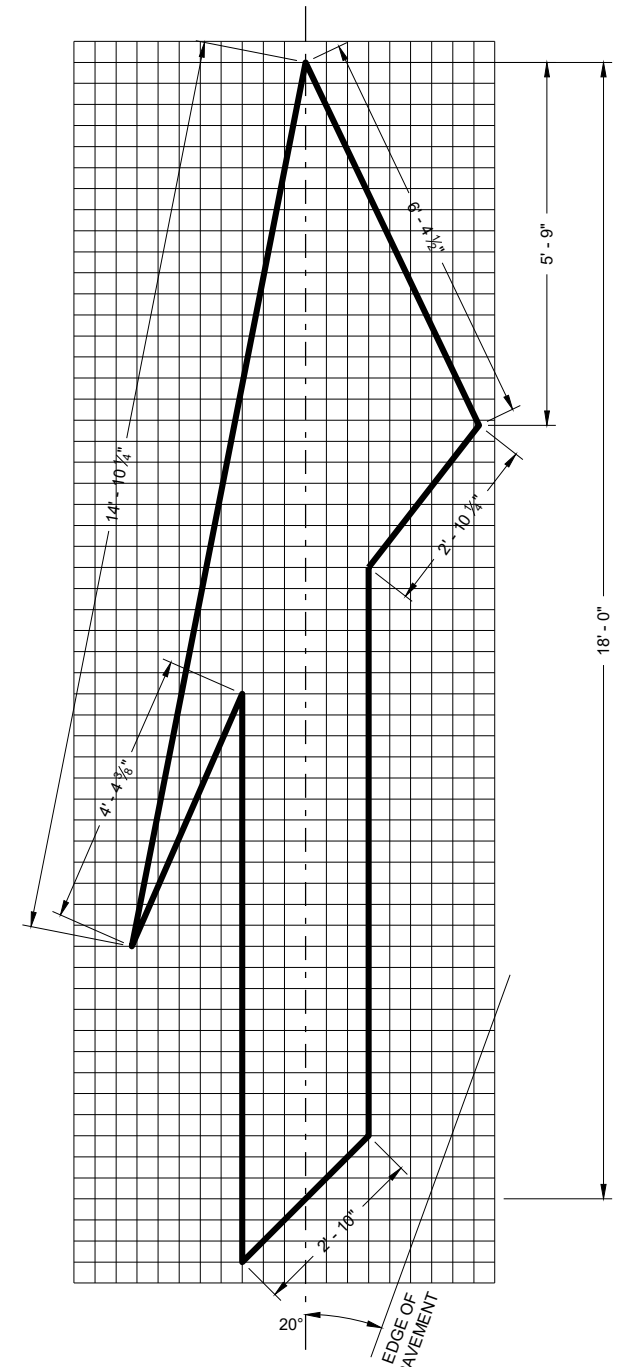
TYPE 2



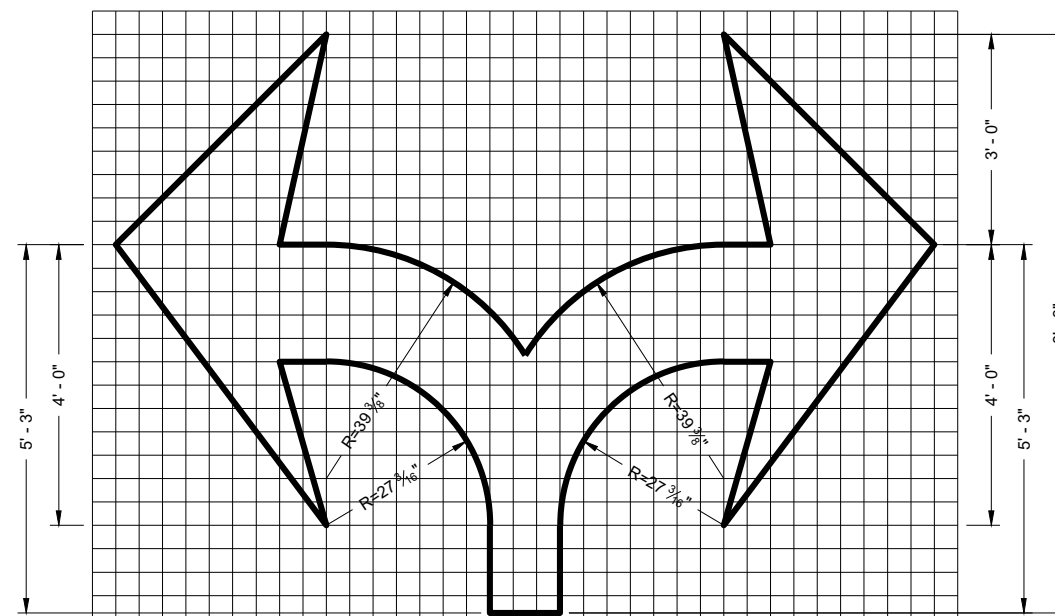
TYPE 3



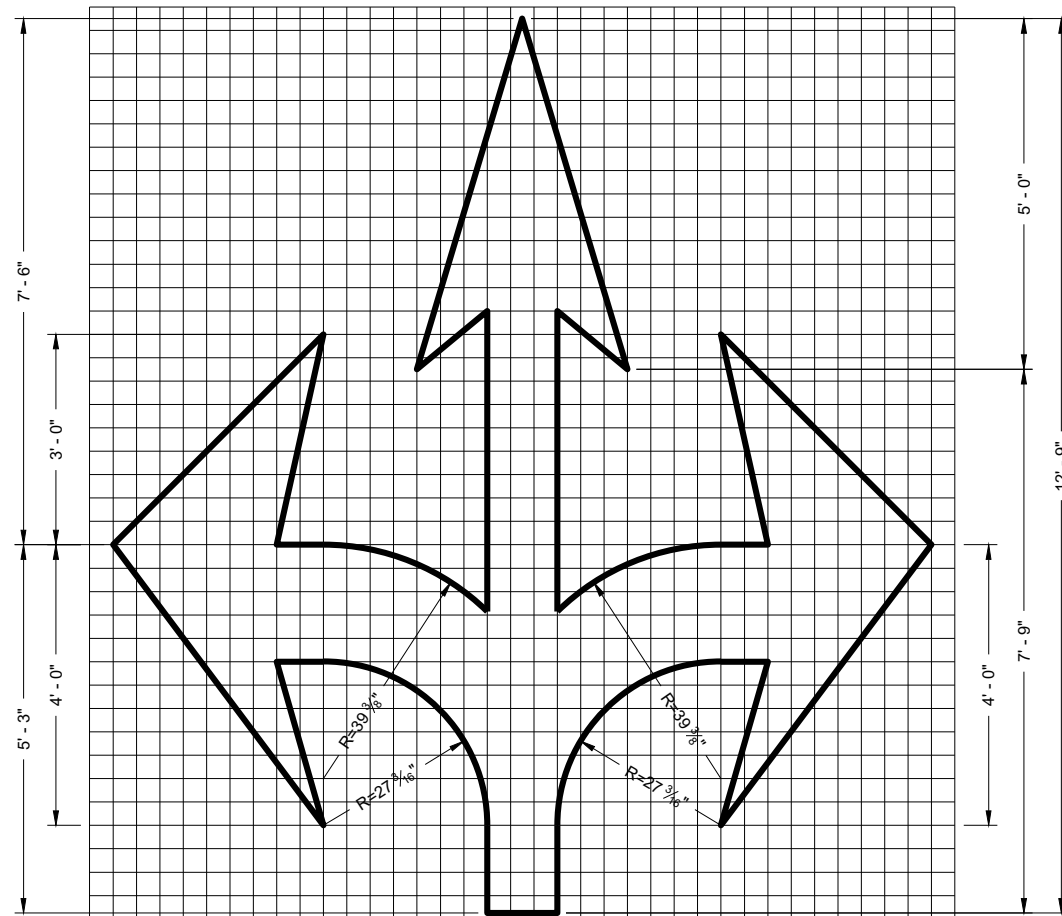
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 7



TYPE 6

GENERAL NOTES

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

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

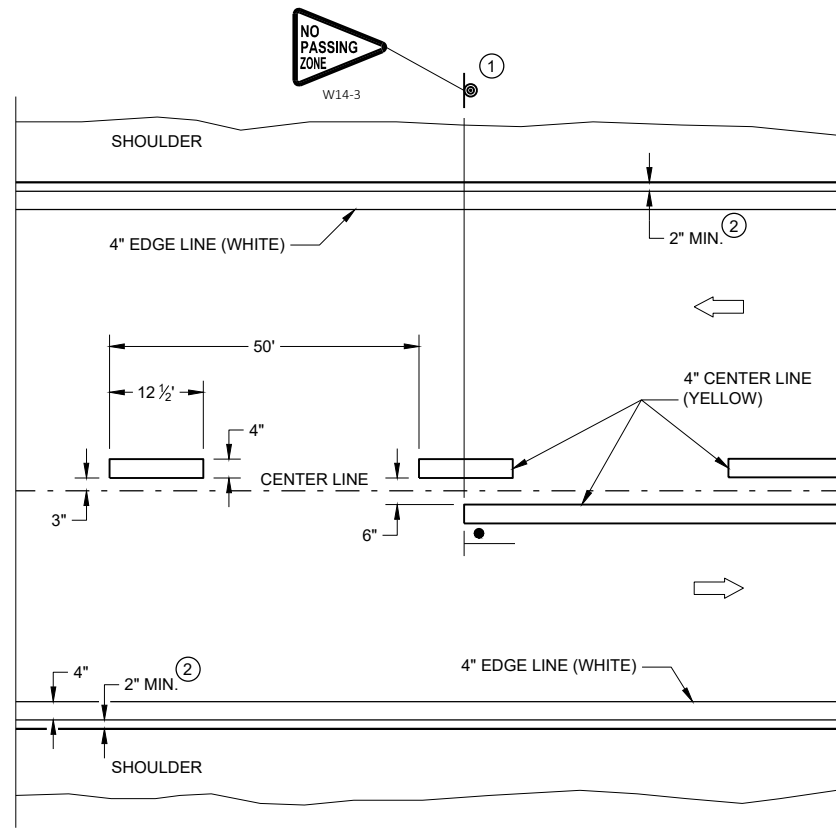
APPROVED

November 2019

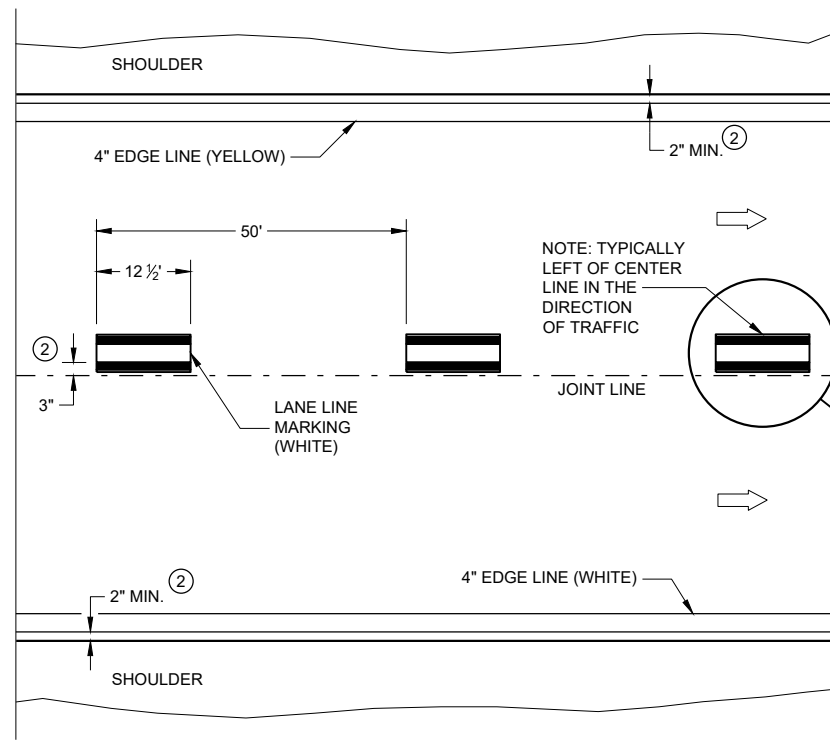
DATE

FHWA

/s/ Matthew Rauch
STATE SIGNING AND MARKING
ENGINEER

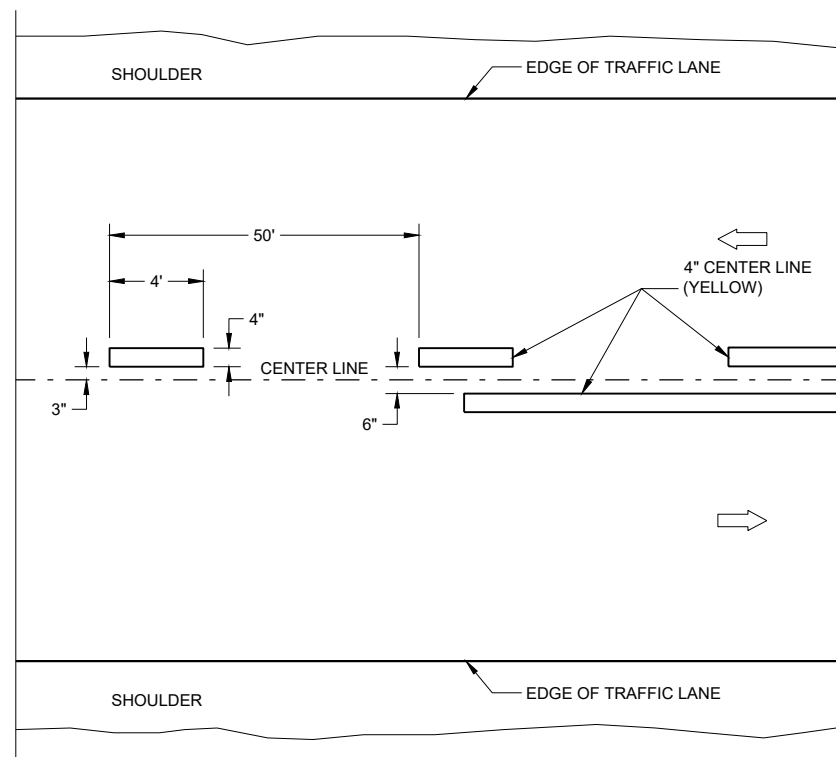


TWO WAY TRAFFIC

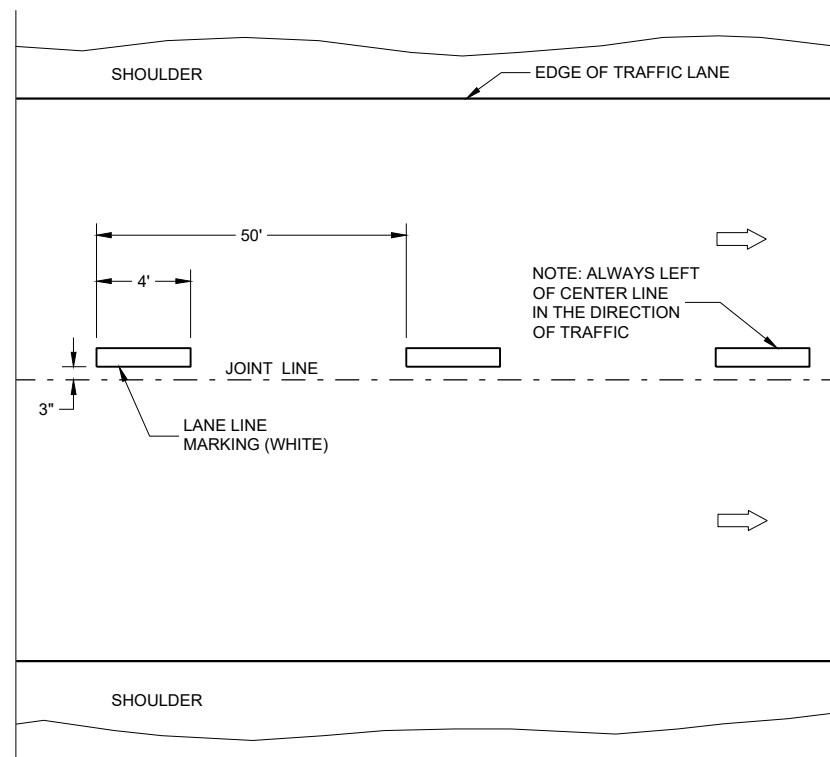


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

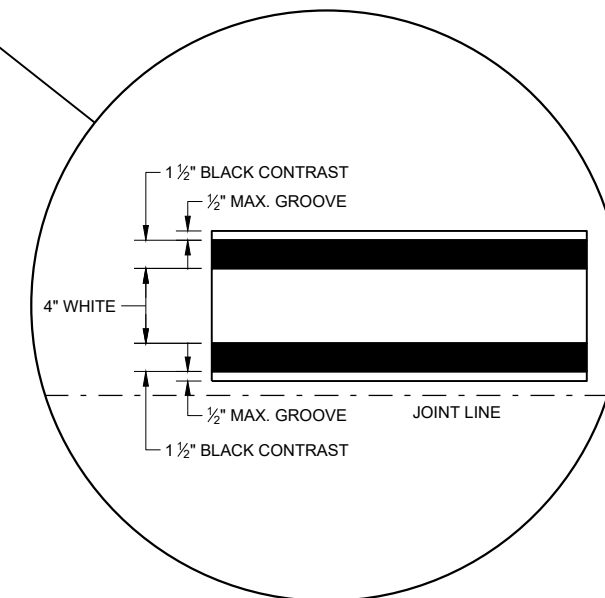
GENERAL NOTES

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

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

LEGEND

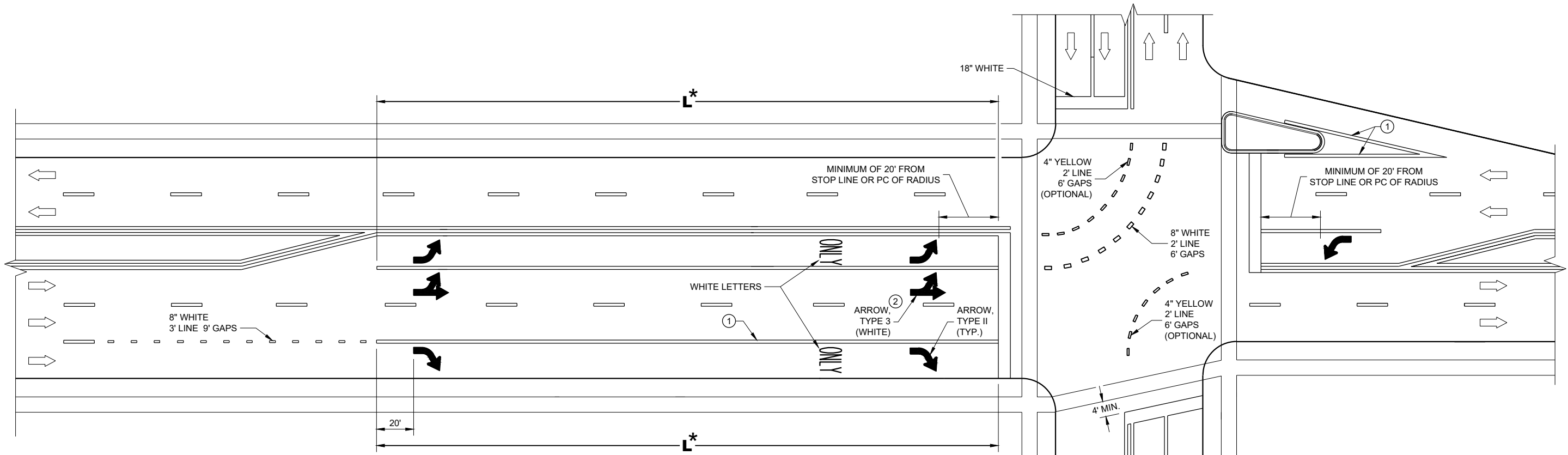
- |— "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC



**LONGITUDINAL MARKING
(MAINLINE)**

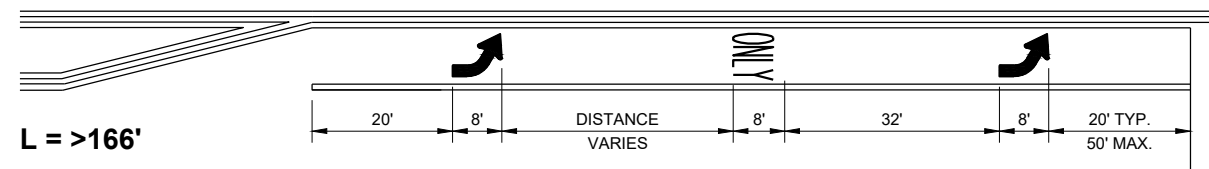
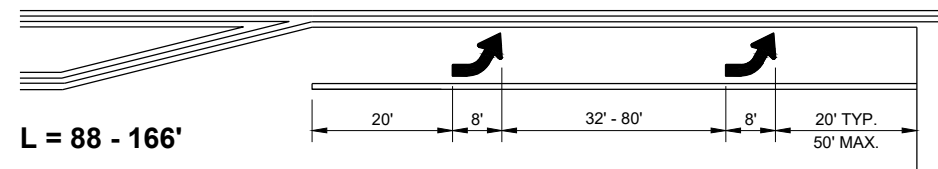
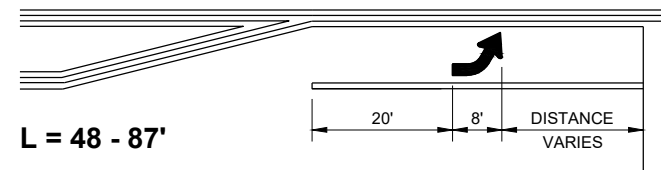
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



TURN LANE OPTIONS

LENGTH OF TURN BAY (L) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



*(SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

GENERAL NOTES

- ① 8" WHITE
- ② 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

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

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

GENERAL NOTES

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

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

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

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

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

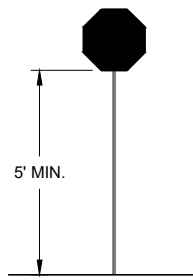
WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

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

TEMPORARY PORTABLE RUMBLE STRIPS

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



STOP/SLOW PADDLE ON SUPPORT STAFF

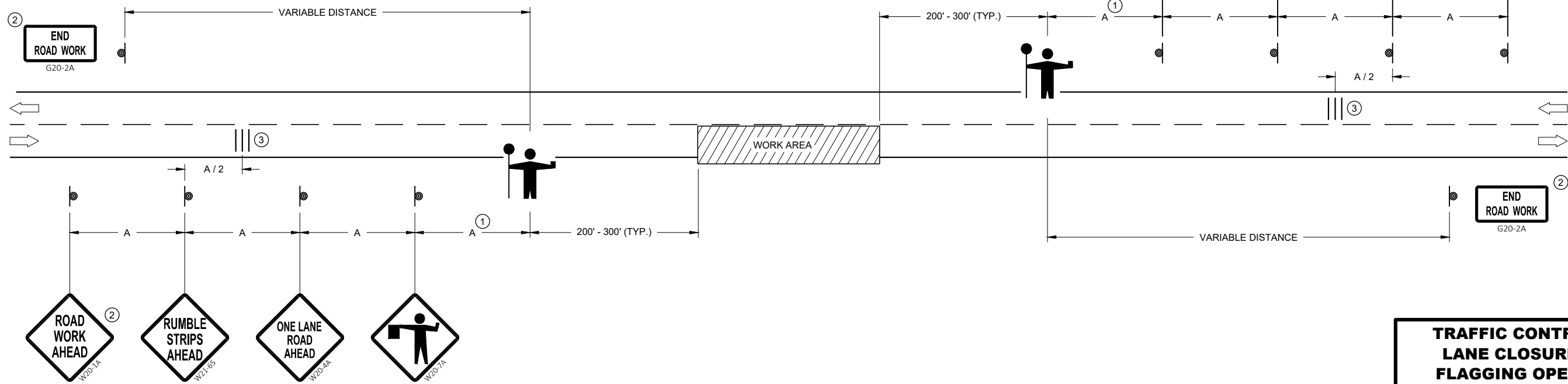
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



W03-4

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

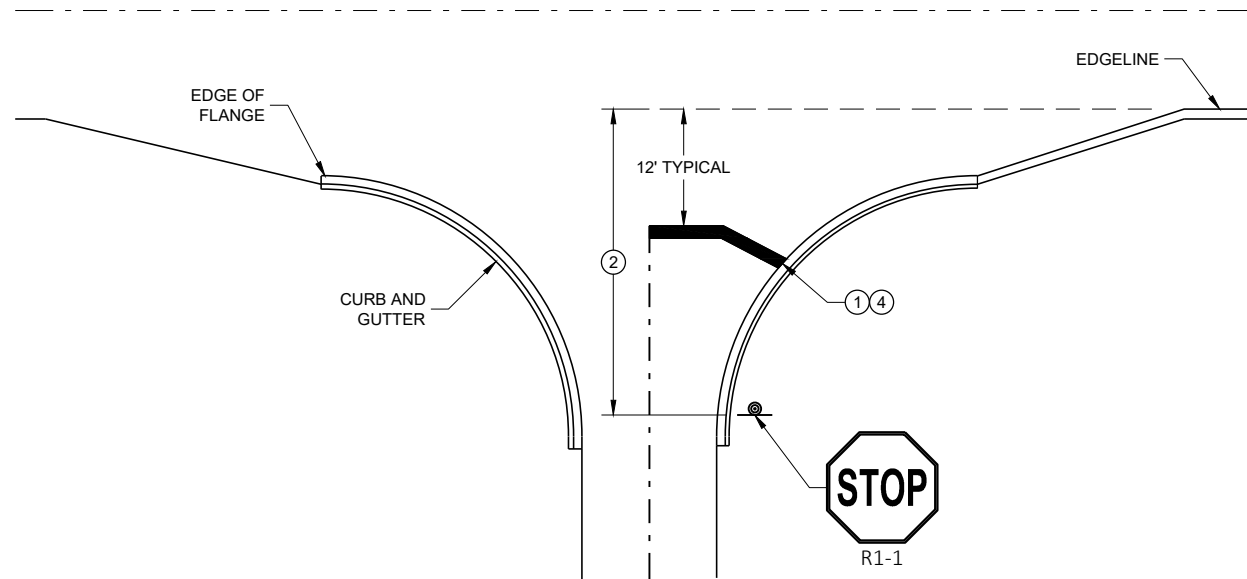
APPROVED
DATE: May 2019 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

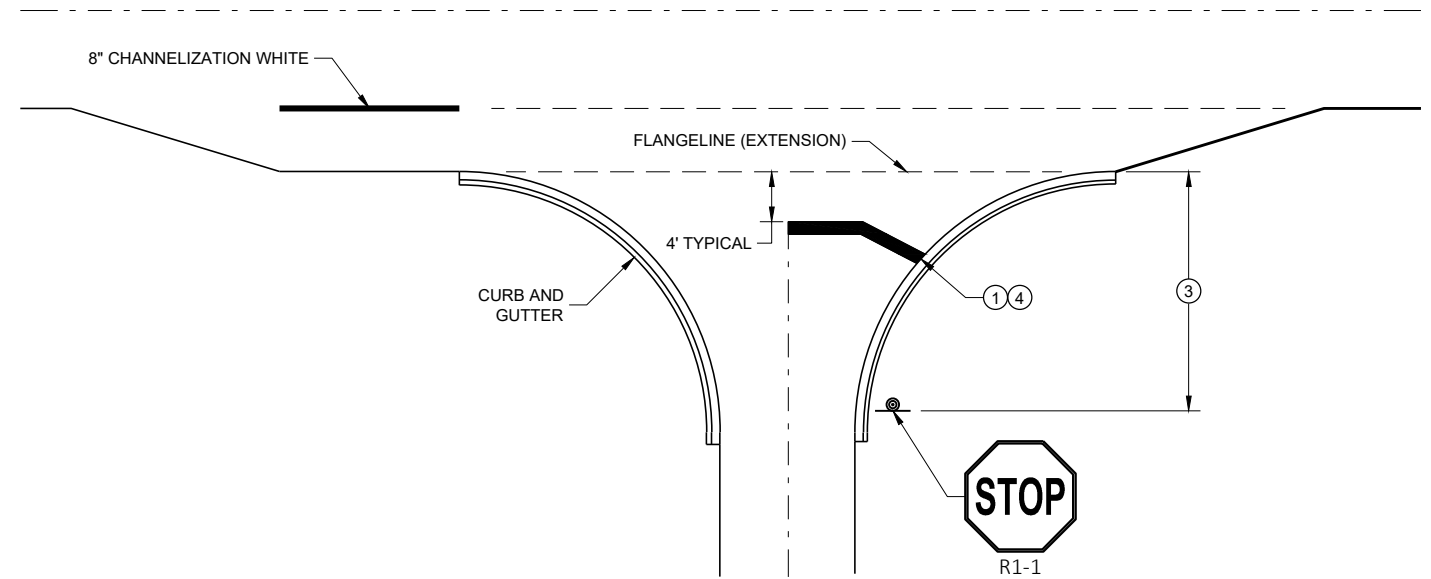
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

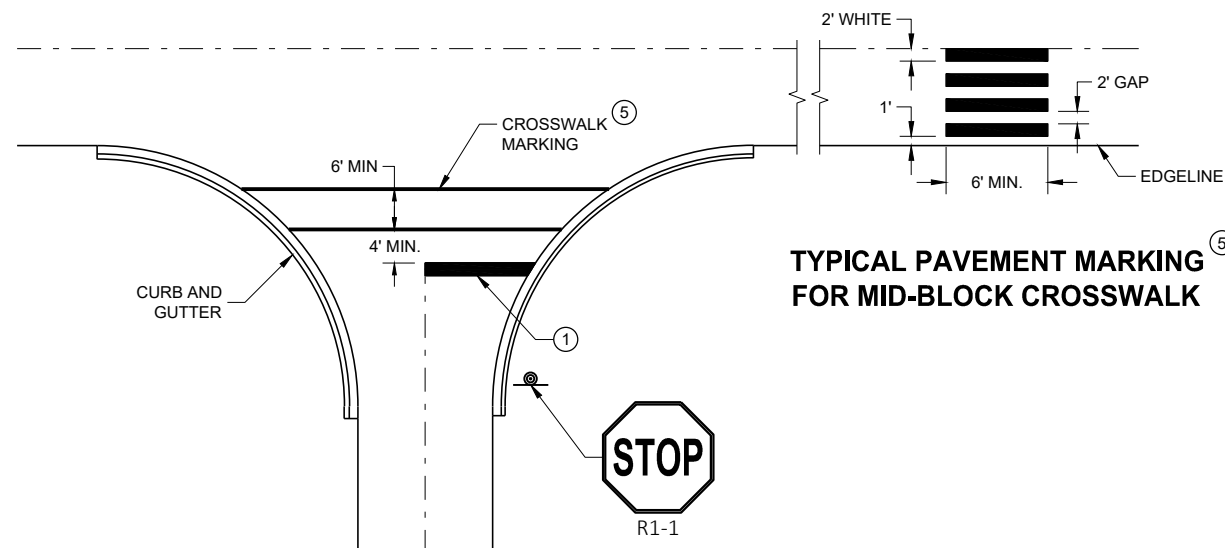
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
- ④ MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- ⑤ LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



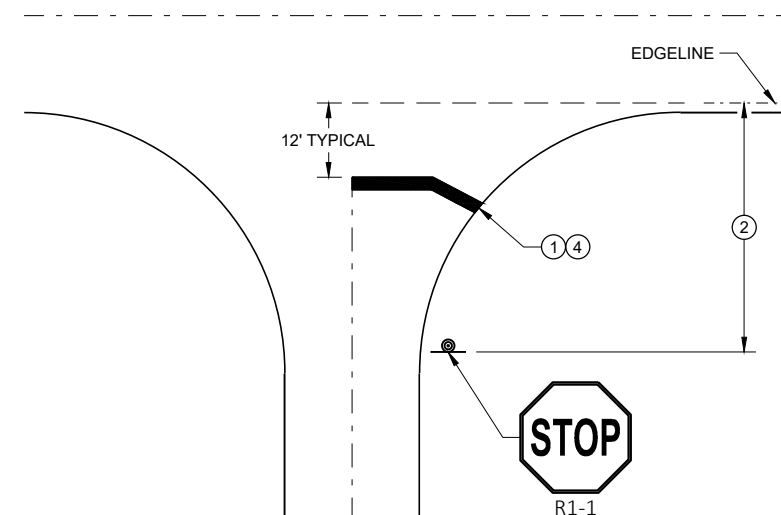
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA

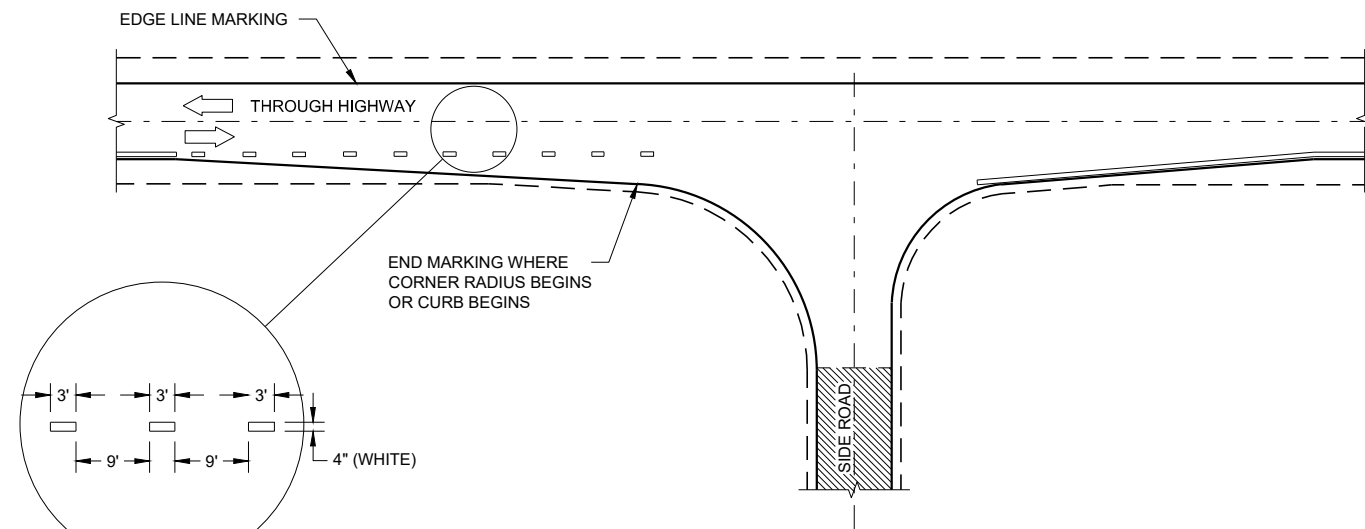
GENERAL NOTES

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

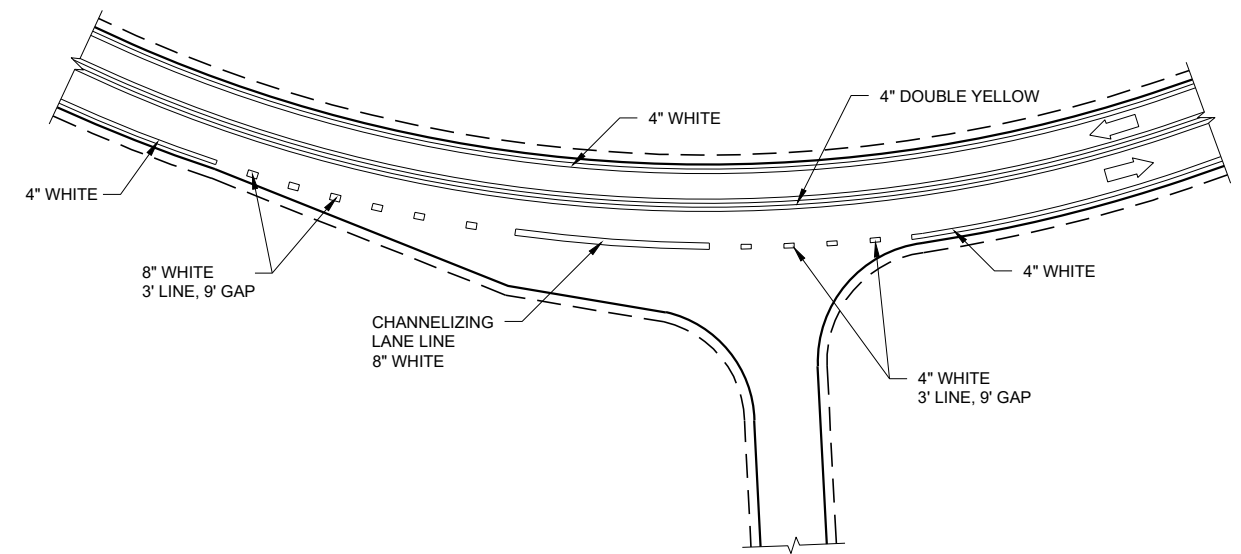
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

LEGEND

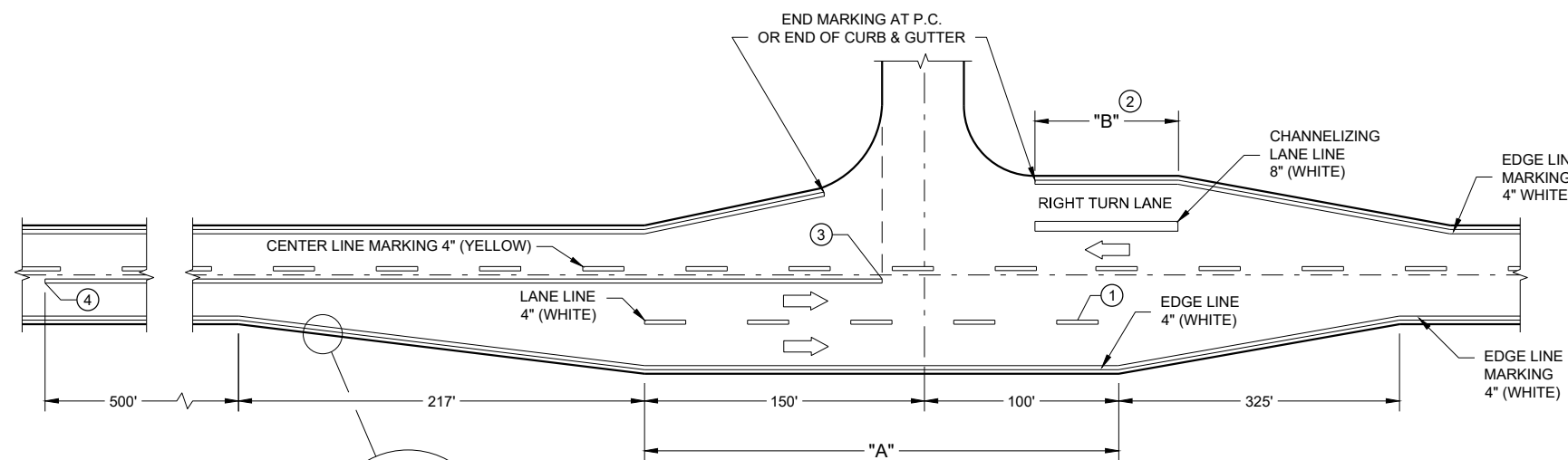
➡ DIRECTION OF TRAVEL



MINOR INTERSECTION



INTERSECTION ON OUTSIDE OF CURVE







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

**PAVEMENT MARKING
(INTERSECTIONS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  DIRECTION OF TRAFFIC
-  WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN 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.

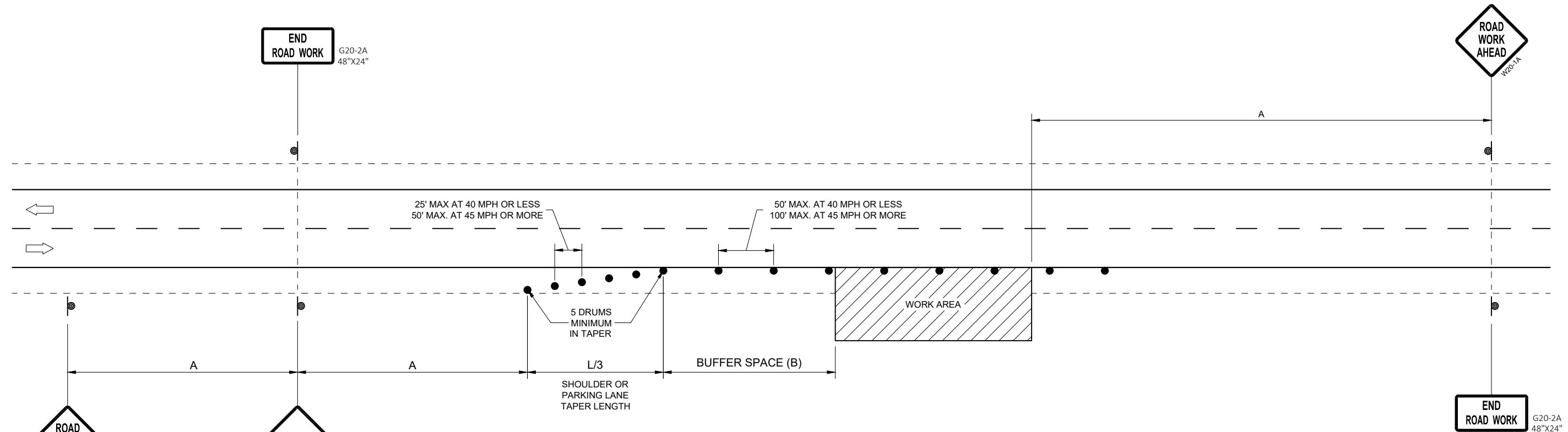
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

6

6



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

SDD 15D28 - 04

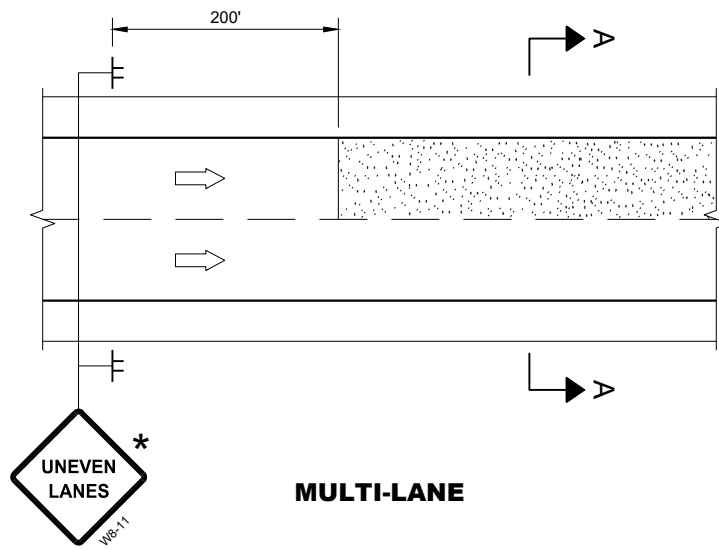
SDD 15D28 - 04

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

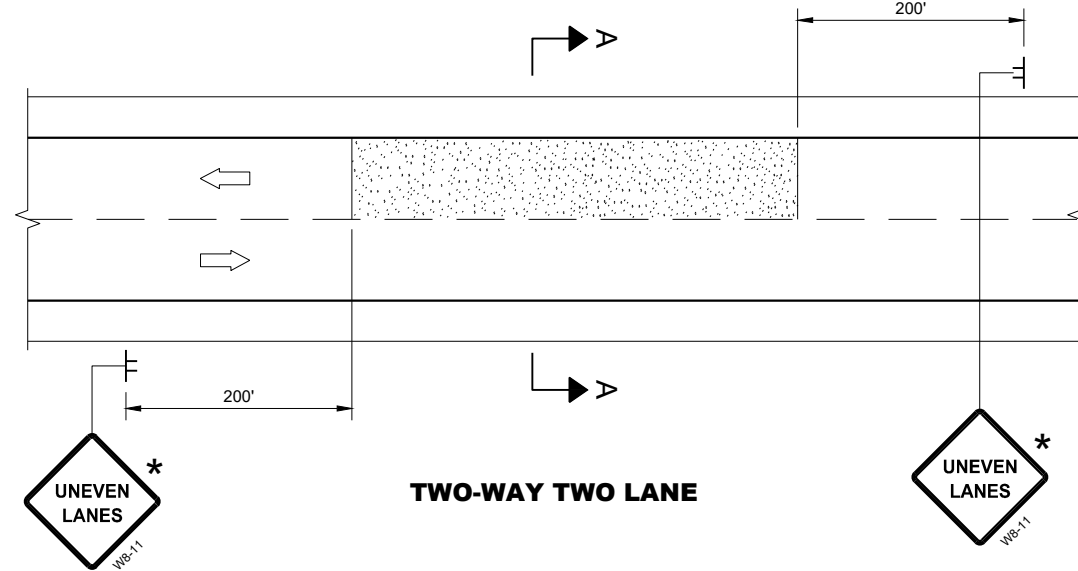
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

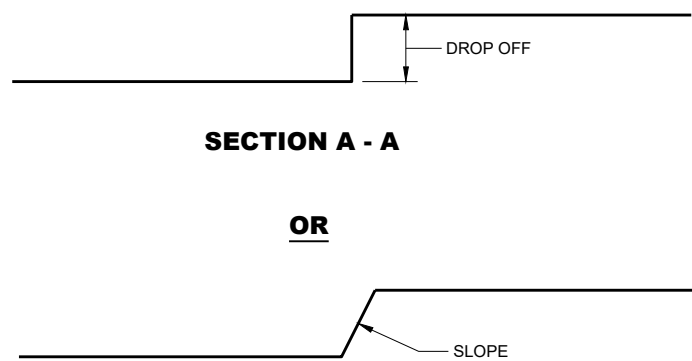
FHWA



MULTI-LANE



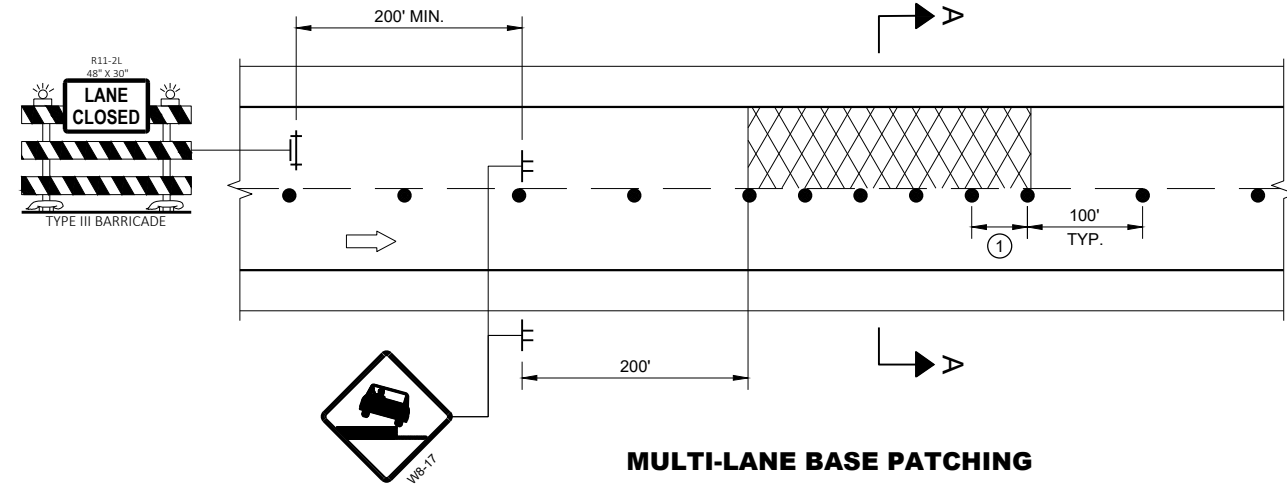
TWO-WAY TWO LANE



SECTION A - A

OR

SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

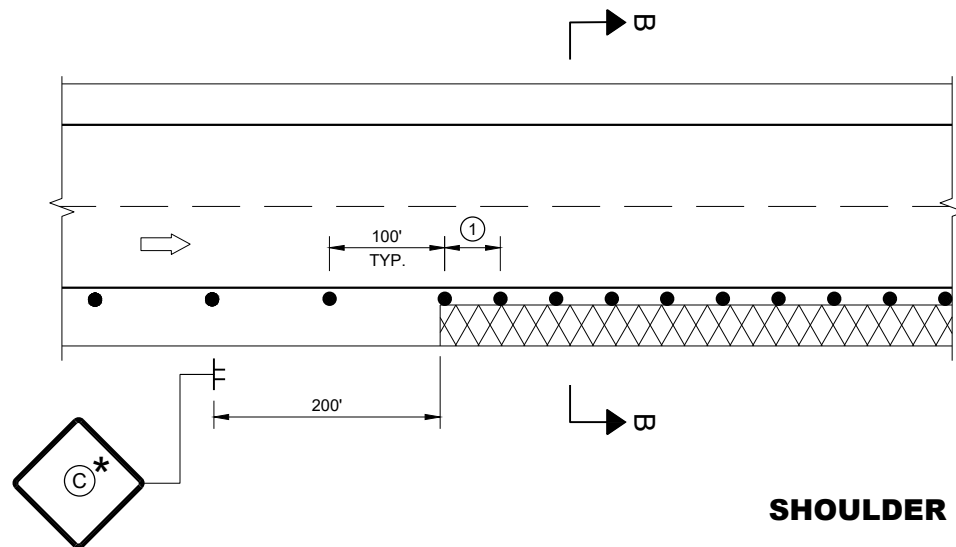
- FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- * IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.
- ① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

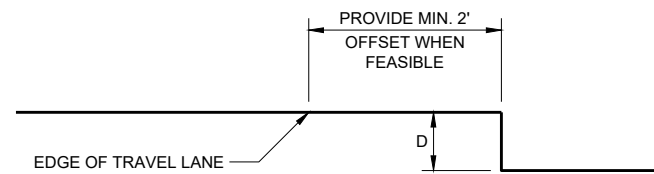
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

6

6



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

SDD 15D39 - 02

SDD 15D39 - 02

**TRAFFIC CONTROL,
DROP-OFF SIGNING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Andrew Heidtke
DATE DATE WORK ZONE ENGINEER

FHWA

GENERAL NOTES

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

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

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

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

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

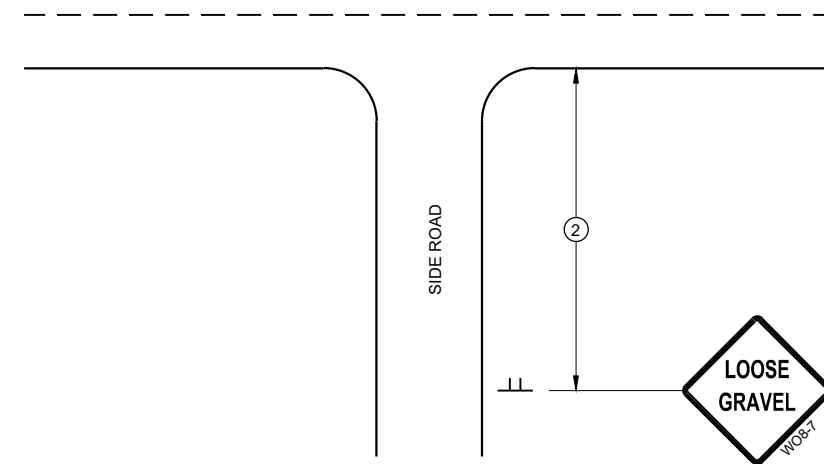
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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

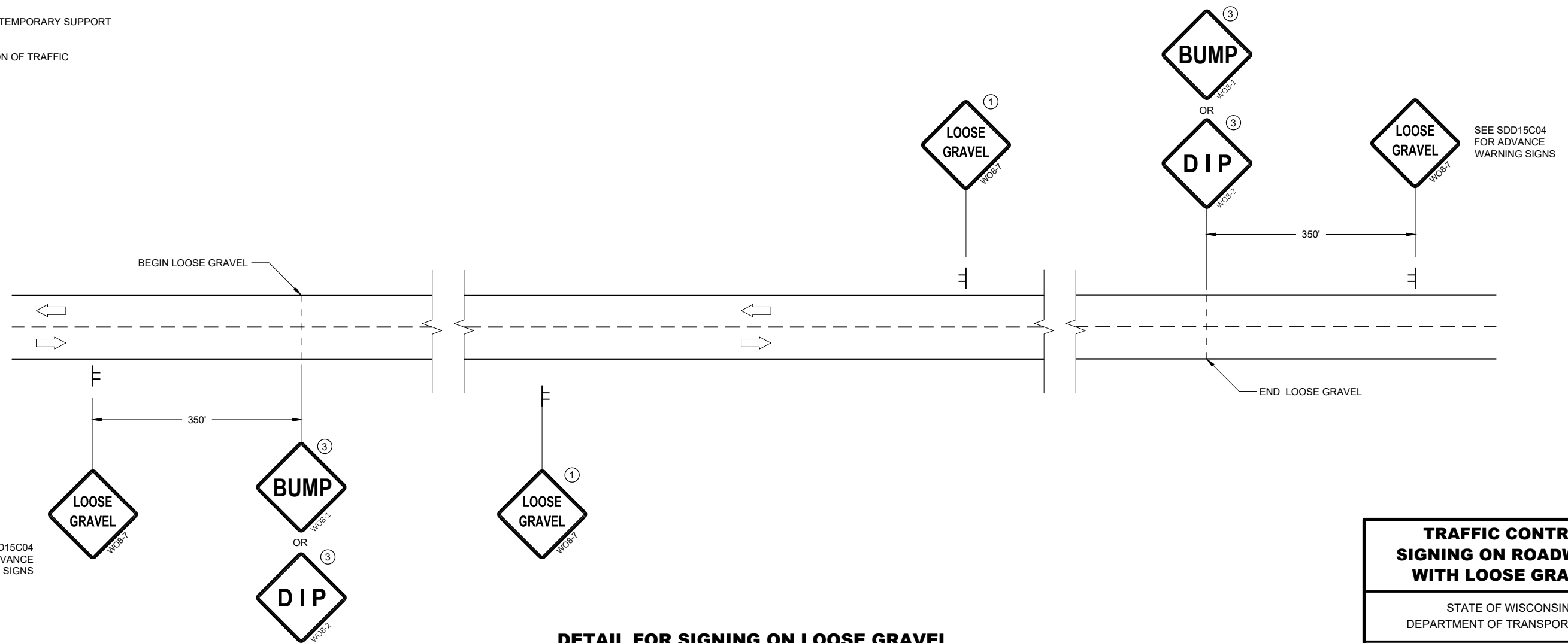
- ① PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- ③ ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

LEGEND

- ⊥ SIGN ON TEMPORARY SUPPORT
- ➡ DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

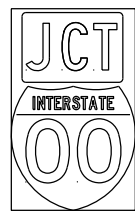
SEE SDD15C04 FOR ADVANCE WARNING SIGNS

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

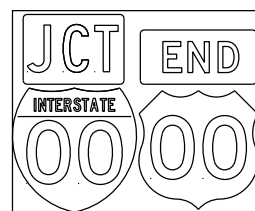
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

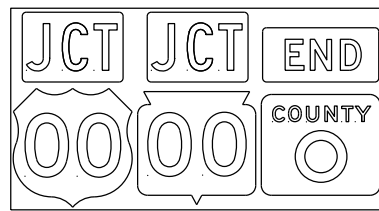
TYPICAL ASSEMBLIES



J1-1



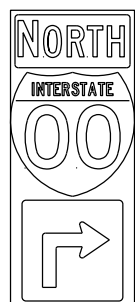
J1-2



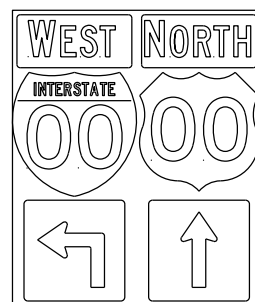
J1-3



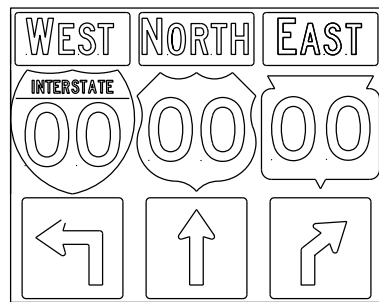
JR1-1



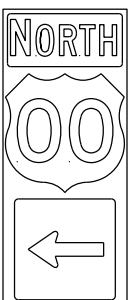
J2-1



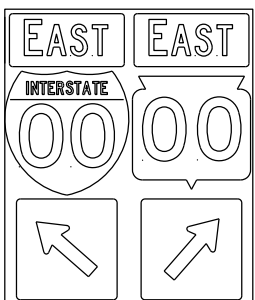
J2-2



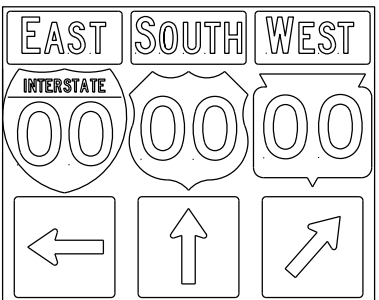
J2-3



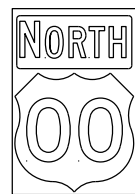
J3-1



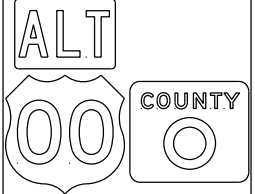
J3-2



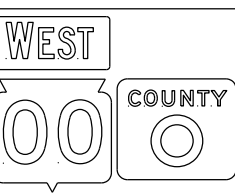
J3-3



J4-1



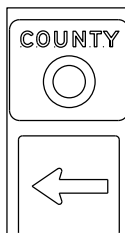
J4-2



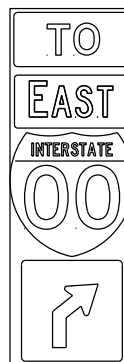
J4-2



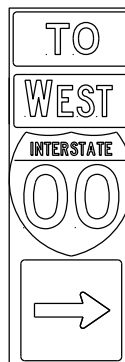
J12-1



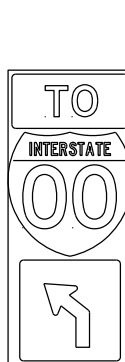
J13-1



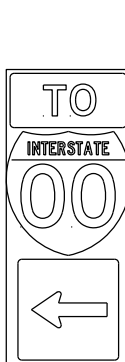
J32-1



J33-1



J22-1



J23-1



JR13-1



JR23-1

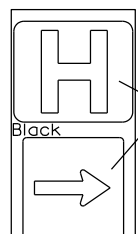


JR99-1



JV

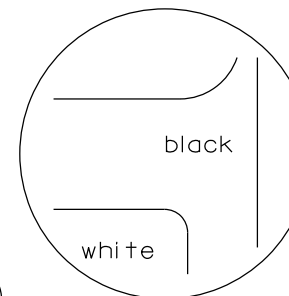
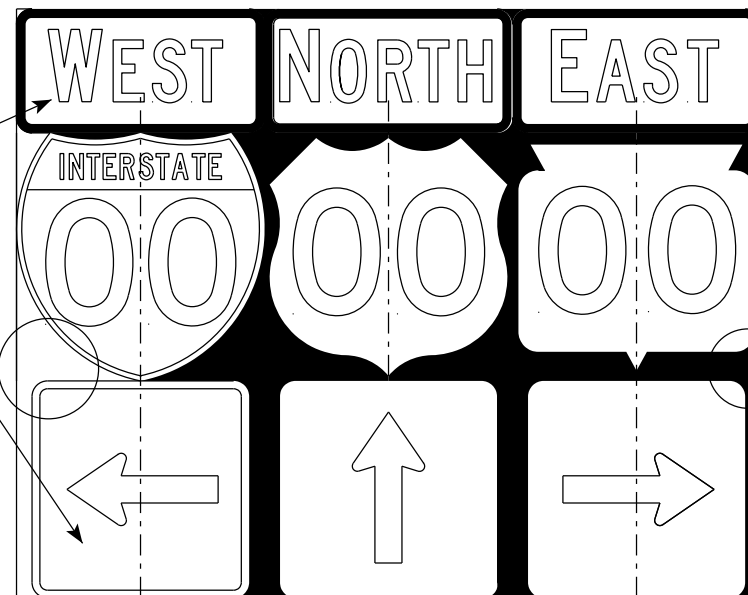
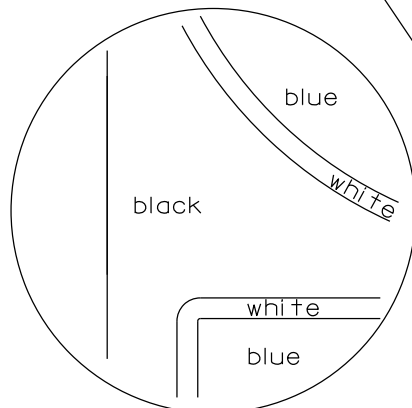
(Typical Vertical J-Assembly See Note 10 and 11)



JH-1

Blue Background

blue background with interstate



black background

NOTES

- Signs are Type II - Type H Reflective
- Color:
 - Background - Black Non-reflective
 - Message - see Note 5
- Message Series - See Note 5
- Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
- The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
- Certain marker heads require the component pieces to be the same color. As an example, all the components used with an MI-1 Interstate marker shall be blue.
- Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
- Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
- Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
- All Vertical J Assemblies are given a Sign Code of JV
- For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

7

7

PROJECT NO:

FILE NAME : C:\CAEfiles\Projects\tr_stdplote_A21S.dgn

PLOT DATE : 18-MAR 2021 1:37

PLOT BY : mscj9h

PLOT NAME :

SHEET NO:

E

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

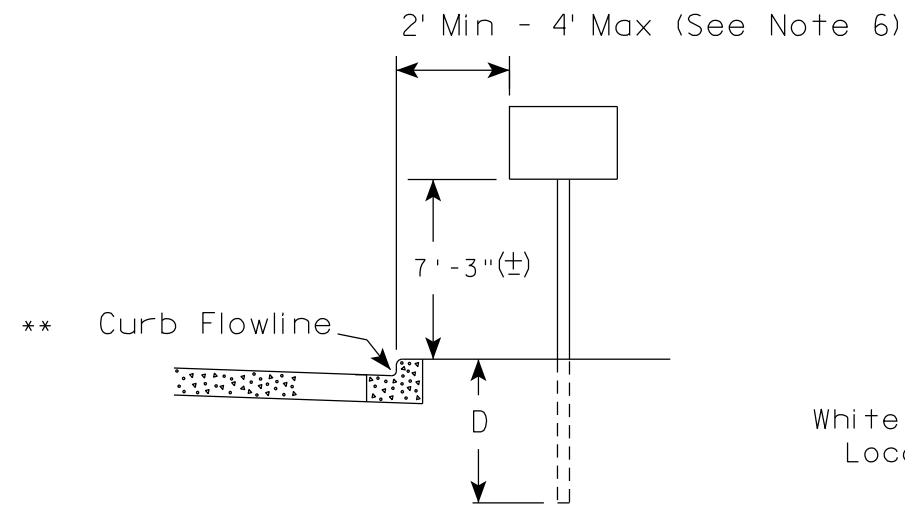
DATE 3/18/21

PLATE NO. A2-1S.9

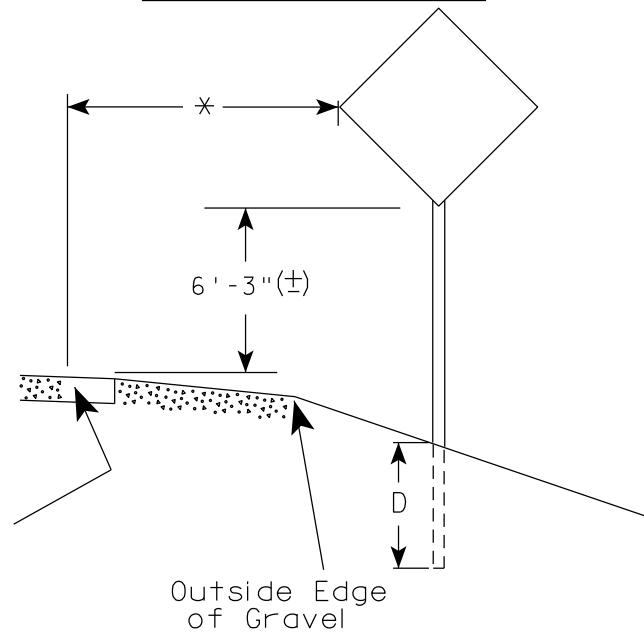
WISDOT/CADDs SHEET 42

URBAN AREA

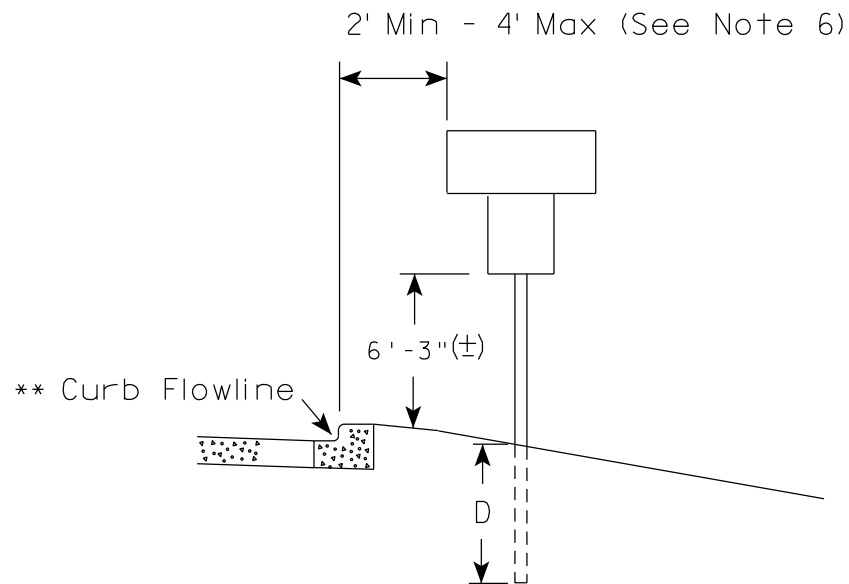
RURAL AREA (See Note 2)



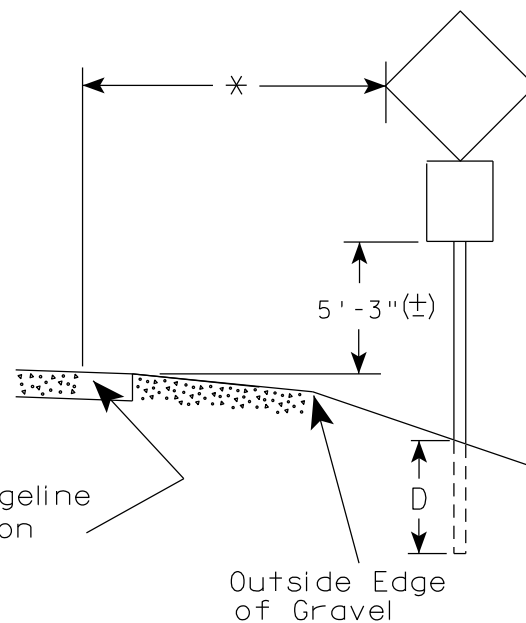
White Edgeline Location



Outside Edge of Gravel



White Edgeline Location



Outside Edge of Gravel

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

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

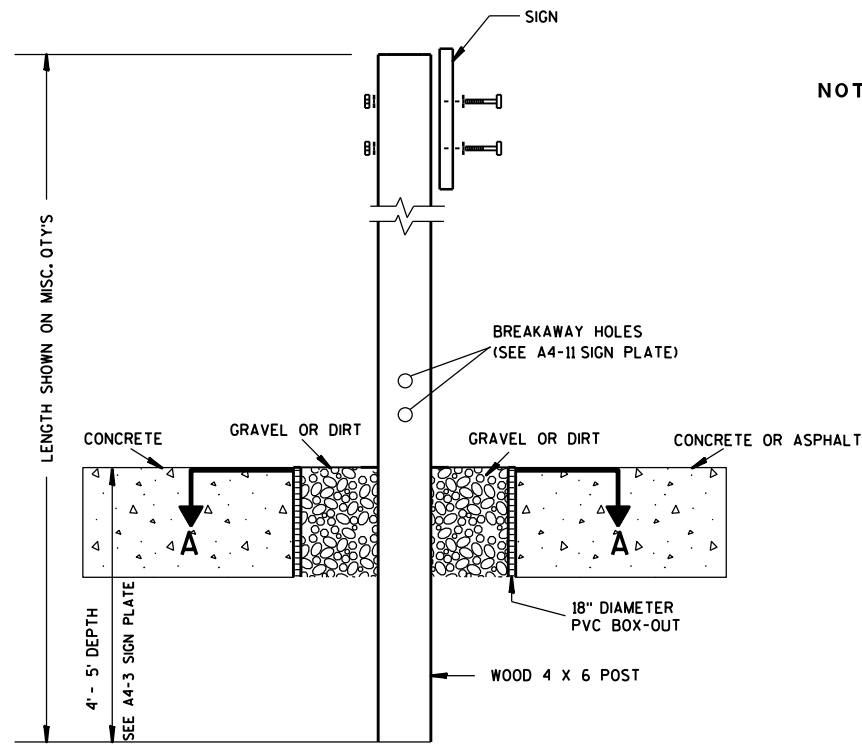
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

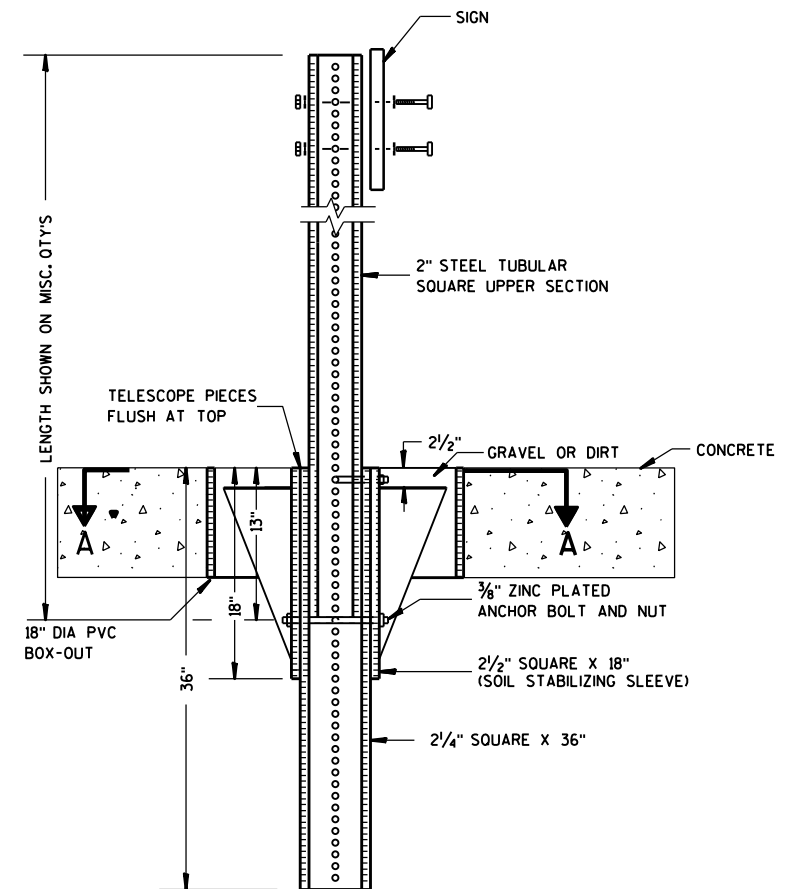
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

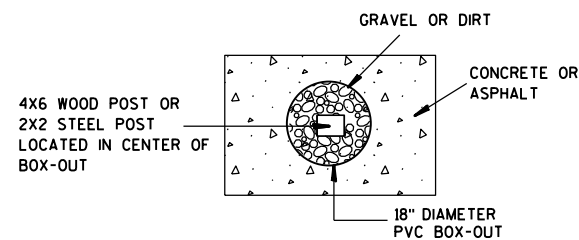
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

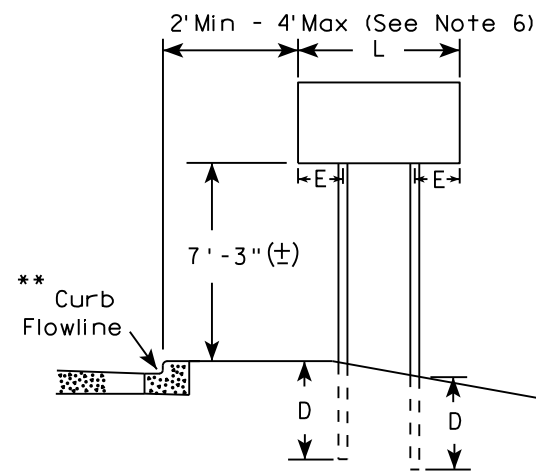
FOR NEW CONCRETE/ ASPHALT INSTALLATIONS

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

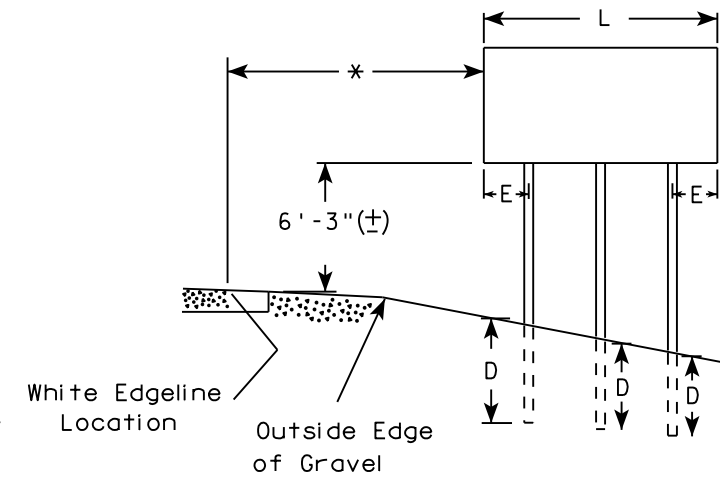
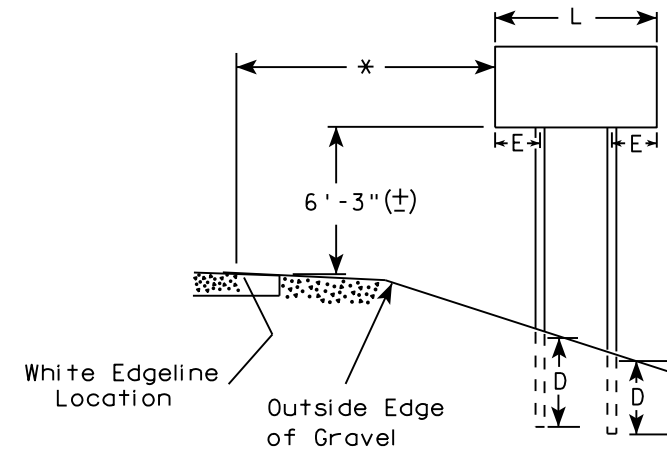
GENERAL NOTES

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

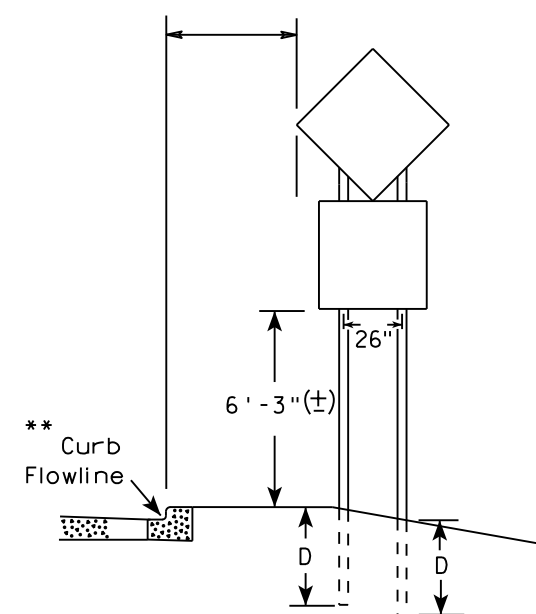
URBAN AREA



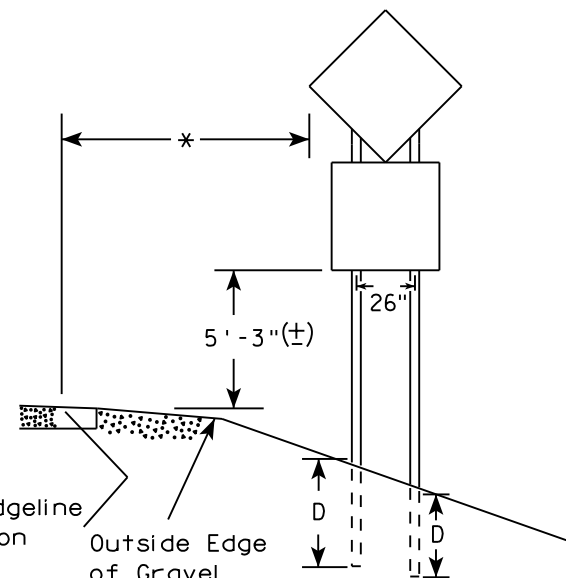
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

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

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

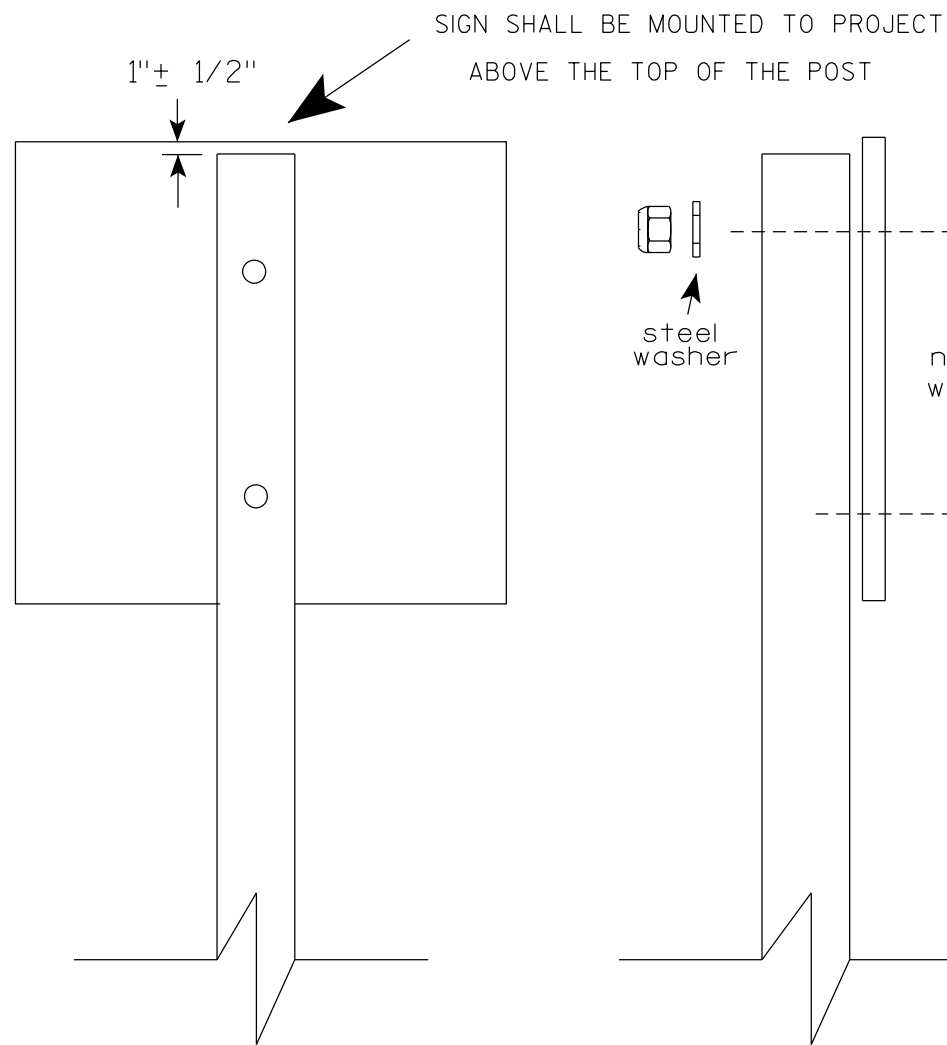
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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



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

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

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

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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

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

ATTACHMENT OF SIGNS
TO POSTS

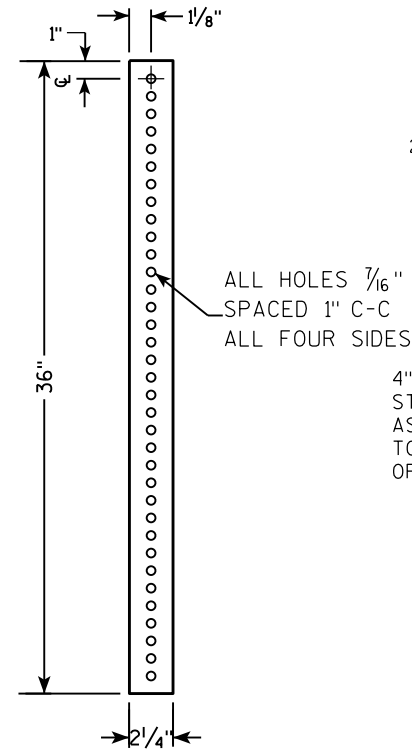
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

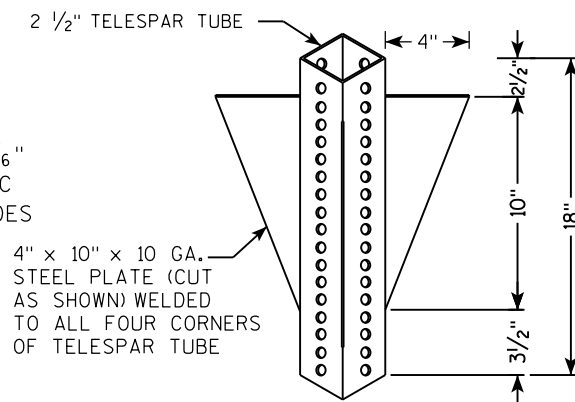
DATE 4/1/2020 PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

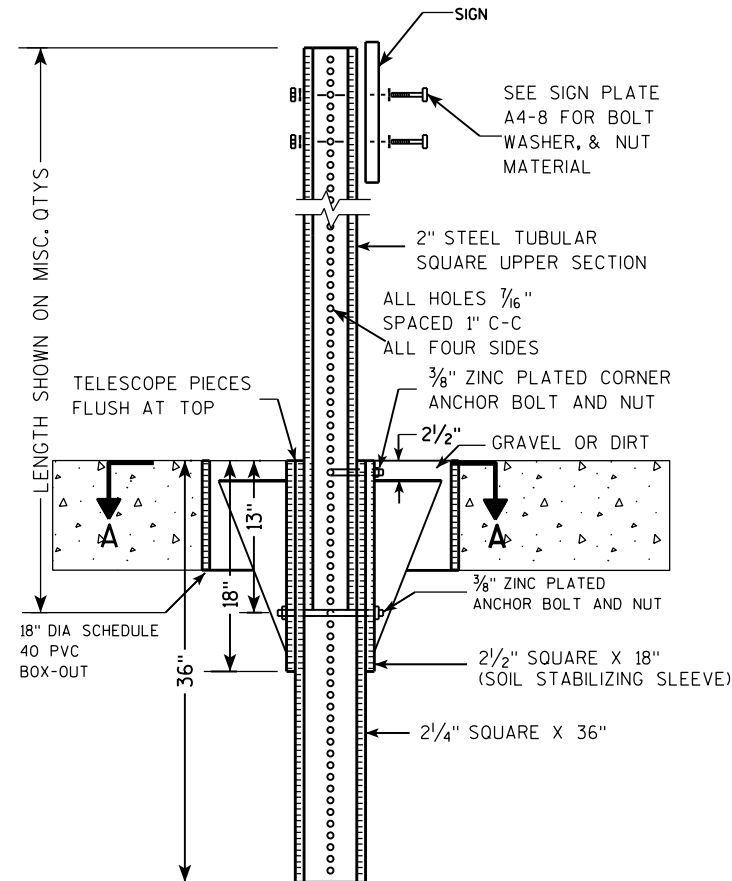
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



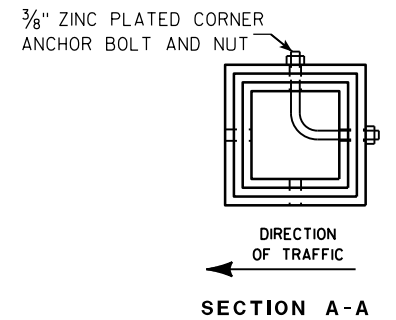
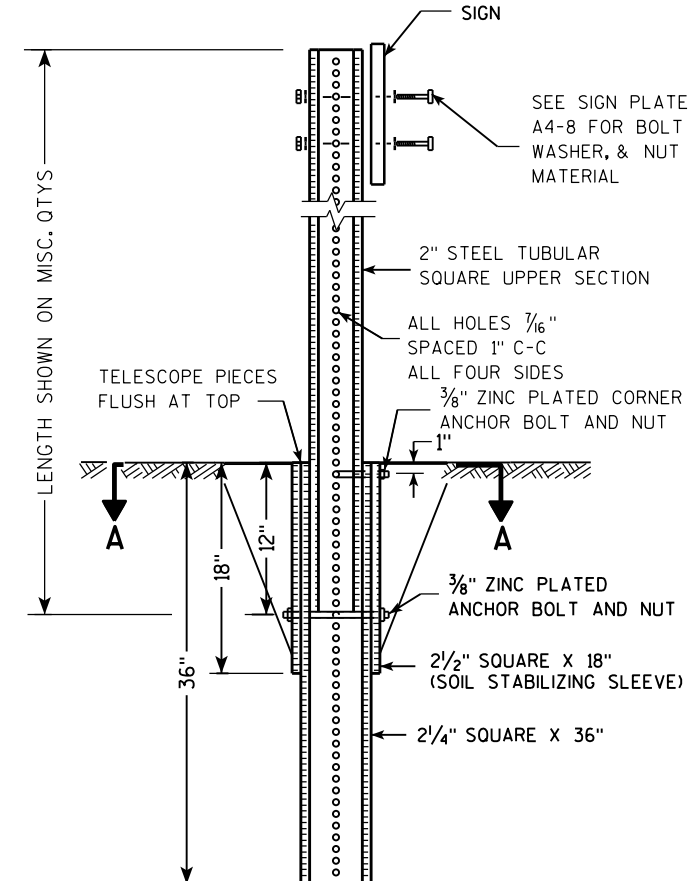
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



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



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



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

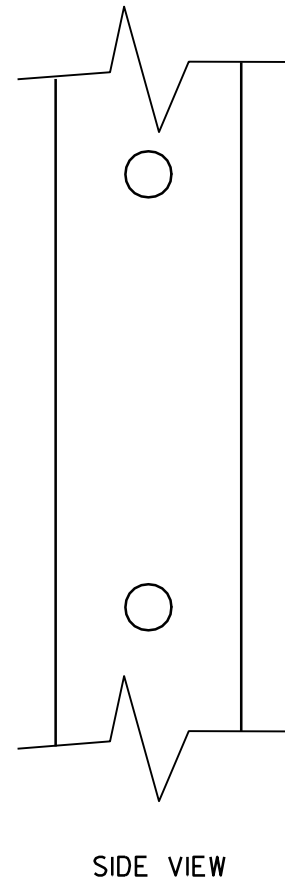
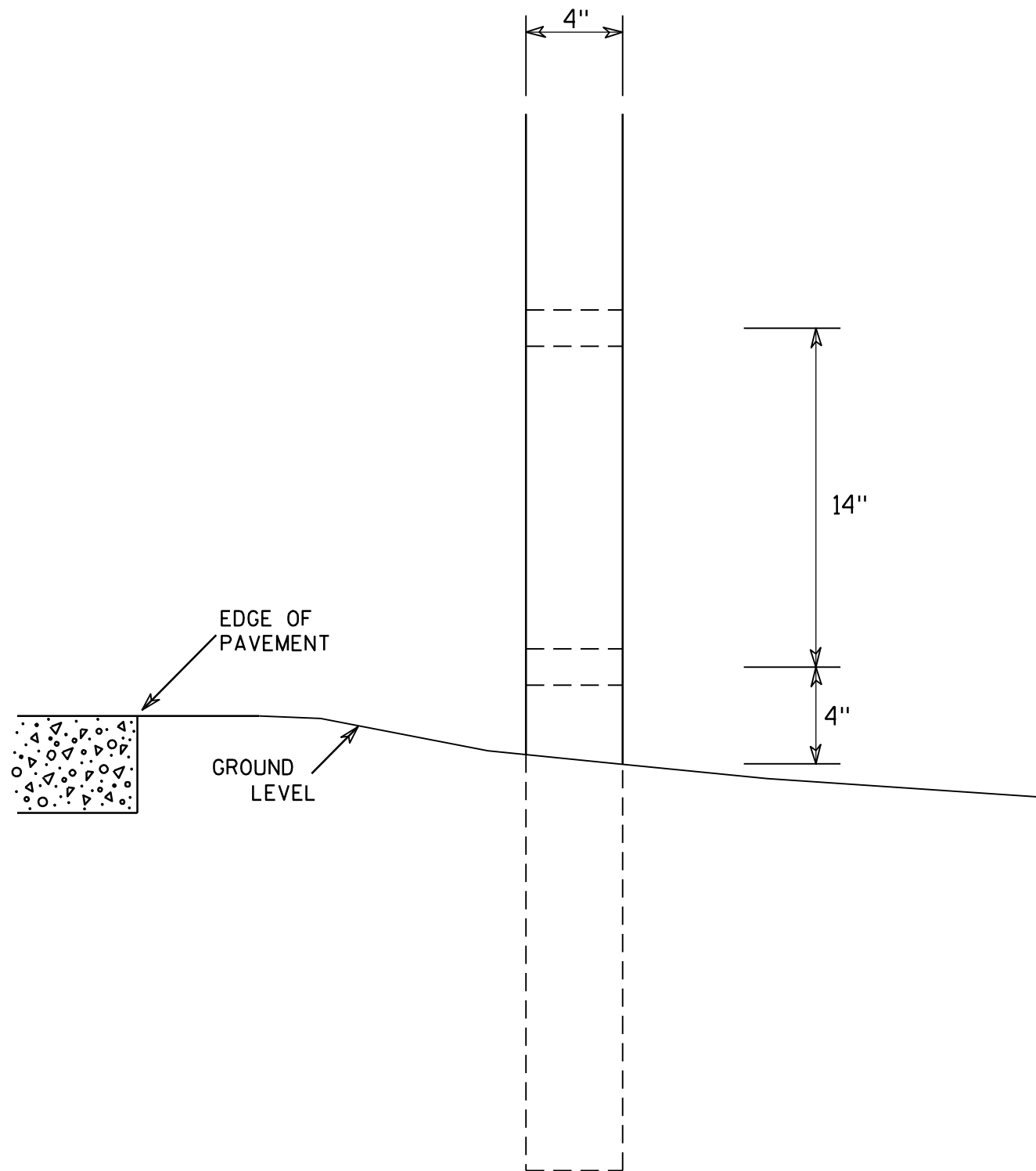
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**TUBULAR STEEL
SIGN POST
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



GENERAL NOTES

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

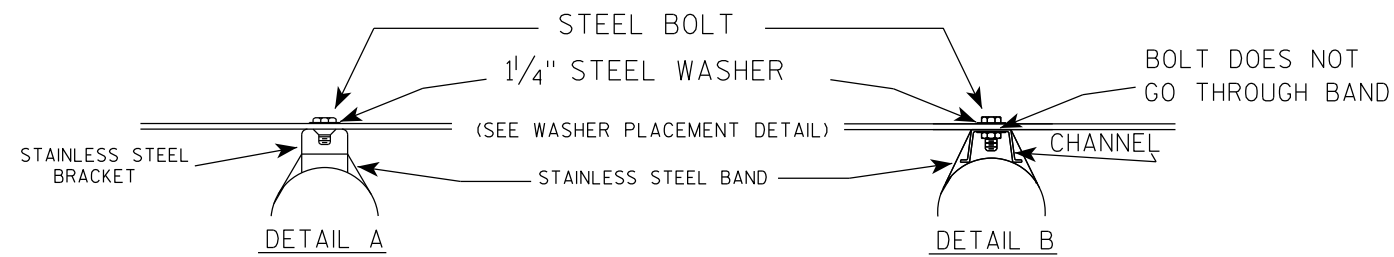
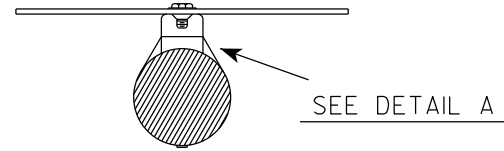
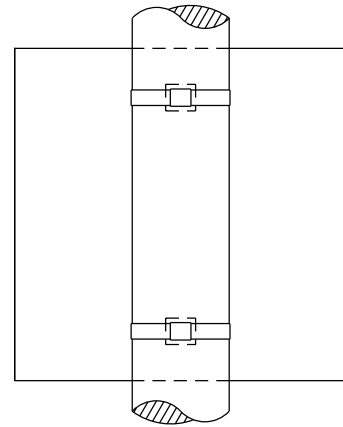
7

7

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

BANDING

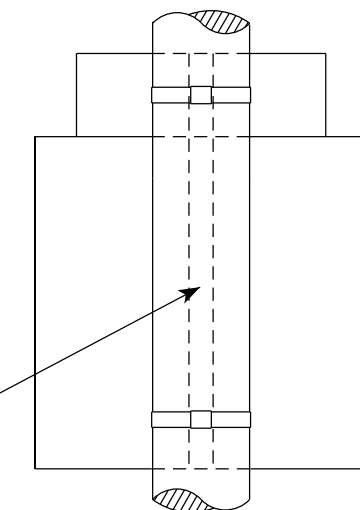
SINGLE SIGN



GENERAL NOTES

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 3/4" 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

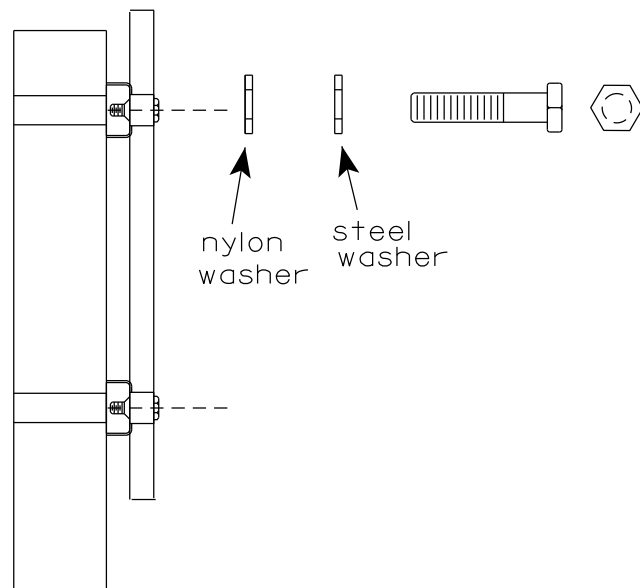
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

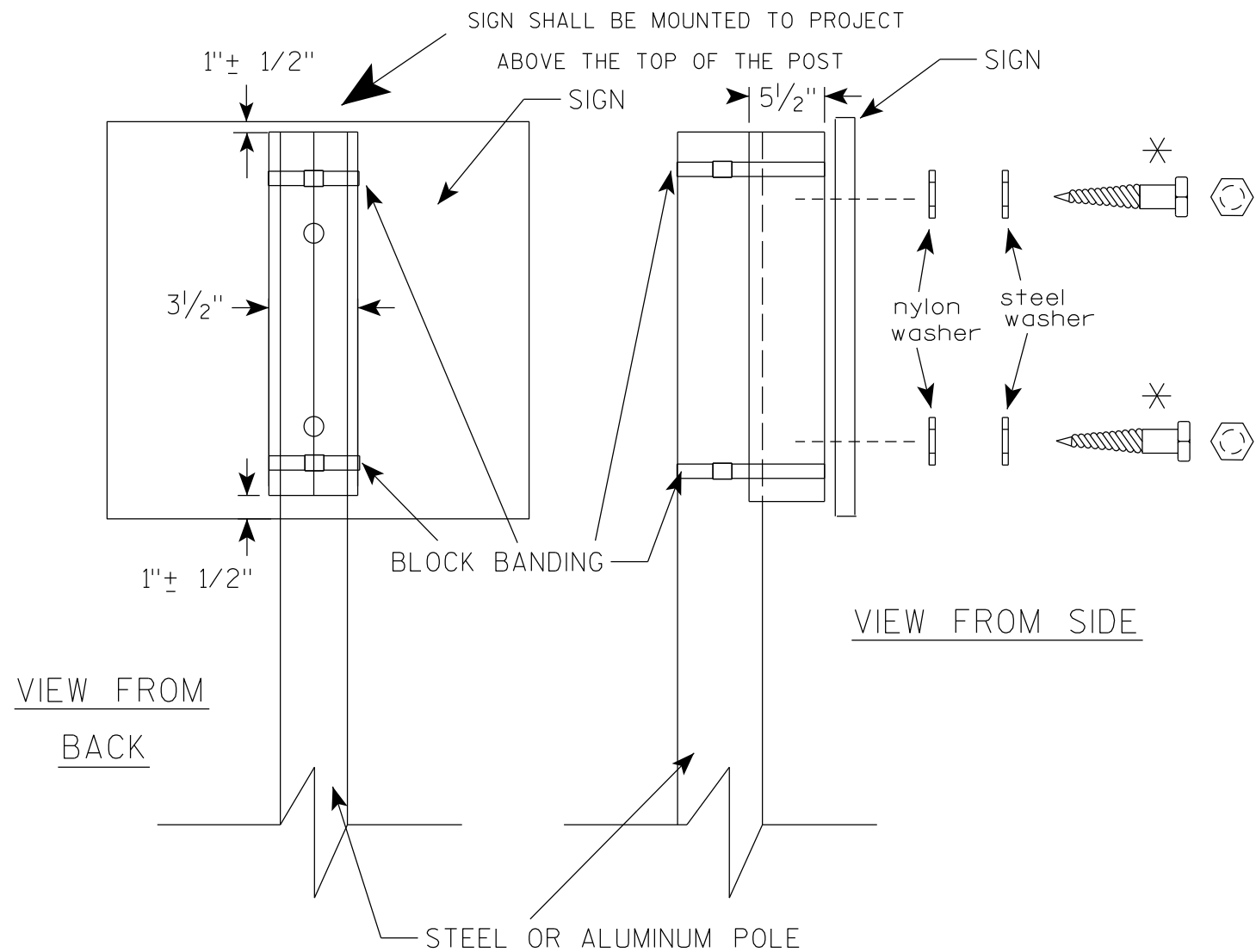


WASHER PLACEMENT



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

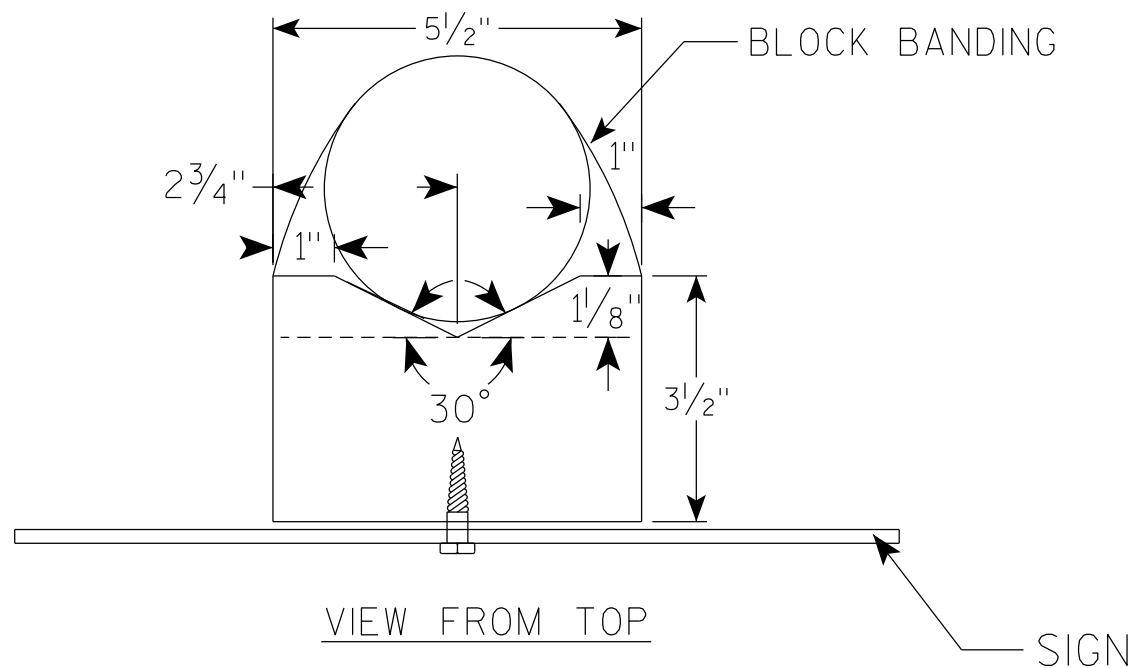
STANDARD SIGN
SIGN BANDING DETAILS
WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4



GENERAL NOTES

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

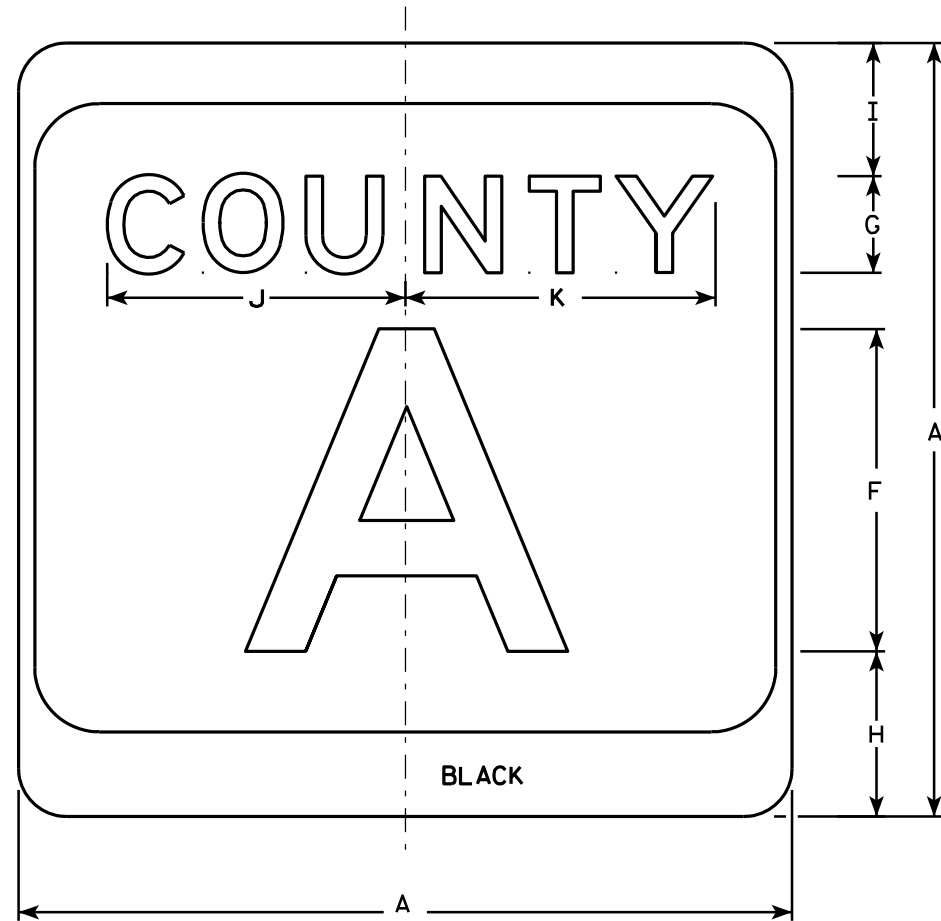
✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"



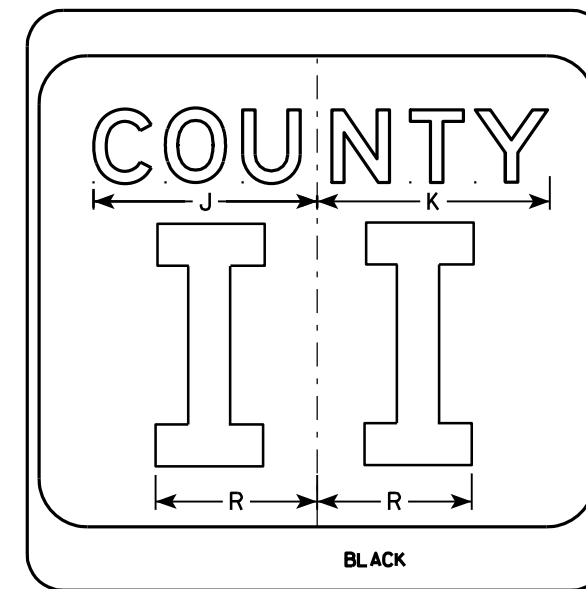
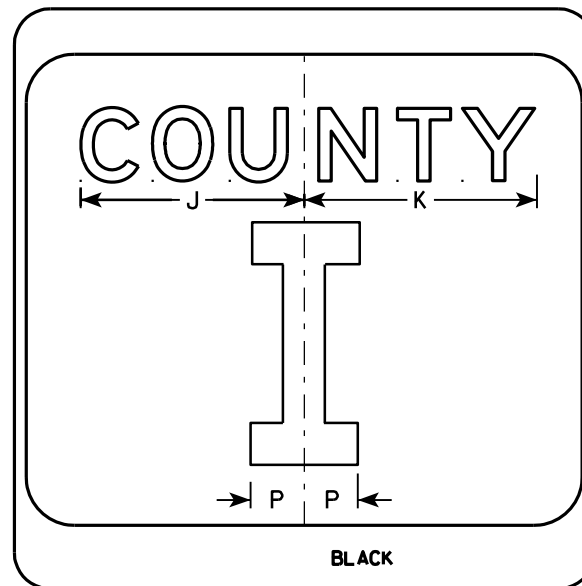
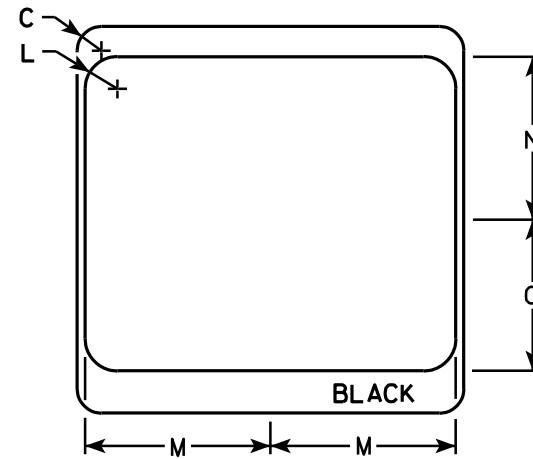
BLOCK BANDING DETAIL (V-BLOCK OPTION)	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> for State Traffic Engineer
DATE 6/10/19	PLATE NO. A5-10.2

NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 7
Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
Message Series D for 2 letters unless message is too big then Series C.
Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective



M1-5A



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

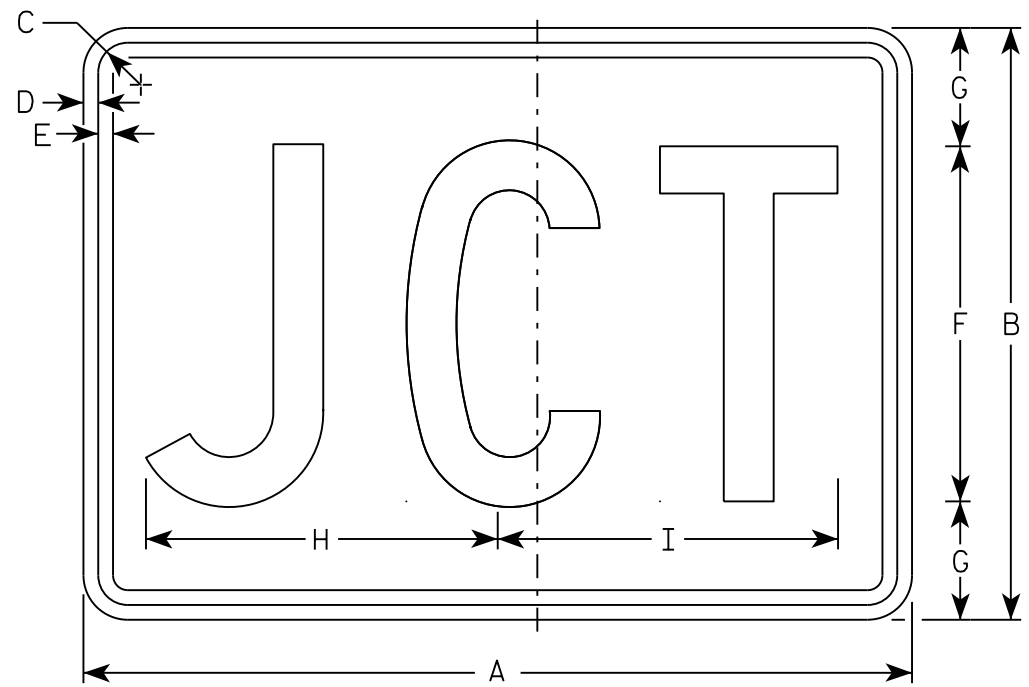
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 9/27/11 PLATE NO. MI-5A.8

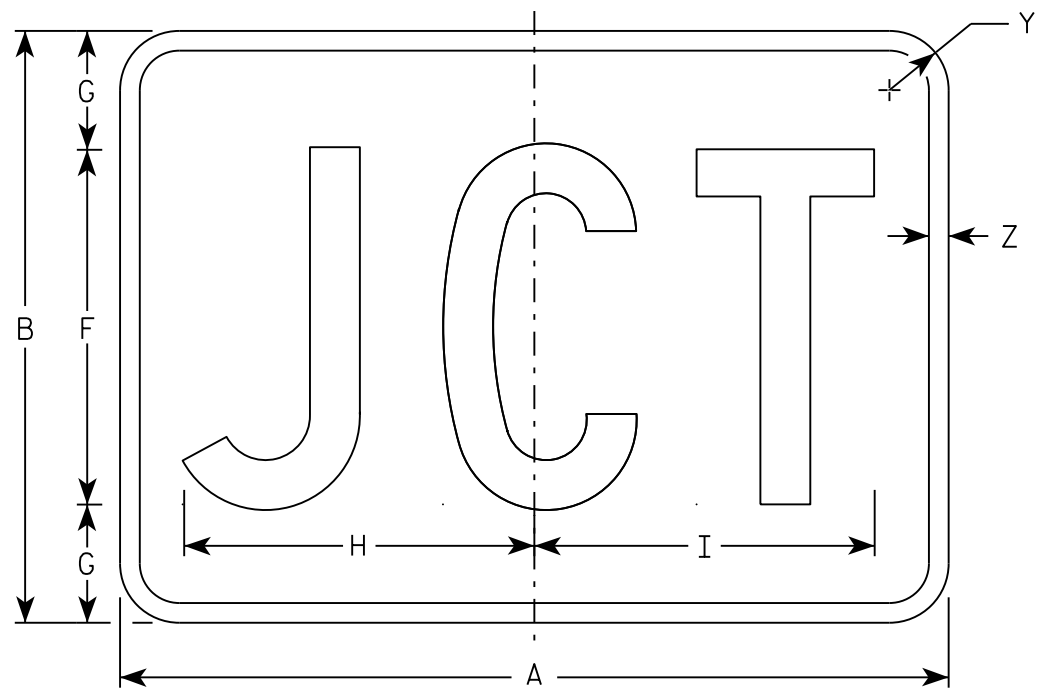
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sign is Type II - Type H
2. Color:
 - Background - See note 5
 - Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White
 Message - Black
 MB2-1 Background - Blue
 Message - White
 MK2-1 Background - Green
 Message - White
 MM2-1 Background - White
 Message - Green
 MN2-1 Background - Brown
 Message - White
 MP2-1 Background - White
 Message - Blue
 MR2-1 Background - Brown
 Message - Yellow



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

STANDARD SIGN
M2-1

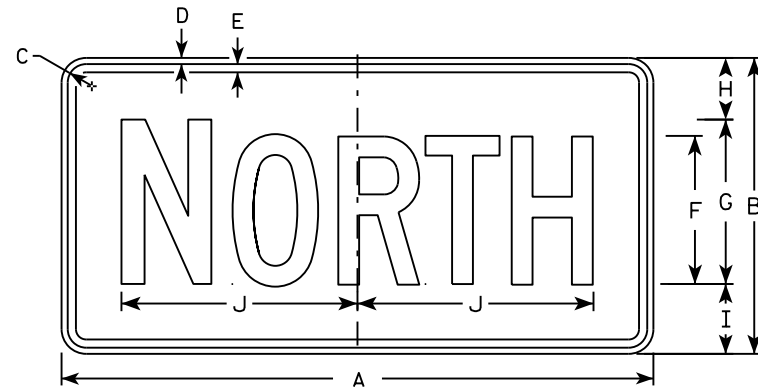
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

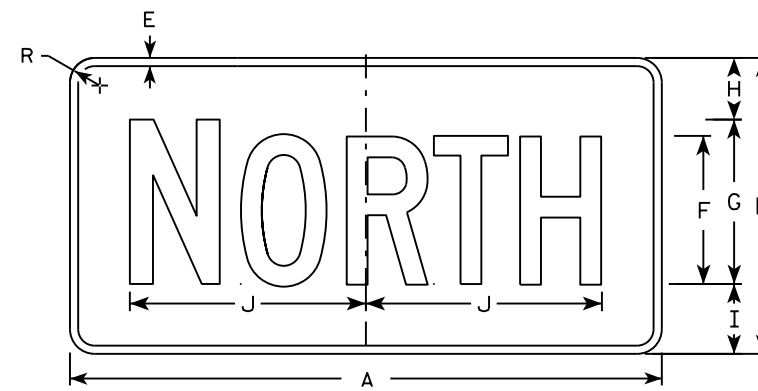
DATE 10/15/15 PLATE NO. M2-1.12

NOTES

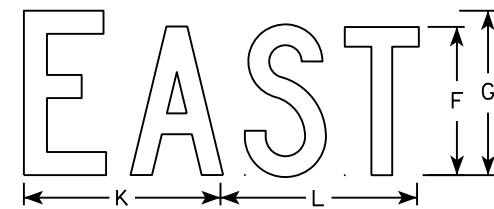
- All Signs Type II - Type H
- Color:
 - Background - See note 5
 - Message - See note 5
- Message Series - C
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M3-1 thru M3-4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



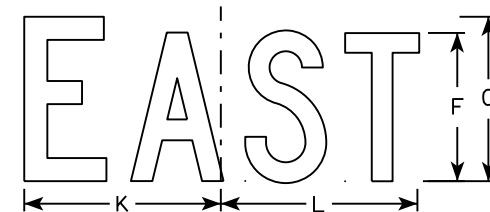
M3-1
MM3-1
MP3-1



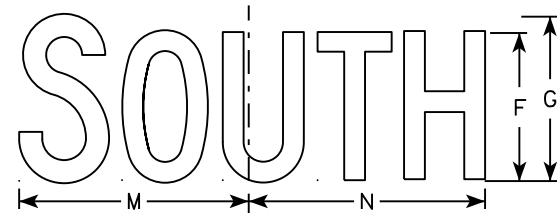
MB3-1
MK3-1
MN3-1



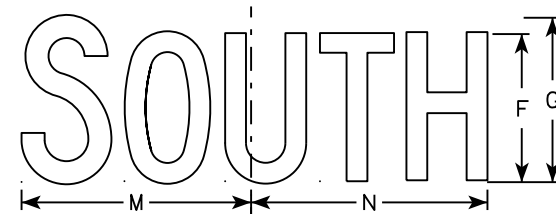
M3-2
MM3-2
MP3-2



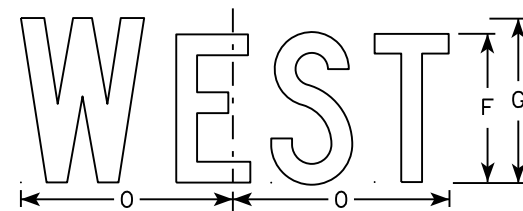
MB3-2
MK3-2
MN3-2



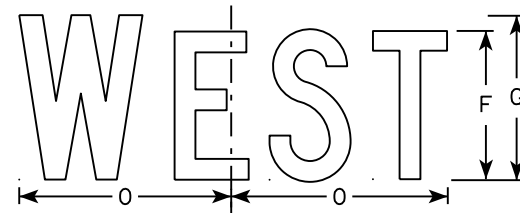
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thru M3-4
SERIES

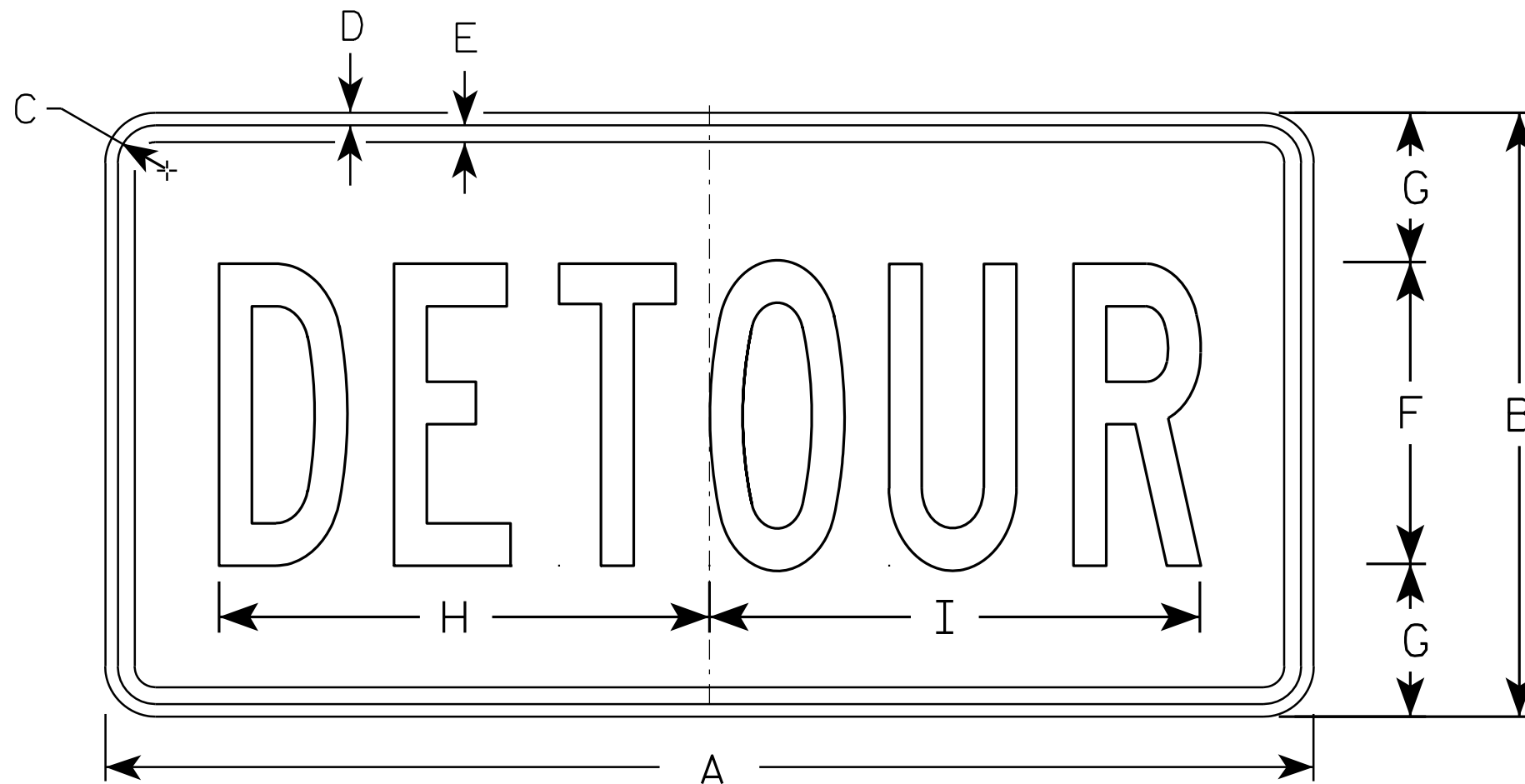
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

NOTES

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



M4-8

7

7

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

STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

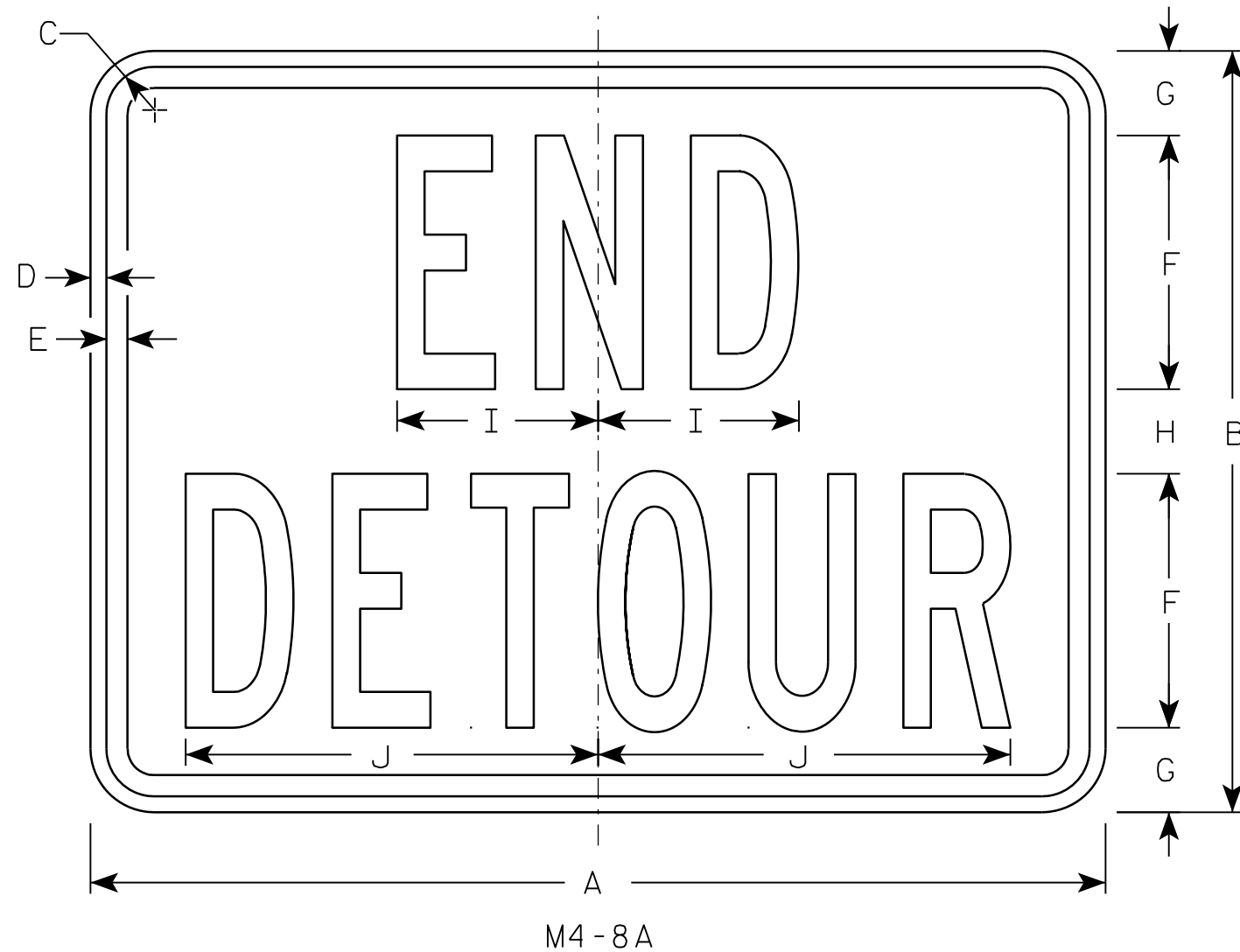
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

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

NOTES

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



7

7

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

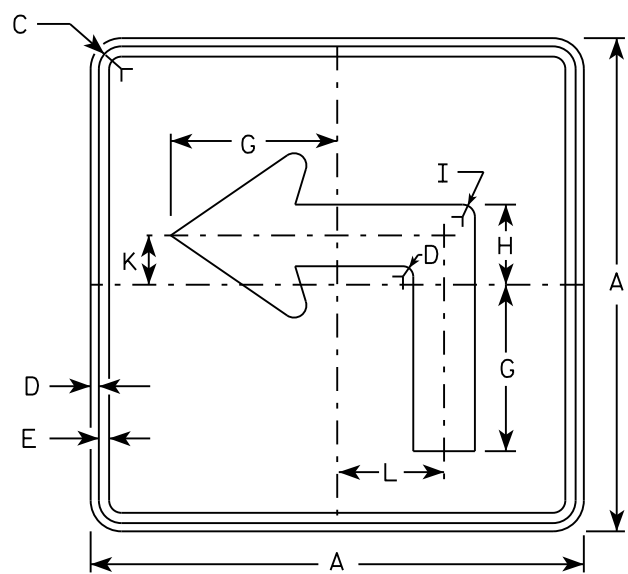
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

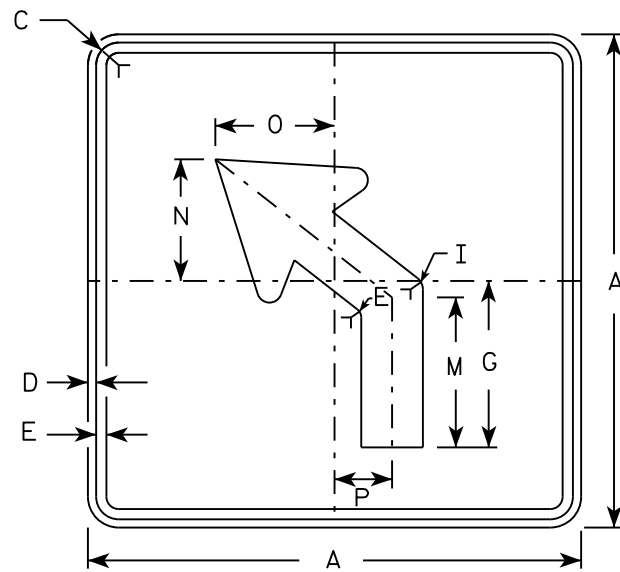
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

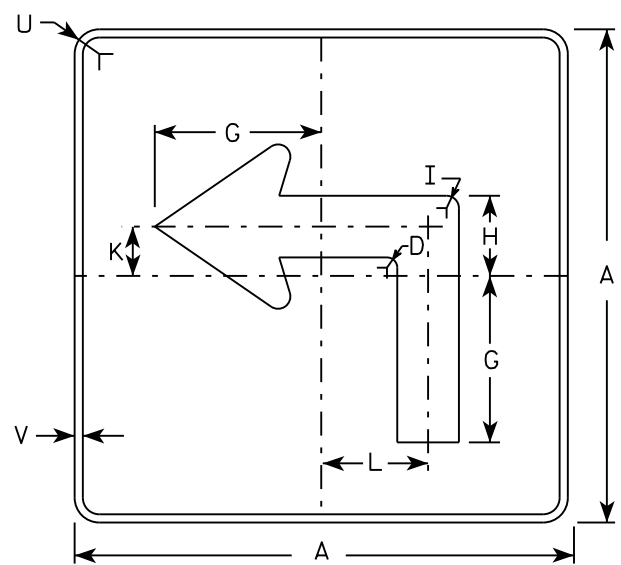
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



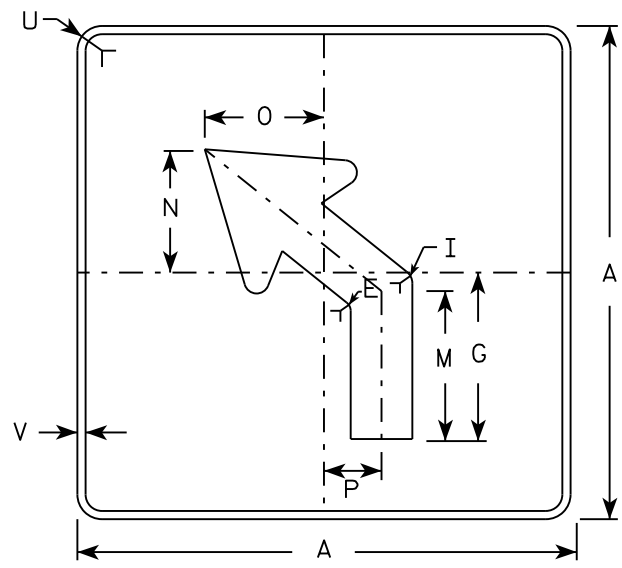
M5-1L
MM5-1L
M05-1L
MP5-1L



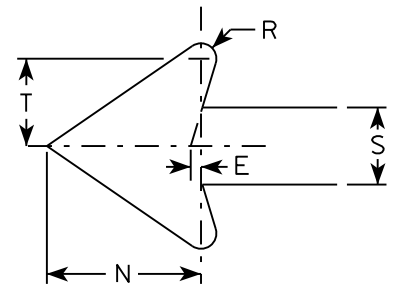
M5-2L
MM5-2L
M05-2L
MP5-2L



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



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



NOTES

- Signs are Type II - Type H reflective except as shown
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- | | |
|-----------------|---|
| M5-1 and M5-2 | Background - White |
| | Message - Black |
| MB5-1 and MB5-2 | Background - Blue |
| | Message - White |
| MK5-1 and MK5-2 | Background - Green |
| | Message - White |
| MM5-1 and MM5-2 | Background - White |
| | Message - Green |
| MN5-1 and MN5-2 | Background - Brown |
| | Message - White |
| M05-1 and M05-2 | Background - Orange - Type F Reflective |
| | Message - Black |
| MP5-1 and MP5-2 | Background - White - Type H Reflective |
| | Message - Blue |
| MR5-1 and MR5-2 | Background - Brown |
| | Message - Yellow |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

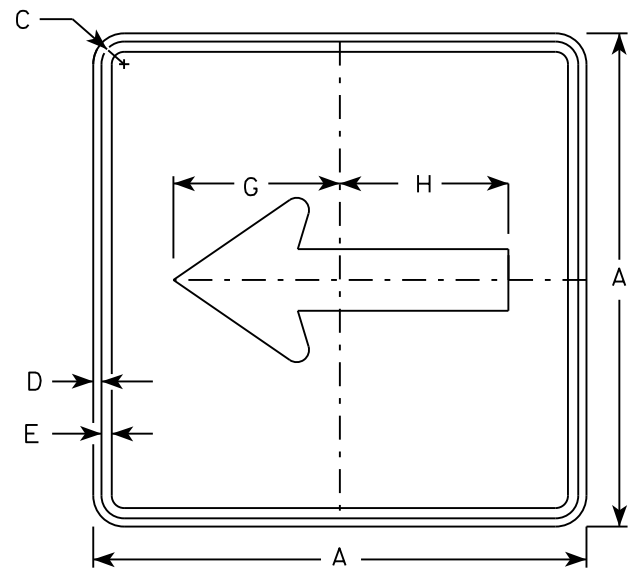
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25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

STANDARD SIGN
M5-1 & M5-2

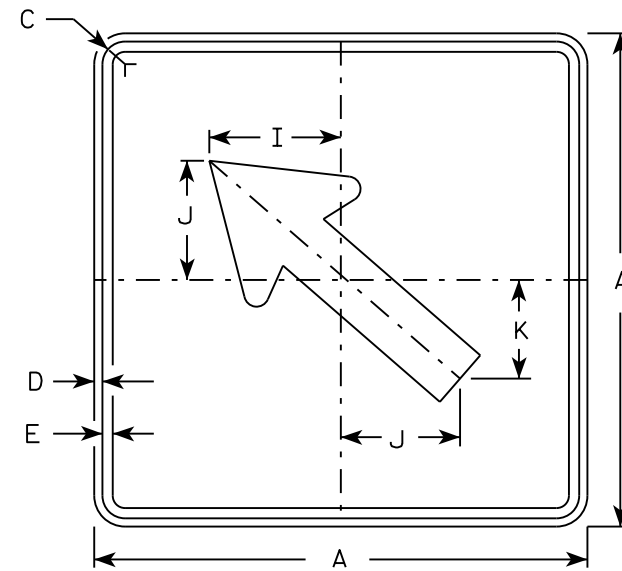
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

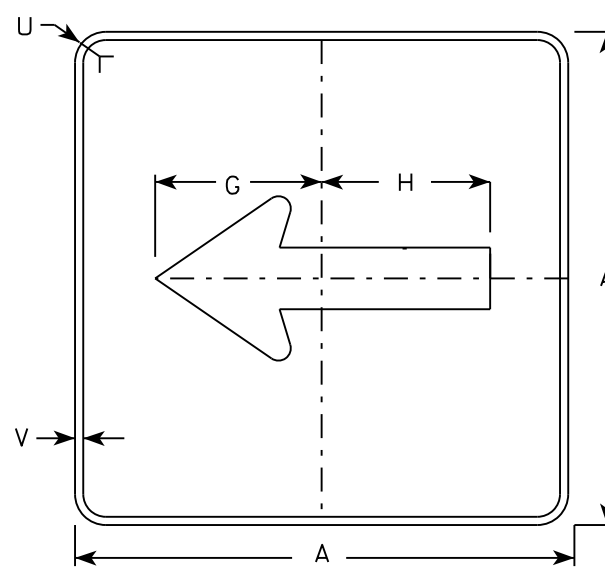
DATE 10/15/15 PLATE NO. M5-1.13



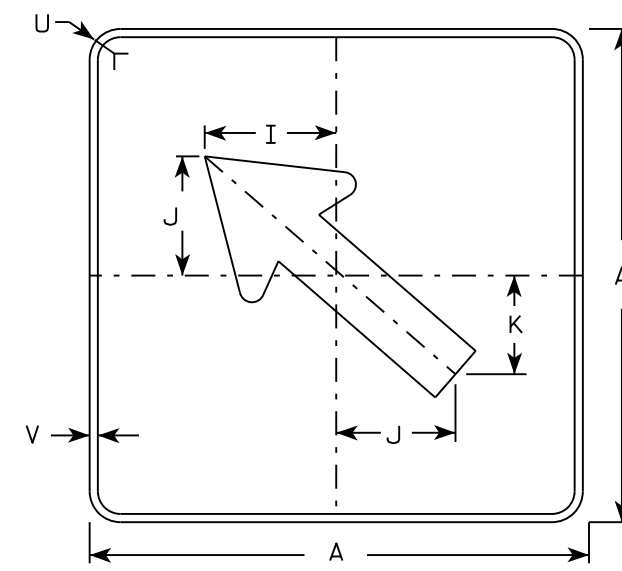
M6-1
MM6-1
M06-1
MP6-1



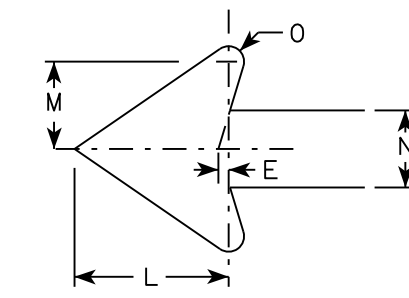
M6-2
MM6-2
M06-2
MP6-2



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



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



NOTES

- Signs are Type II - Type H except as Shown
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow

7

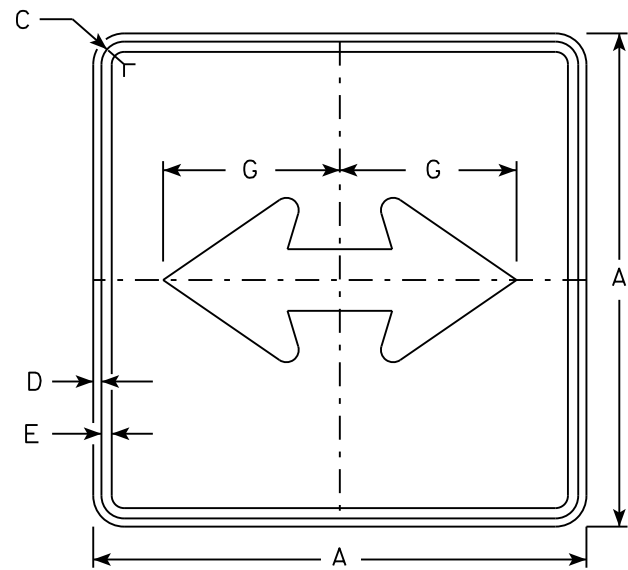
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10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

STANDARD SIGN
M6-1 & M6-2
SERIES

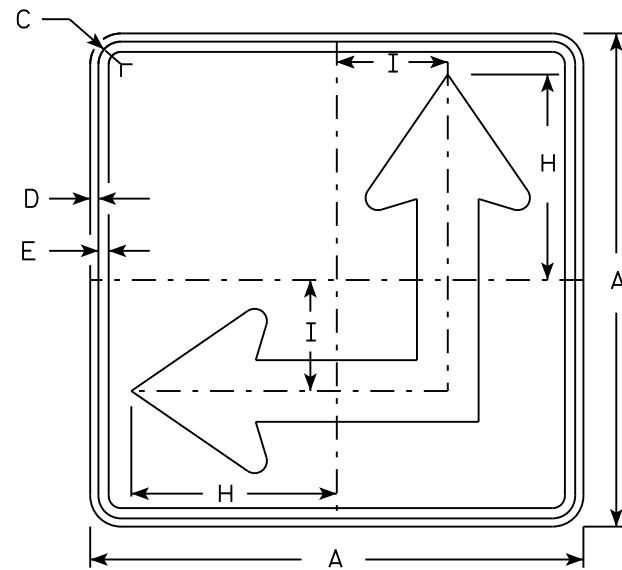
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

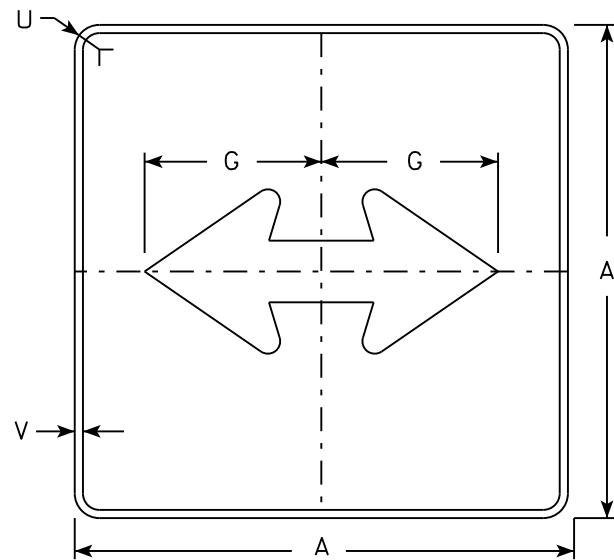
DATE 10/15/15 PLATE NO. M6-1.15



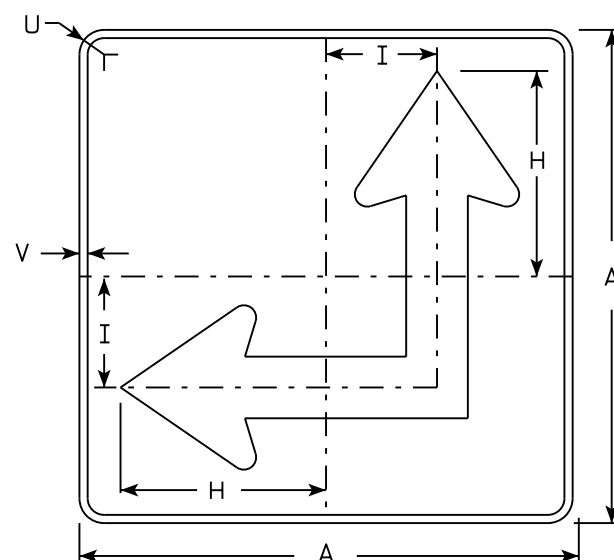
M6-4
MM6-4
M06-4
MP6-4



M6-6
MM6-6
M06-6
MP6-6



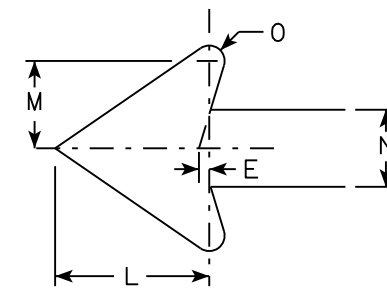
MB6-4
MK6-4
MN6-4
MR6-4



MB6-6
MK6-6
MN6-6
MR6-6

NOTES

- Signs are Type II - Type H except as Shown
- Color:
Background - See Note 4
Message - See Note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M6-4 and M6-6 Background - White
Message - Black
MB6-4 and MB6-6 Background - Blue
Message - White
MK6-4 and MK6-6 Background - Green
Message - White
MM6-4 and MM6-6 Background - White
Message - Green
MN6-4 and MN6-6 Background - Brown
Message - White
M06-4 and M06-6 Background - Orange - Type F Reflective
Message - Black
MP6-4 and MP6-6 Background - White
Message - Blue
MR6-4 and MR6-6 Background - Brown
Message - Yellow
- M6-6R same as M6-6L except arrow points ahead and right.



7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN
M6-4 & M6-6
SERIES

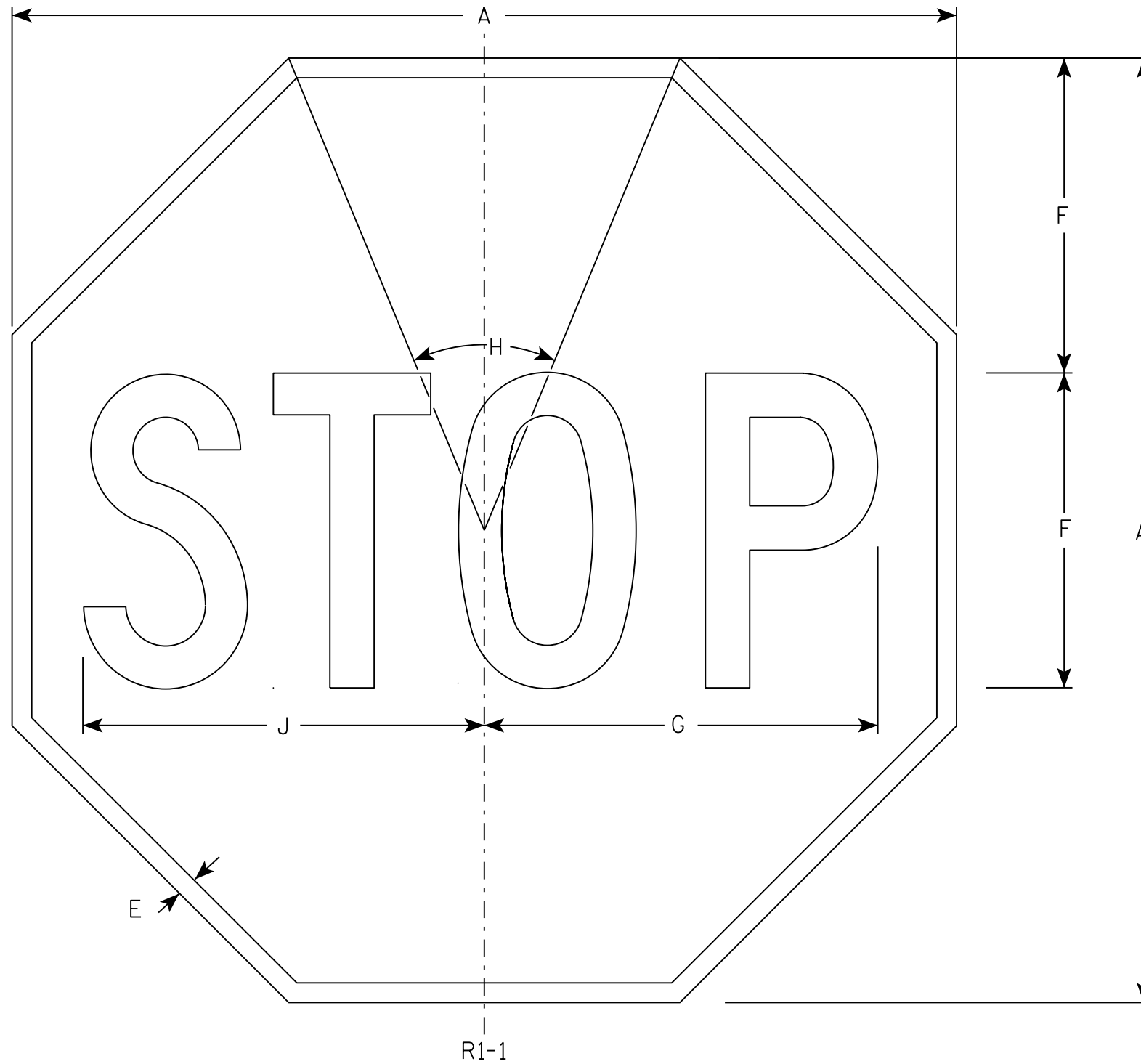
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-4.10

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



7

7

R1-1

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

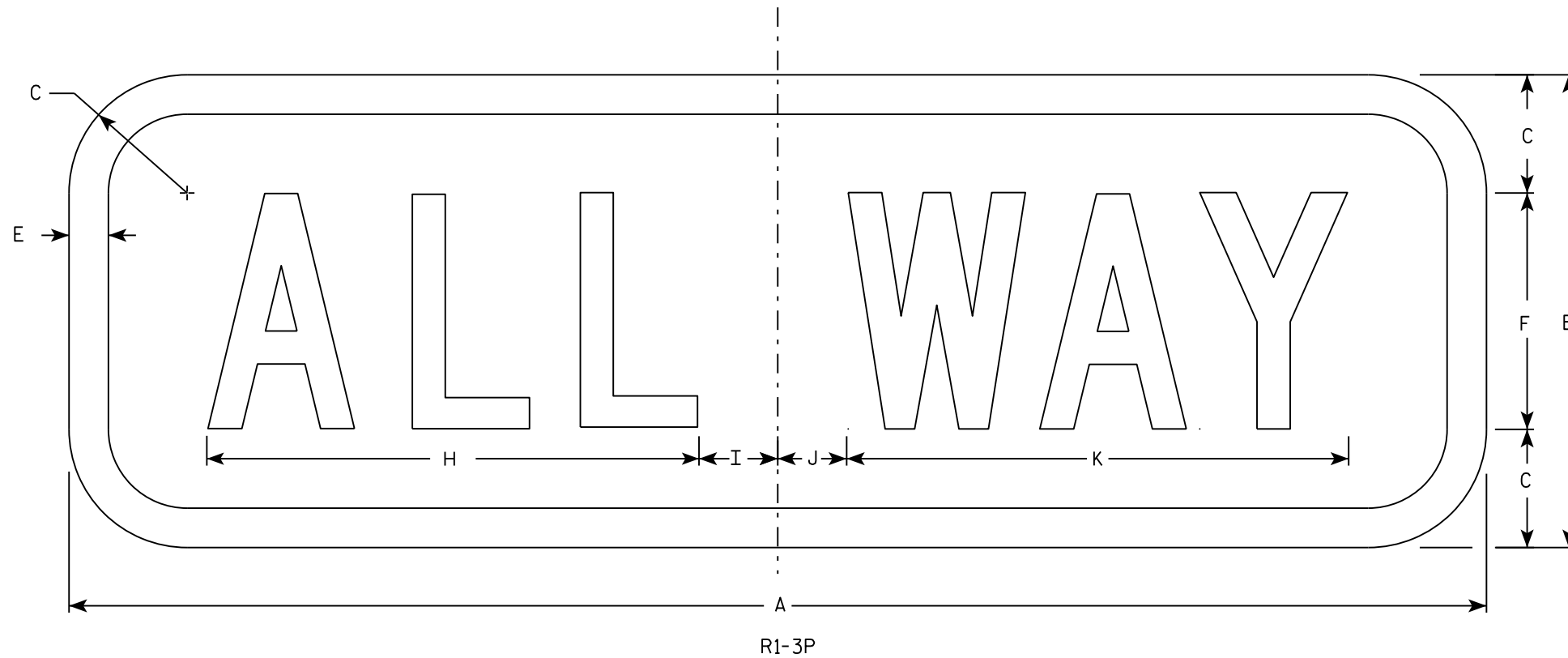
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

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

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - Red
Message - White
3. Message Series - C
4. For 30"x30" R1-1 use 18"x6" R1-3P sign
For 36"x36" R1-1 use 24"x9" R1-3P sign
For 48"x48" R1-1 use 30"x12" R1-3P sign



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																0.75
2S	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																1.5
2M	24	9	1 1/2		1/2	5		9 1/4	1 1/4	3/4	9 3/4																1.5
3	24	9	1 1/2		1/2	5		9 1/4	1 1/4	3/4	9 3/4																1.5
4	30	12	2 1/4		5/8	6		11	2 1/4	1 1/2	11 3/4																2.5
5	30	12	2 1/4		5/8	6		11	2 1/4	1 1/2	11 3/4																2.5

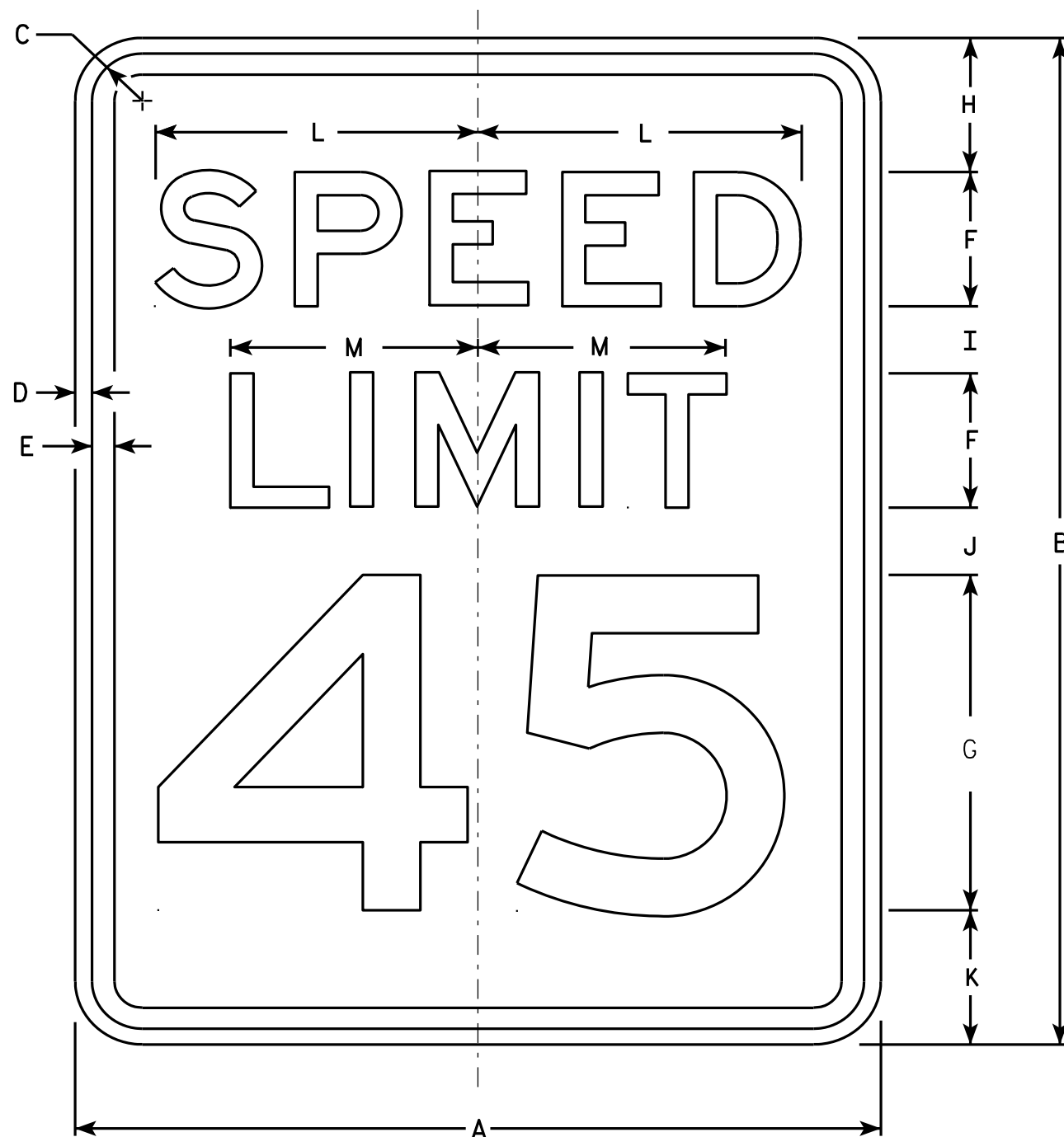
STANDARD SIGN
R1-3P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/29/16 PLATE NO. R1-3P.3

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



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

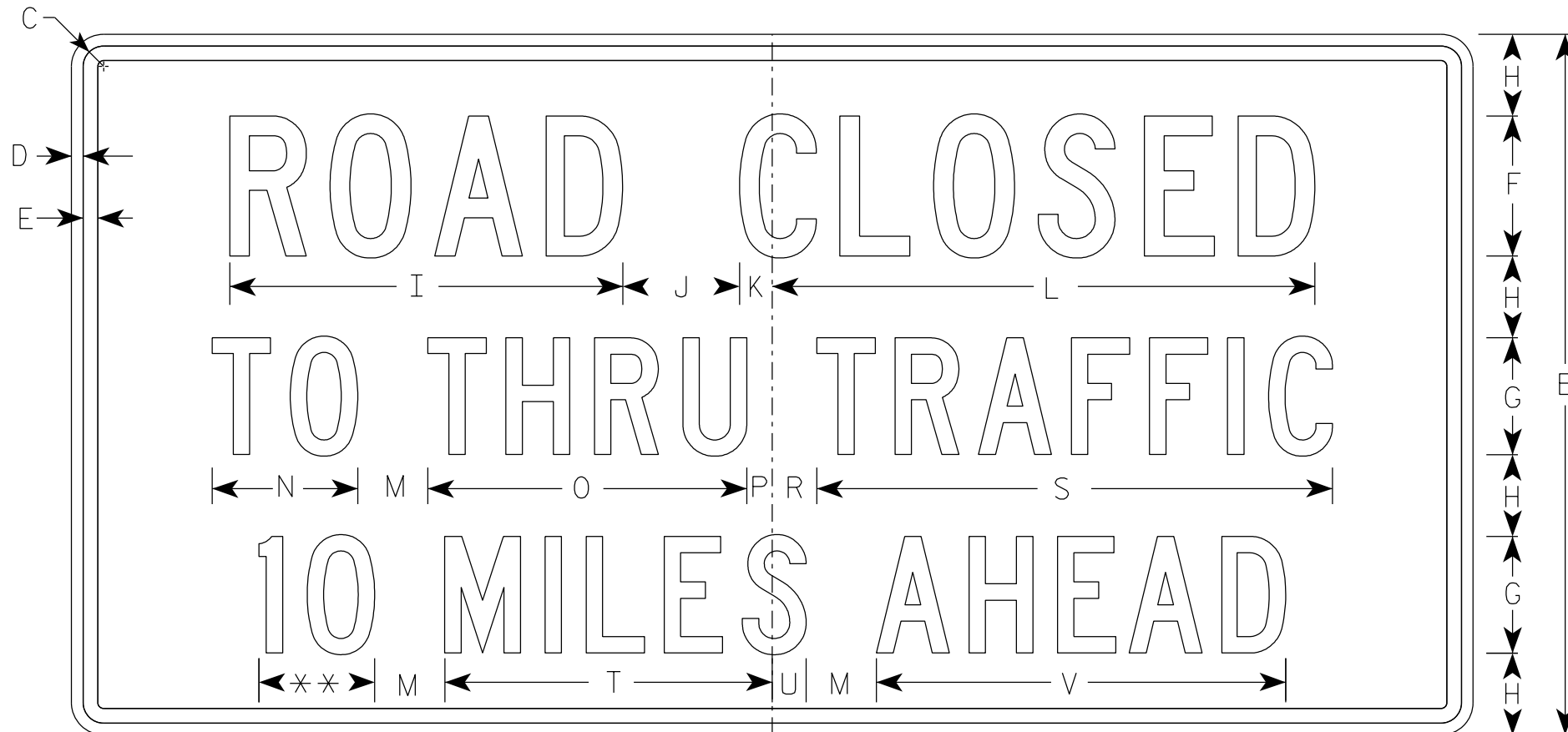
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

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

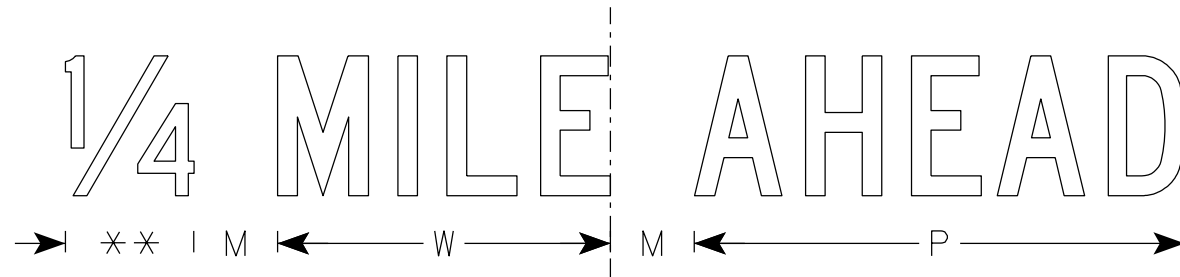
NOTES

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



R11-3

** See Note 5



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

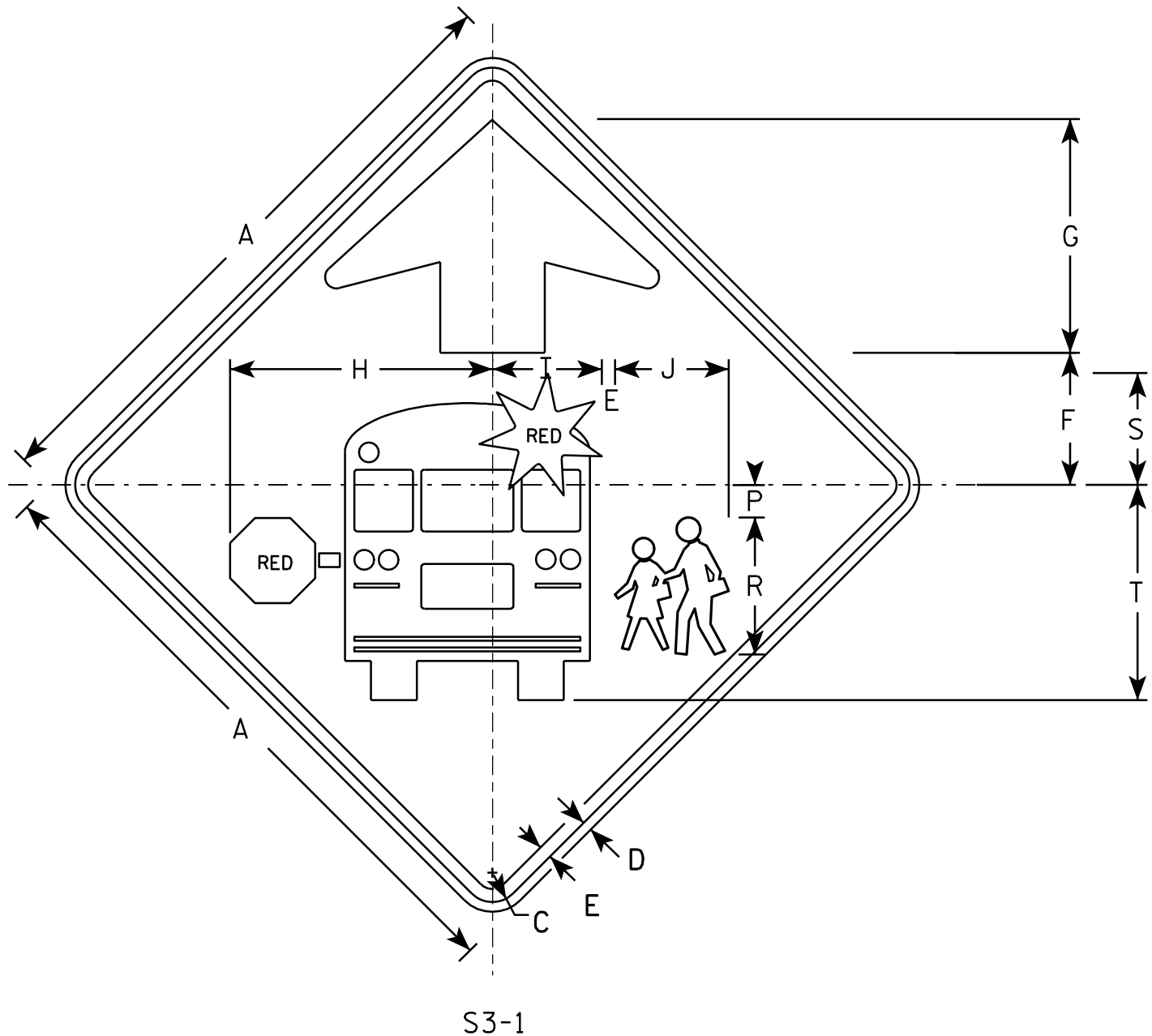
STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

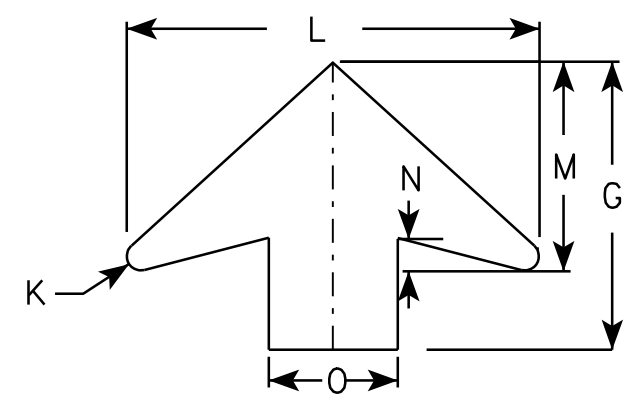
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**



S3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
 Background - YELLOW-GREEN
 Message - BLACK except as noted
 Circles except PEDS- RED BACKGROUND
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	12 1/2	5 1/4	5 1/2	1/2	16	8	1 1/4	5	1 1/2		6 5/8	5 3/8	10 3/8							6.25
2	36		1 5/8	5/8	3/4	7 1/2	13 1/2	15 1/8	6 1/4	6 1/2	5/8	19 1/4	9 3/4	1 5/8	6	1 7/8		7 1/8	6 3/8	12 3/8							9.0
3	48		2 1/4	3/4	1	10	17 7/8	20 1/8	8 3/8	8 3/4	7/8	25 5/8	13	2	8	2 1/2		10 1/2	8 1/2	16 1/2							16.0
4	48		2 1/4	3/4	1	10	17 7/8	20 1/8	8 3/8	8 3/4	7/8	25 5/8	13	2	8	2 1/2		10 1/2	8 1/2	16 1/2							16.0
5																											

STANDARD SIGN
S3-1

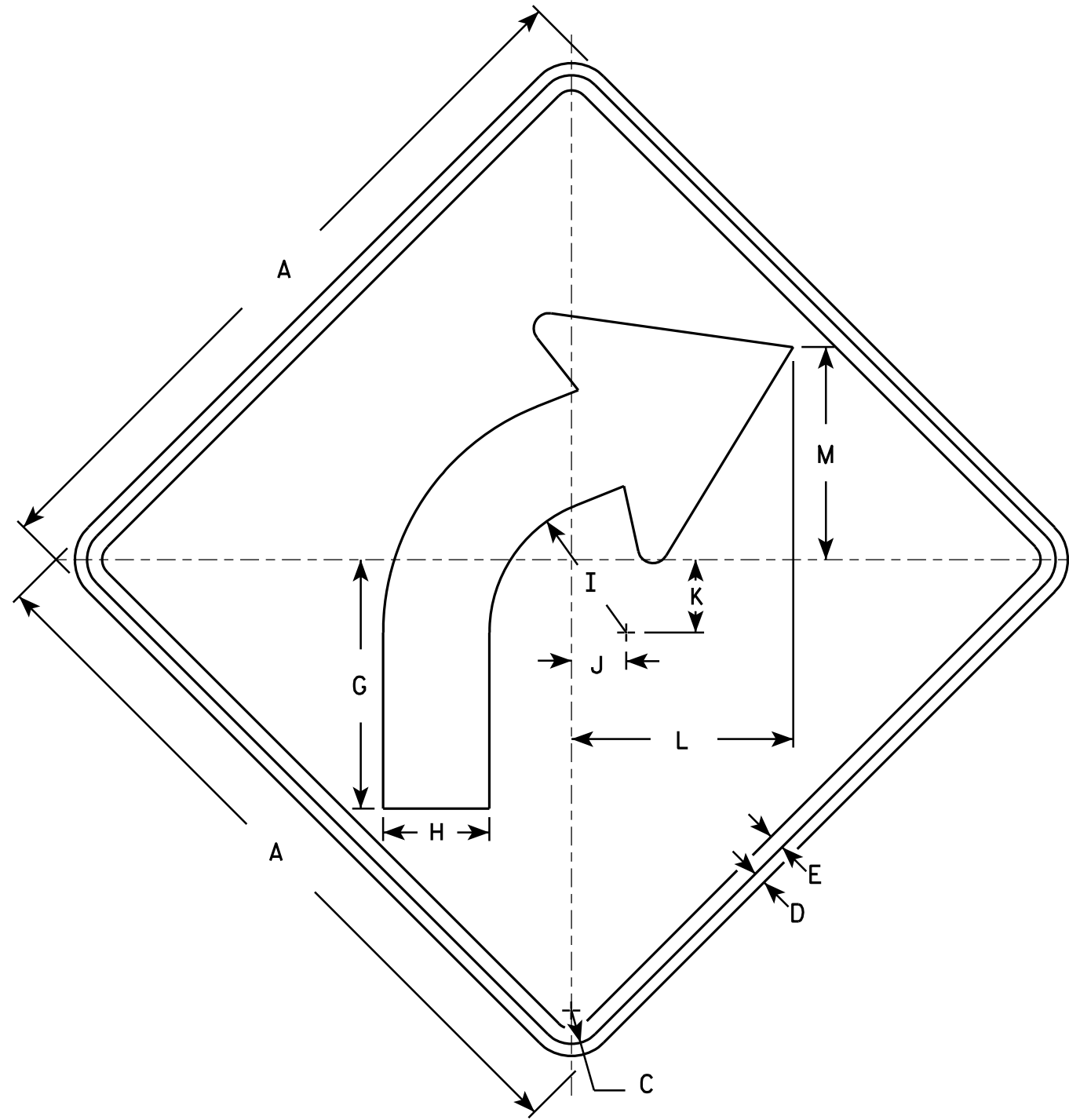
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

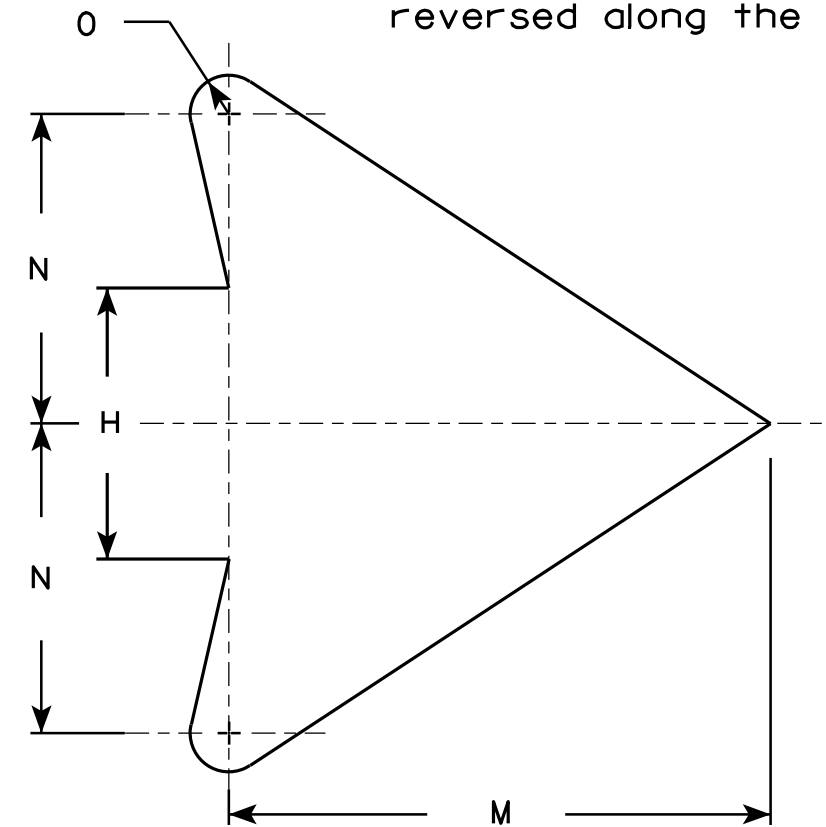
DATE 6/8/10 PLATE NO. S3-1.6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



ARROW DETAIL

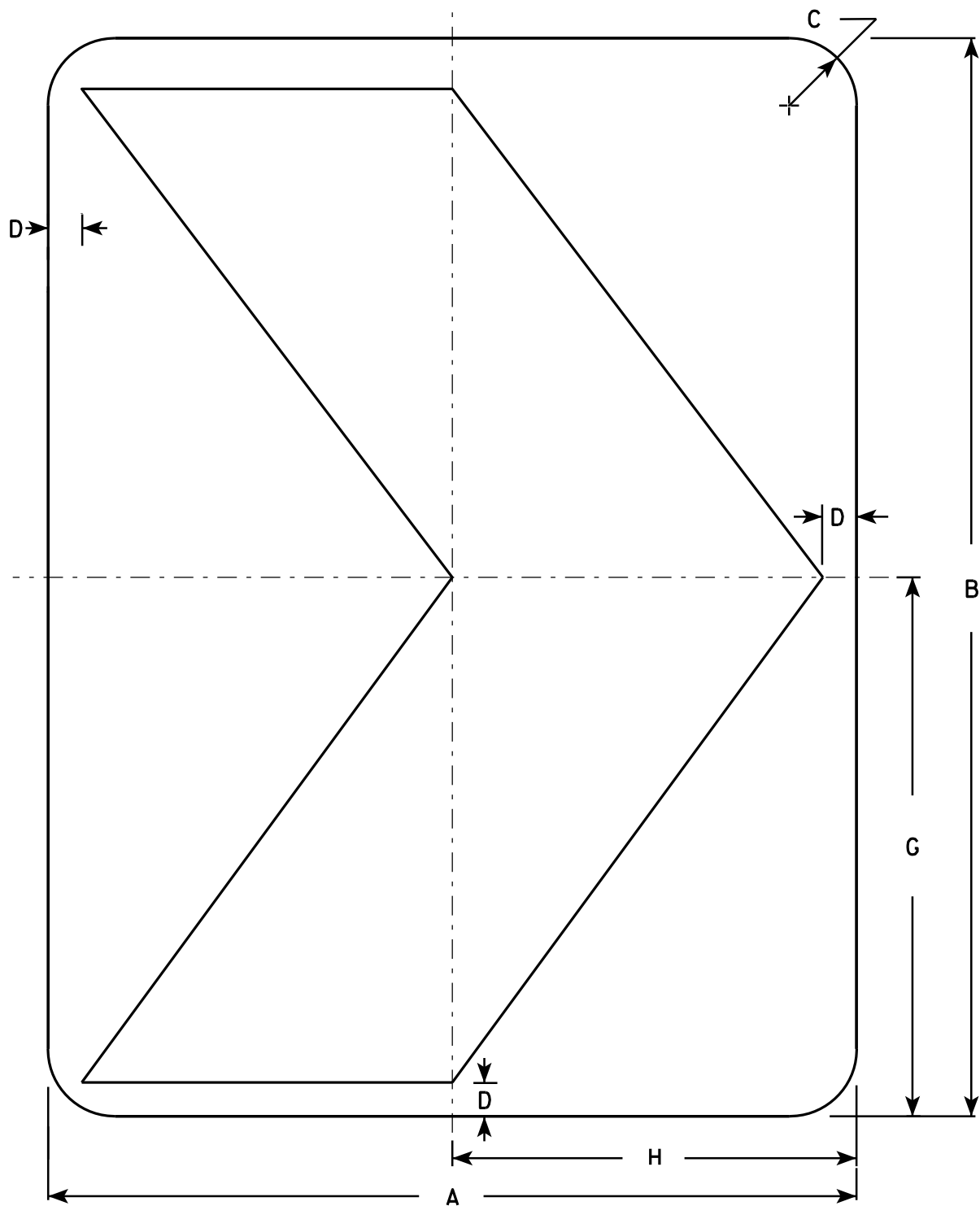
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10



NOTES

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

7

7

W1-8

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/2	1/2			9	6																			1.5
2S	18	24	1 1/2	3/4			12	9																			3.0
2M	18	24	1 1/2	3/4			12	9																			3.0
3	24	30	1 1/2	1			15	12																			5.0
4	30	36	1 7/8	1 1/4			18	15																			7.5
5	36	48	2 1/4	1 1/2			24	18																			12.0

STANDARD SIGN
W1-8

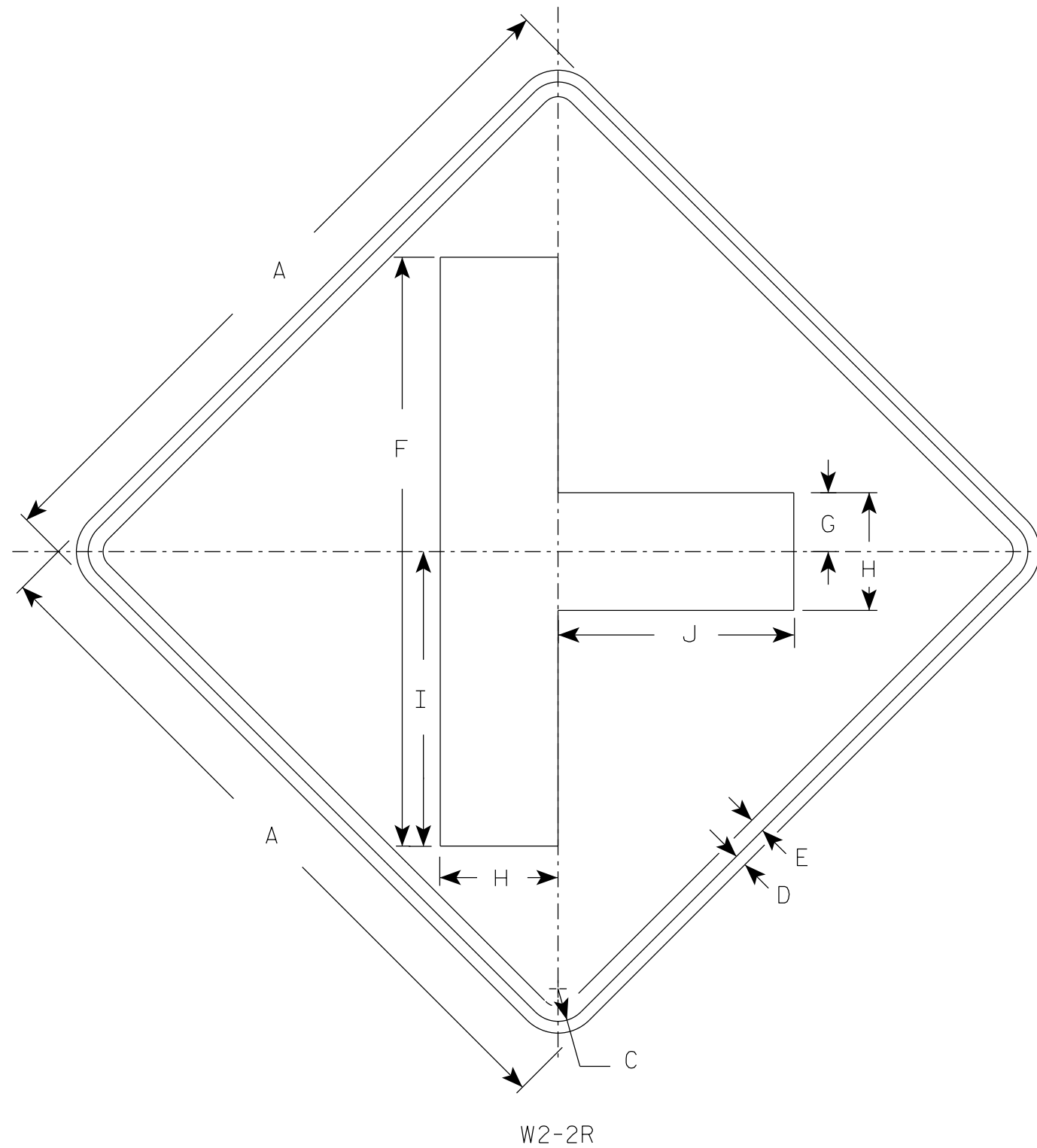
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black
3. W2-2L same as W2-2R but is rotated 180° when mounted.



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	20	2	4	10	8																	4.0
2S	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
2M	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
3	36		1 5/8	5/8	3/4	30	3	6	15	12																	9.0
4	48		2 1/4	3/4	1	40	4	8	20	16																	16.0
5																											

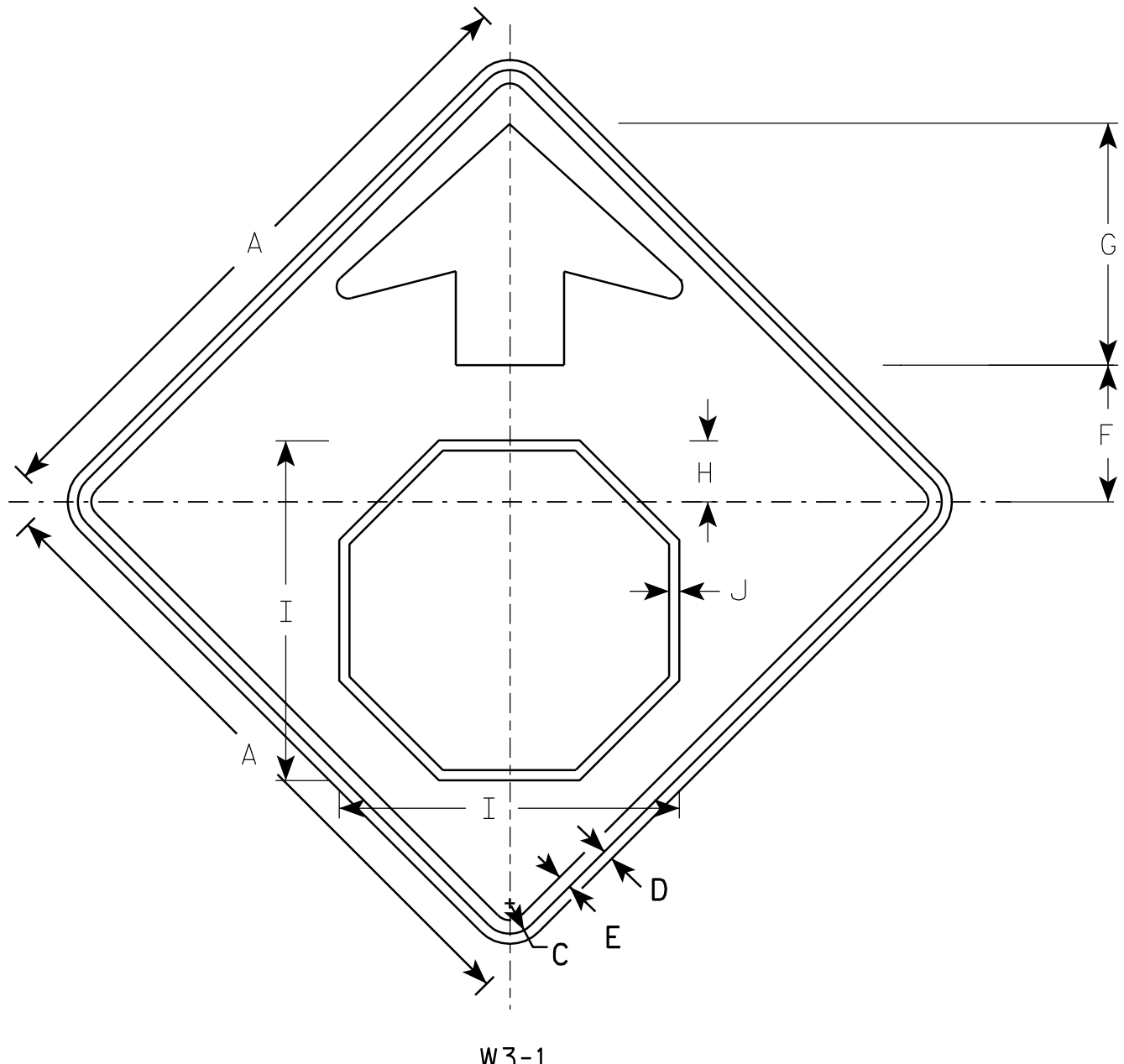
STANDARD SIGN
W2-2 L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
for State Traffic Engineer

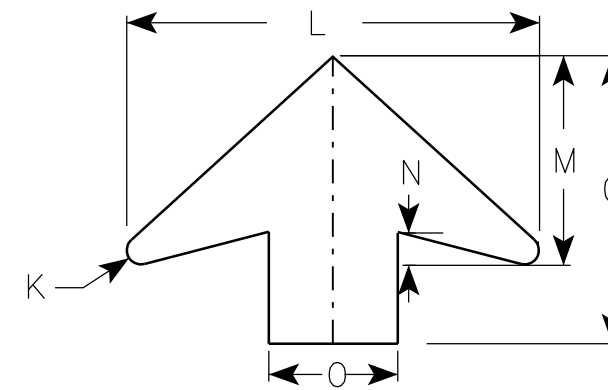
DATE 11/18/2021 PLATE NO. W2-2.7

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



NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
 Background - YELLOW
 Arrow & Border - BLACK
 Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

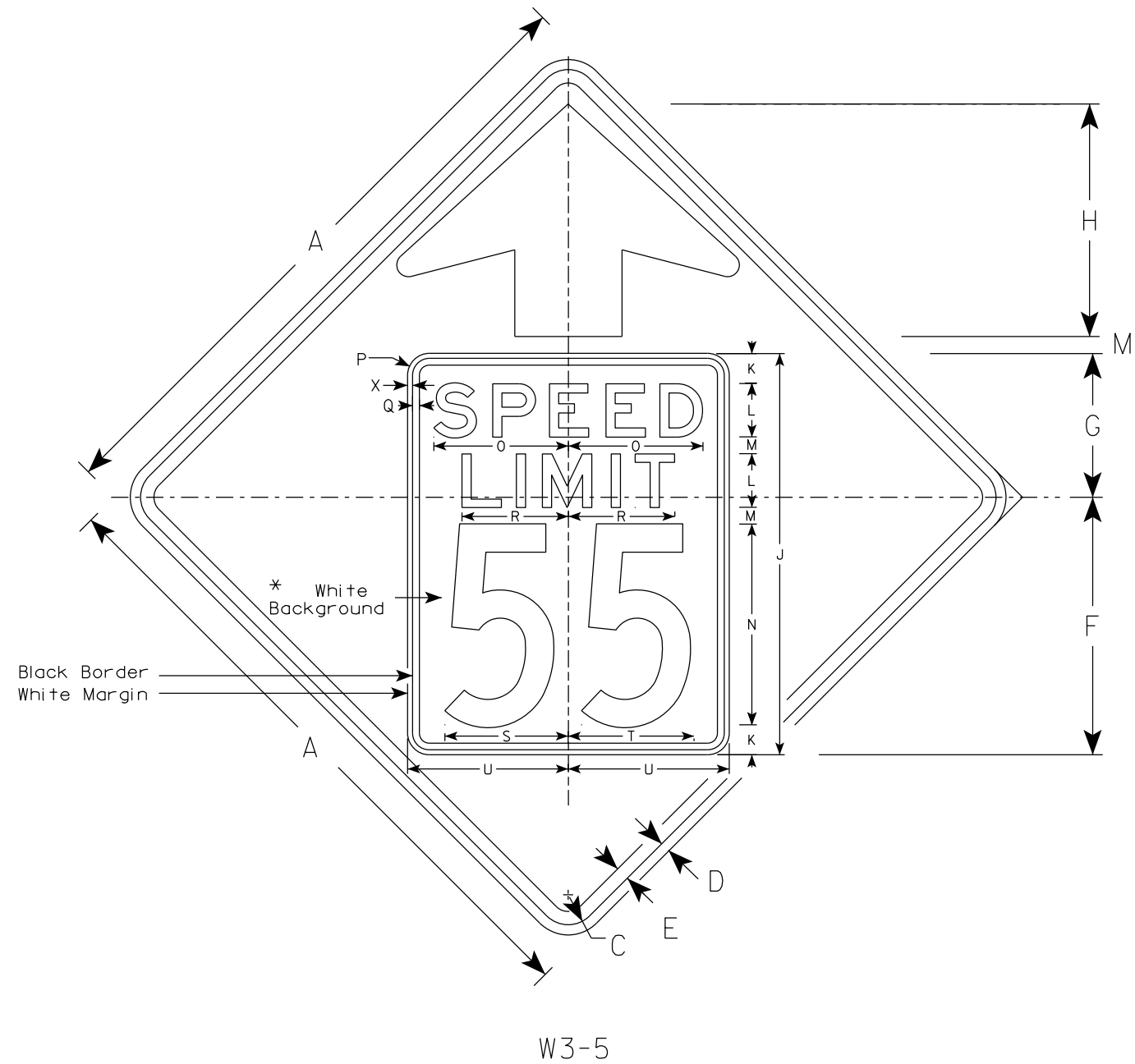
STANDARD SIGN
W3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

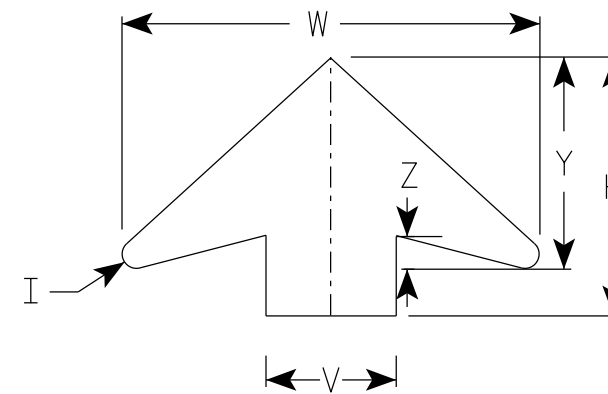
PROJECT NO: _____ SHEET NO: _____ E



NOTES

1. Sign is Type II - See Note 2 for Sheeting Type
2. Color: *
Background - Yellow* (Type F Reflective)
Message - Black
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background with black message (Type SH Reflective)



ARROW DETAIL

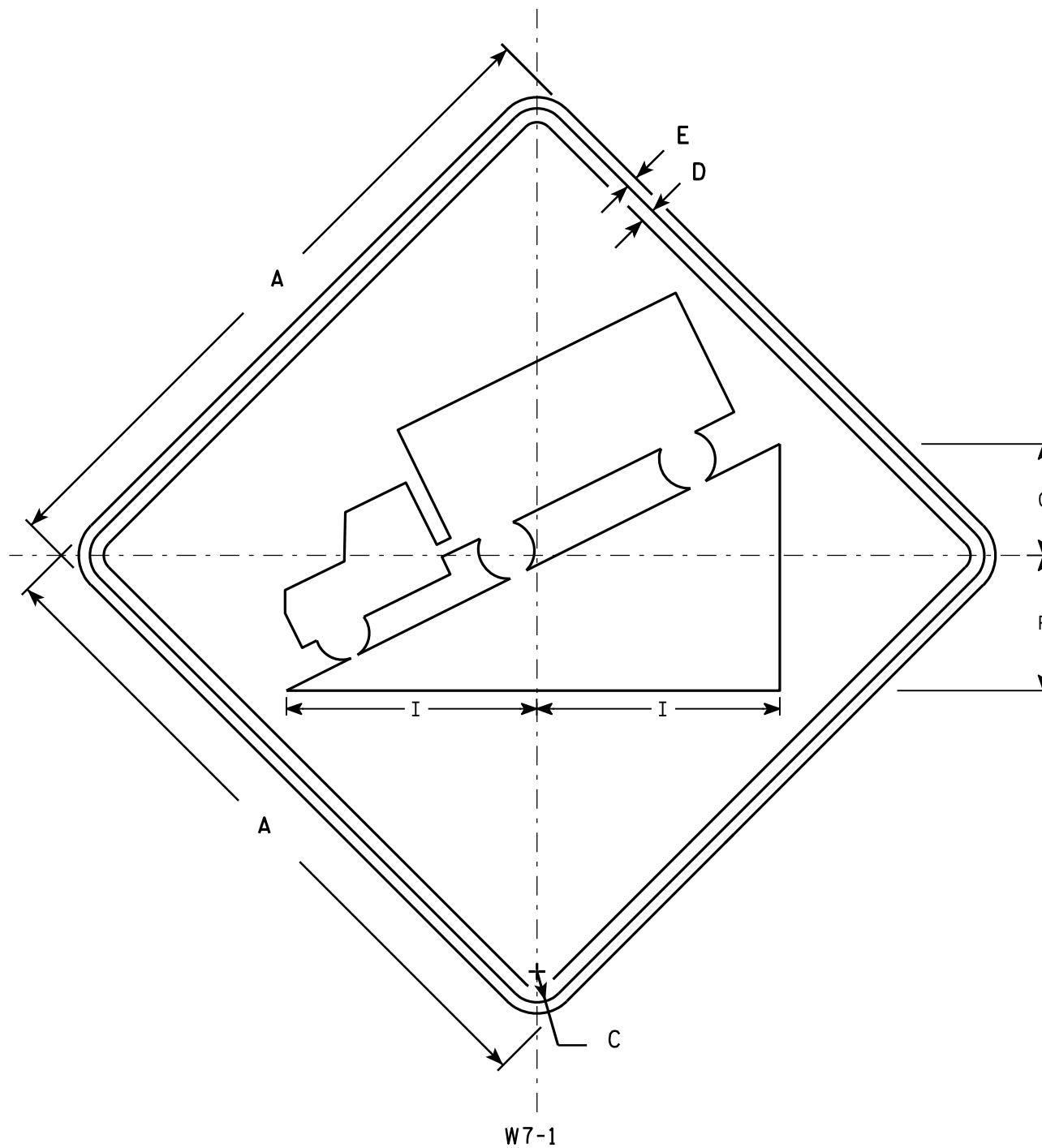
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2M	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
3	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/27/2020 PLATE NO. W3-5.6



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - 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.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	3/8	5	4		8 3/4																		4.0
2S	30		1 3/8	1/2	5/8	6	5		11																		6.25
2M	36		1 5/8	5/8	3/4	7 1/4	6		13 1/4																		9.0
3	36		1 5/8	5/8	3/4	7 1/4	6		13 1/4																		9.0
4	36		1 5/8	5/8	3/4	7 1/4	6		13 1/4																		9.0
5	48		2 1/4	3/4	1	9 3/4	8		17 1/2																		16.0

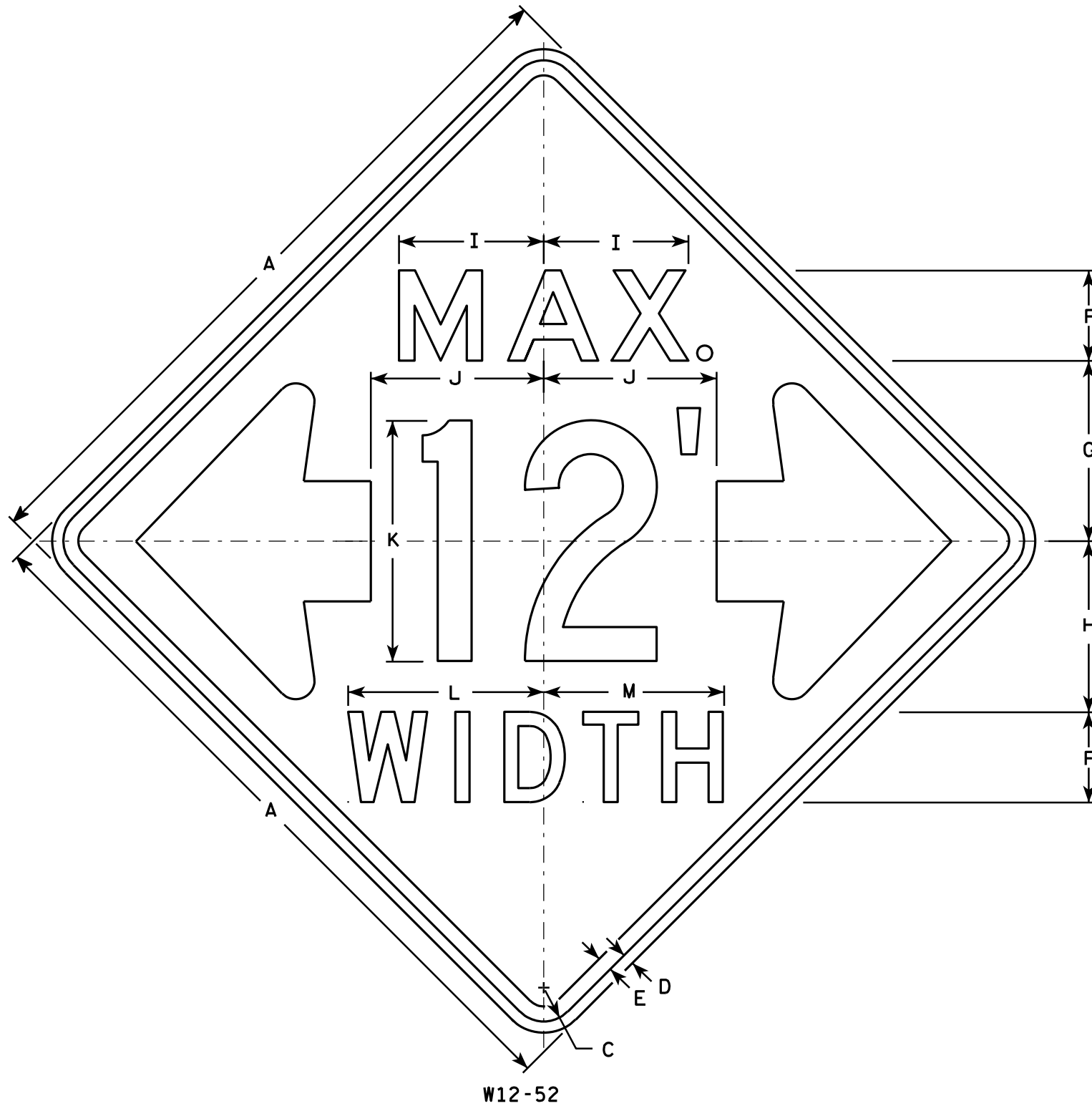
STANDARD SIGN
W7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 03/12/13 PLATE NO. W7-1.13

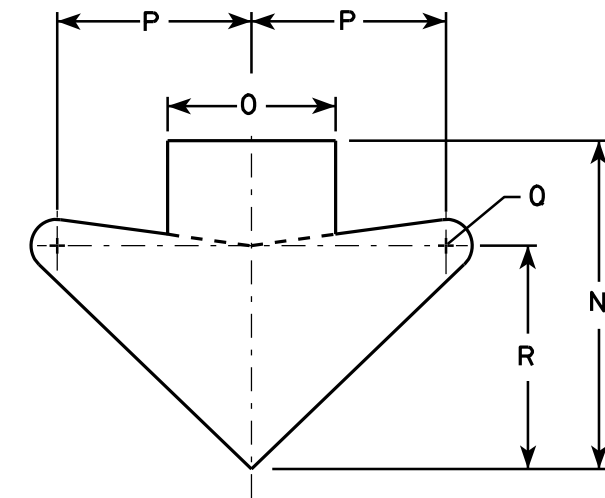
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

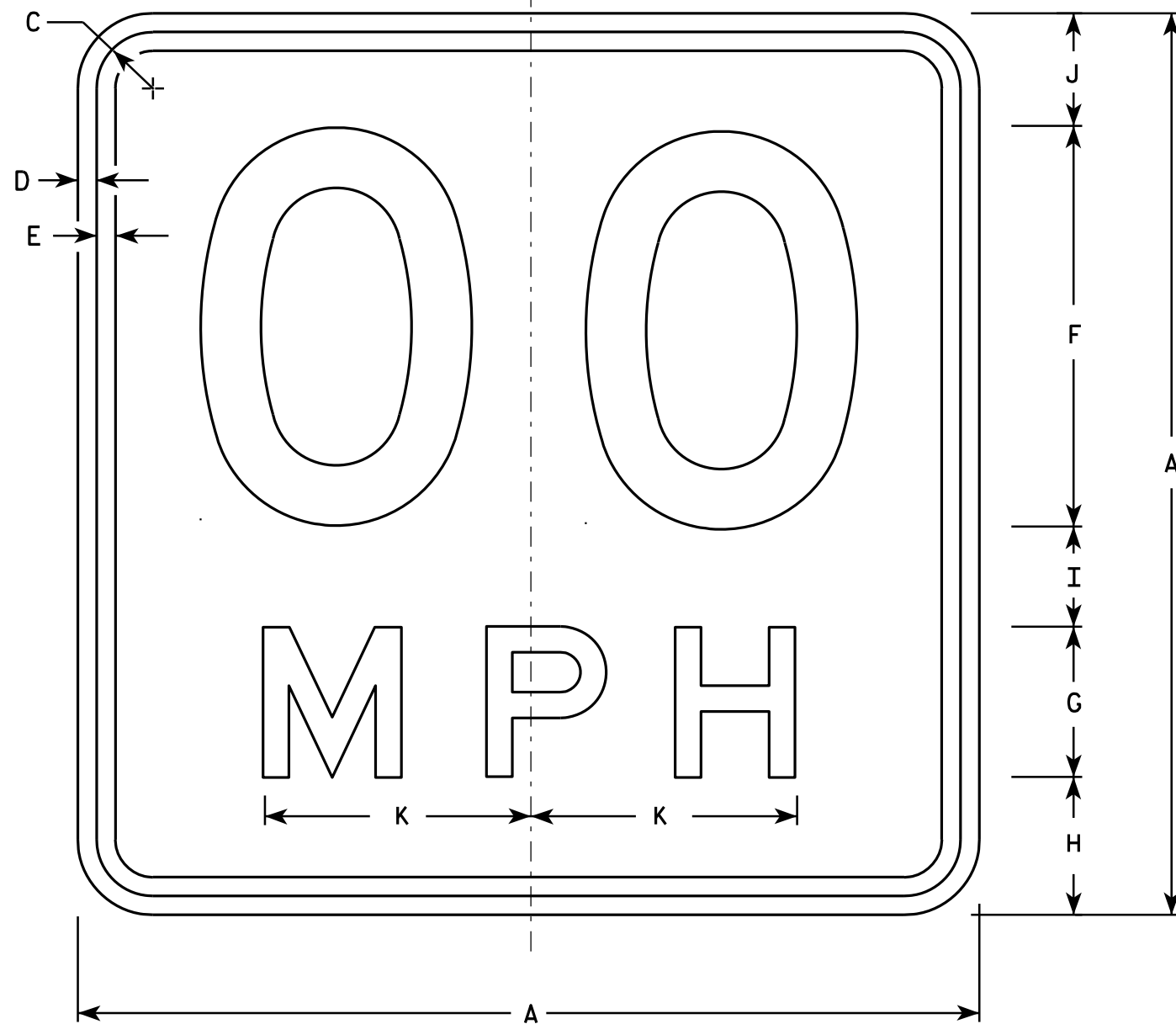
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8								16.0	
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8								16.0	
3												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

STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
Line 2 is Series E

W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8															2.25	
* 2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8															2.25	
* 2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8															2.25	
3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8															4.00	
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8															9.00	
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8															9.00	

STANDARD SIGN

W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO:

HWY:

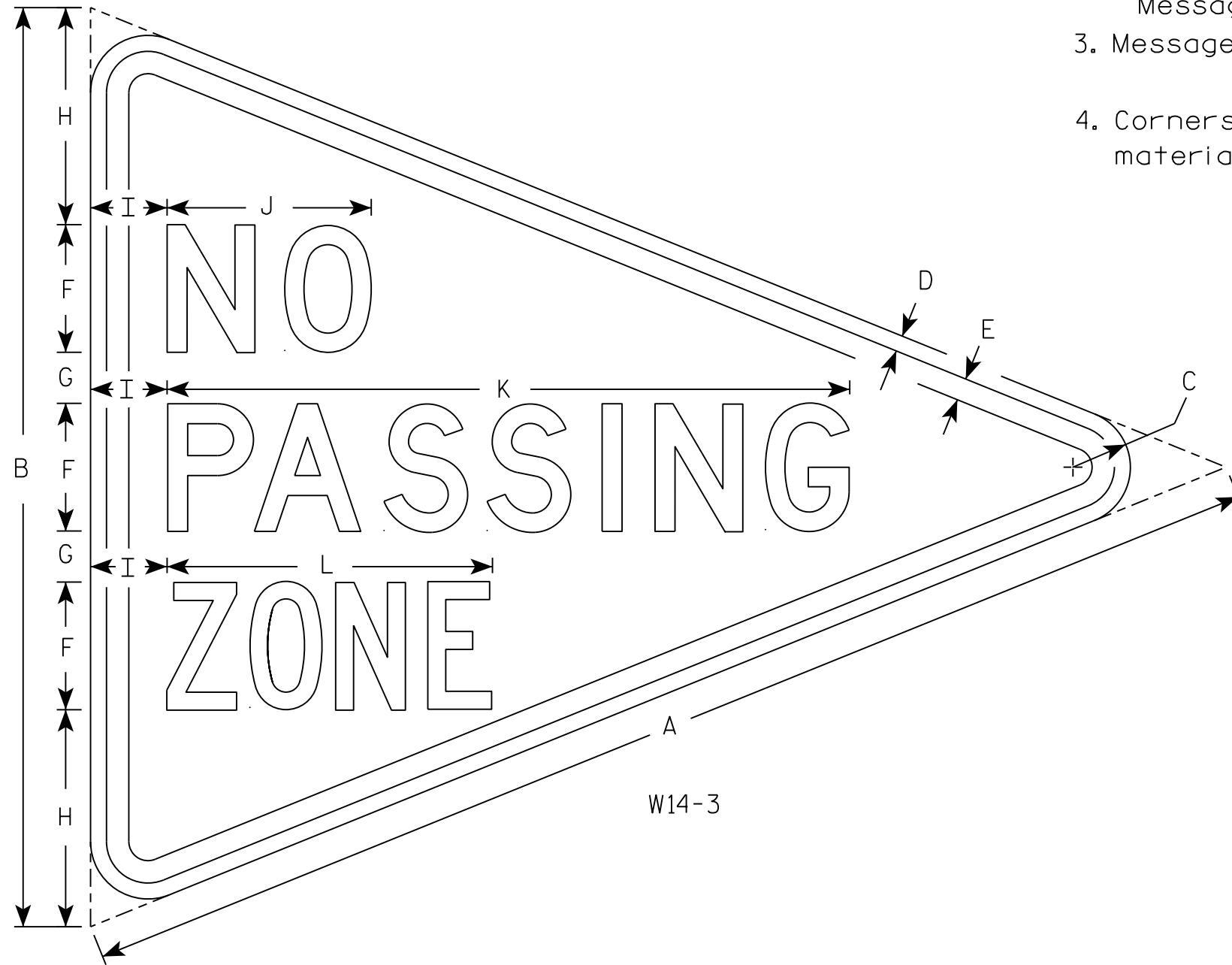
COUNTY:

SHEET NO:

E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
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.



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	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																											

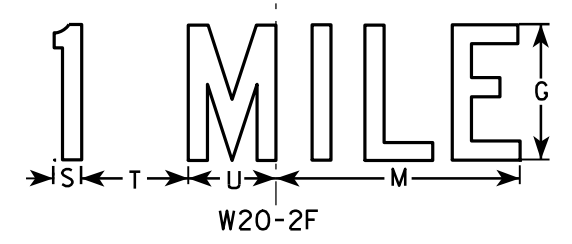
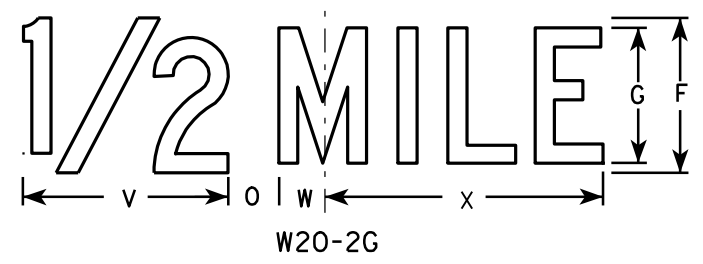
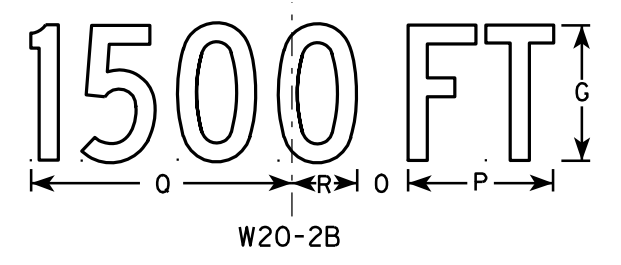
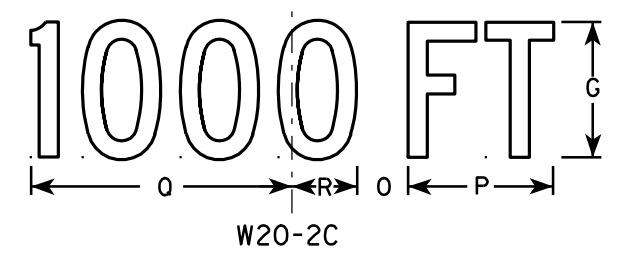
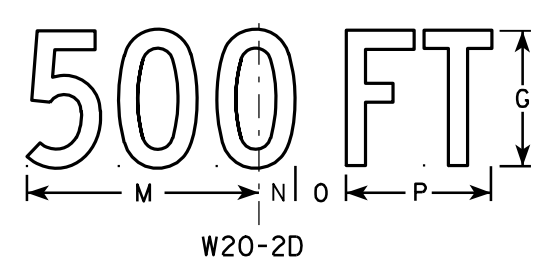
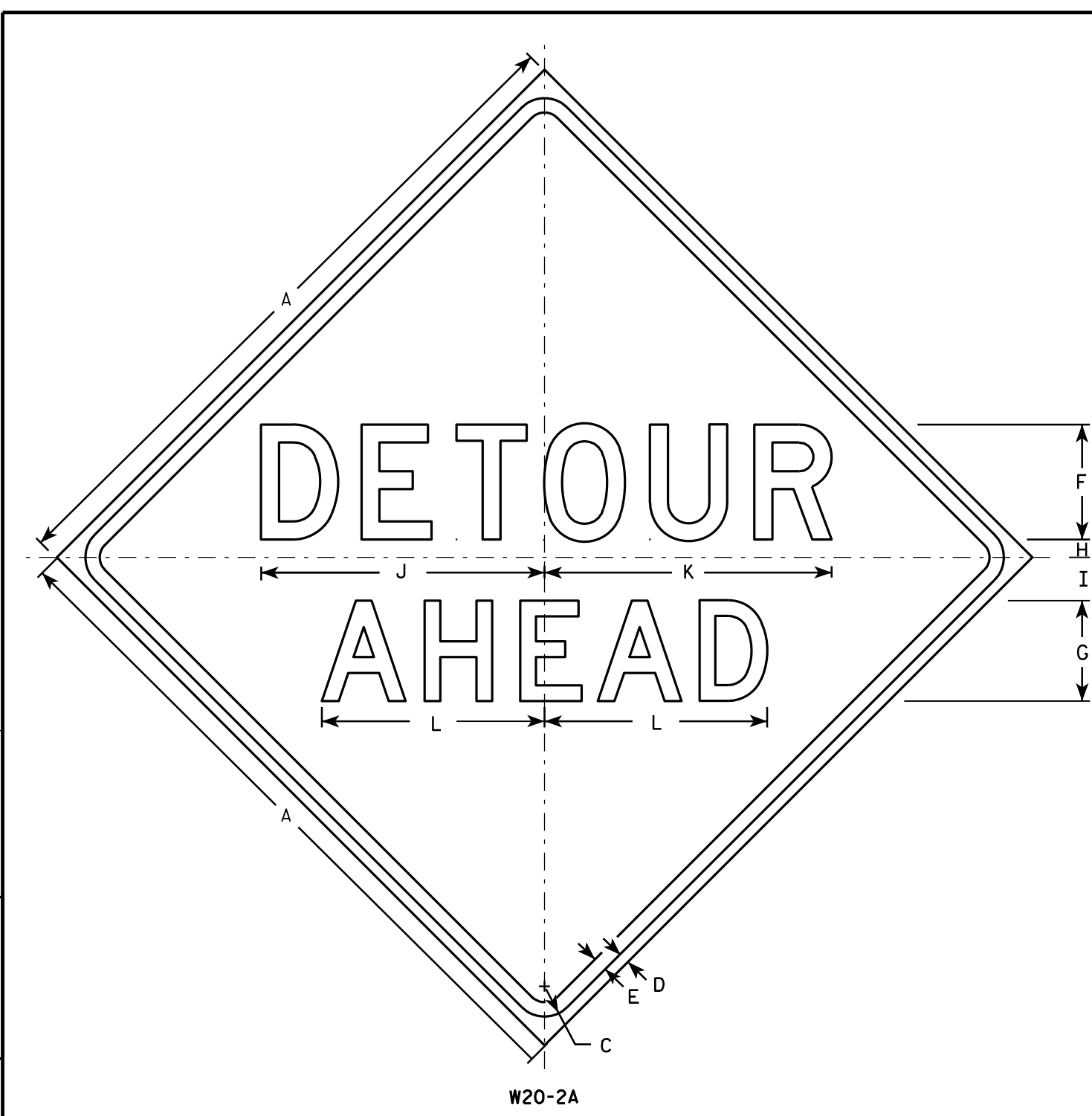
STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W14-3.10

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



NOTES

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

7

7

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

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

WISCONSIN DEPT OF TRANSPORTATION

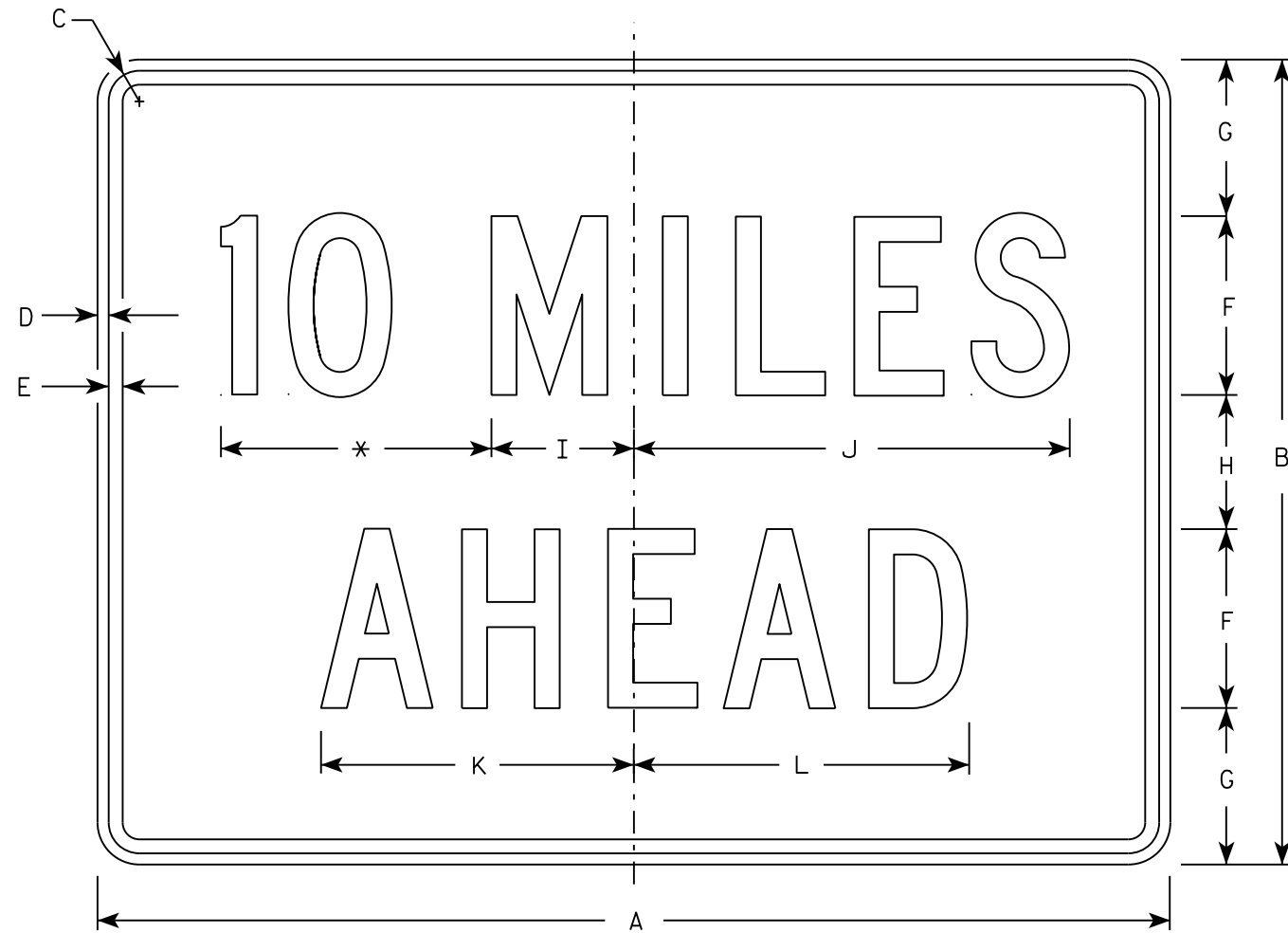
APPROVED *Matthew R. Raub*
for State Traffic Engineer

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

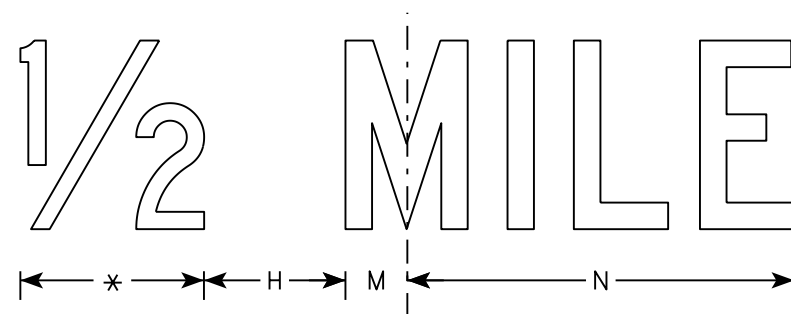
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E

NOTES

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



W057-52



* 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	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0

STANDARD SIGN
W057-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W057-52.2

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

DIVISION 1 - CTHE

CATEGORY	STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
			1.00	1.25					
0010	34+29	0.00	21.18	3.00	0	0	0	0	0
0010	35+00	71.00	96.73	0.00	155	4	155	5	150
0010	35+50	50.00	39.51	21.86	126	20	281	30	251
0010	35+74	24.00	27.69	29.94	30	23	311	59	252
0010	36+56	82.00	40.41	0.01	103	45	414	115	299
0010	37+00	44.00	63.83	2.08	85	2	499	118	382
0010	37+50	50.00	84.69	0.21	138	2	637	120	517
0010	38+00	50.00	77.30	0.00	150	0	787	120	667
0010	38+50	50.00	77.06	0.00	143	0	930	120	810
0010	39+00	50.00	63.94	0.00	131	0	1,061	120	941
0010	39+17	17.00	67.52	0.00	41	0	1,102	120	982
0010	40+11	94.00	36.97	0.00	182	0	1,284	120	1,164
0010	40+50	39.00	40.29	1.65	56	1	1,340	121	1,219
0010	41+00	50.00	23.10	7.17	59	8	1,399	131	1,268
0010	41+50	50.00	22.77	10.05	42	16	1,441	151	1,290
0010	42+00	50.00	50.73	0.00	68	9	1,509	163	1,347
0010	42+50	50.00	33.96	3.07	78	3	1,587	166	1,421
0010	43+00	50.00	32.70	9.56	61	17	1,648	181	1,467
0010	43+50	50.00	27.17	7.01	55	15	1,703	200	1,503
0010	44+00	50.00	48.93	0.00	70	6	1,773	208	1,566
0010	44+50	50.00	36.01	0.34	79	0	1,852	208	1,645
0010	45+00	50.00	29.90	4.00	61	4	1,913	213	1,701
0010	45+50	50.00	46.00	0.06	70	4	1,983	218	1,766
0010	46+00	50.00	53.42	1.90	92	2	2,075	220	1,855
0010	46+50	50.00	35.38	4.66	82	6	2,157	228	1,930
0010	47+00	50.00	22.45	2.60	54	7	2,211	236	1,975
0010	47+50	50.00	18.30	25.44	38	26	2,249	269	1,980
0010	48+00	50.00	17.97	65.36	34	84	2,283	374	1,909
0010	48+50	50.00	15.33	107.38	31	160	2,314	574	1,740
0010	49+00	50.00	15.76	110.30	29	202	2,343	826	1,517
0010	49+50	50.00	16.23	105.16	30	199	2,373	1,075	1,798
0010	50+00	50.00	15.89	86.80	30	178	2,403	1,298	1,106
0010	50+50	50.00	21.42	45.84	35	123	2,438	1,451	987
0010	51+00	50.00	46.42	10.79	63	52	2,501	1,516	985
0010	51+50	50.00	74.23	0.00	112	10	2,613	1,529	1,084
0010	52+00	50.00	81.41	0.00	144	0	2,757	1,529	1,228
0010	52+50	50.00	60.53	1.96	131	2	2,888	1,531	1,357
0010	53+00	50.00	44.98	9.91	98	11	2,986	1,545	1,441
0010	53+50	50.00	47.35	12.11	85	20	3,071	1,570	1,501
0010	54+00	50.00	71.98	2.96	110	14	3,181	1,588	1,594
0010	54+50	50.00	67.07	2.63	129	5	3,310	1,594	1,716
0010	55+00	50.00	95.39	0.00	150	2	3,460	1,596	1,864
0010	55+50	50.00	95.55	0.00	177	0	3,637	1,596	2,041
0010	56+00	50.00	78.20	0.00	161	0	3,798	1,596	2,202
0010	56+50	50.00	59.79	0.00	128	0	3,926	1,596	2,330
0010	57+00	50.00	48.07	0.00	100	0	4,026	1,596	2,430
0010	57+50	50.00	35.59	0.04	77	0	4,103	1,596	2,507
0010	58+00	50.00	31.48	0.00	62	0	4,165	1,596	2,569
0010	58+50	50.00	36.68	0.02	63	0	4,228	1,596	2,632
0010	59+00	50.00	41.47	0.00	72	0	4,300	1,596	2,704
0010	59+50	50.00	57.76	0.00	92	0	4,392	1,596	2,796

9

DIVISION 1 - CTHE

CATEGORY	STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
			1.00	1.25					
0010	60+00	50.00	67.99	0.00	116	0	4,508	1,596	2,912
0010	60+50	50.00	56.17	2.31	115	2	4,623	1,599	3,024
0010	61+00	50.00	86.37	0.00	132	2	4,755	1,601	3,154
0010	61+50	50.00	41.35	0.64	118	1	4,873	1,603	3,271
0010	62+00	50.00	22.77	4.14	59	4	4,932	1,608	3,325
0010	62+50	50.00	18.97	18.53	39	21	4,971	1,634	3,337
0010	62+62	12.00	20.22	15.07	9	7	4,980	1,643	3,338
0010	63+53	91.00	18.97	34.47	66	83	5,046	1,746	3,300
0010	64+00	47.00	12.95	36.20	28	62	5,074	1,824	3,250
0010	64+50	50.00	43.54	11.07	52	44	5,126	1,879	3,247
0010	65+00	50.00	26.52	6.77	65	17	5,191	1,900	3,291
0010	65+50	50.00	16.68	28.74	40	33	5,231	1,941	3,290
0010	66+00	50.00	32.76	15.53	46	41	5,277	1,993	3,285
0010	66+50	50.00	75.99	0.09	101	14	5,378	2,010	3,368
0010	67+00	50.00	96.58	0.00	160	0	5,538	2,010	3,528
0010	67+50	50.00	72.00	0.00	156	0	5,694	2,010	3,684
0010	68+00	50.00	48.73	0.00	112	0	5,806	2,010	3,796
0010	68+50	50.00	31.57	0.33	74	0	5,880	2,010	3,870
0010	69+00	50.00	39.60	2.05	66	2	5,946	2,013	3,934
0010	69+50	50.00	69.44	0.00	101	2	6,047	2,015	4,032
0010	70+00	50.00	70.36	0.00	129	0	6,176	2,015	4,161
0010	70+50	50.00	46.89	1.55	109	1	6,285	2,016	4,269
0010	71+00	50.00	20.11	27.86	62	27	6,347	2,050	4,297
0010	71+50	50.00	17.75	29.51	35	53	6,382	2,116	4,266
0010	72+00	50.00	23.29	16.79	38	43	6,420	2,170	4,250
0010	72+50	50.00	74.86	0.00	91	16	6,511	2,190	4,321
0010	73+00	50.00	98.37	0.00	160	0	6,671	2,190	4,481
0010	73+50	50.00	86.75	0.00	171	0	6,842	2,190	4,652
0010	74+00	50.00	74.17	0.00	149	0	6,991	2,190	4,801
0010	74+50	50.00	60.99	0.04	125	0	7,116	2,190	4,926
0010	75+00	50.00	90.55	1.24	140	1	7,256	2,191	5,065
0010	75+50	50.00	154.63	2.52	227	3	7,483	2,195	5,288
0010	76+00	50.00	127.80	5.19	262	7	7,745	2,204	5,541
0010	76+50	50.00	69.20	1.08	182	6	7,927	2,211	5,716
0010	77+00	50.00	159.97	37.76	212	36	8,139	2,256	5,883
0010	77+50	50.00	139.84	29.21	278	62	8,417	2,334	6,083
0010	78+00	50.00	69.93	21.57	194	47	8,611	2,393	6,219
0010	78+50	50.00	24.63	7.26	88	27	8,699	2,426	6,273
0010	79+00	50.00	27.79	4.97	49	11	8,748	2,440	6,308
0010	79+50	50.00	26.32	14.64	50	18	8,798	2,463	6,336
0010	80+00	50.00	19.99	36.43	43	47	8,841	2,521	6,320
0010	80+50	50.00	30.41	48.06	47	78	8,888	2,619	6,269
0010	81+00	50.00	19.71	38.55	46	80	8,934	2,719	6,215
0010	81+50	50.00	24.37	34.13	41	67	8,975	2,803	6,173
0010	82+00	50.00	42.37	0.00	62	32	9,037	2,843	6,195
0010	82+50	50.00	30.78	2.16	68	2	9,105	2,845	6,260
0010	83+00	50.00	101.23	0.15	122	2	9,227	2,848	6,380
0010	83+50	50.00	75.81	11.54	164	11	9,391	2,861	6,530
0010	84+00	50.00	28.15	10.32	96	20	9,487	2,886	6,601
0010	84+50	50.00	26.40	68.60	51	73	9,538	2,978	6,561
0010	85+00	50.00	24.69	71.35	47	130	9,585	3,140	6,445

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PROJECT NO: 8939-08-76

HWY: CTH E

COUNTY: ST. CROIX

EARTHWORK DATA

SHEET

E

DIVISION 1 - CTH E

CATEGORY	STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
			1.00	1.25					
0010	85+50	50.00	24.21	76.43	45	137	9,630	3,311	6,319
0010	86+00	50.00	24.30	69.78	45	135	9,675	3,480	6,195
0010	86+50	50.00	26.41	56.23	47	117	9,722	3,626	6,096
0010	87+00	50.00	25.23	55.98	48	104	9,770	3,756	6,014
0010	87+50	50.00	70.28	30.45	88	80	9,858	3,856	6,002
0010	88+00	50.00	83.36	20.70	142	47	10,000	3,915	6,085
0010	88+50	50.00	48.07	15.90	122	34	10,122	3,958	6,165
0010	89+00	50.00	21.90	12.05	65	26	10,187	3,990	6,197
0010	89+50	50.00	22.30	5.97	41	17	10,228	4,011	6,217
0010	90+00	50.00	20.62	18.23	40	22	10,268	4,039	6,229
0010	90+50	50.00	21.93	60.62	39	73	10,307	4,130	6,177
0010	91+00	50.00	26.14	99.35	45	148	10,352	4,315	6,037
0010	91+50	50.00	31.83	116.83	54	200	10,406	4,565	5,841
0010	92+00	50.00	34.29	112.41	61	212	10,467	4,830	5,637
0010	92+50	50.00	38.69	78.26	68	177	10,535	5,051	5,484
0010	92+85	35.00	61.08	86.83	65	107	10,600	5,185	5,415
0010	94+71	136.00	55.46	13.97	294	254	10,894	5,503	5,397
0010	94+50	29.00	49.85	28.29	57	23	10,951	5,531	5,420
0010	95+00	50.00	34.55	32.73	78	56	11,029	5,601	5,428
0010	95+50	50.00	17.82	55.86	48	82	11,077	5,704	5,373
0010	96+00	50.00	17.21	68.05	32	115	11,109	5,848	5,262
0010	96+50	50.00	19.27	63.10	34	121	11,143	5,999	5,144
0010	97+00	50.00	18.38	125.18	35	174	11,178	6,216	4,962
0010	97+50	50.00	19.30	706.74	35	307	11,213	6,600	4,613
0010	98+00	50.00	19.17	248.26	36	421	11,249	7,126	4,123
0010	98+50	50.00	25.29	205.93	41	421	11,290	7,653	3,638
0010	99+00	50.00	28.47	73.87	50	259	11,340	7,976	3,364
0010	99+50	50.00	36.49	17.46	60	85	11,400	8,083	3,318
0010	100+00	50.00	48.60	4.93	79	21	11,479	8,109	3,370
0010	100+50	50.00	45.75	8.47	87	12	11,566	8,124	3,442
0010	101+00	50.00	57.15	5.86	95	13	11,661	8,140	3,521
0010	101+50	50.00	74.62	3.21	122	8	11,783	8,150	3,633
0010	102+00	50.00	69.40	0.98	133	4	11,916	8,155	3,761
0010	102+50	50.00	36.00	0.07	98	1	12,014	8,156	3,858
0010	103+00	50.00	72.48	0.00	100	0	12,114	8,156	3,958
0010	103+50	50.00	19.84	4.48	85	4	12,199	8,161	4,038
0010	104+00	50.00	19.38	12.99	36	16	12,235	8,181	4,054
0010	104+50	50.00	24.82	10.92	41	22	12,276	8,209	4,067
0010	105+00	50.00	20.36	14.38	42	23	12,318	8,238	4,081
0010	105+50	50.00	18.63	8.07	36	21	12,354	8,264	4,090
0010	106+00	50.00	22.55	8.29	38	15	12,392	8,283	4,110
0010	106+50	50.00	69.97	5.24	86	13	12,478	8,299	4,179
0010	106+69	19.00	29.58	5.45	35	4	12,513	8,304	4,209
0010	107+67	98.00	33.17	1.73	114	13	12,627	8,320	4,307
0010	108+00	33.00	31.94	5.67	40	5	12,667	8,326	4,341
0010	108+50	50.00	39.91	2.31	67	7	12,734	8,335	4,399
0010	109+00	50.00	53.45	0.51	86	3	12,820	8,339	4,481
0010	109+50	50.00	44.75	0.00	91	0	12,911	8,339	4,572
0010	110+00	50.00	42.94	0.96	81	1	12,992	8,340	4,652
0010	110+50	50.00	38.50	6.60	75	7	13,067	8,349	4,718
0010	111+00	50.00	44.16	13.67	77	19	13,144	8,373	4,772

DIVISION 1 - CTH F

CATEGORY	STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
			1.00	1.25					
0010	111+50	50.00	21.39	16.57	61	28	13,205	8,408	4,798
0010	111+94	44.00	26.74	16.39	39	27	13,244	8,441	4,803
0010	112+93	99.00	23.68	13.37	92	55	13,336	8,510	4,826
0010	113+50	57.00	20.86	28.16	47	44	13,383	8,565	4,818
0010	114+00	50.00	19.54	25.93	37	50	13,420	8,628	4,793
0010	114+50	50.00	21.51	10.42	38	34	13,458	8,670	4,788
0010	115+00	50.00	40.25	0.00	57	10	13,515	8,683	4,833
0010	115+50	50.00	85.84	0.00	117	0	13,632	8,683	4,950
0010	116+00	50.00	73.57	1.45	148	1	13,780	8,684	5,096
0010	116+50	50.00	49.73	0.00	114	1	13,894	8,685	5,209
0010	117+00	50.00	38.12	5.54	81	5	13,975	8,691	5,284
0010	117+50	50.00	21.28	7.08	55	12	14,030	8,706	5,324
0010	118+00	50.00	34.83	0.26	52	7	14,082	8,715	5,367
0010	118+50	50.00	70.84	0.00	98	0	14,180	8,715	5,465
0010	119+00	50.00	89.72	12.12	149	11	14,329	8,729	5,600
0010	119+50	50.00	42.94	63.64	123	70	14,452	8,816	5,636
0010	119+91	41.00	17.20	128.45	46	146	14,498	8,999	5,499
0010	120+14	23.00	17.20	149.86	15	119	14,513	9,148	5,366
0010	121+22	0.00	15.53	56.78	0	0	14,513	9,148	5,366
0010	121+40	18.00	15.53	51.97	11	65	14,524	9,229	5,295
0010	122+00	60.00	28.27	9.36	49	68	14,573	9,314	5,259
0010	122+50	50.00	44.24	0.00	67	9	14,640	9,325	5,315
0010	123+00	50.00	40.06	1.67	78	2	14,718	9,328	5,391
0010	123+50	50.00	38.16	0.94	72	2	14,790	9,330	5,460

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PROJECT NO: 8939-08-76

HWY: CTH E

COUNTY: ST. CROIX

EARTHWORK DATA

SHEET

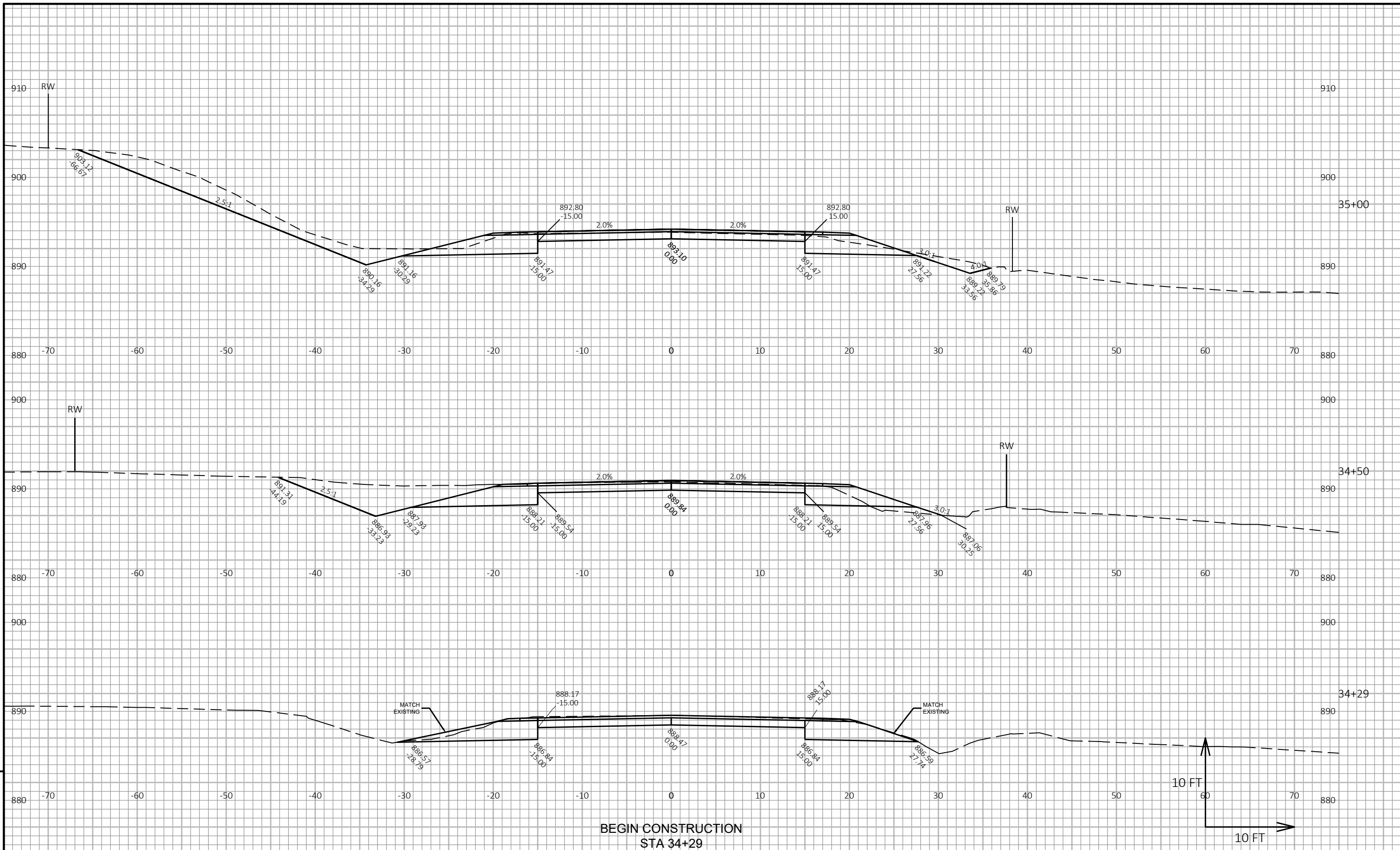
E

DIVISION 1 - CTH E

CATEGORY	STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)				
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS	ORDINATE	
			1.00	1.25	1.00	1.25					
0020	124+00	50.00	100.37	0.00	128	1	14,918	9,331	5,587		
0020	124+50	50.00	61.21	0.00	150	0	15,068	9,331	5,737		
0020	125+00	50.00	58.94	0.00	111	0	15,179	9,331	5,848		
0020	125+50	50.00	52.11	0.17	103	0	15,282	9,331	5,951		
0020	126+00	50.00	91.48	0.00	133	0	15,415	9,331	6,084		
0020	126+50	50.00	47.12	6.74	128	6	15,543	9,339	6,204		
0020	127+00	50.00	48.18	21.14	88	26	15,631	9,371	6,260		
0020	127+50	50.00	32.30	21.17	75	39	15,706	9,420	6,286		
0020	128+00	50.00	25.14	31.14	53	48	15,759	9,480	6,279		
0020	128+50	50.00	23.41	37.86	45	64	15,804	9,560	6,244		
0020	129+00	50.00	50.09	31.39	68	64	15,872	9,640	6,232		
0020	129+50	50.00	21.11	103.66	66	125	15,938	9,796	6,142		
0020	130+00	50.00	27.52	164.26	45	248	15,983	10,106	5,877		
0020	130+50	50.00	52.49	17.88	74	169	16,057	10,318	5,740		
0020	131+00	50.00	26.23	6.20	73	22	16,130	10,345	5,785		
0020	131+50	50.00	31.15	35.34	53	38	16,183	10,393	5,791		
0020	132+00	50.00	38.00	18.88	64	50	16,247	10,455	5,792		
0020	132+50	50.00	64.85	1.49	95	19	16,342	10,479	5,863		
0020	133+00	50.00	100.56	0.00	153	1	16,495	10,480	6,015		
0020	133+50	50.00	70.56	0.00	158	0	16,653	10,480	6,173		
0020	134+00	50.00	40.39	14.85	103	14	16,756	10,498	6,259		
0020	134+50	50.00	44.10	17.37	78	30	16,834	10,535	6,299		
0020	135+00	50.00	20.83	22.98	60	37	16,894	10,581	6,313		
0020	135+50	50.00	20.28	27.68	38	47	16,932	10,640	6,292		
0020	136+00	50.00	28.15	59.71	45	81	16,977	10,741	6,236		
0020	136+50	50.00	37.44	26.21	61	80	17,038	10,841	6,197		
0020	137+00	50.00	43.95	37.22	75	59	17,113	10,915	6,198		
0020	137+50	50.00	36.57	91.36	75	119	17,188	11,064	6,124		
0020	138+00	50.00	32.71	70.31	64	150	17,252	11,251	6,001		
0020	138+50	50.00	35.17	22.61	63	86	17,315	11,359	5,956		
0020	139+00	50.00	57.74	1.36	86	22	17,401	11,386	6,015		
0020	139+50	50.00	15.23	6.05	68	7	17,469	11,395	6,074		
0020	140+17	67.00	33.56	0.08	61	8	17,530	11,405	6,125		

DIVISION 1 - CTH V

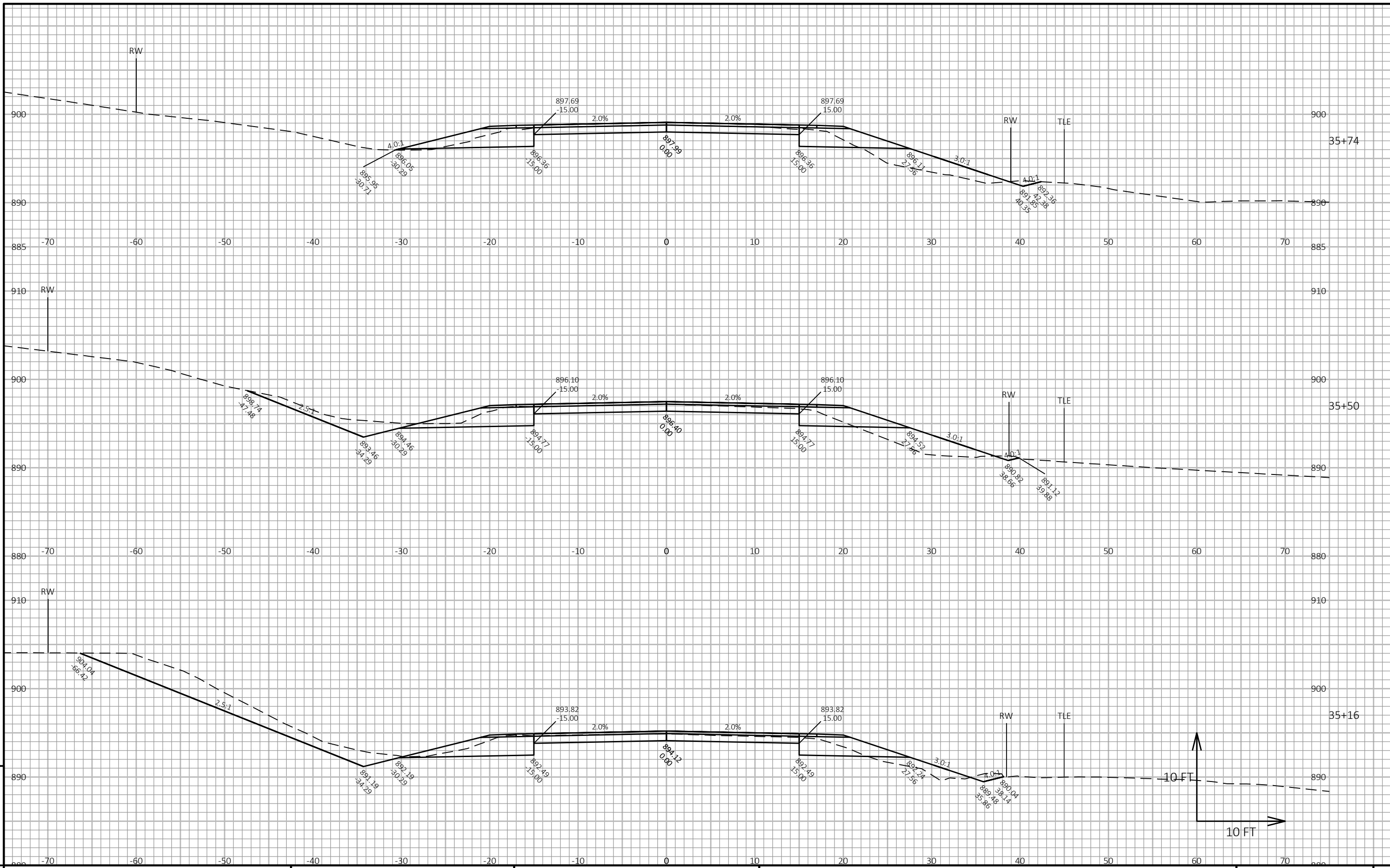
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			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS	ORDINATE	
			1.00	1.25	1.00	1.25					
0010	48+26	0.00	75.97	0.00	0	0	0	0	0		
0010	49+25	99.00	56.81	35.21	243	65	243	81	162		
0010	49+31	6.00	56.81	35.21	13	8	256	91	165		
0010	50+58	0.00	58.53	50.16	0	0	256	91	165		
0010	50+75	150.00	58.53	44.59	320	229	576	378	199		
0010	51+74	99.00	52.32	0.14	203	82	779	480	299		



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PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E	SHEET	E
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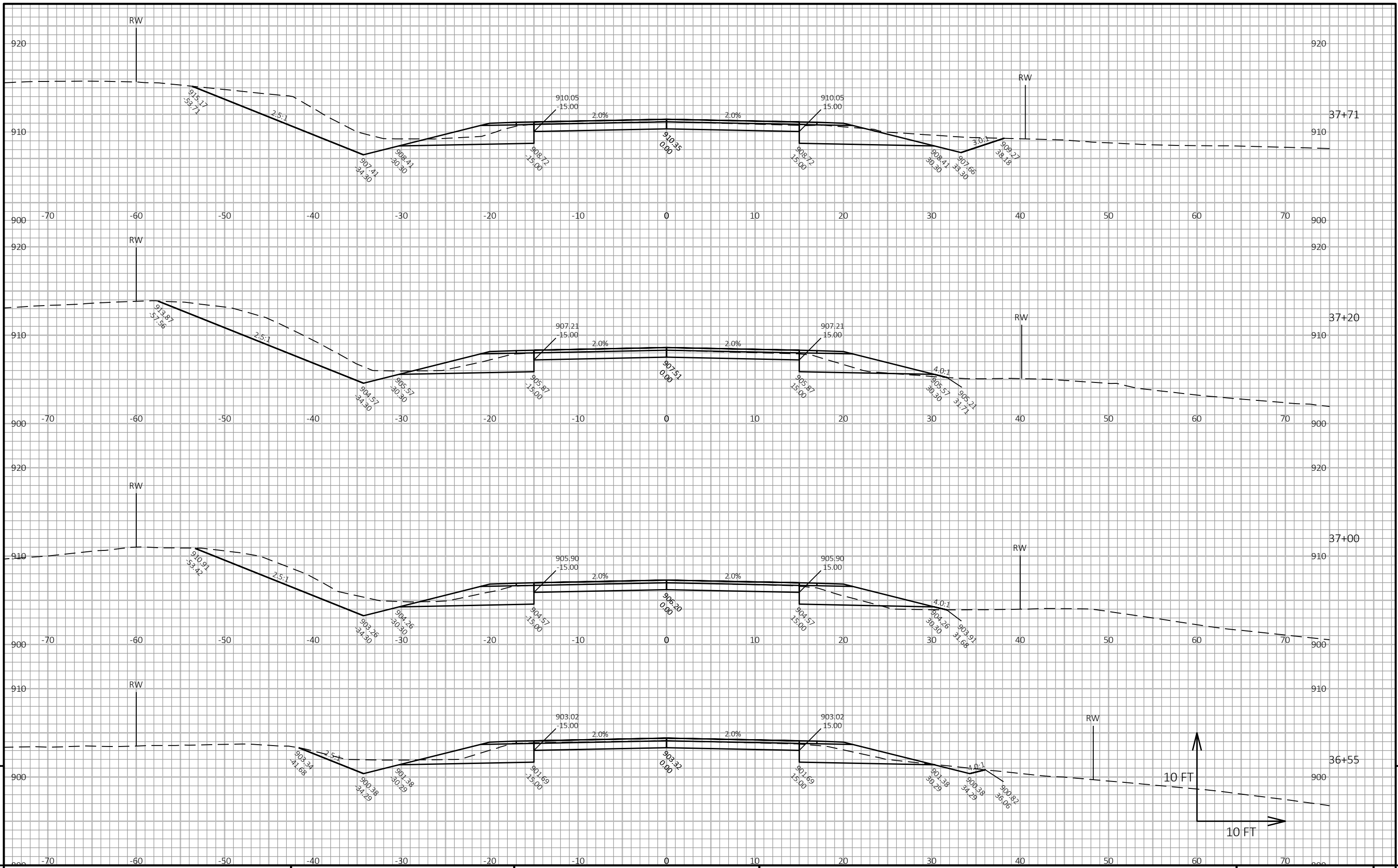
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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E

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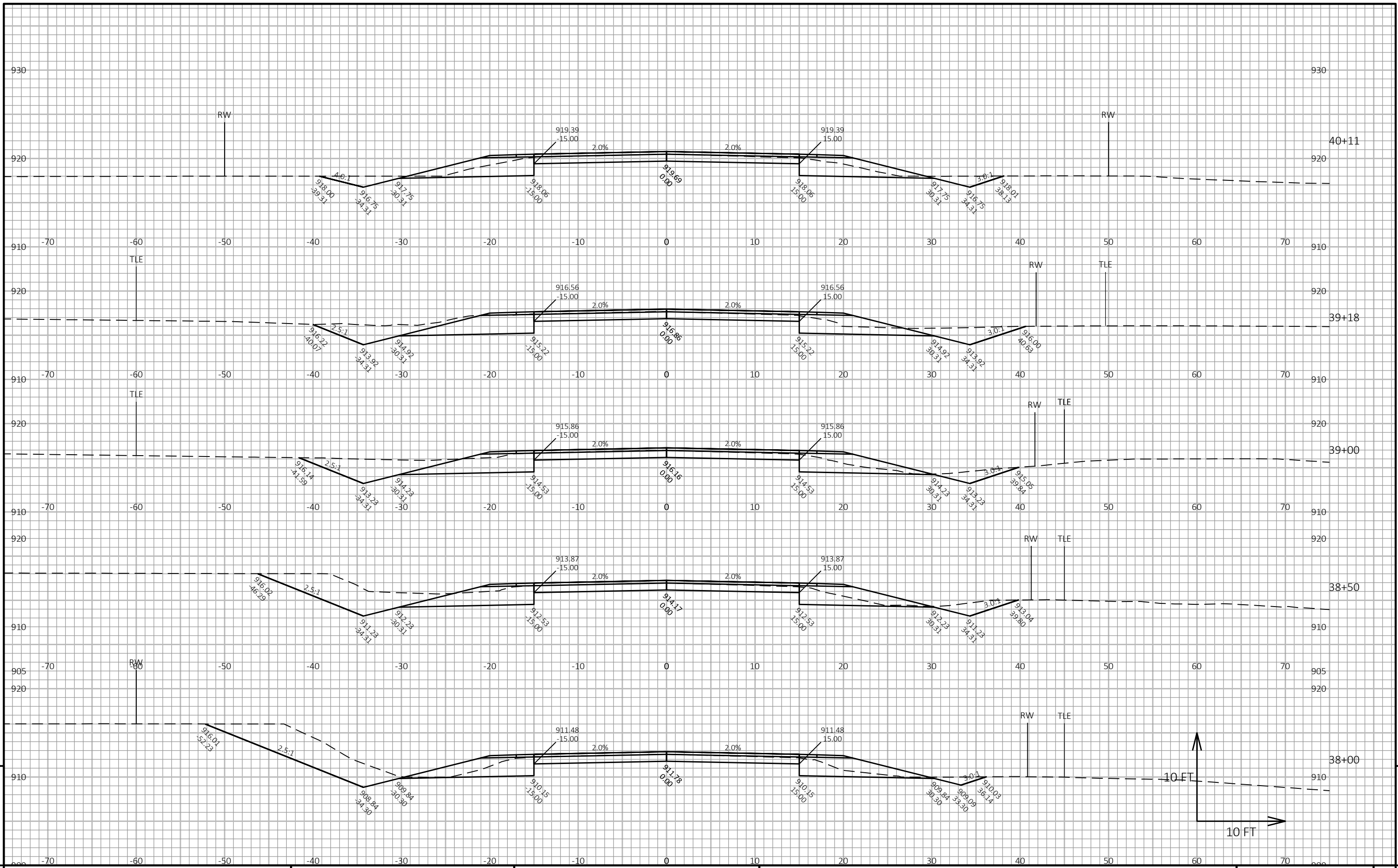
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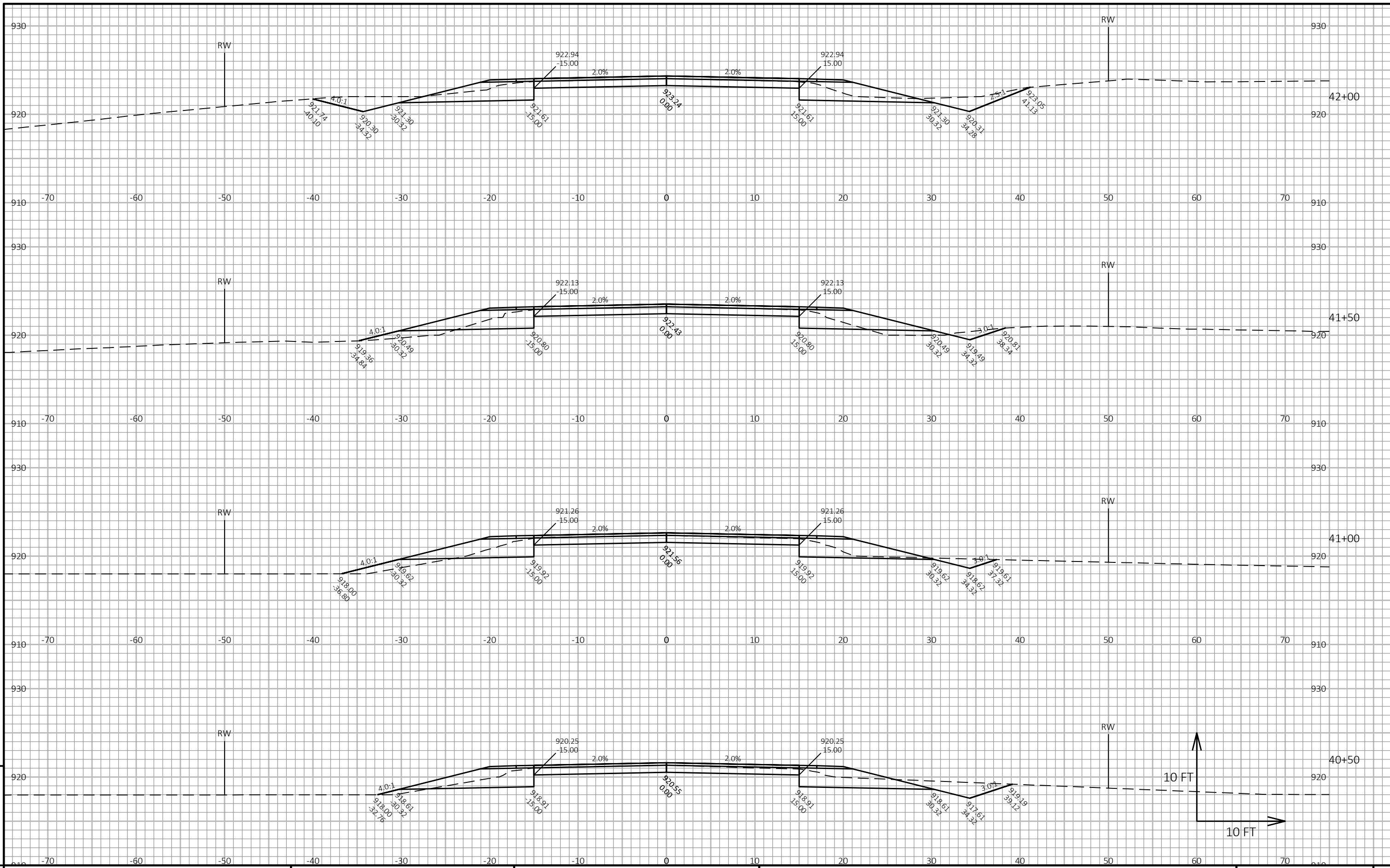
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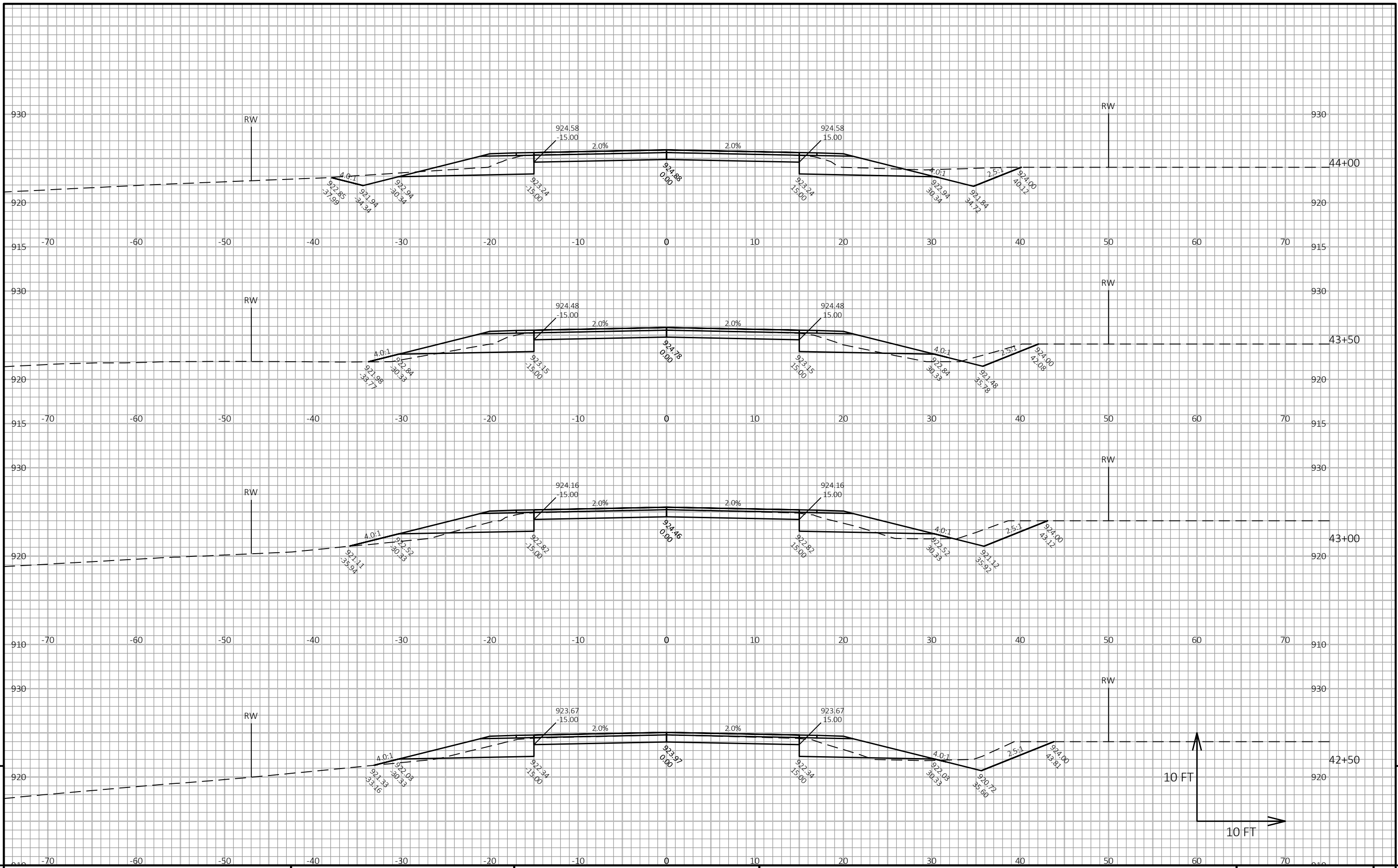
PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E	SHEET	E
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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET 9



PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E	SHEET	9
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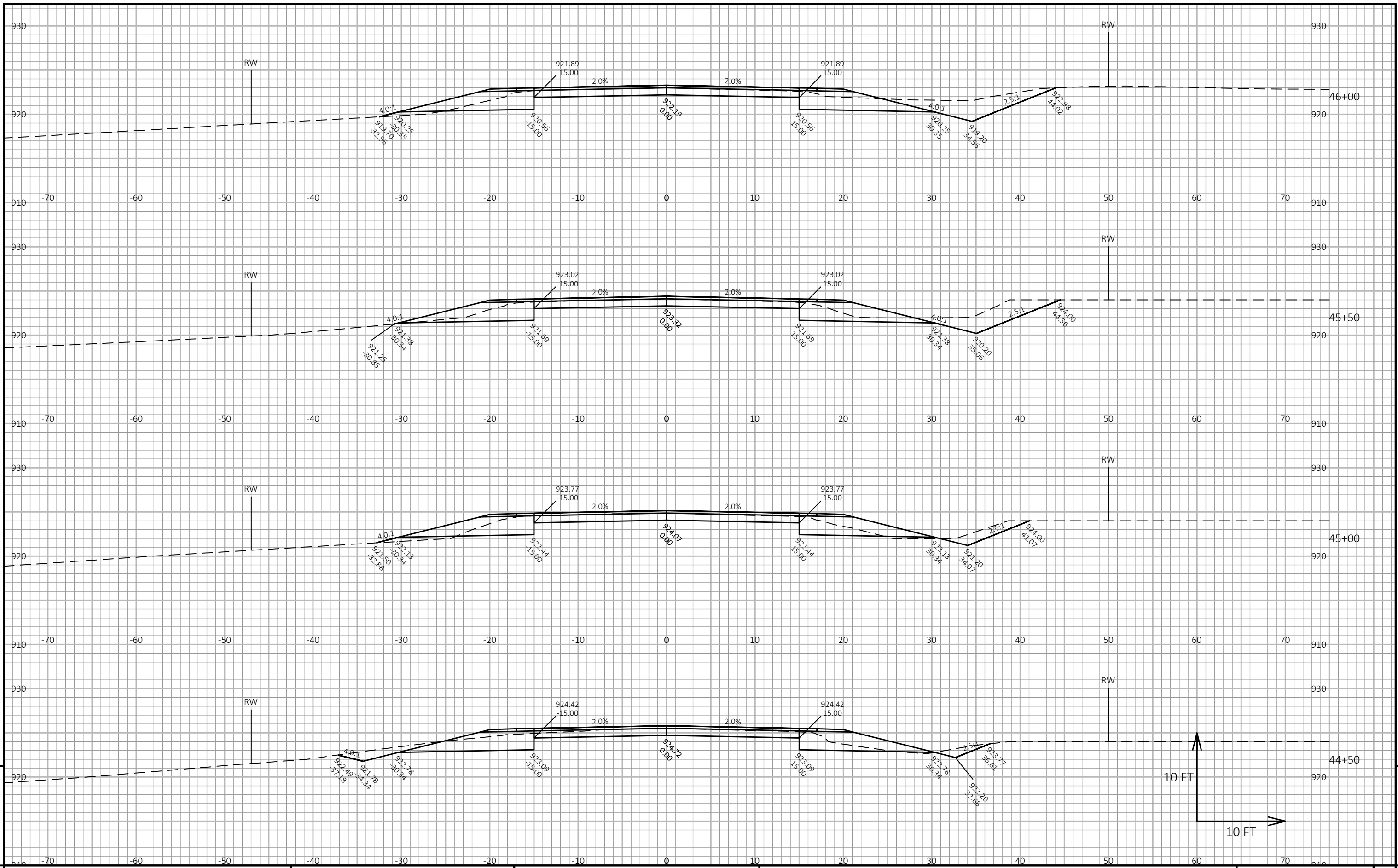
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LAYOUT NAME - 105



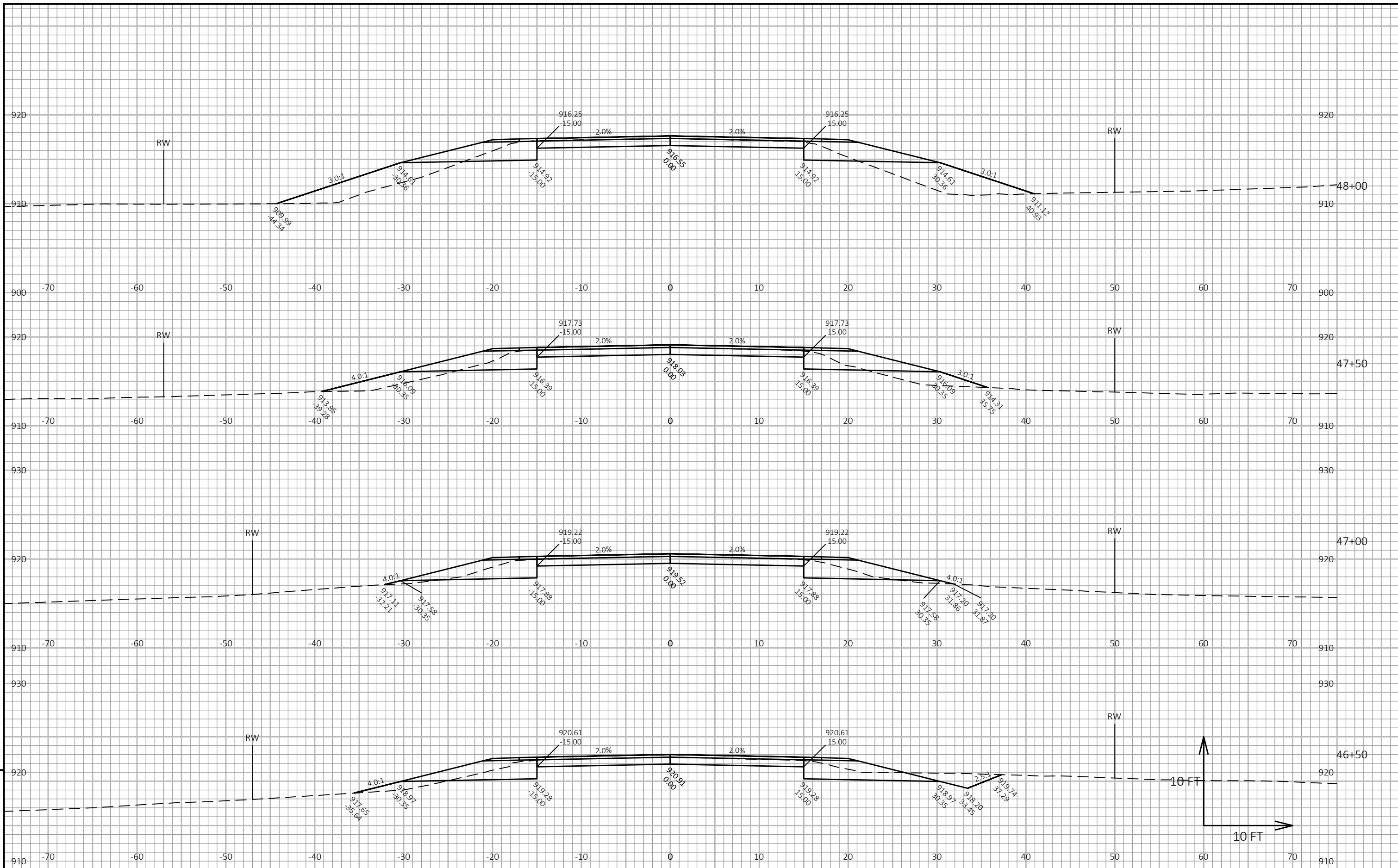
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LAYOUT NAME - 106



PROJECT NO: 8939-08-76

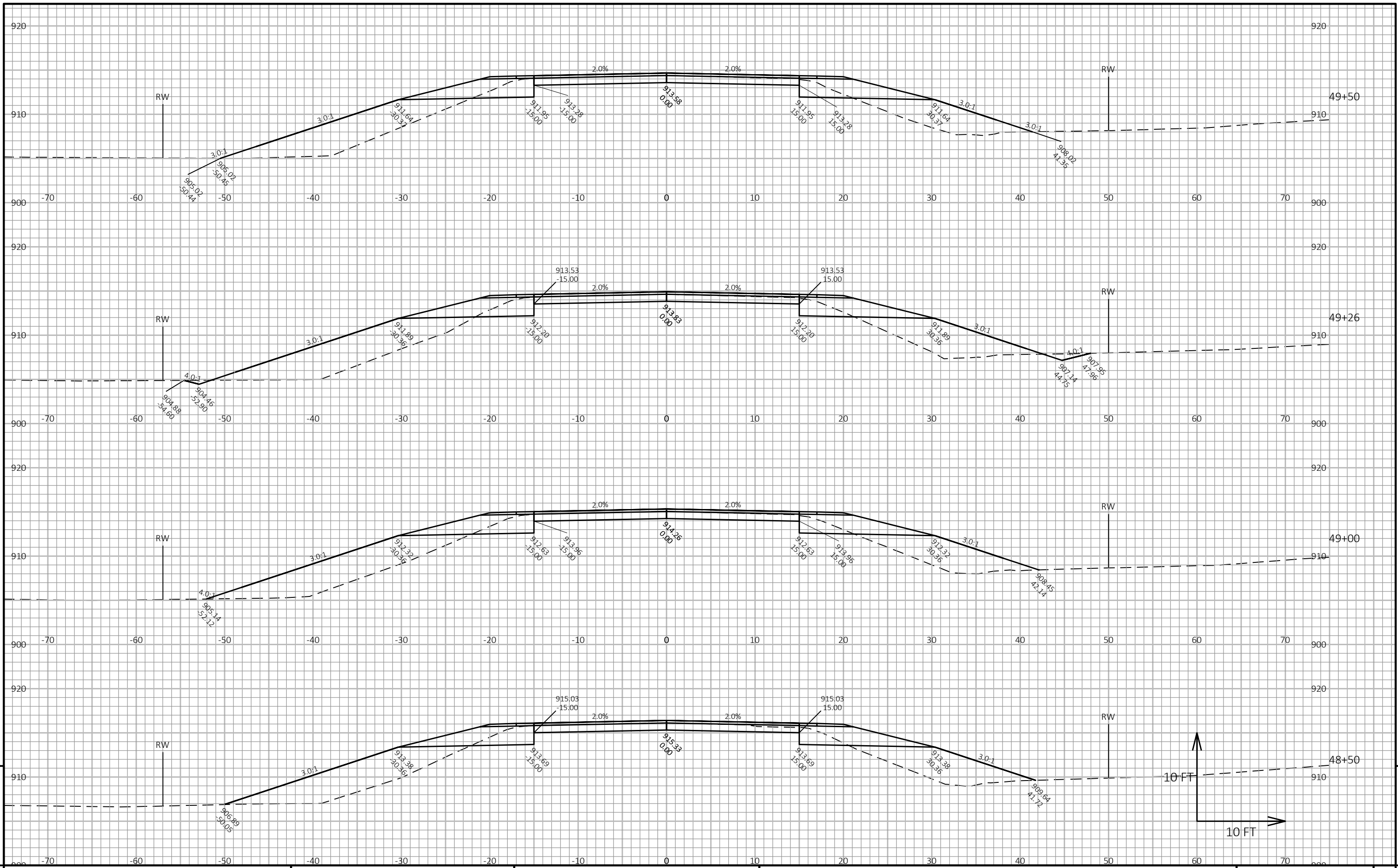
HWY: CTH E

COUNTY: ST. CROIX

CROSS SECTIONS: CTH E

SHEET

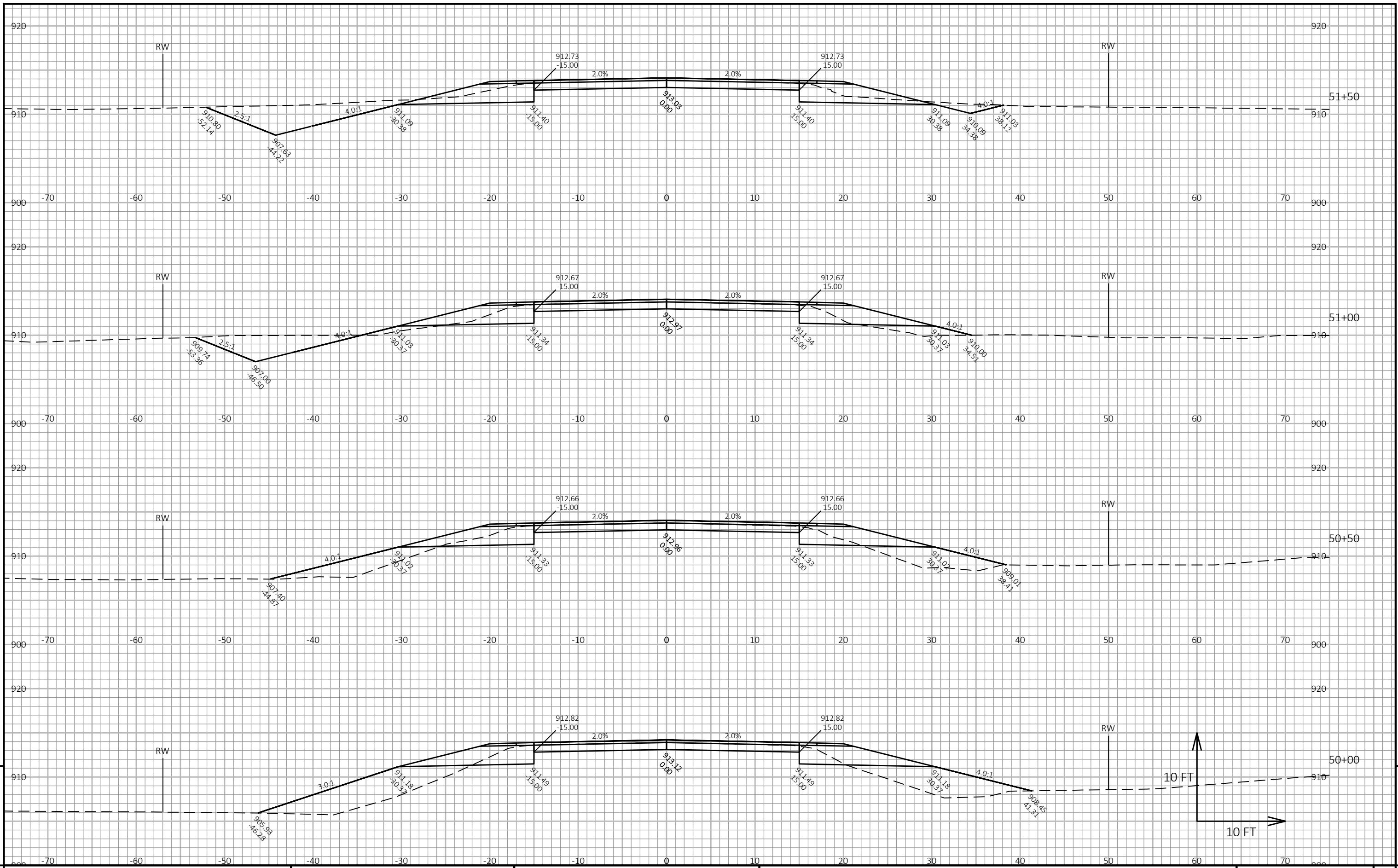
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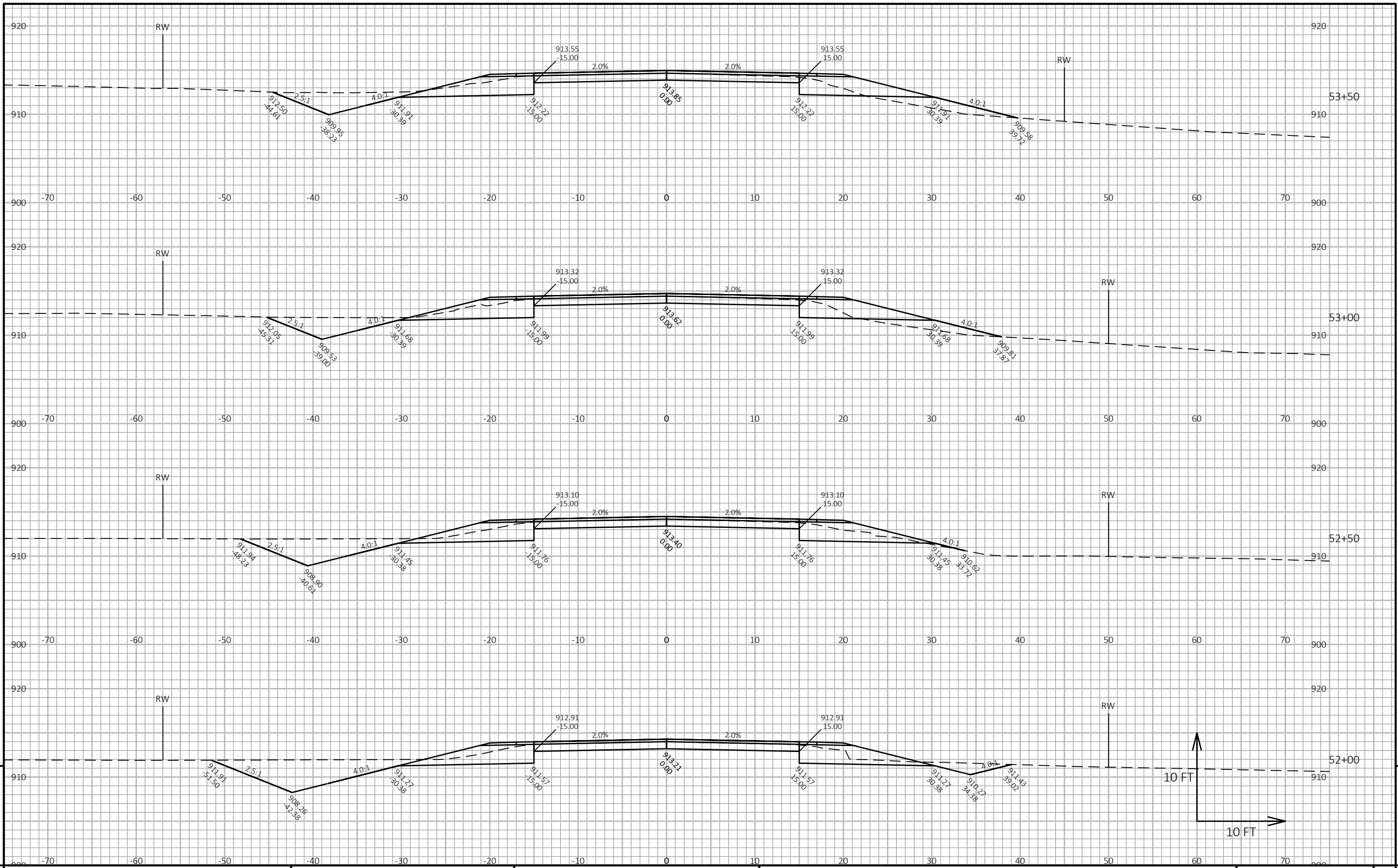
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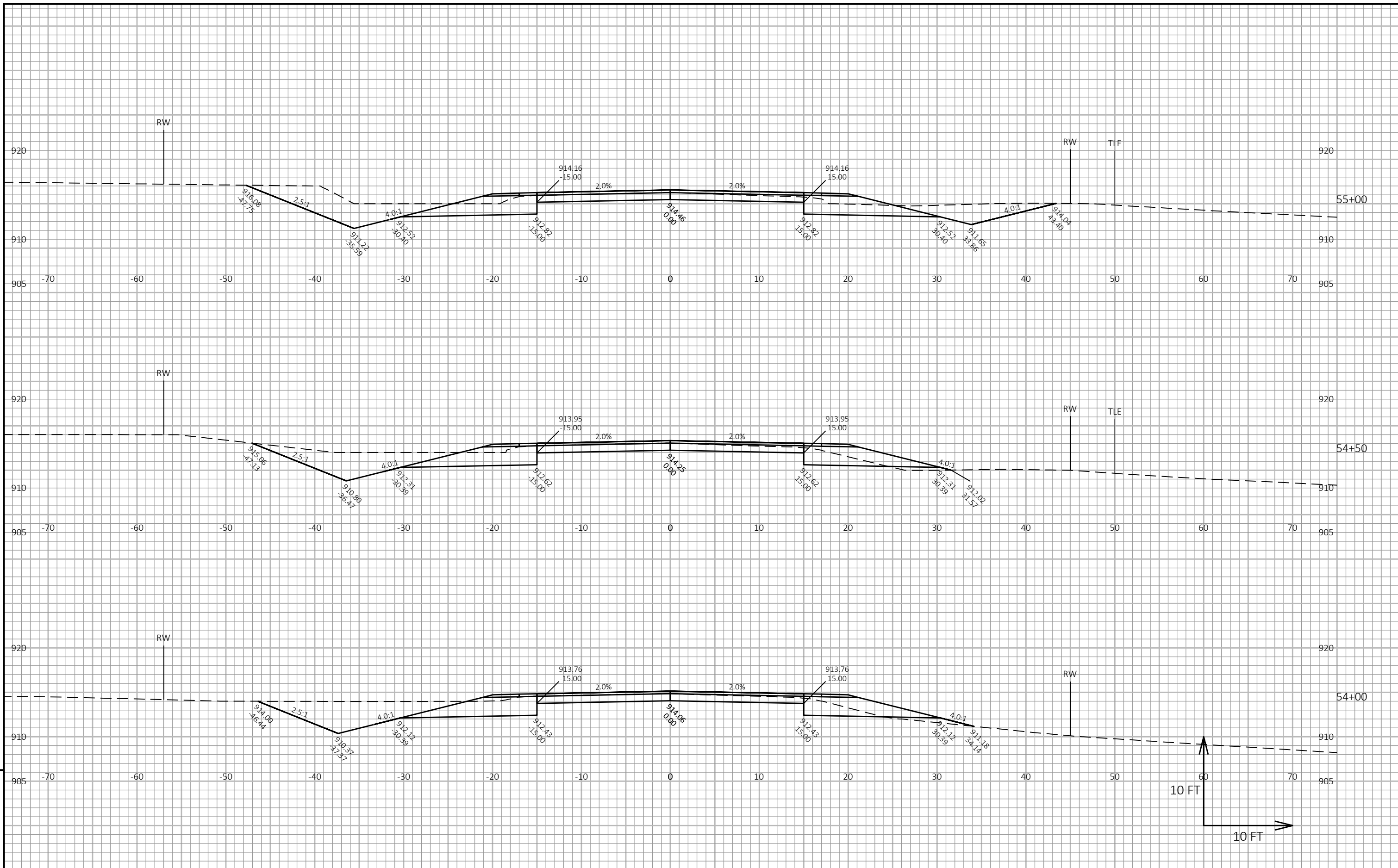
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10 FT 10 FT

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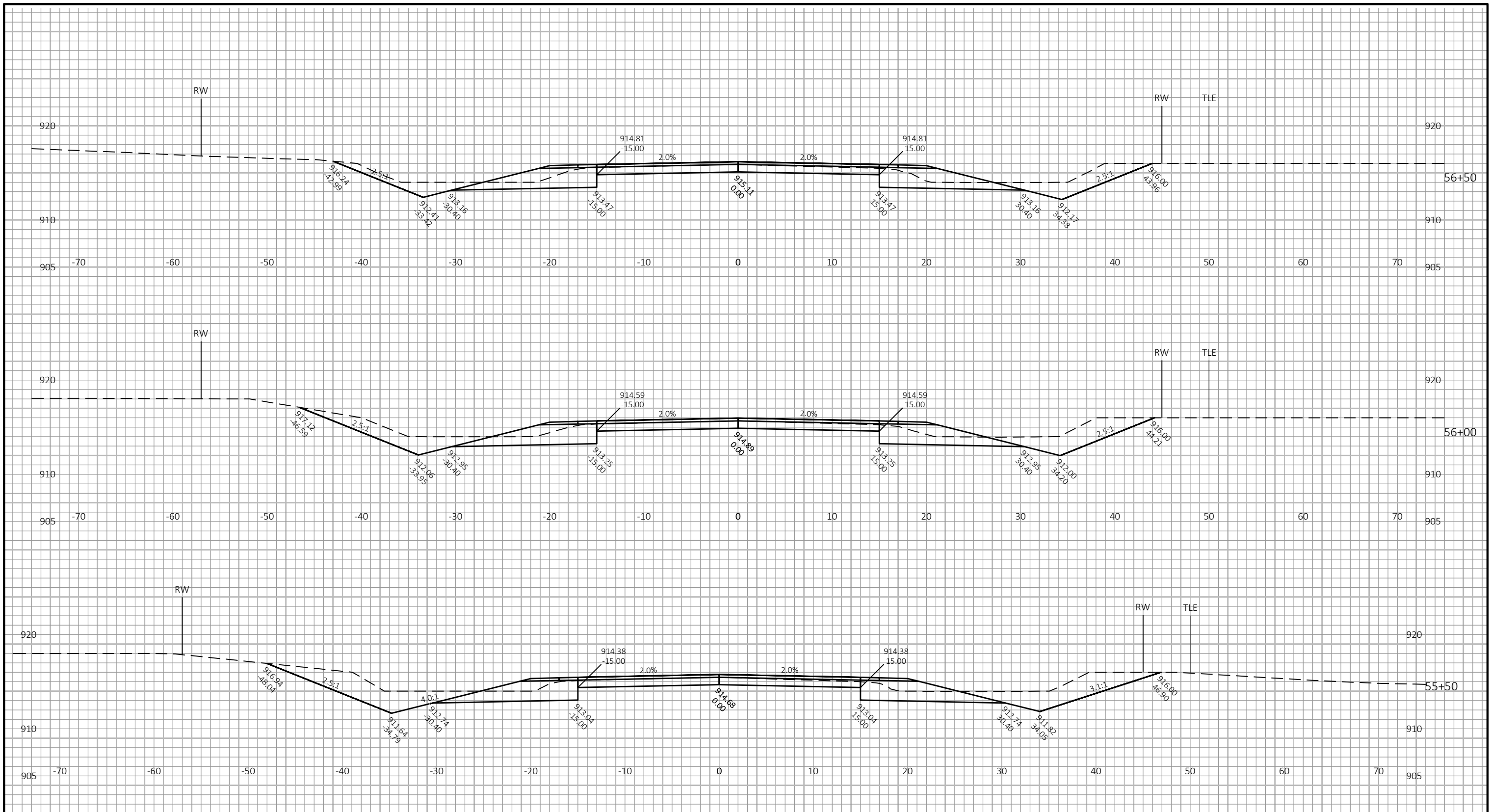
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LAYOUT NAME - 110



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10 FT
10 FT
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PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E	SHEET E
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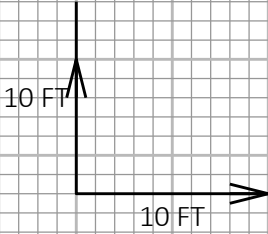
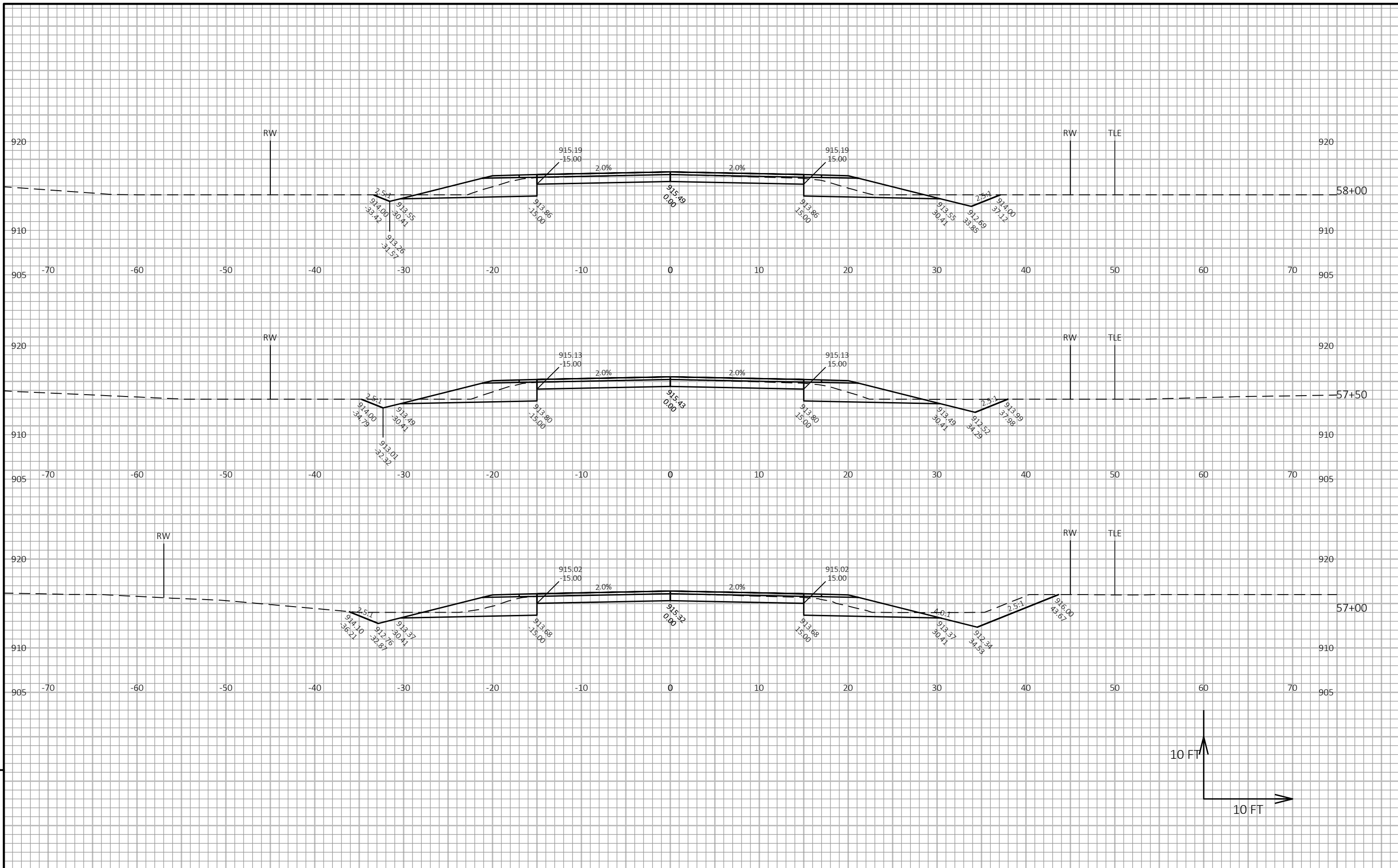


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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E

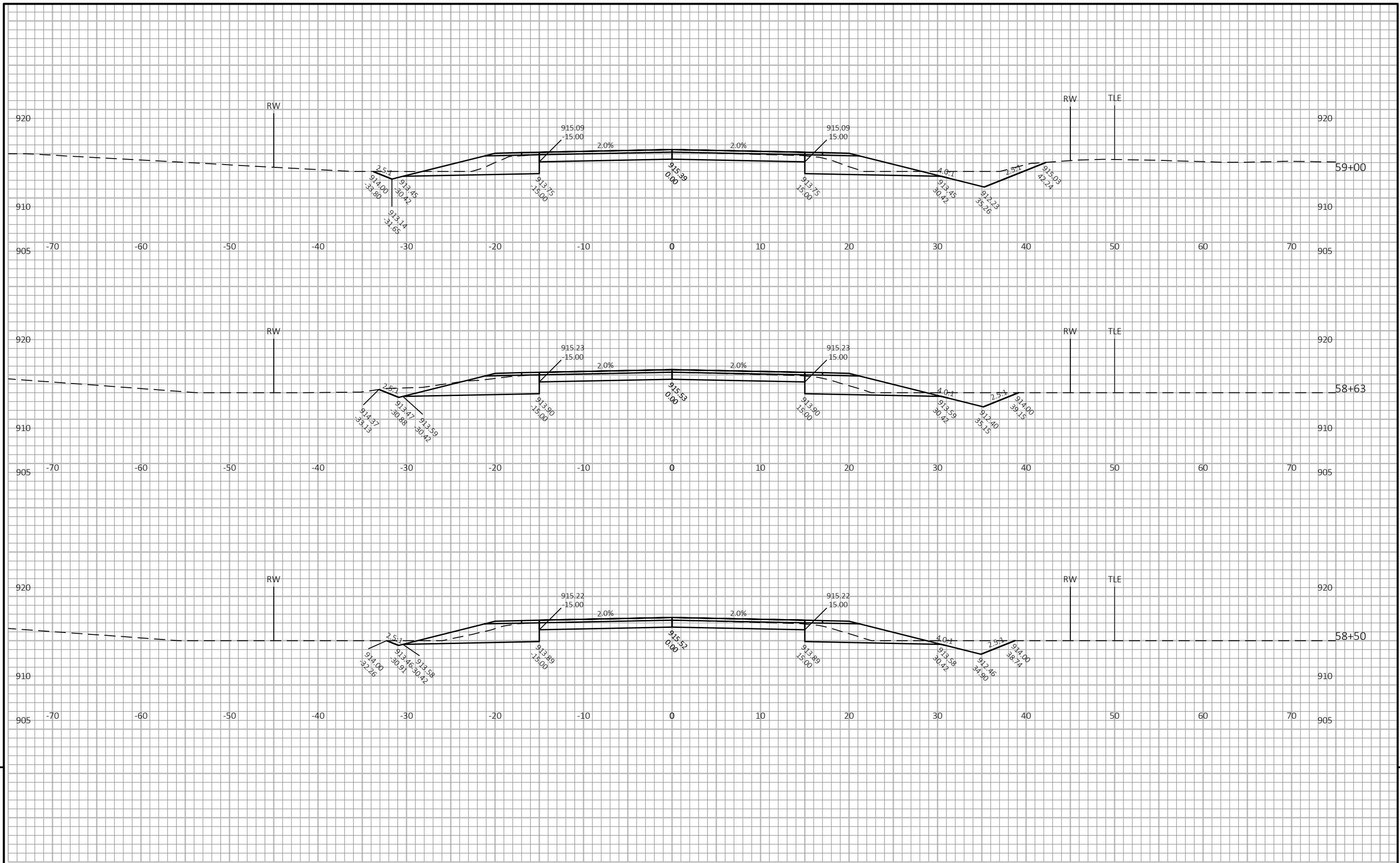
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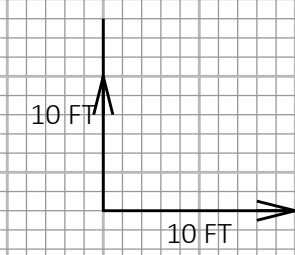
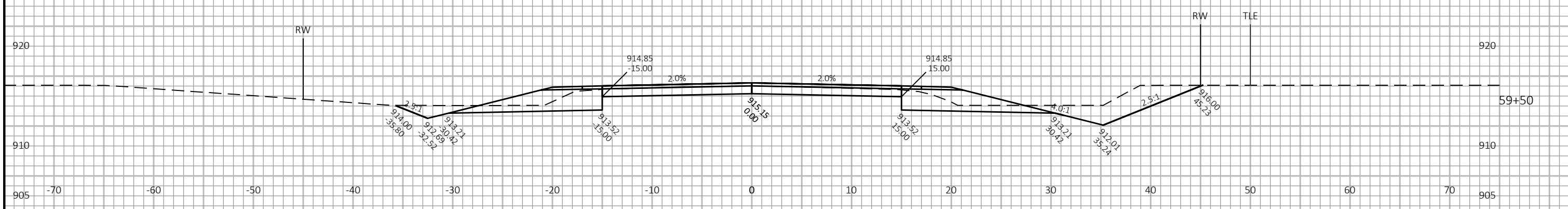
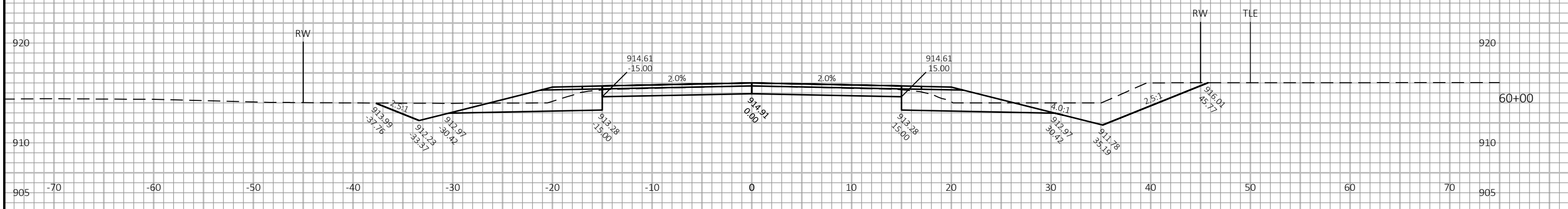
PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E	SHEET	E
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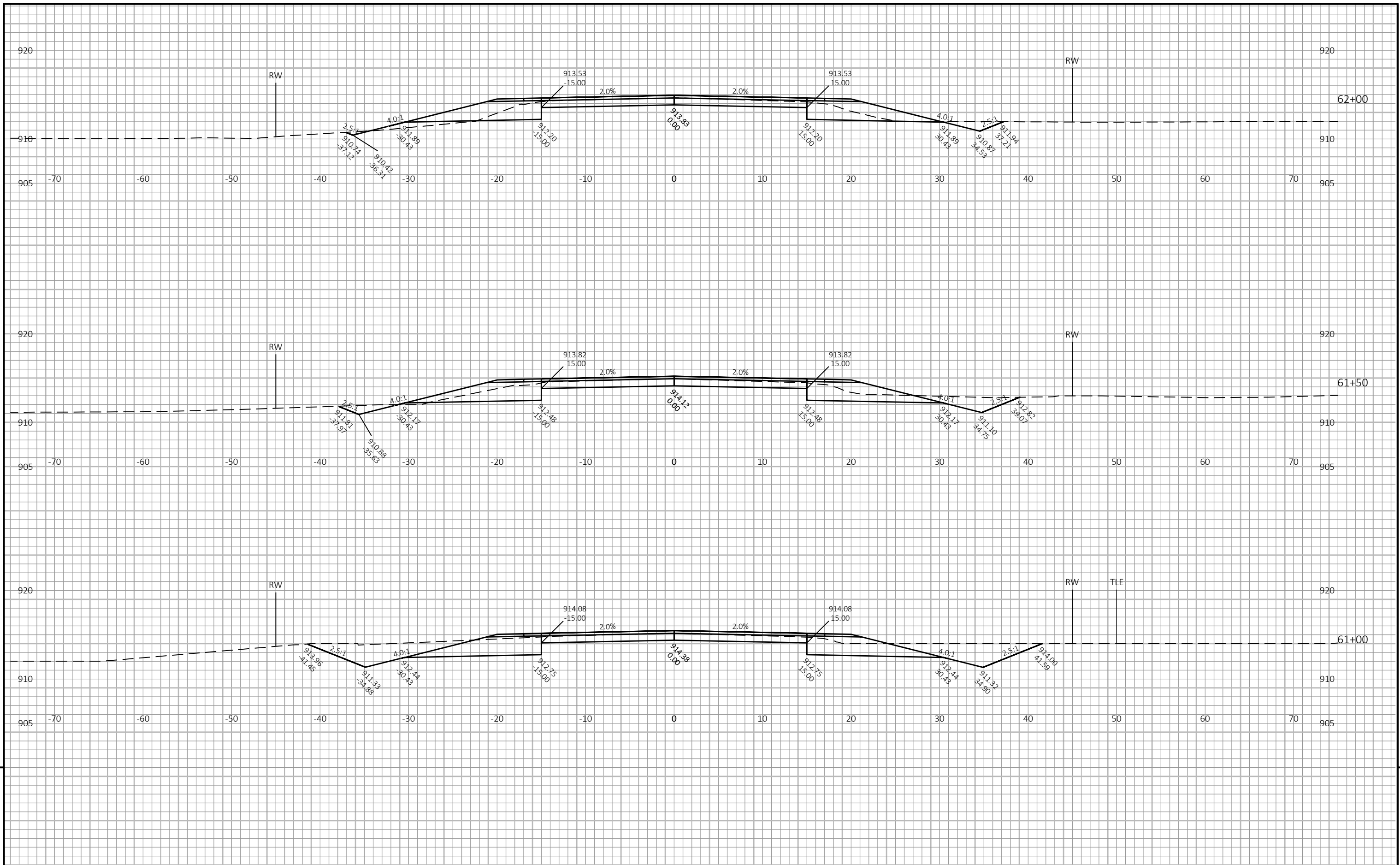
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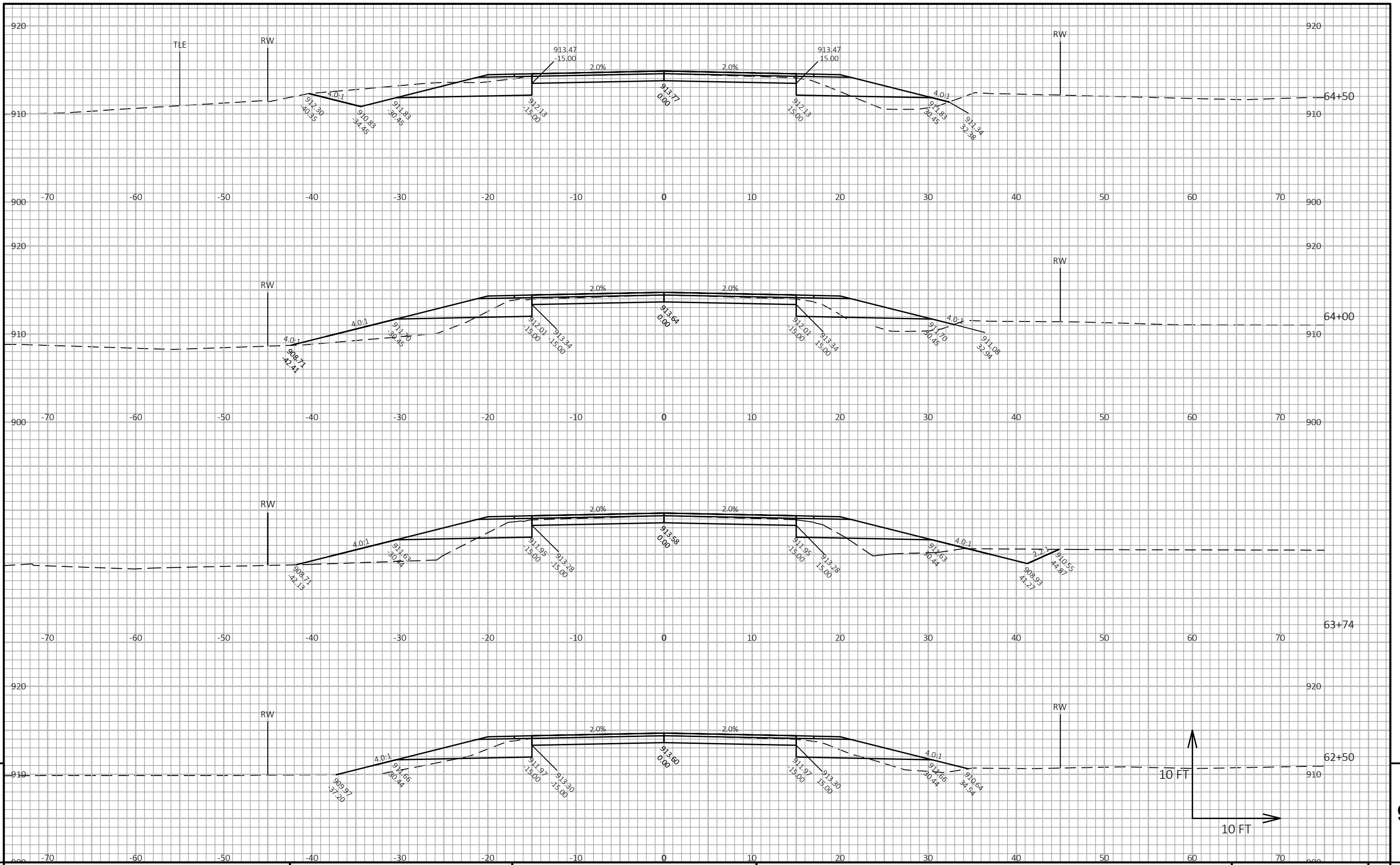
PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E	SHEET	E
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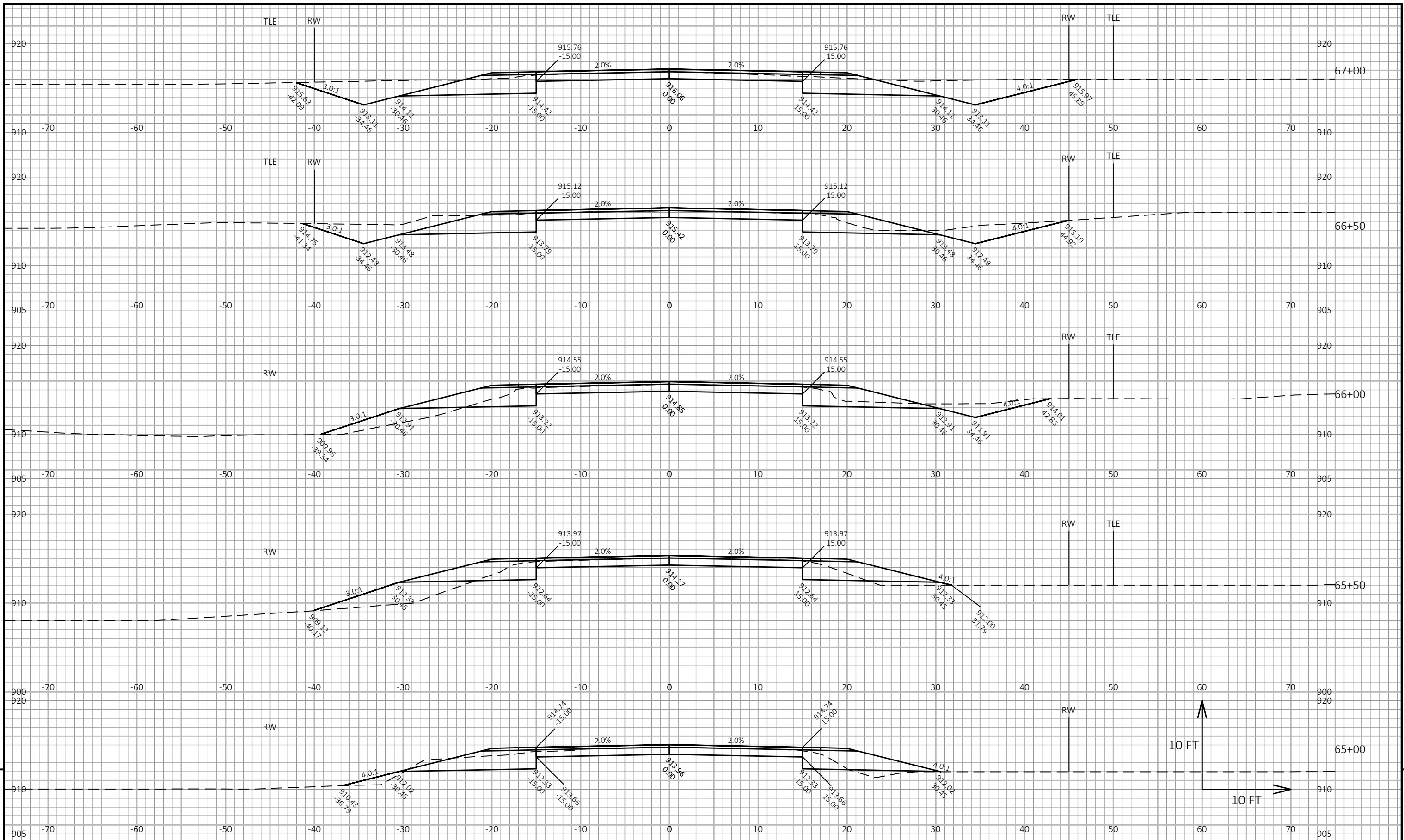
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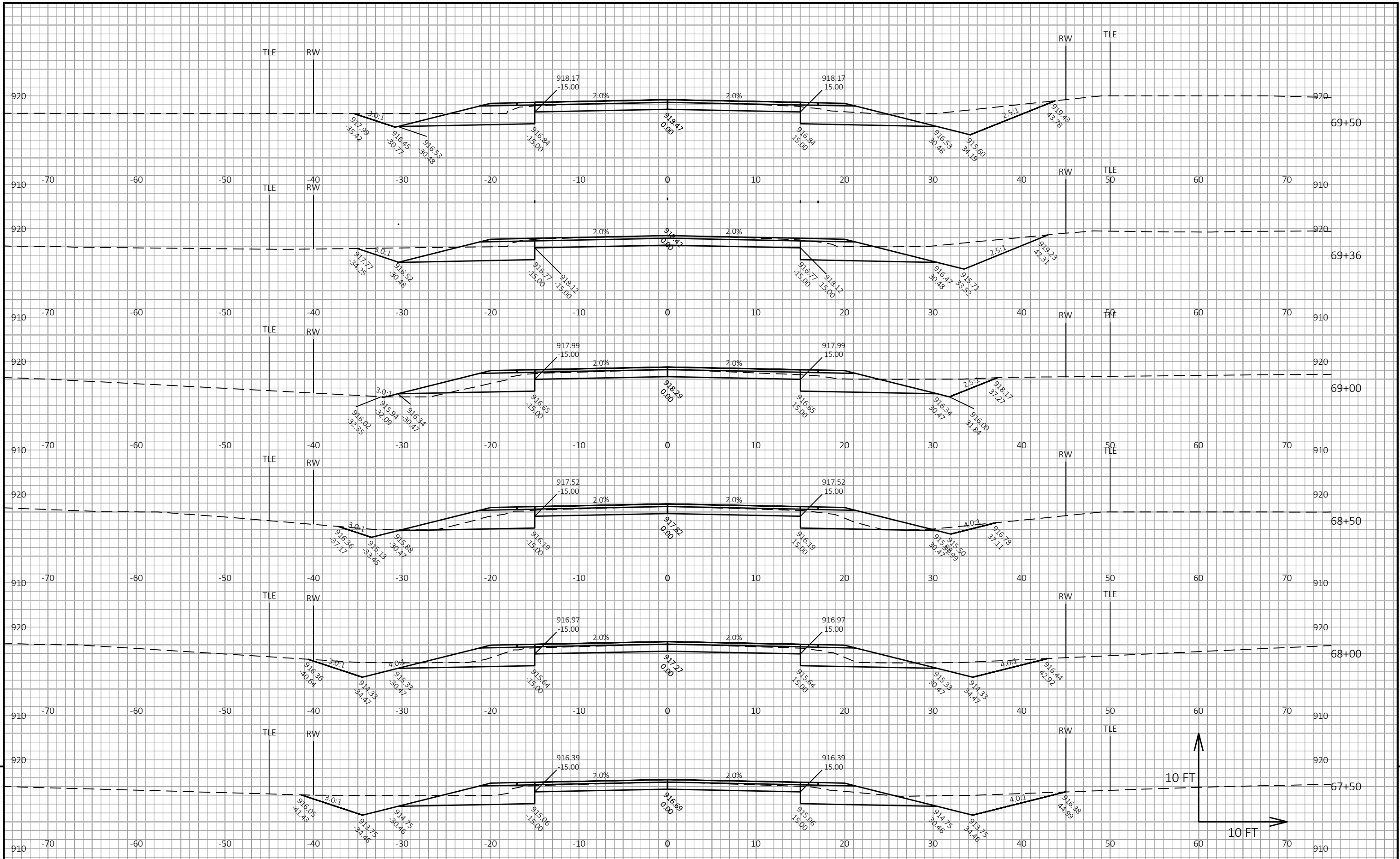
PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E	SHEET	E
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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E



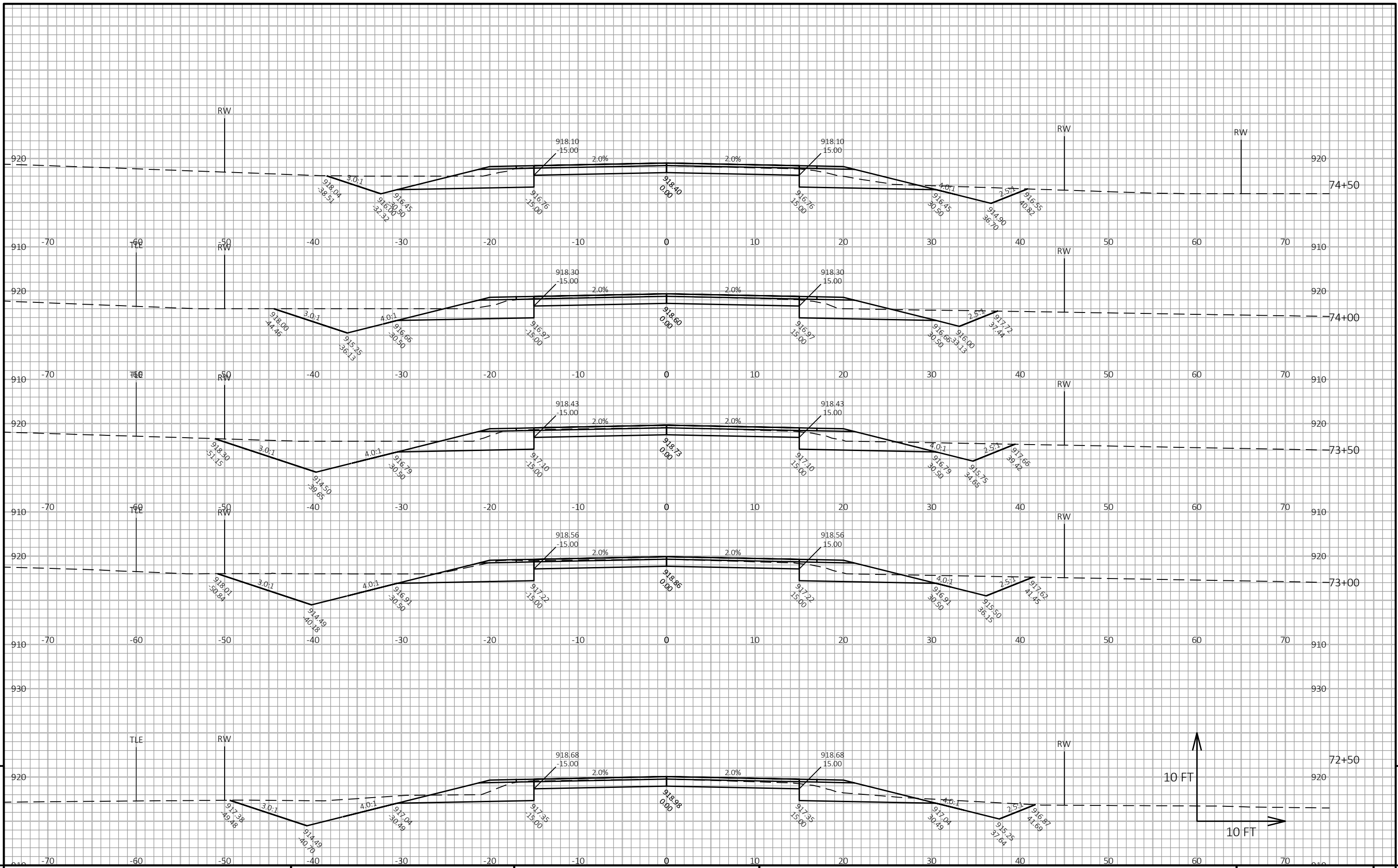
PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET 9



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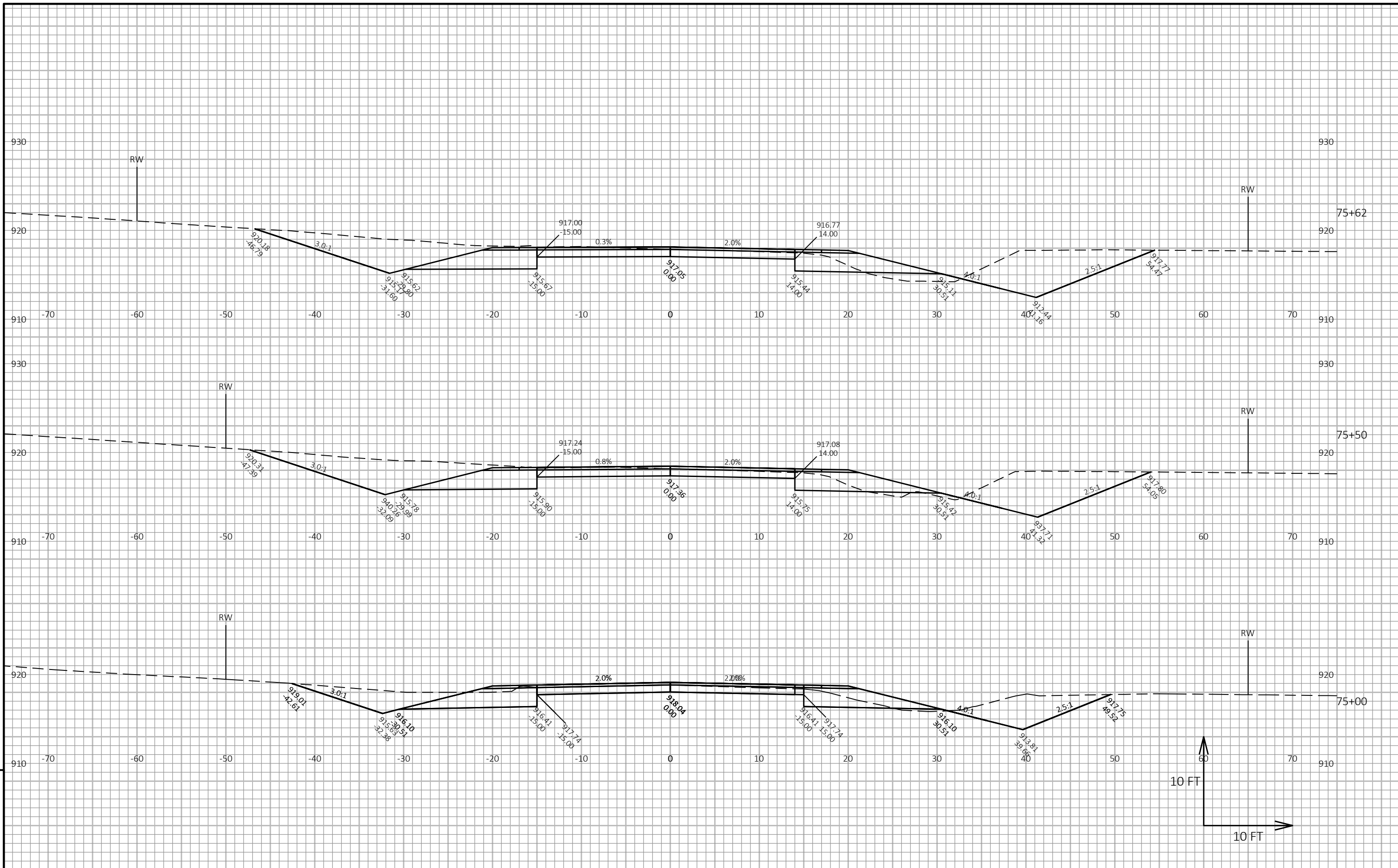
PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E	SHEET	E
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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET 9

FILE NAME: X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\DESIGN\CORRIDORS\CRDR-E.DWG PLOT DATE: 7/12/2021 4:28 PM PLOT BY: ALEX ADAMS PLOT NAME: PLOT SCALE: 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 118

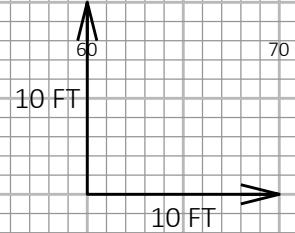


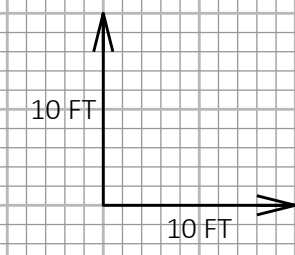
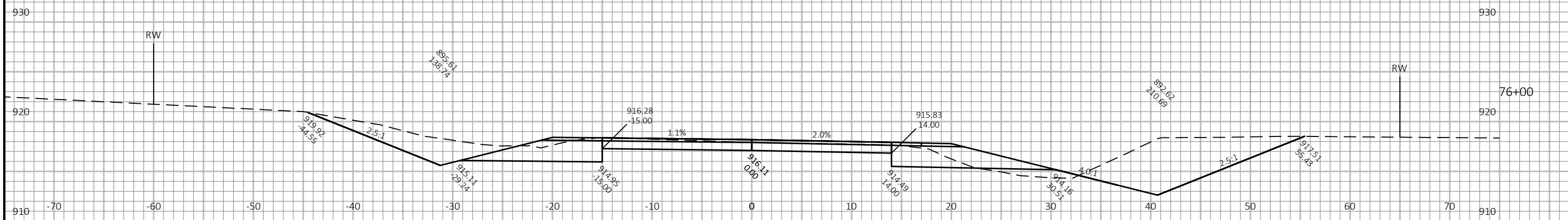
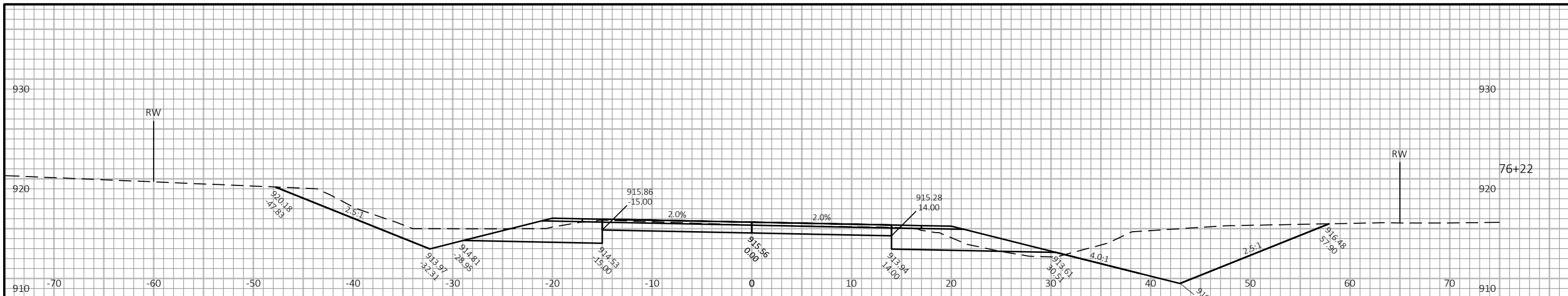
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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E

FILE NAME : X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\DESIGN\CORRIDORS\CRDR-E.DWG PLOT DATE : 7/12/2021 4:28 PM PLOT BY : ALEX ADAMS PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

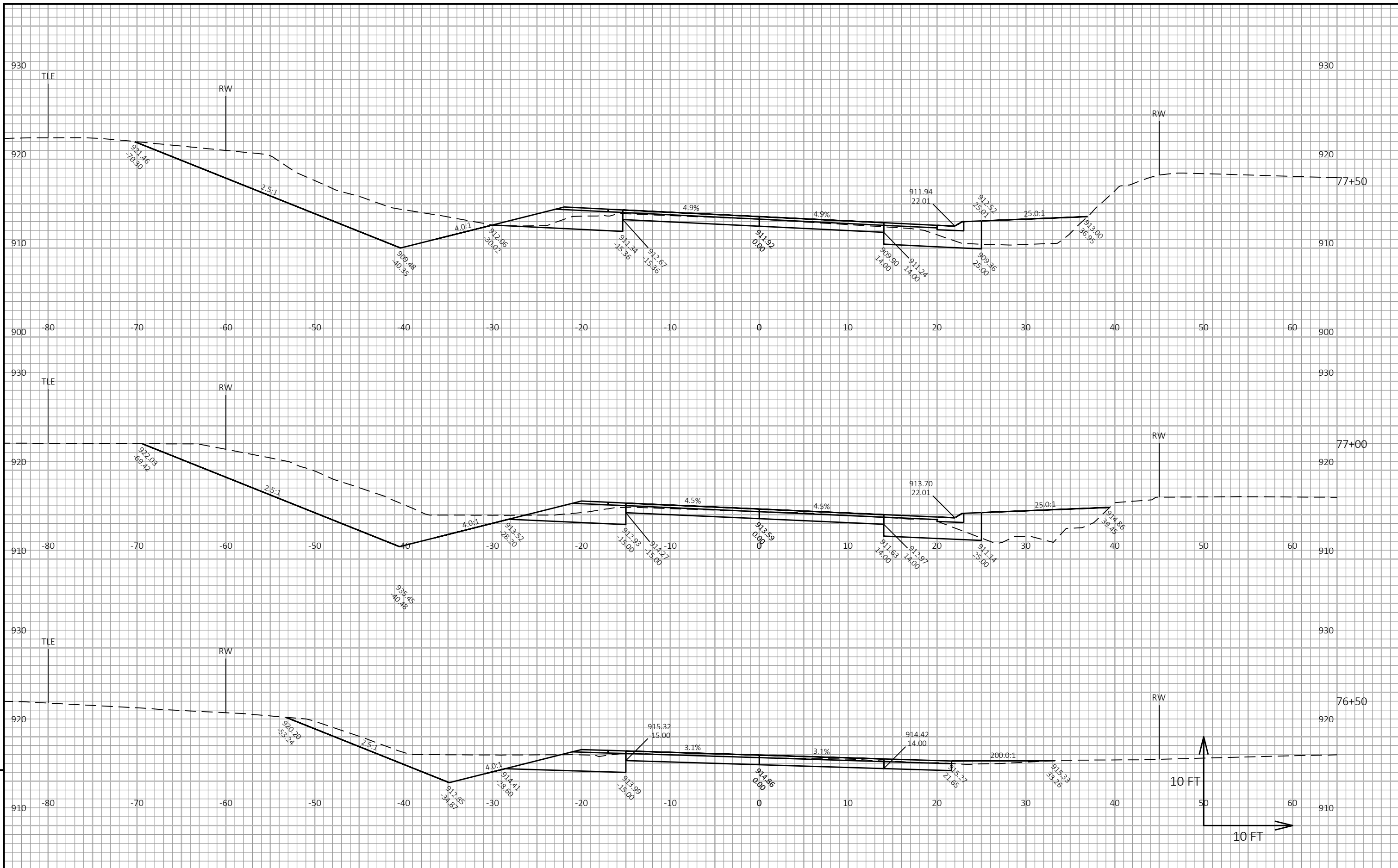




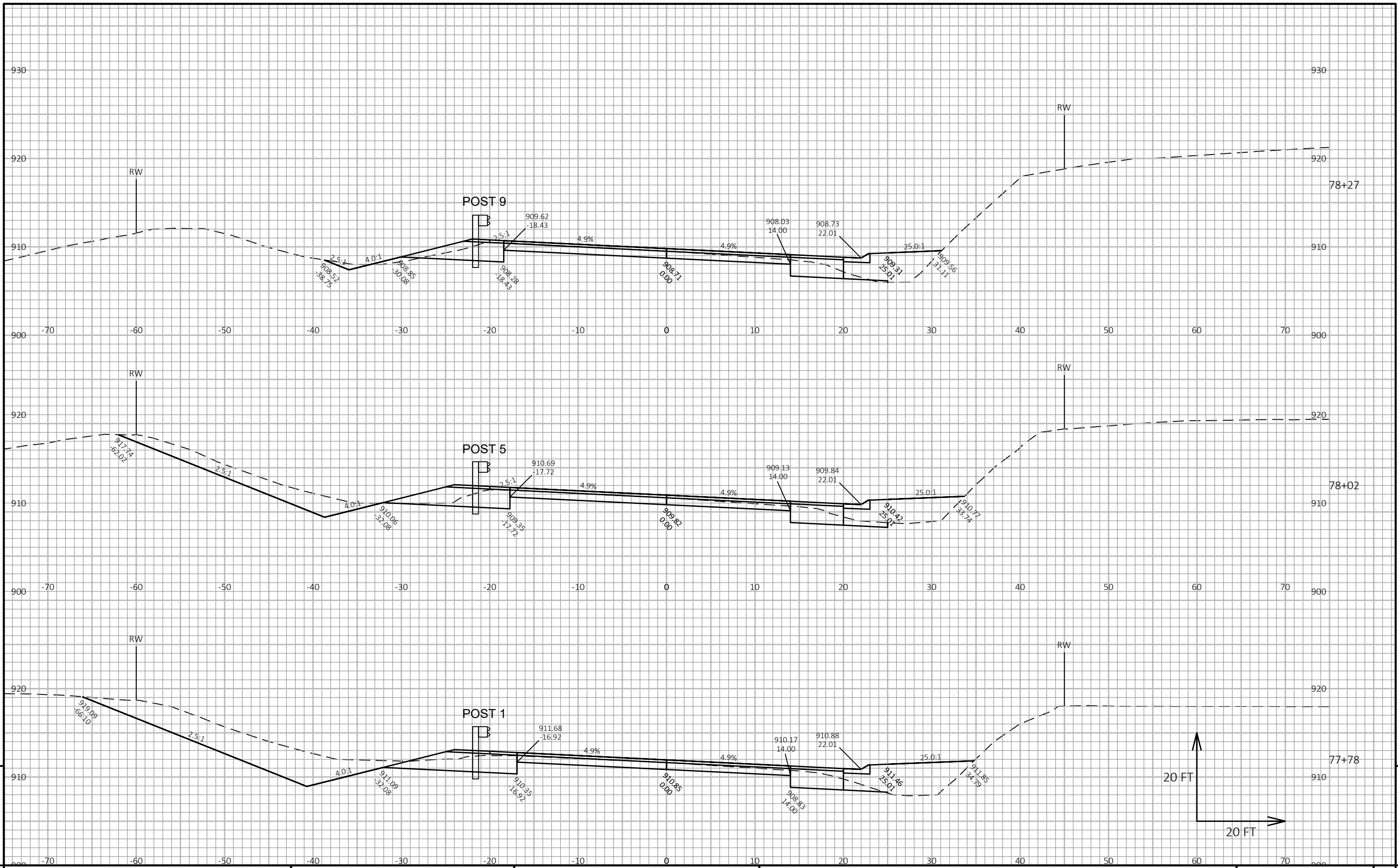
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PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E	SHEET	E
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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET 9

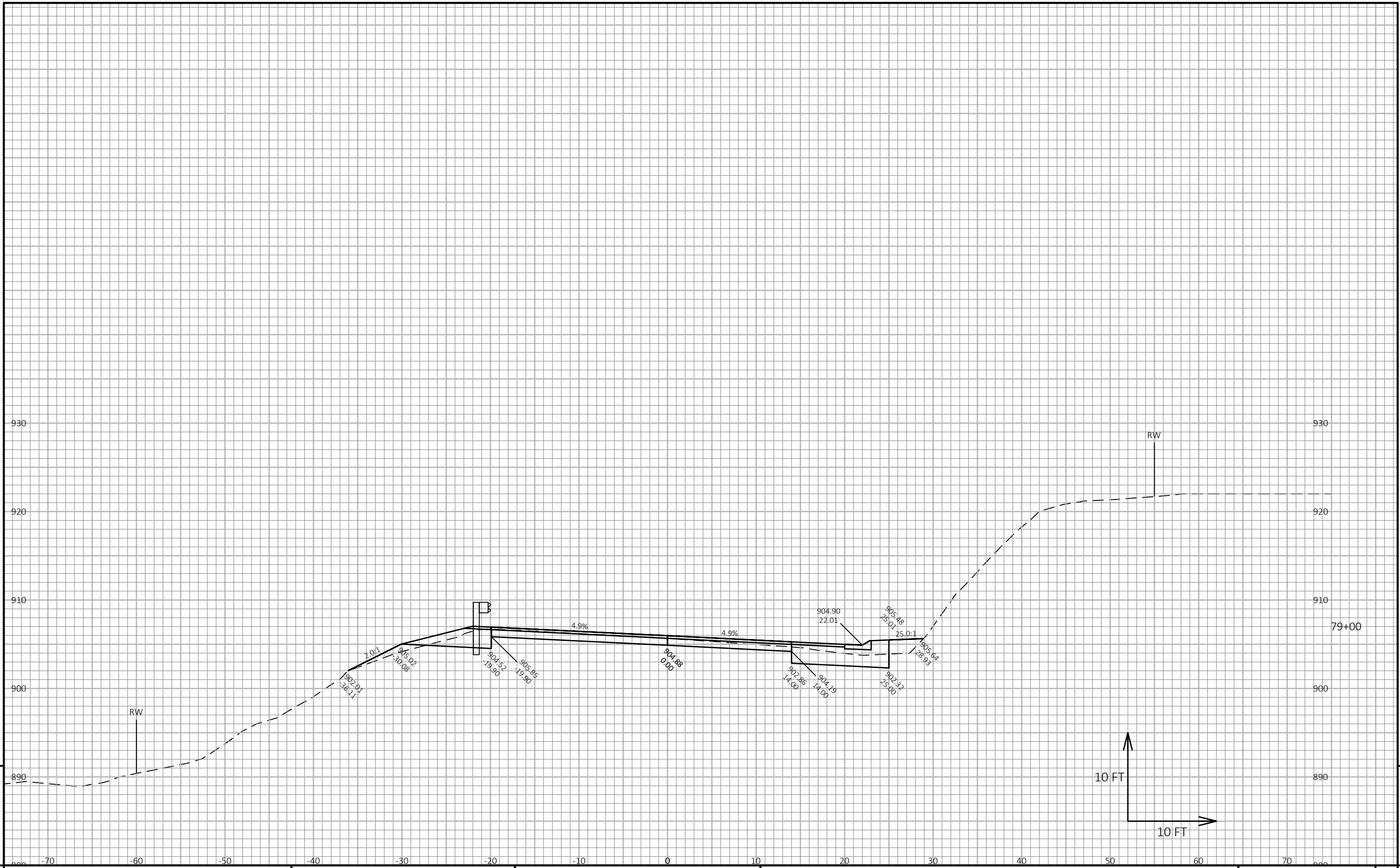


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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E

FILE NAME : X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\DESIGN\CORRIDORS\CRDR-E.DWG PLOT DATE : 10/12/2021 12:27 PM PLOT BY : ALEX ADAMS PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49



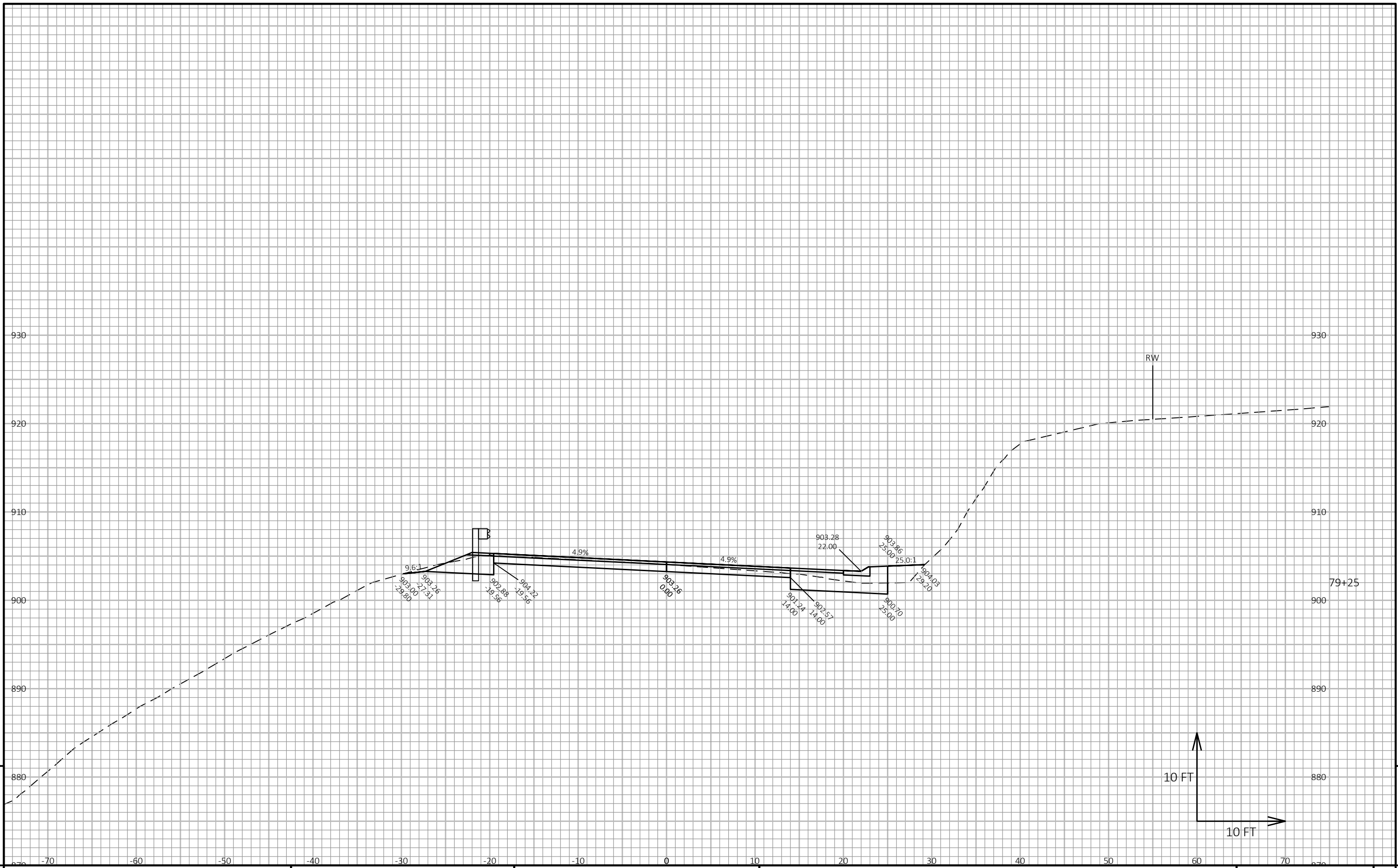
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PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E	SHEET	E
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FILE NAME : X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\DESIGN\CORRIDORS\CRDR-E.DWG PLOT DATE : 10/14/2021 12:24 PM PLOT BY : RILEY SMEATON PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 123



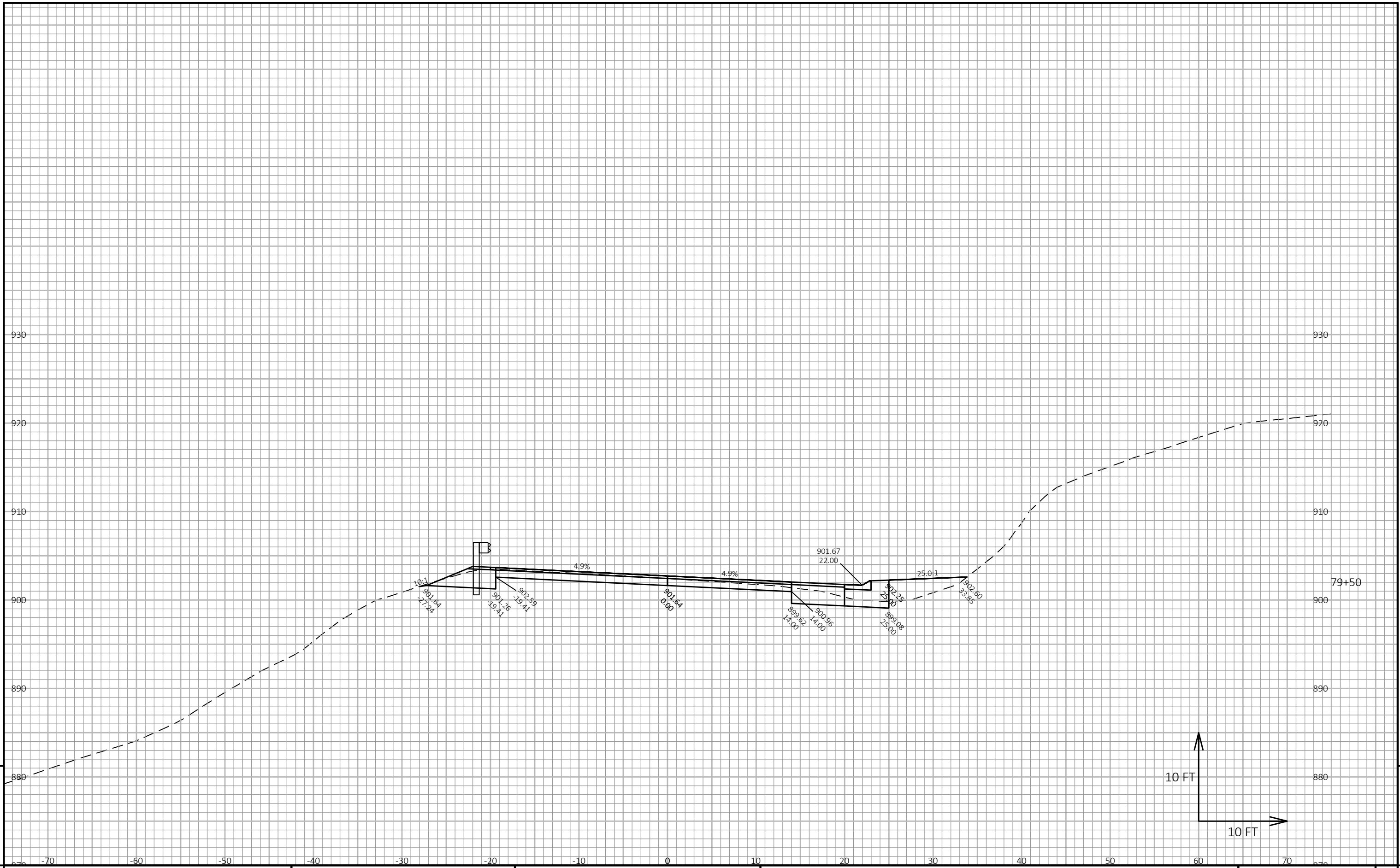
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PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E	SHEET	E
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FILE NAME : X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\DESIGN\CORRIDORS\CRDR-E.DWG PLOT DATE : 10/14/2021 12:24 PM PLOT BY : RILEY SMEATON PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 124



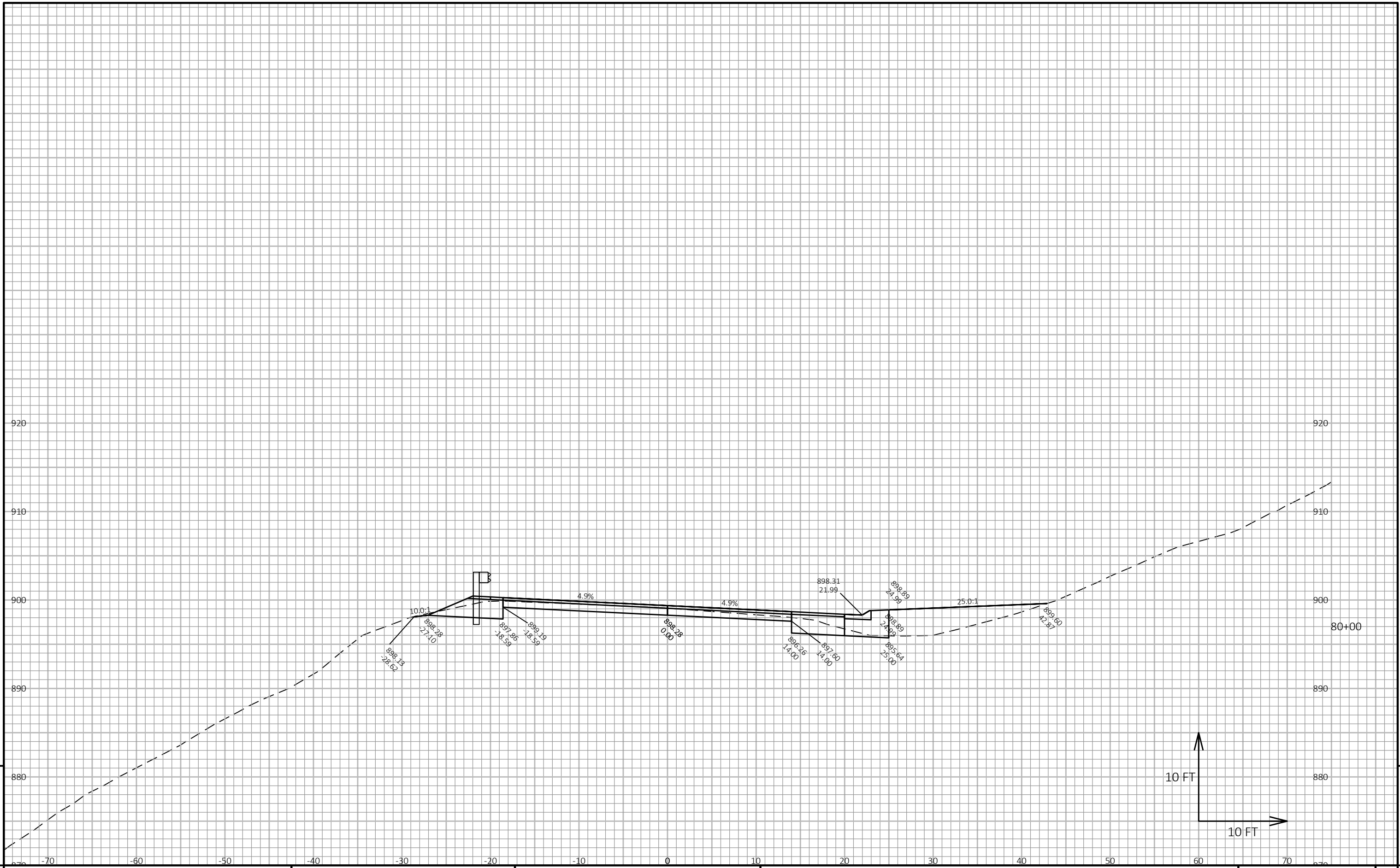
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PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E	SHEET	E
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FILE NAME : X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\DESIGN\CORRIDORS\CRDR-E.DWG PLOT DATE : 10/14/2021 12:24 PM PLOT BY : RILEY SMEATON PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 125



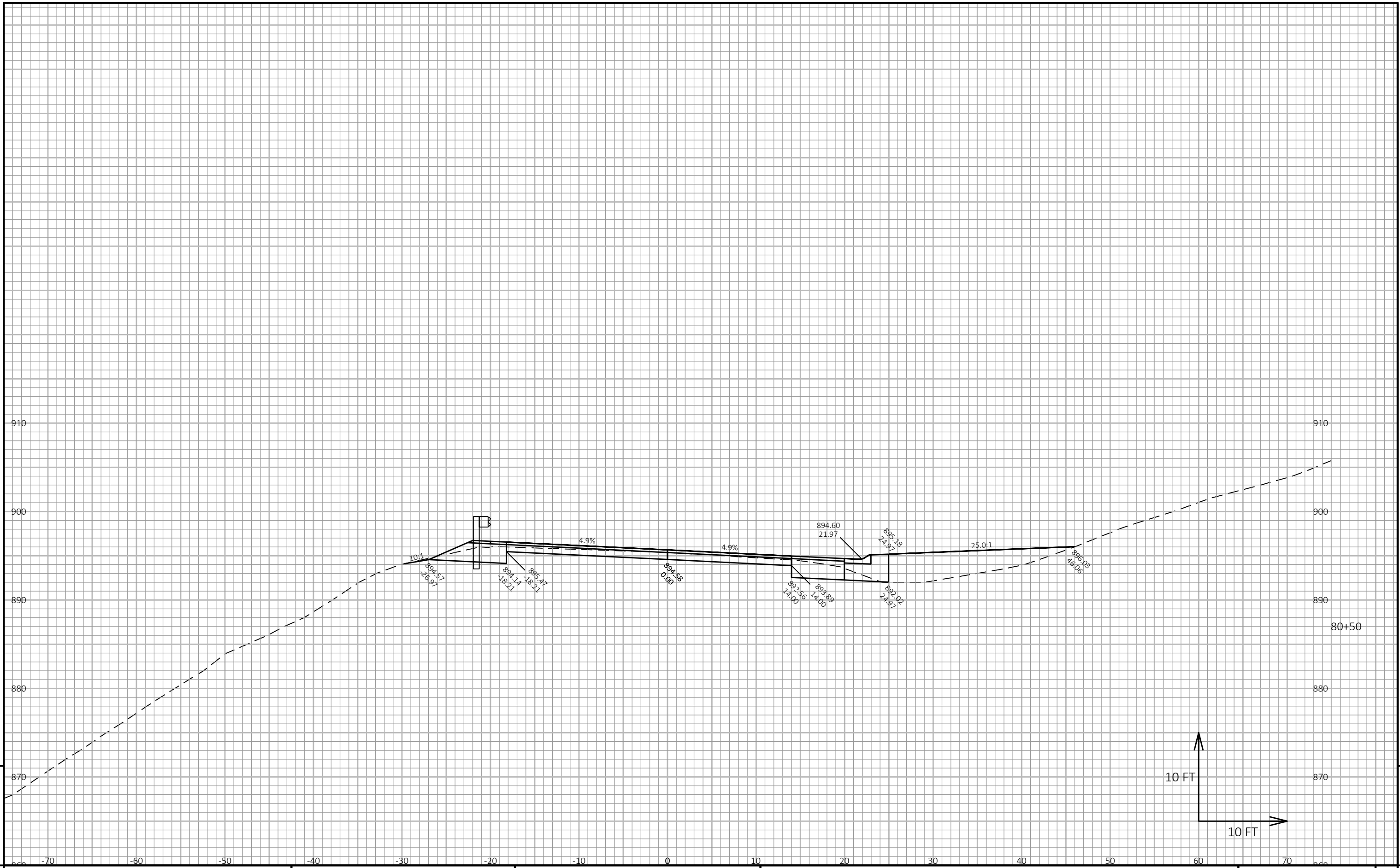
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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E

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LAYOUT NAME - 126



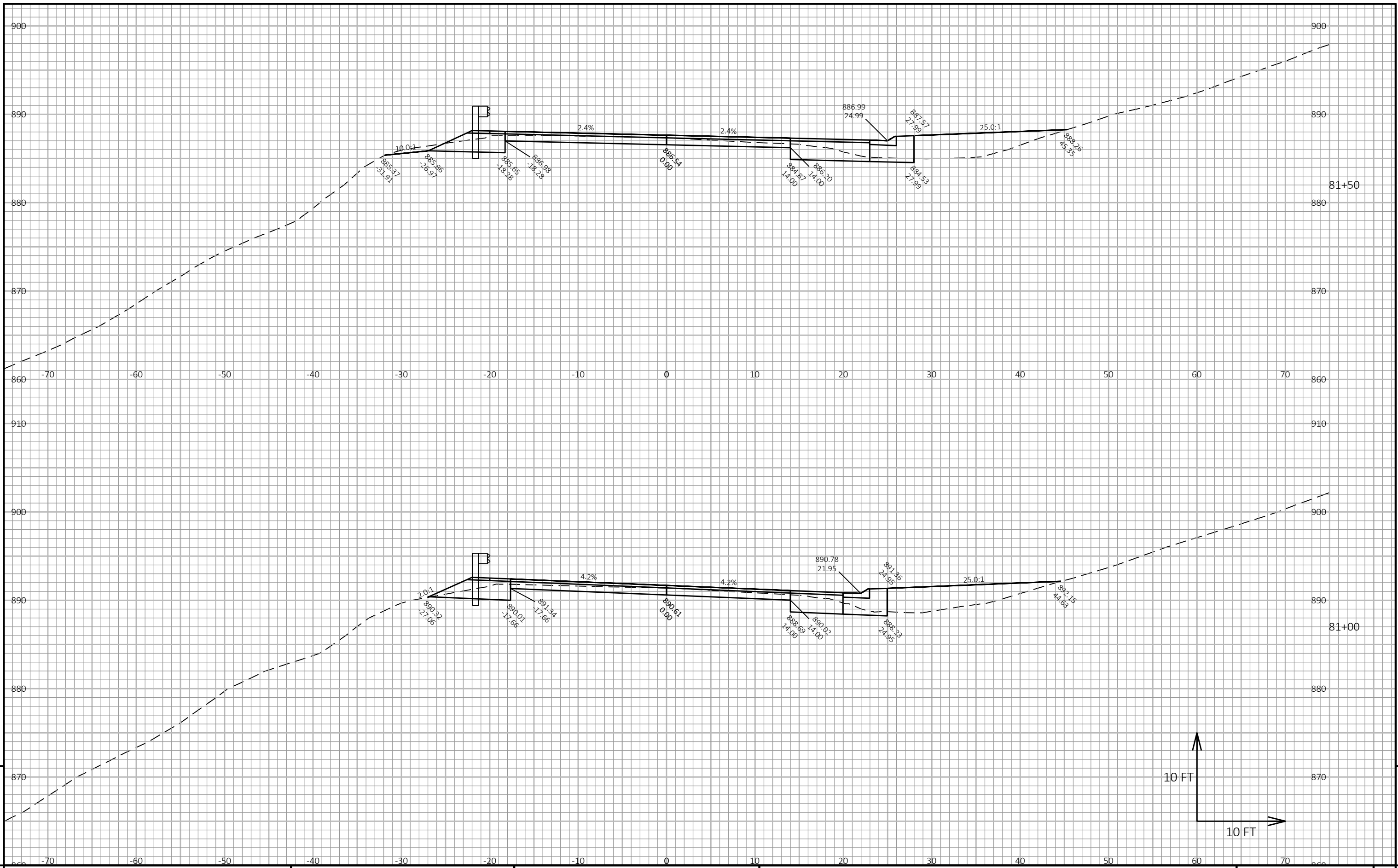
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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E

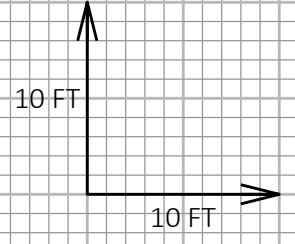
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LAYOUT NAME - 127



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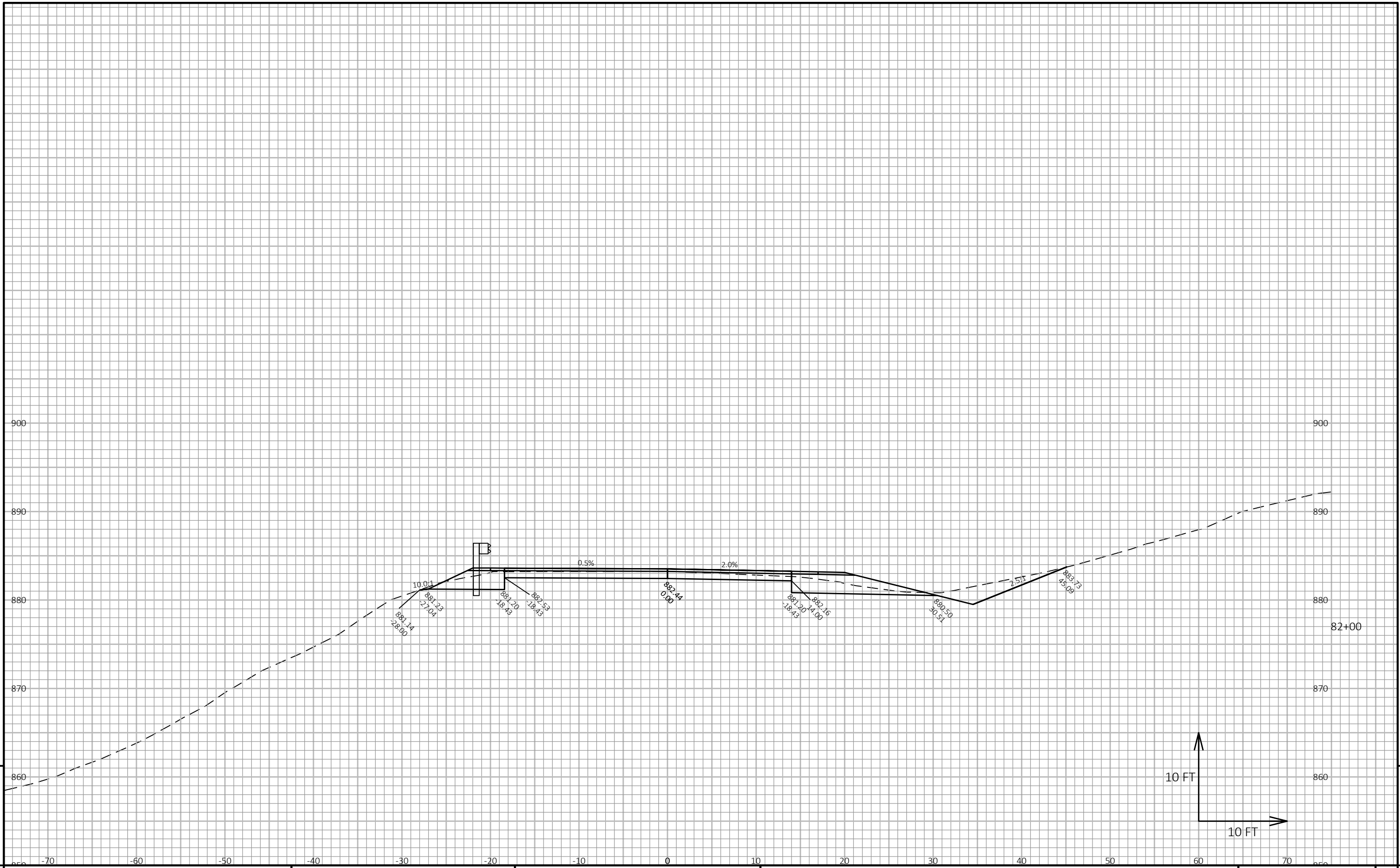
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PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E	SHEET	E
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FILE NAME : X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\DESIGN\CORRIDORS\CRDR-E.DWG PLOT DATE : 10/14/2021 12:24 PM PLOT BY : RILEY SMEATON PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 128



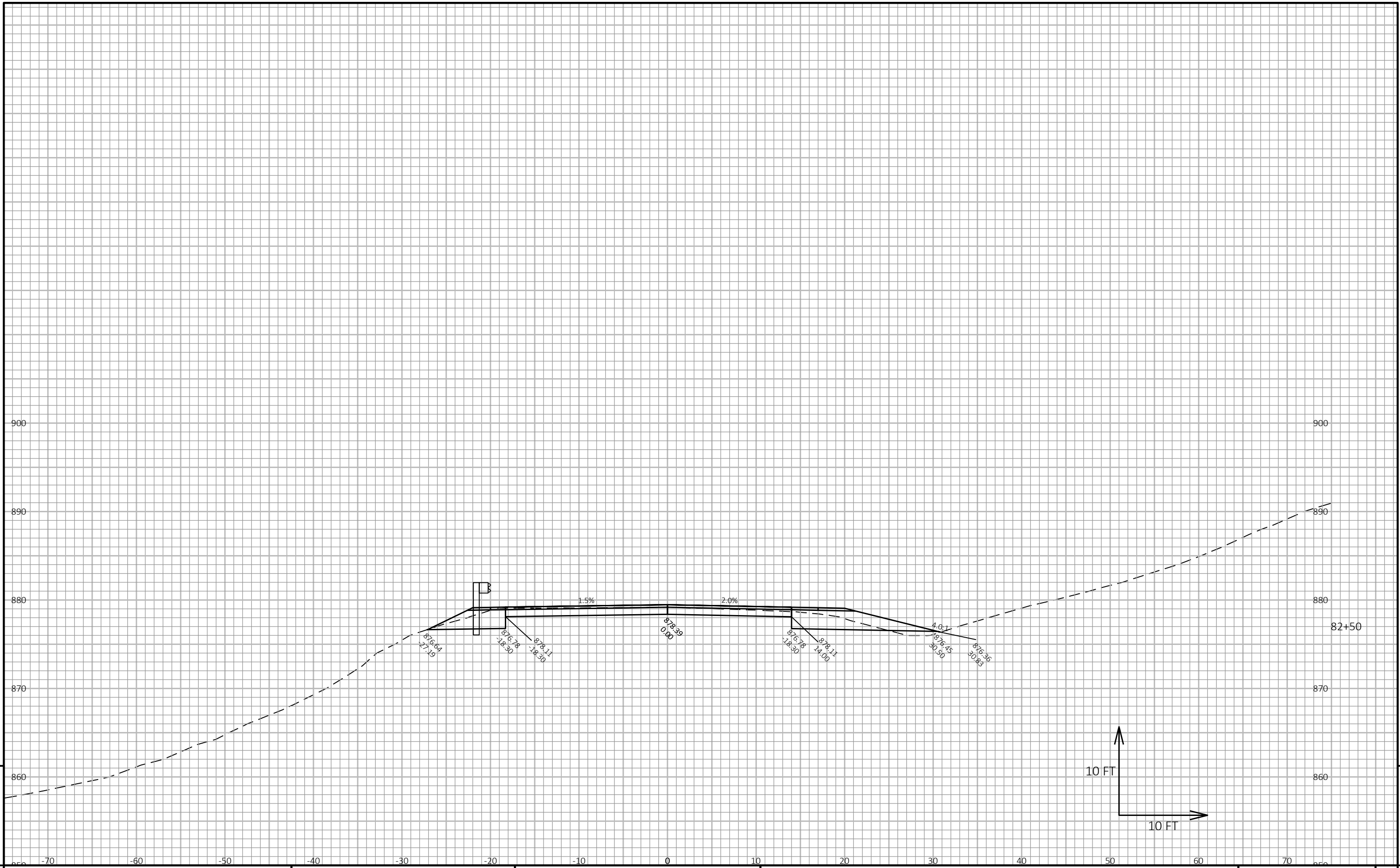
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PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E	SHEET	E
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FILE NAME : X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\DESIGN\CORRIDORS\CRDR-E.DWG PLOT DATE : 10/14/2021 12:25 PM PLOT BY : RILEY SMEATON PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 129



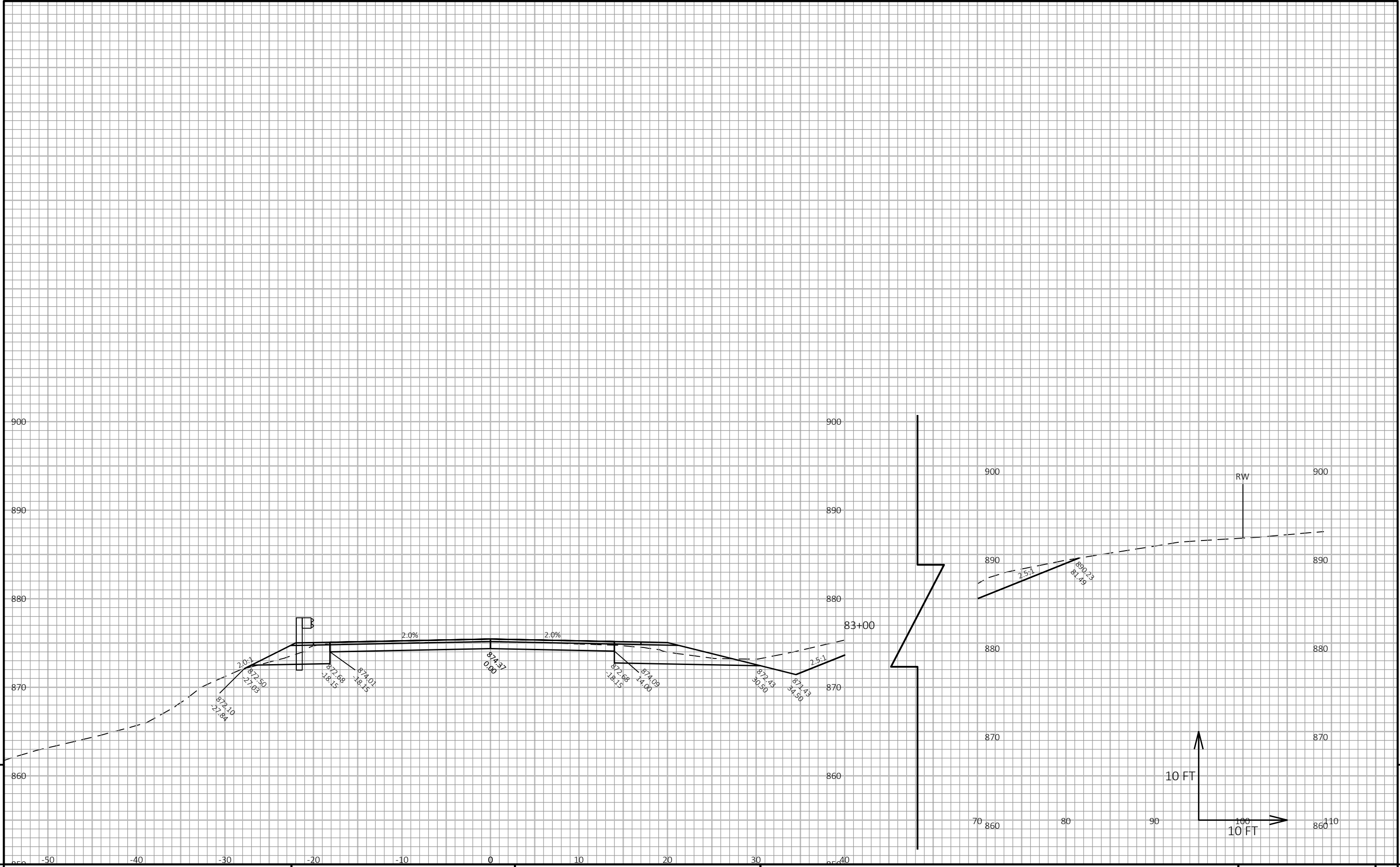
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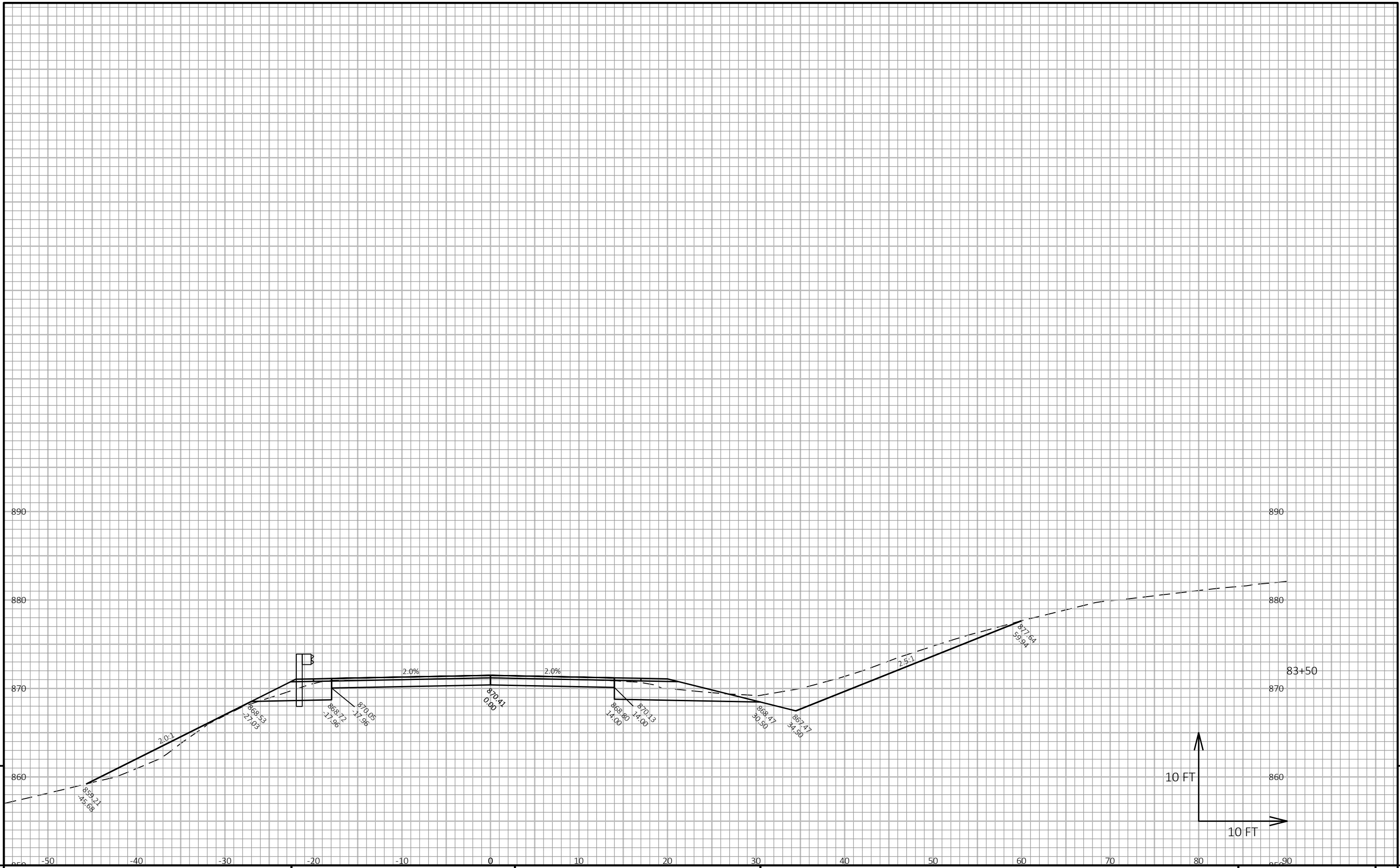
PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E

FILE NAME : X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\DESIGN\CORRIDORS\CRDR-E.DWG PLOT DATE : 10/14/2021 12:25 PM PLOT BY : RILEY SMEATON PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

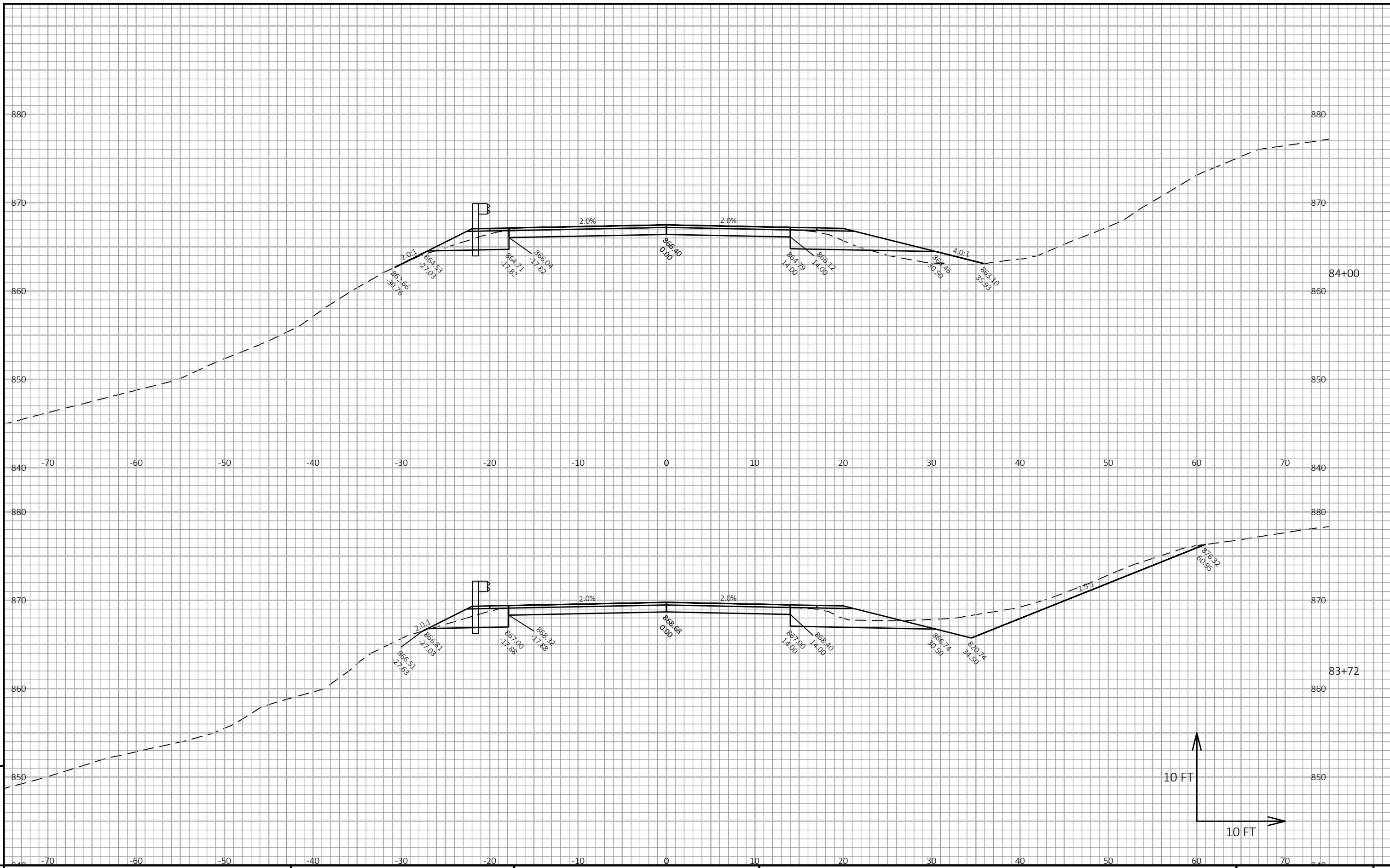
LAYOUT NAME - 130



PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E



PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET 9



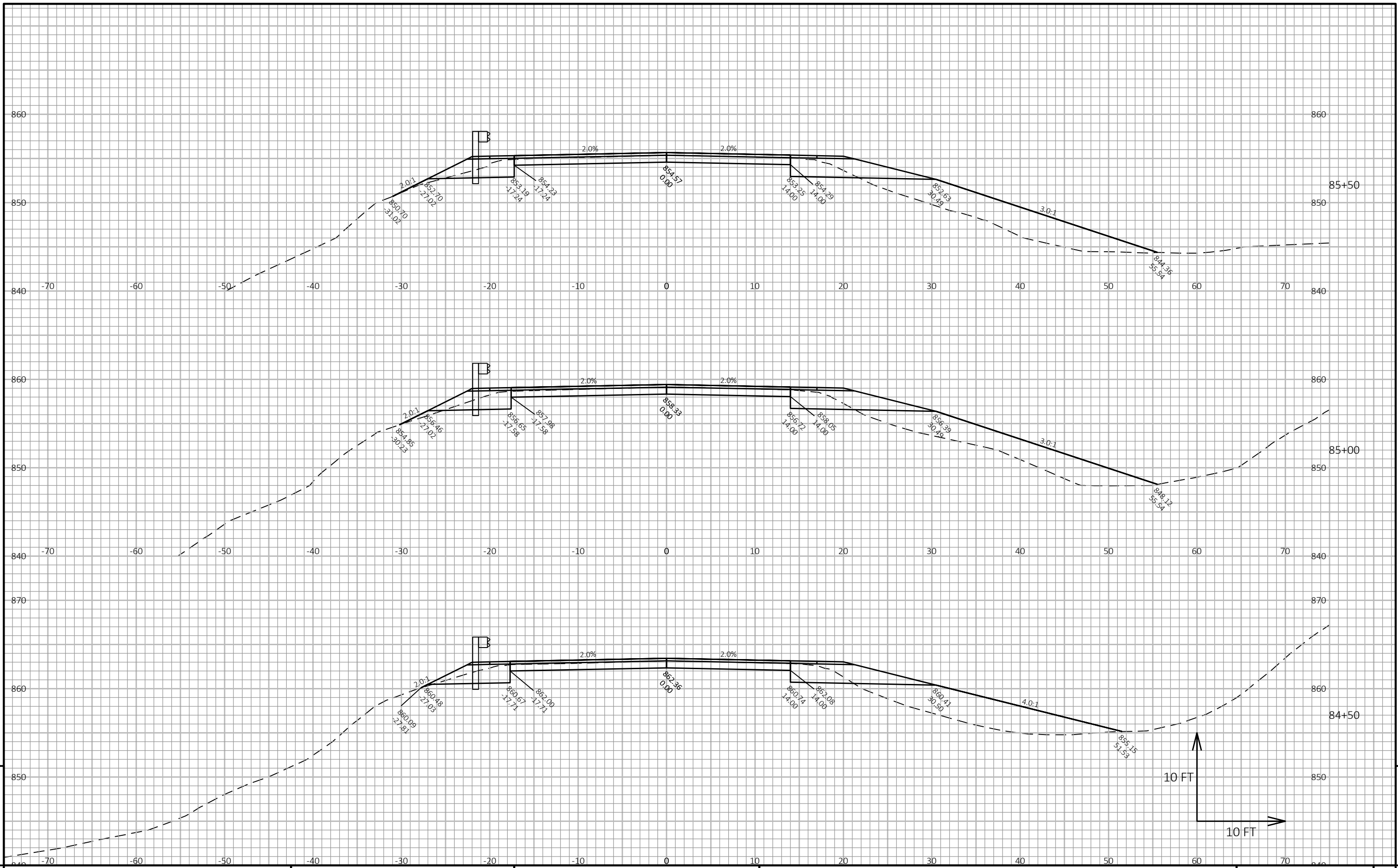
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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E

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LAYOUT NAME - 134



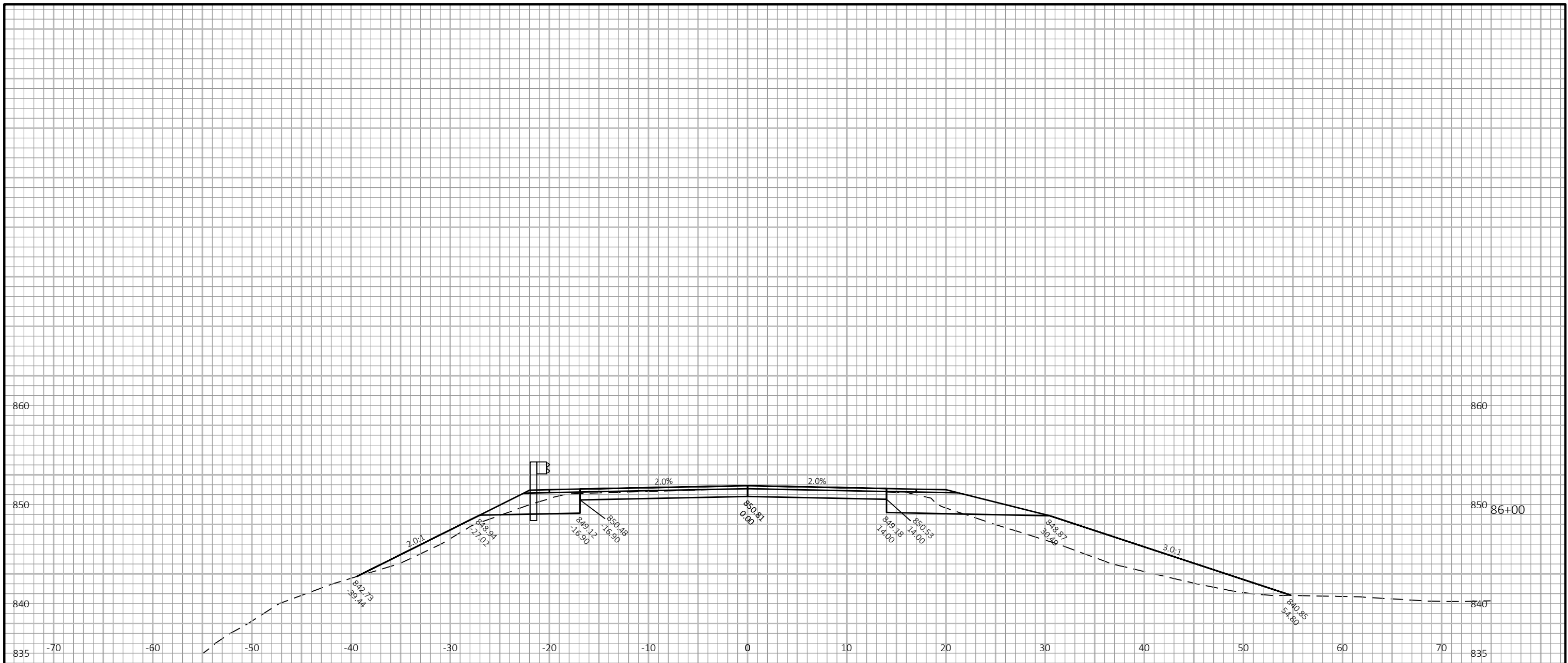
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PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E	SHEET	E
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FILE NAME : X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\DESIGN\CORRIDORS\CRDR-E.DWG PLOT DATE : 10/14/2021 12:25 PM PLOT BY : RILEY SMEATON PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

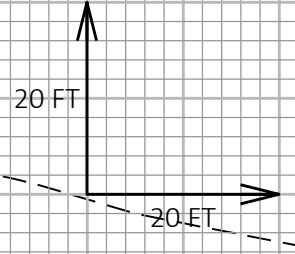
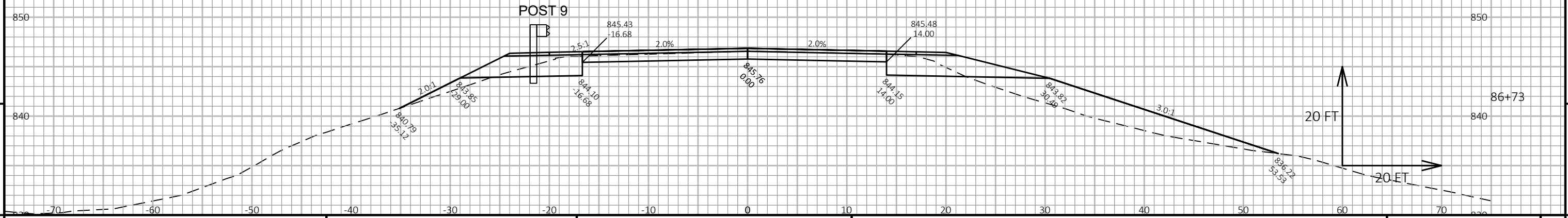
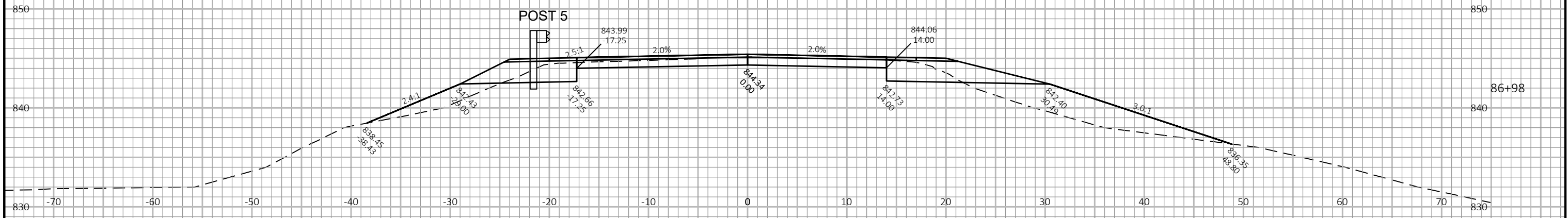
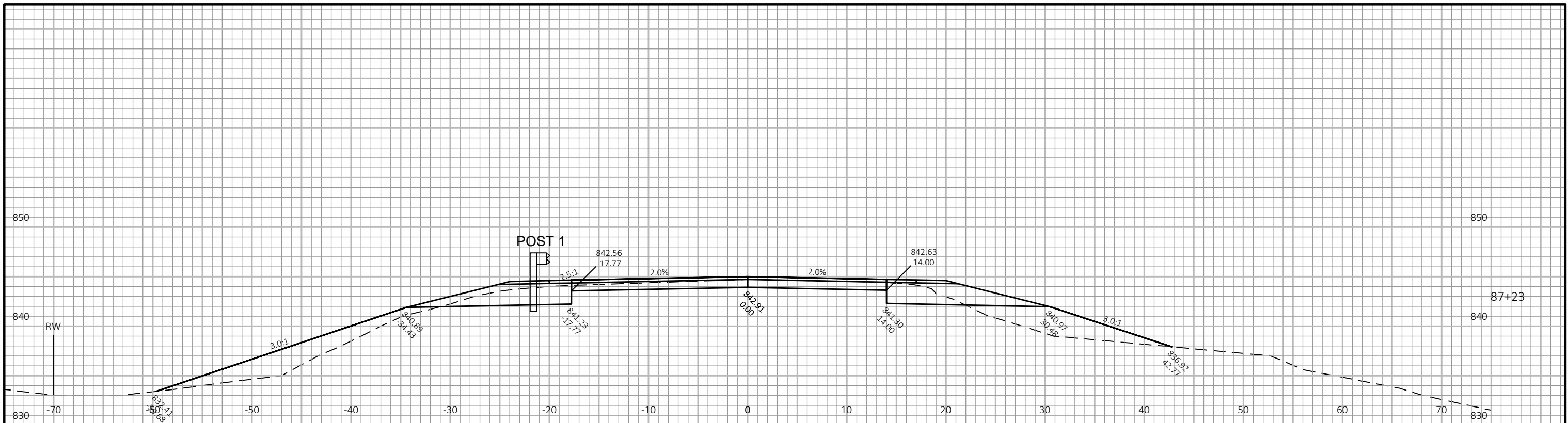
LAYOUT NAME - 135



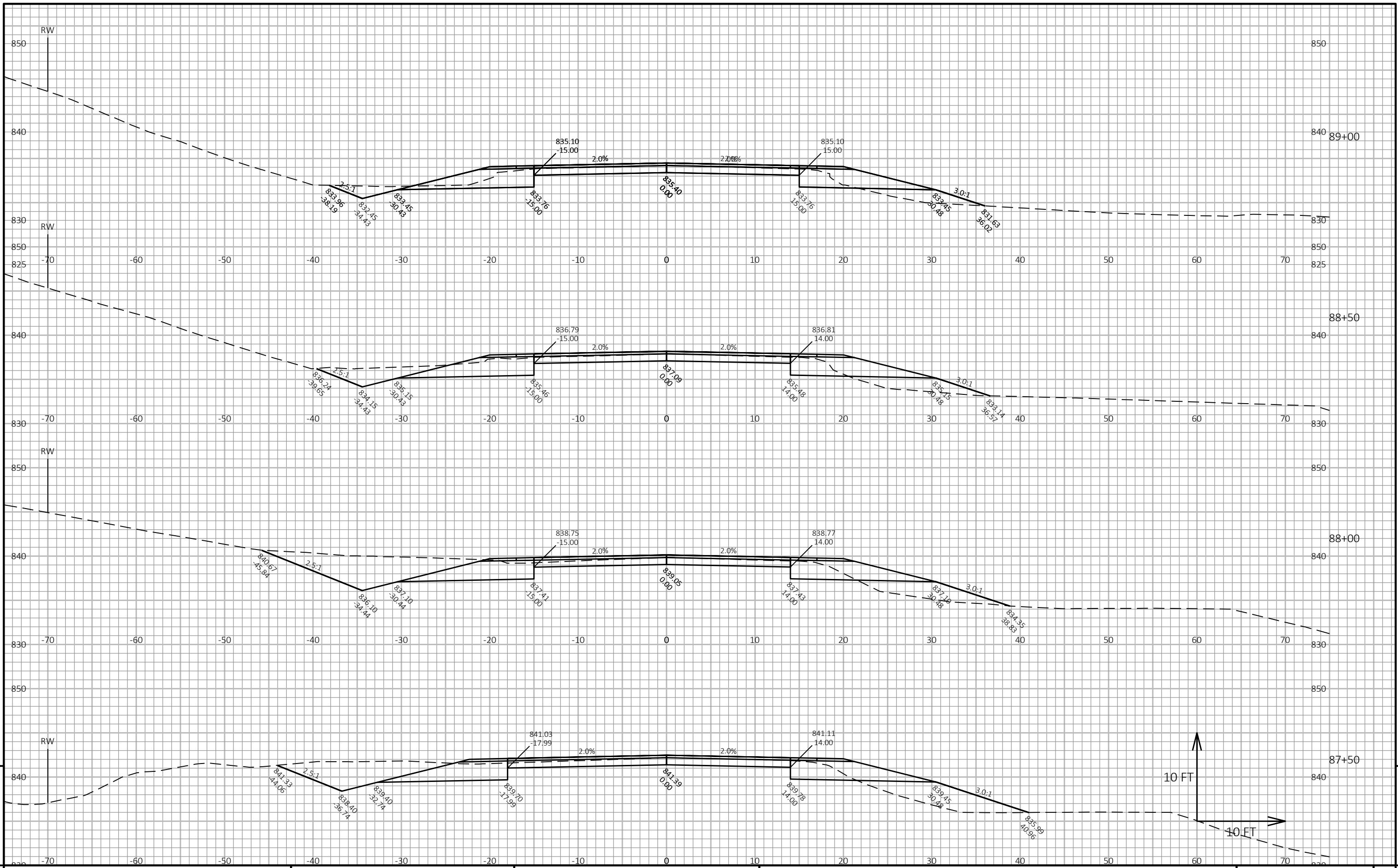
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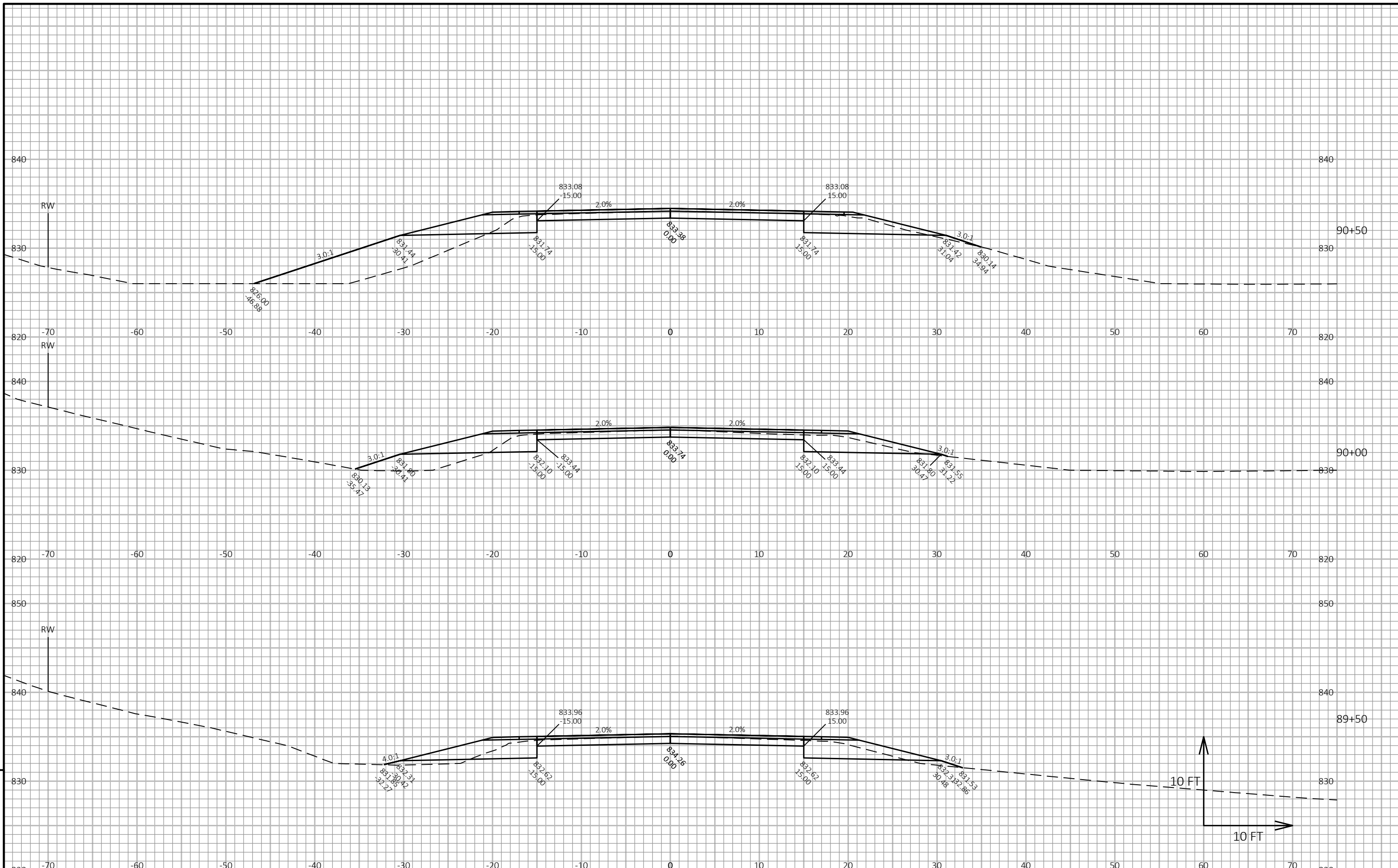
PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E	SHEET	E
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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST CROIX CROSS SECTIONS: CTH E SHEET 9

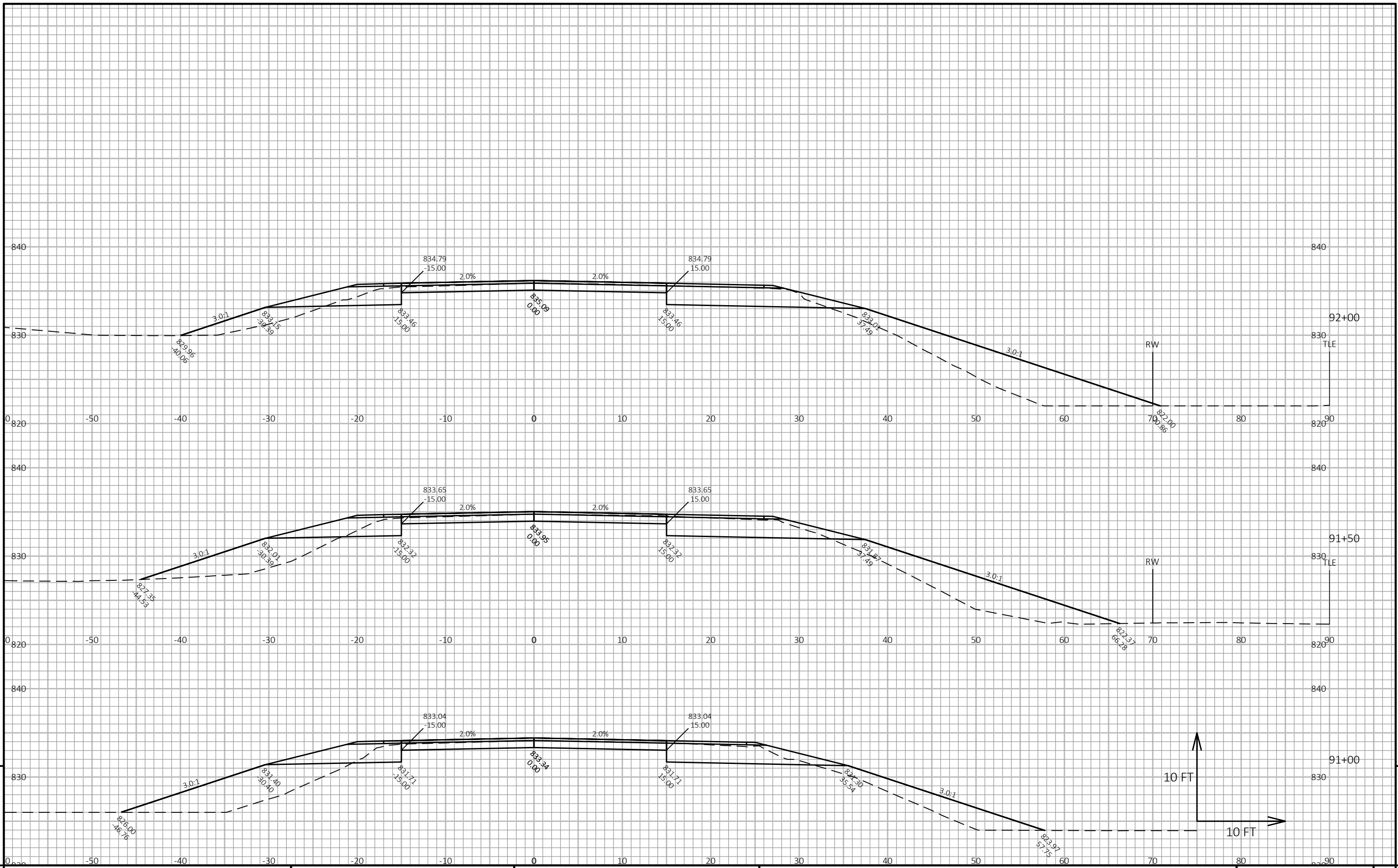


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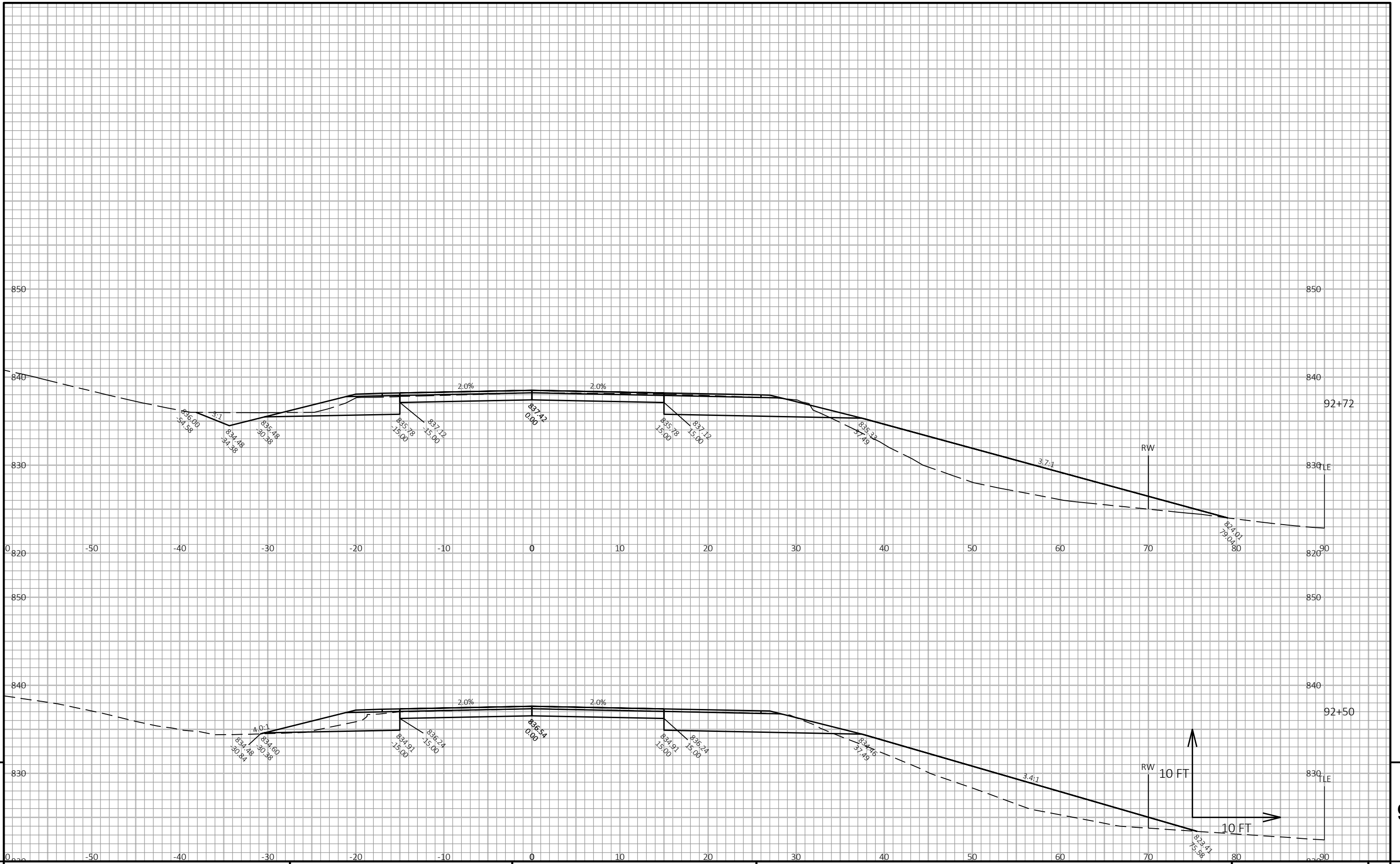


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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E



PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET 9



PROJECT NO: 8939-08-76

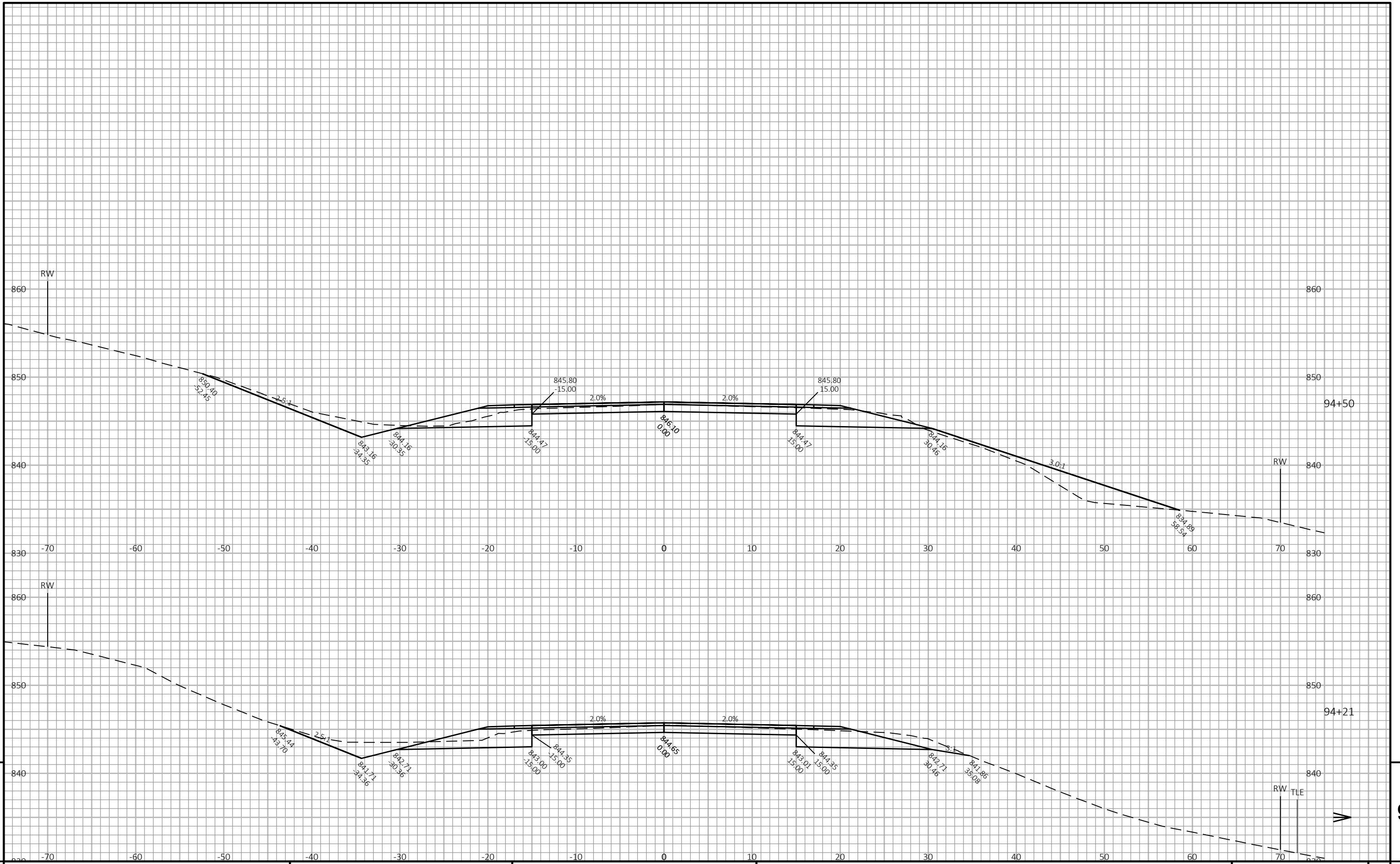
HWY: CTH E

COUNTY: ST. CROIX

CROSS SECTIONS: CTH E

SHEET

E



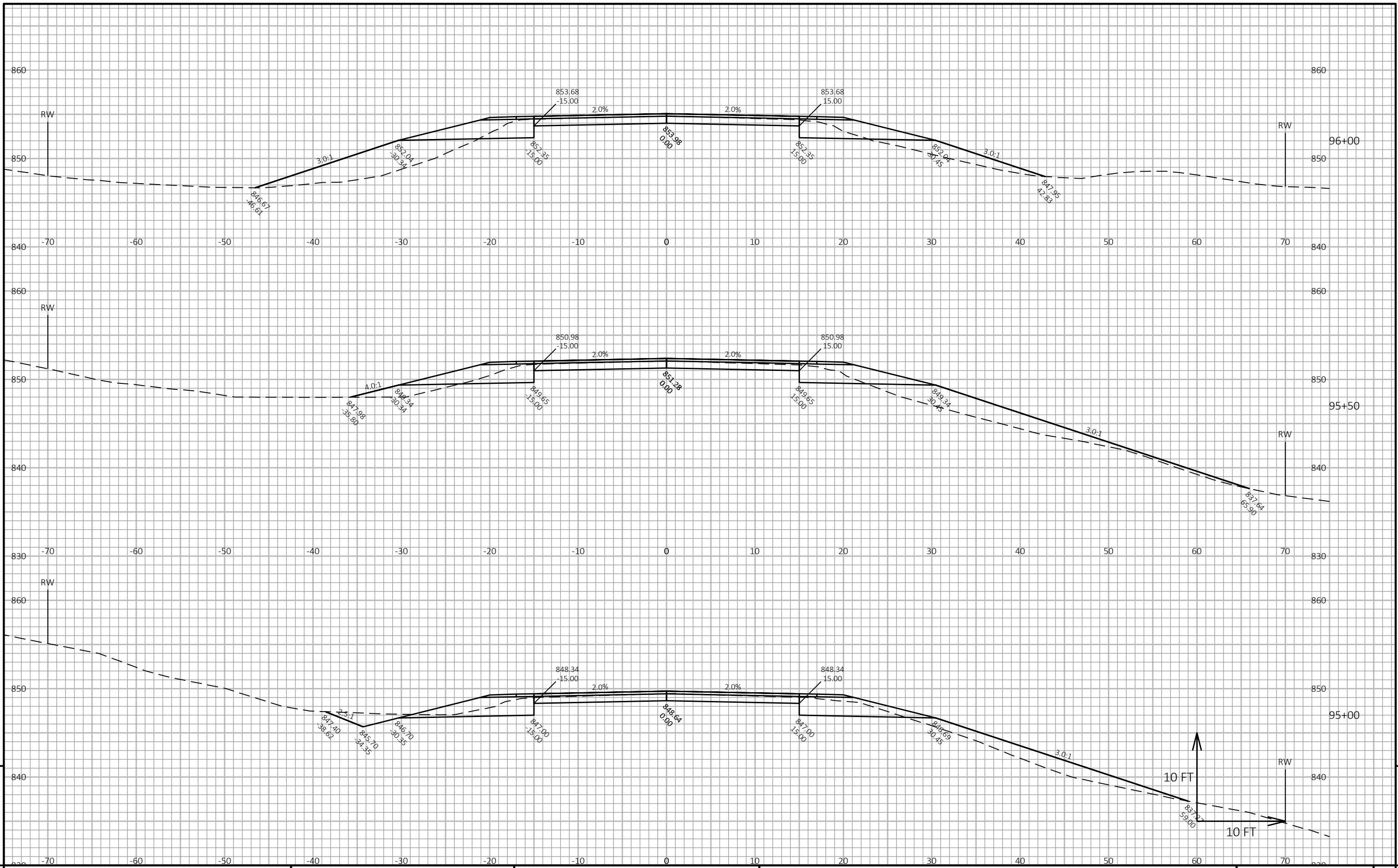
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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET

FILE NAME: X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\DESIGN\CORRIDORS\CRDR-E.DWG PLOT DATE: 7/12/2021 4:31 PM PLOT BY: ALEX ADAMS PLOT NAME: PLOT SCALE: 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 142



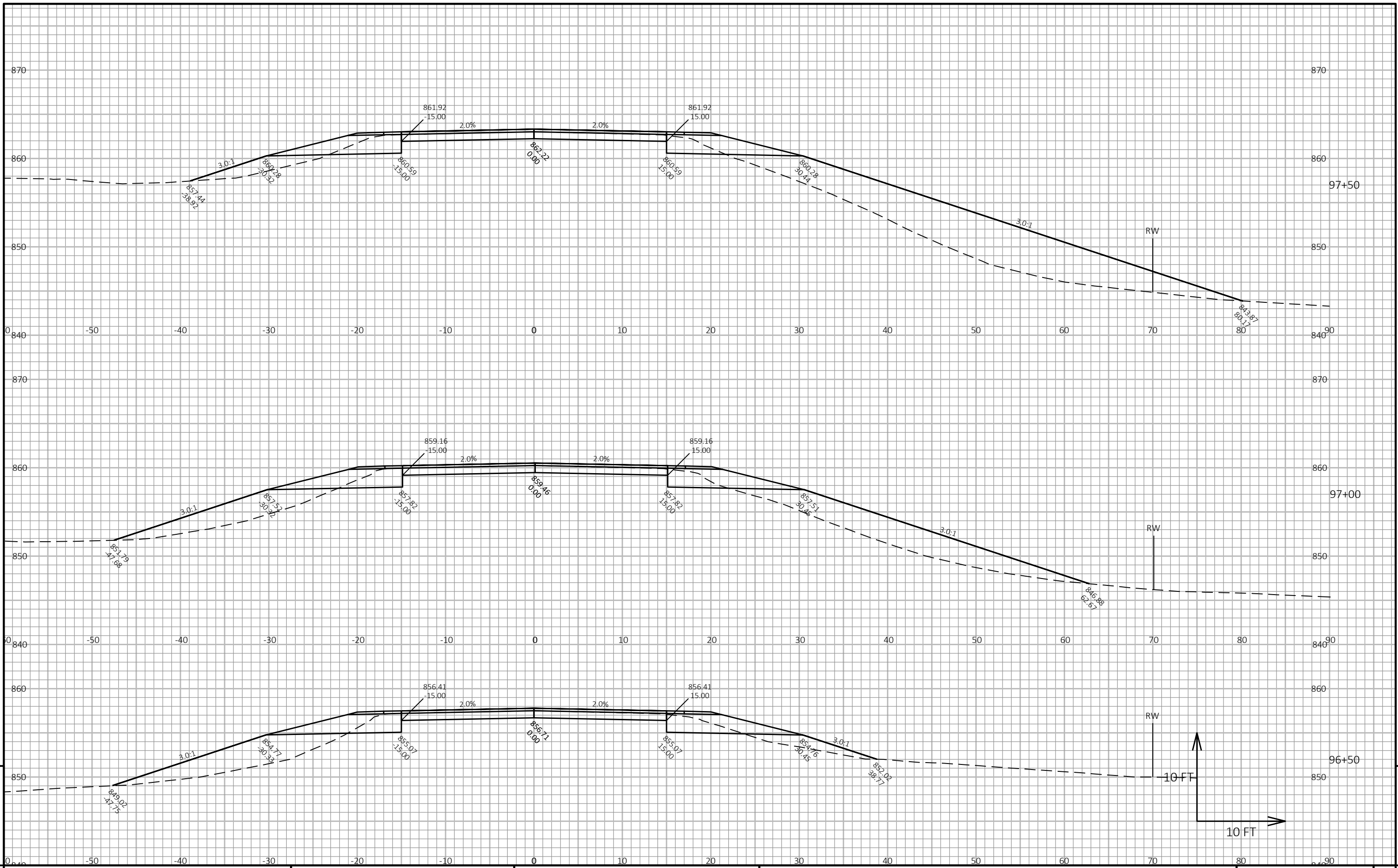
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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E

FILE NAME: X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\DESIGN\CORRIDORS\CRDR-E.DWG PLOT DATE: 7/12/2021 4:31 PM PLOT BY: ALEX ADAMS PLOT NAME: PLOT SCALE: 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 143



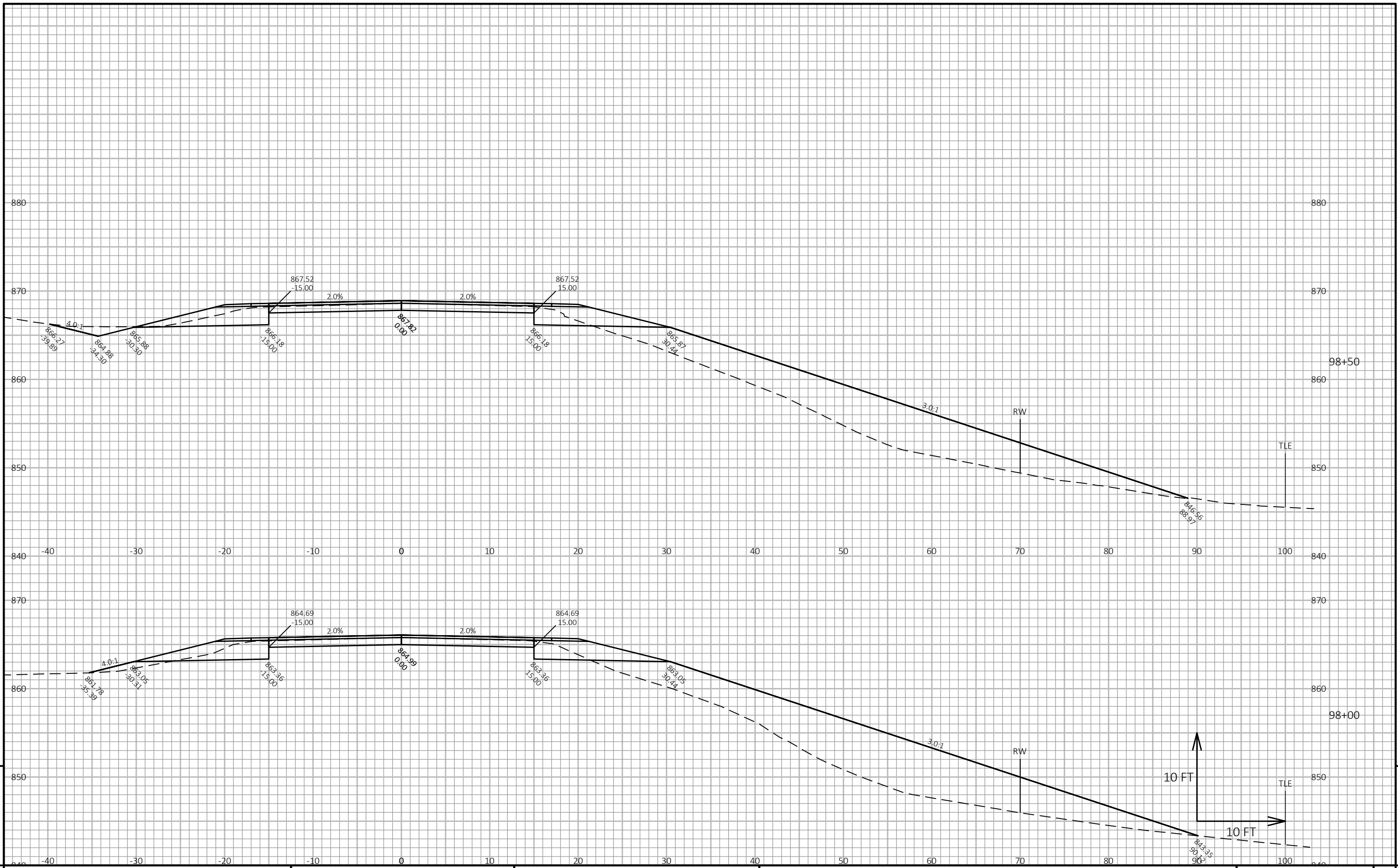
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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E

FILE NAME : X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\DESIGN\CORRIDORS\CRDR-E.DWG PLOT DATE : 7/12/2021 4:31 PM PLOT BY : ALEX ADAMS PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 144



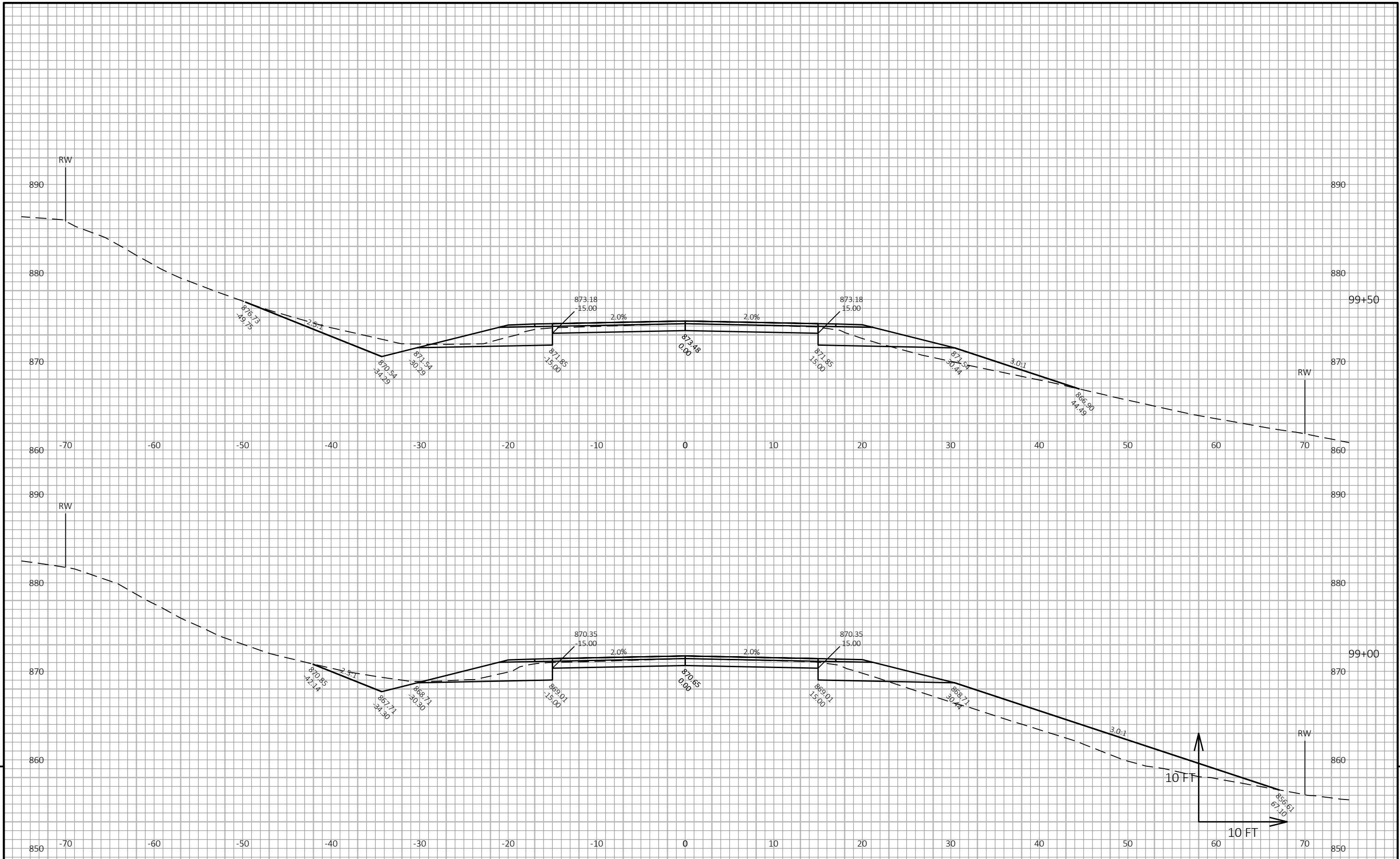
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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E

FILE NAME: X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\DESIGN\CORRIDORS\CRDR-E.DWG PLOT DATE: 7/12/2021 4:32 PM PLOT BY: ALEX ADAMS PLOT NAME: PLOT SCALE: 1 IN:20 FT HORIZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

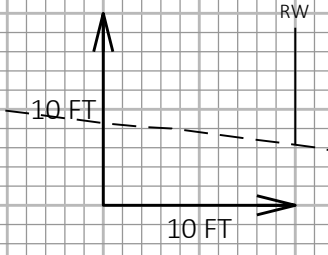
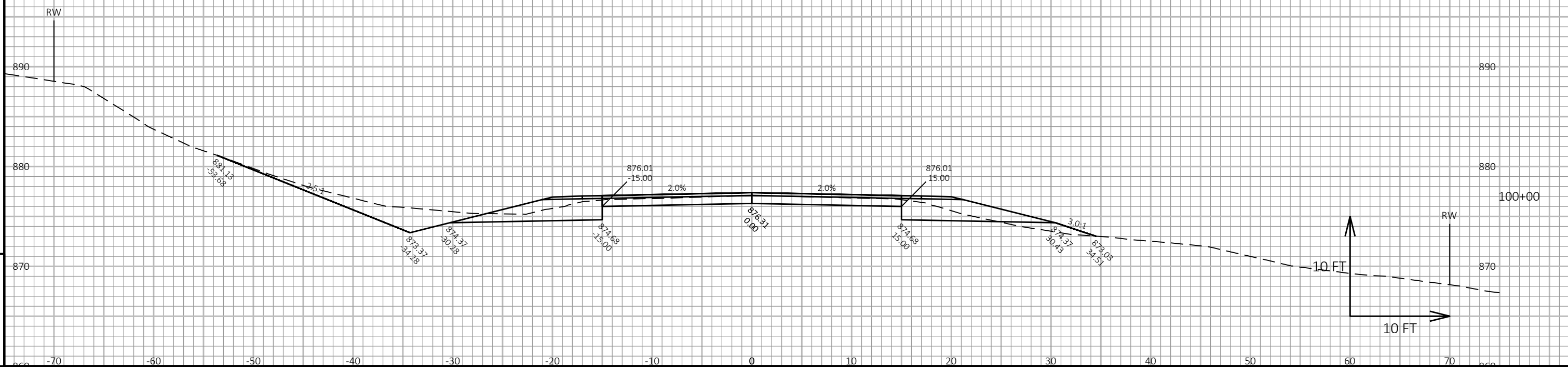
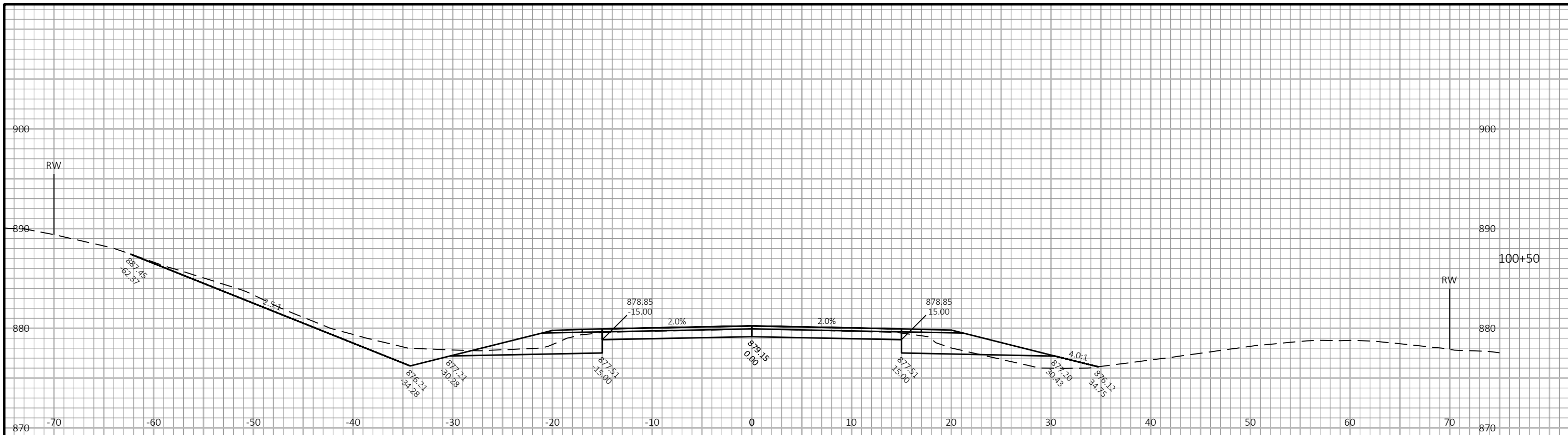
LAYOUT NAME - 145



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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E

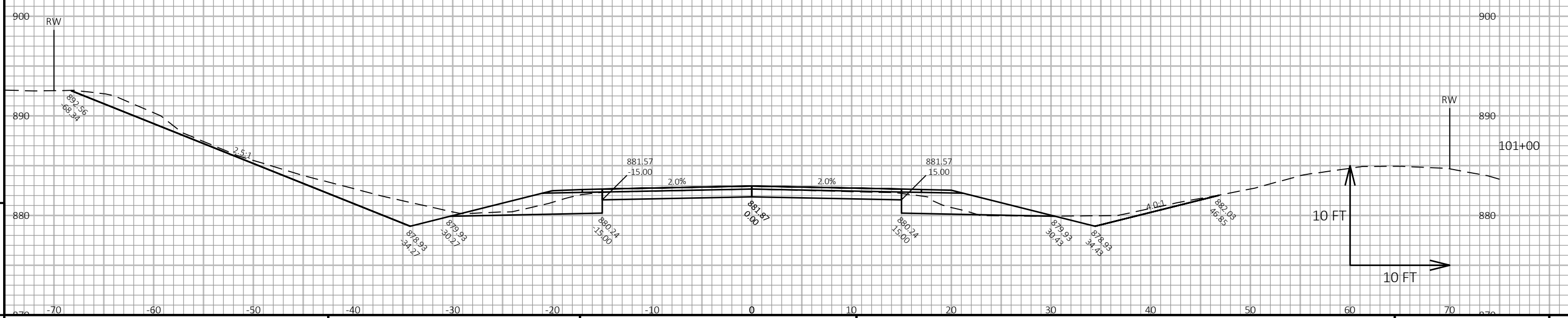
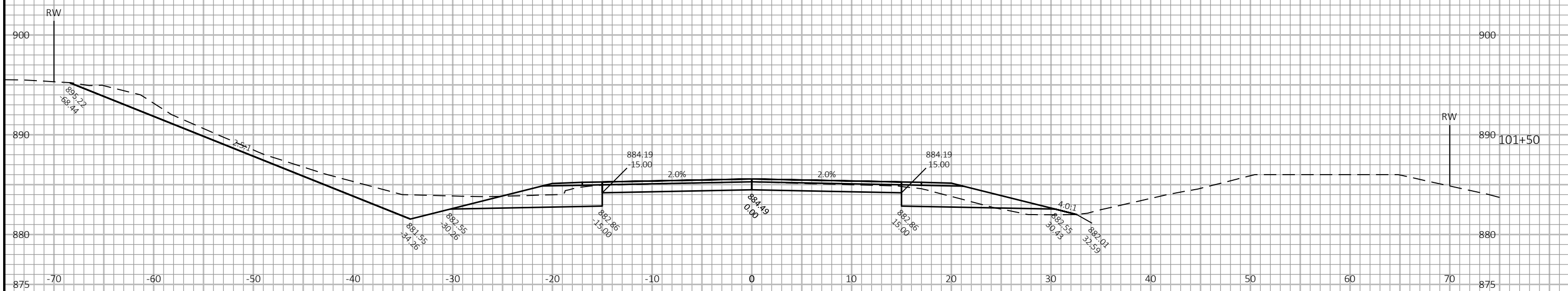
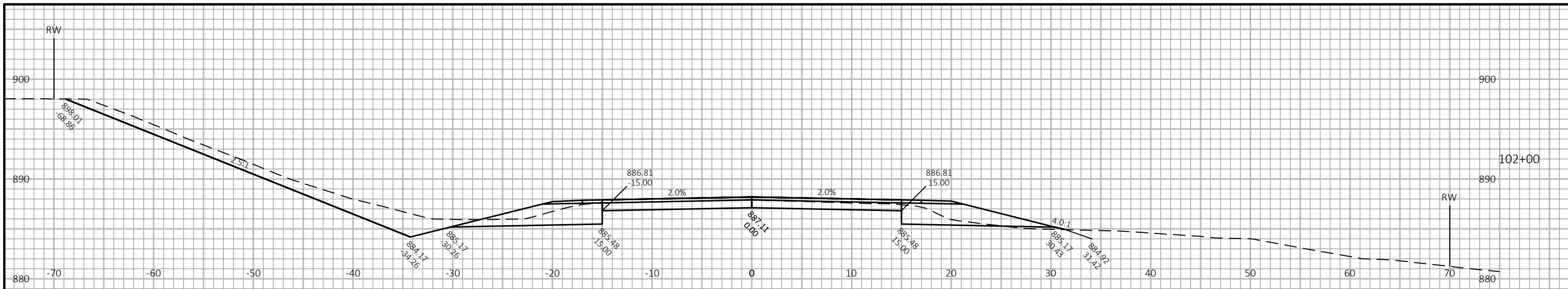


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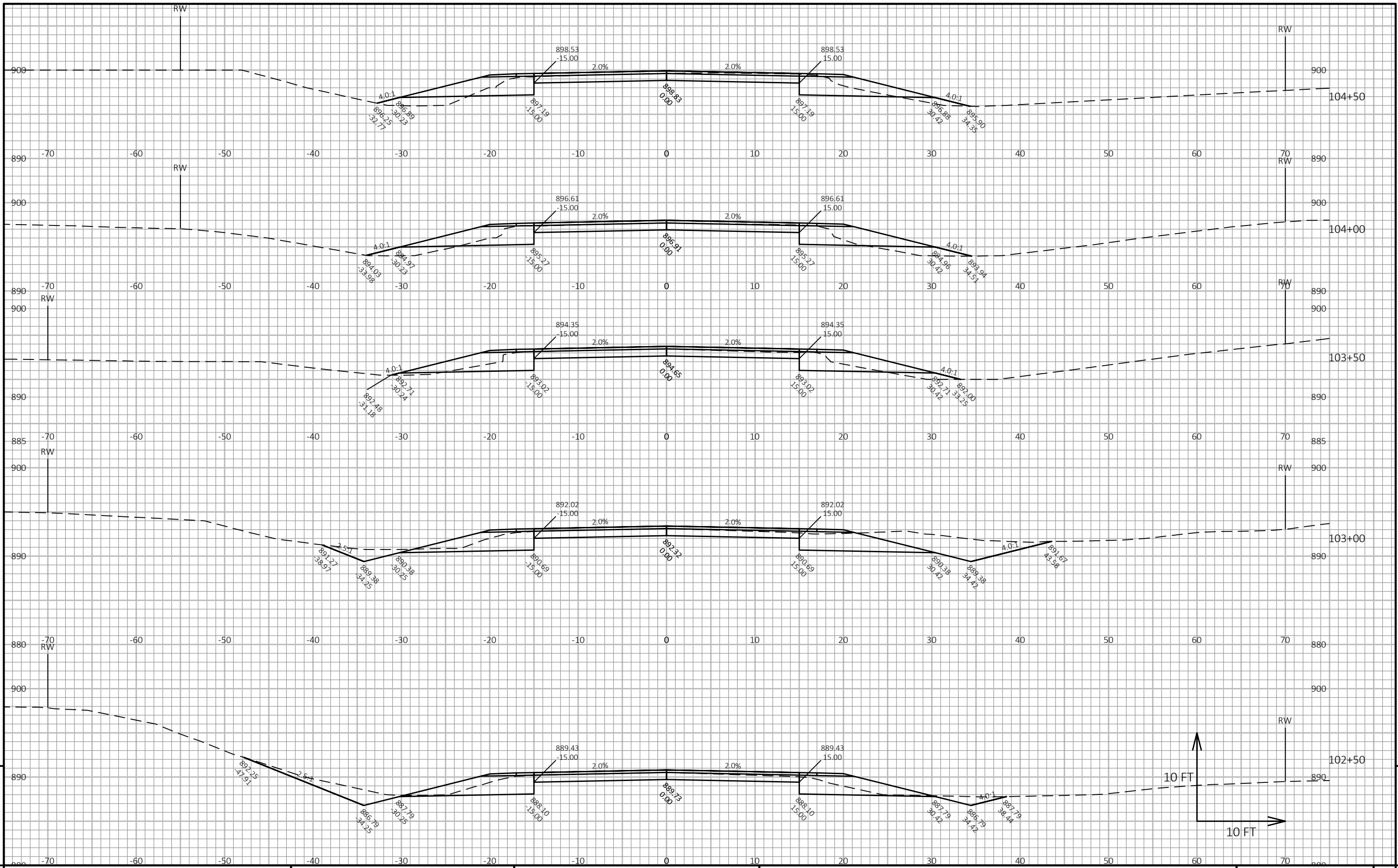
PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E

FILE NAME : X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\DESIGN\CORRIDORS\CRDR-E.DWG PLOT DATE : 7/12/2021 4:32 PM PLOT BY : ALEX ADAMS PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 147



PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET 9



PROJECT NO: 8939-08-76

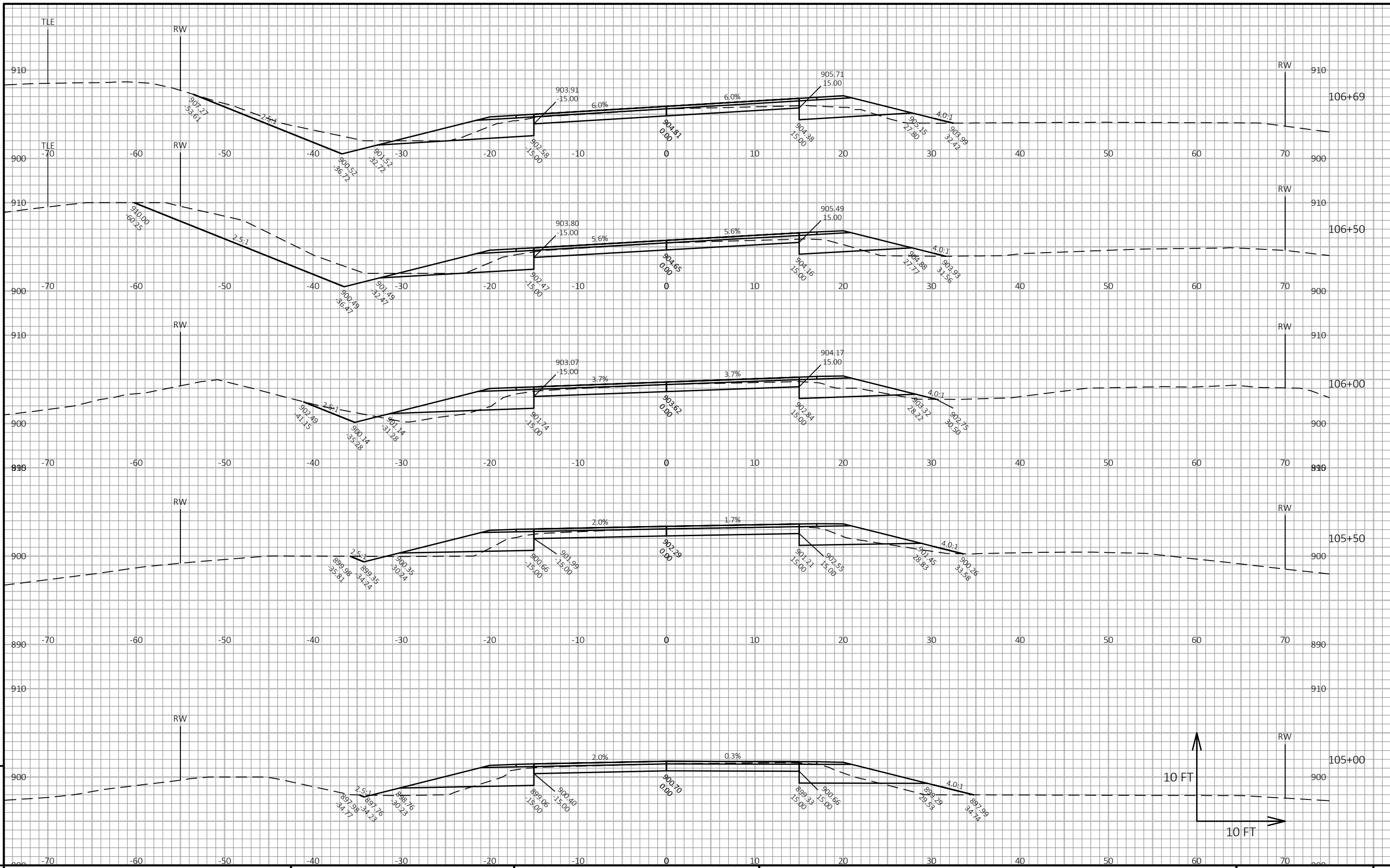
HWY: CTH E

COUNTY: ST. CROIX

CROSS SECTIONS: CTH E

SHEET

E



PROJECT NO: 8939-08-76

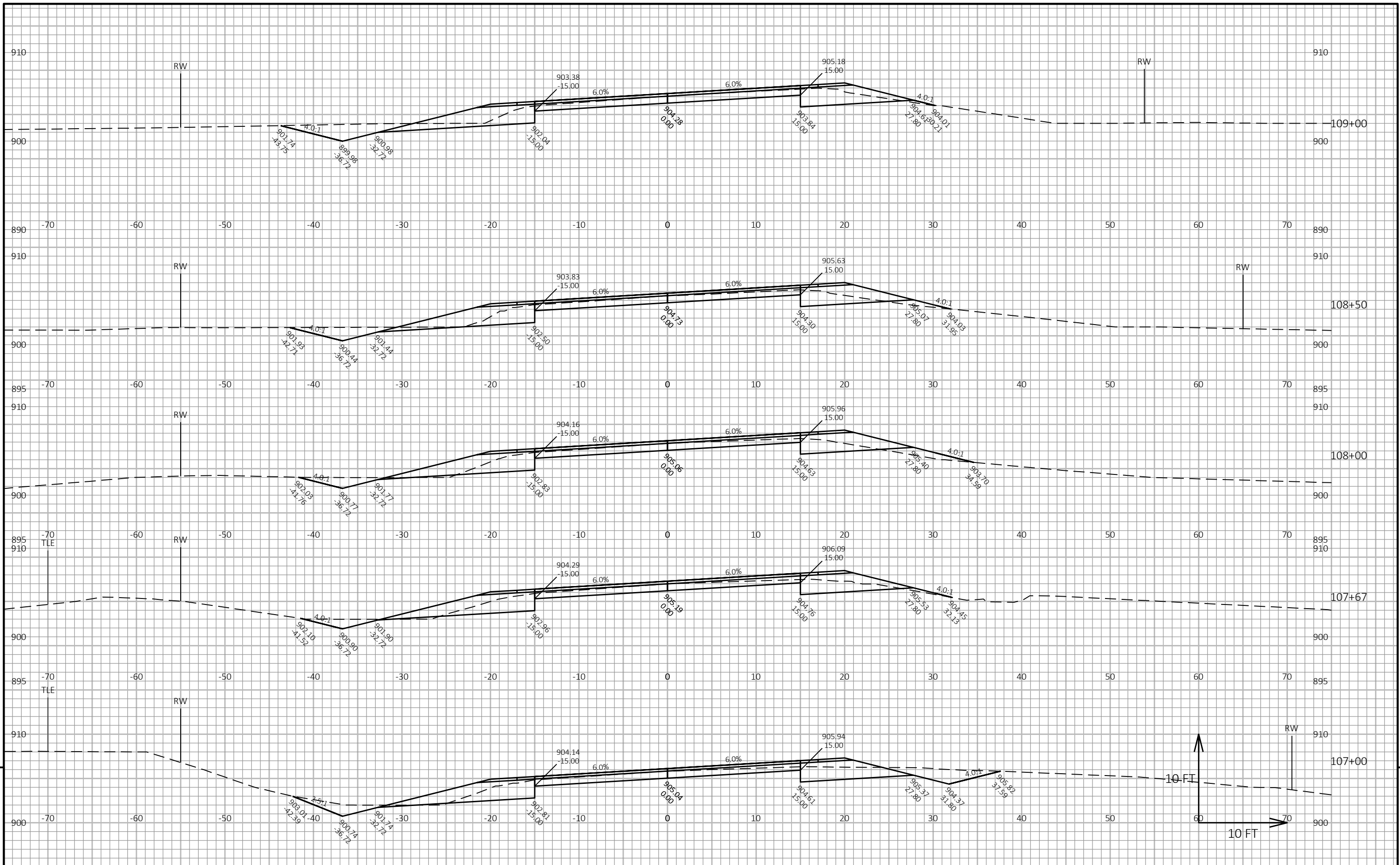
HWY: CTH E

COUNTY: ST. CROIX

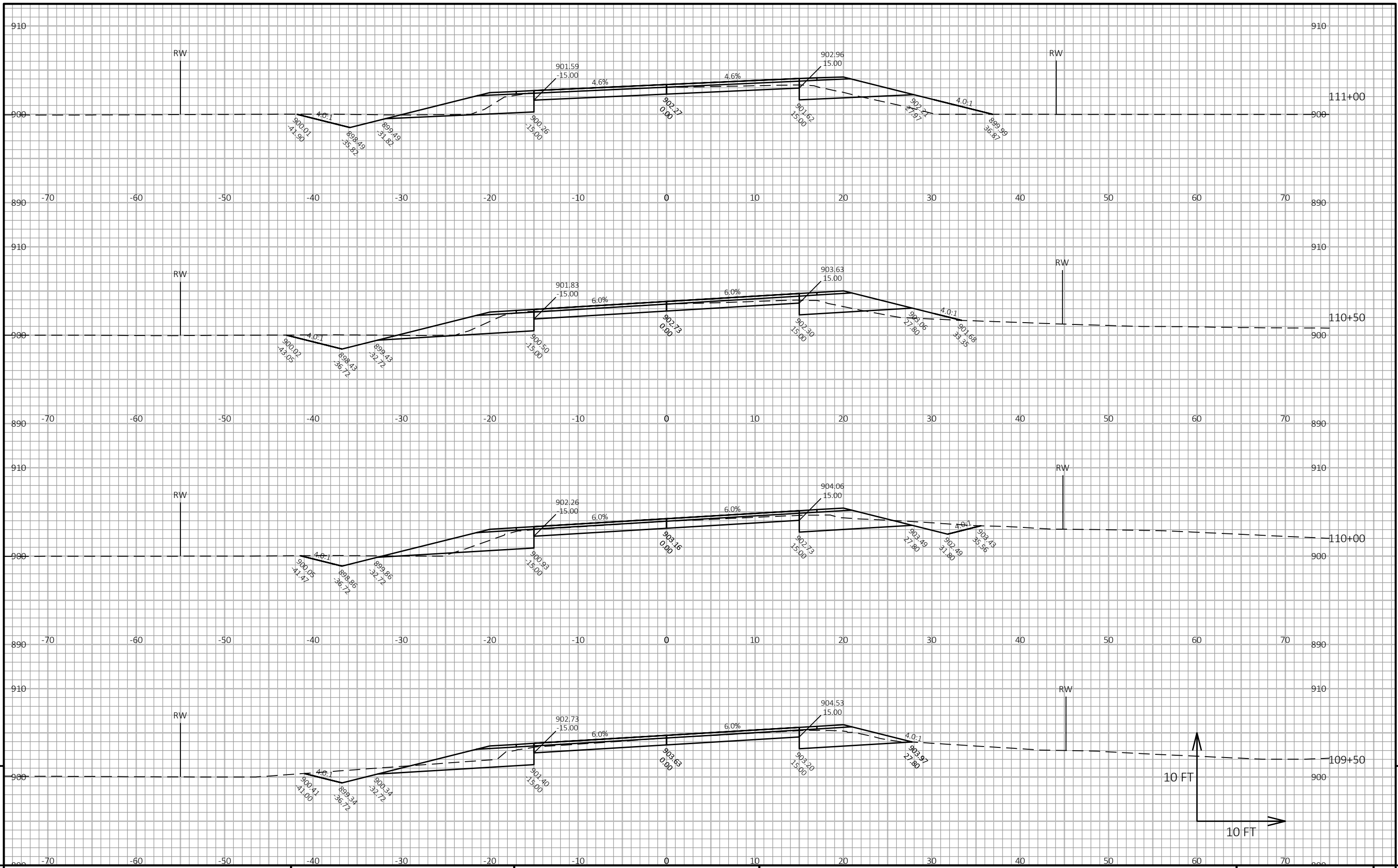
CROSS SECTIONS: CTH E

SHEET

E



PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET 9



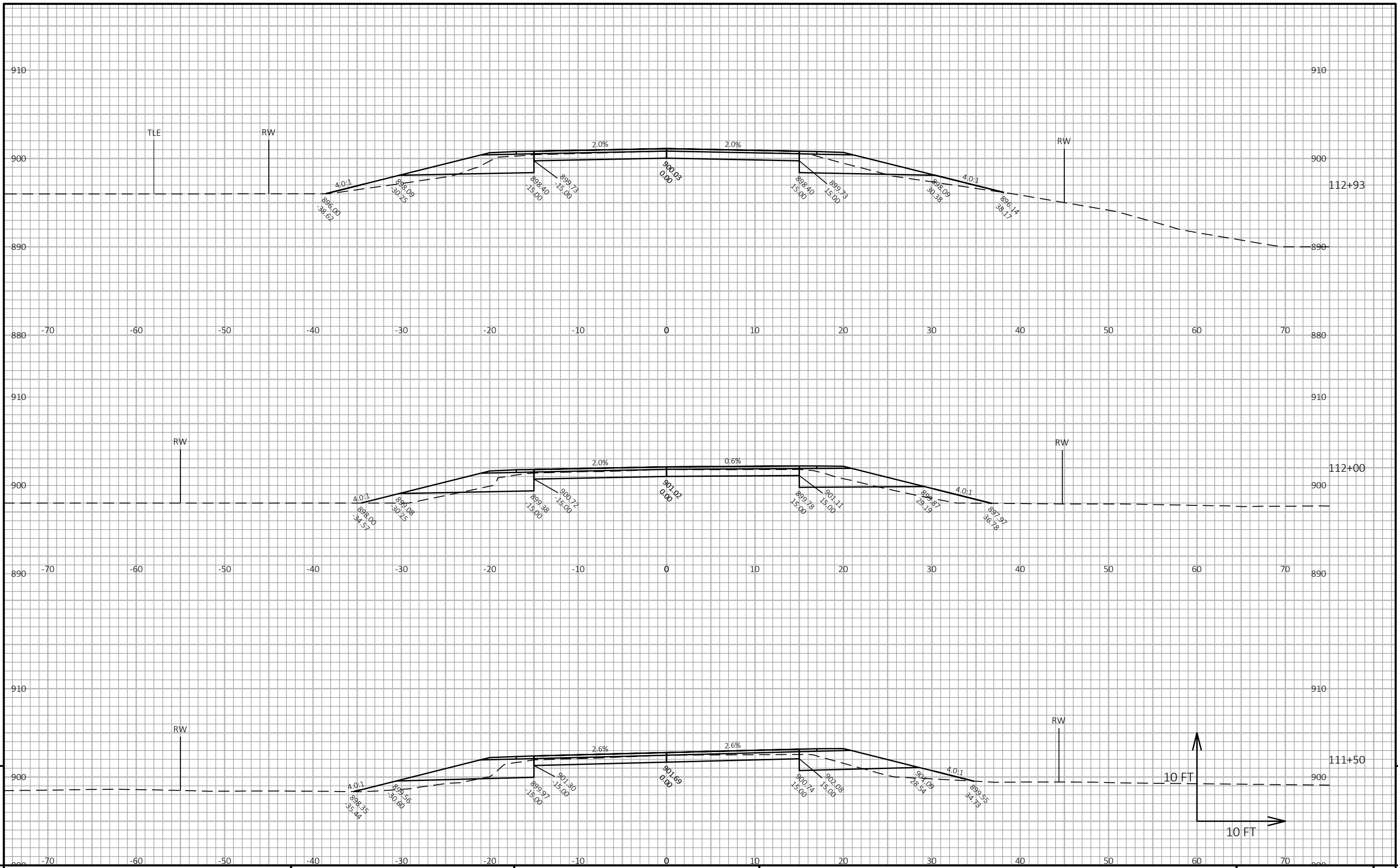
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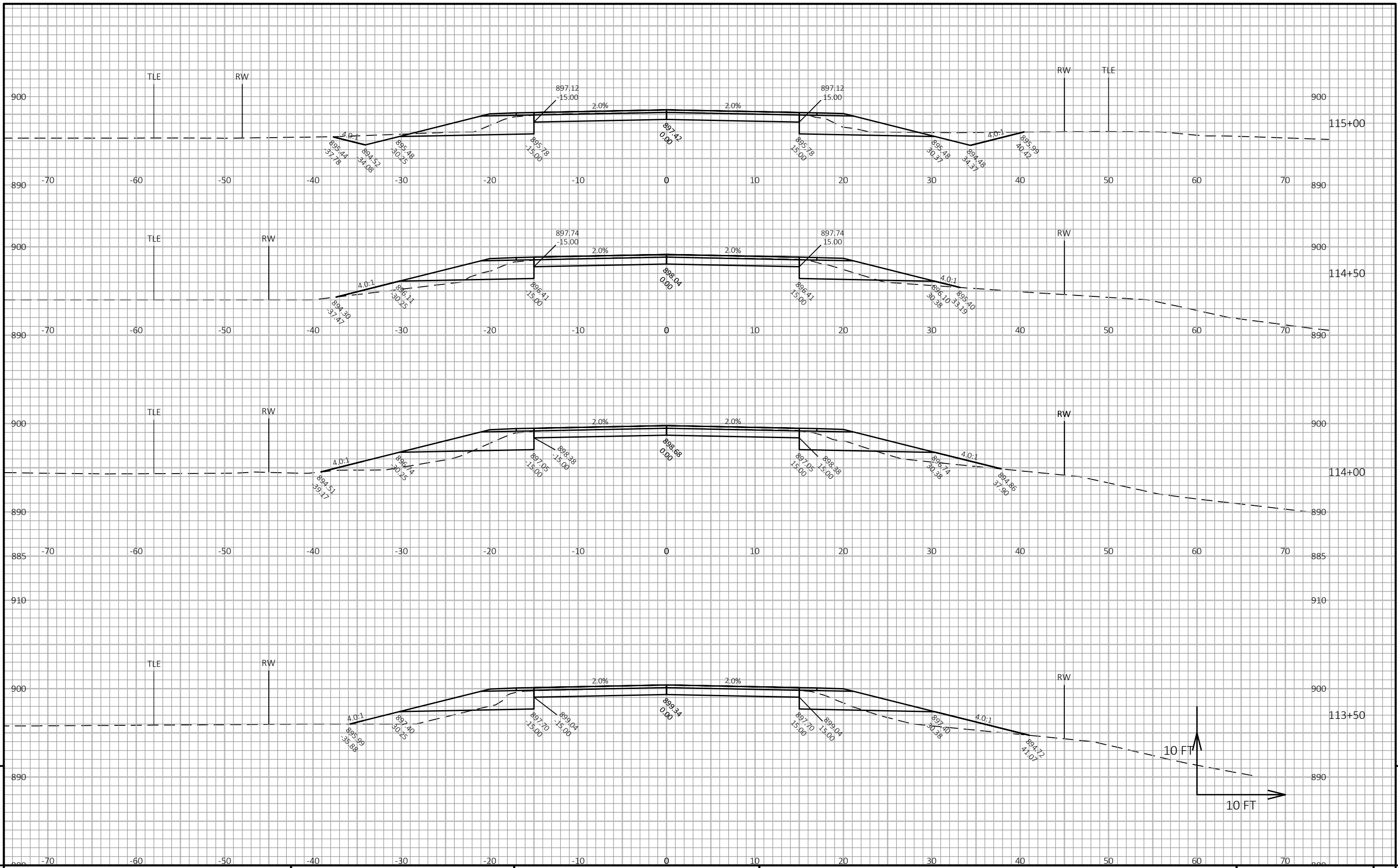
PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E

FILE NAME: X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\DESIGN\CORRIDORS\CRDR-E.DWG PLOT DATE: 7/12/2021 4:33 PM PLOT BY: ALEX ADAMS PLOT NAME: PLOT SCALE: 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

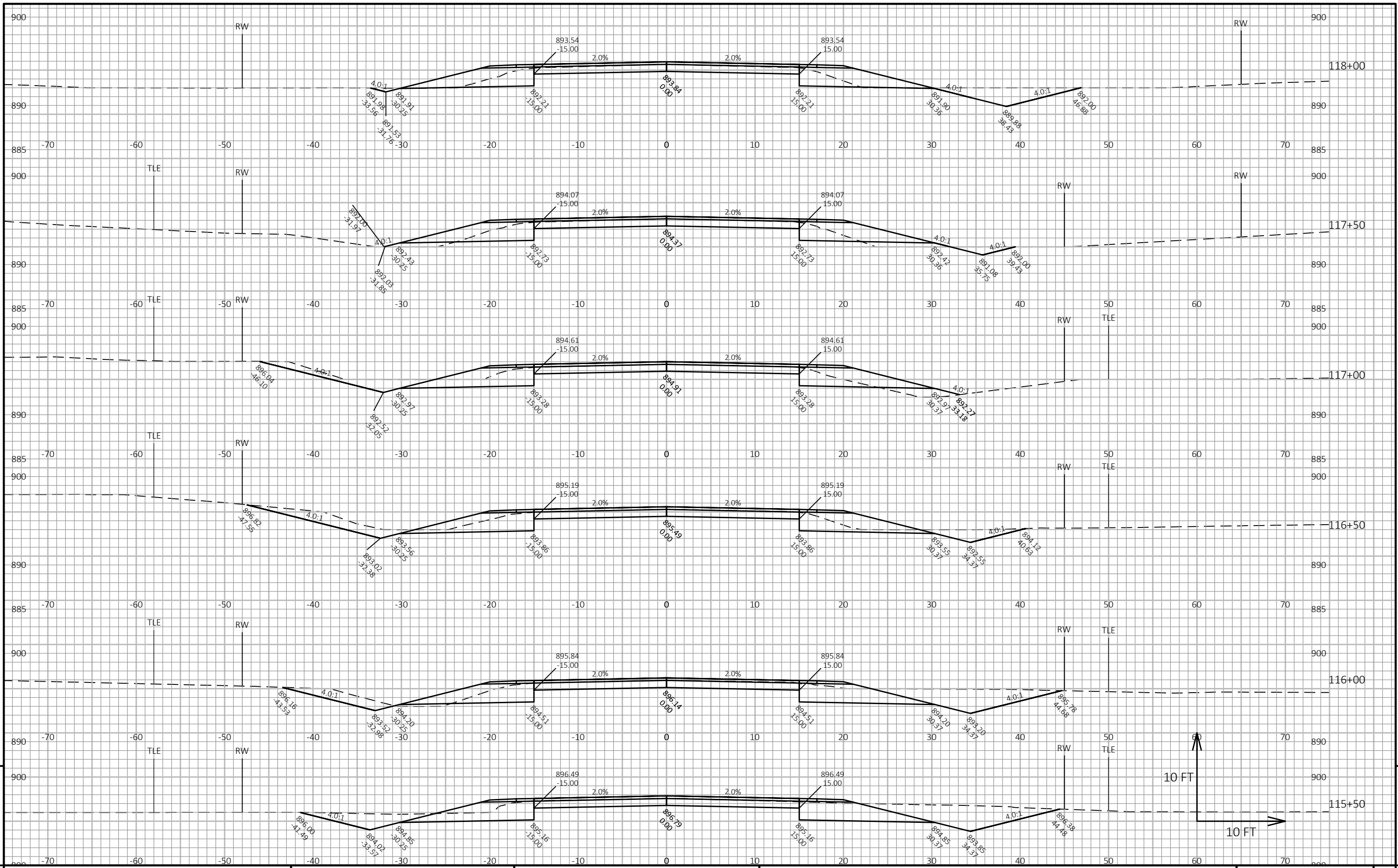
LAYOUT NAME - 152



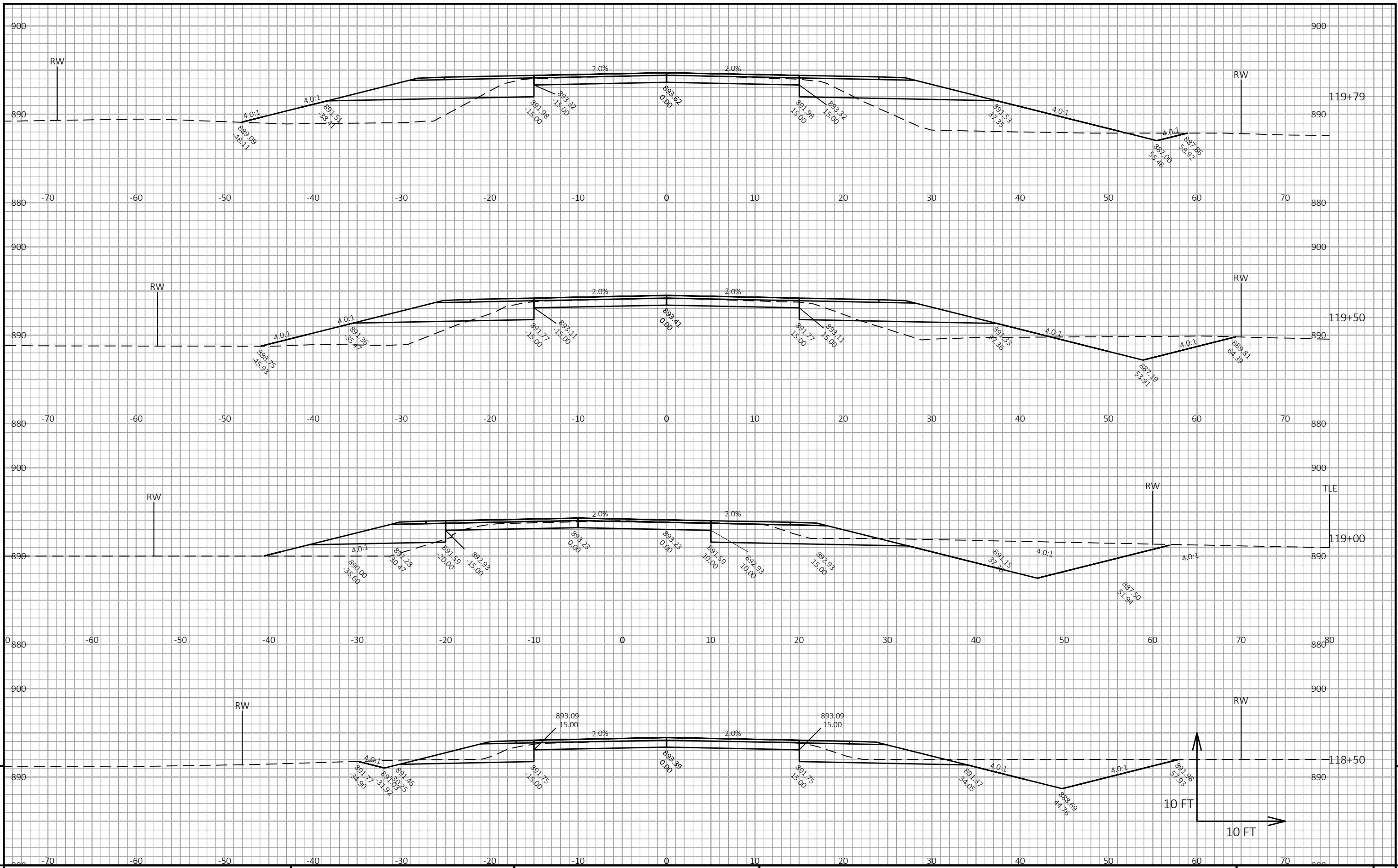
PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET 9



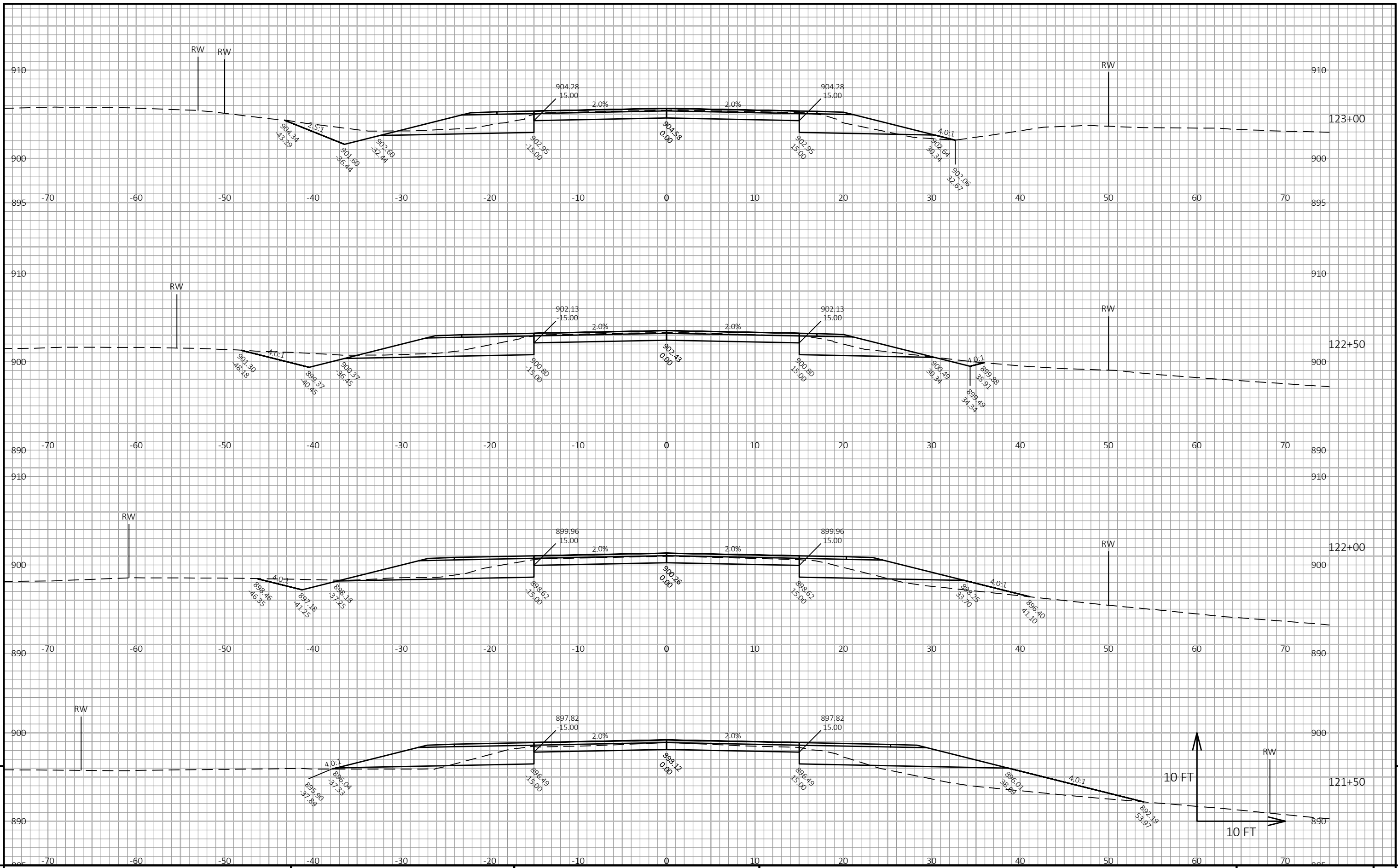
PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E



PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E



PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E	SHEET 9
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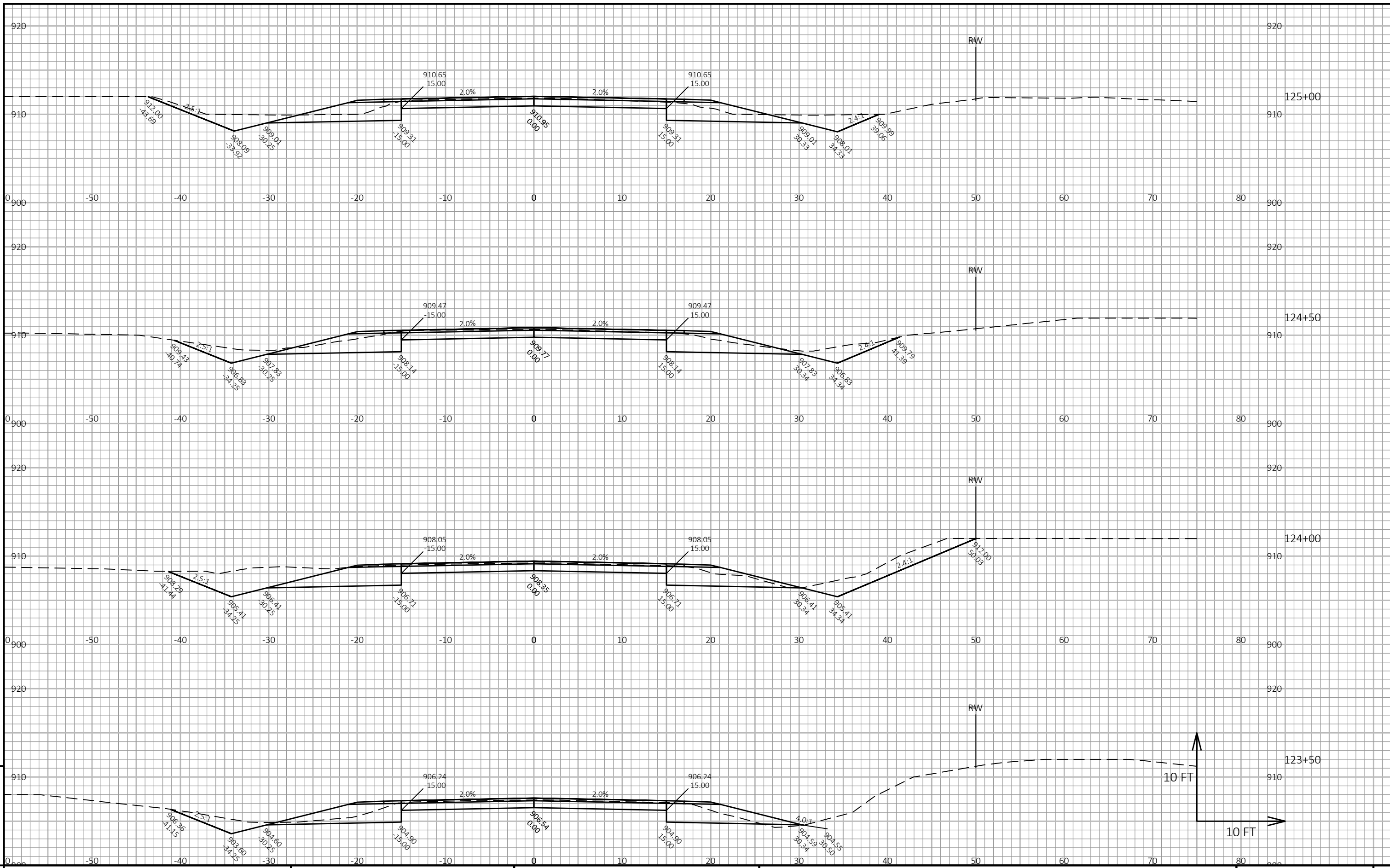


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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E

FILE NAME: X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\DESIGN\CORRIDORS\CRDR-E.DWG PLOT DATE: 7/12/2021 4:33 PM PLOT BY: ALEX ADAMS PLOT NAME: PLOT SCALE: 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 157



PROJECT NO: 8939-08-76

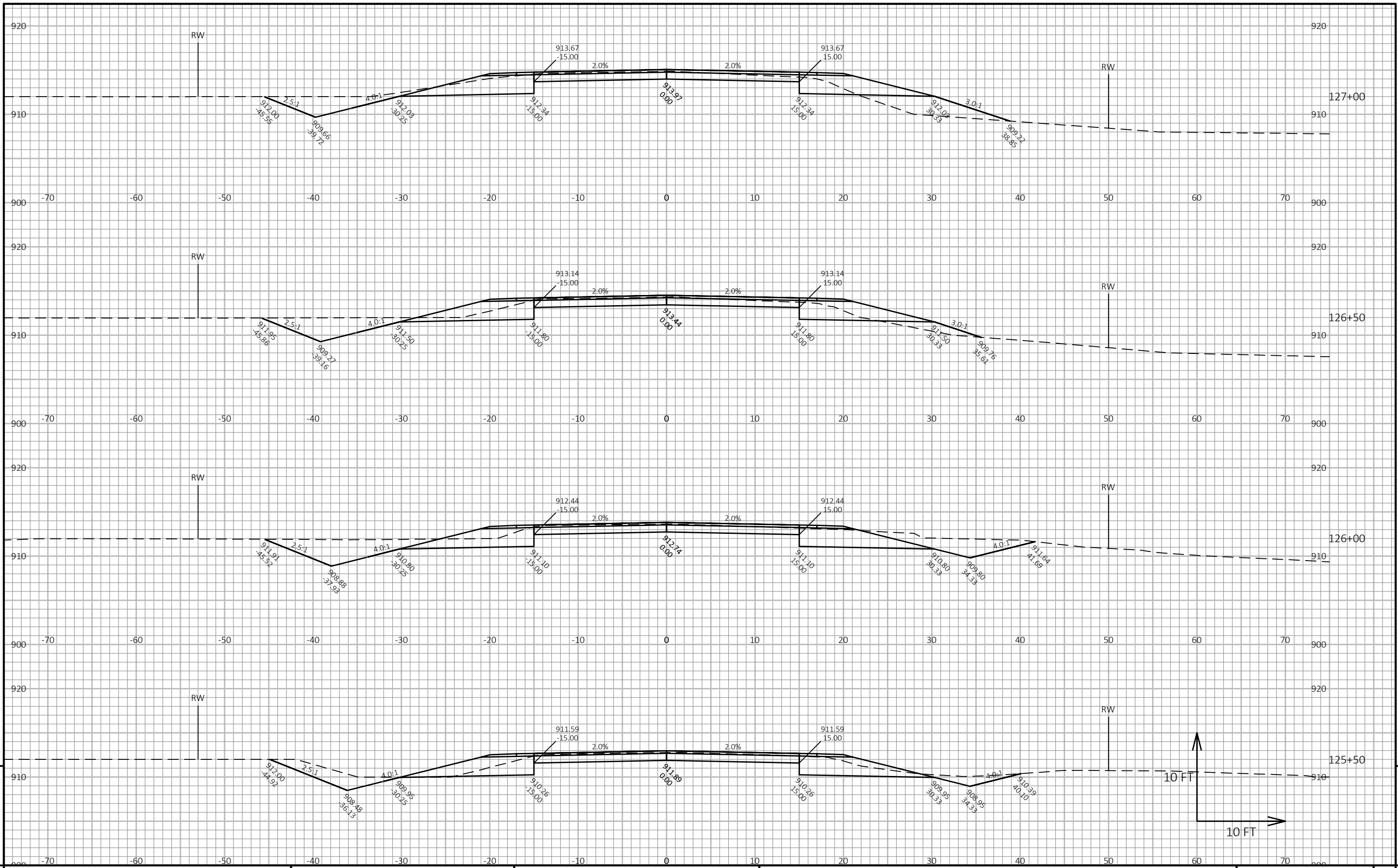
HWY: CTH E

COUNTY: ST. CROIX

CROSS SECTIONS: CTH E

SHEET

E



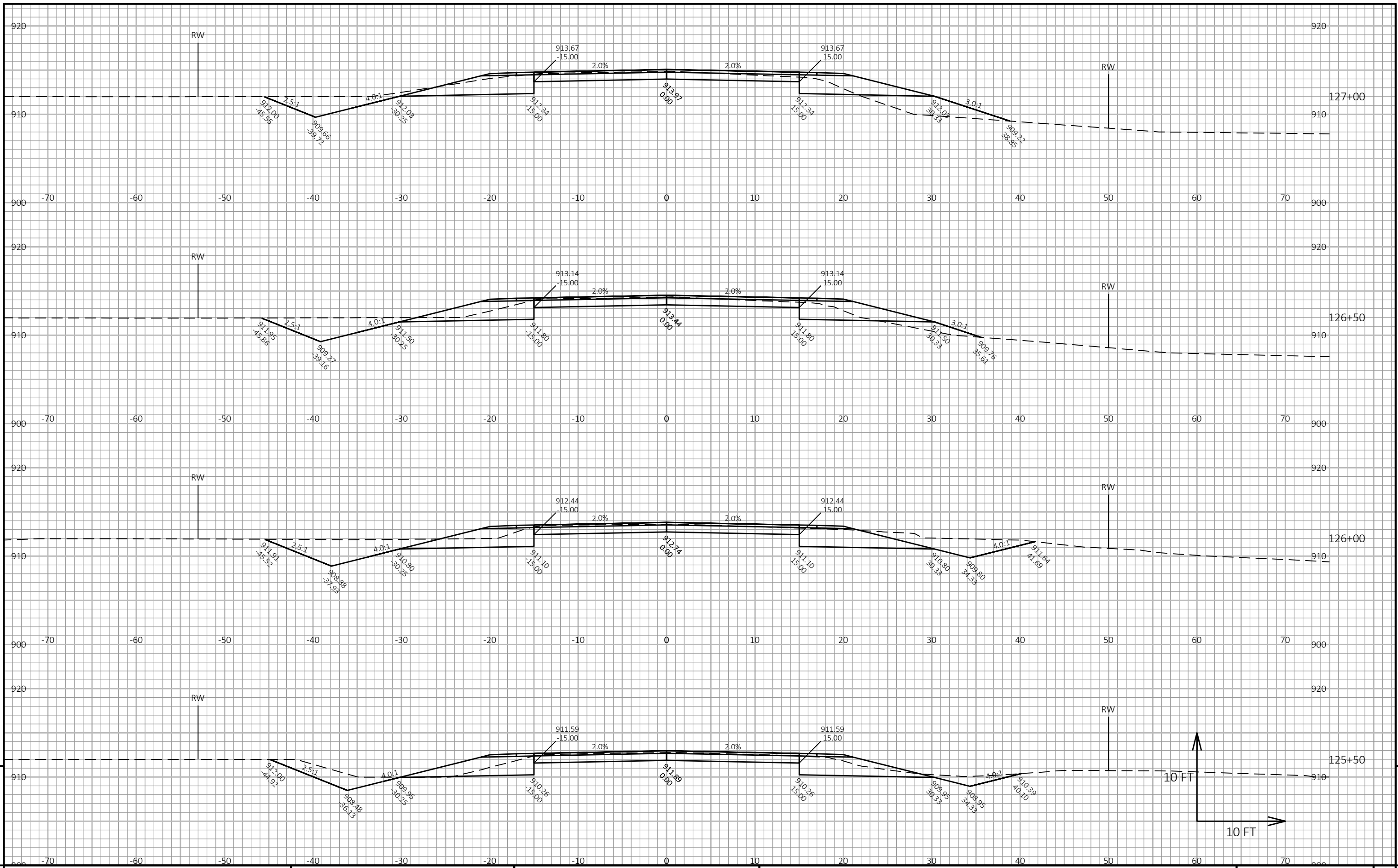
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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E

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LAYOUT NAME - 159 (2)



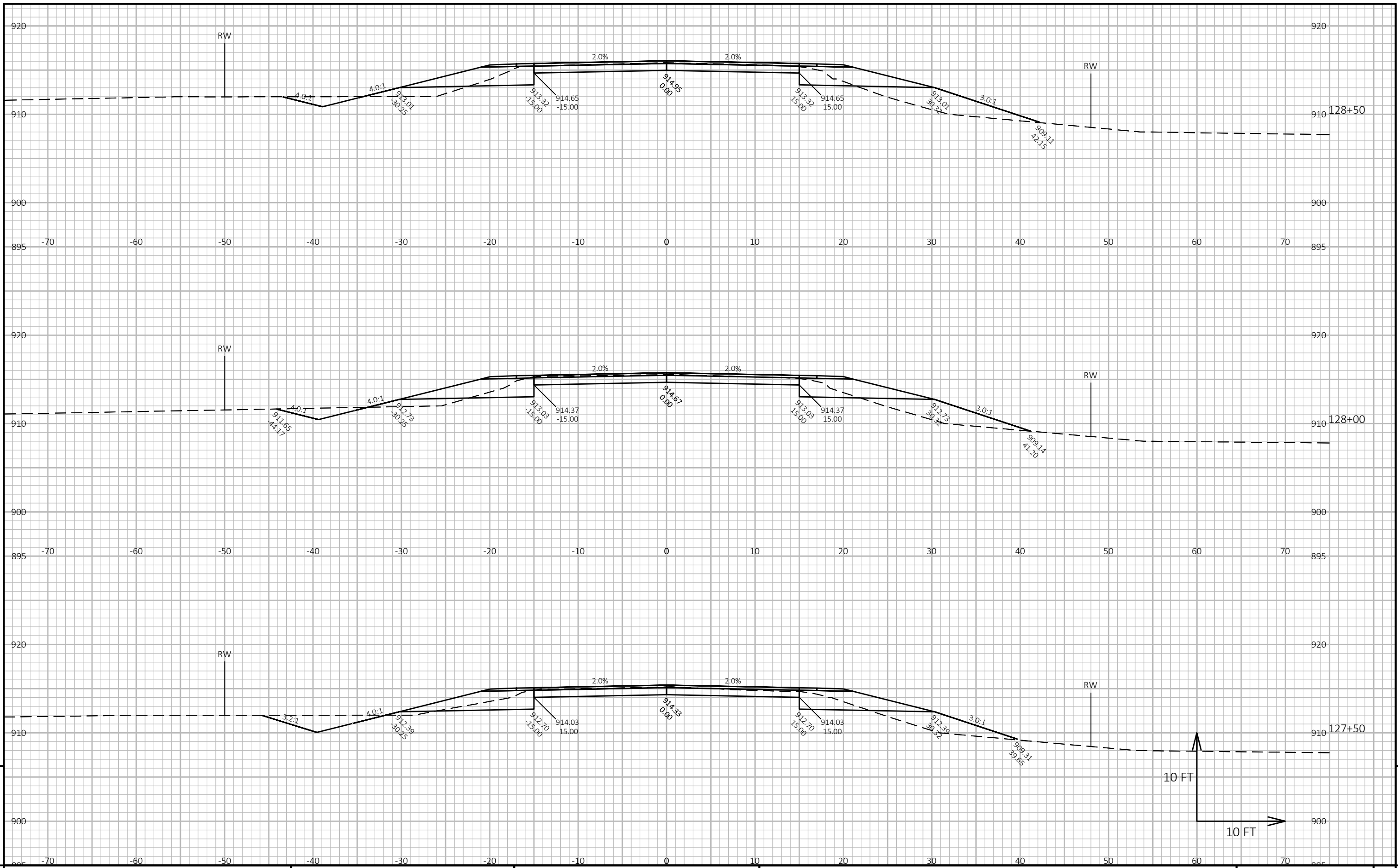
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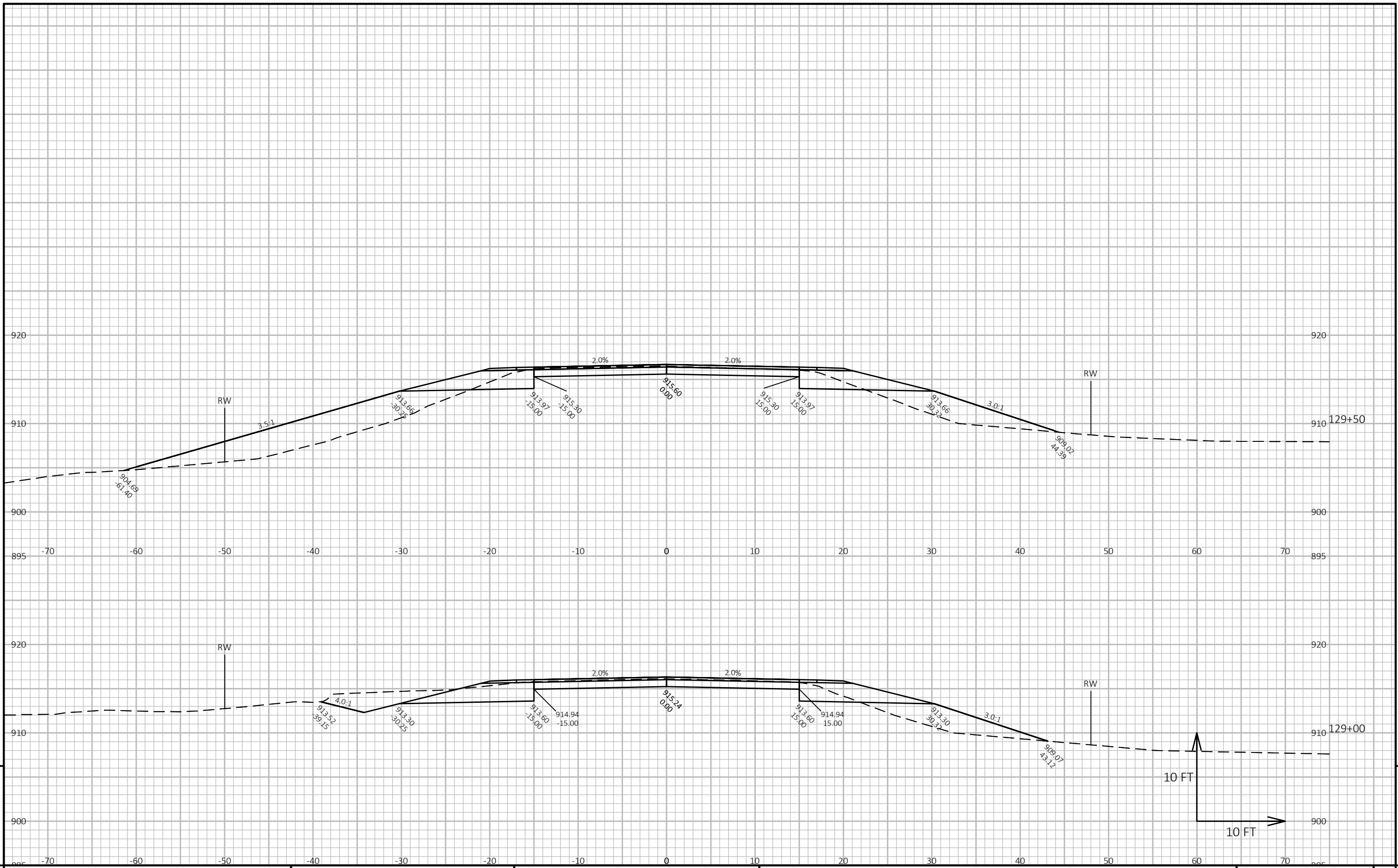
PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E

FILE NAME : X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\DESIGN\CORRIDORS\CRDR-E.DWG PLOT DATE : 7/12/2021 4:34 PM PLOT BY : ALEX ADAMS PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 159



PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET 9



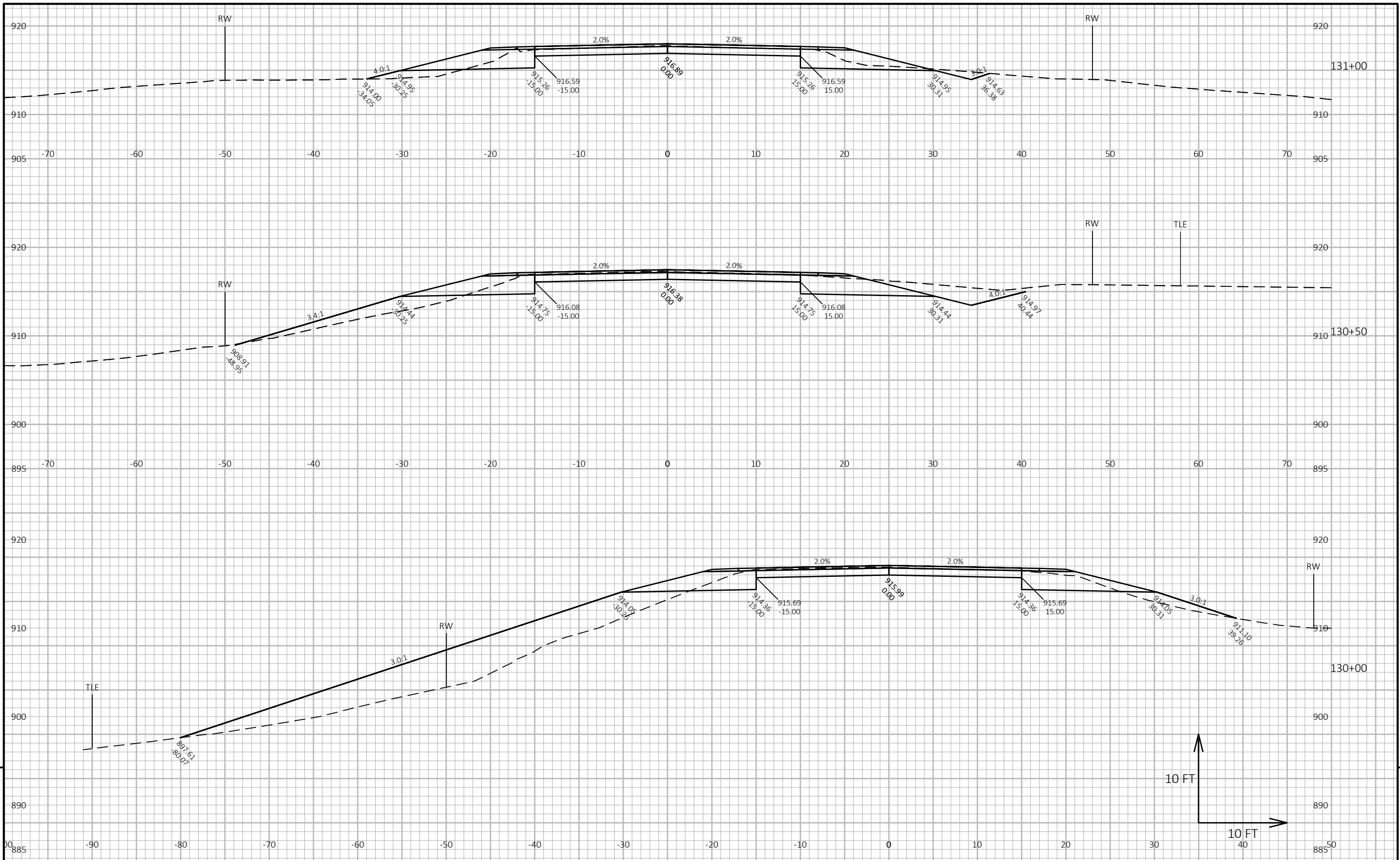
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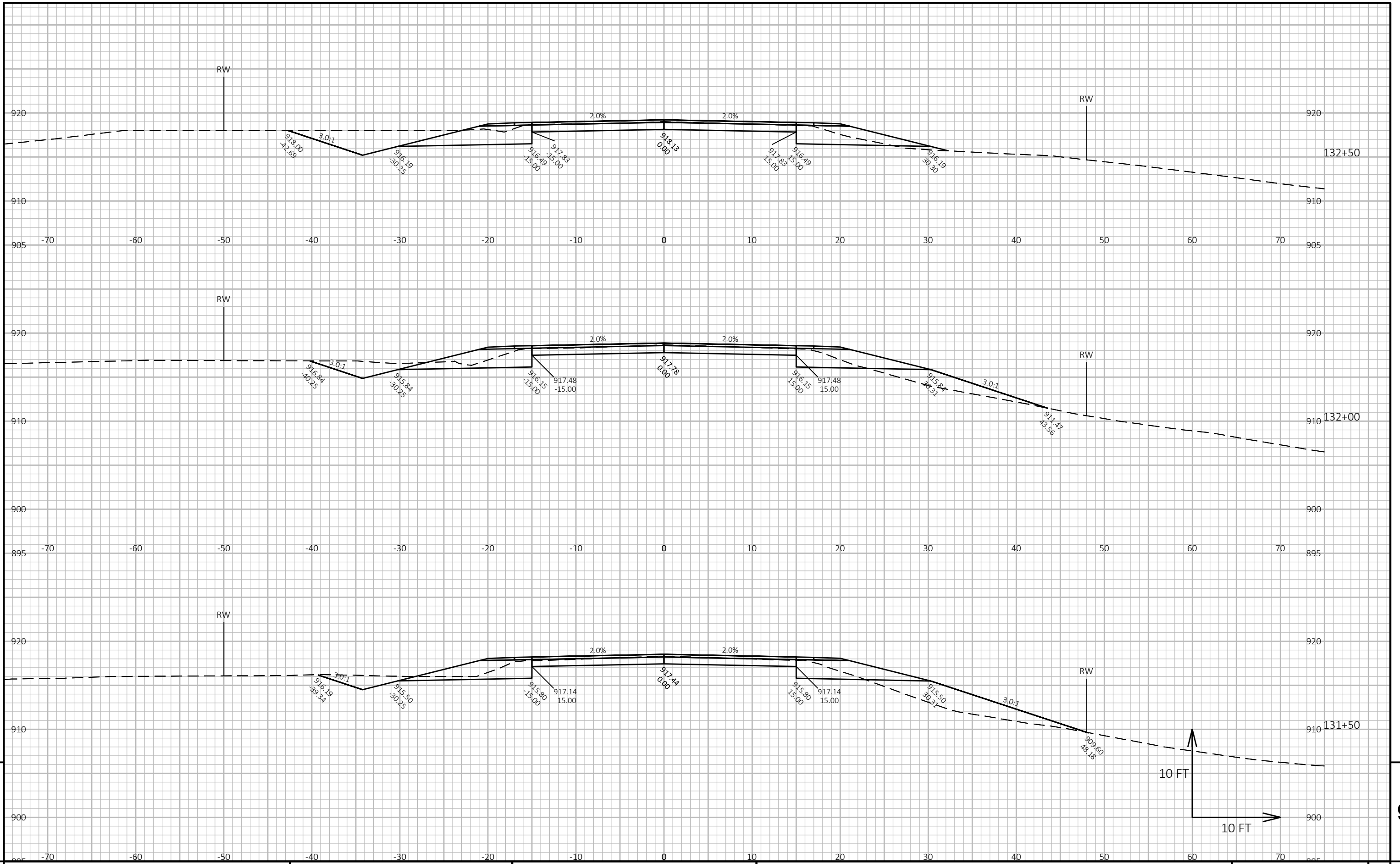
PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E

FILE NAME : X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG PLOT DATE : 10/14/2021 12:30 PM PLOT BY : RILEY SMEATON PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 02



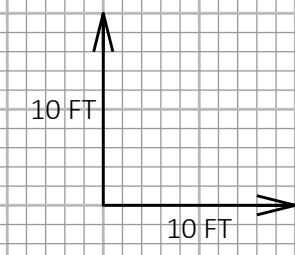
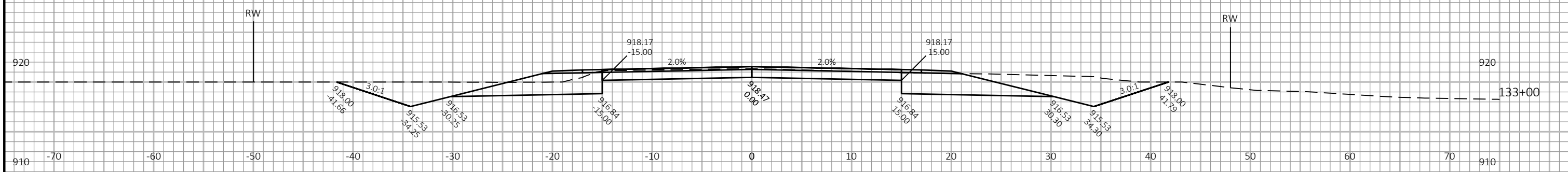
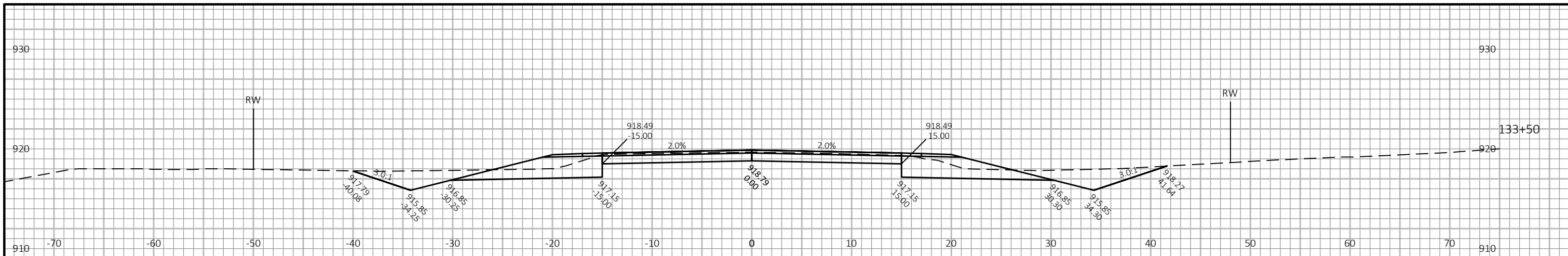
PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET 9



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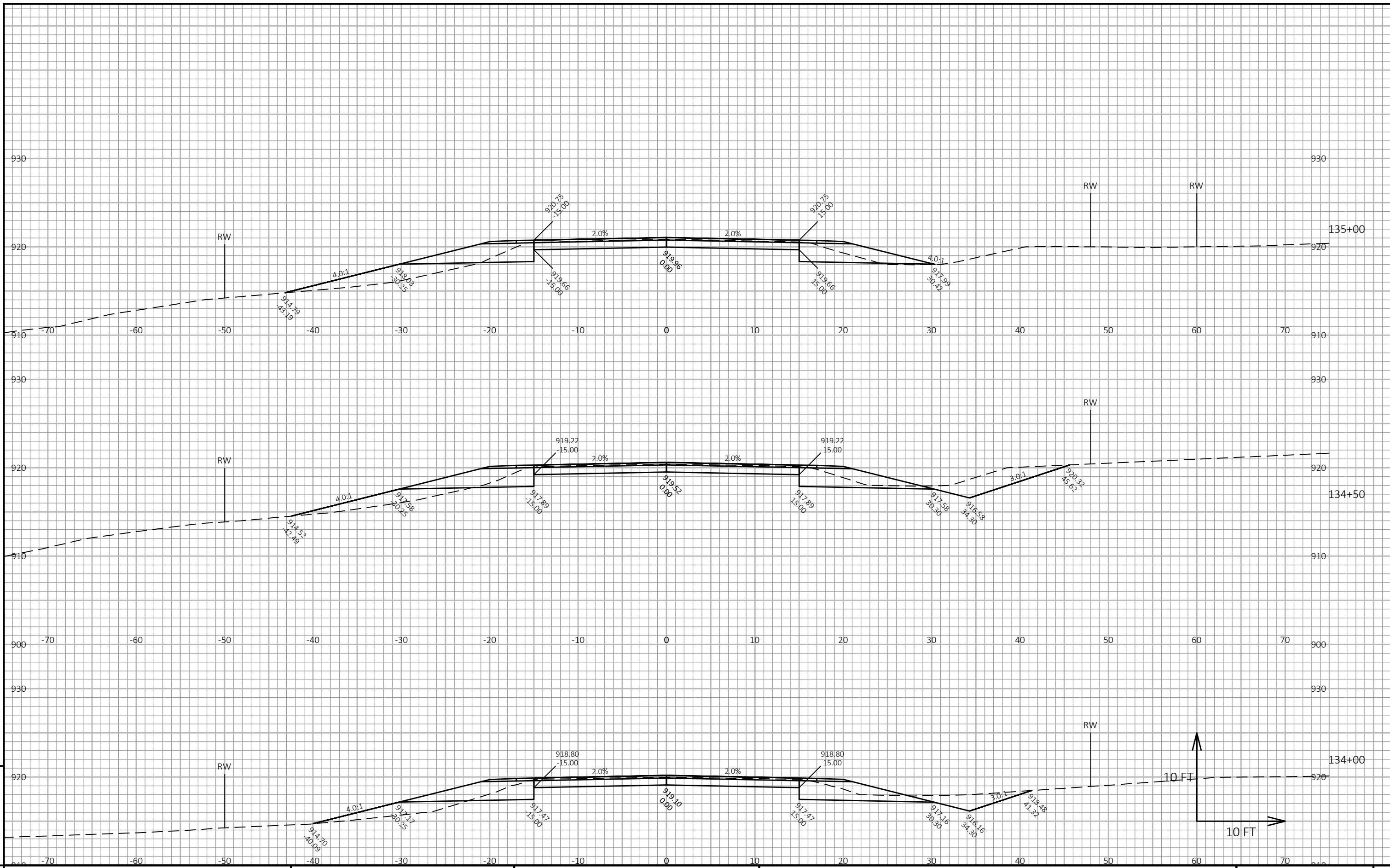
PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E	SHEET	E
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PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E	SHEET	E
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PROJECT NO: 8939-08-76

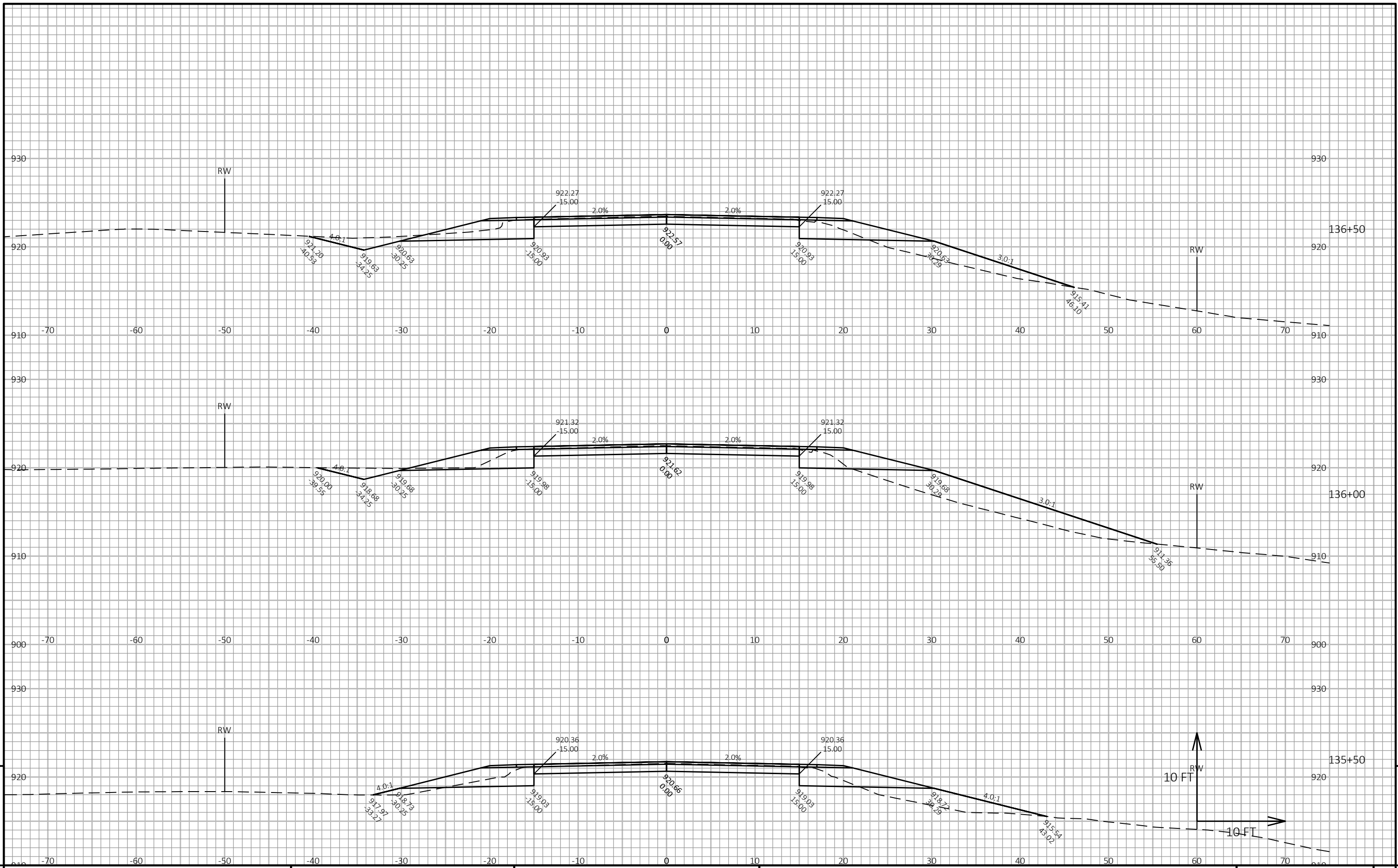
HWY: CTH E

COUNTY: ST. CROIX

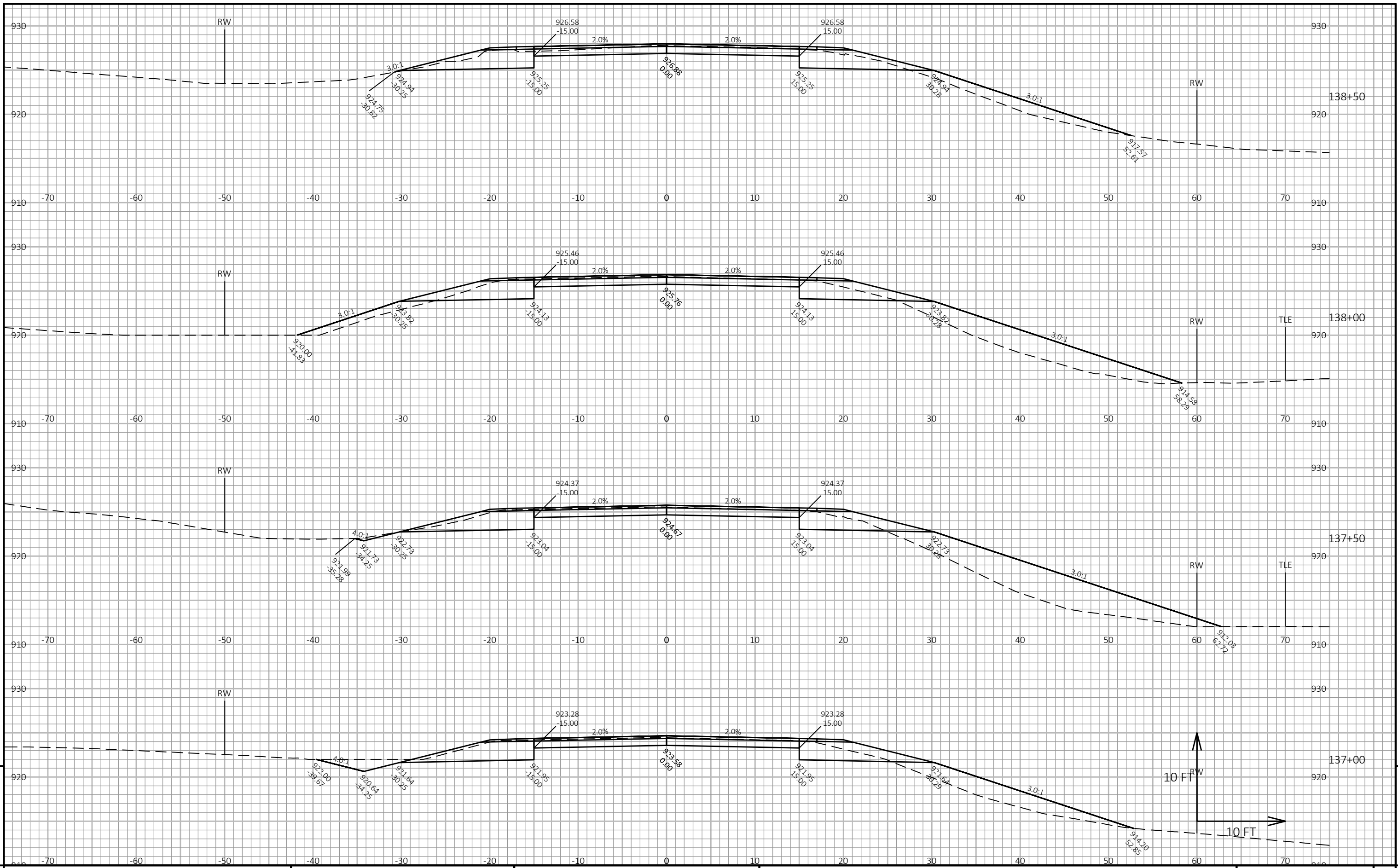
CROSS SECTIONS: CTH E

SHEET

E



PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET 9



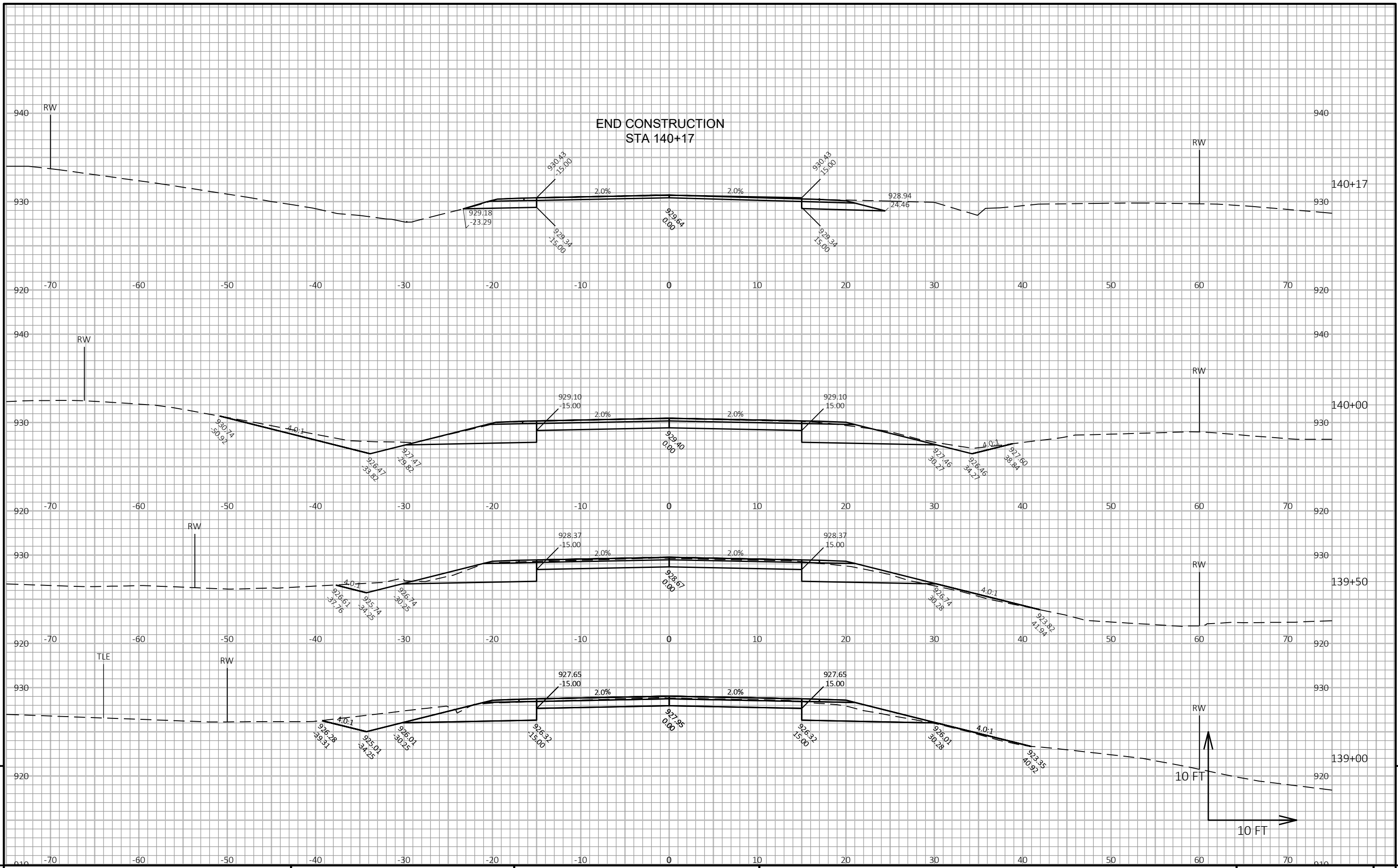
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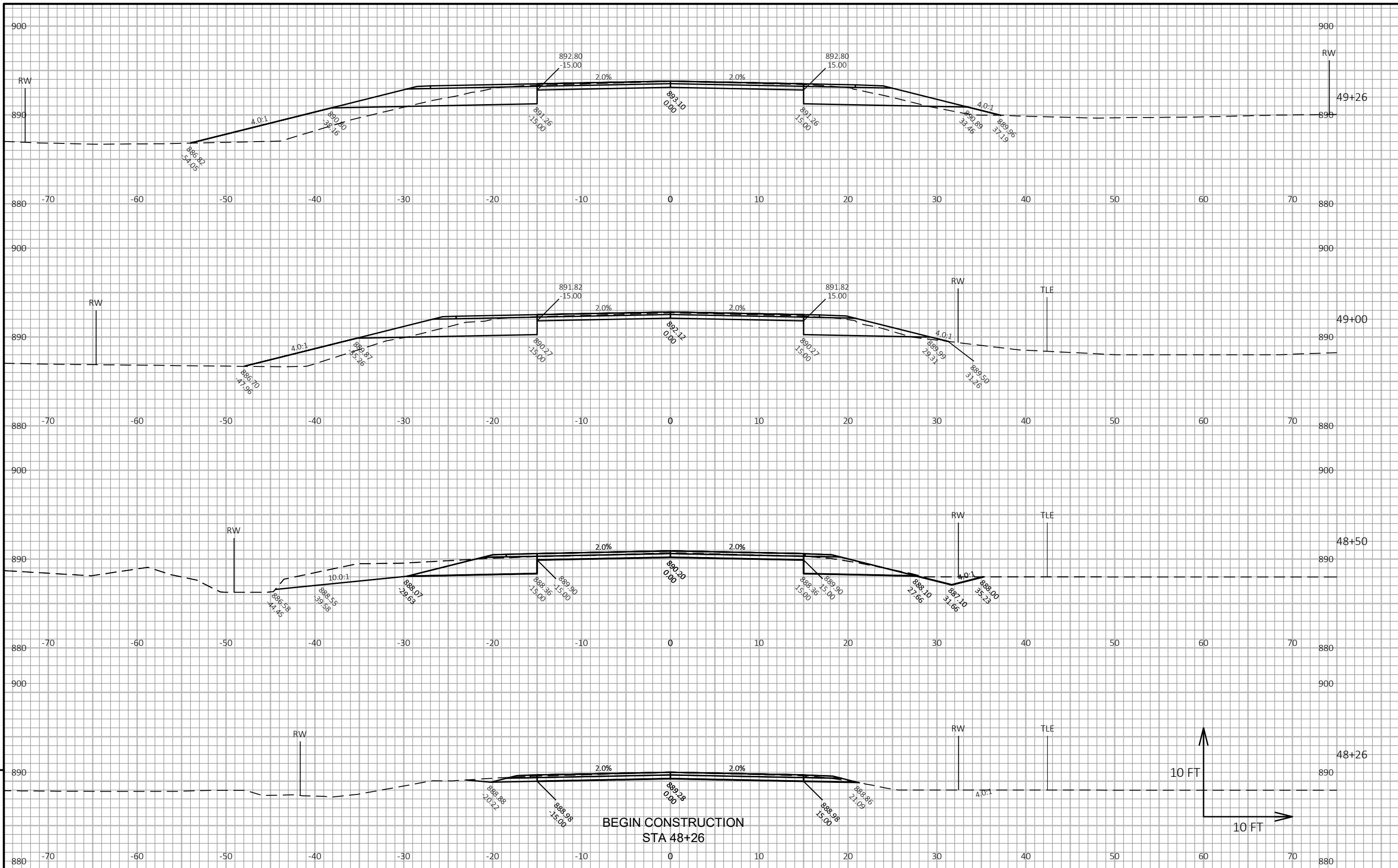
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PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E SHEET E

FILE NAME: X:\PROJECTS\ST. CROIX\8939-08-06_CTH E\DESIGN\C3D\DESIGN\CORRIDORS\CRDR-E.DWG PLOT DATE: 7/12/2021 4:34 PM PLOT BY: ALEX ADAMS PLOT NAME: PLOT SCALE: 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 164





PROJECT NO: 8939-08-76

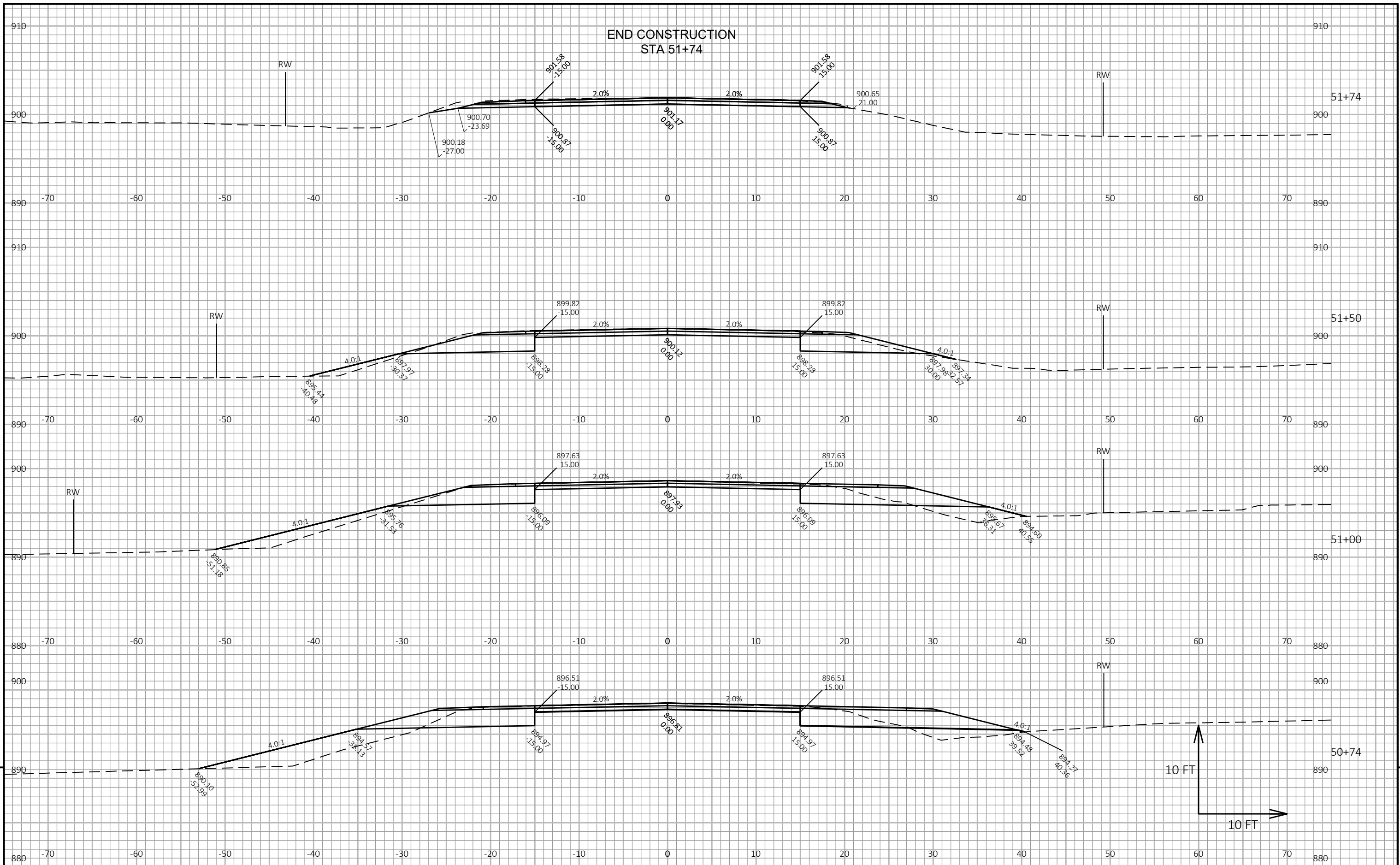
HWY: CTH E

COUNTY: ST. CROIX

CROSS SECTIONS: CTH V

SHEET

E



PROJECT NO: 8939-08-76

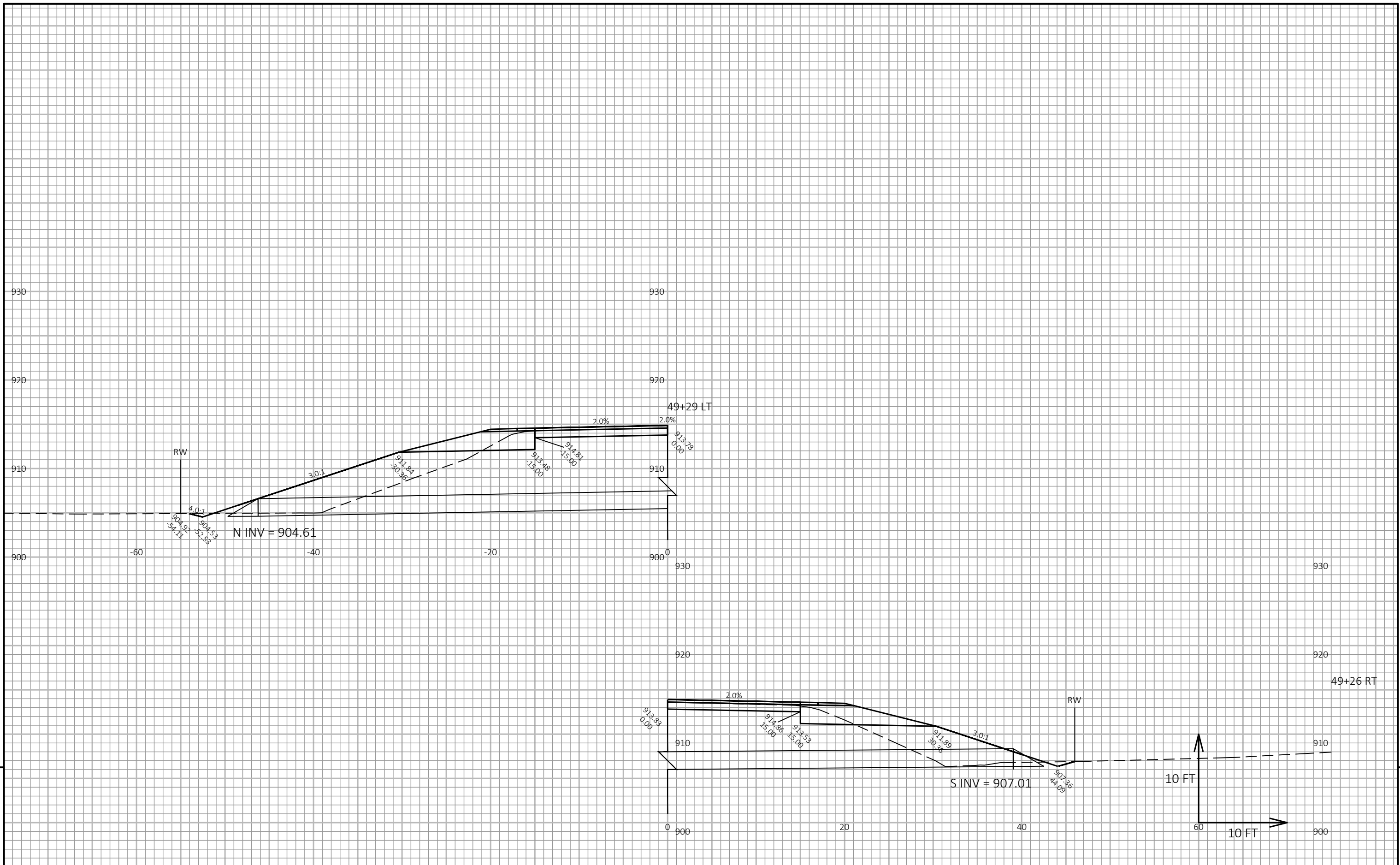
HWY: CTH E

COUNTY: ST. CROIX

CROSS SECTIONS: CTH V

SHEET

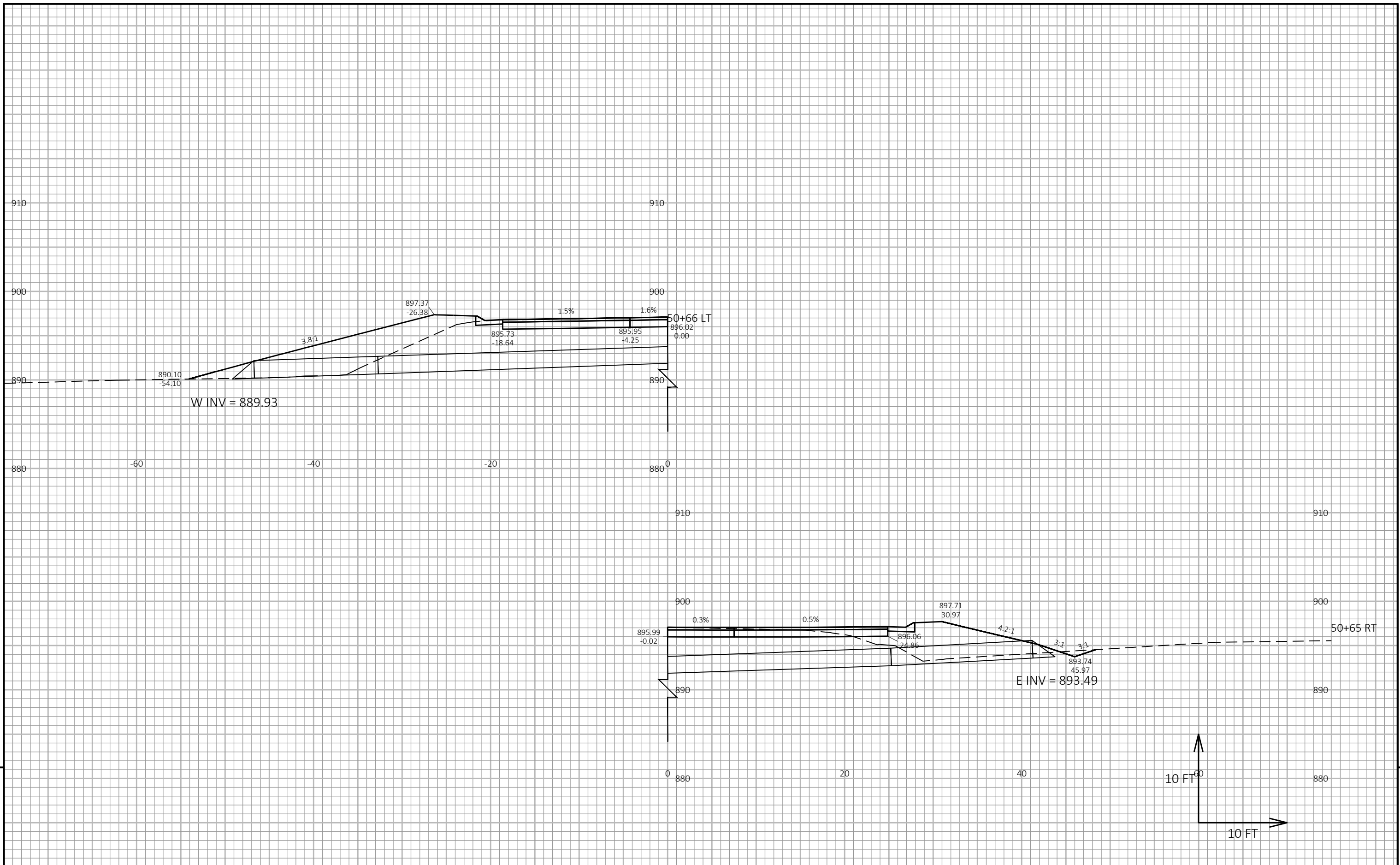
E



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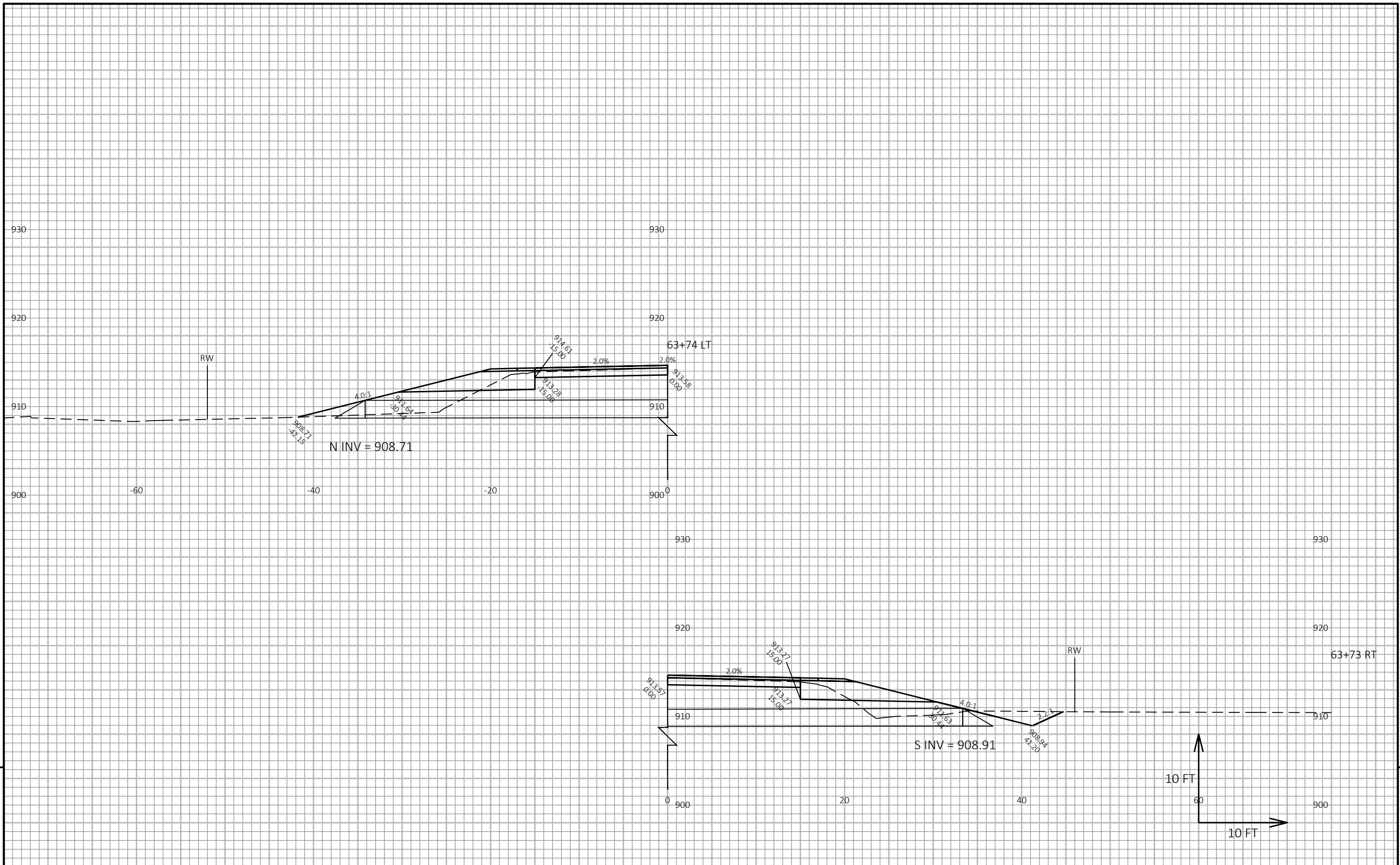
PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E PIPE CULVERTS	SHEET	E
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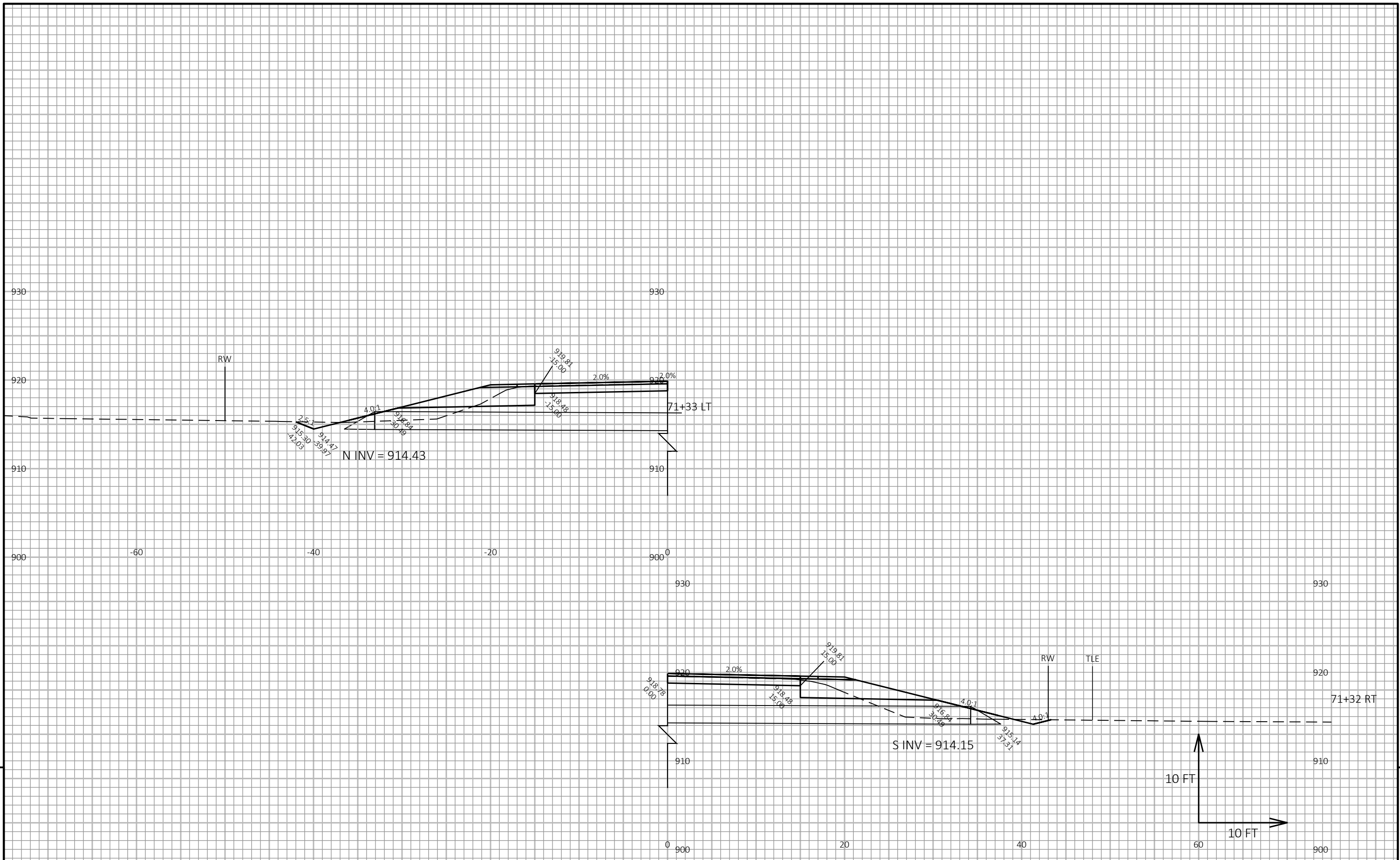
PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH V PIPE CULVERTS	SHEET	E
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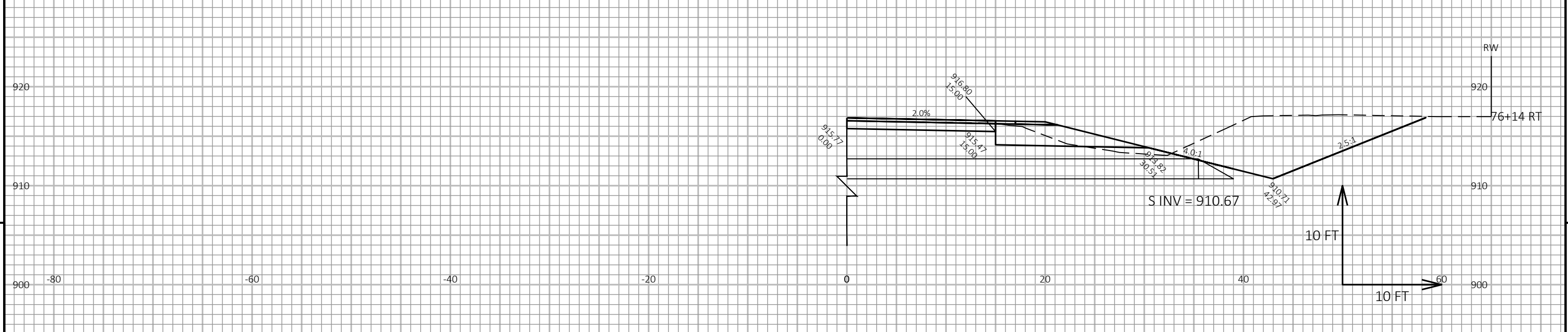
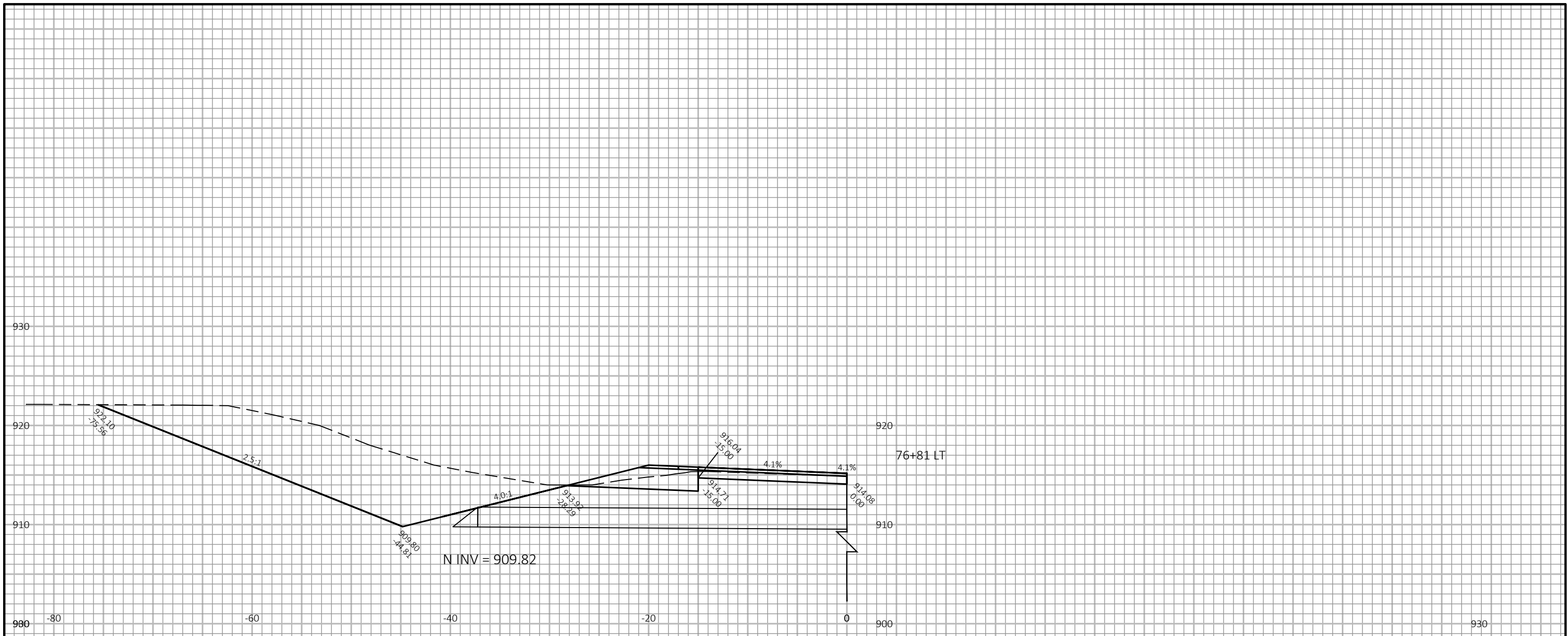
PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E PIPE CULVERTS	SHEET	E
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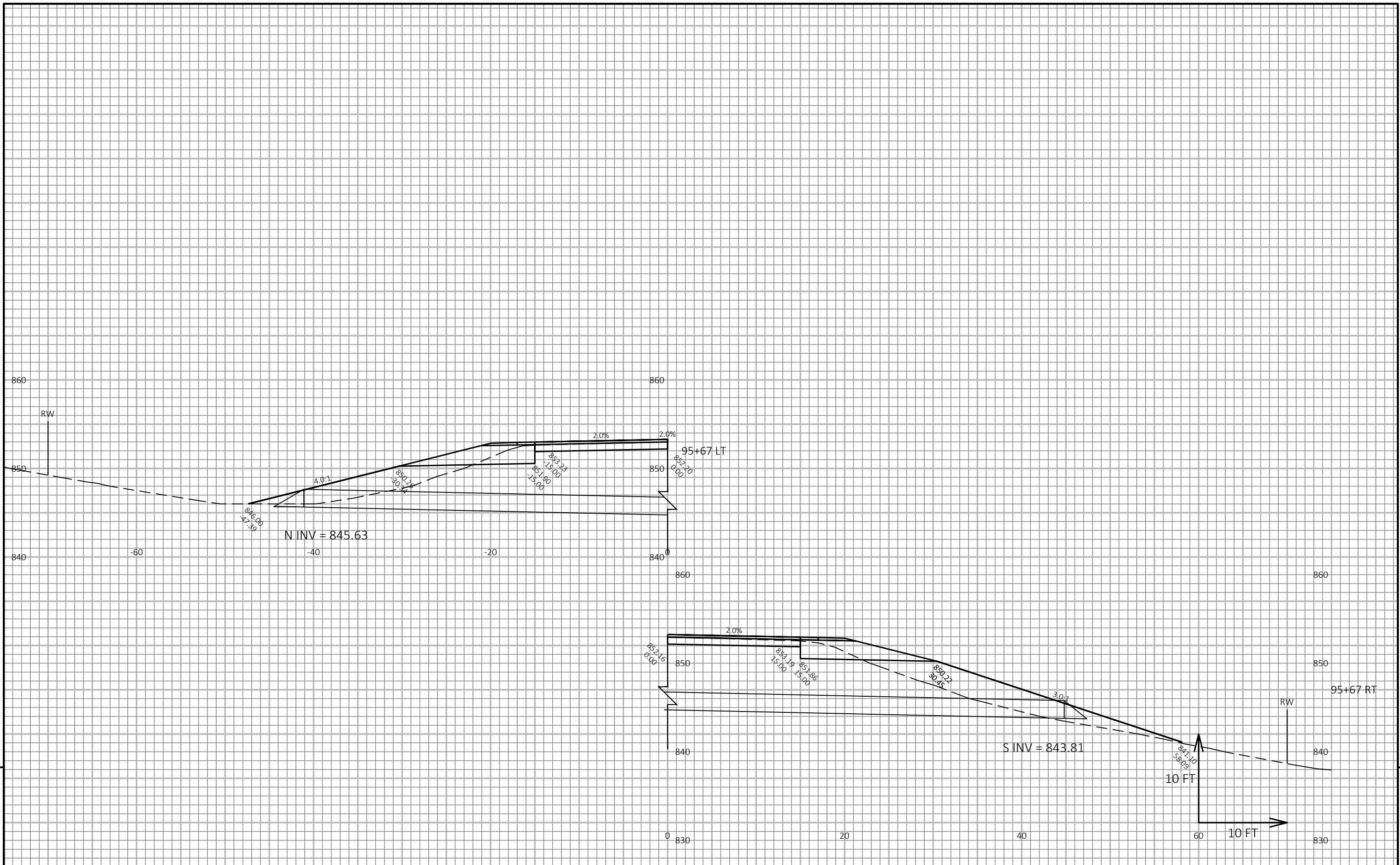
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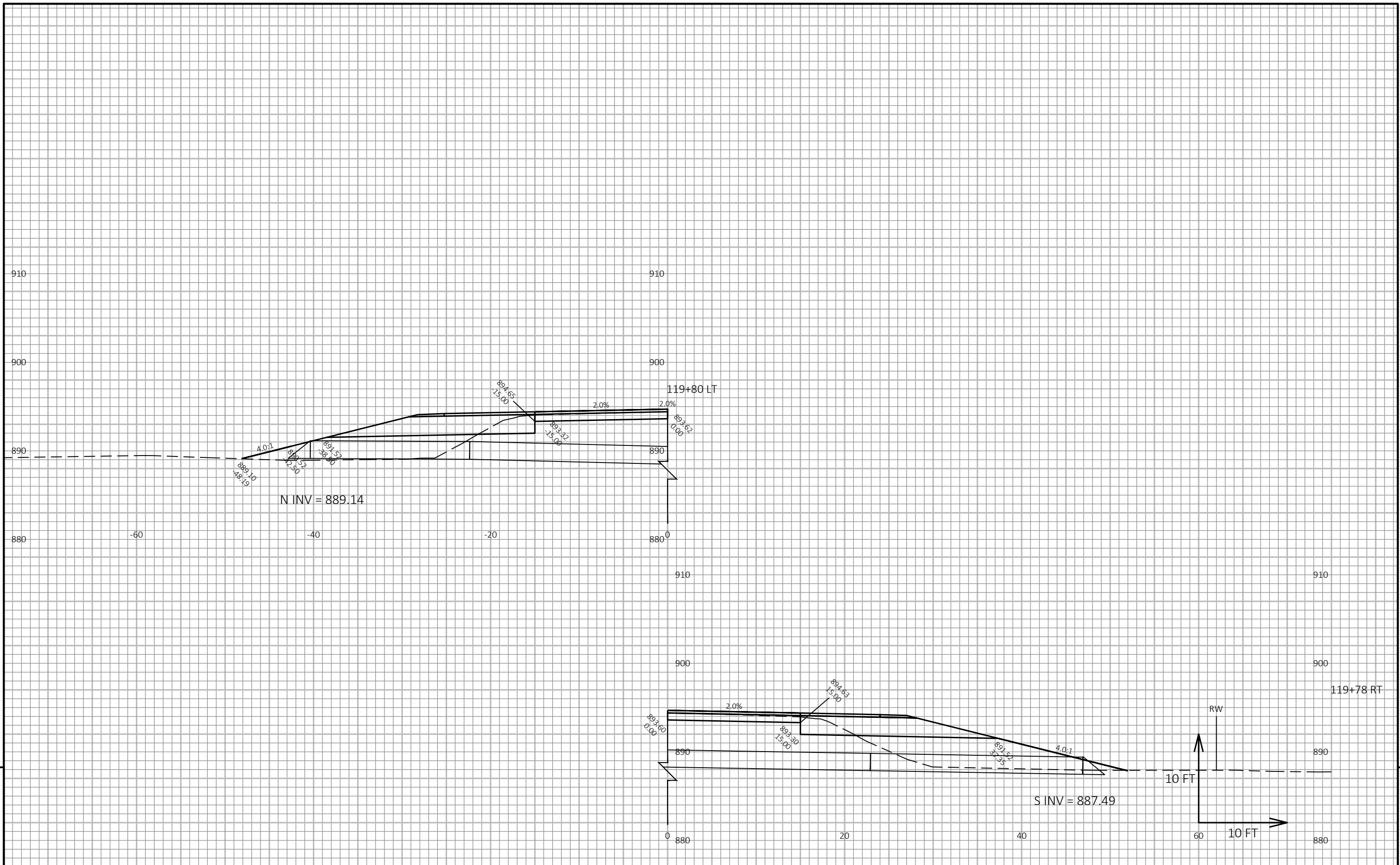
PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E PIPE CULVERTS	SHEET	E
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PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E PIPE CULVERTS	SHEET	E
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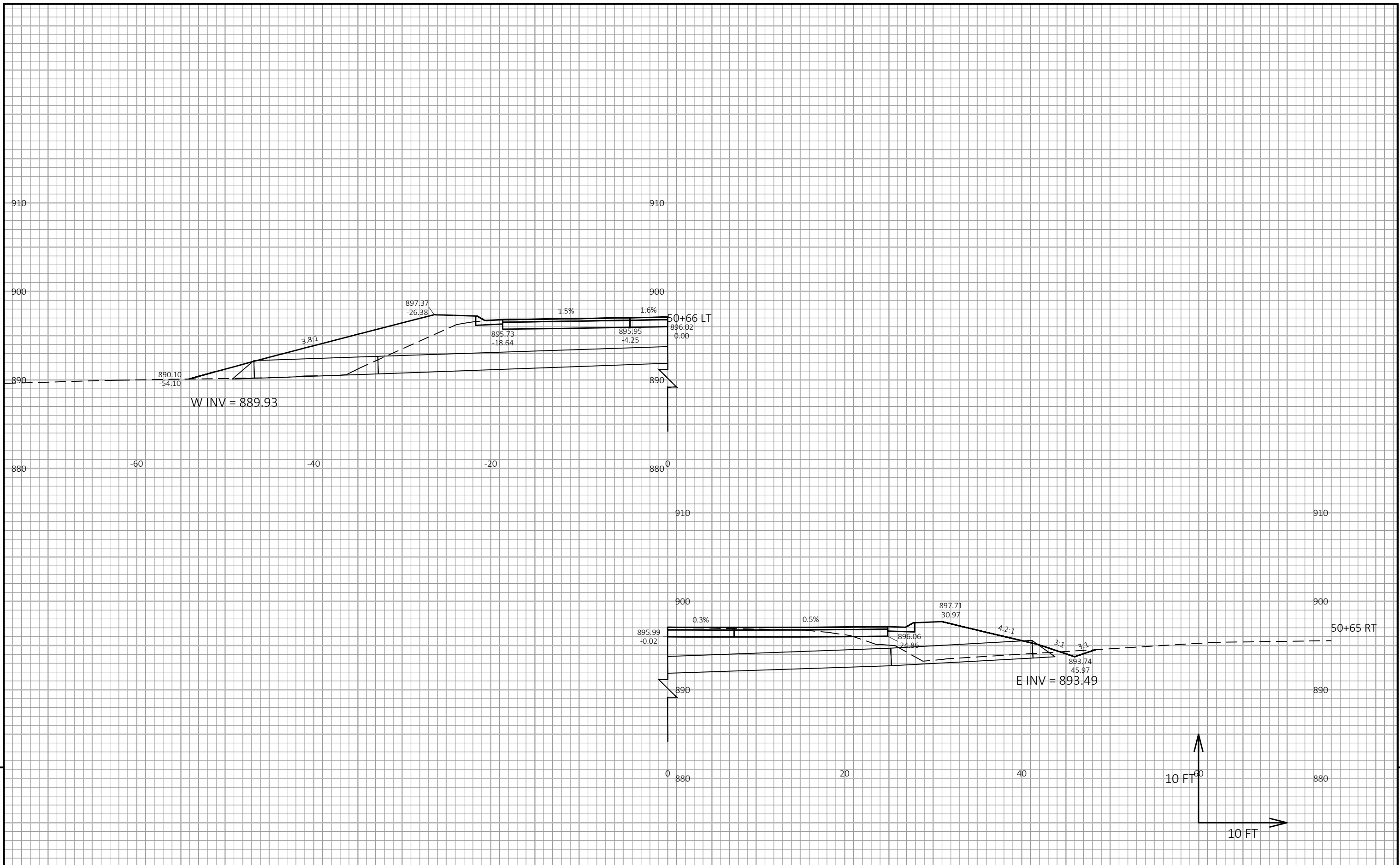
PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E PIPE CULVERTS	SHEET	9
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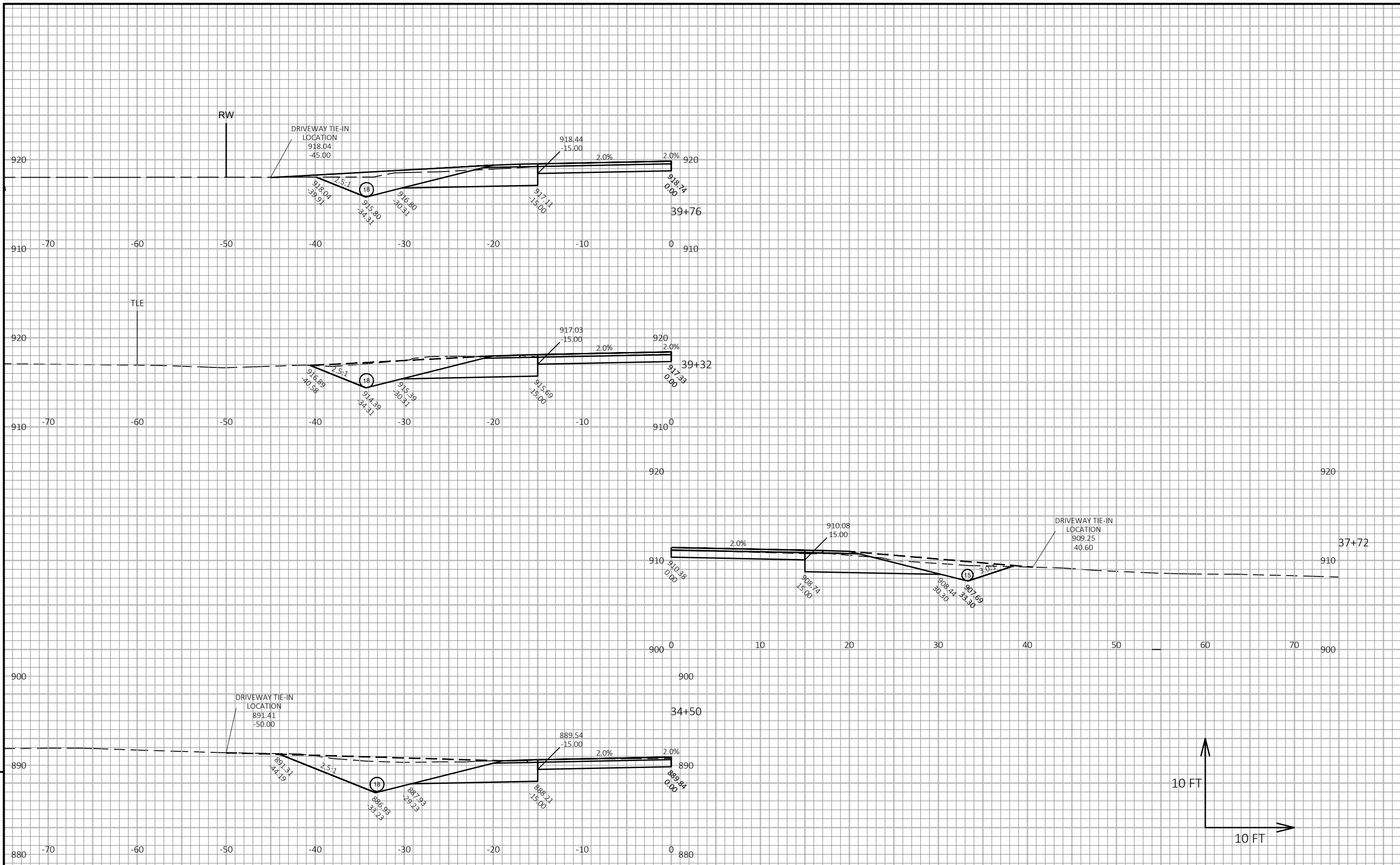
PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E PIPE CULVERTS	SHEET	E
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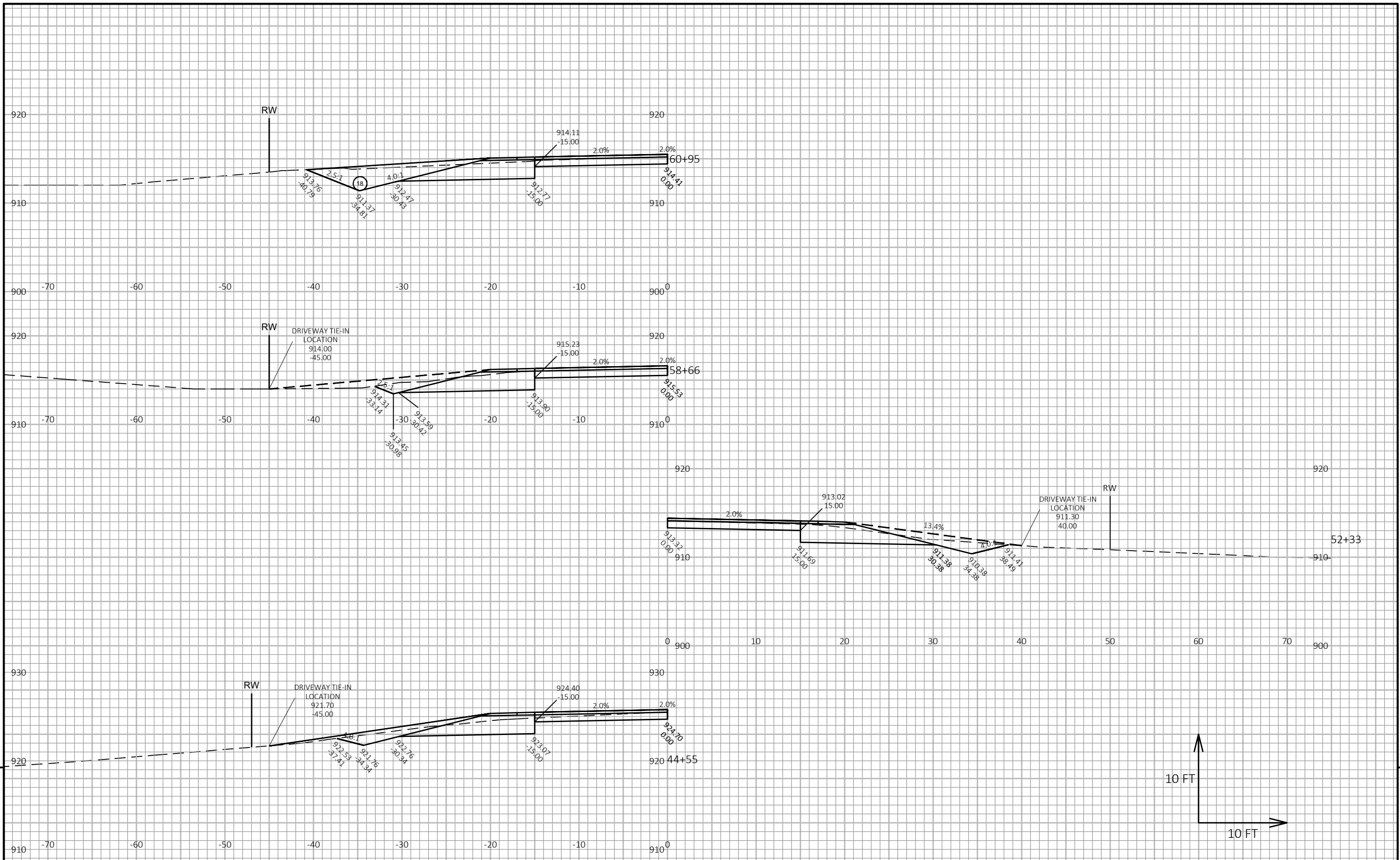
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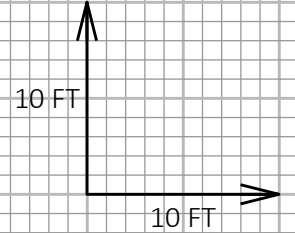
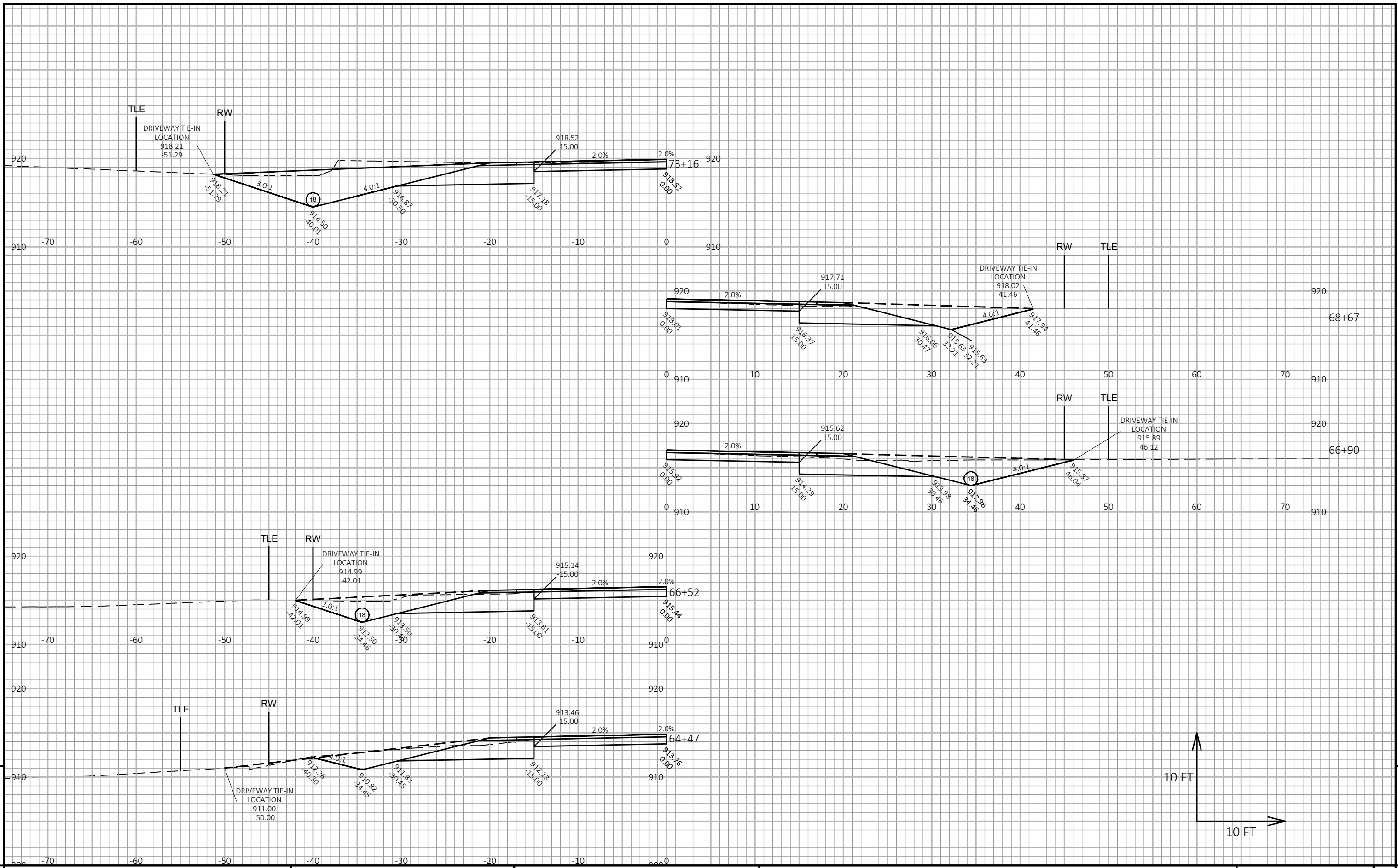
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PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH V PIPE CULVERTS	SHEET	E
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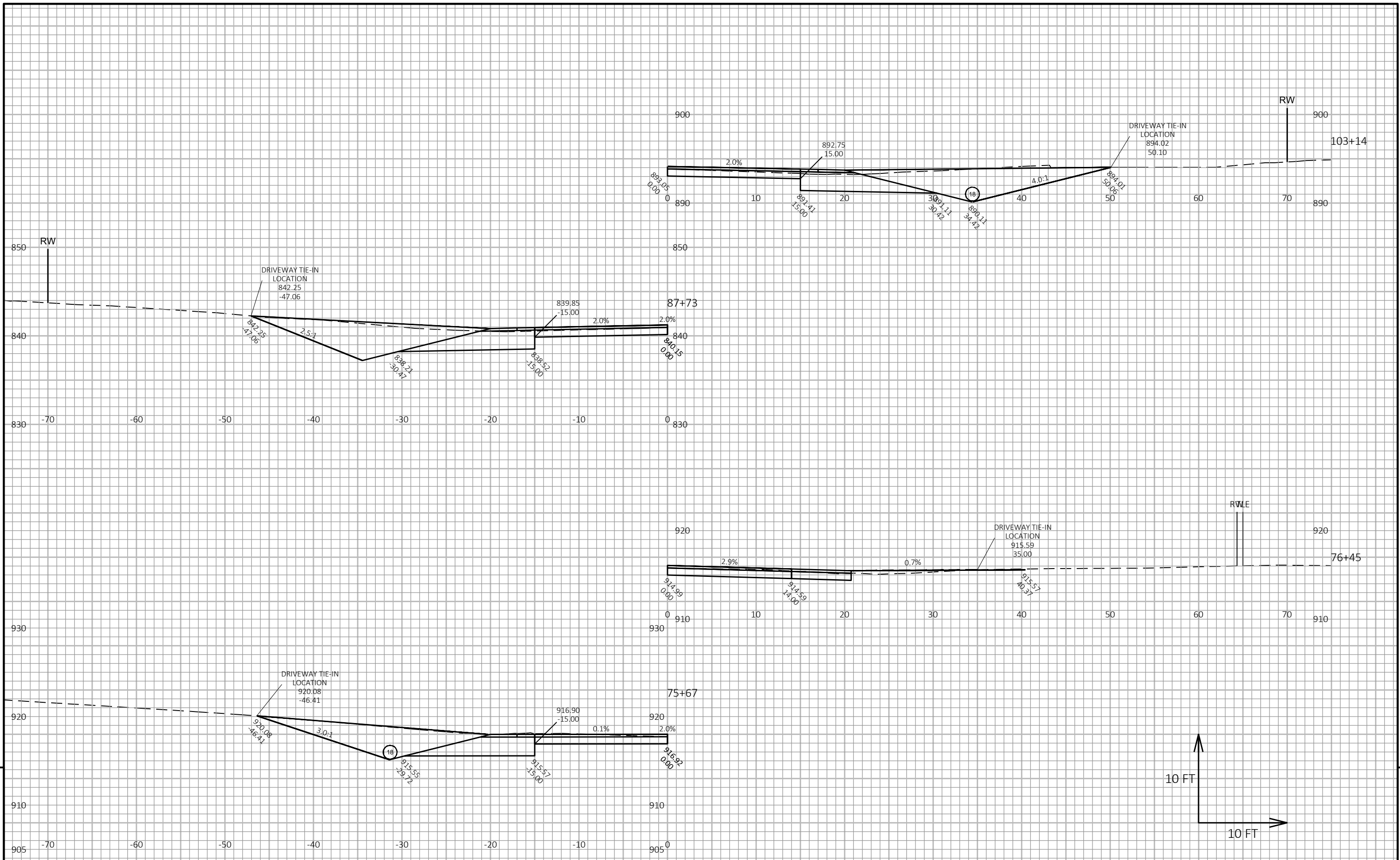


PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH E DRIVEWAY PROFILES	SHEET E
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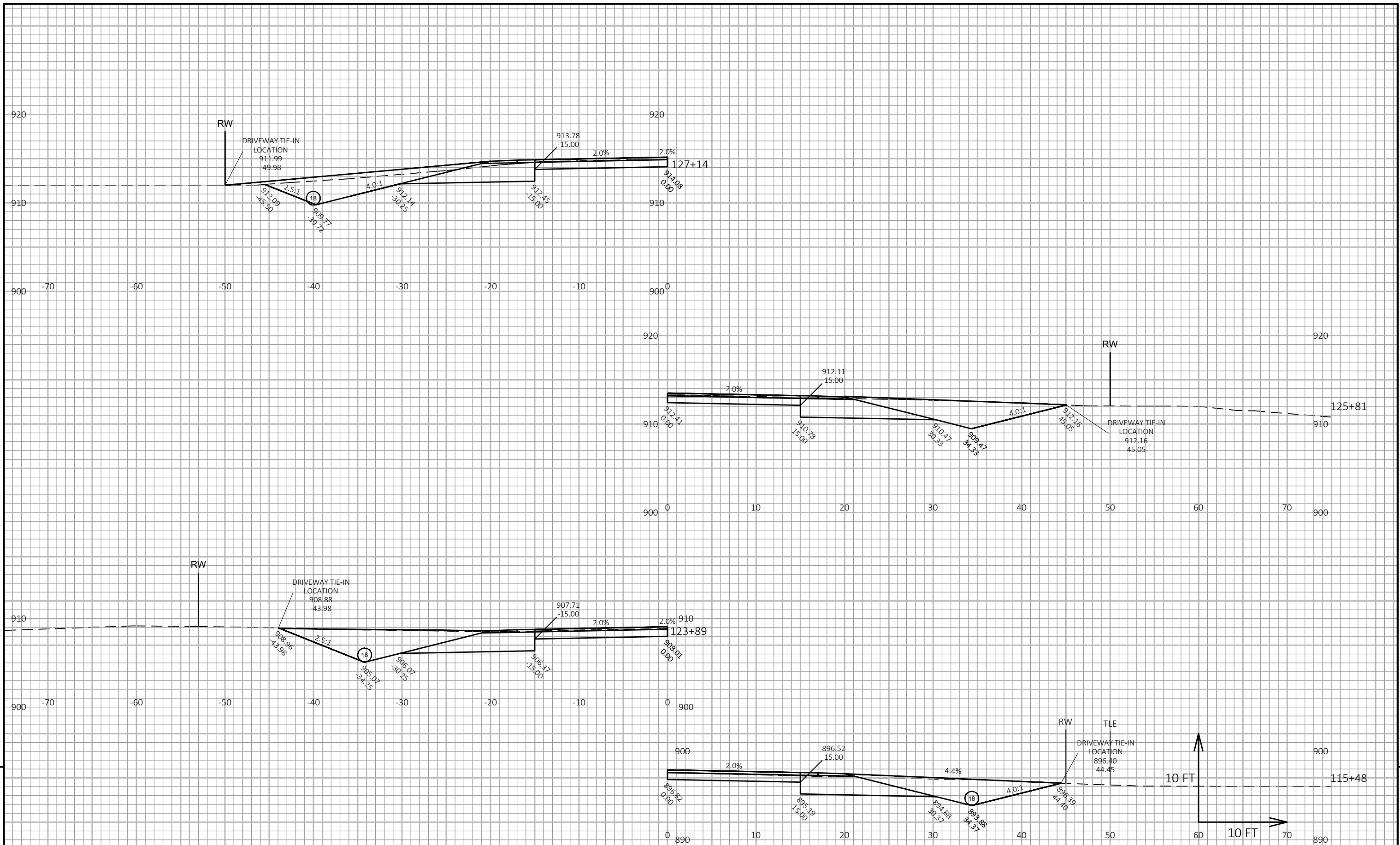




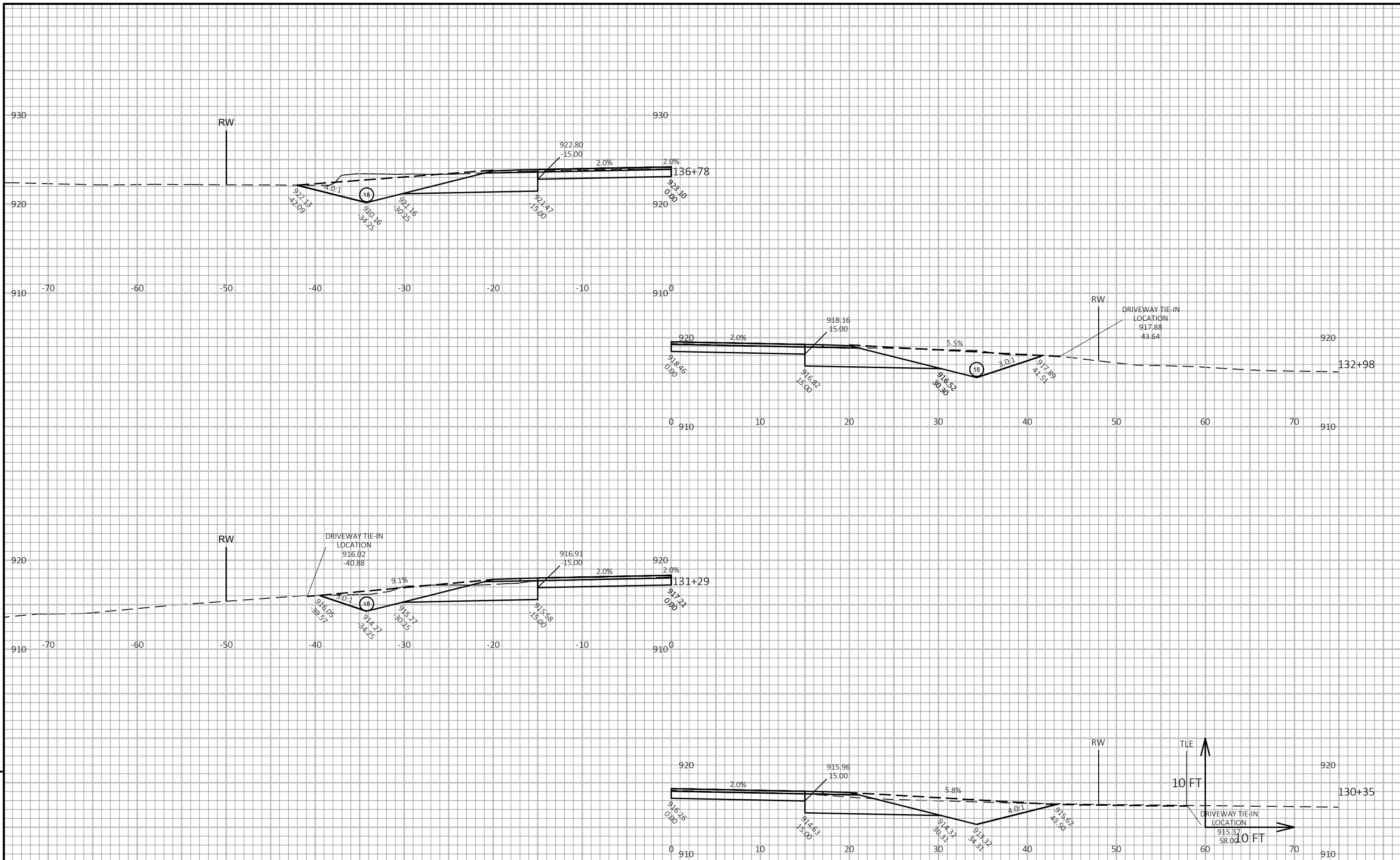
PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E DRIVEWAY PROFILES SHEET 9



PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E DRIVEWAY PROFILES SHEET E



PROJECT NO: 8939-08-76 HWY: CTH E COUNTY: ST. CROIX CROSS SECTIONS: CTH E DRIVEWAY PROFILES SHEET 9



PROJECT NO: 8939-08-76

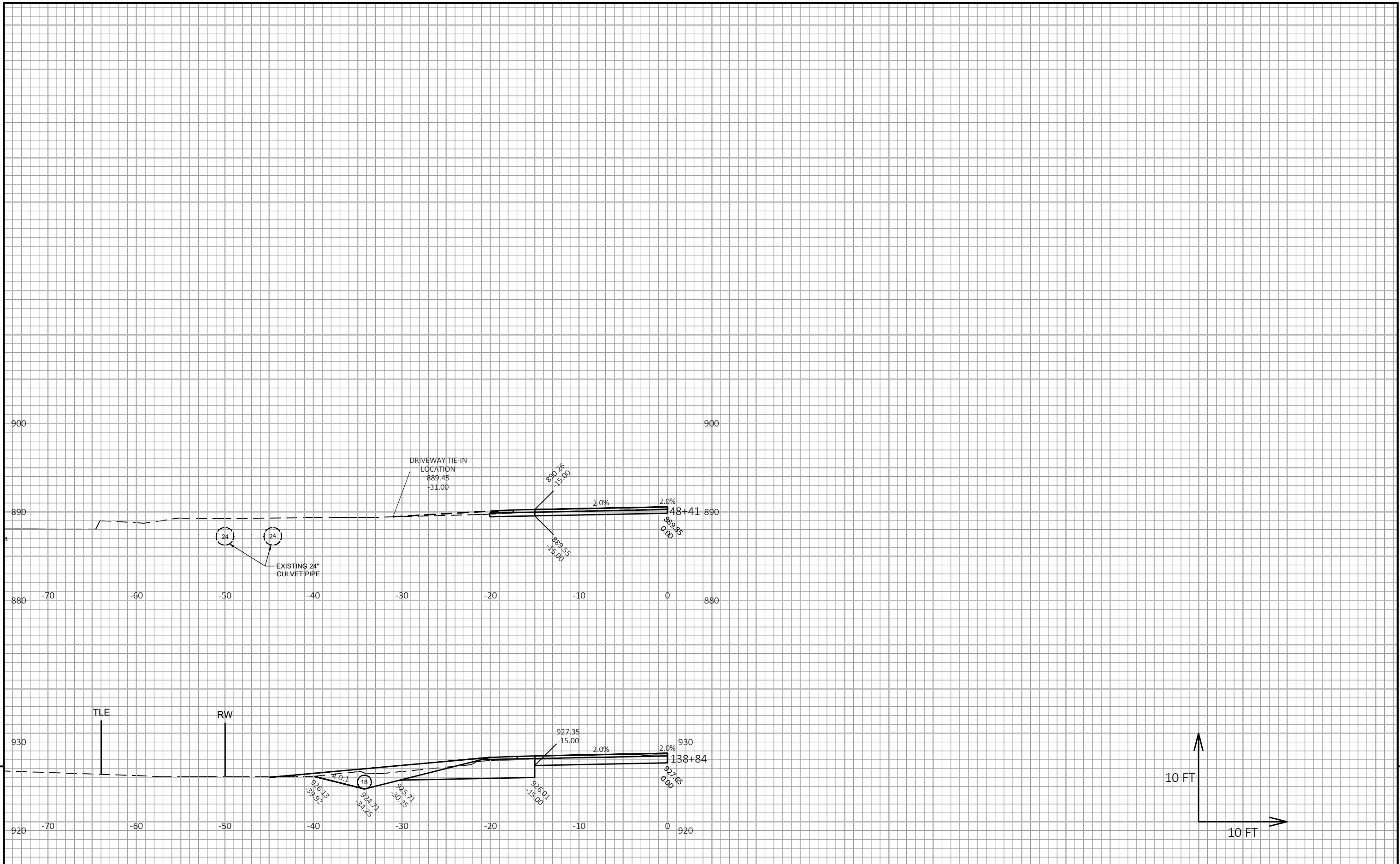
HWY: CTH E

COUNTY: ST. CROIX

CROSS SECTIONS: CTH E DRIVEWAY PROFILES

SHEET

E



PROJECT NO: 8939-08-76	HWY: CTH E	COUNTY: ST. CROIX	CROSS SECTIONS: CTH V DRIVEWAY PROFILES	SHEET
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Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

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