#### FEDERAL PROJECT FEBRUARY 2021 STATE PROJECT CONTRACT STATE OF WISCONSIN PROJECT ORDER OF SHEETS WISC 2021044 7650-00-74 DEPARTMENT OF TRANSPORTATION 7650-01-75 WISC 2021046 1 WISC 2021047 7650-02-73 PLAN OF PROPOSED IMPROVEMENT Section No. Right of Way Plat C RIVER FALLS, Section No. Section No. PRESCOTT - RIVER FALLS PRESCOTT - RIVER FALLS **SOUTH MAIN STREET** Section No. Structure Plans Section No. Computer Earthwork Data Section No. CTH QQ SOUTH JCT TO CEMETERY ROAD **CTH FF & 770TH AVENUE INTERSECTION CULVERT B-47-0230** Section No. Cross Sections **STH 29 STH 29 STH 29** TOTAL SHEETS = PIERCE COUNTY PIERCE COUNTY PIERCE COUNTY STATE PROJECT NUMBER STATE PROJECT NUMBER STATE PROJECT NUMBER 7650-02-73 7650-01-75 7650-00-74 END PROJECT 7650-01-75 STA 586+92.77 R-18-W R-20-W R-19-W END PROJECT 7650-00-74 65 END EXCEPTION TO NET CENTERLINE LENGTH 7650-01-75 **BEGIN EXCEPTION TO NET** STA 559+76.85 CENTERLINE LENGTH 7650-01-75 **BEGIN PROJECT 7650-02-73** ORIGINAL PLANS PREPARED BY PROJECT LOCATION Kinnickinnic STA 532+72.66 Y=352,375.667 X=444,602.079 7650-00-74/7650-01-75/7650-02-73 DESIGN DESIGNATION A.A.D.T 2021 = 4200-6400 BEGIN PROJECT 7650-01-75 A.A.D.T. = 4800-7900 STA 301+00.00 D.H.V. = 10.1 Y=337,570.346 = 60/40 D.D. X=427,792.468 = 8.4% BARZ DESIGN SPEED = 40MPH-60MPH E-37634 = 770,000-970,000 ш **FSALS AMHERST** END PROJECT 7650-02-73 CONVENTIONAL SYMBOLS **BEGIN PROJECT 7650-00-74** STA 557+08.41 **PROFILE** PLAN Y=354,201.878 GRADE LINE CORPORATE LIMITS *!//////* X=446,201.445 ORIGINAL GROUND Ryan Bary PROPERTY LINE 7/20/20 MARSH OR ROCK PROFILE (To be noted as such) TRIMBE (Dote) LIMITED HIGHWAY EASEMENT SPECIAL DITCH STATE OF WISCONSIN **EXISTING RIGHT OF WAY** GRADE ELEVATION **DEPARTMENT OF TRANSPORTATION** PROPOSED OR NEW R/W LINE Trimbelle CULVERT (Profile View) REPARED BY UTILITIES Surveyor REFERENCE LINE ELECTRIC AFCOM Designer EXISTING CUI VERT FIBER OPTIC MOHAMAD HAYEK PE Project Manag PROPOSED CULVERT JENNIEER OLDENBURG Regional Exam (Box or Pipe) SANITARY SEWER DAVID KOEPP PE Regional Supe COMBUSTIBLE FLUIDS LAYOUT STORM SEWER TELEPHONE HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY WATER COORDINATES, PIERCE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET, VALUES MARSH AREA 7650-00-74 TOTAL NET LENGTH OF CENTERLINE = 0.051 MI ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES UTILITY PEDESTAL Ħ 7650-01-75 TOTAL NET LENGTH OF CENTERLINE = 4.903 MI MAY BE USED AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO THE POWER POLE NATIONAL GEODETIC VERTICAL DATUM OF 1988 (NAVD 88). 7650-02-73 TOTAL NET LENGTH OF CENTERLINE = 0.461 MI TELEPHONE POLE WOODED OR SHRUB AREA DAY, JOHN PLOT NAME : FILE NAME: C:\USERS\JOHN.DAY\AECOM DIRECTORY\DOLAN, ISAAC - 60583549\900 CAD GIS\910 CAD\76500105\SHEETSPLAN\0101-TI.DWG 7/20/2020 2:44 PM

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### **GENERAL NOTES**

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

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

7-INCH HMA PAVEMENT SHALL BE CONSTRUCTED IN THREE (3) LAYERS. THE UPPER LAYER SHALL BE 2.0 INCHES HMA PAVEMENT 4 MT 58-34 V. THE MIDDLE LAYER SHALL BE 2.5 INCHES HMA PAVEMENT 3 MT 58-28 S. THE LOWER LAYER SHALL BE 2.5 INCHES HMA PAVEMENT 3 MT 58-28 S.

COMMON EXCAVATION THROUGH THE PAVEMENT SECTION WAS CALCULATED FOR THE FULL ROADWAY WIDTH INCLUDING THE 7-INCHES OF CONCRETE PAVEMENT AND ASSUMING A MAXIMUM OF 4-INCHES OF BASE AGGREGATE COULD POTENTIALLY BE REMOVED BELOW THE EXISTING CONCRETE PAVEMENT DURING PAVEMENT REMOVAL OPERATIONS.

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### UTILITY CONTACTS

AT&T COMMUNICATION LINE RICK PODOLAK 304 S DEWEY STREET EAU CLAIRE, WI 54701 (715) 839-5565 (OFFICE) (715) 410-0656 (MOBILE) RP4514@ATT.COM

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COMMUNICATION LINE

MATT KNEGENDORE

930 MAPLE STREET

CENTURYLINK

KYLE SCHLAMPP

BALDWIN, WI 54002

(715) 688-1034 (OFFICE)

(715) 760-0968 (MOBILE)

COMMUNICATION LINE

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(715) 475-2029 (OFFICE)

(715) 292-0082 (MOBILÉ)

KYLE.SCHLAMPP@CENTURYLINK.COM

RICE LAKE, WI 54868

MKNEGENDORF@LSWI.NET

XCEL ENERGY COMCAST **COMMUNICATION LINE** FLECTRIC TRANSMISSION MITCHELL DIENGER BEN UELAND 4755 LEXINGTON AVENUE 414 NICOLLET MALL 5TH FLOOR SUITE 100 ARDEN HILLS, MN 55026 MINNEAPOLIS, MN 55401 (612) 321-3109 (OFFICE) (612) 462-7911 (OFFICE) BENJAMIN UELAND@COMCAST.COM (608) 386-2233 (MOBILE) MITCHELL.A.DIENGER@XCELENERGY.COM

> ST CROIX GAS GAS GREG LEE 415 S. SECOND STREET RIVER FALLS, WI 54022 (715) 425-6177 (OFFICE) (715) 760-5038 (MOBILE) GREG@STCROIXGAS.COM 24 HR EMERGENCY CONTACTS: GREG LEE - (715) 760-5038

MARK HAUENSTEIN - (715) 760-5182

Dial [31] or (800)242-8511 www.DiggersHotline.com

### **DESIGN CONTACT**

AECOM RYAN BAR7 200 INDIANA AVENUE STEVENS POINT, WI 54481 715-342-3012 RYAN.BARZ@AECOM.COM

MOHAMAD HAYEK 718 W CLAIREMONT AVENUE EAU CLAIRE, WI 54701 715-836-2065 MOHAMAD.HAYEK@DOT.WI.GOV

### WDNR CONTACT

AMY LESIK 1300 CLAIREMONT AVENUE EAU CLAIRE, WI 54701 715-836-6571 AMYL.LESIK@WISCONSIN.GOV

APPROXIMATE

# RUNOFF COEFFICIENT TABLE

		HYDROLOGIC SOIL GROUP										
			A	В			С			D		
	SLOPE	E RANGE	(PERCENT)	SLOPE RANGE (PERCENT)		SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP- TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22	.26 .33	.20 .26	.23	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE- TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT						.7095						
CONCRETE	CONCRETE .8095											
BRICK	BRICK .7080											
DRIVES, WALKS	DRIVES, WALKS .7585											
ROOFS	ROOFS .7595											
GRAVEL ROADS, SHO	GRAVEL ROADS, SHOULDERS .4060											

TOTAL PROJECT AREA = 94.125 ACRES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 40.349 ACRES

ACCESS POINT/ DRIVEWAY CONNECTION ACCESS RIGHTS SECTION LINE QUARTER LINE ACRES AND OTHERS ET.AL SIXTEENTH LINE CENTERLINE C/I PROPOSED REFERENCE LINE CERTIFIED SURVEY MAP PROPOSED R/W LINE DOC. DOCUMENT EXISTING H.E. LINE HIGHWAY FASEMENT H.E. PROPERTY LINE LAND CONTRACT FASEMENT LINE MONUMENT MON /////// CORPORATE LIMITS EXISTING CENTERLINE PERMANENT LIMITED FASEMENT. PLF LOT & TIE LINES \_\_\_\_ PROPERTY LINE RECORDED AS REFERENCE LINE NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL) REM. REMAINING 1111111 RIGHT-OF-WAY R/W NO ACCESS (BY ACQUISTION) NO ACCESS
(BY STATUTORY AUTHORITY) SOLIARE FEET SO.FT. STATION FEE (HATCH VARIES) L/LTEMPORARY LIMITED EASEMENT TEMPORARY LIMITED EASEMENT 12672324 VOLUME CURVE DATA PERMANENT LIMITED EASEMENT KAZ LONG CHORD LCH PARCEL NUMBER (1) (92) LONG CHORD BEARING LCB UTILITY PARCEL NUMBER RADIUS SIGN NUMBER DEGREE OF CURVE (OFF PREMISE) CENTRAL ANGLE OR DELTA DELTA BUILDING LENGTH OF CURVE FOUND IRON PIPE/PIN TANGENT TAN • •(SET) R/W MONUMENT COMPENSABLE COMPENSABLE R/W STANDARD △ (SET) POWER POLE ISIGN TELEPHONE POLE SECTION CORNER SYMBOL

CITY OF RIVER FALLS

WAYNE SIVERLING

222 LEWIS STREET

BRAD RISTOW

RIVER FALLS, WI 54022

(715) 426-3480 (OFFICE)

(715) 495-6317 (MOBILE)

W7725 US HIGHWAY 10

ELLSWORTH, WI 54011

CONVENTIONAL SYMBOLS AND ABBREVIATIONS

(715) 273-2473 (OFFICE)

(715) 307-1904 (MOBILÉ)

BRISTOW@PIERCEPEPIN.COOP

WSIVERLING@RFCITY.ORG

PIERCE PEPIN COOPERATIVE SERVICES

FLECTRIC

ORDER OF SECTION 2 SHEETS

PROJECT OVERVIEW TYPICAL SECTIONS CONSTRUCTION DETAILS **EROSION CONTROL** STORM SEWER SIGNAL REMOVAL

SIGNALS PAVEMENT MARKING AND SIGNING TRAFFIC CONTROL DETOUR ALIGNMENT DIAGRAM

#### PAVEMENT BORING LOG

CITY OF RIVER FALLS

SEWER AND WATER

222 LEWIS STREET

RIVER FALLS, WI 54022

RGROTH@RFCITY.ORG

(715) 426-3428 (OFFICE)

RON GROTH

BORING NO B-01 B 02 B-03	STATION (APPROXIMATE) 299+00 311+20 323+40	FROM C/L (FT) 6.0 KI 7.0 RT 6.5 RT	SURFACE ELEVATION 946.9 958.6 970.3	PAVEMENT TYPE PCC BIT/PCC BIT/PCC	PAVEMENT DEPTH (IN) 6.00 6.50/6.50 5.50/6.50
B-04	336+50	7.5 RT	989.3	BIT/PCC	6.25/7.00
B-05	348+70	6.0 RT	1007.8	PCC	6.00
B-06	359+00	7.0 RT	1034.7	BIT/PCC	6.30/5.00
B-07	371+20	7.0 RT	1050.4	PCC	6.50
B-08	383+40	6.5 RT	1019.8	BIT/PCC	7.5/6.5
B-09	395+60	7.5 RT	998.2	PCC	5.50
B-10	401+50	7.0 RT	988.1	BIT/PCC	7.00/5.00
B-11	413+/0	6.0 RT	962.5	PCC	6.00
B 12	425+90	6.0 RT	957.6	PCC	6.75
B-13	438+10	6.5 RT	980.2	PCC	6.25
B-14	450+30	6.0 RT	966.5	PCC	6.50
B-15	462+50	5.0 RT	944.3	PCC	6.25
B-16	474+70	7.0 RT	925.8	PCC	6.75
B-17	486+90	9.0 RT	922.1	PCC	5.50
B-18	495+50	7.0 RT	923.5	PCC	6.00
B-19	508+70	6.0 RT	924.4	PCC	6.50
B-20	520+90	6.5 RT	927.9	PCC	6.25
B 21	533+10	7.0 RT	919.5	PCC	6.50
B-22	550±00	5.0 RT	908.7	PCC	6.00
B-23	566±00	8.0 RT	910.6	PCC	7.00
B-24	582+00	6.0 RT	909.8	BIT/PCC	1.00/5.00
B-25	558+55	35.0 RT	905.8	BIT	2.75

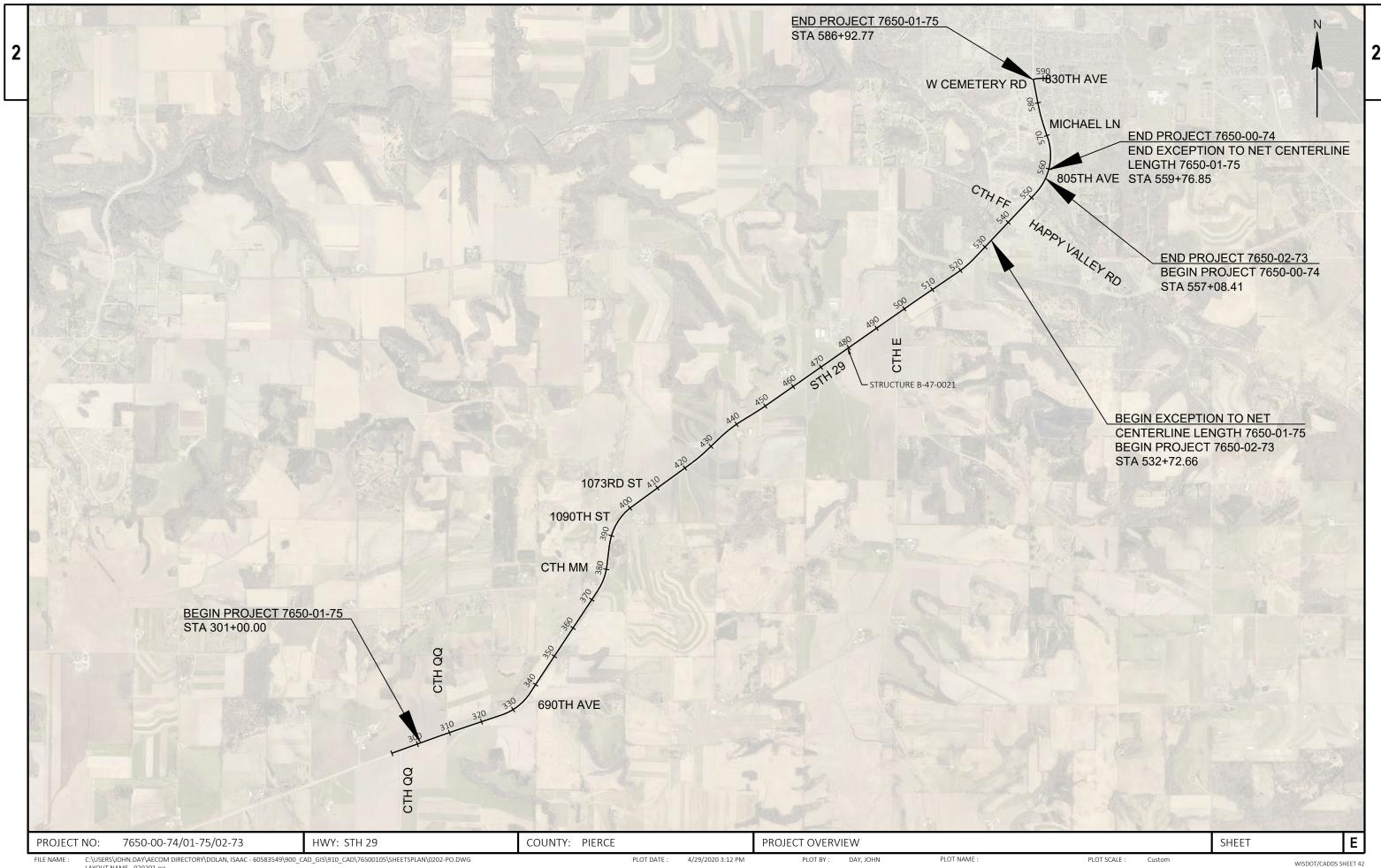
OFFSET

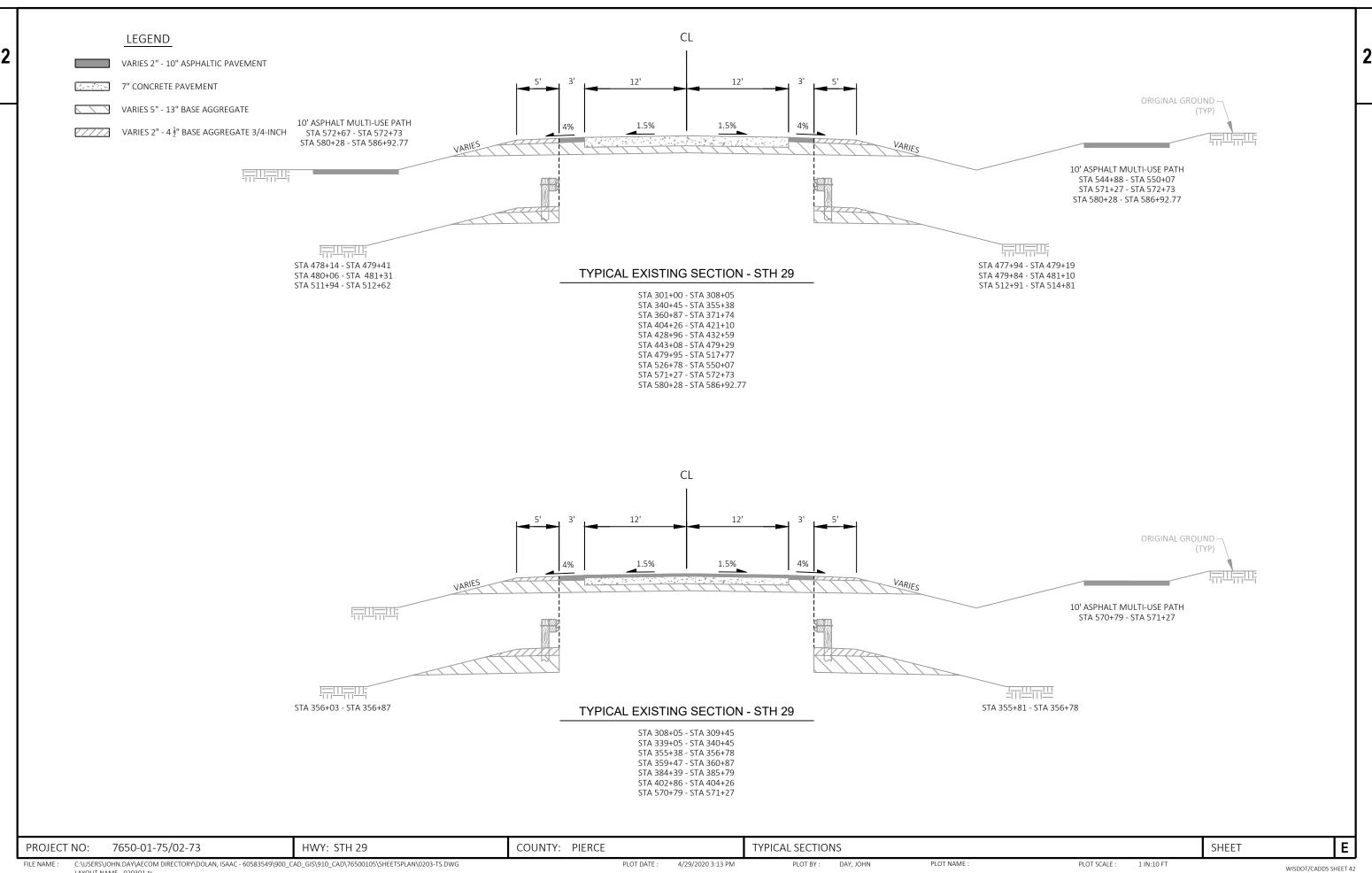
PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUNTY: PIERCE **GENERAL NOTES** 

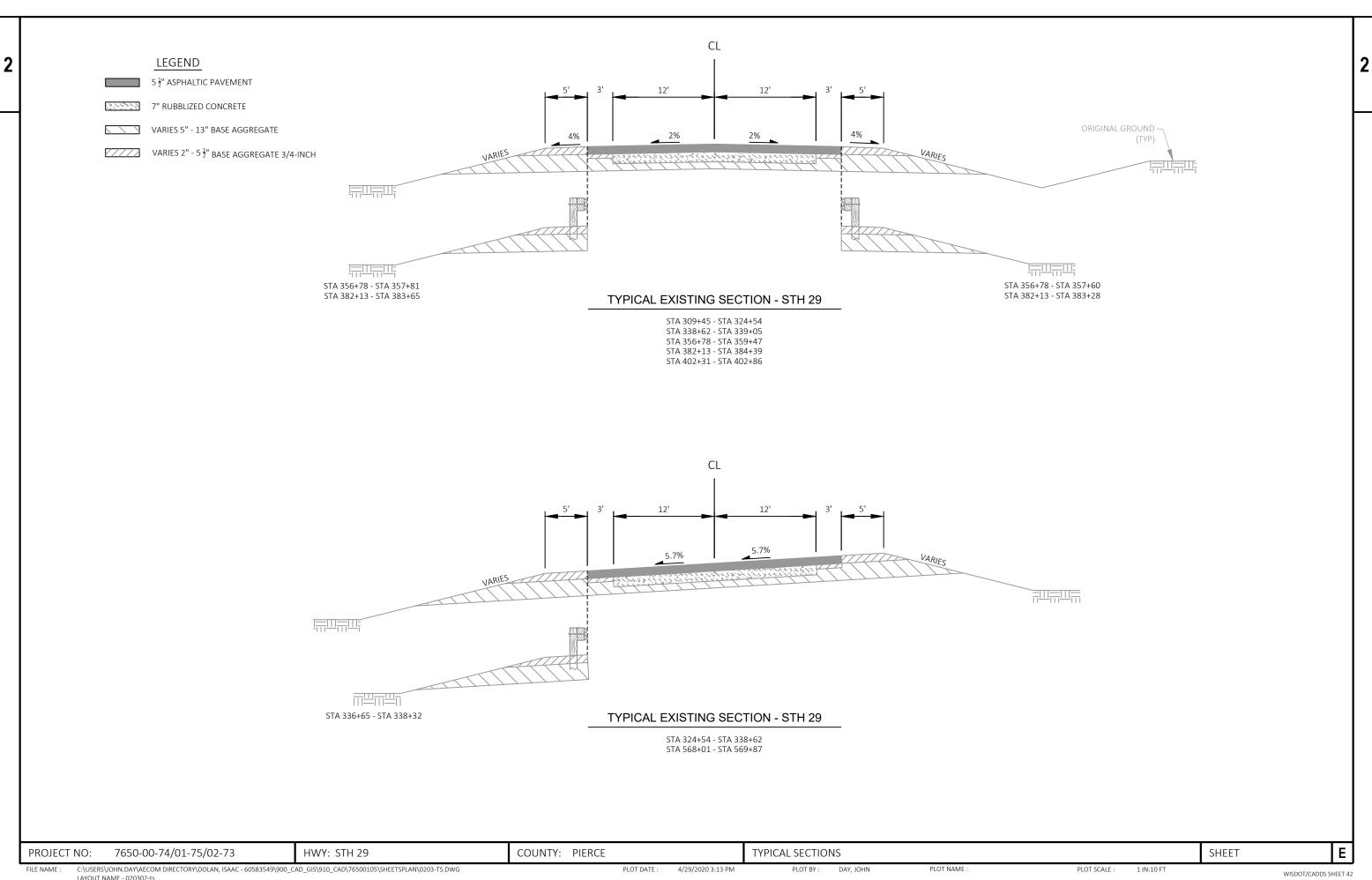
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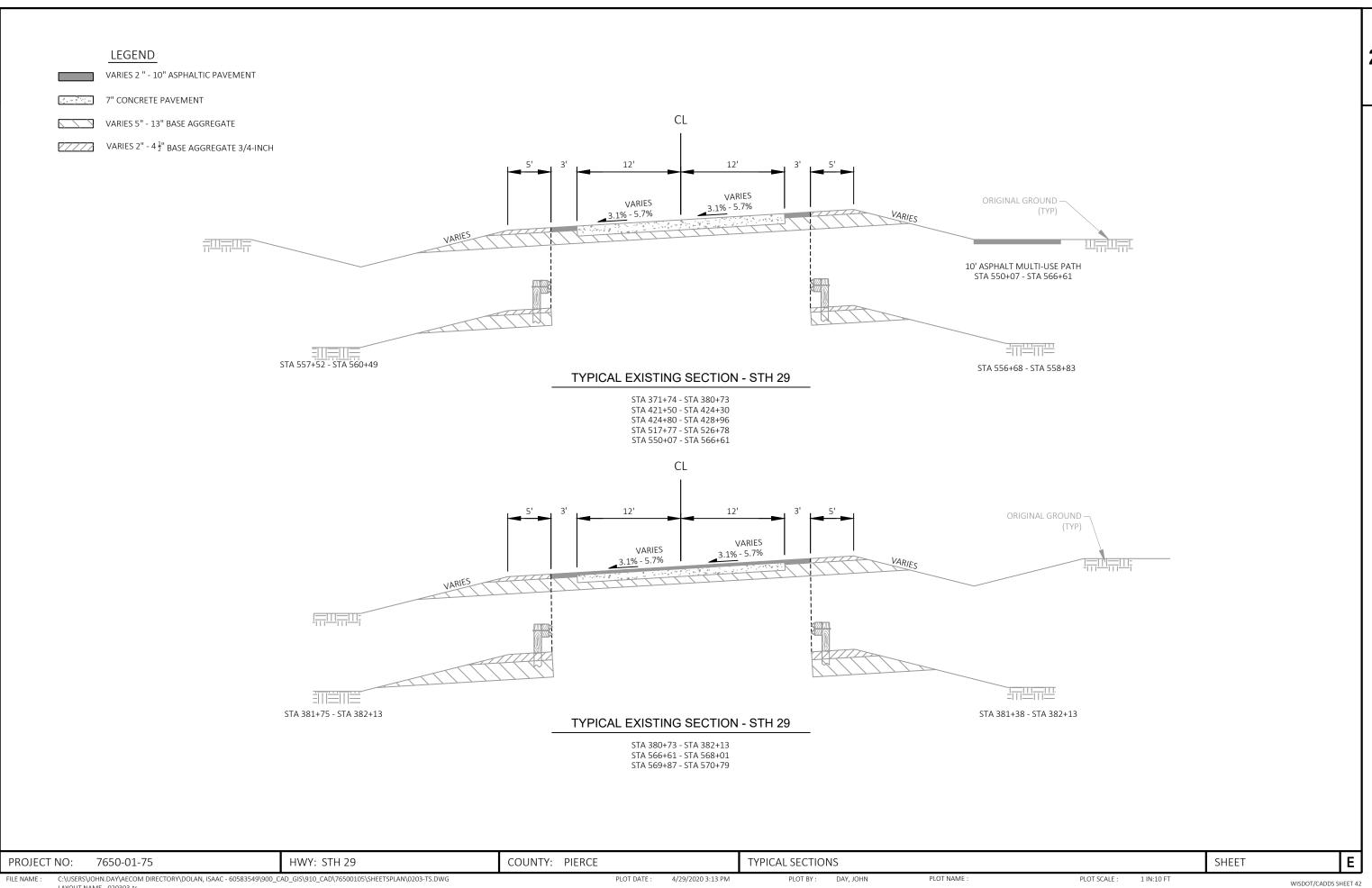
**SHEET** 

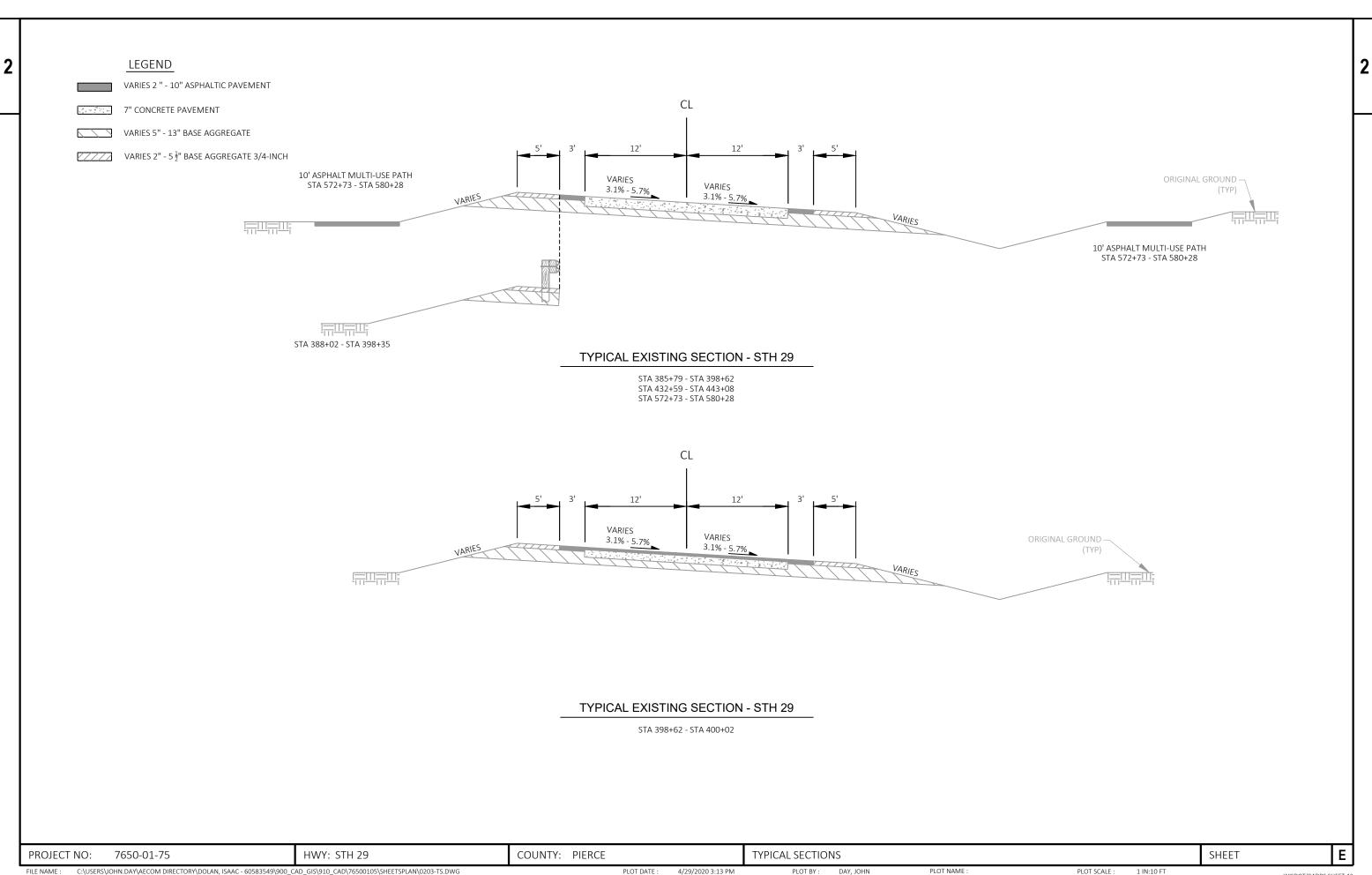
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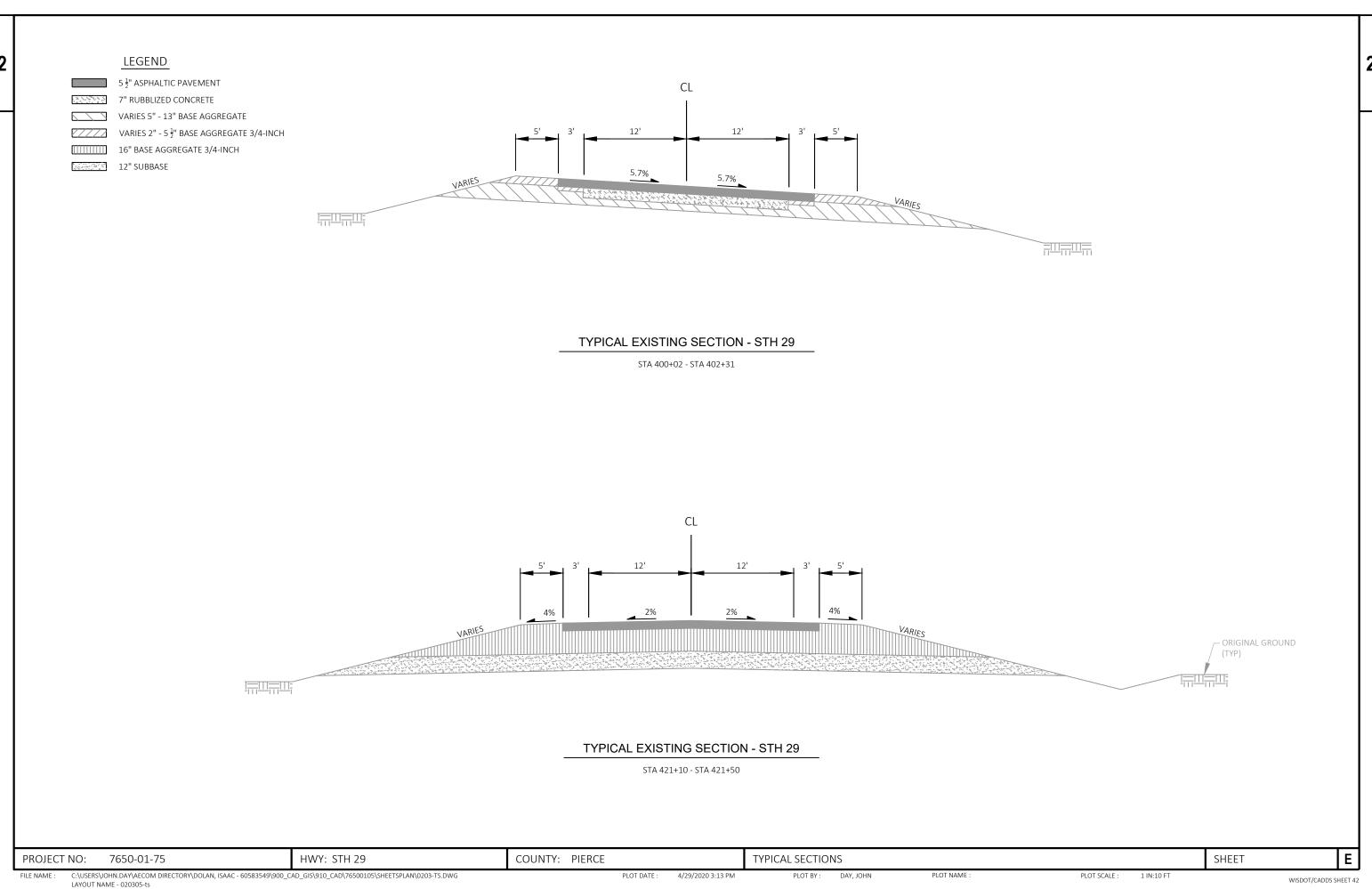


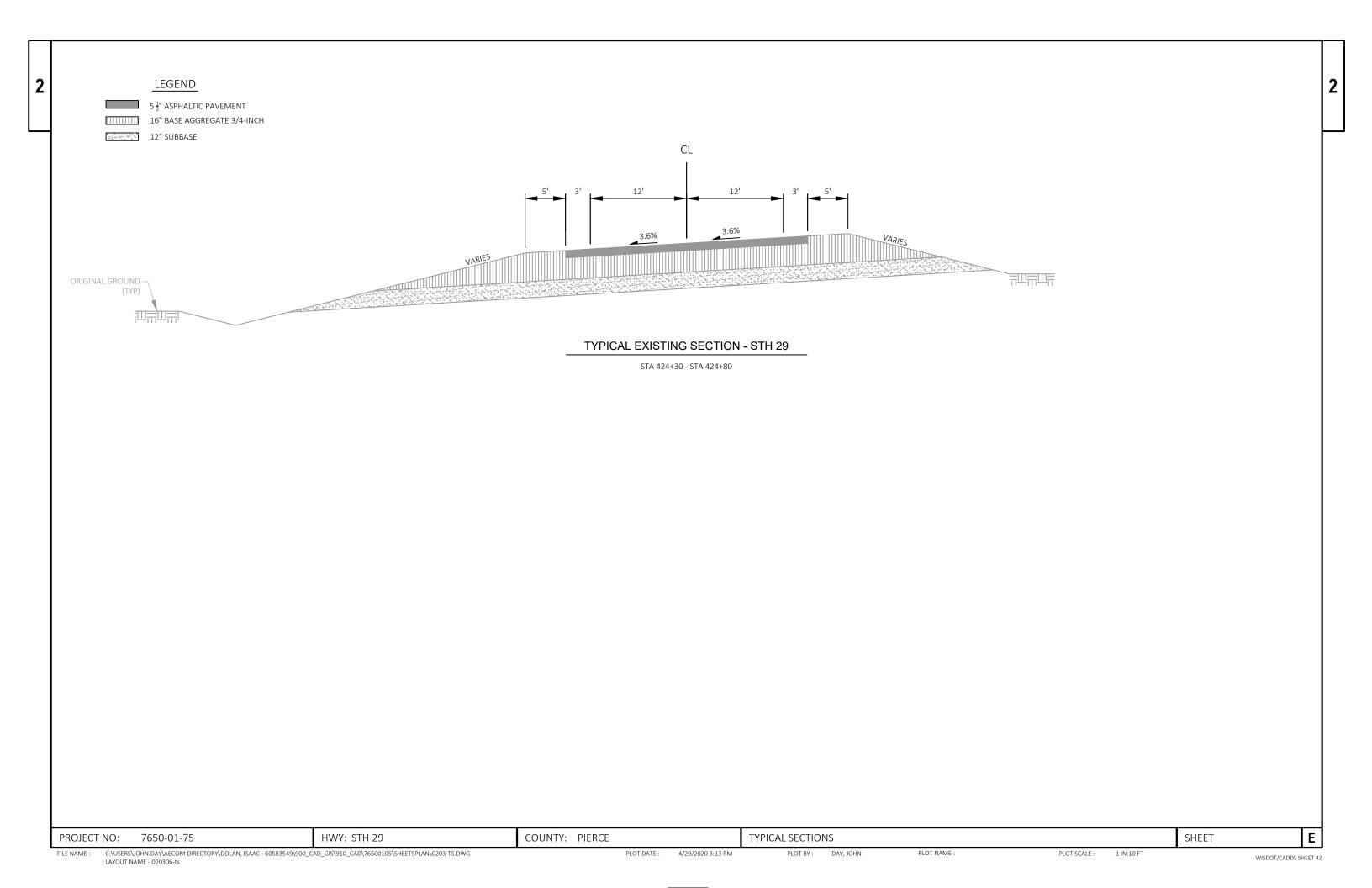


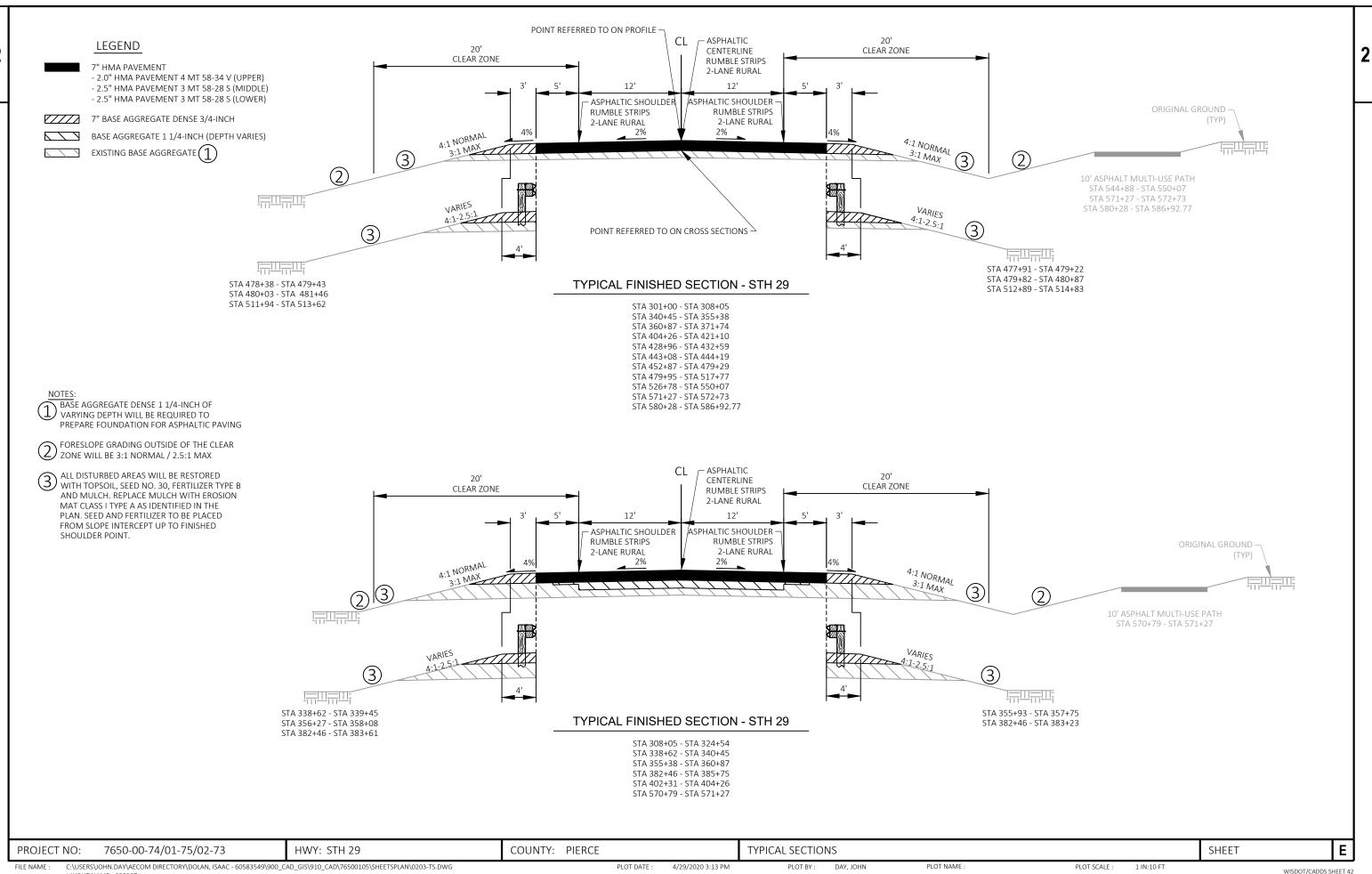












### LEGEND

7" HMA PAVEMENT

- 2.0" HMA PAVEMENT 4 MT 58-34 V (UPPER)

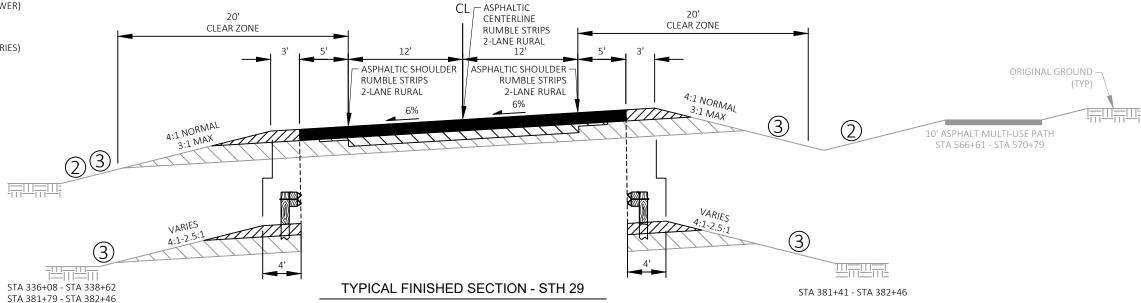
- 2.5" HMA PAVEMENT 3 MT 58-28 S (MIDDLE)

- 2.5" HMA PAVEMENT 3 MT 58-28 S (LOWER)

7" BASE AGGREGATE DENSE 3/4-INCH

BASE AGGREGATE 1 1/4-INCH (DEPTH VARIES)

EXISTING BASE AGGREGATE (1)



PROJECT NO:

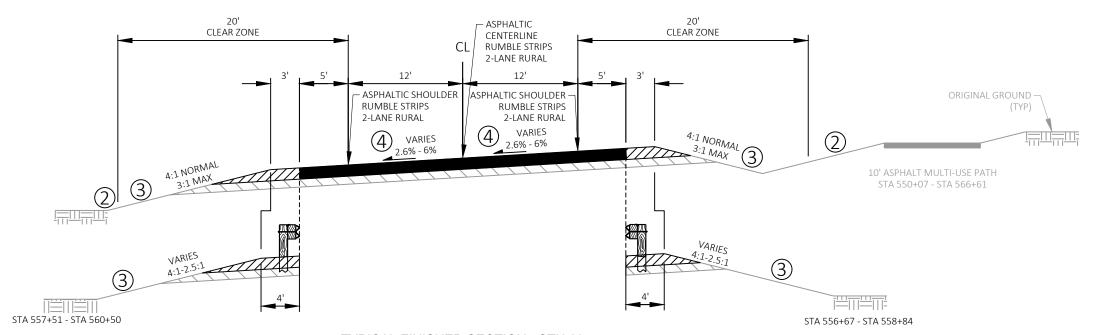
BASE AGGREGATE DENSE 1 1/4-INCH OF VARYING DEPTH WILL BE REQUIRED TO PREPARE FOUNDATION FOR ASPHALTIC PAVING

FORESLOPE GRADING OUTSIDE OF THE CLEAR ZONE WILL BE 3:1 NORMAL / 2.5:1 MAX

ALL DISTURBED AREAS WILL BE RESTORED WITH TOPSOIL, SEED NO. 30, FERTILIZER TYPE B AND MULCH. REPLACE MULCH WITH EROSION MAT CLASS 1 TYPE A AS IDENTIFIED IN THE PLAN. SEED AND FERTILIZER TO BE PLACED FROM SLOPE INTERCEPT UP TO FINISHED SHOULDER POINT.

REFER TO ALIGNMENT DETAIL SHEETS FOR SUPERELEVATION TRANSITION DATA.

7650-01-75



### TYPICAL FINISHED SECTION - STH 29

STA 324+54 - STA 338+62 STA 380+73 - STA 382+46 STA 566+61 - STA 570+79

STA 371+74 - STA 380+73 STA 421+50 - STA 424+30 STA 424+80 - STA 428+96 STA 444+19 - STA 452+87 STA 517+77 - STA 526+78 STA 550+07 - STA 566+61

4/29/2020 3:13 PM

PLOT DATE :

COUNTY: PIERCE

HWY: STH 29

**TYPICAL SECTIONS** 

PLOT BY:

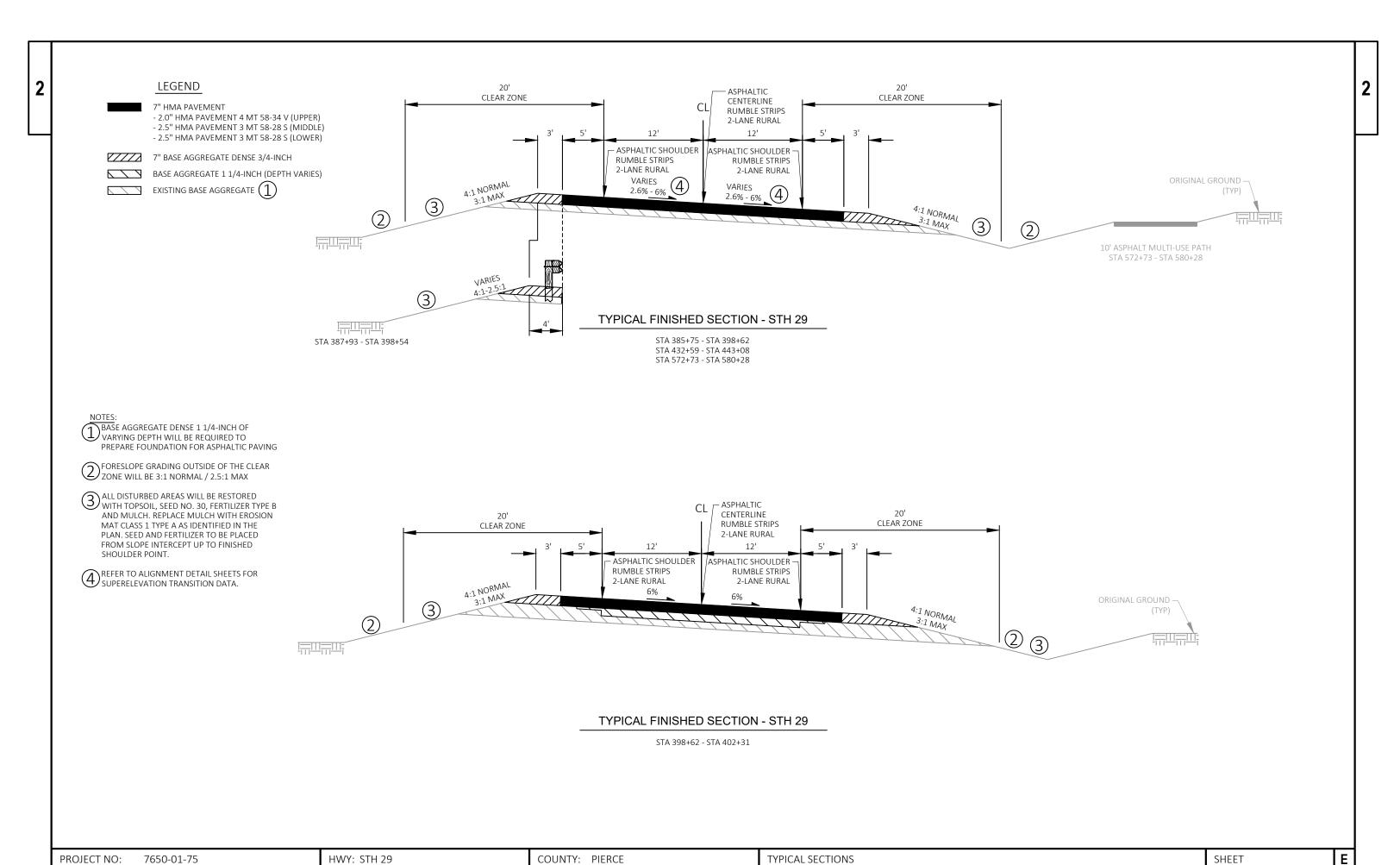
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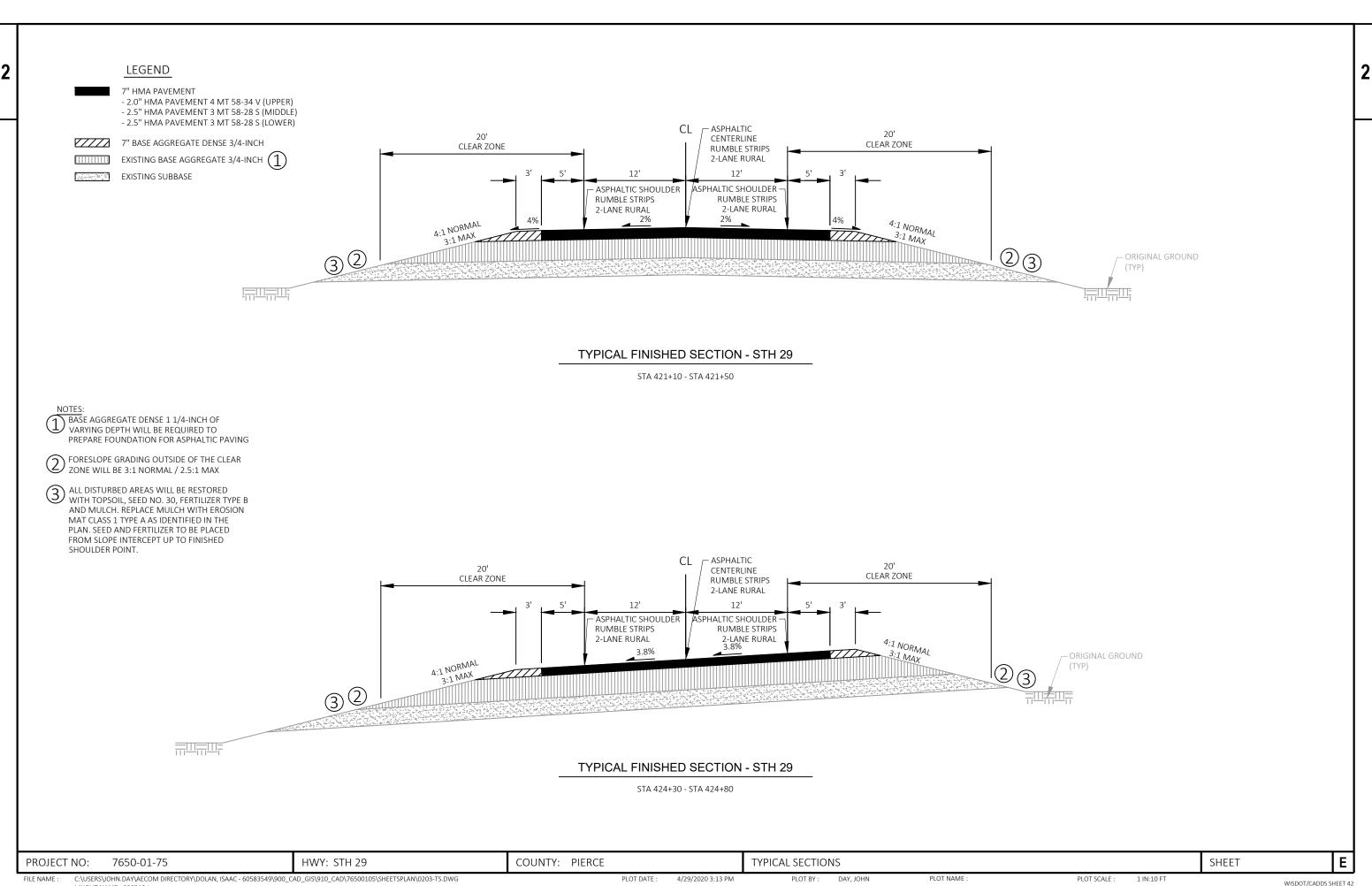
SHEET

1 IN:10 FT

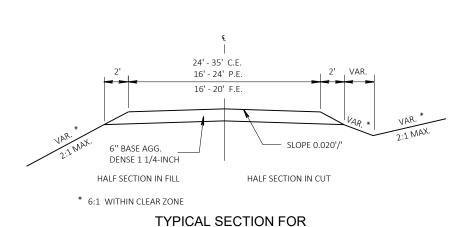
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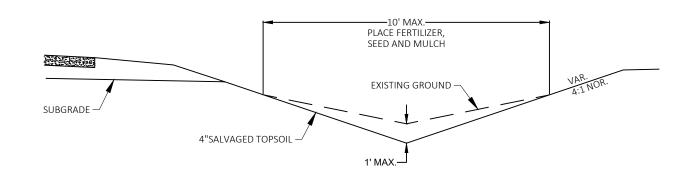




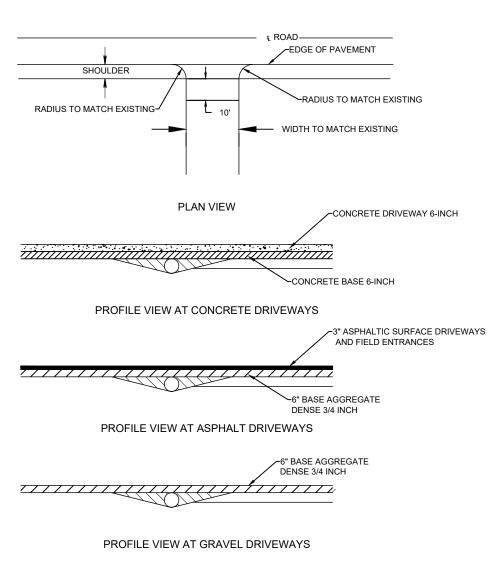
DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD



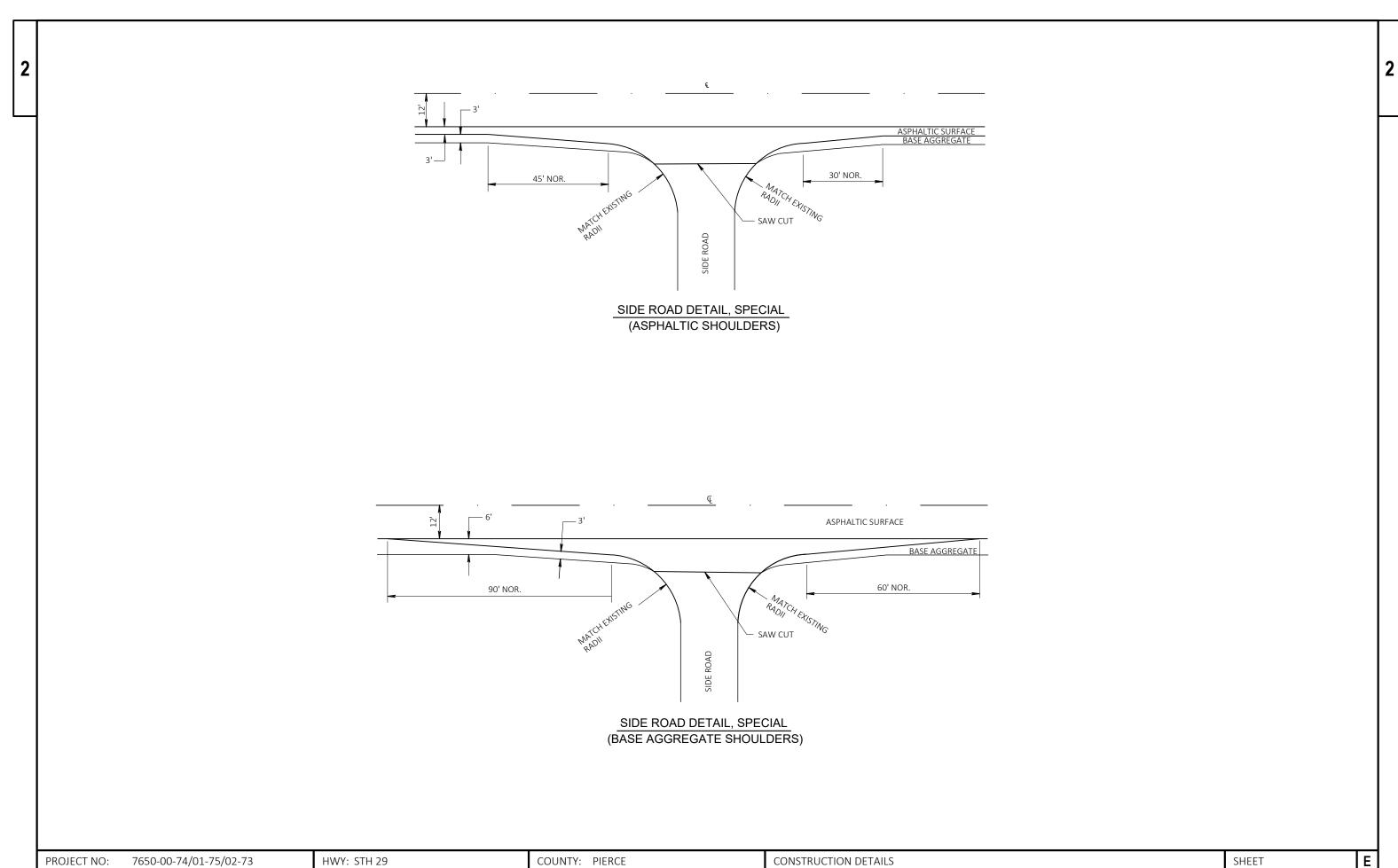
PRIVATE ENTRANCES



### DETAIL FOR DITCH CLEANING

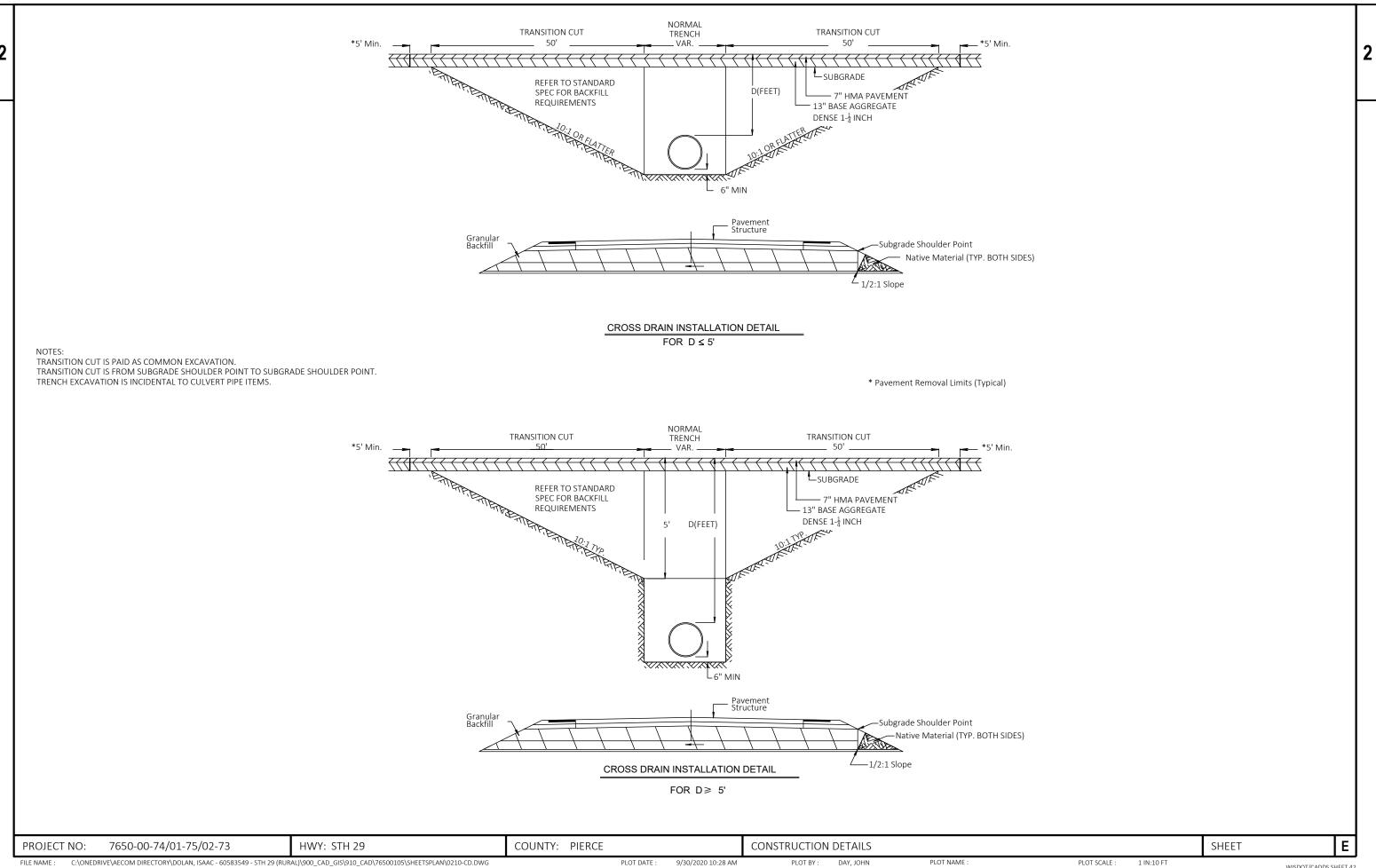


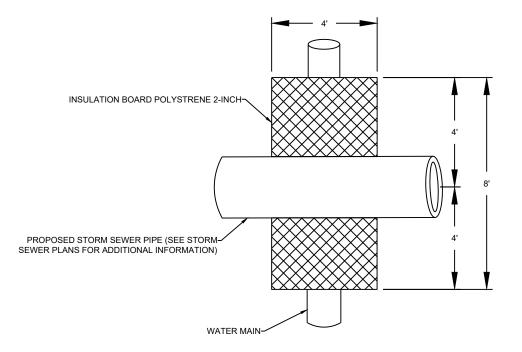
### RURAL DRIVEWAY DETAIL

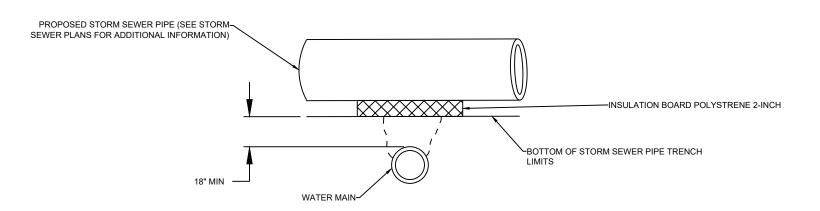


PLOT DATE : 9/30/2020 10:28 AM

PLOT SCALE :





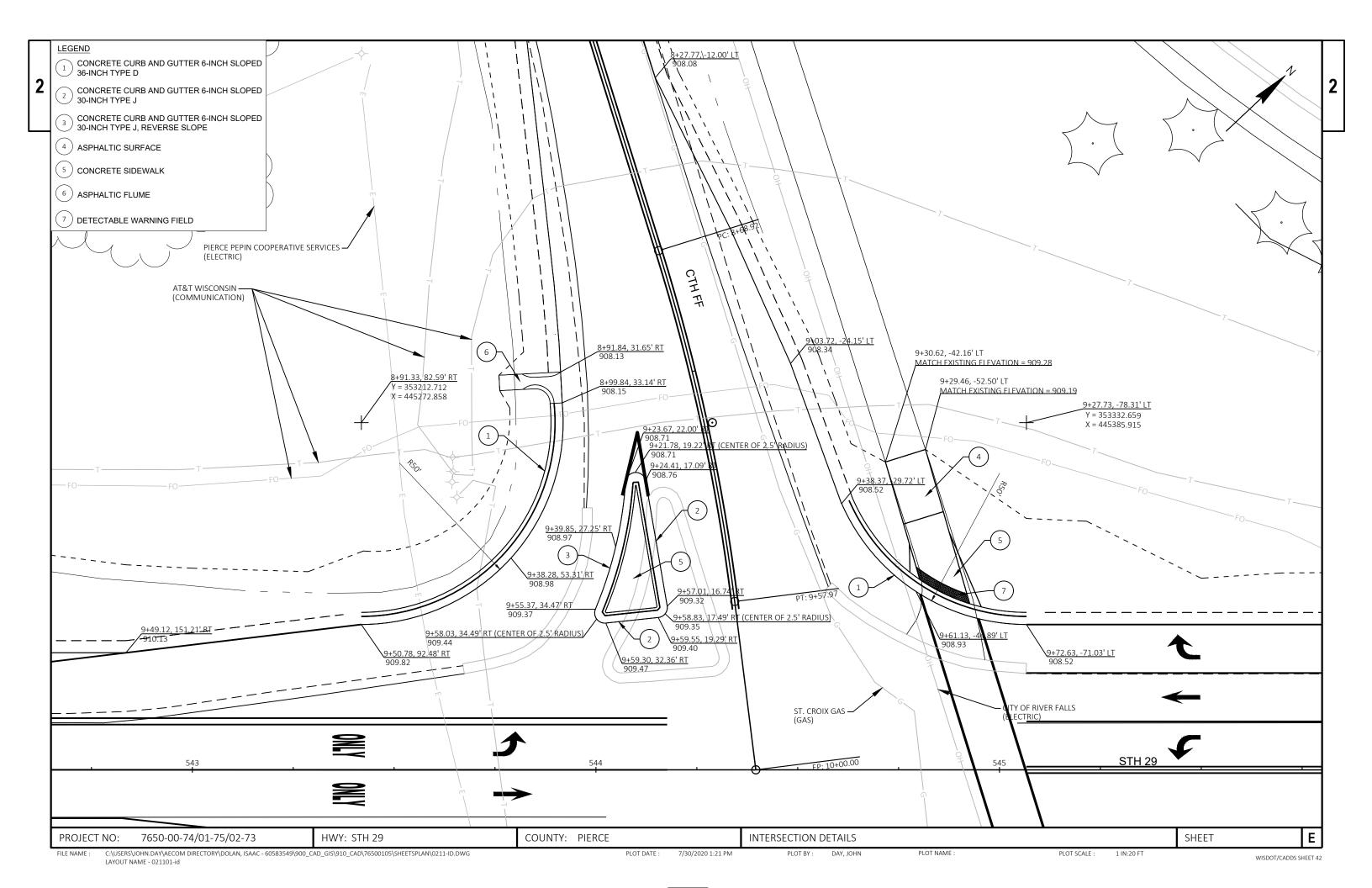


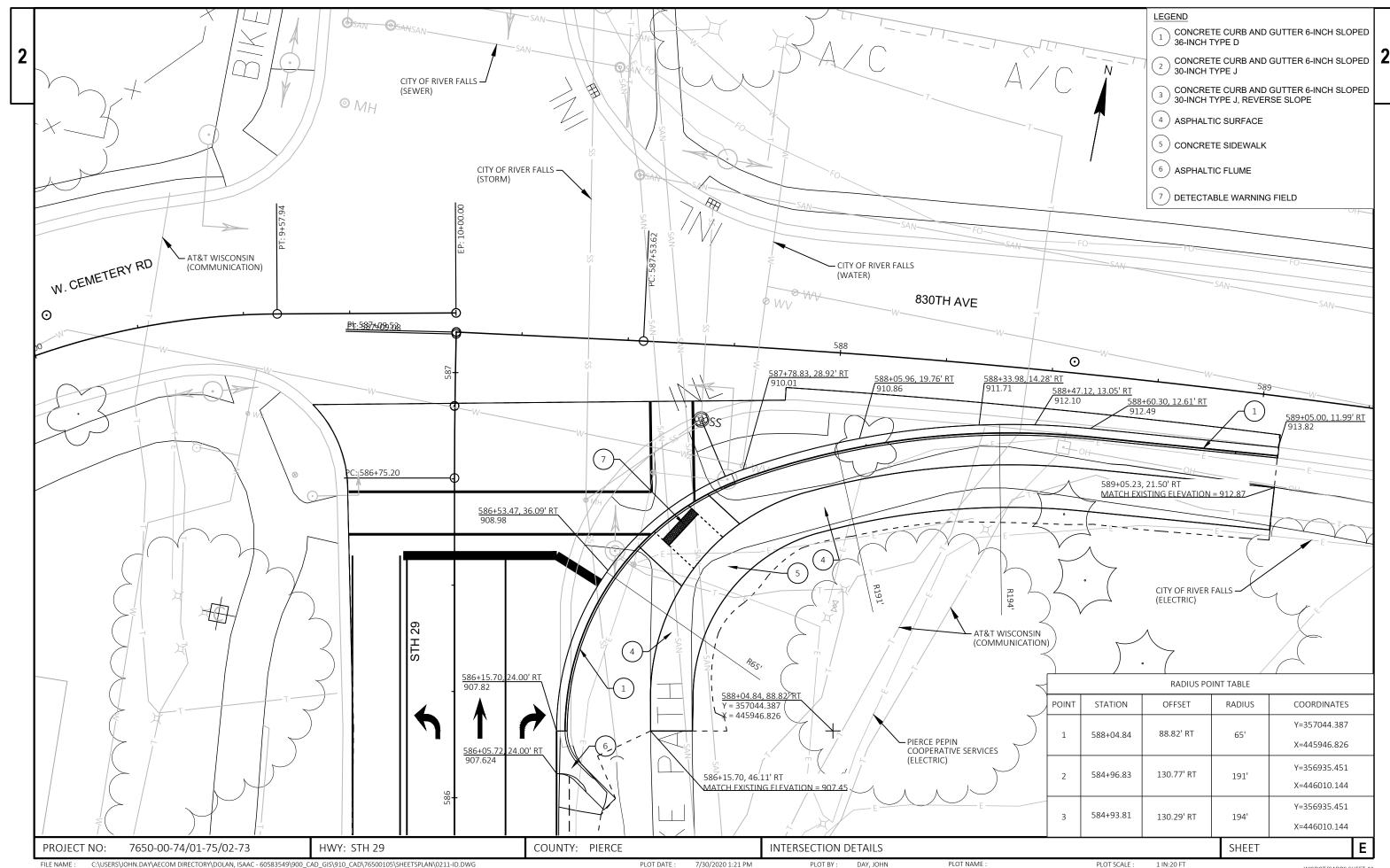
## INSULATION BOARD POLYSTRENE DETAIL

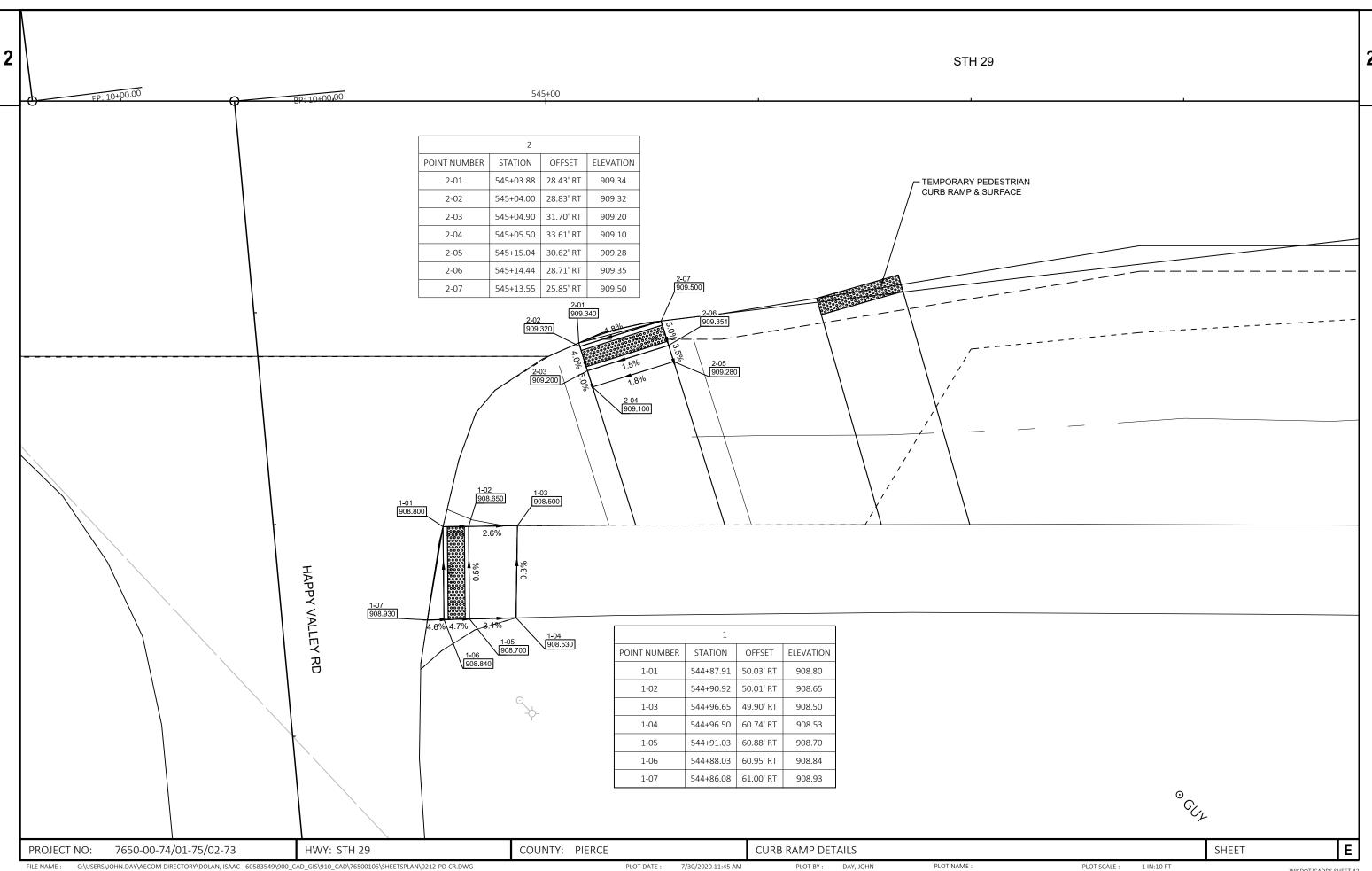
### (STORM SEWER CROSSING OF WATER MAIN)

NOTE: REFER TO STORM SEWER PLANS AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL INFORMATION

PROJECT NO: 7650-01-75 HWY: STH 29 COUNTY: PIERCE PLAN: CONSTRUCTION DETAILS SHEET 9/30/2020 10:28 AM

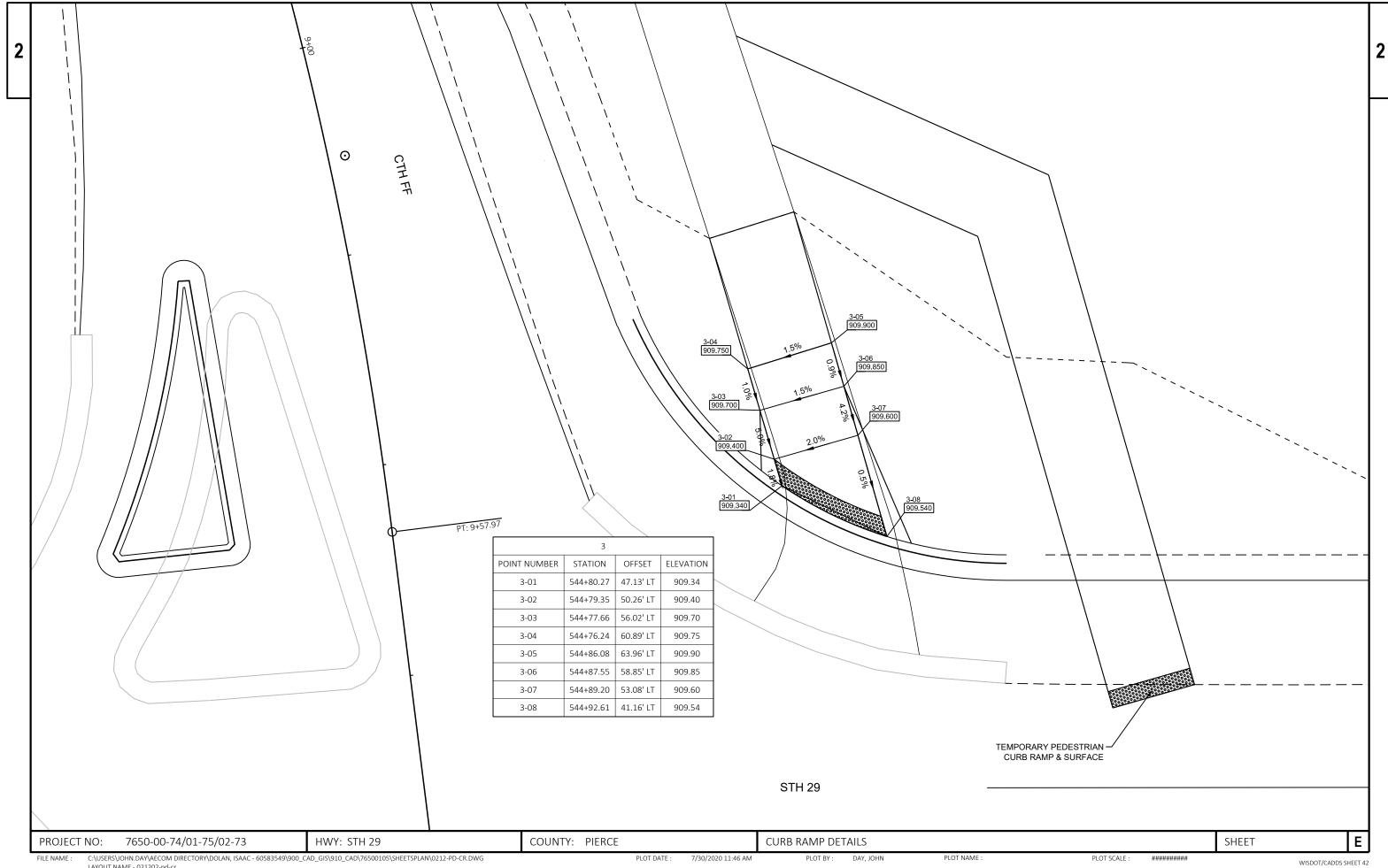


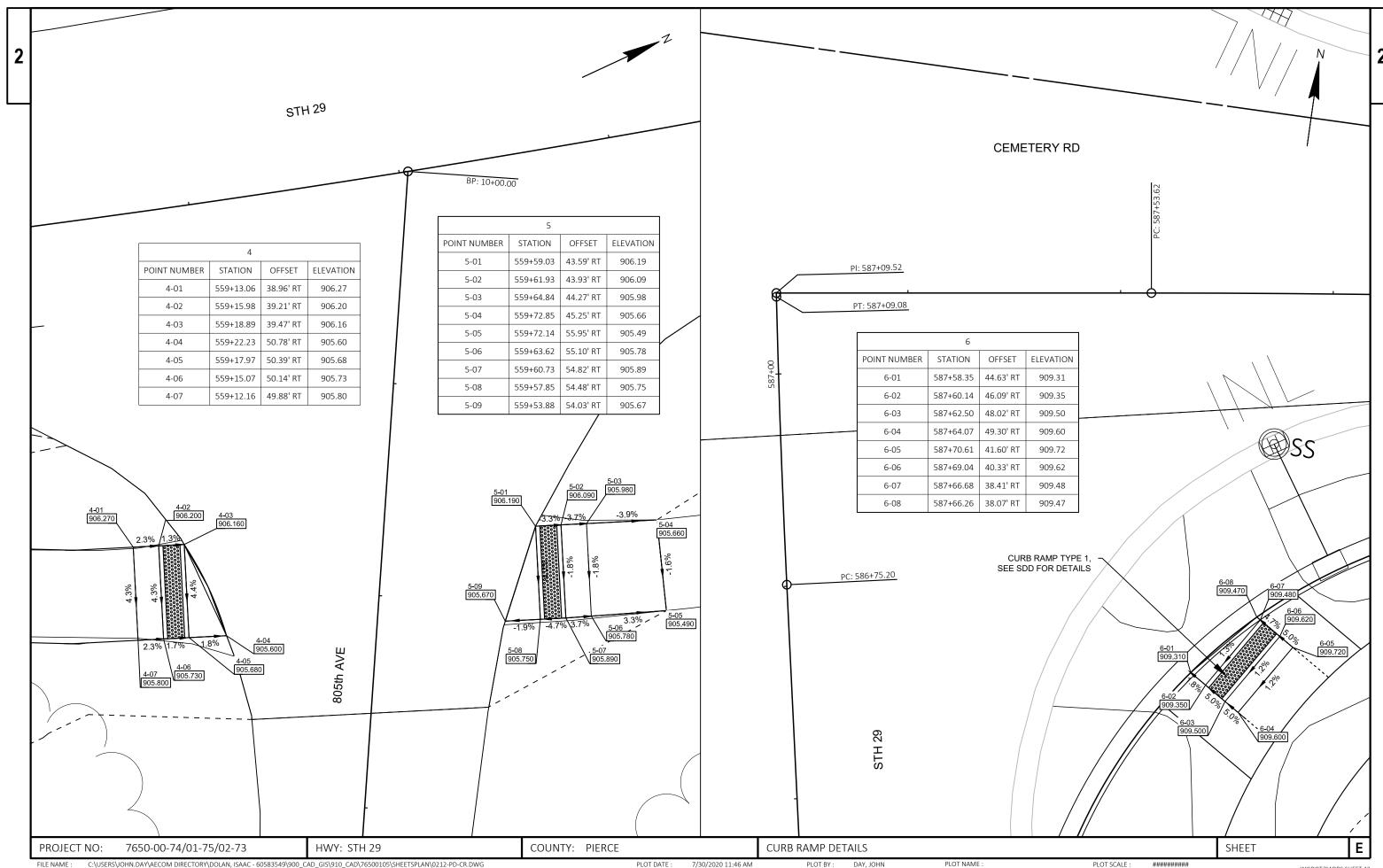




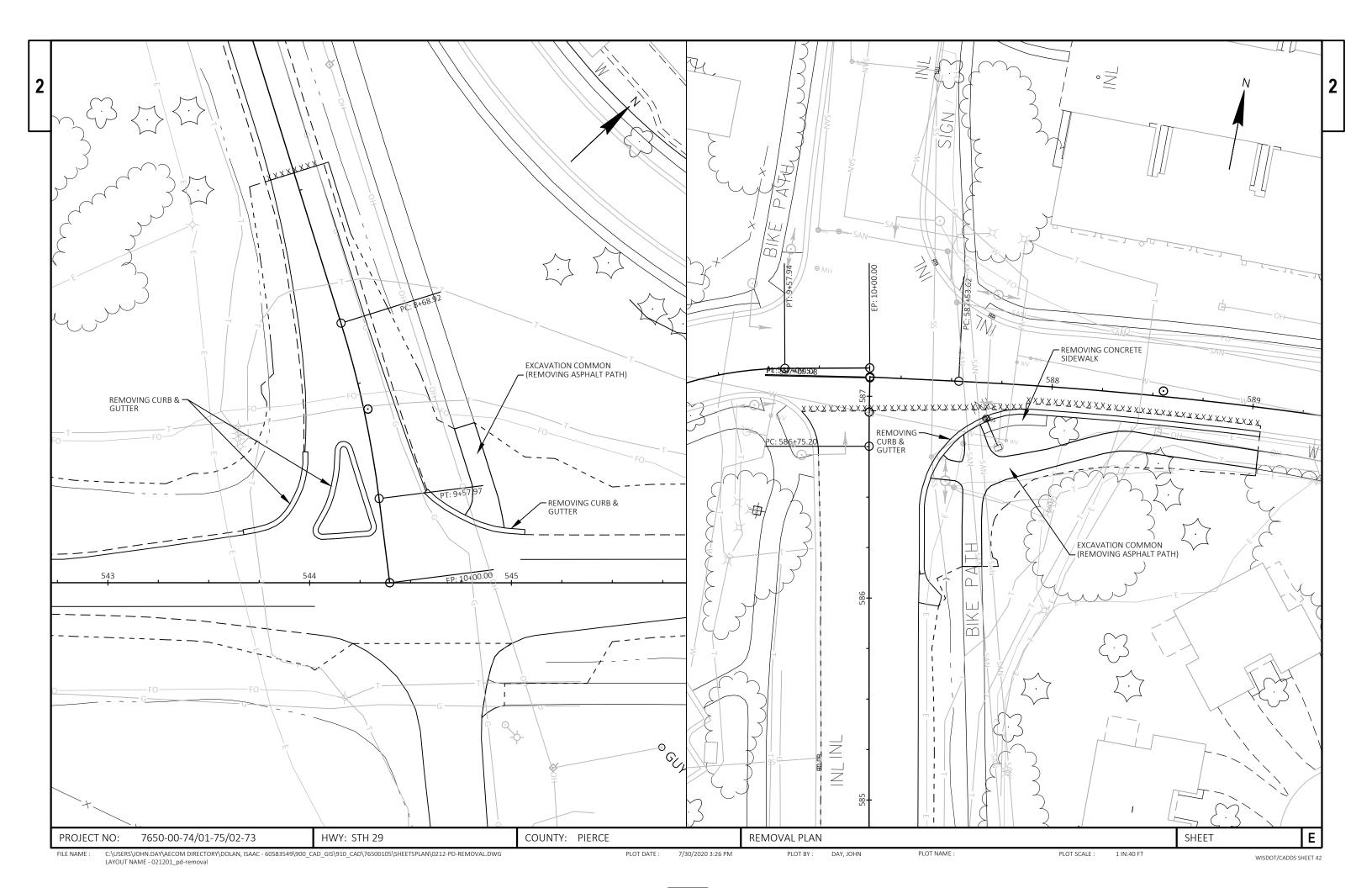
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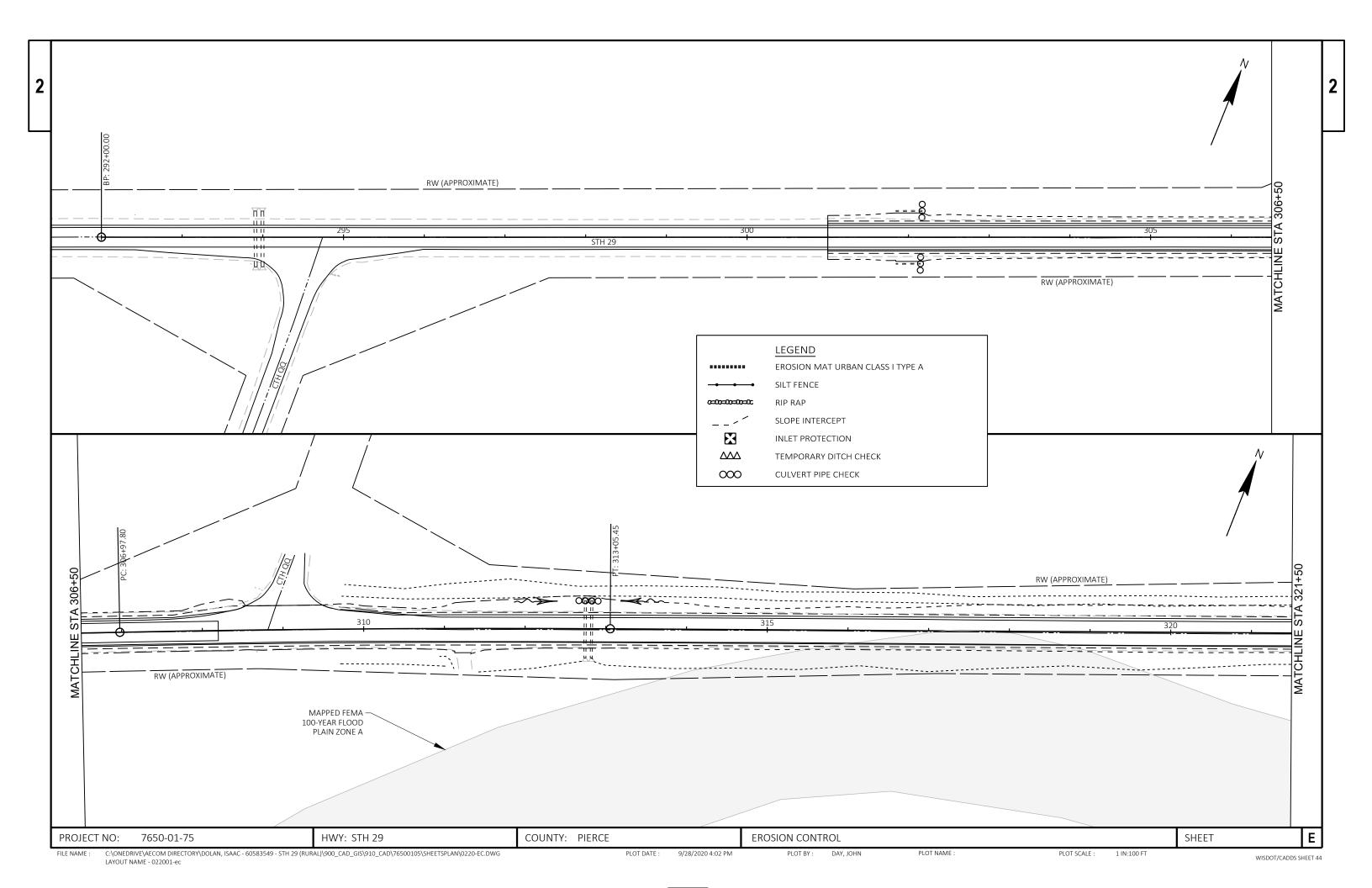
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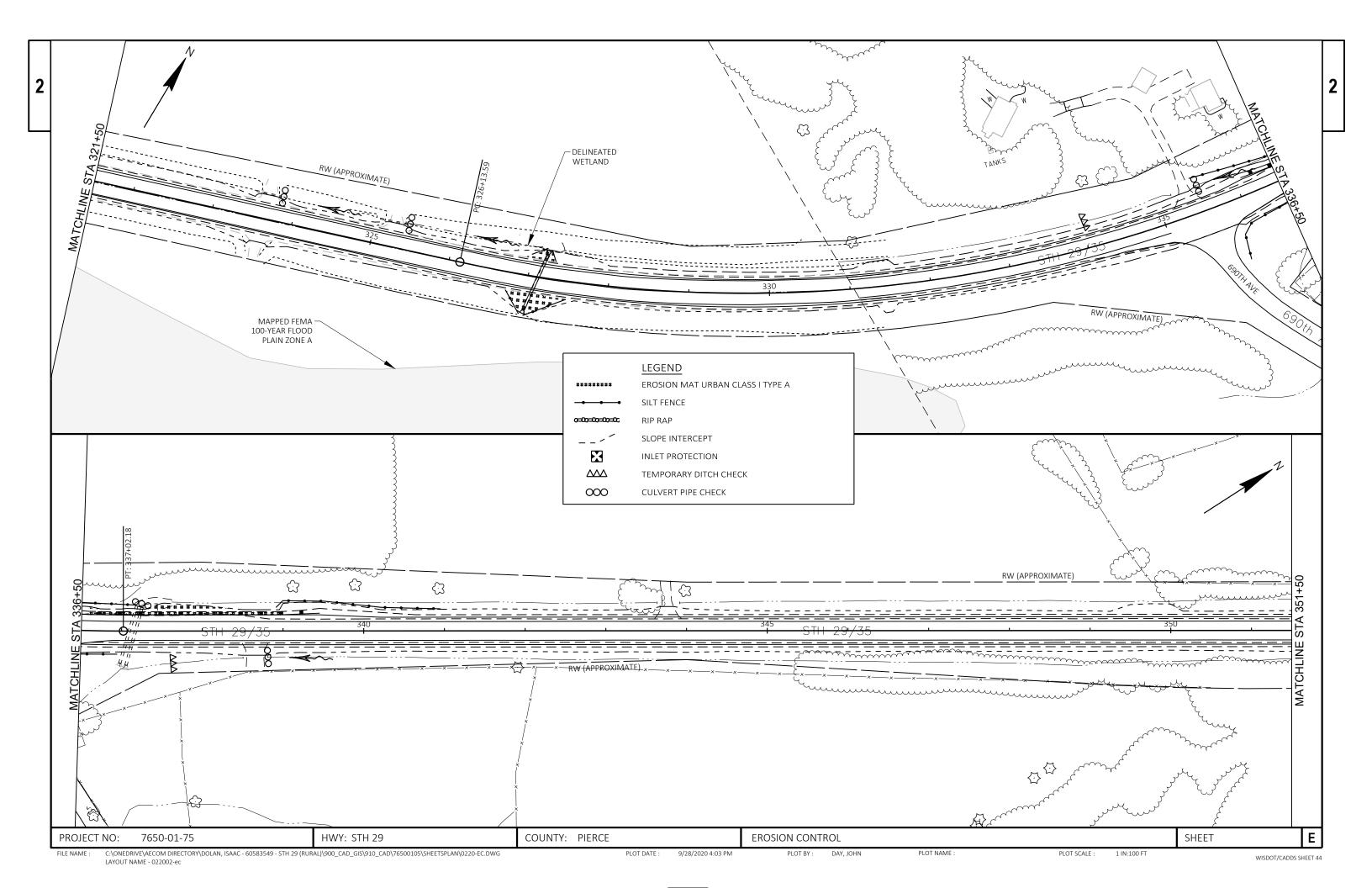


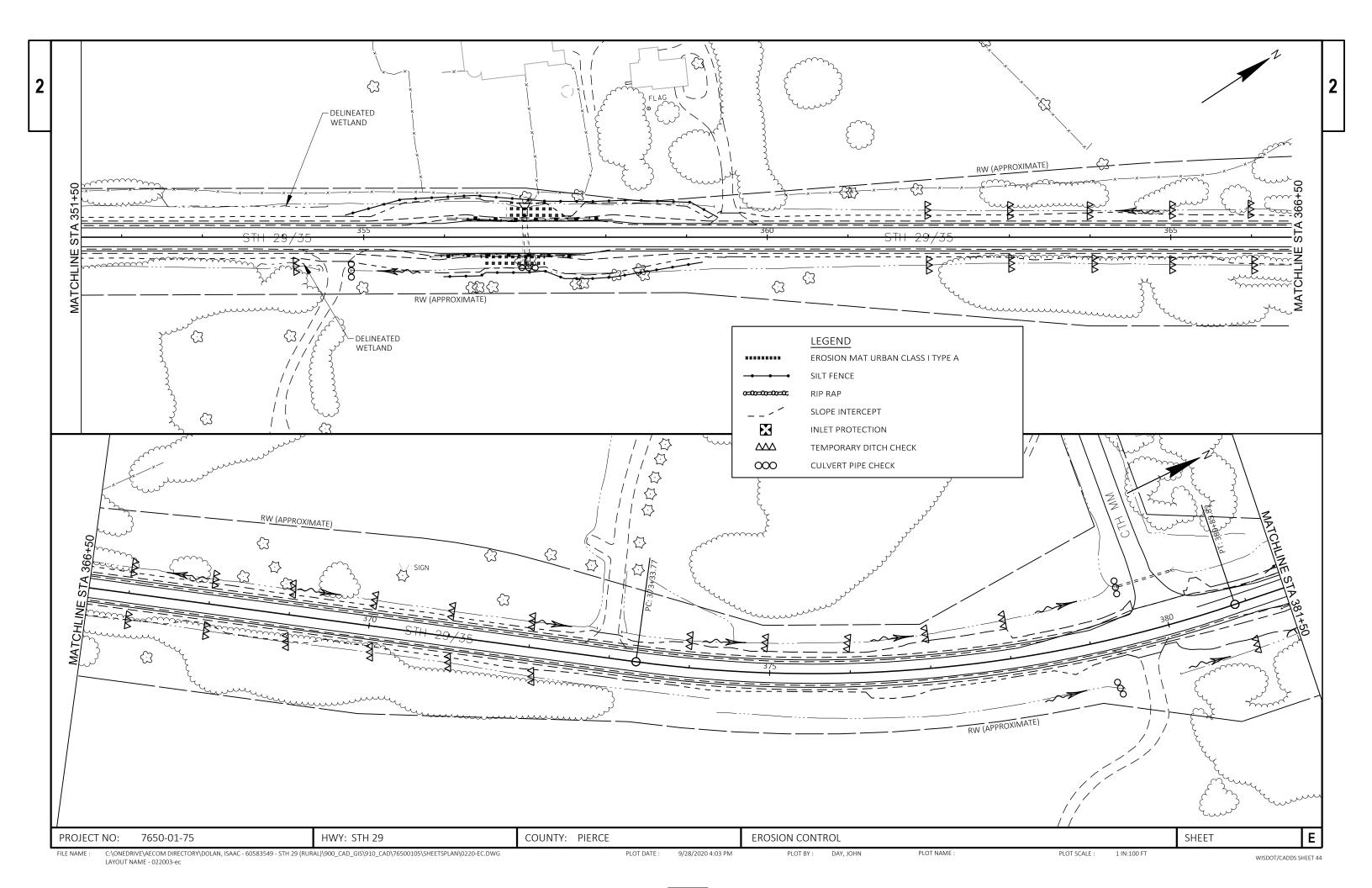


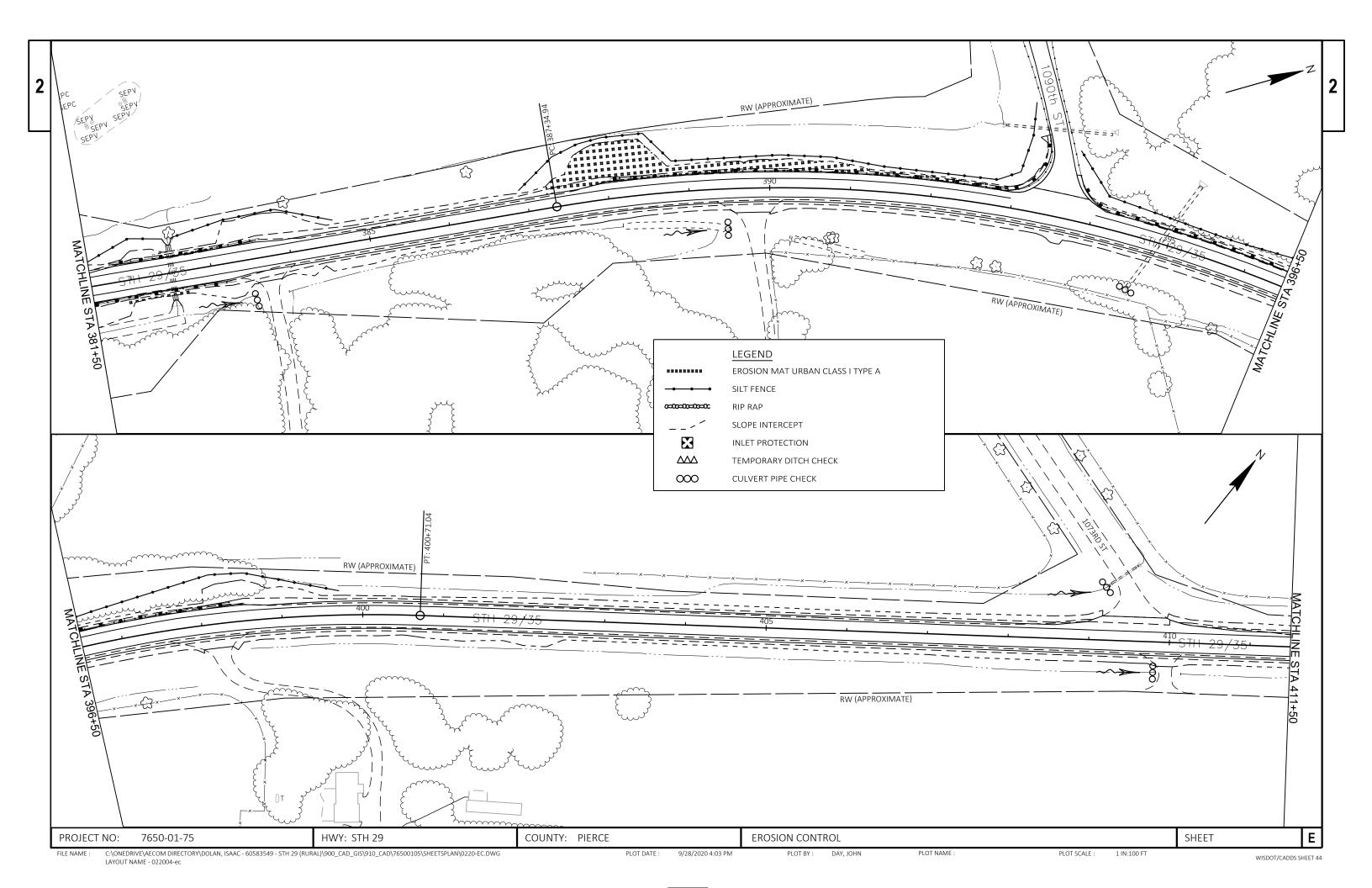
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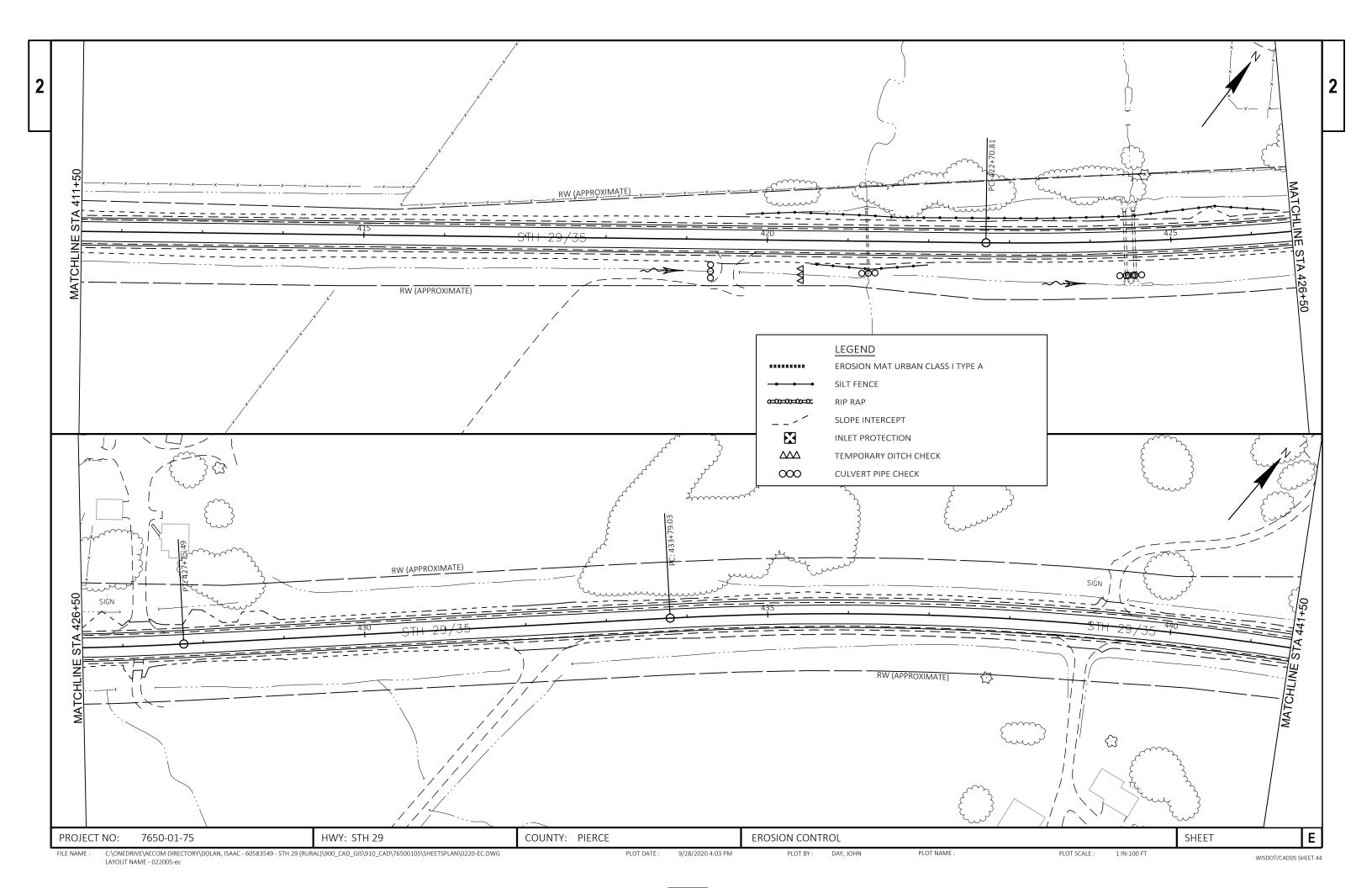


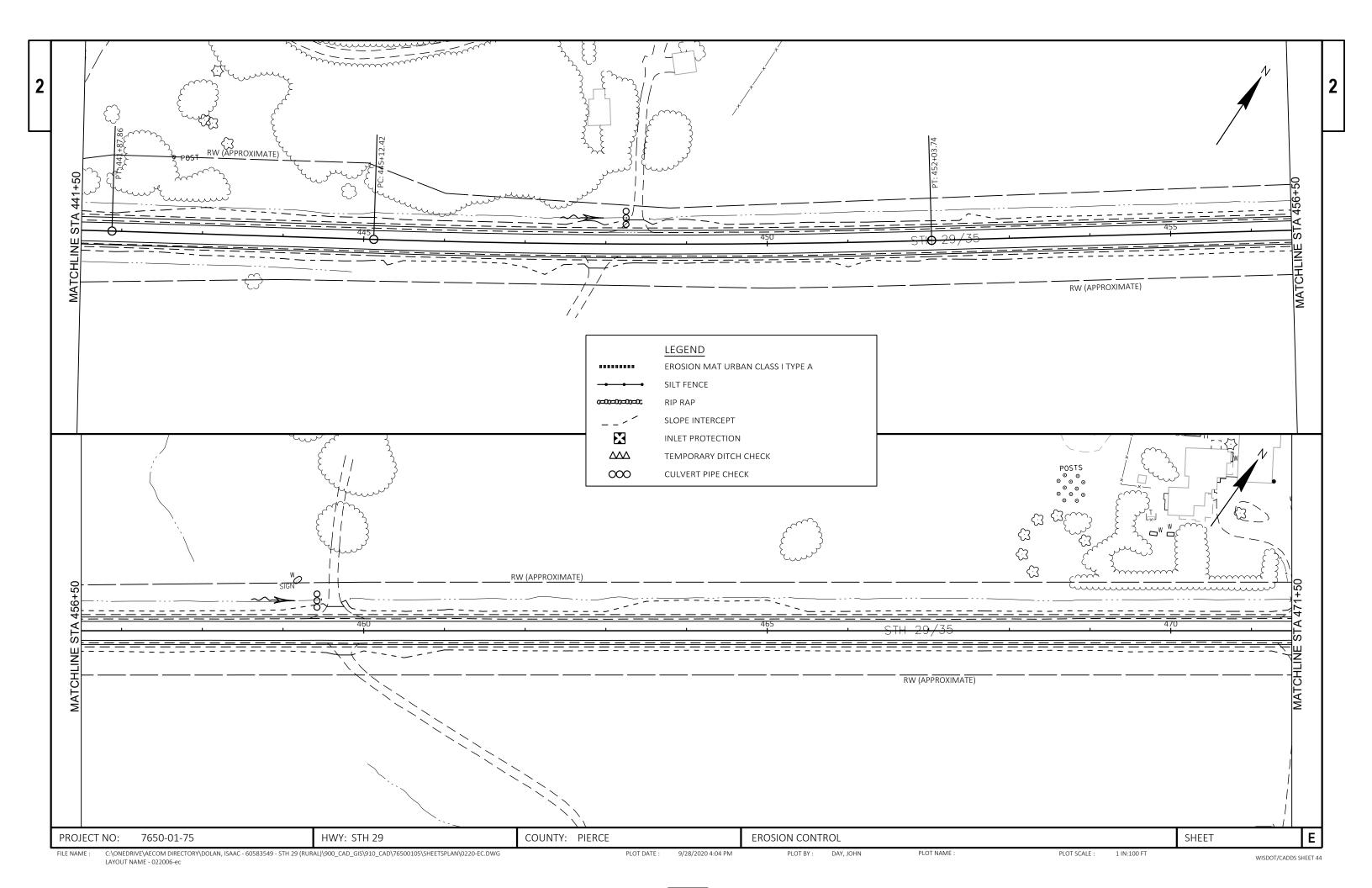


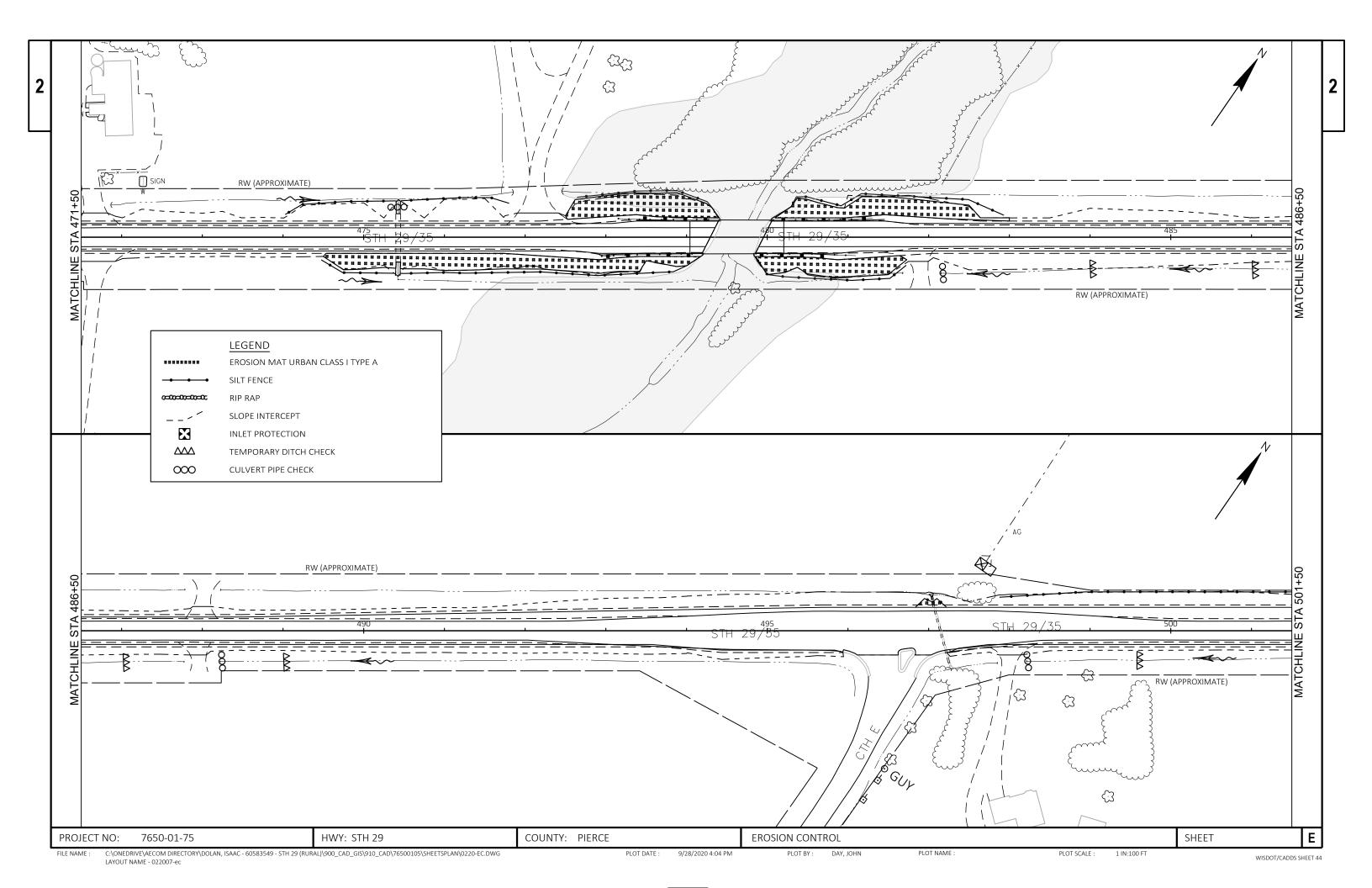


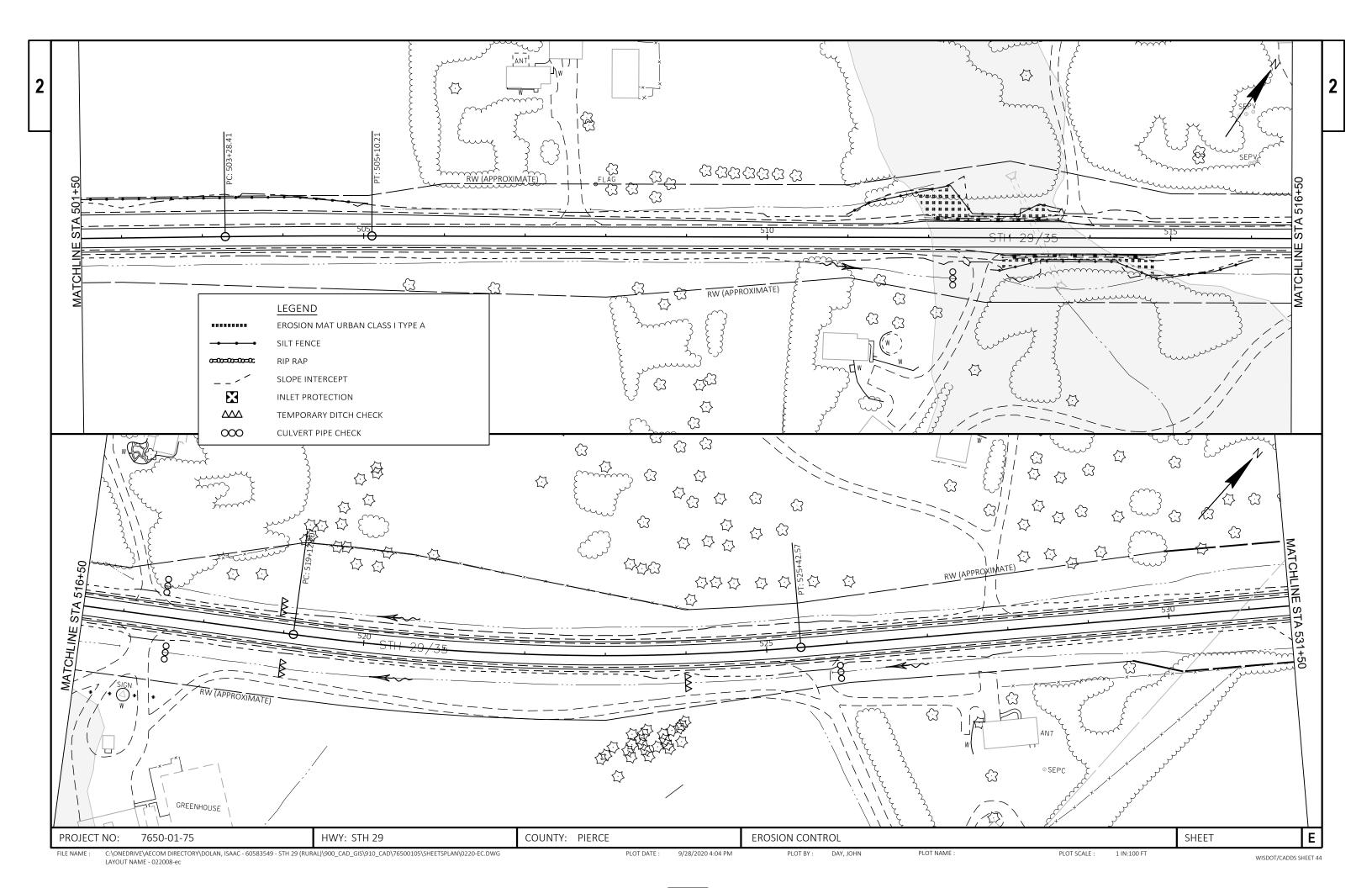


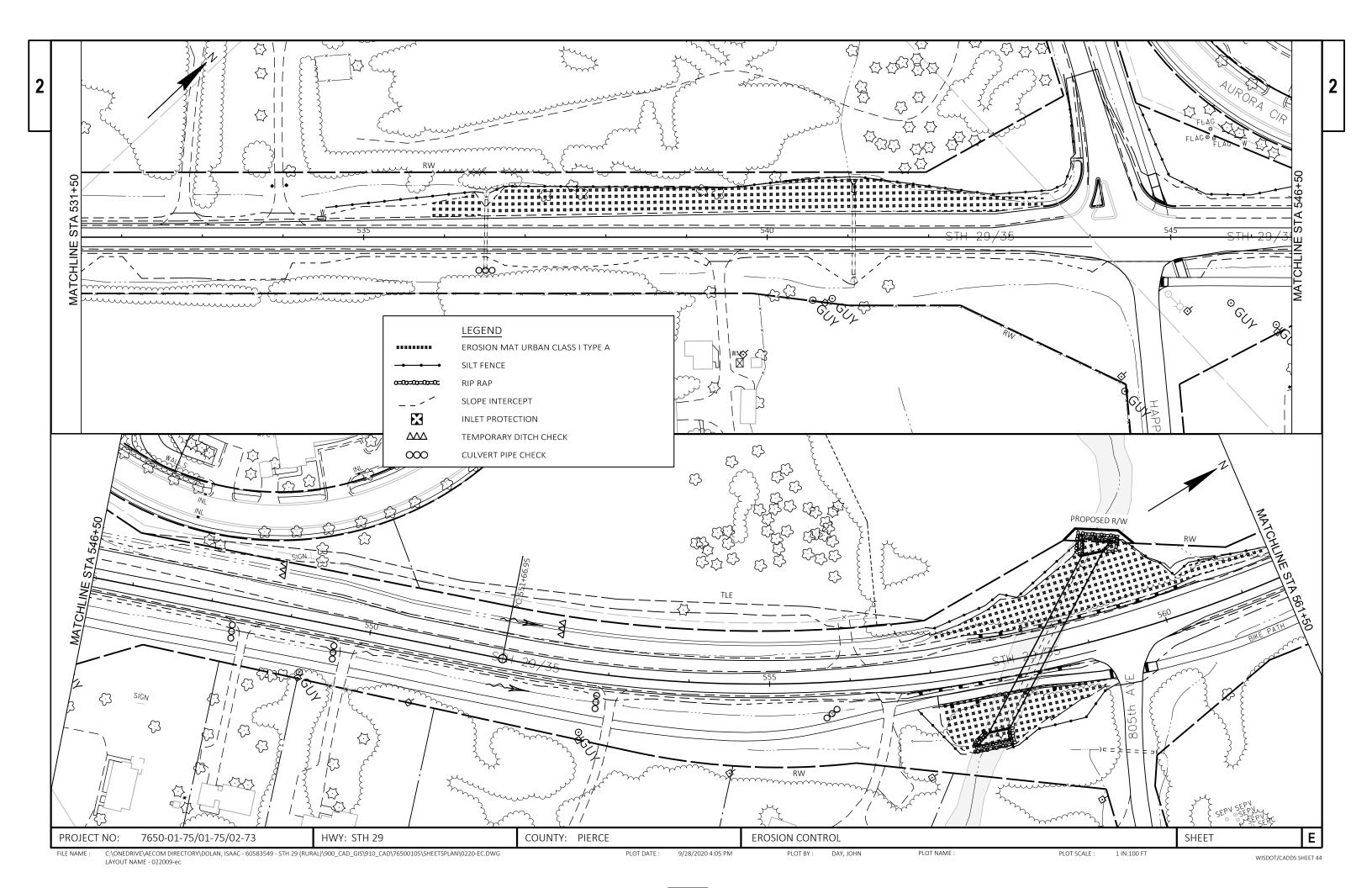


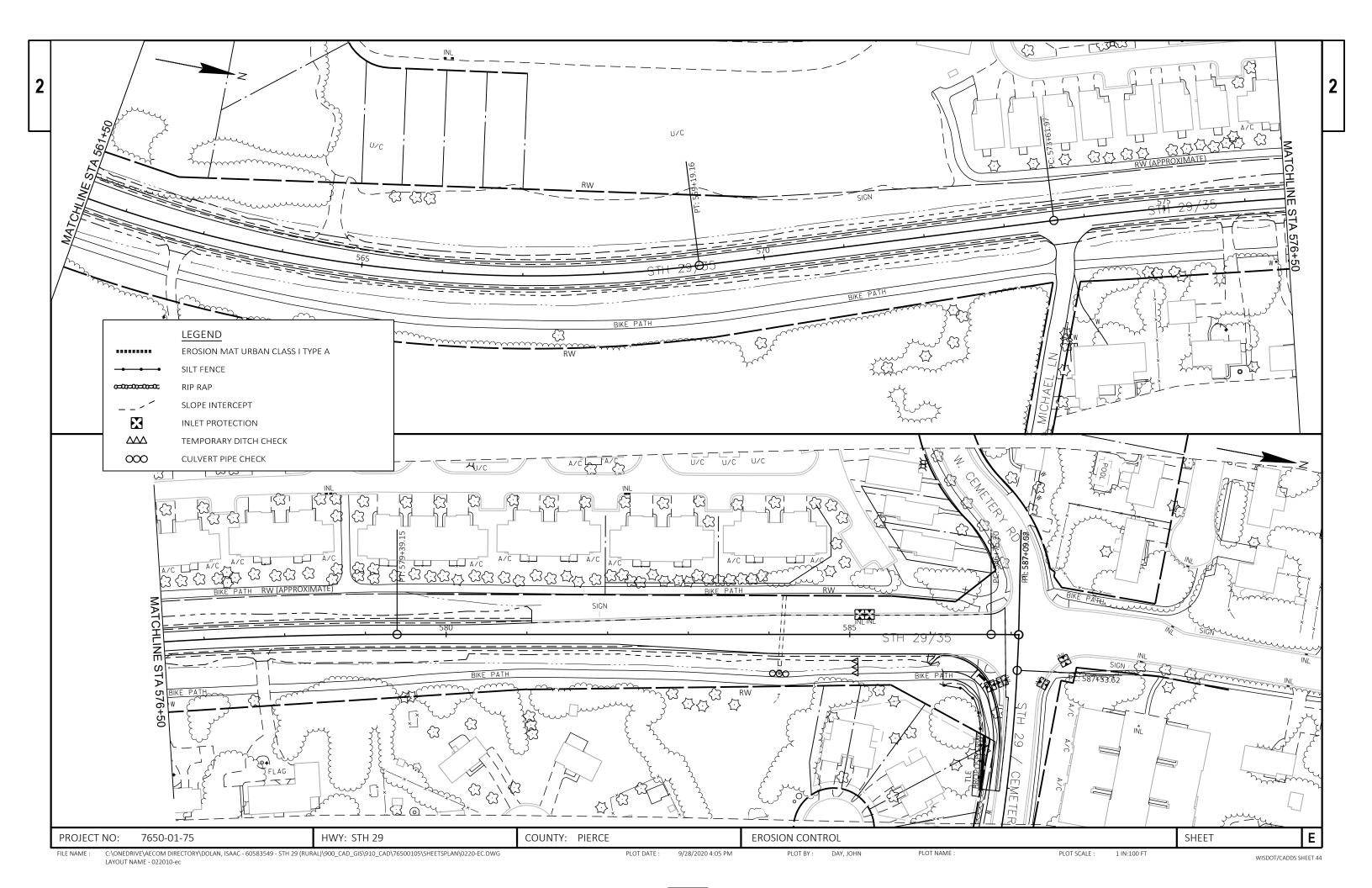


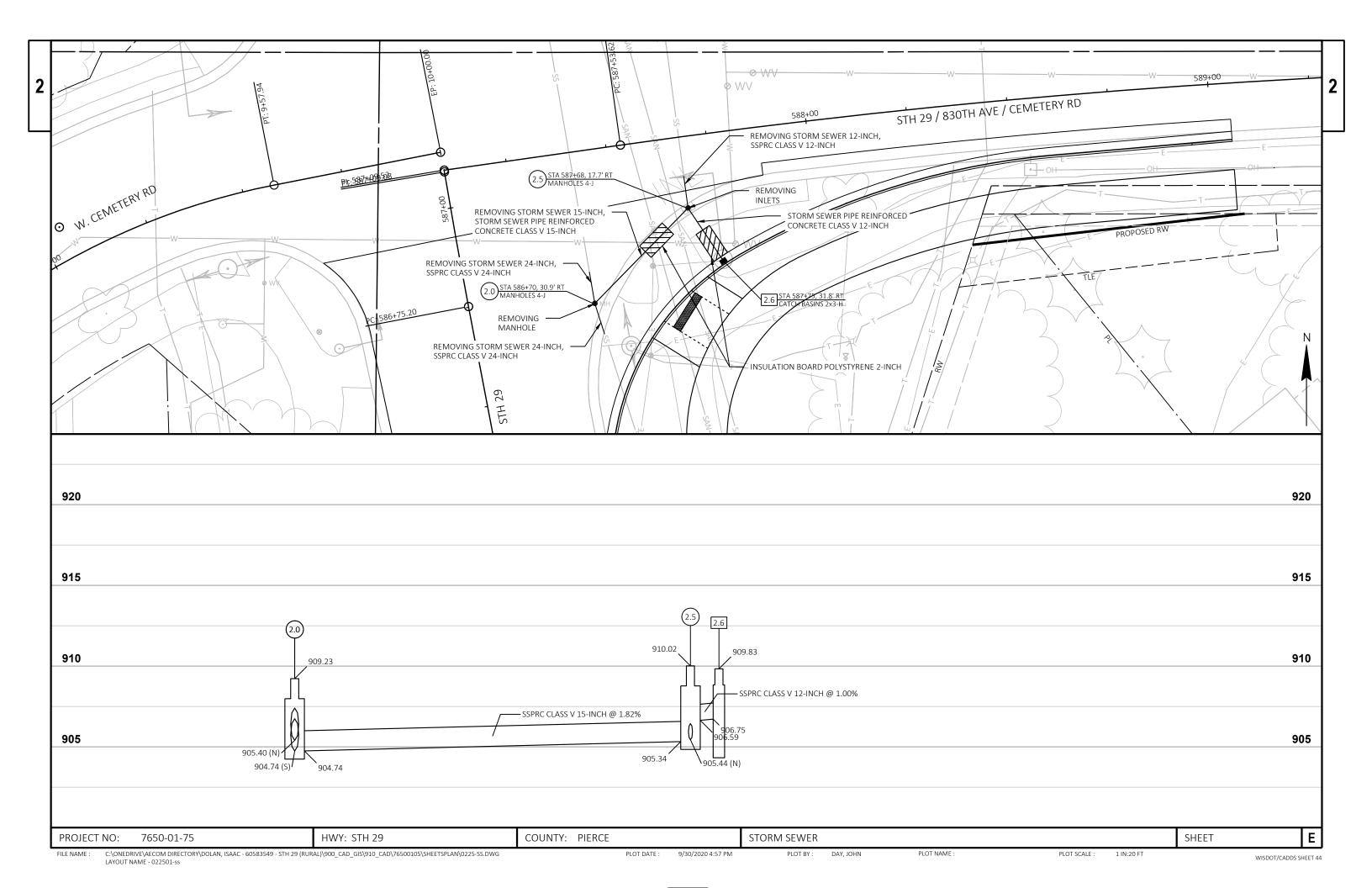


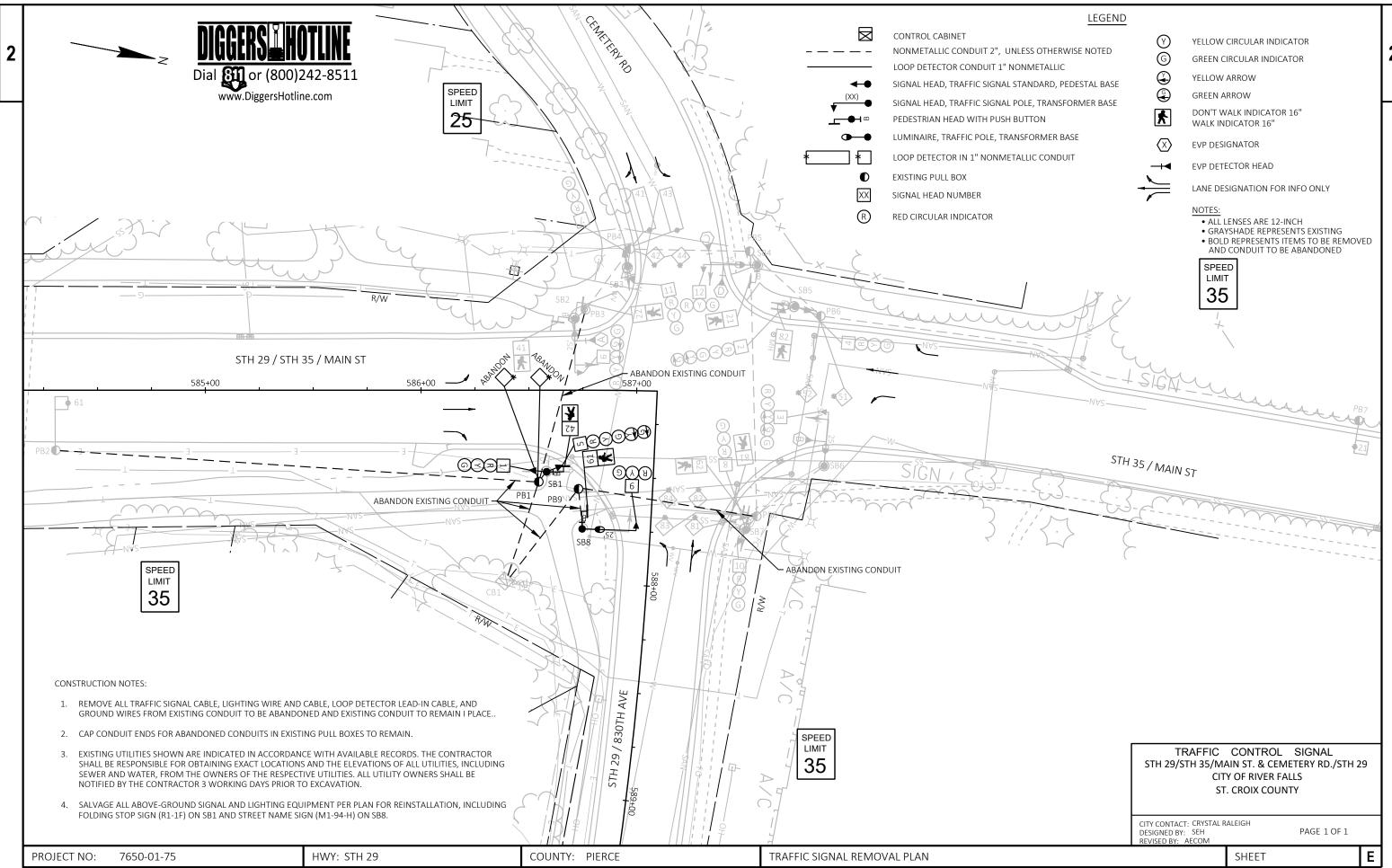




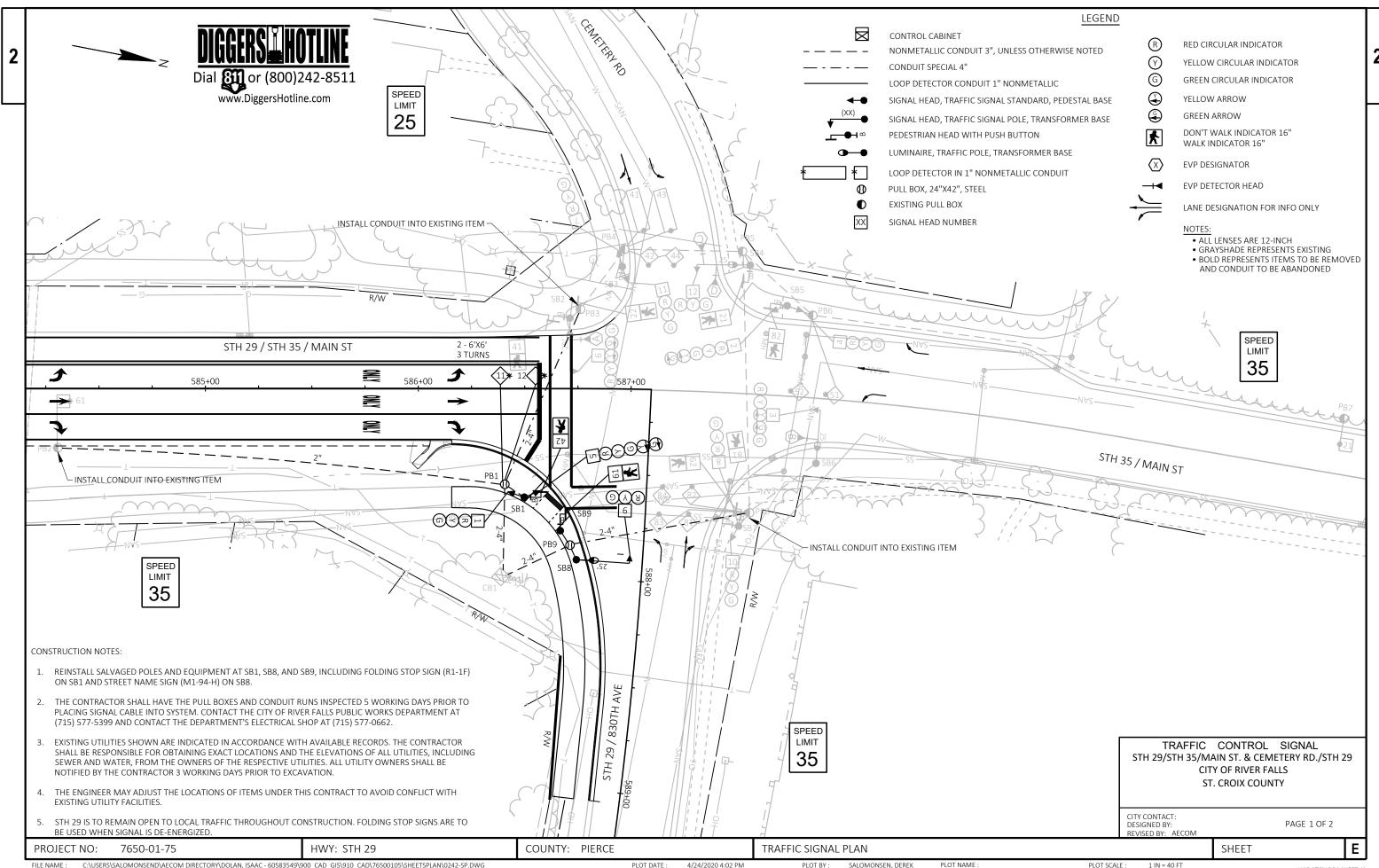


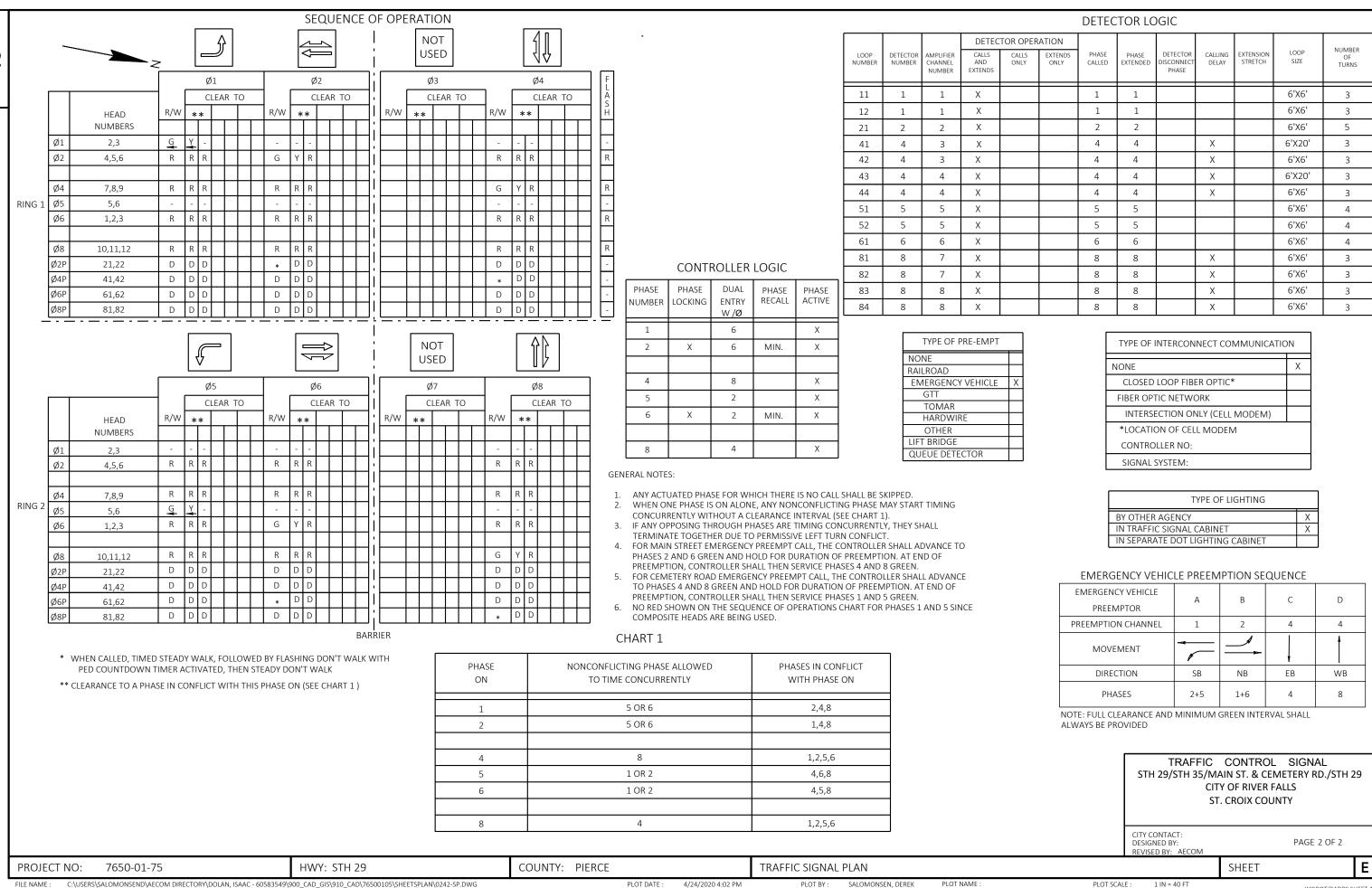


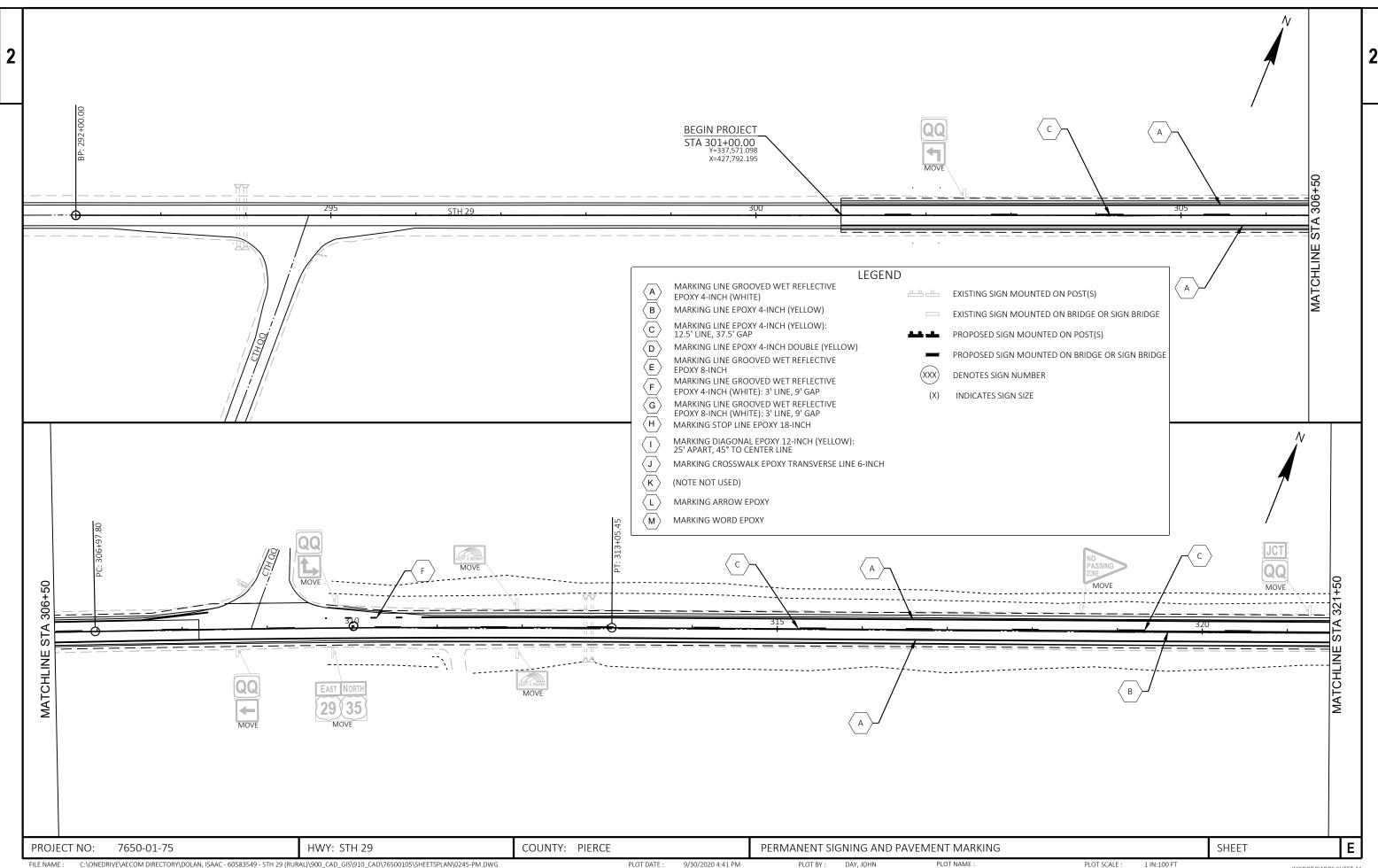




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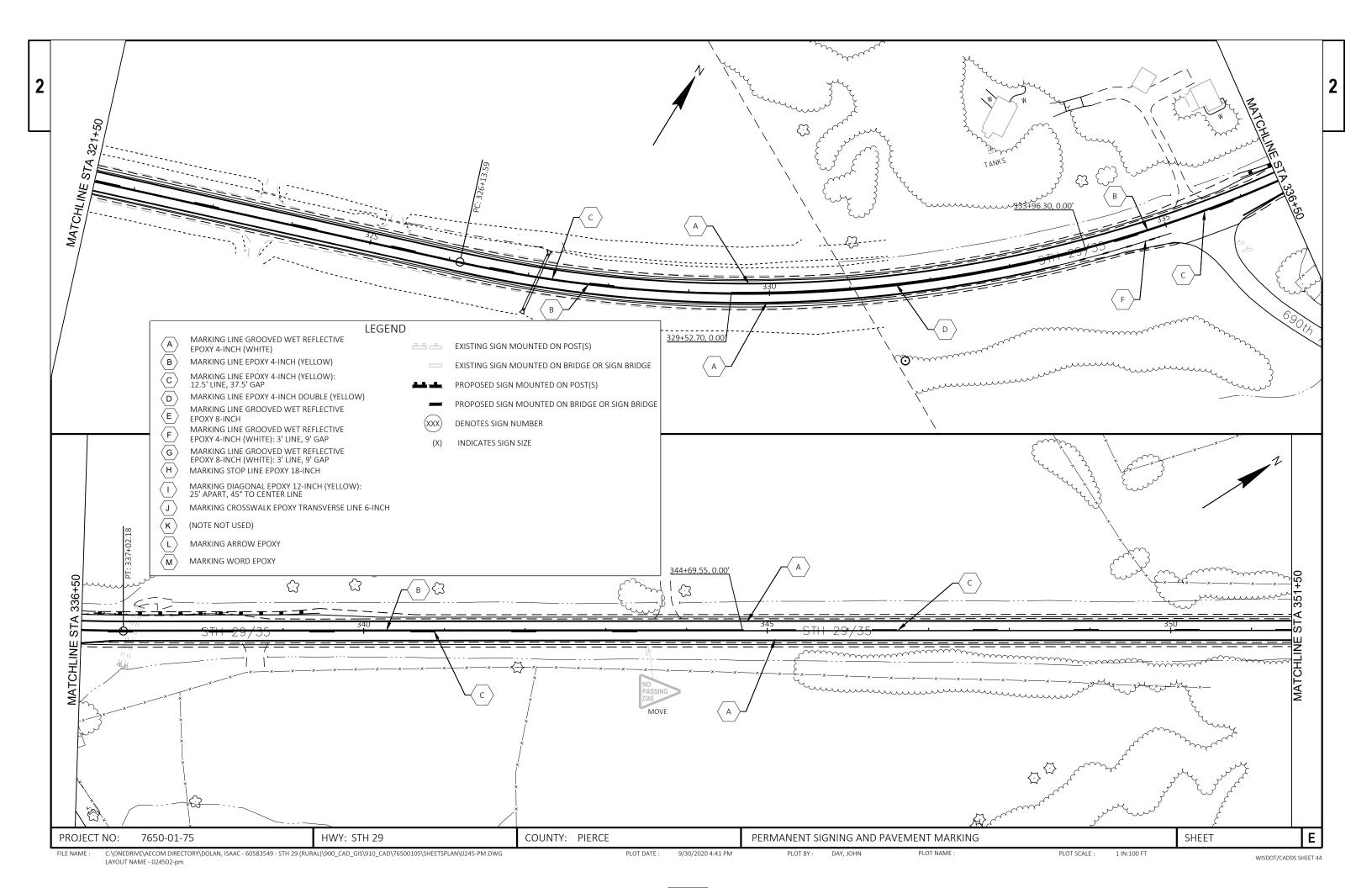


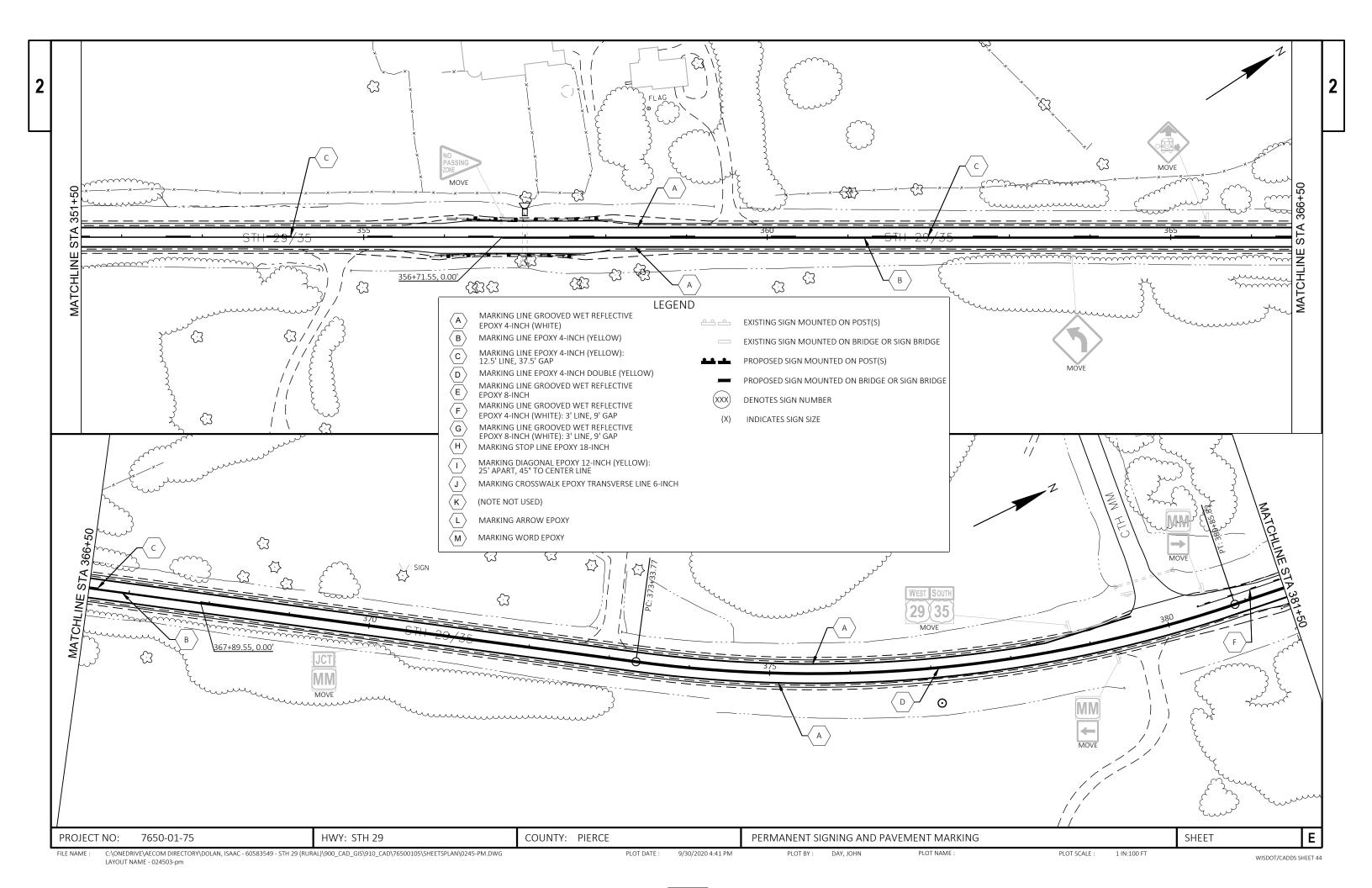


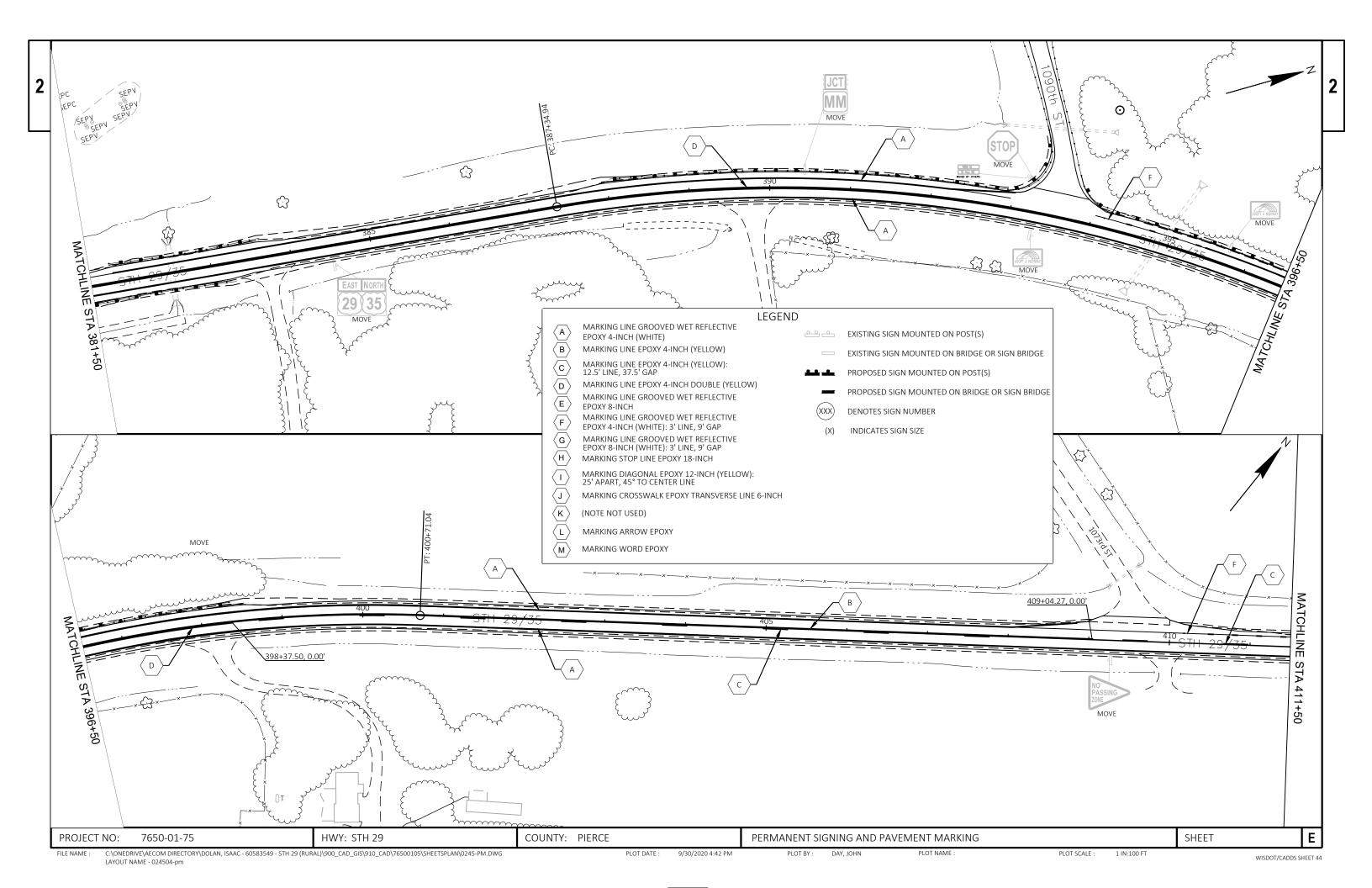
LAYOUT NAME - 024501-pm

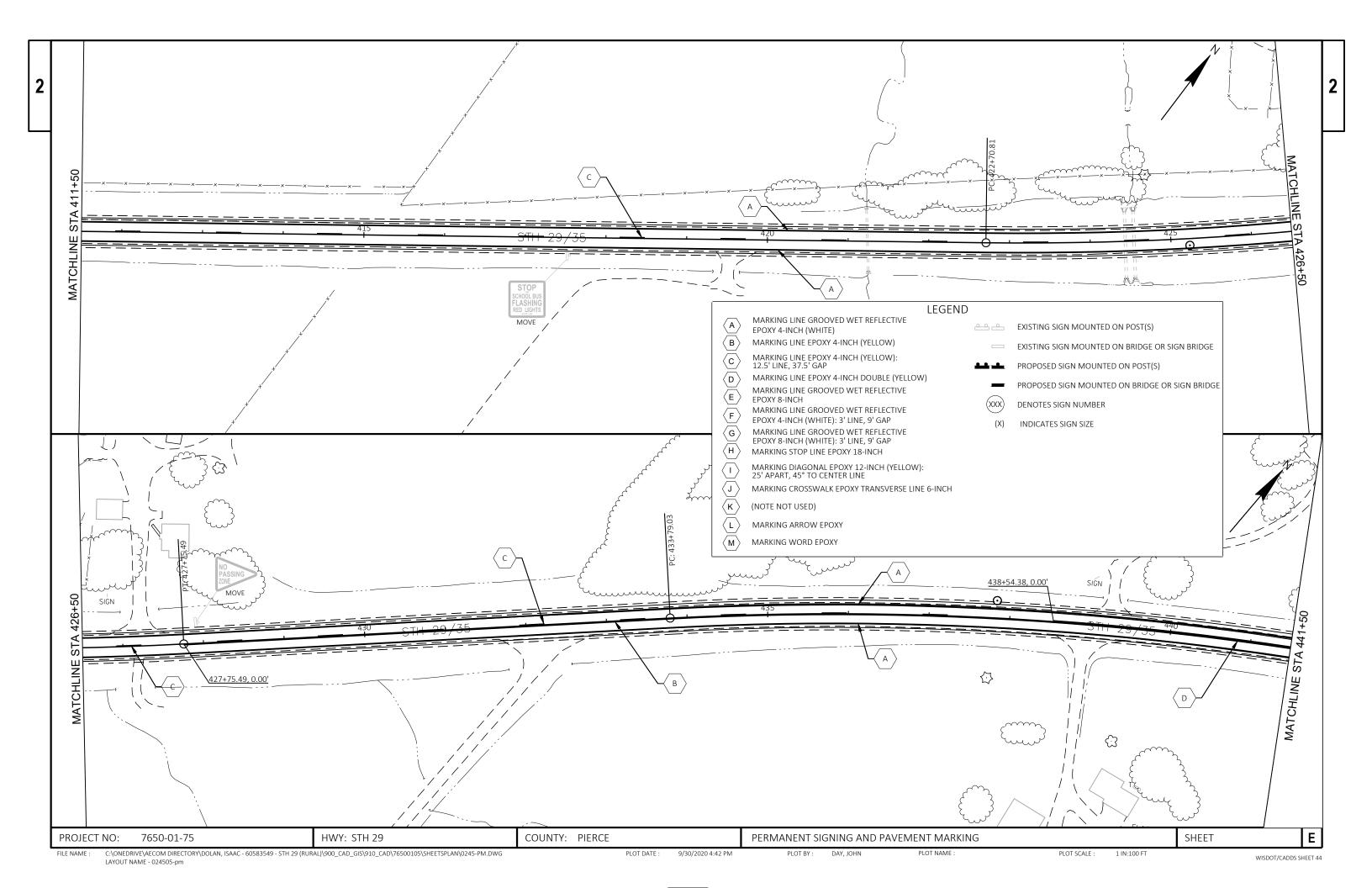
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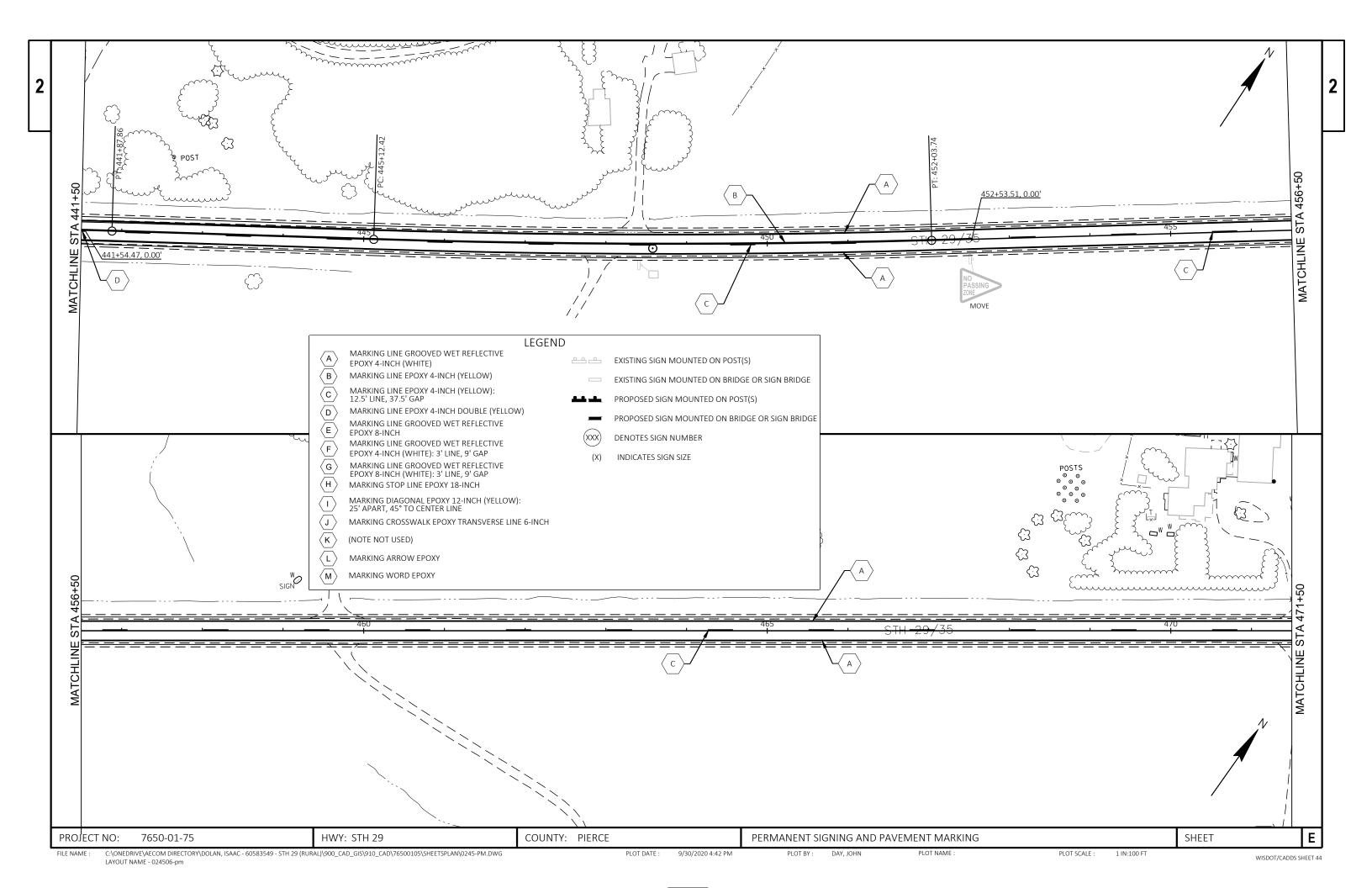
WISDOT/CADDS SHEET 44

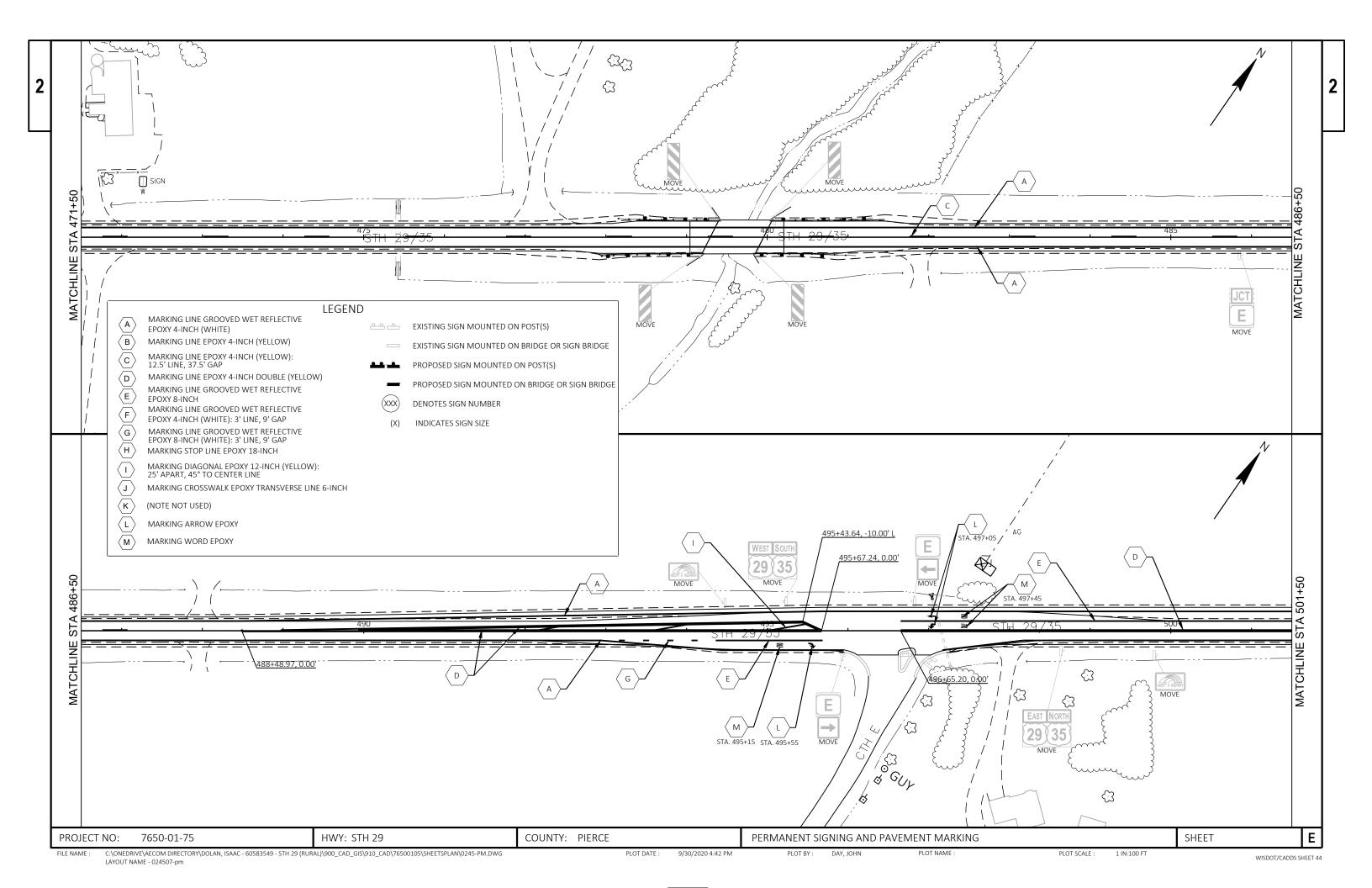


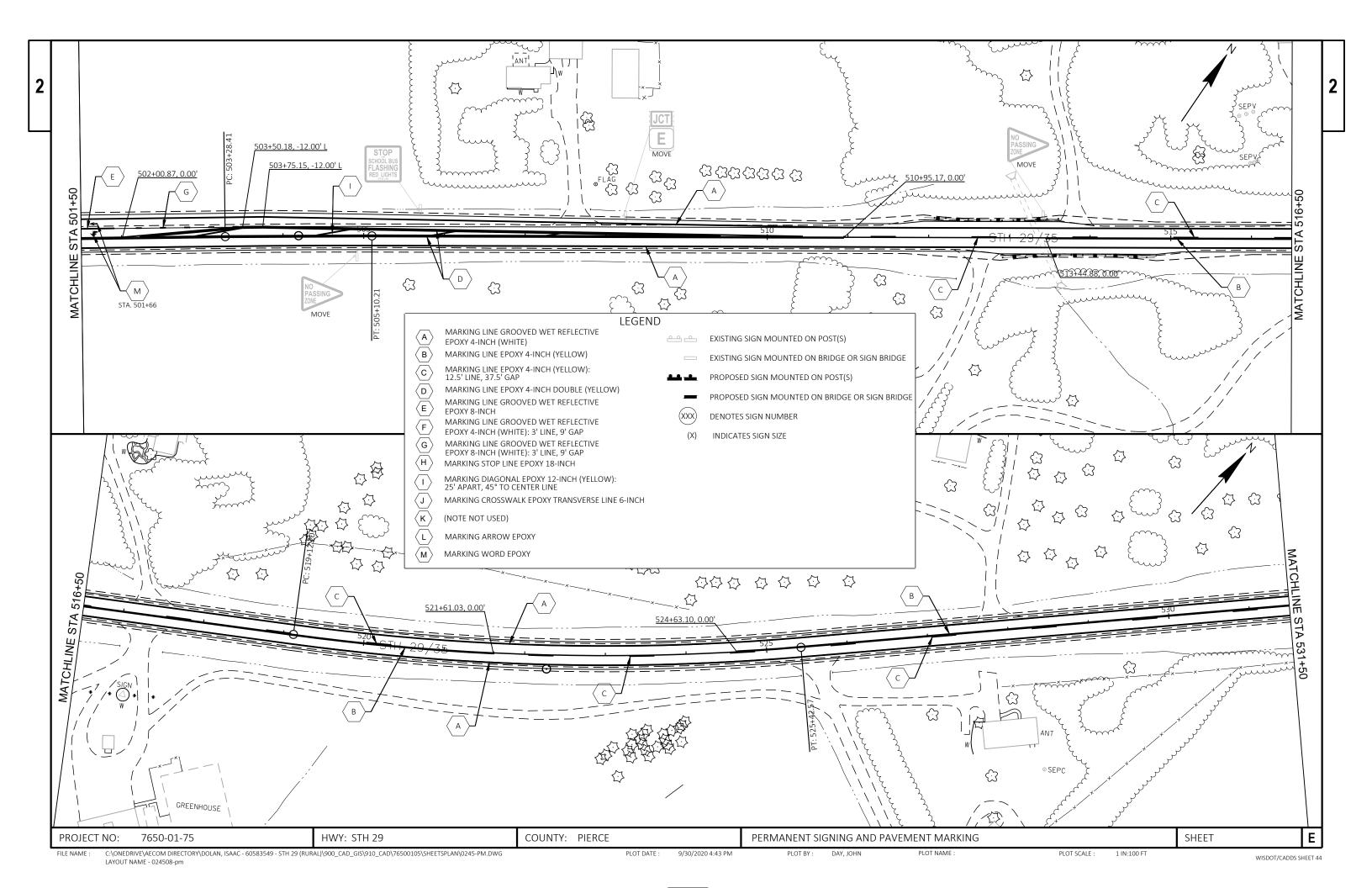


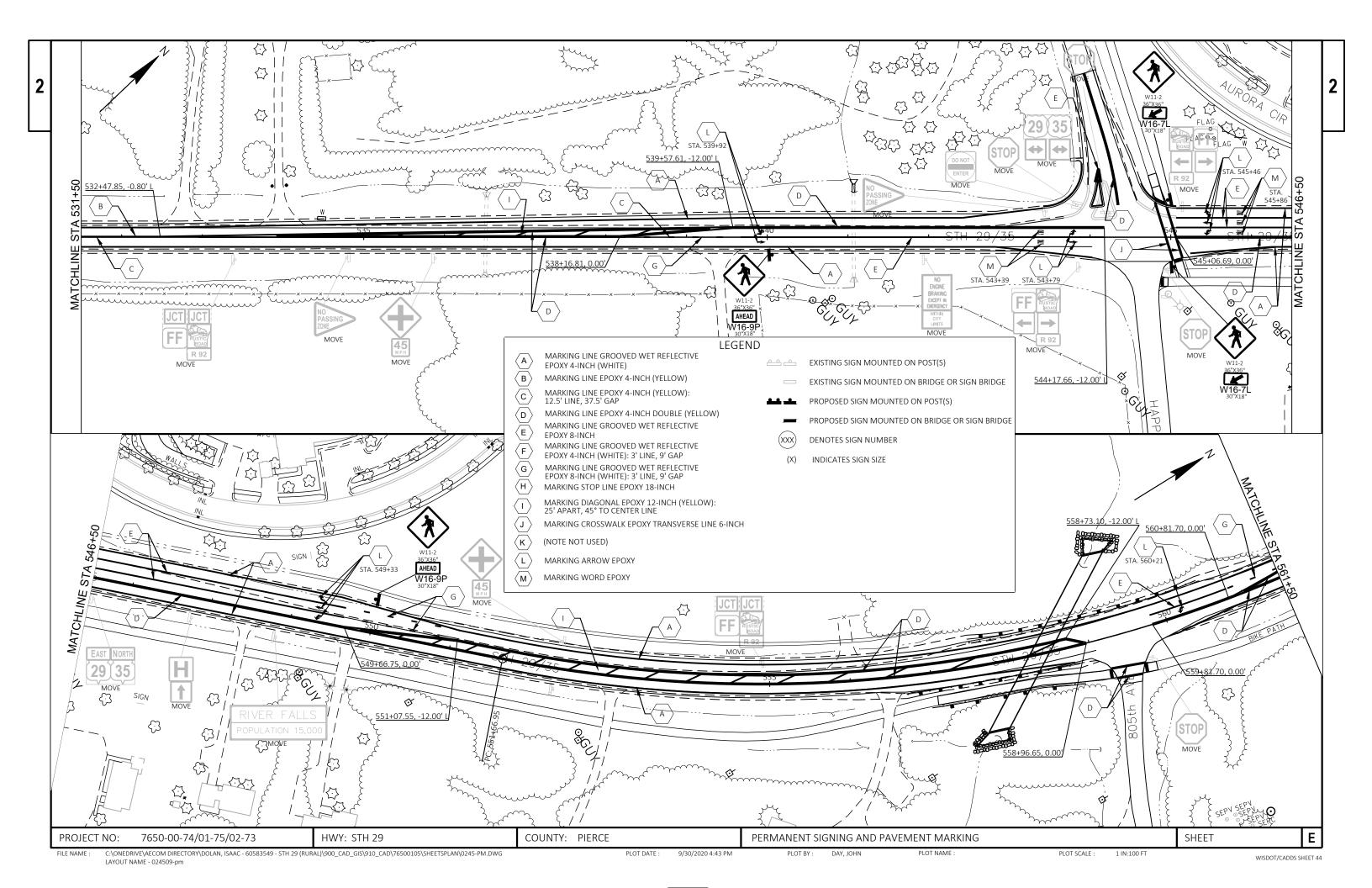


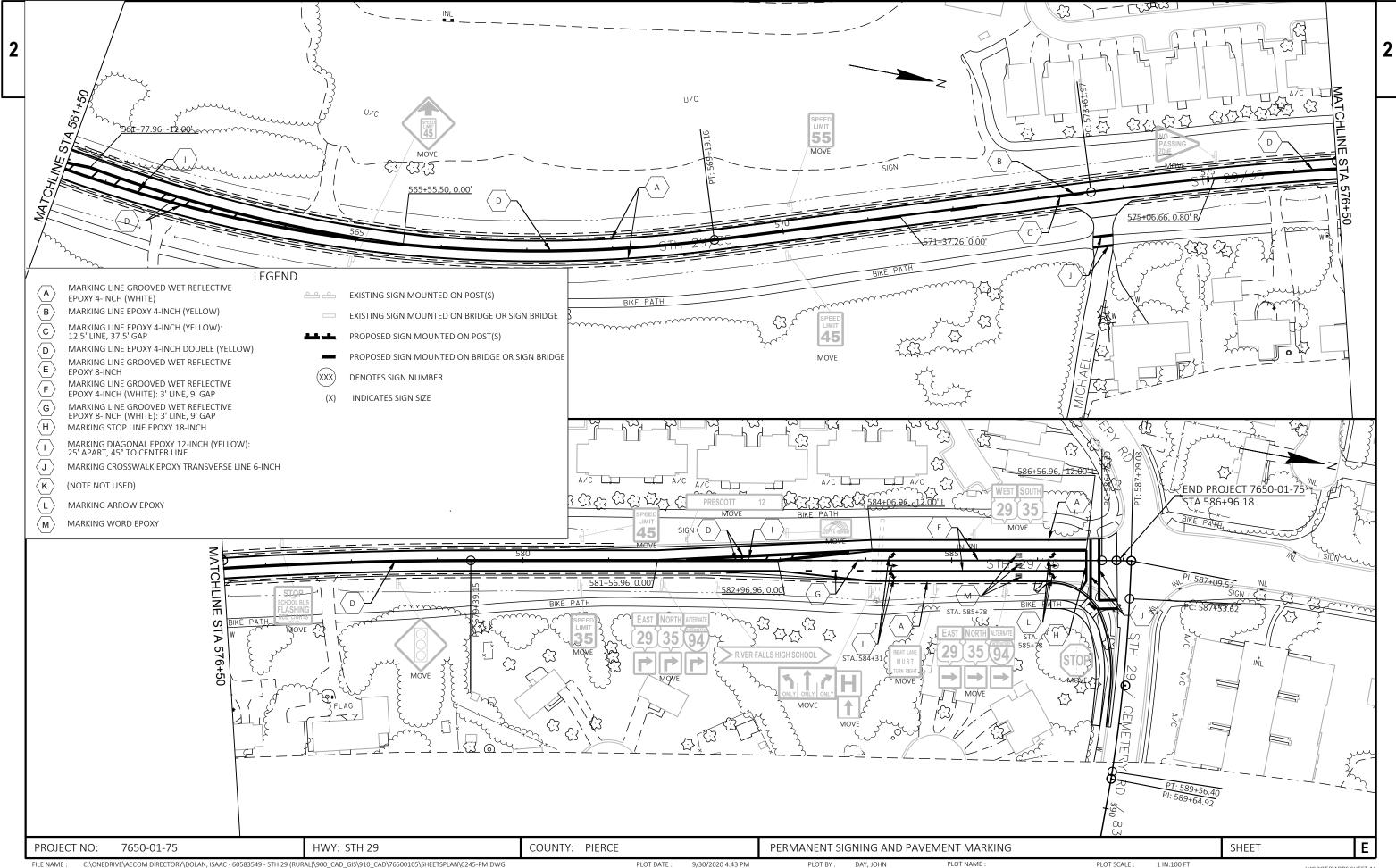


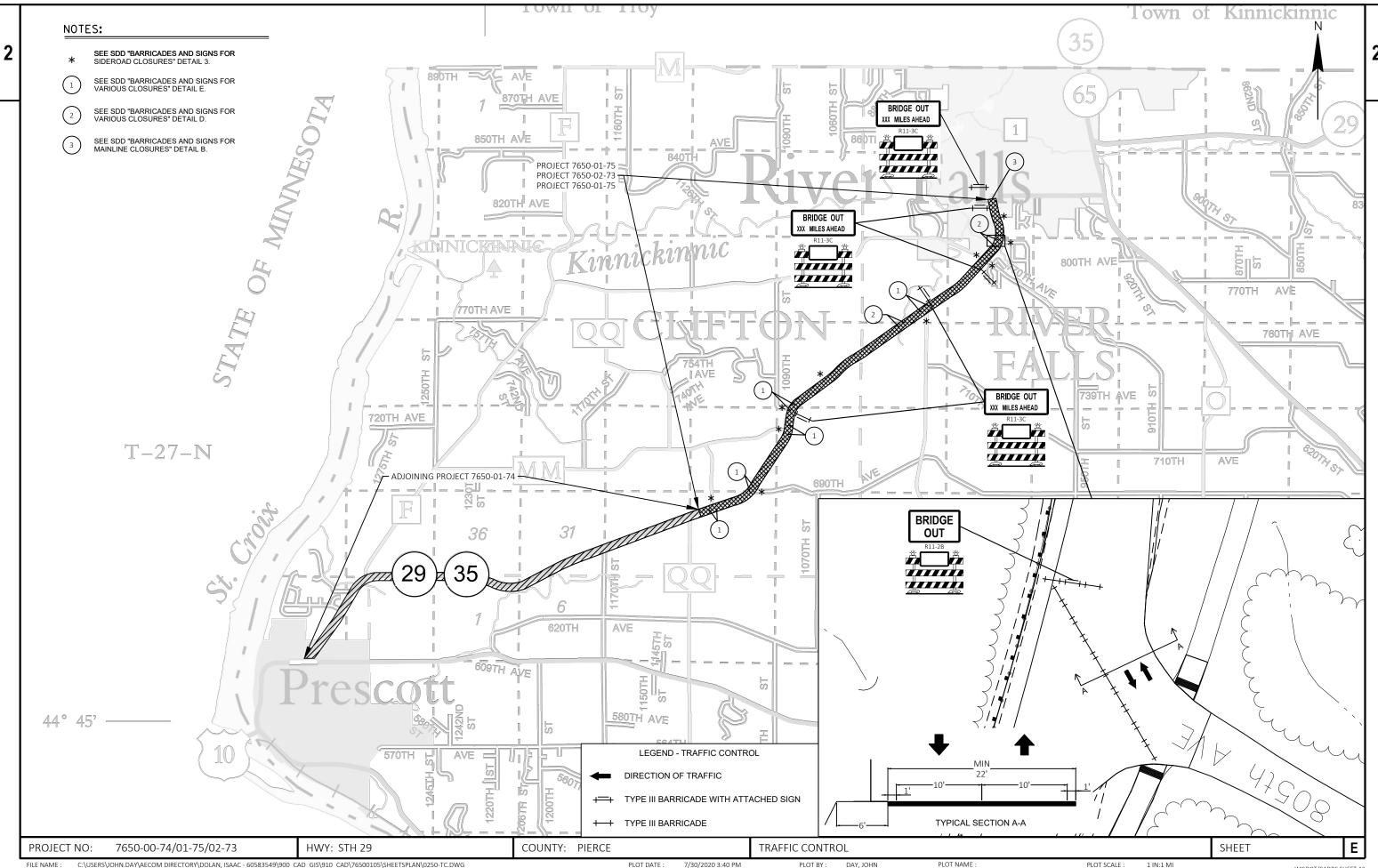


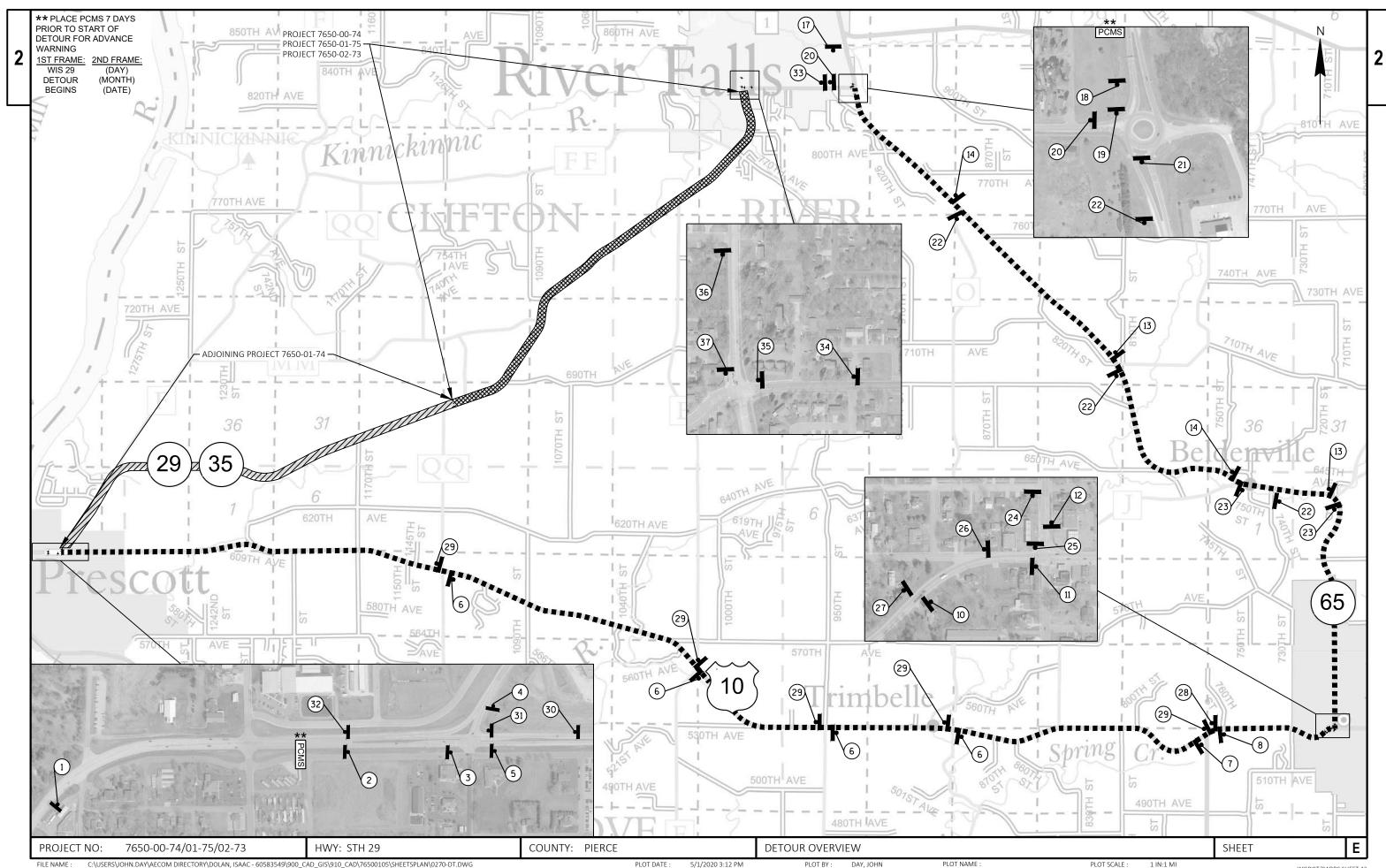


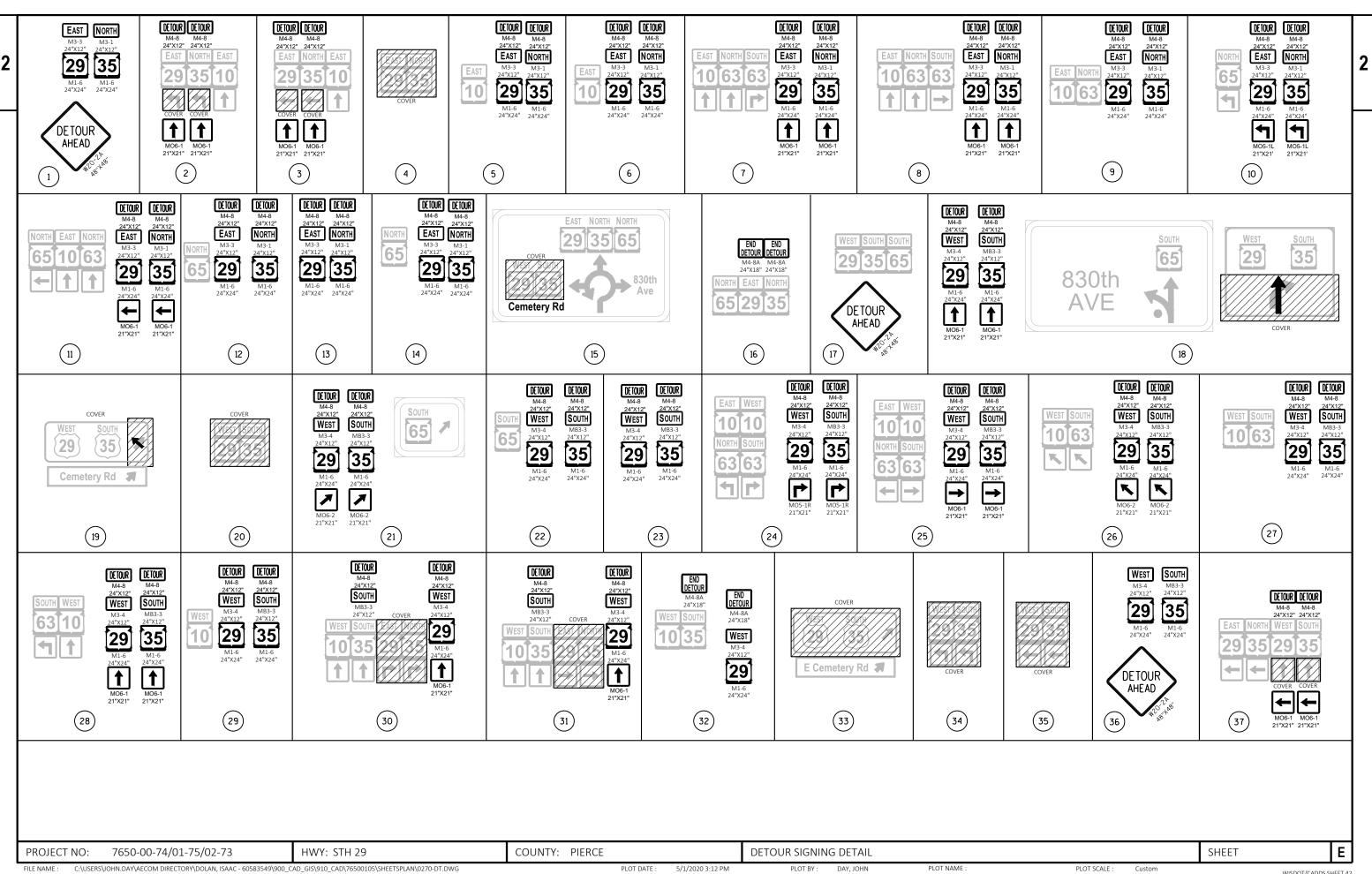


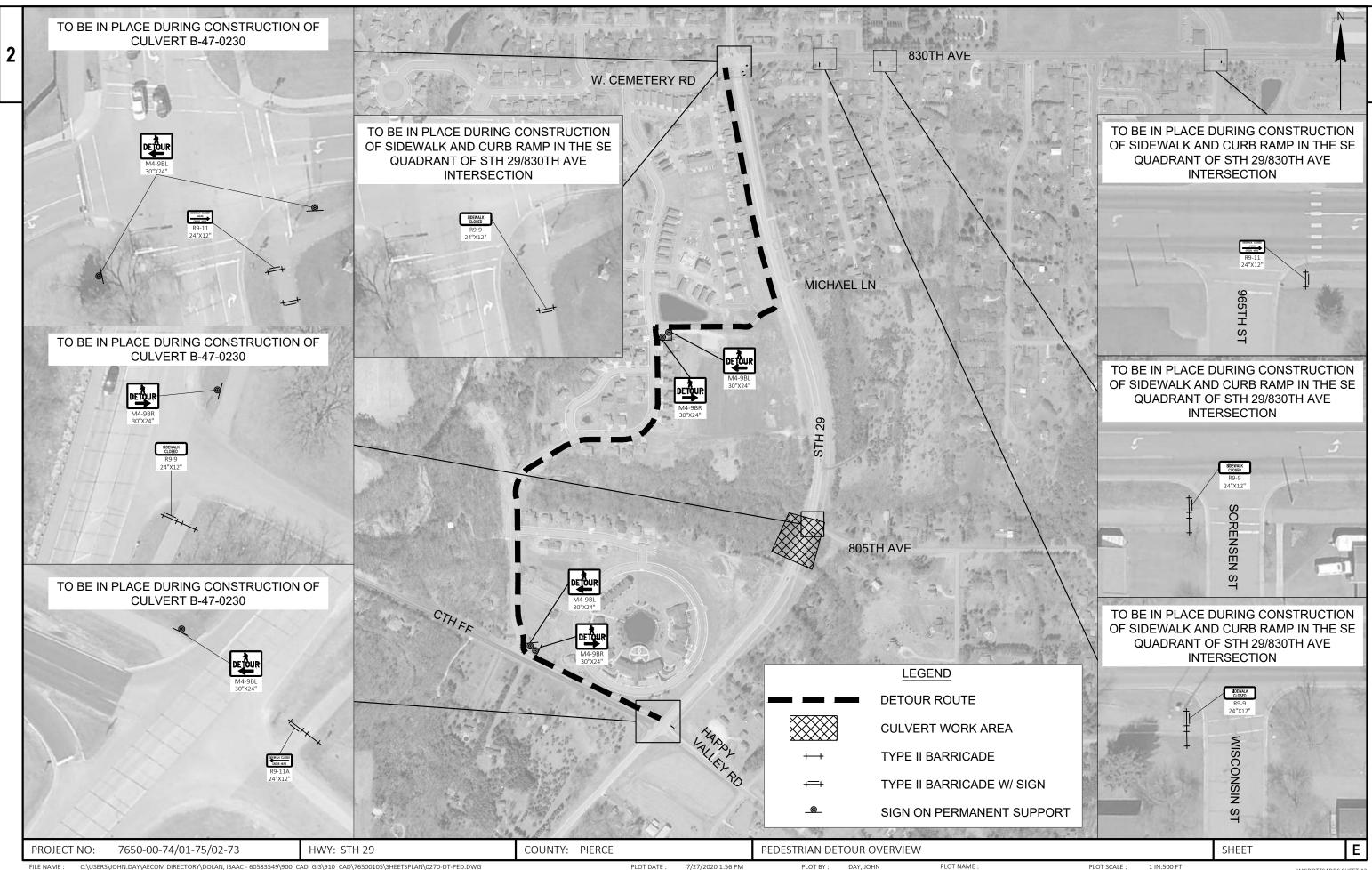


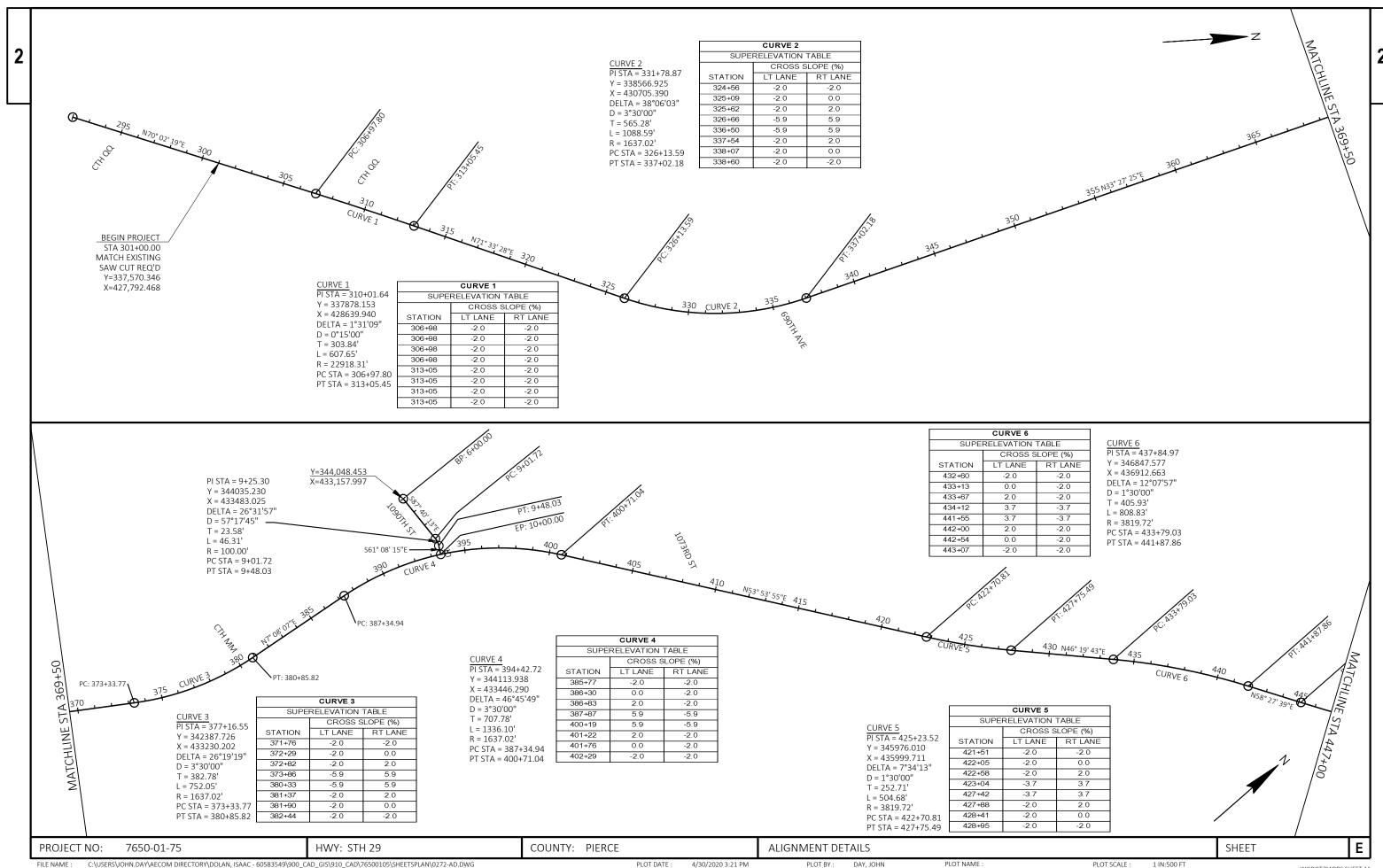


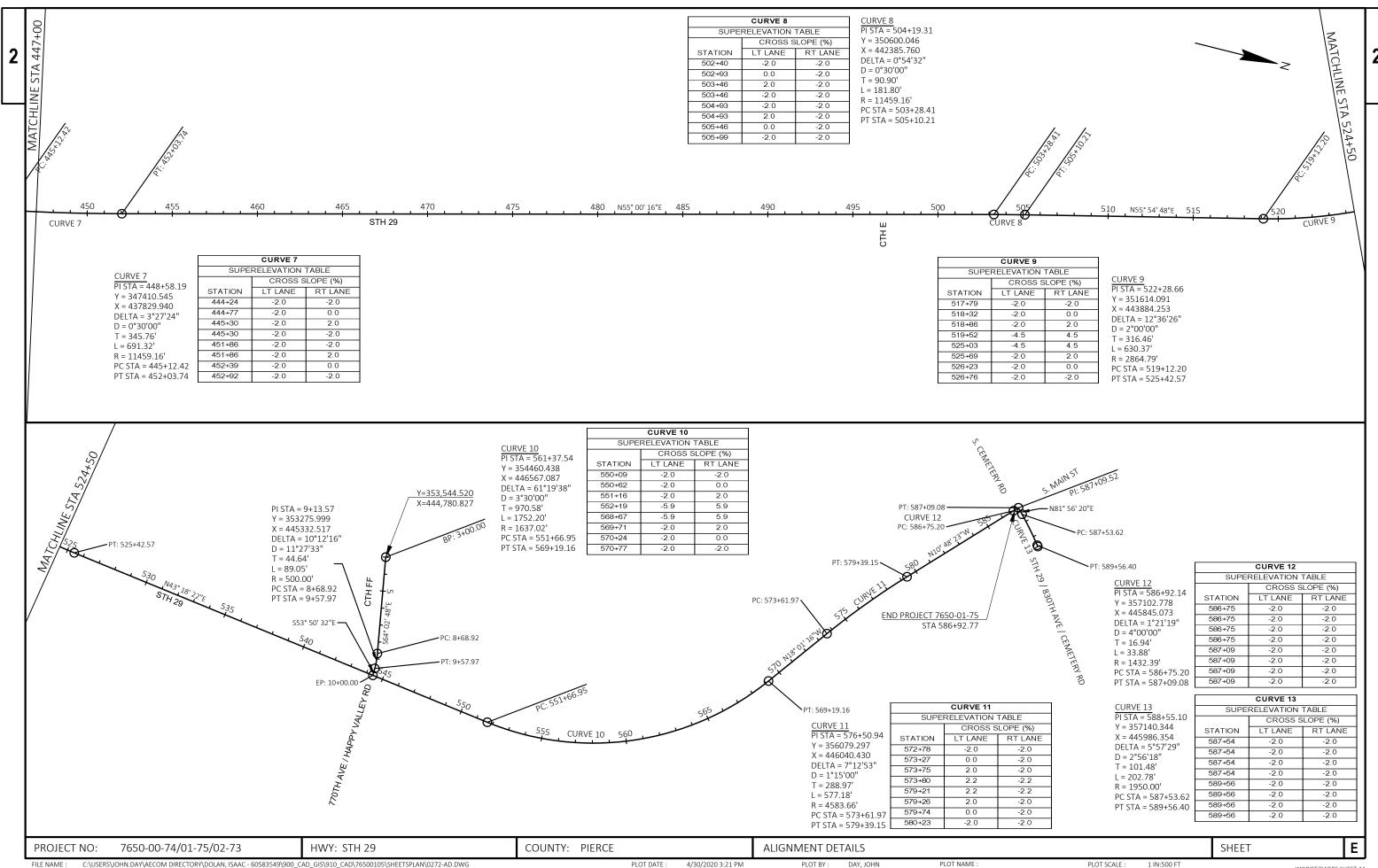












					7650-00-74	7650-01-75	7650-02-73
Line	Item	Item Description	Unit	Total	Qty	Qty	Qty
0002	201.0105	5 Clearing		12.000	3.000	7.000	2.000
0004	201.0205	205 Grubbing		12.000	3.000	7.000	2.000
0006	203.0100	· · · · · · · · · · · · · · · · · · ·		1.000		1.000	
8000	203.0200	Removing Old Structure (station) 01. 558+37.05	LS	1.000	1.000		
0010	203.0210.S	Abatement of Asbestos Containing Material (structure) 01. B-47-0021	LS	1.000		1.000	
0012	203.0700.S	Removing Old Structure Over Waterway With Debris Capture System (station) 01. 479+62	LS	1.000		1.000	
0014	204.0100	Removing Concrete Pavement	SY	76,100.000	720.000	68,880.000	6,500.000
0016	204.0110	Removing Asphaltic Surface	SY	21,790.000	380.000	18,470.000	2,940.000
0020	204.0150	Removing Curb & Gutter	LF	473.000		226.000	247.000
0022	204.0155	Removing Concrete Sidewalk	SY	20.000		20.000	
0024	204.0165	Removing Guardrail	LF	3,371.000	510.000	2,861.000	
0026	204.0180	Removing Delineators and Markers	EACH	14.000	2.000	10.000	2.000
0028	204.0195	Removing Concrete Bases	EACH	2.000		2.000	
0030	204.0210	Removing Manholes	EACH	1.000		1.000	
0032	204.0220	Removing Inlets	EACH	1.000		1.000	
0034	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	8.000		8.000	
0036	204.0245	Removing Storm Sewer (size) 02. 15-Inch	LF	33.000		33.000	
0038	204.0245	Removing Storm Sewer (size) 03. 24-Inch	LF	16.000		16.000	
0040	204.9060.S	Removing (item description) 01. Apron Endwalls	EACH	3.000		2.000	1.000
0042	205.0100	Excavation Common	CY	44,027.000	1,009.000	33,779.000	9,239.000
0044	206.1000	Excavation for Structures Bridges (structure) 01. B-47-0021	LS	1.000		1.000	
0046	206.2000	Excavation for Structures Culverts (structure) 01. B-47-0230	LS	1.000	1.000		
0048	210.2500	Backfill Structure Type B	TON	6,160.000	6,160.000		
0050	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 7650-00-74	LS	1.000	1.000		
0054	211.0100	Prepare Foundation for Asphaltic Paving (project) 03. 7650-01-75	LS	1.000		1.000	
0056	211.0100	Prepare Foundation for Asphaltic Paving (project) 04. 7650-02-73	LS	1.000			1.000
0058	213.0100	Finishing Roadway (project) 01. 7650-00-74	EACH	1.000	1.000		
0062	213.0100	Finishing Roadway (project) 03. 7650-01-75	EACH	1.000		1.000	
0064	213.0100	Finishing Roadway (project) 04. 7650-02-73	EACH	1.000			1.000
0066	305.0110	Base Aggregate Dense 3/4-Inch	TON	9,990.000	121.000	9,020.000	849.000
0068	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	12,577.000	1,346.000	10,359.000	872.000
0072	311.0115	Breaker Run	CY	300.000	300.000		
0074	415.0410	Concrete Pavement Approach Slab	SY	224.000		224.000	
0076	416.0160	Concrete Driveway 6-Inch	SY	22.000			22.000

Page 2

7650-00-74 7650-01-75 7650-02-73 **Item Description** Unit Total Line Item Qty Qty Qty 0078 455.0605 Tack Coat GAL 16,542.000 248.000 14,440.000 1,854.000 0084 460.2005 Incentive Density PWL HMA Pavement DOL 32,640.000 460.000 28,160.000 4,020.000 0086 460.2007 Incentive Density HMA Pavement Longitudinal Joints DOL 34,330.000 330.000 31,070.000 2,930.000 DOL 0088 460.2010 Incentive Air Voids HMA Pavement 48,480.000 730.000 42,230.000 5,520.000 0090 460.6223 TON HMA Pavement 3 MT 58-28 S 34,583.000 520.000 30,160.000 3,903.000 TON 0092 460.6644 HMA Pavement 4 MT 58-34 V 13,887.000 207.000 12,070.000 1,610.000 0094 TON 46.000 465.0105 Asphaltic Surface 108.000 34.000 28.000 0096 465.0120 Asphaltic Surface Driveways and Field Entrances TON 72.000 52.000 20.000 0098 465.0125 Asphaltic Surface Temporary TON 2.000 2.000 0100 465.0315 Asphaltic Flumes SY 19.000 10.000 9.000 Asphaltic Shoulder Rumble Strips 2-Lane Rural LF 2,704.000 0102 465.0425 48,583.000 315.000 45,564.000 Asphalt Centerline Rumble Strips 2-Lane Rural LF 0104 465.0475 19,082.000 19,082.000 Concrete Masonry Bridges CY 72.000 0106 502.0100 72.000 SY 0108 502.3200 **Protective Surface Treatment** 300.000 300.000 0110 502.3210 Pigmented Surface Sealer SY 70.000 70.000 **EACH** 0112 Adhesive Anchors No. 5 Bar 51.000 51.000 502.4205 CY 730.000 0114 504.0100 Concrete Masonry Culverts 730.000 LB 0116 505.0400 Bar Steel Reinforcement HS Structures 87,180.000 87,180.000 0118 505.0600 Bar Steel Reinforcement HS Coated Structures LB 22,370.000 3,170.000 19,200.000 0120 509.0301 Preparation Decks Type 1 SY 15.000 15.000 0122 509.0302 Preparation Decks Type 2 SY 6.000 6.000 0124 509.0505.S Cleaning Decks to Reapply Concrete Masonry Overlay SY 200.000 200.000 0126 Concrete Surface Repair 20.000 20.000 509.1500 SY 3.000 0128 509.2000 Full-Depth Deck Repair 3.000 0130 509.2500 Concrete Masonry Overlay Decks CY 20.000 20.000 0132 509.9005.S Removing Concrete Masonry Deck Overlay (structure) SY 200.000 200.000 01. B-47-0021 0134 Rubberized Membrane Waterproofing SY 161.000 155.000 6.000 516.0500 0138 520.1030 Apron Endwalls for Culvert Pipe 30-Inch **EACH** 2.000 2.000 LF 0152 520.3330 Culvert Pipe Class III-A 30-Inch 72.000 72.000 0158 520.8000 Concrete Collars for Pipe **EACH** 3.000 2.000 1.000 **EACH** 2.000 1.000 0160 520.8700 Cleaning Culvert Pipes 3.000 0162 521.1024 Apron Endwalls for Culvert Pipe Steel 24-Inch **EACH** 1.000 1.000 Apron Endwalls for Culvert Pipe Steel 42-Inch **EACH** 0164 521.1042 1.000 1.000 0166 Apron Endwalls for Culvert Pipe Steel 72-Inch **EACH** 1.000 521.1072 1.000 LF 4.000 0168 521.3124 Culvert Pipe Corrugated Steel 24-Inch 4.000 LF 0170 521.3142 Culvert Pipe Corrugated Steel 42-Inch 10.000 10.000 0172 521.3172 Culvert Pipe Corrugated Steel 72-Inch LF 8.000 8.000 81.000 0178 601.0415 Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type J LF 81.000 0180 601.0557 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D 420.000 228.000 192.000

					7650-00-74	7650-01-75	7650-02-73	
Line	Item	Item Description	Unit	Total	Qty	Qty	Qty	
0182	602.0405	Concrete Sidewalk 4-Inch	SF	696.000	116.000	237.000	343.000	
0184	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	100.000	40.000	20.000	40.000	
0188	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	28.000			28.000	
0192	606.0400	Riprap Extra-Heavy	CY	120.000	120.000			
0194	608.0512	Storm Sewer Pipe Reinforced Concrete Class V 12-Inch	LF	24.000		24.000		
0196	608.0515	Storm Sewer Pipe Reinforced Concrete Class V 15-Inch	LF	33.000		33.000		
0198	608.0524	Storm Sewer Pipe Reinforced Concrete Class V 24-Inch	LF	16.000		16.000		
0200	611.0530	Manhole Covers Type J	EACH	2.000		2.000		
0202	611.0624	Inlet Covers Type H	EACH	1.000		1.000		
0204	611.1230	Catch Basins 2x3-FT	EACH	1.000		1.000		
0206	611.2004	Manholes 4-FT Diameter	EACH	2.000		2.000		
0208	612.0902.S	Insulation Board Polystyrene (inch) 01. 2-Inch	SY	7.200		7.200		
0210	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000		4.000		
0212	614.0305	Steel Plate Beam Guard Class A	LF	1,017.400		1,017.400		
0214	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	2.000		2.000		
0216	614.2300	MGS Guardrail 3	LF	1,093.200	300.000	793.200		
0218	614.2500	MGS Thrie Beam Transition	LF	157.600		157.600		
0220	614.2610	MGS Guardrail Terminal EAT	EACH	22.000	4.000	18.000		
0222	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7650-00-74	EACH	1.000	1.000			
0226	618.0100	Maintenance And Repair of Haul Roads (project) 03. 7650-01-75	EACH	1.000		1.000		
228	618.0100	Maintenance And Repair of Haul Roads (project) 04. 7650-02-73	EACH	1.000			1.000	
230	619.1000	Mobilization	EACH	0.600	0.120	0.400	0.080	
232	624.0100	Water	MGAL	227.700	15.400	194.800	17.500	
234	625.0100	Topsoil	SY	60,368.000	5,545.000	42,008.000	12,815.000	
236	627.0200	Mulching	SY	50,500.000	2,841.000	36,915.000	10,744.000	
238	628.1504	Silt Fence	LF	8,620.000	710.000	6,615.000	1,295.000	
240	628.1520	Silt Fence Maintenance	LF	8,620.000	710.000	6,615.000	1,295.000	
)242	628.1905	Mobilizations Erosion Control	EACH	8.000	2.000	4.000	2.000	
)244	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	1.000	2.000	1.000	
248	628.2006	Erosion Mat Urban Class I Type A	SY	9,869.000	2,704.000	5,094.000	2,071.000	
0250	628.7015	Inlet Protection Type C	EACH	6.000		6.000		
)252	628.7504	Temporary Ditch Checks	LF	472.000		448.000	24.000	
)254	628.7555	Culvert Pipe Checks	EACH	158.000		142.000	16.000	
256	628.7570	Rock Bags	EACH	200.000	20.000	140.000	40.000	
)258	629.0210	Fertilizer Type B	CWT	40.600	3.600	28.400	8.600	
0260	630.0130	Seeding Mixture No. 30	LB	1,110.000	100.000	776.000	234.000	
0262	630.0500	Seed Water	MGAL	1,355.600	124.500	943.300	287.800	

					7650-00-74	7650-01-75	7650-02-73
Line	Item	Item Description	Unit	Total	Qty	Qty	Qty
0264	633.5200	Markers Culvert End		14.000	2.000	10.000	2.000
0268	634.0616	Posts Wood 4x6-Inch X 16-FT		3.000			3.000
0270	637.2230	Signs Type II Reflective F	EACH SF	38.250			38.250
0272	638.2102	Moving Signs Type II	EACH	94.000	1.000	61.000	32.000
0274	638.4000	Moving Small Sign Supports	EACH	76.000	1.000	60.000	15.000
0276	642.5401	Field Office Type D	EACH	0.600	0.120	0.400	0.080
0278	643.0300	Traffic Control Drums	DAY	1,710.000	9	1,710.000	
0280	643.0410	Traffic Control Barricades Type II	DAY	640.000	570.000	70.000	
0282	643.0420	Traffic Control Barricades Type III	DAY	10,405.000	2,755.000	6,282.000	1,368.000
0284	643.0705	Traffic Control Warning Lights Type A	DAY	17,762.000	3,230.000	11,796.000	2,736.000
0286	643.0715	Traffic Control Warning Lights Type C	DAY	1,710.000	5,250.000	1,710.000	_,. 55.555
0288	643.0900	Traffic Control Signs	DAY	46,651.000	1,425.000	43,858.000	1,368.000
0290	643.0920	Traffic Control Covering Signs Type II	EACH	16.000	1,120.000	16.000	1,000.000
0290	643.1050	Traffic Control Signs PCMS	DAY	14.000		14.000	
0292	643.5000	Traffic Control	EACH	0.600	0.120	0.400	0.080
0294	644.1410	Temporary Pedestrian Surface Asphalt	SF	1,015.000	0.120	1,015.000	0.000
0298	644.1601	Temporary Pedestrian Curb Ramp	DAY	190.000		190.000	
0300	645.0120	·	SY	270.000	270.000	190.000	
0300	646.1020	Geotextile Type HR Marking Line Epoxy 4-Inch	LF			22 227 000	7,540.000
		• • •	LF	41,617.000	750.000	33,327.000	
0304	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch		55,466.000	436.000	50,448.000	4,582.000
0308	646.3040	Marking Line Grooved Wet Ref Epoxy 8-Inch	LF	2,901.000		1,405.000	1,496.000
0310	646.5020	Marking Arrow Epoxy	EACH	21.000		11.000	10.000
0312	646.5120	Marking Word Epoxy	EACH	11.000		6.000	5.000
0314	646.6120	Marking Stop Line Epoxy 18-Inch	LF	48.000		48.000	
0316	646.7120	Marking Diagonal Epoxy 12-Inch	LF	1,634.000	166.000	844.000	624.000
0318	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	451.000	75.000	234.000	142.000
0322	648.0100	Locating No-Passing Zones	MI	5.410	0.460	4.900	0.050
0324	650.4000	Construction Staking Storm Sewer	EACH	3.000		3.000	
0326	650.4500	Construction Staking Subgrade	LF	5,757.000	269.000	5,321.000	167.000
0328	650.5000	Construction Staking Base	LF	28,750.000	269.000	25,879.000	2,602.000
0330	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	501.000		228.000	273.000
0332	650.6000	Construction Staking Pipe Culverts	EACH	4.000		3.000	1.000
0334	650.6500	Construction Staking Structure Layout (structure) 01. B-47-0230	LS	1.000	1.000		
0336	650.6500	Construction Staking Structure Layout (structure) 02. B-47-0021	LS	1.000		1.000	
0338	650.8500	Construction Staking Electrical Installations (project) 01. 7650-01-75	LS	1.000		1.000	
0340	650.9000	Construction Staking Curb Ramps	EACH	6.000		3.000	3.000
0342	650.9910	Construction Staking Supplemental Control (project) 01. 7650-00-74		1.000	1.000		

					7650-00-74	7650-01-75	7650-02-73
Line	Item	Item Description	Unit	Total	Qty	Qty	Qty
0346	650.9910	Construction Staking Supplemental Control (project) 03 7650-01-75	. LS	1.000		1.000	
0348	650.9910	Construction Staking Supplemental Control (project) 04 7650-02-73	. LS	1.000			1.000
0350	650.9920	Construction Staking Slope Stakes	LF	28,750.000	269.000	25,879.000	2,602.000
0352	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	210.000		210.000	
0354	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	27.000		27.000	
0356	652.0240	Conduit Rigid Nonmetallic Schedule 40 4-Inch	LF	156.000		156.000	
0358	652.0625	Conduit Special 4-Inch	LF	350.000		350.000	
0360	652.0700.S	Install Conduit into Existing Item	EACH	3.000		3.000	
0362	652.0800	Conduit Loop Detector	LF	240.000		240.000	
0364	653.0140	Pull Boxes Steel 24x42-Inch	EACH	2.000		2.000	
0366	653.0905	Removing Pull Boxes	EACH	2.000		2.000	
0368	654.0101	Concrete Bases Type 1	EACH	2.000		2.000	
0370	654.0102	Concrete Bases Type 2	EACH	1.000		1.000	
0372	655.0230	Cable Traffic Signal 5-14 AWG	LF	173.000		173.000	
0374	655.0240	Cable Traffic Signal 7-14 AWG	LF	311.000		311.000	
0376	655.0260	Cable Traffic Signal 12-14 AWG	LF	723.000		723.000	
0378	655.0270	Cable Traffic Signal 15-14 AWG	LF	632.000		632.000	
0380	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	1,388.000		1,388.000	
0382	655.0610	Electrical Wire Lighting 12 AWG	LF	702.000		702.000	
0384	655.0700	Loop Detector Lead In Cable	LF	2,840.000		2,840.000	
0386	655.0800	Loop Detector Wire	LF	744.000		744.000	
0388	655.0900	Traffic Signal EVP Detector Cable	LF	1,209.000		1,209.000	
0390	657.0100	Pedestal Bases	EACH	1.000		1.000	
0392	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	1.000		1.000	
0394	690.0150	Sawing Asphalt	LF	656.000	28.000	525.000	103.000
0396	690.0250	Sawing Concrete	LF	258.000	_0.000	258.000	
0398	715.0502	Incentive Strength Concrete Structures	DOL	4,812.000	4,380.000	432.000	
0400	740.0440	Incentive IRI Ride	DOL	10,850.000	110.000	9,810.000	930.000
0402	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,100.000	2,100.000	3,5.0.000	220.000
0404	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	2,400.000	2,400.000		
0406	SPV.0060	Special 01. Steel Plate Beam Guard Connection	EACH	2.000	2, .50.000	2.000	
0408	SPV.0090	Special 01. Ditch Cleaning	LF	435.000		435.000	
0412	SPV.0090	Special 03. Wood Guardrail Salvaged	LF	193.000	193.000	100.000	
0414	SPV.0105	Special 01. Salvage and Reinstall Traffic Signal	LS	1.000	100.000	1.000	
0446	CDV 0405	Equipment STH 29 & Cemetery Rd.	1.0	1.000	4.000		
0416	SPV.0105	Special 02. Temporary Stream Diversion Structure B-47-0230	LS	1.000	1.000		

204.0110

#### **CLEARING AND GRUBBING**

			201.0150 CLEARING	201.0205 GRUBBING
STATION	•	STATION	STA	STA
356+50	-	357+50	1	1
511+00	-	513+00	2	2
556+00	-	557+00	1	1
560+00	-	562+50	3	3
PROJECT 765	0-01-	75 TOTAL	7	7
557+00	-	560+00	3	3
PROJECT 765	0-00-	74 TOTAL	3	3
537+00	-	538+00	1	1
539+00	-	540+00	1	1
PROJECT 765	0-02-	73 TOTAL	2	2
TOTAL	:	<u> </u>	12	12

**REMOVING PIPE** 

203.0100 REMOVING SMALL PIPE CULVERTS APPROX.

**EACH** STATION - STATION **OFFSET** SIZE (IN) LENGTH (FT) TYPE 327+13 RT, LT 74 CMP

PROJECT 7650-01-75 TOTAL

**REMOVING PAVEMENT** 

				20-110110
			204.0100	REMOVING
			REMOVING	<b>ASPHALTIC</b>
			<b>PAVEMENT</b>	SURFACE
STATION	-	STATION	SY	SY
301+00	-	479+30	47550	11890
479+96	-	532+73	14080	3520
559+77	-	586+93	7250	1820
307+64	-	310+38		250
334+45	-	336+45		220
379+03	-	381+20		140
392+99	-	394+16		110
408+57	-	410+86		190
493+56	-	497+75		330
PROJECT 765	0-01-	75 TOTAL	68880	18470
557+08	-	559+77	720	180
558+98	-	559+77		200
PROJECT 765	0-00-7	74 TOTAL	720	380
532+73		557+08	6500	1630
542+84	-	545+70		1310
PROJECT 765	0-02-	73 TOTAL	6500	2940
TOTAL		:	76100	21790

#### **REMOVING CURB & GUTTER**

204.0150 REMOVING **CURB & GUTTER** 

STATION - STATION OFFSET LF 586+16 - 589+05 226 PROJECT 7650-01-75 TOTAL 226 543+67 - 543+99 59 LT LT 544+01 - 544+33 132 544+57 - 545+07 LT 56 PROJECT 7650-02-73 TOTAL 247 TOTAL 473

#### REMOVING GUARDRAIL

204.0165 REMOVING

				GUARDRAIL
STATION	-	STATION	OFFSET	LF
336+65	-	338+32	LT	167
355+81	-	357+60	RT	179
356+03	-	357+81	LT	179
381+38	-	383+28	RT	191
381+75	-	383+65	LT	191
388+04	-	393+26	LT	611
393+77	-	398+38	LT	482
477+94	-	479+19	RT	126
478+15	-	479+40	LT	126
479+85	-	481+10	RT	125
480+06	-	481+31	LT	125
511+94	-	513+62	LT	168
512+91	-	514+81	RT	191
ROJECT	76	50-01-75 TOT	AL	2861
556+68	-	558+83	RT	218
557+52	-	560+50	LT	292
ROJECT	76	50-00-74 TOT	AL	510
OTAL				3371

#### **REMOVING SIDEWALK**

204.0155 REMOVING CONCRETE SIDEWALK STATION - STATION OFFSET SY 587+66 - 587+98 20 PROJECT 7650-01-75 TOTAL 20

HWY: STH 29 PROJECT NO: 7650-00-74/01-75/02-73 COUNTY: PIERCE MISCELLANEOUS QUANTITIES SHEET E

FILE NAME: \\P:\60548152\900\_Work\910\_CAD\60548152\SheetsPlan\0302-MQ.pptx PLOT DATE: 10/1/2020 9:38 AM PLOT BY: DOLAN, ISAAC PLOT SCALE: PLOT NAME: WISDOT / CADDS SHEET 41

DIVISION	FROM/TO STATION	FROM/TO STATION	FROM/TO STATION	FROM/TO STATION	FROM/TO STATION	FROM/TO STATION	FROM/TO STATION	FROM/TO STATION	LOCATION	EXC	MMON AVATION (1) # 205.0100) EBS	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (6)	MASS ORDINATE +/- (7)	WASTE	BORROW	COMMENT
			CUT	EXCAVATION	(4)			FACTOR	'''		(ITEM #200 0100)								
			(2)	(3)				1.25			(ITEM #208.0100)								
7650-00-74	557+08.41 to 559+76.85	STH 29	1009	0	1263	-254	717	896	-1150	0	0	Use excess cut from 7650-02-73							
7650-01-75	301+00.00 to 532+72.66, 559+76.85 to 586+92.77	STH 29	33779	0	11639	22140	3768	4704	17428	17428	0								
7650-02-73	532+72.66 to 557+08.41	STH 29	9239	0	1263	7976	2771	3464	4512	4512	0								
PROJECT TOTAL 44027 0					14165	29862	7256	9065	20789	21939	0								
		TOTAL	COMMON EXC =	44027	-	-			•	-									

- 1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
- 2) Cut includes Salvaged/Unsuable Pavement Material.
- 3) EBS Excavation is found to be required, backfill with suitable excess Cut material.
- 4) Salvaged/Unusable Pavement Material was totaled and equally distributed over each of the Construction IDs.
- 5) Available Material = Cut Salvaged/Unusuable Pavement Material
- 6) Expanded Fill. Factor = 1.25
- 7) The Mass Ordinate + or Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUNTY: PIERCE MISCELLANEOUS QUANTITIES SHEET **E** 

#### REMOVING DELINEATORS AND MARKERS

REMOVING **DELINEATORS** 

AND MARKERS

14

STATION	LOCATION	EACH
312+75	LT	1
312+82	LT	1
327+00	RT	1
327+21	LT	1
337+19	LT	1
337+25	LT	1
382+52	LT	1
475+43	LT, RT	2
497+04	LT	1

PROJECT 7650-01-75 TOTAL 10								
557+70	RT	1						
559+16	LT	1						
PROJECT 7650-00	PROJECT 7650-00-74 TOTAL							
536+52	LT	1						
541+07	LT	1						

## PREPARE FOUNDATION FOR ASPHALTIC PAVING

211.0100 **PREPARE FOUNDATION** FOR ASPHALTIC PAVING (PROJECT)

PROJECT	EACH
7650-01-75	1
7650-00-74	1
7650-02-73	1
TOTAL	3

## **CONCRETE PAVEMENT**

TOTAL

PROJECT 7650-02-73 TOTAL

STATION	- ST/	ATION	LOCATION	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0160 CONCRETE DRIVEWAY 6-INCH SY	NOTES	
479+04		9+40	B-47-0021	113			
479+86		0+20	B-47-0021	111			
PROJECT	7650-01	-75 TOTAL		224	0		
548+30	- 54	8+60	RT		22		
PROJECT	7650-02	-73 TOTAL		0	22		
TOTAL				224	22		

#### FINISHING ROADWAY

213.0100 **FINISHING ROADWAY** (PROJECT) **PROJECT EACH** 7650-01-75 7650-00-74 7650-02-73 TOTAL

<b>BASE</b>	AGGREGATE DENSE	

STATION	_	STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON	624.010 WATER MGAL
301+00	-	479+40	STH 29, SHOULDERS	5238		52.4
479+86	-	532+73	STH 29, SHOULDERS	1592		16.0
559+77	-	586+93	STH 29, SHOULDERS	687		6.9
308+05	-	340+45	STH 29, MAINLINE		5760	57.6
355+38	-	360+87	STH 29, MAINLINE		976	9.8
380+73	-	385+75	STH 29, MAINLINE		893	9.0
398+62	-	404+26	STH 29, MAINLINE		1003	10.1
	-		UNDISTRIBUTED	1504	1727	33
PROJECT	76	50-01-75 TO	TAL	9,020	10,359	194.8
557+08	-	559+77	STH 29, SHOULDERS	100		1.1
557+08	-	559+77	STH 29, MAINLINE		1100	11.0
544+75		545+24	TEMP. PEDESTRIAN CTH FF		19	0.2
545+33		545+50	TEMP. PEDESTRIAN HAPPY VALLEY		7	0.1
	-		UNDISTRIBUTED	21	220	3
PROJECT	76	50-00-74 TO	TAL	121	1,346	15.4
532+73	-	544+16	STH 29, SHOULDERS	300		3.1
545+05	-	557+08	STH 29, SHOULDERS	359		3.6
7+91	-	9+70	CTH FF, SHOULDERS	48		0.5
7+92	-	9+70	CTH FF, MAINLINE		726	7.3
			UNDISTRIBUTED	142	146	3
PROJECT	76	50-02-73 TO	TAL	849	872	17.5
				9,991	12,577	227.7

PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUNTY: PIERCE MISCELLANEOUS QUANTITIES SHEET E FILE NAME: \\P:\60548152\900\_Work\910\_CAD\60548152\SheetsPlan\0302-MQ.pptx PLOT DATE: 10/1/2020 9:38 AM PLOT BY: DOLAN, ISAAC PLOT NAME: PLOT SCALE: WISDOT / CADDS SHEET 41

#### PWL MIXTURE USE TABLE

(TEST STRIPS TO BE PAID FOR UNDER PROJECT 7650-01-74)

	0 - 479+04         STH 29, MAINLINE           0 - 479+04         STH 29, MAINLINE           0 - 479+04         STH 29, MAINLINE           0 - 479+04         STH 29, SHOULDERS           0 - 479+04         STH 29, SHOULDERS           0 - 479+04         STH 29, SHOULDERS           0 - 532+73         STH 29, MAINLINE           0 - 532+73         STH 29, MAINLINE           0 - 532+73         STH 29, SHOULDERS           7 - 586+93         STH 29, MAINLINE           7 - 586+93         STH 29, SHOULDERS           7 - 586+93         STH 29, SHOULDERS           2 - 589+06         STH 29, SHOULDERS           VARIOUS         STH 29, MAINLINE           8 - 559+77         STH 29, MAINLINE           8 - 559+77         STH 29, SHOULDERS           8 - 559+77         STH 29, SHOULDERS           8 - 559+77         STH 29, SHOULDERS      <	,	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	ACCEPTANCE (SEE NOTES BELOW)	ACCEPTANCE (SEE NOTES BELOW)
7650-01-75									
301+00 -	479+04	STH 29, MAINLINE	LOWER LAYER	BASE AGGREGATE	460.6223	6,945	2.5"	(1)	(4)
301+00 -	479+04	STH 29, MAINLINE	MIDDLE LAYER	3 MT 58-28 S	460.6223	6,945	2.5"	(1)	(4)
301+00 -	479+04	STH 29, MAINLINE	UPPER LAYER	3 MT 58-28 S	460.6644	5,560	2.0"	(1)	(4)
301+00 -	479+04	STH 29, SHOULDERS	LOWER LAYER	BASE AGGREGATE	460.6223	3145	2.5"	(1)	(5)
301+00 -	479+04	STH 29, SHOULDERS	MIDDLE LAYER	3 MT 58-28 S	460.6223	3145	2.5"	(1)	(5)
301+00 -	479+04	STH 29, SHOULDERS	UPPER LAYER	3 MT 58-28 S	460.6644	2,500	2.0"	(1)	(5)
480+20 -	532+73	STH 29, MAINLINE	LOWER LAYER	BASE AGGREGATE	460.6223	2050	2.5"	(1)	(4)
480+20 -	532+73	STH 29, MAINLINE	MIDDLE LAYER	3 MT 58-28 S	460.6223	2050	2.5"	(1)	(4)
480+20 -	532+73	STH 29, MAINLINE	UPPER LAYER	3 MT 58-28 S	460.6644	1,640	2.0"	(1)	(4)
480+20 -	532+73	STH 29, SHOULDERS	LOWER LAYER	BASE AGGREGATE	460.6223	1220	2.5"	(1)	(5)
480+20 -	532+73	STH 29, SHOULDERS	MIDDLE LAYER	3 MT 58-28 S	460.6223	1220	2.5"	(1)	(5)
480+20 -	532+73	STH 29, SHOULDERS	UPPER LAYER	3 MT 58-28 S	460.6644	990	2.0"	(1)	(5)
559+77 -	586+93	STH 29, MAINLINE	LOWER LAYER	BASE AGGREGATE	460.6223	1060	2.5"	(1)	(4)
559+77 -	586+93	STH 29, MAINLINE	MIDDLE LAYER	3 MT 58-28 S	460.6223	1060	2.5"	(1)	(4)
559+77 -	586+93	STH 29, MAINLINE	UPPER LAYER	3 MT 58-28 S	460.6644	850	2.0"	(1)	(4)
559+77 -	586+93	STH 29, SHOULDERS	LOWER LAYER	BASE AGGREGATE	460.6223	660	2.5"	(1)	(5)
559+77 -	586+93	STH 29, SHOULDERS	MIDDLE LAYER	3 MT 58-28 S	460.6223	660	2.5"	(1)	(5)
559+77 -	586+93	STH 29, SHOULDERS	UPPER LAYER	3 MT 58-28 S	460.6644	530	2.0"	(1)	(5)
586+12 -	589+06	STH 29, MULTI-USE PATH	LOWER LAYER	BASE AGGREGATE	465.0105	34	3.0"	(3)	(7)
VARI	OUS	STH 29, DRIVEWAYS	LOWER LAYER	BASE AGGREGATE	465.0120	52	3.0"	(3)	(7)
7650-00-74									
557+08 -	559+77	STH 29, MAINLINE	LOWER LAYER	BASE AGGREGATE	460.6223	186	2.5"	(1)	(4)
557+08 -	559+77	STH 29, MAINLINE	MIDDLE LAYER	3 MT 58-28 S	460.6223	186	2.5"	(1)	(4)
557+08 -	559+77	STH 29, MAINLINE	UPPER LAYER	3 MT 58-28 S	460.6644	84	2.0"	(1)	(4)
557+08 -	559+77	STH 29, SHOULDERS	LOWER LAYER	BASE AGGREGATE	460.6223	74	2.5"	(1)	(5)
557+08 -	559+77	STH 29, SHOULDERS	MIDDLE LAYER	3 MT 58-28 S	460.6223	74	2.5"	(1)	(5)
557+08 -	559+77	STH 29, SHOULDERS	UPPER LAYER	3 MT 58-28 S	460.6644	123	2.0"	(1)	(5)
557+05 -	559+06	STH 29, MULTI-USE PATH	LOWER LAYER	BASE AGGREGATE	465.0105	45	3.0"	(3)	(6)
559+65 -	559+70	STH 29, MULTI-USE PATH	LOWER LAYER	BASE AGGREGATE	465.0105	1	3.0"	(3)	(6)
559+55	559+84	STH 29, TEMP FOR TRAFFIC CONTROL	LOWER LAYER	BASE AGGREGATE	465.0125	2	3.0"	(3)	(6)
7650-02-73									
532+73 -	557+08	STH 29, MAINLINE	LOWER LAYER	BASE AGGREGATE	460.6223	1434.5	2.5"	(1)	(4)
532+73 -	557+08	STH 29, MAINLINE	MIDDLE LAYER	3 MT 58-28 S	460.6223	1434.5	2.5"	(1)	(4)
532+73 -	557+08	STH 29, MAINLINE	UPPER LAYER	3 MT 58-28 S	460.6644	1,148	2.0"	(1)	(4)
532+73 -	557+08	STH 29, SHOULDERS	LOWER LAYER	BASE AGGREGATE	460.6223	427	2.5"	(1)	(5)
532+73 -	557+08	STH 29, SHOULDERS	MIDDLE LAYER	3 MT 58-28 S	460.6223	427	2.5"	(1)	(5)
532+73 -	557+08	STH 29, SHOULDERS	UPPER LAYER	3 MT 58-28 S	460.6644	342	2.0"	(1)	(5)
7+91 -	9+63	CTH FF	LOWER LAYER	BASE AGGREGATE	460.6223	180	3.0"	(1)	(5)
7+91 -	9+63	CTH FF	UPPER LAYER	3 MT 58-28 S	460.6644	120	2.0"	(1)	(5)
8+48 -	9+50	CTH FF, MULTI-USE PATH	LOWER LAYER	BASE AGGREGATE	465.0105	24	3.0"	(3)	(6)
545+00 -	545+20	STH 29, MULTI-USE PATH	LOWER LAYER	BASE AGGREGATE	465.0105	4	3.0"	(3)	(6)
VARI	OUS	STH 29, DRIVEWAYS	LOWER LAYER	BASE AGGREGATE	465.0120	20	3.0"	(3)	(6)

#### NOTES:

- (1) 460.2010 PWL INCENTIVE AIR VOIDS HMA PAVEMENT
- (2) QMP AS PER STANDARD SPECIFICATIONS SECTION 460
- (3) QMP AS PER STANDARD SPECIFICATIONS SECTION 465
- (4) 460.2005 INCENTIVE DENSITY PWL HMA PAVEMENT
- (5) ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
- (6) ACCEPTANCE BY ORDINARY COMPACTION

PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUN

COUNTY: PIERCE MIS

MISCELLANEOUS QUANTITIES

PLOT BY: DOLAN, ISAAC PLOT NAME:

MIXTURE

DENSITY

PLOT SCALE:

WISDOT / CADDS SHEET 41

ASPHALTIC ITEMS						
	455.0605 TACK COAT	460.6223 HMA PAVEMENT 3 MT 58-28 S	460.6644 HMA PAVEMENT 4 MT 58-34 V	465.0105 ASPHALTIC SURFACE	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	465.0125 ASPHALTIC SURFACE TEMPORARY
STATION - STATION LOCATION	GAL	TON	TON	TON	TON	TON
301+00 - 479+04 STH 29, MAINLINE	6,650	13,890	5,560			
301+00 - 479+04 STH 29, SHOULDERS	2,990	6,290	2,500			
480+20 - 532+73 STH 29, MAINLINE	1,970	4,100	1,640			
480+20 - 532+73 STH 29, SHOULDERS	1,180	2,440	990			
559+77 - 586+93 STH 29, MAINLINE	1,020	2,120	850			
559+77 - 586+93 STH 29, SHOULDERS	630	1,320	530			
586+12 - 589+06 STH 29, MULTI-USE PATH				34		
397+59 - 398+57 STH 29, DRIVEWAY					4	
408+97 - 410+00 STH 29, DRIVEWAY					4	
431+65 - 432+85 STH 29, DRIVEWAY					4	
439+03 - 439+50 STH 29, DRIVEWAY					4	
448+05 - 448+59 STH 29, DRIVEWAY					4	
459+33 - 460+02 STH 29, DRIVEWAY					4	
471+35 - 471+98 STH 29, DRIVEWAY					4	
476+77 - 477+70 STH 29, DRIVEWAY					4	
497+77 - 498+35 STH 29, DRIVEWAY					4	
562+47 - 562+98 STH 29, DRIVEWAY					4	
575+61 - 575+94 STH 29, DRIVEWAY					4	
576+22 - 576+60 STH 29, DRIVEWAY					4	
577+57 - 577+83 STH 29, DRIVEWAY					4	
PROJECT 7650-01-75 TOTAL	14,440	30,160	12,070	34	52	0
557+08 - 559+77 STH 29, MAINLINE	101	372	84			
557+08 - 559+77 STH 29, SHOULDERS	147	148	123			
557+05 - 559+06 STH 29, MULTI-USE PATH				45		
559+65 - 559+70 STH 29, MULTI-USE PATH				1		
559+55 559+84 STH 29, TEMP FOR TRAFFIC CONTROL						2
PROJECT 7650-00-74 TOTAL	248	520	207	46	0	2
532+73 - 557+08 STH 29, MAINLINE	1,373	2,869	1,148			
532+73 - 557+08 STH 29, SHOULDERS	409	854	342			
7+91 - 9+63 CTH FF	72	180	120			
8+48 - 9+50 CTH FF, MULTI-USE PATH				24		
532+48 - 533+09 STH 29, DRIVEWAY					4	
533+71 - 534+28 STH 29, DRIVEWAY					4	
545+00 - 545+20 STH 29, MULTI-USE PATH				4		
549+56 - 549+93 STH 29, DRIVEWAY					4	
552+89 - 553+25 STH 29, DRIVEWAY					4	
556+31 - 556+62 STH 29, DRIVEWAY					4	
PROJECT 7650-02-73 TOTAL	1,854	3,903	1,610	28	20	0
	•					
TOTAL	16,542	34,583	13,887	108	72	2

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MISCELLANEOUS QUANTITIES

SHEET

WISDOT / CADDS SHEET 41

COUNTY: PIERCE

HWY: STH 29

PROJECT NO: 7650-00-74/01-75/02-73

## ASPHALTIC FLUMES

465.0315 ASPHALTIC

FLUMES

OFFSET	LOCATION	SY
RT	STH 29	10
)-01-75 TOTAL		10
	0711.55	
RI	CIHFF	9
1-02-73 TOTAL		9
7-02-10 IOIAL		3
		19
		RT STH 29  D-01-75 TOTAL  RT CTH FF

PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUNTY: PIERCE MISCELLANEOUS QUANTITIES SHEET **E** 

PLOT NAME:

## | 3

## ASPHALTIC RUMBLE STRIPS

			ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL	ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL	
STATION -	STATION	LOCATION	LF	LF	REMARKS
301+00 -	307+01	LT	601		
301+00 -	222 24	CTR		581	
301+00 -	333+58	RT	3,263		
310+81 -	333+50	CTR		2,269	
310+89 -	005.04	LT	2,408		
335+69 -		LT	3,693		
336+91 -	054.00	RT	1,738		
337+51 -	377+82	CTR		4,031	
355+00 -		RT	2,845		
373+32 -	378+45	LT	509		
381+79 -	200 00	LT	1,048		
381+83 -	391+57	CTR	, 	974	
384+03 -	000 00	RT	531		
390+19 -	396+99	RT	674		
395+46 -	408+05	LT	1,264		
395+58 -	397+21	CTR		163	
398+83 -	431+69	RT	3,286		
399+22 -	408+56	CTR		934	
410+56 -	458+64	CTR		4,808	
411+52 -	426+88	LT	1,535		
427+57 -	100 01	LT	1,139		
432+88 -	438+59	RT	570		
439+25 -	478+79	RT	3,954		
439+59 -	448+06	LT	847		
448+71 -	459+07	LT	1,036		
460+64 -	470+66	CTR		1,002	
460+72 -	471+03	LT	1,031		
472+66 -	476+15	CTR		349	
472+78 -	476+53	LT	375		
478+15 -	478+80	CTR		65	
478+26 -		LT	53		
480+45 -	507+28	LT	2,683		
480+45 -	400 -0	CTR		827	
480+45 -	492+94	RT	1,248		
498+67 -	512+30	RT	1,363		
507+95 -	= 10 1=	LT	552		
511+21 -	E40.00	CTR		505	
513+04 -	-10 10	RT	309		
514+12 -	516+99	LT	287		
517+64 -	527+44	LT	977		
517+89 -	525+20	RT	734		
518+26 -	532+48	CTR		1,422	
526+01 -	532+73	RT	672	, 	

465.0425

465.0475

3

# ASPHALTIC RUMBLE STRIPS (CONT.)

528+13 559+77 560+87 563+06 564+91 565+80 574+26 575+75 576+72	<u>-</u>	\$TATION 532+43 564+23 562+42 572+75 581+57 571+75 575+44 581+32 577+37	LOCATION  LT  LT  RT  RT  LT  CTR  RT  CTR  RT  CTR  RT	465.0425 ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL LF 430 439 156 974 1,664 118 65	465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL LF 595 557	REMARKS
578+03	-	582+97	RT	493		
PROJECT	765	0-01-75 TOT	AL	45,564	19,082	
557+08 557+08	-	559+77 557+58	LT RT	265 50		
PROJECT	765	0-00-74 TOT	AL	315	0	
532+73 533+09 534+29 539+74 546+24	- - - -	539+05 533+65 542+42 542+83 548+16	RT LT LT RT RT	632 57 814 309 192	  	
548+77 550+09 551+08 553+38 556+74	- - - -	549+43 552+74 557+08 556+13 557+08	RT RT LT RT RT	66 266 57 277 34	   	
PROJECT	765	0-02-73 TOT	AL	2,704	0	
TOTAL				48,583	19,082	

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CULVERT F	<u>PIPES</u>	204.9060.S	520.1030	520.3330	520.8000	520.8700	521.1024 APRON	521.1042 APRON	521.1072 APRON	521.3124	521.3142	521.3172	
STATION	OFFSET	REMOVING APRON ENDWALLS EACH	APRON ENDWALLS FOR CULVERT PIPE 30-INCH EACH	CULVERT PIPE CLASS III-A 30-INCH LF	CONCRETE COLLARS FOR PIPE EACH	CLEANING CULVERT PIPES EACH	FOR CULVERT PIPE STEEL 24-INCH EACH	ENDWALLS FOR	ENDWALLS FOR	PIPE	CULVERT PIPE PIPE CORRUGATED STEEL 42-INCH LF	CULVERT PIPE PIPE CORRUGATED STEEL 72-INCH LF	CORRUGATED STEEL MIN. THICKNESS IN
327+13	LT, RT		2	72									0.079
356+99	LT	1			1	1			1			8	0.138
497+05	LT	1			1	1	1			4			0.064
PROJECT 765	50-01-75 TOTAL	2	2	72	2	2	1	0	1	4	0	8	
541+07	LT	1			1	1		1			10		0.109
PROJECT 765	50-02-73 TOTAL	1	0	0	1	1	0	1	0	0	10	0	
TOTAL		3	2	72	3	3	1	1	1	4	10	8	

CONCRETE	CURB &	<b>GUTTER</b>

<b>STATION</b> 586+16	<u>-</u>	<b>STATION</b> 589+05	LOCATION STH 29, RT	601.0415 CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J LF	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF 228
PROJECT	76	50-01-75 TO	TAL	0	228
9+22	-	9+60	CTH FF, RT	81	-
9+00	-	9+51	CTH FF, RT	-	108
9+38	-	9+73	CTH FF, LT	-	84
PROJECT	76	50-02-73 TO	TAL	81	192
TOTAL				81	420

CONCRETE SIDEWALK	ITEMS	602.0405 CONCRETE SIDEWALK 4-INCH	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW	602.0605 CURB RAMP DETECTABLE WARNING FIELD RADIAL YELLOW	
STATION - STATION	LOCATION	SF	SF	SF	NOTES
586+50 - 586+71	RT	237	20		CURB RAMP
PROJECT 7650-01-75 TOTAL		237	20	0	
559+15 - 559+22	RT	60	20		CURB RAMP
559+57 - 559+64	RT	56	20		CURB RAMP
PROJECT 7650-00-74 TOTAL		116	40	0	
544+86 - 544+91	RT	45	20		CURB RAMP
545+04 - 545+15	RT	33	20		CURB RAMP
9+25 - 9+58	RT (CTH FF)	176			ISLAND
9+53 - 9+65	LT (CTH FF)	89		28	CURB RAMP
PROJECT 7650-02-73 TOTAL		343	40	28	
TOTAL		696	100	28	

PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUNTY: PIERCE MISCELLANEOUS QUANTITIES SHEET PLOT NAME: PLOT SCALE:

#### STORM SEWER PIPE

FROM STRUCTURE NUMBER	TO STRUCTURE NUMBER	204.0245.01 REMOVING STORM SEWER 12-INCH LF	204.0245.02 REMOVING STORM SEWER 15-INCH LF	204.0245.03 REMOVING STORM SEWER 24-INCH LF	608.0512 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH LF	608.0515 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 15-INCH LF	608.0524 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 24-INCH LF	NOTES	
CB 2.6	MH 2.5				16				
EX INL	MH 2.5	8			8				
MH 2.5	MH 2.0		33			33			
EX INL	MH 2.0			8			8		
MH 2.0	EX AEW			8			8		
PROJECT 765	0-01-75 TOTAL	8	33	16	24	33	16		

## STORM SEWER STRUCTURES

STRUCTURE				204.0210 REMOVING MANHOLES	204.0220 REMOVING INLETS	611.0530 MANHOLE COVERS TYPE J	611.0624 INLET COVERS TYPE H	611.1230 CATCH BASINS 2X3-FT	611.2004 MANHOLES 4-FT DIAMETER
NUMBER	STATION	OFFSET	LOCATION	EA	EA	EACH	EACH	EACH	EACH
	586+70	30.9'	RT	1					
MH 2.0	586+70	30.9'	RT			1			1
	586+70	30.9'	RT		1				
MH 2.5	587+68	17.7'	RT			1			1
CB 2.6	587+75	31.8'	RT				1	1	
PROJECT 7650	-01-75 TOTAL	_		1	1	2	1	1	2

#### INSULATION BOARD POLYSTYRENE

 STATION
 OFFSET
 SY

 587+59
 RT
 3.6

 587+73
 RT
 3.6

PROJECT 7650-01-75 TOTAL 7.2

PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUNTY: PIERCE MISCELLANEOUS QUANTITIES SHEET E

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PLOT DATE: 10/1/2020 9:38 AM PLOT BY: DOLAN, ISAAC PLOT NAME: PLOT SCALE:

WISDOT / CADDS SHEET 41

## **GUARDRAIL**

		614.0305 STEEL PLATE BEAM GUARD CLASS A	614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBNG TERMINAL	614.2300 MGS GUARDRAIL 3	614.2500 MGS THRIE BEAM TRANSITION	614.2610 MGS GUARDRAIL TERMINAL EAT	SPV.0060.01 STEEL PLATE BEAM GUARD CONNECTION
STATION - STATION	OFFSET	LF	EACH	LF	LF	EACH	EACH
336+07.9 - 336+61.0	LT					1	
336+61.0 - 338+92.4	LT			230.3			
338+92.4 - 339+45.5	LT					1	
355+93.5 - 356+46.6	RT					1	
356+46.6 - 357+21.6	RT			75.0			
357+21.6 - 357+74.7	RT					1	
356+27.1 - 356+80.2	LT					1	
356+80.2 - 357+55.3	LT			75.0			
357+55.3 - 358+08.4	LT					1	
381+41.5 - 381+94.6	RT					1	
381+94.6 - 382+69.6	RT			75.0			
382+69.6 - 383+22.7	RT					1	
381+79.4 - 382+32.5	LT					1	
382+32.5 - 383+07.9	LT			75.4			
383+07.9 - 383+61.0	LT					1	
387+93.3 - 388+43.3	LT		1				
388+43.3 - 8+81.0	LT	568.0					
8+81.0	RT						1
9+44.0	LT						1
9+44.0 - 398+04.3	LT	449.4					
398+04.3 - 398+54.3	LT		1				
477+91.9 - 478+45.0	RT					1	
478+45.0 - 478+82.5	RT			37.5			
478+82.5 - 479+21.9	RT				39.4		
478+37.7 - 478+90.8	LT					1	
478+90.8 - 479+03.4	LT			12.5			
479+03.4 - 479+42.8	LT				39.4		
479+82.4 - 480+21.8	RT				39.4		
480+21.8 - 480+34.3	RT			12.5			
480+34.3 - 480+87.4	RT					1	
480+03.1 - 480+42.5	LT				39.4		
480+42.5 - 480+92.5	LT			50.0			
480+92.5 - 481+45.6	LT					1	
511+93.7 - 512+46.8	LT					1	
512+46.8 - 513+09.3	LT			62.5			
513+09.3 - 513+62.4	LT					1	
512+88.8 - 513+41.9	RT					1	
513+41.9 - 514+29.4	RT			87.5			
514+29.4 - 514+82.5	RT					1	
PROJECT 7650-01-75 SUBT	OTAL	1017.4	2	793.2	157.6	18	2

PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUNTY: PIERCE MISCELLANEOUS QUANTITIES SHEET E PLOT NAME:

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J

# **GUARDRAIL (CONT.)**

	<u> </u>							
			614.0305	614.0370	614.2300	614.2500	614.2610	SPV.0060.01
			STEEL PLATE	STEEL PLATE	MGS	MGS	MGS	STEEL PLATE
			<b>BEAM GUARD</b>	<b>BEAM GUARD</b>	<b>GUARDRAIL</b>	THRIE BEAM	<b>GUARDRAIL</b>	BEAM GUARD
			CLASS A	<b>ENERGY ABSORBNG</b>	3	TRANSITION	TERMINAL	CONNECTION
				TERMINAL			EAT	
STATION - ST	ATION	OFFSET	LF	EACH	LF	LF	EACH	EACH
556+67.5 - 55	7+20.6	RT					1	
557+20.6 - 55	8+30.5	RT			112.5			
558+30.5 - 55	8+83.6	RT					1	
557+50.9 - 55	8+04.0	LT					1	
558+04.0 55	9+97.4	LT			187.5			
559+97.4 - 56	0+50.5	LT					1	
PROJECT 7650-00	-74 SUBTO	TAL	0.0	0	300.0	0.0	4	0
TOTAL			1017.4	2	1093.2	157.6	22	2

#### MAINTENANCE AND REPAIR OF HAUL ROADS

**PROJECT** 

7650-01-75

7650-00-74

7650-02-73

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TOTAL

618.0100

MAINTENANCE
AND REPAIR OF
HAUL ROADS
EACH

1
1
1

3

#### **MOBILIZATION**

 PROJECT
 EACH

 7650-01-75
 0.4

 7650-00-74
 0.12

 7650-02-73
 0.08

 PROJECT 7650-01-75 TOTAL
 0.6

## **EROSION CONTROL MOBILIZATION**

PLOT NAME:

PROJECT	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATION EMERGENCY EROSION CONTROL EACH
7650-01-75	4	2
7650-00-74	2	1
7650-02-73	2	1
TOTAL	8	4

PLOT SCALE:

WISDOT / CADDS SHEET 41

PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUNTY: PIERCE MISCELLANEOUS QUANTITIES SHEET E

PLOT DATE: 10/1/2020 9:38 AM

PLOT BY: DOLAN, ISAAC

619.1000

## LANDSCAPING

CTATION		CTATION	LOCATION	625.0100 TOPSOIL	627.0200 MULCHING	628.2006 EROSION MAT URBAN CLASS I TYPE A	629.0210 FERTILIZER TYPE B	630.0130 SEEDING MIXTURE NO. 30	630.0500 SEED WATER
<b>STATION</b> 301+00	-	<b>STATION</b> 308+54	LOCATION LT	<b>SY</b> 518	<b>SY</b> 518	SY	<b>CWT</b> 0.4	<b>LB</b> 10	<b>MGAL</b> 11.6
301+00 301+00	-	300+34 326+75							34.1
	-		RT	1,519	1,519		1.0	28	
327+50 309+50	-	335+16	RT	367	367		0.3	7	8.3
	-	326+93	LT	2,028	2,028		1.3	37	45.6
327+32		336+59	LT	700	700		0.5	13	15.7
335+85	-	356+43	RT	458	458		0.3	9	10.3
338+96		356+74	LT	1,388	1,388		0.9	25	31.2
357+25		474+50	RT . <del>-</del>	8,466	8,466		5.4	153	190.1
357+58		379+61	LT	1,960	1,960		1.3	36	44.0
380+30	-	392+42	LT	2,377	2,377		1.5	43	53.4
392+64	-	409+16	LT	422	422		0.3	8	9.5
409+96	-	477+50	LT	5,149	5,149		3.3	93	115.6
481+74	-	495+95	RT	1,566	1,566		1.0	29	35.2
483+01	-	532+73	LT	5,117	5,117		3.3	93	114.9
497+22	-	532+73	RT	803	803		0.6	15	18.0
559+77	-	581+06	LT	1,924	1,924		1.3	35	43.2
559+77	-	573+58	RT	861	861		0.6	16	19.3
573+89	-	589+05	RT	1,291	1,291		0.9	24	29.0
326+75	-	327+50	RT	122		122	0.1	3	2.7
326+93	-	327+32	LT	33		33	0.1	1	0.7
336+59	-	338+95	LT	256		256	0.2	5	5.8
356+43	-	357+25	RT	168		168	0.2	4	3.8
356+76	-	357+57	LT	168		168	0.2	4	3.8
381+91	-	382+73	RT	73		73	0.1	2	1.6
382+29	-	383+11	LT	61		61	0.1	2	1.4
387+25		392+93	LT	1,142		1,142	0.8	21	25.7
474+50	-	479+17	RT	857		857	0.6	16	19.2
477+50	-	479+40	LT	510		510	0.4	10	11.4
479+86	-	481+73	RT	396		396	0.3	8	8.9
480+10	-	483+00	LT	536		536	0.4	10	12.0
496+84	-	497+22	LT	29		29	0.1	1	0.7
511+87	-	513+62	LT	240		240	0.2	5	5.4
512+89	-	514+83	RT	127		127	0.1	3	2.8
559+77	-	561+46	LT	375		375	0.3	7	8.4
PROJECT 7	650	-01-75 SUBT	OTAL	42,008	36,915	5,094	28.4	776	943.3

PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUNTY: PIERCE MISCELLANEOUS QUANTITIES SHEET **E** 

FILE NAME: \\P:\60548152\\900\_Work\\910\_CAD\60548152\\sheetsPlan\\0302-MQ.pptx PLOT NAME: \\PLOT SCALE: \\PLOT SCA

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## LANDSCAPING (CONT.)

		(00	,	625.0100 TOPS OIL	627.0200 MULCHING	628.2006 EROSION MAT URBAN CLASS I TYPE A	629.0210 FERTILIZER TYPE B	630.0130 SEEDING MIXTURE NO. 30	630.0500 SEED WATER
STATION		STATION	LOCATION	SY	SY	SY	CWT	LB	MGAL
557+08	-	559+77	LT	3,051		1,525	2.0	55	68.5
557+08	-	559+15	RT	2,494	1,315	1,179	1.6	45	56.0
PROJECT 7	650	-00-74 SUBT	OTAL	5,545	2,841	2,704	3.6	100	124.5
532+73	-	535+84	LT	3,192	3,192		2.1	58	71.7
532+73	-	544+21	RT	1,615	1,615		1.1	30	36.3
543+42		543+79	LT	160	160		0.2	3	3.6
544+07	-	557+08	LT	4,942	4,942		3.2	89	111.0
544+85	-	557+08	RT	833	833		0.6	16	18.7
535+84	-	543+42	LT	2,071		2,071	1.4	38	46.5
PROJECT 7	650	-02-73 SUBT	OTAL	12,815	10,744	2,071	8.6	234	287.8
TOTAL				60,368	50,499	9,869	40.6	1110	1355.6

PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUNTY: PIERCE MISCELLANEOUS QUANTITIES SHEET E

FILE NAME: \P:\60548152\900\_Work\910\_CAD\60548152\SheetsPlan\0302-MQ.pptx PLOT NAME: PLOT SCALE: WISDOT / CADDS SHEET 41

				628.1504 SILT FENCE	628.1520 SILT FENCE MAINTENANCE	628.7015 INLET PROTECTION TYPE C	628.7504 TEMPORARY DITCH CHECKS	628.7555 CULVERT PIPE CHECKS	628.7570 ROCK BAGS
STATION	•	STATION	OFFSET	LF	LF	EACH	LF	EACH	EACH
	302+15		RT					2	
	302+17		LT					2	
	312+75		LT					5	
	312+82		LT					5	
	323+83		LT					2	
	325+44		LT					2	
	334+00		LT				12	2	
335+46	-	337+15	LT	170	170				
	335+50		LT						
335+84	-	336+95	RT	145	145				
	337+19		LT					7	
	337+25		LT					7	
	337+50		RT				12		
	338+81		RT					2	
338+92	-	340+95	LT	210	210				
	354+15		RT				20		
	354+77		LT					3	
354+84	-	359+39	RT	470	470				
355+99	-	359+20	RT	330	330				
	356+99		RT					16	
	362+00		LT				8		
	362+00		RT				12		
	363+00		LT				8		
	363+00		RT				10		
	364+00		LT				12		
	364+00		RT				8		
	365+00		LT				8		
	365+00		RT				8		
	366+00		LT				8		
	366+00		RT				8		
	367+00		LT				6		
	367+00		RT				8		
	368+00		LT				6		
	368+00		RT				8		
	369+00		LT				6		
	369+00		RT				6		
	370+00		LT				6		
	370+00		RT				8		
	371+00		LT				6		
	371+00		RT				8		
	372+00		LT				8		
	372+00		RT				8		
	374+00		LT				14		
	375+00		LT				16		
	376+00		LT				16		
	0,0.00		LI	-			10		

		ROL (CONT	•	628.1504 SILT FENCE	628.1520 SILT FENCE MAINTENANCE	628.7015 INLET PROTECTION TYPE C	628.7504 TEMPORARY DITCH CHECKS	628.7555 CULVERT PIPE CHECKS	628.7570 ROCK BAGS
STATION	-	STATION	OFFSET	LF	LF	EACH	LF	EACH	EACH
	377+00		LT				12		
	378+00		LT				16		
	379+29		RT					2	
	379+49		LT					3	
	381+00		RT				24		
381+33	-	382+46	LT	120	120				
382+57	-	384+58	LT	210	210				
	383+51		RT					2	
386+91	-	393+12	LT	755	755				
	389+50		RT					2	
393+70	-	399+71	LT	645	645				
	394+65		RT					10	
	409+24		LT					3	
	409+82		RT					2	
	419+33		RT					2	
419+73	-	426+38	LT	665	665				
	420+40		RT				24		
420+54	-	422+00	RT	150	150				
	421+26		RT					3	
	424+43		RT					7	
	424+55		RT					7	
	448+26		LT					2	
	459+48		LT					2	
474+03	-	475+40	LT	145	145				
474+47	-	475+39	RT	95	95				
	475+43		LT					16	
475+46	-	476+80	LT	135	135				
475+46	-	479+00	RT	360	360				
479+83	-	481+72	RT	210	210				
480+30	-	482+93	LT	285	285				
	482+15		RT					2	
	484+00		RT				10		
	486+00		RT				12		
	487+00		RT				12		
	488+22		RT					2	
	489+00		RT				10		
497+88	-	505+06	LT 	720	720				
	498+21		RT					2	
-16 5-	499+50	=45 5=	RT				14		
510+98	-	513+65	LT	295	295				
-16	512+34	-15.5:	RT					2	
512+76	-	516+01	RT	335	335				
	517+46		LT 					2	
	517+54		RT					2	
	519+00		LT				14		

SHEET

MISCELLANEOUS QUANTITIES

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# EROSION CONTROL (CONT.)

PROJECT NO: 7650-00-74/01-75/02-73

	<b>1</b> 00 1111	ROL (CONT	•,	628.1504 SILT FENCE	628.1520 SILT FENCE MAINTENANCE	628.7015 INLET PROTECTION TYPE C	628.7504 TEMPORARY DITCH CHECKS	628.7555 CULVERT PIPE CHECKS	628.7570 ROCK BAGS
STATION	-	STATION	OFFSET	LF	LF	EACH	LF	EACH	EACH
	519+00		RT				14		
	524+00		RT				12		
	525+79		RT					2	
	584+13		RT					10	
	585+00		RT				10		
	585+16		LT			1			
	585+21		LT			1			
586+10	-	589+07	RT	165	165				
	587+39		LT			1			
	587+68		LT			1			
	587+68		RT			1			
	587+75		RT			1			
UNI	DISTRIBU	TED							140
PROJECT	7650-01-7	5 SUBTOTAL	•	6,615	6,615	6	448	142	140
556+79	_	557+29	RT	95	95				
557+00	-	559+26	LT	235	235				
557+75	-	559+23	RT	170	170				
559+63	-	561+42	LT	210	210				
UNI	DISTRIBU	TED							20
PROJECT	7650-00-7	4 SUBTOTAL		710	710	0	0	0	20
534+52	_	536+49	LT	200	200				
	536+50		RT					8	
536+56	-	543+76	LT	740	740				
	543+81		LT	100	100				
544+60	-	546+61	LT	255	255				
	548+33		RT					2	
	549+00		LT				12		
	549+62		RT					2	
	552+40		LT				12		
	552+90		RT					2	
	555+77		RT					2	
UNI	DISTRIBU	TED							40
PROJECT	7650-02-7	3 SUBTOTAL	-	1,295	1,295	0	24	16	40
TOTAL				8,620	8,620	6	472	158	200

## MARKERS

TOTAL

633.5200 MARKERS CULVERT END

14

		COLVERTEND
STATION	LOCATION	EACH
312+75	LT	1
312+82	LT	1
327+00	RT	1
327+21	LT	1
337+19	LT	1
337+25	LT	1
382+52	LT	1
475+43	LT, RT	2
497+04	ΙT	1

437+04	LI	ı
PROJECT 7650-0	1-75 TOTAL	10
557+71	RT	1
559+29	LT	1
PROJECT 7650-0	0-74 TOTAL	2
		2
PROJECT 7650-0 536+52	0-74 TOTAL LT	1
		1 1
536+52	LT	1 1
536+52	LT LT	1 1 2

HWY: STH 29 COUNTY: PIERCE MISCELLANEOUS QUANTITIES SHEET **E** 

FILE NAME: \\P:\60548152\\900\_Work\\910\_CAD\60548152\\SheetsPlan\\0302-MQ.pptx PLOT NAME: PLOT SCALE: WISDOT / CADDS SHEET 41

# PERMANENT SIGNING

						634.0616	637.2230	638.2102	638.4000	
						POSTS	SIGNS	MOVING	MOVING	
						WOOD	TYPE II	SIGNS	SMALL SIG	N
						4X6-INCH	REFLECTIVE	TYPE II	SUPPORTS	
						16-FT	F			
		SIGN		SIZE	Ē					
STATION	OFFSET	CODE	IN	X	IN	EACH	SF	EACH	EACH	DE
302+45	LT			Х				1	1	CC
200 07	DT			\/				4	4	0.0

						16-FT	F				
		SIGN		SIZ	ĽE						
STATION	OFFSET	CODE	IN		IN	EACH	SF	EACH	EACH	DESCRIPTION	REMARKS
302+45	LT		— <u></u>					1	1	COUNTY QQ LEFT AHEAD ARROW	
308+67	RT			Χ				1	1	COUNTY QQ LEFT ARROW	
309+79	LT			Х				1	1	COUNTY QQ AHEAD AND RIGHT ARROW	
309+80	RT			X				1	1	EAST STH 29, NORTH STH 35	
311+91	LT							1	1	ADOPT A HIGHWAY	
311+97	RT							1	1	ADOPT A HIGHWAY	
318+60	LT			Y				1	1	NO PASSING ZONE	
321+24	LT			Y				1	1	JCT COUNTY QQ	
343+54	RT			л У				1	1	NO PASSING ZONE	
356+74	LT			X				1	1	NO PASSING ZONE	
363+77	RT							1	1	ROAD CURVES LEFT	
365+42	LT			X				1	1	SCHOOL BUS STOP AHEAD	
370+16				^ _				1	1	JCT COUNTY MM	
	RT			Λ ∨				1	1		<del></del>
378+74	LT			X				1	1	WEST STH 29, SOUTH STH 35	<del></del>
379+32	RT							1	1	COUNTY MM LEFT ARROW	
380+51	LT			X				1	1	COUNTY MM RIGHT ARROW	<del></del>
384+54	RT			X				1	1	EAST STH 29, NORTH STH 35	<del></del>
390+40	LT			X				1	1	JCT COUNTY MM	
393+23	LT 			X				1	1	STOP	
393+32	RT							1	1	ADOPT A HIGHWAY	
395+72	LT			Х				1	1	ADOPT A HIGHWAY	
409+25	RT			Х				1	1	NO PASSING ZONE	
417+53	RT			Х				1	1	STOP FOR SCHOOL BUS FLASHING RED LIGHTS STATE LAW	
427+94	LT			Χ				1	1	NO PASSING ZONE	
452+54	RT			Χ				1	1	NO PASSING ZONE	
479+19	RT			Χ				1	1	BEAM GUARD TREATMENT MARKER	
479+40	LT			Χ				1	1	BEAM GUARD TREATMENT MARKER	
479+86	RT			Χ				1	1	BEAM GUARD TREATMENT MARKER	
480+06	LT			Χ				1	1	BEAM GUARD TREATMENT MARKER	
485+88	RT			Χ				1	1	JCT COUNTY E	
494+45	LT			Χ				1	1	ADOPT A HIGHWAY	
495+20	LT			Χ				1	1	WEST STH 29, SOUTH STH 35	
495+95	RT			Χ				1	1	COUNTY E RIGHT ARROW	
496+80	LT			Χ				1	1	COUNTY E LEFT ARROW	
498+67	RT			Χ				1	1	EAST STH 29, NORTH STH 35	
499+82	RT			Χ				1	1	ADOPT A HIGHWAY	
504+89	RT			Χ				1	1	NO PASSING ZONE	
505+69	LT			Χ				1	1	STOP FOR SCHOOL BUS FLASHING RED LIGHTS STATE LAW	
508+22	LT			Χ				1	1	JCT COUNTY E	
513+45	LT			Χ				1	1	NO PASSING ZONE	
564+99	RT			- 1/				1	1	SPEED LIMIT 45 AHEAD	
570+04	RT			Χ				1	1	SPEED LIMIT 45	
570+10	LT			v				1	1	SPEED LIMIT 55	<del></del>
575+08	LT							1	1	NO PASSING ZONE	<del></del>
577+17	LT							1	1	STOP FOR SCHOOL BUS FLASHING RED LIGHTS STATE LAW	<del></del>
	**							· ·			

COUNTY: PIERCE PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 MISCELLANEOUS QUANTITIES SHEET E PLOT BY: DOLAN, ISAAC PLOT SCALE:

E

		SIGN	SIZE		634.0616 POSTS WOOD 4X6-INCH 16-FT	637.2230 SIGNS TYPE II REFLECTIVE F	638.2102 MOVING SIGNS TYPE II	638.4000 MOVING SMALL SIGN SUPPORTS		
STATION	OFFSET	CODE		X IN	EACH	SF	EACH	EACH	DESCRIPTION	REMARKS
578+56	RT			Χ			1	1	TRAFFIC SIGNAL AHEAD SYMBOL	
580+67	LT			Χ			1	1	SPEED LIMIT 45	
580+68	RT			Χ			1	1	SPEED LIMIT 35	
581+65	RT			Χ			1	1	EAST STH 29 AHEAD RIGHT ARROW, NORTH STH 35 AHEAD RIGHT ARROW	
581+65	RT			Χ			1	1	ALTERNATE I-94 AHEAD RIGHT ARROW	
581+91	LT			Χ			1	2	PRESCOTT 12	
582+27	RT			Χ			1	1	RIVER FALLS HIGH SCHOOL	
583+05	LT			Χ			1	1	ADOPT A HIGHWAY	
584+08	RT			Χ			1	2	LEFT ARROW ONLY/AHEAD ARROW ONLY/RIGHT ARROW ONLY	
584+08	RT			X			1		HOSPITAL SYMBOL, AHEAD ARROW	SHARES POST
584+83	RT			X			<u>·</u> 1	1	RIGHT LANE MUST TURN RIGHT	
585+23	LT			X			1	1	WEST STH 29, SOUTH STH 35	
585+64	RT			, , , , , , , , , , , , , , , , , , ,			2	1	EAST STH 29, 300TH STH 33 EAST STH 29 RIGHT ARROW, NORTH STH 35 RIGHT ARROW	
585+64				X			∠ 1	1	ALTERNATE I-94 RIGHT ARROW	
	RT			X			1	I		
586+58	RT			Χ			1		FOLDING STOP	
PROJECT 7650-0	1-75 SUBTOTA	L			0	0	61	60		
559+70	RT			Χ			1	1	STOP	
333+10	IXI			Λ			ı	ı	3101	<del></del>
PROJECT 7650-0	0-74 SUBTOTA	L			0	0	1	1		
533+41	RT			Χ			4	1	JCT COUNTY FF, JCT RUSTIC ROAD R 92	
534+79	RT			Χ			1	1	NO PASSING ZONE	
535+87	RT			Χ			2	1	CROSS ROAD SYMBOL, 45 MPH	
540+00	RT	W11-2	36	X 36	1	9.00			PEDESTRIAN CROSSING SYMBOL	
540+00	RT	W16-9P	30	X 18		3.75			AHEAD	INSTALL ON SAME POST AS W11-2
541+96	RT			Χ			2	1	NO ENGINE BRAKING EXCEPT IN EMERGENCY WITHIN CITY LIMITS	
543+46	LT			Χ			1	1	NO PASSING ZONE	
543+83	LT			X			1	1	DO NOT ENTER	
543+83	LT			X			1		STOP	SHARES POST W/ DO NOT ENTER S
543+87	RT			X			1	1	COUNTY FF LEFT ARROW, RUSTIC ROAD RIGHT ARROW R 92	
543+67 544+19	LT						1	1	STH 29 LEFT/RIGHT ARROW, STH 35 LEFT/RIGHT ARROW	
544+19 544+24				X			1	1	STOP	<del></del>
	LT			X			1	1		LIADDY VALLEY DOAD
544+96	RT			X		0.00	1	1	STOP	HAPPY VALLEY ROAD
544+98	LT	W11-2	36		1	9.00			PEDESTRIAN CROSSING SYMBOL	
544+98	LT	W16-7L		X 18		3.75			DOWN LEFT ARROW	INSTALL ON SAME POST AS W11-2
545+03	RT	W11-2		X 36	1	9.00			PEDESTRIAN CROSSING SYMBOL	
545+03	RT	W16-7L		X 18		3.75			DOWN LEFT ARROW	INSTALL ON SAME POST AS W11-2
545+12	LT			Χ			4	1	RUSTIC ROAD LEFT ARROWR 92, COUNTY FF RIGHT ARROW	
546+56	RT			Χ			1	1	EAST STH 29, NORTH STH 35	
547+79	RT			Χ			2	1	HOSPITAL SYMBOL, AHEAD ARROW	
552+38	LT			Χ			2	1	CROSS ROAD SYMBOL, 45 MPH	
554+89	LT			Χ			4	1	JCT COUNTY FF, JCT RUSTIC ROAD R 92	
	2 72 CHDTOTAL	ı			3	38.25	32	15		
PROJECT 7650-0	2-13 30BIOIA	<b>L</b>			•					

643.0920

16

PLOT NAME:

FIELD OFFICE

 642.5401

 TYPE D

 PROJECT
 EACH

 7650-01-75
 0.40

 7650-00-74
 0.12

 7650-02-73
 0.08

#### TRAFFIC CONTROL COVERING SIGNS

PROJECT 7650-01-75 TOTAL

TRAFFIC CONTROL NO. OF **COVERING SIGNS** COVERING TYPE II SIGN DETAIL NUMBER SIGN COVERED **CYCLES EACH** ADVANCE LEFT TURN ARROW LEFT TURN ARROW EAST 29, NORTH 35 15 WEST 29, SOUTH 35 18 CURVED RIGHT TURN ARROW 19 VEER RIGHT ARROW 20 WEST 29, SOUTH 35 30 EAST 29 ADVANCE LEFT TURN ARROW, NORTH 35 ADVANCE LEFT TURN ARROW 31 EAST 29 LEFT TURN ARROW, NORTH 35 LEFT TURN ARROW 33 WEST 29, SOUTH 35 VEER RIGHT ARROW 34 WEST 29 ADVANCE LEFT TURN ARROW, SOUTH 35 ADVANCE LEFT TURN ARROW 35 WEST 29 LEFT TURN ARROW, SOUTH 35 LEFT TURN ARROW 37 AHEAD ARROW 2

PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUNTY: PIERCE MISCELLANEOUS QUANTITIES SHEET E

FILE NAME: \\P:\60548152\900\_Work\910\_CAD\60548152\SheetsPlan\0302-MQ.pptx

PLOT DATE: 10/1/2020 9:38 AM

PLOT BY: DOLAN, ISAAC

PLOT SCALE:

# TRAFFIC CONTROL

	DAYS IN	TRA CON	.0300 FFIC TROL UMS	TRA CON BARRI	.0410 FFIC TROL CADES PE II	TRA CON BARRI	.0420 AFFIC ITROL ICADES PE III	TRA CON WARNIN	.0705 FFIC TROL G LIGHTS PE A	TRA CON WARNIN	0715 FFIC TROL G LIGHTS PE C	TRA CON	.0900 AFFIC ITROL GNS	TRA CON	1050 FFIC TROL
LOCATION	SERVICE	NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY
EB USH 10	7													1	7
SB STH 65	7													1	7
CTH QQ NORTH	171					4	684	8	1368			4	684		
690TH AVE	171					4	684	8	1368			4	684		
CTH MM	171					4	684	8	1368			4	684		
EB STH 29 SOUTH OF 1090TH ST	96					1	96	2	192			1	96		
1090TH ST	171					4	684	8	1368			4	684		
1073RD ST	171					4	684	8	1368			4	684		
STH 29 AT BRIDGE B-47-0021	96					10	960	12	1152			2	192		
CTH E	171					4	684	8	1368			4	684		
WB STH 29 NORTH OF CTH E	96					1	96	2	192			1	96		
805TH AVE	171					4	684	8	1368			4	684		
WB STH 29 SOUTH OF CEMETERY RD	171					2	342	4	684			1	171		
SB S. MAIN ST	171											2	342		
DETOUR ROUTE	171											223	38133		
MULTI-USE PATH - 830TH AVE	10			2	20							1	10		
MULTI-USE PATH - WISCONSIN ST	10			2	20							1	10		
MULTI-USE PATH - SORENSON ST	10			2	20							1	10		
MULTI-USE PATH - 965TH ST	10			1	10							1	10		
UNDISTRIBUTED	171	10	1710							10	1710				
PROJECT 7650-01-75 TOTAL			1,710		70		6,282		11,796		1,710		43,858		14
EB STH 29 SOUTH OF CTH FF	95					1	95	2	190			1	95		
STH 29 SOUTH OF C-47-0719	95					5	475	6	570			1	95		
STH 29 NORTH OF C-47-0719	95					21	1995	22	2090			1	95		
WB STH 29 SOUTH OF CEMETERY RD	95					1	95	2	190			1	95		
SB S. MAIN ST	95					1	95	2	190			1	95		
PEDESTRIAN DETOUR	95			6	570							10	950		
PROJECT 7650-00-74 TOTAL			0		570		2,755		3,230		0		1,425		0
CTH FF	171					4	684	8	1368			4	684		
HAPPY VALLEY RD	171					4	684	8	1368			4	684		
PROJECT 7650-02-73 TOTAL			0		0		1,368		2,736		0		1,368		0
TOTAL			1,710		640		10,405		17,762		1,710		46,651		14

PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUNTY: PIERCE MISCELLANEOUS QUANTITIES SHEET **E** 

PLOT NAME:

<u> </u>	RAFFIC CONTROL	643.5000 TRAFFIC CONTROL EACH				
<u> </u>	7650-01-75 7650-00-74	0.40 0.12				
T	7650-02-73	0.08				
·	O.M.E	0.0				
TEMPORARY PEDESTRIAN	ACCOMODATIONS	<b>3</b>				
TEMPORARY PEDESTRIAN	DAYS	644.1410 TEMPORARY PEDESTRIAN	644.160° TEMPORA PEDESTRI	ARY IAN		
TEMPORARY PEDESTRIAN		644.1410 TEMPORARY	TEMPORA PEDESTRI CURB RA	ARY IAN		
<u>LOCATION</u> CTH FF	DAYS IN SERVICE 95	644.1410 TEMPORARY PEDESTRIAN SURFACE ASPHALT SF 760	TEMPORA PEDESTRI CURB RA	ARY IAN MP DAY 95		
LOCATION CTH FF HAPPY VALLEY ROAD	DAYS IN SERVICE	644.1410 TEMPORARY PEDESTRIAN SURFACE ASPHALT SF 760 255	TEMPORA PEDESTRI CURB RA NO. 1	ARY IAN MP DAY 95		
<u>LOCATION</u> CTH FF	DAYS IN SERVICE 95	644.1410 TEMPORARY PEDESTRIAN SURFACE ASPHALT SF 760	TEMPORA PEDESTRI CURB RA NO. 1	ARY IAN MP DAY 95		
LOCATION CTH FF HAPPY VALLEY ROAD	DAYS IN SERVICE 95	644.1410 TEMPORARY PEDESTRIAN SURFACE ASPHALT SF 760 255	TEMPORA PEDESTRI CURB RA NO. 1	ARY IAN MP DAY 95		
LOCATION CTH FF HAPPY VALLEY ROAD	DAYS IN SERVICE 95	644.1410 TEMPORARY PEDESTRIAN SURFACE ASPHALT SF 760 255	TEMPORA PEDESTRI CURB RA NO. 1	ARY IAN MP DAY 95		

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PAVEMENT MARKING ITE		MARKII EP	1020 NG LINE OXY NCH WHITE	646.1040 MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH WHITE	646.3040 MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH WHITE	646.5020 MARKING ARROW EPOXY	646.5120 MARKING WORD EPOXY	646.5120 MARKING STOP LINE EPOXY	646.7120 MARKING DIAGONAL EPOXY 12-INCH	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH	
STATION - STATION	TYPE		.F		LF	EACH	EACH	LF	LF	LF	
301+00 - 318+50	CENTERLINE (DASHED)	438									
301+00 - 308+31	LT EDGELINE (SOLID)			598							
301+00 - 334+88	RT EDGELINE (SOLID)			3,394							
309+69 - 310+89	LT EDGELINE (3' LINE, 9' GAP)			30							
310+89 - 379+57	LT EDGELINE (SOLID)			6,856							
318+50 - 329+50	CENTERLINE (DASHED/SOLID)	1,375									
333+58 - 334+88	RT EDGELINE (3' LINE, 9' GAP)			33							
329+50 - 334+00	CENTERLINE (DOUBLE SOLID)	900									
334+00 - 344+75	CENTERLINE (DASHED/SOLID)	1,344									
335+94 - 495+94	RT EDGELINE (SOLID)			15,998							
344+75 - 356+75	CENTERLINE (DASHED)	300									
356+75 - 367+75	CENTERLINE (DASHED/SOLID)	1,375									
367+75 - 398+50	CENTERLINE (DOUBLE SOLID)	6,150									
380+41 - 381+79	LT EDGELINE (3' LINE, 9' GAP)			36							
381+79 - 393+03	LT EDGELINE (SOLID)			1,129							
394+16 - 395+46	LT EDGELINE (3' LINE, 9' GAP)			33							
395+46 - 408+85	LT EDGELINE (SOLID)			1,344							
398+50 - 409+00	CENTERLINE (DASHED/SOLID)	1,313									
409+00 - 427+75	CENTERLINE (DASHED)	469									
410+17 - 411+51	LT EDGELINE (3' LINE, 9' GAP)			33							
411+51 - 532+73	LT EDGELINE (SOLID)			12,119							
427+75 - 438+50	CENTERLINE (DASHED/SOLID)	1,344									
438+50 - 442+00	CENTERLINE (DOUBLE SOLID)	700									
442+00 - 453+00	CENTERLINE (DASHED/SOLID)	1,375									
453+00 - 488+50	CENTERLINE (DASHED)	888									
488+50 - 495+67	GORE	2,581							265		
492+94 - 494+44	RT LANE LINE (3' LINE, 9' GAP)				38						
494+44 - 495+69	RT LANE LINE (SOLID)				125						
495+12 -	ONLY						1				
495+51 -	RIGHT ARROW					1					
496+65 - 501+90	LT LANE LINE (SOLID)				525						
496+65 - 502+00	CENTERLINE (DOUBLE SOLID)	1,070									
497+08	AHEAD ARROW, LEFT ARROW					2					
497+17 532+73	RT EDGELINE (SOLID)			3,559							
497+48 -	ONLY, ONLY						2				
501+70	AHEAD ARROW, LEFT ARROW					2					
501+90 - 503+50	LT LANE LINE (3' LINE, 9' GAP)				39						
502+00 - 511+00	GORE	3,241							339		
511+00 - 513+50	CENTERLINE (DASHED)	63									
513+50 - 522+00	CENTERLINE (DASHED/SOLID)	1,063									
522+00 - 524+50	CENTERLINE (DASHED)	63									
524+50 - 532+73	CENTERLINE (DASHED/SOLID)	1,029									
559+77 - 586+57	LT EDGELINE (SOLID)			2,672							
559+82 - 560+82	LT LANE LINE (SOLID)				100						
559+82 - 560+88	CENTERLINE (DOUBLE SOLID)	212									
 -00-74/01-75/02-73	HWY: STH 29			ΓΥ: PIERCE			NEOUS QUANT			SHEET	E

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# PAVEMENT MARKING ITEMS (CONT.)

			<u> </u>	MARKI EP	.1020 NG LINE OXY NCH	646.1040 MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH	646.3040  MARKING LINE  GROOVED WET  REFLECTIVE EPOXY  8-INCH	646.5020 MARKING ARROW EPOXY	646.5120 MARKING WORD EPOXY	646.5120 MARKING STOP LINE EPOXY	646.7120 MARKING DIAGONAL EPOXY 12-INCH	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE
				YELLOW		WHITE	WHITE			LIOXI	12-111011	LINE 6-INCH
STATION		STATION	TYPE		LF		LF	EACH	EACH	LF	LF	LF
560+07	_	586+16	RT EDGELINE (SOLID)			2,615						
560+82		561+78	LT LANE LINE (3' LINE, 9' GAP)				24					
560+88	_	565+82	GORE	1,767							192	
565+82	_	571+50	CENTERLINE (DOUBLE SOLID)	1,136								
571+50	_	575+00	CENTERLINE (DASHED/SOLID)	438								
573+56		573+81	CROSSWALK									47
575+00	-	581+57	CENTERLINE (DOUBLE SOLID)	1,314								
581+57	-	584+07	GORE	883							49	
582+97	-	584+07	RT LANE LINES (3' LINE, 9' GAP)				54					
584+07	-	586+57	CENTERLINE (DOUBLE SOLID)	500								
584+07	-	586+57	RT LANE LINES (SOLID)				500					
584+27	-		LEFT ARROW, AHEAD ARROW, RIGHT ARROW					3				
585+74	-		ONLY, ONLY, ONLY						3			
586+14	-		LEFT ARROW, AHEAD ARROW, RIGHT ARROW					3				
586+57	-		STOP LINE							48		
586+62	-	586+93	CROSSWALK									187
PROJECT 7	650-	-01-75 SUBT	OTAL	33	,327	50,448	1,405	11	6	48	844	234
557+08	-	559+77	LT EDGELINE (SOLID)			265						
557+08	-	558+97	GORE	750							166	
557+08	-	558+78	RT EDGELINE (SOLID)			171						
559+18	-	559+60	CROSSWALK									75
PROJECT 7	650-	-00-74 SUBT	OTAL	7	'50	436	0	0	0	0	166	75

PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUNTY: PIERCE MISCELLANEOUS QUANTITIES SHEET

FILE NAME: \\P:\60548152\\900\_Work\\910\_CAD\60548152\\SheetsPlan\\0302-MQ.pptx PLOT NAME: PLOT SCALE: WISDOT / CADDS SHEET 41

# PAVEMENT MARKING ITEMS (CONT.)

		<u> </u>	MARKII EP	1020 NG LINE DXY NCH	646.1040 MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH	646.3040 MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH	646.5020 MARKING ARROW EPOXY	646.5120 MARKING WORD EPOXY	646.5120 MARKING STOP LINE EPOXY	646.7120 MARKING DIAGONAL EPOXY 12-INCH	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE
			YELLOW		WHITE	WHITE			<b>2. 0</b> %.		LINE 6-INCH
STATION -	STATION	TYPE		.F		LF	EACH	EACH	LF	LF	LF
532+73 -	543+43	LT EDGELINE (SOLID)			1,070						
532+73 -	539+58	GORE	2,433								
532+73 -	544+03	RT EDGELINE (SOLID)			1,130						
539+58 -	544+18	CENTERLINE (DOUBLE SOLID)	920								
538+17 -	539+67	RT LANE LINE (3' LINE, 9' GAP)				39					
539+67 -	544+18	RT LANE LINE (SOLID)				450					
539+87 -		AHEAD ARROW, LEFT ARROW					2				
543+35 -		ONLY, ONLY						2			
543+75 -		AHEAD ARROW, LEFT ARROW					2				
7+91 -	9+60	CENTERLINE (DOUBLE SOLID)	338								
9+12 -	9+28	ISLAND				32					
544+79 -	545+14	CROSSWALK									142
545+07 -	557+08	LT EDGELINE (SOLID)			1,194						
545+07 -	549+57	LT LANE LINES (SOLID)				900					
545+07 -	549+67	CENTERLINE (DOUBLE SOLID)	920								
545+24 -	557+08	RT EDGE LINE (SOLID)			1,188						
545+50 -		RIGHT ARROW, AHEAD ARROW, LEFT ARROW					3				
545+90 -		ONLY, ONLY, ONLY						3			
549+37 -		RIGHT ARROW, AHEAD ARROW, LEFT ARROW					3				
549+57 -	551+07	LT LANE LINE (3' LINES, 9' GAP)				75					
549+67 -	557+08	GORE	2,929							624	
PROJECT 7650	0-02-73 SUBT	OTAL	7,5	540	4,582	1,496	10	5	0	624	142
TOTAL			41,	617	55,466	2,901	21	11	48	1,635	451

COUNTY: PIERCE HWY: STH 29 MISCELLANEOUS QUANTITIES PROJECT NO: 7650-00-74/01-75/02-73 SHEET PLOT SCALE:

#### LOCATING NO-PASSING ZONES

648.0100 LOCATING NO-PASSING ZONES

	STATION	-	STATION	MI
•	301+00	-	532+73	4.39
	559+77	-	586+93	0.51

PROJECT	7650-	01-75 SUBTOTAL	4.90
532+73	-	557+08	0.46
PROJECT	7650-	00-74 SUBTOTAL	0.46
557+08	-	559+77	0.05
PROJECT	7650-	0.05	
TOTAL			5.42

PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUNTY: PIERCE MISCELLANEOUS QUANTITIES SHEET

CONSTR	UCTION	STAKING

PROJECT NO: 7650-00-74/01-75/02-73

					650.4000 CONSTRUCTION STAKING STORM SEWER	650.4500 CONSTRUCTION STAKING SUBGRADE	650.5000 CONSTRUCTION STAKING BASE	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	650.6000 CONSTRUCTION STAKING PIPE CULVERTS	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT C-47-0719	650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS 7650-01-75	650.9000 CONSTRUCTION STAKING CURB RAMPS	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 7650-00-74	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 7650-01-75	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 7650-02-73	650.9920 CONSTRUCTION STAKING SLOPE STAKES
STATION	-	STATION	LOCATION	CATEGORY	EACH	LF	LF	LF	EACH	LS	LS	EACH	LS	LS	LS	LF
	-		PROJECT 7650-01-75	0010							1			1		
301+00	-	308+05	STH 29	0010			705									705
308+05	-	340+45	STH 29	0010		3240	3240									3240
	327+13		STH 29	0010					1							
340+45	-	355+38	STH 29	0010			1493									1493
355+38	-	360+87	STH 29	0010		549	549									549
	356+99		STH 29, LT	0010					1							
360+87	-	380+73	STH 29	0010			1986									1986
380+73	-	385+75	STH 29	0010		502	502									502
385+75	-	398+62	STH 29	0010			1287									1287
398+62	-	404+26	STH 29 STH 29	0010		564	564 12837									564 12837
404+36	- 497+05	532+73	STH 29 STH 29, LT	0010 0010					 1							
559+77		566+61	STH 29	0010			684									 684
	559+19		805TH ST. (S)	0010								1				
	559+59		805TH ST. (N)	0010								1				
566+61	-	571+27	STH 29	0010		466	466					' 				466
571+27	_	586+93	STH 29	0010			1566									1566
586+16	-	589+05	STH 29, RT	0010				228								
	586+70		STH 29, RT	0010	1											
	587+66		STH 29, RT	0010								1				
	587+68		STH 29, RT	0010	1											
	587+75		STH 29, RT	0010	1											
PROJECT 7	650-01-7	75 SUBTOTAL	-		3	5,321	25,879	228	3	0	1	3	0	1	0	25,879
	-		PROJECT 7650-00-74	0010									1			
	_		PROJECT 7650-00-74	0020						1						
557+08	-	559+77	111002011000 00 11	0010		269	269									269
PROJECT 7	650-00-7	74 SUBTOTAL			0	269	269	0	0	1	0	0	1	0	0	269
						200					•		•			
	-	00	PROJECT 7650-02-73	0010											1	
		557+08	STH 29	0010			2435									2435
	541+07		STH 29, LT	0010					1							
	544+85		STH 29, LT	0010								1				
	544+88 545+09		HAPPY VALLEY RD. (N) STH 29, RT	0010 0010								1				
9+24			CTH FF, RT	0010				 81								
9+24 8+99	-	9+58 9+48	CTH FF, RT	0010				108								
9+38	-	9+40 9+71	CTH FF, LT	0010	<del></del>		<del></del>	84				<del></del>	<del></del>	<del></del>	<del></del>	
7+91	-	9+58	CTH FF	0010		167	167									167
PROJECT 7	650-02-7	73 SUBTOTAL	-		0	167	2,602	273	1	0	0	3	0	0	1	2,602
TOTAL					3	5,757	28,750	501	4	1	1	6	1	1	1	28,750

MISCELLANEOUS QUANTITIES

SHEET

E

COUNTY: PIERCE

HWY: STH 29

### SAWNG

STATION	_	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
OTATION	301+00	OTATION	STH 29	6	24
308+54	-	309+49	STH 29	95	
335+16	_	335+86	STH 29	71	
379+61	_	380+30	STH 29	67	
393+23	_	393+93	STH 29	71	
409+16	_	409+96	STH 29	80	
496+11	_	497+03	STH 29	104	
573+58		573+89	STH 29	31	
373130	586+93	373+03	STH 29	01	234
	300+33		011129		204
PROJECT	7650-01-	-75 SUBTOTAL		525	258
559+24	-	559+50	STH 29	28	
PROJECT	7650-00-	-74 SUBTOTAL		28	0
	7+91		CTH FF	24	
544+21	-	545+00	STH 29	79	
PROJECT	7650-02-	-73 SUBTOTAL		103	0
TOTAL				656	258

#### DITCH CLEANING

DITOIT OL		·····		SPV.0090.01 DITCH CLEANING
STATION	-	STATION	LOCATION	LF
309+75	-	312+75	STH 29, LT	300
496+50	-	497+85	STH 29, RT	135
PROJECT 7	435			

### WOOD GUARDRAIL SALVAGED

SPV.0090.03 WOOD GUARDRAIL SALVAGED

STATION	-	STATION	LOCATION	LF	
556+97	-	558+84	STH 29, RT	193	
PROJECT 7	650-0	0-74 SUBTOTA	AL	193	

PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUNTY: PIERCE MISCELLANEOUS QUANTITIES SHEET E

FILE NAME: \P:\60548152\900\_Work\910\_CAD\60548152\SheetsPlan\0302-MQ.pptx PLOT NAME: PLOT SCALE: WISDOT / CADDS SHEET 41

#### TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE

			655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE
LOC.	ТО	LOC.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.
CB1		SB1				86	86		229
CB1		SB2			181			181	
CB1		SB3			233				714
CB1		SB4			309				
CB1		SB5				374			266
CB1		SB6		218					
CB1		SB7				172			
CB1		SB8		70				70	
CB1		SB9	71				71		
SB1		SB2					139		
SB2		SB3					86		
SB3		SB4					112		
SB4		SB5					105		
SB5		SB6					274		
SB6		SB7					86		
SB7		SB8					126		
SB8		SB9					41		
SB2		SB4						159	
SB8		SB6						172	
PB1		SB1					40		
PB3		SB2					35		
PB4		SB3					37		
PB5		SB4					36		
PB6		SB5					42		
PB8		SB7					36		
PB9		SB8					36		
SB1	Н	EAD 1	21						
SB1	Н	EAD 5		23					
SB1	H	EAD 42	15						
SB8	Н	EAD 9	51						
SB8	LUN	MINAIRE						120	
SB9	H	EAD 61	15						
	7	OTAL	173	311	723	632	1388	702	1209

**ALL ITEMS ON THIS SHEET ARE CATEGORY 0010** 

**TRAFFIC SIGNALS & LIGHTING STH 29 & CEMETERY ROAD** 

PROJECT NO: 7650-01-75 MISCELLANEOUS QUANTITIES HWY: STH 29 **COUNTY: PIERCE** SHEET NO:

								SDD	CONDUIT	LOOP DETECTOR	LOOP DETECTOR
LOOP	HOME	**		SIZE		NO. OF	PAVEMENT	INSTALLATION	LOOP DETECTOR	LEAD IN CABLE	WIRE
NO.	RUN PB	LOCATION	(FT)	Χ	(FT)	TURNS	TYPE	REFERENCE	L.F.	L.F.	L.F.
11	PB1	586+43, 6' LT	6	Χ	6	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	118	51	366
12	PB1	586+59, 6' LT	6	Χ	6	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	122	51	378
21	PB7	STH 35/MAIN ST	6	Χ	6	5	CONCRETE	EXISTING LOOP DETECTOR		570	
41	PB4	CEMETERY RD	6	Χ	20	3	CONCRETE	EXISTING LOOP DETECTOR		175	
42	PB4	CEMETERY RD	6	Χ	6	3	CONCRETE	EXISTING LOOP DETECTOR		175	
43	PB4	CEMETERY RD	6	Χ	20	3	CONCRETE	EXISTING LOOP DETECTOR		175	
44	PB4	CEMETERY RD	6	Χ	6	3	CONCRETE	EXISTING LOOP DETECTOR		175	
51	PB6	STH 35/MAIN ST	6	Χ	6	4	CONCRETE	EXISTING LOOP DETECTOR		313	
52	PB6	STH 35/MAIN ST	6	Χ	6	4	CONCRETE	EXISTING LOOP DETECTOR		313	
61	PB2	STH 29/STH 35/MAIN ST	6	Χ	6	4	ASPHALT	EXISTING LOOP DETECTOR		262	
81	PB8	STH 29/830TH AVE	6	Χ	6	3	CONCRETE	EXISTING LOOP DETECTOR		145	
82	PB8	STH 29/830TH AVE	6	Χ	6	3	CONCRETE	EXISTING LOOP DETECTOR		145	
83	PB8	STH 29/830TH AVE	6	Χ	6	3	CONCRETE	EXISTING LOOP DETECTOR		145	
84	PB8	STH 29/830TH AVE	6	Χ	6	3	CONCRETE	EXISTING LOOP DETECTOR		145	
								TOTA	L 240	2840	744

HEMS TO BE SALVAGED AND REINSTALLED	(FOR INFORMATION ONLY)

											TRAFFIC	TRAFFIC		
			TRANSFORMER BASES		TRAFFIC SIGNAL	TROMBONE			FOLDING	ROADWAY	SIGNAL	SIGNAL	<b>PEDESTRIAN</b>	PEDESTRIAN
		PEDESTAL	BREAKAWAY 11 1/2-INCH	POLES	STANDARDS	ARMS	<b>JMINAIR</b>	LUMINAIRE	STOP SIGN	NAME SIGN	FACE 3S	FACE 5S	PUSH	SIGNAL FACE
SALVAGE	REINSTALLED	BASES	<b>BOLT CIRCLE</b>	TYPE 3	<b>ALUMINUM 15-FT</b>	25-FT	ARM	HPS	(R1-1F)	(M1-94-H)	12-INCH	12-INCH	BUTTONS	16-INCH
LOCATION	TO LOCATION	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	<b>EACH</b>	<b>EACH</b>	EACH	EACH
SB1	SB1	1			1				1		1	1	1	1
SB8	SB8		1	1		1	1	1		1	1			
SB8	SB9												1	1
	TOTAL	1	1	1	1	1	1	1	1	1	2	1	2	2

### **LEGEND**

\*\* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

652.0800

655.0700

655.0800

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

TRAFFIC SIGNALS & LIGHTING STH 29 & CEMETERY ROAD

PROJECT NO: 7650-01-75 HWY: STH 29 COUNTY: PIERCE MISCELLANEOUS QUANTITIES SHEET NO: E

## STATE OF WISCONSIN

# **DEPARTMENT OF TRANSPORTATION** TRANSPORTATION PROJECT PLAT TITLE SHEET PROJECT NO. 7650-01-25

# **PRESCOTT - RIVER FALLS**

CTH QQ SOUTH JCT - CEMETERY ROAD

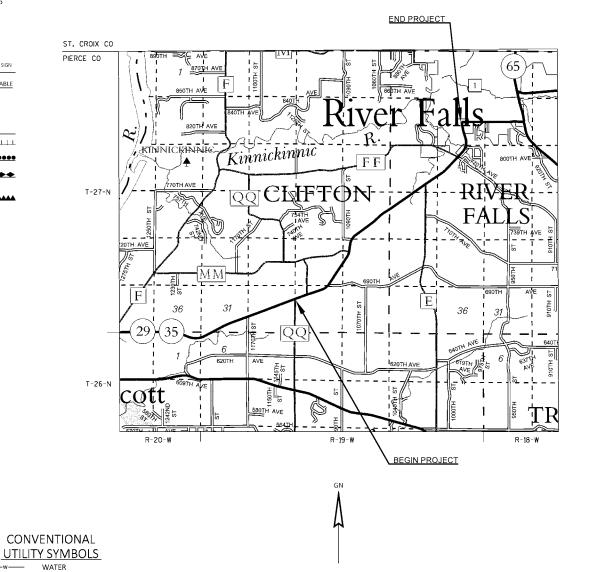
**STH 29 PIERCE COUNTY** 

#### CONVENTIONAL SYMBOLS

SECTION LINE QUARTER LINE		SECTION CORNER SYMBOL	23 24 16 15 9	R/W MONUMI (TO BE SET) NON-MONUM R/W POINT	· ·
SIXTEENTH LINE  NEW REFERENCE LINE  NEW R/W LINE		SECTION CORNER MONUMENT		FOUND IRON F (1-INCH UNLESS	
EXISTING R/W OR HE LINE PROPERTY LINE	P.L.		JRVEY MONUMEN CORNER MONUME	ENT	<b>∅</b> <b>●</b>
LOT, TIE & OTHER MINOR LINES		SIGN	<b>þ</b> SIGN	OFF-PREMISE SIGN	(#1 25) SIGN
SLOPE INTERCEPT				COMPENSABLE N	ION-COMPENSABLE
CORPORATE LIMITS	////////	ELECTRIC POL		<b>±</b>	占
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)		PEDESTAL (LA (TV, TEL, ELE	BEL TYPE)	*	ø H
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)		<del>```</del>	RICTED BY ACQUIS	SITION	
TEMPORARY LIMITED EASEMENT AREA	r		BY STATUTORY AU		••••••
EASEMENT AREA (PERMANENT LIMITED OR			RICTED (BY PREVIO R CONTROL)	ous	****
RESTRICTED DEVELOPMENT) TRANSMISSION STRUCTURES	—⊠——⊠— —	NO ACCESS (N	NEW HIGHWAY)	UTILITY NUMI	BER (40)
BUILDING TO BE REMO	OVED	PARALLEL	OFFSETS .		

#### **CONVENTIONAL ABBREVIATIONS**

CONVENTIONAL ABBREVIATIONS							
ACCESS RIGHTS	AR	POINT OF INTERSECTION	ON PI				
ACRES	AC	PROPERTY LINE	PL				
AHEAD	AH	RECORDED AS	(100')				
ALUMINUM	ALUM	REEL / IMAGE	R/I				
AND OTHERS	ET AL	REFERENCE LINE	R/L				
BACK	BK	REMAINING	REM				
BLOCK	BLK	RESTRICTIVE DEVELOPM	MENT RDE				
CENTERLINE	C/L	EASEMENT					
CERTIFIED SURVEY MAP	CSM	RIGHT	RT				
CONCRETE	CONC	RIGHT OF WAY	R/W				
COUNTY	CO	SECTION	SEC				
COUNTY TRUNK HIGHWAY	CTH	SEPTIC VENT	SEPV				
DISTANCE	DIST	SQUARE FEET	SF				
CORNER	COR	STATE TRUNK HIGHWAY	STH				
DOCUMENT NUMBER	DOC	STATION	STA				
EASEMENT	EASE	TELEPHONE PEDESTAL	TP				
EXISTING	EX	TEMPORARY LIMITED	TLE				
GAS VALVE	GV	EASEMENT					
GRID NORTH	GN	TRANSPORTATION PROJE	ECT TPP				
HIGHWAY EASEMENT	HE	PLAT					
IDENTIFICATION	ID	UNITED STATES HIGHWA					
LAND CONTRACT	LC	VOLUME	٧				
LEFT	LT						
MONUMENT	MON	CUDVE DATA					
NATIONAL GEODETIC SURVEY	NGS	<u>CURVE DATA</u>					
NUMBER	NO	LONG CHORD LC	Н				
OUTLOT	0L	LONG CHORD BEARING LC	В				
PAGE	Р	RADIUS R					
POINT OF TANGENCY	PT	DEGREE OF CURVE D					
PERMANENT LIMITED	PLE	CENTRAL ANGLE $\Delta$	/DELTA				



LAYOUT

THE NOTES.CONVENTIONAL SIGNS. AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION

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

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

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

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

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

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

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

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

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE

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

> PROJECT NUMBER 7650-01-25 - 4.01 SHEET 2 OF 2

AMENDMENT NO:

FILE NAME: P:\60583549\900 CAD GIS\910 CAD\76500105\SHEETSPLAN\040102-RP.DWG

EASEMENT

POINT OF BEGINNING

POINT OF CURVATURE

POINT OF COMPOUND CURVE

LENGTH OF CURVE

DIRECTION AHEAD

DIRECTION BACK

TANGENT

OVERHEAD

ELECTRIC

FIBER OPTIC

CABLE TELEVISION

SANITARY SEWER

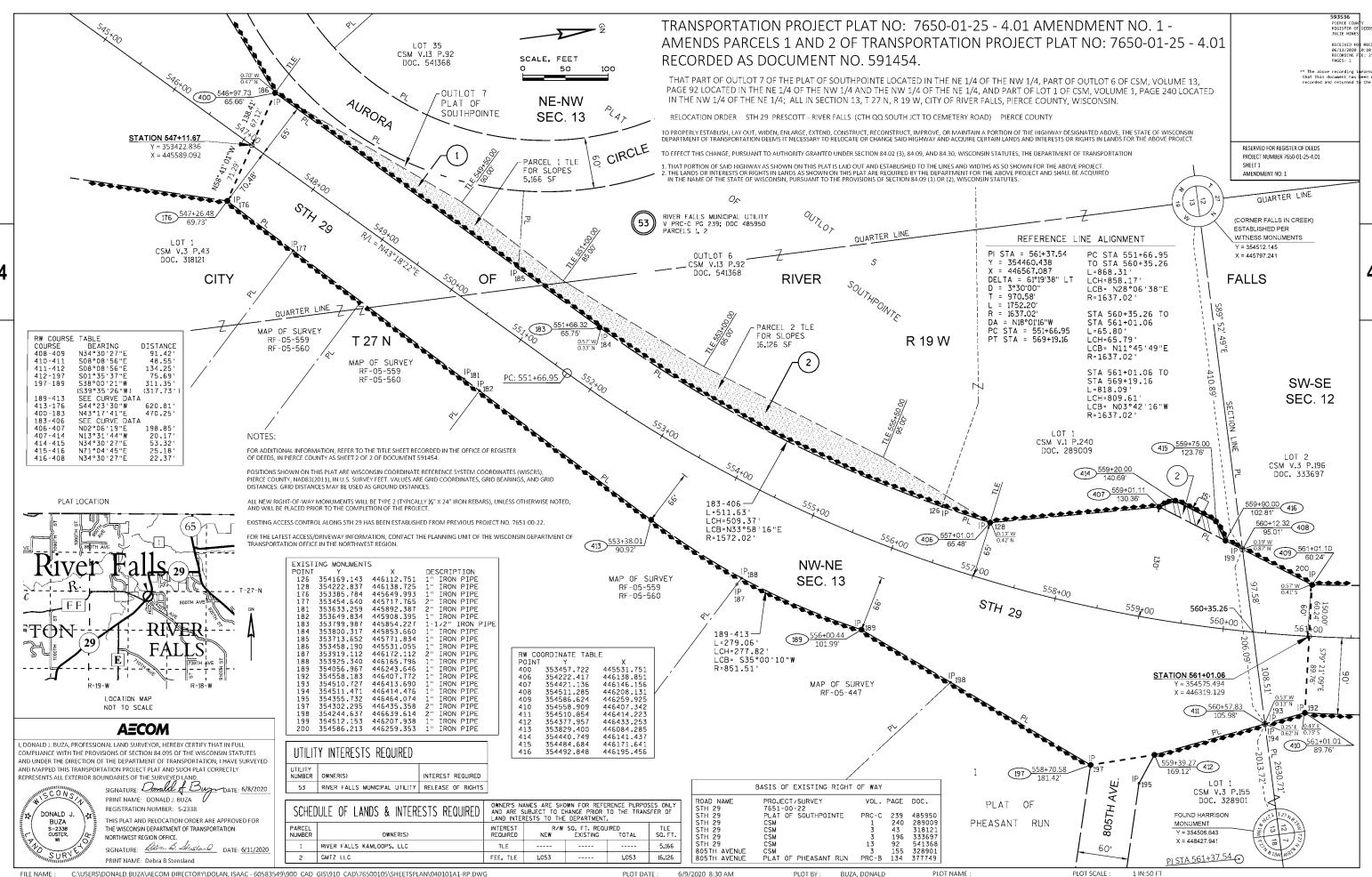
3/10/2020 12:33 PM

PLOT BY :

BUZA, DONALD

PLOT NAME:

APPRAISAL PLAT DATE



#### TRANSPORTATION PROJECT PLAT NO: 7650-01-25 - 4.02

THAT PART OF LOTS 7 AND 8 OF THE PLAT OF WOODRIDGE, LOCATED IN THE NW 1/4 OF THE SE 1/4 OF SECTION 12. T 27 N, R 19 W, CITY OF RIVER FALLS, PIERCE COUNTY, WISCONSIN.

RELOCATION ORDER STH 29 PRESCOTT - RIVER FALLS (CTH OO SOUTH JCT TO CEMETERY ROAD) PIERCE COUNTY

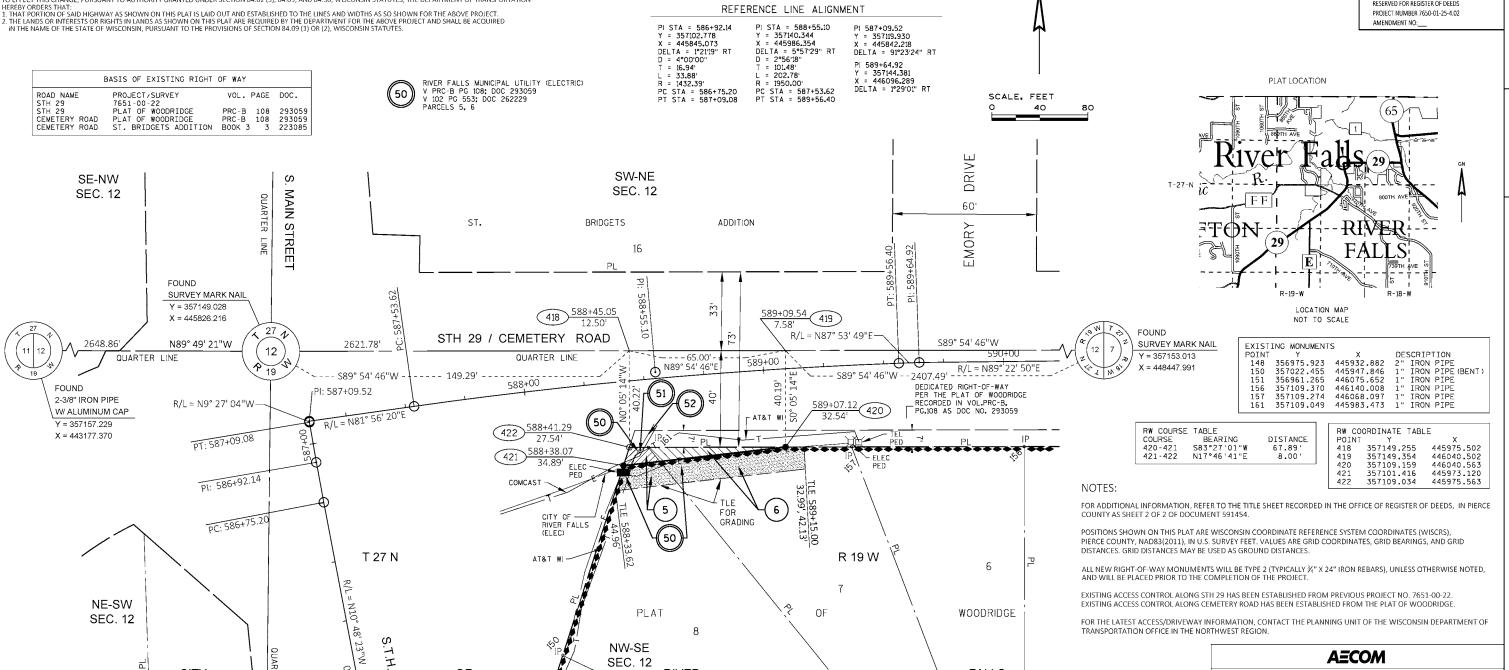
TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONL AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT. SCHEDULE OF LANDS & INTERESTS REQUIRED R/W SQ. FT. REQUIRED
Y EXISTING TOTAL TLE SQ. FT. REQUIRED NANCY J. CARDARELLI 207 BRADLEY S. GILBERTSON & KAREN M. GILBERTSON, HUSBAND AND WIFE FEE, TLE 169 169 566

UTILITY INTERESTS REQUIRED UTILITY
NUMBER OWNER(S) INTEREST REQUIRED 50 RIVER FALLS MUNICIPAL UTILITY (ELECTRIC) RELEASE OF RIGHTS 51 AT&T WI (TELEPHONE) RELEASE OF RIGHTS COMCAST (TELEPHONE) RELEASE OF RIGHTS

RESERVED FOR REGISTER OF DEEDS PROJECT NUMBER 7650-01-25-4.02



FALLS

**BUTTERNUT COURT** 

PLOT NAME

BUZA, DONALD

**RIVER** 

PLOT DATE :

3/17/2020 12:16 PM

FILE NAME : P:\60583549\900 CAD GIS\910 CAD\76500105\SHEETSPLAN\040201-RP.DWG

CITY

OF

29

7650-01-25- 4.02

I, DONALD J. BUZA, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED

AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY

PRINT NAME: DONALD J. BUZA REGISTRATION NUMBER: S-2338

PRINT NAME: Debra B Stensland

NORTHWEST REGION OFFICE.

SIGNATURE: Donald of Buy DATE: 3/10/2020

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR

SIGNATURE: Abbra & Stustand DATE: 3/17/2020

THE WISCONSIN DEPARTMENT OF TRANSPORTATION

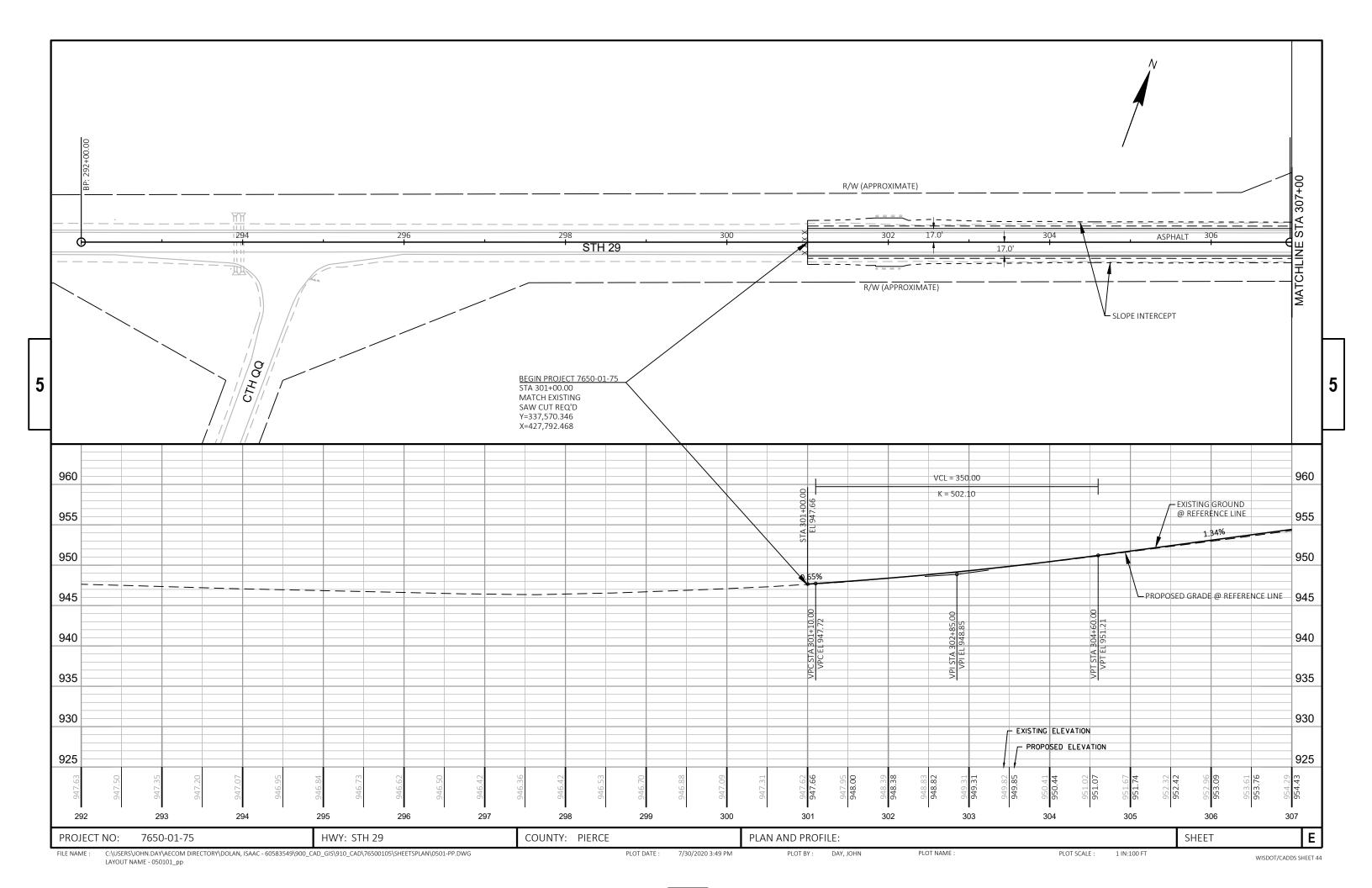
REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYER

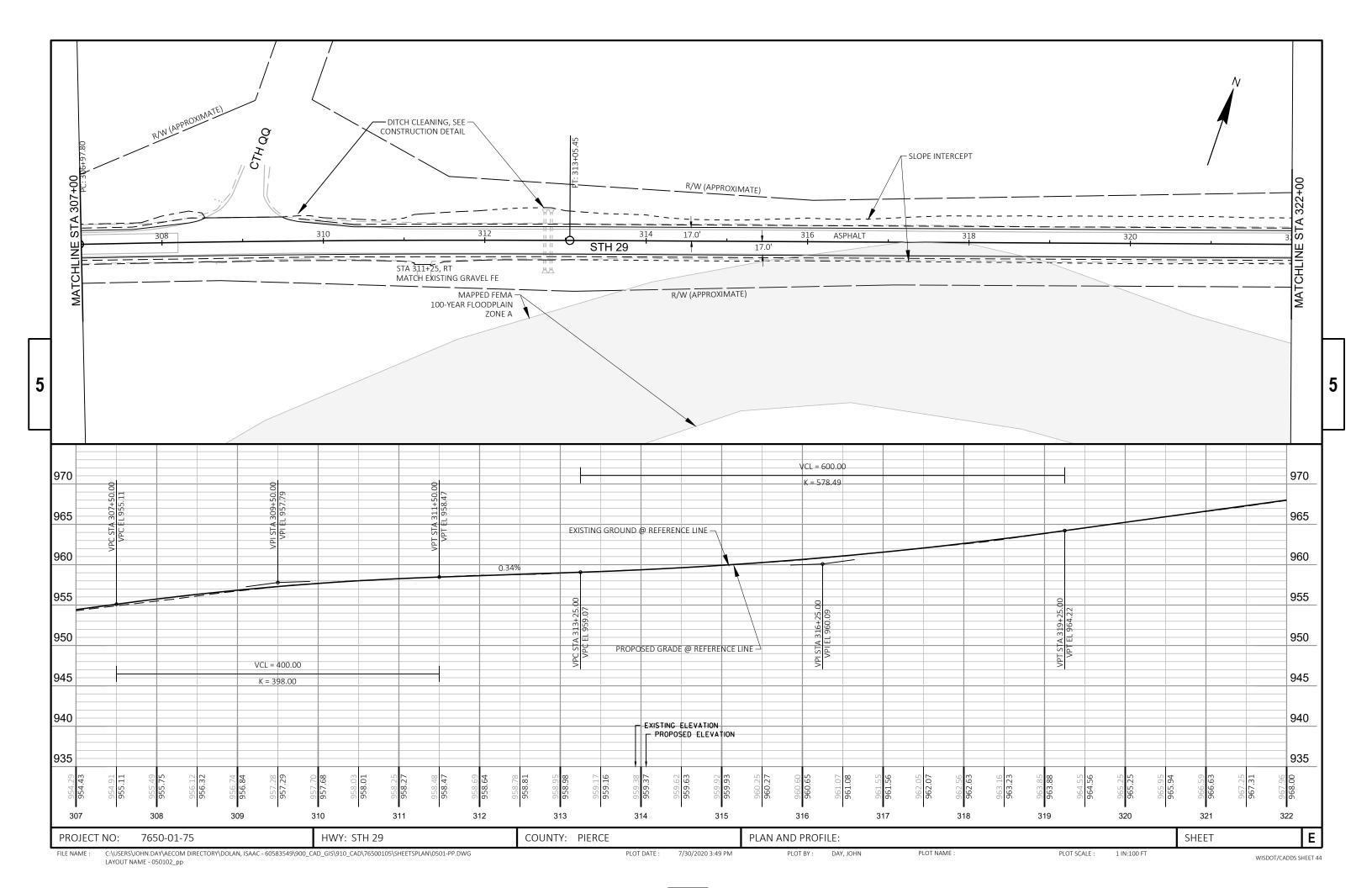
DONALD J.

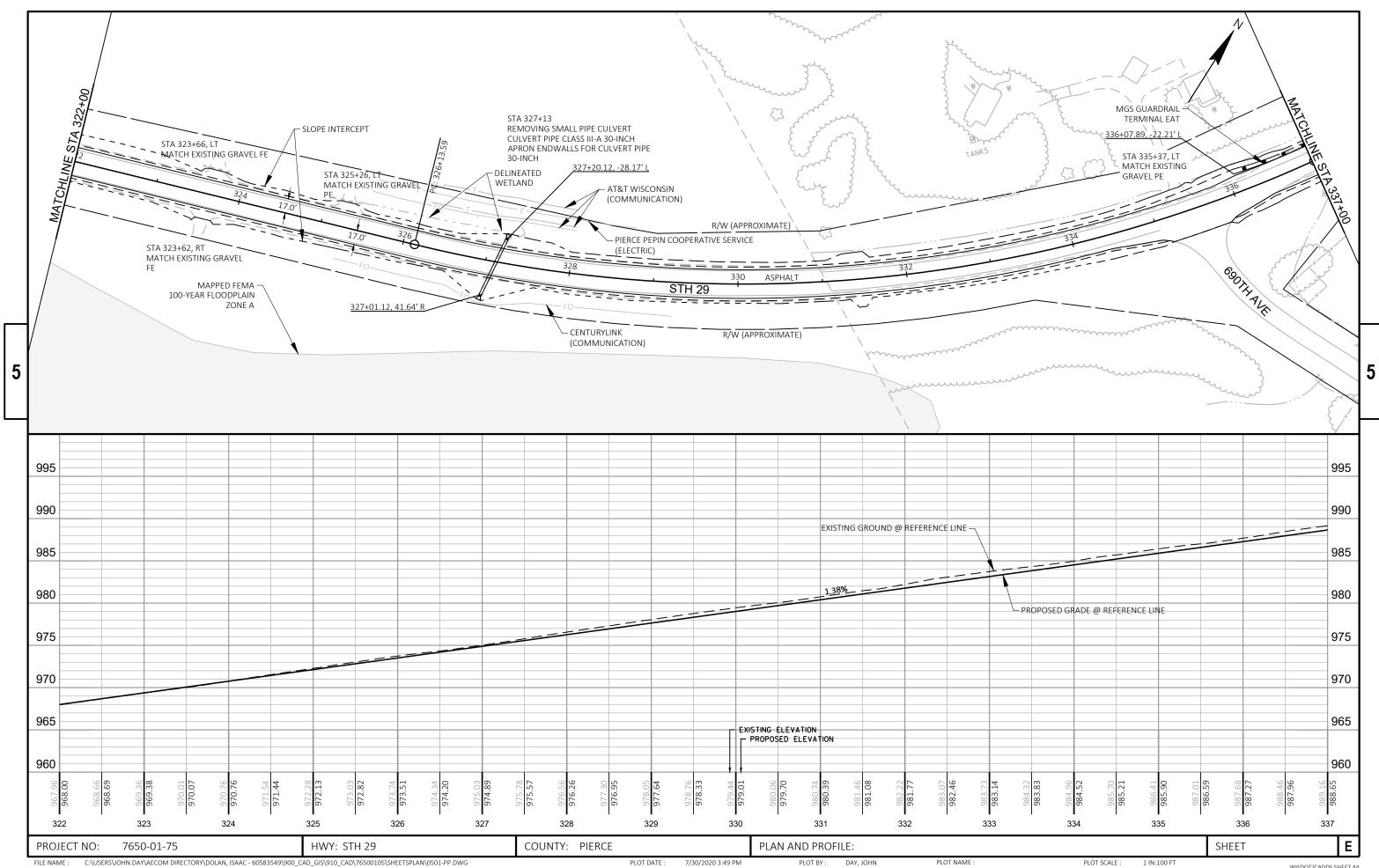
BUZA S-2338 CUSTER WI

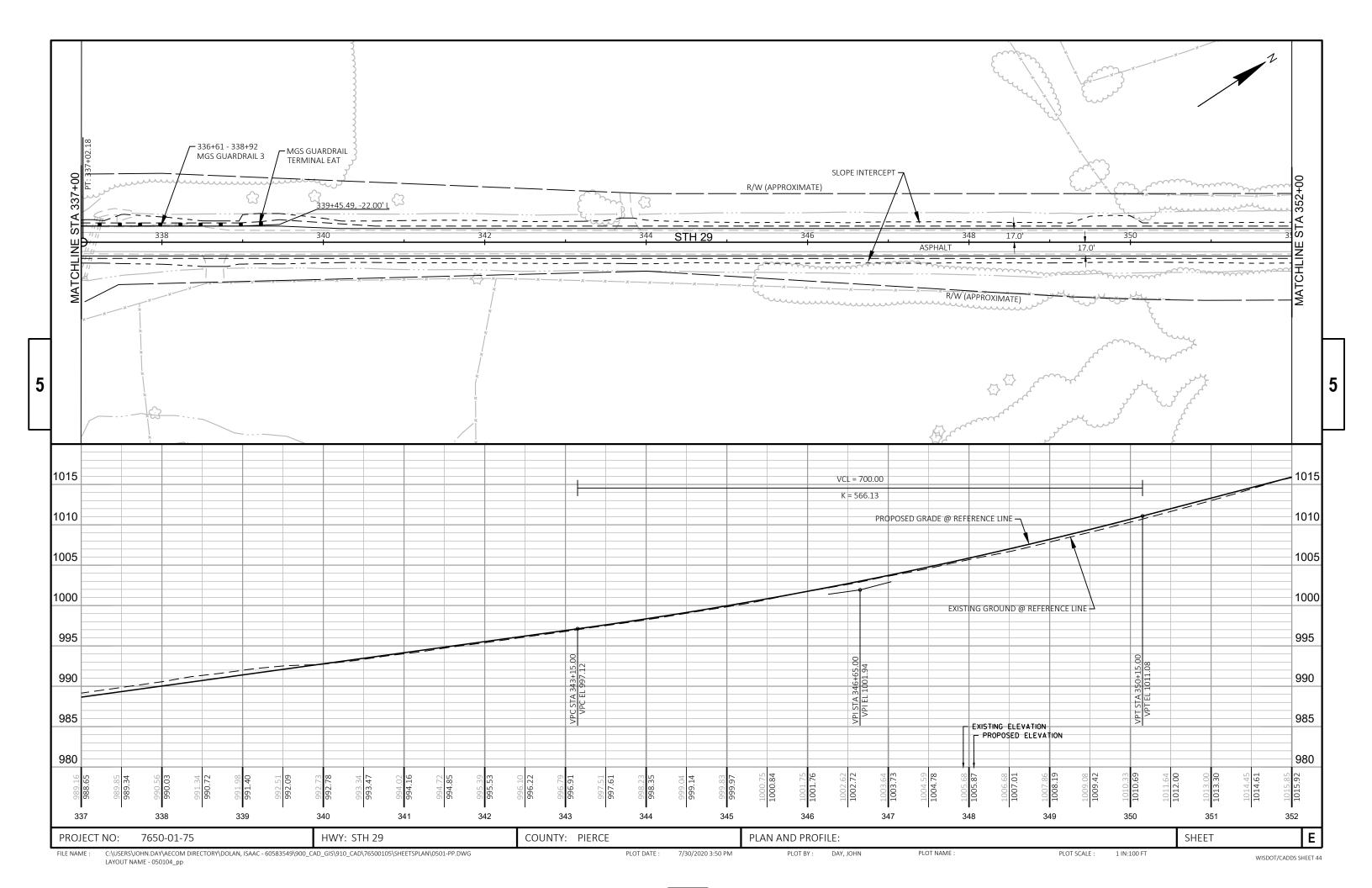
1 IN:40 FT

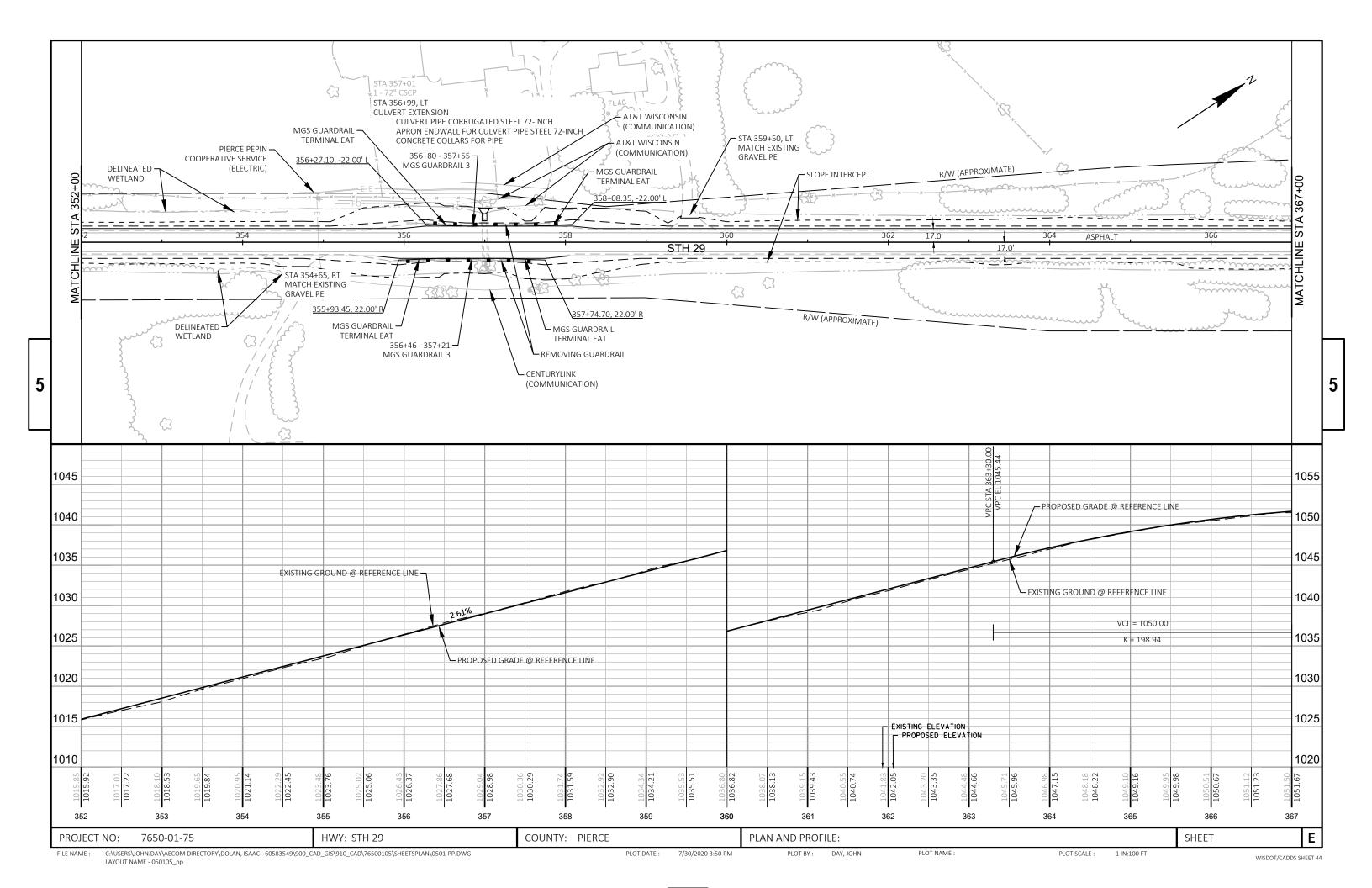
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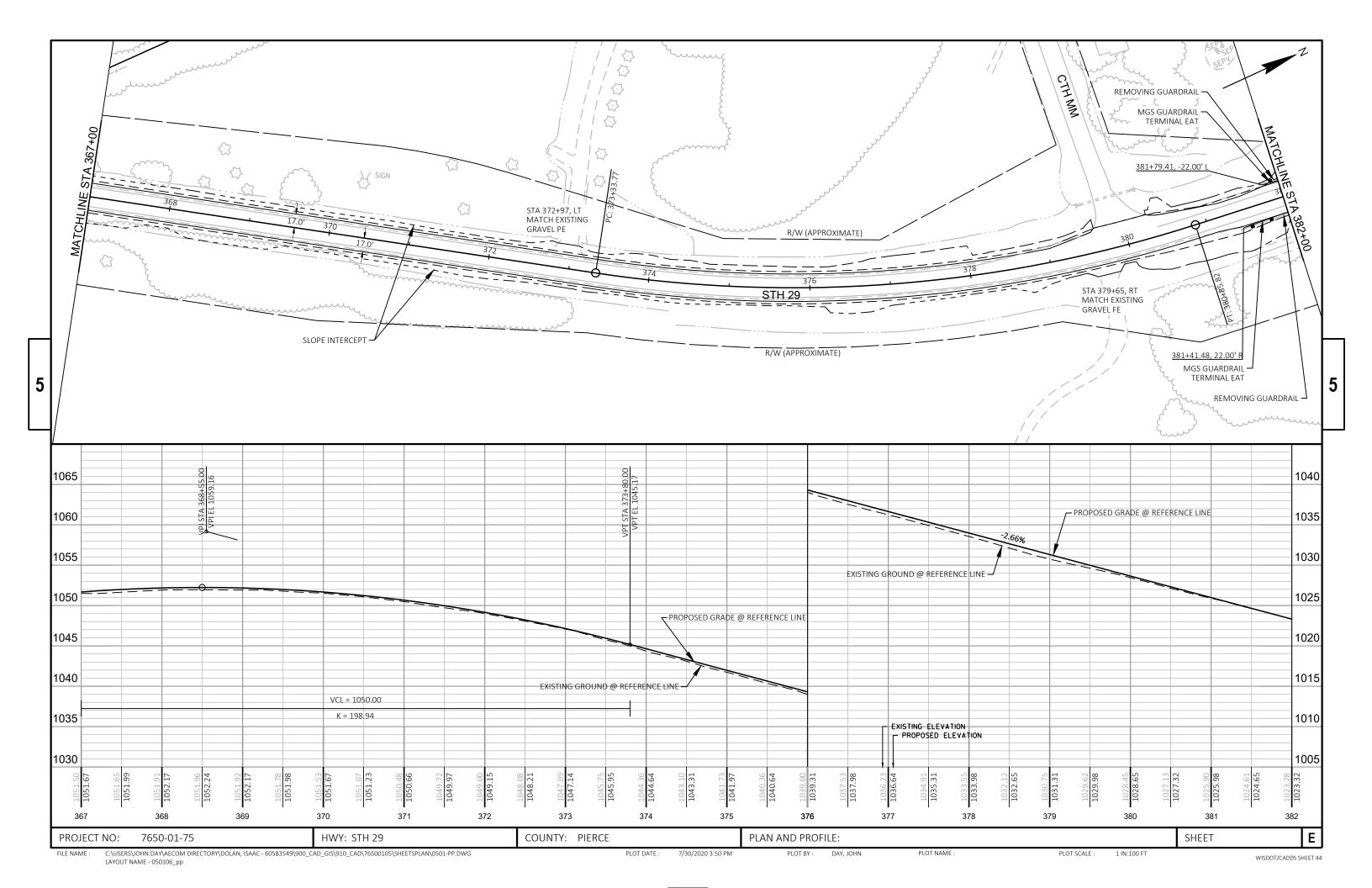


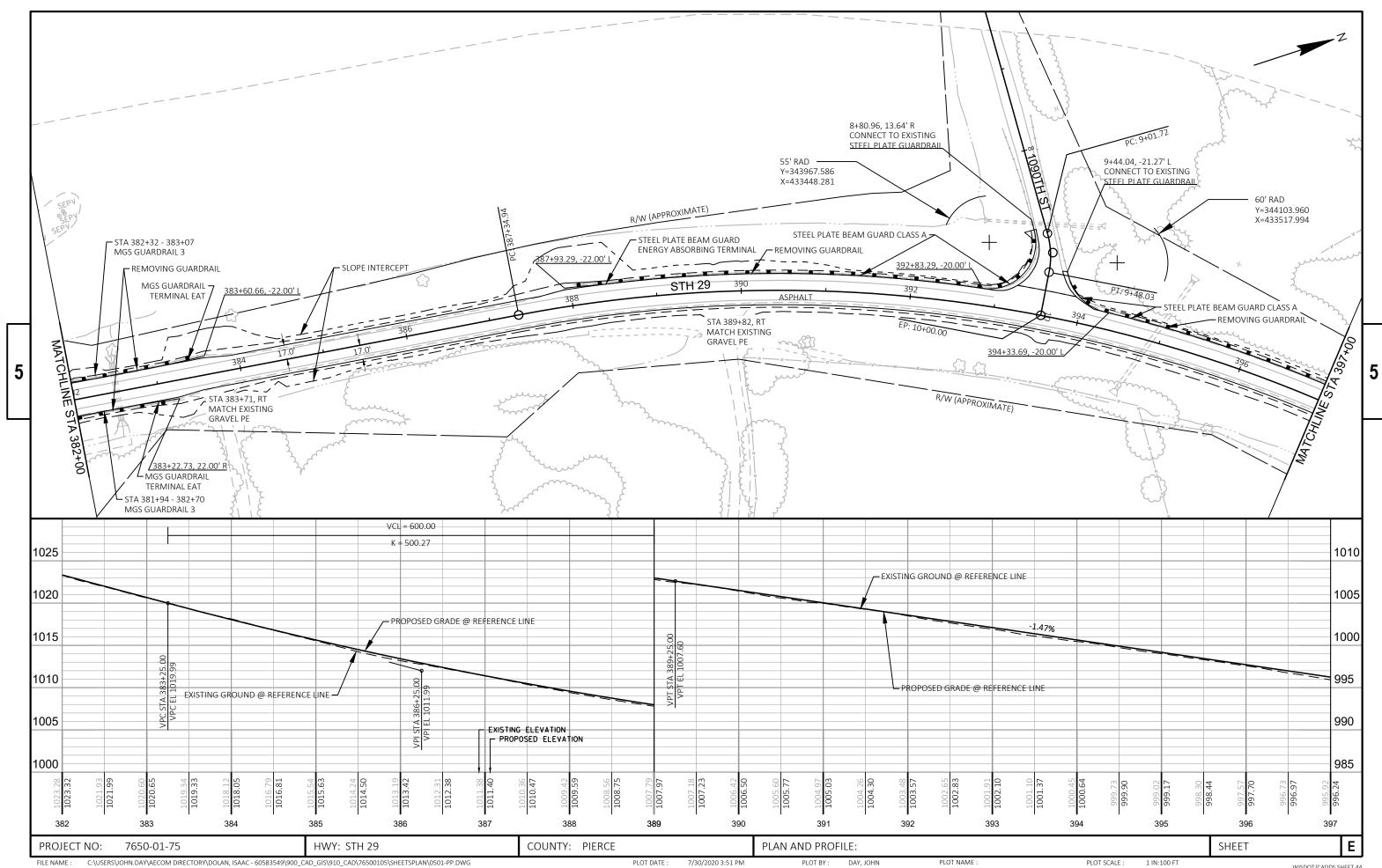


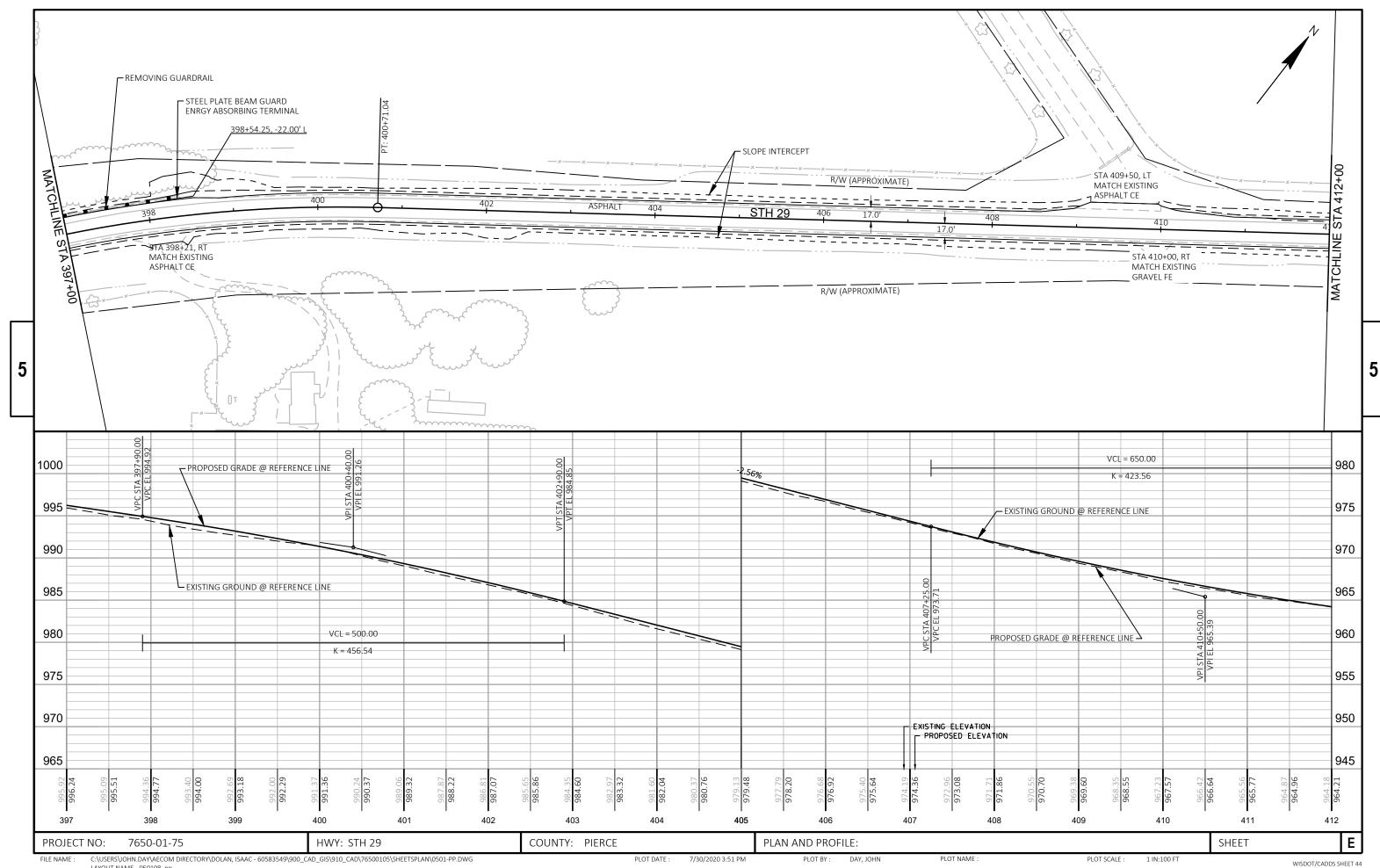




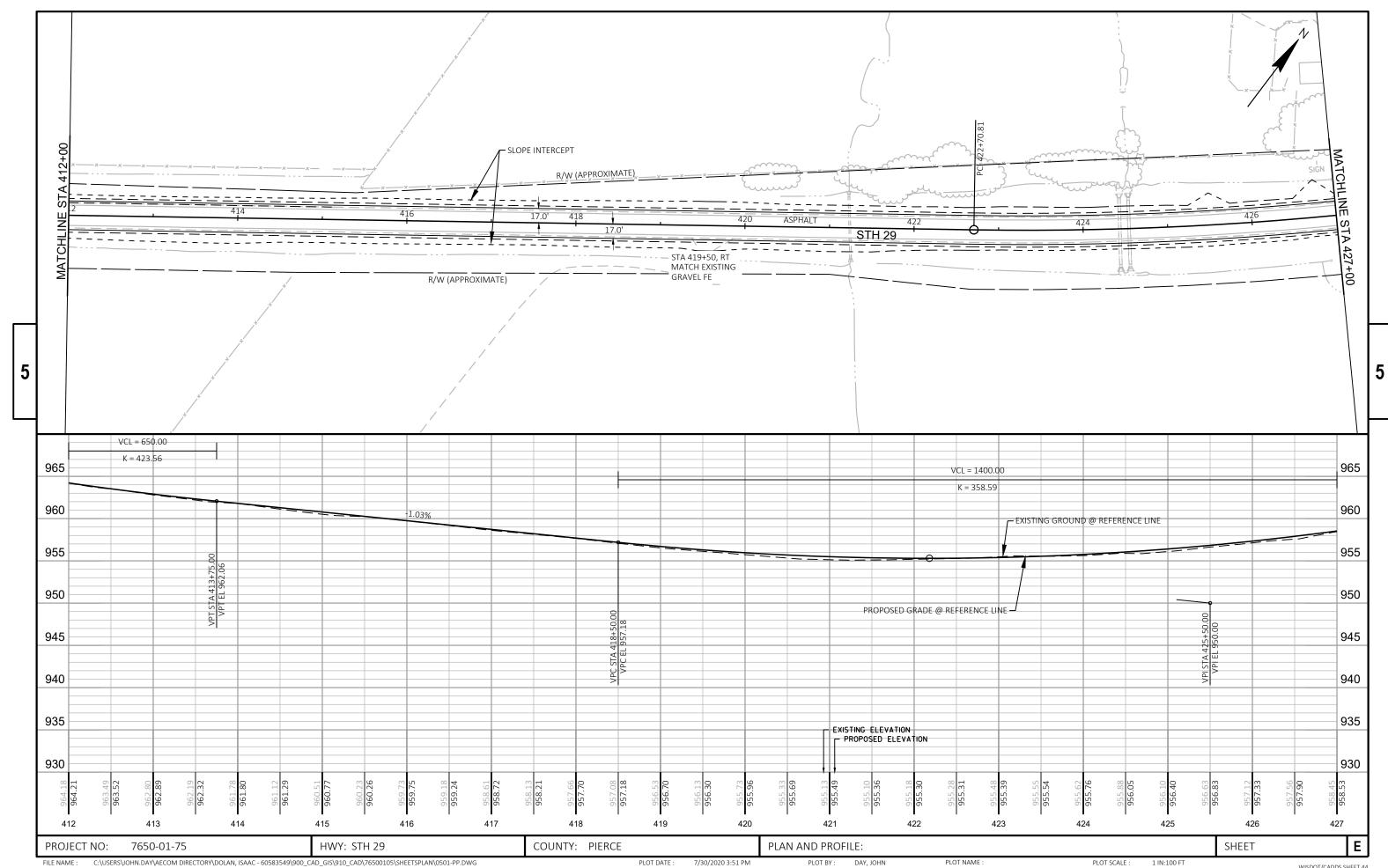






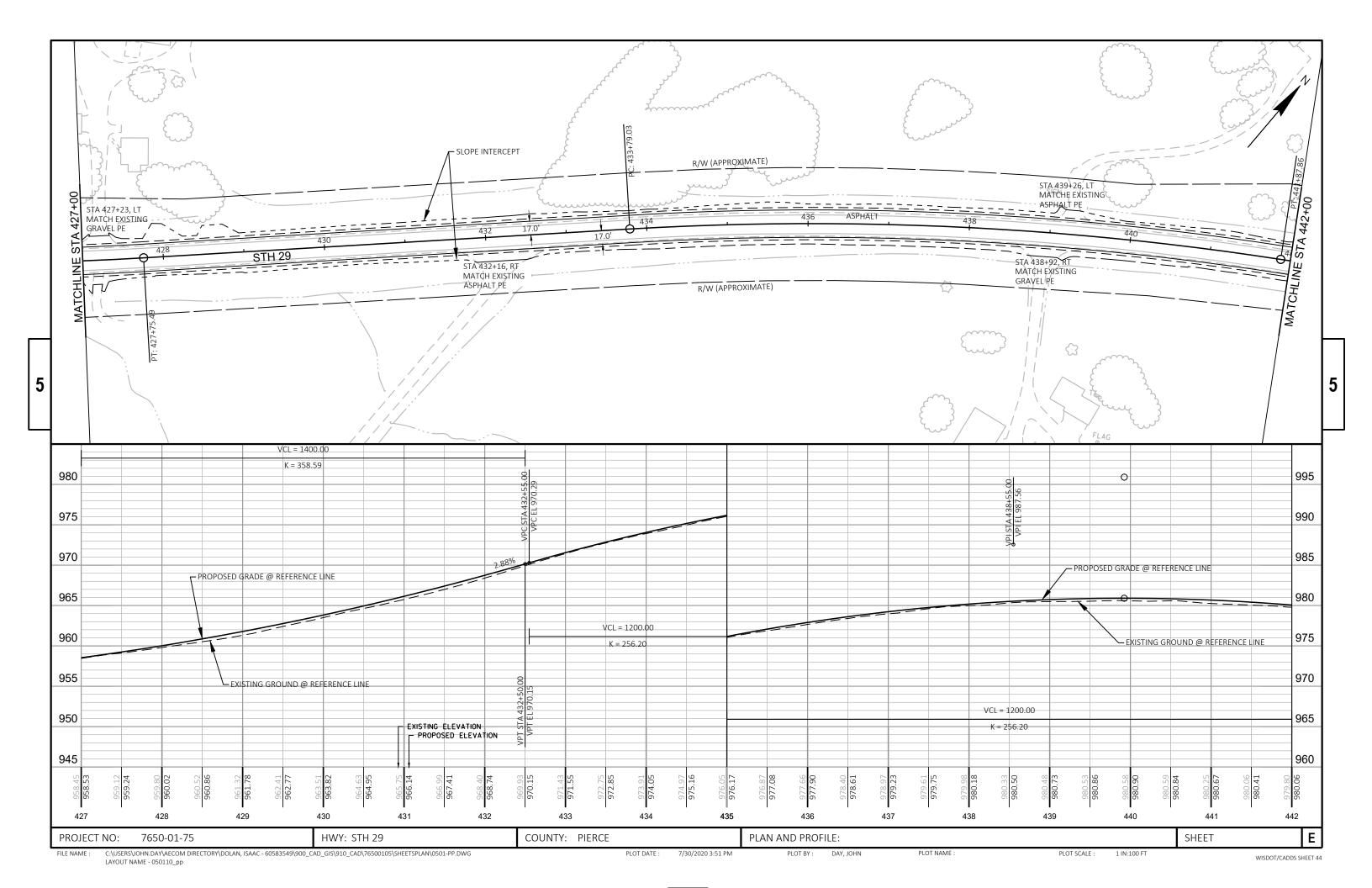


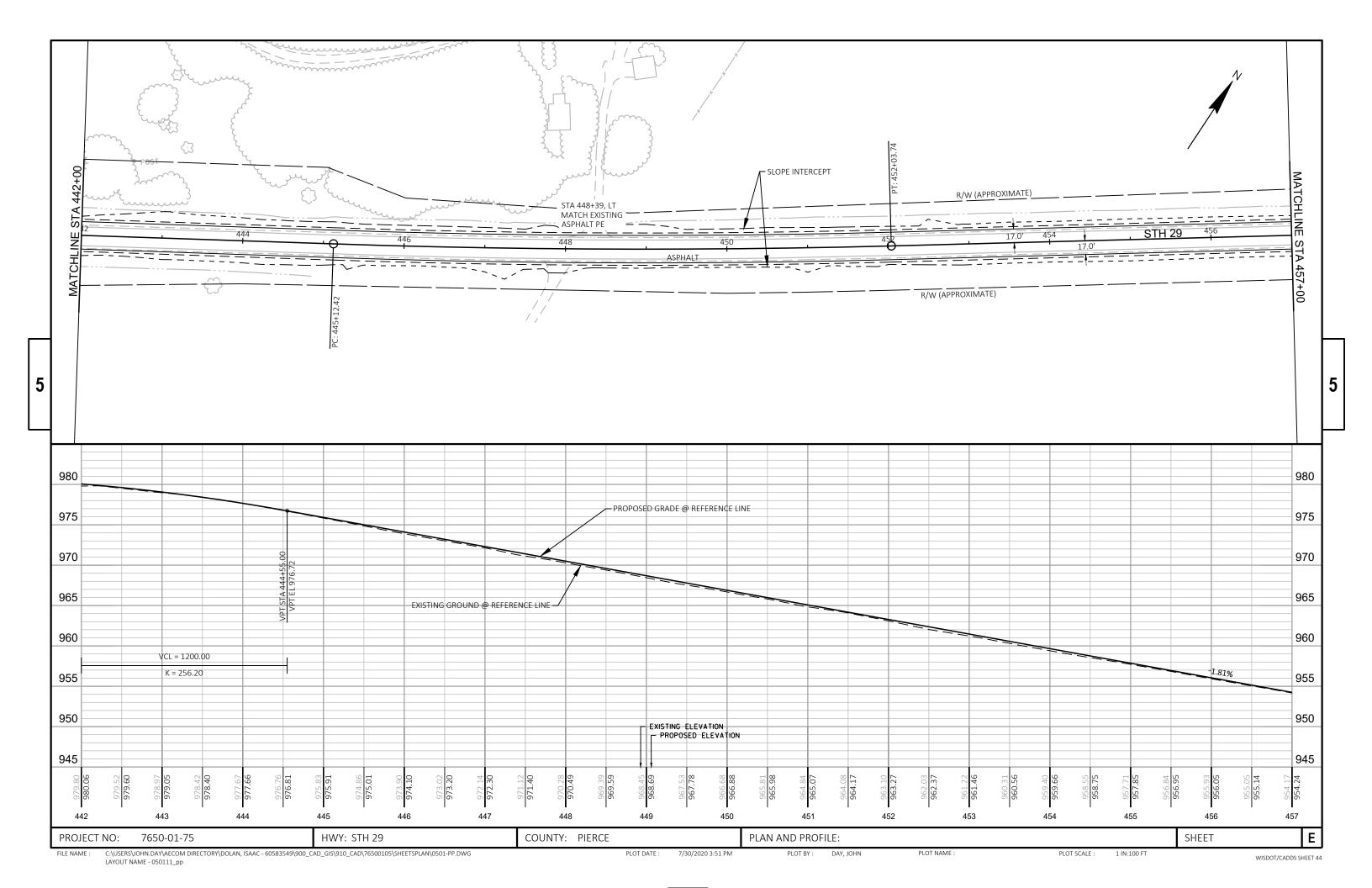
LAYOUT NAME - 050108\_pp

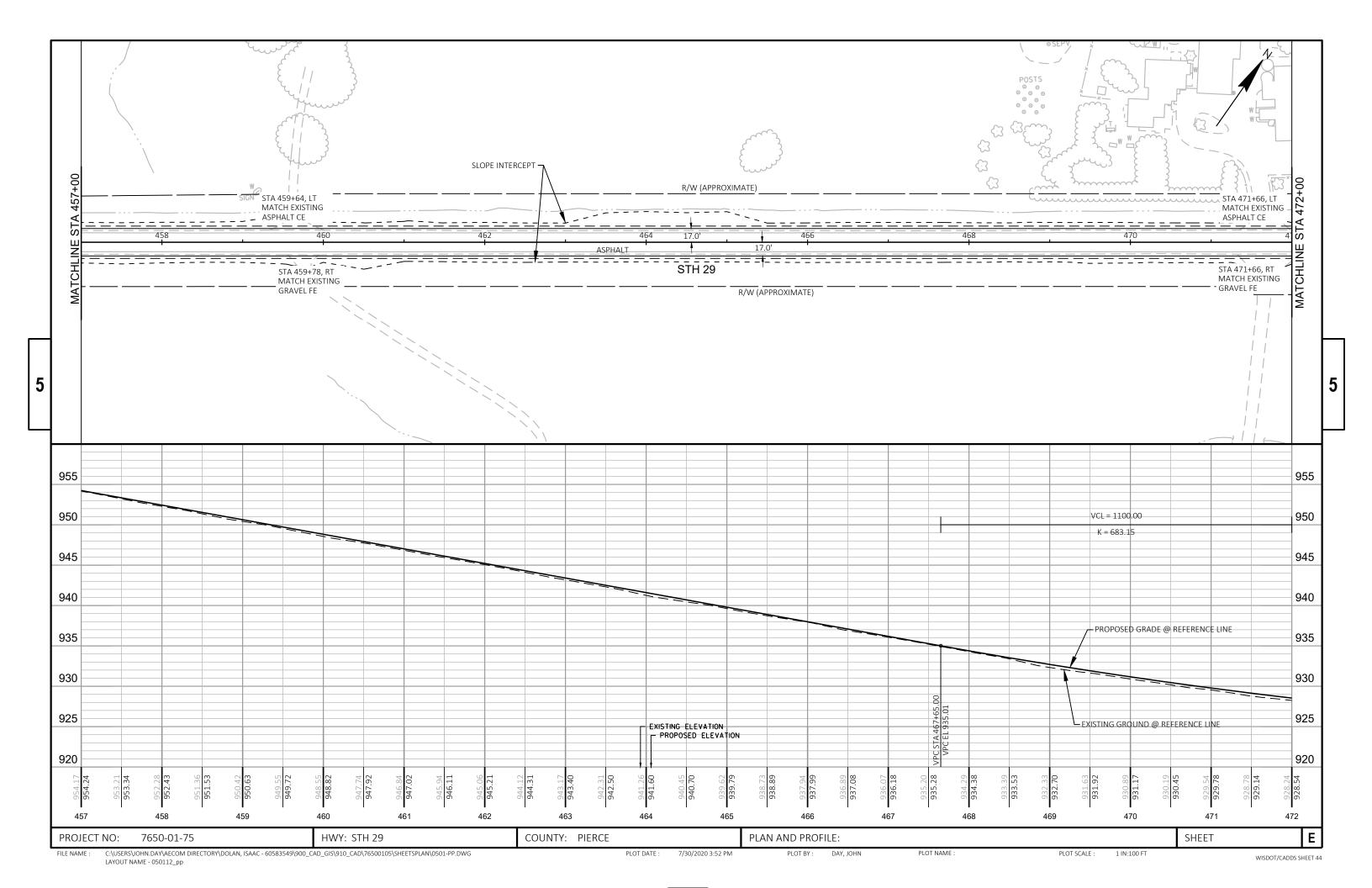


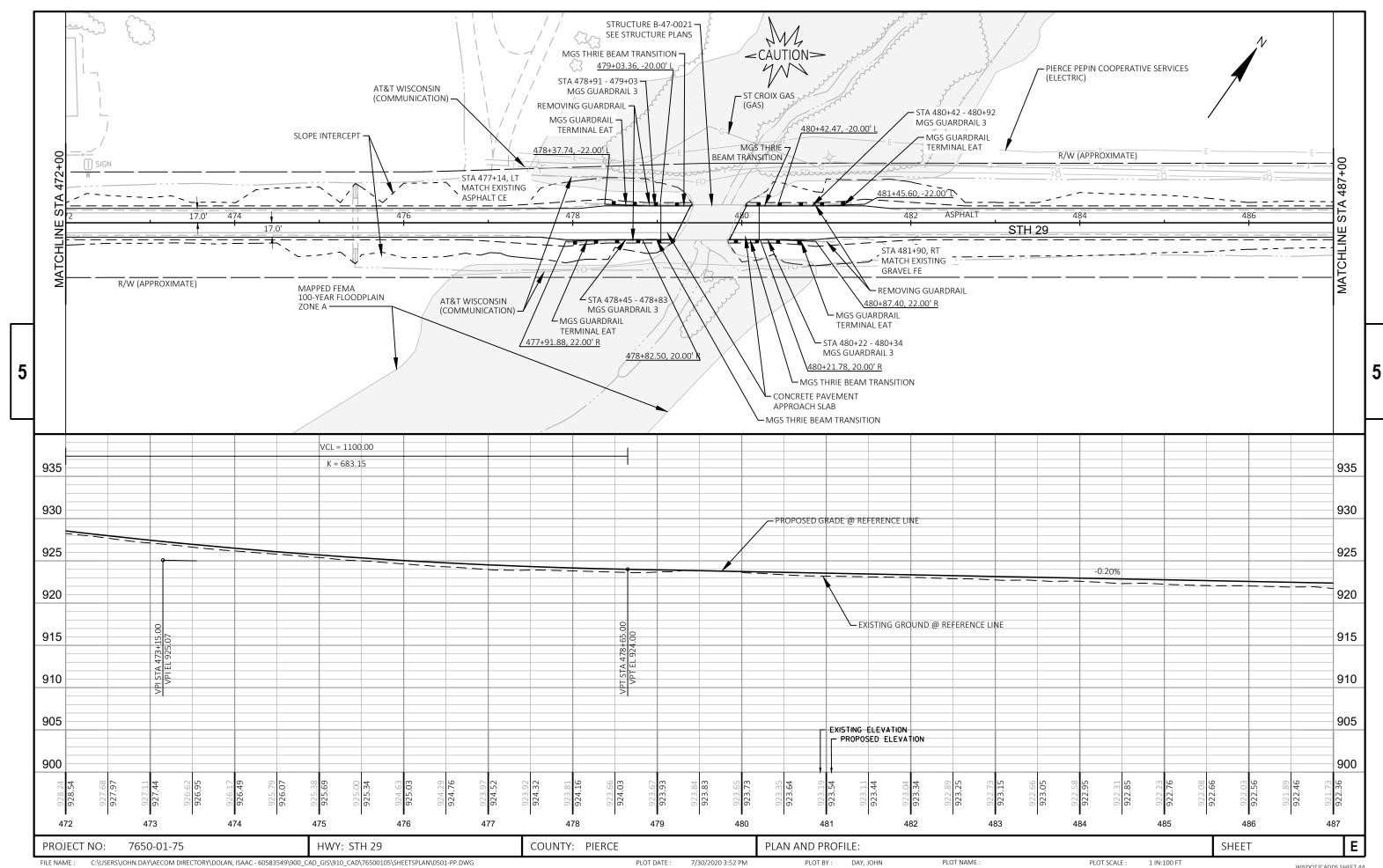
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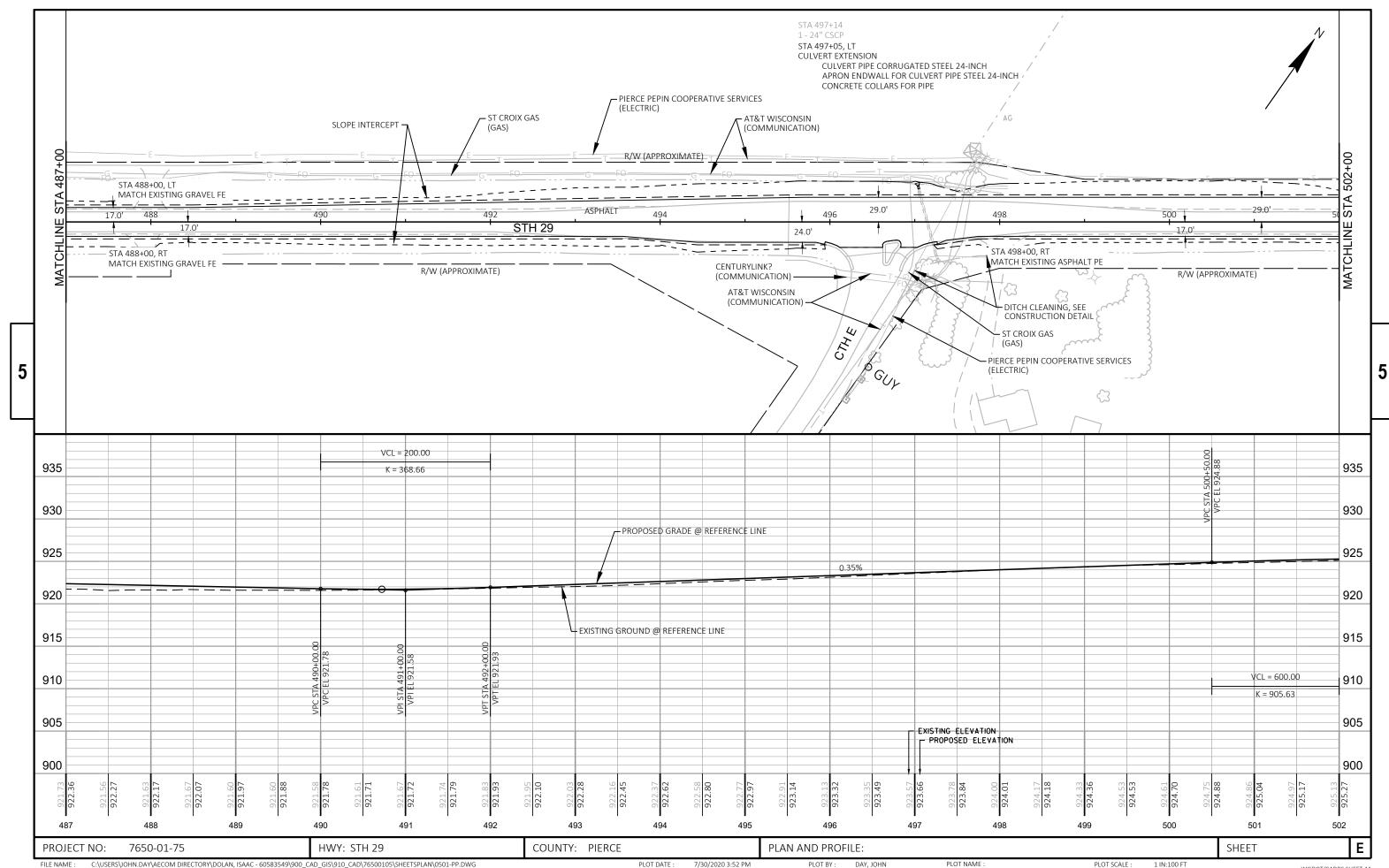
WISDOT/CADDS SHEET 44

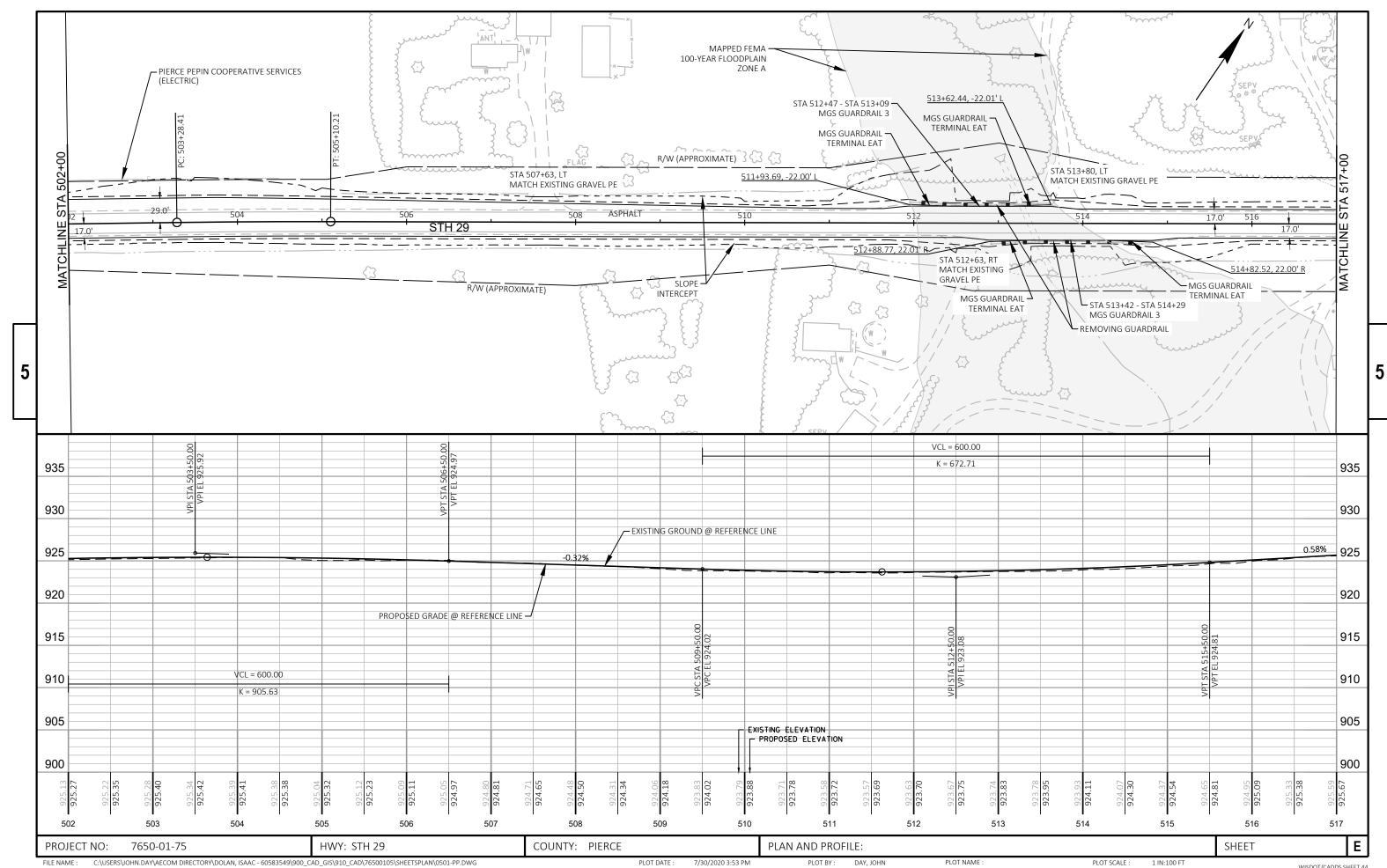






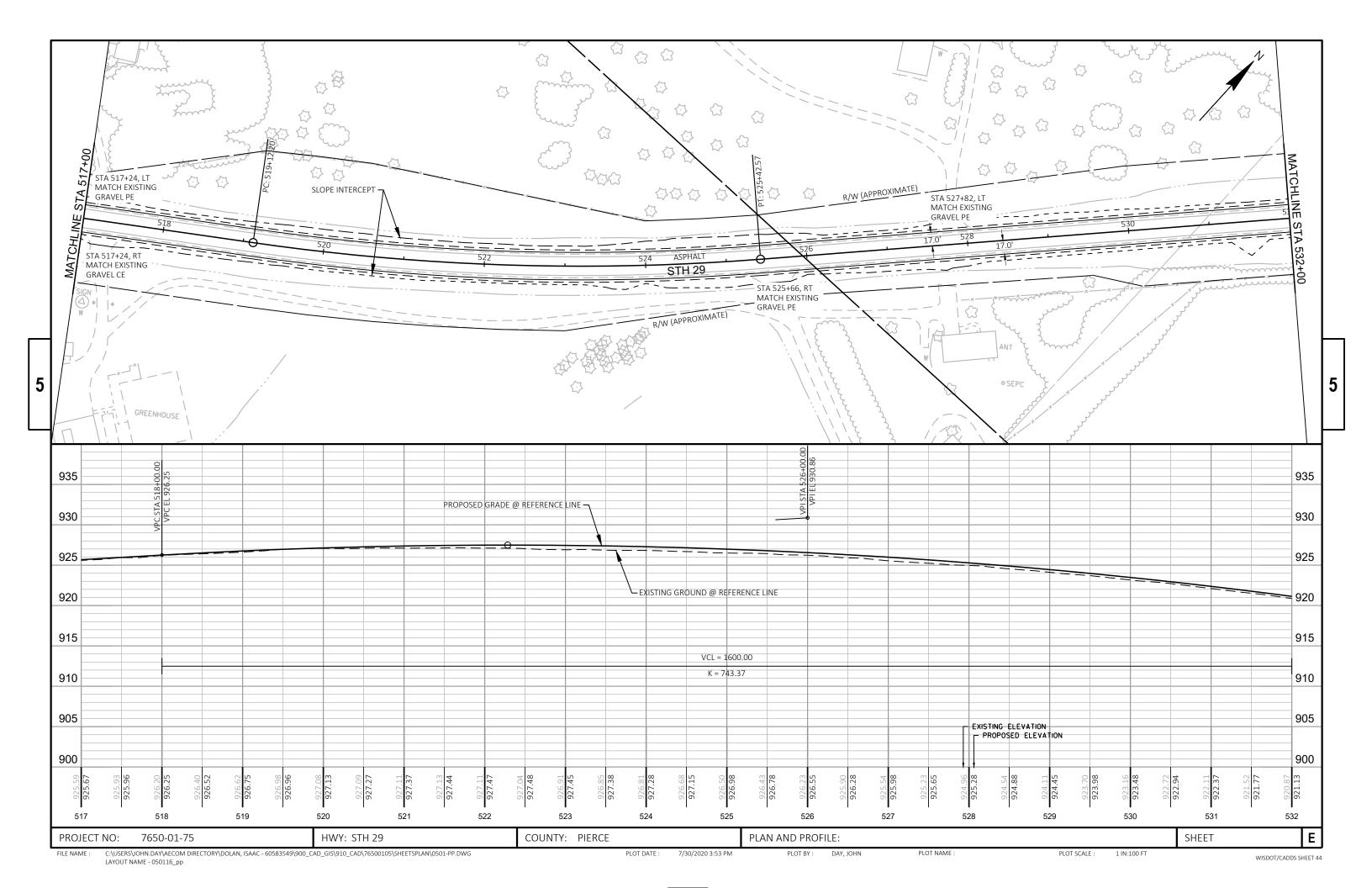


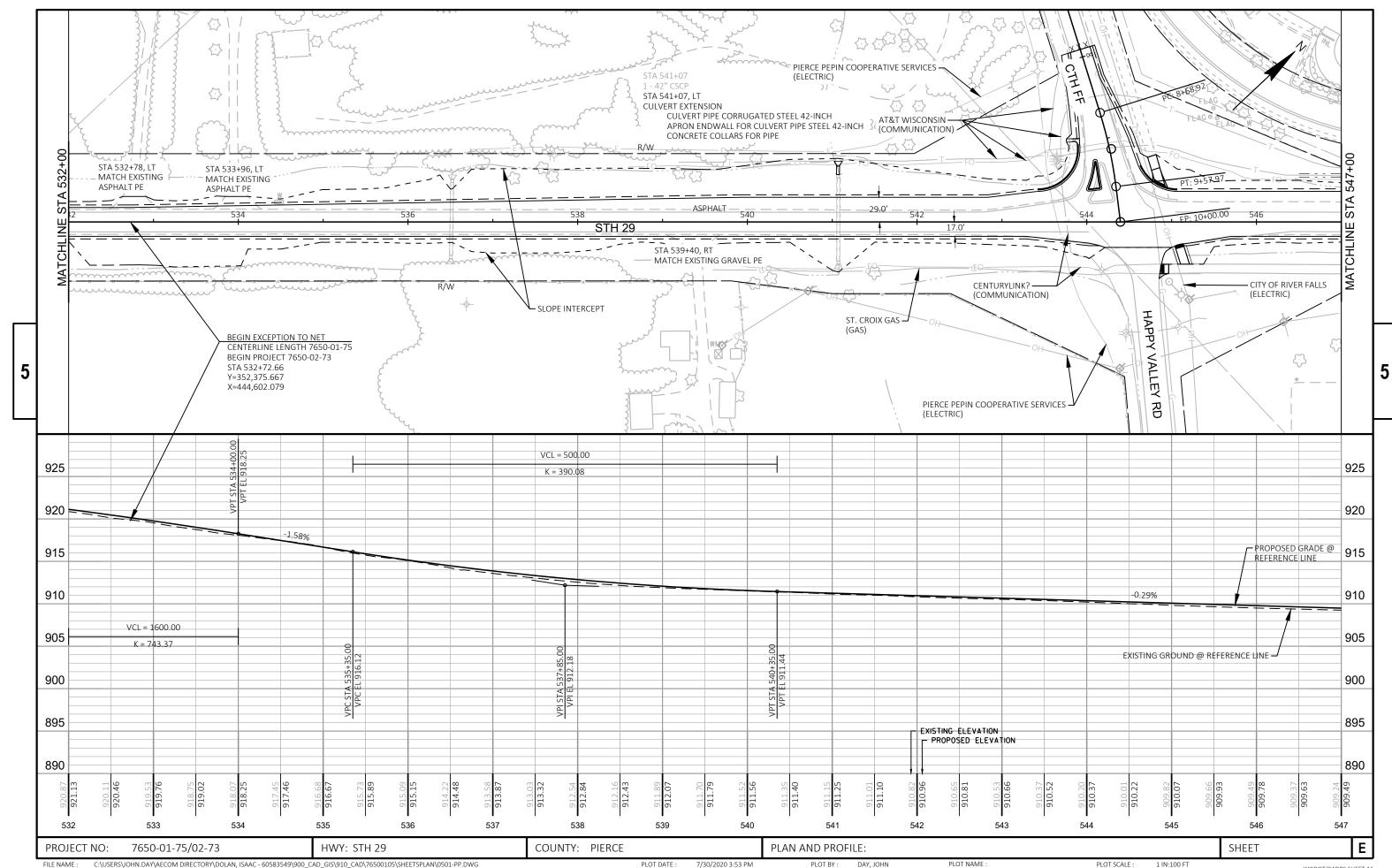


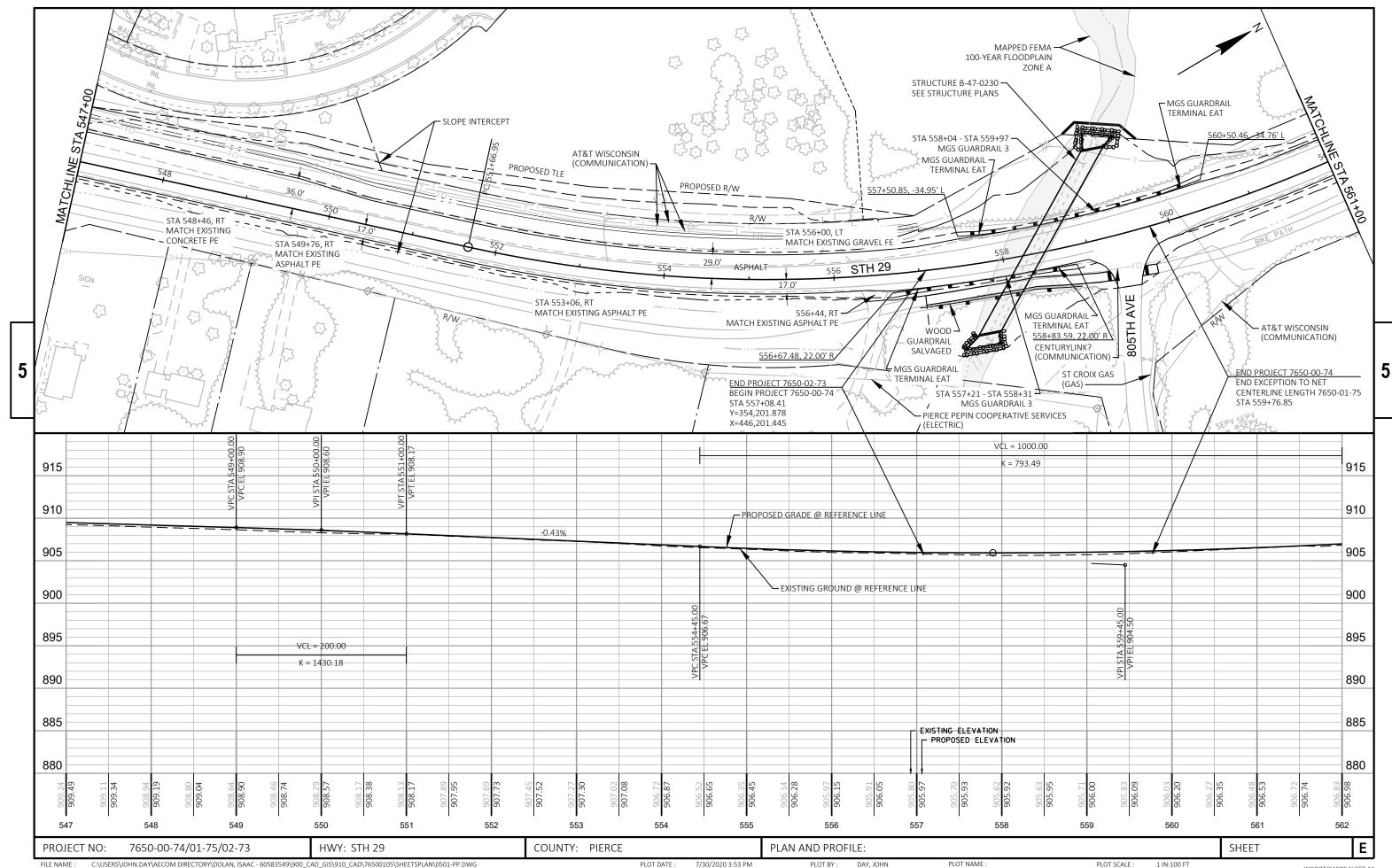


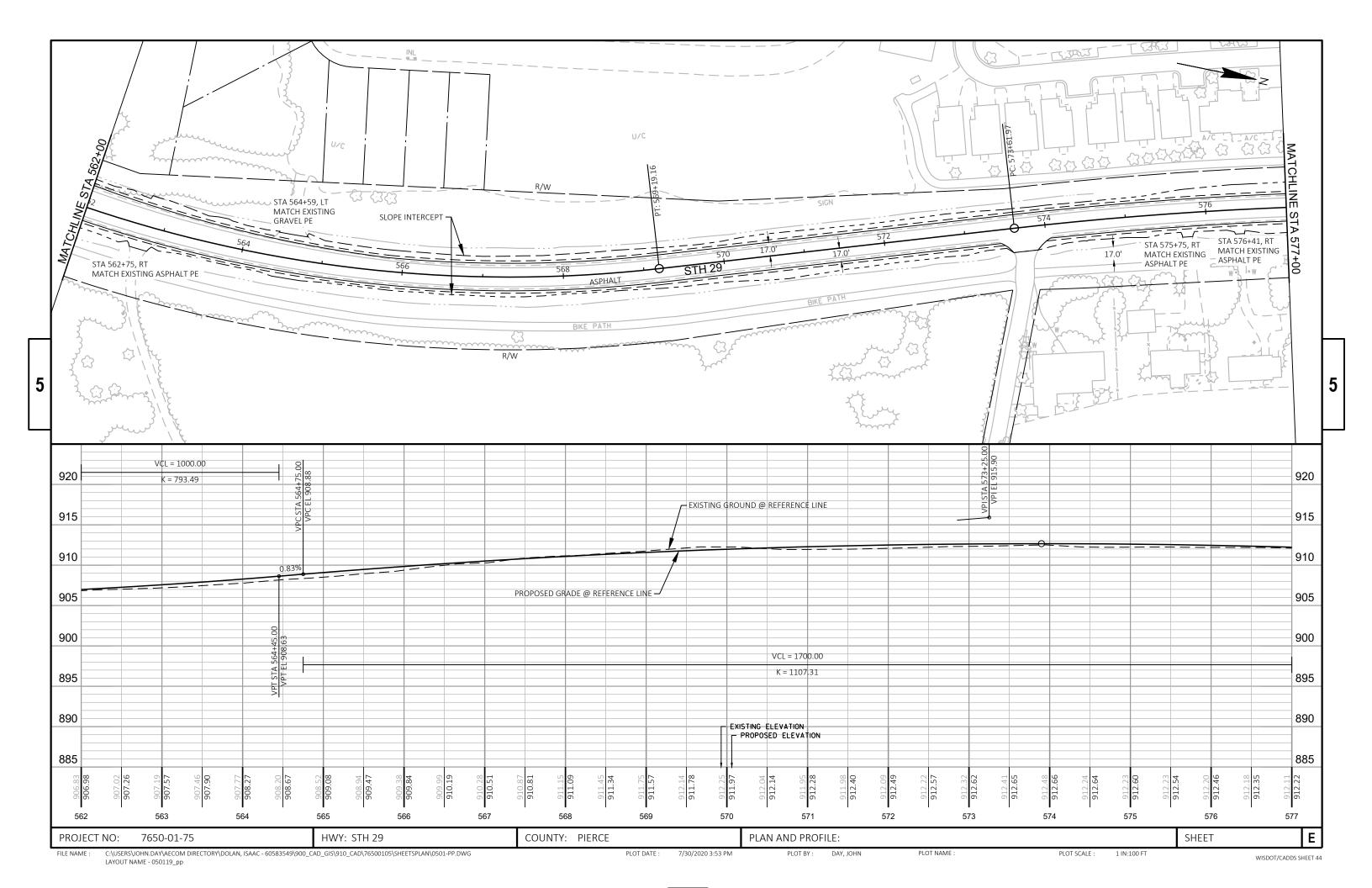
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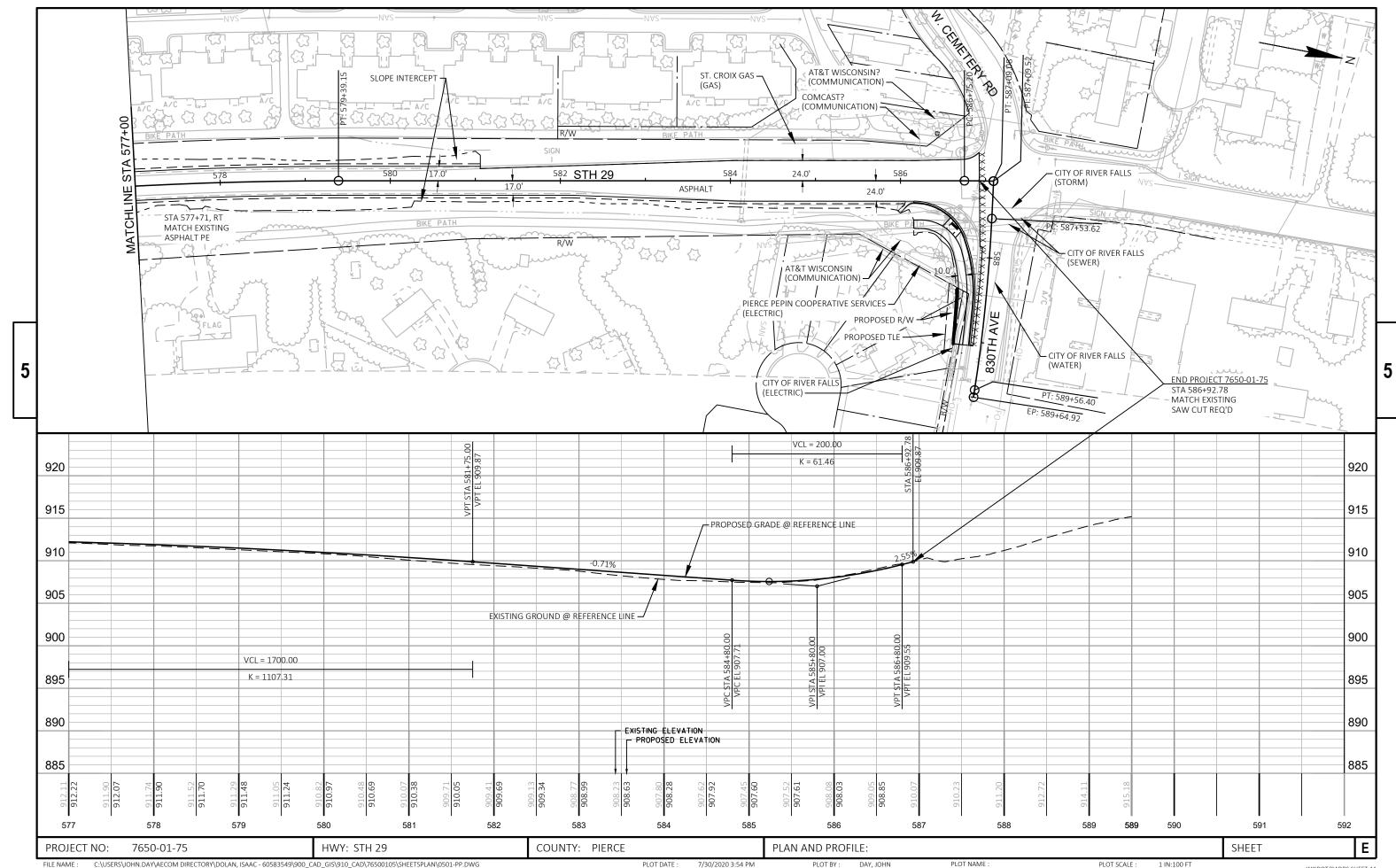
WISDOT/CADDS SHEET 44









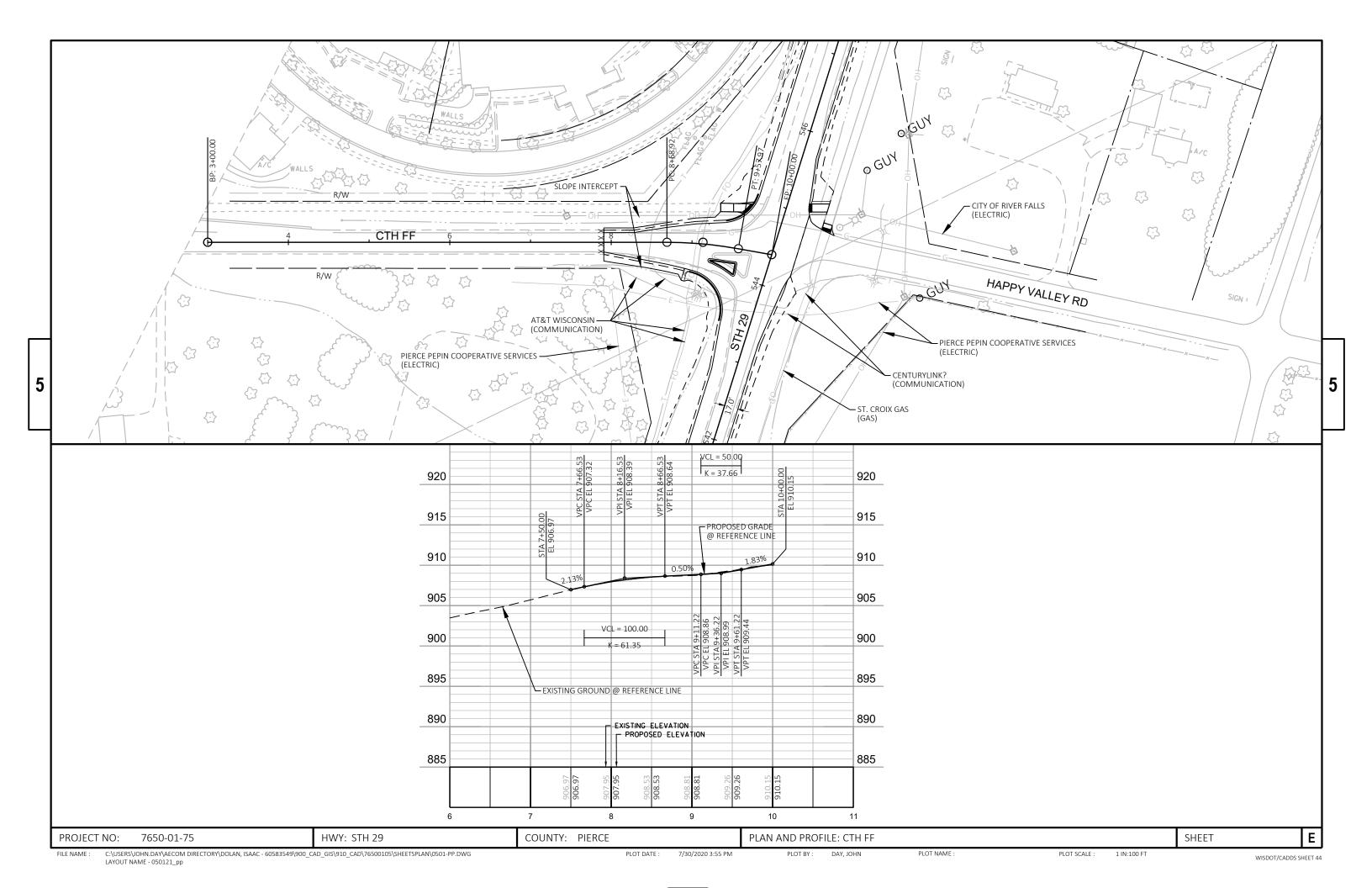


LAYOUT NAME - 050120\_pp

PLOT DATE : 7/30/2020 3:54 PM

PLOT SCALE :

WISDOT/CADDS SHEET 44

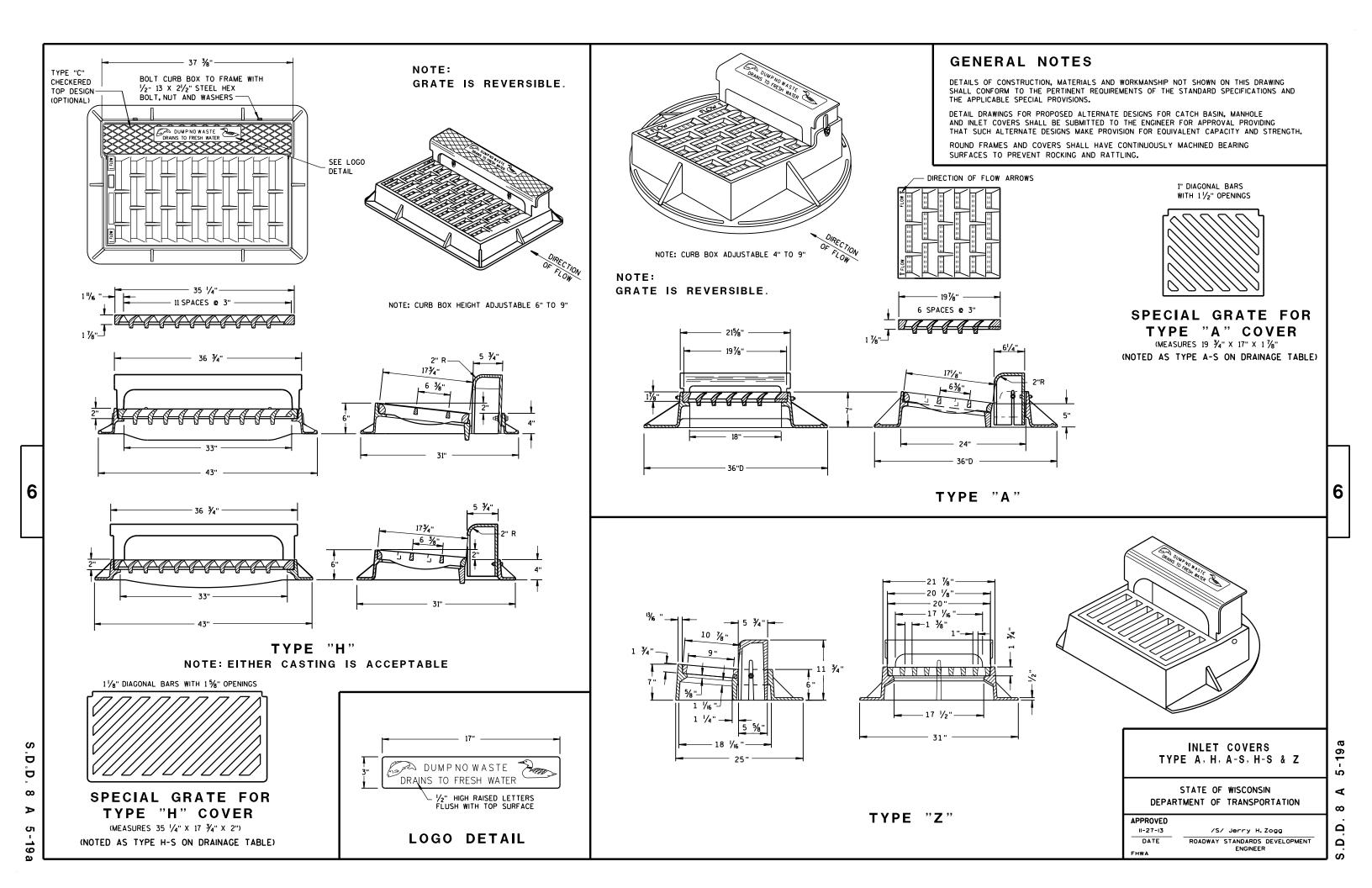


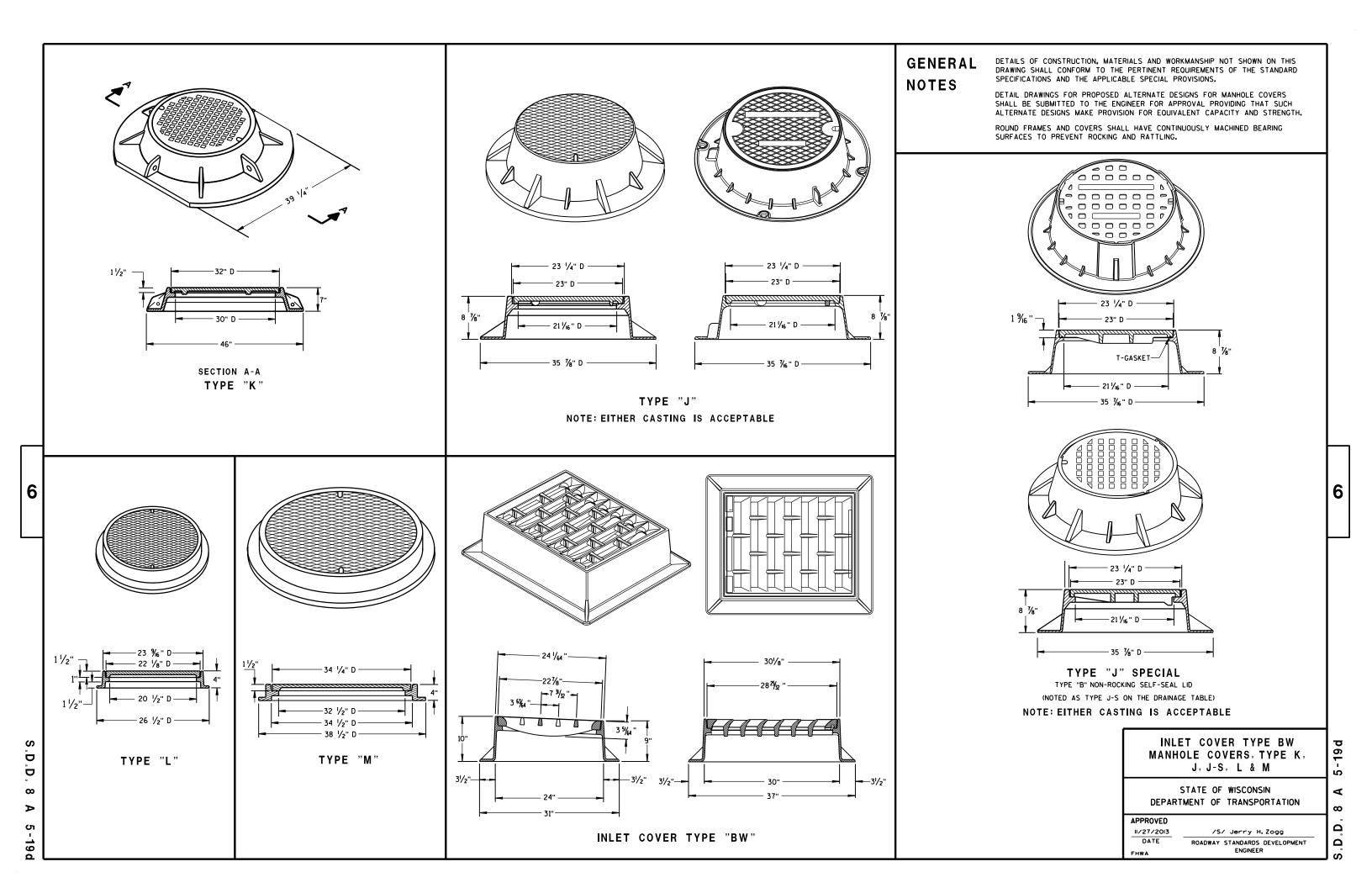
# Standard Detail Drawing List

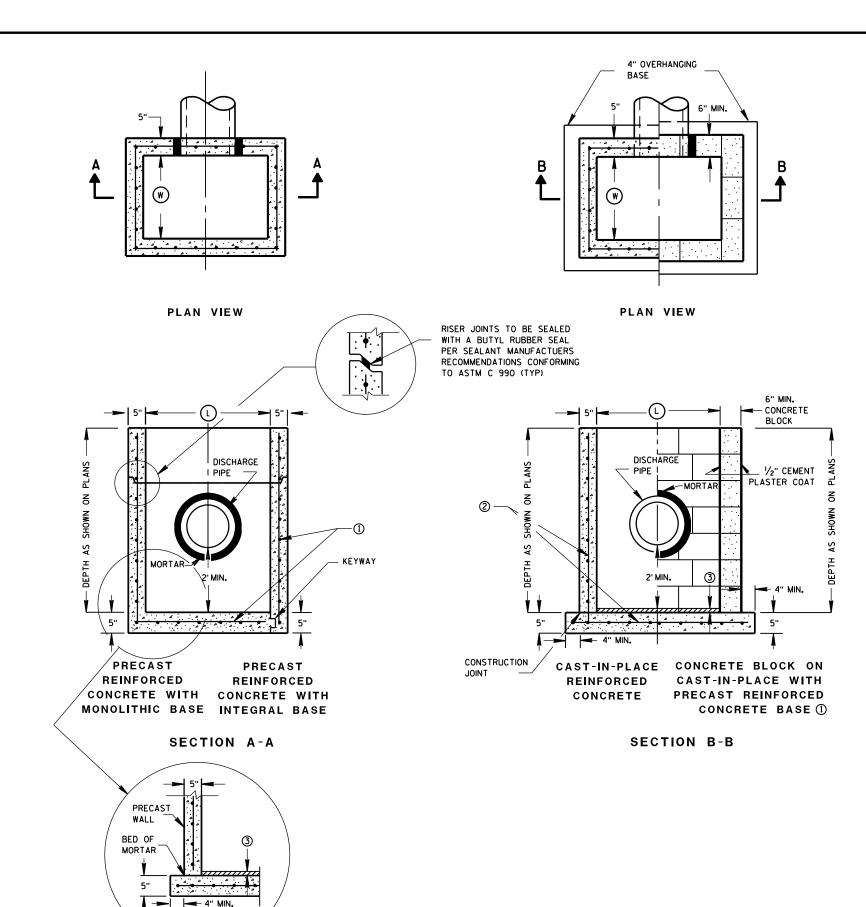
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08A09-02	CATCH BASINS 2X3-FT AND 2.5X3-FT
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08D01-21A	CONCRETE CURB & GUTTER
08D01-21B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B 08D05-20C	CURB RAMPS TYPES 2 AND 3 CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D21-01	DRI VEWAYS WI THOUT CURB & GUTTER
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01 08E15-01	TRACKING PAD CULVERT PI PE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
09B02-10	CONDUI T
09B04-11	PULL BOX
09002-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09E01-15B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-15G 09E03-06	HARDWARE DETAILS FOR POLE MOUNTINGS NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
13A10-02A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
14B15-11A 14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B24-09A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRALL SYSTEM (MGS) GUARDRALL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04A 14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS) MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-08A 15C02-08B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B 15C02-08C	BARRICADES AND SIGNS FOR VARIOUS CLOSURES DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-06C	BARRI CADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

# Standard Detail Drawing List

15C18-04	MEDIAN ISLAND MARKING
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C27-03A	DOUBLE ARROW WARNING SIGN PLACEMENT
15C27-03B	PAVEMENT MARKING (ISLANDS)
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D30-06A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-06B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-06C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D45-02	TRAFFIC CONTROL. SIGNING ON ROADWAYS WITH LOOSE GRAVEL







#### **GENERAL NOTES**

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

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

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

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

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

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

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.

OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

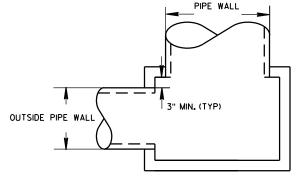
- (1) FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.
- (3) 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

#### CATCH BASIN COVER MATRIX

CATCH BASIN SIZE		INLET COVER	F	ALL H'S
	WIDTH (W) (FT)	LENGTH (L) (FT)		
2X3-FT	2	3		х
2.5X3-FT	2.5	3	Х	

#### PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES					
CATCH BASIN SIZE	WIDTH (IN)	LENGTH (IN)				
2X3-FT	12	24				
2.5X3-FT	18	24				



DETAIL "A"

OUTSIDE

CATCH BASINS 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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APPROVED Sept., 2016

Sept. 2016 /S/ Rodney Taylor

DATE ROADWAY STANDARDS DEVELOPMENT

HWA UNIT SUPERVISOR

CATCH BASINS 2X3-FT AND 2.5X3-FT

SEPARATE PRECAST REINFORCED

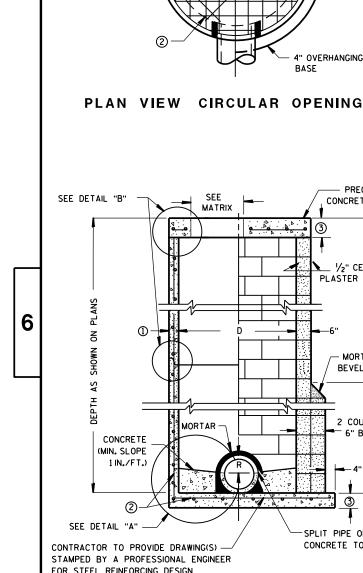
CONCRETE BASE OPTION

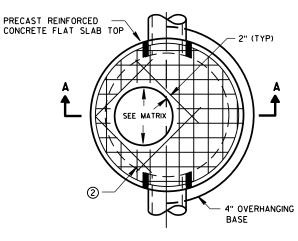


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SEE

MATRIX

SEE \_\_ MATRIX **PRECAST** REINFORCED CONCRETE RISERS

OPTIONAL PRECAST REINFORCED CONCRETE **ECCENTRIC TOP** 

PRECAST

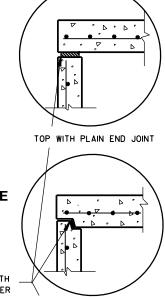
WALL

PRECAST REINFORCED

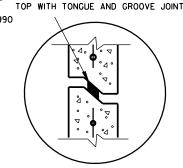
CONCRETE FLAT SLAB TOP

**CONCRETE BASE 2** 

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

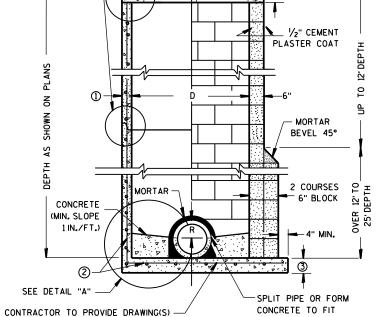


JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

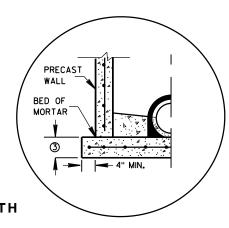


RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B'



FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES PRECAST REINFORCED CONCRETE BLOCK WITH **CONCRETE WITH** CAST-IN-PLACE OR PRECAST REINFORCED MONOLITHIC BASE

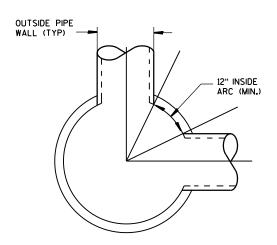


PRECAST REINFORCED

CONCRETE WITH INTEGRAL BASE OPTION

SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

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

#### **GENERAL NOTES**

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

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

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

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

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

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

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

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

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2" AND MEET THE REQUIREMENTS OF ASTM A615.

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

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

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

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

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

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

- MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT. 6 INCHES FOR 5-FT, 7 INCHES O MINIMUM WALL IHICKNESS SHALL DE 4 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.
- (2) FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- (3) PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS

#### MANHOLE COVER OPENING MATRIX

ĺ	MANHOLE COVER TYPE	С	ALL J'S	K	L	М
	OPENING SIZE (FT)					
	2 DIA.	×	х		Х	
ı	3 DIA.			Х		Х

#### PIPE MATRIX

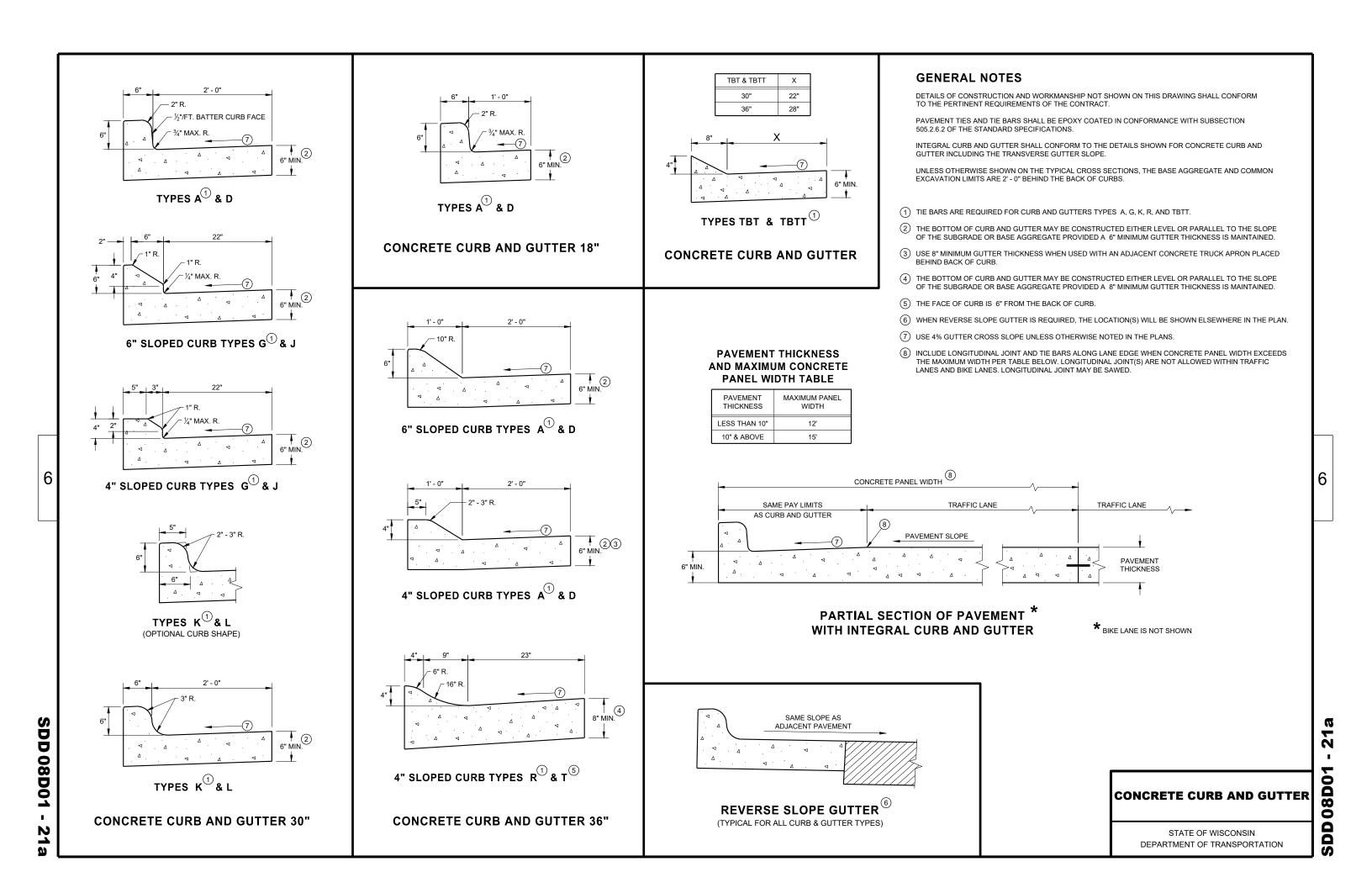
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES							
	180° SEPARATION (IN)	90° SEPARATION (IN)						
3-FT	15	12						
4-FT	24	18						
5-FT	36	24						
6-FT	42	36						
7-FT	48	36						
8-FT	60	42						

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

> STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PPROVED	
Sept., 2016	/S/ Rodney Taylor
DATE	ROADWAY STANDARDS DEVE
	UNIT SUPERVISOR

ELOPMENT

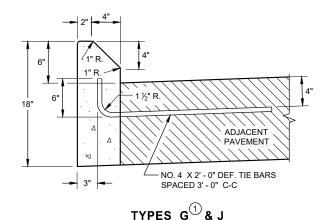


# **DETAIL OF CURB AND GUTTER AT INLETS**

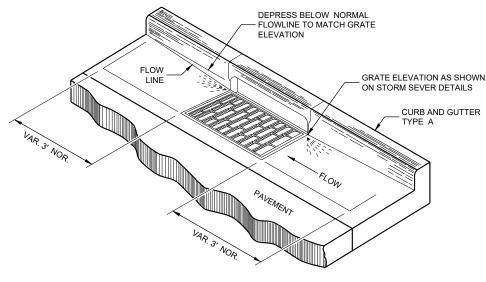
(TYPICAL H INLET COVER SHOWN)

½"/FT. BATTER, FACE OF CURB (ABOVE ADJACENT PAVEMENT) ADJACENT PAVEMENT - NO. 4 X 2' - 0" DEF. TIE BARS

TYPES A D



**CONCRETE CURB** 



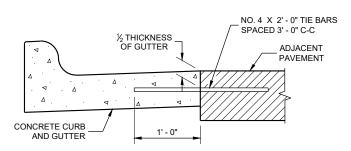
#### **GENERAL NOTES**

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

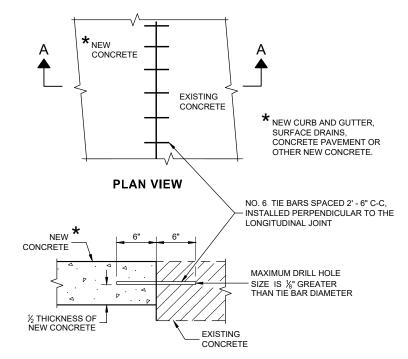
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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.

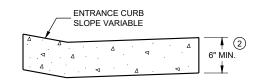


TYPICAL TIE BAR LOCATION  $^{\scriptsize \textcircled{1}}$ 



SECTION A - A

**TIE BARS DRILLED** INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB® (WHEN DIRECTED BY THE ENGINEER)

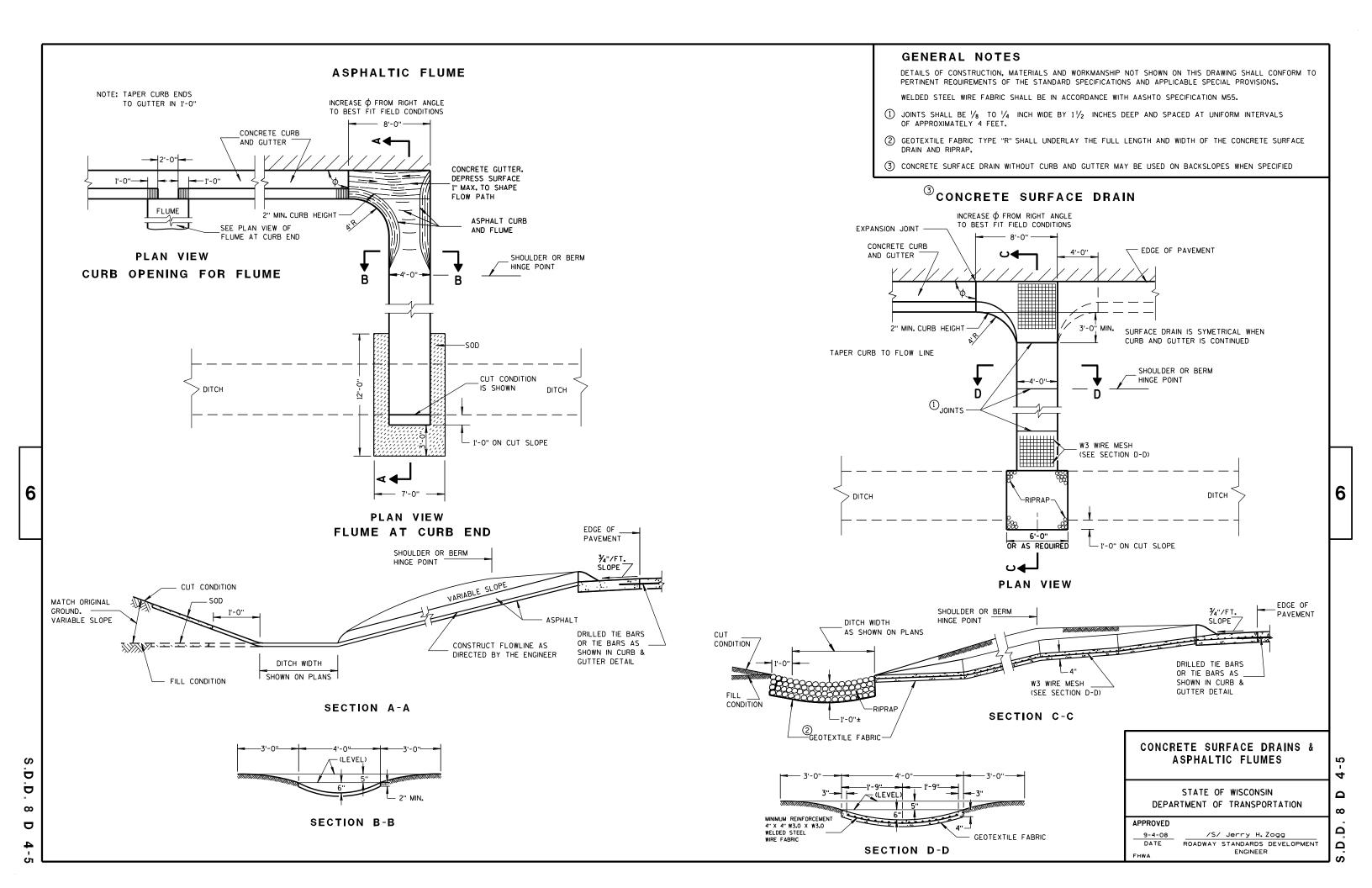
#### **CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS**

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**08DO**,

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
ENGINEER February 2020 DATE



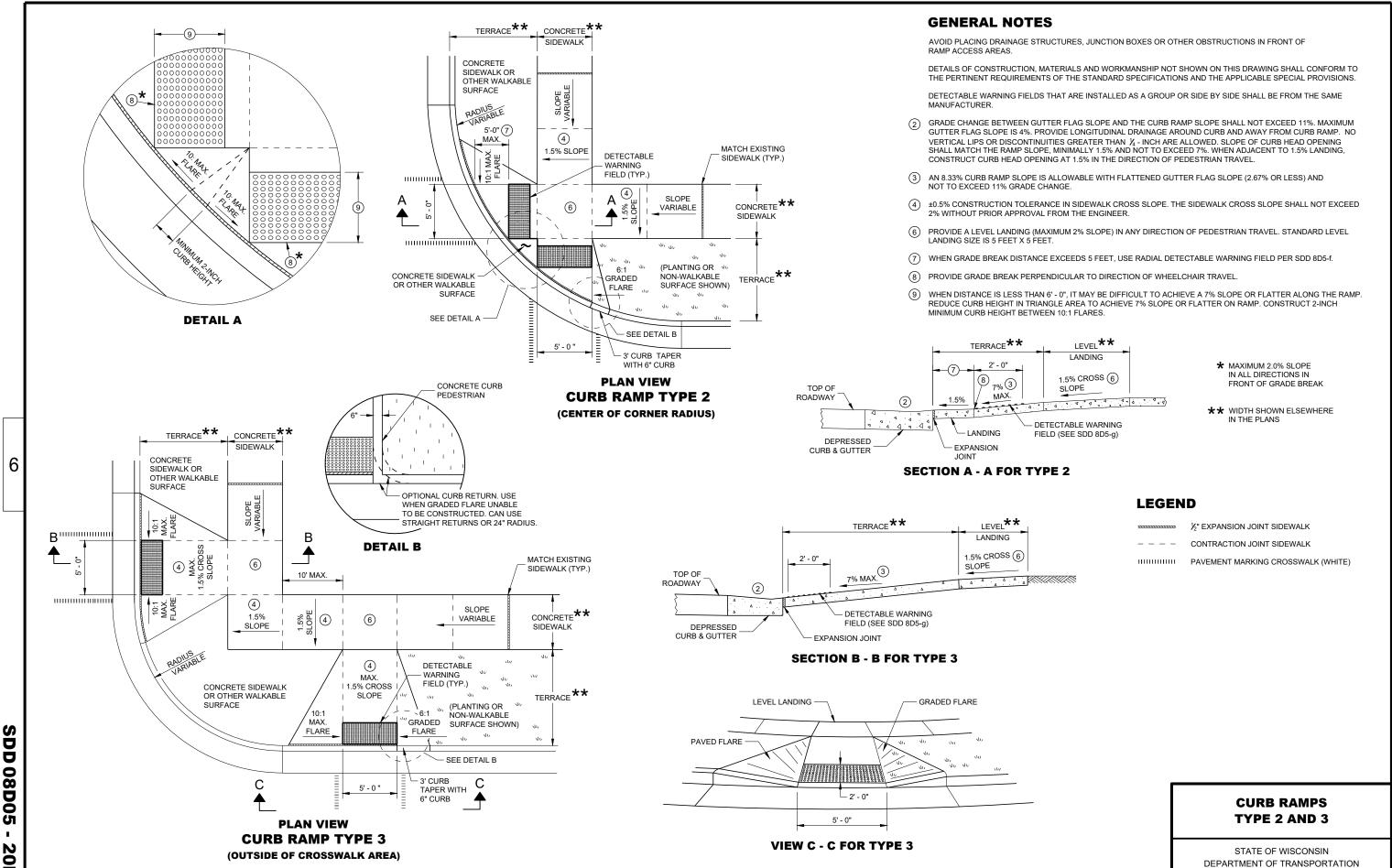
**VIEW D - D FOR TYPE 1 - A** 

**SECTION B - B FOR TYPE 1** 

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STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

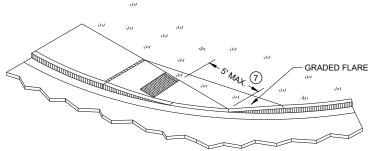


- 20b

.DD 08D05 - 2

**SDD 08D05** 

**ISOMETRIC VIEW FOR TYPE 4A** 



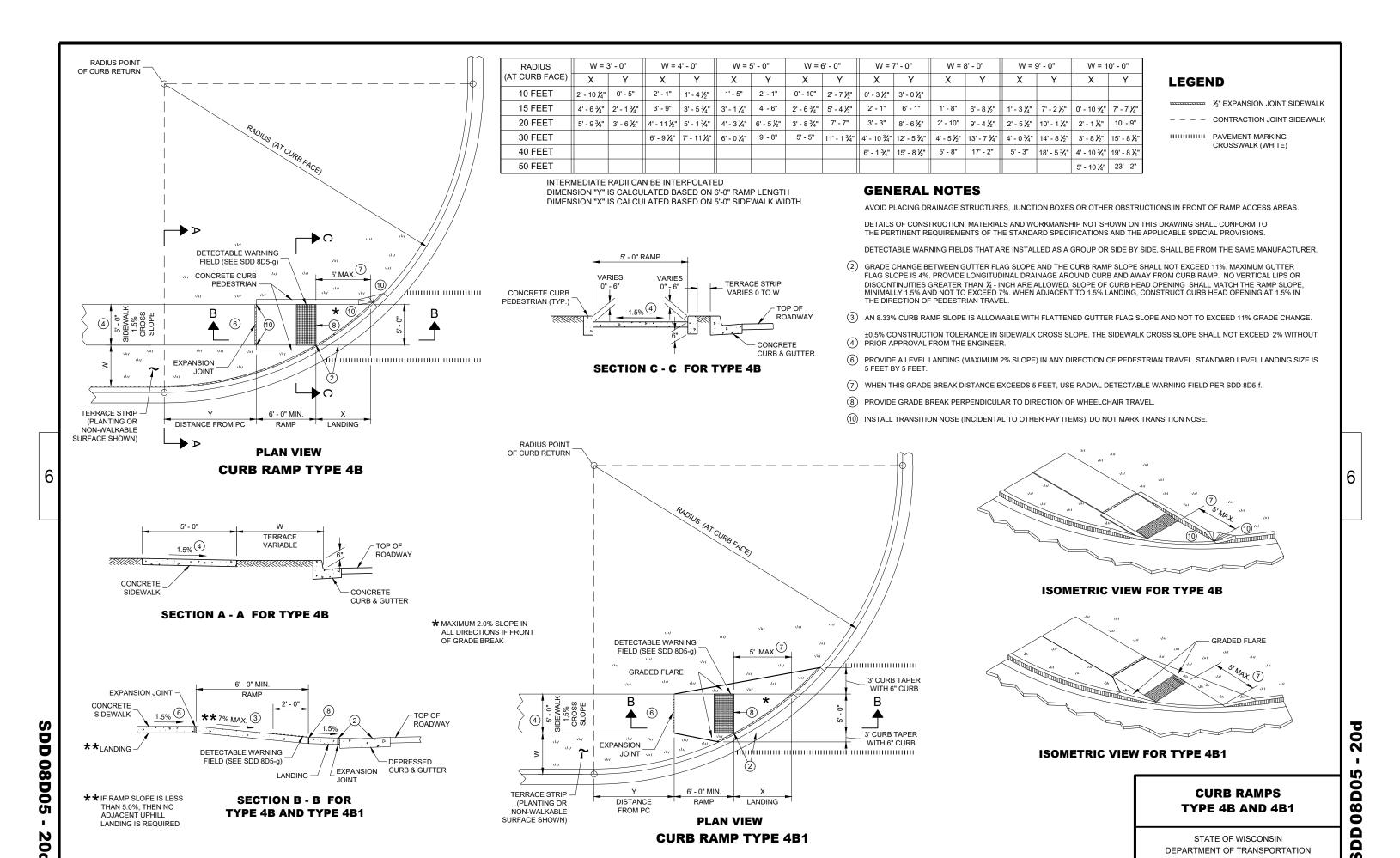
**ISOMETRIC VIEW FOR TYPE 4A1** 

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

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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DEPARTMENT OF TRANSPORTATION

**SDD 08D05** 

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ÖD 08D05

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

\*\*\*\*
LANDING RADIAL DETECTABLE WARNING **DEPRESSED CURB & GUTTER** FIELD (SEE SDD 8D5-a)

> \*\*\* MAXIMUM 8.33% **SECTION B - B FOR TYPE 4B1**

# RADIAL DETECTABLE WARNING **FIELD APPLICATIONS**

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

	, A	- IVAN	11
	В		0
A B			0
	PL	AN VIEW	,
<b></b>	c <del> -</del> -		

RAMP



**ELEVATION VIEW** 

#### **TRUNCATED DOMES DETECTABLE WARNING PATTERN DETAIL**

MIN.

1.6"

0.65"

\*

0.9"

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

В

С

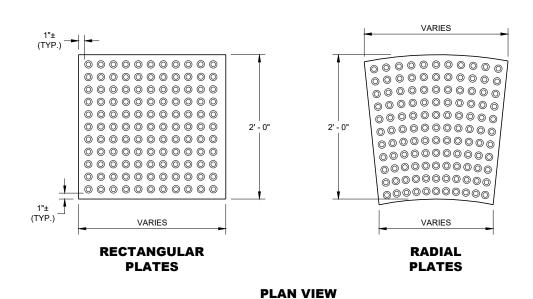
MAX.

2.4"

1.5"

\*

1.4"

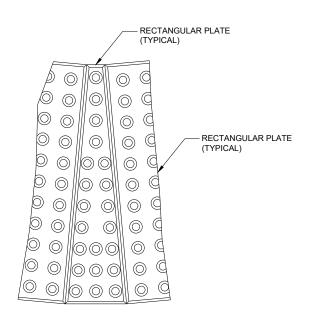


**DETECTABLE WARNING FIELDS (TYPICAL)** 

**PLAN VIEW** RADIAL DETECTABLE **WARNING FIELD ATTRIBUTES** 

RADIAL PLATE

CURB RAMP



**PLAN VIEW RADIAL WEDGE PLATE CONNECTION DETAIL** 

#### **CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES**

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR May 2019
DATE

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER. PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION. FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

**GENERAL NOTES** 

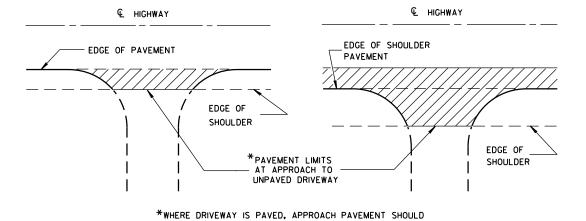
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS, PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

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



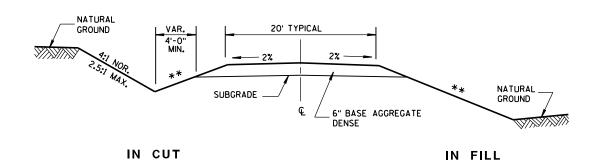
BE EXTENDED TO MATCH DRIVEWAY PAVEMENT.

PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

## RURAL DRIVEWAY INTERSECTION DETAIL

(NO CURB & GUTTER OR SIDEWALK)

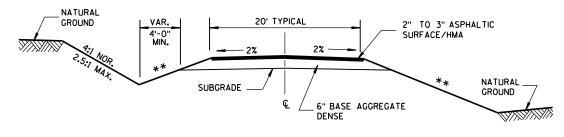


\*\* SLOPE CAN VARY WITH SPEED. SEE 11-45-2.6.2.

POSTED MAX. SLOPE MPH 4:1

235 TO <60 6:1

260 10:1

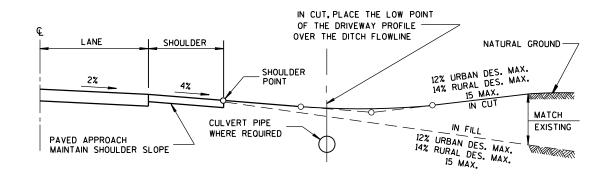


IN CUT

IN FILL

# TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

# TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE



TYPICAL DRIVEWAY PROFILES

# DRIVEWAYS WITHOUT CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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APPROVED

December, 2016 /S/ Rodney Taylor

DATE ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

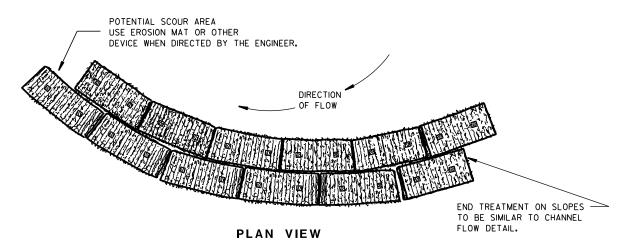
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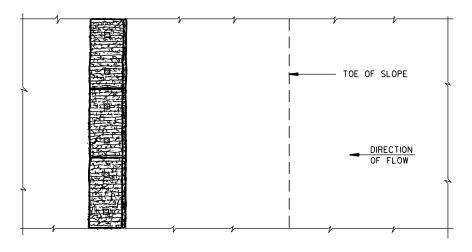
#### **GENERAL NOTES**

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.

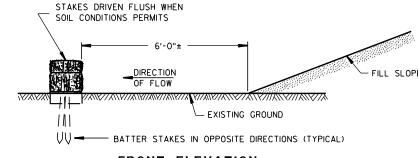
TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.



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

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 /S/ Beth Connestro
CHIEF ROADWAY DEVELOPMENT ENGINEER

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# TYPICAL APPLICATION OF SILT FENCE

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#### 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 11/8" X 11/8" 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



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)



SILT FENCE

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INLET PROTECTION, TYPE A

#### **GENERAL NOTES**

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

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

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

- 1) FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- (2) FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- (3) FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



#### INLET PROTECTION, TYPE C (WITH CURB BOX)

#### **INSTALLATION NOTES**

#### TYPE B & C

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

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

#### TYPE D

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

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

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

#### INLET PROTECTION TYPE A, B, C, AND D

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

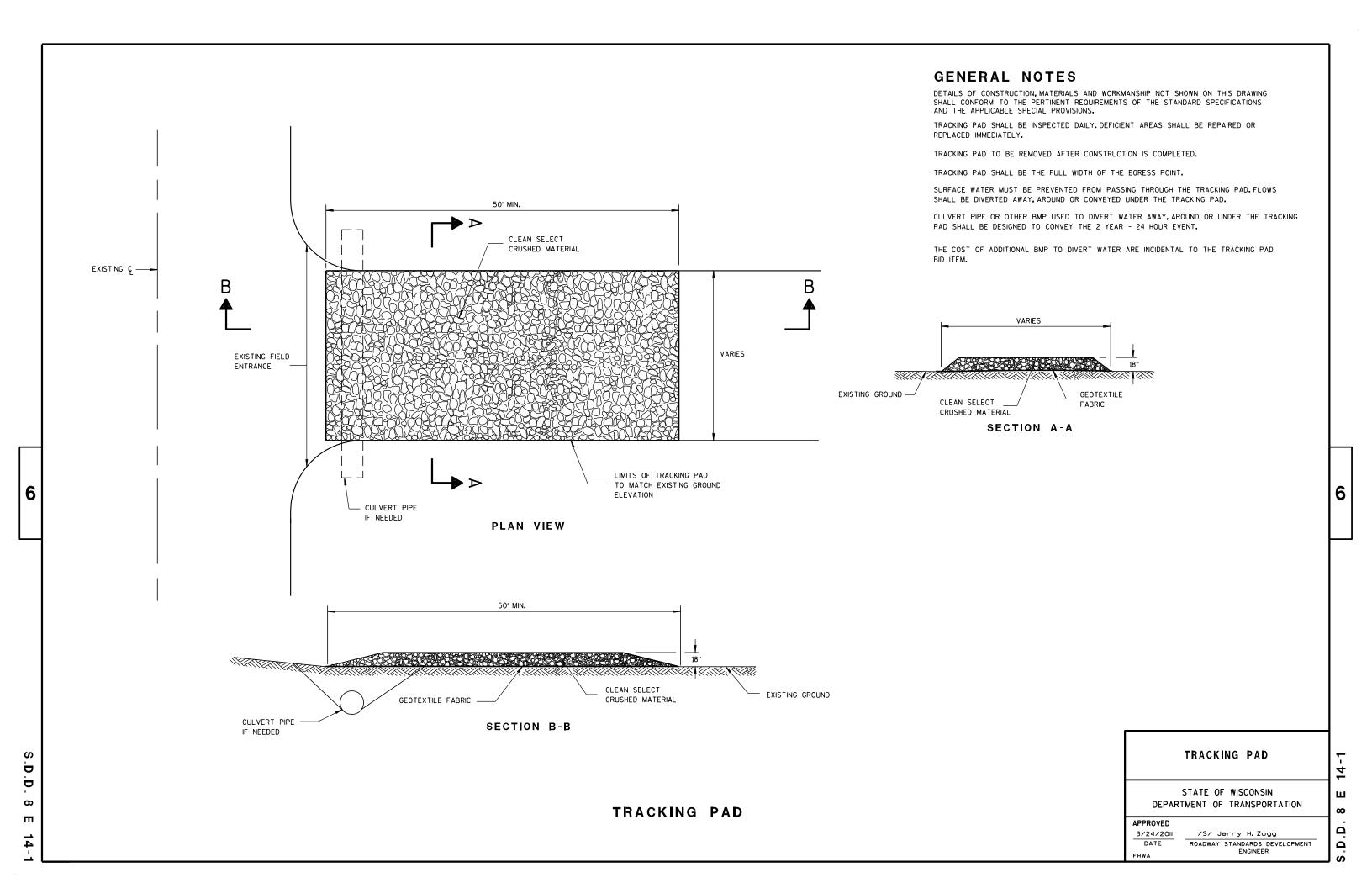
10/16/02

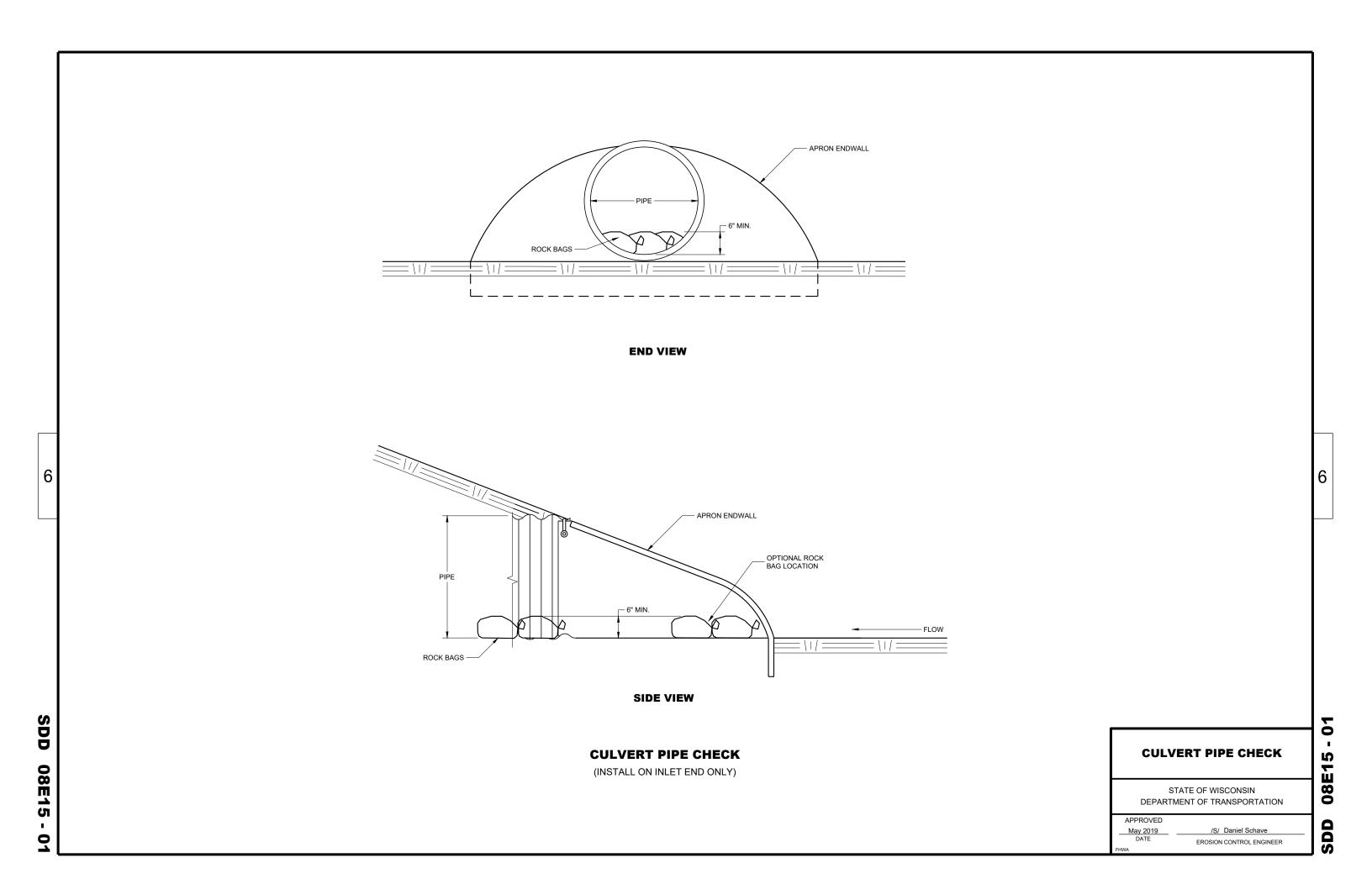
/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER 6

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METAL APRON ENDWALLS											
PIPE	MIN. 1	THICK.			APPROX.						
DIA.	(Incl		A	В	Н	L	Lį	L <sub>2</sub>	W	SLOPE	BODY
(IN.)	STEEL	ALUM.	(±]")	(MAX.)	(±]")	(±1½")	①	0	(±2")		
12	.064	.060	6	6	6	21	12	171/2	24	21/2+o 1	1Pc.
15	.064	.060	7	8	6	26	14	213/4	30	2½+o 1	1Pc.
18	.064	.060	8	10	6	31	15	281/4	36	2½+o 1	1Pc.
21	.064	.060	9	12	6	36	18	29%	42	$2\frac{1}{2}$ to 1	1Pc.
24	.064	<b>.</b> 075	10	13	6	41	18	371/4	48	$2\frac{1}{2}$ to 1	1Pc.
30	.079	<b>.</b> 075	12	16	8	51	18	521/4	60	$2\frac{1}{2}$ to 1	1Pc.
36	.079	<b>.</b> 105	14	19	9	60	24	59¾	72	$2\frac{1}{2}$ to 1	2 Pc.
42	.109	<b>.</b> 105	16	22	11	69	24	75%	84	$2\frac{1}{2}$ to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 <sup>1</sup> / <sub>4</sub> +o 1	3 Pc.
54	.109	<b>.</b> 105	18	30	12	84	30	851/2	102	21/4+0 1	3 Pc.
60	.109×	.105×	18	33	12	87	_		114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	_	_	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	_	_	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	_	_	132	11/2+0 1	3 Pc.
84	.109×		18	45	12	87	_	_	138	1/2+0 1	3 Pc.
90	.109×	.105×	18	37	12	87	_	_	144	11/2+0 1	3 Pc.
96	.109×	.105×	18	35	12	87	_		150	11/2+0 1	3 Pc.

\* EXCEPT CENTER PANEL

SEE GENERAL NOTES

PLAN VIEW

END VIEW

SIDE ELEVATION

METAL ENDWALLS

SHOULDER

SLOPE

	RE	INFORC	ED C	ONCRET	E APRO	N E	NDWAL	.LS
PIPE			DIM	ENSIONS	(Inches)			APPROX.
DIA.	Т	A	В	С	D	E	G	SLOPE
12	2	4	24	48 1/8	721/8	24	2	3 to 1
15	21/4	6	27	46	73	30	21/4	3 to 1
18	21/2	9	27	46	73	36	21/2	3 to 1
21	23/4	9	36	371/2	731/2	42	23/4	3 to 1
24	3	91/2	431/2	30	731/2	48	3	3 to 1
27	31/4	101/2	$49^{1}/_{2}$	24	731/2	54	31/4	3 to 1
30	$3\frac{1}{2}$	12	54	193⁄4	731/2	60	31/2	3 to 1
36	4	15	63	34¾	97¾	72	4	3 to 1
42	$4\frac{1}{2}$	21	63	35	98	78	41/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	51/2		65	* ** 33 <sup>1</sup> / <sub>4</sub> -35	* 98 <sup>1</sup> / <sub>4</sub> - 100	90	51/2	2% to 1
60	6	* ** 30-35	60	39	99	96	5	2 to 1
66	61/2		* ** 72-78	* * * 21-27	99	102	51/2	2 to 1
72	7	* ** 24-36	78	21	99	108	6	2 to 1
78	71/2	* ** 24-36	78	21	99	114	61/2	2 to 1
84	8	36	901/2	21	1111/2	120	61/2	11/2+0 1
90	81/2	41	871/2	24	1111/2	132	61/2	11/2+0 1

\*MINIMUM

PLAN

END VIEW

END SECTION

GROOVED END ON OUTLET END SECTION TONGUE END ON INLET END SECTION

BAR OR STEEL FABRIC

REINFORCEMENT

LONGITUDINAL SECTION

CONCRETE ENDWALLS

OPTIONAL

1 1/2" R

CULVERT

MEASURED LENGTH

OF CULVERT (TO-

NEAREST FOOT)

DESIGN

REINFORCED

SECTION A-A)

END CORNER PLATES MAY

BE FASTENED TO APRON

THE SURFACES TIGHTLY

TOGETHER

PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD

TOE PLATE (SAME THICKNESS

AND METAL AS APRON) SHALL

BE FURNISHED WHEN CALLED

FOR ON THE PLANS

FDGE (SFE

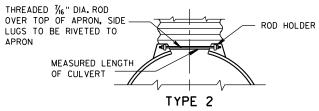
END SECTION CONNECTOR STRAP LUG

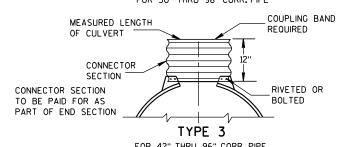
1" WIDE, 12 GA. (0.109"

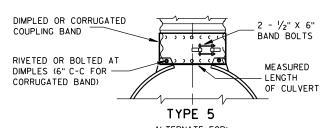
THICK) GALVANIZED STRAP

WITH STANDARD 6" X 1/2" BAND BOLT AND NUT

TYPE 1 FOR 12" THRU 24" CORR. PIPE





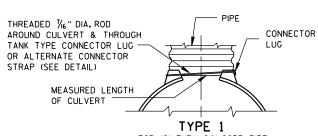


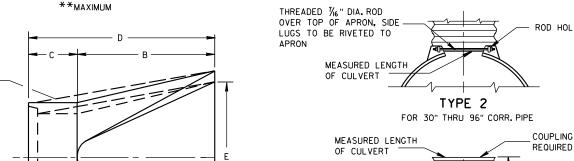
ALTERNATE FOR: ALL SIZES CORRUGATED CIRCULAR PIPE

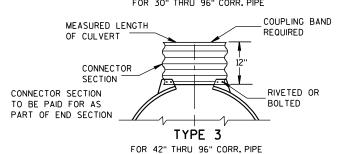
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

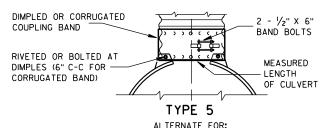
CONNECTION DETAILS 1, 2 OR 5.

# ALTERNATE FOR TYPE 1 CONNECTION







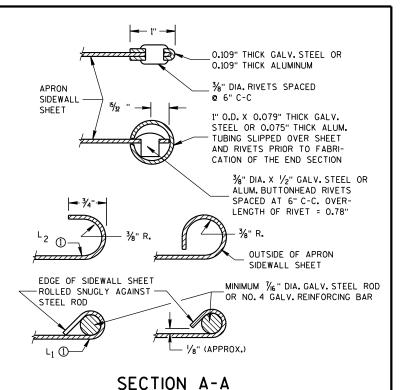


FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5

FOR HELICALLY CORRUGATED PIPE USE ENDWALL

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

CONNECTION DETAILS



# GENERAL NOTES

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

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

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

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

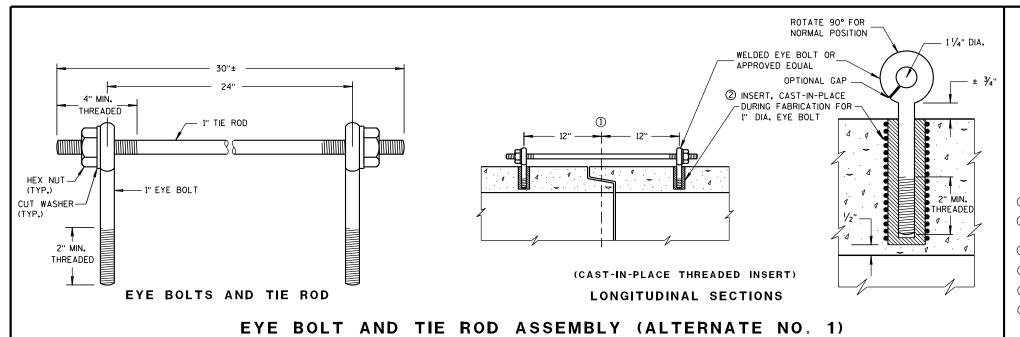
11/30/94 /S/ Rory L. Rhinesmith CHIEF ROADWAY DEVELOPMENT ENGINEER

END CORNER

1/16" DIA. HOLES FOR

BOLTS OR RIVETS -

12" C-C MAX. SPACING



#### **GENERAL NOTES**

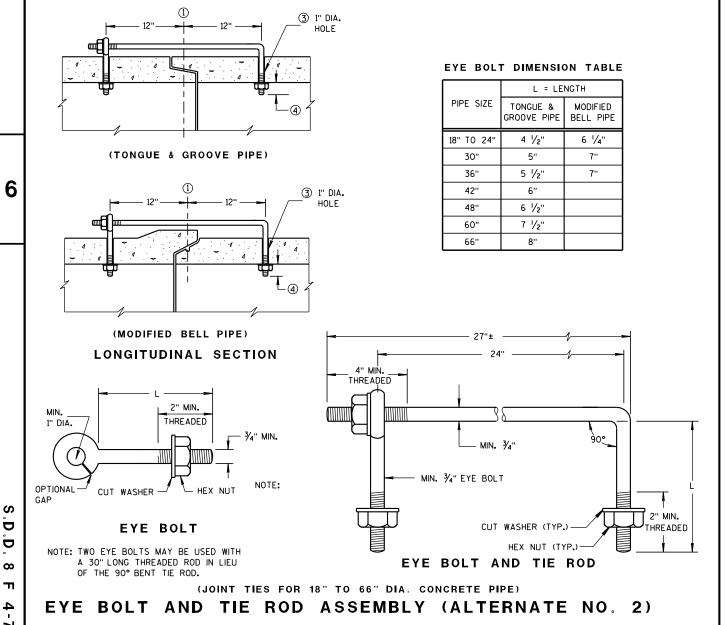
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

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

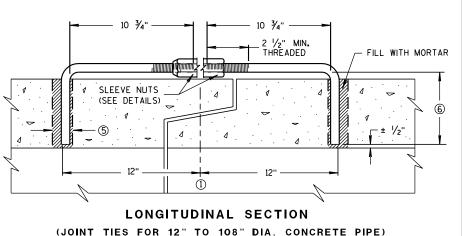
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- (1) & OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE
- ${\mathfrak S}$  HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM  ${\mathfrak L}$  OF TONGUE AND GROOVE.
- 4 BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- (5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- ⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN  $rac{1}{2}$  INCH OF THE INNER SURFACE OF THE PIPE.

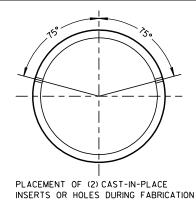


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# ADJUSTABLE TIE ROD TABLE 5/8 5 12-60 3/4 5 1/2 3/4 90-108 DIMENSIONS SHOWN ARE IN INCHES **TAPERED** PLAIN RIGHT AND LEFT THREADS **SLEEVE NUTS** 2 1/2" MIN. THREADED

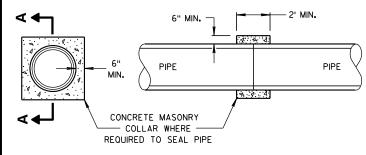


ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



FOR PIPE SECTIONS REQUIRING TIE RODS

#### TRANSVERSE SECTION



SECTION A-A

#### CONCRETE COLLAR DETAIL

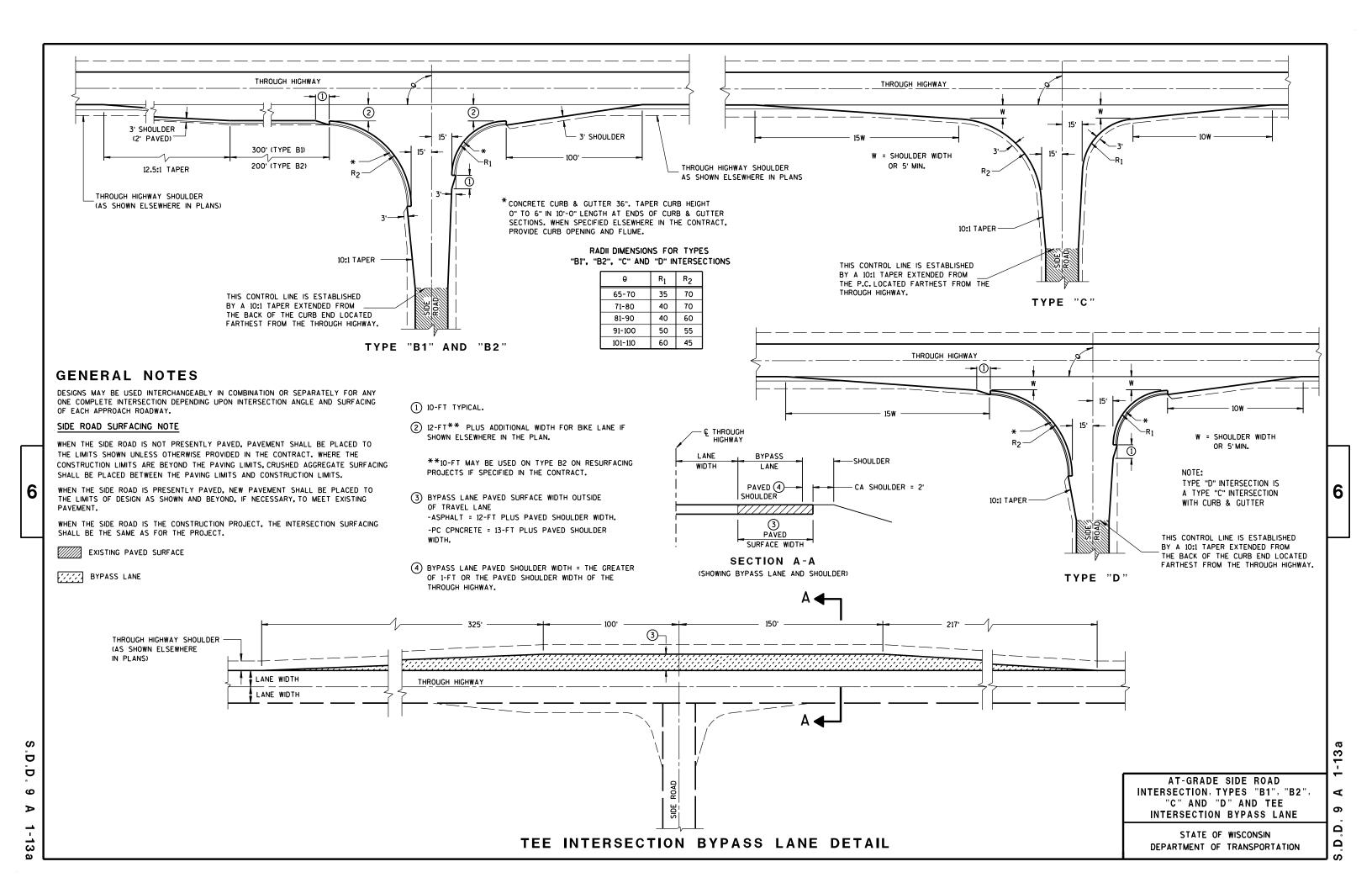
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

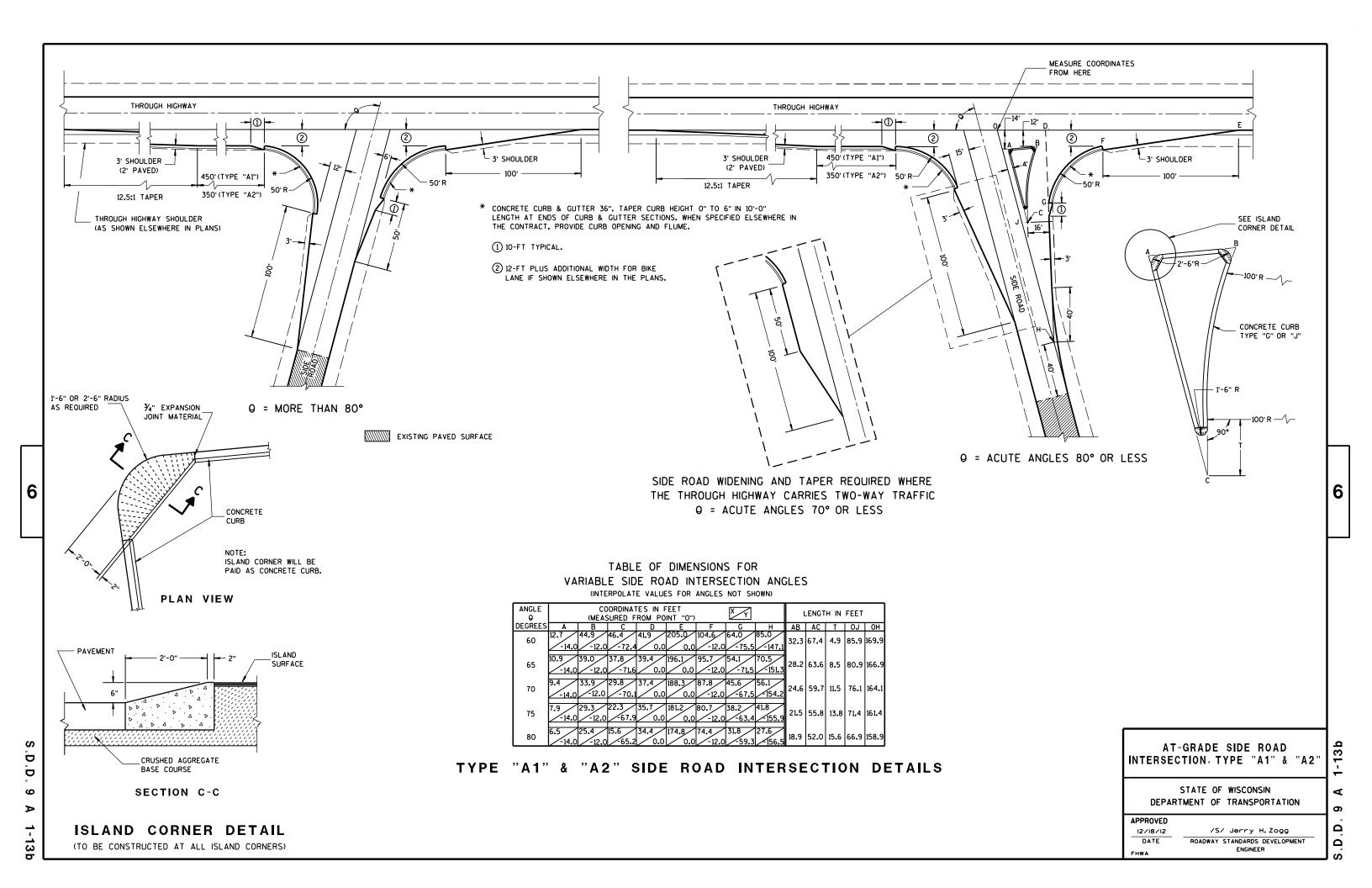
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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

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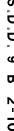
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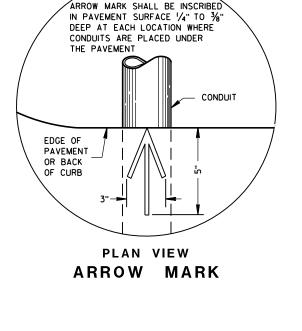


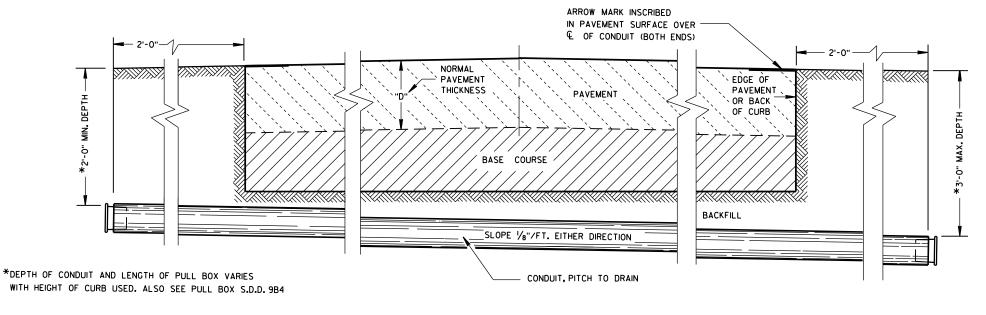












#### SIDE ELEVATION DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

#### **GENERAL NOTES**

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L.LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REIN-STALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

#### CONDUIT

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED	
March, 2017	/S/ Ahmet Demirbilek
DATE	STATE ELECTRICAL ENGINEER

DIMENSION IN INCHES				COF	RRUGAT	ED ST	EEL P	IPE		
PIPE DIAMETER (INSIDE)	Α	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	В	24	30	36	24	30	36	36	42	48
WALL THICKNESS	С	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	Ε	14 1/2	14 1/2	14 1/2	20 ½	20 ½	20 ½	26 ½	26 ½	26 ½
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 ½	14 1/2	20 ½	20 ½	20 ½
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 ½	23 ½	23 ½
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

- \* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.
- NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.

# 6" MAX. **EXTENSION** TOP OF ORIGINAL CORRUGATED PIPE (3) BOLTS, NUTS & LOCKWASHERS REQUIRED

ELECTRIC

FINAL GRADE

ALL METALLIC CONDUIT

AND THREADED

CUT OPENINGS

THE FIELD

2" PVC PIPE CAP ON BOTH ENDS

WITH 7, 8 1/4" HOLES DRILLED

IN EACH END.

PULL BOX

AS REQUIRED IN

ENDS SHALL BE REAMED

ALL CONDUIT PITCHED

4 TO 8 BRICKS

EQUALLY SPACED

TO DRAIN TO PULL BOXES

2" DRAIN DUCT TO

DITCH OR SEWER

WHEN SPECIFIED

CORRUGATED PIPE EXTENDER

HEAVY DUTY FRAME -

6" MIN.

(TYP.)

AND COVER

WHEN A PULL BOX IS INSTALLED IN CRUSHED

AGGREGATE SHOULDERS, PLACE IT 2-3

2-3 INCHES OF CRUSHED AGGREGATE

NO. 2 COARSE

(SEE SECTION 501

OF THE STANDARD

WIRE AND/OR CABLE.

INSTALL END BELLS (U.L. LISTED FOR

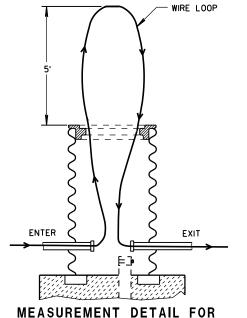
CONDUIT BEFORE INSTALLATION OF

ELECTRICAL USE) ON ALL NONMETALLIC

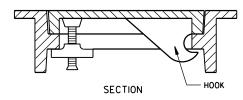
SPECIFICATIONS)

AGGREGATE

INCHES BELOW GRADE AND COVER IT WITH

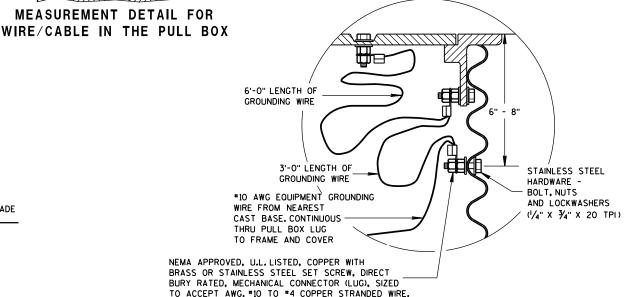


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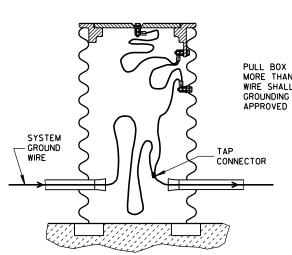


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



**EQUIPMENT GROUNDING LUG AND** LOCATION IN STEEL PULL BOXES



**EQUIPMENT GROUNDING LUG AND** LOCATION IN STEEL PULL BOXES

#### PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

### PULL BOX

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

**APPROVED** 

Sept. 2014 /S/ Ahmet Demirbilek DATE STATE ELECTRICAL ENGINEER FHWA

#### **GENERAL NOTES**

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED. SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

TRAFFIC LOADS.

6

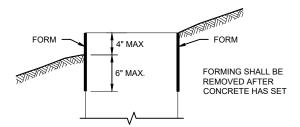
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QUANTITY	CONC	CONCRETE BASE TYPE				
REQUIREMENTS	1	2	5 & 6			
APPROX. CUBIC YARDS OF CONCRET	E 0.40	0.57	0.40			
LBS. OF HOOP BAR STEEL	NONE	23	16			
LBS. OF VERTICAL BAR STEEL	NONE	60	18			

1" CONDUIT

**PURPOSES** 

CONDUIT WITHIN

6" DIA.

ANCHOR RODS SHALL BE

ORIENTED PARALLEL TO

THE ROADWAY

FOR GROUNDING

#### **GENERAL NOTES**

CONDUIT

11 1/2" BOLT CIRCLE

(OUT TO OUT)

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWINGSHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X THE DIAMETER.

1" CONDUIT

**PURPOSES** 

6" DIA.

ANCHOR RODS SHALL BE

ORIENTED PARALLEL TO

THE ROADWAY

FOR GROUNDING

CONDUIT WITHIN

CONDUIT

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2. TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

- THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.
- (2) (4) 1" DIA. X 3' 6" ANCHOR RODS.
- (3) (4) 1" DIA. X 5' 0" ANCHOR RODS.
- (6) NO. 6 X 6' 8" BAR STEEL REINFORCEMENT.
- (5) (7) NO. 4 X 5' 1" BAR STEEL REINFORCEMENT @ 1' 0" C C.
- (6) (4) 1" DIA. X 3' 6" ANCHOR RODS.
- (6) NO. 4 X 4' 8" BAR STEEL REINFORCEMENT.
- (8) (5) NO. 4  $\times$  5' 1" BAR STELL REINFORCEMENT @ 1' 0" C -C.
- EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR
- (10) 5/8" DIA. X 8'-0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED
- ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 1/4" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.
- 12) FOR NON BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS, RODENT SCREEN REQUIRED.

#### **CONCRETE BASES TYPES 1, 2, 5, & 6**

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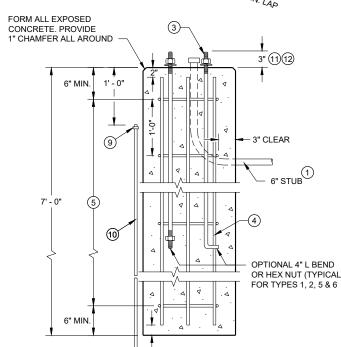
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED May 2019 DATE STATE ELECTRICAL ENGINEER

CONDUIT CONDUIT WITHIN 12 3/4" BOLT CIRCLE 6" DIA ANCHOR RODS SHALL BE ORIENTED PARALLEL TO THE ROADWAY FORM ALL EXPOSED **HALF SECTION IN HALF SECTION** CONCRETE, PROVIDE 1" CHAMFER ALL AROUND **UNPAVED AREA IN PAVEMENT** (TYPICAL FOR (TYPICAL FOR

TYPES 1, 2, 5 & 6) TYPES 1, 2, 5 & 6) 3" (11) TOPSOIL AND SEED OR 3/4" PREFORMED FILLER CRUSHED AS APPROVED BY THE **AGGREGATE ENGINEER** MIN OPTIONAL 4" L BEND OR HEX NUT (TYPICAL FOR TYPES 1, 2, 5 & 6

TYPE 1



**CONCRETE BASES** 

1" CHAMFER ALL AROUND 3" (11)(12) 6" MIN. 1' - 0" - 3" CLEAR (9) 5' - 0" (8) 10 OPTIONAL 4" L BEND OR HEX NUT (TYPICAL FOR TYPES 1, 2, 5 & 6 6" MIN L 2"

**TYPE 5 & 6** 

FORM ALL EXPOSED CONCRETE. PROVIDE

CONDUIT

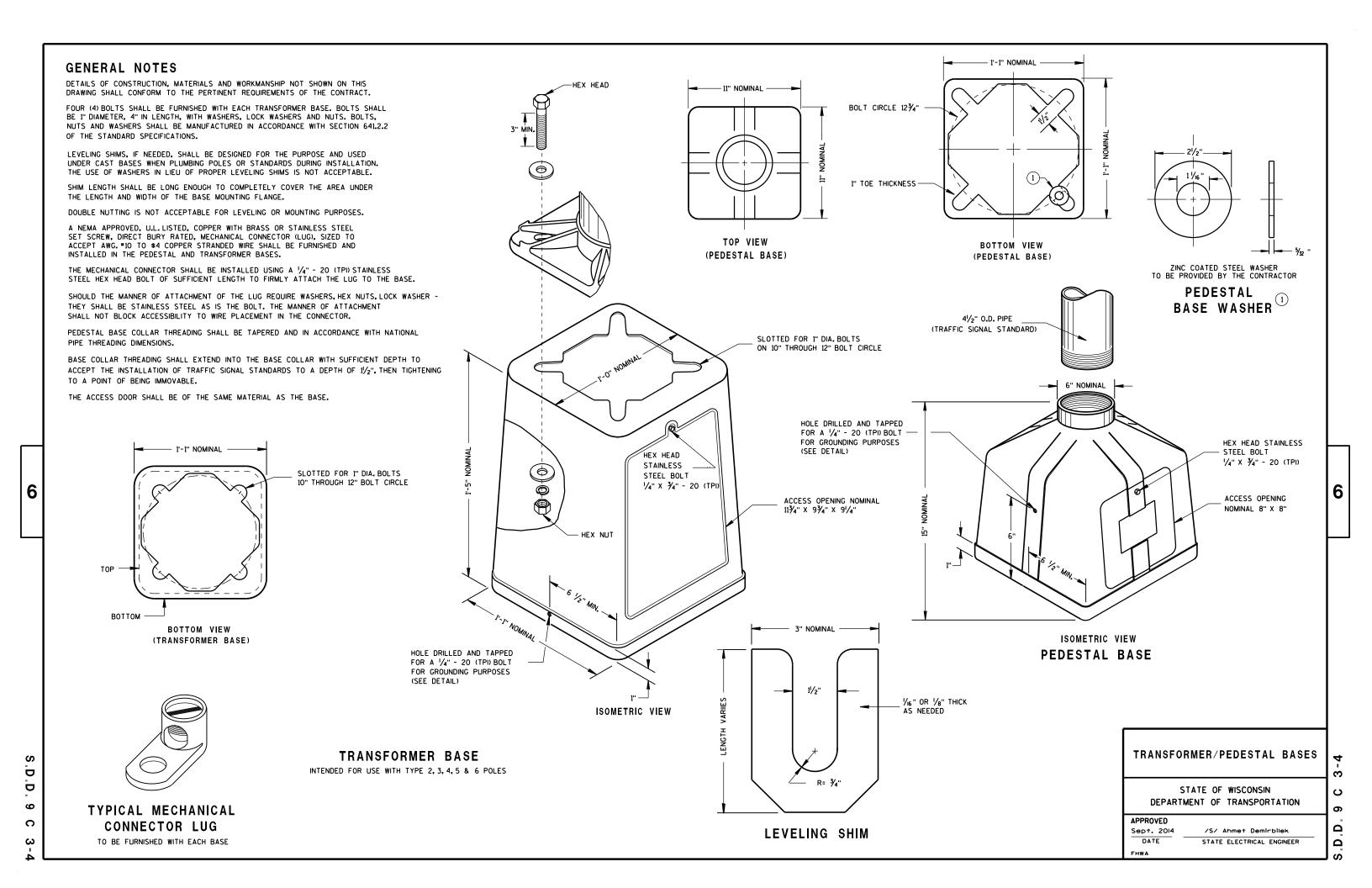
11 1/2" BOLT CIRCLE

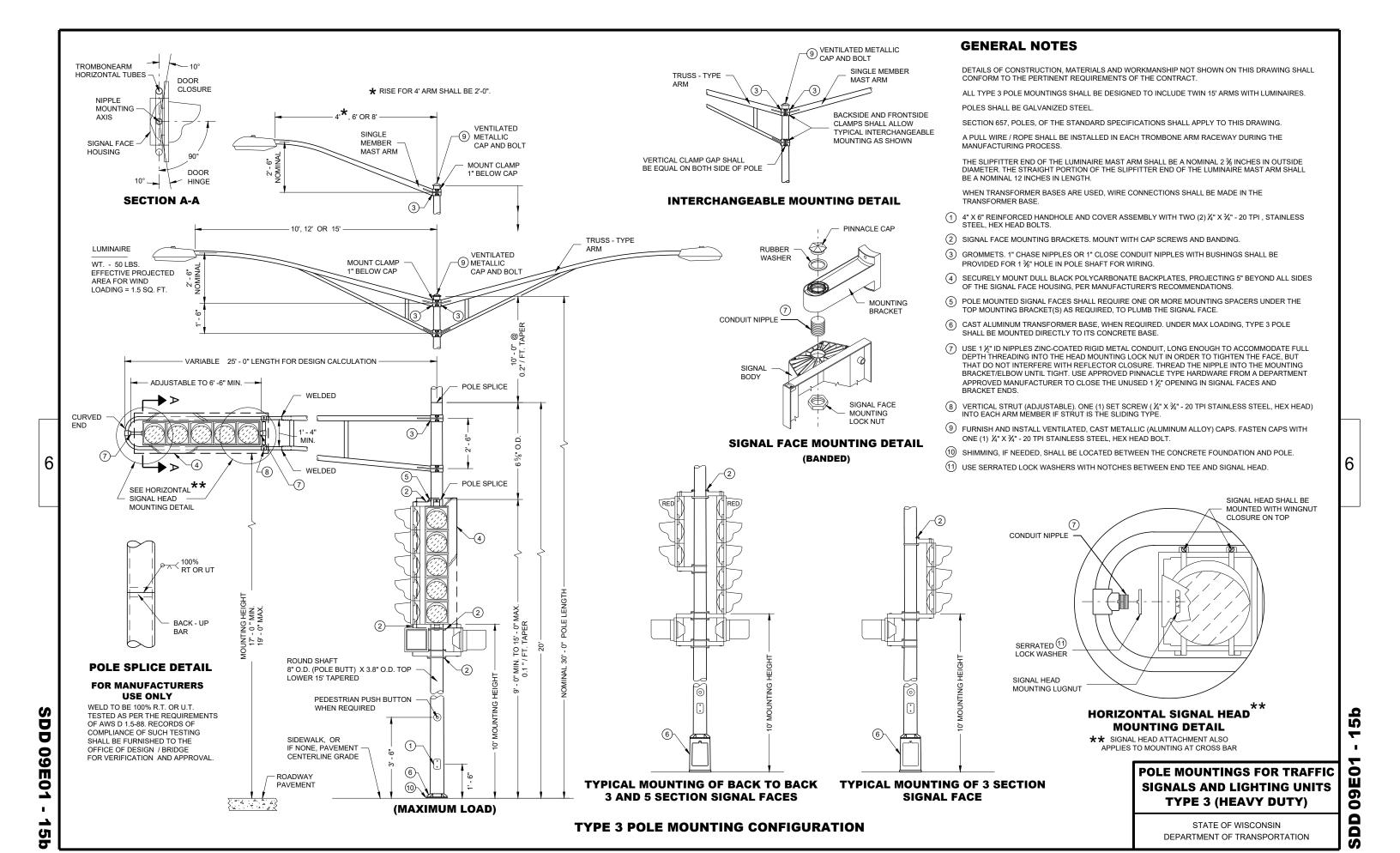
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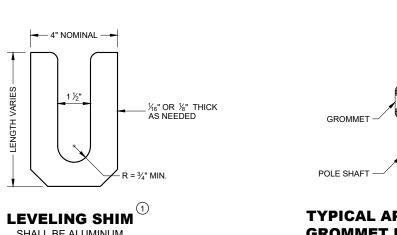
TYPE 2

6

SD 09C02







GUSSETS REQUIRED

STAINLESS STEEL HARDWARE - BOLT LENGTH

FOR TROMBONE ARM CLAMPS SHALL BE 4 ½"
MIN. - 6" MAX.. BOLTS FOR LUMINAIRE ARM

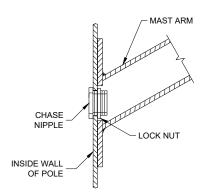
CLAMPS SHALL BE 3 ½" IN LENGTH. THREAD

BOLTS ENTIRE LENGTH



BRACKET ARM

FITTING



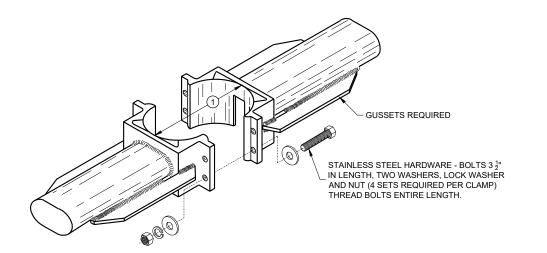
**TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT** 

#### **GENERAL NOTES**

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

- (1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.
- (2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)
- 3 BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER
- 4 LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE

SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



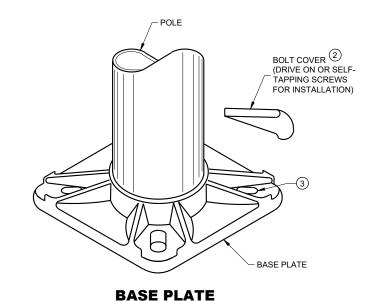
"J " HOOK DOOR SIDE HOOK FACTORY 1 3 RACEWAY HOLE - OPPOSITE WELDED TO POLE DOOR (180° SIDE) IF CALLED FOR

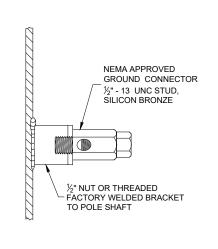
**TYPICAL "J" HOOK LOCATION** 

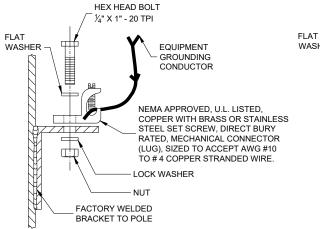
#### **TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP**

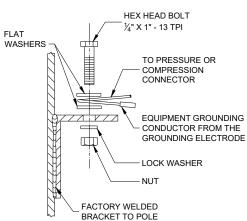
SHALL BE ALUMINUM

#### **TYPICAL LUMINAIRE MAST ARM** (DOUBLE) MOUNTING BRACKETS









#### TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

#### **HARDWARE DETAILS FOR POLE MOUNTING**

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED November 2018 DATE

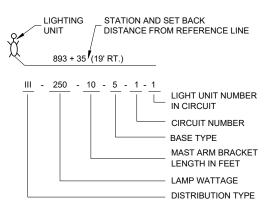
/S/ Ahmet Demirbilel STATE ELECTRICAL ENGINEER

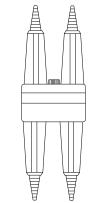
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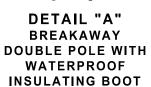
AO 60  DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT

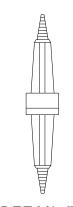
THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

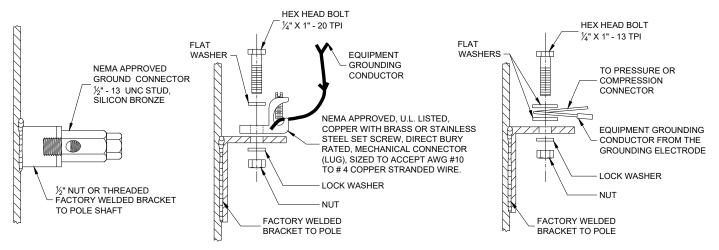








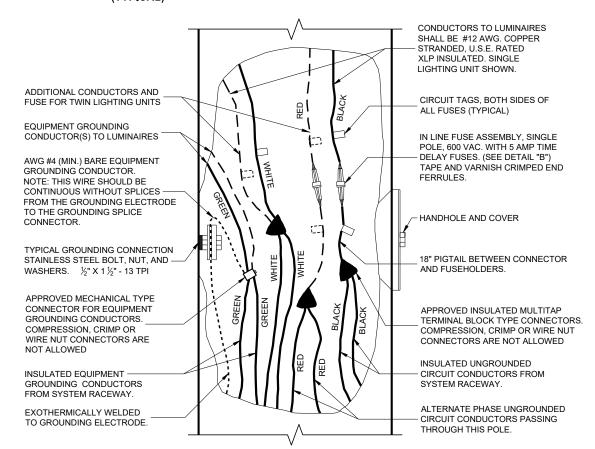
DETAIL "B"
BREAKAWAY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT



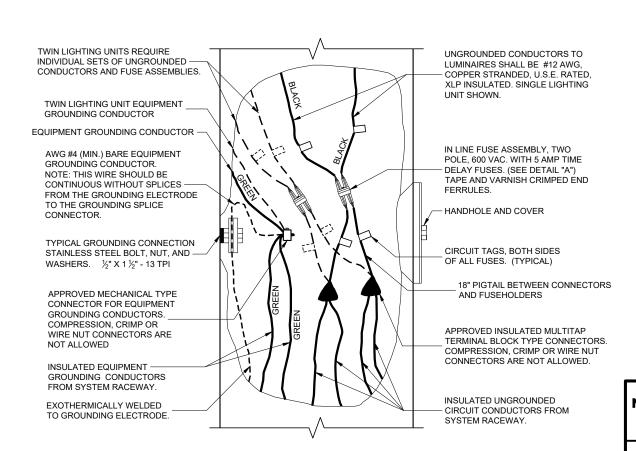
### TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

# LIGHTING UNIT CODE (TYPICAL)



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS)
WITH GROUNDING CONDUCTOR AND
EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS)
WITH EQUIPMENT GROUNDING CONDUCTOR

# NON - FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

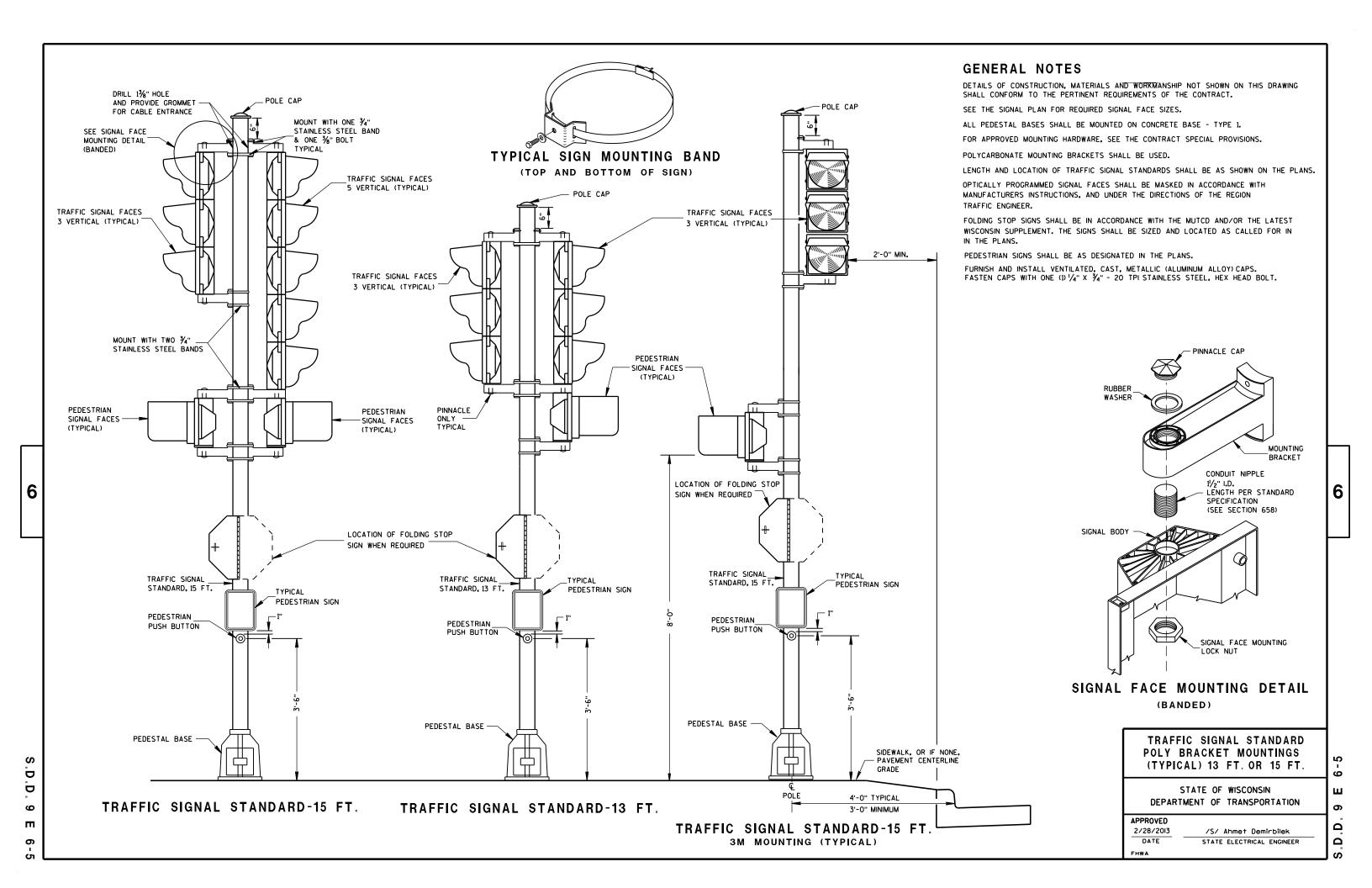
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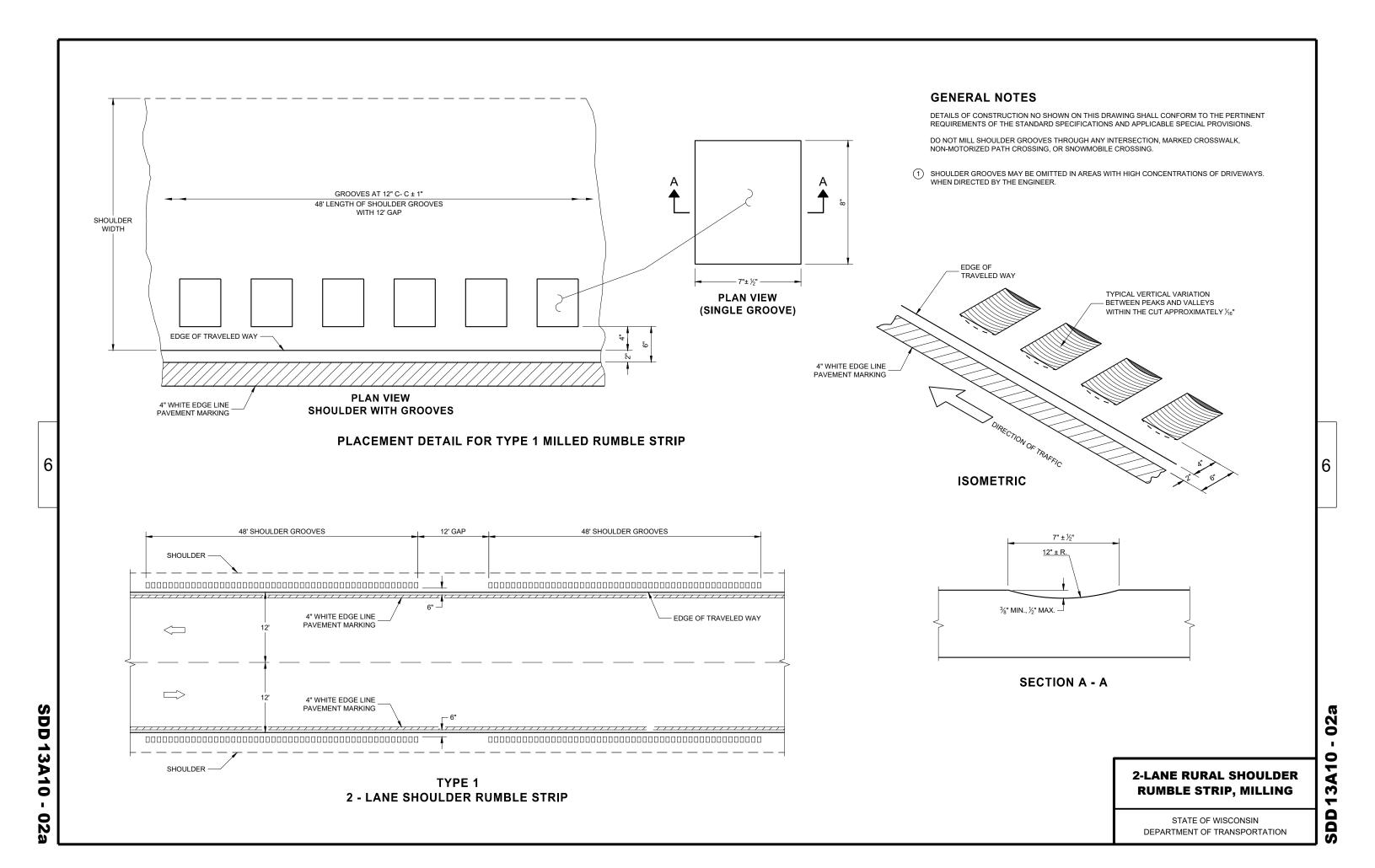
November 2018 /S/ Ahmet Demirbilek

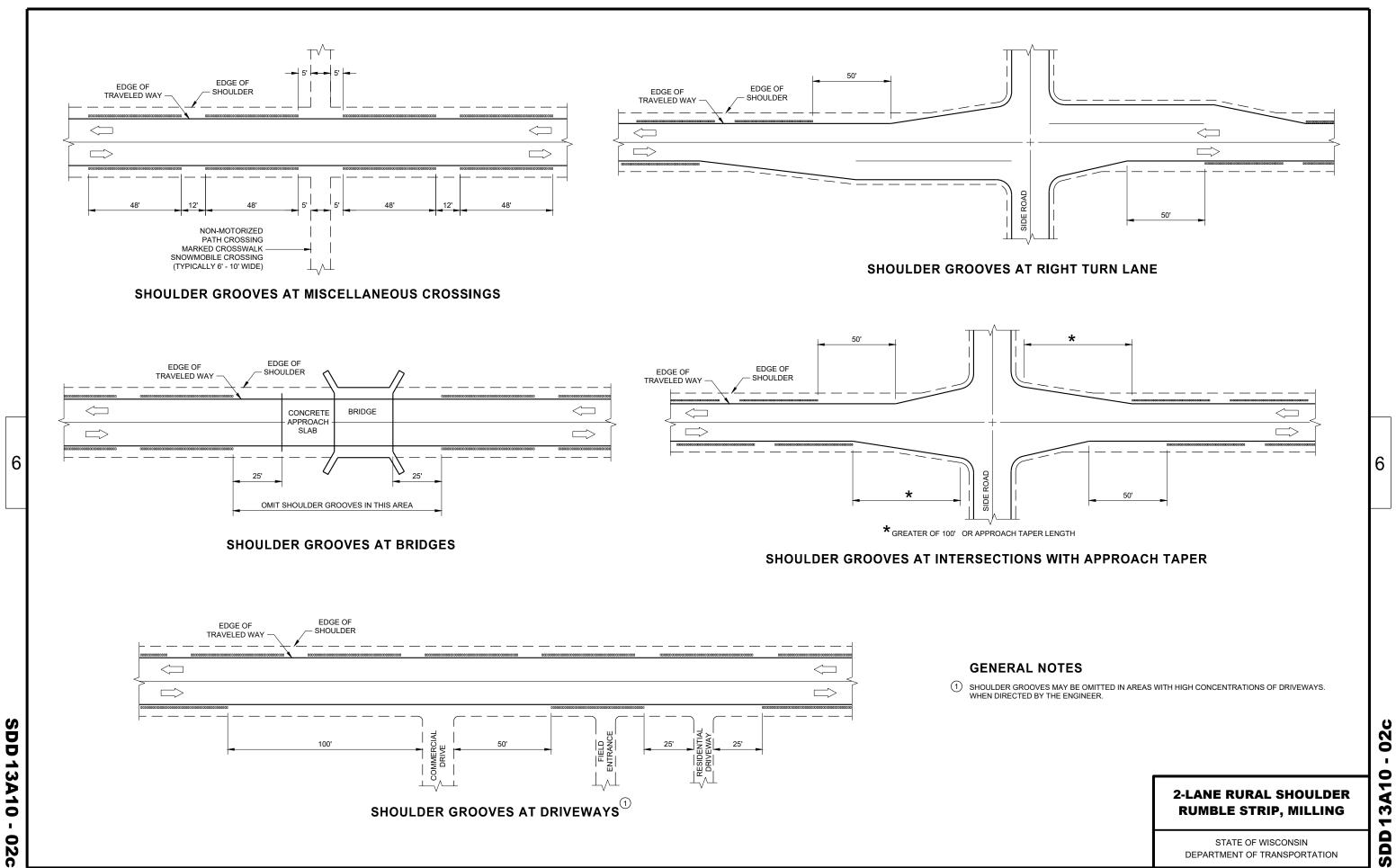
DATE STATE ELECTRICAL ENGINEER

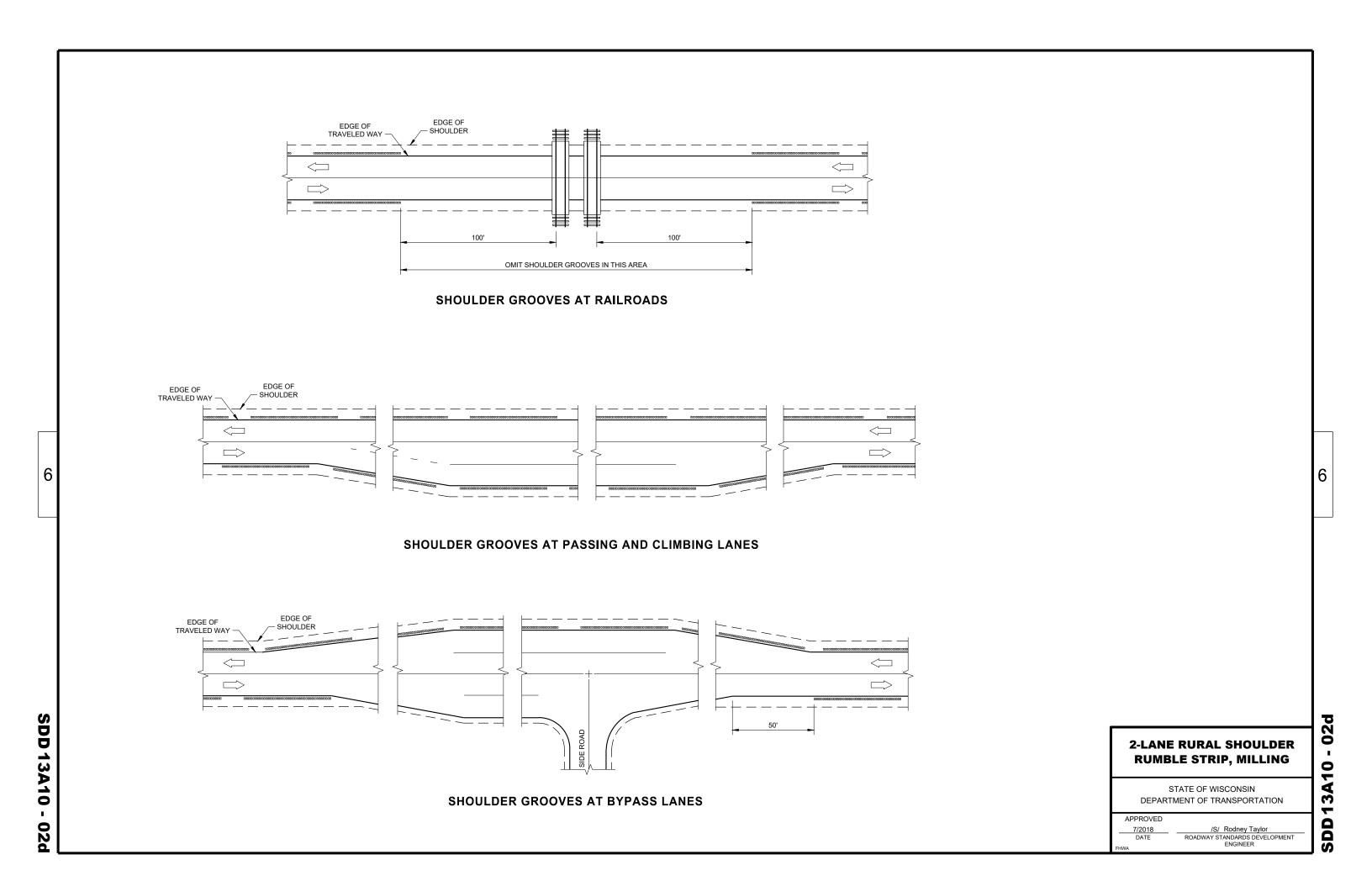
SDD 09E03 - 00

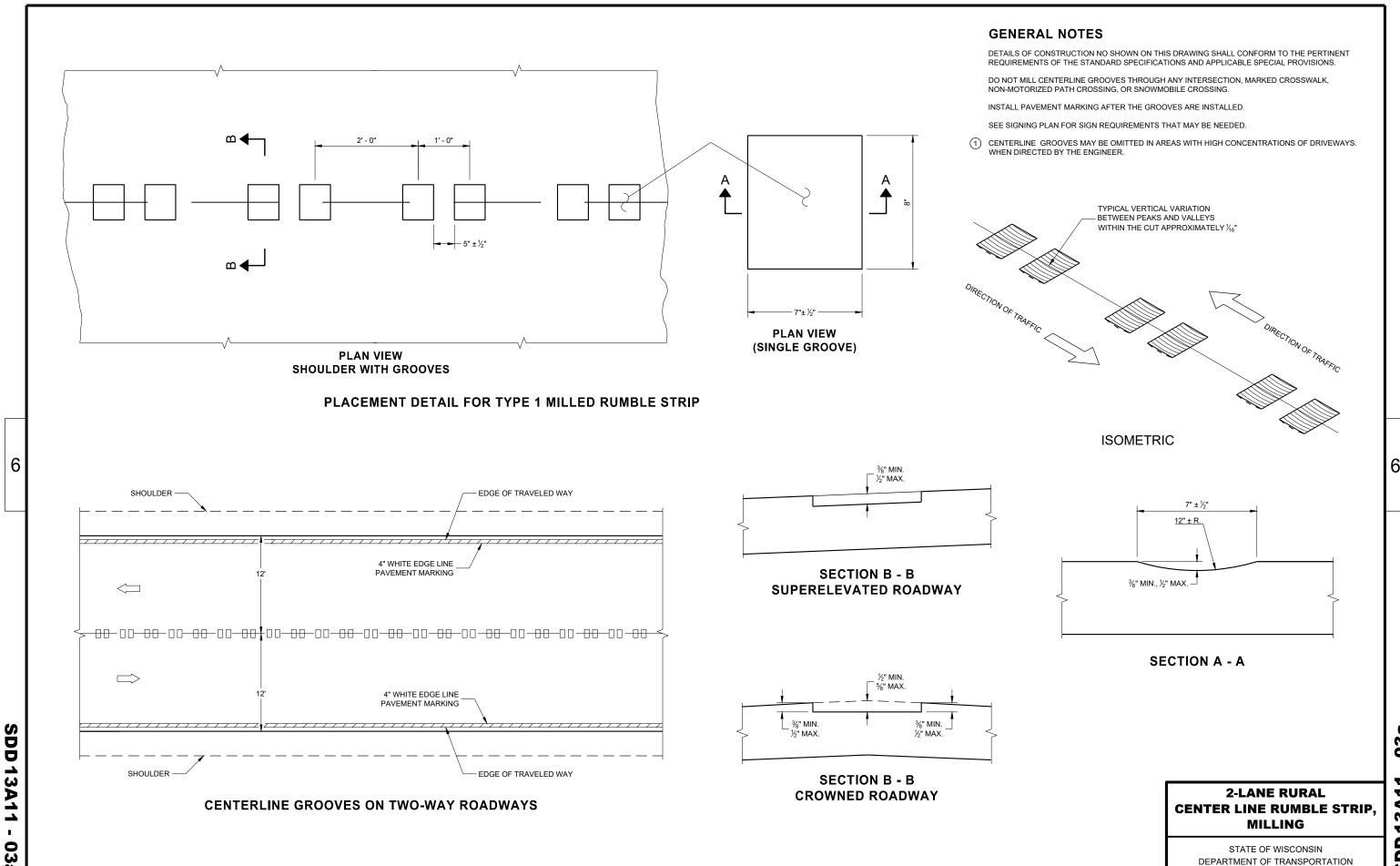
DD 09E03.



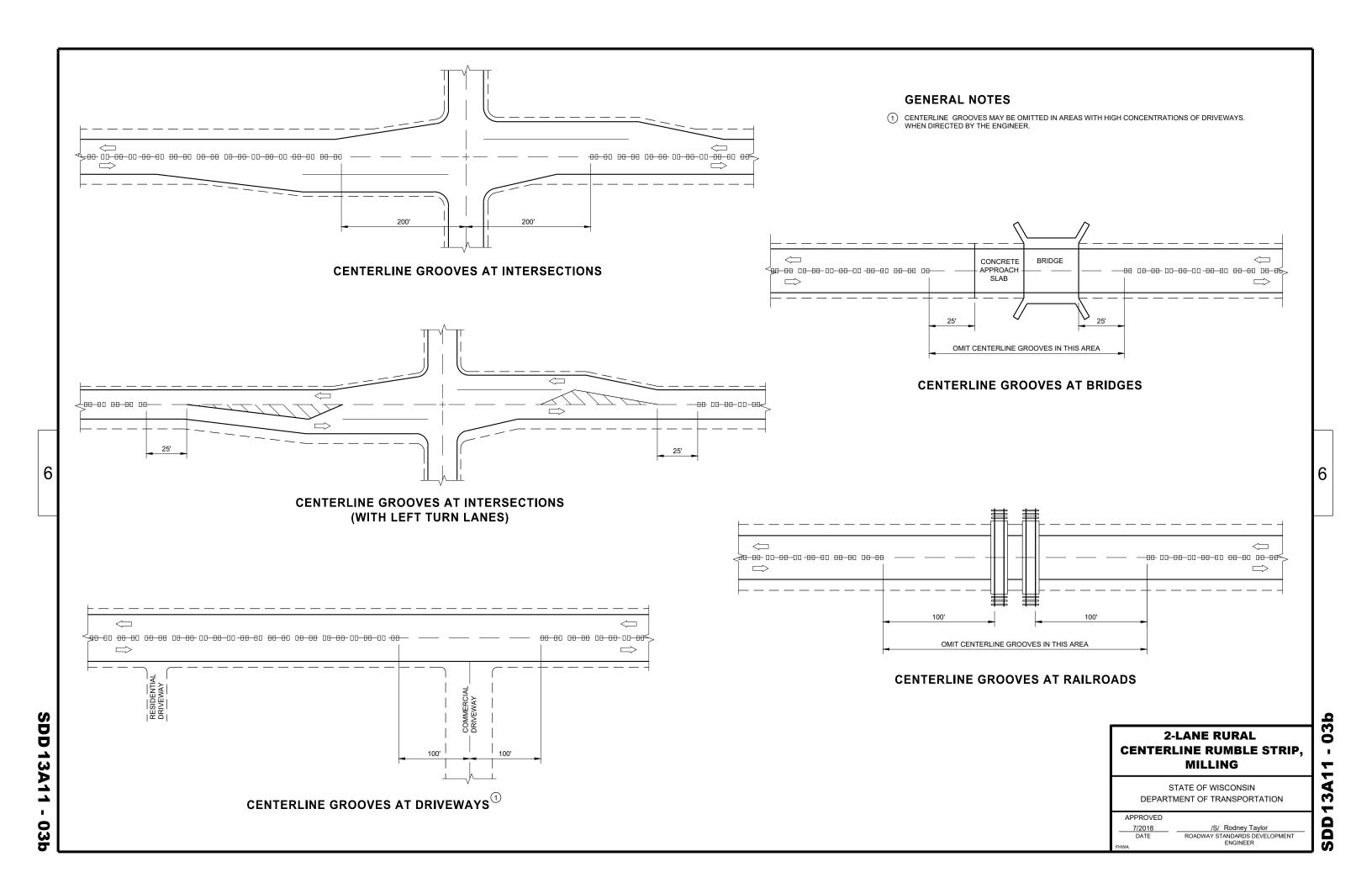


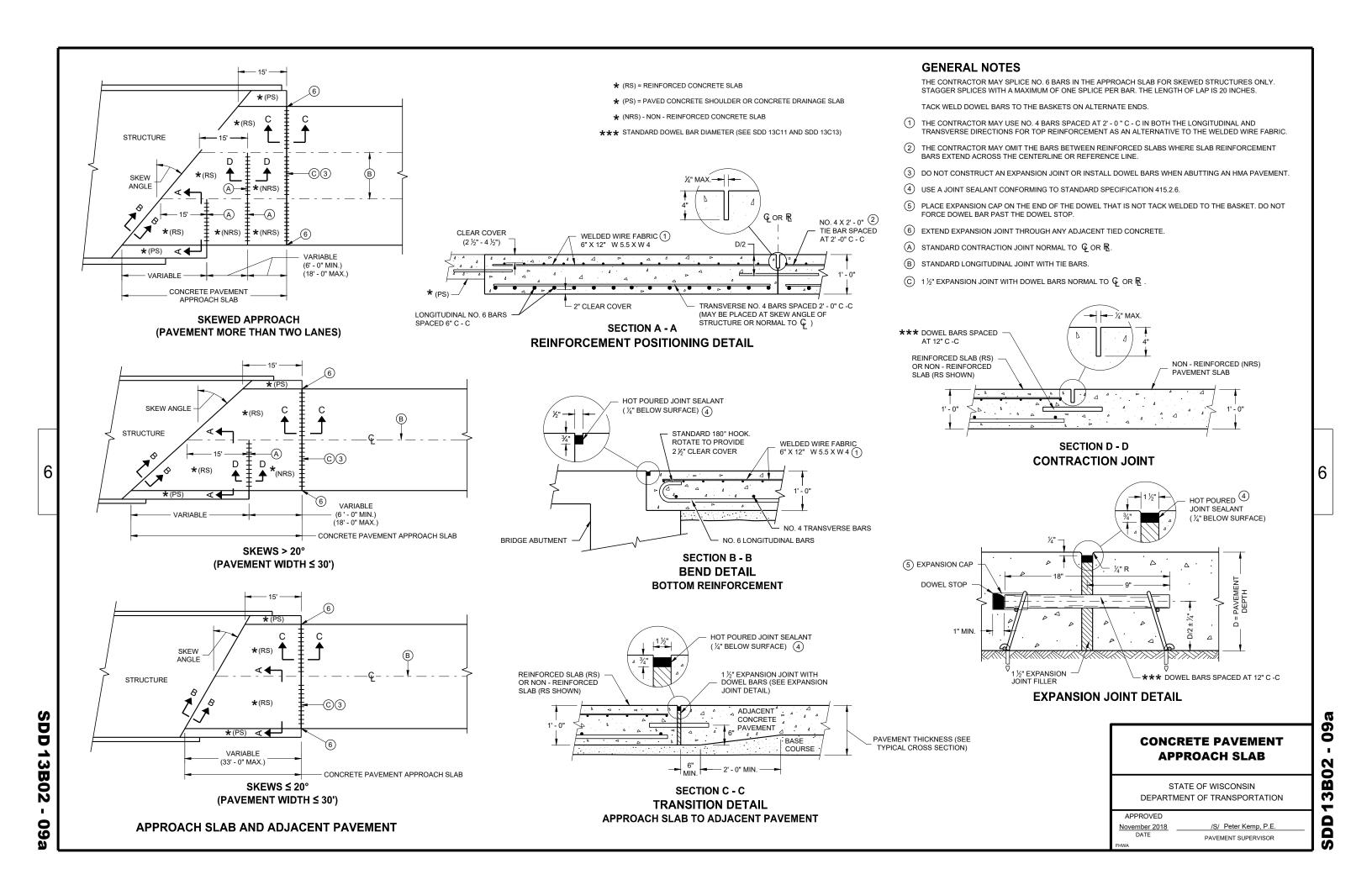


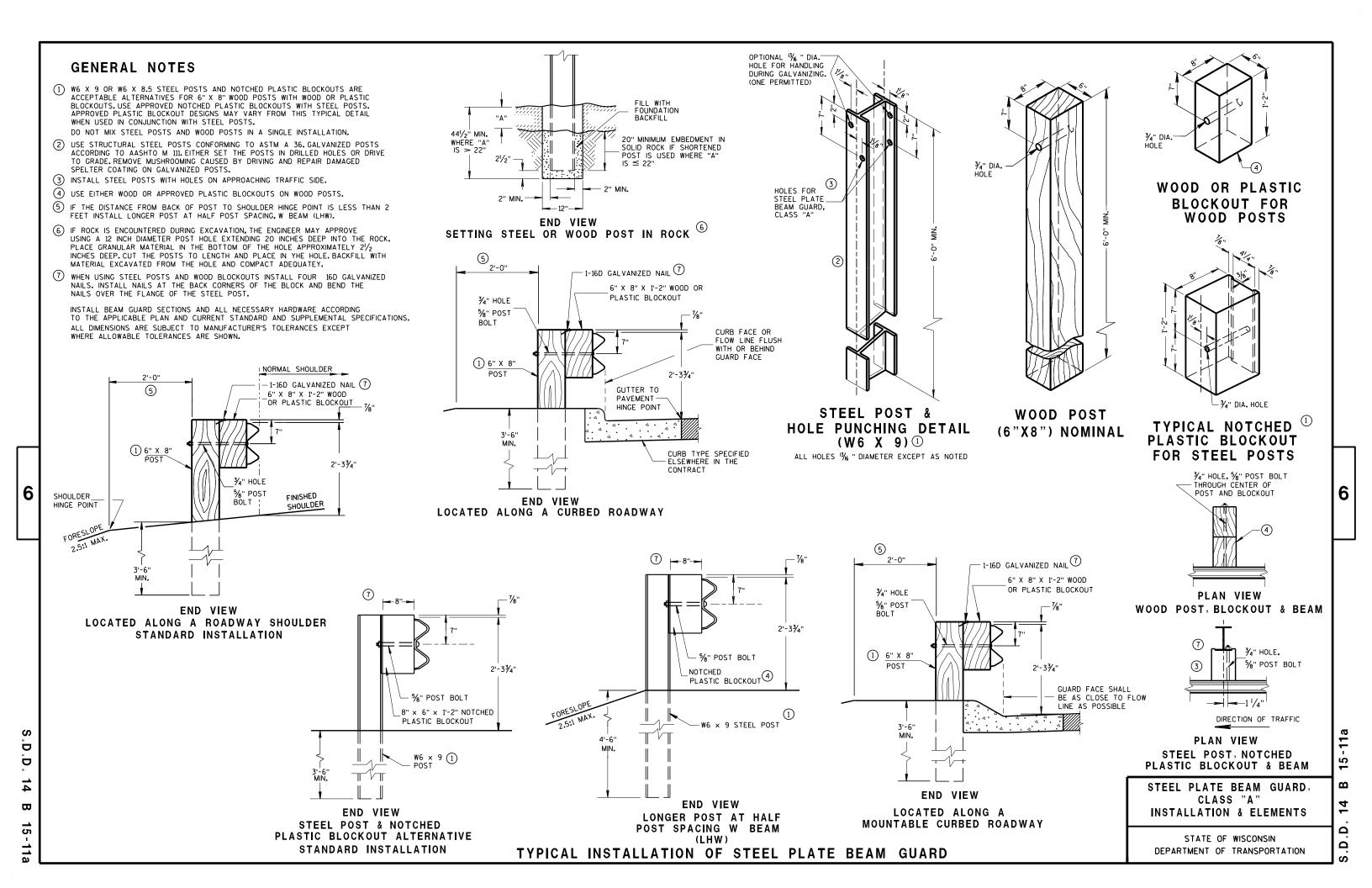




SDD







FRONT VIEW

POST SPACING STANDARD INSTALLATION

12'-6" OR 25'-0" EFFECTIVE LENGTH OF BEAM

3'-1<sup>1</sup>/<sub>2</sub>" C-C

**SPACING** 

3'-1<sup>1</sup>/<sub>2</sub>" C-C

POST

SPACING

DIRECTION OF

TRAFFIC

3'-11/2" C-C

SPACING

3'-11/2" C-C

SPACING

FINISHED

SHOULDER

\* USE DOUBLE SIDED WHITE GUADRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN), USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.

#### SECTION THRU W BEAM

SYMMETRICAL

ABOUT & -12 GAGE

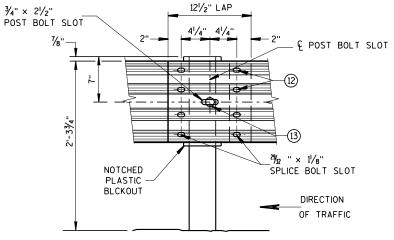
# 121/2" LAP WOOD OR PLASTIC BLOCKOUT FINISHED SHOULDER DIRECTION OF TRAFFIC FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

### **GENERAL NOTES**

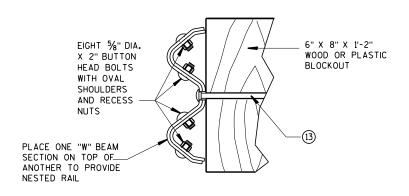
FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

- (9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA, START REFLECTORS AT POST \*9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.
- (12) 8 1/8" \$ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
- (13) 5%" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5%" DIA. F844 FLAT WASHER UNDER NUT.



FRONT VIEW BEAM SPLICE AT STEEL POST

### TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

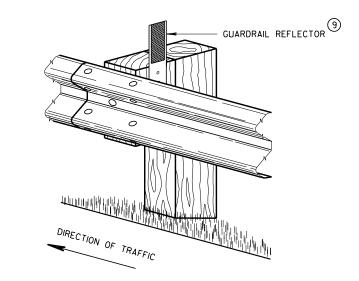


**NESTED W BEAM (NW)** 

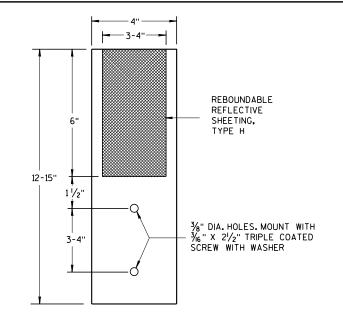
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

# POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)

FRONT VIEW



4" X 12" GUARDRAIL REFLECTOR DETAIL AND TYPICAL INSTALLATION \*



4"x 12" GUARDRAIL REFLECTOR

STEEL PLATE BEAM GUARD, CLASS "A", **INSTALLATION & ELEMENTS** 

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

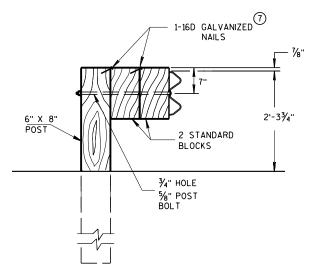
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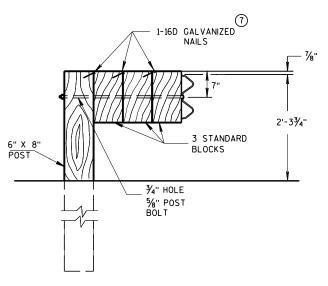
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### DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

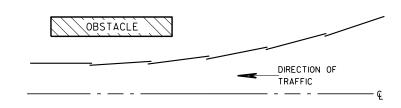


### DETAIL FOR TRIPLE BLOCKS

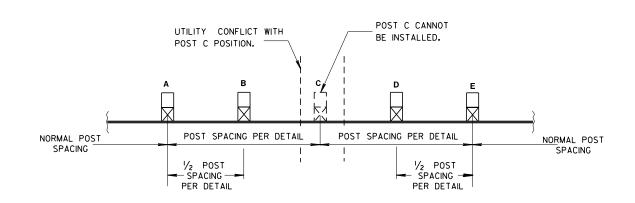
TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA 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.



# PLAN VIEW BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE

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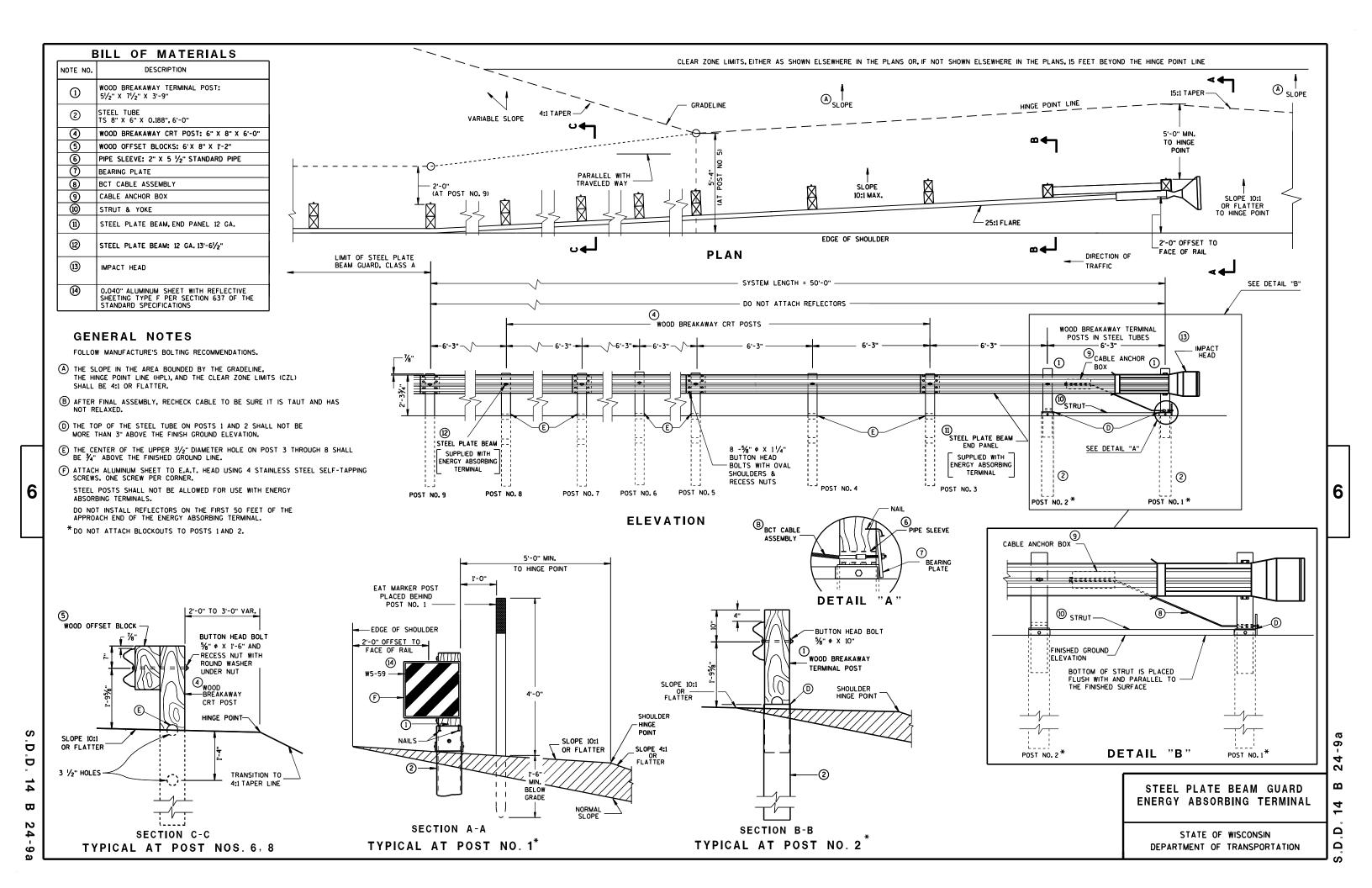
/S/ Rodney Taylor

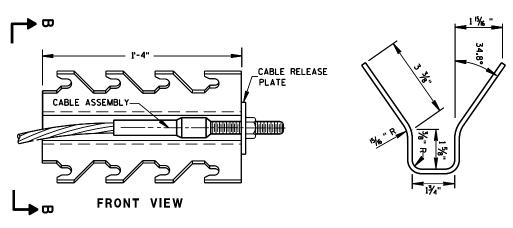
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

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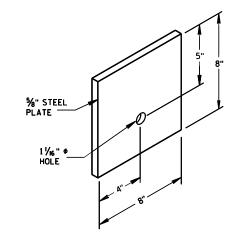
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SECTION B-B

(9) CABLE ANCHOR BOX



<sup>⊙</sup>STEEL BEARING PLATE

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

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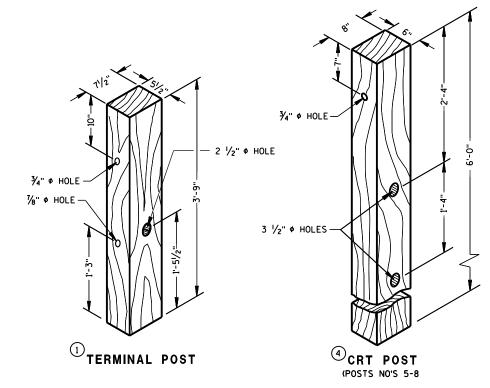
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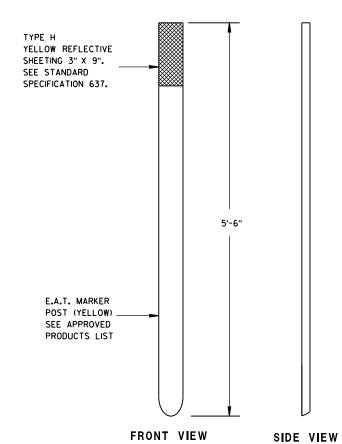
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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

(4) REFLECTIVE SHEETING DETAILS



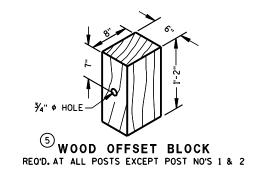
### **WOOD BREAKAWAY POSTS**



E.A.T. MARKER POST

### **GENERAL NOTES**

WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.



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STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED June 2017

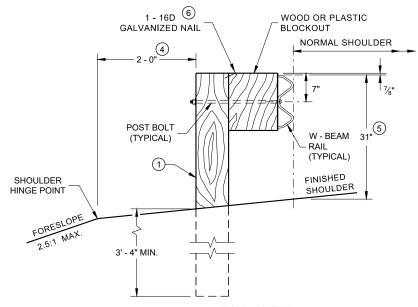
/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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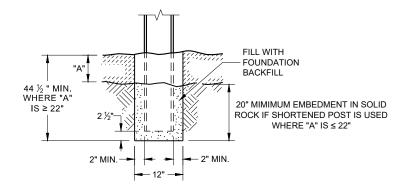
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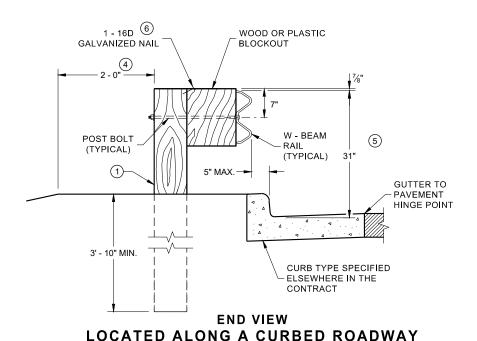
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- $\ \, \ \,$  IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE
- 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).
- $_{\mbox{\scriptsize (5)}}$  FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +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.

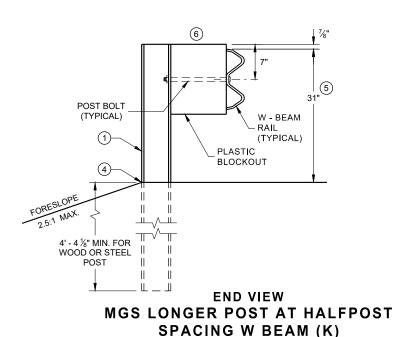


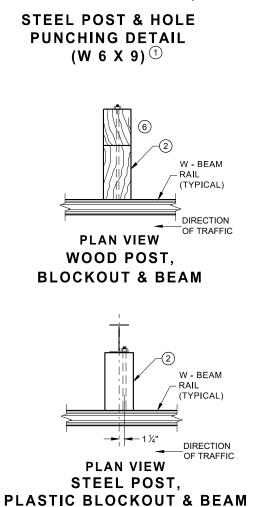
**END VIEW** LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION

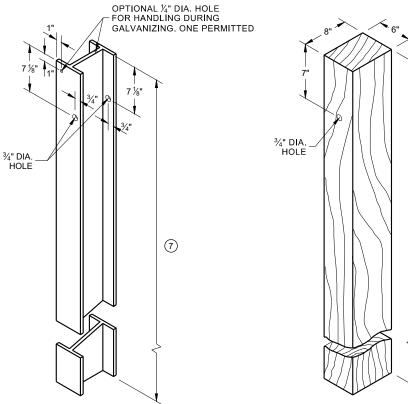


**END VIEW** SETTING STEEL OR WOOD POST IN ROCK

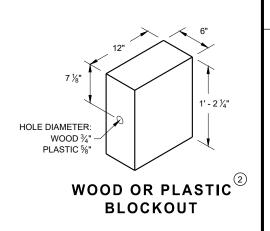








WOOD POST (6" X 8") NOMINAL



MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION SD

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

3' 1½" C -C 3' 1½" C - C POST SPACING POST SPACING

6' 3" C - C

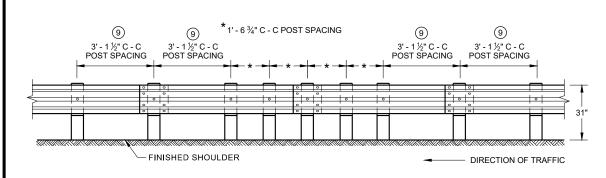
POST SPACING

DIRECTION OF TRAFFIC

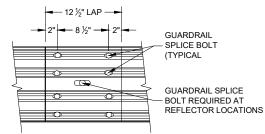
6' - 3" C -C

POST SPACING

FINISHED SHOULDER

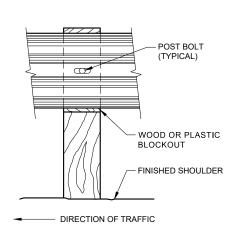


FRONT VIEW **QUARTER POST SPACING (QS)** 



**FRONT VIEW MID-SPAN BEAM SPLICE** 

FRONT VIEW AT STEEL POST



**GENERAL NOTES** 

OF QUARTER POST SPACING.

RECESSED (DR) HEAVY HEX NUT.

OF THE ENERGY ABSORBING TERMINAL.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END

(9) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS

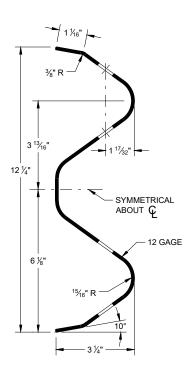
POST BOLTS ARE A %" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT

GUARD RAIL SPLICE BOLTS ARE A %" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES %" DIAMETER A563A DOUBLE

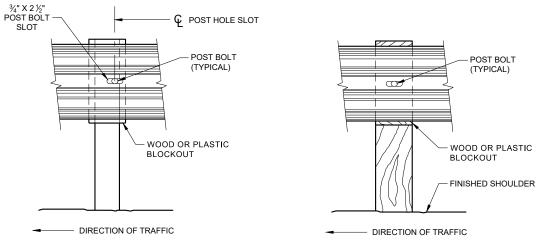
REQUIRES %" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND %"

DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS

FRONT VIEW AT WOOD POST



**SECTION THRU W-BEAM RAIL** 



4" X 12" DELINEATOR REFLECTOR (REFER TO SDD 15A4 FOR DELINEATOR SPACING) WOOD OR PLASTIC BLOCKOUT MOUNT WITH TWO 3/16" X 2 1/2" TRIPLE COATED SCREWS WITH WASHERS WOOD OR STEEL POST - DIRECTION OF TRAFFIC

**ONE SIDED REFLECTOR DETAIL** AND TYPICAL INSTALLATION

**MIDWEST GUARDRAIL SYSTEM** (MGS) GUARDRAIL

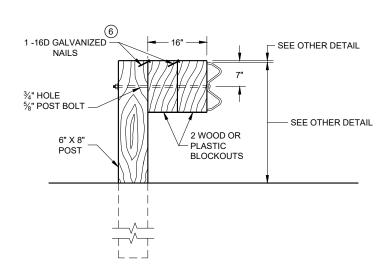
> STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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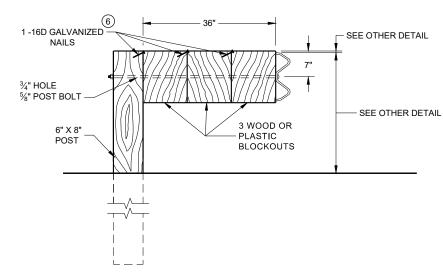
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### **DETAIL FOR 16" BLOCKOUT DEPTH**

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



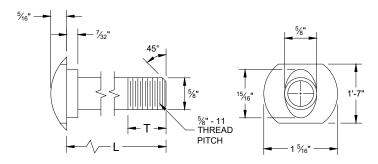
### **DETAIL FOR 36" BLOCKOUT DEPTH**

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

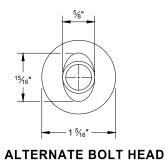
#### NOTE:

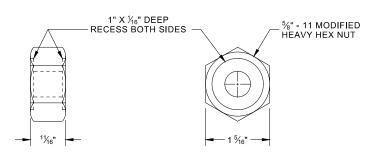
- 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF  $\frac{3}{16}$ ".
- 2. IF THE BOLT EXTENDS MORE THAN  $\mbox{\ensuremath{\mbox{\sc M}}}\mbox{\sc "}\mbox{\sc FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.}$



### **POST BOLT TABLE**

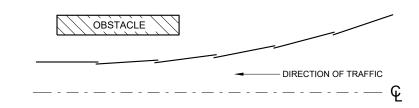
L	T (MIN.)
1 1⁄4"	1 1/4"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



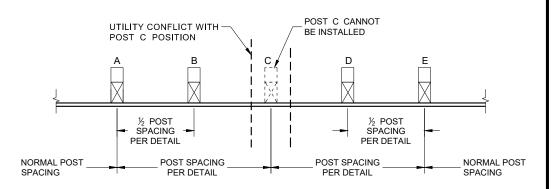


# POST BOLT, SPLICE BOLT AND RECESS NUT

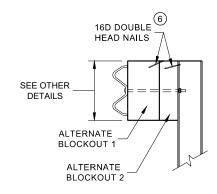
WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

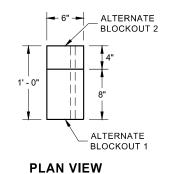


# PLAN VIEW BEAM LAPPING DETAIL



# POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION





SIDE VIEW

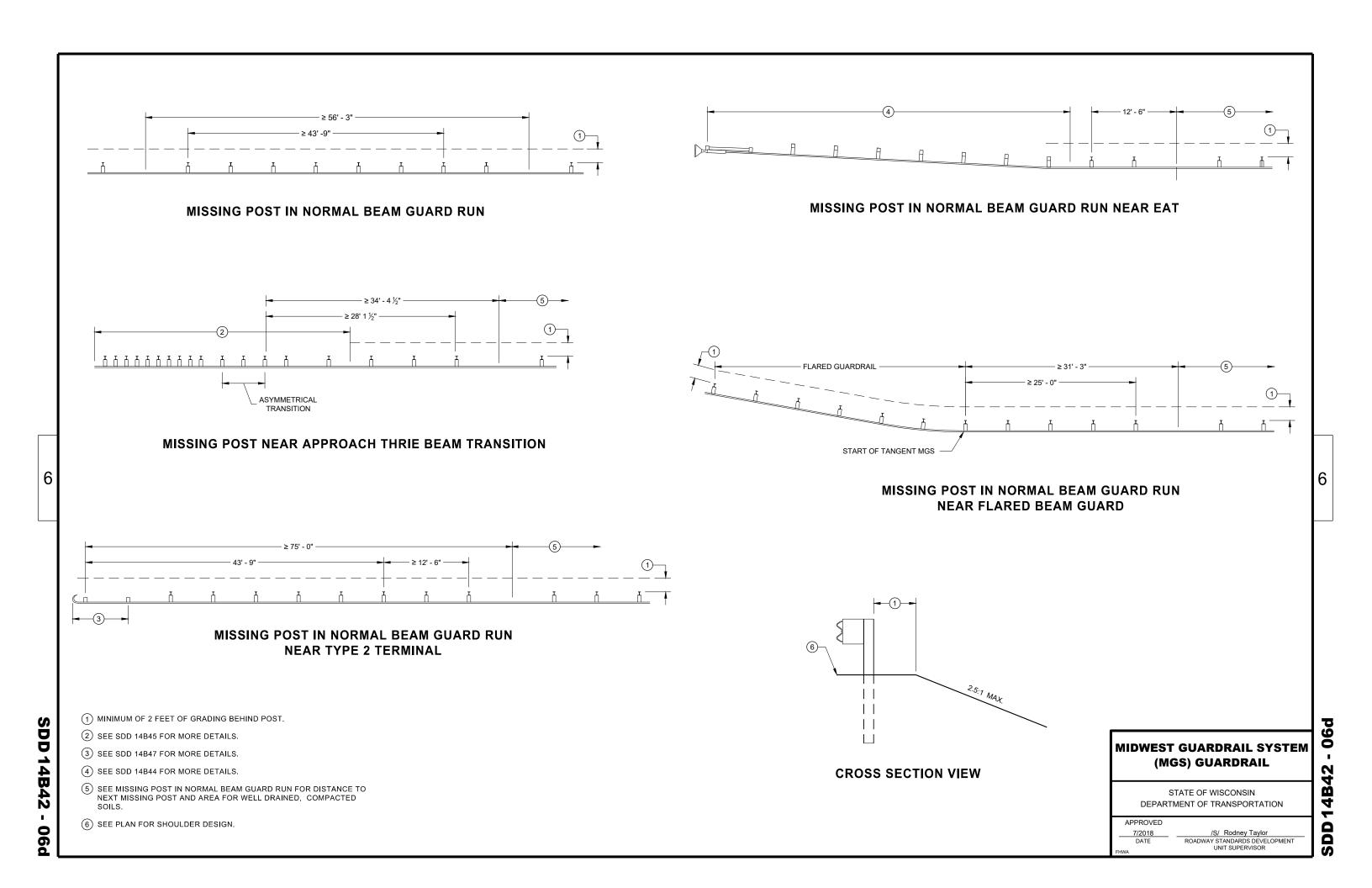
ALTERNATE WOOD BLOCKOUT DETAIL

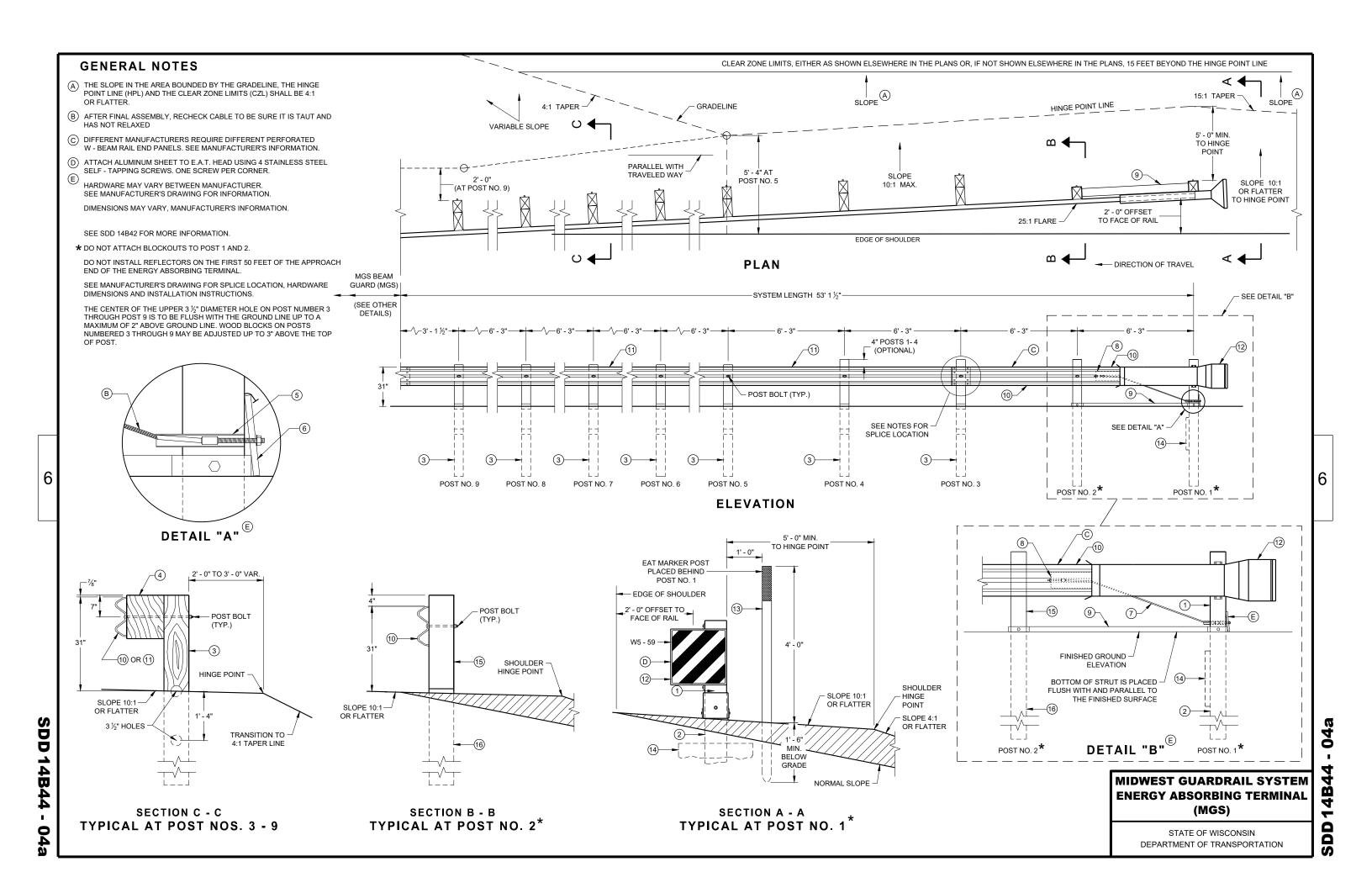
# MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

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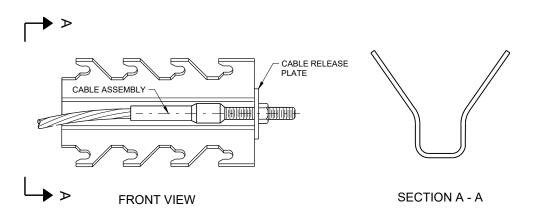
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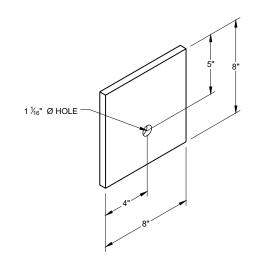




GENERIC GROUND STRUT



GENERIC ANCHOR CABLE BOX <sup>(9) (E)</sup>



BEARING PLATE

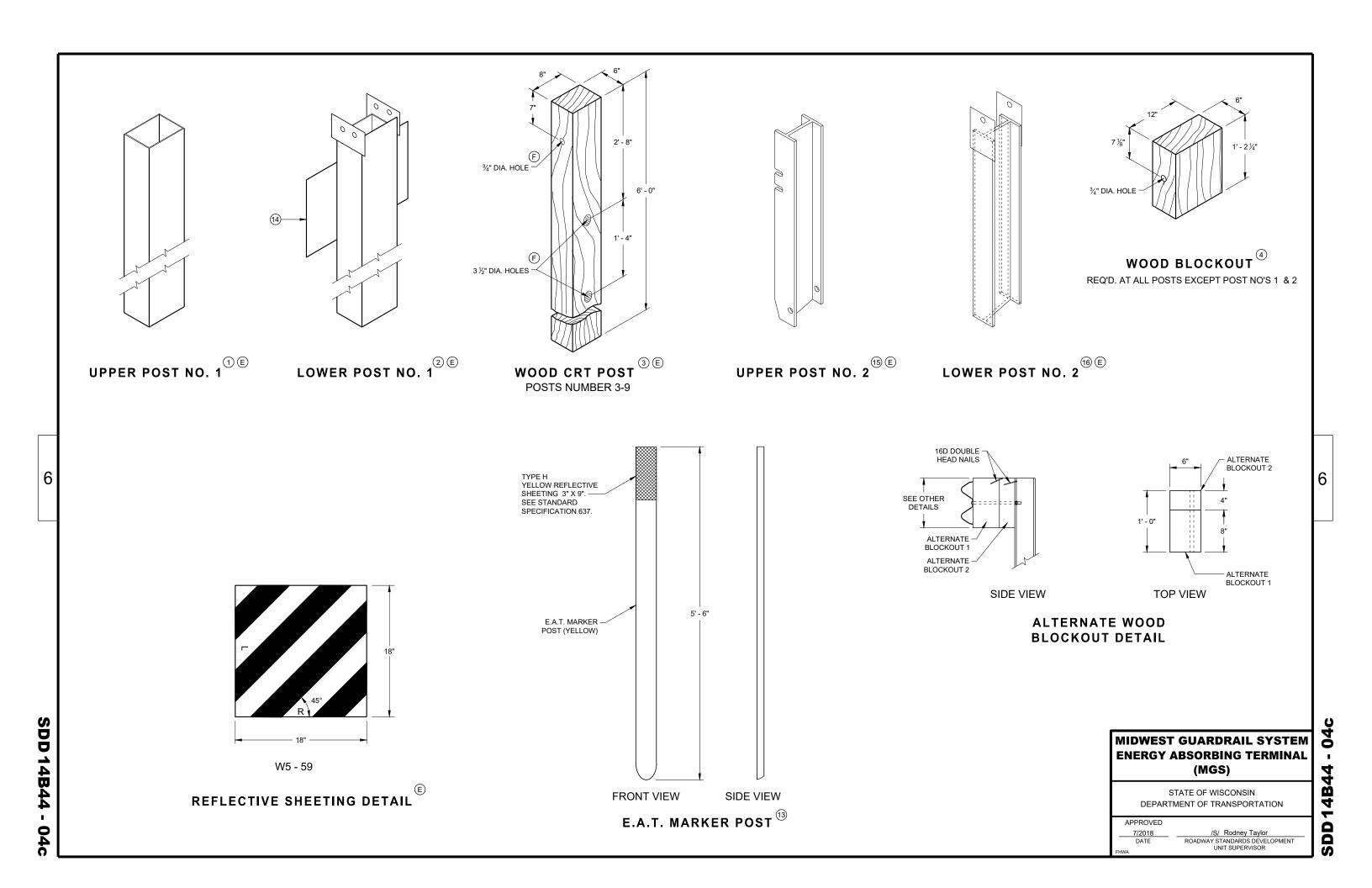
### MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

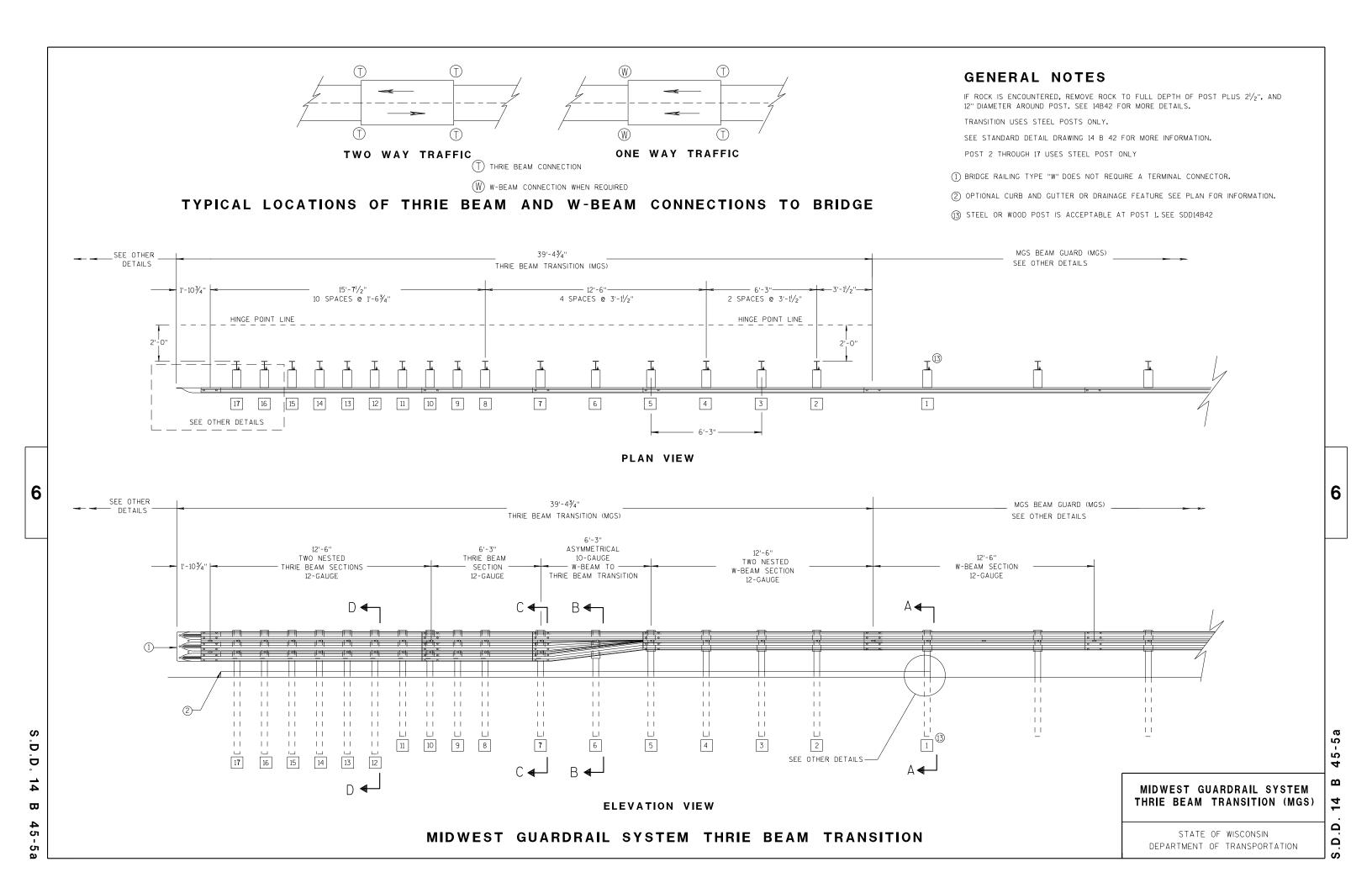
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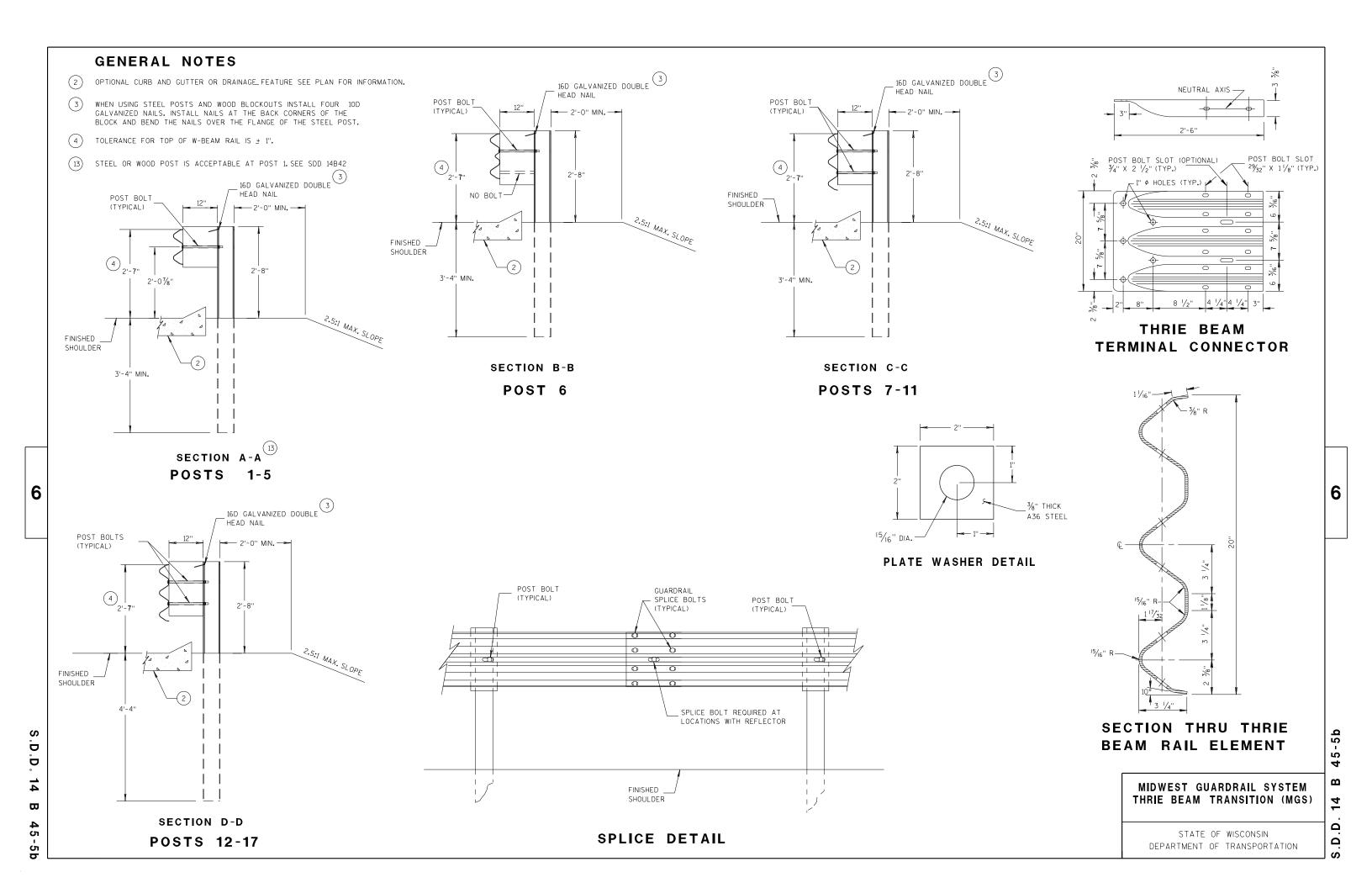
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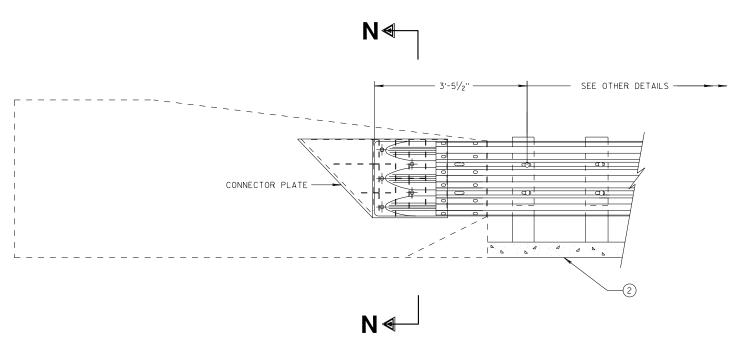
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SDD 14B44 - 04

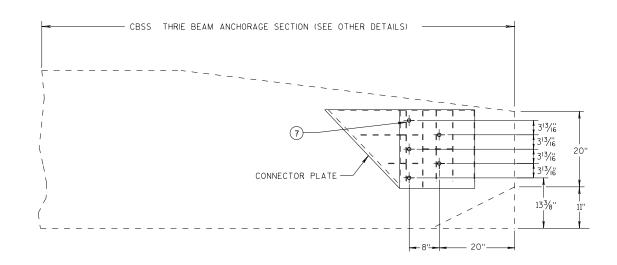








### THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

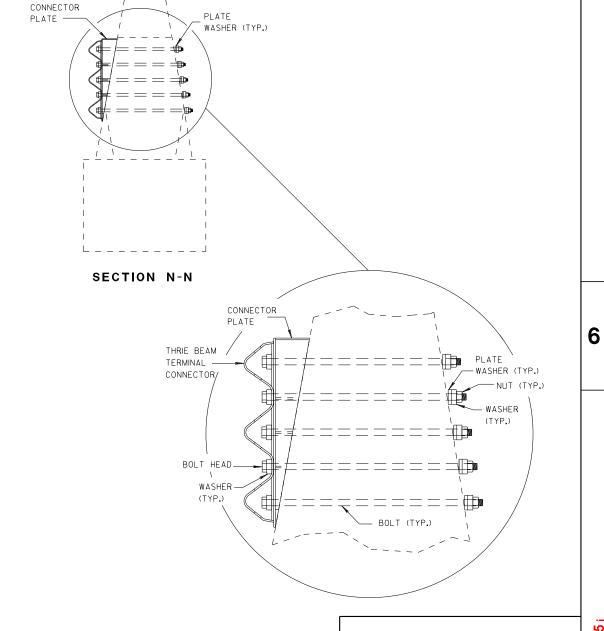


SINGLE SLOPE CONNECTION PLATE PLACEMENT

### **GENERAL NOTES**

CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

- 2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ONNECTION BETWEEN RIGID BARRIER AND THREAD THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



## MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

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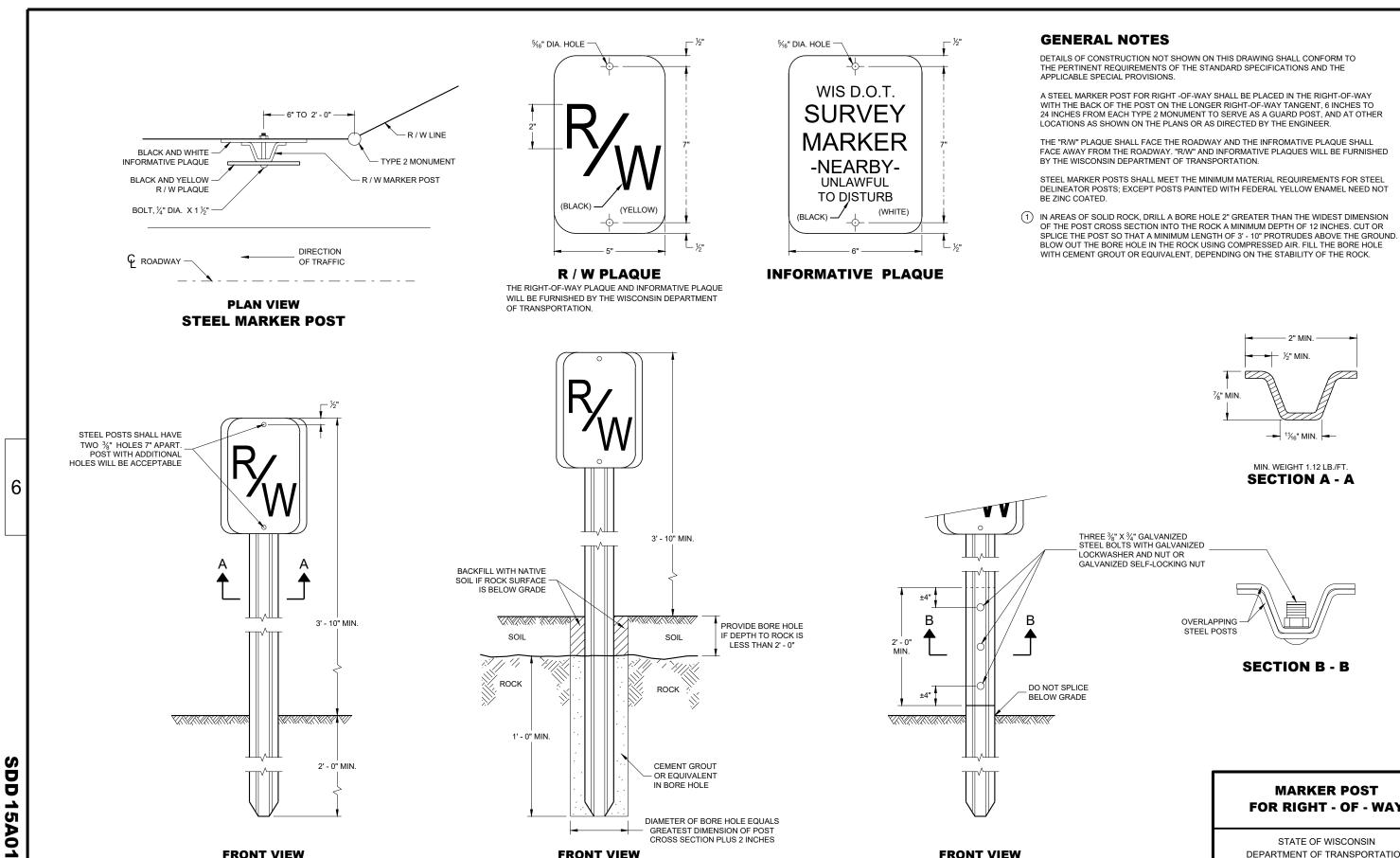
7/2018

DATE

ROADW

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

OPMENT O



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APPROVED

/S/ Ray Kumapayi
CHIEF SURVEYING AND MAPPING
ENGINEER

**FRONT VIEW** STEEL MARKER POST

ROCK INSTALLATION 1

DIAMETER OF BORE HOLE EQUALS

- GREATEST DIMENSION OF POST CROSS SECTION PLUS 2 INCHES **FRONT VIEW** 

**FRONT VIEW SPLICE DETAIL** 

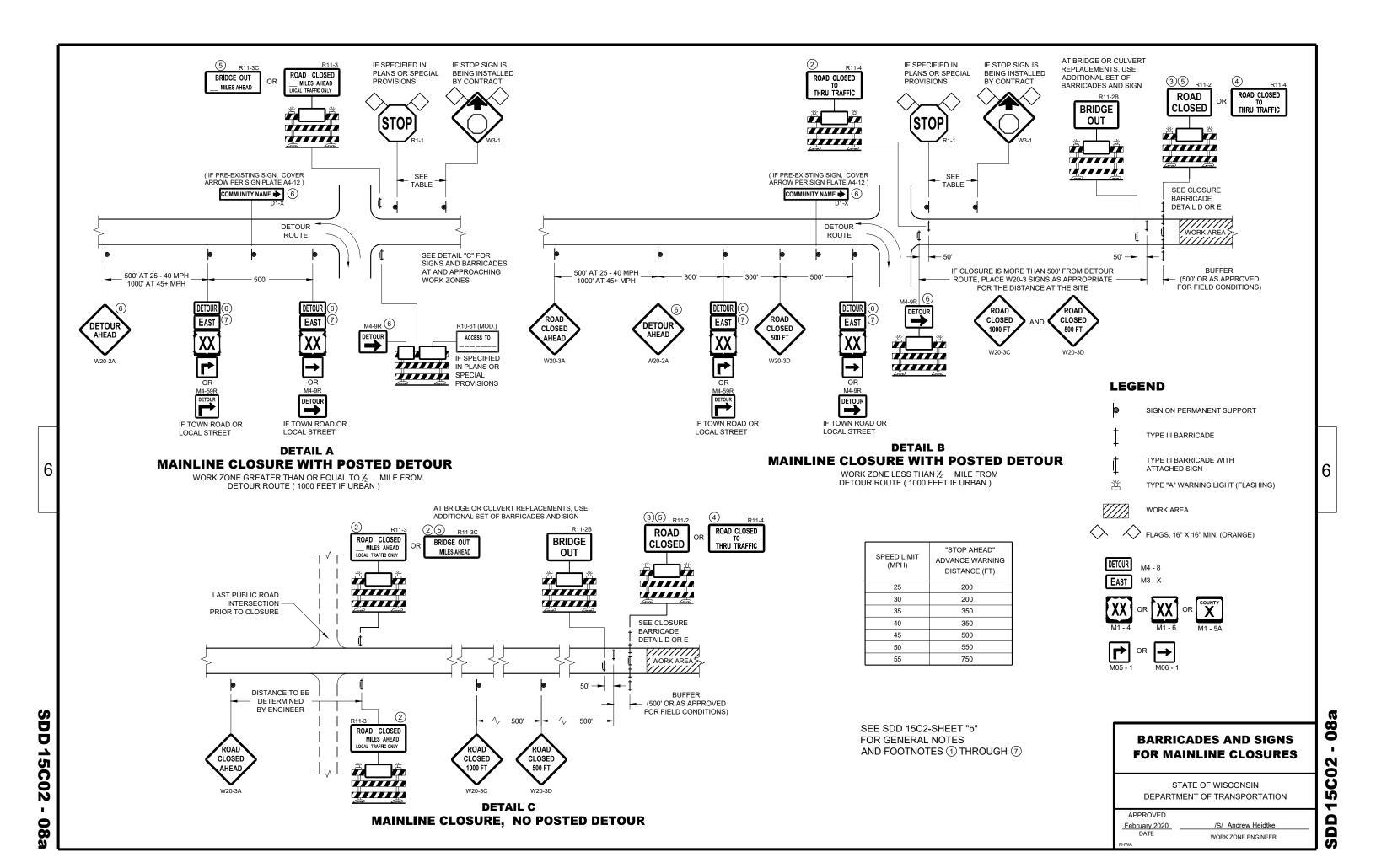
**MARKER POST FOR RIGHT - OF - WAY** 

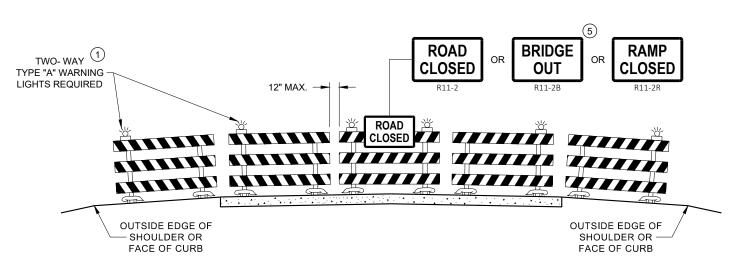
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

2/18/2016 DATE

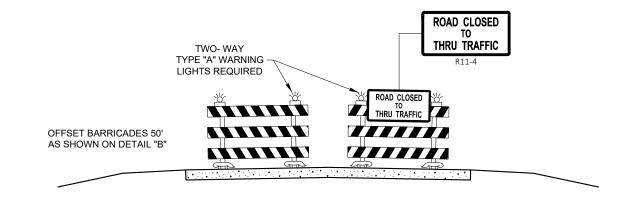








### **DETAIL D ROAD CLOSURE BARRICADE DETAIL APPROACH VIEW**



### **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

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"

- 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**
- THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- (3) FOR ROAD CLOSURE <u>WITHOUT</u> 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
- "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

### **BARRICADES AND SIGNS** FOR **VARIOUS CLOSURES**

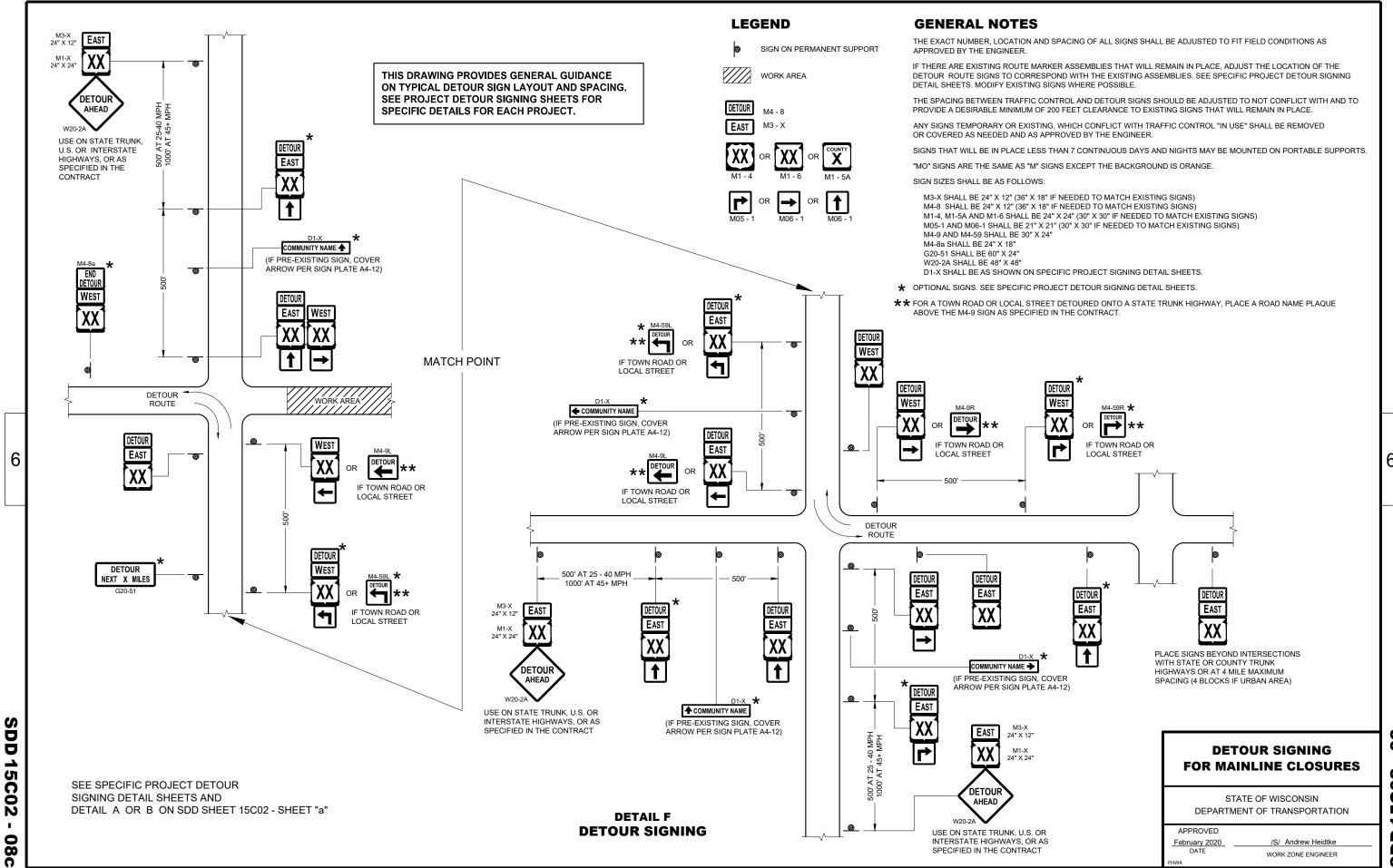
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APPROVED

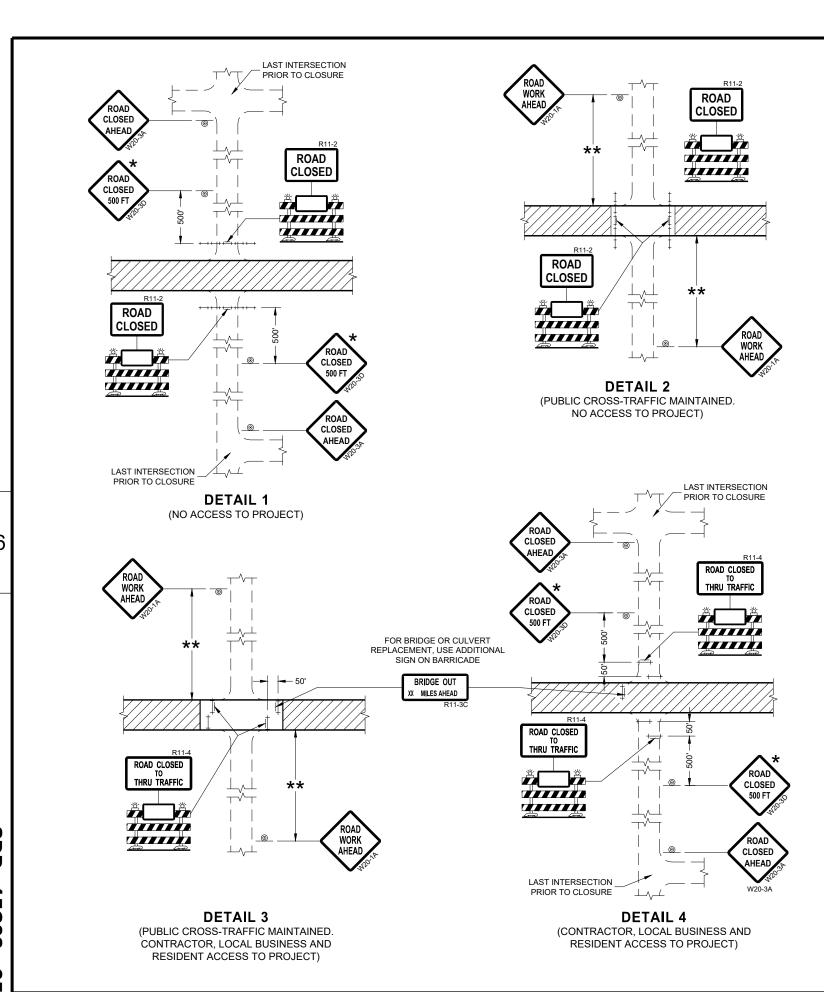
February 2020 DATE

WORK ZONE ENGINEER

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### **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.

 $\begin{tabular}{l} FA "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED. \\ \end{tabular}$ 

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

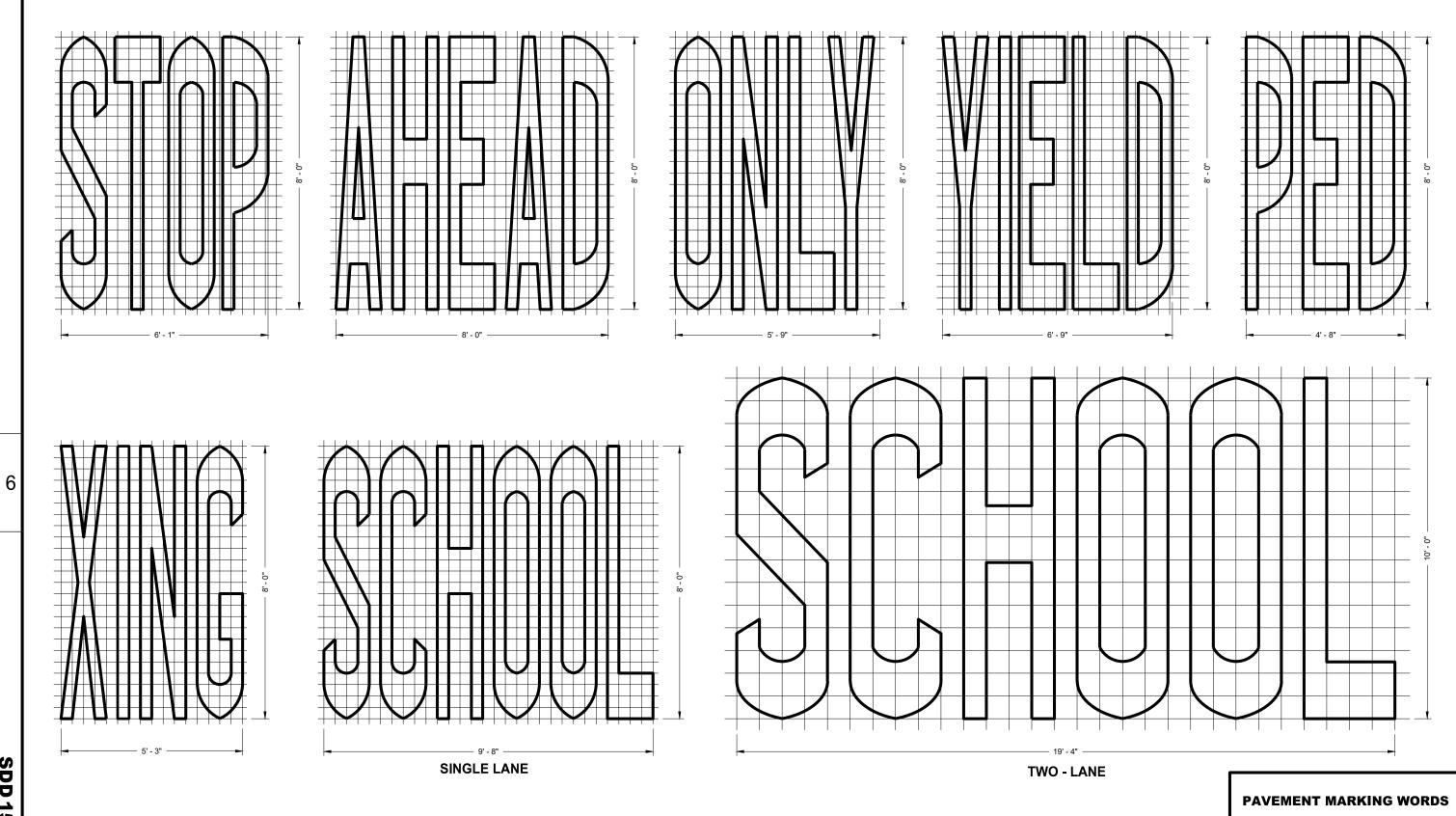
### BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

 APPROVED

 July 2018
 /S/ Andrew Heidtke

 DATE
 WORK ZONE ENGINEER



SDD 15C07 - 15b

### **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.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

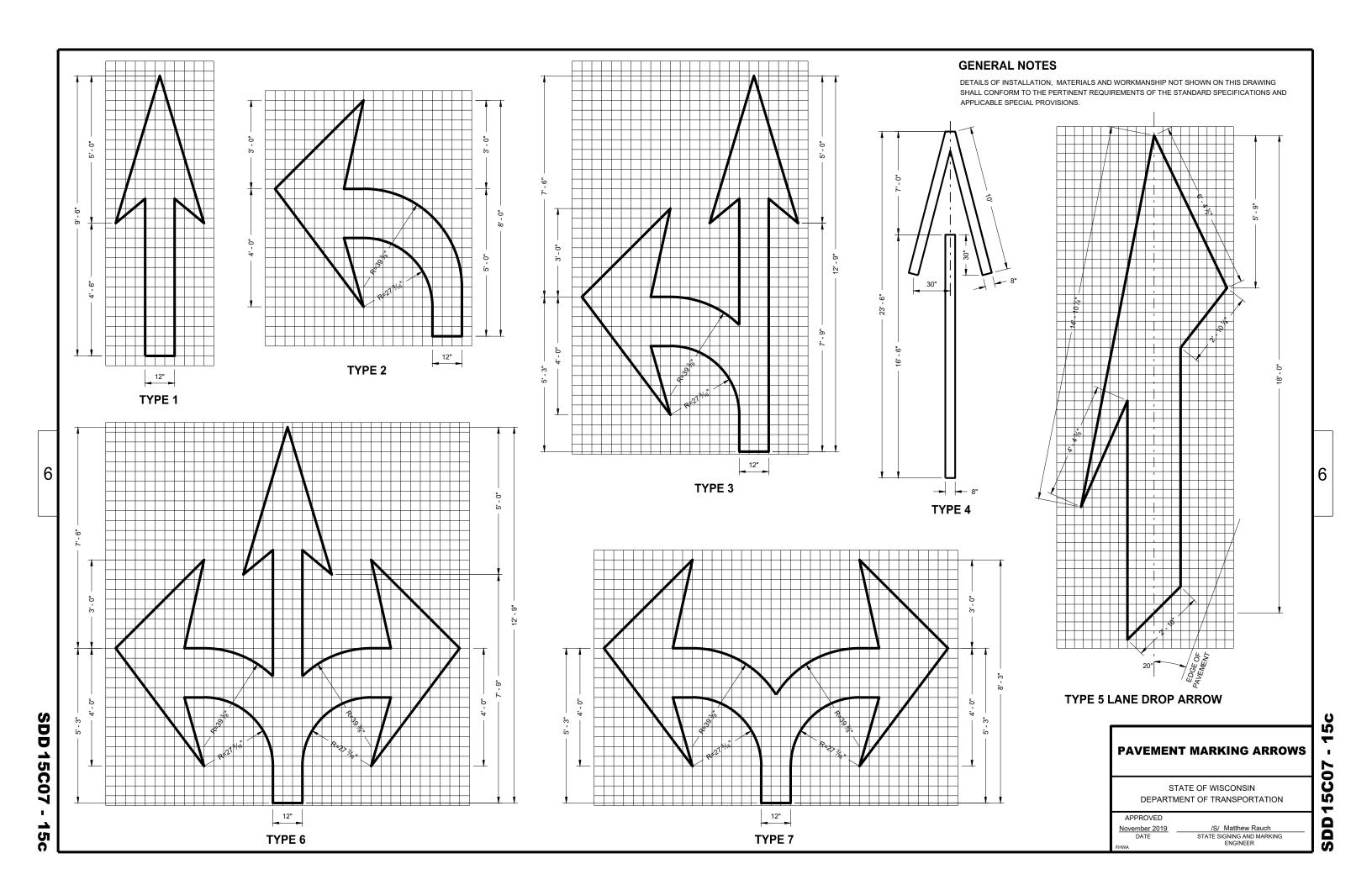
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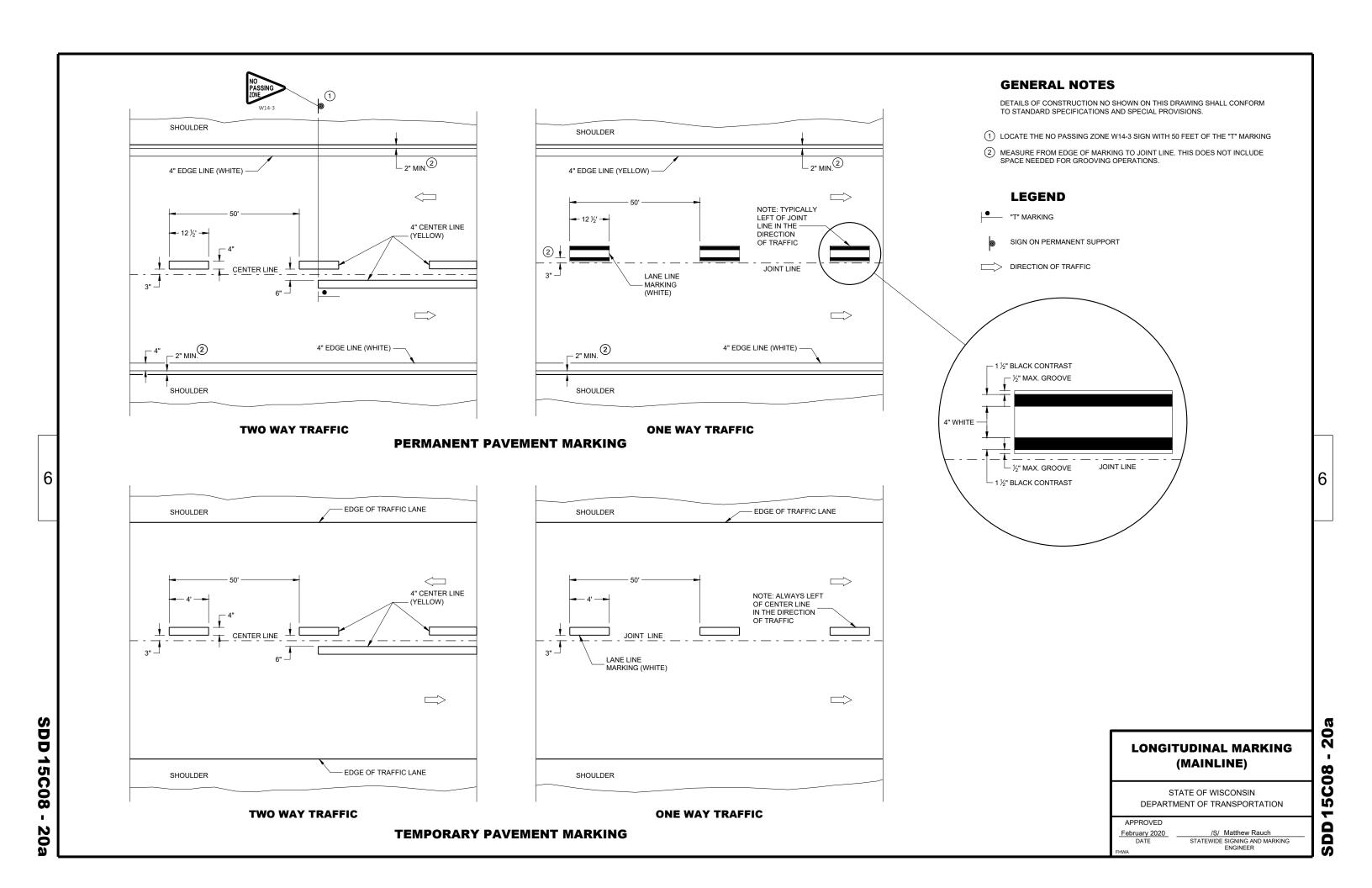
**5**b

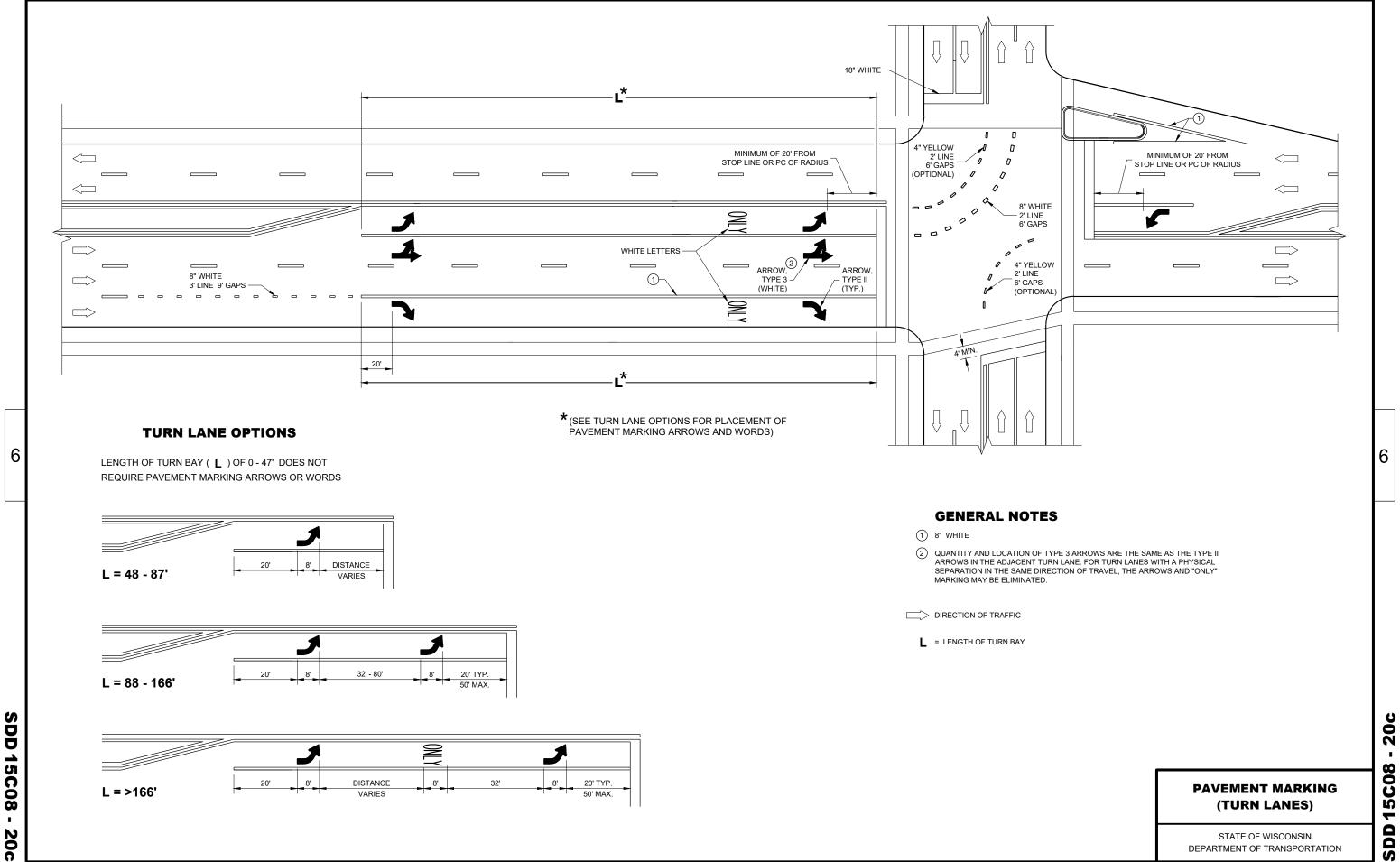
**SDD15C07** 

APPROVED

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



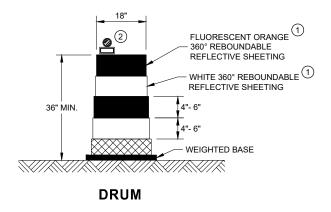


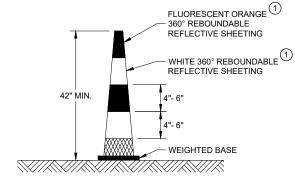


DEPARTMENT OF TRANSPORTATION

### **GENERAL NOTES**

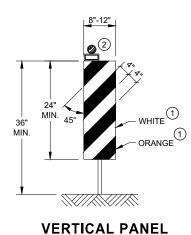
- (1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- (2) LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



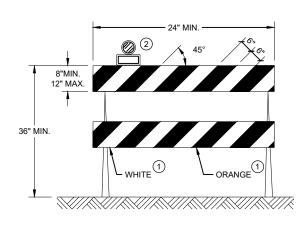


**42" CONE** DO NOT USE IN TAPERS

½ SPACING OF DRUMS

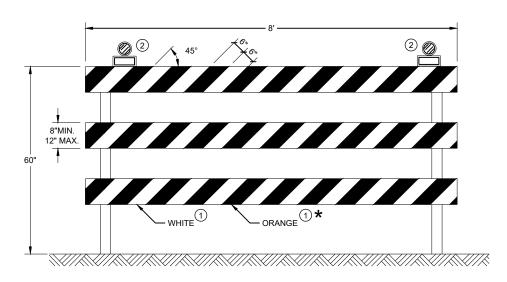


### THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



### **TYPE II BARRICADE**

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



### **TYPE III BARRICADE**

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

\* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

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

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SDD

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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

RUMBLE

STRIPS

ROAD

WORK

#### **GENERAL NOTES FLAGGING LEGEND** FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE SIGN ON PORTABLE OR PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PERMANENT SUPPORT PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING. UNIFORM TRAFFIC CONTROL DEVICES. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING TEMPORARY PORTABLE RUMBLE WORK OPERATION OR AS APPROVED BY THE ENGINEER. STRIP ARRAY "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE. SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND LOCATION OF ALL FLAGGERS SHALL BE DIRECTION OF TRAFFIC ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER. 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. THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP WORK AREA **TEMPORARY PORTABLE RUMBLE STRIPS** WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS. TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER. FLAGGER, EQUIPPED WITH STOP/SLOW EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S PADDLE FASTENED ON SUPPORT STAFF 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. **SIGN AND TEMPORARY RUMBLE** STRIP ARRAY SPACING TABLE 5' MIN BE SPEED LIMIT SPACING "A" USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, PREPARED THIS SIGN SHALL BE LOCATED BETWEEN THE 25-30 MPH TO STOP W20-7A AND W20-4A SIGNS, USING SPACING "A" 35-40 MPH STOP/SLOW PADDLE ŔUMBLĖ 45-55 MPH 500' WO3-4 WORK **ON SUPPORT STAFF** ROAD STRIPS 1 VARIABLE DISTANCE - 200' - 300' (TYP.) END ROAD WORK |||3 WORK AREA A/2 END ROAD WORK 200' - 300' (TYP.) VARIABLE DISTANCE

#### TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

LANE CLOSURE WITH **FLAGGING OPERATION** 

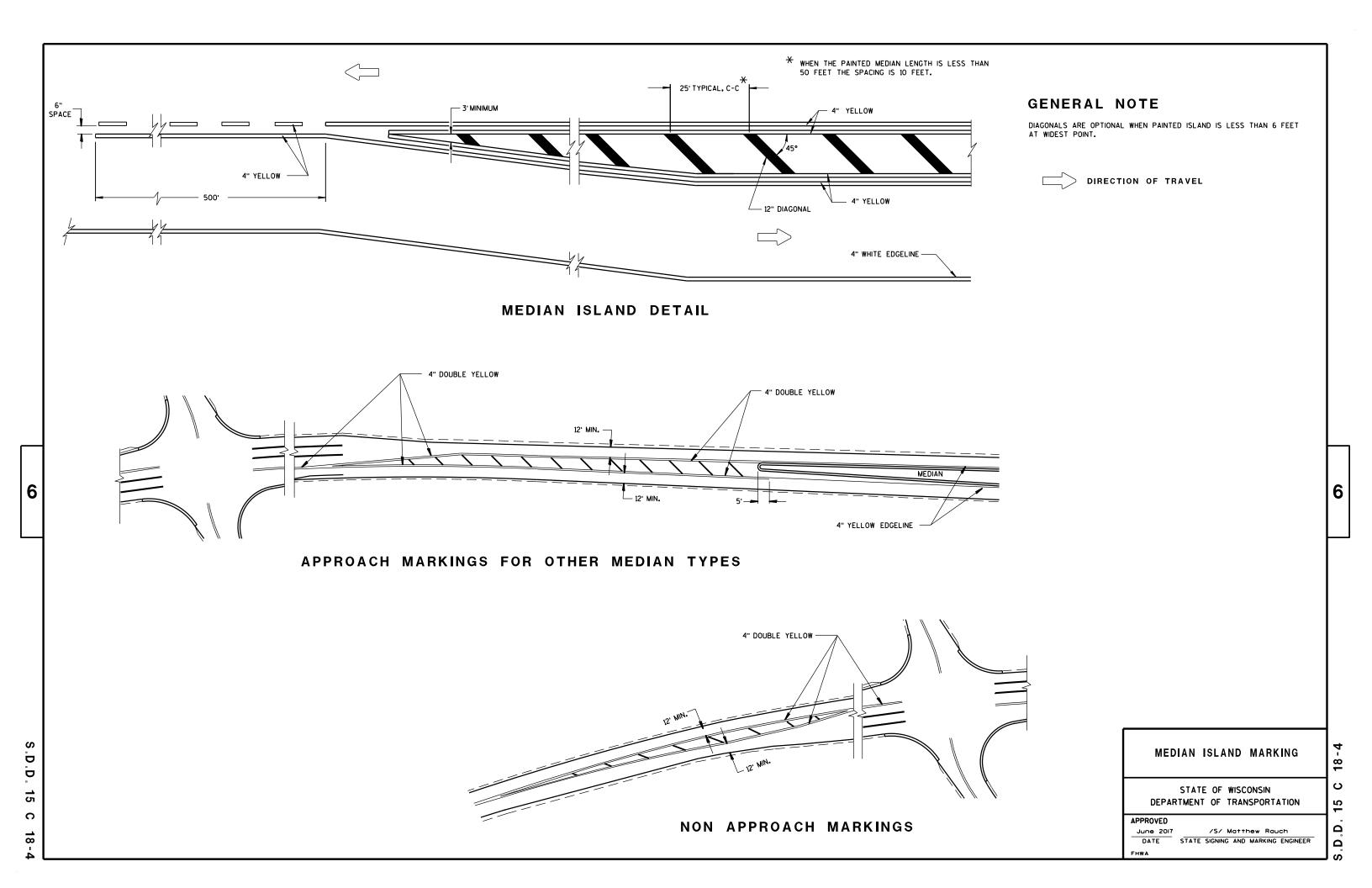
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TRAFFIC CONTROL FOR

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED May 2019 DATE WORK ZONE ENGINEER



3DD 15C19 - 06a

6

**LEFT TURN & MEDIAN ISLAND** 

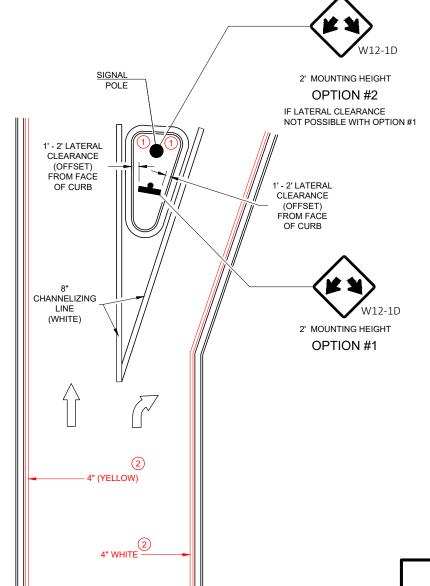
#### **GENERAL NOTES**

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

- 1) MARK CURB NOSES YELLOW.
- (2) MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL



RIGHT TURN ISLAND

# DOUBLE ARROW WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE

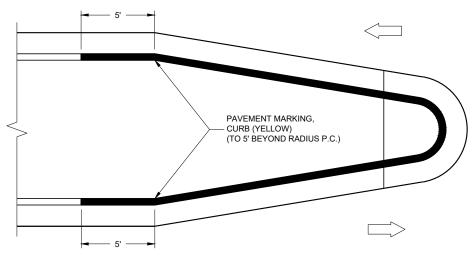
/S/ Matthew R. Rauch
STATE SIGNING AND MARKING
ENGINEER

6

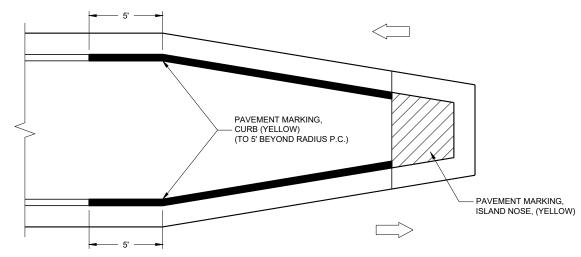
SDD 15C27 - 03

# CORRUGATED MEDIAN MARKING, (YELLOW) (TYPICAL) CORRUGATION IF PRESENT PAVEMENT MARKING, ISLAND NOSE, (YELLOW)

#### MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

# TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

#### **GENERAL NOTES**

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

CURB MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

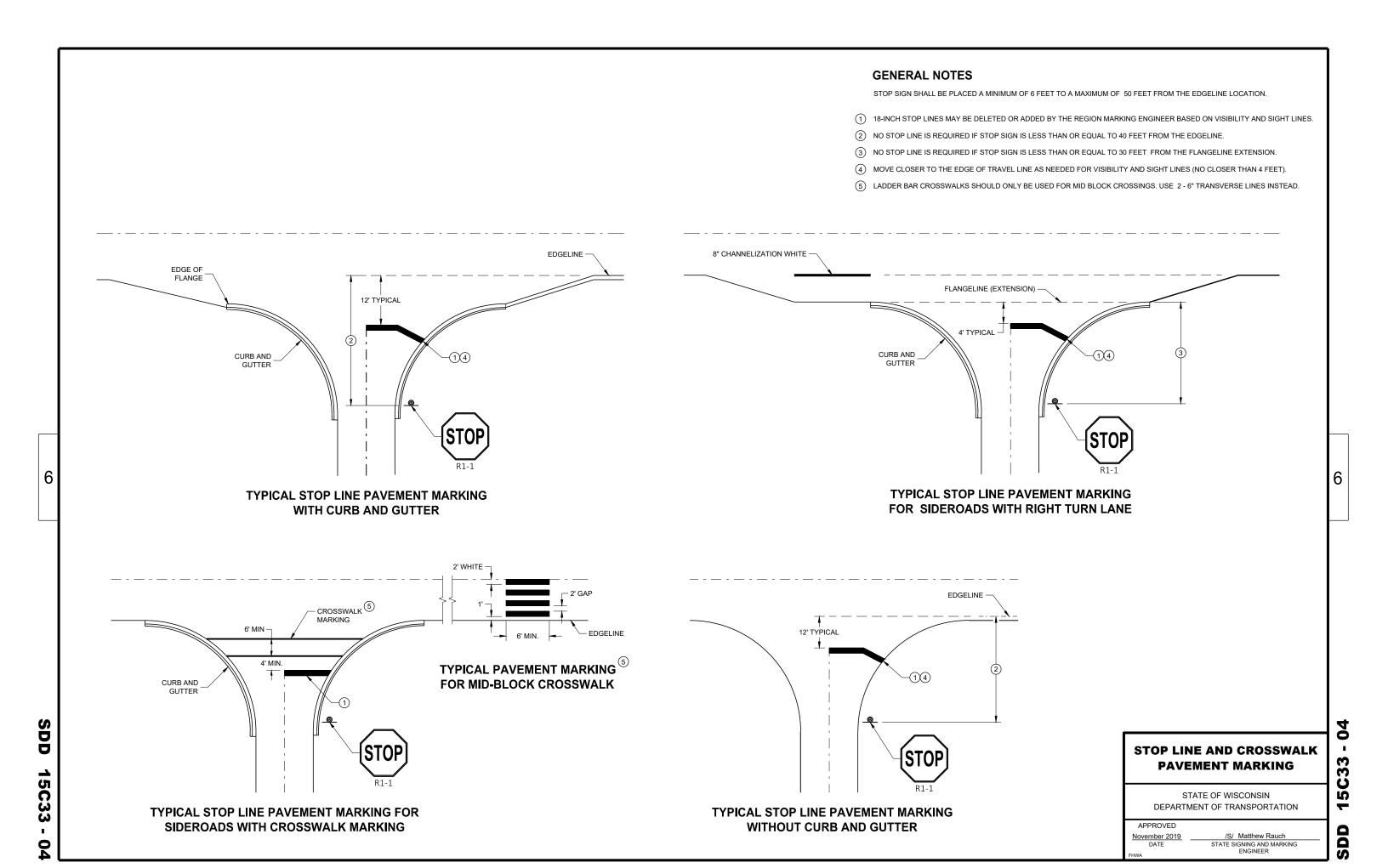
# PAVEMENT MARKINGS (ISLANDS)

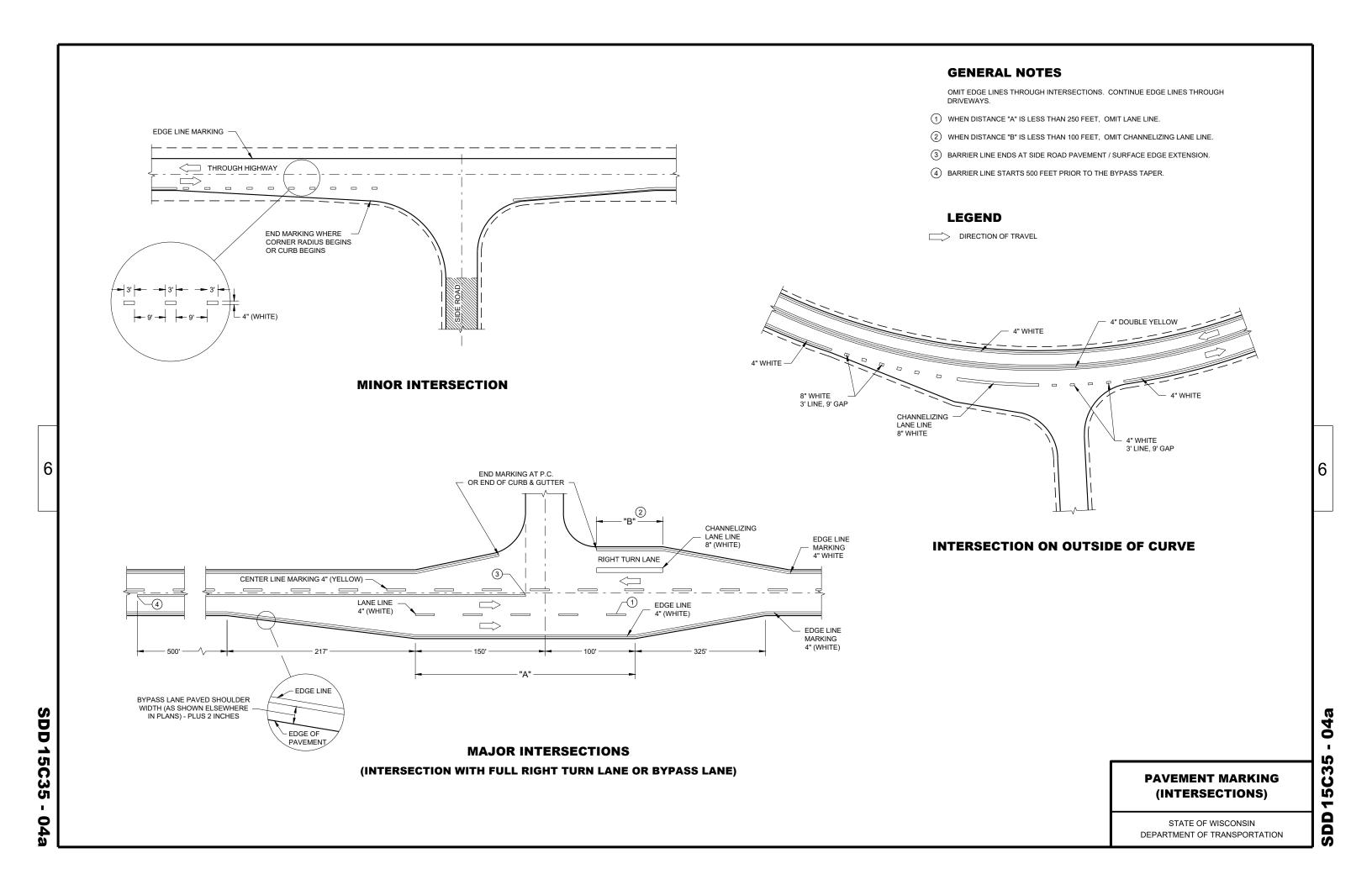
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**SDD 15C27** 

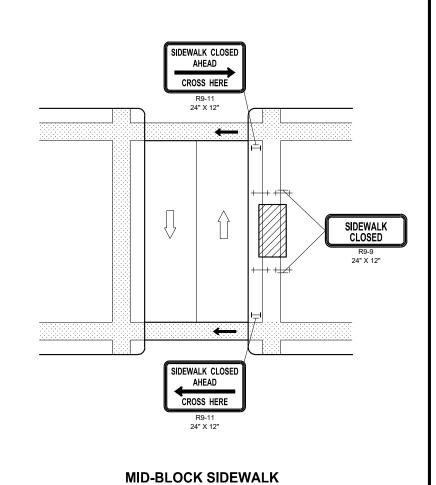
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

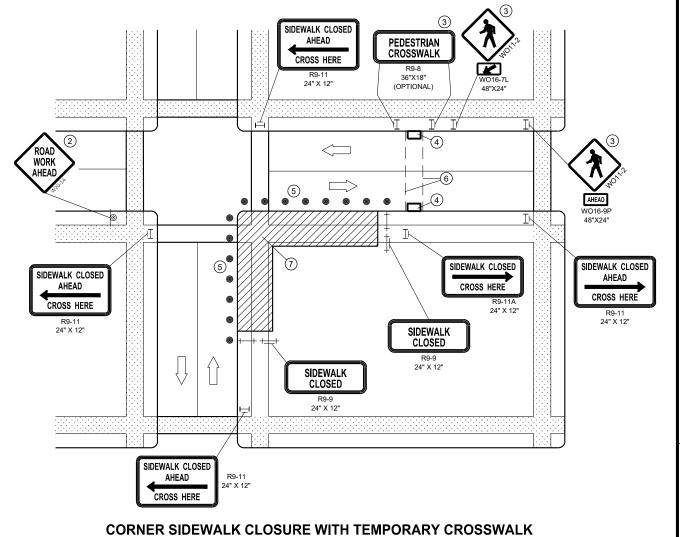
APPROVED	
7/2018	/S/ Matthew R. Rauch
DATE	STATE SIGNING AND MARKING
FHWA	ENGINEER





**6**2





#### **GENERAL NOTES**

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

**CLOSURE** 

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

"WO" SIGN IS THE SAME AS "W" SIGN, EXCEPT THE BACKGROUND IS ORANGE.

FOR NIGHTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEK LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

- 1 IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE
- (2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
- (3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK
- (4) TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b'.
- (5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- 6 TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- (7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

#### LEGEND

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)

TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)

[DOCUME] UNDER PEDESTRIAN TRAFFIC

WORK AREA

PEDESTRIAN CHANNELIZATION DEVICE

DIRECTION OF TRAFFIC

# TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

3DD 15D30 - 06a

4" WIDE EDGE MARKING (6)

#### TEMPORARY CURB RAMP PARALLEL TO CURB

CROSS SLOPE 2% MAX. (4)

PROTECTIVE EDGING 2" MIN. HEIGHT

WITH SIDE APRON

ABOVE RAMP SURFACE (2)

9 EDGE TREATMENT 9 EDGE TREATMENT PROTECTIVE EDGING 8 JOINT/GAP TREATMENT (8) JOINT/GAP TREATMENT 2" MIN. HEIGHT (2) CURB -FACE DRAINAGE CURB FACE (2) PROTECTIVE EDGING -2" MIN. HEIGHT ABOVE RAMP SURFACE 4" WIDE EDGE -4" WIDE EDGE -9 45° EDGE CUT -9 45° EDGE CUT -6 MARKING (6) MARKING 1 DETECTABLE -1 DETECTABLE WARNING FIELD WARNING FIELD

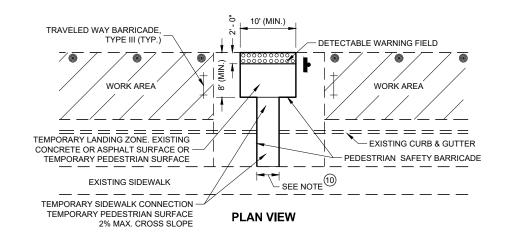
TEMPORARY CURB RAMP PERPENDICULAR TO CURB

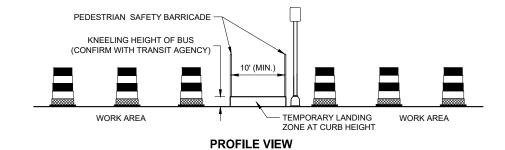
#### **GENERAL NOTES**

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

- (1) CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "6".
- (2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- (3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- (4) CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
- (5) CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- (6) THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
- 7) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- (8) LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.
- (9) CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES SHALL BE VERTICAL UP TO ¼" HIGH AND BEVELED AT 1:2 BETWEEN ¼" AND ½".
- (1) 5" WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.





#### **TEMPORARY BUS STOP PAD**

#### LEGEND



## TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 15D30 - 06k

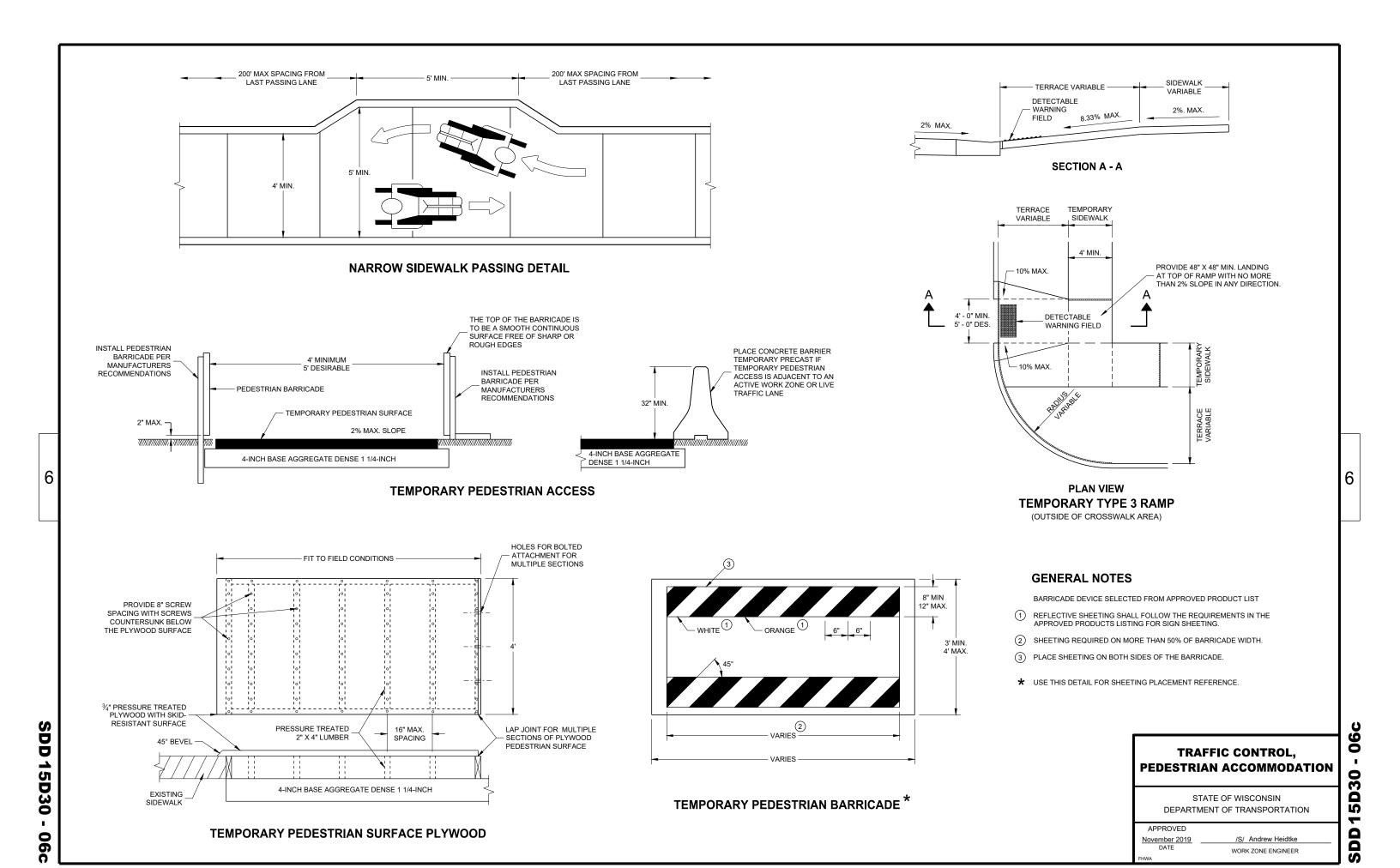
7 DRAINAGE

(5) CLEAR SPACE

(9) EDGE TREATMENT

WITH PROTECTIVE EDGE

SDD 15D30 - 06b





TUBULAR STEEL POSTS

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

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

#### URBAN AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST **EMBEDMENT DEPTH** 

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

4" X 6" WOOD POST

POST SPACING REQUIREM	MENTS	NUMBER OF						
L	E	WOOD POSTS REQUIRED						
48" OR LESS AND LESS THAN 20 SO.FT.	-	1						
LESS THAN 60"	12"	2	٤					
60" TO 120"	L/5	2						
GREATER THAN 120" LESS THAN 168"	12"	3						
168" AND GREATER	12"	4						

SEE NOTE (3)

RURAL AREA

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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- 11/2" DIAMETER HOLES

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DEPARTMENT OF TRANSPORTATION

/S/ Andrew Heidtke WORK ZONE ENGINEER

APPROVED

June 2017 DATE

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

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED

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.

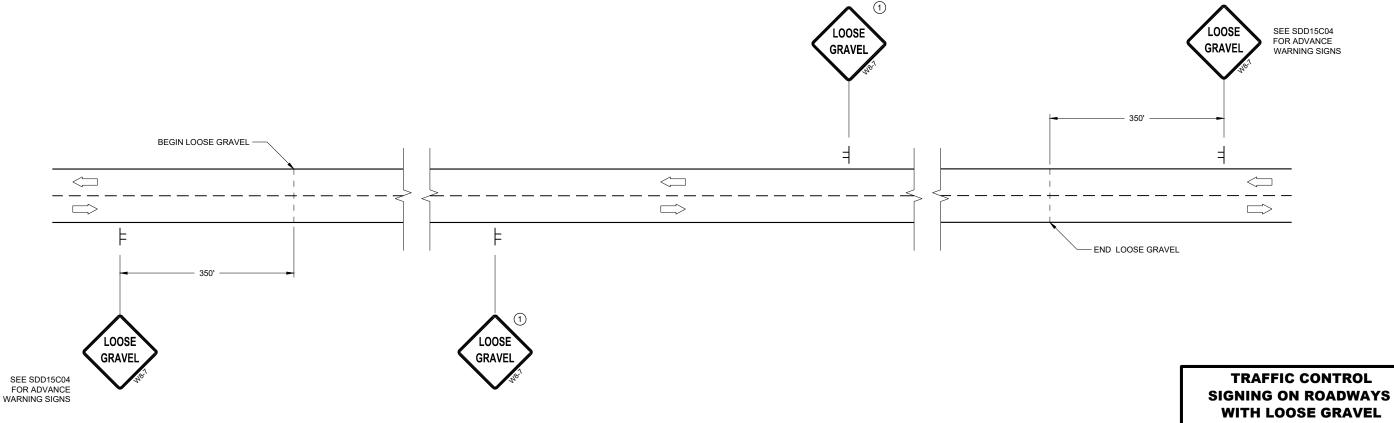
- (1) PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- (2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

#### **LEGEND**

- SIGN ON TEMPORARY SUPPORT
- □ DIRECTION OF TRAFFIC

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#### **TYPICAL SIDE ROAD APPROACH SIGN DETAIL**



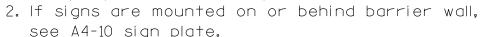
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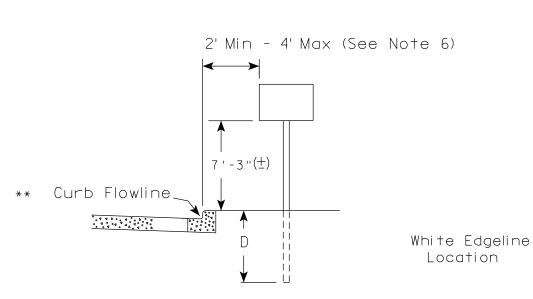
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

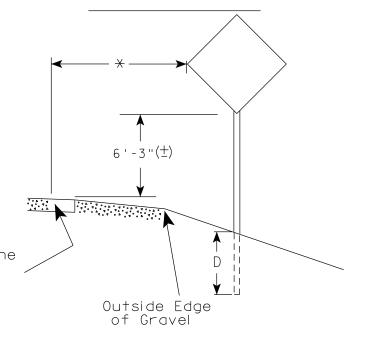
February 2020 DATE /S/ Andrew Heidtke WORK ZONE ENGINEER



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'' ( $\frac{+}{-}$ ).

- 3. For expressways and freeways, mounting height is  $7'-3''(\pm)$  or 6'-3'' ( $\pm$ ) depending upon existence of a sub-sign.
- 4. Minimum mounting height for signs mounted on traffic signal poles is  $5' - 3'' \stackrel{(\pm)}{-}$ .
- 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'' ( $\pm$ ) or as directd by the Engineer.





2' Min - 4' Max (See Note 6) 6'-3"(±) \*\* Curb Flowline D

5'-3"(士) White Edgeline  $D \parallel$ Location Outside Edge of Gravel

\*\* 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.

HWY:

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED For State Traffic Engineer

DATE 5/13/2020 

SHEET NO:

Ε

PROJECT NO: FILE NAME : C:\CAEfiles\Projects\tr\_stdplate\A43.dgn COUNTY:

PLOT BY: mscj9h

PLOT NAME :

PLOT SCALE: \$\$.....plo†scale.....\$\$ WISDOT/CADDS SHEET 42

PLOT DATE: 13-MAY 2020 1:04



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



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

HWY:



#### PLAN VIEW

COUNTY:

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

For State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

SHEET NO:

FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\A43B.DGN

PROJECT NO:

PLOT DATE: 27-JAN-2014 09:48

PLOT NAME :

PLOT BY: mscsja

PLOT SCALE: 13.659812:1.000000

APPROVED

WISDOT/CADDS SHEET 42

#### 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'' ( $\pm$ ) 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'' (±).
- \* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.
- \*\* The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.
- \*\* See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

# POST EMBEDMENT DEPTH

D
(Min)
4'
5'

WISCONSIN DEPT OF TRANSPORTATION APPROVED For State Traffic Engineer DATE 8/21/17 PLATE NO. <u>A4-4.15</u>





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

HWY:

SIGN SHAPE OTHER THAN (THREE POSTS REQUIR	
L	E
Greater than 108" to 144"	12''

COUNTY:

FILE NAME : C:\CAEfiles\Projects\tr\_stdplate\A44.DGN

PROJECT NO:

PLOT DATE: 21-AUG-2017 15:54

PLOT SCALE: 108.188297:1.000000

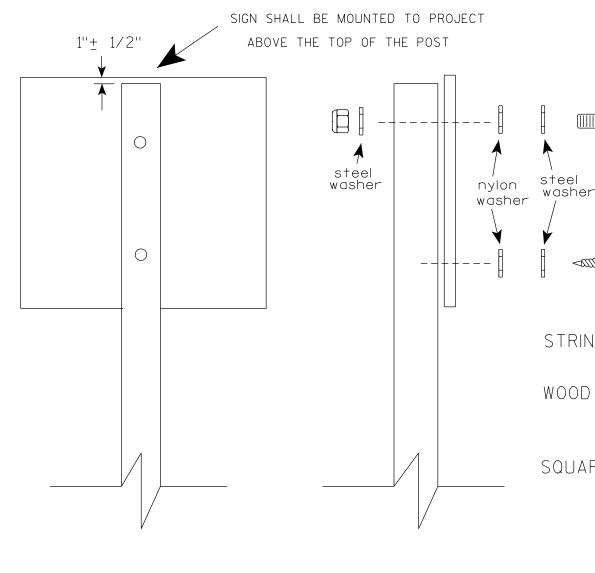
WISDOT/CADDS SHEET 42

OF TYPE II SIGNS ON MULTIPLE POSTS

TYPICAL INSTALLATION

SHEET NO:

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



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 -  $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts

WOOD POSTS  $(4'' \times 6'')$ 

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 - 3/32 " (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  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ " STEEL 1-1/4" O.D. X  $\frac{3}{8}$ " 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

APPROVED

DATE 4/1/2020

PLATE NO. <u>A4-8.9</u>

FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\A48.DGN

PROJECT NO:

PLOT DATE: 01-APRIL-2020

PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

Ε

WISCONSIN DEPT OF TRANSPORTATION

Matther ≠or State Traffic Engineer

SHEET NO:



PROJECT NO: HWY: COUNTY: SHEET NO: FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\A49.DGN PLOT DATE: 05-FEB-2015 17:09 PLOT BY: mscsja PLOT NAME : PLOT SCALE: 13.659812:1.000000

DATE 2/05/15

PLATE NO. <u>A4-9.9</u>

For State Traffic Engineer



### BANDING



SINGLE SIGN





# WASHER PLACEMENT



HWY:

WASHERS (ALL POSTS) -

1-1/4" O.D. X<sup>3</sup>/<sub>8</sub>" I.D. X<sup>1</sup>/<sub>16</sub>" STEEL 1-1/4" O.D.  $\times \frac{3}{8}$ " I.D.  $\times$  .080 NYLON FOR ALL TYPE H SIGNS

CHANNEL

#### 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  $\frac{3}{4}$ " 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



STANDARD SIGN SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

SHEET NO:

APPROVED

DATE 6/10/19

PLATE NO. A5-9.4

Ε

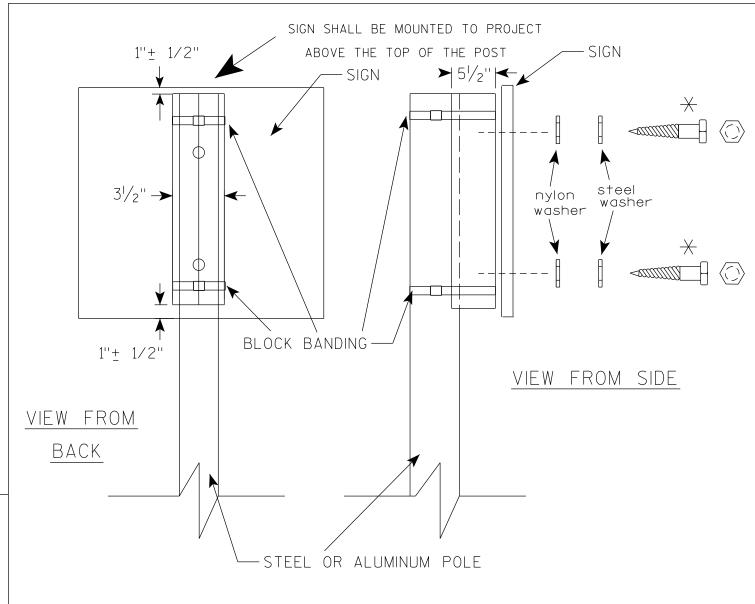
State Traffic Engineer

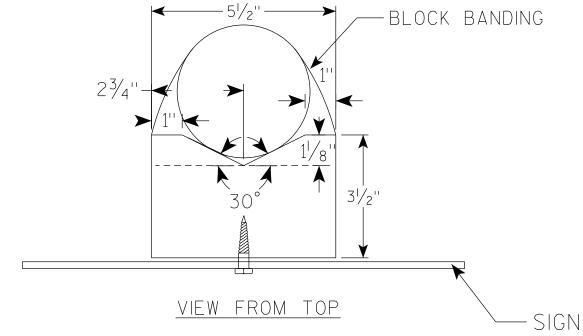
COUNTY:

PLOT NAME :

PLOT SCALE: \$\$.....plotscale.....\$\$ WISDOT/CADDS SHEET 42

PROJECT NO:





#### 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,  $\frac{3}{4}$ " 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 NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
- 5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
  - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
  - b. Electro-galvanized in accordance with ASTM Designation: B 633, TYPE III, SC 3
- 6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
- 7. STEEL WASHERS SHALL BE  $1\frac{1}{4}$ " O.D. X  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ "
- 8. NYLON WASHERS SHALL BE  $1^{1}/_{4}$ " O.D. X  $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

 $\rightarrow$  LAG BOLTS SHALL BE  $\frac{3}{8}$ " X  $2\frac{1}{2}$ "

BLOCK BANDING DETAIL ( V-BLOCK OPTION )

WISCONSIN DEPT OF TRANSPORTATION

Matthew R

APPROVED

For State Traffic Engineer

SHEET NO:

DATE <u>6/10/19</u>

PLATE NO. <u>A5-10.2</u>

PROJECT NO:

FILE NAME : C:\CAEfiles\Projects\tr\_stdplate\A510.dgn

PLOT DATE: 10-JUN 2019 4:15

PLOT BY : mscj9h

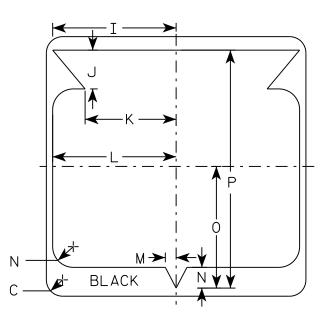
WISDOT/CADDS SHEET 42

- 1. Sign is Type II Type H Reflective
- 2. Color:

Background - White Message - Black

- 3. Message Series D except 3 number signs Series C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

	G F A H H
A A	<b></b>
M1-6	1



SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	Х	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 1/8	11 1/2	1	1 1/8	11 1/4	21 1/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15	5	12 5/8	17 1/8	1 1/2	2 1/8	16 1/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15	5	12 5/8	17 1/8	1 1/2	2 1/8	16 1/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 ¾	5	12 5/8	17 1/8	1 1/2	2 1/8	16 1/8	33											9.0

COUNTY:

STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*for* State Traffic Engineer

DATE 3/16/18

PLATE NO. <u>M1-6.10</u>

SHEET NO:

FILE NAME : C:\CAEfiles\Projects\tr\_stdplate\M16.DGN

HWY:

PROJECT NO:

PLOT DATE: 16-MAR-2018 14:11

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

PLOT SCALE : 6.655277:1.000000

WISDOT/CADDS SHEET 42

- 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.

	G
	F B G G G G G G G G G G G G G G G G G G
A M4 - 8	<b>Y</b>

Α С E F G H I J S Х Z D 0 10 10 1/4 1 1/8 3/8 3/8 24 2.0 3 36 1 1/8 3/8 1/2 4 1/2 14 5/8 14 1/2 4.5 4 5

COUNTY:

STANDARD SIGN M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

For State Traffic Engineer

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

SHEET NO:

PROJECT NO:

HWY:

PLOT NAME :

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.

 $D \longrightarrow$ Н M4-8A

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	0	R	S	Т	U	٧	w	Х	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 ¾																	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																											

COUNTY:

STANDARD SIGN M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matther For State Traffic Engineer

SHEET NO:

DATE 3/9/11

PLATE NO. M4-8A.2

PLOT SCALE: 3.972696:1.000000

WISDOT/CADDS SHEET 42

FILE NAME : C:\Users\PROJECTS\tr\_stdplate\M48A.DGN

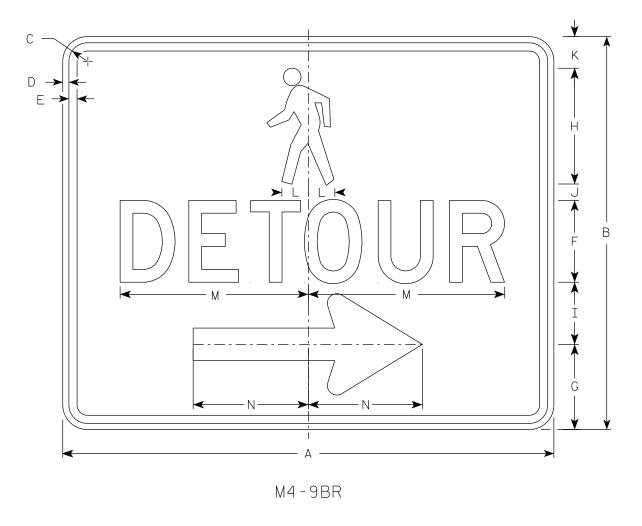
HWY:

PROJECT NO:

PLOT DATE: 09-MAR-2011 10:29

PLOT BY: mscj9h

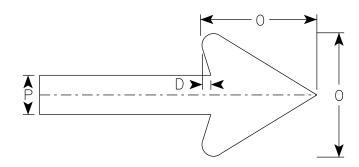
PLOT NAME :



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

Background - Orange Message - Black

- 3. Message Series D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. M4-9BL is the same as M4-9BR except the arrow is reversed.



Arrow Detail

SIZE	А	В	С	D	Е	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	Х	Υ	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.00
3																											
4																											
5					·																						

STANDARD SIGN M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED M

For State Traffic Engineer

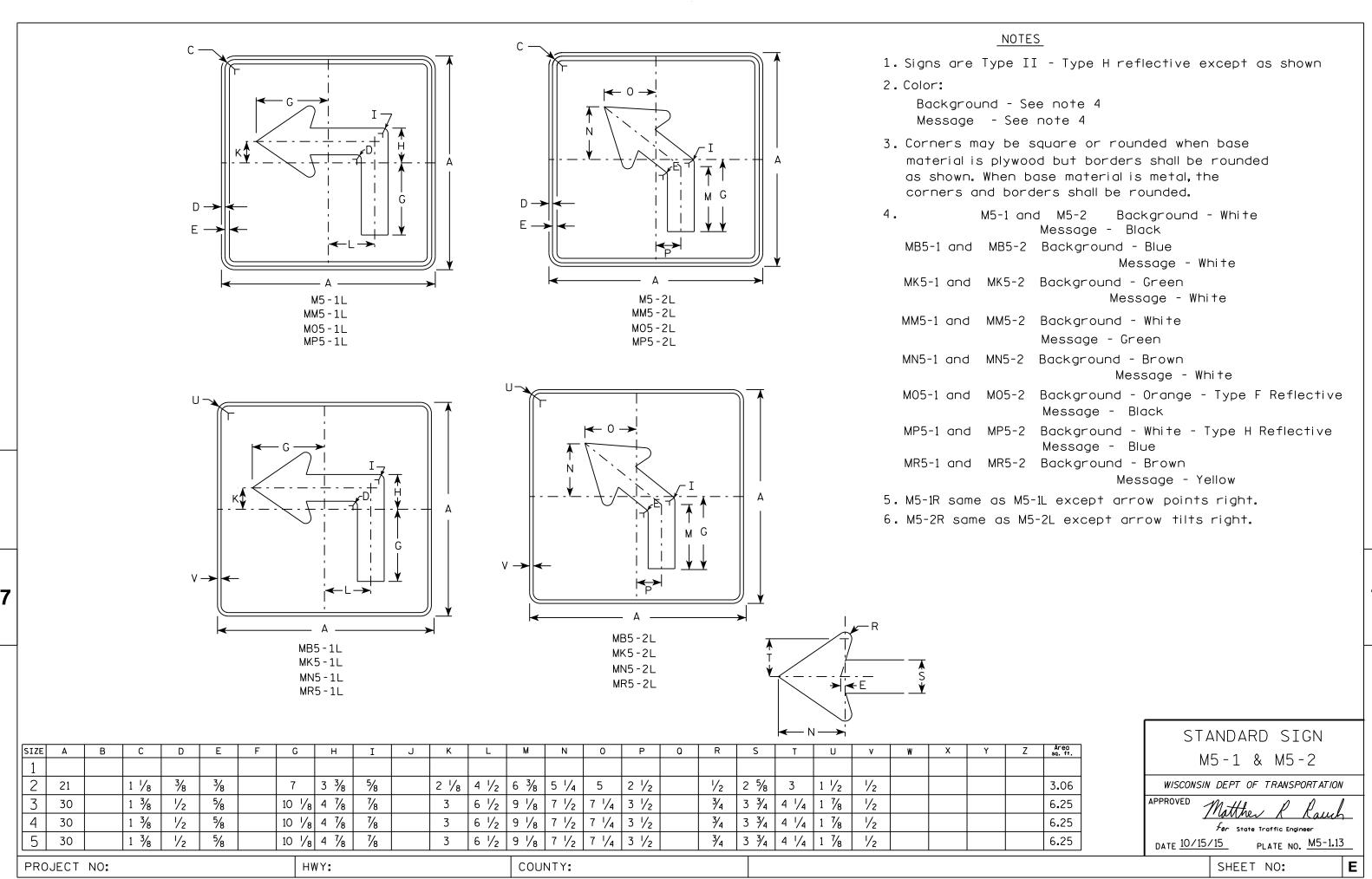
DATE 7/1/19 PLATE NO. M4-9B.2

SHEET NO:

PROJECT NO: HWY: COUNTY:

PLOT NAME :

PLOT SCALE: \$\$.....plotscale.....\$\$ WISDOT/CADDS SHEET 42



FILE NAME . C.\CAFfiles\Projects\tr stdolote\M51 DCN

PLOT DATE . 01-DEC-2015 18:07

PINT RY . \$\$ DIOTUSET \$\$ PINT NAMF :

PLOT SCALE . 11 675051.1 000000







MR6-1

HWY:



#### NOTES

- 1. Signs are Type II Type H except as Shown
- 2. Color:

Background - See note 4 Message - See note 4

- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. M6-1 and M6-2 Background White

Message - Black

MB6-1 and MB6-2 Background - Blue

Message - White

MK6-1 and MK6-2 Background - Green

Message - White

MM6-1 and MM6-2 Background - White

Message - Green

MN6-1 and MN6-2 Background - Brown

Message - White

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



SIZE	: Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	٥	R	S	T	U	٧	W	Х	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3%		7 1/2	7 1/8	5 %	5	4 1/4	5 1/4	3	2 %	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5%		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 1/8	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 1/8	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 1/8	1/2					6.25

COUNTY:

STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew & Rawl For State Traffic Engineer

Ε

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

SHEET NO:

FILE NAME · C·\CAFfiles\Projects\tr stdplote\M61 DCN

PROJECT NO:

PLOT DATE . 01-DEC-2015 17:57

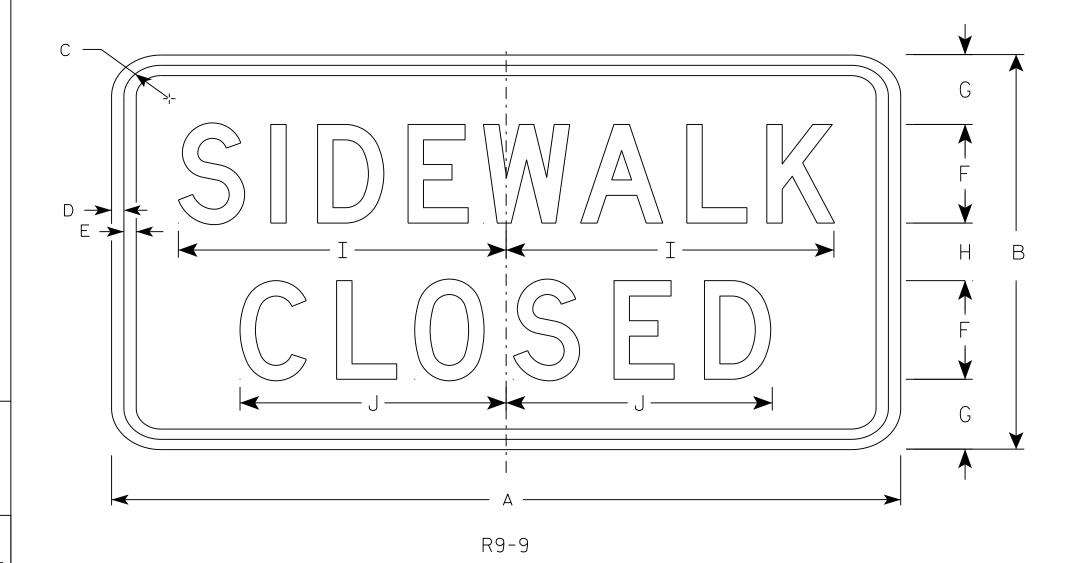
PIOT RY . \$\$ plotuser \$\$ PIOT NAMF :

PLOT SCALE . 11 675051.1 000000

- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - White Message - Black

- 3. Message Series C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.



SIZE A 2S 24 1 3/4 1/2 2 1/8 1 3/4 10 1/2 12 3 8 1/8 2.0 24 1 3/4 1/2 2 1/8 1 3/4 8 1/8 12 10 2.0 1 3/4 3 1/2 30 18 1/2 1/2 3 | 12 1/2 | 10 1/4 3.75

COUNTY:

STANDARD SIGN R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Marther R Ray

DATE <u>8/11/16</u>

SHEET NO: R9-9.6

Ε

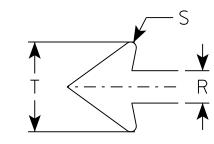
HWY:

PROJECT NO:

- 1. Sign is Type II Type H Reflective
- 2. Color:

Background - White Message - Black

- 3. Message Series C except Size 1 is Series D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.



R9-11

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	O	R	S	Т	U	V	W	Х	Υ	Z	Area sq. ft.
1																											
25	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 %	3 1/2	9 1/4	6 %	5 1/8		1	1/8	2 3/4							2.0
2M	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 %	3 1/2	9 1/4	6 %	5 1/8		1	1/8	2 3/4							2.0
3	30	15	1 1/8	3/8	1/2	2	1 1/2	1 1/2	13	3/4	2	10 1/4	4 5/8	12 3/8	8 1/8	6 1/8		1 1/4	1/4	3 %							3.125
4																											
5																											

COUNTY:

STANDARD SIGN R9-11

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

For 3

PLATE NO. R9-11.3

SHEET NO:

FILE NAME : C:\CAEfiles\Projects\tr\_stdplate\R911.DGN

HWY:

PROJECT NO:

 $D \rightarrow$ 

PLOT DATE: 01-DEC-2016 11:45

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

PLOT SCALE: 5.927195:1.000000

WISDOT/CADDS SHEET 42



- 1. Sign is Type II Type H Reflective
- 2. Color:

G

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.

HWY:

R11-3B

\*\* See Note 5

 $D \rightarrow$ 

E→

STANDARD SIGN R11-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

PLATE NO. R11-3B.3

SHEET NO:

SIZE A В С D 1 3/8 5/8 10 3/4 8 3/8 4 3/4 6 1/2 36 18 1/2 4 3 2 1/2 2 2 13 1/4 2 1/4 3 1 1/2 2 2 6 3/4 7 1/8 4.5 60 30 1 3/8 1/2 4 1/4 3 3/8 20 1/8 13 1/4 1 3/4 17 3/8 13 1/8 3 1/2 12.5 5 10 11 1/8 2M 4 1/4 3 3/8 20 1/8 13 1/4 1 3/4 3 1/2 11 1/8 30 17 3/8 13 1/8 12.5 4 5

COUNTY:

FILE NAME : C:\CAEfiles\Projects\tr\_stdplate\R113B.DGN

PROJECT NO:

PLOT DATE: 21-MAR-2017 08:46

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

PLOT SCALE: 6.896672:1.000000

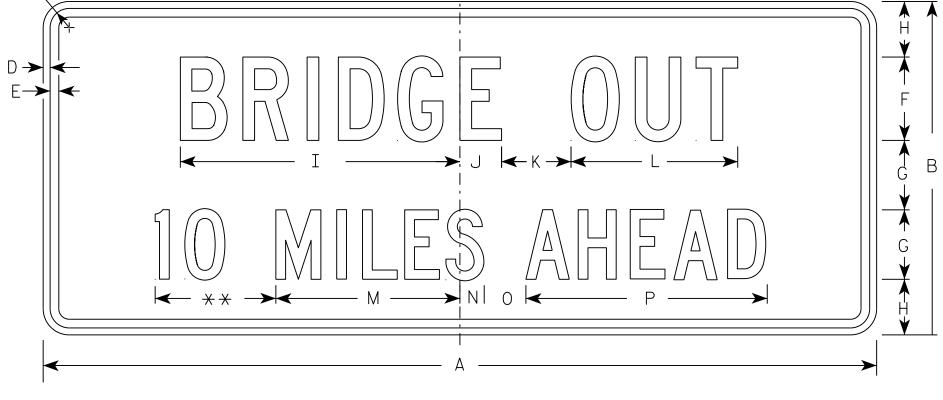
WISDOT/CADDS SHEET 42



- 1. Sign is Type II Type H Reflective
- 2. Color:

Background - White Message - Black

- 3. Message Series C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3C

\*\* See Note 5

1/4 MILF AH

SIZE	Α	В	С	D	E	F	G	Н	I	٦	K	L	М	N	0	Р	Q	R	S	Т	C	٧	W	Х	Υ	Z	Area sq. ft.
1	36	15	1 3/8	1/2	5/8	4	3	2 1/2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 ¾		7 1/8									3.75
2S	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 1/8									10.0
2M	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 1/8									10.0
3																											
4																											
5																											

STANDARD SIGN R11-3C

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matther R Rauch
For State Traffic Engineer

DATE <u>7/28/16</u>

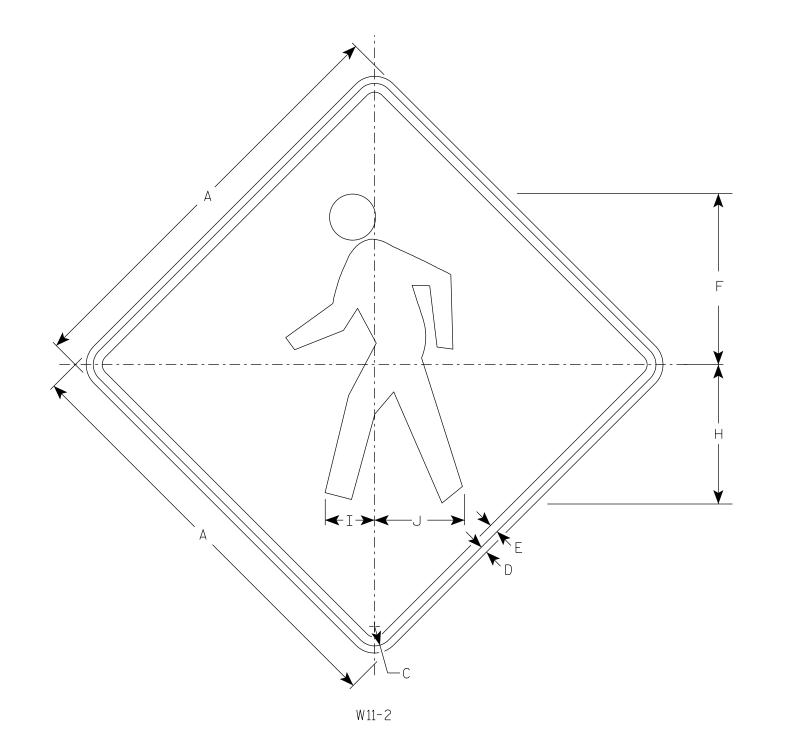
PLATE NO. R11-3C.3

SHEET NO:

PROJECT NO:

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

Background - Yellow Message - Black



SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	X	Υ	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 1/8	2 1/8	5 1/8																	4.0
25	30		1 3/8	1/2	5/8	12 1/8		9 1/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 1/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 1/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 ¾	5 %	10 1/4																	16.0
5																											

COUNTY:

STANDARD SIGN

W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R

For State Traffic Engineer

DATE 4/8/2020

PLATE NO. <u>W11-2.8</u>

SHEET NO:

FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\W112.DGN

PROJECT NO:

HWY:

PLOT DATE: 08-APRIL-2020

PLOT BY : dotc4c

PLOT NAME :

PLOT SCALE :

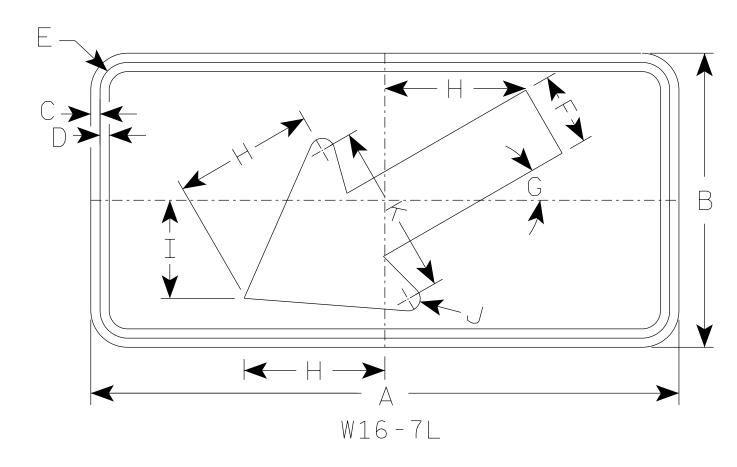
WISDOT/CADDS SHEET 42

ı

2. Color:

Background - Yellow Message - Black

3. W16-7R is the same as W16-7L except the arrow is reversed along the vertical centerline.



For 36" x 36" Warning Signs, use 30" x 18" W16-7L signs.
For 48" x 48" Warning Signs, use 48" x 24" W16-7L signs.

S	IZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	Ν	0	Р	Q	R	S	Т	U	V	W	Х	Y	Z	area sq. ft.
	1																											
,	25	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
× 2	2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
	3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
<del>*</del>	4	48	24	1/2	5/8	1 3/8	6	30°	11 1/2	8	1	14																8.0
	5																											

COUNTY:

STANDARD SIGN W16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthe For State Traffic Engineer

DATE 2/25/2020 PLATE NO. W16-7.7

SHEET NO:

FILE NAME: C:\CAEfiles\Projects\tr\_stdplate\W167.dgn

HWY:

PROJECT NO:

PLOT DATE: 25-FEB-2020 3:37

PLOT BY : dotc4c

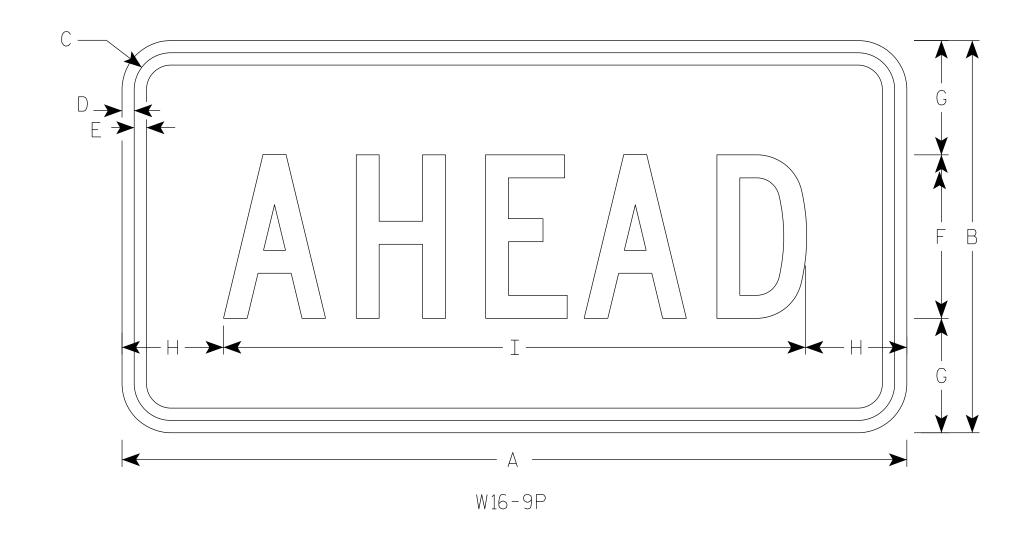
PLOT NAME :

PLOT SCALE: \$\$.....plo†scale.....\$\$ WISDOT/CADDS SHEET 42

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

Background - Yellow Message - Black

3. Message Series - C



SIZE	Α	В	С	D	E	F	G	Н	I	J	К	L	М	N	0	Р	Q	R	S	Т	U	٧	W	Х	Y	Z	Area sq. ft.
1																											
25	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 ¾																		8.0
5																											

COUNTY:

STANDARD SIGN W16-9P

WISCONSIN DEPT OF TRANSPORTATION

SHEET NO:

APPROVED

Matthew & Rawh

Fostate Troffic Engineer

DATE 3/7/19

PLATE NO. <u>W16-9P.7</u>

Ε

FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\W169P.DGN

PROJECT NO:

HWY:

PLOT DATE : 07-MAR-2019

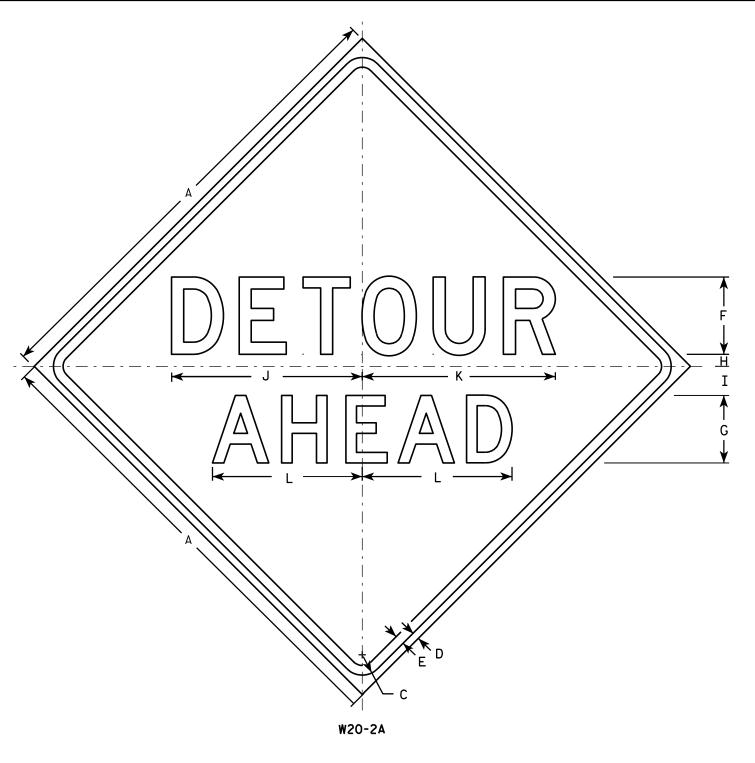
PLOT BY : dotc4c

PLOT NAME :

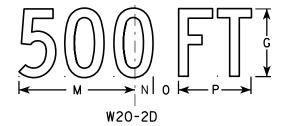
PLOT SCALE: \$\$.....plotscale.....\$\$ WISDOT/CADDS SHEET 42

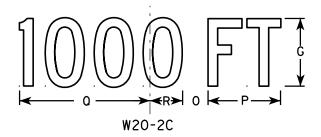
1

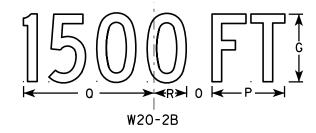
.

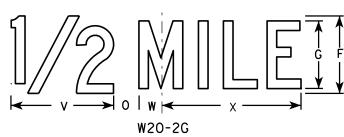


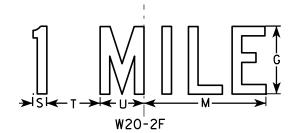
HWY:











PLOT BY: mscj9h

#### <u>NOTES</u>

- 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.

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	0	R	S	T	U	٧	W	X	Y	Z	Area sq. ft.
1	36		1 1/8	5/8	₹4	6	5	1	2 1/4	14 3/4	15	11 %	9	1 3/8	1 %	5 %	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 ¾	20	15 1/2	12	1 1/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 %	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 ¾	20	15 1/2	12	1 1/8	2 %	7 1/2	13 1/2	3 %	1 1/2	6	4 %	10 %	2 3/8	14 3/8			16.0
3	48		2 1/4	3∕4	1	8	7	1 1/4	3	19 ¾	20	15 1/2	12	1 1/8	2 %	7 1/2	13 1/2	3 %	1 1/2	6	4 %	10 %	2 3/8	14 3/8			16.0
4	48		2 1/4	¾	1	8	7	1 1/4	3	19 ¾	20	15 1/2	12	1 1/8	2 %	7 1/2	13 1/2	3 %	1 1/2	6	4 %	10 %	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 ¾	20	15 1/2	12	1 1/8	2 %	7 1/2	13 1/2	3 3/8	1 1/2	6	4 %	10 %	2 3/8	14 3/8			16.0

COUNTY:

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

WISCONSIN DEPT OF TRANSPORTATION

For State Traffic Engineer

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

SHEET NO:

PROJECT NO:

GENERAL PLAN

& ELEVATION

AECOM PROJECT NO. 60583549

ures\Dgns\B-47-21\01\_genplan1\_b-47-21.dgn BATCH PRINT SHEET ER DRIVER: C:\MP\CLIENT\AMER-USA-WI-WisDOT\dev\WisDOTBerdgeVerA\Plotdev\AE\_PDF\_II × 17.plt TABLE: C:\MP\CLIENT\AMER-USA-WI-WisDOT\dev\WisDOTBerdgeVerA\Pen Tables\AE\_WisDOT\_Structure.tbl PRIN.

8

GPS, WISCRS 83/11, NAVD 88 HR=6.91 CALIBRATE TO RIVER FALLS GPS (RF)

SURFACE PROTECTION DETAIL

47-21\02\_

AMER-USA-WI-WisDOT\dev\WisDOTBridgeVerA` -USA-WI-WisDOT\dev\WisDOTBridgeVerA\Pen

8

	BID ITEM NUMBER	BID ITEM	UNIT	WEST ABUTMENT	PIER	EAST ABUTMENT	SUPER.	TOTALS
	203.0210.5	ABATEMENT OF ASBESTOS CONTAINING MATERIAL STRUCTURE B-47-21	LS					1
	203.0700.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH DEBRIS CAPTURE SYSTEM STA. 479+62	LS					1
	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-47-21	LS					1
	502.0100	CONCRETE MASONRY BRIDGES	CY				72	72
ł	502.3200	PROTECTIVE SURFACE TREATMENT	SY				300	300
	502.3210	PIGMENTED SURFACE SEALER	SY				70	70
	502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	17	17	17		51
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB				19,200	19,200
	509.0301	PREPARATION DECKS TYPE 1	SY				15	15
	509.0302	PREPARATION DECKS TYPE 2	SY				6	6
١.	509 <b>.</b> 0505 <b>.</b> S	CLEANING DECKS TO REAPPLY CONCRETE MASONRY OVERLAY	SY				200	200
$\stackrel{\leftrightarrow}{\sim}$	509.1500	CONCRETE SURFACE REPAIR	SF	10		10		20
	509.2000	FULL-DEPTH DECK REPAIR	SY				3	3
Δ	509.2500	CONCRETE MASONRY OVERLAY DECKS	CY				20	20
1	509 <b>.</b> 9005 <b>.</b> S	REMOVING CONCRETE MASONRY DECK OVERLAY B-47-21	SY				200	200
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	3		3		6
	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH				4	4
		NON-BID ITEMS						
		FILLER	SIZE					1/2" & 3/4"

THE CONCRETE OVERLAY.

UNDER THE BID ITEM "REMOVING CONCRETE MASONRY DECK OVERLAY", REMOVE THE ENTIRE EXISTING OVERLAY 11/2" ±. UNDER THE BID ITEM
"CLEANING DECKS TO REAPPLY CONCRETE MASONRY OVERLAY" PREPARE
THE ORIGINAL DECK SURFACE FOR THE APPLICATION OF CONCRETE OVERLAY, PRIOR TO REMOVAL CHECK A MINIMUM OF 3 LOCATIONS OR AS DIRECTED BY THE ENGINEER TO ENSURE THE REMOVAL WILL MAINTAIN EXISTING CONCRETE COVER (I" MIN.) OVER THE TOP MAT OF REINFORCING

TRAFFIC TO BE DETOURED DURING CONSTRUCTION.

THE AVERAGE OVERLAY THICKNESS IS BASED ON THE MINIMUM OVERLAY THICKNESS PLUS 1/2-INCH TO ACCOUNT FOR VARIATIONS IN THE DECK

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY, SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT OR AS APPROVED BY

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON MINIMUM CONCRETE OVERLAY THICKNESS OF 11/2" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION, EXPECTED AVERAGE CONCRETE OVERLAY THICKNESS IS 2". IF EXPECTED AVERAGE CONCRETE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2" CONTACT BUREAU OF STRUCTURES DESIGN SECTION FOR REVIEW.

SEAL OVERLAY CONSTRUCTION JOINTS ACCORDING TO SECTION 502.3.13.1 OF THE STANDARD SPECIFICATIONS UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER, COST INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY

ORIGINAL SLAB DEPTH SHOWN (FROM 1951). ASSUME CONCRETE OVERLAY IN 1993 REDUCED SLAB THICKNESS TO 1'-3 $^{\prime}\!\!\!/_2$ " AS PART OF DECK CLEANING

CLEAN, STRAIGHTEN AND EXTEND EXISTING BAR STEEL REINFORCEMENT 24 BAR DIAMETERS INTO NEW CONSTRUCTION WHERE APPLICABLE.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2 AND FULL DEPTH DECK REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

"CONCRETE SURFACE REPAIR" AT ABUTMENTS IS ESTIMATED TO BE 20 SF. "CONCRETE SURFACE REPAIR" AREAS SHOWN IN THE QUANTITIES TABLE ARE BASED ON THE BRIDGE INSPECTION REPORT AND ARE APPROXIMATE. EXACT AREAS OF REPAIR SHALL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER.

STATE PROJECT NUMBER

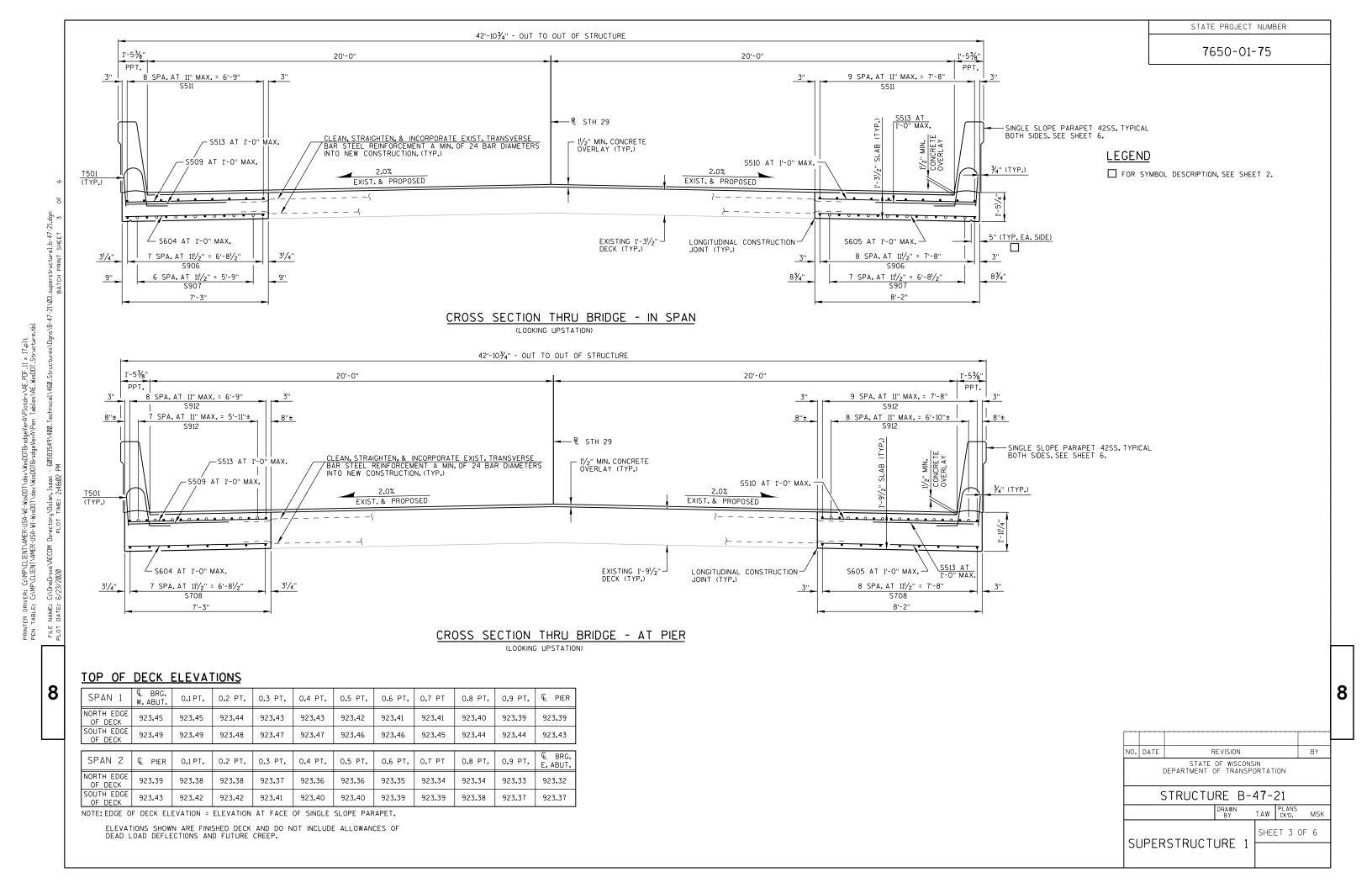
7650-01-75

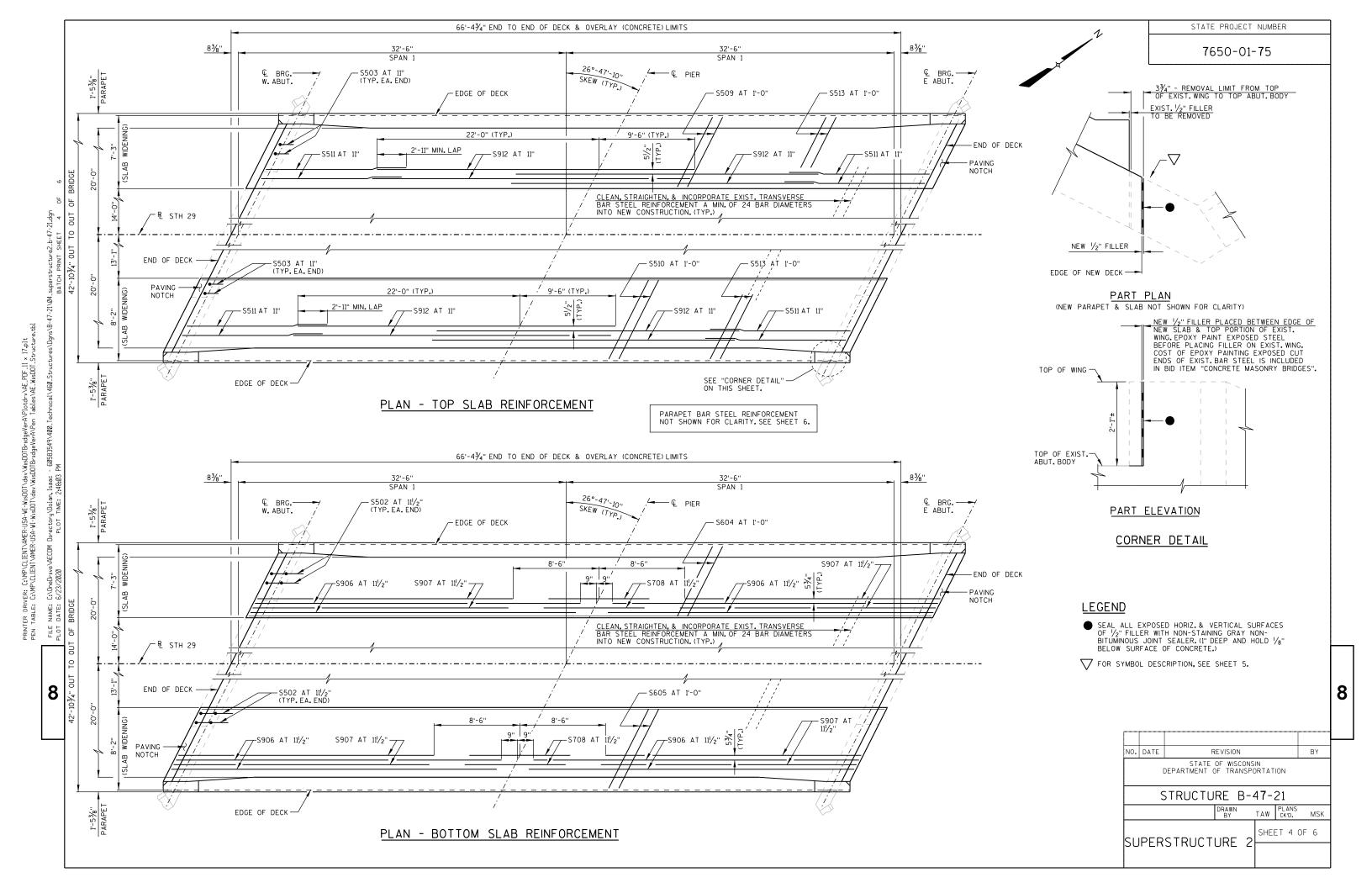
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-47-21" SHALL BE THE EXISTING GROUNDLINE.

> BY STATE OF WISCONSIN
> DEPARTMENT OF TRANSPORTATION STRUCTURE B-47-21 TAW PLANS CROSS SECTION, SHEET 2 OF 6 QUANTITIES & GENERAL NOTES





IER DRIVER: C:NMP\CLIENT\AMER-USA-WI-WISDOT\dev\WisDOTB-ridgeVerA\Plotd-v\AE\_PDF\_II × 17.p.lt TABLE: C:NMP\CLIENT\AMER-USA-WI-WisDOT\dev\WisDOTDer\dgeVerA\Pen Tables\AE\_WisDOT\_Structure.tbl

S604 (NORTH) S605 (SOUTH)

PAVING NOTCH

8





BILL OF BARS

AT ABUTMENTS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.								
				BAR				
MARK	NO. REQ'D	LENGTH	BENT	SERIES	LOCATION			
COATE	D BARS				TOTAL WEIGHT =	15 <b>,</b> 380 LBS		
S501	51	2 - 11			ABUTMENT & PIER - AT ADHESIVE ANCHORS	VERT		
S502	34	6-2	X		DIAPHRAGM - AT ABUTMENT	LONGIT		
S503	34	3-0	Х		DIAPHRAGM - AT ABUTMENT	VERT		
S604	72	7-9			SLAB - BOTTOM - NORTH SIDE	TRANS		
S605	72	8 - 9			SLAB - BOTTOM - SOUTH SIDE	TRANS		
S906	34	33 - 1			SLAB - BOTTOM - SPANS	LONGIT		
S907	30	25 - 4			SLAB - BOTTOM - SPANS	LONGIT		
S708	17	13 - 1	Х		SLAB - BOTTOM - AT PIER	LONGIT		
S509	67	7 - 8			SLAB - TOP - NORTH SIDE	TRANS		
S510	67	8 - 9			SLAB - TOP - SOUTH SIDE	TRANS		
S511	38	14 - 0			SLAB - TOP - IN SPANS	LONGIT		
S912	36	31 - 6			SLAB - TOP - AT PIER	LONGIT		
S513	132	5-0			SLAB - TOP	TRANS		

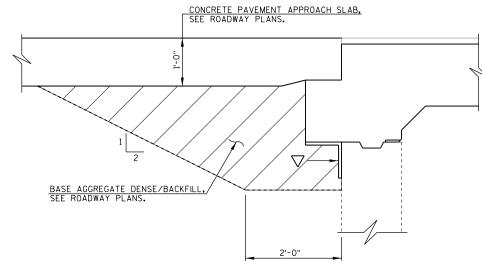
- ¾" BEVEL

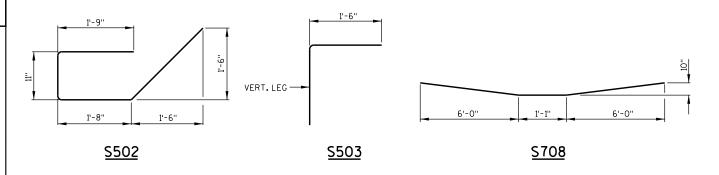
## PART LONGITUDINAL SECTION

∠S604 OR S605

### **LEGEND**

- \* DIMENSIONS MEASURED ALONG R STH 29.
- \*\* DIMENSIONS TAKEN NORMAL TO SUBSTRUCTURE UNIT.
- 18" RUBBERIZED MEMBRANE WATERPROOFING, SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- ADHESIVE ANCHORS NO. 5 BARS, EMBED 1'-1" AND SPACE AT 1-0"± CTRS.TOTAL NUMBER REQUIRED = 51 (17 AT WEST ABUTMENT, 17 AT PIER, AND 17 AT EAST ABUTMENT.USE S501 BARS WITH ANCHORS).





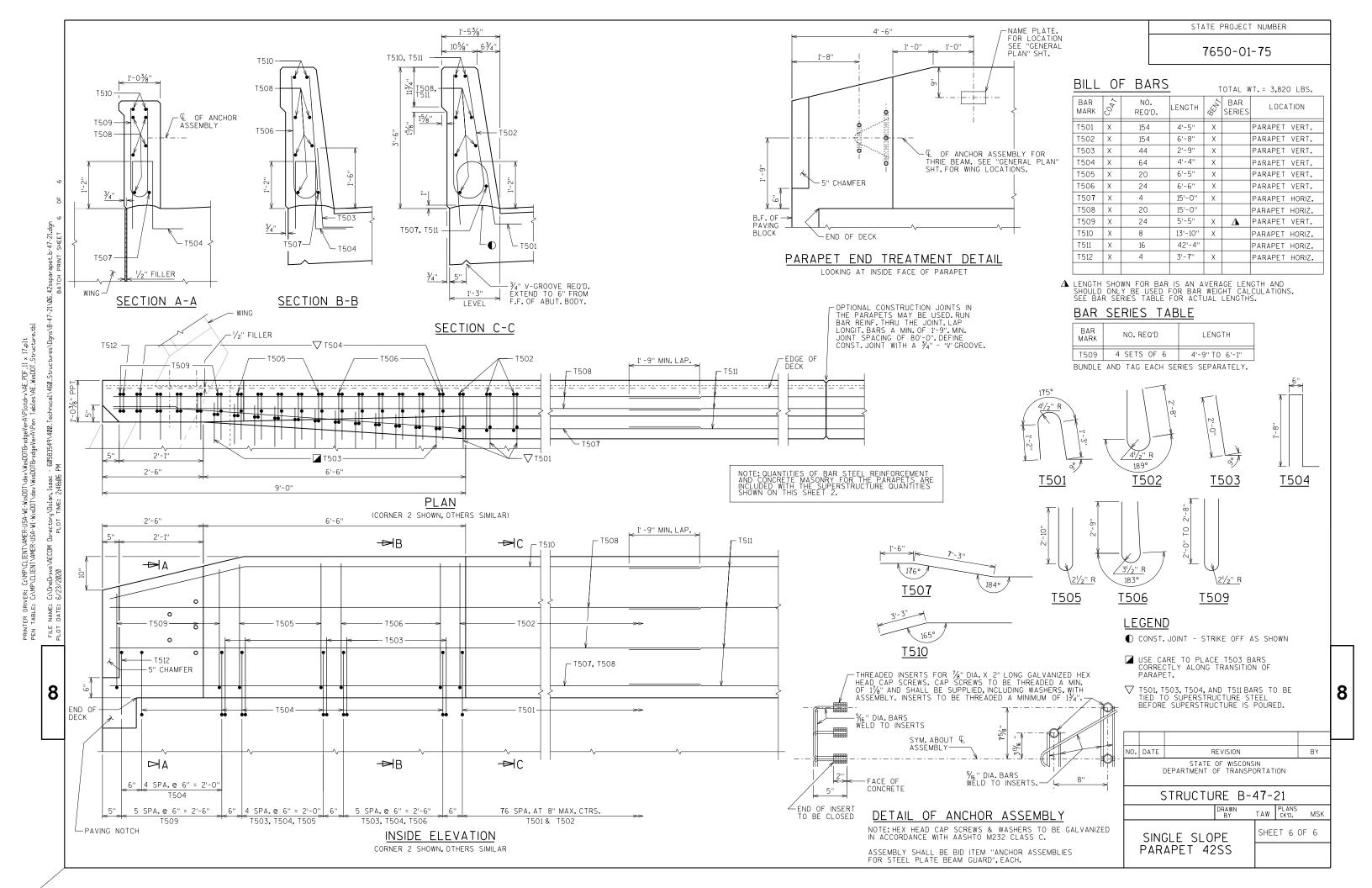
\* 66 SPA. AT 1'-0" MAX. = 66'-0" S509 (NORTH) & S510 (SOUTH) - TOP

(PLACE S513 BARS BTWN. S509 & S510 BARS AT EDGE OF SLAB. 66 BARS EA. SIDE) \* 27 SPA. AT 1'-0" MAX. = 27'-0" S604 (NORTH) & S605 (SOUTH) - BOTTOM IN SPAN

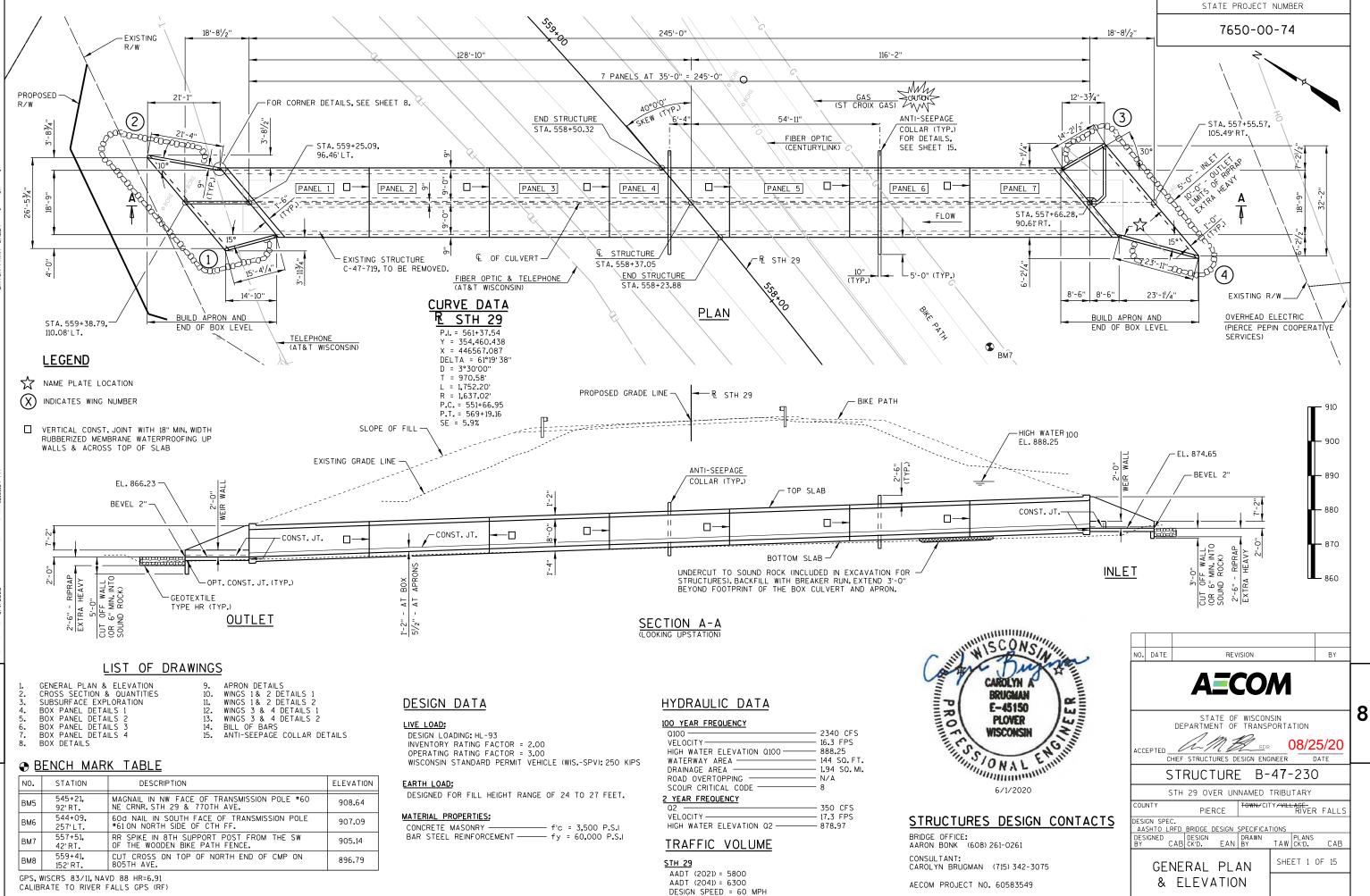
4" x ¾" FILLER. PLACED FULL WIDTH OF NEW SLAB CONSTRUCTION.

- S511 IN SPAN

∠s906, s907







VPC SIA 554445.00

S. END SIRUCTURE
VPI SIA

N. END SI

# PROFILE GRADE LINE, STH 29

#### GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

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

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS B-47-230" SHALL BE THE EXISTING GROUND LINE.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT THE ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE B" REQUIRED ON THE BOX SIDES AND BEHIND APRON WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

WITHIN THE LENGTH OF THE BOX ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL. BACKFILL TO THE ELEVATION AND SECTION EXISTING PRIOR TO THE EXCAVTION WITHIN THE LENGTH OF THE CULVERT.

LOCATE THE NAME PLATE ON NEAREST RIGHT WING TRAVELING UP STATION. FACE NAME PLATE UP STATION.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO THE PRECAST DETAILS IN CHAPTER 36 STANDARDS OF THE CURRENT WISCONSIN DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CONCRETE BOX CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES"

APRON SHALL BE POURED AND CURED PRIOR TO BACKFILLING WINGWALLS.

THE CONCRETE IN THE CUTOFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

THE ALTERNATE CUT OFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUT OFF WALLS. PAYMENT SHALL BE BASED ON CONCRETE CUT OFF WALLS.

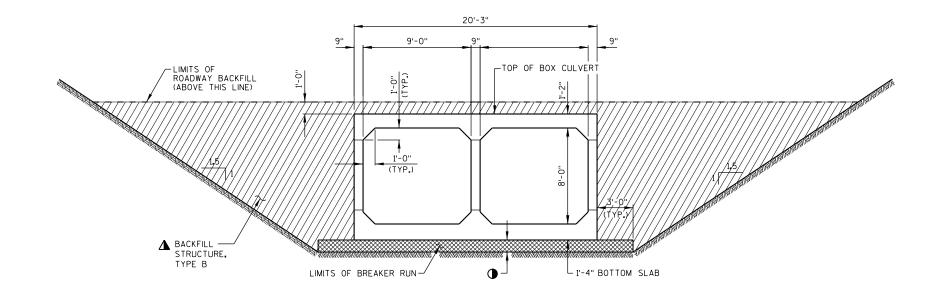
EXISTING STRUCTURE IS A SINGLE CELL GALVANIZED STEEL SECTIONAL PLATE PIPE CULVERT; 10.2'HIGH × 14.9'WIDE × 244'BARREL LENGTH, PIPE IS BURIED UNDER APPROXIMATELY 30 FEET OF ROADWAY FILL. SMALL RETAINING WALLS ARE PRESENT ON BOTH SIDES OF THE APRON AT BOTH ENDS OF THE CULVERT. EXISTING CULVERT AND RETAINING WALLS TO BE REMOVED.

FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153, TYPES I, II, III OR M213.

UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

ANY ORGANIC MATERIAL FOUND DURING STRUCTURE EXCAVATION SHALL BE REMOVED AND REPLACED WITH STRUCTURE BACKFILL.

BACKFILL SHALL BE PLACED IN LIFTS NO GREATER THAN 8-INCHES AND COMPACTED TO A MINIMUM 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM STANDARD D1557 MODIFIED PROCTOR TEST.



# LIMITS OF EXCAVATION AND STRUCTURE BACKFILL LIMITS

(LOOKING UPSTREAM)

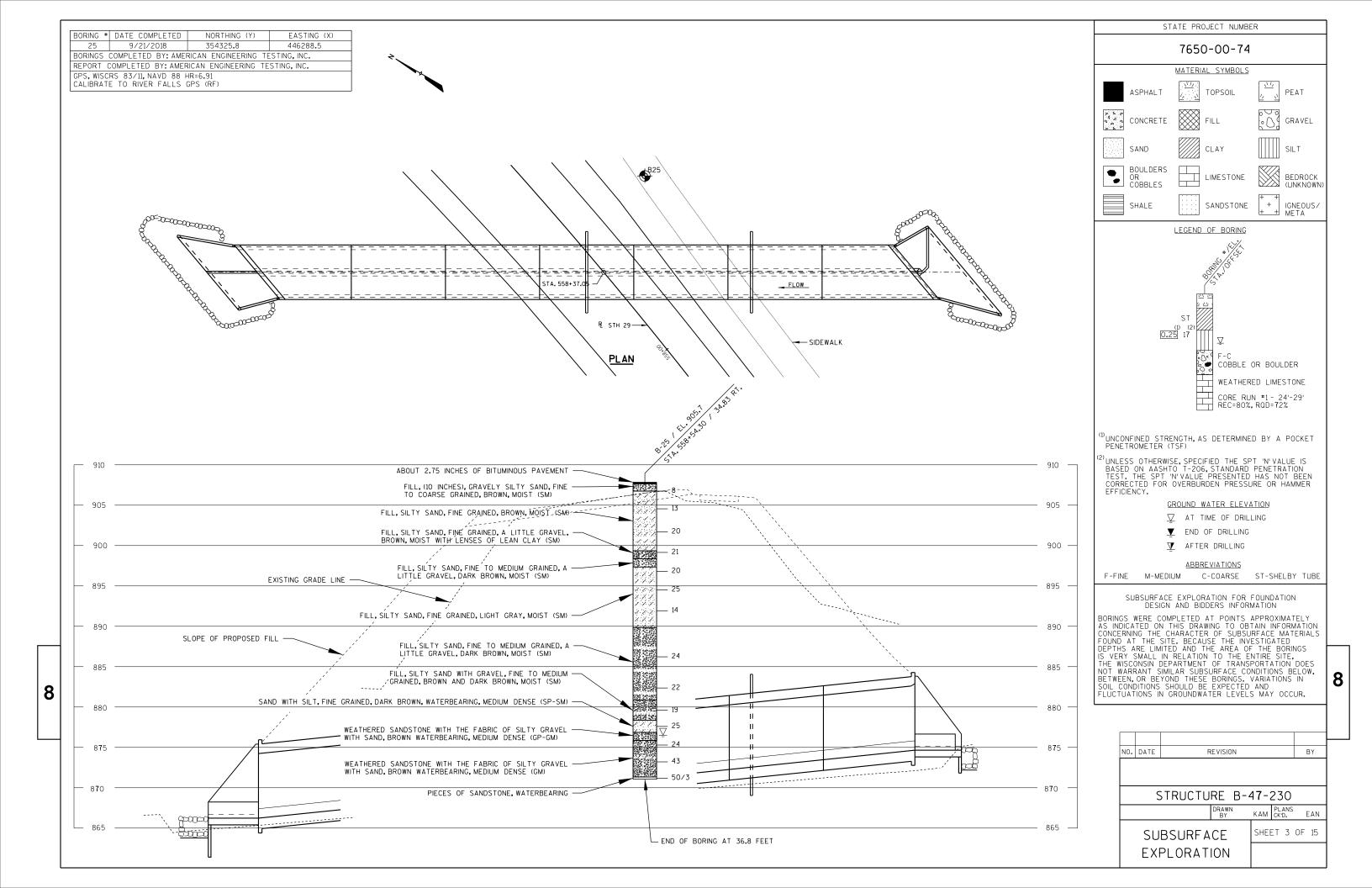
#### TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	TOTALS	
203.0200	REMOVING OLD STRUCTURE 558+37	LS	1	
206.2000	EXCAVATION FOR STRUCTURES CULVERTS B-47-230	LS	1	
210.2500	BACKFILL STRUCTURE TYPE B	TON	6,160	
311.0115	BREAKER RUN	CY	300	
504.0100	CONCRETE MASONRY CULVERTS	CY	730	
505.0400	5.0400 BAR STEEL REINFORCEMENT HS STRUCTURES			
505.0600	D5.0600 BAR STEEL REINFORCEMENT HS COATED STRUCTURES			
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	155	
606.0400	RIPRAP EXTRA-HEAVY	CY	120	
645.0120	GEOTEXTILE TYPE HR	SY	270	
SPV.0105.02	TEMPORARY STREAM DIVERSION STRUCTURE B-47-230	LS	1	
	NON-BID ITEMS			
	FILLER	SIZE	3/4"	

#### LEGEND

- UNDERCUT TO SOUND ROCK (INCLUDED IN EXCAVATION FOR STRUCTURES). BACKFILL WITH BREAKER RUN. EXTEND 3'-0" BEYOND THE FOOTPRINT OF THE BOX CULVERT AND APRONS. THE BREAKER RUN QUANTITY IS BASED ON AN AVERAGE DEPTH OF I'-0".
- A BACKFILL PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

NO.	DATE	F	EVISION			В	ΙΥ			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION										
	STRUCTURE B-4 <b>7</b> -230									
			DRAWN BY	TAW	PLANS CK'D.	C	ΔB			
	CRO:	SS SECT	SHE	ET 2	OF	15				
	& (	ITITNAUC								



FER DRIVER: C:NMP\CLIENT\AMFR-USA-WI-WisDOT\dev\WisDOTBridgeVerA\Plotdr-V\AE\_PDF\_II x 17.plt TABLE: C:NMP\CLIENT\AMFR-USA-WI-WisDOT\dev\WisDOTBridgeVerA\Pen Tables\AE\_WisDOT\_Structure.tbl

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€ BOX CELLS —— 20'-3" 9'-0" 16 SPA. AT 1'-2" = 18'-8" 31/2" 31/2" C418 TOP MAT OF TOP SLAB 15 SPA. AT 1'-2" = 17'-6" C415 BOTTOM MAT OF TOP SLAB C502 OR C509 AT 6" CTRS. C410 -- C414 C414 — C405 AT 1'-0" CTRS. (TYP. AT HAUNCHES) -OPT. CONST. JOINT (TYP.) 6 - C412 (EACH FACE OF NTERIOR WALL, 1'-6" MAX, CTRS.) C407 AT 1'-0" CTRS. (TYP.) NOTE: LAP C410, C412, & C414 BARS 1'-11" MIN. C414 — CONST JOINT (TYP.) (TYP.) RMW-C414 — C406 OR C416 AT 6" CTRS. C413 C404 AT 1'-0" CTRS. (TYP.) 1'-9" MIN. LAP (TYP.) C410 1'-0" CTRS. 15 SPA. AT 1'-2" = 17'-6" C415 BOTTOM SLAB

# TYPICAL SECTION THRU BOX - PANELS 1 & 7

(LOOKING UPSTREAM - PANEL 7 SHOWN, PANEL 1 SIMILAR)

### LEGEND

RMW 18" RUBBERIZED MEMBRANE WATERPROOFING. PLACE ALONG HORIZONTAL CONSTRUCTION JOINT AT BOX AND PLACE UP WALLS & ACROSS TOP SLAB AT VERTICAL CONSTRUCTION JOINTS. AT VERTICAL CONSTRUCTION JOINTS, EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB.

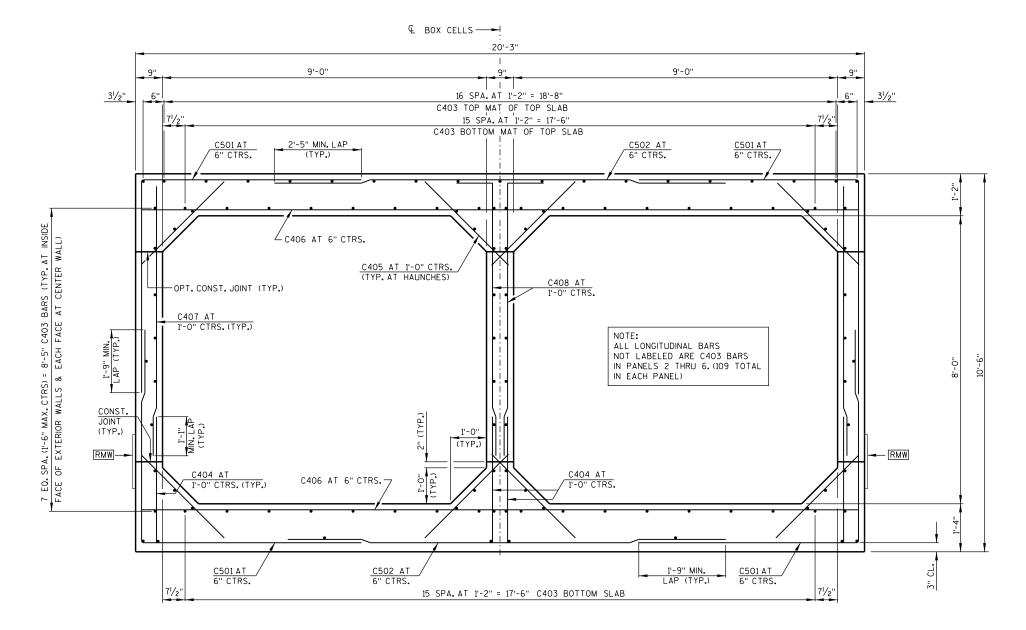
NO.	DATE	R	EVISION			BY			
	STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION								
	Ş	STRUCTU	RE B-	47-2	230				
			DRAWN BY	TAW	PLANS CK'D.	CAB			
		)X PANE ETAILS	SHEE	ET 4	OF 15				

8

7650-00-74

PRINTER DRIVER: C:\MP\CLIENT\AMER-USA-WI-WisDOT\dev\WisDOTBridgeVerA\Plotdrv\AE\_PDF\_II × 17.plt PEN TABLE: C:\MP\CLIENT\AMER-USA-WI-WisDOT\dev\WisDOTBridgeVerA\Pen Tables\AE\_WisDOT\_Structure.tbl - 60583549\400\_Tec

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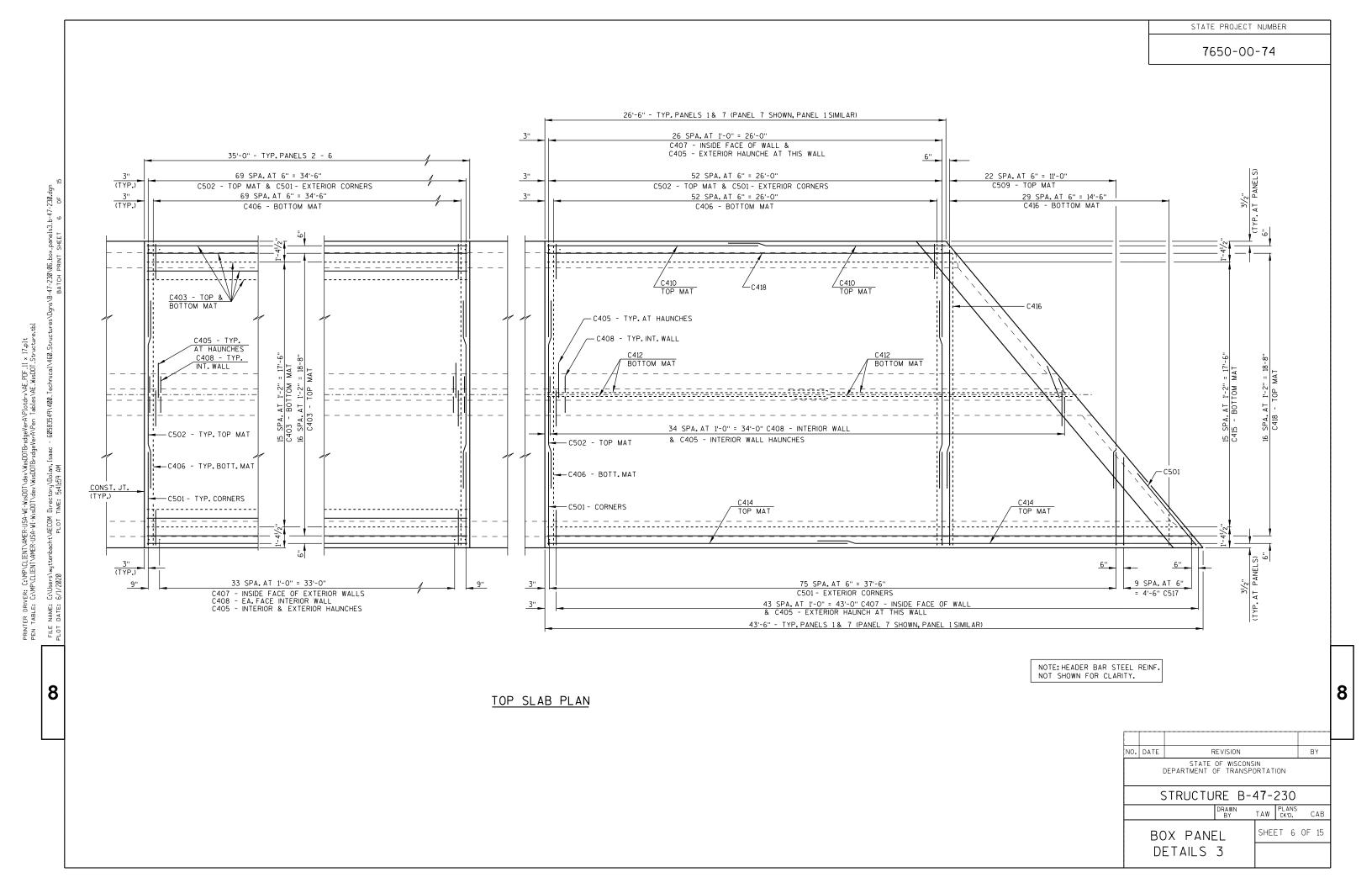
#### TYPICAL SECTION THRU BOX - PANELS 2 THRU 6 (LOOKING UPSTREAM)

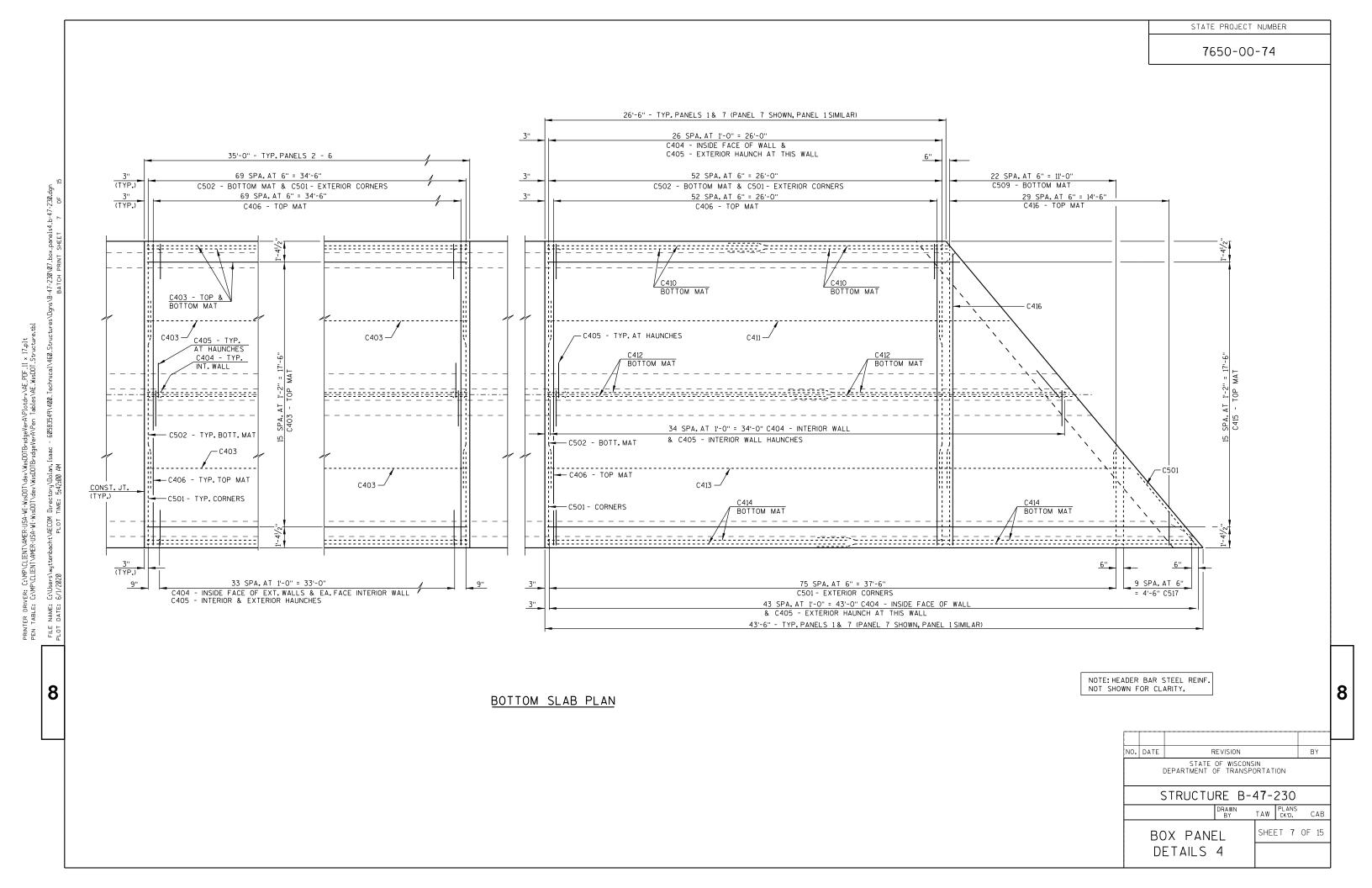
# LEGEND

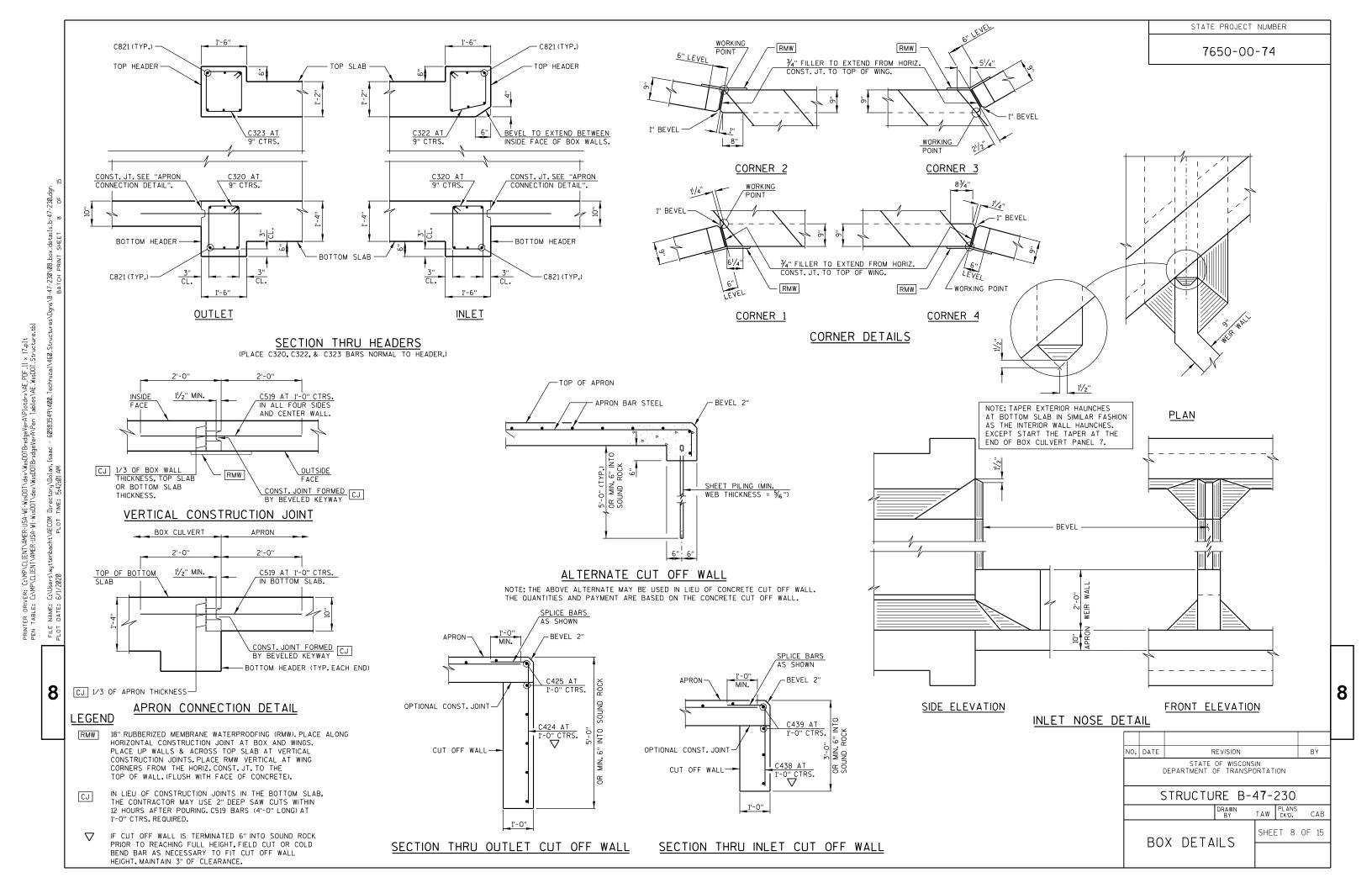
RMW 18" RUBBERIZED MEMBRANE WATERPROOFING. PLACE ALONG HORIZONTAL CONSTRUCTION JOINT AT BOX AND PLACE
UP WALLS & ACROSS TOP SLAB AT VERTICAL CONSTRUCTION
JOINTS. AT VERTICAL CONSTRUCTION JOINTS, EXTEND 6" MIN.
BELOW TOP OF BOTTOM SLAB.

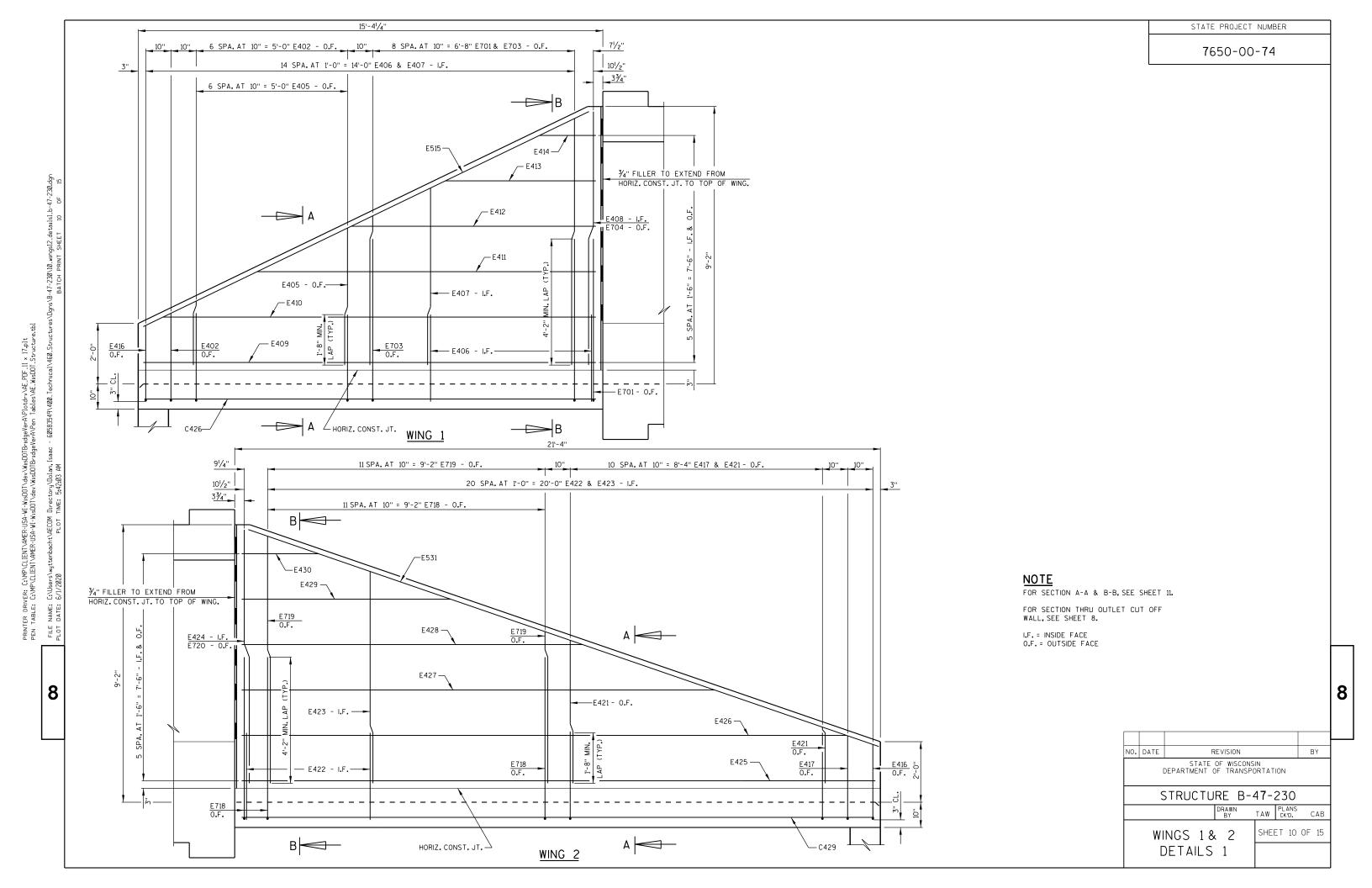
NO.	DATE	F	REVISION		BY				
	STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION								
	STRUCTURE B-47-230								
			DRAWN BY	TAW CK'D.	CAB				
		)X PANE	SHEET 5	OF 15					
	DETAILS 2								

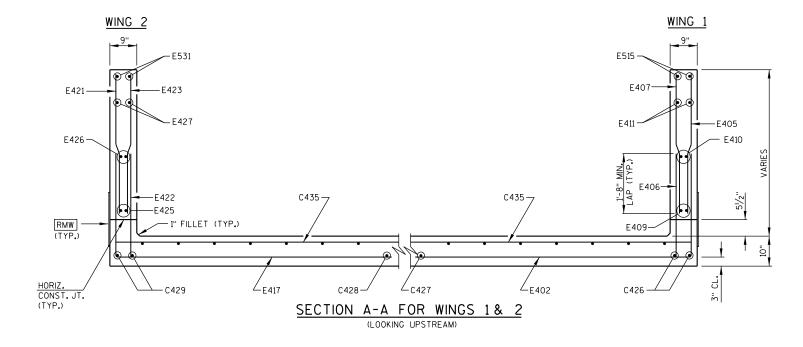
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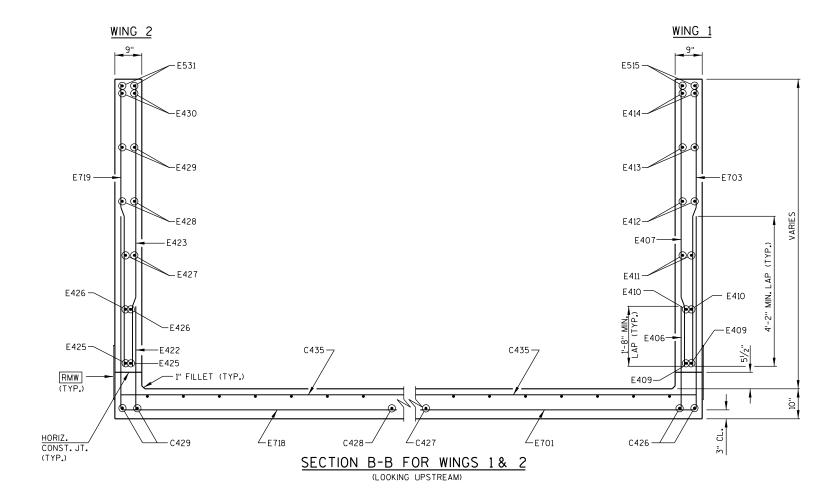






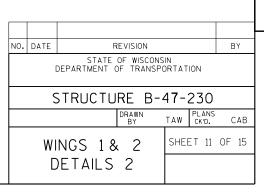


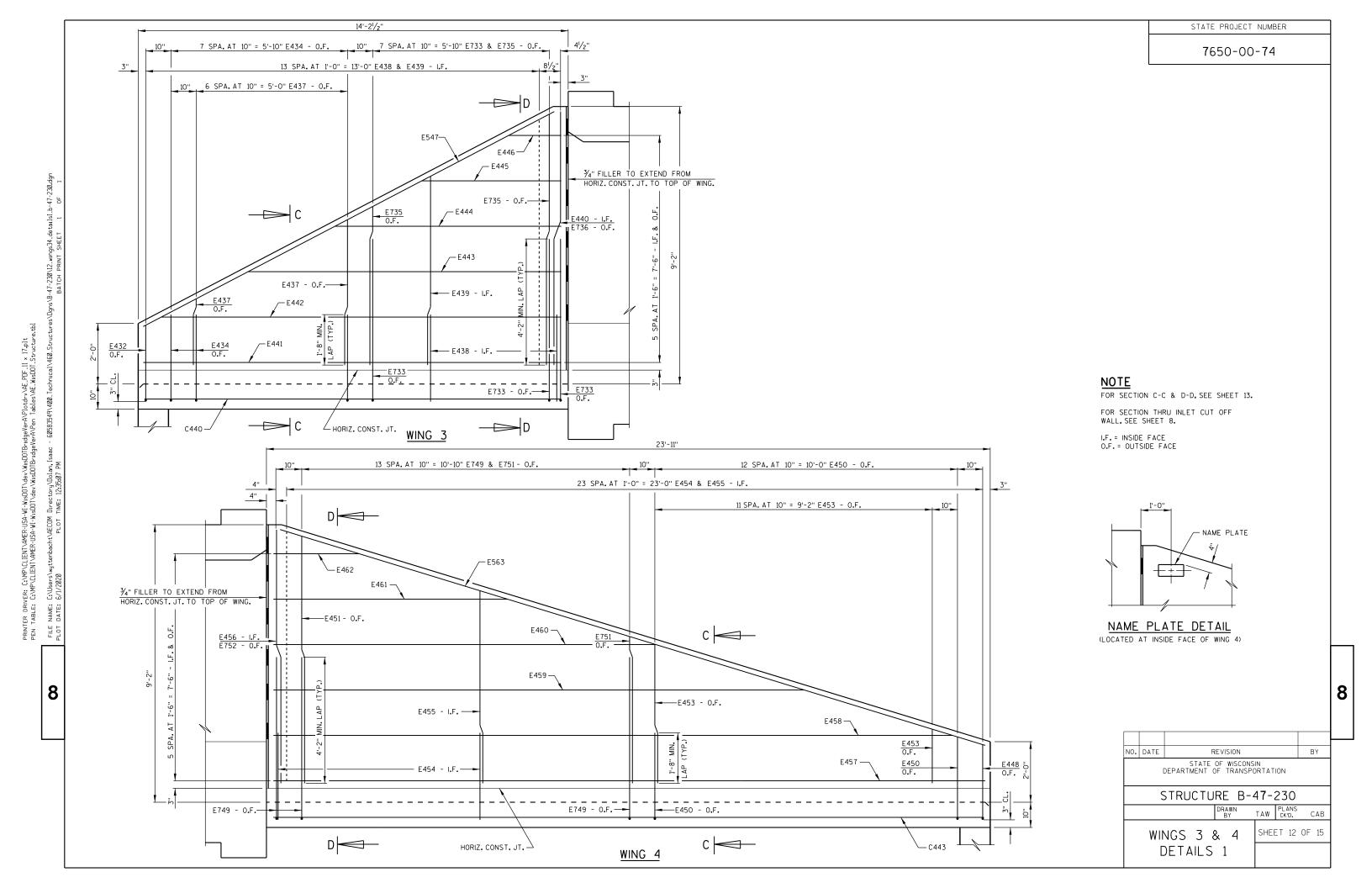


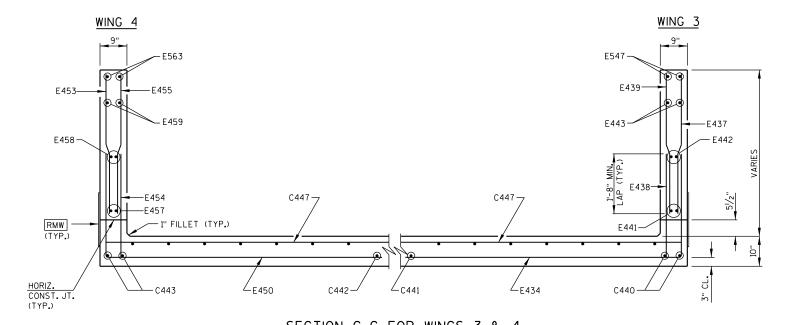


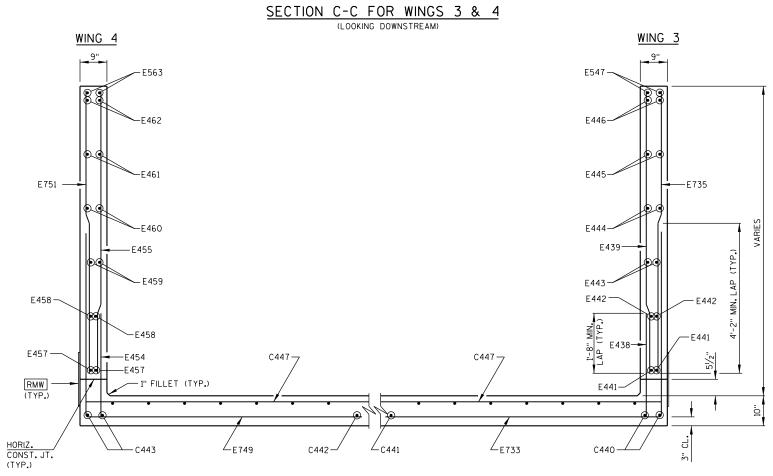
# <u>LEGEND</u>

RMW 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZ. CONST. JT. IN WING.





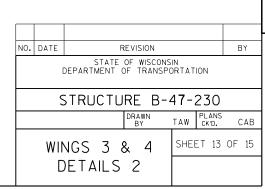




# SECTION D-D FOR WINGS 3 & 4

# **LEGEND**

RMW 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZ. CONST. JT. IN WING.



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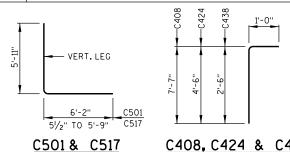
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

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

MARK	NO. REQ'D	LENGTH	BENT	SERIES	LOCATION	
UNCOAT	ED BARS				TOTAL WEIGHT =	85,860 LBS
C501	1920	12 - 0	Х		BOX - ALL PANELS - OUTSIDE WALL CORNERS	VERT
C502	912	12 - 5			BOX - ALL PANELS - TOP & BOTTOM SLAB	TRANS
C403	545	34 - 8			BOX - PANELS 2 - 6 - WALLS, TOP & BOT. SLAB	LONGIT
C404	1002	3-6			BOX - ALL PANELS - WALLS - BOTTOM	VERT
C405	2004	3 - 3			BOX - ALL PANELS - HAUNCHES	VERT
C406	912	19 - 11			BOX - ALL PANELS - TOP & BOTTOM SLAB	TRANS
C407	502	7 - 6			BOX - ALL PANELS - EXTERIOR WALLS	VERT
C408	500	8-6	Х		BOX - ALL PANELS - INTERIOR WALL	VERT
C509	92	9-2		Δ	BOX - PANELS 1& 7 - TOP & BOT. SLAB COR.	VERT
C410	64	14 - 3			BOX - PANELS 1 & 7 - WALL, TOP & BOTTOM	LONGIT
C411	2	30 - 6			BOX - PANELS 1 & 7 - BOTTOM SLAB	LONGIT
C412	104	18 - 4			BOX - PANELS 1 & 7 - INT. WALL, TOP & BOT.	LONGIT
C413	2	38 - 8			BOX - PANELS 1& 7 - BOTTOM SLAB	LONGIT
C414	64	22 - 5			BOX - PANELS 1 & 7 - WALL, TOP & BOT. SLAB	LONGIT
C415	64	34 - 7		Δ	BOX - PANELS 1& 7 - TOP & BOTTOM SLAB	LONGIT
C416	120	10 - 10		Δ	BOX - PANELS 1 & 7 - TOP & BOTTOM SLAB	TRANS
C517	40	8 - 11	l x	Δ	BOX - PANELS 1 & 7 - ACUTE CORNERS	TRANS
C418	34	34 - 7		Δ	BOX - PANELS 1& 7 - TOP SLAB	LONGIT
C519	454	4 - 0			BOX - PANELS - AT CONSTRUCTION JOINTS	LONGIT
C320	70	5 - 3	l x		BOX - PANELS 1 & 7 - BOTTOM HEADER	TRANS
C821	24	26 - 0			BOX - PANELS 1 & 7 - TOP & BOTTOM HEADER	LONGIT
C322	35	5-2	Х		BOX - PANELS 1 & 7 - INLET - TOP HEADER	TRANS
C323	35	5-5	X		BOX - PANELS 1 & 7 - OUTLET - TOP HEADER	TRANS
C424	27	5 - 5	×		APRON - OUTLET CUT OFF WALL	VERT
C425	6	35 - 5			APRON - OUTLET CUT OFF WALL	TRANS
C426	2	14 - 11			APRON - OUTLET FLOOR - WING 1	LONGIT
C427	1	12 - 2			APRON - OUTLET FLOOR	LONGIT
C428	1	13 - 0			APRON - OUTLET FLOOR	LONGIT
C429	2	20 - 11			APRON - OUTLET FLOOR - WING 2	LONGIT
C430	4	8 - 8		Δ	APRON - OUTLET FLOOR	LONGIT
C431	20	18 - 3			APRON - OUTLET FLOOR	LONGIT
C432	1	15 - 8			APRON - OUTLET FLOOR	LONGIT
C433	1	10 - 10			APRON - OUTLET FLOOR	LONGIT
C434	1	6-0			APRON - OUTLET FLOOR	LONGIT
C435	14	30 - 8		Δ	APRON - OUTLET FLOOR	TRANS
C436	39	6 - 3	Х		APRON - OUTLET & INLET - WEIR WALL	VERT
C437	4	19 - 7			APRON - OUTLET - WEIR WALL	HORIZ
C438	33	3 - 5	X		APRON - INLET CUT OFF WALL	VERT
C439	4	42 - 8			APRON - INLET CUT OFF WALL	TRANS
C440	2	13 - 10			APRON - INLET FLOOR - WING 3	LONGIT
C441	1	13 - 0			APRON - INLET FLOOR	LONGIT
C442	1	13 - 9			APRON - INLET FLOOR	LONGIT
C443	2	23 - 6			APRON - INLET FLOOR - WING 4	LONGIT
C444	6	9-6		Δ	APRON - INLET FLOOR	LONGIT
C445	20	18 - 3			APRON - INLET FLOOR	LONGIT
C446	7	9-0		Δ	APRON - INLET FLOOR	LONGIT
C447	14	34 - 2		Δ	APRON - INLET FLOOR	TRANS
C448	2	5 - 4	Х		APRON - INLET - WEIR WALL	HORIZ
C449	2	5 - 5	Х		APRON - INLET - WEIR WALL	HORIZ
C450	2	17 - 10	Х		APRON - INLET - WEIR WALL	HORIZ
C451	2	17 - 3	Х		APRON - INLET - WEIR WALL	HORIZ
	1		1			

# BAR SERIES

MARK	NO. REQ'D	LENGTH
MARK	NO. KEUD	LENGIH
C509	4 SETS OF 23	2'-8" TO 15'-9"
C415	4 SETS OF 16	27'-3" TO 42'-0"
C416	4 SETS OF 30	2'-3" TO 19'-6"
C517	4 SETS OF 10	6'-3" TO 11'-6"
C418	2 SETS OF 17	26'-9" TO 42'-5"
C430	1 SET OF 4	1'-10" TO 15'-7"
C435	1 SET OF 14	26'-0" TO 35'-5"
C444	1 SET OF 6	2'-3" TO 16'-9"
C446	1 SET OF 7	1'-4" TO 16'-9"
C447	1 SET OF 14	26'-0" TO 42'-4"



.II. vert. Leg	C428 10.1
	2'-6"
6'-2" C501 5½" T0 5'-9" C517	<u>, , ,                                </u>
C501 & C517	C408. C424 & C43

BILL OF	BARS								
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.									
					D SHOULD ONLY BE USED FOR BAR WEIGHT				
					UAL LENGTHS.				
				BAR					
MARK	NO. REO'D	LENGTH	BENT	SERIES	LOCATION				
COATE	D BARS				TOTAL WEIGHT =	3.170 LBS			
E701	WING 1 - APRON & OUTSIDE FACE	VERT.							
E402	10	12 - 7 10 - 2	X		WING 1 - APRON & OUTSIDE FACE	VERT.			
E703	9	6-6			WING 1 - OUTSIDE FACE	VERT.			
E704	1	8 - 4			WING 1 - OUTSIDE FACE	VERT.			
E405	7	3 - 3		Δ	WING 1 - OUTSIDE FACE	VERT.			
E406	16	2 - 11			WING 1 - INSIDE FACE	VERT.			
E407	15	4 - 8		Δ	WING 1 - INSIDE FACE	VERT.			
E408	1	8 - 4			WING 1 - INSIDE FACE	VERT.			
E409	2	14 - 11			WING 1 - EACH FACE	HORIZ.			
E410	2	14 - 3			WING 1 - EACH FACE	HORIZ.			
E411	2	11 - 2			WING 1 - EACH FACE	HORIZ.			
E412	2	8 - 1			WING 1 - EACH FACE	HORIZ.			
E413	2	4 - 11			WING 1 - EACH FACE	HORIZ.			
E414	2	1 - 10			WING 1 - EACH FACE	HORIZ.			
E515	2	16 - 4			WING 1 - EACH FACE - TOP	HORIZ.			
E416	2	9-9	X		WINGS 1 & 2 - APRON & OUTSIDE FACE	VERT.			
E417	12	10 - 0	X		WING 2 - APRON & OUTSIDE FACE	VERT.			
E 718	13	12 - 7	X		WING 2 - APRON & OUTSIDE FACE	VERT.			
E719	12	6-7	_ ^	Δ	WING 2 - OUTSIDE FACE	VERT.			
E720	1	8 - 4			WING 2 - OUTSIDE FACE	VERT.			
E421	11	3 - 4		Δ	WING 2 - OUTSIDE FACE	VERT.			
E422	22	2 - 11			WING 2 - INSIDE FACE	VERT.			
E423	21	4 - 8		Δ	WING 2 - INSIDE FACE	VERT.			
E424	1	8 - 3			WING 2 - INSIDE FACE	VERT.			
E425	2	20 - 11			WING 2 - EACH FACE	HORIZ.			
E426	2	20-0			WING 2 - EACH FACE	HORIZ.			
E427	2	15 - 7			WING 2 - EACH FACE	HORIZ.			
E428	2	11 - 3			WING 2 - EACH FACE	HORIZ.			
E429	2	6 - 11			WING 2 - EACH FACE	HORIZ.			
E430	2	2-6	<b>†</b>		WING 2 - EACH FACE	HORIZ.			
E531	2	21 - 11			WING 2 - EACH FACE - TOP	HORIZ.			
E432	1	9-9	X		WING 3 - APRON & OUTSIDE FACE	VERT.			
E733	9	12 - 7	X		WING 3 - APRON & OUTSIDE FACE	VERT.			
E434	8	10 - 2	X		WING 3 - APRON & OUTSIDE FACE	VERT.			
E735	8	6-9		Δ	WING 3 - OUTSIDE FACE	VERT.			
E736	1	8 - 4			WING 3 - OUTSIDE FACE	VERT.			
E437	7	3-5		Δ	WING 3 - OUTSIDE FACE	VERT.			
E438	15	2 - 11			WING 3 - INSIDE FACE	VERT.			
E439	14	4 - 8		Δ	WING 3 - INSIDE FACE	VERT.			
E440	1	8 - 4			WING 3 - INSIDE FACE	VERT.			
E441	2	13 - 9			WING 3 - EACH FACE	HORIZ.			
E442	2	13 - 2			WING 3 - EACH FACE	HORIZ.			
E443	2	10 - 3			WING 3 - EACH FACE	HORIZ.			
E444	2	7-5			WING 3 - EACH FACE	HORIZ.			
E445	2	4 - 7			WING 3 - EACH FACE	HORIZ.			
E446	2	1 - 9			WING 3 - EACH FACE	HORIZ.			
E547	2	15 - 4			WING 3 - EACH FACE - TOP	HORIZ.			
E440	1	0 0			WINC 4 ADDON & OUTSIDE FACE	VEDT			

WING 4 - APRON & OUTSIDE FACE

WING 4 - APRON & OUTSIDE FACE

WING 4 - APRON & OUTSIDE FACE

WING 4 - INSIDE FACE

WING 4 - INSIDE FACE

WING 4 - EACH FACE - TOP

Δ WING 4 - INSIDE FACE

### **BAR SERIES**

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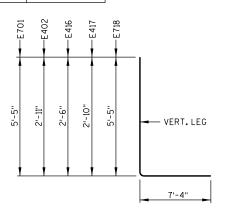
HORIZ.

HORIZ.

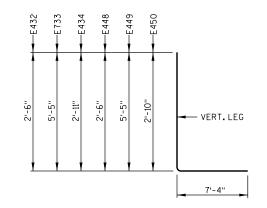
MARK	NO. REQ'D	LENGTH
E703	1 SET OF 9	4'-11" TO 8'-2"
E405	1 SET OF 7	2'-1" TO 4'-6"
E407	1 SET OF 15	1'-3" TO 8'-1"
E719	1 SET OF 12	5'-0" TO 8'-2"
E421	1 SET OF 11	1'-11" TO 4'-9"
E423	1 SET OF 21	1'-3" TO 8'-2"
E735	1 SET OF 8	5'-3" TO 8'-4"
E437	1 SET OF 7	2'-2" TO 4'-9"
E439	1 SET OF 14	1'-3" TO 8'-1"
E751	1 SET OF 14	4'-11" TO 8'-3"
E453	1 SET OF 12	1'-10" TO 4'-8"
E455	1 SET OF 24	1'-3" TO 8'-4"
	The state of the s	

7650-00-74

STATE PROJECT NUMBER



### E701, E402, E416, E417 & E718



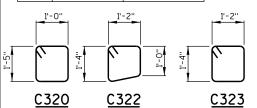
E432, E733, E434, E448, E749 & E450

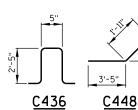
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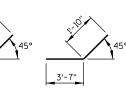
NO.	BY							
	STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION							
	STRUCTURE B-4 <b>7</b> -230							
			DRAWN BY	TAW PLANS	CAB			
	DII I	OF B	SHEET 14	OF 15				
	DILL							

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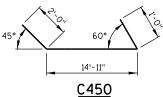
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E448

E749

E450

E751

E752

E453

E454

E455

E456

E457

E458

E459

E460

E461

E462

9-9

12 - 7

10 - 1

6 - 7

8 - 4

3 - 3

2 - 11

4 - 9

8 - 4

23-6 22-5

17 - 6

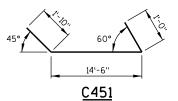
12 - 7

7 - 8

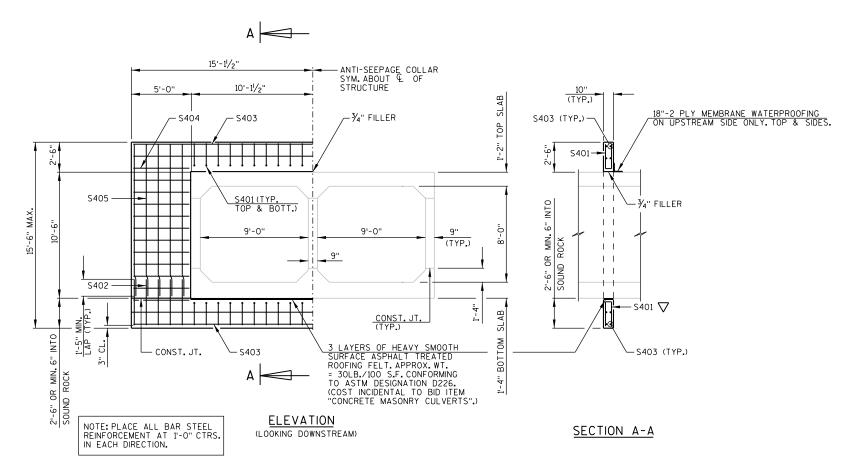
2 - 9

24 - 3

24



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## ANTI-SEEPAGE COLLAR DETAILS

# BILL OF BARS

<u>S401</u>

DIMENSIONS	IN BENDING	DETAILS AR	RE OUT	TO OL	JT OF BAR.	
				BAR		
MARK	NO REOD	LENGTH	BENT	SERIES	LOCATION	
UNCOATE	ED BARS					TOTAL WEIGHT = 1,320 LBS
S401	84	4 - 6	X		ANTI-SEEPAGE COLLARS	VERT.
S402	40	3 - 10			ANTI-SEEPAGE COLLARS	VERT.
S403	16	29 - 11			ANTI-SEEPAGE COLLARS	HORIZ.
S404	96	4 - 8			ANTI-SEEPAGE COLLARS	HORIZ.
S405	40	12 - 8			ANTI-SEEPAGE COLLARS	VERT.

#### LEGEND

F BOTTOM OF ANTI-SEEPAGE COLLAR IS TERMINATED 6" INTO SOUND ROCK PRIOR TO REACHING FULL HEIGHT, FIELD CUT OR COLD BEND BAR AS NECESSARY TO FIT BOTTOM OF ANTI-SEEPAGE COLLAR HEIGHT. MAINTAIN 3" OF CLEARANCE.

NO. DATE REVISION BY  STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION  STRUCTURE B-47-230    DRAWN TAW PLANS CAB CV.D. CAB CV.							
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION  STRUCTURE B-47-230  DRAWN TAW PLANS CAB  ANTI-SEEPAGE  SHEET 15 OF 15			<del> -</del>				
STRUCTURE B-47-230    DRAWN TAW   PLANS CKD. CAB     ANTI-SEEPAGE   SHEET 15 OF 15			LNC	O. DATE	REVISION		BY
ANTI-SEEPAGE  DRAWN TAW CKD. CAB  SHEET 15 OF 15							
ANTI-SEEPAGE SHEET 15 OF 15				(	STRUCTURE B-4	4 <b>7</b> -230	
I ANTI-SELPAGE I					DRAWN BY	TAW PLANS	CAB
				AN1 COLL	I-SEEPAGE I	SHEET 15 OF	- 15

				AREA (SF)		INCREMENT	TAL VOL (CY) (UN	IADJUSTED)	CUMULAT	TIVE VOL (CY)	
STATION	REAL STATION	DISTANCE	СИТ	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/ UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 7
557+08.41	55708.41		89.75	127.0	18.86	0.0	0.0	0.0	0	0	0
557+50.00	55750.00	42	68.37	127.0	66.57	121.8	195.7	65.8	122	82	-156
557+70.16	55770.16	20	70.04	127.0	107.55	51.7	94.9	65.0	173	164	-281
558+00.00	55800.00	30	173.92	127.0	71.77	134.8	140.4	99.1	308	287	-410
558+50.00	55850.00	50	76.28	127.0	31.08	231.7	235.2	95.2	540	406	-533
559+00.00	55900.00	50	80.26	127.0	91.68	144.9	235.2	113.7	685	548	-765
559+16.32	55916.32	16	68.79	127.0	145.98	45.0	76.8	71.8	730	638	-887
559+50.00	55950.00	34	78.04	127.0	98.79	91.6	158.5	152.7	821	829	-1144
559+76.85	55976.85	27	298.99	127.0	9.58	187.5	126.3	53.9	1009	896	-1150
		PROJECT	NO. 7650-	00-74 COLUMN	I TOTAL	1009	1263	717			

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100

2) Cut includes Salvaged/Unsuable Pavement Material.

3) EBS Excavation is found to be required, backfill with suitable excess Cut material.

4) Salvaged/Unusable Pavement Material was totaled and equally distributed over each of the Construction IDs.

5) Available Material = Cut - Salvaged/Unusuable Pavement Material

6) Expanded Fill. Factor = 1.25

7) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUNTY: PIERCE EARTHWORK SHEET WISDOT/CADDS SHEET 41

FILE NAME: P:\60285986\000\_CAD\010\_Printing\0901\_ew.pdf PLOT DATE: 9/28/2020 8:28 PM PLOT BY: DOLAN, ISAAC PLOT NAME: PLOT SCALE:

				AREA (SF)		INCREMEN'	TAL VOL (CY) (UN	IADJUSTED)	CUMULA.	TIVE VOL (CY)	
STATION	REAL	DISTANCE		SALVAGED/			SALVAGED/				MASS
	STATION		CUT	UNUSABLE	FILL	CUT	UNUSABLE	FILL	CUT	EXPANDED	ORDINATE
				<b>PAVEMENT</b>			PAVEMENT			FILL	
				MATERIAL			MATERIAL		1.00	1.25	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 7
301+00.00	30100		0.0	12.0	0.0	0.0	0.0	0.0	0	0	0
301+50.00	30150	50	41.7	12.0	0.0	38.6	22.3	0.0	39	0	16
302+00.00	30200	50	43.8	12.0	0.0	79.2	22.3	0.0	118	0	73
302+50.00	30250	50	44.1	12.0	0.0	81.4	22.3	0.0	199	0	132
303+00.00	30300	50	41.6	12.0	0.0	79.3	22.3	0.0	278	0	189
303+50.00	30350	50	38.4	12.0	0.0	74.0	22.3	0.0	352	0	241
304+00.00	30400	50	38.3	12.0	0.0	71.0	22.3	0.0	423	0	290
304+50.00	30450	50	36.7	12.0	0.0	69.4	22.3	0.0	493	0	337
305+00.00	30500	50	35.5	12.0	0.0	66.8	22.3	0.0	560	0	381
305+50.00	30550	50	34.4	12.0	0.0	64.8	22.3	0.0	624	0	424
306+00.00	30600	50	33.0	12.0	0.0	62.5	22.3	0.0	687	0	464
306+50.00	30650	50	32.2	12.0	0.0	60.4	22.3	0.0	747	0	502
307+00.00	30700	50	31.7	12.0	0.0	59.2	22.3	0.0	807	0	539
307+50.00	30750	50	29.7	12.0	0.0	56.9	22.3	0.0	863	0	574
308+00.00	30800	50	28.6	12.0	0.9	54.0	22.3	0.8	917	1	604
308+50.00	30850	50	40.9	12.0	0.0	64.3	22.3	0.8	982	2	645
309+00.00	30900	50	48.1	12.0	0.0	82.4	22.3	0.0	1064	2	705
309+50.00	30950	50	47.3	12.0	0.0	88.3	22.3	0.0	1152	2	771
310+00.00	31000	50	44.6	12.0	0.0	85.1	22.3	0.0	1237	2	834
310+50.00	31050	50	42.2	12.0	0.0	80.4	22.3	0.0	1318	2	892
311+00.00	31100	50	37.9	12.0	0.2	74.2	22.3	0.2	1392	2	944
311+24.72	31125	25	40.3	12.0	1.4	35.8	11.0	0.7	1428	3	968
311+50.00	31150	25	40.1	12.0	2.4	37.7	11.3	1.8	1465	5	992
312+00.00	31200	50	39.7	12.0	4.1	73.9	22.3	6.0	1539	13	1036
312+50.00	31250	50	35.9	12.0	6.5	70.0	22.3	9.8	1609	25	1072
313+00.00	31300	50	34.0	12.0	5.4	64.7	22.3	11.0	1674	39	1100
313+50.00	31350	50	37.0	12.0	2.4	65.8	22.3	7.2	1740	48	1135
314+00.00	31400	50	37.9	12.0	1.4	69.3	22.3	3.5	1809	52	1177
314+50.00	31450	50	37.2	12.0	0.3	69.5	22.3	1.6	1879	54	1223
315+00.00	31500	50	36.3	12.0	0.2	68.0	22.3	0.4	1947	55	1268
315+50.00	31550	50	36.3	12.0	0.3	67.2	22.3	0.5	2014	55	1312
316+00.00	31600	50	35.5	12.0	0.8	66.4	22.3	1.1	2080	57	1355
316+50.00	31650	50	36.3	12.0	0.6	66.4	22.3	1.3	2147	58	1397
317+00.00	31700	50	35.8	12.0	1.1	66.8	22.3	1.6	2213	60	1440
317+50.00	31750	50	35.7	12.0	1.2	66.3	22.3	2.1	2280	63	1481
318+00.00	31800	50	34.9	12.0	3.0	65.4	22.3	3.8	2345	68	1519
318+50.00	31850	50	35.6	12.0	2.4	65.3	22.3	5.0	2410	74	1556
319+00.00	31900	50	37.7	12.0	1.5	67.9	22.3	3.6	2478	78	1597
319+50.00	31950	50	38.8	12.0	3.6	70.8	22.3	4.7	2549	84	1640
320+00.00	32000	50	39.8	12.0	3.3	72.8	22.3	6.3	2622	92	1683
320+50.00	32050	50	39.8	12.0	2.6	73.7	22.3	5.4	2696	99	1727
321+00.00	32100	50	37.6	12.0	1.7	71.6	22.3	3.9	2767	104	1772
321+50.00	32150	50	36.2	12.0	0.6	68.3	22.3	2.1	2836	106	1815
322+00.00	32200	50	36.6	12.0	0.9	67.3	22.3	1.4	2903	108	1858
322+50.00	32250	50	36.9	12.0	1.8	68.0	22.3	2.5	2971	111	1901
323+00.00	32300	50	37.2	12.0	0.8	68.6	22.3	2.4	3040	114	1944
323+50.00	32350	50	42.4	12.0	0.0	73.7	22.3	0.7	3113	115	1995
323+61.65	32362	12	43.2	12.0	0.0	18.5	5.2	0.0	3132	115	2008
	PROJECT N	O. 7650-01-7	5 COLUM	IN SUBTOTAL (1	OF 14)	3132	1009	92			

PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUNTY: PIERCE EARTHWORK SHEET **E** 

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

				AREA (SF)		INCREMEN	TAL VOL (CY) (UN	IADJUSTED)	CUMULA	TIVE VOL (CY)	
STATION	REAL	DISTANCE		SALVAGED/			SALVAGED/				MASS
	STATION		CUT	UNUSABLE	FILL	CUT	UNUSABLE	FILL	CUT	EXPANDED	ORDINATE
				PAVEMENT			PAVEMENT			FILL	
				MATERIAL			MATERIAL		1.00	1.25	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 7
323+66.10	32366	4	43.9	12.0	0.0	7.2	2.0	0.0	3139	115	2013
324+00.00	32400	34	42.2	12.0	0.0	54.0	15.1	0.0	3193	115	2052
324+50.00	32450	50	42.1	12.0	0.2	78.1	22.3	0.1	3271	115	2108
325+00.00	32500	50	46.0	12.0	0.0	81.6	22.3	0.1	3353	116	2167
325+25.99	32526	26	48.7	12.0	0.0	45.6	11.6	0.0	3398	116	2201
325+50.00	32550	24	43.4	12.0	0.0	41.0	10.7	0.0	3439	116	2231
326+00.00	32600	50	41.7	12.0	0.1	78.8	22.3	0.1	3518	116	2287
326+50.00	32650	50	42.7	12.0	0.0	78.1	22.3	0.1	3596	116	2343
326+60.00	32660	10	43.8	12.0	0.0	16.0	4.5	0.0	3612	116	2355
327+00.00	32700	40	137.5	12.0	0.0	134.3	17.8	0.0	3746	116	2471
327+10.00	32710	10	160.7	12.0	3.2	55.2	4.5	0.6	3802	117	2521
327+16.00	32716	6	160.7	12.0	4.8	35.7	2.7	0.9	3837	118	2553
327+21.21	32721	5	149.1	12.0	6.4	29.9	2.3	1.1	3867	119	2579
327+50.00	32750	29	82.8	12.0	2.1	123.7	12.8	4.6	3991	125	2684
327+66.00	32766	16	47.3	12.0	1.1	38.5	7.1	0.9	4029	126	2715
328+00.00	32800	34	48.7	12.0	0.0	60.4	15.1	0.7	4090	127	2759
328+50.00	32850	50	50.9	12.0	0.0	92.3	22.3	0.0	4182	127	2829
329+00.00	32900	50	52.4	12.0	0.0	95.7	22.3	0.0	4278	127	2903
329+50.00	32950	50	53.0	12.0	0.0	97.6	22.3	0.0	4375	127	2978
330+00.00	33000	50	52.1	12.0	0.0	97.3	22.3	0.0	4473	127	3053
330+50.00	33050	50	49.3	12.0	0.0	93.8	22.3	0.0	4567	127	3124
331+00.00	33100	50	48.4	12.0	0.0	90.4	22.3	0.0	4657	127	3193
331+50.00	33150	50	44.2	12.0	6.0	85.8	22.3	5.5	4743	134	3249
332+00.00	33200	50	46.9	12.0	0.0	84.4	22.3	5.5	4827	141	3304
332+50.00	33250	50	54.5	12.0	0.0	93.9	22.3	0.0	4921	141	3376
333+00.00	33300	50	58.8	12.0	0.0	104.9	22.3	0.0	5026	141	3459
333+50.00	33350	50	54.0	12.0	0.0	104.4	22.3	0.0	5130	141	3541
334+00.00	33400	50	56.3	12.0	0.0	102.1	22.3	0.0	5232	141	3620
334+50.00	33450	50	58.6	12.0	0.0	106.4	22.3	0.0	5339	141	3705
335+00.00	33500	50	61.1	12.0	0.0	110.9	22.3	0.0	5450	141	3793
335+36.98	33537	37	61.8	12.0	0.0	84.2	16.5	0.0	5534	141	3861
335+50.00	33550	13	66.7	12.0	0.0	31.0	5.8	0.0	5565	141	3886
336+00.00	33600	50	54.3	12.0	2.3	112.1	22.3	2.1	5677	143	3973
336+07.95	33608	8	54.7	12.0	2.2	16.1	3.5	0.7	5693	144	3985
336+33.26	33633	25	59.6	12.0	0.4	53.6	11.3	1.2	5747	146	4026
336+50.00	33650	17	62.0	12.0	0.0	37.7	7.5	0.1	5784	146	4056
336+58.57	33659	9	60.9	12.0	0.0	19.5	3.8	0.0	5804	146	4071
337+00.00	33700	41	59.8	12.0	0.0	92.6	18.5	0.0	5896	146	4146
337+50.00	33750	50	57.1	12.0	3.2	108.2	22.3	3.0	6005	149	4228
338+00.00	33800	50	64.0	12.0	1.5	112.1	22.3	4.4	6117	155	4312
338+50.00	33850	50	73.2	12.0	0.0	127.0	22.3	1.4	6244	157	4415
338+64.97	33865	15	69.7	12.0	0.0	39.6	6.7	0.0	6283	157	4448
338+95.49	33895	31	65.8	12.0	0.0	76.6	13.6	0.0	6360	157	4511
339+00.00	33900	5	64.9	12.0	1.4	10.9	2.0	0.1	6371	157	4520
339+20.49	33920	20	60.3	12.0	3.4	47.5	9.1	1.8	6418	159	4556
339+45.49	33945	25	55.6	12.0	3.5	53.6	11.1	3.2	6472	163	4594
339+50.00	33950	5	54.8	12.0	2.9	9.2	2.0	0.5	6481	164	4601
340+00.00	34000	50	38.0	12.0	0.4	85.9	22.3	3.0	6567	168	4661
	PROJECT N	O. 7650-01-7	5 COLUM	1N SUBTOTAL (2	OF 14)	3436	730	42		_	

				AREA (SF)		INCREMEN <sup>*</sup>	TAL VOL (CY) (UN	IADJUSTED)	CUMULA <sup>-</sup>	TIVE VOL (CY)	
STATION	REAL	DISTANCE		SALVAGED/			SALVAGED/				MASS
	STATION		CUT	UNUSABLE	FILL	CUT	UNUSABLE	FILL	CUT	EXPANDED	ORDINATE
				PAVEMENT			PAVEMENT			FILL	
				MATERIAL			MATERIAL		1.00	1.25	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 7
340+50.00	34050	50	34.7	12.0	0.0	67.3	22.3	0.3	6635	168	4705
341+00.00	34100	50	34.6	12.0	0.0	64.1	22.3	0.0	6699	168	4747
341+50.00	34150	50	35.7	12.0	0.0	65.1	22.3	0.0	6764	168	4790
342+00.00	34200	50	38.1	12.0	0.0	68.3	22.3	0.0	6832	168	4836
342+50.00	34250	50	36.7	12.0	0.0	69.2	22.3	0.0	6901	168	4883
343+00.00	34300	50	38.3	12.0	0.0	69.4	22.3	0.0	6971	168	4930
343+50.00	34350	50	41.0	12.0	0.0	73.4	22.3	0.0	7044	168	4981
344+00.00	34400	50	42.1	12.0	0.0	76.9	22.3	0.0	7121	168	5036
344+50.00	34450	50	38.6	12.0	0.0	74.7	22.3	0.0	7196	168	5088
345+00.00	34500	50	36.5	12.0	0.0	69.5	22.3	0.0	7265	168	5135
345+50.00	34550	50	38.7	12.0	0.0	69.6	22.3	0.0	7335	168	5183
346+00.00	34600	50	39.5	12.0	0.0	72.4	22.3	0.0	7407	168	5233
346+50.00	34650	50	35.8	12.0	0.0	69.7	22.3	0.0	7477	168	5280
347+00.00	34700	50	37.5	12.0	0.0	67.8	22.3	0.0	7545	168	5326
347+50.00	34750	50	33.4	12.0	0.0	65.6	22.3	0.0	7611	168	5369
348+00.00	34800	50	34.2	12.0	0.0	62.6	22.3	0.0	7673	168	5409
348+50.00	34850	50	28.6	12.0	0.0	58.2	22.3	0.0	7731	168	5445
349+00.00	34900	50	25.4	12.0	0.0	50.0	22.3	0.0	7781	168	5473
349+50.00	34950	50	24.0	12.0	0.5	45.7	22.3	0.4	7827	169	5496
350+00.00	35000	50	23.7	12.0	0.4	44.1	22.3	0.8	7871	170	5517
350+50.00	35050	50	25.5	12.0	0.0	45.5	22.3	0.4	7917	170	5539
351+00.00	35100	50	25.7	12.0	0.0	47.4	22.3	0.0	7964	170	5564
351+50.00	35150	50	33.9	12.0	0.0	55.2	22.3	0.0	8019	170	5597
352+00.00	35200	50	36.0	12.0	0.0	64.8	22.3	0.0	8084	170	5640
352+50.00 353+00.00	35250 35300	50 50	34.9 29.5	12.0 12.0	0.0	65.7 59.6	22.3 22.3	0.0 0.0	8150 8209	170 170	5683 5721
353+50.00	35350	50	29.5 36.4	12.0	0.0	61.0	22.3	0.0	8209 8270	170	5721 5759
354+00.00	35400	50	36.5	12.0	0.0	67.5	22.3	0.0	8338	170	5804
354+50.00	35450	50	36.8	12.0	0.0	67.9	22.3	0.0	8406	170	5850
354+64.53	35465	15	35.2	12.0	0.0	19.4	6.5	0.0	8425	170	5863
355+00.00	35500	35	32.6	12.0	2.6	44.6	15.8	1.7	8469	170	5889
355+50.00	35550	50	37.1	12.0	22.0	64.5	22.3	22.8	8534	201	5903
355+93.55	35594	44	45.9	12.0	42.1	66.9	19.4	51.7	8601	265	5886
356+00.00	35600	6	47.5	12.0	44.4	11.1	2.9	10.3	8612	278	5881
356+18.45	35618	18	50.9	12.0	49.6	33.6	8.2	32.1	8646	318	5867
356+27.20	35627	9	50.6	12.0	55.1	16.4	3.9	17.0	8662	340	5858
356+43.45	35643	16	49.5	12.0	56.3	30.1	7.2	33.5	8692	381	5839
356+50.00	35650	7	49.4	12.0	32.5	12.0	2.9	10.8	8704	395	5835
356+52.10	35652	2	49.5	12.0	32.7	3.8	0.9	2.5	8708	398	5834
356+77.10	35677	25	50.1	12.0	38.6	46.1	11.1	33.0	8754	439	5828
357+00.00	35700	23	47.6	12.0	44.0	41.4	10.2	35.0	8796	483	5815
357+24.70	35725	25	47.3	12.0	17.4	43.4	11.0	28.1	8839	518	5813
357+50.00	35750	25	49.4	12.0	15.0	45.3	11.3	15.2	8884	537	5828
357+58.35	35758	8	49.6	12.0	16.5	15.3	3.7	4.9	8900	543	5833
357+74.70	35775	16	51.2	12.0	38.3	30.5	7.3	16.6	8930	564	5836
357+83.35	35783	9	52.4	12.0	31.7	16.6	3.9	11.2	8947	578	5834
358+00.00	35800	17	50.4	12.0	32.4	31.7	7.4	19.8	8978	603	5834
358+08.35	35808	8	48.1	12.0	32.5	15.2	3.7	10.0	8994	615	5833
	PROJECT N	O. 7650-01-7	'5 COLUM	1N SUBTOTAL (3	OF 14)	2426	806	358			

PROJECT NO: 7650-00-74/01-75/02-73

HWY: STH 29

COUNTY: PIERCE

EARTHWORK

SHEET

SHEET

E

				AREA (SF)		INCREMEN'	TAL VOL (CY) (UN	IADJUSTED)	CUMULA	TIVE VOL (CY)	
STATION	REAL	DISTANCE		SALVAGED/			SALVAGED/				MASS
	STATION		CUT	UNUSABLE	FILL	CUT	UNUSABLE	FILL	CUT	EXPANDED	ORDINATE
				PAVEMENT			PAVEMENT			FILL	
				MATERIAL			MATERIAL		1.00	1.25	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 7
358+50.00	35850	42	36.9	12.0	19.4	65.6	18.6	40.1	9059	665	5830
359+00.00	35900	50	38.0	12.0	6.5	69.3	22.3	24.0	9128	695	5847
359+50.00	35950	50	40.9	12.0	0.0	73.0	22.3	6.0	9202	703	5890
360+00.00	36000	50	39.8	12.0	0.0	74.7	22.3	0.0	9276	703	5942
360+50.00	36050	50	37.5	12.0	0.0	71.6	22.3	0.0	9348	703	5992
361+00.00	36100	50	29.1	12.0	0.0	61.7	22.3	0.0	9410	703	6031
361+50.00	36150	50	33.7	12.0	0.0	58.2	22.3	0.0	9468	703	6067
362+00.00	36200	50	36.4	12.0	0.0	64.9	22.3	0.0	9533	703	6110
362+50.00	36250	50	37.7	12.0	0.0	68.5	22.3	0.0	9601	703	6156
363+00.00	36300	50	34.4	12.0	0.0	66.7	22.3	0.0	9668	703	6200
363+50.00	36350	50	34.4	12.0	0.5	63.7	22.3	0.5	9731	704	6241
364+00.00	36400	50	38.0	12.0	0.0	67.0	22.3	0.4	9798	704	6285
364+50.00	36450	50	41.2	12.0	0.0	73.3	22.3	0.0	9872	704	6336
365+00.00	36500	50	40.4	12.0	0.0	75.6	22.3	0.0	9947	704	6390
365+50.00	36550	50	39.2	12.0	0.0	73.7	22.3	0.0	10021	704	6441
366+00.00	36600	50	36.6	12.0	1.7	70.2	22.3	1.6	10091	706	6487
366+50.00	36650	50	37.4	12.0	2.9	68.6	22.3	4.2	10160	711	6528
367+00.00	36700	50	35.8	12.0	2.5	67.8	22.3	5.0	10228	718	6567
367+50.00	36750	50	31.8	12.0	1.0	62.6	22.3	3.3	10290	722	6604
368+00.00	36800	50	32.7	12.0	0.0	59.7	22.3	0.9	10350	723	6640
368+50.00	36850	50	30.3	12.0	4.6	58.3	22.3	4.2	10408	728	6670
369+00.00	36900	50	30.8	12.0	1.8	56.5	22.3	5.9	10465	735	6697
369+50.00	36950	50	34.1	12.0	0.0	60.1	22.3	1.6	10525	737	6733
370+00.00	37000	50	33.9	12.0	0.0	63.0	22.3	0.0	10588	737	6774
370+50.00	37050	50	36.8	12.0	0.0	65.5	22.3	0.0	10653	737	6817
371+00.00	37100	50	37.9	12.0	0.0	69.2	22.3	0.0	10723	737	6864
371+50.00	37150	50	34.4	12.0	0.0	67.0	22.3	0.0	10790	737	6909
372+00.00	37200	50	35.1	12.0	0.0	64.4	22.3	0.0	10854	737	6951
372+50.00	37250	50	33.2	12.0	0.0	63.3	22.3	0.0	10917	737	6992
373+00.00	37300	50	33.4	12.0	0.0	61.6	22.3	0.0	10979	737	7031
373+50.00	37350	50	26.9	12.0	0.0	55.8	22.3	0.0	11035	737	7064
374+00.00	37400	50	28.0	12.0	0.0	50.8	22.3	0.0	11086	737	7093
374+50.00	37450	50	28.8	12.0	0.0	52.5	22.3	0.0	11138	737	7123
375+00.00	37500	50	25.5	12.0	0.0	50.2	22.3	0.0	11188	737	7151
375+50.00	37550	50	24.1	12.0	0.0	45.9	22.3	0.0	11234	737	7175
376+00.00	37600	50	20.5	12.0	0.1	41.3	22.3	0.1	11275	737	7194
376+50.00	37650	50	12.6	12.0	2.5	30.6	22.3	2.4	11306	740	7199
377+00.00	37700	50	14.8	12.0	3.1	25.4	22.3	5.2	11331	747	7196
377+50.00	37750	50	15.4	12.0	1.9	28.0	22.3	4.6	11359	753	7196
378+00.00	37800	50	14.8	12.0	1.5	27.9	22.3	3.1	11387	757	7197
378+50.00	37850	50	13.4	12.0	1.1	26.1	22.3	2.4	11414	760	7198
379+00.00	37900	50	13.7	12.0	2.3	25.1	22.3	3.2	11439	764	7197
379+50.00	37950	50	24.5	12.0	0.1	35.4	22.3	2.3	11474	766	7207
379+65.48	37965	15	35.5	12.0	0.0	17.2	6.9	0.0	11491	766	7217
379+85.26	37985	20	45.9	12.0	0.1	29.8	8.8	0.0	11521	766	7238
379+88.07	37988	3	47.9	12.0	0.0	4.9	1.3	0.0	11526	766	7242
380+00.00	38000	12	46.8	12.0	0.2	20.9	5.3	0.1	11547	766	7258
380+50.00	38050	50	35.5	12.0	18.6	76.2	22.3	17.4	11623	788	7290
	PROJECT N	O. 7650-01-7	5 COLUM	1N SUBTOTAL (4	OF 14)	2629	1000	138		_	

				AREA (SF)		INCREMEN <sup>*</sup>	TAL VOL (CY) (UN	NADJUSTED)	CUMULA <sup>-</sup>	TIVE VOL (CY)	
STATION	REAL STATION	DISTANCE	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	<b>CUT</b> 1.00	EXPANDED FILL 1.25	MASS ORDINATE
				WATENIAL		NOTE 1	NOTE 2	NOTE 3	NOTE 1	1.23	NOTE 7
381+00.00	38100	50	34.4	12.0	18.5	64.7	22.3	34.3	11688	831	7289
381+41.58	38142	42	38.1	12.0	21.2	55.8	18.5	30.6	11744	869	7288
381+50.00	38150	8	38.9	12.0	18.3	12.0	3.8	6.2	11756	877	7289
381+66.48	38166	16	41.0	12.0	12.6	24.4	7.3	9.4	11780	889	7294
381+79.51	38180	13	45.1	12.0	9.9	20.8	5.8	5.4	11801	896	7302
381+91.48	38191	12	44.1	12.0	9.1	19.8	5.3	4.2	11820	901	7312
382+00.00	38200	9	43.1	12.0	1.6	13.8	3.8	1.7	11834	903	7319
382+04.41	38204	4	42.5	12.0	2.7	7.0	2.0	0.3	11841	903	7324
382+29.41	38229	25	41.7	12.0	1.7	39.0	11.1	2.0	11880	906	7349
382+50.00	38250	21	42.7	12.0	0.7	32.2	9.2	0.9	11912	907	7371
382+72.73	38273	23	41.3	12.0	0.7	35.4	10.1	0.6	11948	908	7396
382+97.73	38298	25	40.0	12.0	7.6	37.7	11.1	3.8	11985	913	7417
383+00.00	38300	2	40.3	12.0	8.7	3.4	1.0	0.7	11989	913	7419
383+10.66	38311	11	43.0	12.0	6.4	16.4	4.8	3.0	12005	917	7427
383+22.63	38323	12	46.5	12.0	11.9	19.8	5.3	4.1	12025	922	7436
383+35.66	38336	13	49.6	12.0	15.2	23.2	5.8	6.5	12048	930	7446
383+50.00	38350	14	52.4	12.0	16.0	27.1	6.4	8.3	12075	941	7456
383+60.56	38361	11	50.4	12.0	19.7	20.1	4.7	7.0	12095	949	7463
383+71.20	38371	11	48.5	12.0	19.7	19.5	4.7	7.8	12115	959	7468
384+00.00	38400	29	46.2	12.0	13.0	50.5	12.8	17.5	12165	981	7483
384+50.00	38450	50	41.8	12.0	0.6	81.5	22.3	12.7	12247	997	7527
385+00.00	38500	50	35.7	12.0	0.0	71.8	22.3	0.6	12319	998	7575
385+50.00	38550	50	33.0	12.0	0.1	63.6	22.3	0.2	12382	998	7617
386+00.00	38600	50	31.4	12.0	0.0	59.6	22.3	0.1	12442	998	7654
386+50.00	38650	50	34.9	12.0	0.0	61.4	22.3	0.0	12503	998	7693
387+00.00	38700	50	33.2	12.0	0.0	63.0	22.3	0.0	12566	998	7734
387+50.00	38750	50	33.4	12.0	6.9	61.7	22.3	6.3	12628	1006	7765
387+93.34	38793	43	34.8	12.0	65.8	54.8	19.3	58.3	12683	1079	7728
388+00.00	38800	7	34.5	12.0	62.1	8.6	3.0	15.8	12691	1098	7714
388+17.98	38818	18	34.5	12.0	53.9	23.0	8.0	38.6	12714	1147	7680
388+42.69	38843	25	32.7	12.0	31.9	30.8	11.0	39.3	12745	1196	7651
388+50.00	38850	7	32.5	12.0	3.0	8.8	3.3	4.7	12754	1202	7651
389+00.00	38900	50	33.4	12.0	2.0	61.0	22.3	4.5	12815	1207	7684
389+50.00	38950	50	34.8	12.0	1.8	63.1	22.3	3.5	12878	1212	7720
389+81.65	38982	32	37.3	12.0	3.4	42.2	14.1	3.1	12920	1216	7744
390+00.00	39000	18	40.4	12.0	3.6	26.4	8.2	2.4	12947	1218	7760
390+50.00	39050	50	37.6	12.0	1.7	72.2	22.3	4.9	13019	1225	7803
391+00.00	39100	50	38.0	12.0	1.2	70.0	22.3	2.6	13089	1228	7848
391+50.00	39150	50	39.9	12.0	0.0	72.1	22.3	1.1	13161	1229	7896 7044
392+00.00 392+50.00	39200	50 50	36.3 36.7	12.0	0.1	70.5 67.5	22.3	0.1	13232 13299	1229	7944 7990
	39250	50 50		12.0	0.0		22.3	0.1		1229	
393+00.00 393+50.00	39300 39350	50 50	33.5	12.0 12.0	0.0	65.0	22.3	0.0	13364 13424	1229	8032 8070
	39350 39356	50 6	31.2	12.0 12.0	0.1	59.9	22.3	0.0		1229	8070 8074
393+56.01 394+00.00	39356 39400	6	31.5 28.5	12.0 12.0	0.1 0.1	7.0 48.8	2.7 19.6	0.0	13431 13480	1229 1230	8074 8103
394+00.00	39400 39450	44 50	28.5 34.7			48.8 58.5	19.6 22.3	0.1	13480	1230 1230	8103 8139
394+50.00	39450 39500	50 50	34.7 36.3	12.0 12.0	0.0	58.5 65.7	22.3 22.3	0.0	13538	1230	8139 8183
395+00.00	39500 39550	50 50	39.7	12.0 12.0	0.0	70.4	22.3	0.0 0.0	13674	1230	8183
333+3U.UU	JZJJU	30	33./	12.0	0.0	70.4	22.3	0.0	130/4	1230	0231
	PROJECT N	O. 7650-01-7	'5 COLUM	IN SUBTOTAL (5	5 OF 14)	2051	669	353		_	

PROJECT NO: 7650-00-74/01-75/02-73

HWY: STH 29

COUNTY: PIERCE

EARTHWORK

SHEET

SHEET

EARTHWORK

FILE NAME: P:\60285986\000\_CAD\010\_Printing\0901\_ew.pdf

PLOT BY: DOLAN, ISAAC PLOT NAME: PLOT SCALE: WISDOT/CADDSSHEET 41

				AREA (SF)		INCREMEN'	TAL VOL (CY) (UN	ADJUSTED)	CUMULA <sup>-</sup>	TIVE VOL (CY)	
STATION	REAL	DISTANCE		SALVAGED/			SALVAGED/				MASS
	STATION		CUT	UNUSABLE	FILL	CUT	UNUSABLE	FILL	CUT	EXPANDED	ORDINATE
				<b>PAVEMENT</b>			PAVEMENT			FILL	
				MATERIAL			MATERIAL		1.00	1.25	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 7
396+00.00	39600	50	37.0	12.0	0.2	71.0	22.3	0.2	13745	1230	8279
396+50.00	39650	50	28.8	12.0	0.5	60.9	22.3	0.6	13806	1231	8317
397+00.00	39700	50	28.7	12.0	0.6	53.3	22.3	1.0	13860	1232	8347
397+50.00	39750	50	21.6	12.0	1.1	46.5	22.3	1.6	13906	1234	8369
398+00.00	39800	50	21.6	12.0	0.6	40.0	22.3	1.5	13946	1236	8385
398+04.86	39805	5	20.7	12.0	0.5	3.8	2.2	0.1	13950	1236	8386
398+21.30	39821	16	18.2	12.0	15.9	11.8	7.3	5.0	13962	1242	8385
398+29.56	39830	8	15.2	12.0	18.4	5.1	3.7	5.2	13967	1249	8380
398+50.00	39850	20	11.7	12.0	24.9	10.2	9.1	16.4	13977	1269	8360
398+54.20	39854	4	12.6	12.0	25.5	1.9	1.9	3.9	13979	1274	8355
399+00.00	39900	46	17.7	12.0	7.7	25.7	20.4	28.2	14005	1309	8325
399+50.00	39950	50	20.9	12.0	0.0	35.7	22.3	7.2	14040	1318	8330
400+00.00	40000	50	31.6	12.0	0.0	48.6	22.3	0.0	14089	1318	8356
400+50.00	40050	50	25.6	12.0	0.0	52.9	22.3	0.0	14142	1318	8387
401+00.00	40100	50	18.6	12.0	0.9	40.9	22.3	0.8	14183	1319	8404
401+50.00	40150	50	13.2	12.0	2.7	29.5	22.3	3.3	14212	1323	8408
402+00.00	40200	50	26.1	12.0	0.7	36.4	22.3	3.1	14249	1327	8418
402+50.00	40250	50	33.8	12.0	0.0	55.5	22.3	0.6	14304	1328	8450
403+00.00	40300	50	33.0	12.0	0.0	61.9	22.3	0.0	14366	1328	8490
403+50.00	40350	50	28.4	12.0	0.0	56.9	22.3	0.0	14423	1328	8524
404+00.00	40400	50	24.2	12.0	0.0	48.7	22.3	0.0	14472	1328	8551
404+50.00	40450	50	26.7	12.0	0.0	47.1	22.3	0.0	14519	1328	8576
405+00.00	40500	50	29.8	12.0	0.0	52.3	22.3	0.0	14571	1328	8606
405+50.00	40550	50	28.0	12.0	0.0	53.5	22.3	0.0	14625	1328	8637
406+00.00	40600	50	33.8	12.0	0.0	57.1	22.3	0.0	14682	1328	8672
406+50.00	40650	50	33.5	12.0	0.0	62.3	22.3	0.0	14744	1328	8712
407+00.00	40700	50	35.6	12.0	0.0	64.0	22.3	0.0	14808	1328	8753
407+50.00	40750	50	40.3	12.0	0.0	70.3	22.3	0.0	14878	1328	8801
408+00.00	40800	50	41.2	12.0	0.0	75.5	22.3	0.0	14954	1328	8855
408+50.00	40850	50	41.8	12.0	0.0	76.8	22.3	0.0	15031	1328	8909
409+00.00	40900	50	41.0	12.0	0.0	76.6	22.3	0.0	15107	1328	8964
409+50.00	40950	50	45.9	12.0	0.0	80.5	22.3	0.0	15188	1328	9022
410+00.00	41000	50	37.3	12.0	0.0	77.0	22.3	0.0	15265	1328	9076
410+50.00	41050	50	36.5	12.0	0.0	68.3	22.3	0.0	15333	1328	9122
411+00.00	41100	50	40.5	12.0	0.0	71.3	22.3	0.0	15404	1328	9171
411+50.00	41150	50	42.6	12.0	0.0	77.0	22.3	0.0	15481	1328	9226
412+00.00	41200	50	45.6	12.0	0.0	81.7	22.3	0.0	15563	1328	9285
412+50.00	41250	50	46.5	12.0	0.0	85.3	22.3	0.0	15648	1328	9348
413+00.00	41300	50	43.3	12.0	0.0	83.1	22.3	0.0	15731	1328	9409
413+50.00	41350	50	41.5	12.0	0.0	78.5	22.3	0.0	15810	1328	9465
414+00.00	41400	50	44.8	12.0	0.0	79.9	22.3	0.0	15890	1328	9523
414+50.00	41450	50	39.1	12.0	0.0	77.7	22.3	0.0	15968	1328	9578
415+00.00	41500	50	34.7	12.0	0.0	68.4	22.3	0.0	16036	1328	9625
415+50.00	41550	50	47.6	12.0	0.0	76.2	22.3	0.0	16112	1328	9678
416+00.00	41600	50	47.3	12.0	0.0	87.8	22.3	0.0	16200	1328	9744
416+50.00	41650	50	45.8	12.0	0.0	86.2	22.3	0.0	16286	1328	9808
417+00.00	41700	50	44.1	12.0	0.0	83.2	22.3	0.0	16369	1328	9869
417+50.00	41750	50	42.8	12.0	0.0	80.5	22.3	0.0	16450	1328	9927
	PROJECT N	O. 7650-01-7	'5 COLUM	1N SUBTOTAL (6	OF 14)	2776	981	79		_	

PROJECT NO: 7650-00-74/01-75/02-73

HWY: STH 29

COUNTY: PIERCE

EARTHWORK

SHEET

SHEET

E

				AREA (SF)		INCREMEN <sup>-</sup>	TAL VOL (CY) (UN	IADJUSTED)	CUMULA	TIVE VOL (CY)	
STATION	REAL	DISTANCE		SALVAGED/			SALVAGED/				MASS
	STATION		CUT	UNUSABLE	FILL	CUT	UNUSABLE	FILL	CUT	EXPANDED	ORDINATE
				PAVEMENT			PAVEMENT			FILL	
				MATERIAL			MATERIAL		1.00	1.25	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 7
418+00.00	41800	50	41.8	12.0	0.0	78.4	22.3	0.0	16528	1328	9983
418+50.00	41850	50	42.5	12.0	0.0	78.1	22.3	0.0	16606	1328	10039
419+00.00	41900	50	41.2	12.0	0.0	77.5	22.3	0.0	16684	1328	10094
419+50.00	41950	50	38.9	12.0	0.0	74.2	22.3	0.0	16758	1328	10146
420+00.00	42000	50	36.4	12.0	0.0	69.7	22.3	0.0	16828	1328	10193
420+50.00	42050	50	34.1	12.0	0.0	65.3	22.3	0.0	16893	1328	10236
421+00.00	42100	50	35.1	12.0	0.0	64.1	22.3	0.0	16957	1328	10278
421+50.00	42150	50	37.6	12.0	0.0	67.3	22.3	0.0	17024	1328	10323
422+00.00	42200	50	35.4	12.0	0.0	67.6	22.3	0.0	17092	1328	10369
422+50.00	42250	50	33.9	12.0	0.0	64.2	22.3	0.0	17156	1328	10410
423+00.00	42300	50	39.1	12.0	0.0	67.6	22.3	0.0	17224	1328	10456
423+50.00	42350	50	37.6	12.0	0.0	71.0	22.3	0.0	17295	1328	10504
424+00.00	42400	50	26.7	12.0	0.1	59.5	22.3	0.1	17354	1328	10541
424+50.00	42450	50	28.5	12.0	0.0	51.1	22.3	0.1	17405	1328	10570
425+00.00	42500	50	23.3	12.0	0.0	47.9	22.3	0.0	17453	1328	10596
425+50.00	42550	50	24.1	12.0	0.1	43.8	22.3	0.1	17497	1328	10617
426+00.00	42600	50	22.9	12.0	0.0	43.5	22.3	0.1	17541	1328	10638
426+50.00	42650	50	22.4	12.0	0.0	41.9	22.3	0.0	17582	1328	10658
427+00.00	42700	50	29.4	12.0	0.0	47.9	22.3	0.0	17630	1328	10683
427+17.52	42718	18	34.2	12.0	0.0	20.6	7.8	0.0	17651	1328	10696
427+22.57	42723	5	34.8	12.0	0.0	6.4	2.3	0.0	17657	1328	10700
427+50.00	42750	27	30.6	12.0	0.0	33.2	12.2	0.0	17691	1328	10721
428+00.00	42800	50	26.3	12.0	1.1	52.6	22.3	1.0	17743	1330	10750
428+50.00	42850	50	25.0	12.0	0.0	47.5	22.3	1.0	17791	1331	10774
429+00.00	42900	50	22.4	12.0	0.0	43.9	22.3	0.0	17835	1331	10796
429+50.00	42950	50	24.3	12.0	0.0	43.2	22.3	0.0	17878	1331	10817
430+00.00	43000	50	25.5	12.0	0.0	46.1	22.3	0.0	17924	1331	10841
430+50.00	43050	50	26.2	12.0	0.0	47.8	22.3	0.0	17972	1331	10866
431+00.00	43100	50	26.4	12.0	0.0	48.7	22.3	0.0	18020	1331	10893
431+50.00	43150	50	26.4	12.0	0.0	48.9	22.3	0.0	18069	1331	10919
432+00.00	43200	50	28.9	12.0	0.0	51.2	22.3	0.0	18120	1331	10948
432+15.60	43216	16	29.3	12.0	0.0	16.8	7.0	0.0	18137	1331	10958
432+50.00	43250	34	33.8	12.0	0.1	40.2	15.3	0.0	18177	1331	10983
433+00.00	43300	50	33.3	12.0	0.0	62.2	22.3	0.1	18240	1331	11022
433+50.00	43350	50	29.6	12.0	0.0	58.2	22.3	0.0	18298	1331	11058
434+00.00	43400	50	29.8	12.0	0.0	55.0	22.3	0.0	18353	1331	11091
434+50.00	43450	50	28.9	12.0	0.0	54.4	22.3	0.0	18407	1331	11123
435+00.00	43500	50	33.6	12.0	0.0	57.9	22.3	0.0	18465	1331	11159
435+50.00	43550	50	30.4	12.0	0.0	59.3	22.3	0.0	18524	1331	11196
436+00.00	43600	50	26.2	12.0	0.0	52.4	22.3	0.0	18577	1331	11226
436+50.00	43650	50	26.0	12.0	0.0	48.2	22.3	0.0	18625	1331	11252
437+00.00	43700	50	28.8	12.0	0.0	50.7	22.3	0.0	18676	1331	11280
437+50.00	43750	50	31.3	12.0	0.0	55.6	22.3	0.0	18731	1331	11313
438+00.00	43800	50	31.8	12.0	0.0	58.4	22.3	0.0	18790	1331	11350
438+50.00	43850	50	32.2	12.0	0.0	59.2	22.3	0.0	18849	1331	11386
438+92.12	43892	42	31.5	12.0	0.0	49.6	18.8	0.0	18899	1331	11417
439+00.00	43900	8	32.3	12.0	0.0	9.3	3.5	0.0	18908	1331	11417
439+26.48	43926	26	32.3	12.0	0.0	31.7	11.8	0.0	18940	1331	11423
133120.40	15520	20	52.5	12.0	5.0	51.7	11.0	0.0	10340	1001	±±113
	PROJECT N	O. 7650-01-7	5 COLUM	IN SUBTOTAL (7	OF 14)	2490	971	3		_	

PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUNTY: PIERCE EARTHWORK SHEET **E** 

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

				AREA (SF)		INCREMEN	TAL VOL (CY) (UN	IADJUSTED)	CUMULAT	TIVE VOL (CY)	
STATION	REAL	DISTANCE		SALVAGED/			SALVAGED/				MASS
	STATION		CUT	UNUSABLE	FILL	CUT	UNUSABLE	FILL	CUT	EXPANDED	ORDINATE
				PAVEMENT			PAVEMENT			FILL	
				MATERIAL			MATERIAL		1.00	1.25	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 7
439+50.00	43950	24	29.1	12.0	0.0	26.7	10.5	0.0	18966	1331	11459
440+00.00	44000	50	22.2	12.0	0.0	47.5	22.3	0.0	19014	1331	11484
440+50.00	44050	50	20.8	12.0	0.3	39.8	22.3	0.3	19053	1332	11501
441+00.00	44100	50	15.3	12.0	1.2	33.4	22.3	1.4	19087	1333	11511
441+50.00	44150	50	15.8	12.0	0.6	28.8	22.3	1.6	19116	1335	11515
442+00.00	44200	50	20.9	12.0	0.5	34.0	22.3	1.0	19150	1337	11526
442+50.00	44250	50	36.0	12.0	0.0	52.7	22.3	0.5	19202	1337	11555
443+00.00	44300	50	43.9	12.0	0.0	74.0	22.3	0.0	19276	1337	11607
443+50.00	44350	50	47.8	12.0	0.0	84.8	22.3	0.0	19361	1337	11670
444+00.00	44400	50	46.1	12.0	0.0	87.0	22.3	0.0	19448	1337	11734
444+50.00	44450	50	45.2	12.0	0.0	84.6	22.3	0.0	19533	1337	11797
445+00.00	44500	50	39.7	12.0	0.0	78.6	22.3	0.0	19611	1337	11853
445+50.00	44550	50	31.2	12.0	0.0	65.6	22.3	0.0	19677	1337	11896
446+00.00	44600	50	31.5	12.0	0.0	58.1	22.3	0.0	19735	1337	11932
446+50.00	44650	50	29.6	12.0	0.0	56.5	22.3	0.0	19792	1337	11966
447+00.00	44700	50	30.5	12.0	0.0	55.6	22.3	0.0	19847	1337	12000
447+50.00	44750	50	27.4	12.0	0.0	53.6	22.3	0.0	19901	1337	12031
447+85.91	44786	36	30.4	12.0	0.5	38.4	16.0	0.3	19939	1338	12053
448+00.00	44800	14	31.0	12.0	0.0	16.0	6.3	0.1	19955	1338	12062
448+39.21	44839	39	30.2	12.0	0.0	44.4	17.5	0.0	20000	1338	12089
448+50.00	44850	11	31.7	12.0	0.0	12.4	4.8	0.0	20012	1338	12097
449+00.00	44900	50	26.4	12.0	1.1	53.8	22.3	1.0	20066	1339	12127
449+50.00	44950	50	26.8	12.0	0.0	49.2	22.3	1.0	20115	1340	12153
450+00.00	45000	50	26.8	12.0	0.0	49.6	22.3	0.0	20165	1340	12180
450+50.00	45050	50	27.5	12.0	0.0	50.3	22.3	0.0	20215	1340	12208
451+00.00	45100	50	24.0	12.0	0.4	47.7	22.3	0.4	20263	1341	12233
451+50.00	45150	50	28.5	12.0	0.1	48.6	22.3	0.5	20311	1341	12259
452+00.00	45200	50	27.4	12.0	0.0	51.8	22.3	0.1	20363	1341	12288
452+50.00	45250	50	28.4	12.0	0.6	51.7	22.3	0.6	20415	1342	12317
453+00.00	45300	50	35.5	12.0	0.0	59.2	22.3	0.6	20474	1343	12353
453+50.00	45350	50	34.2	12.0	0.0	64.6	22.3	0.0	20538	1343	12395
454+00.00	45400	50	34.0	12.0	0.0	63.1	22.3	0.0	20602	1343	12436
454+50.00	45450	50	34.5	12.0	0.0	63.4	22.3	0.0	20665	1343	12477
455+00.00	45500	50	37.7	12.0	0.0	66.9	22.3	0.0	20732	1343	12522
455+50.00	45550	50	38.7	12.0	0.0	70.7	22.3	0.0	20803	1343	12570
456+00.00	45600	50	40.0	12.0	0.0	72.9	22.3	0.0	20875	1343	12621
456+50.00	45650	50	39.1	12.0	0.0	73.3	22.3	0.0	20949	1343	12672
457+00.00	45700	50	39.2	12.0	0.0	72.5	22.3	0.0	21021	1343	12722
457+50.00	45750	50	39.5	12.0	0.0	72.8	22.3	0.0	21094	1343	12773
458+00.00	45800	50	37.7	12.0	0.0	71.4	22.3	0.0	21166	1343	12822
458+50.00	45850	50	36.8	12.0	0.0	68.9	22.3	0.0	21234	1343	12868
459+00.00	45900	50	35.0	12.0	0.0	66.4	22.3	0.0	21301	1343	12912
459+50.00	45950	50	41.0	12.0	0.0	70.4	22.3	0.0	21371	1343	12961
459+63.77	45964	14	38.9	12.0	0.0	20.4	6.1	0.0	21392	1343	12975
459+77.75	45978	14	41.9	12.0	0.0	20.9	6.2	0.0	21413	1343	12989
460+00.00	46000	22	35.2	12.0	0.0	31.8	9.9	0.0	21444	1343	13011
460+50.00	46050	50	30.5	12.0	0.2	60.8	22.3	0.2	21505	1343	13050
461+00.00	46100	50	30.3	12.0	0.1	56.3	22.3	0.3	21561	1344	13083
	PROJECT N	O. 7650-01-7	5 COLUM	1N SUBTOTAL (8	OF 14)	2622	969	10		_	

				AREA (SF)		INCREMEN'	TAL VOL (CY) (UN	IADJUSTED)	CUMULA	TIVE VOL (CY)	
STATION	REAL	DISTANCE		SALVAGED/			SALVAGED/				MASS
	STATION		CUT	UNUSABLE	FILL	CUT	UNUSABLE	FILL	CUT	EXPANDED	ORDINATE
				PAVEMENT			PAVEMENT			FILL	
				MATERIAL			MATERIAL		1.00	1.25	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 7
461+50.00	46150	50	32.2	12.0	0.0	57.8	22.3	0.1	21619	1344	13119
462+00.00	46200	50	34.2	12.0	0.0	61.5	22.3	0.0	21681	1344	13158
462+50.00	46250	50	35.5	12.0	0.0	64.6	22.3	0.0	21745	1344	13200
463+00.00	46300	50	35.3	12.0	0.0	65.5	22.3	0.0	21811	1344	13243
463+50.00	46350	50	35.0	12.0	2.4	65.1	22.3	2.2	21876	1346	13283
464+00.00	46400	50	29.7	12.0	8.0	60.0	22.3	9.7	21936	1358	13309
464+50.00	46450	50	32.5	12.0	4.7	57.6	22.3	11.8	21994	1373	13330
465+00.00	46500	50	35.6	12.0	6.6	63.0	22.3	10.4	22057	1386	13357
465+50.00	46550	50	36.2	12.0	0.0	66.5	22.3	6.1	22123	1394	13394
466+00.00	46600	50	38.1	12.0	0.0	68.8	22.3	0.0	22192	1394	13440
466+50.00	46650	50	37.1	12.0	0.0	69.7	22.3	0.0	22262	1394	13488
467+00.00	46700	50	38.2	12.0	0.0	69.7	22.3	0.0	22331	1394	13535
467+50.00	46750	50	38.3	12.0	0.0	70.8	22.3	0.0	22402	1394	13584
468+00.00	46800	50	36.1	12.0	0.0	68.9	22.3	0.0	22471	1394	13630
468+50.00	46850	50	31.9	12.0	0.0	63.0	22.3	0.0	22534	1394	13671
469+00.00	46900	50	25.7	12.0	0.0	53.3	22.3	0.0	22587	1394	13702
469+50.00	46950	50	27.7	12.0	0.0	49.4	22.3	0.0	22637	1394	13729
470+00.00	47000	50	28.1	12.0	0.0	51.6	22.3	0.0	22688	1394	13758
470+50.00	47050	50	25.8	12.0	0.1	49.9	22.3	0.1	22738	1394	13786
471+00.00	47100	50	27.7	12.0	0.0	49.5	22.3	0.1	22788	1394	13813
471+50.00	47150	50	26.9	12.0	0.0	50.5	22.3	0.0	22838	1394	13841
471+65.81	47166	16	27.9	12.0	0.0	16.0	7.0	0.0	22854	1394	13850
472+00.00 472+50.00	47200	34	26.2 26.3	12.0	0.0	34.2	15.2	0.0	22888	1394	13869 13893
472+30.00	47250 47300	50 50	25.2	12.0 12.0	1.8 0.3	48.6 47.7	22.3 22.3	1.7 2.0	22937 22985	1396 1399	13916
473+50.00	47350	50	25.2 26.6	12.0	0.5	47.7	22.3	0.3	23033	1399	13910
474+00.00	47330	50	26.6	12.0	0.0	49.3	22.3	0.0	23082	1399	13941
474+50.00	47450	50	25.0	12.0	5.3	47.8	22.3	4.9	23130	1405	13988
474130.00	47500	50	24.8	12.0	12.6	46.1	22.3	16.5	23176	1426	13991
475+50.00	47550	50	23.5	12.0	12.8	44.7	22.3	23.4	23221	1455	13984
476+00.00	47600	50	23.5	12.0	15.0	43.5	22.3	25.7	23264	1487	13973
476+50.00	47650	50	19.8	12.0	16.5	40.1	22.3	29.2	23304	1524	13954
477+00.00	47700	50	21.0	12.0	1.9	37.7	22.3	17.0	23342	1545	13949
477+14.14	47714	14	21.8	12.0	1.9	11.2	6.3	1.0	23353	1546	13952
477+50.00	47750	36	26.0	12.0	8.7	31.7	16.0	7.0	23385	1555	13959
477+91.98	47792	42	29.0	12.0	46.8	42.7	18.7	43.1	23427	1609	13929
478+00.00	47800	8	29.8	12.0	47.1	8.7	3.6	13.9	23436	1626	13917
478+16.88	47817	17	29.3	12.0	54.5	18.5	7.5	31.8	23455	1666	13888
478+37.84	47838	21	27.3	12.0	72.9	22.0	9.3	49.4	23477	1728	13839
478+41.88	47842	4	26.9	12.0	72.9	4.1	1.8	10.9	23481	1742	13828
478+50.00	47850	8	26.1	12.0	62.8	8.0	3.6	20.4	23489	1767	13806
478+62.74	47863	13	25.6	12.0	60.9	12.2	5.7	29.2	23501	1804	13776
478+87.74	47888	25	27.4	12.0	62.5	24.5	11.1	57.1	23525	1875	13718
479+00.00	47900	12	29.2	12.0	45.6	12.8	5.5	24.5	23538	1906	13695
479+04.08	47904	4	30.0	12.0	58.4	4.5	1.8	7.8	23543	1915	13688
479+50.00	47950	46	0.0	12.0	0.0	25.5	20.5	49.6	23568	1977	13631
480+00.00	48000	50	54.7	12.0	304.6	50.6	22.3	282.0	23619	2330	13307
480+20.67	48021	21	54.2	12.0	78.3	41.7	9.2	146.5	23660	2513	13156
					-	-		-		-	
	PROJECT N	O. 7650-01-7	5 COLUM	1N SUBTOTAL (9	OF 14)	2099	856	936		_	

			AREA (SF)			INCREMEN'	TAL VOL (CY) (UN	CUMULA			
STATION	REAL	DISTANCE		SALVAGED/			SALVAGED/				MASS
	STATION		CUT	UNUSABLE	FILL	CUT	UNUSABLE	FILL	CUT	EXPANDED	ORDINATE
				PAVEMENT			PAVEMENT			FILL	
				MATERIAL			MATERIAL		1.00	1.25	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 7
480+37.40	48037	17	30.7	12.0	35.1	26.3	7.5	35.2	23687	2557	13131
480+50.00	48050	13	28.5	12.0	39.0	13.8	5.6	17.3	23700	2579	13117
480+62.40	48062	12	26.6	12.0	39.6	12.6	5.5	18.1	23713	2601	13102
480+87.40	48087	25	26.0	12.0	44.6	24.3	11.1	39.0	23737	2650	13066
480+95.60	48096	8	26.5	12.0	43.5	7.9	3.7	13.4	23745	2667	13054
481+00.00	48100	4	26.6	12.0	68.9	4.3	2.0	9.2	23750	2678	13045
481+20.60	48121	21	28.1	12.0	59.6	20.8	9.2	49.0	23771	2739	12995
481+45.60	48146	25	28.1	12.0	62.3	26.0	11.1	56.4	23797	2810	12940
481+50.00	48150	4	27.9	12.0	58.3	4.6	2.0	9.8	23801	2822	12930
481+89.72	48190	40	24.4	12.0	21.7	38.4	17.7	58.8	23840	2896	12877
482+00.00	48200	10	23.7	12.0	17.1	9.2	4.6	7.4	23849	2905	12873
482+50.00	48250	50	23.6	12.0	8.7	43.8	22.3	23.8	23892	2935	12864
483+00.00	48300	50	22.1	12.0	7.5	42.3	22.3	15.0	23935	2953	12866
483+50.00	48350	50	21.1	12.0	9.4	40.0	22.3	15.7	23975	2973	12864
484+00.00	48400	50	20.1	12.0	15.9	38.2	22.3	23.5	24013	3002	12850
484+50.00	48450	50	16.2	12.0	12.1	33.6	22.3	26.0	24046	3035	12829
485+00.00	48500	50	14.8	12.0	7.8	28.6	22.3	18.4	24075	3058	12812
485+50.00	48550	50	12.6	12.0	4.7	25.3	22.3	11.5	24100	3072	12801
486+00.00	48600	50	14.6	12.0	1.9	25.1	22.3	6.1	24126	3080	12796
486+50.00	48650	50	12.6	12.0	2.0	25.1	22.3	3.6	24151	3085	12794
487+00.00	48700	50	12.6	12.0	1.0	23.3	22.3	2.8	24174	3088	12792
487+50.00	48750	50	10.6	12.0	0.2	21.5	22.3	1.2	24196	3089	12790
488+00.00	48800	50	18.8	12.0	0.0	27.3	22.3	0.2	24223	3090	12794
488+50.00	48850	50	22.9	12.0	0.0	38.6	22.3	0.0	24261	3090	12811
489+00.00	48900	50	24.6	12.0	0.0	44.0	22.3	0.0	24305	3090	12832
489+50.00	48950	50	28.5	12.0	0.0	49.2	22.3	0.0	24355	3090	12859
490+00.00	49000	50	34.6	12.0	0.0	58.5	22.3	0.0	24413	3090	12895
490+50.00	49050	50	39.5	12.0	0.0	68.6	22.3	0.0	24482	3090	12942
491+00.00	49100	50	41.7	12.0	0.0	75.2	22.3	0.0	24557	3090	12995
491+50.00	49150	50	43.2	12.0	0.0	78.6	22.3	0.0	24636	3090	13051
491+30.00	49200	50	39.0	12.0	1.1	76.1	22.3	1.1	24712	3090	13103
492+50.00	49250	50	3 <i>3</i> .0	12.0	3.6	67.6	22.3	4.4	24712	3097	13143
492+30.00	49230		33.7	12.0	5.5	62.7	22.3		24779	3097	13143
493+00.00	49350	50 50	35.7 35.3	12.0	5.5 5.0	63.9	22.3	8.4 9.7	24842	3119	13173
494+00.00	49400	50 50	36.8	12.0	5.8	66.7	22.3	10.0	24973	3132	13235
494+50.00	49450	50 50	39.6	12.0	12.9	70.8	22.3	17.3	25043	3153	13261
495+00.00	49500	50 50	41.7	12.0	6.4	75.3	22.3	17.8	25119	3176	13292
495+50.00	49550	50	41.7	12.0	6.4	77.2	22.3	11.8	25196	3190	13332
496+00.00	49600	50	47.9 53.1	12.0	10.5	83.0	22.3	15.7	25279	3210	13373
496+50.00	49650	50 50	53.1	12.0	4.6	93.5	22.3	14.1	25372	3227	13427
497+00.00	49700	50	55.3	12.0	14.6	100.4	22.3	17.9	25473	3250	13483
497+04.03	49704	4	55.7	12.0	23.0	8.3	1.8	2.8	25481	3253	13486
497+50.00	49750	46	54.6	12.0	0.0	93.9	20.5	19.6	25575	3278	13535
498+00.00	49800	50	56.0	12.0	3.9	102.5	22.3	3.6	25677	3282	13610
498+50.00	49850	50	49.4	12.0	9.9	97.6	22.3	12.8	25775	3298	13670
499+00.00	49900	50	44.4	12.0	12.0	86.8	22.3	20.3	25862	3324	13709
499+50.00	49950	50	41.7	12.0	19.3	79.7	22.3	29.0	25941	3360	13730
500+00.00	50000	50	36.7	12.0	29.2	72.6	22.3	45.0	26014	3416	13724
ı	PROJECT NO	. 7650-01-75	согимі	N SUBTOTAL (10	OF 14)	2354	883	722		_	

			AREA (SF)			INCREMEN'	TAL VOL (CY) (UN	CUMULA <sup>-</sup>			
STATION	REAL	DISTANCE		SALVAGED/			SALVAGED/				MASS
	STATION		CUT	UNUSABLE	FILL	CUT	UNUSABLE	FILL	CUT	EXPANDED	ORDINATE
				PAVEMENT			PAVEMENT			FILL	
				MATERIAL			MATERIAL		1.00	1.25	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 7
500+50.00	50050	50	33.8	12.0	29.3	65.3	22.3	54.2	26079	3484	13699
501+00.00	50100	50	31.0	12.0	25.4	60.1	22.3	50.6	26139	3547	13674
501+50.00	50150	50	31.6	12.0	15.7	58.0	22.3	38.0	26197	3595	13662
502+00.00	50200	50	37.5	12.0	0.6	64.0	22.3	15.1	26261	3614	13685
502+50.00	50250	50	33.6	12.0	16.7	65.8	22.3	16.1	26327	3634	13708
503+00.00	50300	50	28.0	12.0	41.6	57.0	22.3	54.0	26384	3701	13676
503+50.00	50350	50	26.7	12.0	55.5	50.7	22.3	89.9	26435	3814	13592
504+00.00	50400	50	29.9	12.0	49.0	52.4	22.3	96.7	26487	3934	13501
504+50.00	50450	50	30.4	12.0	30.6	55.8	22.3	73.7	26543	4027	13442
505+00.00	50500	50	23.5	12.0	18.3	49.9	22.3	45.3	26593	4083	13413
505+50.00	50550	50	33.0	12.0	5.6	52.3	22.3	22.1	26645	4111	13415
506+00.00	50600	50	42.9	12.0	1.3	70.2	22.3	6.4	26716	4119	13455
506+50.00	50650	50	46.9	12.0	0.6	83.2	22.3	1.7	26799	4121	13514
507+00.00	50700	50	42.9	12.0	1.1	83.2	22.3	1.6	26882	4123	13573
507+50.00	50750	50	49.6	12.0	0.0	85.6	22.3	1.0	26968	4124	13635
507+62.61	50763	13	49.1	12.0	0.0	23.0	5.6	0.0	26991	4124	13653
508+00.00	50800	37	44.0	12.0	0.7	64.4	16.7	0.5	27055	4125	13700
508+50.00	50850	50	44.0	12.0	0.7	81.0	22.3	1.4	27033	4125	13757
509+00.00	50900	50	45.5 39.0	12.0	0.8	76.4	22.3	1.4	27130	4128	13737
509+50.00	50950	50	36.5			69.9	22.3	0.9		4128	
				12.0	0.1				27282		13855
510+00.00	51000	50	37.2	12.0	0.0	68.2	22.3	0.1	27350	4130	13901
510+50.00	51050	50	40.0	12.0	0.0	71.5	22.3	0.0	27422	4130	13950
511+00.00	51100	50	40.5	12.0	0.0	74.6	22.3	0.0	27497	4130	14003
511+50.00	51150	50	40.0	12.0	14.9	74.6	22.3	13.8	27571	4147	14038
511+93.79	51194	44	45.2	12.0	25.5	69.1	19.5	32.7	27640	4188	14046
512+00.00	51200	6	45.9	12.0	22.7	10.5	2.8	5.5	27651	4195	14047
512+18.69	51219	19	46.9	12.0	19.9	32.1	8.3	14.7	27683	4213	14052
512+43.69	51244	25	46.1	12.0	56.4	43.1	11.1	35.3	27726	4257	14040
512+50.00	51250	6	47.5	12.0	0.0	10.9	2.8	6.6	27737	4265	14040
512+63.29	51263	13	44.7	12.0	0.0	22.7	5.9	0.0	27759	4265	14057
512+88.87	51289	26	45.6	12.0	1.4	42.8	11.4	0.7	27802	4266	14087
513+00.00	51300	11	44.0	12.0	17.4	18.5	5.0	3.9	27821	4271	14096
513+12.44	51312	12	41.1	12.0	17.9	19.6	5.5	8.1	27840	4281	14100
513+13.77	51314	1	40.8	12.0	20.3	2.0	0.6	0.9	27842	4282	14100
513+37.44	51337	24	37.4	12.0	15.1	34.3	10.6	15.5	27877	4302	14104
513+38.77	51339	1	37.4	12.0	6.0	1.8	0.6	0.5	27878	4303	14105
513+50.00	51350	11	38.9	12.0	0.7	15.9	5.0	1.4	27894	4304	14114
513+62.44	51362	12	39.3	12.0	0.2	18.0	5.5	0.2	27912	4304	14126
513+79.51	51380	17	35.4	12.0	0.1	23.6	7.6	0.1	27936	4305	14142
514+00.00	51400	20	34.5	12.0	0.2	26.5	9.1	0.1	27962	4305	14160
514+32.52	51433	33	32.9	12.0	3.4	40.6	14.5	2.2	28003	4307	14183
514+50.00	51450	17	31.0	12.0	23.3	20.7	7.8	8.6	28024	4318	14185
514+57.52	51458	8	30.8	12.0	22.4	8.6	3.4	6.4	28032	4326	14182
514+82.52	51483	25	31.4	12.0	25.1	28.8	11.1	22.0	28061	4354	14172
515+00.00	51500	17	31.3	12.0	27.8	20.3	7.8	17.1	28081	4375	14163
515+50.00	51550	50	32.7	12.0	8.0	59.2	22.3	33.1	28140	4416	14159
516+00.00	51600	50	36.7	12.0	0.0	64.2	22.3	7.4	28205	4426	14192
516+50.00	51650	50	39.8	12.0	0.0	70.8	22.3	0.0	28275	4426	14240
		<u>-</u>									
	PROJECT NO	. 7650-01-75	COLUMI	N SUBTOTAL (11	OF 14)	2261	736	808			
					7	_					

PROJECT NO: 7650-00-74/01-75/02-73

HWY: STH 29

COUNTY: PIERCE

EARTHWORK

SHEET

SHEET

E

			AREA (SF)			INCREMEN'	TAL VOL (CY) (UN	CUMULA.			
STATION	REAL	DISTANCE		SALVAGED/			SALVAGED/				MASS
	STATION		CUT	UNUSABLE	FILL	CUT	UNUSABLE	FILL	CUT	EXPANDED	ORDINATE
				PAVEMENT			PAVEMENT			FILL	
				MATERIAL			MATERIAL		1.00	1.25	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 7
517+00.00	51700	50	37.9	12.0	0.0	71.9	22.3	0.0	28347	4426	14290
517+24.11	51724	24	41.6	12.0	0.0	35.5	10.8	0.0	28383	4426	14314
517+50.00	51750	26	44.8	12.0	0.0	41.4	11.5	0.0	28424	4426	14344
518+00.00	51800	50	38.6	12.0	0.0	77.2	22.3	0.0	28501	4426	14399
518+50.00	51850	50	33.5	12.0	0.0	66.8	22.3	0.0	28568	4426	14444
519+00.00	51900	50	30.9	12.0	0.0	59.6	22.3	0.0	28628	4426	14481
519+50.00	51950	50	33.4	12.0	0.0	59.5	22.3	0.0	28687	4426	14518
520+00.00	52000	50	34.8	12.0	0.0	63.1	22.3	0.0	28750	4426	14559
520+50.00	52050	50	30.4	12.0	0.0	60.4	22.3	0.0	28811	4426	14597
521+00.00	52100	50	27.7	12.0	0.0	53.8	22.3	0.0	28865	4426	14629
521+50.00	52150	50	23.1	12.0	0.0	47.0	22.3	0.0	28912	4426	14653
522+00.00	52200	50	19.3	12.0	0.1	39.3	22.3	0.1	28951	4426	14670
522+50.00	52250	50	14.9	12.0	0.1	31.7	22.3	0.3	28983	4426	14679
523+00.00	52300	50	13.0	12.0	0.3	25.9	22.3	0.4	29008	4427	14682
523+50.00	52350	50	11.1	12.0	1.0	22.3	22.3	1.2	29031	4428	14681
524+00.00	52400	50	16.0	12.0	0.8	25.1	22.3	1.6	29056	4430	14682
524+50.00	52450	50	17.5	12.0	2.3	31.1	22.3	2.9	29087	4434	14687
525+00.00	52500	50	17.2	12.0	4.5	32.2	22.3	6.3	29119	4442	14689
525+50.00	52550	50	18.4	12.0	1.5	32.9	22.3	5.5	29152	4448	14693
525+65.68	52566	16	19.3	12.0	1.8	10.9	7.0	1.0	29163	4450	14695
526+00.00	52600	34	22.2	12.0	0.7	26.4	15.3	1.6	29189	4452	14704
526+50.00	52650	50	25.0	12.0	0.0	43.7	22.3	0.6	29233	4452	14725
527+00.00	52700	50	21.9	12.0	0.0	43.4	22.3	0.0	29276	4452	14746
527+50.00	52750	50	26.0	12.0	0.0	44.4	22.3	0.0	29321	4452	14768
527+82.30	52782	32	29.7	12.0	0.0	33.3	14.4	0.0	29354	4452	14787
528+00.00	52800	18	31.1	12.0	0.0	19.9	7.9	0.0	29374	4452	14799
528+50.00	52850	50	30.2	12.0	0.0	56.7	22.3	0.0	29431	4452	14834
529+00.00	52900	50	30.7	12.0	0.0	56.4	22.3	0.0	29487	4452	14868
529+50.00	52950	50	29.7	12.0	0.0	55.9	22.3	0.0	29543	4452	14901
530+00.00	53000	50	30.0	12.0	0.0	55.3	22.3	0.0	29598	4452	14934
530+50.00	53050	50	31.2	12.0	0.0	56.7	22.3	0.0	29655	4452	14969
531+00.00	53100	50	30.8	12.0	0.0	57.4	22.3	0.0	29712	4452	15004
531+50.00	53150	50	29.3	12.0	0.0	55.6	22.3	0.0	29768	4452	15037
532+00.00	53200	50	28.7	12.0	0.0	53.7	22.3	0.0	29822	4452	15068
532+50.00	53250	50	25.2	12.0	13.0	49.9	22.3	12.1	29872	4468	15081
532+72.66	53273	23	30.5	12.0	12.7	23.4	10.1	10.8	29895	4481	15081
559+76.85	55977	0	299.0	12.0	9.6	0.0	0.0	0.0	29895	4481	15081
560+00.00	56000	23	44.6	12.0	49.3	147.3	10.3	25.3	30042	4513	15186
560+50.00	56050	50	54.1	12.0	17.9	91.4	22.3	62.2	30134	4590	15177
561+00.00	56100	50	53.7	12.0	11.0	99.8	22.3	26.7	30233	4624	15221
561+50.00	56150	50	52.1	12.0	1.7	97.9	22.3	11.7	30331	4638	15282
562+00.00	56200	50	45.1	12.0	0.0	90.0	22.3	1.6	30421	4640	15348
562+50.00	56250	50	38.9	12.0	0.3	77.8	22.3	0.2	30499	4641	15403
562+75.03	56275	25	33.0	12.0	0.7	33.3	11.2	0.4	30532	4641	15425
563+00.00	56300	25	29.9	12.0	0.4	29.1	11.1	0.5	30561	4642	15442
563+50.00	56350	50	22.1	12.0	0.1	48.2	22.3	0.4	30610	4642	15468
564+00.00	56400	50	20.6	12.0	0.1	39.6	22.3	0.2	30649	4643	15485
564+50.00	56450	50	20.2	12.0	0.0	37.8	22.3	0.1	30687	4643	15500
	PROJECT NO	. 7650-01-75	COLUMI	N SUBTOTAL (12	OF 14)	2412	935	174			
	PROJECT NO. 7650-01-75 COLUMN SUBTOTAL (12 OF 14)								1	Г	

PROJECT NO: 7650-00-74/01-75/02-73 HWY: STH 29 COUNTY: PIERCE EARTHWORK SHEET **E** 

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

FILE NAME: P:\60285986\000\_CAD\010\_Printing\0901\_ew.pdf

PLOT BY: DOLAN, ISAAC PLOT NAME: PLOT SCALE: WISDOT/CADDSSHEET 41

			AREA (SF)			INCREMEN	TAL VOL (CY) (UN	CUMULA			
STATION	REAL	DISTANCE		SALVAGED/			SALVAGED/				MASS
	STATION		CUT	UNUSABLE	FILL	CUT	UNUSABLE	FILL	CUT	EXPANDED	ORDINATE
				PAVEMENT			PAVEMENT			FILL	
				MATERIAL			MATERIAL		1.00	1.25	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 7
564+58.91	56459	9	19.7	12.0	0.0	6.6	4.0	0.0	30694	4643	15503
565+00.00	56500	41	14.8	12.0	0.0	26.2	18.3	0.0	30720	4643	15511
565+50.00	56550	50	18.4	12.0	0.0	30.7	22.3	0.0	30751	4643	15519
566+00.00	56600	50	20.2	12.0	0.1	35.8	22.3	0.1	30786	4643	15532
566+50.00	56650	50	24.1	12.0	0.0	41.0	22.3	0.1	30827	4643	15551
567+00.00	56700	50	23.0	12.0	0.0	43.6	22.3	0.0	30871	4643	15572
567+50.00	56750	50	34.1	12.0	0.0	52.9	22.3	0.0	30924	4643	15603
568+00.00	56800	50	34.6	12.0	0.0	63.6	22.3	0.0	30987	4643	15644
568+50.00	56850	50	36.1	12.0	0.0	65.5	22.3	0.0	31053	4643	15687
569+00.00	56900	50	38.3	12.0	0.0	68.9	22.3	0.0	31122	4643	15734
569+50.00	56950	50	45.3	12.0	0.0	77.4	22.3	0.0	31199	4643	15789
570+00.00	57000	50	42.7	12.0	0.0	81.5	22.3	0.0	31281	4643	15848
570+50.00	57050	50	39.8	12.0	0.0	76.4	22.3	0.0	31357	4643	15902
571+00.00	57100	50	28.4	12.0	0.0	63.1	22.3	0.0	31420	4643	15943
571+50.00	57150	50	22.6	12.0	0.0	47.2	22.3	0.0	31467	4643	15968
572+00.00	57200	50	25.2	12.0	0.0	44.3	22.3	0.0	31512	4643	15990
572+50.00	57250	50	27.5	12.0	0.0	48.8	22.3	0.0	31561	4643	16017
573+00.00	57300	50	31.2	12.0	0.0	54.3	22.3	0.0	31615	4643	16049
573+50.00	57350	50	28.9	12.0	0.0	55.6	22.3	0.0	31671	4643	16082
573+77.53	57378	28	31.1	12.0	0.0	30.6	12.3	0.0	31701	4643	16100
574+00.00	57400	22	31.0	12.0	0.0	25.8	10.0	0.0	31727	4643	16116
574+50.00	57450	50	18.5	12.0	0.0	45.8	22.3	0.0	31773	4643	16140
575+00.00	57500	50	18.7	12.0	0.0	34.4	22.3	0.0	31807	4643	16152
575+50.00	57550	50	23.0	12.0	0.0	38.5	22.3	0.0	31846	4643	16168
575+75.47	57575	25	27.3	12.0	0.0	23.7	11.4	0.0	31869	4643	16180
576+00.00	57600	25	29.0	12.0	0.0	25.6	10.9	0.0	31895	4643	16195
576+41.39	57641	41	33.4	12.0	0.0	47.8	18.5	0.0	31943	4643	16224
576+50.00	57650	9	34.8	12.0	0.0	10.9	3.8	0.0	31954	4643	16231
577+00.00	57700	50	34.7	12.0	0.4	64.3	22.3	0.4	32018	4644	16273
577+50.00	57750	50	33.2	12.0	0.0	62.8	22.3	0.4	32081	4644	16313
577+70.69	57771	21	33.8	12.0	0.0	25.6	9.2	0.0	32106	4644	16329
578+00.00	57800	29	31.6	12.0	3.2	35.5	13.1	1.8	32142	4646	16349
578+50.00	57850	50	30.2	12.0	4.4	57.3	22.3	7.1	32199	4655	16375
579+00.00	57900	50	25.3	12.0	5.5	51.5	22.3	9.2	32251	4667	16393
579+50.00	57950	50	26.2	12.0	5.6	47.7	22.3	10.2	32298	4679	16406
580+00.00	58000	50	33.4	12.0	2.5	55.1	22.3	7.5	32353	4689	16429
580+50.00	58050	50	34.9	12.0	0.0	63.2	22.3	2.3	32333	4692	16467
581+00.00	58100	50	32.9	12.0	0.0	62.8	22.3	0.0	32417	4692	16508
581+50.00	58150	50	27.6	12.0	0.0	56.0	22.3	0.0	32535	4692	16541
582+00.00	58200	50	27.0	12.0	0.0	52.8	22.3	0.0	32588	4692	16572
582+00.00	58250 58250	50	33.3	12.0	0.0	52.8 58.0	22.3	0.0	32588	4692 4692	16607
582+50.00	58300	50	33.3 40.5	12.0	0.1	68.3	22.3	0.1	32714	4692 4692	16653
583+00.00		50 50	40.5 36.7		0.6				32714		16702
	58350 58400			12.0		71.4	22.3	0.6		4693 4604	
584+00.00 584+50.00	58400 58450	50 50	38.9 44.9	12.0	0.0	69.9 77.6	22.3	0.6	32856 32933	4694 4694	16749 16804
		50 50		12.0	0.0		22.3	0.0		4694	
585+00.00	58500	50 50	51.1	12.0	0.0	88.9	22.3	0.0	33022	4694	16870
585+50.00	58550	50	51.8	12.0	0.0	95.3	22.3	0.0	33118	4694	16943
586+00.00	58600	50	54.0	12.0	0.0	98.0	22.3	0.0	33216	4694	17019
ı	PROJECT NO	. 7650-01-75	социм	N SUBTOTAL (13	OF 14)	2529	959	41		_	

PROJECT NO: 7650-00-74/01-75/02-73

HWY: STH 29

COUNTY: PIERCE

EARTHWORK

SHEET

SHEET

E

				AREA (SF)		INCREMENT	AL VOL (CY) (UN	ADJUSTED)	CUMULAT		
STATION	REAL STATION	DISTANCE	СИТ	SALVAGED/ UNUSABLE	FILL	CUT	SALVAGED/ UNUSABLE	FILL	CUT	EXPANDED	MASS ORDINATE
	STATION		COT	PAVEMENT	1166	COT	PAVEMENT	1166		FILL	ORDINATE
				MATERIAL			MATERIAL		1.00	1.25	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 7
586+14.00	58614	14	56.0	12.0	0.3	28.5	6.2	0.1	33244	4694	17041
586+50.00	58650	36	59.5	12.0	4.5	77.0	16.1	3.1	33321	4698	17098
586+92.77	58693	43	117.3	12.0	0.0	140.0	19.1	3.5	33461	4702	17215
587+87.86	58788	95	29.0	12.0	1.0	257.6	42.4	1.8	33719	4704	17428
588+00.00	58800.00	12	20.7	12.0	0.3	11.2	5.4	0.3	33730	4705	17433
588+50.00	58850.00	50	8.6	12.0	1.7	27.1	22.3	1.8	33757	4707	17436
589+00.00	58900.00	50	12.8	12.0	0.5	19.9	22.3	2.0	33777	4709	17431
589+04.92	58904.92	5	12.8	12.0	0.5	2.3	2.2	0.1	33779	4710	17431
	<u> </u>										
PROJECT NO. 7650-01-75 COLUMN SUBTOTAL (14 OF 14)						564	136	13			
	PROJECT N	O. 7650-01-	75 COLUM	IN TOTAL (COM	BINED)	33779	11639	3768			

<sup>1)</sup> Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100

9

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

PROJECT NO: 7650-00-74/01-75/02-73

HWY: STH 29

COUNTY: PIERCE

PLOT DATE: 9/28/2020 8:28 PM
PLOT BY: DOLAN, ISAAC
PLOT NAME: PLOT NAME: PLOT NAME: PLOT SCALE: WISDOT/CADDSSHEET 41

<sup>2)</sup> Cut includes Salvaged/Unsuable Pavement Material.

<sup>3)</sup> EBS Excavation is found to be required, backfill with suitable excess Cut material.

<sup>4)</sup> Salvaged/Unusable Pavement Material was totaled and equally distributed over each of the Construction IDs.

<sup>5)</sup> Available Material = Cut - Salvaged/Unusuable Pavement Material

<sup>6)</sup> Expanded Fill. Factor = 1.25

<sup>7)</sup> 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 C

			AREA (SF)			INCREMEN'	TAL VOL (CY) (UN	CUMULAT			
STATION	REAL	DISTANCE		SALVAGED/			SALVAGED/				MASS
	STATION		CUT	UNUSABLE	FILL	CUT	UNUSABLE	FILL	CUT	EXPANDED	ORDINATE
				PAVEMENT			PAVEMENT			FILL	
				MATERIAL			MATERIAL		1.00	1.25	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 7
532+72.66	53273		30.5	13.3	12.7	0.0	0.0	0.0	0	0	0
532+77.97	53278	5	31.7	13.3	12.5	6.1	2.6	2.5	6	3	0
533+00.00	53300	22	32.5	13.3	14.1	26.2	10.8	10.9	32	17	2
533+50.00	53350	50	32.8	13.3	27.4	60.5	24.6	38.5	93	65	-10
533+96.03	53396	46	39.4	13.3	20.9	61.5	22.6	41.1	154	116	-23
534+00.00	53400	4	40.3	13.3	20.0	5.9	2.0	3.0	160	120	-22
534+50.00	53450	50	45.6	13.3	3.7	79.6	24.6	22.0	240	147	5
535+00.00	53500	50	39.5	13.3	5.3	78.9	24.6	8.3	319	158	49
535+50.00	53550	50	36.7	13.3	3.8	70.6	24.6	8.4	389	168	85
536+00.00	53600	50	37.3	13.3	14.5	68.6	24.6	17.0	458	190	107
536+50.00	53650	50	32.3	13.3	48.8	64.5	24.6	58.6	522	263	74
537+00.00	53700	50	27.3	13.3	65.0	55.2	24.6	105.4	577	395	-27
537+50.00	53750	50	26.9	13.3	79.9	50.2	24.6	134.2	628	562	-169
538+00.00	53800	50	26.3	13.3	75.5	49.3	24.6	143.8	677	742	-324
538+50.00	53850	50	28.2	13.3	90.1	50.5	24.6	153.3	728	934	-490
539+00.00	53900	50	33.2	13.3	83.7	56.9	24.6	160.9	784	1135	-659
539+40.21	53940	40	39.1	13.3	76.4	53.8	19.8	119.2	838	1284	-774
539+50.00	53950	10	39.6	13.3	70.2	14.3	4.8	26.6	852	1317	-797
540+00.00	54000	50	39.1	13.3	88.9	72.9	24.6	147.4	925	1501	-933
540+50.00	54050	50	38.2	13.3	120.9	71.5	24.6	194.2	997	1744	-1129
541+00.00	54100	50	34.9	13.3	165.2	67.6	24.6	264.9	1065	2075	-1417
541+06.92	54107	7	34.4	13.3	200.8	8.9	3.4	46.9	1073	2134	-1470
541+50.00	54150	43	36.0	13.3	131.8	56.1	21.2	265.4	1130	2465	-1767
542+00.00	54200	50	33.9	13.3	95.4	64.6	24.6	210.3	1194	2728	-1990
542+50.00	54250	50	33.0	13.3	54.6	61.9	24.6	138.9	1256	2902	-2126
543+00.00	54300	50	37.2	13.3	43.9	65.1	24.6	91.2	1321	3016	-2200
543+50.00	54350	50	53.3	13.3	30.7	83.8	24.6	69.0	1405	3102	-2227
544+00.00	54400	50	129.1	13.3	0.0	168.9	24.6	28.4	1574	3138	-2118
544+39.62	54440	40	121.5	13.3	0.0	183.9	19.5	0.0	1758	3138	-1953
544+50.00	54450	10	115.2	13.3	0.0	45.5	5.1	0.0	1803	3138	-1913
544+63.38	54463	13	113.6	13.3	0.0	56.7	6.6	0.0	1860	3138	-1863
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546+50.00	54650	50	33.6	13.3	9.3	61.6	24.6	20.4	2212	3200	-1665
547+00.00	54700	50	34.5	13.3	9.1	63.1	24.6	17.0	2275	3221	-1647
547+50.00	54750	50	59.6	13.3	12.3	87.2	24.6	19.8	2362	3246	-1609
548+00.00	54800	50	67.2	13.3	9.6	117.5	24.6	20.3	2480	3271	-1542
548+46.29	54846	46	85.5	13.3	7.3	130.9	22.7	14.5	2611	3289	-1452
548+50.00	54850	4	86.8	13.3	7.1	11.9	1.8	1.0	2623	3291	-1443
549+00.00	54900	50	105.7	13.3	7.5	178.2	24.6	13.5	2801	3308	-1306
549+50.00	54950	50	167.2	13.3	5.7	252.7	24.6	12.2	3053	3323	-1093
549+75.83	54976	26	189.9	13.3	6.1	170.8	12.7	5.6	3224	3330	-942
550+00.00	55000	24	192.7	13.3	6.6	171.2	11.9	5.7	3395	3337	-790
550+50.00	55050	50	206.9	13.3	7.5	370.0	24.6	13.1	3765	3353	-461
551+00.00	55100	50	229.9	13.3	9.3	404.4	24.6	15.5	4170	3373	-101
551+50.00	55150	50	270.8	13.3	4.6	463.5	24.6	12.9	4633	3389	322
552+00.00	55200	50	285.0	13.3	1.0	514.6	24.6	5.2	5148	3395	806
	PROJECT NO. 7650-02-73 COLUMN SUBTOTALS (1 OF 2)						947	2716		_	

PROJECT NO: 7650-00-74/01-75/02-73

HWY: STH 29

COUNTY: PIERCE

EARTHWORK

SHEET

SHEET

EARTHWORK

FILE NAME: P:\60285986\000\_CAD\010\_Printing\0901\_ew.pdf

PLOT BY: DOLAN, ISAAC PLOT NAME: PLOT SCALE: WISDOT/CADDS SHEET 41

				AREA (SF) INCREMENTAL VO				VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)	
STATION	REAL	DISTANCE		SALVAGED/			SALVAGED/	•		•	MASS
	STATION		CUT	UNUSABLE	FILL	CUT	UNUSABLE	FILL	CUT	EXPANDED	ORDINATE
				PAVEMENT			PAVEMENT			FILL	
				MATERIAL			MATERIAL		1.00	1.25	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 7
552+50.00	55250	50	281.6	13.3	0.9	524.6	24.6	1.8	5673	3397	1304
553+00.00	55300	50	262.6	13.3	1.6	503.9	24.6	2.3	6176	3400	1780
553+05.63	55306	6	262.5	13.3	1.6	54.8	2.8	0.3	6231	3401	1832
553+50.00	55350	44	253.1	13.3	2.4	423.6	21.8	3.3	6655	3405	2229
554+00.00	55400	50	251.3	13.3	1.7	467.0	24.6	3.8	7122	3410	2667
554+50.00	55450	50	258.8	13.3	1.1	472.3	24.6	2.6	7594	3413	3112
555+00.00	55500	50	213.1	13.3	1.0	437.0	24.6	1.9	8031	3415	3522
555+50.00	55550	50	172.7	13.3	8.0	357.2	24.6	1.6	8388	3417	3852
556+00.00	55600	50	124.1	13.3	0.2	274.8	24.6	0.9	8663	3418	4101
556+44.44	55644	44	38.1	13.3	1.2	133.5	21.8	1.1	8797	3420	4212
556+50.00	55650	6	37.1	13.3	2.3	7.7	2.7	0.4	8804	3420	4216
557+00.00	55700	50	38.7	13.3	12.3	70.2	24.6	13.5	8875	3437	4245
557+08.41	55708	8	89.8	13.3	18.9	20.0	4.1	4.8	8895	3443	4255
07+90.00	790		0.0	13.3	0.0	0.0	0.0	0.0	0	0	0
08+00.00	800	10	54.3	13.3	0.0	10.0	4.9	0.0	10	0	5
08+50.00	850	50	65.5	13.3	0.2	110.9	24.6	0.2	121	0	91
09+00.00	900	50	85.2	13.3	3.6	139.5	24.6	3.6	260	5	202
09+25.00	925	25	95.8	13.3	23.9	83.8	12.3	12.7	344	21	257
PROJECT NO. 7650-02-73 COLUMN SUBTOTALS (2 OF 2)						4091	316	55			
PROJECT NO. 7650-02-73 COLUMN TOTAL (COMBINED)					9239	1263	2771				

- 1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
- 2) Cut includes Salvaged/Unsuable Pavement Material.
- 3) EBS Excavation is found to be required, backfill with suitable excess Cut material.
- 4) Salvaged/Unusable Pavement Material was totaled and equally distributed over each of the Construction IDs.
- 5) Available Material = Cut Salvaged/Unusuable Pavement Material
- 6) Expanded Fill. Factor = 1.25
- 7) The Mass Ordinate + or Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Div

9

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

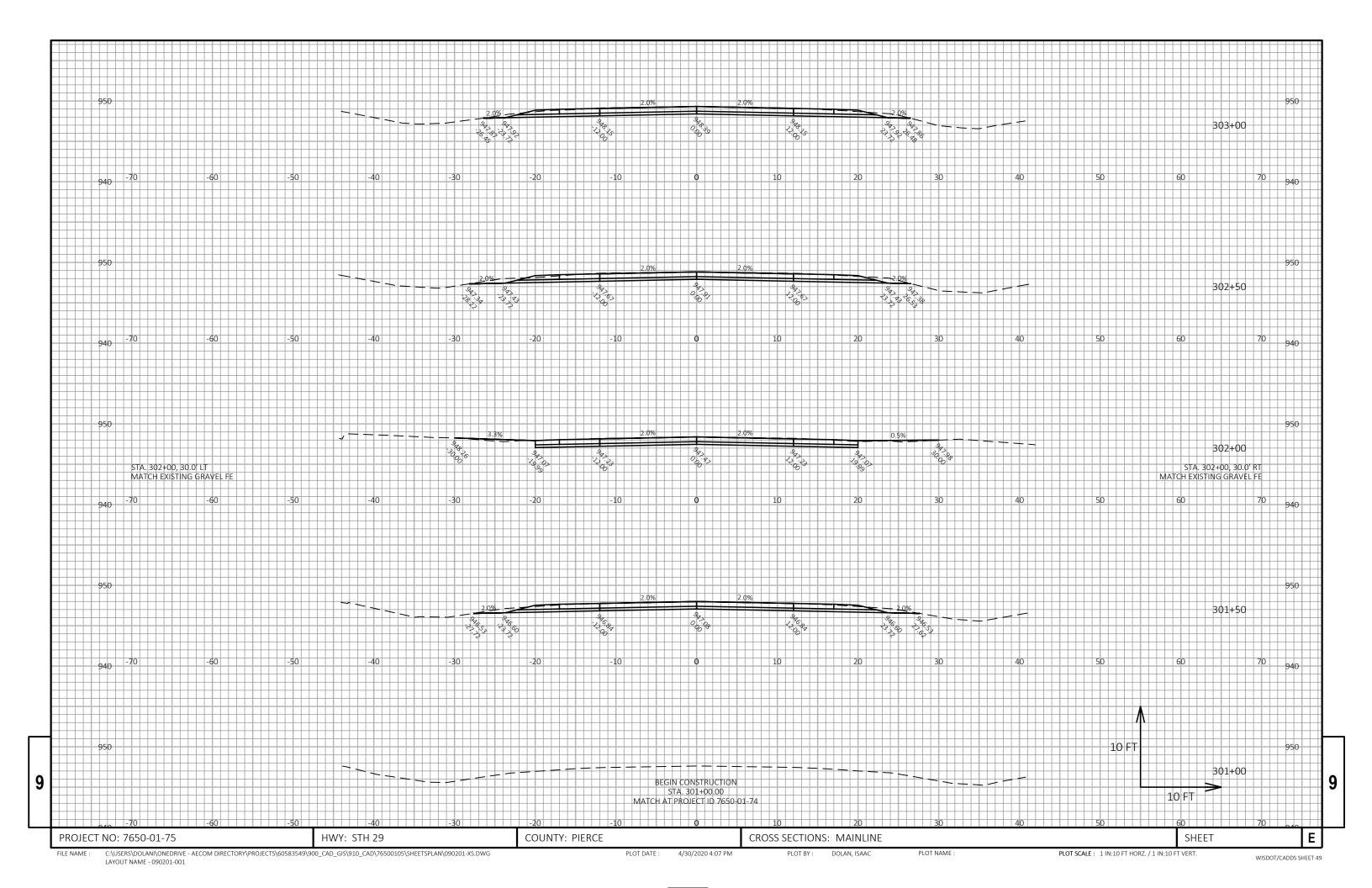
PROJECT NO: 7650-00-74/01-75/02-73

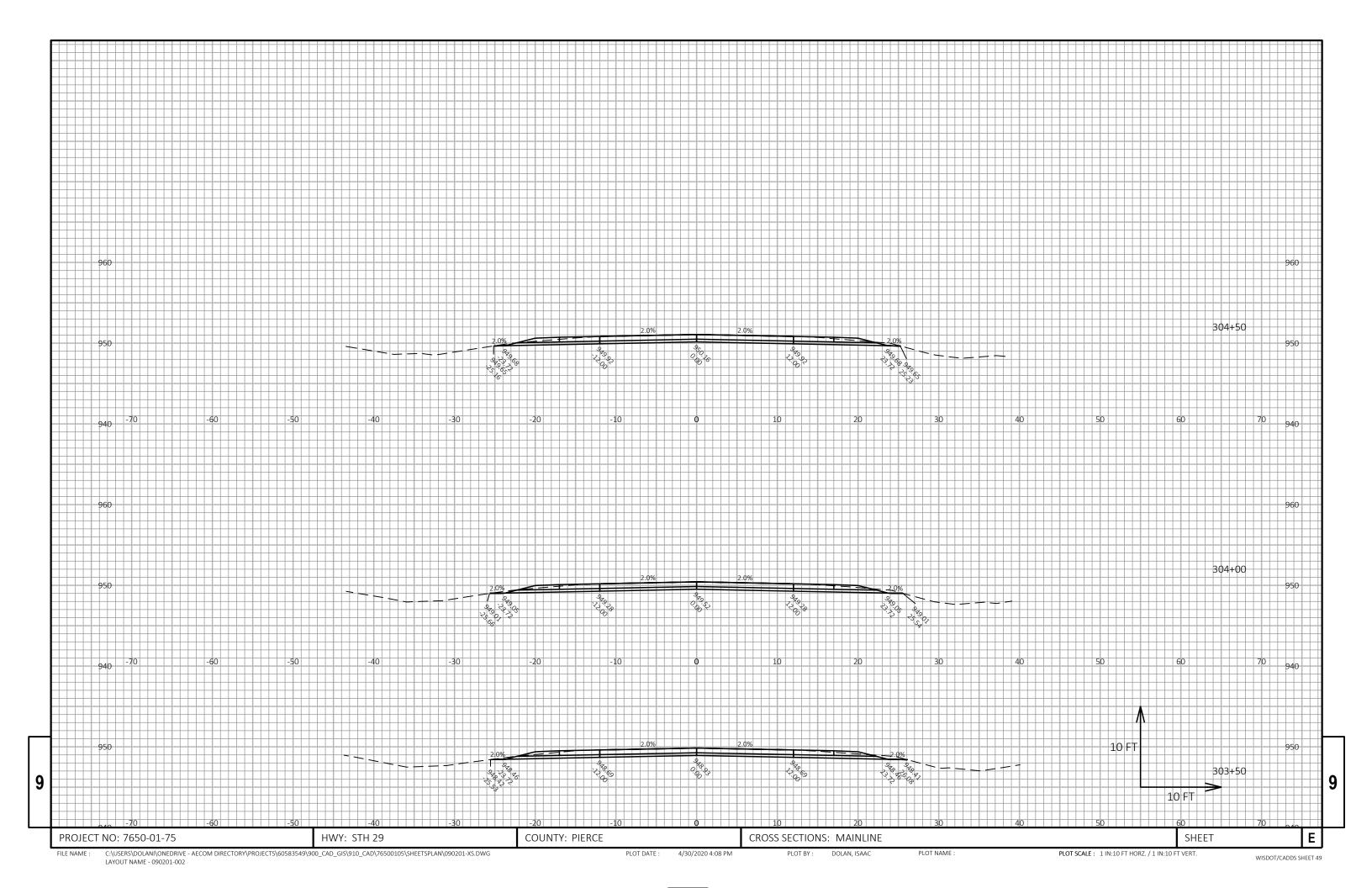
HWY: STH 29

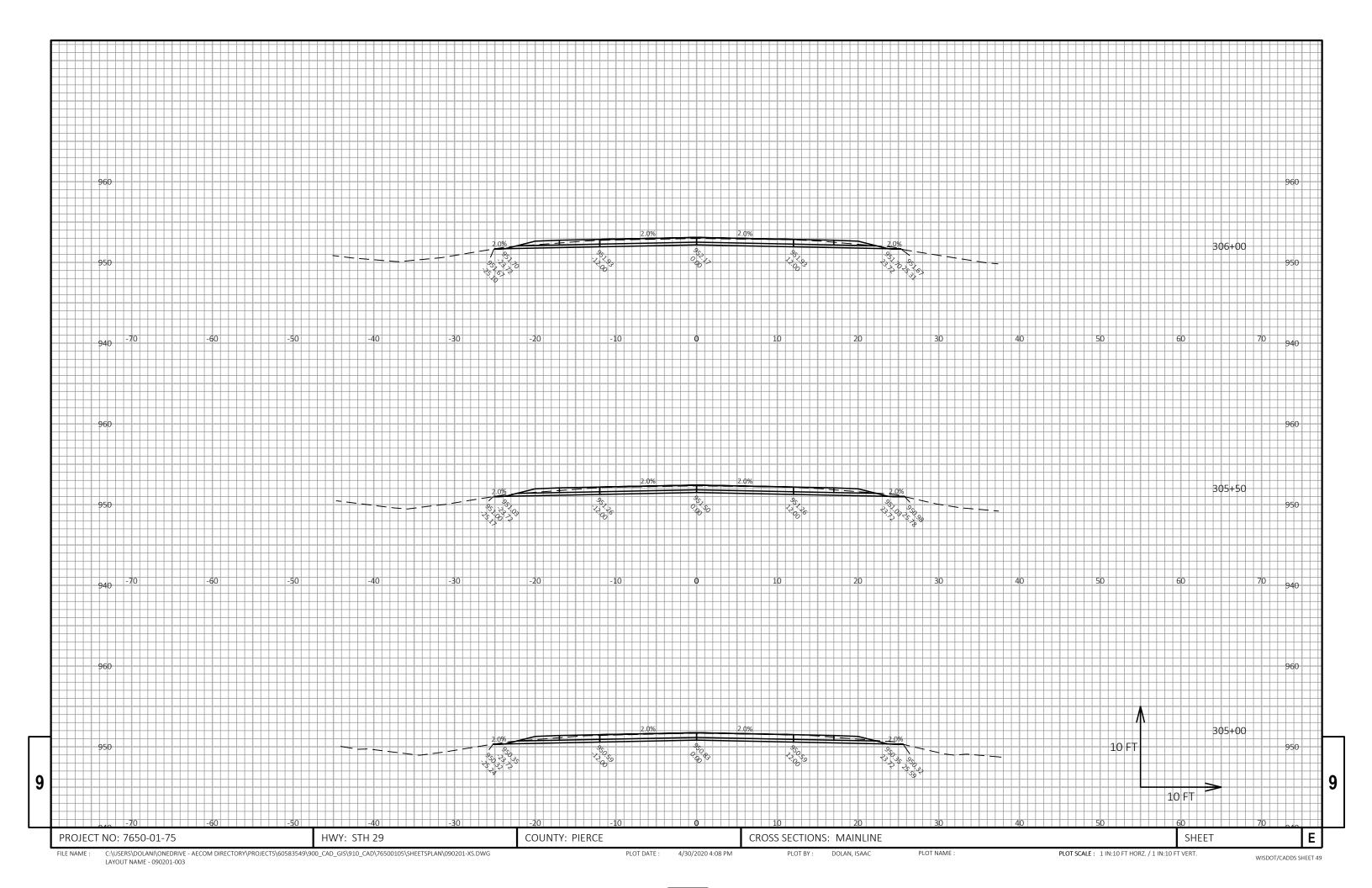
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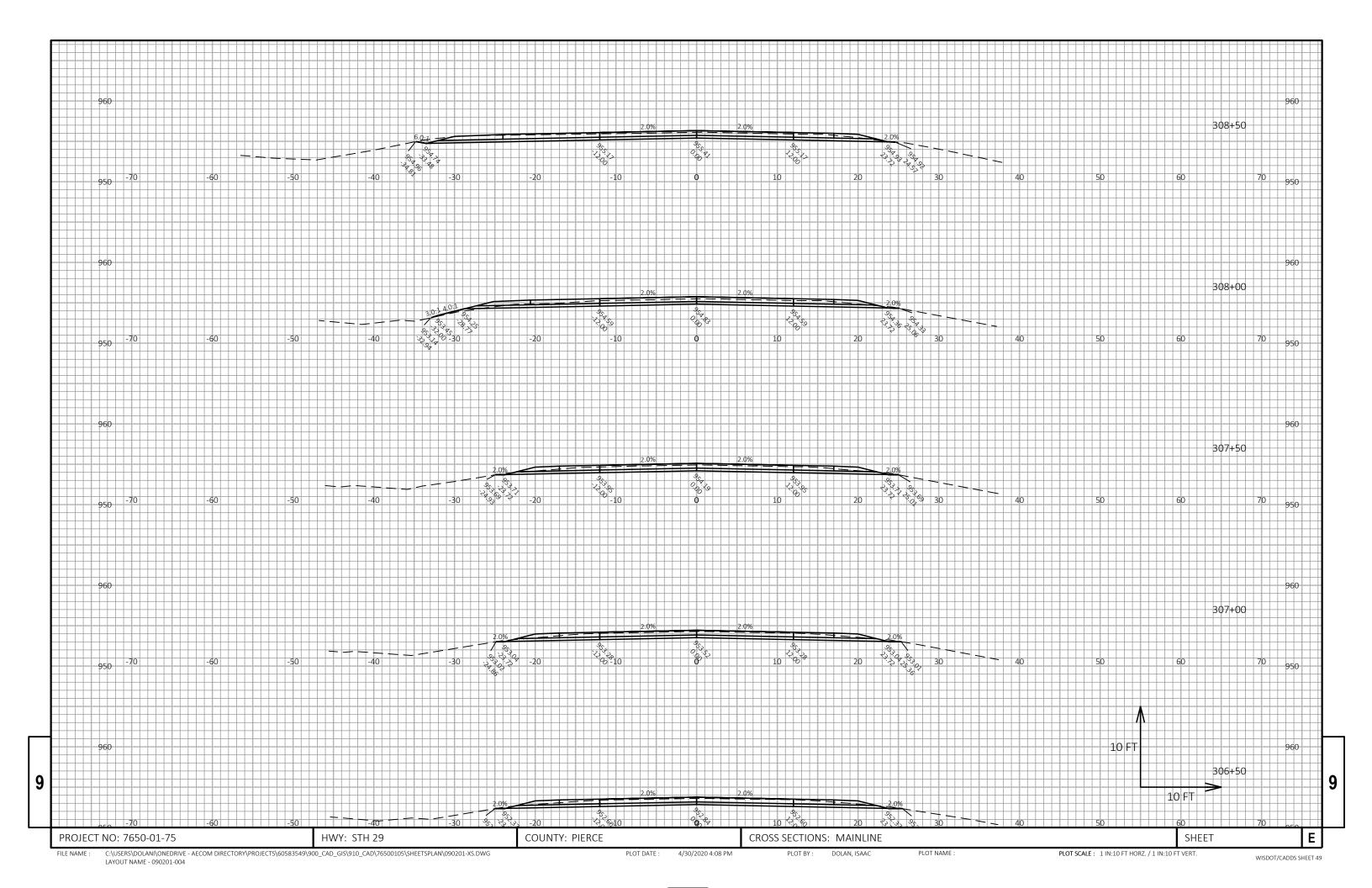
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PLOT DATE

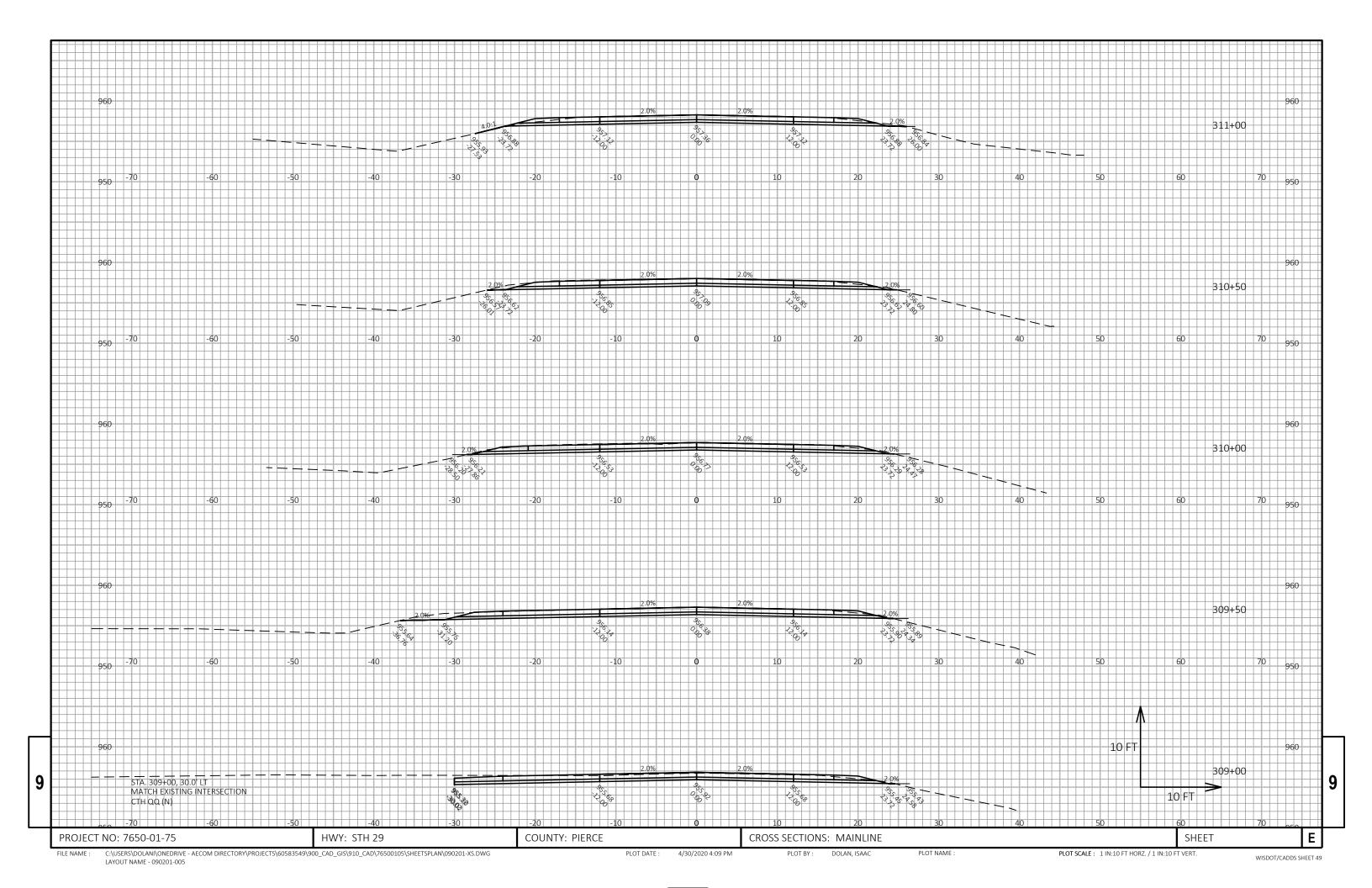
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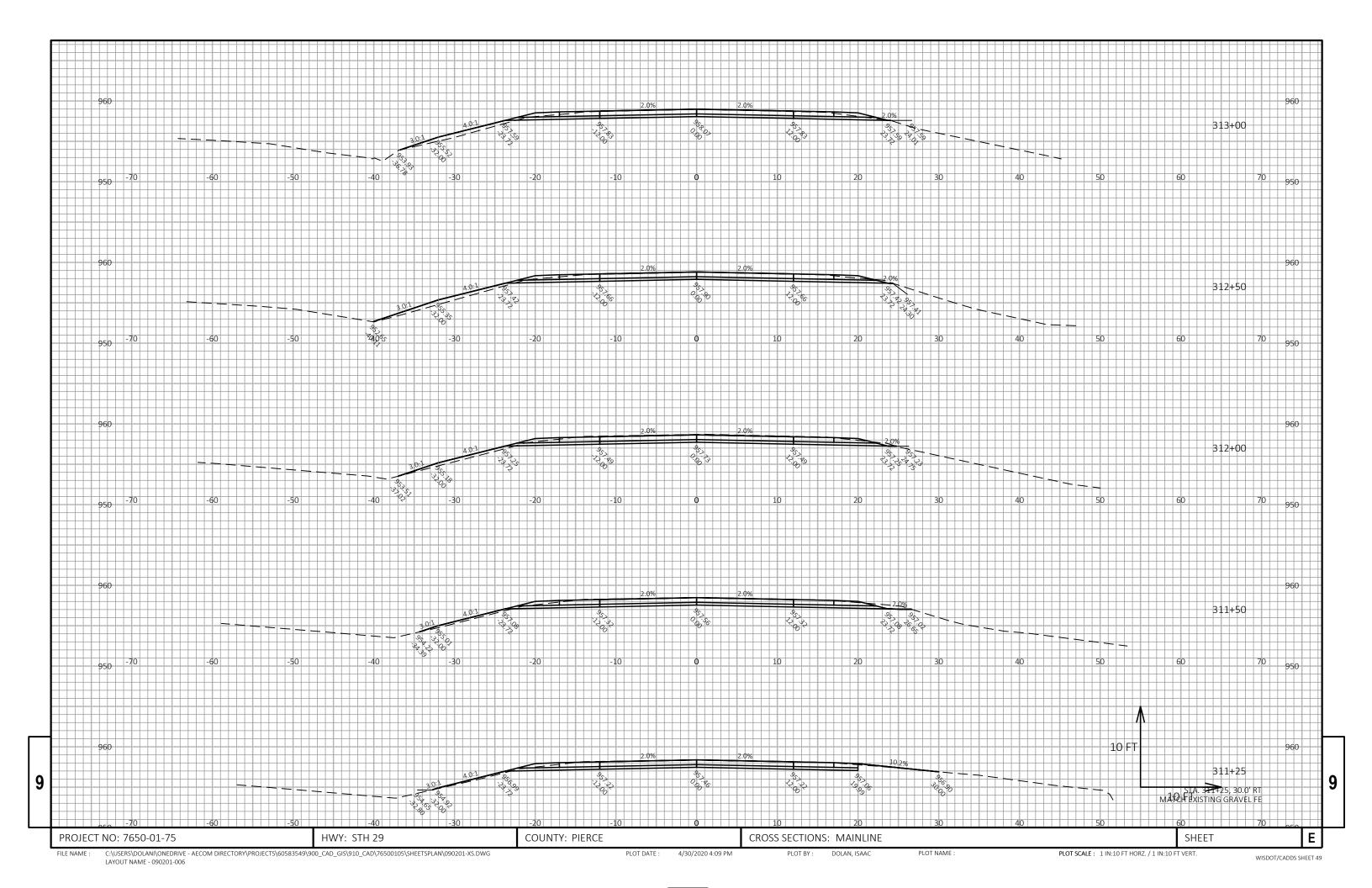


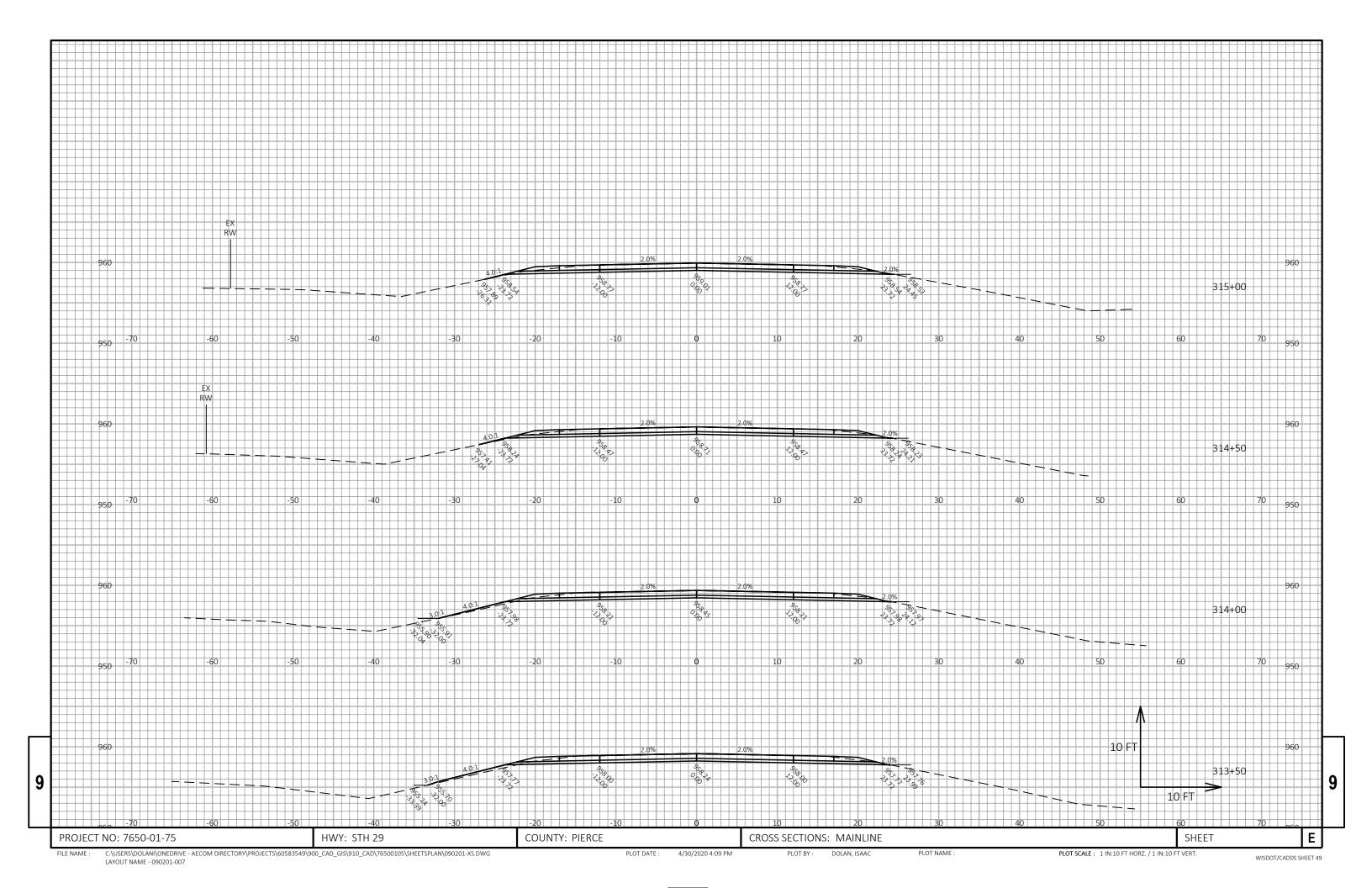


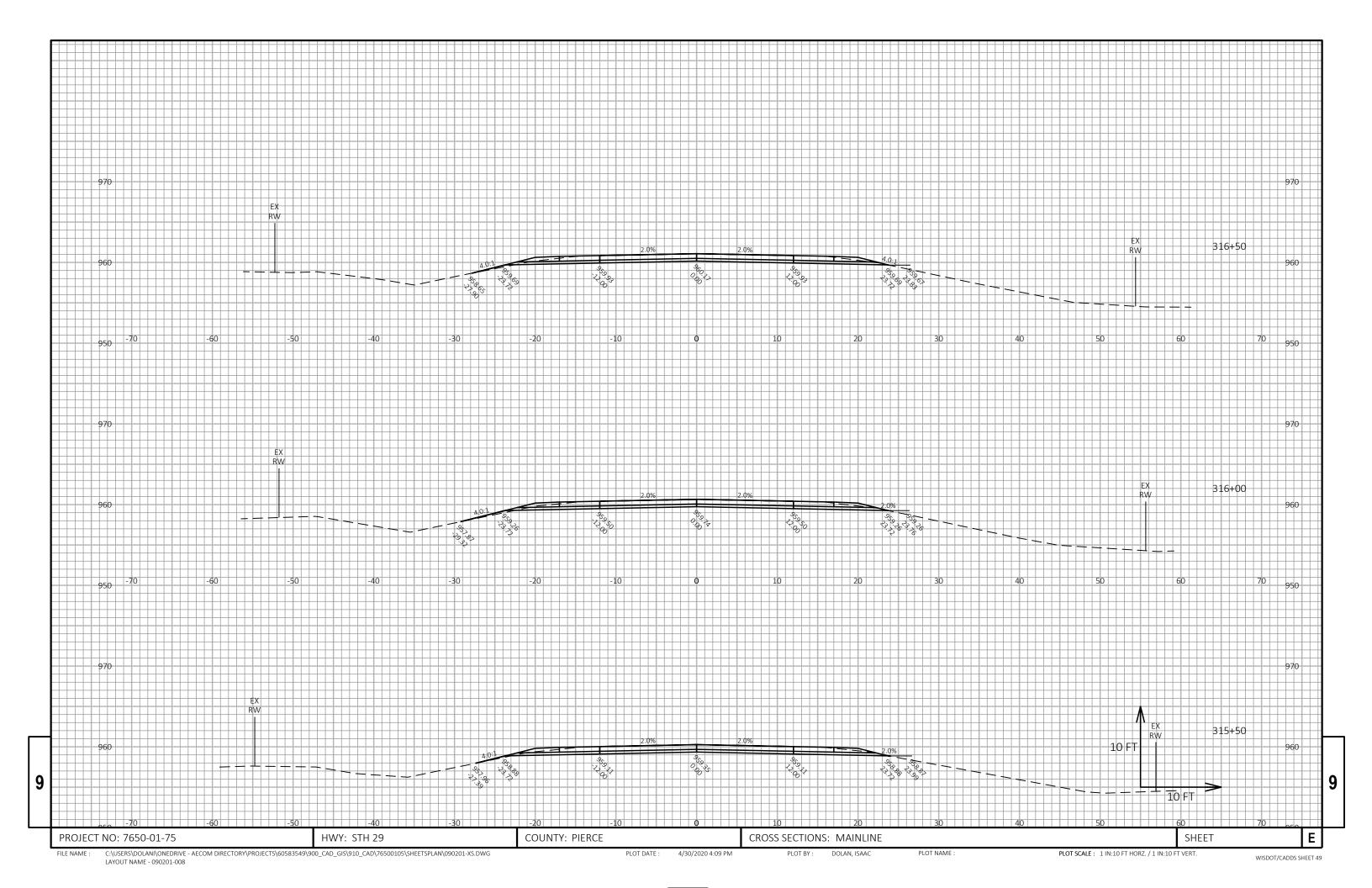


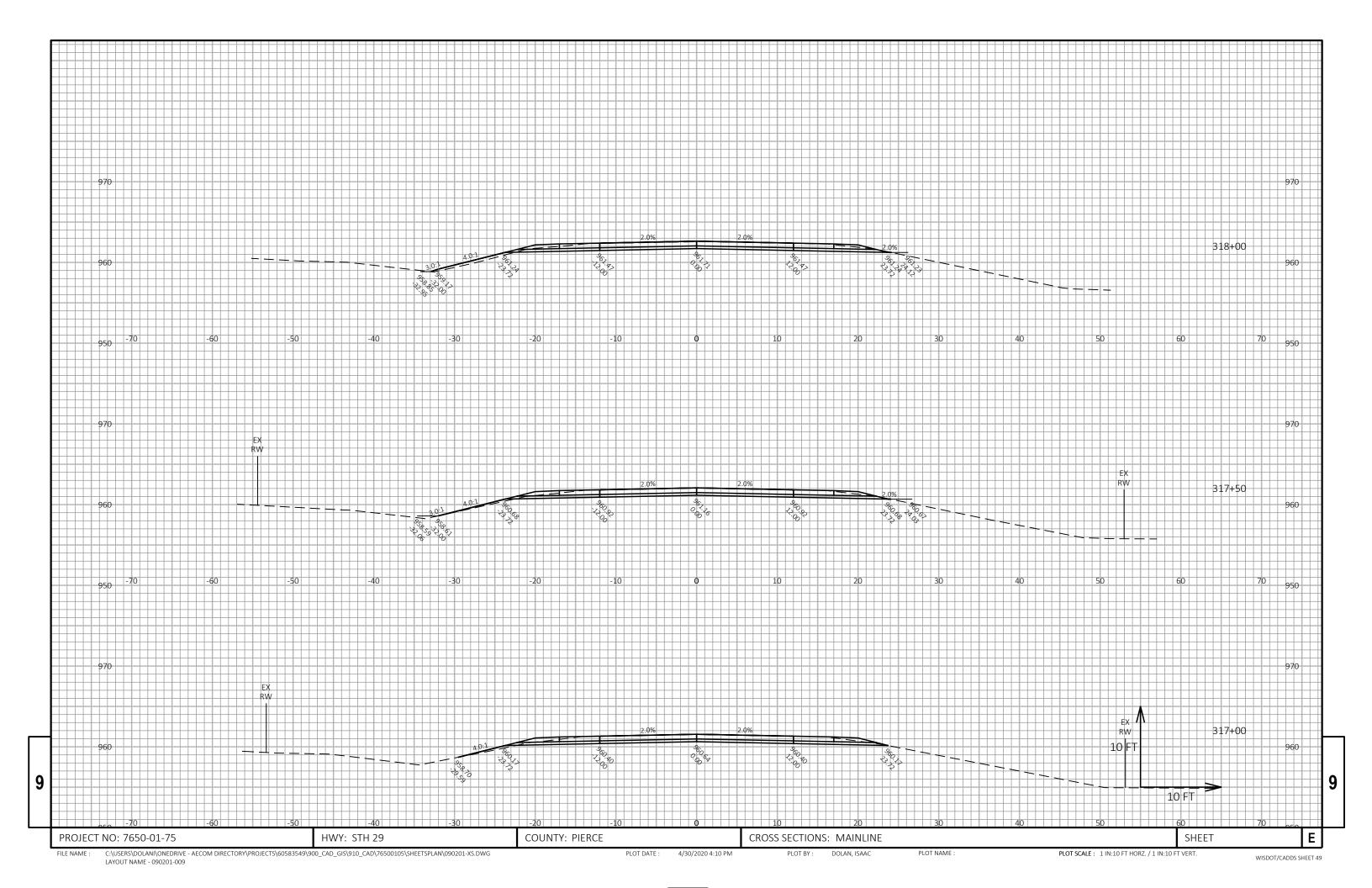


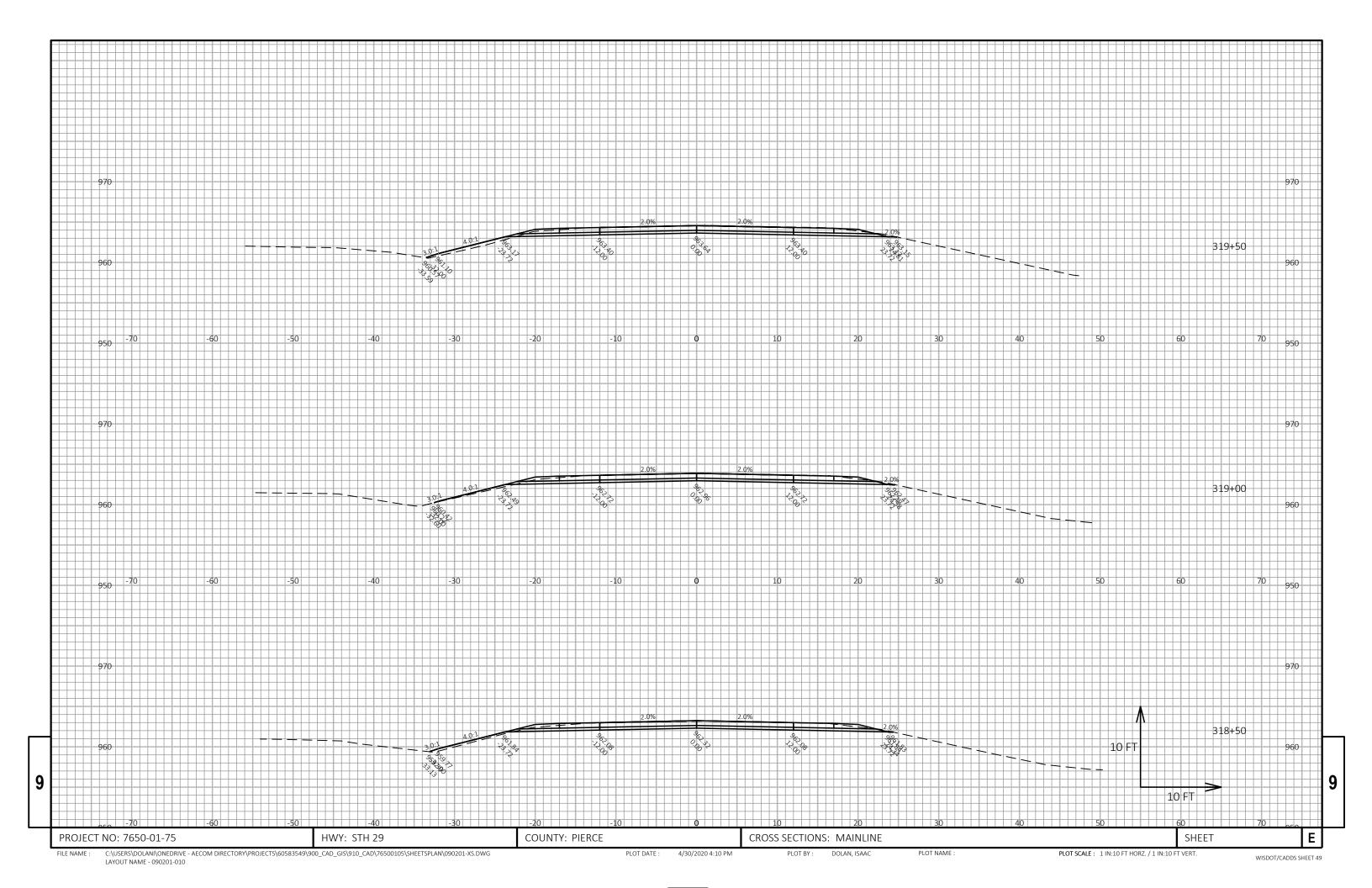


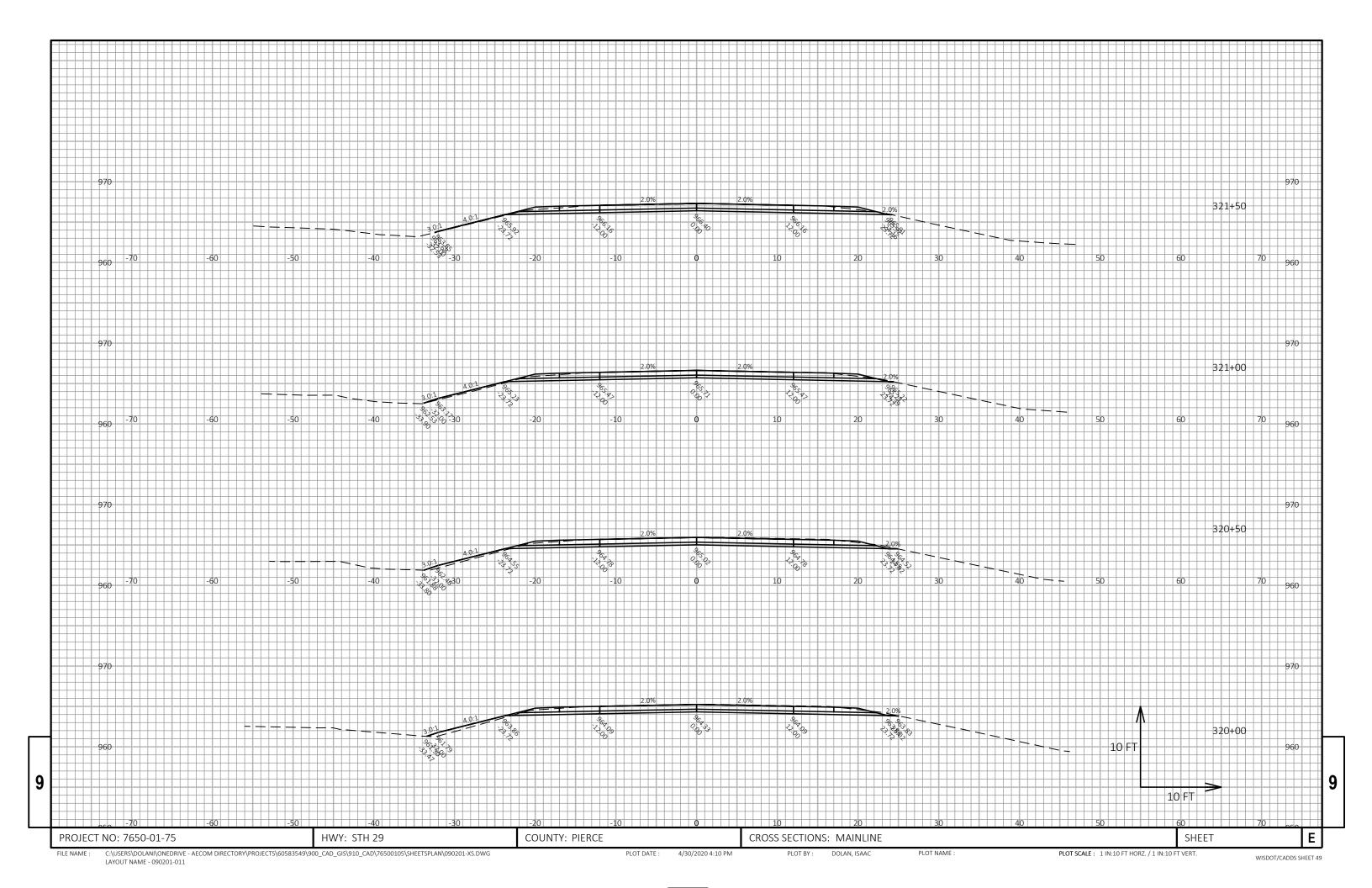


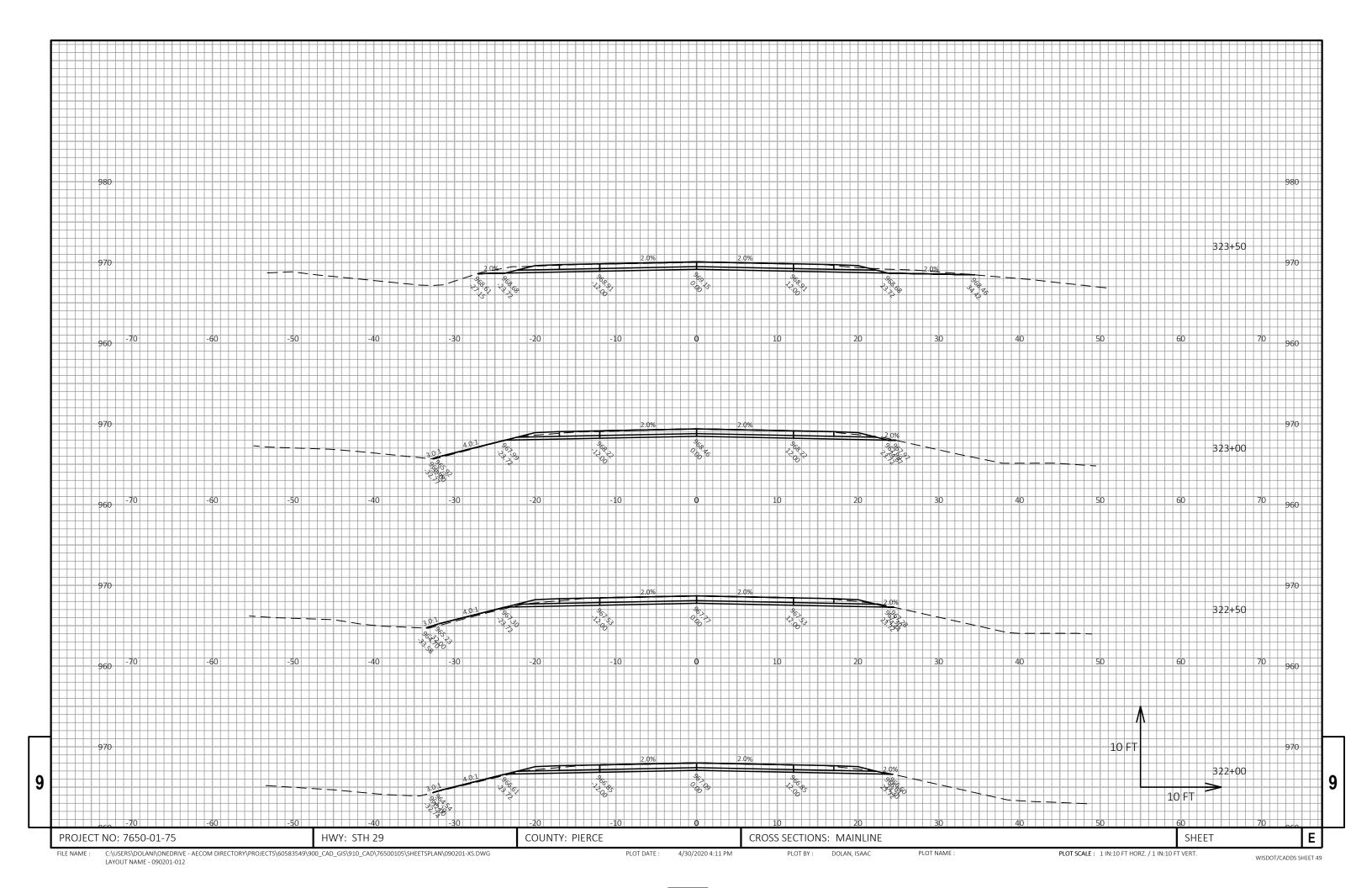


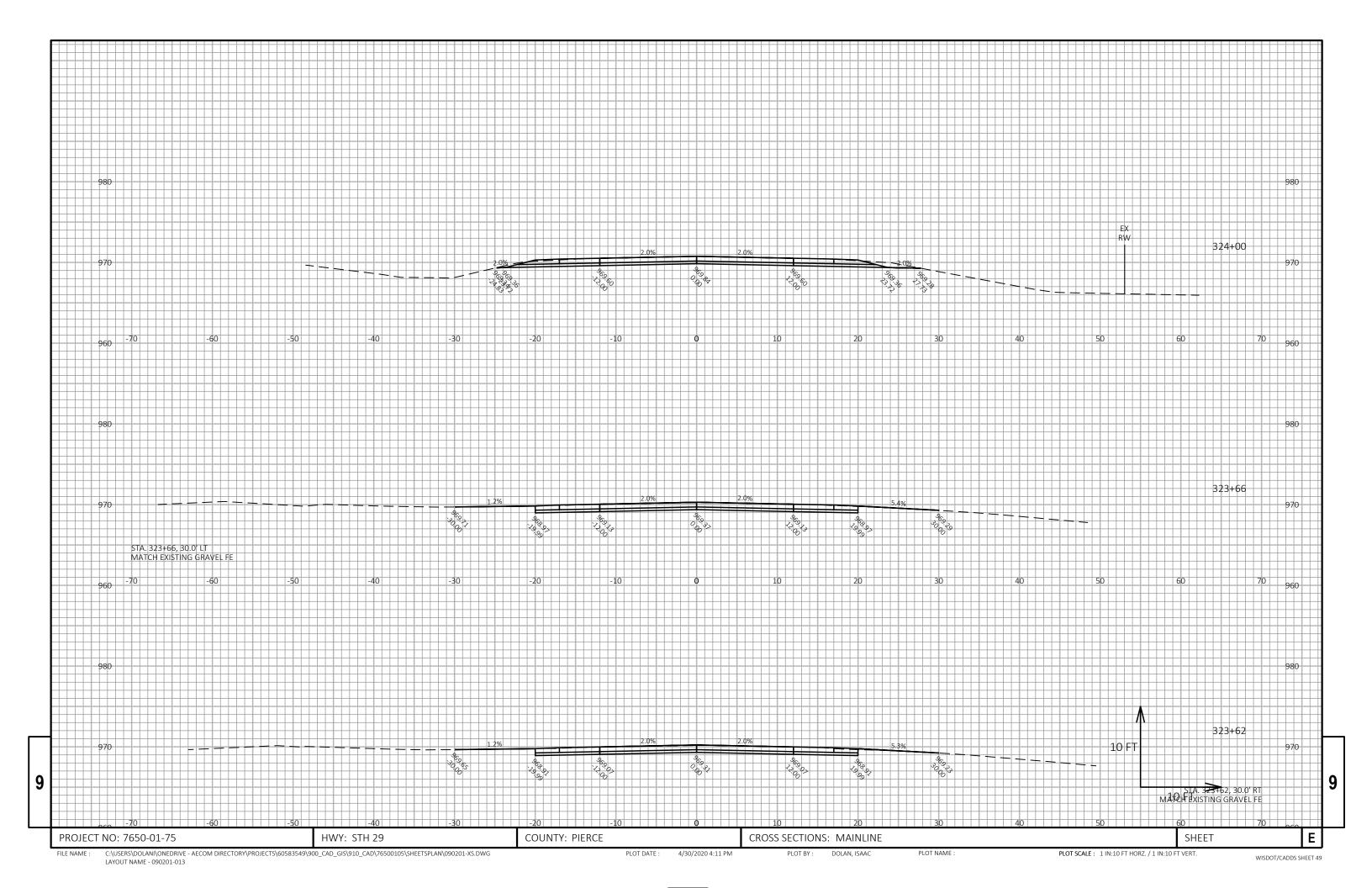


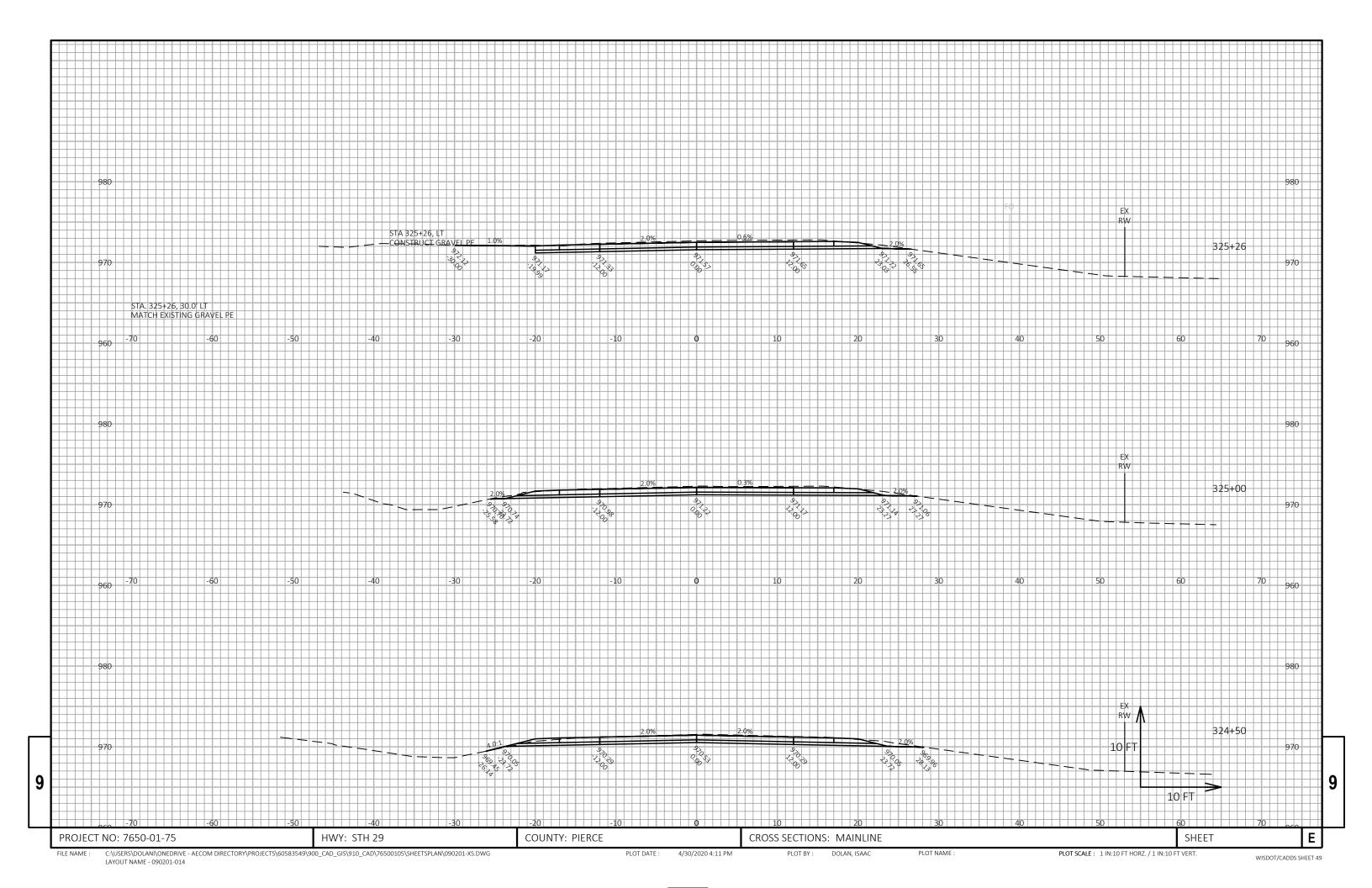


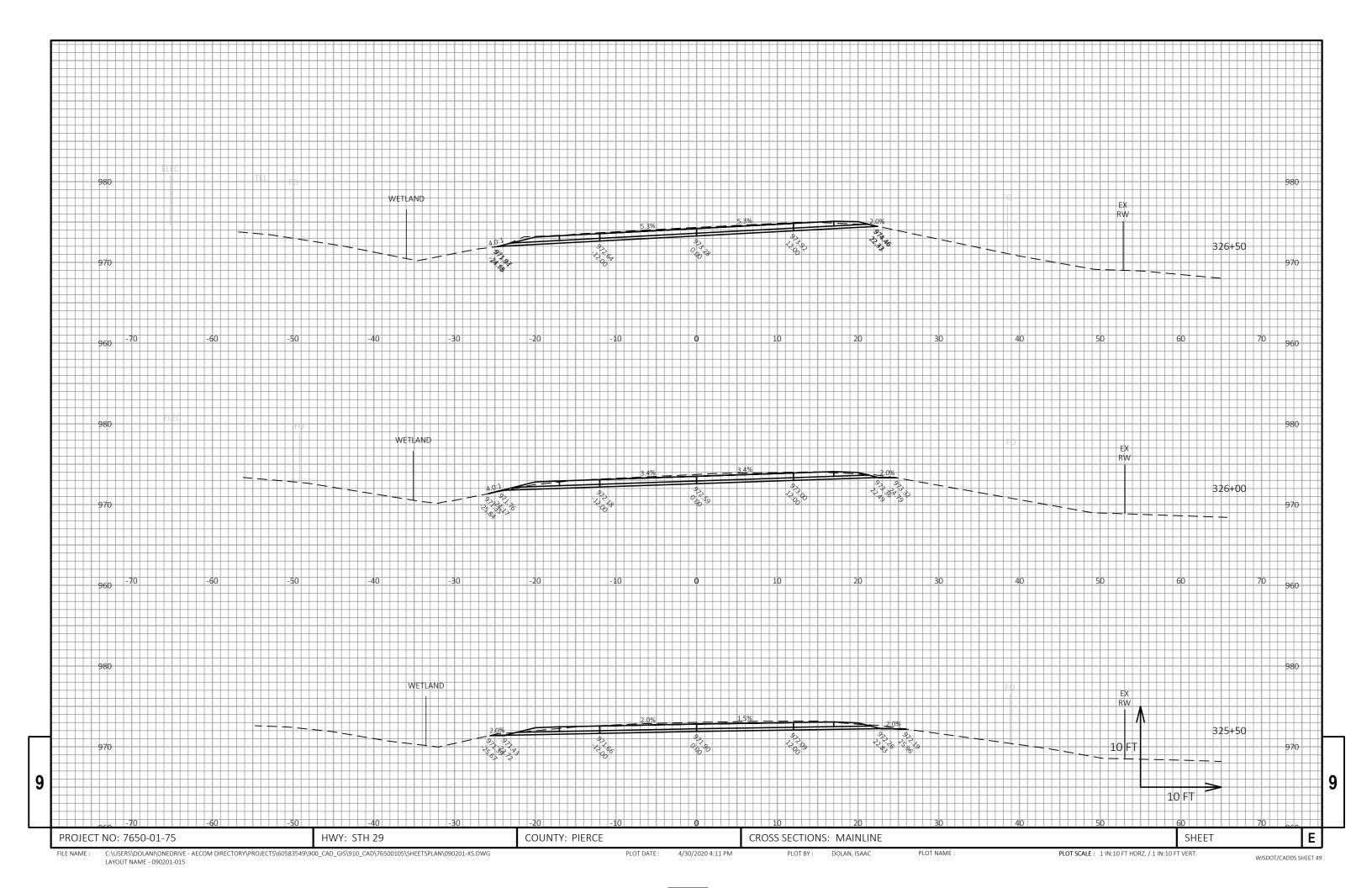


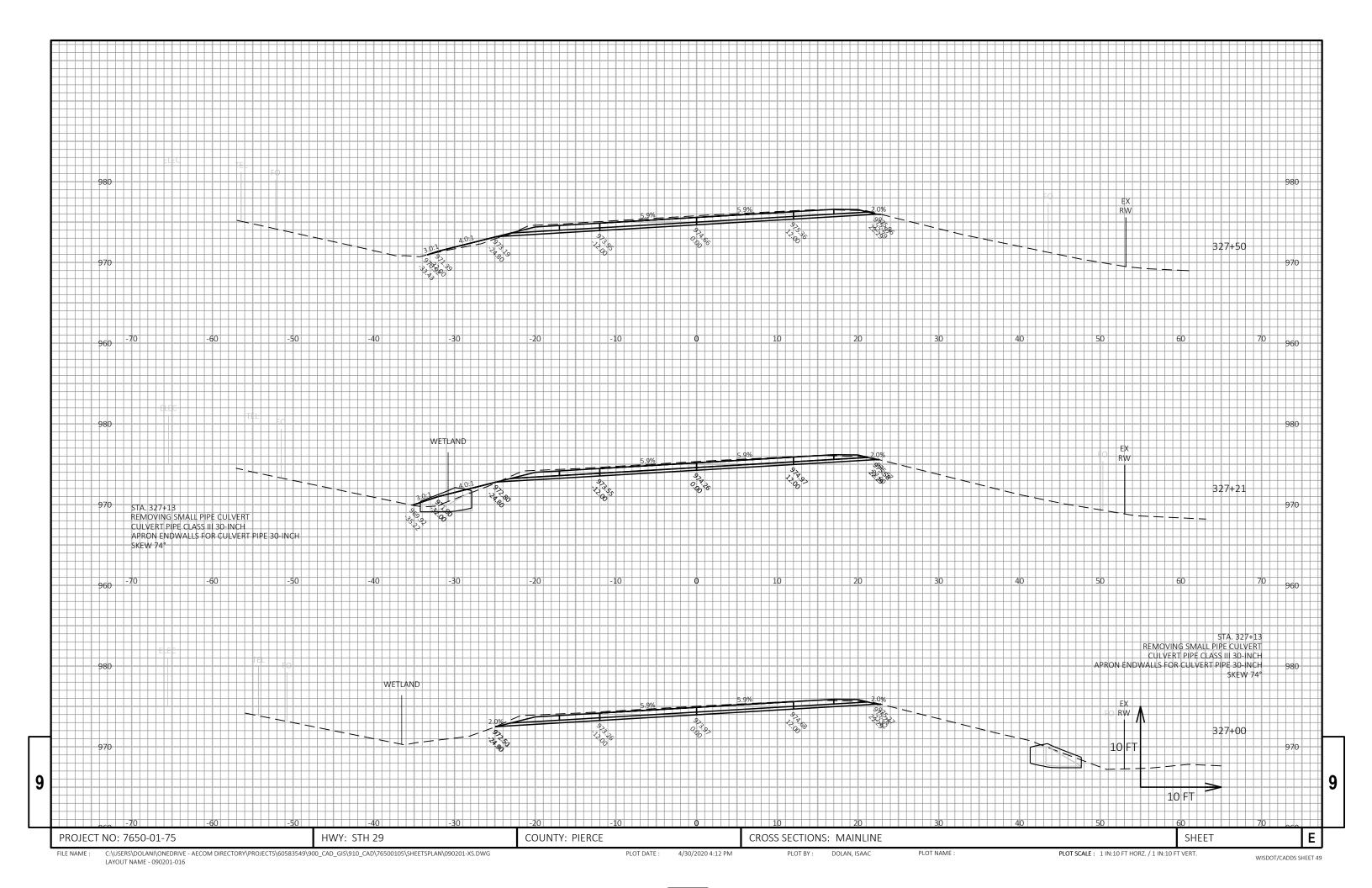


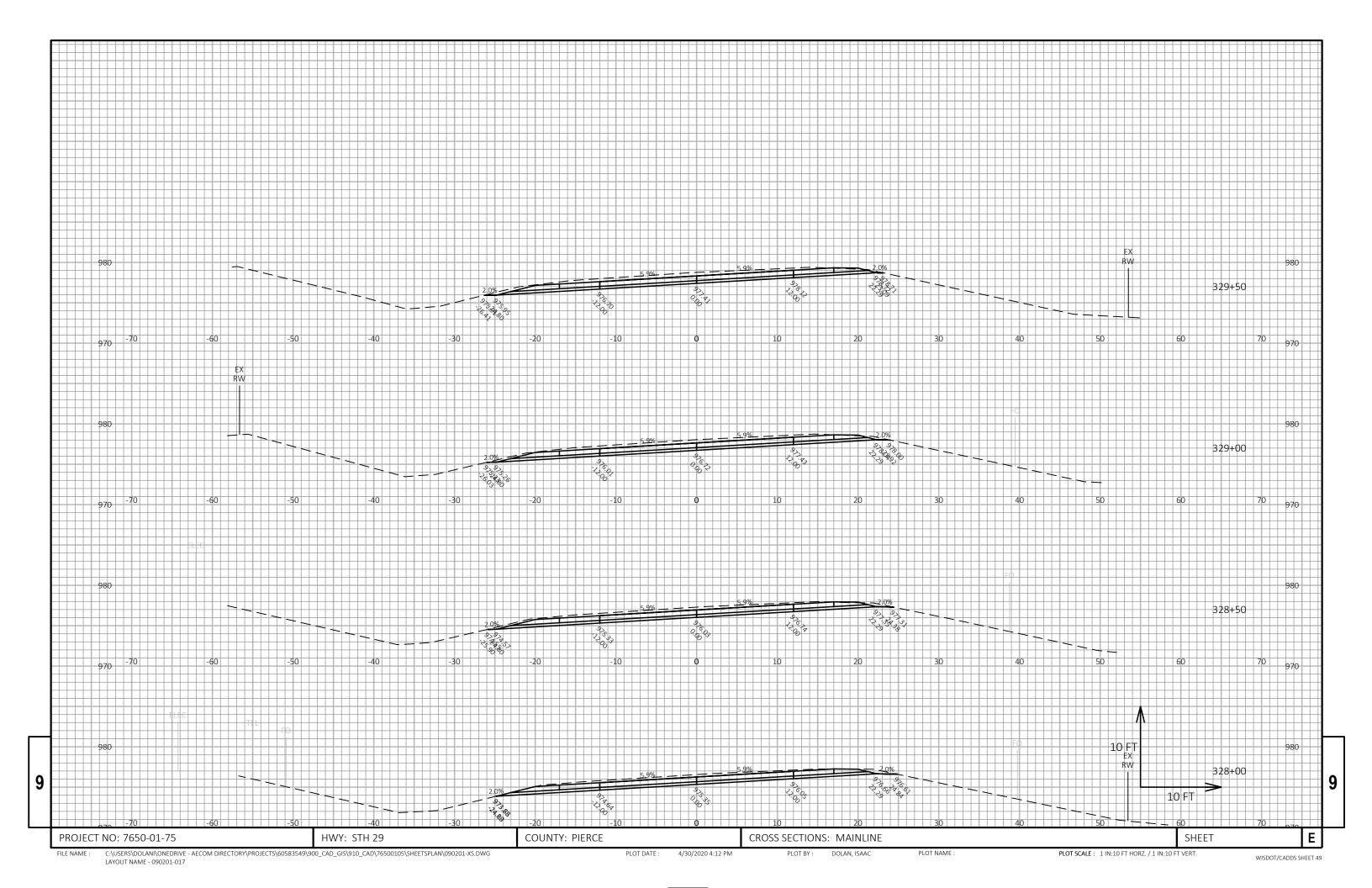


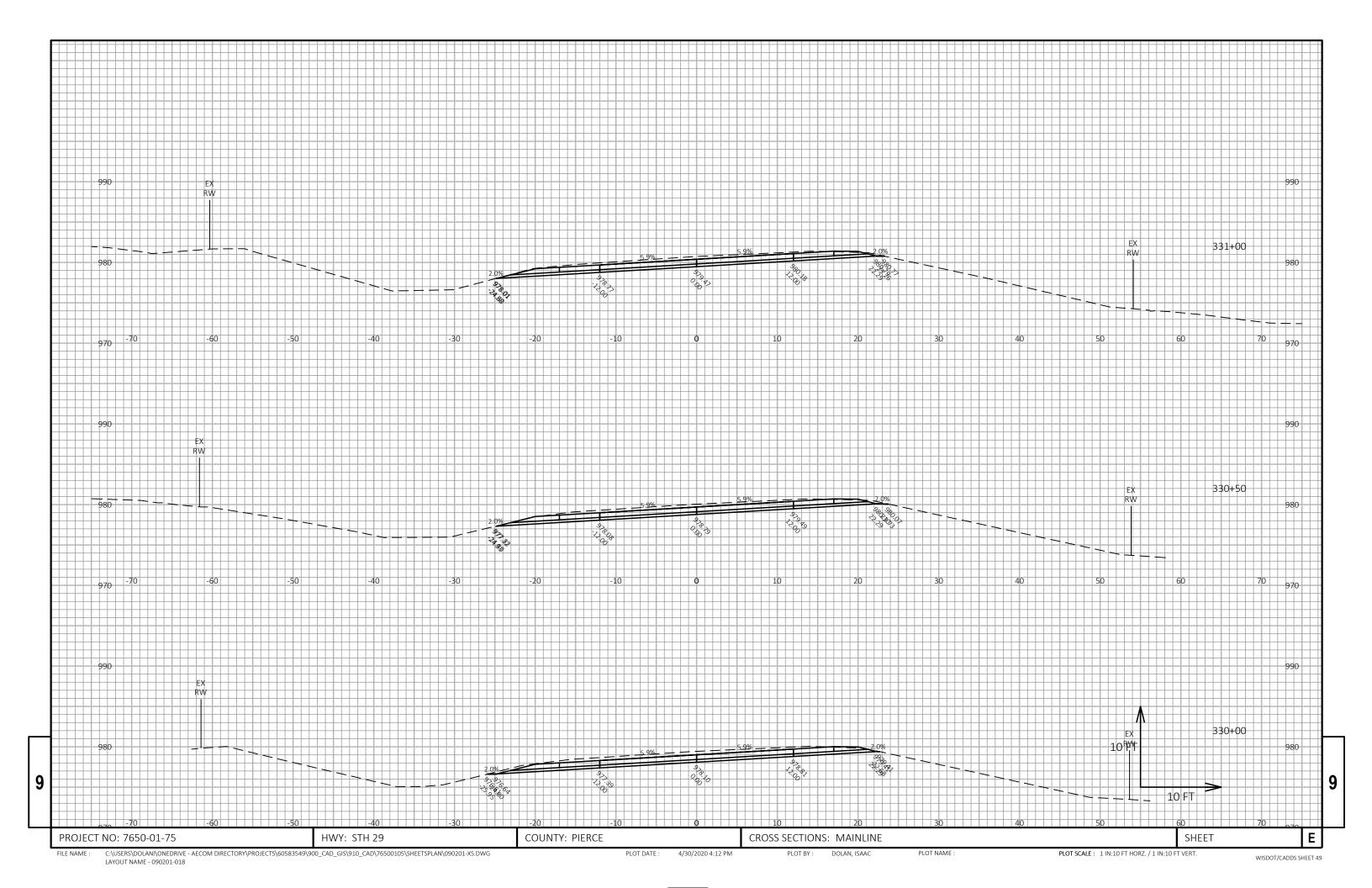


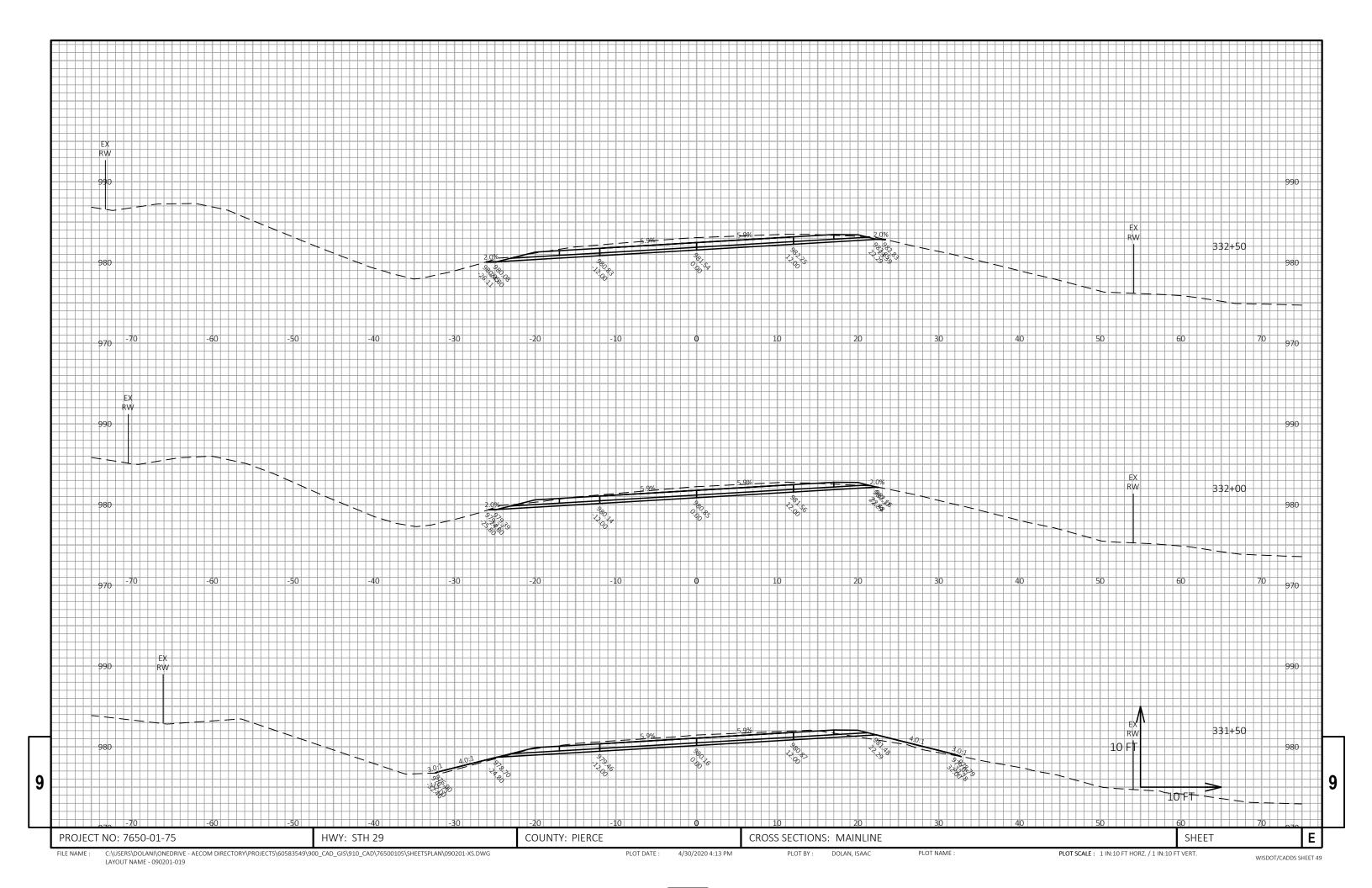


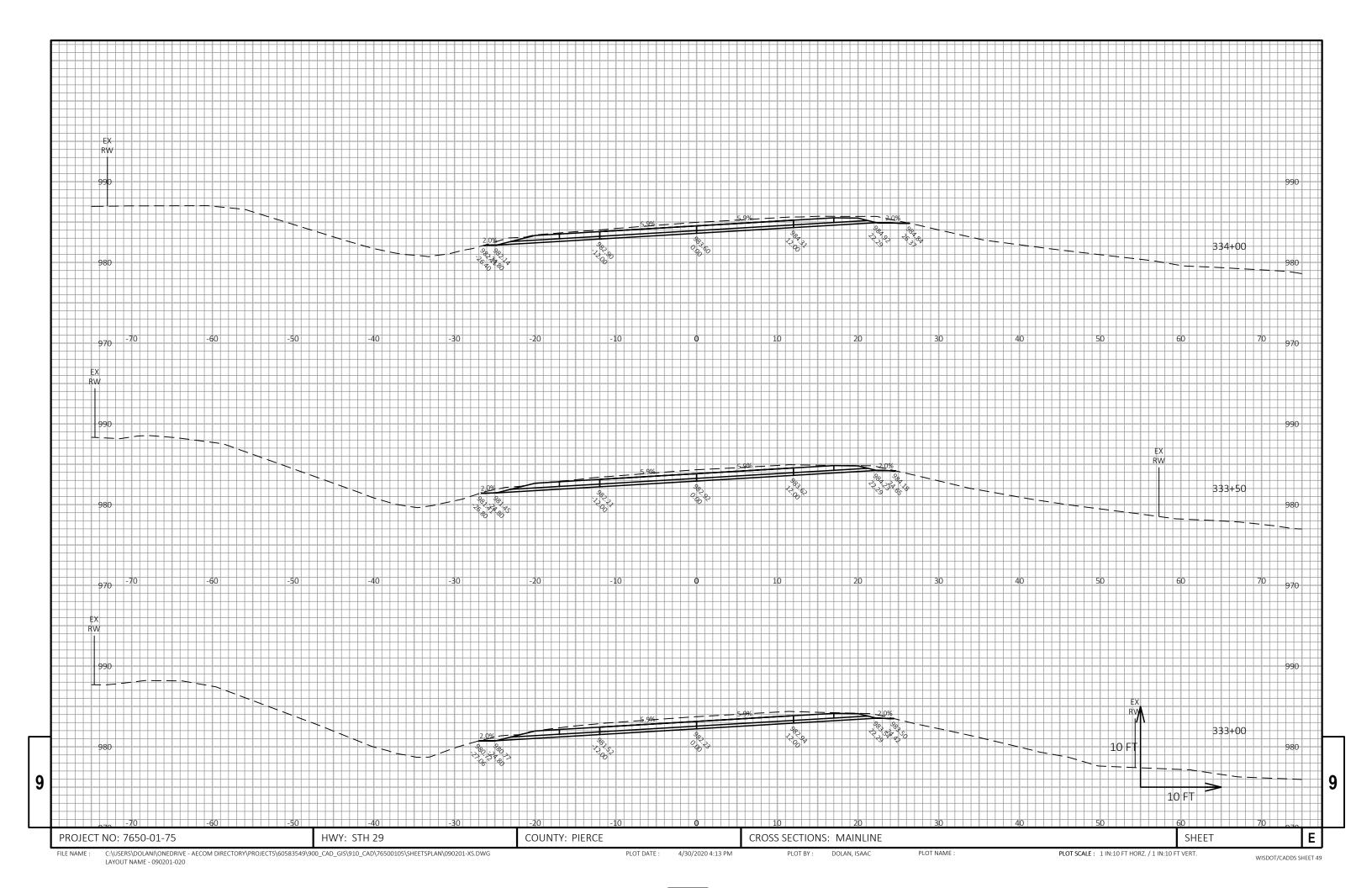


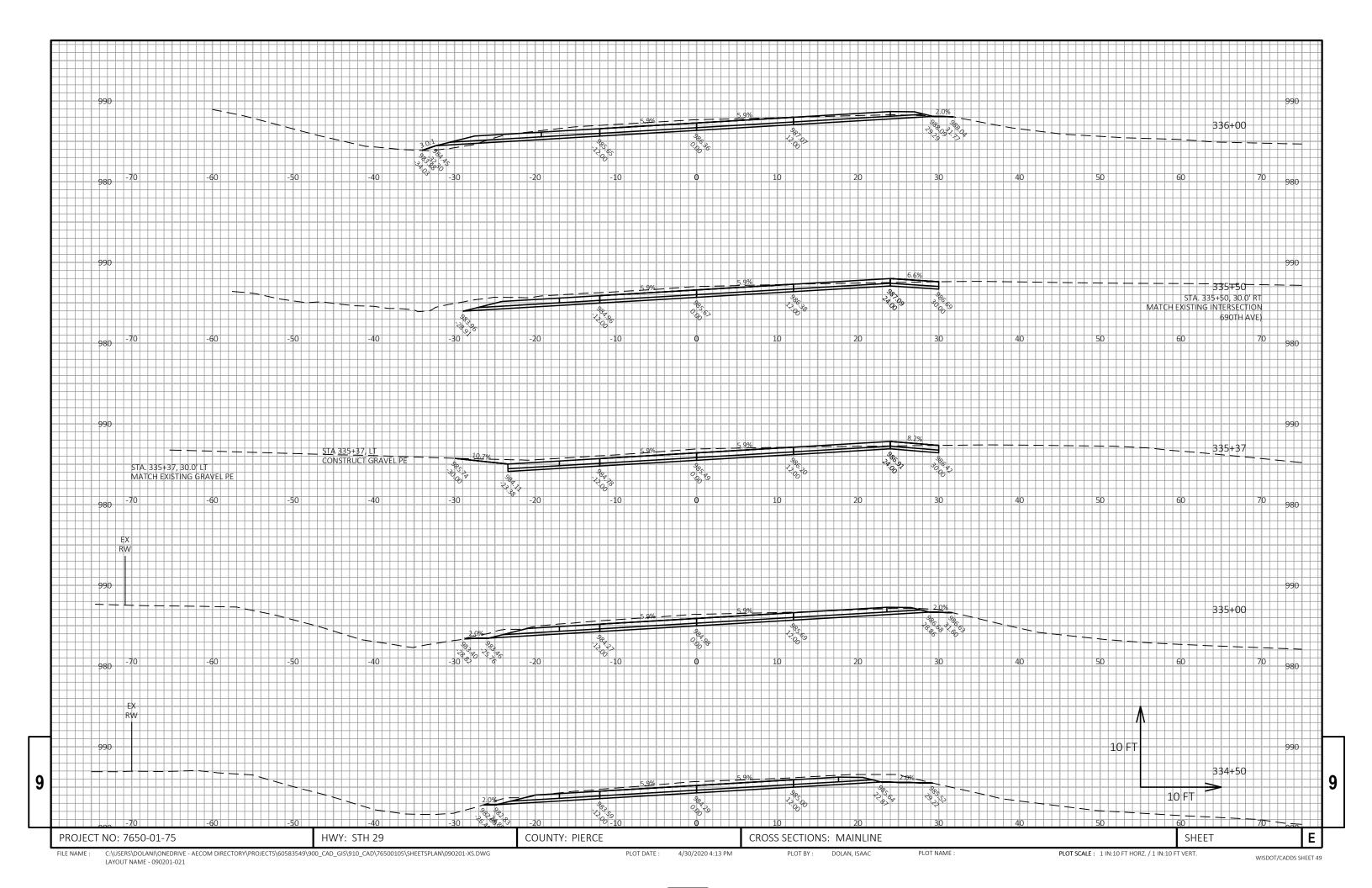


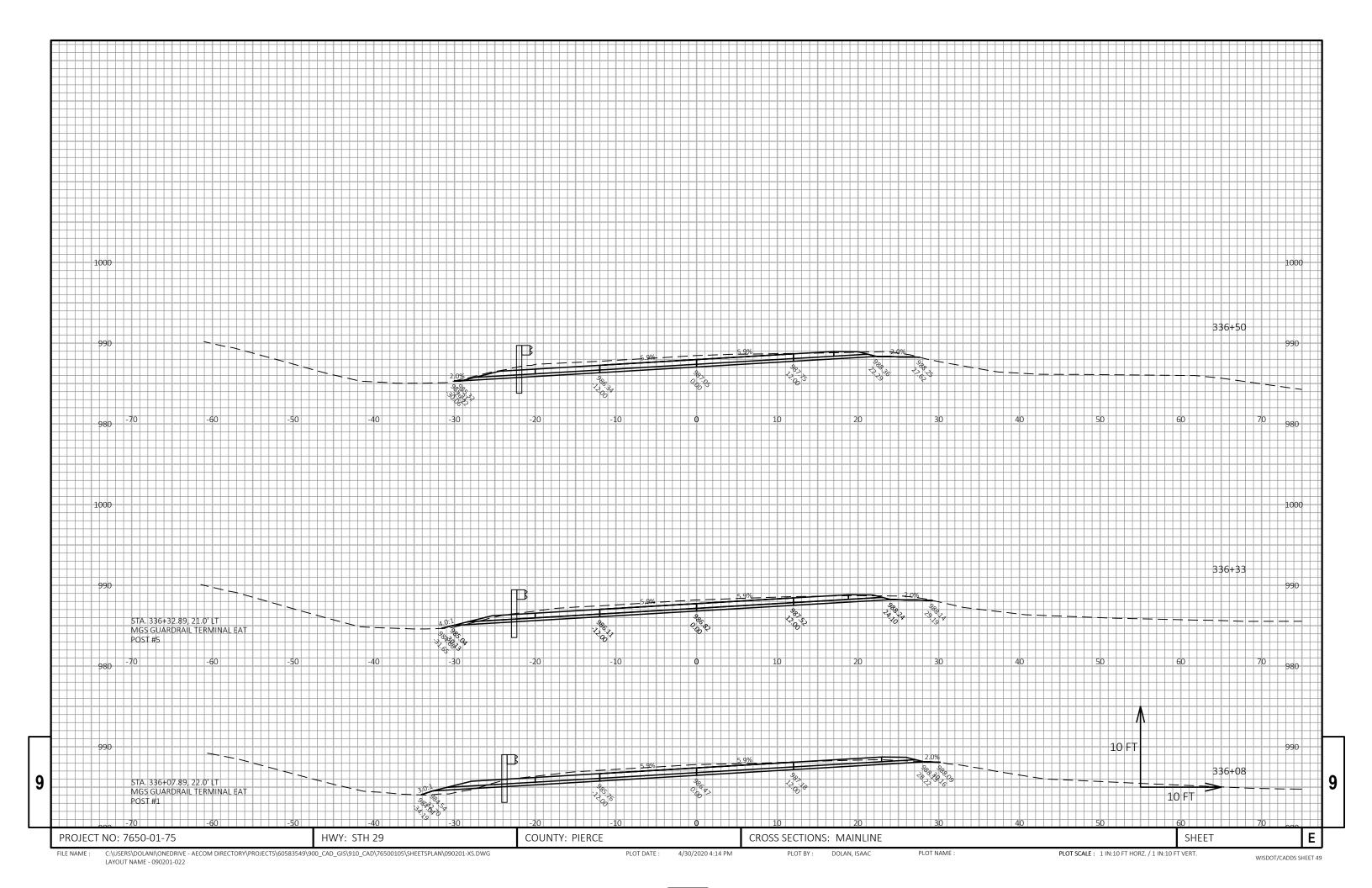


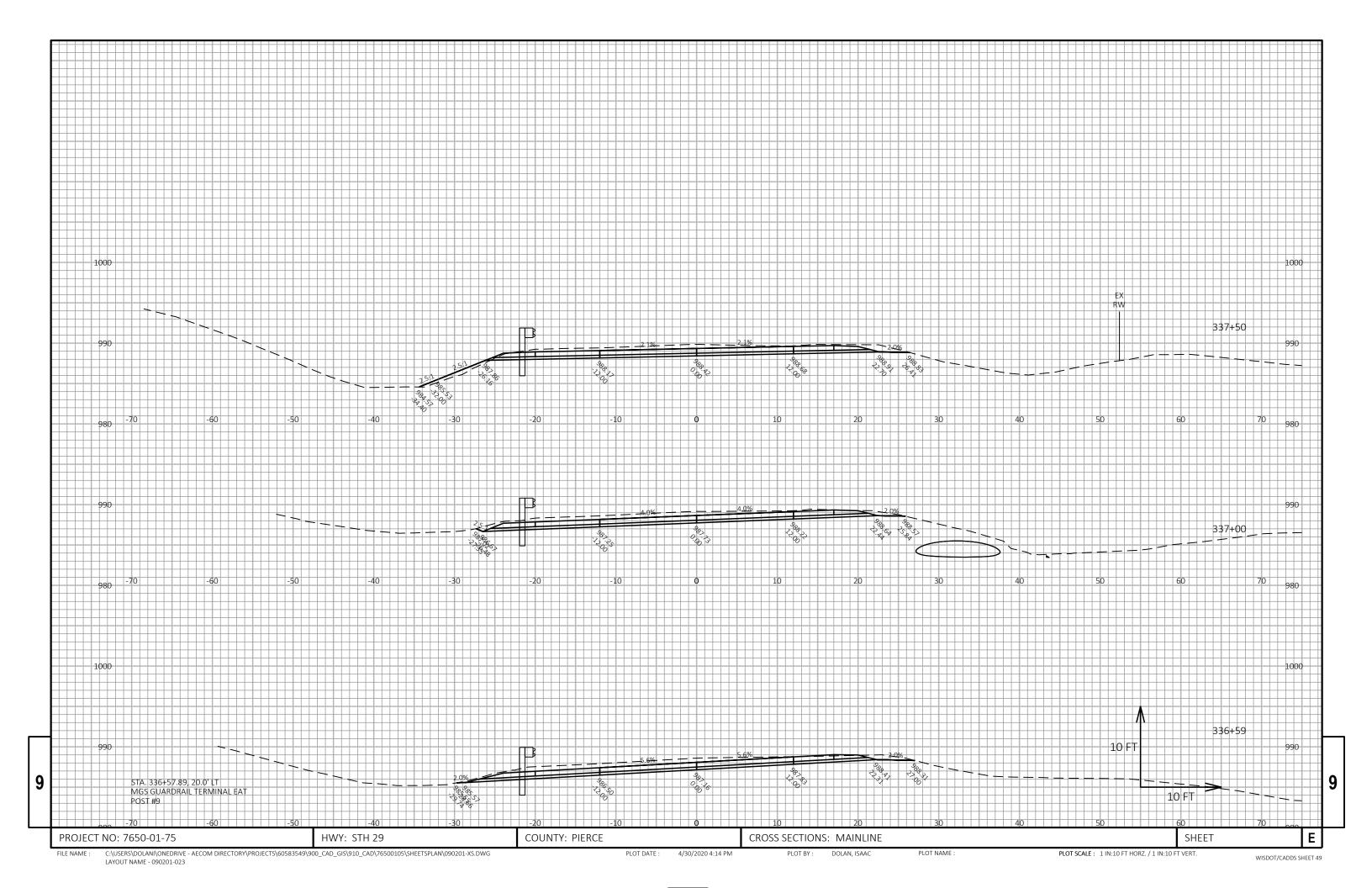


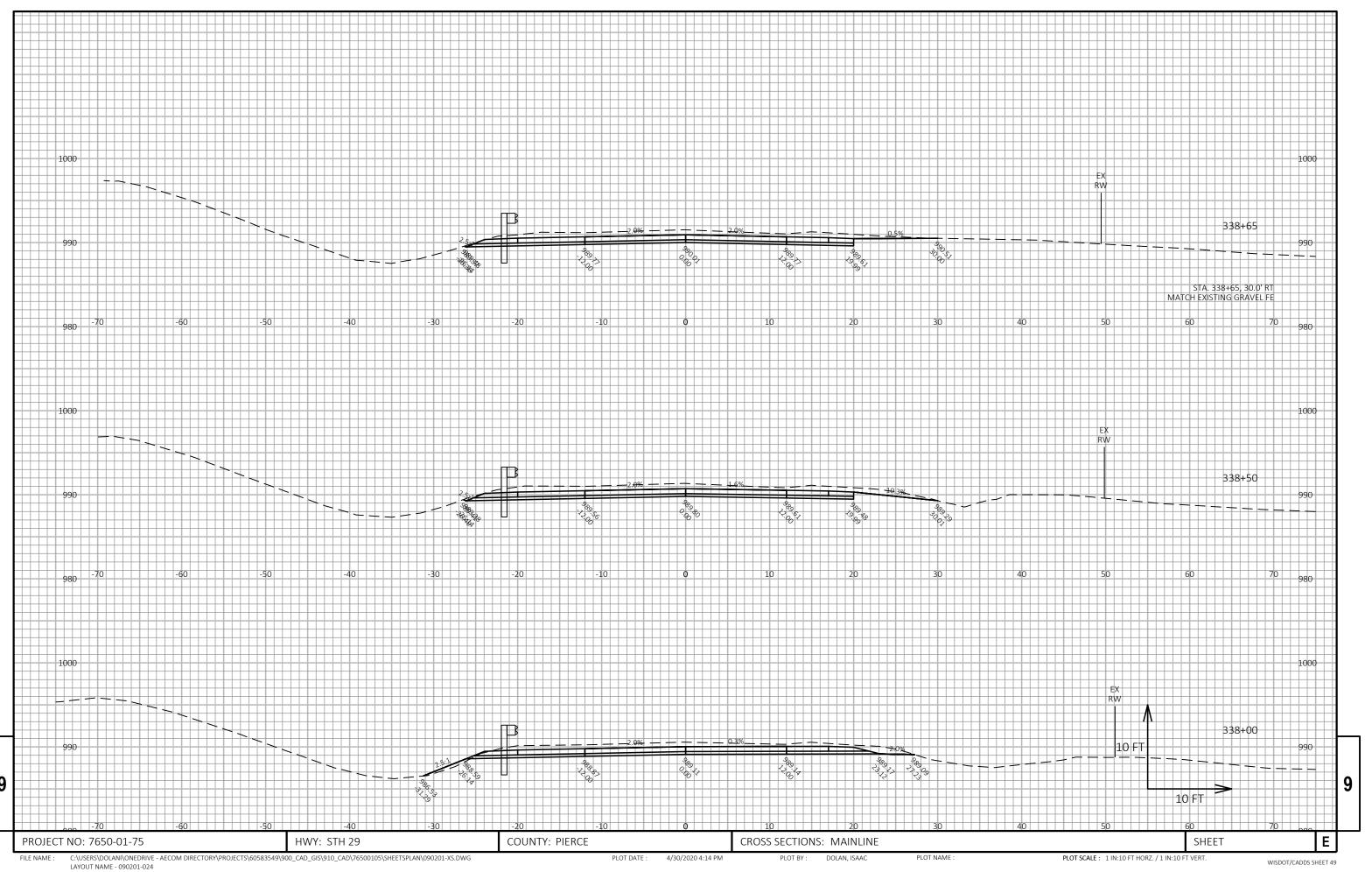




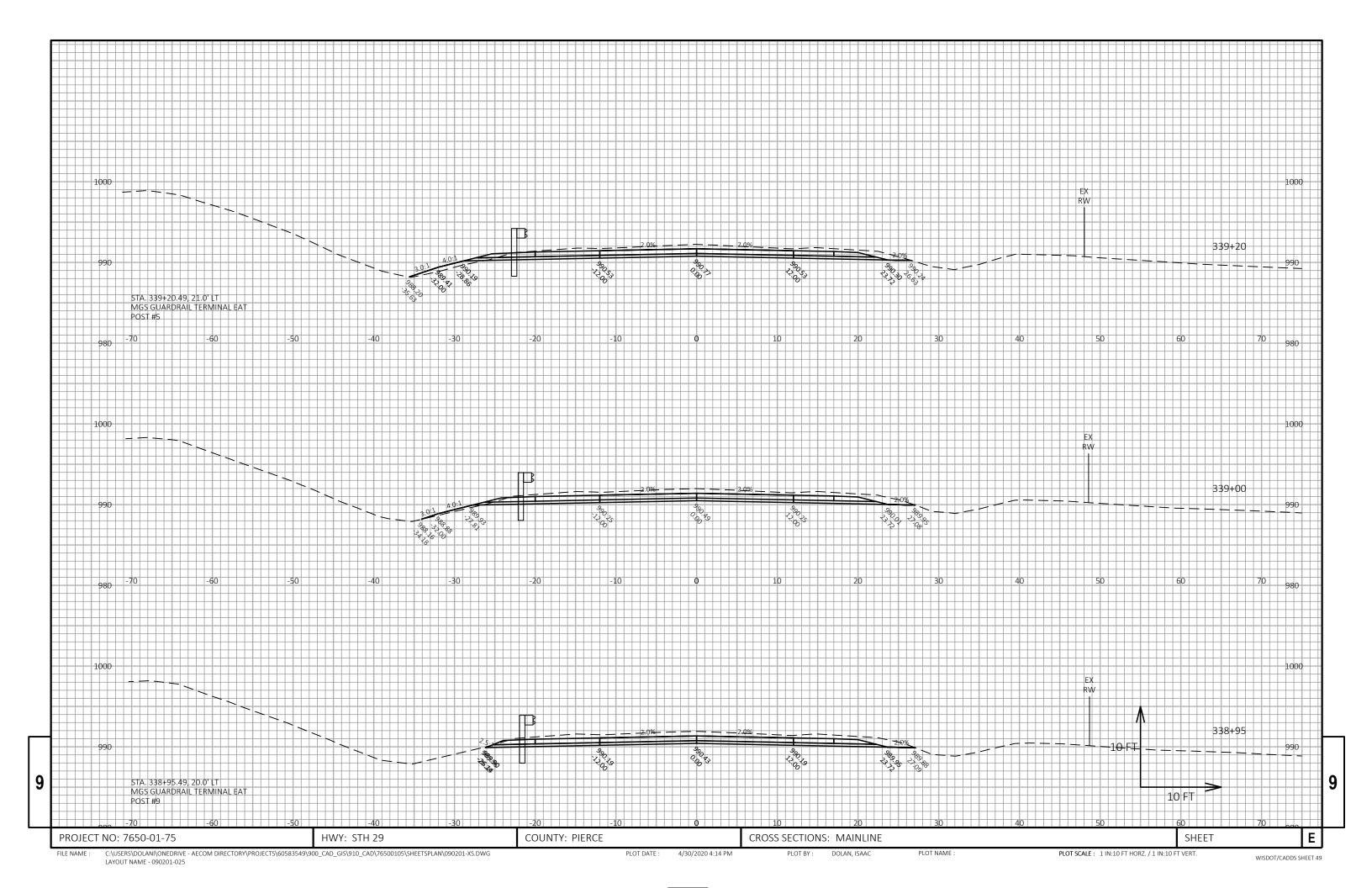


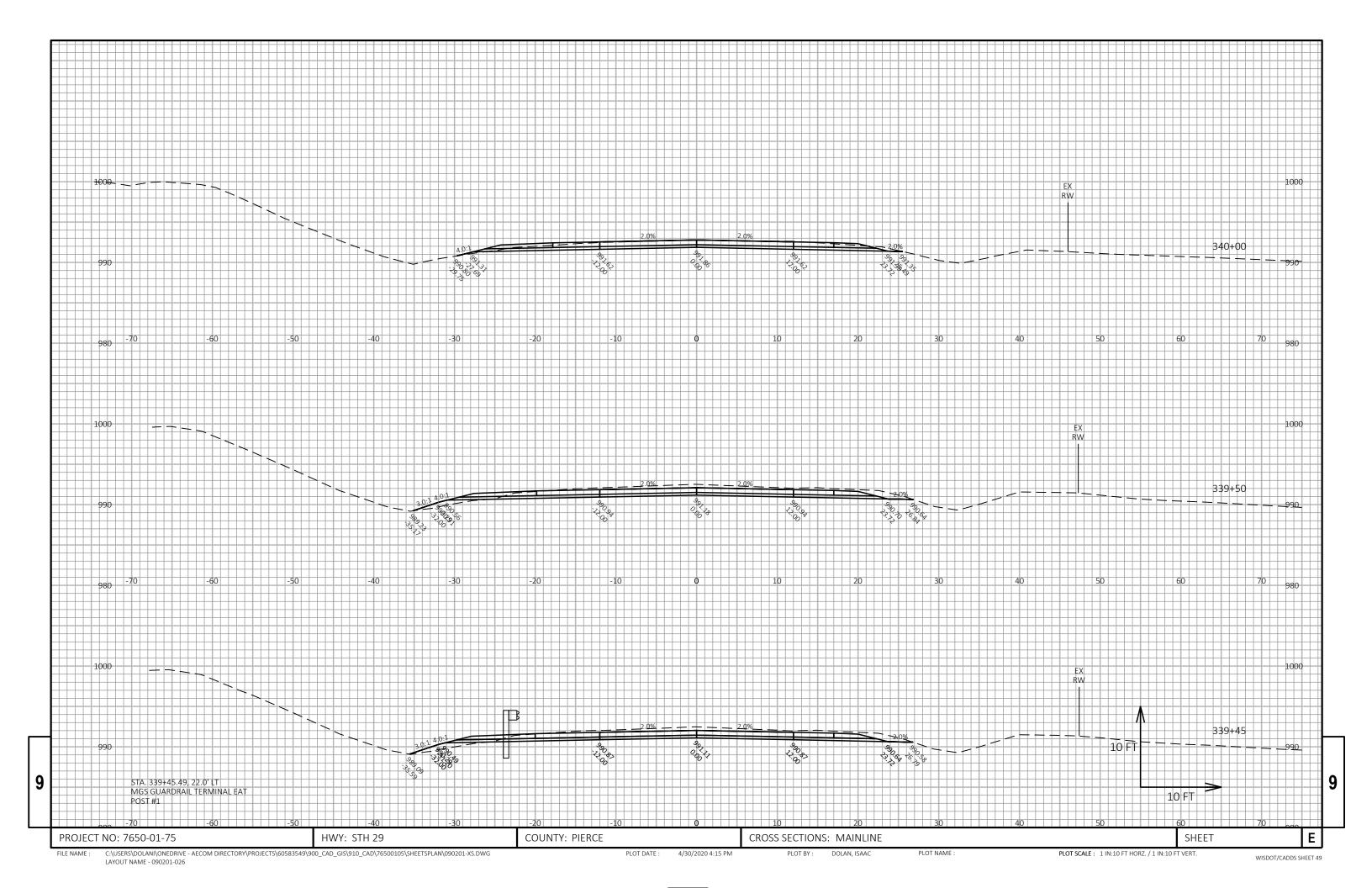


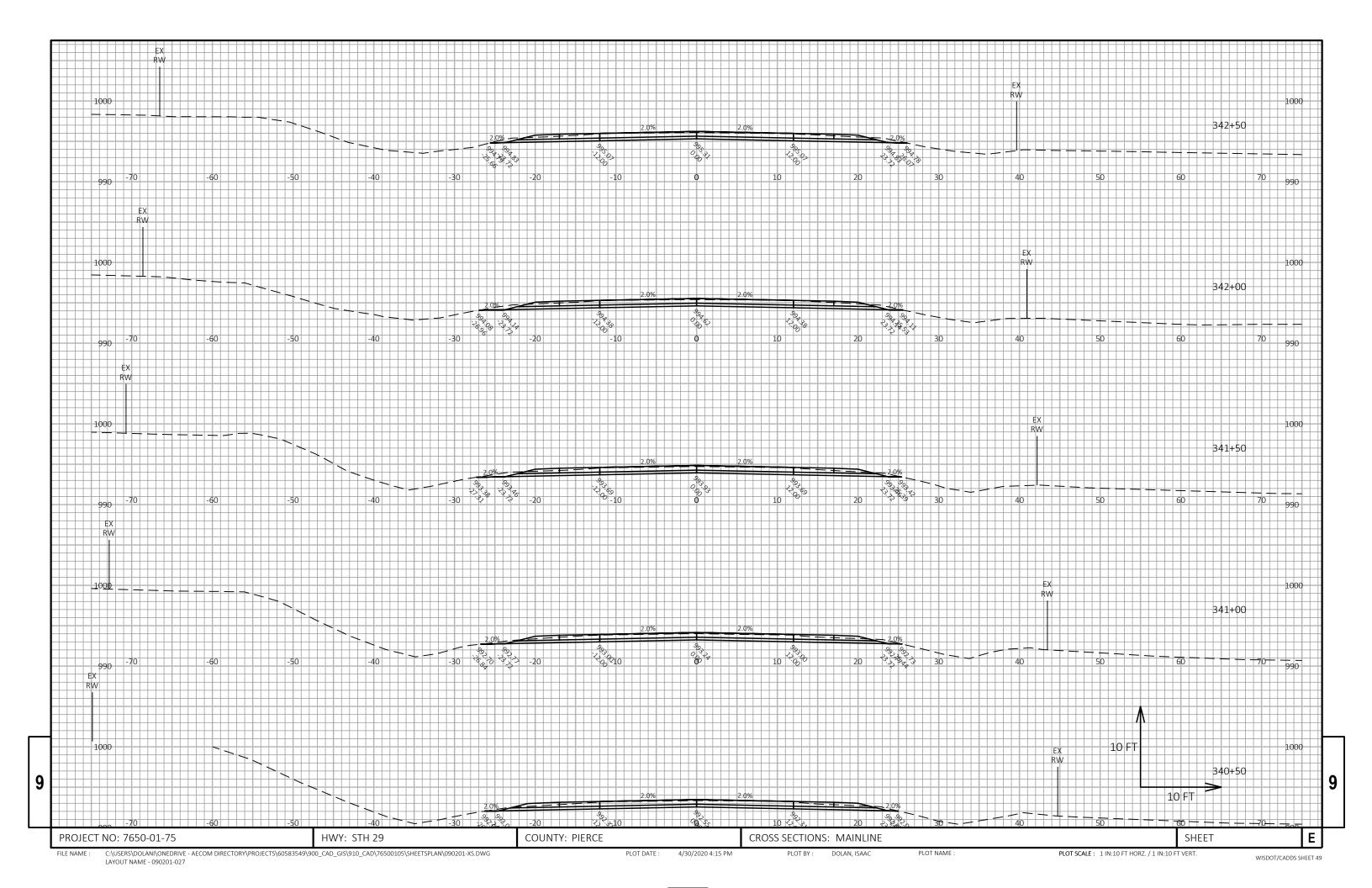


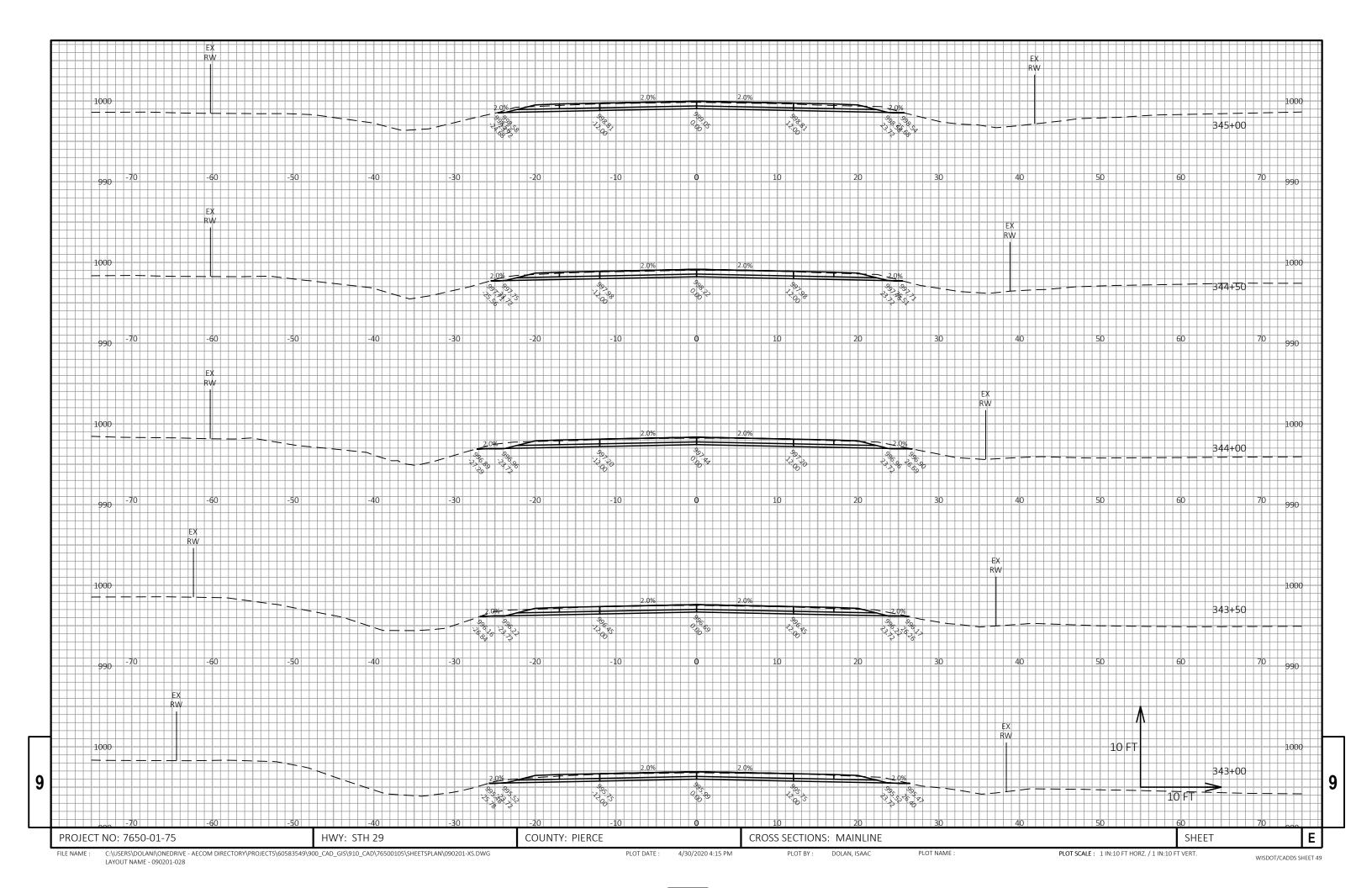


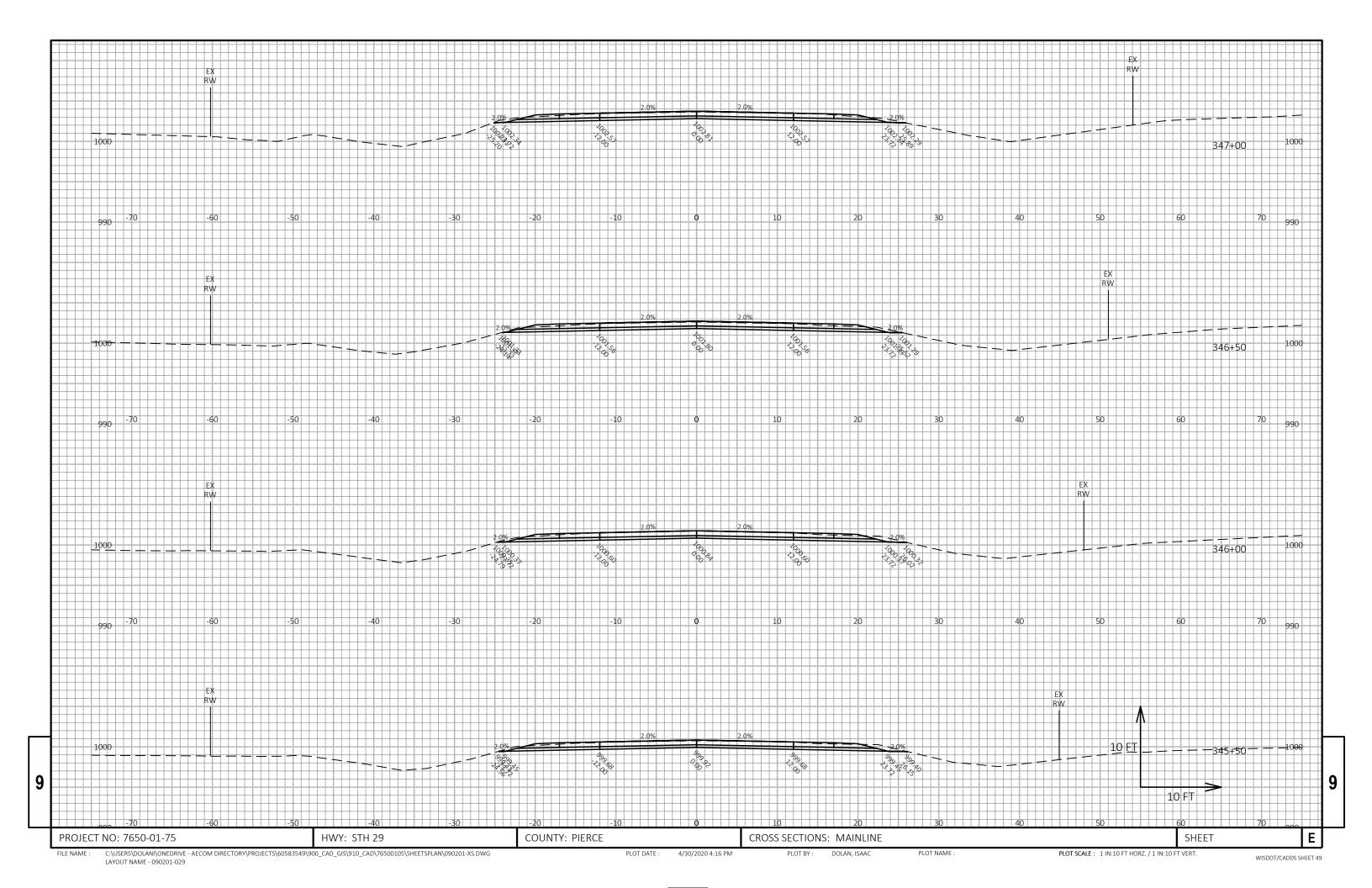
LAYOUT NAME - 090201-024

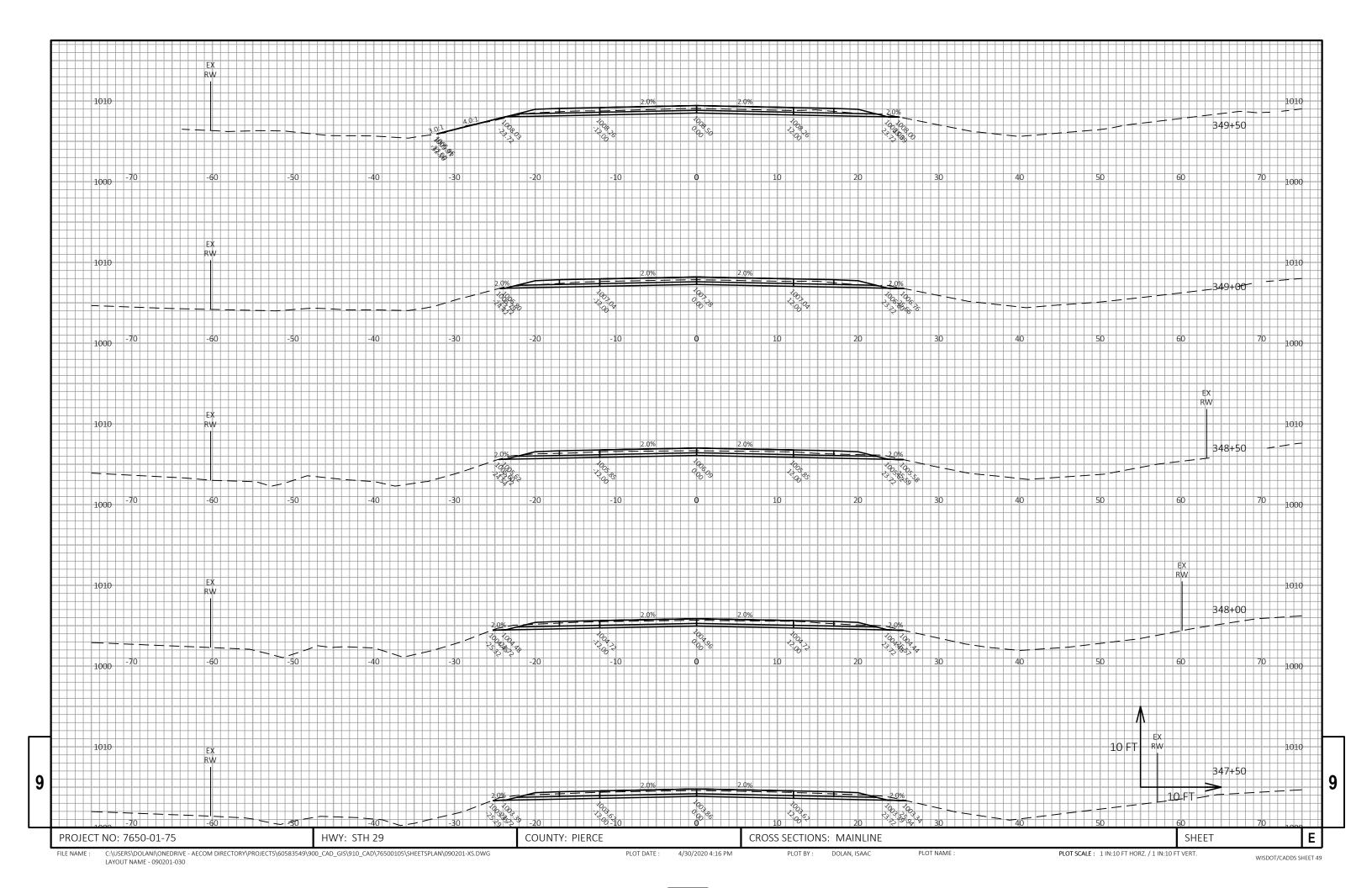


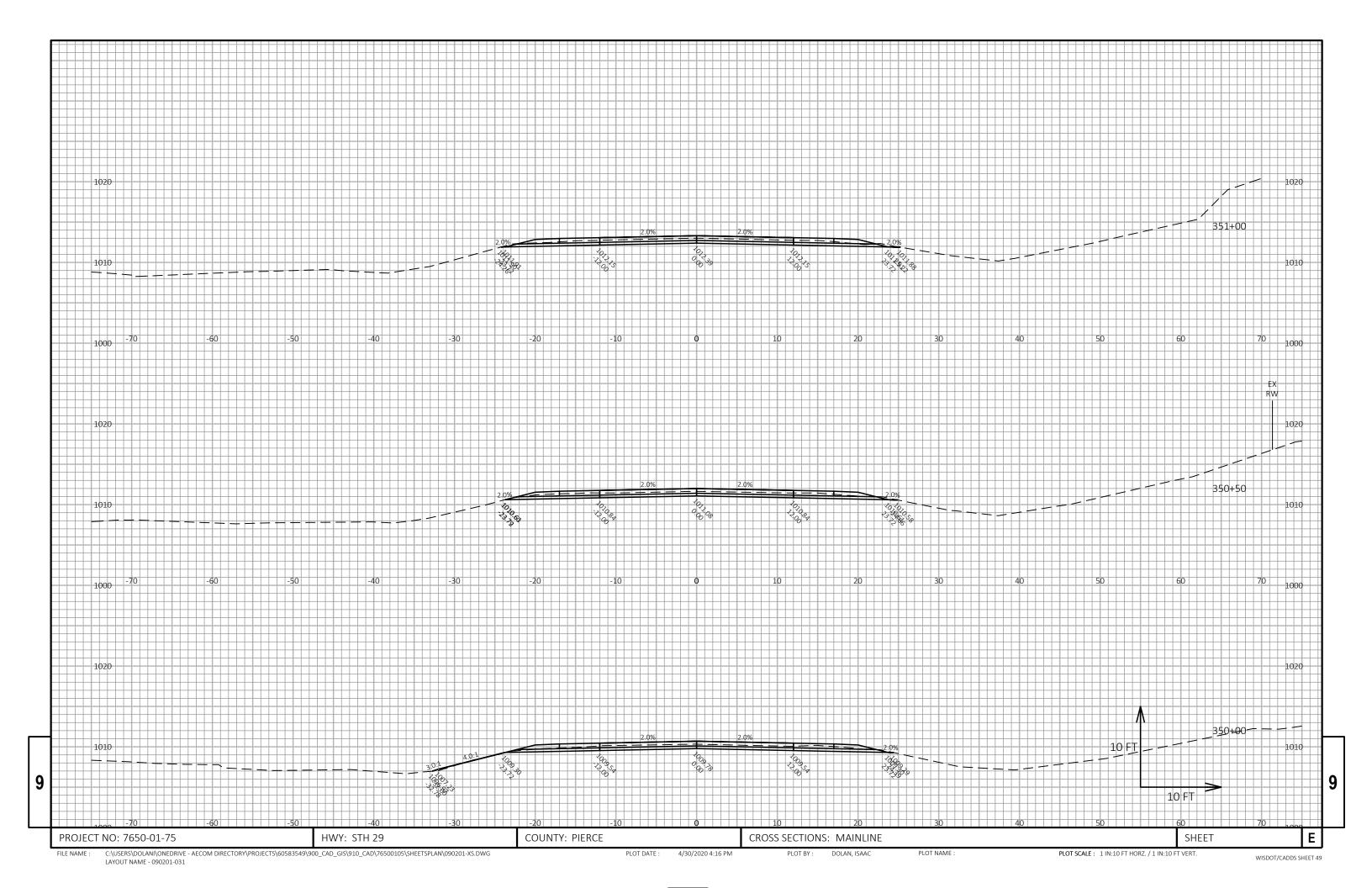


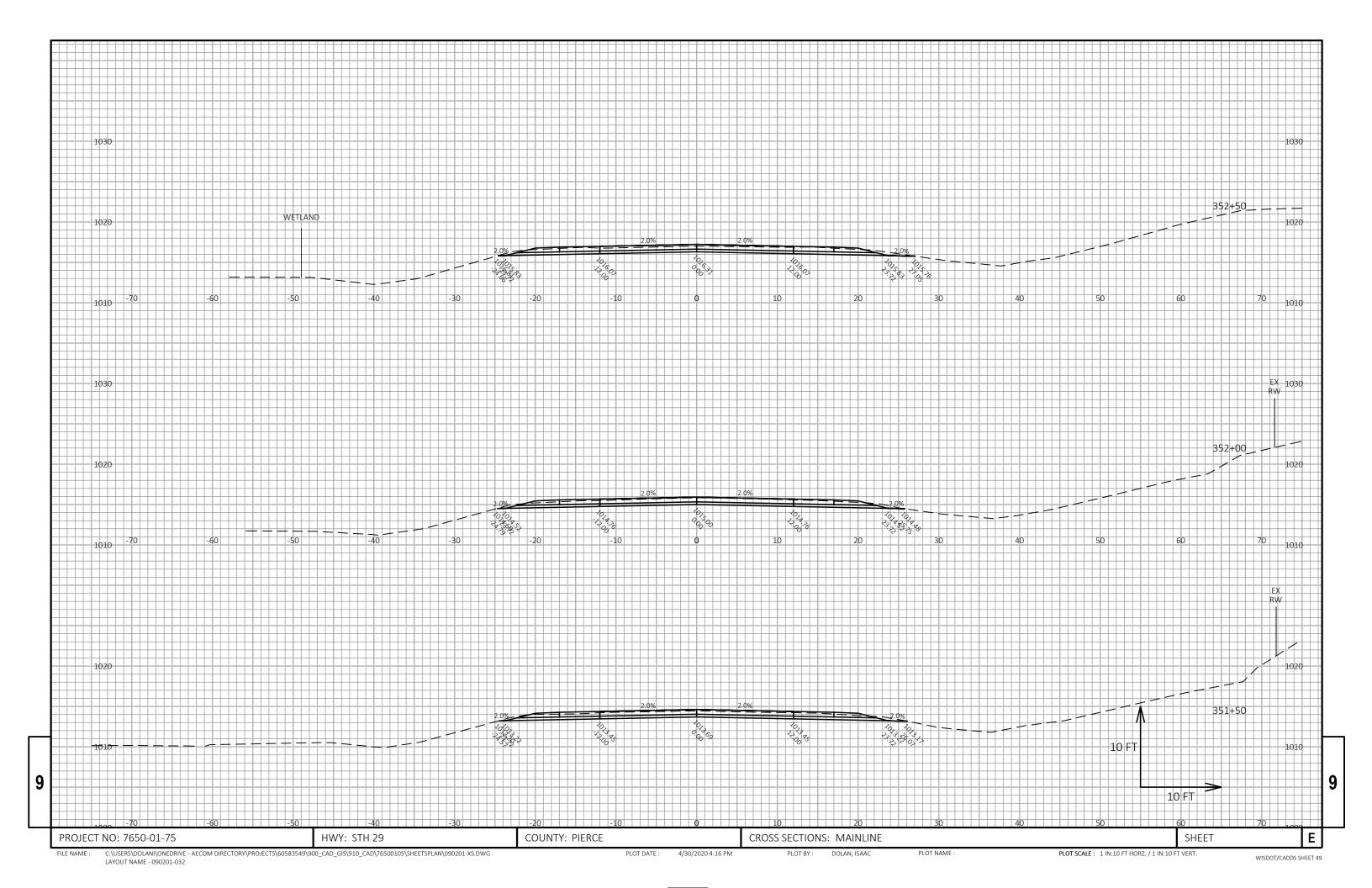


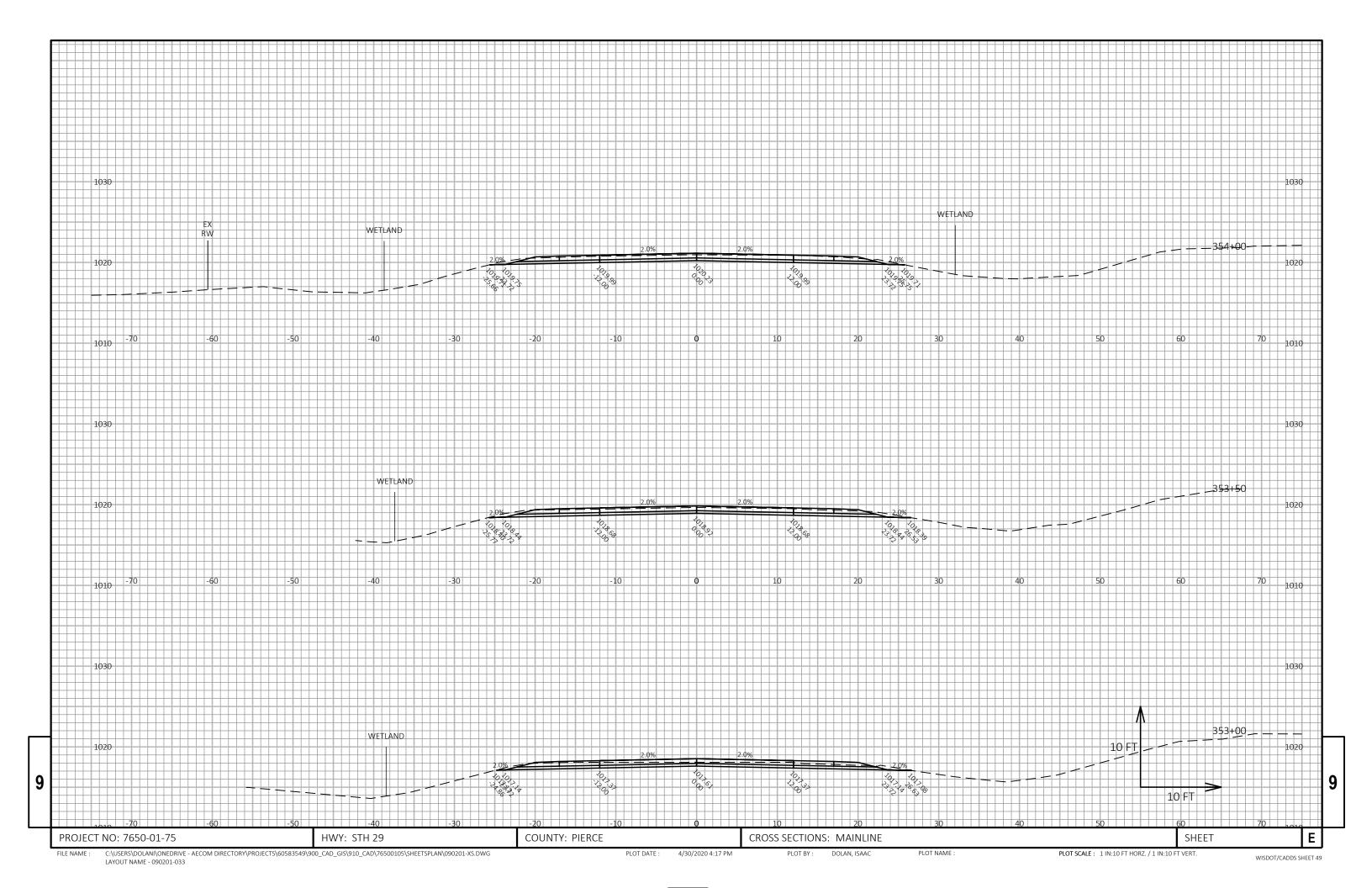


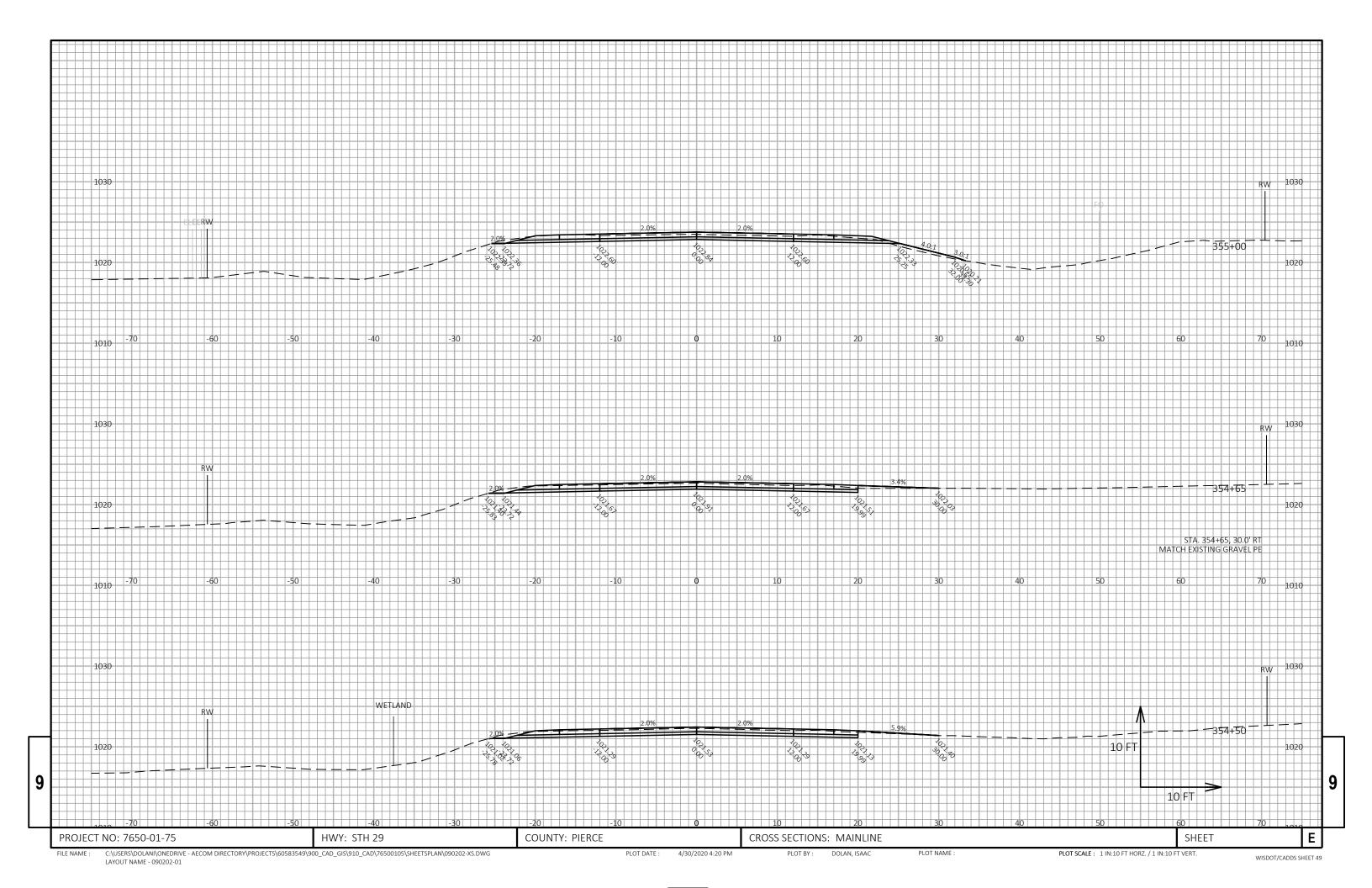


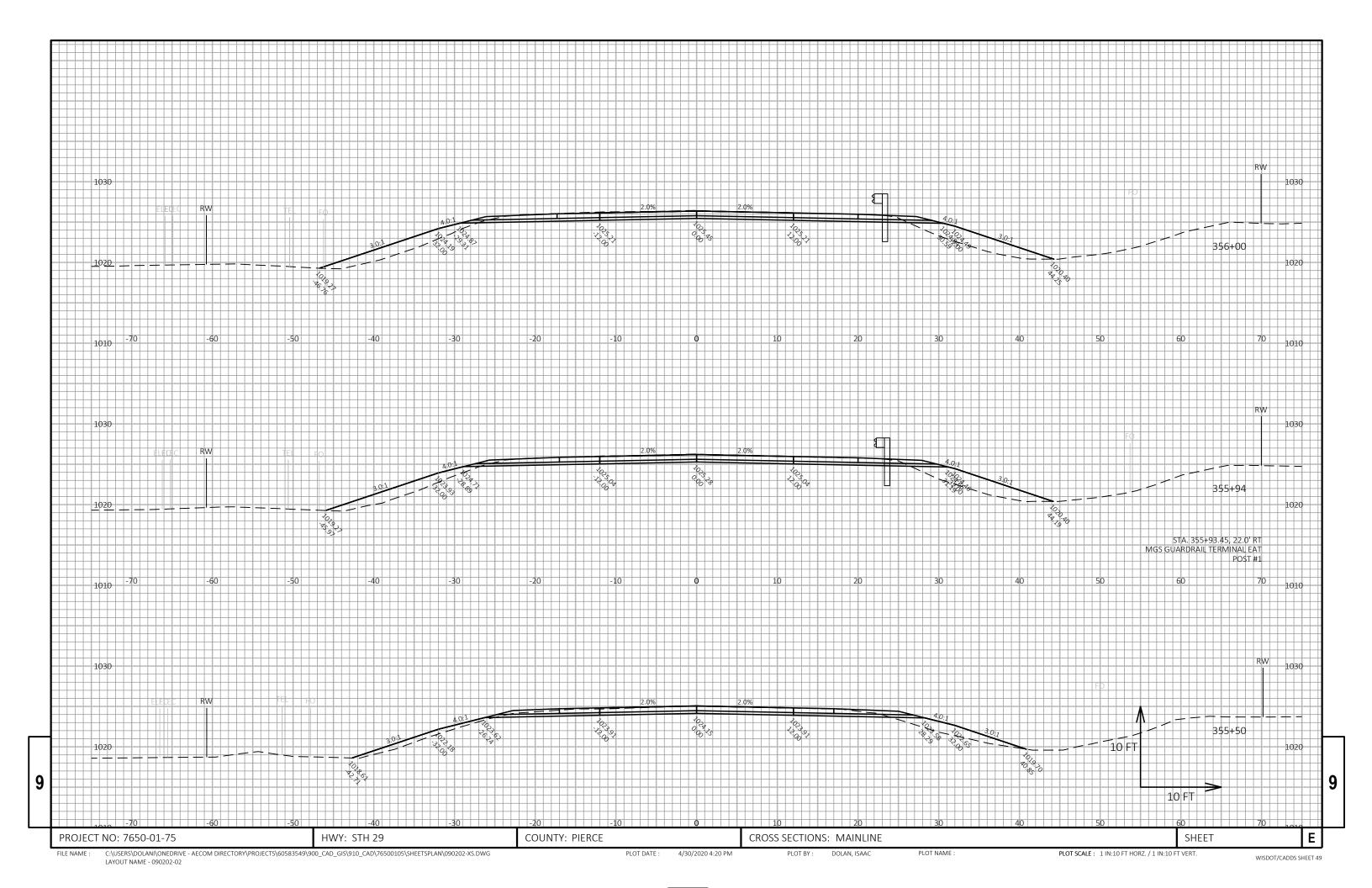


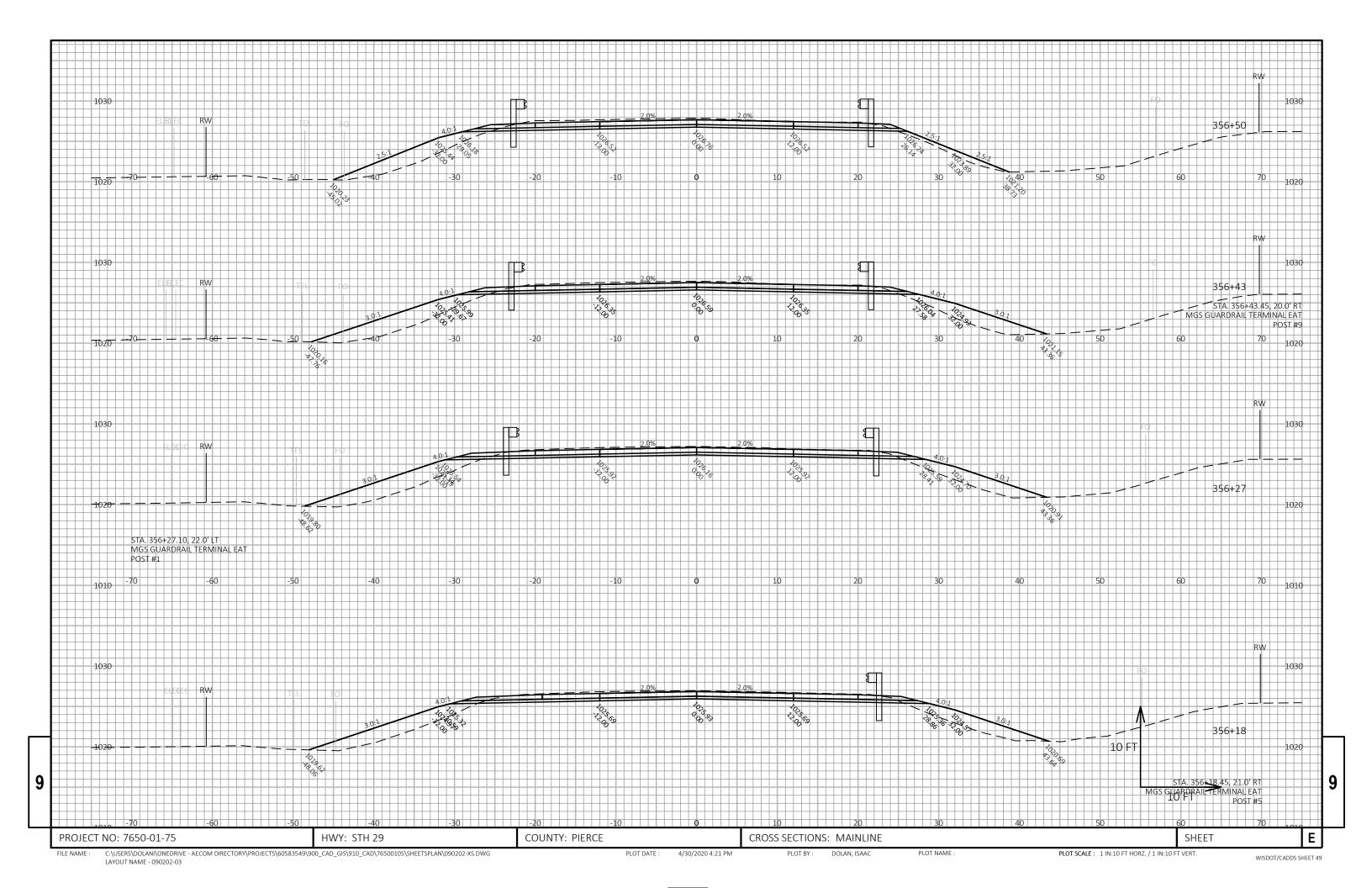


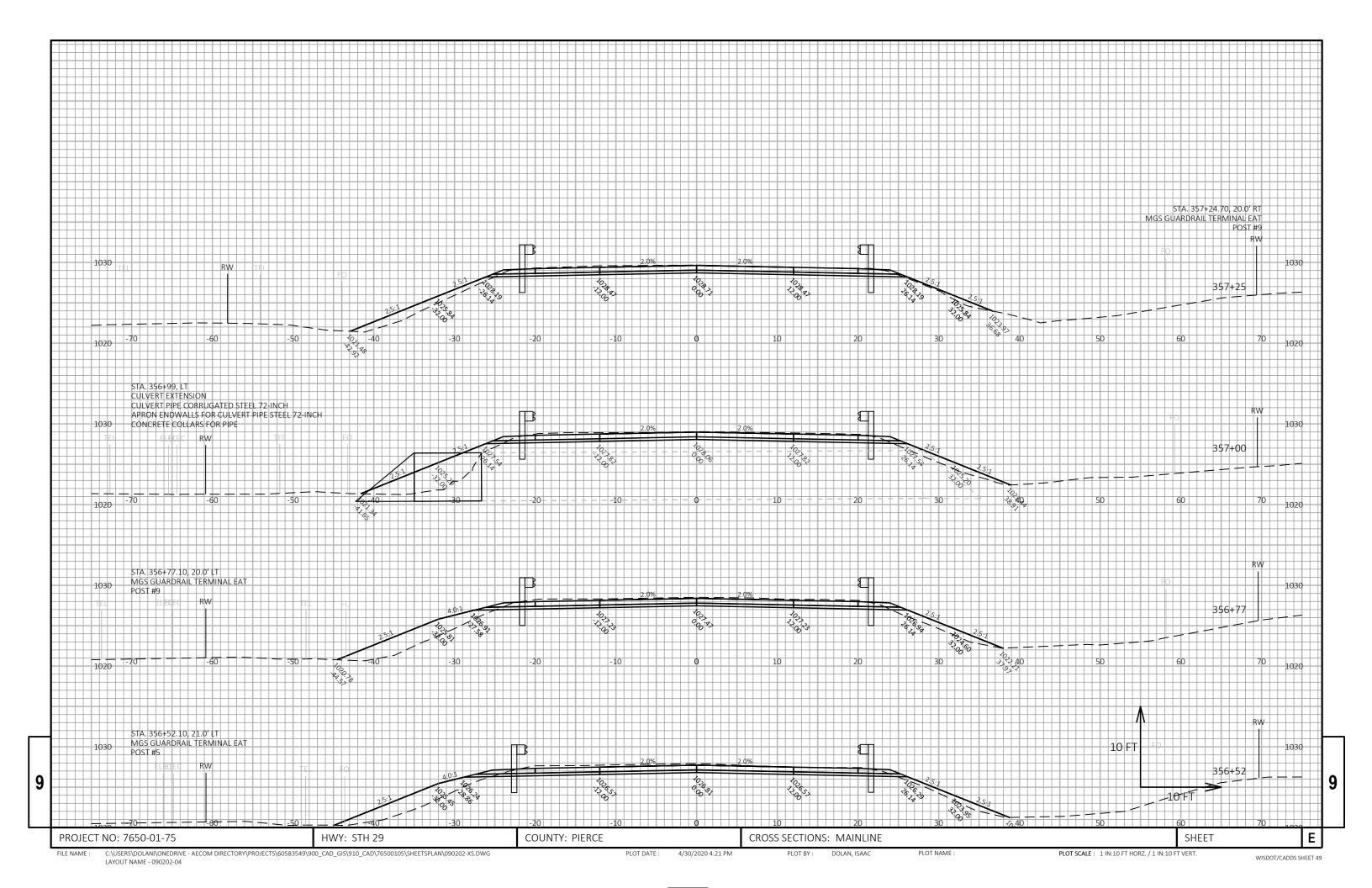


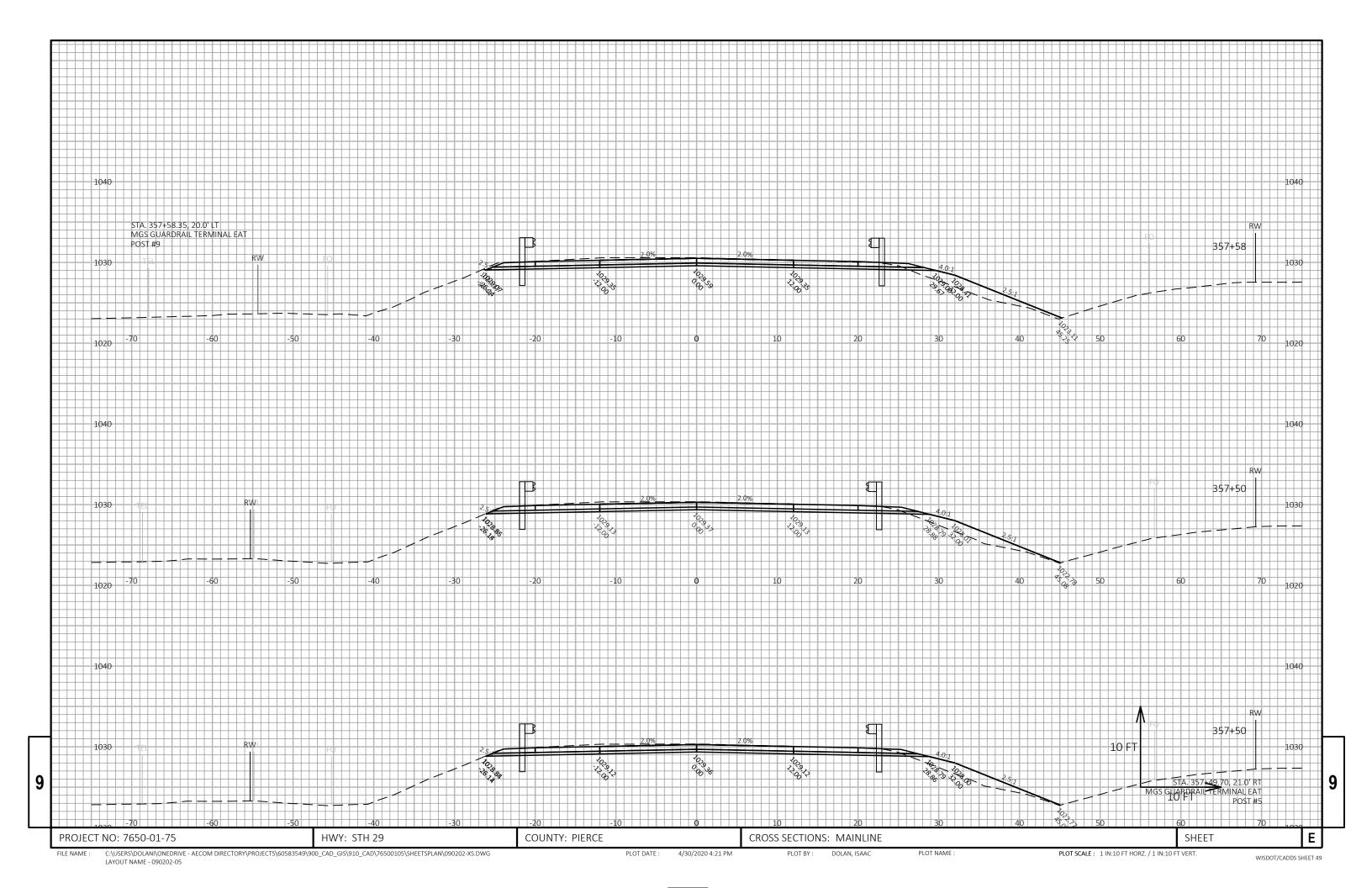


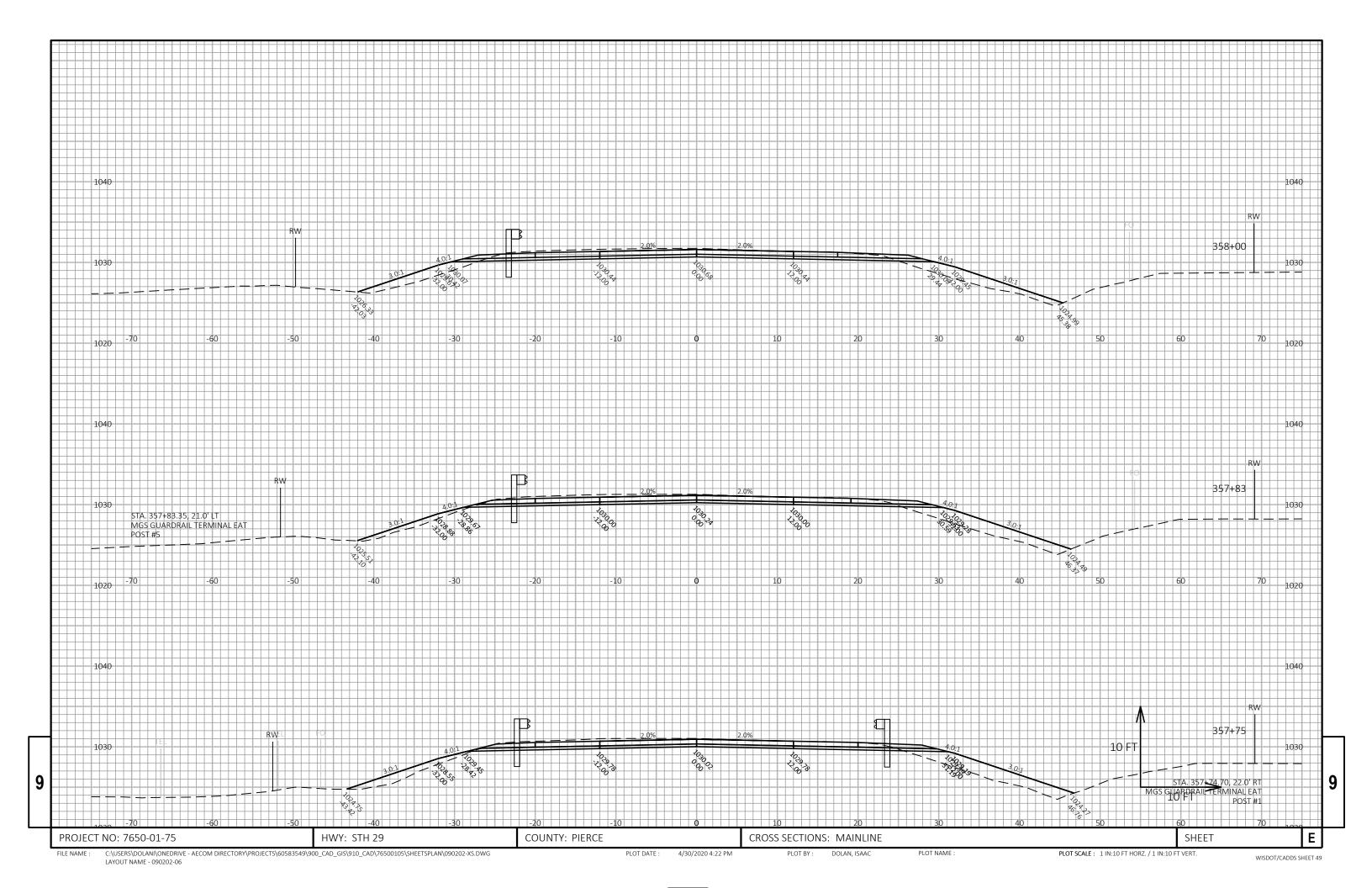


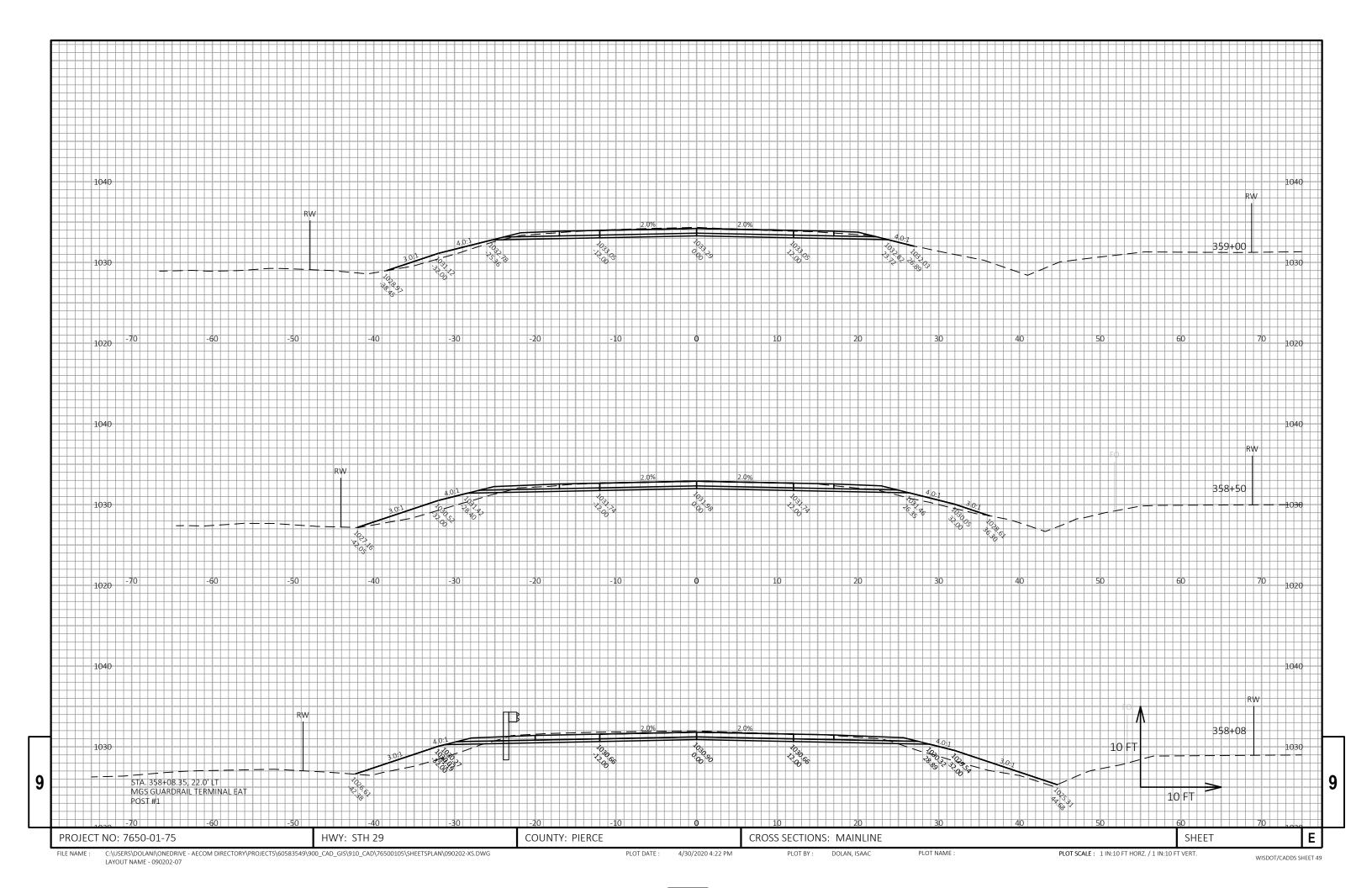


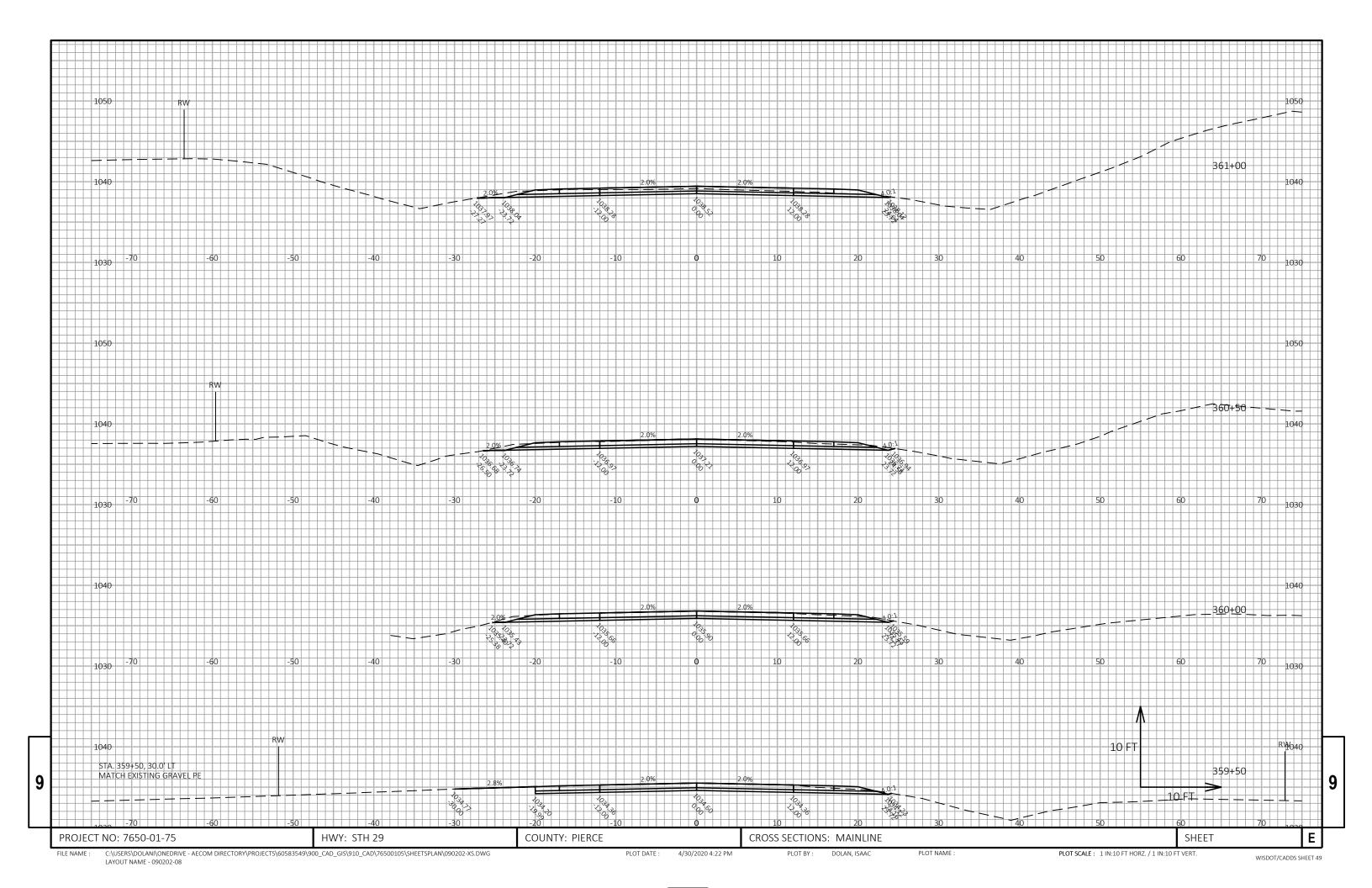


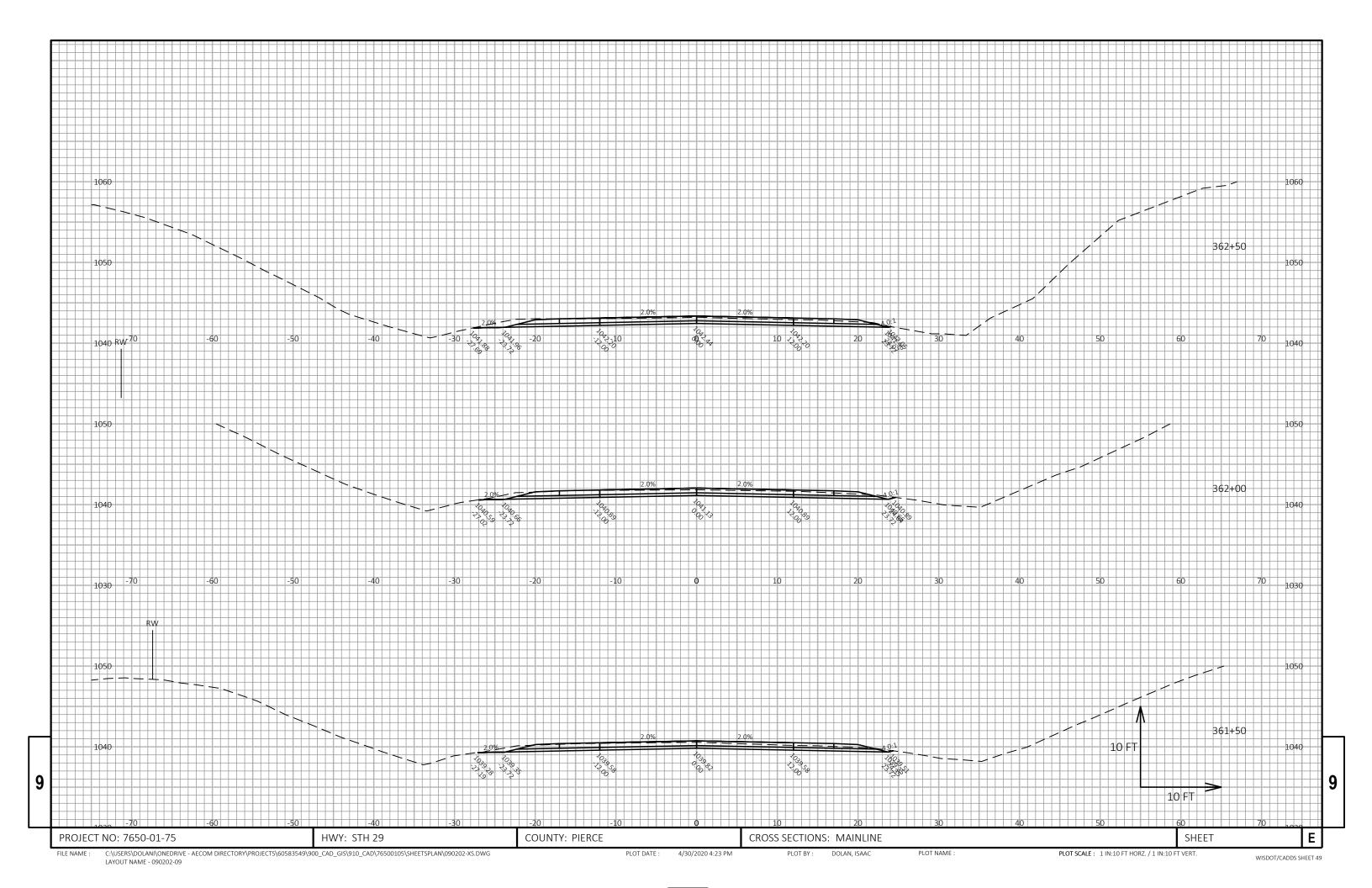


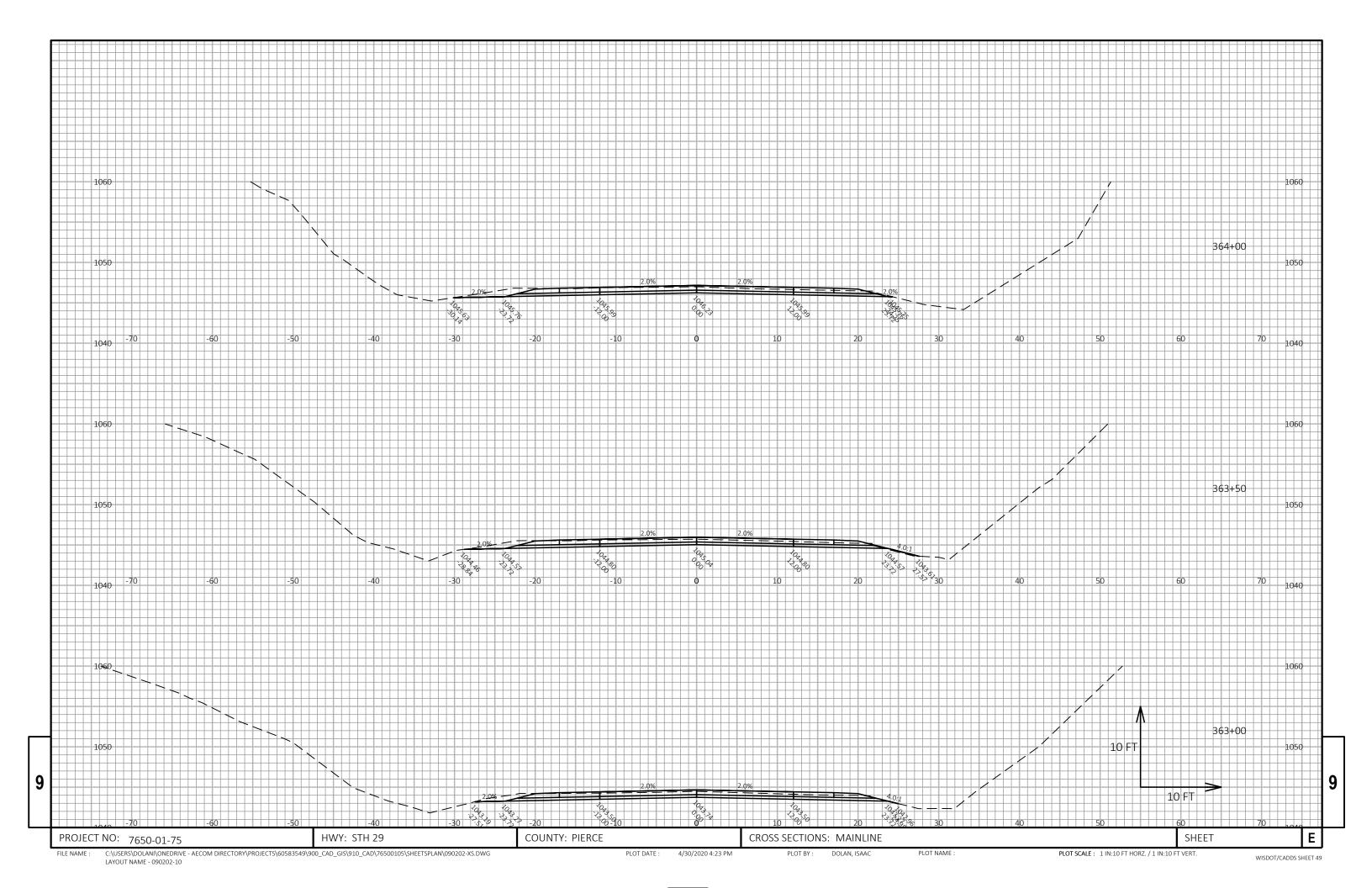


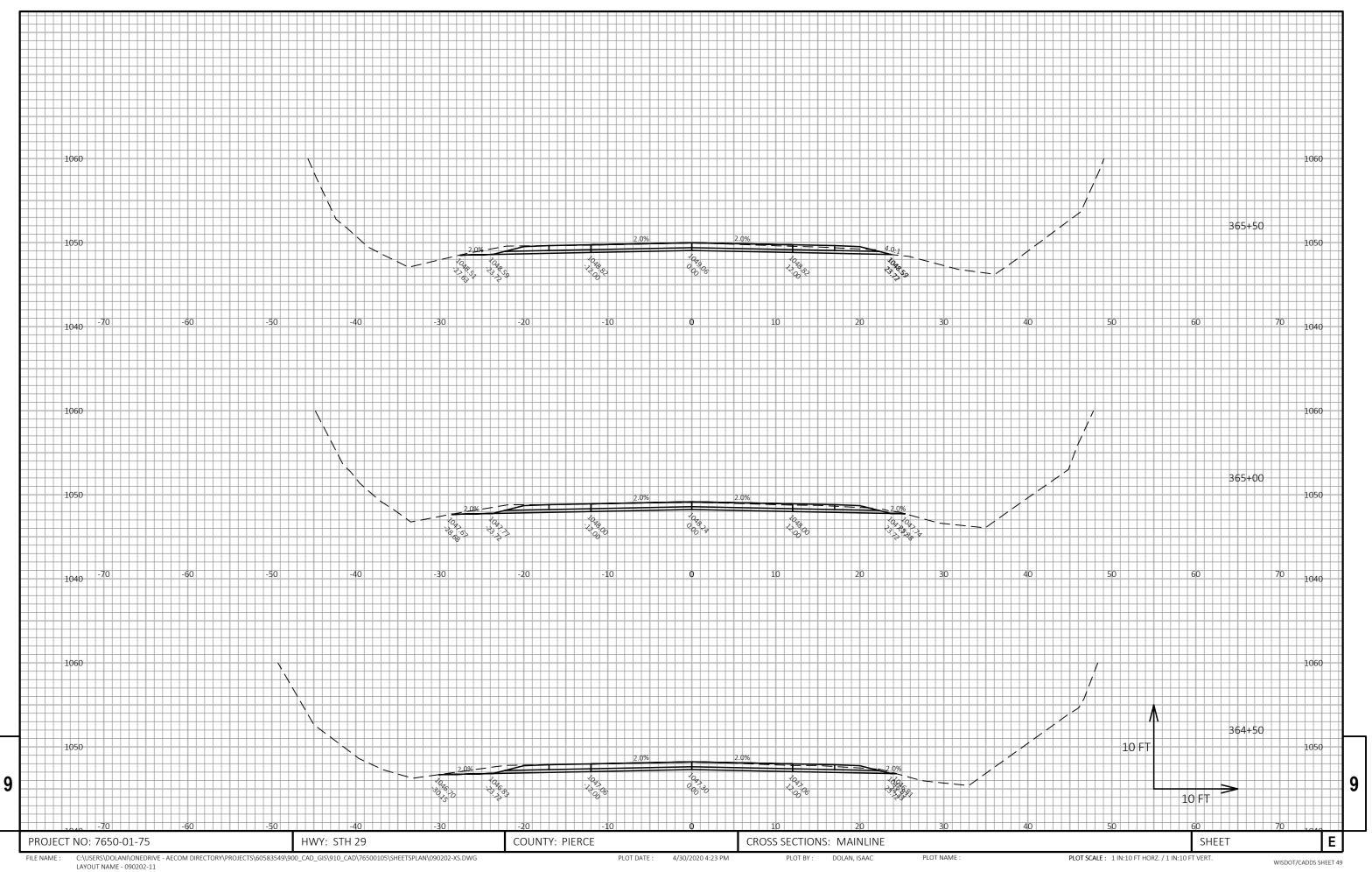




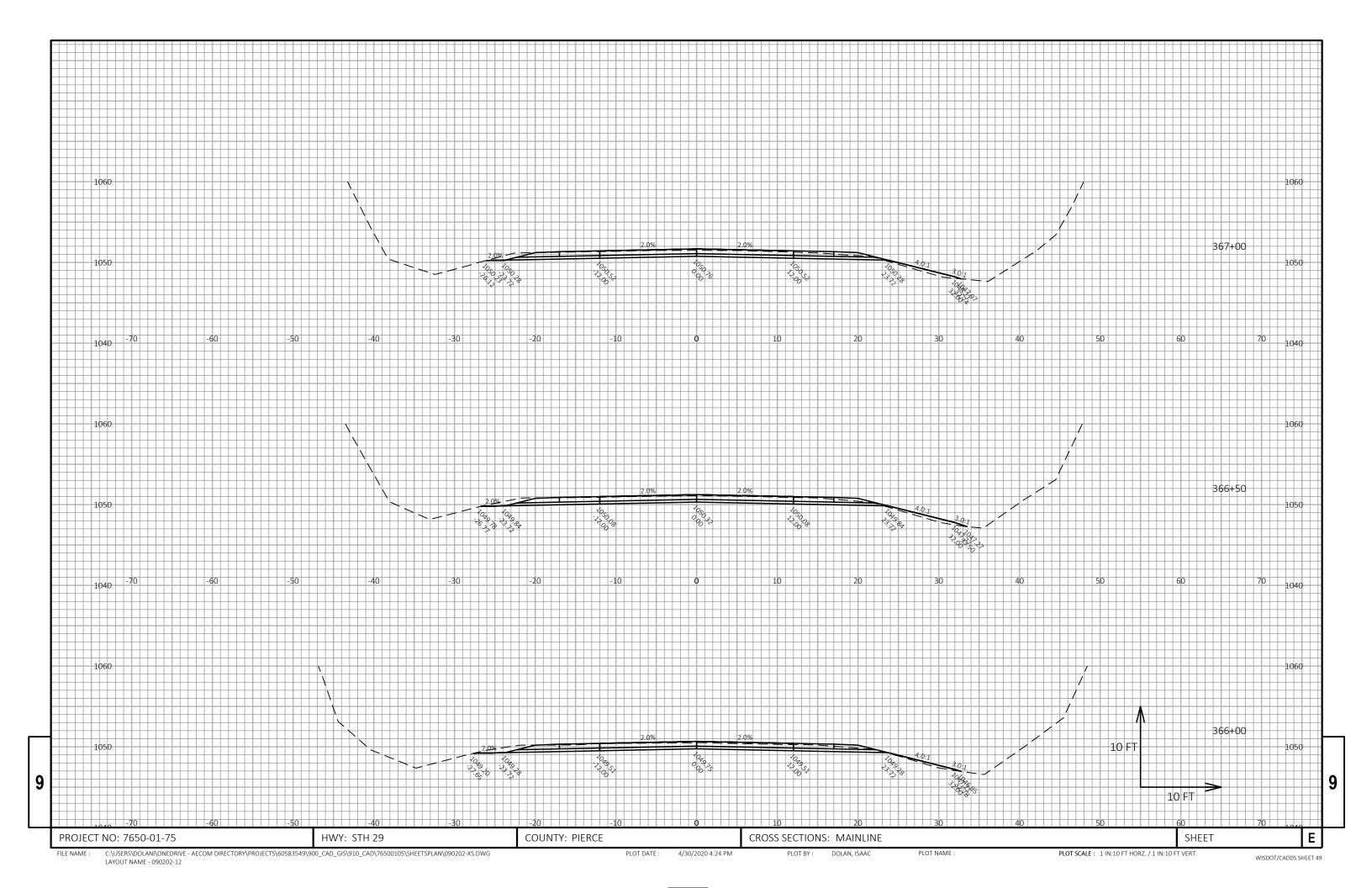


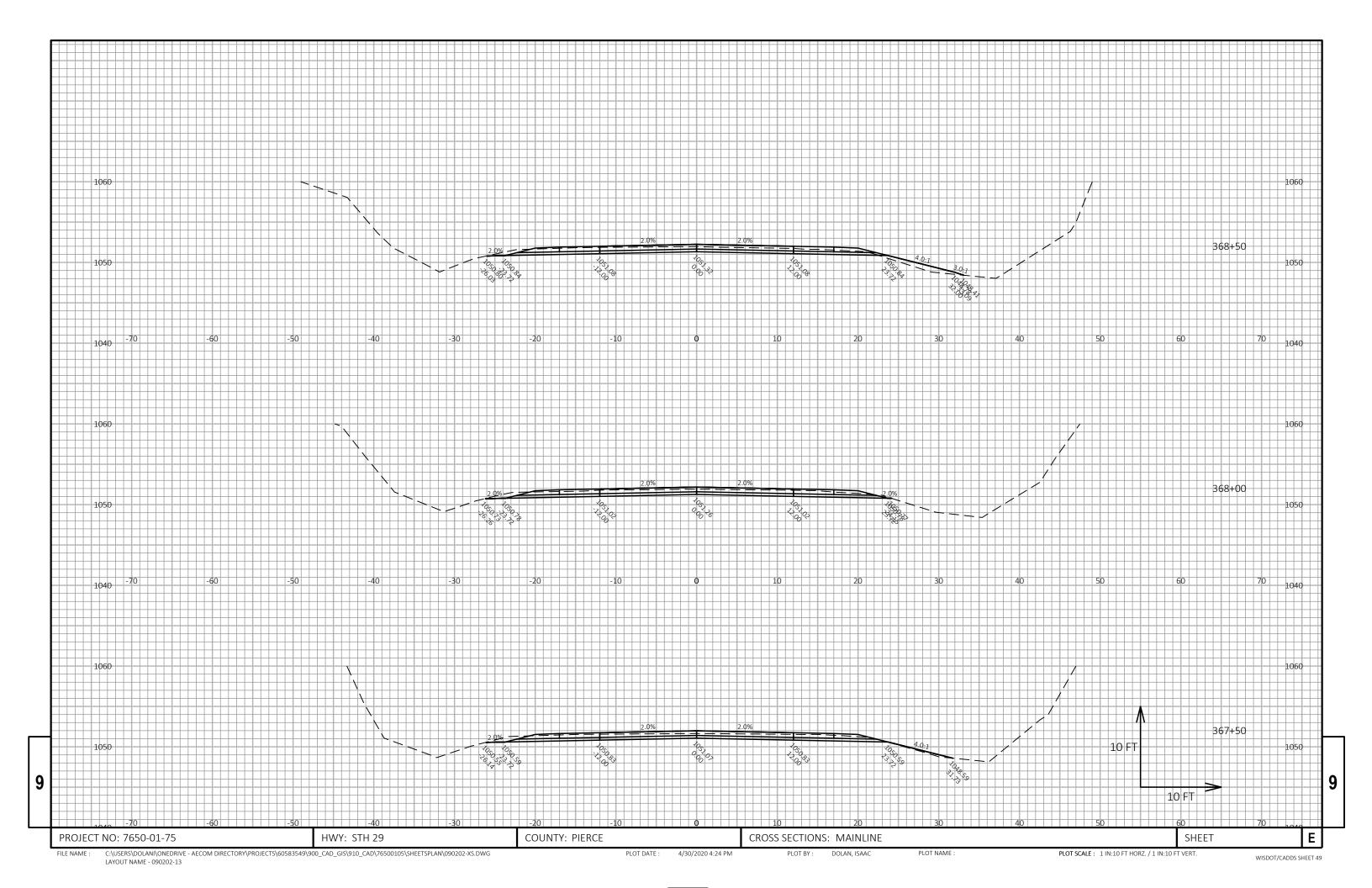


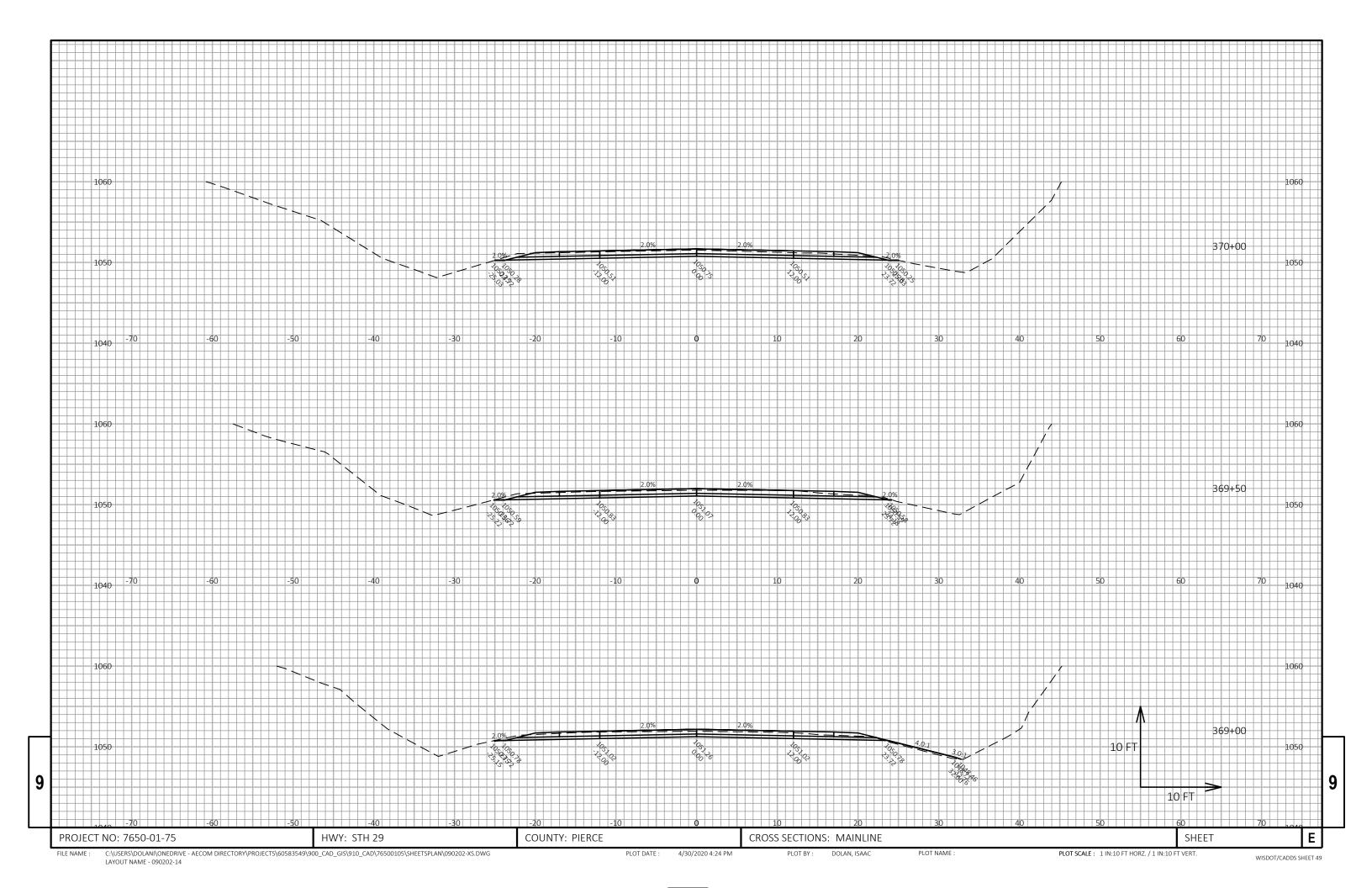


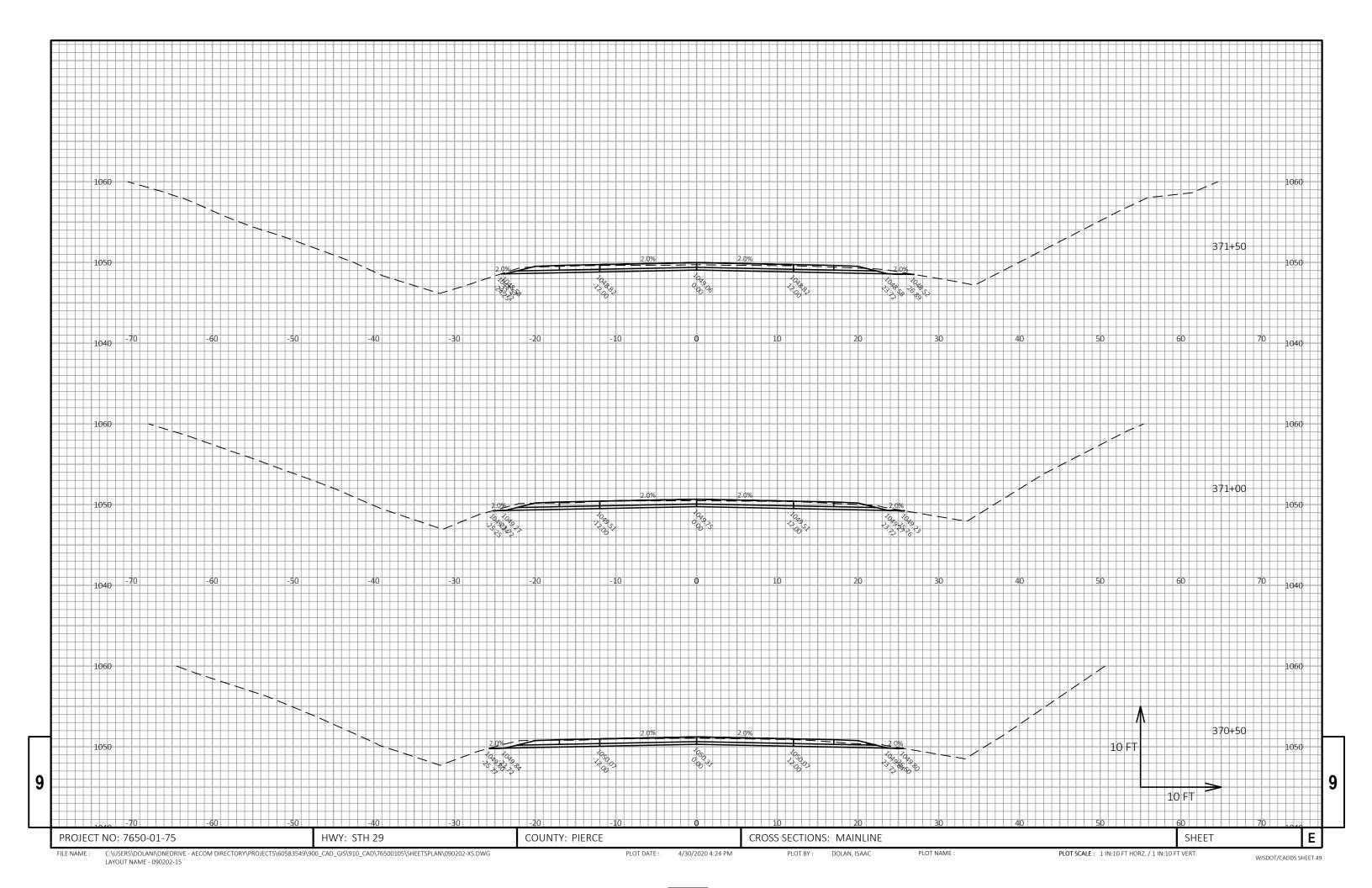


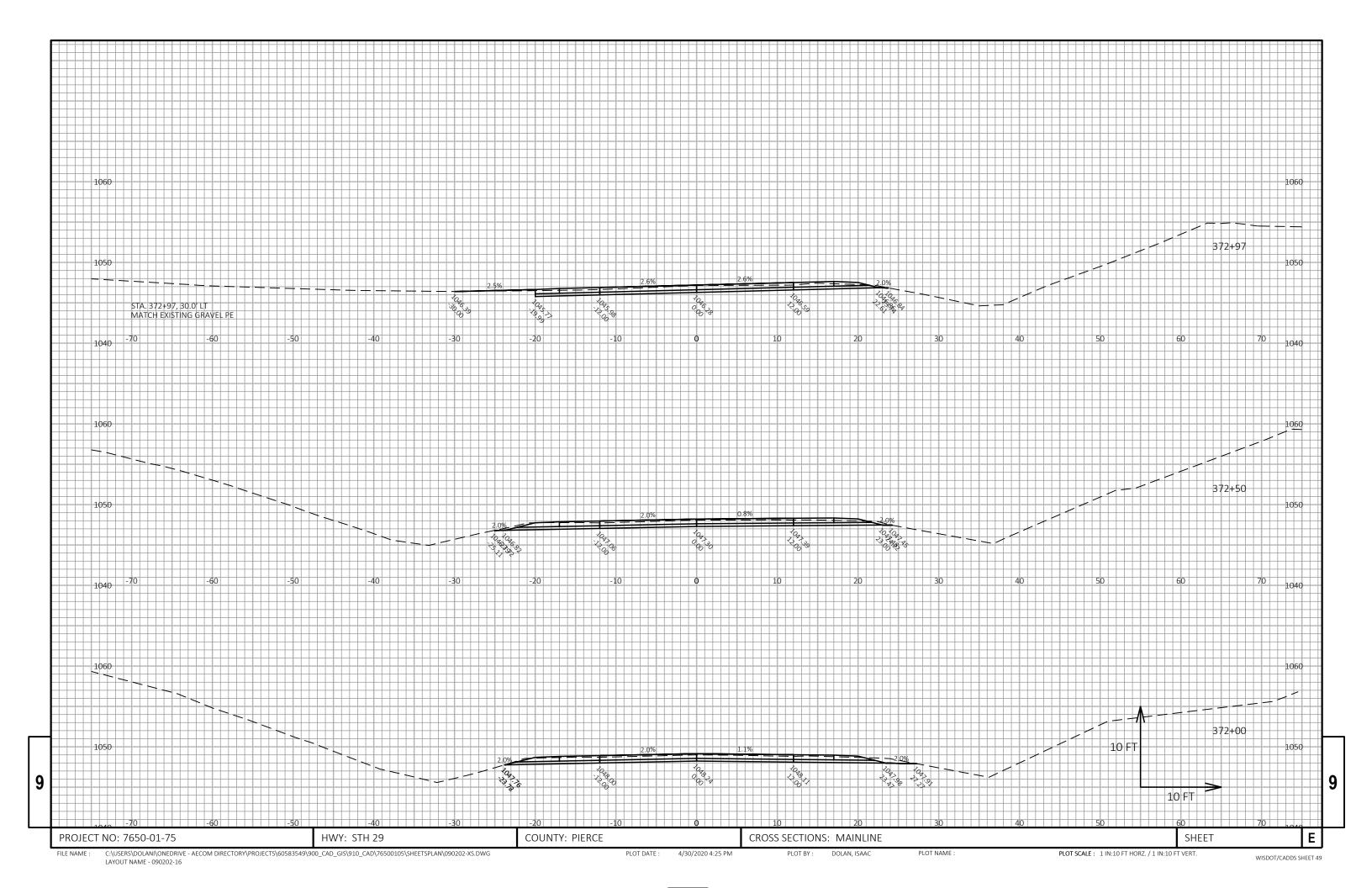
LAYOUT NAME - 090202-11

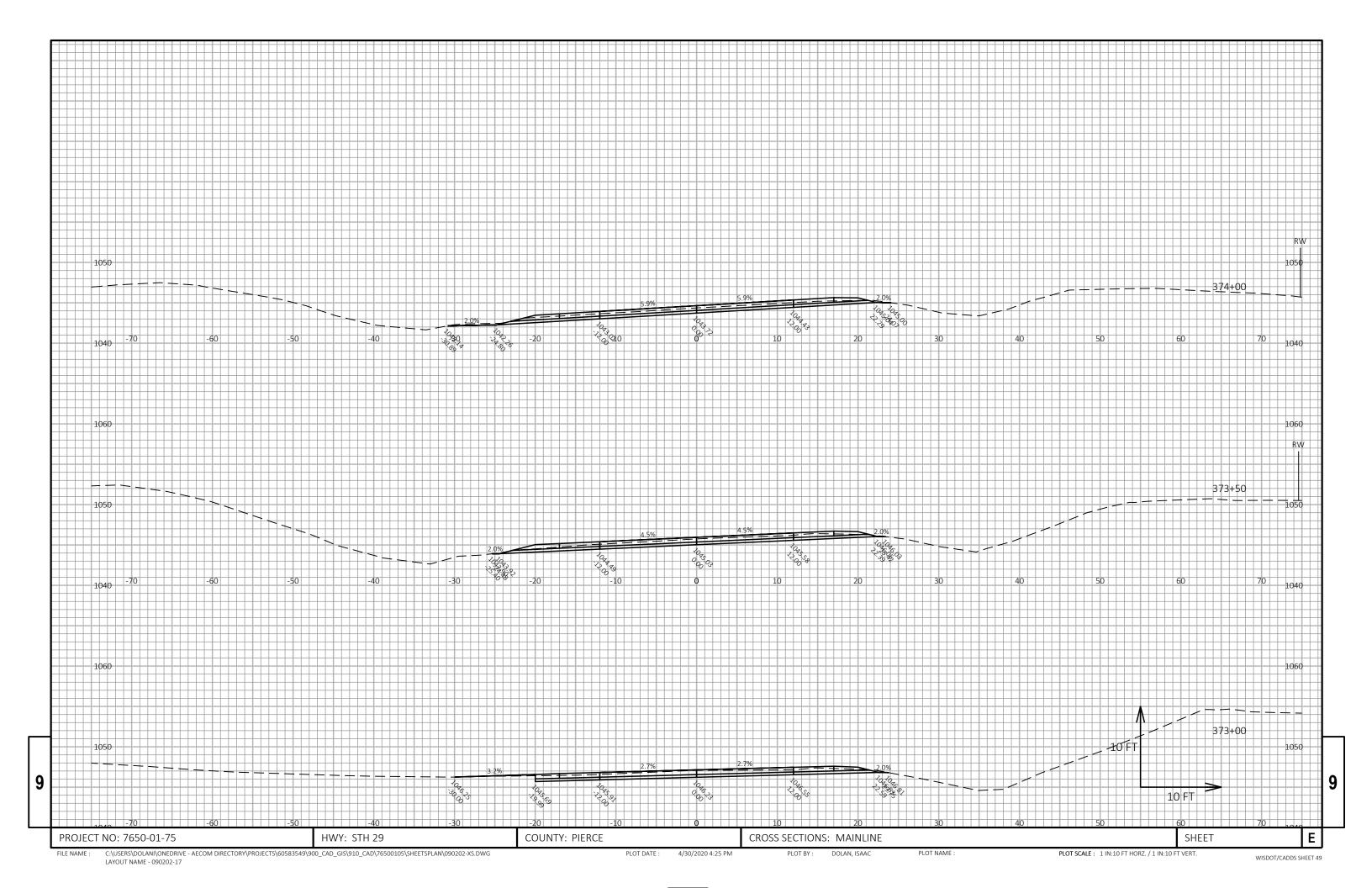


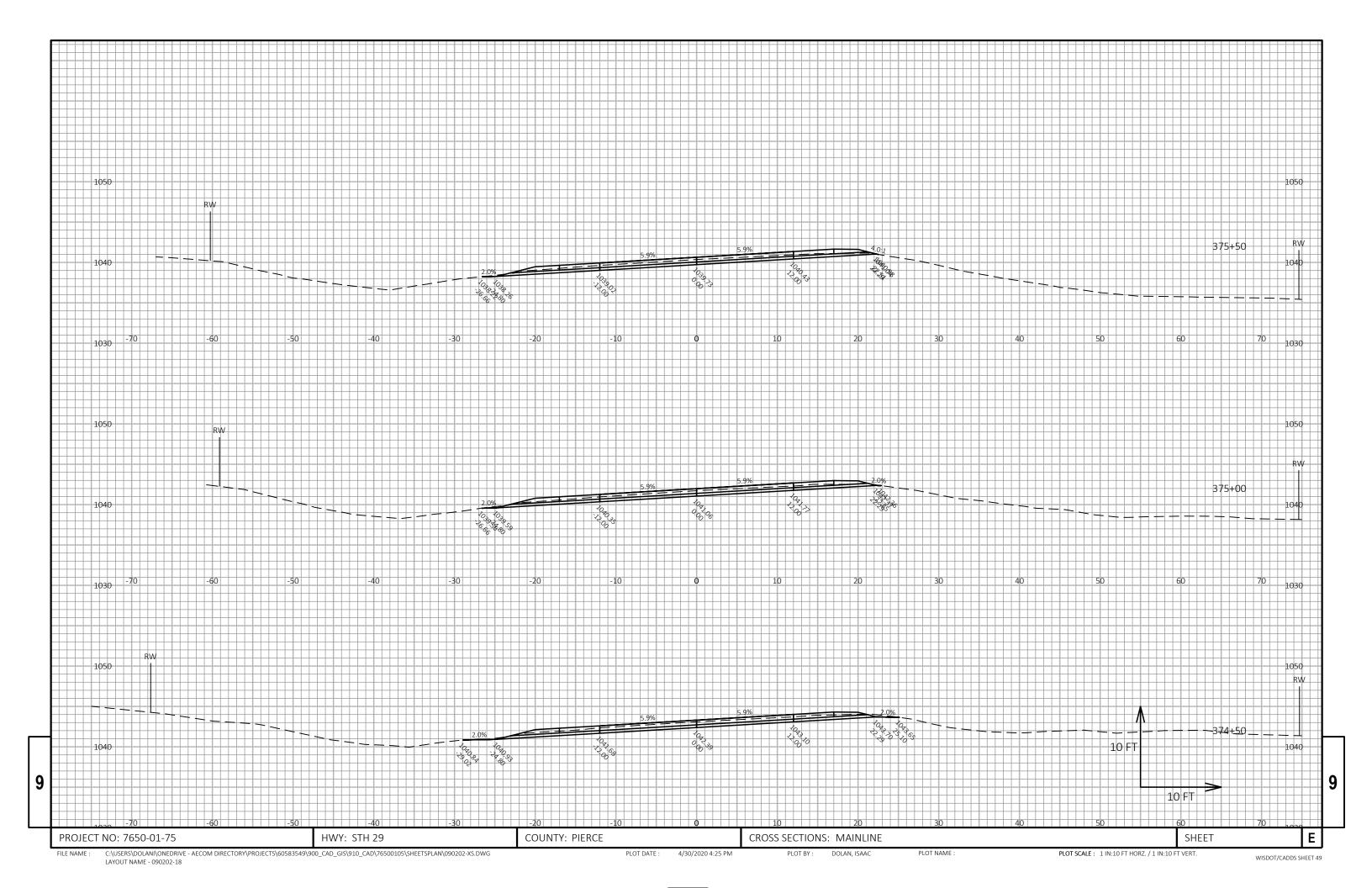


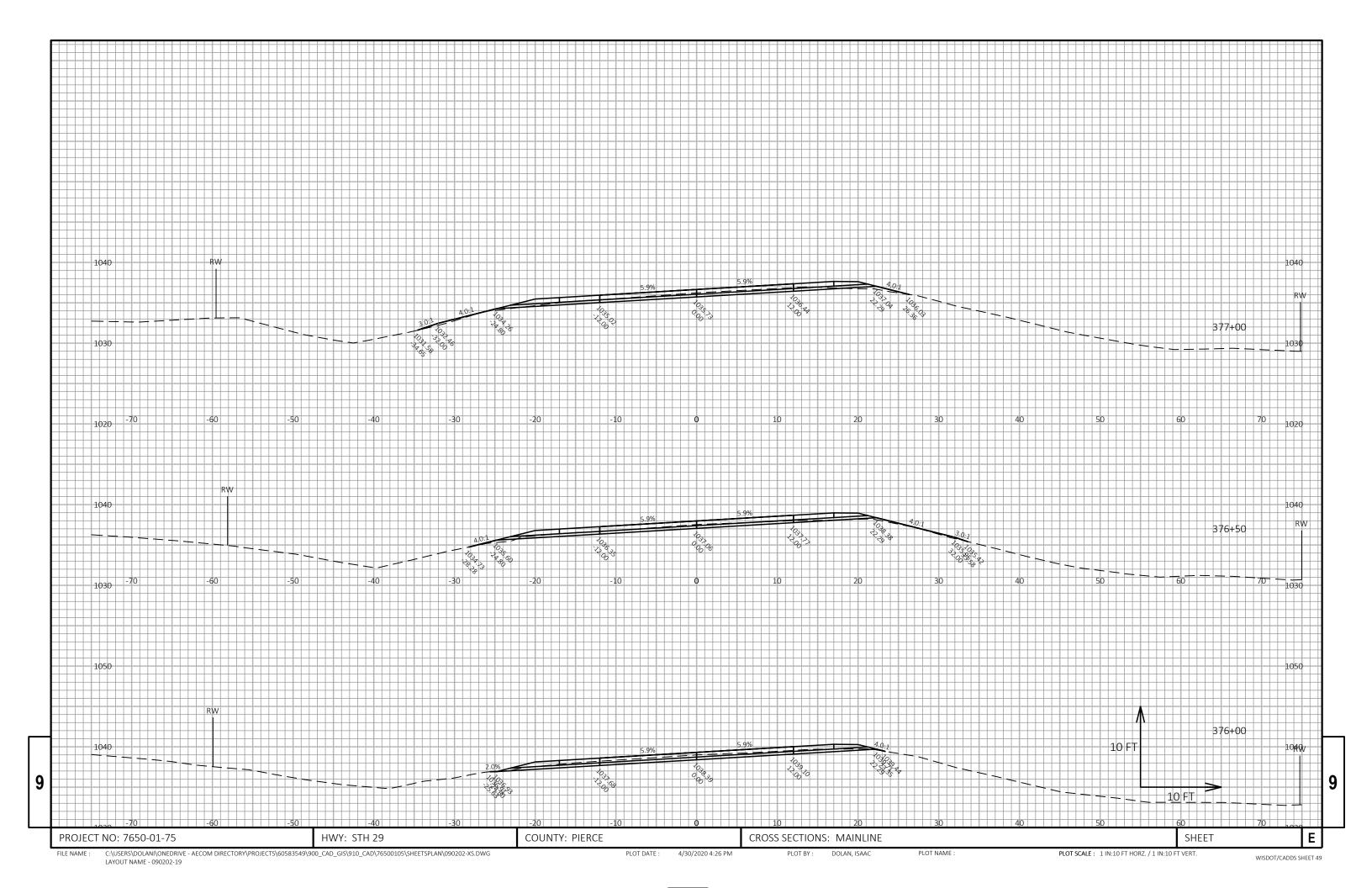


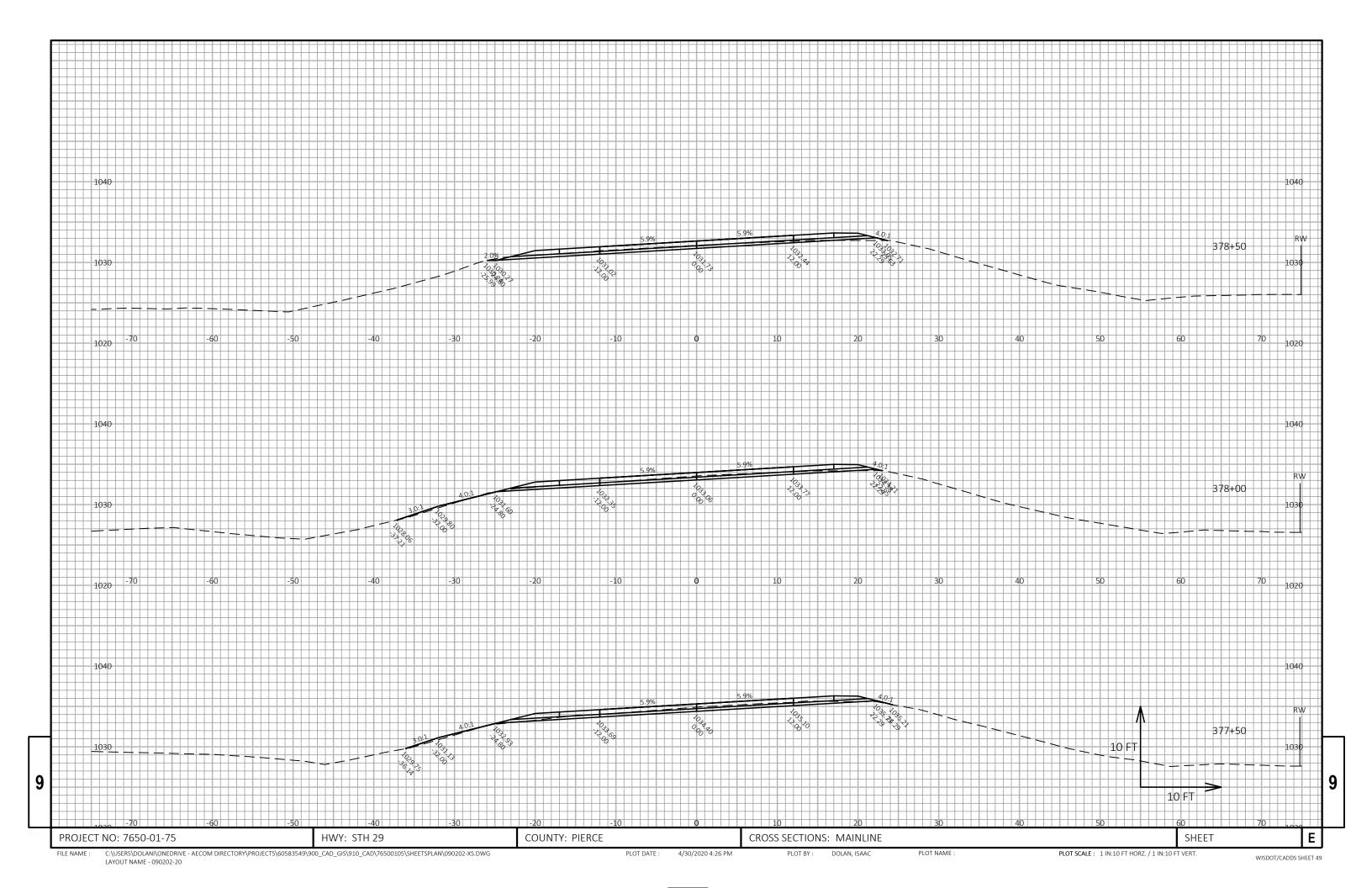


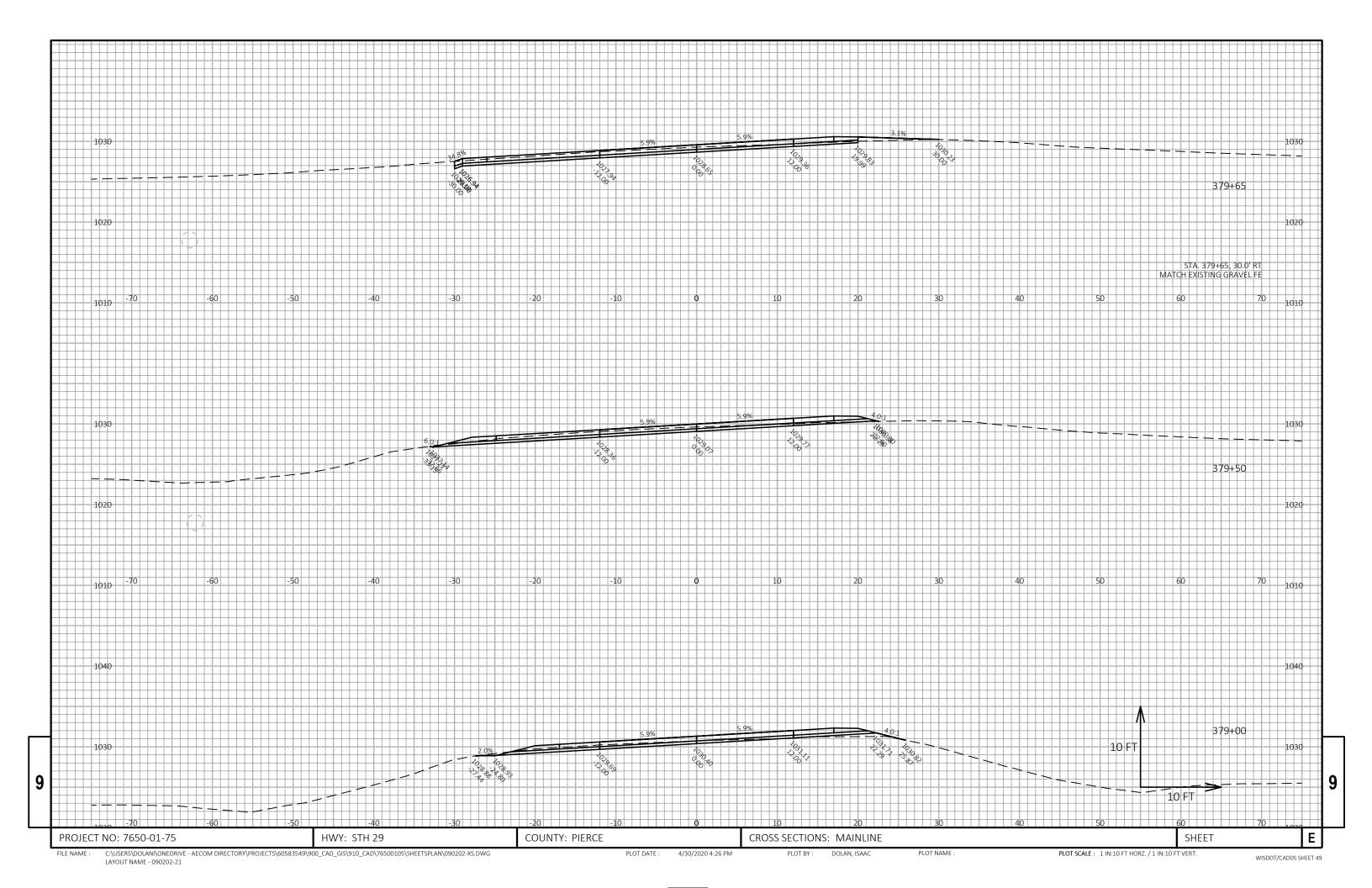


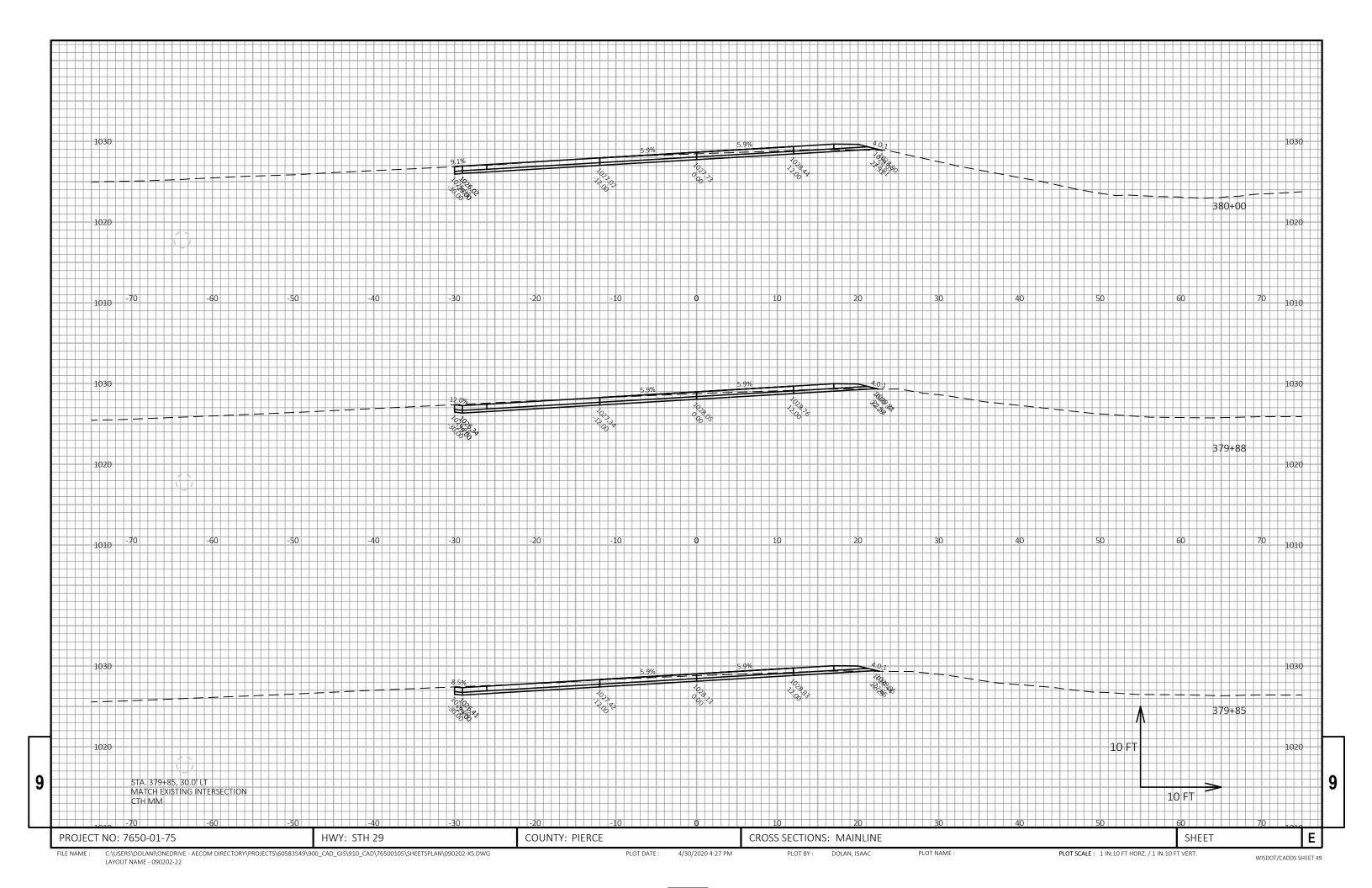


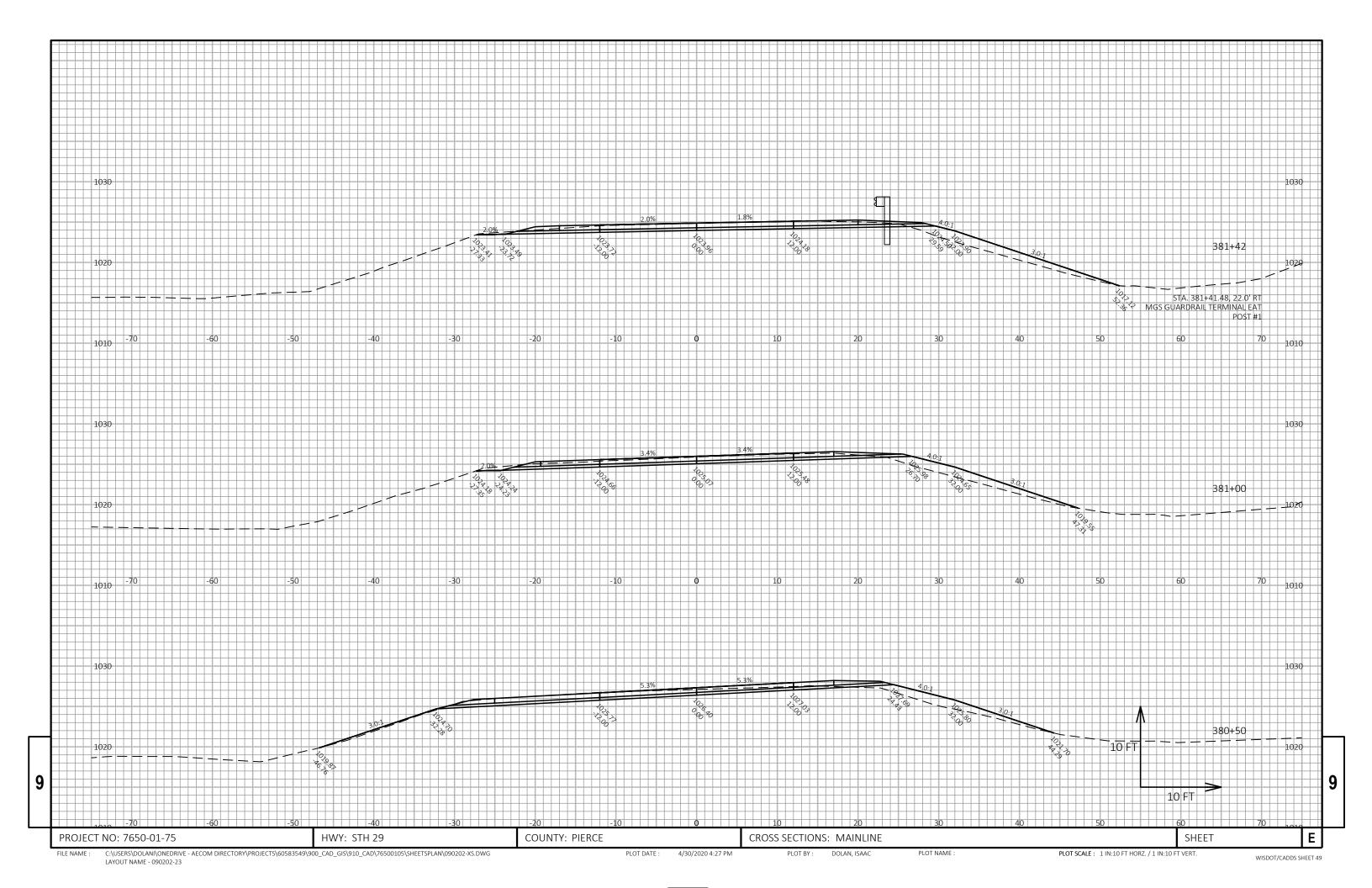


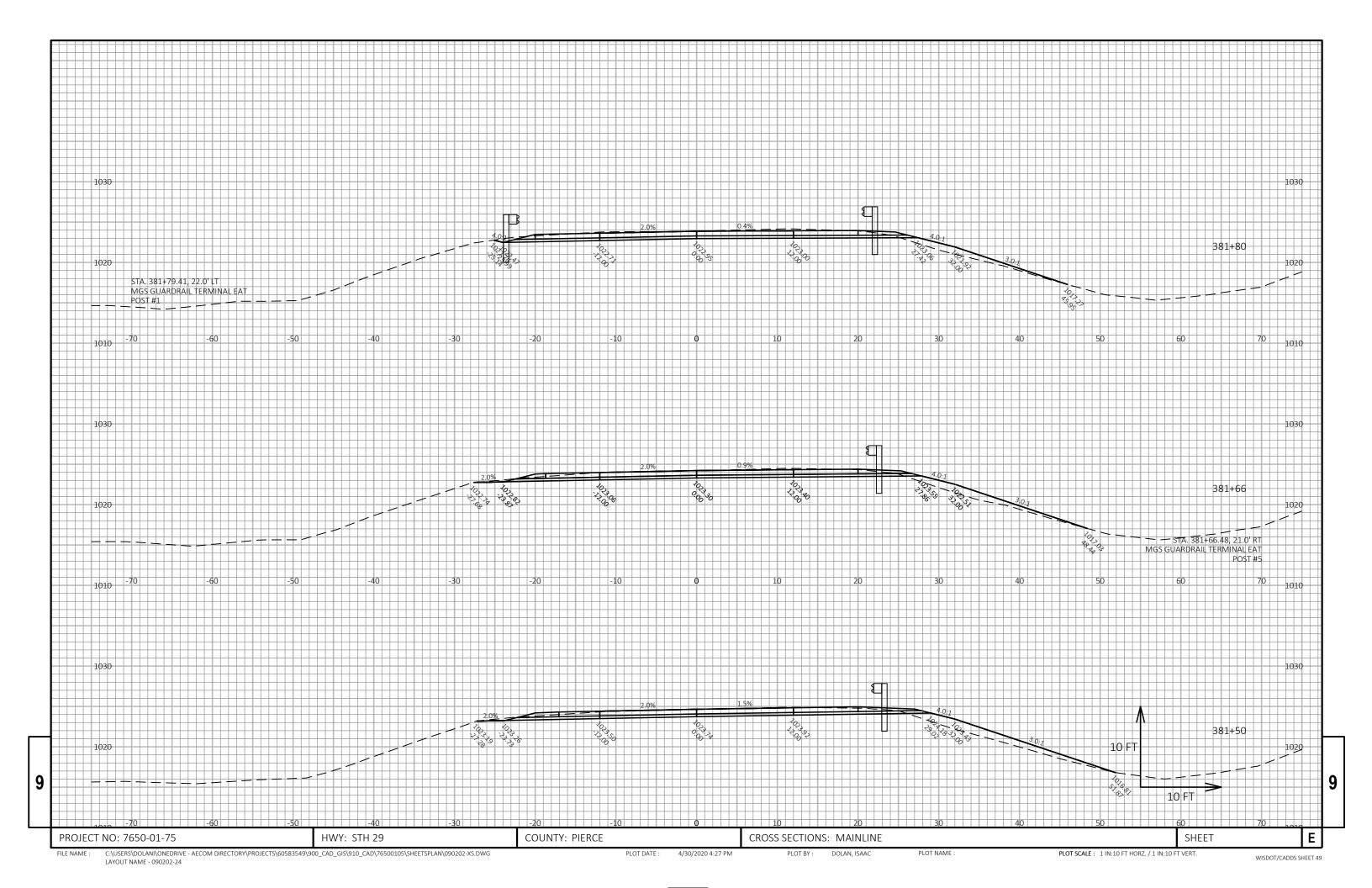


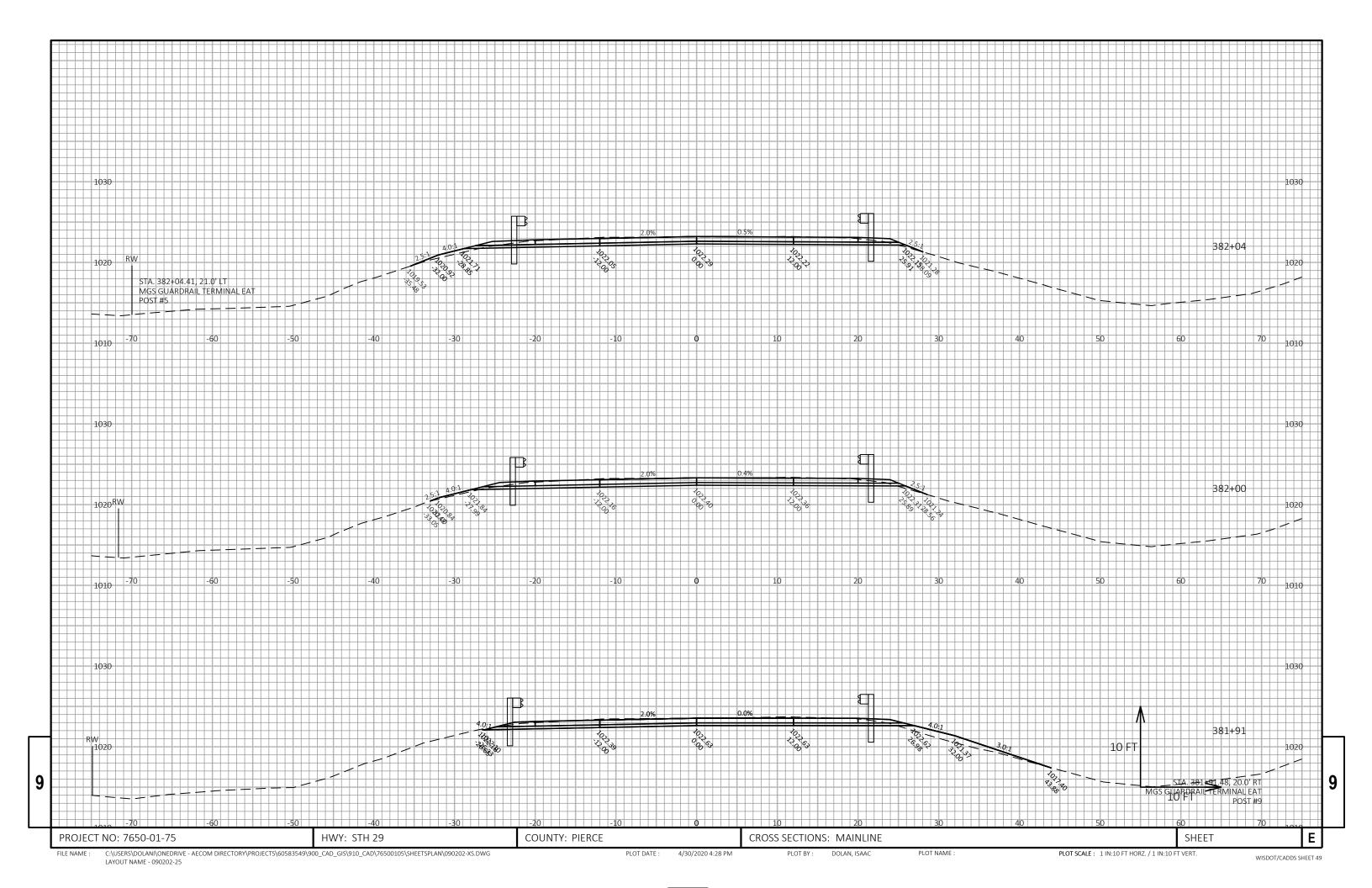


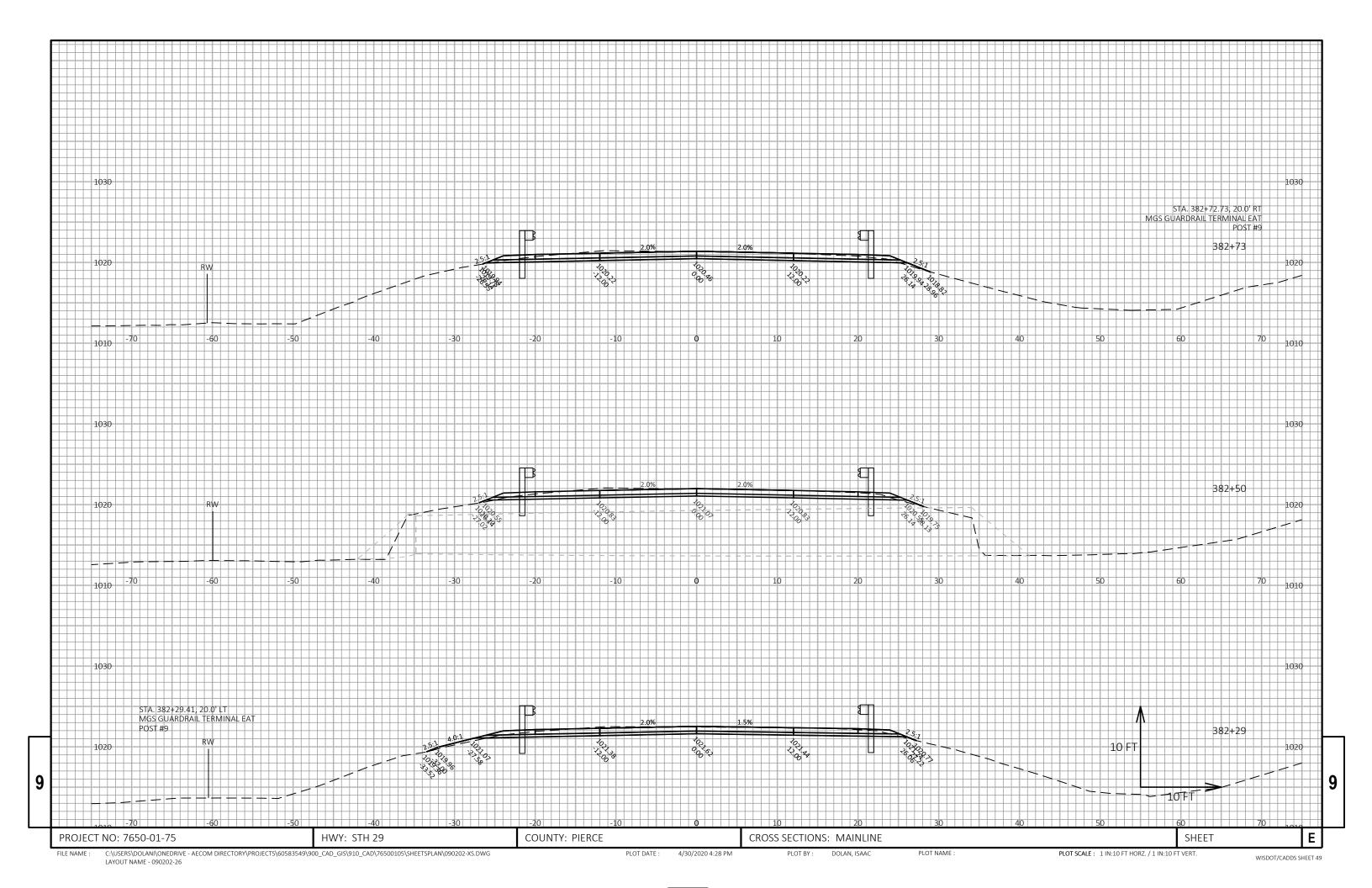


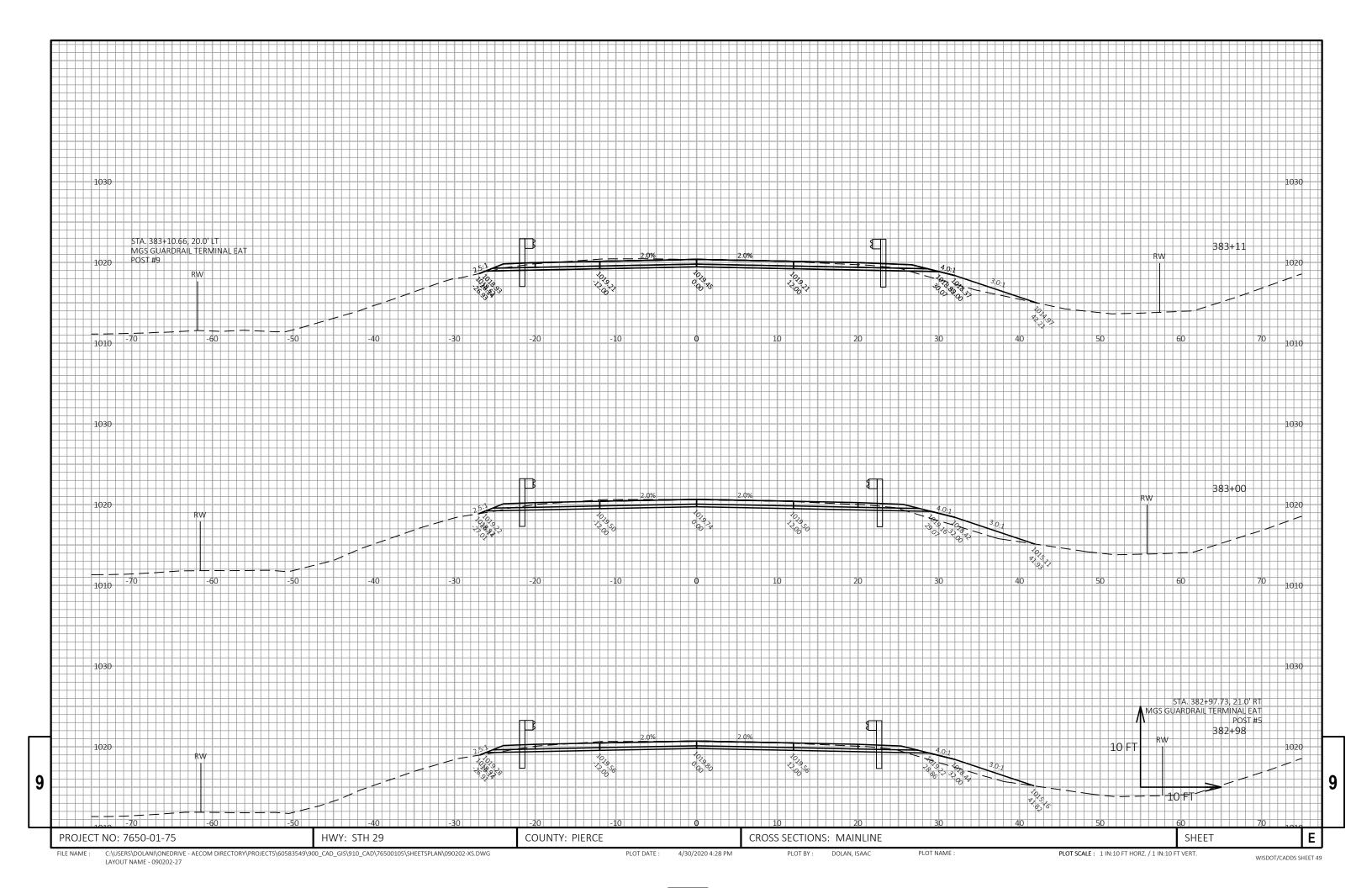


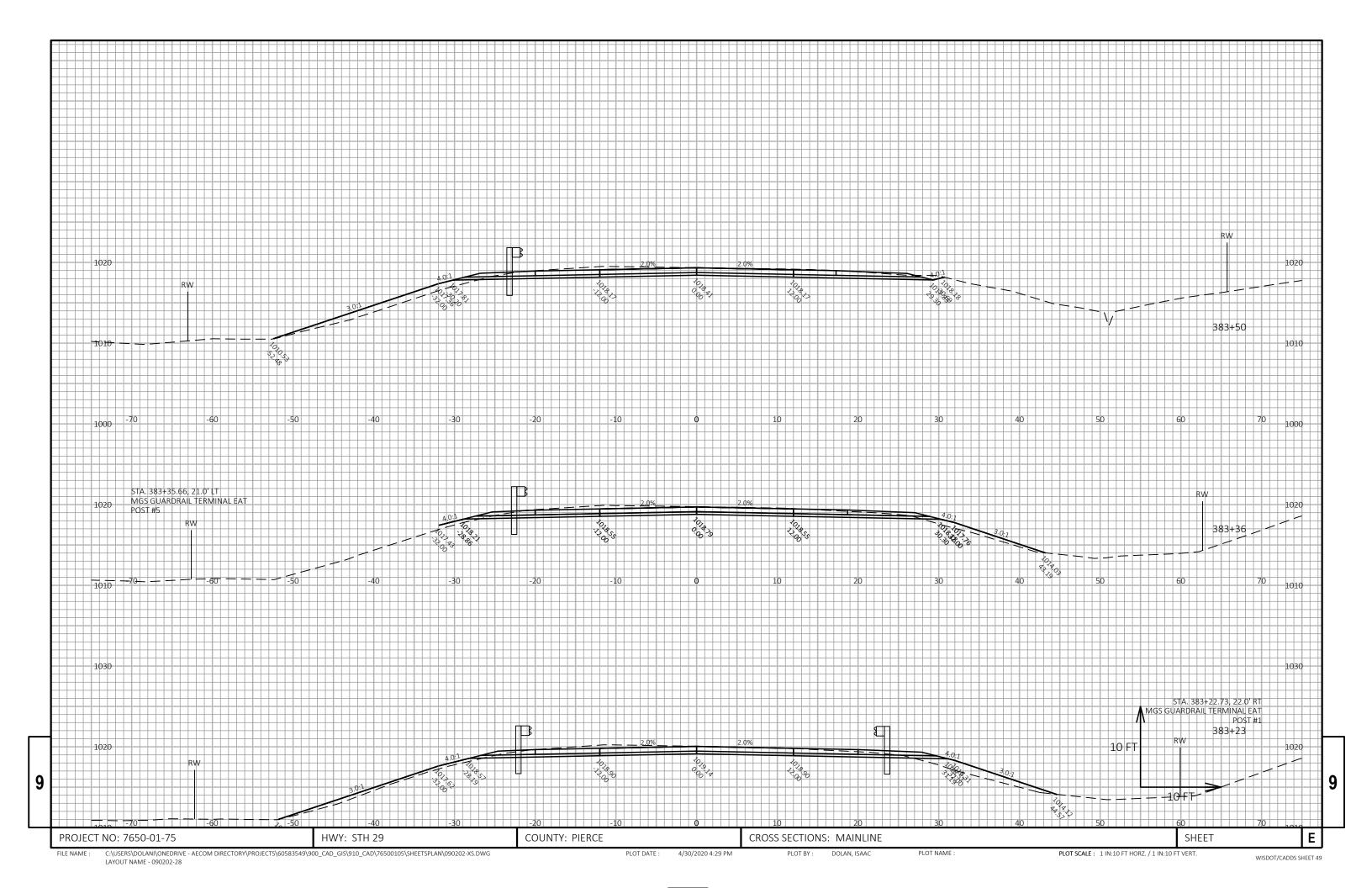


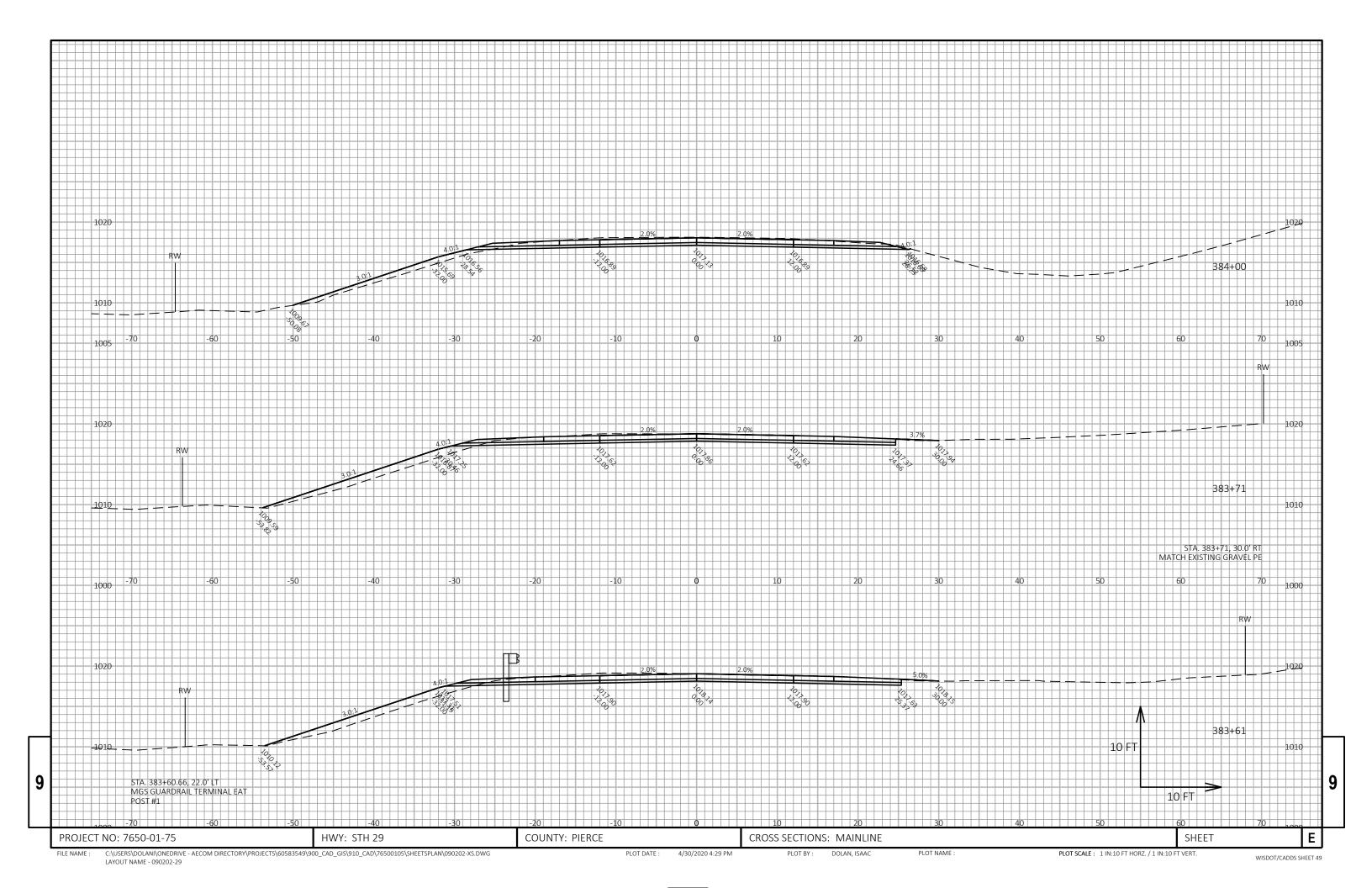


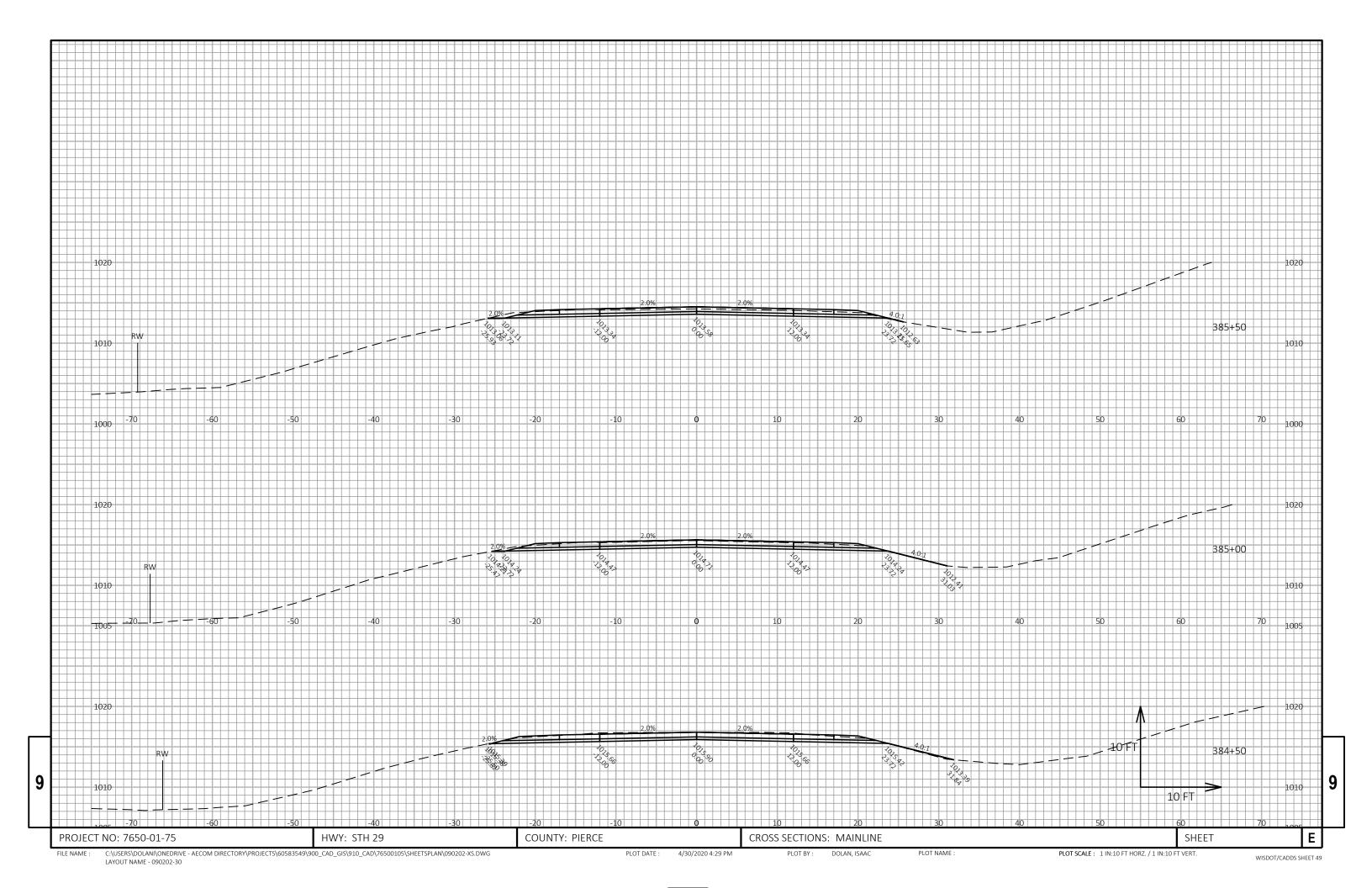


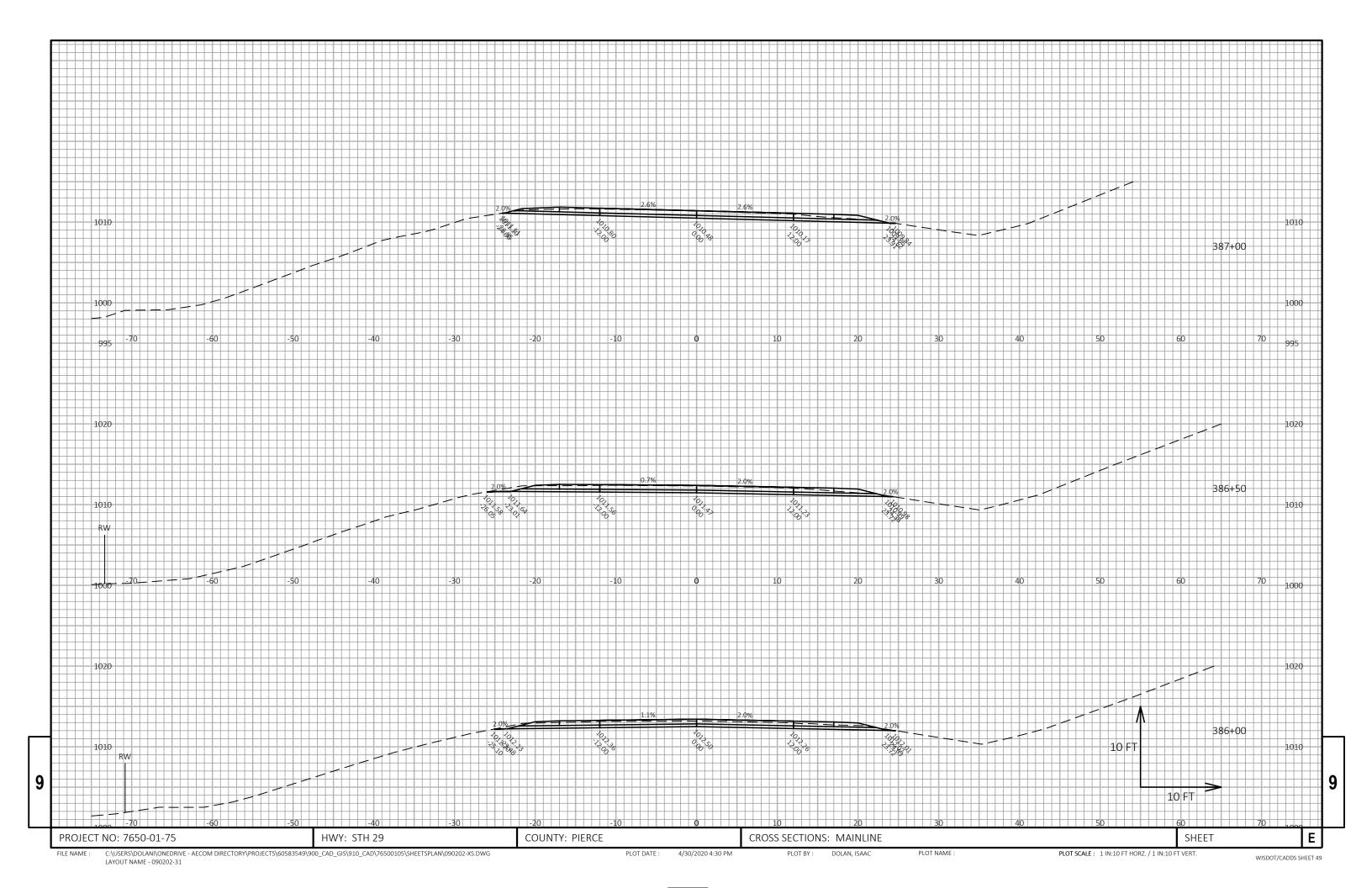


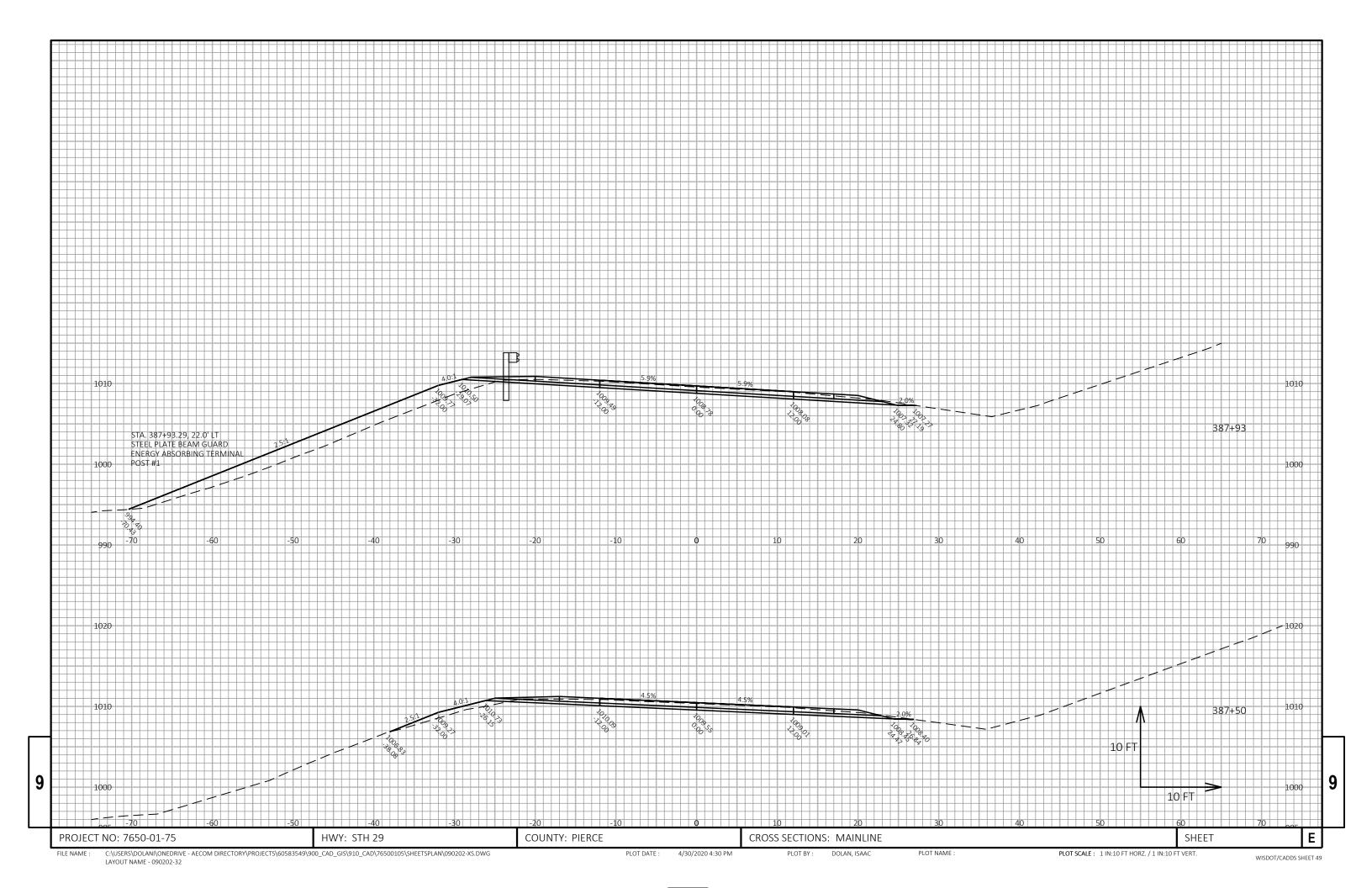


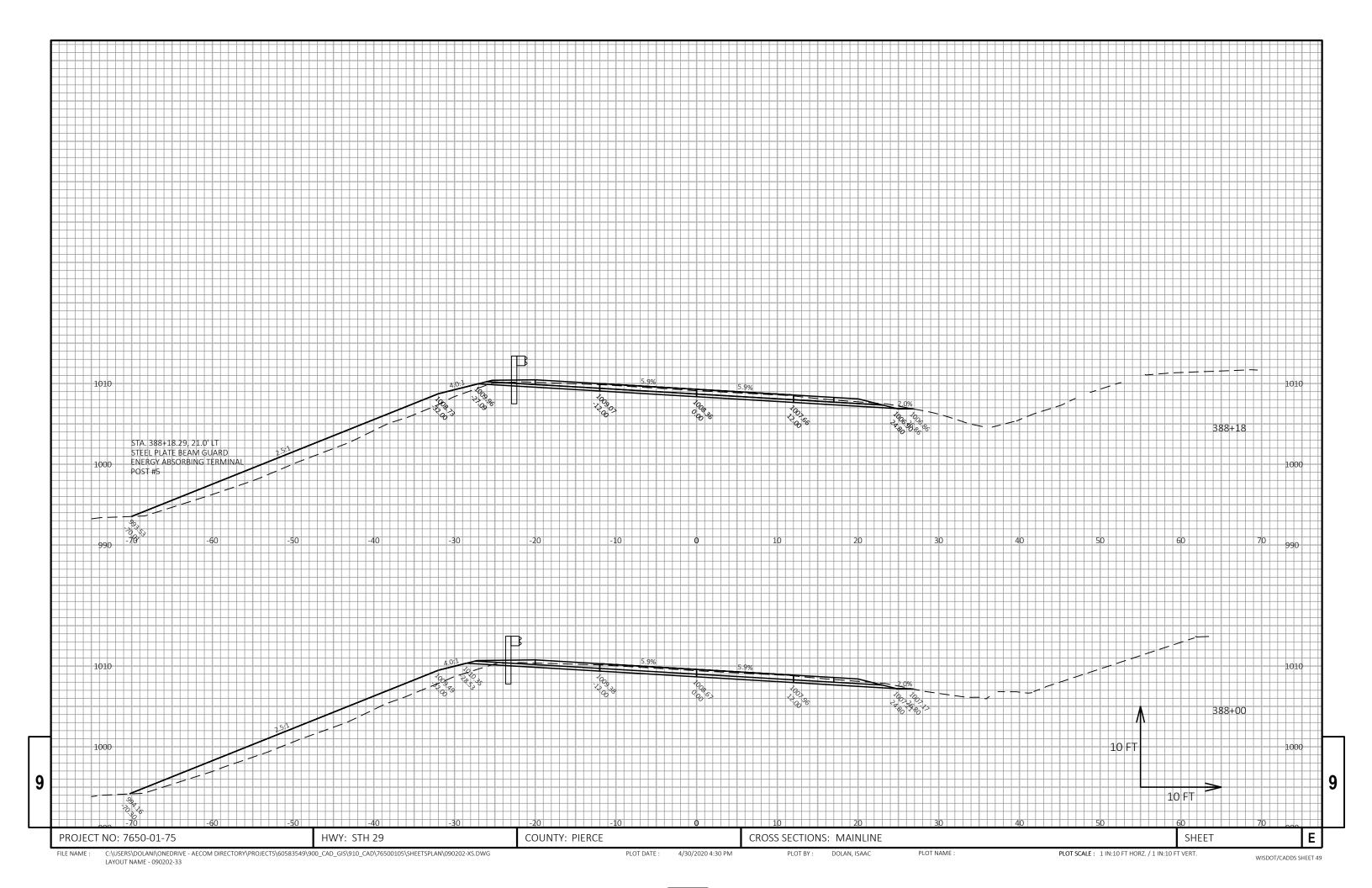


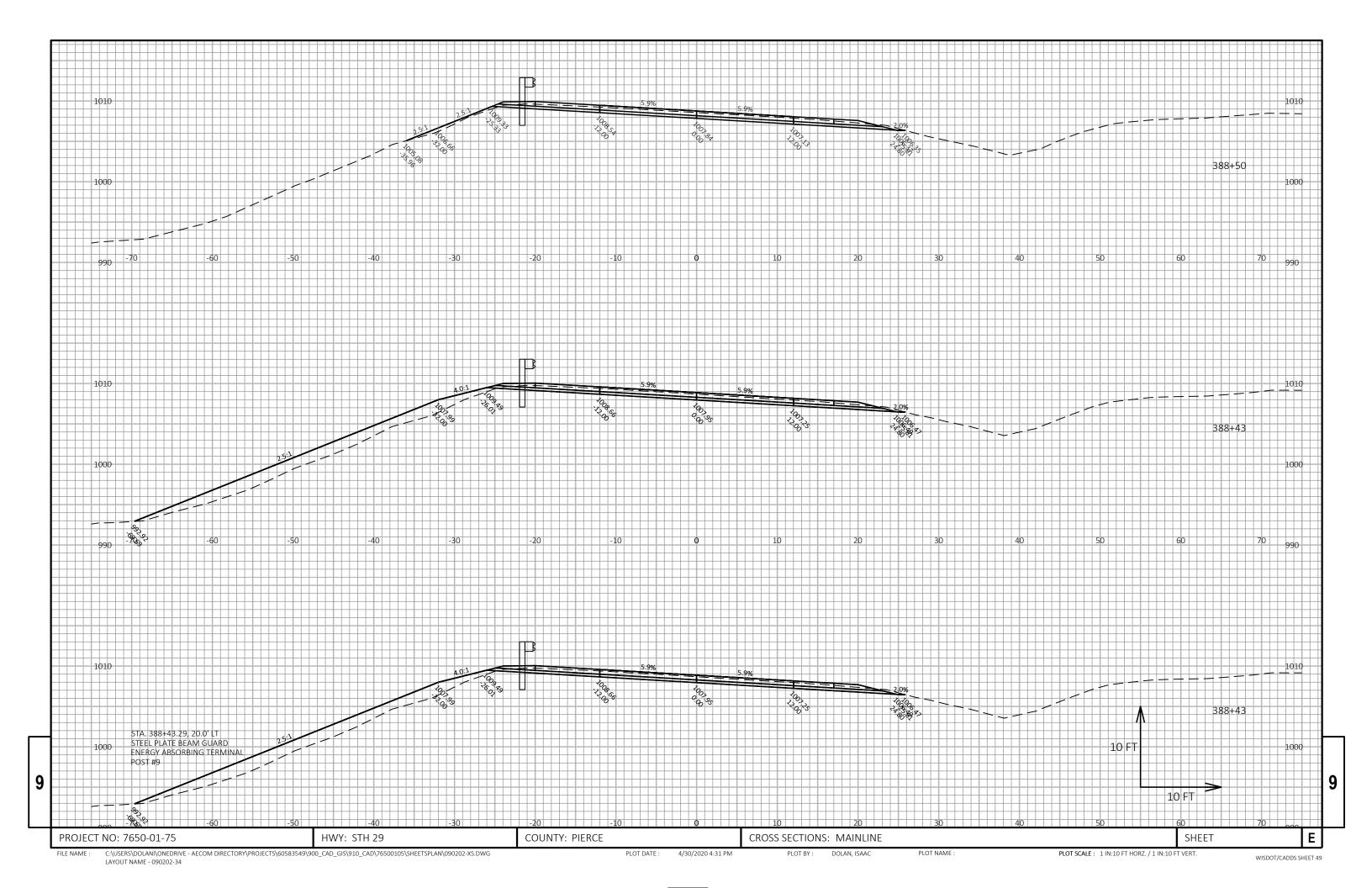


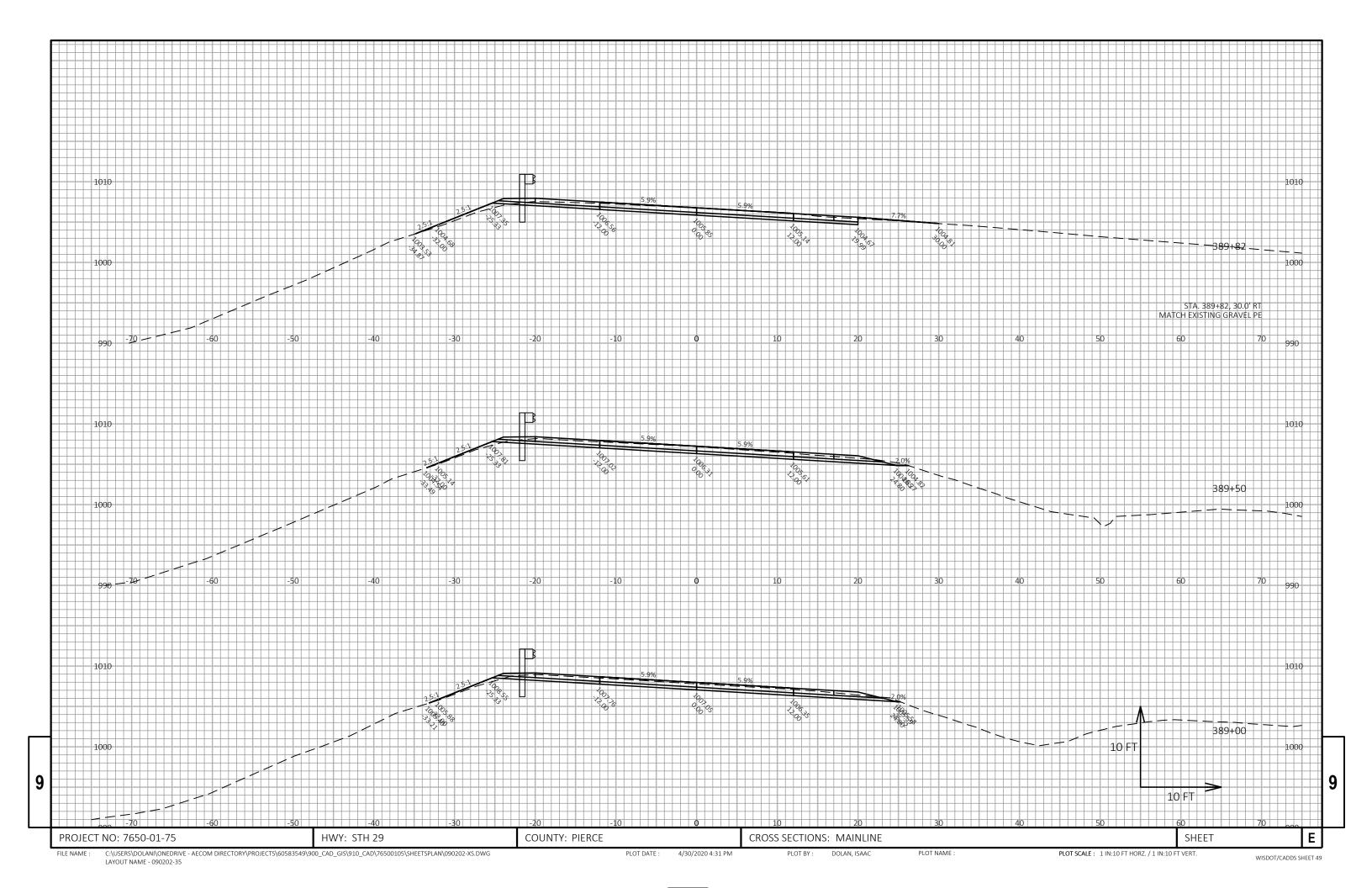


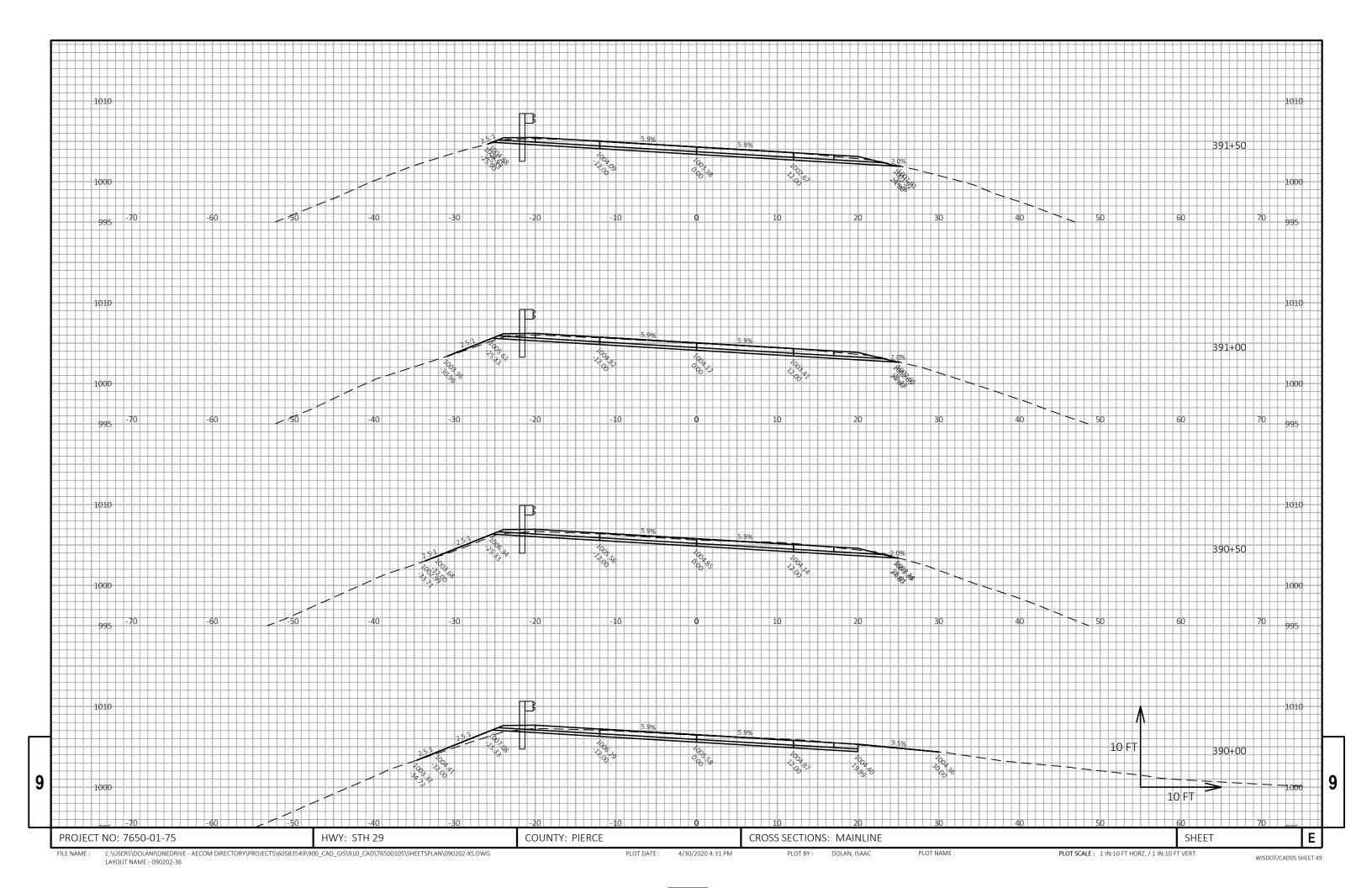


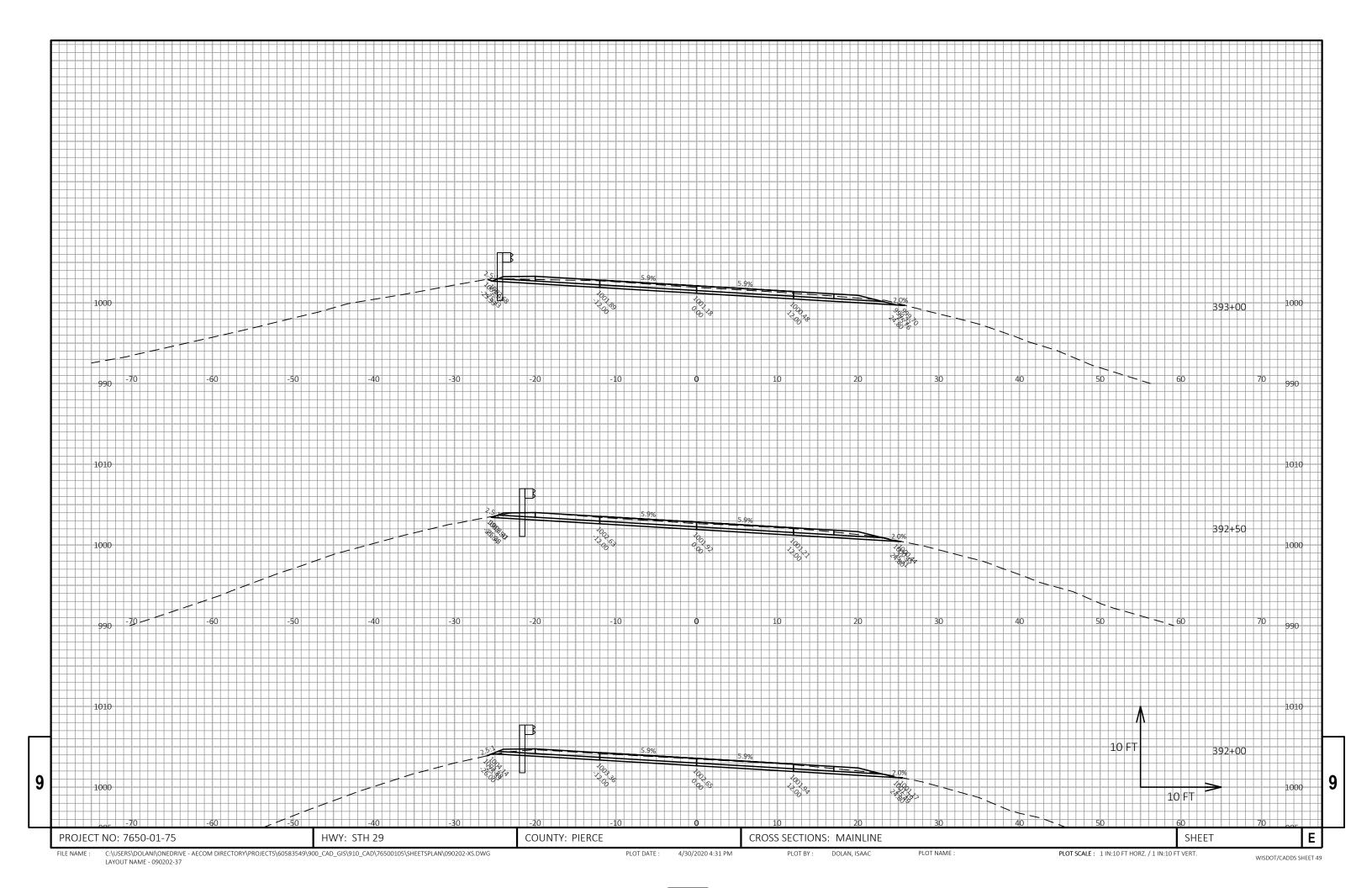


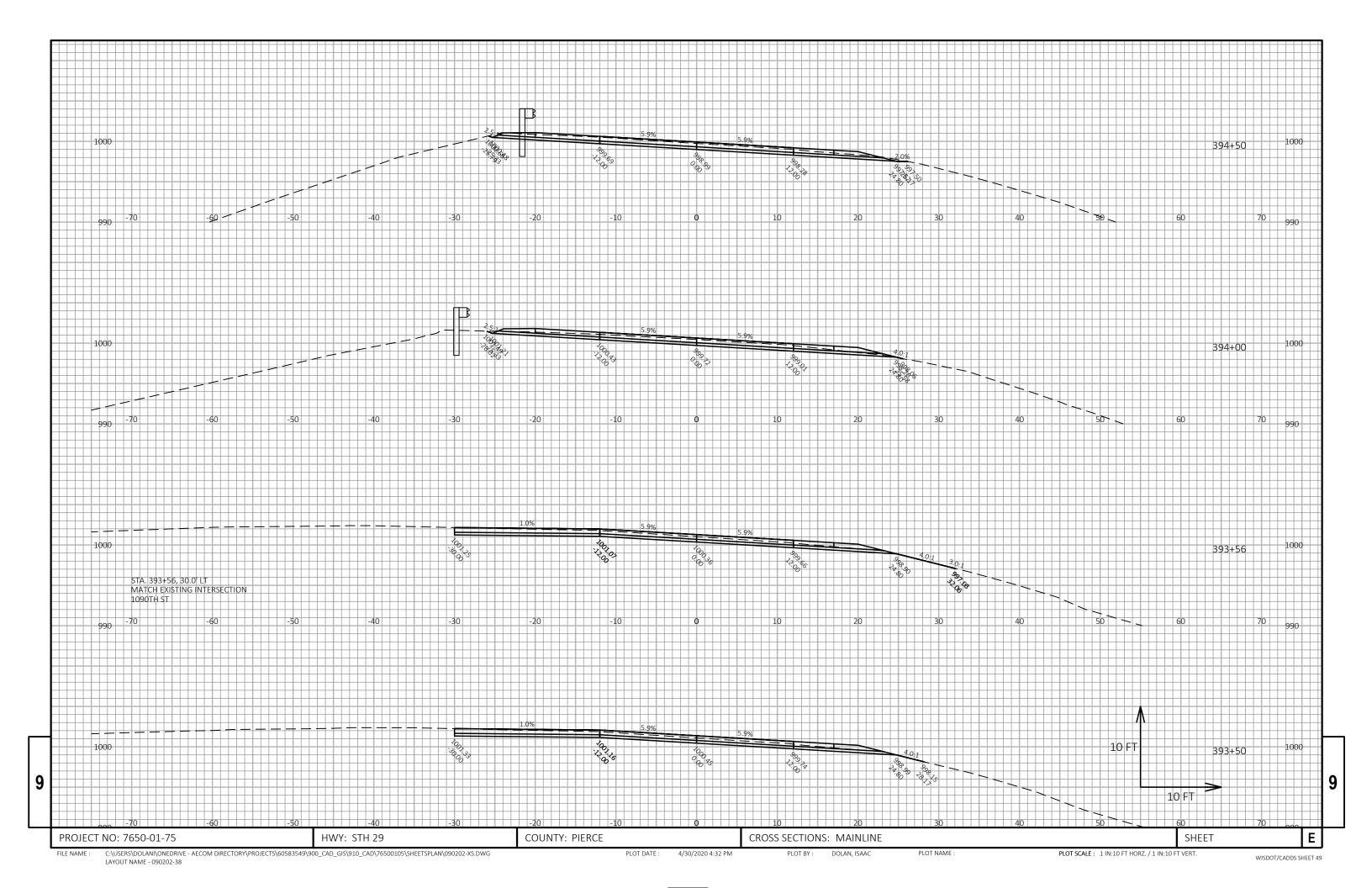


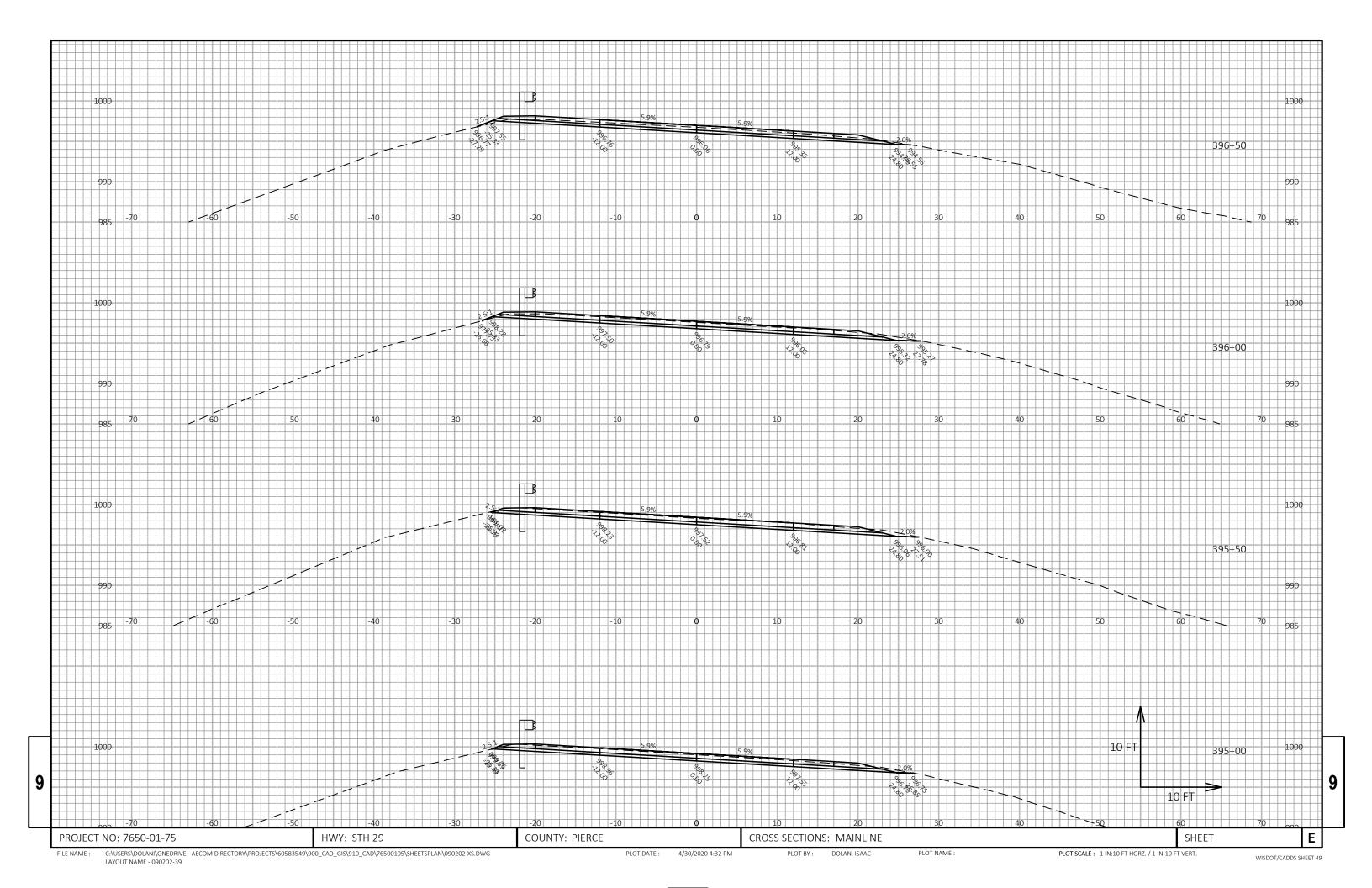


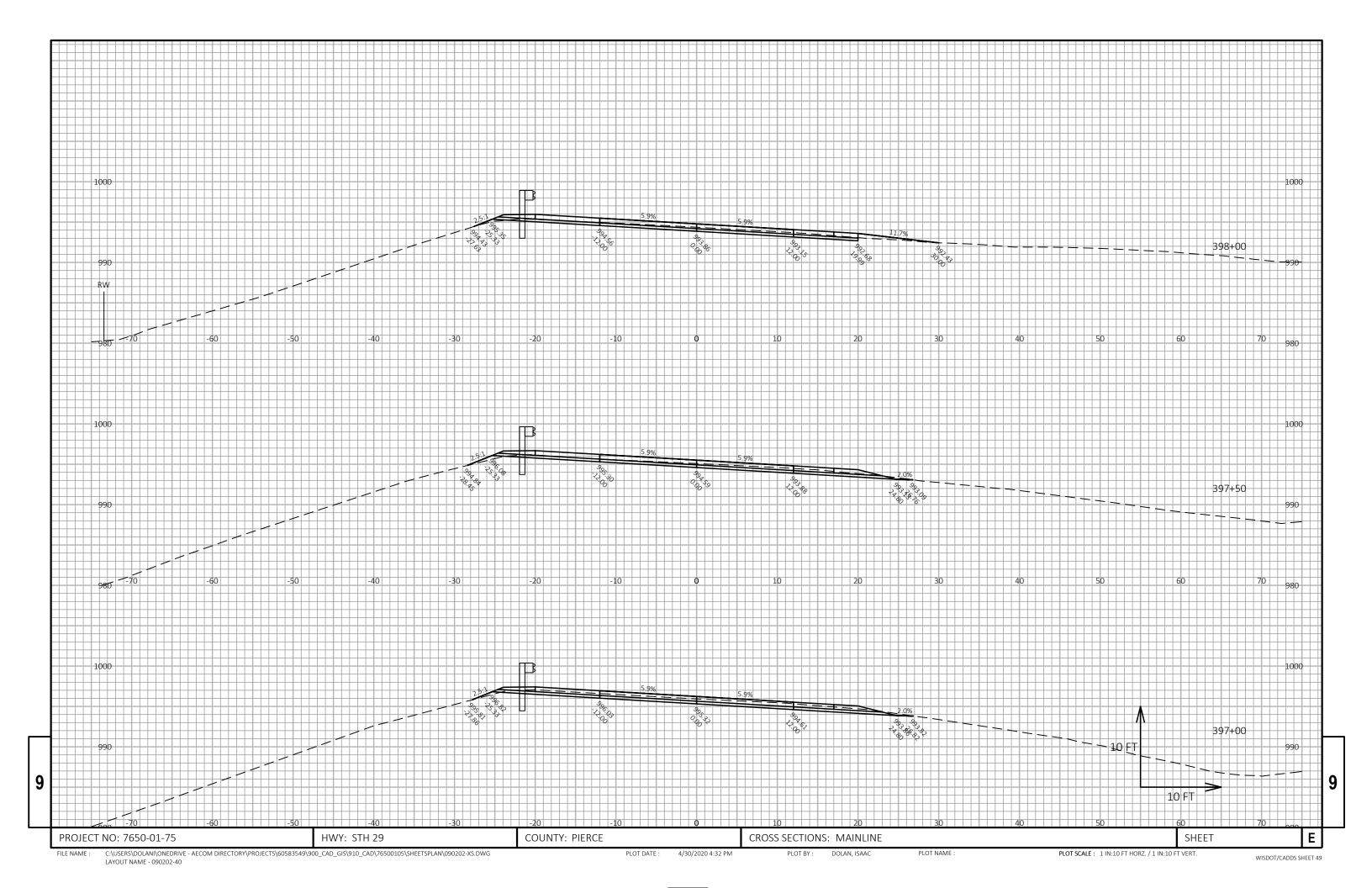


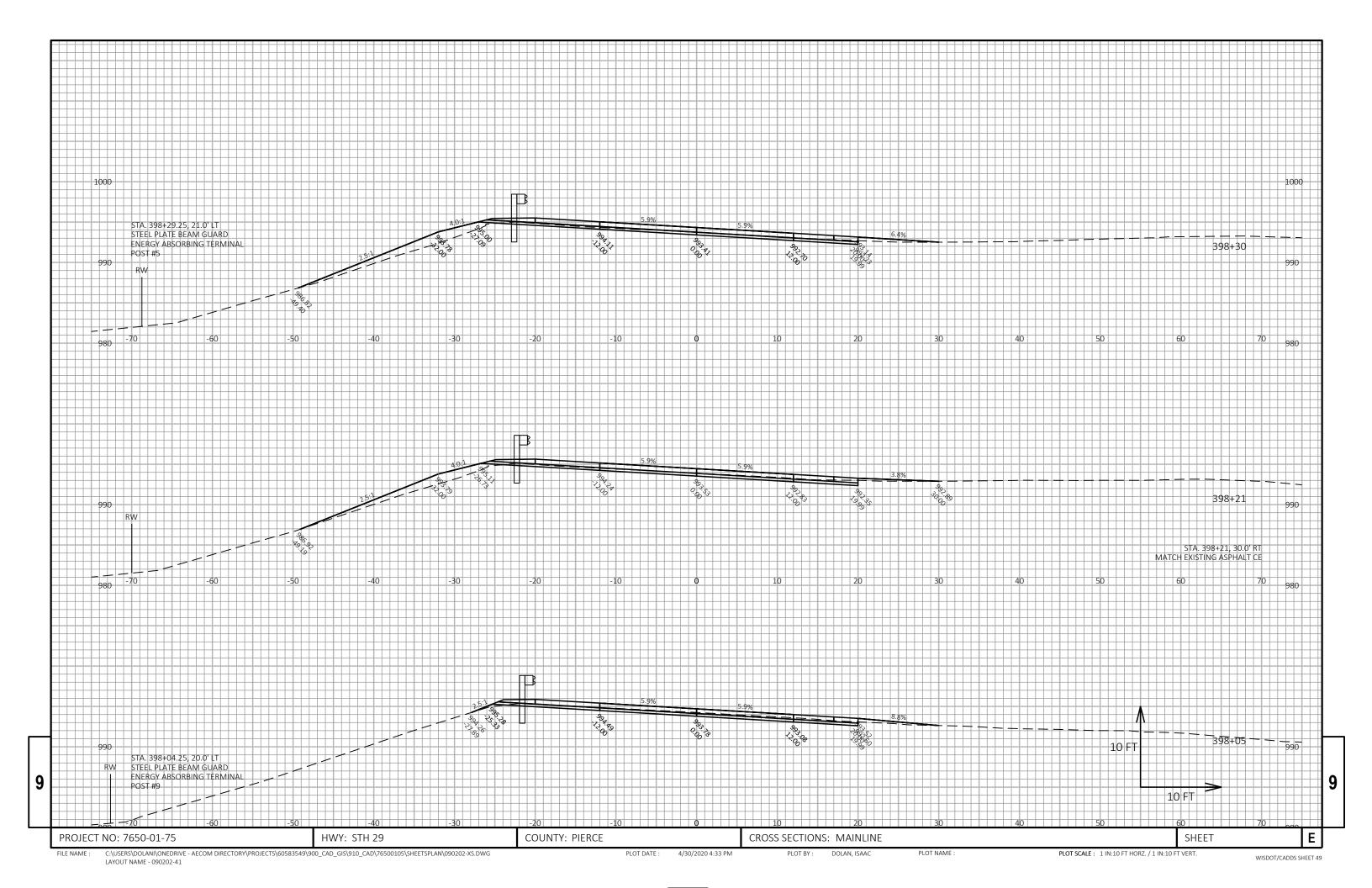


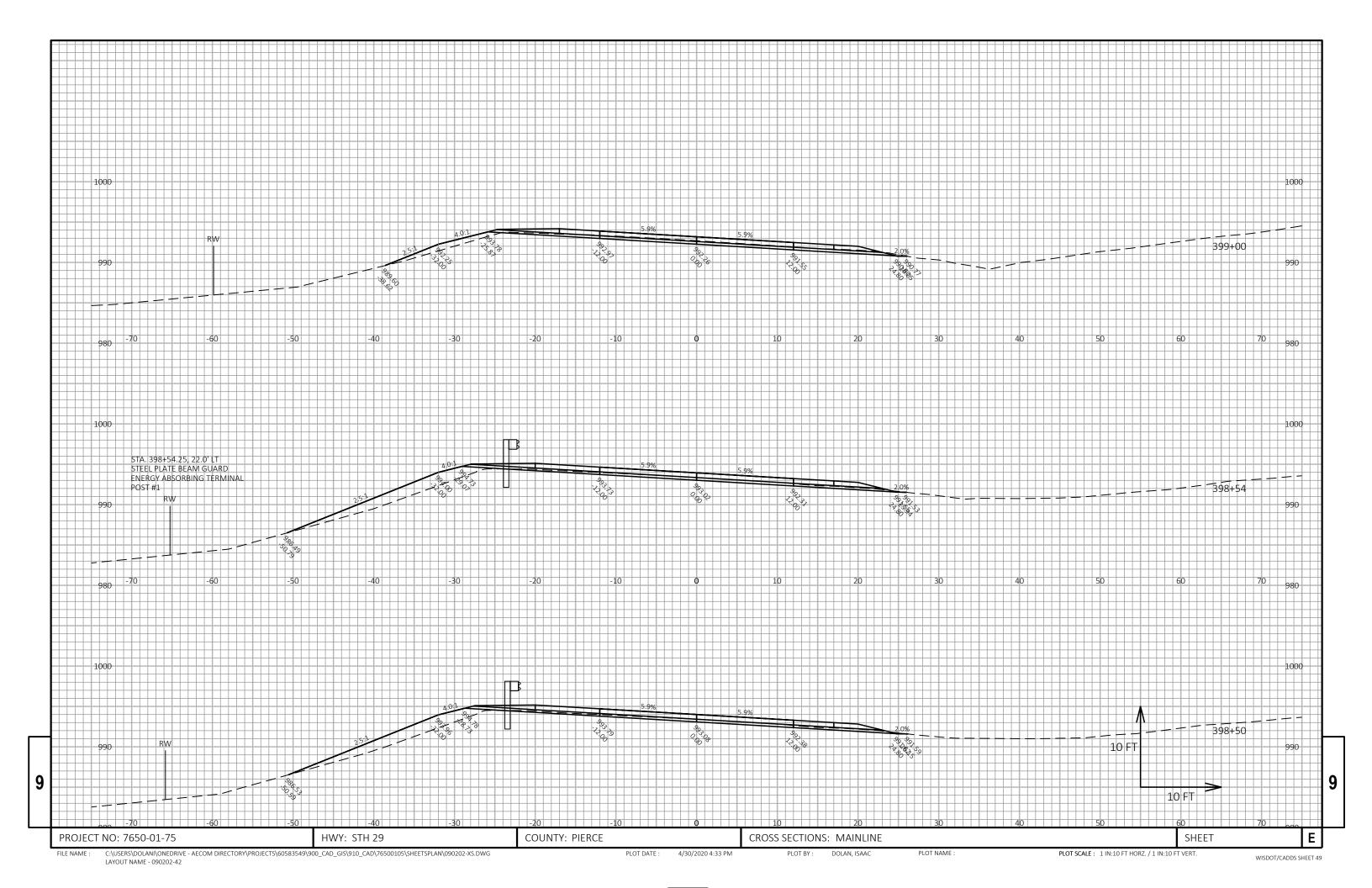


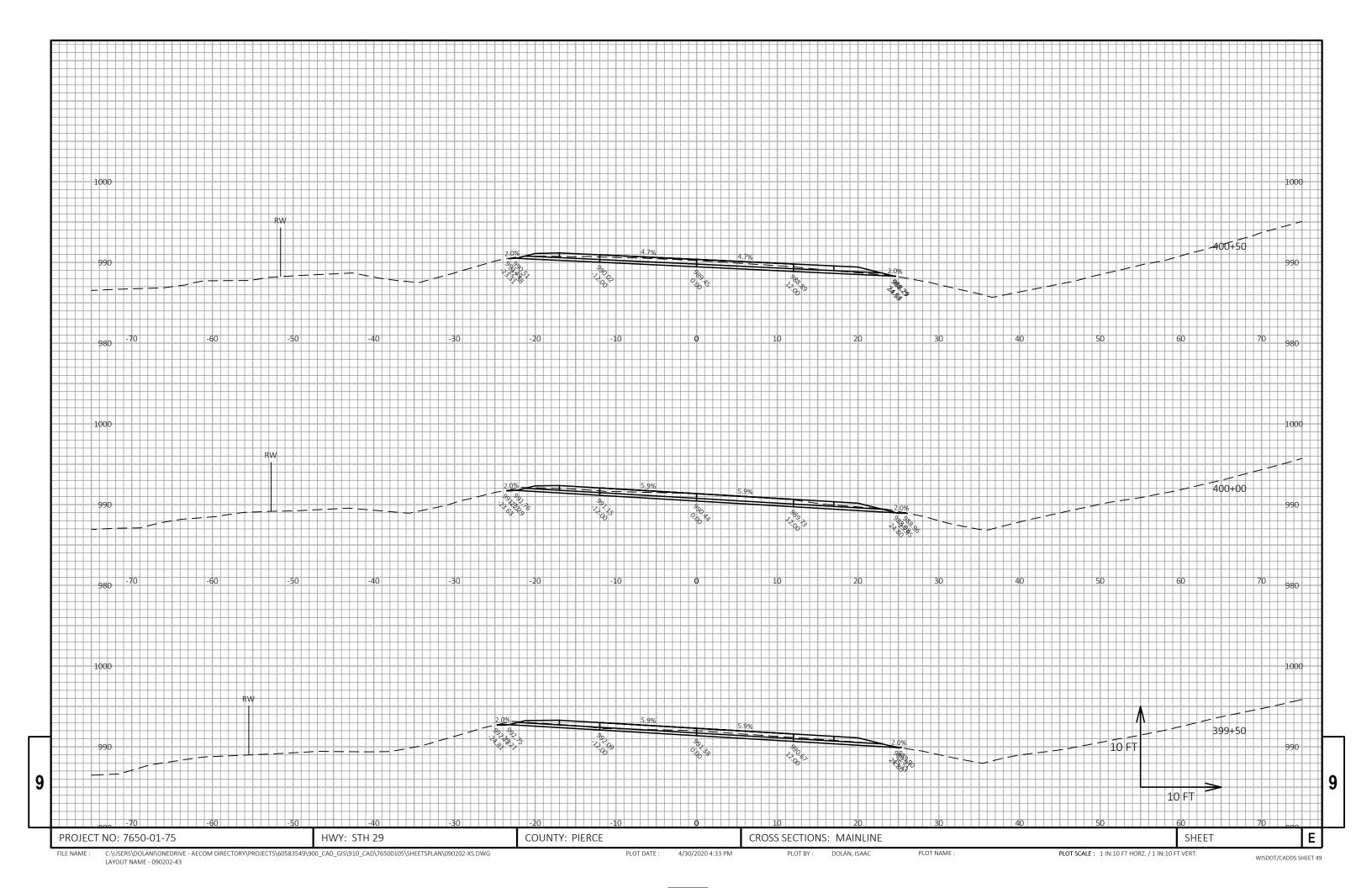


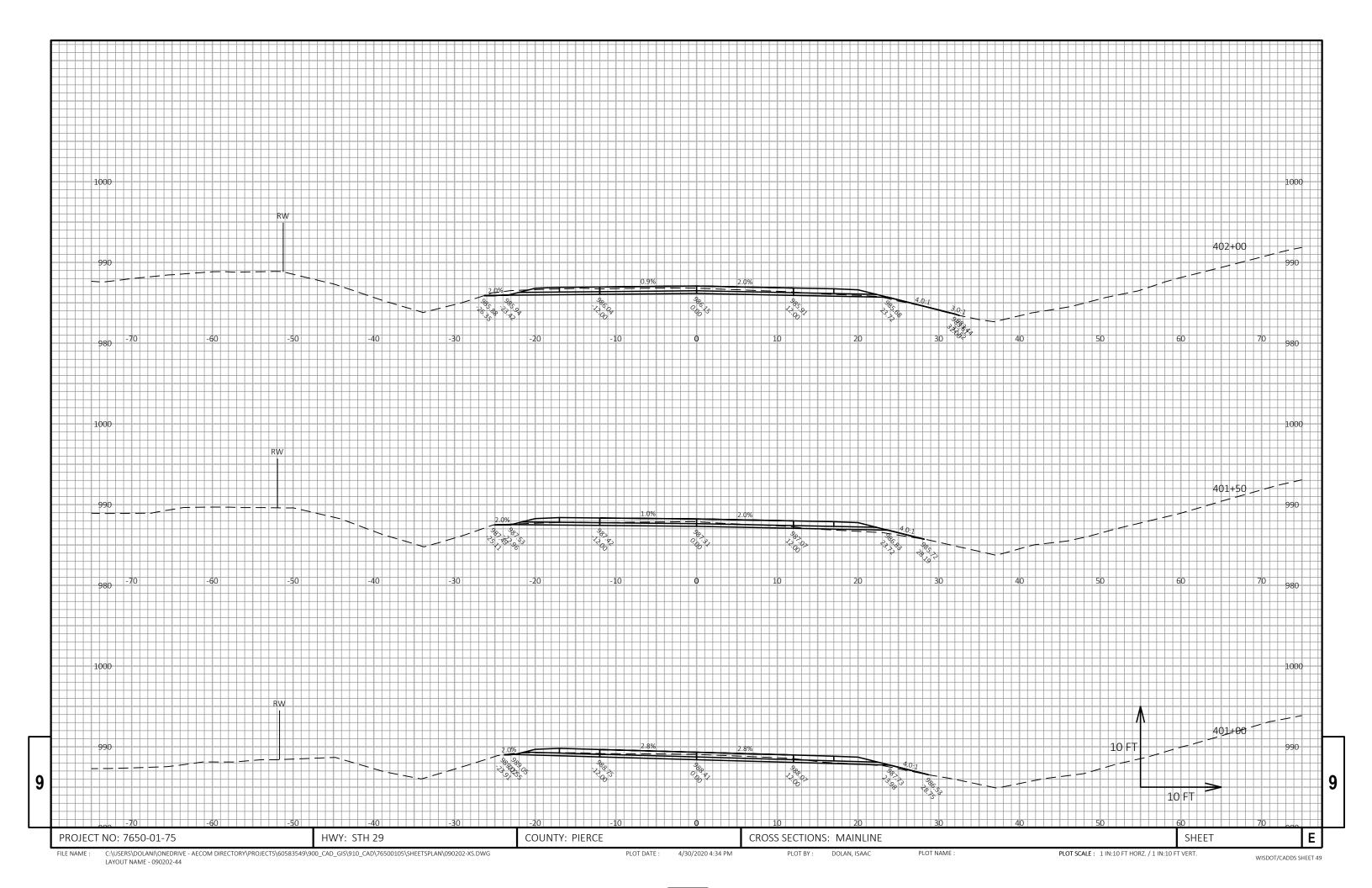


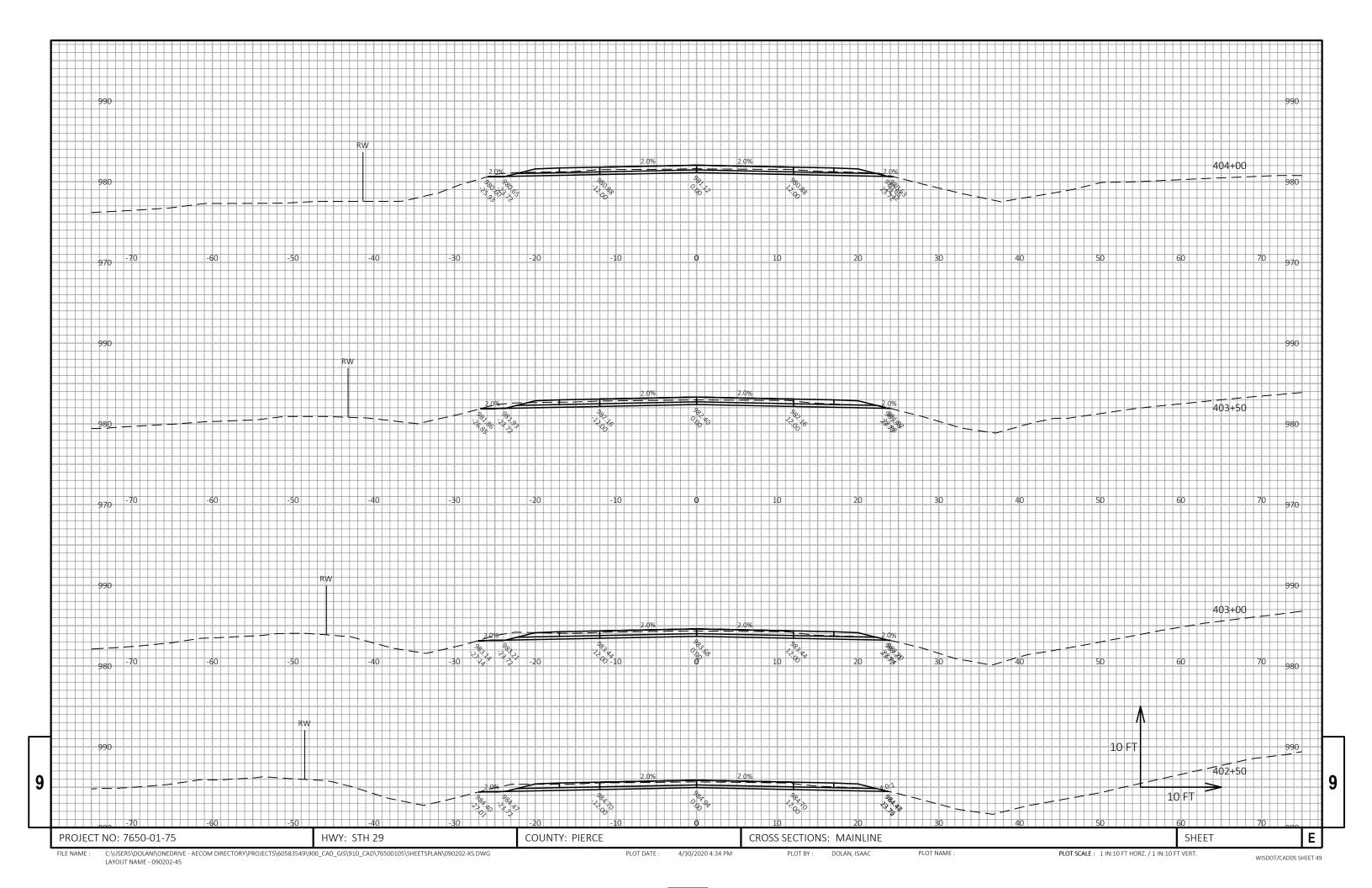


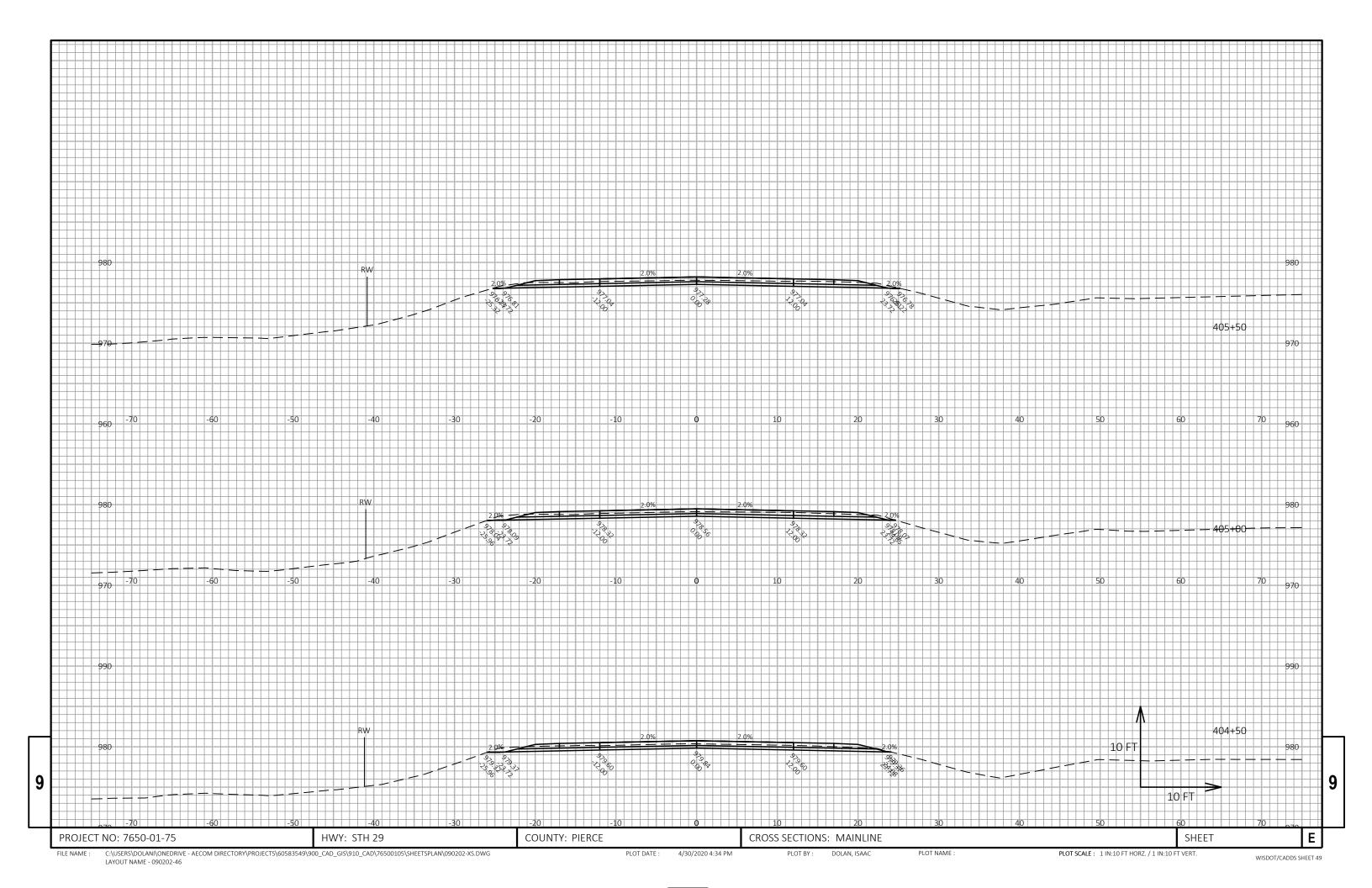


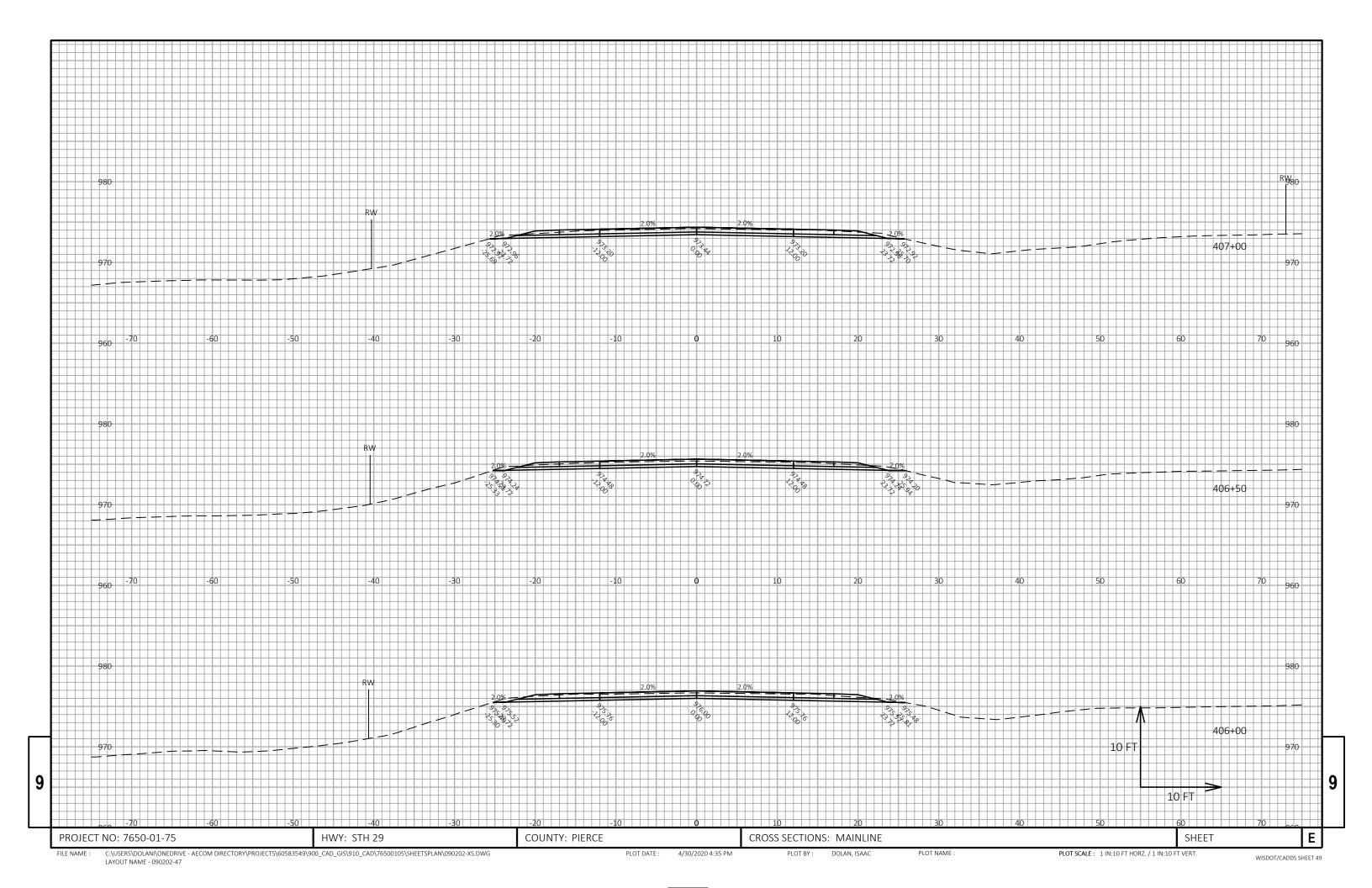


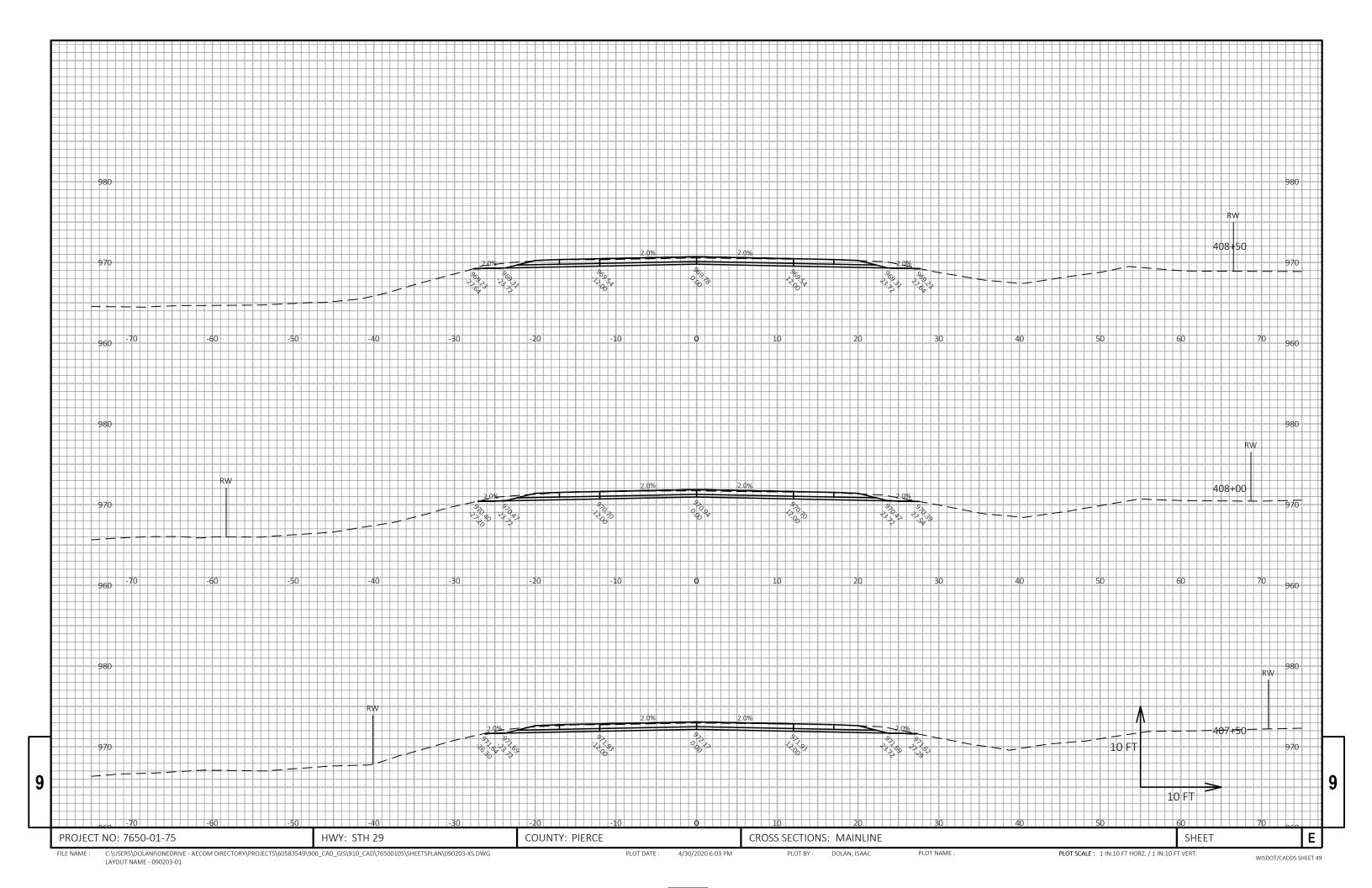


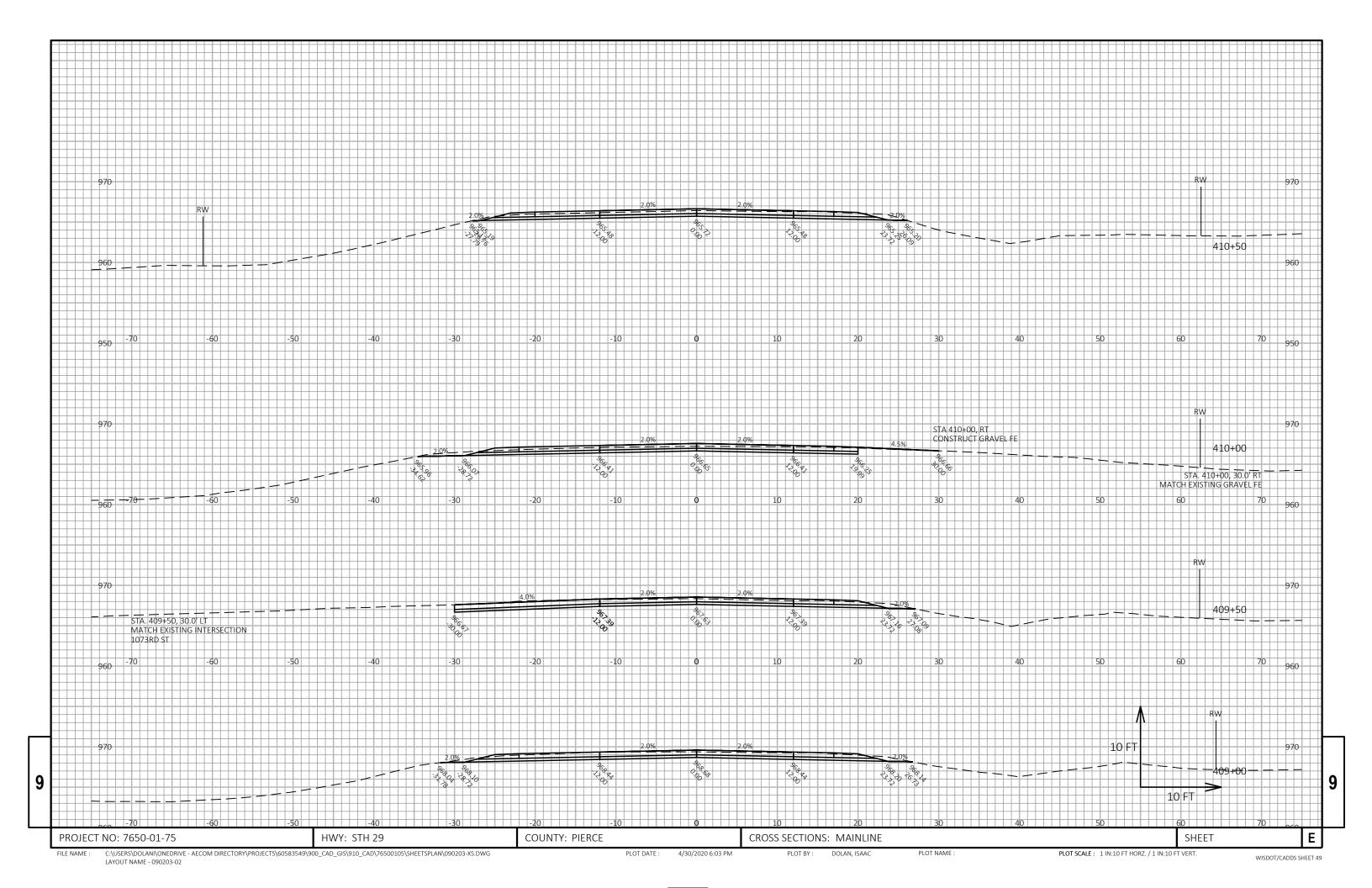


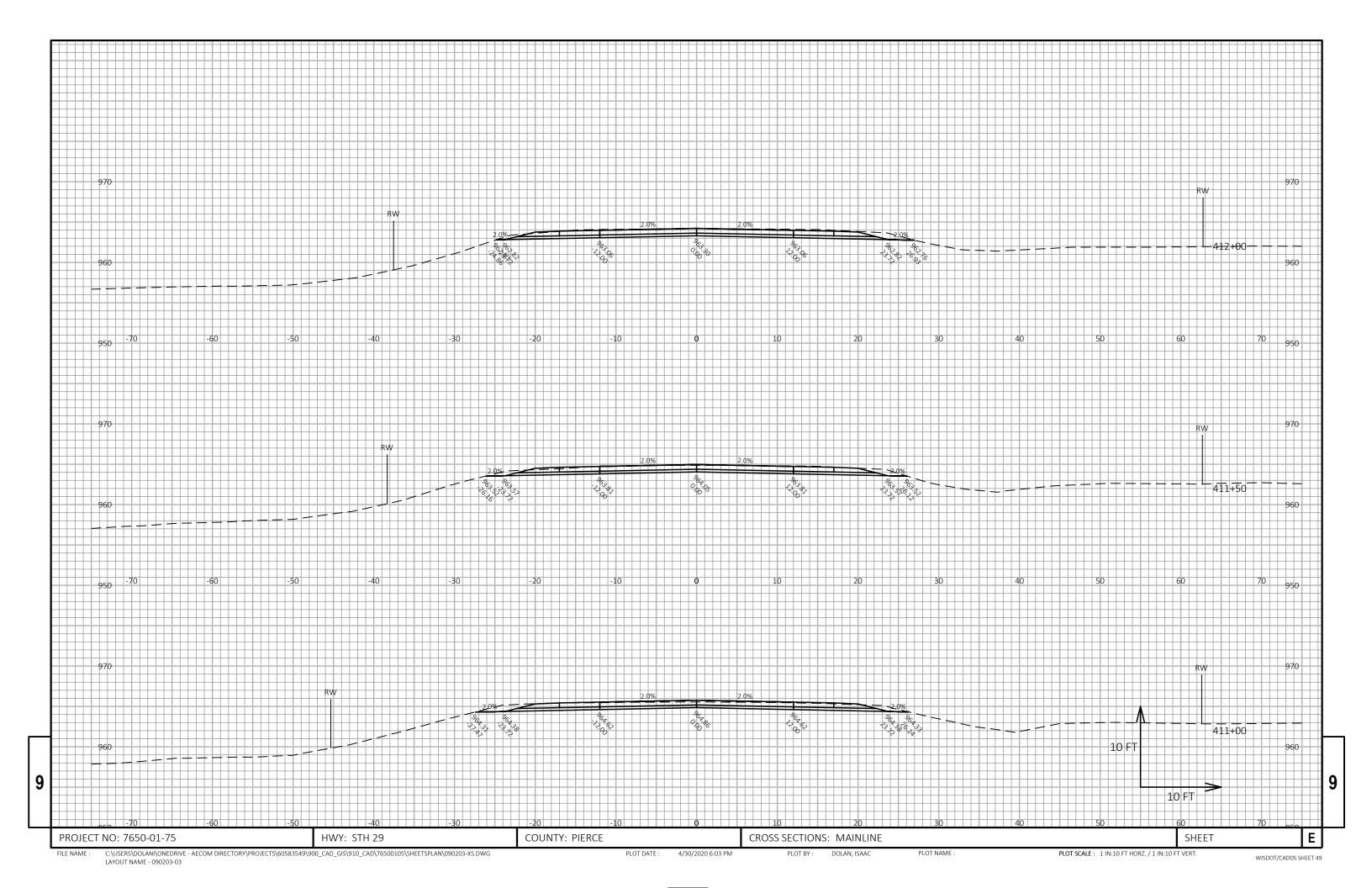


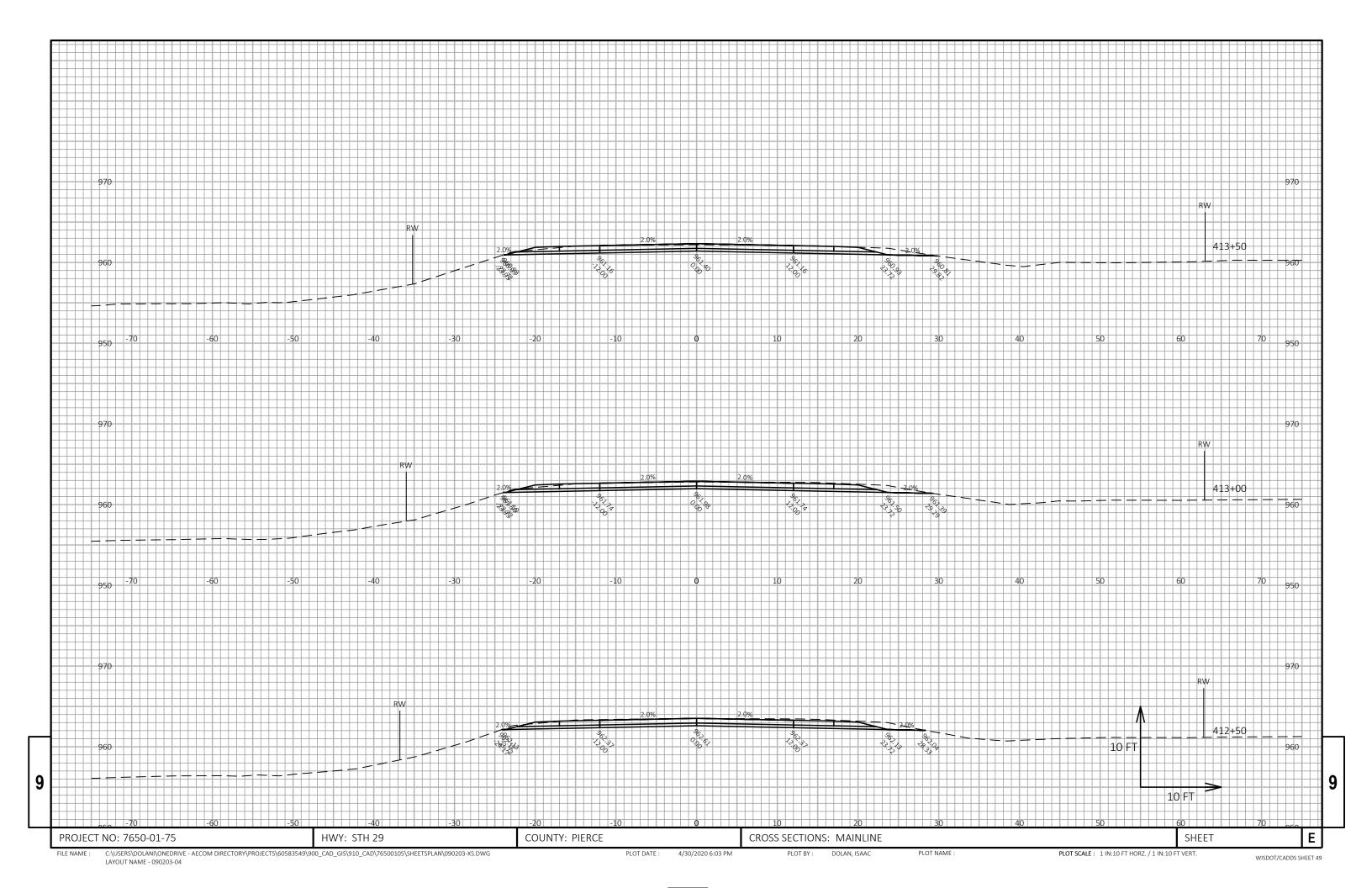


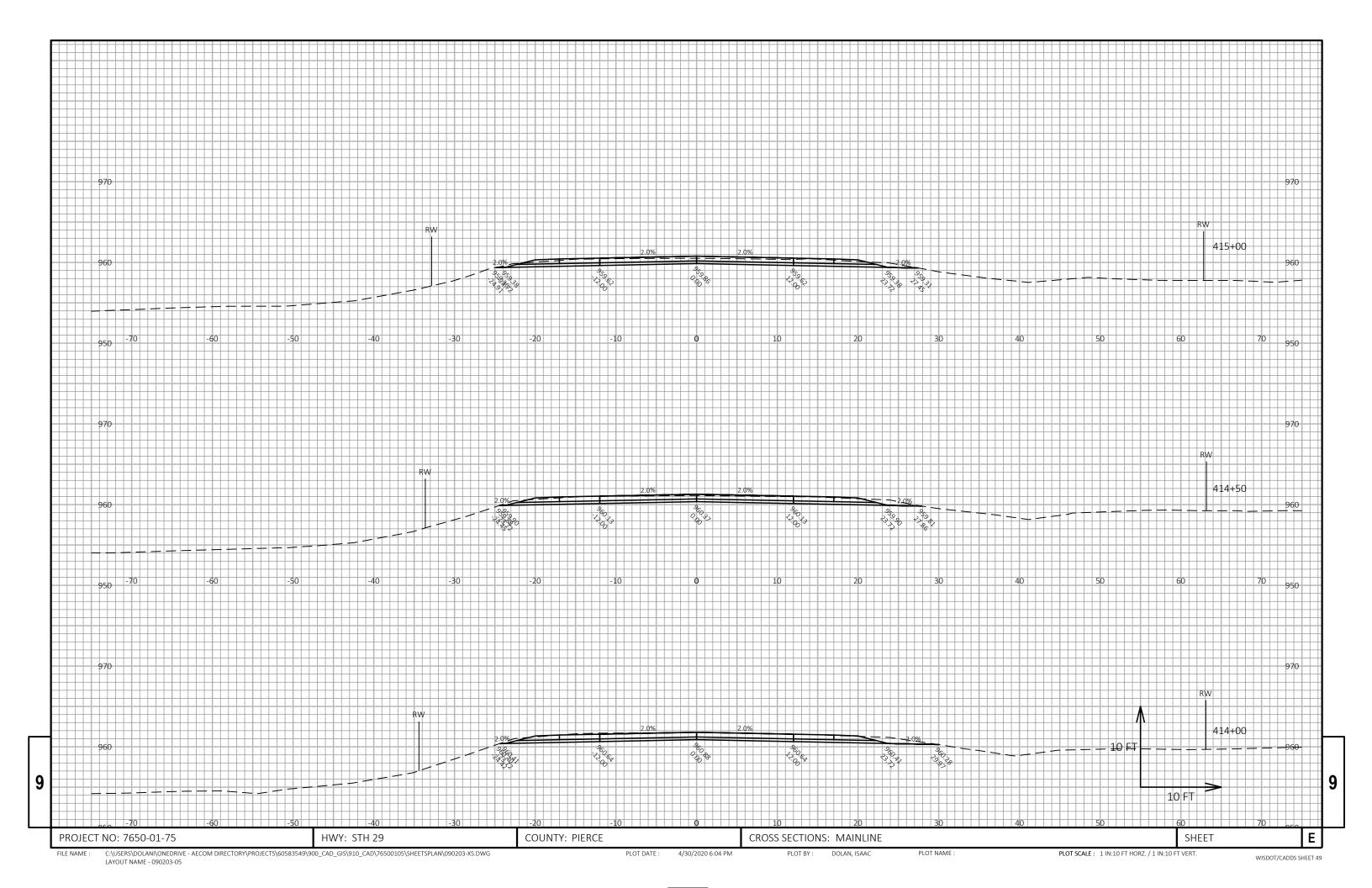


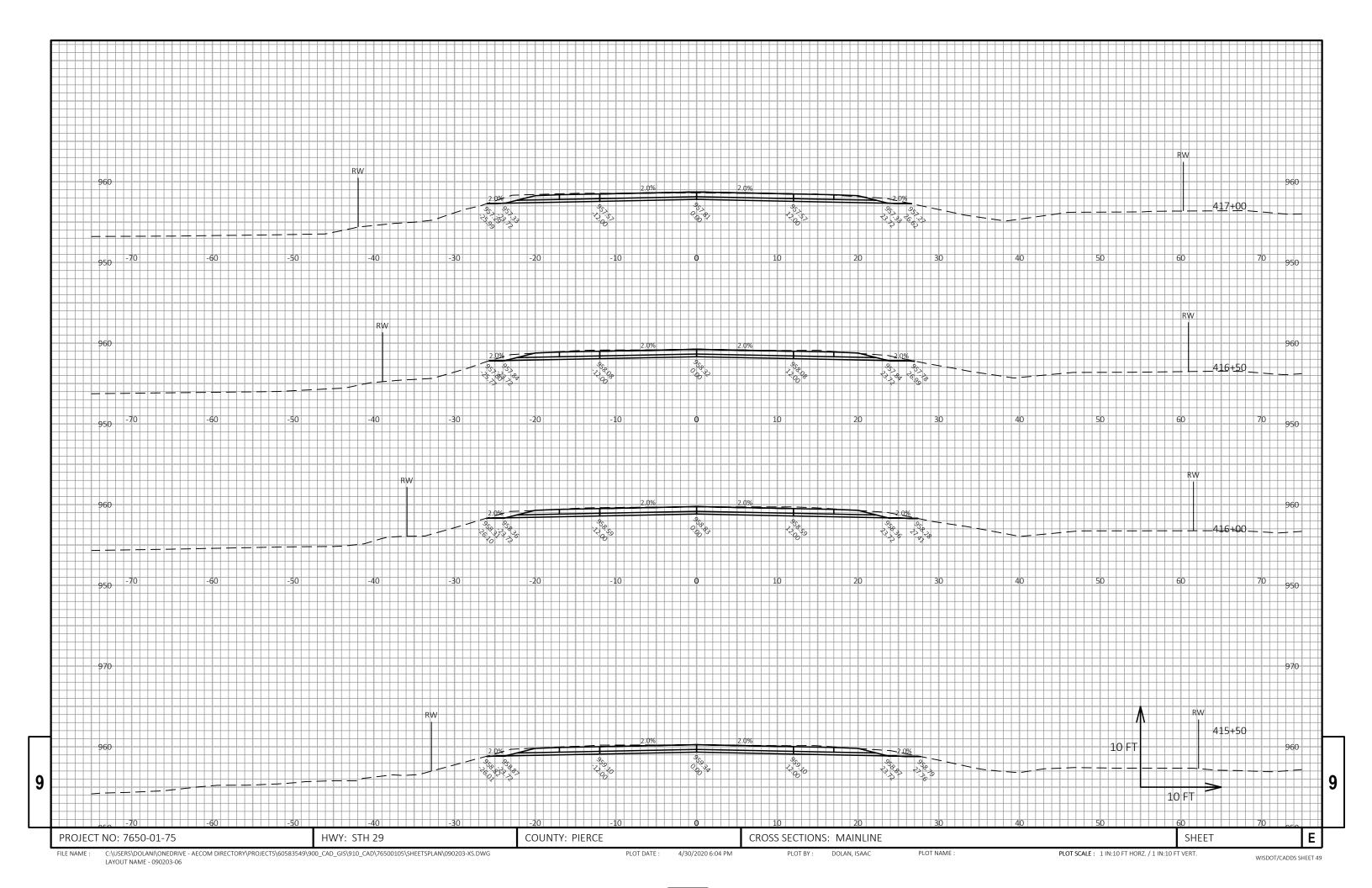


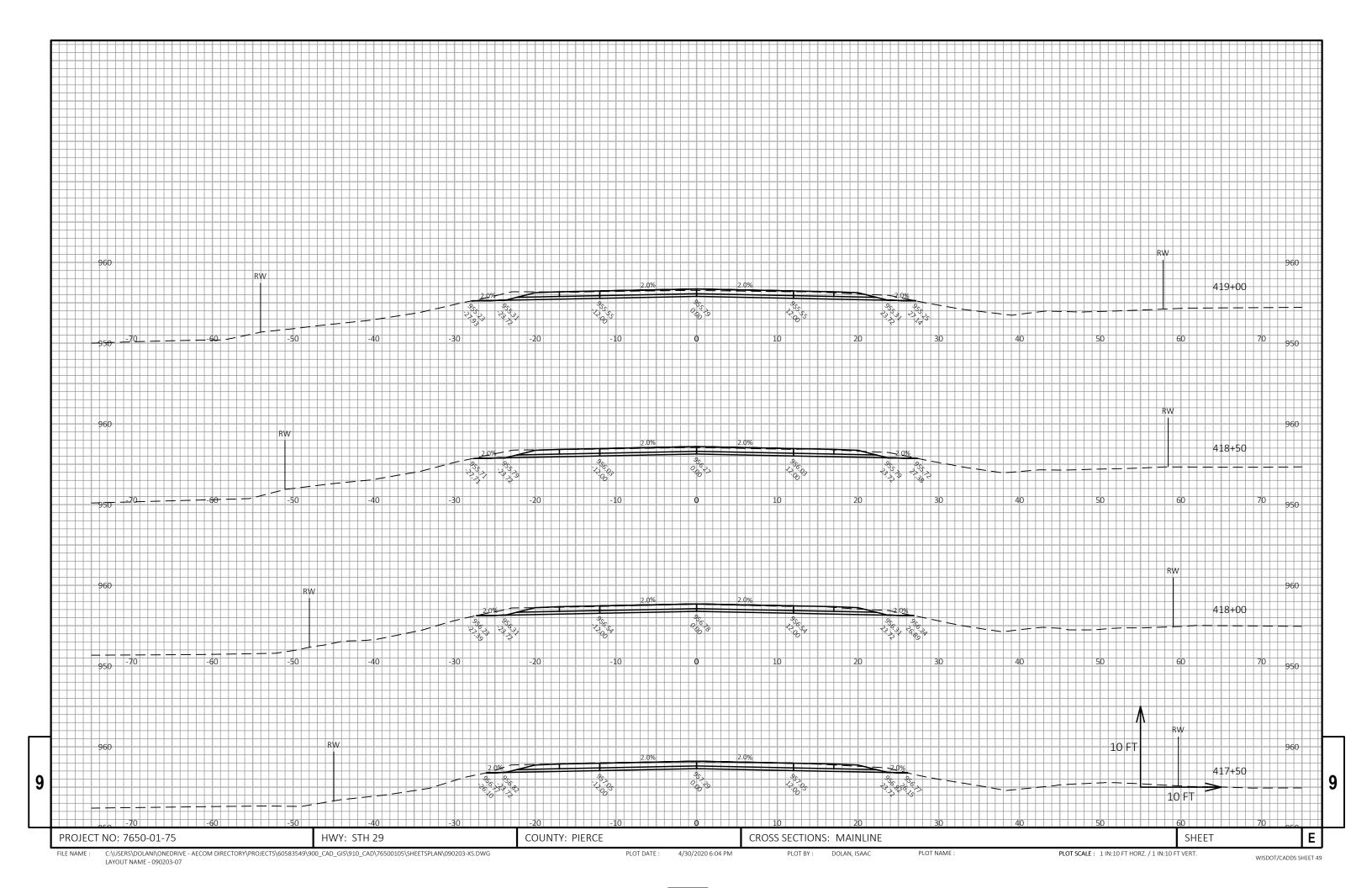


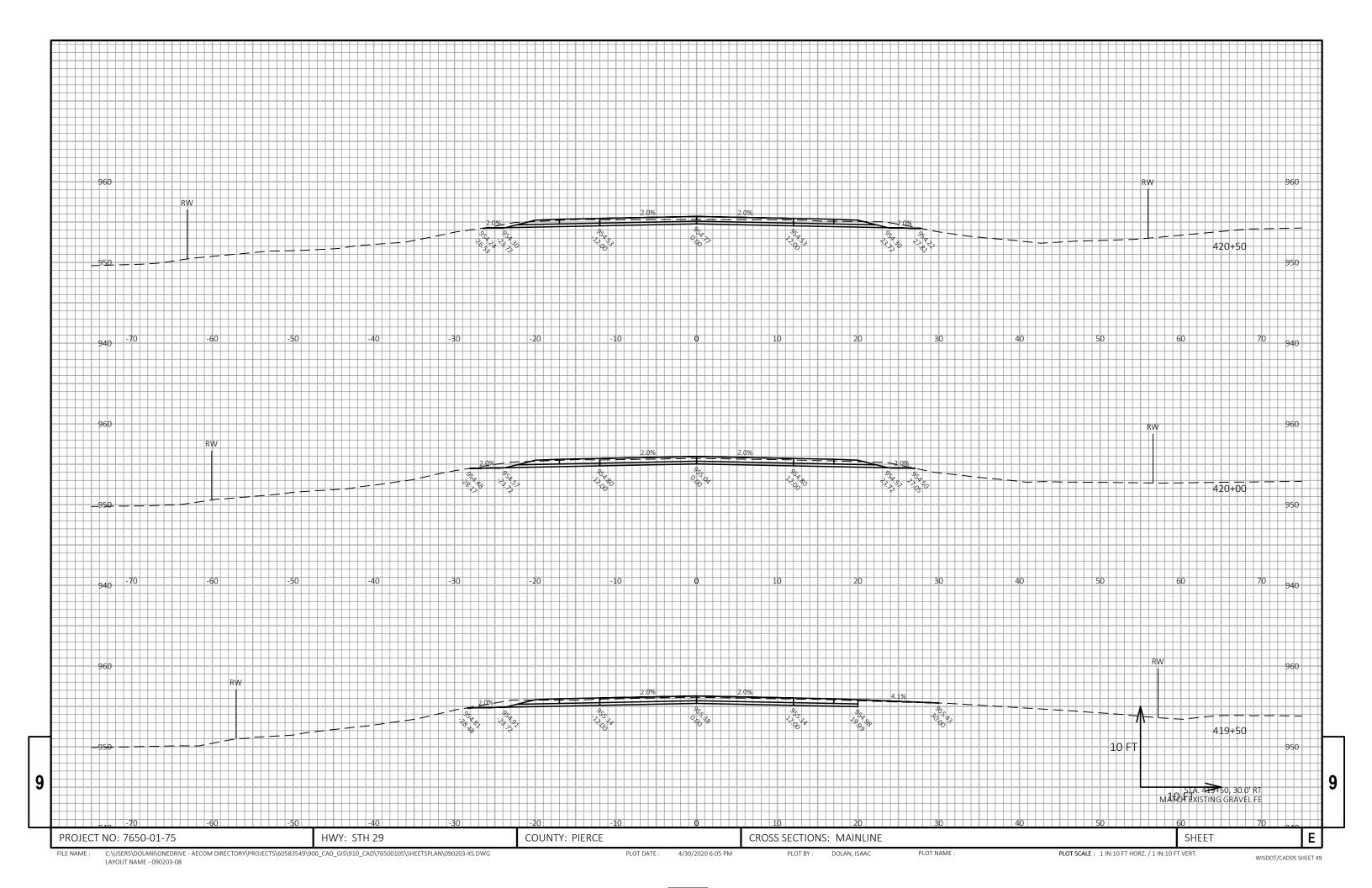


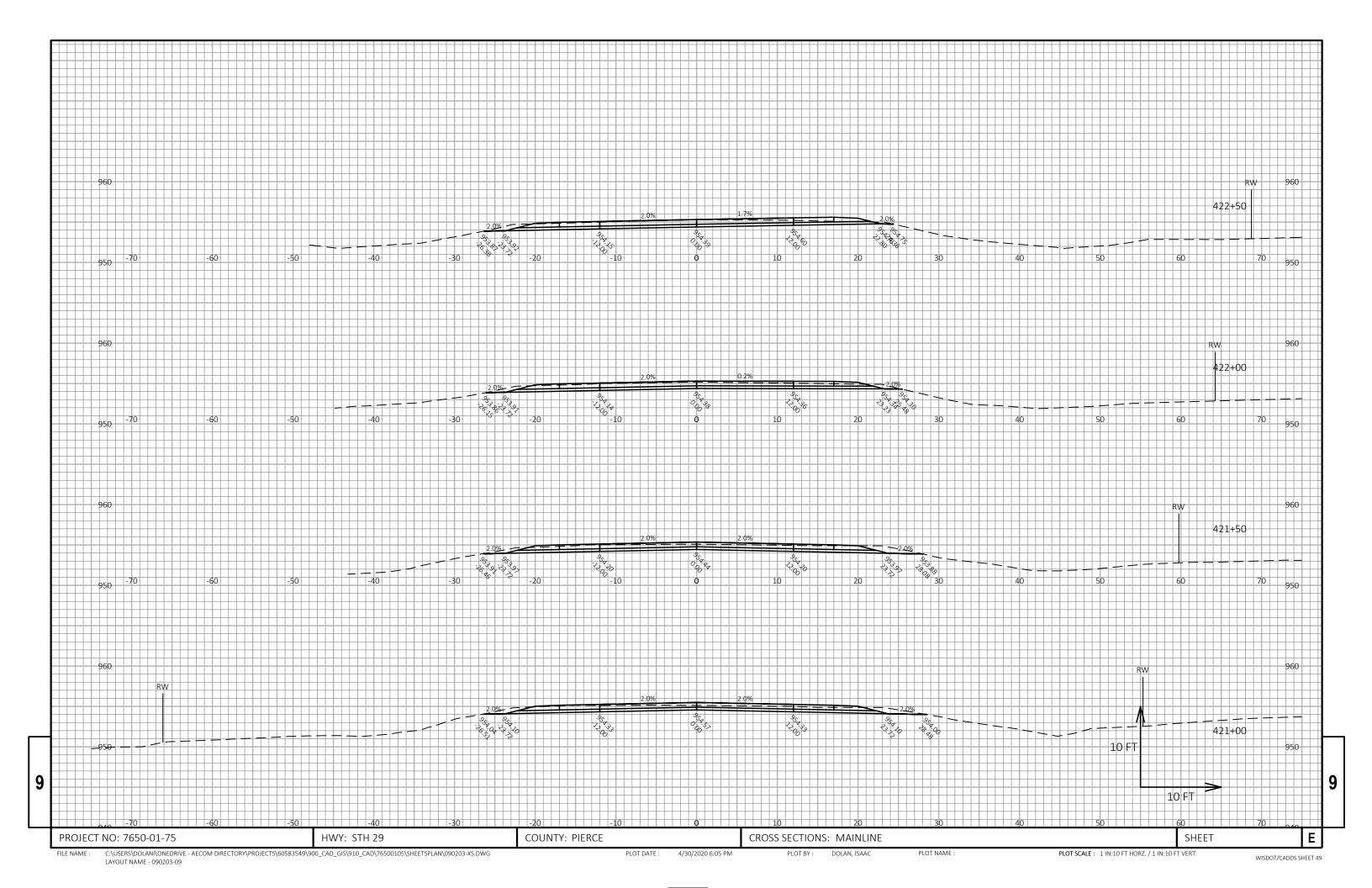


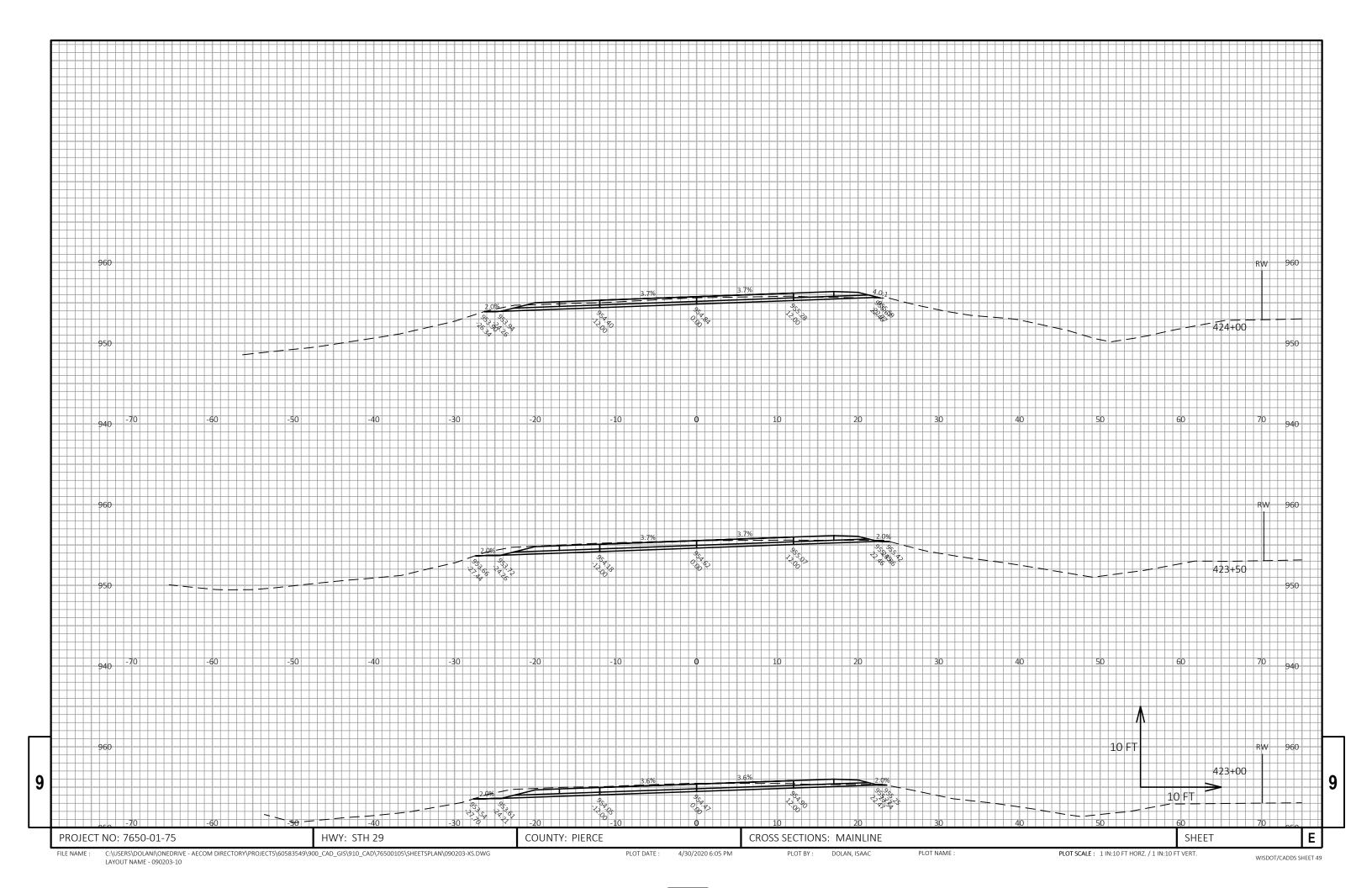


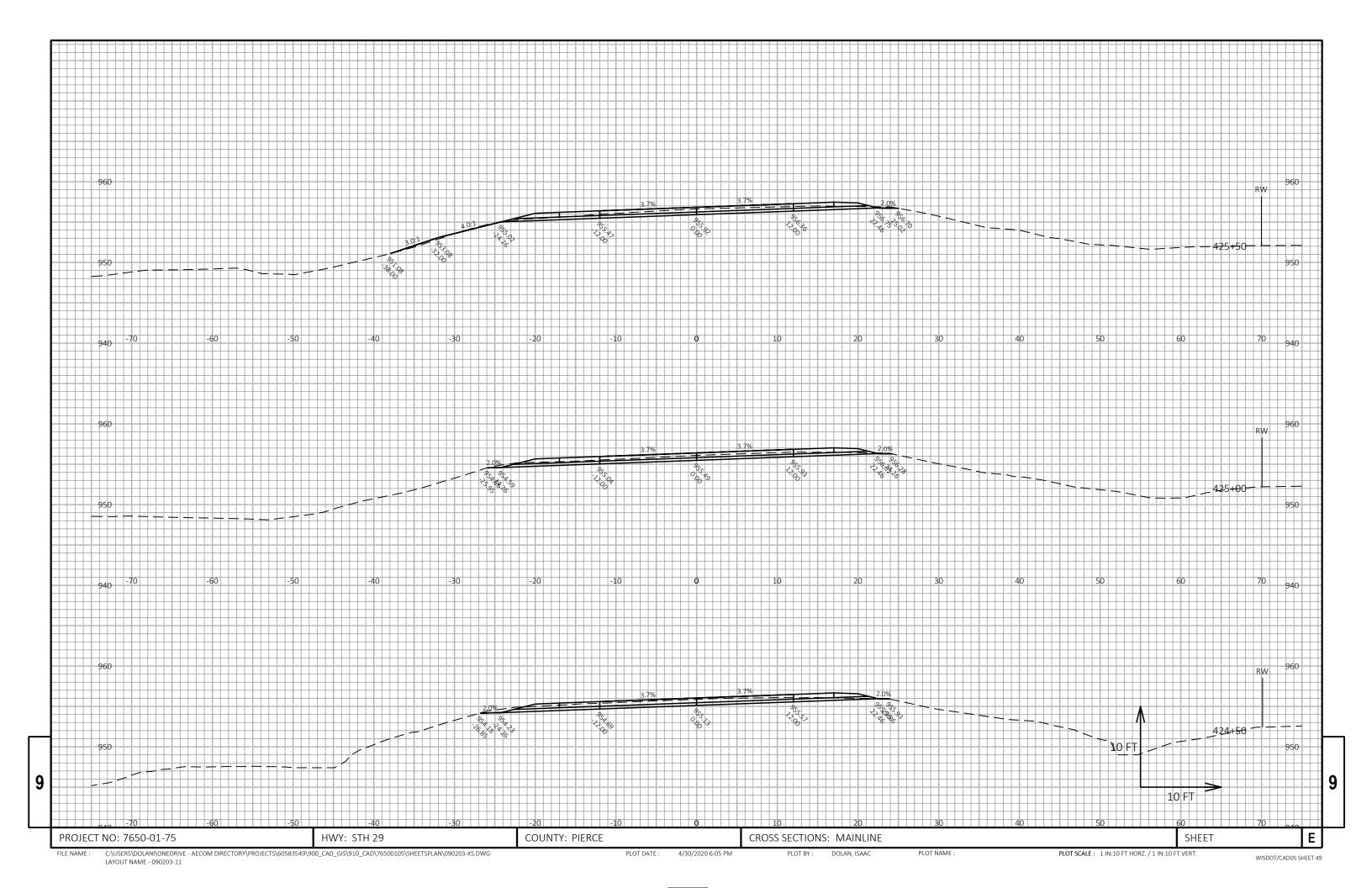


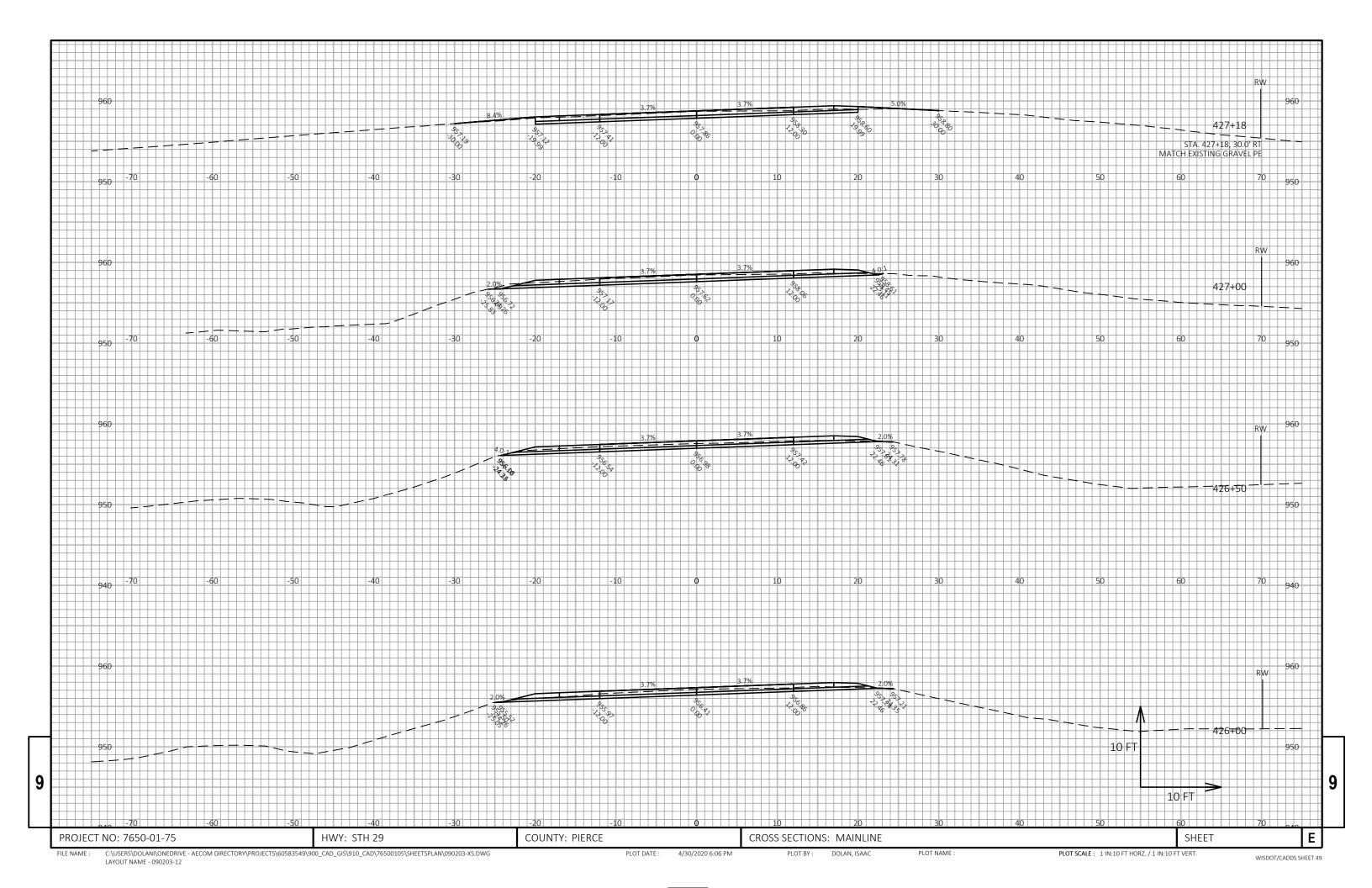


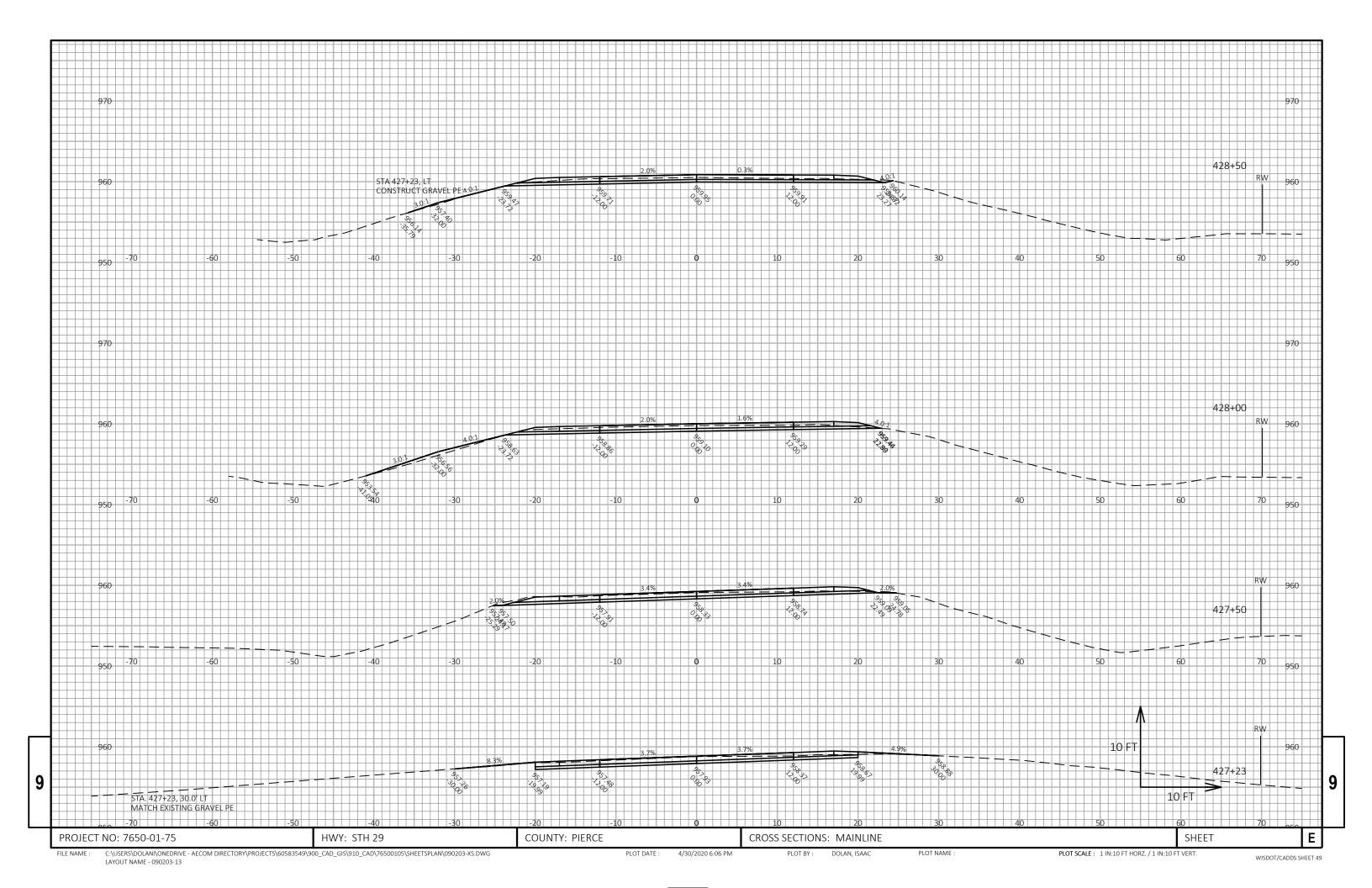


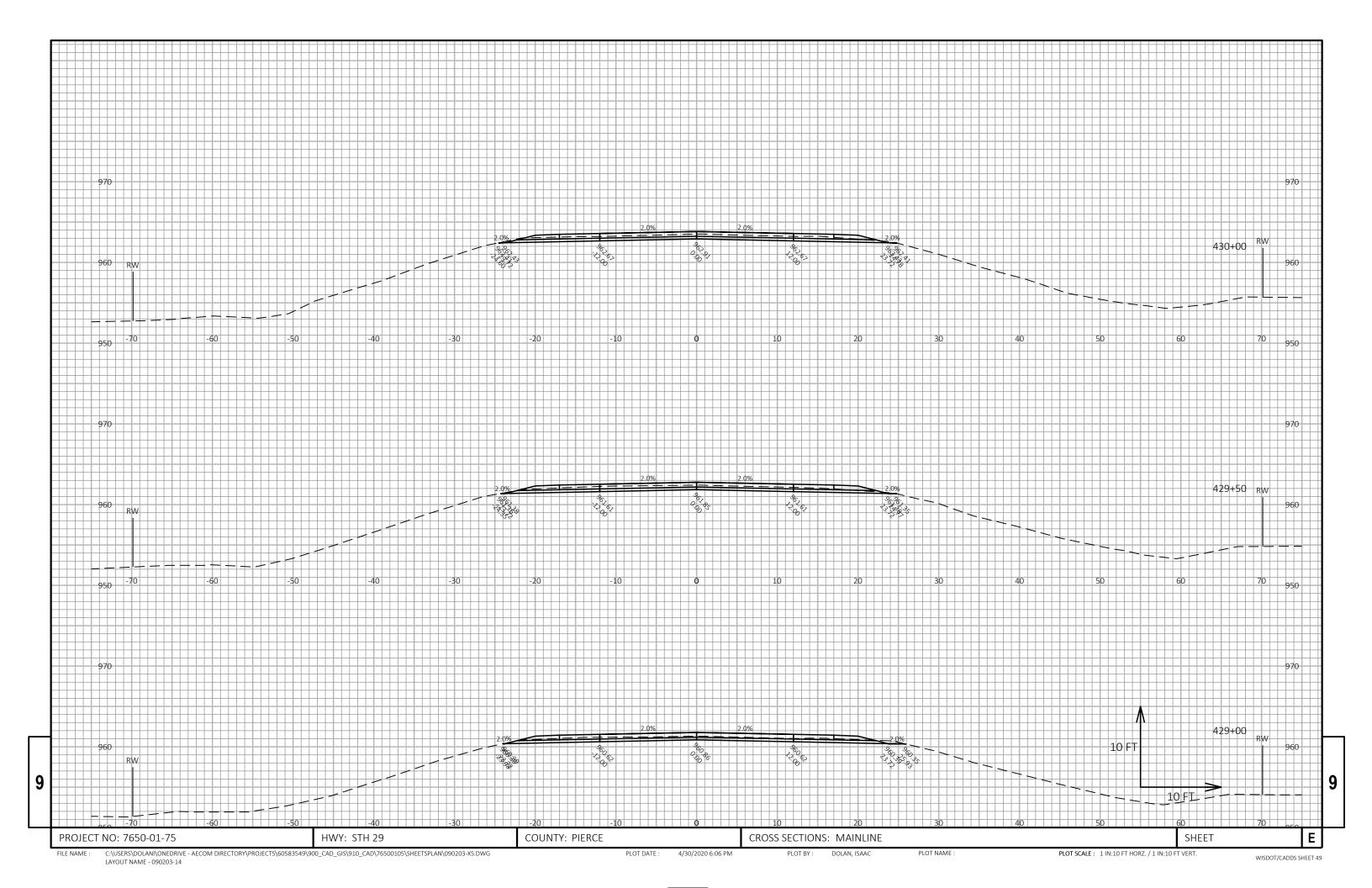


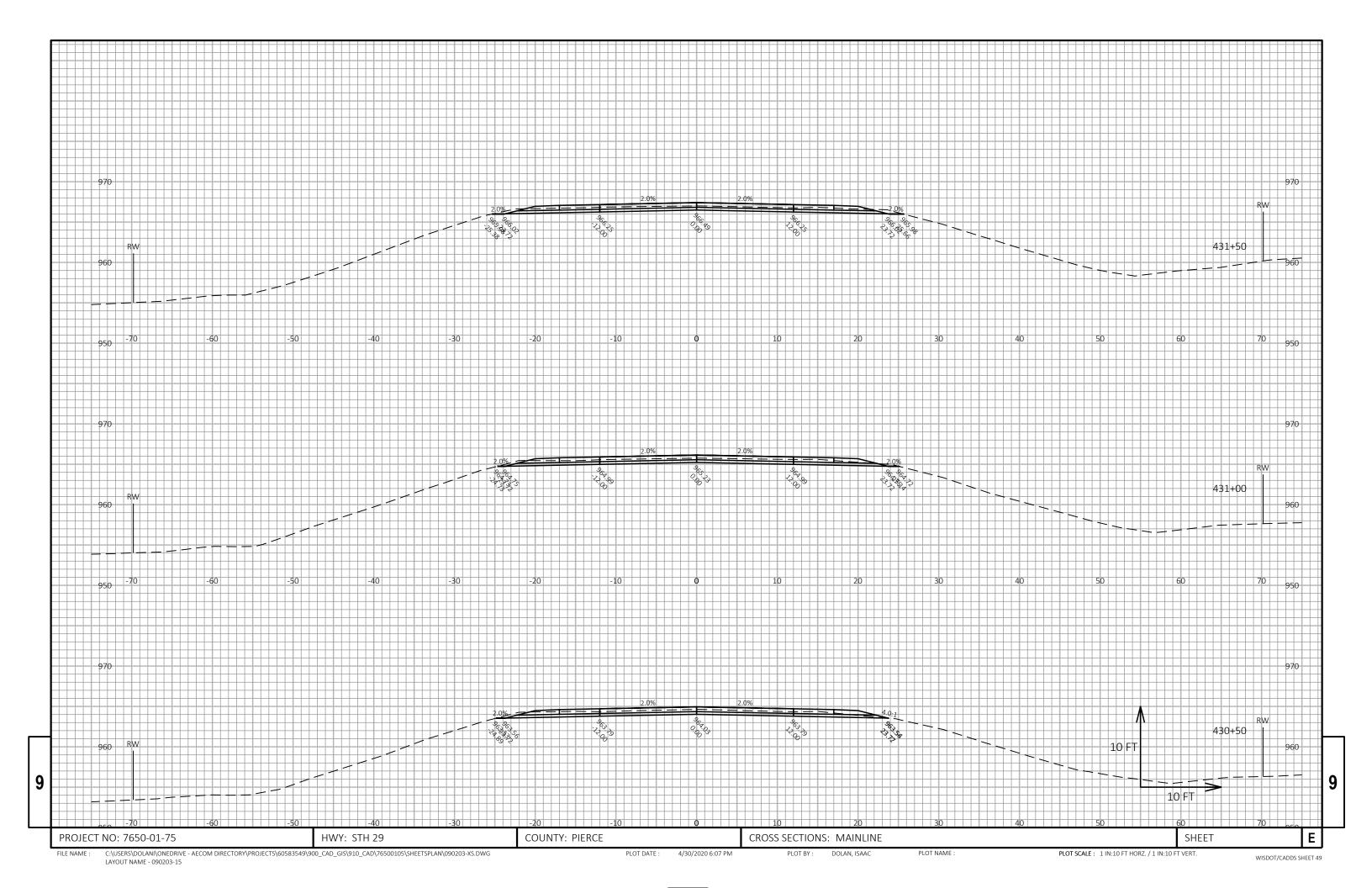


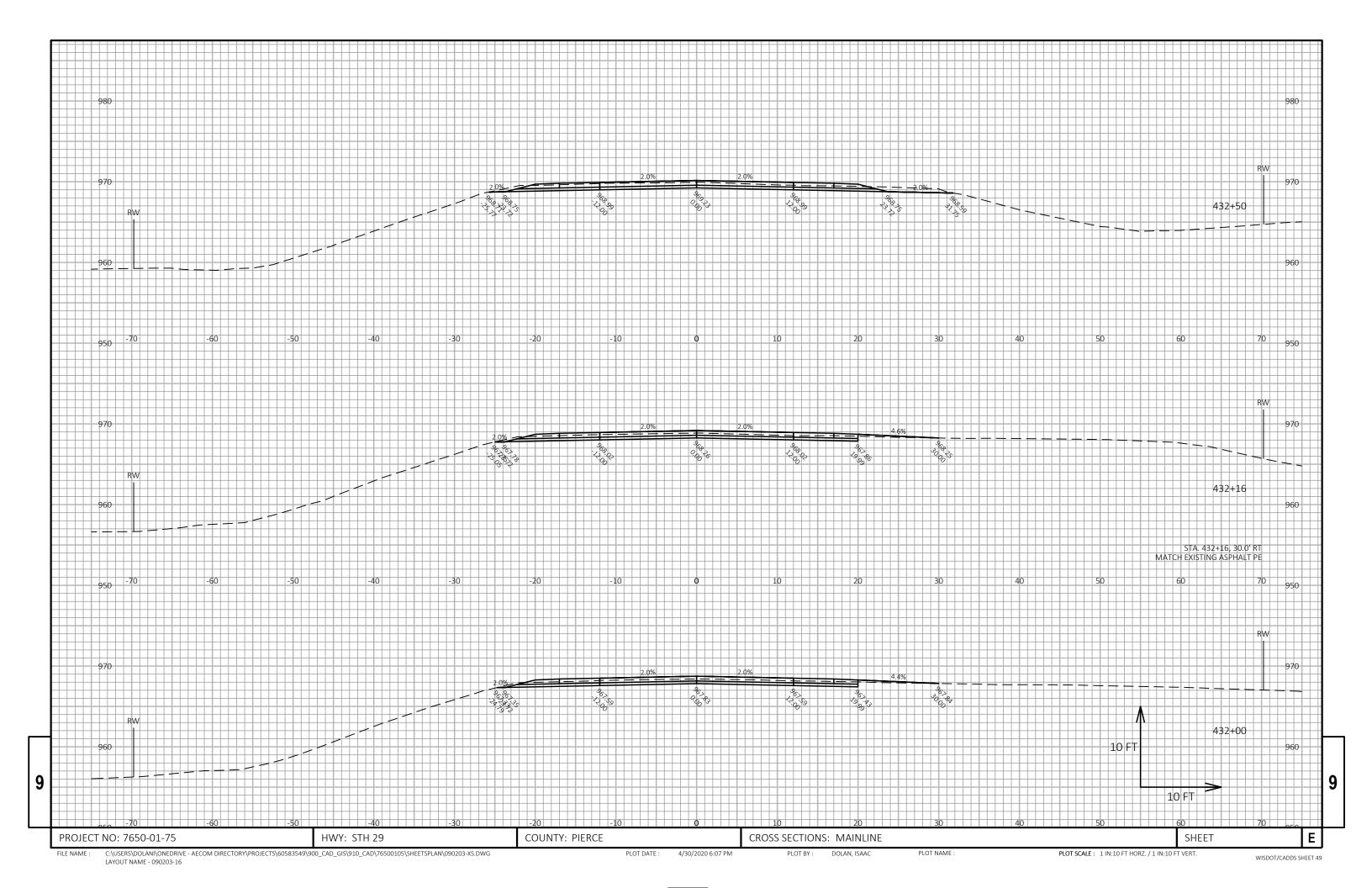


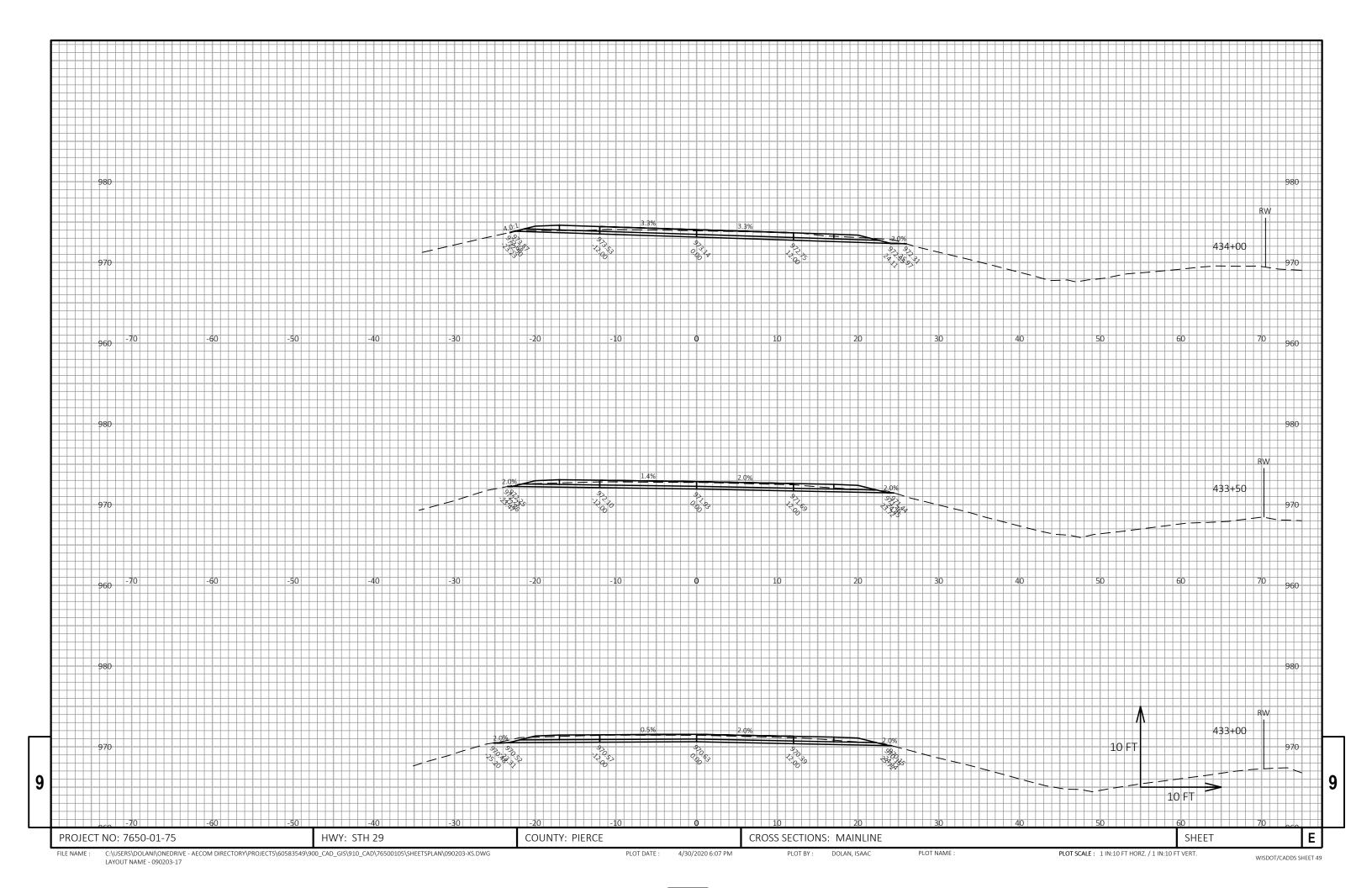


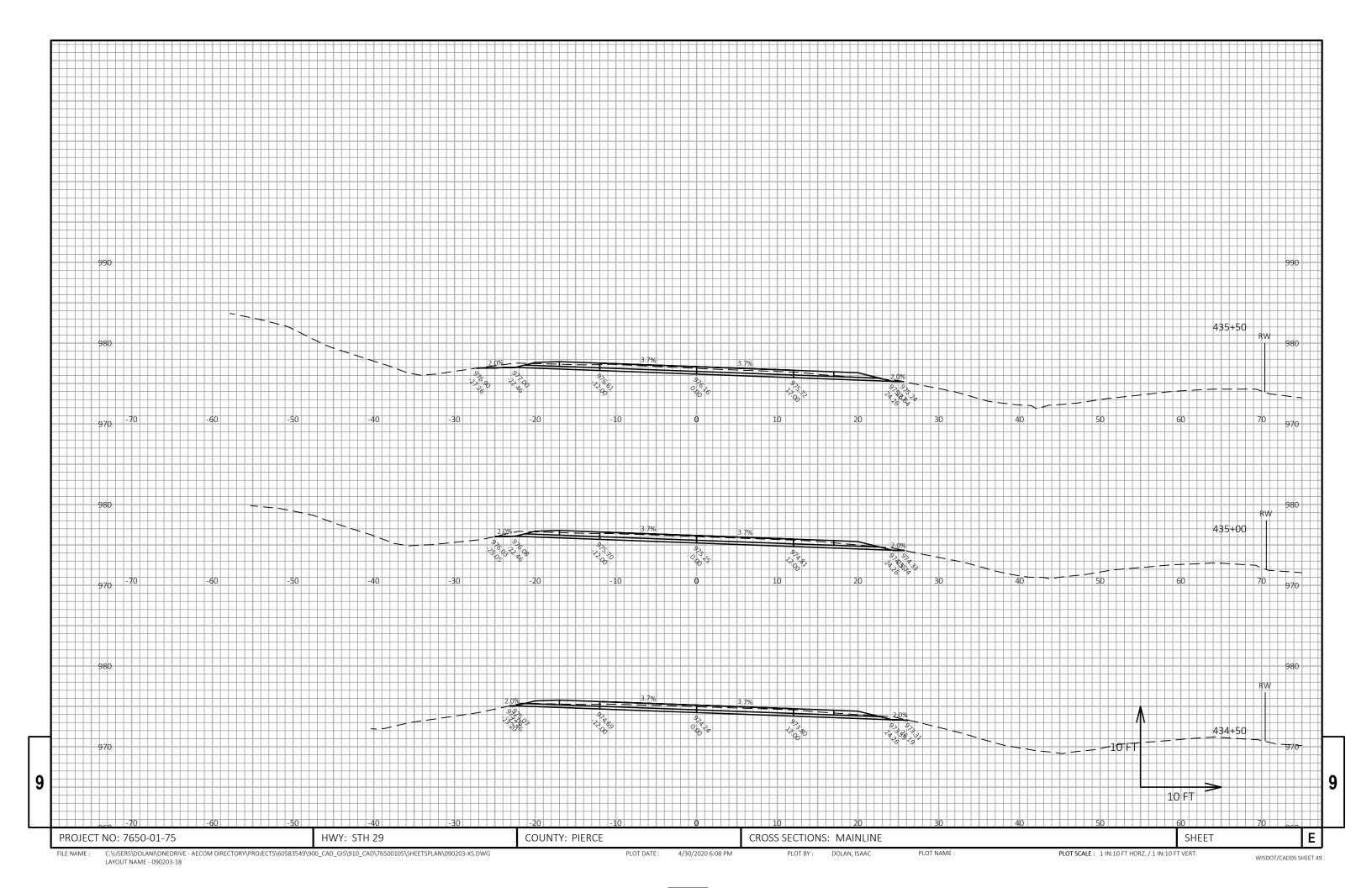


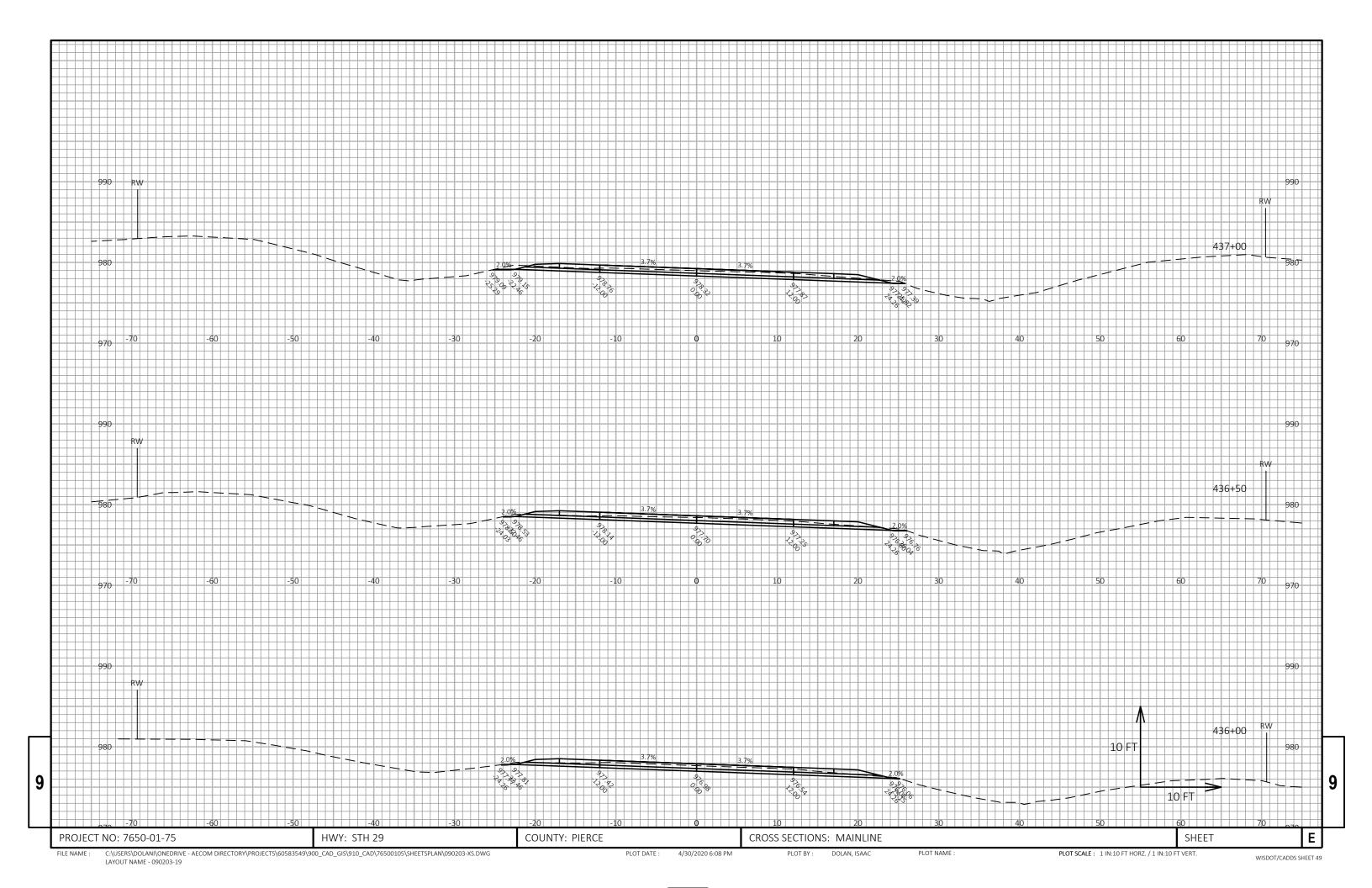


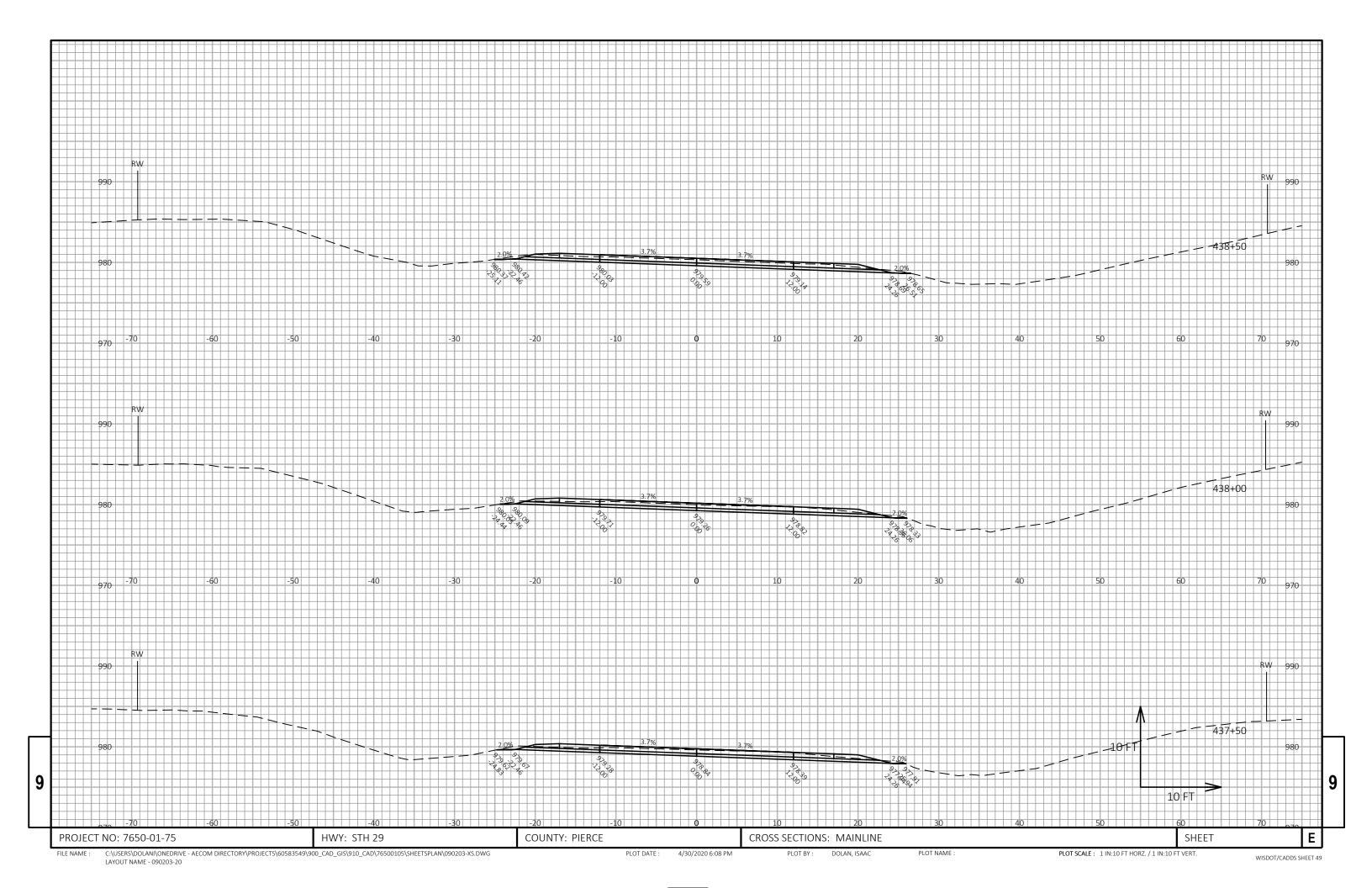


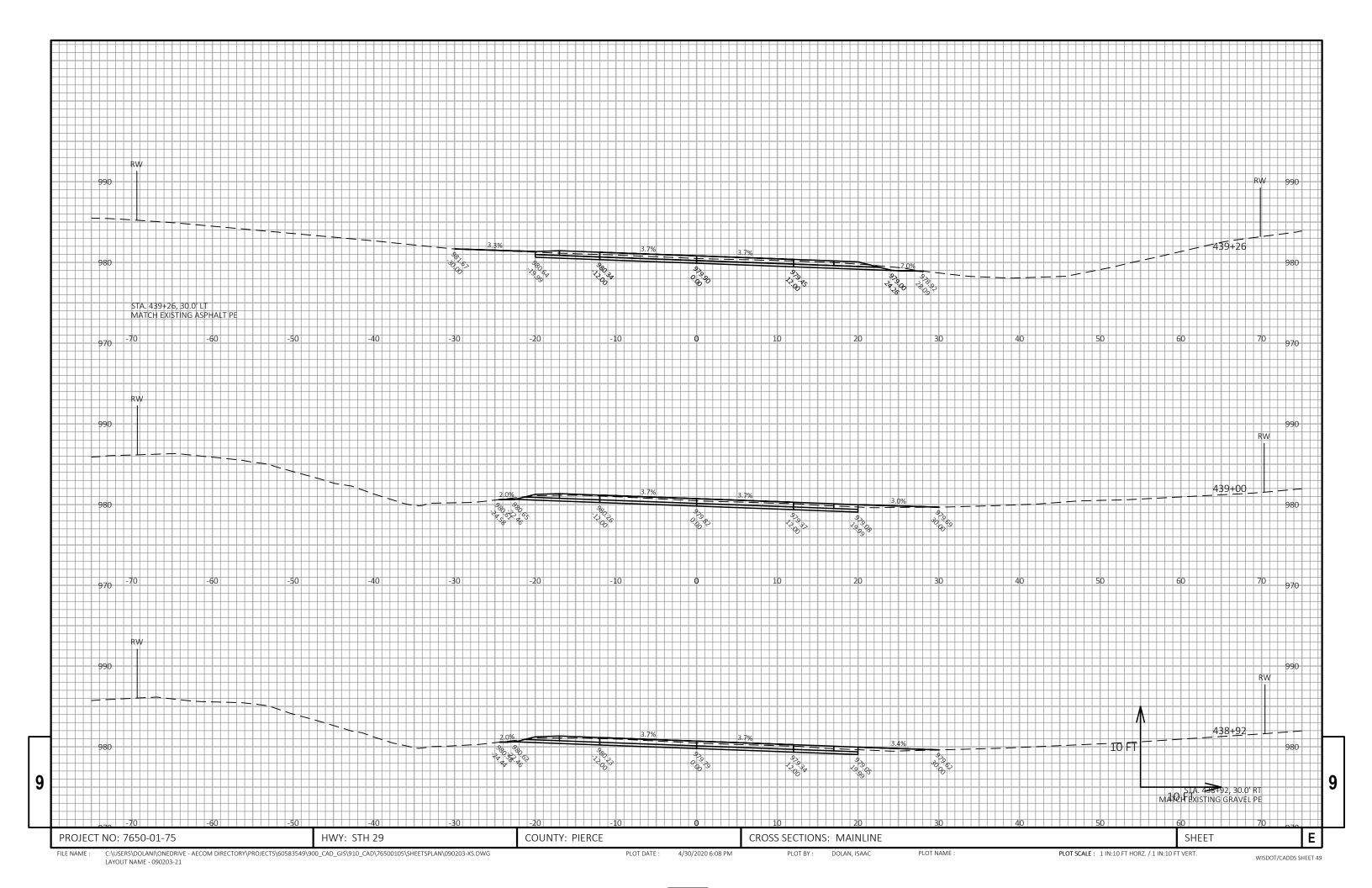


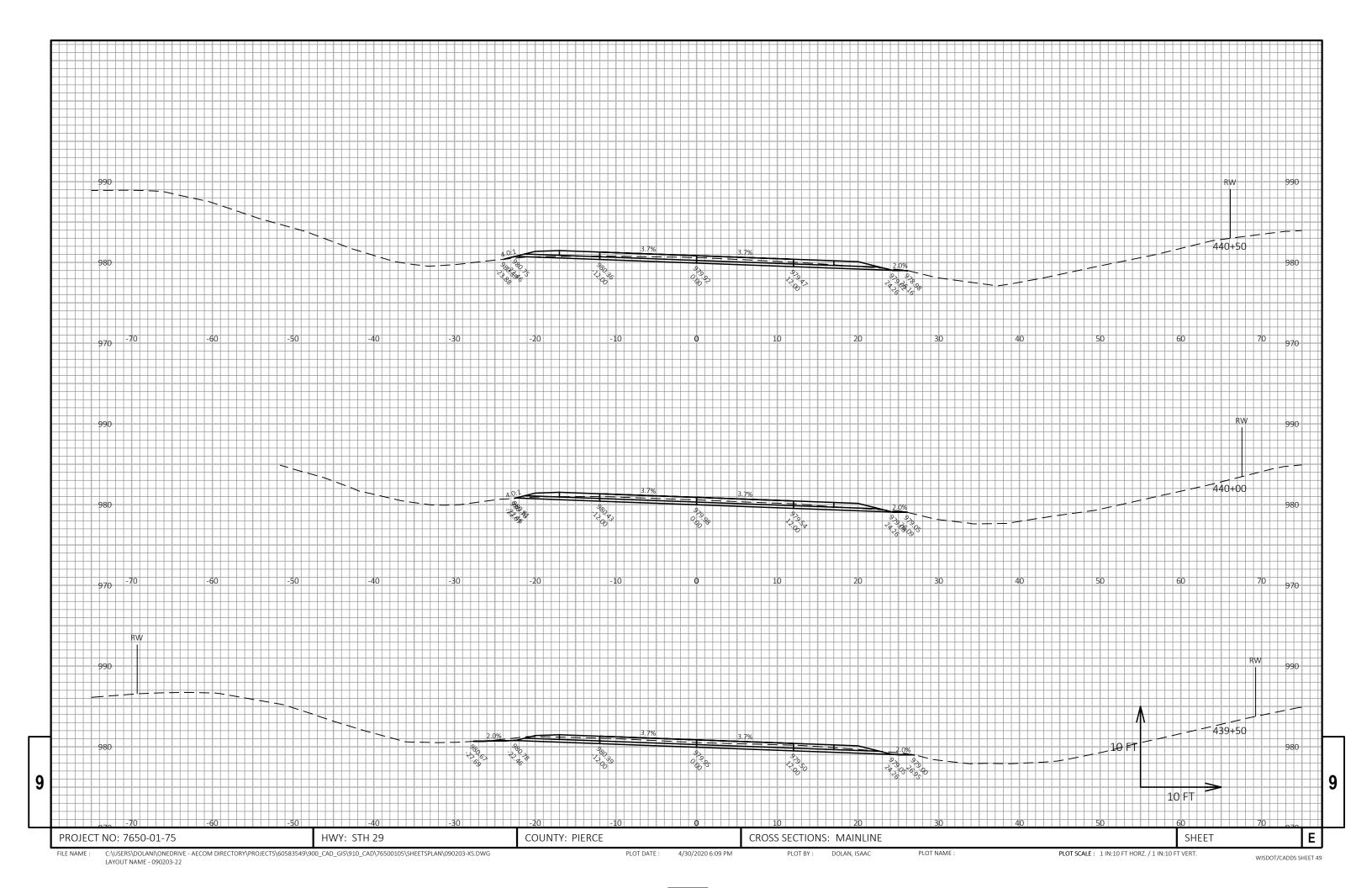


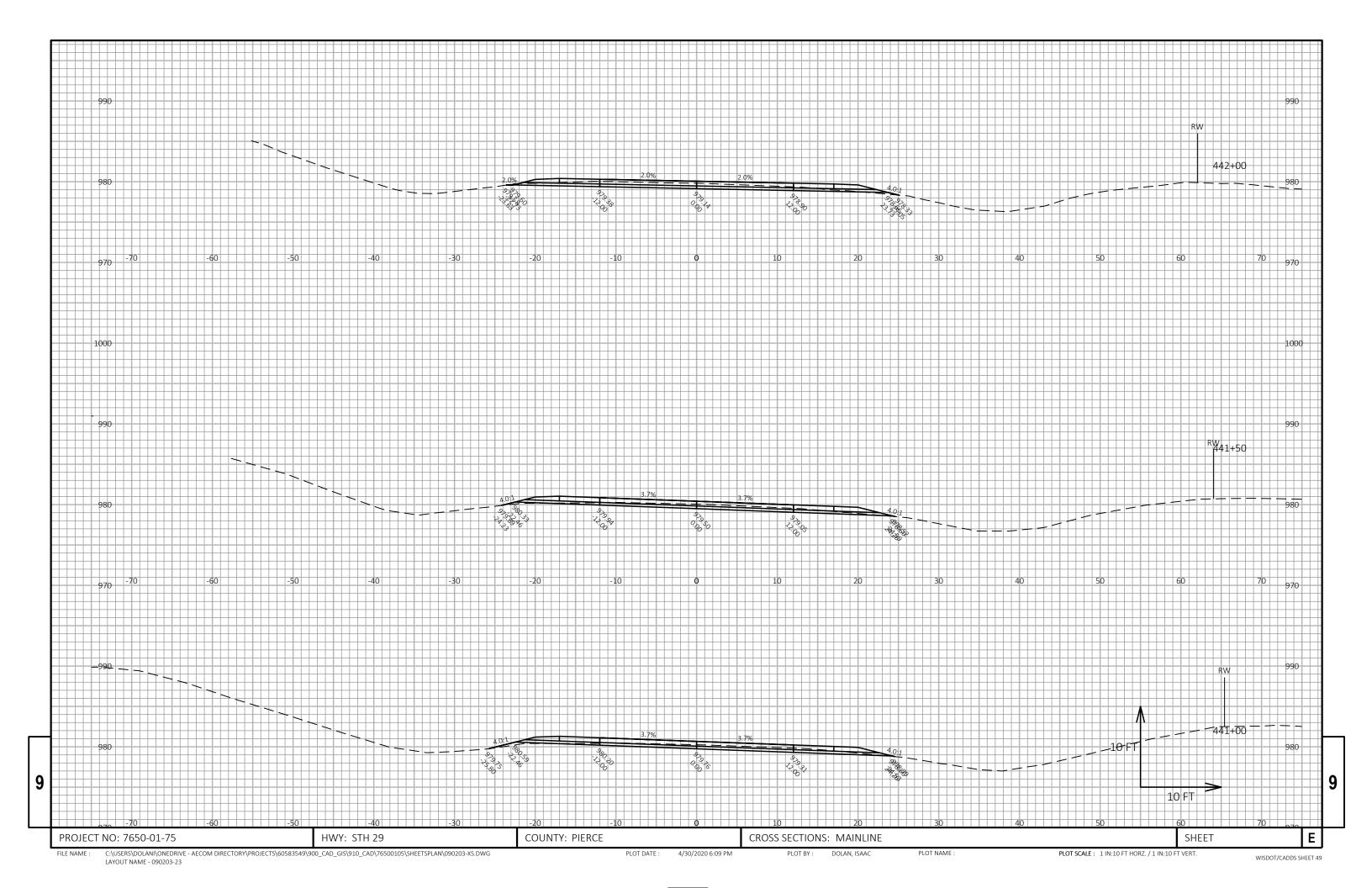


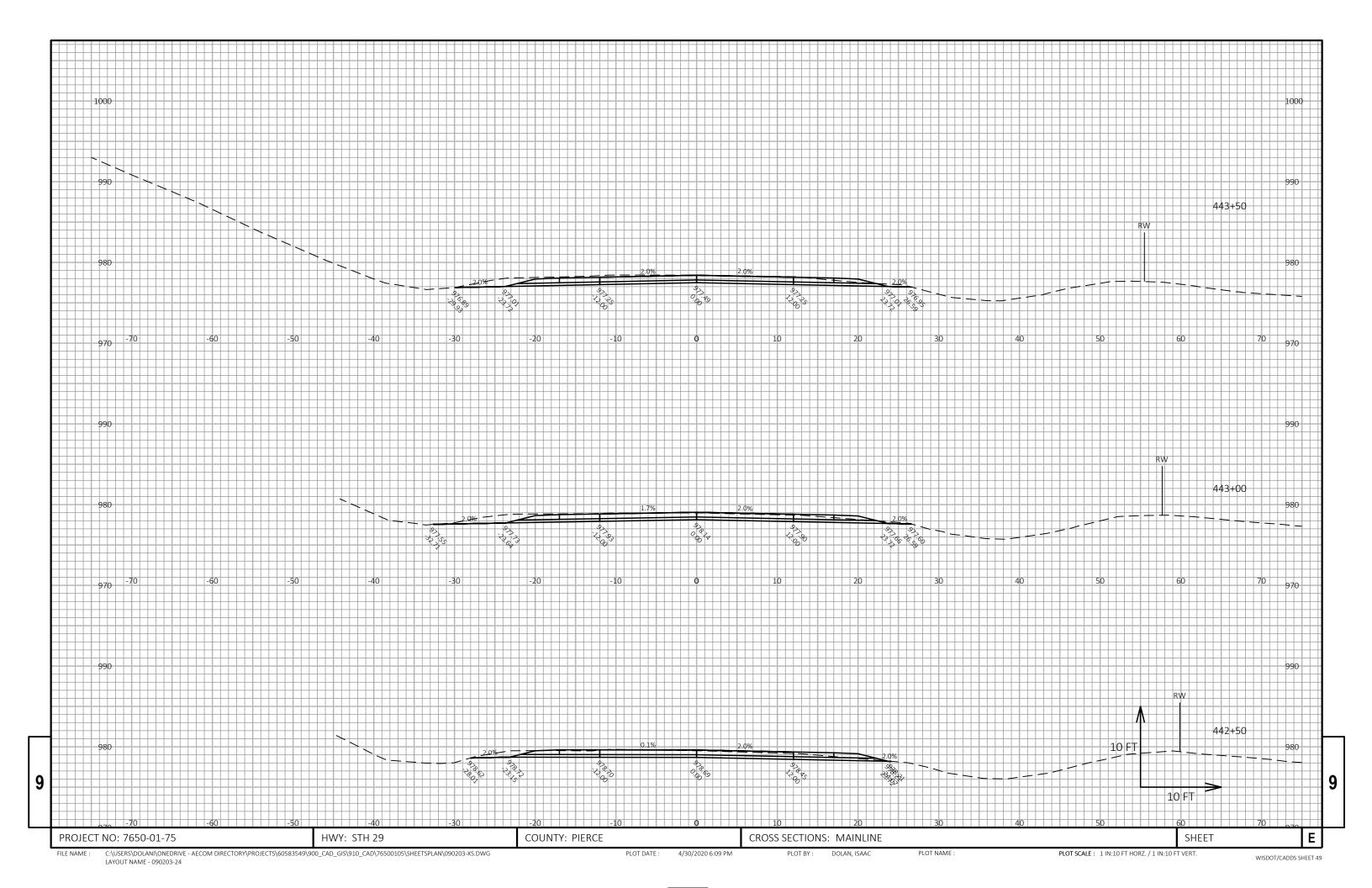


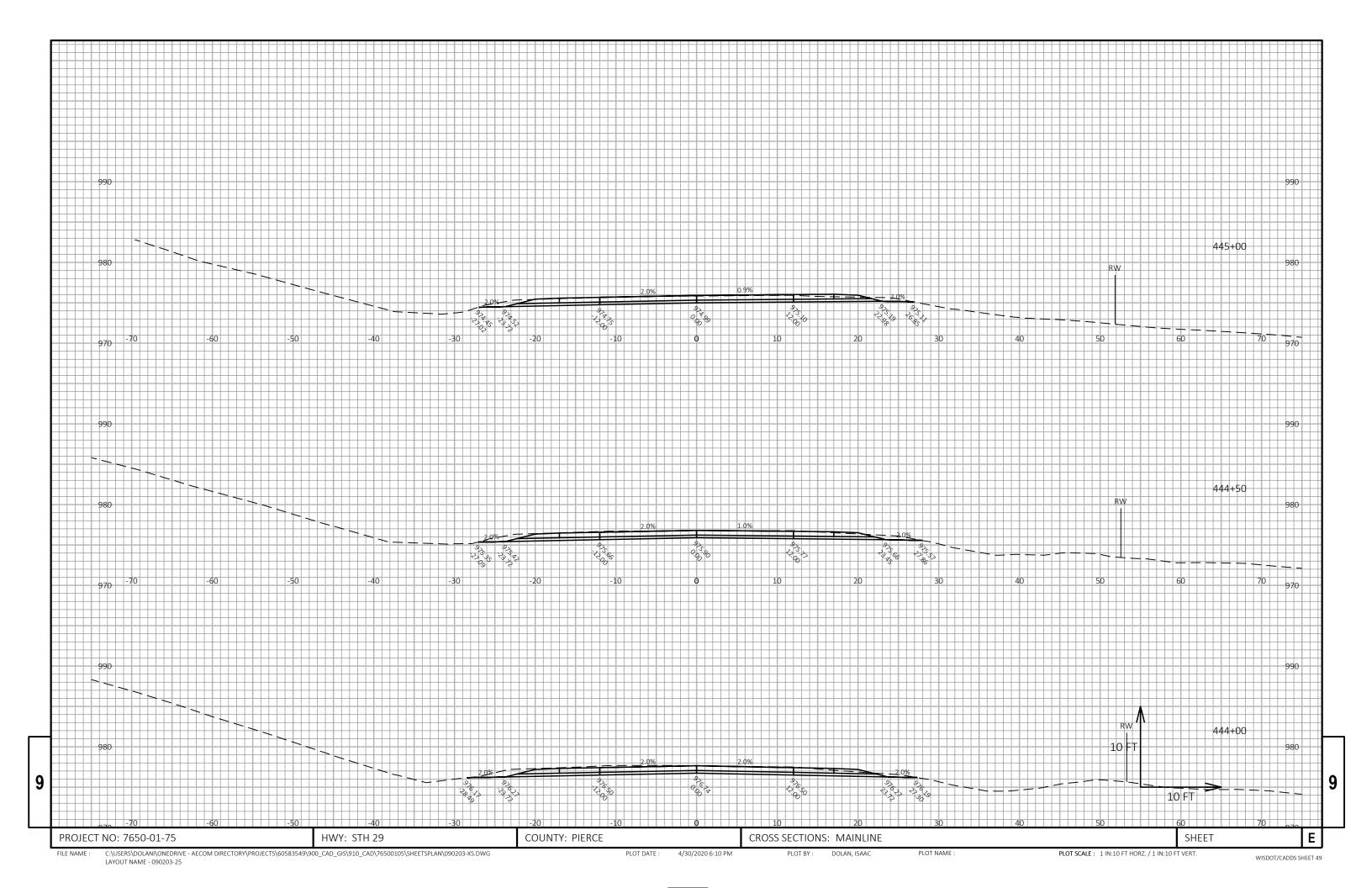


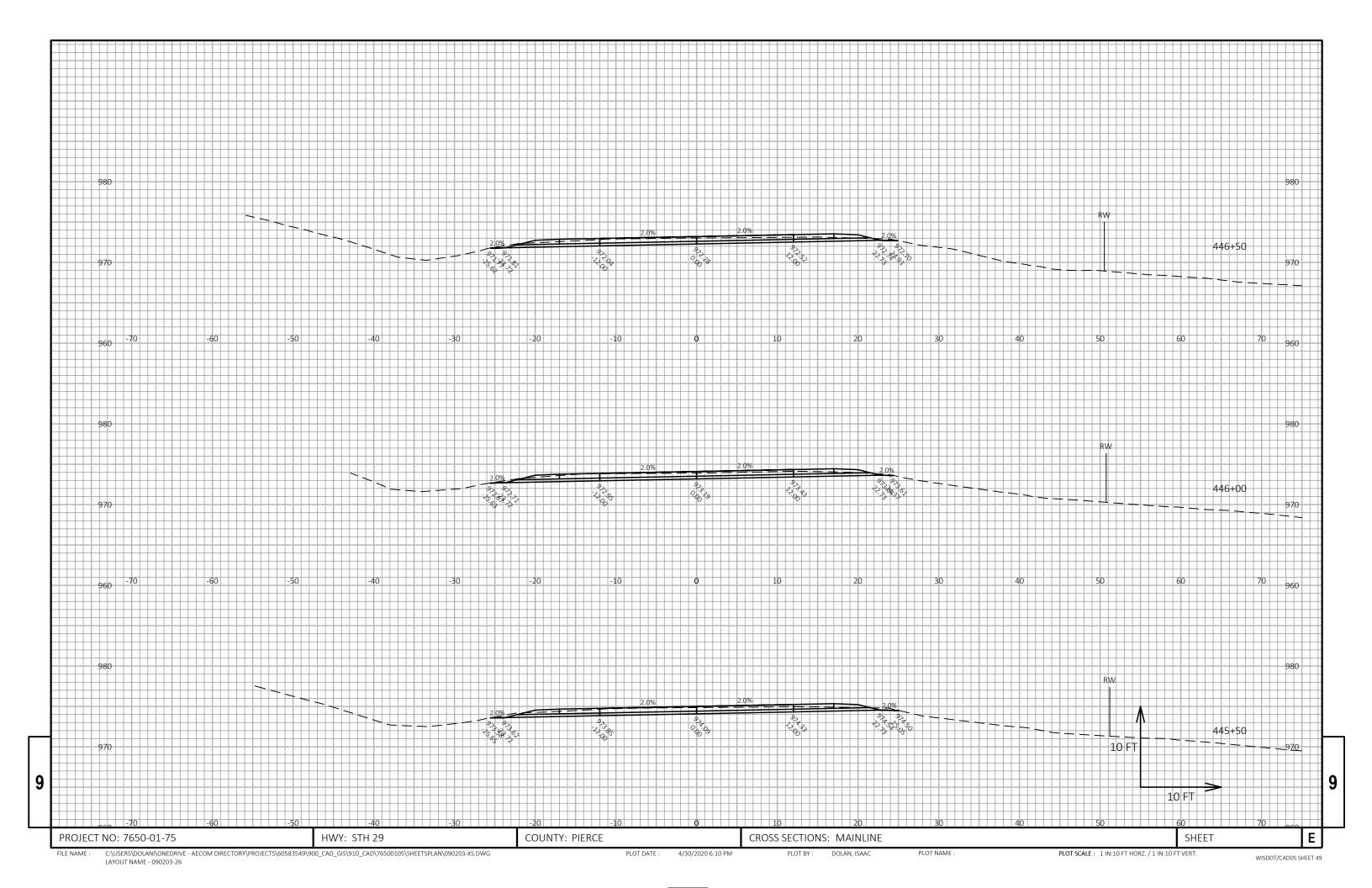


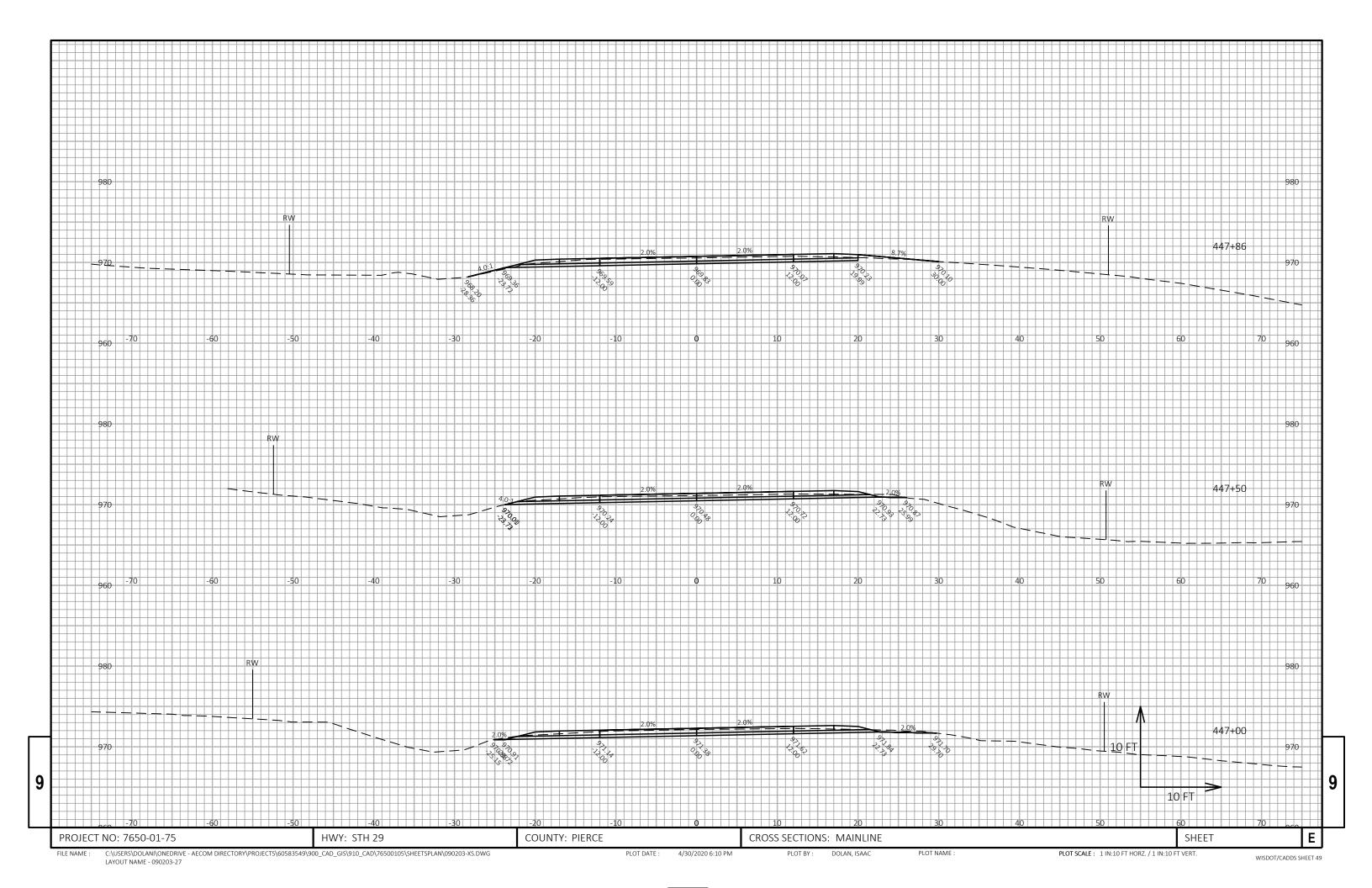


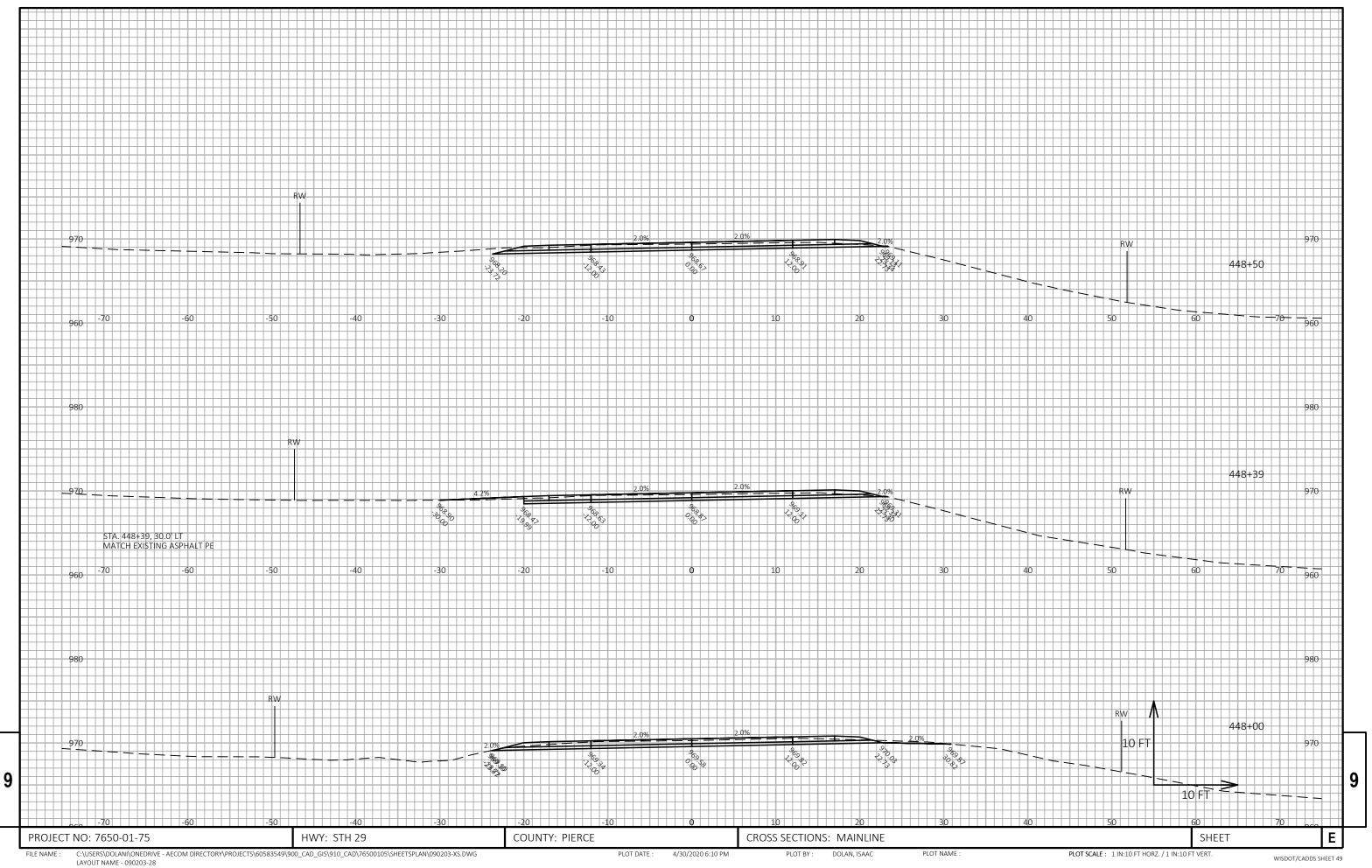


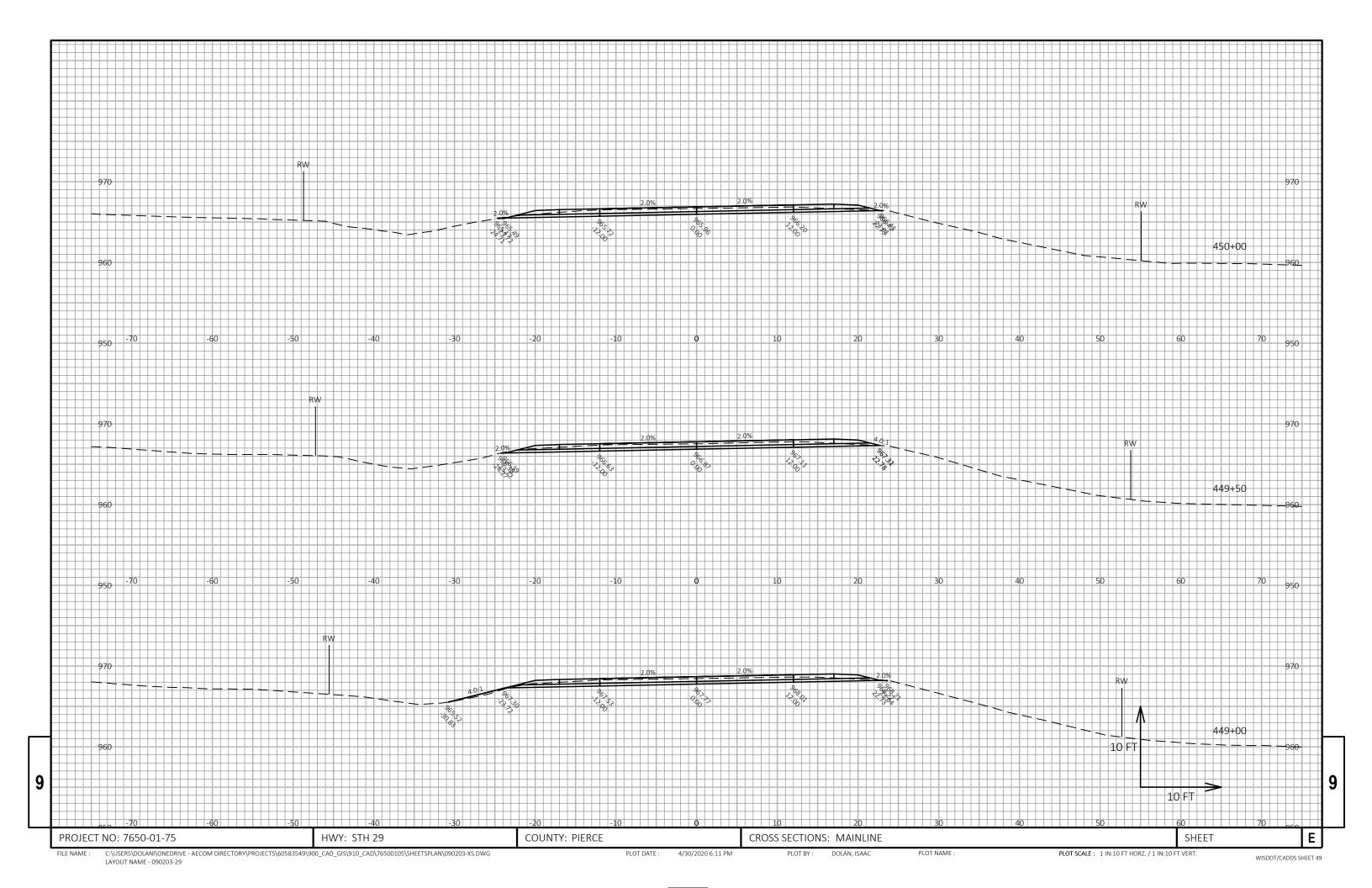


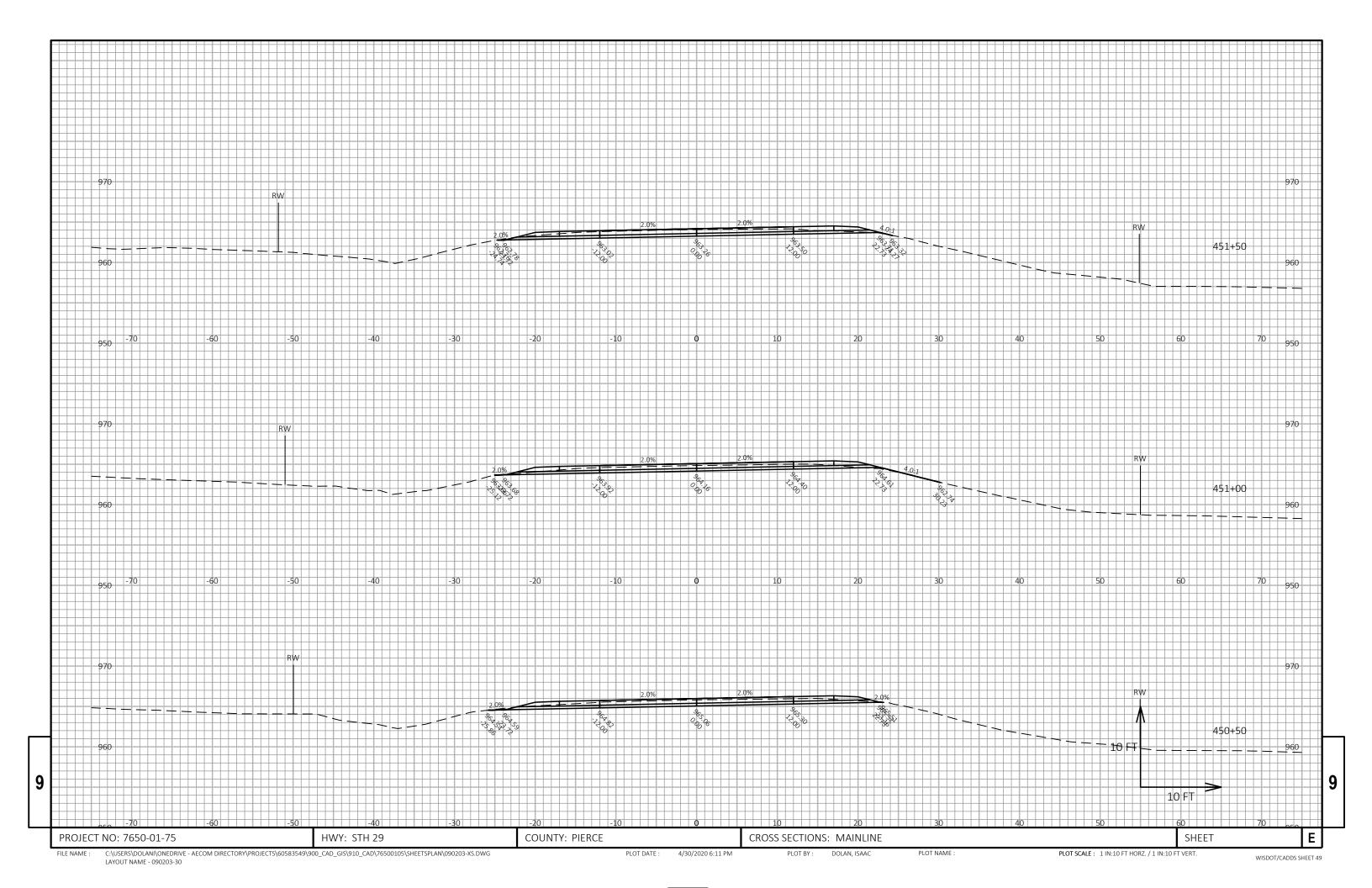


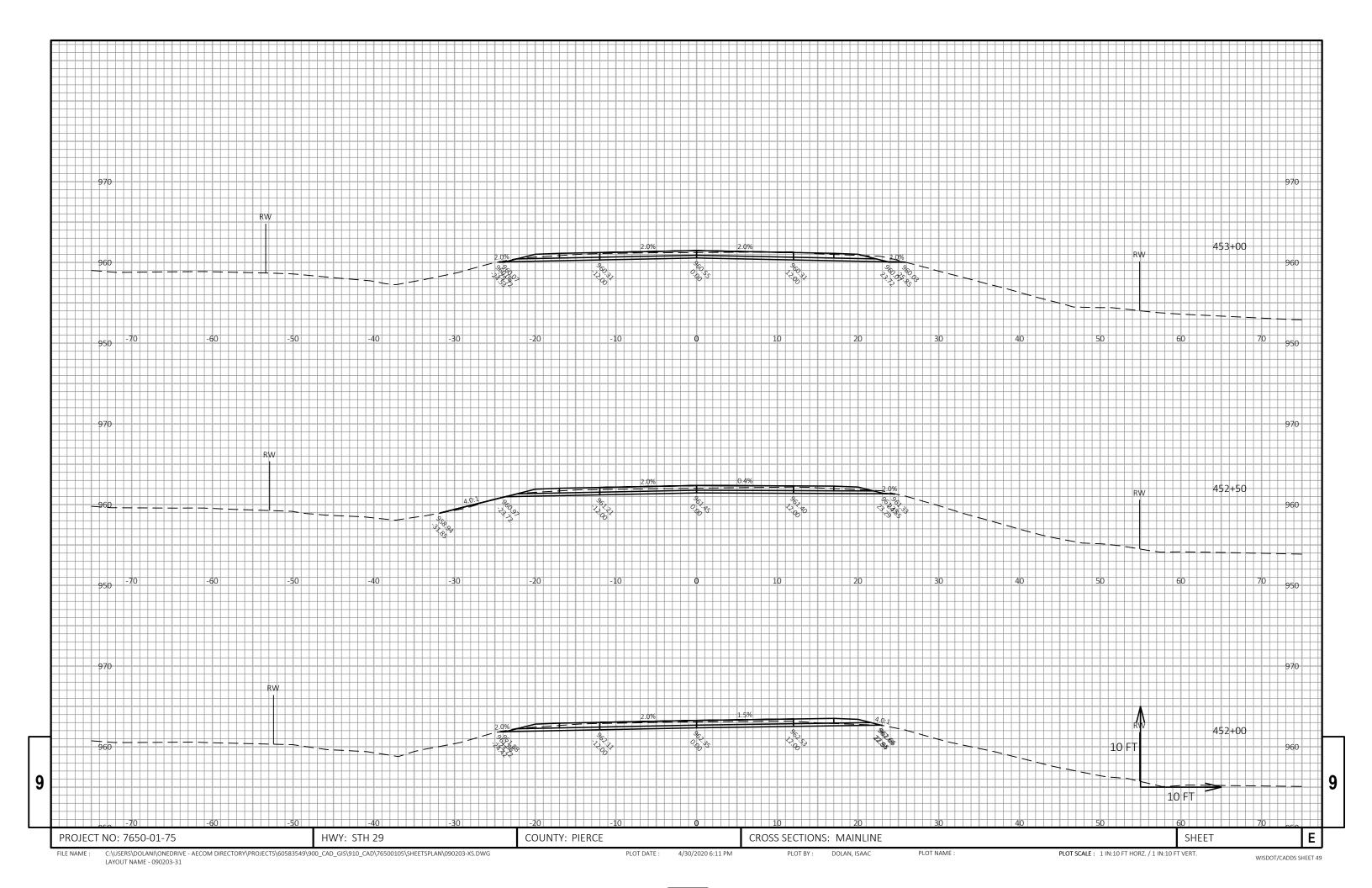


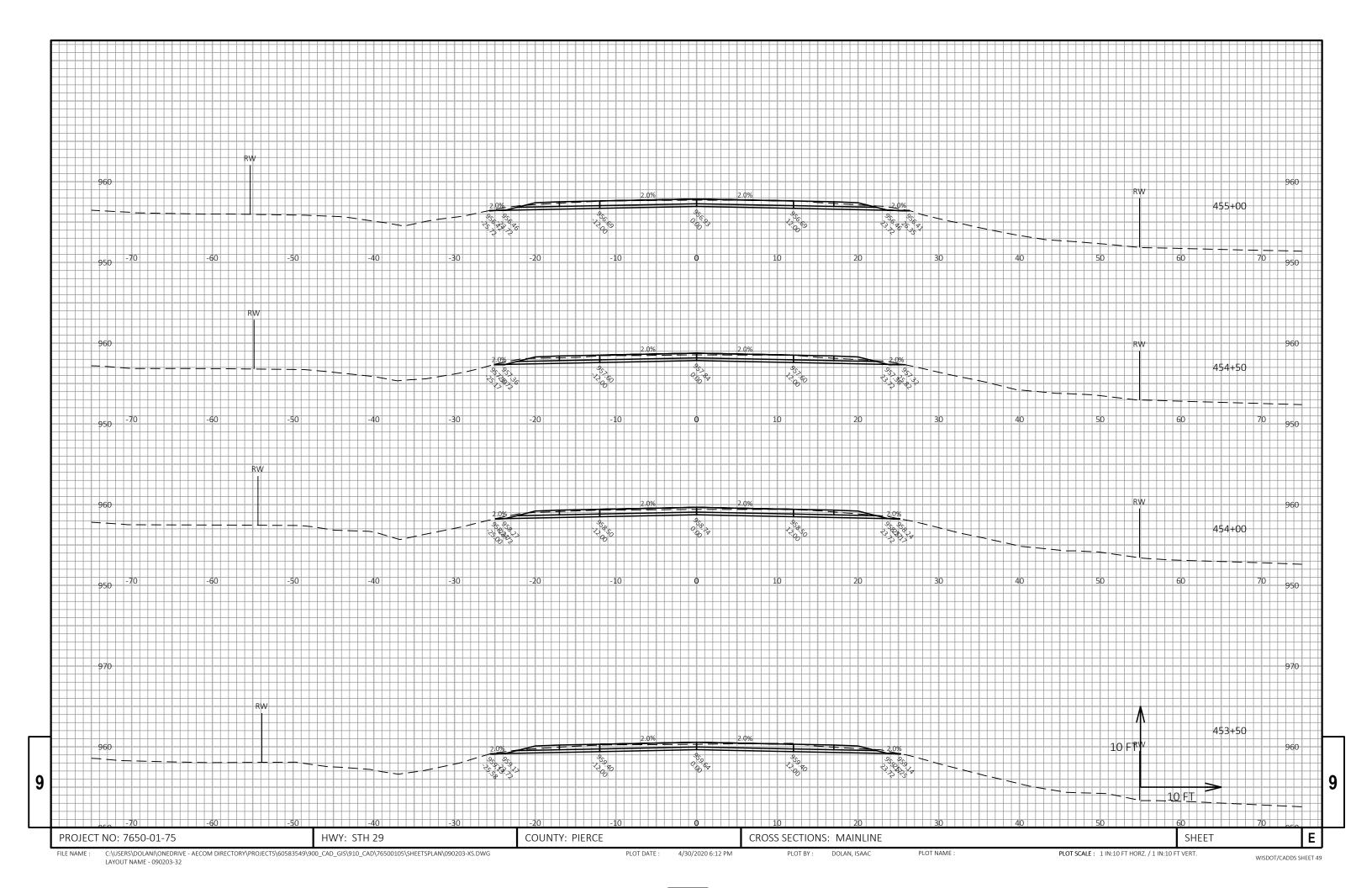


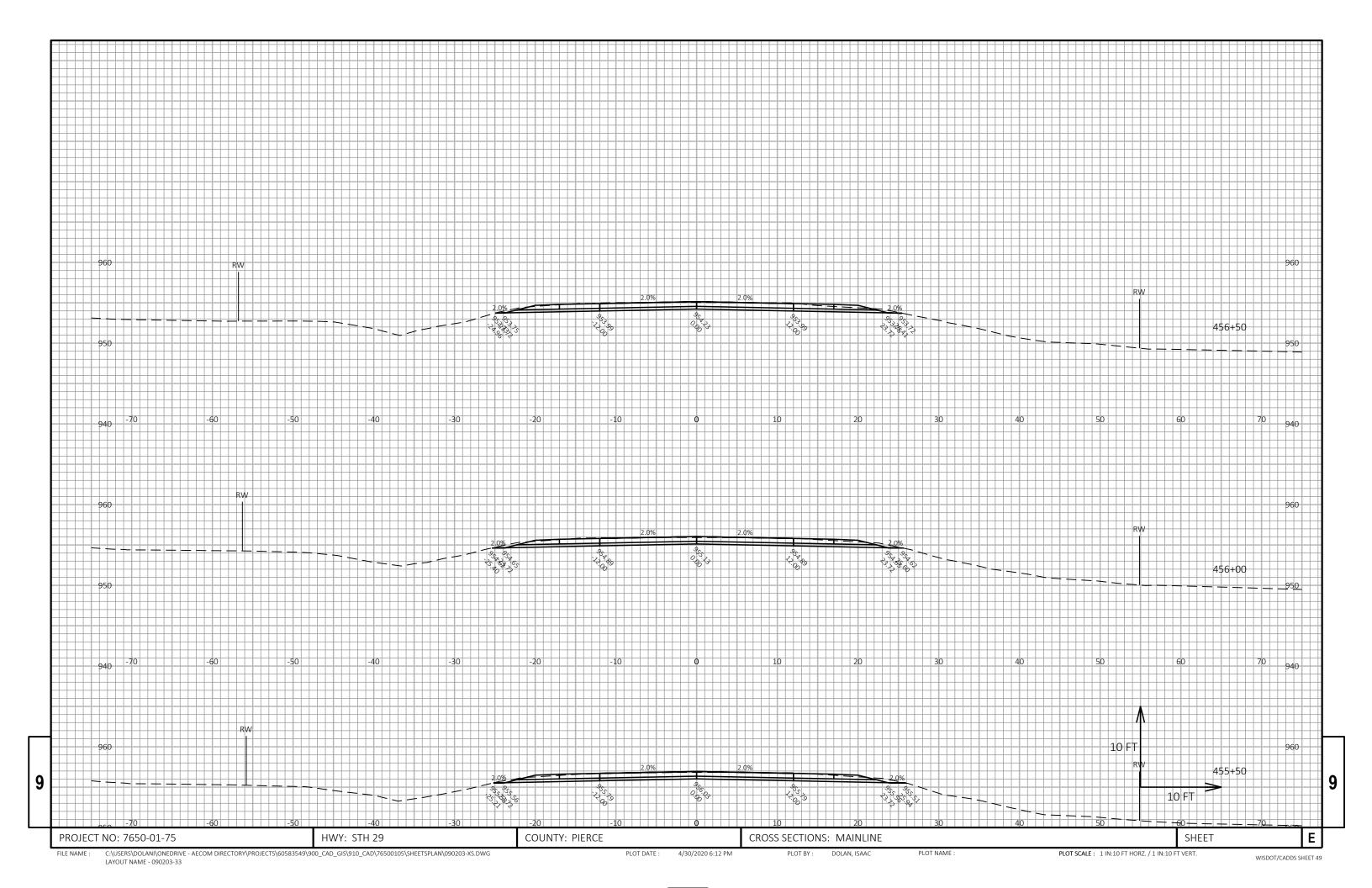


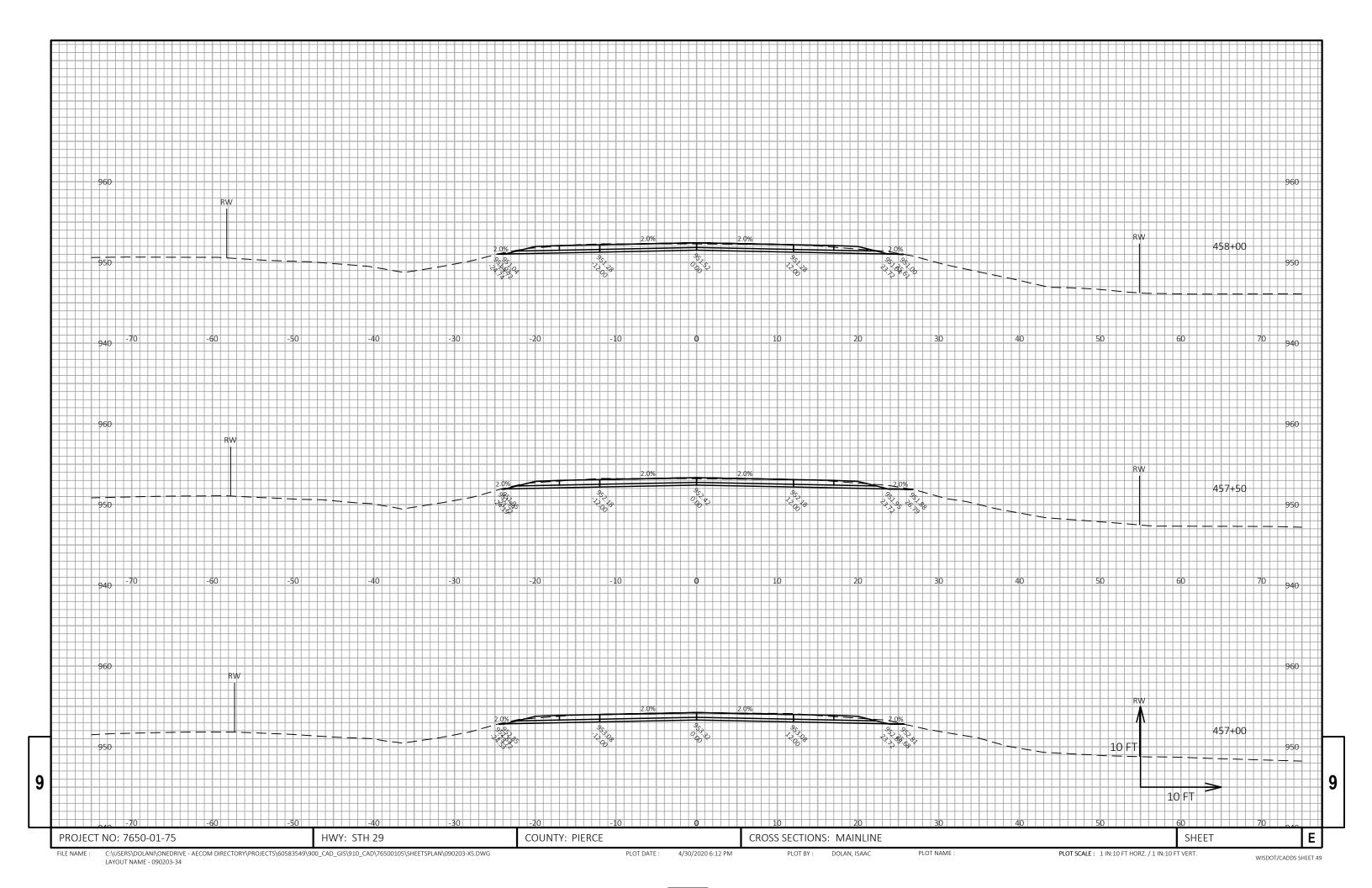


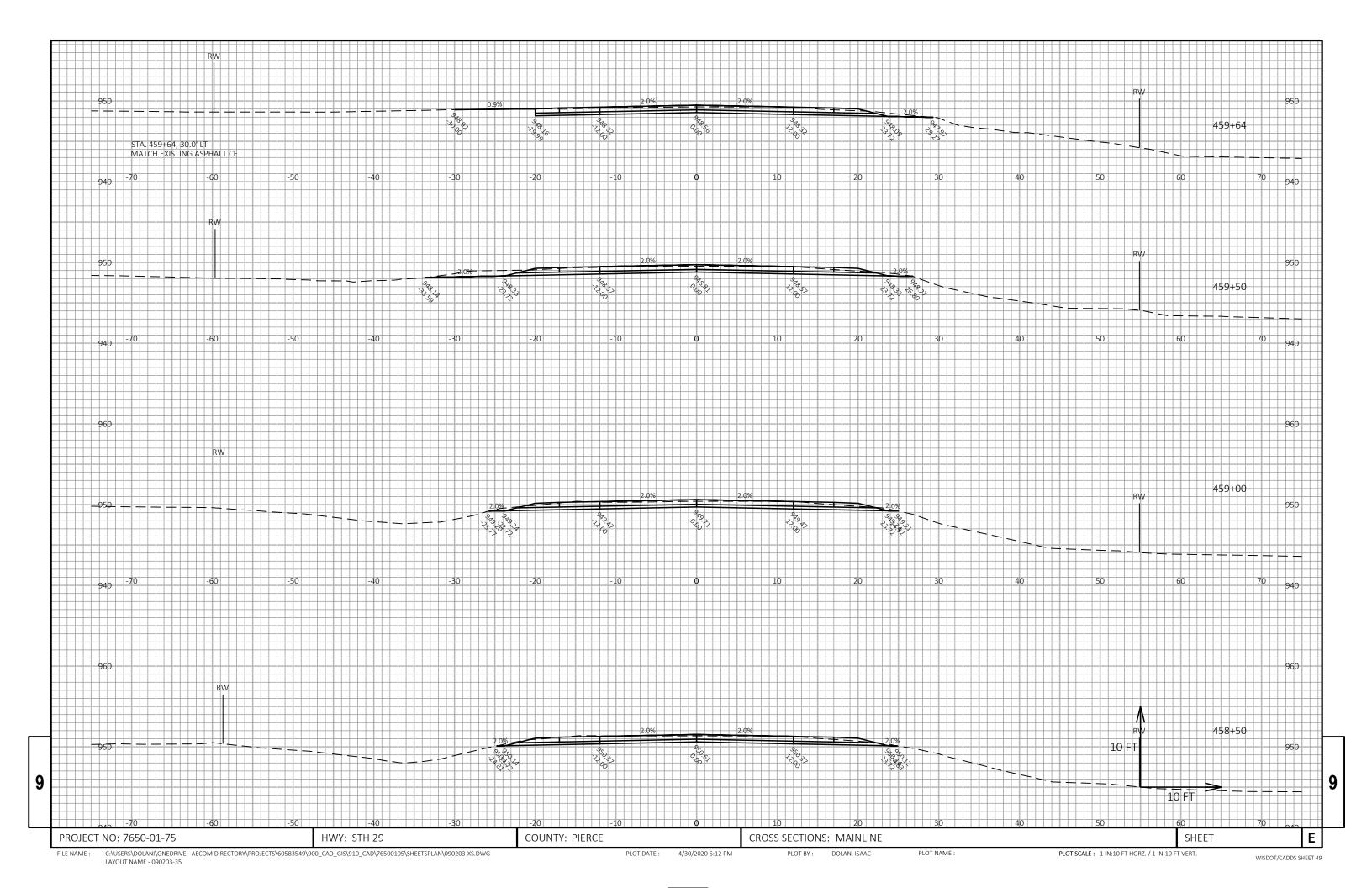


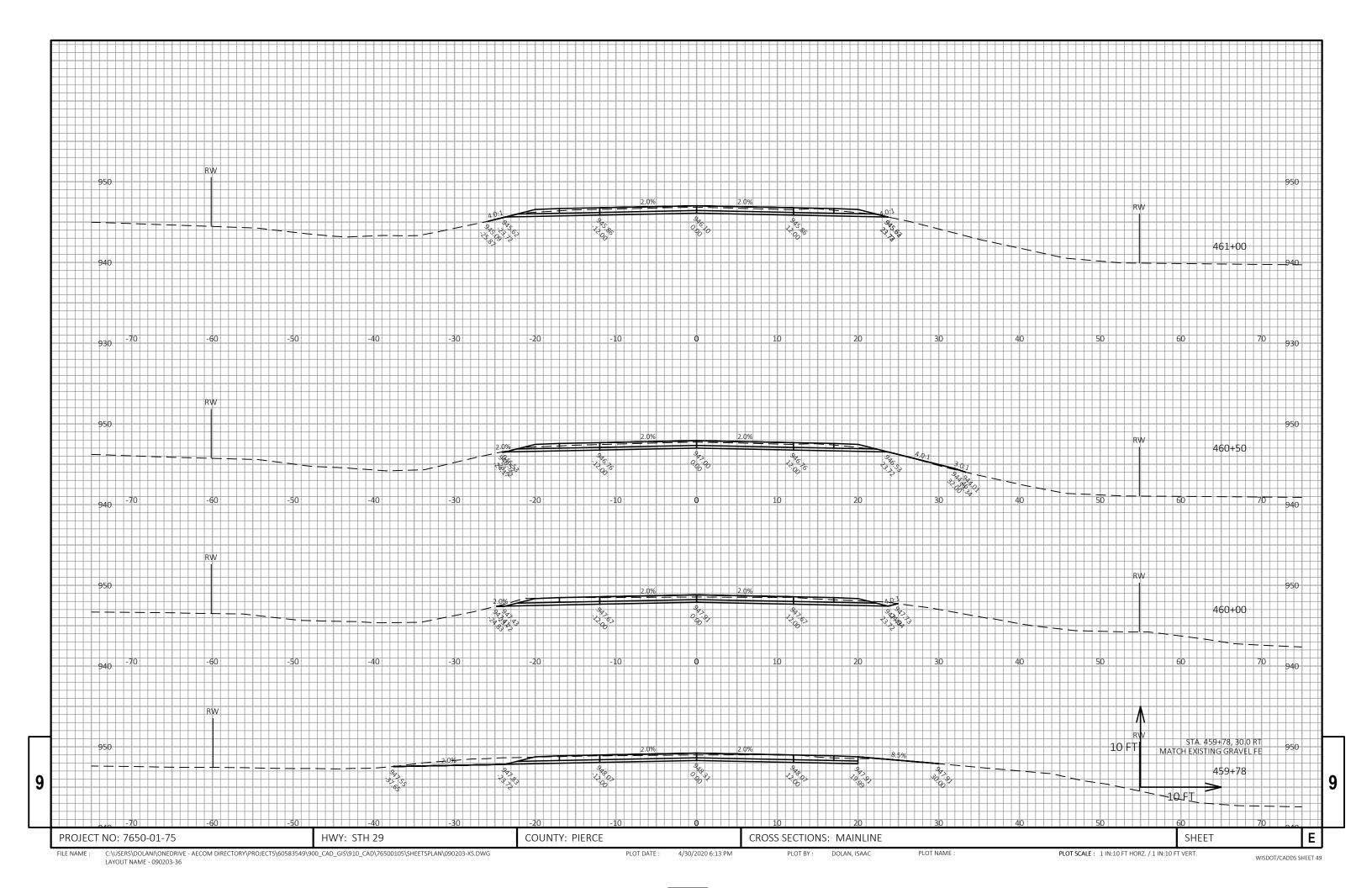


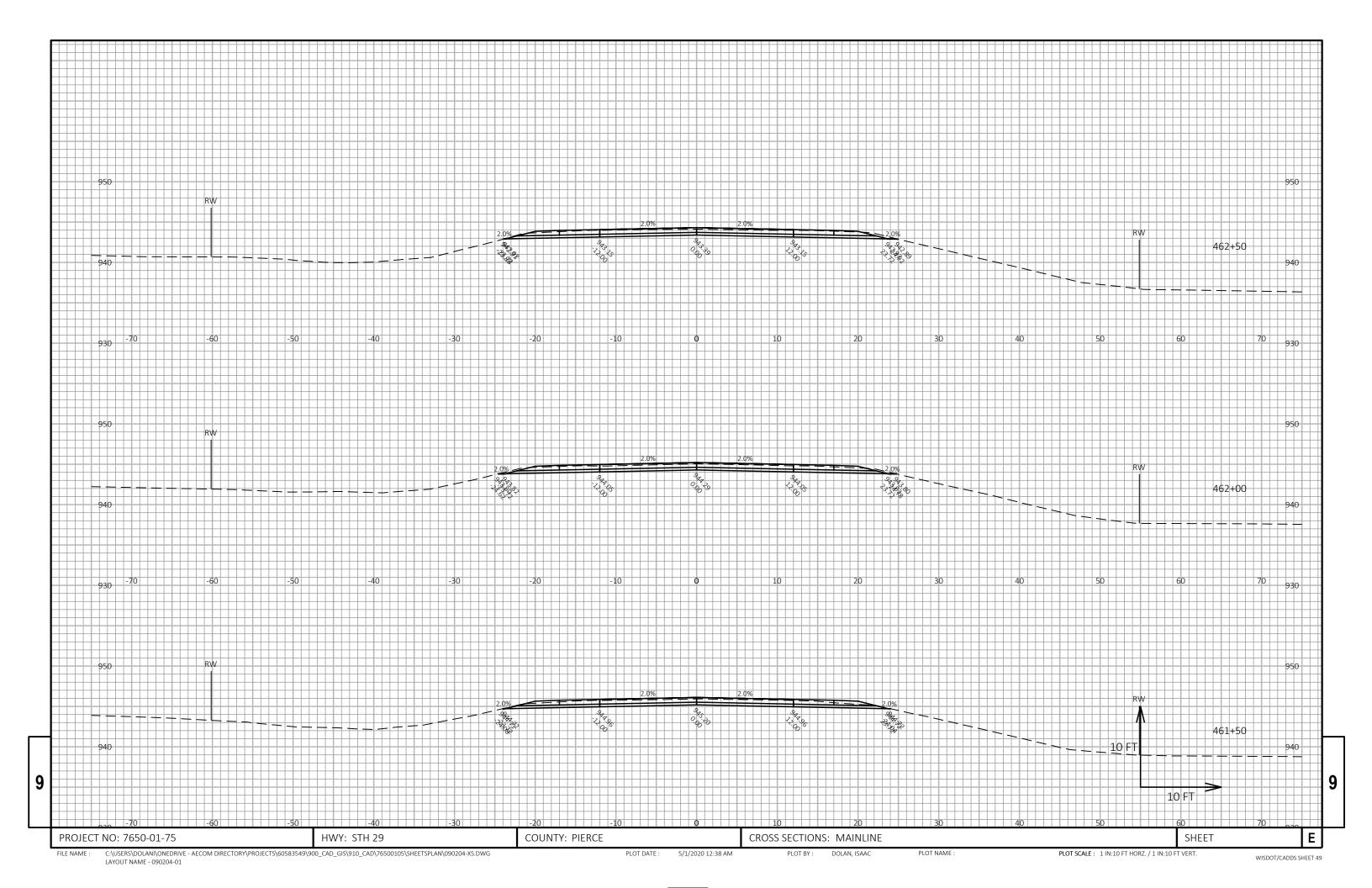


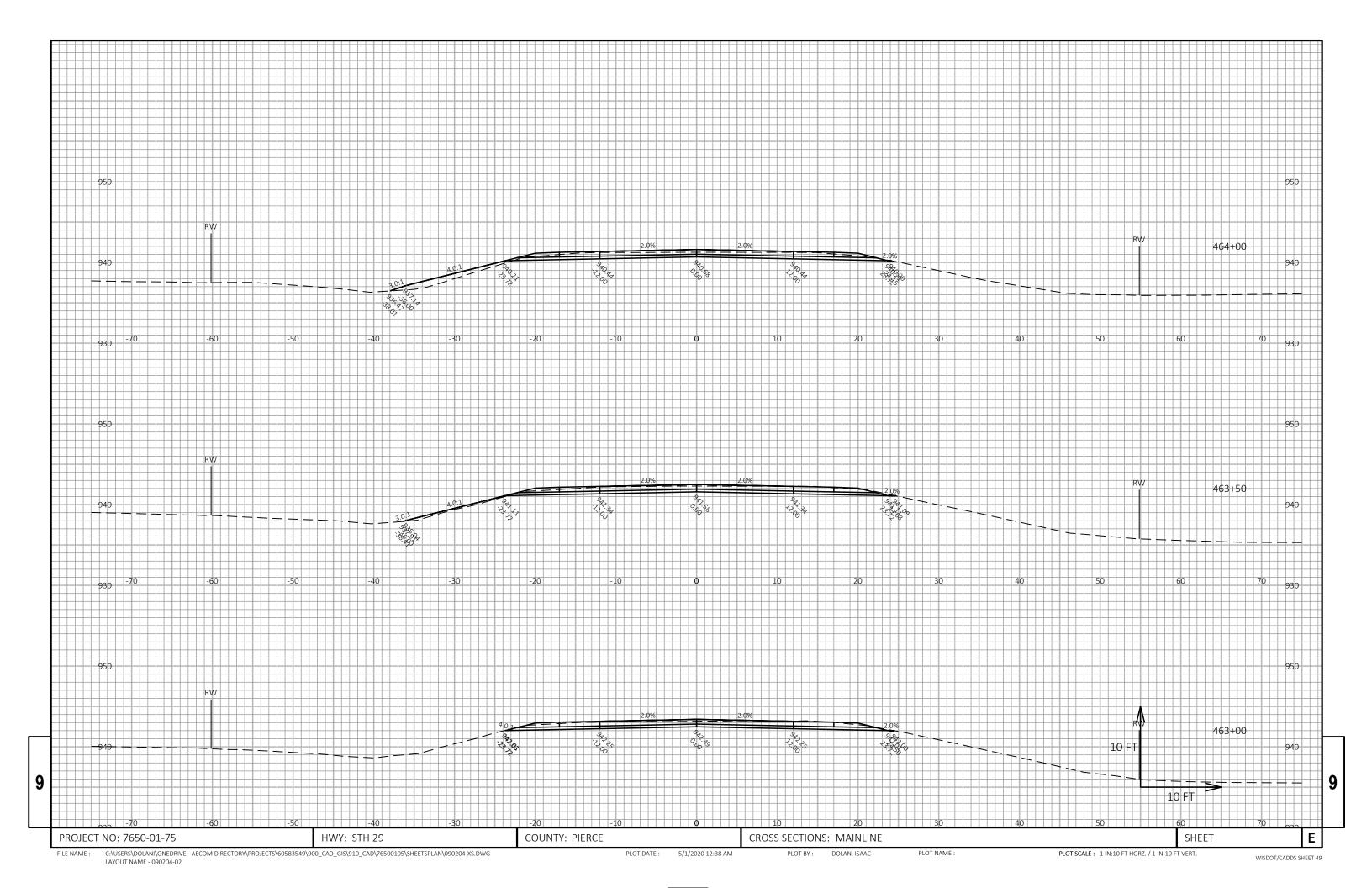


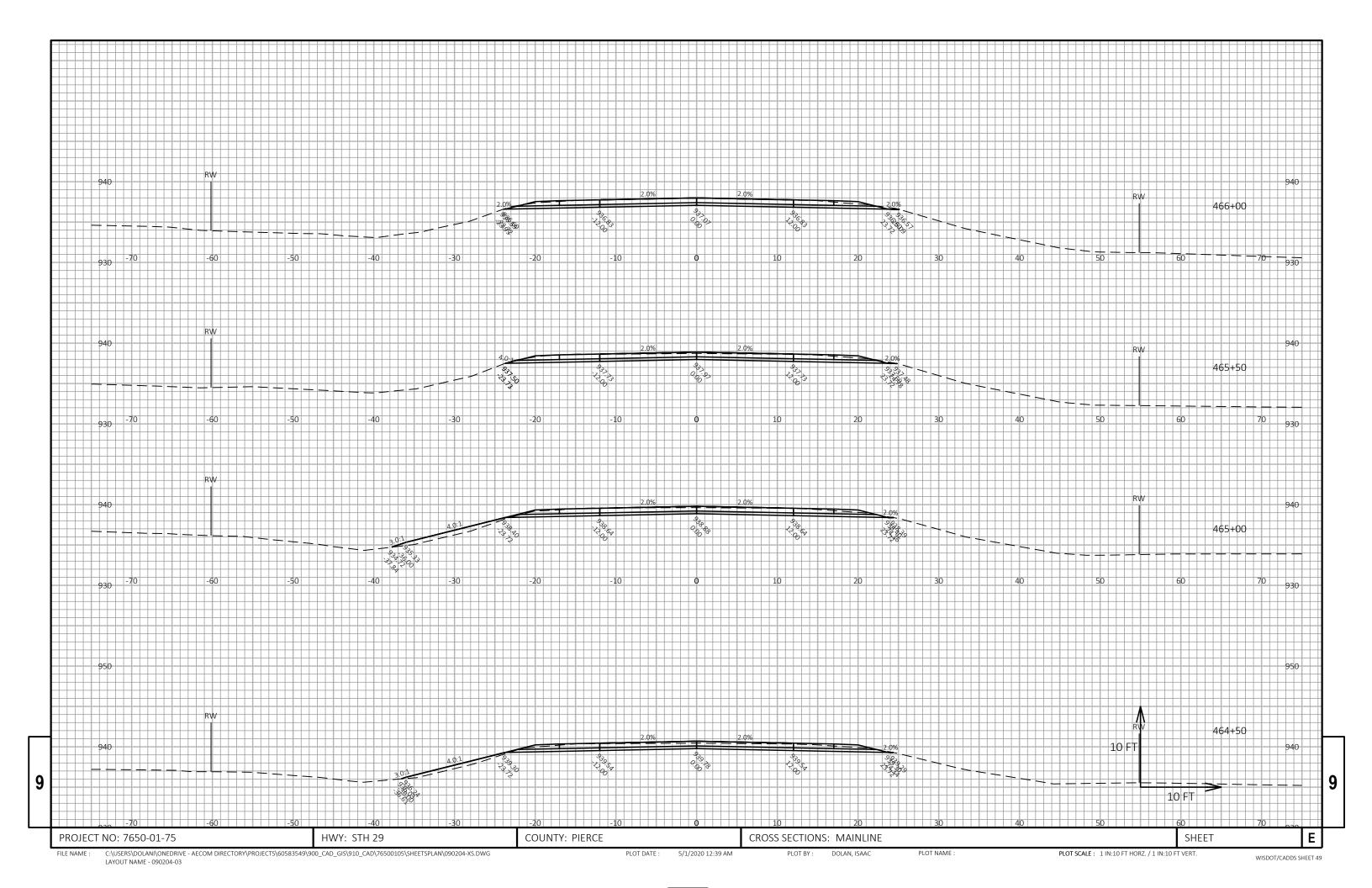


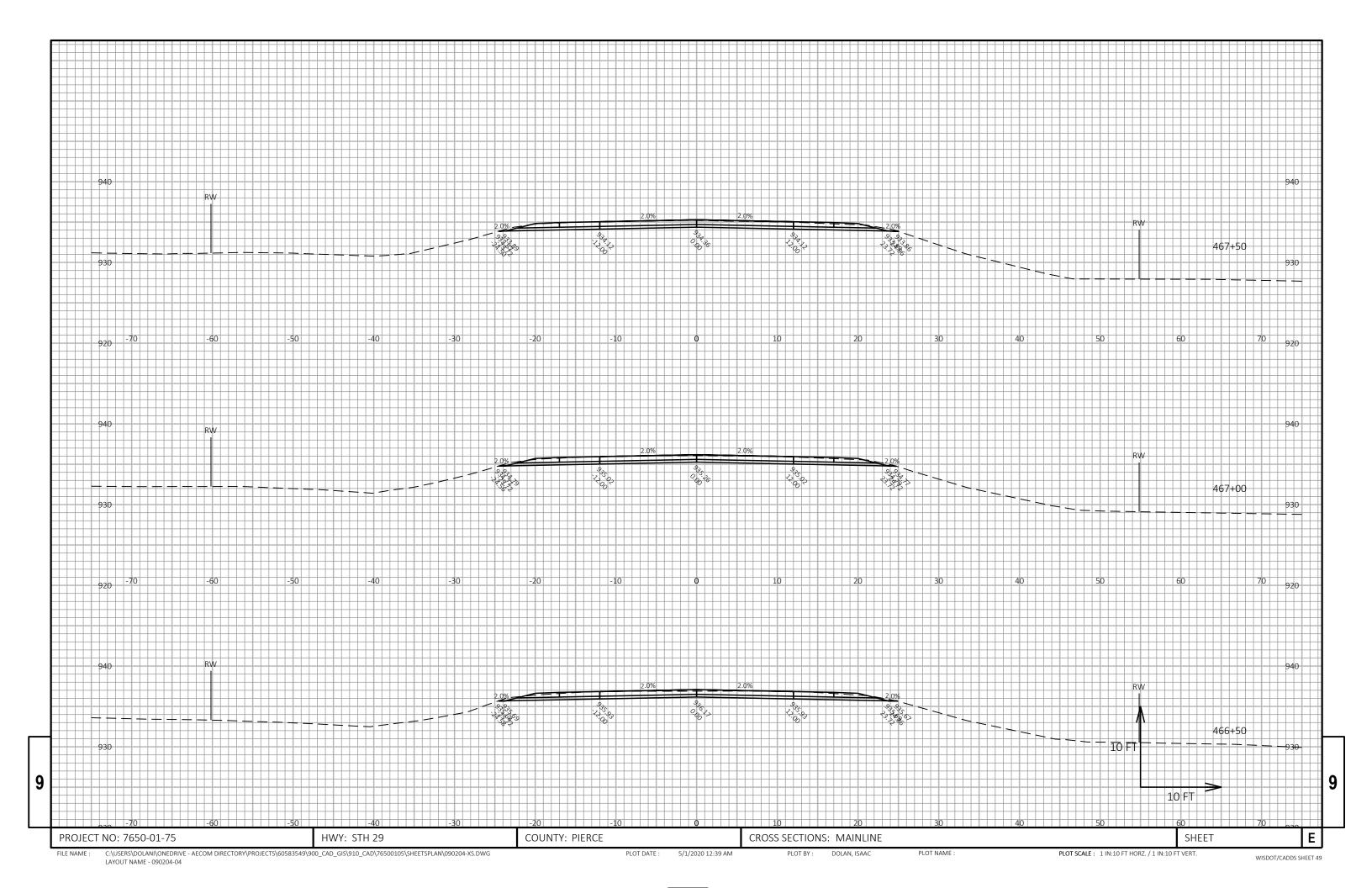


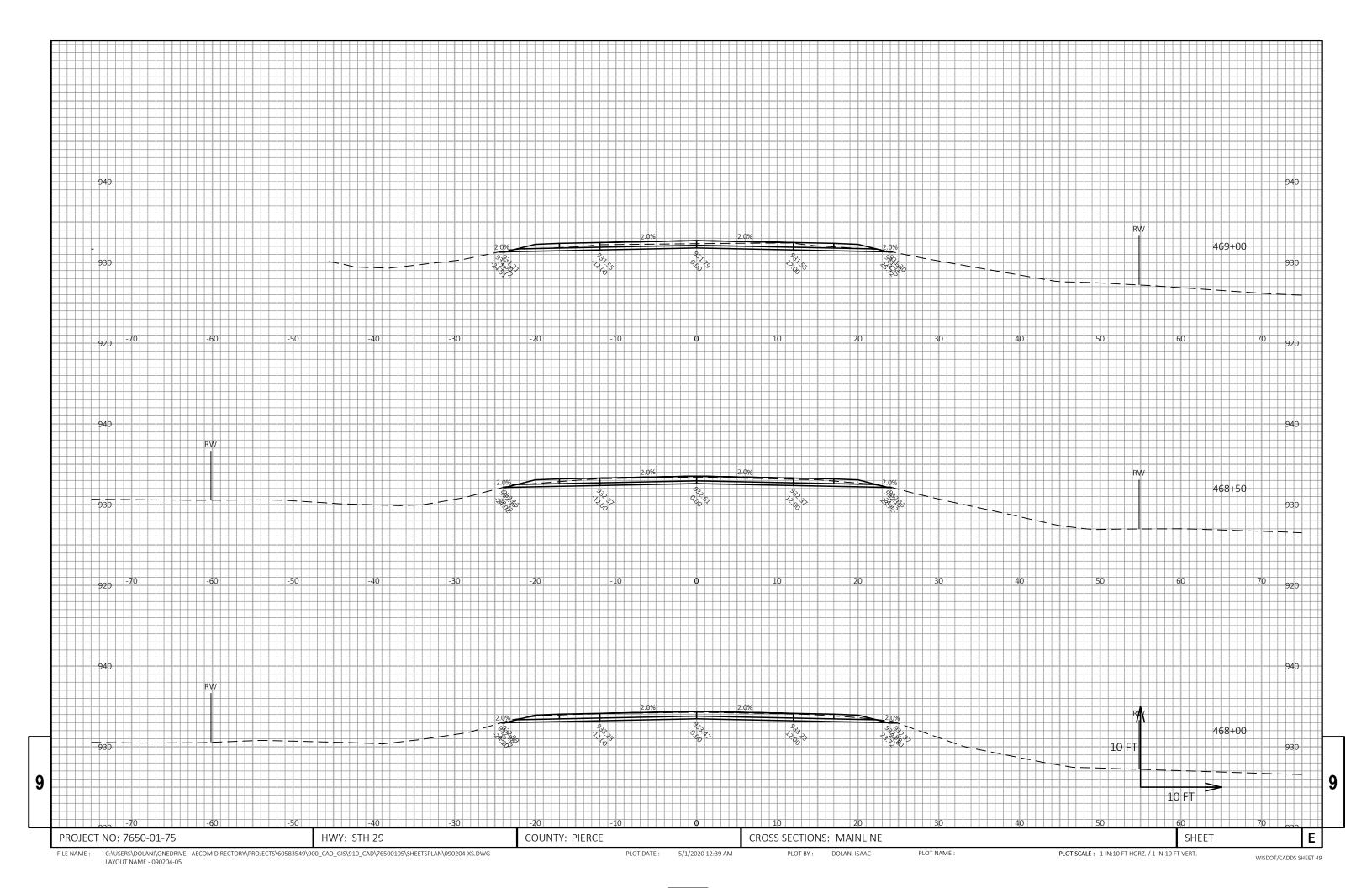


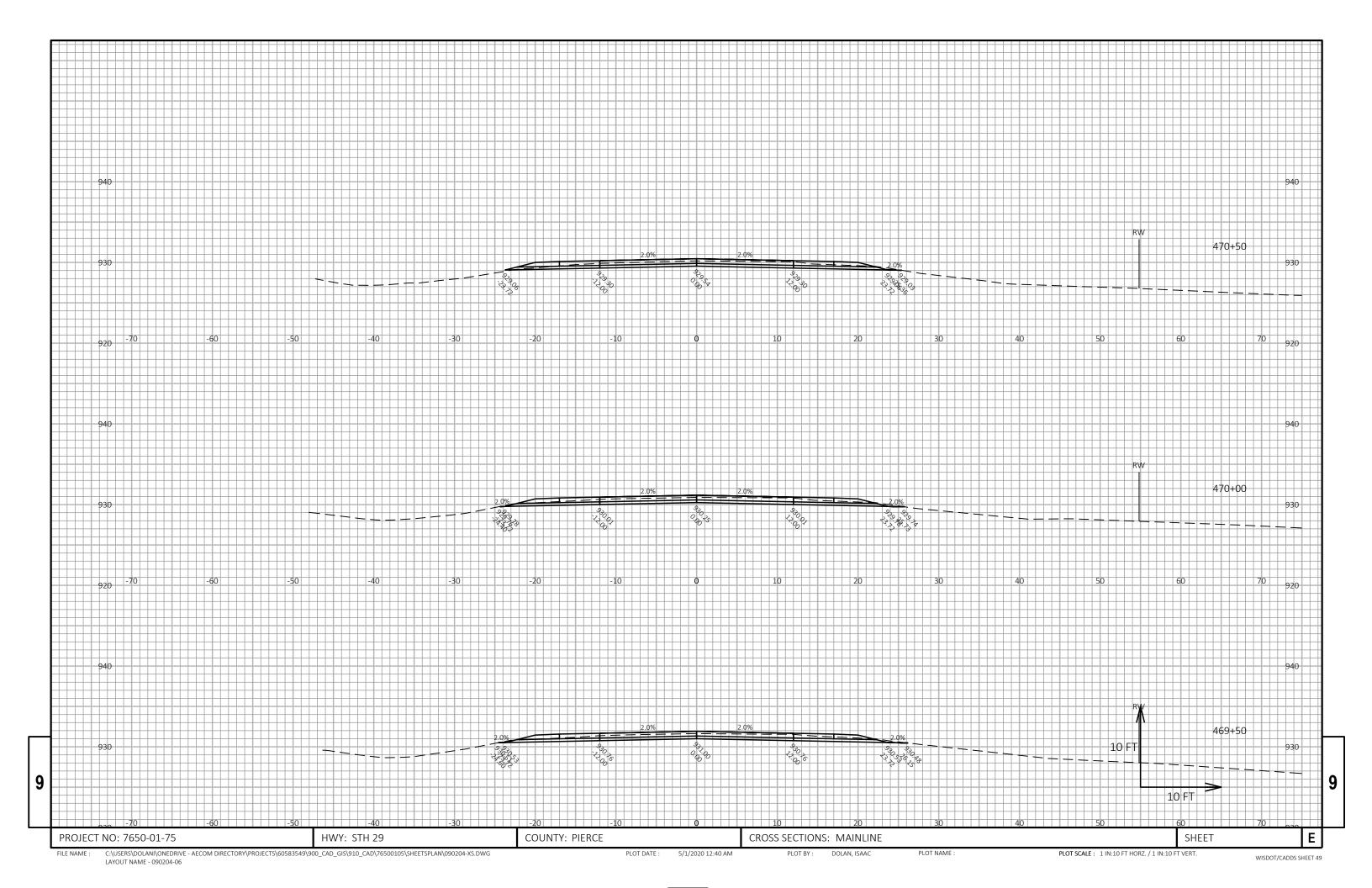


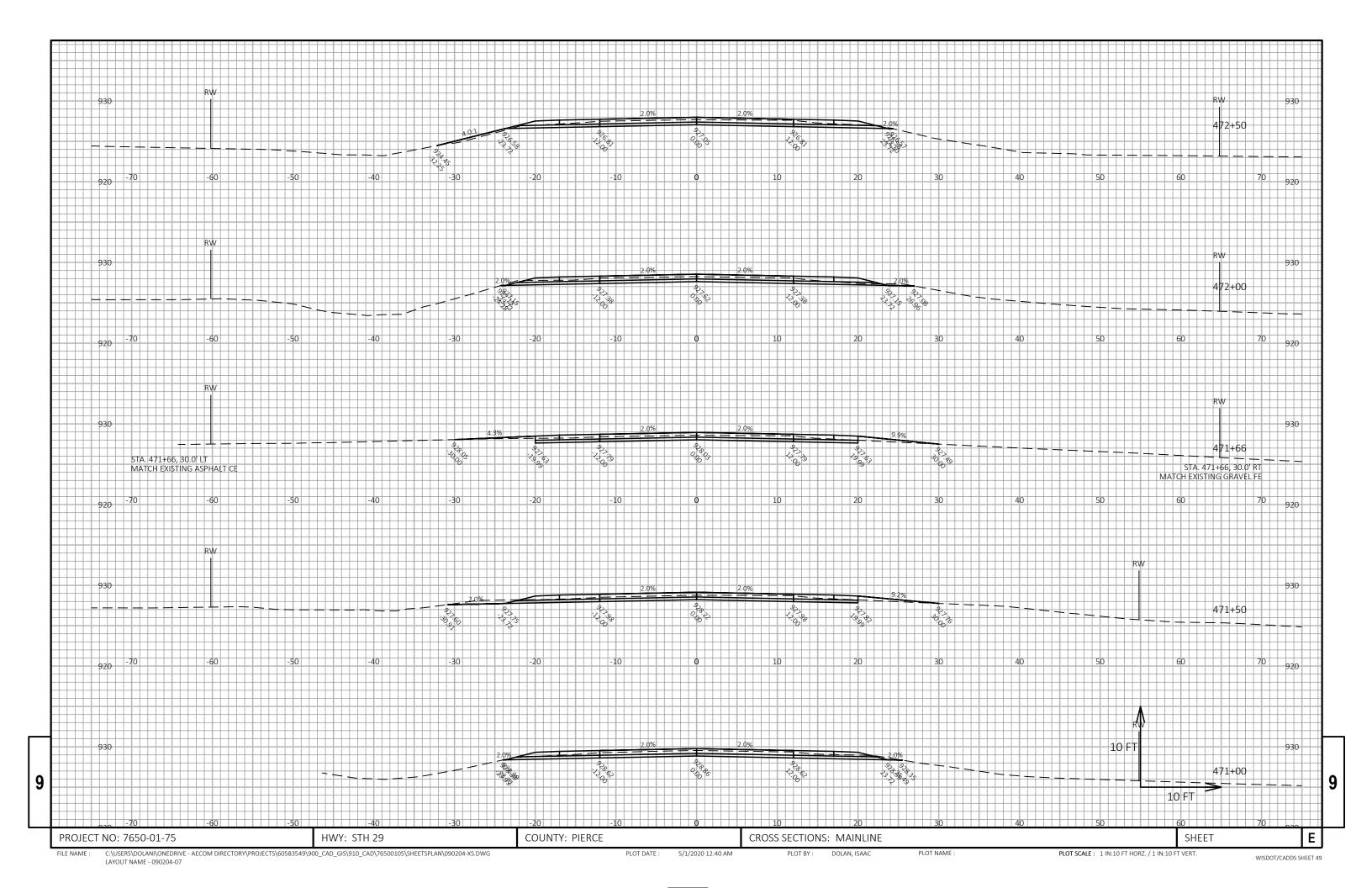


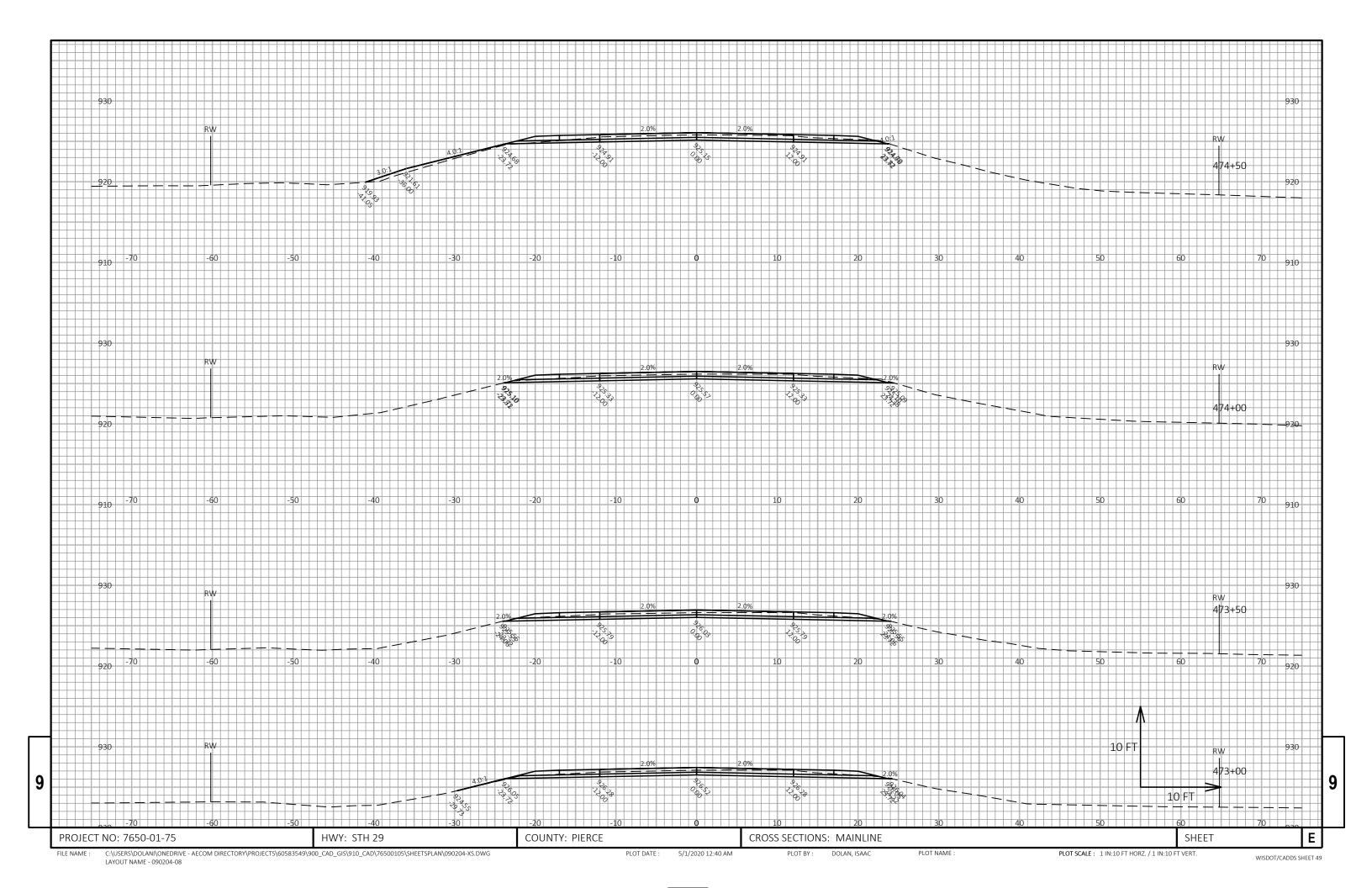


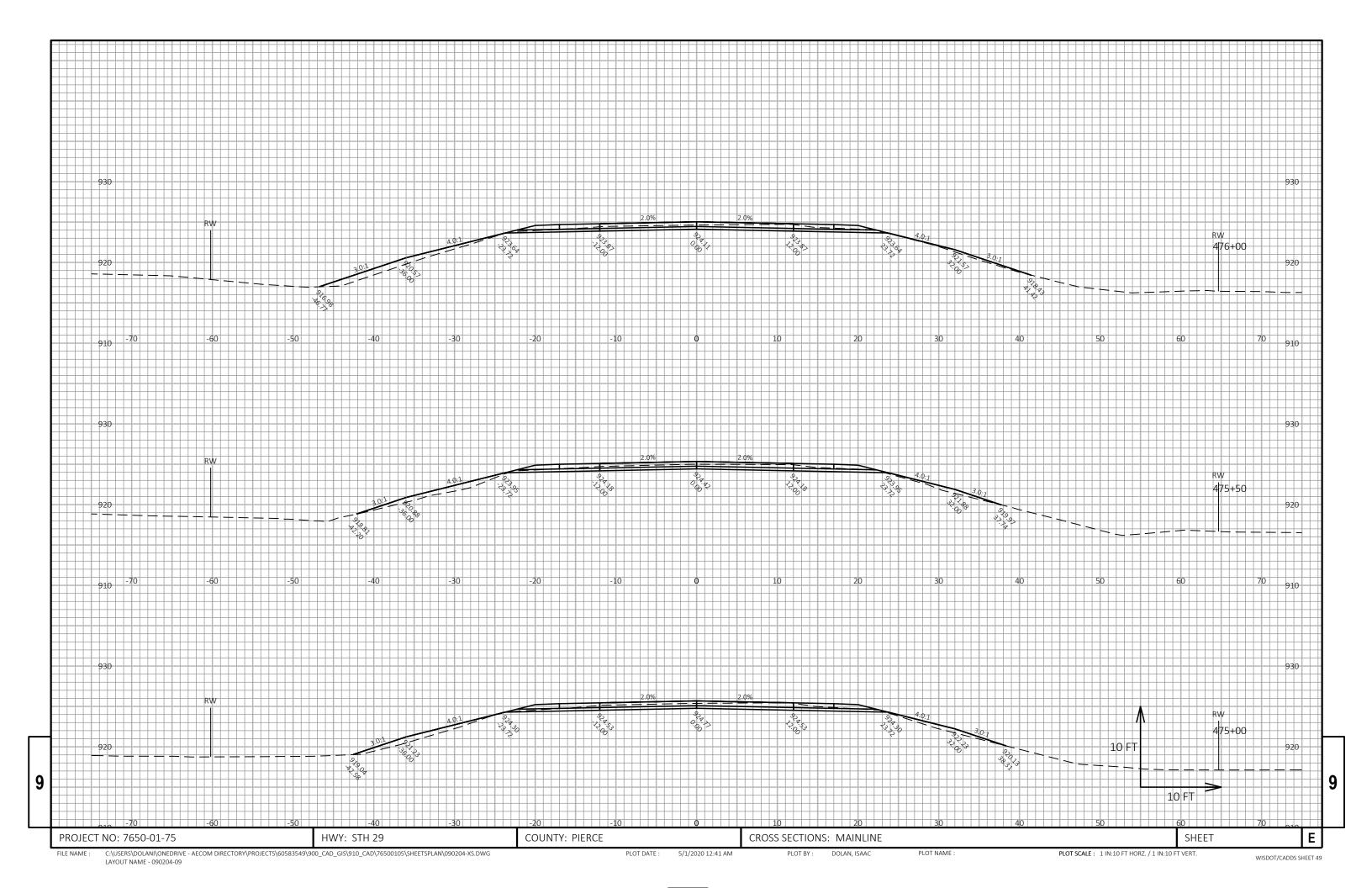


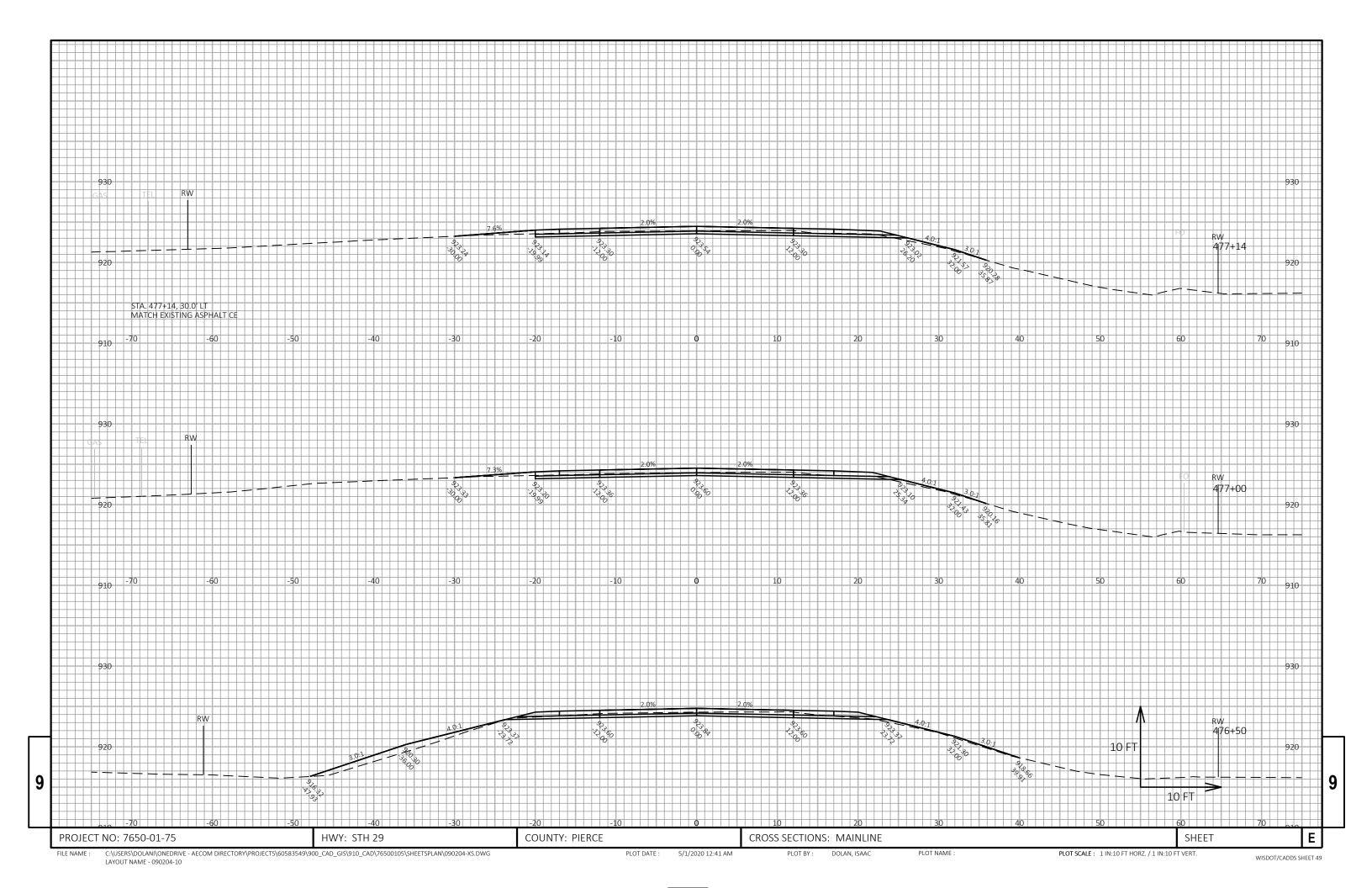


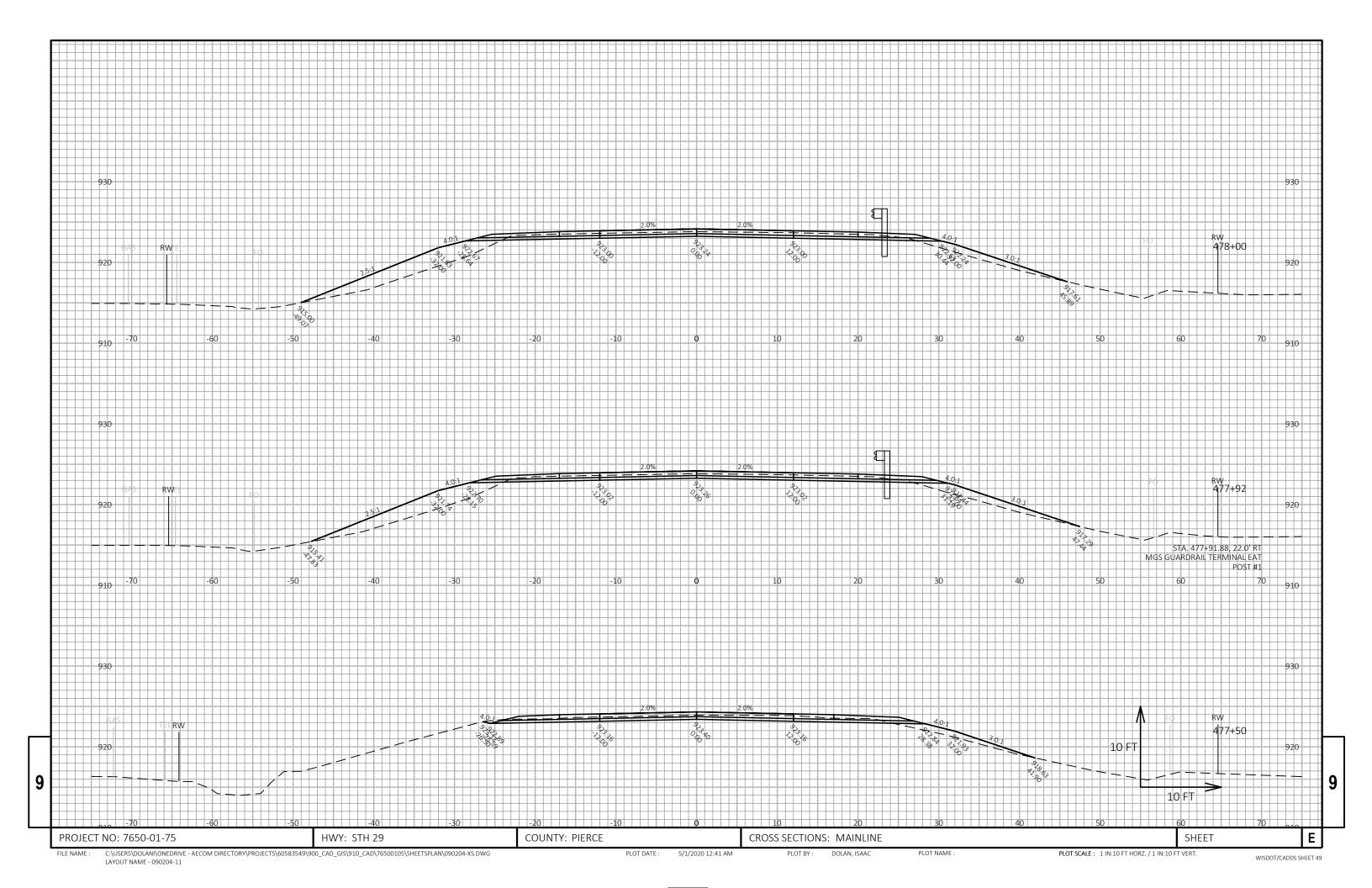


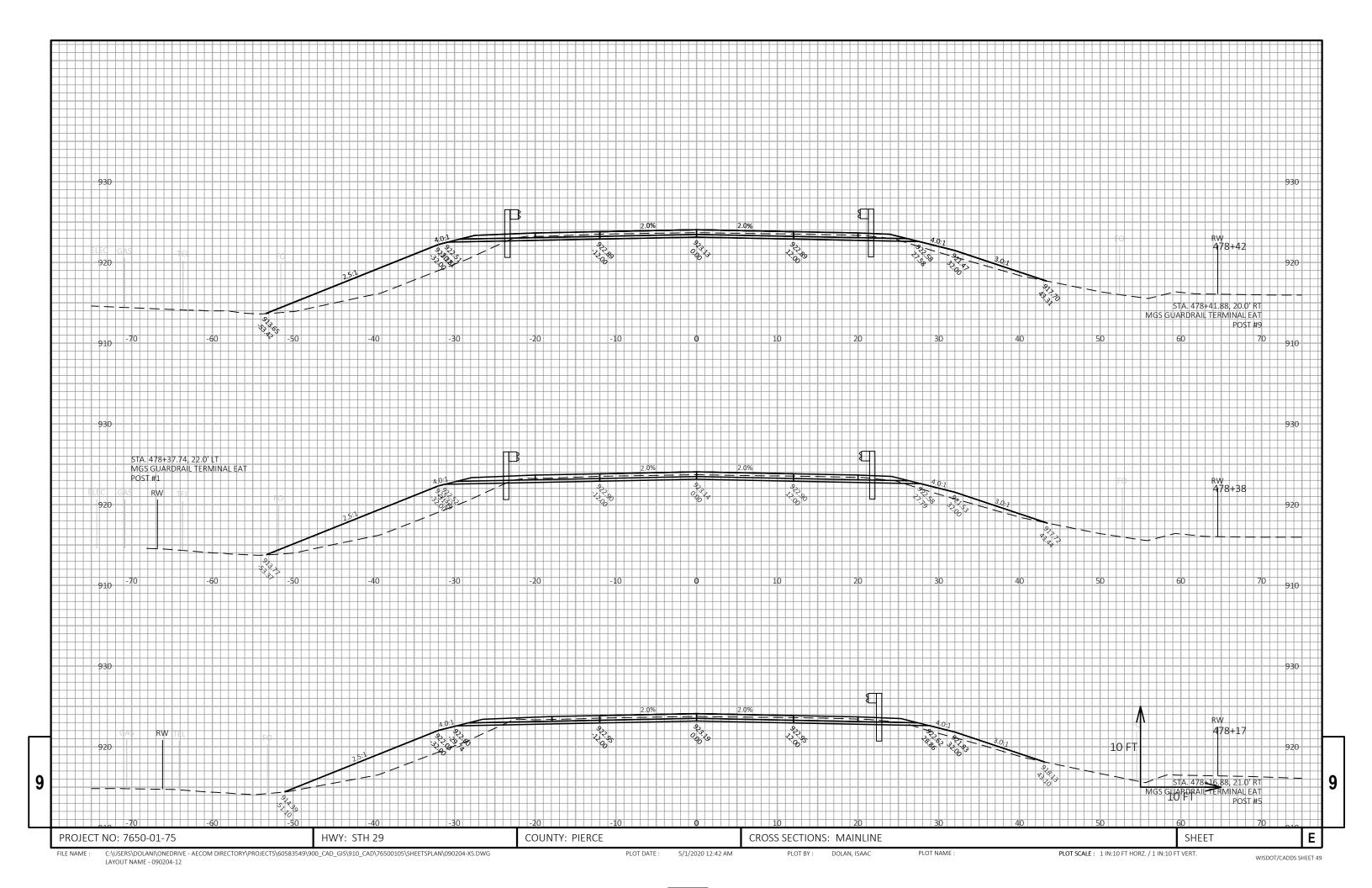


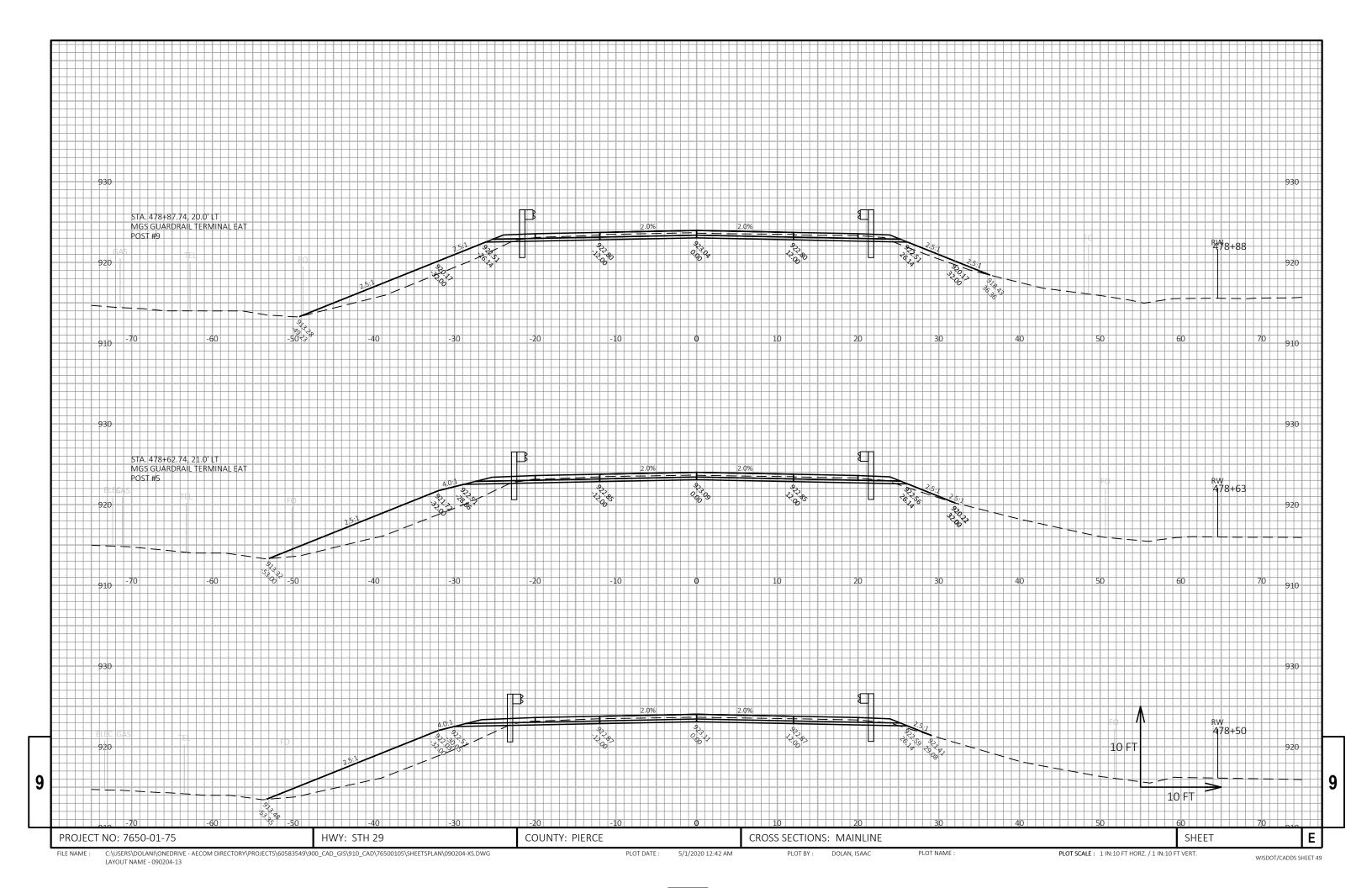


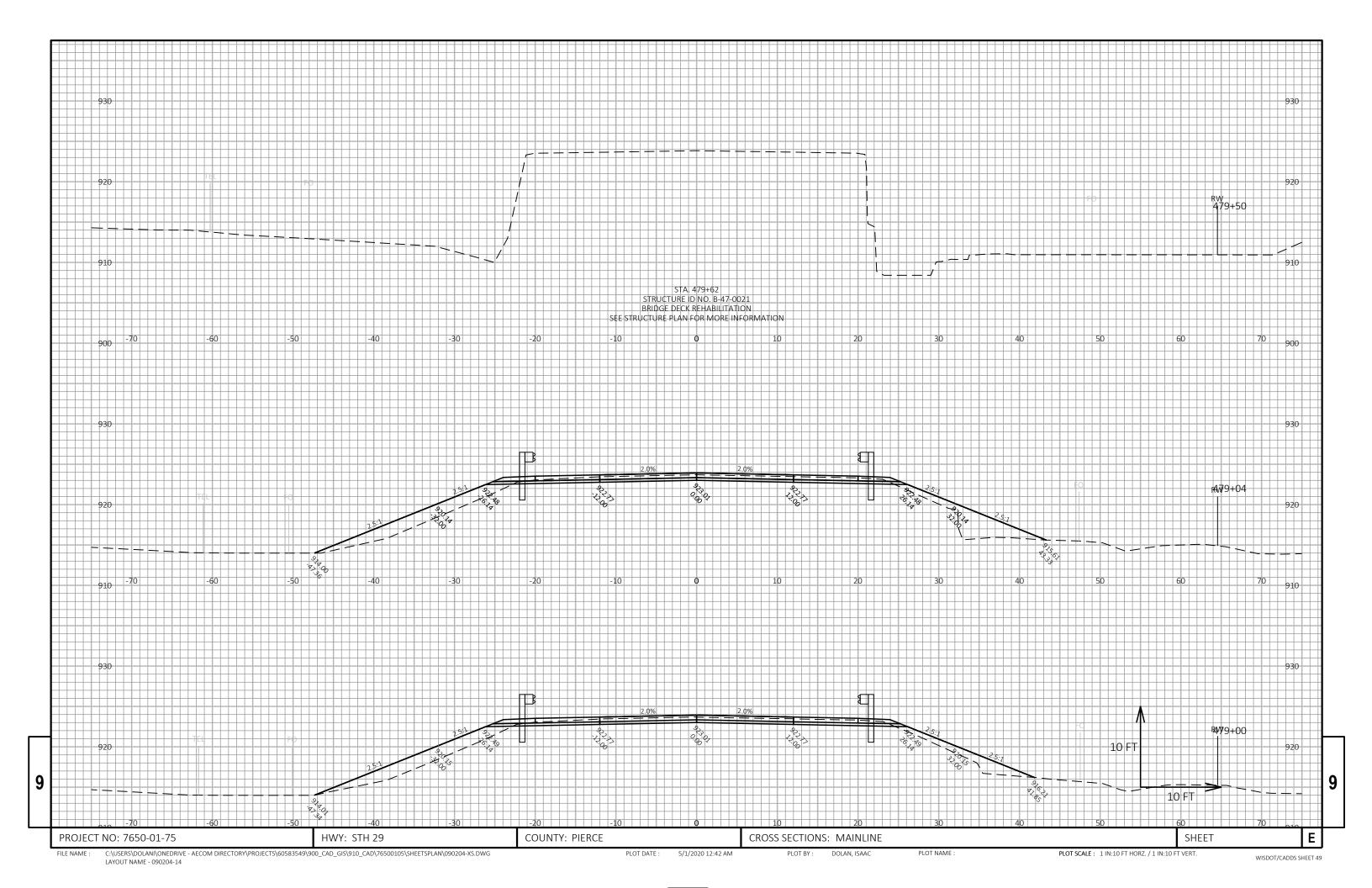


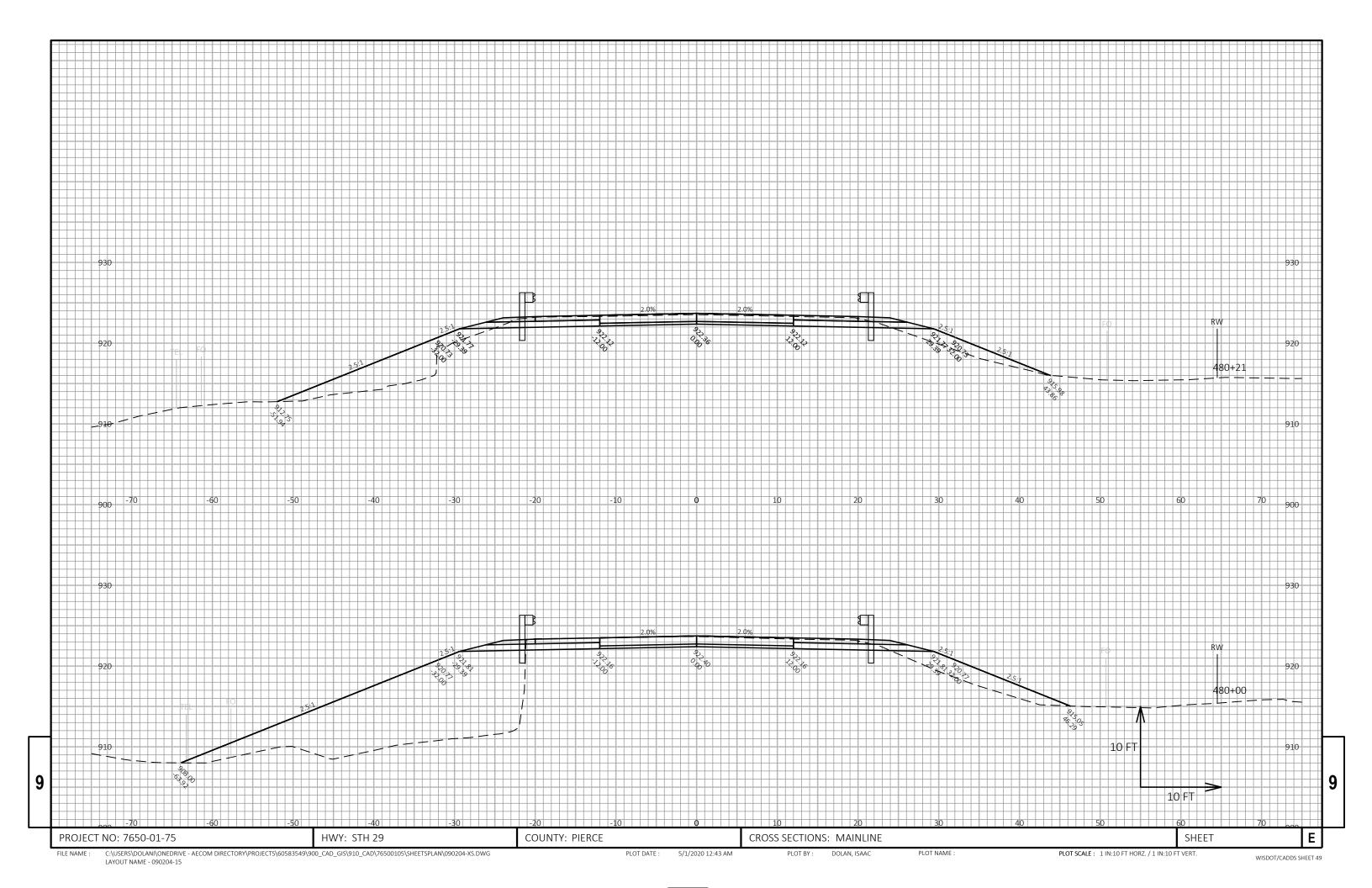


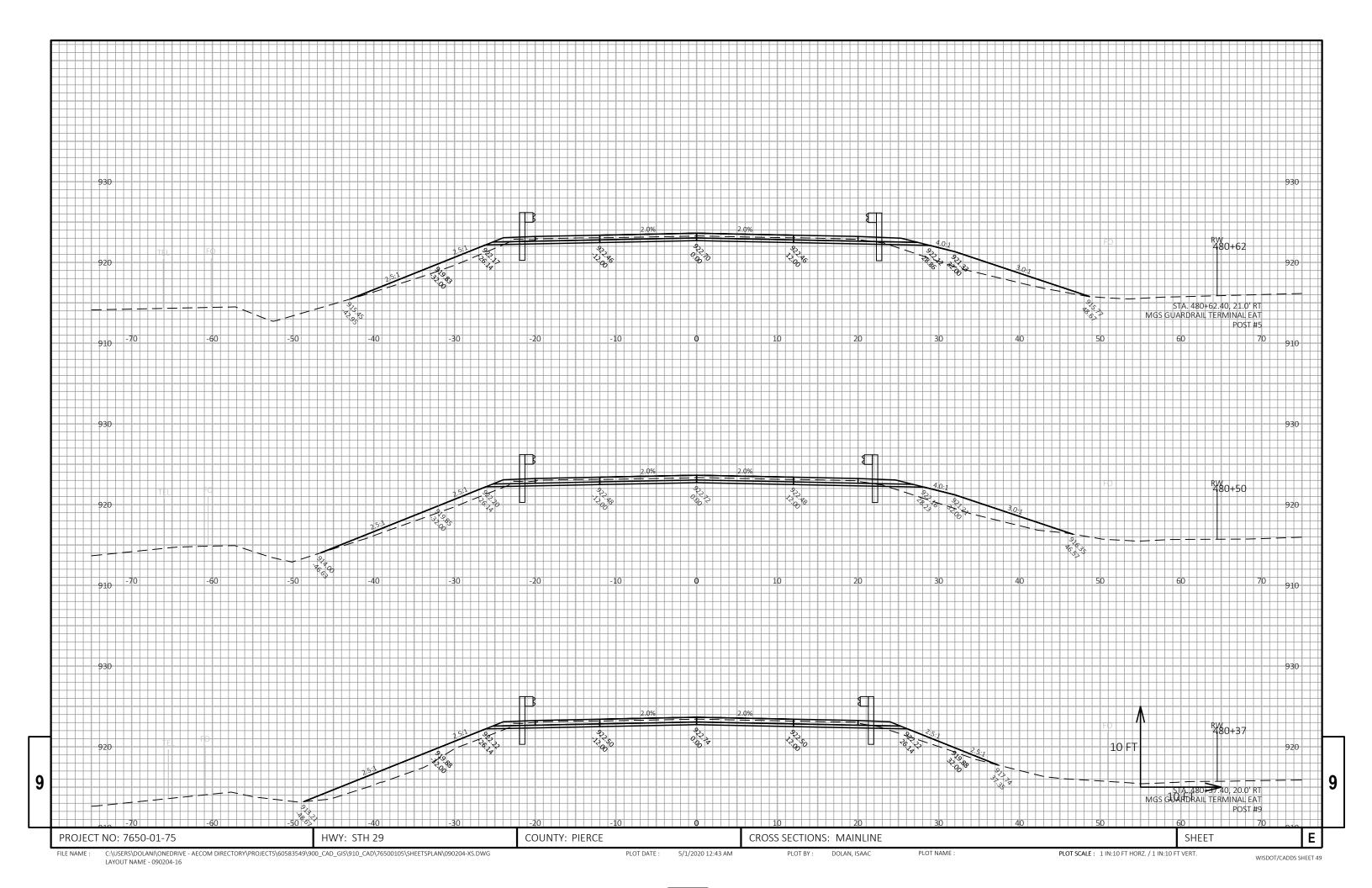


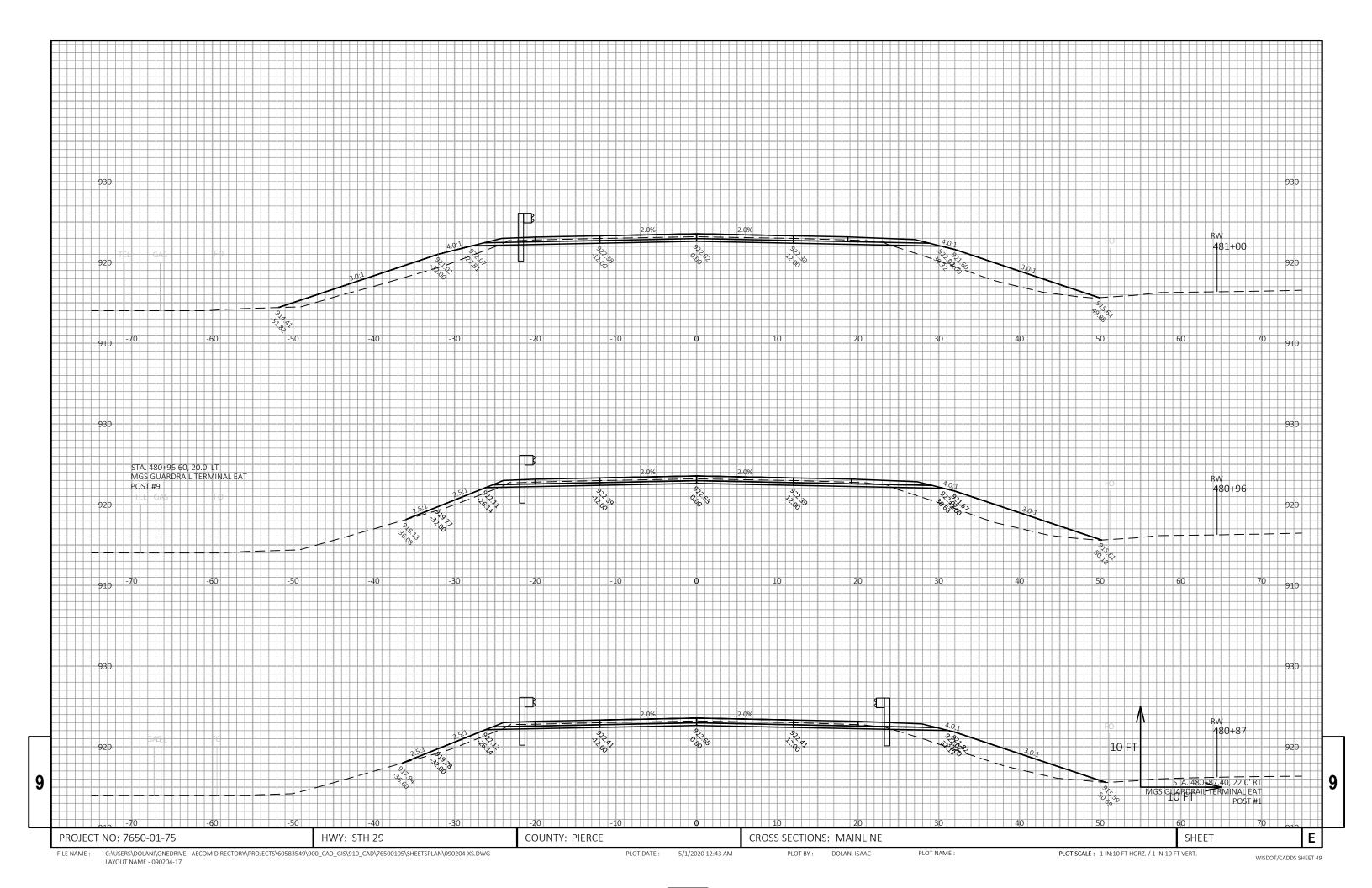


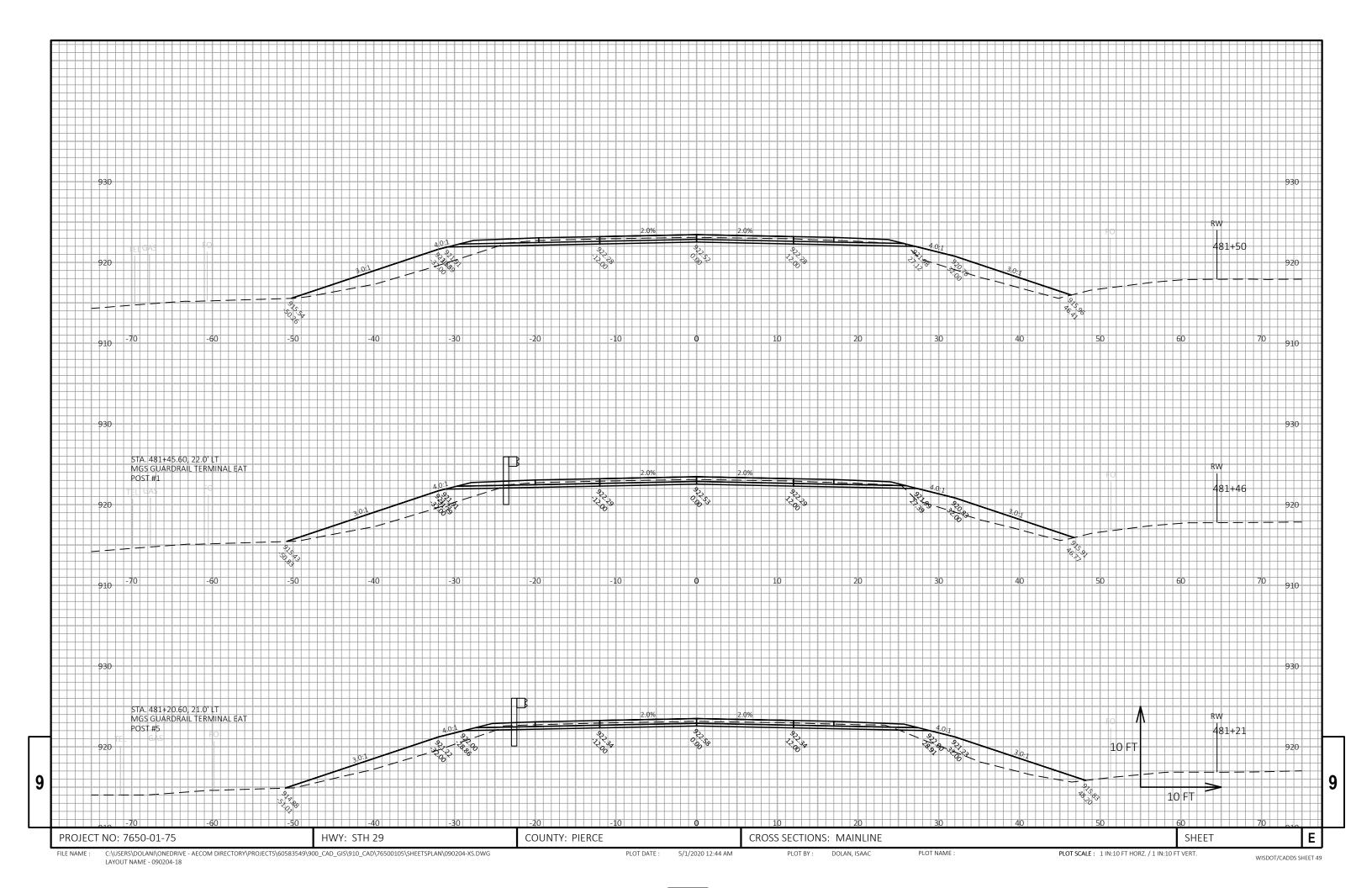


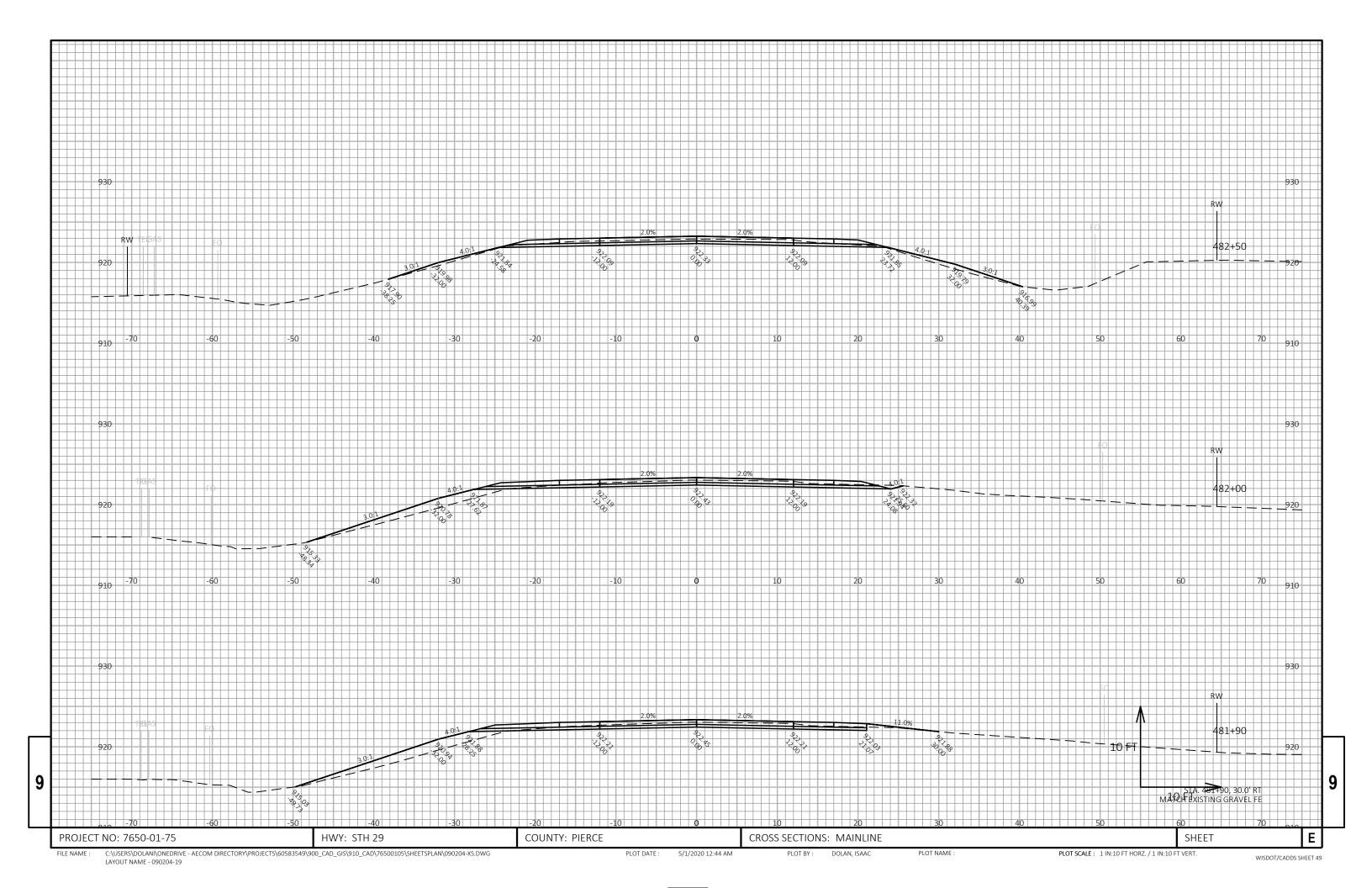


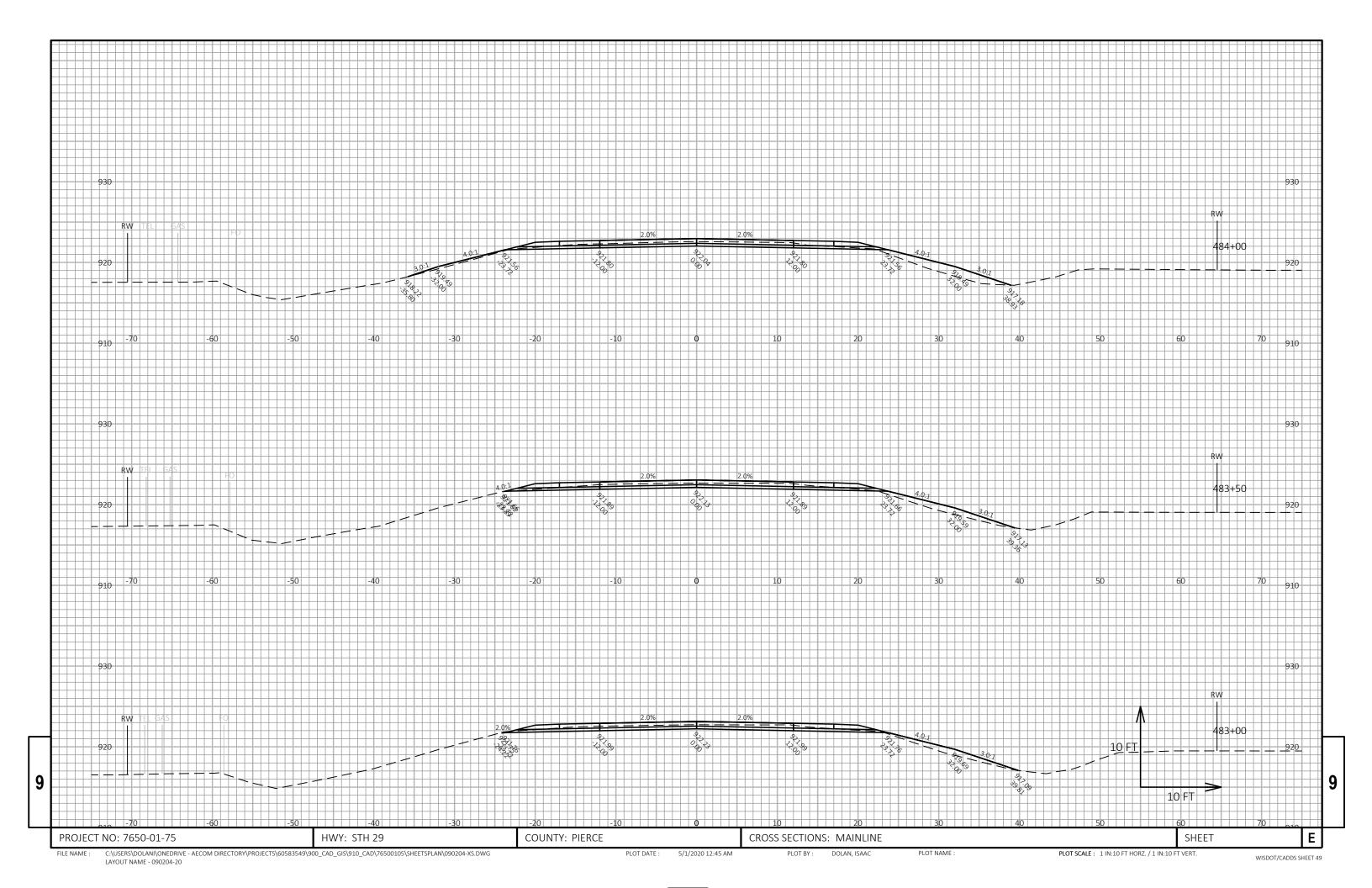


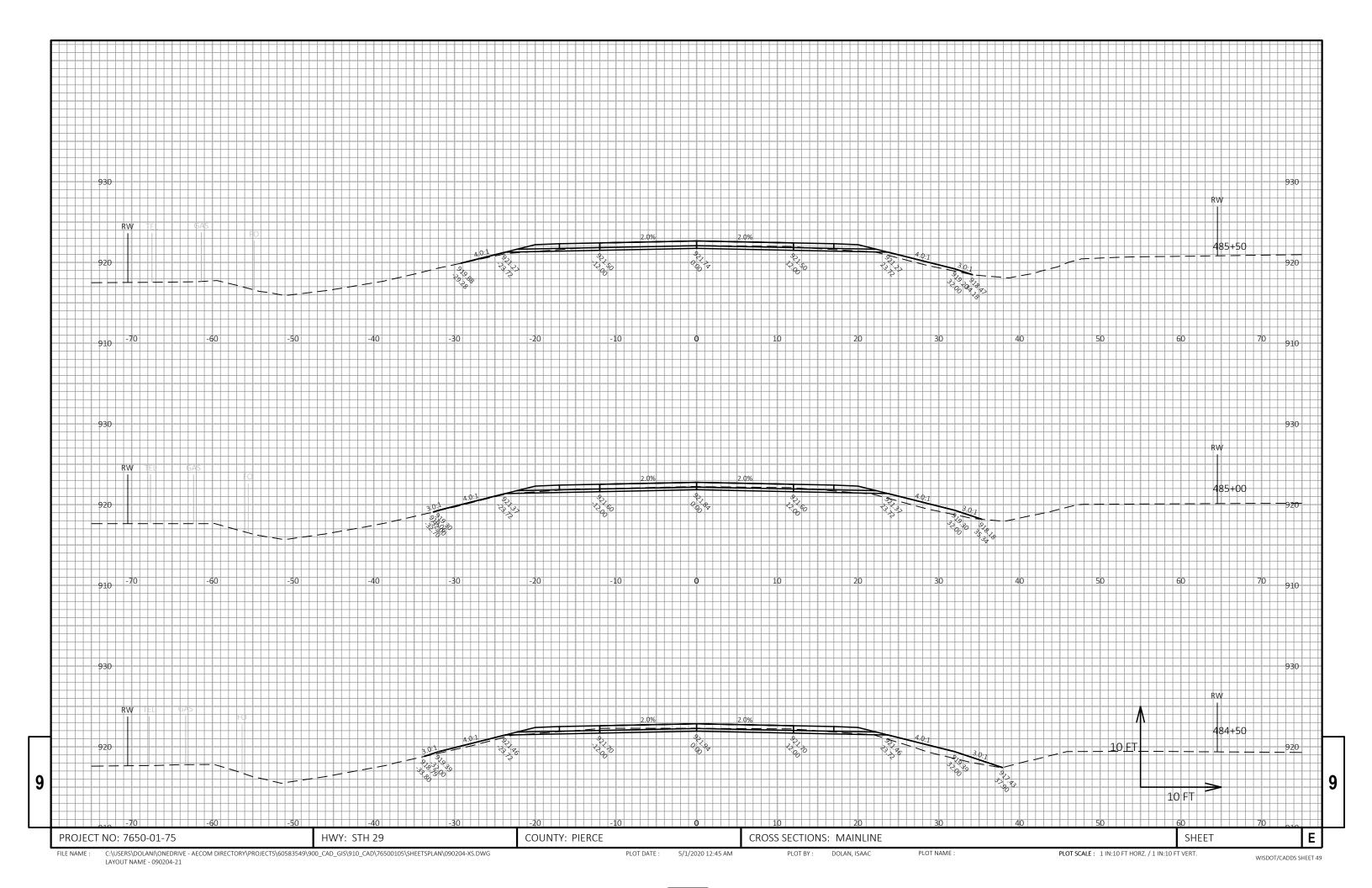


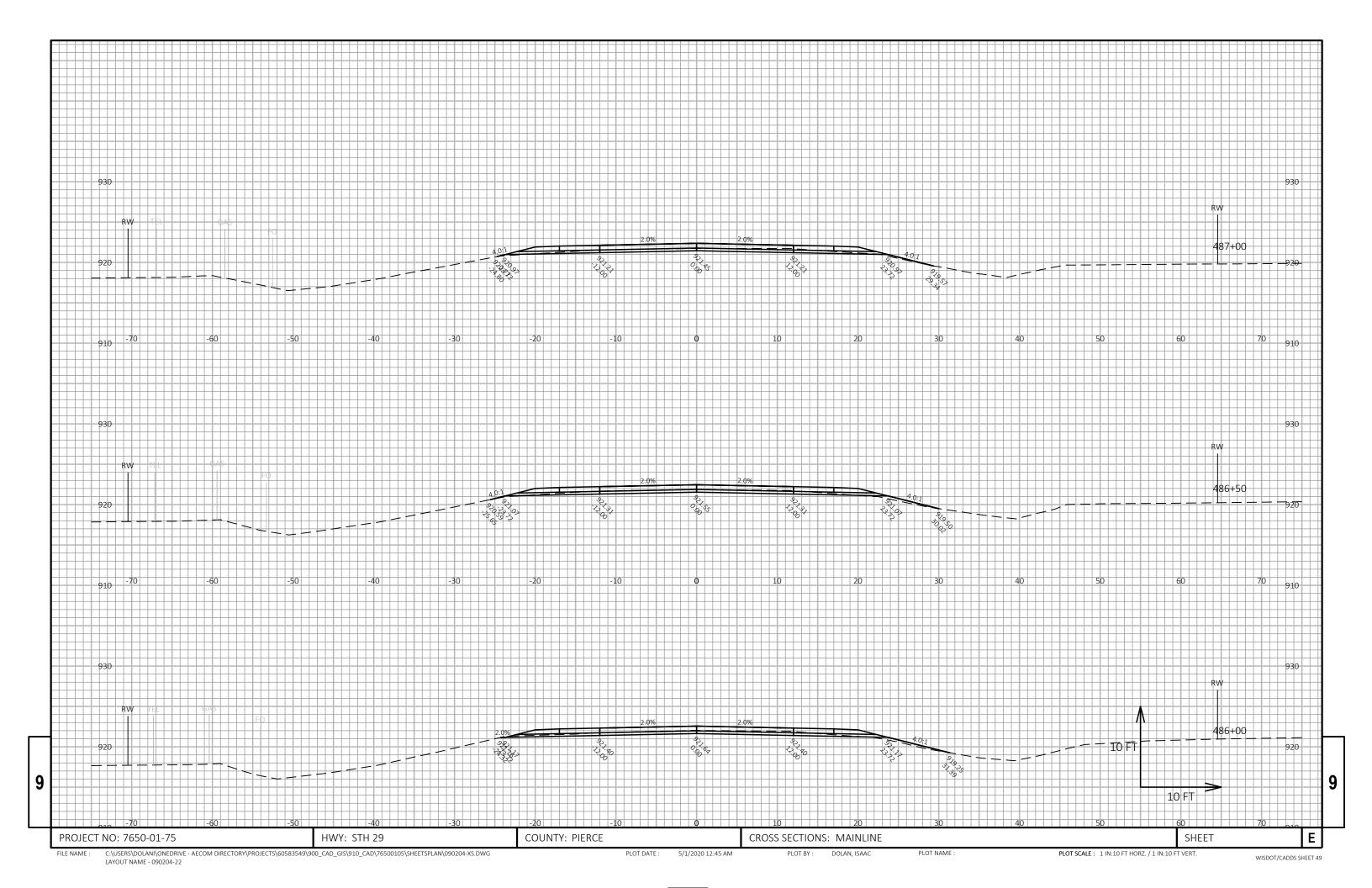


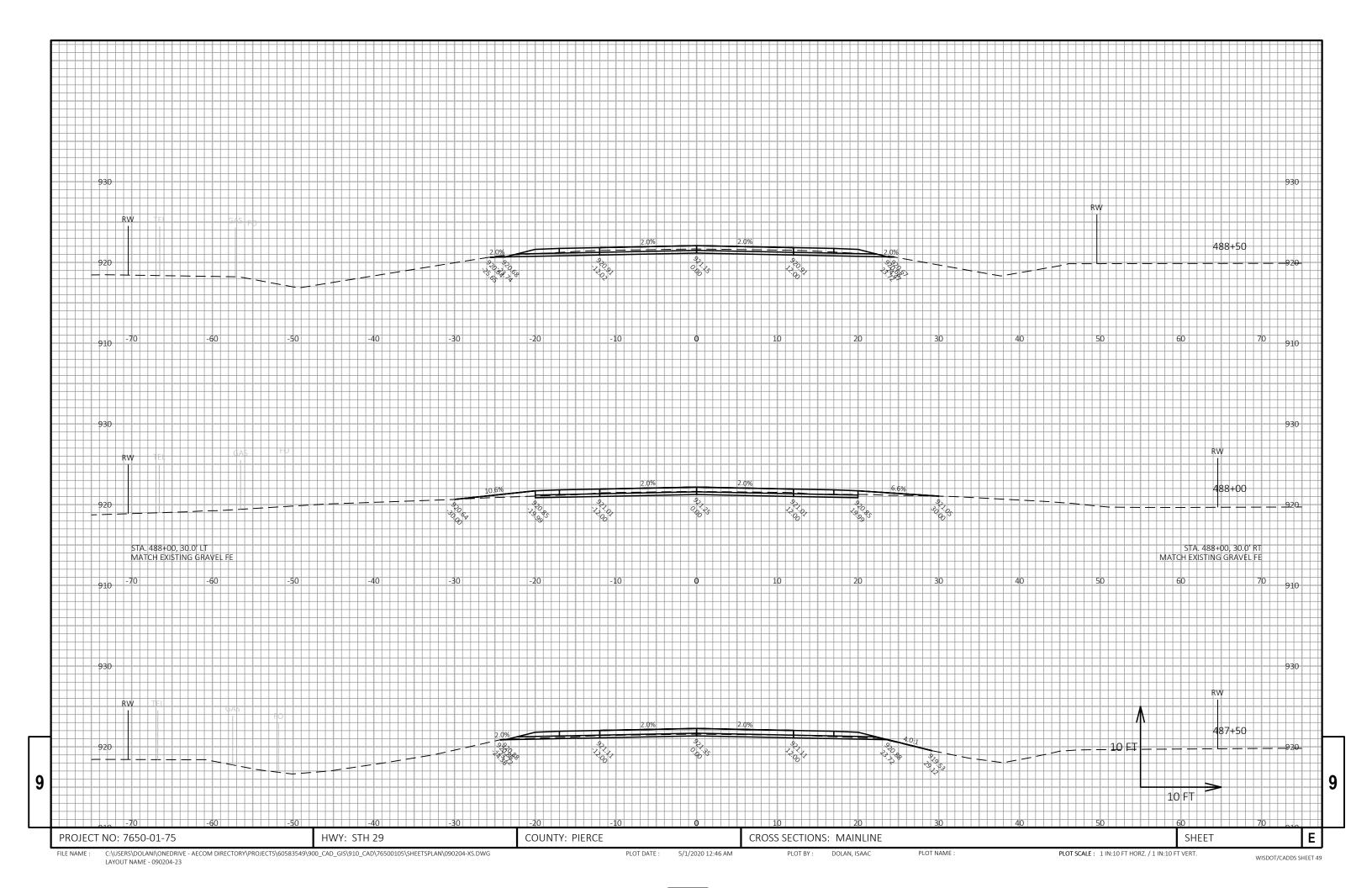


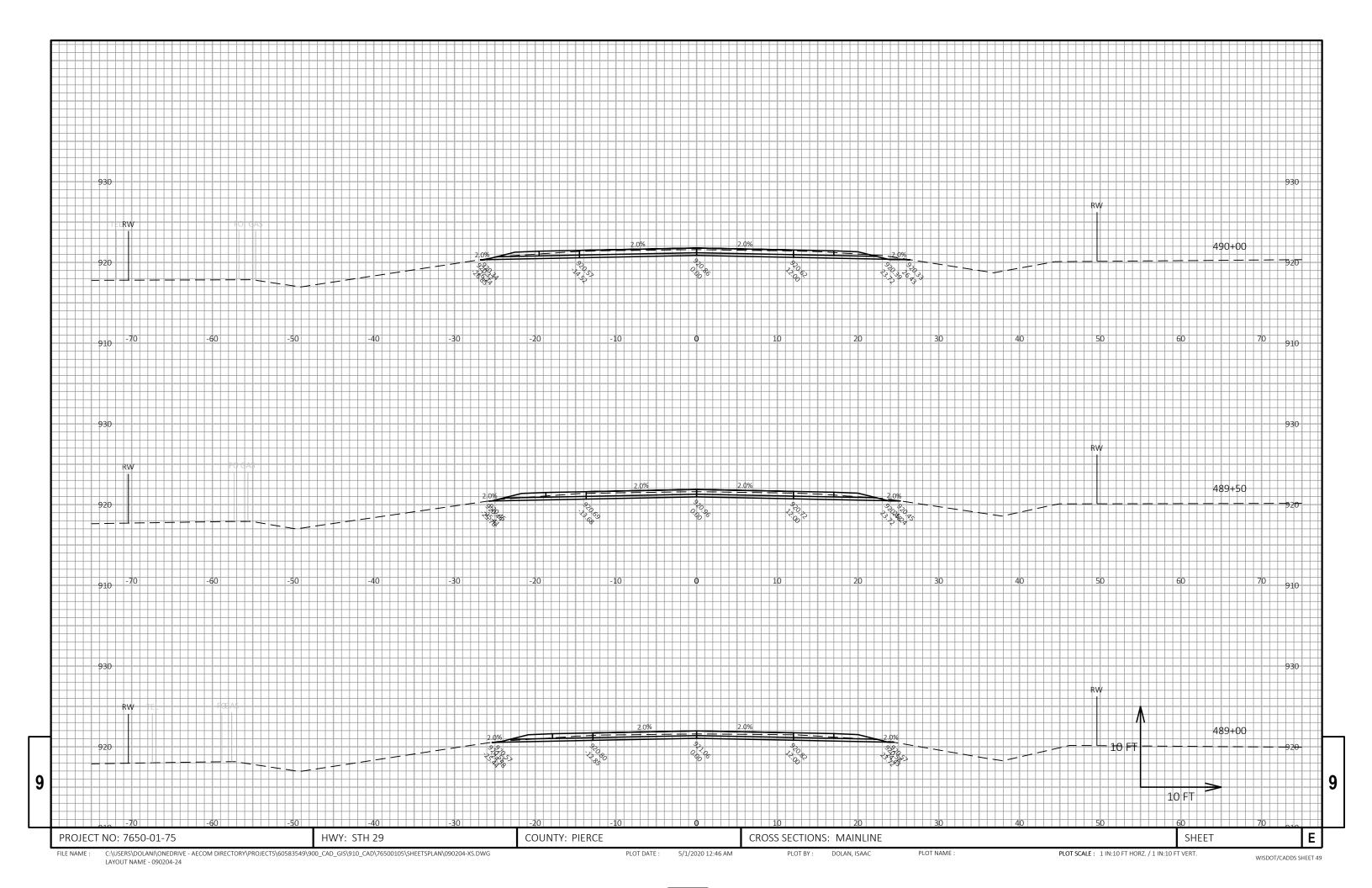


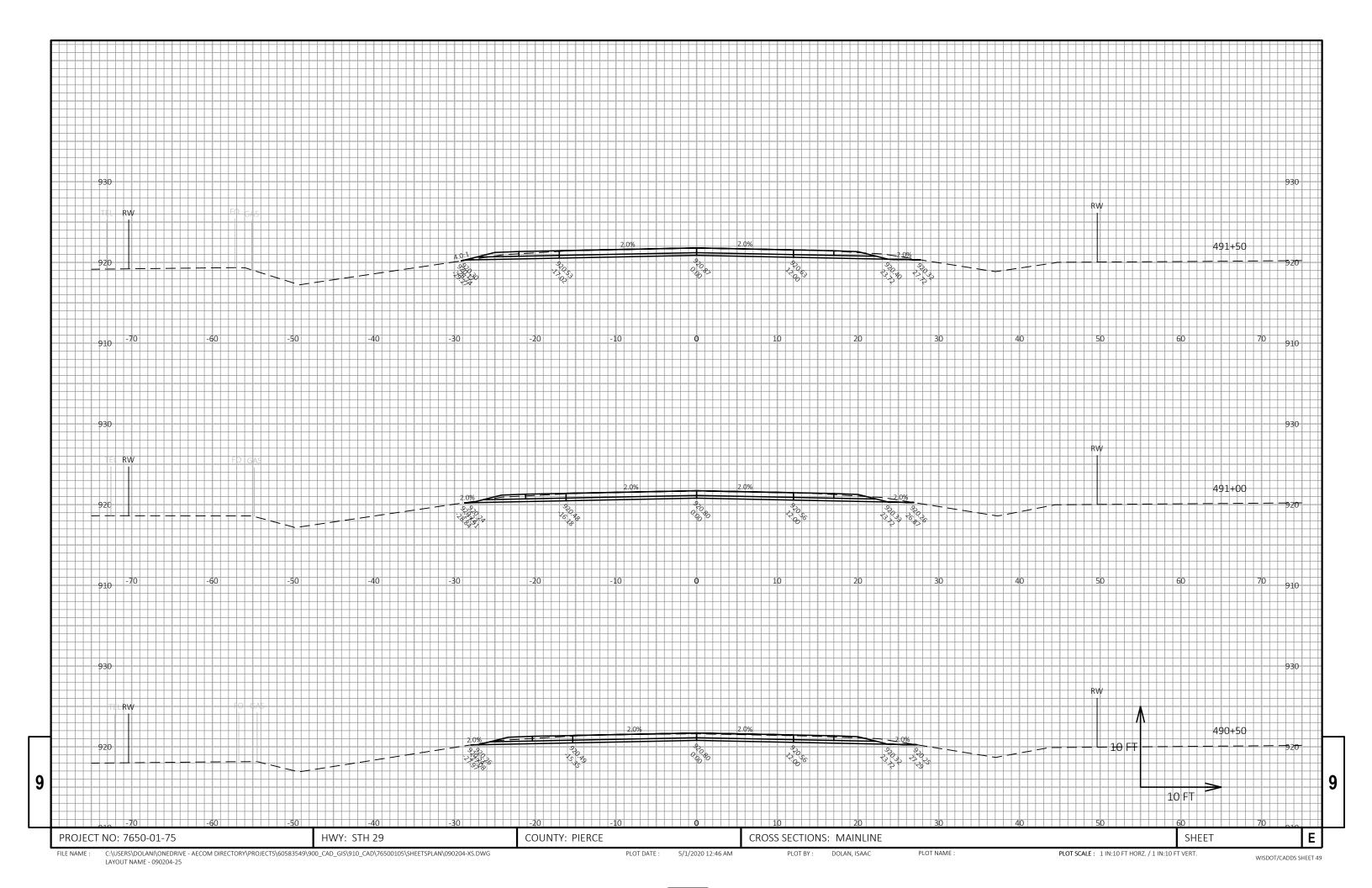


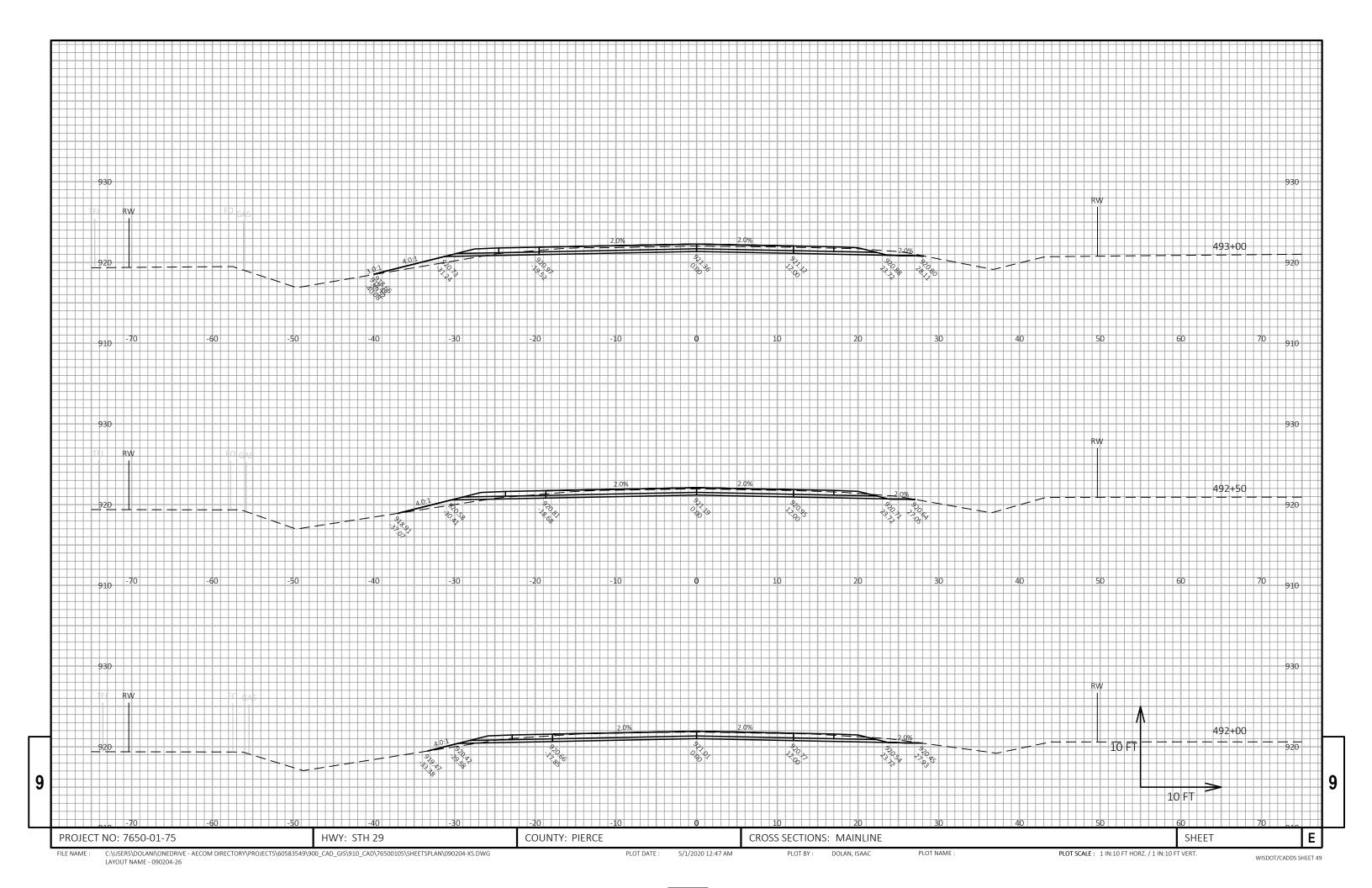


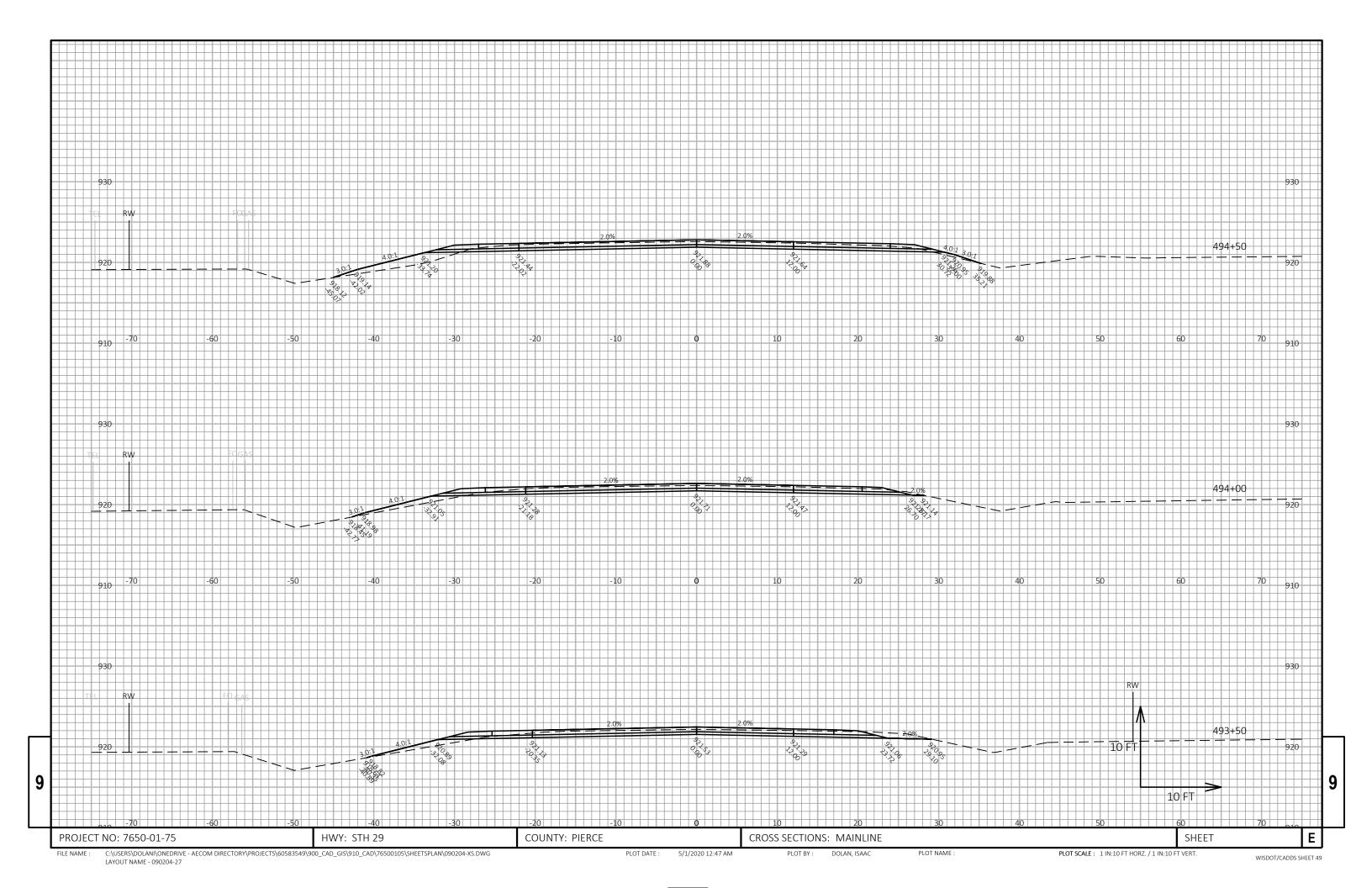


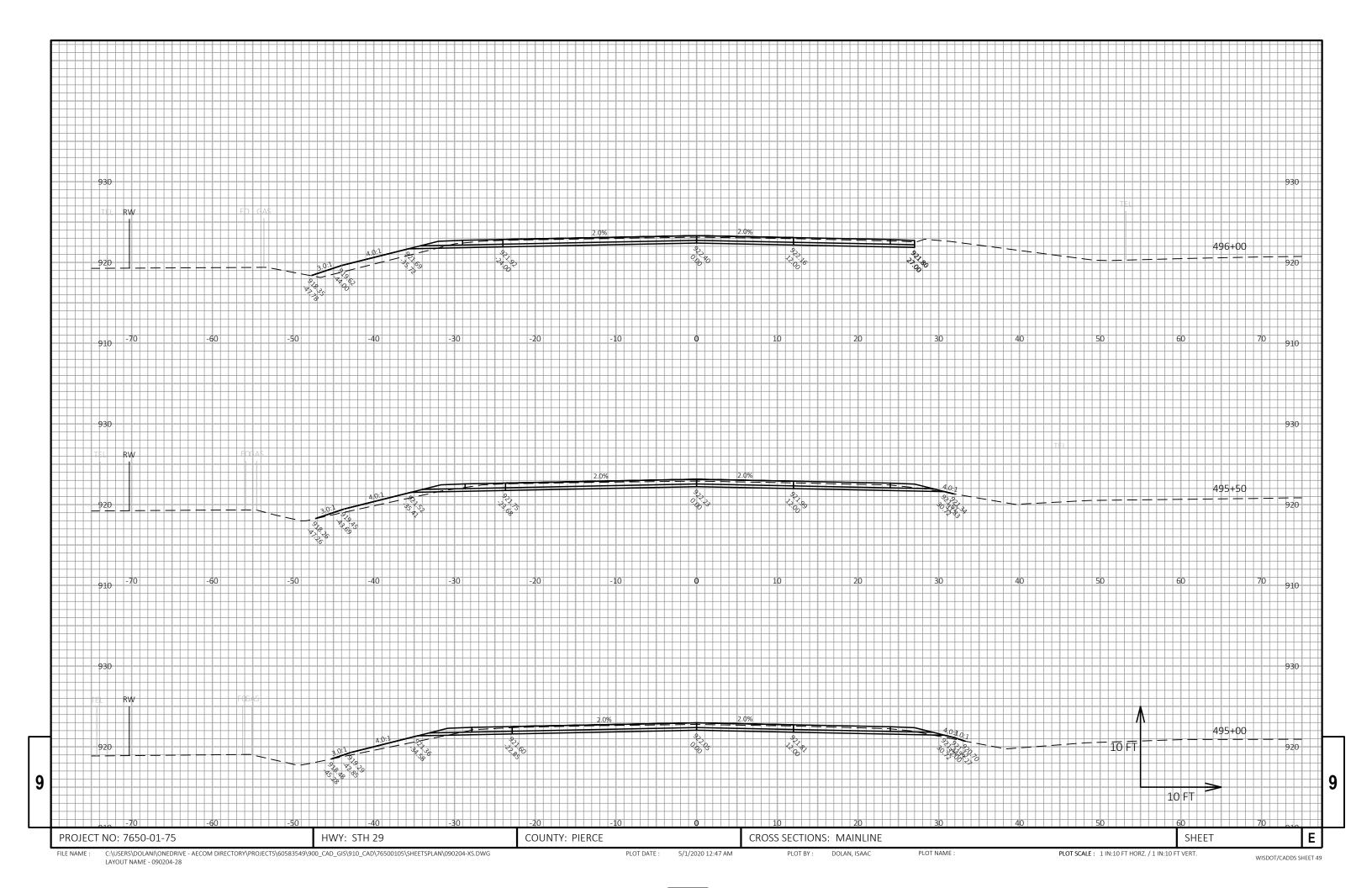


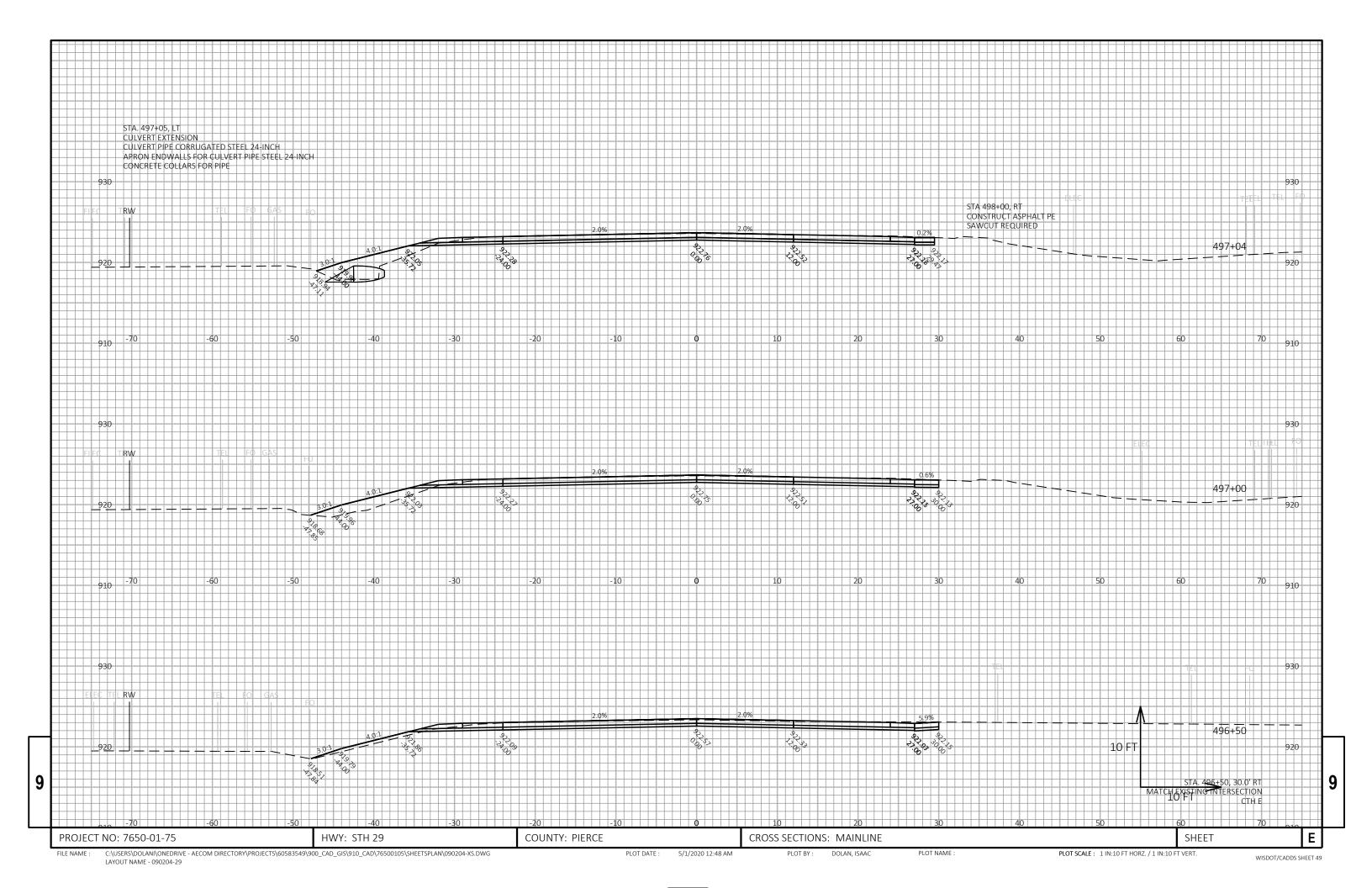


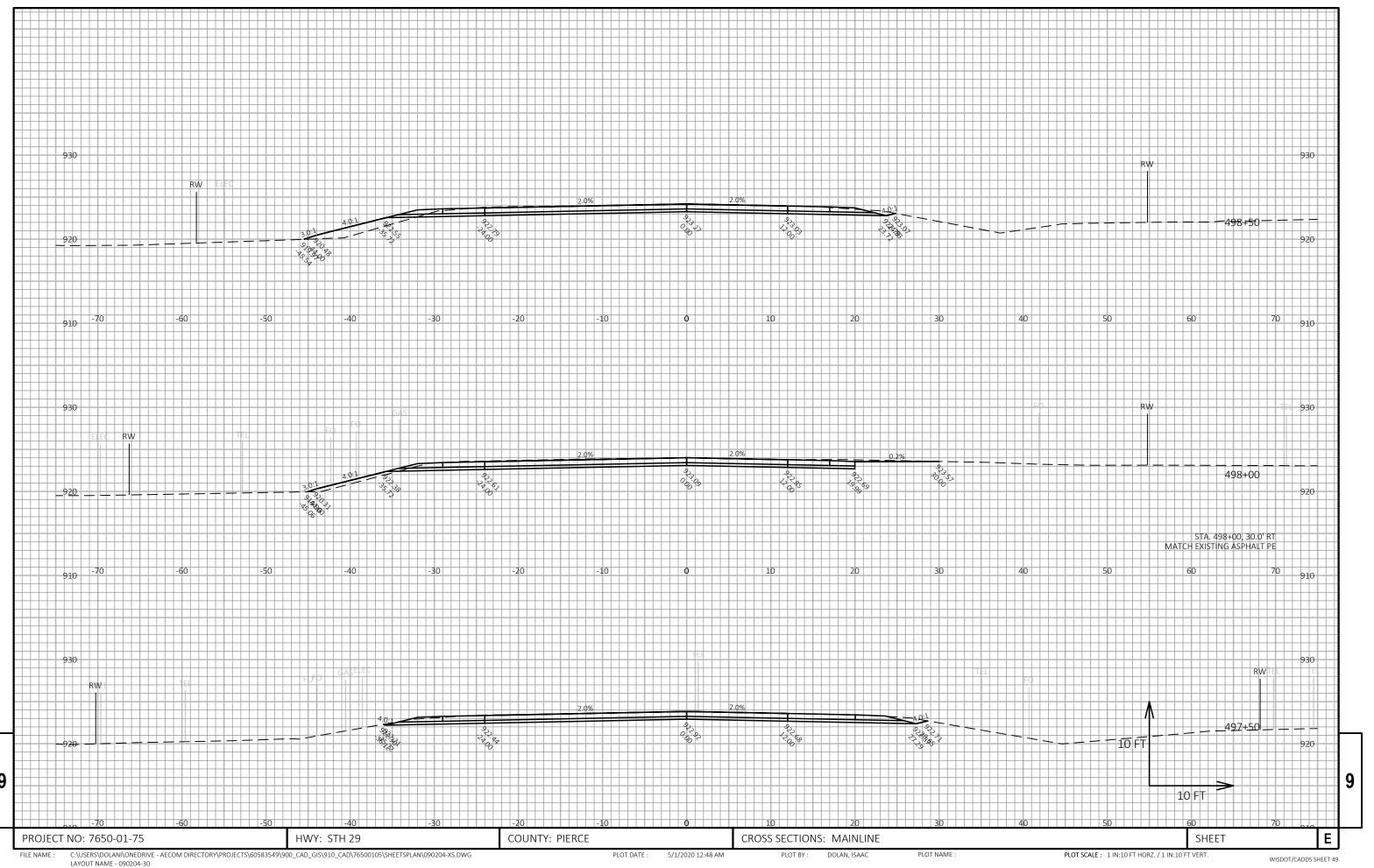


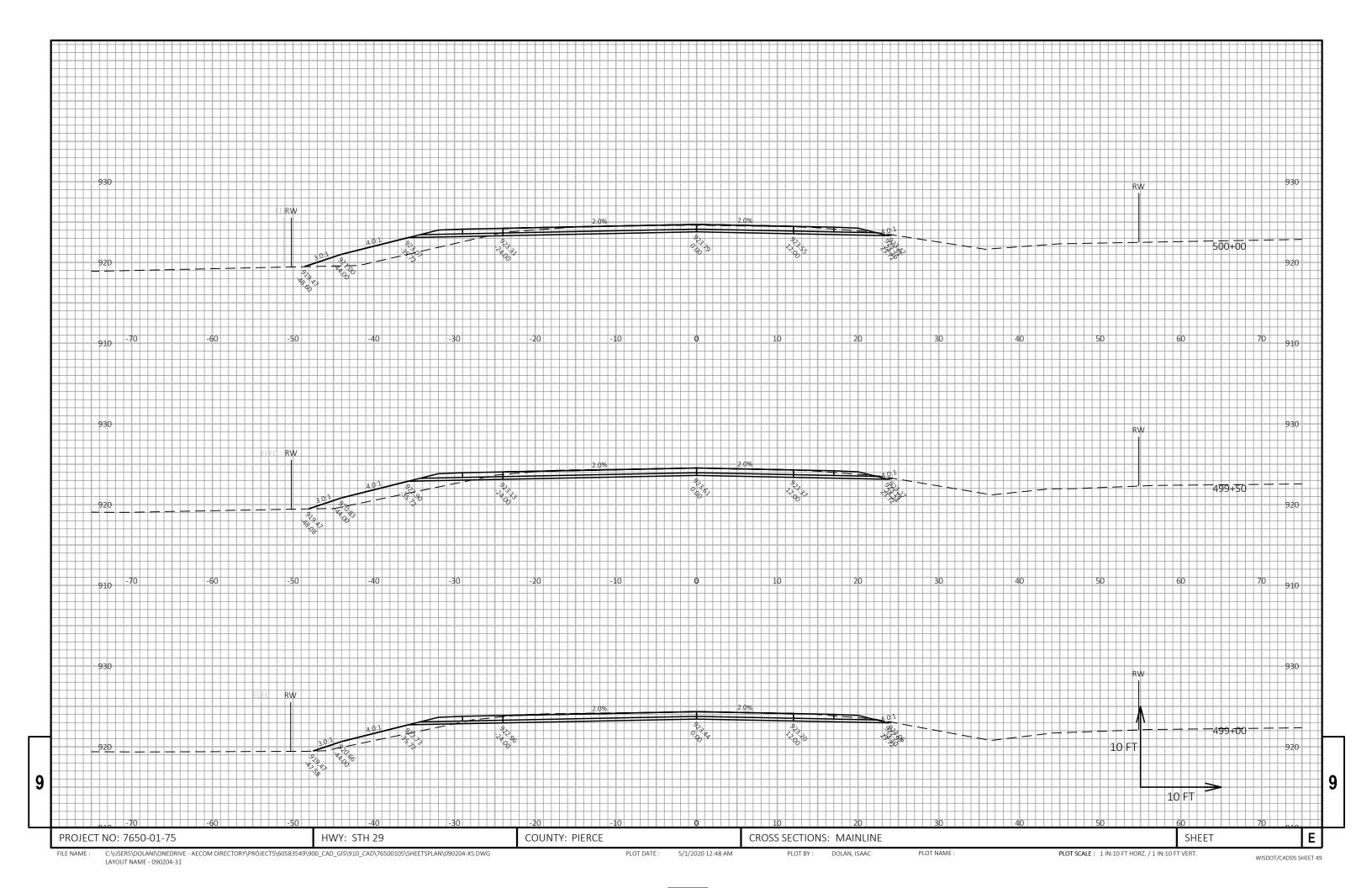


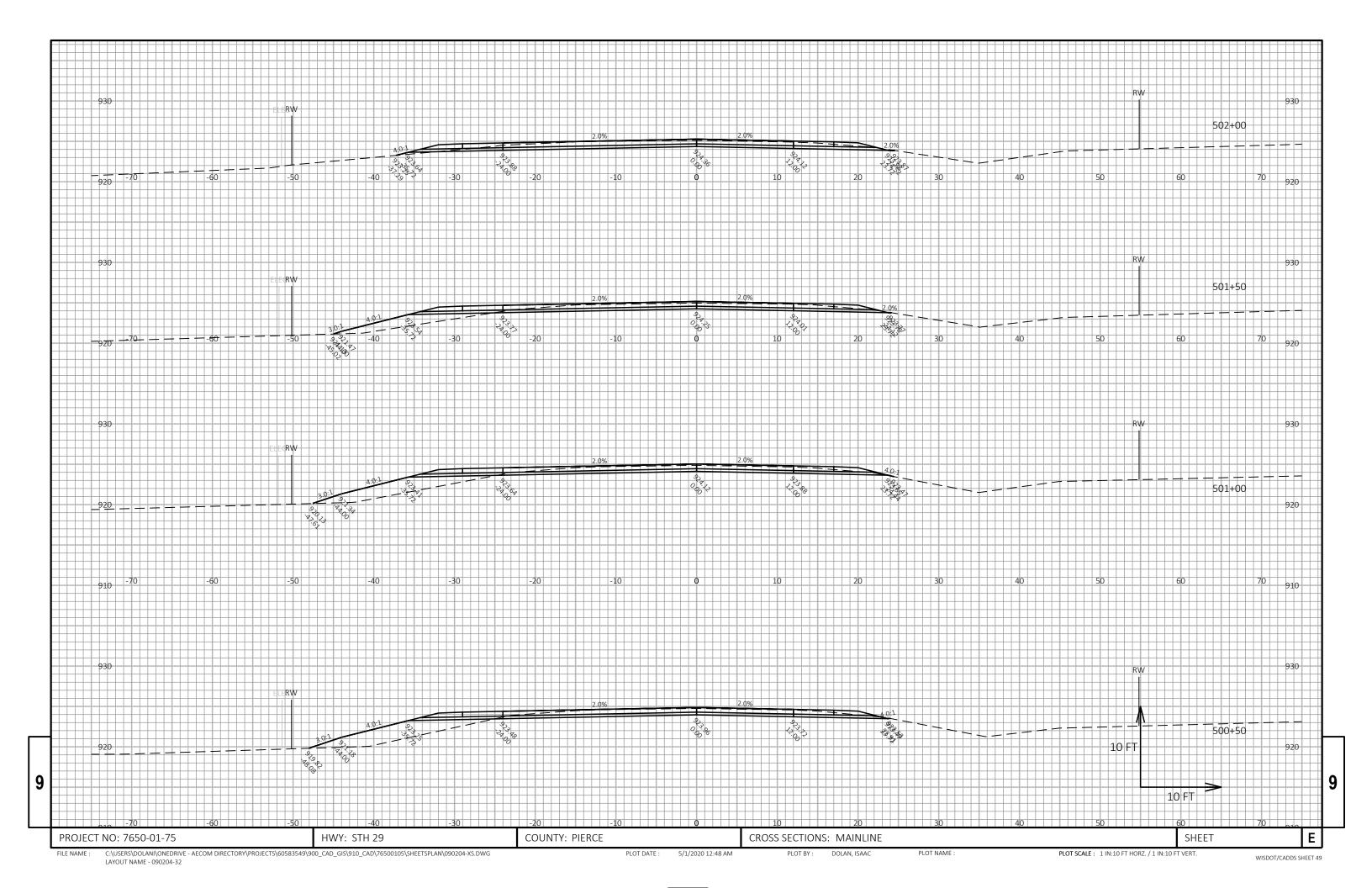


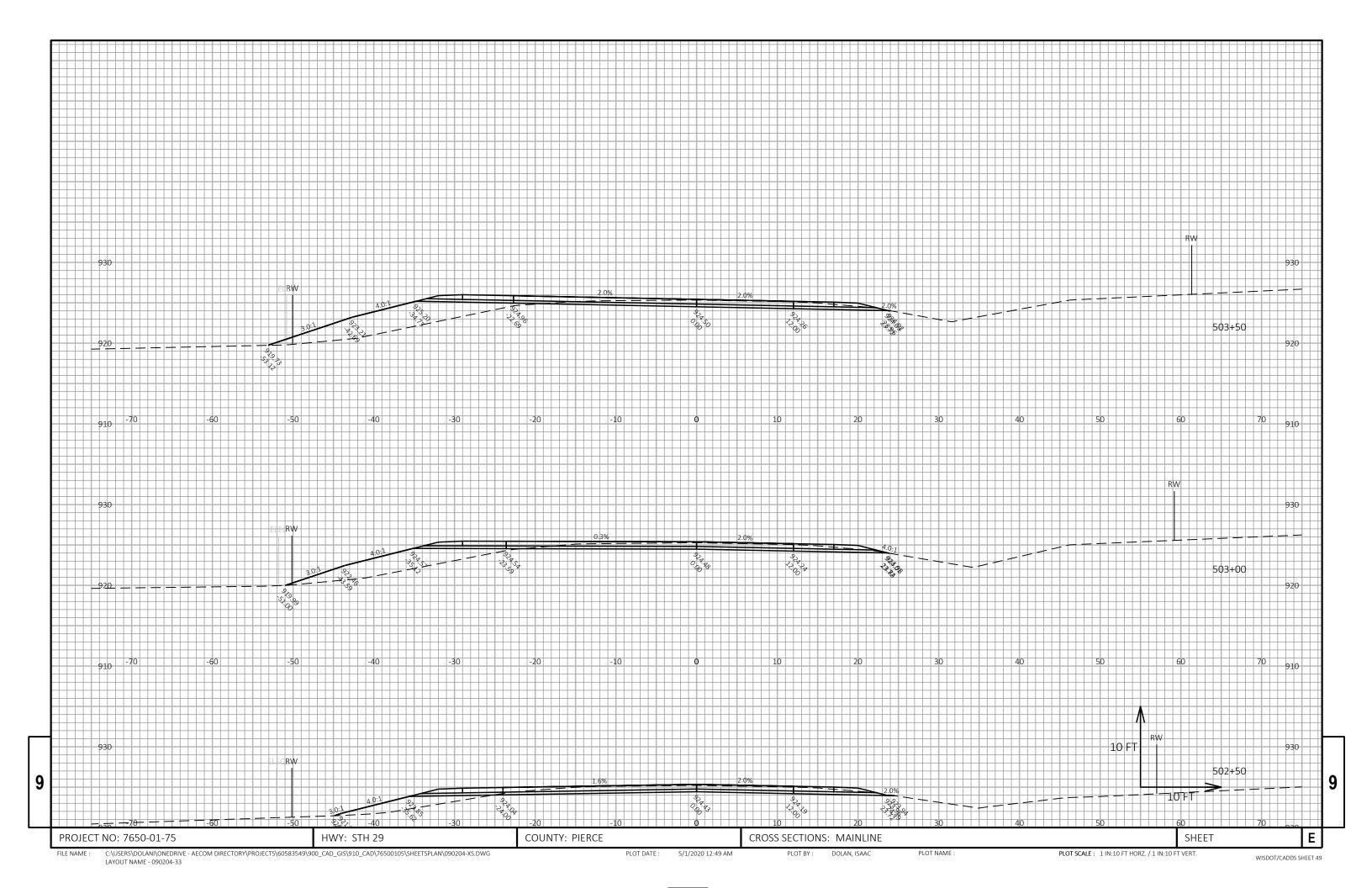


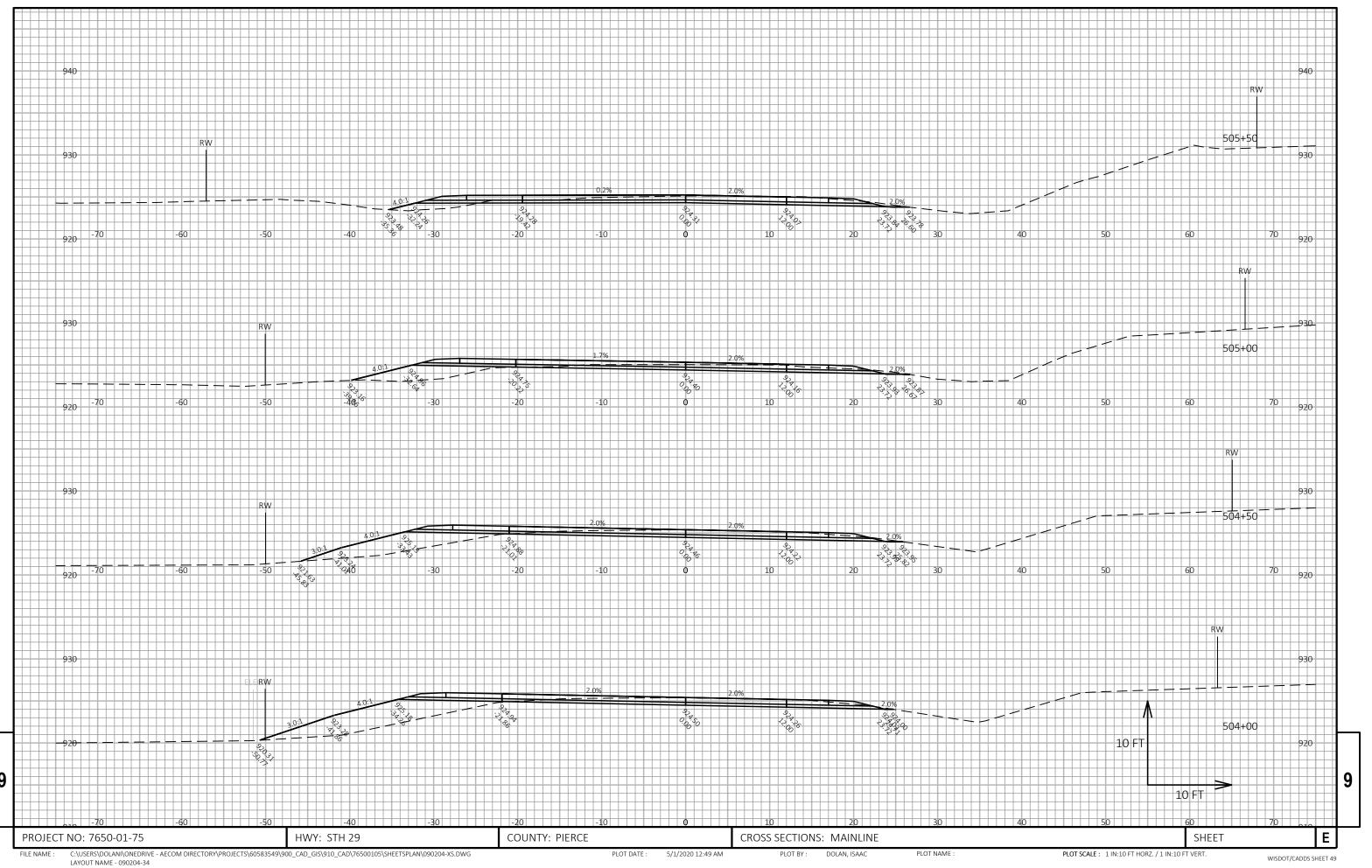


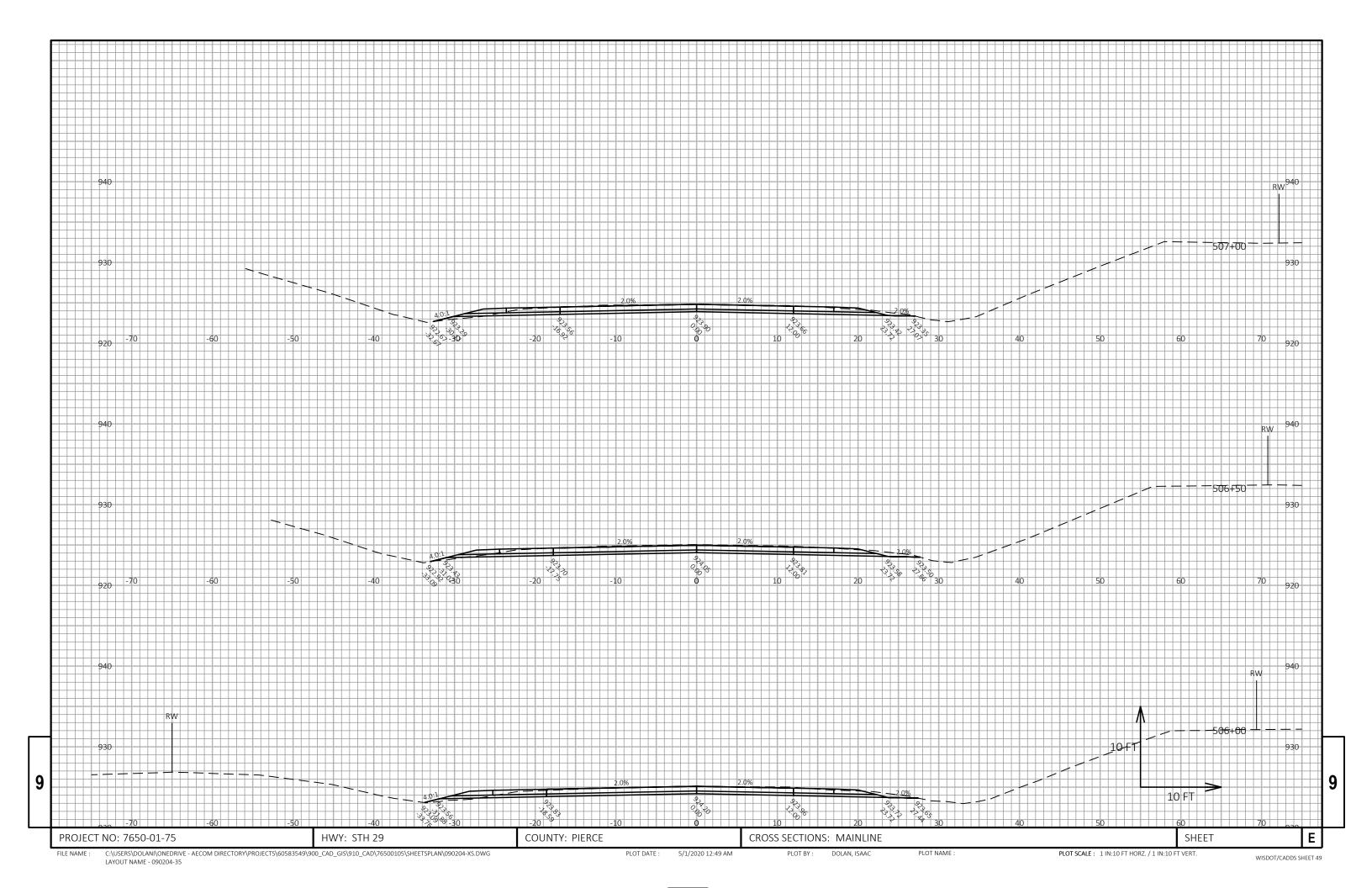


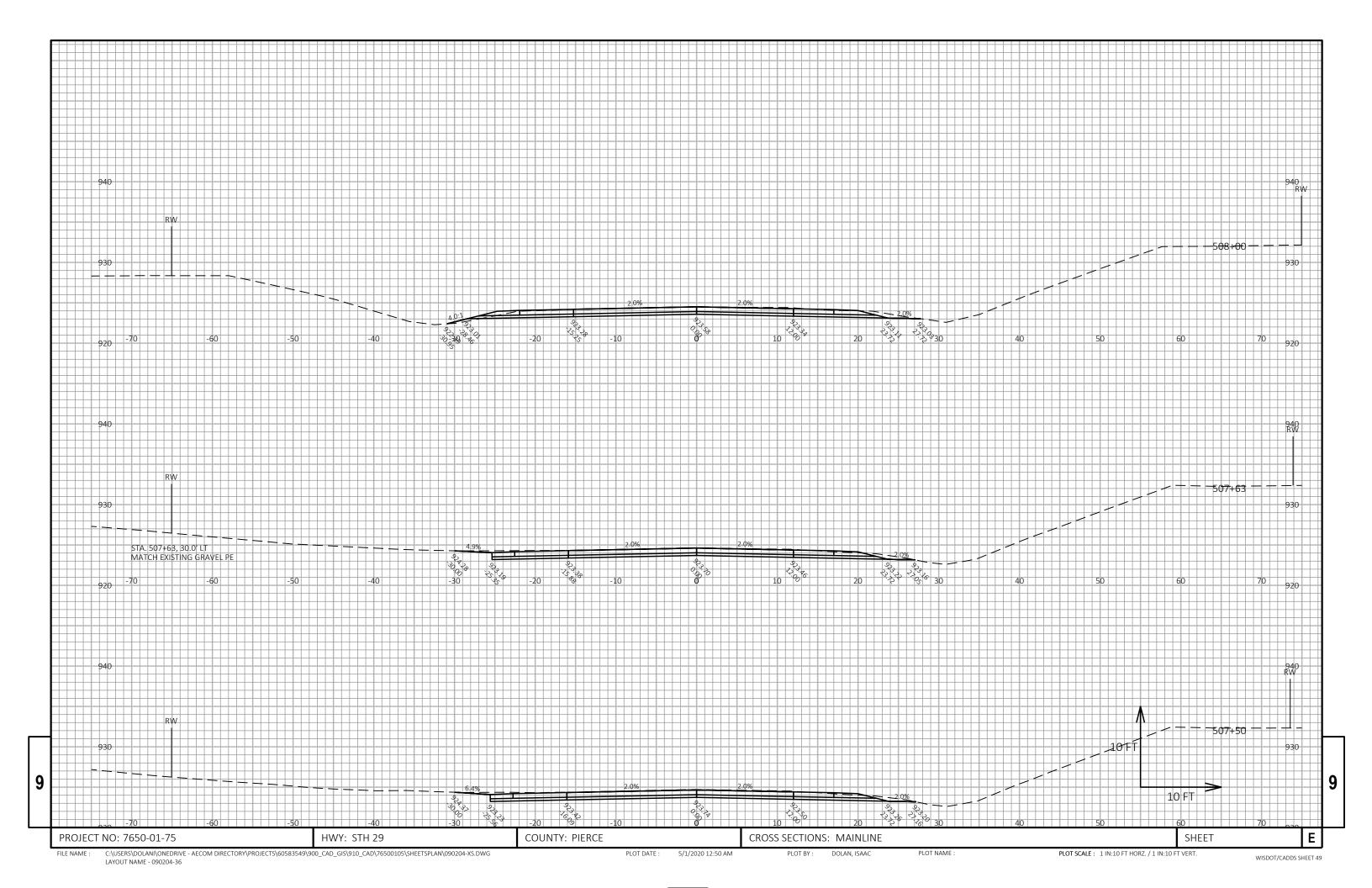


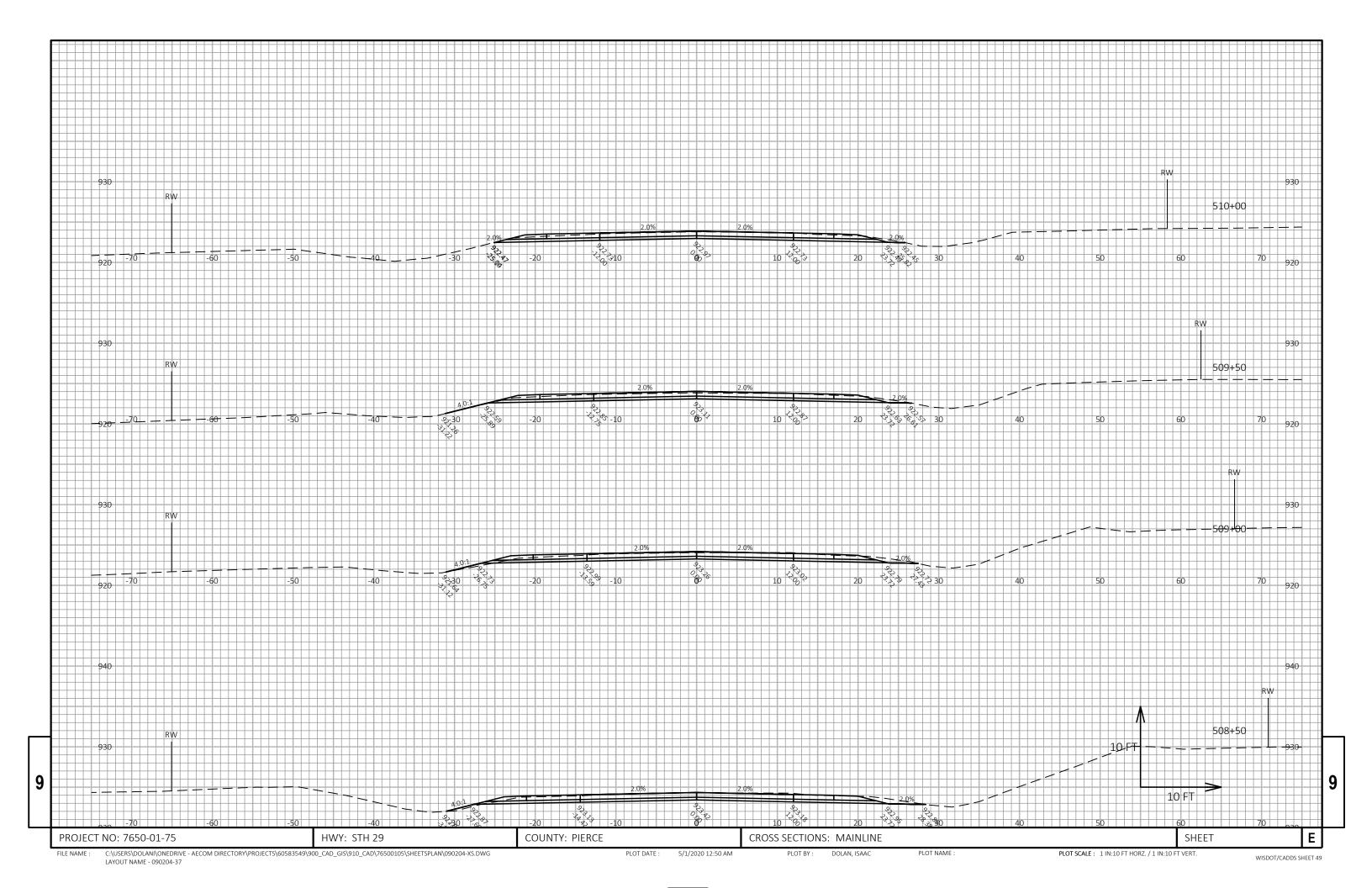


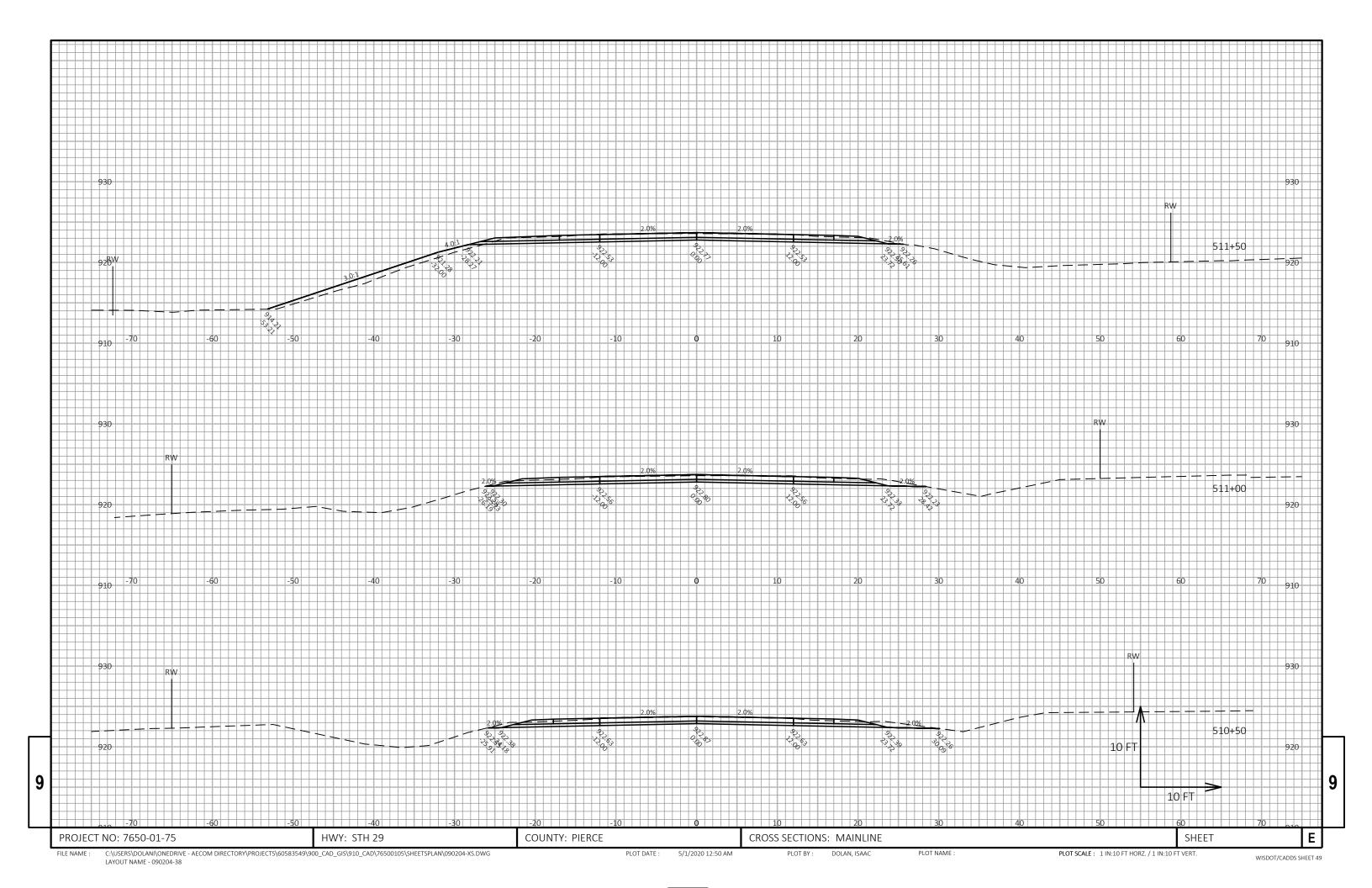


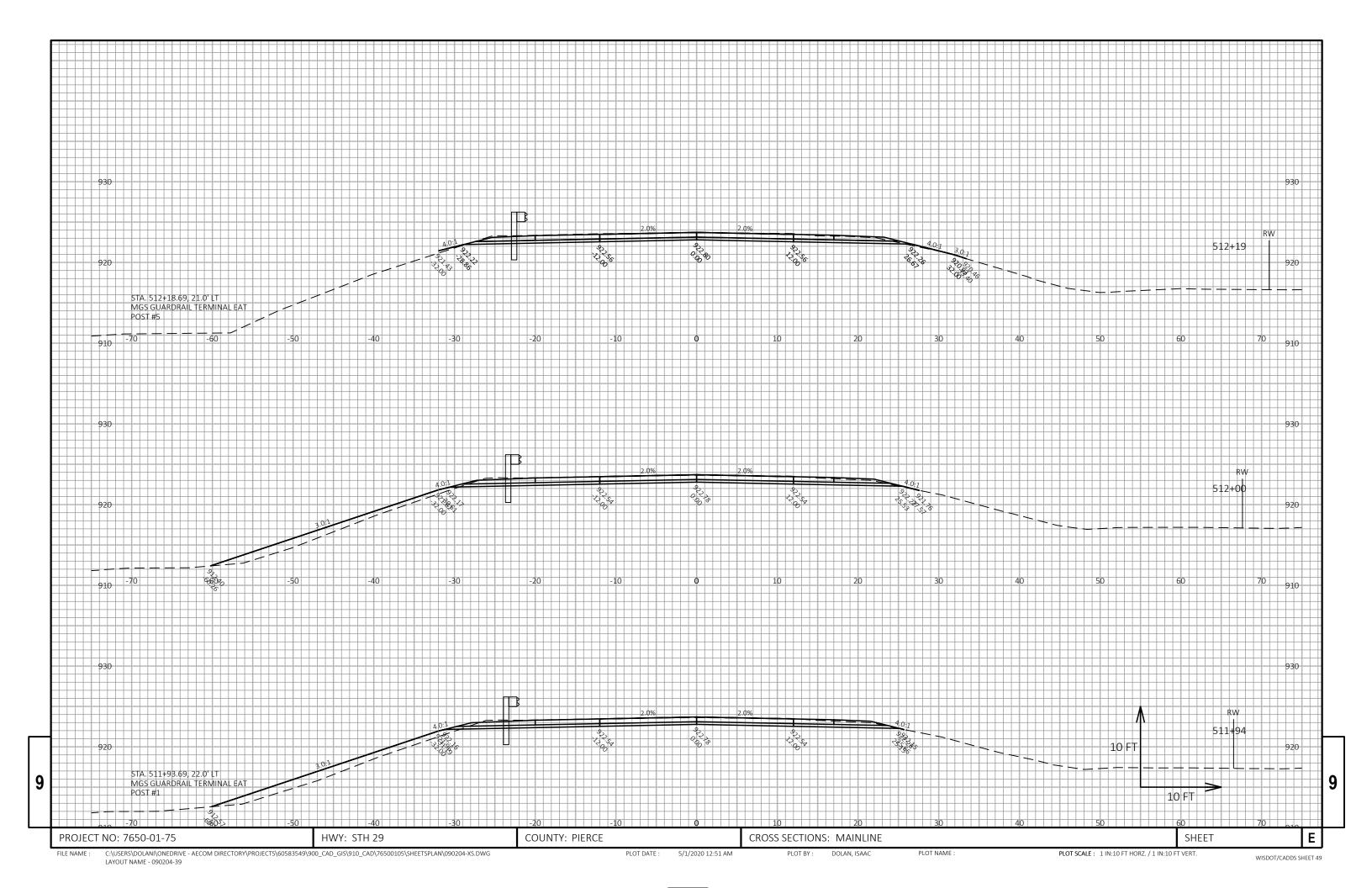


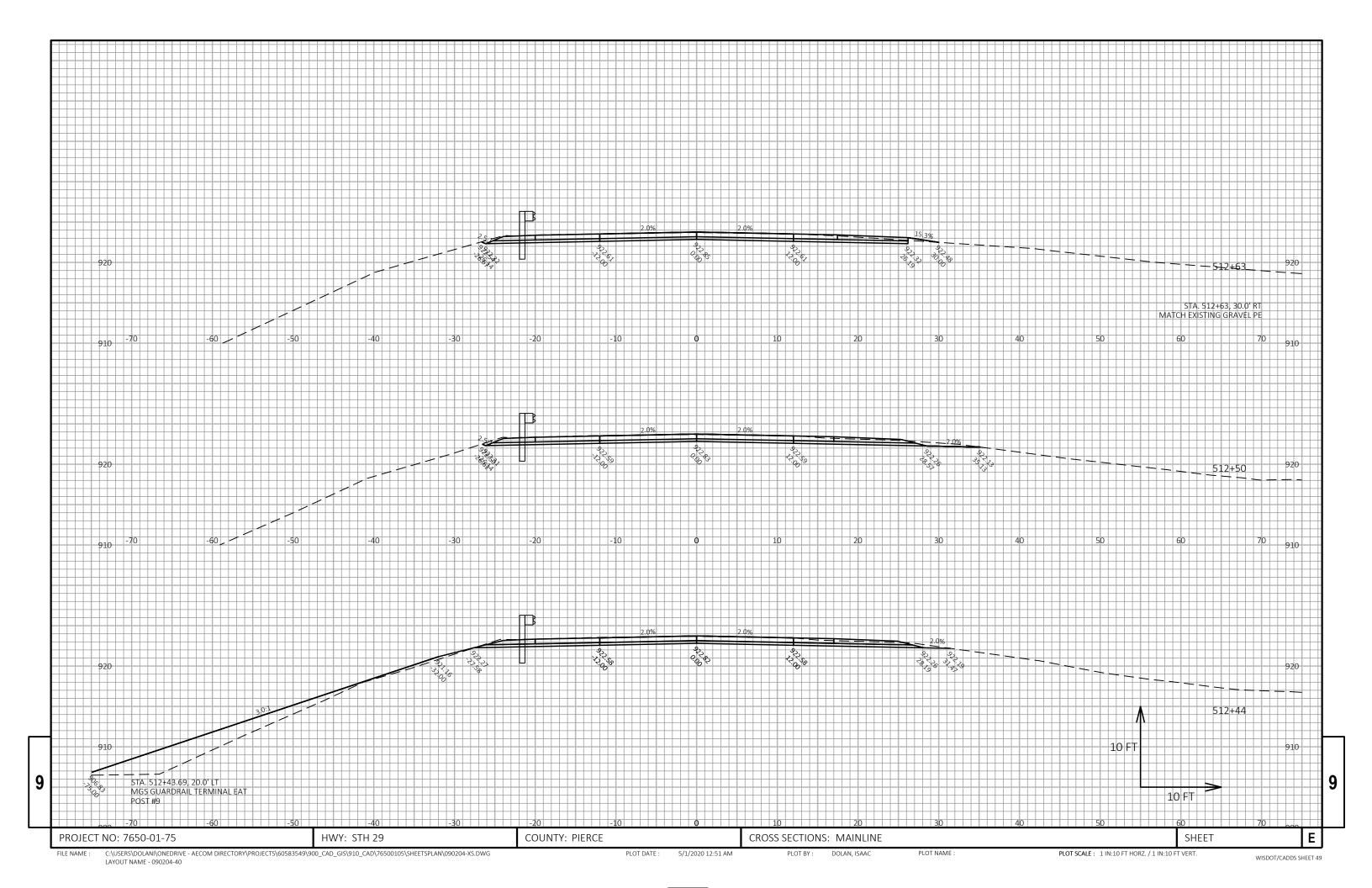


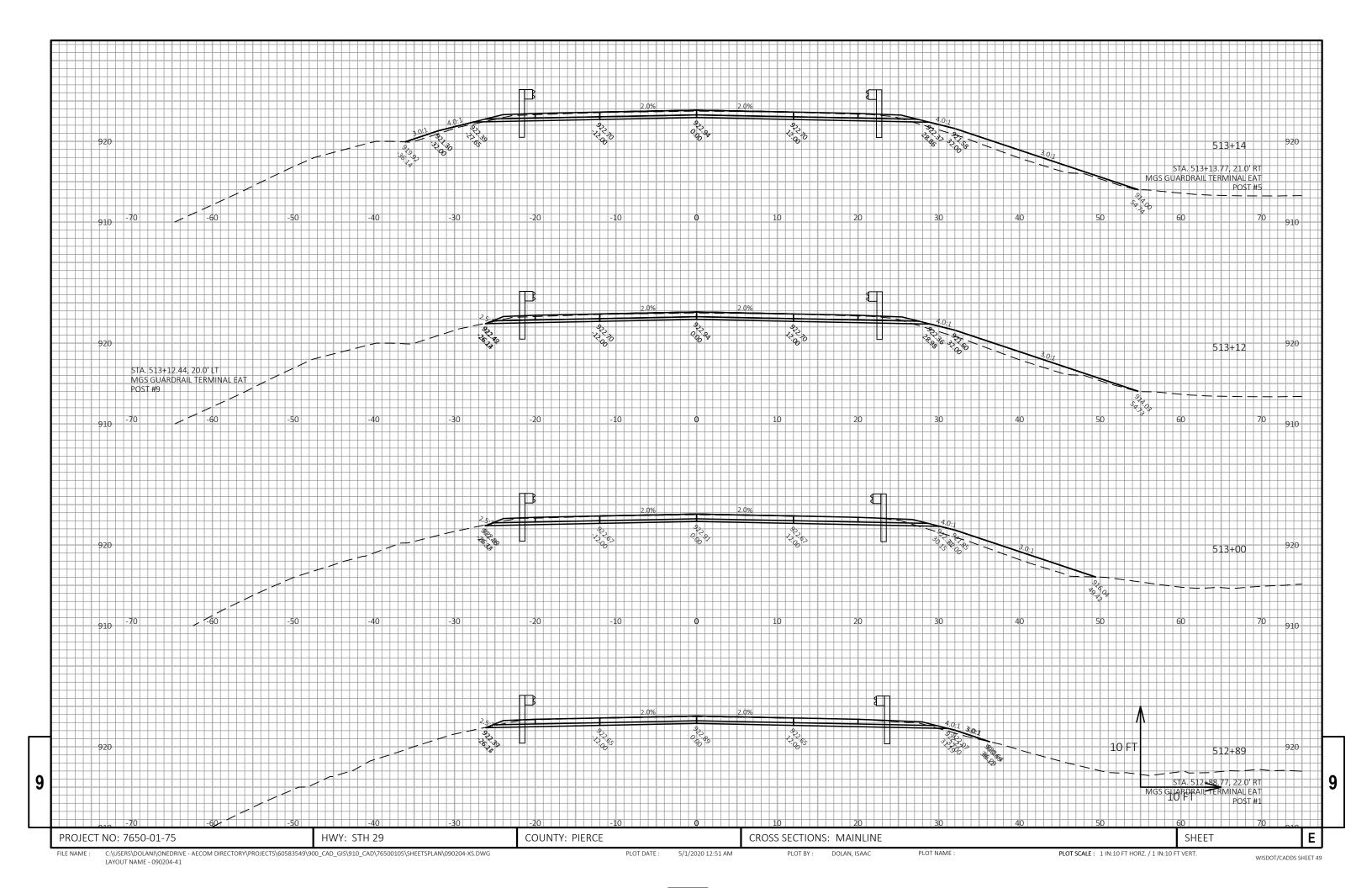


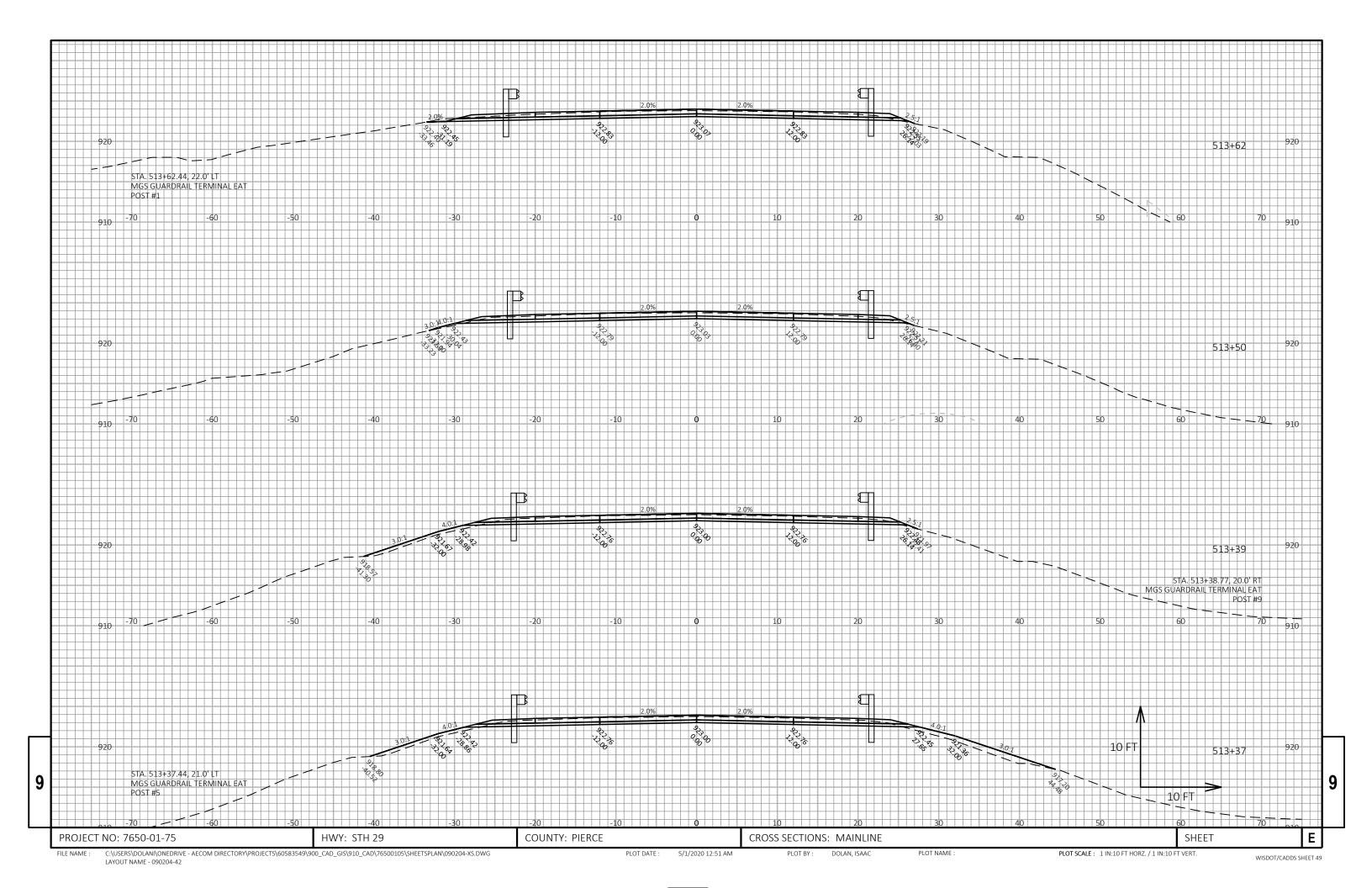


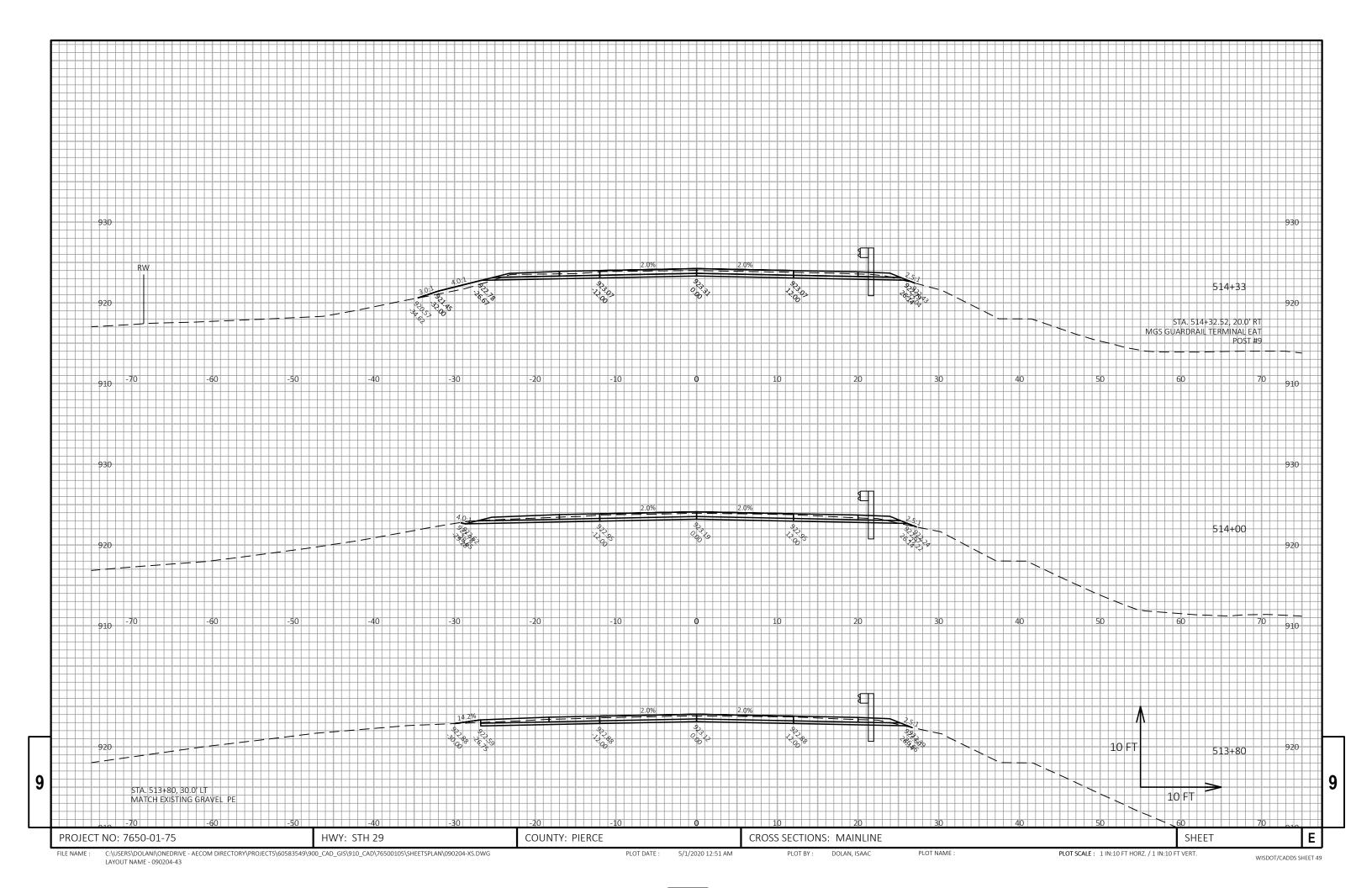


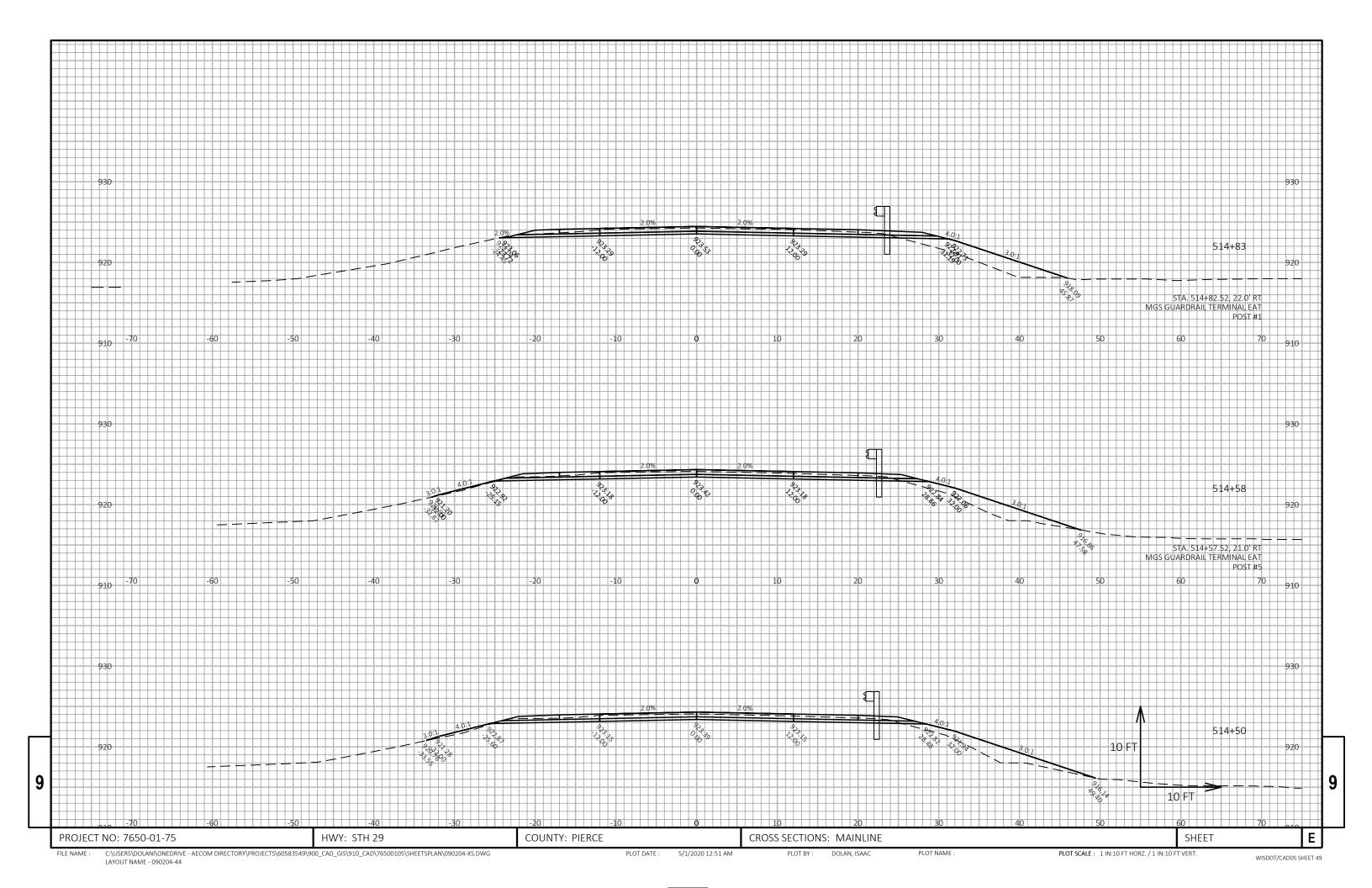


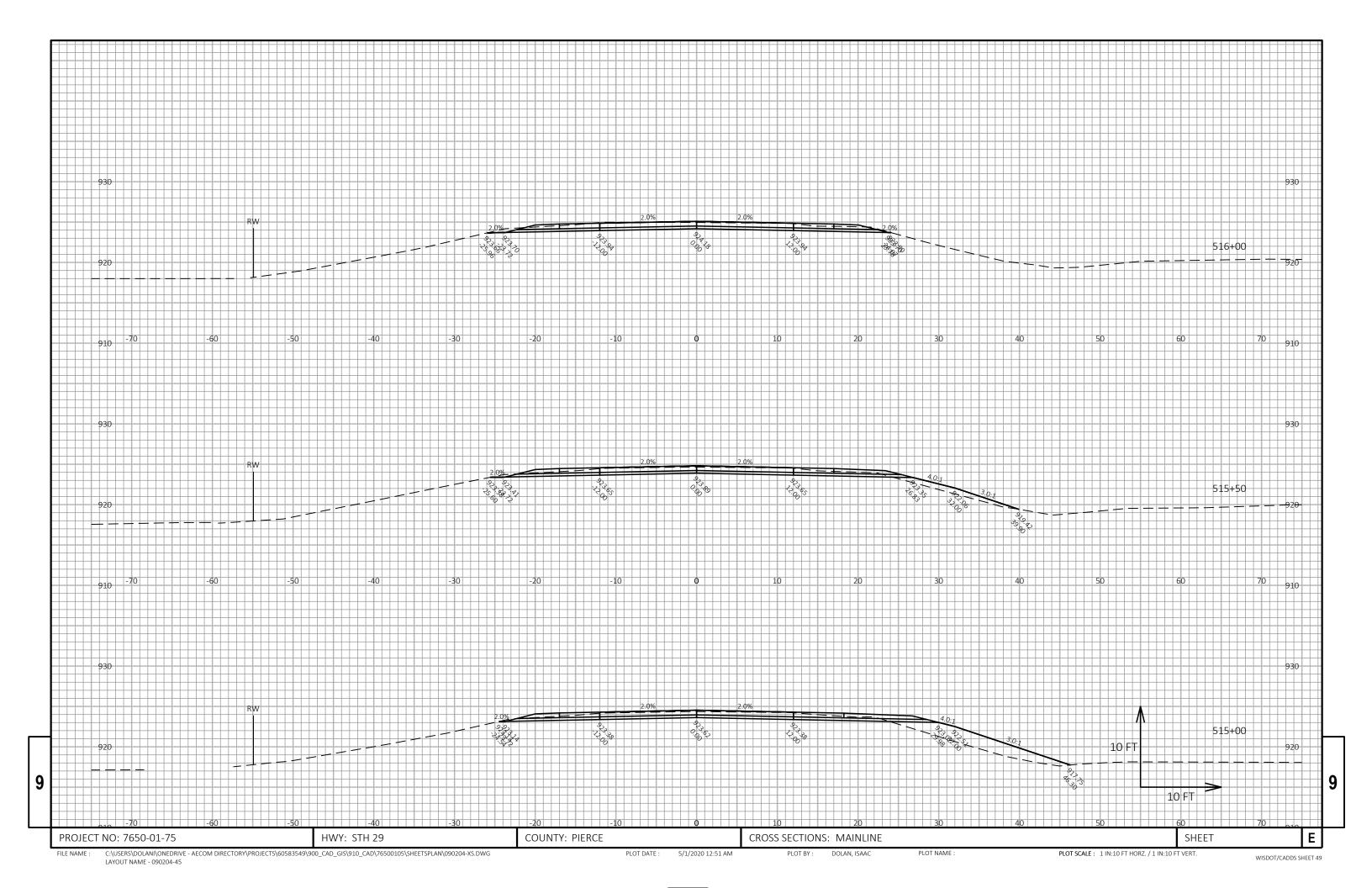


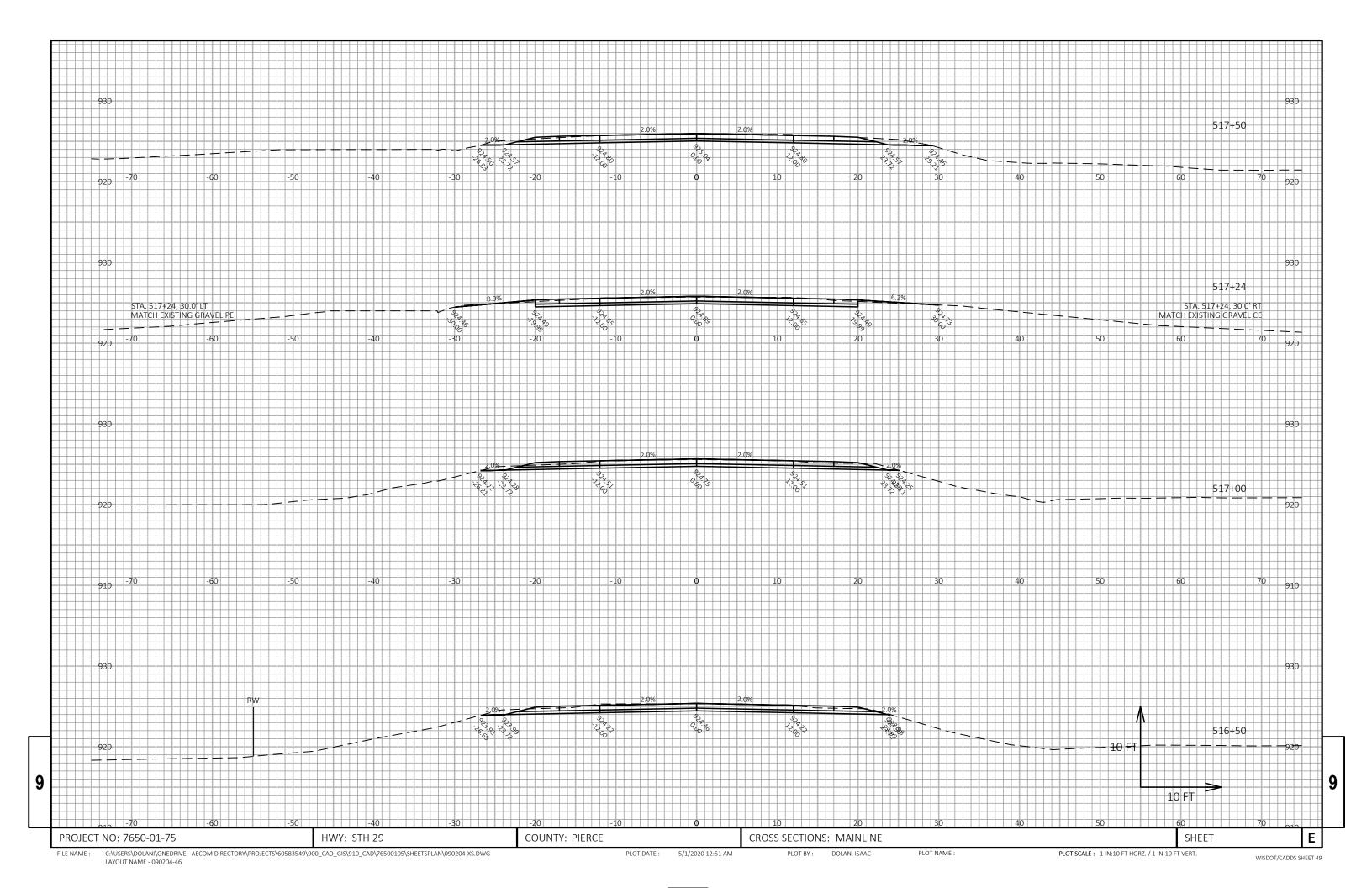


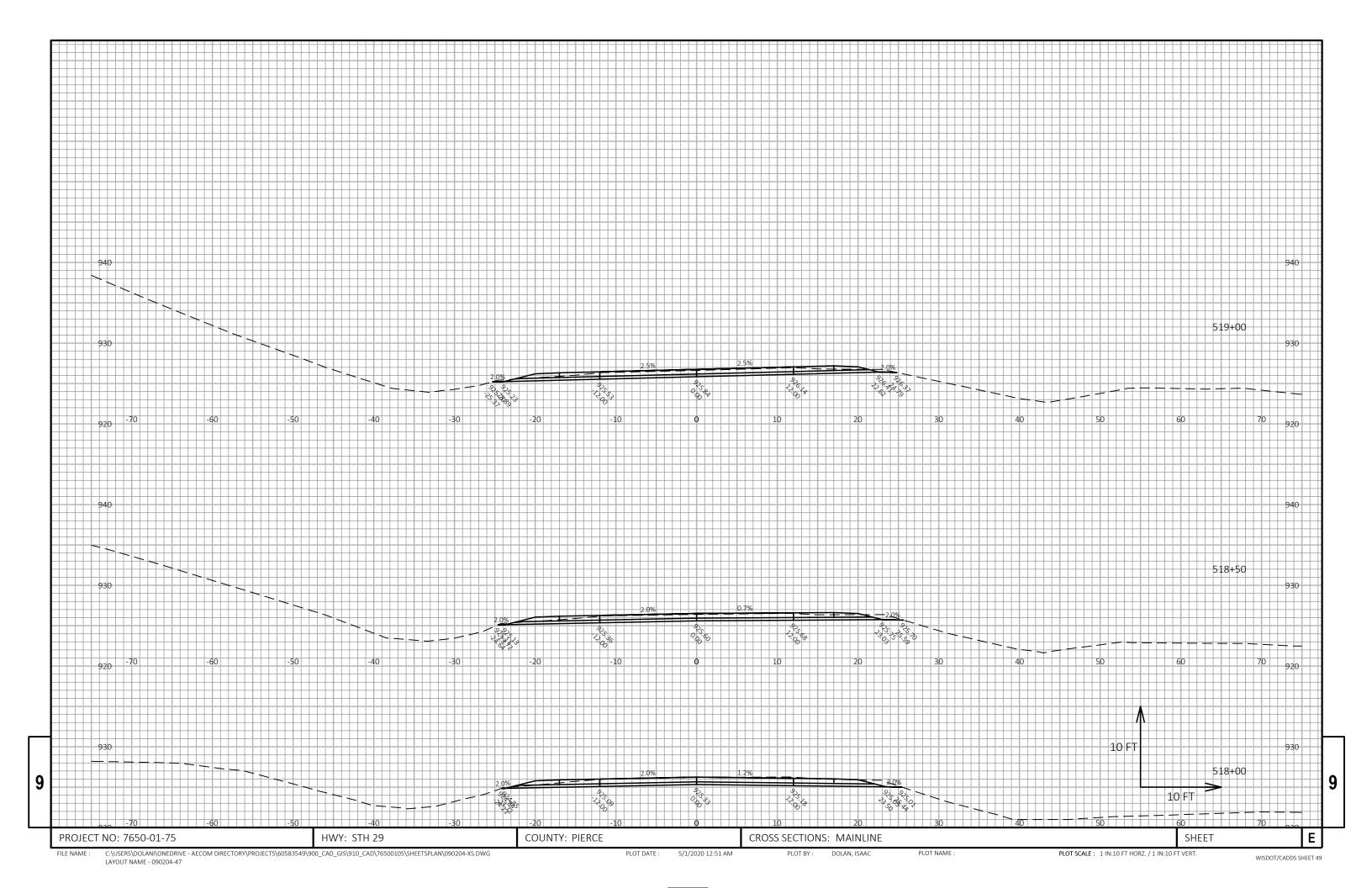


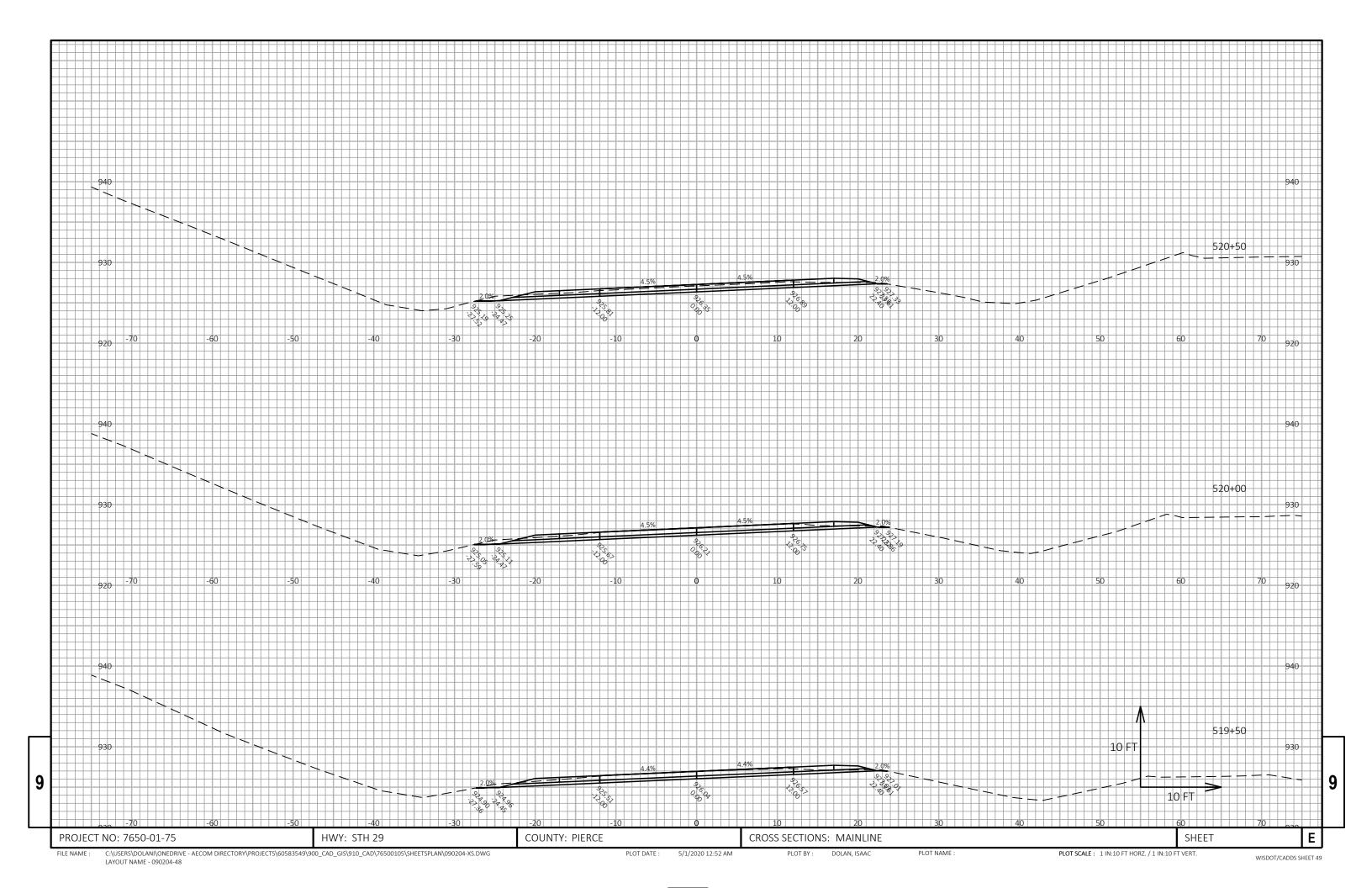


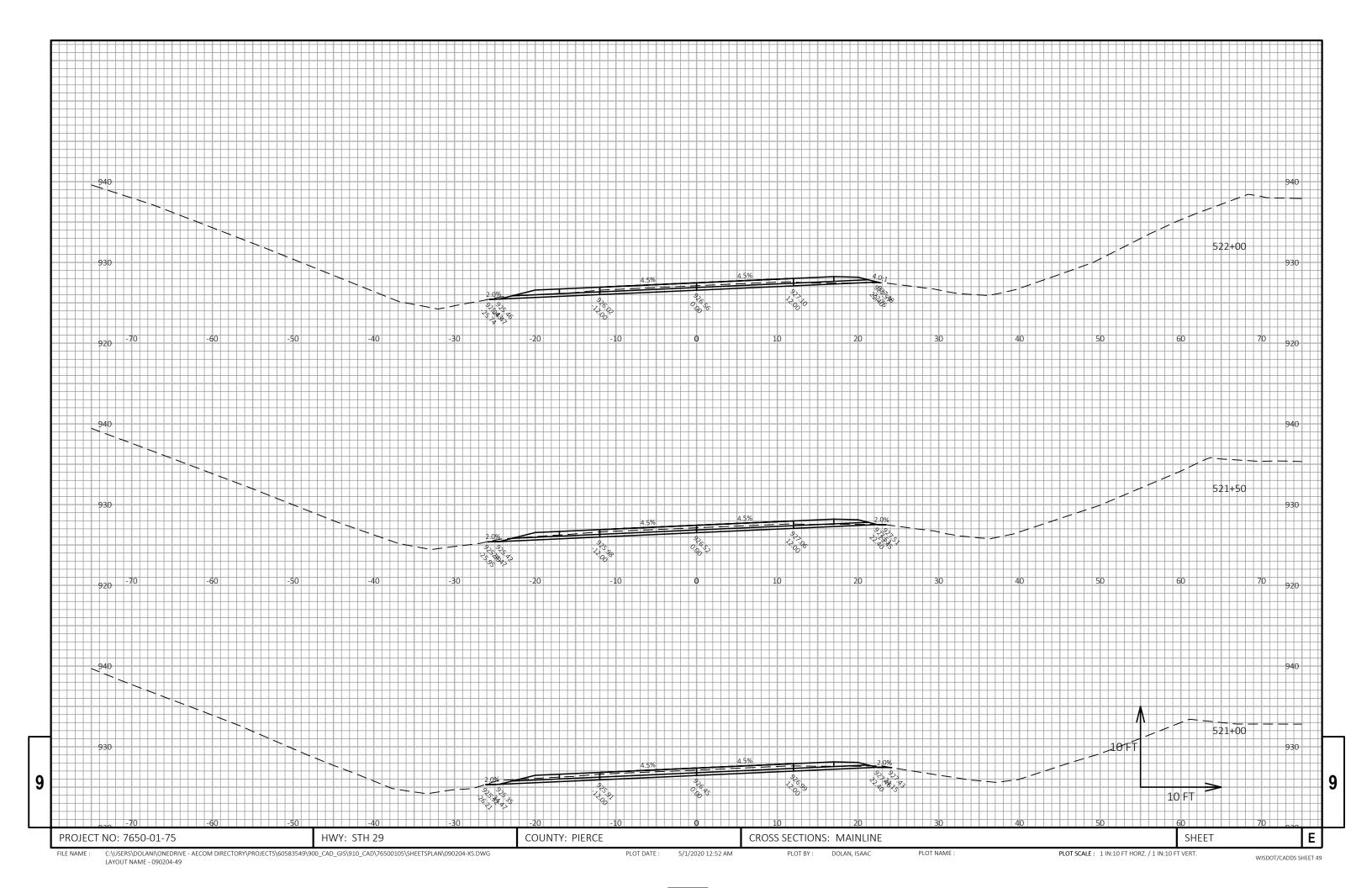


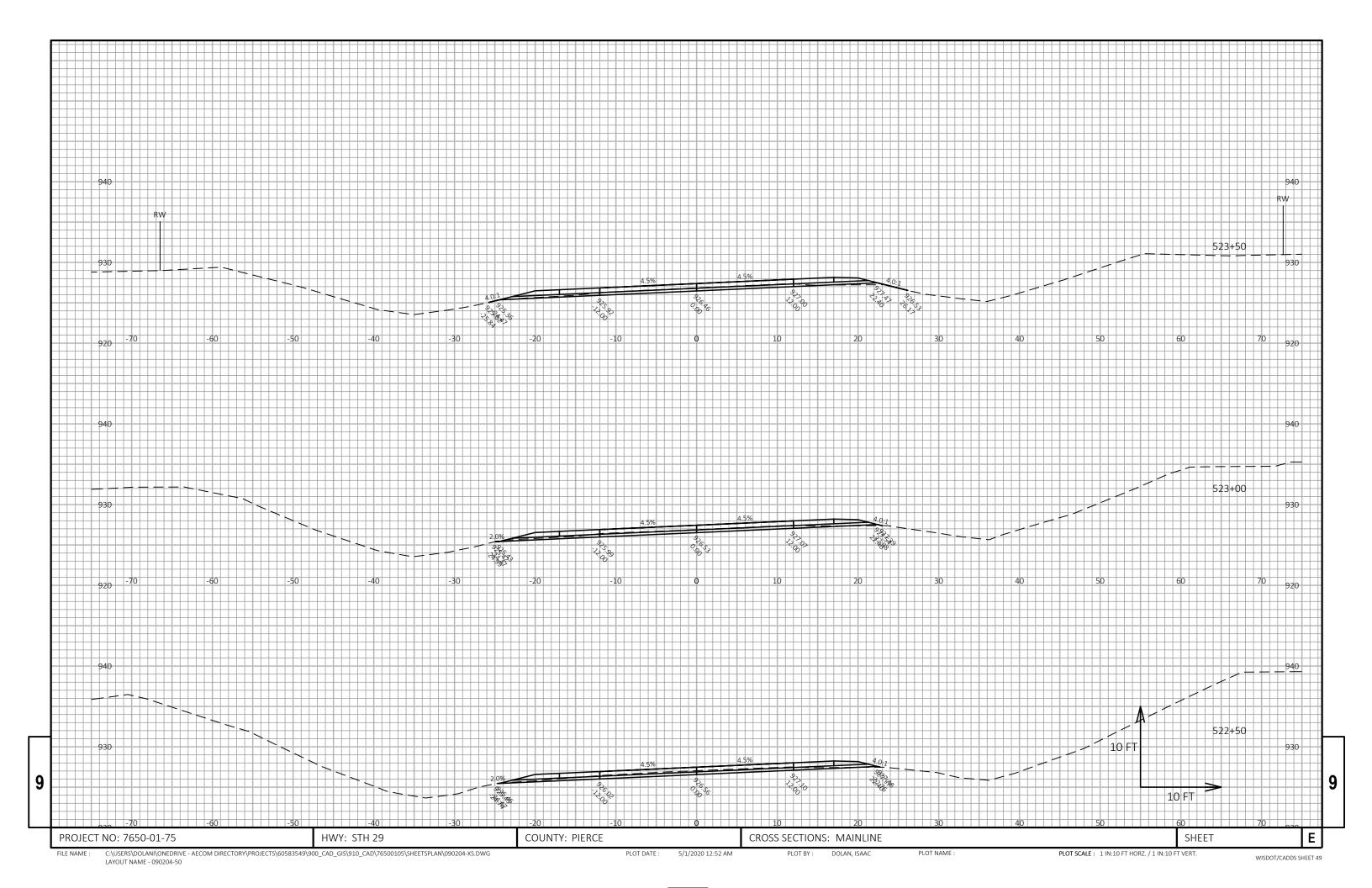


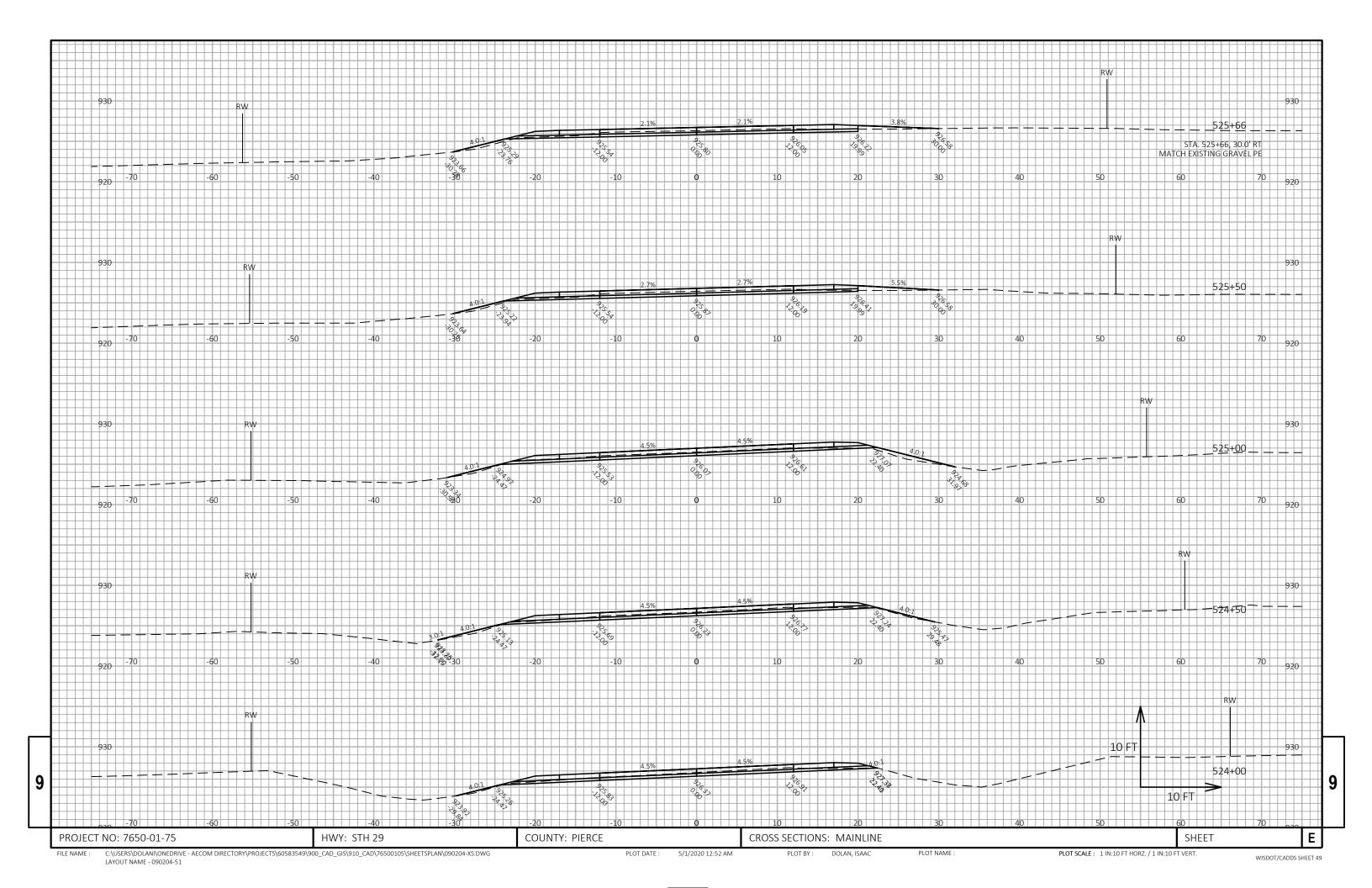


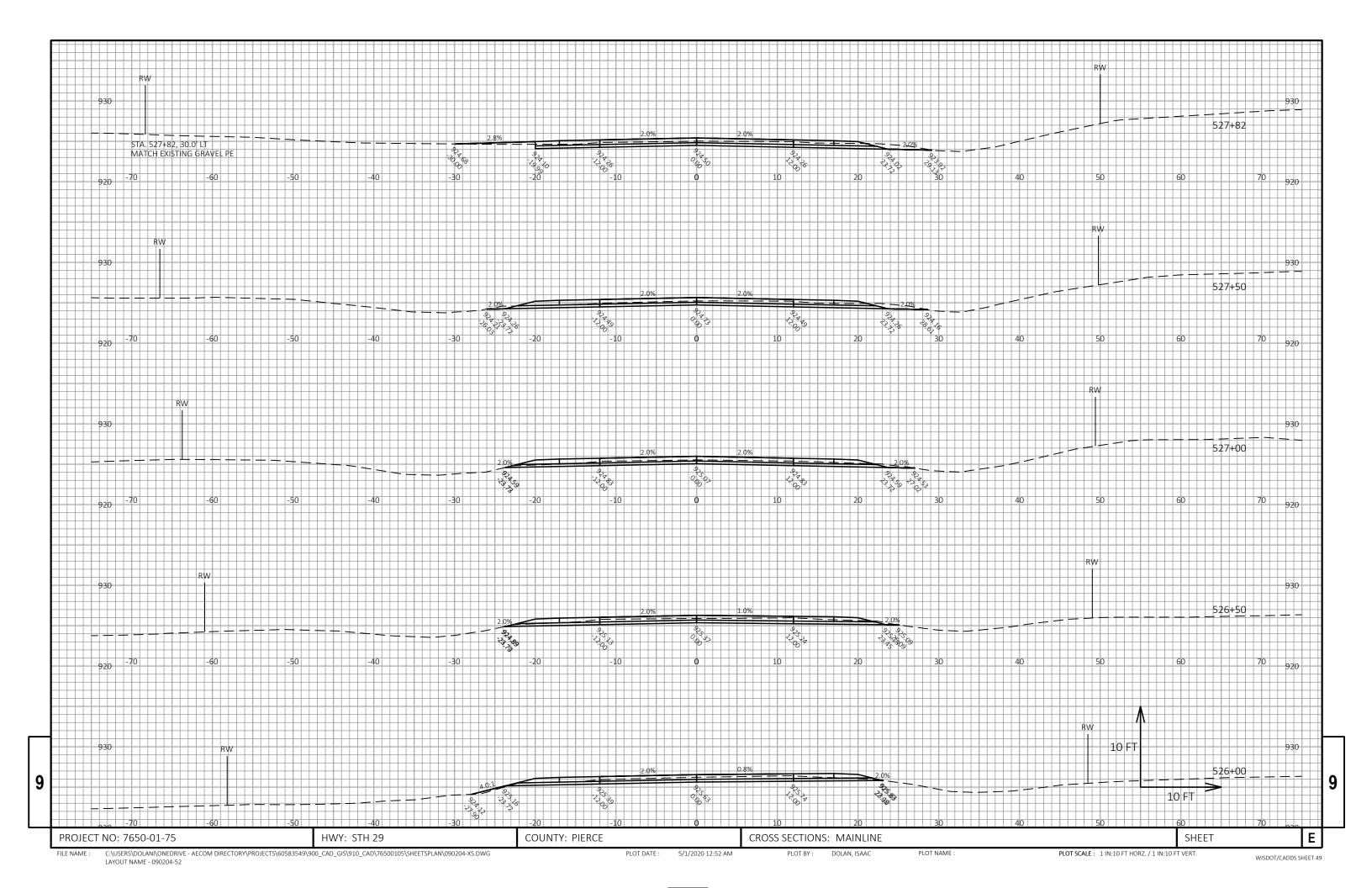


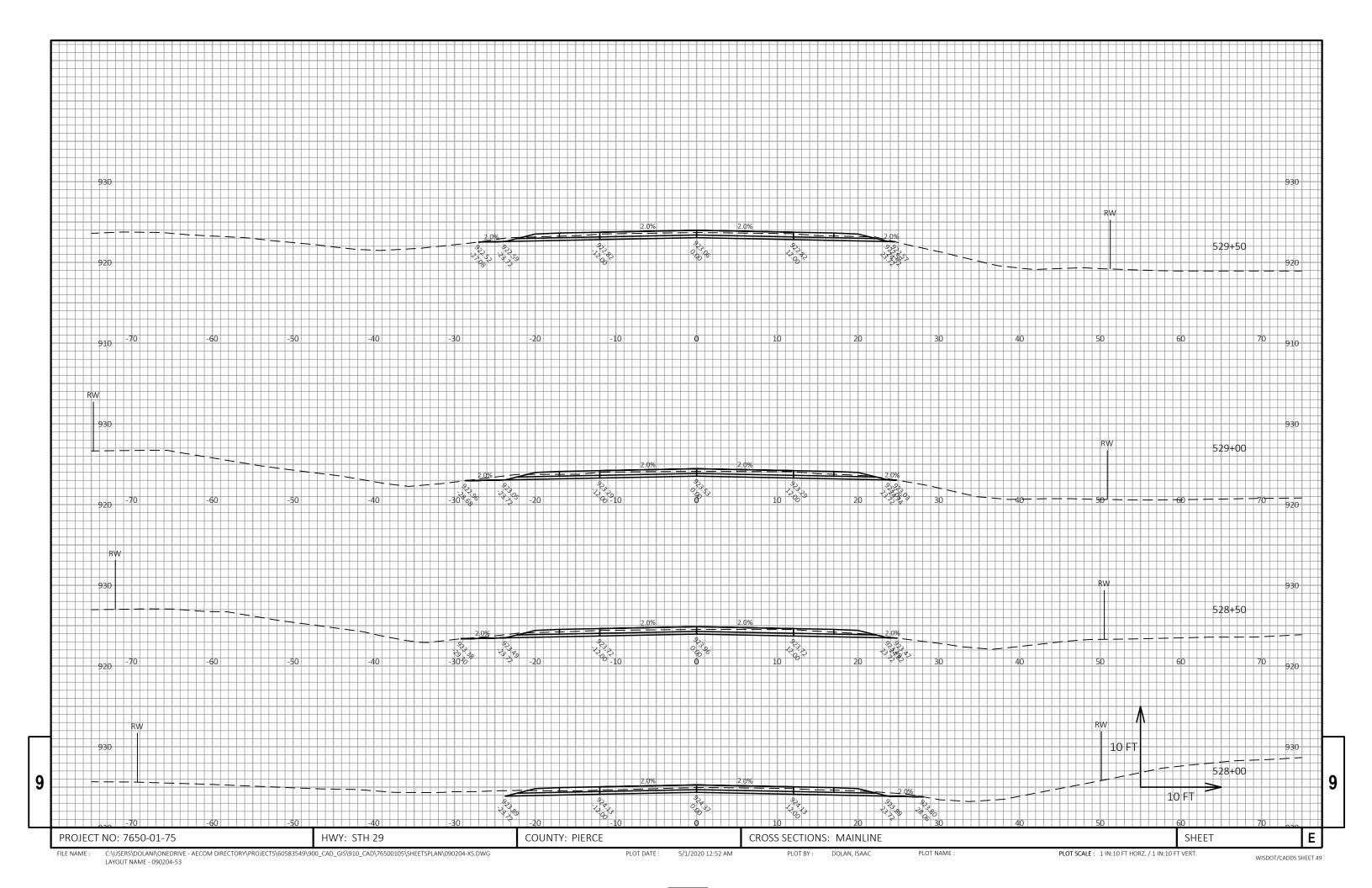


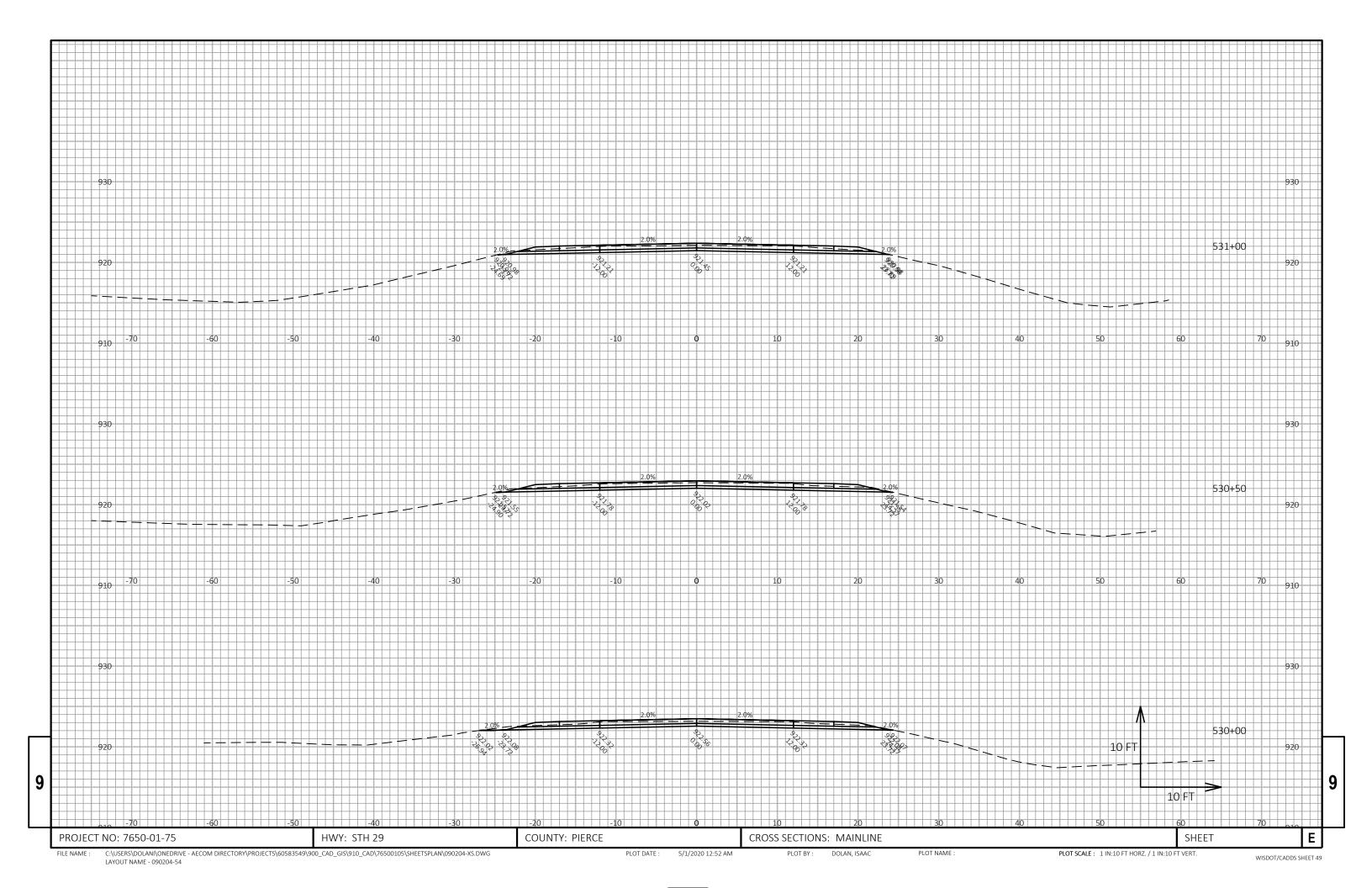


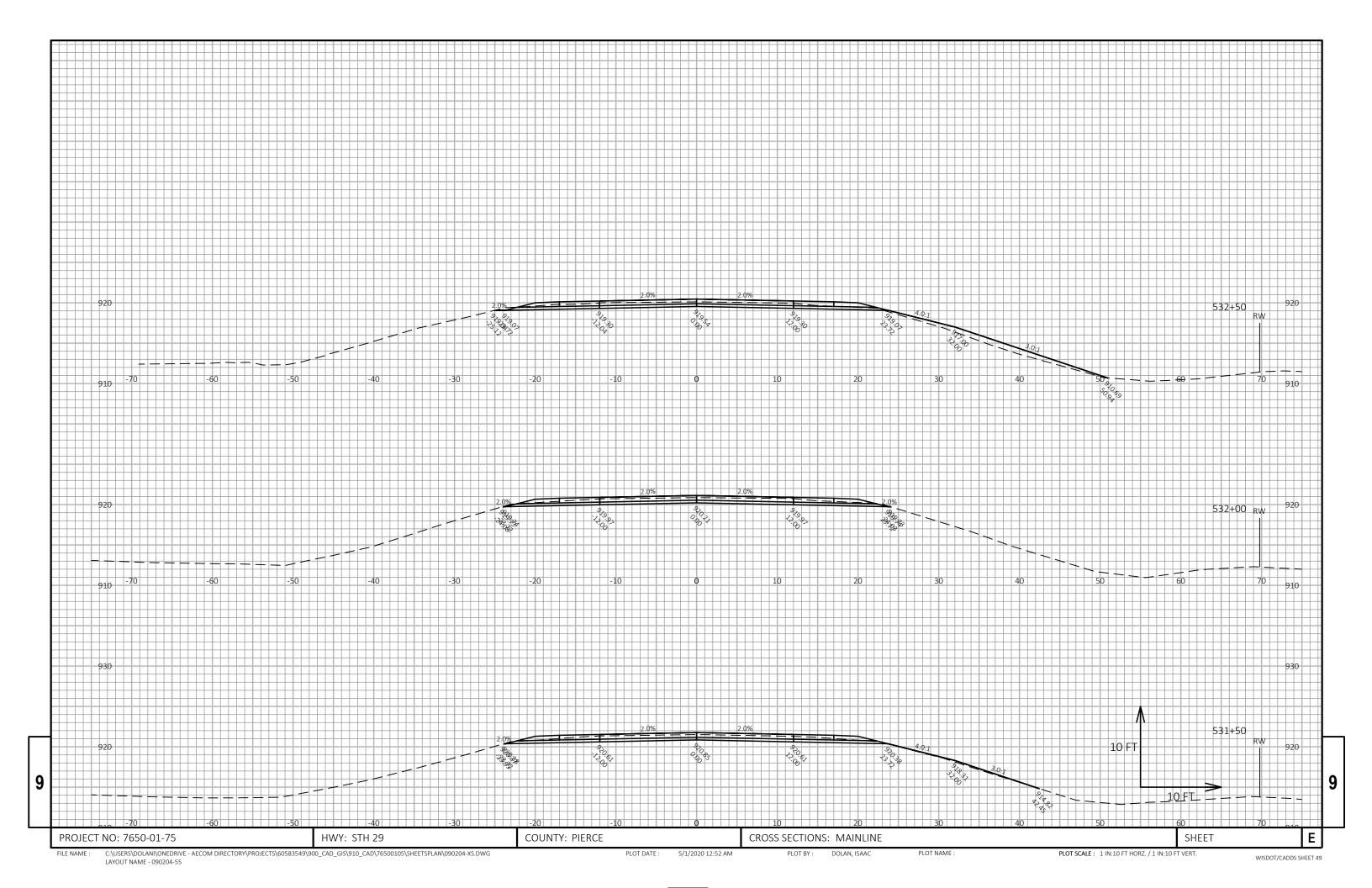


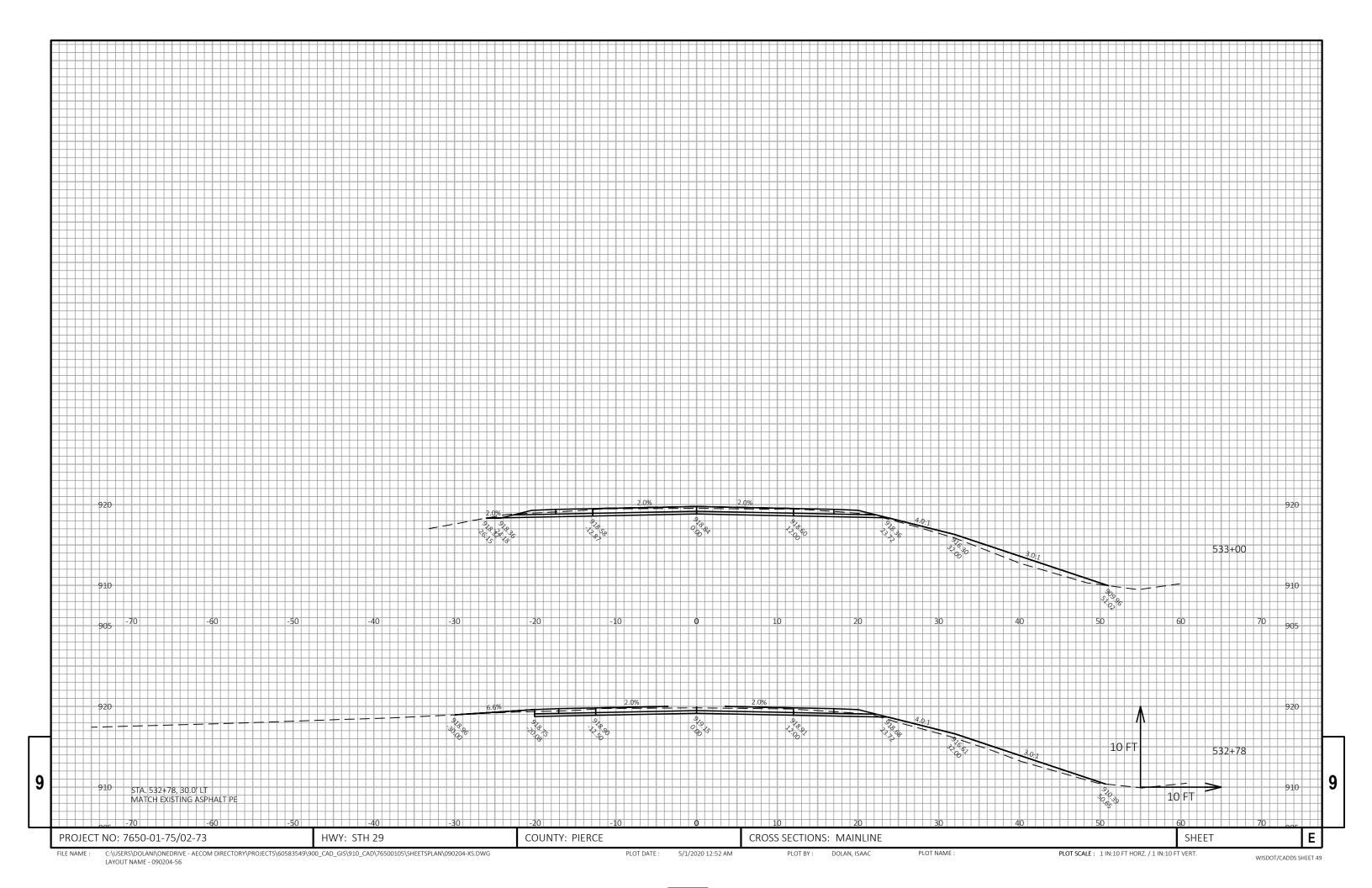


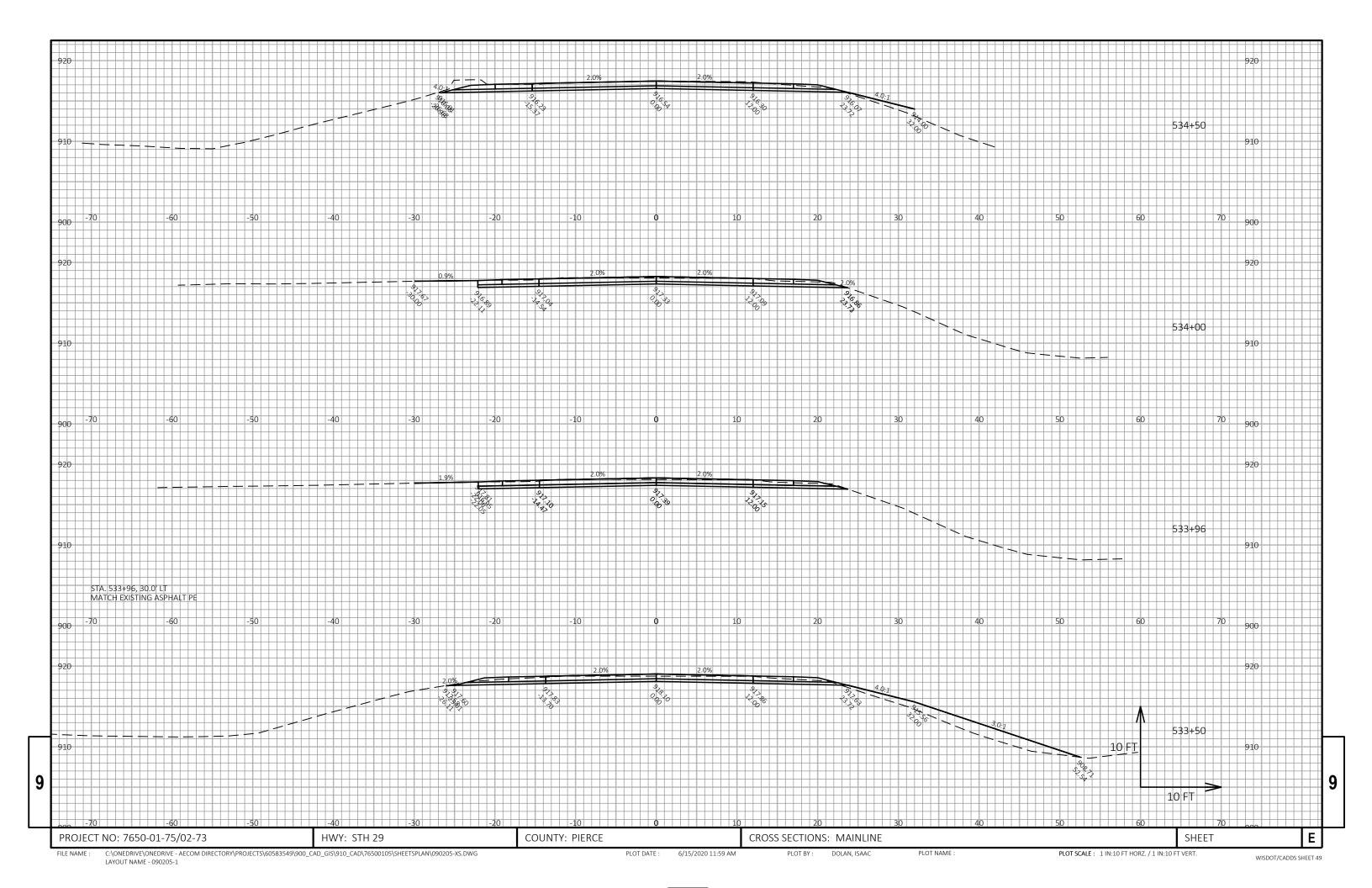


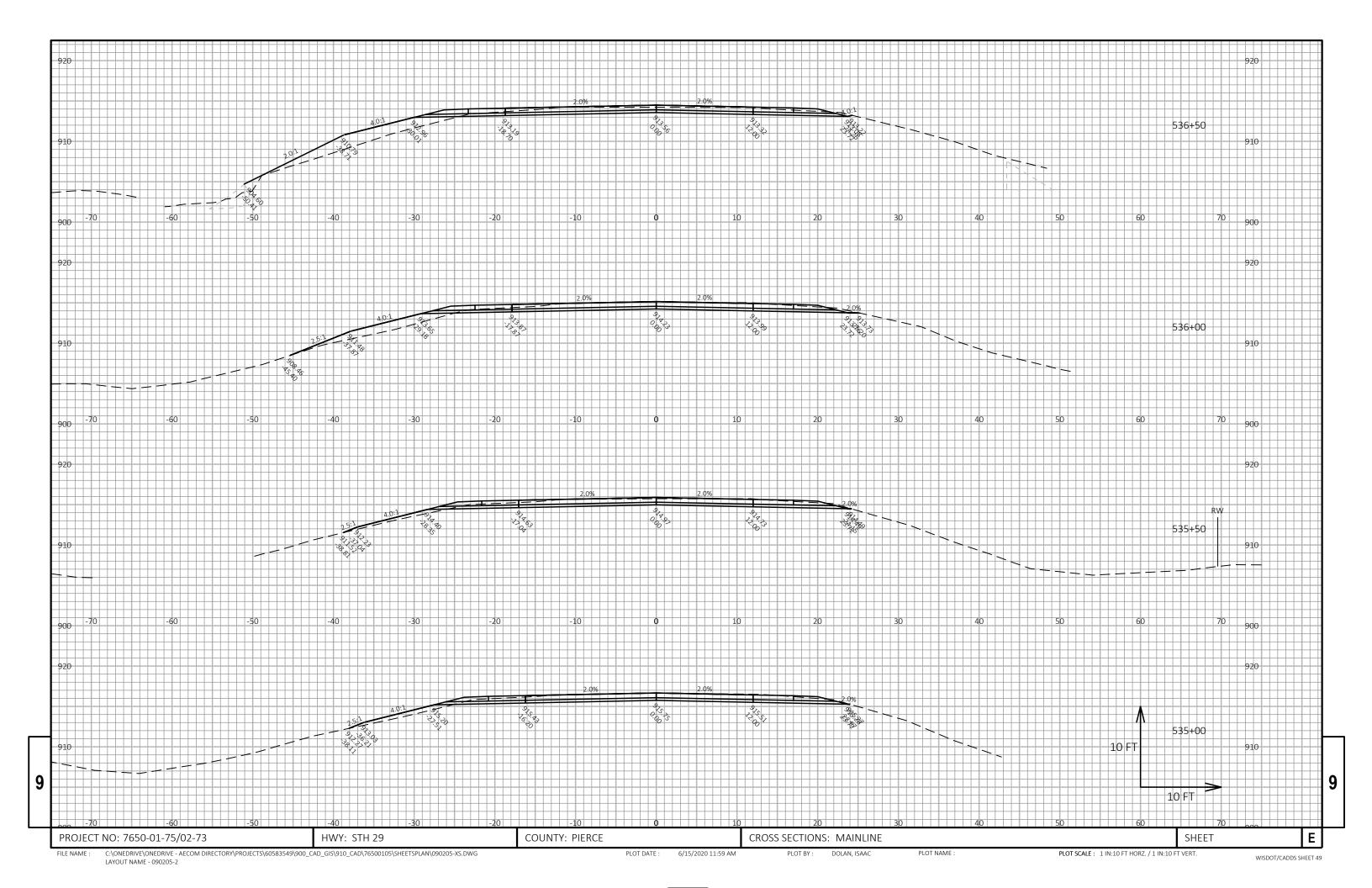


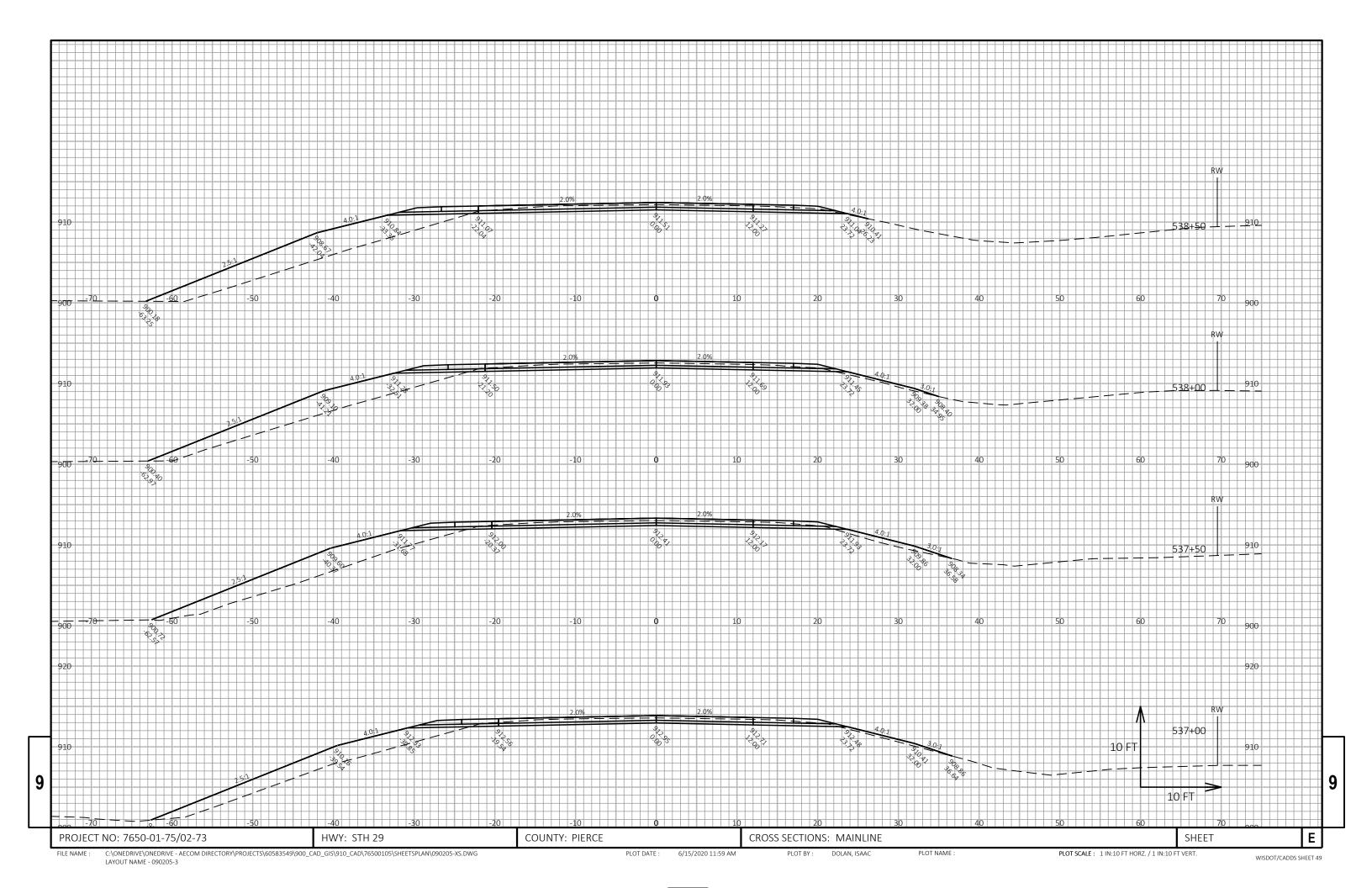


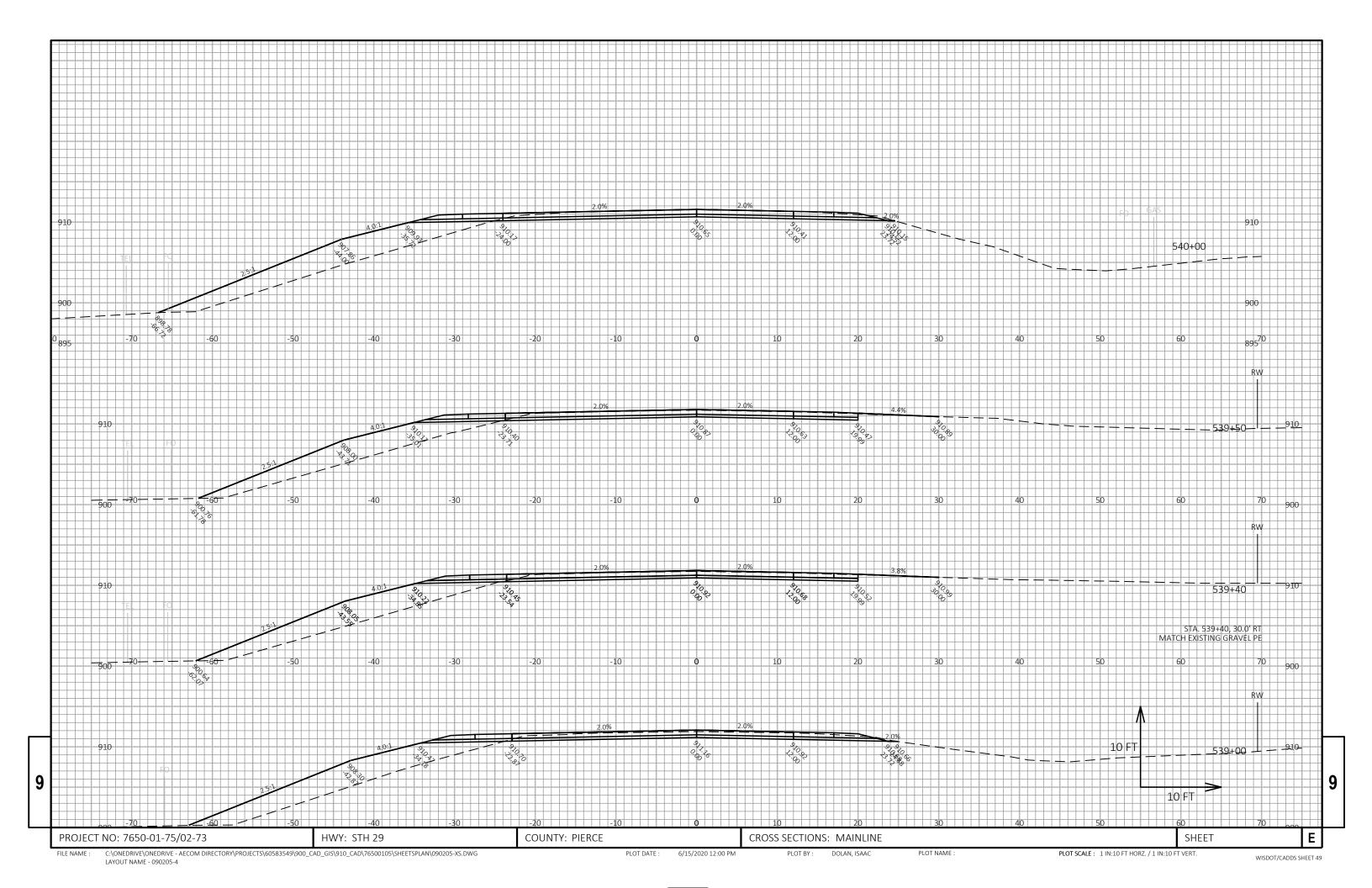


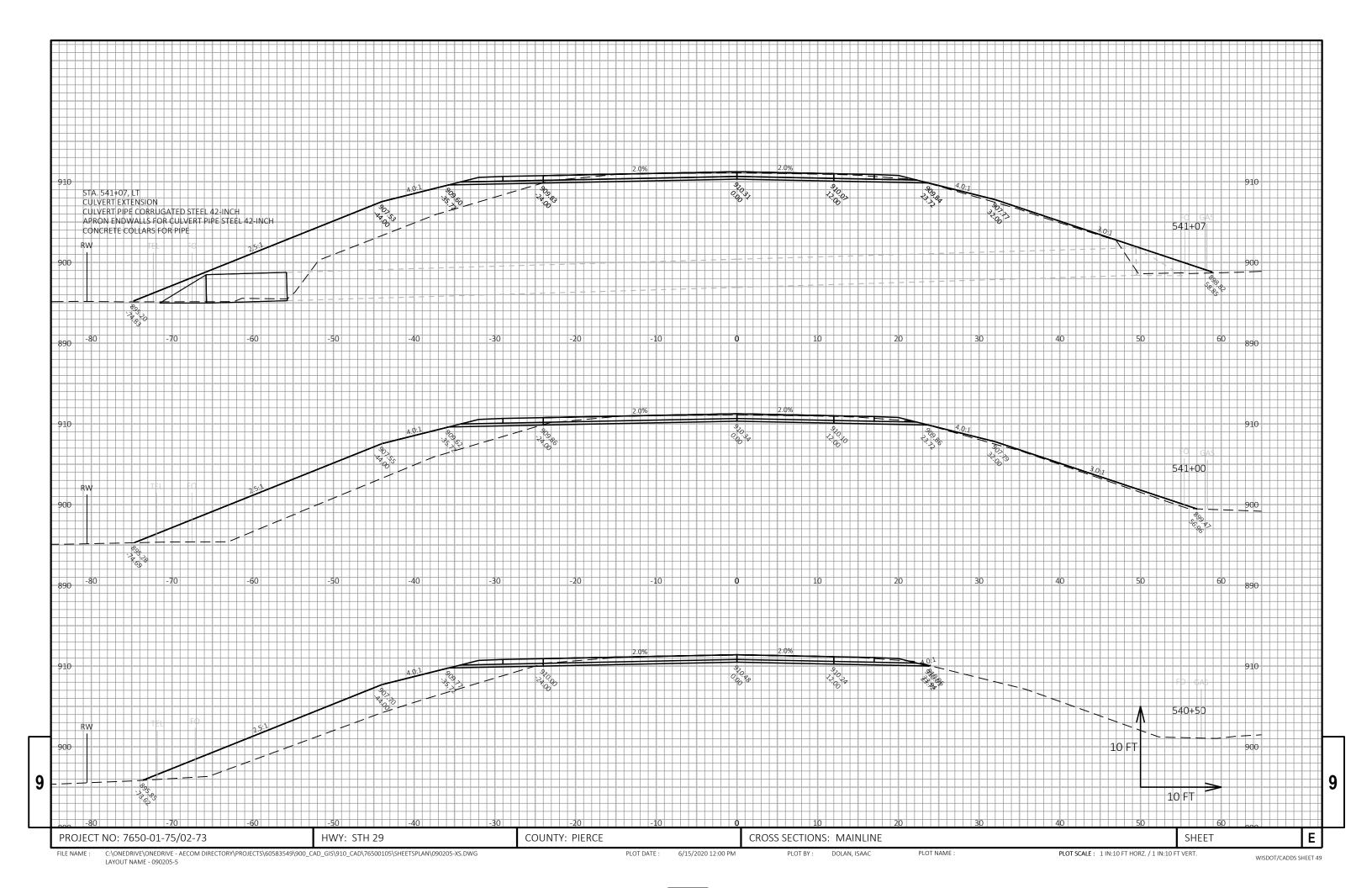


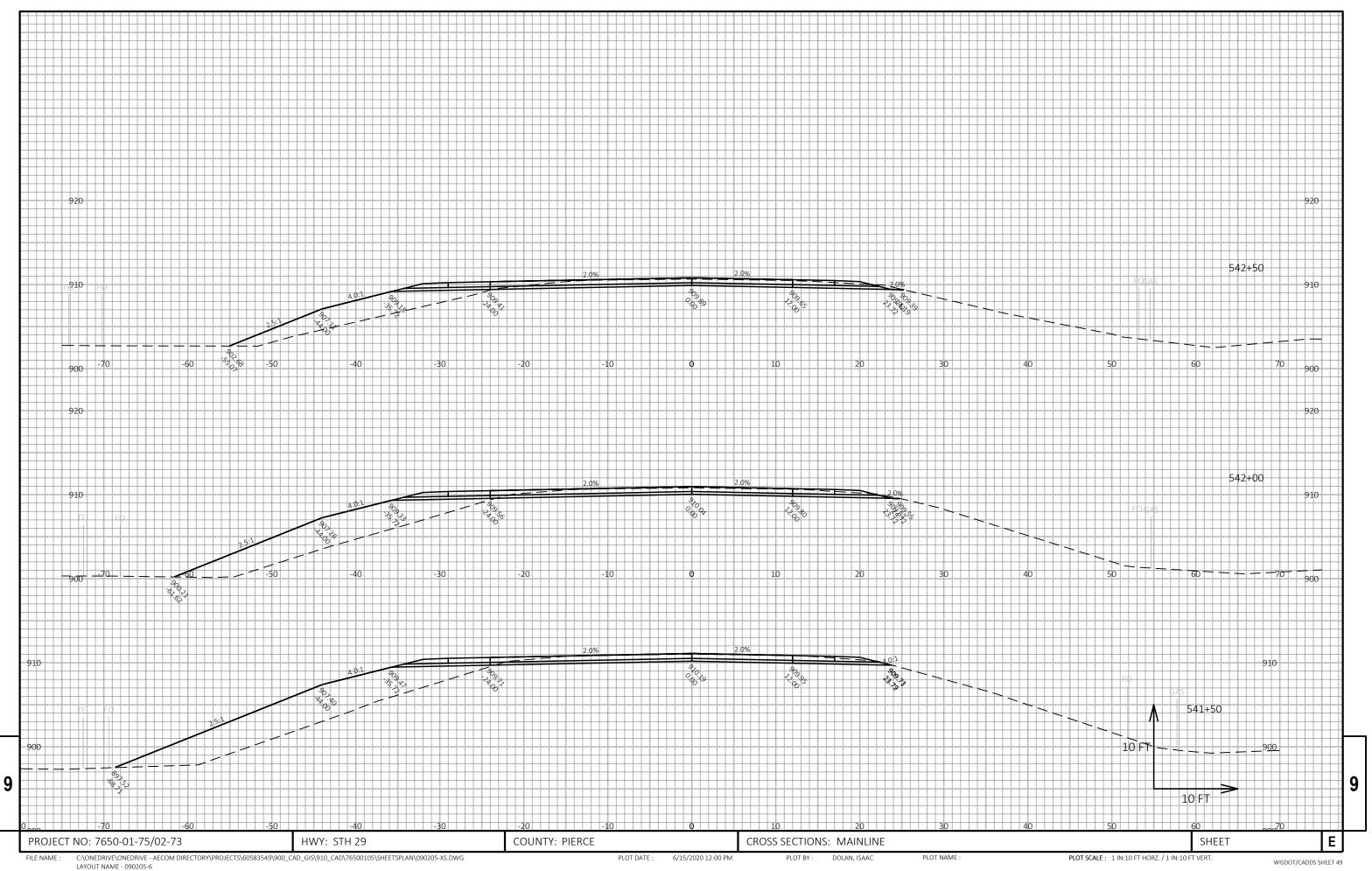




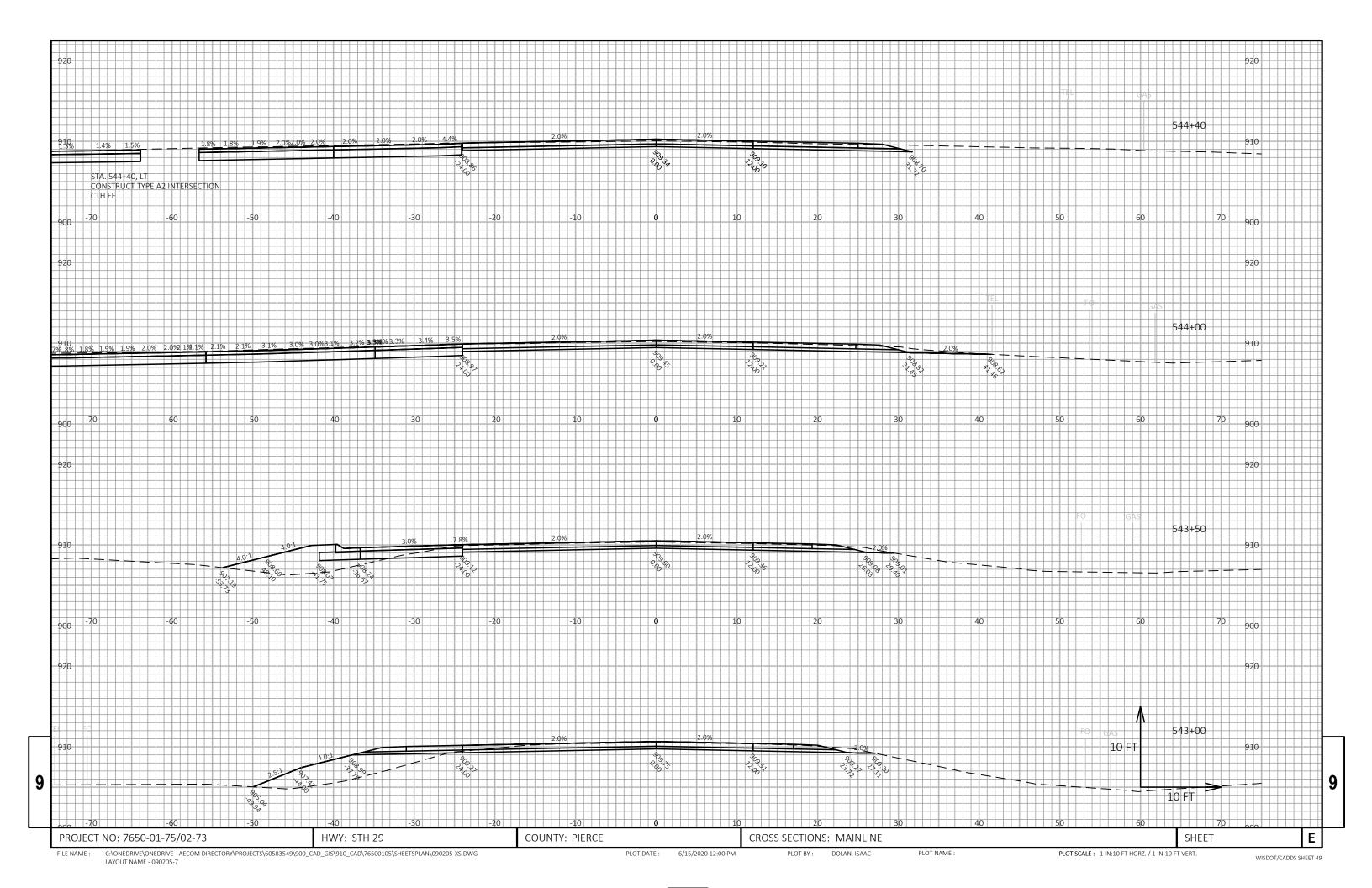


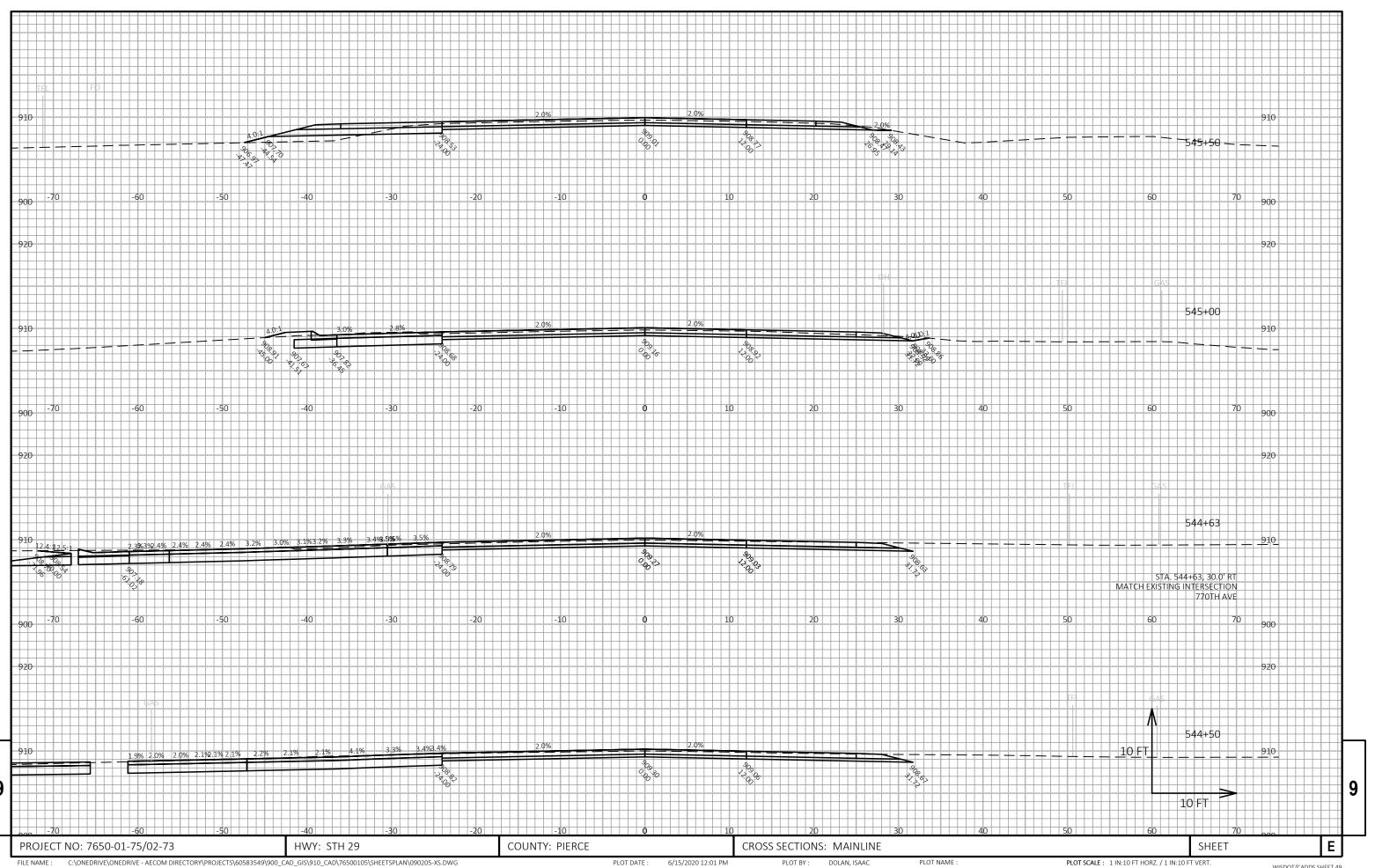






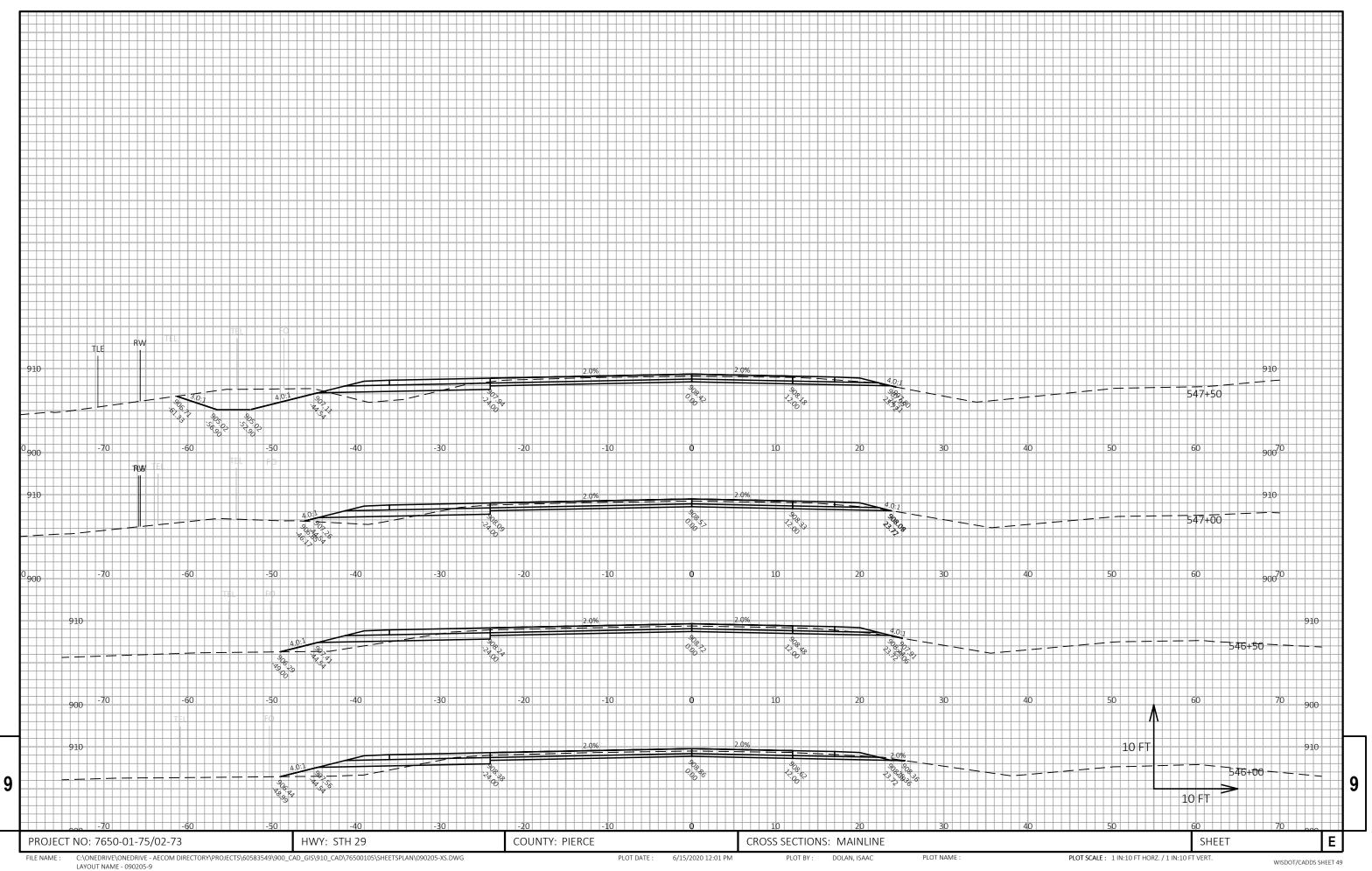
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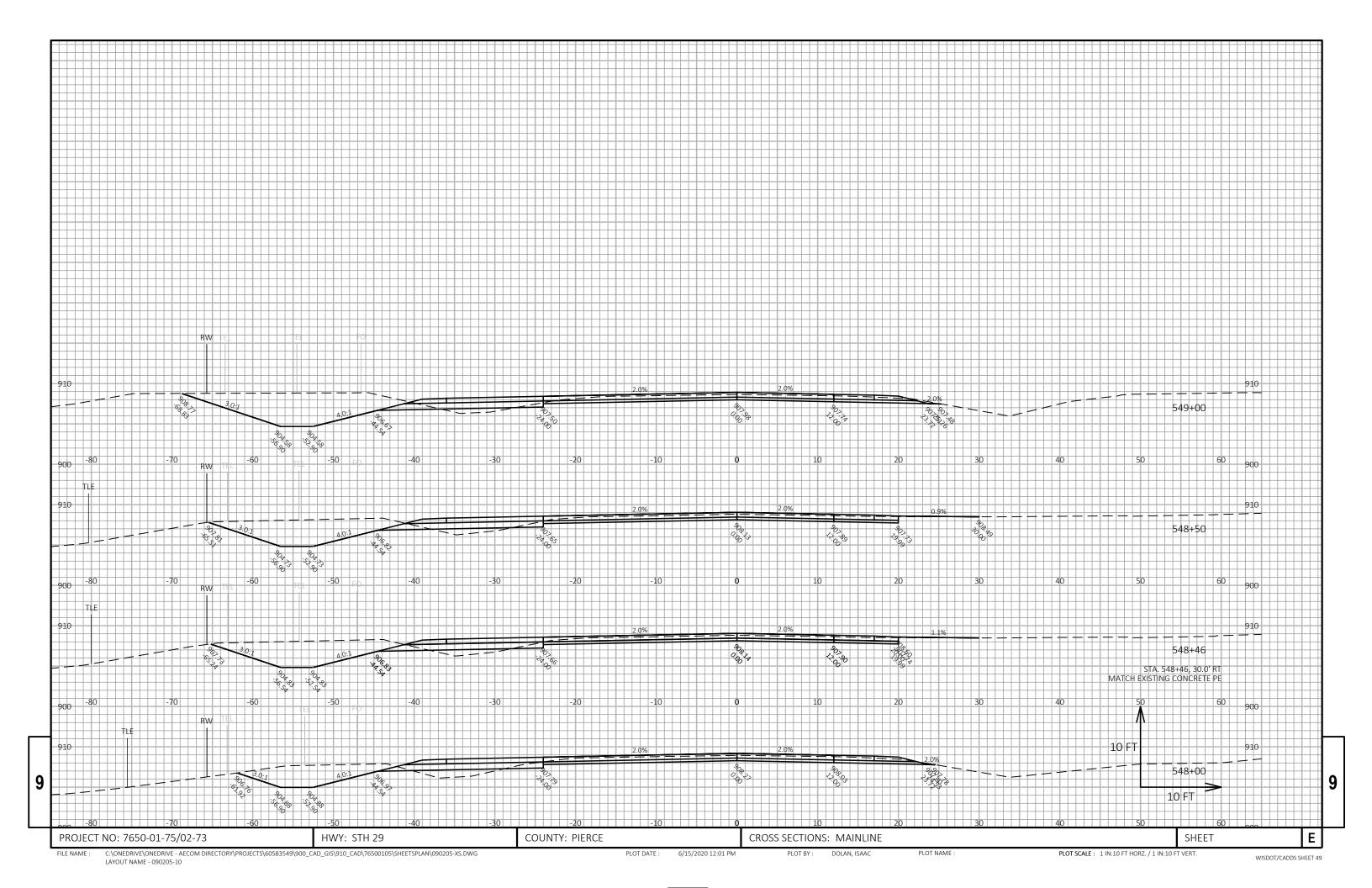


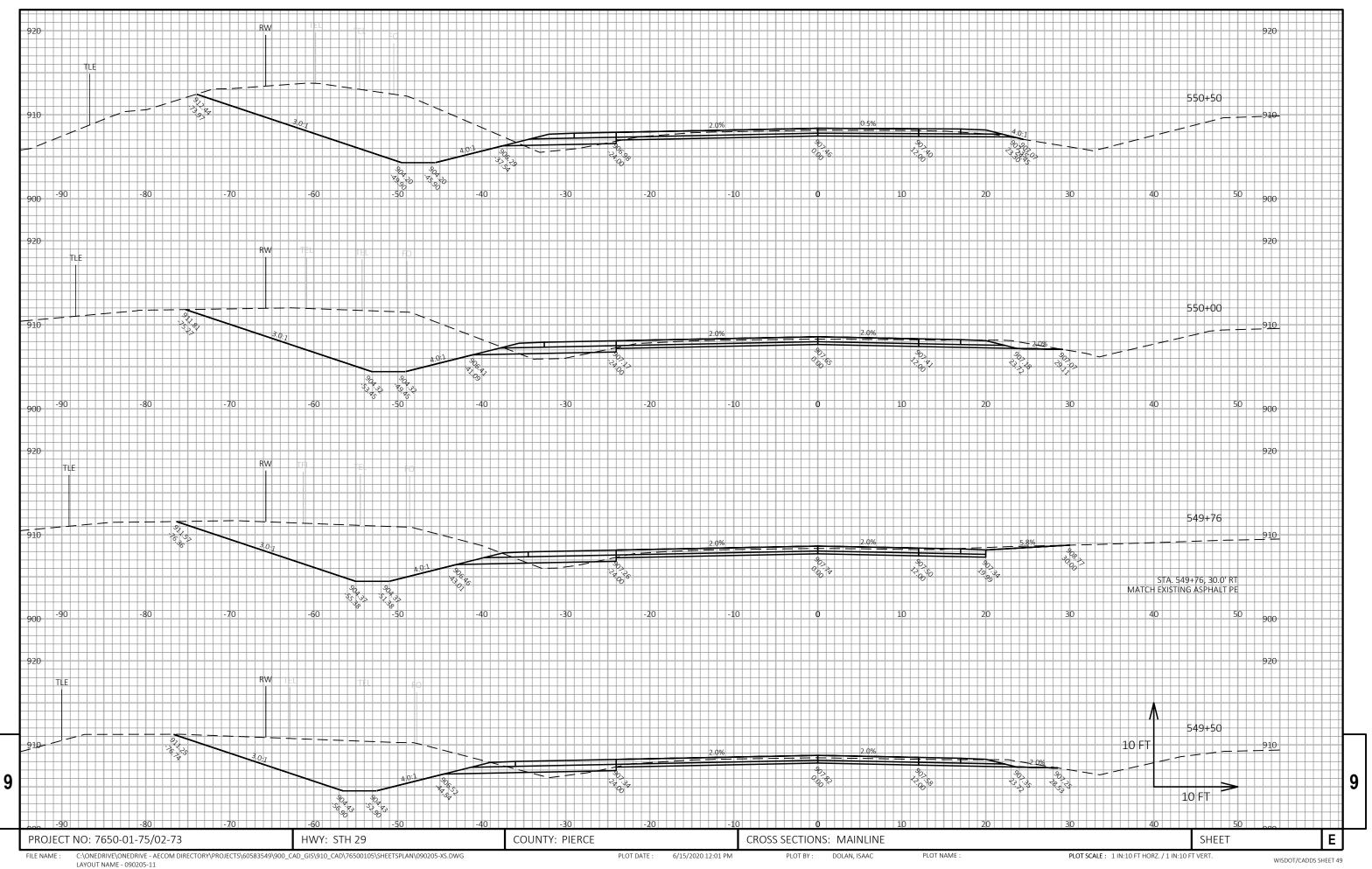
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WISDOT/CADDS SHEET 49

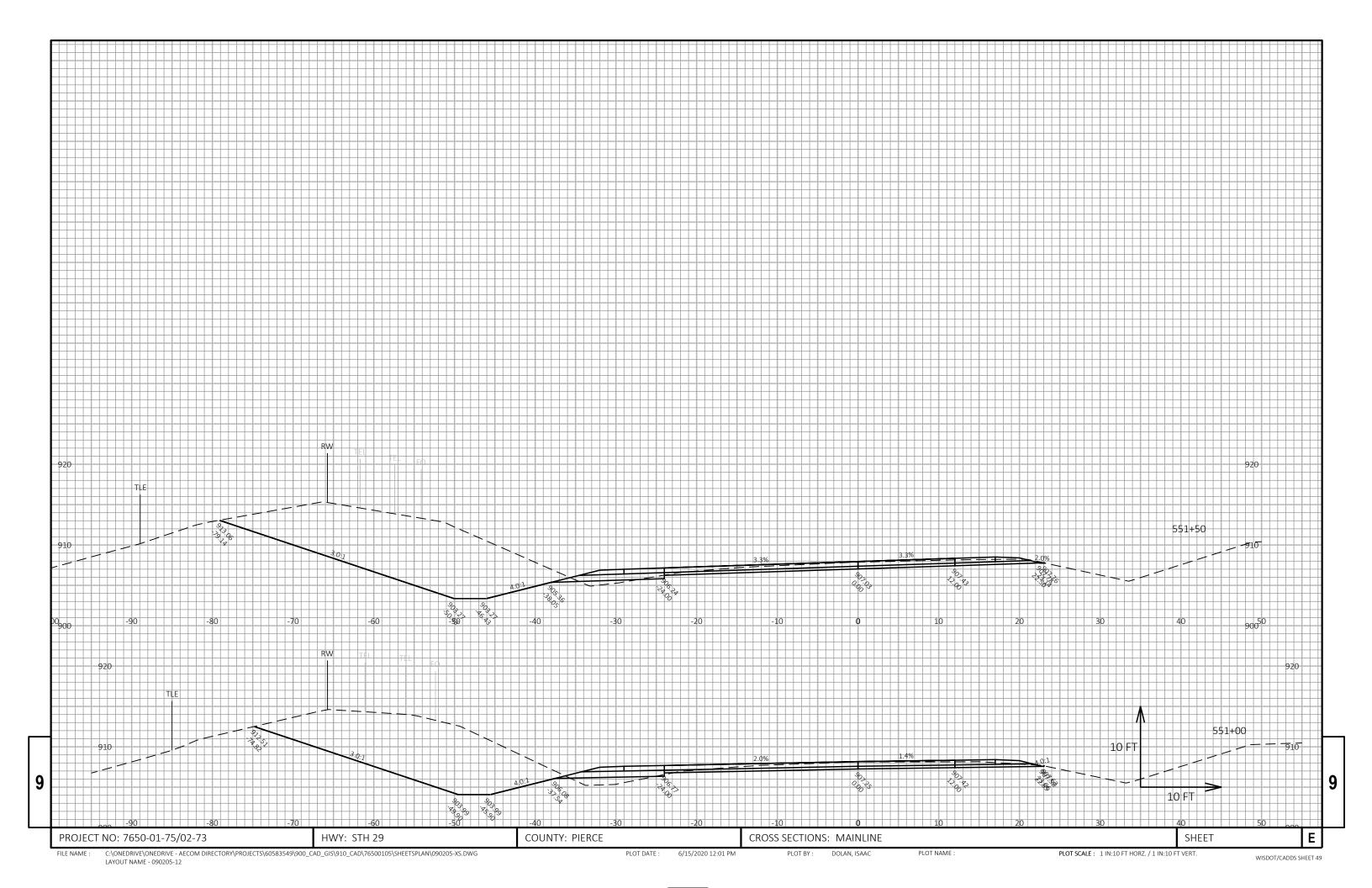


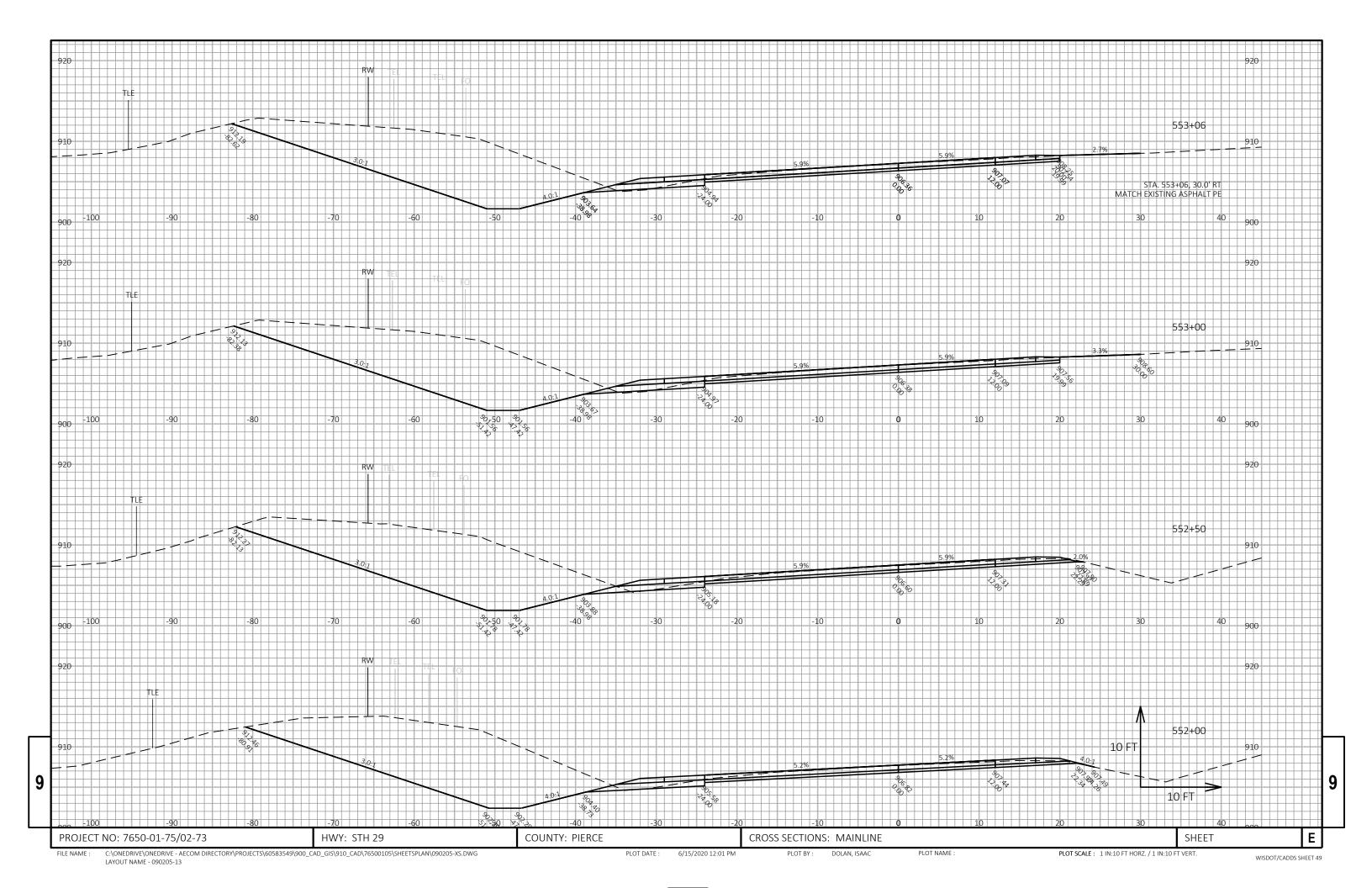
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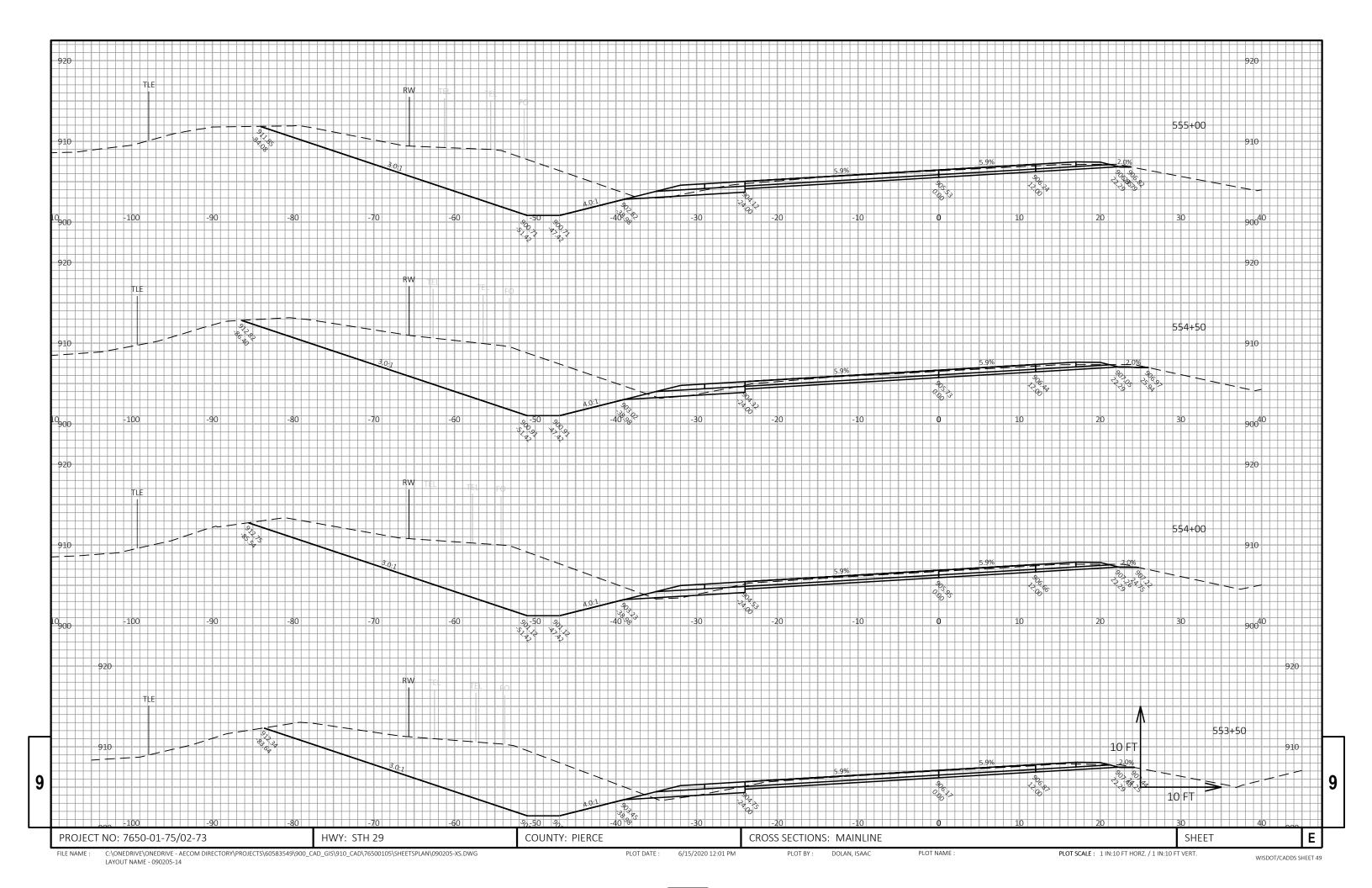


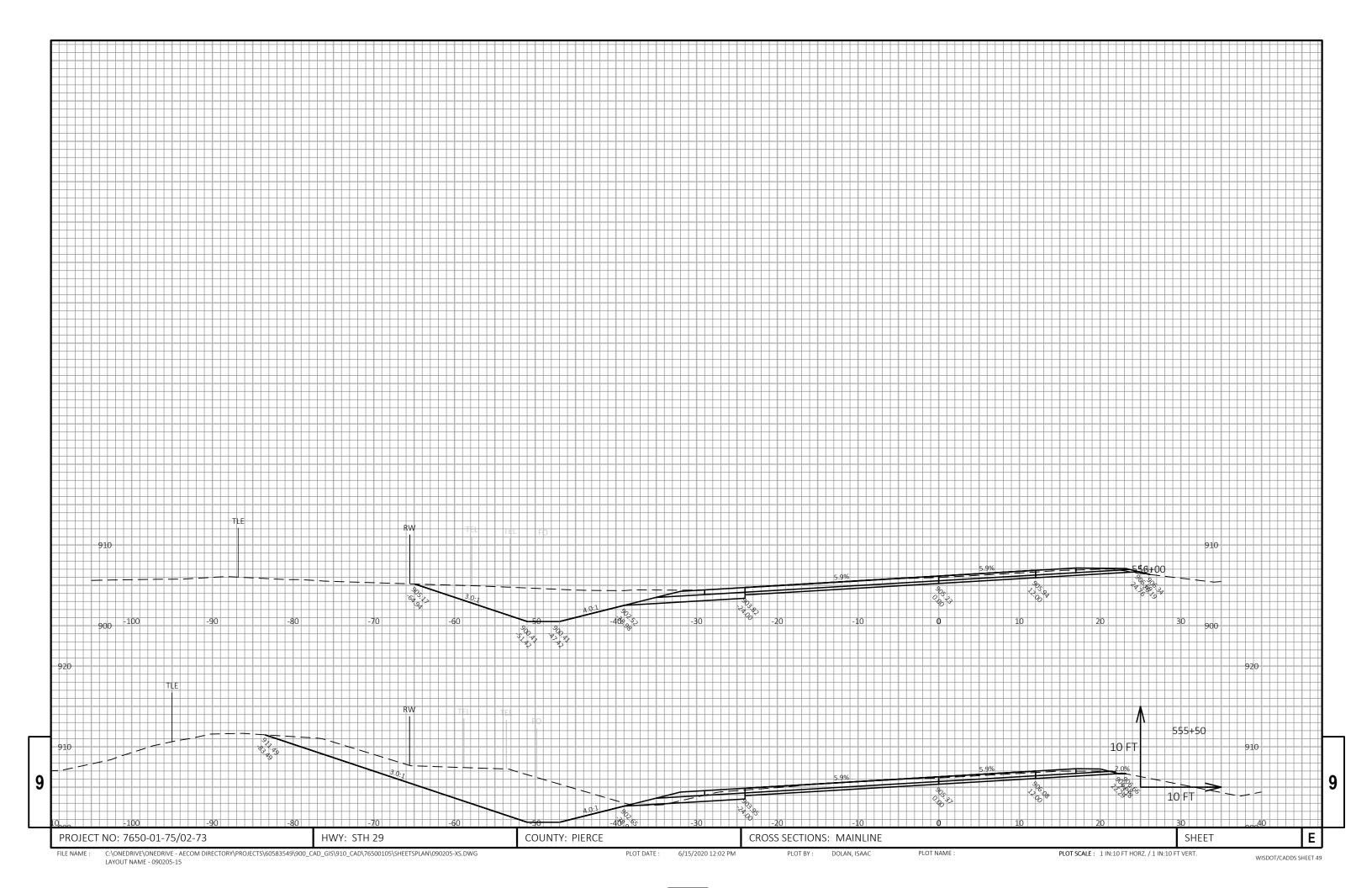


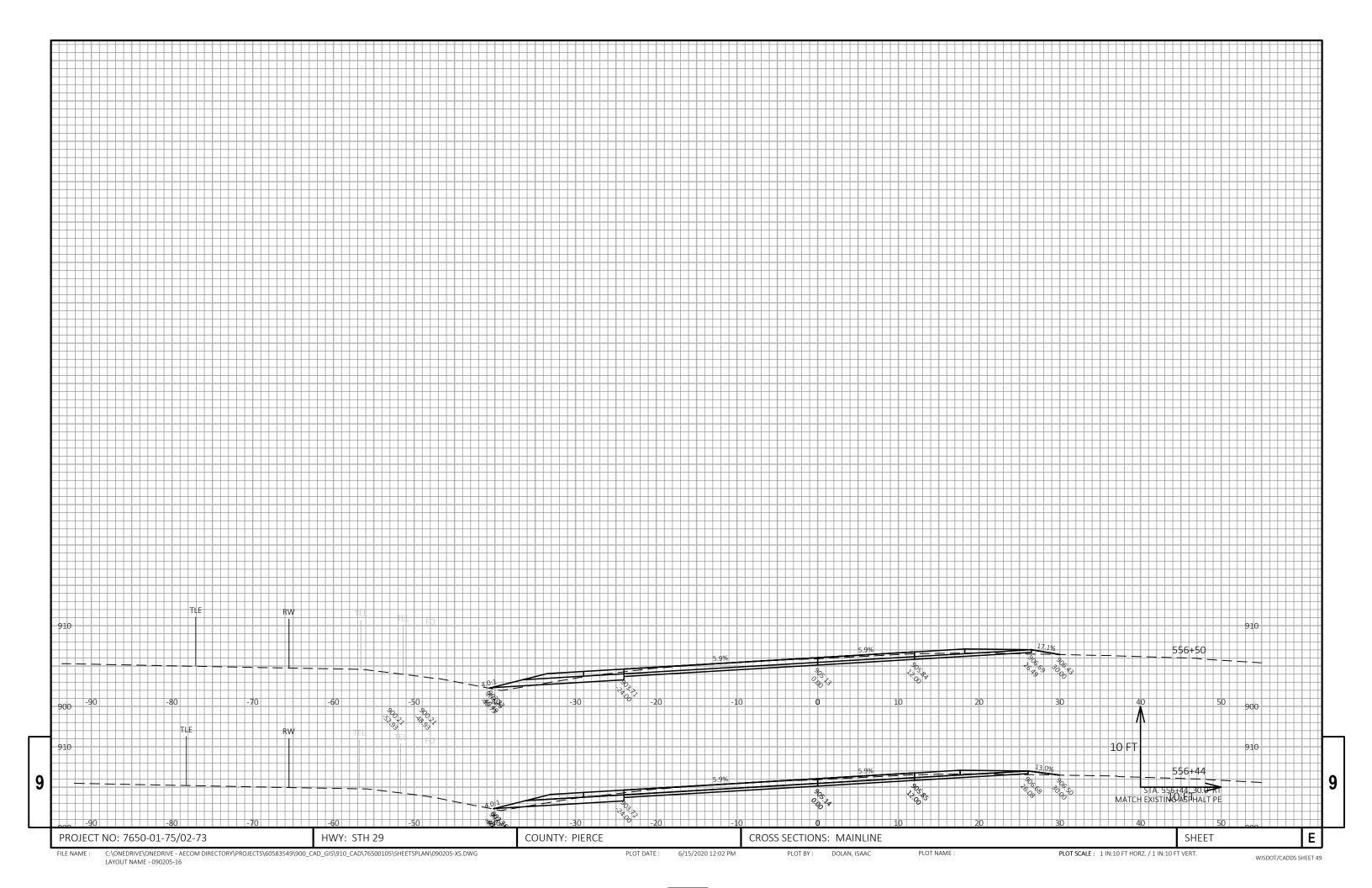
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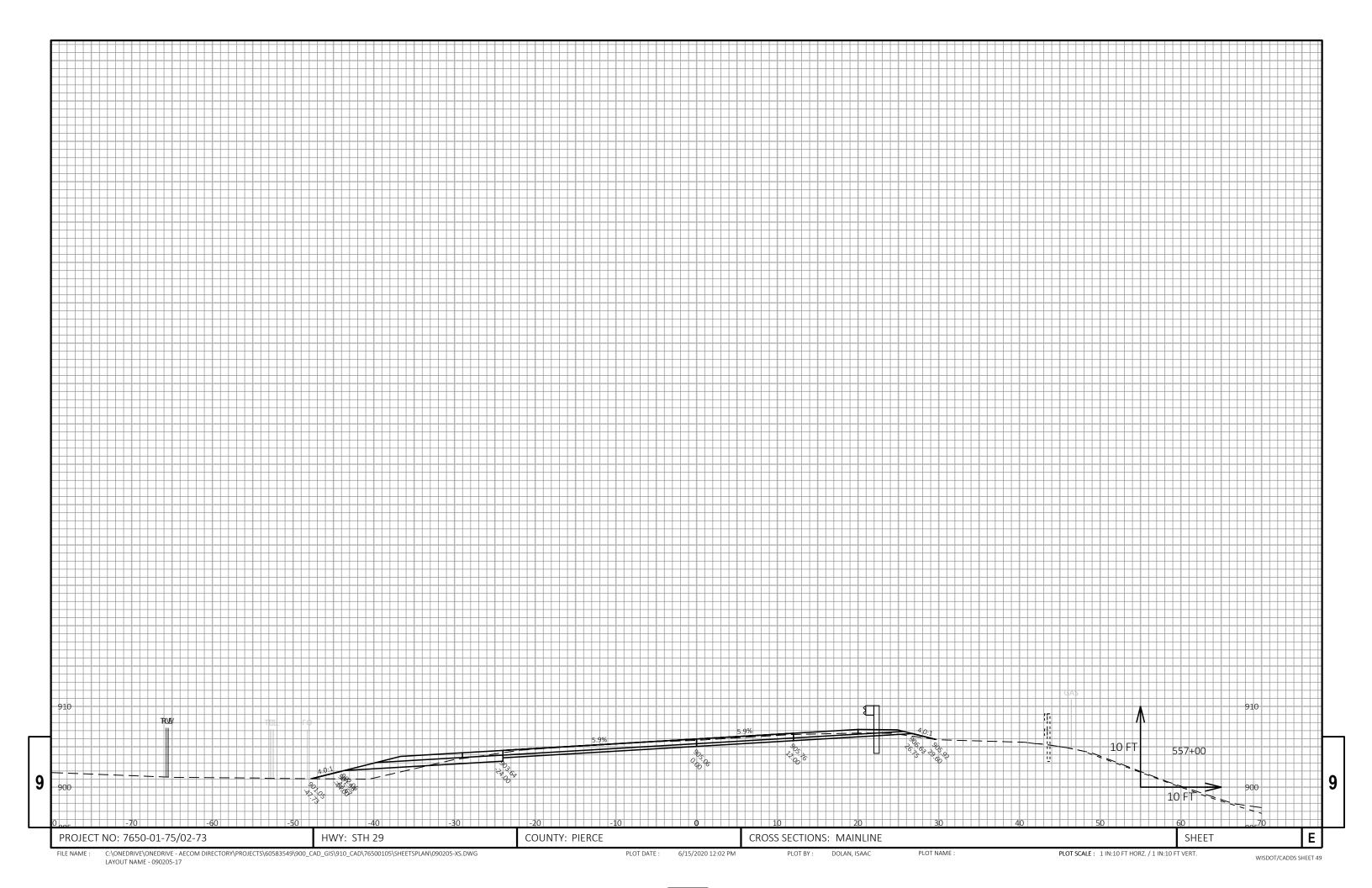


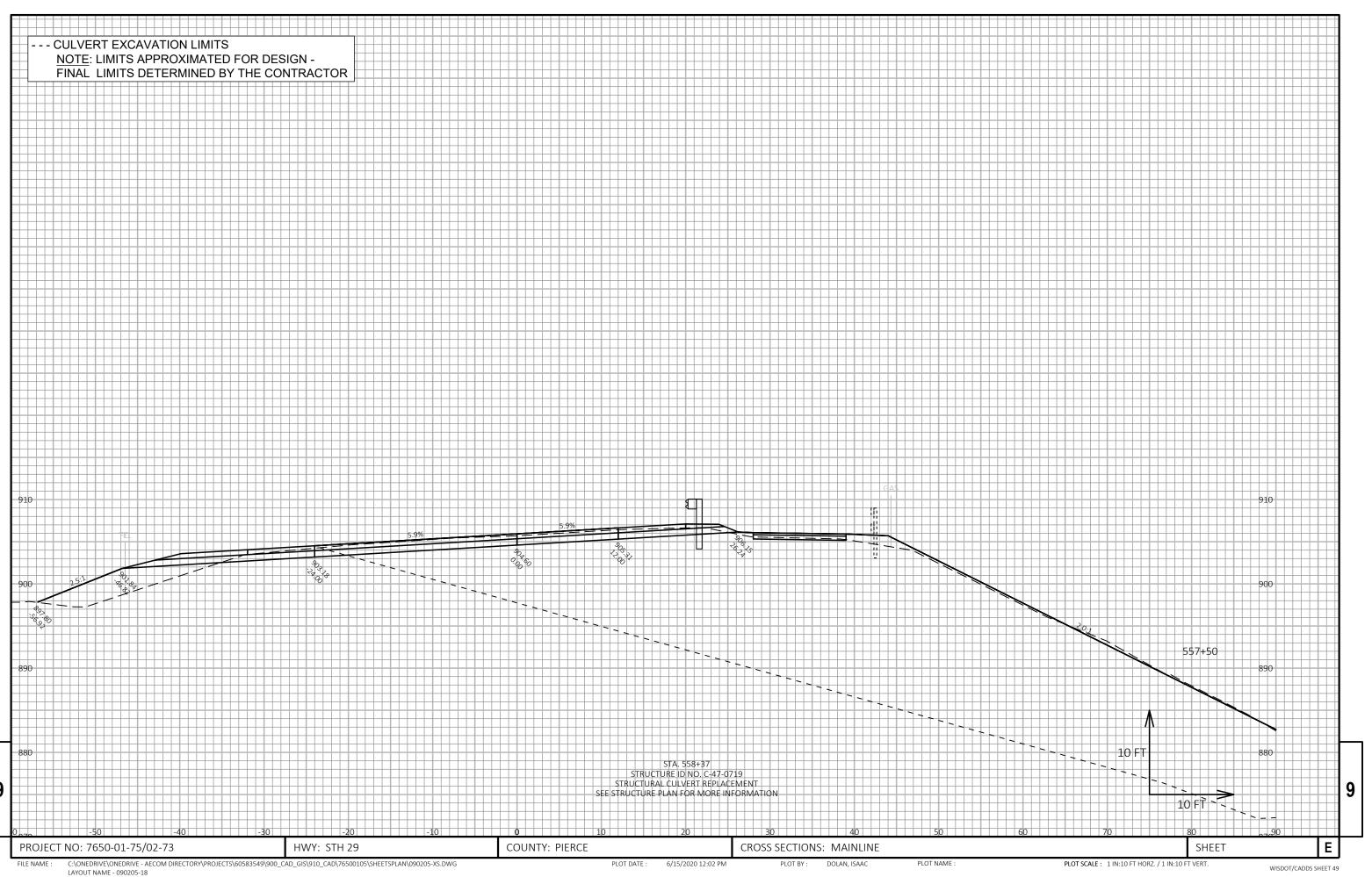


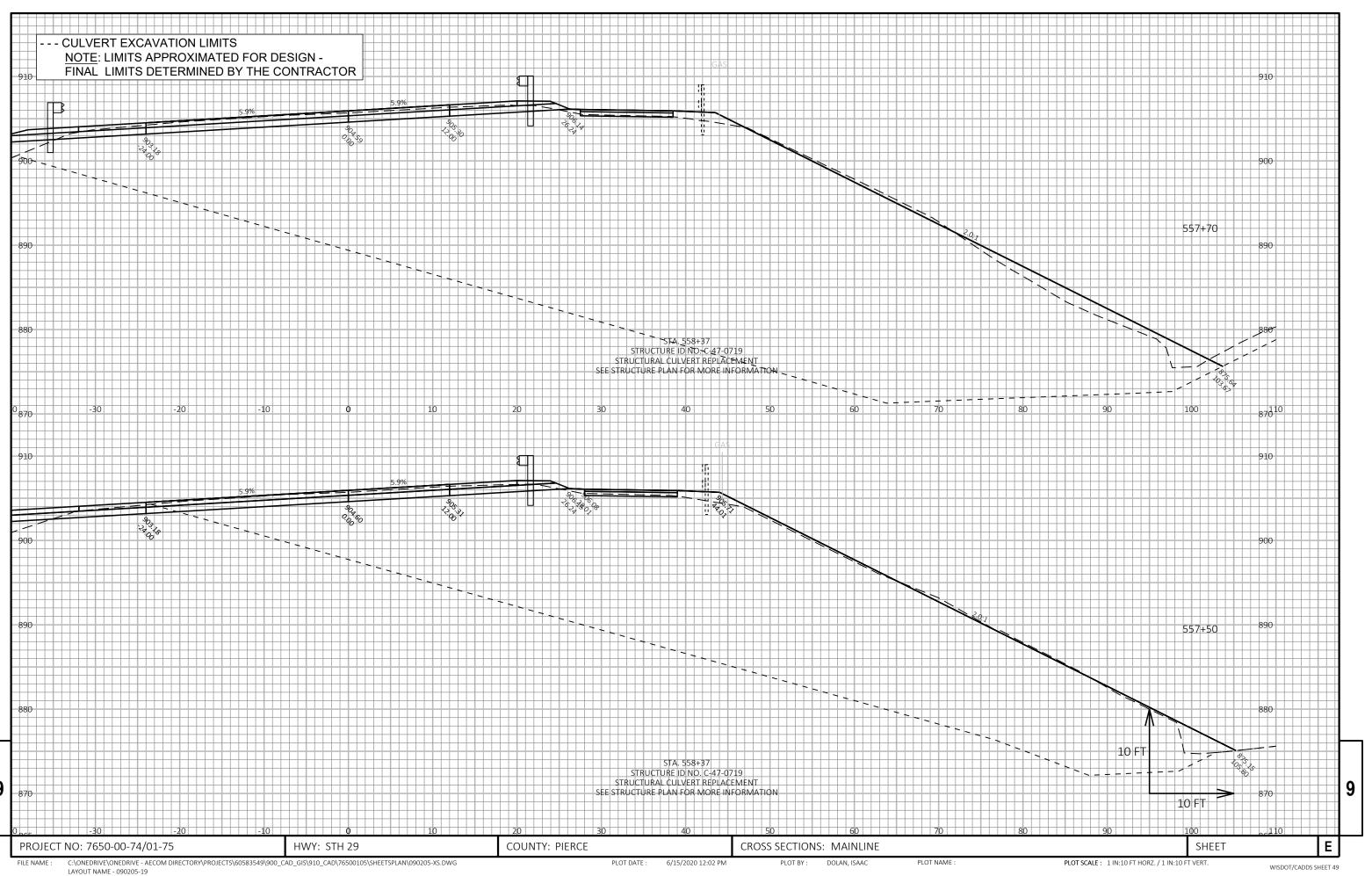


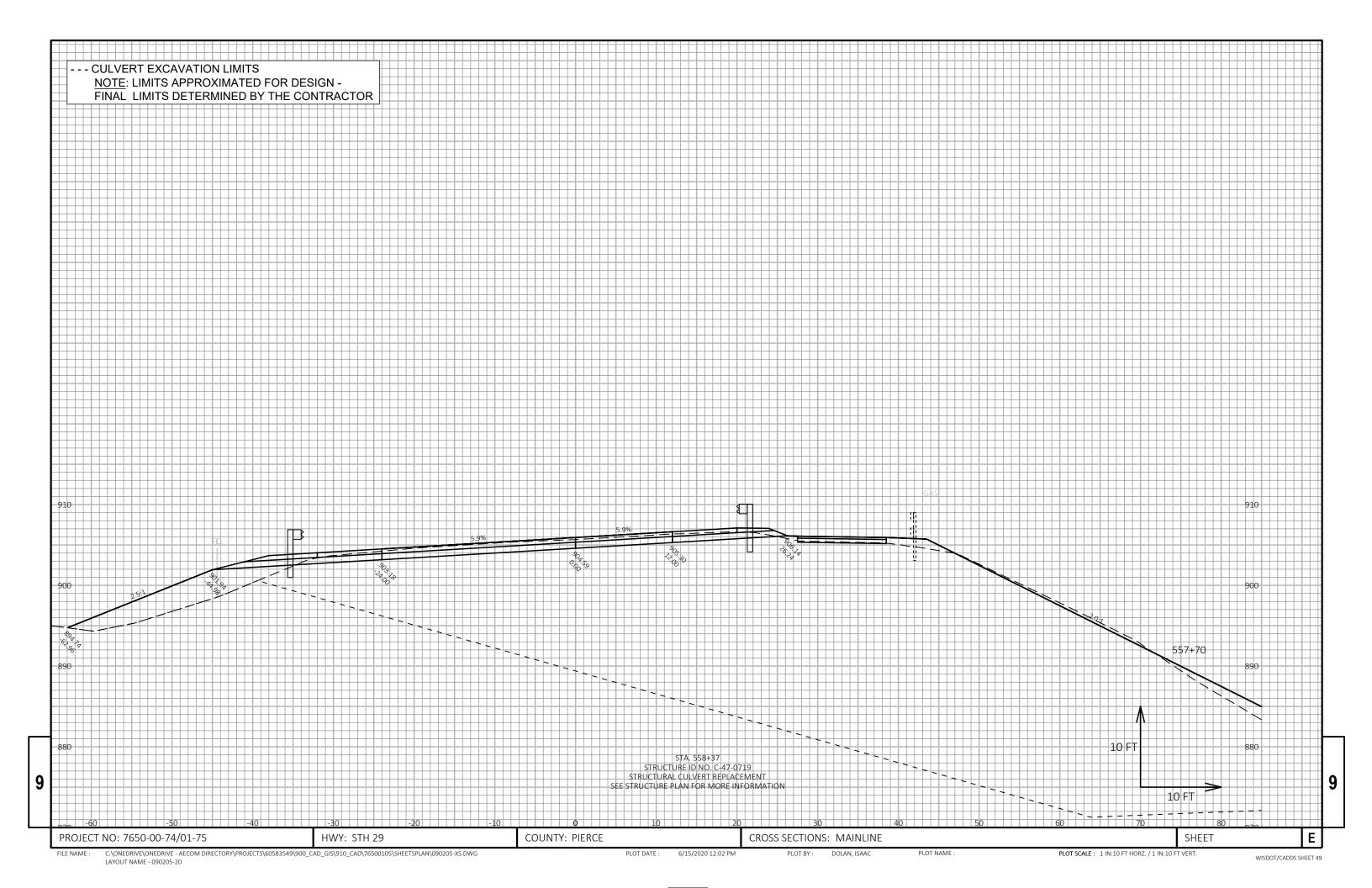


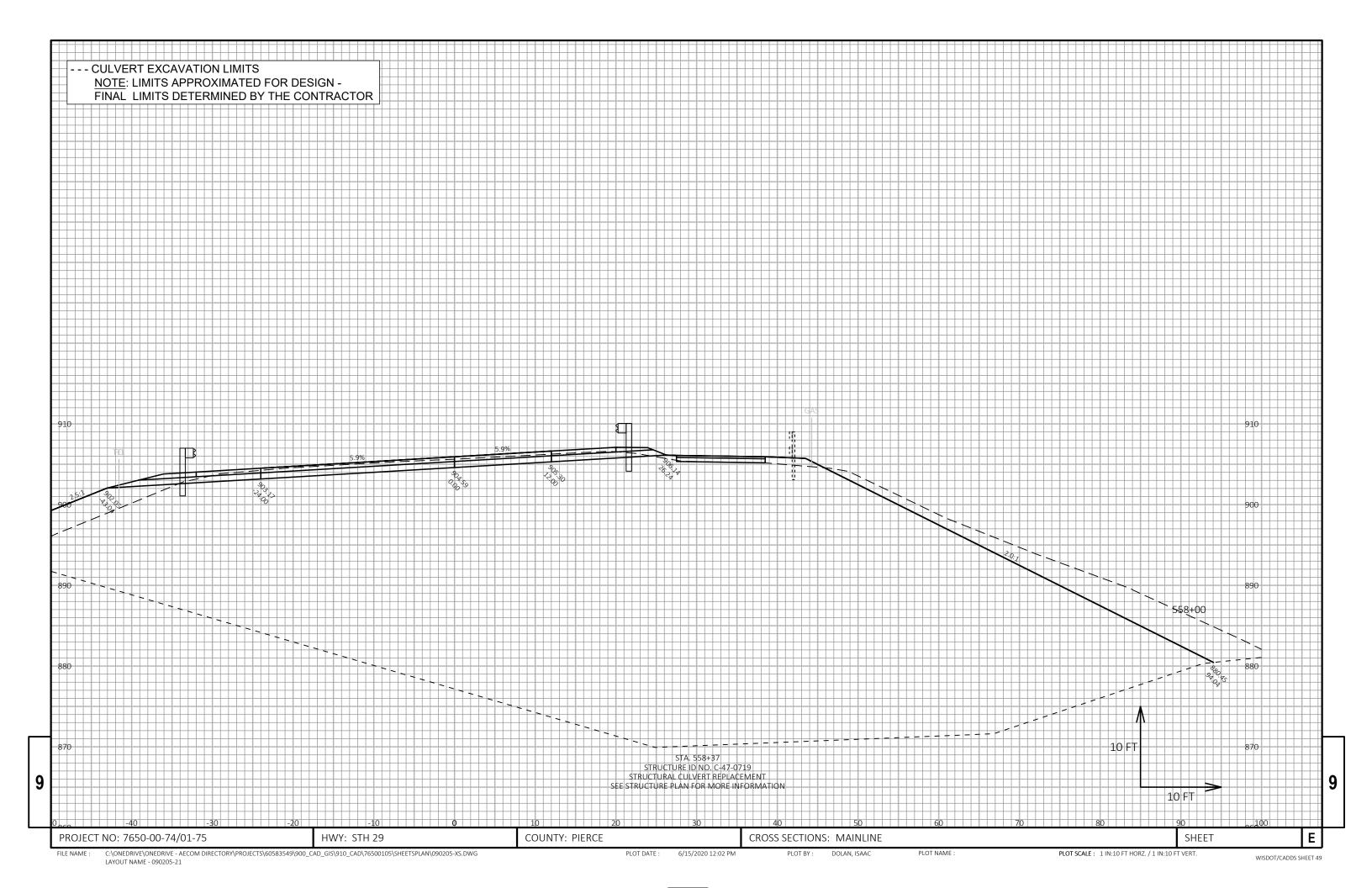


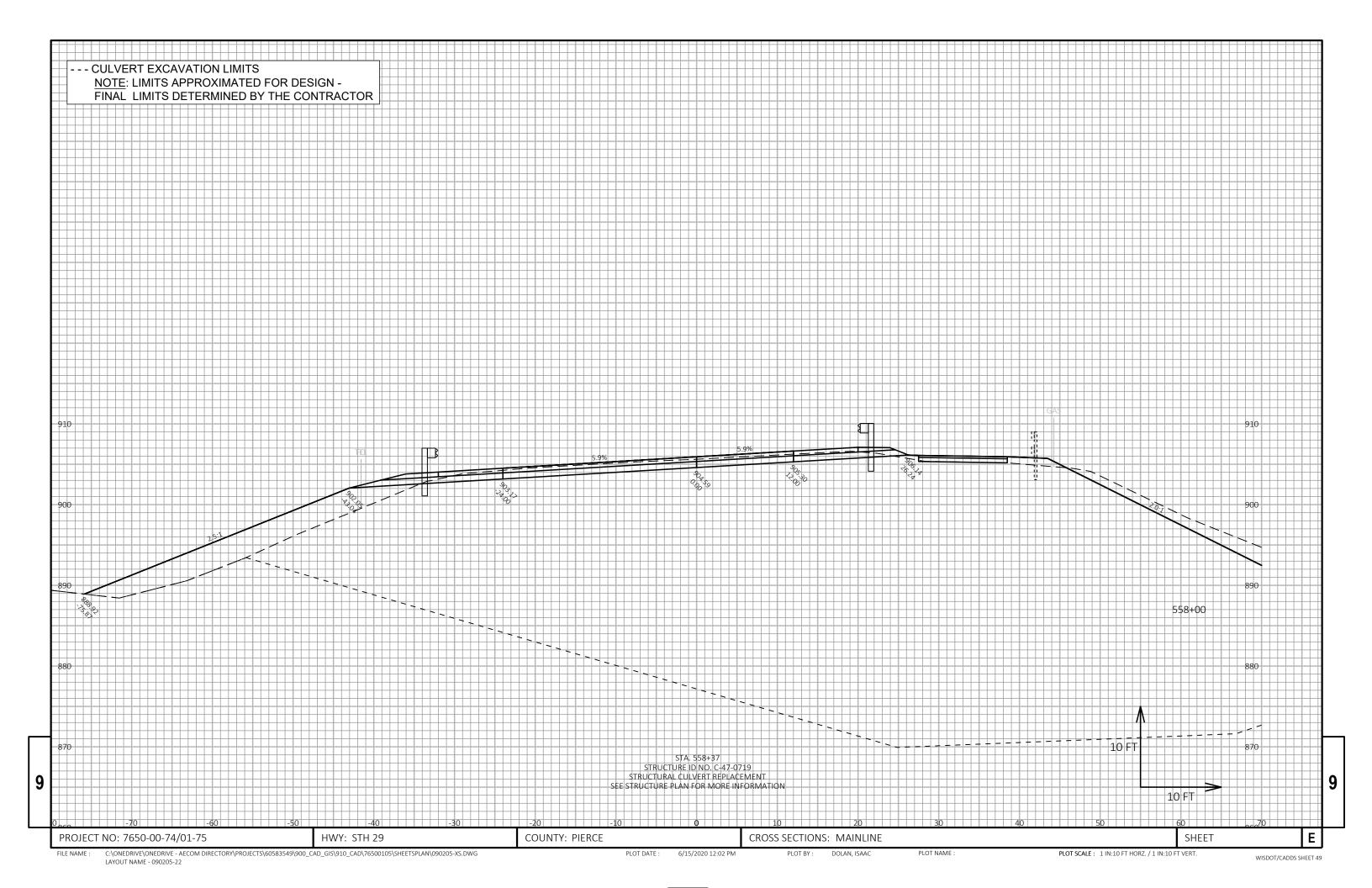


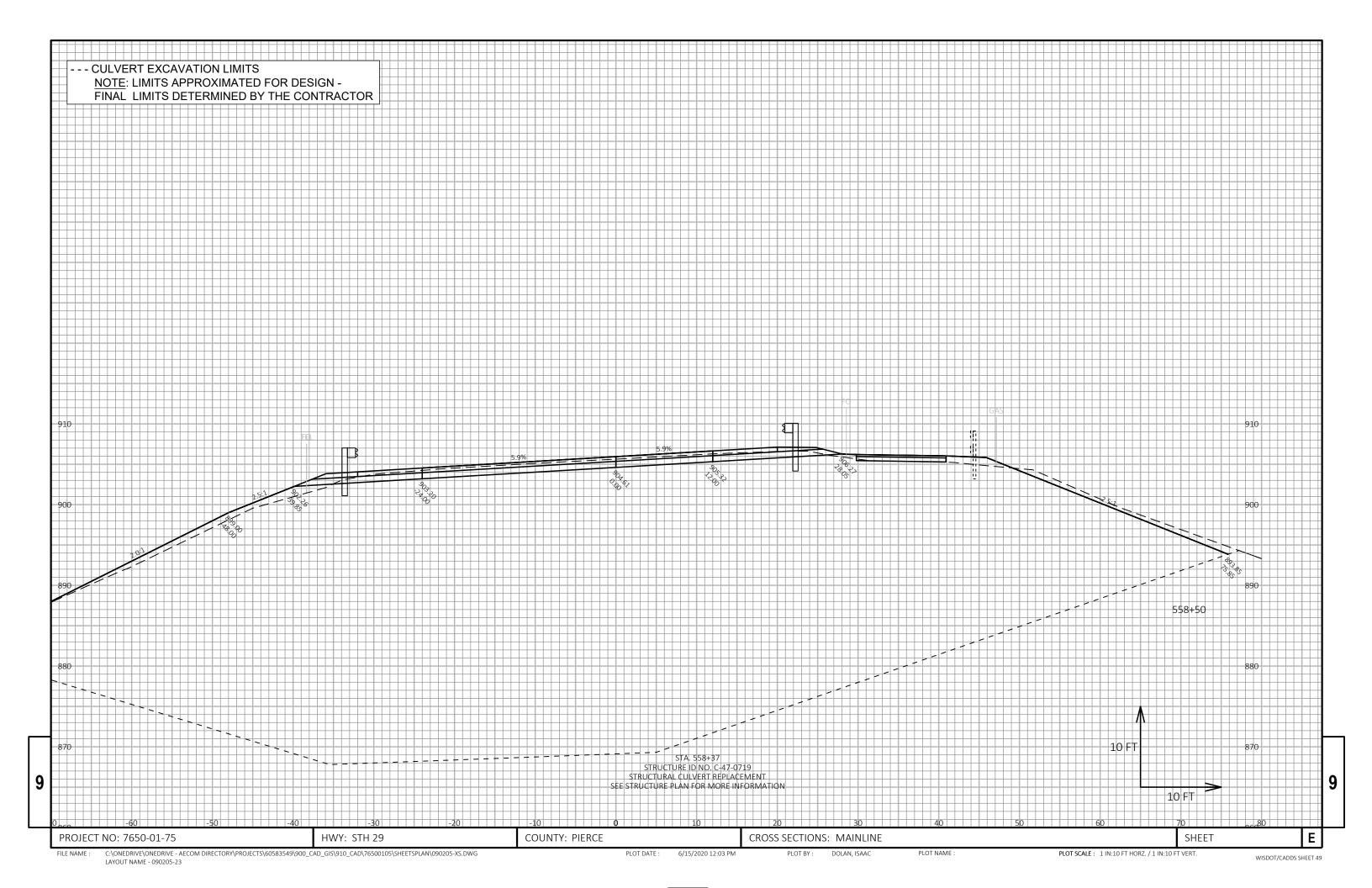


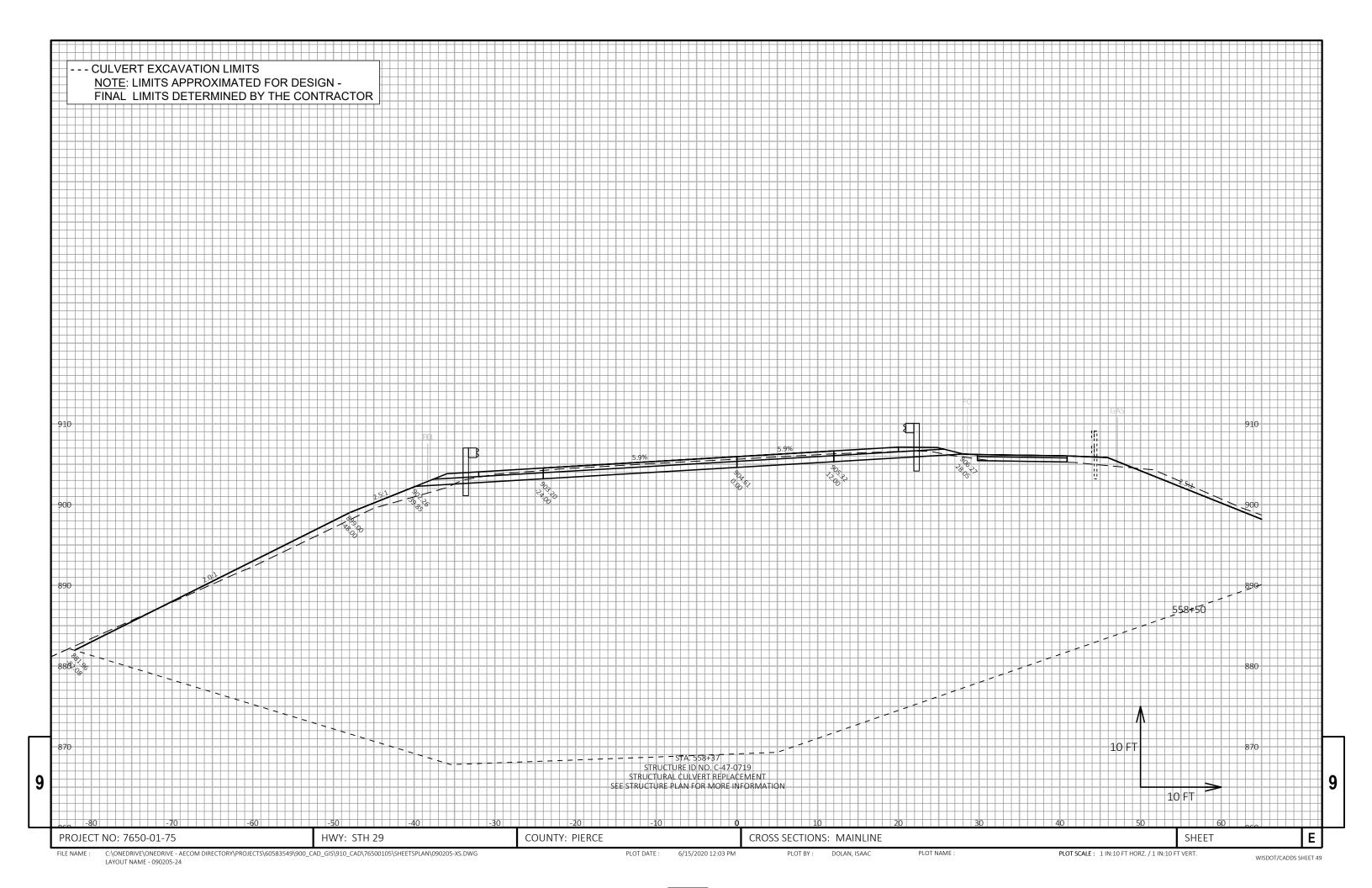


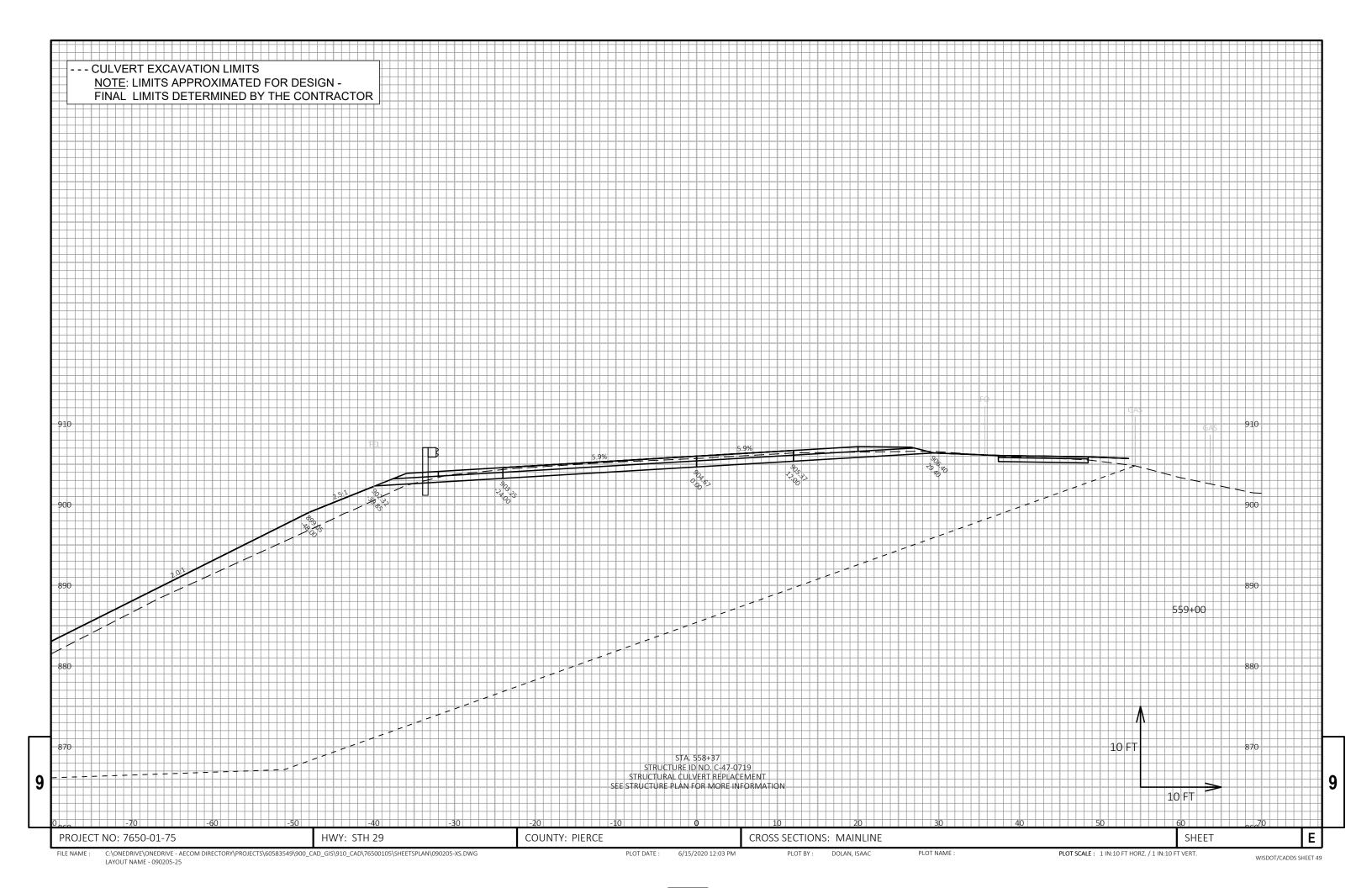


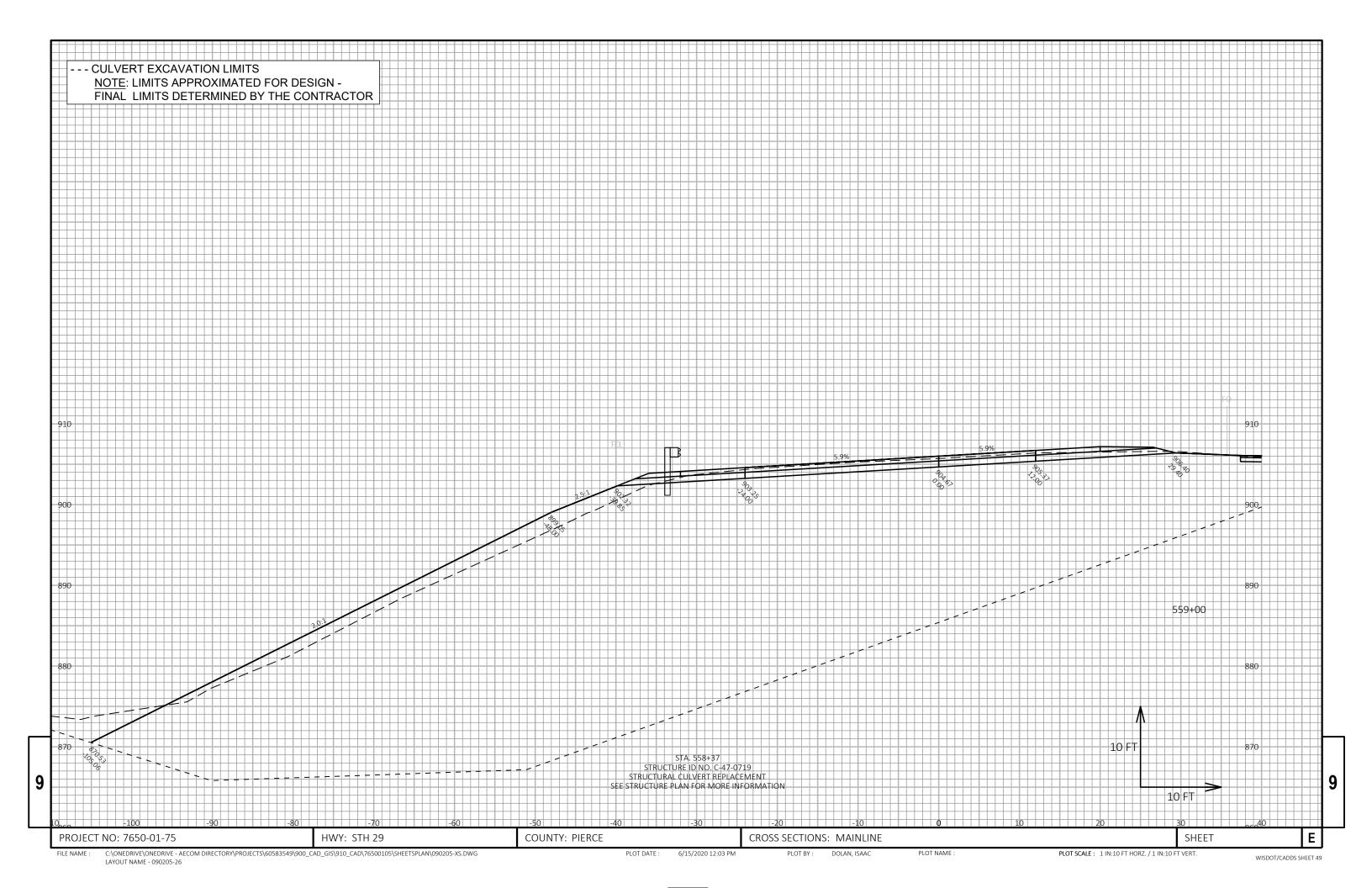


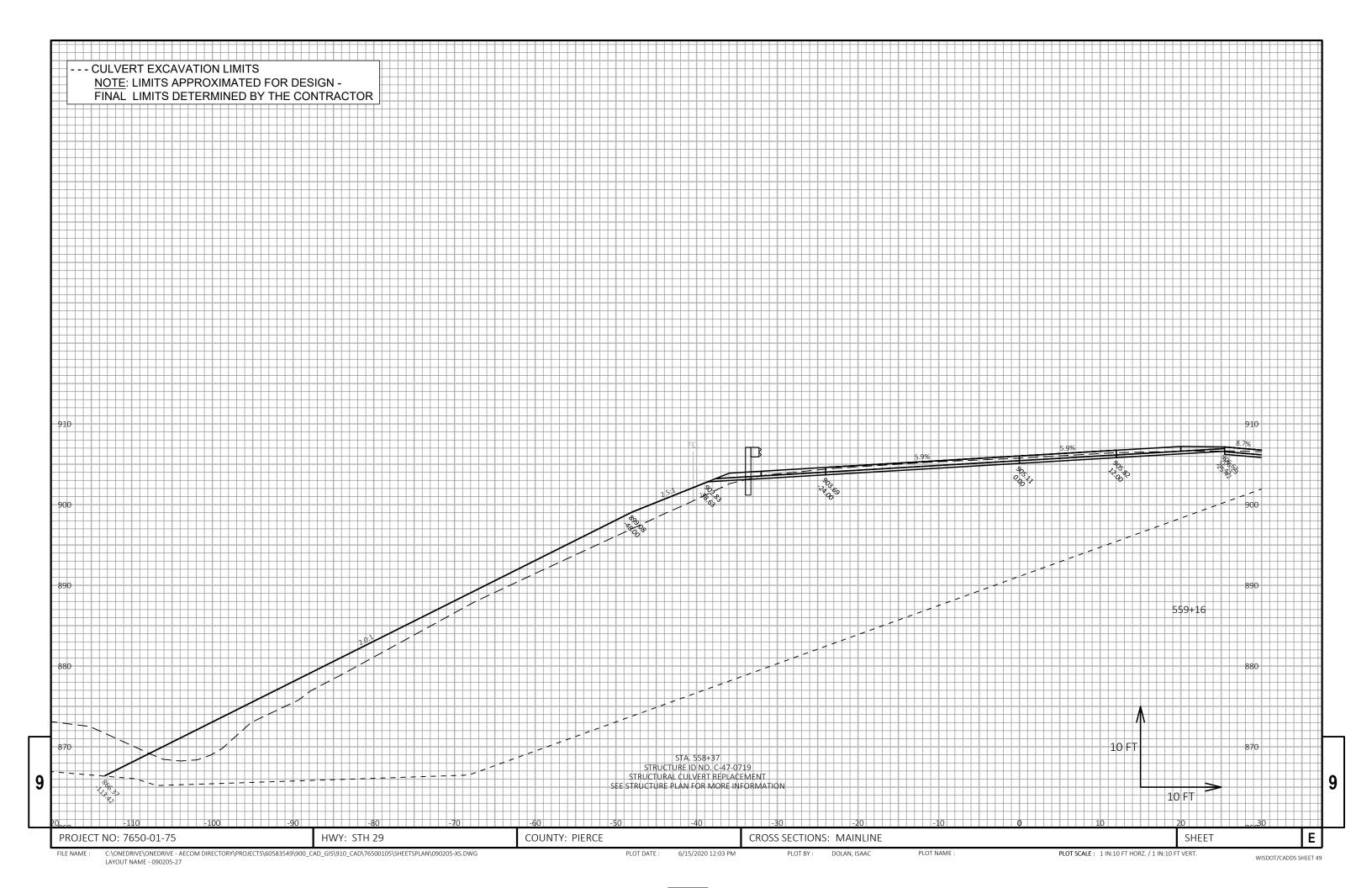


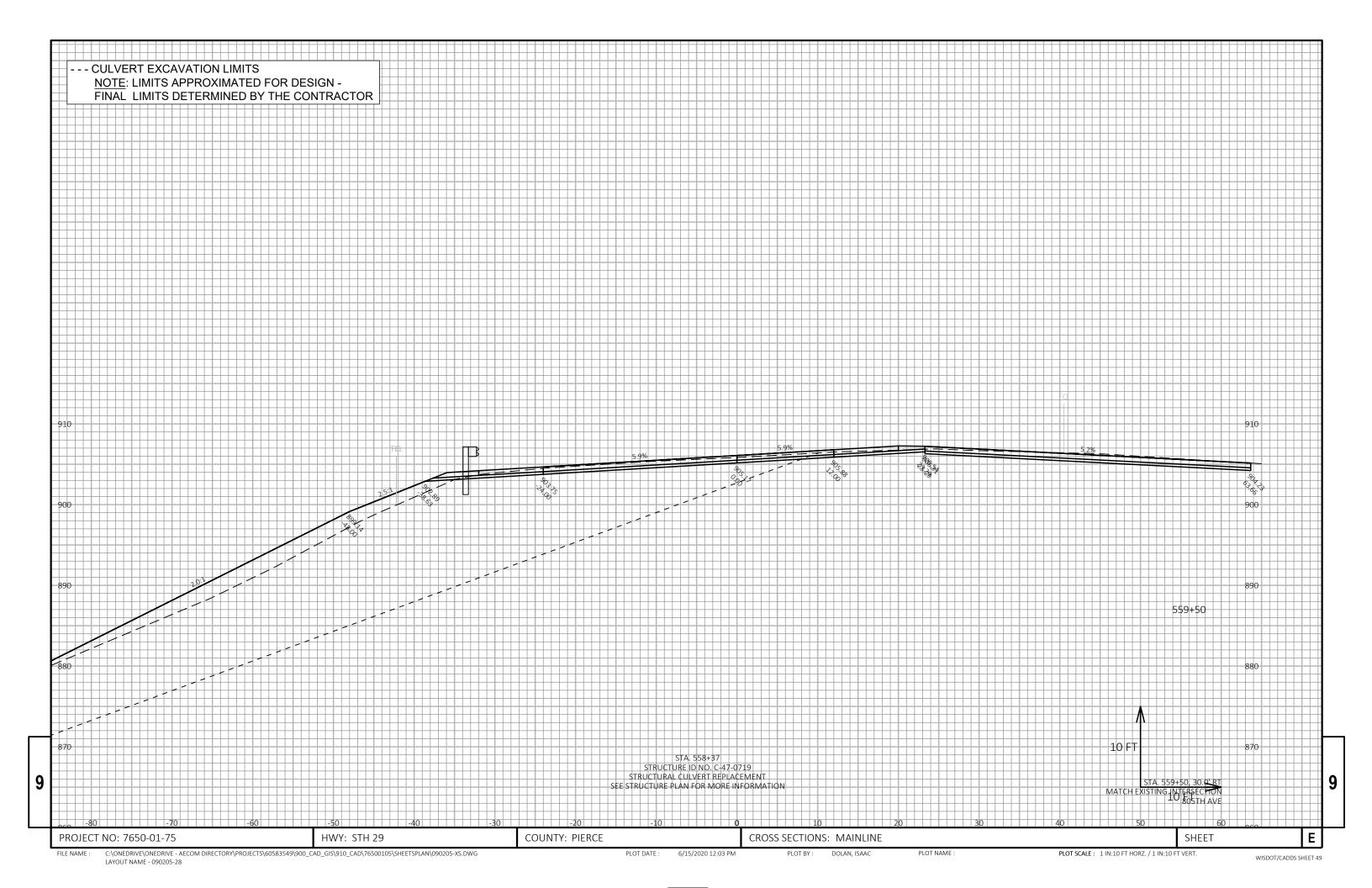


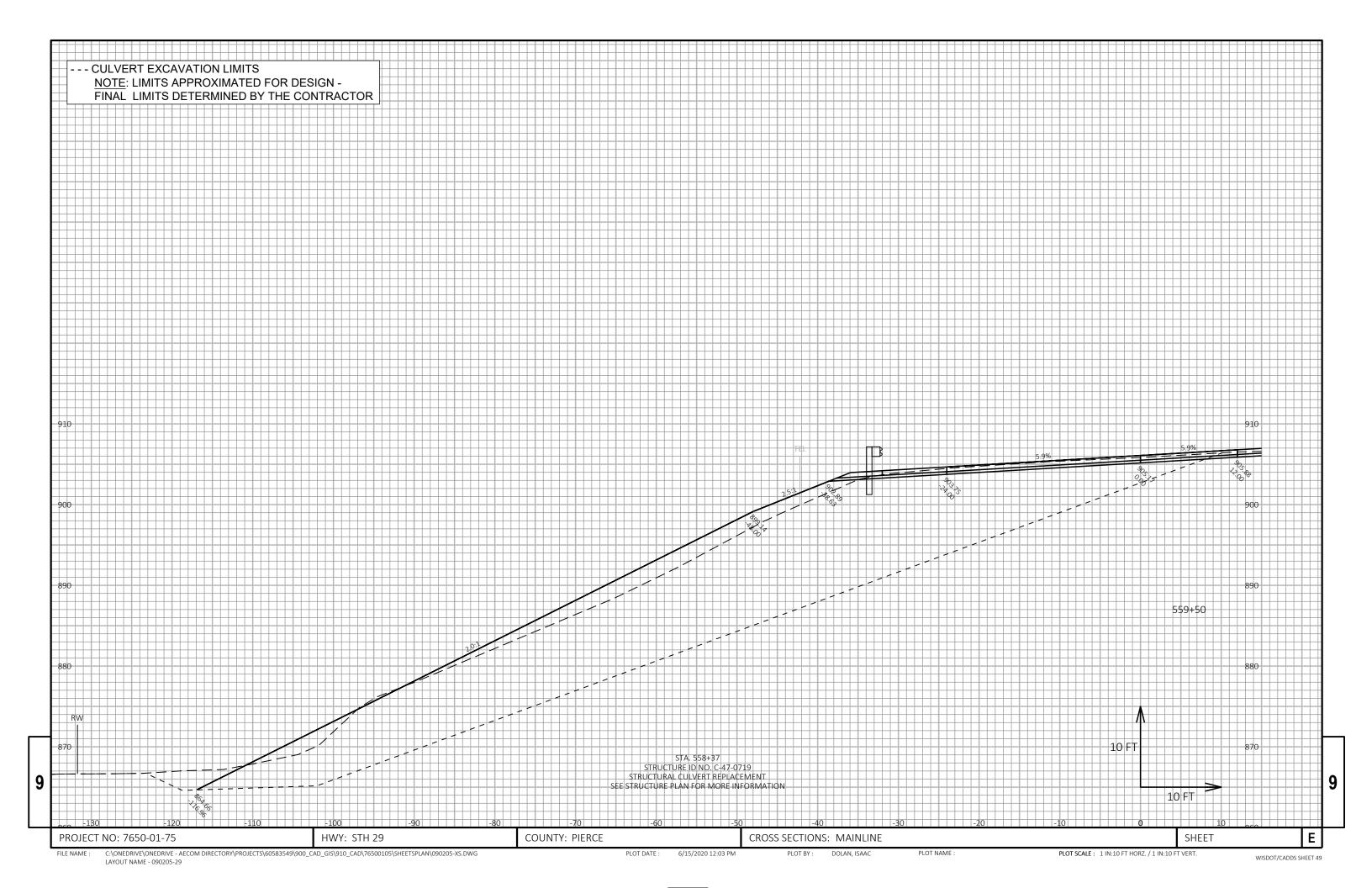


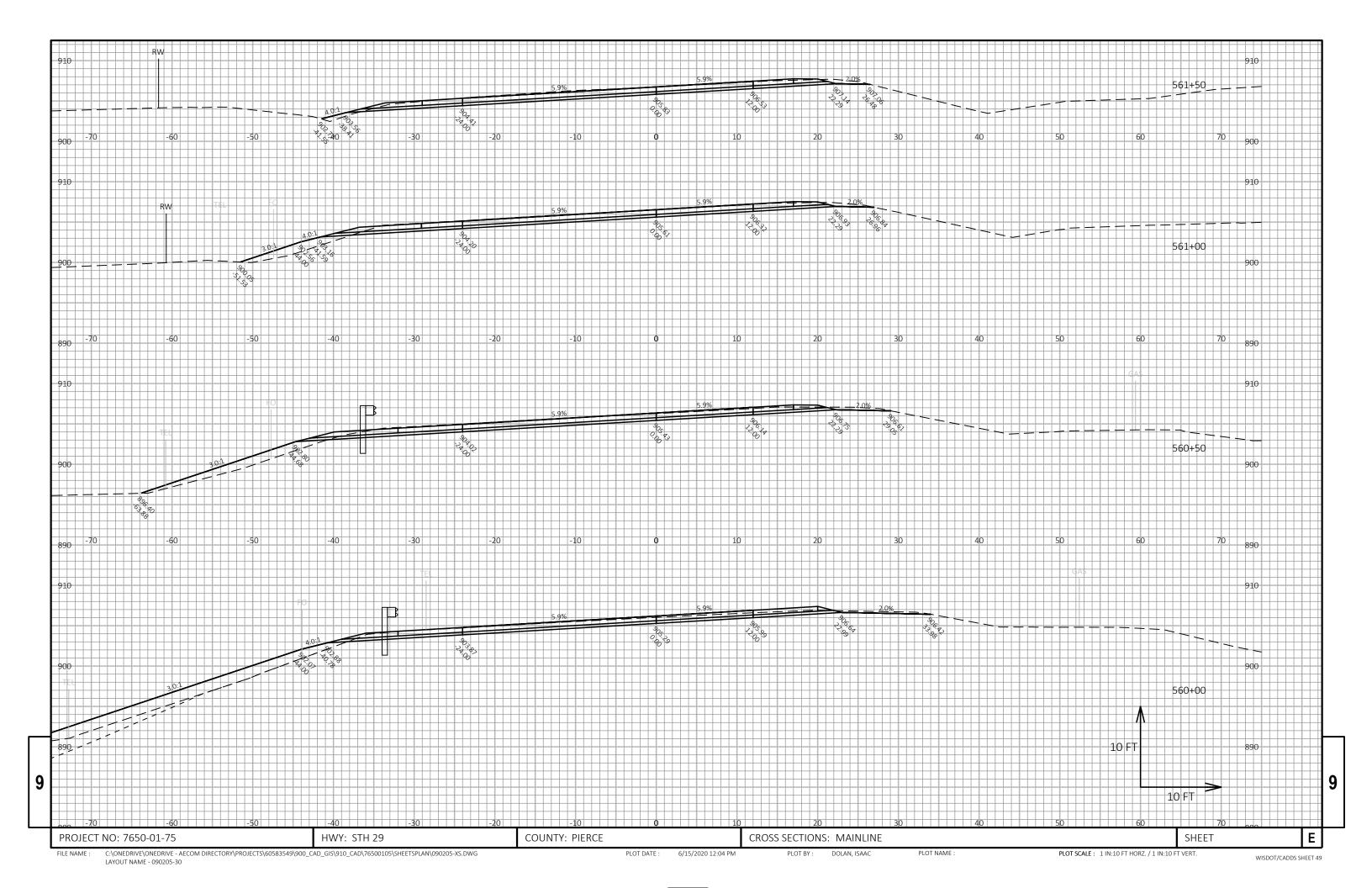


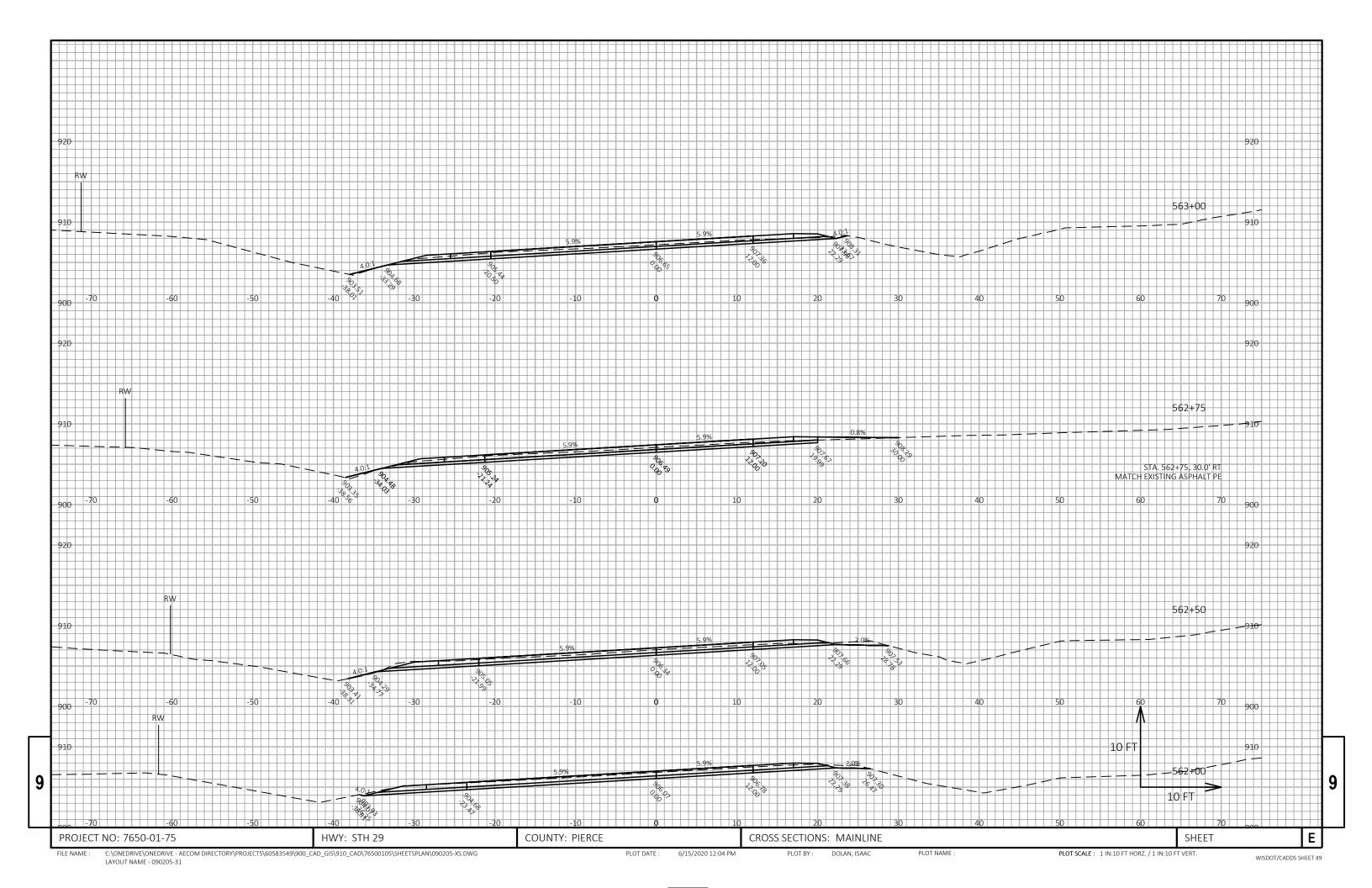


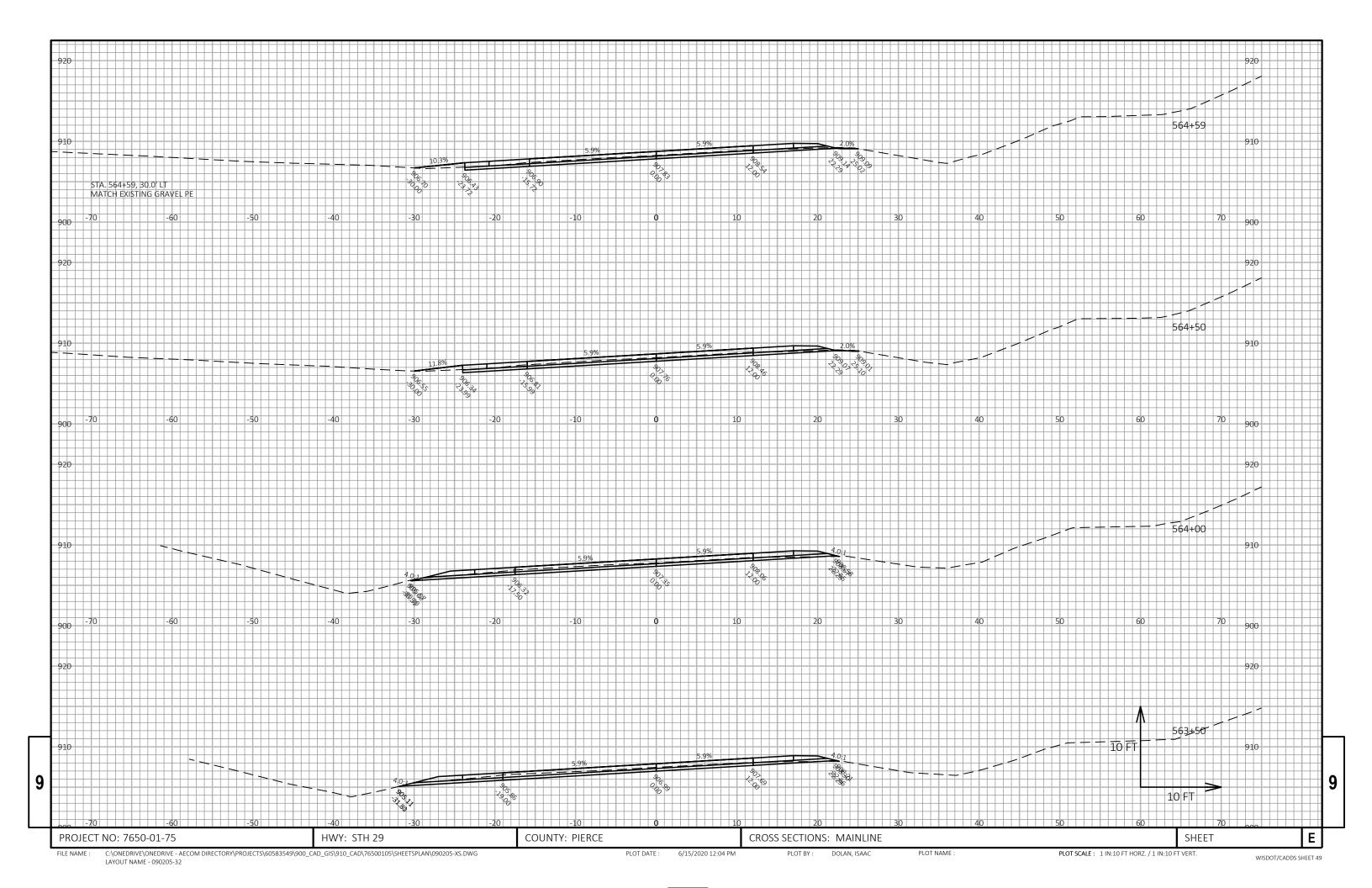


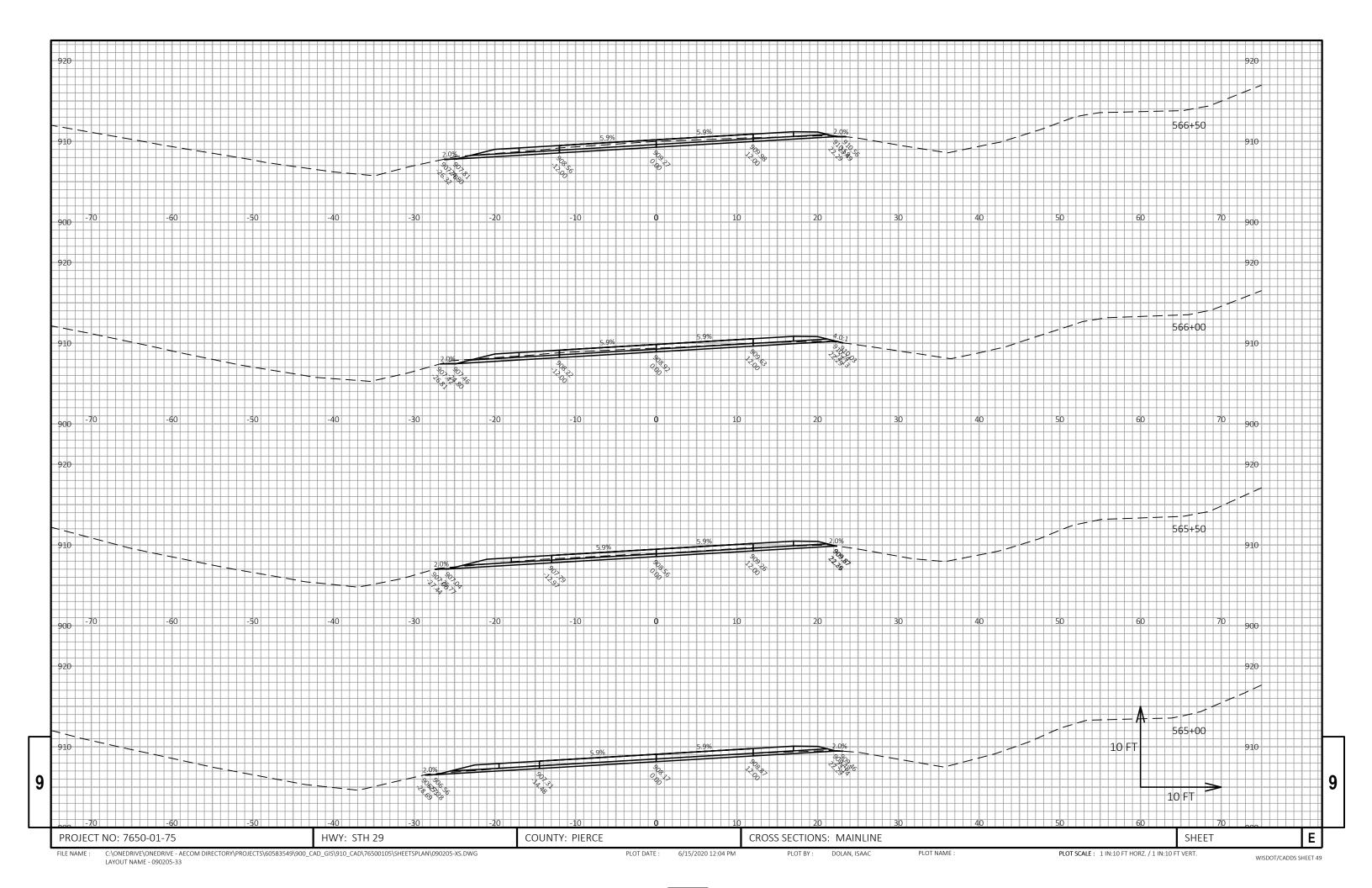


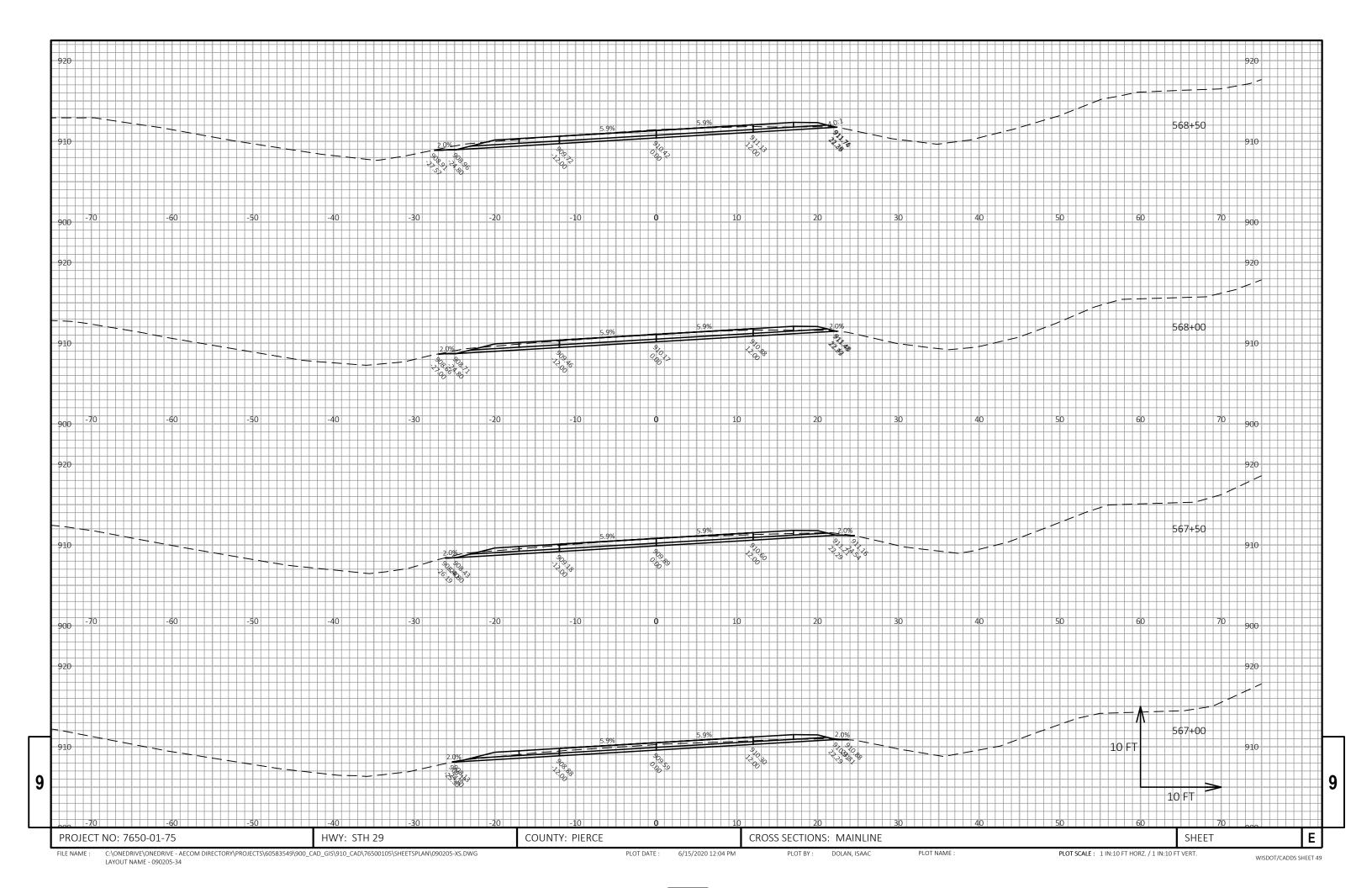


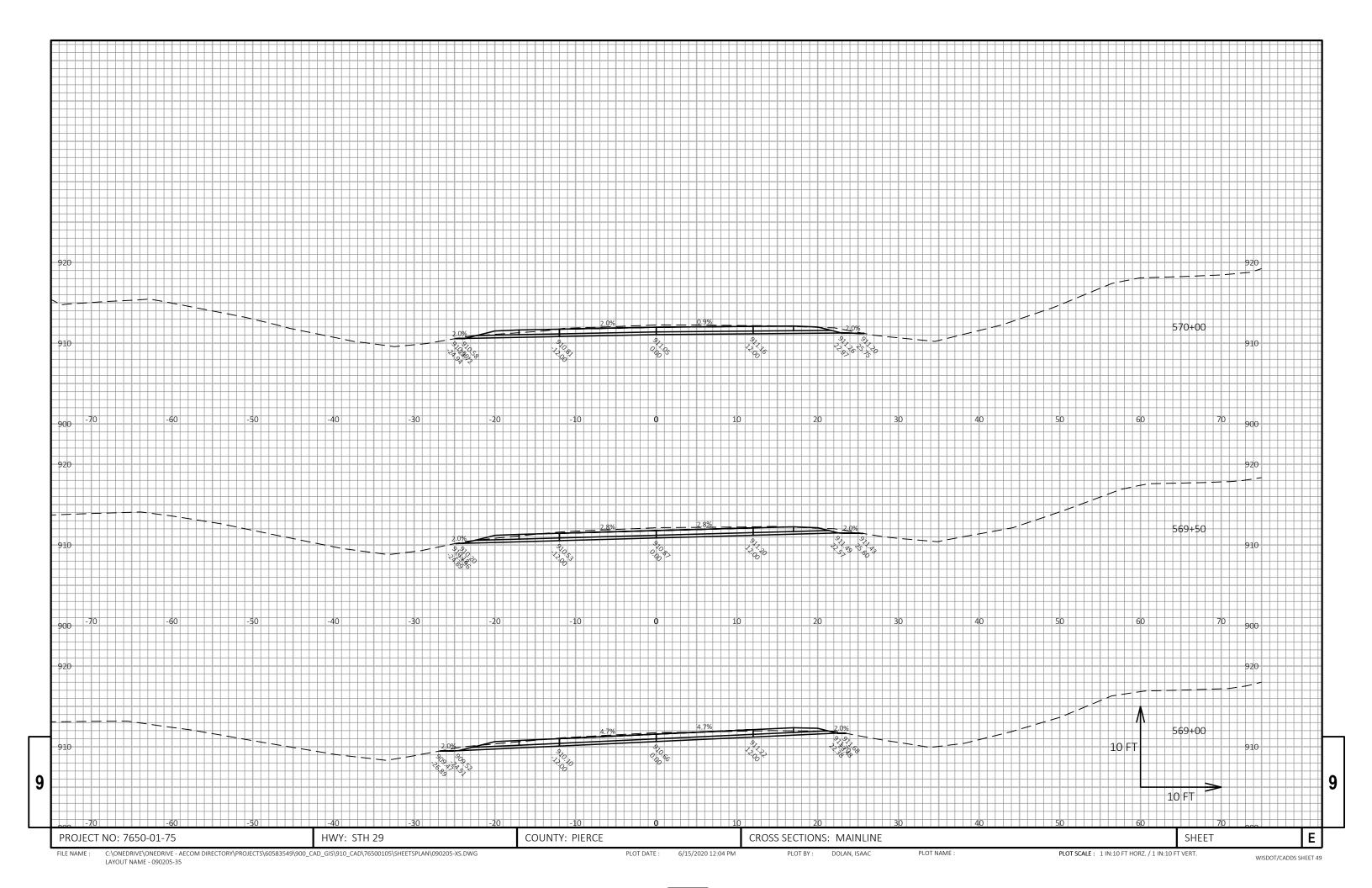


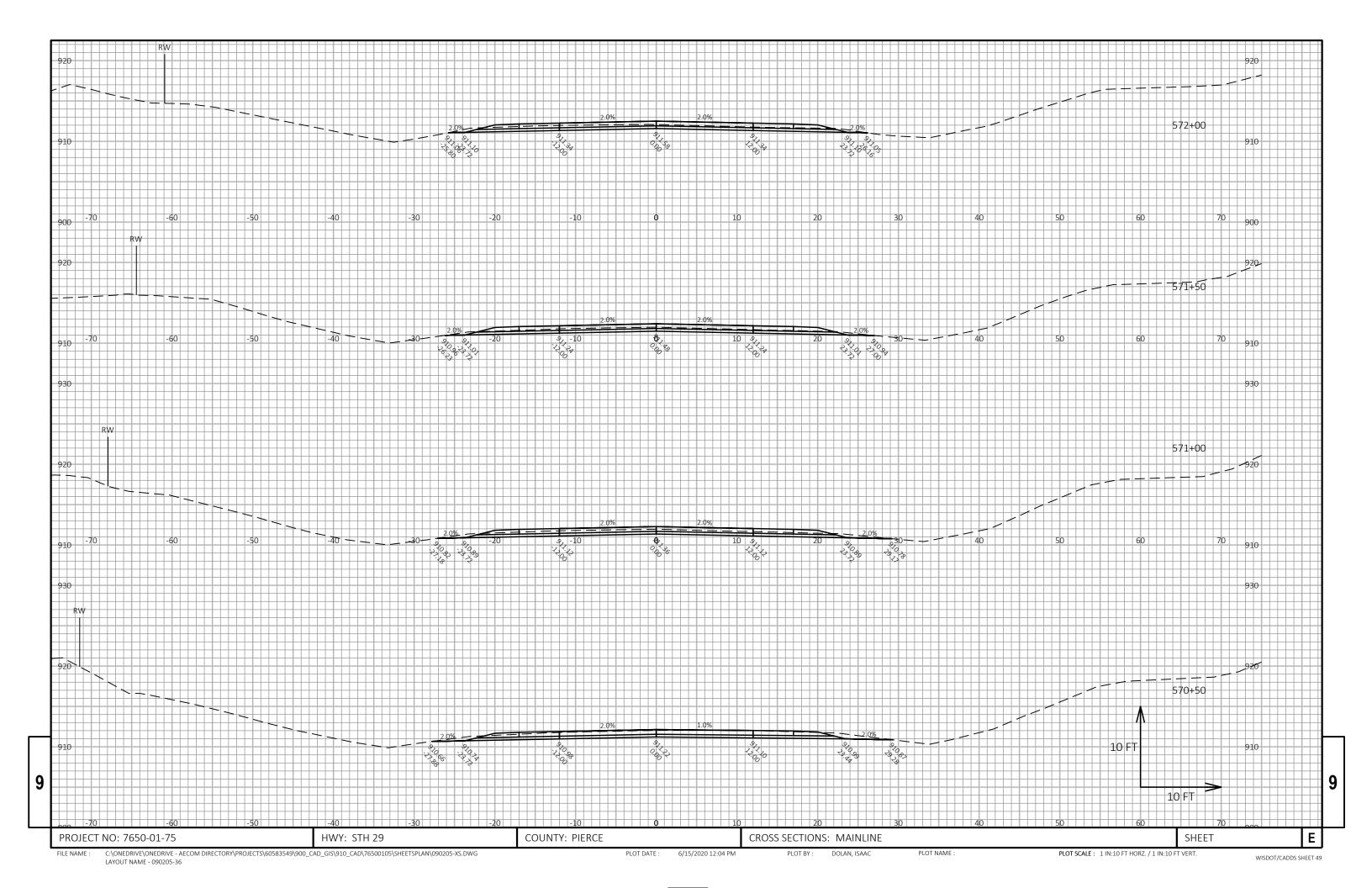


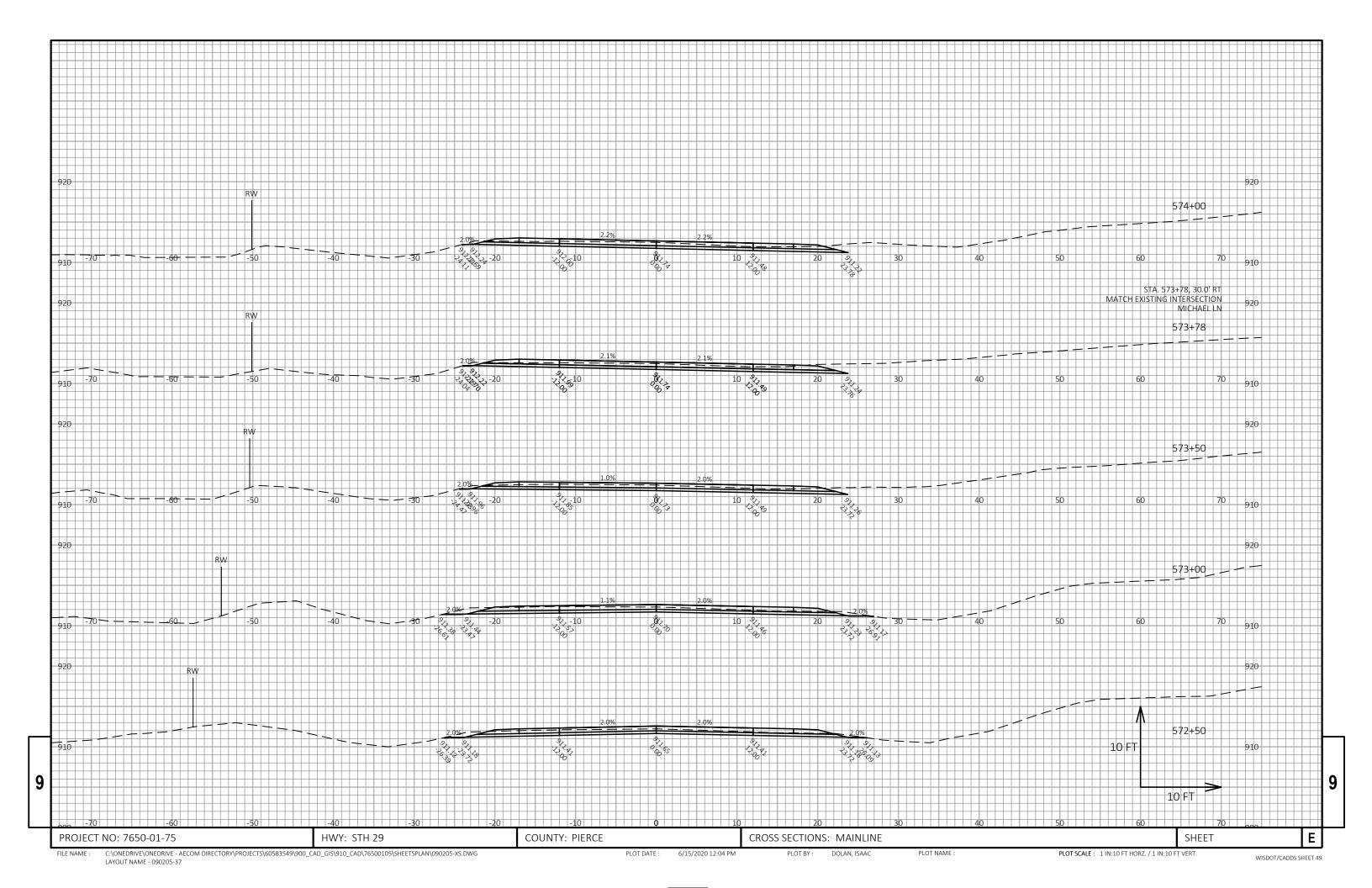


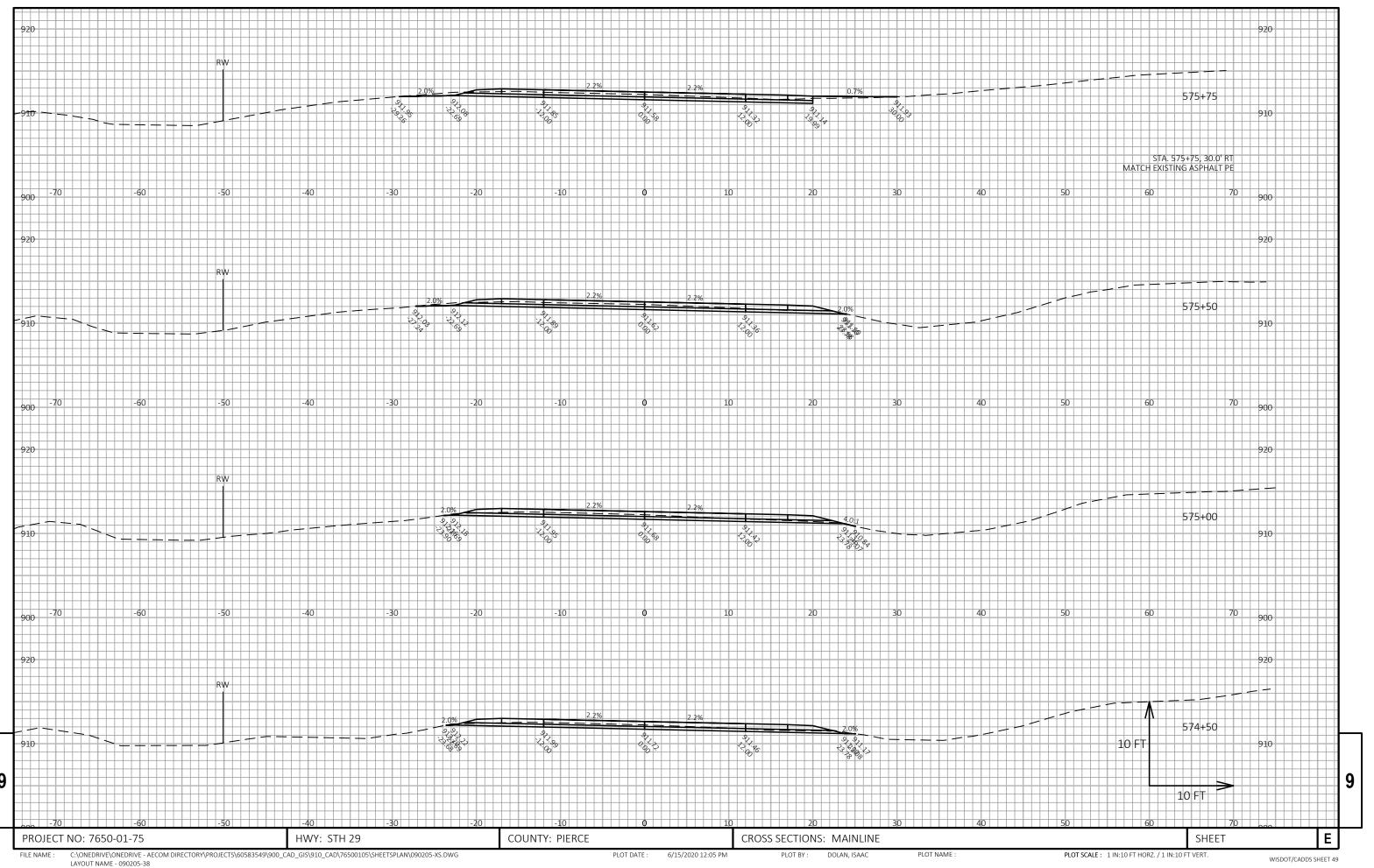


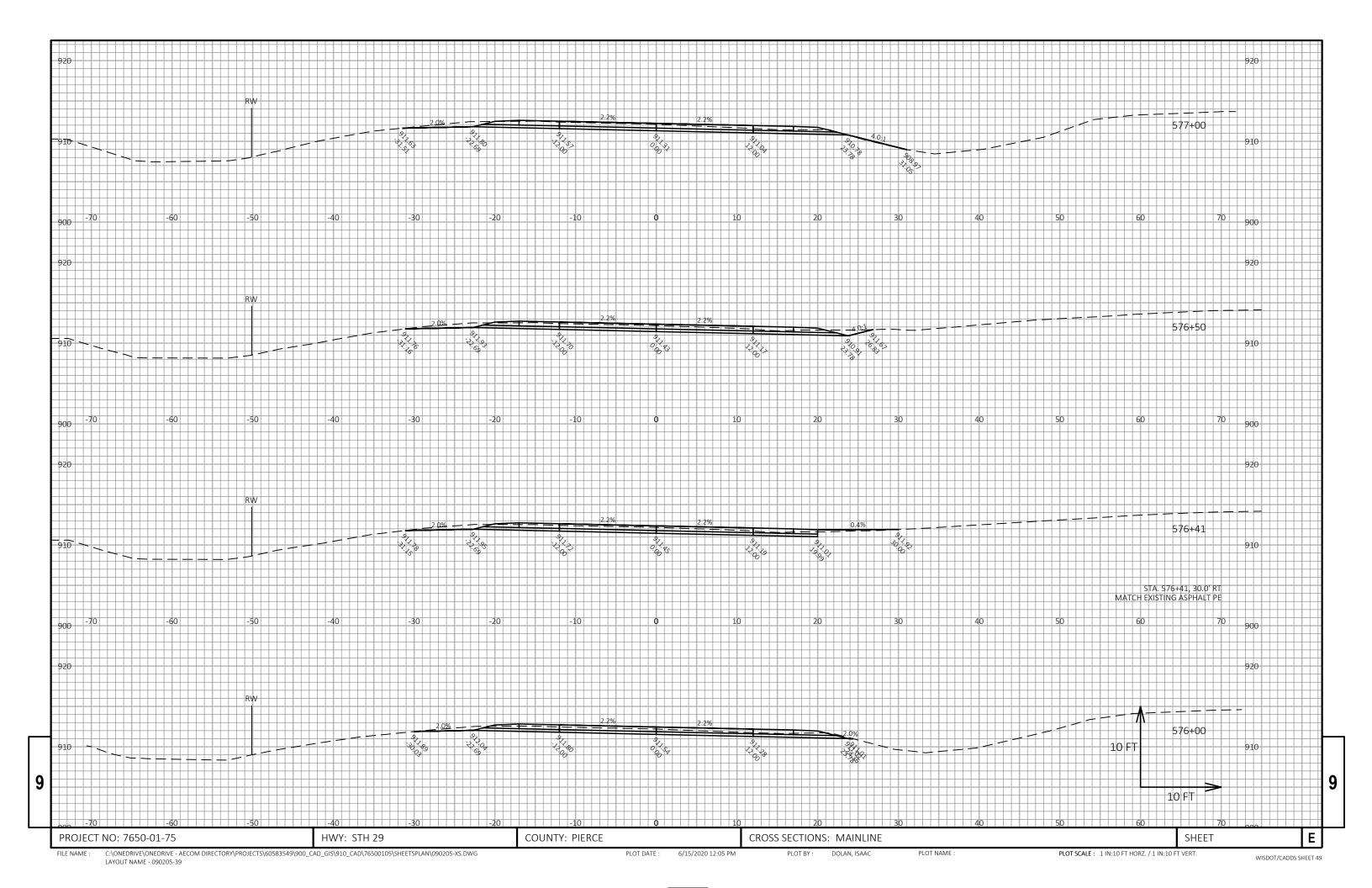


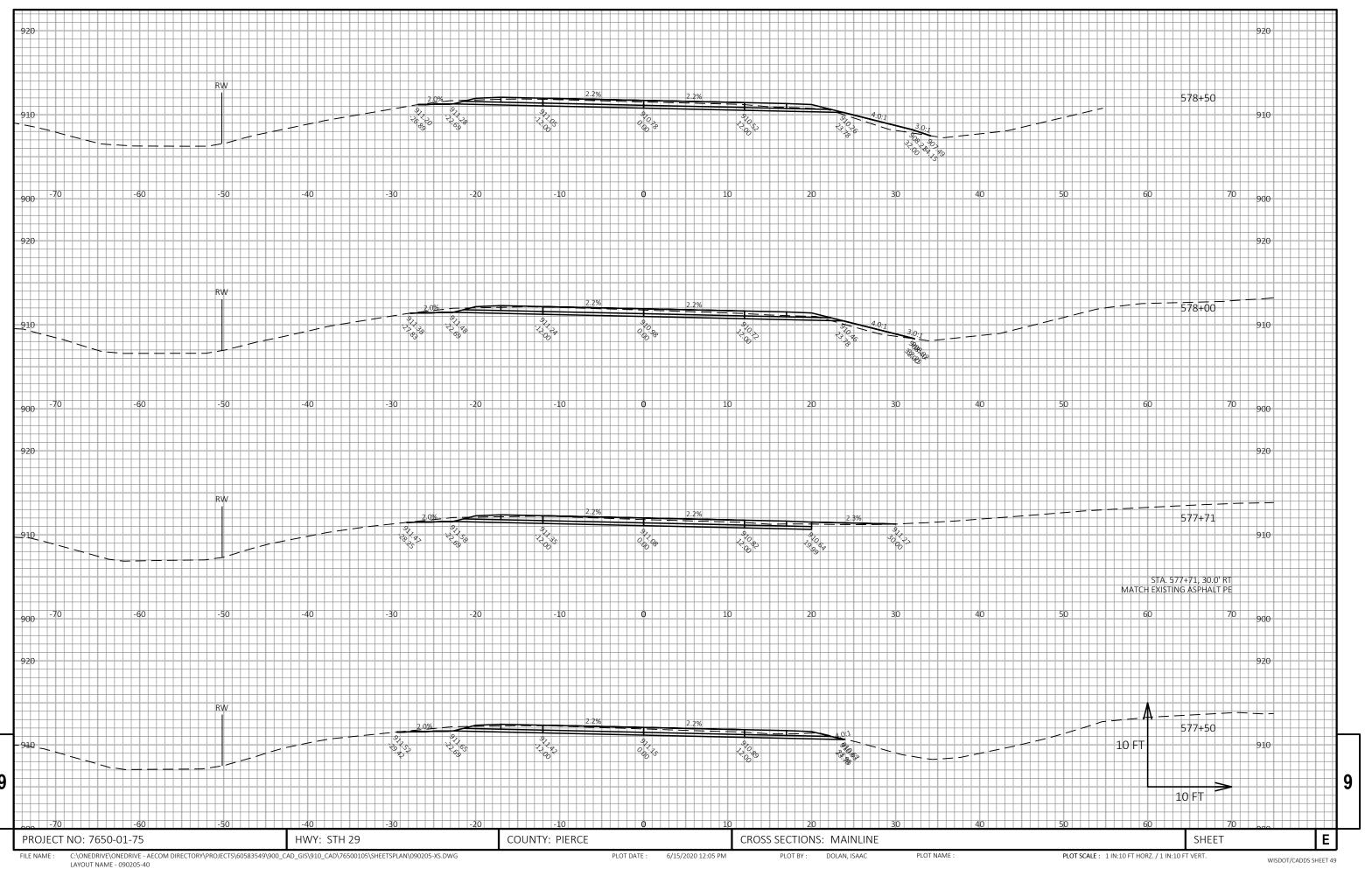




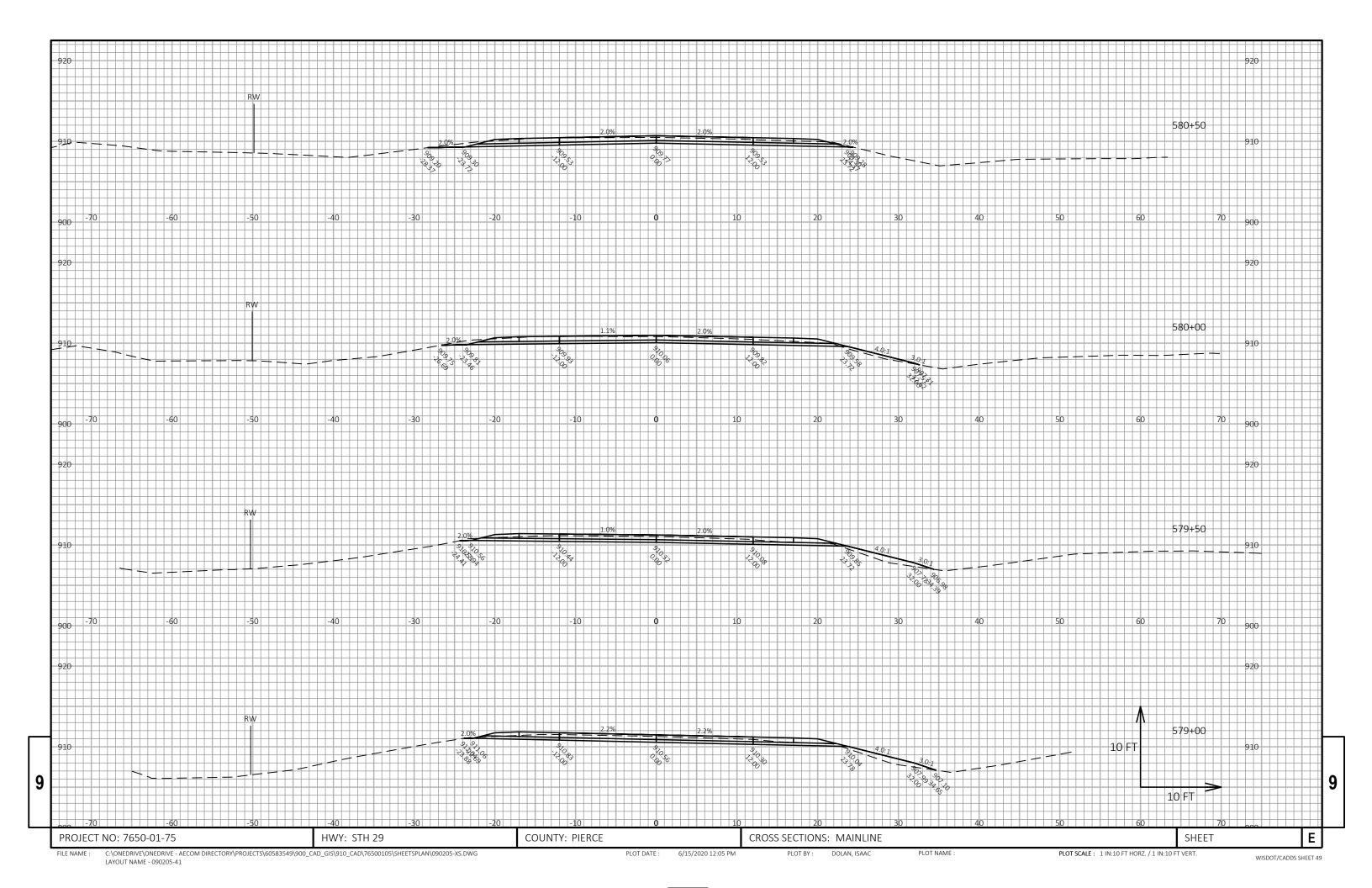


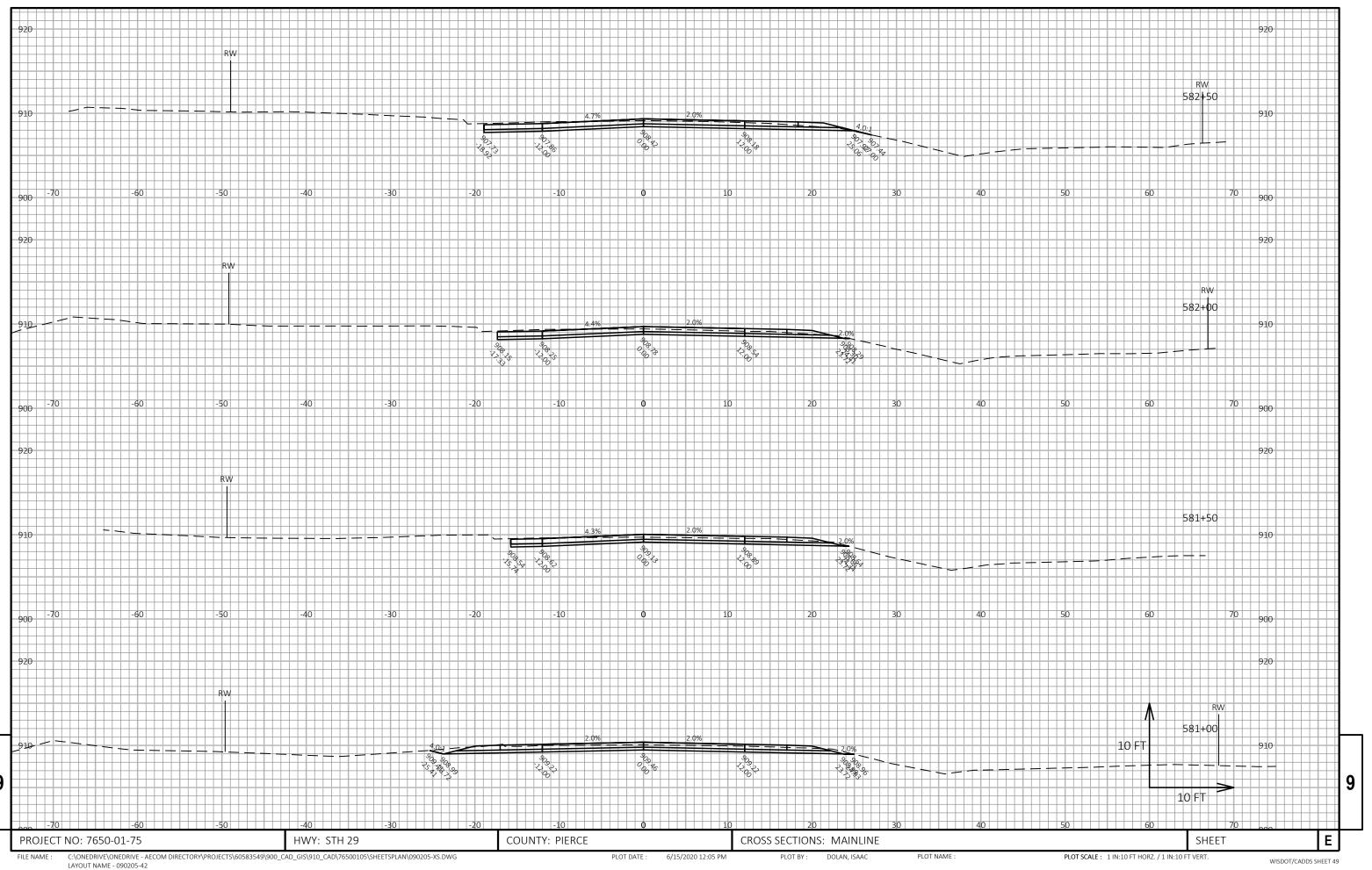


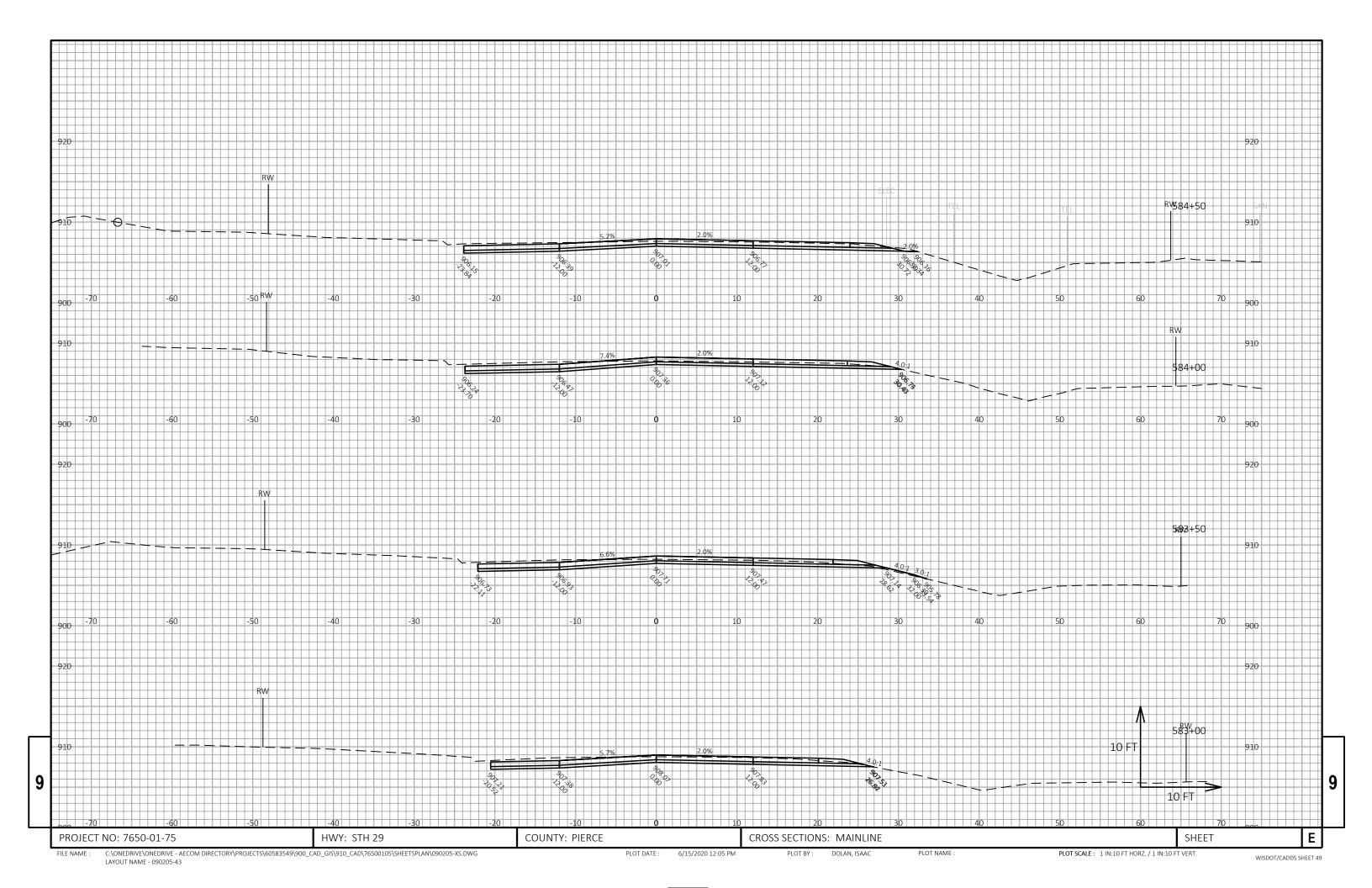


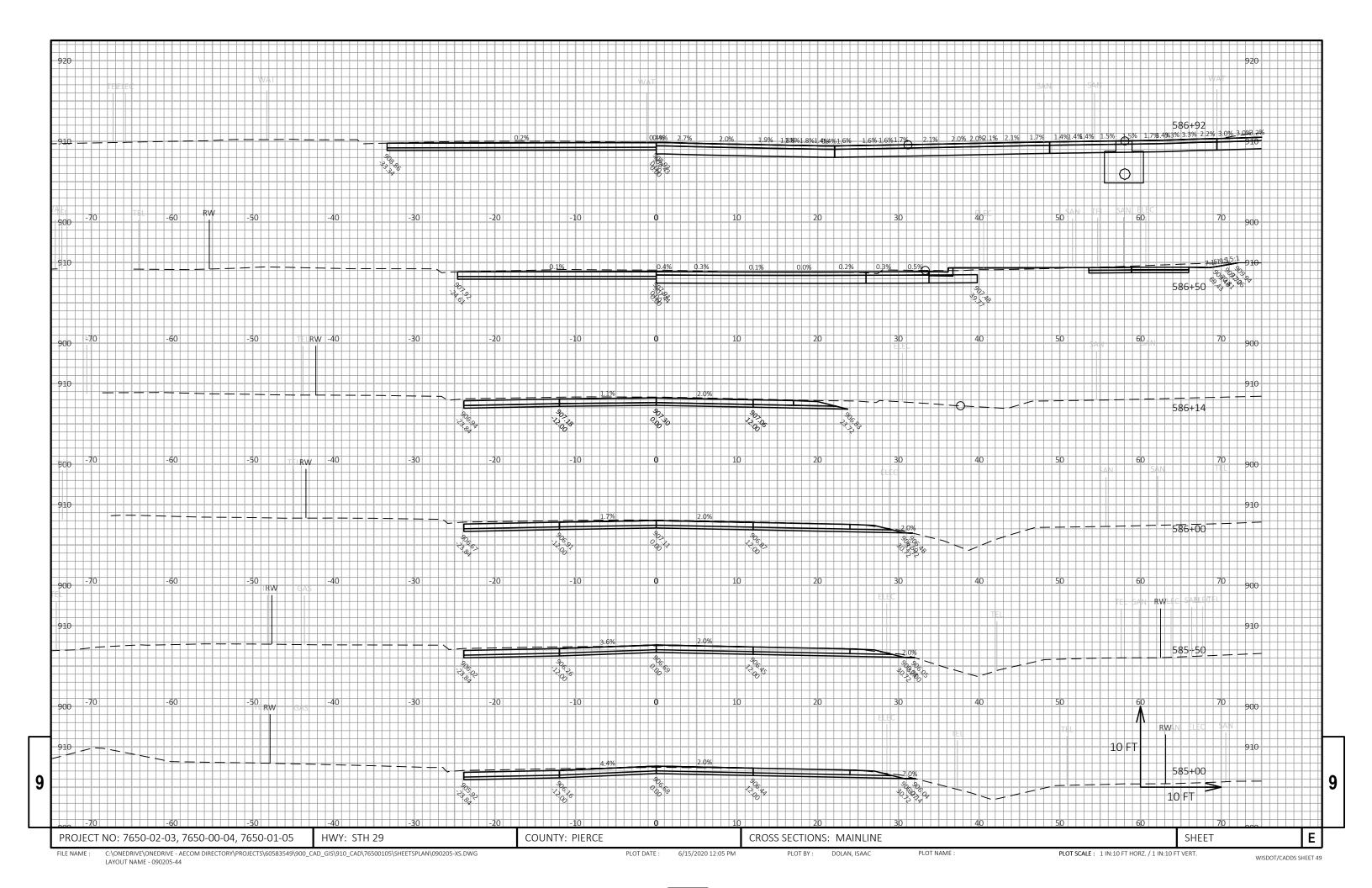


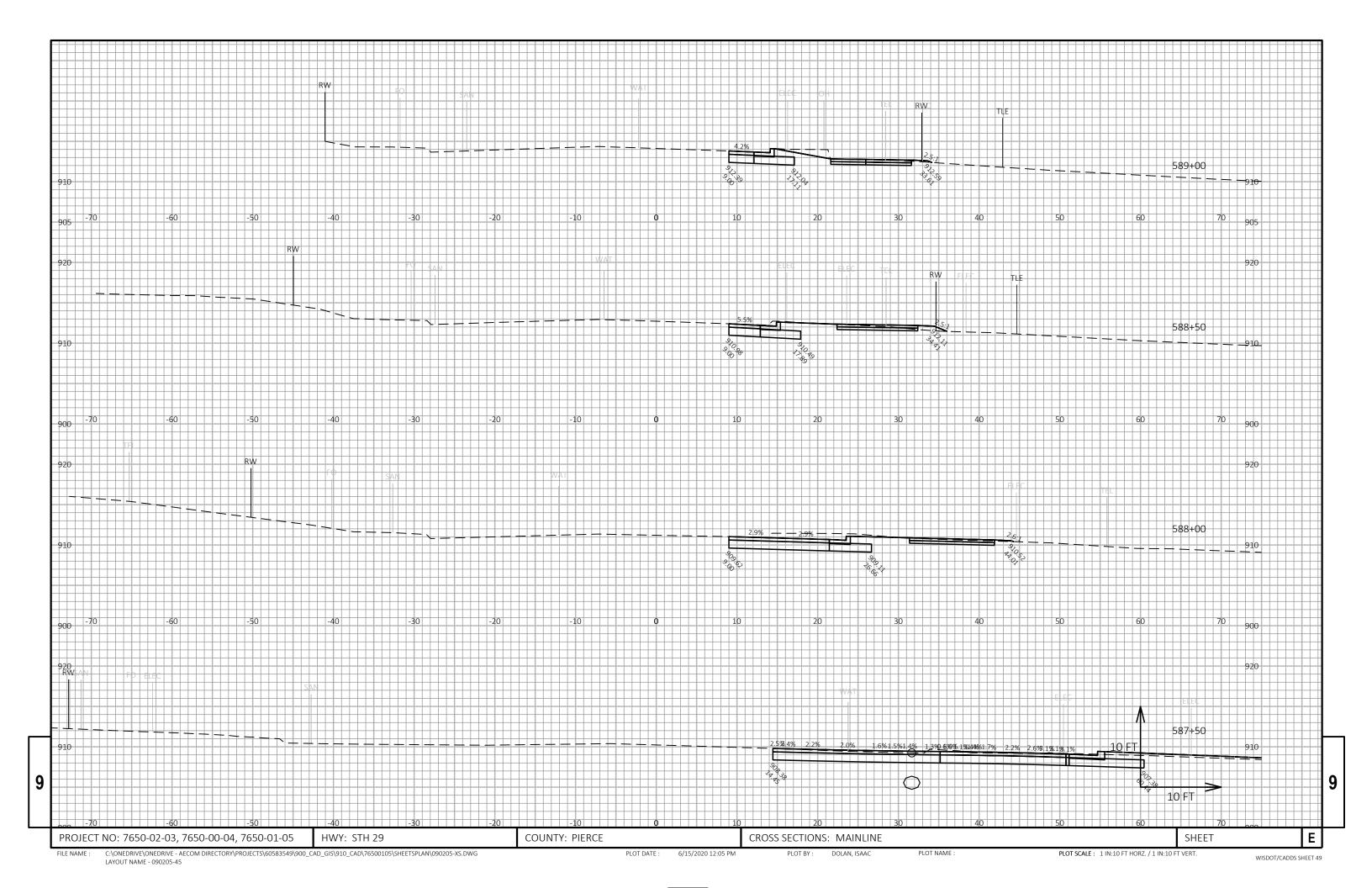
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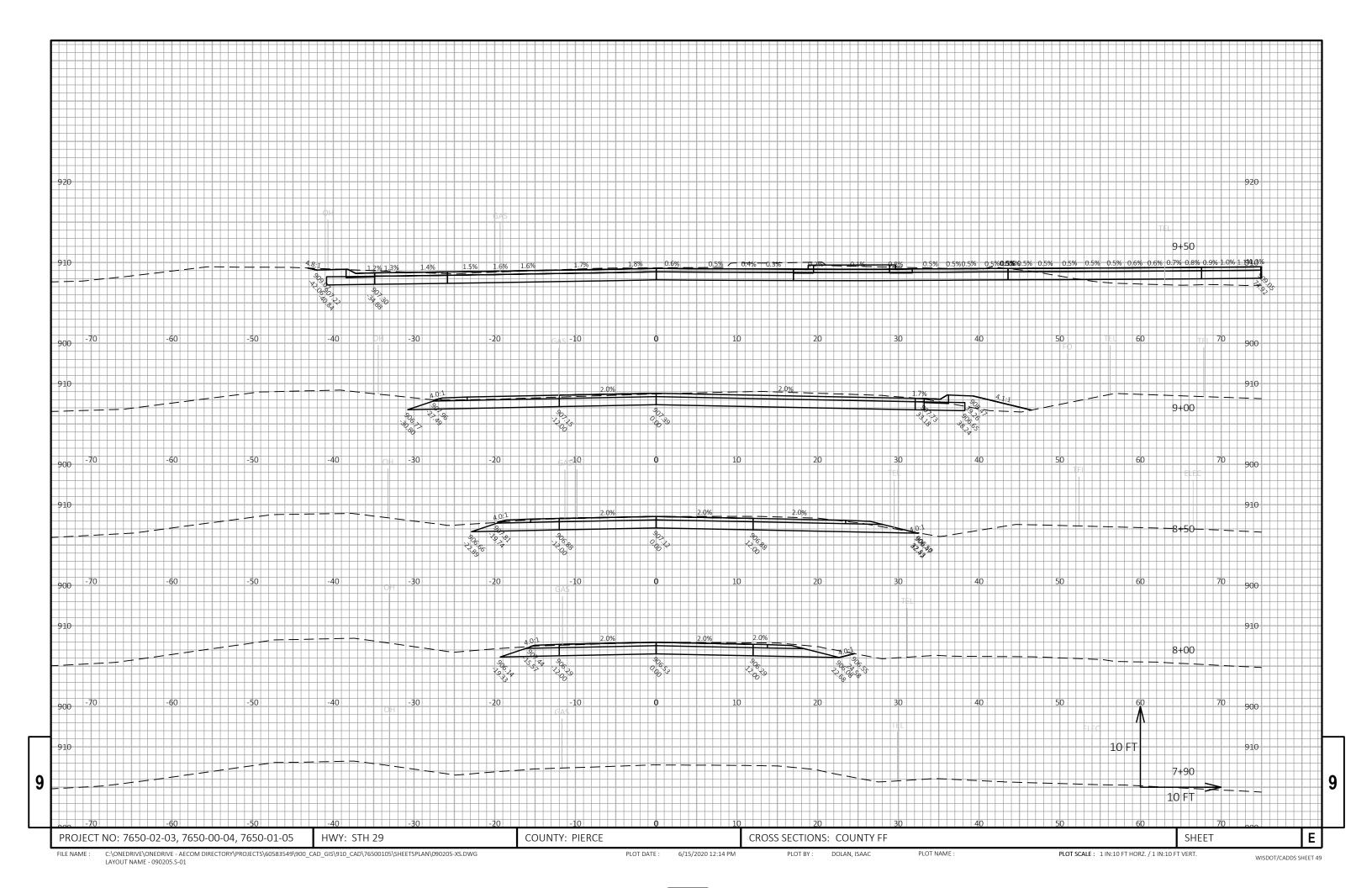














# Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

http://www.dot.wisconsin.gov

FEBRUARY 2021 FEDERAL PROJECT STATE PROJECT STATE OF WISCONSIN ORDER OF SHEETS PROJECT CONTRACT 7650-01-74 WISC 2021045 **DEPARTMENT OF TRANSPORTATION** Section No. Typical Sections and Details Section No. Estimate of Quantities Section No. Miscellaneous Quantities Ġ PLAN OF PROPOSED IMPROVEMENT Section No. Plan and Profile Section No. Standard Detail Drawings Section No. Sign Plates **PRESCOTT - RIVER FALLS** O 50-01-74 Section No. Computer Earthwork Data USH 10 TO SOUTH JUNCTION CTH QQ Cross Sections **STH 29** TOTAL SHEETS = 292 PIERCE COUNTY STATE PROJECT NUMBER 7650-01-74 R-19-W|R-18-W R-20-W | R-19-W STATE OF MUNICESOTA **BEGIN PROJECT** ENGINEERING, INC CALLERY Services STA 23+82.68 DESIGN DESIGNATION Y = 328,664.43 **END PROJECT** X = 403,589.04A.A.D.T. (2022) = 6,500STA 301+00.00 E A.A.D.T. (2042)= 7,900 T-27-N D.H.V. ANDREW W. T-26-N D.D. = 60/40 T-27-N = 7.0% **BLOCK** DESIGN SPEED ≈ 60 MPH E-41224-6 = 970,000 APPLETON-CONVENTIONAL SYMBOLS PROFILE R-20-W/R-19-W CORPORATE LIMITS GRADE LINE ORIGINAL GROUND PROPERTY LINE MARSH OR ROCK PROFILE LOT LINE (To be noted as such) LIMITED HIGHWAY EASEMENT SPECIAL DITCH EXISTING RIGHT OF WAY STATE OF WISCONSIN **GRADE ELEVATION** PROPOSED OR NEW R/W LINE DEPARTMENT OF TRANSPORTATION SLOPE INTERCEPT CULVERT (Profile View) PREPARED BY UTILITIES REFERENCE LINE Surveyor ELECTRIC JT ENGINEERING, INC. Designer **EXISTING CULVERT** FIBER OPTIC MOHAMAD HAYEK, P.E. PROPOSED CULVERT Project Manage GAS (Box or Pipe) SANITARY SEWER DAVID KOEPP, P.E. COMBUSTIBLE FLUIDS LAYOUT STORM SEWER TELEPHONE SCALE WATER MARSH AREA HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY UTILITY PEDESTAL COORDINATES, PIERCE COUNTY, NADB3 (2011), IN U.S. SURVEY FEET, VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID TOTAL NET LENGTH OF CENTERLINE = 5,249 POWER POLE DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES. WOODED OR SHRUB AREA TELEPHONE POLE FILE NAME: X:\PROJECTS\PIERCE\7650-01-04 STH 29\DESIGN\C3D\SHEETSPLAN\010101 TI.DWG PLOT DATE : 7/20/2020 10:34 AM ANDY BLOCK

#### **SEQUENCE OF PLANS AND DETAILS IN SECTION 2**

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
CURB RAMP DETAIL
EROSION CONTROL PLAN
TRAFFIC CONTROL PLAN
FENCING PLAN

- THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
- ANY LOCAL OR MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.
- SUBSURFACE EXPLORATION REPORT AND INFORMATION BEYOND WHAT IS PROVIDED IN THE PLANS IS AVAILABLE FOR REVIEW. CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION NW REGION PROJECT MANAGER TO VIEW THE AVAILABLE INFORMATION.
- THE EXACT LOCATION OF PRIVATE ENTRANCES IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
- THE EXACT LOCATION OF EXISTING SUBGRADE AGGREGATE DRAIN OUTS IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
- MOVING SIGNS TYPE II AND MOVING SMALL SIGN SUPPORTS QUANTITIES ARE INTENDED FOR MODIFYING NO PASSING
  ZONES IN THE FINAL ROADWAY CONDITION AND TO ADJUST EXISTING SIGNAGE WITHIN THE PROPOSED GRADING LIMITS.
- ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES SHALL BE FILLED WITH GRANULAR MATERIAL OR AS DIRECTED BY THE ENGINEER. THE COST ASSOCIATED WITH THIS FILLING IS INCIDENTAL TO THE REMOVAL ITEM.
- REMOVAL OF ANY STEEL REINFORCEMENT IN THE EXISTING CONCRETE IS INCIDENTAL TO THE REMOVING PAVEMENT BID ITEM.
- THE 4-INCH MAXIMUM BASE AGGREGATE DENSE 1 1/4-INCH QUANTITY IS INTENDED TO: COMPENSATE FOR MINOR PROFILE
  ADJUSTMENTS FROM EXISTING TO PROPOSED, COMPENSATE FOR AGGREGATE LOSS DURING THE PAVEMENT REMOVAL
  OPERATIONS, AND ACCOUNT FOR VARIABLE PAVEMENT THICKNESS THROUGHOUT THE CORRIDOR. SUITABLE EXISTING
  BASE DOES NOT NEED TO BE EXCAVATED TO ALLOW FOR A FULL 4-INCH LAYER OF NEW AGGREGATE AS APPROVED BY
  THE ENGINEER IN THE FIELD.
- EXCAVATION COMMON FOR PROJECT ID 7650-01-74 WITHIN THE EXISTING ROADWAY CORE IS QUANTIFIED FOR THE FULL PROPOSED PAVEMENT WIDTH, AND DEPTH WHICH ACCOUNTS FOR THE PROPOSED PAVEMENT AND ASSUMING A MAXIMUM OF 4-INCHES OF BASE AGGREGATE IS REMOVED AS SHOWN IN THE FINISHED TYPICAL SECTIONS. AS SHOWN IN THE FINISHED TYPICAL SECTIONS, FULL REMOVAL OF THE EXISTING AGGREGATE SHOULDER TO THE SUBGRADE SHOULDER POINT IS NOT REQUIRED AND NOT INCLUDED IN THE EXCAVATION COMMON PLAN QUANTITY.
- RADII MEASUREMENTS ARE PROVIDED TO THE FACE OF CURB/FLOWLINE.
- ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88 (2012) ADJUSTMENT.



## **UTILITIES**

AT&T WISCONSIN

COMMUNICATION LINE RICK PODOLAK 304 S. DEWEY STREET, 4<sup>TH</sup> FLOOR EAU CLAIRE, WI 54701 TELEPHONE: (715) 839-5565 MOBILE: (715) 410-0656 EMAIL: RP4514@ATT.COM

## CENTURYLINK

COMMUNICATION LINE
MR. KYLE SCHLAMPP
20 S. WILSON AVENUE
RICE LAKE, WI 54868
TELEPHONE: (715) 234-5573
MOBILE: (715) 292-0082
EMAIL: KYLE.SCHLAMPP@CENTURYLINK.COM

#### **CITY OF PRESCOTT**

SEWER
DENNIS EATON
800 BORNER STREET
PRESCOTT, WI 54021
TELEPHONE: (715) 262-5207
MOBILE: (612) 723-8951
EMAIL: DEATON@PRESCOTTCITY.ORG

#### **CITY OF PRESCOTT**

WATER
DENNIS EATON
800 BORNER STREET
PRESCOTT, WI 54021
TELEPHONE: (715) 262-5207
MOBILE: (612) 723-8951
EMAIL: DEATON@PRESCOTTCITY.ORG

#### COMCAST

COMMUNICATION LINE
BEN UELAND
4255 LEXINGTON AVENUE N., STE 100
ARDEN HILLS, MN 55126
TELEPHONE: (612) 462-7911
EMAIL: BENJAMIN UELAND@COMCAST.COM

## NORTHERN NATURAL GAS COMPANY

GAS/PETROLEUM
BOB TORNIO
4685 212<sup>TH</sup> STREET W.
P.O. BOX 188
FARMINGTON, MN 55024
TELEPHONE: (402) 530-3424
MOBILE: (612) 270-8505
EMAIL: ROBERT.TORNIO@NNGCO.COM
24-HOUR EMERGENCY CONTACT: (888) 367-6671

## PIERCE PEPIN COOPERATIVE SERVICES

ELECTRICITY
BRAD RISTOW
W7725 USH 10
ELLSORTH, WI 54011
TELEPHONE: (715) 273-2473
MOBILE: (715) 307-1904
EMAIL: BRISTOW@PIERCEPEPIN.COOP

#### ST. CROIX GAS

GAS/PETROLEUM
GREG LEE
415 S. SECOND STREET
RIVER FALLS, WI 54022
TELEPHONE: (715) 425-6177
EMAIL: GREG@STCROIXGAS.COM
24-HOUR EMERGENCY CONTACT: (715) 425-6177

### **XCEL ENERGY**

ELECTRICITY
BRIAN MELLO
2001 OLD HWY 35 S.
HUDSON, WI 54016
TELEPHONE: (715) 377-1810
EMAIL: BRIAN.M.MELLO@XCELENERGY.COM

## AGENCIES/PROJECT CONTACTS

## WISCONSIN DEPARTMENT OF TRANSPORTATION

PROJECT MANAGER MOHAMAD HAYEK, P.E. 718 W. CLAIREMONT AVENUE EAU CLAIRE, WI 54701 (715) 836-2065

## WISCONSIN DEPARTMENT OF NATURAL RESOURCES

TRANSPORTATION LIAISON AMY LESIK 1300 W. CLAIREMONT AVENUE EAU CLAIRE, WI 54701 (715) 836-6571

## CITY OF PRESCOTT

CITY ADMINISTRATOR JAYNE BRAND 800 BORNER STREET PRESCOTT, WI 54021 (715) 262-5544

#### CITY OF RIVER FALLS

CITY ADMINISTRATOR SCOT SIMPSON 222 LEWIS STREET RIVER FALLS, WI 54022 (715) 426-3402

## PIERCE COUNTY

HIGHWAY COMMISSIONER CHAD JOHNSON 621 W. CAIRNS STREET P.O. BOX 780 ELLSWORTH, WI 54011 (715) 273-5096

### TOWN OF CLIFTON

TOWN CHAIR LEROY PETERSON W10604 CTH FF RIVER FALLS, WI 54022 (715) 425-5837

## TOWN OF OAK GROVE

TOWN CHAIR GERALD KOSIN W12082 620<sup>TH</sup> AVENUE PRESCOTT, WI 54021 (715) 262-5677

#### JT ENGINEERING, INC.

CONSULTANT PROJECT MANAGER ANDREW BLOCK, P.E. 1077 CENTENNIAL CENTRE BLVD. HOBART, WI 54155 (920) 468-4771

PROJECT NO: 7650-01-74 HWY: STH 29 COUNTY: PIERCE GENERAL NOTES SHEET: E

FILE NAME : \_\_\_\_\_\_ PLOT BY : \_\_\_\_\_ PLOT BY : \_\_\_\_\_ PLOT NAME : \_\_\_\_\_ PLOT SCALE : 1:1

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# 2

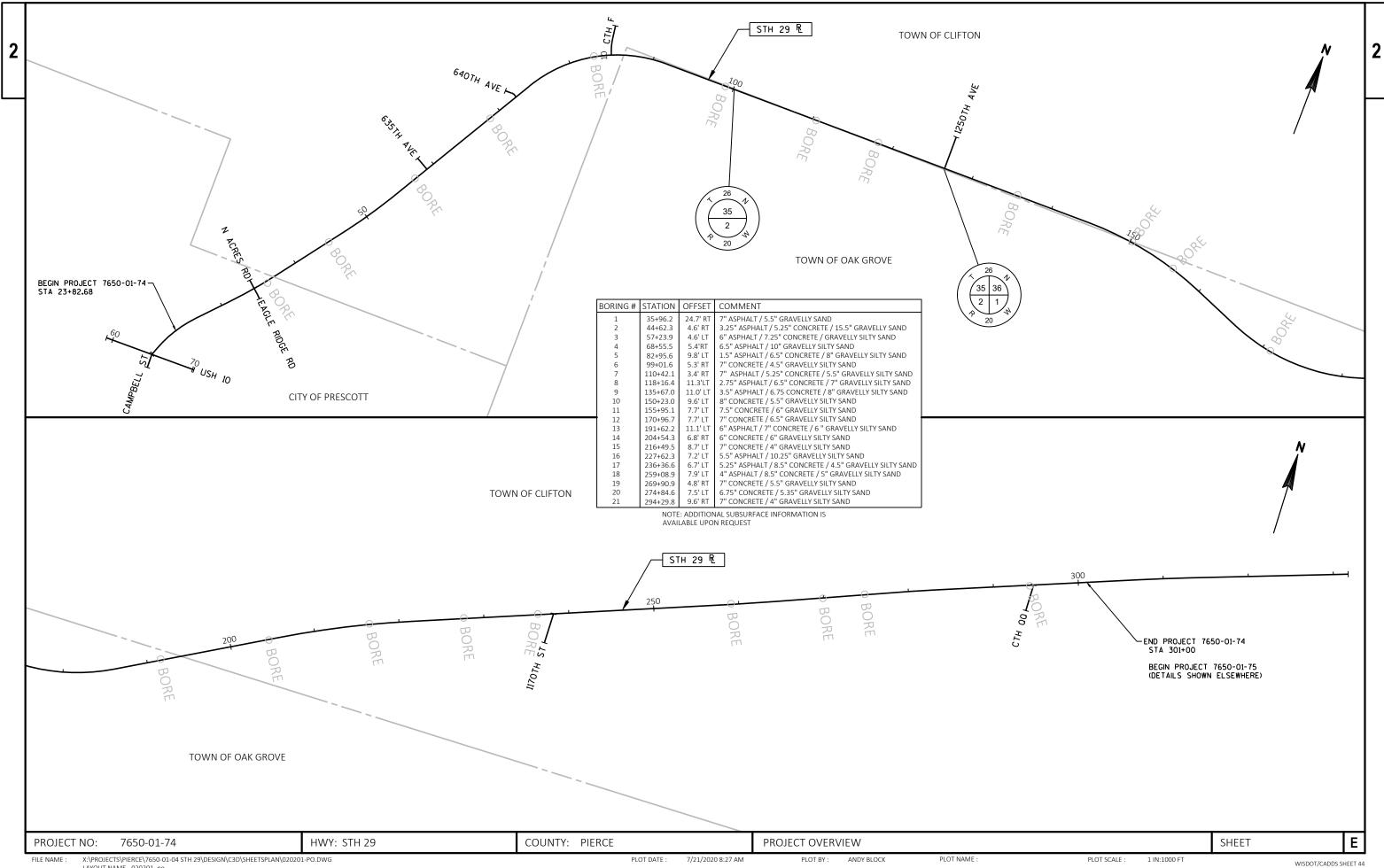
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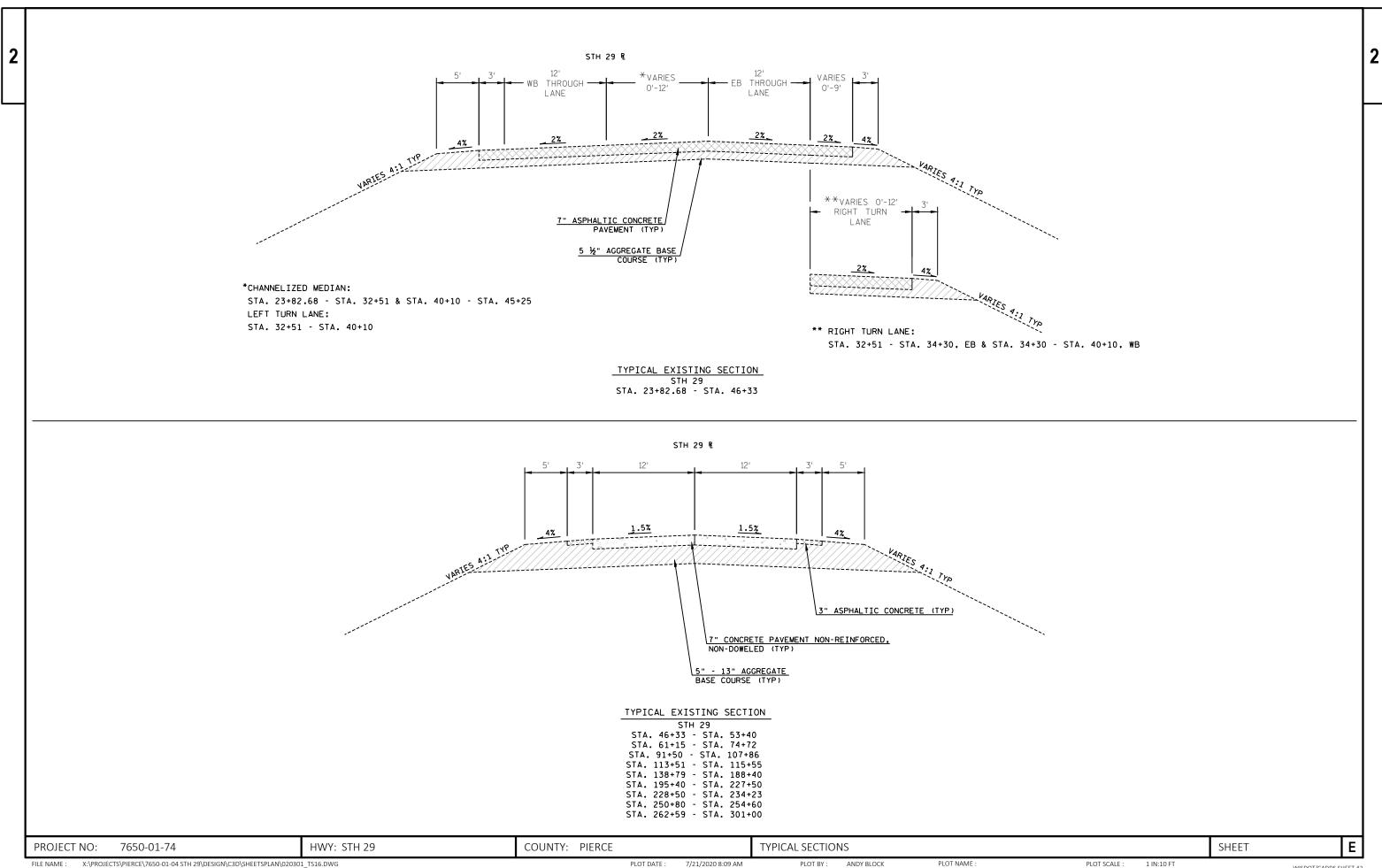
	HYDROLOGIC SOIL GROUP												
	A			B SLOPE RANGE (PERCENT)			C SLOPE RANGE (PERCENT)			D SLOPE RANGE (PERCENT)			
	SLOPE RANGE (PERCENT)												
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38	
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56	
MEDIAN STRIP- TURF	.19	.20	.24	.19 .25	.22	.26	.20	.23 .30	.30 .37	.20	.25	.30 .40	
SIDE SLOPE- TURF			.25 .32			.27			.28			.30	
PAVEMENT:													
ASPHALT .7095													
CONCRETE													
BRICK													
DRIVES, WALKS	(S .7585												
R00FS	ROOFS .7595												
GRAVEL ROADS, SHOULDERS .4060													

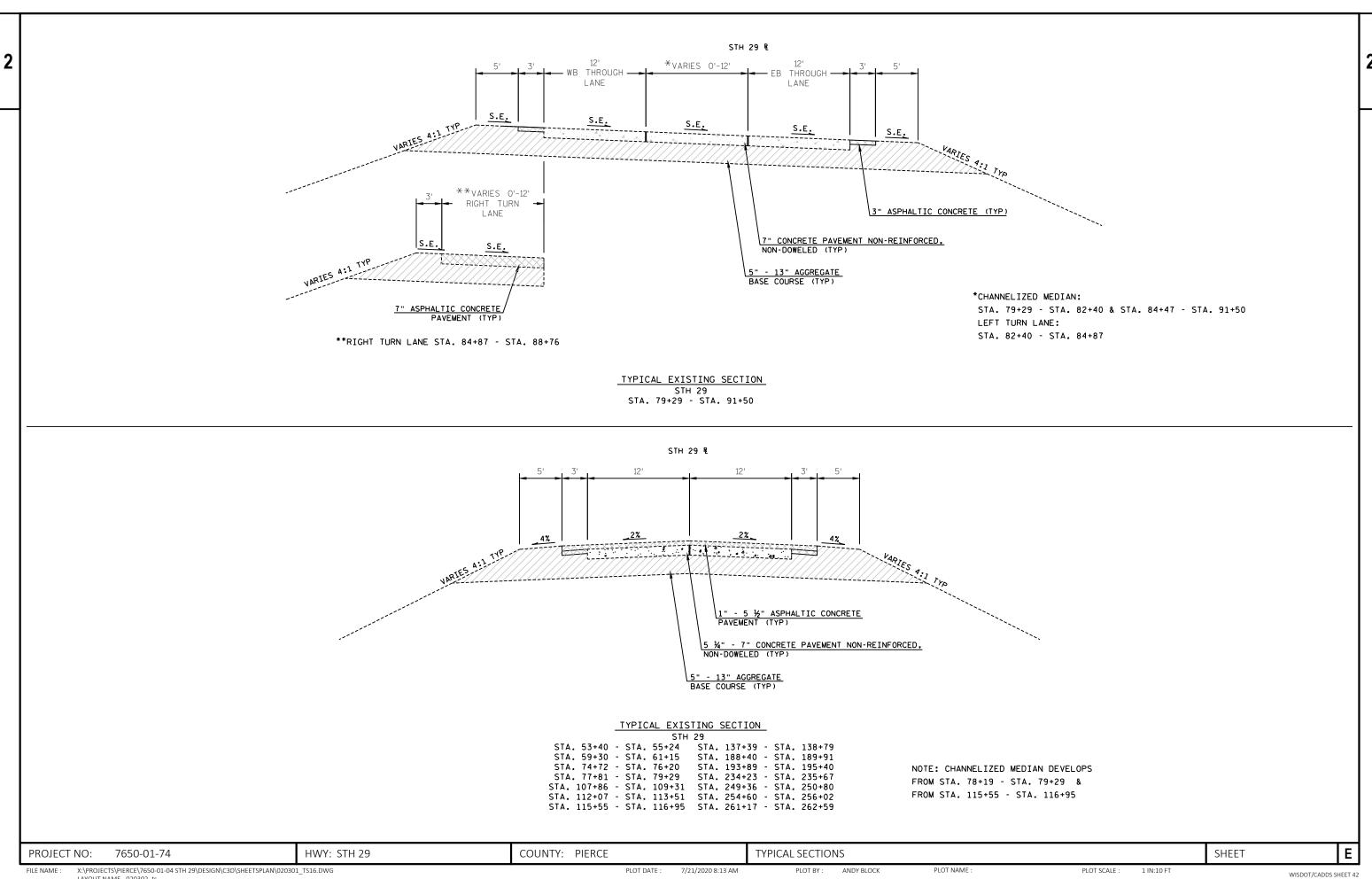
TOTAL PROJECT AREA = 96.07 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 12.56 ACRES

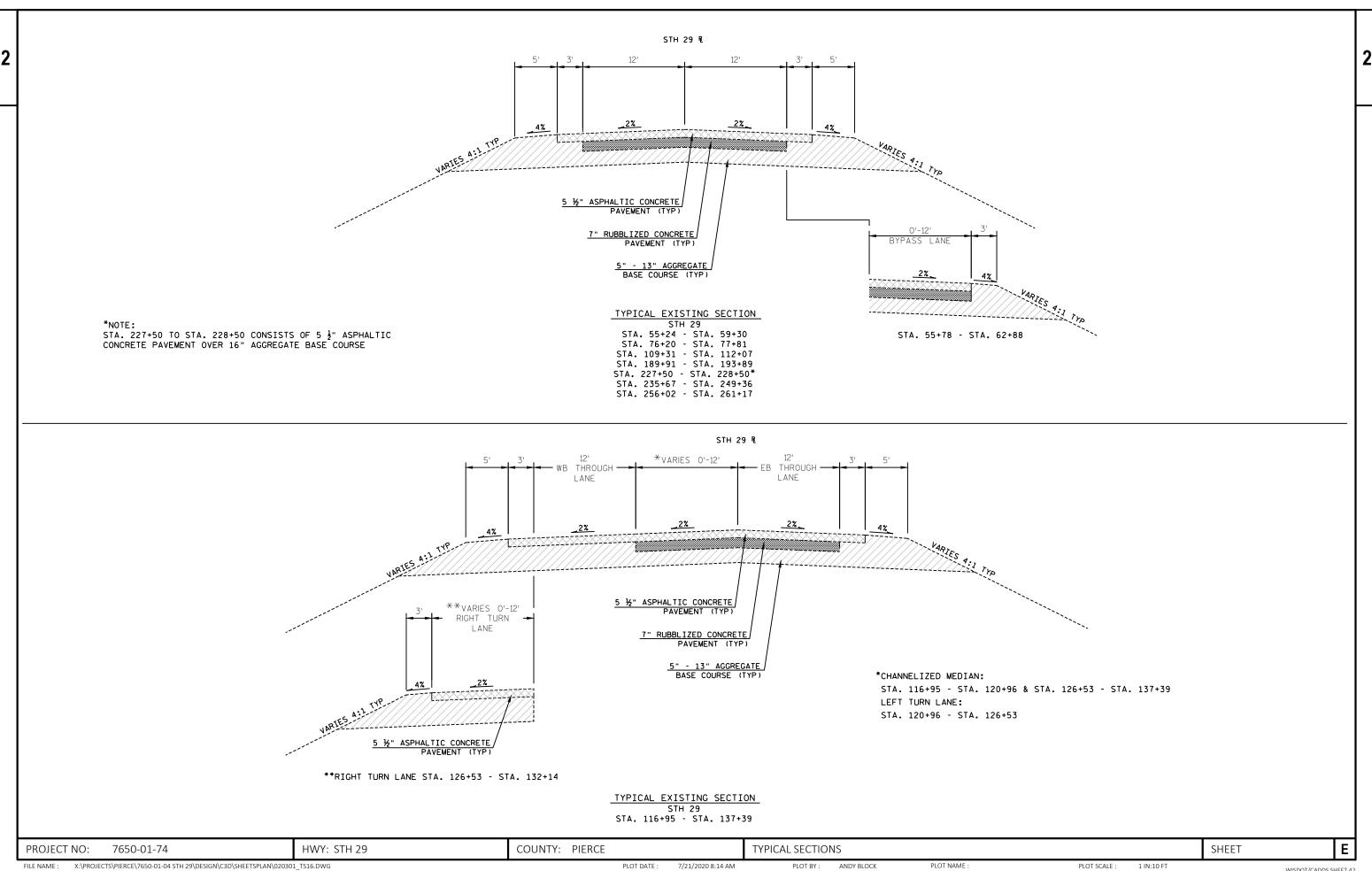
PROJECT NO: 7650-01-74	HWY: STH 29	COUNTY: PIERCE	GENERAL NOTES	SHEET:		اغ
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FILE NAME : \_\_\_\_\_ PLOT DATE : \_\_\_\_ PLOT BY : \_\_\_\_ PLOT NAME : \_\_\_\_ PLOT SCALE : 1:1

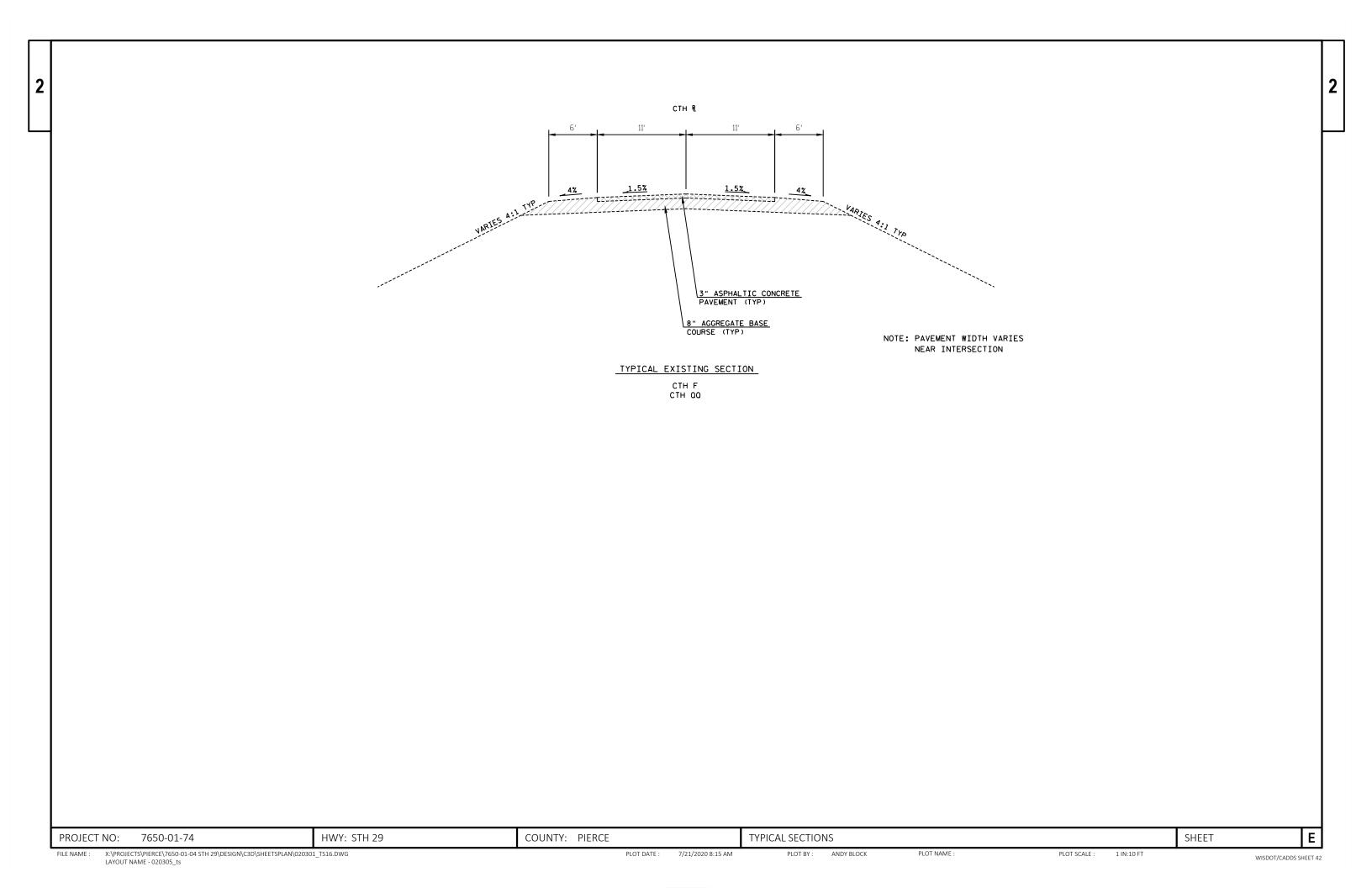


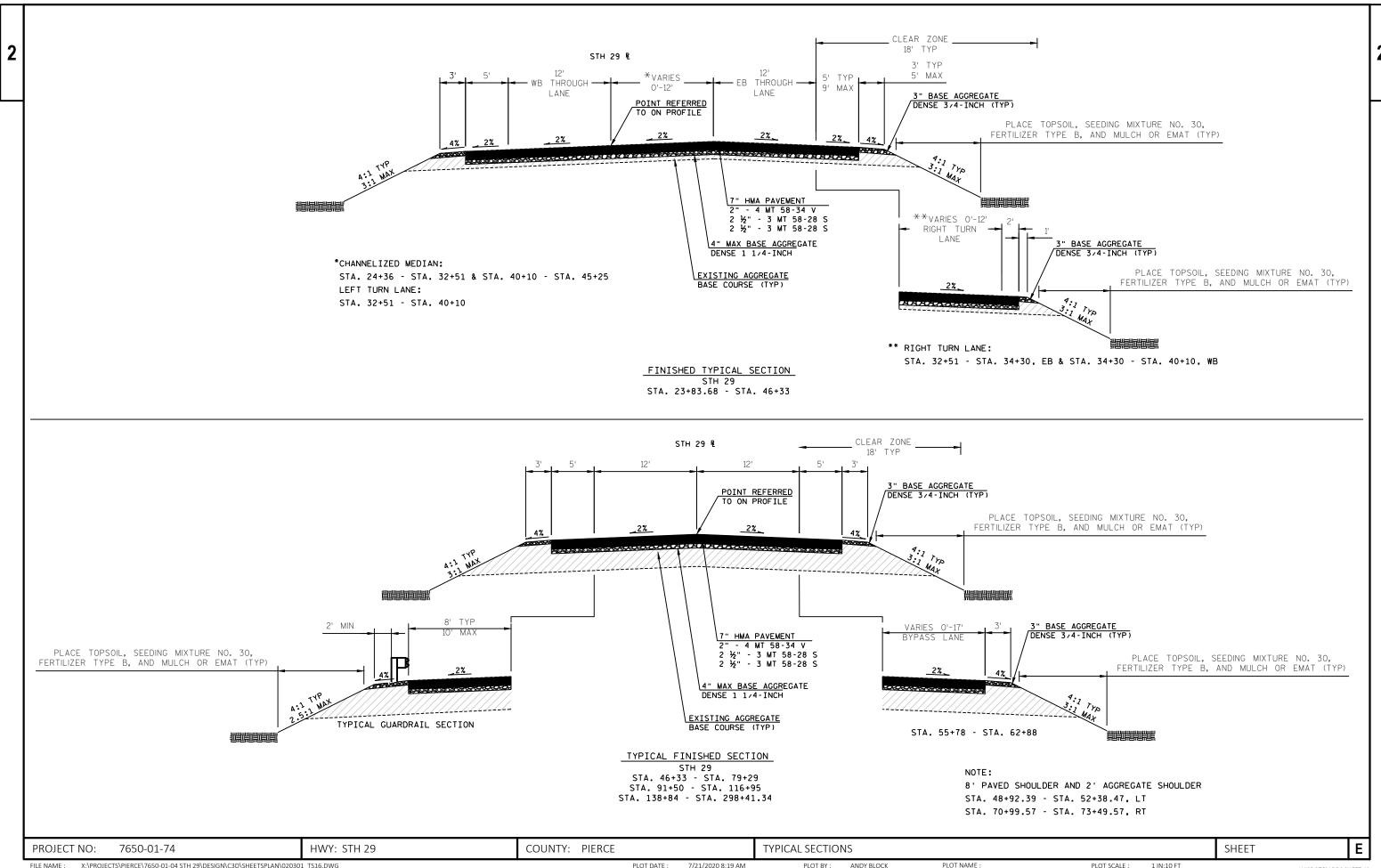


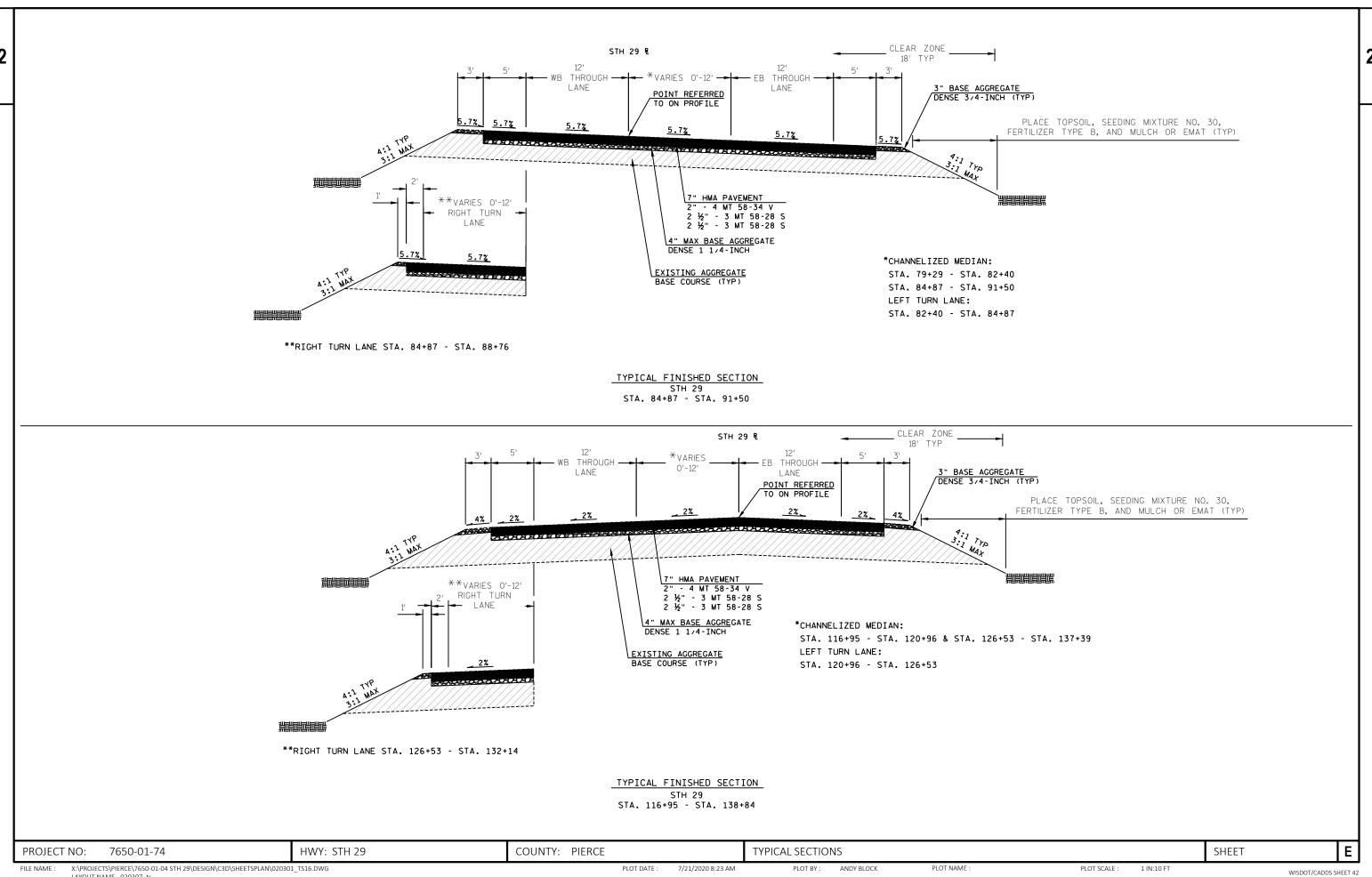


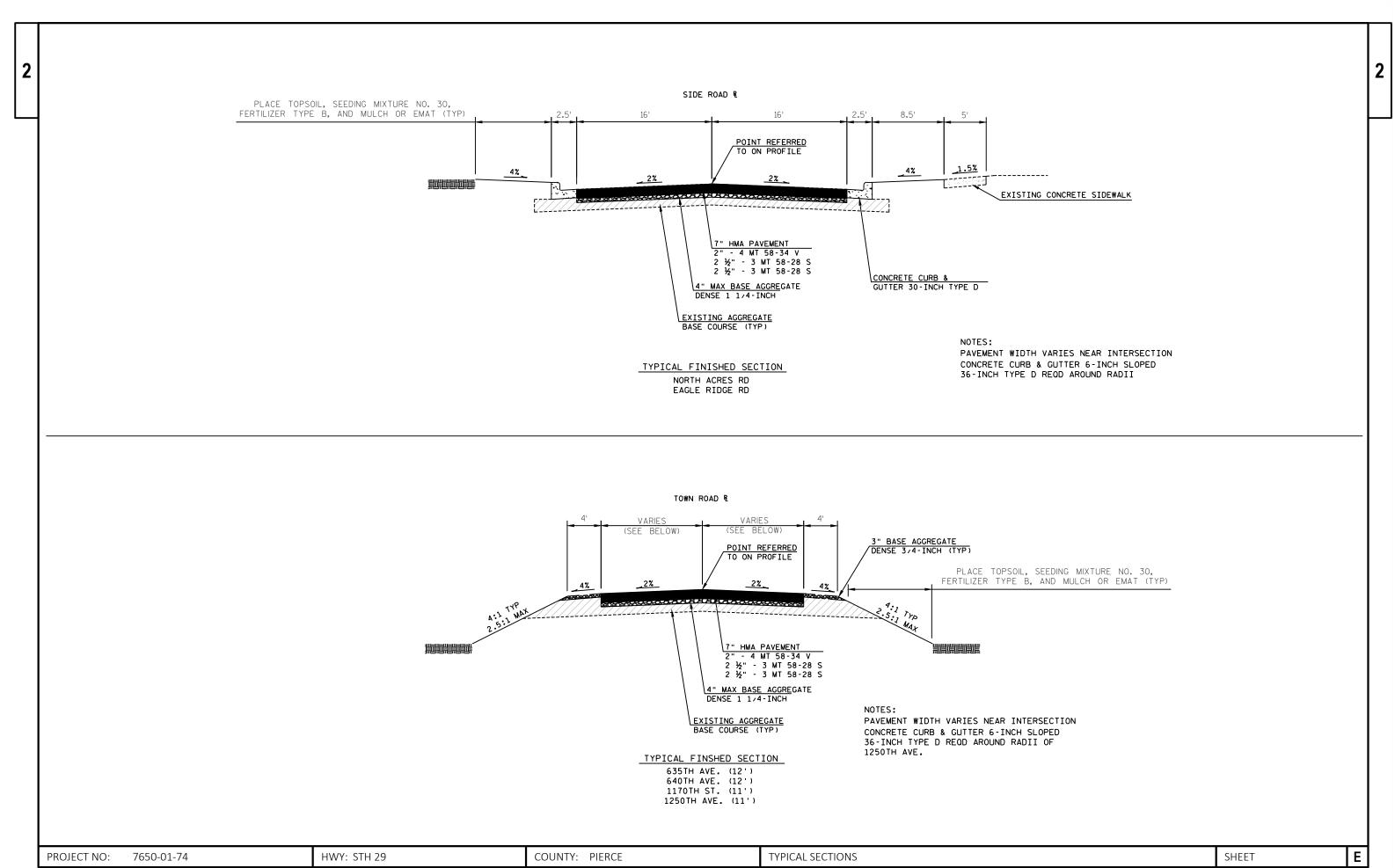


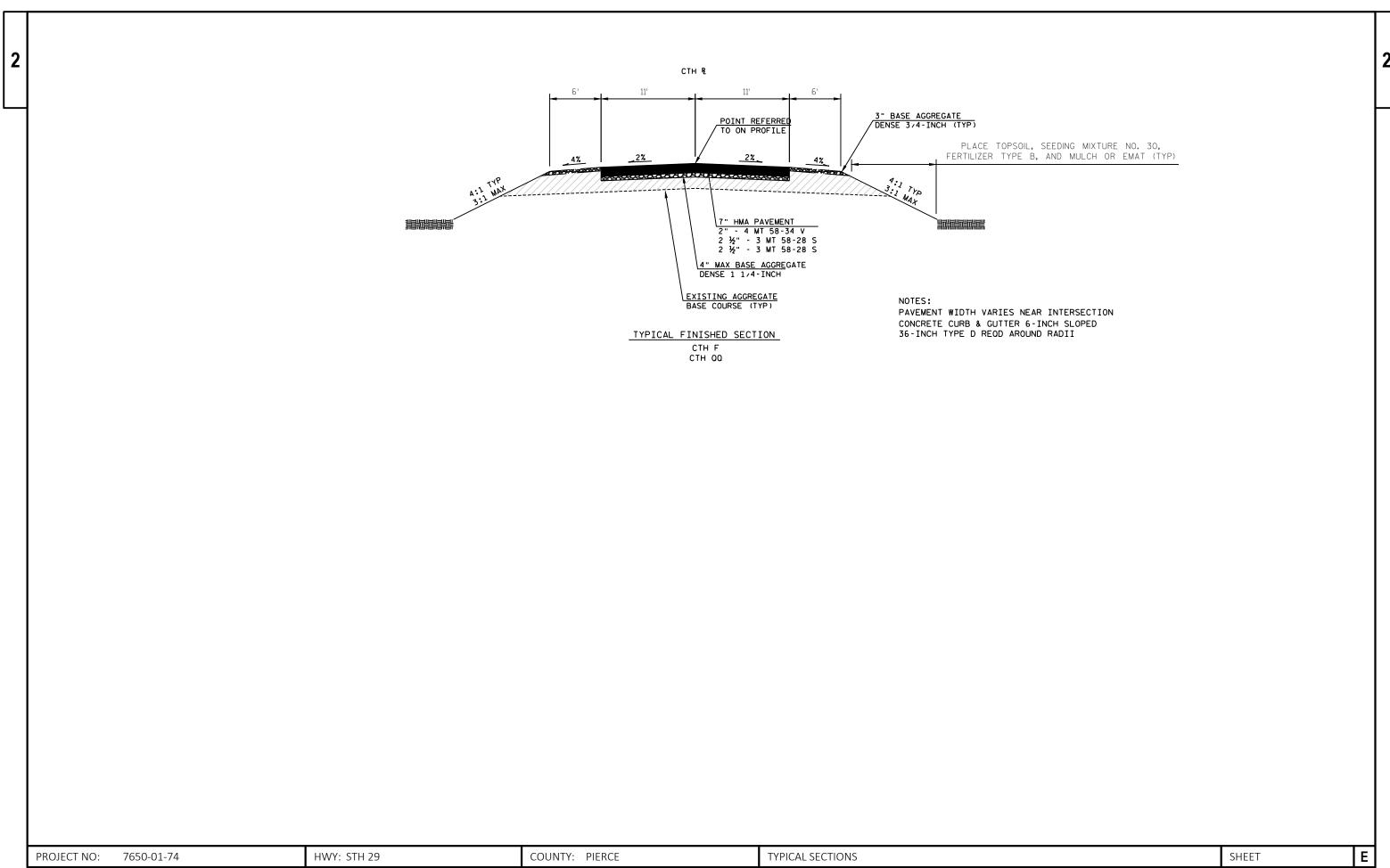
SIDE ROAD & 16' 8.5' 1.5% CONCRETE SIDEWALK NOTE: SIDEWALK ON RIGHT SIDE OF ALIGNMENT ALONG NORTH ACRES RD; SIDEWALK ON LEFT SIDE OF ALIGNMENT ALONG EAGLE RIDGE DR CONCRETE CURB &
GUTTER 30-INCH (TYP) 7" ASPHALTIC CONCRETE PAVEMENT (TYP) 5 ½" AGGREGATE BASE COURSE (TYP) NOTE: PAVEMENT WIDTH VARIES NEAR INTERSECTION TYPICAL EXISTING TYPICAL SECTION NORTH ACRES RD EAGLE RIDGE RD TOWN ROAD & VARIES (SEE BELOW) (SEE BELOW) 2" ASPHALTIC CONCRETE PAVEMENT (TYP) 6" AGGREGATE BASE COURSE (TYP) NOTE: PAVEMENT WIDTH VARIES NEAR INTERSECTION TYPICAL EXISTING SECTION 635TH AVE. (12') 640TH AVE. (12') 1170TH ST. (11') 1250TH AVE. (11') Ε PROJECT NO: 7650-01-74 HWY: STH 29 COUNTY: PIERCE TYPICAL SECTIONS SHEET X:\PROJECTS\PIERCE\7650-01-04 STH 29\DESIGN\C3D\SHEETSPLAN\020301 TS16.DWG PLOT DATE : PLOT BY: ANDY BLOCK PLOT SCALE : 1 IN:10 FT FILE NAME : 7/21/2020 8:15 AM



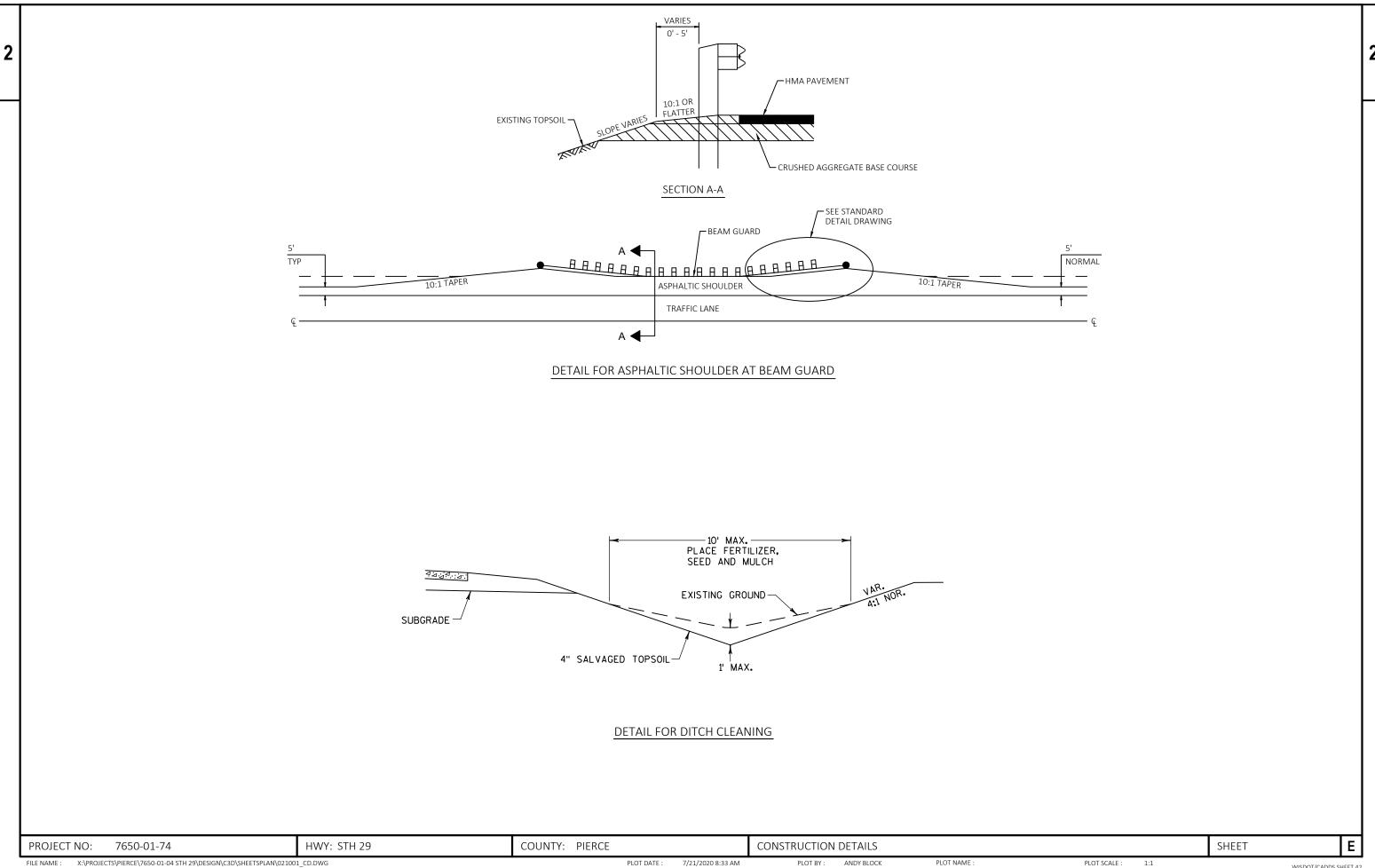




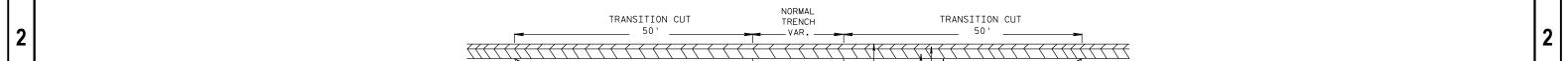


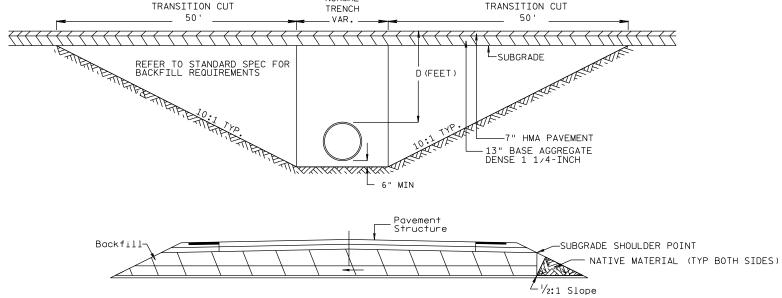


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X:\PROJECTS\PIERCE\7650-01-04 STH 29\DESIGN\C3D\SHEETSPLAN\021001\_CD.DWG LAYOUT NAME - 021001\_cd WISDOT/CADDS SHEET 42





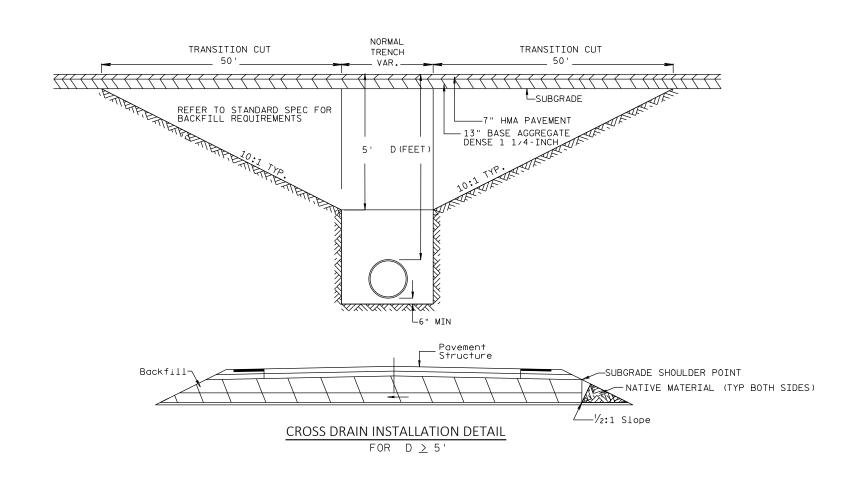
# CROSS DRAIN INSTALLATION DETAIL FOR D $\leq$ 5 '

NOTES: TRANSITION CUT IS PAID AS COMMON EXCAVATION. TRANSITION CUT IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT. TRENCH EXCAVATION IS INCIDENTAL TO CULVERT PIPE ITEMS.

HWY: STH 29

PROJECT NO:

7650-01-74



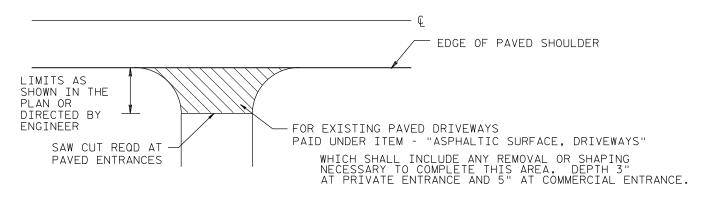
CONSTRUCTION DETAILS

Ε

SHEET

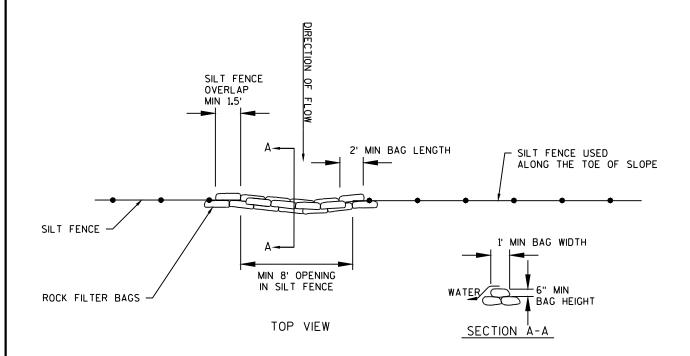
FILE NAME: X:\PROJECTS\PIERCE\7650-01-04 STH 29\DESIGN\C3D\SHEETSPLAN\021001\_CD.DWG PLOT DATE: 9/23/2020 7:14 AM PLOT BY: ANDY BLOCK PLOT NAME: 1:1 WISDOT/CADDS SHEET 42 LAYOUT NAME - 021002\_cd

COUNTY: PIERCE

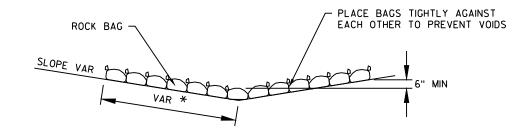


ANY ADDITIONAL BASE AGG. DENSE REQ'D. SHALL BE PAID UNDER ITEM - "BASE AGGREGATE DENSE 3/4-INCH" AT EXISTING AGGREGATE DRIVEWAYS

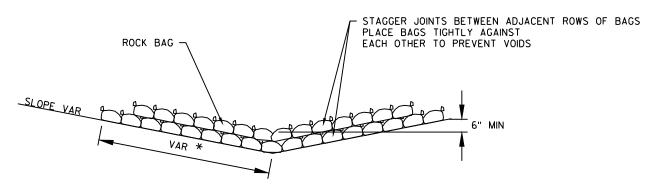
## DRIVEWAY DETAIL



## ROCK BAGS USED FOR SILT FENCE RELIEF DETAIL

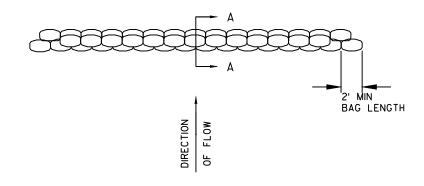


SIDE VIEW (SINGLE LAYER)

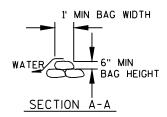


\* LENGTH AND NUMBER OF BAGS MAY VARY DEPENDING ON DESIRED DEPTH OF WATER POOL

SIDE VIEW (MULTIPLE LAYER)



TOP VIEW (MULTIPLE LAYER)

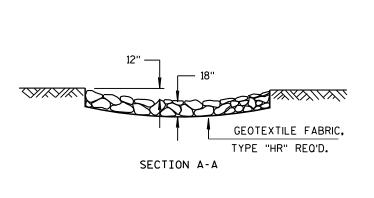


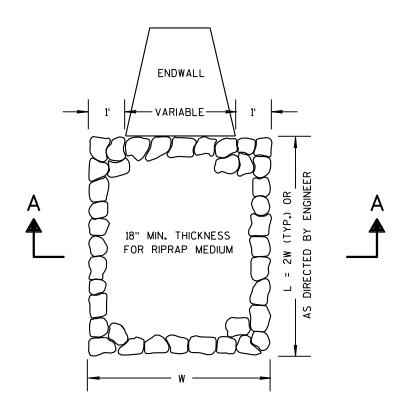
## ROCK BAGS USED FOR DITCH CHECKS DETAIL

PROJECT NO: 7650-01-74 HWY: STH 29 COUNTY: PIERCE CONSTRUCTION DETAILS

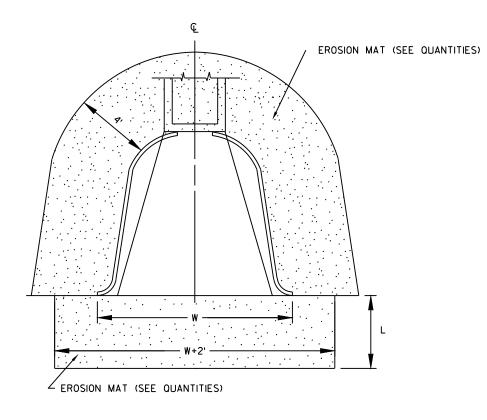
2

2









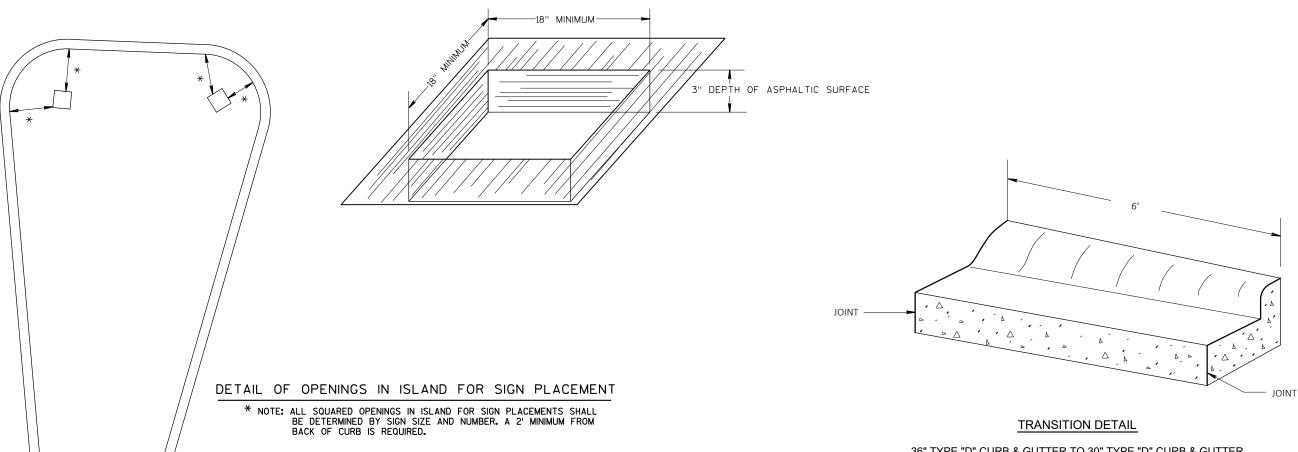
## EROSION CONTROL AT PIPE ENDS DETAIL

L = 3 TIMES DIAMETER OR 10' MIN. INCREASE IF WARRANTED

PROJECT NO: 7650-01-74 HWY: STH 29 COUNTY: PIERCE CONSTRUCTION DETAILS SHEET **E** 







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

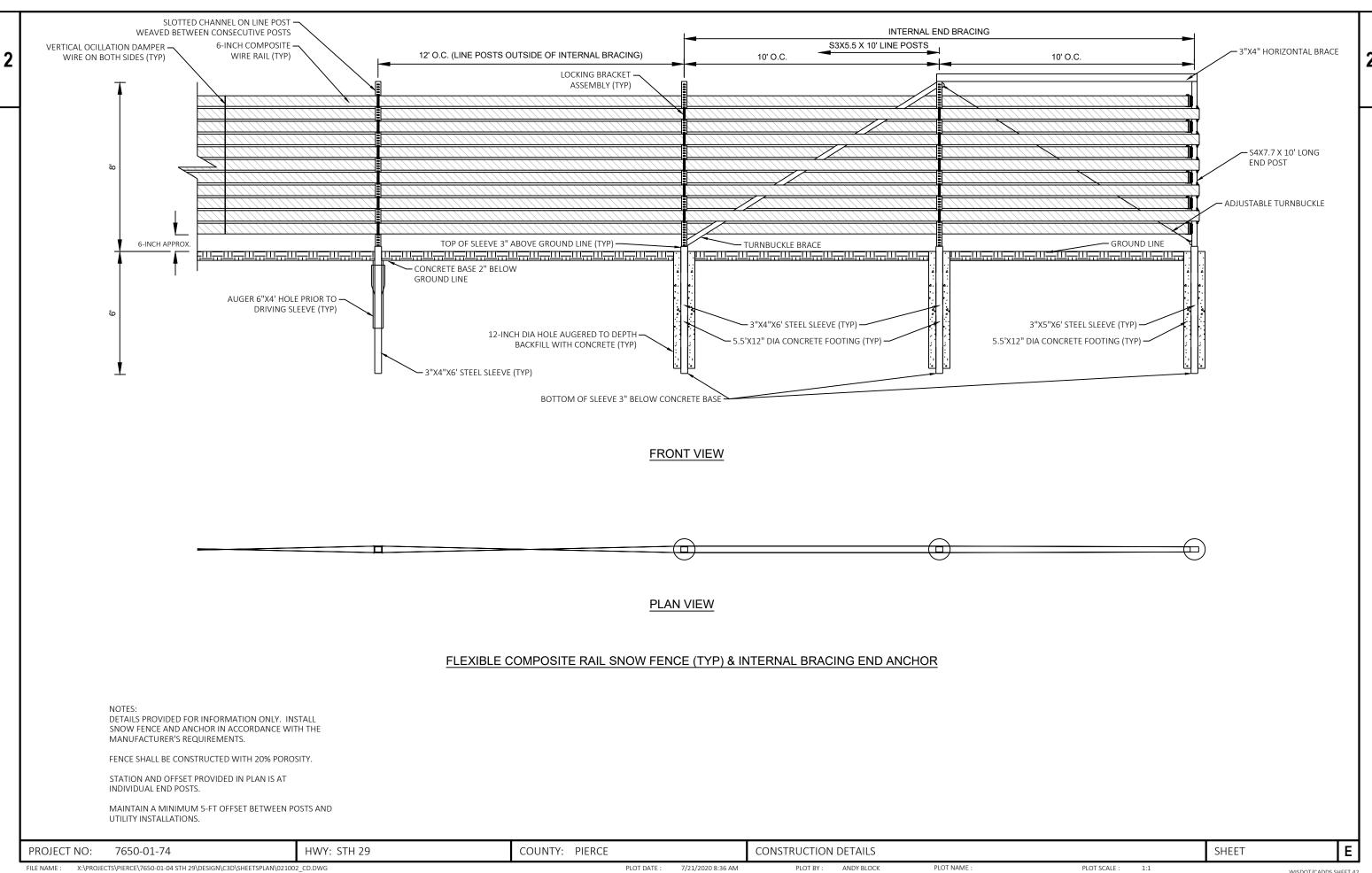
PLOT SCALE :

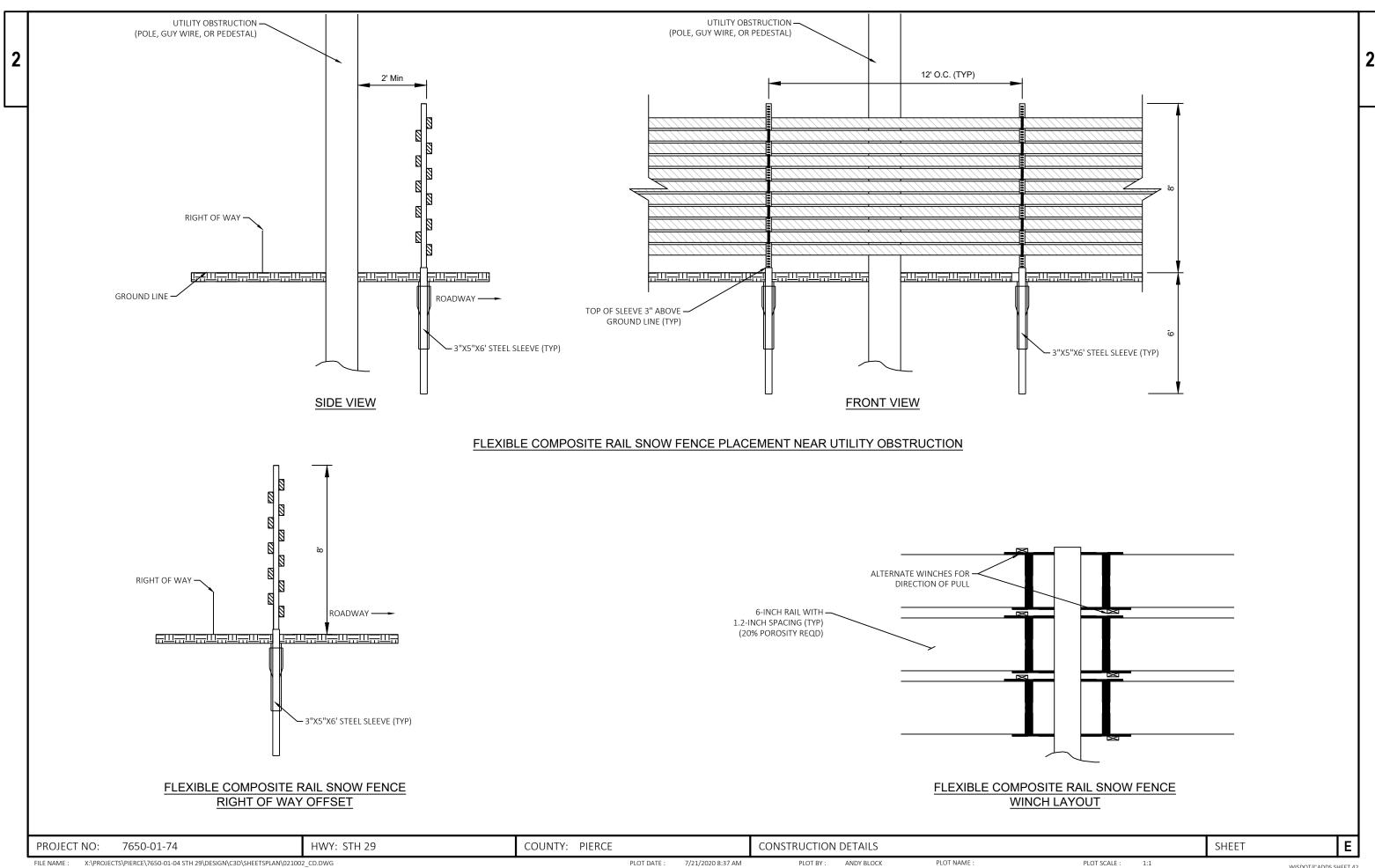
CONSTRUCTION DETAILS Ε PROJECT NO: 7650-01-74 HWY: STH 29 COUNTY: PIERCE SHEET

7/21/2020 8:35 AM

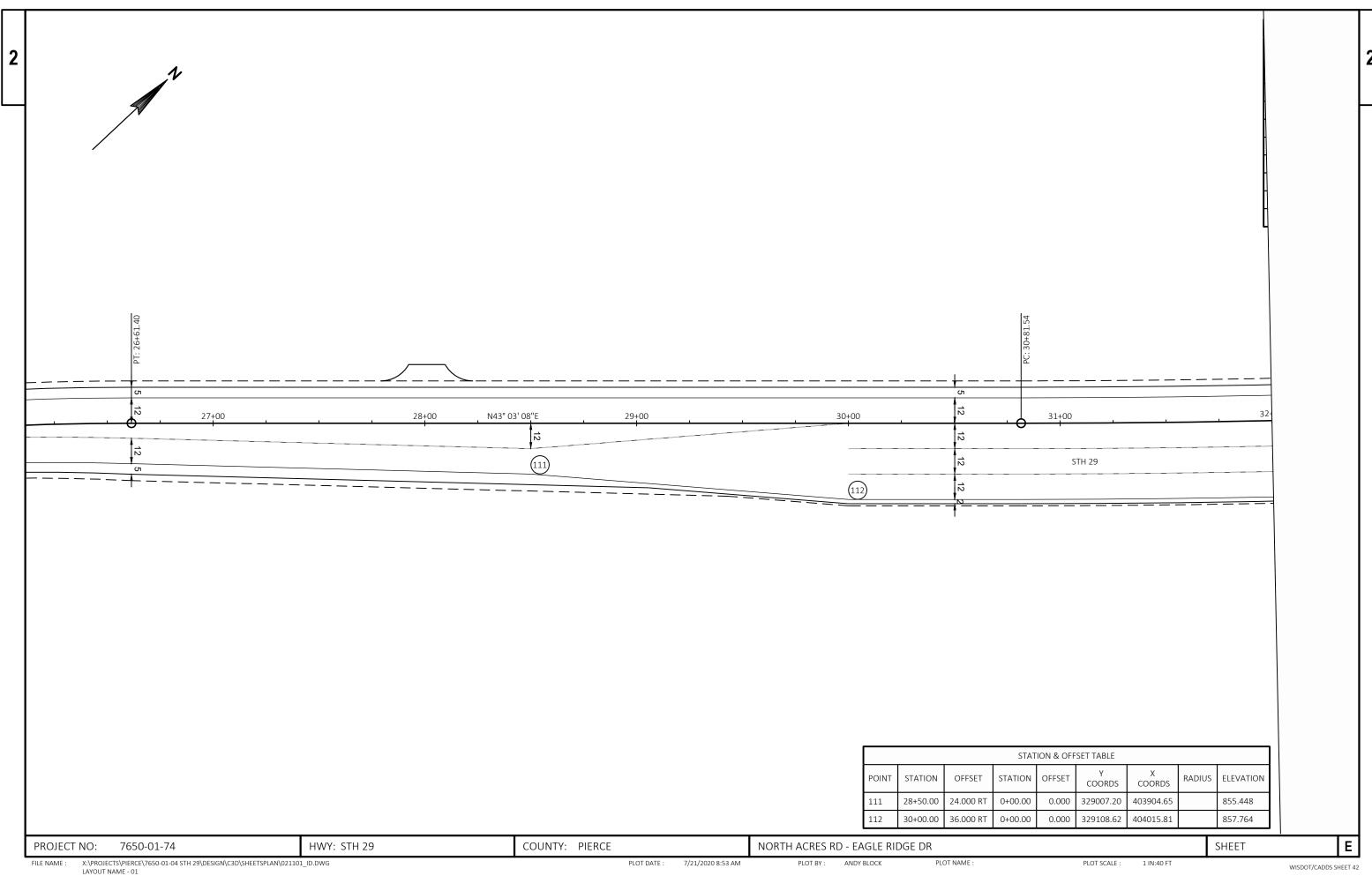
PLOT BY: ANDY BLOCK

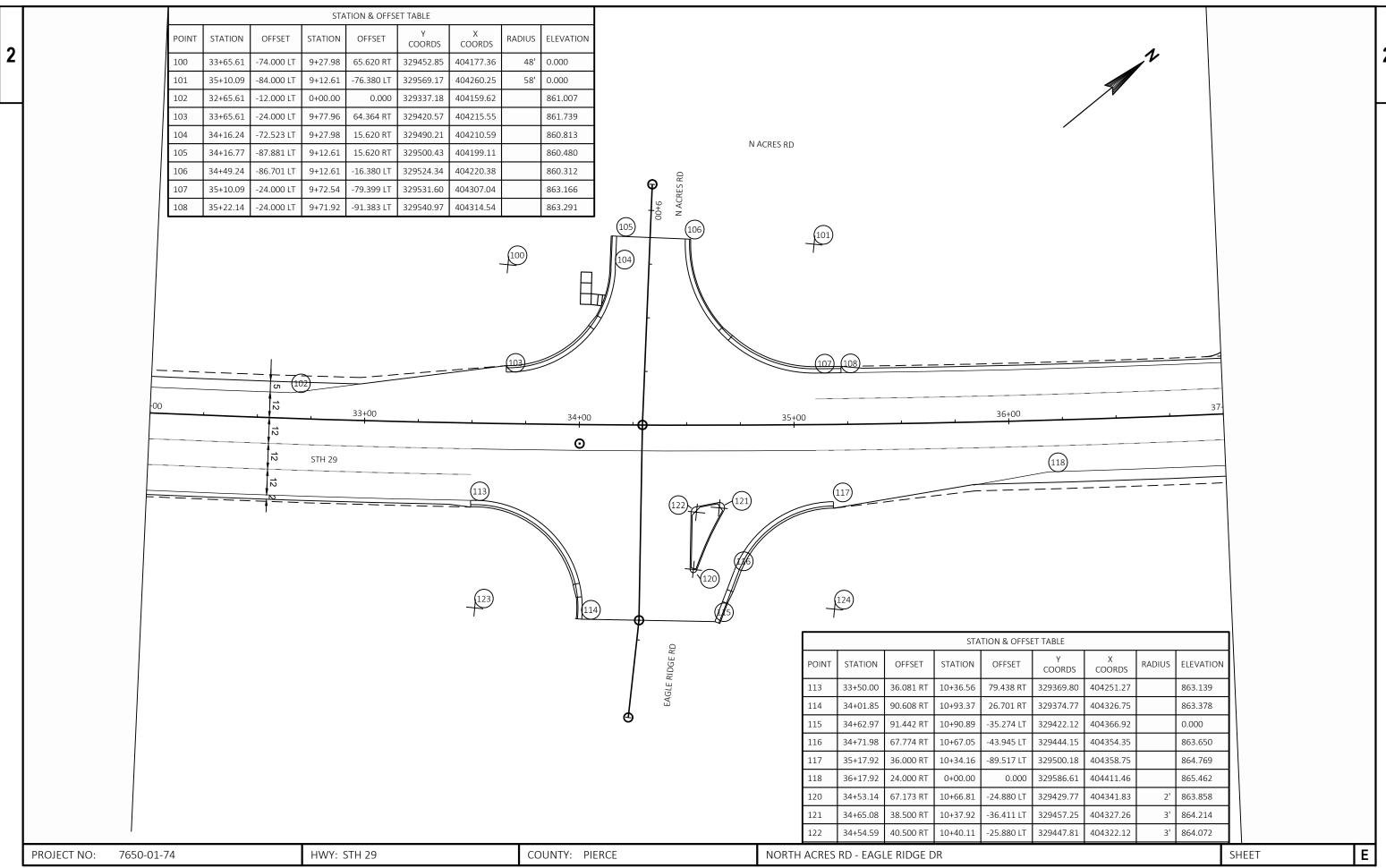
PLOT NAME :

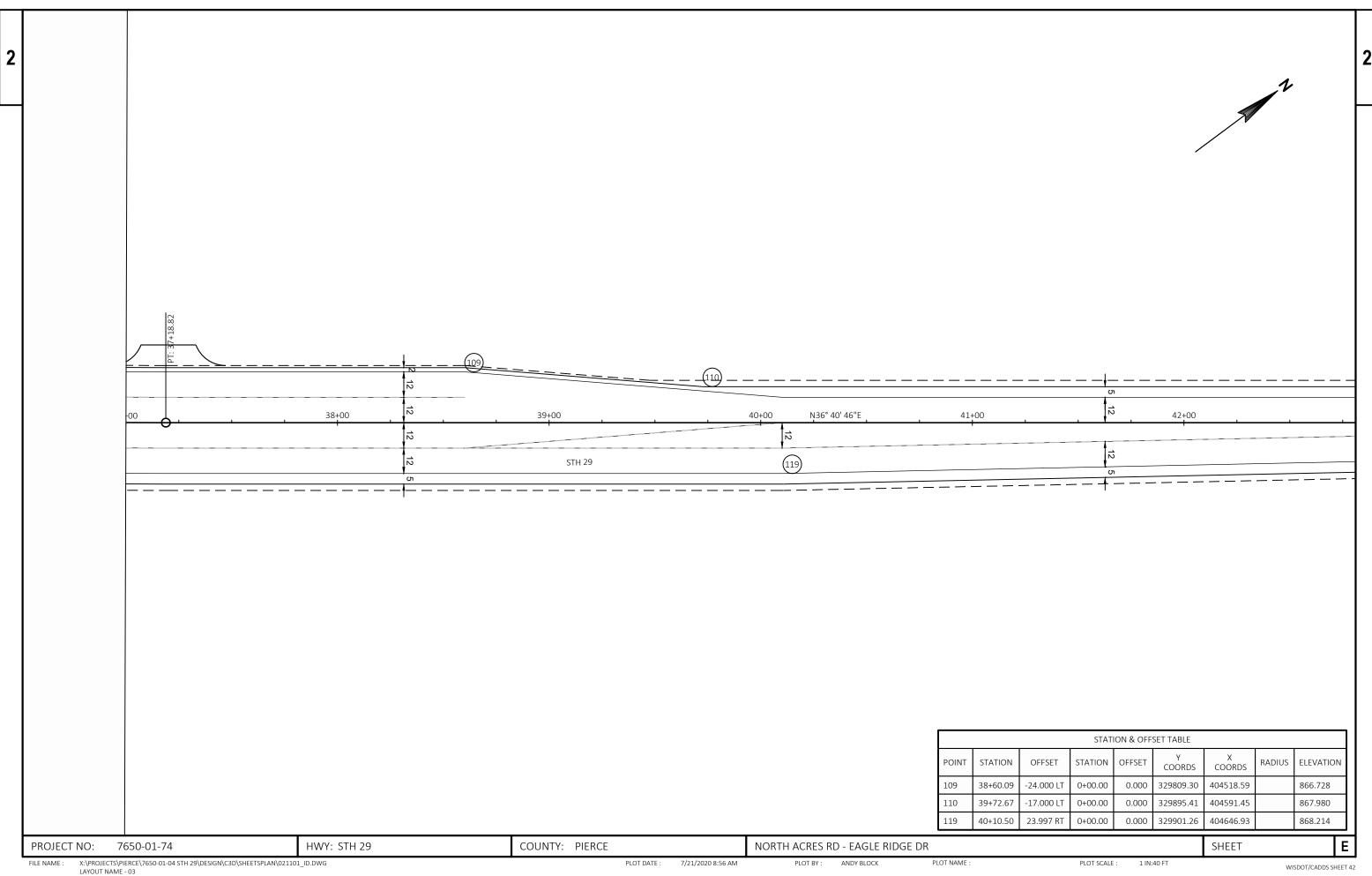


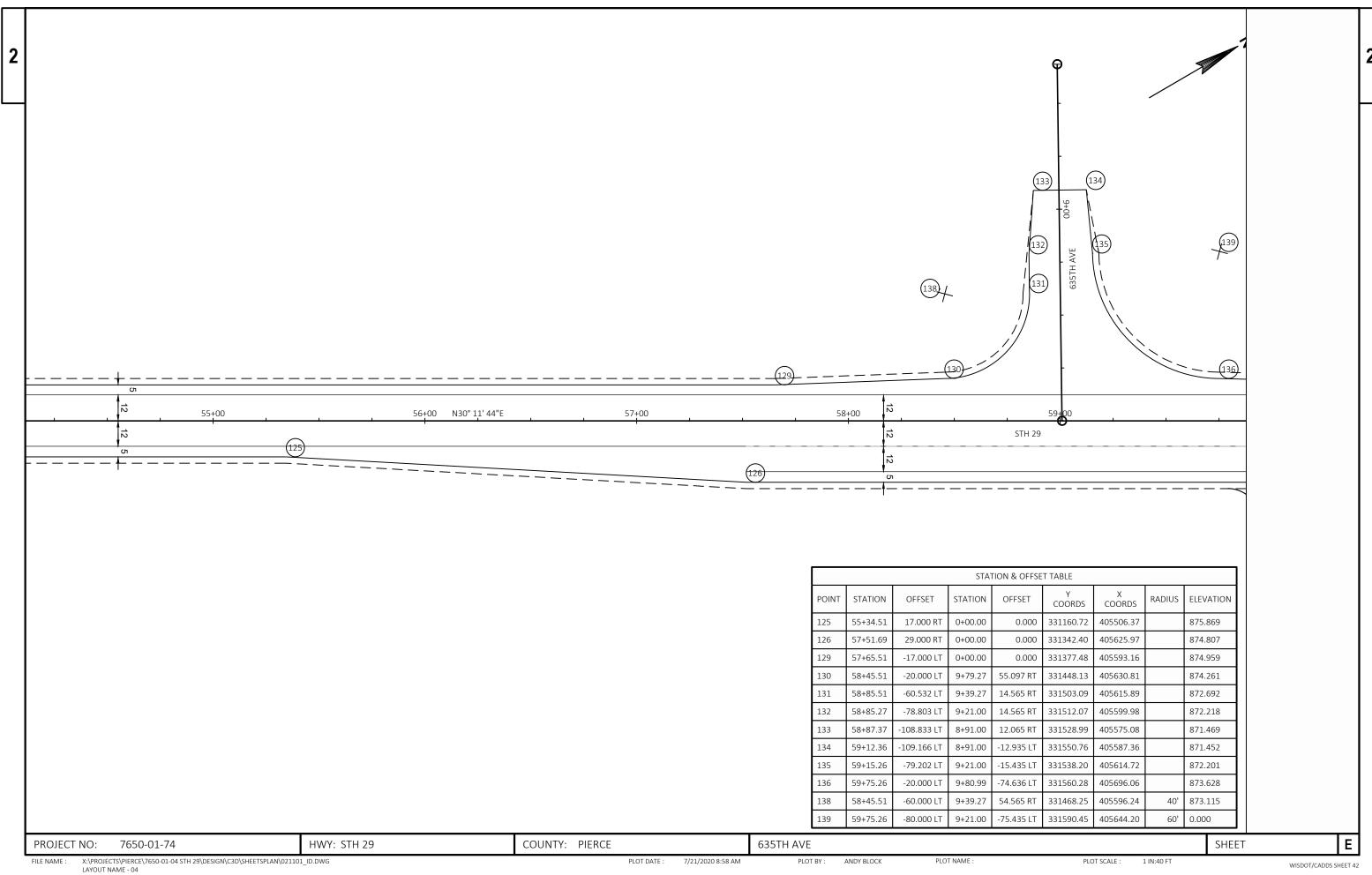


WISDOT/CADDS SHEET 42 LAYOUT NAME - 021007\_cd

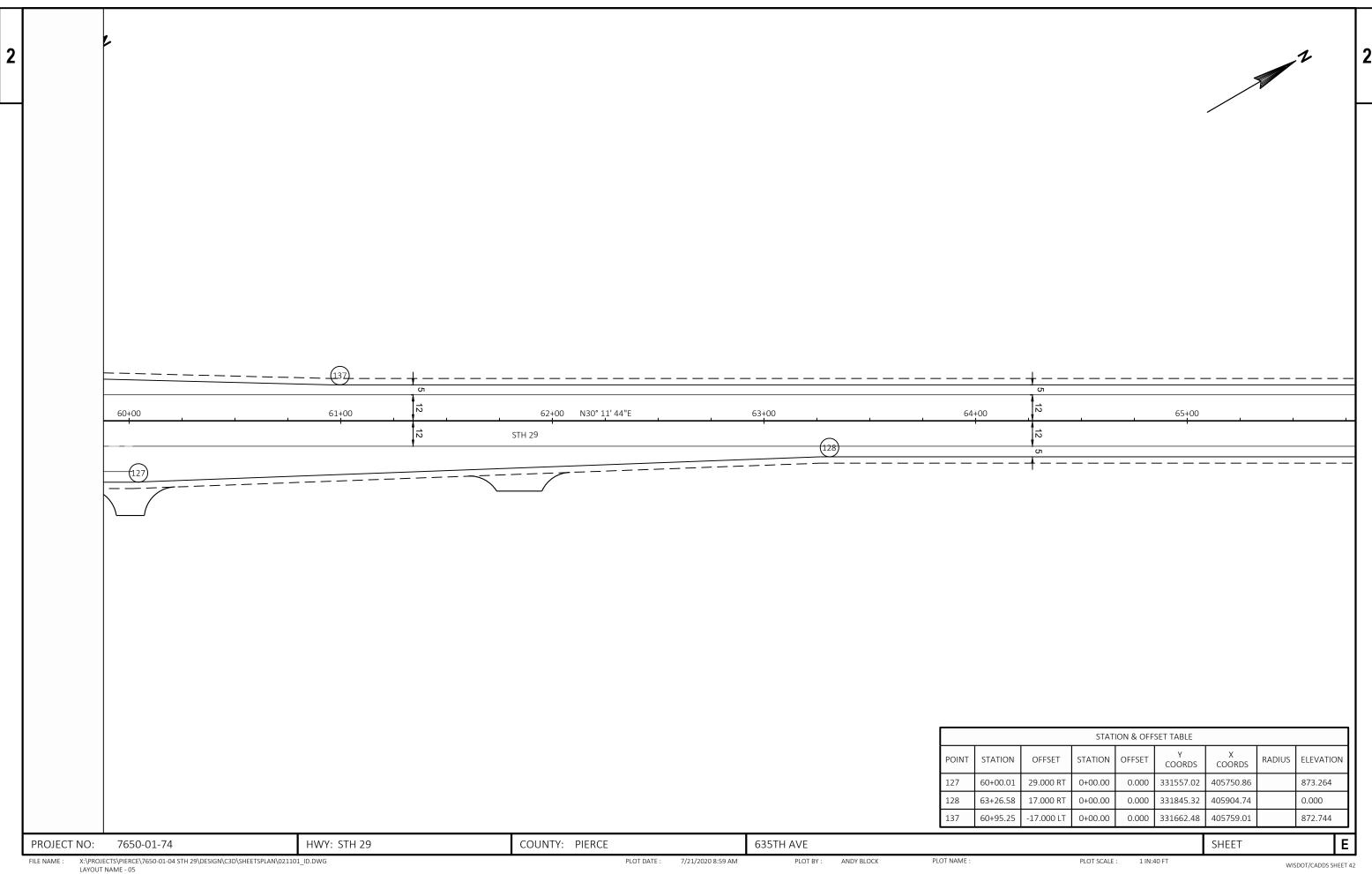




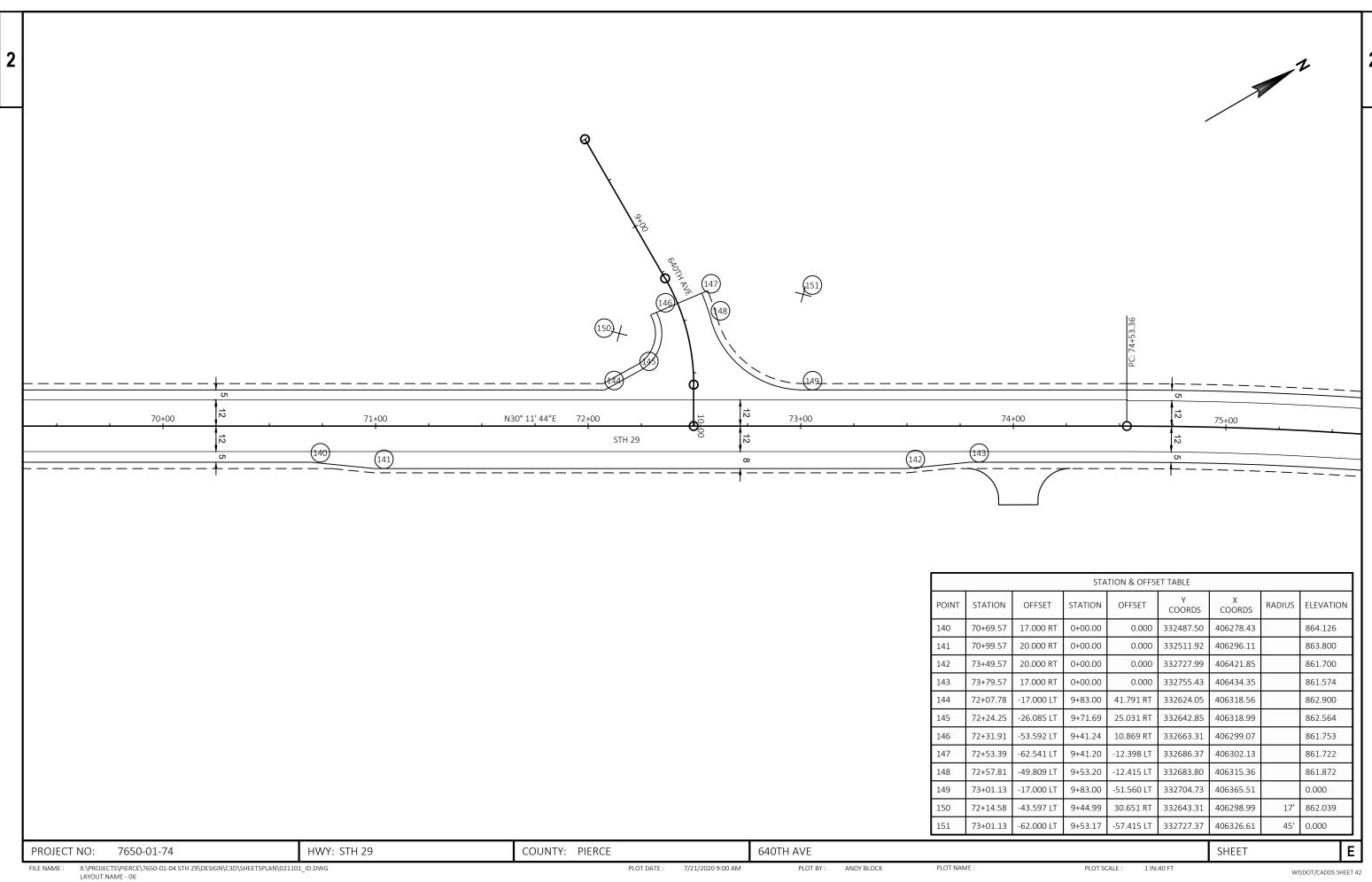


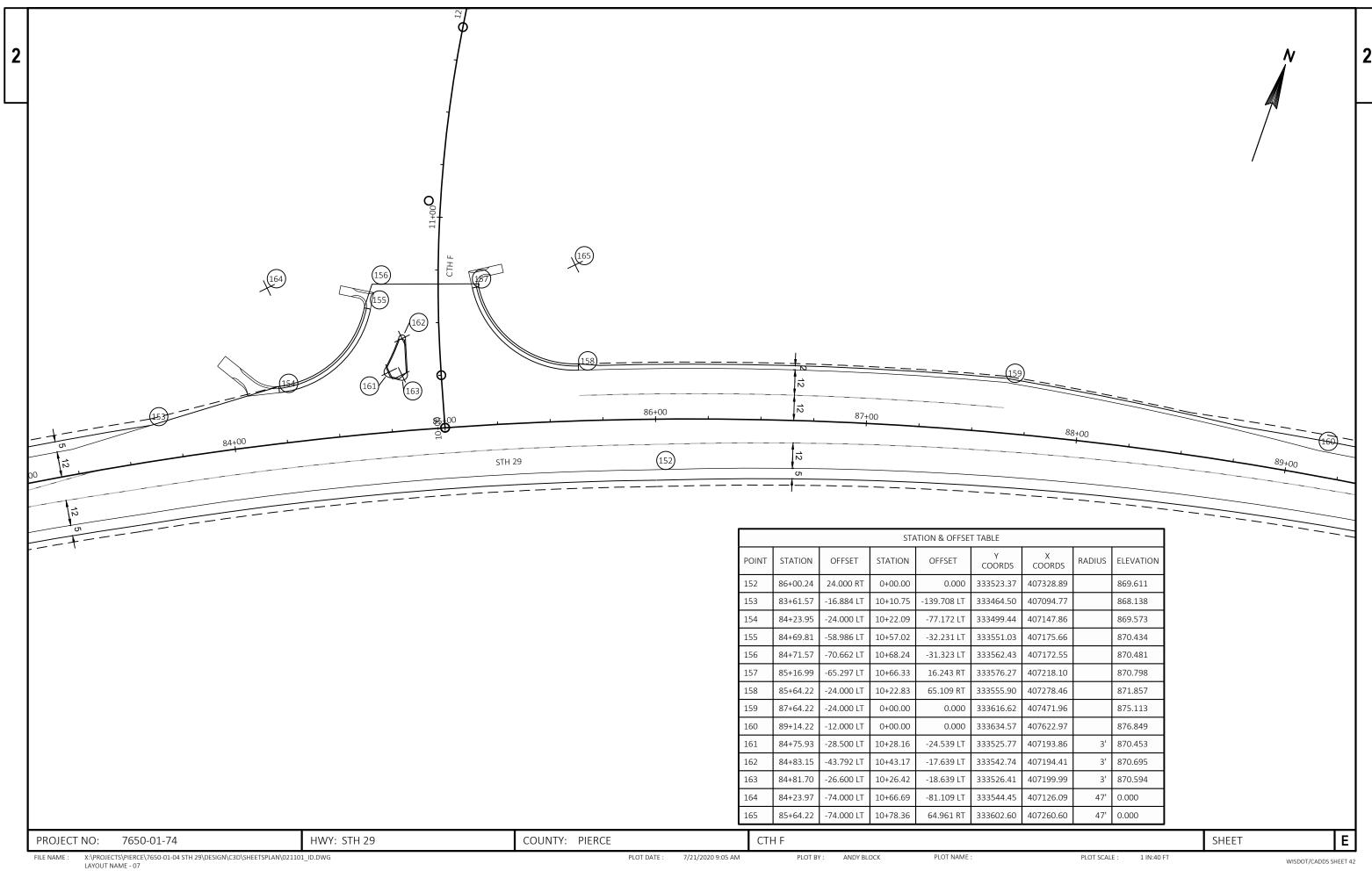


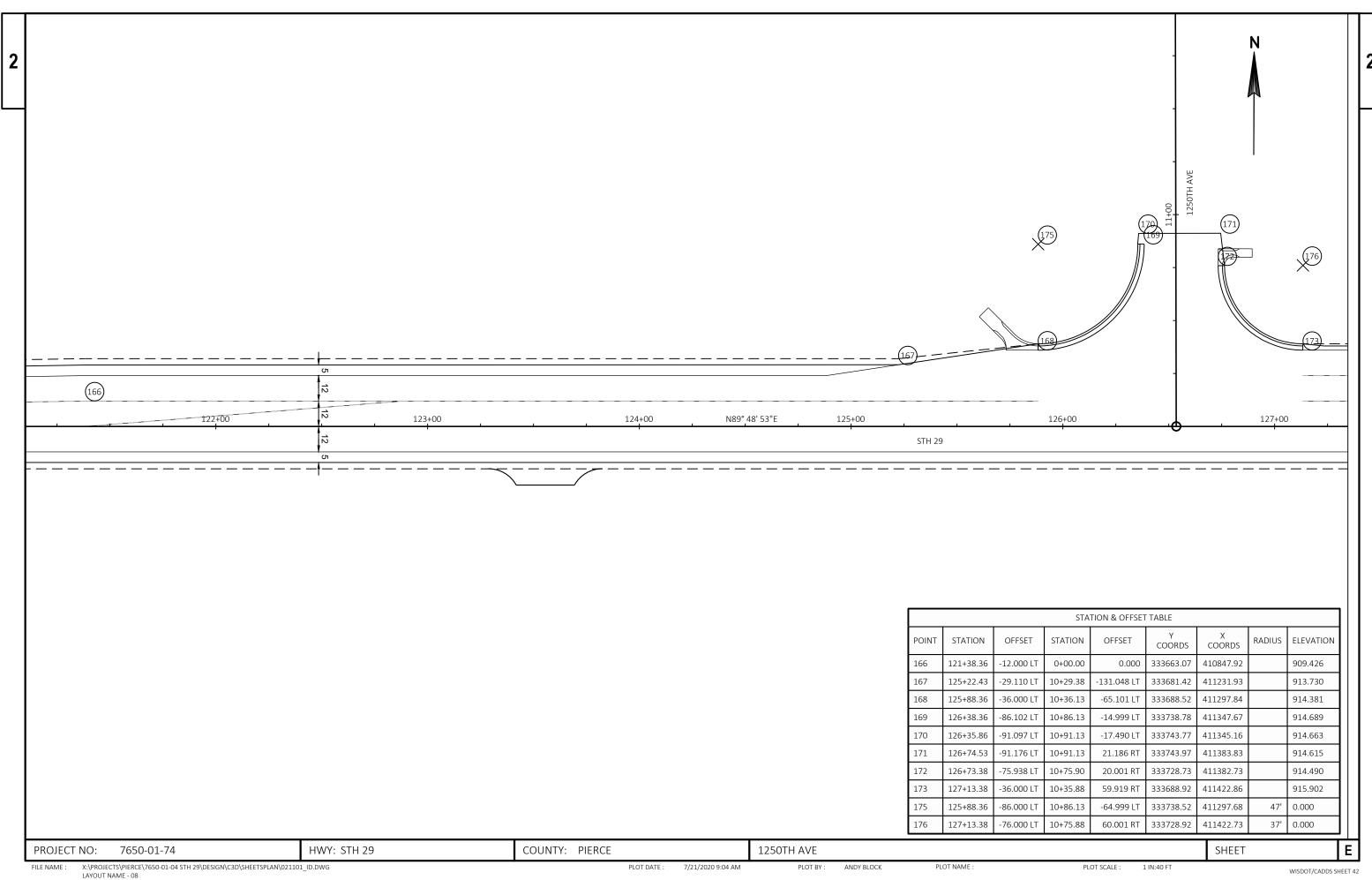
PLOT BY: ANDY BLOCK

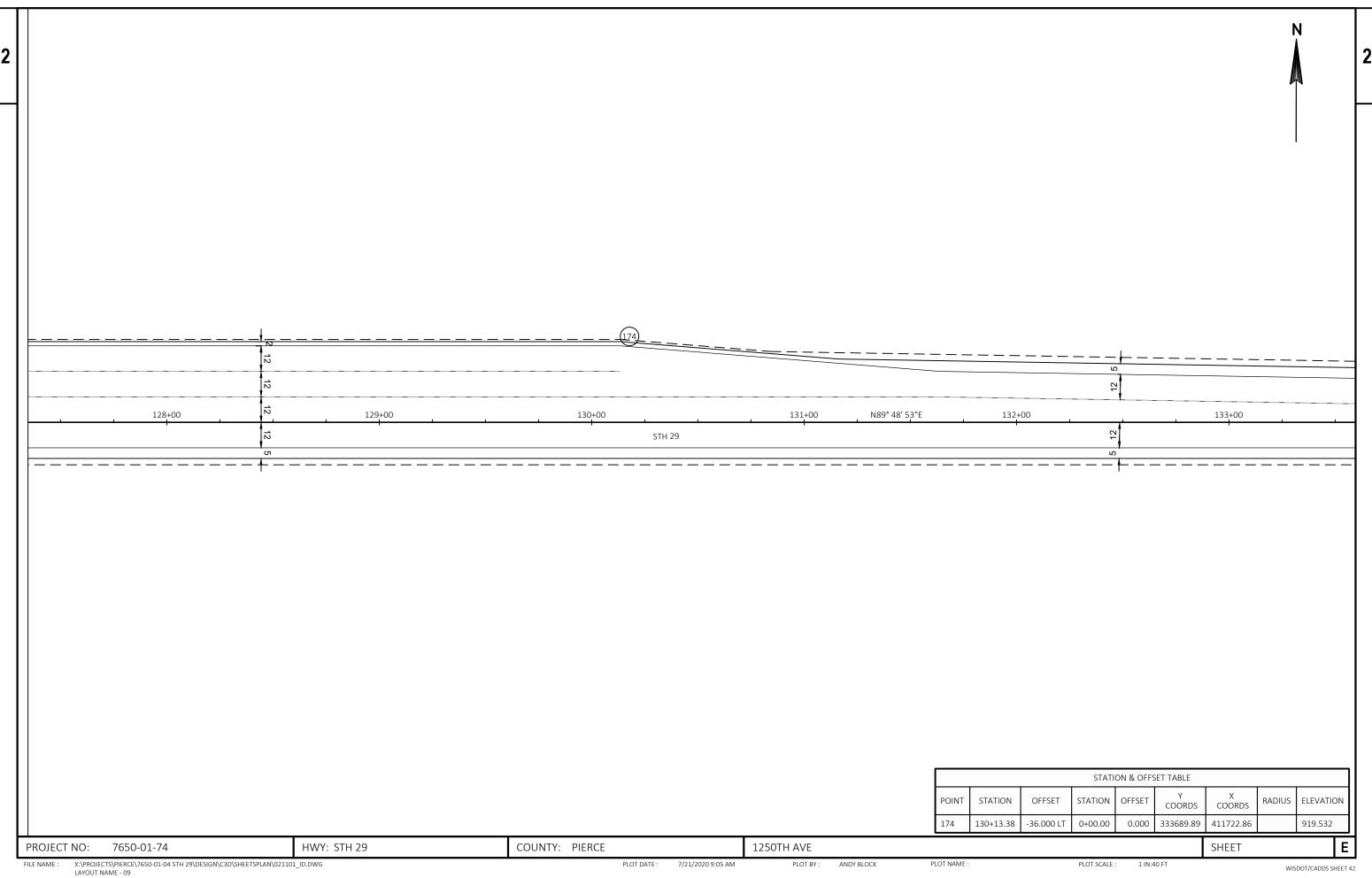


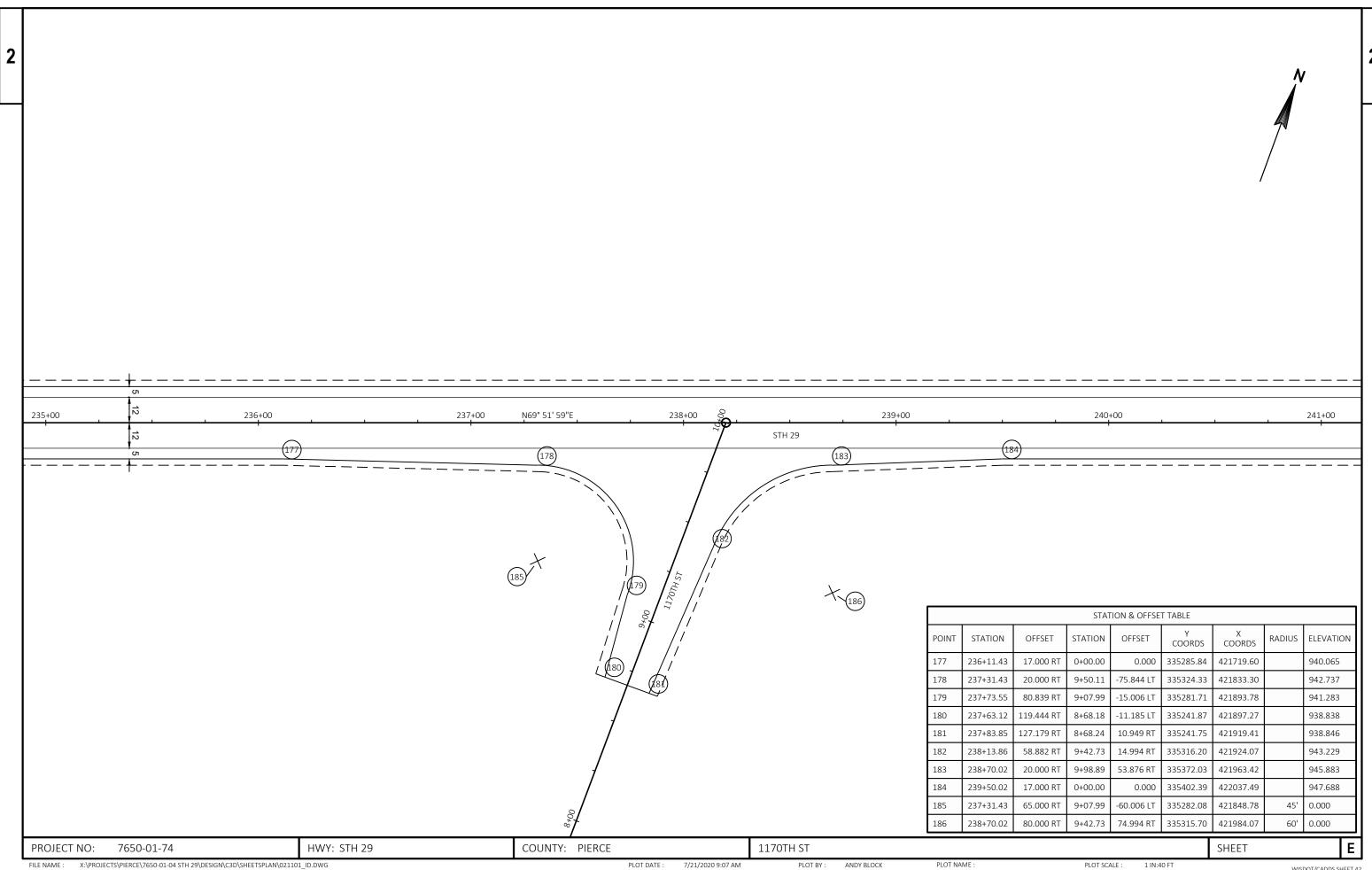
PLOT NAME :





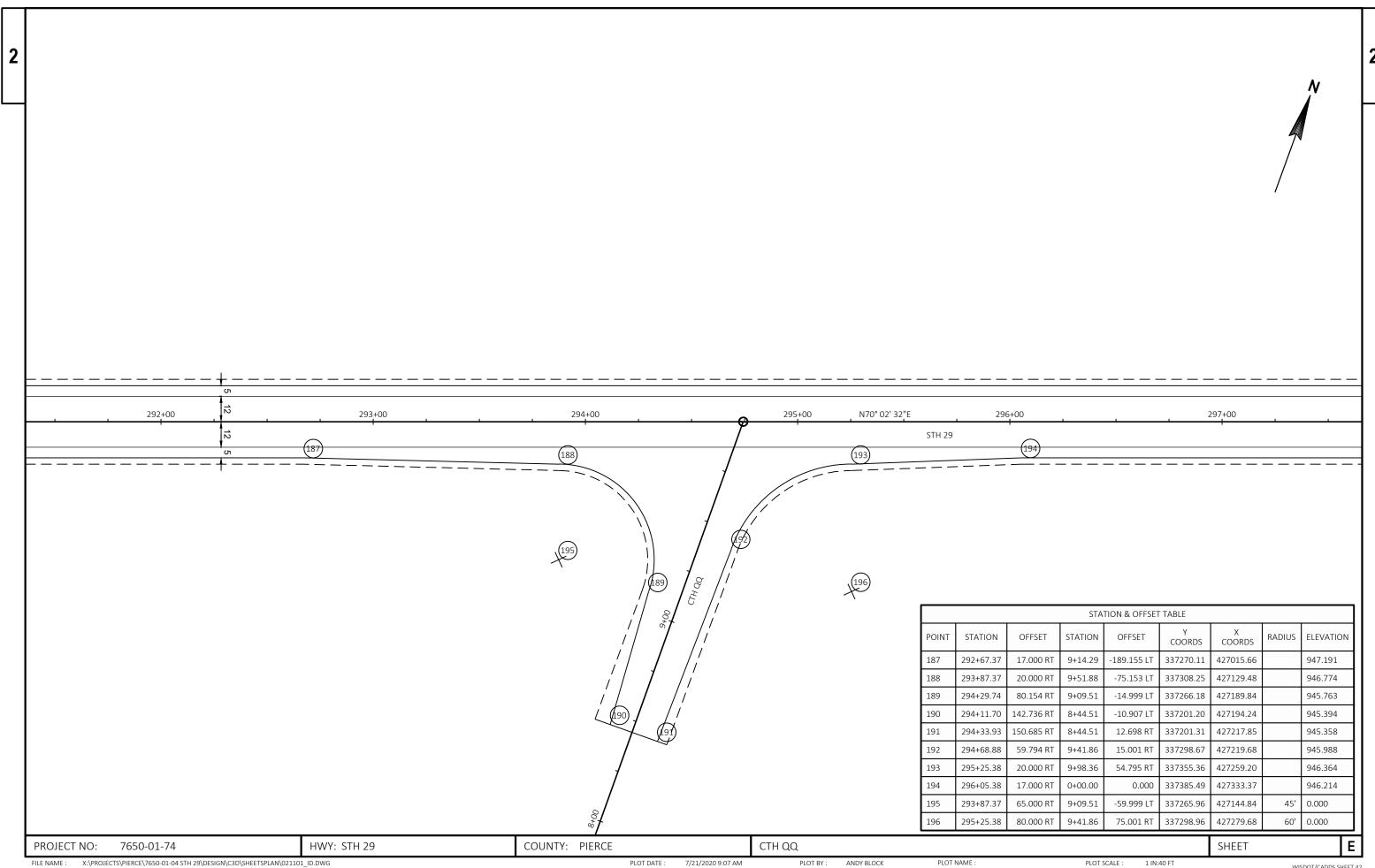




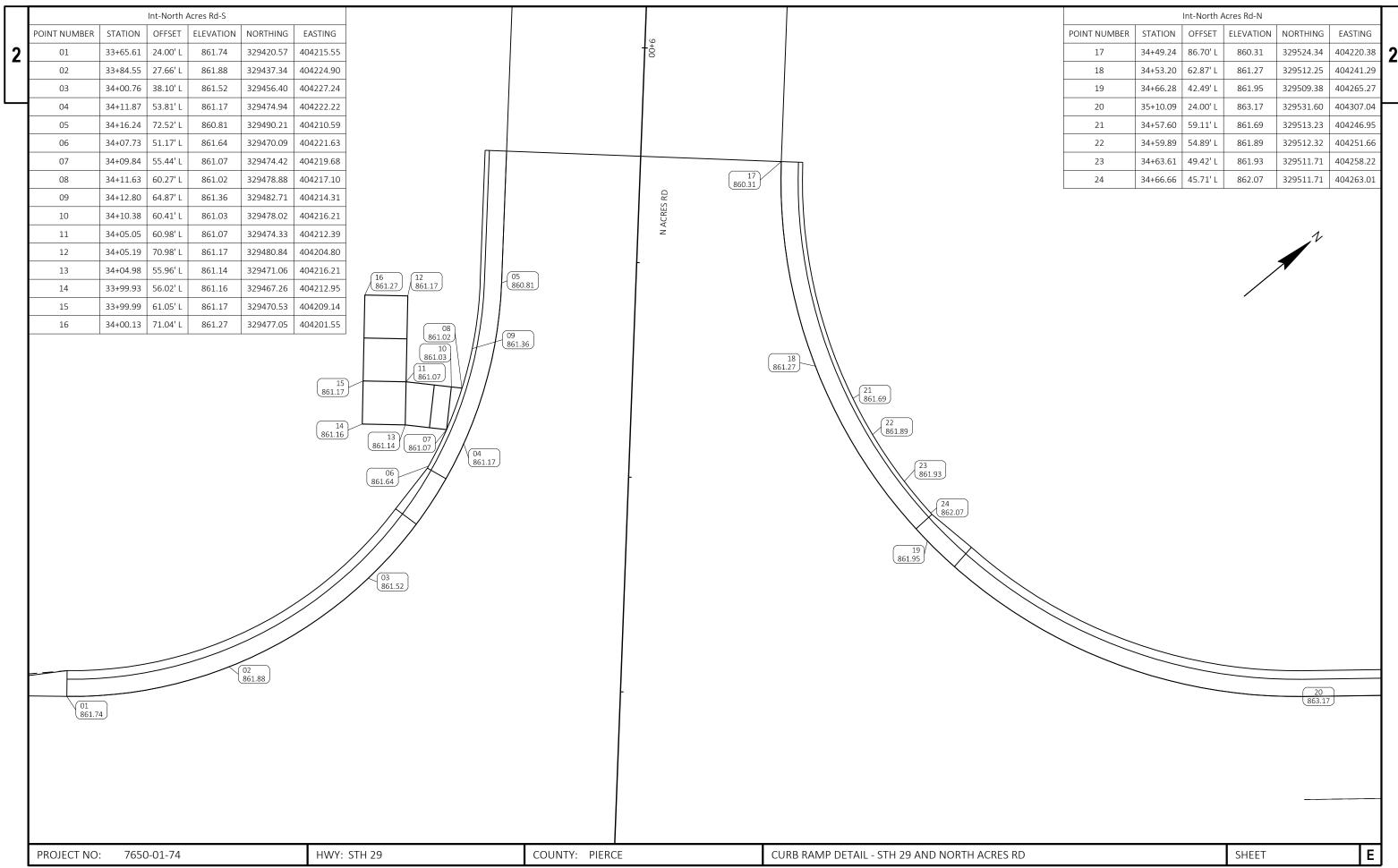


X:\PROJECTS\PIERCE\7650-01-04 STH 29\DESIGN\C3D\SHEETSPLAN\021101\_ID.DWG LAYOUT NAME - 10

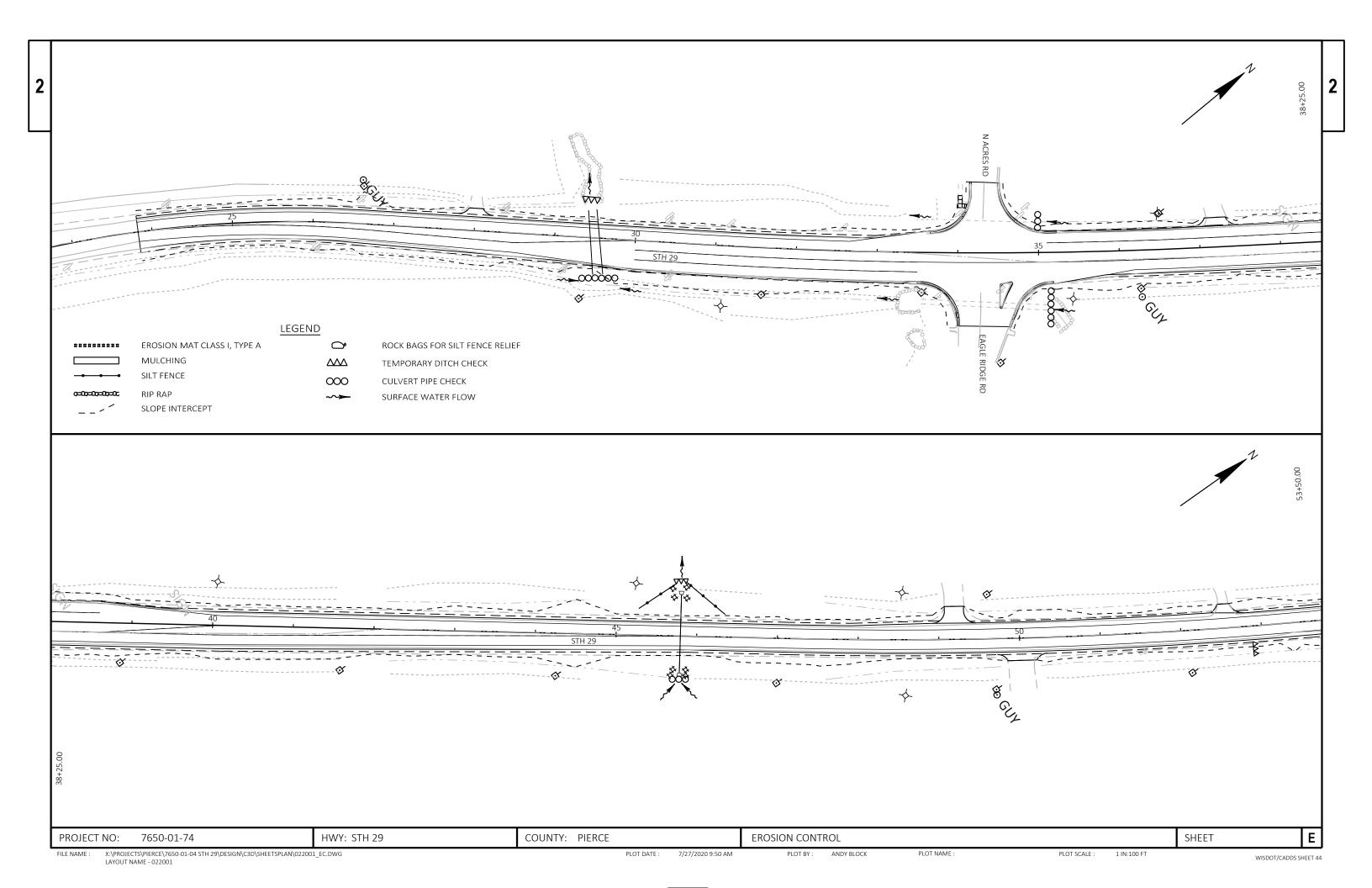
PLOT NAME :

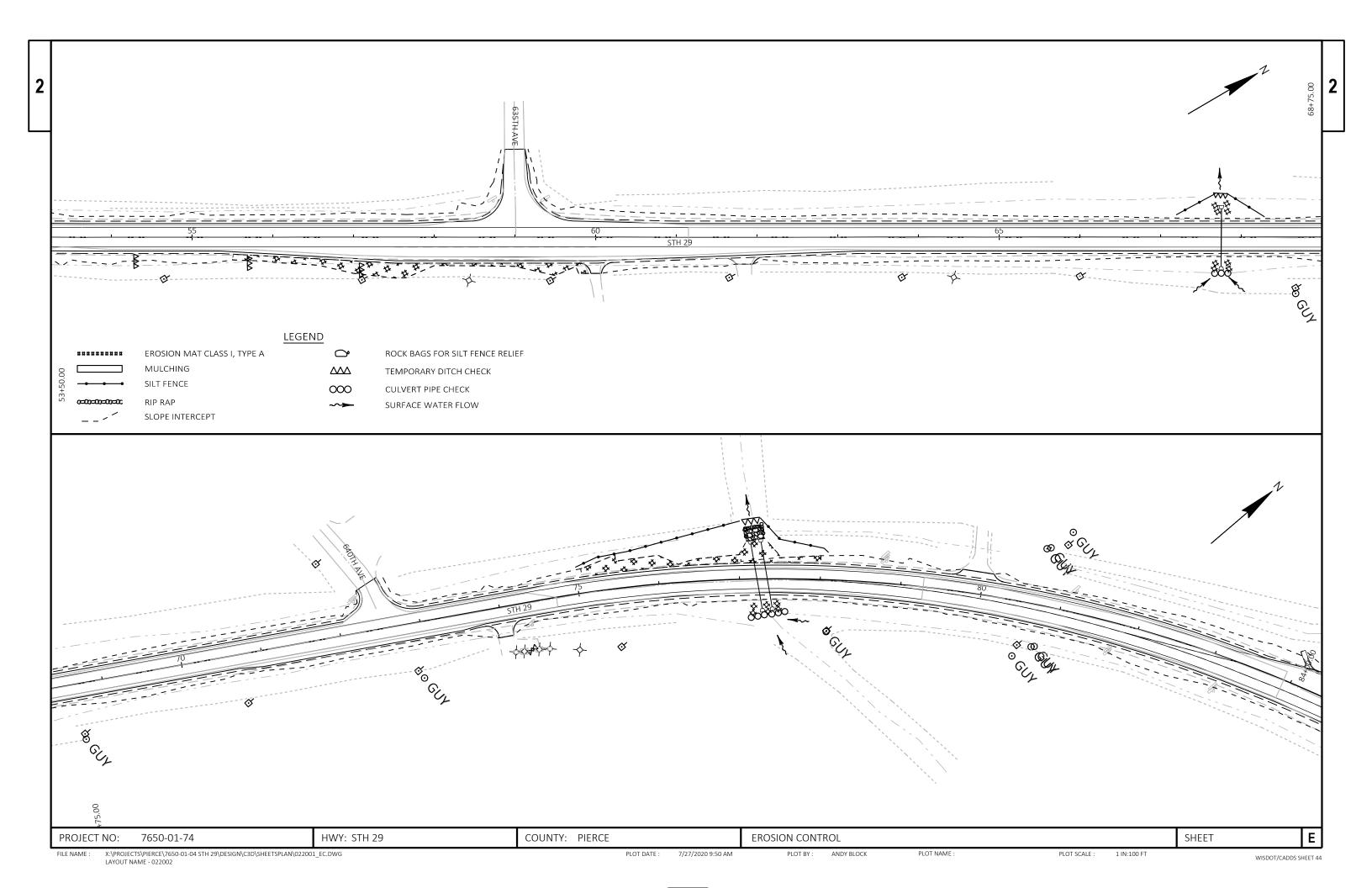


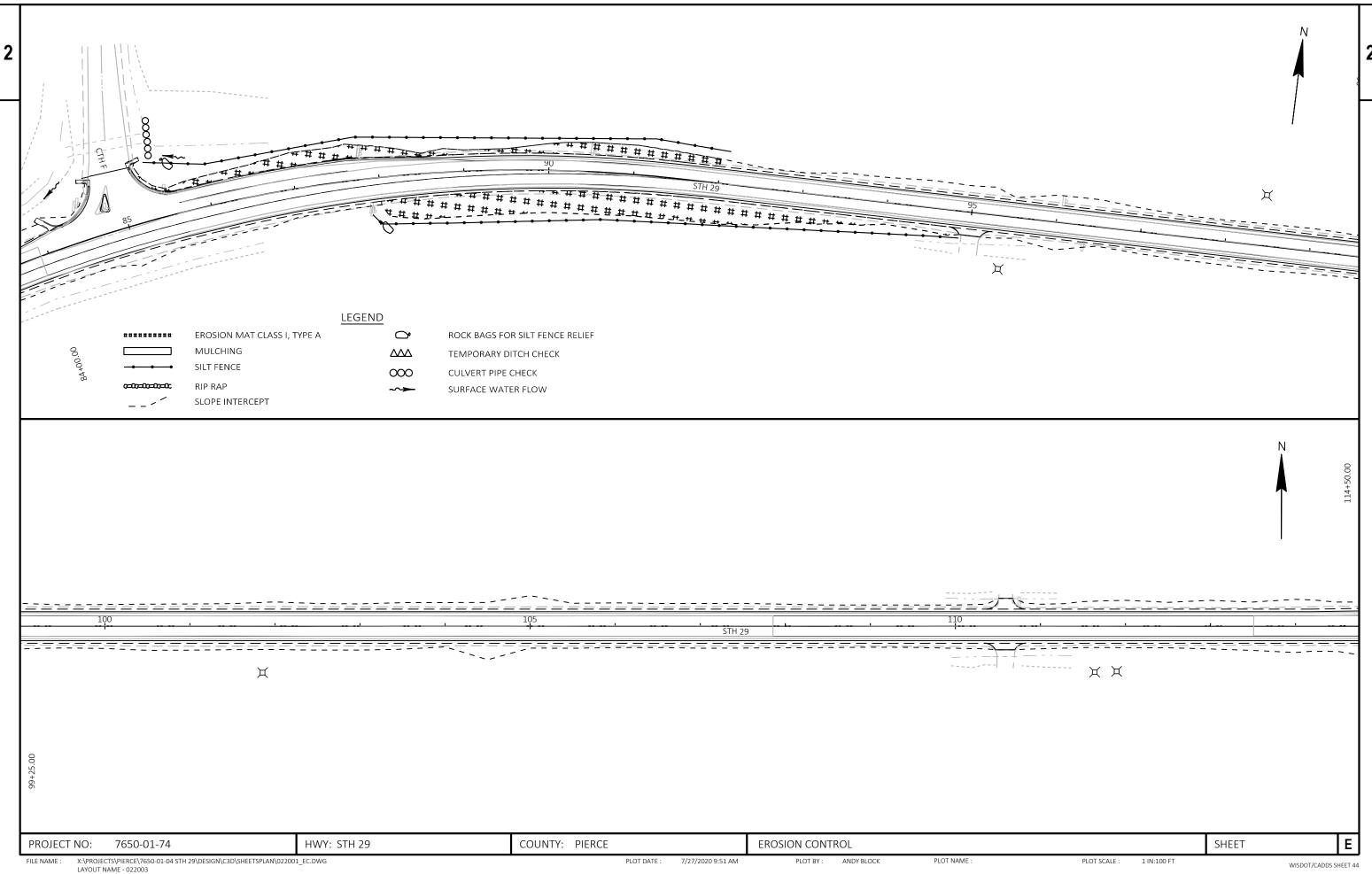
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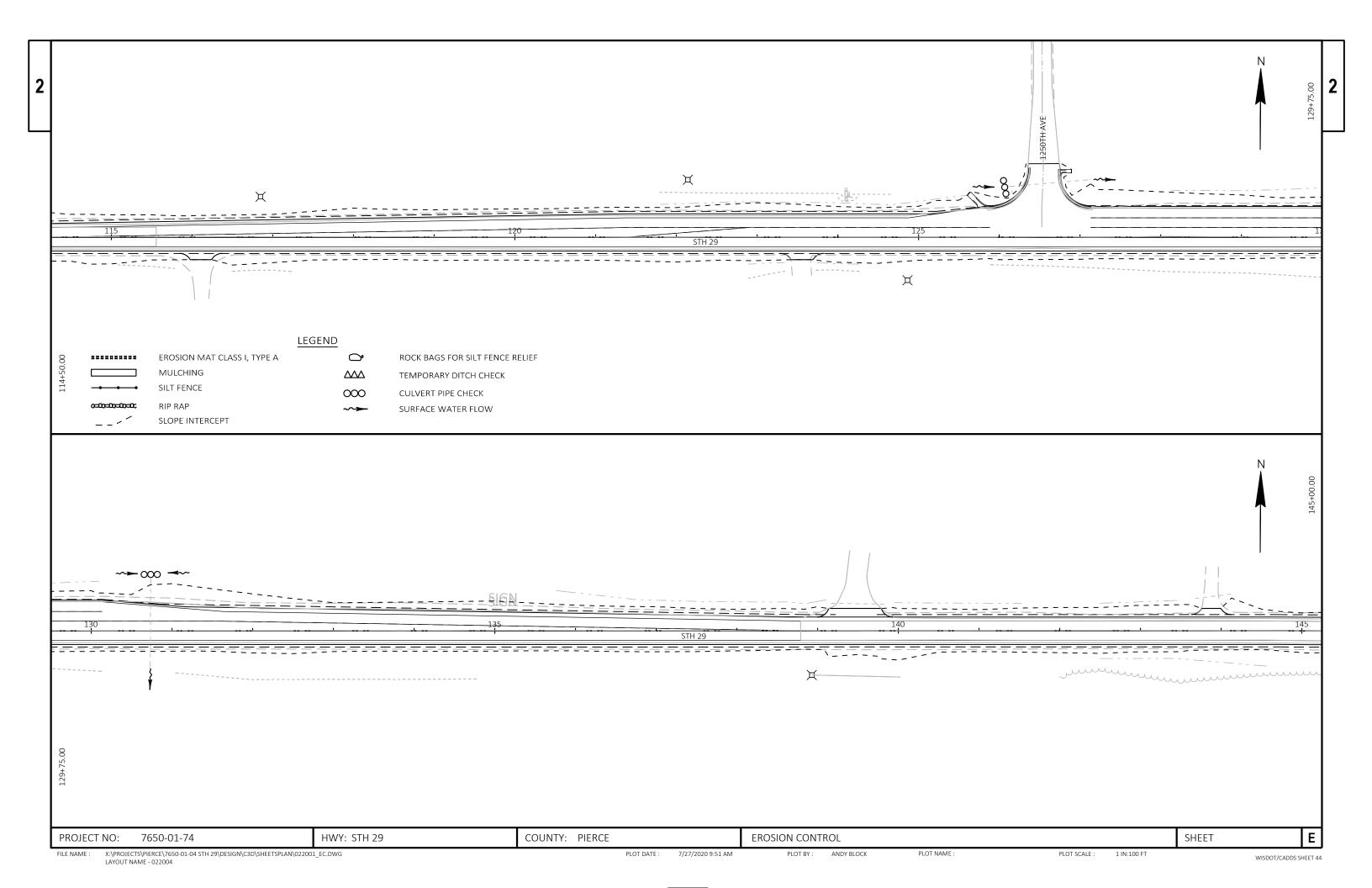


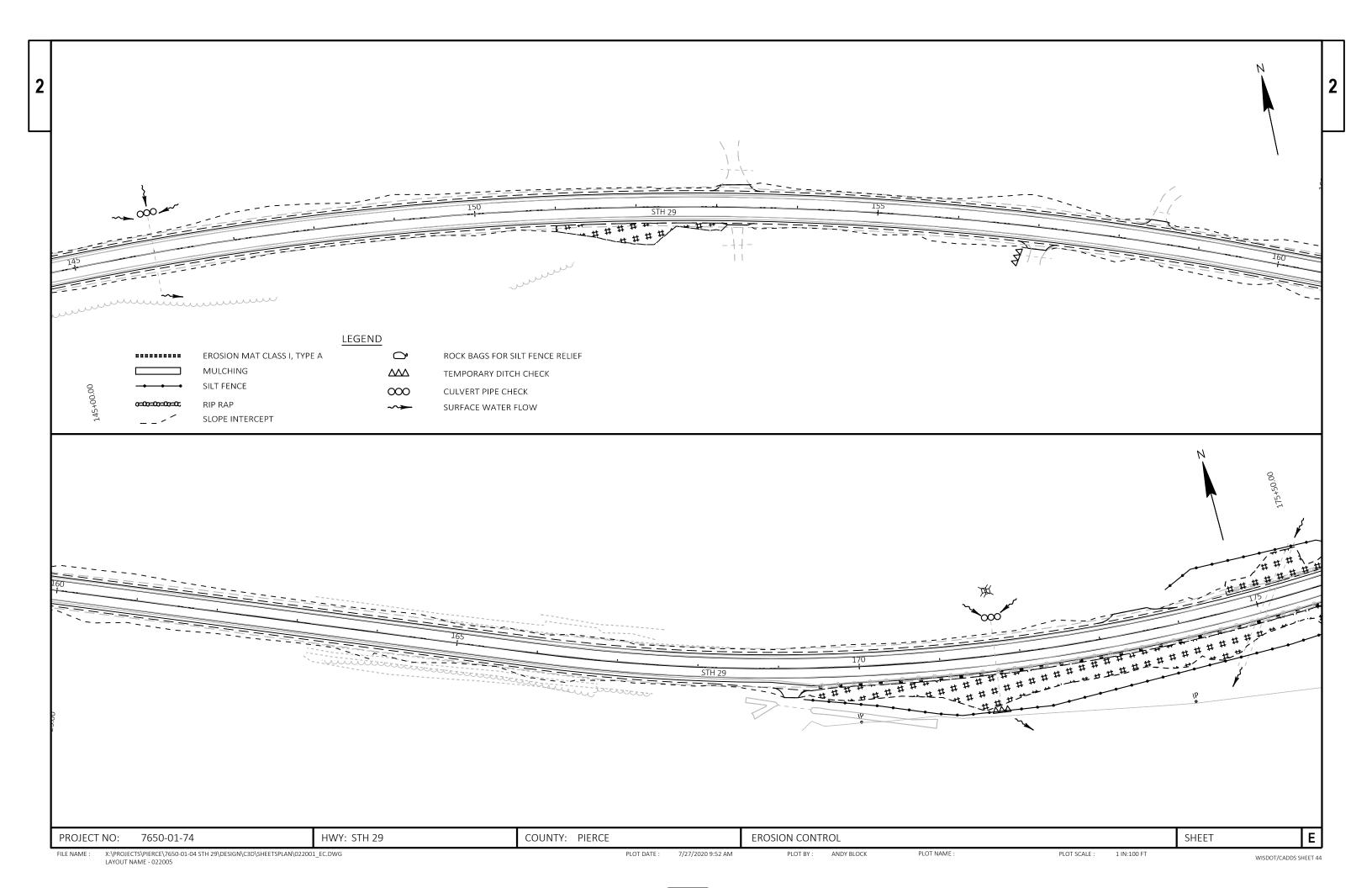
FILE NAME: X:\PROJECTS\PIERCE\7650-01-04 STH 29\DESIGN\C3D\SHEETSPLAN\021301\_CR.DWG PLOT NAME: PLOT BY: ANDY BLOCK PLOT NAME: 1 IN:10 FT WISDOT/CADDS SHEET 42
LAYOUT NAME - Sheet - (2)

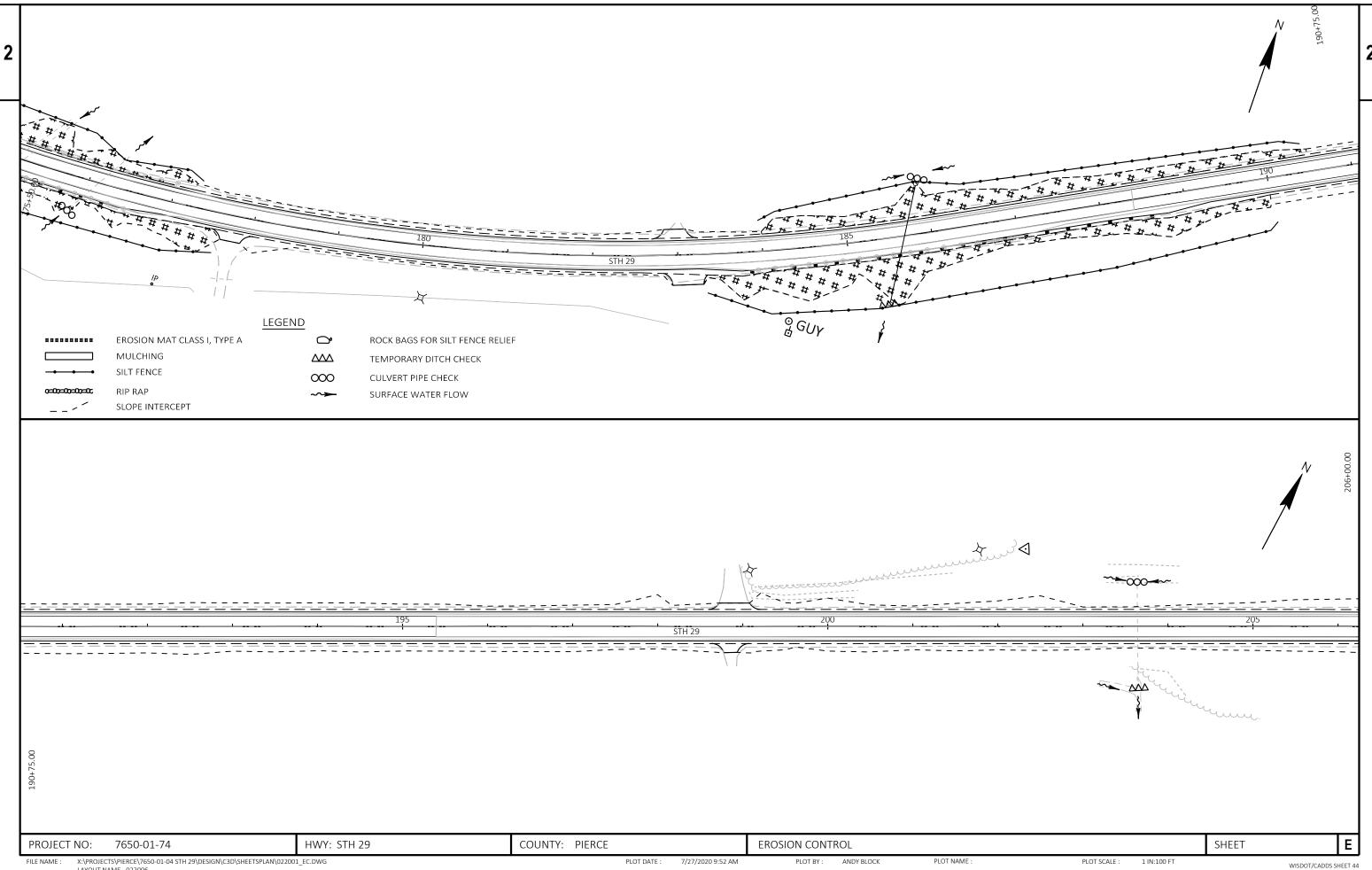




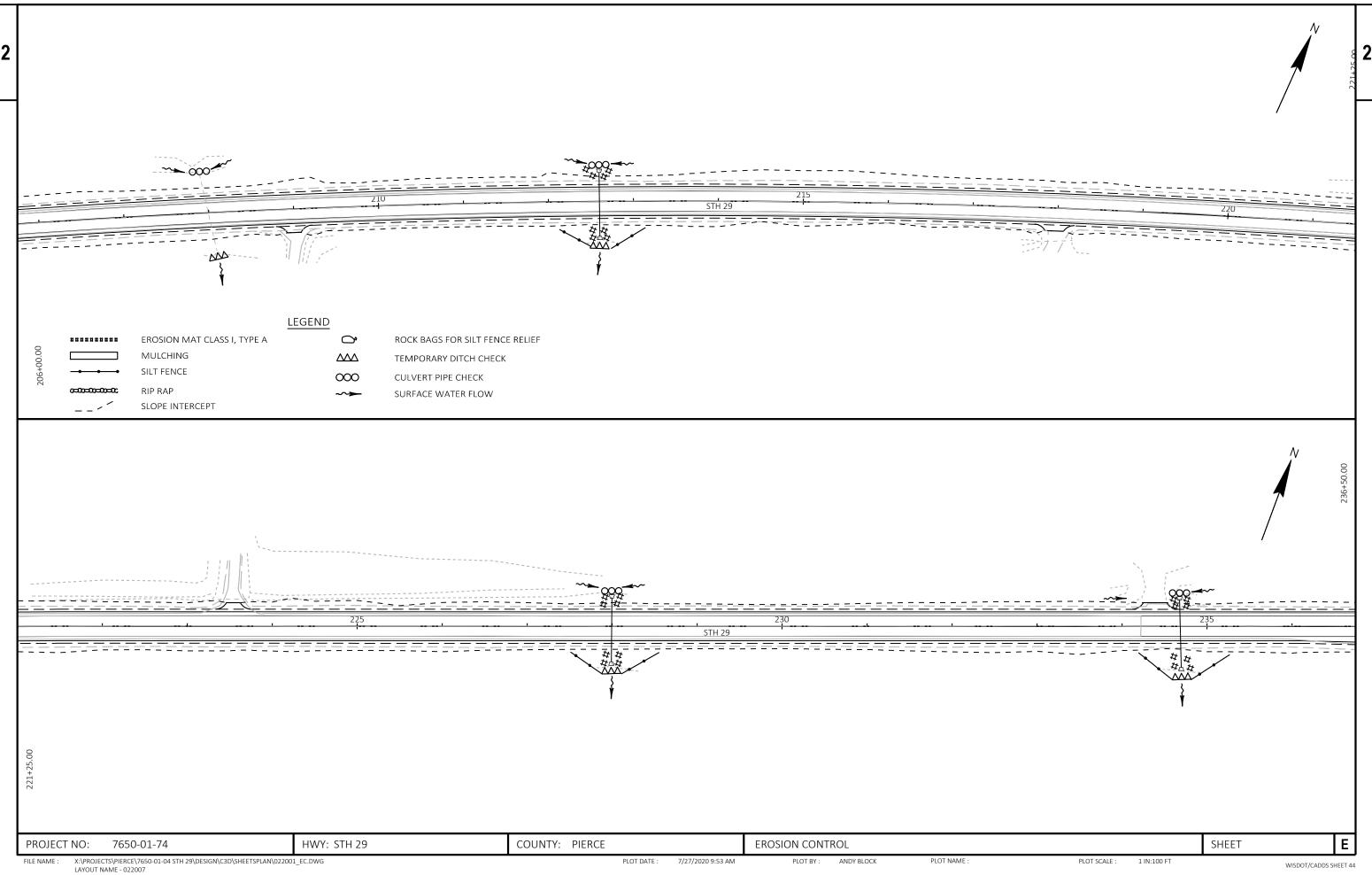


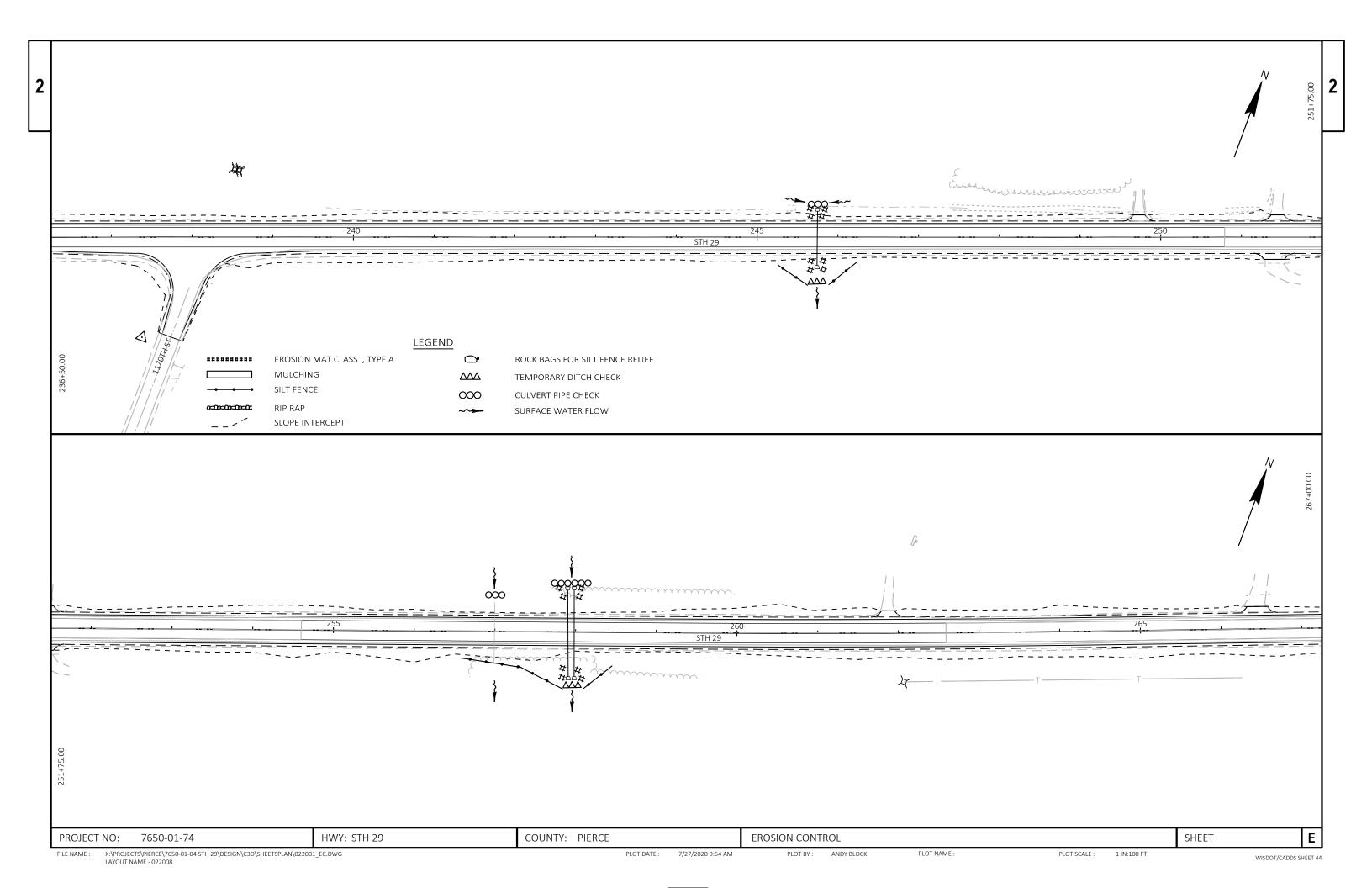


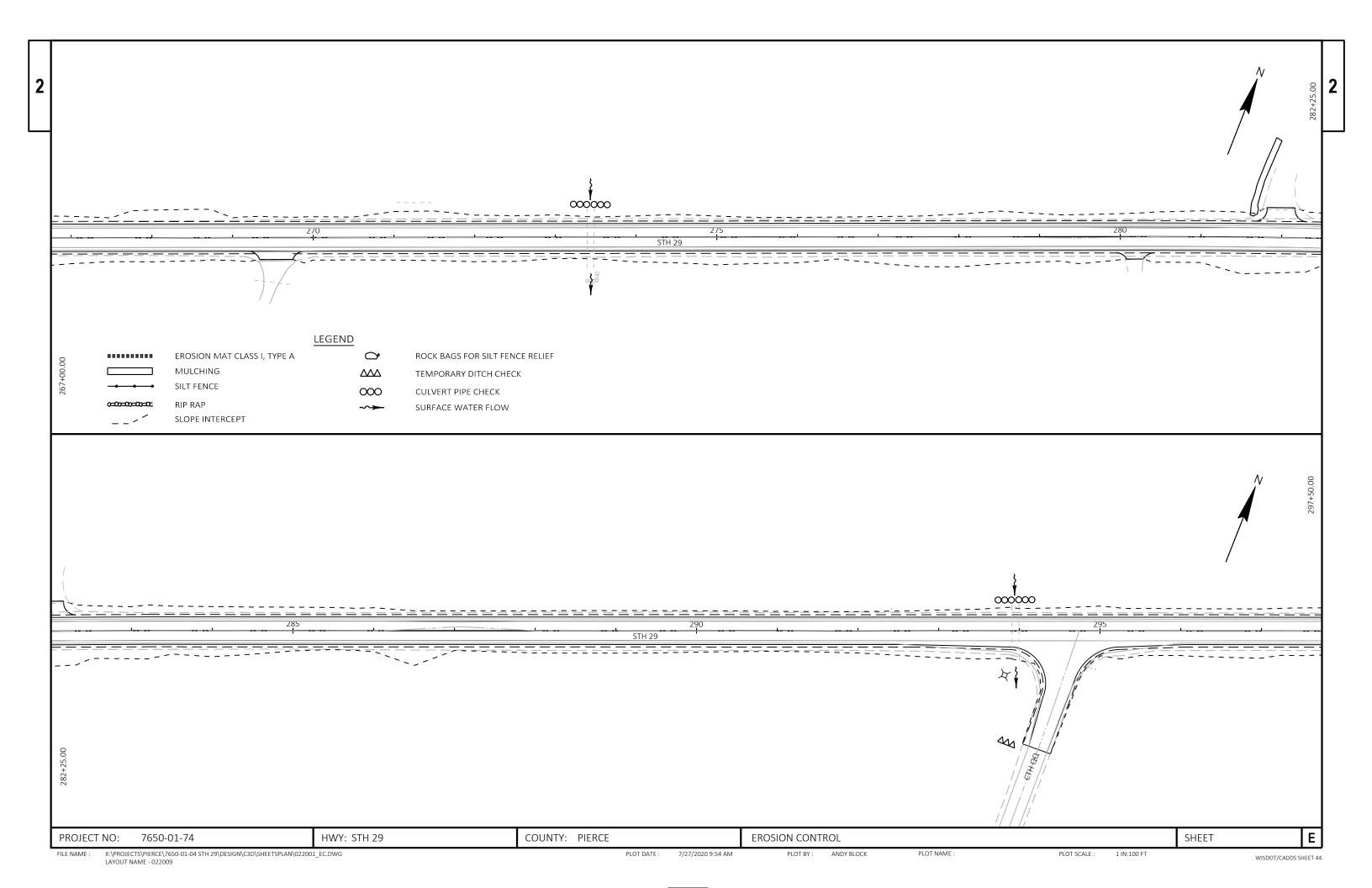


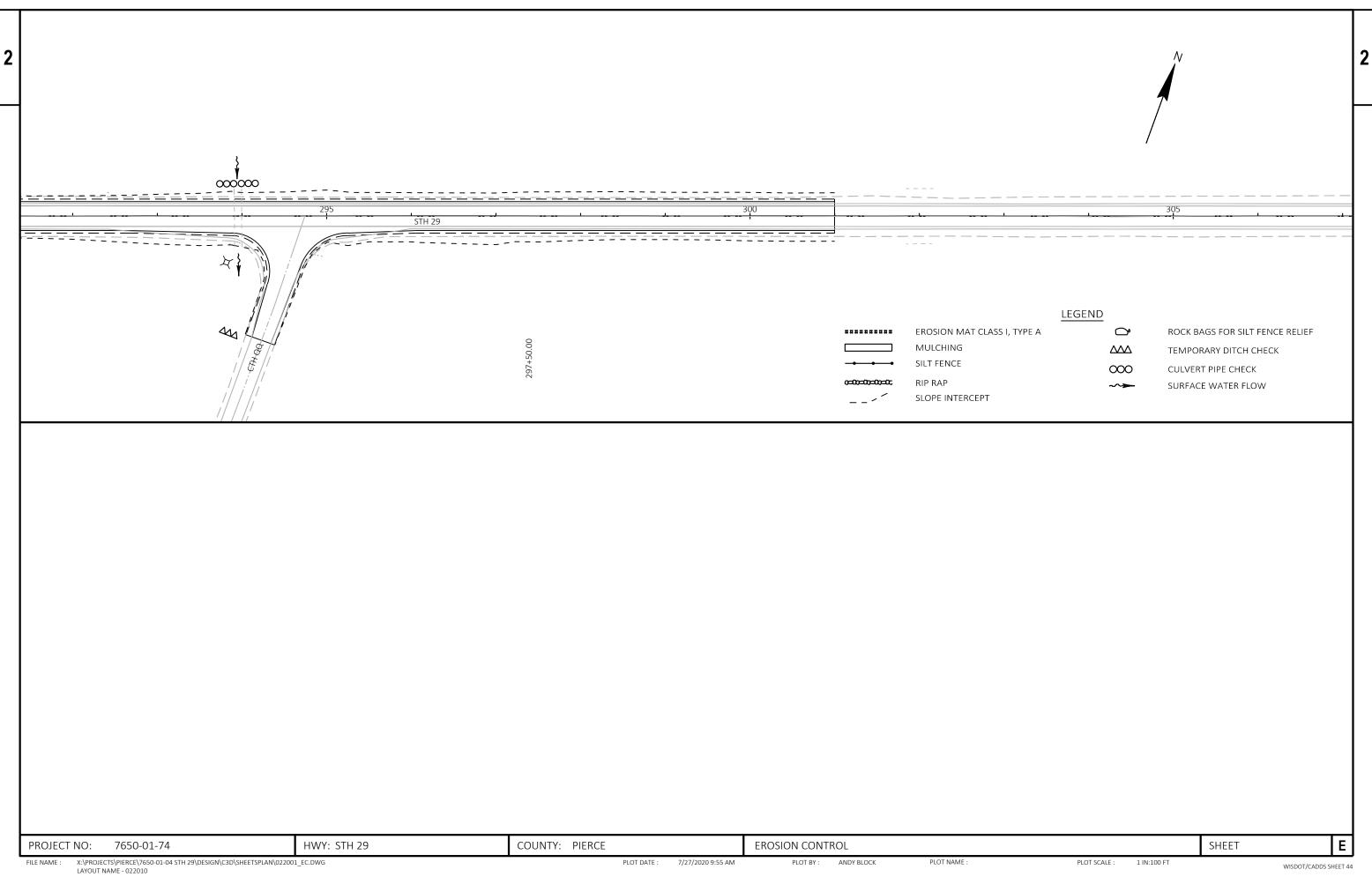


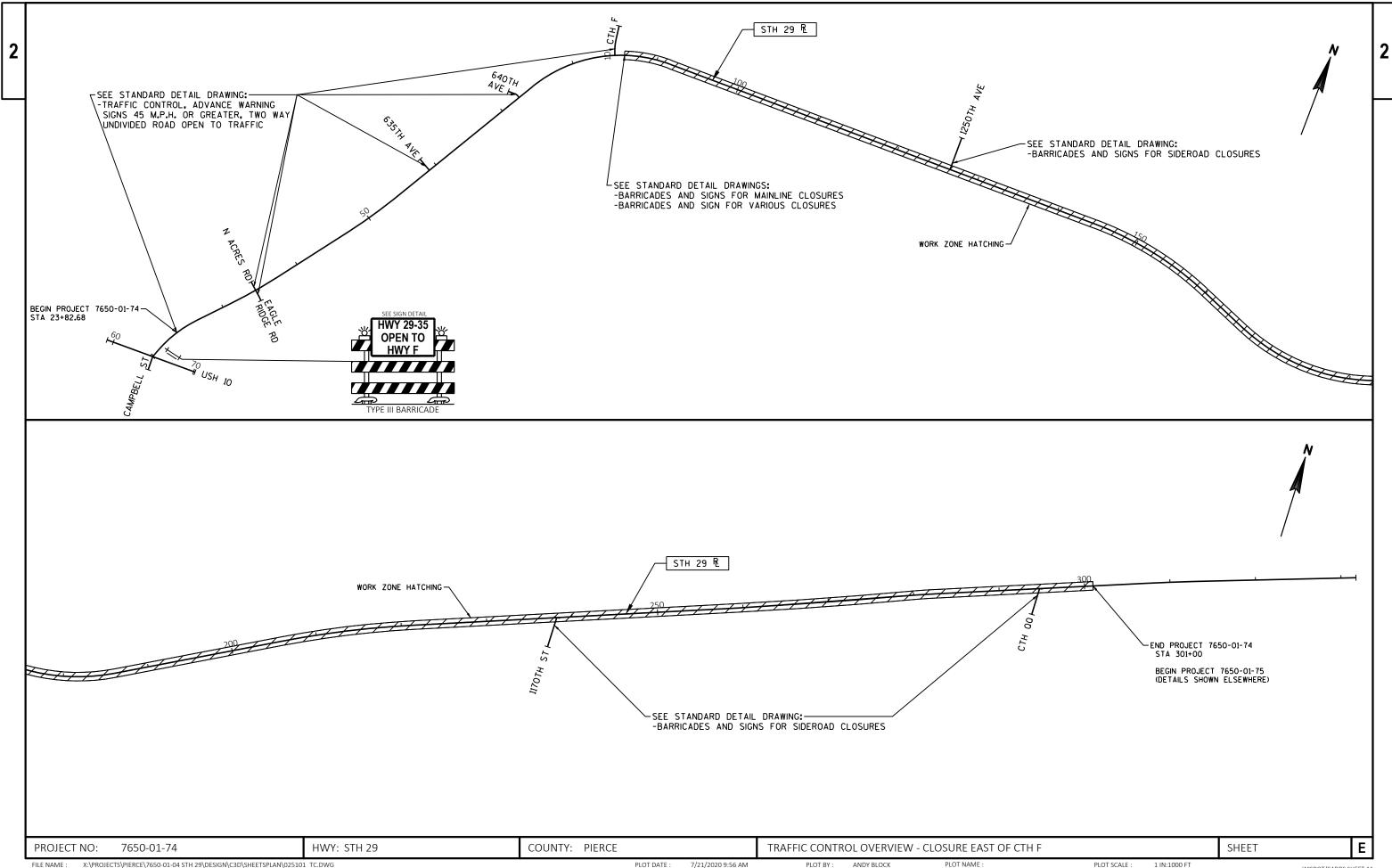
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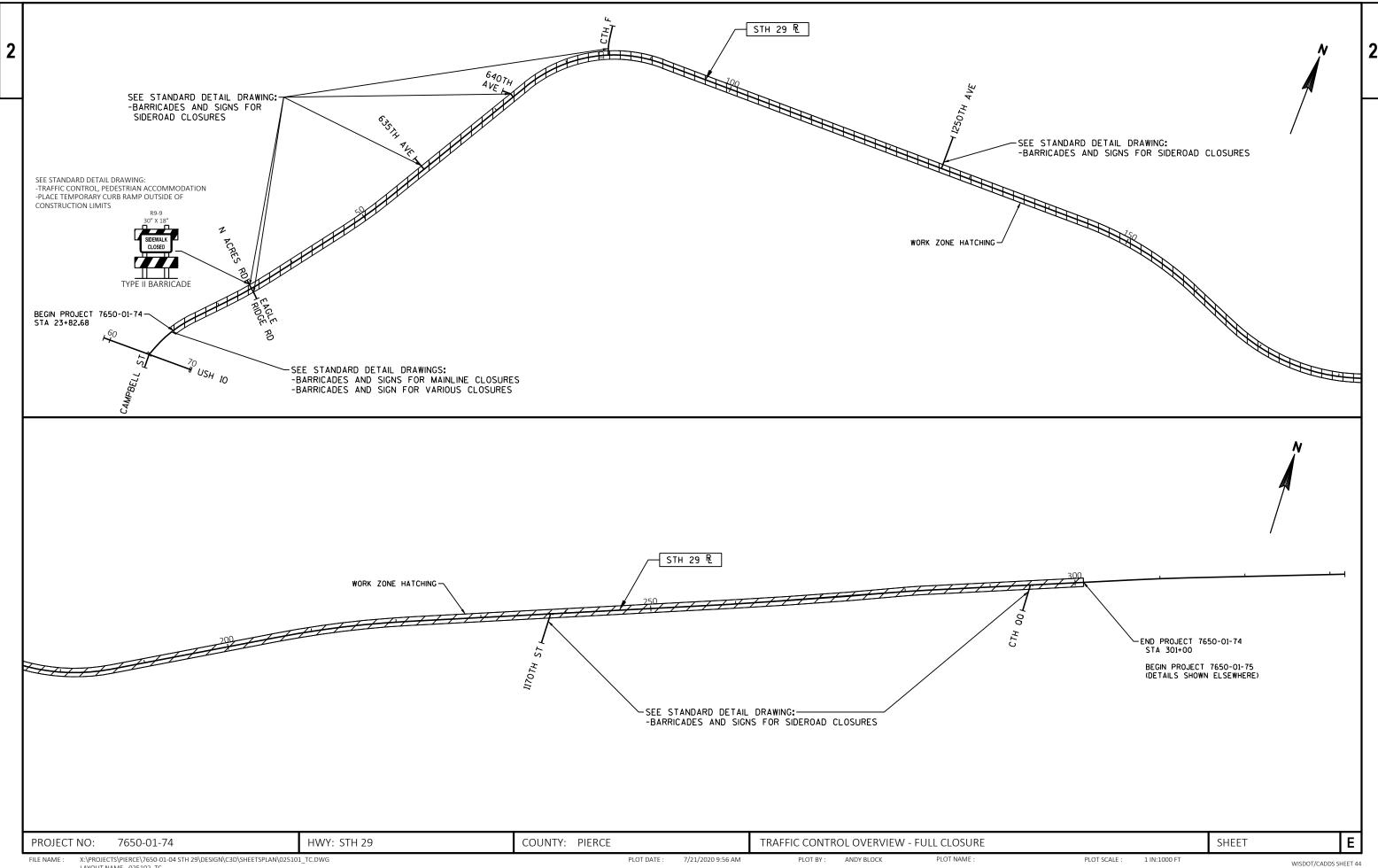


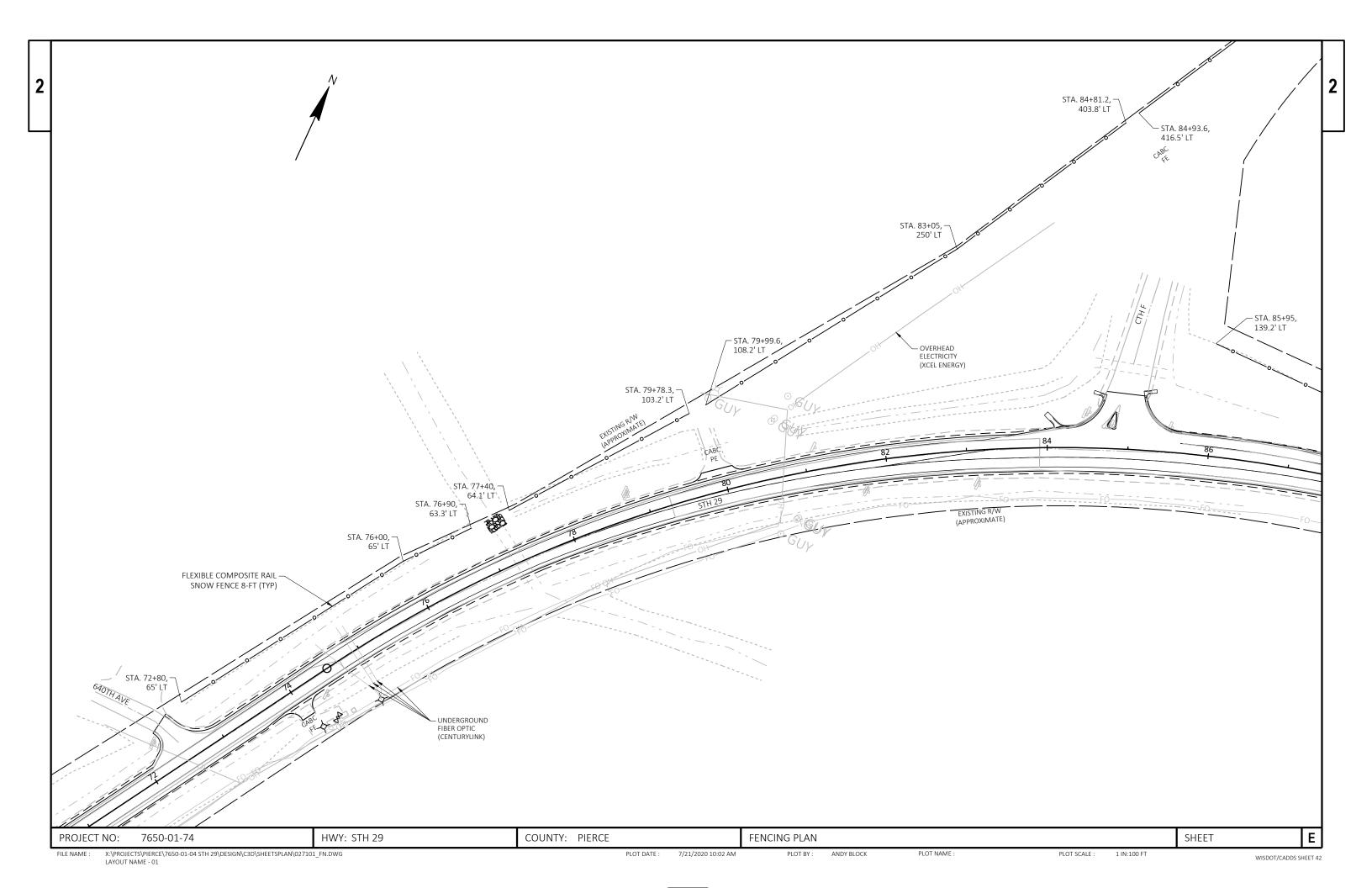


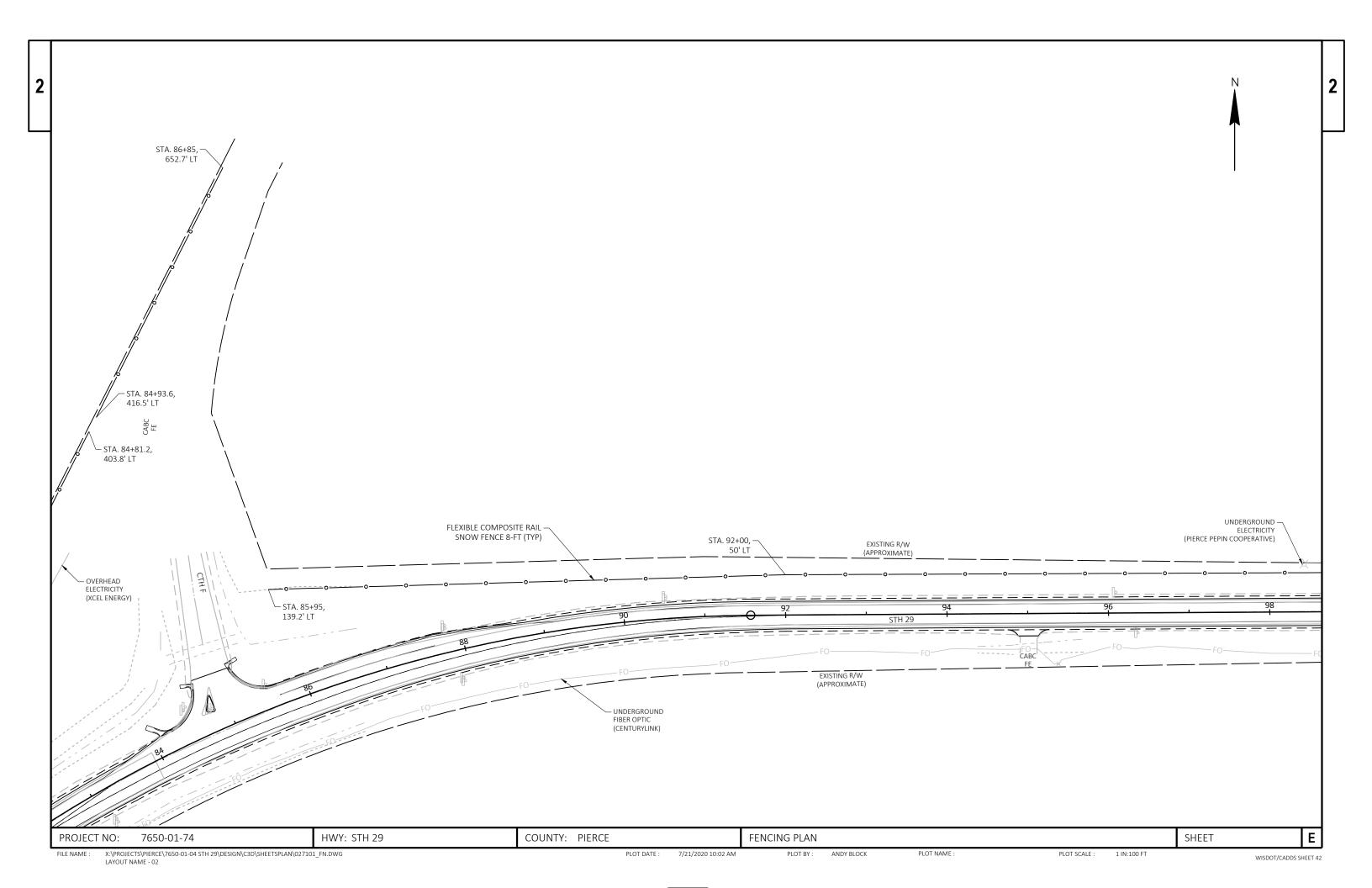


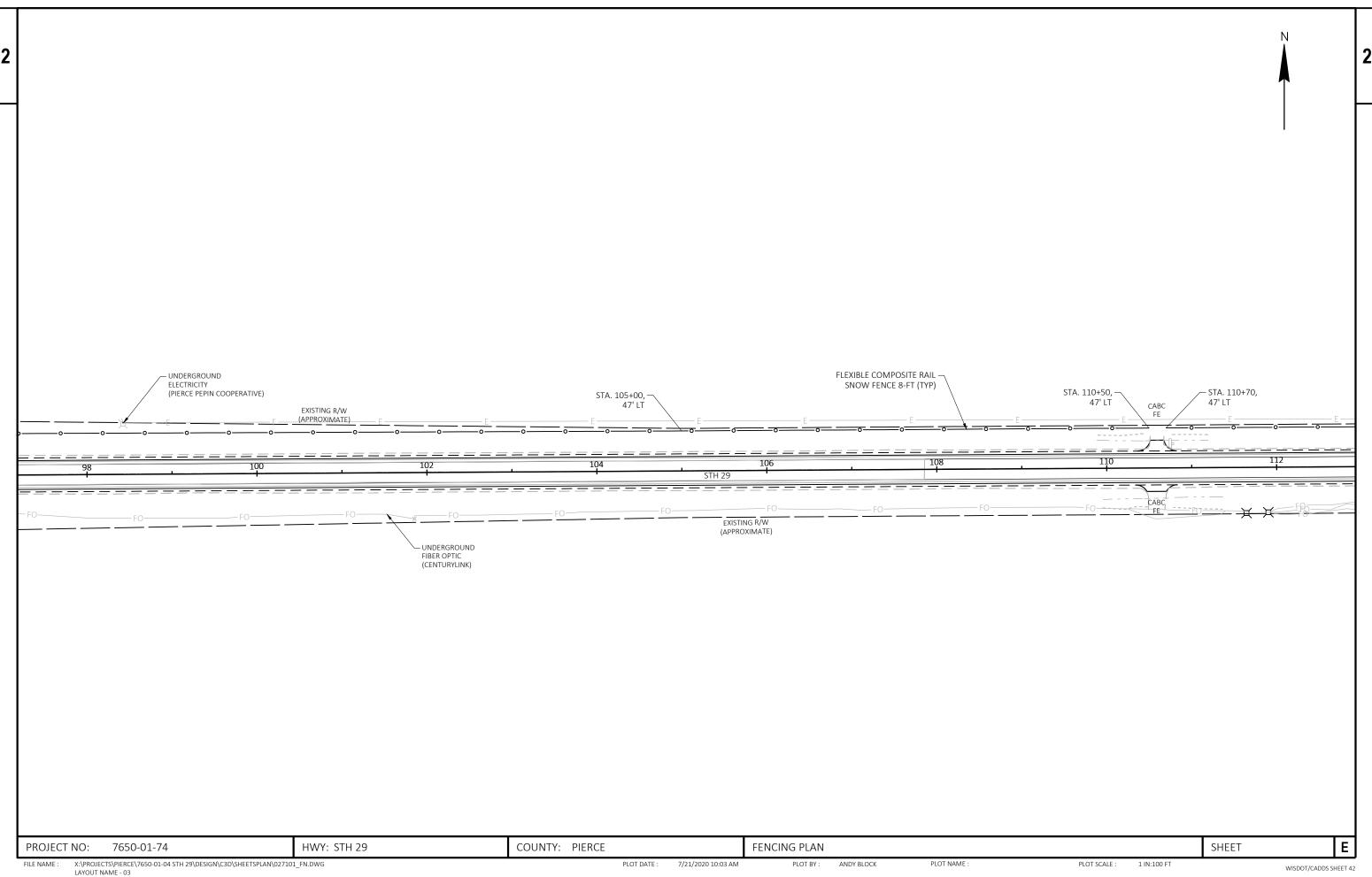


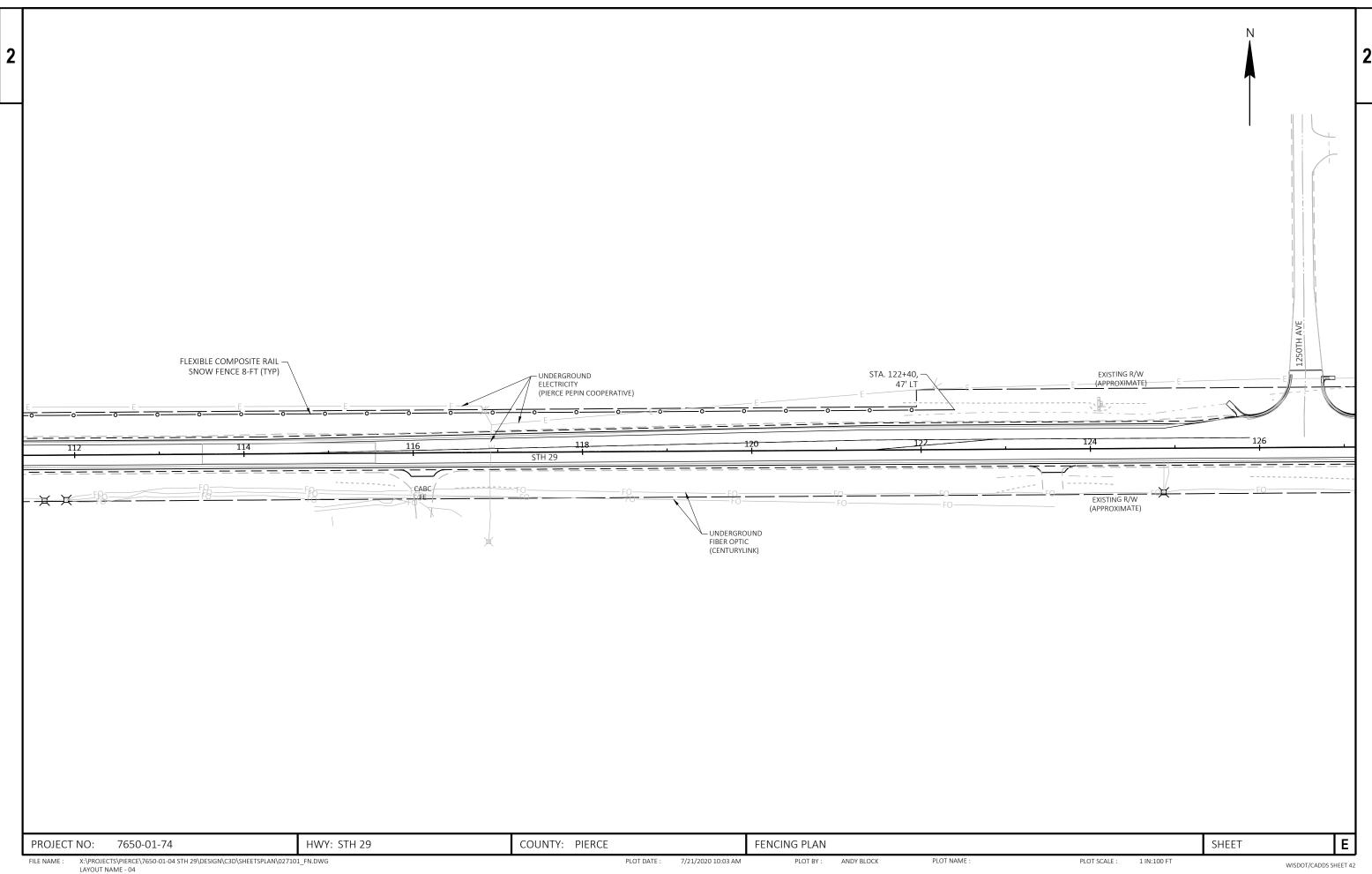












0090

0092

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0100

0102

0104

0136

0138

0140

0142

0144

0146

0148

0150

0152

0154

0156

0174

460.6223

460.6644

520.1030

520.1036

520.1042

520.1048

520.3142

601.0120

HMA Pavement 3 MT 58-28 S

HMA Pavement 4 MT 58-34 V

Concrete Curb Type J

## **Estimate Of Quantities By Plan Sets**

Page 1

7650-01-74 **Item Description** Unit Total Line Item Qty 0002 201.0105 Clearing STA 4.000 4.000 0004 201.0205 Grubbing STA 4.000 4.000 203.0100 0006 Removing Small Pipe Culverts **EACH** 11.000 11.000 SY 0014 204.0100 Removing Concrete Pavement 69,350.000 69,350.000 0018 Removing Curb LF 160.000 204.0130 160.000 LF 0020 204.0150 Removing Curb & Gutter 605.000 605.000 0022 Removing Concrete Sidewalk SY 14.000 204.0155 14.000 LF 0024 204.0165 Removing Guardrail 1,320.000 1,320.000 0042 205.0100 **Excavation Common** CY 45,352.000 45,352.000 0052 211.0100 Prepare Foundation for Asphaltic Paving (project) 02. LS 1.000 1.000 7650-01-74 0060 213.0100 **EACH** 1.000 Finishing Roadway (project) 02. 7650-01-74 1.000 0066 305.0110 Base Aggregate Dense 3/4-Inch TON 3,300.000 3,300.000 Base Aggregate Dense 1 1/4-Inch TON 0068 305.0120 31,770.000 31,770.000 STA 0070 305.0500 **Shaping Shoulders** 552.000 552.000 0078 455.0605 Tack Coat GAL 16,395.000 16,395.000 0800 460.0105.S HMA Percent Within Limits (PWL) Test Strip Volumetrics EACH 2.000 2.000 0082 460.0110.S HMA Percent Within Limits (PWL) Test Strip Density **EACH** 3.000 3.000 0084 460.2005 Incentive Density PWL HMA Pavement DOL 29,050.000 29,050.000 DOL 0086 460.2007 Incentive Density HMA Pavement Longitudinal Joints 38,870.000 38,870.000 0088 460.2010 Incentive Air Voids HMA Pavement DOL 46,050.000 46,050.000

32,885.000

13,165.000

160.000

140.000

TON 8.000 465.0105 Asphaltic Surface 8.000 60.000 465.0120 Asphaltic Surface Driveways and Field Entrances TON 60.000 465.0315 Asphaltic Flumes SY 70.000 70.000 LF 465.0425 Asphaltic Shoulder Rumble Strips 2-Lane Rural 49,585.000 49,585.000 465.0475 Asphalt Centerline Rumble Strips 2-Lane Rural LF 19,535.000 19,535.000 Apron Endwalls for Culvert Pipe 24-Inch **EACH** 2.000 2.000 520.1024

10.000 Apron Endwalls for Culvert Pipe 30-Inch **EACH** 10.000 Apron Endwalls for Culvert Pipe 36-Inch **EACH** 2.000 2.000 Apron Endwalls for Culvert Pipe 42-Inch **EACH** 4.000 4.000 Apron Endwalls for Culvert Pipe 48-Inch **EACH** 4.000 4.000 LF

LF

TON

TON

32,885.000

13,165.000

160.000

140.000

Culvert Pipe Class III 42-Inch LF Culvert Pipe Class III 48-Inch 164.000 164.000 520.3148 LF 140.000 520.3324 Culvert Pipe Class III-A 24-Inch 140.000 LF 520.3330 Culvert Pipe Class III-A 30-Inch 216.000 216.000 LF 520.4130 Culvert Pipe Class IV 30-Inch 220.000 220.000 LF 520.4136 Culvert Pipe Class IV 36-Inch 76.000 76.000

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Line	Item	Item Description	Unit	Total	Qty
0176	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	105.000	105.000
0180	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	520.000	520.000
0182	602.0405	Concrete Sidewalk 4-Inch	SF	105.000	105.000
0186	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	10.000	10.000
0190	606.0200	Riprap Medium	CY	30.000	30.000
0216	614.2300	MGS Guardrail 3	LF	1,000.000	1,000.000
0220	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0224	618.0100	Maintenance And Repair of Haul Roads (project) 02. 7650-01-74	EACH	1.000	1.000
0230	619.1000	Mobilization	EACH	0.400	0.400
0232	624.0100	Water	MGAL	350.000	350.000
0234	625.0100	Topsoil	SY	60,800.000	60,800.000
0236	627.0200	Mulching	SY	50,325.000	50,325.000
0238	628.1504	Silt Fence	LF	6,225.000	6,225.000
0240	628.1520	Silt Fence Maintenance	LF	6,225.000	6,225.000
0242	628.1905	Mobilizations Erosion Control	EACH	10.000	10.000
0242	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0244	628.2002	Erosion Mat Class I Type A	SY	10,250.000	10,250.000
0248	628.2002	Erosion Mat Urban Class I Type A	SY	225.000	225.000
0248	628.7504	Temporary Ditch Checks	LF	360.000	360.000
0252	628.7555	Culvert Pipe Checks	EACH	175.000	175.000
		•	EACH		
0256	628.7570	Rock Bags		200.000	200.000
0258	629.0210	Fertilizer Type B	CWT	39.000	39.000
0260	630.0130	Seeding Mixture No. 30	LB	1,100.000	1,100.000
0262	630.0500	Seed Water	MGAL	1,525.000	1,525.000
0264	633.5200	Markers Culvert End	EACH	40.000	40.000
0266	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	10.000	10.000
0268	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	10.000	10.000
0272	638.2102	Moving Signs Type II	EACH	35.000	35.000
0274	638.4000	Moving Small Sign Supports	EACH	35.000	35.000
0276	642.5401	Field Office Type D	EACH	0.400	0.400
0278	643.0300	Traffic Control Drums	DAY	2,605.000	2,605.000
0280	643.0410	Traffic Control Barricades Type II	DAY	60.000	60.000
0282	643.0420	Traffic Control Barricades Type III	DAY	3,105.000	3,105.000
0284	643.0705	Traffic Control Warning Lights Type A	DAY	6,210.000	6,210.000
0288	643.0900	Traffic Control Signs	DAY	5,840.000	5,840.000
0292	643.1050	Traffic Control Signs PCMS	DAY	75.000	75.000
0294	643.5000	Traffic Control	EACH	0.400	0.400
0296	644.1410	Temporary Pedestrian Surface Asphalt	SF	50.000	50.000
0298	644.1601	Temporary Pedestrian Curb Ramp	DAY	60.000	60.000
		, , , , , , , , , , , , , , , , , , , ,	-		

## 7650-01-74

					7030-01-74
Line	Item	Item Description	Unit	Total	Qty
0300	645.0120	Geotextile Type HR	SY	70.000	70.000
0302	646.1020	Marking Line Epoxy 4-Inch	LF	55,710.000	55,710.000
0304	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	48,460.000	48,460.000
0306	646.3020	Marking Line Epoxy 8-Inch	LF	65.000	65.000
0308	646.3040	Marking Line Grooved Wet Ref Epoxy 8-Inch	LF	2,295.000	2,295.000
0310	646.5020	Marking Arrow Epoxy	EACH	16.000	16.000
0312	646.5120	Marking Word Epoxy	EACH	7.000	7.000
0314	646.6120	Marking Stop Line Epoxy 18-Inch	LF	60.000	60.000
0316	646.7120	Marking Diagonal Epoxy 12-Inch	LF	1,620.000	1,620.000
0320	646.8220	Marking Island Nose Epoxy	EACH	4.000	4.000
0322	648.0100	Locating No-Passing Zones	MI	5.249	5.249
0328	650.5000	Construction Staking Base	LF	28,515.000	28,515.000
0330	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	765.000	765.000
0332	650.6000	Construction Staking Pipe Culverts	EACH	11.000	11.000
0340	650.9000	Construction Staking Curb Ramps	EACH	1.000	1.000
0344	650.9910	Construction Staking Supplemental Control (project) 02. 7650-01-74	LS	1.000	1.000
0350	650.9920	Construction Staking Slope Stakes	LF	28,515.000	28,515.000
0394	690.0150	Sawing Asphalt	LF	410.000	410.000
0396	690.0250	Sawing Concrete	LF	58.000	58.000
0400	740.0440	Incentive IRI Ride	DOL	21,000.000	21,000.000
0408	SPV.0090	Special 01. Ditch Cleaning	LF	900.000	900.000
0410	SPV.0090	Special 02. Flexible Composite Rail Snow Fence 8-FT	LF	5,315.000	5,315.000

			C	LEARING AND	GRUBBI NG	SUMMARY	
			_		0110001110	0011111111111	
					201. 0105	201. 0205	
					CLEARI NG	GRUBBI NG	
CATEGORY	STATI ON	T0	STATI ON	LOCATI ON	STA	STA	REMARKS
0010	203+00	-	204+00	STH 29, RT	1	1	
0010	256+00	-	259+00	STH 29, RT	3	3	
				TOTALS	4	4	•

			REMO\	/ING PAVEM	ENT, CURB,	CURB &	GUTTER A	ND SIDEW	<u>ALK</u>
					204. 0100	204. 0130	204. 0150 REMOVING	204. 0155 REMOVI NG	
					REMOVI NG	REMOVI NG		CONCRETE	
					PAVEMENT	CURB	GUTTER	SI DEWALK	
CATEGORY	STATI ON	T0	STATI ON	LOCATI ON	SY	LF	LF	SY	REMARKS
0010	23+83	_	46+33	STH 29		78	365	14	
0010	46+33	-	55+24	STH 29	2, 380				
0010	55+24	-	59+30	STH 29	1, 480				RUBBLI ZED
0010	59+30	-	76+20	STH 29	4, 850				
0010	76+20	- 1	77+81	STH 29	430				RUBBLI ZED
0010	77+81	-	79+29	STH 29	400				
0010	79+29	-	91+50	STH 29	4, 300	82	100		VARI ED WI DTH
0010	91+50	-	109+31	STH 29	4, 750				
0010	109+31	-	112+07	STH 29	740				RUBBLI ZED
0010	112+07	-	116+95	STH 29	1, 310				
0010	116+95	-	125+00	STH 29	2, 100				VARI ED WI DTH/RUBBLI ZED
0010	125+00	-	127+25	STH 29	590		140		VARI ED WI DTH/RUBBLI ZED
0010	127+25	-	137+39	STH 29	2, 640				VARI ED WI DTH/RUBBLI ZED
0010	137+39	-	189+91	STH 29	14, 000				
0010	189+91	_	193+89	STH 29	1, 070				RUBBLI ZED
0010	193+89	_	227+50	STH 29	8, 970				
0010	228+50		235+67	STH 29	1, 920				
0010	235+67		249+36	STH 29	3, 660				RUBBLI ZED
0010	249+36	_	256+02	STH 29	1, 780				
0010	256+02	_	261+17	STH 29	1, 380				RUBBLI ZED
0010	261+17		301+00	STH 29	10, 600				
				TOTALC	40.350	1/0	405	14	
				TOTALS	69, 350	160	605	14	

		REMOVIN	IG SMALL F	PIPE CULVERTS
			203. 0100	
CATEGORY	STATI ON	LOCATI ON	EA	REMARKS
0010	45+79	STH 29	1	42-INCH CMCP - 105 LF
0010	67+75	STH 29	1	42-INCH CMCP - 75 LF
0010	77+22	STH 29	1	42-INCH CMCP - 93 LF
0010	77+35	STH 29	1	42-INCH CMCP - 93 LF
0010	185+68	STH 29	1	24-INCH CMCP - 147 LF
0010	212+60	STH 29	1	36-INCH CMCP - 85 LF
0010	228+00	STH 29	1	30-INCH CMCP - 84 LF
0010	234+69	STH 29	1	30-INCH CMCP - 88 LF
0010	245+74	STH 29	1	24-INCH CMCP - 74 LF
0010	257+91	STH 29	1	30-INCH CMCP - 116 LF
0010	257+98	STH 29	1	30-INCH CMCP - 116 LF
		TOTAL		•

			REM	<u>IOVING GUARDRAIL</u>		
					204. 0165	
CATEGORY	STATI ON	T0	STATI ON	LOCATI ON	LF	REMARKS
0010	169+43	_	176+67	STH 29, RT	730	
0010	174+67	_	177+25	STH 29, LT	260	
0010	183+84	-	187+11	STH 29, RT	330	
				TOTAL	1, 320	:

## EARTHWORK SUMMARY

				205. 0	100				EXPANDED	MASS			
				EXCAVATION (	COMMON (1)	SALVAGED/UNUSABLE	AVAI LABLE	UNEXPANDED	FILL (7)	ORDI NATE			
				CUT	EBS EXCAV.	PAVEMENT MATERIAL	MATERI AL	FILL	FACTOR	+/-	WASTE	BORROW	REMARKS
				(2)	(3)	(2)	(4)		1. 25	(8)		(9)	
CATEGORY	STATION TO	STATI ON	LOCATI ON	CY	CY	CY	CY	CY	CY	CY	CY	CY	
0010	23+83 -	30+00	STH 29	876	0	84	792	84	105	686	686	0	
0010	30+00 -	40+00	STH 29	1, 977	0	230	1, 747	230	288	1, 459	1, 459	0	
0010	40+00 -	50+00	STH 29	1, 939	0	130	1, 809	130	162	1, 647	1, 647	0	CULVERT TRENCH STA. 45+79, 900 CY
0010	50+00 -	60+00	STH 29	1, 817	0	52	1, 765	52	65	1, 701	1, 701	0	
0010	60+00 -	70+00	STH 29	1, 758	0	47	1, 711	47	59	1, 652	1, 652	0	CULVERT TRENCH STA. 67+75, 550 CY
0010	70+00 -	80+00	STH 29	2, 150	0	38	2, 112	38	47	2, 065	2, 065	0	CULVERT TRENCH STA. 77+30, 800 CY
0010	80+00 -	90+00	STH 29	1, 916	0	295	1, 620	295	369	1, 251	1, 251	0	
0010	90+00 -	100+00	STH 29	613	0	409	203	409	511	-308	0	0	USE EXCESS MATERIAL FROM PROJECT AS NEEDED
0010	100+00 -	110+00	STH 29	1, 128	0	39	1, 090	39	48	1, 041	1, 041	0	
0010	110+00 -	120+00	STH 29	1, 682	0	6	1, 675	6	8	1, 668	1, 668	0	
0010	120+00 -	130+00	STH 29	2, 353	0	1	2, 353	1	1	2, 352	2, 352	0	
0010	130+00 -	140+00	STH 29	1, 763	0	16	1, 747	16	20	1, 728	1, 728	0	
0010	140+00 -	150+00	STH 29	1, 102	0	49	1, 053	49	61	992	992	0	
0010	150+00 -	160+00	STH 29	932	0	111	820	111	139	681	681	0	
0010	160+00 -	170+00	STH 29	1, 014	0	106	908	106	132	776	776	0	
0010	170+00 -	180+00	STH 29	1, 025	0	510	516	510	637	-122	0	0	USE EXCESS MATERIAL FROM PROJECT AS NEEDED
0010	180+00 -	190+00	STH 29	2, 420	0	431	1, 989	431	539	1, 450	1, 450	0	
0010	190+00 -	200+00	STH 29	1, 288	0	47	1, 241	47	59	1, 182	1, 182	0	
0010	200+00 -	210+00	STH 29	1, 297	0	23	1, 273	23	29	1, 244	1, 244	0	CULVERT TRENCH STA. 185+68, 1350 CY
0010	210+00 -	220+00	STH 29	1, 622	0	10	1, 613	10	12	1, 601	1, 601	0	
0010	220+00 -	230+00	STH 29	1, 743	0	14	1, 728	14	18	1, 710	1, 710	0	
0010	230+00 -	240+00	STH 29	2, 148	0	8	2, 140	8	10	2, 130	2, 130	0	CULVERT TRENCH STA. 212+60, 100 CY
0010	240+00 -	250+00	STH 29	2, 107	0	1	2, 107	1	1	2, 106	2, 106	0	CULVERT TRENCH STA. 228+00, 400 CY
0010	250+00 -	260+00	STH 29	2, 162	0	24	2, 139	24	29	2, 109	2, 109	0	CULVERT TRENCH STA. 234+69, 470 CY
0010	260+00 -	270+00	STH 29	1, 484	0	9	1, 474	9	11	1, 463	1, 463	0	CULVERT TRENCH STA. 245+74, 180 CY
0010	270+00 -	280+00	STH 29	1, 280	0	13	1, 266	13	17	1, 249	1, 249	0	CULVERT TRENCH STA. 257+91, 1000 CY
0010	280+00 -	290+00	STH 29	1, 392	0	27	1, 365	27	34	1, 331	1, 331	0	
0010	290+00 -	301+00	STH 29	1, 278	0	26	1, 252	26	33	1, 219	1, 219	0	

SUBTOTAL 44, 264 0 2, 756 41, 508 2, 756 3, 445 38, 064 38, 493 0

## EARTHWORK SUMMARY CONT.

		205. 0	0100				EXPANDED	MASS			
		EXCAVATI ON	COMMON (1)	SALVAGED/UNUSABLE	AVAI LABLE	UNEXPANDED	FILL (7)	ORDI NATE			
		CUT	EBS EXCAV.	PAVEMENT MATERIAL	MATERI AL	FILL	FACTOR	+/-	WASTE	BORROW	REMARKS
		(2)	(3)	(2)	(4)		1. 25	(8)		(9)	
CATEGORY	LOCATI ON	CY	CY	СҮ	CY	CY	CY	CY	CY	CY	
0010	635TH	289	0	91	198	1	1	197	197	0	
0010	640TH	66	0	31	36	2	3	33	33	0	
0010	CTH F	128	0	54	74	16	20	54	54	0	
0010	1250TH	178	0	51	127	0	0	127	127	0	
0010	1170TH	226	0	76	150	0	0	150	150	0	
0010	CTH QQ	201	0	83	118	0	0	118	118	0	
	SUBTOTAL	1, 088	0	386	703	19	24	679	679	0	
	TOTAL	45, 352	0	3, 141	42, 211	2, 775	3, 468	38, 742	39, 172	0	

- 1) COMMON EXCAVATION IS THE SUME OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 20.0100.
- 2) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT
- 4) AVAILABLE MATERIAL = CUT SALVAGED/UNUSABLE PAVEMENT MATERIAL
- 7) EXPANDED FILL: FACTOR 1.25; EXPANDED FILL = (UNEXPANDED FILL ROCK \* ROCK FACTOR) \* FILL FACTOR
- 8) THE MASS ORDINATE + OR QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTA
- 9) BORROW EXPANSION: FACTOR = 1.15, EXCESS EXCAVATION WITHIN THE PROJECT SHALL BE USED IN AREAS DESIGNATED FOR BORROW

E	PREPARE FO	JND	ATION FOR	ASPHALTIC PAVING	3
					211. 0100
CATEGORY	STATI ON	TO	STATI ON	LOCATI ON	LS
0010	23+83	-	301+00	STH 29, LT & RT	1
				TOTAL	1

			<u>SHAPI</u>	NG SHOULDERS		
					305. 0500	
CATEGORY	STATI ON	T0	STATI ON	LOCATI ON	STA	REMARKS
0010	23+83	-	33+50	STH 29, RT	11	
0010	35+20	_	90+00	STH 29, RT	55	
0010	90+00	-	150+00	STH 29, RT	60	
0010	150+00	-	200+00	STH 29, RT	50	
0010	200+00	-	250+00	STH 29, RT	50	
0010	250+00	-	301+00	STH 29, RT	51	
0010	23+83	-	33+65	STH 29, LT	11	
0010	35+25	-	84+20	STH 29, LT	49	
0010	85+65	-	90+00	STH 29, LT	5	
0010	90+00	-	125+80	STH 29, LT	36	
0010	127+15	-	150+00	STH 29, LT	23	
0010	150+00	-	200+00	STH 29, LT	50	
0010	200+00	-	250+00	STH 29, LT	50	
0010	250+00	-	301+00	STH 29, LT	51	
				TOTAL	552	•

			<u>i</u>	BASE AGGRE	GATE DENSE	SUMMARY	
					305. 0110 3/4-I NCH	305. 0120 1 1/4-I NCH	
CATEGORY	STATI ON	T0	STATI ON	LOCATI ON	TON	TON	REMARKS
0010	23+83	_	30+00	STH 29	72	680	
0010	30+00	_	40+00	STH 29	117	1, 445	
0010	40+00	_	50+00	STH 29	117	1, 470	
0010	50+00	_	60+00	STH 29	117	1, 030	
0010	60+00	_	70+00	STH 29	117	1, 415	
0010	70+00	_	80+00	STH 29	117	1, 400	
0010	80+00	_	90+00	STH 29	117	1, 210	
0010	90+00	_	100+00	STH 29	117	890	
0010	100+00	_	110+00	STH 29	117	880	
0010	110+00	_	120+00	STH 29	117	955	
0010	120+00	_	130+00	STH 29	117	1, 290	
0010	130+00	_	140+00	STH 29	117	1, 060	
0010	140+00	_	150+00	STH 29	117	880	
0010	150+00	_	160+00	STH 29	117	880	
0010	160+00	_	170+00	STH 29	117	890	
0010	170+00	_	180+00	STH 29	117	940	
0010	180+00	_	190+00	STH 29	117	930	
0010	190+00	_	200+00	STH 29	117	880	
0010	200+00		210+00	STH 29	117	880	
0010	210+00	_	220+00	STH 29	117	1, 360	
0010	220+00	_	230+00	STH 29	117	1, 360	
0010	230+00	_	240+00	STH 29	117	1, 380	
0010	240+00	_	250+00	STH 29	117	1, 360	
0010	250+00	_	260+00	STH 29	117	1, 840	
0010	260+00	_	270+00	STH 29	117	880	
0010	270+00	-	280+00	STH 29	117	880	
0010	280+00	_	290+00	STH 29	117	880	
0010	290+00	_	301+00	STH 29	129	990	
0010		NO	ORTH ACRES	S		110	
0010		E	AGLE RIDGE			150	
0010			635TH		12	95	
0010			640TH		6	40	
0010			CTH F			100	
0010			1250TH		15	95	
0010			1170TH		14	115	
0010			CTH QQ		10	130	
				TOTALS	3, 300	31, 770	

						HMA PAVEME	NT SUMMARY				
					455.0605	460.0 HMA PAV 3 MT 58	/EMENT	460.0 HMA PAV 4 MT 58	/EMENT	465.0120 ASPHALTIC SURFACE	
					TACK COAT					DRIVEWAYS AND	
CATECORY	CTATION		CTATTON	LOCATION	TACK COAT	(MAINLINE)	(OTHER)	(MAINLINE)	(OTHER)	FIELD ENTRANCES	DEMARKS
0010	STATION 23+83	10	30+00	LOCATION	GAL 410	TON 463	356	TON 185	TON 143	TON	REMARKS
0010	30+00	_	40+00	STH 29	865	748	986	300	394		
0010	40+00	_	50+00	STH 29 STH 29	595	748	439	300	175		
		_			615	748	439	300	175	20	
0010	50+00	_	60+00	STH 29		748		300		) 	
0010	60+00 70+00	_	70+00	STH 29	560 555	748	376 357	300	150 143		
0010		-	80+00	STH 29				ļ			
0010	80+00	-	90+00	STH 29	725 535	748 748	707	300 300	282 129		
0010	90+00 100+00	-	100+00	STH 29		748	324 312	300	129		
0010		_	110+00	STH 29	530	748					
0010	110+00	-	120+00	STH 29	525		399 798	300	160		
0010	120+00	-	130+00	STH 29	770	748		300	319		
0010	130+00	-	140+00	STH 29	640	748	527	300	210	25	
0010	140+00	-	150+00	STH 29	530	748	312	300	124		
0010	150+00	-	160+00	STH 29	530	748	312	300	124		
0010	160+00	-	170+00	STH 29	535	748	322	300	129		
0010	170+00	_	180+00	STH 29	565	748	377	300	151		
0010	180+00	-	190+00	STH 29	560	748	370	300	149		
0010	190+00	_	200+00	STH 29	530	748	312	300	124		
0010	200+00	_	210+00	STH 29	530	748	312	300	124		
0010	210+00	-	220+00	STH 29	530	748	312	300	124		
0010	220+00	_	230+00	STH 29	530	748	312	300	124		
0010	230+00	-	240+00	STH 29	540	748	334	300	133		
0010	240+00	-	250+00	STH 29	530	748	312	300	124		
0010	250+00	-	260+00	STH 29	530	748	312	300	124		
0010	260+00	-	270+00	STH 29	530	748	312	300	124	10	
0010	270+00	-	280+00	STH 29	530	748	312	300	124		
0010	280+00	-	290+00	STH 29	530	748	312	300	124		
0010	290+00	_	301+00	STH 29	595	824	365	330	147		
				SUBTOTALS	15,950	20,735	11,268	8,315	4,497	60	

			HI	MA PAVEMENT	SUMMARY CO	NT.			
			455.0605	0605 460.6223		460.	6644	465.0120	
				HMA PA		HMA PA		ASPHALTIC SURFACE	
				3 MT 5	8-28 S	4 MT 5	8-34 V	DRIVEWAYS AND	
			TACK COAT	(MAINLINE)	(OTHER)	(MAINLINE)	(OTHER)	FIELD ENTRANCES	
CATEGORY	STATION TO STATION LO	OCATION	GAL	TON	TON	TON	TON	TON	REMARKS
0010	NORTH ACRES		50	0	104	0	42		
0010	EAGLE RIDGE		70	0	140	0	56		
0010	635ТН		60	0	115	0	46		
0010	640тн		25	0	49	0	19		
0010	CTH F		45	0	92	0	37		
0010	1250ТН		45	0	89	0	36		
0010	1170тн		70	0	136	0	54		
0010	СТН QQ		80	0	157	0	63		
		_							
	SU	BTOTALS	445	0	882	0	353	0	
	ר	16,395	32,885		13,	165	60		

ASPHALTIC SURFACE										
		465.0105								
CATEGORY	LOCATION	TON	REMARKS							
0010	EAGLE RIDGE RD ISLAND	5								
0010	CTH F ISLAND	3								
	TOTAL	8	-							

	ASPHALTIC FLUMES		
		465.0315	
CATEGORY	LOCATION	SY	REMARKS
0010	STH 29, STA. 84+15, LT	20	
0010	STH 29, STA. 84+70, LT	10	
0010	STH 29, STA. 85+17, LT	10	
0010	STH 29, STA. 125+81, LT	20	
0010	STH 29, STA. 126+74, LT	10	
	TOTAL	70	=

							465. 0425	
CATEGORY	STATI ON	T0	STATI ON	L	_OCAT	ΓΙΟN	LF	REMARKS
0010	23+82	-	32+13	STH 2	29,	LT	834	
0010	40+10	-	48+57	STH 2	29,	LT	846	
0010	50+30	- 1	52+25	STH 2	29,	LT	191	
0010	52+85	-	57+15	STH 2	29,	LT	430	
0010	60+95	- 1	71+57	STH 2	29,	LT	1, 063	
0010	73+50	-	79+61	STH 2	29,	LT	613	
0010	80+25	-	83+12	STH 2	29,	LT	288	
0010	88+75	-	124+75	STH 2	29,	LT	3, 598	
0010	131+15	- 1	138+78	STH 2	29,	LT	762	
0010	140+67	-	143+50	STH 2	29,	LT	285	
0010	144+25	- 1	152+90	STH 2	29,	LT	869	
0010	153+55	-	158+16	STH 2	29,	LT	462	
0010	158+80	- 1	198+50	STH 2	29,	LT	3, 962	
0010	199+25	-	223+25	STH 2	29,	LT	2, 398	
0010	223+85	-	249+40	STH 2	29,	LT	2, 558	
0010	251+75	-	261+55	STH 2	29,	LT	980	
0010	262+18	-	266+10	STH 2	29,	LT	391	
0010	266+80	- 1	281+56	STH 2	29,	LT	1, 476	
0010	288+41	-	301+00	STH 2	29,	LT	1, 859	
0010	23+82	- 1	28+50	STH 2	29,	RT	465	
0010	36+65	-	59+70	STH 2	29,	RT	2, 305	
0010	60+30	-	115+00	STH 2	29,	RT	5, 452	
0010	116+75	_	177+40	STH 2	29,	RT	6, 069	
0010	178+15	-	236+10	STH 2	29,	RT	5, 801	
0010	240+00	_	269+10	STH 2	29,	RT	2, 909	
0010	269+95	-	292+65	STH 2	29,	RT	2, 274	
0010	296+58	-	301+00	STH 2	29,	RT	445	
				TOTAL	s		49, 585	=

ASPHA	ALTIC CEI	NIE	KLINE KU	MRLE 21K	IPS 2-LANE	RURAL
					465. 0475	
CATEGORY	STATI ON	T0	STATI ON	LOCATI ON	LF	REMARKS
0010	46+15	-	48+20	STH 29	205	
0010	50+20	-	57+00	STH 29	680	
0010	61+00	-	70+50	STH 29	950	
0010	74+50	-	77+25	STH 29	275	
0010	92+25	-	113+95	STH 29	2, 170	
0010	140+45	-	236+20	STH 29	9, 575	
0010	240+20	-	292+75	STH 29	5, 255	
0010	296+75	-	301+00	STH 29	425	
•						
				TOTALS	19, 535	=

				APRON EN	DWALL SUM	IMARY			
				520. 1024 APRON ENDWALLS	520. 1030 APRON ENDWALLS	520. 1036 APRON ENDWALLS	520. 1042 APRON ENDWALLS	520. 1048 APRON ENDWALLS	
				FOR CULVERT	FOR CULVERT	FOR CULVERT	FOR CULVERT	FOR CULVERT	
CATECODY	CTATLON	LOCAT	LON	PI PE 24-I NCH	PI PE 30-I NCH	PI PE 36-I NCH	PI PE 42-I NCH	PI PE 48-I NCH	DEMARKS
CATEGORY 0010	STATI ON 45+79	LOCAT STH 29	LT & RT	EA 	EA	<u>EA</u>	EA 2	EA	REMARKS
0010	67+75	STH 29	LT & RT				2		
0010	77+22	STH 29	LT & RT					2	
0010	77+35	STH 29	LT & RT					2	
0011	185+68	STH 29	LT & RT	2					
0010	212+60	STH 29	LT & RT			2			
0010	228+00	STH 29	LT & RT		2				
0010	234+69	STH 29	LT & RT		2				
0010	245+75	STH 29	LT & RT		2				
0010	257+91	STH 29	LT & RT		2				
0010	257+98	STH 29	LT & RT		2				
			TOTALS	2	10	2	4	4	

								CULVERT I	PIPE SUMMARY										
			520.3142	520.3148	520.3324 CULVERT	520.3330 CULVERT	520.4130	520.4136	690.6000										
			CULVERT	CULVERT	PIPE	PIPE	CULVERT	CULVERT	CONSTRUCTION	CORR.									
			PIPE	PIPE	CLASS	CLASS	PIPE	PIPE	STAKING,	STEEL									
			CLASS III	CLASS III	III-A	III-A	CLASS IV	CLASS IV	PIPE	MIN.				Т					
			42-INCH	48-INCH	24-INCH	30-INCH	30-INCH	36-INCH	CULVERTS	THICKNESS		INLET				OUTLET			SLOPE
CATEGORY	STATION	LOCATION	LF	LF	LF	LF	LF	LF	EA	IN	STATION	OFFSE	EΤ	ELEV.	STATION	OFFSI	ΞT	ELEV	FT / FT
0010	45+79	STH 29	92						1	0.109	45+79.5	43.6	RT	864.38	45+79.9	48.4	LT	862.70	0.018
0010	67+75	STH 29	68						1	0.109	67+75.0	33.7	RT	859.13	67+75.4	34.4	LT	858.88	0.004
0010	77+22	STH 29	-	82					1	0.109	77+27.8	37.2	RT	851.50	77+14.8	43.8	L	849.50	0.024
0010	77+35	STH 29		82					1	0.109	77+40.4	35.2	RT	851.50	77+26.9	45.7	LT	849.50	0.024
0010	185+68	STH 29			140				1	0.064	185+89.3	56.7	LT	881.55	185+41.3	74.9	RT	875.62	0.042
0010	212+60	STH 29						76	1	0.079	212+59.9	35.0	LT	906.42	212+60.2	41.0	RT	904.19	0.029
0010	228+00	STH 29					72		1	0.079	227+99.8	32.1	LT	925.81	227+99.1	39.9	RT	923.78	0.028
0010	234+69	STH 29					80		1	0.079	234+67.8	31.6	LT	932.15	234+69.7	48.4	RT	928.28	0.048
0010	245+74	STH 29					68		1	0.079	245+74.9	33.0	LT	953.80	245+74.3	35.0	RT	953.21	0.009
0010	257+91	STH 29				108			1	0.079	257+90.1	52.5	LT	954.20	257+91.2	55.5	RT	951.69	0.023
0010	257+98	STH 29				108			1	0.079	257+98.0	52.5	LT	954.20	257+99.1	55.5	RT	951.69	0.023
	·	•		•	<u> </u>		· · · · · · · · · · · · · · · · · · ·			·					·				
		TOTALS	160	164	140	216	220	76	11		NOTE: INVER	T ELEVAT	IONS	ARE INTE	NDED TO MAT	CH			
											EXISTING IN	IVERTS -	VERIF	Y PRIOR	TO INSTALLA	TION.			
											STATION AND	OFFSETS	PRO\	/IDED TO	THE END OF	PIPE.			

							ANCILLAR	Y CONCRETE SU	IMMARY			
					601.0120	601.0411	601.0557 CONCRETE	602.0405	602.0515 CURB RAMP	650.5500	650.9000	
					CONCRETE CURB	CONCRETE CURB & GUTTER 30-INCH	CURB & GUTTER 6-INCH SLOPED 36-INCH	CONCRETE SIDEWALK	DETECTABLE WARNING FIELD NATURAL	CONSTRUCTION STAKING, CURB, GUTTER,	CONSTRUCTION STAKING,	
ATEGORY	STATION	TO	STATION	LOCATION	TYPE J LF	TYPE D LF	TYPE D LF	4-INCH SF	PATINA SF	CURB & GUTTER LF	CURB RAMPS EA	REMARKS
0010	33+52	T - T	35+18	STH 29, RT	85	20	145			250		EAGLE RIDGE ROAD INTERSECTION
0010	33+65	1-1	35+22	STH 29, LT		85	115	105	10	200	1	NORTH ACRES ROAD INTERSECTION
0010	83+24	-	85+64	STH 29, LT	55		125			180		CTH F INTERSECTION
0010	125+88	-	127+14	STH 29, LT			135			135		1250TH AVE INTERSECTION
				TOTALS	140	105	520	105	10	765	1	

				GUARDRAI L	SUMMARY		
					614. 2300	614, 2610	
					01112000	MGS	
					MGS	GUARDRAI L	
					GUARDRAI L	TERMI NAL	
					3	EAT	
CATEGORY	STATI ON	T0	STATI ON	LOCATI ON	LF	EA	REMARKS
0010	169+40	-	176+40	STH 29, RT	600	2	
0010	183+75	-	188+79	STH 29, RT	400	2	
				TOTALS	1, 000	4	

		WATER
	624. 0100	
CATEGORY LOCATION	MGAL	REMARKS
0010 STH 29	350	FOR BASE AGGREGATE COMPACTION
TOTAL =	350	

								FINISHI	<u>NG</u>			
					625. 0100	627. 0200	628. 2002 EROSI ON MAT CLASS I	628. 2006 EROSI ON MAT URBAN CLASS I	629. 0210 FERTI LI ZER	630. 0130 SEEDI NG MI XTURE	630. 0500 SEED	
					TOPSOI L	MULCHI NG	TYPE A	TYPE A	TYPE B	NO. 30	WATER	
CATEGORY	STATI ON	TO	STATI ON	LOCATI ON	SY	SY	SY	SY	CWT	LB	MGAL	REMARKS
0010	23+83	T - T	35+00	STH 29	1, 830	1, 830			1. 2	33	46	TEM III.
0010	35+00	1-1	55+00	STH 29	3, 340	3, 290	50		2. 1	60	84	
0010	55+00	1-1	75+00	STH 29	3, 410	2, 910	500		2. 2	61	85	
0010	75+00	1-1	95+00	STH 29	4, 750	1, 700	2, 850	200	3. 0	85	119	URBAN MAT FOR RESTORATION WITHIN INTERMITTENT WATERWAY
0010	95+00	1-1	115+00	STH 29	3, 190	3, 190			2. 0	57	80	
0010	115+00	-	135+00	STH 29	3, 080	3, 080			1. 9	55	77	
0010	135+00	-	155+00	STH 29	3, 180	2, 830	350		2. 0	57	80	
0010	155+00	-	175+00	STH 29	4, 180	3, 280	900		2. 6	75	105	
0010	175+00	-	195+00	STH 29	5, 140	890	4, 250		3. 2	93	129	
0010	195+00	-	215+00	STH 29	3, 830	3, 780	50		2. 4	69	96	
0010	215+00	-	235+00	STH 29	3, 800	3, 700	100		2. 4	68	95	
0010	235+00	-	255+00	STH 29	3, 620	3, 570	50		2. 3	65	91	
0010	255+00	-	275+00	STH 29	3, 860	3, 660	200		2. 4	69	97	
0010	275+00	-	295+00	STH 29	3, 900	3, 900			2. 5	70	98	
0100	295+00	-	301+00	STH 29	1, 180	1, 180			0. 7	21	30	
0010	SNOW FENC	E RE	STORATI ON	STH 29	2, 955	2, 955			1. 9	53	74	
0010	UNDI S	STRI	BUTED	STH 29	5, 555	4, 580	950	25	4. 2	109	139	
				_								
				TOTALS	60, 800	50, 325	10, 250	225	39	1, 100	1, 525	

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	<u>EROS</u>	ION CONTROL		
		628. 1905	628. 1910	
			MOBI LI ZATI ONS	
		MOBI LI ZATI ONS	<b>EMERGENCY</b>	
		EROSI ON	EROSI ON	
		CONTROL	CONTROL	
ATEGORY		EACH	EACH	REMARKS
0010	PROJECT	10	5	
	TOTALS	10	5	i

		MARKERS CULVERT EN	<u>ID</u>	
			633. 5200	
CATEGORY	STATI ON	LOCATI ON	EACH	REMARKS
0010	29+44	STH 29, LT & RT	2	
0010	45+79	STH 29, LT & RT	2	
0010	67+75	STH 29, LT & RT	2	
0010	77+22	STH 29, LT & RT	2	
0010	130+73	STH 29, LT & RT	2	
0010	146+00	STH 29, LT & RT	2	
0010	171+69	STH 29, LT & RT	2	
0010	175+18	STH 29, LT & RT	2	
0010	176+11	STH 29, LT & RT	2	
0011	185+68	STH 29, LT & RT	2	
0010	203+65	STH 29, LT & RT	2	
0010	208+00	STH 29, LT & RT	2	
0010	212+60	STH 29, LT & RT	2	
0010	228+00	STH 29, LT & RT	2	
0010	234+69	STH 29, LT & RT	2	
0010	245+74	STH 29, LT & RT	2	
0010	257+00	STH 29, LT & RT	2	
0010	257+98	STH 29, LT & RT	2	
0010	273+48	STH 29, LT & RT	2	
0010	293+91	STH 29, LT & RT	2	
		TOTAL	40	<del>-</del>

						EROSI	ON CONTROL					
					606. 0200	645. 0120	628. 1504	628. 1520 SI LT	628. 7504 TEMPORARY	628. 7555 CULVERT	628. 7570	
					RI PRAP	GEOTEXTI LE	SI LT	FENCE	DI TCH	PIPE	ROCK	
					MEDI UM	TYPE HR	FENCE	MAI NTENANCE	CHECKS	CHECKS	BAGS	
CATEGORY	STATI ON	T0	STATI ON	LOCATI ON	CY	SY	LF	LF	LF	EA	EA	REMARKS
0010	23+83	_	35+00	STH 29					25	8		
0010	35+00	_	55+00	STH 29			100	100	30	14		
0010	55+00	_	75+00	STH 29			100	100	30	5		
0010	75+00	_	95+00	STH 29	25	64	1725	1725	35	15	50	
0010	95+00	_	115+00	STH 29								
0010	115+00	_	135+00	STH 29						8		
0010	135+00	_	155+00	STH 29						3		
0010	155+00	_	175+00	STH 29			675	675	20	3	25	
0010	175+00	-	195+00	STH 29			1775	1775		21	25	
0010	195+00	-	215+00	STH 29			100	100		10		
0010	215+00	_	235+00	STH 29			200	200	50	6		
0010	235+00	_	255+00	STH 29			100	100	35	6		
0010	255+00	_	275+00	STH 29			200	200	15	24		
0010	275+00	_	295+00	STH 29						6	75	
0010	295+00	_	301+00	STH 29					15			
0010	UNDI S	TRI	BUTED	STH 29	5	6	1250	1250	105	46	25	
												_
				TOTALS	30	70	6, 225	6, 225	360	175	200	_

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				PERMANEN <sup>T</sup>	T SIGNING SU	MMARY
		634.0614 POSTS WOOD	634.0616 POSTS WOOD	638. 2102 MOVI NG	638. 4000 MOVI NG SMALL	
		4X6-I NCH	4X6-I NCH	SI GNS	SIGN	
		X 14-FT	X 16-FT	TYPE II	SUPPORTS	
CATEGORY	LOCATI ON	EA	EA	EA	EA	REMARKS
0010	STH 29			7	7	MOVING W14-3 SIGNS AFTER COMPLETION OF LOCATING NO PASSING ZONES
0010	EAGLE RIDGE RD			1	1	MOVING R1-1 FROM EXISTING ISLAND INTO NEW ISLAND
0010	CTH F			2	2	MOVING R1-1 AND J ASSEMBLY FROM EXISTING ISLAND INTO NEW ISLAND
0010	UNDI STRI BUTED	10	10	25	25	
	TOTALS	10	10	35	35	-

						PAVEMENT	MARKING SUM	MARY													
		646. 1 MARKI LI N EPOX 4-I N	NG MARKING LINE E GROOVED WET (Y REF EPOXY	646. 3020 MARKI NG LI NE EPOXY 8-I NCH	646.3040 MARKING LINE GROOVED WET REF EPOXY 8-INCH	646. 5020 MARKI NG ARROW	646. 5120 MARKI NG WORD	646. 6120 MARKI NG STOP LI NE EPOXY	646. 7120 MARKI NG DI AGONAL EPOXY	646. 8220 MARKI NG I SLAND NOSE EPOXY											
		(YELLO	OW*) (WHITE)	(WHI TE)	(WHI TE)	EP0XY	EPOXY	18-I NCH	12-I NCH	(YELLOW)											
CATEGORY	STATION TO STATION LOCAT			LF	LF	EACH	EACH	LF	LF	EA	REMARKS										
0010	23+83 - 33+50 STH				705	4	2		210												
0010	35+10 - 51+81 STH				700	4	2		235												
0010	51+81 - 58+85 STH																				
0010	58+85 - 67+65 STH	29 1, 69	90 220																		
0010	67+65 - 77+50 STH	29 1, 97	70 1, 230																		
0010	77+50 - 84+84 STH	29 1, 40	2, 635		90	2			145												
0010	85+64 - 92+00 STH	29 1, 35	50 2, 500		200	2	1		215												
0010	92+00 - 96+69 STH	29 940	585																		
0010	96+69 - 110+94 STH	29 2, 85	360																		
0010	110+94 - 113+95 STH	29 605	375																		
0010	113+95 - 125+89 STH	29 2, 39	90 4, 130		300	2	1		275												
0010	127+13 - 150+55 STH	29 4, 36	7, 025		300	2	1		540												
0010	150+55 - 159+50 STH	29 1, 79	90 1, 120																		
0010	159+50 - 161+10 STH	29 320	320																		
0010	161+10 - 170+61 STH	29 1, 90	05 1, 190																		
0010	170+61 - 197+00 STH																				
0010	197+00 - 207+00 STH																				
0010	207+00 - 208+10 STH																				
0010	208+10 - 228+27 STH																				
0010	228+27 - 237+68 STH																				
0010	237+68 - 262+00 STH																				
0010	262+00 - 283+30 STH																				
0010	283+30 - 294+25 STH																				
0010	295+25 - 301+00 STH																				
0010	EAGLE RI DGE RD	120		35				43		2											
0010	NORTH ACRES RD							17													
0010	CTH F	125		30						2	CENTERLINE (YELLOW) AND EDGELINE (WHITE)										
0010	CTH QQ*	260									CENTERLINE (YELLOW) AND EDGELINE (WHITE)										
	5.11 QQ	200									SERVED (TELEVIL) THE EDUCATIVE (WITH TE)										
	SUBTOTALS  *MARKING LINE E	55, 7 POXY 4-I NO	10 48,460 CH SHALL BE WHITE	<b>65</b> WHEN USED AS	2, 295 THE EDGELINE C	16 ON CTH F AND	<b>7</b> CTH QQ	60	1, 620	4											
PROJECT	NUMBER: 7650-01-74		HWY: STH 29		COUNTY	: PIERCE		MISCELLAN	EOUS QUAN	TITIES											

		TR	AFFIC CO	NTROL SU	JMMARY									
			643.		643. TRAFFI C BARRI	CONTROL	643. TRAFFI C BARRI	CONTROL	643. TRAFFI C WARNI NG	CONTROL	643.	0900 CONTPOL	643. TRAFFIC	CONTROL
		APPROX.	DRI		TYPE		TYPE		TYP		SI (		PC	
		SERVI CE	NO IN	CIVIC	NO IN	- 11	NO IN	111	NO IN	LA	NO IN	JIVO	NO IN	NIS
CATEGORY	LOCATI ON	DAYS	SERVI CE	DAYS	SERVI CE	DAYS	SERVI CE	DAYS	SERVI CE	DAYS	SERVI CE	DAYS	SERVI CE	DAYS
0010	NOTIFICATION PRIOR TO CONSTRUCTION AT SOUTH PROJECT LIMITS	7			JERVICE		JERVI CE		JERVI GE		JERVI GE		1 1	7
0010	NOTIFICATION PRIOR TO CLOSURE OF STH 29 FROM USH 10 TO CTH F	7											2	14
0010	NOTIFICATION FOR TEMPORARY ACCESS AT CULVERT REPLACEMENTS	27											2	54
0010	CLOSURE OF STH 29 FROM CTH F TO EOP													Į.
0010	STH 29	115	15	1, 725			8	920	16	1, 840	9	1, 035		
0010	EAGLE RIDGE ROAD	115									2	230		
0010	NORTH ACRES ROAD	115									2	230		
0010	635TH AVENUE										2	230		
0010	640TH AVENUE										2	230		
0010	CTH F	115					1	115	2	230	3	345		
0010	1250TH AVENUE	115	10	70			2	230	4	460	4	460		
0010	1170TH STREET	115					2	230	4	460	4	460		
0010	CTH QQ (SOUTH)	115					2	230	4	460	4	460		
0010	CLOSURE OF STH 29 FROM USH 10 TO EOP													
0010	STH 29	60	10	600			6	360	12	720	4	240		
0010	EAGLE RIDGE ROAD	60	10	70			2	120	4	240	4	240		
0010	NORTH ACRES ROAD	60	10	70	1	60	3	180	6	360	4	240		
0010	635TH AVENUE	60					2	120	4	240	4	240		
0010	640TH AVENUE	60					2	120	4	240	4	240		
0010	CTH F	60	10	70			2	120	4	240	4	240		
0010	1250TH AVENUE	60					2	120	4	240	4	240		
0010	1170TH STREET	60					2	120	4	240	4	240		
0010	CTH QQ (SOUTH)	60					2	120	4	240	4	240		
	TOTALS			2, 605		60		3, 105		6, 210		5, 840		75

	TEMPORARY PEDESTRIAN ACCOMMODATIONS										
		644. 1410	644. 1601								
		TEMPORARY	TEMPORARY								
		PEDESTRI AN	PEDESTRI AN								
		SURFACE	CURB								
		ASPHALT	RAMP								
CATEGORY	LOCATI ON	SF	DAY	REMARKS							
0010	NORTH ACRES ROAD	50	60	PLACE OUTSIDE OF CONSTRUCTION LIMITS							
	_										
	TOTALS	50	60	•							

LOCATING NO PASSING ZONES										
					648. 0100					
CATEGORY	STATI ON	T0	STATI ON	LOCATI ON	MI	REMARKS				
0010	23+83	-	301+00	STH 29	5. 249					
				TOTAL	5. 249	=				

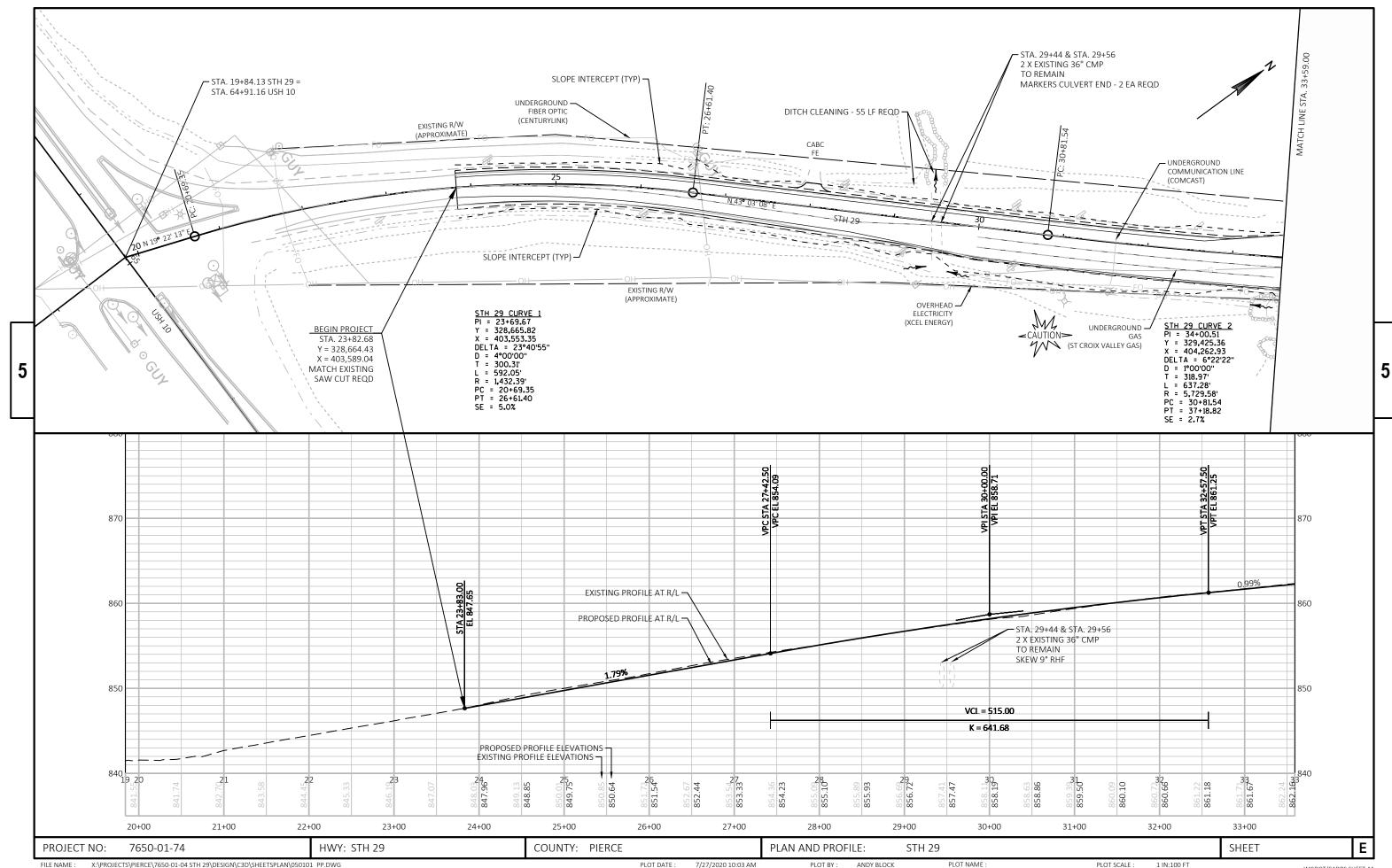
PROJECT NUMBER: 7650-01-74 HWY: STH 29 COUNTY: PIERCE MISCELLANEOUS QUANTITIES SHEET	PROJECT NUMBER: 7650-01-74	HWY: STH 29	COUNTY: PIERCE	MISCELLANEOUS QUANTITIES	SHEET	E
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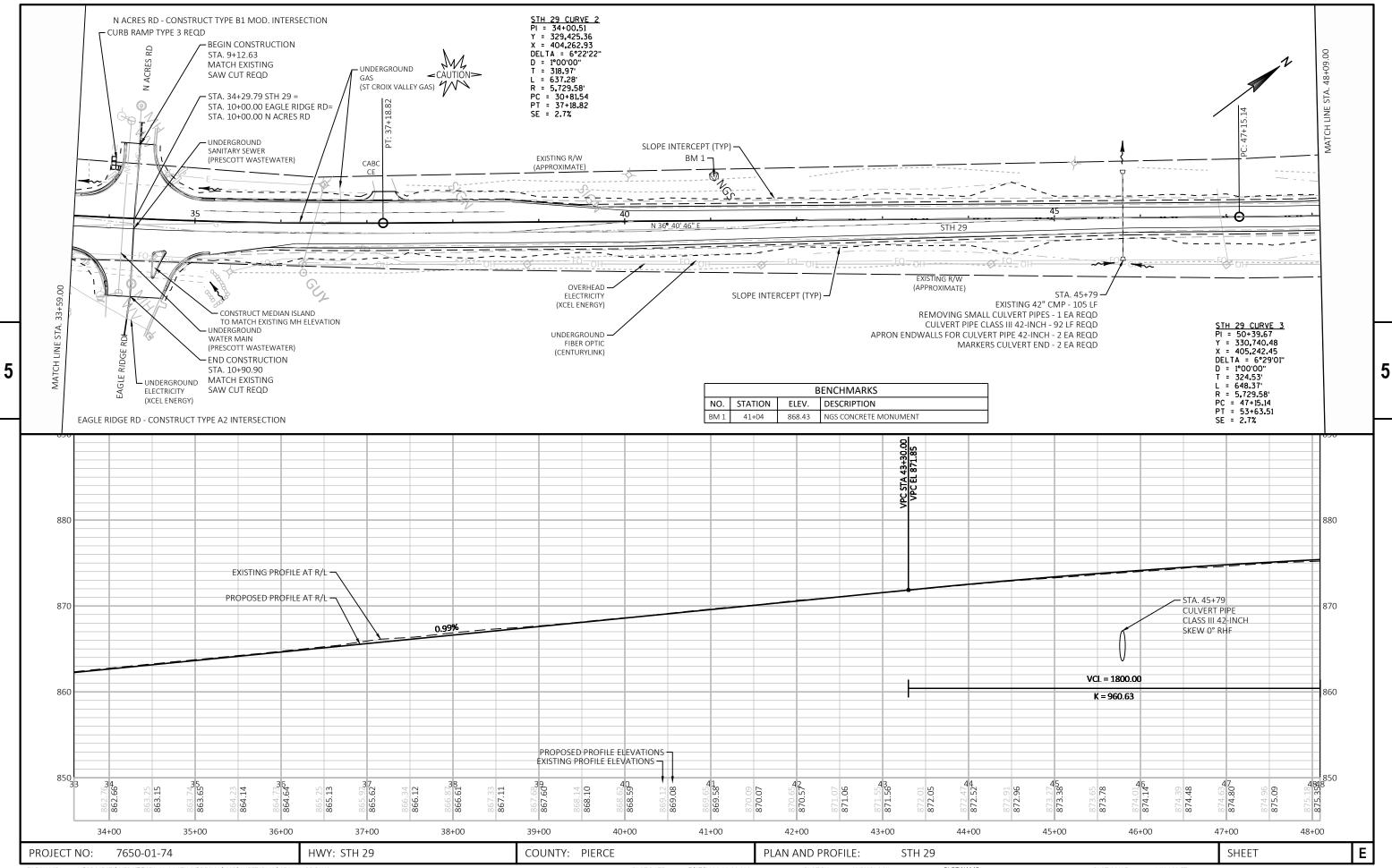
	CONS	TRU	CTION ST	AKING, BASE AN	D SLOPE S	<u>TAKES</u>	
					650. 5000	650. 9920	
CATEGORY	STATI ON	T0	STATOI N	LOCATI ON	LF	LF	REMARKS
0010	23+82		301+00	STH 29	27, 718	27, 718	
0010	9+12	_	10+00	N. ACRES RD	88	88	
0010	10+00	-	10+91	EAGLE RIDGE RD	91	91	
0010	8+90	-	10+00	635TH AVE	110	110	
0010	9+41	-	10+00	640TH AVE	59	59	
0010	10+00	-	10+69	CTH F	69	69	
0010	10+00	-	10+92	1250TH AVE	92	92	
0010	8+68	-	10+00	1170TH ST	132	132	
0010	8+44	-	10+00	CTH QQ	156	156	
				TOTALS	28, 515	28, 515	=
					-	-	

DITCH CLEANING						
					SPV. 0090. 01	
CATEGORY	STATI ON	T0	STATI ON	LOCATI ON	LF	REMARKS
0010	29+25	-	29+55	STH 29, LT	55	
0010	130+63		130+83	STH 29, RT	50	
0010	145+90		146+40	STH 29, RT	50	
0010	171+00	-	172+25	STH 29, RT	125	
0010	203+60	-	203+85	STH 29, RT	50	
0010	203+40	-	203+90	STH 29, LT	50	
0010	256+25	-	257+25	STH 29, RT	100	
0010	257+45	-	258+45	STH 29, LT	100	
0010	273+20	-	273+70	STH 29, LT	50	
0010	273+25	-	274+05	STH 29, RT	100	
0010	293+85	-	293+95	STH 29, RT	170	
					900	•

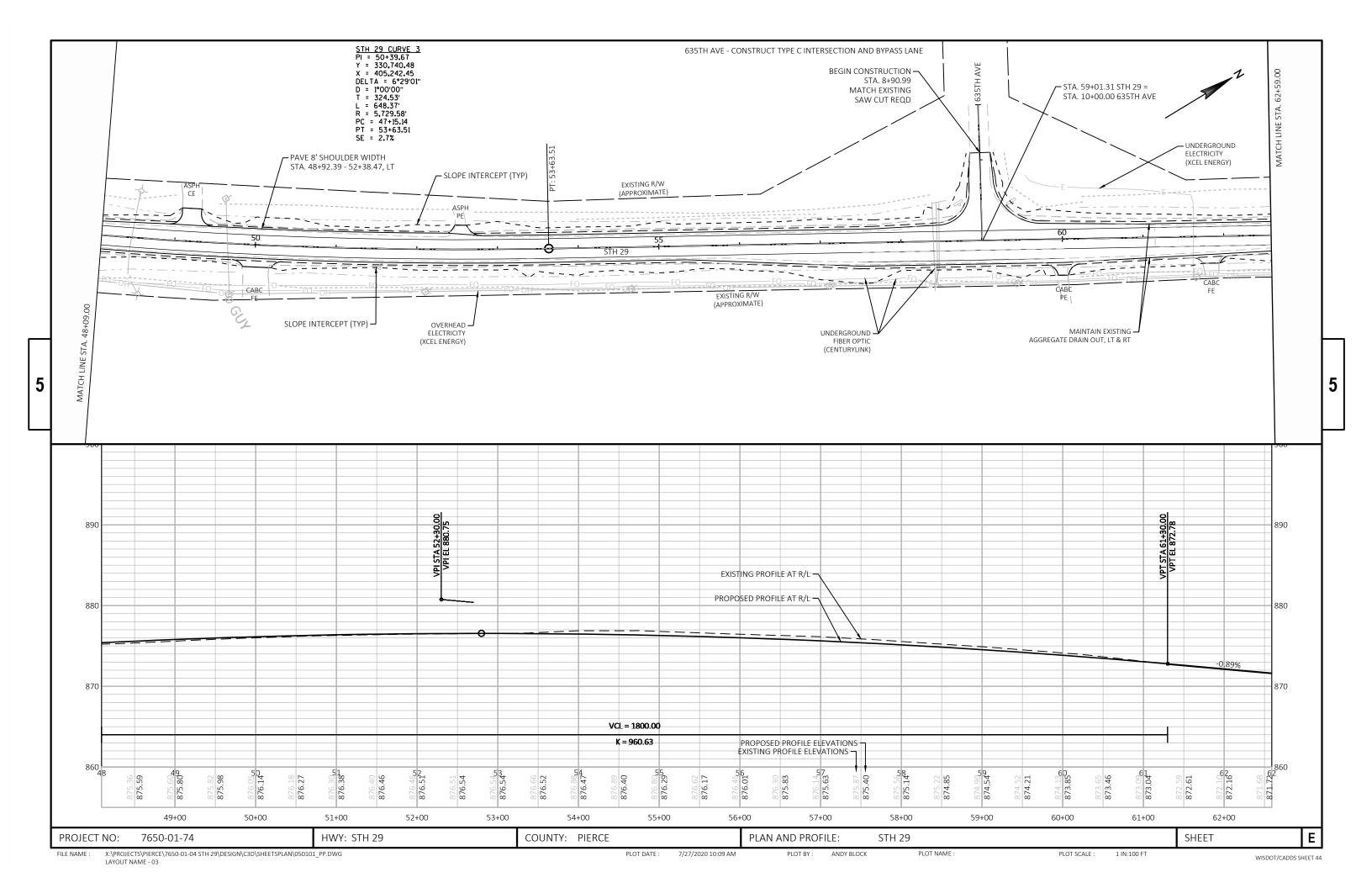
SAWING SUMMARY							
CATECODY	CTATION	LOCATION	690. 0150 ASPHALT	690. 0250 CONCRETE	DEMADICE		
CATEGORY	STATI ON	LOCATION	LF 12	LF 24	REMARKS		
0010	23+82	STH 29	12	24			
0010	9+13	NORTH ACRES	32	5			
0010	10+91	EAGLE RIDGE	62	5			
0010	8+91	635TH AVE	25				
0010	9+41	640TH AVE	24				
0010	10+68	CTH F	51				
0010	10+91	1250TH AVE	40				
0010	8+68	1170TH AVE	22				
0010	8+45	CTH QQ	24				
0010	301+00	STH 29	6	24			
0010	49+15	STH 29	25		COMMERCIAL ENTRANCE		
0010	52+50	STH 29	14		PRI VATE ENTRANCE		
0010	139+50	STH 29	40		COMMERCIAL ENTRANCE		
0010	269+50	STH 29	33		PRI VATE ENTRANCE		
					=		
		TOTALS	410	58			

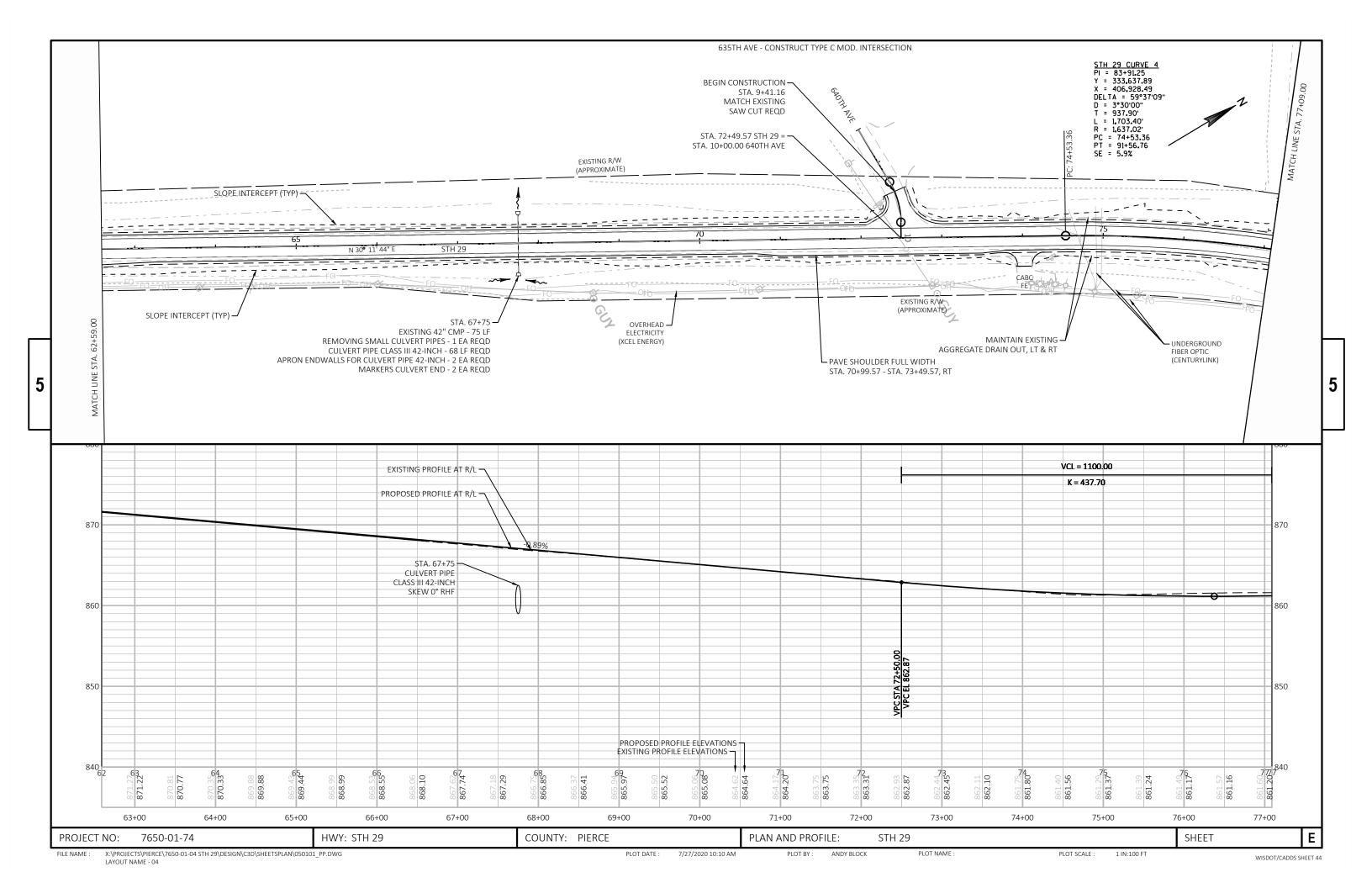
FLEXIBLE COMPOSITE RAIL SNOW FENCE 8-FT						
					SPV. 0090. 02	
CATEGORY	STATI ON	T0	STATI ON	LOCATI ON	LF	REMARKS
0010	72+80	-	76+90	STH 29, LT	420	
0010	77+40	_	79+78. 3	STH 29, LT	255	
0010	79+99.6	_	84+81. 2	STH 29, LT	630	
0010	84+96. 3	_	86+85	STH 29, LT	350	
0010	85+95	_	110+50	STH 29, LT	2, 490	
0010	110+70	-	122+40	STH 29, LT	1, 170	
				SUBTOTAL	5, 315	
					·	

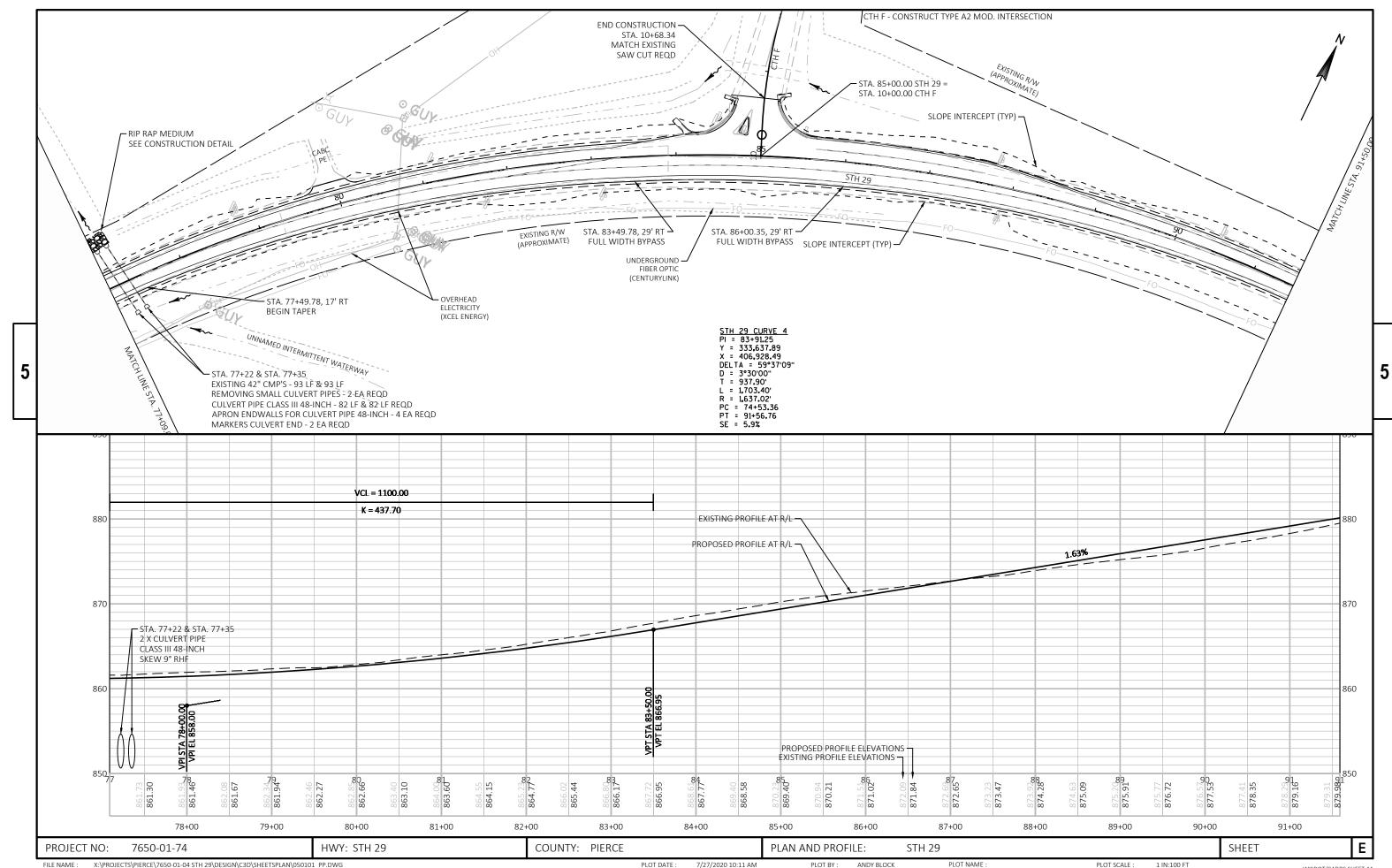


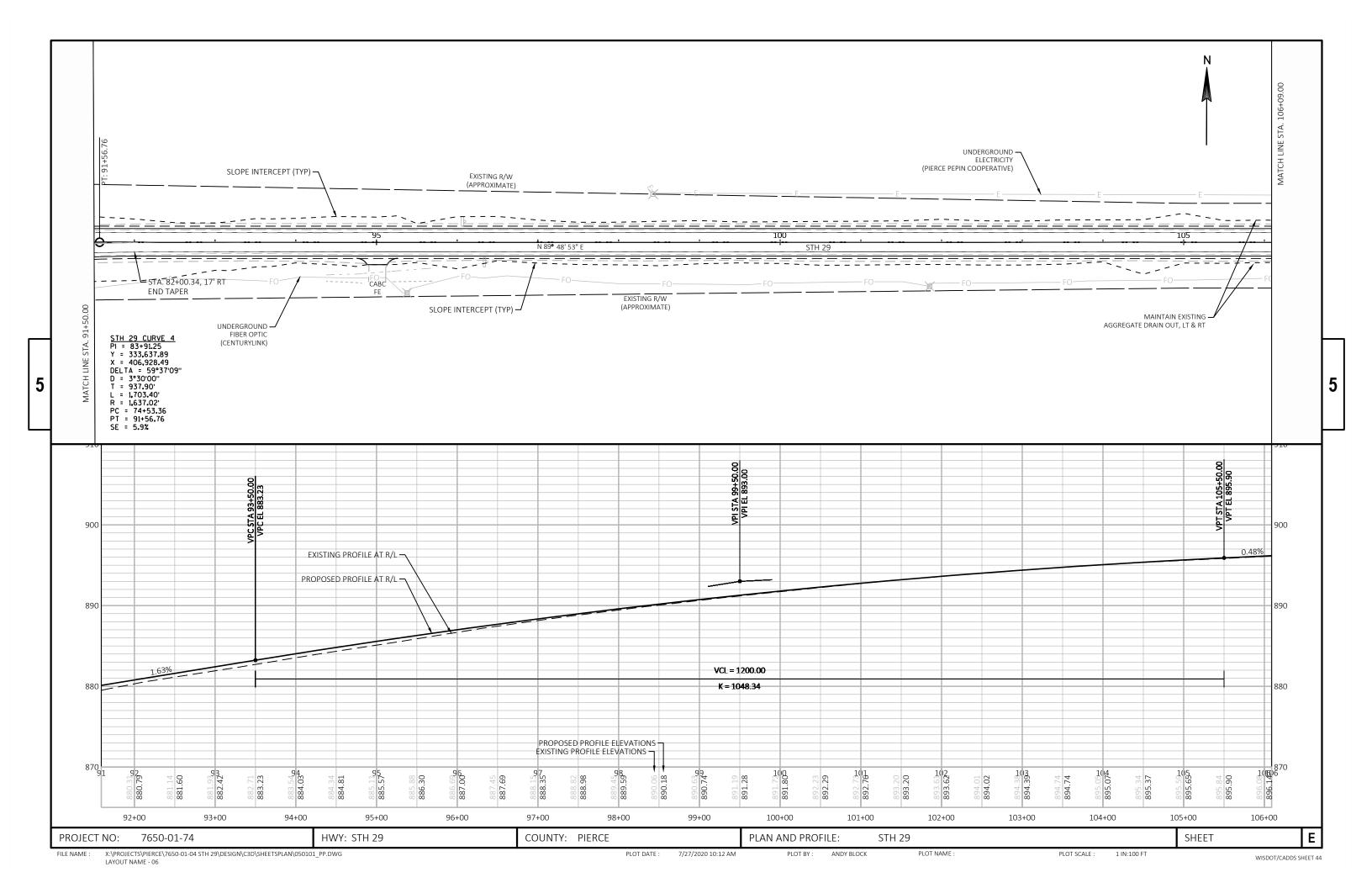


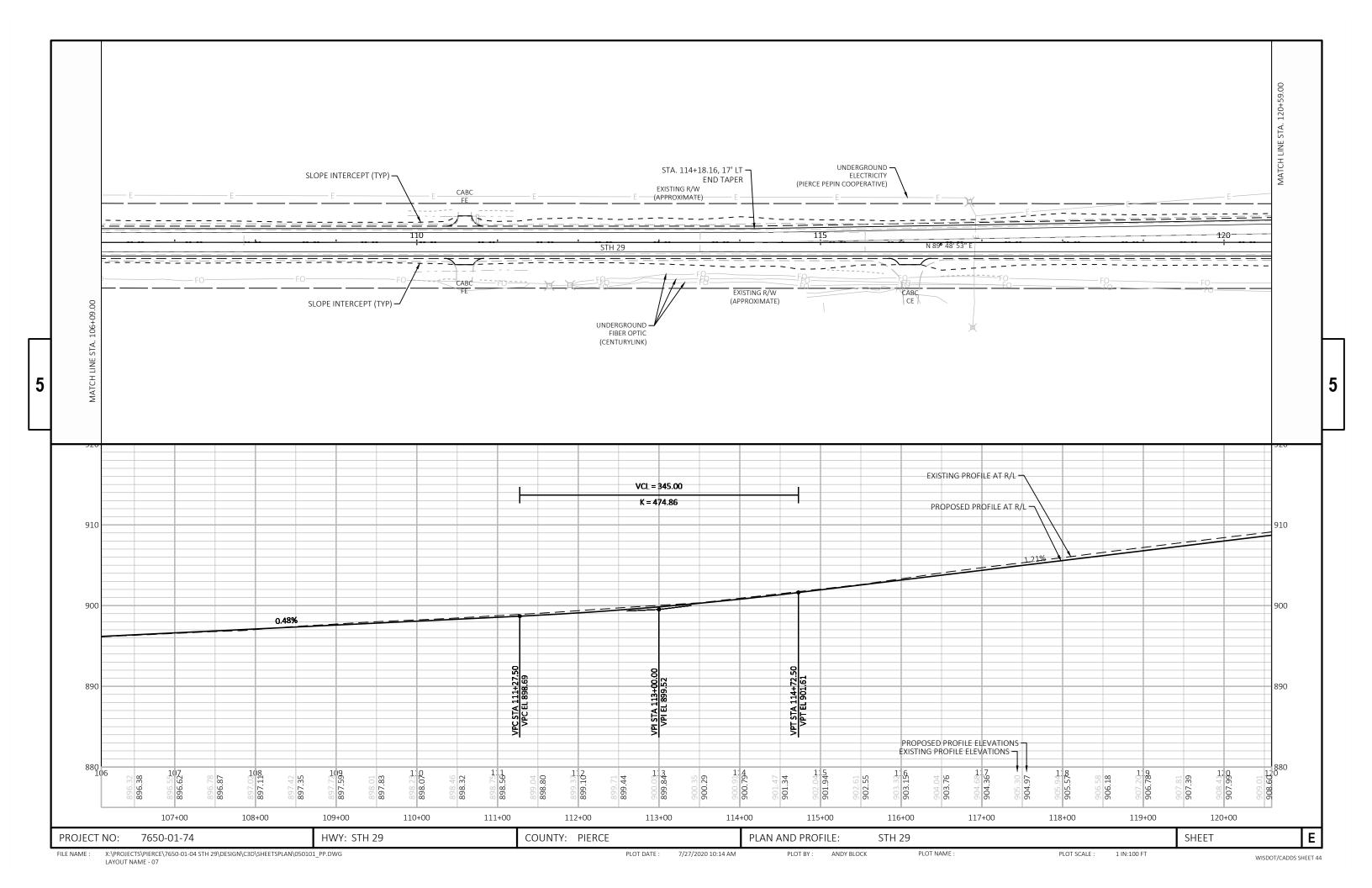
WISDOT/CADDS SHEET 44

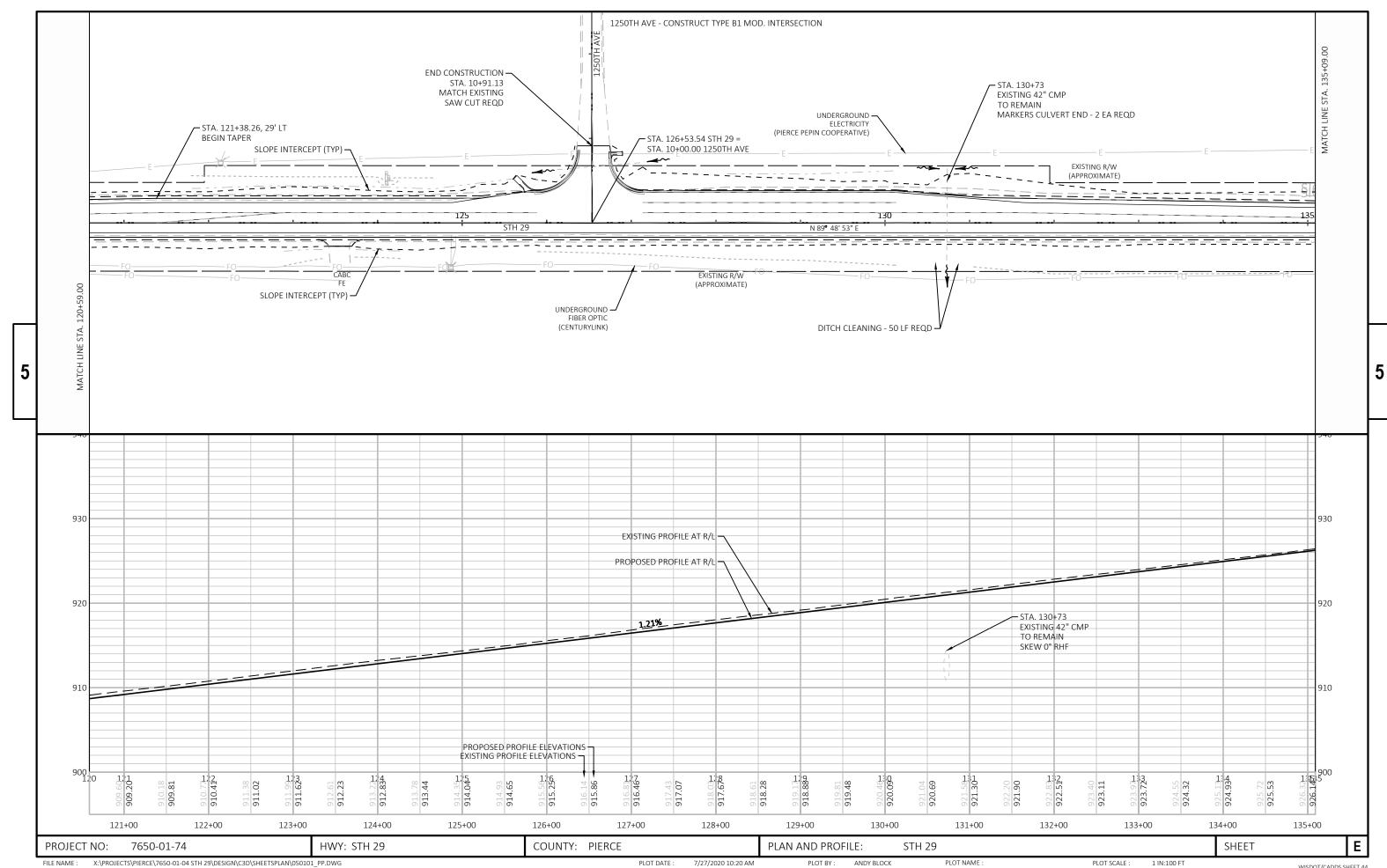


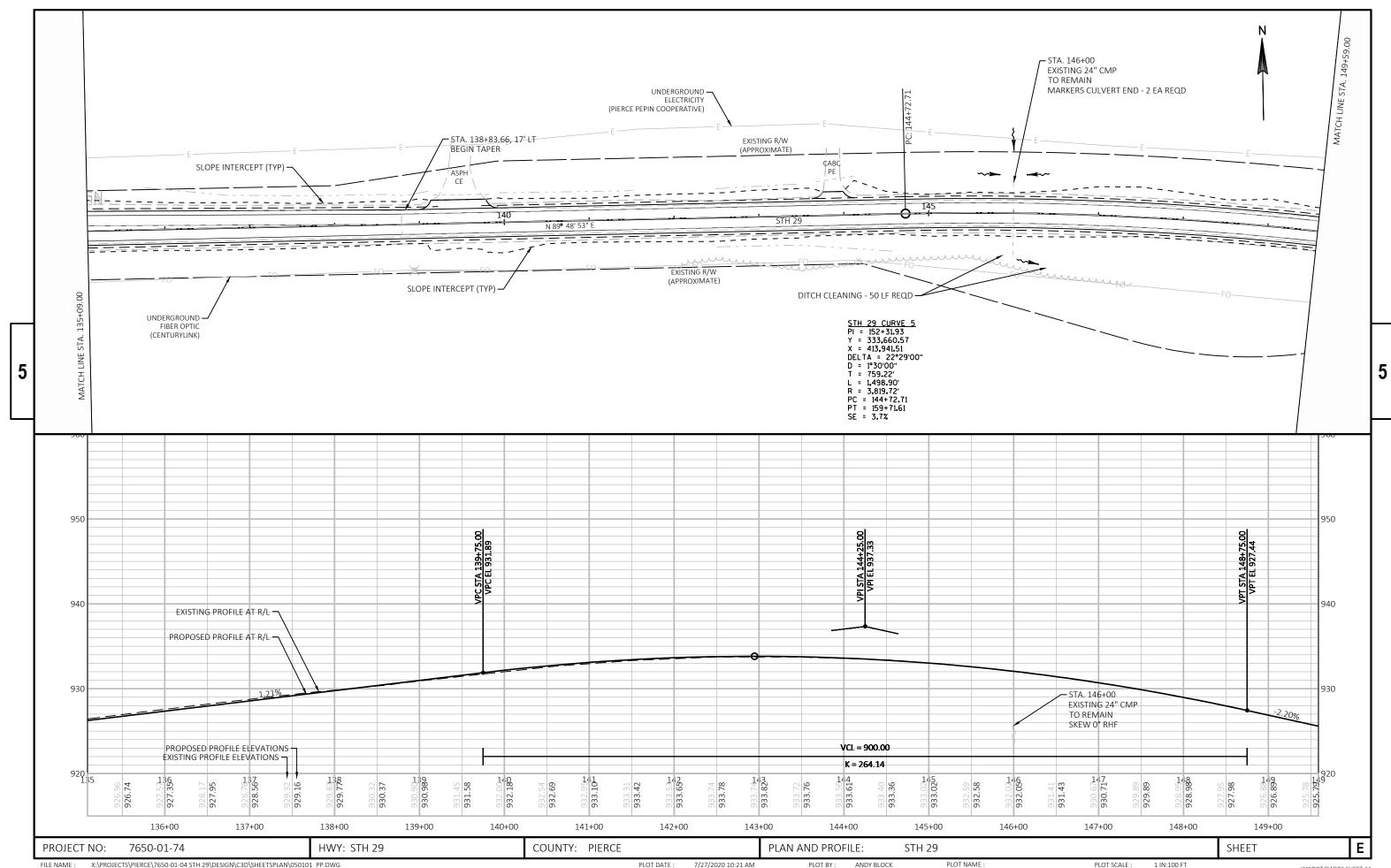


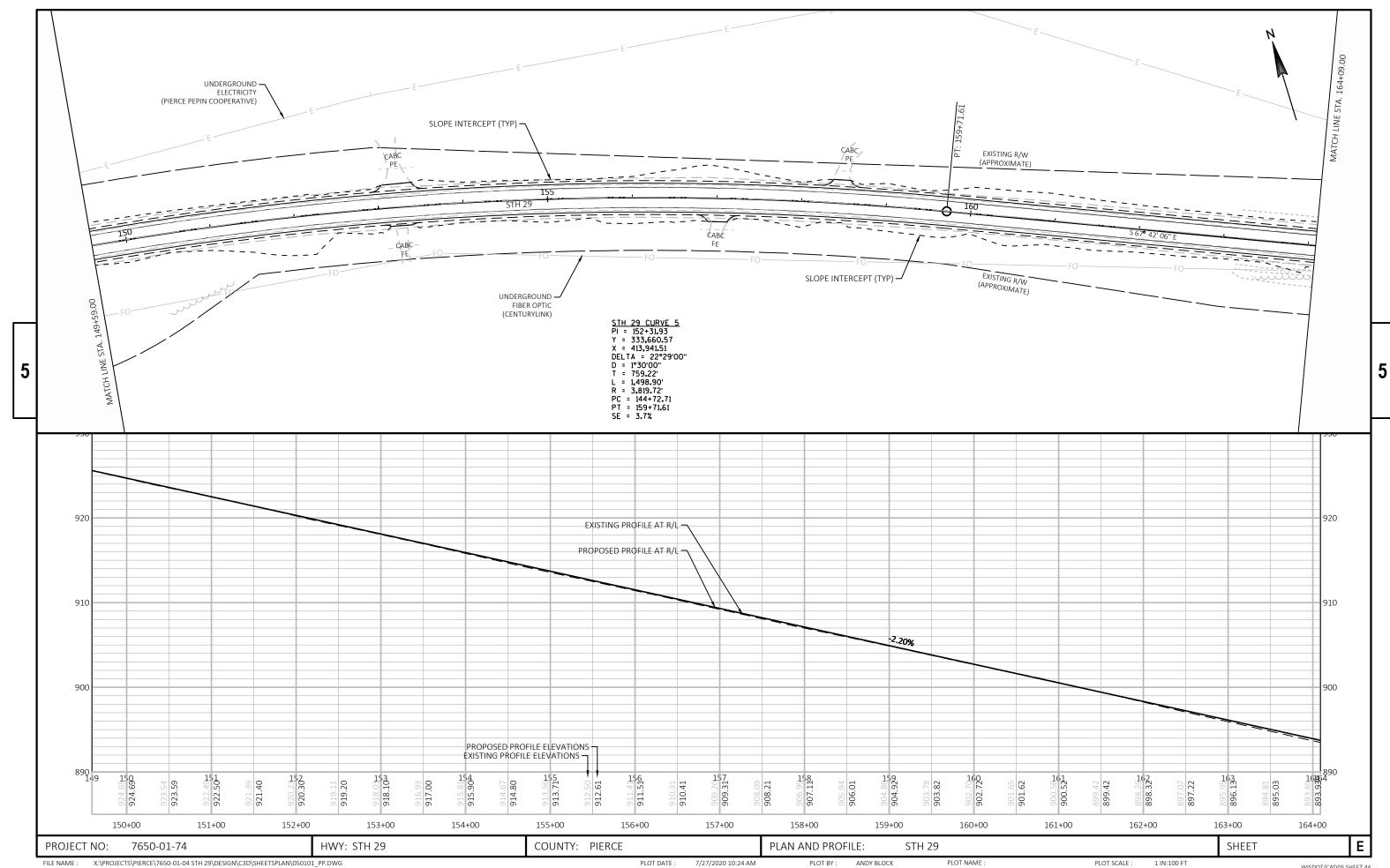


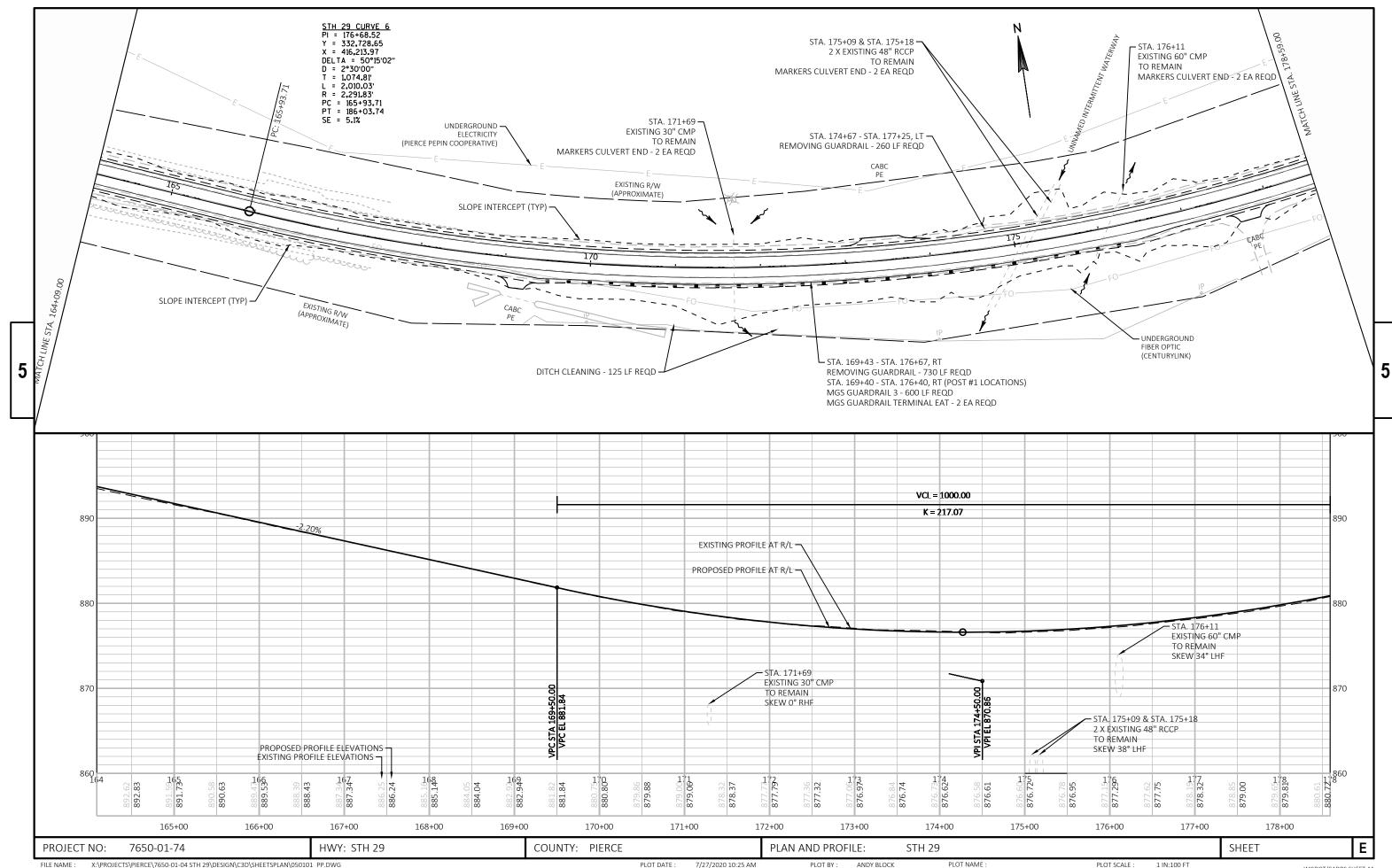


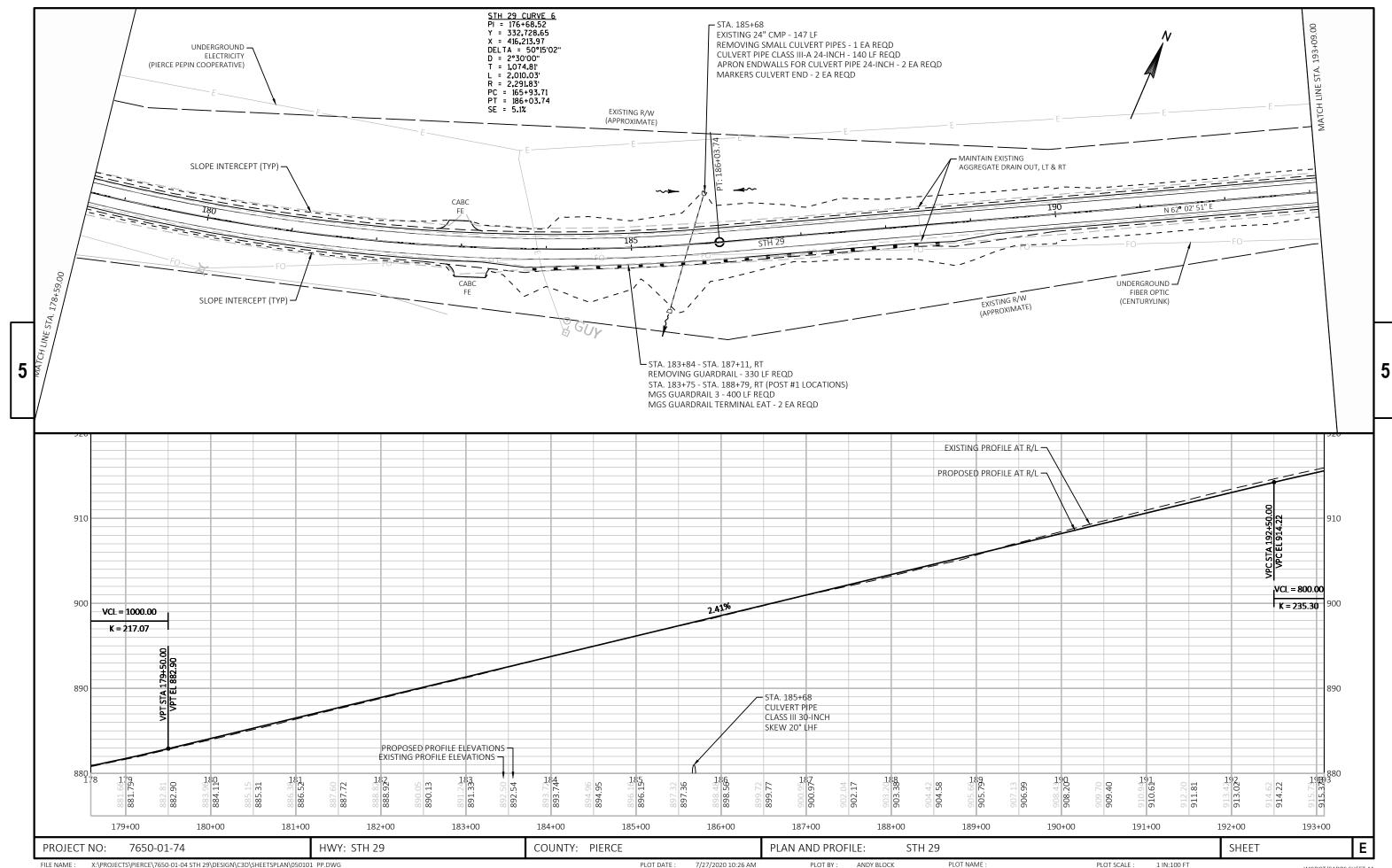


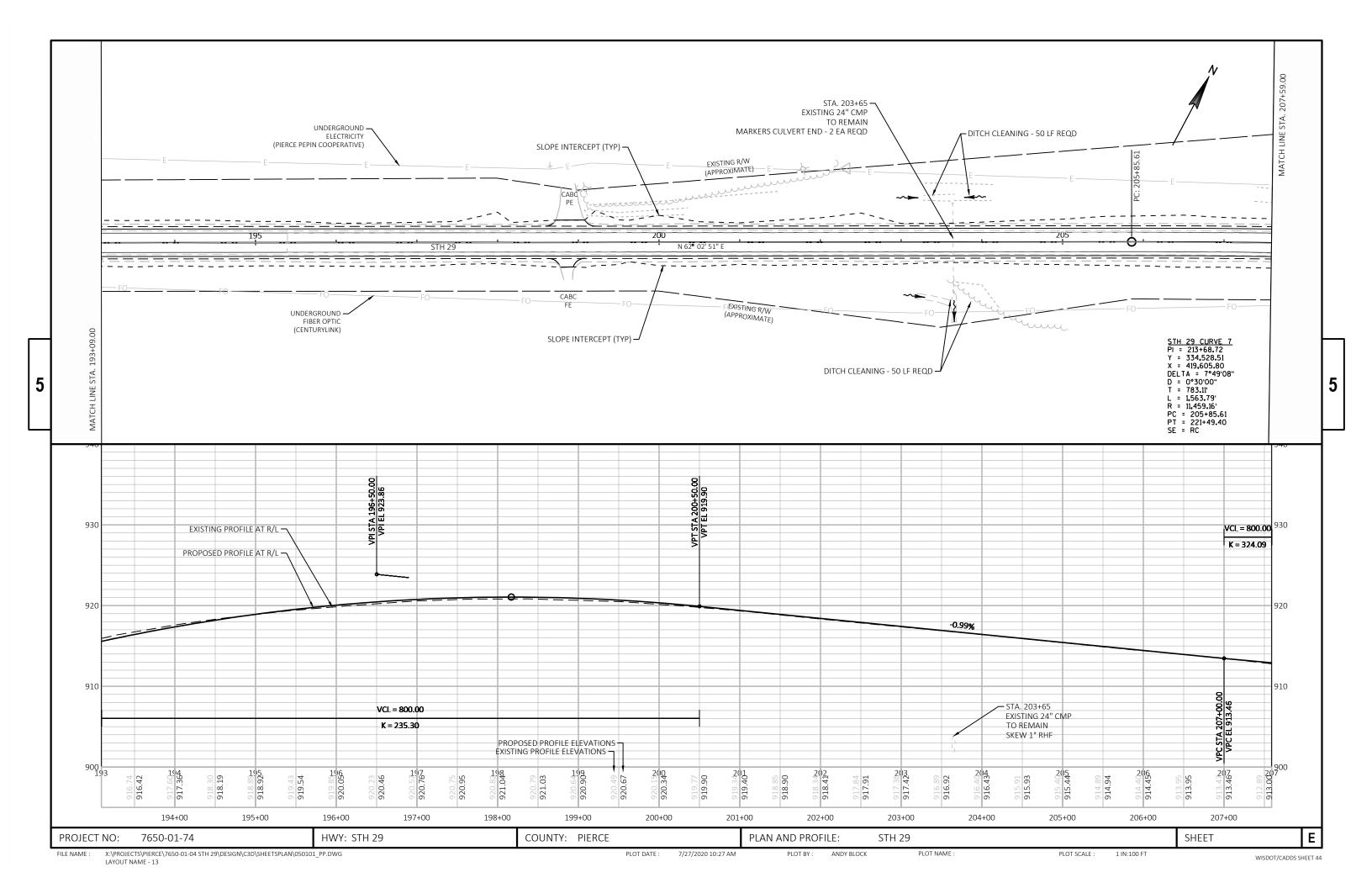


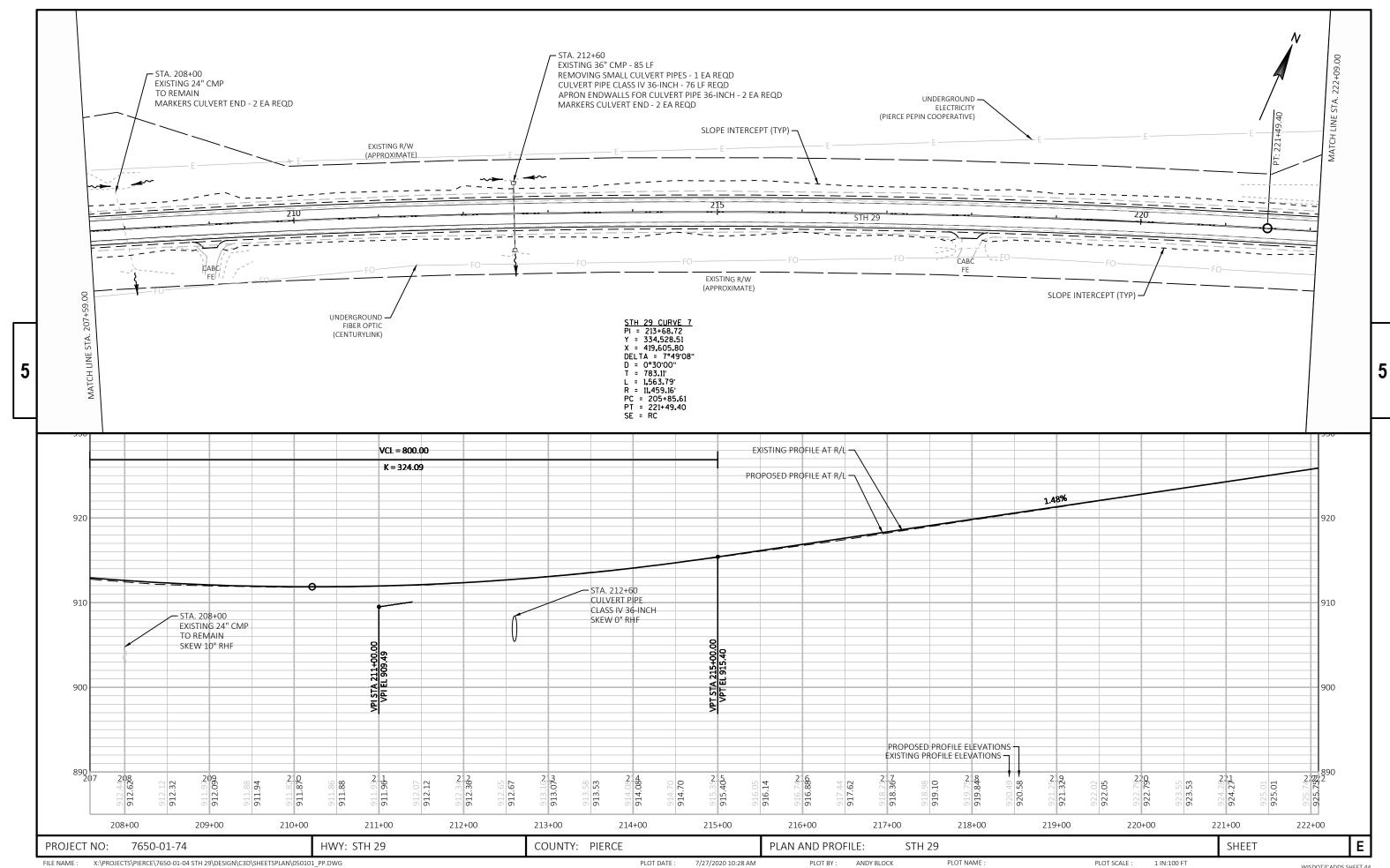


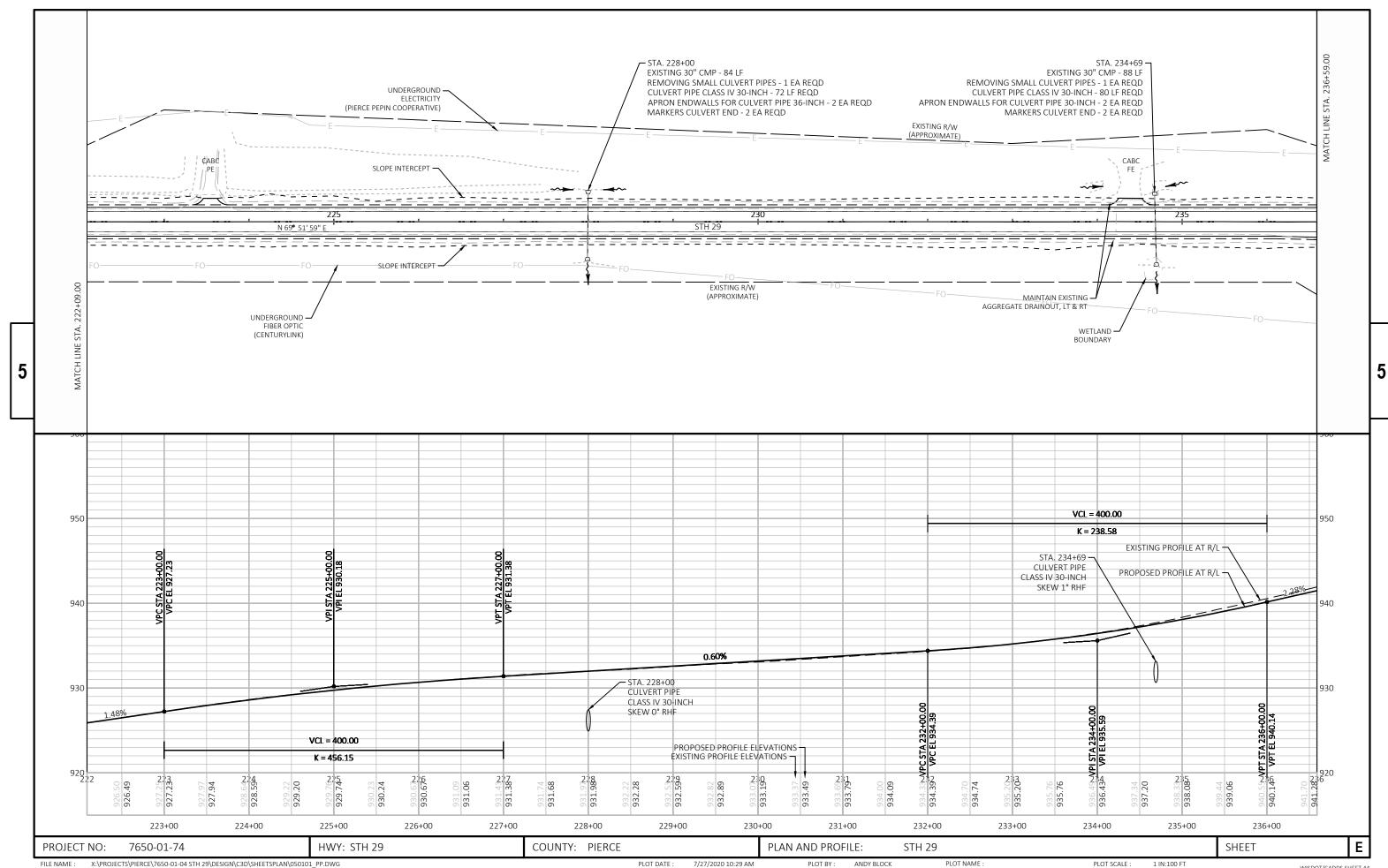


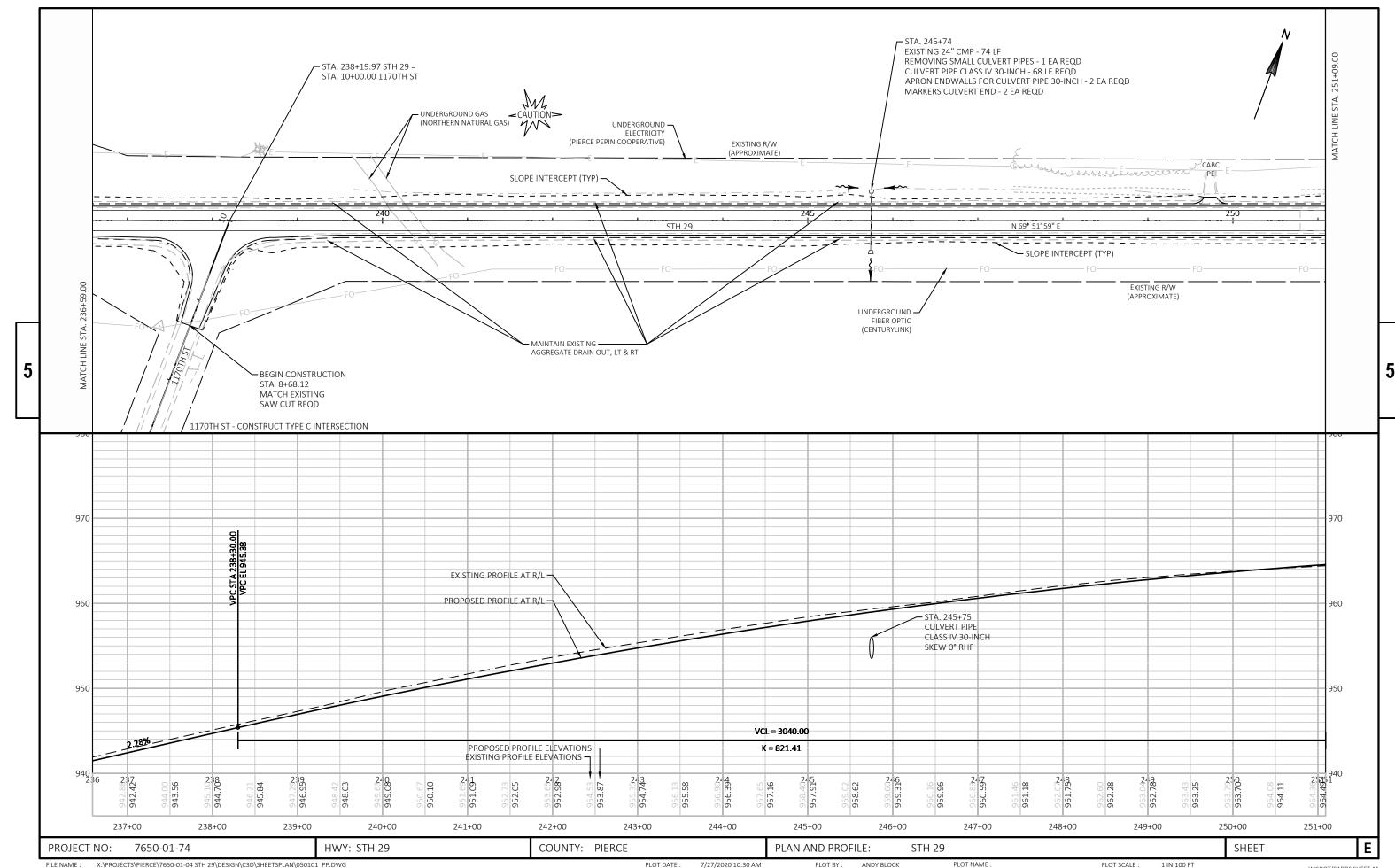


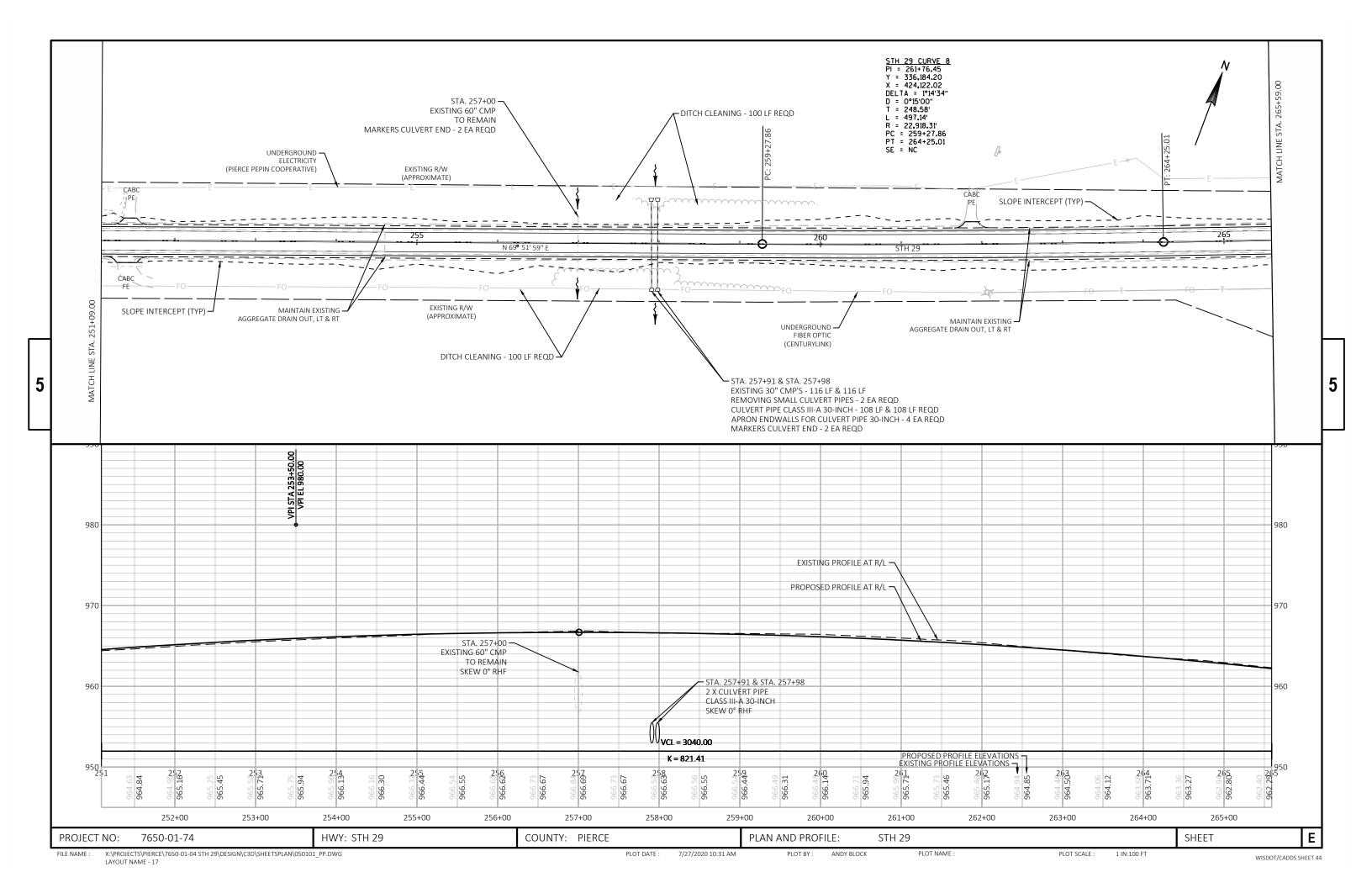


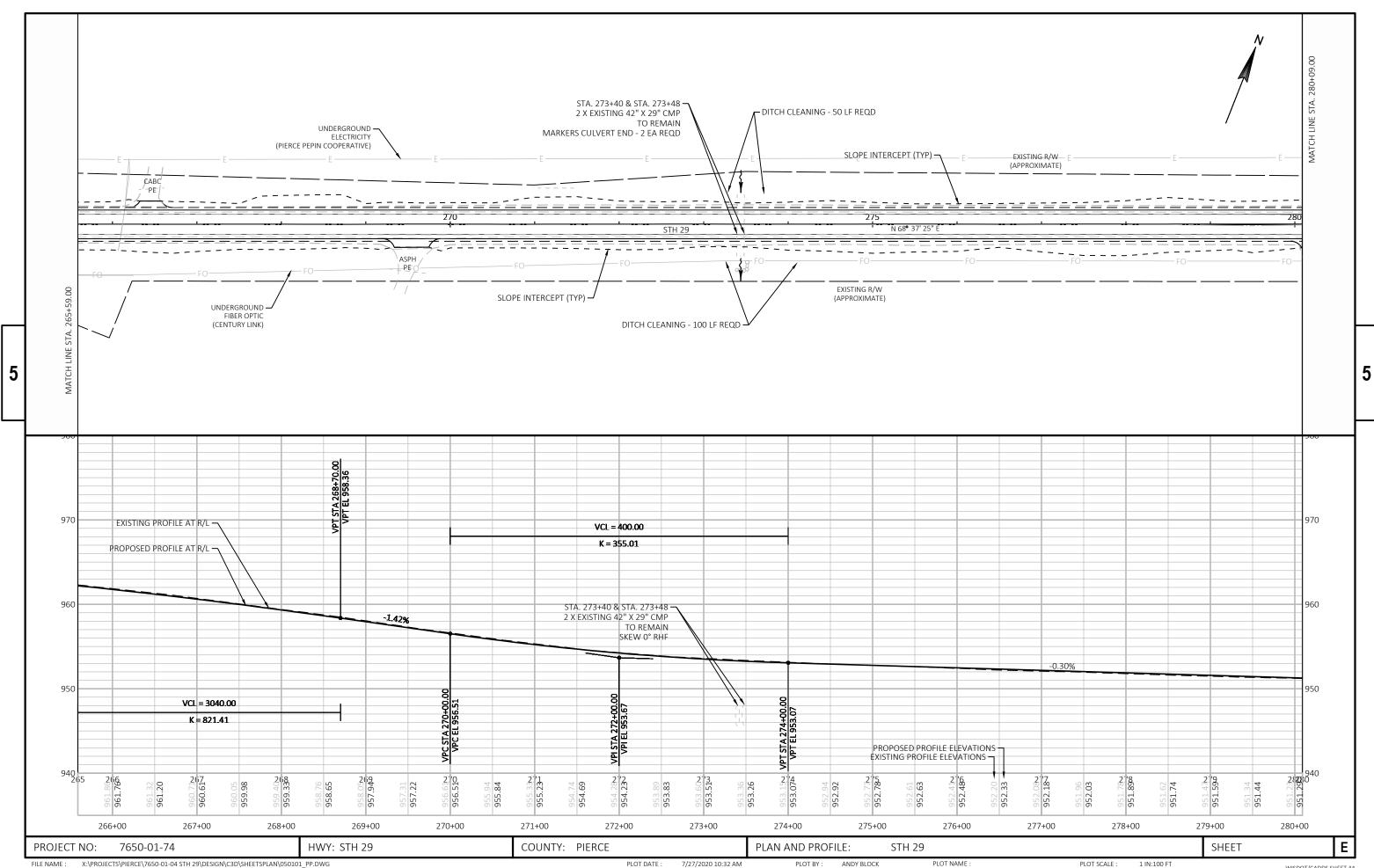


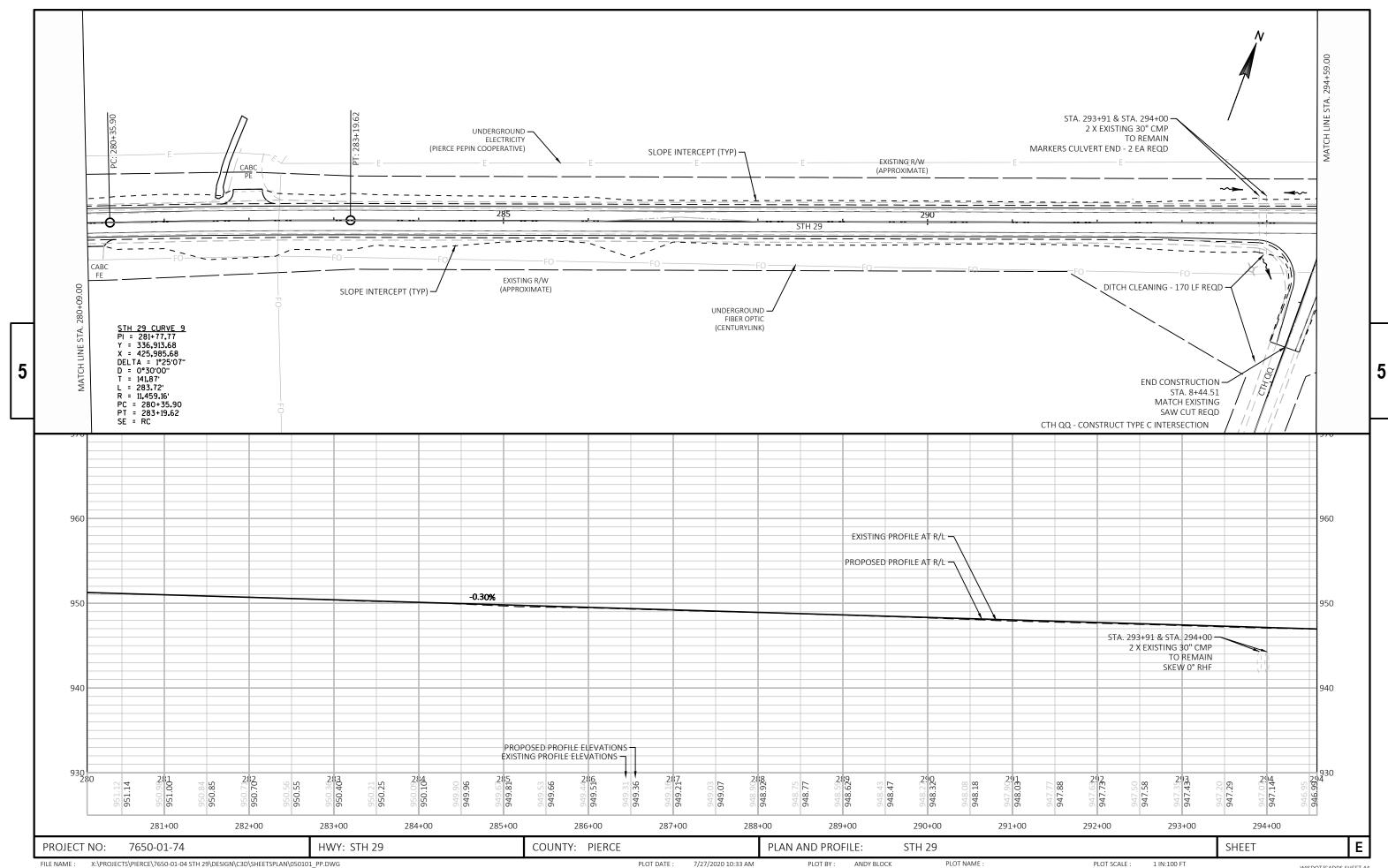


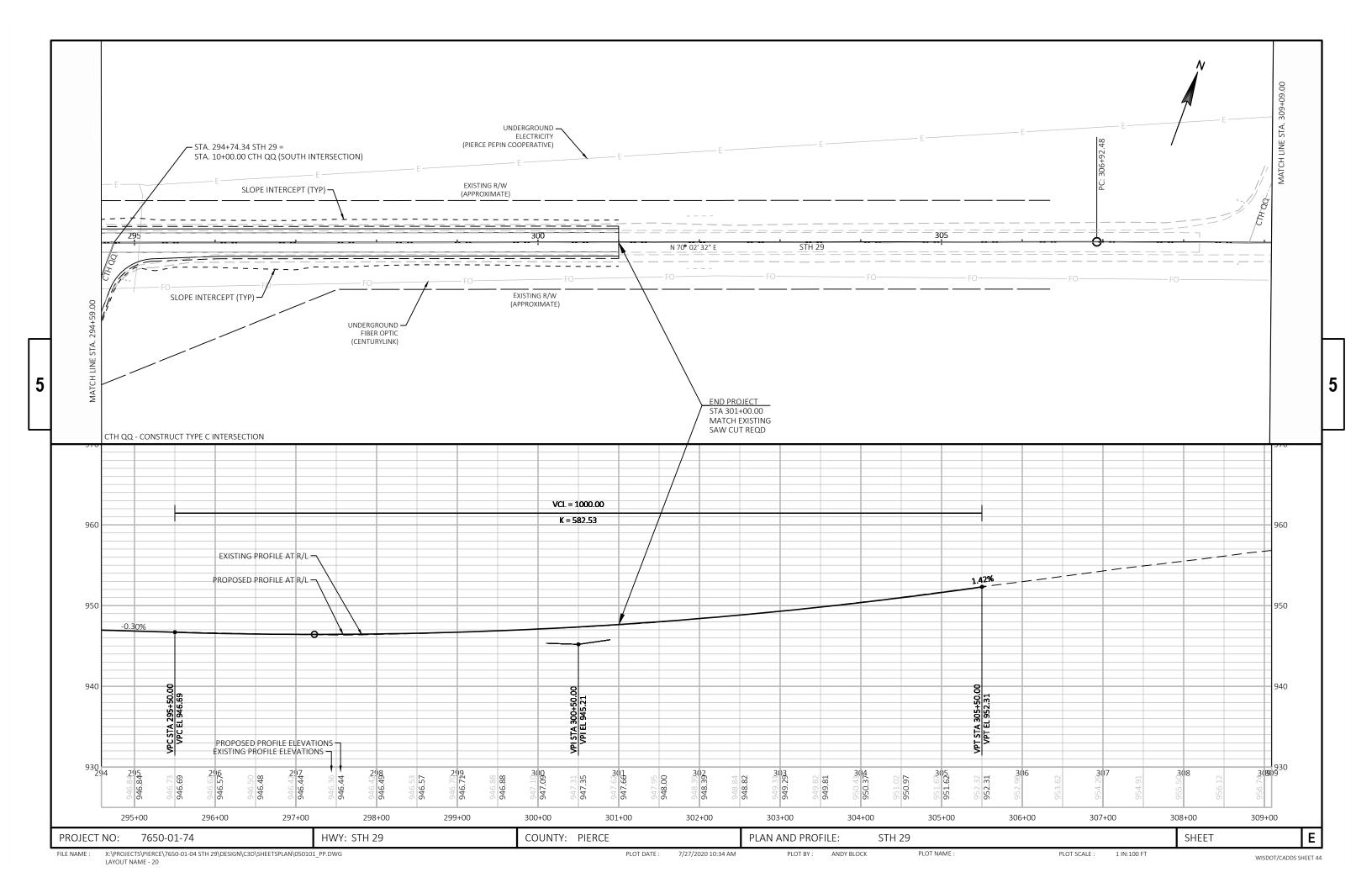








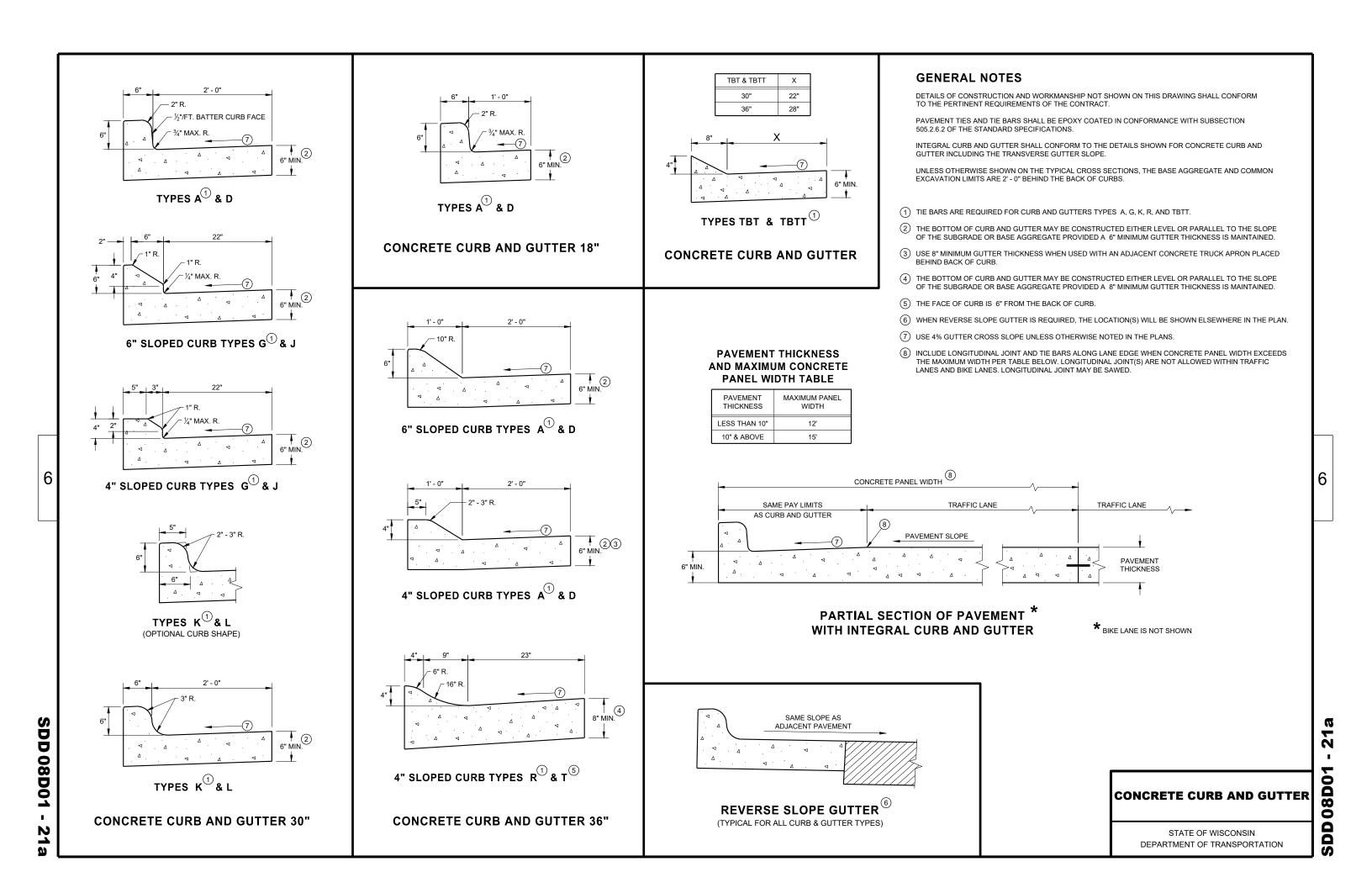




#### 1

# Standard Detail Drawing List

08D01-21A	CONCRETE CURB & GUTTER
08D01-21B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D21-01	DRI VEWAYS WI THOUT CURB & GUTTER
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PI PE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
	AT CRAFF CIPE PORD INTERSECTION TYPES "PAT" "PAT" "C" AND DE AND TEL INTERSECTION DYDASS LANE
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"
13A10-02A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13C19-02	HMA LONGITUDINAL JOINTS
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	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	BARRI CADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-00C 15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C03-05 15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-15A	PAVEMENT MARKING SYMBOLS
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20A	LONGI TUDI NAL MARKI NG (MAI NLI NE)
15C08-20B	PAVEMENT MARKING (TURN LANES)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-04	MEDIAN ISLAND MARKING
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C27-03B	PAVEMENT MARKING (ISLANDS)
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
15D30-06A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-06B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-06C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D45-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
	•

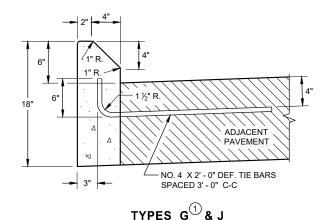


## **DETAIL OF CURB AND GUTTER AT INLETS**

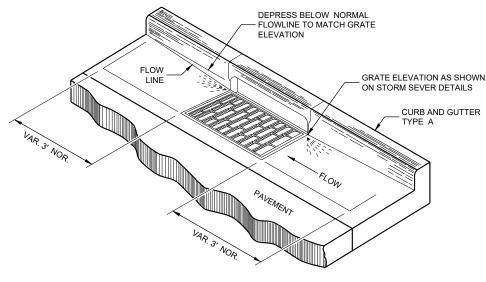
(TYPICAL H INLET COVER SHOWN)

½"/FT. BATTER, FACE OF CURB (ABOVE ADJACENT PAVEMENT) ADJACENT PAVEMENT - NO. 4 X 2' - 0" DEF. TIE BARS

TYPES A D



**CONCRETE CURB** 



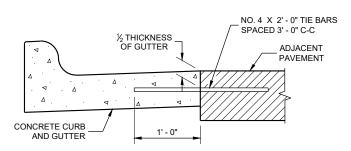
#### **GENERAL NOTES**

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

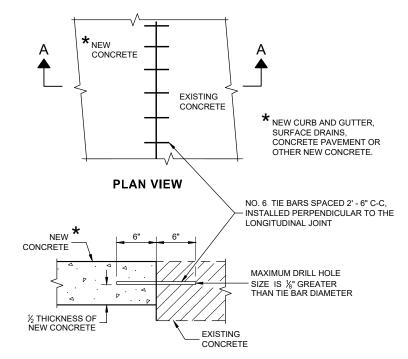
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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.

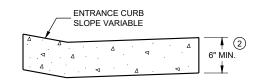


TYPICAL TIE BAR LOCATION  $^{\scriptsize{\scriptsize{\scriptsize{\scriptsize{\scriptsize{1}}}}}}$ 



SECTION A - A

**TIE BARS DRILLED** INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB® (WHEN DIRECTED BY THE ENGINEER)

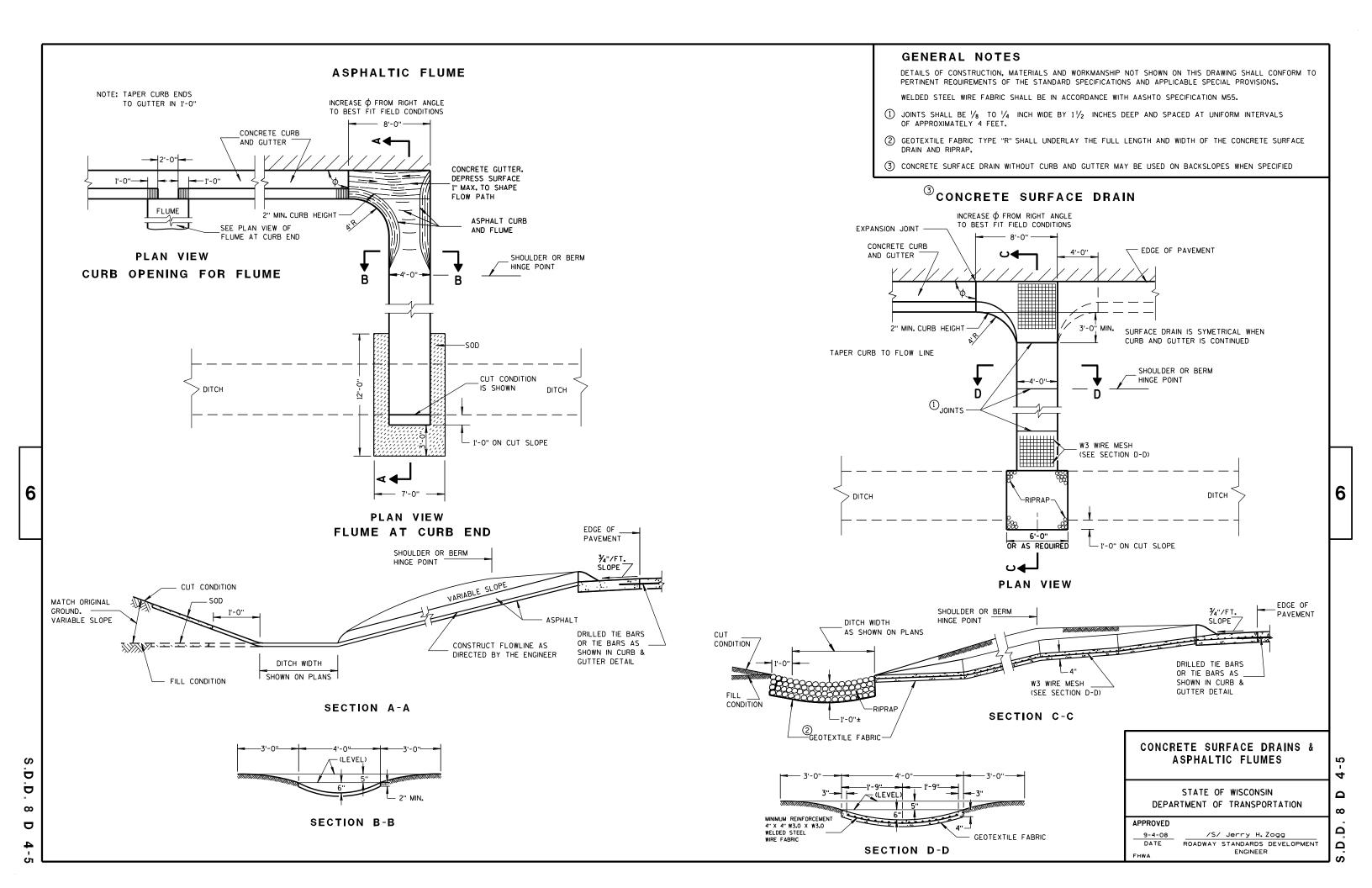
#### **CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS**

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**08DO**,

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
ENGINEER February 2020 DATE



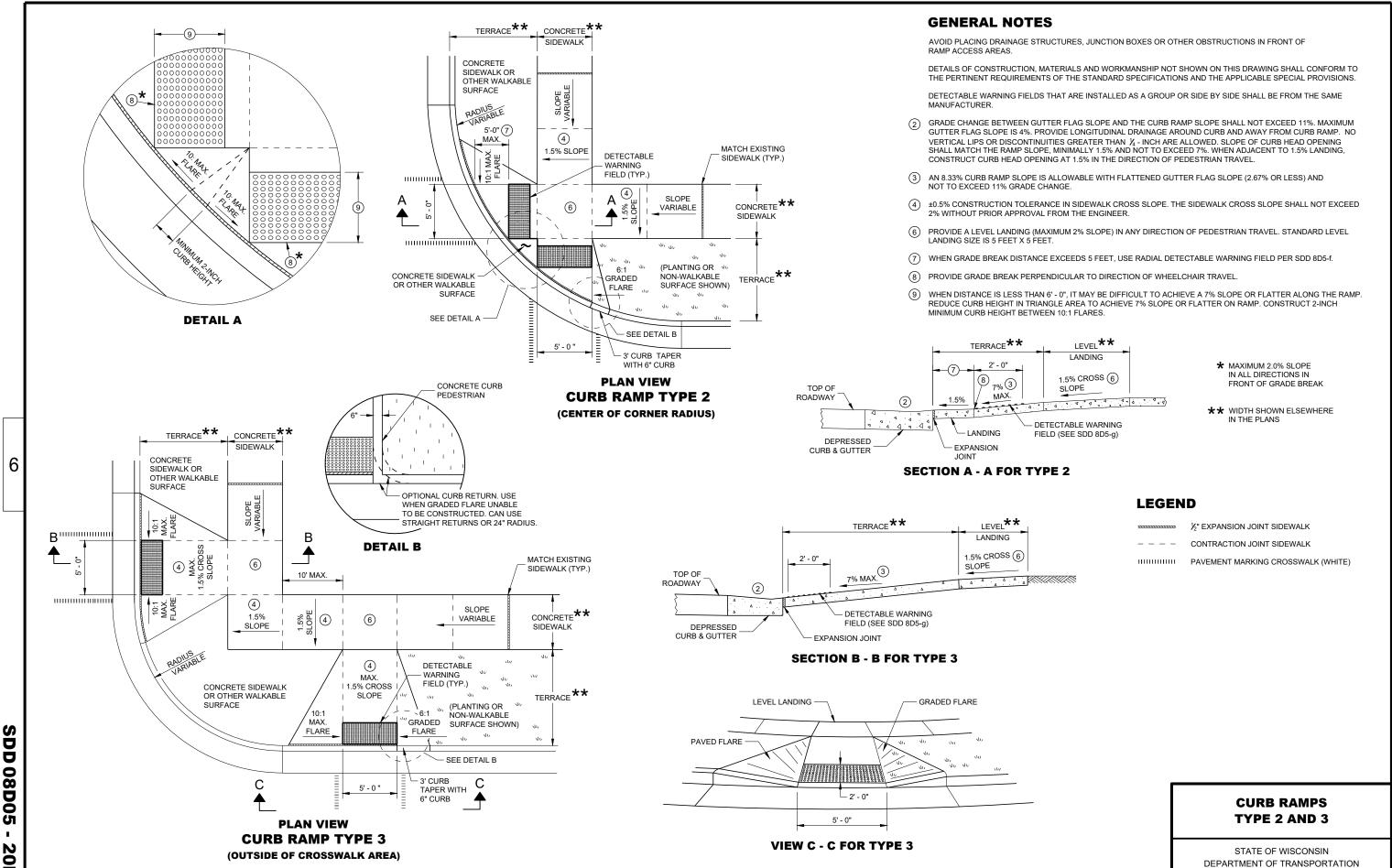
**VIEW D - D FOR TYPE 1 - A** 

**SECTION B - B FOR TYPE 1** 

80

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

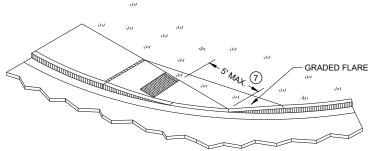


- 20b

.DD 08D05 - 2

**SDD 08D05** 

**ISOMETRIC VIEW FOR TYPE 4A** 



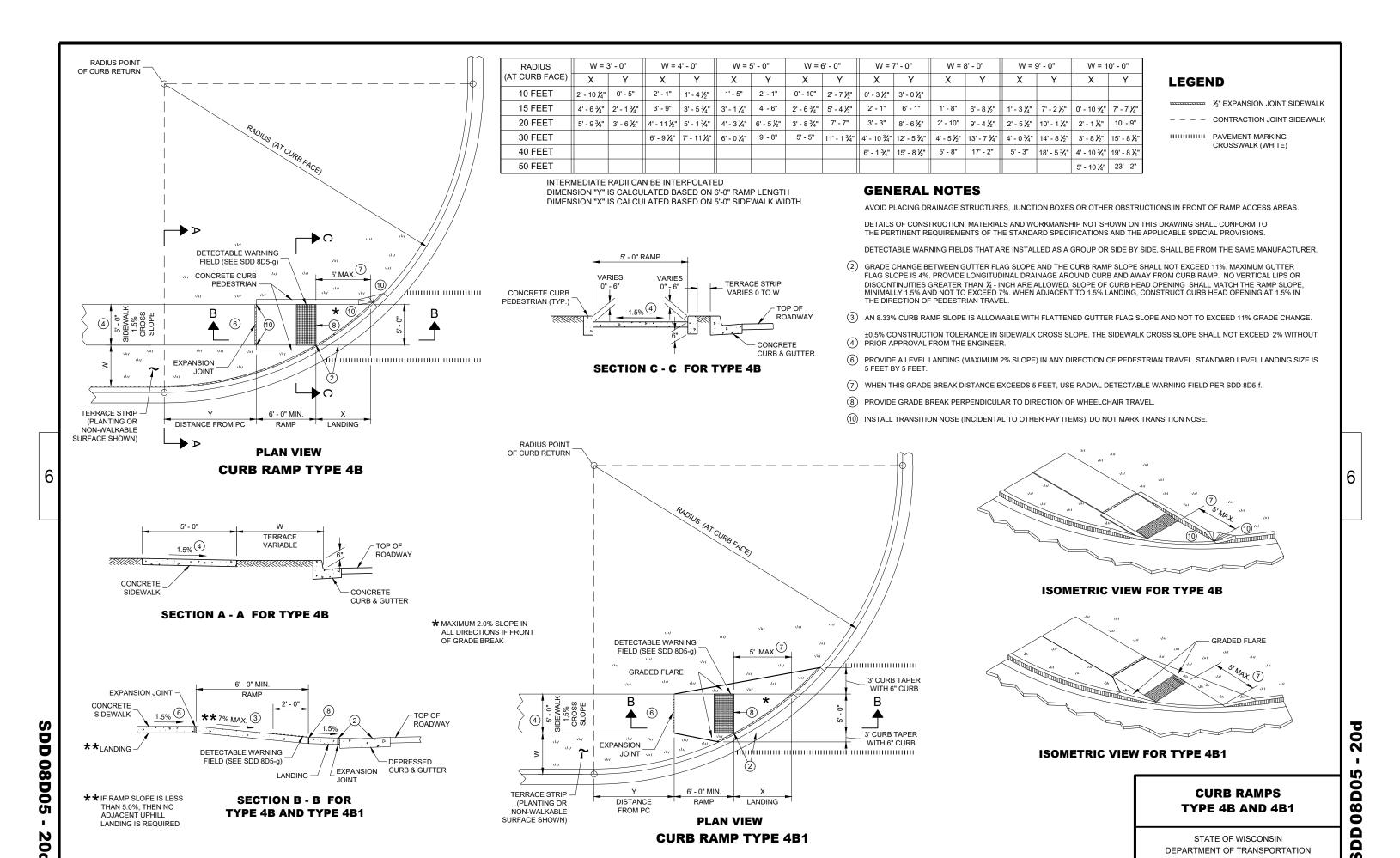
**ISOMETRIC VIEW FOR TYPE 4A1** 

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

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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DEPARTMENT OF TRANSPORTATION

**SDD 08D05** 

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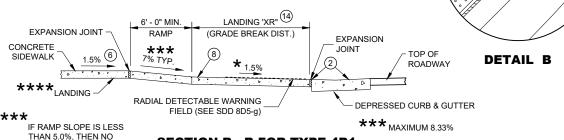
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STATE OF WISCONSIN

**FIELD APPLICATIONS** 

DEPARTMENT OF TRANSPORTATION



**SECTION B - B FOR TYPE 4B1** 

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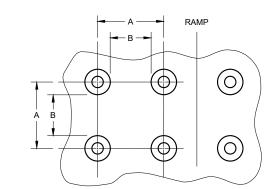
08D05

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ADJACENT UPHILL

LANDING IS REQUIRED

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**PLAN VIEW** 

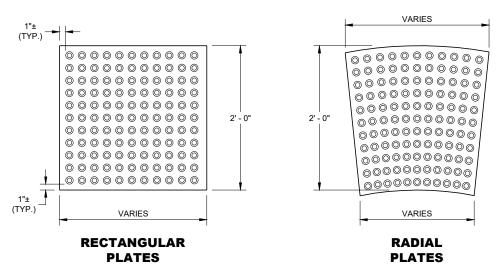
MIN. MAX. 1.6" 2.4" В 0.65" 1.5" \* С \* 0.9" 1.4"

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

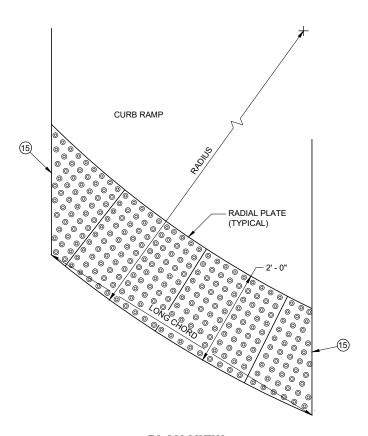


**ELEVATION VIEW** 

#### **TRUNCATED DOMES DETECTABLE WARNING PATTERN DETAIL**



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



**GENERAL NOTES** 

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

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

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS, PERFORM PRE-LAYOUT PRIOR

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING

THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

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

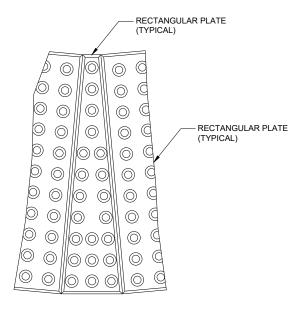
TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

**PLAN VIEW** RADIAL DETECTABLE **WARNING FIELD ATTRIBUTES** 



**PLAN VIEW RADIAL WEDGE PLATE CONNECTION DETAIL** 

#### **CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES**

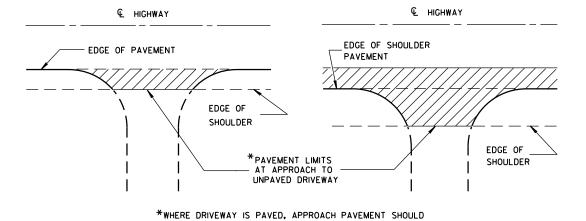
DEPARTMENT OF TRANSPORTATION

APPROVED

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR May 2019
DATE

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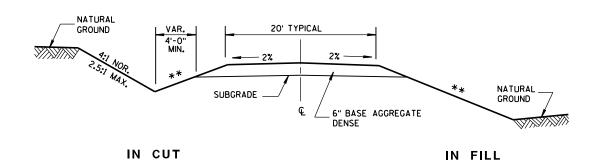
BE EXTENDED TO MATCH DRIVEWAY PAVEMENT.

PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

### RURAL DRIVEWAY INTERSECTION DETAIL

(NO CURB & GUTTER OR SIDEWALK)

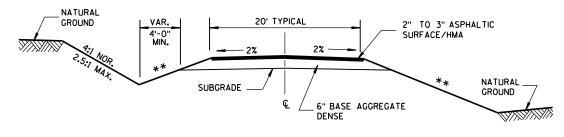


\*\* SLOPE CAN VARY WITH SPEED. SEE 11-45-2.6.2.

POSTED MAX. SLOPE MPH 4:1

235 TO <60 6:1

260 10:1

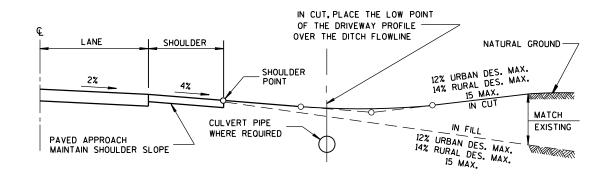


IN CUT

IN FILL

# TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

# TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE



TYPICAL DRIVEWAY PROFILES

# DRIVEWAYS WITHOUT CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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APPROVED

December, 2016 /S/ Rodney Taylor

DATE ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

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#### GENERAL NOTES

1 DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.

EXISTING ASPHALTIC SURFACE DRIVEWAY — 8' TO 10' SHOULDER —= HMA PAVEMENT - 5' TO 20' -5' TO 7'-OVERLAY 2.00% 4.00% VARIES - EXISTING HMA PAVEMENT REMOVE EXISTING ASPH. PAV'T EXISTING BASE & BASE COURSE TO A DEPTH AGGREGATE DENSE SUFFICIENT TO PLACE 2" TO 3" ASPHALTIC SURFACE & 6" 2" TO 3" ASPHALTIC SURFACE (1) BASE AGGREGATE DENSE 6" BASE AGGREGATE MATCH EXISTING DRIVEWAY DENSE (MAY BE INCREASED FOR CLAY SUBGRADES)

**PLAN VIEW** 

HALF SECTION

MATCH EXISTING DRIVEWAY — 8' TO 10' SHOULDER— 1 3' TO 5' 5' TO 20' - 5' TO 7'— HMA PAVEMENT OVERLAY 2.00% 4.00% VARIES 6" BASE AGGREGATE - DENSE (MAY BE INCREASED FOR CLAY SUBGRADES) \_ EXISTING HMA PAVEMENT REMOVE EXISTING BASE COURSE EXISTING BASE AGGREGATE TO A DEPTH SUFFICIENT TO -PLACE 6" BASE AGGREGATE DENSE EXISTING CRUSHED - BASE AGGREGATE DENSE

PROFILE VIEW

# RURAL ENTRANCE WITH ASPHALTIC SURFACE

RESURFACING PROJECTS

PROFILE VIEW

PLAN VIEW HALF SECTION

# RURAL ENTRANCE WITH AGGREGATE SURFACE

6" BASE AGGREGATE DENSE RESURFACING PROJECTS

DRIVEWAYS WITHOUT
CURB & GUTTER
RESURFACING PROJECTS RURAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

FHWA

December. 2016 /S/ Rodney Taylor

DATE ROADWAY STANDARDS DEVELOPMENT

UNIT SUPERVISOR

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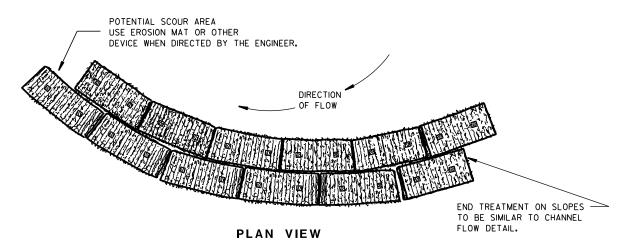
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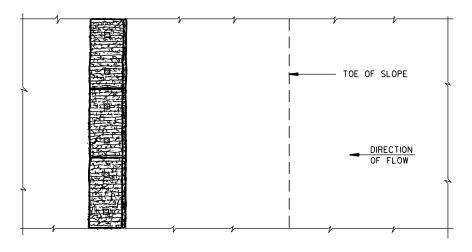
#### **GENERAL NOTES**

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.

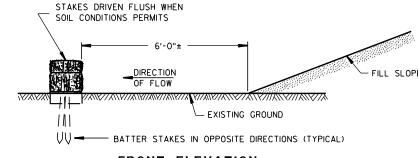
TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.



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

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 /S/ Beth Connestro
CHIEF ROADWAY DEVELOPMENT ENGINEER

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# TYPICAL APPLICATION OF SILT FENCE

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#### 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 11/8" X 11/8" 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



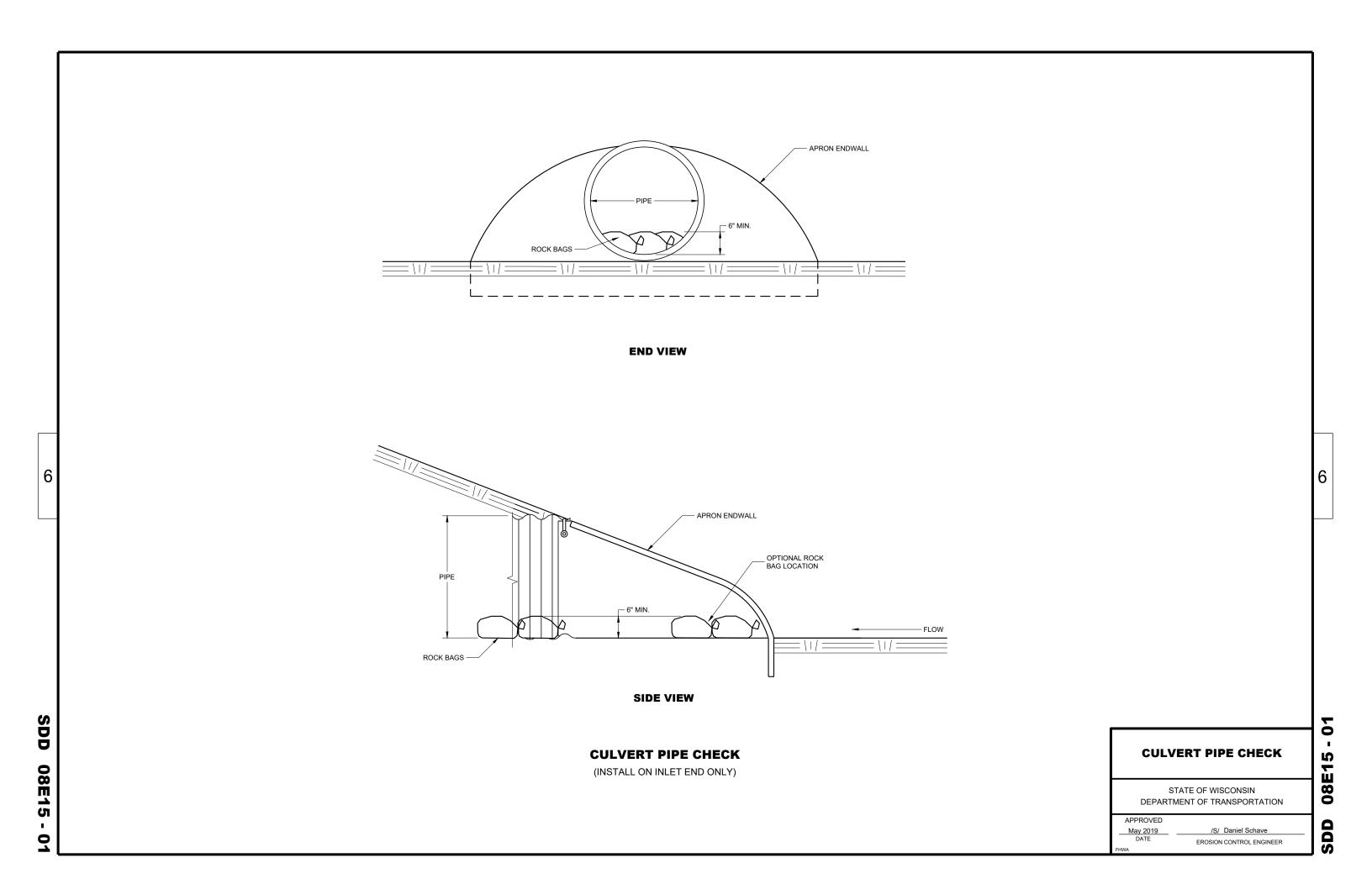
SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)



SILT FENCE

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METAL APRON ENDWALLS											
PIPE	MIN. 1	THICK.	DIMENSIONS (Inches)							APPROX.	
DIA.	(Inches)		A	В	Н	L	Li	L <sub>2</sub>	W	SLOPE	BODY
(IN.)	STEEL	ALUM.	(±]")	(MAX.)	(±]")	(±1½")	①	0	(±2")		
12	.064	.060	6	6	6	21	12	171/2	24	21/2+o 1	1Pc.
15	.064	.060	7	8	6	26	14	213/4	30	2½+o 1	1Pc.
18	.064	.060	8	10	6	31	15	28 <sup>1</sup> / <sub>4</sub>	36	2½+o 1	1Pc.
21	.064	.060	9	12	6	36	18	29%	42	$2\frac{1}{2}$ to 1	1Pc.
24	.064	<b>.</b> 075	10	13	6	41	18	371/4	48	$2\frac{1}{2}$ to 1	1Pc.
30	.079	<b>.</b> 075	12	16	8	51	18	521/4	60	$2\frac{1}{2}$ to 1	1Pc.
36	.079	<b>.</b> 105	14	19	9	60	24	59¾	72	$2\frac{1}{2}$ to 1	2 Pc.
42	.109	<b>.</b> 105	16	22	11	69	24	75 1/8	84	$2\frac{1}{2}$ to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 <sup>1</sup> / <sub>4</sub> +o 1	3 Pc.
54	.109	<b>.</b> 105	18	30	12	84	30	851/2	102	21/4+0 1	3 Pc.
60	.109×	.105×	18	33	12	87	_	_	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	_	_	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	_	_	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	_	_	132	11/2+0 1	3 Pc.
84	.109×		18	45	12	87	_	_	138	1/2+0 1	3 Pc.
90	.109×	.105×	18	37	12	87	_	_	144	11/2+0 1	3 Pc.
96	.109×	.105×	18	35	12	87	_		150	11/2+0 1	3 Pc.

\* EXCEPT CENTER PANEL

SEE GENERAL NOTES

PLAN VIEW

END VIEW

SIDE ELEVATION

METAL ENDWALLS

SHOULDER

SLOPE

	REINFORCED CONCRETE APRON ENDWALLS								
PIPE	DIMENSIONS (Inches)								
DIA.	Т	A	В	С	D	E	G	APPROX. SLOPE	
12	2	4	24	48 1/8	721/8	24	2	3 to 1	
15	21/4	6	27	46	73	30	21/4	3 to 1	
18	21/2	9	27	46	73	36	21/2	3 to 1	
21	23/4	9	36	371/2	731/2	42	23/4	3 to 1	
24	3	91/2	431/2	30	731/2	48	3	3 to 1	
27	31/4	101/2	$49^{1}/_{2}$	24	731/2	54	31/4	3 to 1	
30	$3\frac{1}{2}$	12	54	193⁄4	731/2	60	31/2	3 to 1	
36	4	15	63	34¾	97¾	72	4	3 to 1	
42	$4\frac{1}{2}$	21	63	35	98	78	41/2	3 to 1	
48	5	24	72	26	98	84	5	3 to 1	
54	51/2		65	* ** 33 <sup>1</sup> / <sub>4</sub> -35	* 98 <sup>1</sup> / <sub>4</sub> - 100	90	51/2	2% to 1	
60	6	* ** 30-35	60	39	99	96	5	2 to 1	
66	61/2		* ** 72-78	* * * 21-27	99	102	51/2	2 to 1	
72	7	* ** 24-36	78	21	99	108	6	2 to 1	
78	71/2	* ** 24-36	78	21	99	114	61/2	2 to 1	
84	8	36	901/2	21	1111/2	120	61/2	11/2+0 1	
90	81/2	41	871/2	24	1111/2	132	61/2	11/2+0 1	

\*MINIMUM

PLAN

END VIEW

END SECTION

GROOVED END ON OUTLET END SECTION TONGUE END ON INLET END SECTION

BAR OR STEEL FABRIC

REINFORCEMENT

LONGITUDINAL SECTION

CONCRETE ENDWALLS

OPTIONAL

1 1/2" R

CULVERT

MEASURED LENGTH

OF CULVERT (TO-

NEAREST FOOT)

DESIGN

REINFORCED

SECTION A-A)

END CORNER PLATES MAY

BE FASTENED TO APRON

THE SURFACES TIGHTLY

TOGETHER

PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD

TOE PLATE (SAME THICKNESS

AND METAL AS APRON) SHALL

BE FURNISHED WHEN CALLED

FOR ON THE PLANS

FDGE (SFE

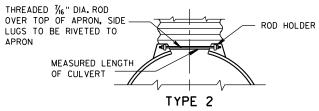
END SECTION CONNECTOR STRAP LUG

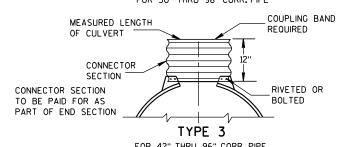
1" WIDE, 12 GA. (0.109"

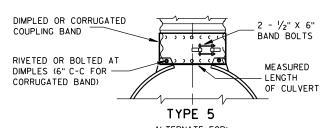
THICK) GALVANIZED STRAP

WITH STANDARD 6" X 1/2" BAND BOLT AND NUT

TYPE 1 FOR 12" THRU 24" CORR. PIPE





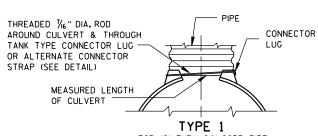


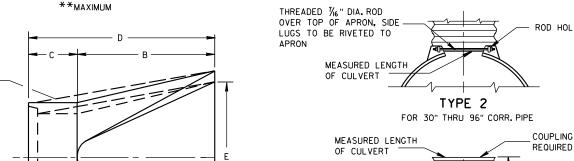
ALTERNATE FOR: ALL SIZES CORRUGATED CIRCULAR PIPE

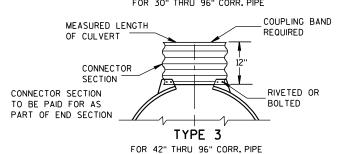
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

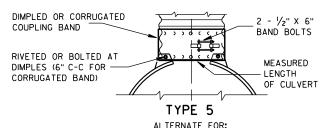
CONNECTION DETAILS 1, 2 OR 5.

# ALTERNATE FOR TYPE 1 CONNECTION







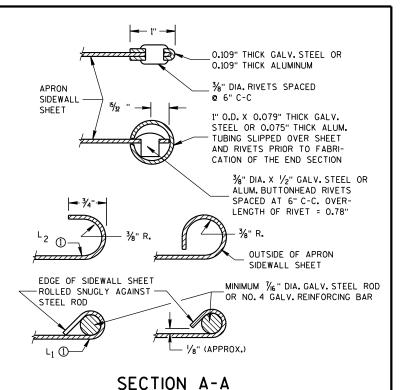


FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5

FOR HELICALLY CORRUGATED PIPE USE ENDWALL

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

CONNECTION DETAILS



# GENERAL NOTES

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

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

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

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

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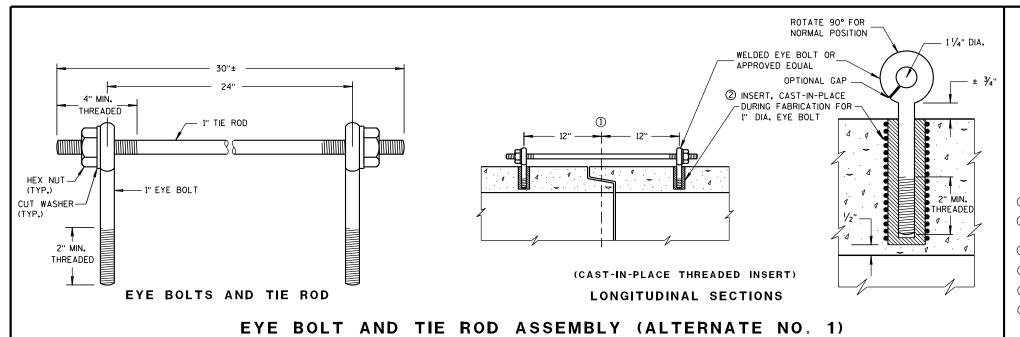
11/30/94 /S/ Rory L. Rhinesmith CHIEF ROADWAY DEVELOPMENT ENGINEER

END CORNER

1/16" DIA. HOLES FOR

BOLTS OR RIVETS -

12" C-C MAX. SPACING



#### **GENERAL NOTES**

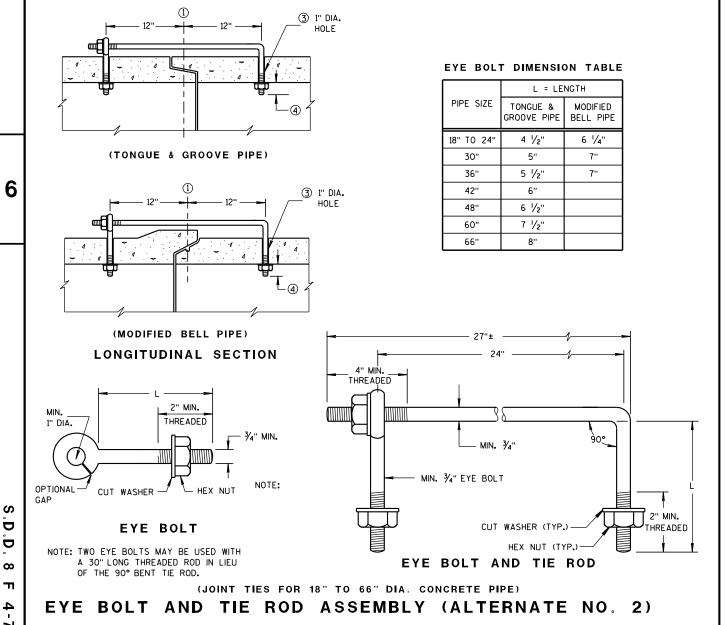
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

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

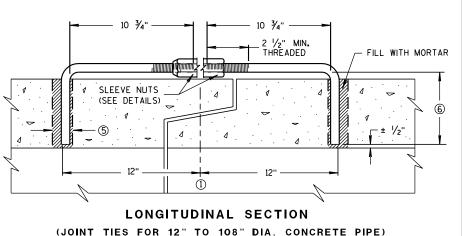
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- (1) & OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE
- ${\mathfrak S}$  HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM  ${\mathfrak L}$  OF TONGUE AND GROOVE.
- 4 BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- (5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- ⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN  $rac{1}{2}$  INCH OF THE INNER SURFACE OF THE PIPE.

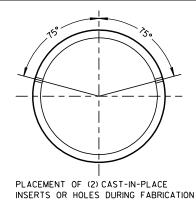


D

# ADJUSTABLE TIE ROD TABLE 5/8 5 12-60 3/4 5 1/2 3/4 90-108 DIMENSIONS SHOWN ARE IN INCHES **TAPERED** PLAIN RIGHT AND LEFT THREADS **SLEEVE NUTS** 2 1/2" MIN. THREADED

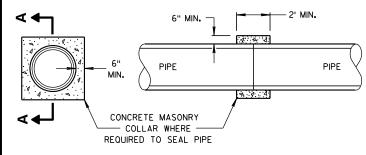


ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



FOR PIPE SECTIONS REQUIRING TIE RODS

#### TRANSVERSE SECTION



SECTION A-A

#### CONCRETE COLLAR DETAIL

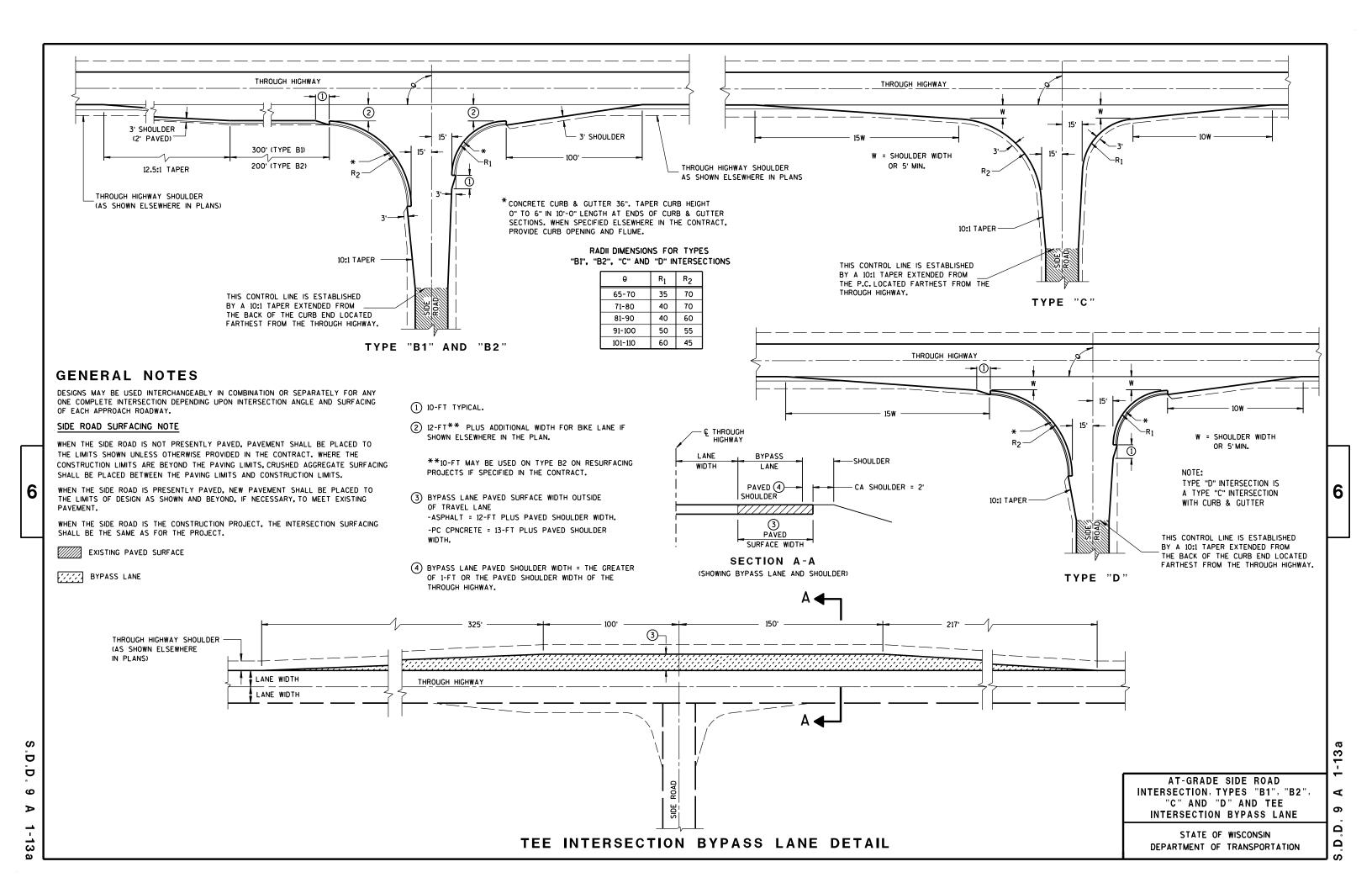
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

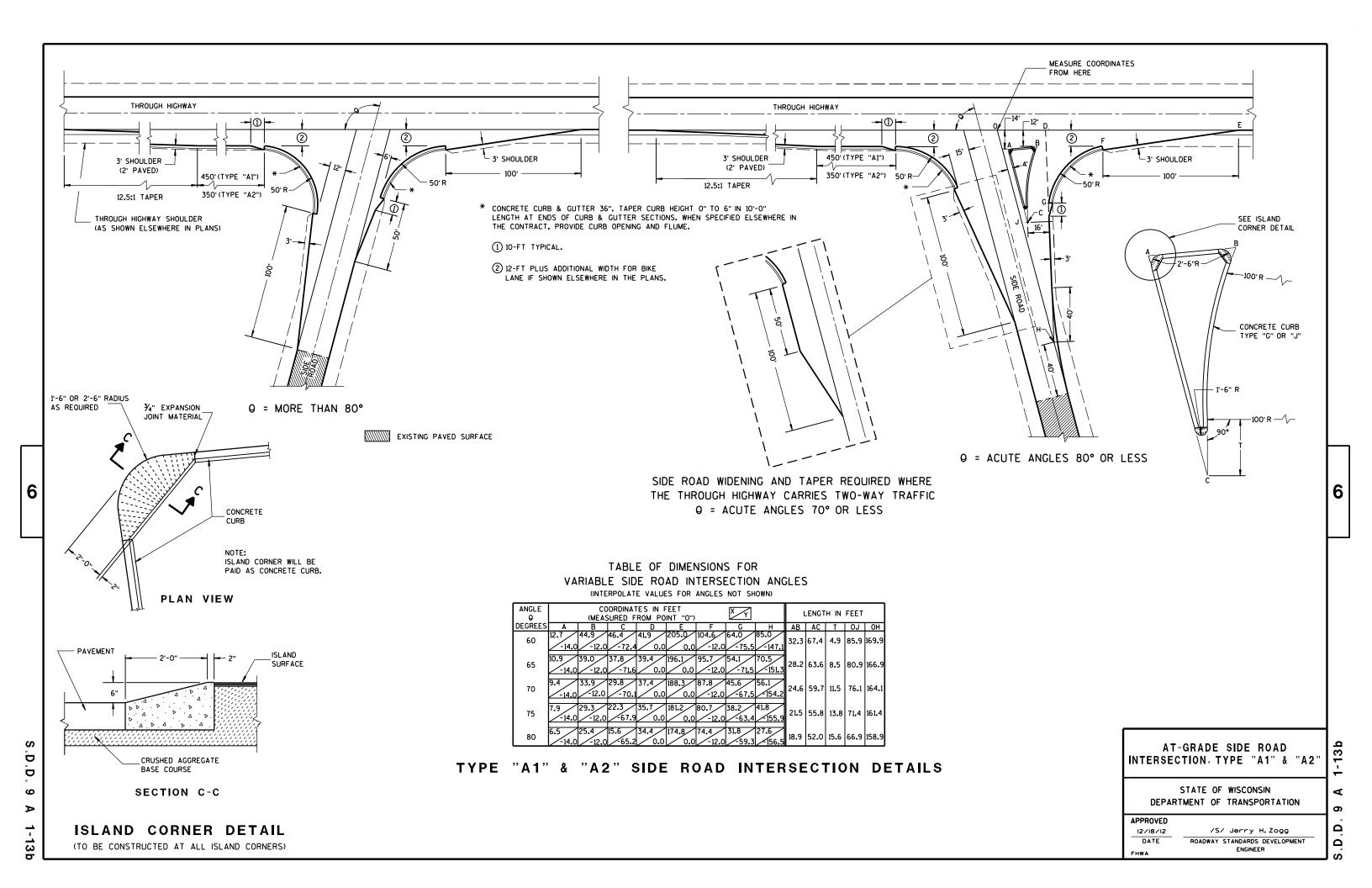
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

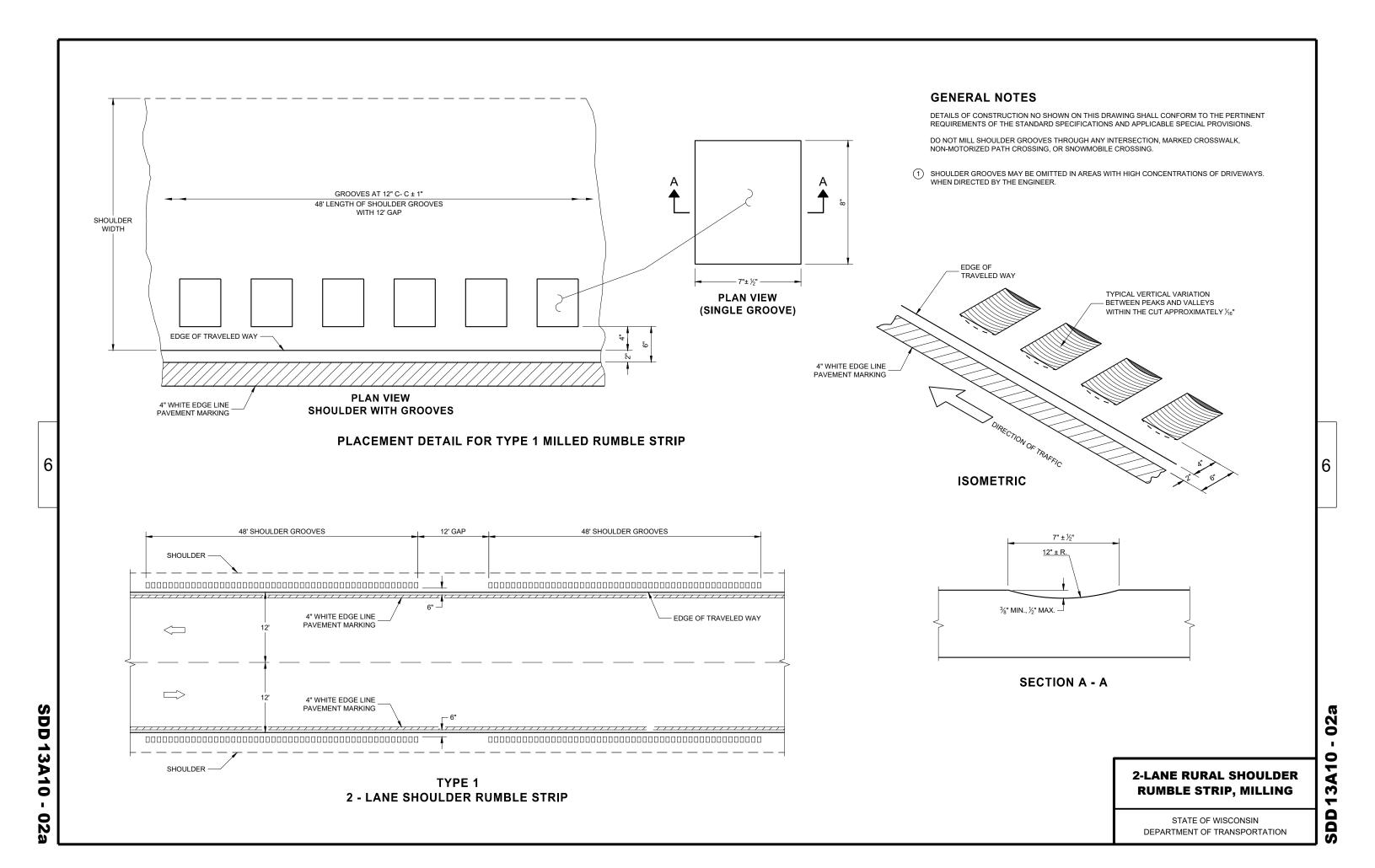
6/5/2012 /S/ Jerry H. Zogg DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER

 $\infty$ 

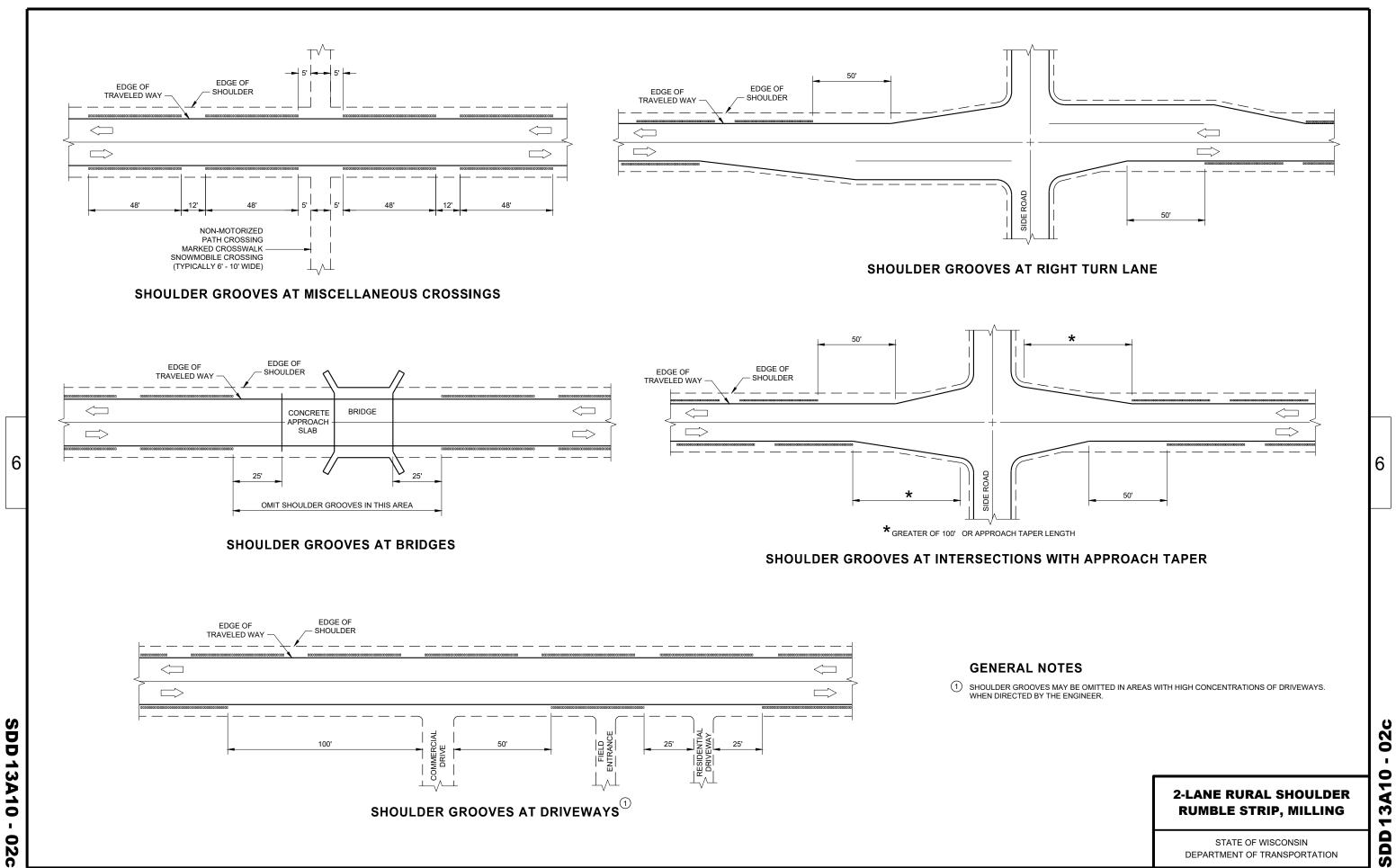
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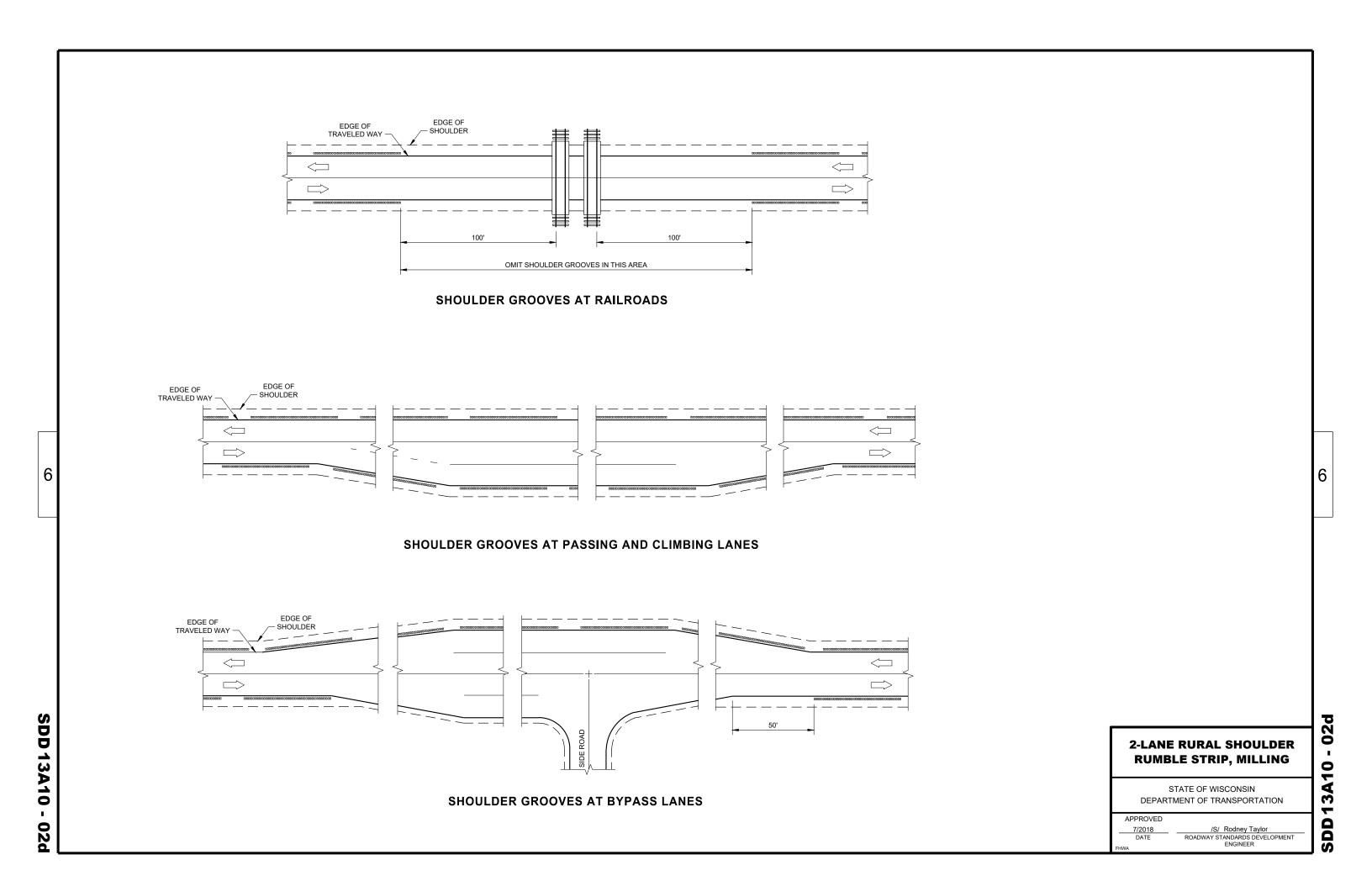


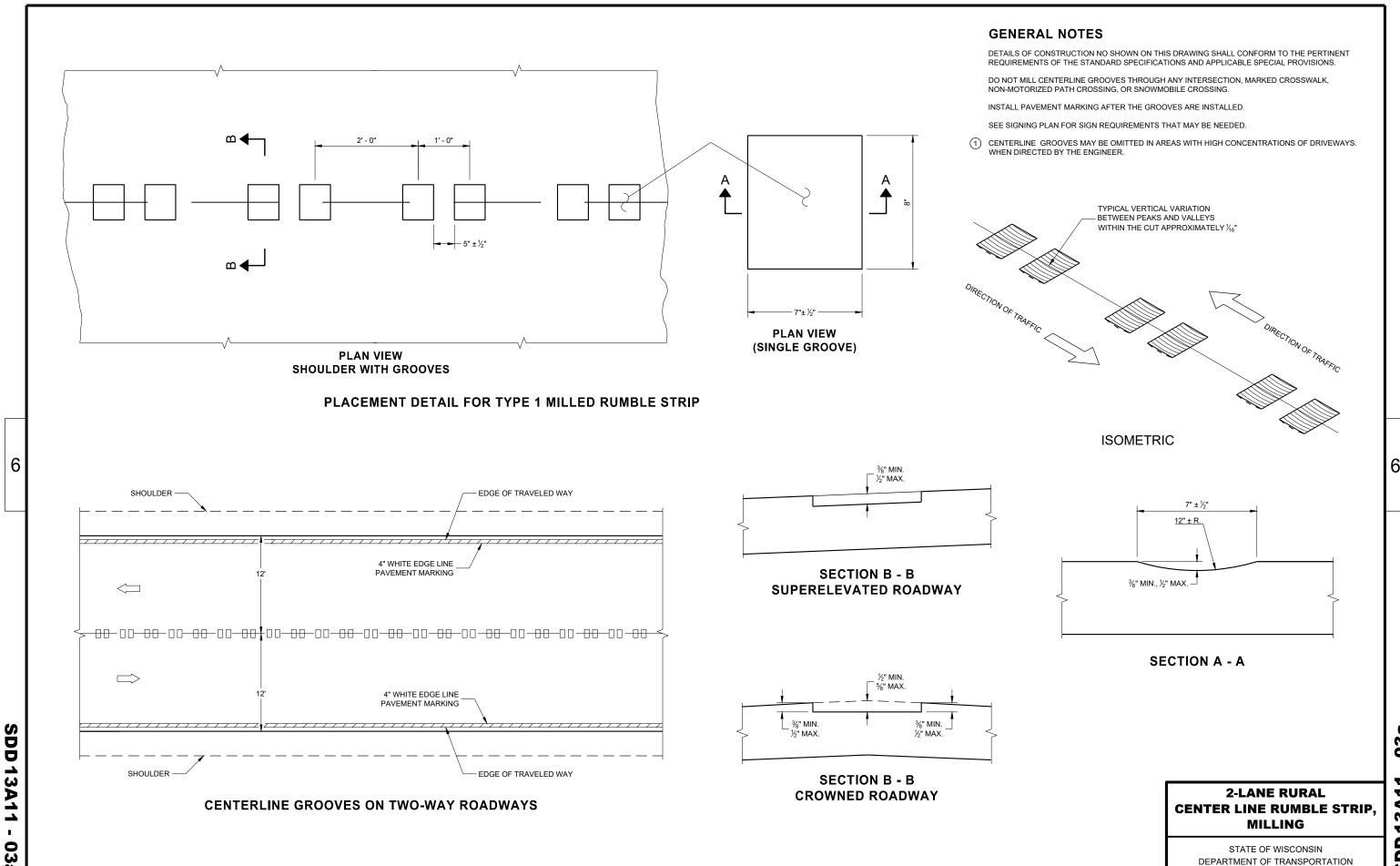




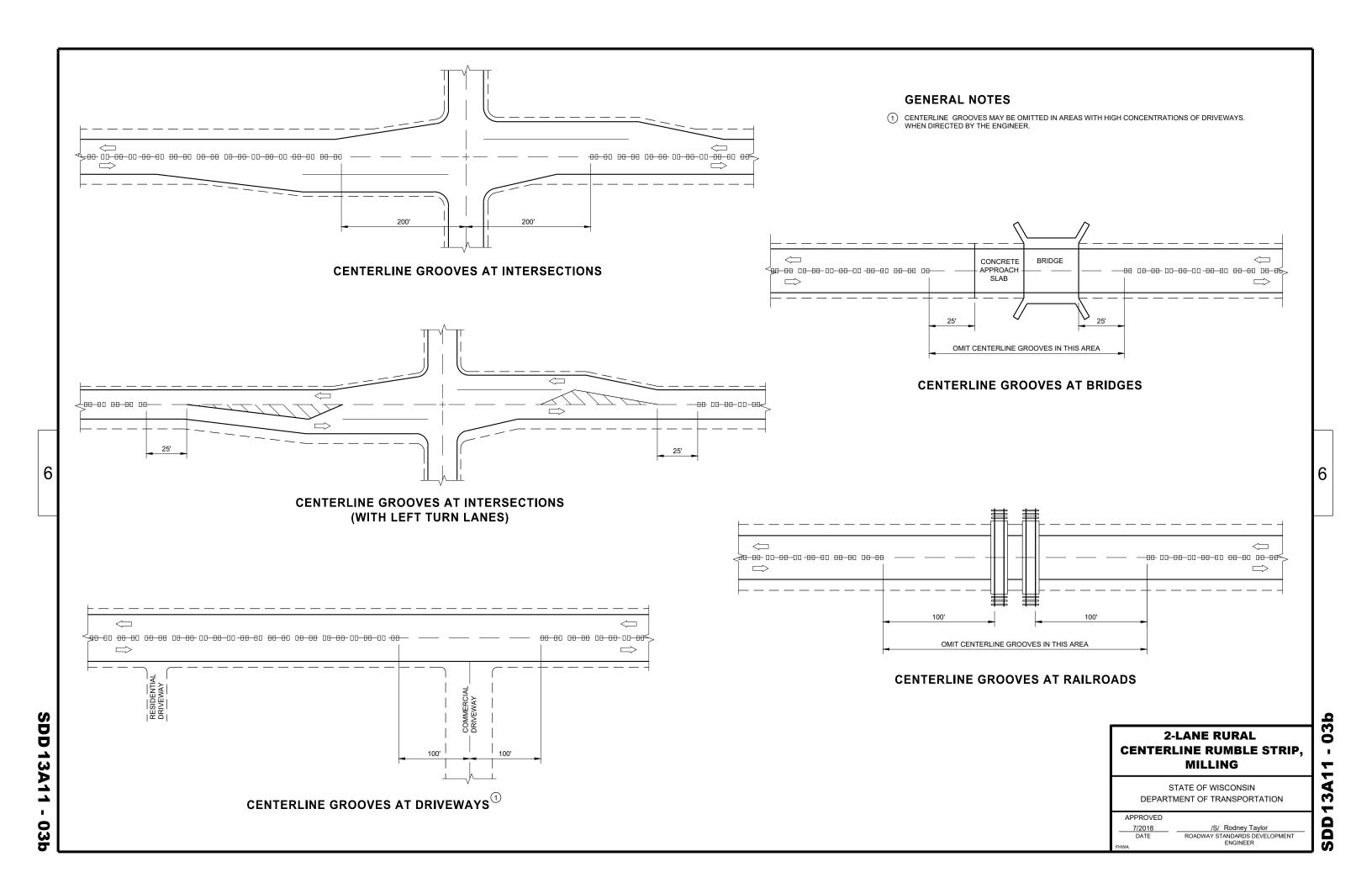
DEPARTMENT OF TRANSPORTATION

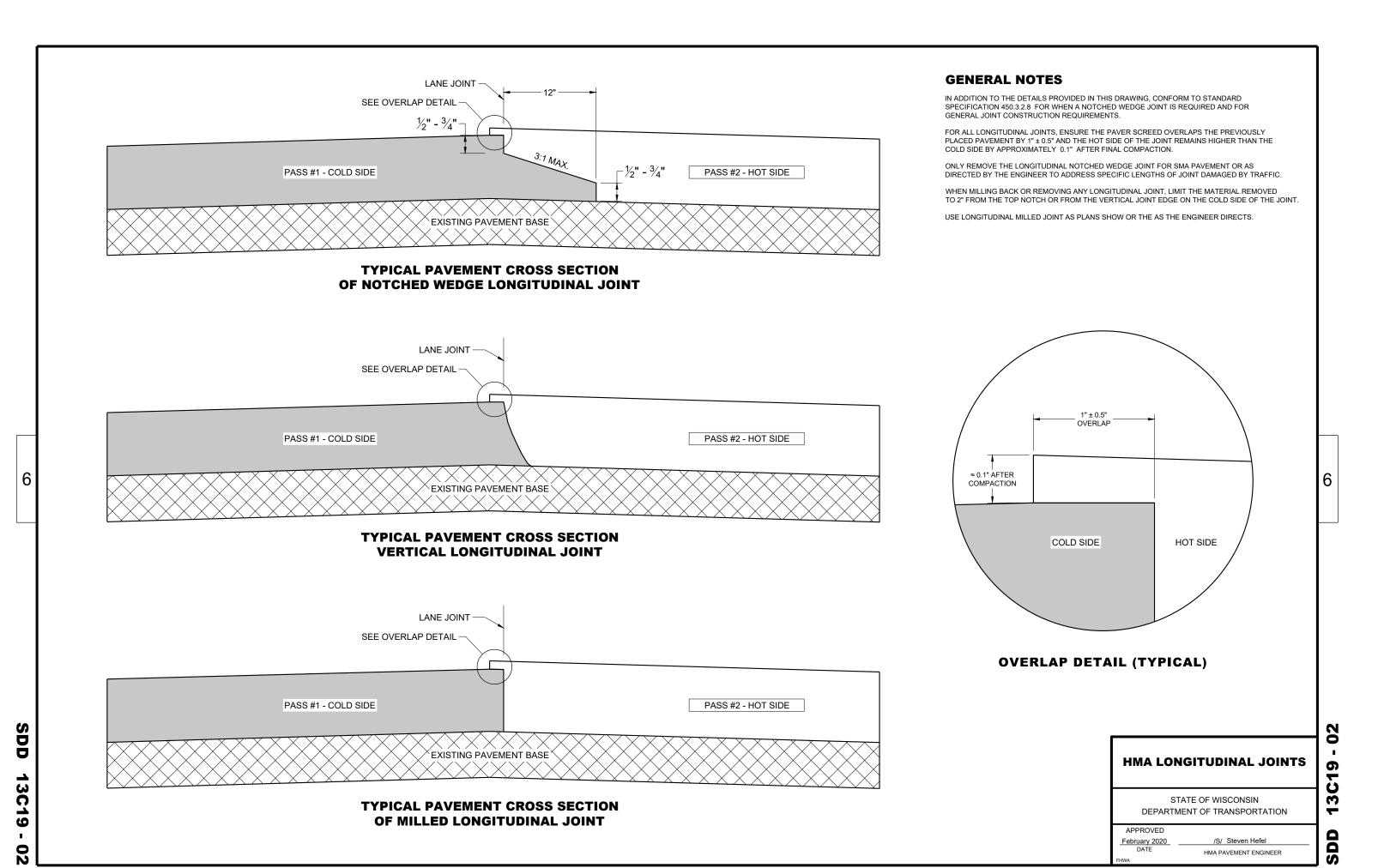




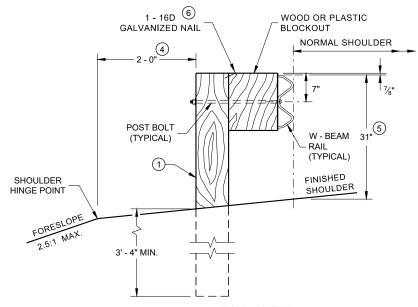


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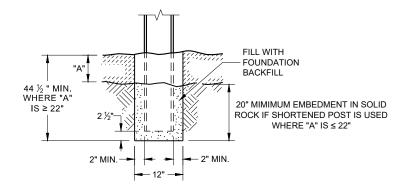




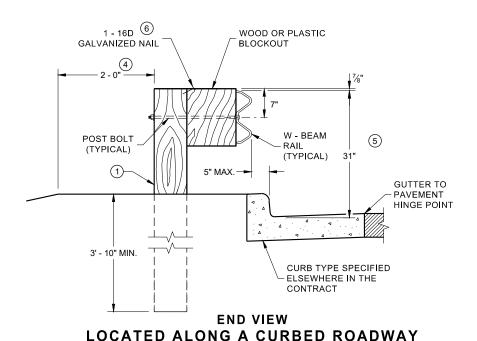
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- $\ \, \ \,$  IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE
- 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).
- $_{\mbox{\scriptsize (5)}}$  FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +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.

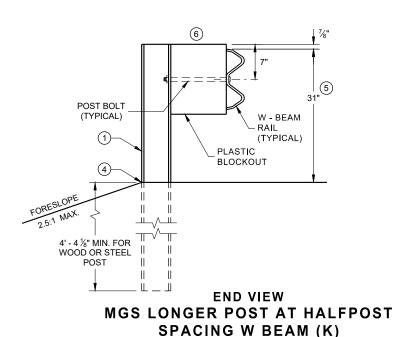


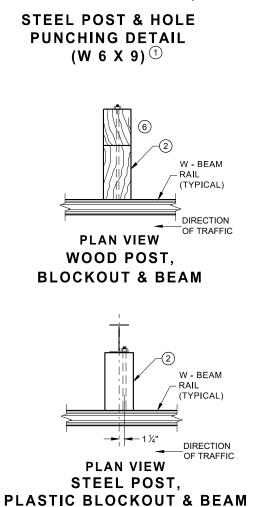
**END VIEW** LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION

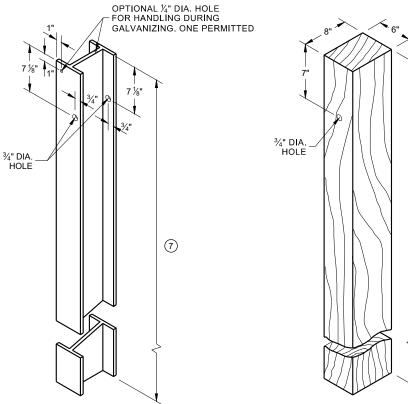


**END VIEW** SETTING STEEL OR WOOD POST IN ROCK

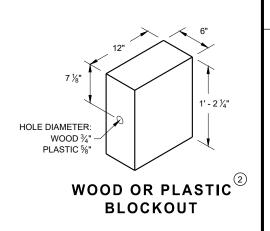








WOOD POST (6" X 8") NOMINAL



MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION SD

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

3' 1½" C -C 3' 1½" C - C POST SPACING POST SPACING

6' 3" C - C

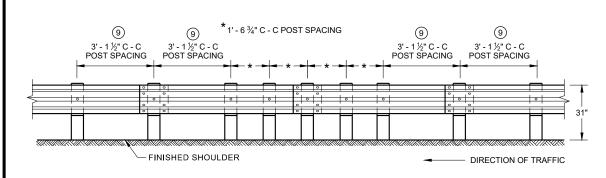
POST SPACING

DIRECTION OF TRAFFIC

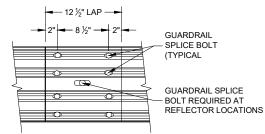
6' - 3" C -C

POST SPACING

FINISHED SHOULDER

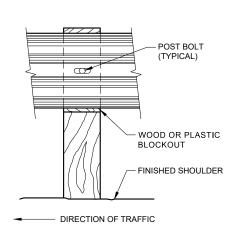


FRONT VIEW **QUARTER POST SPACING (QS)** 



**FRONT VIEW MID-SPAN BEAM SPLICE** 

FRONT VIEW AT STEEL POST



**GENERAL NOTES** 

OF QUARTER POST SPACING.

RECESSED (DR) HEAVY HEX NUT.

OF THE ENERGY ABSORBING TERMINAL.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END

(9) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS

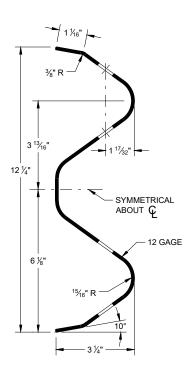
POST BOLTS ARE A %" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT

GUARD RAIL SPLICE BOLTS ARE A %" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES %" DIAMETER A563A DOUBLE

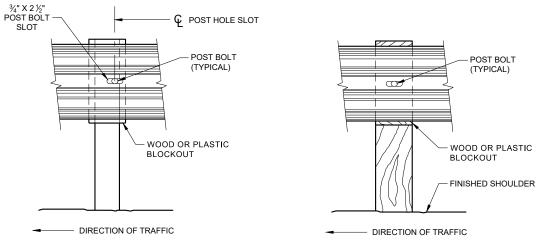
REQUIRES %" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND %"

DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS

FRONT VIEW AT WOOD POST



**SECTION THRU W-BEAM RAIL** 



4" X 12" DELINEATOR REFLECTOR (REFER TO SDD 15A4 FOR DELINEATOR SPACING) WOOD OR PLASTIC BLOCKOUT MOUNT WITH TWO 3/16" X 2 1/2" TRIPLE COATED SCREWS WITH WASHERS WOOD OR STEEL POST - DIRECTION OF TRAFFIC

**ONE SIDED REFLECTOR DETAIL** AND TYPICAL INSTALLATION

**MIDWEST GUARDRAIL SYSTEM** (MGS) GUARDRAIL

> STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

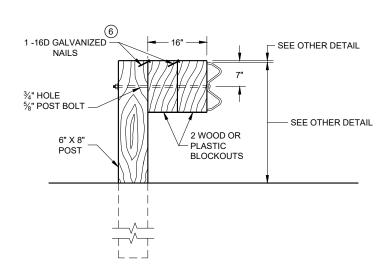
**90** 

<u>4</u>

SDD

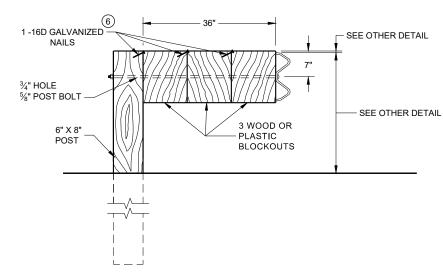
6

6



### **DETAIL FOR 16" BLOCKOUT DEPTH**

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



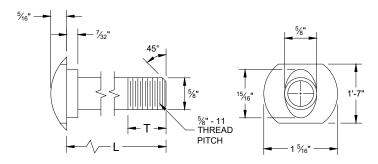
### **DETAIL FOR 36" BLOCKOUT DEPTH**

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

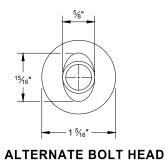
### NOTE:

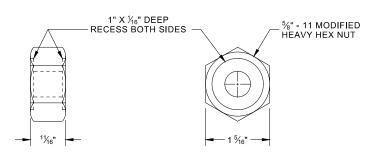
- 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF  $\frac{3}{16}$ ".
- 2. IF THE BOLT EXTENDS MORE THAN  $\mbox{\ensuremath{\mbox{\sc M}}}\mbox{\sc "}\mbox{\sc FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.}$



### **POST BOLT TABLE**

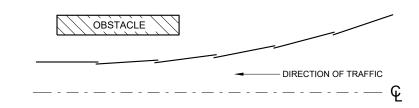
L	T (MIN.)
1 1⁄4"	1 1/4"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



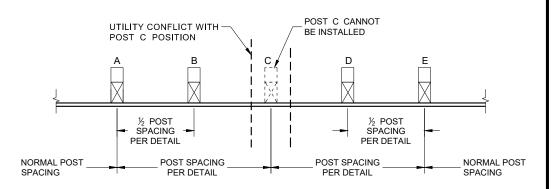


# POST BOLT, SPLICE BOLT AND RECESS NUT

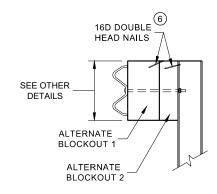
WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

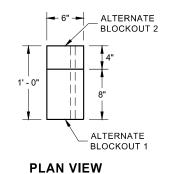


## PLAN VIEW BEAM LAPPING DETAIL



# POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION





SIDE VIEW

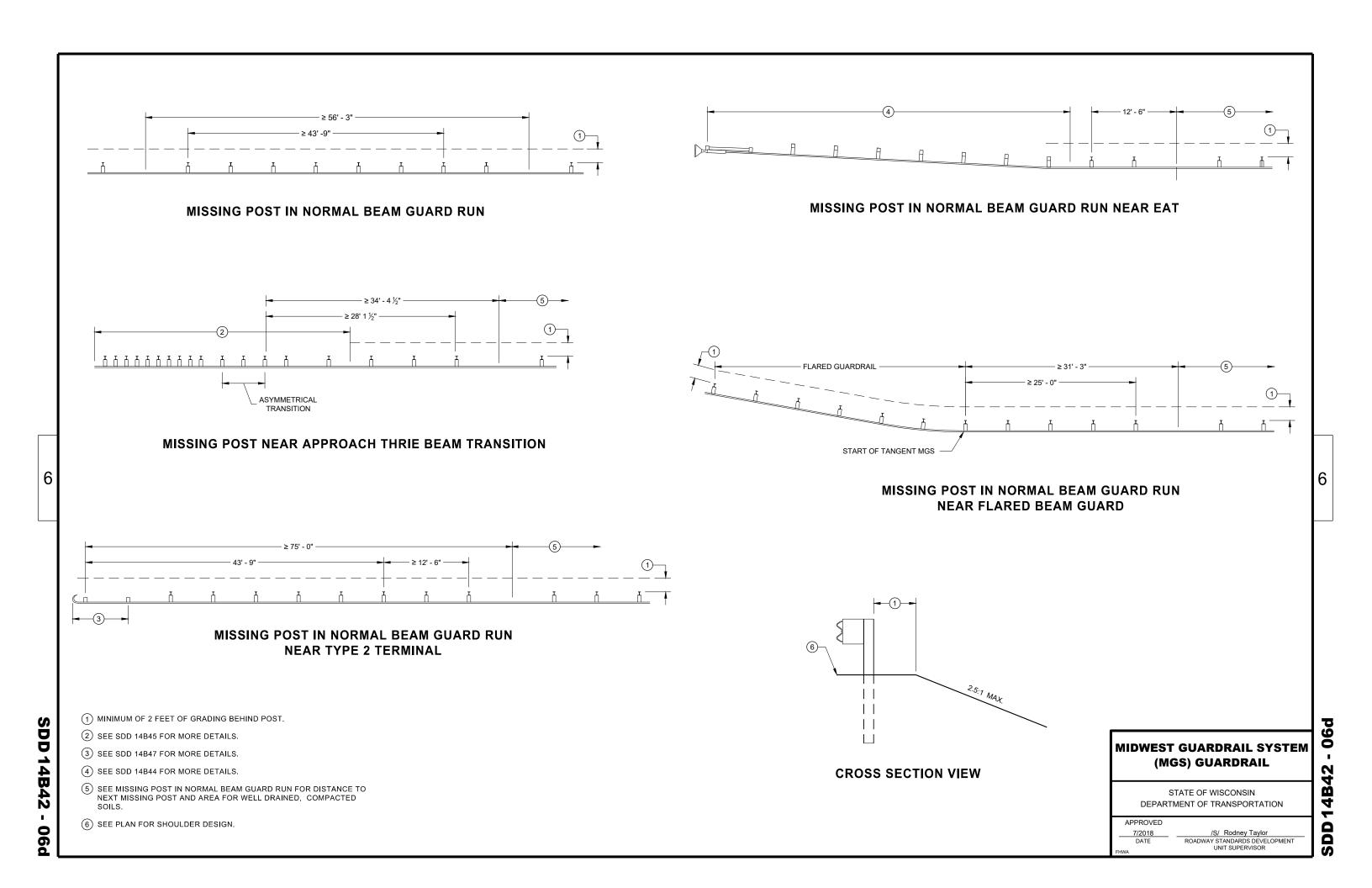
ALTERNATE WOOD BLOCKOUT DETAIL

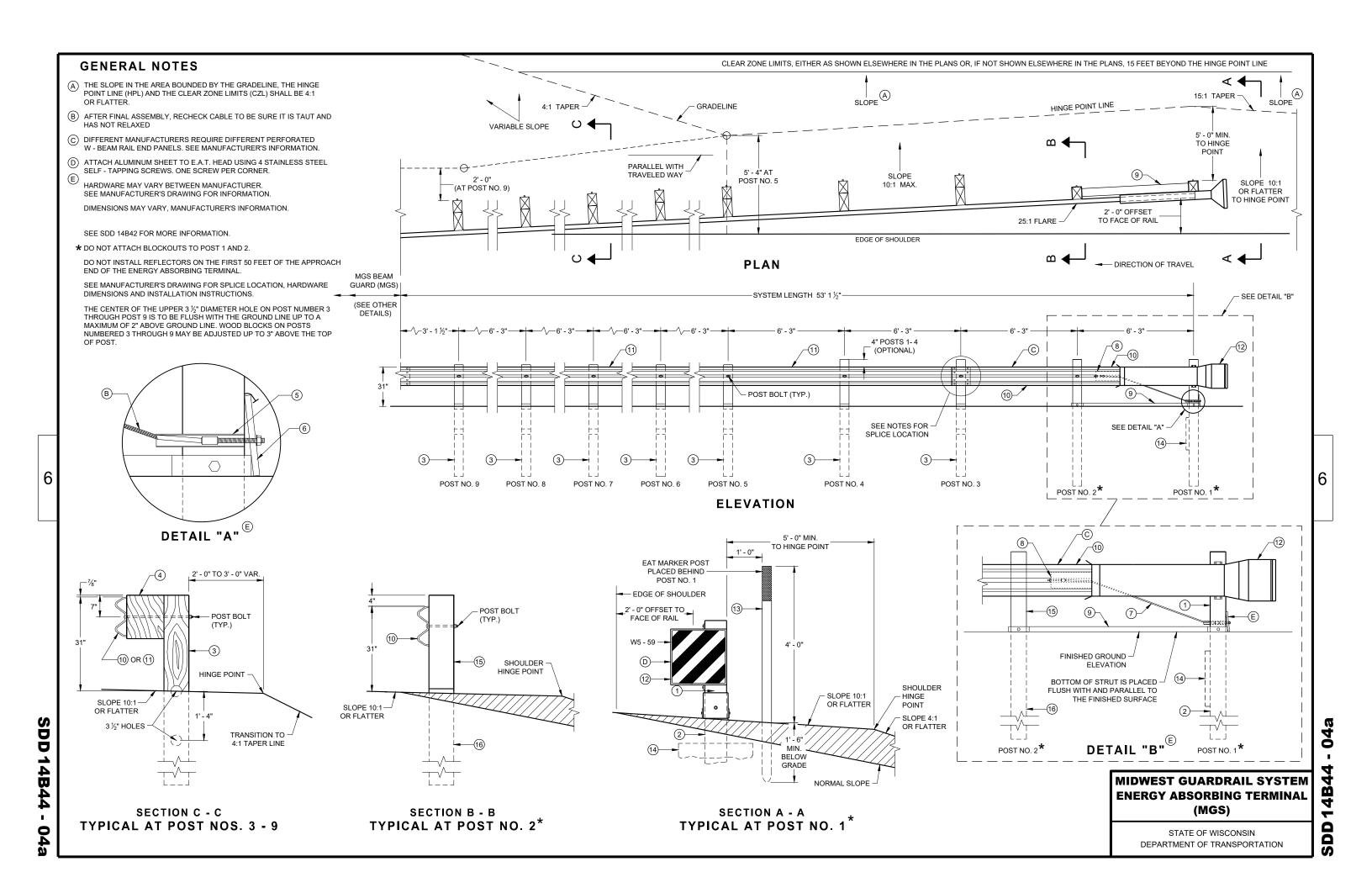
# MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

90

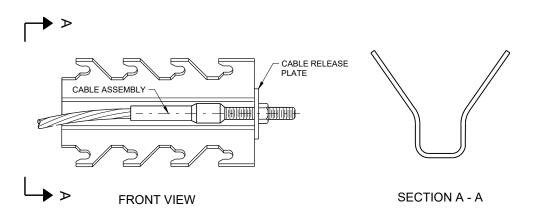
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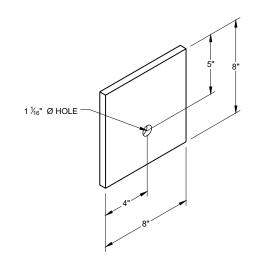




GENERIC GROUND STRUT



GENERIC ANCHOR CABLE BOX <sup>(9) (E)</sup>



BEARING PLATE

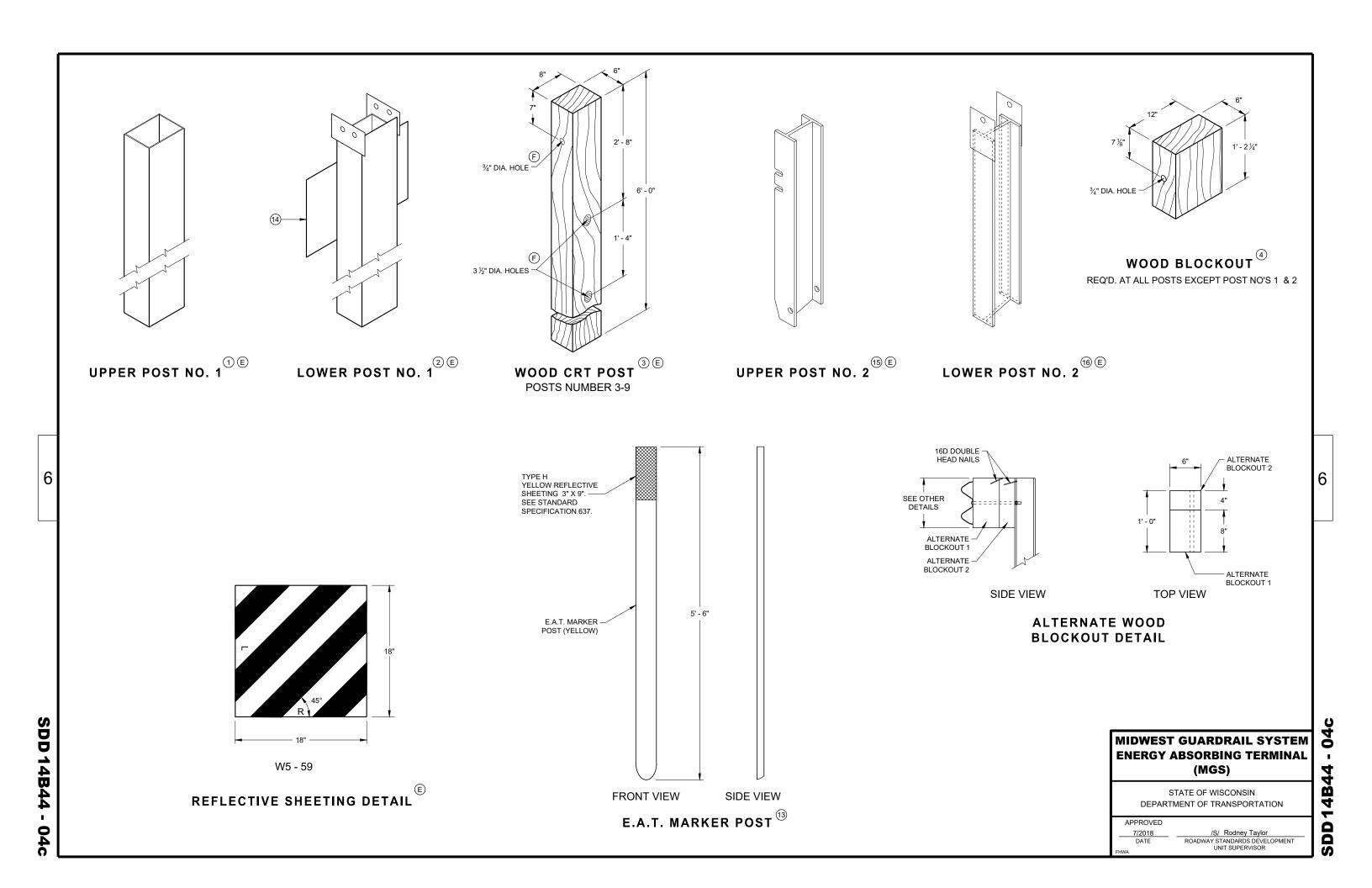
### MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

6

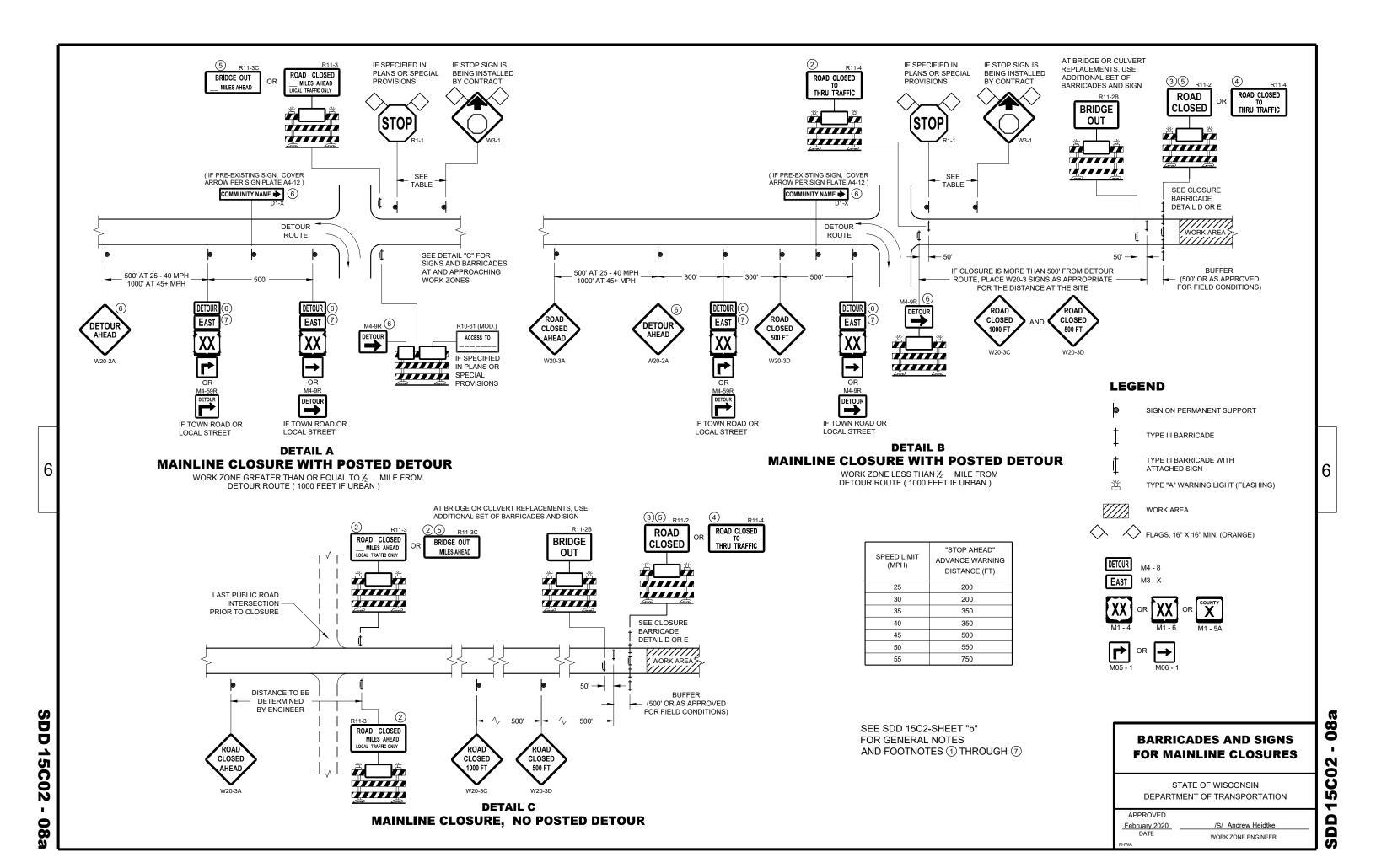
**SDD 14B44** 

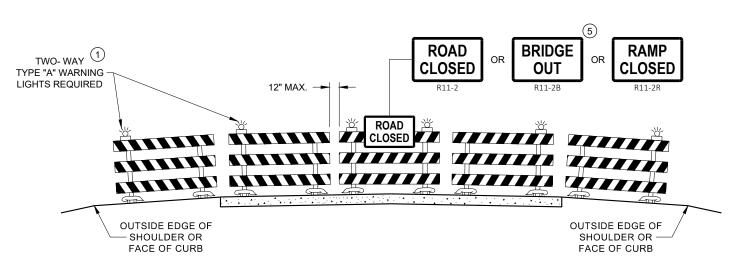
SDD 14B44 - 04



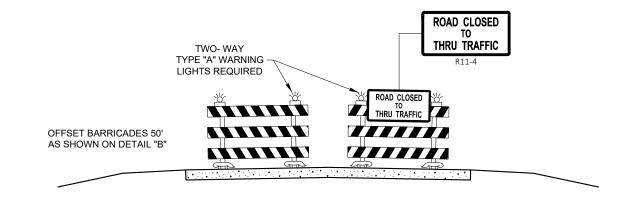








### **DETAIL D ROAD CLOSURE BARRICADE DETAIL APPROACH VIEW**



### **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

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"

- 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**
- THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- (3) FOR ROAD CLOSURE <u>WITHOUT</u> 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
- "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

### **BARRICADES AND SIGNS** FOR **VARIOUS CLOSURES**

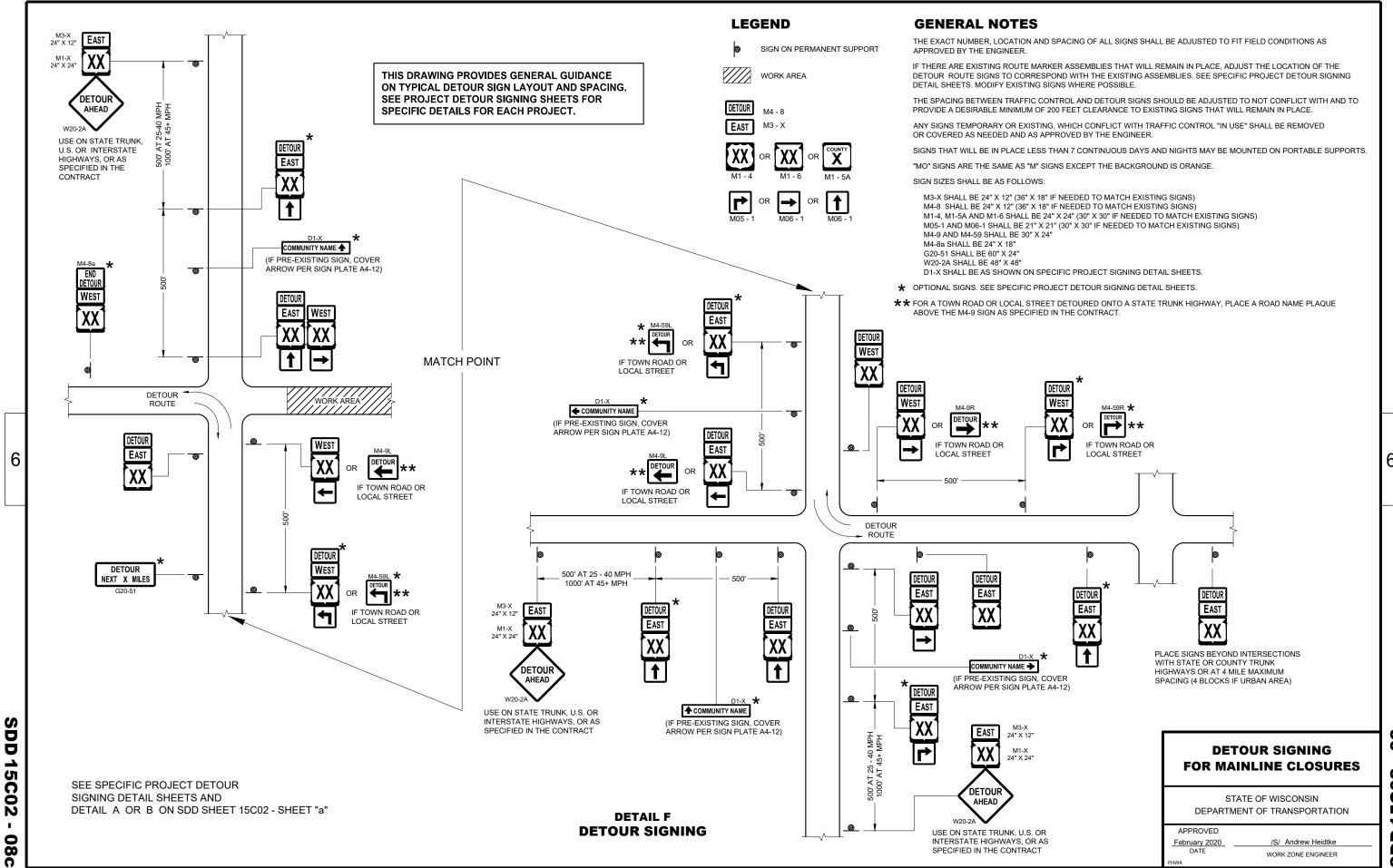
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

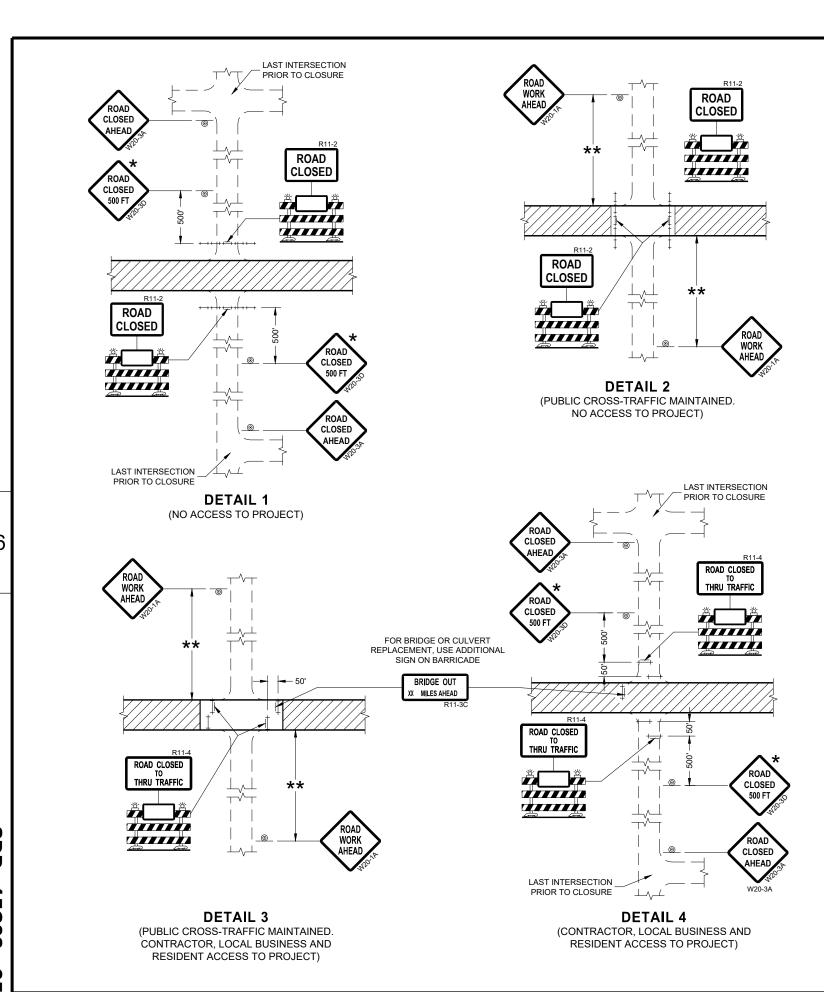
February 2020 DATE

WORK ZONE ENGINEER

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### **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.

 $\begin{tabular}{l} FA "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED. \\ \end{tabular}$ 

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

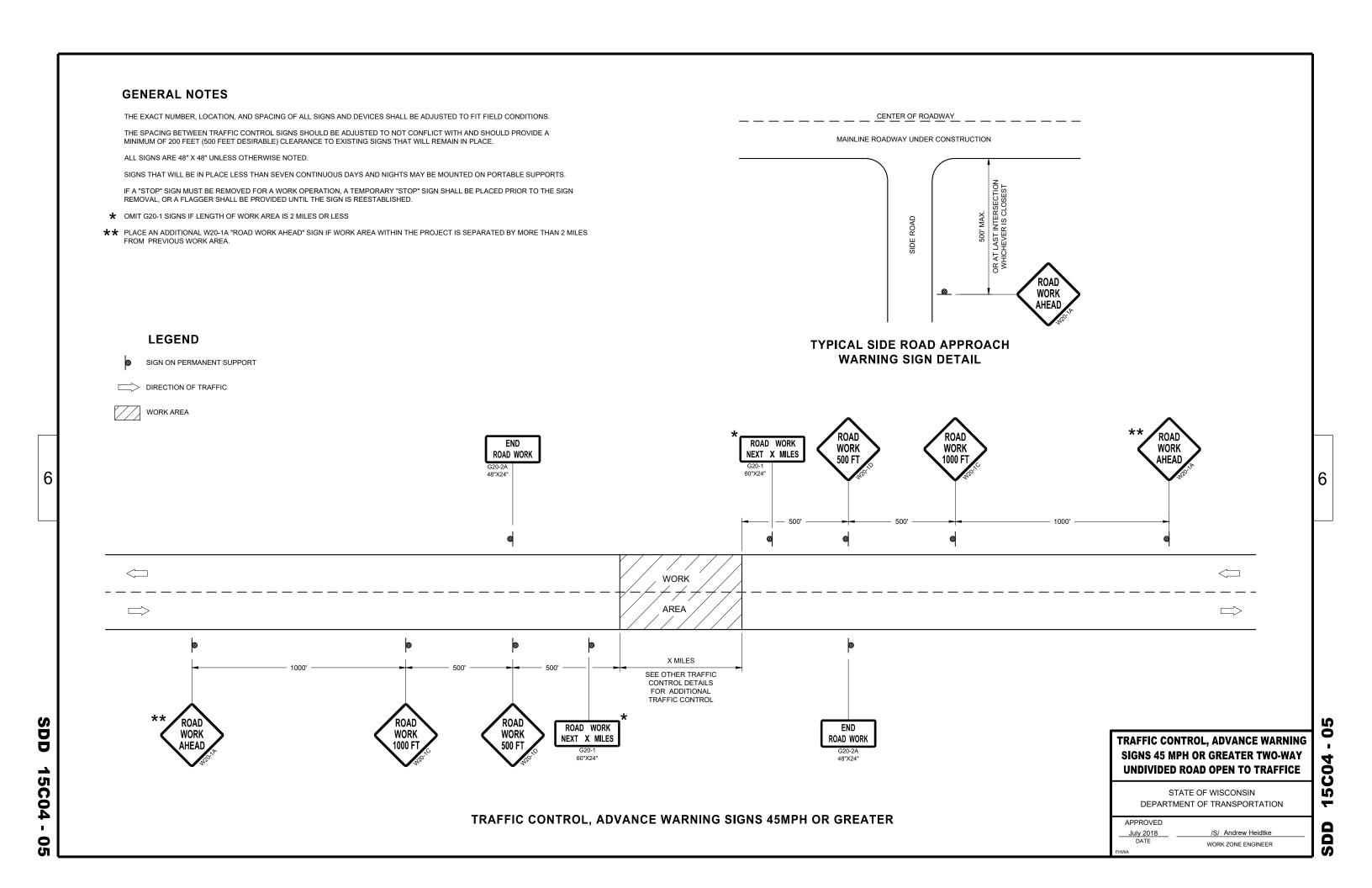
### BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

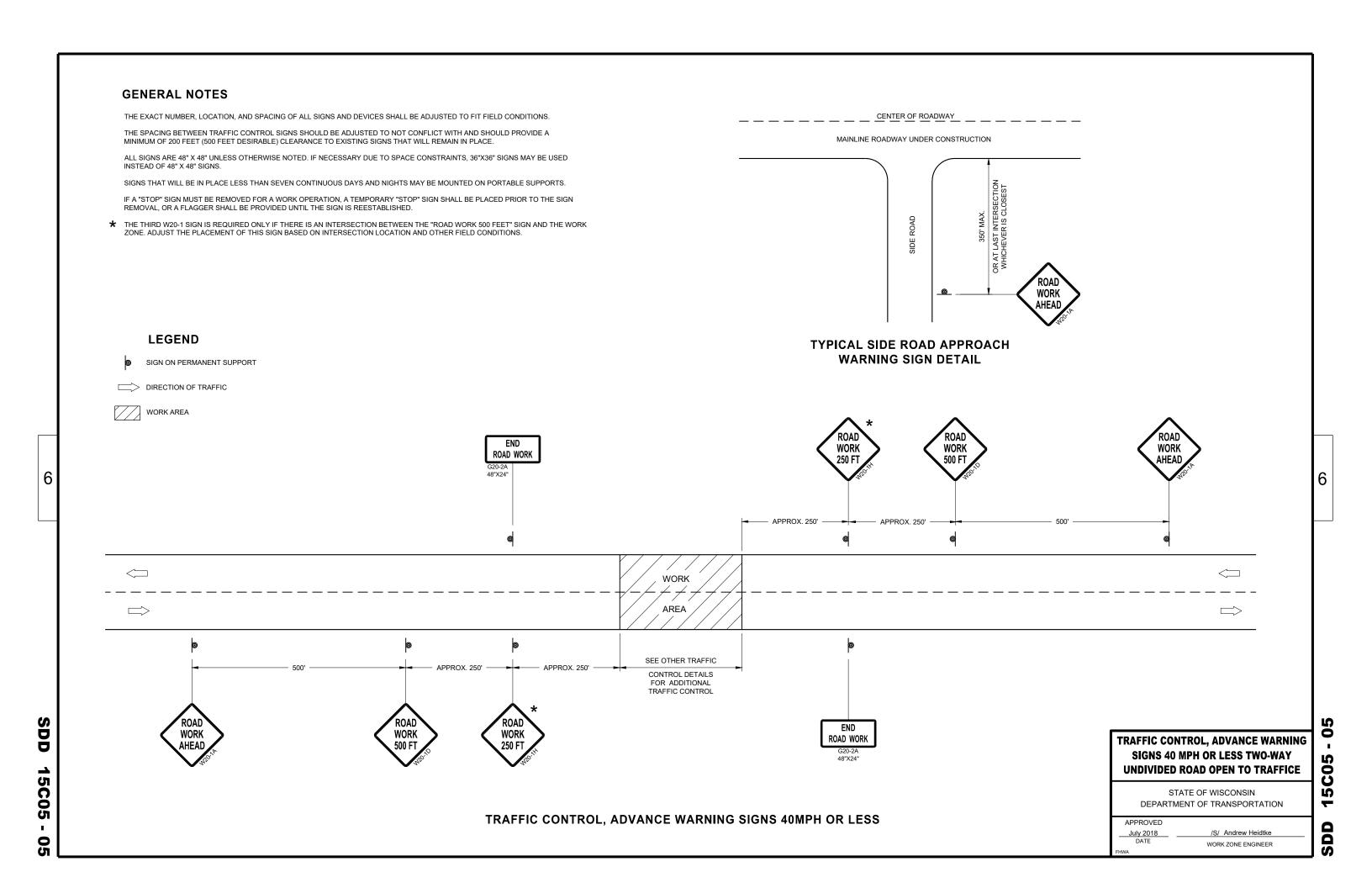
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

 APPROVED

 July 2018
 /S/ Andrew Heidtke

 DATE
 WORK ZONE ENGINEER

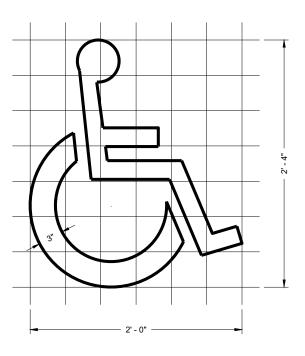




# **SDD 15C07** 15a

### **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.



HANDICAP SYMBOL

PREFERENTIAL LANE SYMBOL

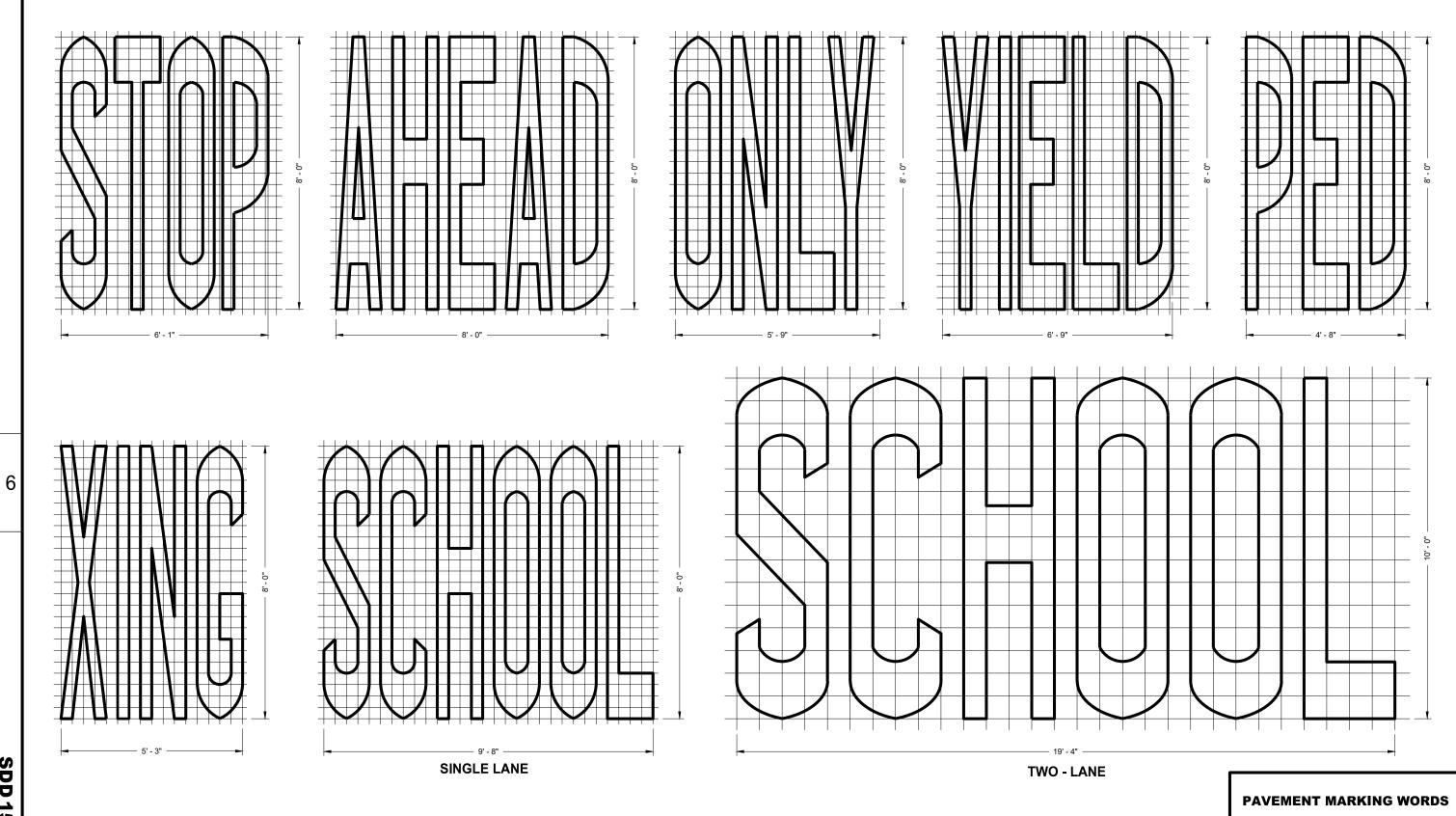
PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

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

**SDD15C07** 



SDD 15C07 - 15b

### **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.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

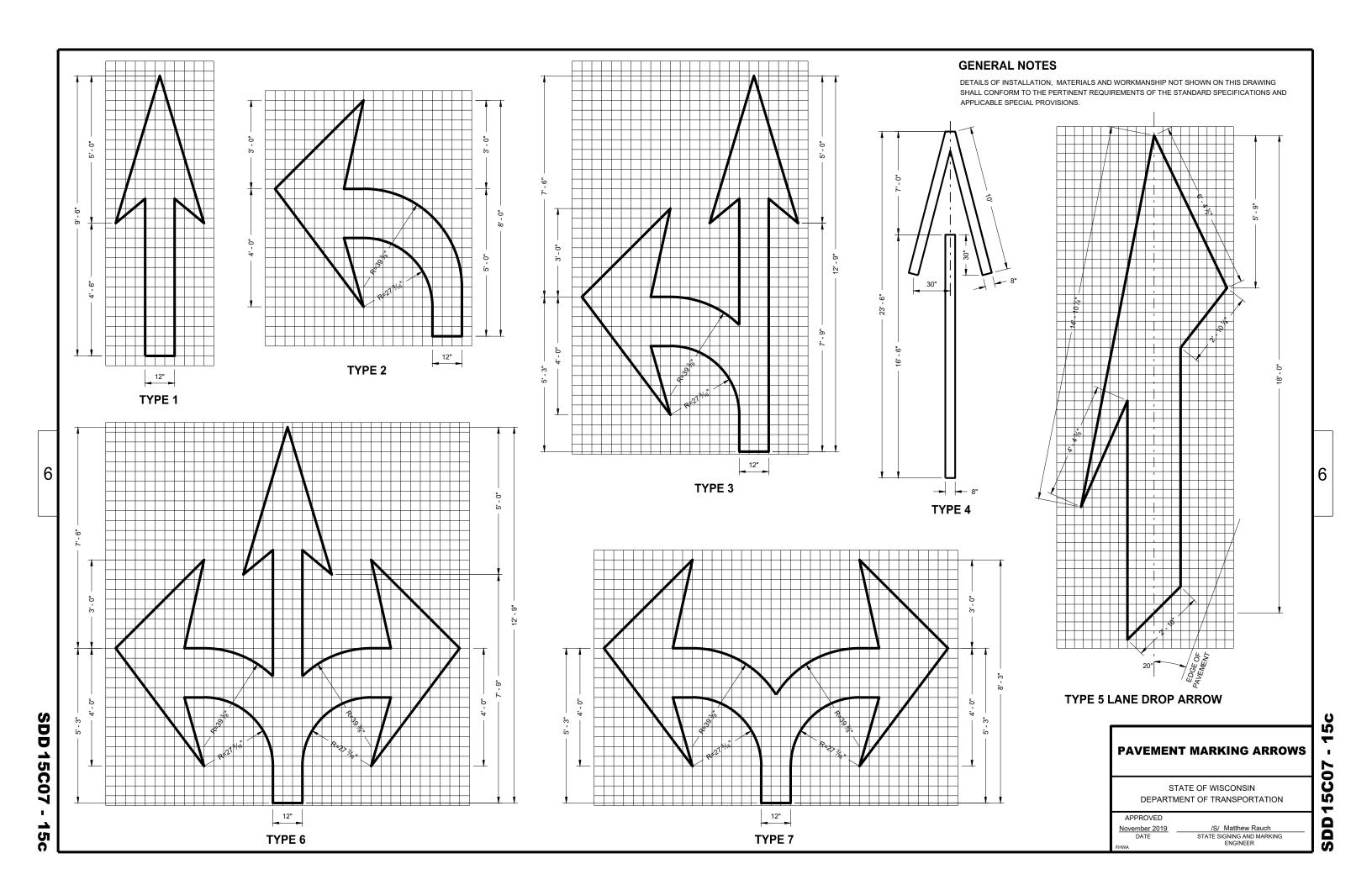
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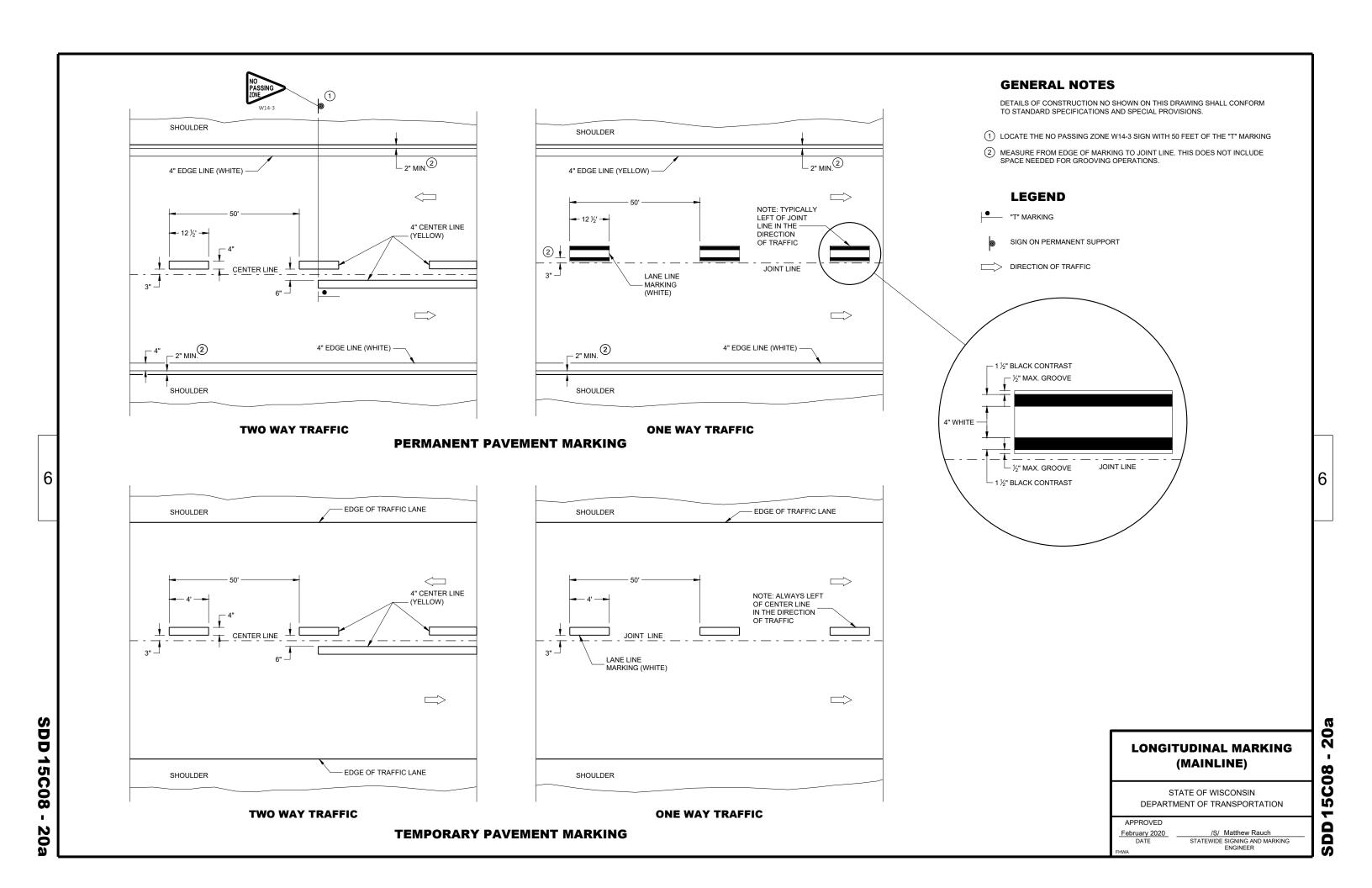
**5**b

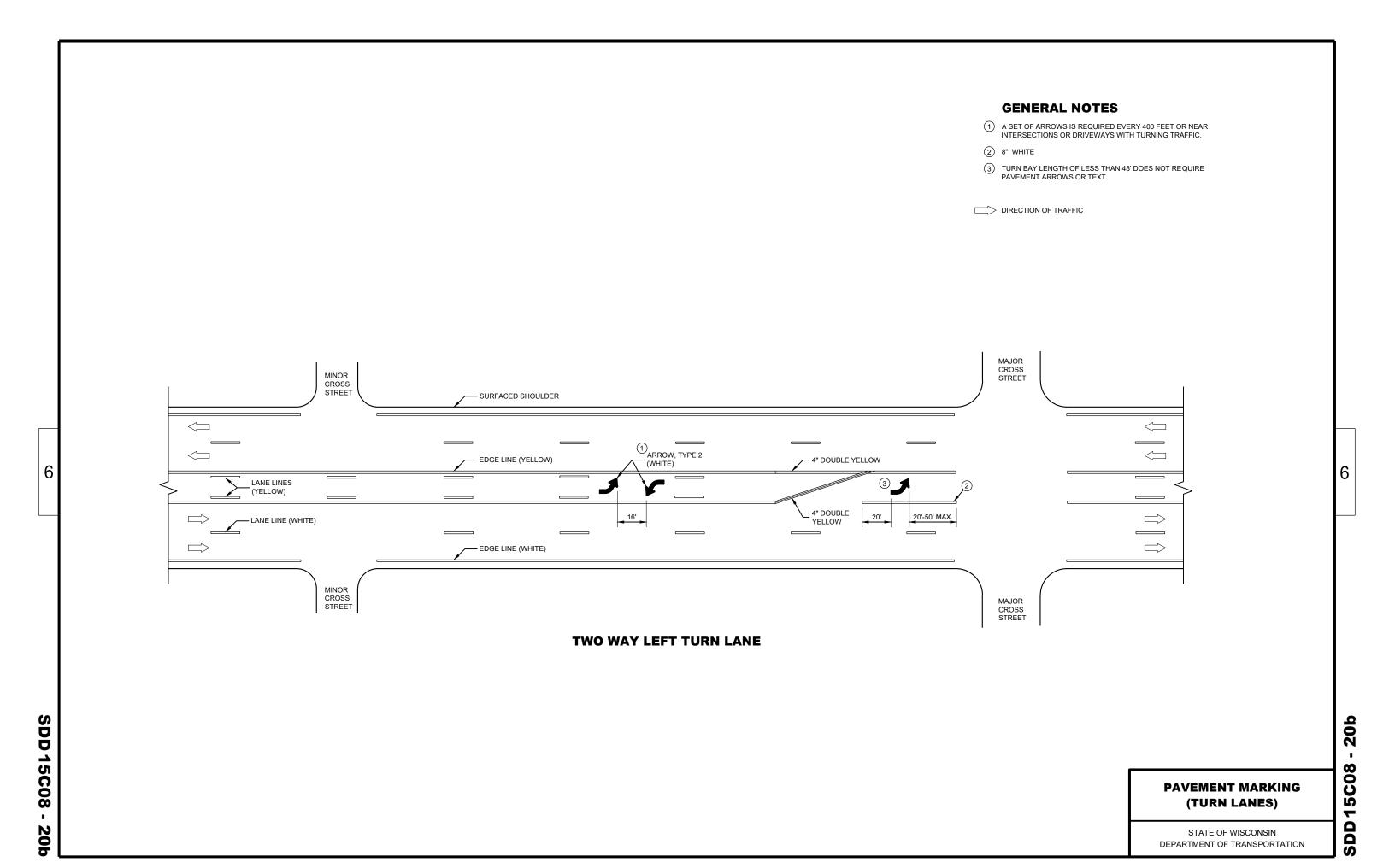
**SDD15C07** 

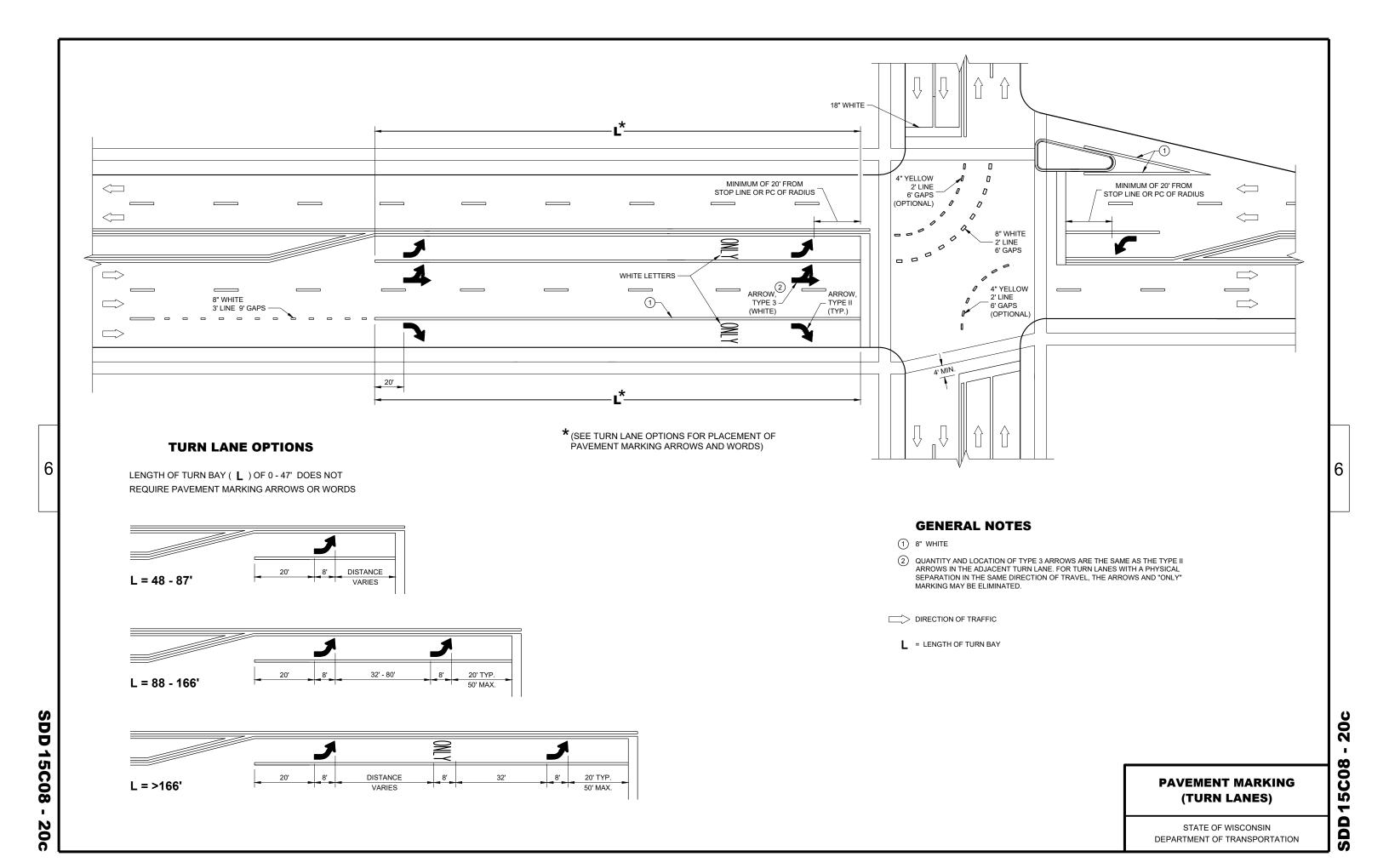
APPROVED

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



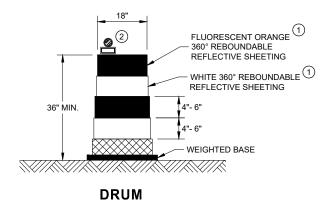


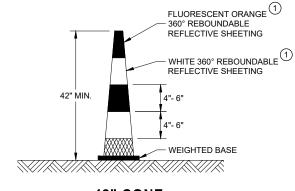


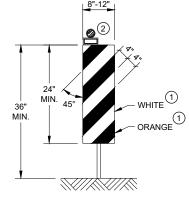


### **GENERAL NOTES**

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





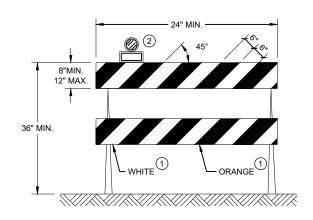


### **42" CONE**

DO NOT USE IN TAPERS ½ SPACING OF DRUMS

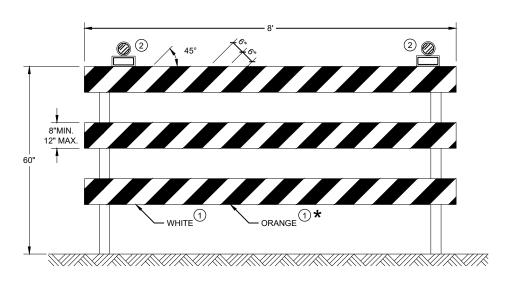
### **VERTICAL PANEL**

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



### **TYPE II BARRICADE**

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



### **TYPE III BARRICADE**

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

\* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

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

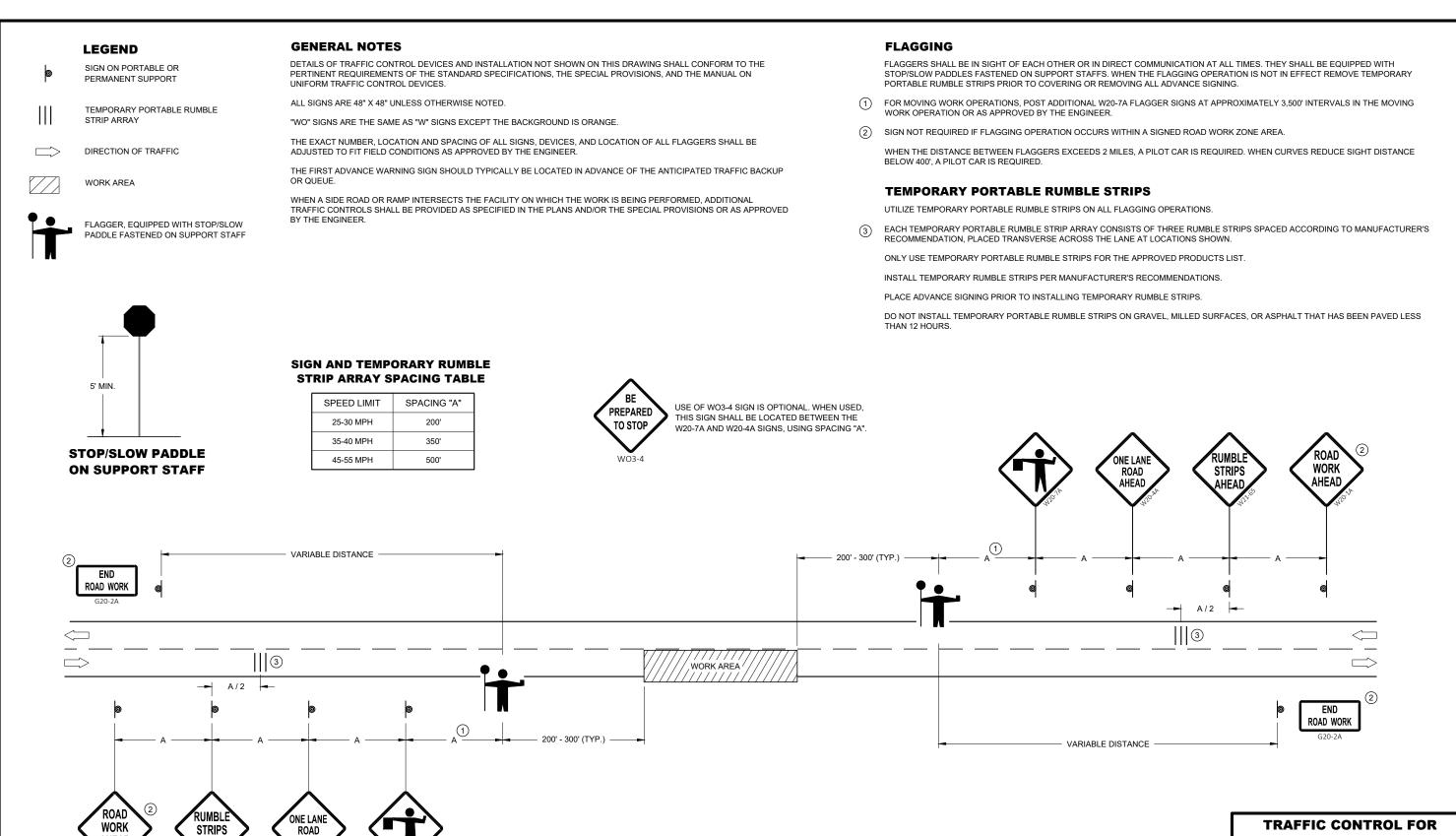
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SDD

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

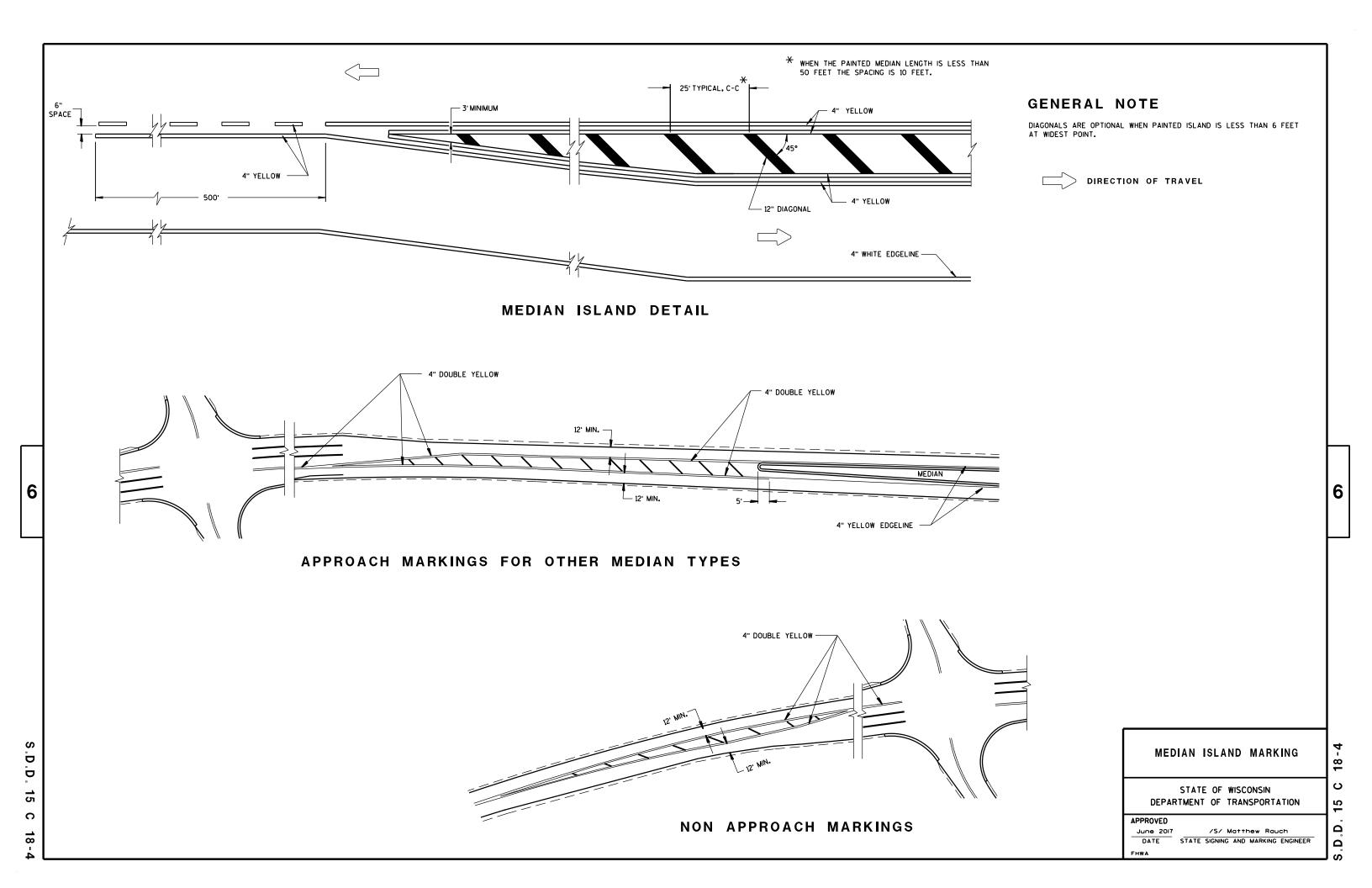
LANE CLOSURE WITH

**FLAGGING OPERATION** 

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APPROVED May 2019 DATE WORK ZONE ENGINEER

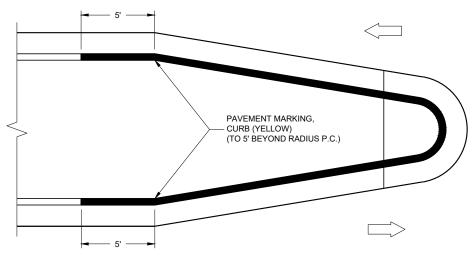


3DD 15C19 - 06a

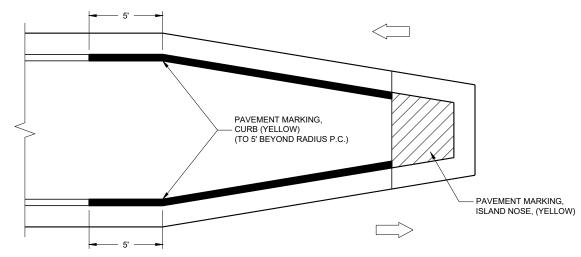
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# CORRUGATED MEDIAN MARKING, (YELLOW) (TYPICAL) CORRUGATION IF PRESENT PAVEMENT MARKING, ISLAND NOSE, (YELLOW)

### MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

# TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

### **GENERAL NOTES**

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

CURB MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

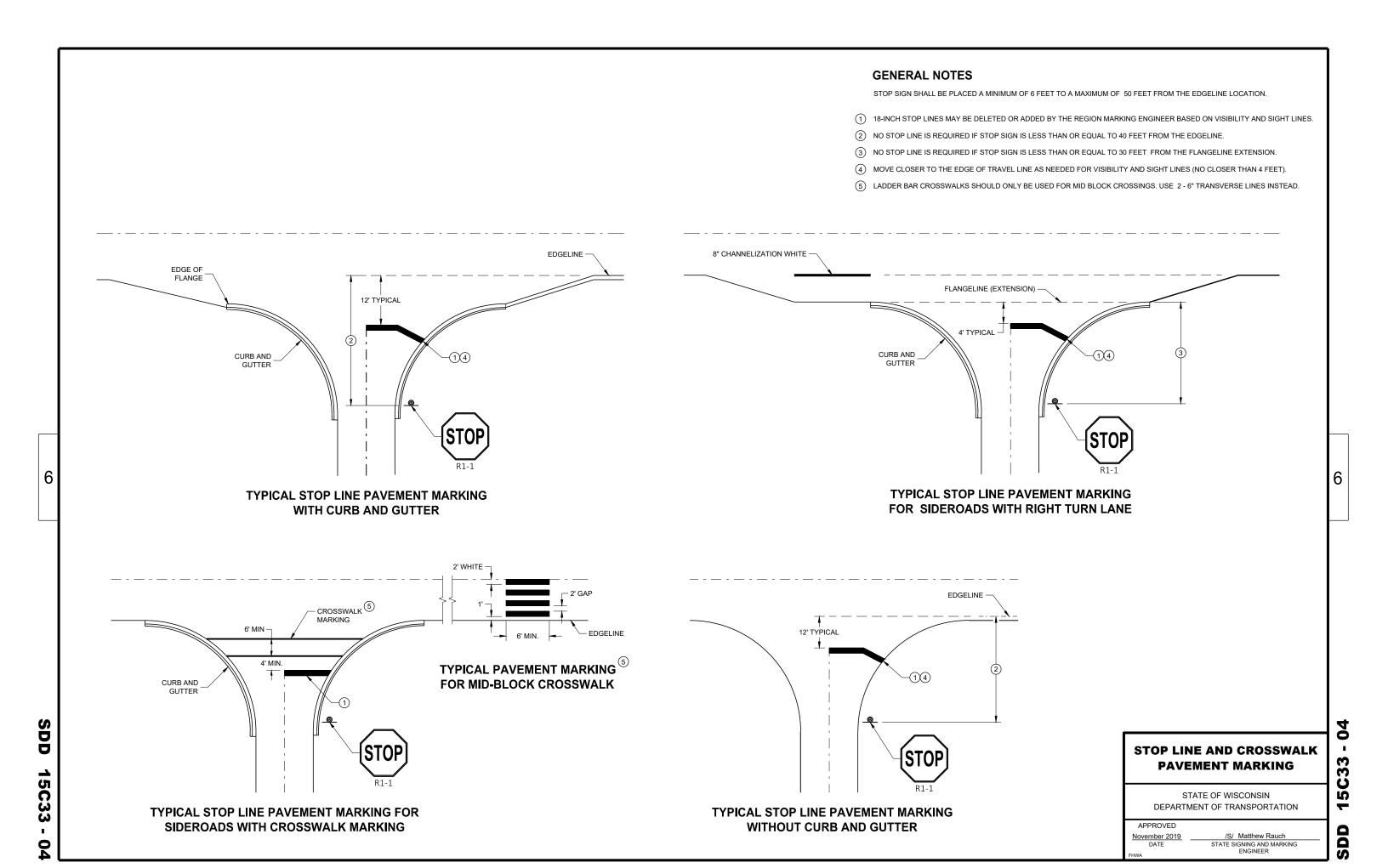
# PAVEMENT MARKINGS (ISLANDS)

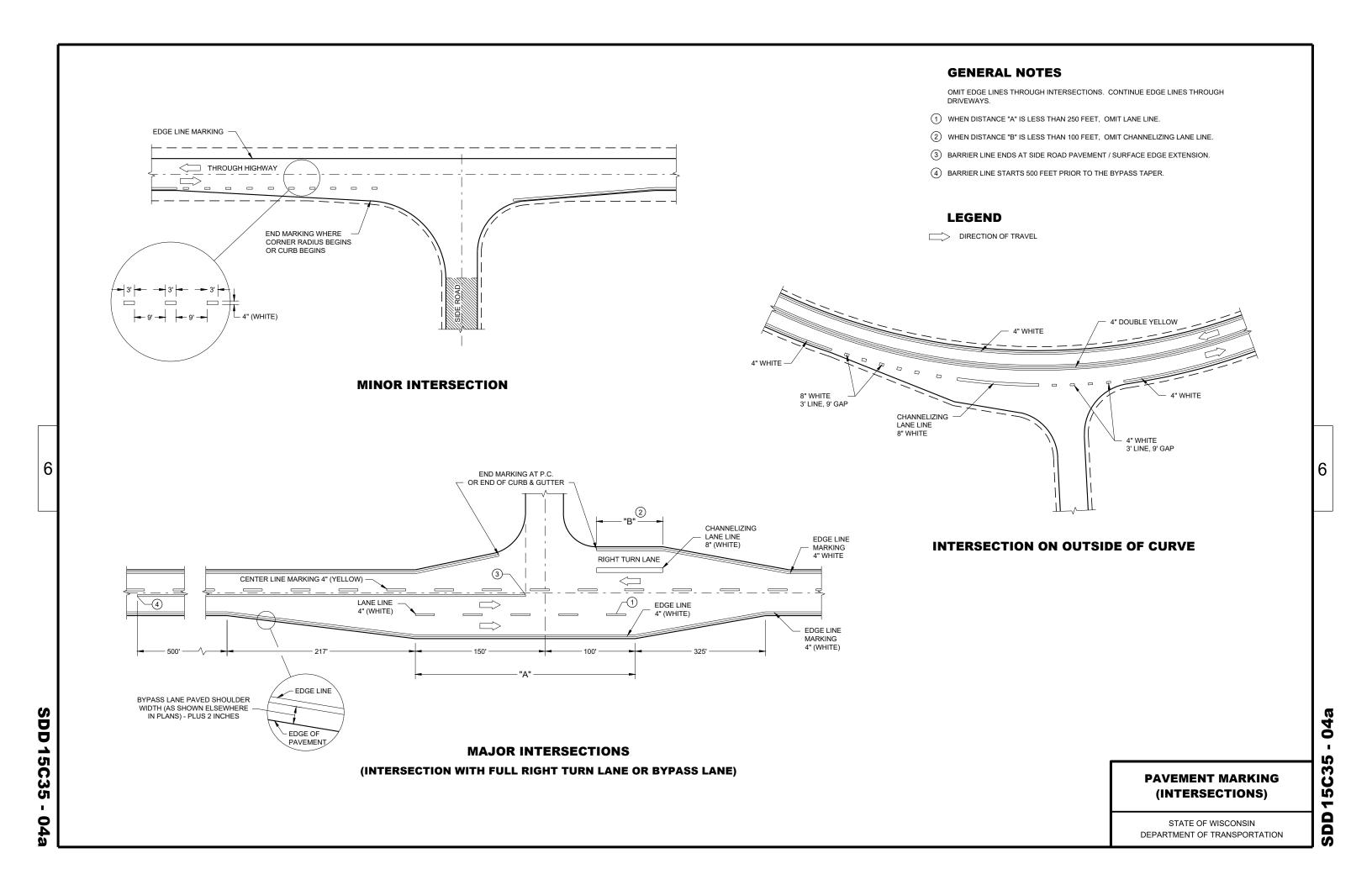
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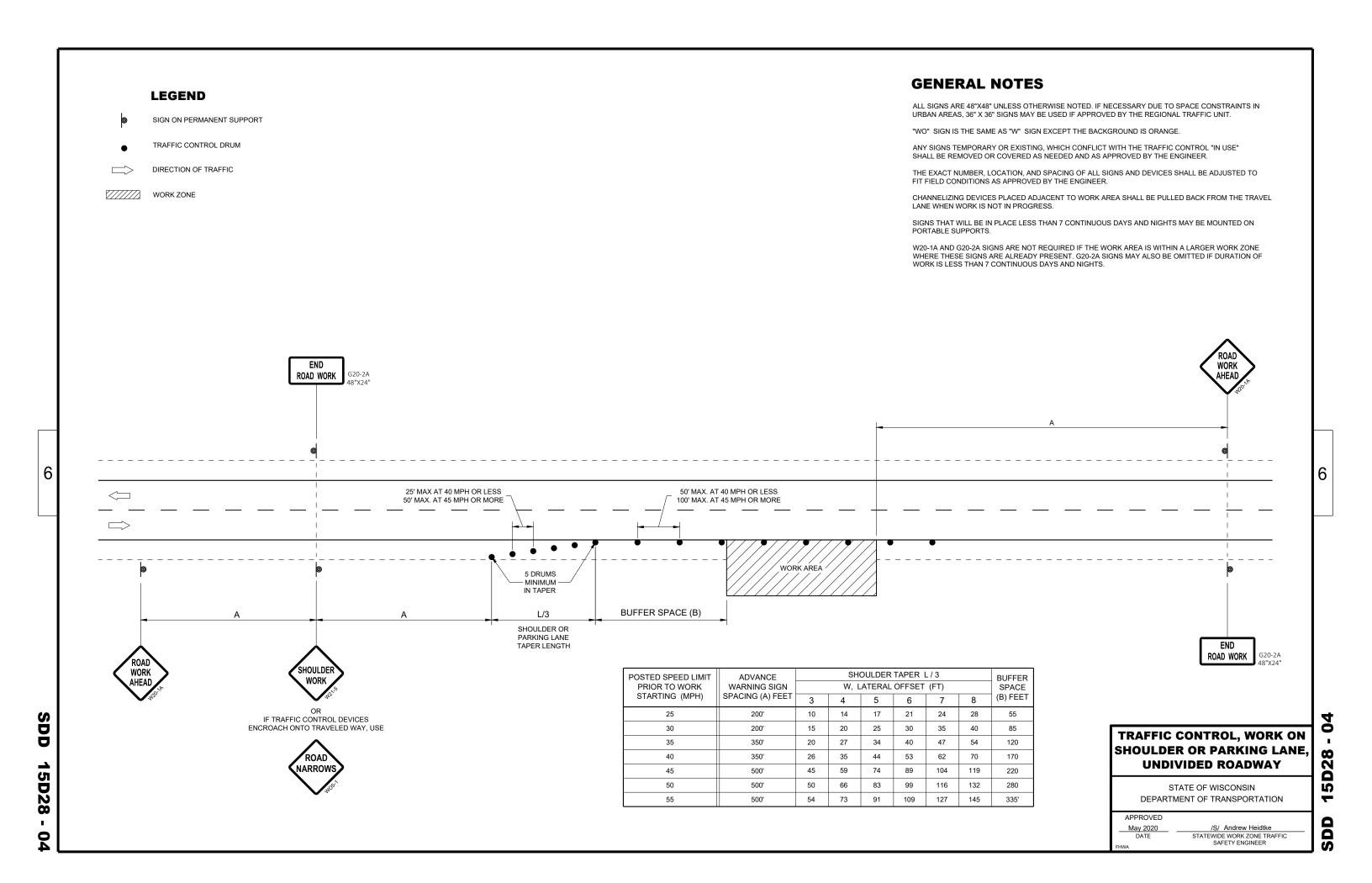
**SDD 15C27** 

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

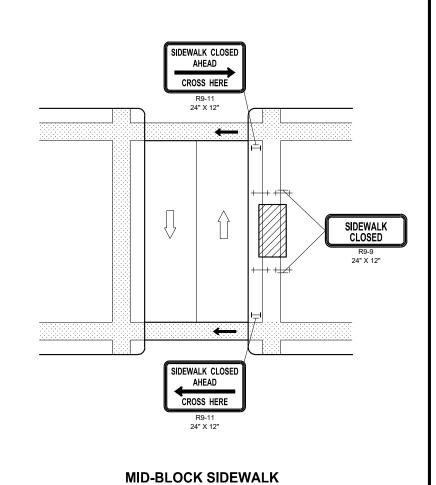
APPROVED	
7/2018	/S/ Matthew R. Rauch
DATE	STATE SIGNING AND MARKING
FHWA	ENGINEER

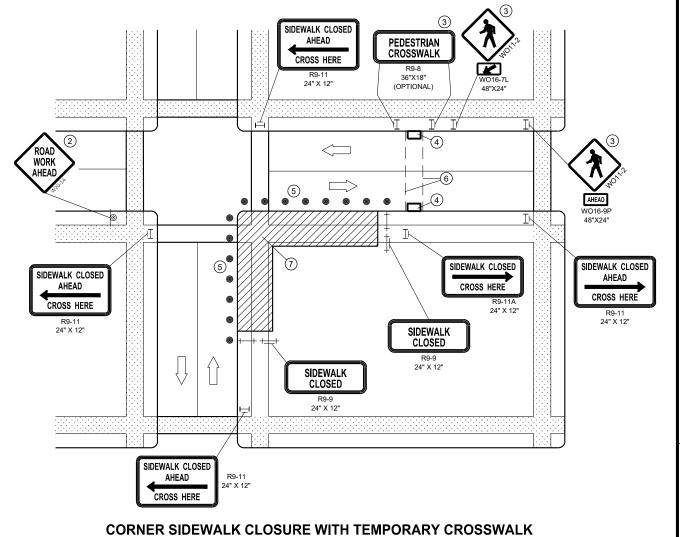






**6**2





#### **GENERAL NOTES**

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

**CLOSURE** 

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

"WO" SIGN IS THE SAME AS "W" SIGN, EXCEPT THE BACKGROUND IS ORANGE.

FOR NIGHTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEK LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

- 1 IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE
- (2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
- (3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK
- (4) TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b'.
- (5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- 6 TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- (7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

#### LEGEND

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)

TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)

[DOCUME] UNDER PEDESTRIAN TRAFFIC

WORK AREA

PEDESTRIAN CHANNELIZATION DEVICE

DIRECTION OF TRAFFIC

# TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

3DD 15D30 - 06a

4" WIDE EDGE MARKING (6)

#### TEMPORARY CURB RAMP PARALLEL TO CURB

CROSS SLOPE 2% MAX. (4)

PROTECTIVE EDGING 2" MIN. HEIGHT

WITH SIDE APRON

ABOVE RAMP SURFACE (2)

9 EDGE TREATMENT 9 EDGE TREATMENT PROTECTIVE EDGING 8 JOINT/GAP TREATMENT (8) JOINT/GAP TREATMENT 2" MIN. HEIGHT (2) CURB -FACE DRAINAGE CURB FACE (2) PROTECTIVE EDGING -2" MIN. HEIGHT ABOVE RAMP SURFACE 4" WIDE EDGE -4" WIDE EDGE -9 45° EDGE CUT -9 45° EDGE CUT -6 MARKING (6) MARKING 1 DETECTABLE -1 DETECTABLE WARNING FIELD WARNING FIELD

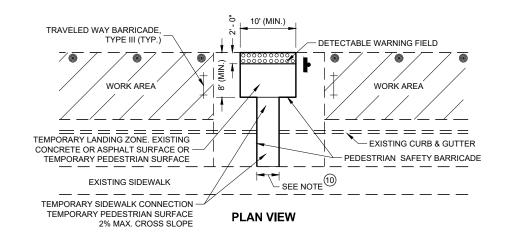
TEMPORARY CURB RAMP PERPENDICULAR TO CURB

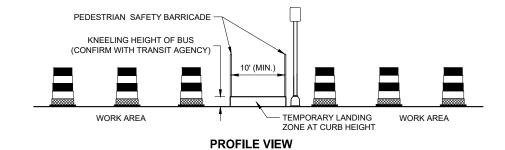
#### **GENERAL NOTES**

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

- (1) CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "6".
- (2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- (3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- (4) CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
- (5) CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- (6) THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
- 7) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- (8) LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.
- (9) CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES SHALL BE VERTICAL UP TO ¼" HIGH AND BEVELED AT 1:2 BETWEEN ¼" AND ½".
- (1) 5" WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.





#### **TEMPORARY BUS STOP PAD**

#### LEGEND



## TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 15D30 - 06k

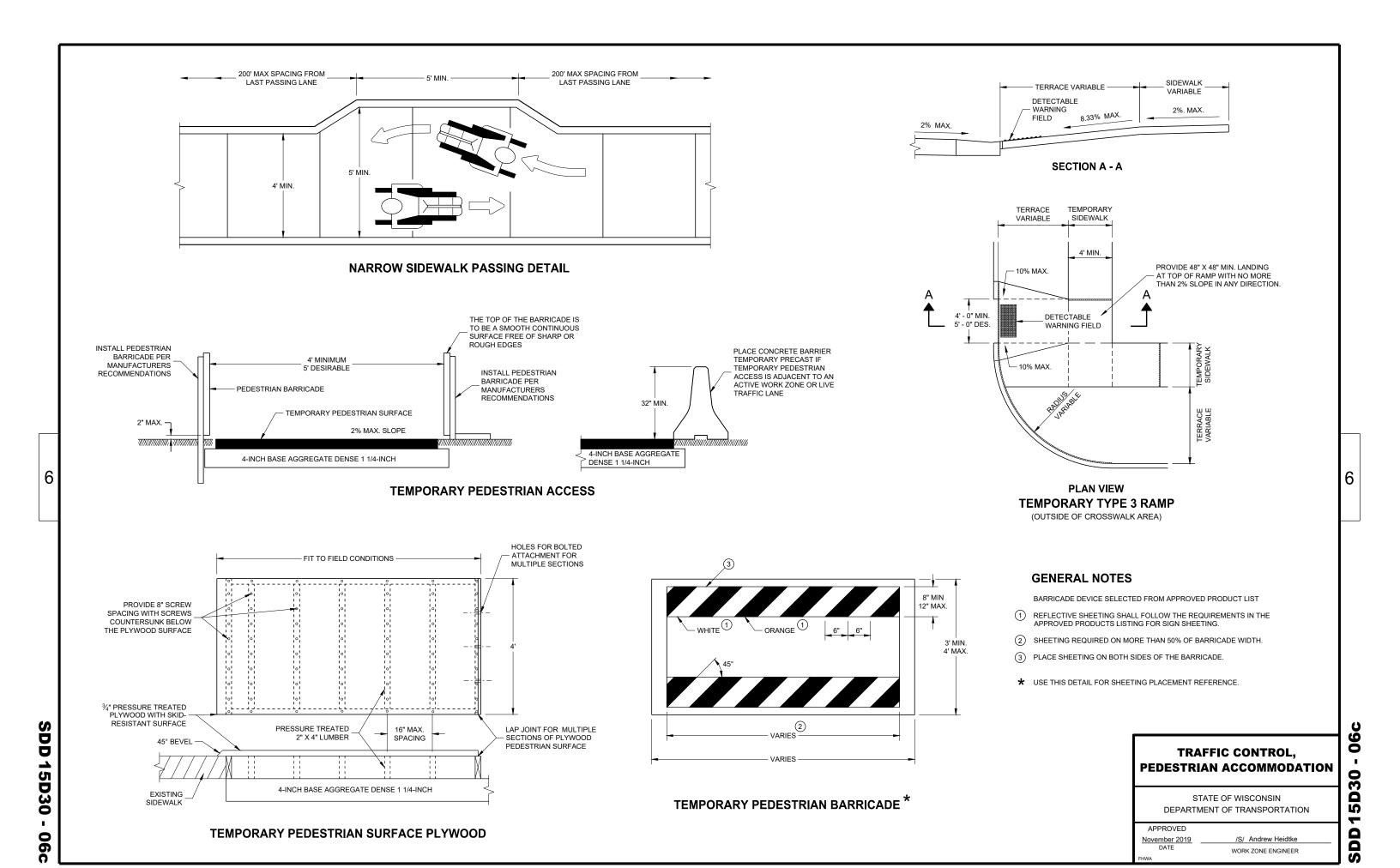
7 DRAINAGE

(5) CLEAR SPACE

(9) EDGE TREATMENT

WITH PROTECTIVE EDGE

SDD 15D30 - 06b





TUBULAR STEEL POSTS

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

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

#### URBAN AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST **EMBEDMENT DEPTH** 

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

4" X 6" WOOD POST

POST SPACING REQUIREM	MENTS	NUMBER OF	
L	E	WOOD POSTS REQUIRED	
48" OR LESS AND LESS THAN 20 SO.FT.	-	1	
LESS THAN 60"	12"	2	٤
60" TO 120"	L/5	2	
GREATER THAN 120" LESS THAN 168"	12"	3	
168" AND GREATER	12"	4	

SEE NOTE (3)

RURAL AREA

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

-11

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- 11/2" DIAMETER HOLES

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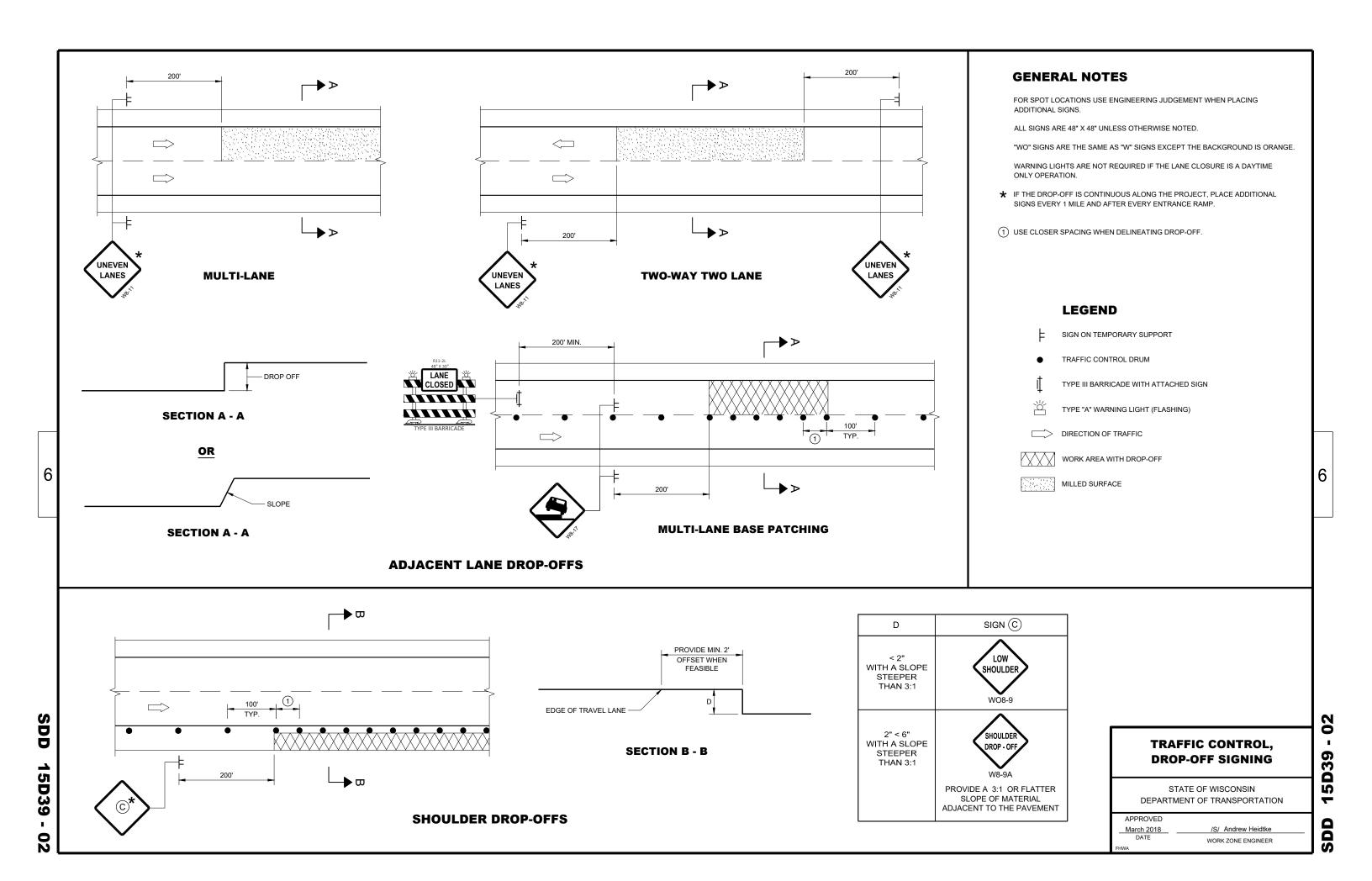
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DEPARTMENT OF TRANSPORTATION

/S/ Andrew Heidtke WORK ZONE ENGINEER

APPROVED

June 2017 DATE



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

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED

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.

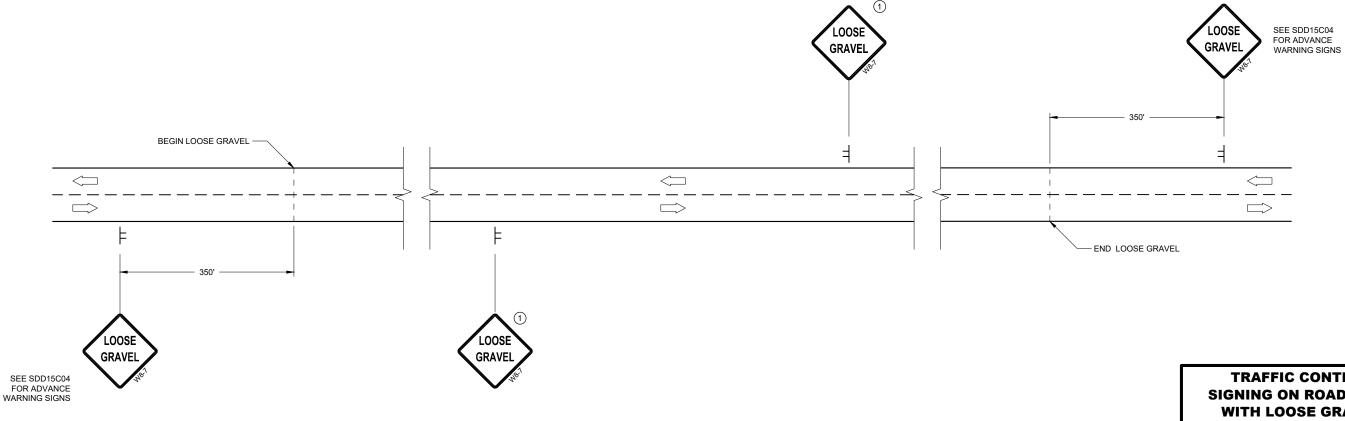
- (1) PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- (2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

#### **LEGEND**

- SIGN ON TEMPORARY SUPPORT
- □ DIRECTION OF TRAFFIC

 $\perp \!\!\! \perp$ 

#### **TYPICAL SIDE ROAD APPROACH SIGN DETAIL**



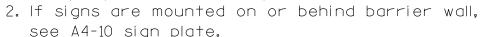
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

February 2020 DATE /S/ Andrew Heidtke WORK ZONE ENGINEER

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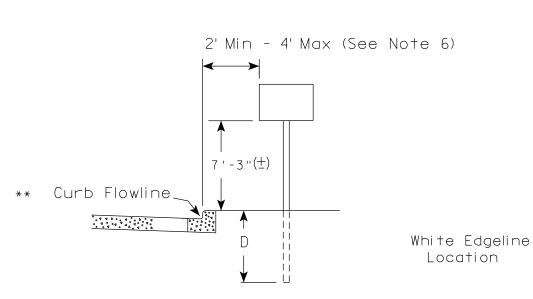
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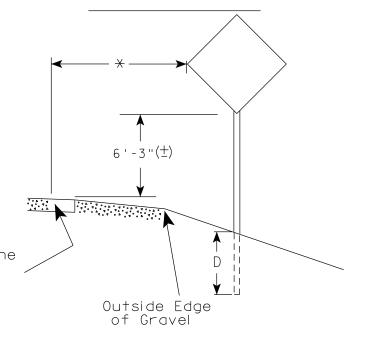
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The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52). Mile Markers (D10 series). In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3'' ( $\frac{+}{-}$ ).

- 3. For expressways and freeways, mounting height is 7'- 3"  $(\pm)$  or 6'-3" (±) depending upon existence of a sub-sign.
- 4. Minimum mounting height for signs mounted on traffic signal poles is  $5' - 3'' \stackrel{(\pm)}{-}$ .
- 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'' ( $\pm$ ) or as directd by the Engineer.





2' Min - 4' Max (See Note 6) 6'-3"(±) \*\* Curb Flowline D

5'-3"(士) White Edgeline  $D \parallel$ Location Outside Edge of Gravel

\*\* 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.

HWY:

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED For State Traffic Engineer

DATE 5/13/2020 PLATE NO. \_\_A4-3.22

SHEET NO:

Ε

PROJECT NO: FILE NAME : C:\CAEfiles\Projects\tr\_stdplate\A43.dgn COUNTY:

PLOT BY: mscj9h

PLOT NAME :

PLOT SCALE: \$\$.....plo†scale.....\$\$ WISDOT/CADDS SHEET 42

PLOT DATE: 13-MAY 2020 1:04



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



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

HWY:



#### PLAN VIEW

COUNTY:

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

For State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

SHEET NO:

FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\A43B.DGN

PROJECT NO:

PLOT DATE: 27-JAN-2014 09:48

PLOT NAME :

PLOT BY: mscsja

PLOT SCALE: 13.659812:1.000000

APPROVED

WISDOT/CADDS SHEET 42

#### 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'' ( $\pm$ ) 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'' (±).
- \* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.
- \*\* The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.
- \*\* See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

## POST EMBEDMENT DEPTH

D
(Min)
4'
5'

WISCONSIN DEPT OF TRANSPORTATION APPROVED For State Traffic Engineer DATE 8/21/17 PLATE NO. <u>A4-4.15</u>





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

HWY:

SIGN SHAPE OTHER THAN (THREE POSTS REQUIR	
L	E
Greater than 108" to 144"	12''

COUNTY:

FILE NAME : C:\CAEfiles\Projects\tr\_stdplate\A44.DGN

PROJECT NO:

PLOT DATE: 21-AUG-2017 15:54

PLOT SCALE: 108.188297:1.000000

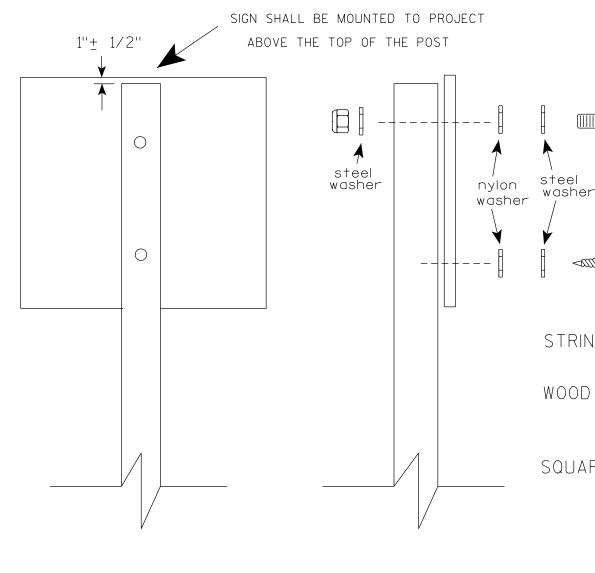
WISDOT/CADDS SHEET 42

OF TYPE II SIGNS ON MULTIPLE POSTS

TYPICAL INSTALLATION

SHEET NO:

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



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 -  $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts

WOOD POSTS  $(4'' \times 6'')$ 

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 - 3/32 " (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  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ " STEEL 1-1/4" O.D. X  $\frac{3}{8}$ " 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

APPROVED

DATE 4/1/2020

PLATE NO. <u>A4-8.9</u>

FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\A48.DGN

PROJECT NO:

PLOT DATE: 01-APRIL-2020

PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

Ε

WISCONSIN DEPT OF TRANSPORTATION

Matther ≠or State Traffic Engineer

SHEET NO:



PROJECT NO: HWY: COUNTY: SHEET NO: FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\A49.DGN PLOT DATE: 05-FEB-2015 17:09 PLOT BY: mscsja PLOT NAME : PLOT SCALE: 13.659812:1.000000

DATE 2/05/15

PLATE NO. <u>A4-9.9</u>

For State Traffic Engineer



### BANDING



SINGLE SIGN





# WASHER PLACEMENT



HWY:

WASHERS (ALL POSTS) -

1-1/4" O.D. X<sup>3</sup>/<sub>8</sub>" I.D. X<sup>1</sup>/<sub>16</sub>" STEEL 1-1/4" O.D.  $\times \frac{3}{8}$ " I.D.  $\times$  .080 NYLON FOR ALL TYPE H SIGNS

CHANNEL

#### 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  $\frac{3}{4}$ " 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



STANDARD SIGN SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

SHEET NO:

APPROVED

DATE 6/10/19

PLATE NO. A5-9.4

Ε

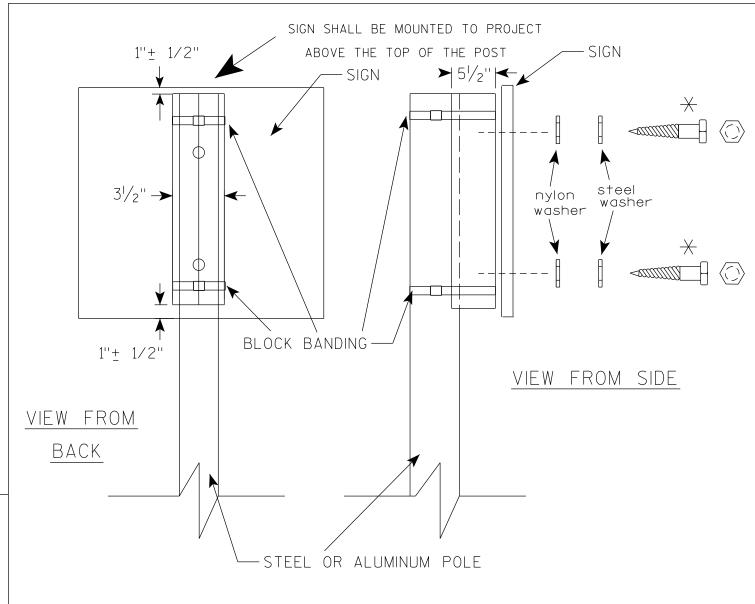
State Traffic Engineer

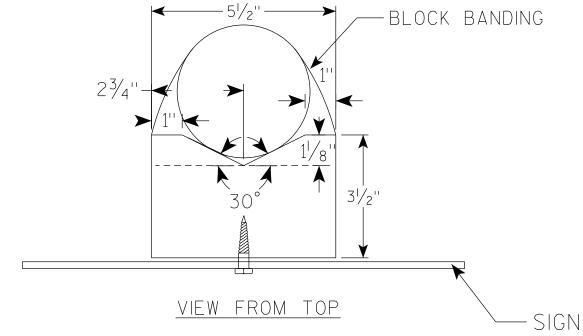
COUNTY:

PLOT NAME :

PLOT SCALE: \$\$.....plotscale.....\$\$ WISDOT/CADDS SHEET 42

PROJECT NO:





#### 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,  $\frac{3}{4}$ " 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 NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
- 5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
  - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
  - b. Electro-galvanized in accordance with ASTM Designation: B 633, TYPE III, SC 3
- 6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
- 7. STEEL WASHERS SHALL BE  $1\frac{1}{4}$ " O.D. X  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ "
- 8. NYLON WASHERS SHALL BE  $1^{1}/_{4}$ " O.D. X  $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

 $\rightarrow$  LAG BOLTS SHALL BE  $\frac{3}{8}$ " X  $2\frac{1}{2}$ "

BLOCK BANDING DETAIL ( V-BLOCK OPTION )

WISCONSIN DEPT OF TRANSPORTATION

Matthew R

APPROVED

For State Traffic Engineer

SHEET NO:

DATE <u>6/10/19</u>

PLATE NO. <u>A5-10.2</u>

PROJECT NO:

FILE NAME : C:\CAEfiles\Projects\tr\_stdplate\A510.dgn

PLOT DATE: 10-JUN 2019 4:15

PLOT BY : mscj9h

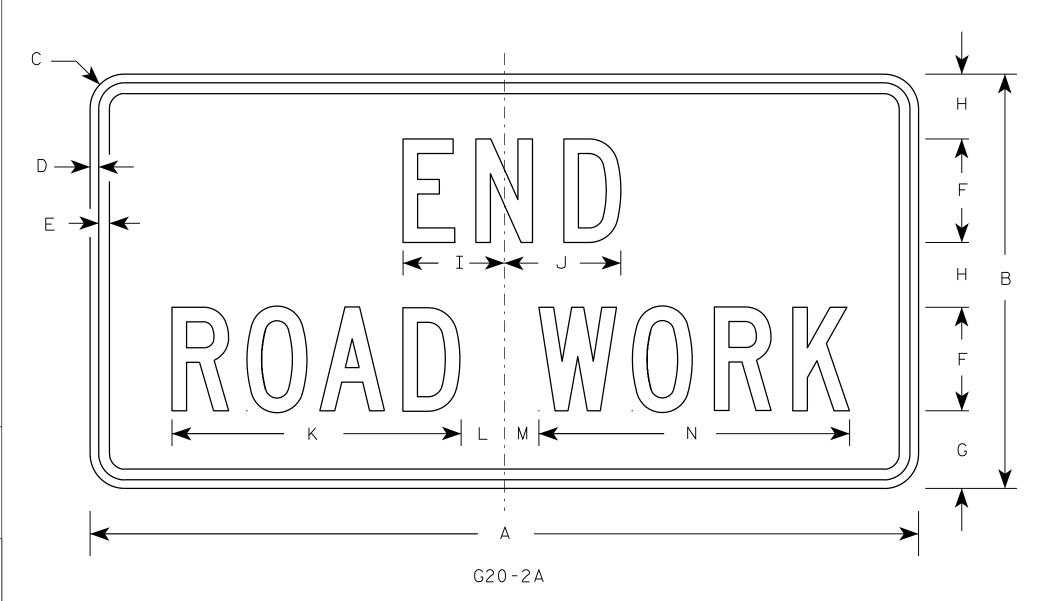
WISDOT/CADDS SHEET 42

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 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.



Metric equivalent for this sign is:

SIZE	Α	В	С	D	E	F	G	Н	I	J	К	L	М	N	0	Р	Q	R	S	Т	U	٧	W	Х	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 %	6 3/4	16 ¾	2 1/2	1 3/4	18 ½													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 %	6 3/4	16 ¾	2 1/2	1 3/4	18 ½													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 %	6 3/4	16 ¾	2 1/2	1 3/4	18 ½													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 1/8	6 3/4	16 ¾	2 1/2	1 3/4	18 ½													8.0	0.72

COUNTY:

STANDARD SIGN G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED AND UN A O N

Matther R Lauch

For State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

SHEET NO:

FILE NAME : C:\Users\PROJECTS\tr\_stdplate\G202A.DGN

HWY:

PROJECT NO:

PLOT DATE: 30-SEP-2009 09:31

PLOT BY: ditjph

PLOT NAME :

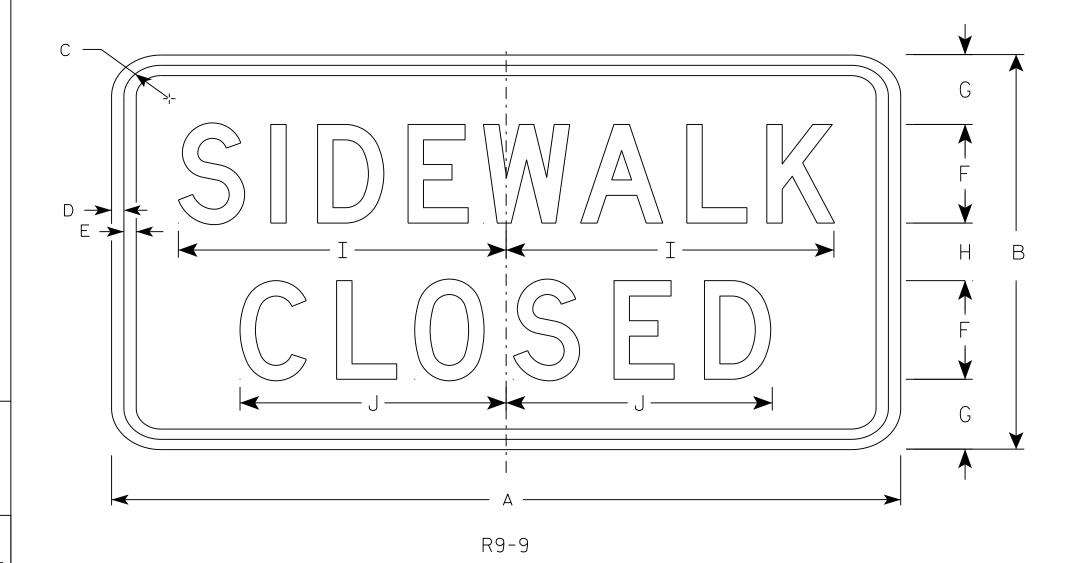
PLOT SCALE: 5.561773:1.000000

WISDOT/CADDS SHEET 42

- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - White Message - Black

- 3. Message Series C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.



SIZE A 2S 24 1 3/4 1/2 2 1/8 1 3/4 10 1/2 12 3 8 1/8 2.0 24 1 3/4 1/2 2 1/8 1 3/4 8 1/8 12 10 2.0 1 3/4 3 1/2 30 18 1/2 1/2 3 | 12 1/2 | 10 1/4 3.75

COUNTY:

STANDARD SIGN R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Marther R Ray

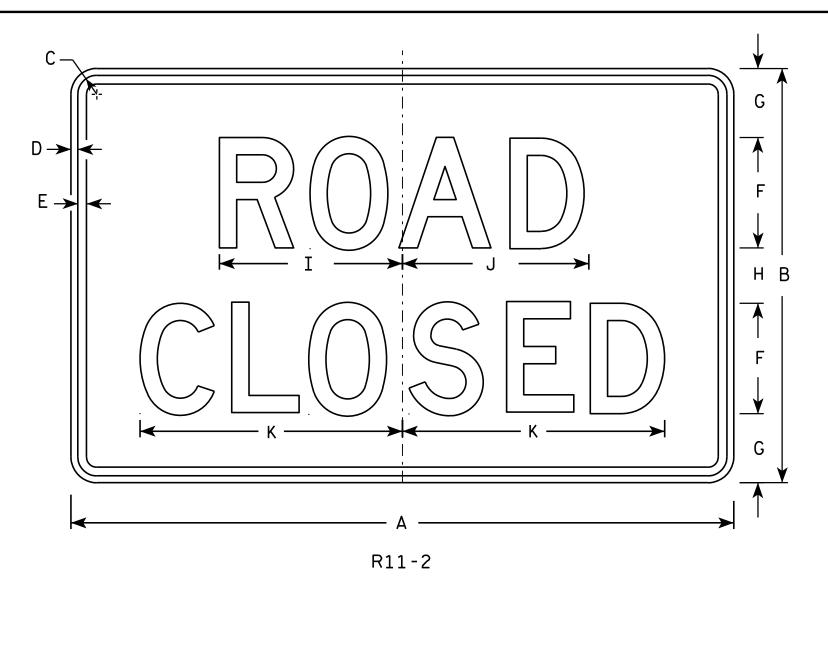
DATE <u>8/11/16</u>

SHEET NO: R9-9.6

Ε

HWY:

PROJECT NO:

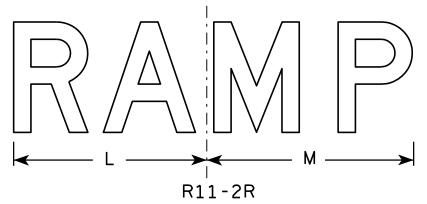


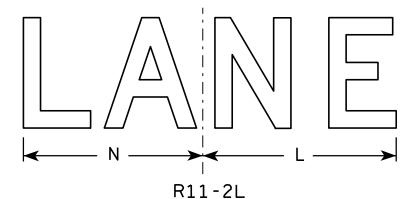
#### <u>NOTES</u>

- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - White Message - Black

- 3. Message Series D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Modify the message as required.





SIZE	A	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Ρ	0	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3												14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5												14	15	13													10.0
PRO	5   48   30   1 3/8   1/2   5/8   8   5   4   13 1/4   13 1/2   19   14    PROJECT NO: HWY:													OUNTY	<b>':</b>												

STANDARD SIGN R11-2

WISCONSIN DEPT OF TRANSPORTATION

DATE 4/1/11 PLATE NO. R11-2.10

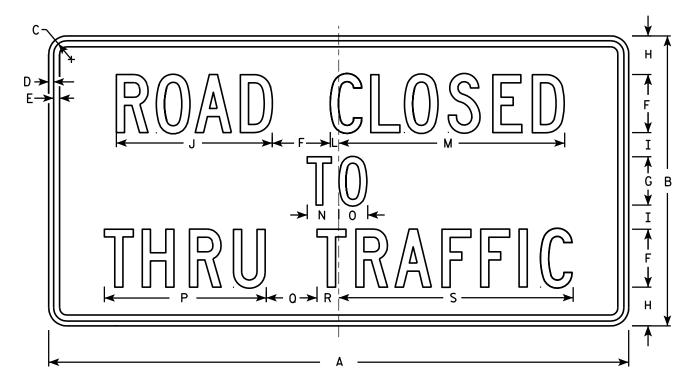
SHEET NO:

PLOT BY: mscj9h

- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - White Message - Black

- 3. Message Series C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R11-4

SIZE	Α	В	С	D	Ε	F	G	Н	I	J	K	L	М	N	0	Р	0	R	S	T	U	٧	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		<b>7</b> /8	23 ¾	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7∕8	23 ¾	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

STANDARD SIGN R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

DATE 4/1/11 PLATE NO. R11-4.3

SHEET NO:

HWY:

COUNTY:

PLOT NAME :

PLOT SCALE: 9.931739:1.000000

WISDOT/CADDS SHEET 42

FILE NAME : C:\Users\PROJECTS\tr\_stdplate\R114.DGN

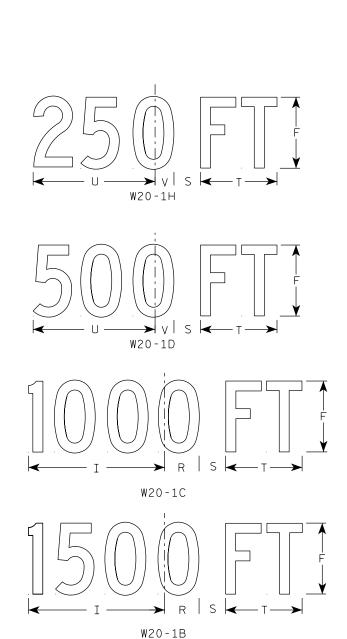
PROJECT NO:

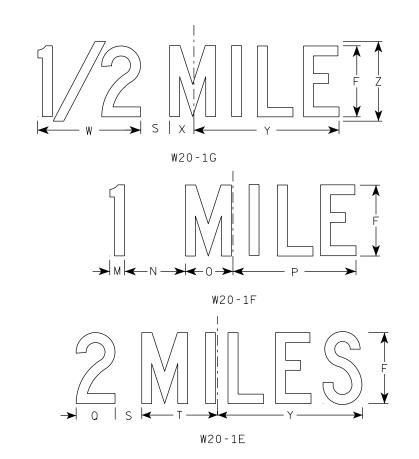
PLOT DATE: 01-APR-2011 14:11 PLOT BY: mscj9h

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

Background - Orange Message - Black

- 3. Message Series C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown.
  When base material is metal, the corners and borders shall be rounded.





SIZE	А	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	Х	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 1/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 %	9	1 3/8	8	1 3/4	10 3/4	6	9.0
25	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1	6 %	5 3/8	13 1/8	4 3/8	3 1/8	3	8 %	13 ¾	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 1/8	5 3/8	13 1/8	4 3/8	3 1/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1	6 %	5 3/8	13 1/8	4 3/8	3 1/8	3	8 %	13 ¾	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 1/8	5 3/8	13 1/8	4 3/8	3 1/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 1/8	5 3/8	13 1/8	4 3/8	3 1/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew & Paulo

For State Traffic Engineer
DATE 3/25/2020 PLATE NO. W20-1.11

SHEET NO:

FILE NAME : C:\CAEfiles\Projects\tr\_stdplate\W201.DGN

PROJECT NO:

W20-1A

PLOT DATE: 25-MARCH-2020

PLOT BY : dotc4c

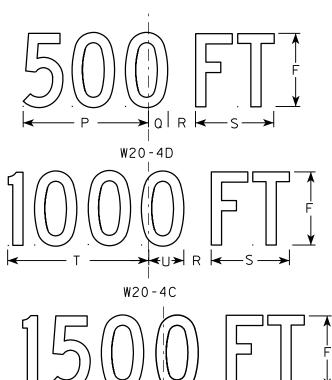
WISDOT/CADDS SHEET 42

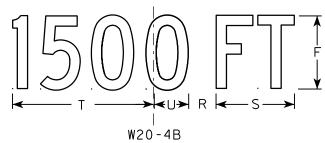


- 1. Sign is Type II Type F Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

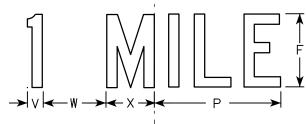
Background - Orange Message - Black

- 3. Message Series 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.









PLOT BY: mscj9h

								W2	O-4A													W20-4	1 F				
SIZE	A B C D E F G H I J K L M N O P															0	R	S	Т	U	V	W	Х	Υ	Z	Area sq. ft.	
1	36		1 5/8	5/8	3/4	5	2 3/8	6	3 3/4	10 3/8	2 3/8	8	13 ½	7	8 %	9	1 3/8	1 1/8	5 %	10 1/8	2 1/2	1 1/8	4 ½	3 ½	10 ¾	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 %	17 3/4	9 3/4	12 5/8	12	1 1/8	2 %	7 1/2	13 ½	3 %	1 1/2	6	4 %	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 %	17 3/4	9 3/4	12 5/8	12	1 1/8	2 %	7 1/2	13 ½	3 3/8	1 1/2	6	4 %	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 %	17 3/4	9 3/4	12 5/8	12	1 1/8	2 %	7 1/2	13 ½	3 %	1 1/2	6	4 %	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 %	17 3/4	9 3/4	12 5/8	12	1 1/8	2 5/8	7 1/2	13 ½	3 3/8	1 1/2	6	4 %	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 1/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 %	14 3/8	2 3/8	16.0

W20-4A

STANDARD SIGN W20-4A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED State Traffic Engineer

DATE 3/18/11

SHEET NO:

FILE NAME : C:\Users\PROJECTS\tr\_stdplate\W204.DGN

PROJECT NO:

PLOT DATE: 18-MAR-2011 12:11

WISDOT/CADDS SHEET 42

PLATE NO. W20-4.9

Ε

- 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. 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.

A	C H
	W20-7A

HWY:

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	0	R	S	Т	U	٧	W	×	Y	Z	Area sq. ft.
1	36		1 1/8	5/8	₹4		2 3/4	13 1/2	14 %																		9.00
2S	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
2M	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
3	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
4	48		2 1/4	¾	1		3 3/4	18	19 1/2																		16.00
5	48		2 1/4	3/4	1		3 3/4	18	19 1/2		·								·		·						16.00

COUNTY:

STANDARD SIGN W20-7A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew & Rawh

For State Traffic Engineer

DATE \_3/18/11 PLATE NO. W20-7A.5

SHEET NO:

PROJECT NO:

PLOT NAME :

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

Background - Orange Message - Black

- 3. Message Series see note 5
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Line 1 is Series C Lines 2 and 3 are Series D

J E D

W21-65

HWY:

SIZE	Α	В	С	D	E	F	G	Н	I	J	К	L	M	N	0	Р	0	R	S	Т	U	٧	W	Х	Y	Z	Areg sq. ft.
1	36		1 %	5/8	3/4	5	3 1/4	10 %	11 %	11	11 %																9.0
2S	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 %	15 1/4																16.0
2M	48		2 1/4	3/4	1	7	4	15 1/4	16	14 %	15 1/4																16.0
3	48		2 1/4	3/4	1	7	4	15 1/4	16	14 %	15 1/4																16.0
4	48		2 1/4	3/4	1	7	4	15 1/4	16	14 %	15 1/4																16.0
5	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4	·			·	·								·	·		16.0

COUNTY:

STANDARD SIGN W21-65

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

ED Matthe R Rouse

for State Traffic Engl

DATE 5/28/14

PLATE NO. W21-65.1
SHEET NO:

PROJECT NO:

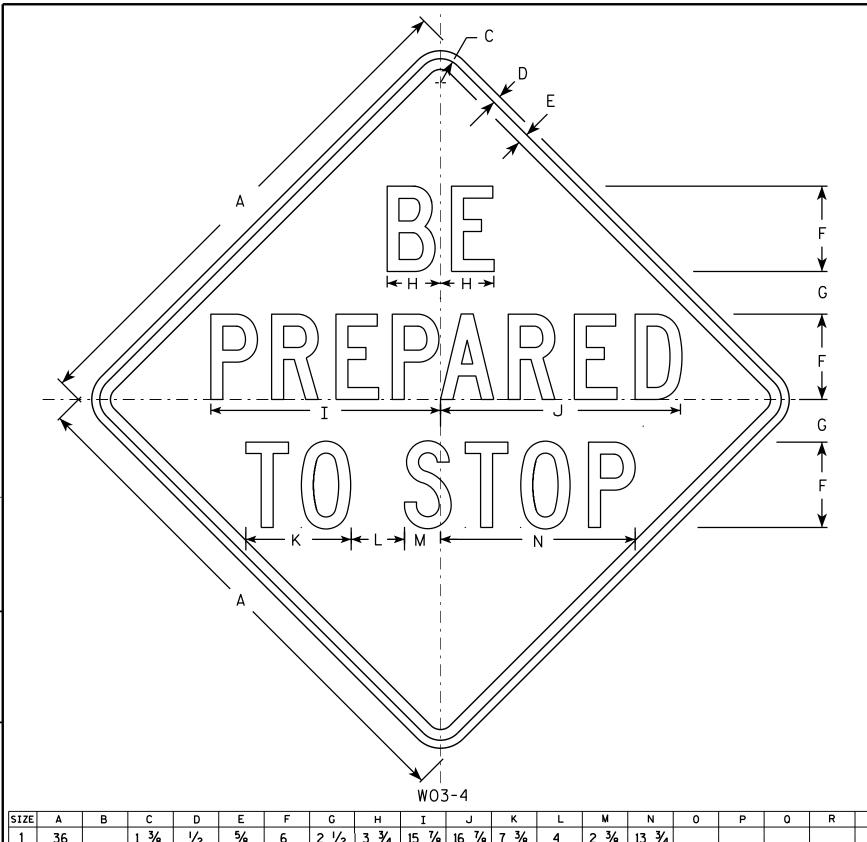
FILE NAME: C:\CAEFiles\Projects\tr\_stdplate\W2165.dgn

PLOT DATE : 28-MAY-2014 13:24

PLOT NAME :

PLOT BY: mscsja

PLOT SCALE: 9.729210:1.000000



- 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 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.

1 3/8 5/8 2 3/8 | 13 3/4 1/2 2 1/2 15 % 16 % 7 % 9.0 3/4 21 1/2 22 1/2 9 7/8 5 3 3/8 18 1/4 48 2 1/4 16.0 2 1/4 3/4 21 1/2 22 1/2 9 7/8 5 3 3/8 | 18 1/4 16.0 48 3/4 21 1/2 22 1/2 9 7/8 5 3 3/8 18 1/4 2 1/4 16.0 48 4 21 1/2 22 1/2 9 7/8 5 3 3/8 18 1/4 2 1/4 3/4 48 8 16.0 5 3/4 21 1/2 22 1/2 9 7/8 3 3/8 18 1/4 48 2 1/4 8 16.0

COUNTY:

STANDARD SIGN W03 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

DATE 12/02/13

PLATE NO. W03-4.1 SHEET NO:

FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\W034.DGN

HWY:

PROJECT NO:

PLOT DATE: 02-DEC-2013 14:02

PLOT NAME :

WISDOT/CADDS SHEET 42

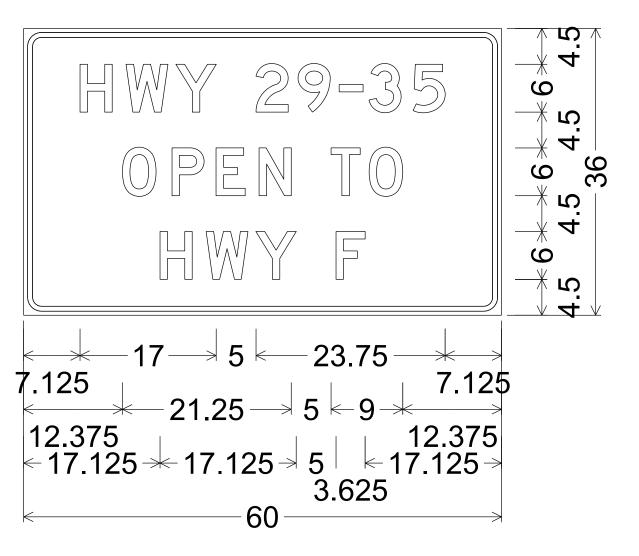
PLOT SCALE: 8.999518:1.000000

1. Fixed Message Type II Sign - Type F Reflective

2. Color:

Background - Orange Message – Black

3. Message Series - D



2.250" Radius, 0.625" Border, 0.500" Indent

PROJECT NO: 7650-01-74

HWY: STH 29

COUNTY: PIERCE

TEMPORARY SIGNING

PLOT NAME :

SHEET NO:

FILE NAME : C:\CAEfiles\Projects\tr\_6\_6472a420FMS.dgn

PLOT DATE : 21-APR 2020 4:16

PLOT BY: mscj9h

#### **STH 29 EARTHWORK SUMMARY**

					AREA (SF)		11	NCREMENTAI	L VOL (CY) UNADJUSTE	ED .		C	CUMULATIVE VOL (CY)		
					SLAVAGED/UNUSABLE				SLAVAGED/UNUSABLE		CUT		SLAVAGED/UNUSABLE	EXPANDED FILL	MASS
STATI ON	LOCATI ON	DI STANCE	CUT	EBS	PAVEMENT MATERIAL	FILL	CUT	EBS	PAVEMENT MATERIAL	FILL	1. 00	EBS	PAVEMENT MATERIAL	1. 25	ORDI NATE
23+83	LT & RT	0	32. 1	0.0	21. 0	0.0	0.0	0.0	0.0	0. 0	0.0	0.0	0.0	0.0	0.0
24+00	LT & RT	17	32. 7	0.0	21. 0	6. 3	20. 4	0.0	13. 2	2. 0	20. 4	0.0	13. 2	2. 5	4. 7
24+50	LT & RT	50	37. 9	0.0	21. 0	5. 1	65. 3	0.0	38. 9	10. 6	85. 7	0.0	52. 1	15. 8	17. 8
25+00	LT & RT	50	38. 5	0.0	21. 0	2.8	70. 8	0.0	38. 9	7. 3	156. 5	0.0	91. 0	24. 9	40. 6
25+50	LT & RT	50	33. 4	0.0	21. 0	5. 2	66. 6	0.0	38. 9	7. 4	223. 0	0.0	129. 9	34. 1	59. 0
26+00	LT & RT	50	36. 2	0.0	21. 3	6. 1	64. 4	0.0	39. 2	10. 5	287. 4	0.0	169. 0	47. 2	71. 2
26+50	LT & RT	50	37. 2	0.0	21. 6	3. 0	67. 9	0.0	39. 7	8. 4	355. 3	0.0	208. 7	57. 6	88. 9
27+00	LT & RT	50	35. 5	0.0	21. 9	5. 4	67.3	0.0	40. 2	7. 8	422. 6	0.0	249. 0	67. 4	106. 2
27+50	LT & RT	50	36. 7	0.0	22. 8	4. 2	66. 9	0.0	41. 3	8. 9	489. 5	0.0	290. 3	78. 5	120. 7
28+00	LT & RT	50	43. 3	0.0	24. 5	2. 1	74. 1	0.0	43. 8	5.8	563. 5	0.0	334. 1	85. 7	143.8
28+50	LT & RT	50	39. 2	0.0	26. 3	0. 5	76. 4	0.0	47. 0	2. 4	639. 9	0.0	381.0	88. 6	170. 2
29+00	LT & RT	50	43.5	0.0	27. 4	0. 5	76. 5	0.0	49. 7	0. 9	716. 4	0.0	430. 7	89. 8	195. 9
29+50	LT & RT	50	41. 3	0.0	28. 6	0. 7	78. 5	0.0	51. 9	1. 1	794. 9	0.0	482. 6	91. 1	221. 3
30+00	LT & RT	50	46. 3	0.0	29. 5	11.7	81. 1	0.0	53. 8	11. 4	876. 0	0.0	536. 4	105. 4	234. 3
30+50	LT & RT	50	35. 1	0.0	29. 8	7. 9	75. 3	0.0	54. 9	18. 1	951. 3	0.0	591. 3	128. 1	232. 0
31+00	LT & RT	50	29. 1	0.0	29. 9	16. 5	59. 4	0.0	55. 2	22. 6	1010. 8	0.0	646. 5	156. 3	208.0
31+50	LT & RT	50	35. 9	0.0	29. 9	11. 5	60. 2	0.0	55. 4	25. 9	1071.0	0.0	701. 9	188. 7	180. 4
32+00	LT & RT	50	39. 4	0.0	29. 9	7. 2	69. 7	0.0	55. 4	17. 3	1140. 7	0.0	757. 3	210. 3	173. 1
32+50	LT & RT	50	38. 0	0.0	30. 9	5. 5	71. 7	0.0	56. 3	11. 7	1212. 3	0.0	813. 6	225. 0	173. 7
33+00	LT & RT	50	39. 3	0.0	32. 1	1. 7	71. 6	0.0	58. 3	6. 6	1284.0	0.0	872. 0	233. 2	178. 8
33+50	LT & RT	50	38. 7	0.0	32. 1	1. 0	72. 3	0.0	59. 4	2. 4	1356. 2	0.0	931. 4	236. 3	188. 6
34+00	LT & RT	50	94. 5	0.0	31.8	2. 2	123. 3	0.0	59. 1	3. 0	1479. 6	0.0	990. 5	240. 0	249. 1
34+50	LT & RT	50	220. 4	0.0	32. 7	0. 0	291. 5	0.0	59. 7	2. 1	1771. 1	0.0	1050. 2	242. 6	478. 3
35+00	LT & RT	50	55. 2	0.0	33. 8	4. 5	255. 2	0.0	61. 6	4. 1	2026. 2	0.0	1111. 8	247. 8	666. 7
35+50	LT & RT	50	39. 5	0.0	33. 3	9. 9	87.7	0.0	62. 1	13. 3	2113. 9	0.0	1173. 9	264. 4	675. 6
36+00	LT & RT	50	39. 8	0.0	32. 3	11. 3	73. 5	0.0	60. 7	19. 7	2187. 4	0.0	1234. 5	289. 0	663.8
36+50	LT & RT	50	39. 3	0.0	30. 9	10. 1	73. 3	0.0	58. 5	19. 9	2260. 7	0.0	1293. 0	313. 9	653. 8
37+00	LT & RT	50	44. 9	0.0	30. 0	7. 5	78. 0	0.0	56. 4	16. 3	2338. 7	0.0	1349. 4	334. 3	655. 0
37+50	LT & RT	50	46. 5	0.0	29. 8	6. 3	84. 7	0.0	55. 3	12. 8	2423. 3	0.0	1404. 7	350. 2	668. 4
38+00	LT & RT	50	52. 3	0.0	29. 8	6. 4	91. 5	0.0	55. 1	11. 8	2514.8	0.0	1459. 8	364. 9	690. 1
38+50	LT & RT	50	52. 2	0.0	28. 6	4. 8	96. 8	0.0	54. 0	10. 4	2611. 6	0.0	1513. 8	377. 9	719. 9
39+00	LT & RT	50	46. 9	0.0	27. 9	0. 4	91. 8	0.0	52. 3	4. 8	2703. 4	0.0	1566. 1	383. 9	753. 3
39+50	LT & RT	50	39. 1	0.0	25. 1	0. 9	79. 6	0.0	49. 0	1. 2	2783. 0	0.0	1615. 2	385. 4	782. 4
40+00	LT & RT	50	36. 3	0.0	24. 2	5. 6	69. 8	0.0	45. 6	6. 0	2852. 8	0.0	1660. 8	392. 9	799. 1
40+50	LT & RT	50	36. 6	0.0	23. 3	4. 1	67. 4	0.0	44. 0	9. 0	2920. 2	0.0	1704. 7	404. 2	811. 3
41+00	LT & RT	50	36. 8	0.0	23. 0	3. 3	67. 9	0. 0	42. 9	6.8	2988. 1	0.0	1747. 7	412. 7	827. 7

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SHEET **E** 

					AREA (SF)		11	NCREMENTA	L VOL (CY) UNADJUSTE	ED		(	CUMULATIVE VOL (CY)		
					SLAVAGED/UNUSABLE				SLAVAGED/UNUSABLE		CUT		SLAVAGED/UNUSABLE	EXPANDED FILL	MASS
STATI ON	LOCATI ON	DI STANCE	CUT	EBS	PAVEMENT MATERIAL	FILL	CUT	EBS	PAVEMENT MATERIAL	FILL	1. 00	EBS	PAVEMENT MATERIAL	1. 25	ORDI NATE
41+00	LT & RT	50	36. 8	0.0	23. 0	3. 3	67. 9	0.0	42. 9	6. 8	2988. 1	0.0	1747. 7	412. 7	827. 7
41+50	LT & RT	50	36. 0	0.0	20. 4	2. 9	67. 3	0.0	40. 2	5. 7	3055. 4	0.0	1787. 9	419. 9	847. 7
42+00	LT & RT	50	35. 6	0.0	17. 5	1. 7	66. 2	0.0	35. 1	4. 2	3121. 6	0.0	1823. 0	425. 2	873. 5
42+50	LT & RT	50	33. 5	0. 0	17. 5	1. 5	64. 0	0.0	32. 4	2. 9	3185. 6	0.0	1855. 4	428. 8	901. 3
43+00	LT & RT	50	34. 6	0. 0	17. 5	1. 2	63. 1	0.0	32. 4	2. 5	3248. 7	0.0	1887. 8	432. 0	928. 9
43+50	LT & RT	50	32. 2	0.0	17. 5	0. 7	61. 9	0.0	32. 4	1. 7	3310. 6	0. 0	1920. 2	434. 1	956. 3
44+00	LT & RT	50	30. 1	0.0	17. 5	0. 9	57. 7	0.0	32. 4	1. 4	3368. 3	0. 0	1952. 6	435. 9	979. 7
44+50	LT & RT	50	27. 5	0.0	17. 5	13. 9	53. 4	0.0	32. 4	13. 7	3421.6	0. 0	1985. 1	453. 0	983. 5
45+00	LT & RT	50	26. 4	0.0	17. 5	1. 2	49. 9	0.0	32. 4	14. 0	3471. 5	0. 0	2017. 5	470. 5	983. 6
45+50	LT & RT	50	24. 3	0.0	17. 5	1. 2	46. 9	0.0	32. 4	2. 2	3518. 4	0. 0	2049. 9	473. 3	995. 2
45+79	LT & RT	-	0. 0	0.0	0.0	0. 0	900. 0	0.0	0.0	0.0	4418. 4	0. 0	2049. 9	473. 3	1895. 2
46+00	LT & RT	50	24. 0	0.0	17. 5	1. 2	44. 7	0.0	32. 4	2. 3	4463. 1	0. 0	2082. 3	476. 1	1904. 7
46+50	LT & RT	50	25. 0	0.0	17. 5	2. 2	45. 4	0. 0	32. 4	3. 2	4508. 6	0. 0	2114. 7	480. 1	1913. 8
47+00	LT & RT	50	19. 1	0.0	17. 5	7. 5	40. 9	0. 0	32. 4	9. 0	4549. 4	0. 0	2147. 1	491. 3	1911. 0
47+50	LT & RT	50	19. 8	0.0	17. 5	8. 3	36. 0	0.0	32. 4	14. 6	4585. 5	0. 0	2179. 5	509. 6	1896. 3
48+00	LT & RT	50	19. 7	0.0	17. 5	5. 0	36. 6	0. 0	32. 4	12. 3	4622.1	0. 0	2211. 9	525. 1	1885. 1
48+50	LT & RT	50	20. 0	0.0	17. 5	4. 4	36. 8	0. 0	32. 4	8. 7	4658.8	0. 0	2244. 3	536. 0	1878. 6
49+00	LT & RT	50	22. 4	0.0	17. 5	1. 7	39. 2	0. 0	32. 4	5. 6	4698. 1	0. 0	2276. 7	543. 0	1878. 3
49+50	LT & RT	50	24. 7	0.0	17. 5	1. 7	43. 6	0.0	32. 4	3. 1	4741. 7	0. 0	2309. 1	546. 9	1885. 7
50+00	LT & RT	50	29. 1	0.0	17. 5	5. 4	49. 8	0.0	32. 4	6. 5	4791. 5	0. 0	2341. 5	555. 0	1895.0
50+50	LT & RT	50	26. 2	0. 0	17. 5	4. 3	51. 2	0.0	32. 4	9. 0	4842. 7	0. 0	2373. 9	566. 2	1902.5
51+00	LT & RT	50	25. 5	0. 0	17. 5	2. 2	47. 9	0. 0	32. 4	6. 0	4890. 6	0. 0	2406. 3	573. 7	1910. 5
51+50	LT & RT	50	26. 4	0. 0	17. 5	2. 3	48. 1	0. 0	32. 4	4. 1	4938. 6	0. 0	2438. 8	578. 9	1921. 0
52+00	LT & RT	50	28. 1	0. 0	17. 5	0. 9	50. 5	0. 0	32. 4	2. 9	4989. 1	0. 0	2471. 2	582. 5	1935. 4
52+50	LT & RT	50	38. 2	0. 0	17. 5	0.8	61. 4	0. 0	32. 4	1. 6	5050. 5	0. 0	2503. 6	584. 5	1962. 4
53+00	LT & RT	50	28. 0	0. 0	17. 5	0. 8	61. 3	0. 0	32. 4	1. 5	5111. 8	0. 0	2536. 0	586. 4	1989. 4
53+50	LT & RT	50	31. 2	0. 0	17. 5	0. 9	54. 8	0. 0	32. 4	1. 5	5166. 5	0. 0	2568. 4	588. 3	2009. 9
54+00	LT & RT	50	44. 2	0. 0	17. 5	0. 0	69. 8	0. 0	32. 4	0.8	5236. 3	0. 0	2600. 8	589. 3	2046. 2
54+50	LT & RT	50	50. 1	0. 0	17. 5	0. 0	87. 3	0. 0	32. 4	0. 0	5323. 7	0. 0	2633. 2	589. 3	2101. 1
55+00	LT & RT	50	54. 8	0. 0	28. 5	0. 0	97. 1	0. 0	42. 6	0. 0	5420. 8	0. 0	2675. 8	589. 3	2155. 7
55+50	LT & RT	50	50. 3	0. 0	28. 5	0. 0	97. 3	0. 0	52. 8	0. 0	5518. 1	0. 0	2728. 6	589. 3	2200. 2
56+00	LT & RT	50	51. 5	0. 0	28. 5	0. 0	94. 3	0. 0	52. 8	0. 0	5612. 4	0. 0	2781. 3	589. 4	2241. 6
56+50	LT & RT	50	55. 4	0. 0	28. 5	0. 6	99. 0	0. 0	52. 8	0. 5	5711. 4	0. 0	2834. 1	590. 1	2287. 2
57+00	LT & RT	50	65. 6	0. 0	28. 5	1. 3	112. 1	0.0	52. 8	1. 8	5823. 4	0. 0	2886. 9	592. 3	2344. 3
57+50	LT & RT	50	71. 9	0. 0	28. 5	2. 4	127. 4	0. 0	52. 8	3. 4	5950. 8	0. 0	2939. 7	596. 6	2414. 6
58+00	LT & RT	50	121. 1	0. 0	28. 5	2. 3	178. 7	0. 0	52. 8	4. 3	6129. 5	0. 0	2992. 5	602. 0	2535. 1
58+50	LT & RT	50	74. 4	0. 0	28. 5	2. 5	181. 0	0.0	52. 8	4. 4	6310. 5	0. 0	3045. 2	607. 5	2657. 7

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					AREA (SF)		IN	NCREMENTA	L VOL (CY) UNADJUSTE	ED .		(	CUMULATI VE VOL (CY)		
					SLAVAGED/UNUSABLE				SLAVAGED/UNUSABLE		CUT		SLAVAGED/UNUSABLE	EXPANDED FILL	MASS
STATI ON	LOCATI ON	DI STANCE	CUT	EBS	PAVEMENT MATERIAL	FILL	CUT	EBS	PAVEMENT MATERIAL	FILL	1. 00	EBS	PAVEMENT MATERIAL	1. 25	ORDI NATE
58+50	LT & RT	50	74. 4	0. 0	28. 5	2. 5	181. 0	0.0	52. 8	4.4	5410. 5	0.0	3045. 2	607. 5	1757. 7
59+00	LT & RT	50	158. 6	0.0	28. 5	4. 1	215. 8	0.0	52. 8	6. 1	5626. 2	0.0	3098. 0	615. 1	1913. 1
59+50	LT & RT	50	82. 5	0.0	17. 5	0. 4	223. 3	0.0	42. 6	4. 1	5849. 5	0.0	3140. 6	620. 3	2088. 6
60+00	LT & RT	50	77. 1	0.0	17. 5	0.0	147. 8	0.0	32. 4	0. 4	5997. 3	0.0	3173. 0	620. 8	2203. 5
60+50	LT & RT	50	49. 0	0. 0	17. 5	4. 6	116. 7	0.0	32. 4	4. 3	6114. 1	0.0	3205. 4	626. 1	2282. 5
61+00	LT & RT	50	40. 6	0.0	17. 5	5. 2	82. 9	0.0	32. 4	9. 1	6197. 0	0.0	3237. 8	637. 5	2321. 7
61+50	LT & RT	50	35. 7	0. 0	17. 5	3. 1	70. 7	0.0	32. 4	7. 7	6267.6	0.0	3270. 2	647. 0	2350. 4
62+00	LT & RT	50	35. 6	0. 0	17. 5	0. 3	66. 0	0.0	32. 4	3. 1	6333. 6	0.0	3302. 6	651. 0	2380. 0
62+50	LT & RT	50	32. 7	0. 0	17. 5	0. 3	63. 2	0.0	32. 4	0. 5	6396. 8	0.0	3335. 1	651. 6	2410. 1
63+00	LT & RT	50	33. 8	0. 0	17. 5	0. 3	61.5	0.0	32. 4	0.6	6458. 4	0.0	3367. 5	652. 3	2438. 6
63+50	LT & RT	50	33. 0	0. 0	17. 5	0. 3	61.8	0.0	32. 4	0.6	6520. 2	0. 0	3399. 9	653. 1	2467. 2
64+00	LT & RT	50	31. 2	0. 0	17. 5	0. 7	59. 4	0.0	32. 4	1.0	6579. 6	0. 0	3432. 3	654. 3	2493. 0
64+50	LT & RT	50	29. 3	0. 0	17. 5	0.8	56. 0	0.0	32. 4	1. 4	6635.5	0. 0	3464. 7	656. 0	2514. 9
65+00	LT & RT	50	28. 6	0. 0	17. 5	0. 9	53. 6	0. 0	32. 4	1. 6	6689. 2	0. 0	3497. 1	658. 0	2534. 1
65+50	LT & RT	50	28. 5	0. 0	17. 5	0. 9	52. 9	0.0	32. 4	1. 7	6742.0	0. 0	3529. 5	660. 1	2552. 5
66+00	LT & RT	50	27. 2	0. 0	17. 5	0. 9	51. 5	0.0	32. 4	1. 7	6793. 6	0. 0	3561. 9	662. 2	2569. 5
66+50	LT & RT	50	26. 3	0. 0	17. 5	1. 2	49. 5	0.0	32. 4	2. 0	6843. 1	0. 0	3594. 3	664. 7	2584. 1
67+00	LT & RT	50	25. 9	0. 0	17. 5	1. 1	48. 4	0.0	32. 4	2. 2	6891.5	0. 0	3626. 7	667. 4	2597. 4
67+50	LT & RT	50	26. 0	0. 0	17. 5	1. 0	48. 1	0.0	32. 4	2. 0	6939. 5	0. 0	3659. 1	669. 9	2610. 5
67+75	LT & RT	-	-	-	-	-	550. 0	0.0	0.0	0. 0	7489. 5	0. 0	3659. 1	669. 9	3160. 5
68+00	LT & RT	50	26. 9	0. 0	17. 5	1.0	49. 0	0. 0	32. 4	1. 9	7538. 5	0. 0	3691. 5	672. 2	3174. 8
68+50	LT & RT	50	28. 4	0. 0	17. 5	1. 1	51. 2	0. 0	32. 4	1. 9	7589. 7	0. 0	3723. 9	674. 6	3191. 2
69+00	LT & RT	50	29. 3	0. 0	17. 5	1. 0	53. 4	0.0	32. 4	1. 9	7643. 1	0. 0	3756. 3	676. 9	3209. 8
69+50	LT & RT	50	30. 2	0. 0	17. 5	0. 6	55. 1	0.0	32. 4	1. 4	7698. 2	0. 0	3788. 8	678. 7	3230. 7
70+00	LT & RT	50	31. 8	0. 0	17. 5	0. 3	57. 4	0. 0	32. 4	0.8	7755. 6	0. 0	3821. 2	679. 7	3254. 7
70+50	LT & RT	50	32. 3	0. 0	17. 5	0. 3	59. 4	0. 0	32. 4	0. 5	7815. 0	0. 0	3853. 6	680. 4	3281. 0
71+00	LT & RT	50	31. 9	0. 0	17. 5	1. 7	59. 4	0. 0	32. 4	1. 8	7874.3	0. 0	3886. 0	682. 7	3305. 7
71+50	LT & RT	50	33. 1	0. 0	17. 5	0. 7	60. 2	0.0	32. 4	2. 2	7934.5	0. 0	3918. 4	685. 4	3330. 7
72+00	LT & RT	50	33. 8	0. 0	17. 5	0. 6	62. 0	0.0	32. 4	1. 2	7996.5	0. 0	3950. 8	686. 9	3358. 8
72+50	LT & RT	50	76. 2	0. 0	17. 5	0. 1	101. 9	0.0	32. 4	0. 6	8098. 4	0. 0	3983. 2	687. 7	3427.5
73+00	LT & RT	50	32. 7	0. 0	17. 5	0. 5	100. 9	0.0	32. 4	0. 6	8199. 2	0. 0	4015. 6	688. 4	3495. 2
73+50	LT & RT	50	28. 4	0. 0	17. 5	0. 9	56. 6	0.0	32. 4	1. 3	8255. 9	0. 0	4048. 0	690. 0	3517. 9
74+00	LT & RT	50	41. 1	0. 0	17. 5	1. 3	64. 4	0.0	32. 4	2. 0	8320. 3	0. 0	4080. 4	692. 5	3547. 4
74+50	LT & RT	50	21. 6	0. 0	17. 5	3. 2	58. 0	0.0	32. 4	4. 1	8378. 3	0. 0	4112. 8	697. 6	3567.8
75+00	LT & RT	50	25. 1	0. 0	17. 5	3. 3	43. 2	0.0	32. 4	6. 0	8421. 4	0. 0	4145. 2	705. 1	3571.1
75+50	LT & RT	50	34. 0	0. 0	17. 5	2. 4	54. 7	0. 0	32. 4	5. 3	8476. 1	0. 0	4177. 6	711. 7	3586. 8
76+00	LT & RT	50	37. 2	0. 0	28. 5	3. 1	66. 0	0. 0	42. 6	5. 1	8542.1	0. 0	4220. 2	718. 1	3603. 8

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					AREA (SF)		11	NCREMENTA	L VOL (CY) UNADJUSTE	ED		(	CUMULATIVE VOL (CY)		
					SLAVAGED/UNUSABLE				SLAVAGED/UNUSABLE		CUT		SLAVAGED/UNUSABLE	EXPANDED FILL	MASS
STATI ON	LOCATI ON	DI STANCE	CUT	EBS	PAVEMENT MATERIAL	FILL	CUT	EBS	PAVEMENT MATERIAL	FILL	1. 00	EBS	PAVEMENT MATERIAL	1. 25	ORDI NATE
76+00	LT & RT	50	37. 2	0.0	28. 5	3. 1	66. 0	0.0	42. 6	5. 1	7992. 1	0.0	4220. 2	718. 1	3053.8
76+50	LT & RT	50	39. 3	0.0	28. 5	1.5	70. 9	0.0	52. 8	4. 3	8063.0	0.0	4273. 0	723. 4	3066. 6
77+00	LT & RT	50	40. 5	0.0	28. 5	0.6	74. 0	0.0	52. 8	2. 0	8137. 0	0.0	4325. 8	725. 9	3085. 3
77+30	LT & RT	-	_	_		_	800. 0	0.0	0. 0	0. 0	8937.0	0.0	4325. 8	725. 9	3885. 3
77+50	LT & RT	50	40. 6	0. 0	17. 5	0. 9	75. 1	0.0	42. 6	1. 4	9012. 1	0.0	4368. 4	727. 6	3916. 1
78+00	LT & RT	50	45. 3	0.0	17. 5	0. 1	79. 4	0.0	32. 4	0. 9	9091.5	0.0	4400. 8	728. 7	3962. 1
78+50	LT & RT	50	47. 2	0. 0	17. 5	0. 0	85. 6	0.0	32. 4	0. 1	9177. 2	0. 0	4433. 2	728. 7	4015. 2
79+00	LT & RT	50	43. 4	0.0	17. 5	0. 1	84. 0	0.0	32. 4	0. 1	9261. 1	0. 0	4465. 6	728. 9	4066. 6
79+50	LT & RT	50	39. 4	0.0	19. 3	0. 2	76. 7	0.0	34. 0	0. 3	9337.8	0. 0	4499. 6	729. 3	4108. 9
80+00	LT & RT	50	51. 4	0.0	20. 4	0. 0	84. 1	0.0	36. 7	0. 2	9421. 9	0. 0	4536. 4	729. 6	4156. 0
80+50	LT & RT	50	46. 9	0.0	21. 0	0. 0	91. 0	0.0	38. 3	0. 0	9513.0	0.0	4574. 7	729. 6	4208. 7
81+00	LT & RT	50	52. 7	0.0	21. 8	0. 0	92. 2	0.0	39. 6	0. 0	9605.1	0.0	4614. 3	729. 7	4261. 2
81+50	LT & RT	50	56. 3	0.0	22. 8	0. 0	100. 9	0.0	41. 2	0. 0	9706. 0	0.0	4655. 5	729. 7	4320.8
82+00	LT & RT	50	63.0	0.0	24. 1	0.0	110. 4	0.0	43. 4	0. 0	9816. 4	0.0	4698. 9	729. 7	4387. 9
82+50	LT & RT	50	76. 6	0.0	26. 3	0.0	129. 3	0.0	46. 6	0. 0	9945. 7	0.0	4745. 5	729. 7	4470.5
83+00	LT & RT	50	76. 2	0.0	28. 4	0. 0	141. 5	0.0	50. 6	0. 0	10087. 2	0.0	4796. 1	729. 7	4561. 4
83+50	LT & RT	50	79. 3	0.0	29. 2	0.0	144. 0	0.0	53. 3	0.0	10231.1	0.0	4849. 5	729. 7	4652.0
84+00	LT & RT	50	84. 2	0.0	31.0	0.0	151. 4	0.0	55. 7	0.0	10382. 5	0.0	4905. 2	729. 7	4747.7
84+50	LT & RT	50	99. 0	0.0	30. 3	3.4	169. 6	0.0	56. 8	3. 1	10552. 1	0.0	4961. 9	733. 5	4856. 6
85+00	LT & RT	50	135. 3	0.0	29. 8	0.0	216. 9	0.0	55. 6	3. 1	10769. 0	0.0	5017. 6	737. 4	5014. 0
85+50	LT & RT	50	87. 7	0. 0	29. 2	1. 4	206. 5	0.0	54. 6	1. 3	10975. 6	0.0	5072. 1	739. 0	5164. 4
86+00	LT & RT	50	62. 7	0. 0	28. 6	0. 9	139. 3	0.0	53. 5	2. 1	11114.8	0. 0	5125. 6	741. 6	5247. 6
86+50	LT & RT	50	49. 1	0.0	26. 3	2. 5	103. 5	0.0	50. 8	3. 1	11218. 3	0. 0	5176. 4	745. 6	5296. 4
87+00	LT & RT	50	38. 2	0.0	24. 9	6. 0	80. 8	0.0	47. 3	7. 9	11299. 1	0. 0	5223. 7	755. 4	5320. 0
87+50	LT & RT	50	27. 6	0.0	21. 0	12. 0	60. 9	0.0	42. 5	16. 6	11359. 9	0. 0	5266. 1	776. 2	5317. 6
88+00	LT & RT	50	20. 1	0.0	19. 3	11. 1	44. 1	0.0	37. 3	21. 4	11404.1	0.0	5303. 4	803.0	5297. 7
88+50	LT & RT	50	14. 4	0. 0	17. 5	29. 6	31. 9	0.0	34. 0	37. 7	11435. 9	0.0	5337. 4	850. 1	5248. 4
89+00	LT & RT	50	7. 6	0. 0	17. 5	32. 3	20. 3	0.0	32. 4	57. 3	11456. 3	0.0	5369. 8	921. 8	5164. 7
89+50	LT & RT	50	1. 1	0. 0	17. 5	44. 8	8. 1	0.0	32. 4	71. 4	11464. 3	0.0	5402. 2	1011. 0	5051.1
90+00	LT & RT	50	0. 3	0.0	17. 5	48. 5	1. 2	0.0	32. 4	86. 3	11465. 6	0.0	5434. 6	1118. 9	4912. 1
90+50	LT & RT	50	0. 7	0.0	17. 5	49.0	0. 9	0.0	32. 4	90. 2	11466. 4	0. 0	5467. 0	1231. 6	4767.7
91+00	LT & RT	50	1. 8	0.0	17. 5	30. 6	2. 3	0. 0	32. 4	73. 7	11468.8	0. 0	5499. 5	1323. 8	4645. 5
91+50	LT & RT	50	6. 2	0.0	17. 5	30. 6	7.4	0.0	32. 4	56. 7	11476. 2	0. 0	5531. 9	1394. 6	4549. 7
92+00	LT & RT	50	9. 6	0.0	17. 5	24. 1	14. 6	0.0	32. 4	50. 6	11490. 8	0. 0	5564. 3	1457. 9	4468. 6
92+50	LT & RT	50	11. 5	0.0	17. 5	14. 9	19. 5	0.0	32. 4	36. 1	11510. 3	0. 0	5596. 7	1503. 0	4410. 7
93+00	LT & RT	50	13. 2	0.0	17. 5	8. 3	22. 9	0.0	32. 4	21. 5	11533. 2	0.0	5629. 1	1529. 8	4374. 3
93+50	LT & RT	50	11. 6	0.0	17. 5	7. 9	22. 9	0. 0	32. 4	14. 9	11556. 1	0. 0	5661. 5	1548. 5	4346. 1

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					AREA (SF)		11	NCREMENTA	L VOL (CY) UNADJUSTE	ED		(	CUMULATI VE VOL (CY)		
					SLAVAGED/UNUSABLE				SLAVAGED/UNUSABLE		CUT		SLAVAGED/UNUSABLE	EXPANDED FILL	MASS
STATI ON	LOCATI ON	DI STANCE	CUT	EBS	PAVEMENT MATERIAL	FILL	CUT	EBS	PAVEMENT MATERIAL	FILL	1. 00	EBS	PAVEMENT MATERIAL	1. 25	ORDI NATE
93+50	LT & RT	50	11. 6	0. 0	17. 5	7. 9	22. 9	0.0	32. 4	14. 9	10756. 1	0.0	5661. 5	1548. 5	3546. 1
94+00	LT & RT	50	12. 2	0.0	17. 5	6. 3	22. 0	0.0	32. 4	13. 1	10778. 1	0.0	5693. 9	1564. 8	3519. 4
94+50	LT & RT	50	14. 1	0.0	17. 5	5. 4	24. 4	0.0	32. 4	10. 8	10802.5	0.0	5726. 3	1578. 3	3497. 9
95+00	LT & RT	50	19. 9	0.0	17. 5	3. 2	31. 5	0.0	32. 4	8. 0	10834.0	0.0	5758. 7	1588. 3	3487.0
95+50	LT & RT	50	16. 0	0.0	17. 5	3. 5	33. 2	0.0	32. 4	6. 2	10867. 2	0.0	5791. 1	1596. 0	3480. 0
96+00	LT & RT	50	21. 1	0.0	17. 5	4. 5	34. 3	0.0	32. 4	7. 4	10901.5	0.0	5823. 5	1605. 4	3472. 6
96+50	LT & RT	50	21. 8	0.0	17. 5	2. 0	39. 7	0.0	32. 4	6. 1	10941. 2	0. 0	5855. 9	1612. 9	3472. 3
97+00	LT & RT	50	23. 1	0.0	17. 5	1. 6	41. 5	0.0	32. 4	3. 4	10982. 7	0. 0	5888. 3	1617. 1	3477. 2
97+50	LT & RT	50	25. 0	0.0	17. 5	1. 2	44. 5	0.0	32. 4	2. 6	11027. 2	0.0	5920. 8	1620. 4	3486. 0
98+00	LT & RT	50	26. 0	0.0	17. 5	1. 0	47. 2	0.0	32. 4	2. 0	11074. 3	0.0	5953. 2	1622. 9	3498. 2
98+50	LT & RT	50	27. 9	0.0	17. 5	0.8	49. 8	0.0	32. 4	1. 7	11124. 2	0.0	5985. 6	1625. 1	3513. 5
99+00	LT & RT	50	27. 3	0.0	17. 5	0.8	51. 1	0.0	32. 4	1. 5	11175. 3	0.0	6018. 0	1627. 0	3530. 4
99+50	LT & RT	50	27. 7	0.0	17. 5	0. 7	50. 9	0.0	32. 4	1. 4	11226. 2	0.0	6050. 4	1628. 7	3547. 1
100+00	LT & RT	50	28. 4	0.0	17. 5	0.6	51. 9	0.0	32. 4	1. 2	11278. 1	0.0	6082. 8	1630. 2	3565.0
100+50	LT & RT	50	29. 8	0.0	17. 5	0.6	53. 8	0.0	32. 4	1. 1	11331. 9	0.0	6115. 2	1631. 6	3585. 1
101+00	LT & RT	50	30. 7	0.0	17. 5	0.6	56. 0	0.0	32. 4	1. 1	11387.8	0.0	6147. 6	1633. 0	3607.3
101+50	LT & RT	50	31. 5	0.0	17. 5	0. 5	57. 6	0.0	32. 4	1. 0	11445. 4	0.0	6180. 0	1634. 2	3631. 2
102+00	LT & RT	50	31. 7	0.0	17. 5	0. 4	58. 5	0.0	32. 4	0. 8	11503. 9	0.0	6212. 4	1635. 3	3656. 3
102+50	LT & RT	50	31. 5	0.0	17. 5	0. 4	58. 5	0.0	32. 4	0. 8	11562. 4	0.0	6244. 8	1636. 2	3681.4
103+00	LT & RT	50	31. 2	0.0	17. 5	0. 5	58. 0	0.0	32. 4	0. 8	11620. 4	0.0	6277. 2	1637. 3	3705. 9
103+50	LT & RT	50	31. 0	0.0	17. 5	0. 6	57. 5	0.0	32. 4	1. 0	11678. 0	0.0	6309. 6	1638. 5	3729.8
104+00	LT & RT	50	29. 5	0.0	17. 5	1. 2	56. 0	0.0	32. 4	1. 7	11734. 0	0.0	6342. 0	1640. 6	3751.4
104+50	LT & RT	50	29. 2	0.0	17. 5	7. 2	54. 3	0.0	32. 4	7. 8	11788. 3	0.0	6374. 5	1650. 3	3763.6
105+00	LT & RT	50	30. 2	0.0	17. 5	1. 0	55. 0	0.0	32. 4	7. 6	11843. 3	0. 0	6406. 9	1659. 8	3776. 7
105+50	LT & RT	50	28. 8	0.0	17. 5	0. 9	54. 7	0.0	32. 4	1. 8	11898. 0	0. 0	6439. 3	1662. 0	3796. 7
106+00	LT & RT	50	28. 9	0.0	17. 5	0. 9	53. 4	0.0	32. 4	1. 7	11951. 4	0. 0	6471. 7	1664. 1	3815. 7
106+50	LT & RT	50	28. 8	0.0	17. 5	1. 0	53. 4	0.0	32. 4	1. 8	12004.8	0. 0	6504. 1	1666. 3	3834.4
107+00	LT & RT	50	28. 0	0.0	17. 5	1. 0	52. 6	0.0	32. 4	1. 8	12057. 5	0. 0	6536. 5	1668. 6	3852. 4
107+50	LT & RT	50	26. 9	0.0	17. 5	1. 2	50. 9	0.0	32. 4	2. 1	12108. 3	0. 0	6568. 9	1671. 2	3868. 2
108+00	LT & RT	50	27. 0	0.0	17. 5	1. 1	49. 9	0.0	32. 4	2. 2	12158. 2	0.0	6601. 3	1673. 9	3883. 1
108+50	LT & RT	50	32. 4	0.0	17. 5	0.6	55. 0	0.0	32. 4	1. 5	12213. 3	0.0	6633. 7	1675. 8	3903. 7
109+00	LT & RT	50	34. 3	0.0	28. 5	0. 4	61. 8	0.0	42. 6	0. 9	12275. 1	0.0	6676. 3	1677. 0	3921.8
109+50	LT & RT	50	36. 0	0.0	28. 5	0. 3	65. 1	0.0	52. 8	0. 7	12340. 1	0.0	6729. 1	1677. 8	3933. 2
110+00	LT & RT	50	35. 6	0.0	28. 5	0. 3	66. 3	0.0	52. 8	0. 6	12406. 4	0.0	6781. 9	1678. 5	3946.0
110+50	LT & RT	50	46. 4	0.0	28. 5	0.0	75. 9	0.0	52. 8	0. 3	12482. 3	0.0	6834. 6	1678. 9	3968.8
111+00	LT & RT	50	38. 7	0.0	28. 5	0.0	78. 8	0.0	52. 8	0. 0	12561. 1	0.0	6887. 4	1678. 9	3994.8

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					AREA (SF)		11	NCREMENTAI	_ VOL (CY) UNADJUSTE	ED .		C	CUMULATIVE VOL (CY)		
					SLAVAGED/UNUSABLE				SLAVAGED/UNUSABLE		CUT		SLAVAGED/UNUSABLE	EXPANDED FILL	MASS
STATI ON	LOCATI ON	DI STANCE	CUT	EBS	PAVEMENT MATERIAL	FILL	CUT	EBS	PAVEMENT MATERIAL	FILL	1. 00	EBS	PAVEMENT MATERIAL	1. 25	ORDI NATE
111+00	LT & RT	50	38. 7	0.0	28. 5	0.0	78. 8	0.0	52. 8	0.0	12561. 1	0. 0	6887. 4	1678. 9	3994. 8
111+50	LT & RT	50	40. 2	0.0	28. 5	0.0	73. 1	0.0	52. 8	0. 1	12634. 2	0. 0	6940. 2	1679. 0	4015. 0
112+00	LT & RT	50	42. 7	0.0	28. 5	0.0	76. 8	0.0	52. 8	0.0	12711. 0	0. 0	6993. 0	1679. 0	4039. 0
112+50	LT & RT	50	42. 6	0.0	17. 5	0.0	79. 0	0.0	42. 6	0.0	12790. 0	0. 0	7035. 6	1679. 0	4075. 4
113+00	LT & RT	50	41. 0	0.0	17. 5	0.0	77.4	0.0	32. 4	0.0	12867. 4	0. 0	7068. 0	1679. 0	4120. 5
113+50	LT & RT	50	36. 2	0.0	17. 5	0.0	71. 5	0.0	32. 4	0.0	12939. 0	0. 0	7100. 4	1679. 1	4159. 5
114+00	LT & RT	50	40. 6	0.0	17. 5	0.0	71. 1	0.0	32. 4	0.0	13010. 1	0. 0	7132. 8	1679. 1	4198. 1
114+50	LT & RT	50	39. 3	0.0	17. 5	0.0	73. 9	0.0	32. 4	0.0	13084. 0	0. 0	7165. 2	1679. 2	4239. 6
115+00	LT & RT	50	38. 0	0.0	17. 5	0. 1	71.5	0.0	32. 4	0. 1	13155. 5	0. 0	7197. 6	1679. 3	4278. 6
115+50	LT & RT	50	35. 1	0.0	17. 5	0. 1	67. 7	0.0	32. 4	0. 2	13223. 1	0. 0	7230. 0	1679. 6	4313. 6
116+00	LT & RT	50	44. 4	0.0	28. 5	0.0	73. 6	0.0	42. 6	0. 1	13296. 8	0. 0	7272. 6	1679. 7	4344. 4
116+50	LT & RT	50	48. 5	0.0	28. 5	0.0	86. 0	0.0	52. 8	0. 0	13382. 7	0. 0	7325. 4	1679. 8	4377. 5
117+00	LT & RT	50	49. 8	0.0	28. 5	0.0	91. 0	0.0	52. 8	0. 0	13473. 7	0. 0	7378. 2	1679. 8	4415. 7
117+50	LT & RT	50	51. 8	0.0	28. 5	0.0	94. 1	0.0	52. 8	0. 1	13567. 9	0. 0	7430. 9	1679. 9	4457. 0
118+00	LT & RT	50	52. 9	0.0	28. 5	2. 7	97. 0	0. 0	52. 8	2. 5	13664.8	0. 0	7483. 7	1683. 1	4498. 0
118+50	LT & RT	50	55. 6	0. 0	28. 5	0.0	100. 4	0. 0	52. 8	2. 5	13765. 2	0. 0	7536. 5	1686. 2	4542.5
119+00	LT & RT	50	57. 8	0. 0	28. 5	0.0	105. 0	0. 0	52. 8	0. 0	13870. 2	0. 0	7589. 3	1686. 2	4594. 7
119+50	LT & RT	50	59. 0	0.0	28. 5	0.0	108. 2	0. 0	52. 8	0. 0	13978. 3	0. 0	7642. 0	1686. 2	4650. 1
120+00	LT & RT	50	59. 4	0.0	28. 5	0.0	109. 6	0. 0	52. 8	0. 0	14087. 9	0. 0	7694. 8	1686. 2	4706. 9
120+50	LT & RT	50	60. 3	0.0	28. 5	0.0	110. 8	0. 0	52. 8	0. 0	14198. 7	0. 0	7747. 6	1686. 2	4764. 9
121+00	LT & RT	50	59. 8	0.0	28. 5	0.0	111. 2	0. 0	52. 8	0. 0	14309. 9	0. 0	7800. 4	1686. 2	4823. 3
121+50	LT & RT	50	59. 9	0.0	28. 5	0.0	110. 8	0. 0	52. 8	0. 0	14420. 7	0. 0	7853. 2	1686. 2	4881. 4
122+00	LT & RT	50	59. 1	0.0	28. 5	0. 2	110. 1	0. 0	52. 8	0. 2	14530. 9	0. 0	7905. 9	1686. 4	4938. 5
122+50	LT & RT	50	58. 9	0.0	28. 5	0. 1	109. 2	0. 0	52. 8	0. 3	14640. 1	0. 0	7958. 7	1686. 8	4994.6
123+00	LT & RT	50	60. 3	0.0	28. 5	0.0	110. 3	0. 0	52. 8	0. 1	14750. 4	0. 0	8011. 5	1686. 9	5052. 0
123+50	LT & RT	50	66. 1	0. 0	28. 5	0.0	117. 1	0. 0	52. 8	0. 0	14867.5	0. 0	8064. 3	1686. 9	5116. 3
124+00		50	60. 3	0.0	28. 5	0.0	117. 1	0. 0	52. 8	0. 0	14984. 6	0. 0	8117. 0	1686. 9	5180. 6
124+50		50	58. 0	0. 0	28. 5	0.0	109. 5	0. 0	52. 8	0. 0	15094.1	0. 0	8169. 8	1686. 9	5237. 4
125+00		50	56. 8	0.0	28. 5	0.0	106. 3	0. 0	52. 8	0. 0	15200. 4	0. 0	8222. 6	1686. 9	5290. 9
125+50		50	58. 4	0. 0	28. 5	0.0	106. 7	0. 0	52.8	0. 0	15307. 1	0. 0	8275. 4	1686. 9	5344. 8
126+00	LT & RT	50	68. 4	0. 0	28. 5	0.0	117. 3	0. 0	52. 8	0. 0	15424. 4	0. 0	8328. 2	1686. 9	5409. 4
126+50		50	148. 6	0. 0	28. 5	0.0	200. 9	0. 0	52. 8	0. 0	15625. 3	0. 0	8380. 9	1686. 9	5557. 5
127+00		50	76. 6	0. 0	28. 5	0.0	208. 5	0.0	52. 8	0. 0	15833.8	0. 0	8433. 7	1686. 9	5713. 2
127+50		50	76. 9	0. 0	28. 5	0.0	142. 0	0.0	52. 8	0. 0	15975. 9	0. 0	8486. 5	1686. 9	5802. 5
128+00		50	72. 7	0.0	28. 5	0.0	138. 5	0.0	52. 8	0.0	16114. 4	0. 0	8539. 3	1686. 9	5888. 2
128+50		50	69. 8	0.0	28. 5	0.0	132. 0	0.0	52. 8	0.0	16246. 3	0. 0	8592. 0	1686. 9	5967. 4
120730	α ΙΝΙ	50	37.0	0.0	20. 0	0.0	102.0	0.0	52.0	0.0	10270.0	J. U	5572.0	1000. /	0,07.4

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					AREA (SF)		11	NCREMENTAI	_ VOL (CY) UNADJUSTE	ED .		C	CUMULATIVE VOL (CY)		
					SLAVAGED/UNUSABLE				SLAVAGED/UNUSABLE		CUT		SLAVAGED/UNUSABLE	EXPANDED FILL	MASS
STATI ON	LOCATI ON	DI STANCE	CUT	EBS	PAVEMENT MATERIAL	FILL	CUT	EBS	PAVEMENT MATERIAL	FILL	1. 00	EBS	PAVEMENT MATERIAL	1. 25	ORDI NATE
128+50	LT & RT	50	69. 8	0.0	28. 5	0.0	132. 0	0.0	52. 8	0.0	16246. 3	0. 0	8592. 0	1686. 9	5967. 4
129+00	LT & RT	50	65. 9	0.0	28. 5	0.0	125. 6	0.0	52. 8	0.0	16371. 9	0. 0	8644. 8	1686. 9	6040. 2
129+50	LT & RT	50	66. 0	0.0	28. 5	0.0	122. 1	0.0	52. 8	0.0	16494. 0	0. 0	8697. 6	1686. 9	6109. 5
130+00	LT & RT	50	69. 4	0.0	28. 5	0.0	125. 4	0.0	52. 8	0.0	16619. 4	0. 0	8750. 4	1686. 9	6182. 1
130+50	LT & RT	50	65. 1	0.0	28. 5	0.0	124. 6	0.0	52. 8	0.0	16743. 9	0. 0	8803. 2	1686. 9	6253. 9
131+00	LT & RT	50	59. 5	0.0	28. 5	0.0	115. 4	0.0	52. 8	0.0	16859. 3	0. 0	8855. 9	1686. 9	6316. 5
131+50	LT & RT	50	58. 9	0.0	28. 5	0.0	109. 6	0.0	52. 8	0.0	16969. 0	0. 0	8908. 7	1686. 9	6373. 3
132+00	LT & RT	50	61. 6	0.0	28. 5	0.0	111. 5	0.0	52. 8	0.0	17080. 5	0. 0	8961. 5	1686. 9	6432. 1
132+50	LT & RT	50	58. 7	0.0	28. 5	0.0	111. 4	0.0	52. 8	0.0	17191. 9	0. 0	9014. 3	1686. 9	6490. 7
133+00	LT & RT	50	52. 5	0.0	28. 5	0.0	103. 0	0.0	52. 8	0.0	17294. 9	0. 0	9067. 0	1686. 9	6540. 9
133+50	LT & RT	50	51.8	0.0	28. 5	0. 1	96. 6	0.0	52. 8	0. 1	17391. 5	0. 0	9119. 8	1687. 0	6584. 7
134+00	LT & RT	50	50. 8	0.0	28. 5	0. 1	95. 0	0.0	52. 8	0. 2	17486. 5	0. 0	9172. 6	1687. 2	6626. 7
134+50	LT & RT	50	49. 3	0.0	28. 5	0. 2	92. 7	0.0	52. 8	0. 3	17579. 2	0. 0	9225. 4	1687. 5	6666. 3
135+00	LT & RT	50	48. 5	0.0	28. 5	0. 2	90. 5	0.0	52. 8	0. 3	17669.8	0. 0	9278. 2	1687. 9	6703. 7
135+50	LT & RT	50	47. 7	0.0	28. 5	0. 2	89. 1	0. 0	52. 8	0. 3	17758. 8	0. 0	9330. 9	1688. 4	6739. 5
136+00	LT & RT	50	45. 7	0. 0	28. 5	0. 2	86. 5	0. 0	52. 8	0. 3	17845. 3	0. 0	9383. 7	1688. 8	6772.8
136+50	LT & RT	50	44. 5	0. 0	28. 5	0. 1	83. 5	0. 0	52. 8	0. 3	17928. 8	0. 0	9436. 5	1689. 1	6803. 2
137+00	LT & RT	50	42. 7	0. 0	28. 5	0. 1	80. 8	0.0	52. 8	0. 2	18009. 6	0. 0	9489. 3	1689. 3	6831. 0
137+50	LT & RT	50	39. 7	0.0	17. 5	0. 2	76. 3	0.0	42. 6	0. 3	18085. 8	0. 0	9531. 9	1689. 6	6864. 3
138+00	LT & RT	50	35. 5	0.0	17. 5	0. 4	69. 6	0.0	32. 4	0. 6	18155. 5	0. 0	9564. 3	1690. 3	6900. 8
138+50	LT & RT	50	30. 2	0.0	17. 5	0.8	60.8	0.0	32. 4	1. 2	18216. 3	0. 0	9596. 7	1691. 8	6927. 8
139+00	LT & RT	50	26. 4	0. 0	17. 5	1. 4	52. 3	0.0	32. 4	2. 1	18268. 6	0. 0	9629. 1	1694. 5	6945. 1
139+50	LT & RT	50	35. 5	0.0	17. 5	2. 5	57. 3	0.0	32. 4	3. 6	18325. 9	0. 0	9661. 5	1699. 0	6965. 4
140+00	LT & RT	50	25. 5	0.0	17. 5	4. 1	56. 4	0.0	32. 4	6. 1	18382. 3	0. 0	9693. 9	1706. 6	6981. 9
140+50	LT & RT	50	26. 2	0.0	17. 5	1.8	47. 9	0.0	32. 4	5. 5	18430. 2	0. 0	9726. 3	1713. 4	6990. 5
141+00	LT & RT	50	26. 0	0. 0	17. 5	1. 3	48. 4	0. 0	32. 4	2. 9	18478. 5	0. 0	9758. 7	1717. 0	7002. 8
	LT & RT	50	29. 8	0. 0	17. 5	0. 5	51. 7	0.0	32. 4	1. 7	18530. 3	0. 0	9791. 1	1719. 1	7020. 0
142+00		50	28. 5	0. 0	17. 5	0. 4	54. 0	0. 0	32. 4	0. 9	18584. 2	0. 0	9823. 5	1720. 2	7040. 5
142+50		50	32. 6	0. 0	17. 5	0. 2	56. 6	0.0	32. 4	0. 6	18640.8	0. 0	9855. 9	1720. 9	7064. 0
143+00		50	35. 6	0. 0	17. 5	0. 2	63. 2	0. 0	32. 4	0. 4	18704. 0	0. 0	9888. 3	1721. 4	7094. 3
143+50		50	39. 7	0. 0	17. 5	0. 2	69. 7	0. 0	32. 4	0. 4	18773. 7	0. 0	9920. 8	1721. 9	7131. 1
144+00		50	39. 7	0. 0	17. 5	0.6	73. 5	0. 0	32. 4	0.8	18847. 3	0. 0	9953. 2	1722. 8	7171. 3
144+50		50	30. 9	0. 0	17. 5	0. 7	65. 4	0.0	32. 4	1. 2	18912. 6	0. 0	9985. 6	1724. 4	7202. 7
145+00		50	28. 7	0. 0	17. 5	1. 4	55. 1	0.0	32. 4	2. 0	18967. 7	0. 0	10018. 0	1726. 9	7222. 9
145+50		50	28. 8	0. 0	17. 5	1. 3	53. 2	0.0	32. 4	2. 5	19020. 9	0. 0	10050. 4	1730. 0	7240. 5
146+00		50	27. 0	0.0	17. 5	1. 6	51.6	0.0	32. 4	2. 7	19072.5	0. 0	10082. 8	1733. 4	7256. 3
140700	<u> </u>	30	27.0	0.0	17.5	1. 0	J 51. 0	0.0	JZ. 7	2. /	17072.0	J. U	10002.0	1755.4	7200.0

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					AREA (SF)		11	NCREMENTAI	L VOL (CY) UNADJUSTE	D		C	CUMULATIVE VOL (CY)		
					SLAVAGED/UNUSABLE				SLAVAGED/UNUSABLE		CUT		SLAVAGED/UNUSABLE	EXPANDED FILL	MASS
STATI ON	LOCATI ON	DI STANCE	CUT	EBS	PAVEMENT MATERIAL	FILL	CUT	EBS	PAVEMENT MATERIAL	FILL	1. 00	EBS	PAVEMENT MATERIAL	1. 25	ORDI NATE
146+00	LT & RT	50	27. 0	0.0	17. 5	1.6	51. 6	0. 0	32. 4	2. 7	19072. 5	0.0	10082. 8	1733. 4	7256. 3
146+50	LT & RT	50	27. 5	0.0	17. 5	1. 7	50. 4	0.0	32. 4	3. 0	19122. 9	0.0	10115. 2	1737. 2	7270. 5
147+00	LT & RT	50	28. 1	0.0	17. 5	2. 0	51.5	0.0	32. 4	3. 4	19174. 4	0.0	10147. 6	1741. 5	7285. 3
147+50	LT & RT	50	28. 7	0.0	17. 5	1. 8	52. 6	0.0	32. 4	3. 5	19227. 1	0.0	10180. 0	1745. 9	7301.1
148+00	LT & RT	50	27. 9	0.0	17. 5	2. 0	52. 4	0.0	32. 4	3. 5	19279. 4	0.0	10212. 4	1750. 3	7316. 7
148+50	LT & RT	50	27. 2	0.0	17. 5	1. 9	51. 0	0.0	32. 4	3. 6	19330. 5	0.0	10244. 8	1754. 8	7330. 8
149+00	LT & RT	50	28. 6	0.0	17. 5	1. 9	51. 7	0.0	32. 4	3. 5	19382. 2	0. 0	10277. 2	1759. 2	7345. 7
149+50	LT & RT	50	27. 7	0.0	17. 5	1. 9	52. 1	0.0	32. 4	3. 5	19434. 2	0. 0	10309. 6	1763. 6	7361.0
150+00	LT & RT	50	26. 9	0.0	17. 5	1. 9	50. 5	0.0	32. 4	3. 6	19484. 7	0.0	10342. 0	1768. 0	7374. 6
150+50	LT & RT	50	26. 2	0. 0	17. 5	1. 9	49. 1	0. 0	32. 4	3. 5	19533. 9	0. 0	10374. 5	1772. 4	7387. 0
151+00	LT & RT	50	27. 6	0. 0	17. 5	1. 7	49. 8	0. 0	32. 4	3. 3	19583. 7	0. 0	10406. 9	1776. 6	7400. 2
151+50	LT & RT	50	26. 8	0. 0	17. 5	4. 2	50. 4	0. 0	32. 4	5. 4	19634. 0	0. 0	10439. 3	1783. 4	7411. 3
152+00	LT & RT	50	25. 1	0. 0	17. 5	9. 2	48. 1	0. 0	32. 4	12. 3	19682. 1	0. 0	10471. 7	1798. 9	7411. 6
152+50	LT & RT	50	24. 1	0. 0	17. 5	3. 5	45. 5	0. 0	32. 4	11. 7	19727. 6	0. 0	10504. 1	1813. 5	7410. 1
153+00	LT & RT	50	24. 8	0. 0	17. 5	1. 0	45. 2	0. 0	32. 4	4. 1	19772.8	0. 0	10536. 5	1818. 6	7417. 7
153+50	LT & RT	50	24. 6	0. 0	17. 5	0. 9	45. 7	0. 0	32. 4	1. 8	19818. 6	0. 0	10568. 9	1820. 9	7428. 8
154+00	LT & RT	50	22. 9	0. 0	17. 5	2. 6	44. 0	0. 0	32. 4	3. 2	19862. 6	0. 0	10601. 3	1824. 9	7436. 4
154+50	LT & RT	50	22. 4	0. 0	17. 5	3. 6	42. 0	0.0	32. 4	5. 7	19904. 6	0. 0	10633. 7	1832. 0	7438. 9
155+00	LT & RT	50	22. 2	0. 0	17. 5	3. 1	41. 3	0.0	32. 4	6. 1	19945. 9	0. 0	10666. 1	1839. 6	7440. 1
155+50	LT & RT	50	23. 0	0. 0	17. 5	2. 9	41. 8	0.0	32. 4	5. 5	19987. 7	0. 0	10698. 5	1846. 5	7442.6
156+00	LT & RT	50	23. 1	0. 0	17. 5	5. 0	42. 6	0.0	32. 4	7. 3	20030. 3	0. 0	10730. 9	1855. 7	7443. 7
156+50	LT & RT	50	25. 3	0. 0	17. 5	5. 7	44. 7	0. 0	32. 4	9. 9	20075. 0	0. 0	10763. 3	1868. 0	7443. 6
157+00	LT & RT	50	33. 7	0. 0	17. 5	0. 7	54. 6	0. 0	32. 4	5. 9	20129. 7	0. 0	10795. 8	1875. 4	7458. 5
157+50	LT & RT	50	23. 2	0. 0	17. 5	2. 9	52. 7	0. 0	32. 4	3. 3	20182. 3	0. 0	10828. 2	1879. 5	7474.6
158+00	LT & RT	50	21. 9	0. 0	17. 5	3. 7	41. 7	0. 0	32. 4	6. 1	20224. 0	0. 0	10860. 6	1887. 2	7476. 2
	LT & RT	50	26. 8	0. 0	17. 5	1. 6	45. 1	0.0	32. 4	5. 0	20269. 1	0. 0	10893. 0	1893. 4	7482.7
159+00	LT & RT	50	26. 5	0. 0	17. 5	1. 8	49. 4	0.0	32. 4	3. 1	20318. 5	0. 0	10925. 4	1897. 3	7495. 8
159+50		50	26. 8	0. 0	17. 5	1. 9	49. 4	0.0	32. 4	3. 4	20367. 9	0. 0	10957.8	1901. 6	7508. 5
160+00	LT & RT	50	25. 4	0.0	17. 5	3. 1	48. 4	0.0	32. 4	4. 6	20416. 2	0. 0	10990. 2	1907. 3	7518. 7
160+50		50	31. 4	0.0	17. 5	4.8	52. 6	0.0	32. 4	7. 3	20418. 2	0.0	11022. 6	1916. 4	7518.7
161+00	LT & RT	50	36. 5	0.0	17. 5	0.6	62.8	0.0	32. 4	5. 0	20531.7	0.0	11055. 0	1910. 4	7553. 9
161+50		50	33. 2	0.0	17. 5	0. 5	64. 5	0.0	32. 4	1. 0	20596. 2	0.0	11087. 4	1924. 0	7584. 7
162+00	LT & RT	50	30. 4	0.0	17. 5	0. 3	58. 9	0.0	32. 4	0. 8	20655.0	0.0	11119.8	1925. 1	7610. 1
162+50		50	28. 3	0.0		0. 4	54. 4	0.0	32. 4	0. 8	20655.0	0.0		1926. 3	7630. 9
					17. 5								11152. 2		
163+00		50 50	25. 9	0.0	17. 5	0. 9	50. 2	0.0	32. 4	1.3	20759.6	0.0	11184.6	1927. 9	7647. 0
103+50	LT & RT	50	23. 9	0.0	17. 5	1. 6	46. 1	0.0	32. 4	2. 3	20805. 7	0. 0	11217. 0	1930. 8	7657. 9

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			AREA (SF)					INCREMENTAL VOL (CY) UNADJUSTED				CUMULATIVE VOL (CY)				
					SLAVAGED/UNUSABLE				SLAVAGED/UNUSABLE		CUT		SLAVAGED/UNUSABLE	EXPANDED FILL	MASS	
STATI ON	LOCATI ON	DI STANCE	CUT	EBS	PAVEMENT MATERIAL	FILL	CUT	EBS	PAVEMENT MATERIAL	FLLL	1. 00	EBS	PAVEMENT MATERIAL	1. 25	ORDI NATE	
163+50	LT & RT	50	23. 9	0.0	17. 5	1.6	46. 1	0.0	32. 4	2. 3	20805. 7	0. 0	11217. 0	1930. 8	7657. 9	
164+00	LT & RT	50	24. 2	0.0	17. 5	1. 2	44. 5	0.0	32. 4	2. 6	20850. 2	0. 0	11249. 5	1934. 0	7666. 8	
164+50	LT & RT	50	25. 7	0.0	17. 5	2. 4	46. 2	0.0	32. 4	3. 4	20896. 5	0. 0	11281. 9	1938. 2	7676. 3	
165+00	LT & RT	50	22. 6	0.0	17. 5	2. 8	44. 8	0.0	32. 4	4. 8	20941. 2	0. 0	11314. 3	1944. 3	7682. 7	
165+50	LT & RT	50	22. 6	0.0	17. 5	3. 9	41. 9	0.0	32. 4	6. 2	20983. 1	0. 0	11346. 7	1952. 0	7684. 4	
166+00	LT & RT	50	24. 1	0.0	17. 5	6. 3	43. 2	0.0	32. 4	9. 4	21026. 3	0. 0	11379. 1	1963. 7	7683. 5	
166+50	LT & RT	50	26. 0	0.0	17. 5	4. 0	46. 4	0.0	32. 4	9. 5	21072. 7	0. 0	11411. 5	1975. 6	7685. 6	
167+00	LT & RT	50	27. 1	0.0	17. 5	2. 8	49. 2	0.0	32. 4	6. 4	21121. 8	0. 0	11443. 9	1983. 5	7694. 4	
167+50	LT & RT	50	27. 2	0.0	17. 5	2. 8	50. 3	0.0	32. 4	5. 2	21172. 1	0. 0	11476. 3	1990. 0	7705. 8	
168+00	LT & RT	50	26. 9	0. 0	17. 5	3. 1	50. 1	0.0	32. 4	5. 4	21222. 2	0. 0	11508. 7	1996. 8	7716. 7	
168+50	LT & RT	50	27. 4	0.0	17. 5	2. 4	50. 3	0.0	32. 4	5. 0	21272. 4	0. 0	11541. 1	2003. 0	7728. 3	
169+00	LT & RT	50	27. 1	0.0	17. 5	1. 6	50. 5	0.0	32. 4	3. 6	21322. 9	0. 0	11573. 5	2007. 6	7741. 8	
169+50	LT & RT	50	30. 1	0.0	17. 5	7.6	53. 0	0.0	32. 4	8. 5	21375. 9	0. 0	11605. 9	2018. 2	7751. 8	
170+00	LT & RT	50	28. 2	0.0	17. 5	10. 9	54. 0	0.0	32. 4	17. 1	21429. 9	0. 0	11638. 3	2039. 6	7752. 0	
170+50	LT & RT	50	28. 1	0.0	17. 5	9. 9	52. 2	0.0	32. 4	19. 2	21482. 1	0. 0	11670. 8	2063. 6	7747.7	
171+00	LT & RT	50	27. 2	0.0	17. 5	13. 1	51. 2	0.0	32. 4	21. 3	21533. 3	0. 0	11703. 2	2090. 3	7739. 9	
171+50	LT & RT	50	27. 5	0.0	17. 5	33. 8	50. 6	0.0	32. 4	43. 4	21583. 9	0. 0	11735. 6	2144. 6	7703.8	
172+00	LT & RT	50	27. 6	0.0	17. 5	13. 7	51. 0	0.0	32. 4	43. 9	21634. 9	0. 0	11768. 0	2199. 5	7667.5	
172+50	LT & RT	50	28. 9	0.0	17. 5	9. 0	52. 4	0.0	32. 4	20. 9	21687. 3	0. 0	11800. 4	2225. 7	7661. 2	
173+00	LT & RT	50	31. 4	0. 0	17. 5	10. 1	55. 9	0.0	32. 4	17. 6	21743. 2	0. 0	11832. 8	2247. 7	7662.7	
173+50	LT & RT	50	34. 2	0. 0	17. 5	9. 8	60. 8	0.0	32. 4	18. 3	21803. 9	0. 0	11865. 2	2270. 6	7668. 2	
174+00	LT & RT	50	30. 4	0. 0	17. 5	32. 8	59. 8	0.0	32. 4	39. 4	21863. 7	0. 0	11897. 6	2319. 8	7646. 3	
174+50	LT & RT	50	28. 6	0. 0	17. 5	20. 7	54. 6	0.0	32. 4	49. 5	21918. 3	0. 0	11930. 0	2381. 8	7606. 6	
175+00	LT & RT	50	28. 1	0. 0	17. 5	10. 5	52. 5	0.0	32. 4	28. 9	21970. 8	0. 0	11962. 4	2417. 9	7590. 5	
175+50	LT & RT	50	23. 1	0. 0	17. 5	66. 6	47. 4	0.0	32. 4	71. 4	22018. 2	0. 0	11994. 8	2507. 1	7516. 3	
176+00	LT & RT	50	27. 4	0. 0	17. 5	3. 3	46. 8	0.0	32. 4	64. 7	22065.0	0. 0	12027. 2	2588. 0	7449. 7	
176+50		50	27. 3	0. 0	17. 5	22. 5	50. 6	0.0	32. 4	23. 9	22115. 6	0. 0	12059. 6	2617. 8	7438. 1	
177+00		50	33. 9	0. 0	17. 5	0. 6	56. 6	0. 0	32. 4	21. 4	22172. 2	0. 0	12092. 0	2644. 6	7435. 5	
177+50		50	31. 6	0. 0	17. 5	1. 2	60. 6	0. 0	32. 4	1. 7	22232. 8	0. 0	12124. 5	2646. 7	7461. 7	
178+00	LT & RT	50	22. 6	0. 0	17. 5	1. 1	50. 2	0. 0	32. 4	2. 1	22283. 1	0. 0	12156. 9	2649. 3	7476. 9	
178+50	LT & RT	50	23. 1	0. 0	17. 5	3. 4	42. 4	0. 0	32. 4	4. 2	22325. 4	0. 0	12189. 3	2654. 5	7481. 6	
179+00	LT & RT	50	23. 8	0. 0	17. 5	3. 3	43. 5	0. 0	32. 4	6. 3	22368. 9	0. 0	12221. 7	2662. 3	7484. 9	
179+50	LT & RT	50	23. 8	0. 0	17. 5	2.8	44. 1	0.0	32. 4	5. 6	22413. 0	0. 0	12254. 1	2669. 4	7489. 5	
180+00	LT & RT	50	21. 8	0. 0	17. 5	3. 5	42. 2	0.0	32. 4	5. 8	22455. 2	0. 0	12286. 5	2676. 7	7492. 0	
180+50		50	21. 0	0.0	17. 5	3. 9	39. 6	0.0	32. 4	6. 9	22494.8	0. 0	12318. 9	2685. 2	7490. 7	
181+00		50	22. 2	0.0	17. 5	3. 4	40. 0	0.0	32. 4	6. 8	22534.8	0. 0	12351. 3	2693. 7	7489.8	
101700	LI & IXI	50	LL. L	0.0	17.5	J. <del>1</del>	<del>1</del> 0.0	0.0	JZ. <del>T</del>	0.0	22004.0	J. U	12331.3	2073. 1	7707.0	

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			AREA (SF)				IN	VOL (CY) UNADJUSTE	ED	CUMULATI VE VOL (CY)					
					SLAVAGED/UNUSABLE				SLAVAGED/UNUSABLE		CUT		SLAVAGED/UNUSABLE	EXPANDED FILL	MASS
STATI ON	LOCATI ON	DI STANCE	CUT	EBS	PAVEMENT MATERIAL	FILL	CUT	EBS	PAVEMENT MATERIAL	FILL	1. 00	EBS	PAVEMENT MATERIAL	1. 25	ORDI NATE
181+00	LT & RT	50	22. 2	0.0	17. 5	3. 4	40.0	0. 0	32. 4	6.8	22534.8	0.0	12351. 3	2693. 7	7489. 8
181+50	LT & RT	50	22. 4	0.0	17. 5	3. 5	41. 3	0.0	32. 4	6. 4	22576. 1	0.0	12383. 7	2701. 7	7490. 7
182+00	LT & RT	50	22. 1	0.0	17. 5	2. 9	41. 1	0.0	32. 4	5. 9	22617. 3	0.0	12416. 1	2709. 1	7492. 1
182+50	LT & RT	50	23. 4	0.0	17. 5	2. 9	42. 1	0.0	32. 4	5. 3	22659. 3	0.0	12448. 5	2715. 7	7495. 1
183+00	LT & RT	50	49. 6	0.0	17. 5	0. 0	67.6	0.0	32. 4	2. 6	22726. 9	0.0	12480. 9	2719. 0	7527. 0
183+50	LT & RT	50	29. 3	0.0	17. 5	1. 2	73. 1	0.0	32. 4	1. 1	22800. 0	0.0	12513. 3	2720. 4	7566. 3
184+00	LT & RT	50	29. 1	0.0	17. 5	20. 0	54.0	0.0	32. 4	19. 6	22854. 0	0. 0	12545. 8	2744. 9	7563. 4
184+50	LT & RT	50	30. 3	0.0	17. 5	48. 0	54. 9	0.0	32. 4	62. 9	22909. 0	0. 0	12578. 2	2823. 5	7507. 3
185+00	LT & RT	50	29. 7	0.0	17. 5	16. 2	55. 5	0.0	32. 4	59. 4	22964. 5	0. 0	12610. 6	2897. 8	7456. 1
185+50	LT & RT	50	27. 1	0.0	17. 5	54. 6	52. 6	0.0	32. 4	65. 5	23017. 0	0. 0	12643. 0	2979. 6	7394. 5
185+68	LT & RT	-	-	-	-	-	1350. 0	0.0	0. 0	0.0	24367. 0	0.0	12643. 0	2979. 6	8744. 5
186+00	LT & RT	50	24. 8	0. 0	17. 5	17. 0	48. 1	0.0	32. 4	66. 3	24415. 1	0.0	12675. 4	3062. 4	8677. 3
186+50	LT & RT	50	26. 7	0. 0	17. 5	12. 3	47. 7	0.0	32. 4	27. 1	24462. 9	0.0	12707.8	3096. 3	8658. 7
187+00	LT & RT	50	31. 7	0.0	17. 5	2. 9	54. 1	0.0	32. 4	14. 1	24517. 0	0.0	12740. 2	3113. 9	8662. 8
187+50	LT & RT	50	29. 6	0.0	17. 5	8. 0	56.8	0.0	32. 4	10. 1	24573. 7	0.0	12772. 6	3126. 5	8674. 6
188+00	LT & RT	50	25. 8	0.0	17. 5	6. 3	51. 3	0. 0	32. 4	13. 2	24625. 1	0.0	12805.0	3143. 0	8677. 0
188+50	LT & RT	50	28. 1	0.0	17. 5	12.8	49. 9	0.0	32. 4	17. 7	24675.0	0.0	12837. 4	3165. 1	8672. 4
189+00	LT & RT	50	33. 5	0.0	28. 5	13.8	57.0	0. 0	42. 6	24. 6	24732.0	0.0	12880. 0	3195. 9	8656. 1
189+50	LT & RT	50	39. 6	0.0	28. 5	1. 6	67.7	0. 0	52. 8	14. 2	24799. 7	0.0	12932. 8	3213. 6	8653. 3
190+00	LT & RT	50	41. 8	0.0	28. 5	0. 2	75. 4	0. 0	52. 8	1. 6	24875. 1	0.0	12985. 6	3215. 6	8673. 9
190+50	LT & RT	50	42. 7	0.0	28. 5	0. 0	78. 3	0.0	52. 8	0. 1	24953. 4	0.0	13038. 3	3215. 8	8699. 2
191+00	LT & RT	50	47. 9	0.0	28. 5	0. 0	83. 9	0.0	52. 8	0. 0	25037. 3	0.0	13091.1	3215. 8	8730. 4
191+50	LT & RT	50	48. 7	0.0	28. 5	0. 0	89. 4	0.0	52. 8	0. 0	25126. 7	0.0	13143. 9	3215. 8	8767.0
192+00	LT & RT	50	48. 5	0.0	28. 5	0. 0	90.0	0.0	52. 8	0.0	25216. 7	0.0	13196. 7	3215. 8	8804. 2
192+50	LT & RT	50	49. 6	0.0	28. 5	0. 0	90. 9	0.0	52. 8	0.0	25307. 6	0.0	13249. 5	3215. 8	8842. 3
193+00	LT & RT	50	47. 9	0.0	28. 5	0. 0	90. 3	0.0	52. 8	0.0	25397. 8	0. 0	13302. 2	3215. 8	8879. 8
	LT & RT	50	46. 0	0.0	17. 5	0. 0	87. 0	0. 0	42. 6	0.0	25484. 8	0. 0	13344. 8	3215. 8	8924. 2
194+00	LT & RT	50	41. 4	0.0	17. 5	0. 1	81.0	0. 0	32. 4	0. 1	25565. 8	0. 0	13377. 2	3215. 9	8972. 7
194+50	LT & RT	50	37. 0	0. 0	17. 5	0. 1	72. 6	0. 0	32. 4	0. 1	25638. 4	0. 0	13409. 6	3216. 0	9012. 7
195+00	LT & RT	50	29. 0	0. 0	17. 5	2. 3	61. 0	0. 0	32. 4	2. 2	25699. 4	0.0	13442.0	3218. 8	9038. 5
195+50	LT & RT	50	27. 9	0.0	17. 5	0.8	52. 7	0. 0	32. 4	2. 9	25752. 1	0. 0	13474. 5	3222. 4	9055. 2
196+00	LT & RT	50	25. 5	0.0	17. 5	2. 5	49. 5	0. 0	32. 4	3. 1	25801.6	0. 0	13506. 9	3226. 2	9068. 5
196+50	LT & RT	50	24. 7	0.0	17. 5	1. 3	46. 5	0. 0	32. 4	3. 5	25848. 1	0. 0	13539. 3	3230. 6	9078. 2
197+00	LT & RT	50	24. 4	0.0	17. 5	1.5	45.5	0. 0	32. 4	2. 6	25893. 6	0. 0	13571. 7	3233. 8	9088. 0
197+50	LT & RT	50	23. 9	0.0	17. 5	1. 6	44.7	0. 0	32. 4	2. 9	25938. 3	0. 0	13604. 1	3237. 5	9096. 7
198+00	LT & RT	50	23. 0	0.0	17. 5	7. 0	43.4	0. 0	32. 4	8. 0	25981. 7	0. 0	13636. 5	3247. 5	9097.7
198+50	LT & RT	50	24. 5	0.0	17. 5	0. 6	44. 0	0.0	32. 4	7. 1	26025. 7	0. 0	13668. 9	3256. 3	9100. 4

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			AREA (SF)				11	L VOL (CY) UNADJUSTE	ED .	CUMULATIVE VOL (CY)					
					SLAVAGED/UNUSABLE				SLAVAGED/UNUSABLE		CUT		SLAVAGED/UNUSABLE	EXPANDED FILL	MASS
STATI ON	LOCATI ON	DI STANCE	CUT	EBS	PAVEMENT MATERIAL	FILL	CUT	EBS	PAVEMENT MATERIAL	FILL	1.00	EBS	PAVEMENT MATERIAL	1. 25	ORDI NATE
198+50	LT & RT	50	24. 5	0.0	17. 5	0.6	44. 0	0.0	32. 4	7. 1	24675. 7	0.0	13668. 9	3256. 3	7750. 4
199+00	LT & RT	50	24. 2	0.0	17. 5	0. 2	45. 0	0.0	32. 4	0.8	24720. 7	0.0	13701. 3	3257. 3	7762. 1
199+50	LT & RT	50	25. 9	0.0	17. 5	4. 1	46. 4	0.0	32. 4	4. 0	24767. 1	0.0	13733. 7	3262. 4	7771.0
200+00	LT & RT	50	23. 5	0.0	17. 5	6. 2	45. 8	0.0	32. 4	9. 6	24812. 9	0.0	13766. 1	3274. 3	7772.5
200+50	LT & RT	50	27. 9	0.0	17. 5	0. 9	47. 6	0.0	32. 4	6. 6	24860. 6	0.0	13798. 5	3282. 5	7779. 5
201+00	LT & RT	50	29. 2	0.0	17. 5	0.8	52. 9	0.0	32. 4	1. 5	24913. 4	0.0	13830. 9	3284. 4	7798. 1
201+50	LT & RT	50	29. 6	0.0	17. 5	0.8	54. 4	0.0	32. 4	1. 4	24967. 9	0. 0	13863. 3	3286. 2	7818. 3
202+00	LT & RT	50	28. 5	0.0	17. 5	1. 1	53. 8	0.0	32. 4	1. 7	25021. 7	0. 0	13895. 8	3288. 3	7837. 6
202+50	LT & RT	50	29. 1	0.0	17. 5	1. 2	53. 3	0.0	32. 4	2. 1	25075. 0	0. 0	13928. 2	3290. 9	7855. 9
203+00	LT & RT	50	29. 2	0. 0	17. 5	1. 1	54. 0	0. 0	32. 4	2. 1	25128. 9	0. 0	13960. 6	3293. 6	7874. 8
203+50	LT & RT	50	29. 6	0. 0	17. 5	1. 0	54. 4	0. 0	32. 4	2. 0	25183. 4	0. 0	13993. 0	3296. 1	7894. 3
204+00	LT & RT	50	31. 9	0. 0	17. 5	0. 4	56. 9	0. 0	32. 4	1. 3	25240. 3	0. 0	14025. 4	3297. 7	7917. 2
204+50	LT & RT	50	34. 3	0. 0	17. 5	0. 2	61. 4	0. 0	32. 4	0. 6	25301.7	0. 0	14057.8	3298. 5	7945. 4
205+00	LT & RT	50	35. 9	0. 0	17. 5	0. 1	65. 1	0. 0	32. 4	0. 3	25366. 7	0. 0	14090. 2	3298. 8	7977. 7
205+50	LT & RT	50	38. 6	0. 0	17. 5	0.0	69. 0	0. 0	32. 4	0. 1	25435.8	0. 0	14122. 6	3298. 9	8014. 2
206+00	LT & RT	50	42. 2	0. 0	17. 5	0. 0	74.8	0.0	32. 4	0. 0	25510. 6	0. 0	14155. 0	3299. 0	8056. 6
206+50	LT & RT	50	45. 1	0. 0	17. 5	0. 0	80. 8	0.0	32. 4	0. 0	25591. 3	0. 0	14187. 4	3299. 0	8105.0
207+00	LT & RT	50	44. 4	0. 0	17. 5	0. 0	82. 9	0.0	32. 4	0. 0	25674. 2	0. 0	14219. 8	3299. 0	8155. 4
207+50	LT & RT	50	40. 9	0. 0	17. 5	0. 0	79. 0	0.0	32. 4	0. 0	25753. 2	0. 0	14252. 2	3299. 0	8202. 0
208+00	LT & RT	50	33. 7	0. 0	17. 5	1. 5	69. 1	0. 0	32. 4	1. 4	25822. 3	0. 0	14284. 6	3300. 7	8236. 9
208+50	LT & RT	50	33. 5	0. 0	17. 5	0. 2	62. 2	0. 0	32. 4	1. 6	25884. 5	0. 0	14317. 0	3302. 8	8264. 7
209+00	LT & RT	50	45. 6	0. 0	17. 5	0. 0	73. 3	0. 0	32. 4	0. 2	25957. 8	0. 0	14349. 5	3303. 0	8305. 3
209+50	LT & RT	50	39. 0	0. 0	17. 5	0. 2	78. 4	0. 0	32. 4	0. 2	26036. 1	0. 0	14381. 9	3303. 2	8351.0
210+00	LT & RT	50	40. 3	0. 0	17. 5	0. 1	73. 4	0. 0	32. 4	0. 2	26109. 6	0. 0	14414. 3	3303. 5	8391.8
210+50	LT & RT	50	43. 3	0. 0	17. 5	0. 1	77. 4	0. 0	32. 4	0. 1	26187. 0	0. 0	14446. 7	3303. 7	8436. 6
211+00	LT & RT	50	41. 7	0. 0	17. 5	0. 1	78. 7	0. 0	32. 4	0. 1	26265. 7	0. 0	14479. 1	3303. 8	8482. 8
211+50		50	41. 9	0. 0	17. 5	0. 1	77. 4	0. 0	32. 4	0. 1	26343. 1	0. 0	14511. 5	3303. 9	8527. 7
212+00	LT & RT	50	44. 2	0. 0	17. 5	0. 1	79. 7	0. 0	32. 4	0. 1	26422. 9	0. 0	14543. 9	3304. 0	8574. 9
212+50	LT & RT	50	40. 8	0. 0	17. 5	0. 2	78. 7	0. 0	32. 4	0. 2	26501.6	0. 0	14576. 3	3304. 3	8620. 9
212+60		-	_	_	_	_	100. 0	0. 0	0.0	0. 0	26601.6	0. 0	14576. 3	3304. 3	8720. 9
213+00	LT & RT	50	41. 9	0. 0	17. 5	0. 3	76. 5	0.0	32. 4	0. 5	26678. 1	0. 0	14608. 7	3304. 9	8764.5
213+50	LT & RT	50	44. 3	0. 0	17. 5	0. 0	79. 8	0. 0	32. 4	0. 3	26757. 9	0. 0	14641. 1	3305. 2	8811.5
214+00	LT & RT	50	45. 7	0. 0	17. 5	0. 0	83. 4	0. 0	32. 4	0. 0	26841. 3	0. 0	14673. 5	3305. 3	8862. 5
214+50		50	45. 0	0. 0	17. 5	0. 3	84. 0	0. 0	32. 4	0. 3	26925. 3	0. 0	14705. 9	3305. 6	8913. 8
215+00	LT & RT	50	42. 6	0. 0	17. 5	0. 2	81. 1	0.0	32. 4	0. 5	27006. 5	0. 0	14738. 3	3306. 2	8961. 9
215+50		50	41. 1	0. 0	17. 5	0. 4	77. 5	0. 0	32. 4	0. 6	27083. 9	0. 0	14770. 8	3306. 9	9006. 2
216+00	LT & RT	50	37. 6	0. 0	17. 5	1. 0	72. 8	0. 0	32. 4	1. 3	27156. 8	0. 0	14803. 2	3308. 5	9045. 1
5.55			00	0.0		0	0	3.0	52.1						201011

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			AREA (SF)					NCREMENTAL	_ VOL (CY) UNADJUSTE	ED .	CUMULATIVE VOL (CY)				
		•			SLAVAGED/UNUSABLE				SLAVAGED/UNUSABLE		CUT		SLAVAGED/UNUSABLE	EXPANDED FILL	MASS
STATI ON	LOCATI ON	DI STANCE	CUT	EBS	PAVEMENT MATERIAL	FILL	CUT	EBS	PAVEMENT MATERIAL	FILL	1. 00	EBS	PAVEMENT MATERIAL	1. 25	ORDI NATE
216+00	LT & RT	50	37. 6	0.0	17. 5	1.0	72. 8	0.0	32. 4	1. 3	27056.8	0. 0	14803. 2	3308. 5	8945. 1
216+50	LT & RT	50	35. 4	0.0	17. 5	0. 3	67. 5	0.0	32. 4	1. 2	27124. 3	0.0	14835. 6	3310. 0	8978. 8
217+00	LT & RT	50	34. 1	0.0	17. 5	0. 9	64. 4	0.0	32. 4	1. 1	27188. 7	0.0	14868. 0	3311. 4	9009.3
217+50	LT & RT	50	36. 5	0.0	17. 5	0. 5	65. 4	0.0	32. 4	1. 3	27254. 1	0.0	14900. 4	3313. 0	9040. 7
218+00	LT & RT	50	43. 5	0.0	17. 5	0.0	74. 0	0.0	32. 4	0. 5	27328. 1	0.0	14932. 8	3313. 6	9081. 7
218+50	LT & RT	50	39. 0	0.0	17. 5	0. 1	76. 3	0.0	32. 4	0. 1	27404. 4	0. 0	14965. 2	3313. 8	9125. 5
219+00	LT & RT	50	39. 0	0.0	17. 5	0. 3	72. 2	0.0	32. 4	0. 4	27476. 6	0. 0	14997. 6	3314. 3	9164. 7
219+50	LT & RT	50	42. 5	0.0	17. 5	0. 2	75. 4	0.0	32. 4	0. 5	27552. 0	0. 0	15030. 0	3314. 9	9207. 0
220+00	LT & RT	50	43. 9	0.0	17. 5	0. 2	79. 9	0.0	32. 4	0. 4	27631. 9	0. 0	15062. 4	3315. 5	9254. 0
220+50	LT & RT	50	46. 1	0. 0	17. 5	0. 1	83. 3	0.0	32. 4	0. 3	27715. 3	0. 0	15094. 8	3315. 9	9304. 5
221+00	LT & RT	50	44. 3	0. 0	17. 5	0.0	83. 7	0.0	32. 4	0. 1	27799. 0	0.0	15127. 2	3316. 0	9355. 7
221+50	LT & RT	50	42. 5	0. 0	17. 5	0. 2	80. 3	0.0	32. 4	0. 2	27879. 3	0. 0	15159. 6	3316. 3	9403. 4
222+00	LT & RT	50	40. 1	0. 0	17. 5	0.5	76. 5	0.0	32. 4	0. 6	27955. 8	0. 0	15192.0	3317. 1	9446. 7
222+50	LT & RT	50	40. 0	0.0	17. 5	0. 2	74. 1	0.0	32. 4	0. 6	28029. 9	0. 0	15224. 5	3317. 9	9487. 6
223+00	LT & RT	50	37. 9	0.0	17. 5	0. 2	72. 1	0.0	32. 4	0. 3	28102. 1	0. 0	15256. 9	3318. 3	9526. 9
223+50	LT & RT	50	42. 4	0. 0	17. 5	0. 2	74. 3	0.0	32. 4	0. 4	28176. 4	0. 0	15289. 3	3318. 8	9568. 4
224+00	LT & RT	50	38. 6	0. 0	17. 5	0. 2	75. 0	0.0	32. 4	0. 4	28251. 4	0. 0	15321. 7	3319. 2	9610.5
224+50	LT & RT	50	34. 2	0. 0	17. 5	0. 2	67. 5	0.0	32. 4	0. 3	28318. 8	0. 0	15354. 1	3319. 7	9645. 1
225+00	LT & RT	50	32. 2	0. 0	17. 5	0.8	61. 5	0.0	32. 4	0. 9	28380. 3	0. 0	15386. 5	3320. 8	9673. 1
225+50	LT & RT	50	30. 1	0. 0	17. 5	0. 6	57. 7	0.0	32. 4	1. 4	28438. 0	0. 0	15418. 9	3322. 5	9696. 6
226+00	LT & RT	50	32. 6	0. 0	17. 5	0. 5	58. 0	0.0	32. 4	1. 0	28496. 1	0. 0	15451. 3	3323. 8	9721. 0
226+50	LT & RT	50	34. 1	0. 0	17. 5	0. 5	61. 7	0.0	32. 4	1. 0	28557. 8	0. 0	15483. 7	3325. 0	9749. 1
227+00	LT & RT	50	33. 1	0. 0	17. 5	1. 1	62. 2	0.0	32. 4	1. 5	28620. 0	0. 0	15516. 1	3326. 8	9777. 0
227+50	LT & RT	50	36. 0	0. 0	17. 5	0. 1	64. 0	0.0	32. 4	1. 1	28684. 0	0. 0	15548. 5	3328. 2	9807. 3
228+00	LT & RT	50	35. 2	0. 0	17. 5	0. 1	66. 0	0.0	32. 4	0. 1	29150. 0	0. 0	15580. 9	3328. 3	10240. 7
228+50	LT & RT	50	30. 9	0. 0	17. 5	0. 2	61. 2	0.0	32. 4	0. 3	29211. 2	0. 0	15613. 3	3328. 7	10269. 2
229+00	LT & RT	50	29. 9	0. 0	17. 5	0. 6	56. 2	0. 0	32. 4	0.8	29267.4	0. 0	15645. 8	3329. 7	10292. 0
229+50		50	29. 0	0. 0	17. 5	0. 9	54. 5	0. 0	32. 4	1. 4	29321. 9	0. 0	15678. 2	3331. 4	10312. 4
230+00	LT & RT	50	27. 7	0. 0	17. 5	0. 9	52. 5	0. 0	32. 4	1. 6	29374.4	0. 0	15710. 6	3333. 4	10330. 5
230+50		50	27. 6	0. 0	17. 5	1. 0	51. 2	0. 0	32. 4	1. 8	29425. 6	0. 0	15743. 0	3335. 6	10347. 1
231+00	LT & RT	50	28. 9	0. 0	17. 5	0. 8	52. 3	0.0	32. 4	1. 6	29477. 9	0. 0	15775. 4	3337. 7	10364. 9
231+50		50	30. 2	0. 0	17. 5	0. 7	54. 7	0.0	32. 4	1. 4	29532. 7	0. 0	15807. 8	3339. 4	10385. 5
232+00	LT & RT	50	32. 1	0. 0	17. 5	0. 4	57. 7	0.0	32. 4	1. 0	29590. 4	0. 0	15840. 2	3340. 6	10409. 6
232+50		50	33. 9	0. 0	17. 5	0. 2	61. 1	0.0	32. 4	0. 6	29651.5	0. 0	15872. 6	3341. 3	10437. 6
	LT & RT	50	35. 4	0. 0	17. 5	0. 1	64. 2	0.0	32. 4	0. 3	29715. 7	0. 0	15905. 0	3341. 7	10469. 1
	LT & RT	50	36. 6	0.0	17. 5	0. 1	66. 6	0.0	32. 4	0. 2	29782. 4	0. 0	15937. 4	3341. 9	10503. 1
200100	LIGINI	50	50.0	0.0	17.5	J. 1	00.0	0.0	JZ. 7	J. Z	2,102.4	J. U	10707.4	3371.7	10000.1

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PROJECT NUMBER: 7650-01-74 HWY: STH 29 COUNTY: PIERCE EARTHWORK SUMMARY SHEET **E** 

			AREA (SF)					NCREMENTAI	L VOL (CY) UNADJUSTE	ED	CUMULATI VE VOL (CY)					
					SLAVAGED/UNUSABLE				SLAVAGED/UNUSABLE		CUT		SLAVAGED/UNUSABLE	EXPANDED FILL	MASS	
STATI ON	LOCATI ON	DI STANCE	CUT	EBS	PAVEMENT MATERIAL	FI LL	CUT	EBS	PAVEMENT MATERIAL	FILL	1. 00	EBS	PAVEMENT MATERIAL	1. 25	ORDI NATE	
233+50	LT & RT	50	36. 6	0.0	17. 5	0. 1	66. 6	0.0	32. 4	0. 2	29382. 4	0.0	15937. 4	3341. 9	10103. 1	
234+00	LT & RT	50	35. 4	0.0	17. 5	0. 2	66. 6	0.0	32. 4	0. 3	29449. 0	0.0	15969. 8	3342. 2	10136. 9	
234+50	LT & RT	50	43. 8	0.0	17. 5	0. 1	73. 4	0.0	32. 4	0. 3	29522. 3	0.0	16002. 2	3342. 6	10177. 5	
234+69	LT & RT	-			-	-	470. 0	0.0	0.0	0.0	29992. 3	0. 0	16002. 2	3342. 6	10647. 5	
235+00	LT & RT	50	41. 3	0.0	28. 5	0. 1	78. 8	0.0	42. 6	0. 2	30071.1	0.0	16044. 8	3342. 8	10683. 5	
235+50	LT & RT	50	49. 0	0.0	28. 5	0. 0	83. 6	0. 0	52. 8	0. 1	30154. 7	0.0	16097. 6	3343. 0	10714. 2	
236+00	LT & RT	50	52. 3	0.0	28. 5	0.0	93. 8	0. 0	52. 8	0.0	30248. 5	0. 0	16150. 4	3343. 0	10755. 2	
236+50	LT & RT	50	53. 6	0.0	28. 5	0. 0	98. 0	0.0	52. 8	0.0	30346. 6	0. 0	16203. 2	3343. 0	10800. 4	
237+00	LT & RT	50	51. 9	0.0	28. 5	0. 0	97. 7	0.0	52. 8	0.0	30444. 2	0. 0	16255. 9	3343. 0	10845. 3	
237+50	LT & RT	50	68. 0	0. 0	28. 5	0. 0	111. 1	0.0	52. 8	0.0	30555. 3	0. 0	16308. 7	3343. 0	10903.6	
238+00	LT & RT	50	213. 0	0.0	28. 5	0.0	260. 2	0.0	52. 8	0.0	30815. 5	0. 0	16361. 5	3343. 0	11111.1	
238+50	LT & RT	50	57. 4	0.0	28. 5	0. 0	250. 3	0.0	52. 8	0.0	31065. 8	0. 0	16414. 3	3343. 0	11308. 6	
239+00	LT & RT	50	45. 9	0.0	28. 5	0. 0	95. 6	0.0	52. 8	0.0	31161. 5	0. 0	16467. 0	3343. 0	11351. 4	
239+50	LT & RT	50	48. 9	0.0	28. 5	0.0	87. 7	0. 0	52. 8	0. 0	31249. 2	0. 0	16519. 8	3343. 1	11386. 3	
240+00	LT & RT	50	57. 9	0.0	28. 5	0. 0	98. 9	0. 0	52. 8	0. 0	31348. 1	0. 0	16572. 6	3343. 1	11432. 4	
240+50	LT & RT	50	61. 1	0. 0	28. 5	0. 0	110. 2	0. 0	52. 8	0. 0	31458. 3	0. 0	16625. 4	3343. 1	11489.8	
241+00	LT & RT	50	64. 9	0. 0	28. 5	0. 0	116. 7	0. 0	52. 8	0. 0	31574. 9	0. 0	16678. 2	3343. 1	11553. 7	
241+50	LT & RT	50	65. 7	0.0	28. 5	0. 0	120. 9	0. 0	52. 8	0. 0	31695. 9	0. 0	16730. 9	3343. 1	11621. 9	
242+00	LT & RT	50	64. 4	0.0	28. 5	0. 0	120. 5	0. 0	52. 8	0. 0	31816. 3	0. 0	16783. 7	3343. 1	11689. 6	
242+50	LT & RT	50	64. 2	0. 0	28. 5	0. 0	119. 1	0. 0	52. 8	0. 0	31935. 4	0. 0	16836. 5	3343. 1	11755. 9	
243+00	LT & RT	50	61. 0	0. 0	28. 5	0. 0	115. 9	0.0	52. 8	0. 0	32051. 3	0. 0	16889. 3	3343. 1	11819. 0	
243+50	LT & RT	50	57. 4	0. 0	28. 5	0. 0	109. 6	0.0	52. 8	0. 0	32161.0	0. 0	16942. 0	3343. 1	11875. 9	
244+00	LT & RT	50	54. 1	0. 0	28. 5	0. 0	103. 2	0.0	52. 8	0. 0	32264. 2	0. 0	16994. 8	3343. 1	11926. 3	
244+50	LT & RT	50	54. 0	0. 0	28. 5	0. 0	100. 0	0. 0	52. 8	0. 0	32364. 2	0. 0	17047. 6	3343. 1	11973. 6	
245+00	LT & RT	50	53. 4	0. 0	28. 5	0. 0	99. 4	0. 0	52. 8	0. 0	32463.6	0. 0	17100. 4	3343. 1	12020. 2	
	LT & RT	50	49. 3	0. 0	28. 5	0. 0	95. 0	0. 0	52. 8	0. 0	32558. 7	0. 0	17153. 2	3343. 1	12062. 5	
245+74	LT & RT	-	-	-	-	-	180. 0	0. 0	0.0	0.0	32738. 7	0. 0	17153. 2	3343. 1	12002.0	
246+00		50	42. 0	0. 0	28. 5	0. 1	84. 5	0.0	52. 8	0. 1	32823. 2	0.0	17205. 9	3343. 1	12274. 1	
246+50		50	38. 1	0. 0	28. 5	0. 2	74. 1	0.0	52. 8	0. 2	32897. 3	0.0	17258. 7	3343. 4	12295. 1	
247+00	LT & RT	50	39. 9	0.0	28. 5	0. 2	72. 2	0.0	52. 8	0. 2	32969. 5	0.0	17311. 5	3343. 7	12314. 2	
247+50	LT & RT	50	42. 9	0.0	28. 5	0. 0	76. 6	0.0	52. 8	0. 2	33046. 1	0.0	17364. 3	3343. 8	12314. 2	
248+00	LT & RT	50	44. 9	0.0	28. 5	0. 0	81. 3	0.0	52. 8	0. 0	33127. 4	0. 0	17417. 0	3343. 8	12366. 5	
248+50	LT & RT	50	45. 9	0.0	28. 5	0.0	84. 1	0.0	52. 8	0.0	33127. 4	0. 0	17469. 8	3343. 8	12300. 5	
249+00	LT & RT	50	43. 9	0.0	28. 5	0. 0	83. 6	0.0	52. 8	0.0	33295.1	0. 0	17522. 6	3343. 8	12397. 9	
249+00	LT & RT	50		0.0		0. 0	82. 5	0.0			33377.6		17565. 2		12428. 7	
			44. 7		17. 5				42.6	0.0		0.0		3343. 8		
250+00	LT & RT	50	39. 3	0.0	17. 5	0.0	77.8	0.0	32. 4	0.0	33455. 4	0.0	17597.6	3343. 8	12514. 0	
250+50	LT & RT	50	34. 2	0.0	17. 5	0.1	68. 0	0.0	32. 4	0.1	33523. 4	0.0	17630. 0	3343. 9	12549. 5	
251+00	LT & RT	50	33. 8	0.0	17. 5	0.1	63. 0	0.0	32. 4	0. 1	33586. 4	0.0	17662. 4	3344. 1	12579. 9	

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SHEET **E** 

			AREA (SF)				IN	NCREMENTAL	_ VOL (CY) UNADJUSTE	ED	CUMULATI VE VOL (CY)				
					SLAVAGED/UNUSABLE				SLAVAGED/UNUSABLE		CUT		SLAVAGED/UNUSABLE	EXPANDED FILL	MASS
STATI ON	LOCATI ON	DI STANCE	CUT	EBS	PAVEMENT MATERIAL	FILL	CUT	EBS	PAVEMENT MATERIAL	FILL	1. 00	EBS	PAVEMENT MATERIAL	1. 25	ORDI NATE
251+00	LT & RT	50	33.8	0.0	17. 5	0. 1	63. 0	0.0	32. 4	0. 1	32936. 4	0. 0	17662. 4	3344. 1	11929. 9
251+50	LT & RT	50	39. 0	0.0	17. 5	0. 0	67.5	0.0	32. 4	0.0	33003.8	0.0	17694. 8	3344. 2	11964. 8
252+00	LT & RT	50	24. 0	0.0	17. 5	0. 7	58. 3	0.0	32. 4	0. 6	33062. 2	0.0	17727. 2	3344. 9	11990. 0
252+50	LT & RT	50	24. 4	0.0	17. 5	0. 7	44. 8	0.0	32. 4	1. 3	33106. 9	0.0	17759. 6	3346. 6	12000. 7
253+00	LT & RT	50	27. 0	0.0	17. 5	0. 3	47. 6	0.0	32. 4	0. 9	33154. 5	0.0	17792. 0	3347. 7	12014. 7
253+50	LT & RT	50	27. 1	0.0	17. 5	0. 4	50. 1	0.0	32. 4	0. 6	33204. 6	0.0	17824. 5	3348. 5	12031. 6
254+00	LT & RT	50	27. 3	0.0	17. 5	0. 6	50. 4	0.0	32. 4	0. 9	33255. 0	0. 0	17856. 9	3349. 6	12048. 5
254+50	LT & RT	50	28. 1	0.0	17. 5	1. 1	51. 3	0.0	32. 4	1. 6	33306. 3	0. 0	17889. 3	3351. 5	12065. 5
255+00	LT & RT	50	27. 9	0.0	17. 5	0. 9	51.8	0.0	32. 4	1. 8	33358. 2	0. 0	17921. 7	3353. 8	12082. 7
255+50	LT & RT	50	28. 7	0. 0	17. 5	0. 7	52. 4	0.0	32. 4	1. 4	33410. 6	0. 0	17954. 1	3355. 6	12100. 9
256+00	LT & RT	50	32. 0	0. 0	28. 5	0. 7	56. 2	0.0	42. 6	1. 3	33466. 8	0.0	17996. 7	3357. 1	12113. 0
256+50	LT & RT	50	31. 2	0.0	28. 5	1. 0	58. 6	0.0	52. 8	1.6	33525. 3	0.0	18049. 5	3359. 1	12116. 8
257+00	LT & RT	50	34.0	0.0	28. 5	0.4	60. 4	0.0	52. 8	1. 3	33585. 7	0.0	18102. 2	3360. 7	12122. 8
257+50	LT & RT	50	35. 9	0.0	28. 5	1. 1	64. 7	0. 0	52. 8	1. 4	33650. 4	0.0	18155. 0	3362. 4	12132. 9
257+91	LT & RT	-	-	_	-	-	1000. 0	0. 0	0.0	0. 0	34650. 4	0. 0	18155. 0	3362. 4	13132. 9
258+00	LT & RT	50	26. 4	0.0	28. 5	2. 2	57.6	0. 0	52. 8	3. 0	34708. 0	0. 0	18207. 8	3366. 2	13134. 1
258+50	LT & RT	50	30. 1	0.0	28. 5	1. 4	52. 3	0.0	52. 8	3. 3	34760. 3	0. 0	18260. 6	3370. 3	13129. 4
259+00	LT & RT	50	35. 4	0. 0	28. 5	0. 4	60.6	0.0	52. 8	1. 7	34820. 9	0. 0	18313. 3	3372. 4	13135. 2
259+50	LT & RT	50	39. 3	0.0	28. 5	0. 2	69. 2	0.0	52. 8	0. 5	34890. 2	0. 0	18366. 1	3373. 0	13151. 0
260+00	LT & RT	50	44. 4	0.0	28. 5	0. 0	77. 5	0.0	52. 8	0. 2	34967.7	0. 0	18418. 9	3373. 2	13175. 5
260+50	LT & RT	50	44. 6	0.0	28. 5	0. 0	82. 4	0. 0	52. 8	0. 0	35050. 1	0. 0	18471. 7	3373. 2	13205. 2
261+00	LT & RT	50	45. 8	0.0	28. 5	0. 0	83. 7	0. 0	52. 8	0. 0	35133. 8	0. 0	18524. 5	3373. 2	13236. 1
261+50	LT & RT	50	49. 9	0. 0	17. 5	0. 0	88. 6	0. 0	42. 6	0. 0	35222. 4	0. 0	18567. 0	3373. 2	13282. 1
262+00	LT & RT	50	43. 0	0. 0	17. 5	0. 0	86. 0	0. 0	32. 4	0. 0	35308. 4	0. 0	18599. 5	3373. 2	13335. 7
262+50	LT & RT	50	37. 8	0. 0	17. 5	0. 0	74. 8	0. 0	32. 4	0. 0	35383. 2	0. 0	18631. 9	3373. 3	13378. 1
263+00	LT & RT	50	35. 3	0. 0	17. 5	0. 1	67.7	0. 0	32. 4	0. 1	35450. 9	0. 0	18664. 3	3373. 4	13413. 2
	LT & RT	50	34. 1	0. 0	17. 5	0. 1	64. 3	0. 0	32. 4	0. 2	35515. 1	0. 0	18696. 7	3373. 7	13444. 8
264+00	LT & RT	50	36. 3	0. 0	17. 5	0.0	65. 1	0. 0	32. 4	0. 1	35580. 3	0. 0	18729. 1	3373. 8	13477. 4
264+50	LT & RT	50	39. 6	0. 0	17. 5	0. 0	70. 3	0. 0	32. 4	0. 0	35650. 6	0. 0	18761. 5	3373. 8	13515. 3
265+00		50	41. 1	0. 0	17. 5	0.0	74.8	0. 0	32. 4	0. 0	35725. 3	0. 0	18793. 9	3373. 8	13557. 7
265+50		50	38. 2	0. 0	17. 5	0. 0	73. 4	0. 0	32. 4	0. 0	35798.8	0. 0	18826. 3	3373. 8	13598. 7
266+00		50	38. 6	0. 0	17. 5	0. 1	71. 0	0.0	32. 4	0. 0	35869.8	0. 0	18858. 7	3373. 8	13637. 2
	LT & RT	50	46. 0	0. 0	17. 5	0. 0	78. 3	0.0	32. 4	0. 0	35948. 1	0. 0	18891. 1	3373. 9	13683. 1
	LT & RT	50	39. 2	0. 0	17. 5	0. 0	78. 9	0.0	32. 4	0. 0	36027.0	0. 0	18923. 5	3373. 9	13729. 6
	LT & RT	50	36. 2	0. 0	17. 5	0. 0	69. 9	0. 0	32. 4	0. 0	36096. 9	0. 0	18955. 9	3374. 0	13767.0
	LT & RT	50	35. 7	0. 0	17. 5	1. 8	66. 6	0. 0	32. 4	1. 7	36163. 5	0. 0	18988. 3	3376. 1	13799. 0
	LT & RT	50	36. 8	0. 0	17. 5	2. 8	67. 1	0. 0	32. 4	4. 3	36230. 6	0. 0	19020. 8	3381. 5	13828. 4

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PROJECT NUMBER: 7650-01-74 HWY: STH 29 COUNTY: PIERCE EARTHWORK SUMMARY SHEET **E** 

			AREA (SF)				11	NCREMENTAL	_ VOL (CY) UNADJUSTE	ED .	CUMULATIVE VOL (CY)				
					SLAVAGED/UNUSABLE				SLAVAGED/UNUSABLE		CUT		SLAVAGED/UNUSABLE	EXPANDED FILL	MASS
STATI ON	LOCATI ON	DI STANCE	CUT	EBS	PAVEMENT MATERIAL	FILL	CUT	EBS	PAVEMENT MATERIAL	FILL	1. 00	EBS	PAVEMENT MATERIAL	1. 25	ORDI NATE
268+50	LT & RT	50	36. 8	0.0	17. 5	2.8	67. 1	0.0	32. 4	4. 3	35230. 6	0. 0	19020. 8	3381. 5	12828. 4
269+00	LT & RT	50	38. 6	0.0	17. 5	0.0	69. 7	0.0	32. 4	2. 6	35300. 3	0. 0	19053. 2	3384. 6	12862. 5
269+50	LT & RT	50	43. 6	0.0	17. 5	0. 0	76. 1	0.0	32. 4	0. 0	35376. 4	0. 0	19085. 6	3384. 6	12906. 2
270+00	LT & RT	50	37. 3	0.0	17. 5	0. 1	74. 9	0.0	32. 4	0. 1	35451. 3	0. 0	19118. 0	3384. 7	12948. 6
270+50	LT & RT	50	35. 2	0.0	17. 5	0. 4	67. 1	0.0	32. 4	0. 4	35518. 4	0. 0	19150. 4	3385. 2	12982. 9
271+00	LT & RT	50	39. 3	0.0	17. 5	0. 2	68. 9	0.0	32. 4	0. 5	35587. 3	0. 0	19182. 8	3385. 8	13018. 7
271+50	LT & RT	50	36. 5	0.0	17. 5	0. 2	70. 2	0.0	32. 4	0. 3	35657. 5	0. 0	19215. 2	3386. 2	13056. 1
272+00	LT & RT	50	35. 9	0.0	17. 5	0. 1	67. 0	0.0	32. 4	0. 3	35724. 5	0. 0	19247. 6	3386. 6	13090. 3
272+50	LT & RT	50	35. 5	0.0	17. 5	0. 2	66. 0	0.0	32. 4	0. 3	35790. 6	0. 0	19280. 0	3386. 9	13123. 6
273+00	LT & RT	50	35. 4	0.0	17. 5	0. 6	65. 6	0.0	32. 4	0. 7	35856. 2	0. 0	19312. 4	3387. 8	13156. 0
273+50	LT & RT	50	36. 0	0.0	17. 5	0. 4	66. 1	0.0	32. 4	0. 9	35922. 3	0. 0	19344. 8	3388. 9	13188. 6
274+00	LT & RT	50	38. 0	0.0	17. 5	0. 1	68. 5	0.0	32. 4	0. 4	35990. 8	0. 0	19377. 2	3389. 4	13224. 2
274+50	LT & RT	50	37. 3	0. 0	17. 5	0. 1	69. 7	0.0	32. 4	0. 1	36060. 5	0. 0	19409. 6	3389. 6	13261. 3
275+00	LT & RT	50	35. 2	0.0	17. 5	0. 3	67. 1	0.0	32. 4	0. 3	36127. 6	0. 0	19442. 0	3390. 0	13295. 5
275+50	LT & RT	50	32. 5	0.0	17. 5	0.6	62.7	0.0	32. 4	0.8	36190. 3	0. 0	19474. 5	3391. 0	13324. 8
276+00	LT & RT	50	30. 3	0.0	17. 5	0.8	58. 1	0.0	32. 4	1. 3	36248. 4	0. 0	19506. 9	3392. 6	13349. 0
276+50	LT & RT	50	27. 2	0. 0	17. 5	1. 1	53. 2	0.0	32. 4	1. 8	36301.7	0. 0	19539. 3	3394. 9	13367. 5
277+00	LT & RT	50	30. 0	0. 0	17. 5	0. 6	52. 9	0.0	32. 4	1. 6	36354.6	0. 0	19571. 7	3396. 9	13386. 0
277+50	LT & RT	50	33. 6	0. 0	17. 5	0. 2	58. 8	0.0	32. 4	0. 8	36413. 4	0. 0	19604. 1	3397. 9	13411. 4
278+00	LT & RT	50	33. 4	0. 0	17. 5	0. 2	62. 0	0.0	32. 4	0. 4	36475. 4	0. 0	19636. 5	3398. 4	13440. 5
278+50	LT & RT	50	32. 9	0.0	17. 5	0. 3	61. 4	0.0	32. 4	0. 5	36536. 8	0. 0	19668. 9	3399. 1	13468. 8
279+00	LT & RT	50	33. 1	0.0	17. 5	0. 6	61. 1	0. 0	32. 4	0. 9	36597. 9	0. 0	19701. 3	3400. 2	13496. 4
279+50	LT & RT	50	35. 7	0.0	17. 5	0. 3	63. 8	0.0	32. 4	0.8	36661. 7	0. 0	19733. 7	3401. 2	13526. 8
280+00	LT & RT	50	39. 0	0. 0	17. 5	0. 0	69. 2	0. 0	32. 4	0. 3	36730. 9	0. 0	19766. 1	3401. 5	13563. 2
280+50	LT & RT	50	45. 7	0. 0	17. 5	0. 0	78. 4	0. 0	32. 4	0. 0	36809. 3	0. 0	19798. 5	3401. 5	13609. 2
	LT & RT	50	49. 4	0. 0	17. 5	0. 0	88. 1	0. 0	32. 4	0. 0	36897. 4	0. 0	19830. 9	3401. 5	13664. 9
281+50		50	57. 6	0. 0	17. 5	0. 0	99. 1	0. 0	32. 4	0. 0	36996.5	0. 0	19863. 3	3401. 5	13731. 6
282+00		50	59. 7	0. 0	17. 5	0. 0	108. 6	0. 0	32. 4	0. 0	37105. 1	0. 0	19895. 8	3401. 5	13807. 8
282+50		50	56. 1	0. 0	17. 5	0. 0	107. 2	0. 0	32. 4	0. 0	37212. 4	0. 0	19928. 2	3401. 5	13882. 7
283+00	LT & RT	50	47. 7	0. 0	17. 5	0. 0	96. 2	0.0	32. 4	0.0	37308.6	0. 0	19960.6	3401.5	13946. 4
283+50	LT & RT	50	40. 0	0. 0	17. 5	0. 0	81. 3	0.0	32. 4	0. 0	37389.8	0. 0	19993. 0	3401. 5	13995. 3
284+00		50	39. 5	0. 0	17. 5	0. 1	73. 6	0.0	32. 4	0. 1	37463. 4	0. 0	20025. 4	3401. 6	14036. 4
284+50		50	34. 7	0.0	17. 5	0. 2	68. 7	0.0	32. 4	0. 3	37532.1	0. 0	20057. 8	3402. 0	14072. 3
285+00	LT & RT	50	30. 3	0.0	17. 5	0.8	60. 1	0.0	32. 4	1. 0	37592. 3	0. 0	20090. 2	3403. 2	14098. 9
285+50		50	29. 2	0.0	17. 5	1. 5	55. 1	0.0	32. 4	2. 1	37647. 4	0. 0	20122. 6	3405. 9	14118. 9
286+00		50	28. 3	0.0	17. 5	1. 8	53. 3	0.0	32. 4	3. 0	37700.6	0. 0	20155. 0	3409. 7	14118. 9
200+00		50	۷۵. ۵	0.0	17.5	1.0	55.5	0.0	JZ. 4	3.0	37700.0	0.0	20133.0	J4U7. <i>I</i>	14133. 7

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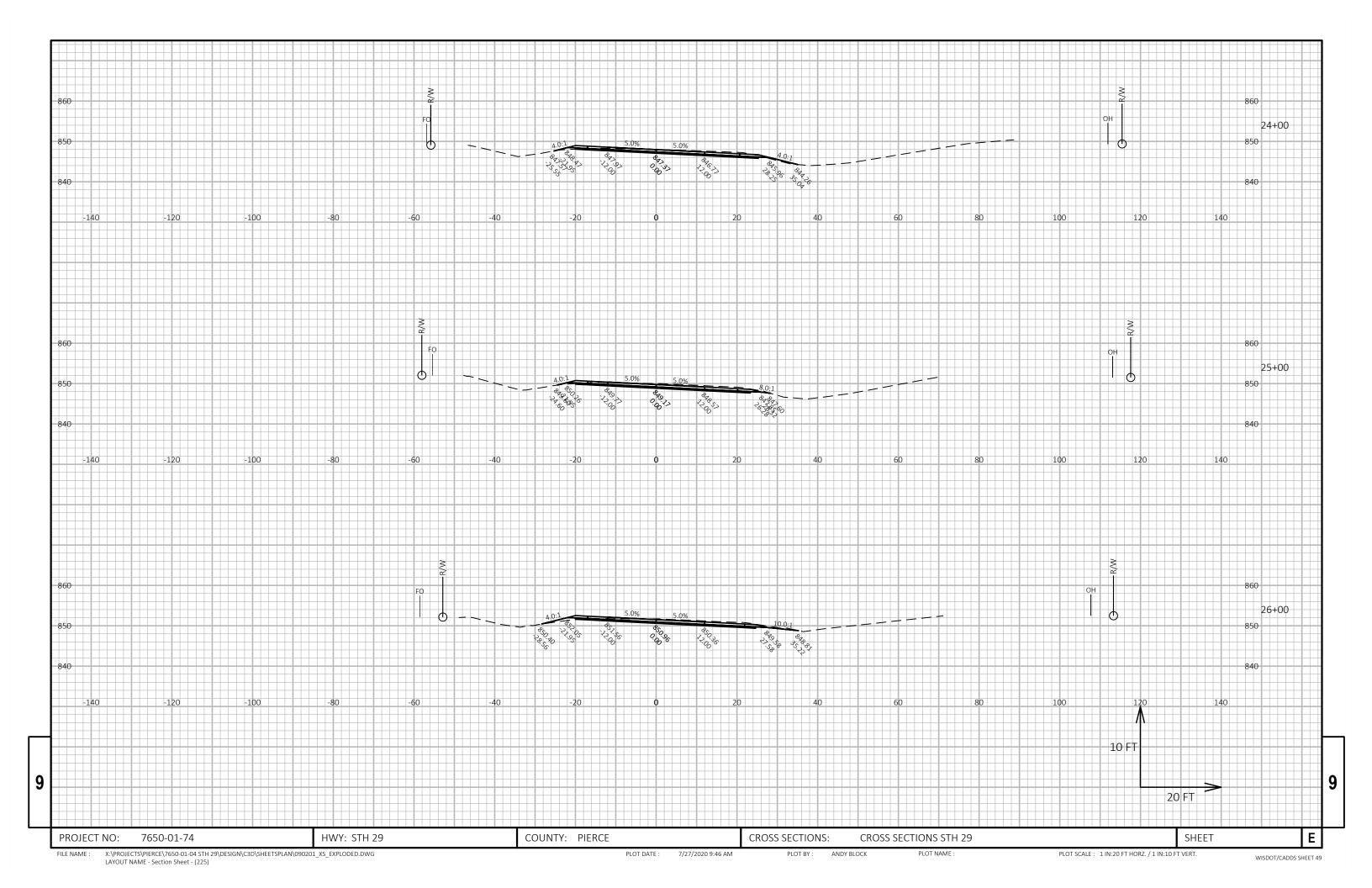
PROJECT NUMBER: 7650-01-74 HWY: STH 29 COUNTY: PIERCE EARTHWORK SUMMARY SHEET

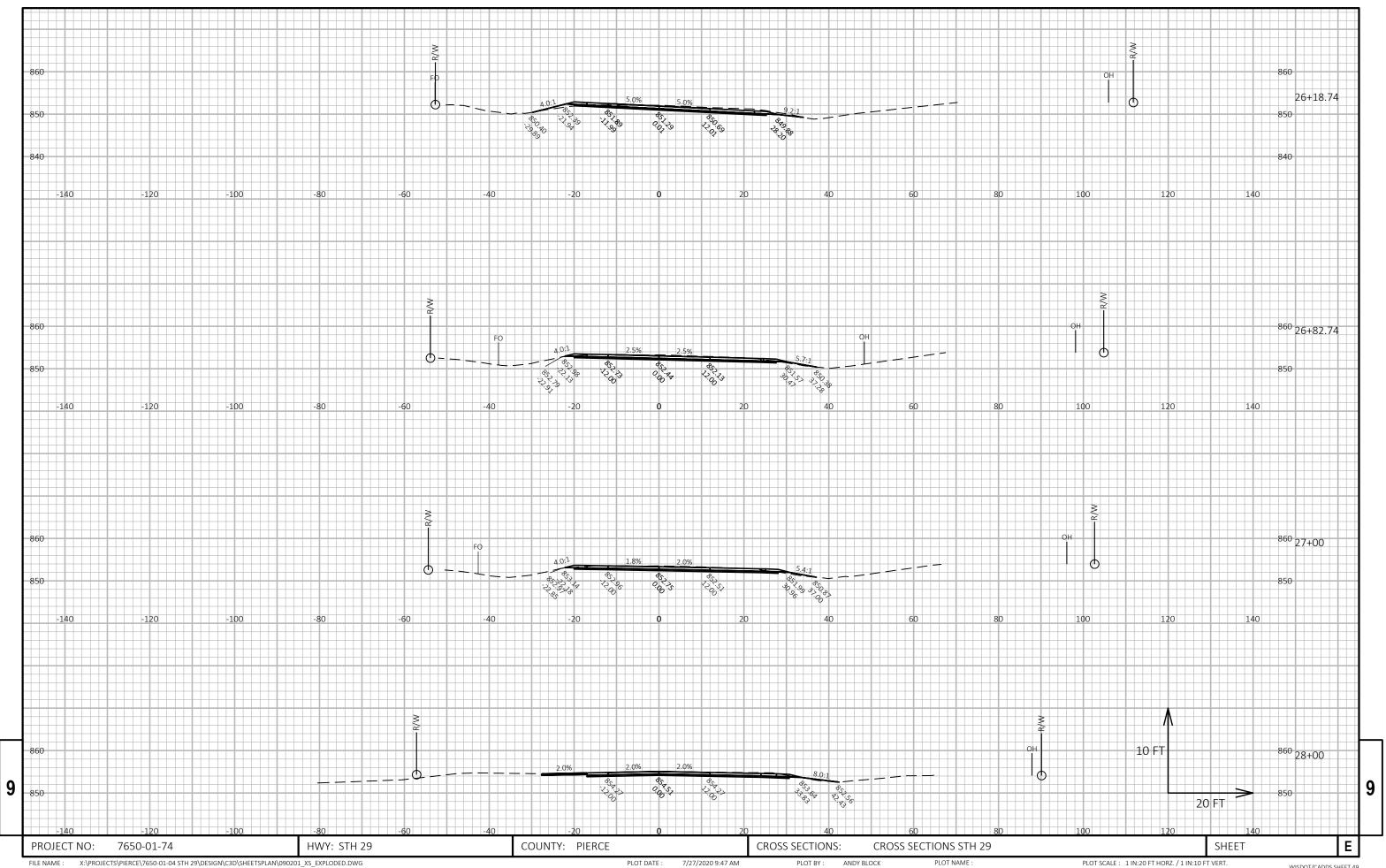
					AREA (SF)		11	NCREMENTA	L VOL (CY) UNADJUSTE	ED	CUMULATIVE VOL (CY)				
					SLAVAGED/UNUSABLE				SLAVAGED/UNUSABLE		CUT		SLAVAGED/UNUSABLE	EXPANDED FILL	MASS
STATI ON	LOCATI ON	DI STANCE	CUT	EBS	PAVEMENT MATERIAL	FILL	CUT	EBS	PAVEMENT MATERIAL	FILL	1. 00	EBS	PAVEMENT MATERIAL	1. 25	ORDI NATE
286+00	LT & RT	50	28. 3	0.0	17. 5	1.8	53. 3	0.0	32. 4	3. 0	37700.6	0.0	20155. 0	3409. 7	14135. 9
286+50	LT & RT	50	28. 0	0.0	17. 5	3. 1	52. 2	0.0	32. 4	4. 5	37752. 8	0.0	20187. 4	3415. 3	14150.0
287+00	LT & RT	50	28. 3	0.0	17. 5	1. 4	52. 1	0.0	32. 4	4. 1	37804. 9	0.0	20219. 8	3420. 5	14164. 6
287+50	LT & RT	50	28. 7	0.0	17. 5	1. 1	52. 8	0.0	32. 4	2. 3	37857. 7	0.0	20252. 2	3423. 4	14182. 1
288+00	LT & RT	50	28. 8	0.0	17. 5	1. 1	53. 3	0.0	32. 4	2. 0	37910. 9	0.0	20284. 6	3426. 0	14200. 4
288+50	LT & RT	50	29. 0	0.0	17. 5	0. 9	53. 5	0. 0	32. 4	1. 9	37964. 5	0.0	20317. 0	3428. 3	14219. 2
289+00	LT & RT	50	29. 2	0.0	17. 5	0.8	53. 9	0. 0	32. 4	1. 6	38018. 4	0. 0	20349. 5	3430. 3	14238. 6
289+50	LT & RT	50	28. 3	0.0	17. 5	1. 1	53. 2	0.0	32. 4	1.8	38071.6	0. 0	20381. 9	3432. 5	14257. 2
290+00	LT & RT	50	27. 1	0.0	17. 5	1. 5	51. 3	0.0	32. 4	2. 3	38122. 8	0. 0	20414. 3	3435. 4	14273. 1
290+50	LT & RT	50	25. 8	0.0	17. 5	1. 7	49. 0	0. 0	32. 4	2. 9	38171.8	0. 0	20446. 7	3439. 0	14286. 1
291+00	LT & RT	50	25. 2	0.0	17. 5	1. 5	47. 3	0.0	32. 4	2. 9	38219. 1	0.0	20479. 1	3442. 7	14297. 3
291+50	LT & RT	50	25. 6	0.0	17. 5	1. 5	47. 1	0. 0	32. 4	2.8	38266. 1	0.0	20511.5	3446. 1	14308.5
292+00	LT & RT	50	26. 6	0.0	17. 5	1.5	48. 3	0. 0	32. 4	2.8	38314. 4	0.0	20543. 9	3449. 6	14320. 9
292+50	LT & RT	50	30. 0	0.0	17. 5	0.7	52. 4	0. 0	32. 4	2. 1	38366.8	0.0	20576. 3	3452. 2	14338. 3
293+00	LT & RT	50	33. 4	0.0	17. 5	0. 3	58. 7	0. 0	32. 4	1.0	38425.5	0.0	20608. 7	3453. 4	14363. 3
293+50	LT & RT	50	36. 3	0.0	17. 5	0. 3	64. 6	0.0	32. 4	0.6	38490. 1	0.0	20641. 1	3454. 2	14394.8
294+00	LT & RT	50	41. 2	0.0	17. 5	0. 2	71.8	0.0	32. 4	0. 5	38561. 9	0.0	20673. 5	3454. 8	14433. 6
294+50	LT & RT	50	116. 4	0.0	17. 5	0. 9	146. 0	0.0	32. 4	1.0	38707.8	0.0	20705. 9	3456. 1	14545. 8
295+00	LT & RT	50	47. 2	0.0	17. 5	0. 2	151. 5	0.0	32. 4	1.0	38859. 3	0.0	20738. 3	3457. 3	14663.7
295+50	LT & RT	50	37. 0	0.0	17. 5	0. 1	77. 9	0.0	32. 4	0. 2	38937. 3	0.0	20770. 8	3457. 6	14708. 9
296+00	LT & RT	50	34. 9	0.0	17. 5	0. 3	66. 6	0.0	32. 4	0. 4	39003.8	0.0	20803. 2	3458. 1	14742. 6
296+50	LT & RT	50	32. 8	0.0	17. 5	0. 4	62. 7	0.0	32. 4	0. 7	39066. 6	0.0	20835. 6	3459. 0	14772. 0
297+00	LT & RT	50	31. 8	0.0	17. 5	0. 6	59. 8	0.0	32. 4	0. 9	39126. 4	0.0	20868. 0	3460. 1	14798. 3
297+50	LT & RT	50	30. 6	0.0	17. 5	0. 6	57. 8	0.0	32. 4	1. 0	39184. 2	0.0	20900. 4	3461. 4	14822. 4
298+00	LT & RT	50	31.8	0.0	17. 5	0. 5	57. 8	0.0	32. 4	1.0	39242. 0	0. 0	20932. 8	3462. 6	14846. 6
298+50	LT & RT	50	32. 6	0.0	17. 5	0. 4	59. 6	0.0	32. 4	0.8	39301. 6	0. 0	20965. 2	3463. 6	14872.8
299+00	LT & RT	50	32. 5	0.0	17. 5	0. 4	60. 2	0.0	32. 4	0. 7	39361. 8	0. 0	20997. 6	3464. 4	14899. 8
299+50	LT & RT	50	32. 7	0. 0	17. 5	0. 5	60. 3	0.0	32. 4	0. 7	39422. 1	0. 0	21030. 0	3465. 3	14926. 8
300+00	LT & RT	50	33. 3	0. 0	17. 5	0. 4	61. 1	0.0	32. 4	0.8	39483. 2	0.0	21062. 4	3466. 3	14954. 4
300+50	LT & RT	50	31. 5	0.0	17. 5	0. 5	60. 0	0.0	32. 4	0.8	39543. 2	0.0	21094.8	3467. 4	14981. 0
301+00	LT & RT	50	32. 1	0.0	17. 5	0. 4	58. 9	0.0	32. 4	0.8	39602.0	0.0	21127. 2	3468. 4	15006. 4

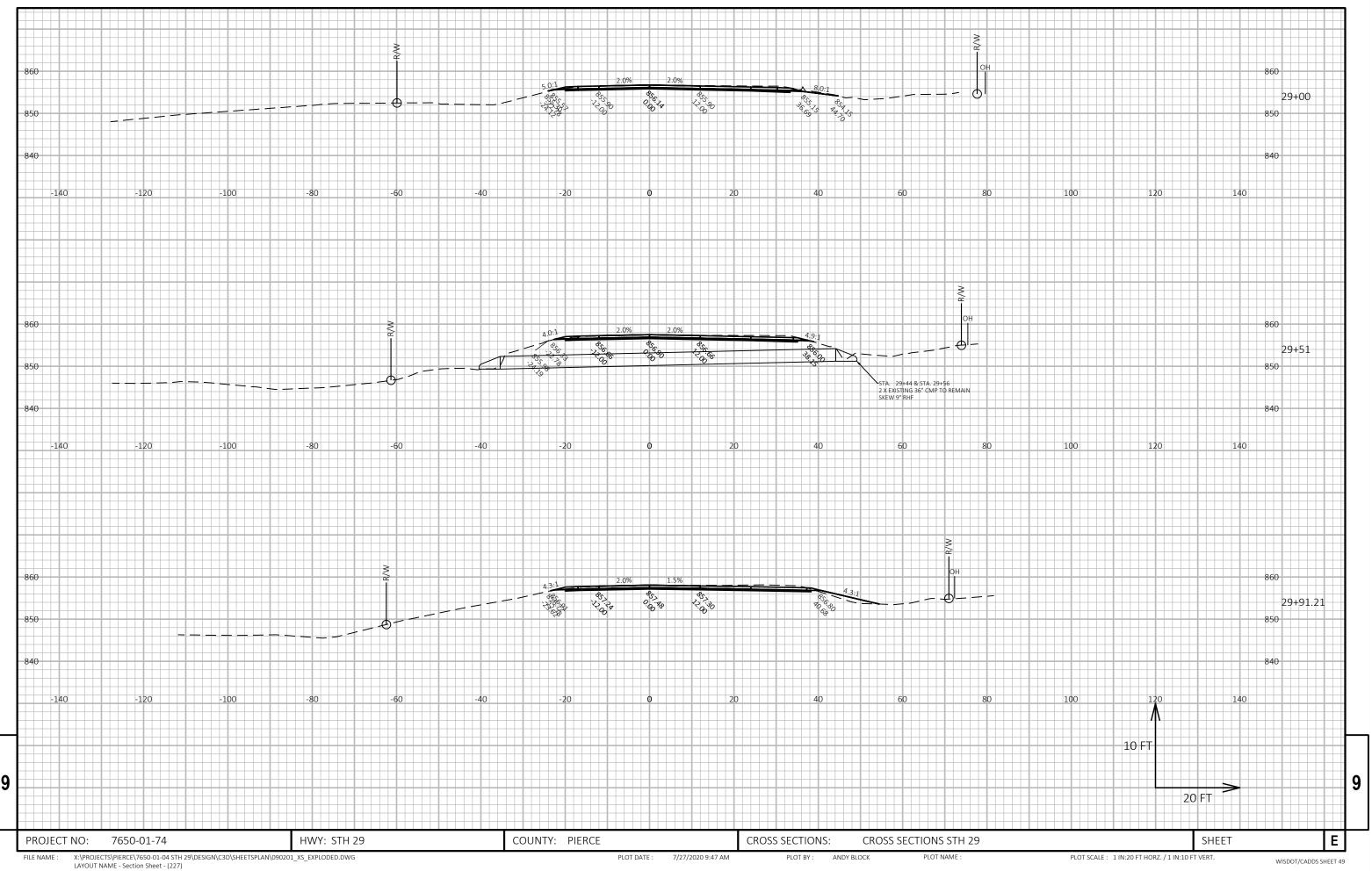
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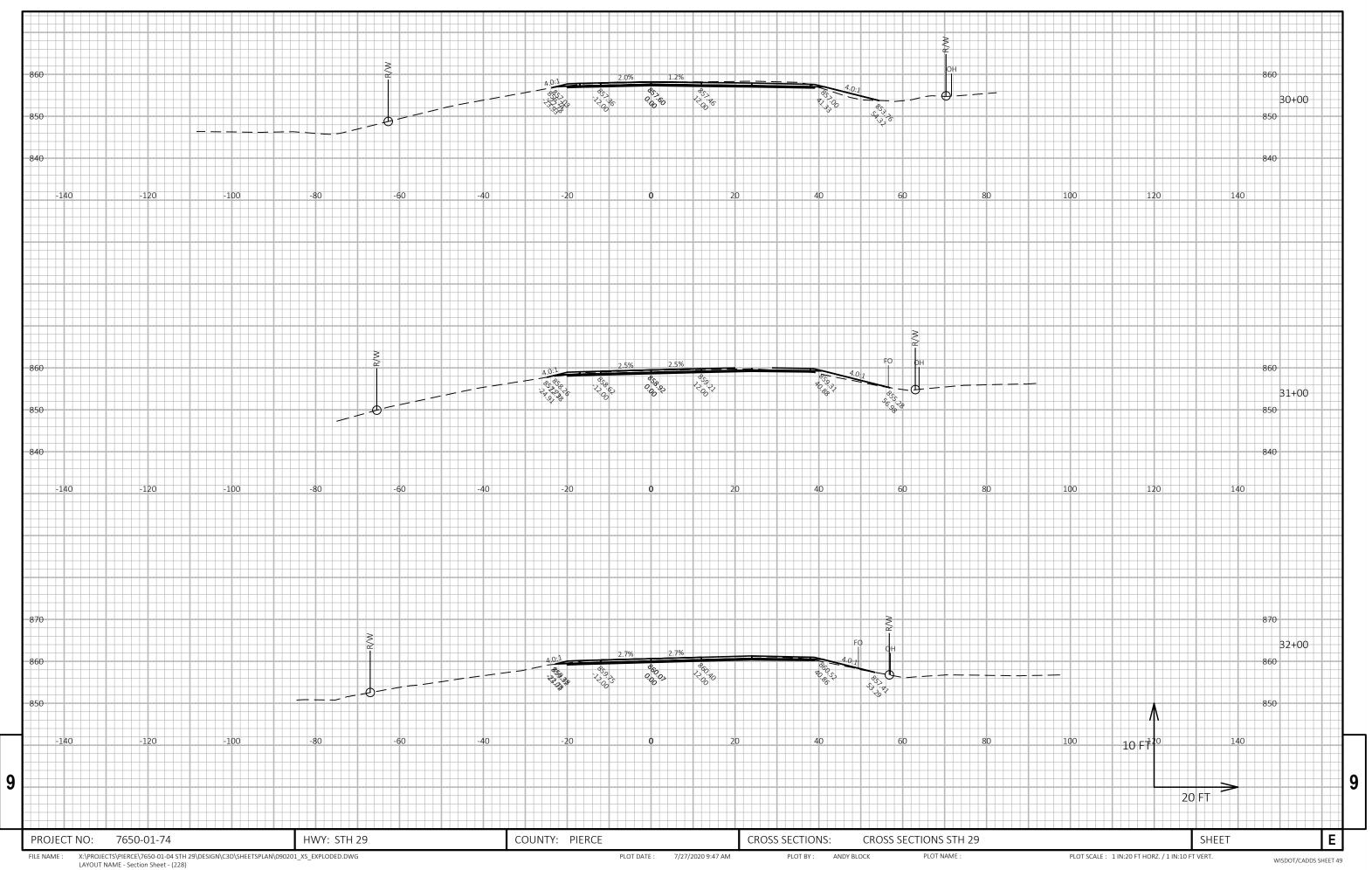
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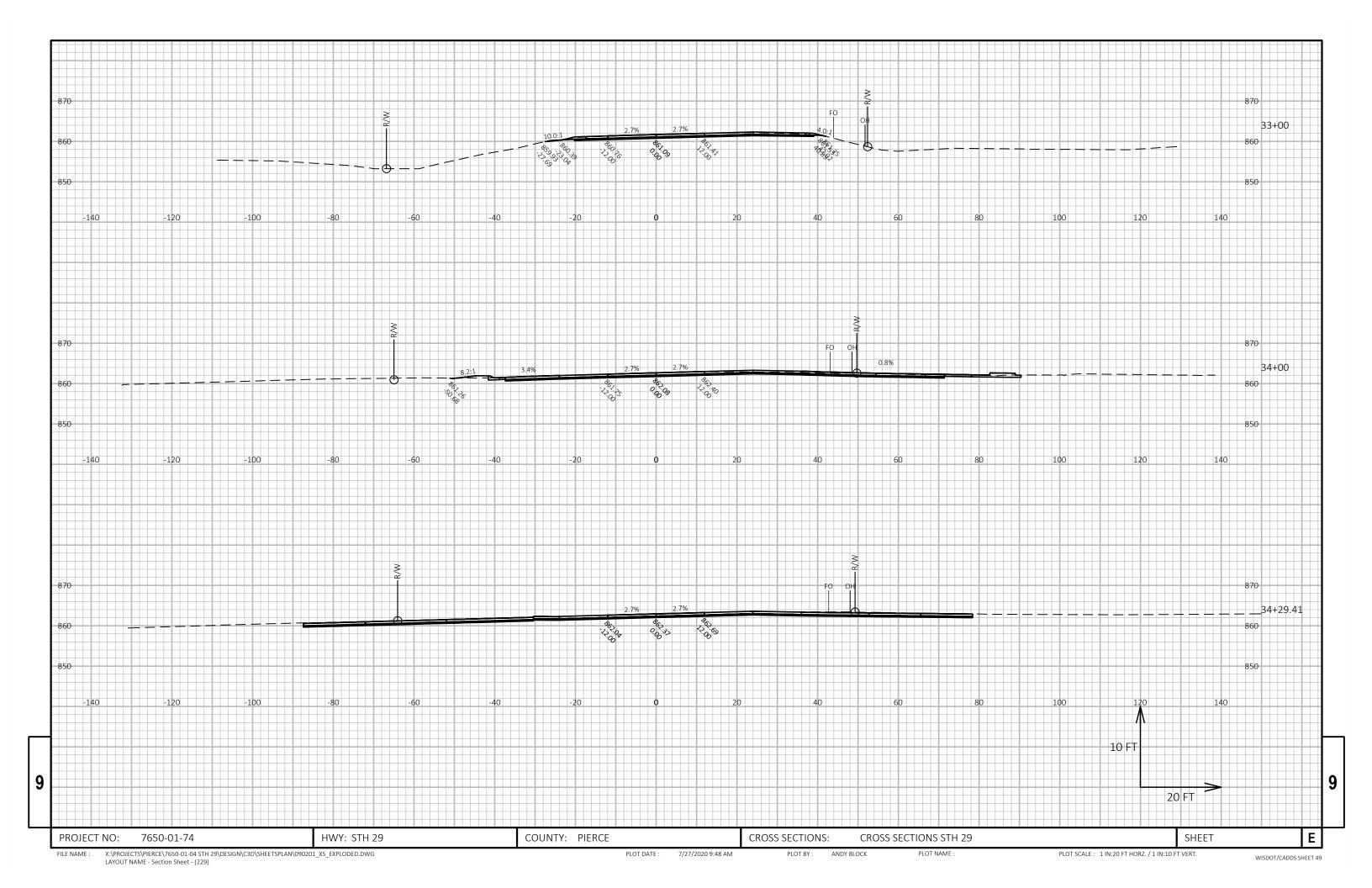
PROJECT NUMBER: 7650-01-74 HWY: STH 29 COUNTY: PIERCE EARTHWORK SUMMARY SHEET

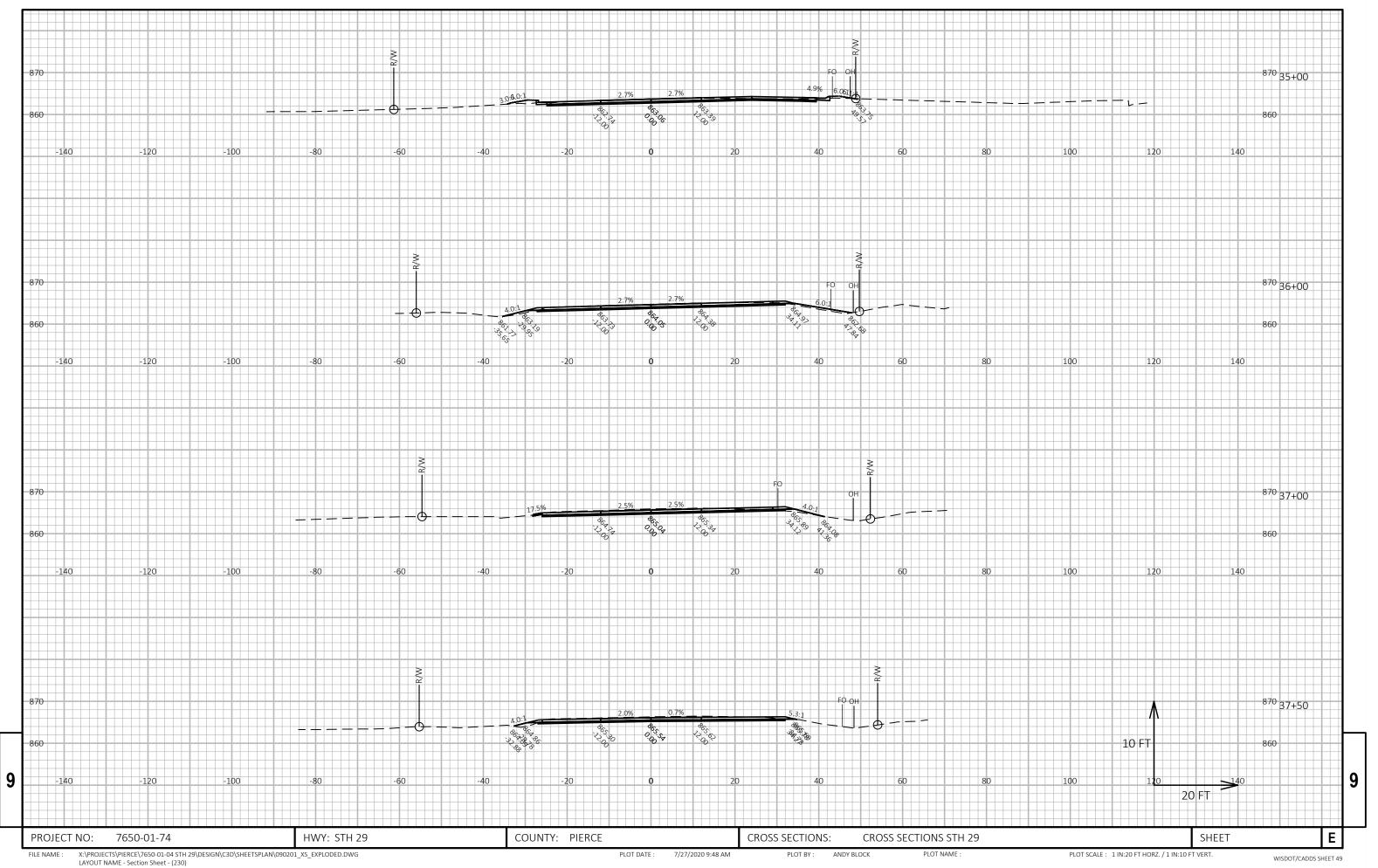


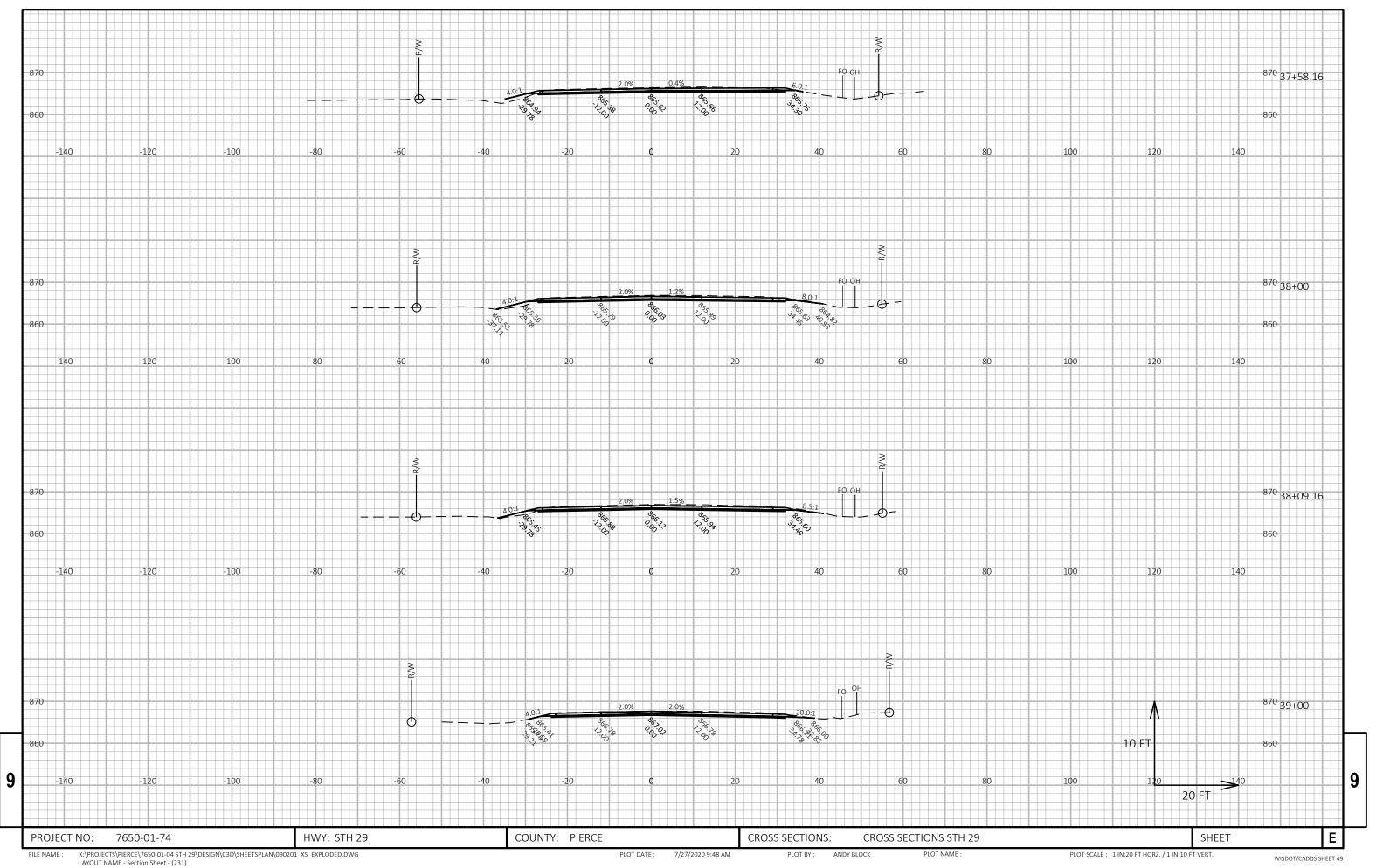


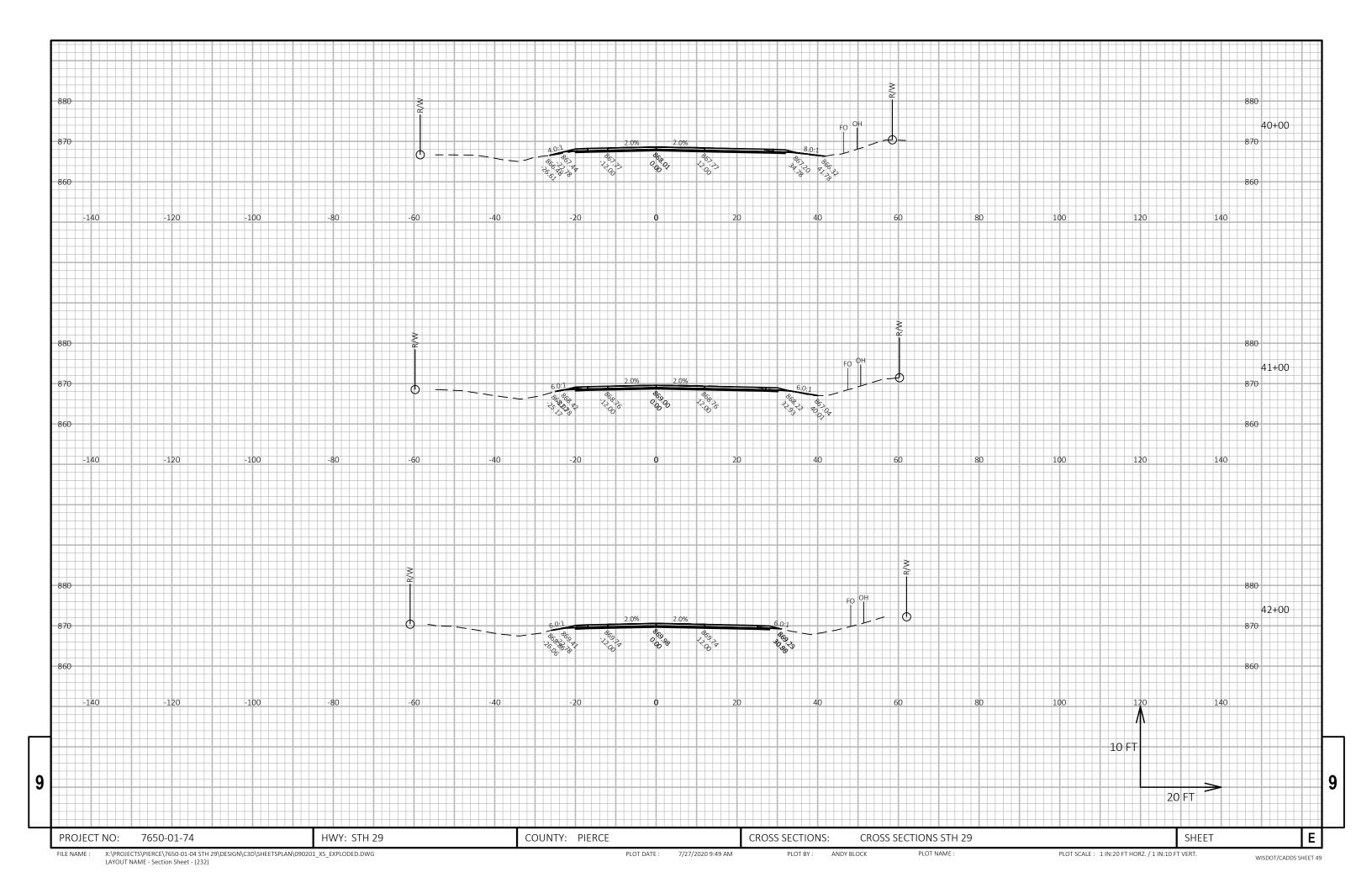


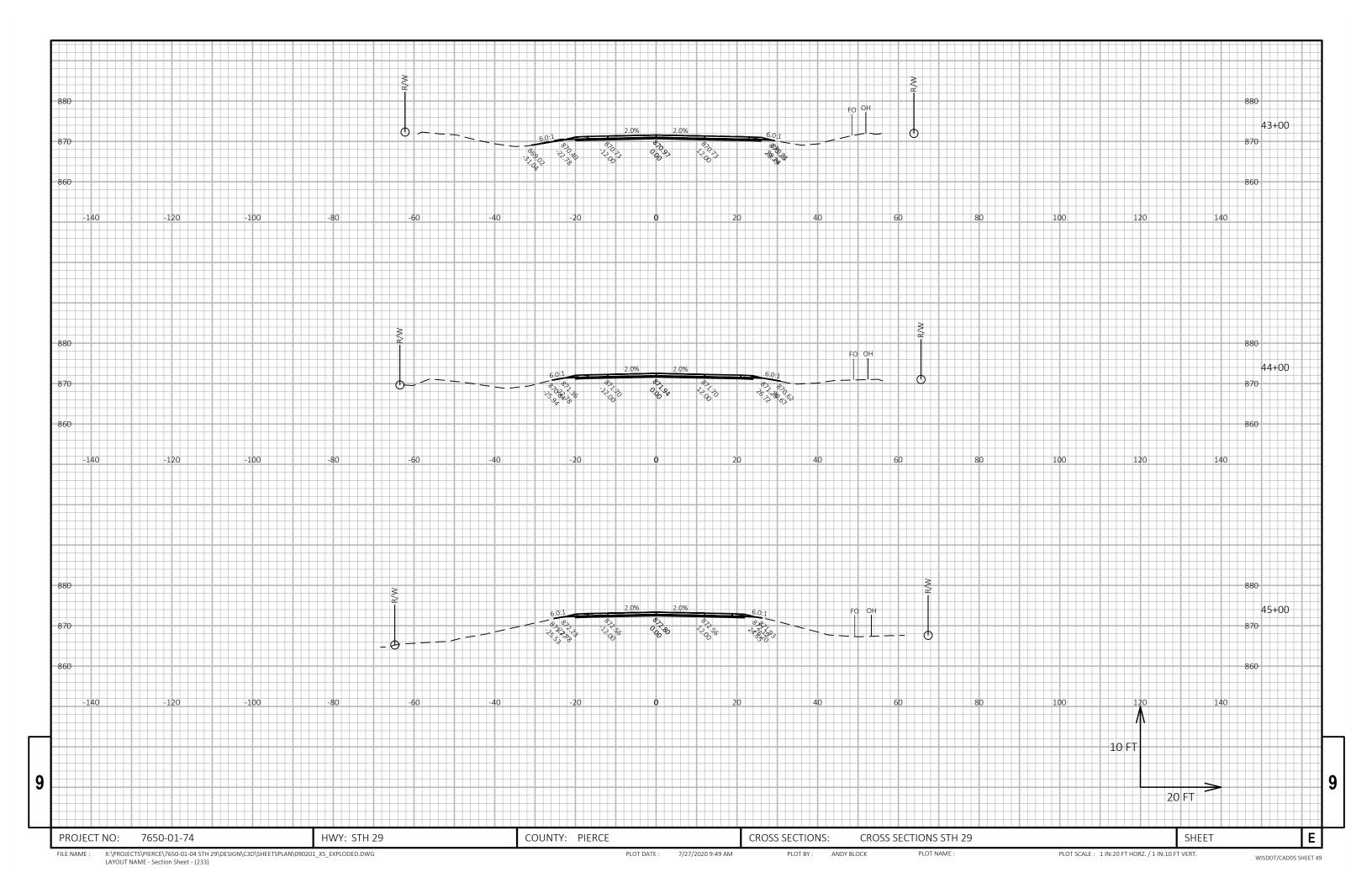


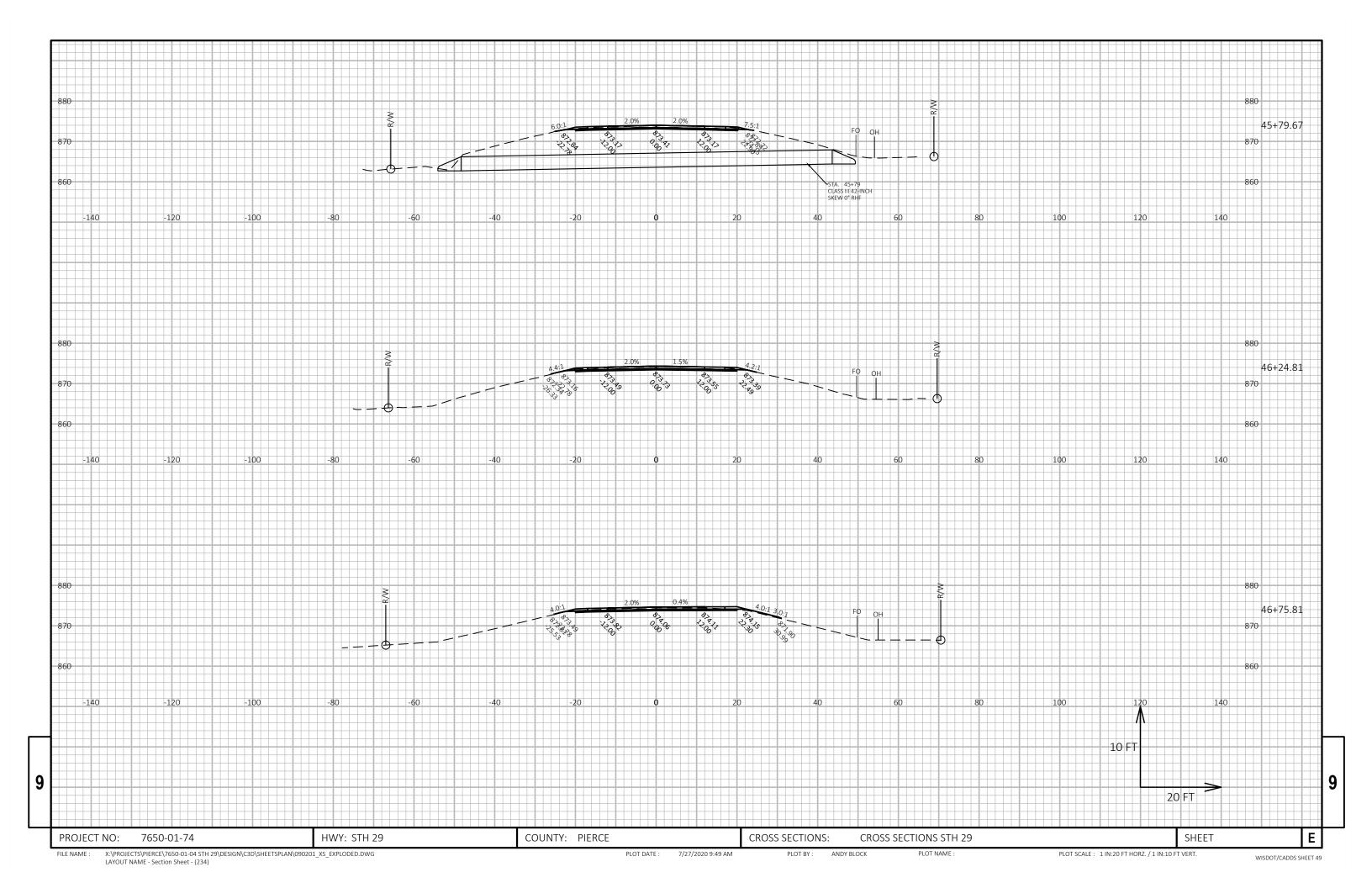


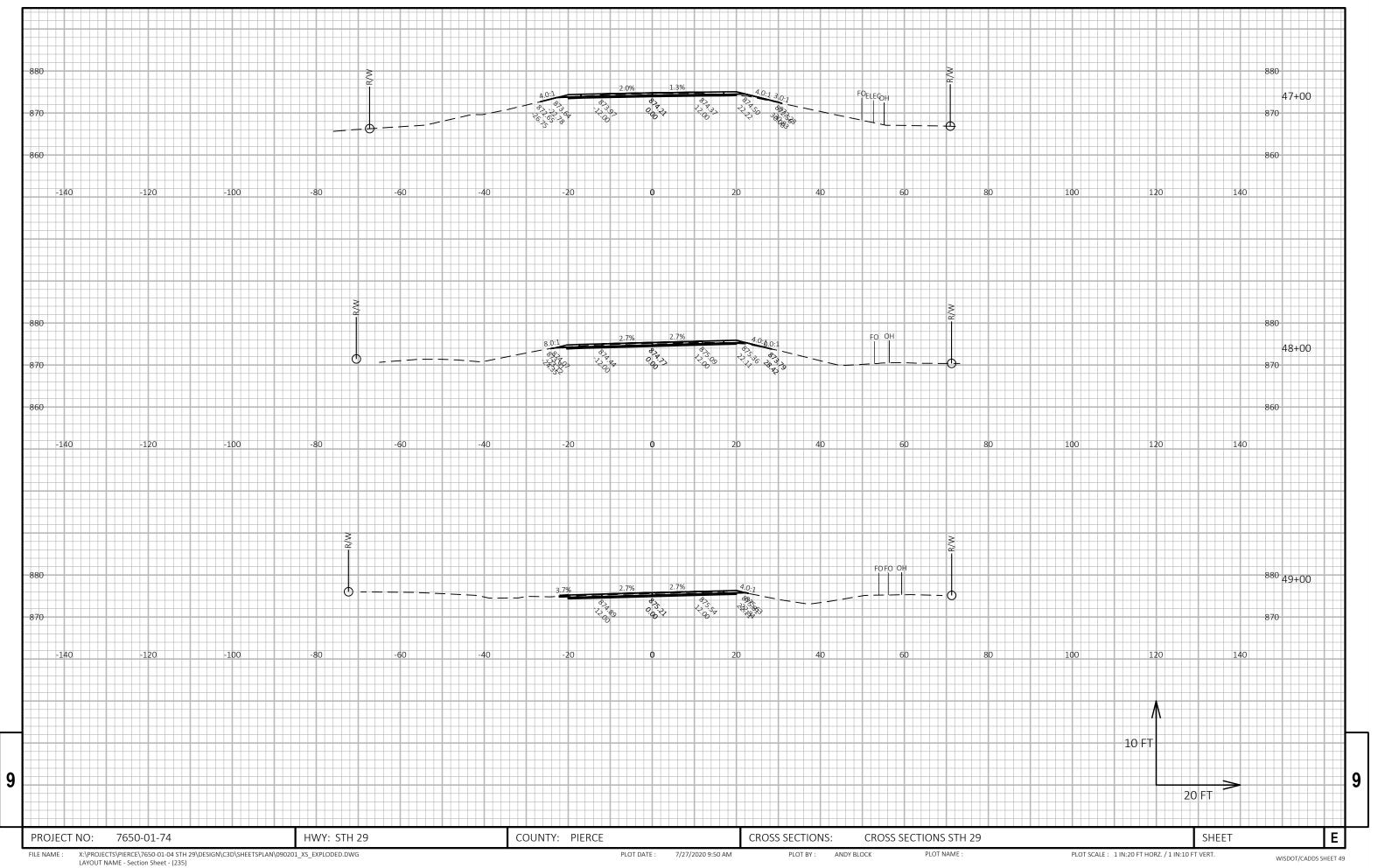


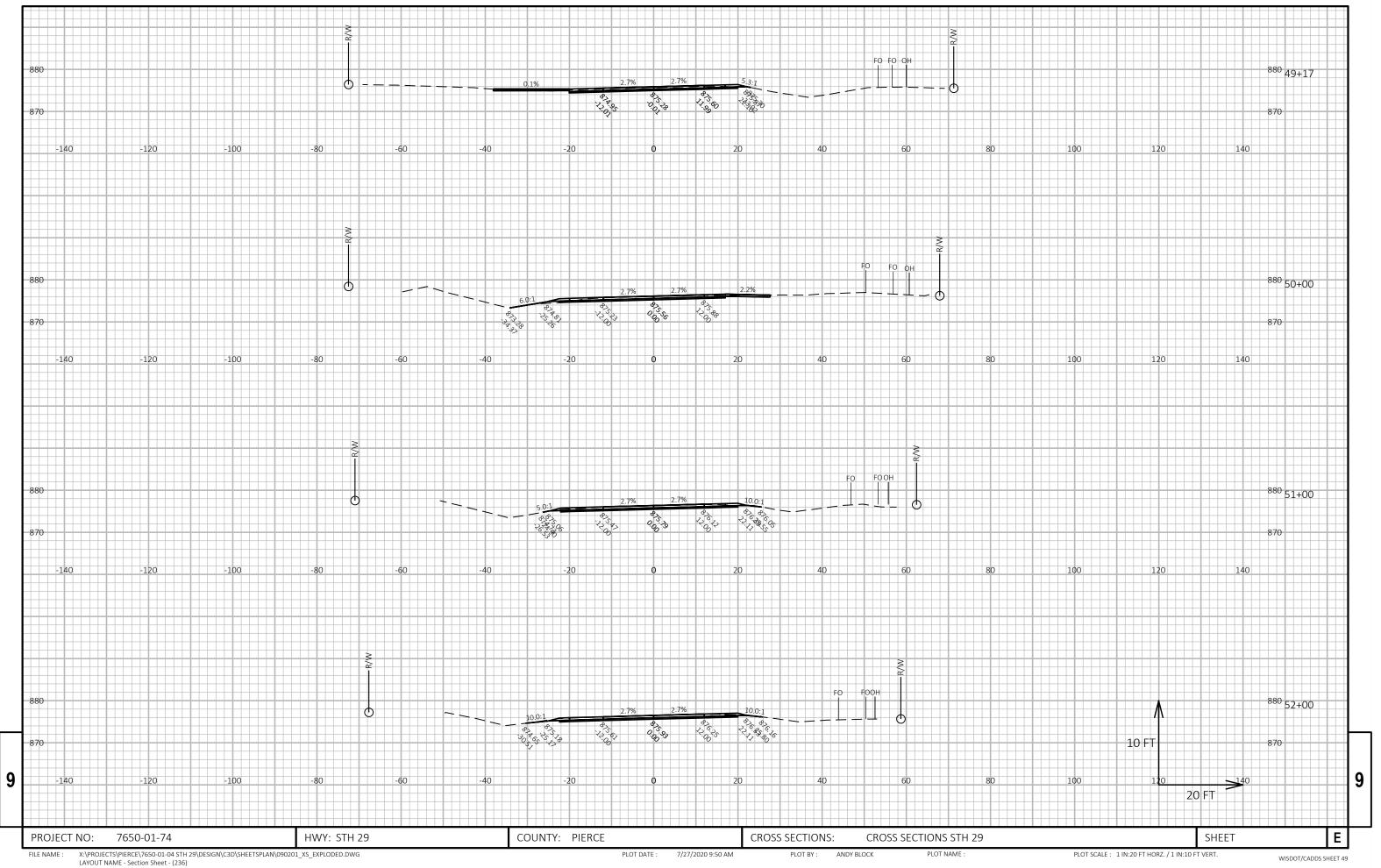


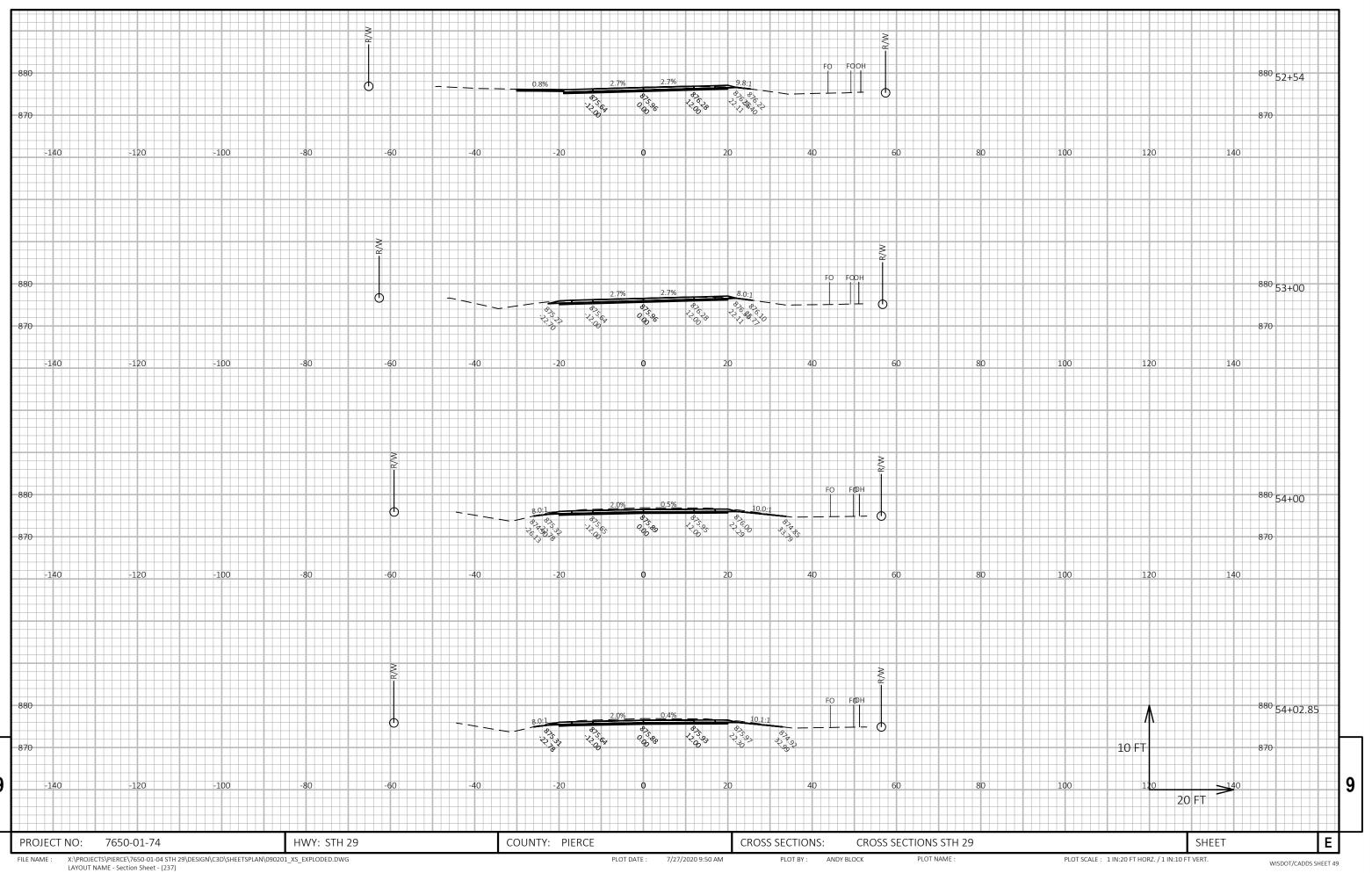


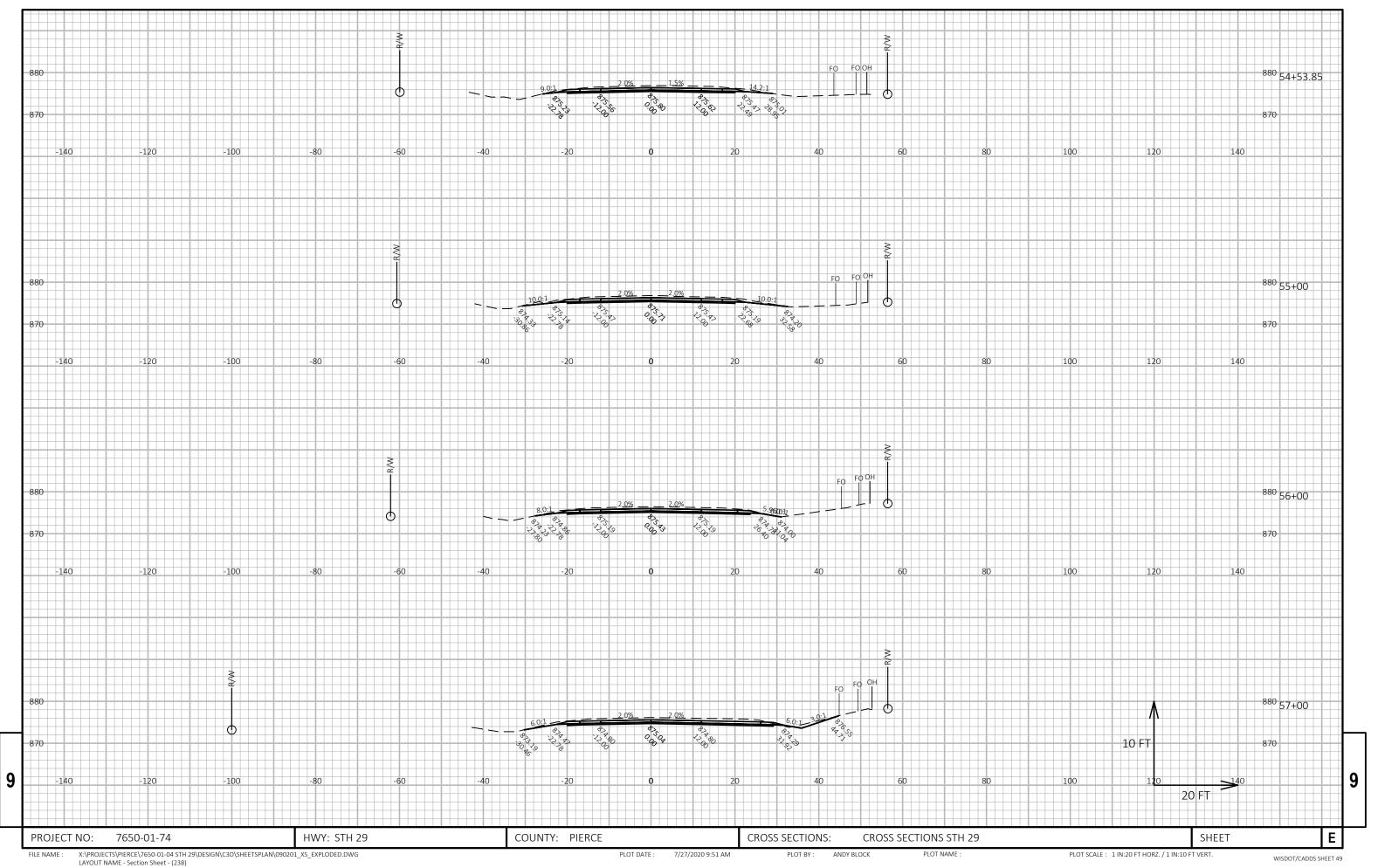


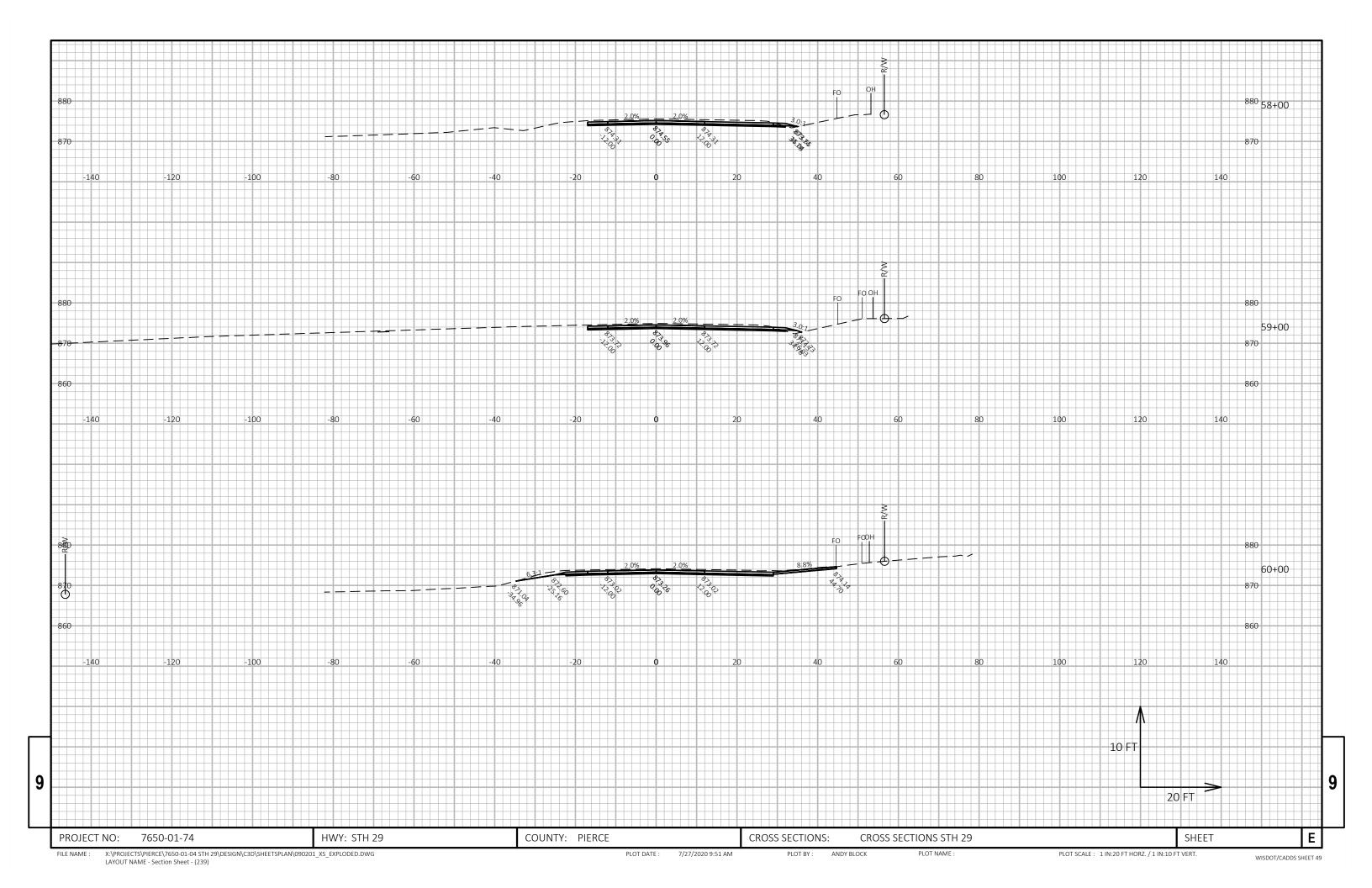


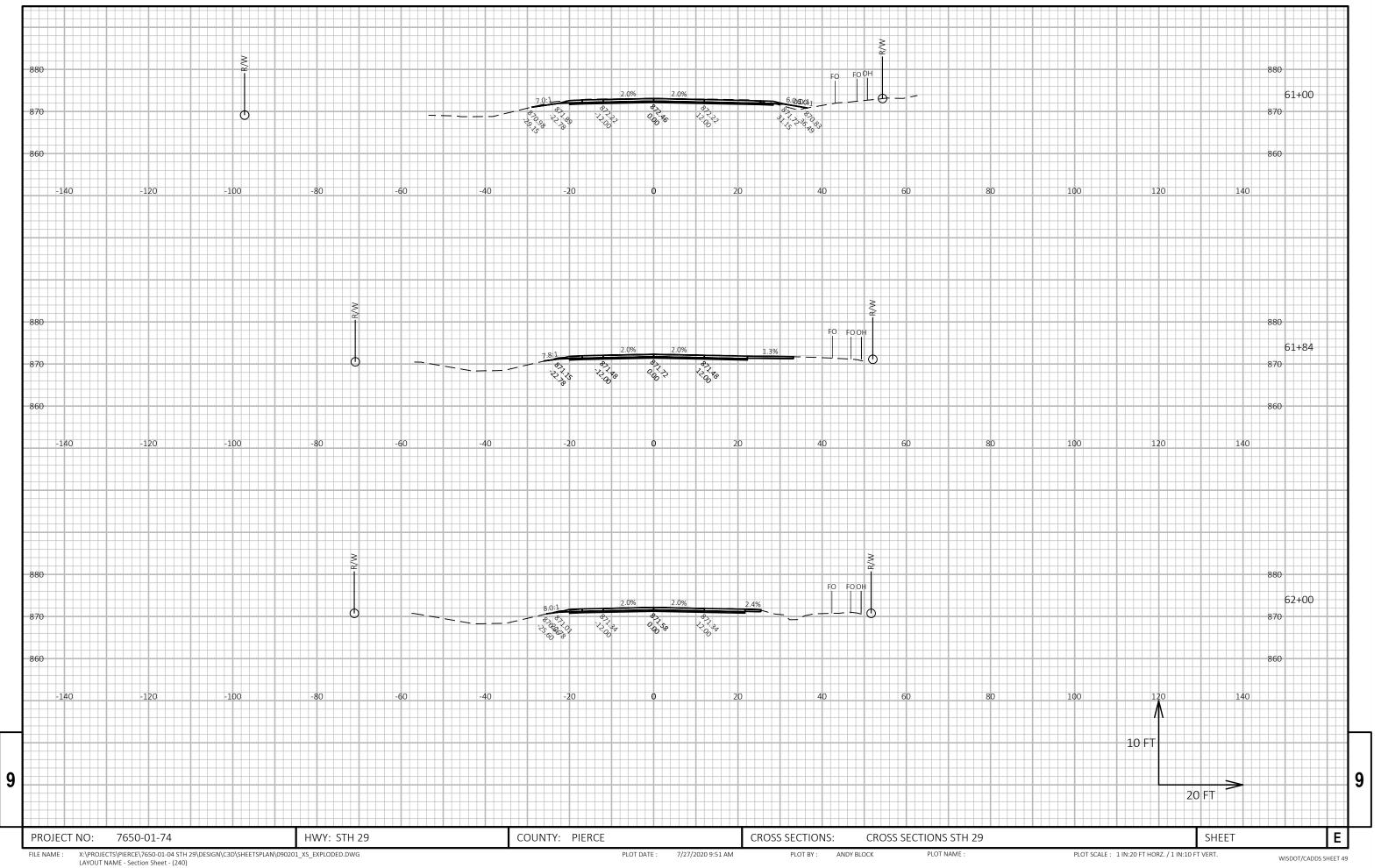


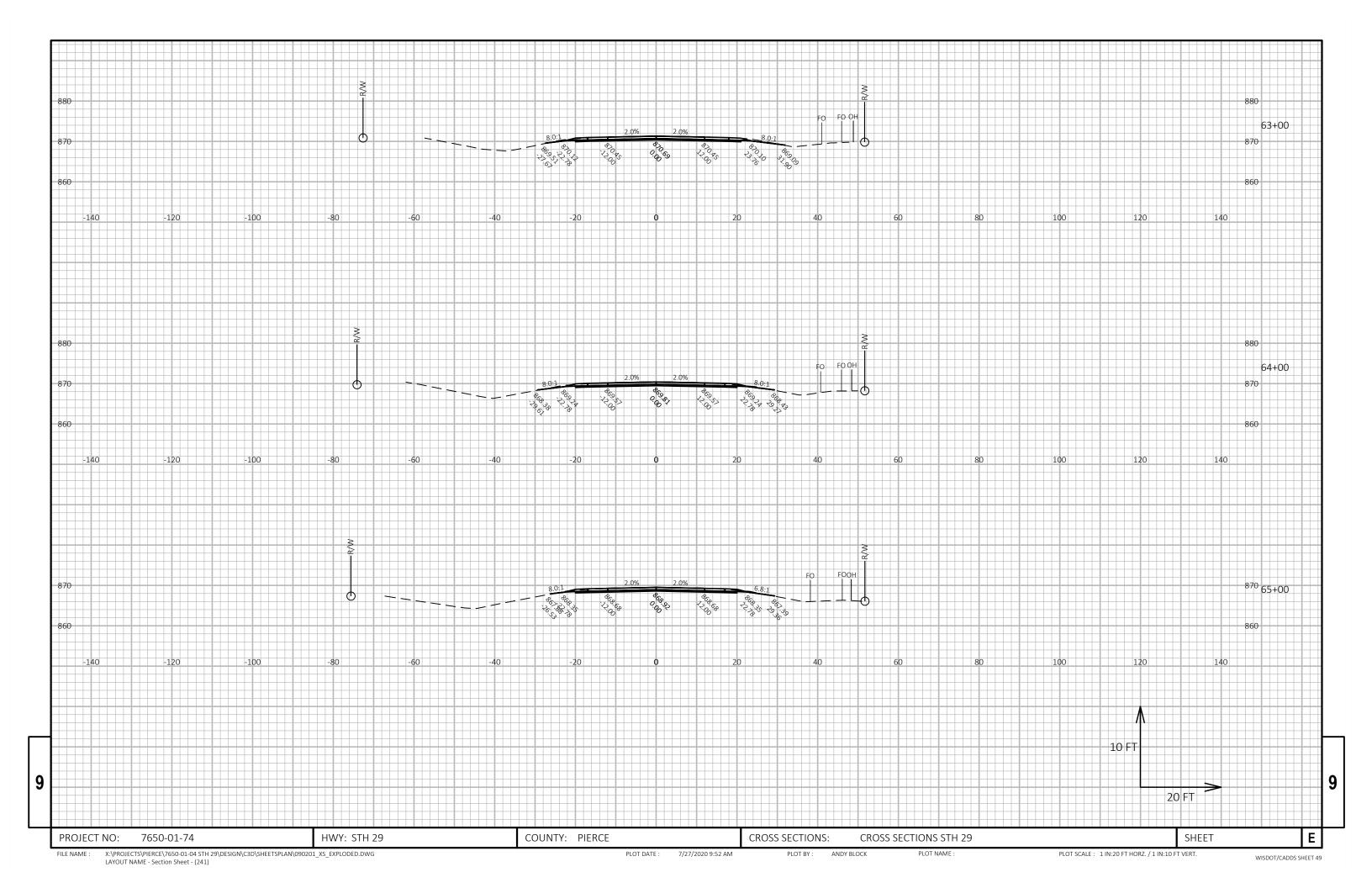


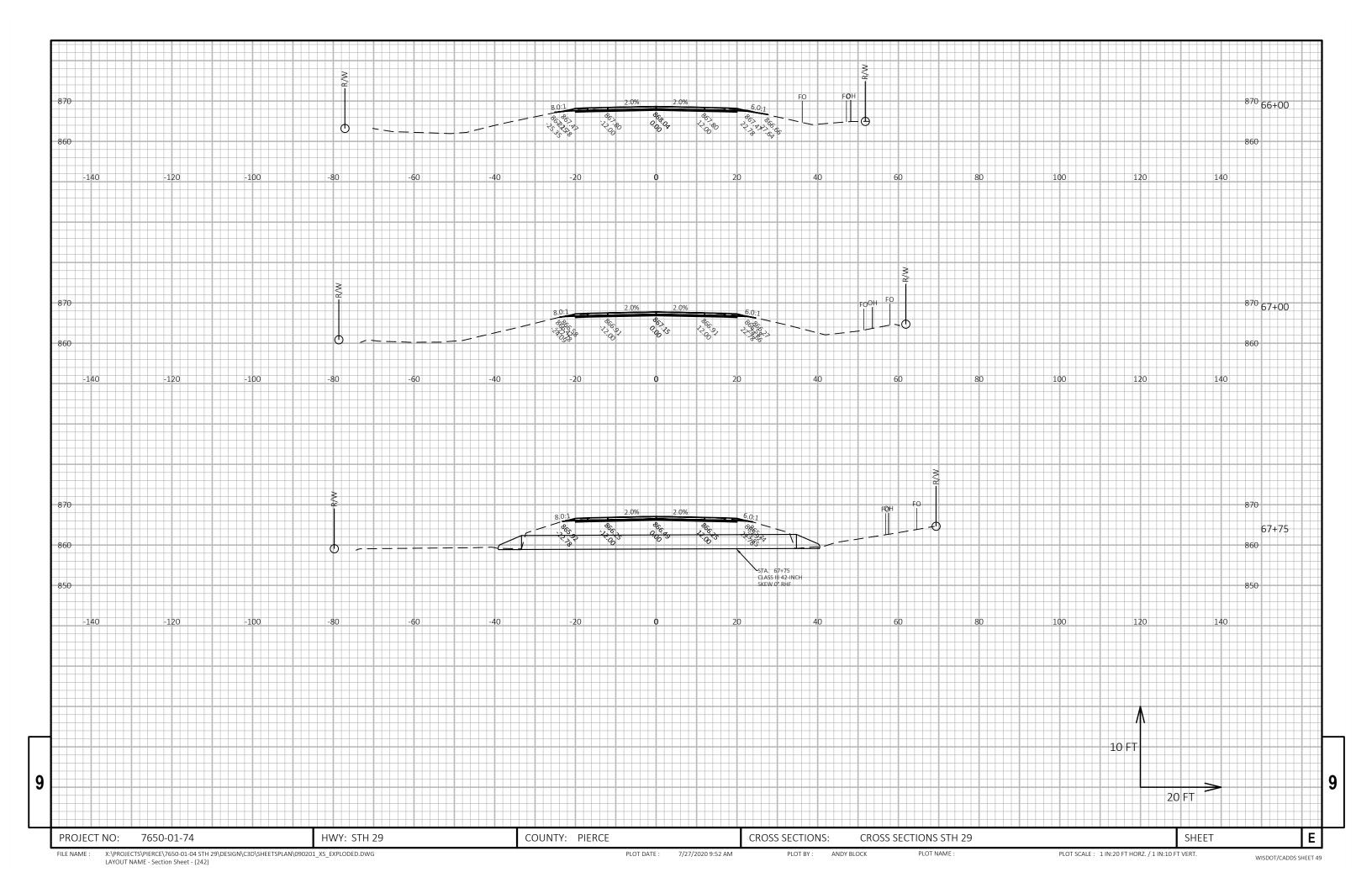


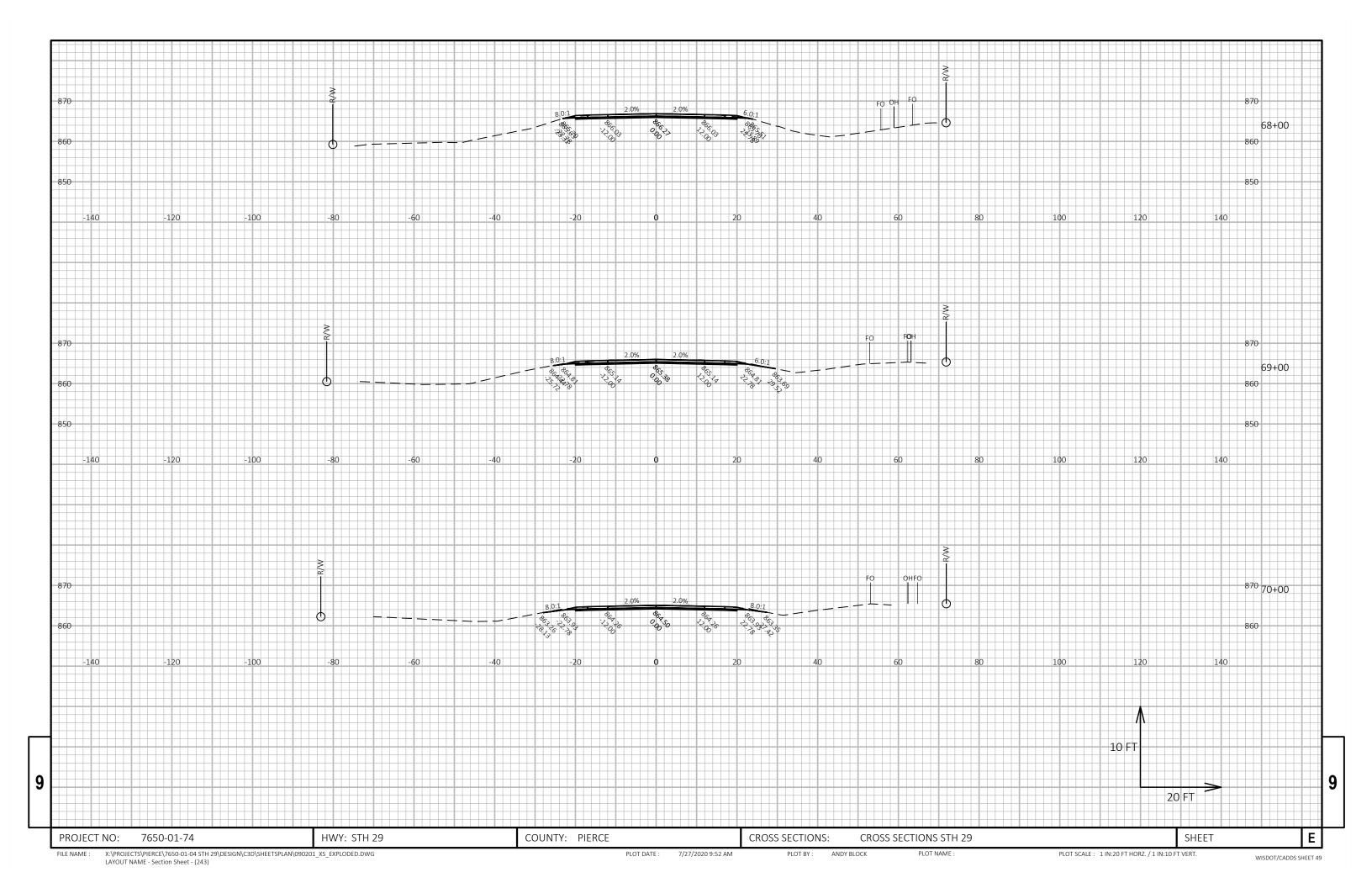


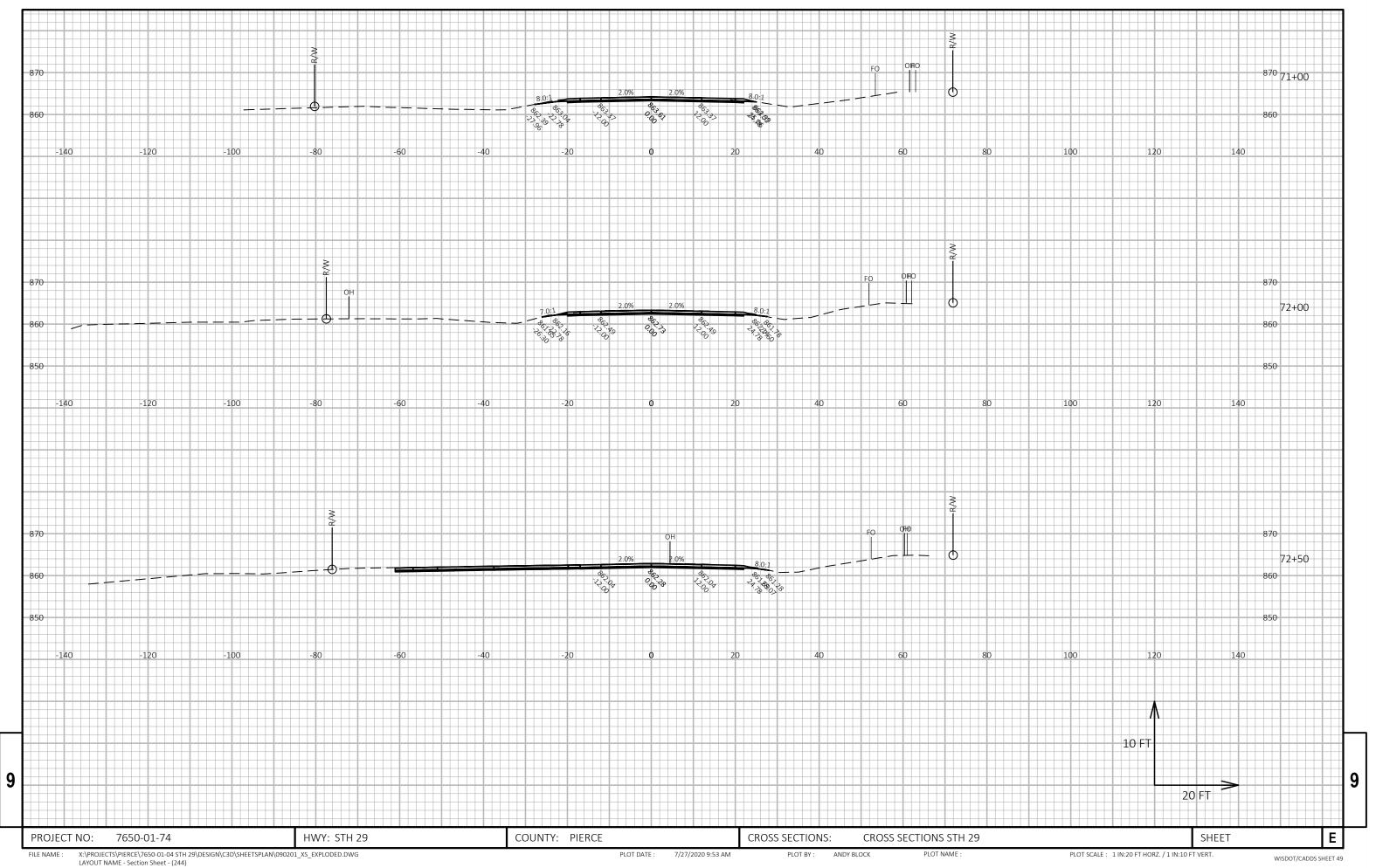


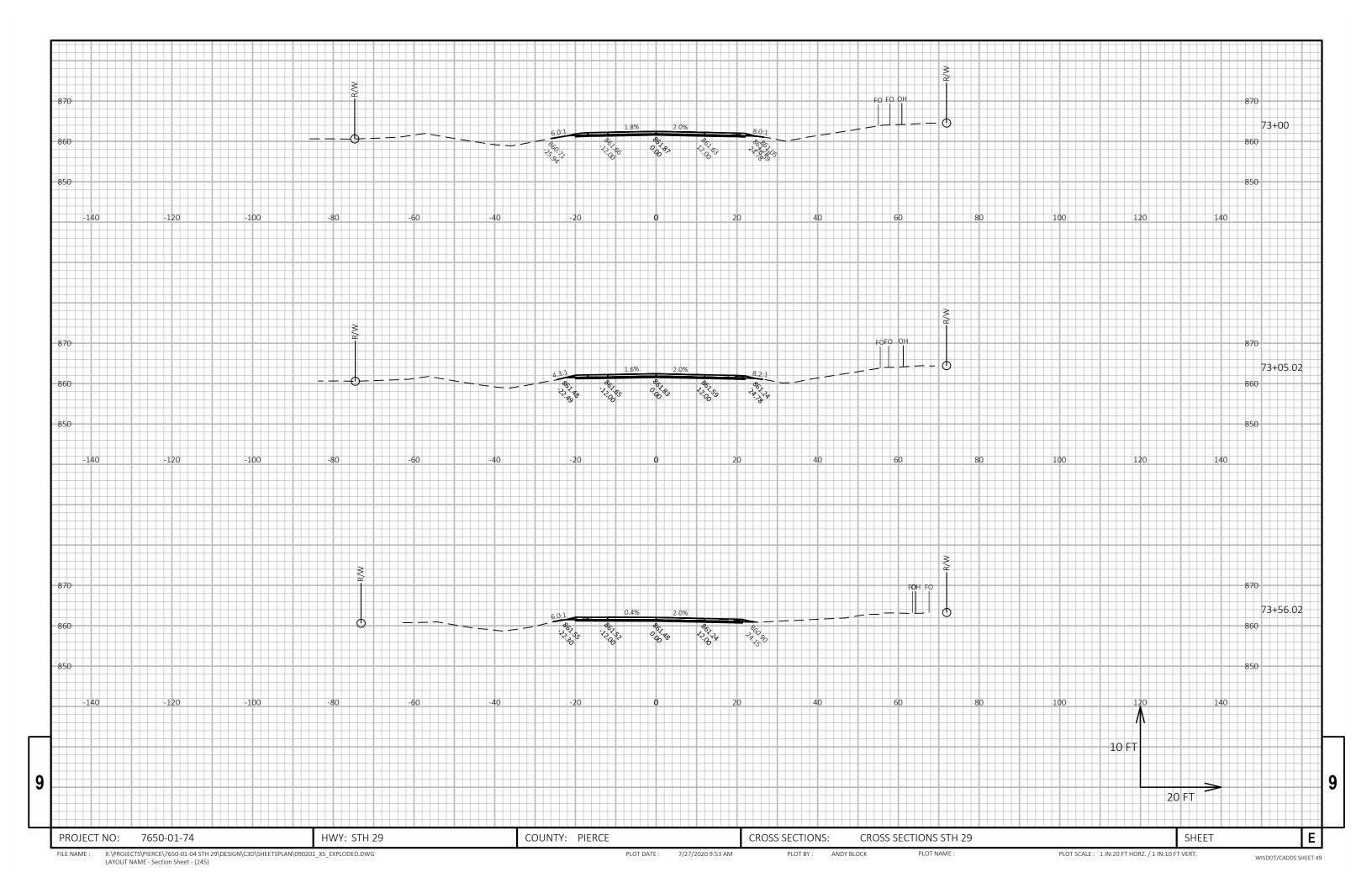


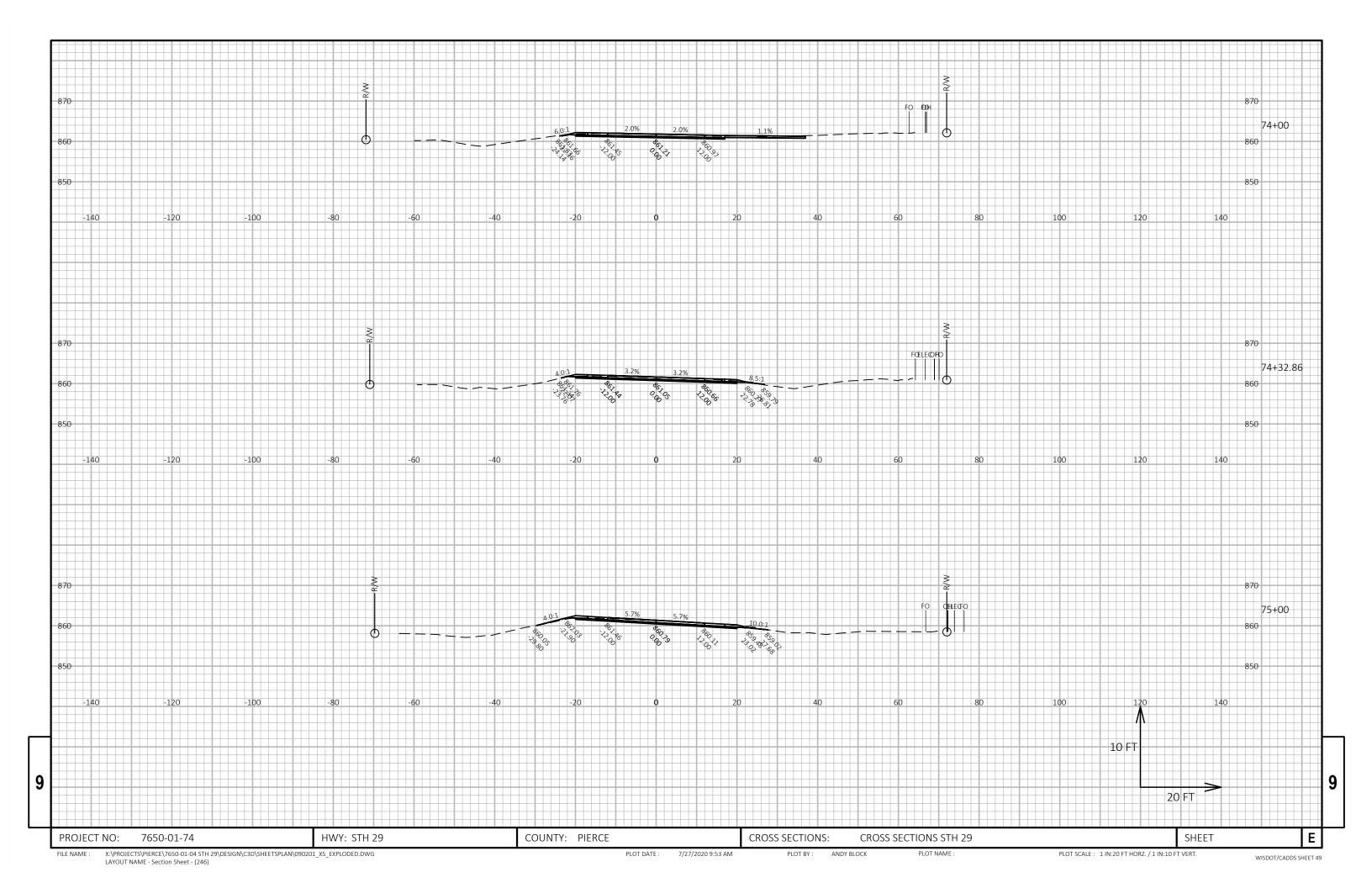


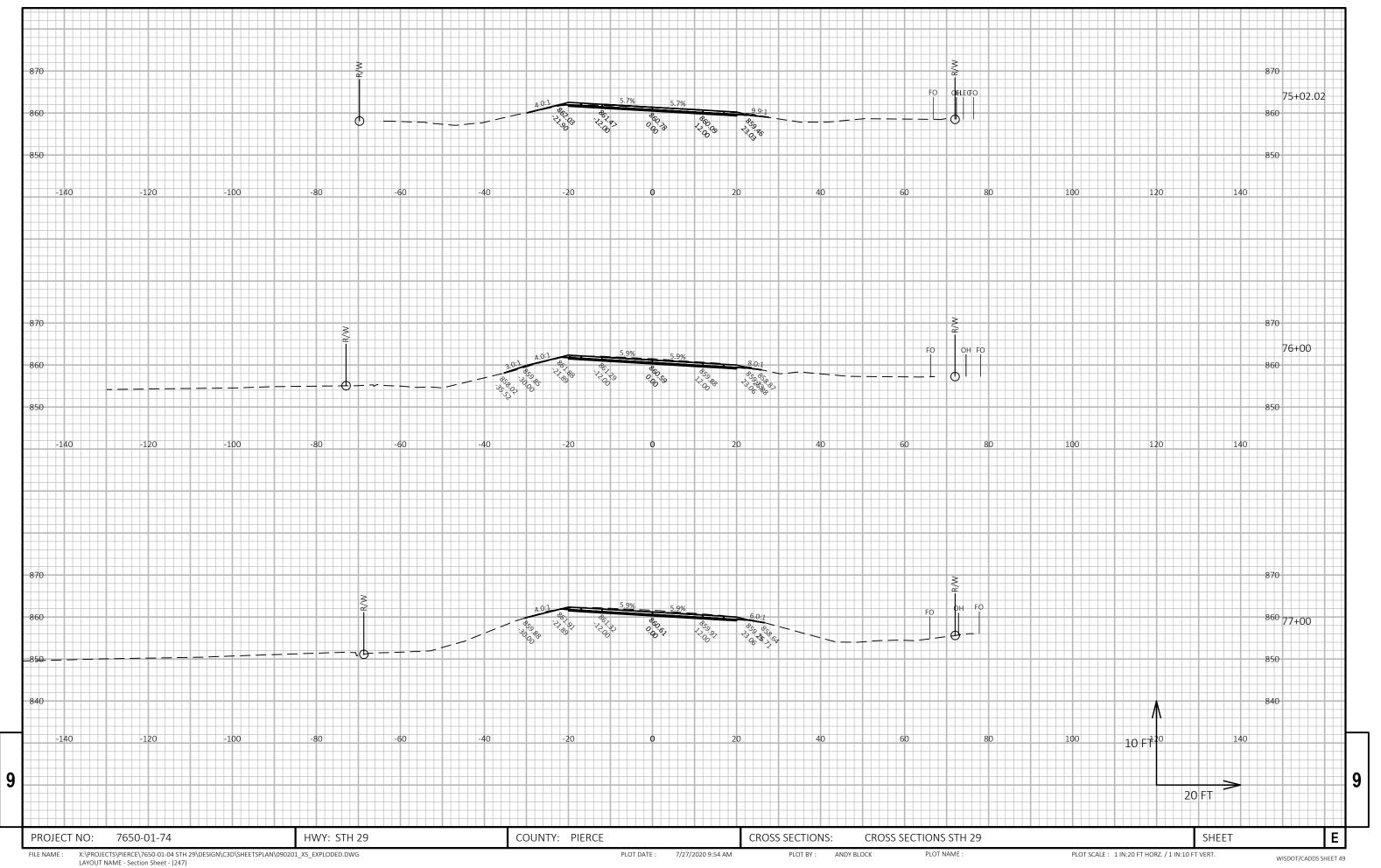


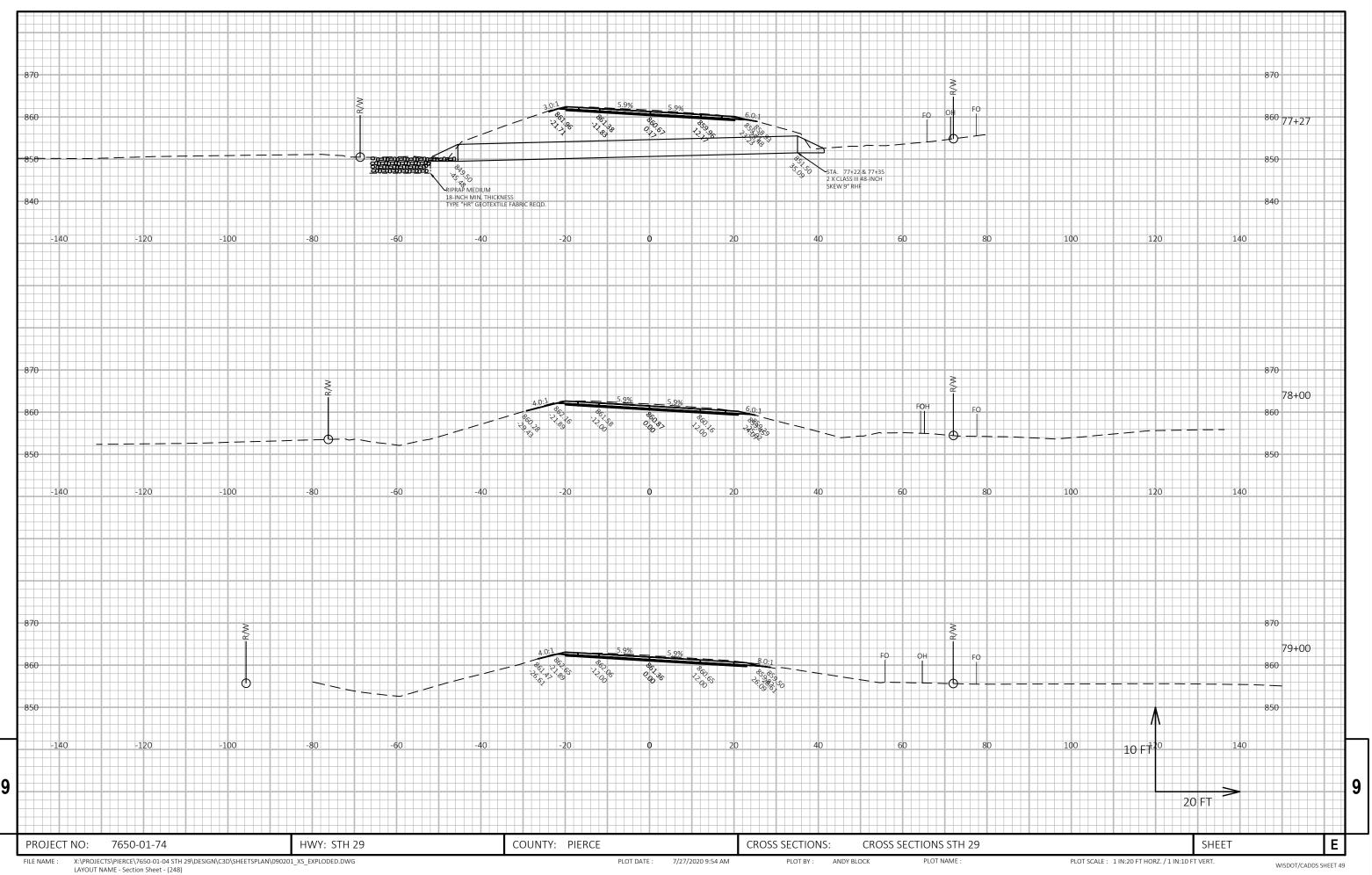


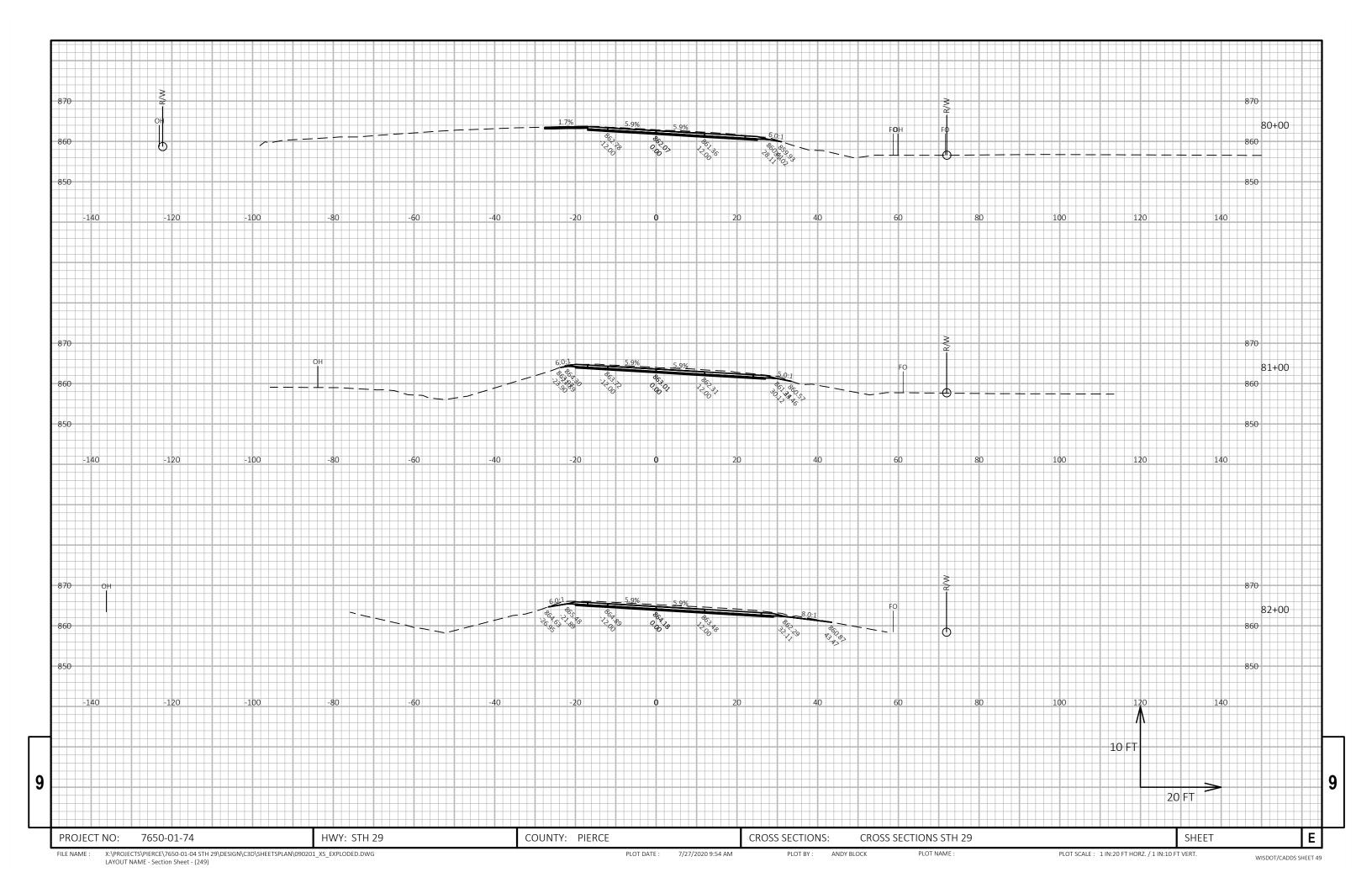


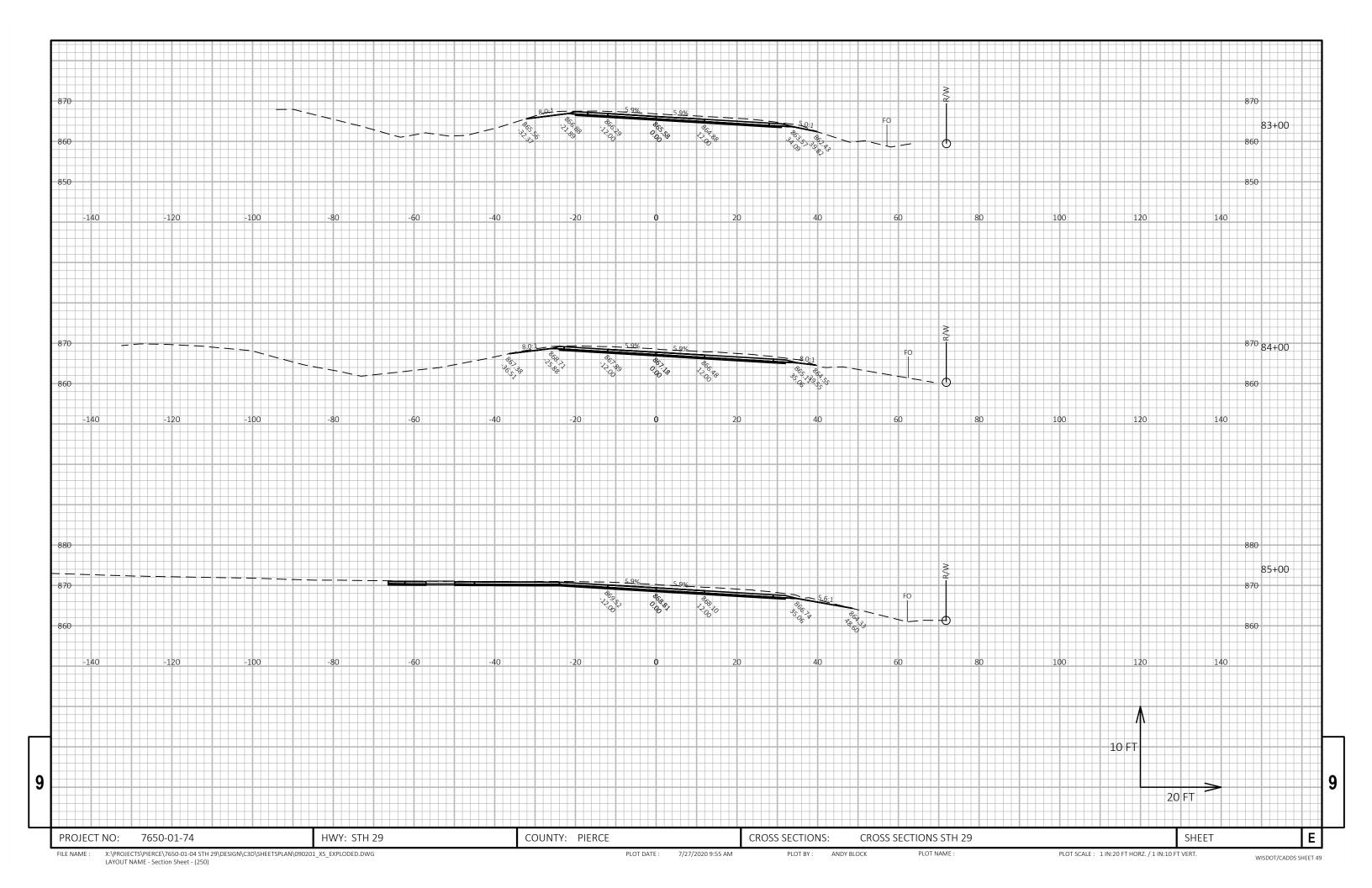


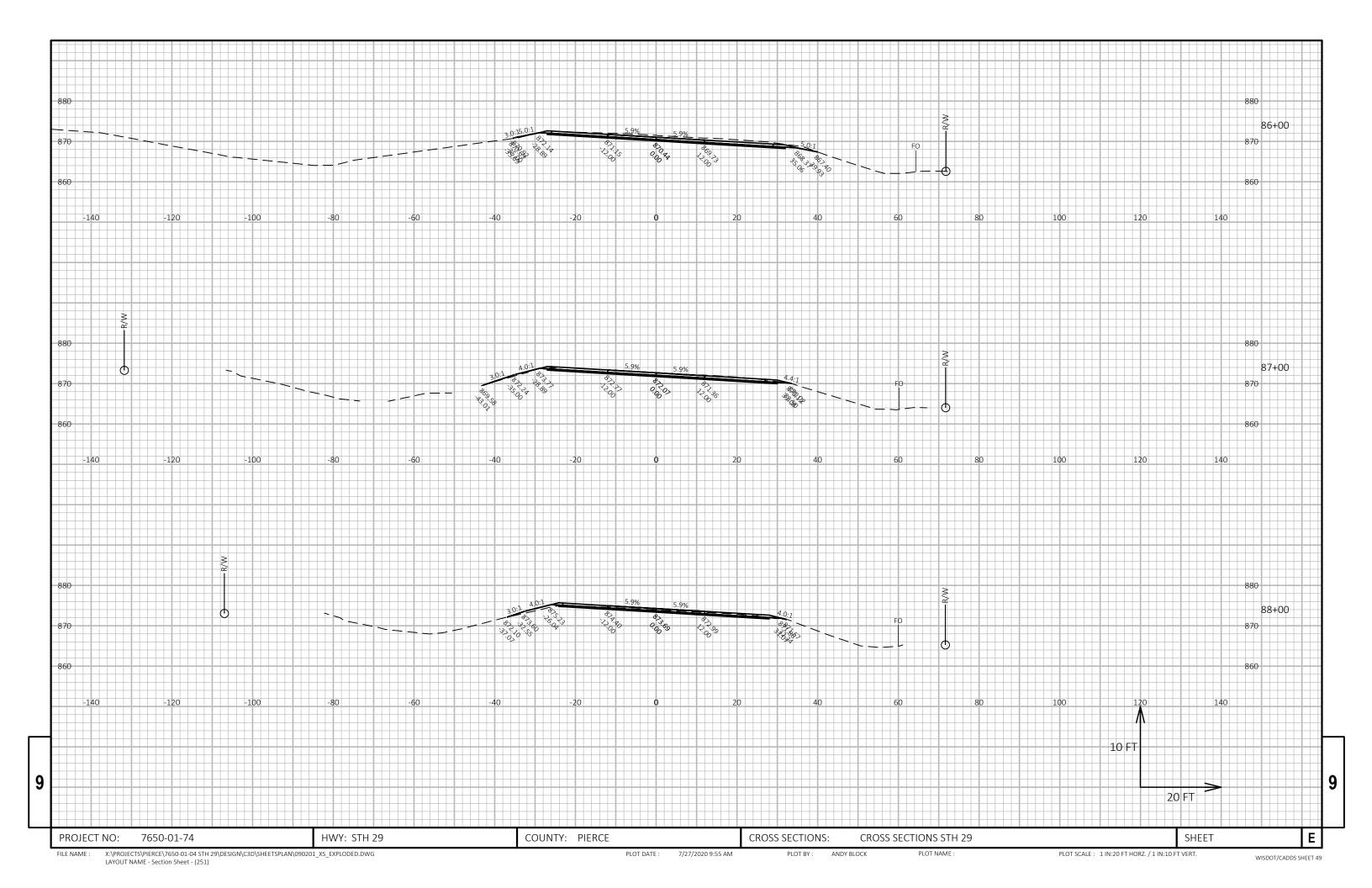


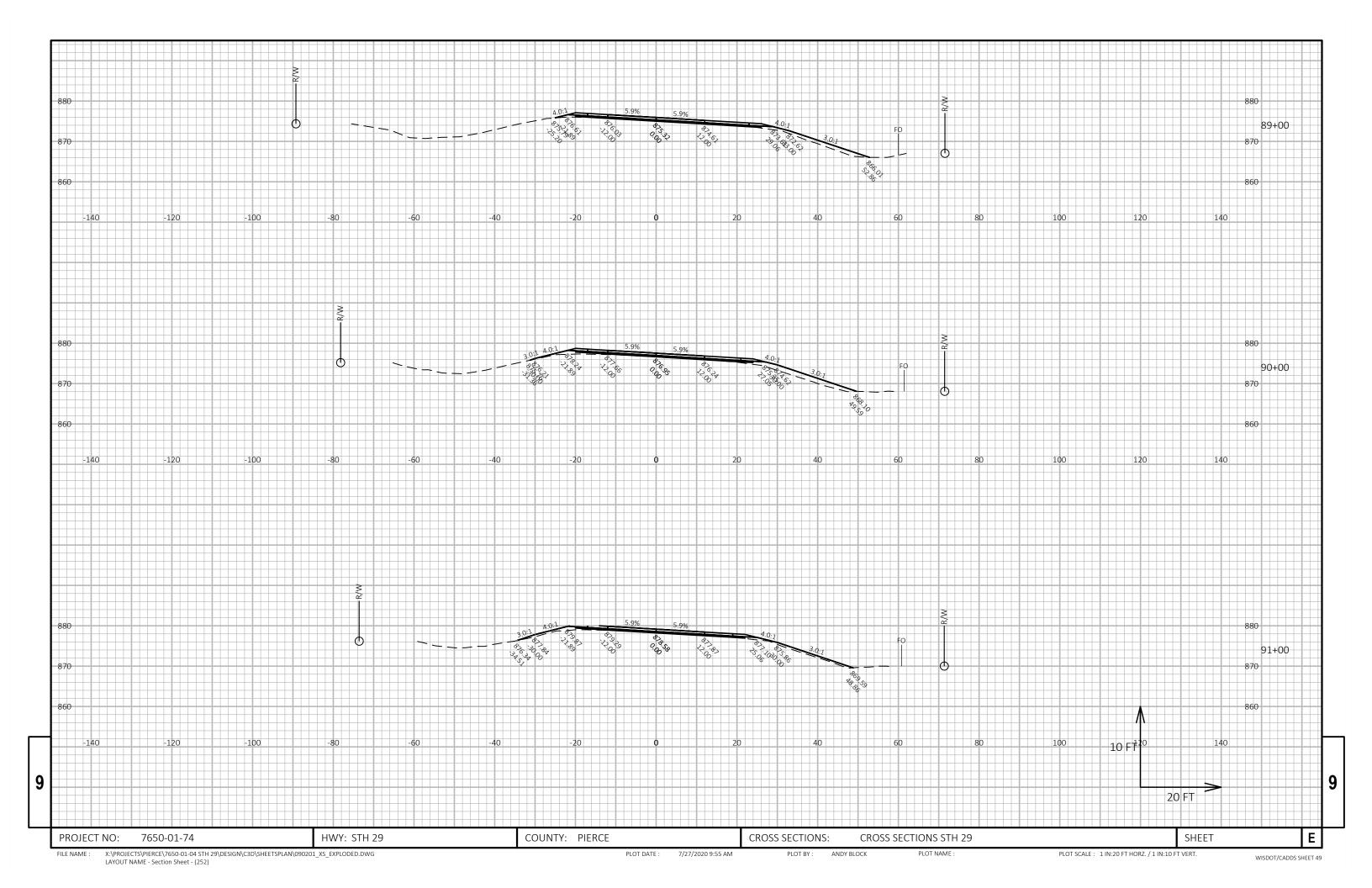


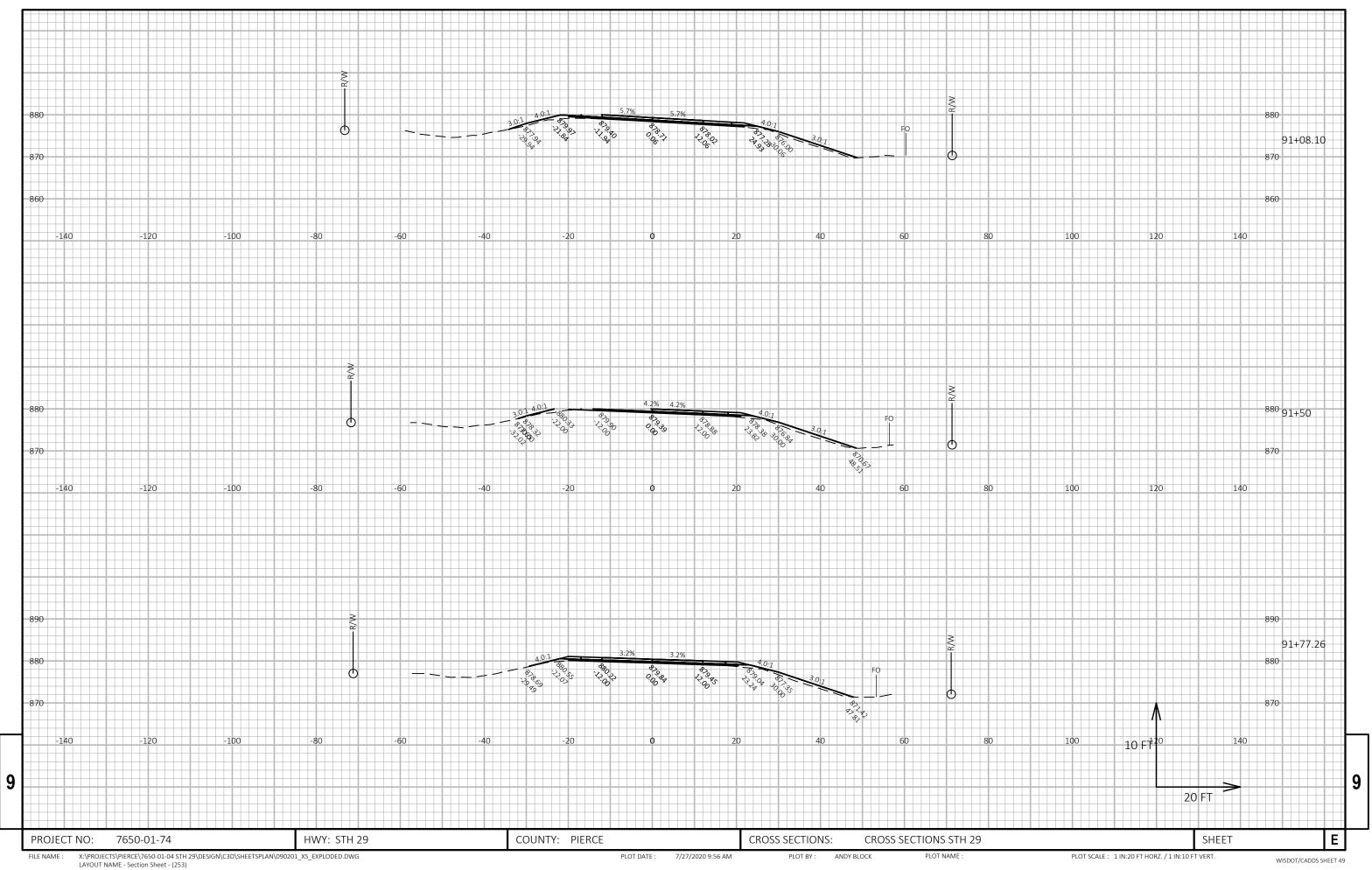


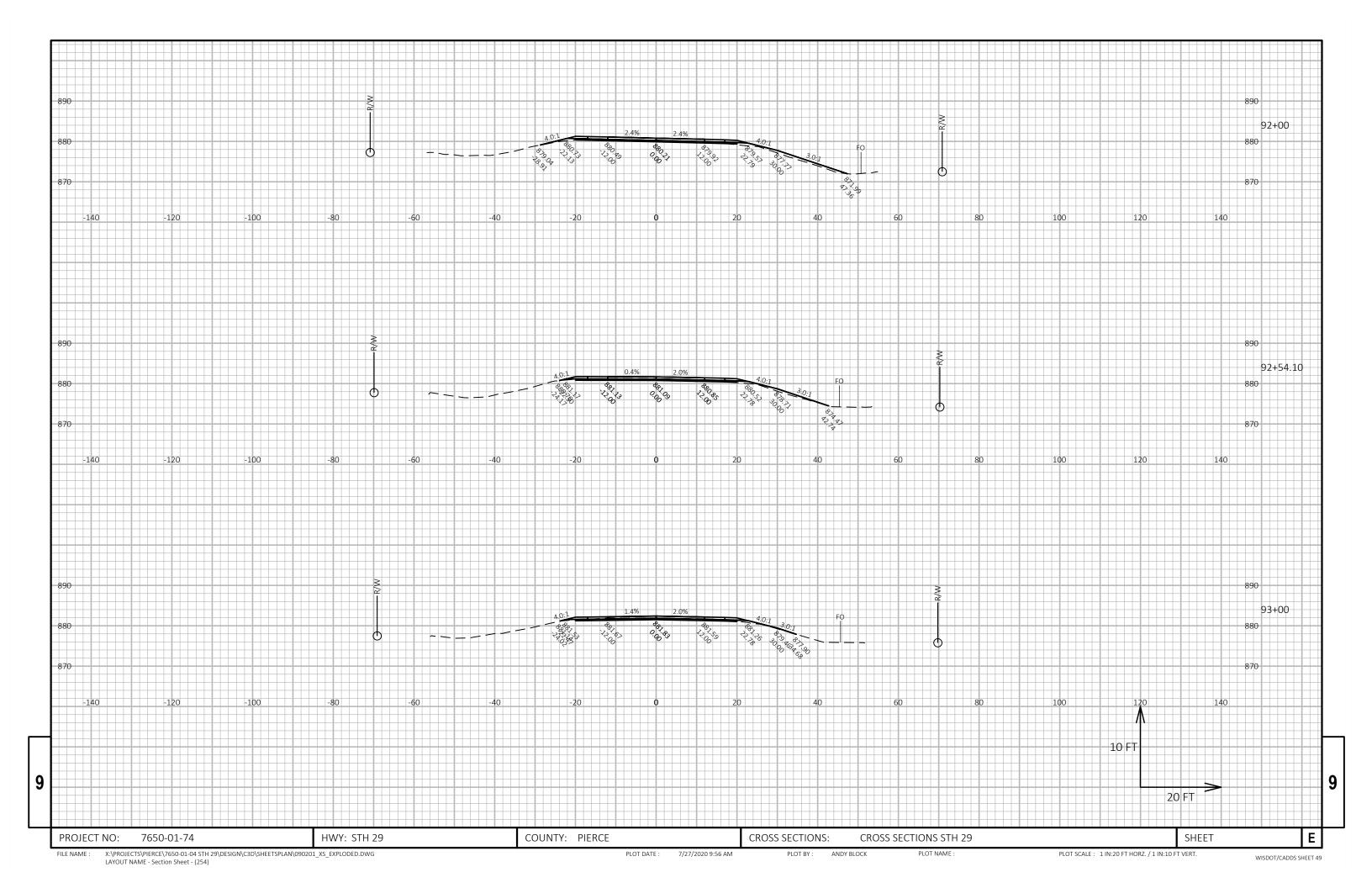


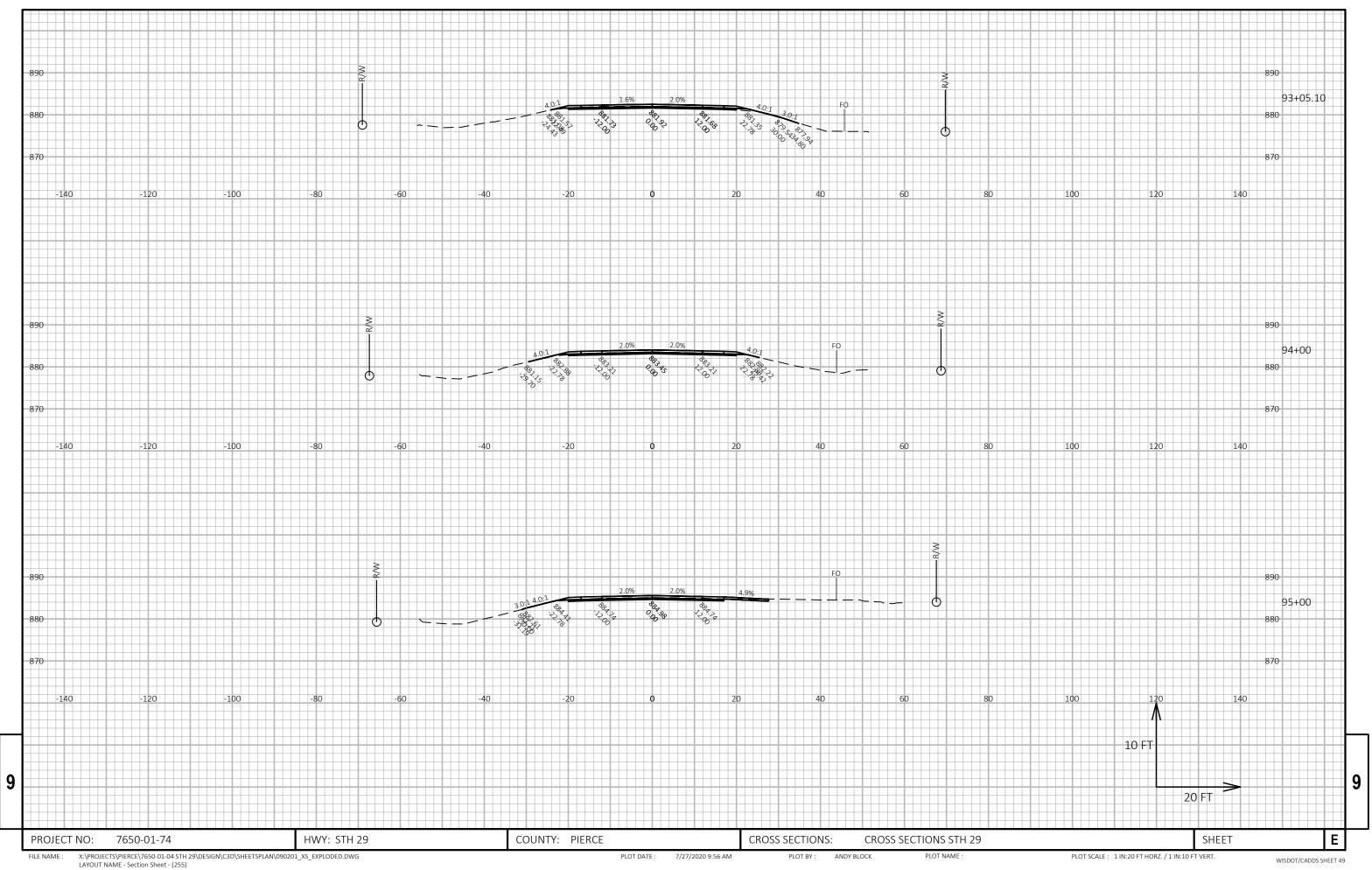


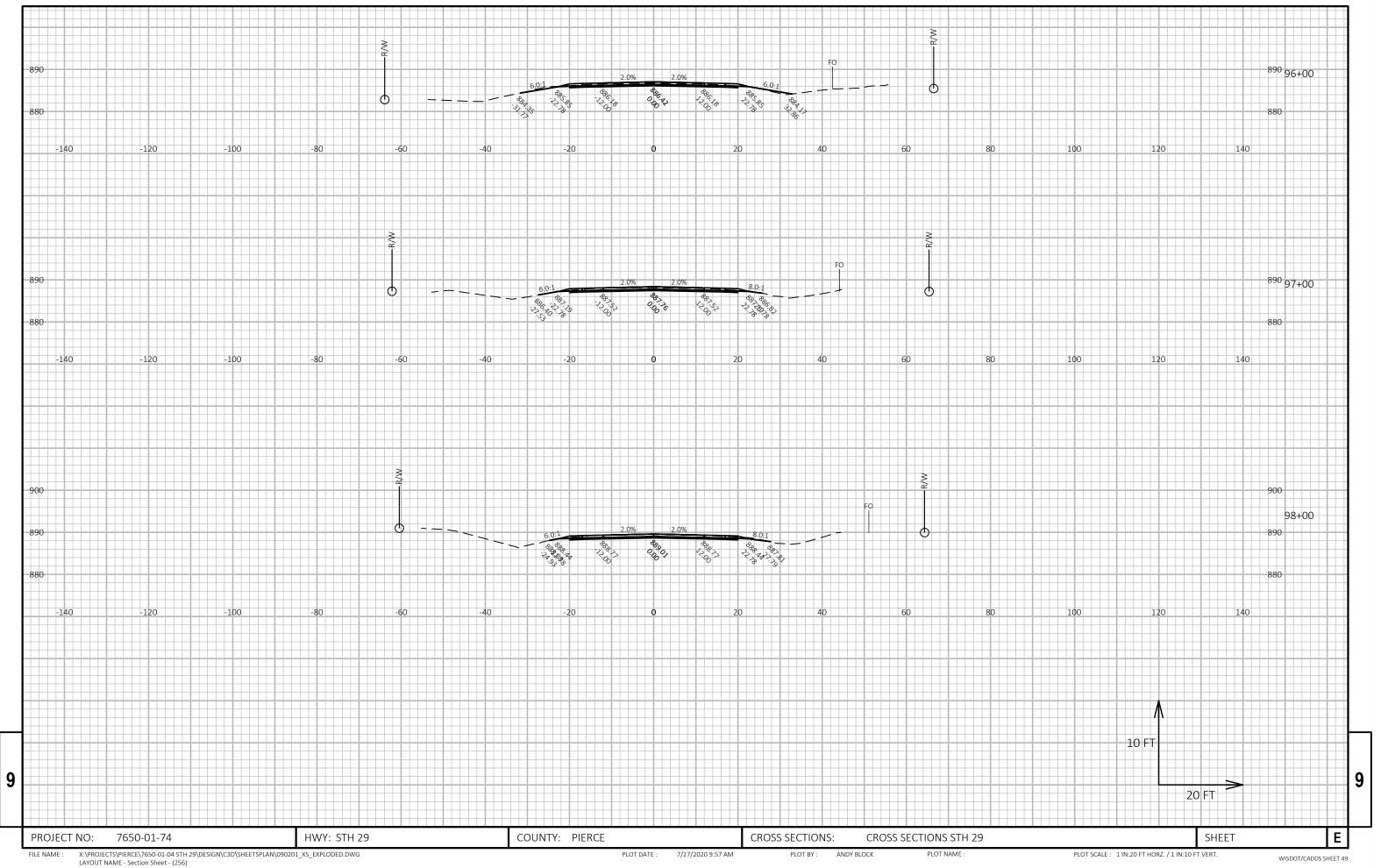


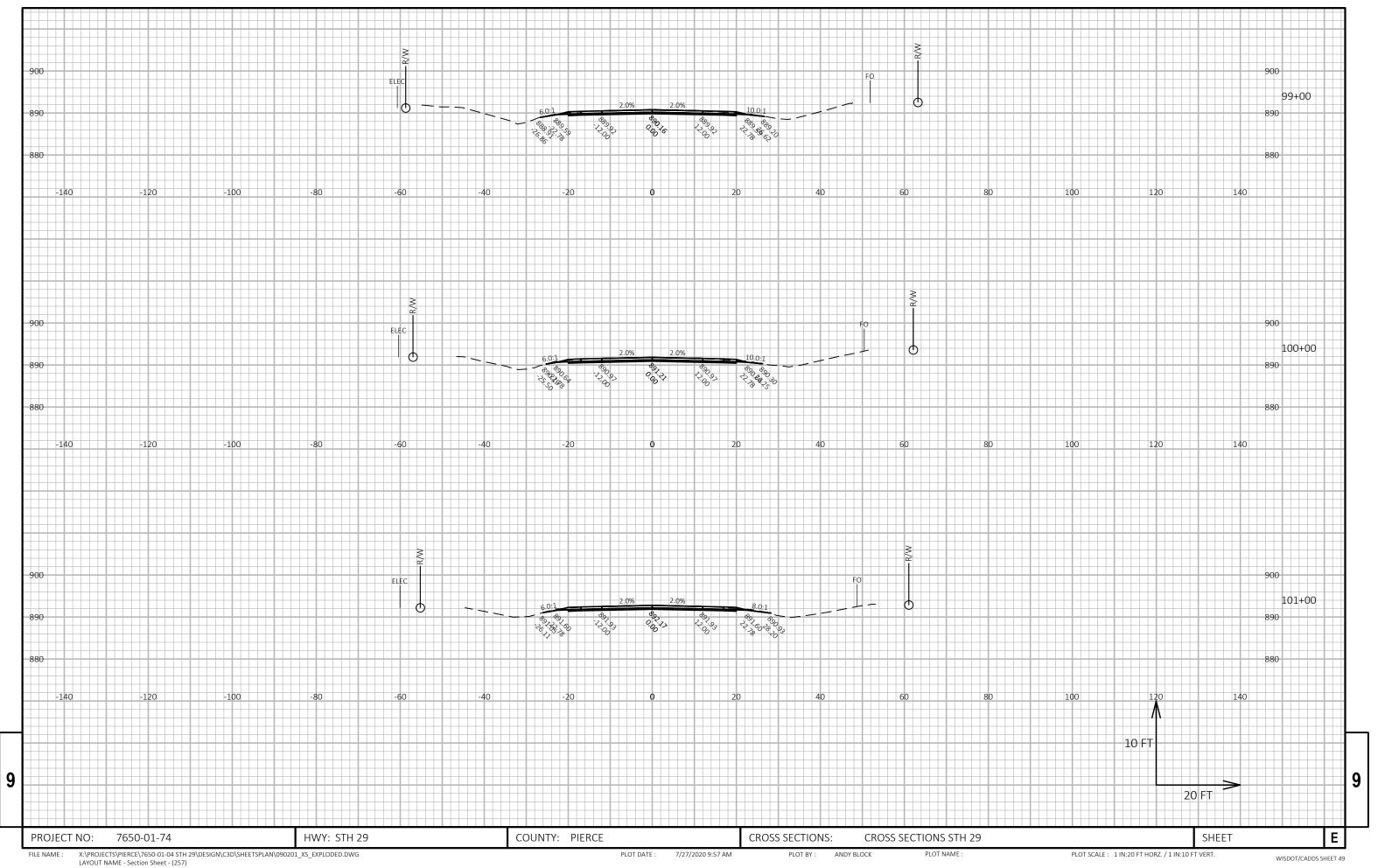


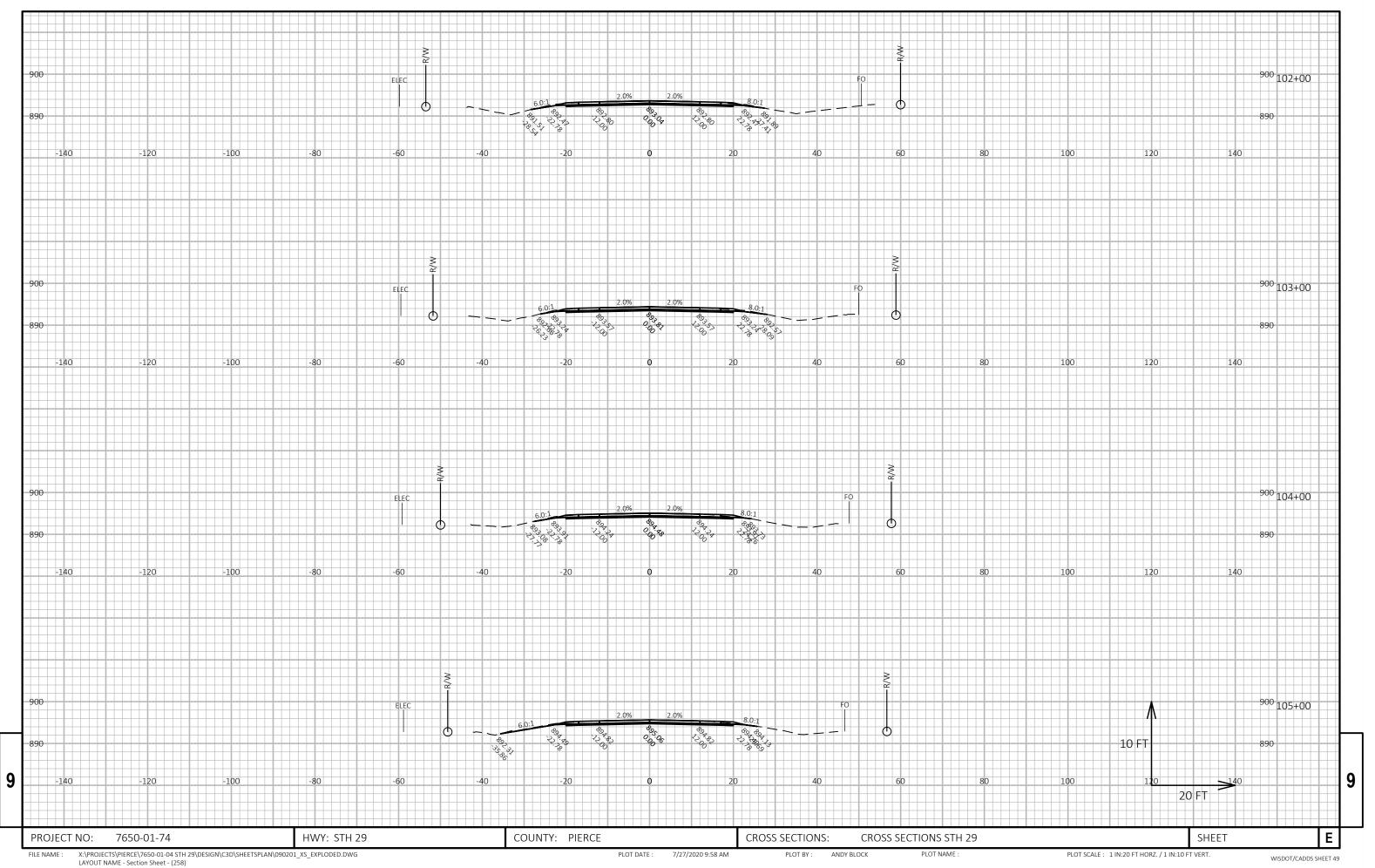


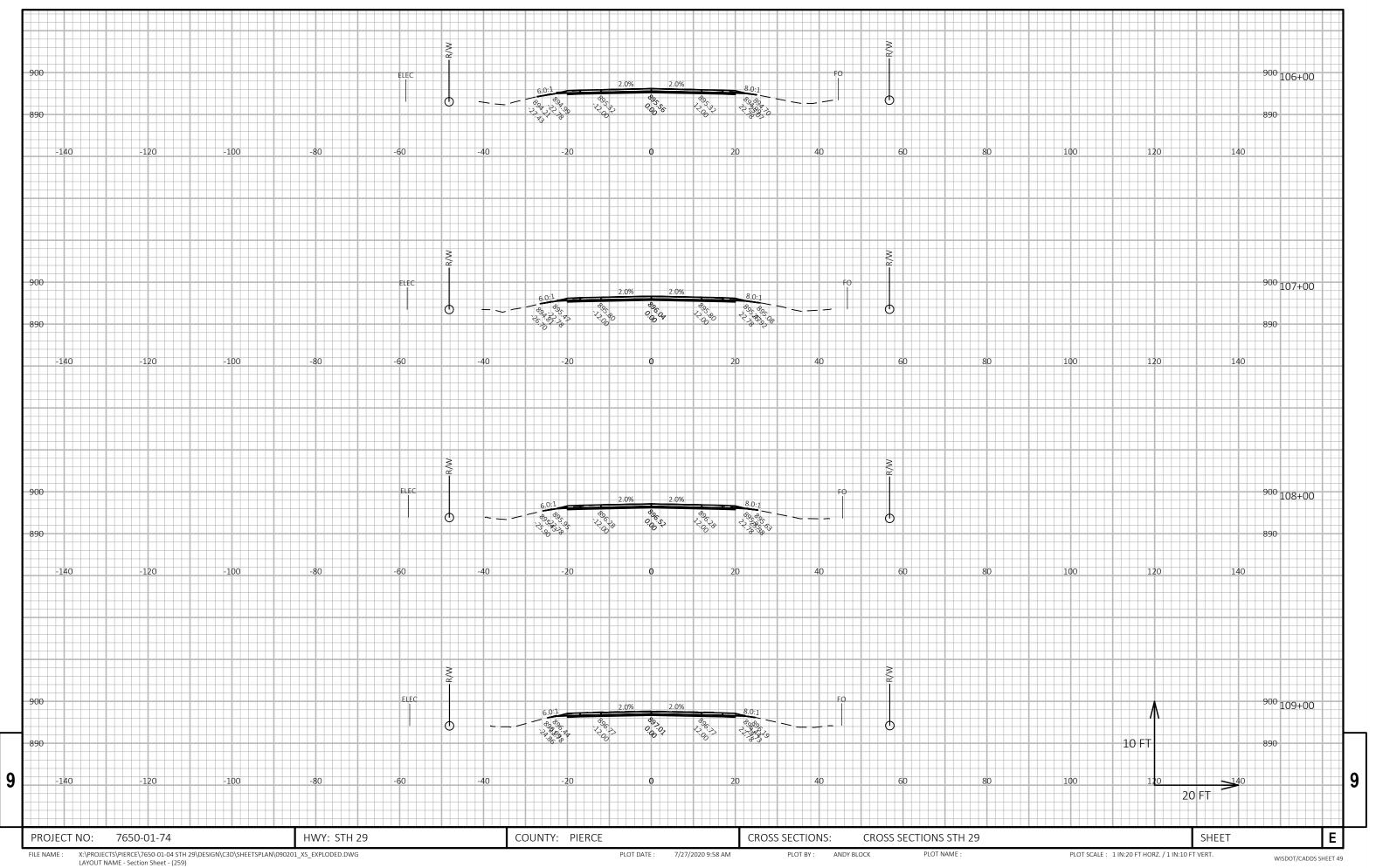


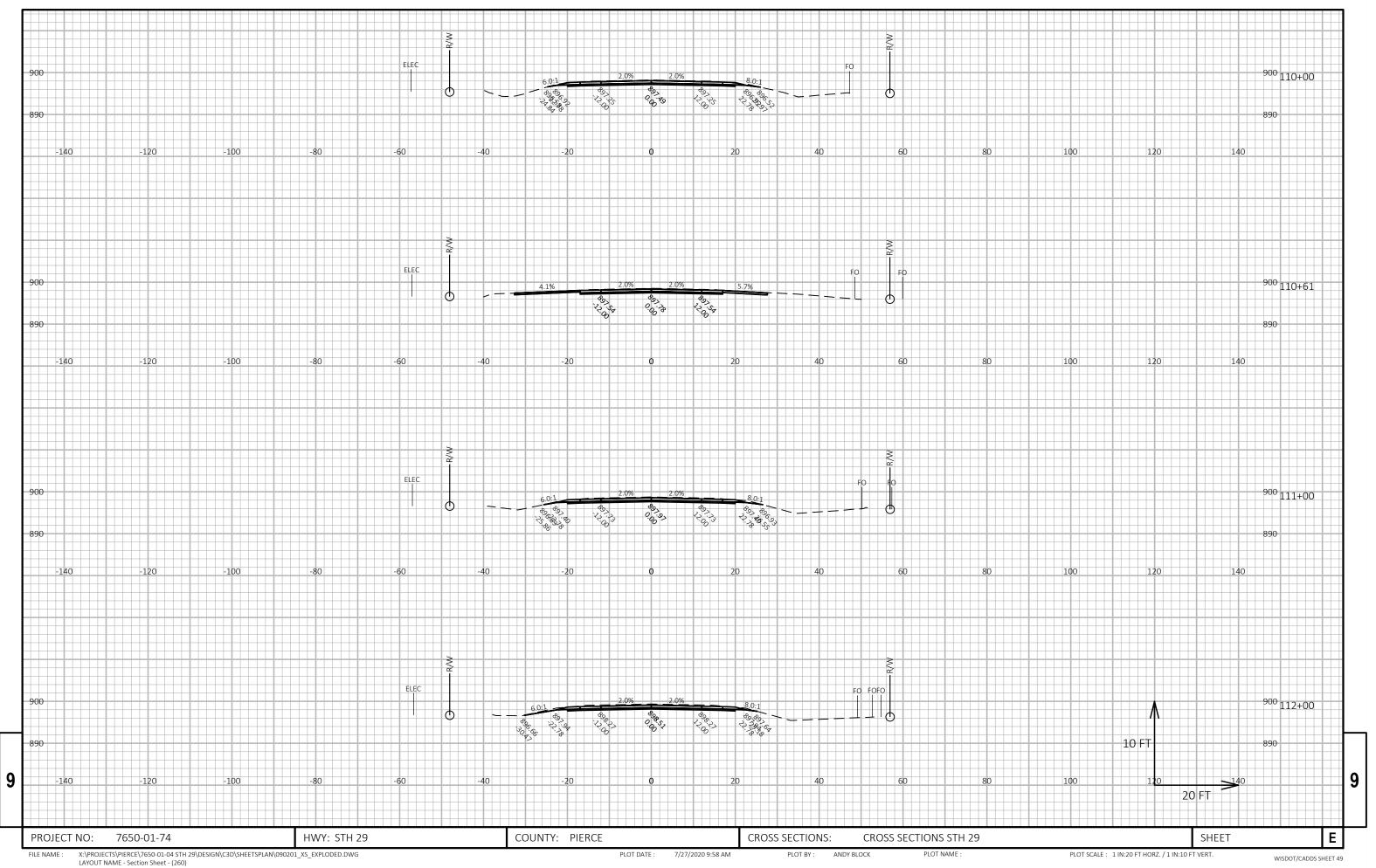


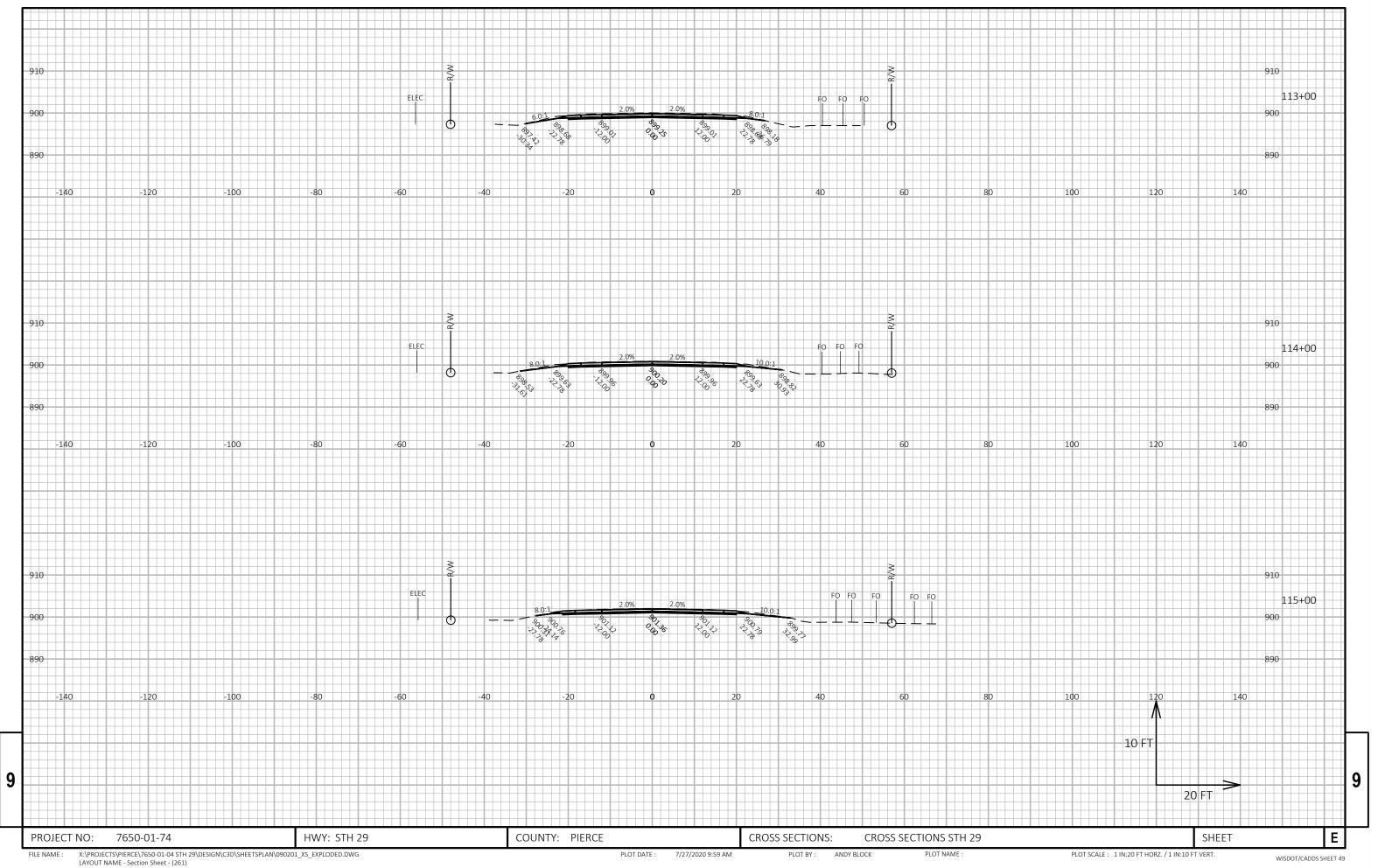


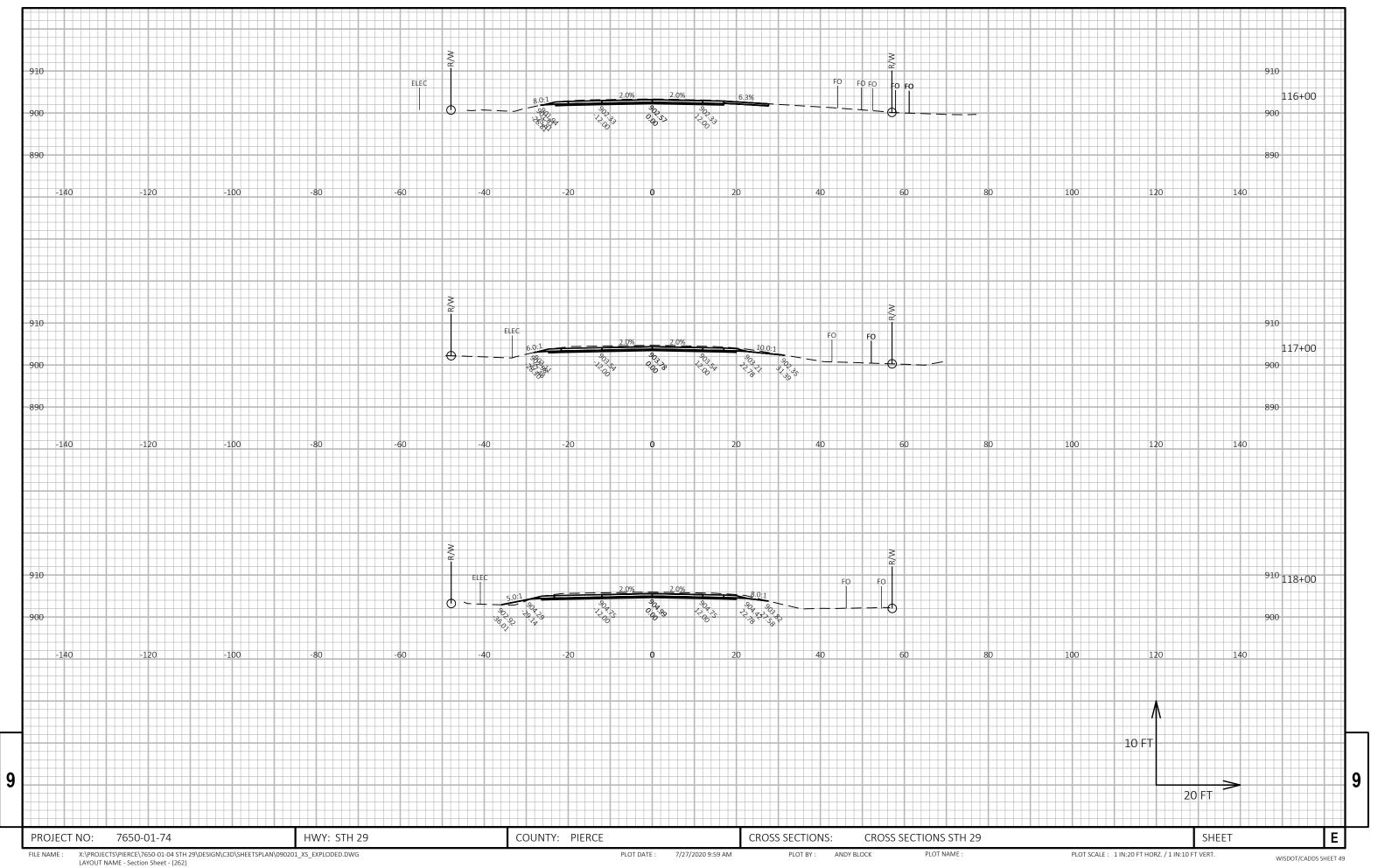


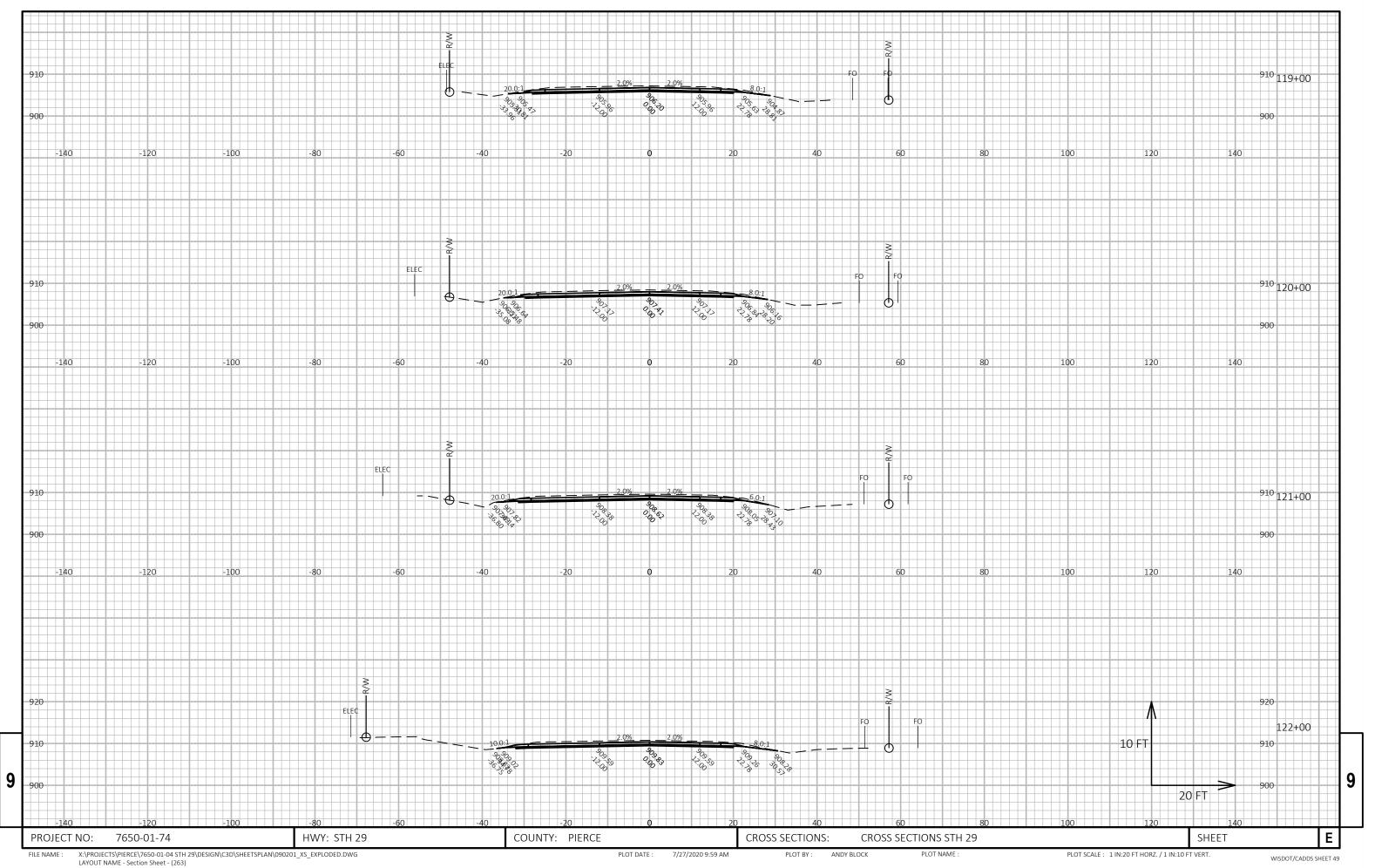


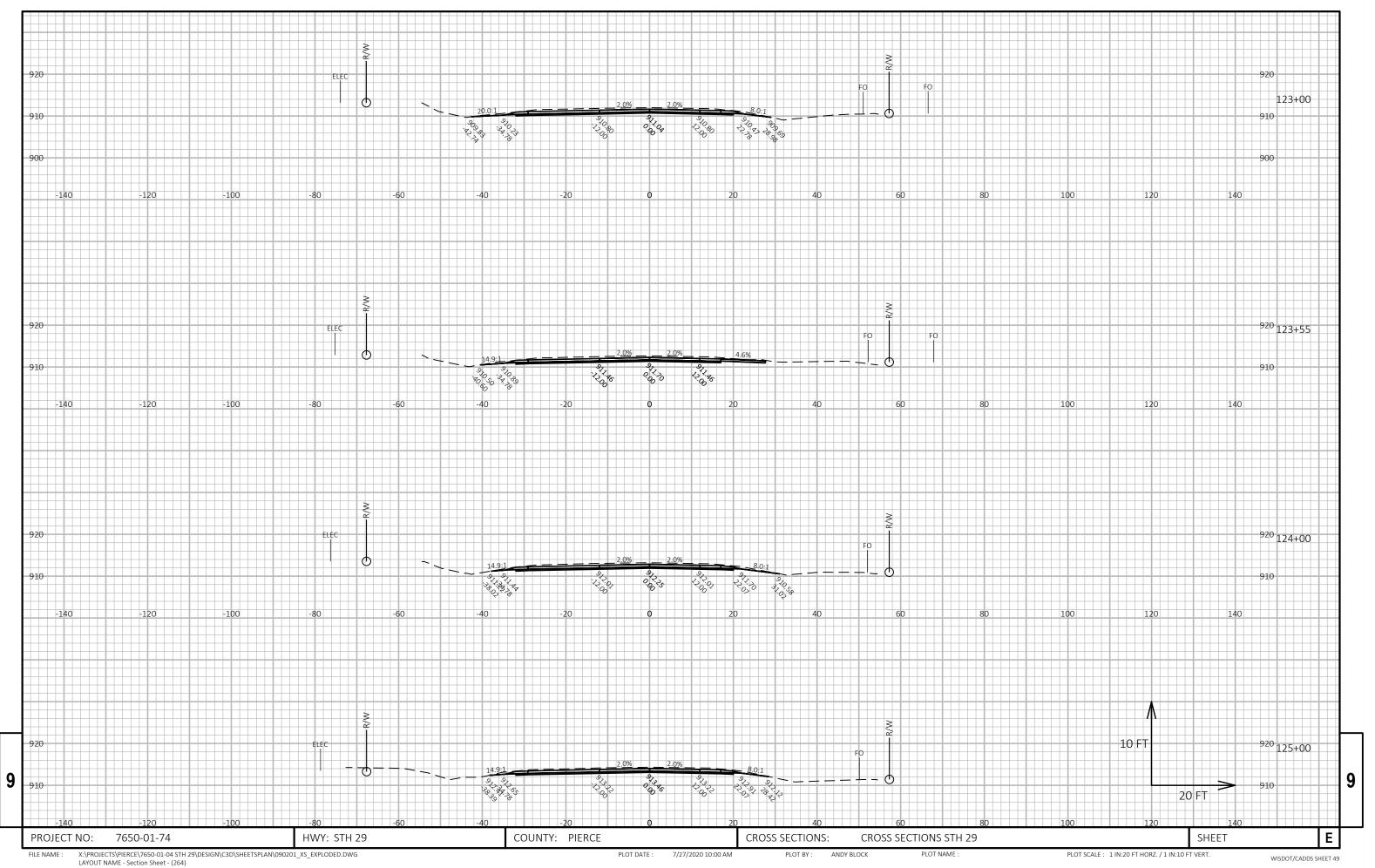


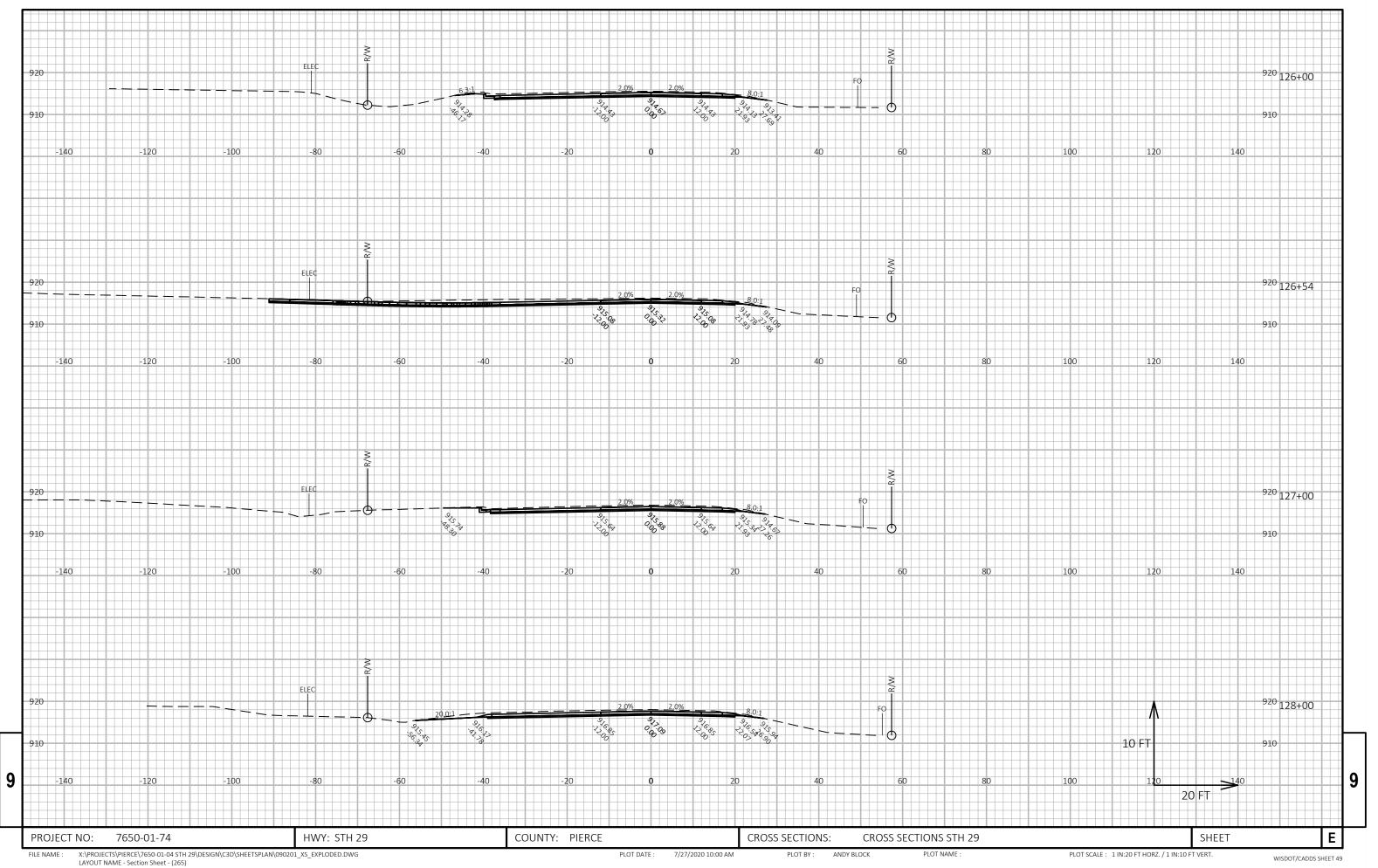


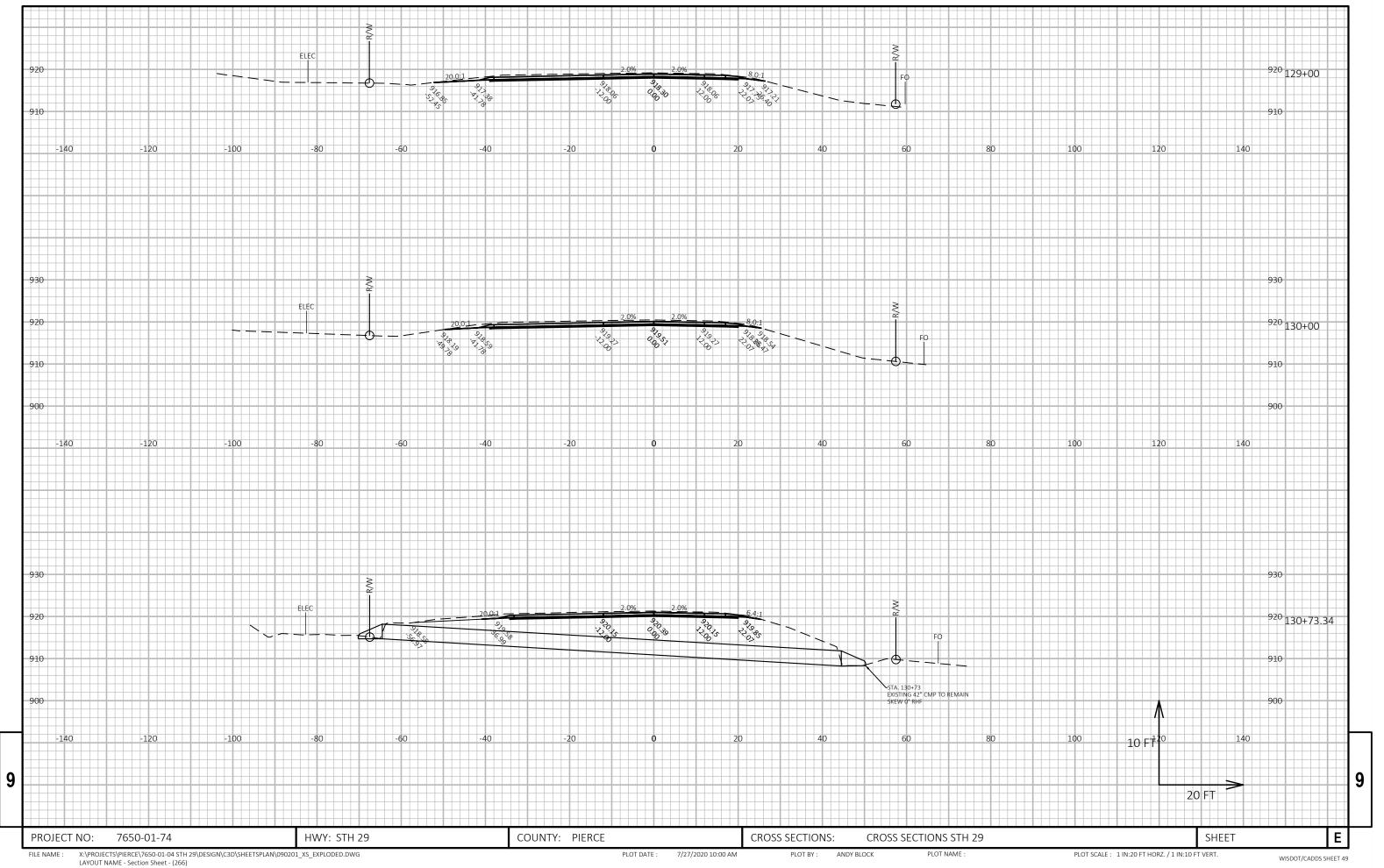


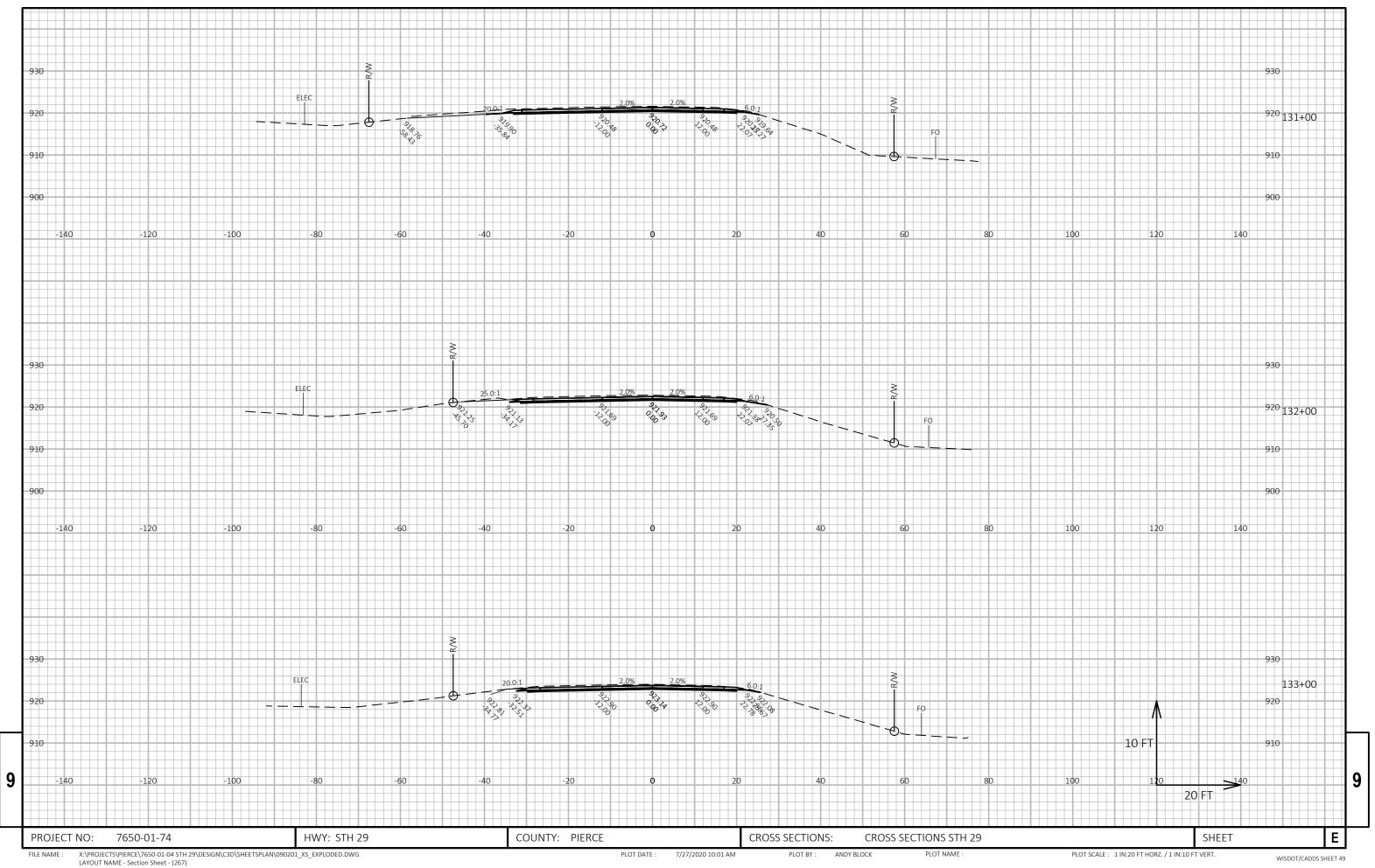


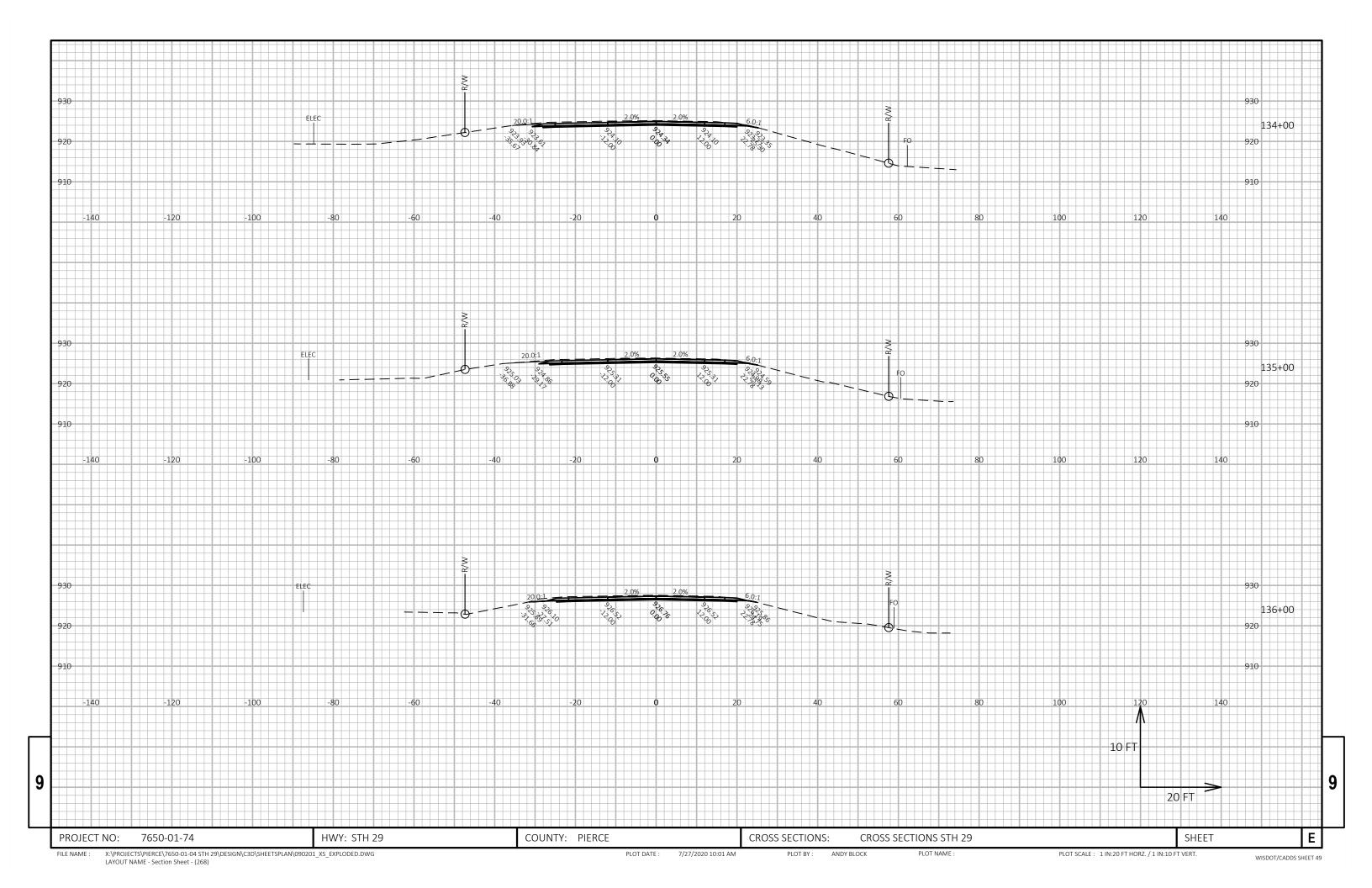


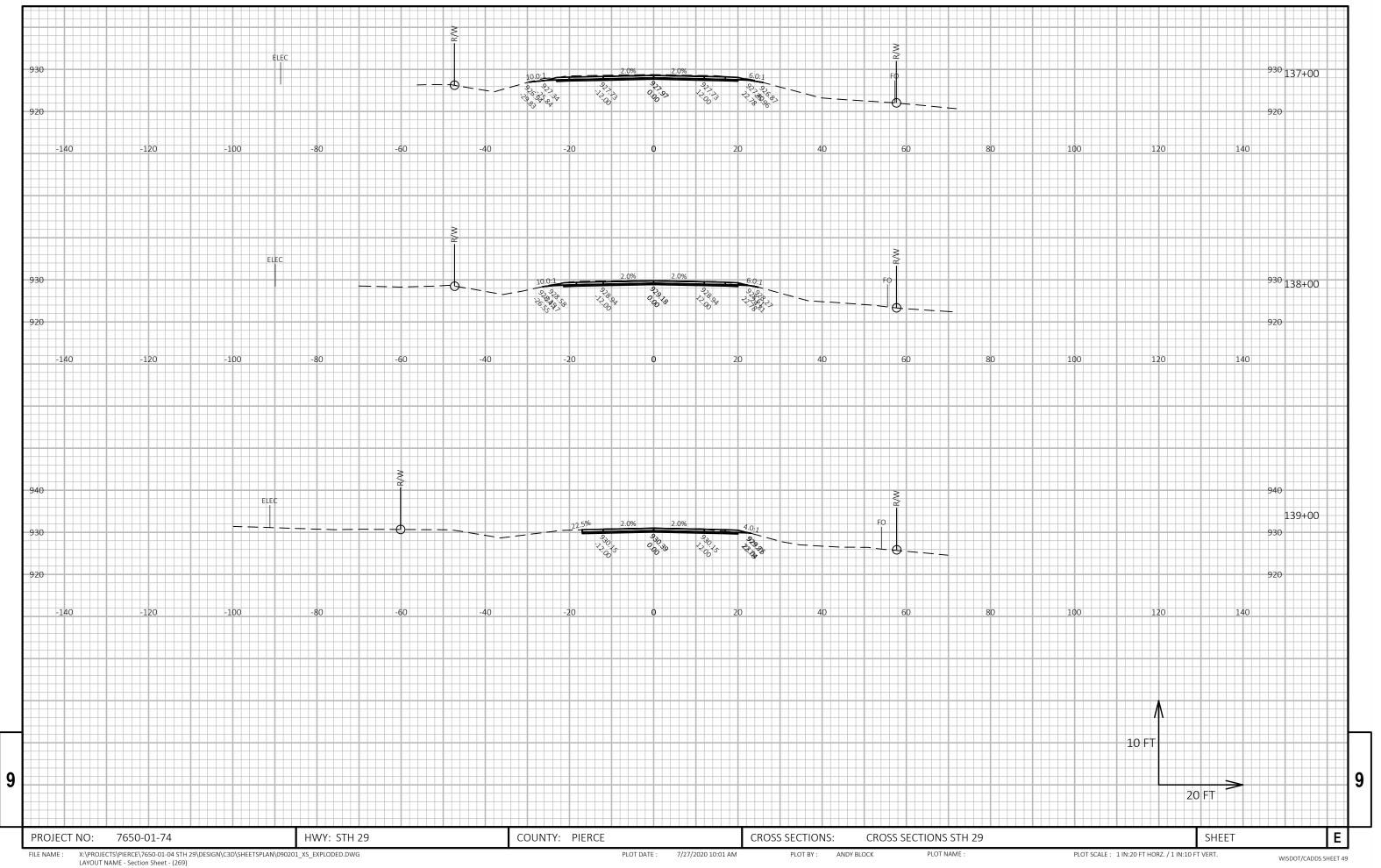


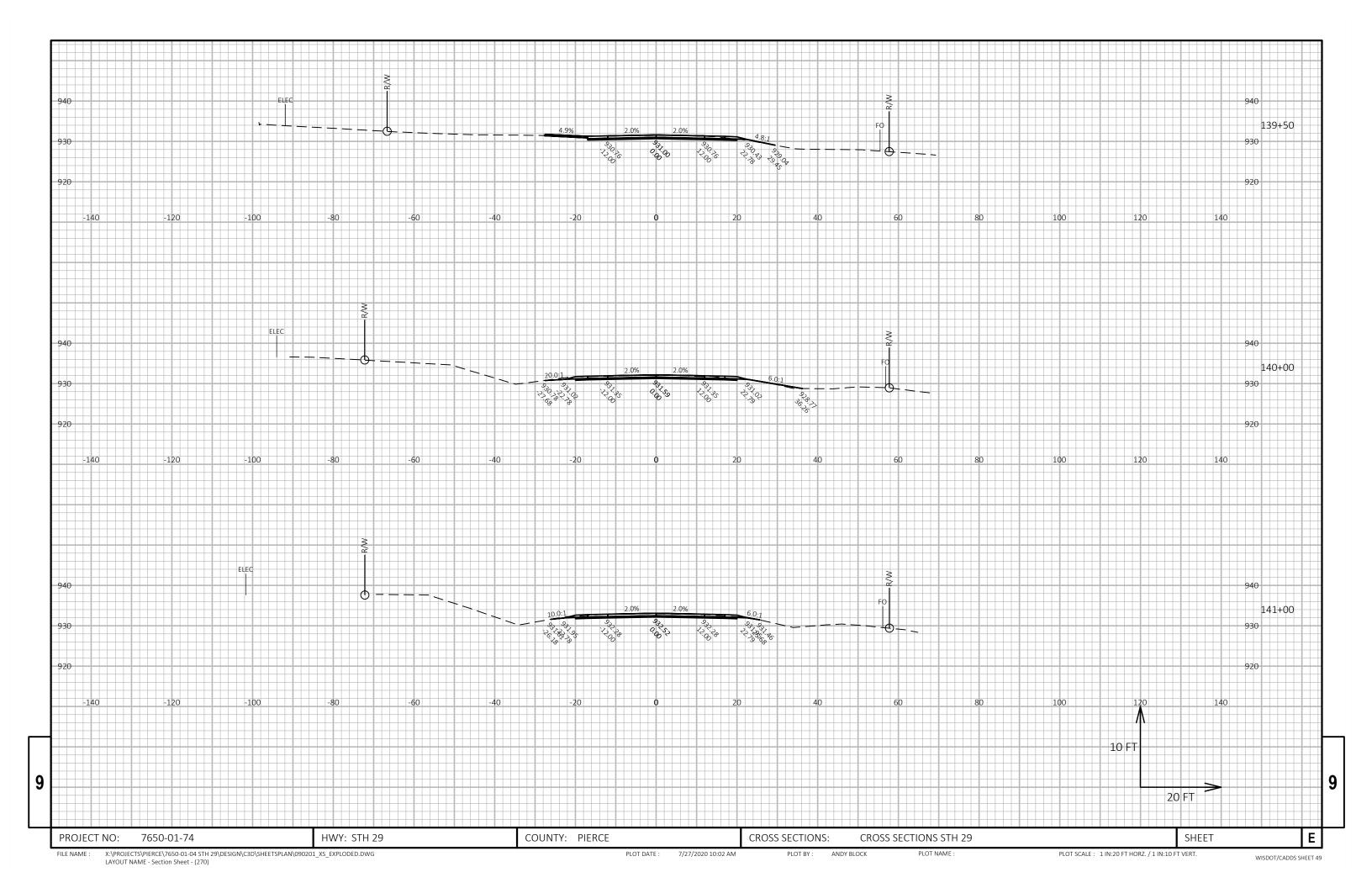


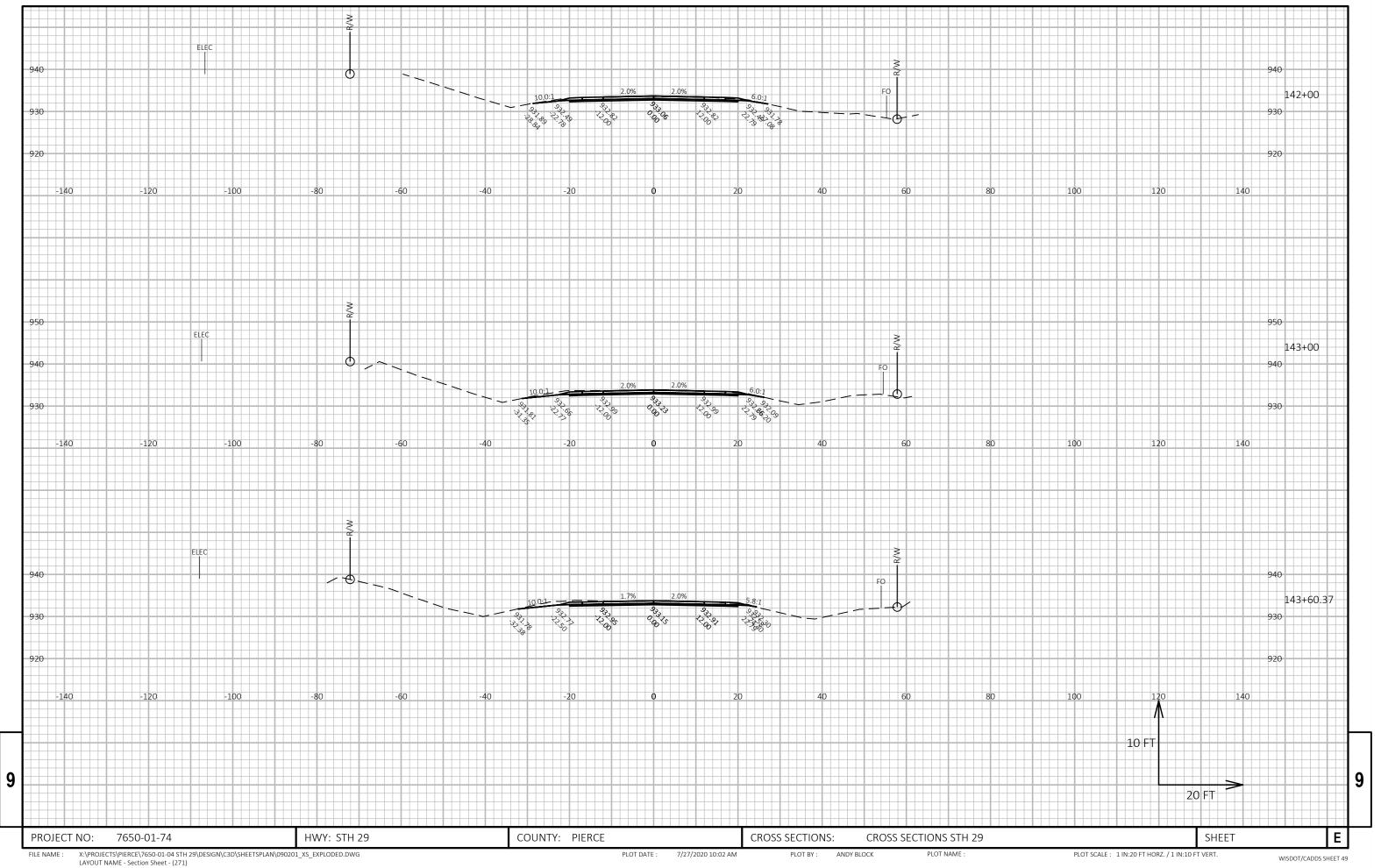


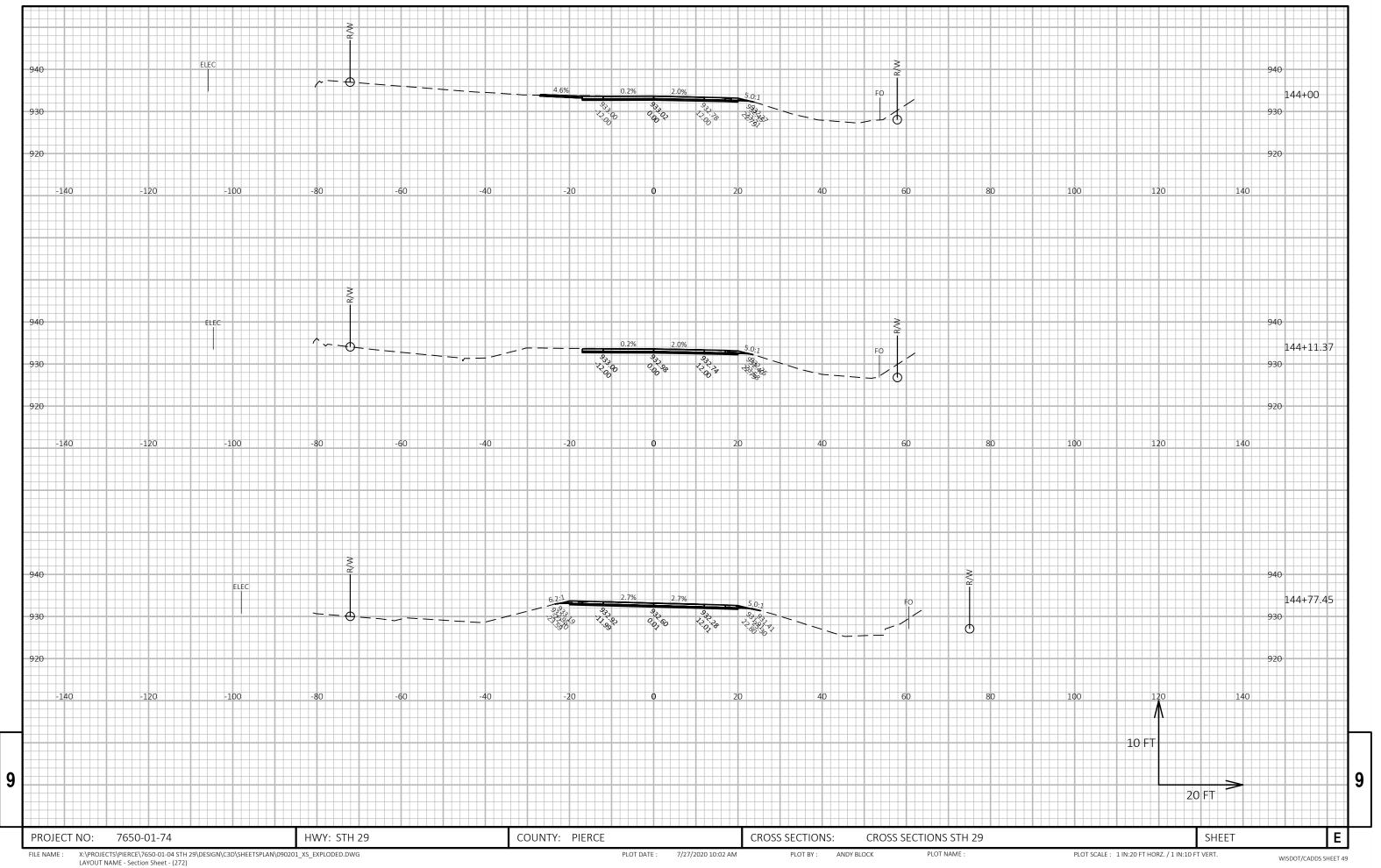


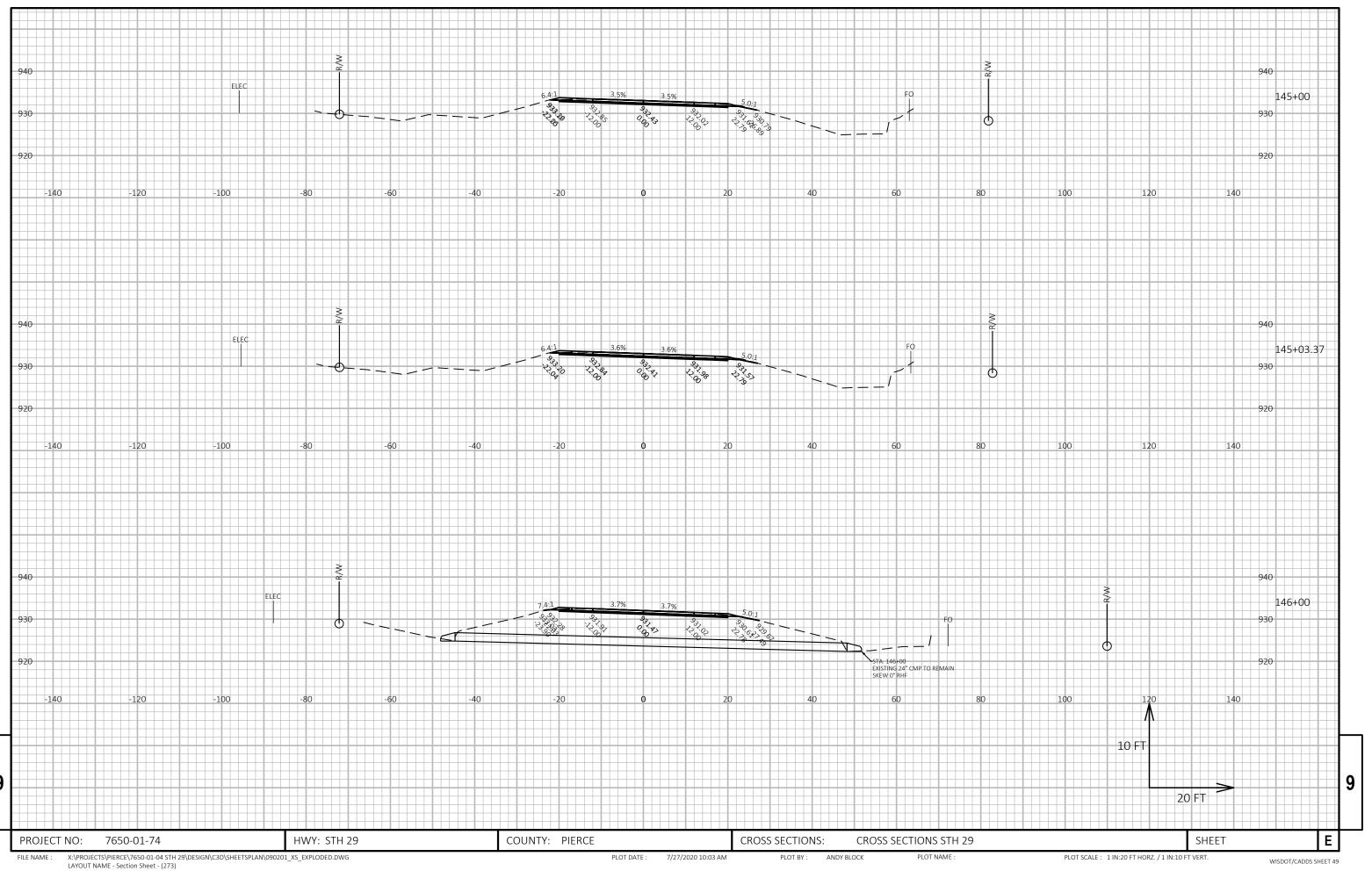


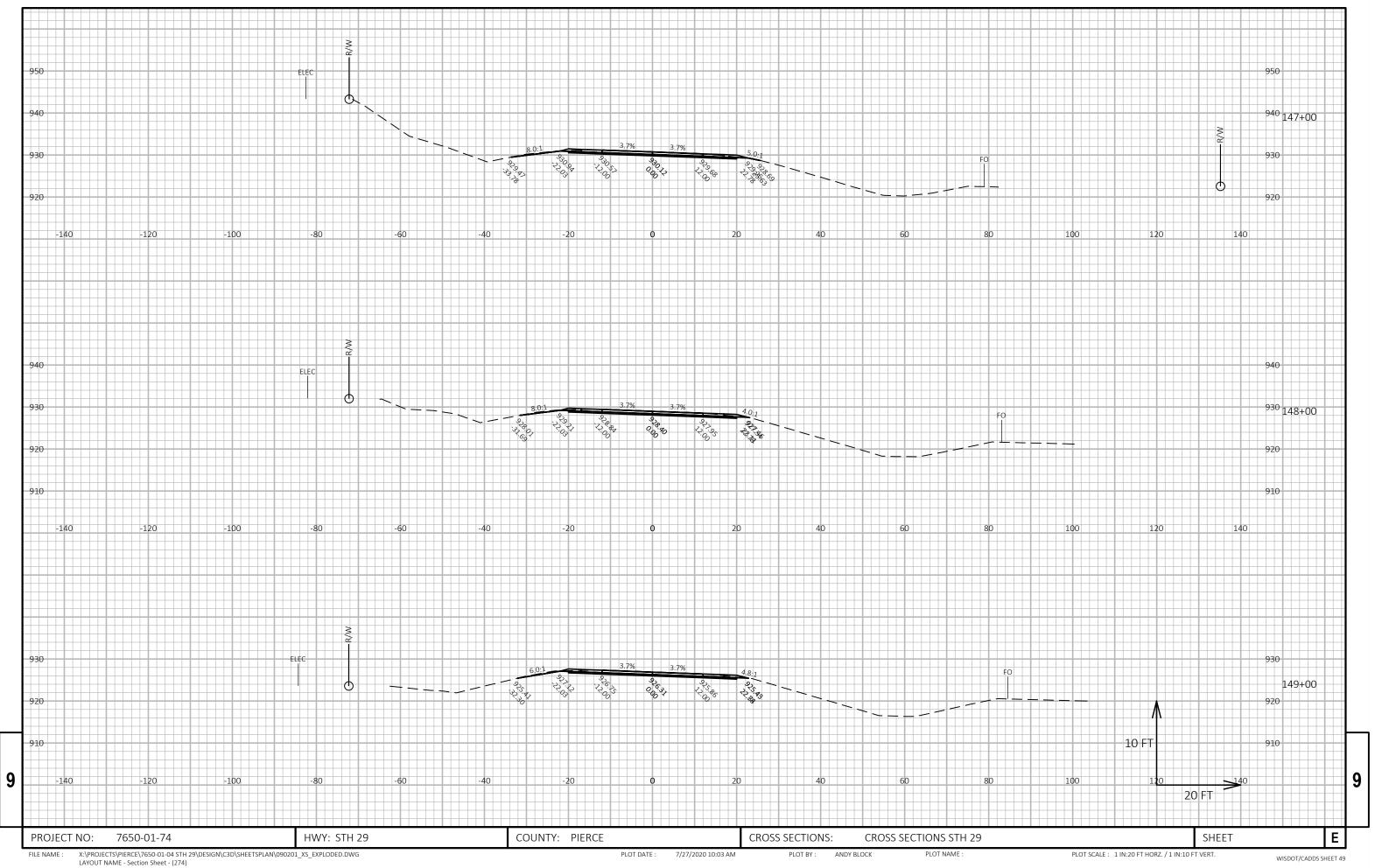


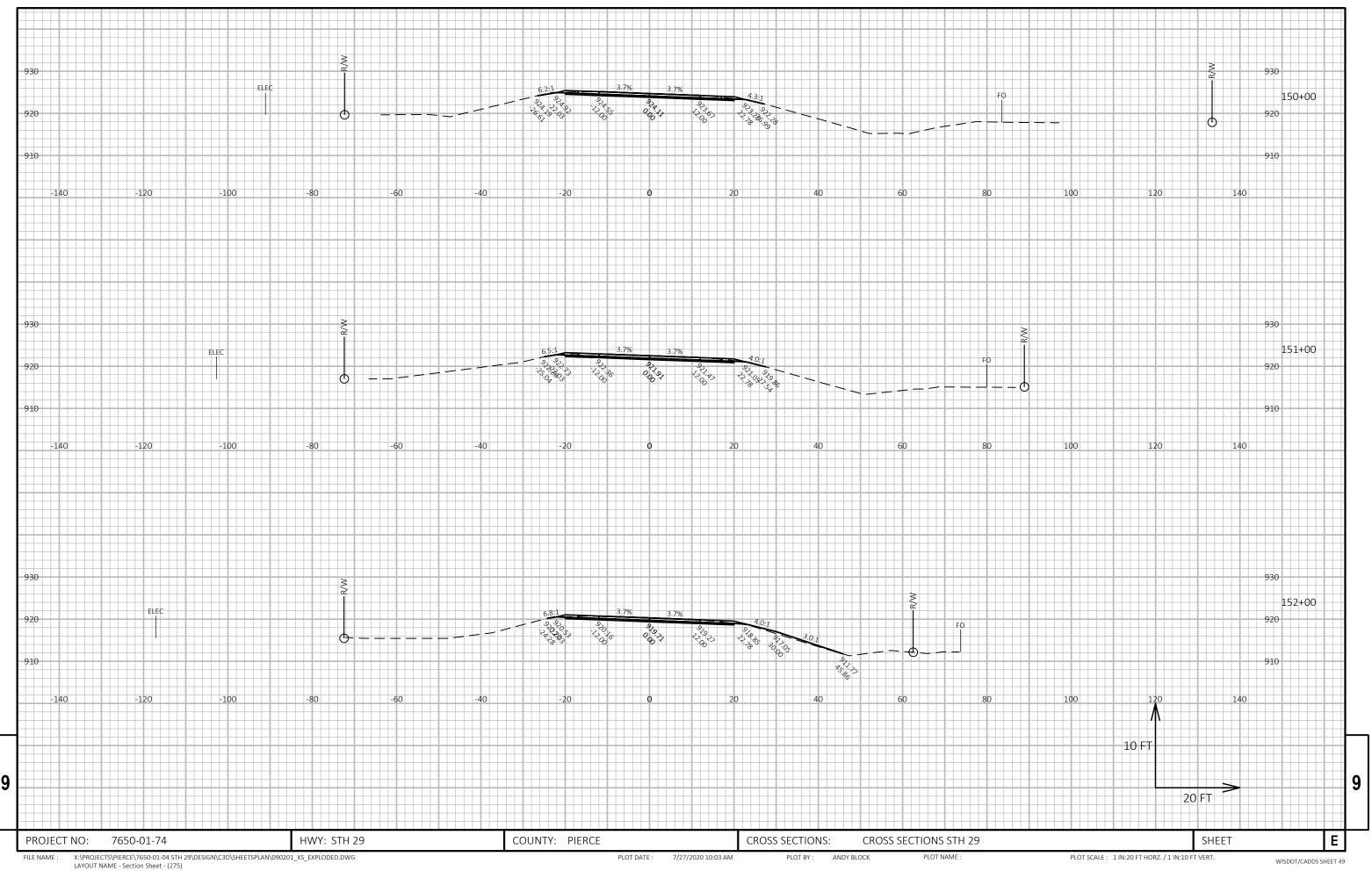


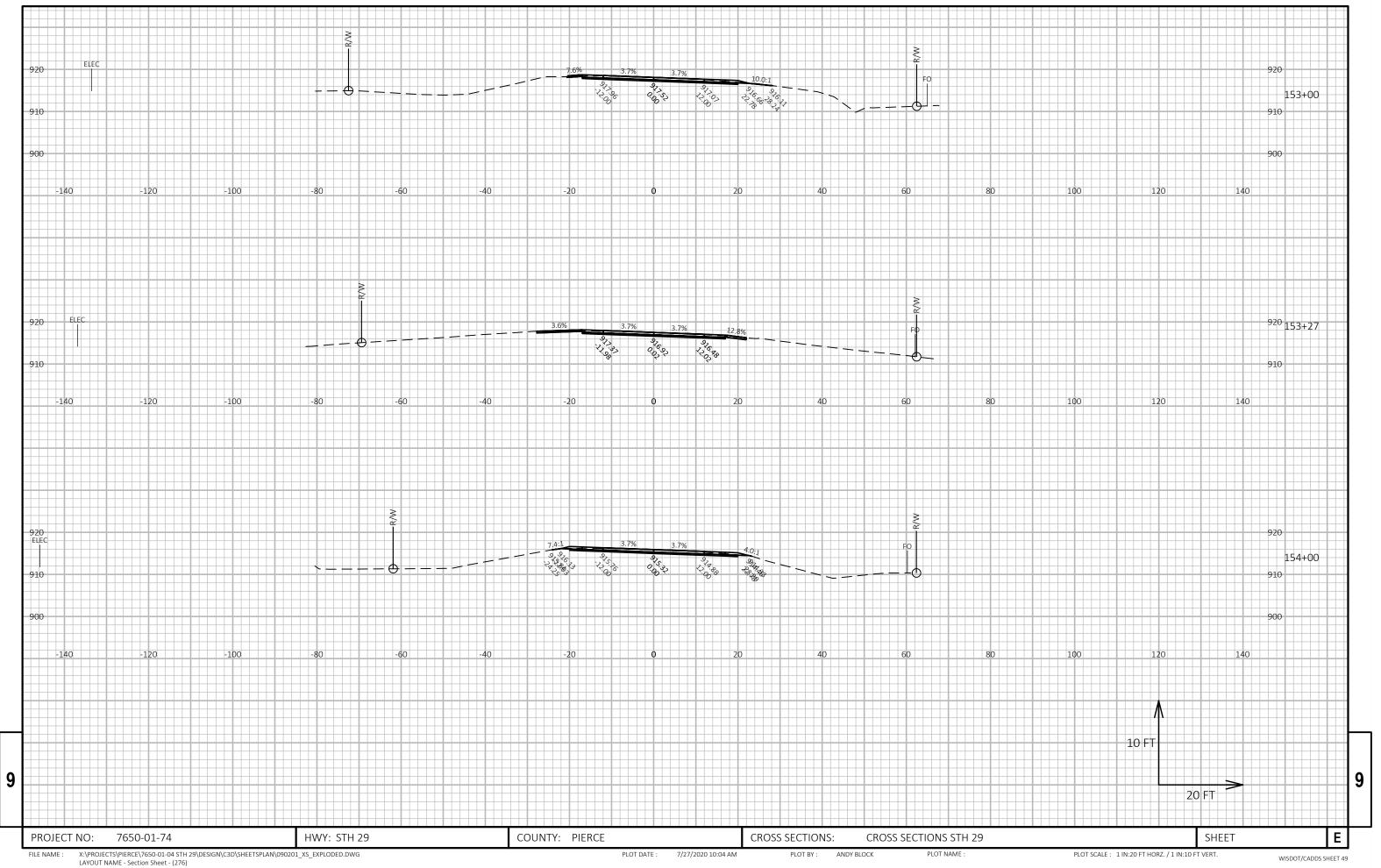


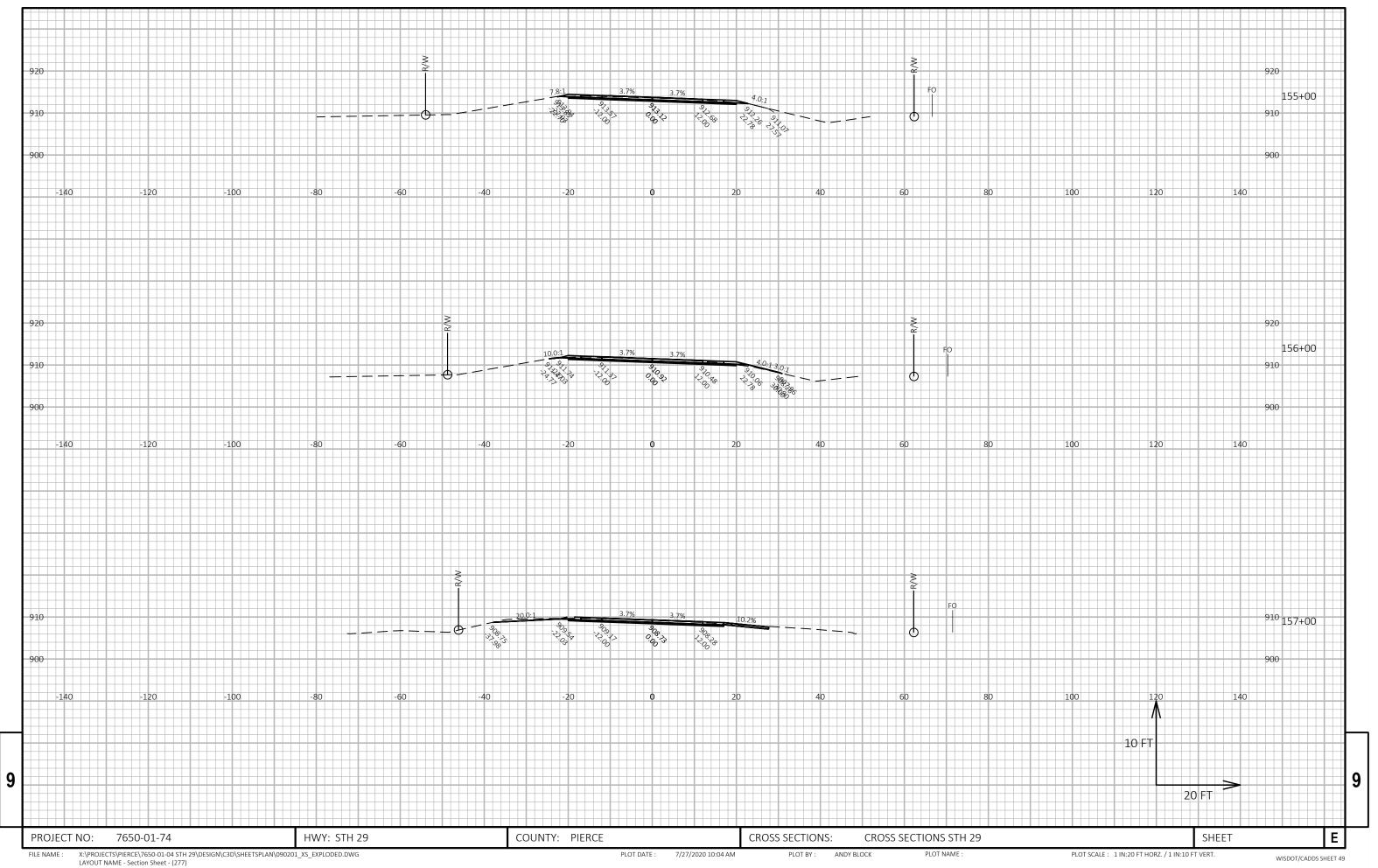


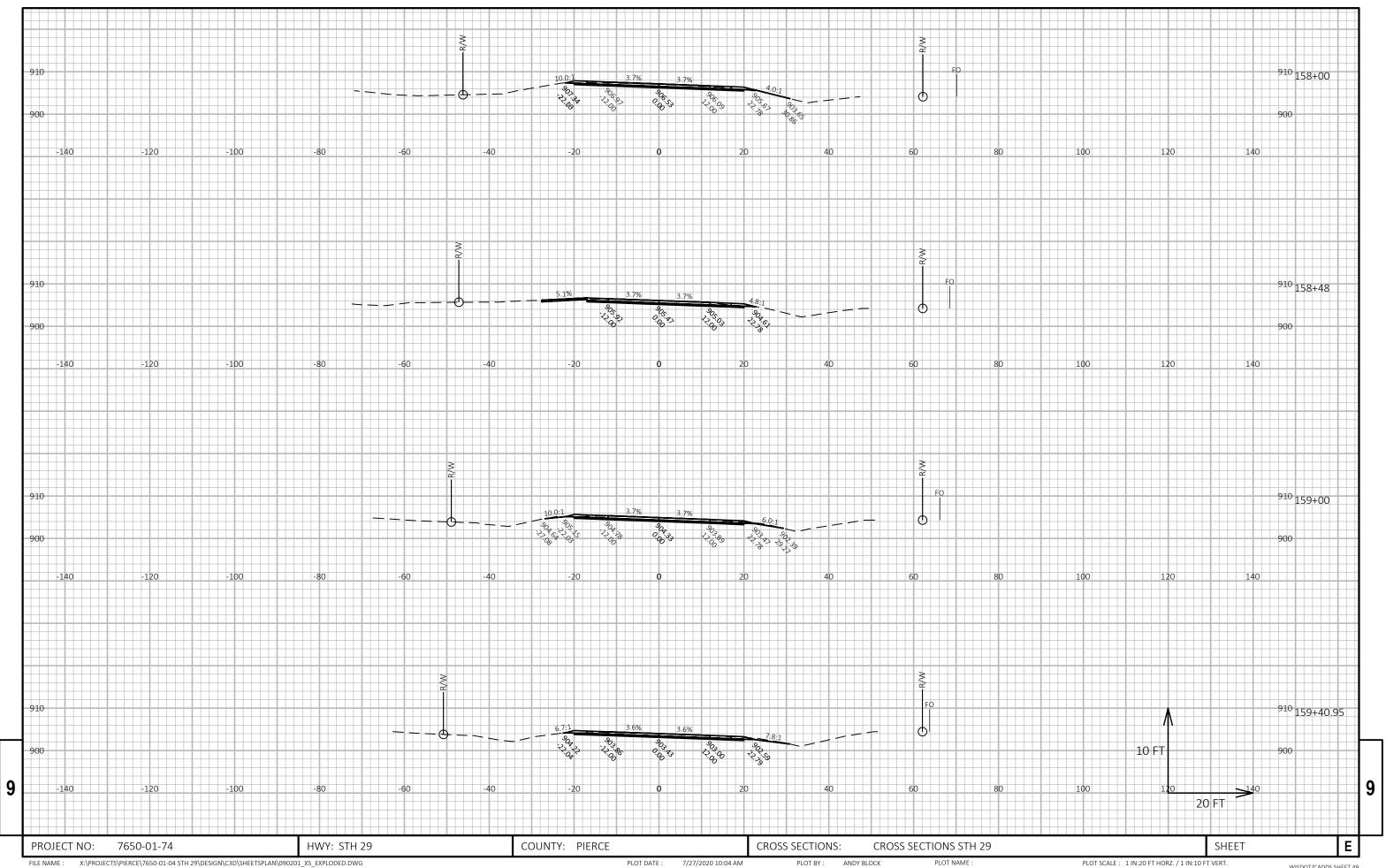


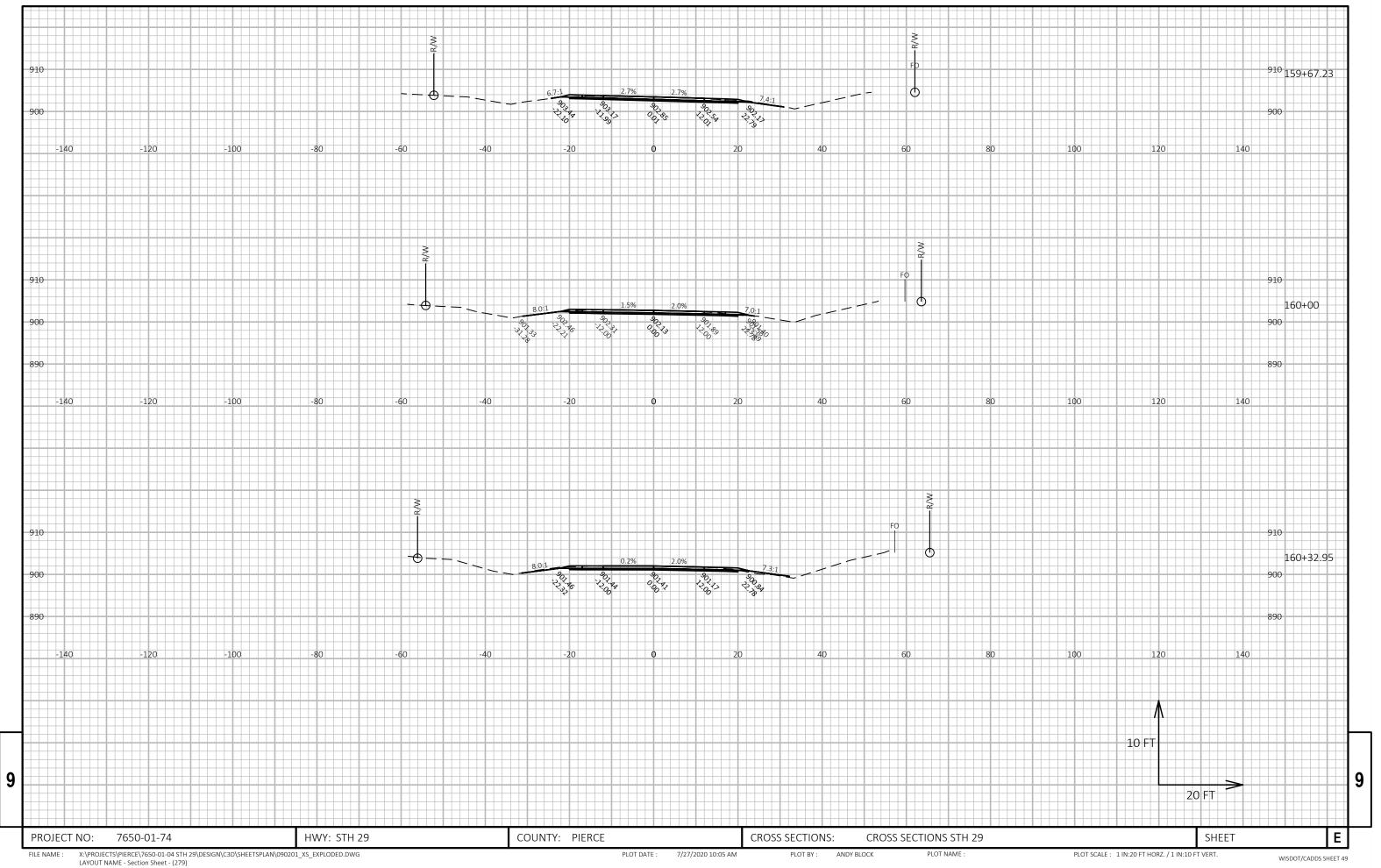


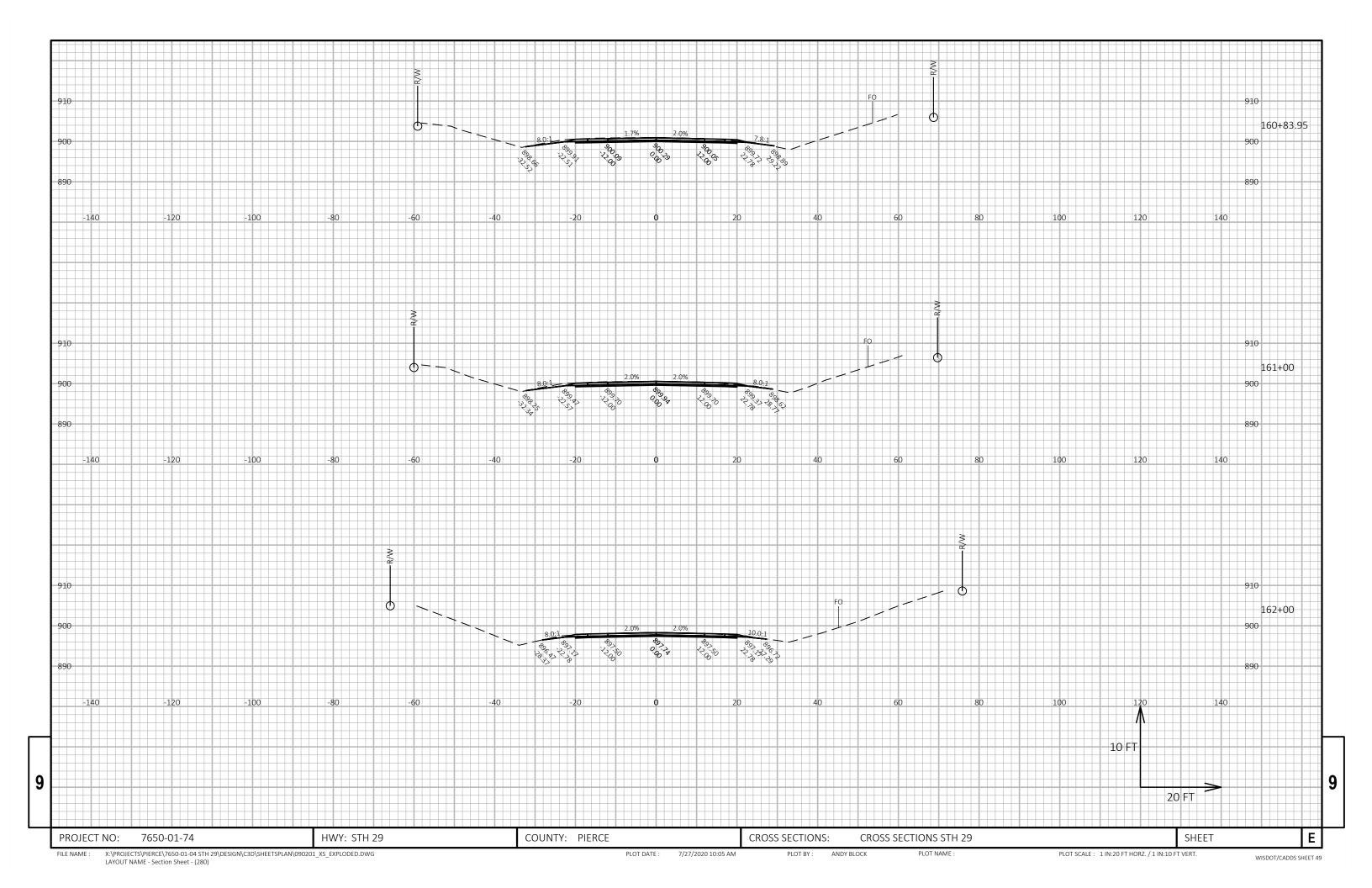


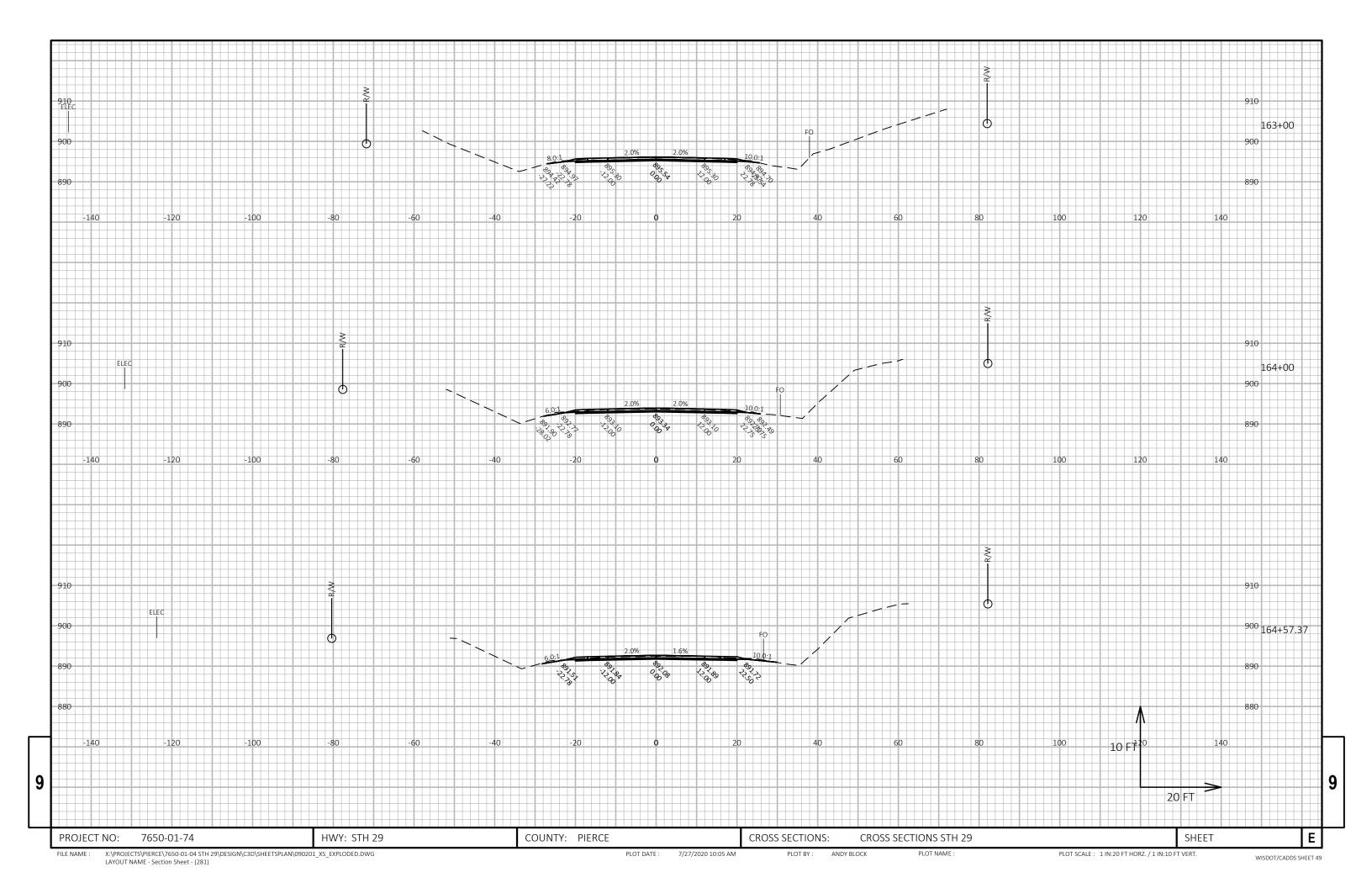


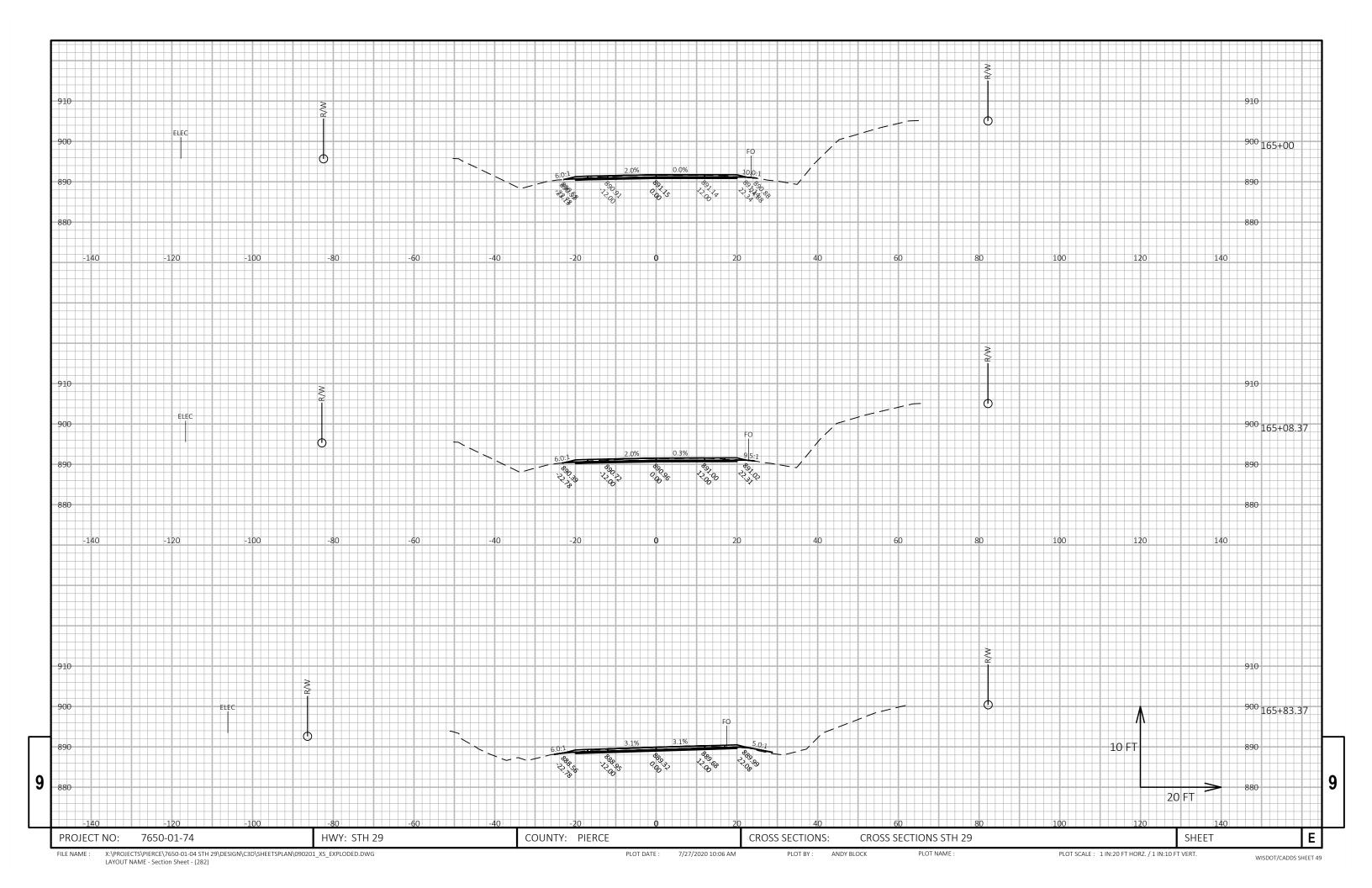


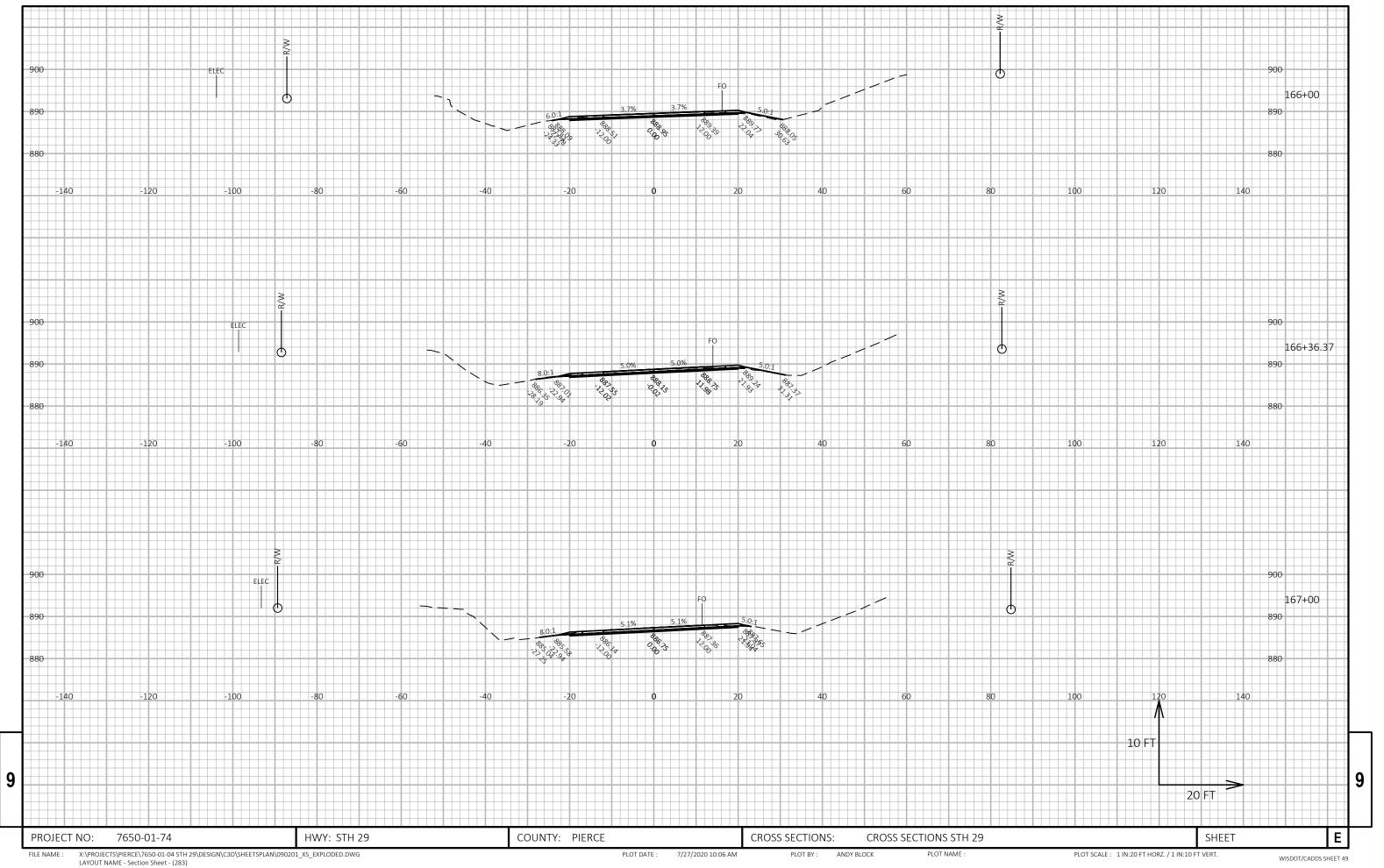


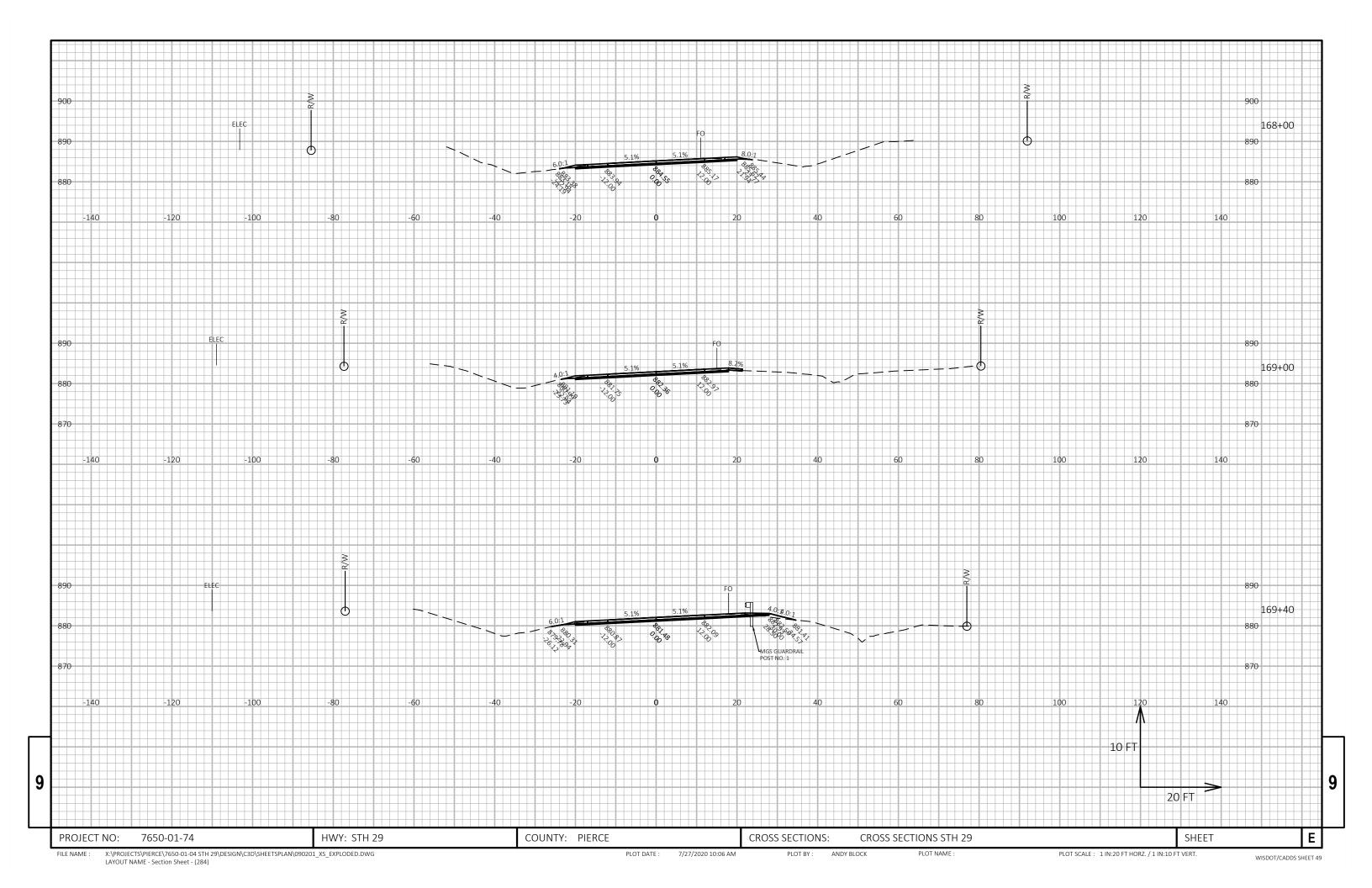


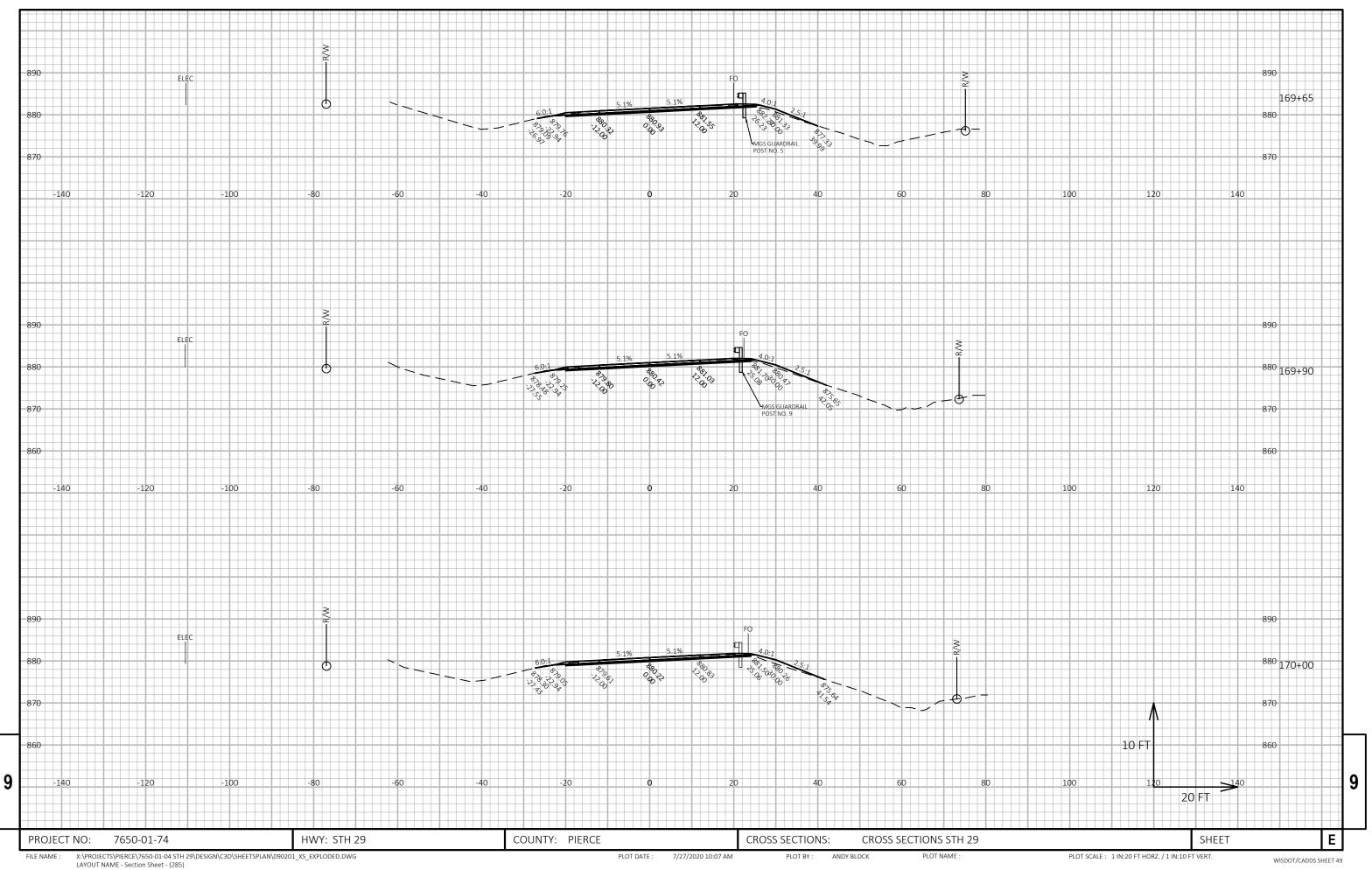


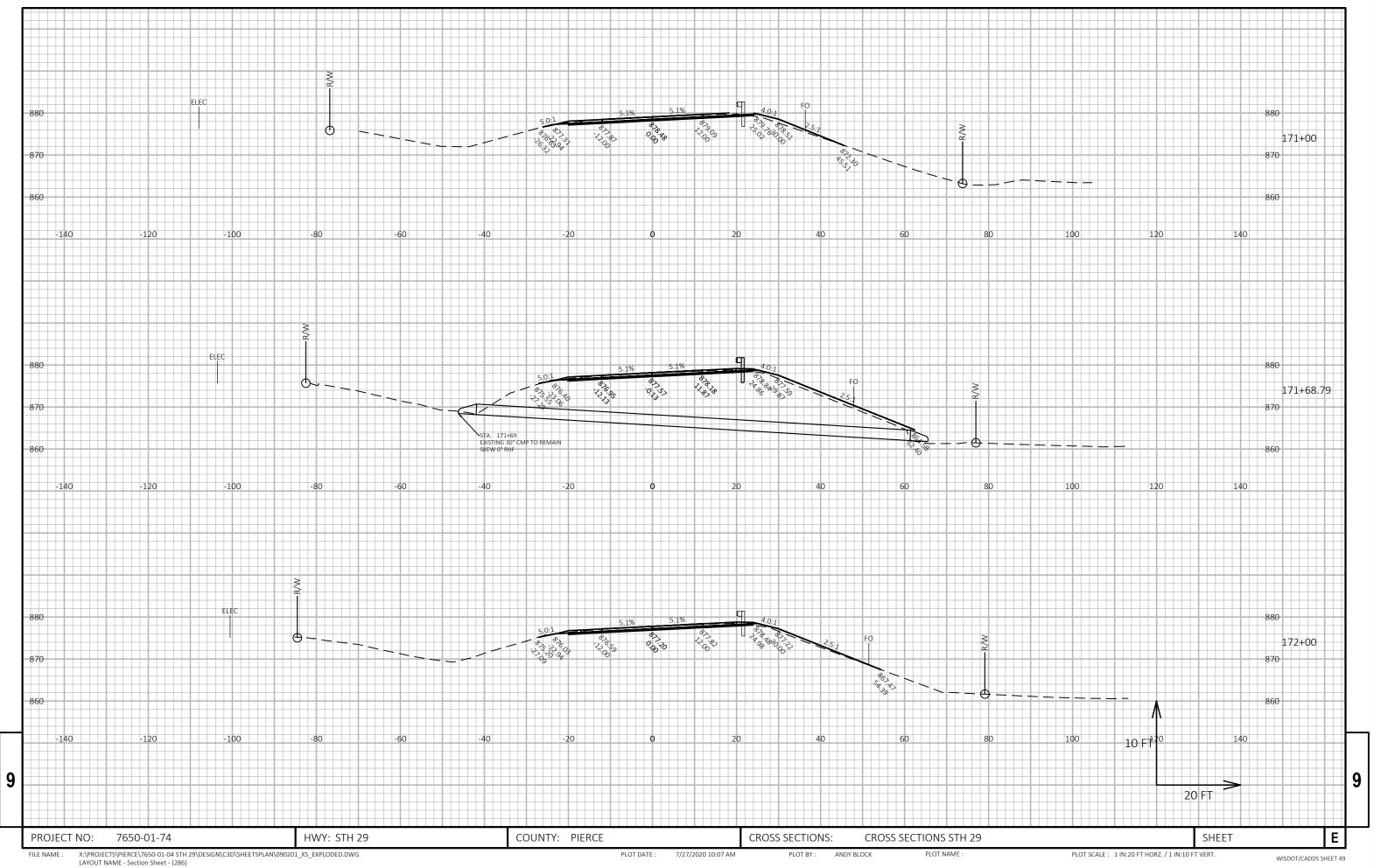


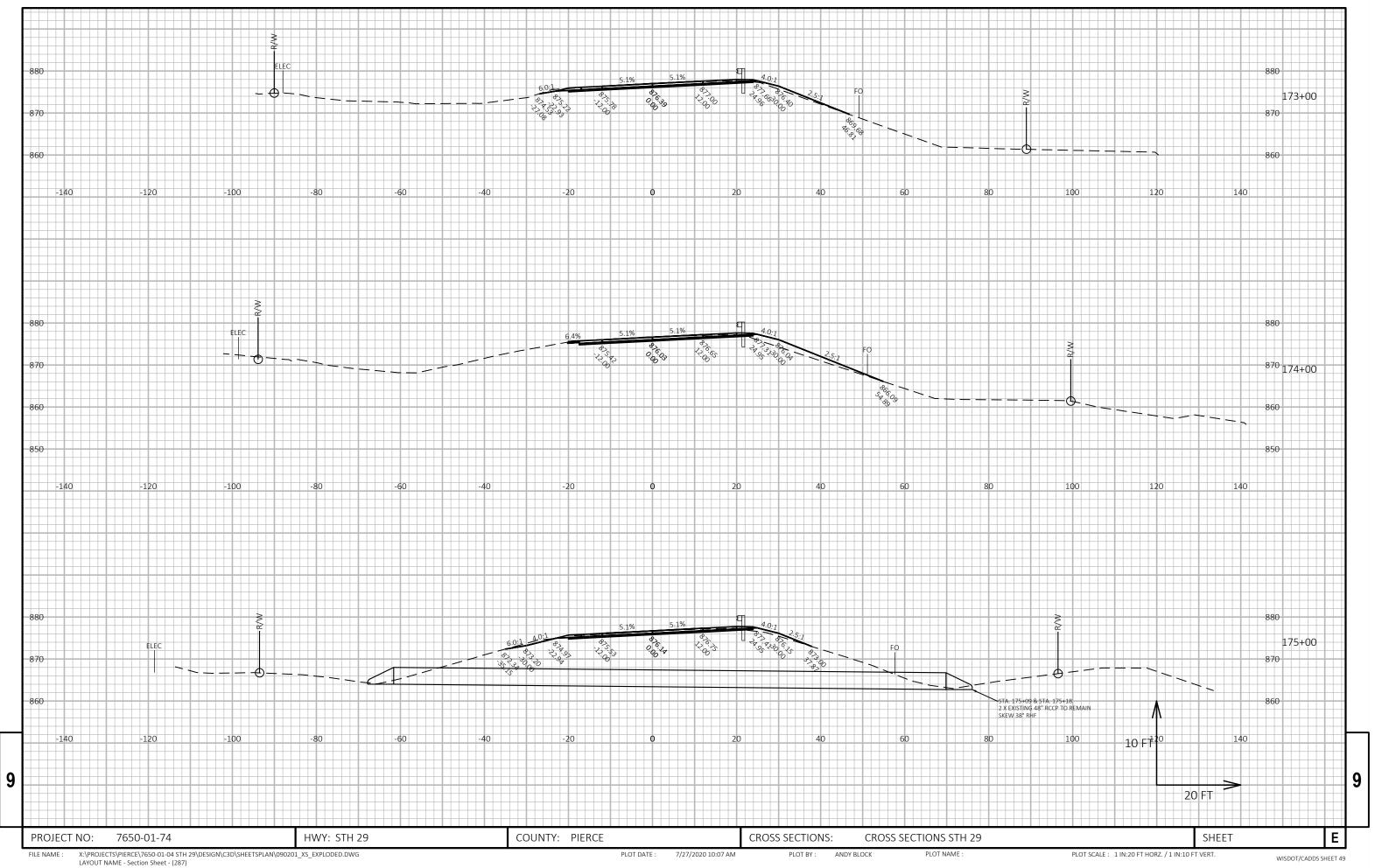


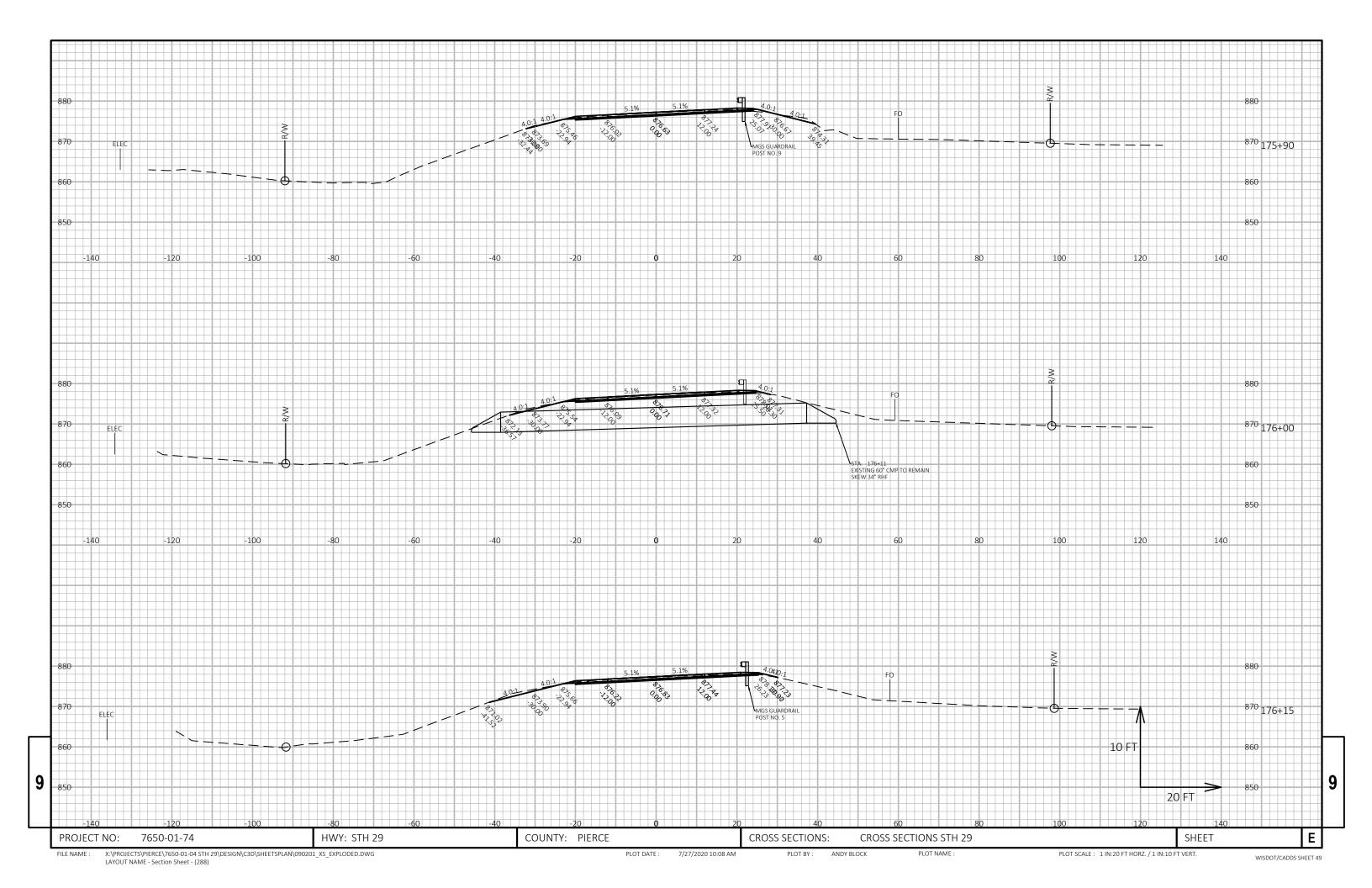


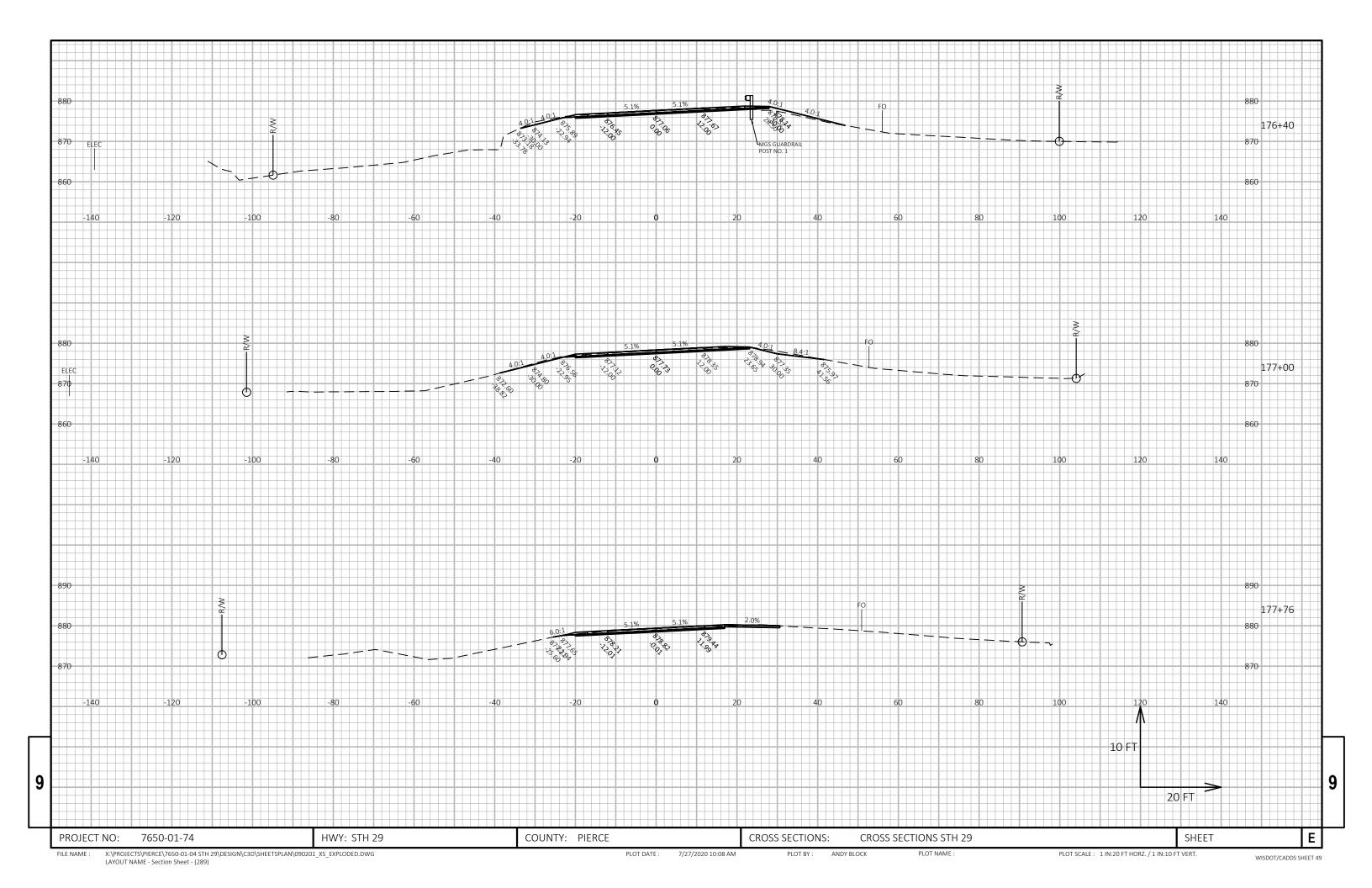


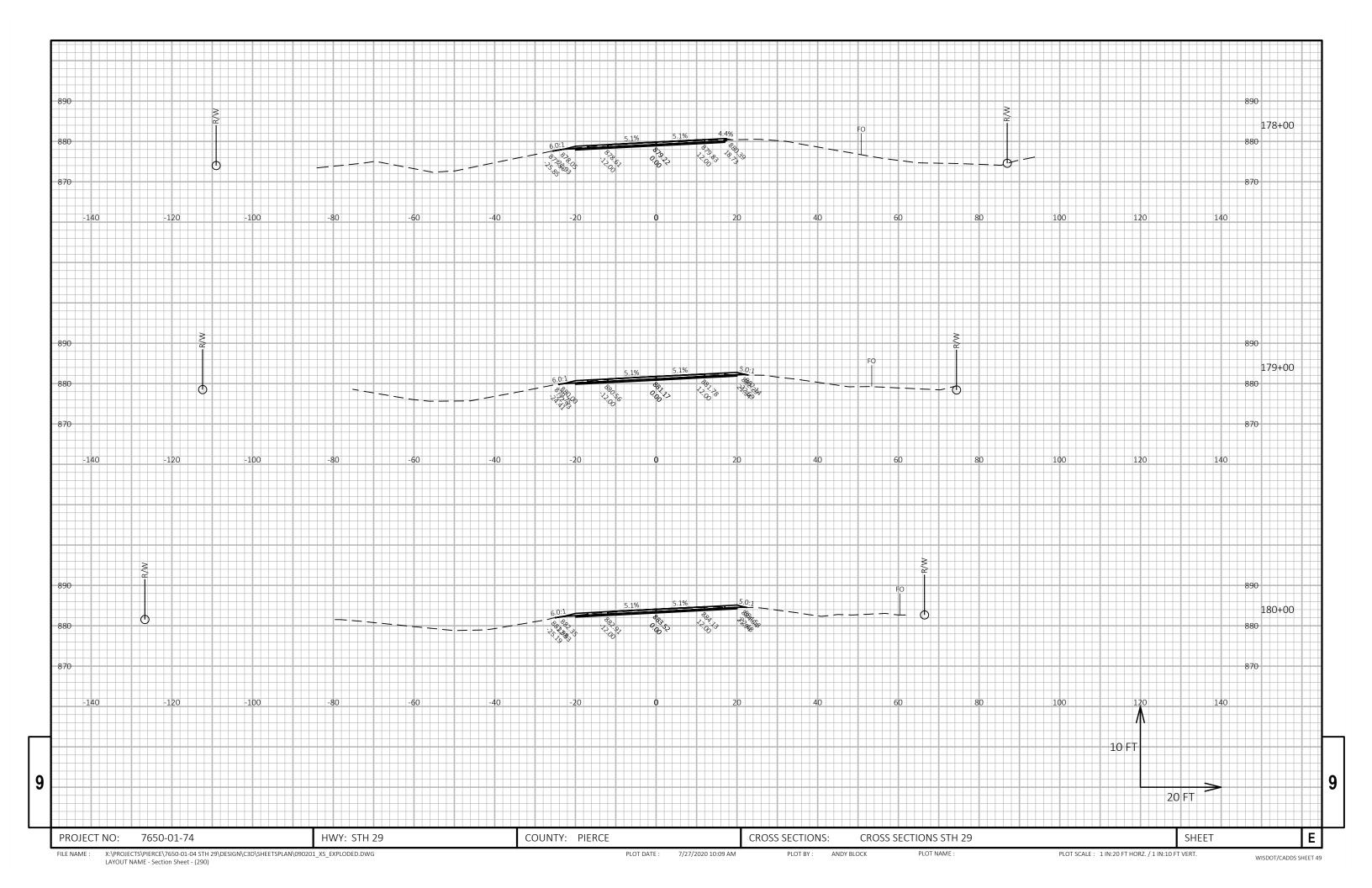


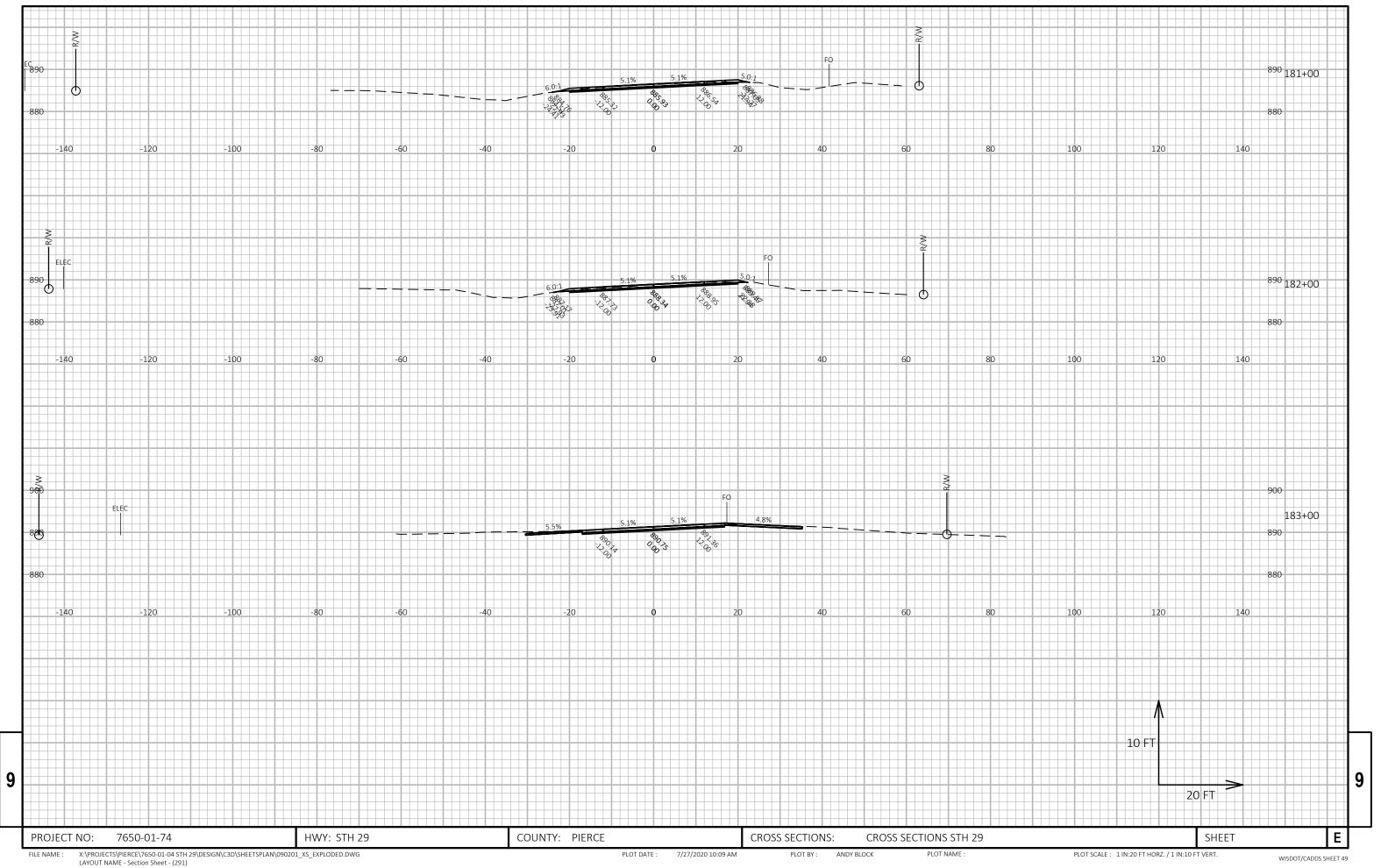


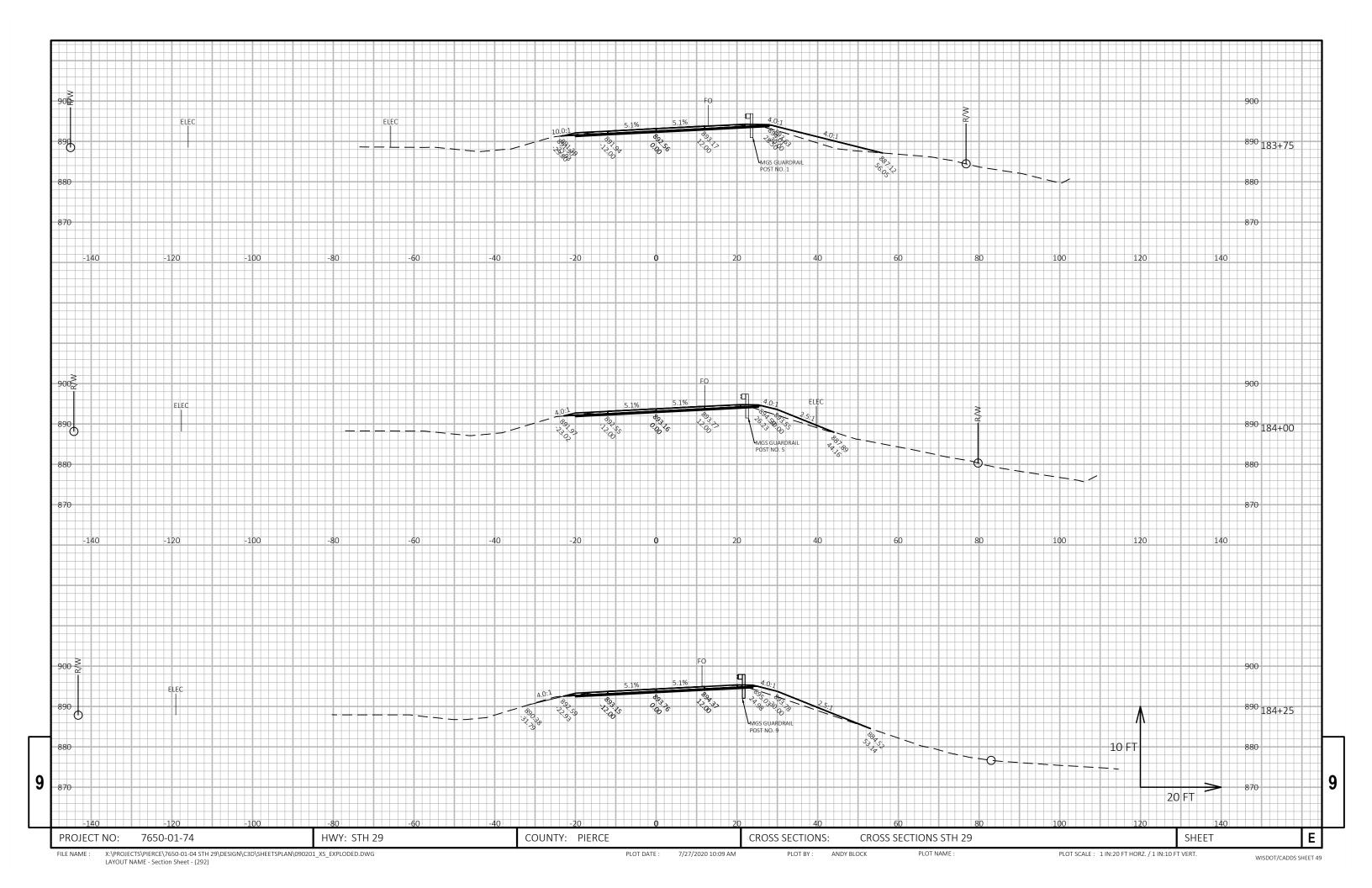


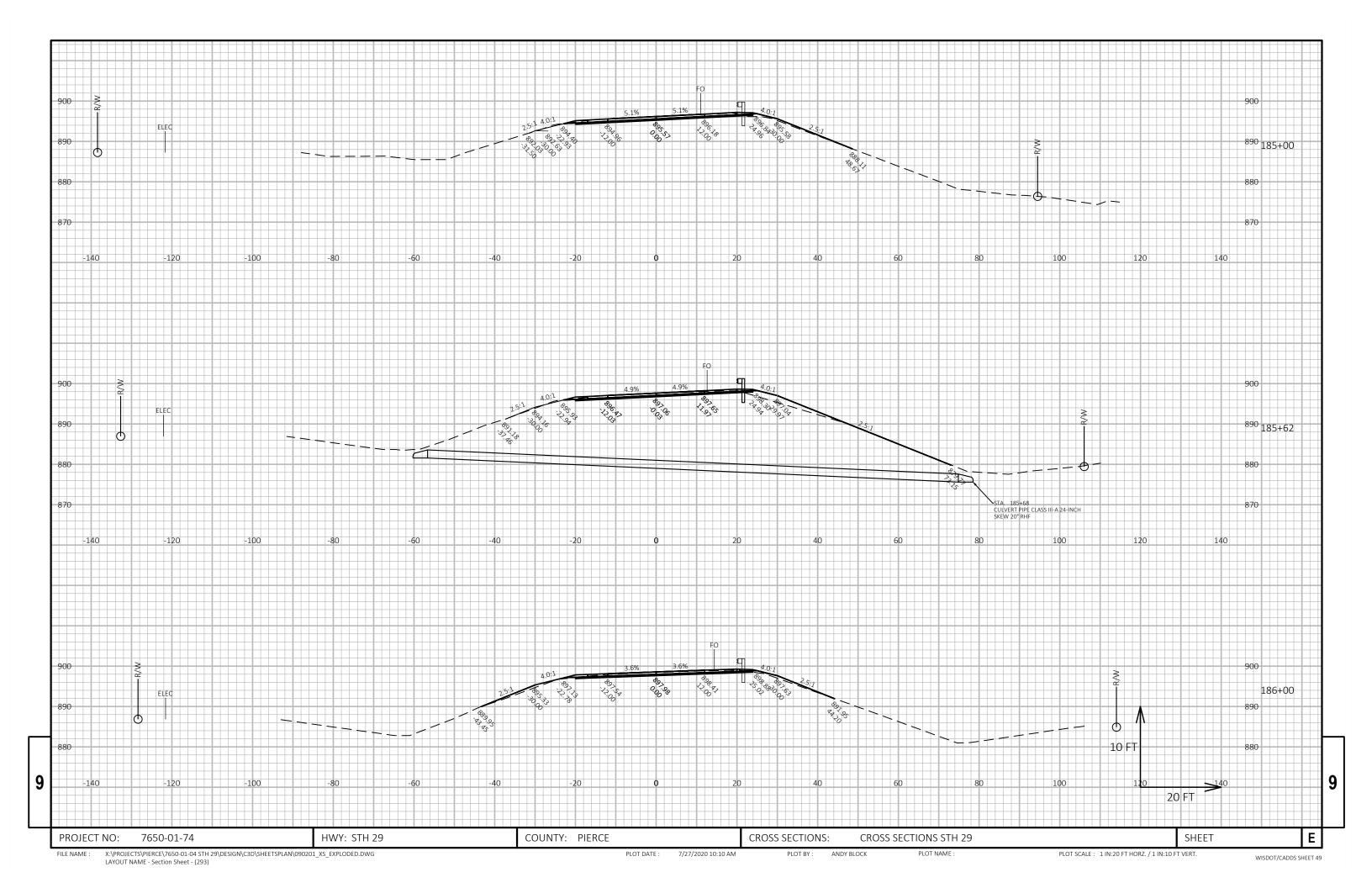


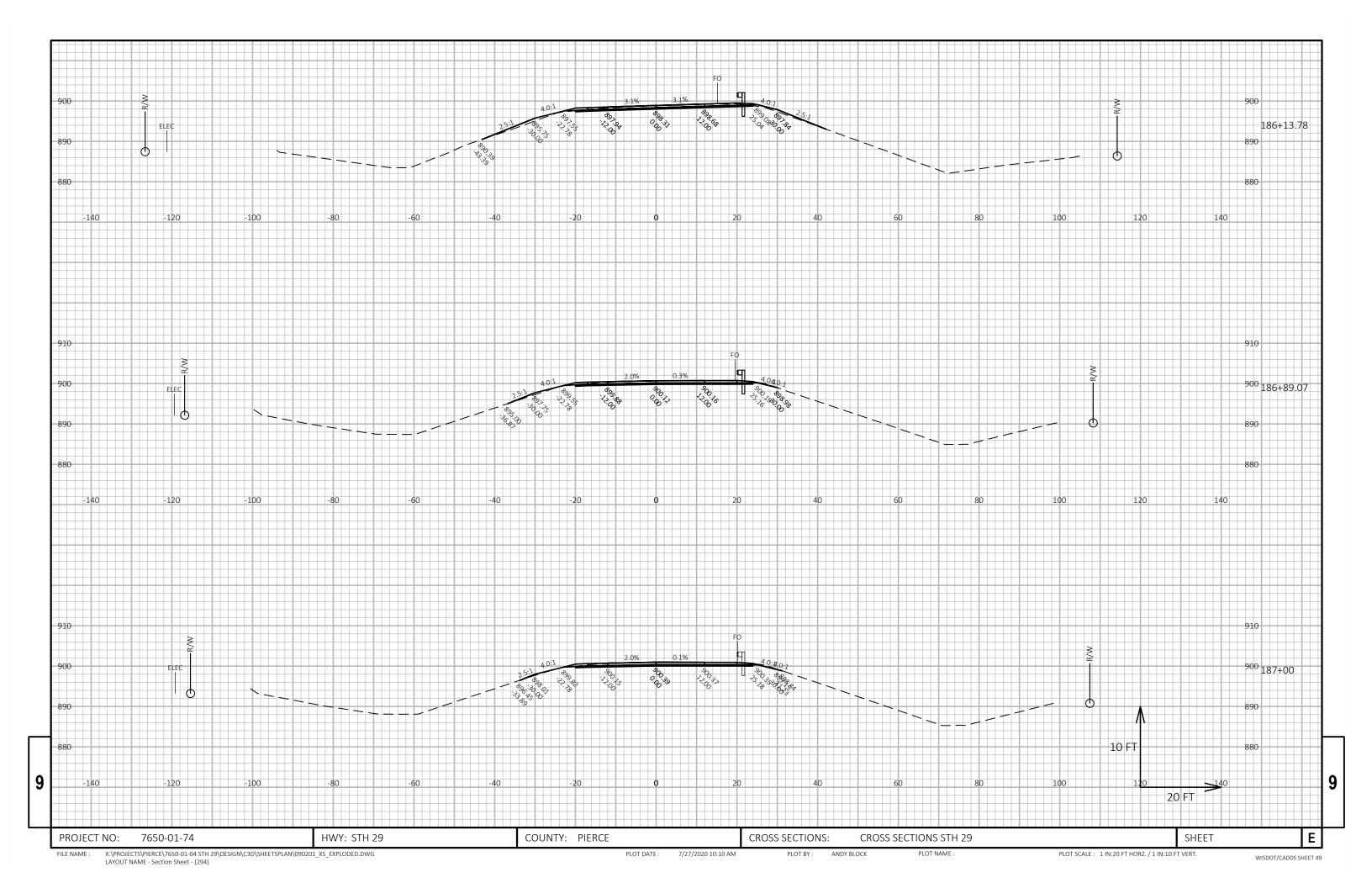


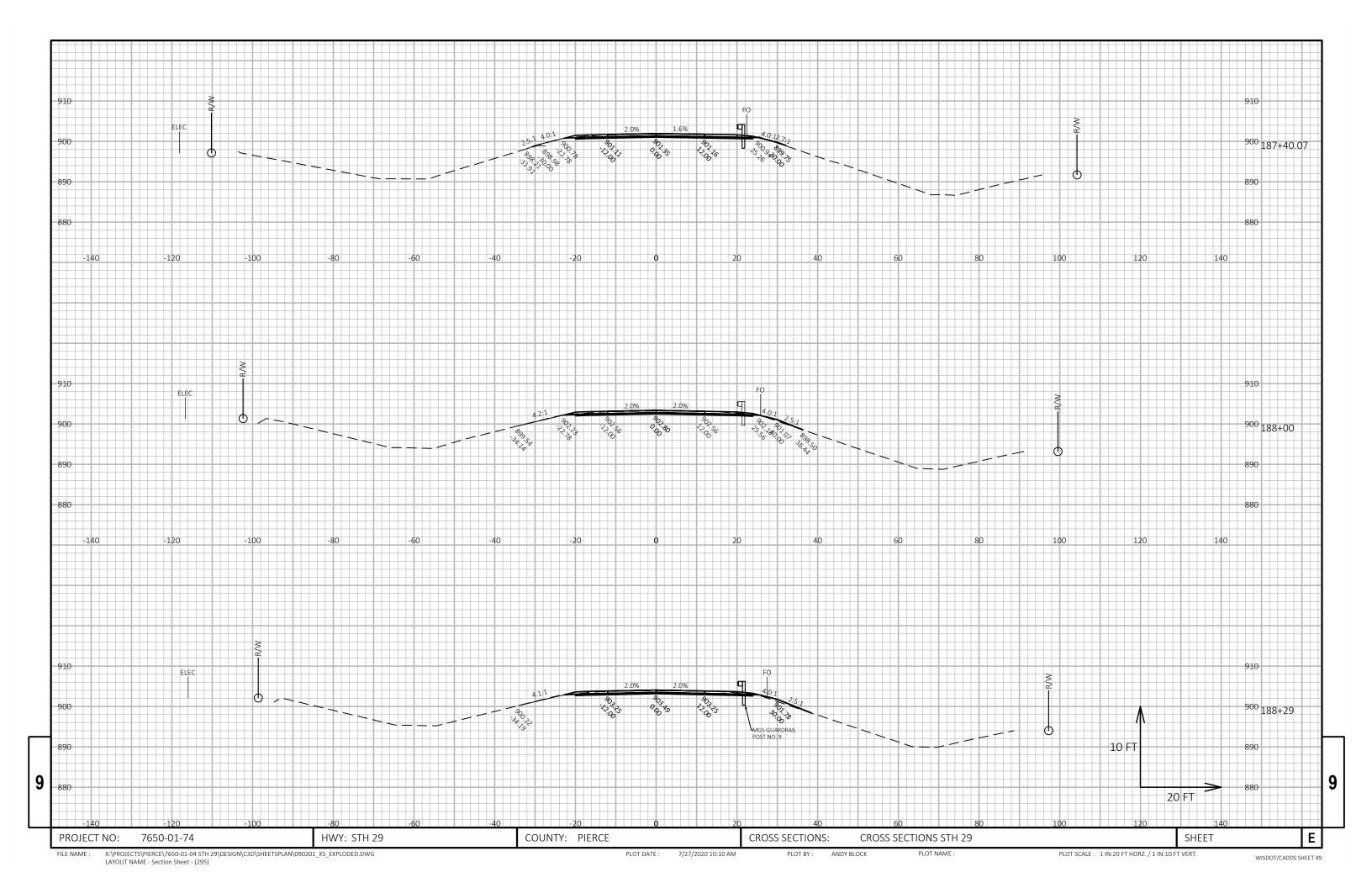


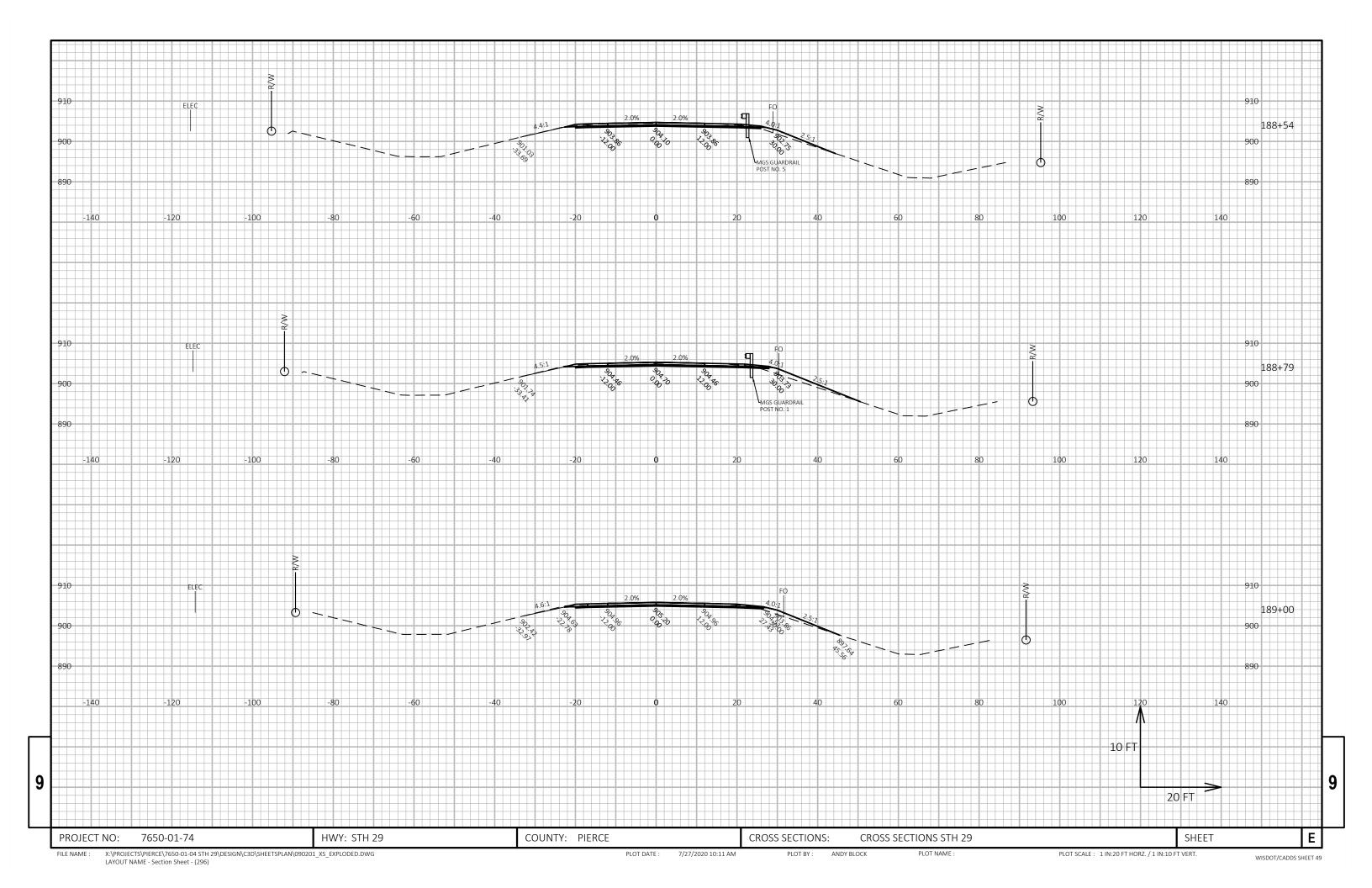


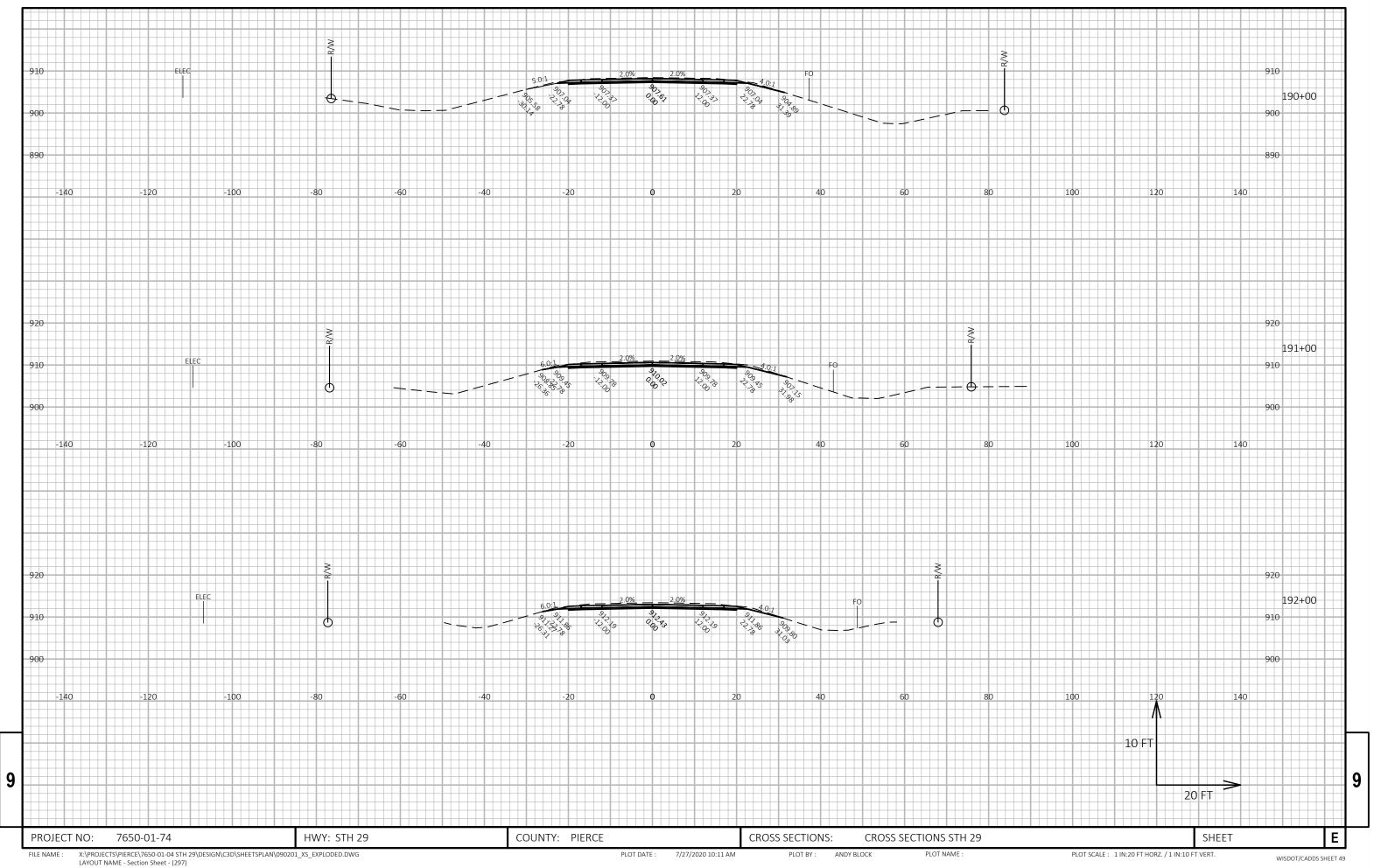




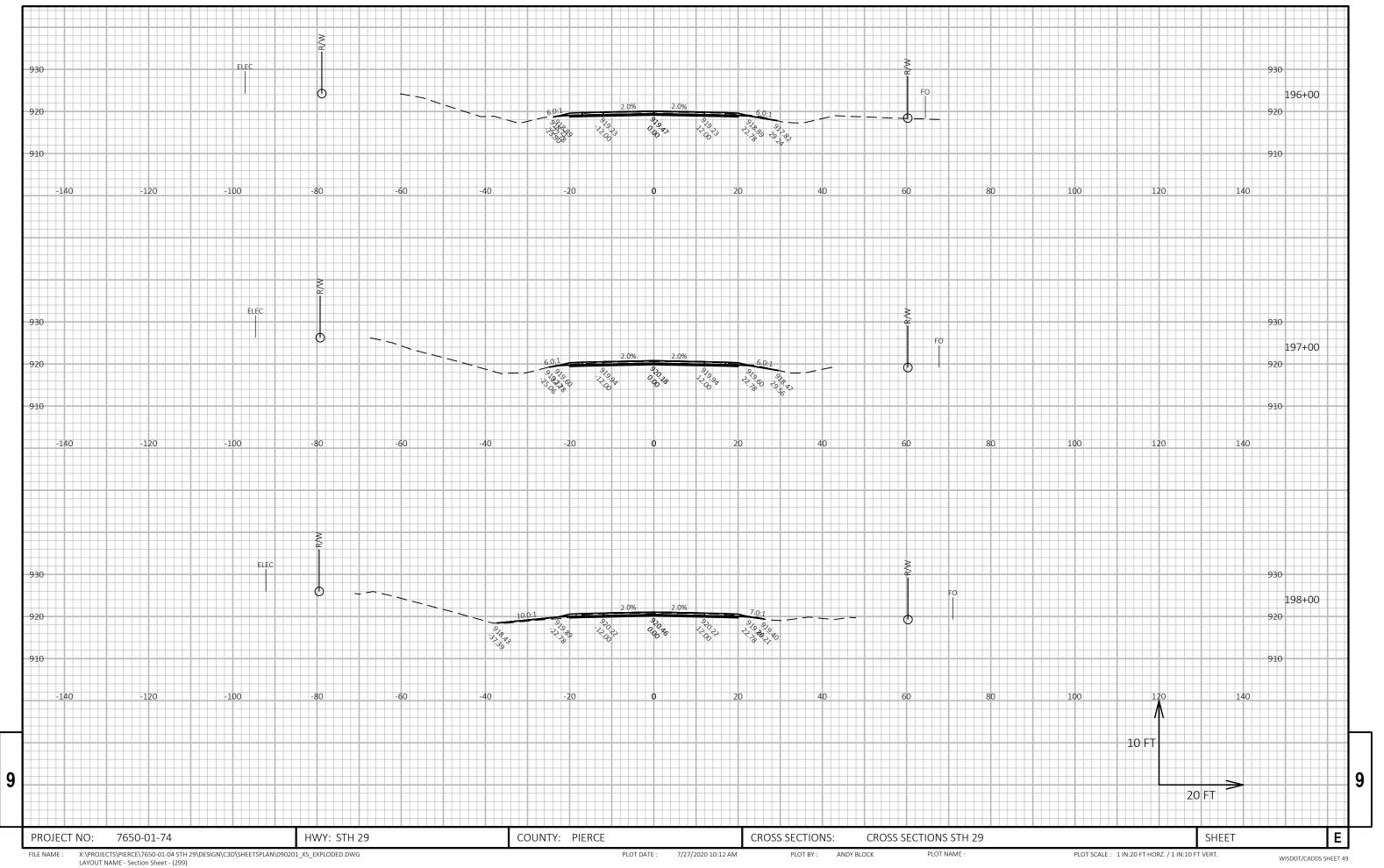


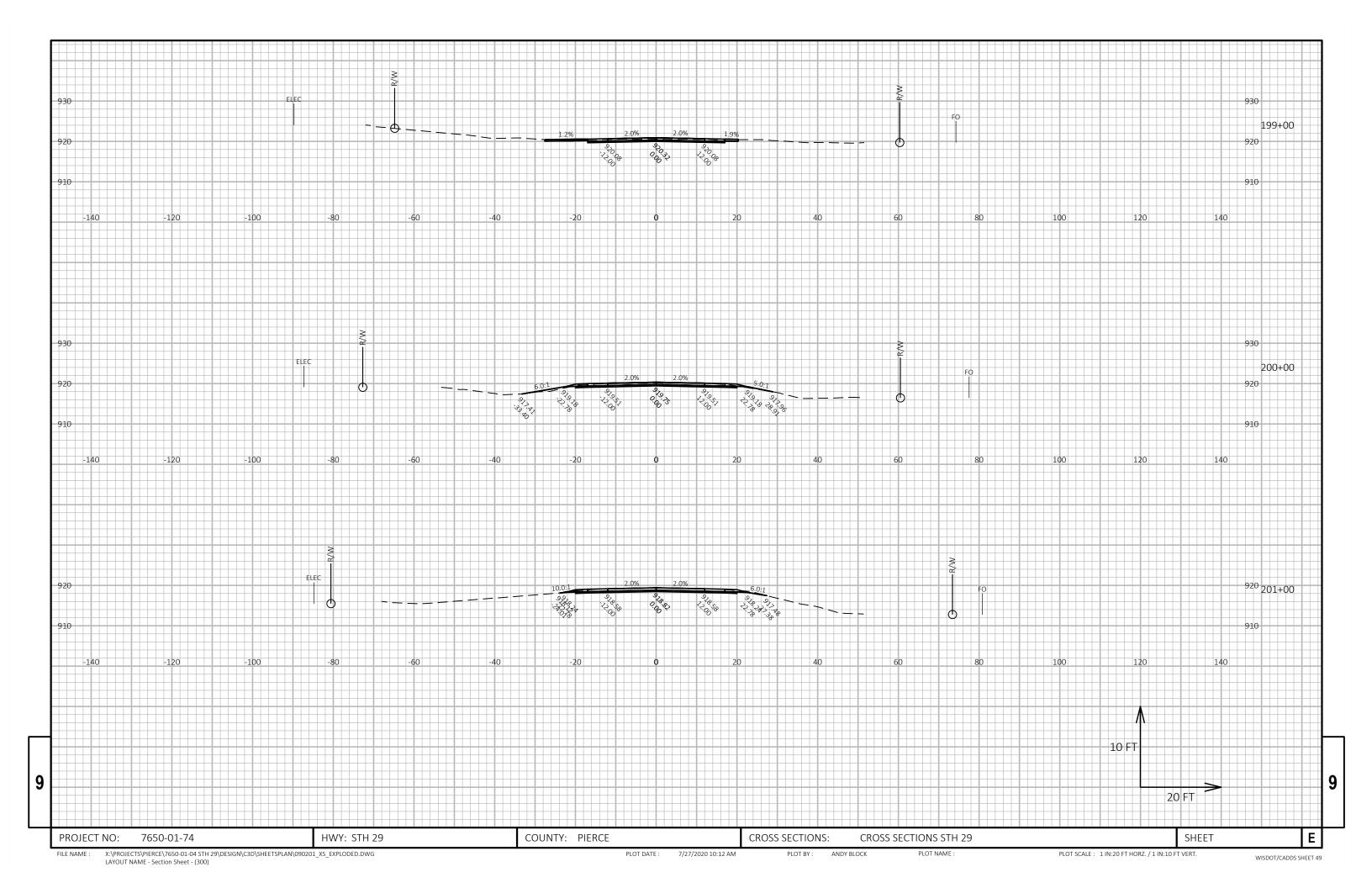


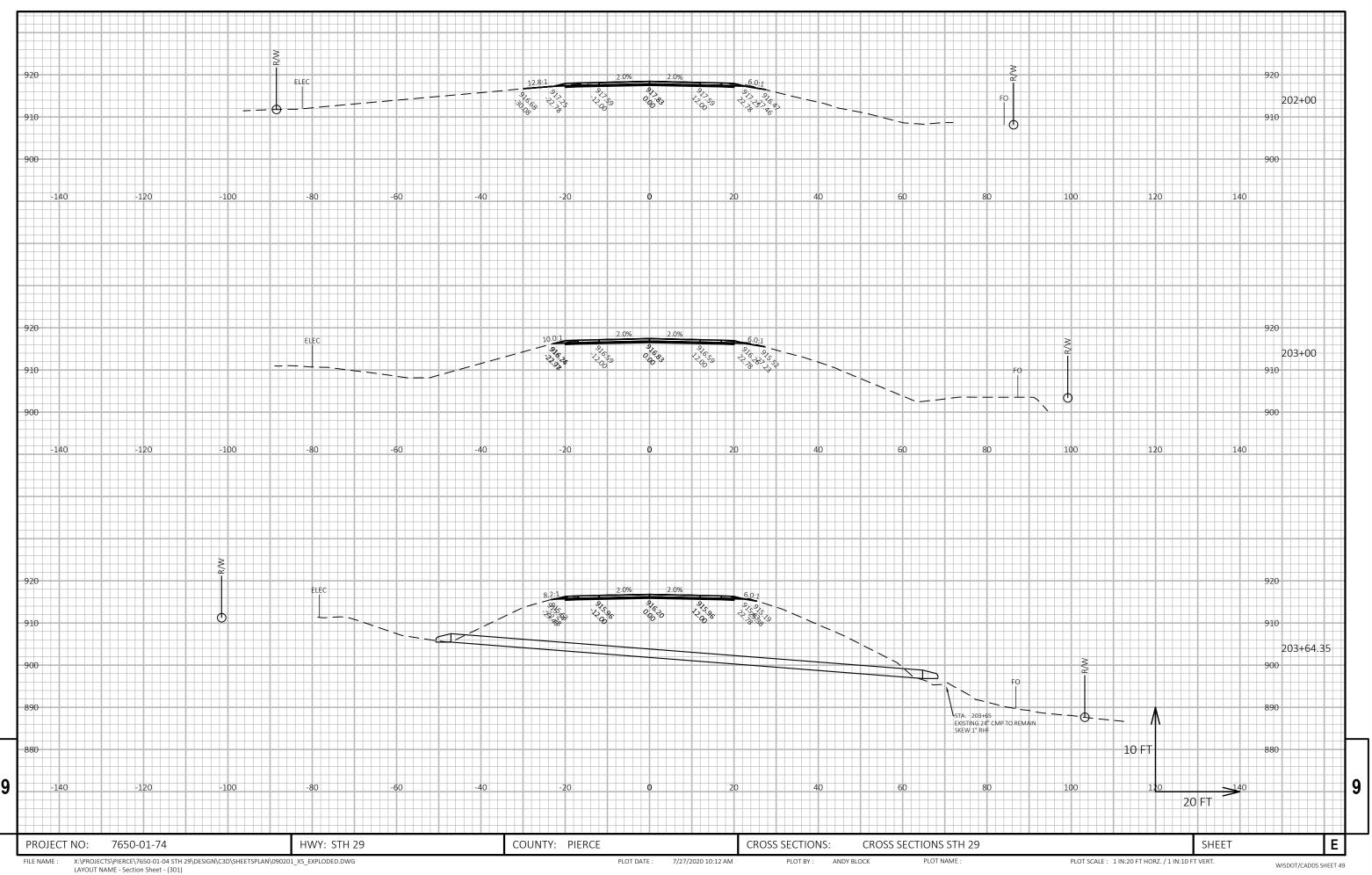


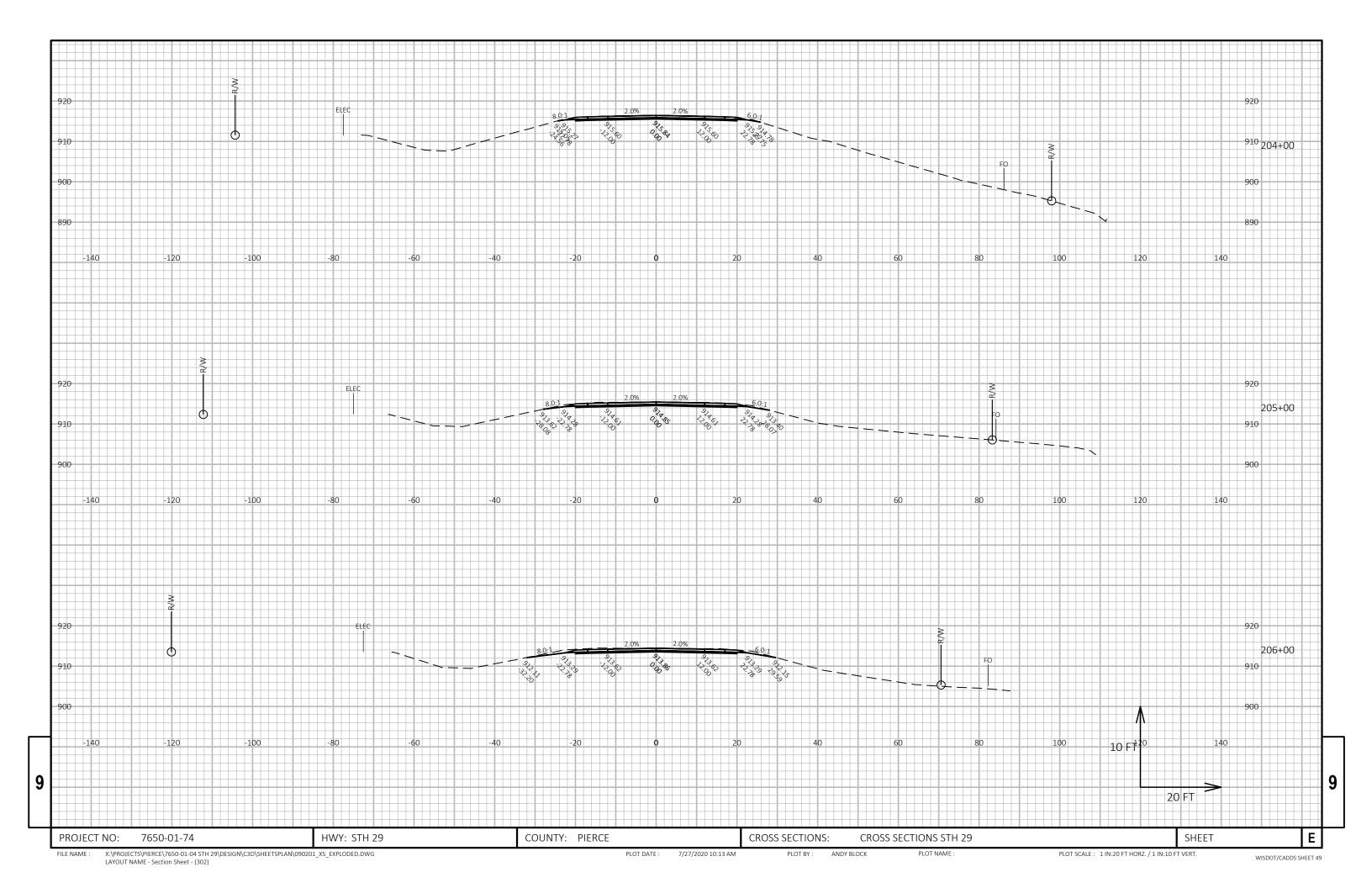


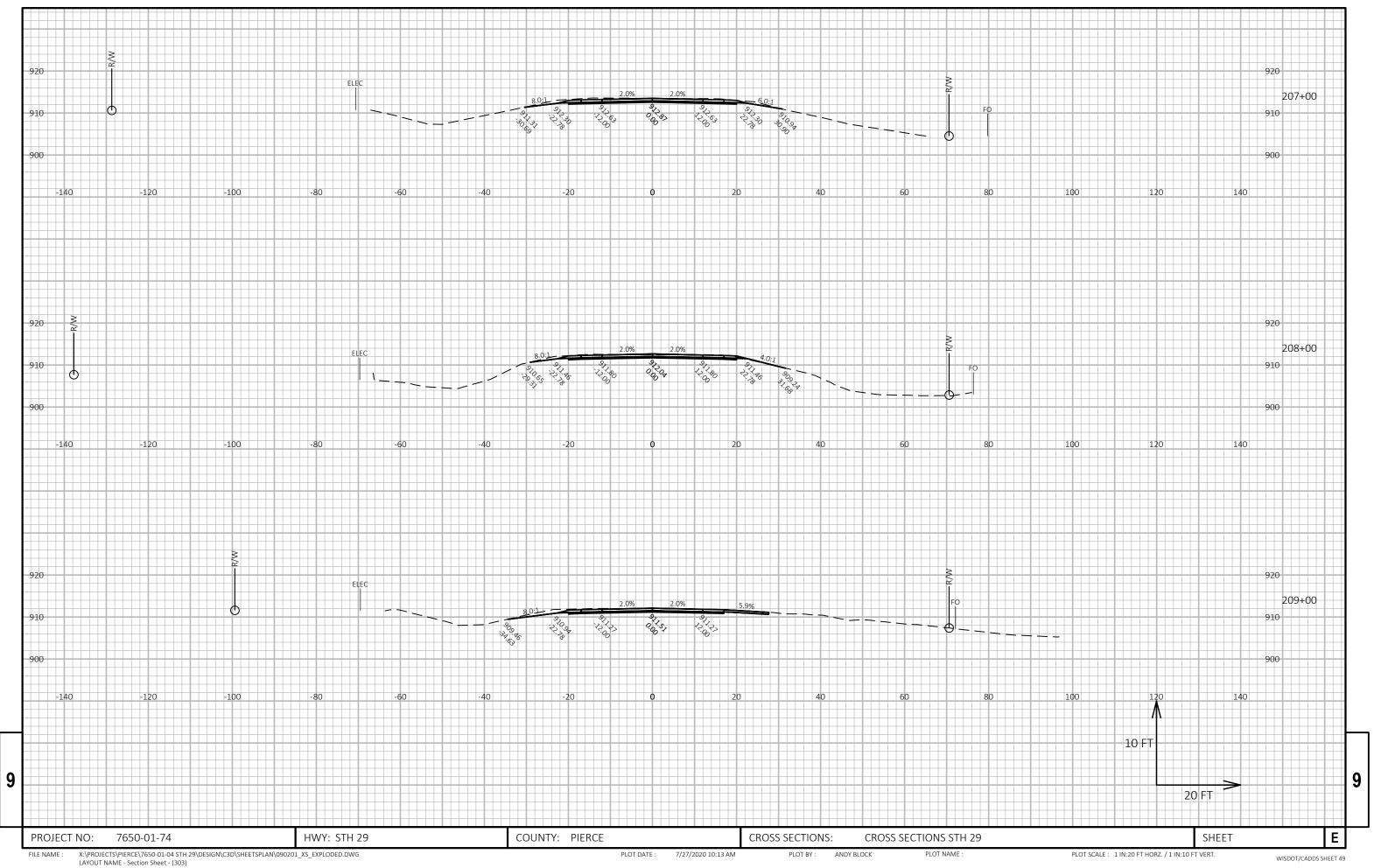


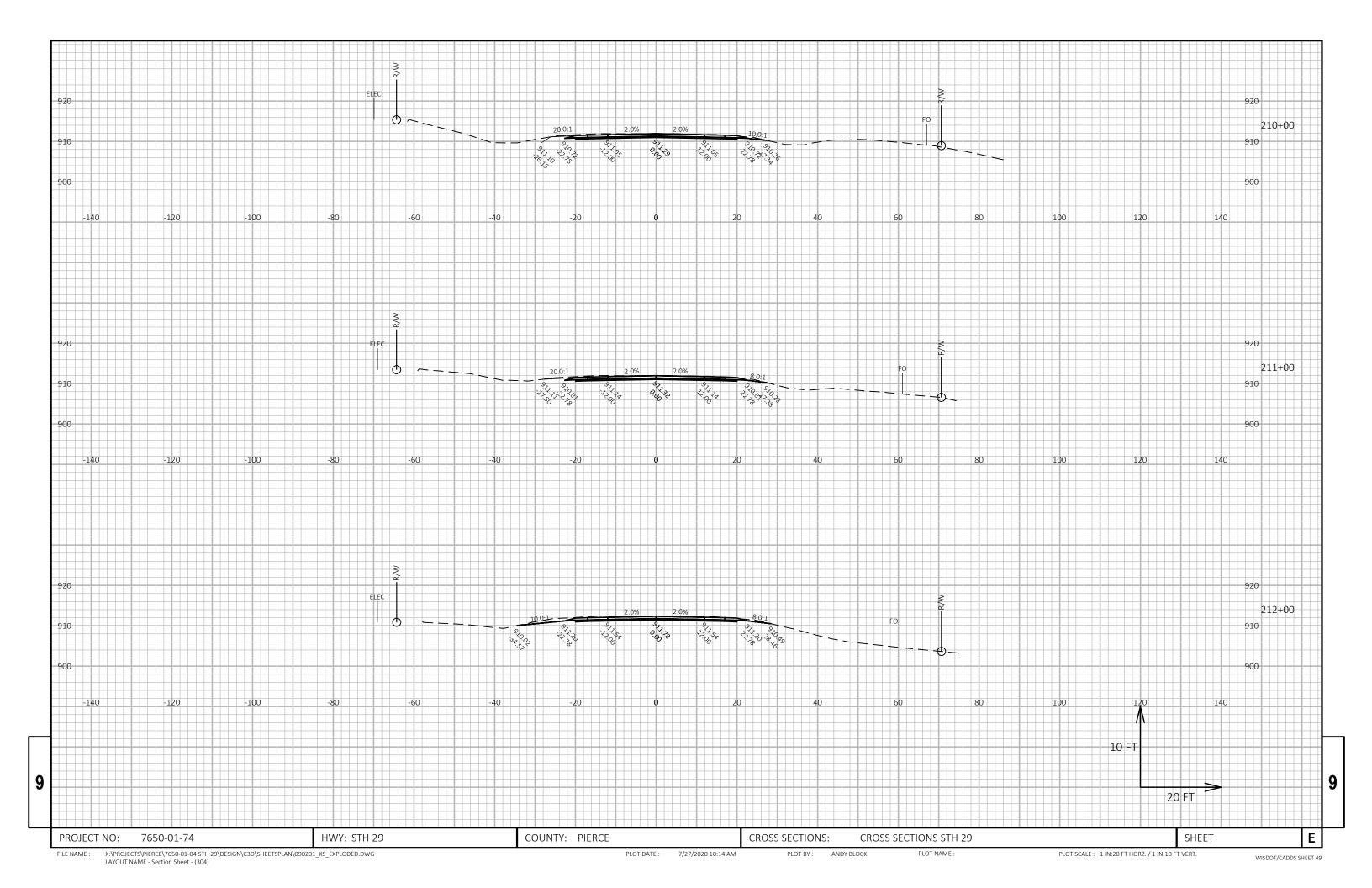


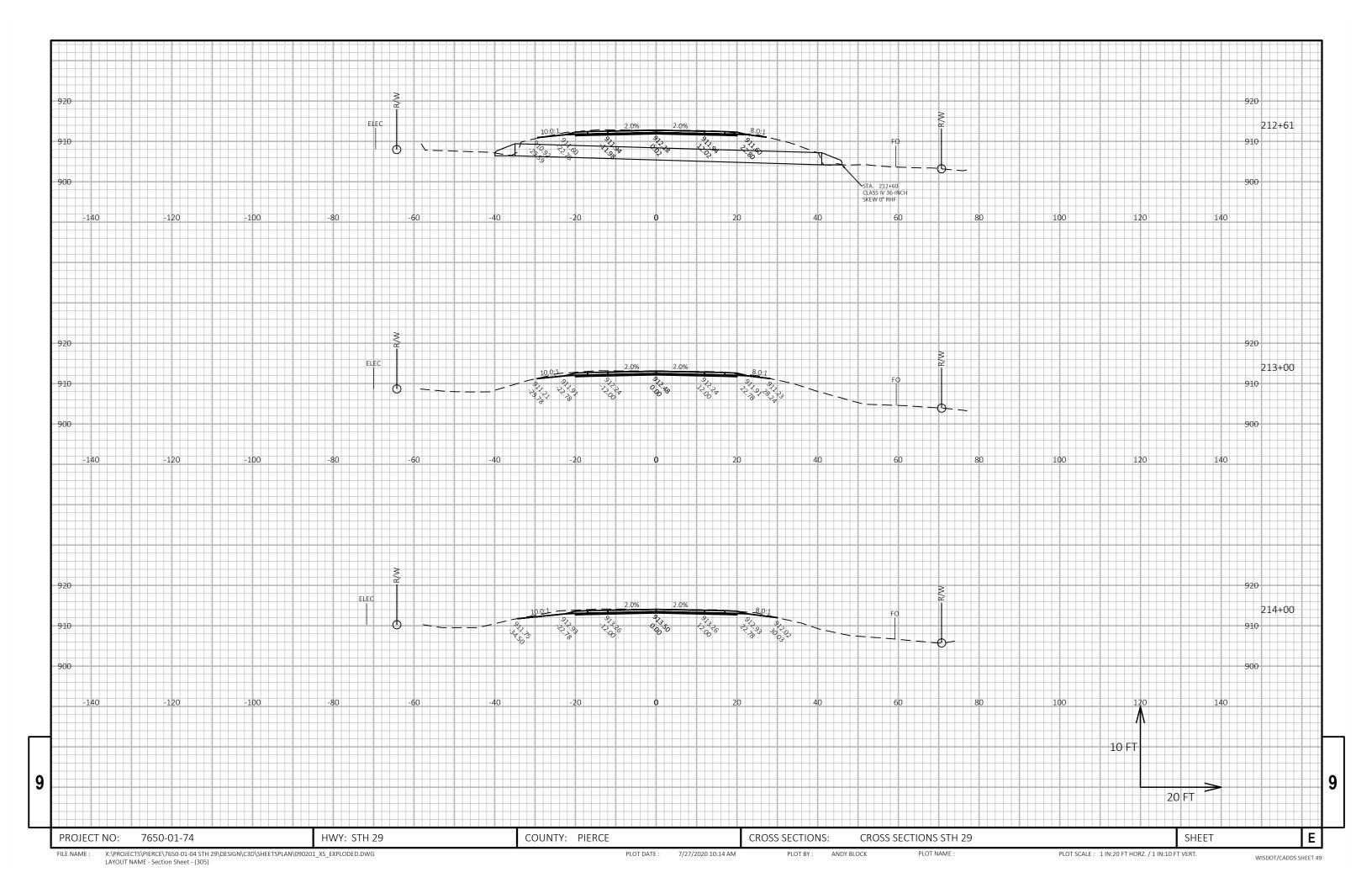


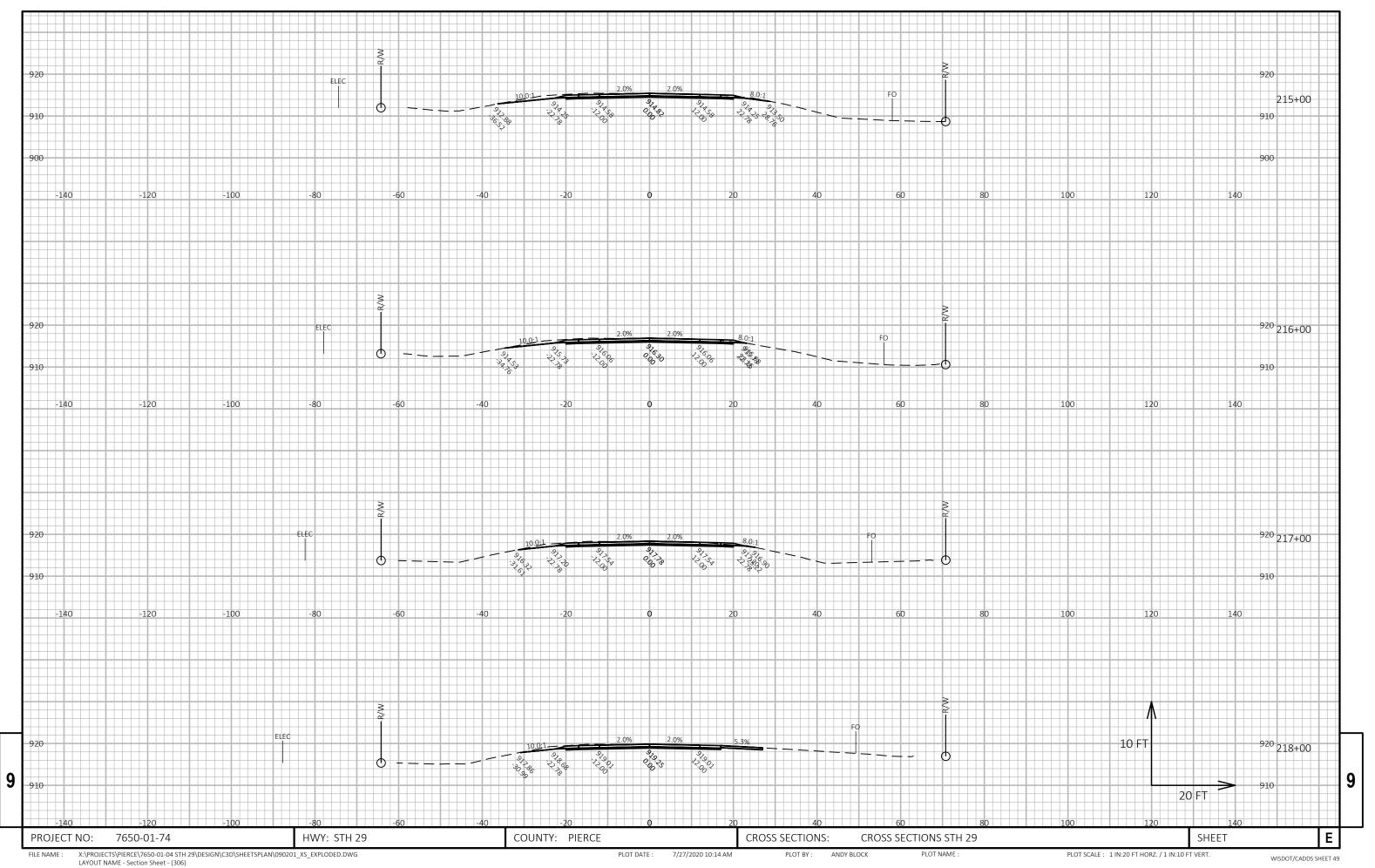


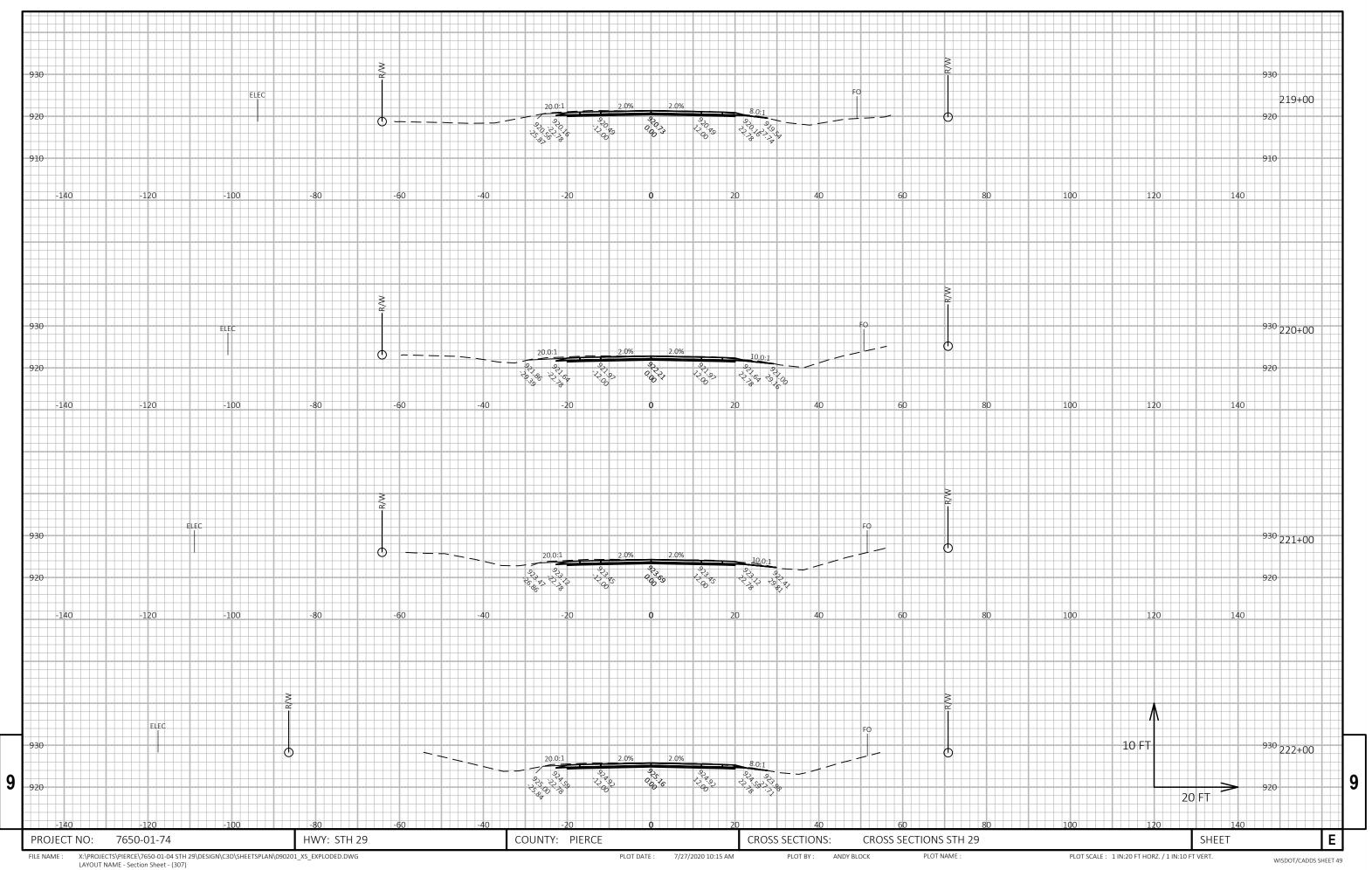


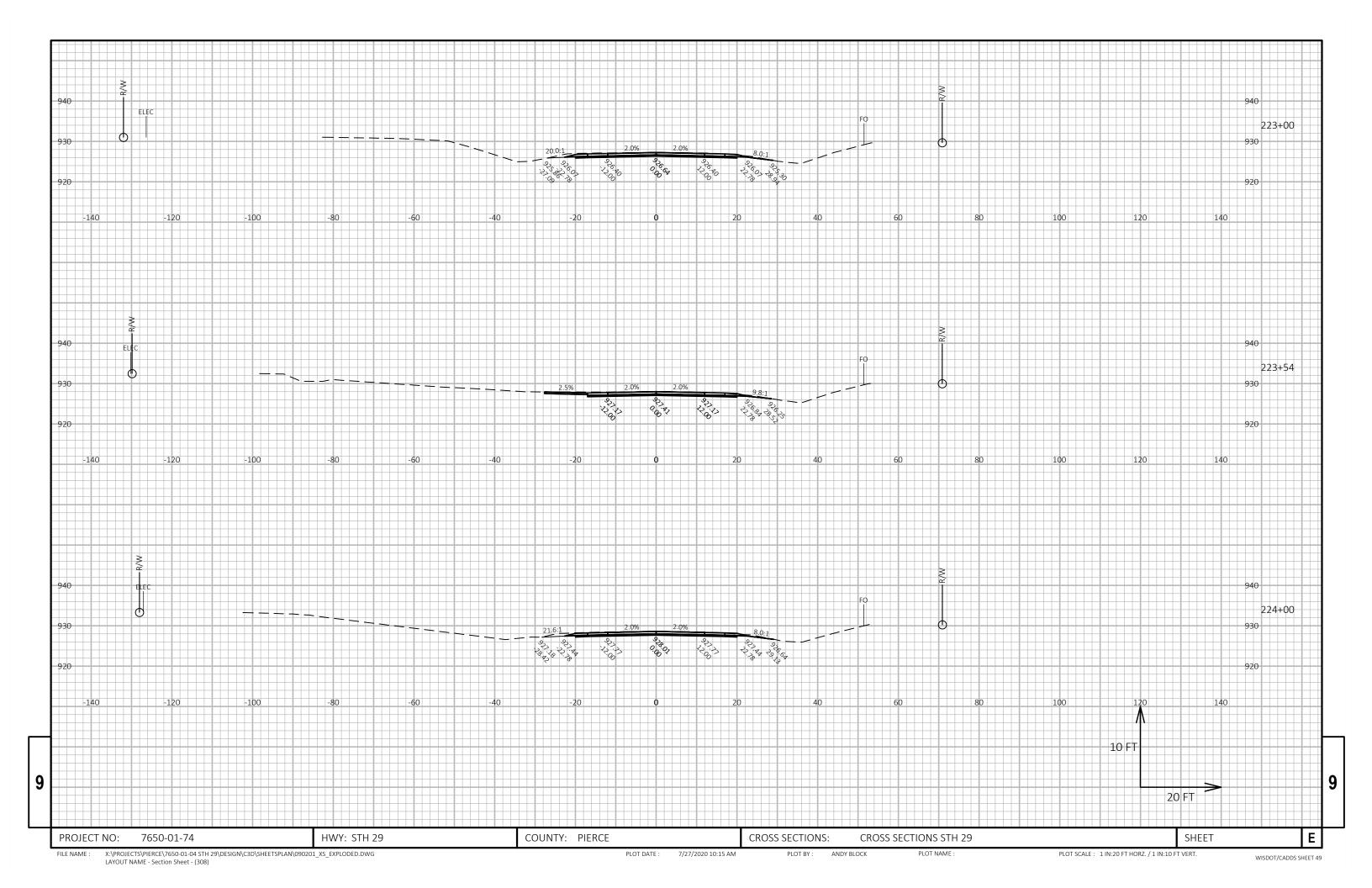


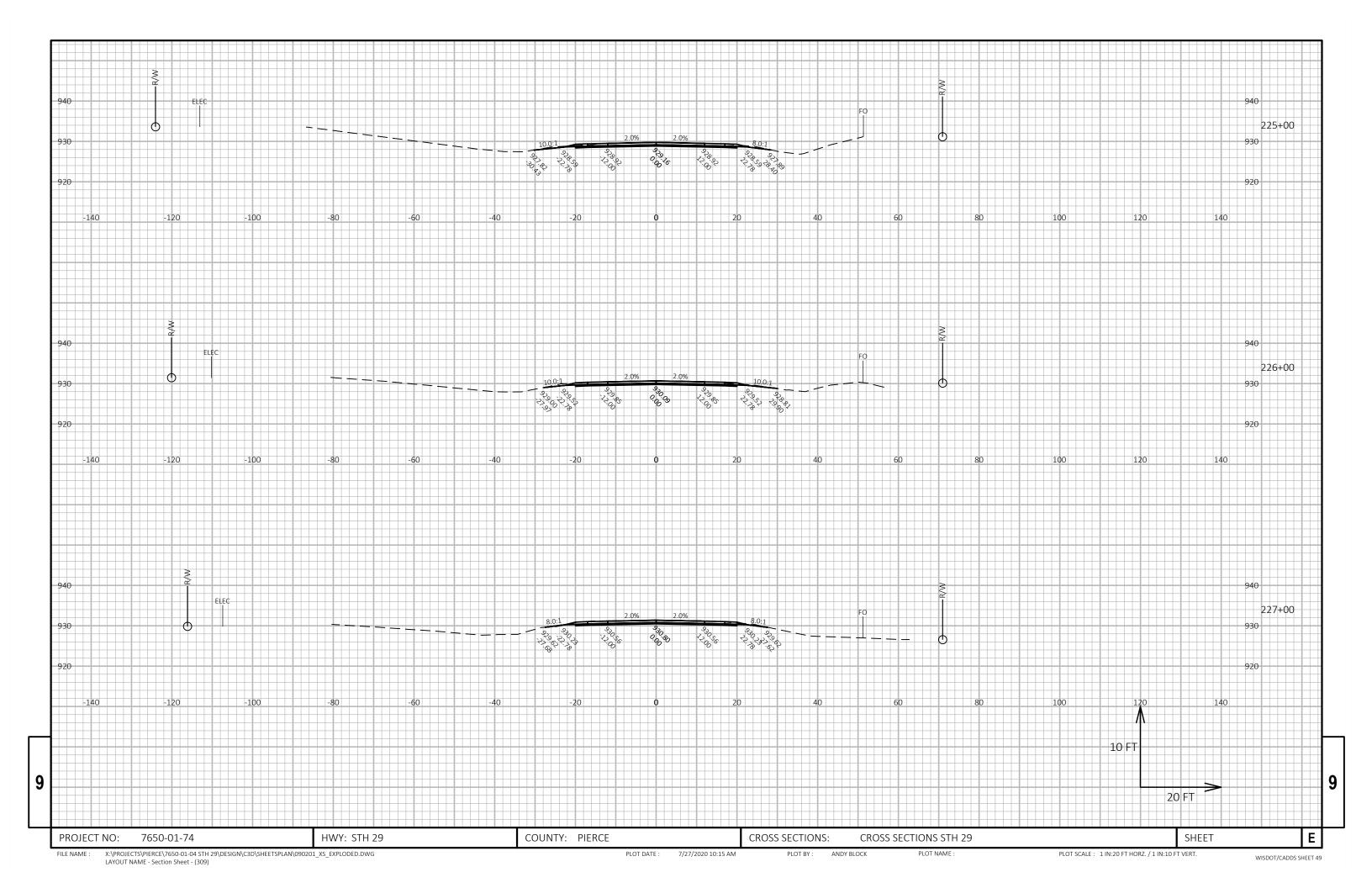


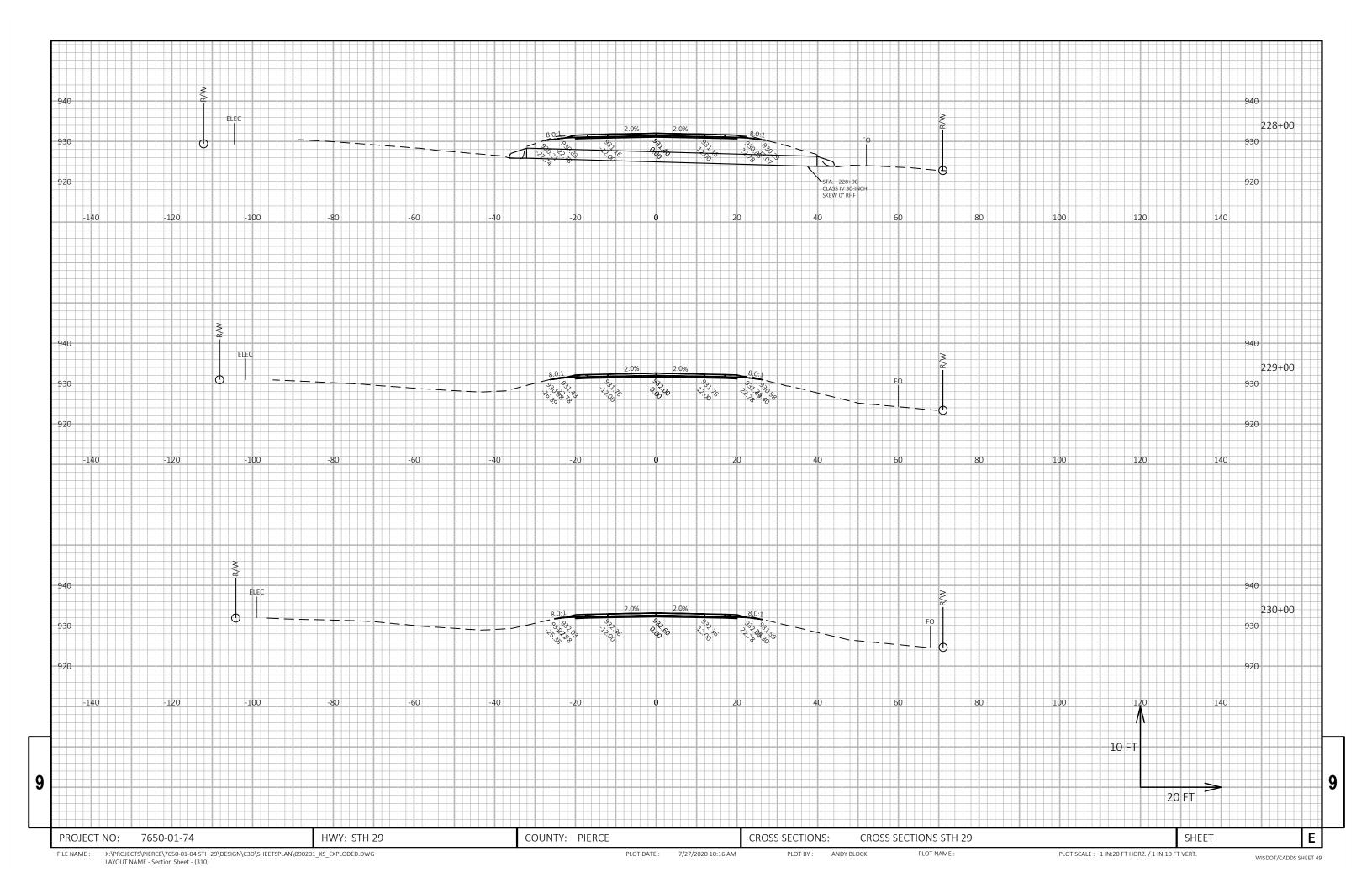


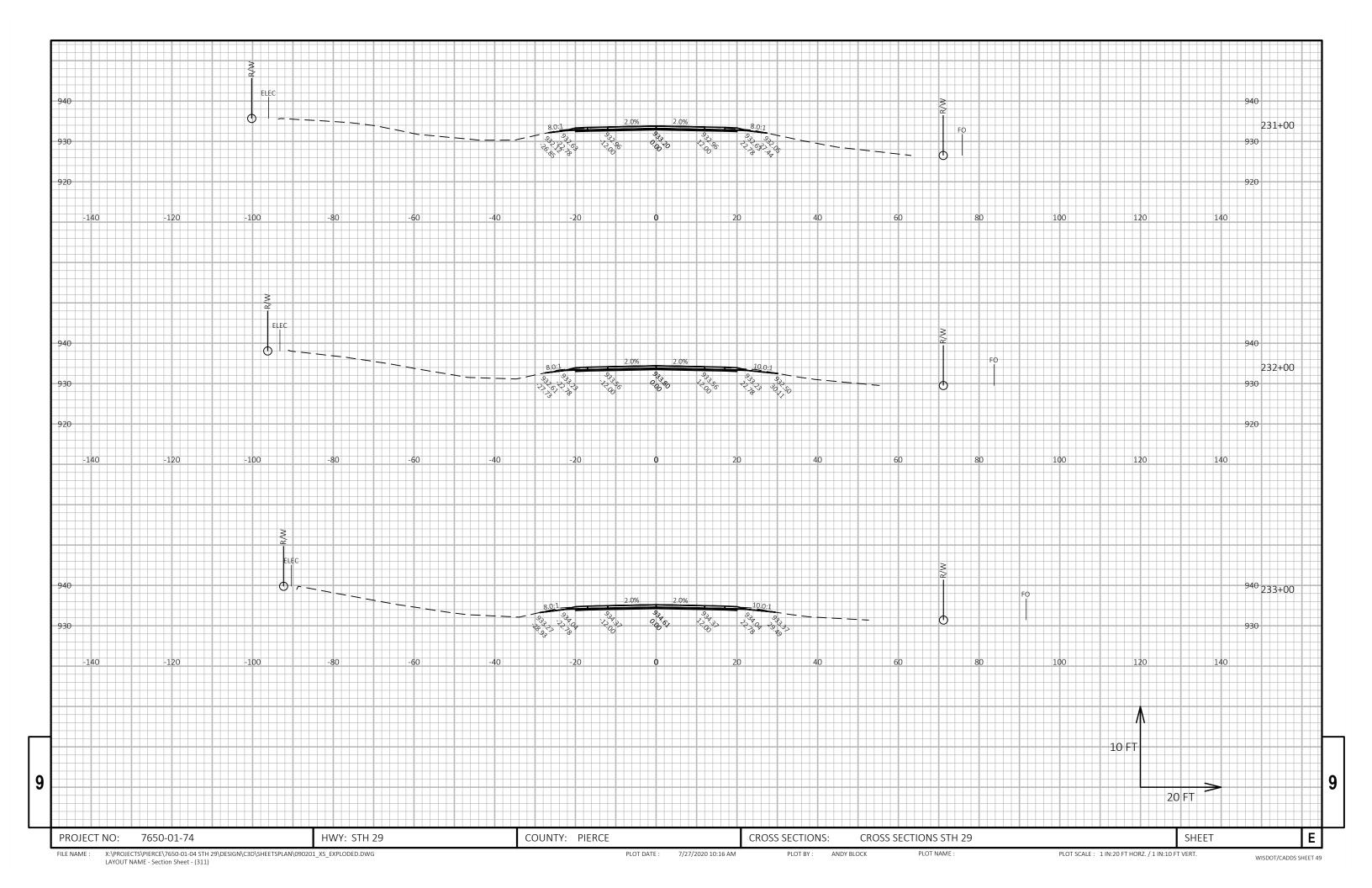


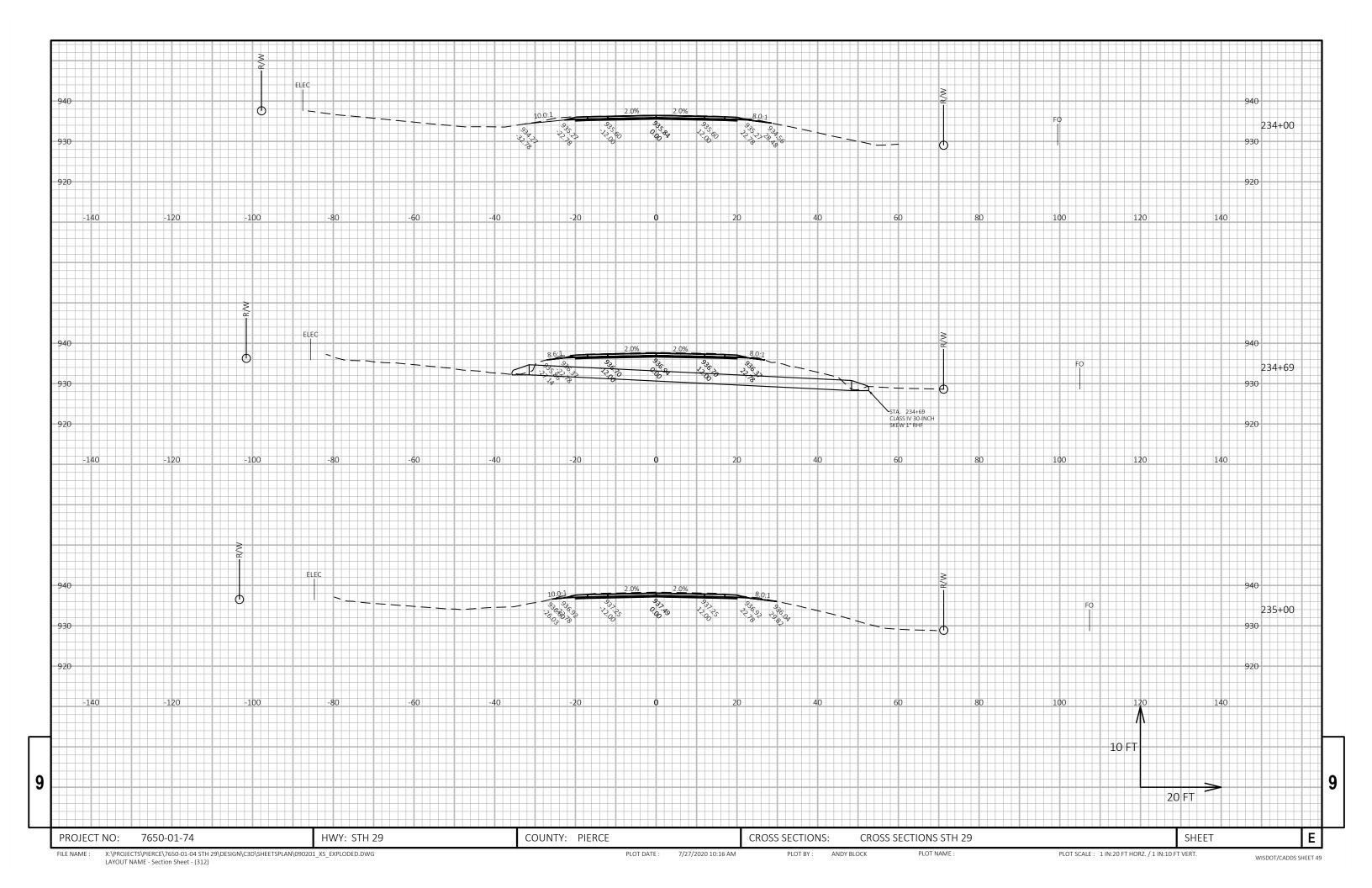


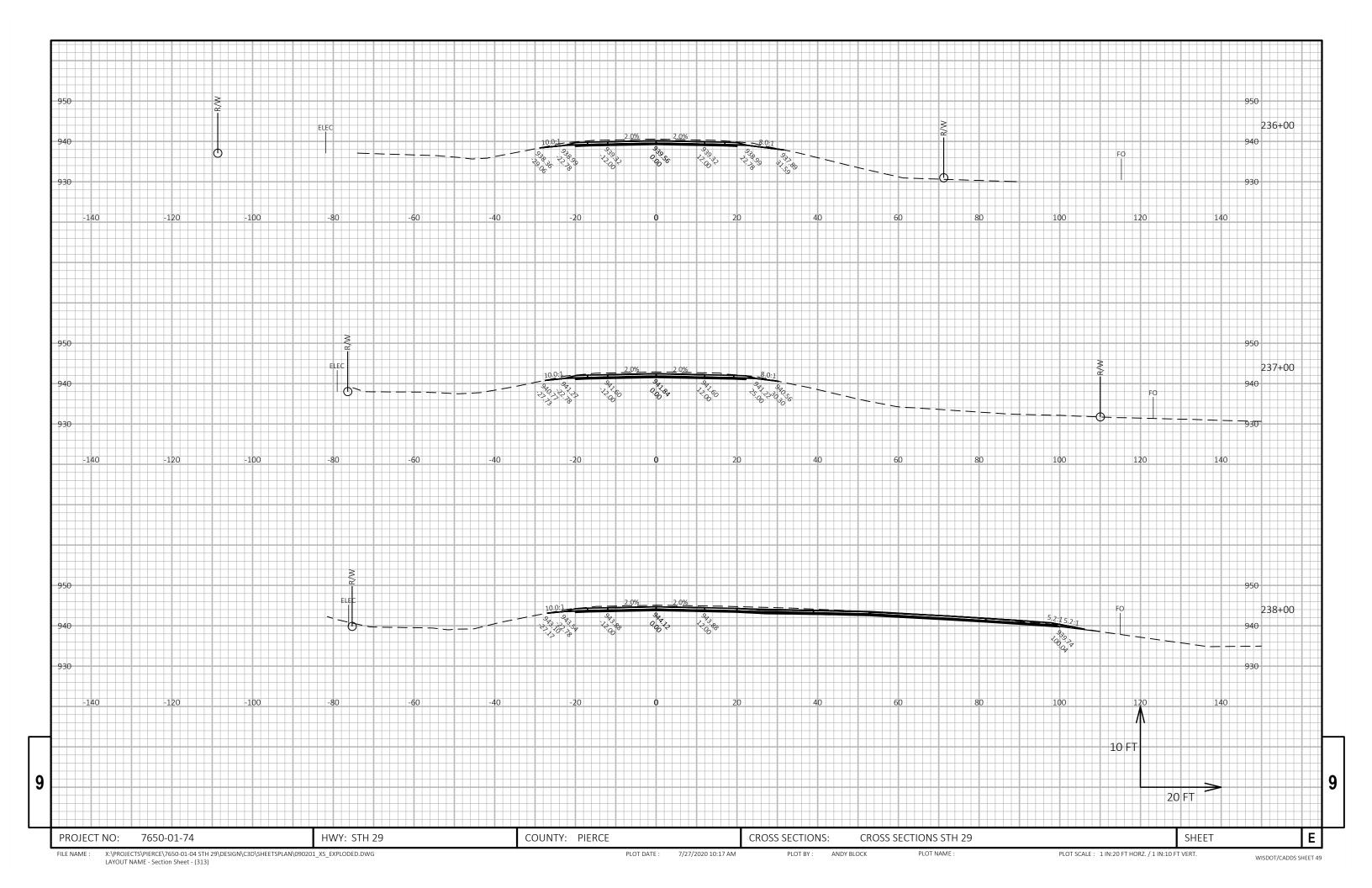


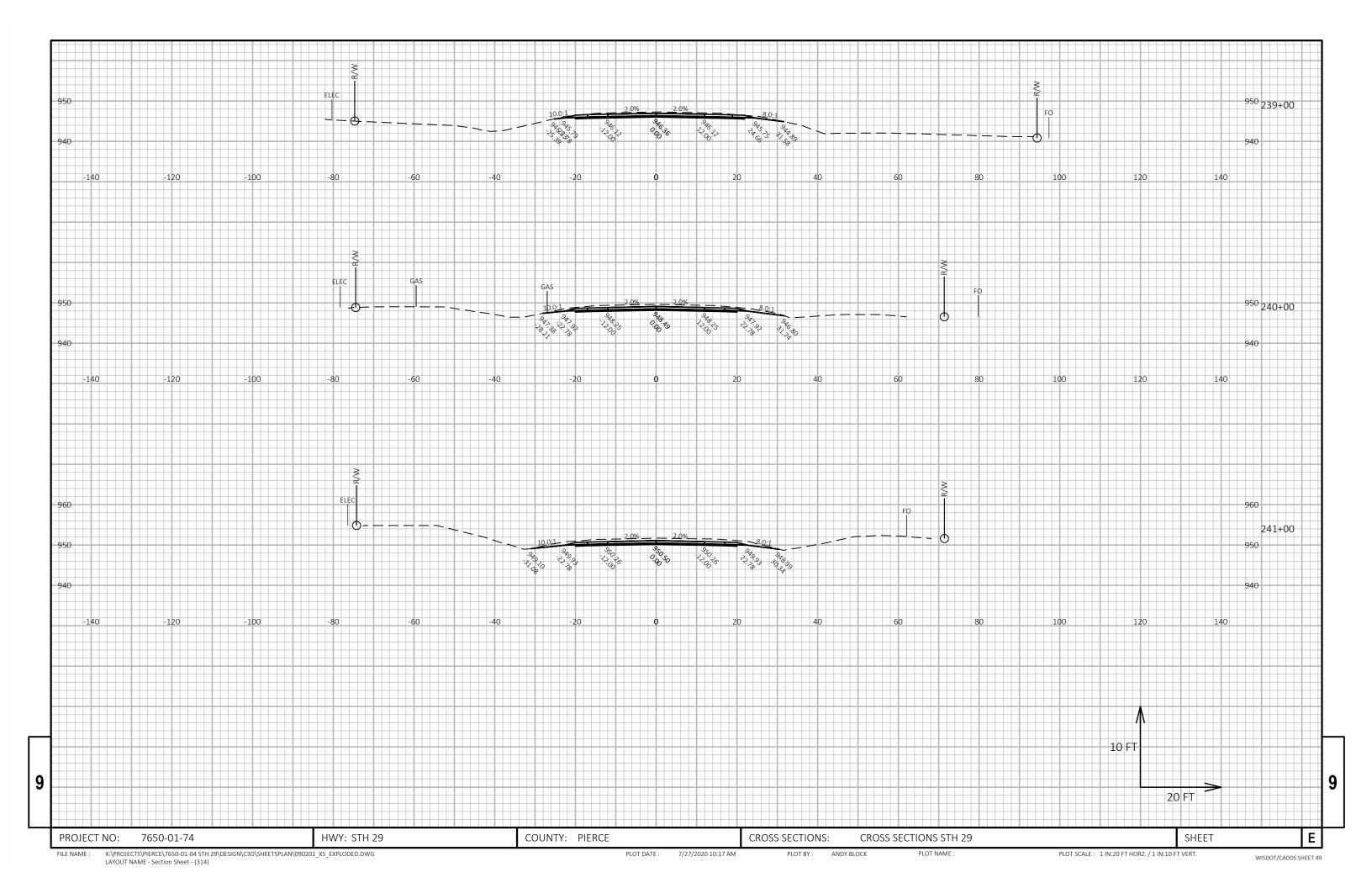


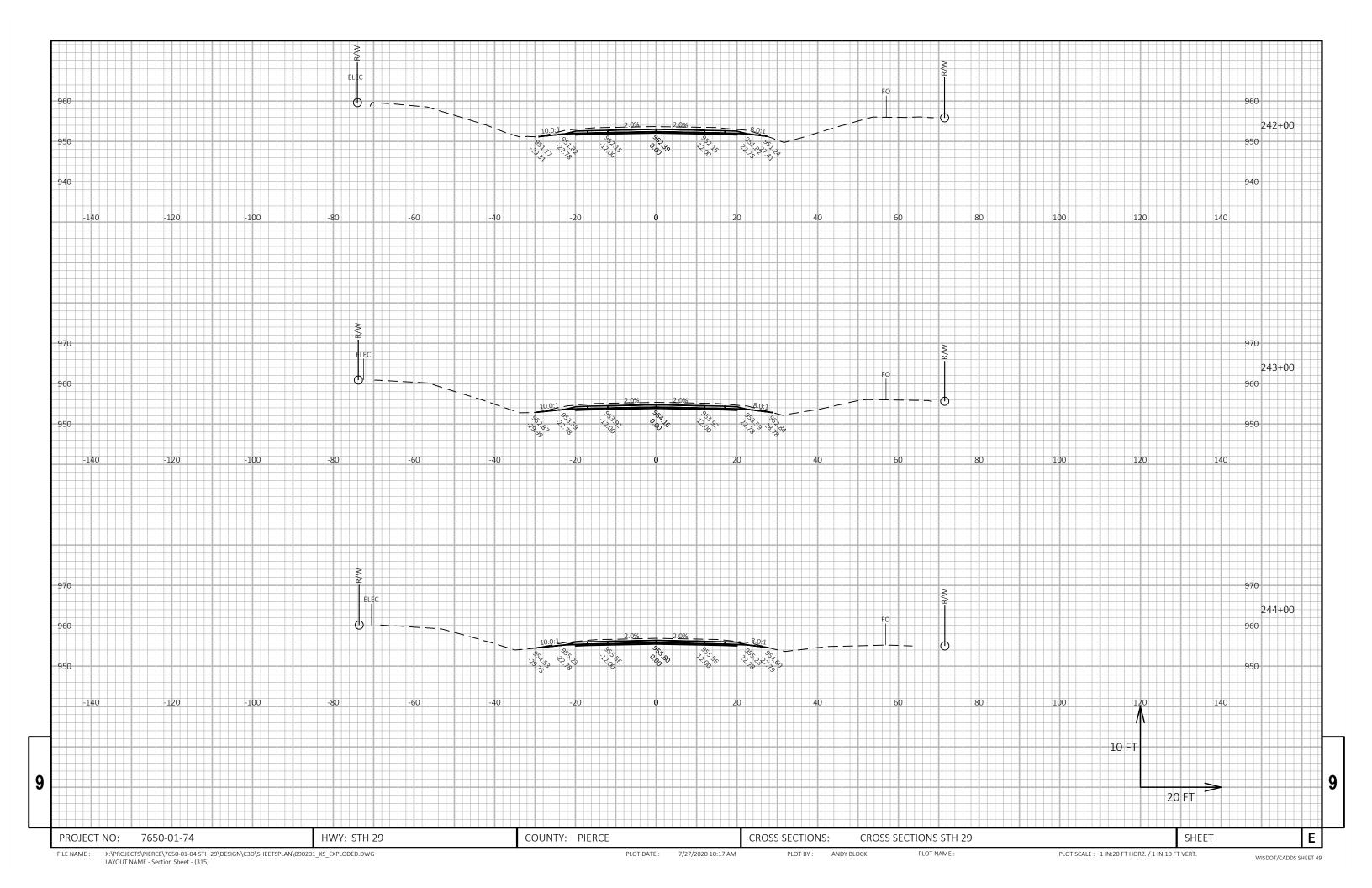


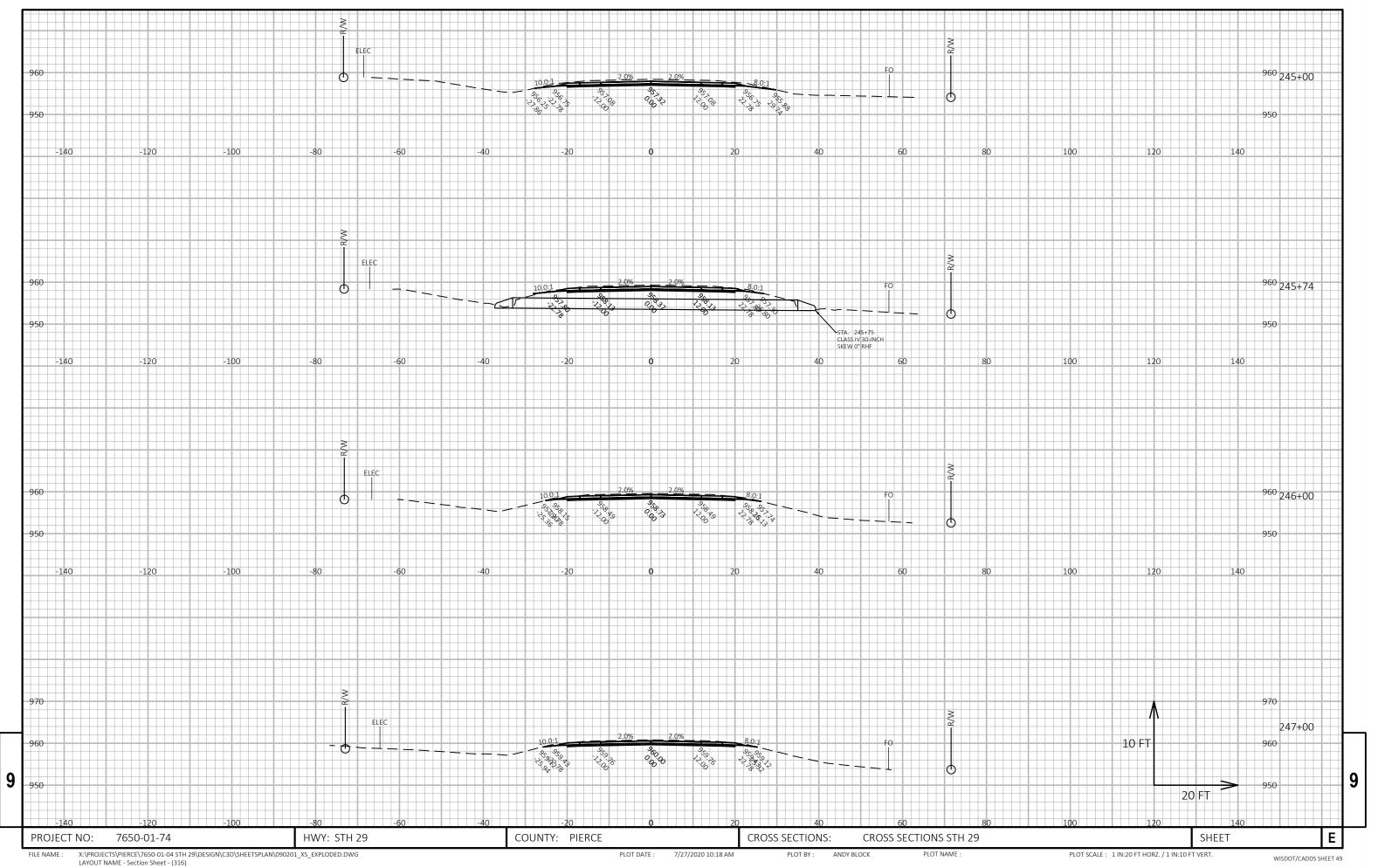


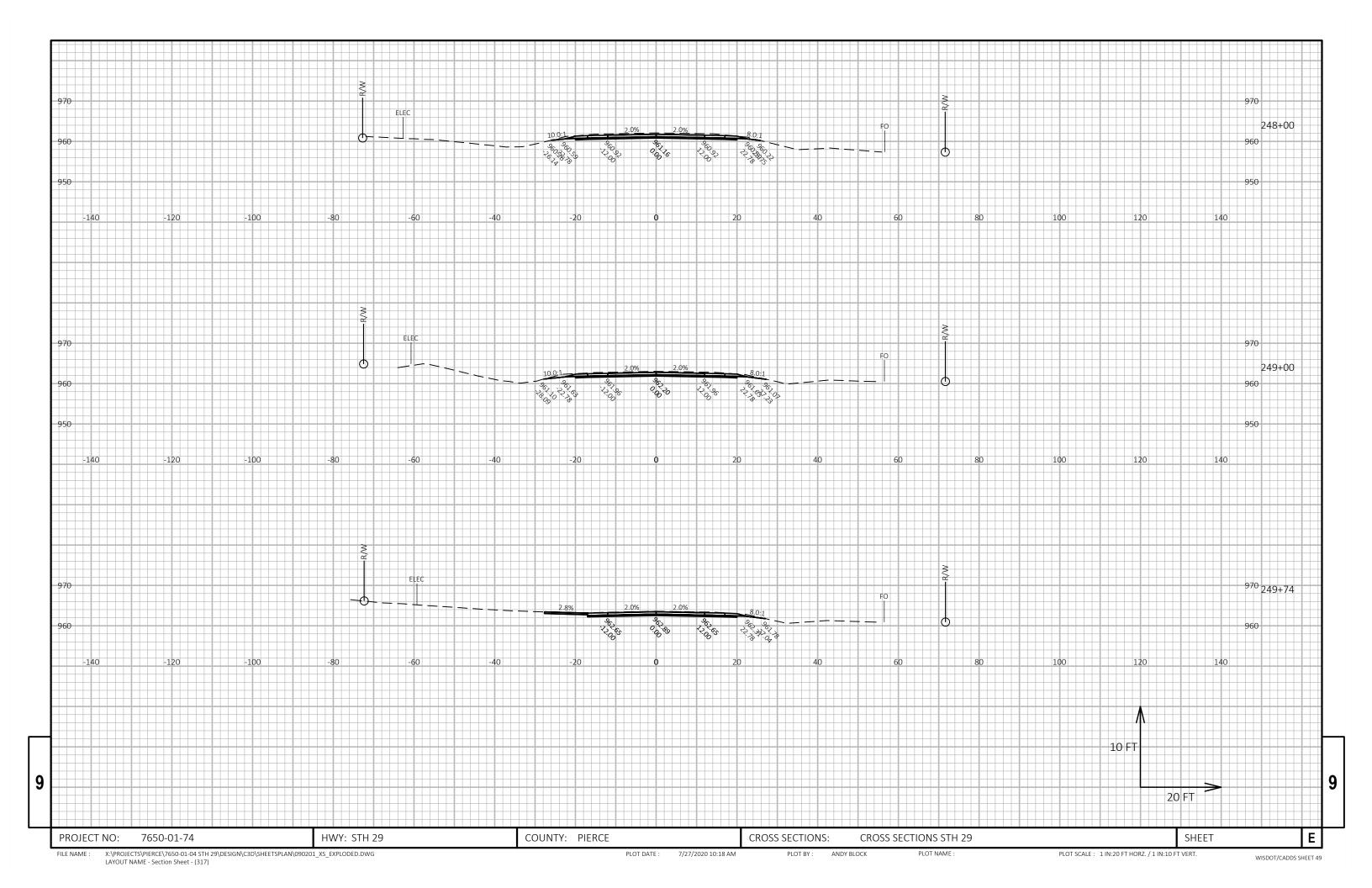


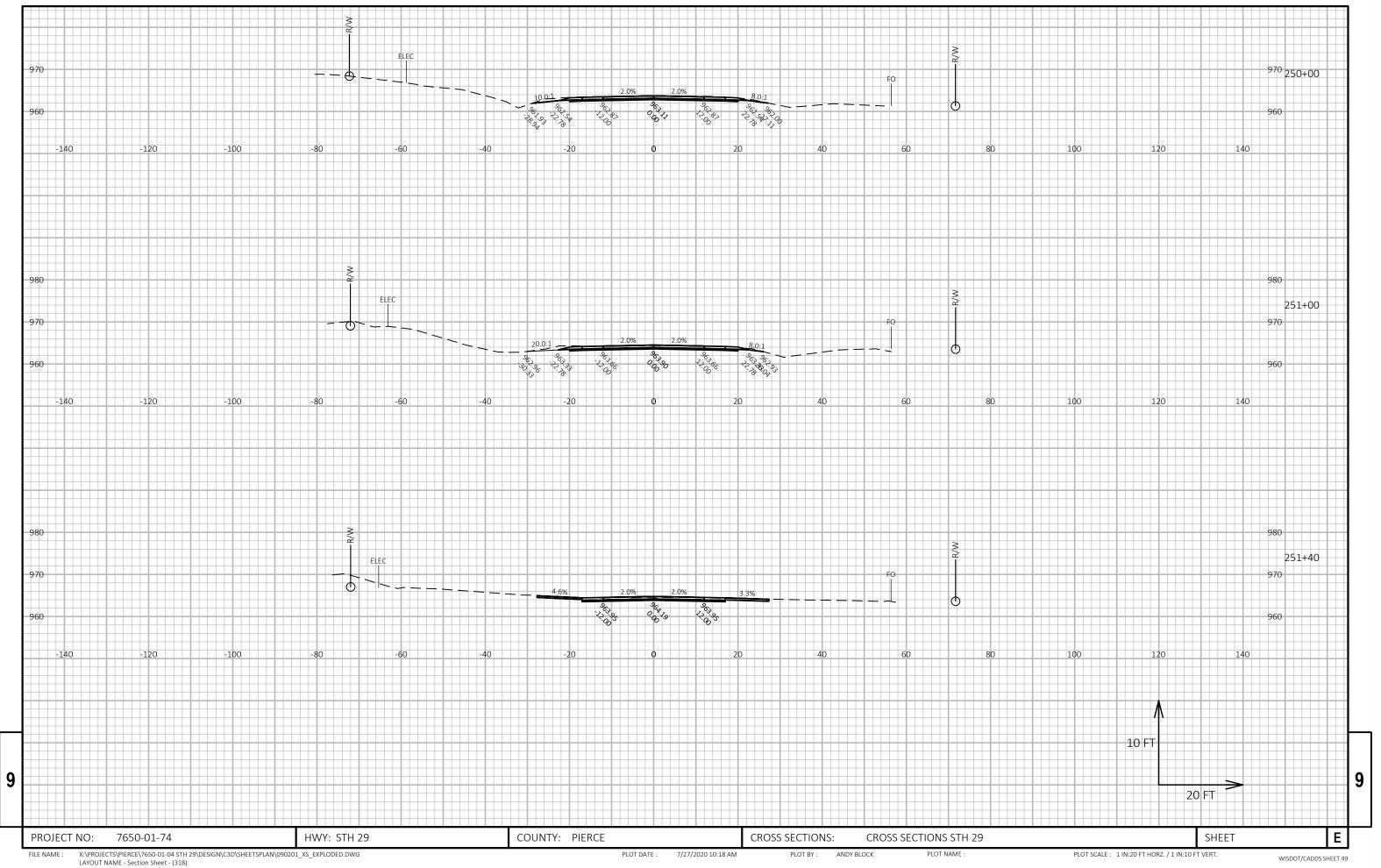


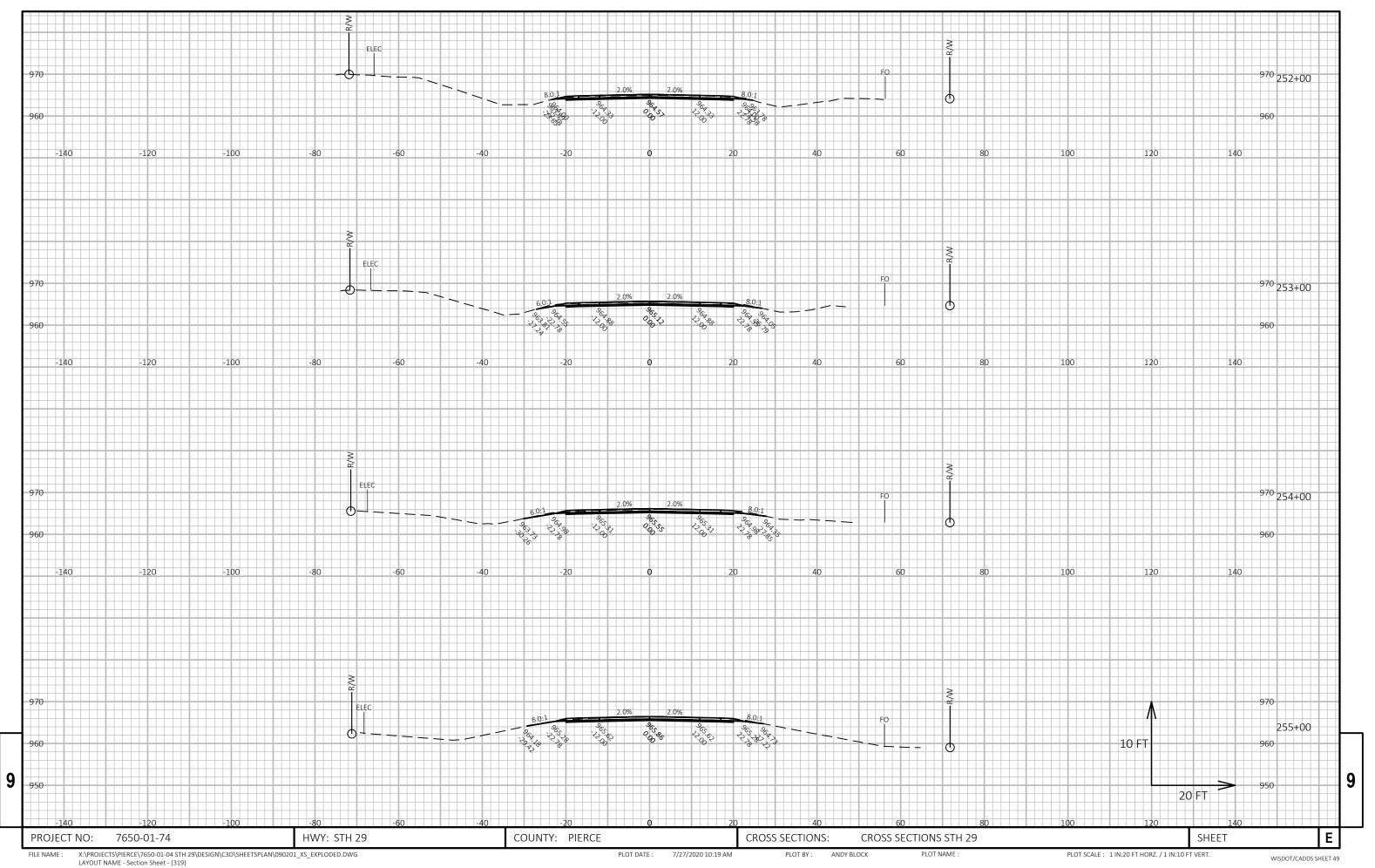


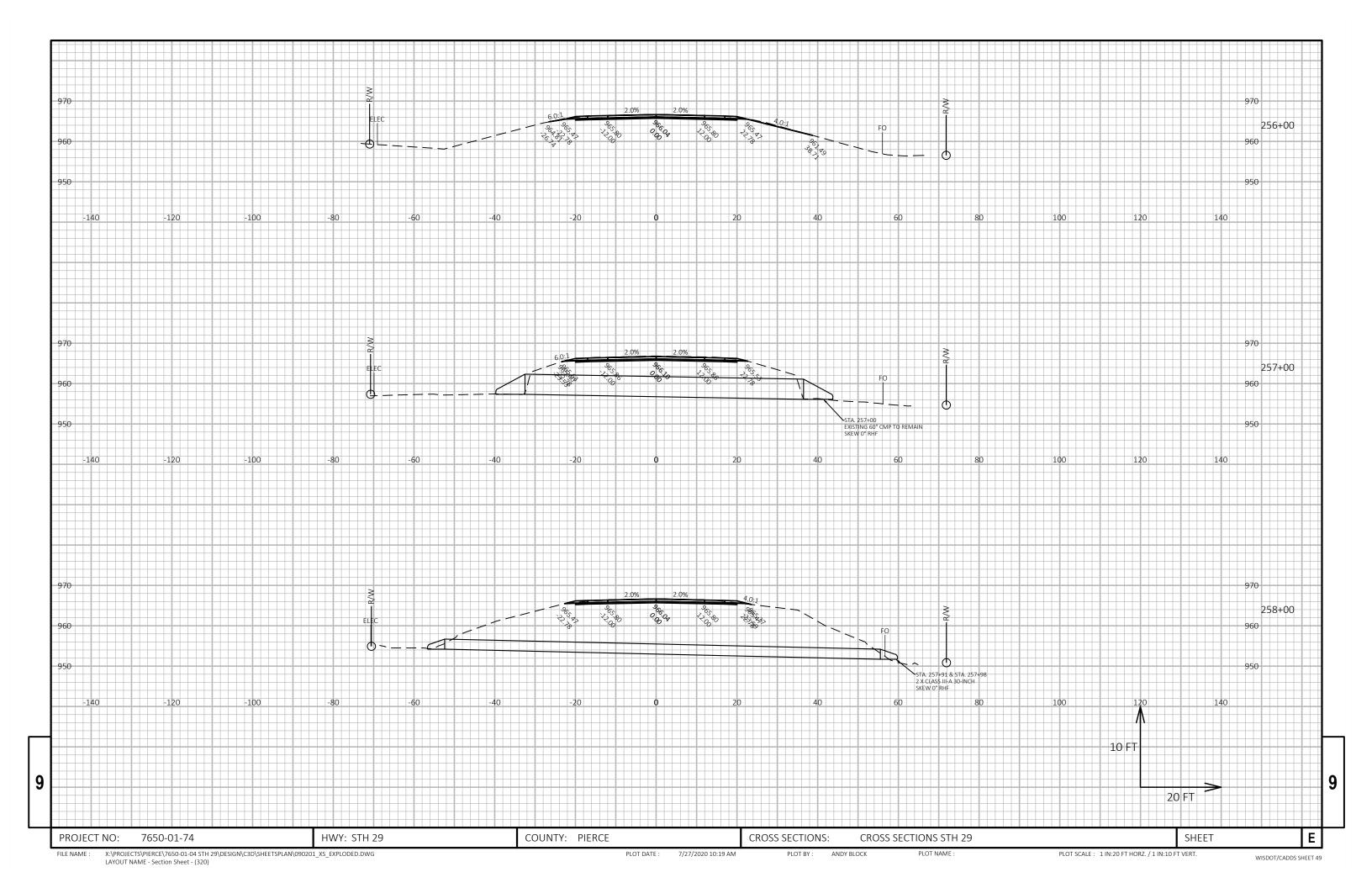


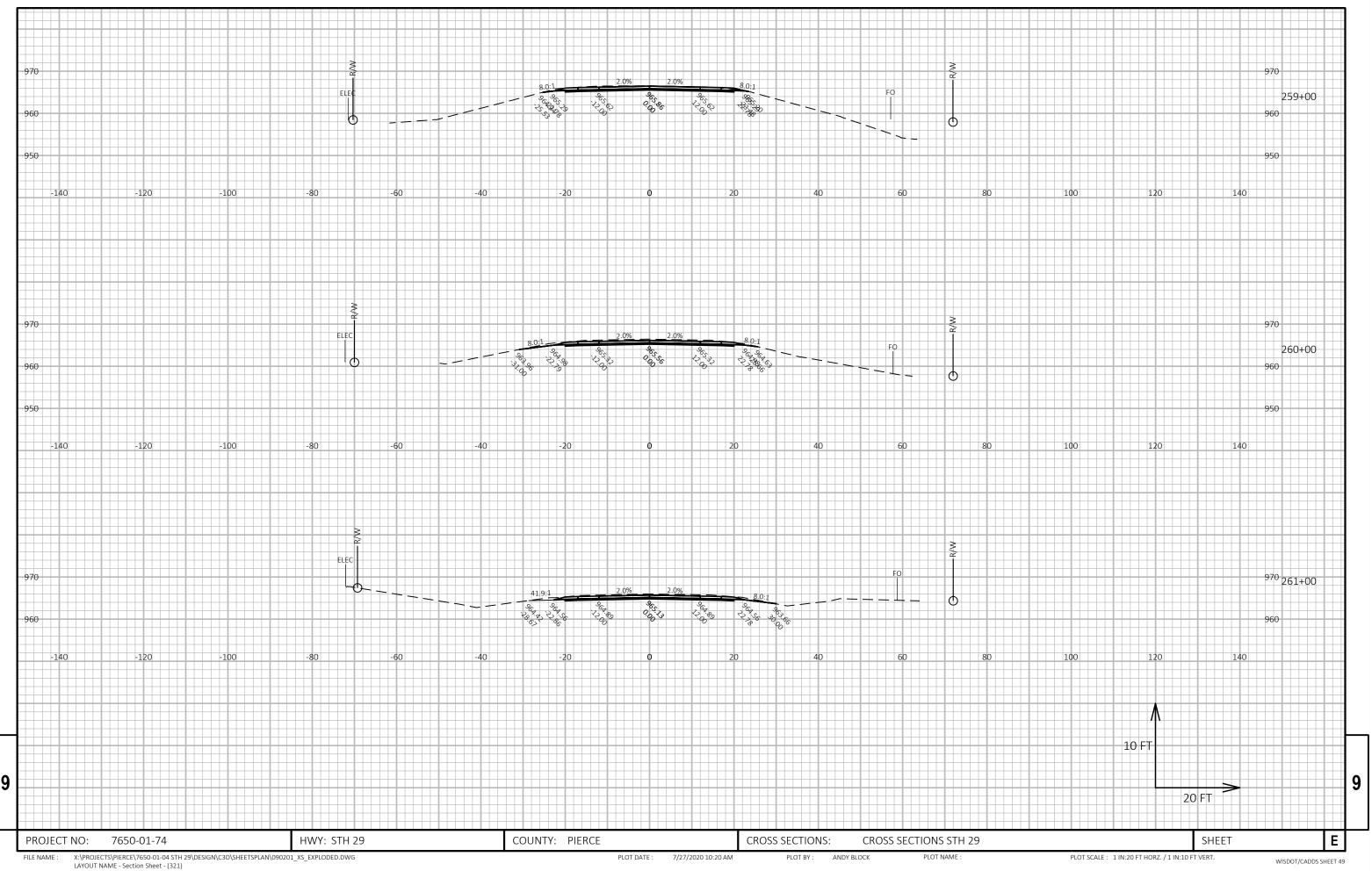


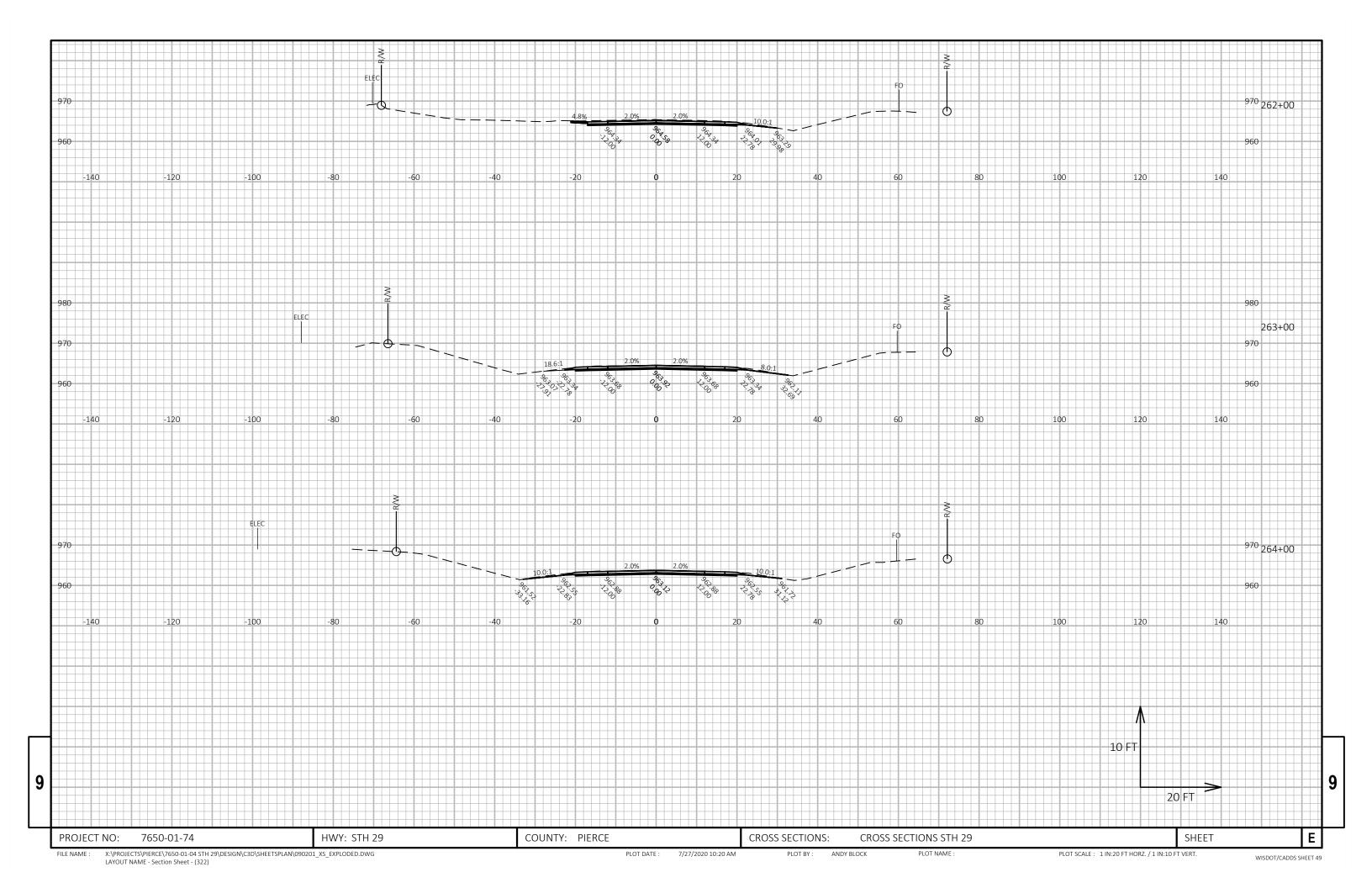


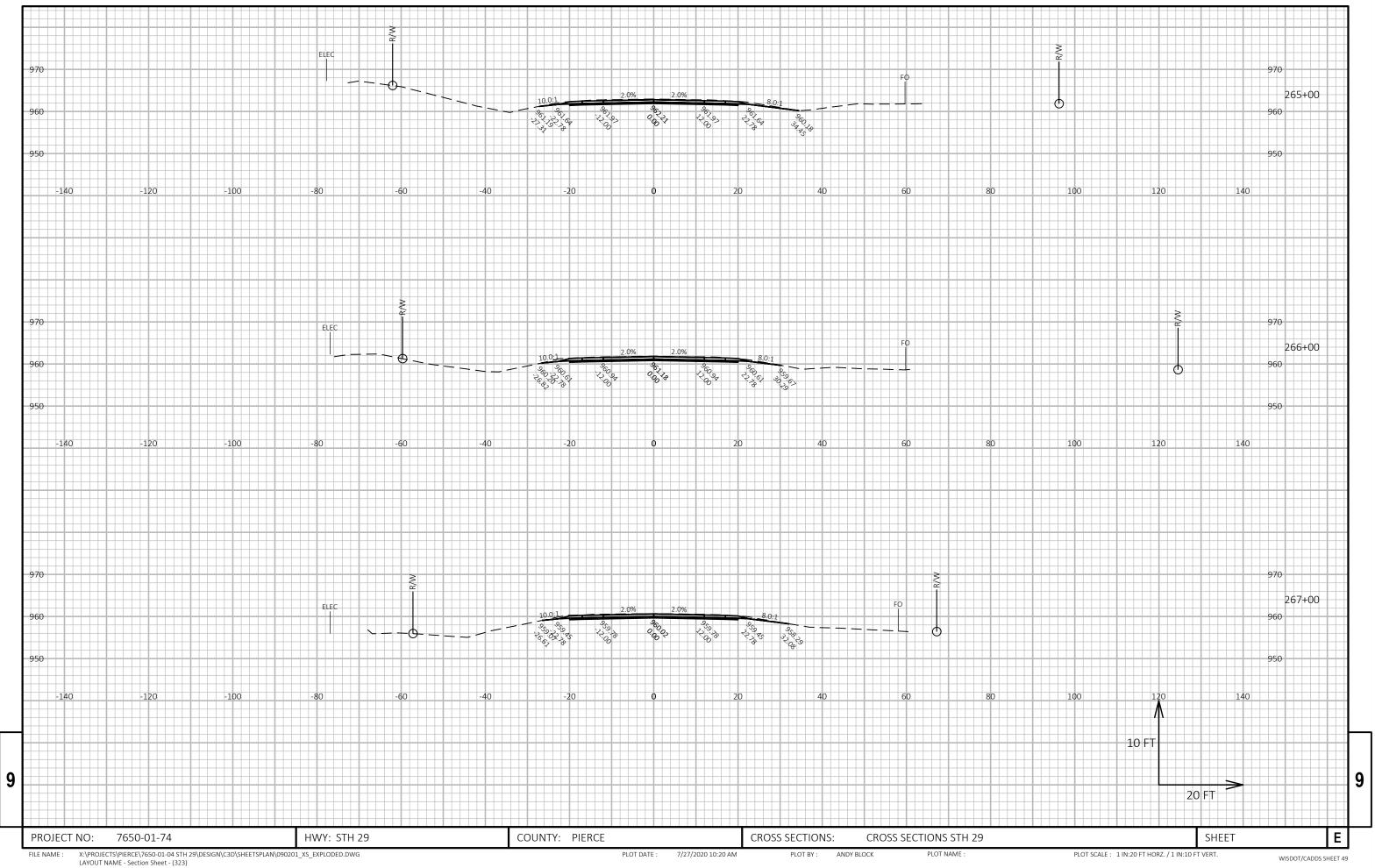


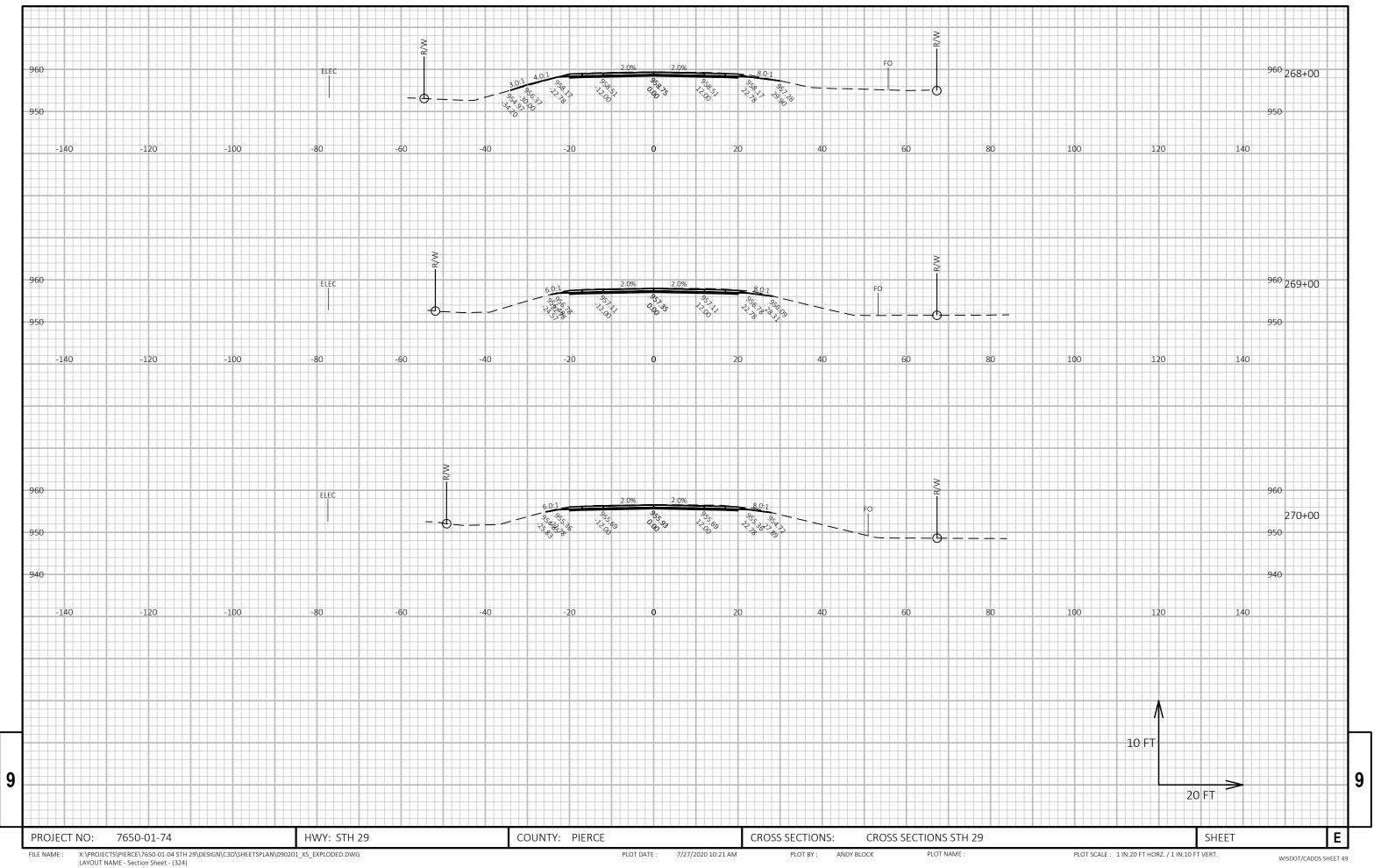


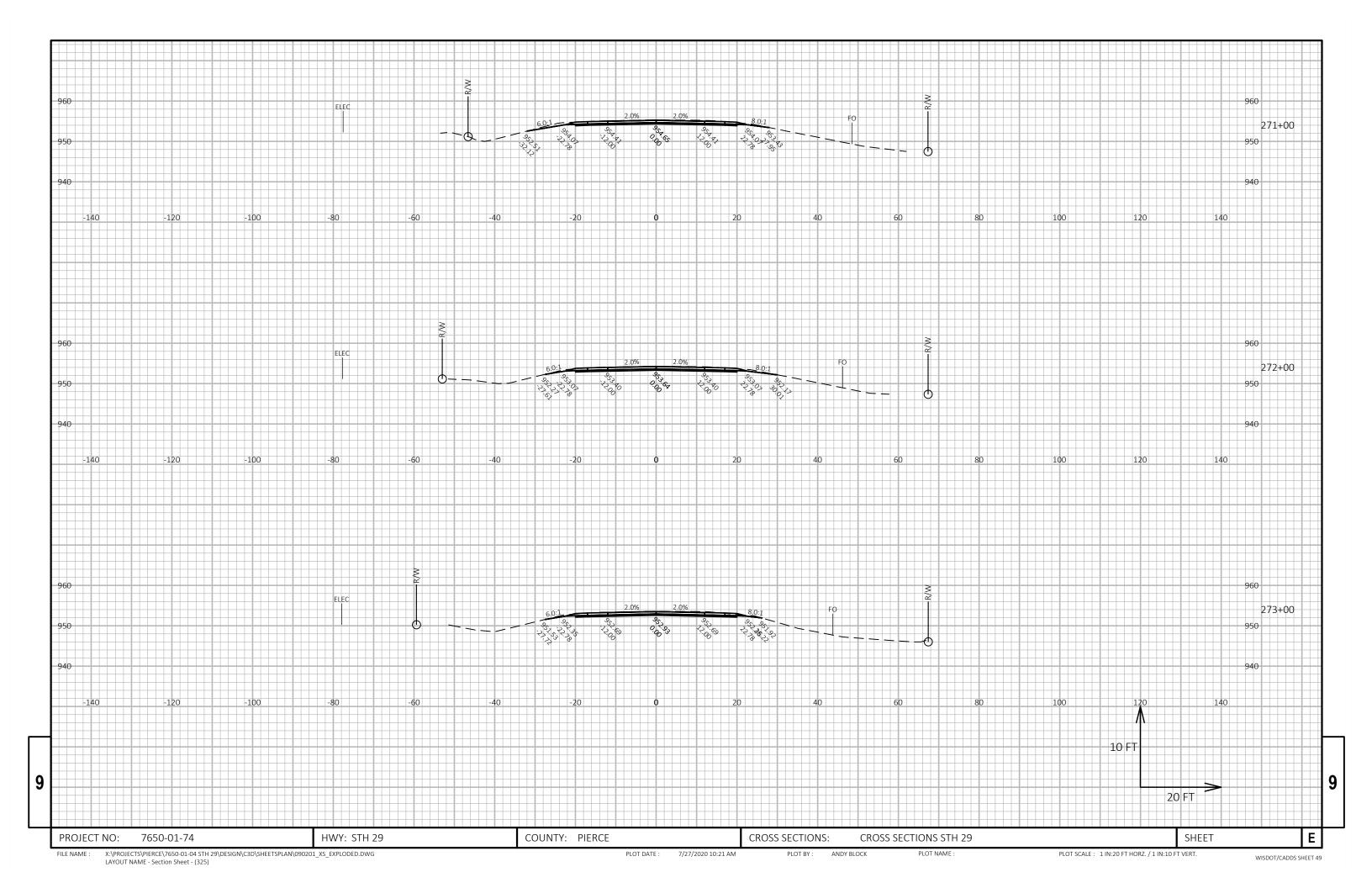


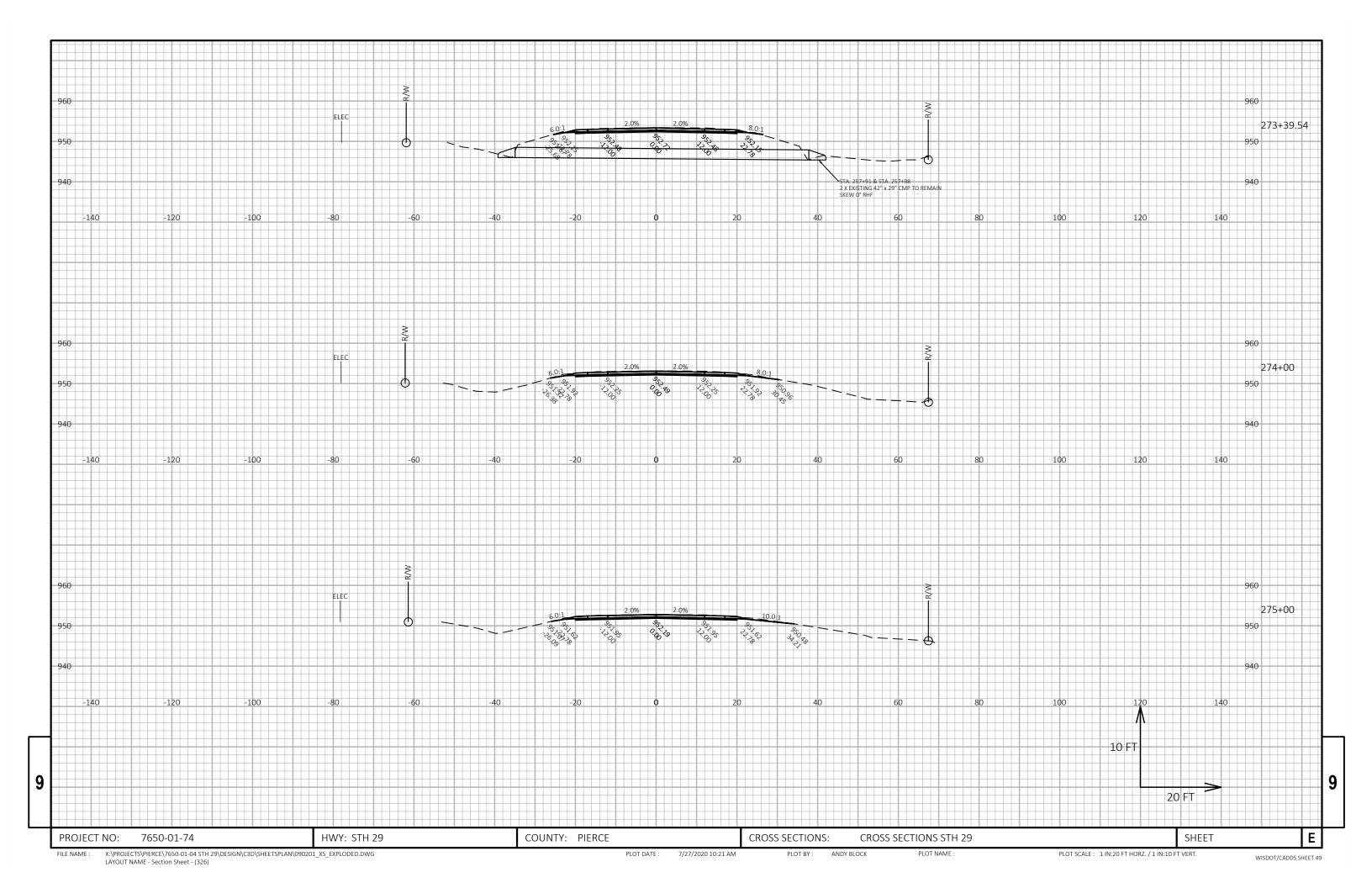


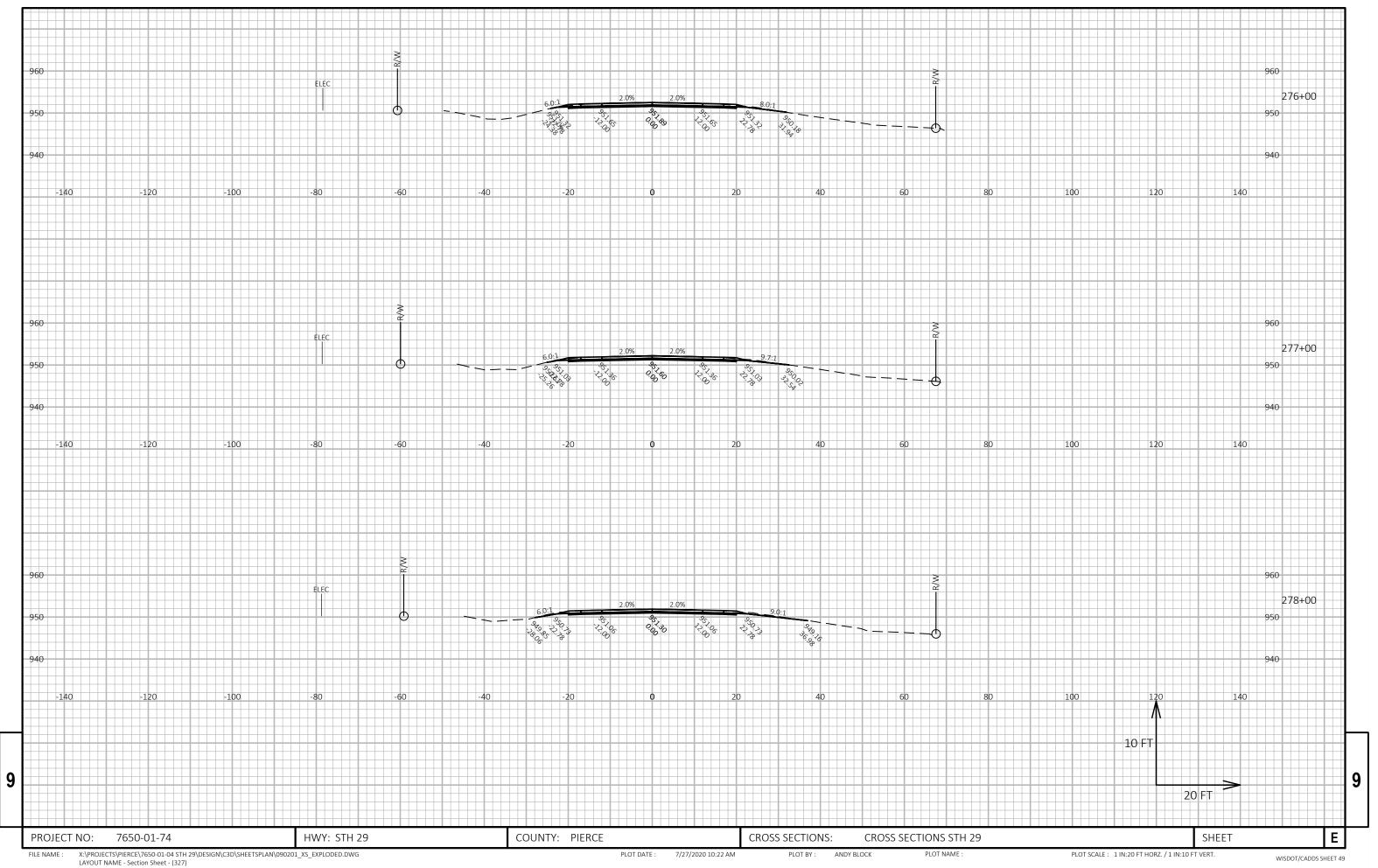


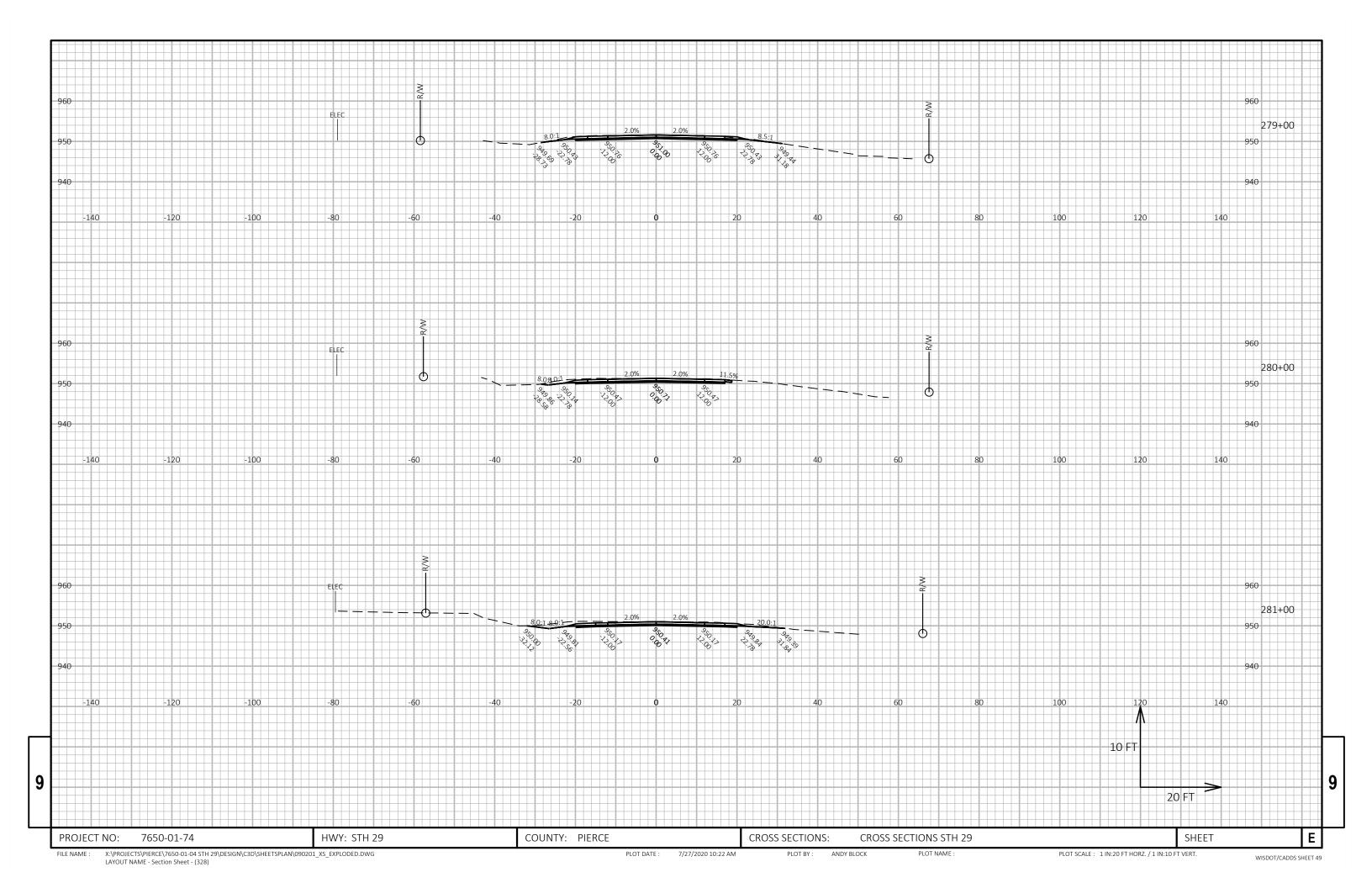


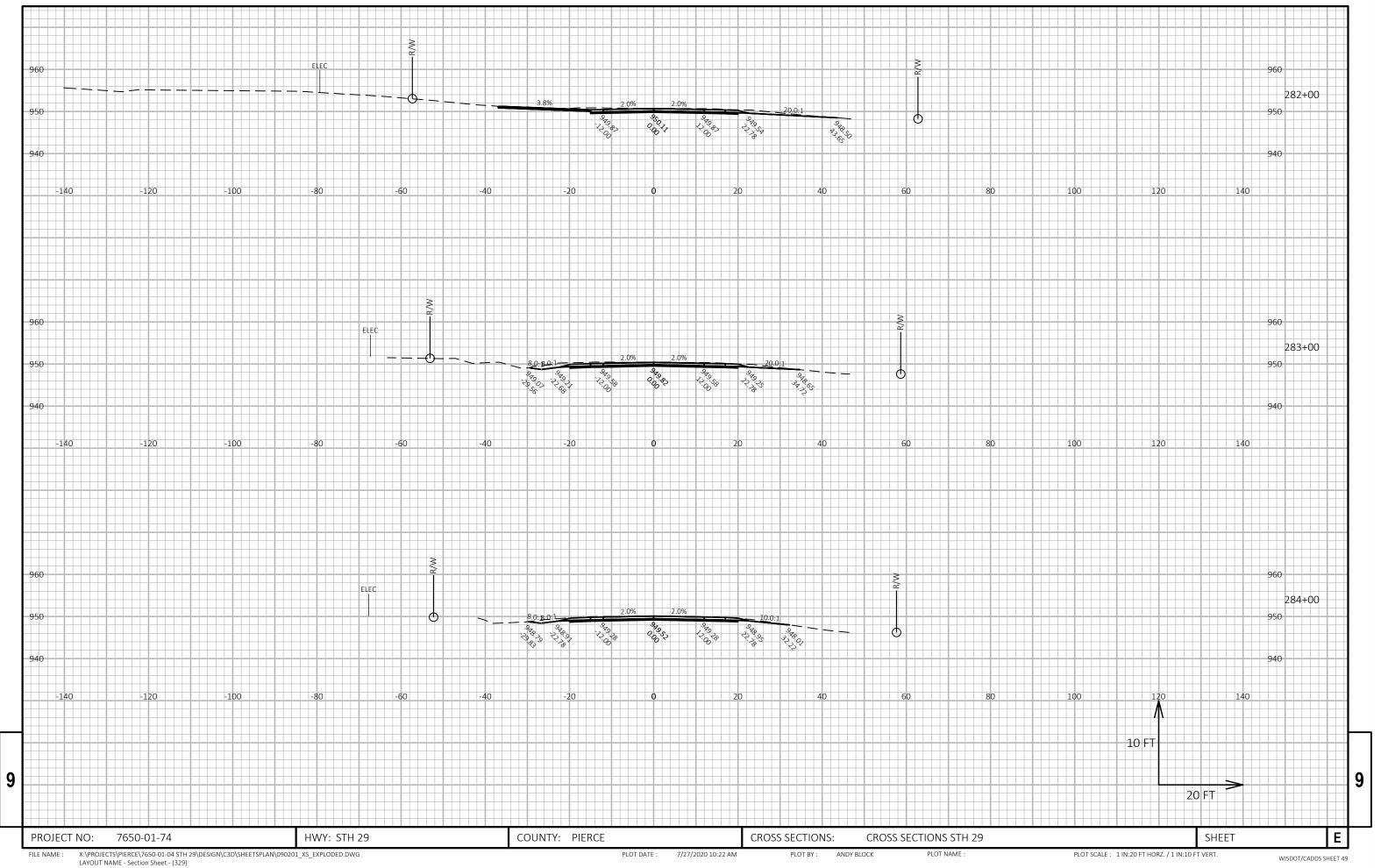


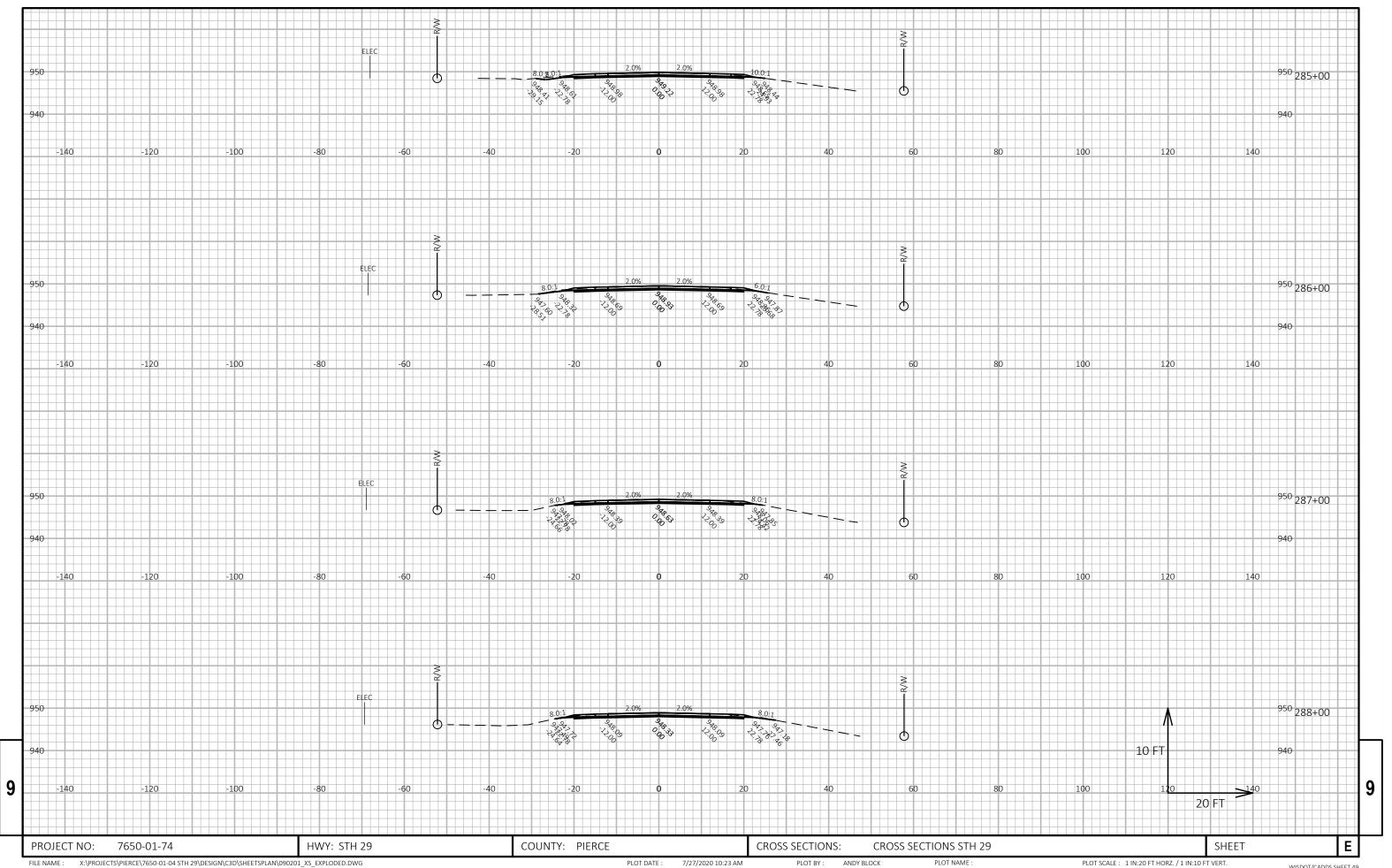


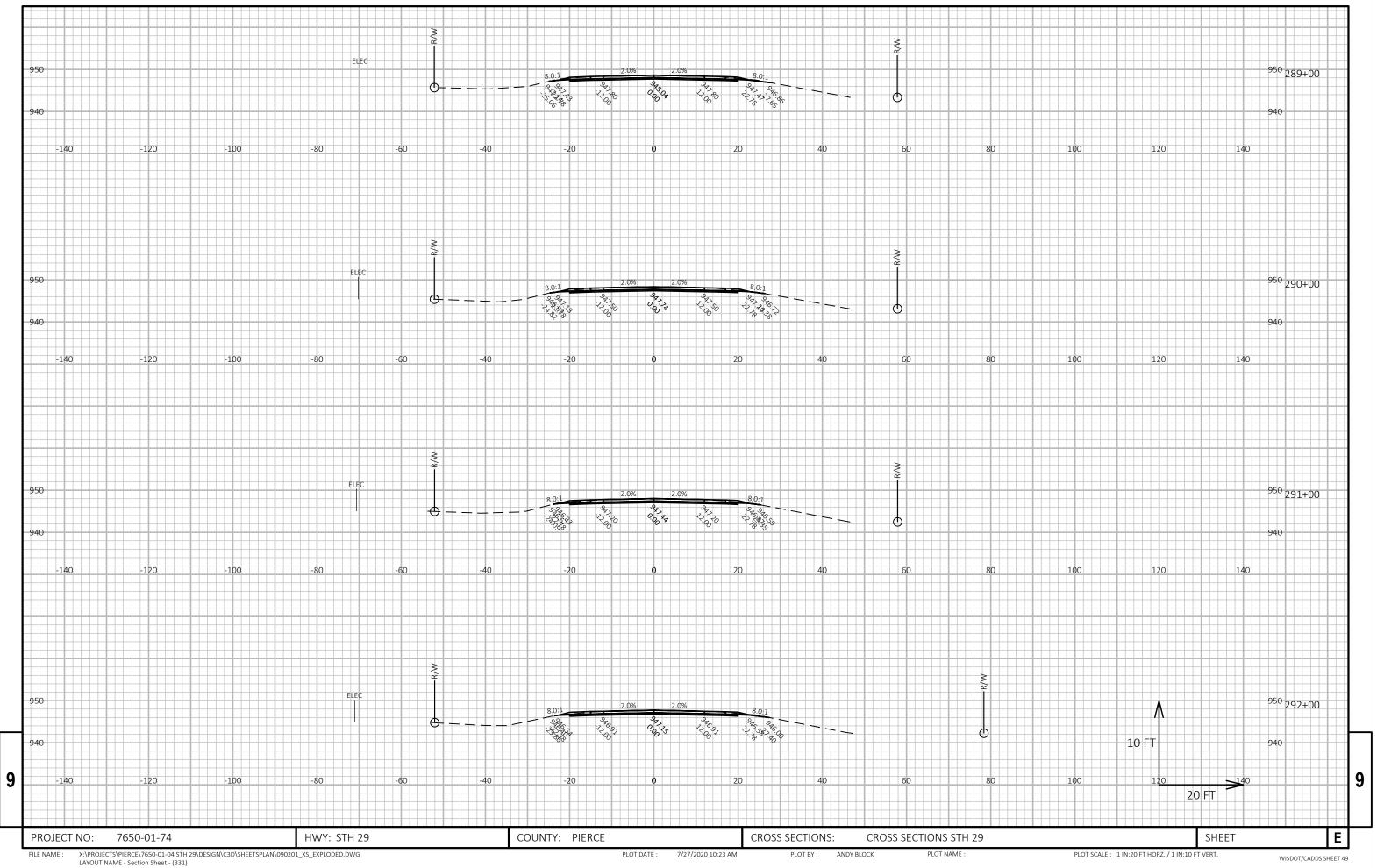


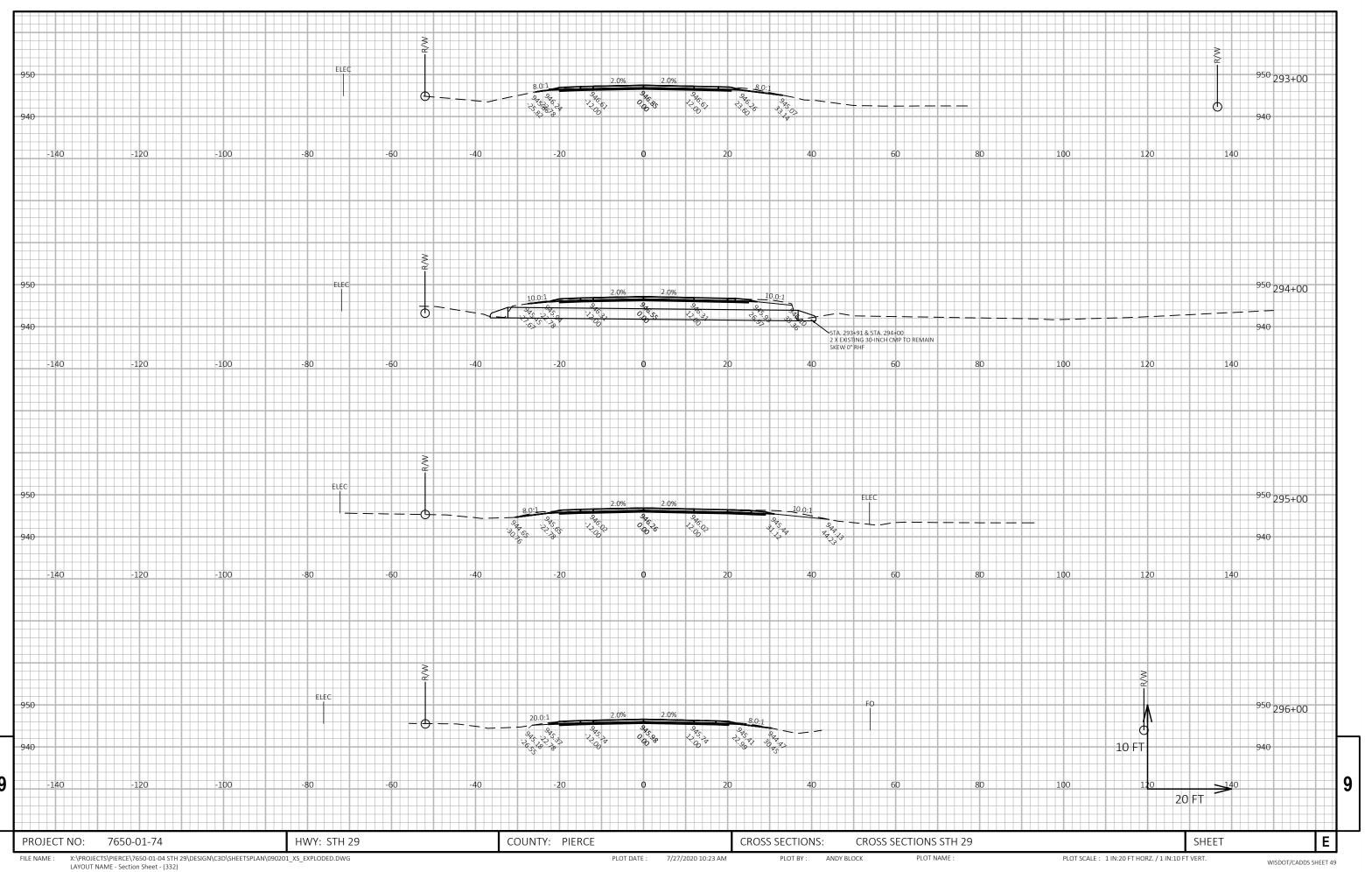


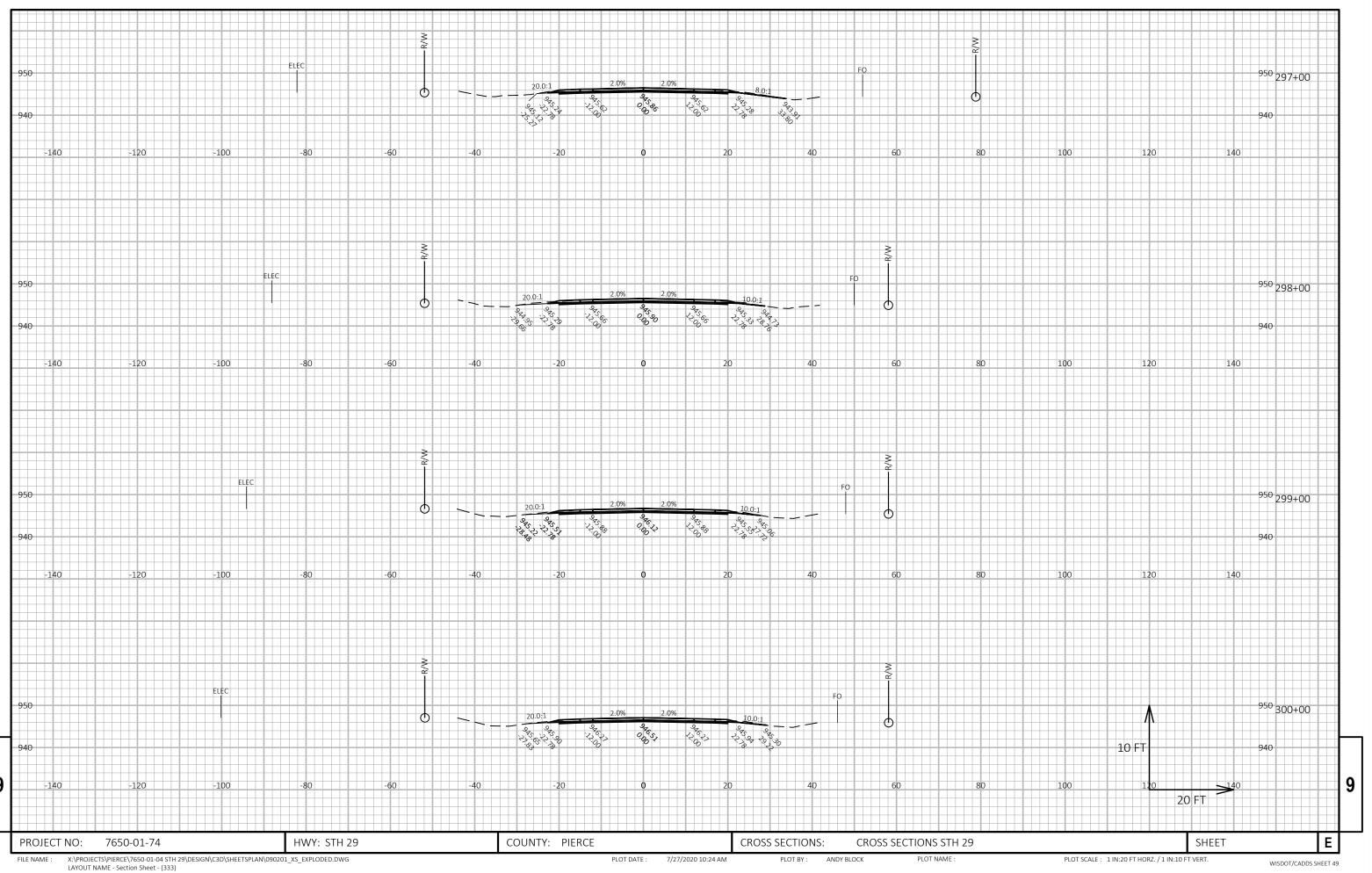


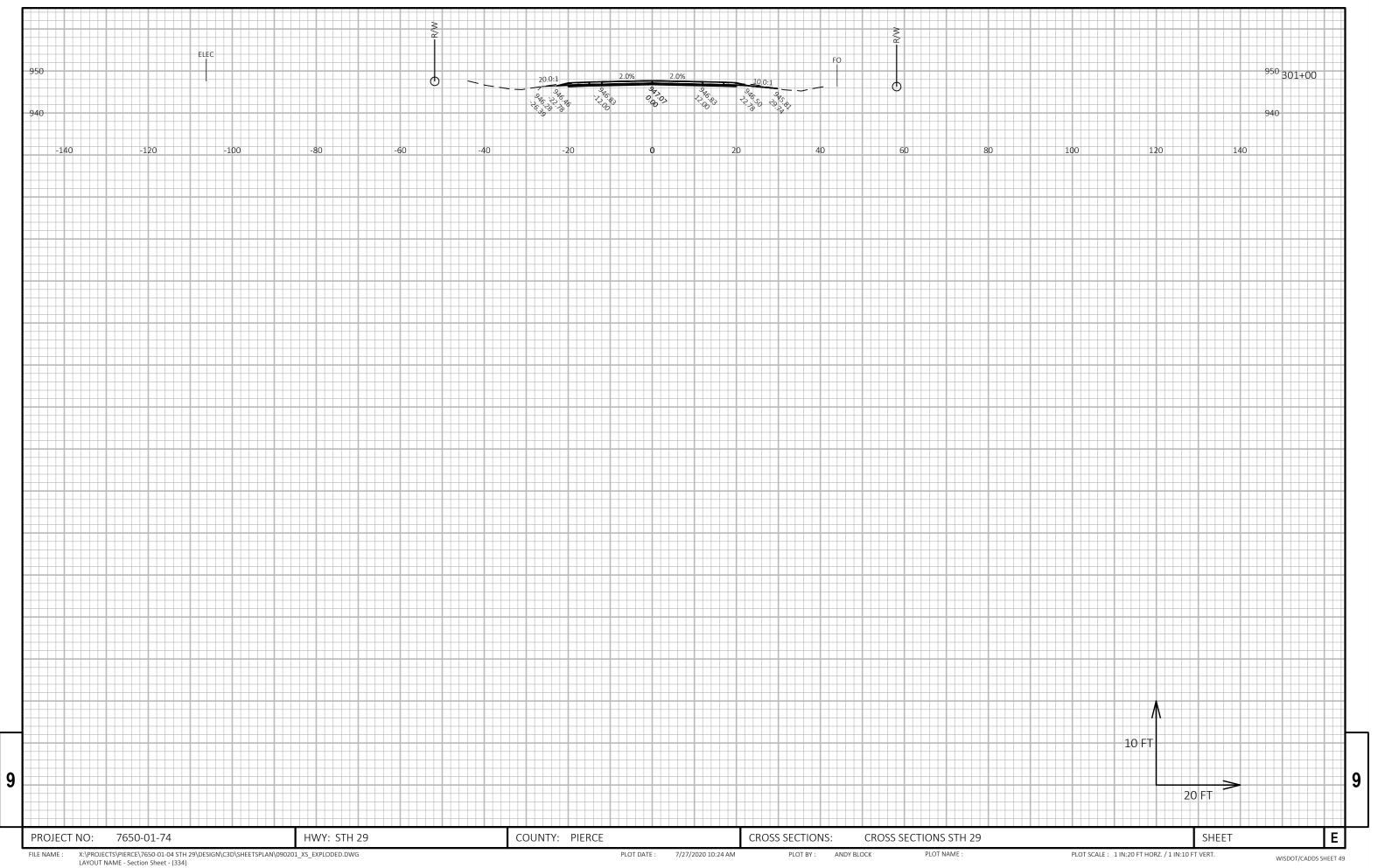














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