

LAX

PROJECT ID:
WITH: N/A

5319-00-70

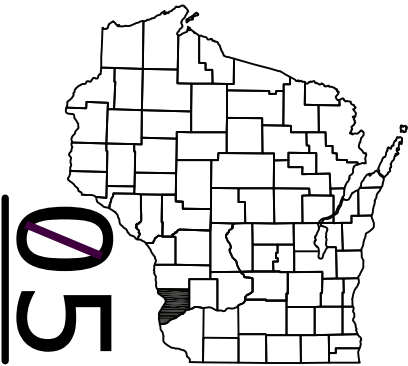
COUNTY:

CRAWFORD COUNTY

MARCH 2025
ORDER OF SHEETS

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

TOTAL SHEETS = 126



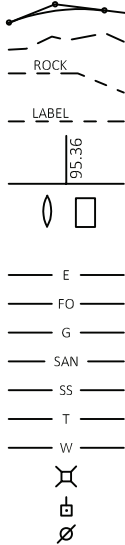
DESIGN DESIGNATION

A.A.D.T.	=	100
A.A.D.T.	=	120
D.H.V.	=	12%
D.D.	=	60/40
T.	=	8%
DESIGN SPEED	=	50 MPH
ESALS	=	45,000

CONVENTIONAL SYMBOLS

PLAN	
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

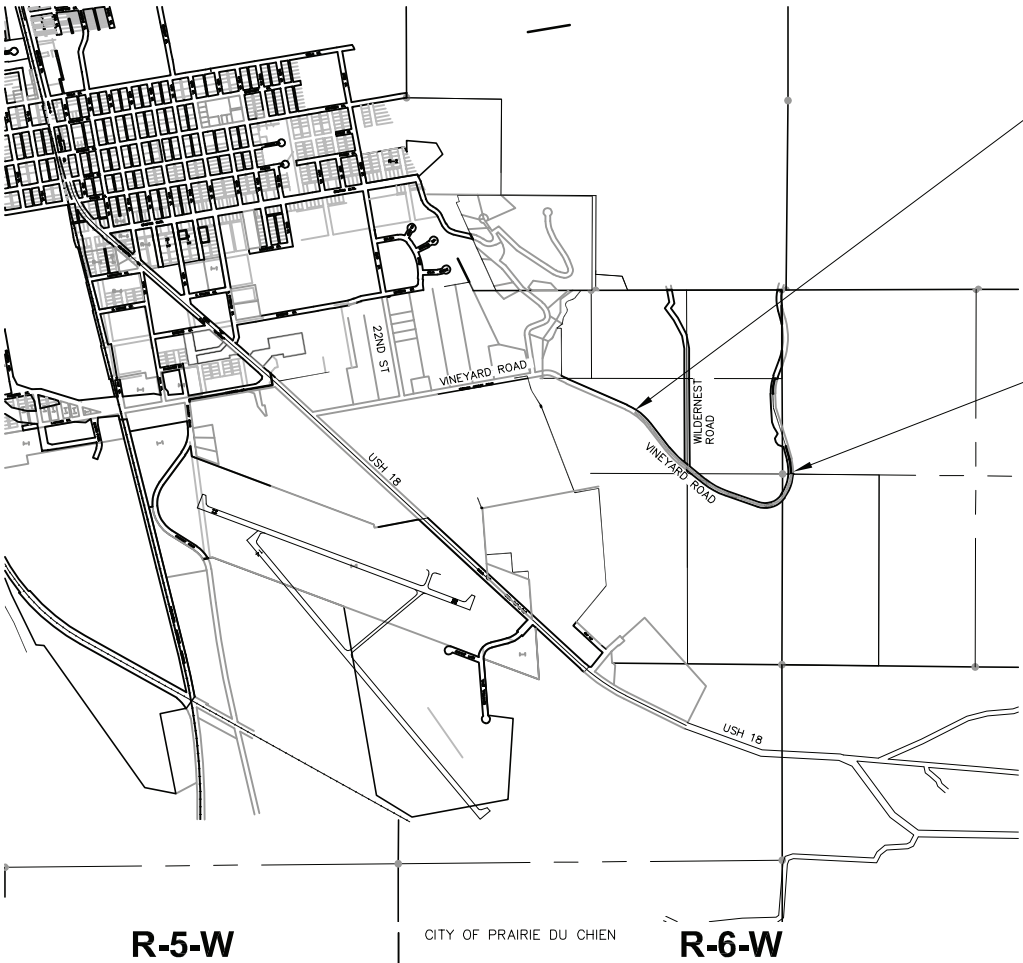


T-7-N

T-6-N

R-5-W

R-6-W



BEGIN PROJECT

STA 4+65
Y=113,230.126
X=327,426.677

END PROJECT

STA 33+67.3
Y=112,436.269
X=329,577.076

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

C PRAIRIE DU CHIEN, VINEYARD ROAD

HILLVIEW DRIVE TO HOFFLAND LANE

LOC STR

CRAWFORD COUNTY

STATE PROJECT NUMBER

5319-00-70

STATE PROJECT

5319-00-70

FEDERAL PROJECT

PROJECT

WISC 2025360

CONTRACT

1

CITY OF PRAIRIE DU CHIEN

APPROVED BY THE CITY

DATE: 10/30/24

 City Administrator


ORIGINAL PLANS PREPARED BY

vierbicher
planners | engineers | advisors



REEDSBURG - MADISON - PRAIRIE DU CHIEN
126 West Blackhawk Avenue - Prairie du Chien, Wisconsin 53821
Phone: (608) 326-1051 Fax: (608) 326-1052



 10/29/2024

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	VIERBICHER
Designer	VIERBICHER
Project Manager	JOSH SCHOENMANN, PE
Regional Examiner	SW REGION
Regional Supervisor	KYLE HEMP, PE

APPROVED FOR THE DEPARTMENT

DATE: 10/30/24

 (Signature)

E

GENERAL NOTES:

1. 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.
2. NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
3. RIGHT OF WAY LINES SHOWN ON THE CROSS SECTIONS ARE APPROXIMATE.
4. PROTECT INLETS WITH PROPER INLET PROTECTION AT LOCATIONS EXHIBITING RISK OF BEING IMPACTED BY CONSTRUCTION OPERATIONS AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
5. STAGE CONSTRUCTION TO PROVIDE ACCESS AT ALL TIMES TO WILDERNEST ROAD.
6. THE EXACT LOCATION AND WIDTH OF TEMPORARY ACCESS FOR DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER. STAGE CONSTRUCTION AND PROVIDE TRAFFIC CONTROL TO MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES.
7. RESHAPE AND SEED ANY PREVIOUSLY GRASSED AREA(S) WHICH ARE DISTURBED BY ANY OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS AT THE CONTRACTORS EXPENSE.
8. PLACE SALVAGED TOPSOIL IN ALL GRADED AREAS AS DESIGNATED BY THE ENGINEER IMMEDIATELY AFTER GRADING HAS BEEN COMPLETED. SEED, MULCH AND FERTILIZE ALL AREAS 5 DAYS AFTER PLACEMENT OF SALVAGED TOPSOIL.

9. TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS, FLOODWAY OR FLOODPLAIN OF ANY WATERWAY.
10. EDGE OF ASPHALT END CENTERLINE GRADES AND LAYOUT DATA ARE GIVEN AS NOTED ON THE PLANS.
11. SAWCUT ASPHALT AT THE MATCHLINE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER
12. THE EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATION WILL BE DETERMINED BY THE ENGINEER.
13. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
14. PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR WILL VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN AND PROVIDE DOCUMENTATION TO THE ENGINEER IN ACCORDANCE WITH THE SPECIFICATIONS.
15. TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
16. APPLY TACK COAT AT A RATE OF 0.07 GAL/SY TO MILLED SURFACE AND 0.05 GA/SY BETWEEN LAYERS OF HMA PAVEMENT.
17. HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

17. BENCHMARK LOCATIONS SHOWN ON PLAN ARE APPROXIMATE AND SHOULD BE VERIFIED.
18. SIDE ROAD PAVEMENT STRUCTURE SHALL BE THE SAME AS THE MAINLINE.
19. HMA PAVEMENT WHEN INDICATED ON THE PLANS, SHALL CONSIST OF COURSES AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS.

TOTAL DEPTH	LAYERS	TYPE	NOMINAL MAX SIZE GRADATION
1 3/4-INCH	UPPER	4 MT 58-28 S	12.5 mm
2-INCH	LOWER	4 MT 58-28 S	12.5 mm

20. THE CONTRACTOR SHALL REMOVE ANY SEDIMENT TRACKED ONTO ADJACENT ROADS BY THE MEANS OF STREET SWEEPING AT THE END OF EACH WORK DAY OR AS DIRECTED BY THE ENGINEER.
21. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW BY THE ENGINEER, PRIOR TO PLACING ORDER OF ANY SUCH ITEM.

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS:	0.08 0.22	0.16 0.30	0.22 0.38	0.12 0.26	0.20 0.34	0.27 0.44	0.15 0.30	0.24 0.37	0.33 0.50	0.19 0.34	0.28 0.41	0.38 0.56
MEDIAN STRIP-TURB:	0.19 0.24	0.20 0.26	0.24 0.30	0.19 0.25	0.22 0.28	0.26 0.33	0.20 0.26	0.23 0.30	0.30 0.37	0.20 0.27	0.25 0.32	0.30 0.40
SIDE SLOPE-TRUF:			0.25 0.32			0.27 0.34			0.28 0.36			0.30 0.38
PAVEMENT:												
ASPHALT	0.70 - 0.95											
CONCRETE	0.80 - 0.95											
BRICK	0.70 - 0.80											
DRIVES, WALKS	0.75 - 0.85											
ROOFS	0.75 - 0.95											
GRAVEL ROADS, SHOULDERS	0.40 - 0.60											

TOTAL PROJECT AREA = 3.40 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 3.40 ACRES



2	<div>UTILITIES CONTACTS</div> <div><div><div>ELECTRIC</div><div>SCENIC RIVERS ENERGY COOPERATIVE CHAD OLMSTEAD 206 COUNTY ROAD K LANCASTER WI 53813 608-723-2121 COLMSTEAD@SREC.NET</div></div><div><div>COMMUNICATION</div><div>LUMEN TECHNOLOGIES KYLE SCHLAMP 124 S BEAUMONT RD PRAIRIE DU CHIEN, WI 53821 715-475-2029 KYLE.SCHLAMPP@LUMEN.COM</div></div></div>		<div>ORDER OF SECTION 2 DETAIL SHEETS</div> <div>GENERAL NOTES PROJECT OVERVIEW TYPICAL SECTIONS CONSTRUCTION DETAILS PAVING PLAN INTERSECTION DETAIL EROSION CONTROL PLANS PERMANENT SIGNING & PAVEMENT TRAFFIC CONTROL PLAN MARKING PLANS TRAFFIC CONTROL PLANS ALIGNMENT/CONTROL POINT DATA</div>	<div>ABBREVIATIONS</div> <div><div>AEW</div><div>APRON ENDWALL</div></div> <div><div>AGG</div><div>AGGREGATE</div></div> <div><div>ASPH</div><div>ASPHALT</div></div> <div><div>BAD</div><div>BASE AGGREGATE DENSE</div></div> <div><div>BM</div><div>BENCH MARK</div></div> <div><div>C&G</div><div>CURB AND GUTIER</div></div> <div><div>C/L</div><div>CENTER OR CONSTRUCTION LINE</div></div> <div><div>CMP</div><div>CULVERT PIPE CORRUGATED METAL</div></div> <div><div>CONC</div><div>CONCRETE</div></div> <div><div>CP</div><div>CULVERT PIPE</div></div> <div><div>RCP</div><div>CULVERT PIPE REINFORCED CONCRETE</div></div> <div><div>CSD</div><div>CONCRETE SURFACE DRAIN</div></div> <div><div>CY</div><div>CUBIC YARD</div></div> <div><div>D</div><div>DEGREE OF CURVE</div></div> <div><div>Δ</div><div>DELTA</div></div> <div><div>DISCH</div><div>DISCHARGE</div></div> <div><div>EAT</div><div>ENERGY ABSORBING TERMINAL</div></div> <div><div>FE</div><div>FIELD ENTRANCE</div></div> <div><div>HMA</div><div>HOT MIX ASPHALT</div></div> <div><div>INV</div><div>INVERT</div></div> <div><div>L</div><div>LENGTH OF CURVE</div></div> <div><div>LHF</div><div>LEFT HAND FORWARD</div></div> <div><div>LT</div><div>LEFT</div></div> <div><div>MIN</div><div>MINIMUM</div></div> <div><div>MATCH</div><div>MATCHLINE</div></div> <div><div>NB</div><div>NORTHBOUND</div></div> <div><div>NC</div><div>NORMAL CROWN</div></div> <div><div>OFF</div><div>OFFSET</div></div> <div><div>PAVT</div><div>PAVEMENT</div></div> <div><div>PC</div><div>POINT OF CURVE</div></div> <div><div>PCC</div><div>POINT OF COMPOUND CURVE</div></div> <div><div>PE</div><div>PRIVATE ENTRANCE</div></div> <div><div>PI</div><div>POINT OF INTERSECTION</div></div> <div><div>PLE</div><div>PERMANENT LIMrTED EASEMENT</div></div> <div><div>PT</div><div>POINT OF TANGENT</div></div> <div><div>R</div><div>RADIUS OF CURVE</div></div> <div><div>R/L</div><div>REFERENCE LINE</div></div> <div><div>R/W</div><div>RIGHT OF WAY</div></div> <div><div>RC</div><div>REVERSE CROWN</div></div> <div><div>RCPAE</div><div>APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE</div></div> <div><div>REQD</div><div>REQUIRED</div></div> <div><div>RHF</div><div>RIGHT HAND FORWARD</div></div> <div><div>RO</div><div>RUN OFF LENGTH</div></div> <div><div>RRSP</div><div>RAILROAD SPIKE</div></div> <div><div>RT</div><div>RIGHT</div></div> <div><div>SALV</div><div>SALVAGED</div></div> <div><div>SAPBC</div><div>SALVAGED ASPHALTIC PAVEMENT BASE COURSE</div></div> <div><div>SB</div><div>SOUTHBOUND</div></div> <div><div>SDD</div><div>STANDARD DETAIL DRAWINGS</div></div> <div><div>SE</div><div>SUPER ELEVATION</div></div> <div><div>SF</div><div>SQUARE FOOT</div></div> <div><div>SSPRC</div><div>STORM SEWER PIPE REINFORCED CONCRETE</div></div> <div><div>STA</div><div>STATION</div></div> <div><div>SY</div><div>SQUARE YARD</div></div> <div><div>T</div><div>TANGENT LENGTH</div></div> <div><div>TLE</div><div>TEMPORARY LIMITED EASEMENT</div></div> <div><div>TYP</div><div>TYPICAL</div></div> <div><div>VCL</div><div>VERTICAL CURVE LENGTH</div></div> <div><div>VPC</div><div>POINT OF VERTICAL CURVE</div></div> <div><div>VPI</div><div>POINT OF VERTICAL INTERSECTION</div></div> <div><div>VPT</div><div>POINT OF VERTICAL TANGENT</div></div>
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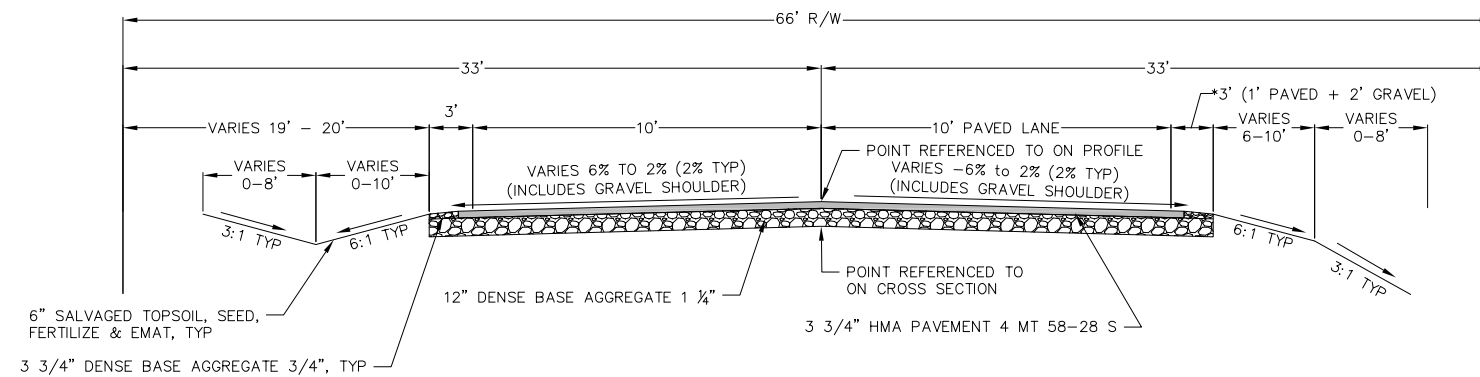
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2

BEGIN PROJECT
STA 4+65
Y=113,230.126
X=327,426.677

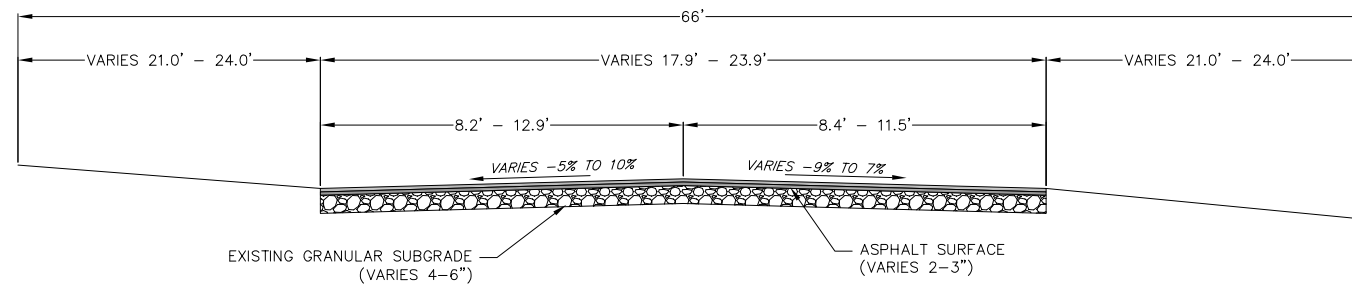
END PROJECT
STA 33+67.3
Y=112,436.269
X=329,577.076

PROJECT NO: 5319-00-70	HWY: VINEYARD ROAD	COUNTY: CRAWFORD	PROJECT OVERVIEW	SHEET	E
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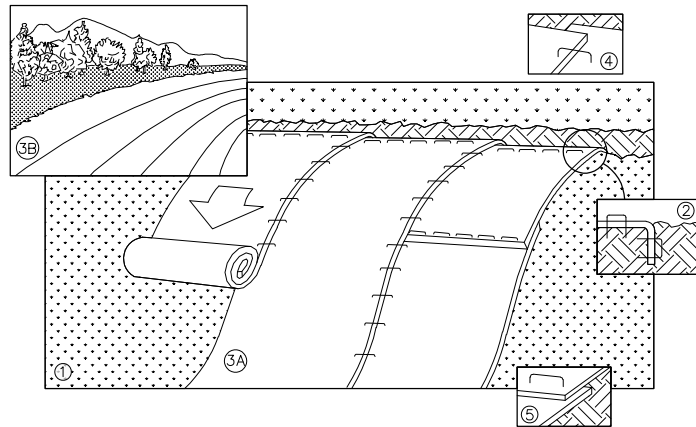


* PAVED SHOULDER WIDTH VARIES 0'-1'
THRU TAPERS AT PROJECT BEGINNING
AND ENDING

FINISHED TYPICAL SECTION — VINEYARD RD
NOT TO SCALE STA 4+65 — STA 33+67



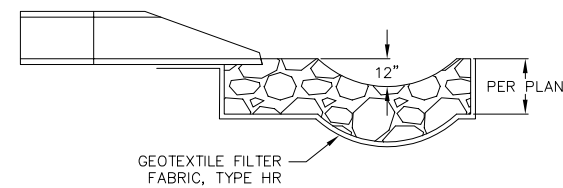
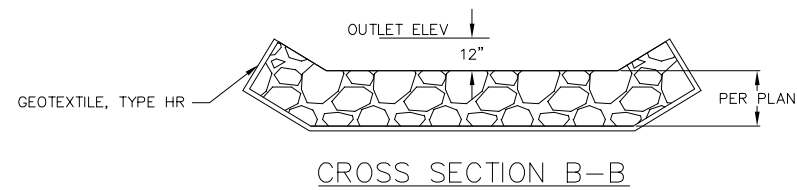
EXISTING TYPICAL SECTION — VINEYARD RD
NOT TO SCALE STA 4+65 — STA 33+67



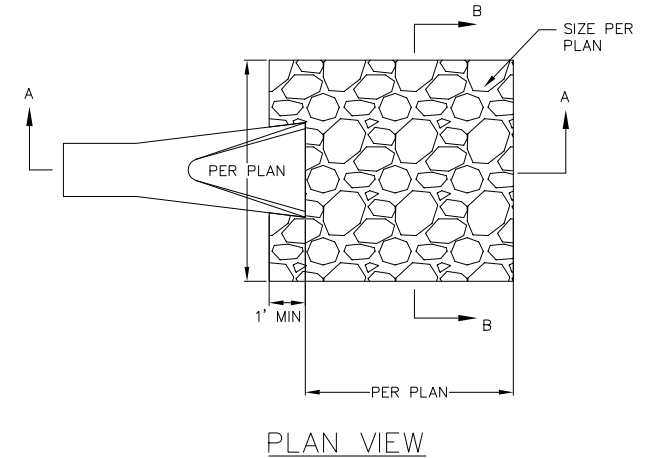
NOTE: REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE INSTALLATIONS.

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF FERTILIZER AND SEED.
NOTE: WHEN USING CELL-O-SEED, DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP BY 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS <A.> DOWN, OR <B.> HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.
6. ALL BLANKETS MUST BE SECURELY FASTENED TO THE SLOPE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS RECOMMENDED BY THE MANUFACTURER.

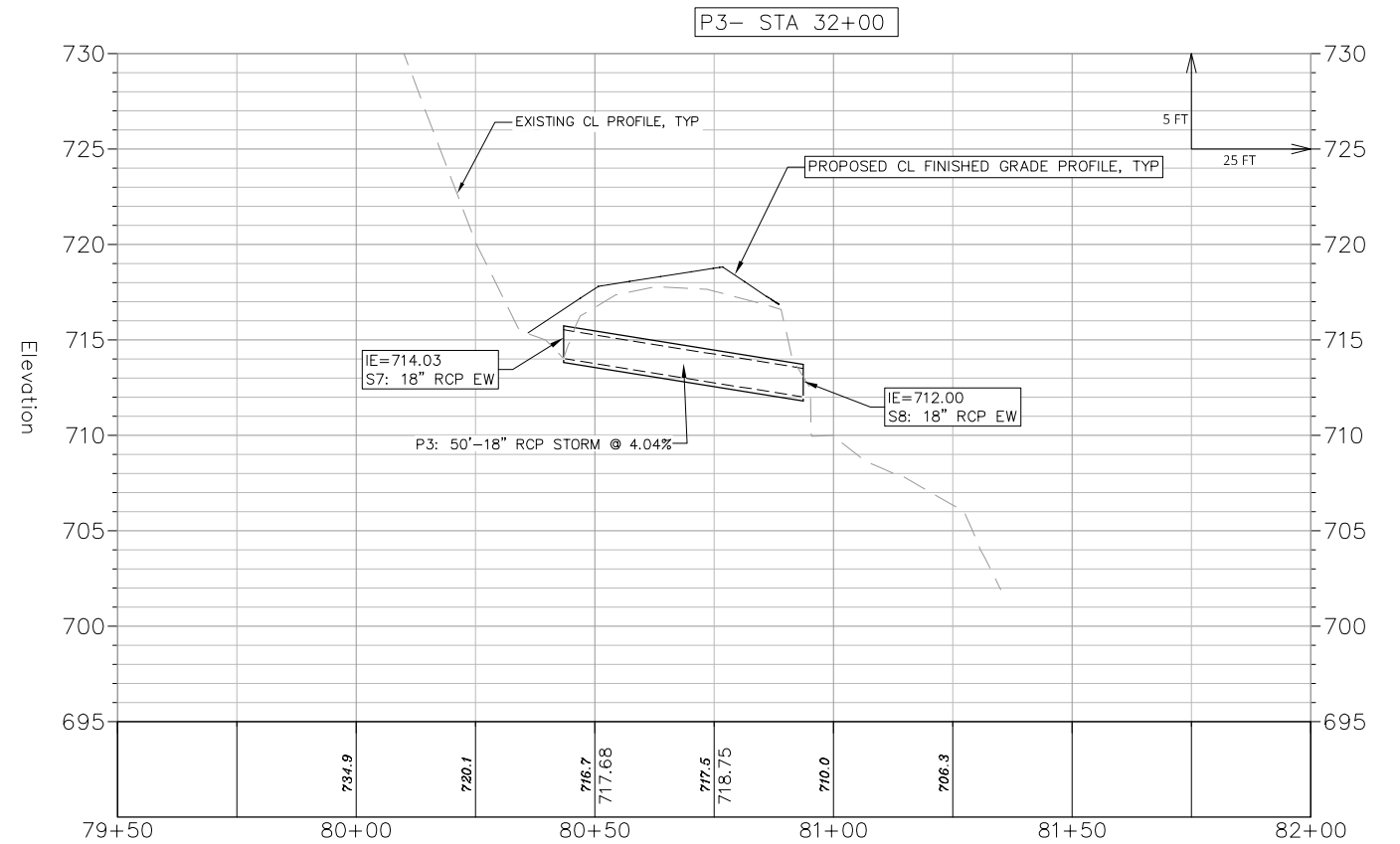
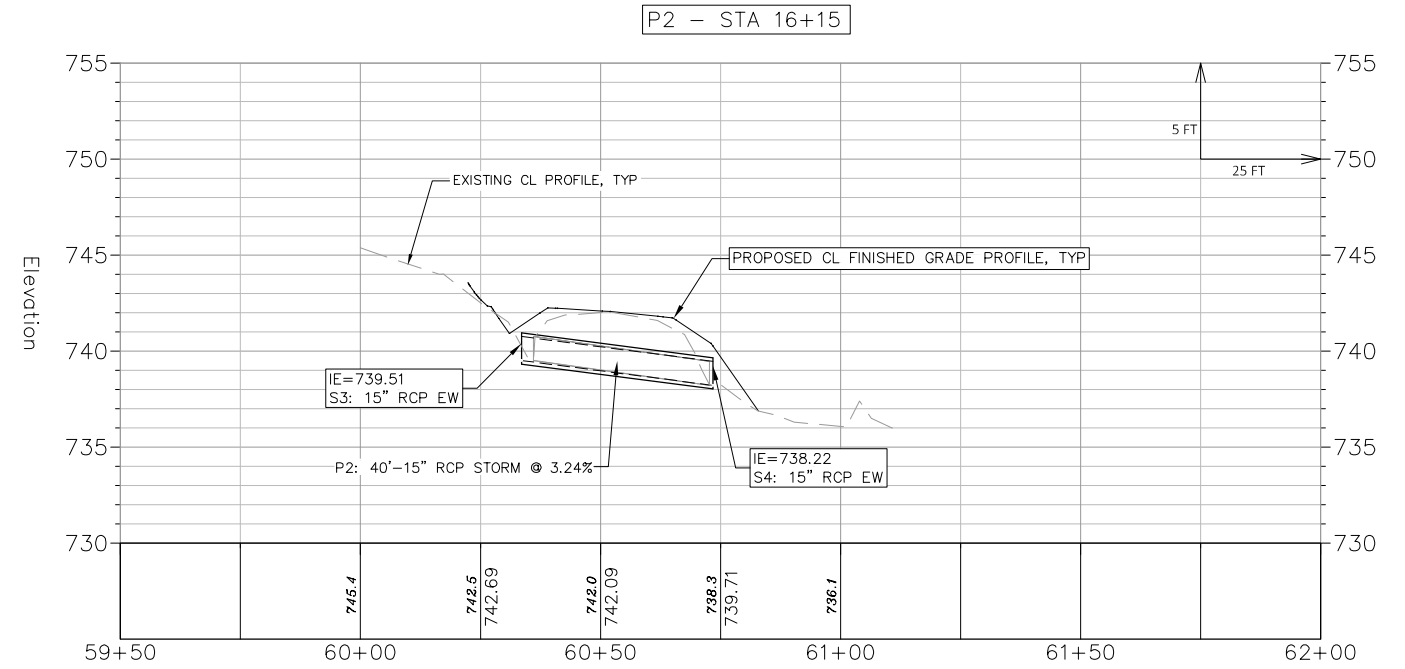
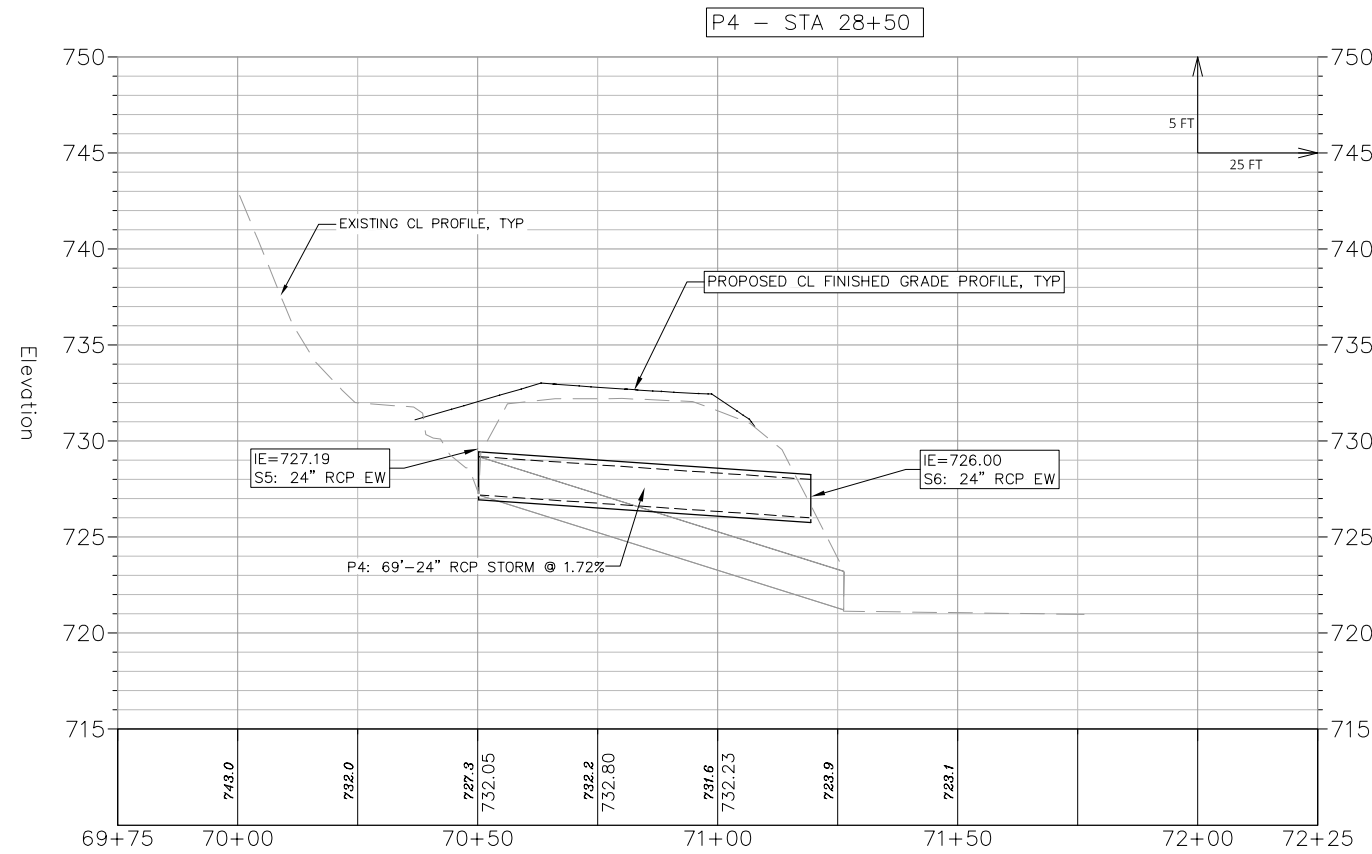
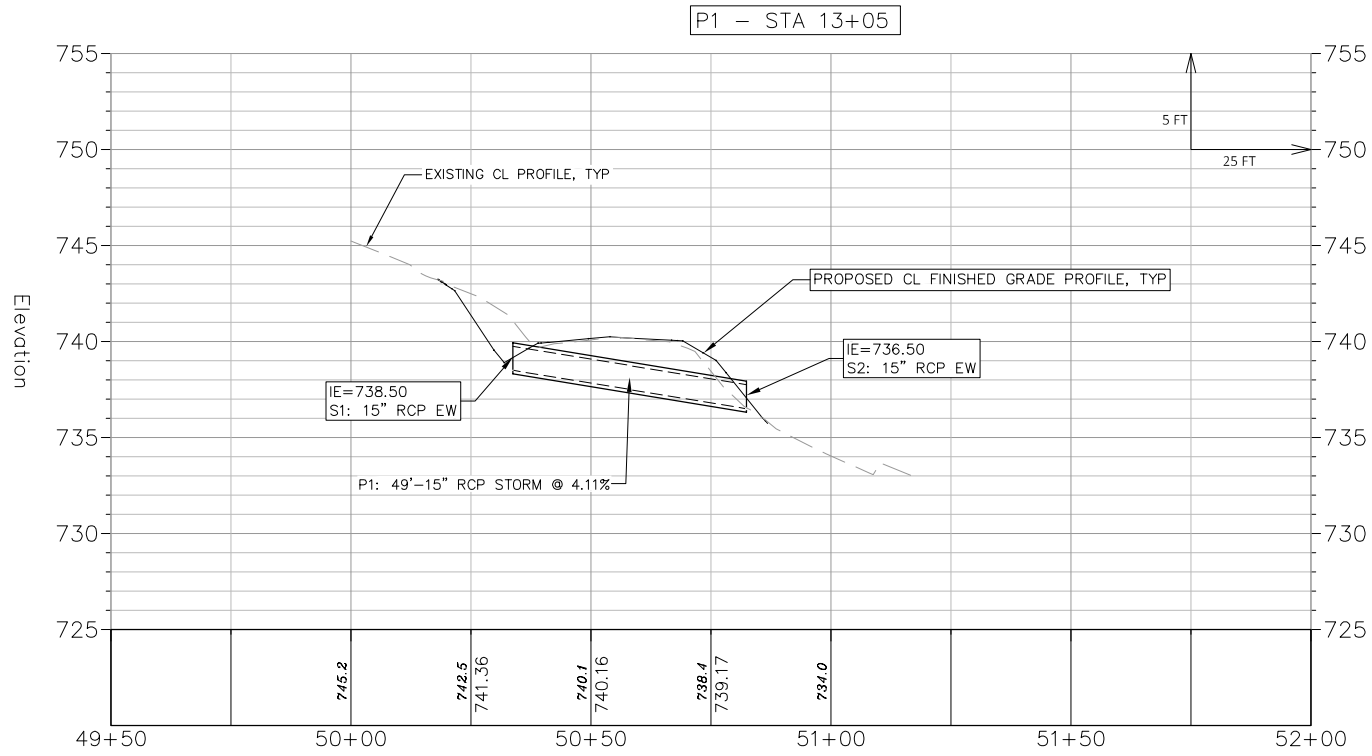
1 EROSION MAT
1 NOT TO SCALE



CROSS SECTION A-A

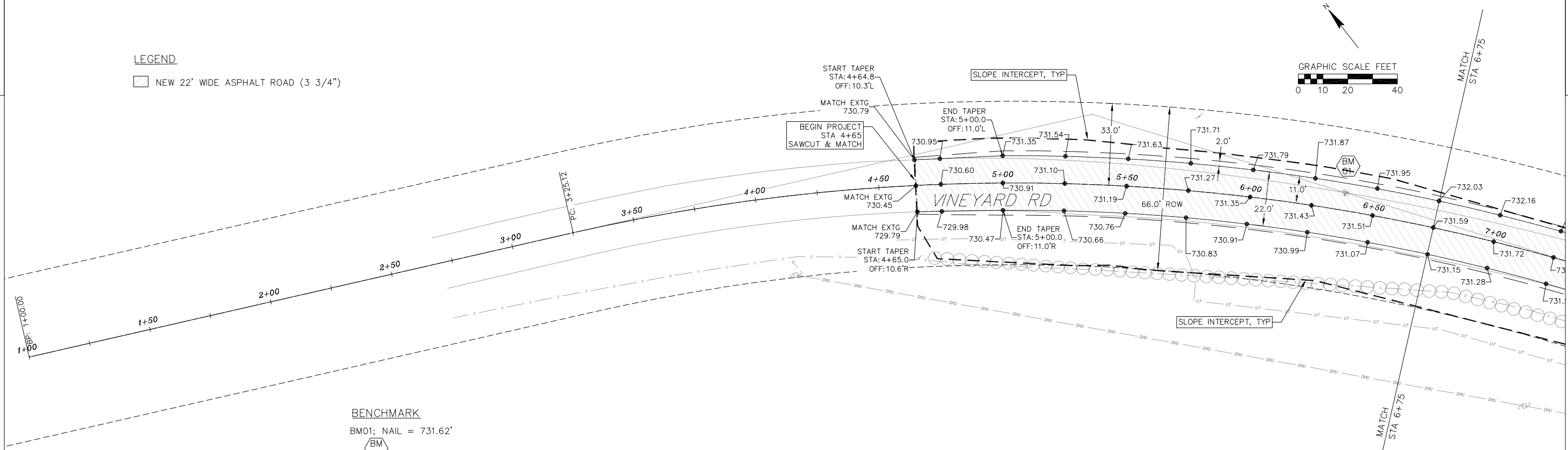


1 RIPRAP OUTLET
1 NOT TO SCALE



LEGEND

NEW 22' WIDE ASPHALT ROAD (3 3/4")



BENCHMARK

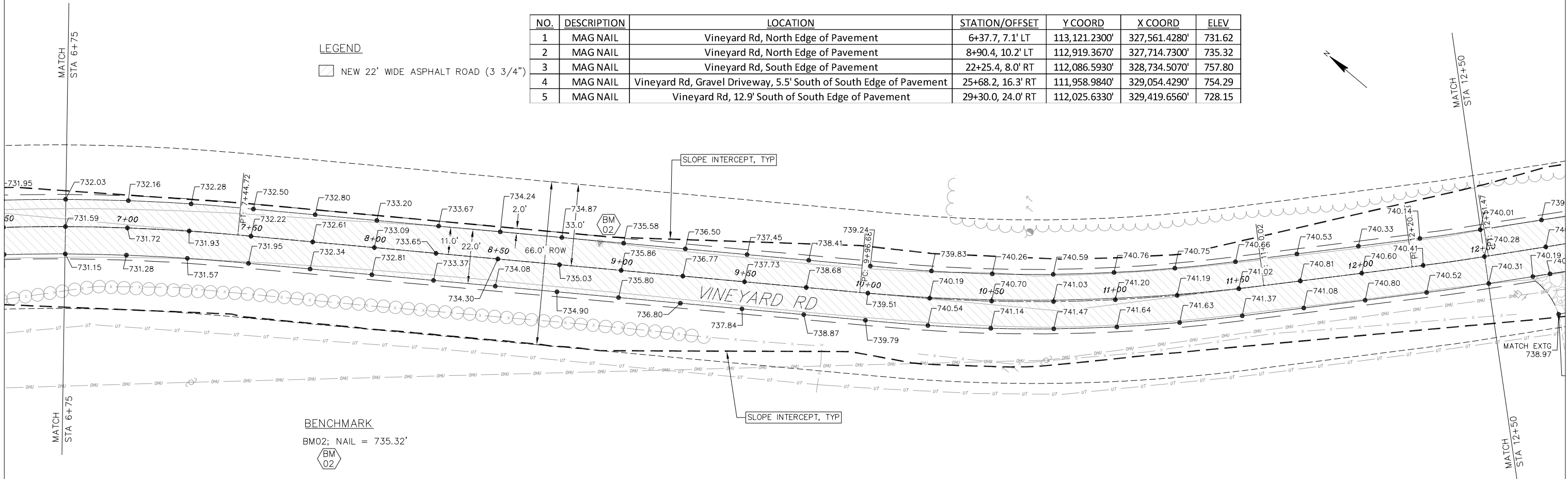
BM01; NAIL = 731.62'



LEGEND

NEW 22' WIDE ASPHALT ROAD (3 3/4")

NO.	DESCRIPTION	LOCATION	STATION/OFFSET	Y COORD	X COORD	ELEV
1	MAG NAIL	Vineyard Rd, North Edge of Pavement	6+37.7, 7.1' LT	113,121.2300'	327,561.4280'	731.62
2	MAG NAIL	Vineyard Rd, North Edge of Pavement	8+90.4, 10.2' LT	112,919.3670'	327,714.7300'	735.32
3	MAG NAIL	Vineyard Rd, South Edge of Pavement	22+25.4, 8.0' RT	112,086.5930'	328,734.5070'	757.80
4	MAG NAIL	Vineyard Rd, Gravel Driveway, 5.5' South of South Edge of Pavement	25+68.2, 16.3' RT	111,958.9840'	329,054.4290'	754.29
5	MAG NAIL	Vineyard Rd, 12.9' South of South Edge of Pavement	29+30.0, 24.0' RT	112,025.6330'	329,419.6560'	728.15



BENCHMARK

BM02; NAIL = 735.32'



PROJECT NO: 5319-00-70

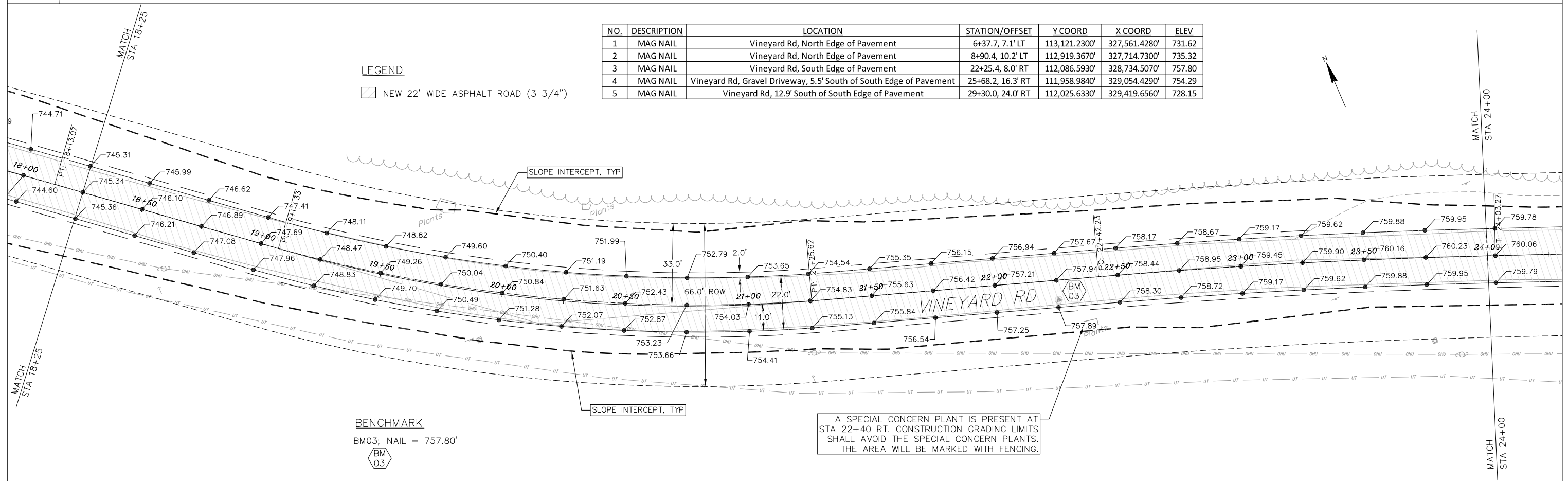
HWY: VINEYARD ROAD

COUNTY: CRAWFORD

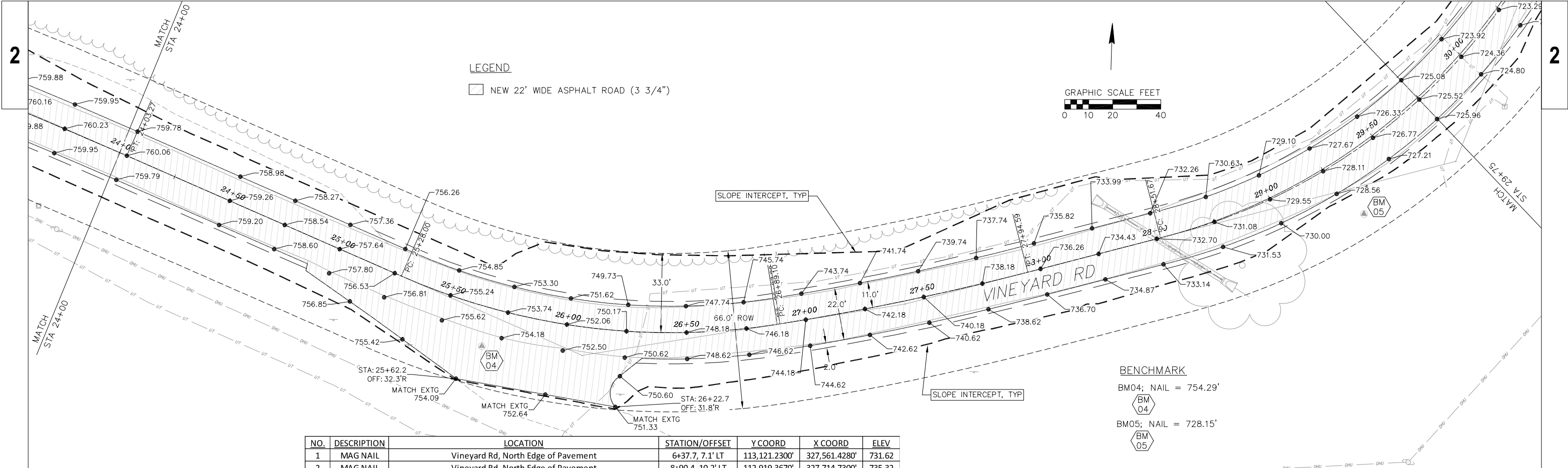
PAVING PLAN

SHEET

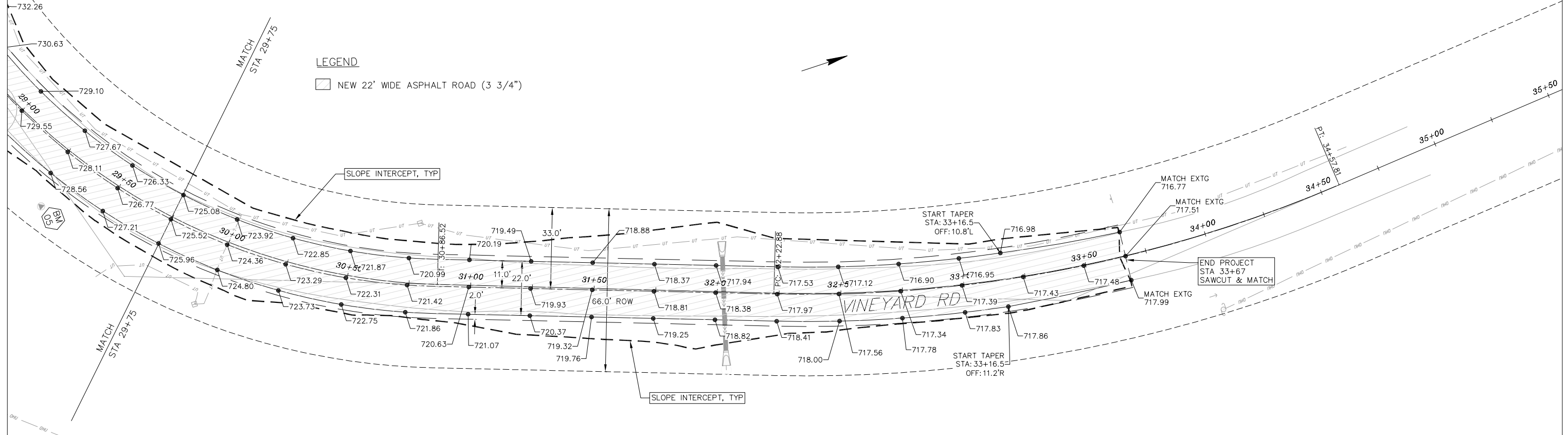
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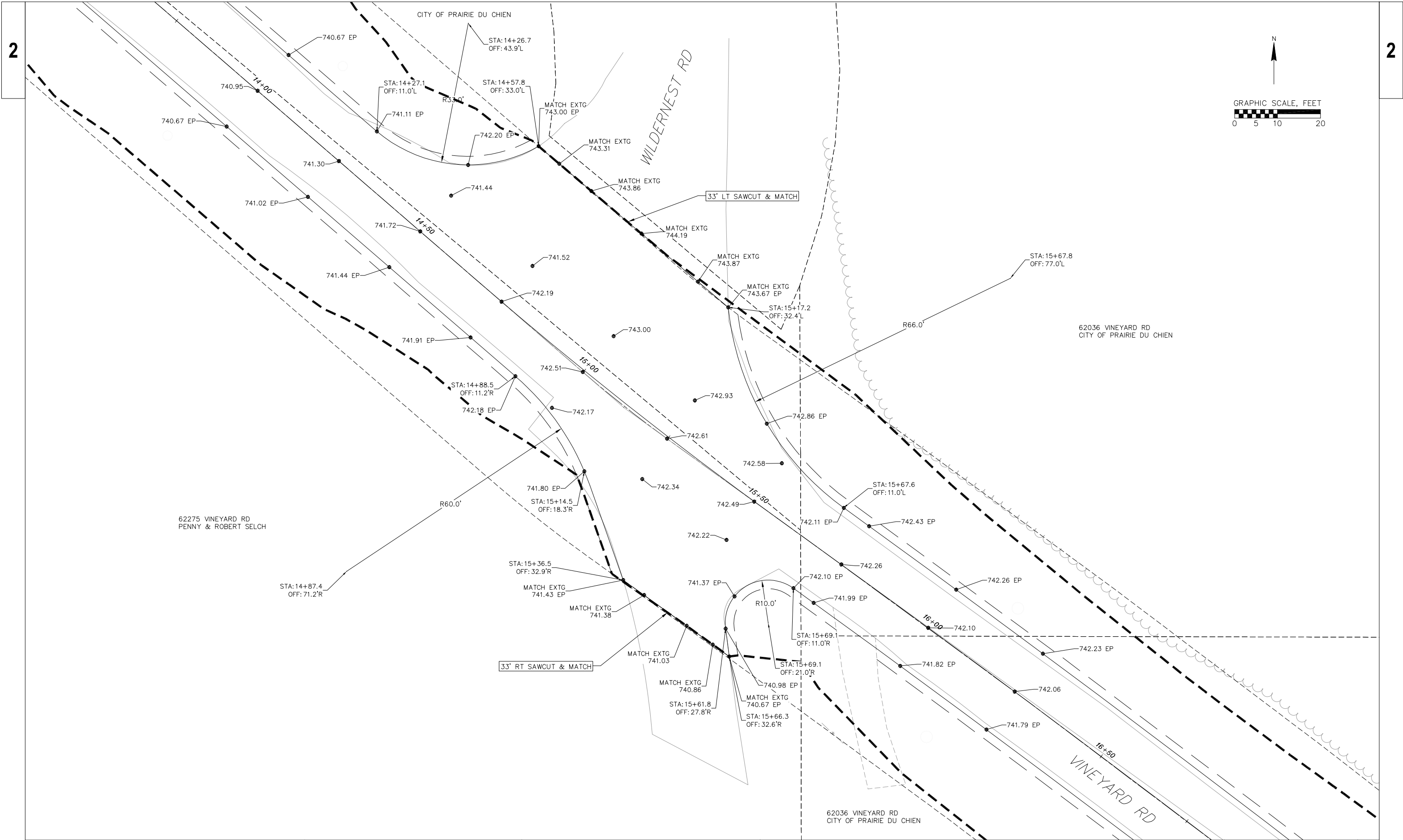
A SPECIAL CONCERN PLANT IS PRESENT AT STA 22+40 RT. CONSTRUCTION GRADING LIMITS SHALL AVOID THE SPECIAL CONCERN PLANTS. THE AREA WILL BE MARKED WITH FENCING.



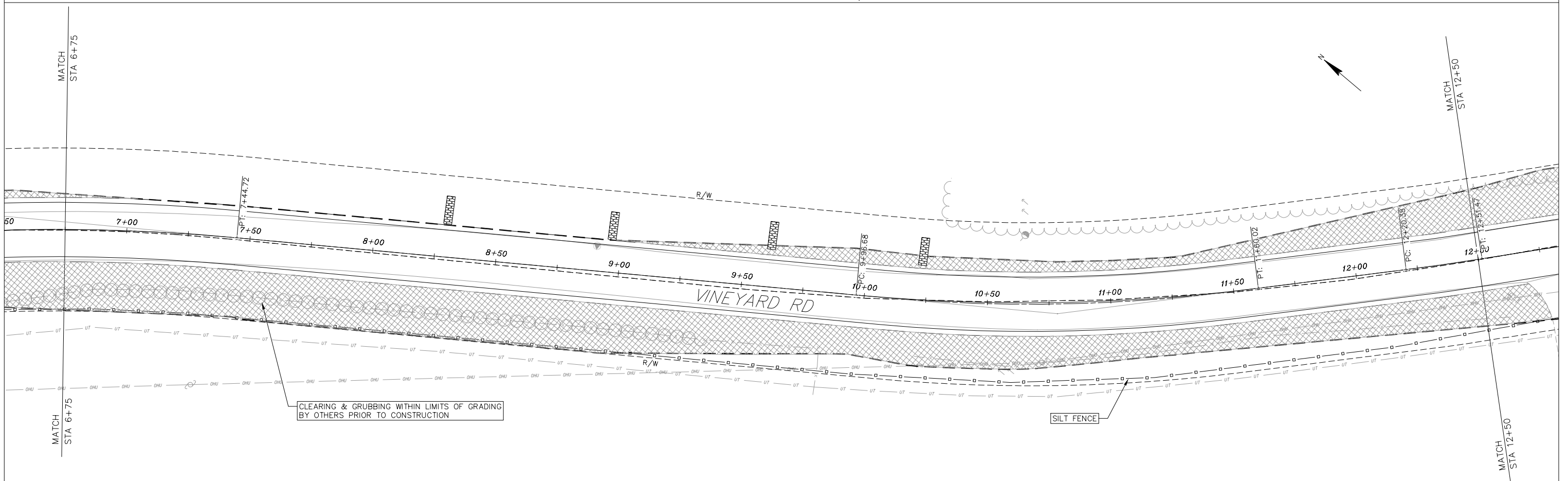
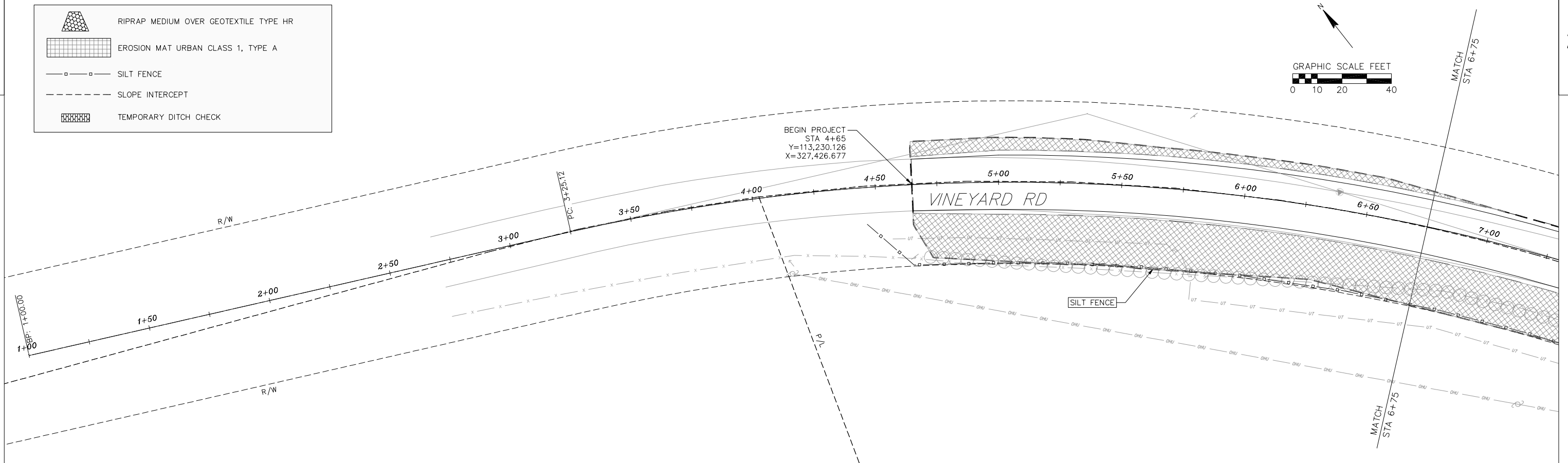
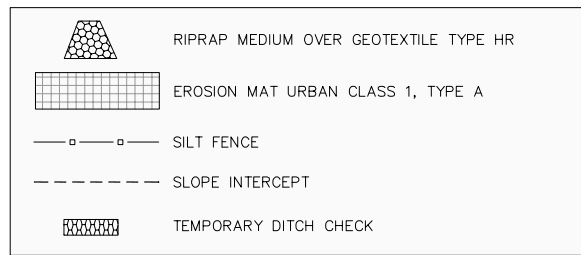
NO.	DESCRIPTION	LOCATION	STATION/OFFSET	YCOORD	XCOORD	ELEV
1	MAG NAIL	Vineyard Rd, North Edge of Pavement	6+37.7, 7.1' LT	113,121.2300'	327,561.4280'	731.62
2	MAG NAIL	Vineyard Rd, North Edge of Pavement	8+90.4, 10.2' LT	112,919.3670'	327,714.7300'	735.32
3	MAG NAIL	Vineyard Rd, South Edge of Pavement	22+25.4, 8.0' RT	112,086.5930'	328,734.5070'	757.80
4	MAG NAIL	Vineyard Rd, Gravel Driveway, 5.5' South of South Edge of Pavement	25+68.2, 16.3' RT	111,958.9840'	329,054.4290'	754.29
5	MAG NAIL	Vineyard Rd, 12.9' South of South Edge of Pavement	29+30.0, 24.0' RT	112,025.6330'	329,419.6560'	728.15



PROJECT NO: 5319-00-70	HWY: VINEYARD ROAD	COUNTY: CRAWFORD	PAVING PLAN	SHEET	E
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PROJECT NO: 5319-00-70	HWY: VINEYARD ROAD	COUNTY: CRAWFORD	INTERSECTION DETAIL	SHEET	E
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PROJECT NO: 5319-00-70

HWY: VINEYARD ROAD

COUNTY: CRAWFORD

EROSION CONTROL PLAN

SHEET

E

FILE NAME: R:\PRAIRIE DU CHIEN, CITY OF\230032 - VINEYARD ROAD RECONSTRUCTION\CADD\PDCH VINEYARD ROAD EROSION CONTROL PLAN.DWG
LAYOUT NAME - EC 1

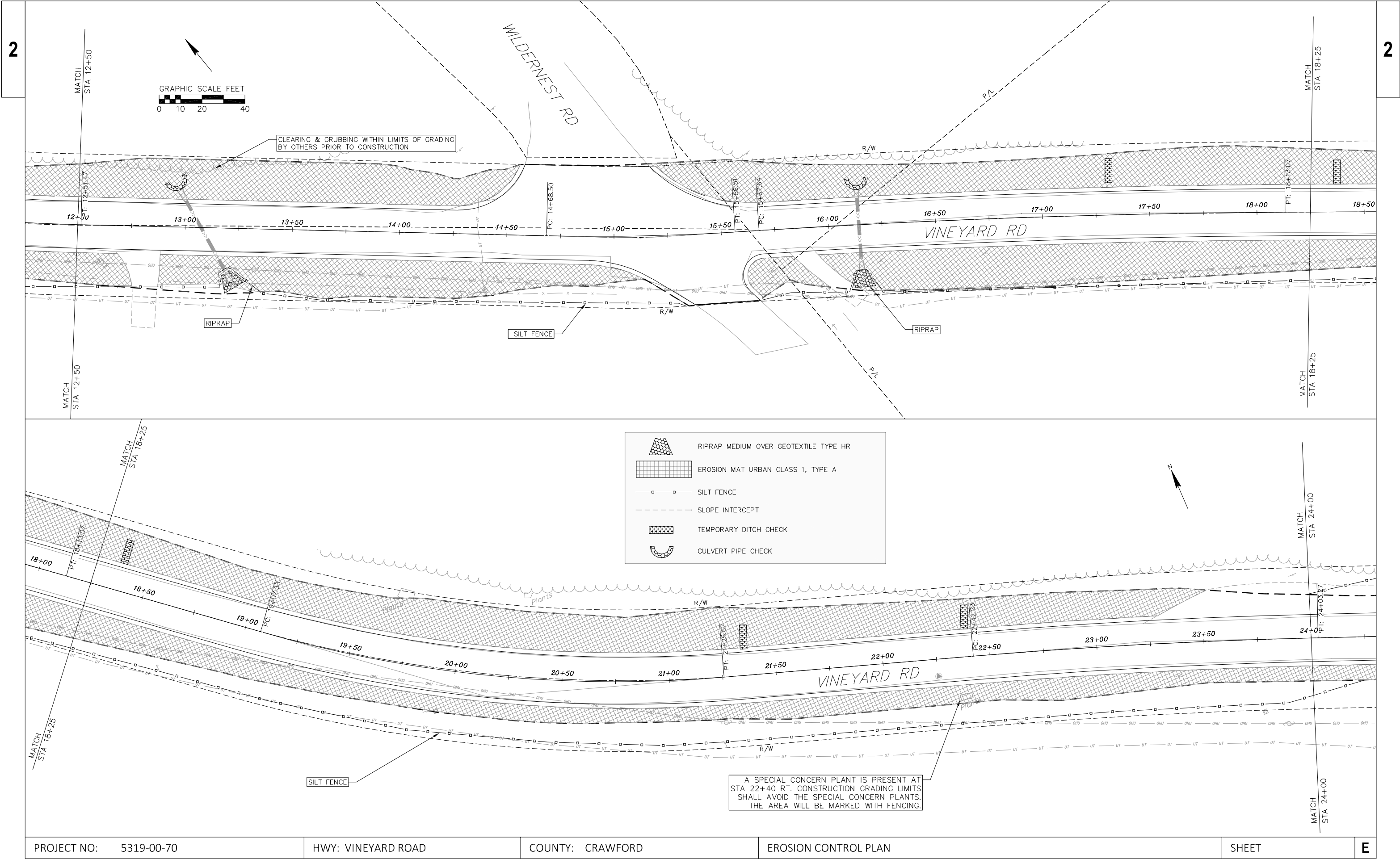
PLOT DATE: 10/29/2024 11:50 AM

PLOT BY: PAUL JUNION

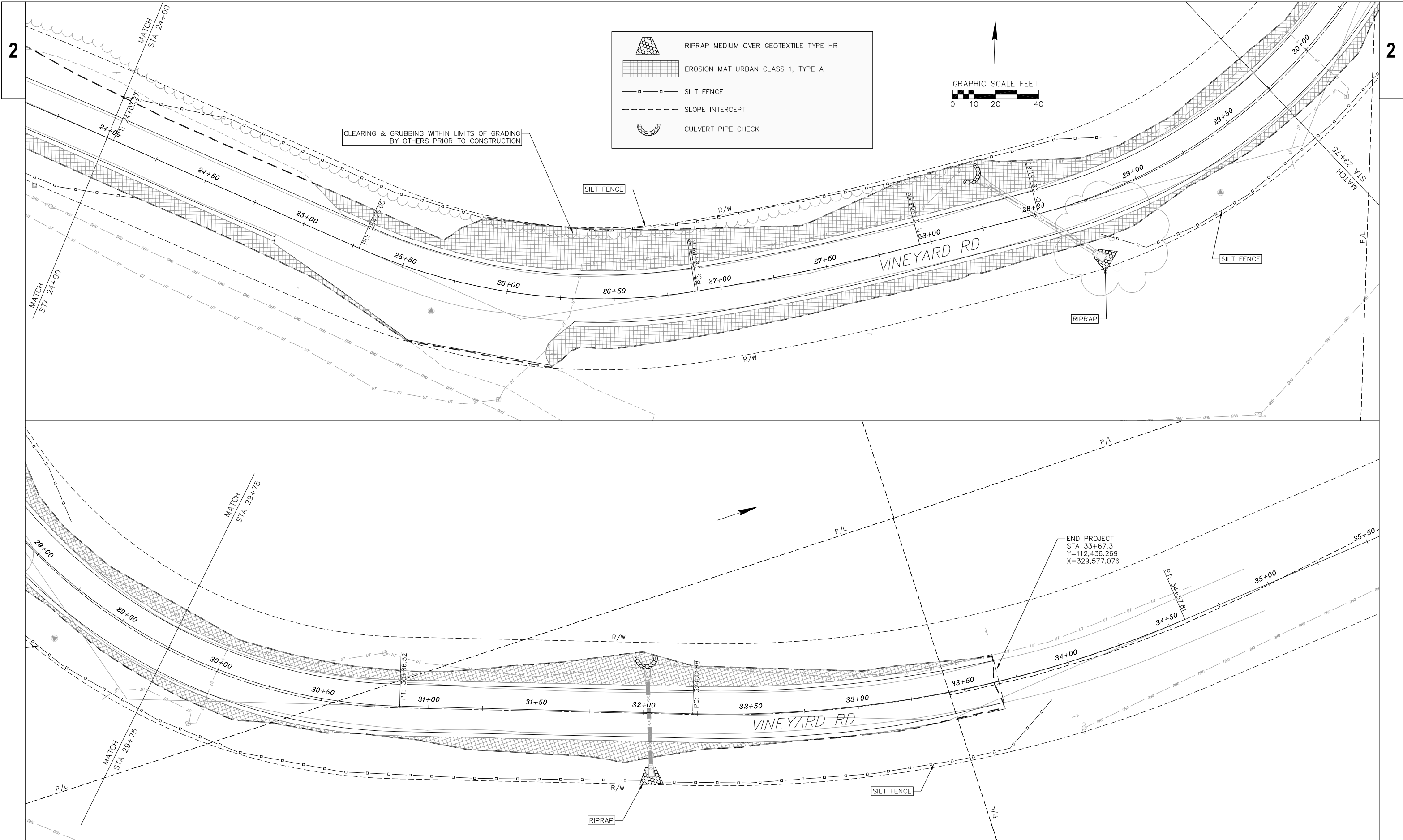
PLOT NAME:

PLOT SCALE: 1 IN:20 FT

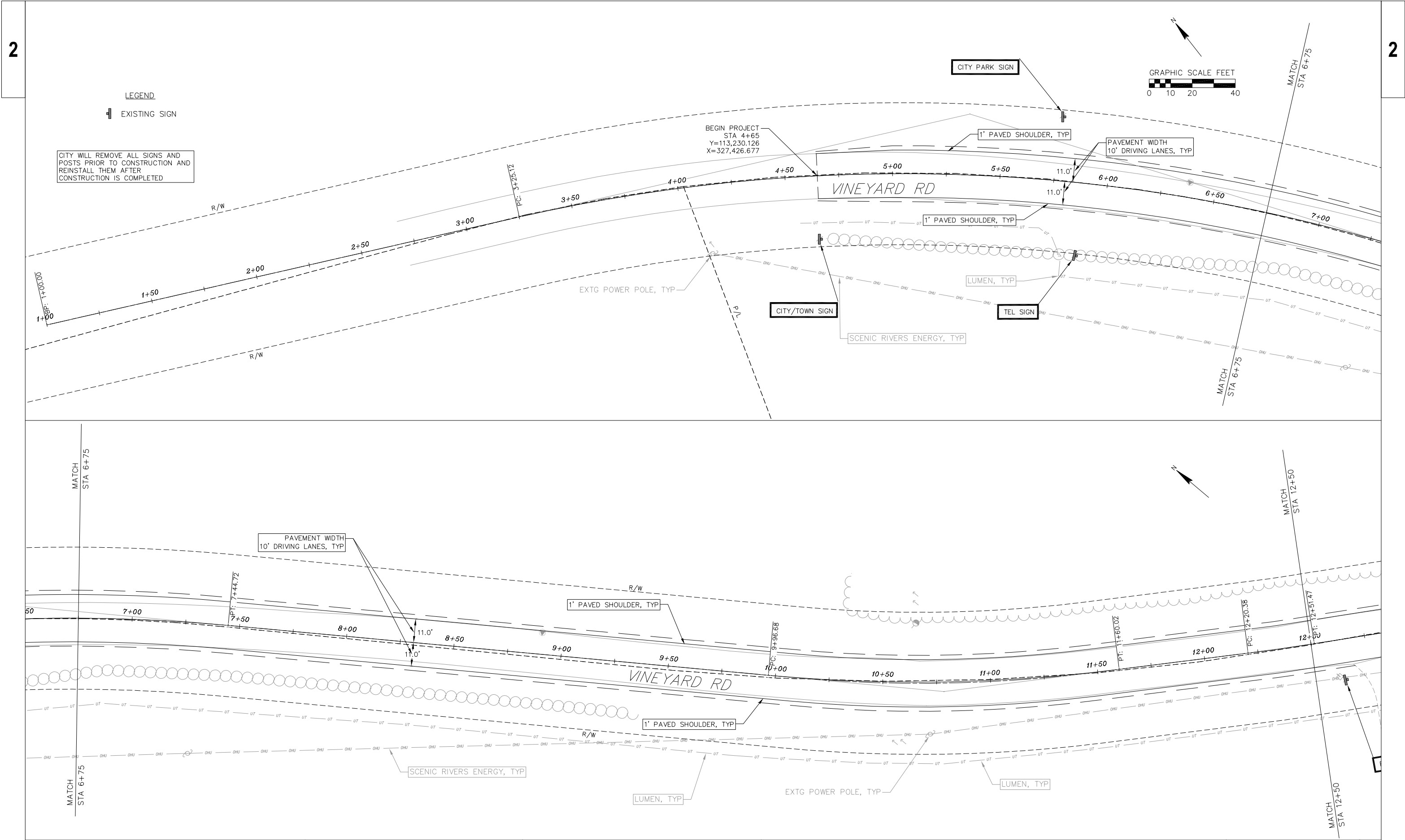
WISDOT/CADDs SHEET 42



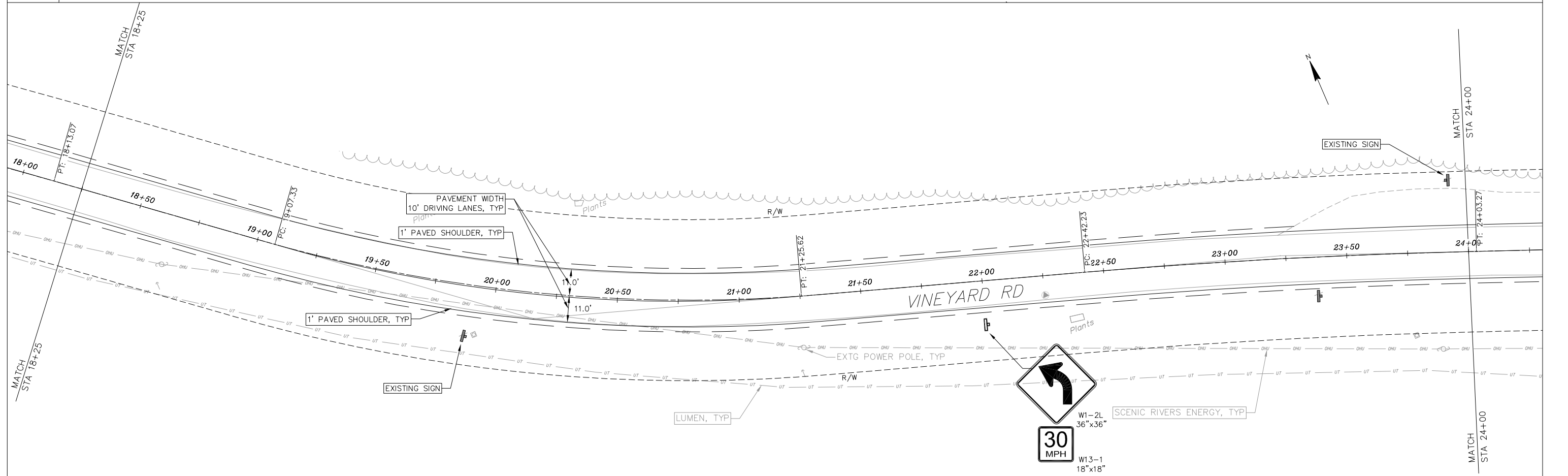
PROJECT NO: 5319-00-70	HWY: VINEYARD ROAD	COUNTY: CRAWFORD	EROSION CONTROL PLAN	SHEET	E
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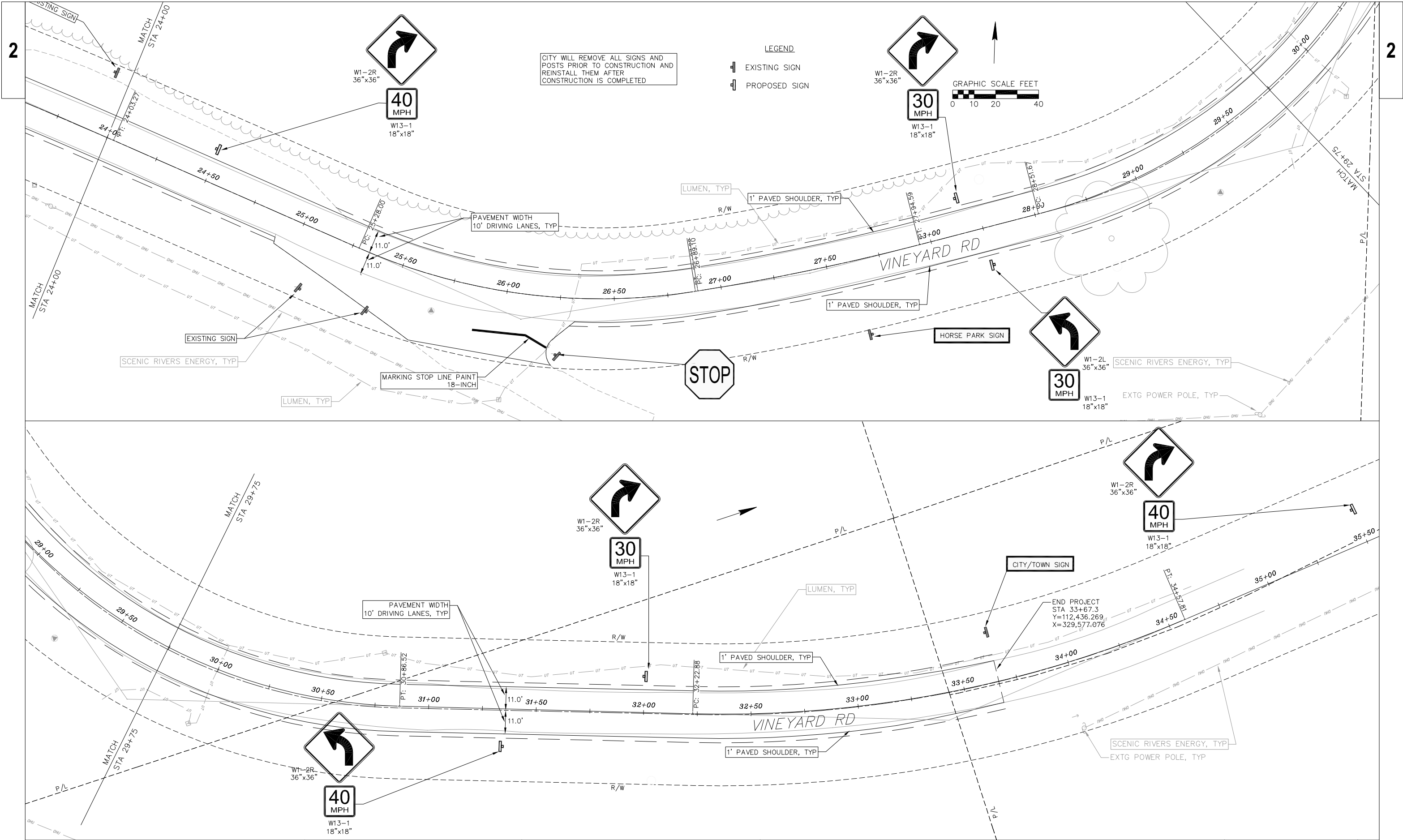


PROJECT NO: 5319-00-70	HWY: VINEYARD ROAD	COUNTY: CRAWFORD	EROSION CONTROL PLAN	SHEET E
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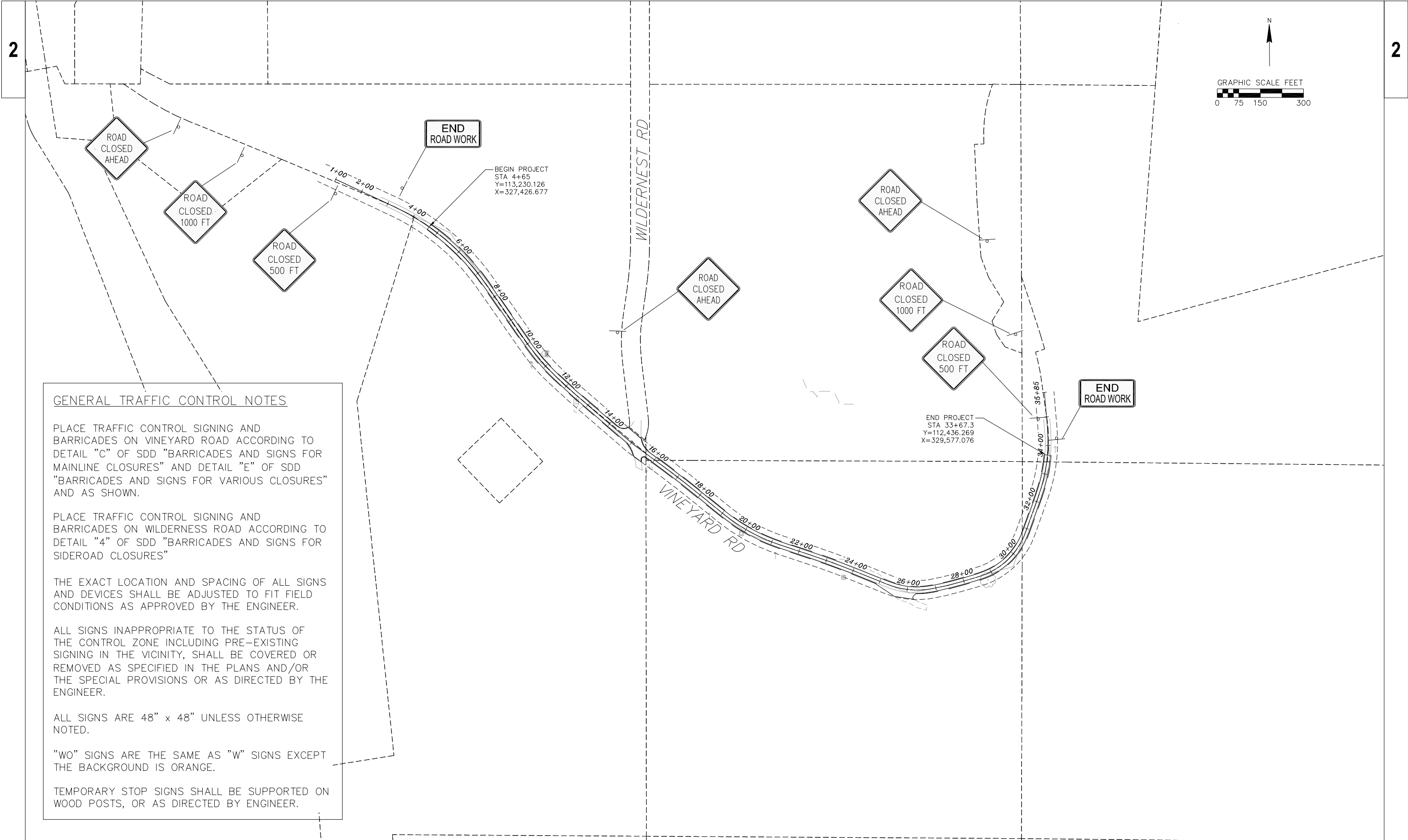


PROJECT NO: 5319-00-70	HWY: VINEYARD ROAD	COUNTY: CRAWFORD	PERMANENT SIGNING & PAVEMENT MARKING PLAN	SHEET	E
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PROJECT NO: 5319-00-70	HWY: VINEYARD ROAD	COUNTY: CRAWFORD	PERMANENT SIGNING & PAVEMENT MARKING PLAN	SHEET	E
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GENERAL TRAFFIC CONTROL NOTES

PLACE TRAFFIC CONTROL SIGNING AND BARRICADES ON VINEYARD ROAD ACCORDING TO DETAIL "C" OF SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" AND DETAIL "E" OF SDD "BARRICADES AND SIGNS FOR VARIOUS CLOSURES" AND AS SHOWN.

PLACE TRAFFIC CONTROL SIGNING AND BARRICADES ON WILDERNESS ROAD ACCORDING TO DETAIL "4" OF SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"

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

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE INCLUDING PRE-EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

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

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

TEMPORARY STOP SIGNS SHALL BE SUPPORTED ON WOOD POSTS, OR AS DIRECTED BY ENGINEER.

PROJECT NO: 5319-00-70

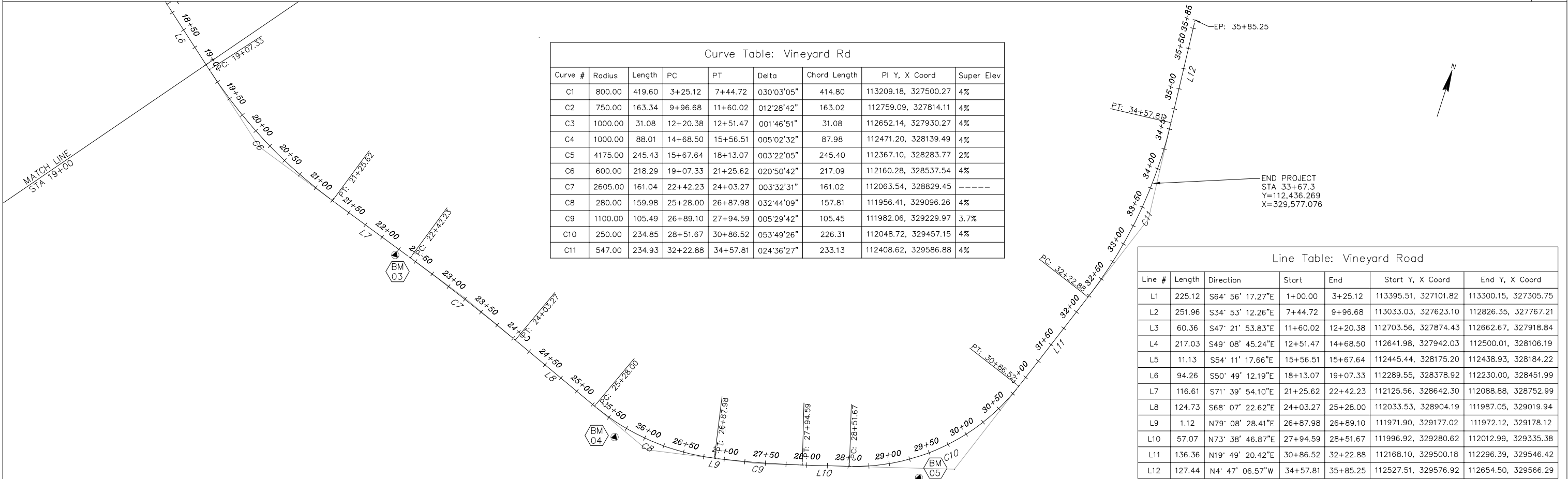
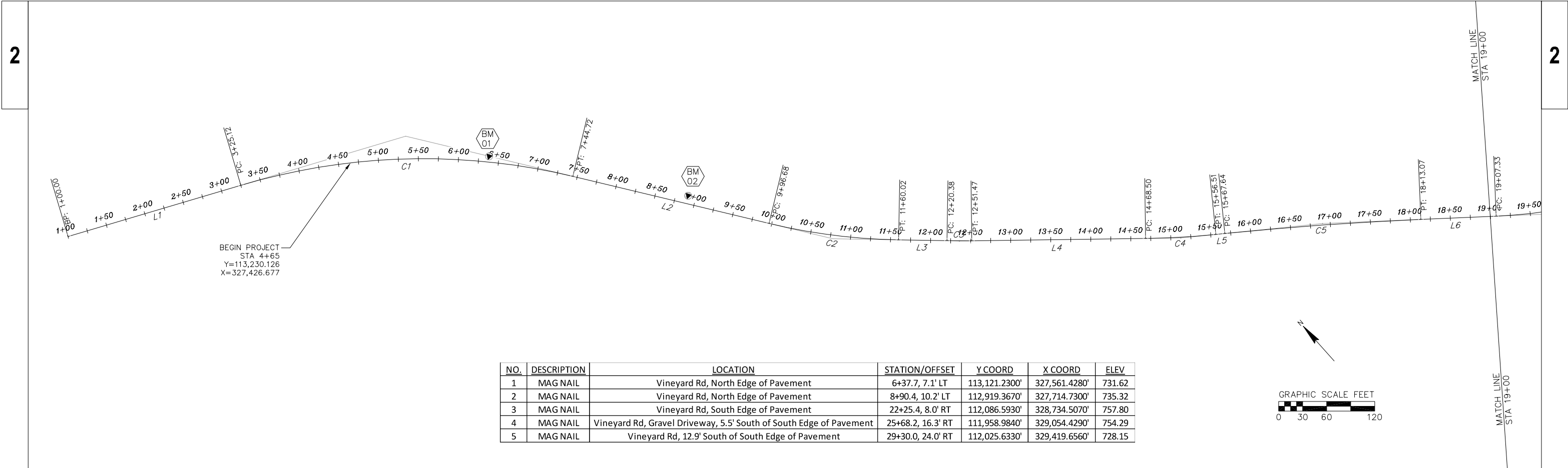
HWY: VINEYARD ROAD

COUNTY: CRAWFORD

TRAFFIC CONTROL PLAN

SHEET

E



Estimate Of Quantities

5319-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	4.000	4.000
0004	205.0100	Excavation Common	CY	3,500.000	3,500.000
0006	213.0100	Finishing Roadway (project) 01. 5319-00-70	EACH	1.000	1.000
0008	305.0110	Base Aggregate Dense 3/4-Inch	TON	328.000	328.000
0010	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	5,800.000	5,800.000
0012	310.0115	Base Aggregate Open-Graded	CY	90.000	90.000
0014	455.0605	Tack Coat	GAL	520.000	520.000
0016	460.2000	Incentive Density HMA Pavement	DOL	1,050.000	1,050.000
0018	460.6224	HMA Pavement 4 MT 58-28 S	TON	1,640.000	1,640.000
0020	522.0415	Culvert Pipe Reinforced Concrete Class IV 15-Inch	LF	83.000	83.000
0022	522.0418	Culvert Pipe Reinforced Concrete Class IV 18-Inch	LF	52.000	52.000
0024	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	76.000	76.000
0026	522.1015	Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	EACH	4.000	4.000
0028	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	2.000	2.000
0030	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0032	606.0200	Riprap Medium	CY	20.000	20.000
0034	619.1000	Mobilization	EACH	1.000	1.000
0036	624.0100	Water	MGAL	61.000	61.000
0038	625.0500	Salvaged Topsoil	SY	7,000.000	7,000.000
0040	628.1504	Silt Fence	LF	2,800.000	2,800.000
0042	628.1520	Silt Fence Maintenance	LF	4,200.000	4,200.000
0044	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0046	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0048	628.2006	Erosion Mat Urban Class I Type A	SY	7,000.000	7,000.000
0050	628.7504	Temporary Ditch Checks	LF	100.000	100.000
0052	628.7555	Culvert Pipe Checks	EACH	4.000	4.000
0054	629.0210	Fertilizer Type B	CWT	5.000	5.000
0056	630.0130	Seeding Mixture No. 30	LB	150.000	150.000
0058	630.0500	Seed Water	MGAL	110.000	110.000
0060	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	16.000	16.000
0062	637.2230	Signs Type II Reflective F	SF	90.000	90.000
0064	642.5001	Field Office Type B	EACH	1.000	1.000
0066	643.0300	Traffic Control Drums	DAY	1,200.000	1,200.000
0068	643.0420	Traffic Control Barricades Type III	DAY	400.000	400.000
0070	643.0705	Traffic Control Warning Lights Type A	DAY	800.000	800.000
0072	643.0715	Traffic Control Warning Lights Type C	DAY	1,200.000	1,200.000
0074	643.0900	Traffic Control Signs	DAY	1,000.000	1,000.000
0076	643.5000	Traffic Control	EACH	1.000	1.000
0078	645.0120	Geotextile Type HR	SY	60.000	60.000
0080	646.6105	Marking Stop Line Paint 18-Inch	LF	50.000	50.000
0082	650.4500	Construction Staking Subgrade	LF	2,903.000	2,903.000
0084	650.5000	Construction Staking Base	LF	2,903.000	2,903.000
0086	650.6000	Construction Staking Pipe Culverts	EACH	4.000	4.000
0088	650.9911	Construction Staking Supplemental Control (project) 01. 5319-00-70	EACH	1.000	1.000
0090	650.9920	Construction Staking Slope Stakes	LF	2,903.000	2,903.000
0092	690.0150	Sawing Asphalt	LF	130.000	130.000
0094	740.0440	Incentive IRI Ride	DOL	2,200.000	2,200.000

DIVISION	FROM/TO STATION	LOCATION	EXCAVATION COMMON (1)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	WASTE (15)
			CUT (2)				FACTOR 1.20		
DIVISION 1									
VINEYARD ROAD	4+65 to 33+67	Vineyard Road	3,500	534	2,966	586	703	2,263	2,263
VINEYARD TOTAL			3,500	534	2,966	586	703	2,263	
TOTAL EXCAVATION COMMON			3,500						
NOTES:									
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100									
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.									
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL									
5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL									
(14) 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.									
(15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.									

BASE COURSE ITEMS					
		305.0120	305.0110	624.0100	
			BASE		
		BASE AGGREGATE	AGGREGATE		
		DENSE 1 1/4-INCH	DENSE 3/4-INCH		
STATION TO STATION	LOCATION	TON	TON	WATER	REMARKS
4+65 - 33+67.3	PROJECT	5800	-	58	
4+65 - 33+67.3	PROJECT	-	290	3	
12+80	RT		20		DRIVEWAY
15+85	RT		18		TRAIL
PROJECT TOTAL		5800	328	61	

ASPHALTIC PAVEMENT ITEMS			
		455.0605	460.6224
		TACK COAT	HMA PAVEMENT
			4 MT 58-28 S
STATION TO STATION	LOCATION	GAL	TON
4+65 - 33+67.3	PROJECT	520	1640
PROJECT TOTAL		520	1640

SAWING ASPHALT		
		690.0150
		SAWING ASPHALT
		LF
STATION	LOCATION	
4+65 - 33+67.3	PROJECT	130
PROJECT TOTAL		130

MARKING STOP LINE PAINT 18-INCH		
		646.6105
		MARKING STOP LINE PAINT
		18-INCH
		LF
STATION	LOCATION	
4+65 - 33+67.3	PROJECT	50
PROJECT TOTAL		50

CONSTRUCTION STAKING						
		650.4500	650.5000	650.6000	650.9911	650.9920
		CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION
		STAKING	STAKING	STAKING	STAKING	STAKING
		SUBGRADE	BASE	PIPE	SUPPLEMENTAL	SLOPE
				CULVERTS	CONTROL	STAKES
					(PROJECT)	
STATION TO STATION	LOCATION	LF	LF	EA	EA	LF
4+65 - 33+67.3	PROJECT	2903	2903	4	1	2903
PROJECT TOTAL		2903	2903	4	1	2903

TRAFFIC CONTROL DRUMS		
		643.0300
		TRAFFIC CONTROL DRUMS
		DAY
STATION	LOCATION	
4+65 - 33+67.3	PROJECT	1200
PROJECT TOTAL		1200
TRAFFIC CONTROL BARRICADES TYPE III		
		643.0420
		TRAFFIC CONTROL
		BARRICADES TYPE III
		DAY
STATION	LOCATION	
4+65 - 33+67.3	PROJECT	400
PROJECT TOTAL		400
TRAFFIC CONTROL WARNING LIGHTS TYPE A		
		643.0705
		TRAFFIC CONTROL WARNING
		LIGHTS TYPE A
		DAY
STATION	LOCATION	
4+65 - 33+67.3	PROJECT	800
PROJECT TOTAL		800
TRAFFIC CONTROL WARNING LIGHTS TYPE C		
		643.0715
		TRAFFIC CONTROL WARNING
		LIGHTS TYPE C
		DAY
STATION	LOCATION	
4+65 - 33+67.3	PROJECT	1200
PROJECT TOTAL		1200
TRAFFIC CONTROL SIGNS		
		643.0900
		TRAFFIC CONTROL SIGNS
		DAY
STATION	LOCATION	
4+65 - 33+67.3	PROJECT	1000
PROJECT TOTAL		1000
TRAFFIC CONTROL (PROJECT)		
		643.5000
		TRAFFIC CONTROL (PROJECT)
		ES
STATION	LOCATION	
4+65 - 33+67.3	PROJECT	1
PROJECT TOTAL		1

ALL ITEMS ARE ENGINEERING CATEGORY 0010
UNLESS OTHERWISE NOTED

3

3

CULVERT PIPE SUMMARY																
STRUCTURE NUMBER	STRUCTURE TYPE	CENTER OF STRUCTURE		TO STRUCTURE	INVERT ELEVATION	INLET PIPE INVERT ELEVATION	DISCHARGE PIPE OUTLET ELEVATION	SLOPE	BASE AGGREGATE OPEN-GRADED 310.0115 CY	203.0100	522.1015	522.1018	522.1024	522.0415	522.0418	522.0424
		STATION	LOCATION							REMOVING SMALL PIPE	APRON ENDWALLS FOR	APRON ENDWALLS FOR	APRON ENDWALLS FOR	CULVERT PIPE	CULVERT PIPE	CULVERT PIPE
										CULVERTS EA	CONCRETE 15-INCH EA	CONCRETE 18-INCH EA	CONCRETE 24-INCH EA	REINFORCED CONCRETE CLASS IV 15-INCH LF	REINFORCED CONCRETE CLASS IV 18-INCH LF	REINFORCED CONCRETE CLASS IV 24-INCH LF
S1	ENDWALL	12+97.1	17.5' LT	ENDWALL(S2)	738.50	738.50	736.50	4.11%	18	1	1	-	-	43	-	-
S2	ENDWALL	13+18.8	19.7' RT	-	738.02	-	736.50	-	-	-	1	-	-	-	-	-
S3	ENDWALL	16+13.9	18.5' LT	ENDWALL (S4)	739.51	739.51	738.22	3.24%	18	1	1	-	-	40	-	-
S4	ENDWALL	16+14.7	21.4' RT	-	738.22	-	738.22	-	-	-	1	-	-	-	-	-
S5	ENDWALL	28+28.9	22.5' LT	ENDWALL (S6)	727.19	727.19	726.00	1.72%	32	1	-	-	1	-	-	69
S6	ENDWALL	28+77.5	34.5' RT	-	721.21	-	726.00	-	-	-	-	-	1	-	-	-
S7	ENDWALL	32+01.2	20.3' LT	ENDWALL (S8)	714.03	714.03	712.00	4.04%	22	1	-	1	-	-	50	-
S8	ENDWALL	32+04.4	31.6' RT	-	709.94	-	712.00	-	-	-	-	1	-	-	-	-
PROJECT TOTAL					-	-	-	-	90	4	4	2	2	83	52	76

CULVERT PIPE EROSION CONTROL SUMMARY

STRUCTURE NUMBER	STRUCTURE TYPE	CENTER OF STRUCTURE		628.7555 CULVERT PIPE CHECKS EA	645.0120 GEOTEXTILE TYPE HR SY	606.0200 RIPRAP MEDIUM CY
		STATION	LOCATION			
S1	ENDWALL	12+97.1	17.5' LT	1	-	-
S2	ENDWALL	13+18.8	19.7' RT	-	15	5
S3	ENDWALL	16+13.9	18.5' LT	1	-	-
S4	ENDWALL	16+14.7	21.4' RT	-	15	5
S5	ENDWALL	28+28.9	22.5' LT	1	-	-
S6	ENDWALL	28+77.5	34.5' RT	-	15	5
S7	ENDWALL	32+01.2	20.3' LT	1	-	-
S8	ENDWALL	32+04.4	31.6' RT	-	15	5
PROJECT TOTAL				4	60	20

SIGNING

STATION	LOCATION	SIGN CODE	SIGN MESSAGE	SIZE	634.0618 POSTS WOOD 4X6-INCH		637.2230 SIGNS TYPE II REFLECTIVE F		REMARKS
					18-FT		SF		
16+01	RT	W1-2L	ADVANCED WARNING-CURVE LT	36X36	1		9.00		
16+01	RT	W13-1	ADVANCED WARNING-40MPH	18X18	1		2.25		
22+00	RT	W1-2L	ADVANCED WARNING-CURVE LT	36X36	1		9.00		
22+00	RT	W13-1	ADVANCED WARNING-30MPH	18X18	1		2.25		
24+50	LT	W1-2R	ADVANCED WARNING-CURVE RT	36X36	1		9.00		
24+50	LT	W13-1	ADVANCED WARNING-40MPH	18X18	1		2.25		
28+16	LT	W1-2R	ADVANCED WARNING-CURVE RT	36X36	1		9.00		
28+16	LT	W13-1	ADVANCED WARNING-30MPH	18X18	1		2.25		
28+26	RT	W1-2L	ADVANCED WARNING-CURVE LT	36X36	1		9.00		
28+26	RT	W13-1	ADVANCED WARNING-30MPH	18X18	1		2.25		
31+35	RT	W1-2L	ADVANCED WARNING-CURVE LT	36X36	1		9.00		
31+35	RT	W13-1	ADVANCED WARNING-40MPH	18X18	1		2.25		
32+00	LT	W1-2R	ADVANCED WARNING-CURVE RT	36X36	1		9.00		
32+00	LT	W13-1	ADVANCED WARNING-30MPH	18X18	1		2.25		
35+50	LT	W1-2R	ADVANCED WARNING-CURVE RT	36X36	1		9.00		
35+50	LT	W13-1	ADVANCED WARNING-40MPH	18X18	1		2.25		
PROJECT TOTAL					--	16	90.00		

ALL ITEMS ARE ENGINEERING CATEGORY 0010
UNLESS OTHERWISE NOTED

PROJECT NO:	5319-00-70	HWY: VINEYARD ROAD	COUNTY: CRAWFORD	MISCELLANEOUS QUANTITIES	SHEET	E
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TOPSOIL		
625.0500 SALVAGED TOPSOIL		
STATION	LOCATION	SY
4+65 - 33+67.3	PROJECT	7000
PROJECT TOTAL		7000
MOBILIZATION EROSION CONTROL		
628.1905 MOBILIZATION EROSION CONTROL		
STATION	LOCATION	EA
4+65 - 33+67.3	PROJECT	2
PROJECT TOTAL		2
MOBILIZATION EMERGENCY EROSION CONTROL		
628.1910 MOBILIZATION EMERGENCY EROSION CONTROL		
STATION	LOCATION	EA
4+65 - 33+67.3	PROJECT	2
PROJECT TOTAL		2
EROSION MAT URBAN CLASS I TYPE A		
628.2006 EROSION MAT URBAN CLASS I TYPE A		
STATION	LOCATION	SY
4+65 - 33+67.3	PROJECT	7000
PROJECT TOTAL		7000

TEMPORARY DITCH CHECKS		
628.7504 TEMPORARY DITCH CHECKS		
STATION TO STATION	LOCATION	LF
4+65 - 33+67.3	PROJECT	100
PROJECT TOTAL		100

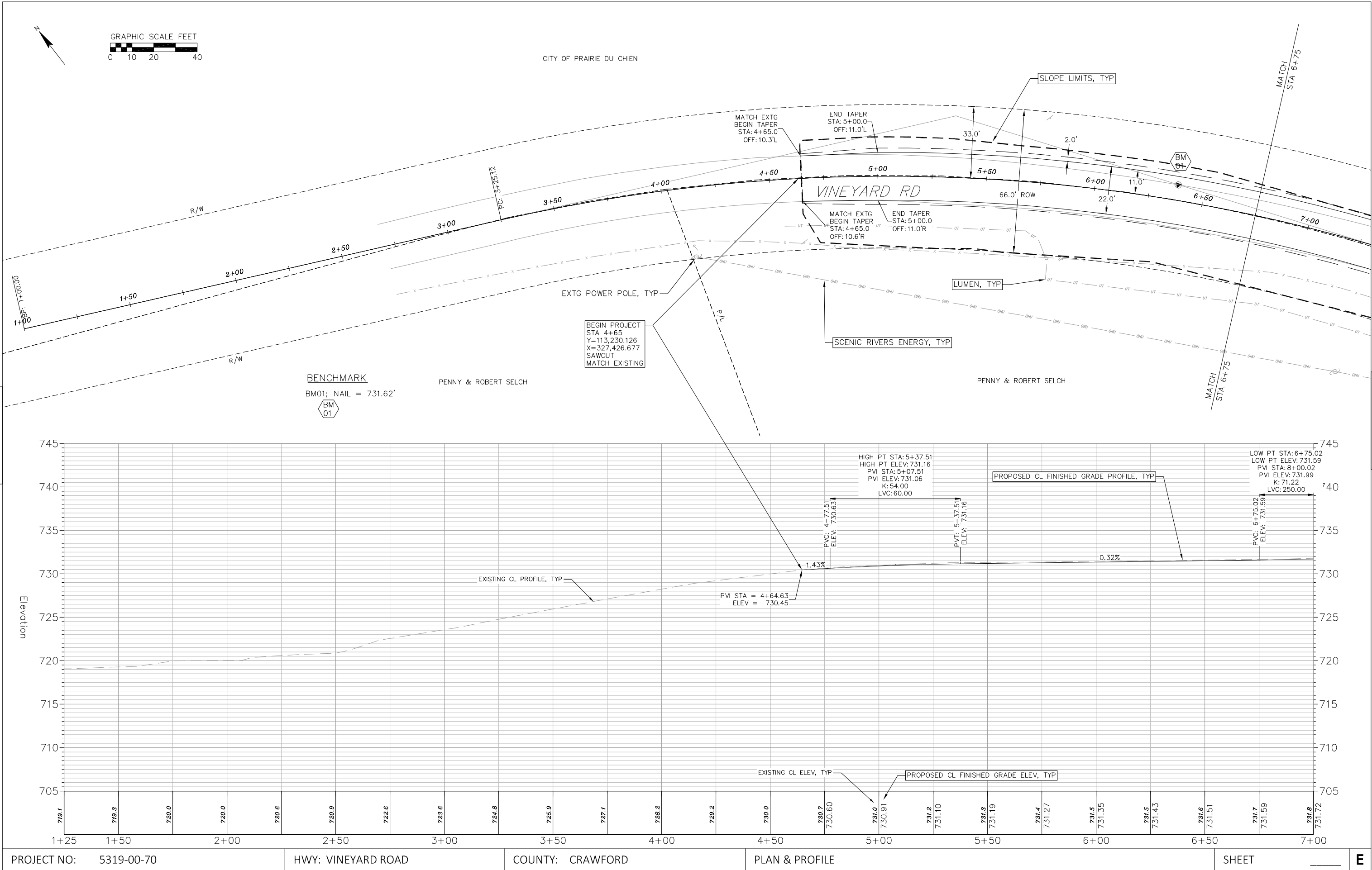
SILT FENCE		
628.1504 SILT FENCE		
STATION	LOCATION	LF
4+65 - 33+67.3	PROJECT	2800
PROJECT TOTAL		2800

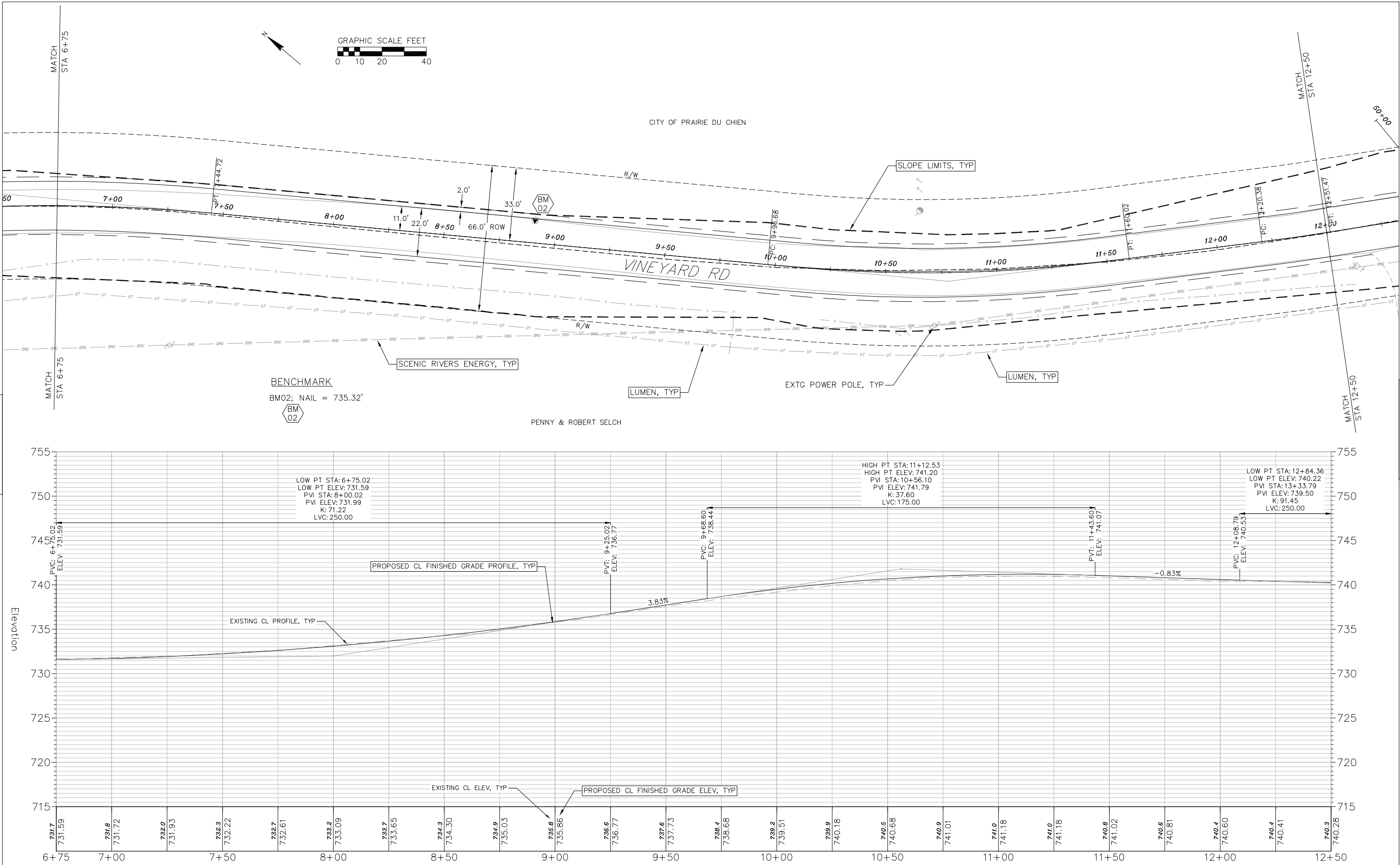
SILT FENCE MAINTENANCE		
628.1520 SILT FENCE MAINTENANCE		
STATION	LOCATION	LF
4+65 - 33+67.3	PROJECT	4200
PROJECT TOTAL		4200

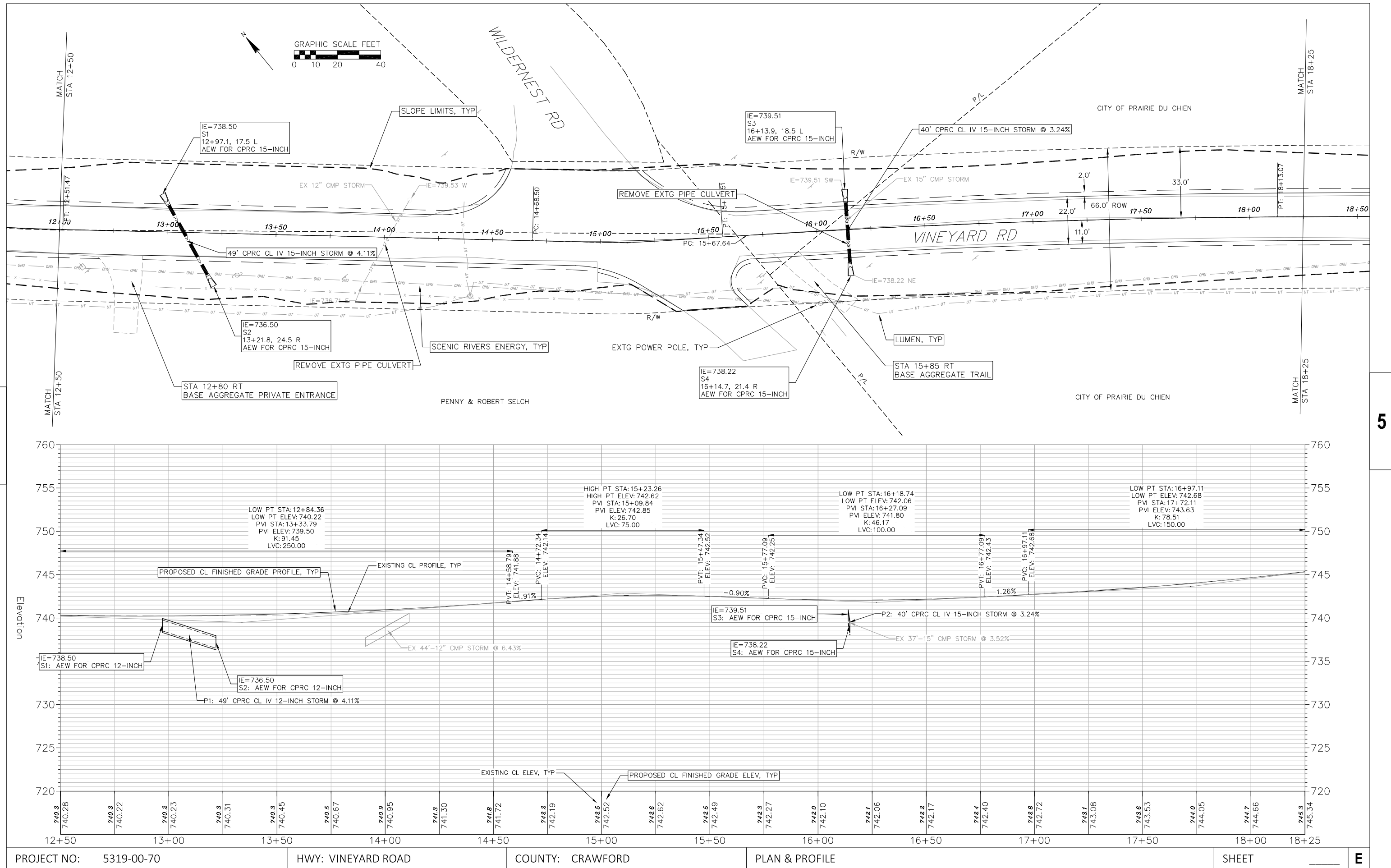
FERTILZER TYPE B		
629.0210 FERTILZER TYPE B		
STATION	LOCATION	CWT
4+65 - 33+67.3	PROJECT	5
PROJECT TOTAL		5

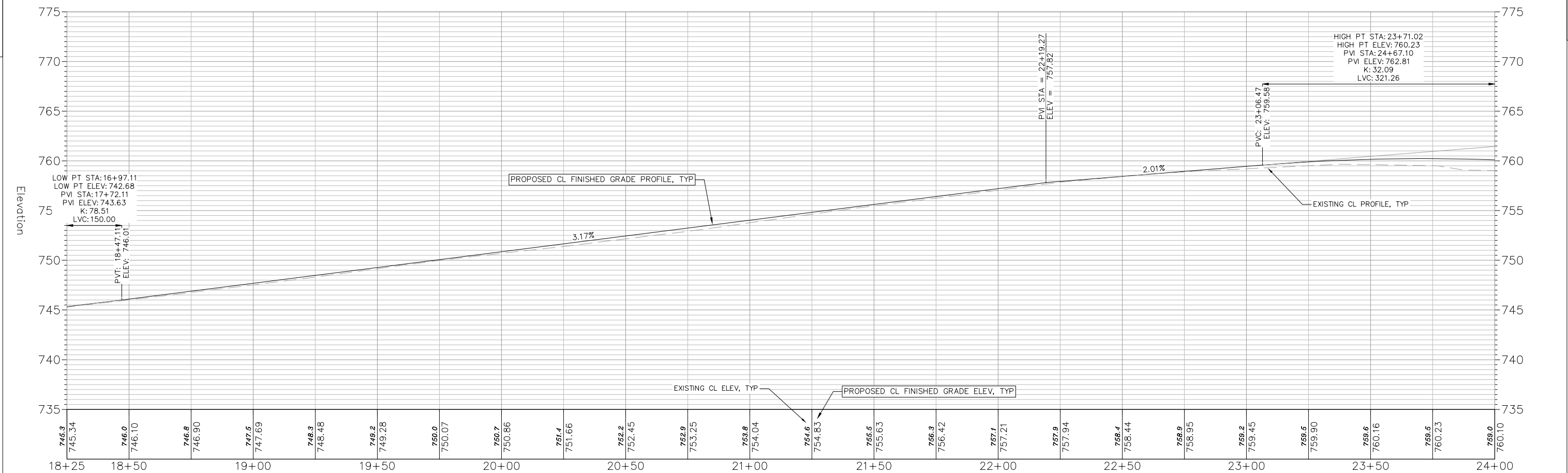
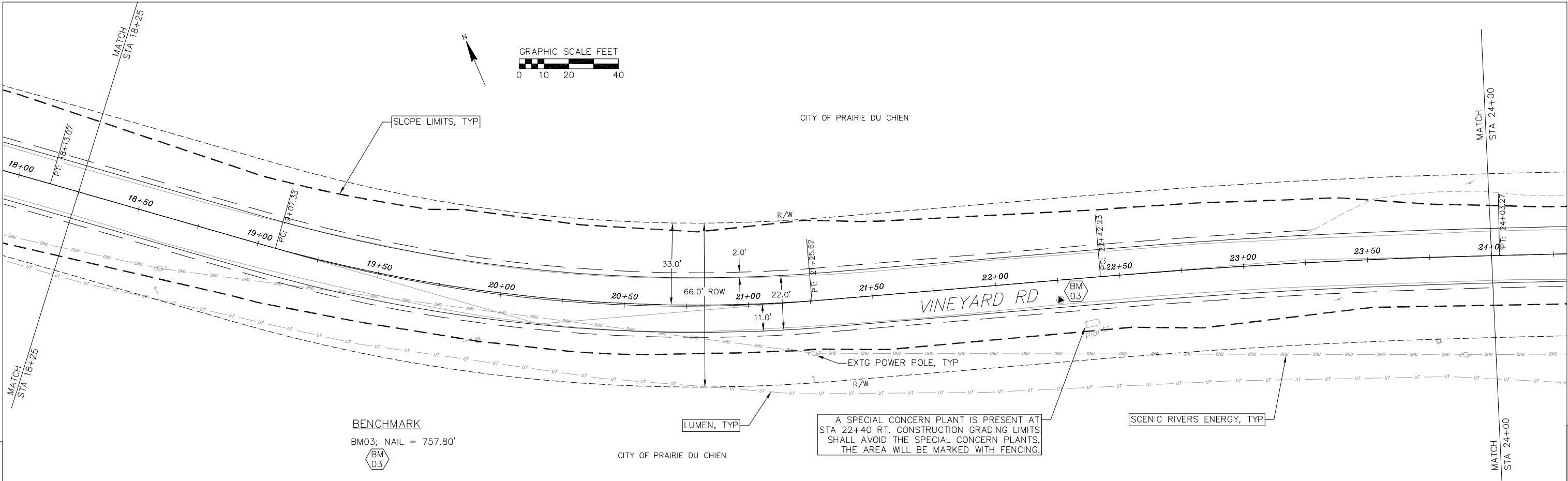
SEEDING MIXTURE NO. 30			
630.0130 SEEDING MIXTURE NO. 30			
STATION	LOCATION	LB	MGAL
4+65 - 33+67.3	PROJECT	150	110
PROJECT TOTAL		150	110

ALL ITEMS ARE ENGINEERING CATEGORY 0010
UNLESS OTHERWISE NOTED

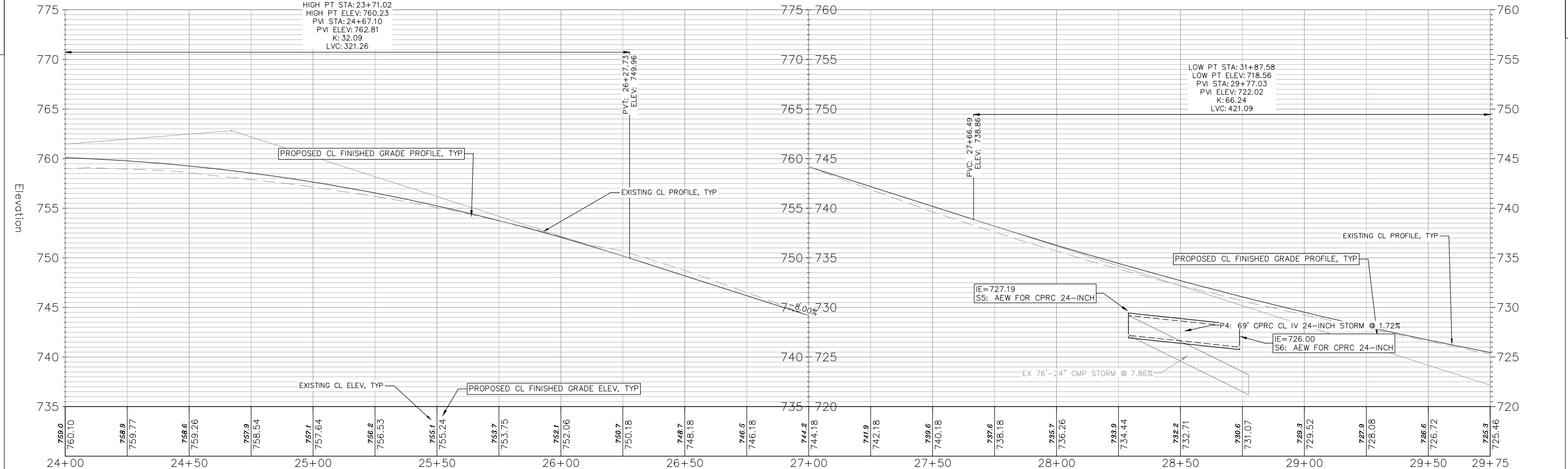
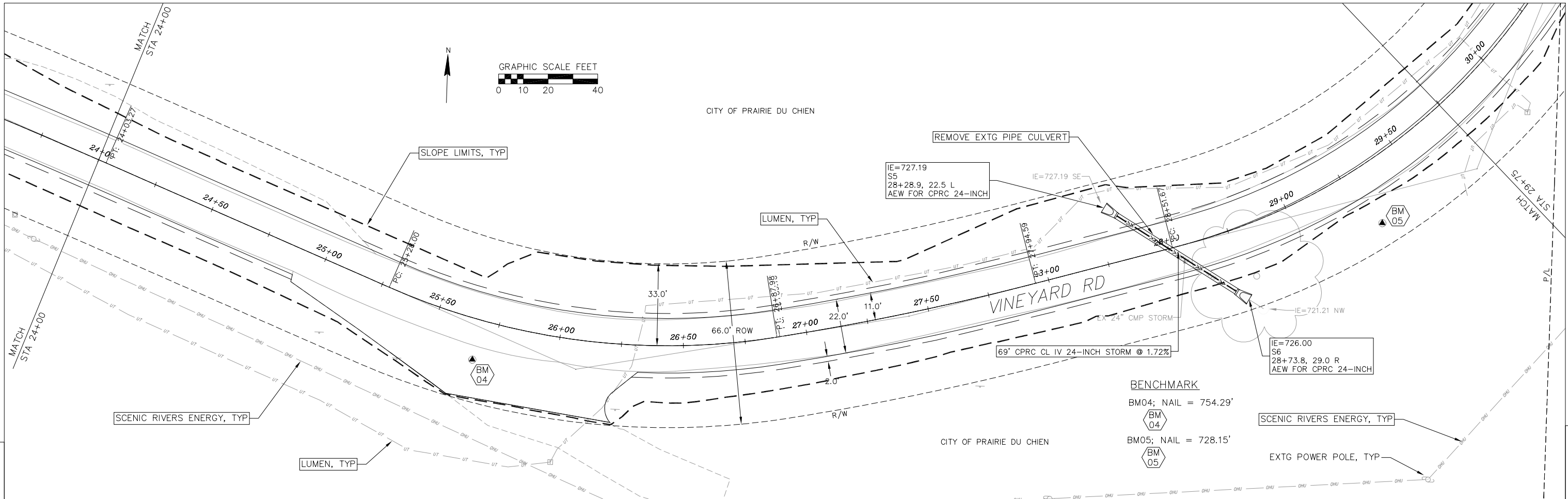




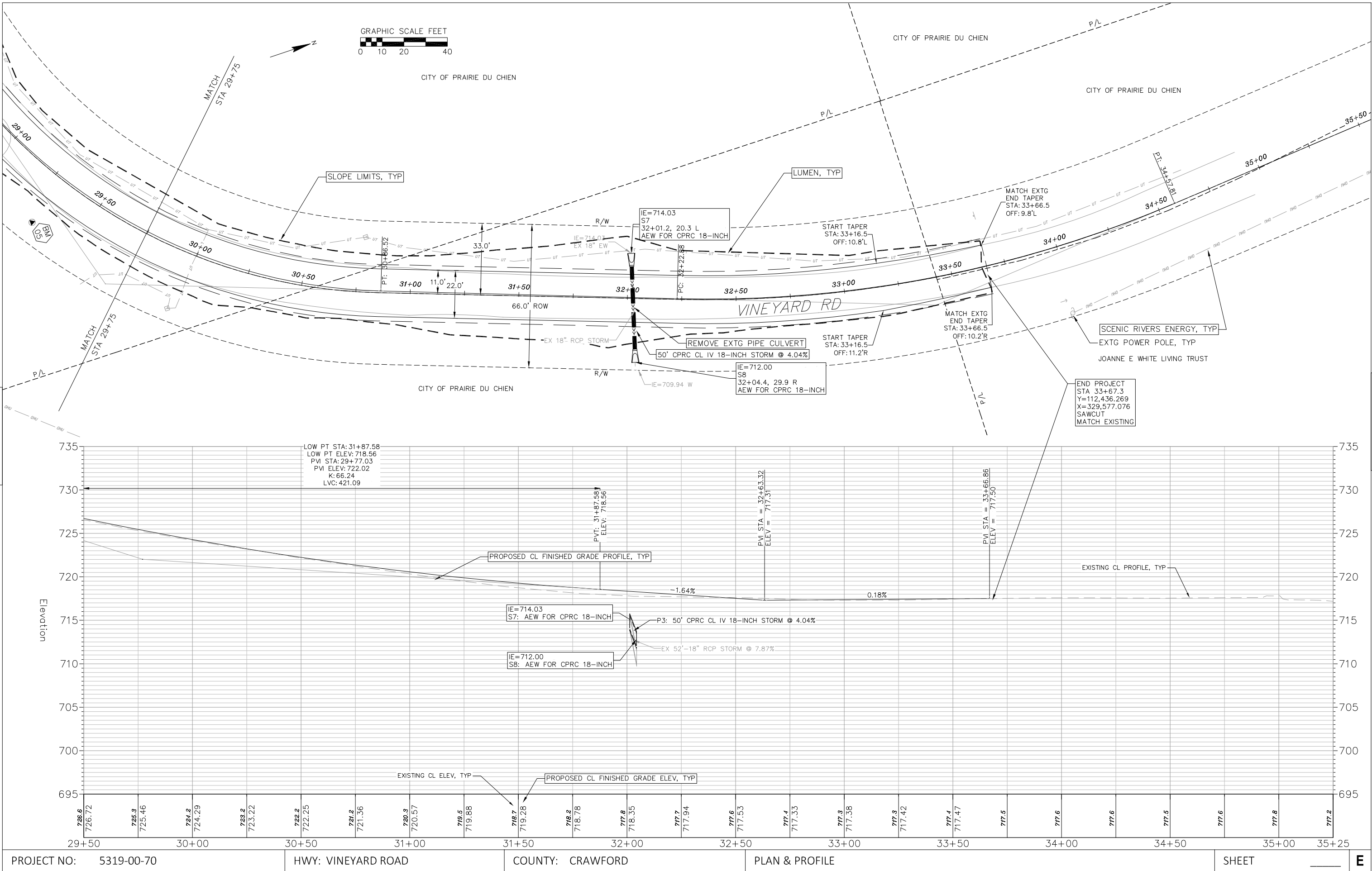




PROJECT NO: 5319-00-70	HWY: VINEYARD ROAD	COUNTY: CRAWFORD	PLAN & PROFILE	SHEET	E
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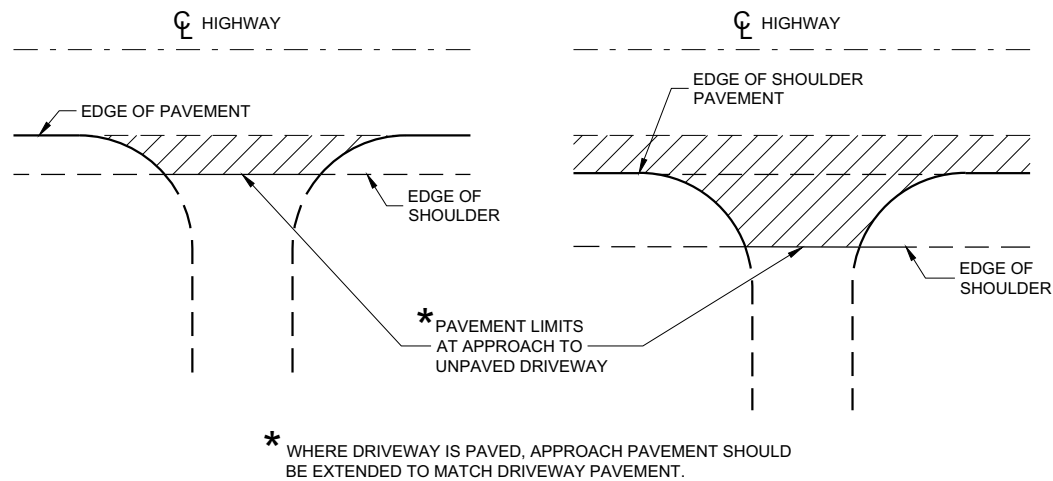


PROJECT NO: 5319-00-70	HWY: VINEYARD ROAD	COUNTY: CRAWFORD	PLAN & PROFILE	SHEET	E
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Standard Detail Drawing List

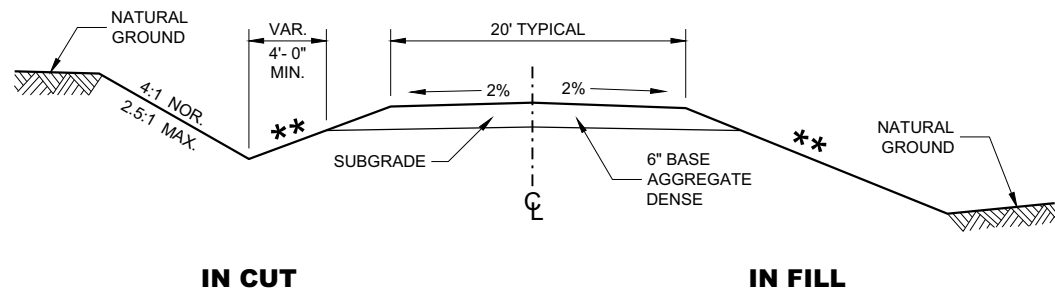
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13C19-03	HMA LONGITUDINAL JOINTS
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING



PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

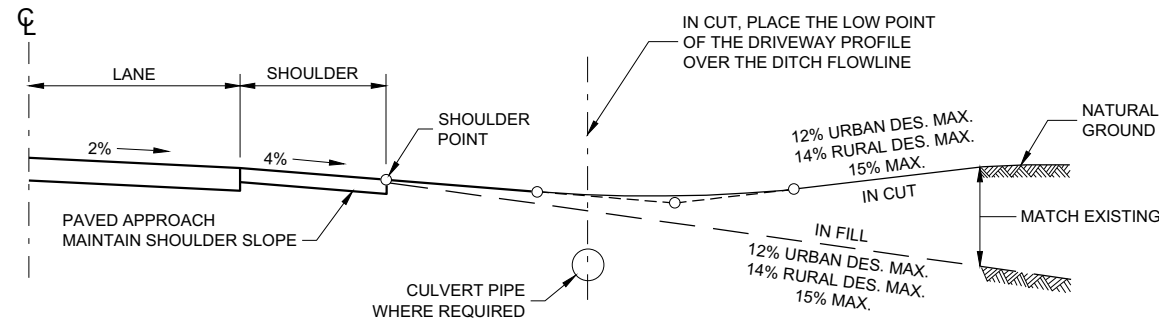
**RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)**



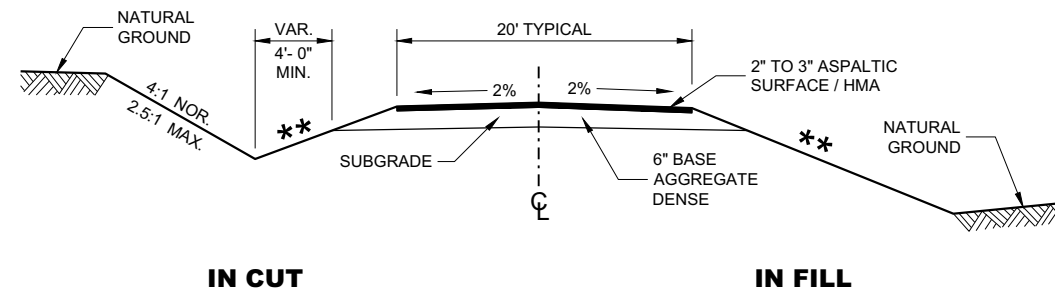
**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
AGGREGATE SURFACE**

****** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



TYPICAL DRIVEWAY PROFILES

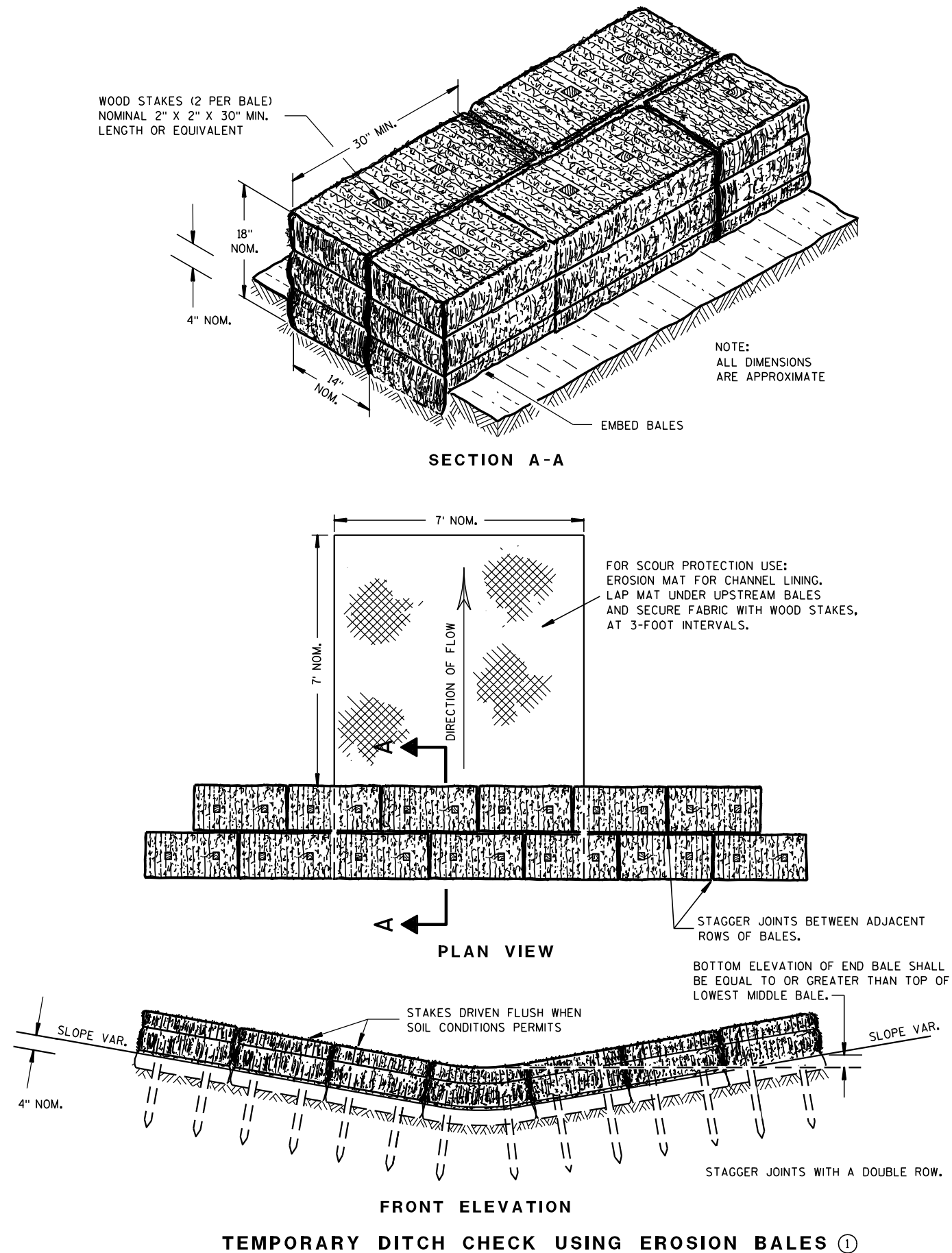


**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
ASPHALTIC SURFACE**

**DRIVEWAYS WITHOUT
CURB AND GUTTER**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

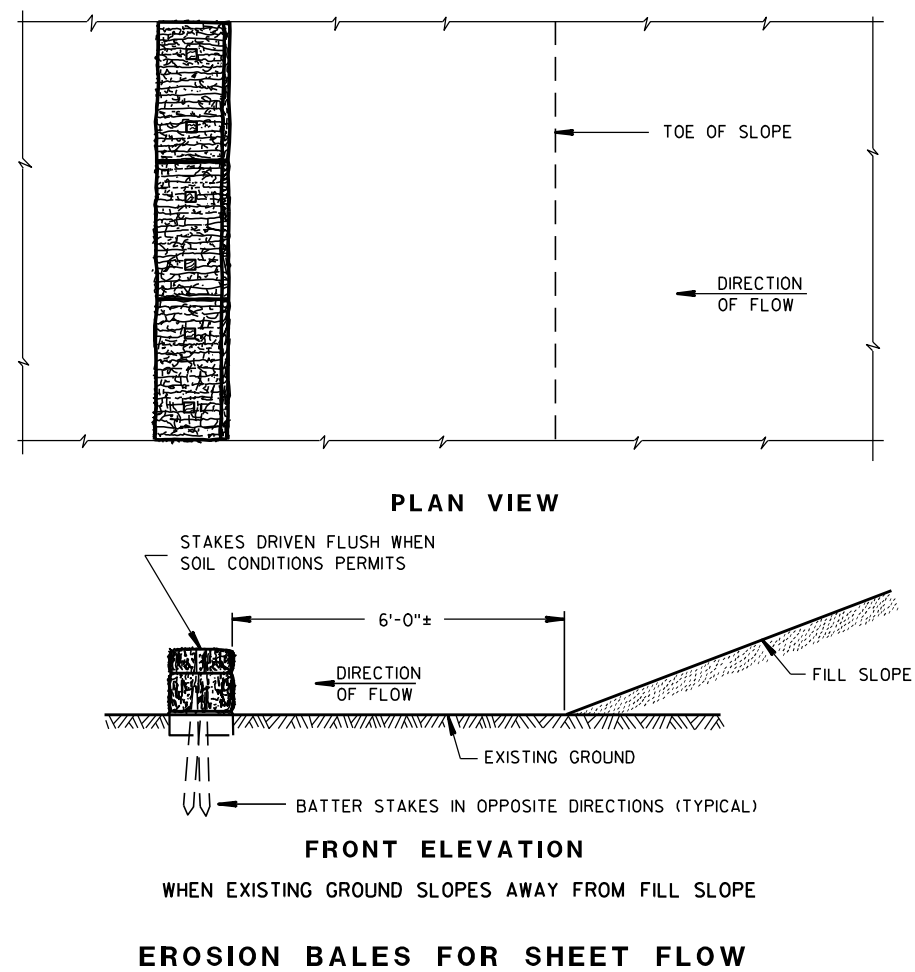
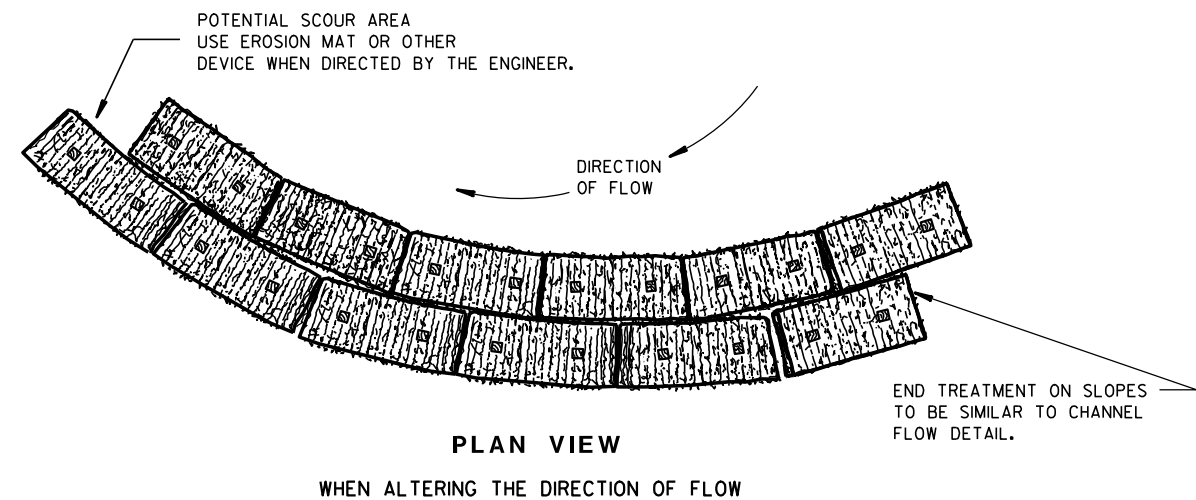
APPROVED
December 2017
DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR
FHWA



GENERAL NOTES

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

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

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

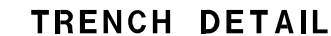
6/04/02
DATE

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

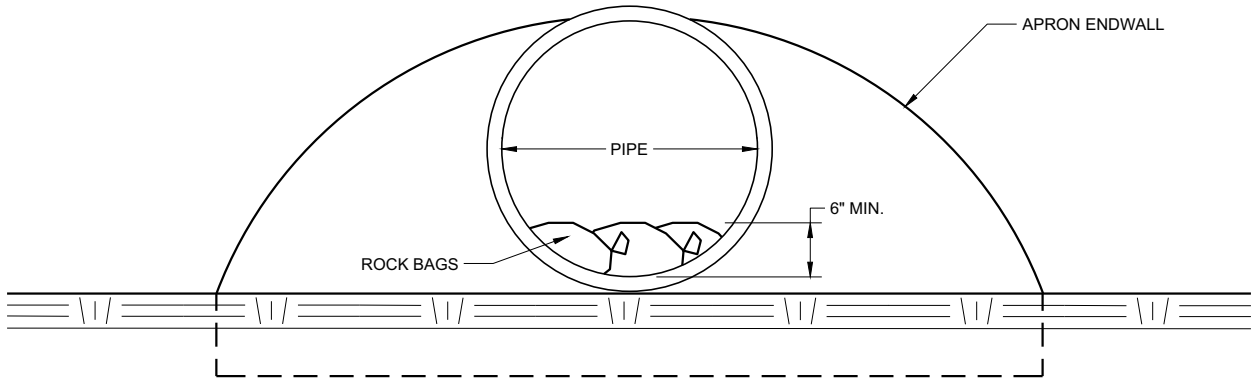
FHWA



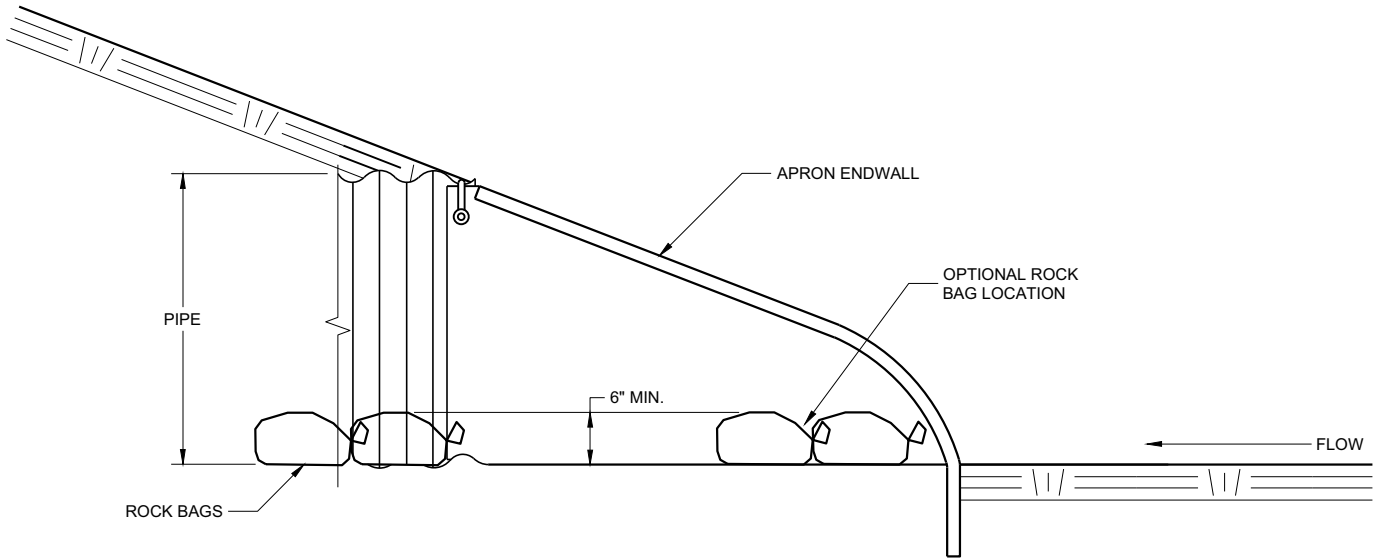
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1½" X 1½" 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.



SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ <u>Beth Cannestra</u> CHIEF ROADWAY DEVELOPMENT ENGINEER



END VIEW



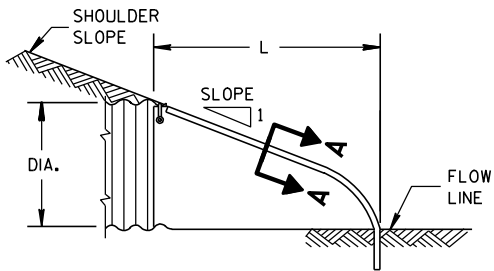
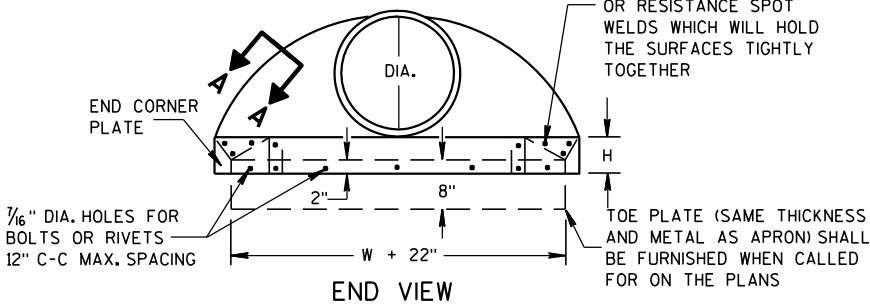
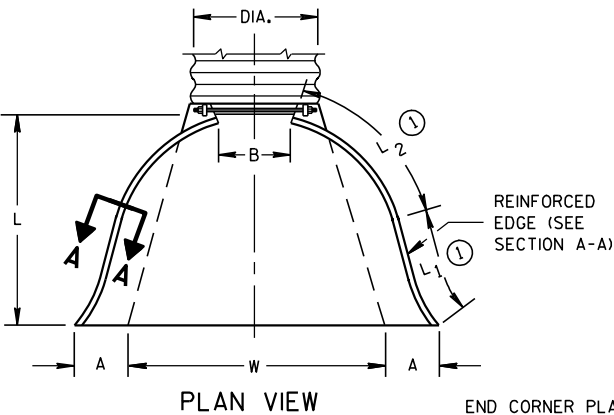
SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGINEER
FHWA	

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

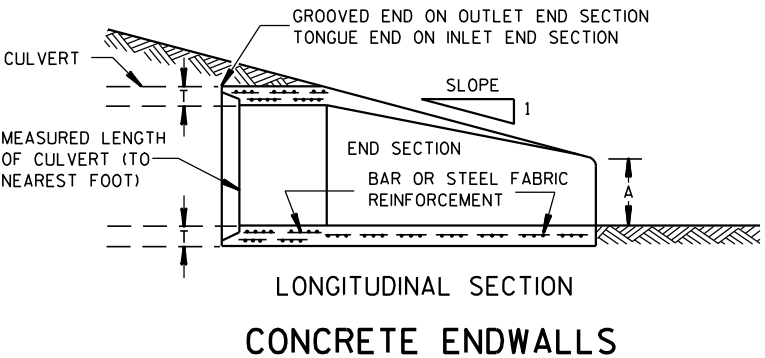
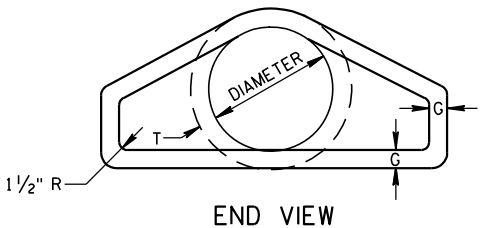
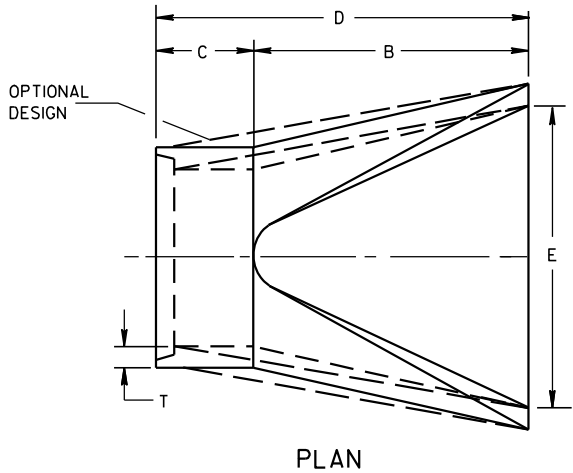
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



SIDE ELEVATION
METAL ENDWALLS

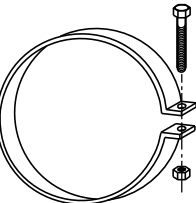
REINFORCED CONCRETE APRON ENDWALLS												
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE				
	T	A	B	C	D	E	G					
12	2	4	24	48 7/8	72 7/8	24	2	3 to 1				
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1				
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1				
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1				
24	3	9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

* MINIMUM
** MAXIMUM

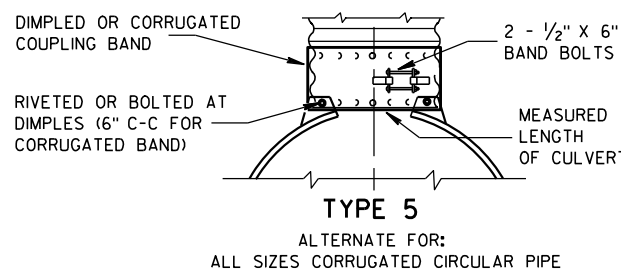
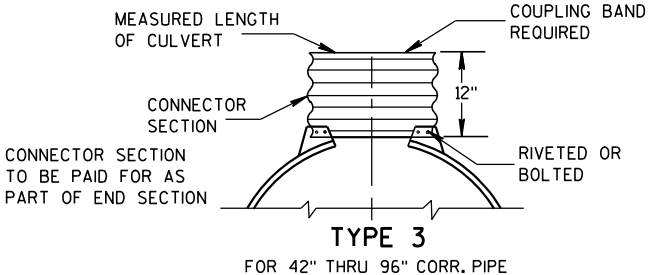
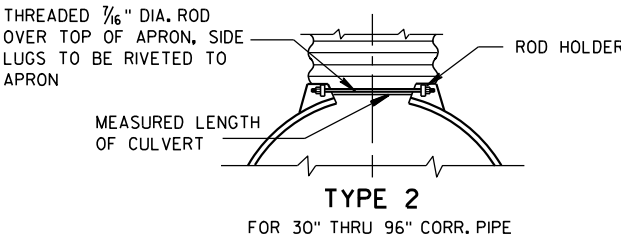
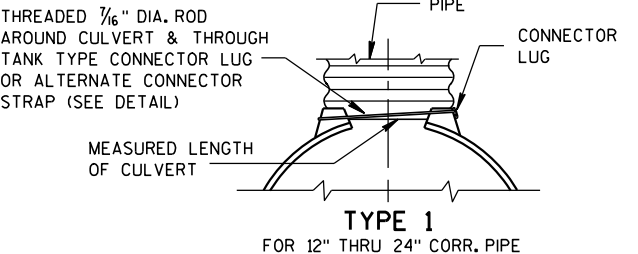


LONGITUDINAL SECTION
CONCRETE ENDWALLS

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



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



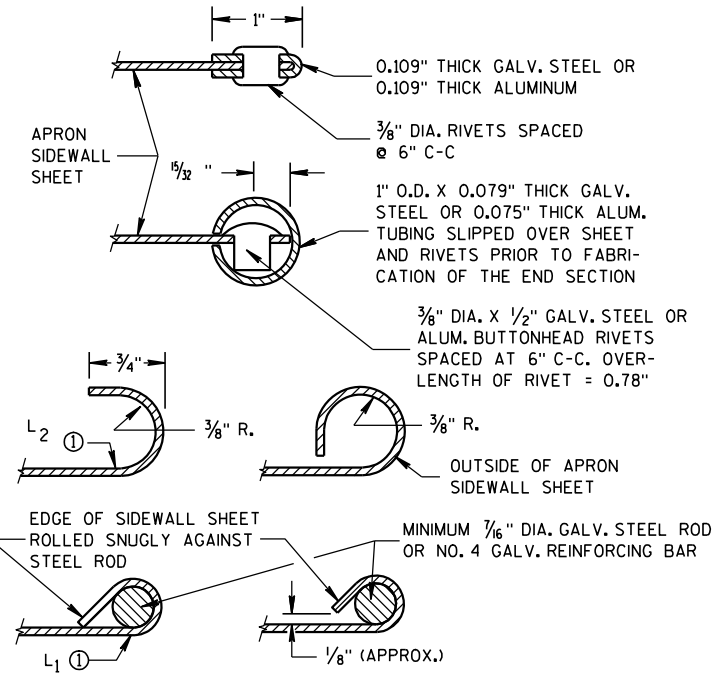
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

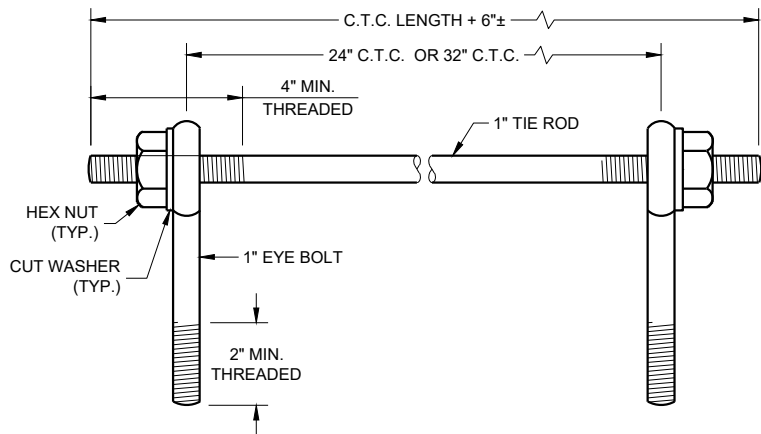
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

APRON ENDWALLS FOR
CULVERT PIPE

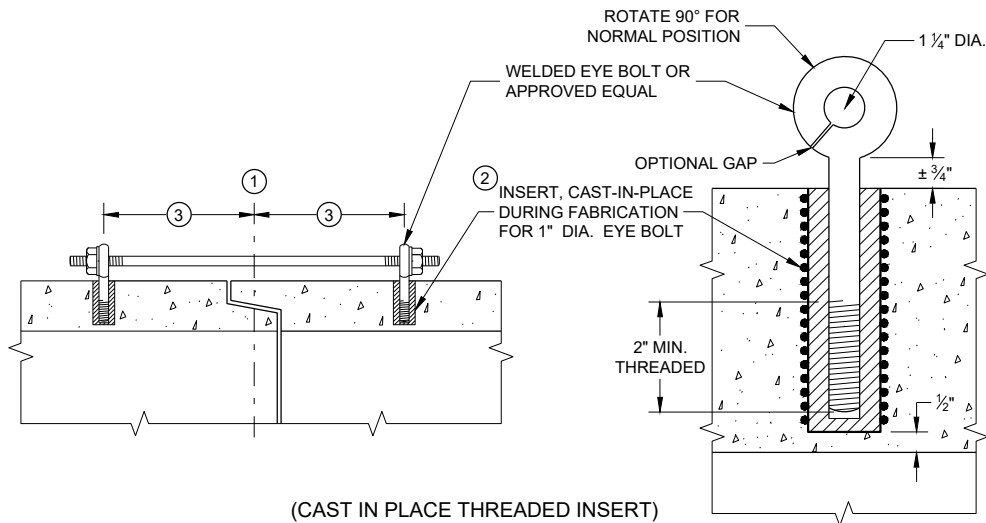
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



EYE BOLTS AND TIE ROD

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



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

GENERAL NOTES

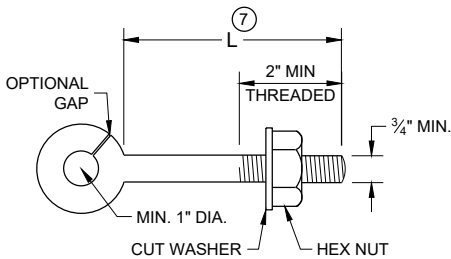
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

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

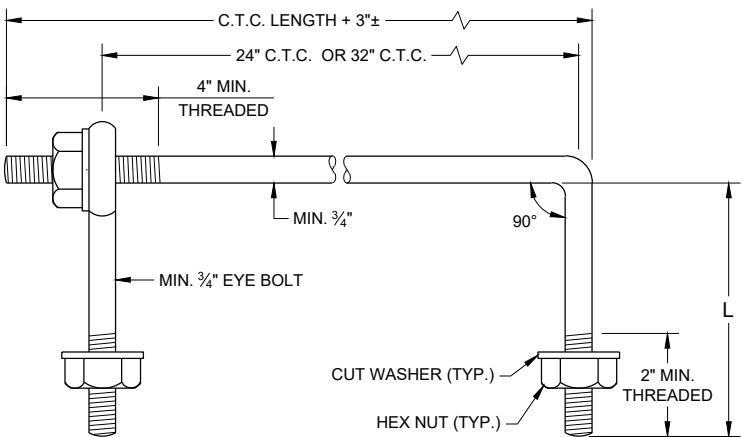
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- 1 CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- 2 THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- 3 HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- 4 BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- 5 OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- 6 LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.
- 7 EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

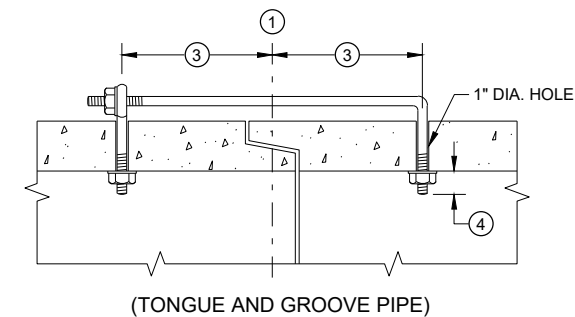


EYE BOLT

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



EYE BOLT AND TIE ROD

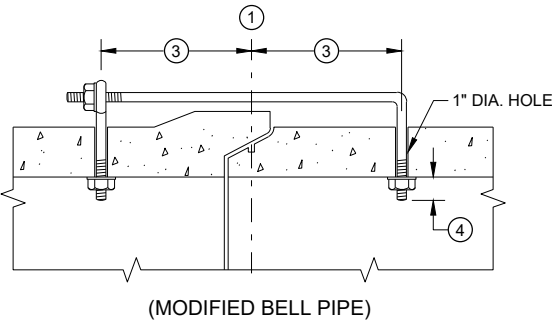


(TONGUE AND GROOVE PIPE)

LONGITUDINAL SECTION

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

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

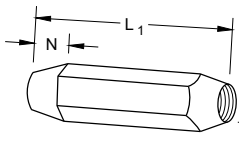


(MODIFIED BELL PIPE)

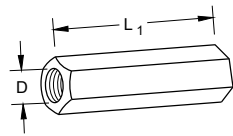
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L ₁	N
12 - 60	5/8	5/8	5	1/2
66 - 84	3/4	3/4	5	1/2
90 - 144	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES

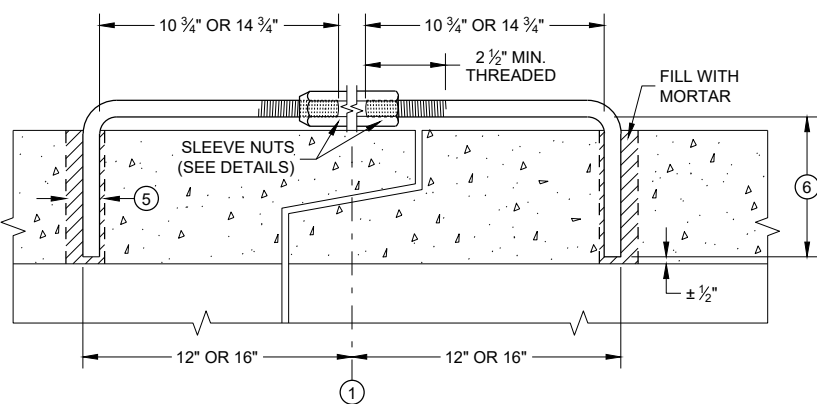


TAPERED



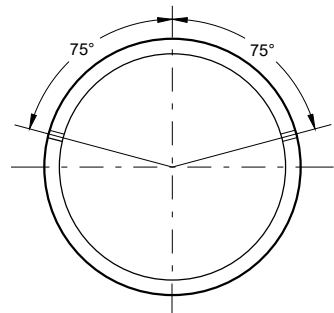
PLAIN

RIGHT AND LEFT THREADS
SLEEVE NUTS



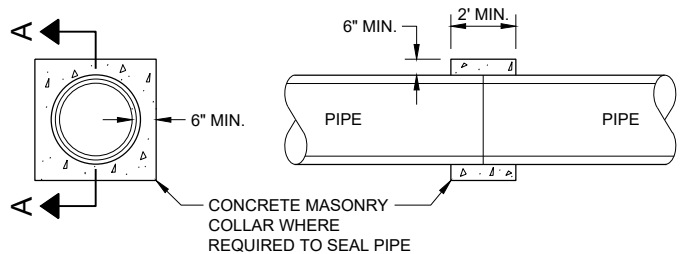
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



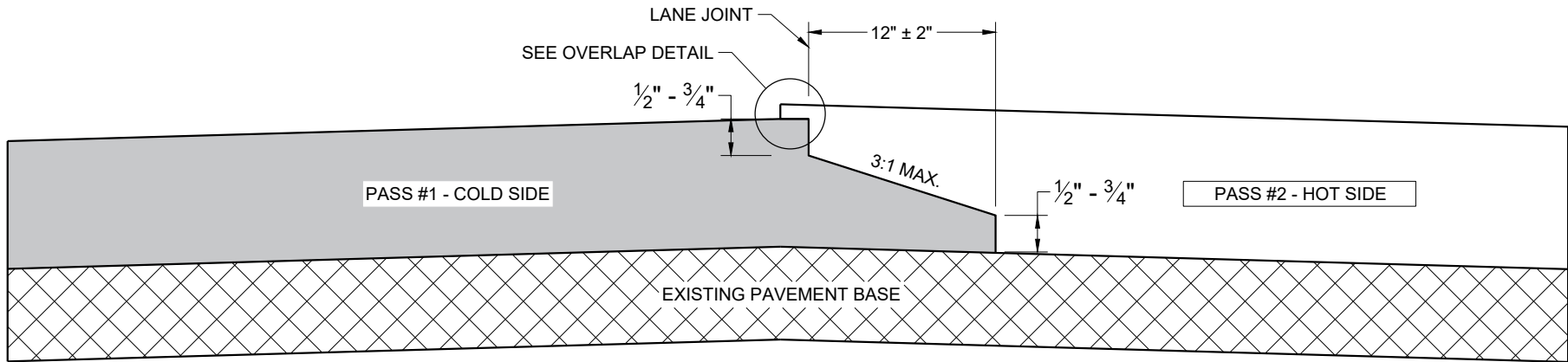
SECTION A - A

CONCRETE COLLAR DETAIL

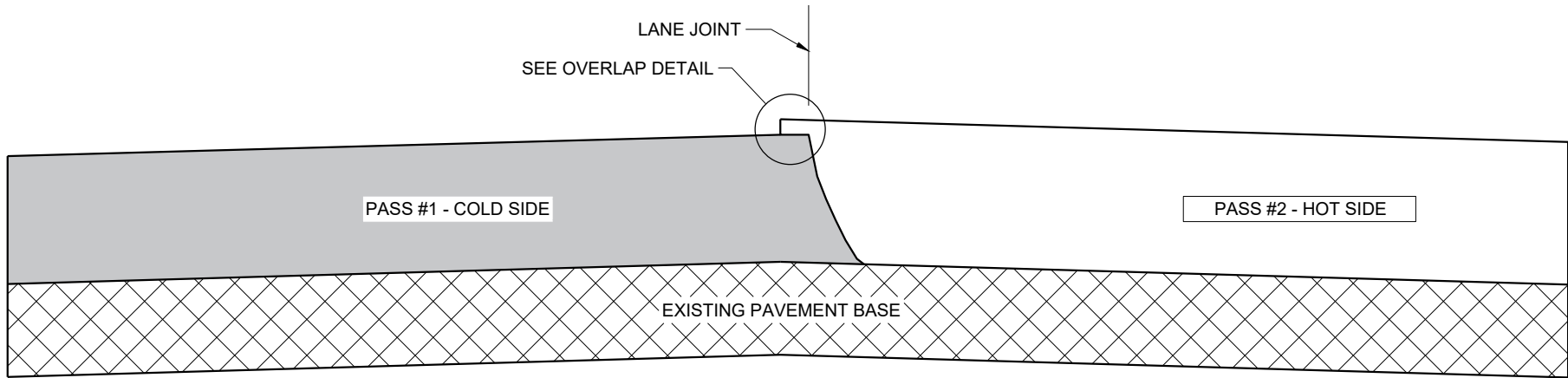
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

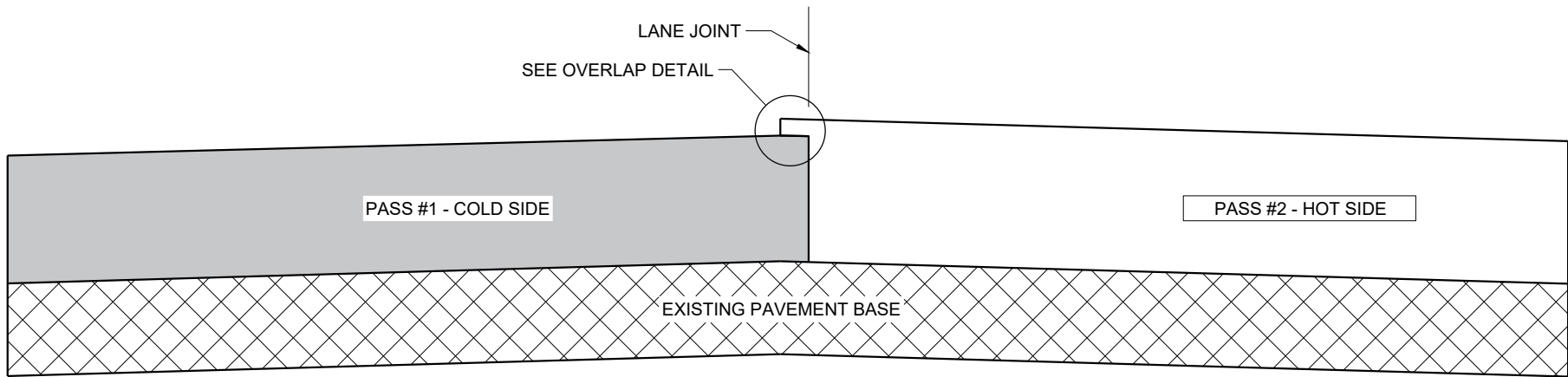
APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

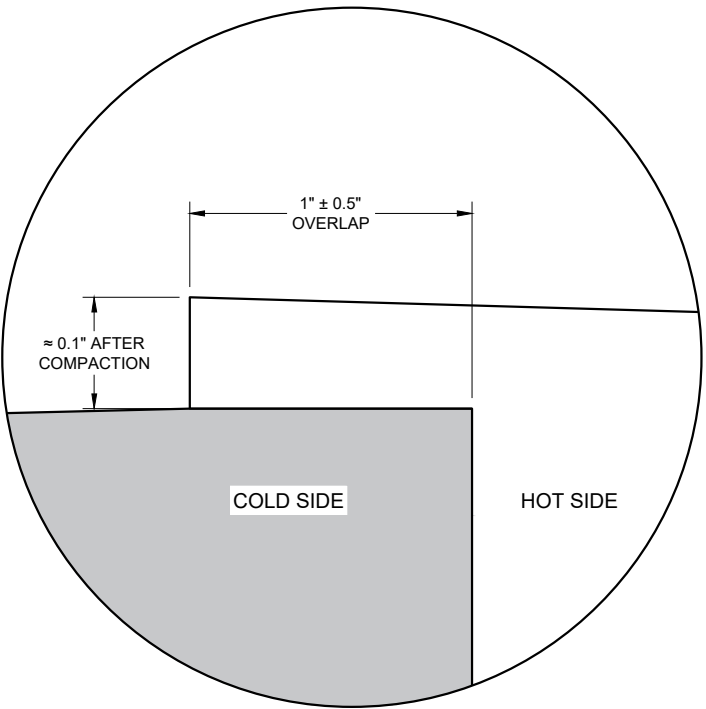
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY $1" \pm 0.5"$ AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.

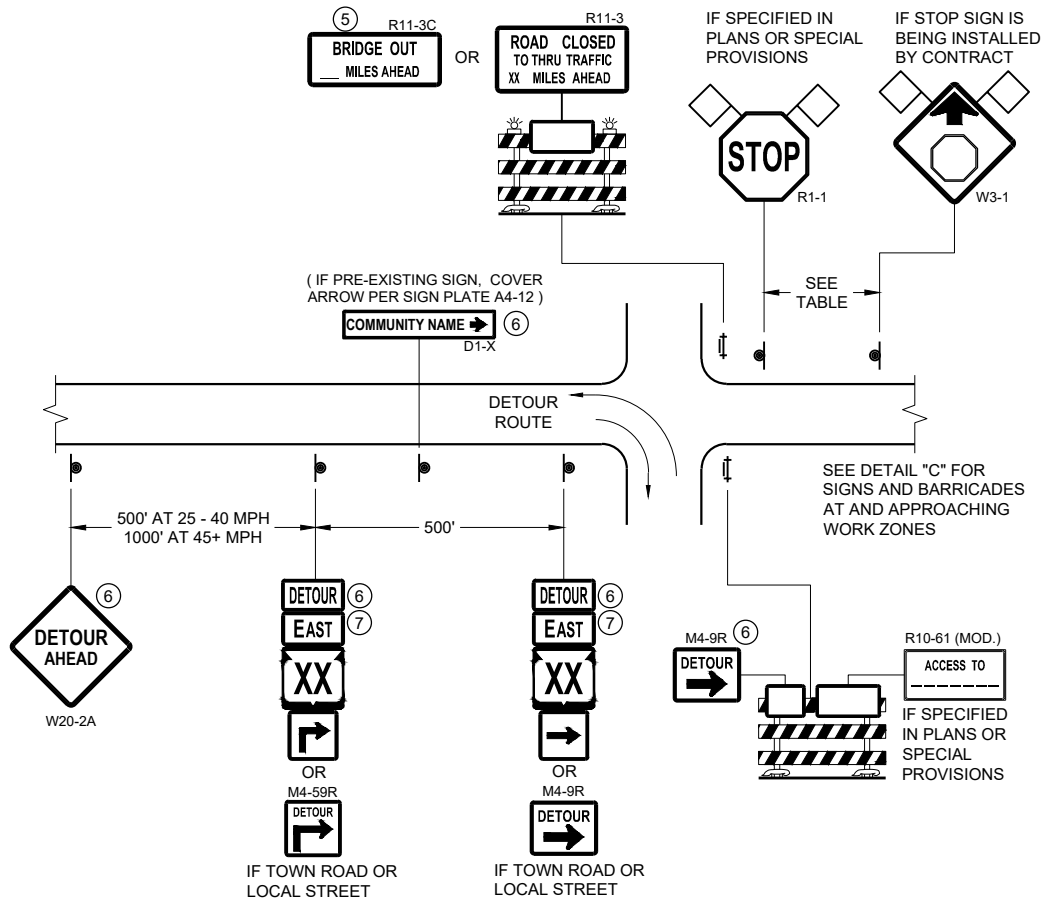


OVERLAP DETAIL (TYPICAL)

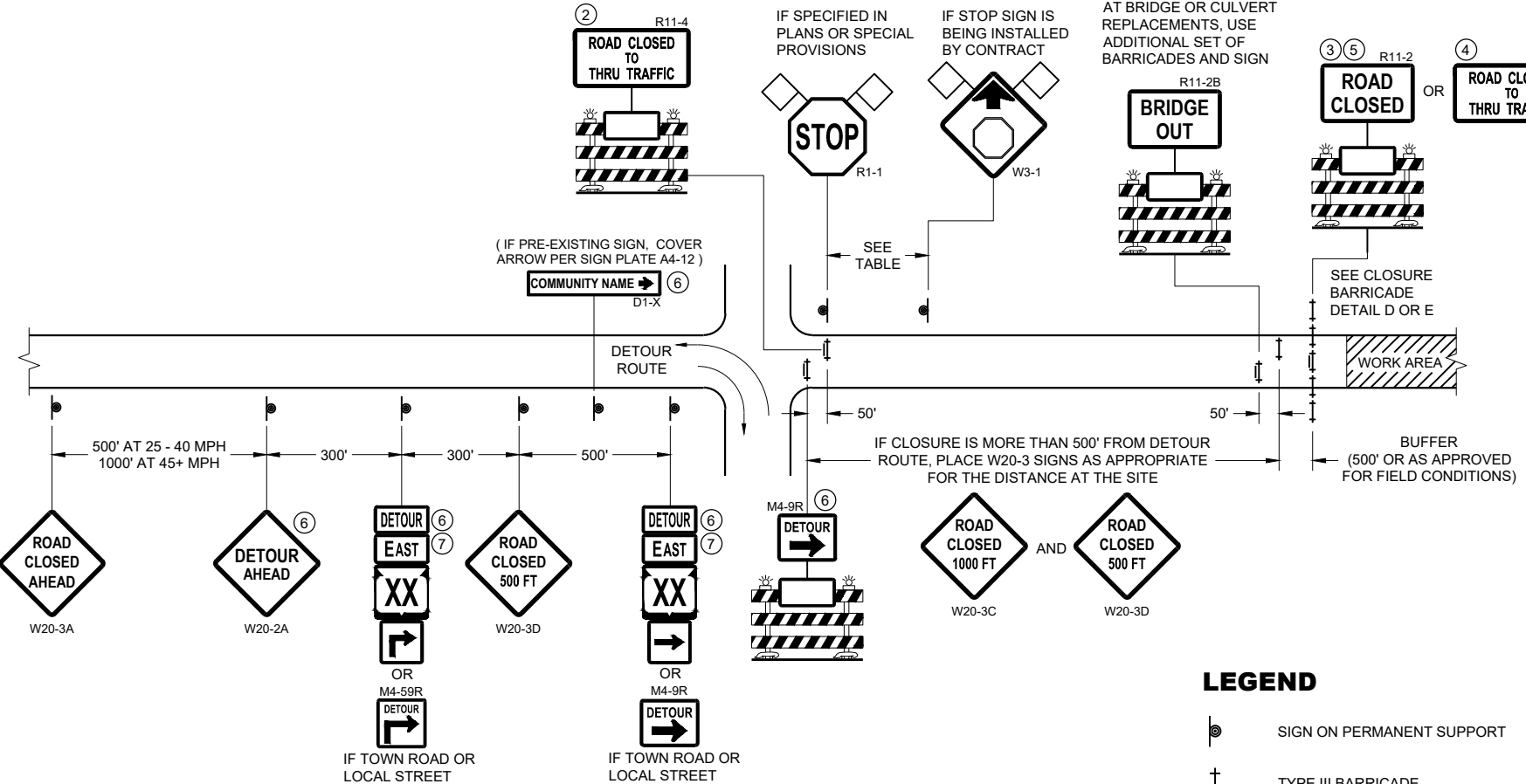
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGINEER
FHWA



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



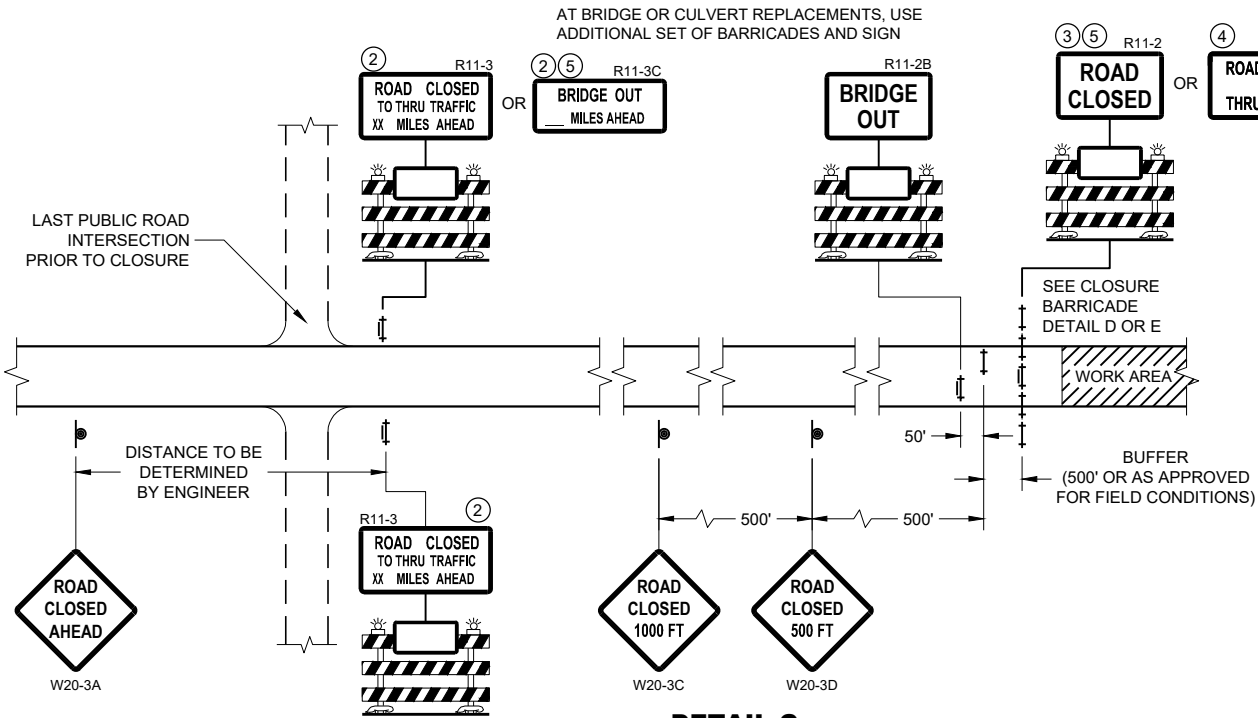
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

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

- DETOUR M4 - 8
- EAST M3 - X
- XX M1 - 4 OR XX M1 - 6 OR COUNTY M1 - 5A
- OR M05 - 1 OR M06 - 1

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

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

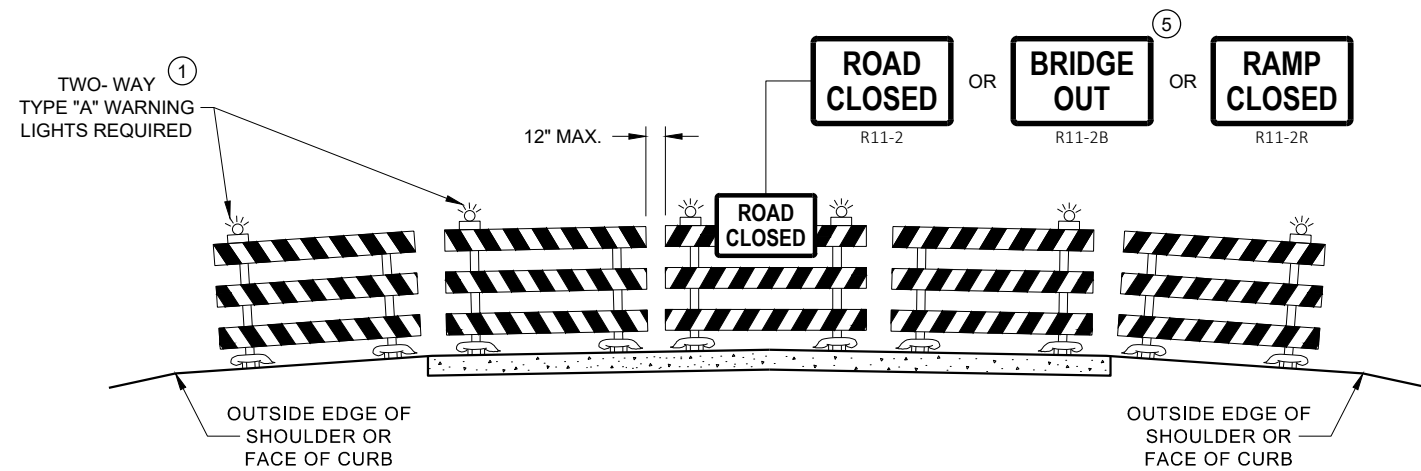


DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

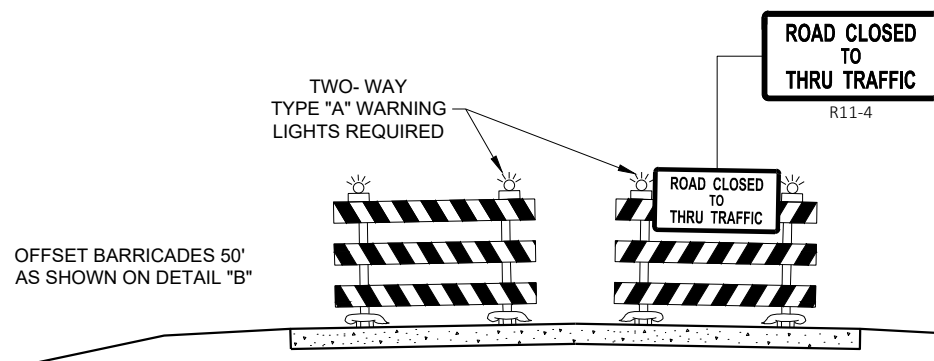
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

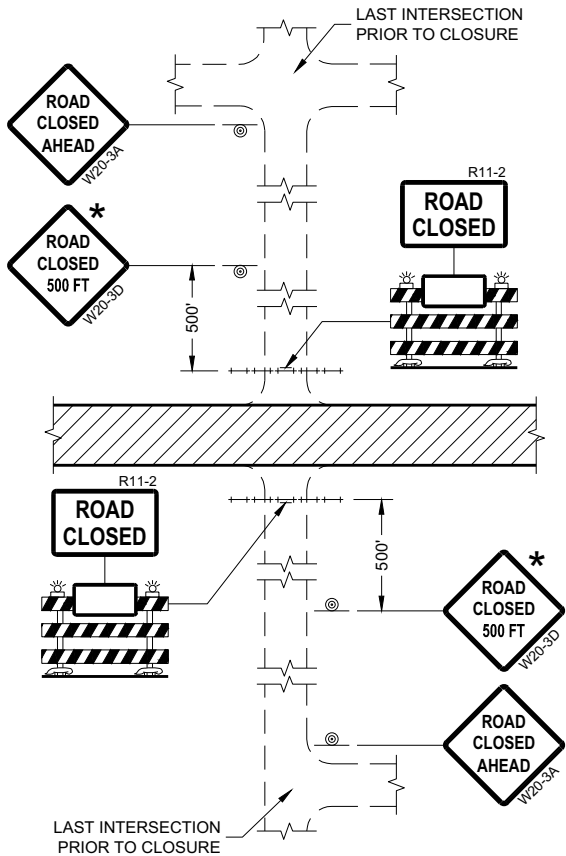
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE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

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

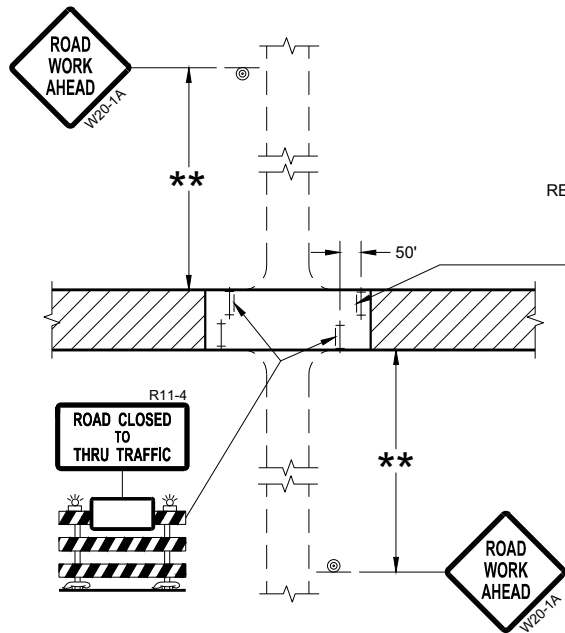
BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

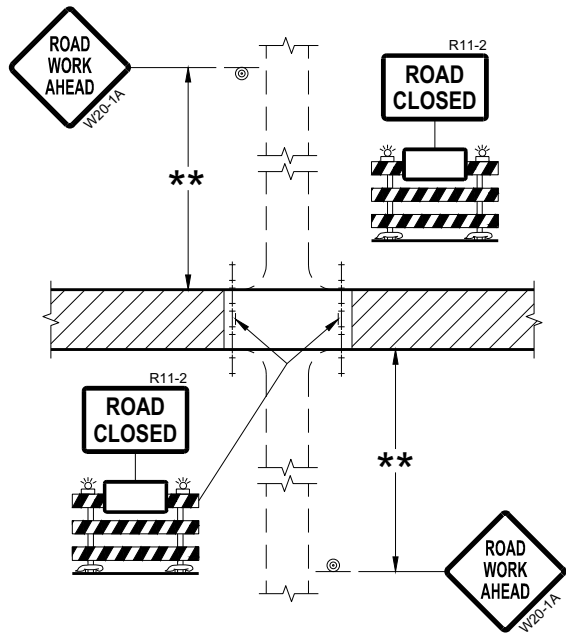
APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA



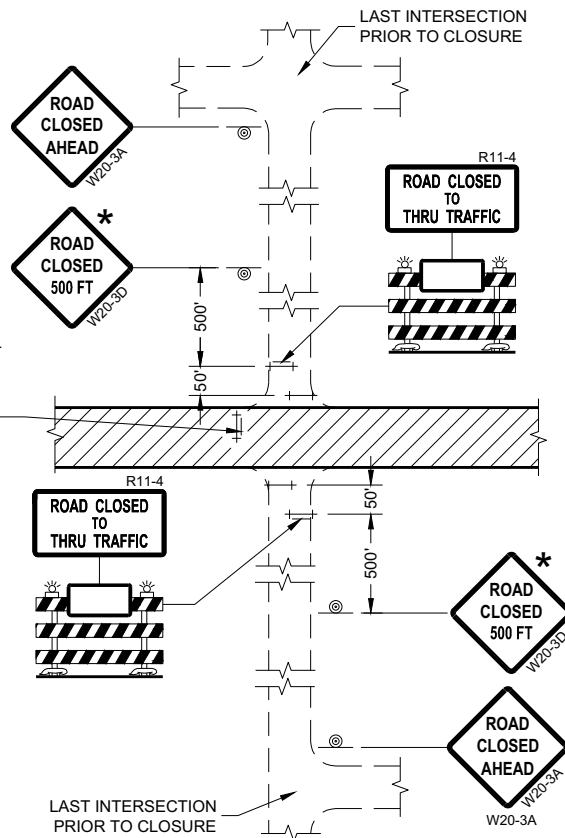
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

- * OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.
- ** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

GENERAL NOTES

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

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




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

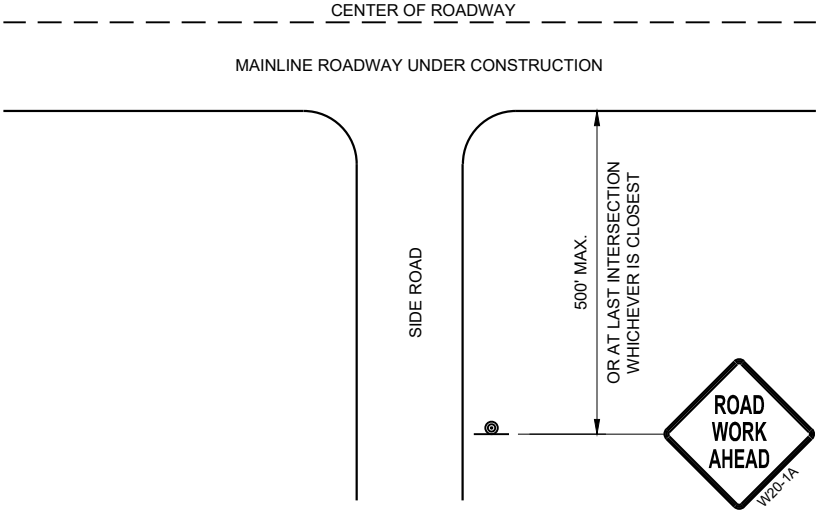
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

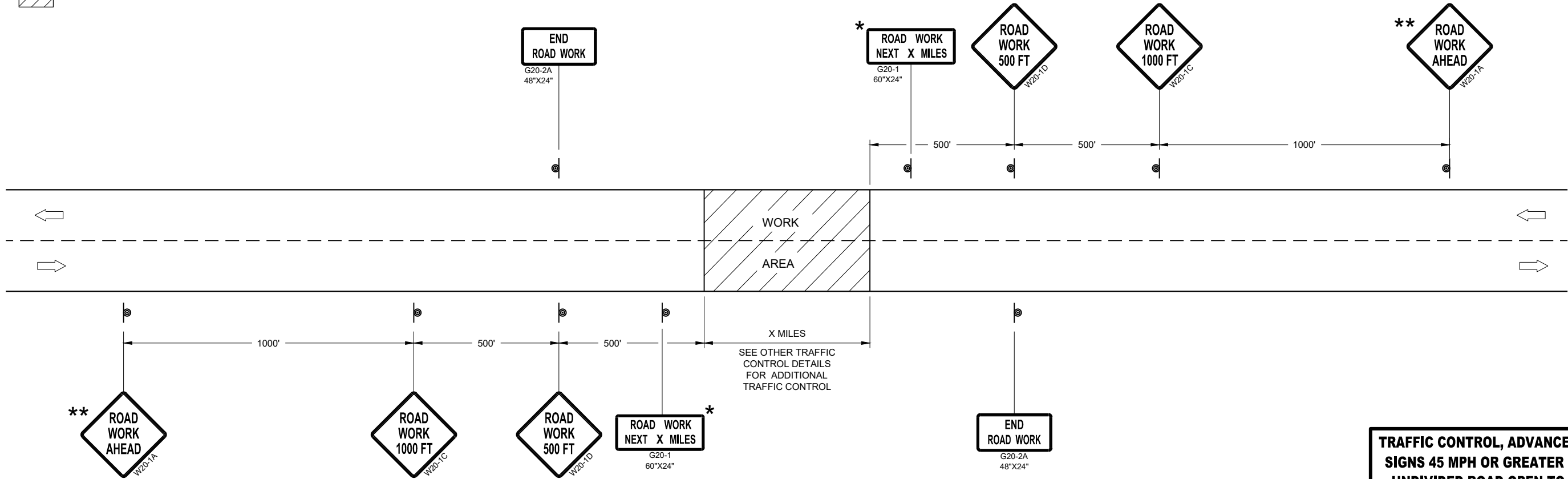
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

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



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL

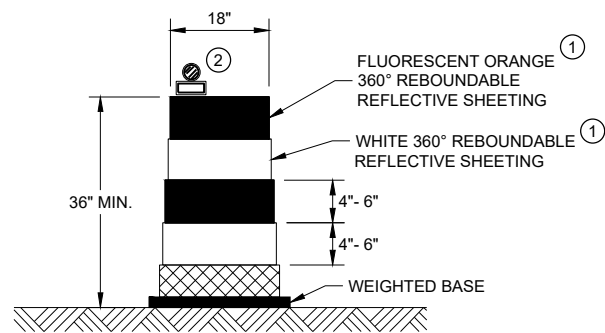


TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

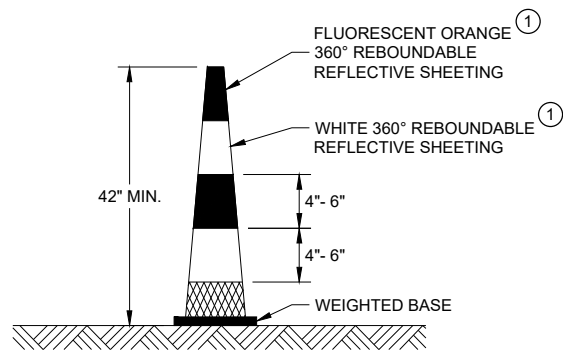
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA



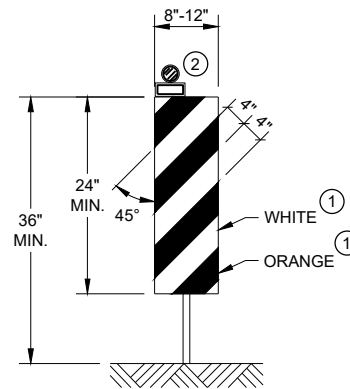
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



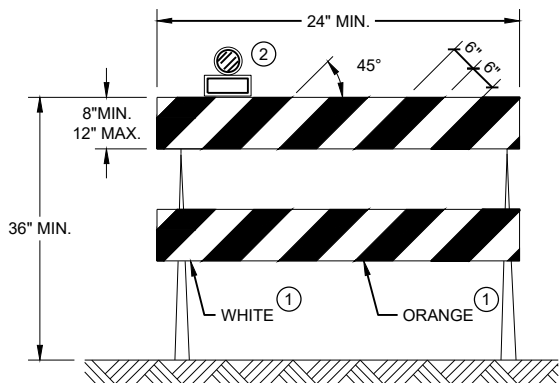
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"



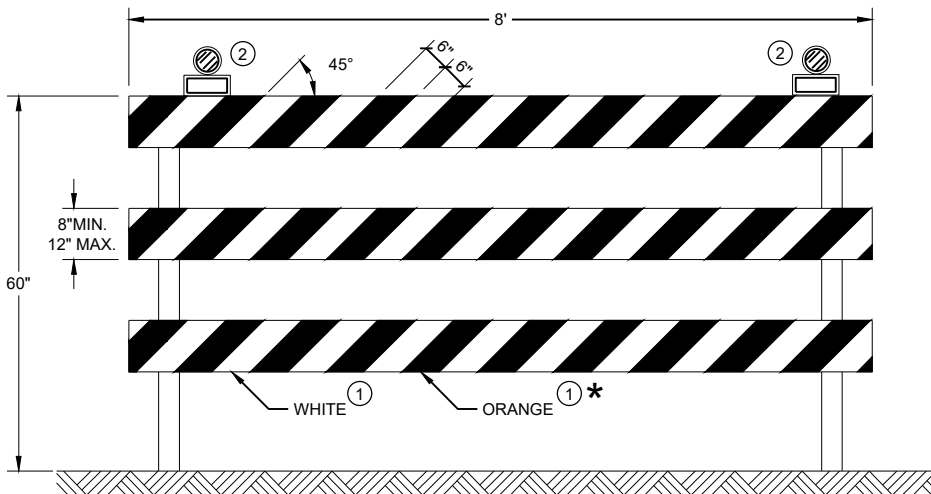
VERTICAL PANEL

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



TYPE 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.

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.






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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

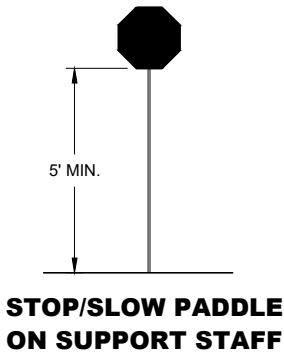
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.
- INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

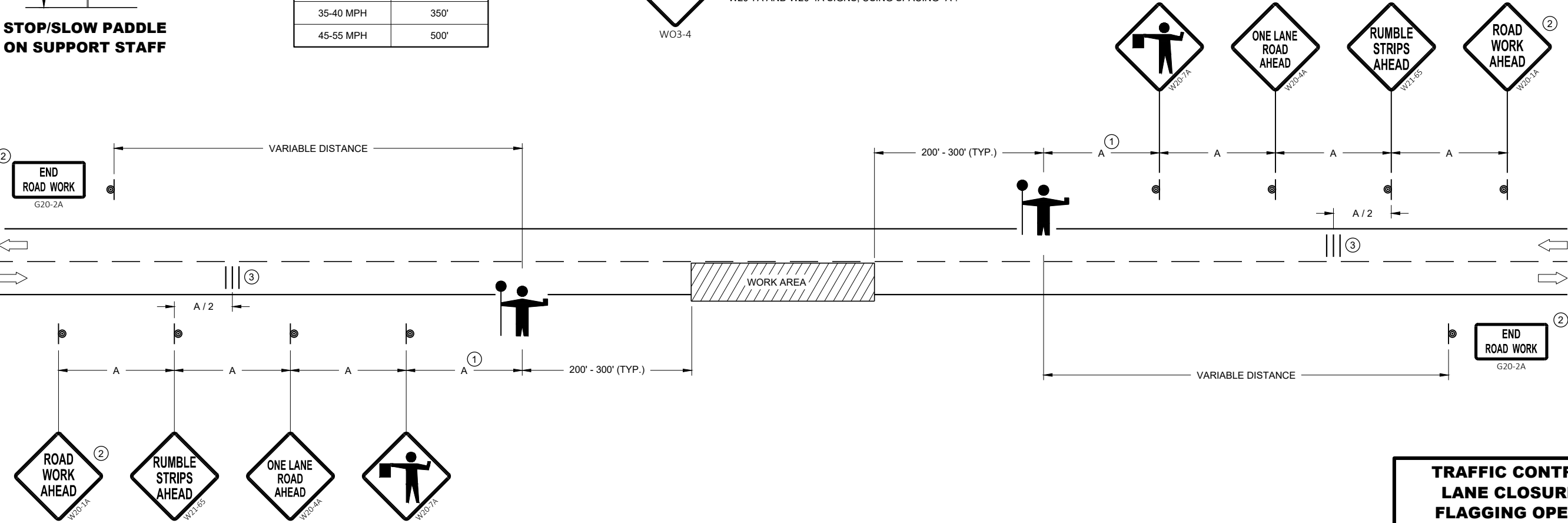


SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

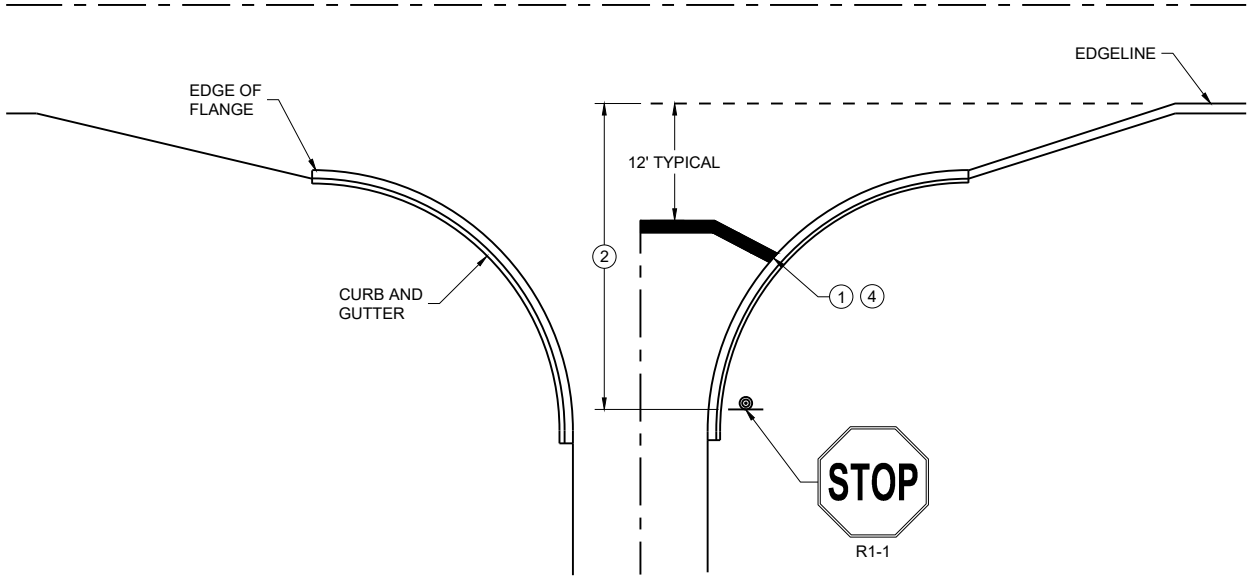
SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



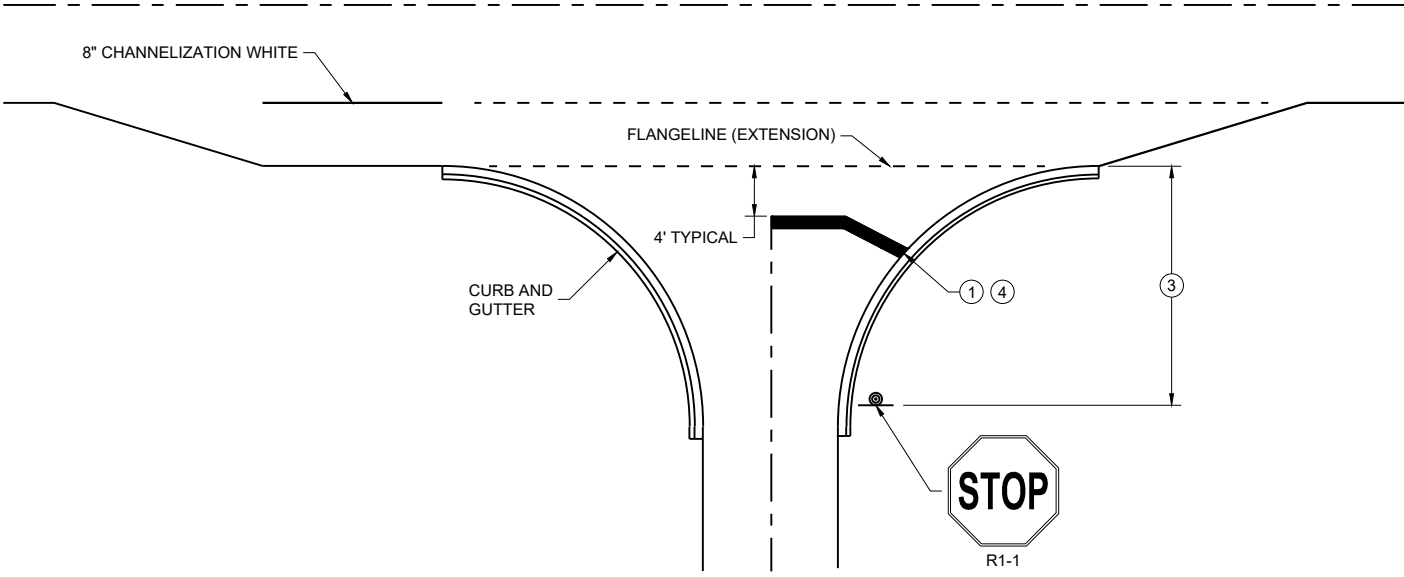
USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



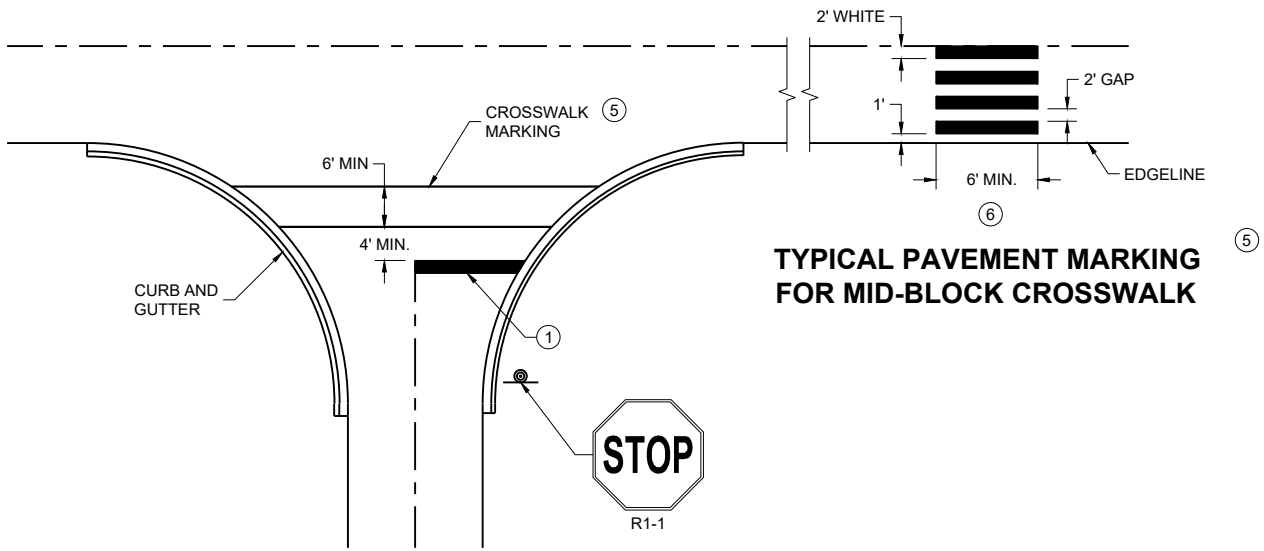
TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



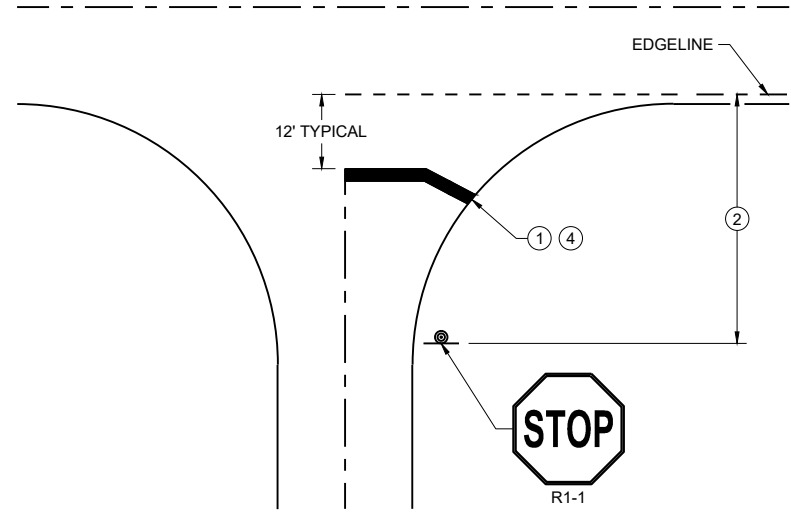
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

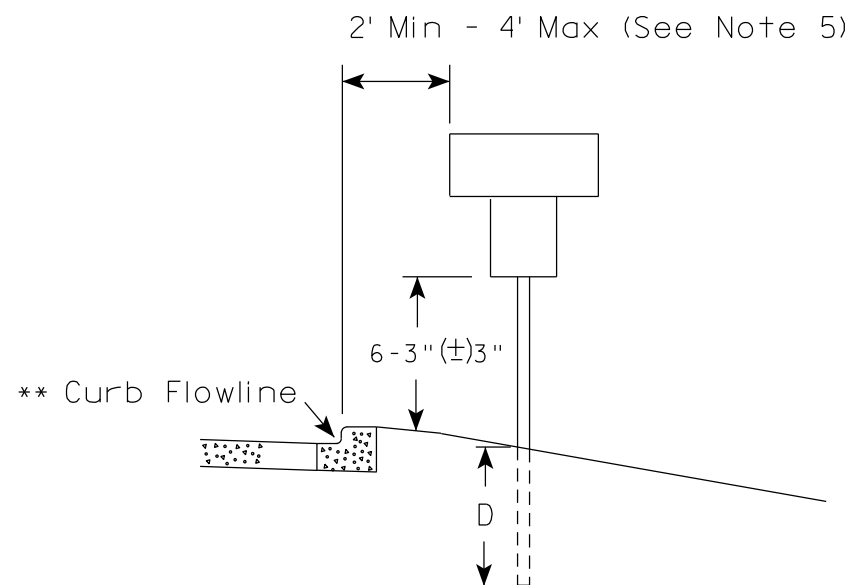
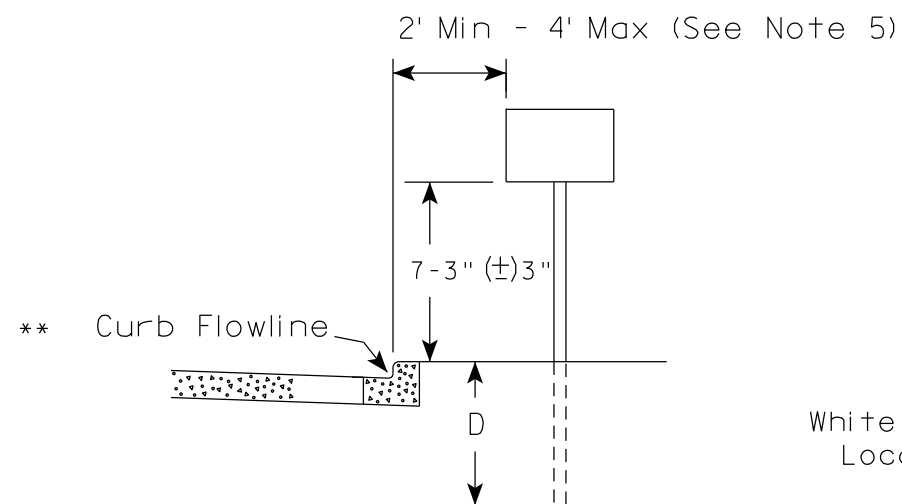
STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
- ④ MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- ⑤ LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES.
- ⑥ POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS

STOP LINE AND CROSSWALK PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2024 DATE	/S/ Matthew Rauch STATE SIGNING AND MARKING ENGINEER

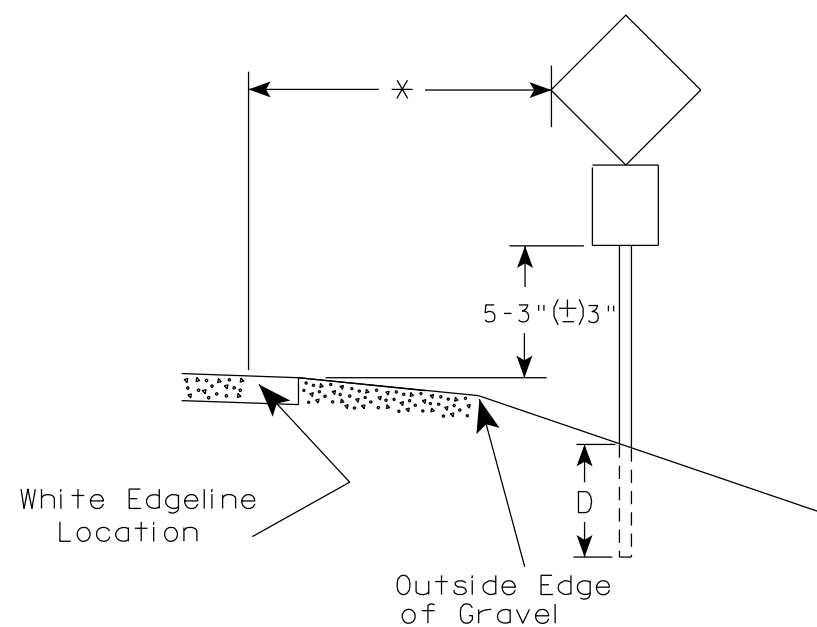
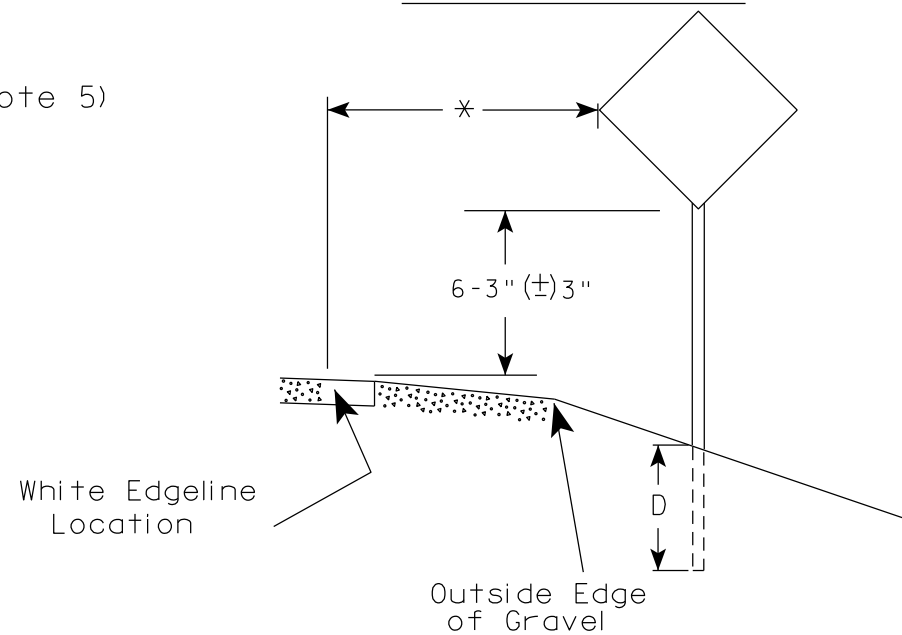
FHWA

URBAN AREA



* * 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.

RURAL AREA (See Note 2)



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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 12/6/23

PLATE NO. A4-3.23

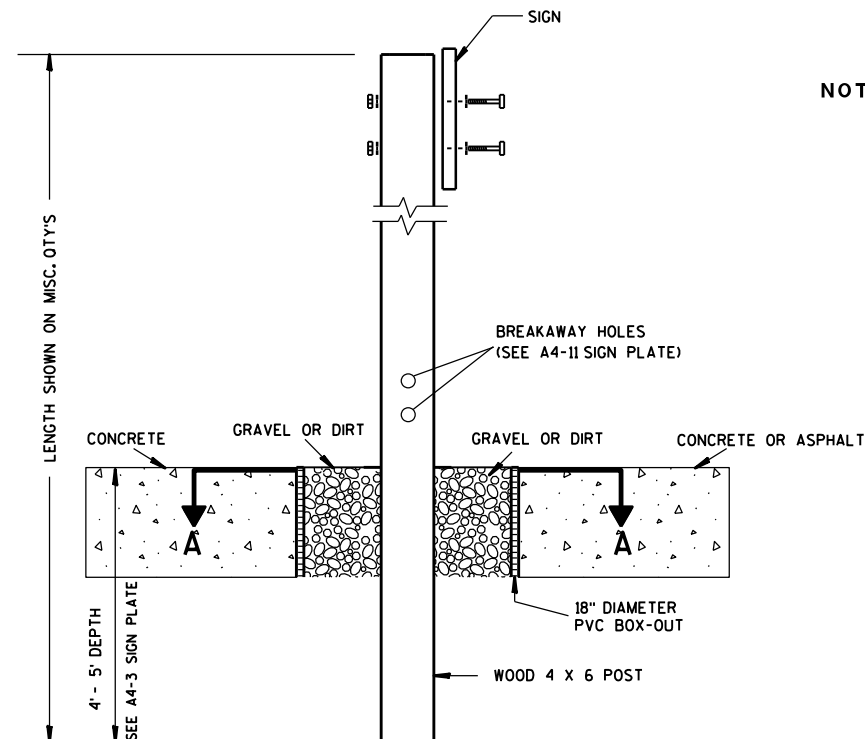
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

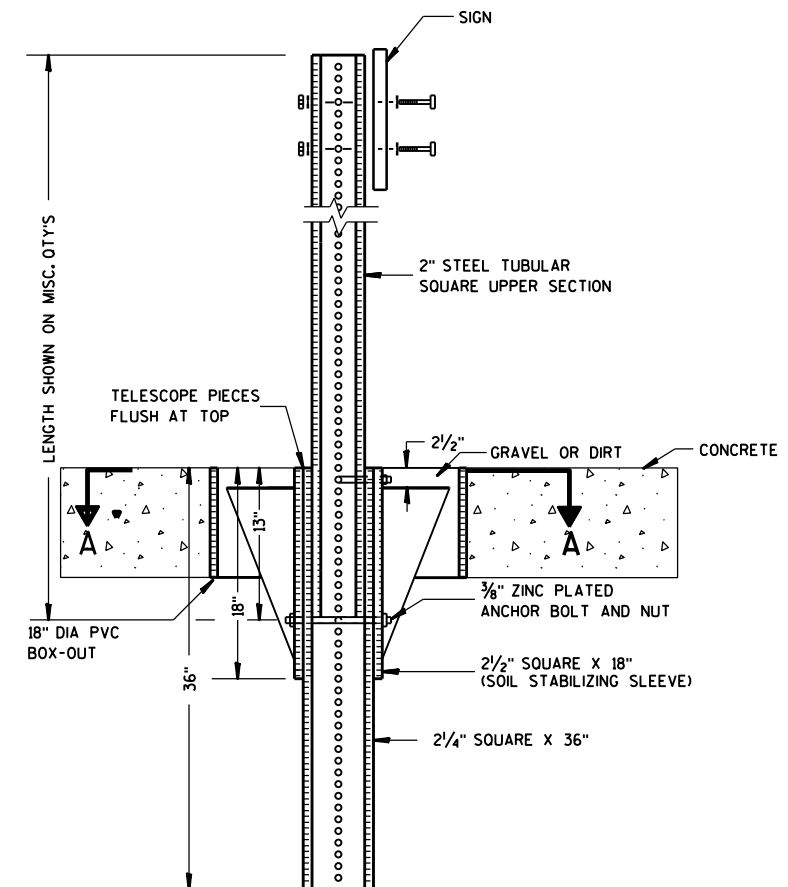
E



ELEVATION VIEW

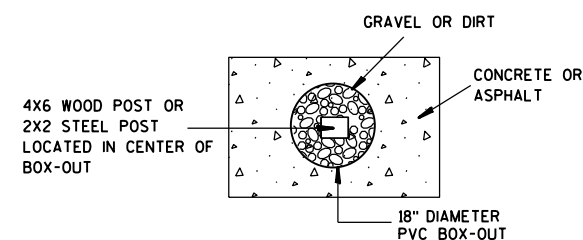
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO:

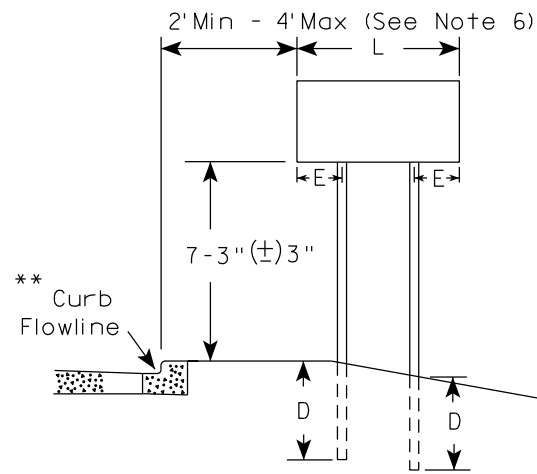
HWY:

COUNTY:

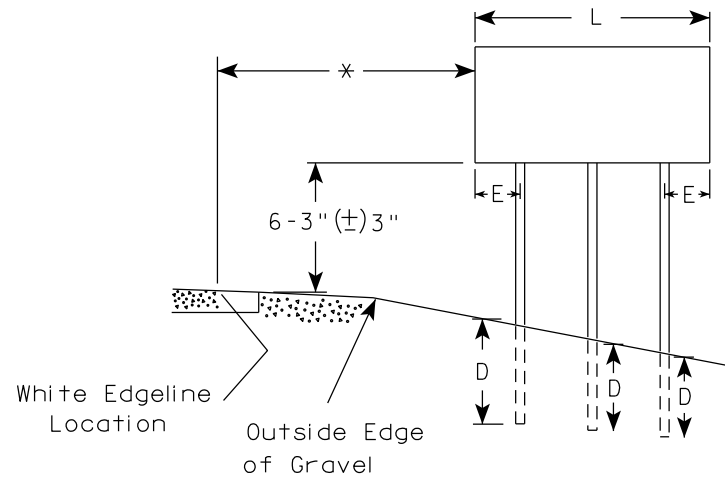
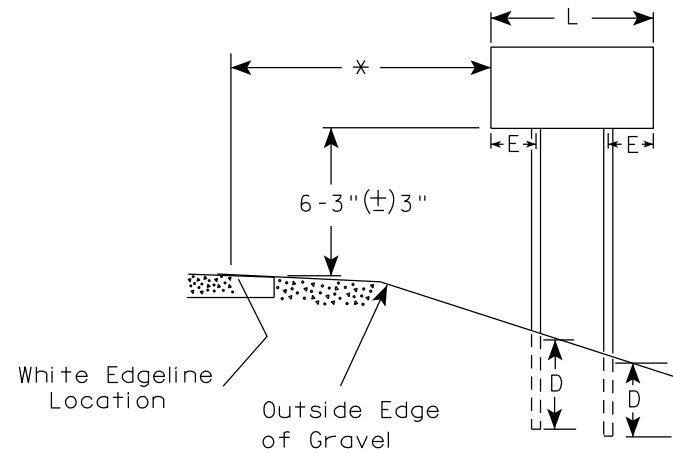
SHEET NO:

E

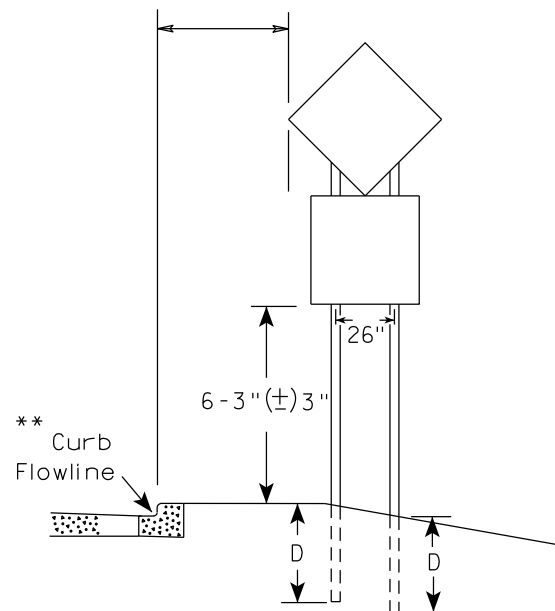
URBAN AREA



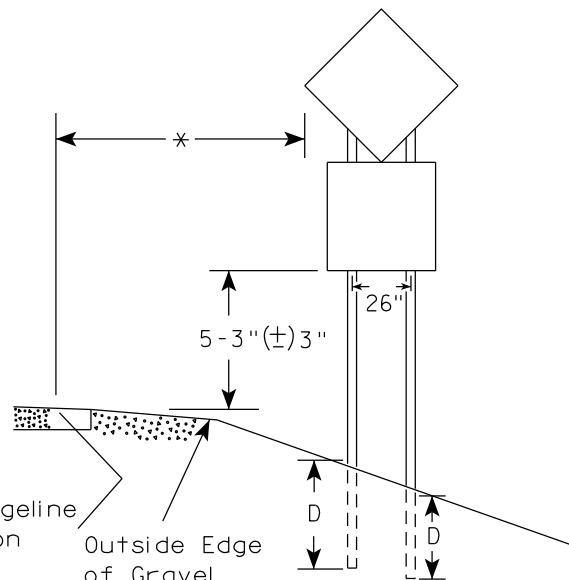
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

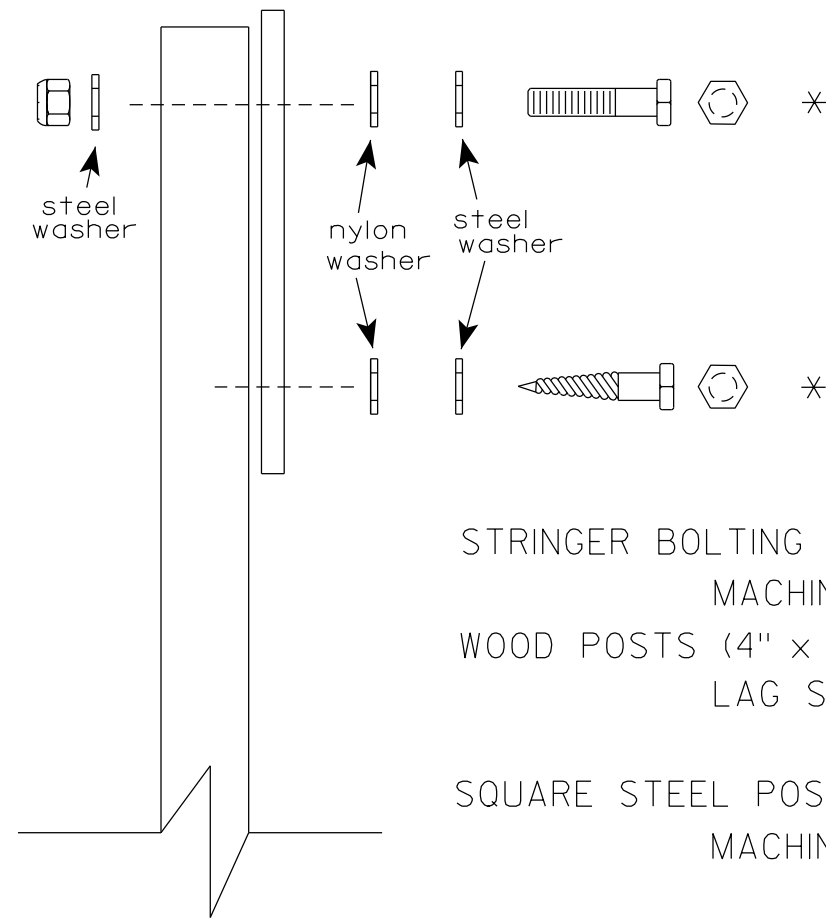
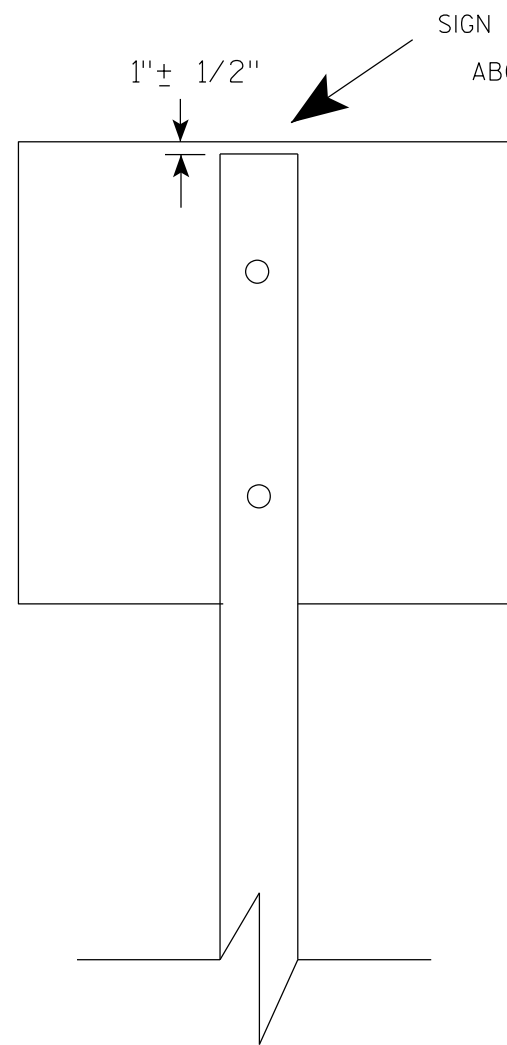
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



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

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

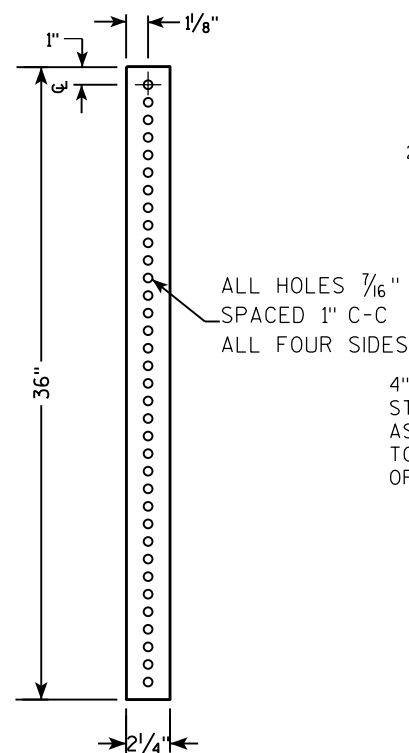
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

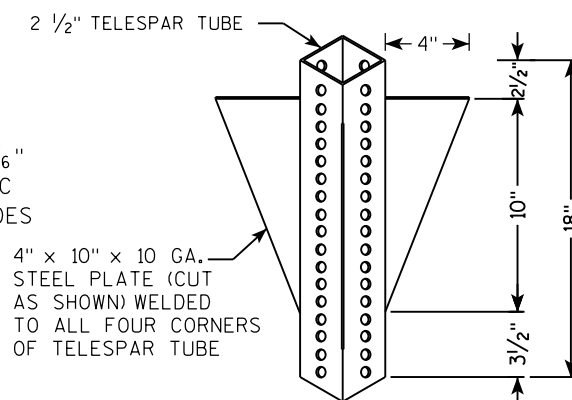
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



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



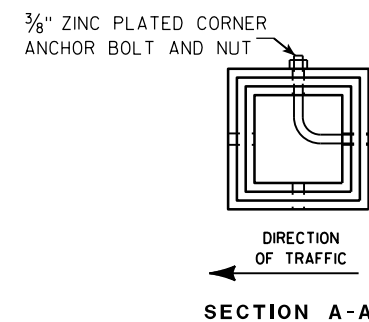
TECHNICAL DRAWING OF A VERTICAL SIGN POST ASSEMBLY.

Labels and Dimensions:

- 18" DIA SCHEDULE 40 PVC BOX-OUT**: The base of the post.
- 36"**: Total height of the post assembly.
- 18"**: Height of the box-out section.
- 13"**: Height of the gravel/dirt section.
- 2 1/2" GRAVEL OR DIRT**: The material filling the box-out.
- 2 1/4" SQUARE X 36"**: The main vertical post.
- 2" STEEL TUBULAR SQUARE UPPER SECTION**: The upper part of the post.
- ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES**: Specification for the post holes.
- 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT**: Hardware for the gravel section.
- 3/8" ZINC PLATED ANCHOR BOLT AND NUT**: Hardware for the box-out section.
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)**: The sleeve connecting the box-out to the main post.
- SIGN**: The sign plate at the top.
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL**: Reference to the sign plate for hardware details.
- TELESCOPE PIECES FLUSH AT TOP**: Note about the top of the post sections.

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY:

- TELESCOPE PIECES FLUSH AT TOP**: Indicated by a dimension line on the left.
- 2" STEEL TUBULAR SQUARE UPPER SECTION**: The main vertical support.
- ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES**: Specification for the perforations in the upper section.
- SIGN**: The top horizontal component.
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL**: Reference to a sign plate for hardware details.
- 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT**: Hardware used to secure the post to the base.
- 1"**: Dimension for the offset of the anchor bolt from the post face.
- 3/8" ZINC PLATED ANCHOR BOLT AND NUT**: Hardware used to secure the post to the base.
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)**: The base section of the post.
- 2 1/4" SQUARE X 36"**: The base plate or foundation.
- 36"**: Total height dimension from the base to the top of the post.
- 18"** and **12"**: Vertical dimensions for the base section.
- A**: Downward arrows indicating load or weight.



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

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

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch

for State Traffic Engineer

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

PROJECT NO:

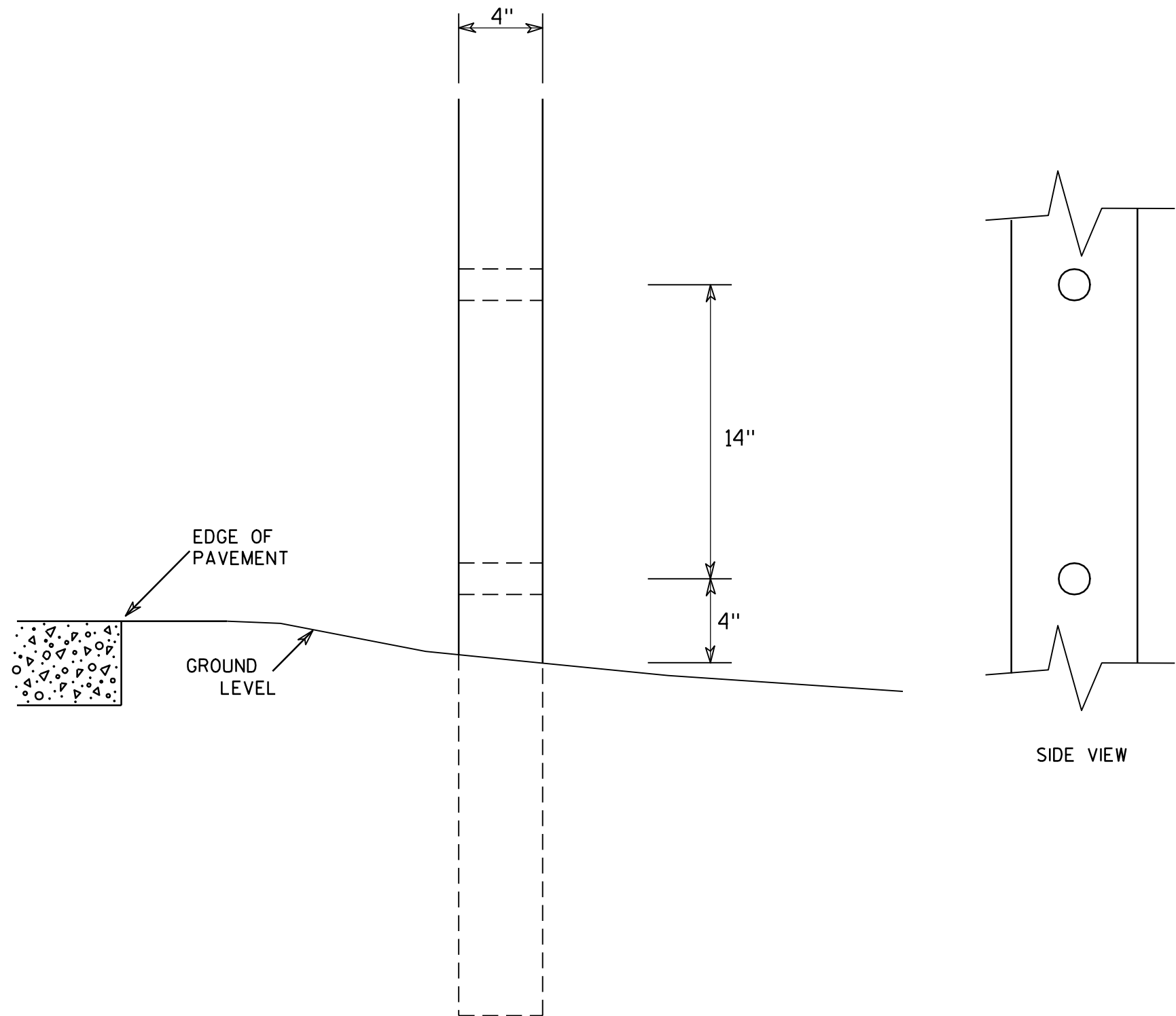
HWY:

COUNTY:

SHEET NO:

E

7



GENERAL NOTES

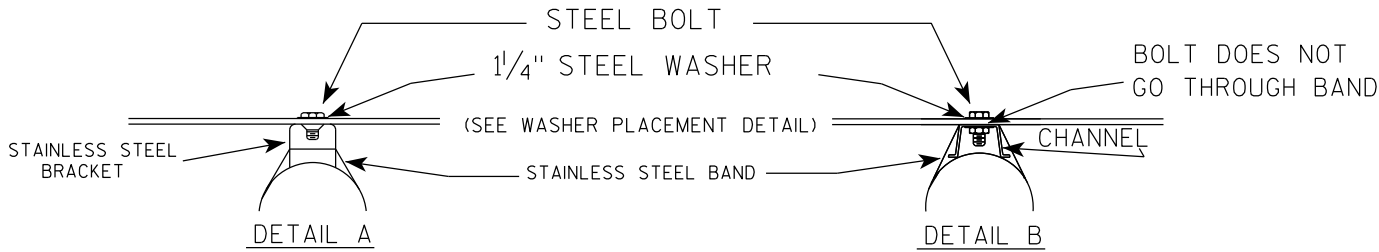
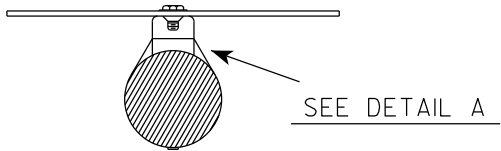
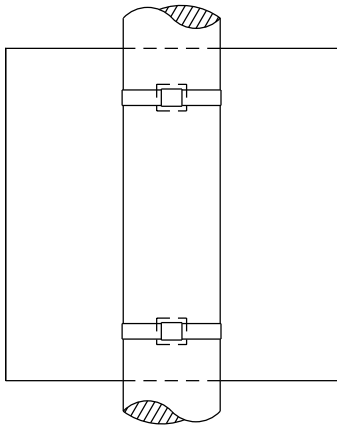
1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

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

BANDING

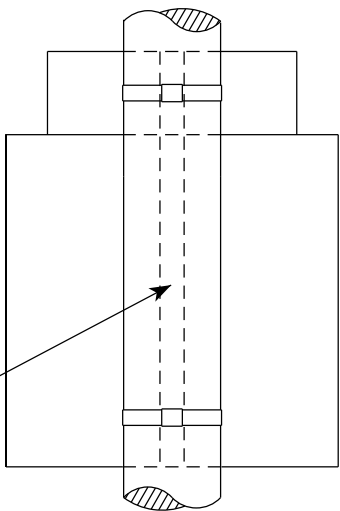
SINGLE SIGN



GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be $\frac{3}{4}$ " 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

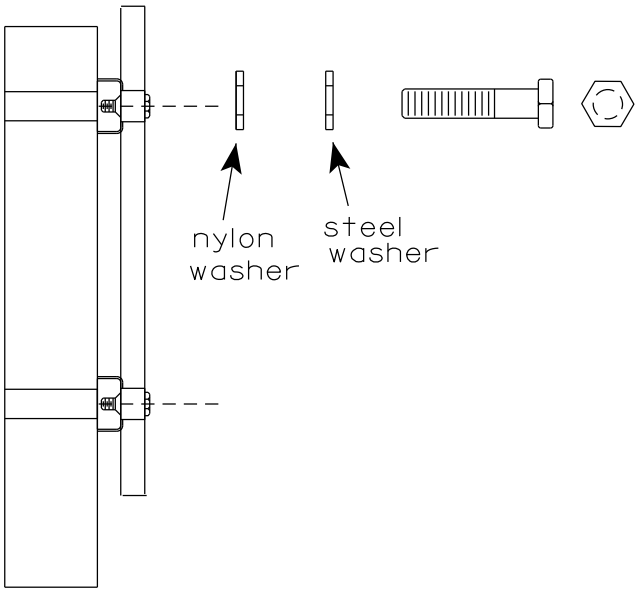
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

SEE DETAIL B

WASHER PLACEMENT

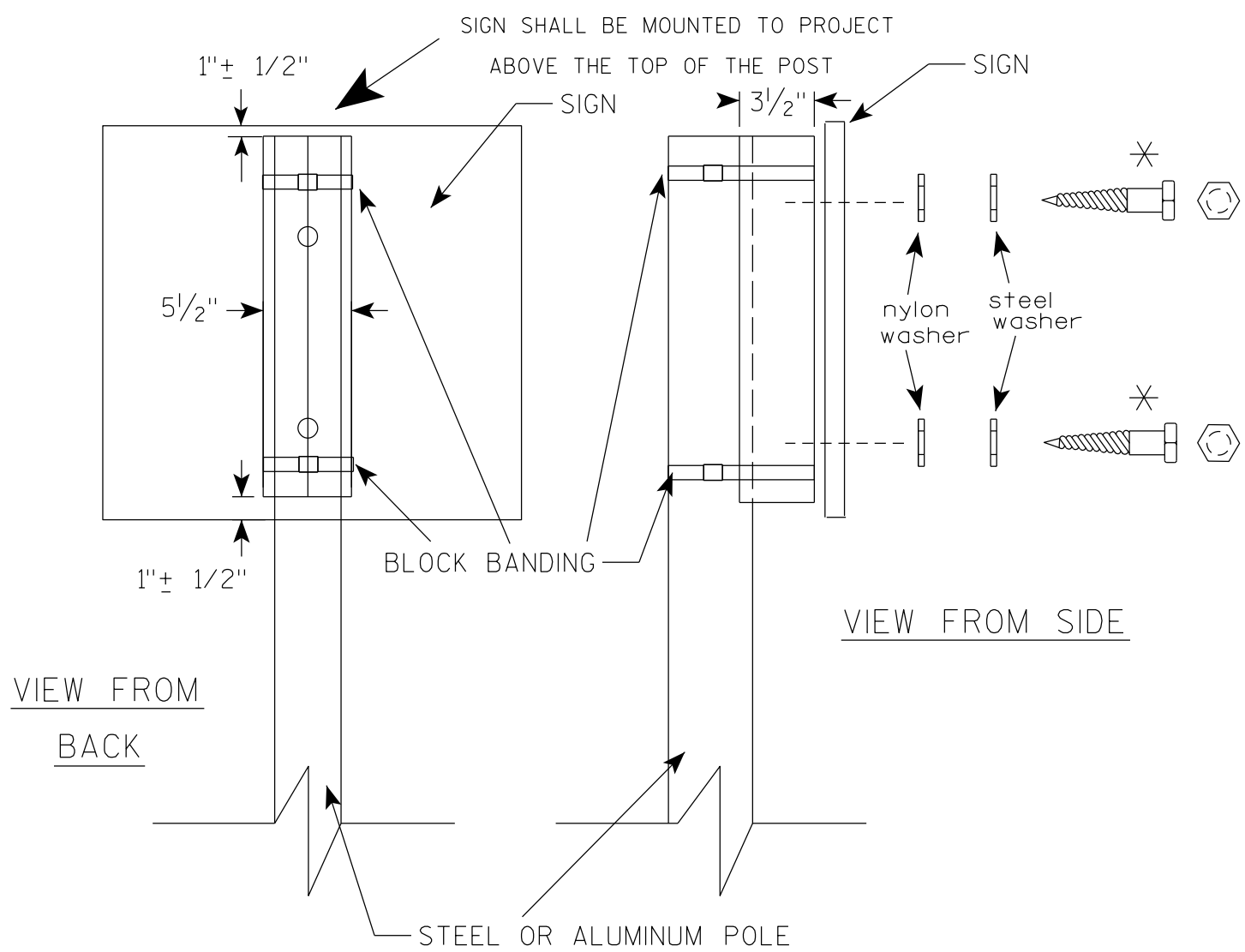


WASHERS (ALL POSTS) -
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

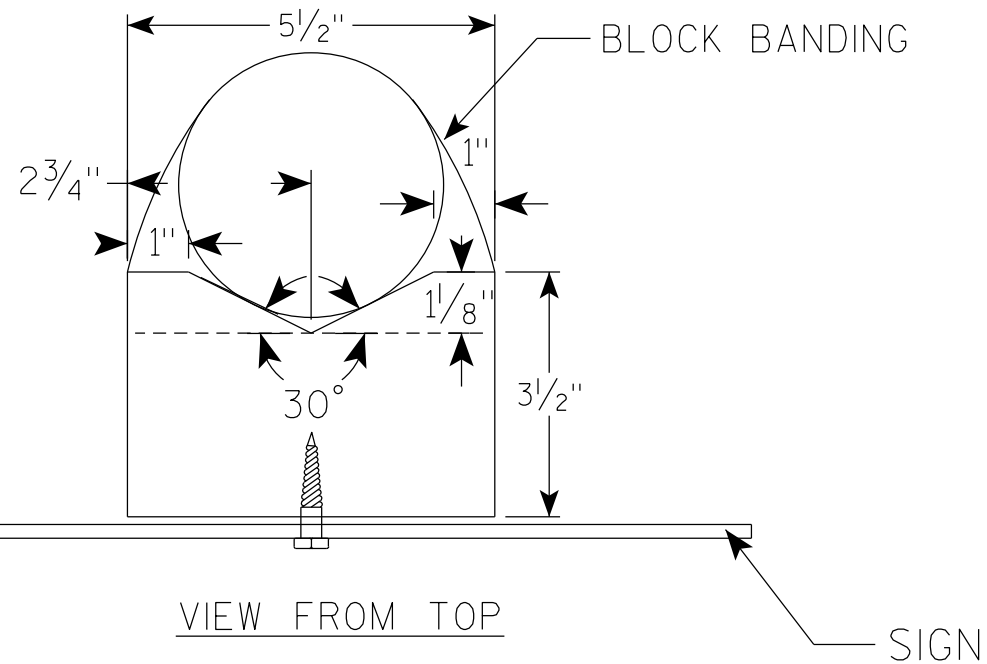
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4



VIEW FROM
BACK

VIEW FROM SIDE



VIEW FROM TOP

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

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

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

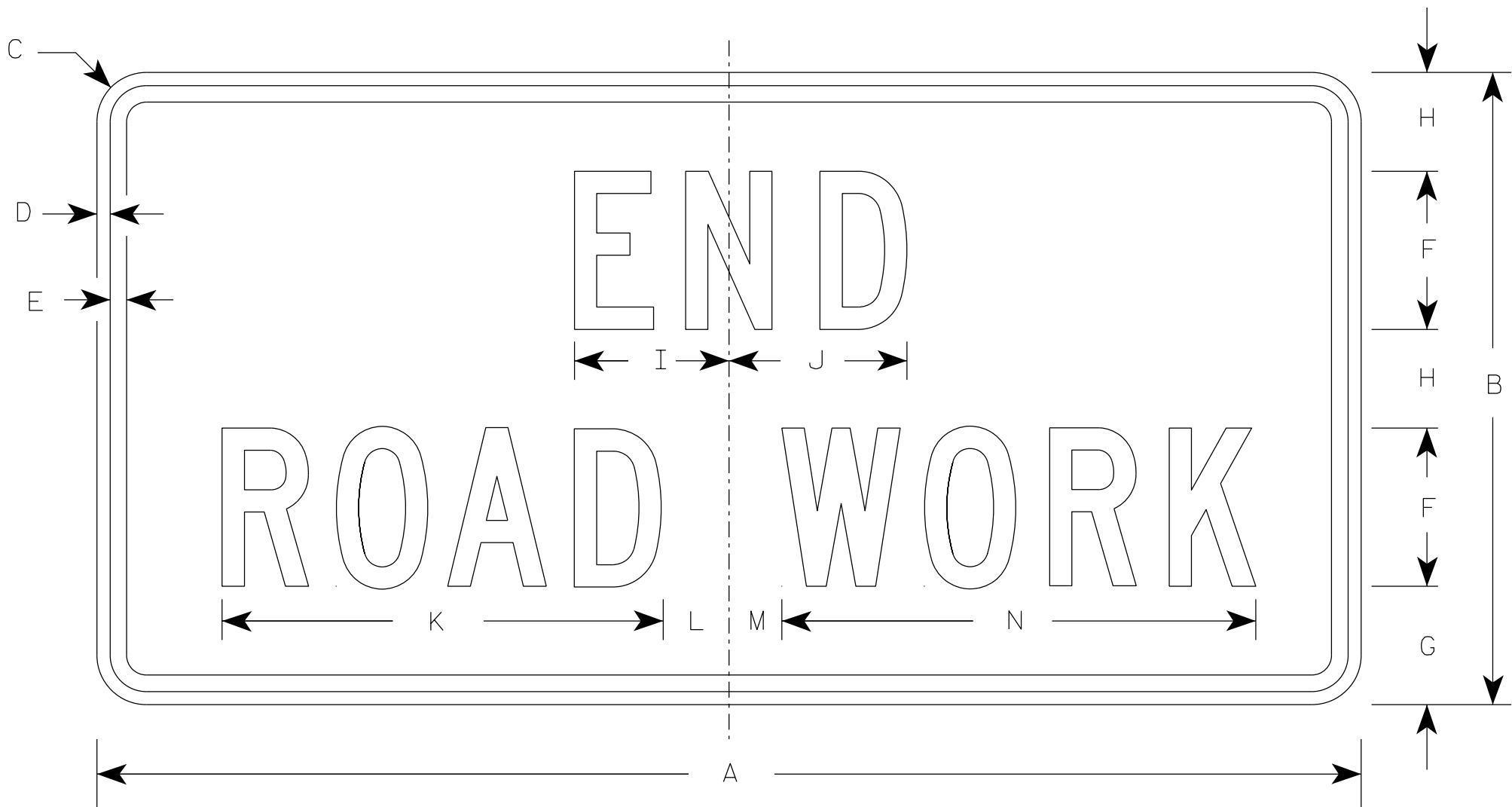
PROJECT NO:

SHEET NO:

E

NOTES

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



G20-2A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5
2	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
2M	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
3	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
4	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
5	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0

STANDARD SIGN

G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-2A.10

PROJECT NO:

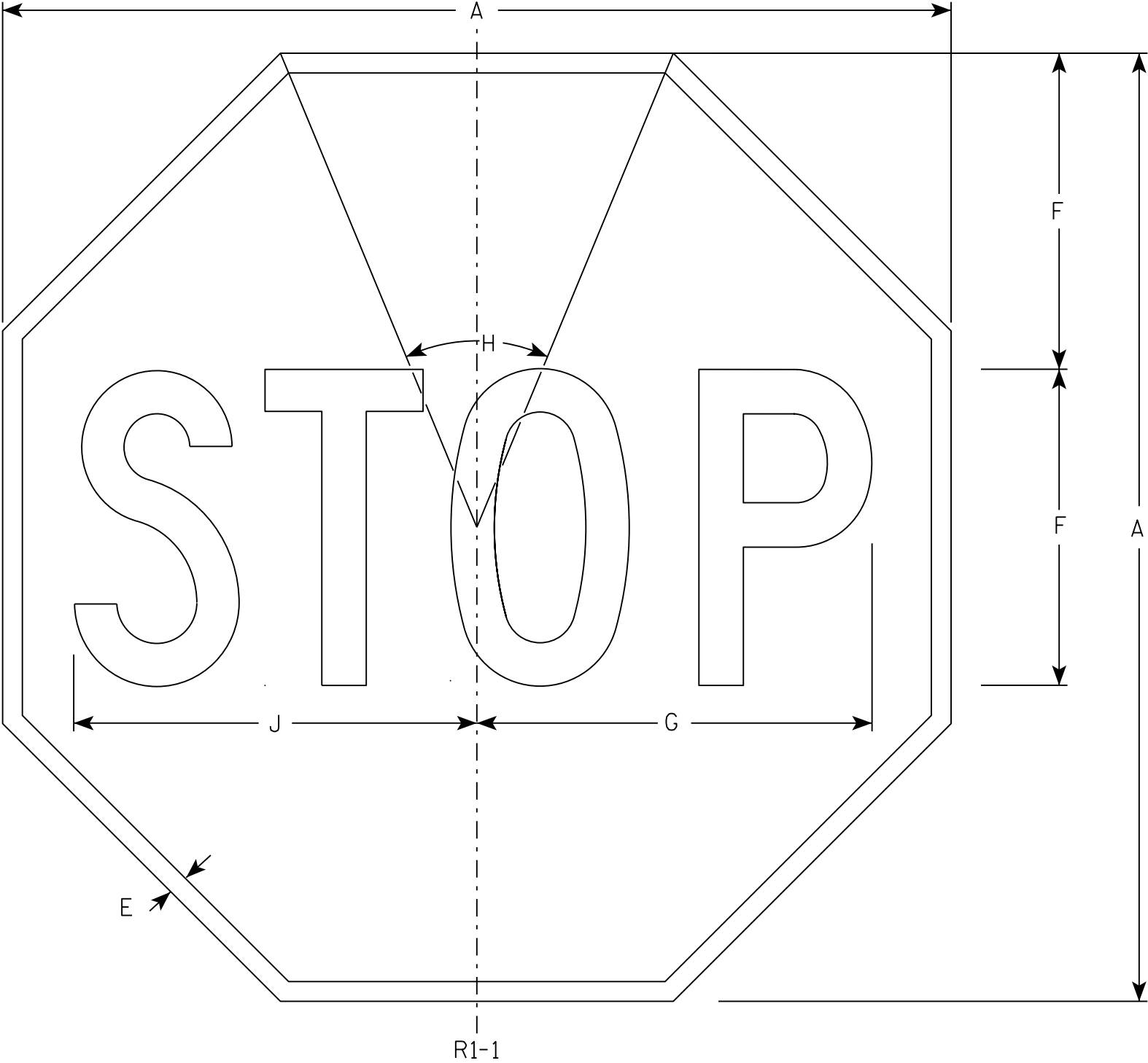
HWY:

COUNTY:

SHEET NO:

E

7



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Red
Message - White
- 3. Message Series - C

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

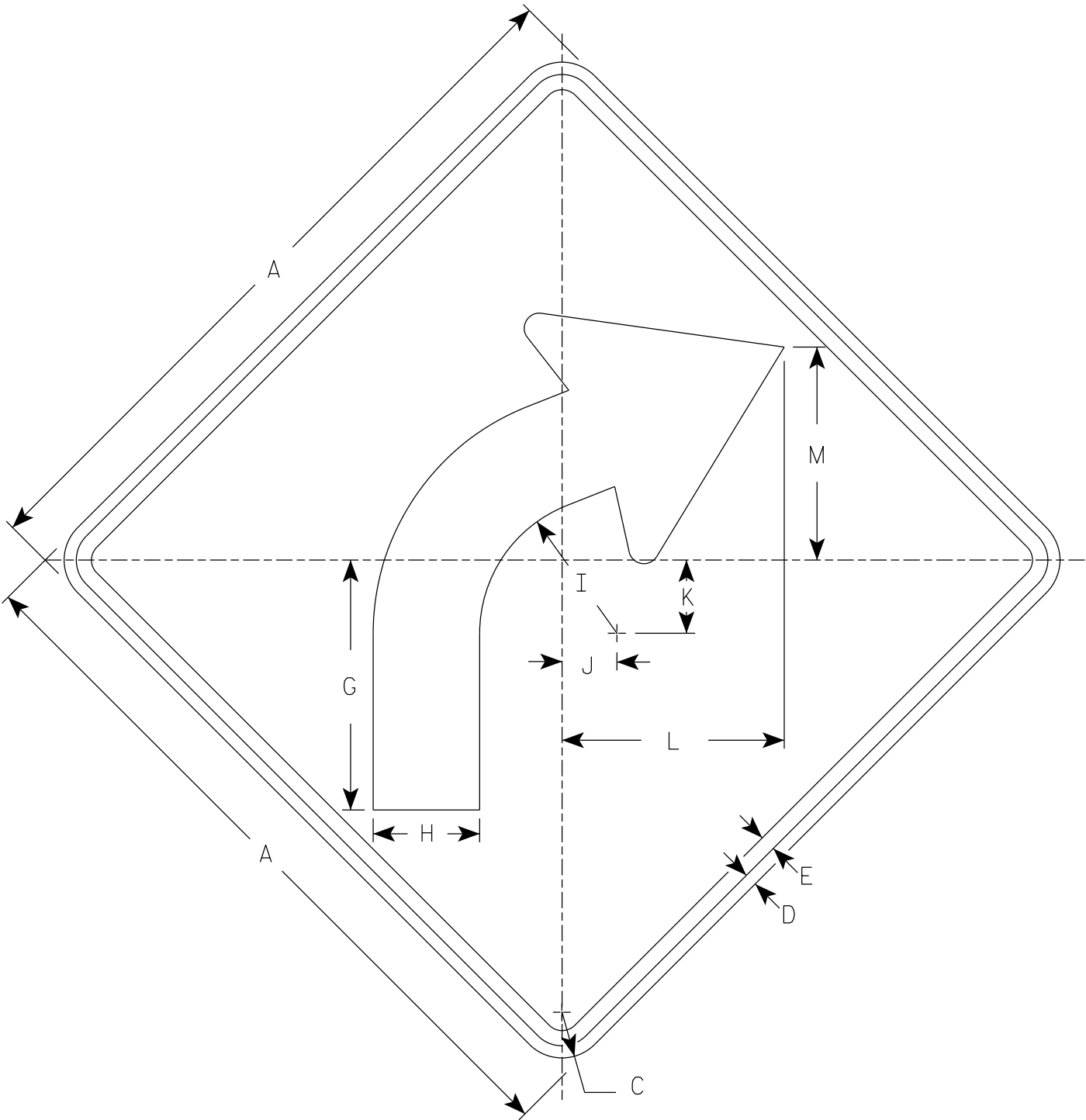
STANDARD SIGN

R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

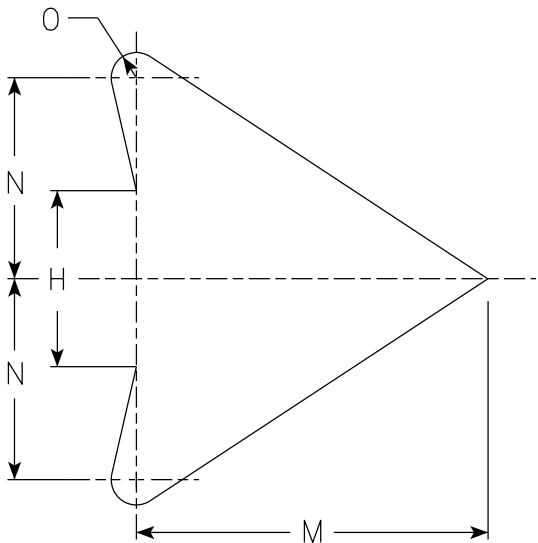
DATE 11/12/15 PLATE NO. R1-1.13



W1-2R

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow
Message - Black
- 3. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



ARROW DETAIL

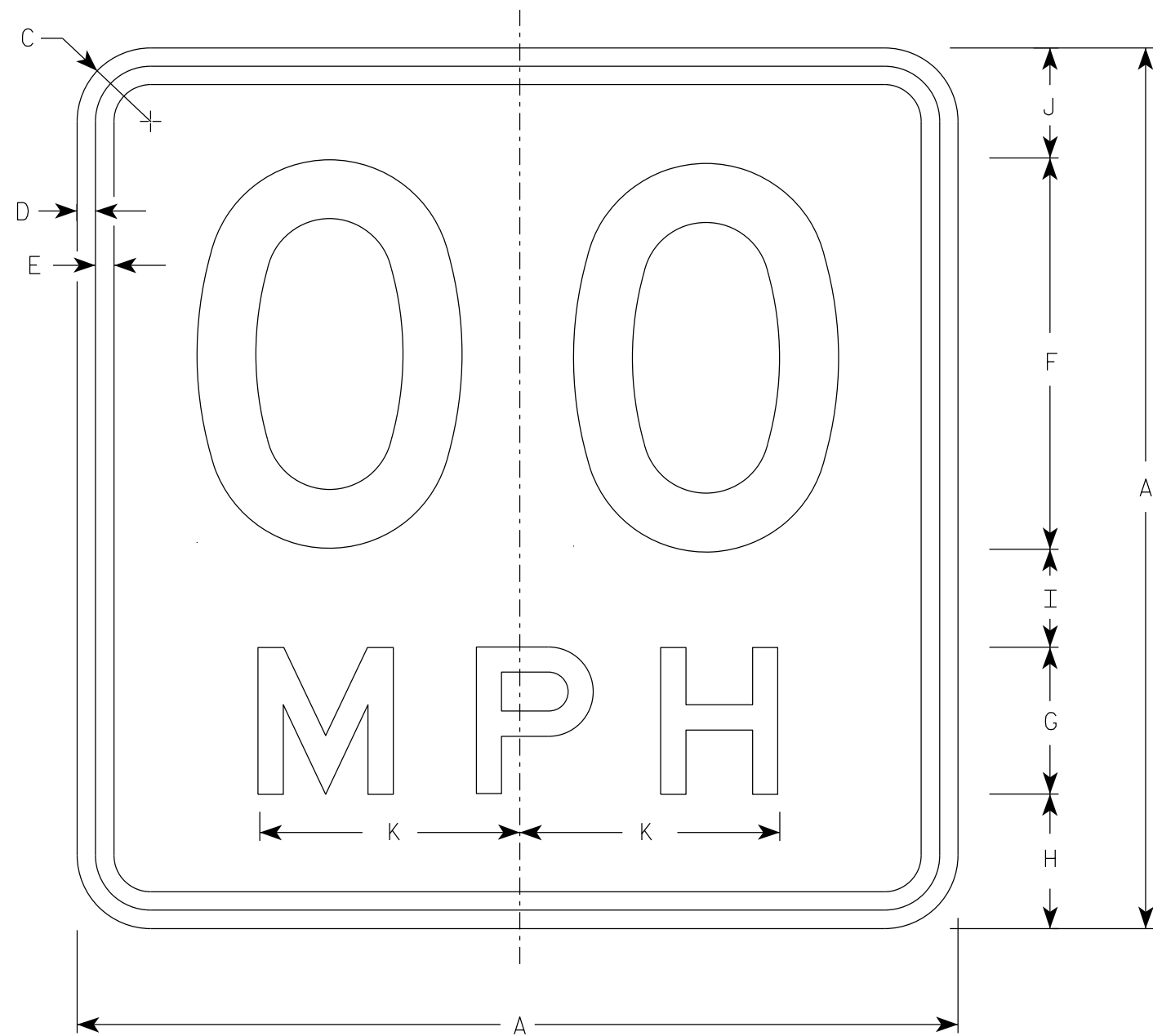
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 7/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		2 1/4	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6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

STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/23/2023 PLATE NO. W1-2.11



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black
3. Message Series - See Note 5
4. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
5. Line 1 is Series D
Line 2 is Series E

W13-1

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

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

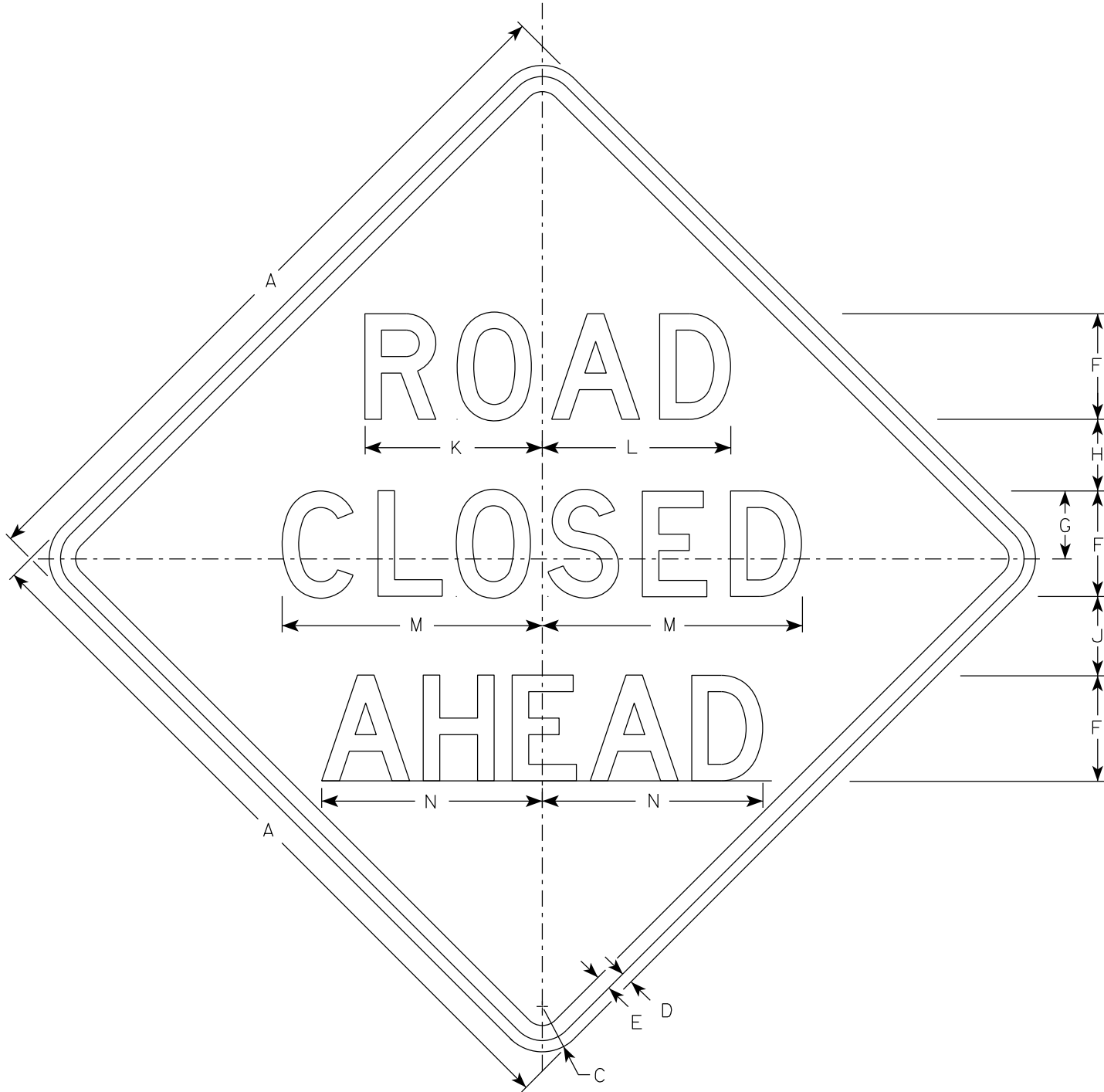
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

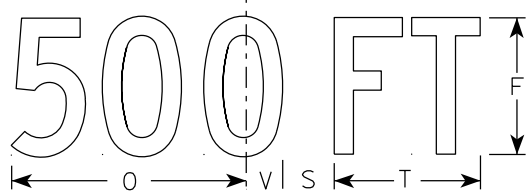
APPROVED Matthew R. Rauch
For State Traffic Engineer

DATE 1/8/2024 PLATE NO. W13-1.17

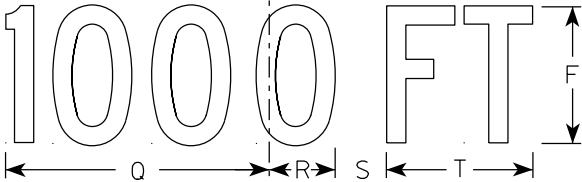
PROJECT NO: HWY: COUNTY: SHEET NO: **E**



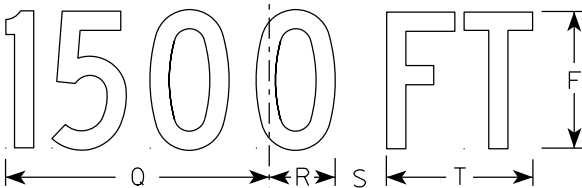
W20-3A



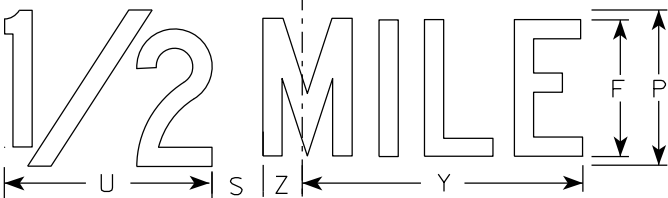
W20-3D



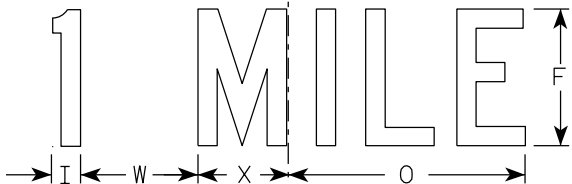
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - see note 5
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

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

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

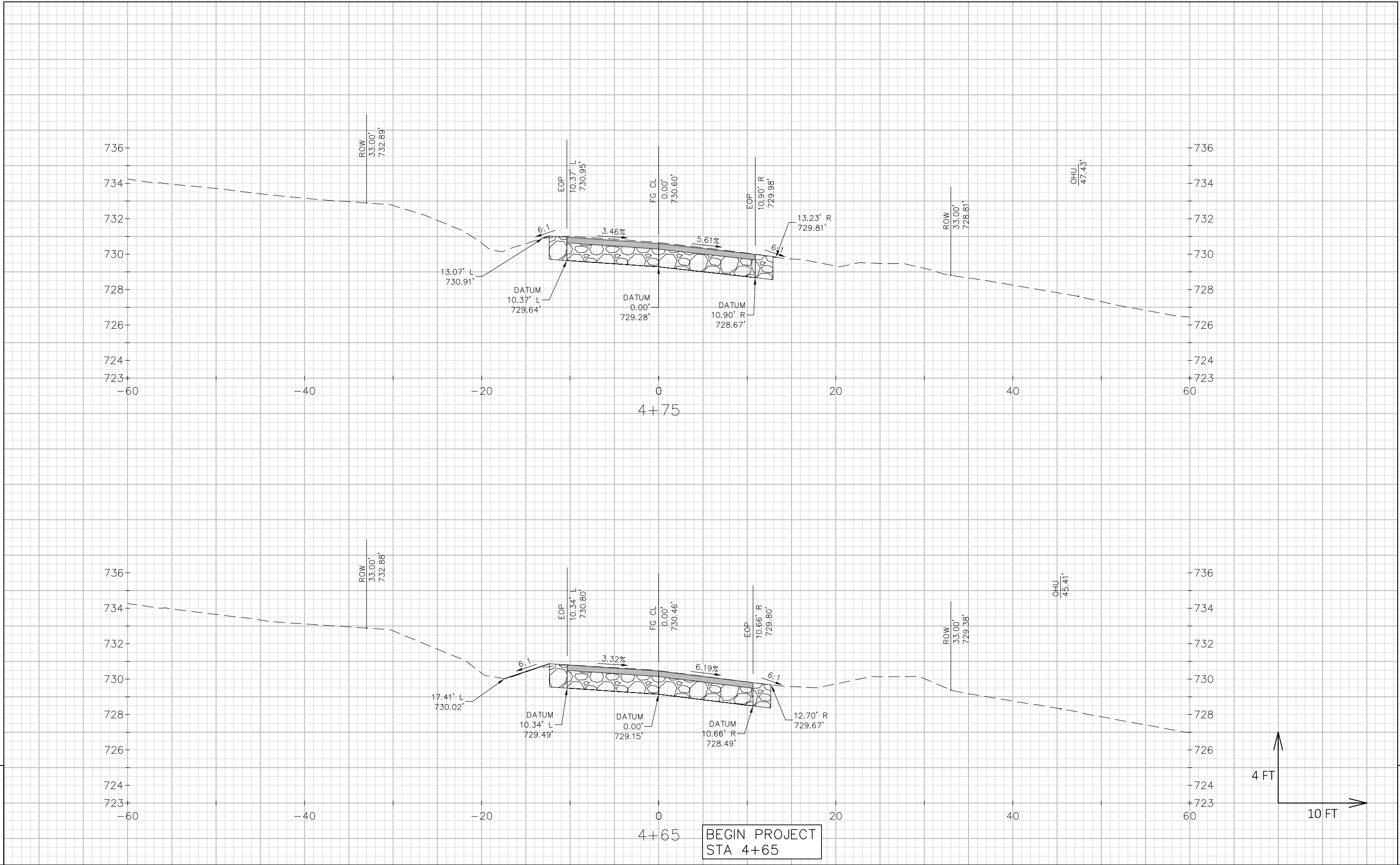
DATE 1/10/2024 PLATE NO. W20-3.8

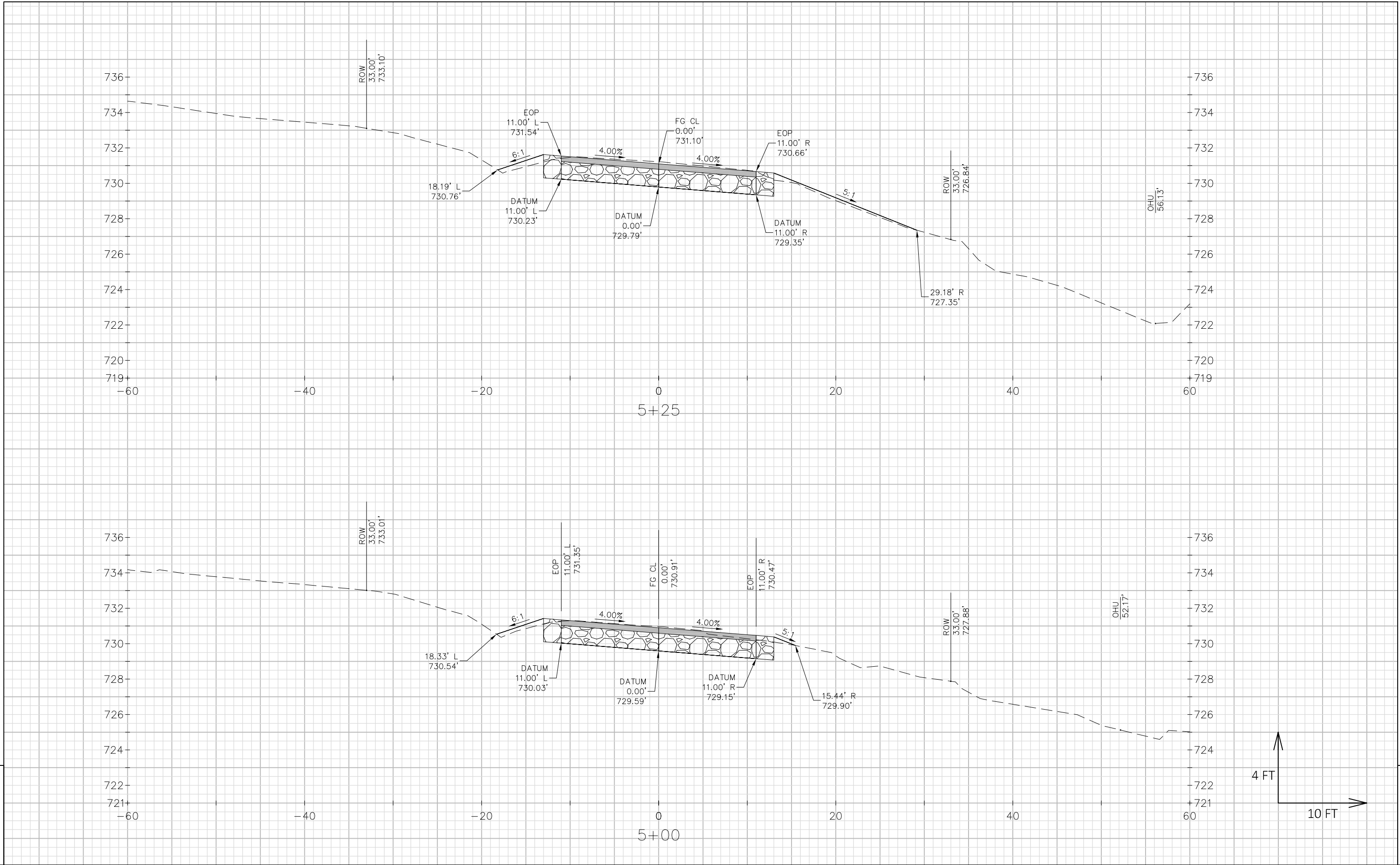
VINEYARD ROAD

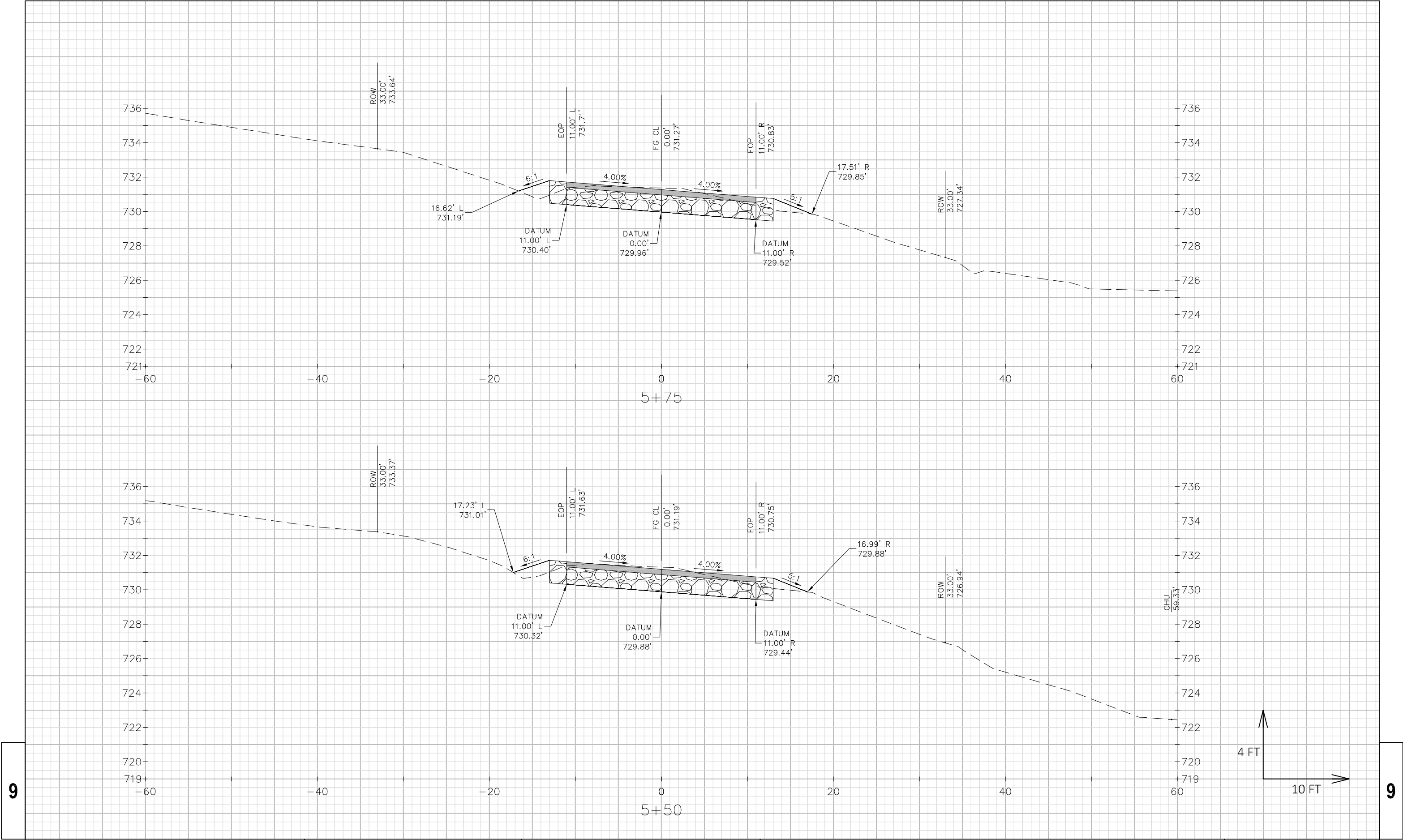
STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)	
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL
						NOTE 1	NOTE 2	NOTE 3	1.00 NOTE 1	1.20
4+65.43	465		0	0	0	0	0	0	0	0
5+00.00	500	35	33	5	1	21	3	1	21	1
6+00.00	600	100	32	5	2	120	19	9	141	10
7+00.00	700	100	31	5	2	116	19	9	257	19
8+00.00	800	100	29	5	30	109	19	111	366	130
9+00.00	900	100	28	5	20	102	19	75	468	205
10+00.00	1000	100	31	5	5	116	19	17	583	222
11+00.00	1100	100	33	5	1	119	19	10	702	233
12+00.00	1200	100	30	5	1	116	19	3	818	235
13+00.00	1300	100	62	5	3	169	19	7	986	242
14+00.00	1400	100	58	5	9	221	19	22	1208	264
15+00.00	1500	100	57	5	0	213	19	17	1421	281
16+00.00	1600	100	35	5	3	171	19	6	1591	287
17+00.00	1700	100	40	5	13	138	19	29	1730	316
18+00.00	1800	100	35	5	3	138	19	30	1868	346
19+00.00	1900	100	28	5	4	117	19	14	1985	360
20+00.00	2000	100	34	5	0	126	19	0	2110	361
21+00.00	2100	100	41	5	1	138	19	2	2248	362
22+00.00	2200	100	40	5	1	149	19	4	2396	366
23+00.00	2300	100	42	5	0	151	19	2	2548	368
24+00.00	2400	100	12	5	2	45	19	6	2593	374
25+00.00	2500	100	15	5	4	50	19	9	2643	383
26+00.00	2600	100	42	5	0	105	19	7	2748	390
27+00.00	2700	100	35	5	0	142	19	1	2890	391
28+00.00	2800	100	18	5	12	98	19	23	2988	413
29+00.00	2900	100	24	5	16	90	19	59	3078	473
30+00.00	3000	100	29	5	2	99	19	34	3176	507
31+00.00	3100	100	23	5	1	95	19	6	3272	513
32+00.00	3200	100	14	5	19	68	19	36	3339	549
33+00.00	3300	100	28	5	1	77	19	36	3416	585
33+66.50	3367	67	30	5	0	71	12	1	3487	586

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

3487	534	586
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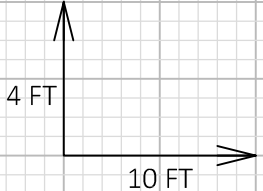
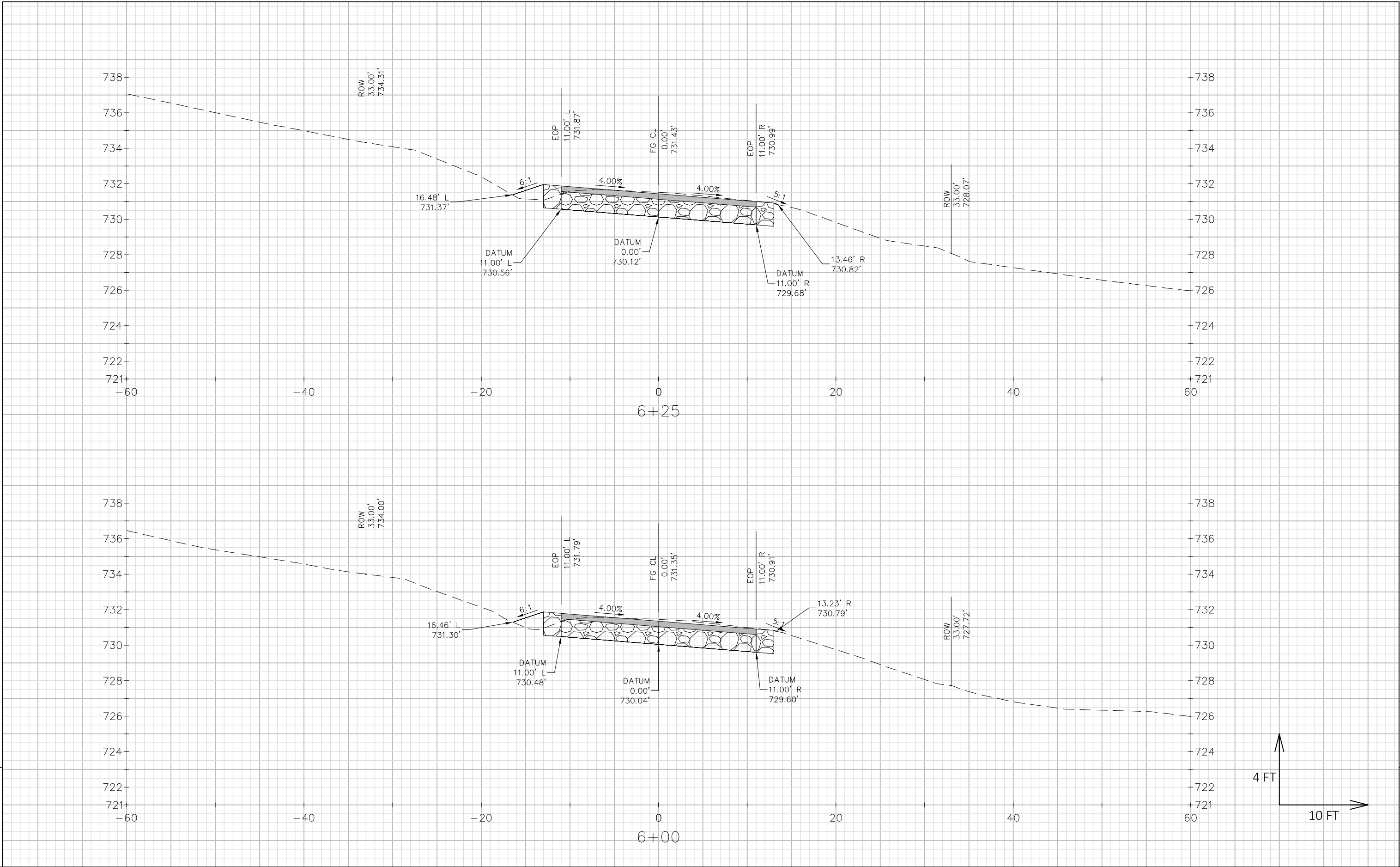


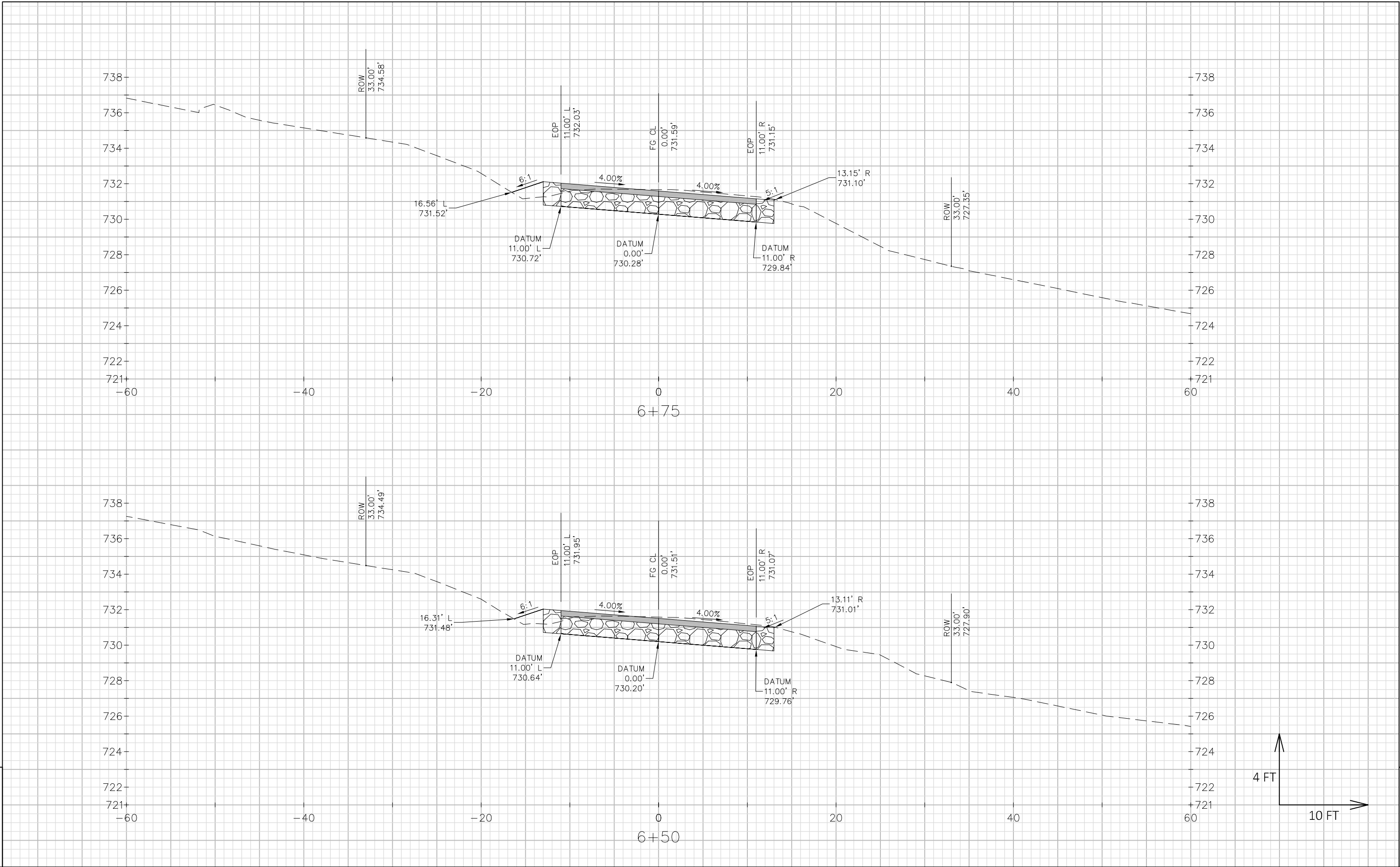


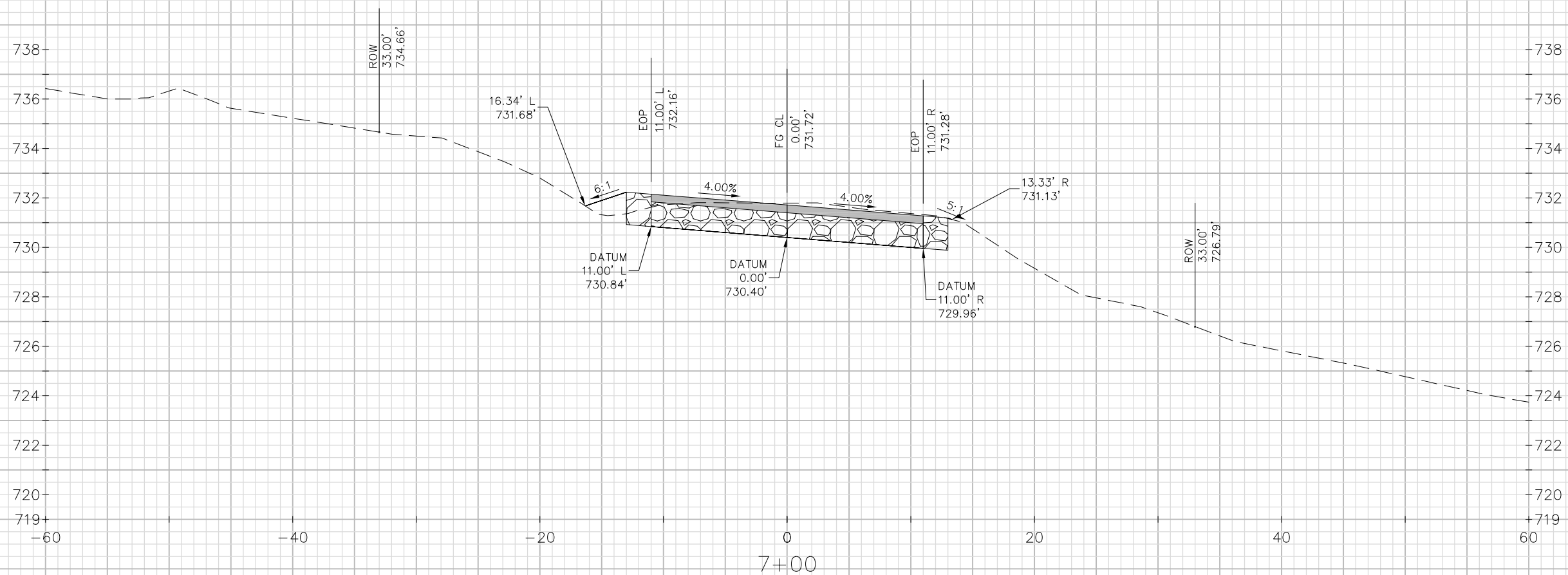
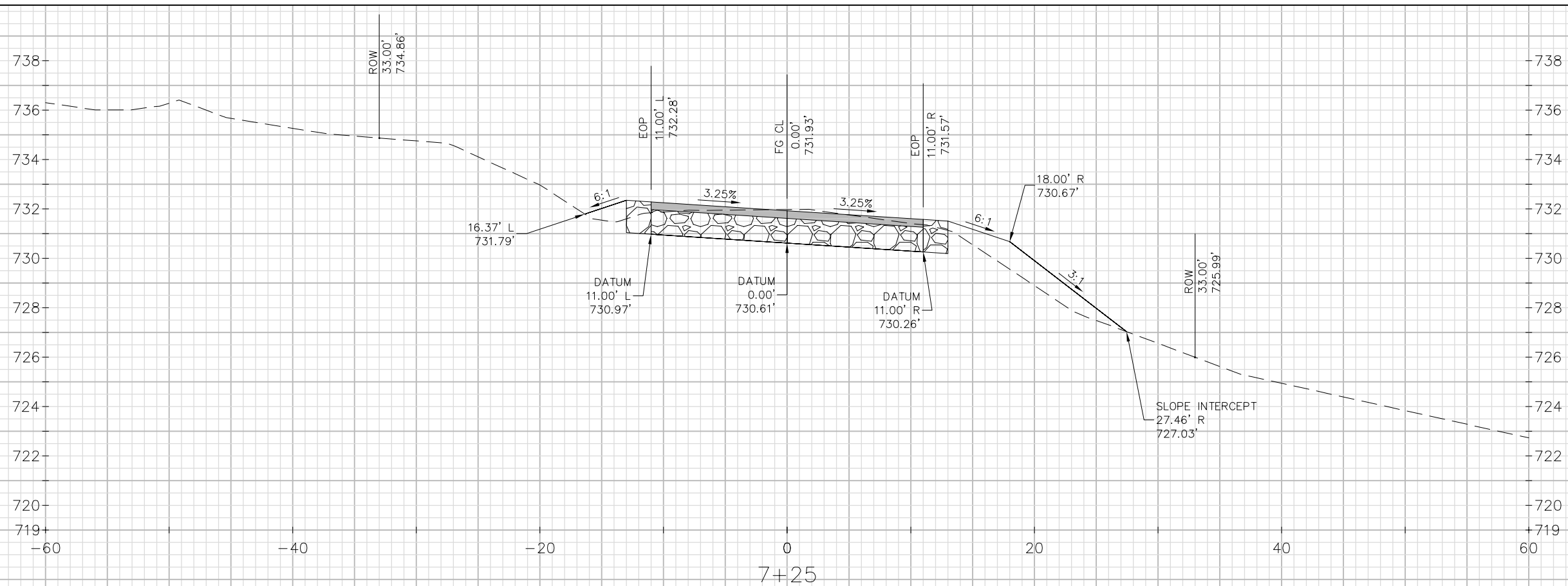
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PROJECT NO: 5319-00-70	HWY: VINEYARD ROAD	COUNTY: CRAWFORD	CROSS SECTIONS: VINEYARD ROAD	SHEET E
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PROJECT NO:	5319-00-70
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HWY: VINEYARD ROAD

COUNTY: CRAWFORD

CROSS SECTIONS: VINEYARD ROAD

SHEET

E

FILE NAME : R:\PRAIRIE DU CHIEN, CITY OF\230032 - VINEYARD ROAD RECONSTRUCTION\CADD\PDCH VINEYARD ROAD BASE ENGINEERING.DWG
LAYOUT NAME - XS6

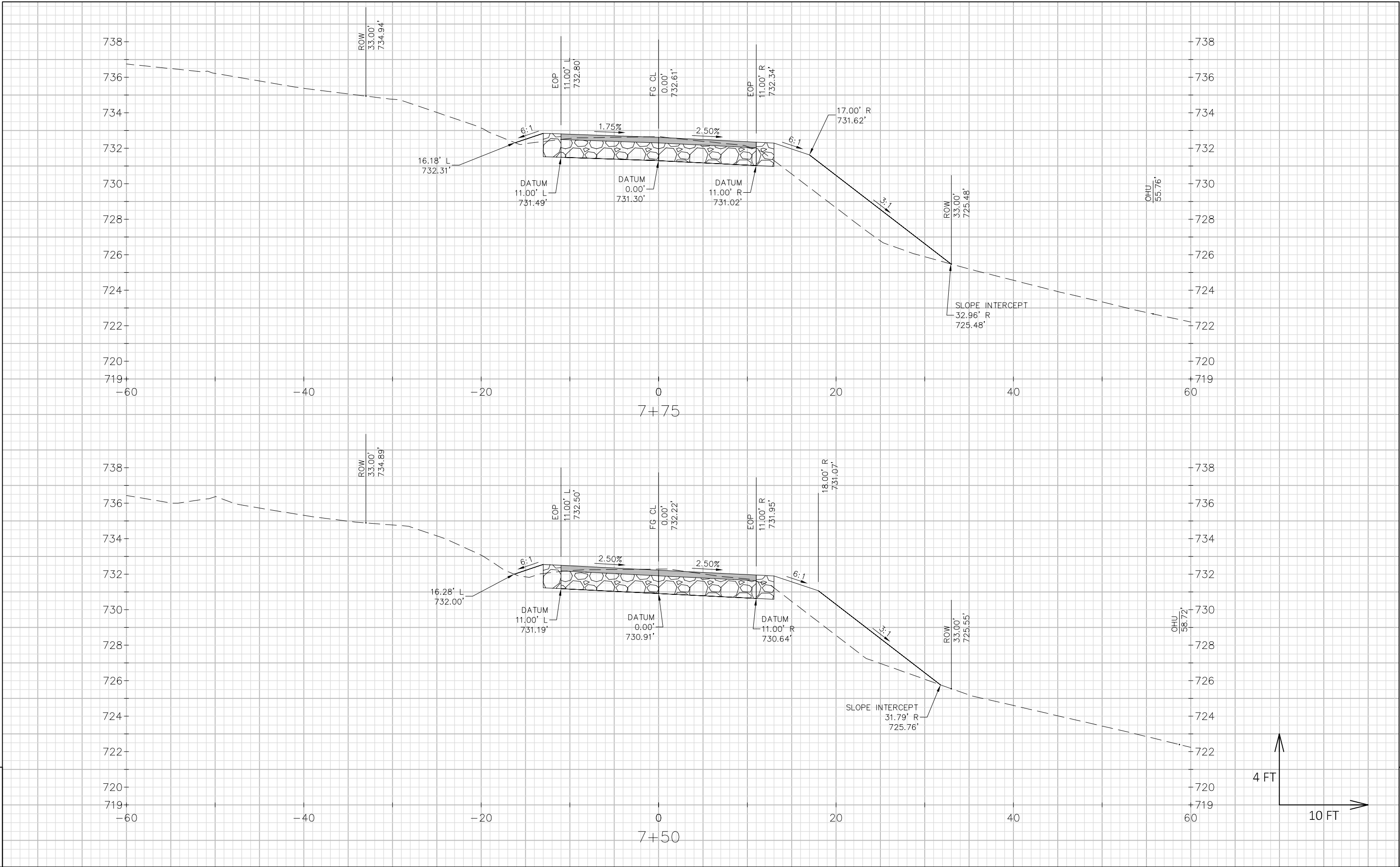
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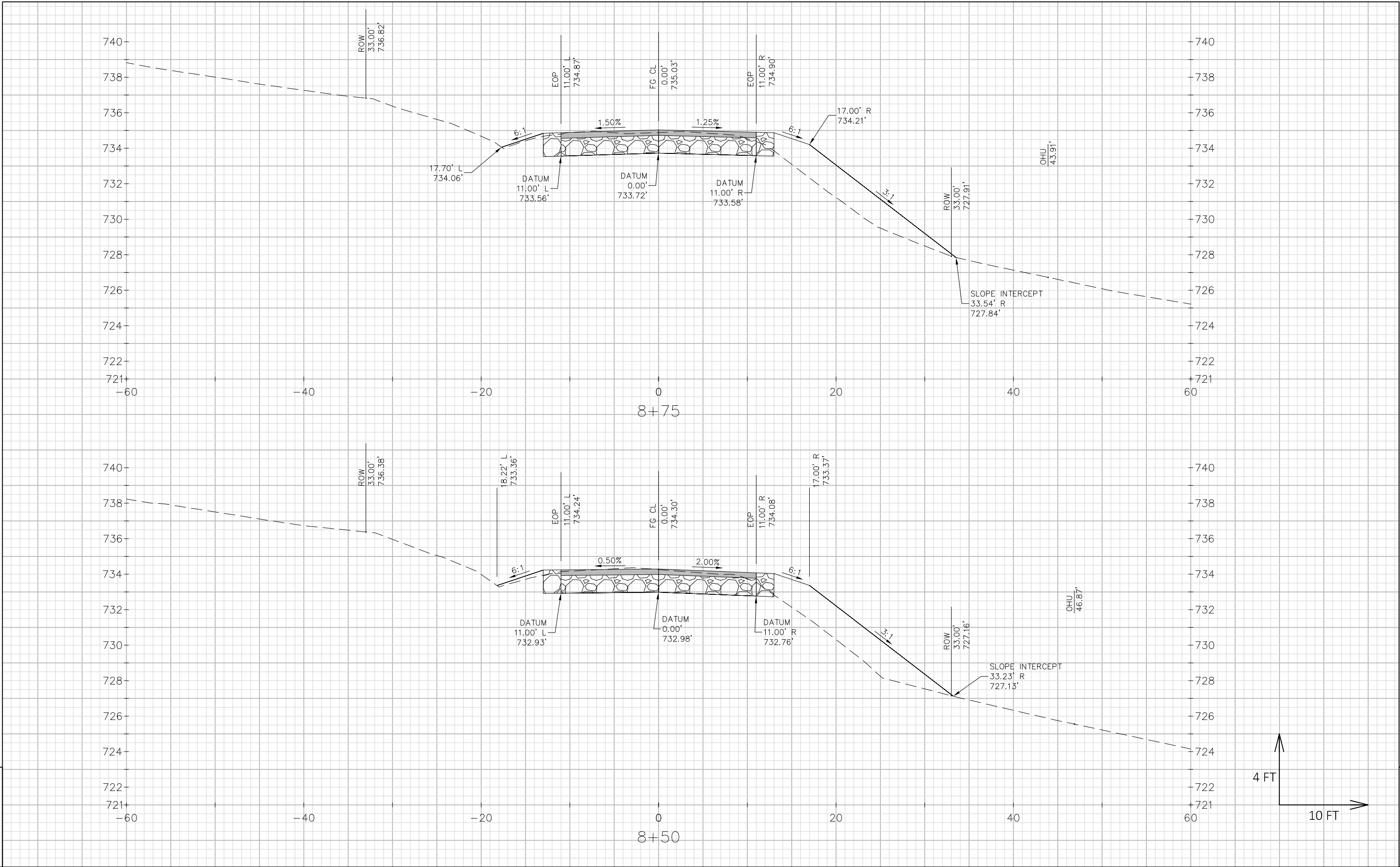
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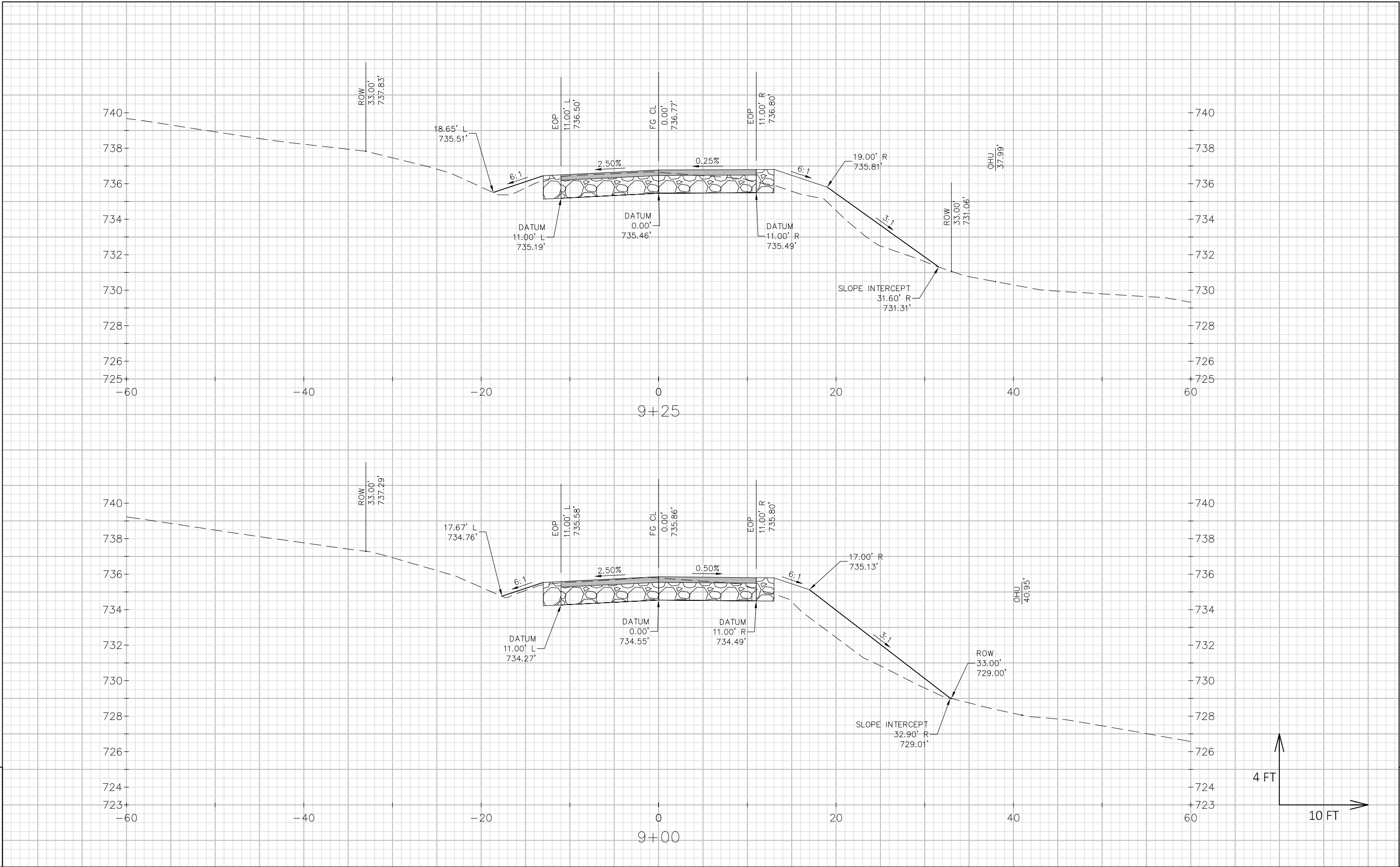
PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

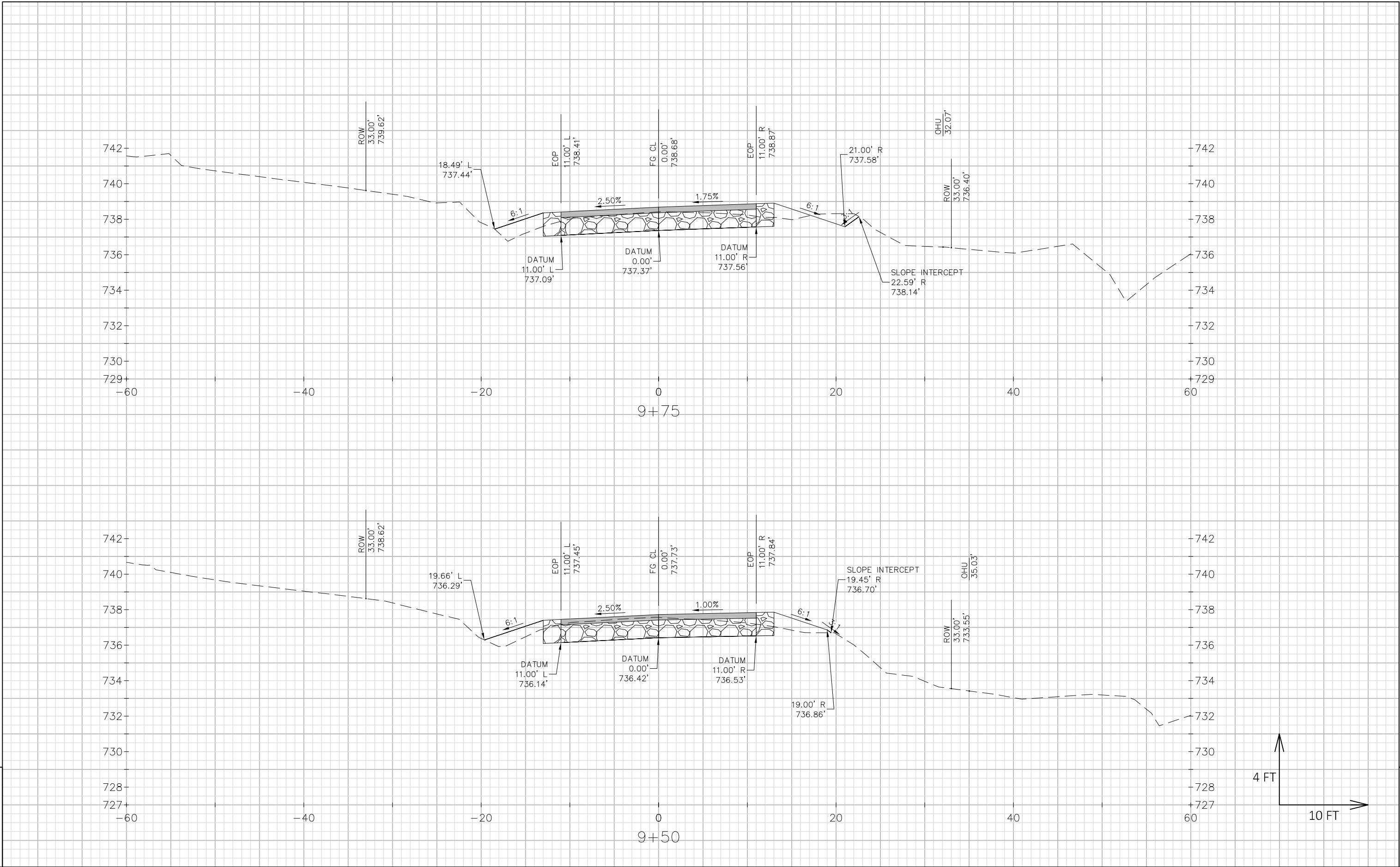


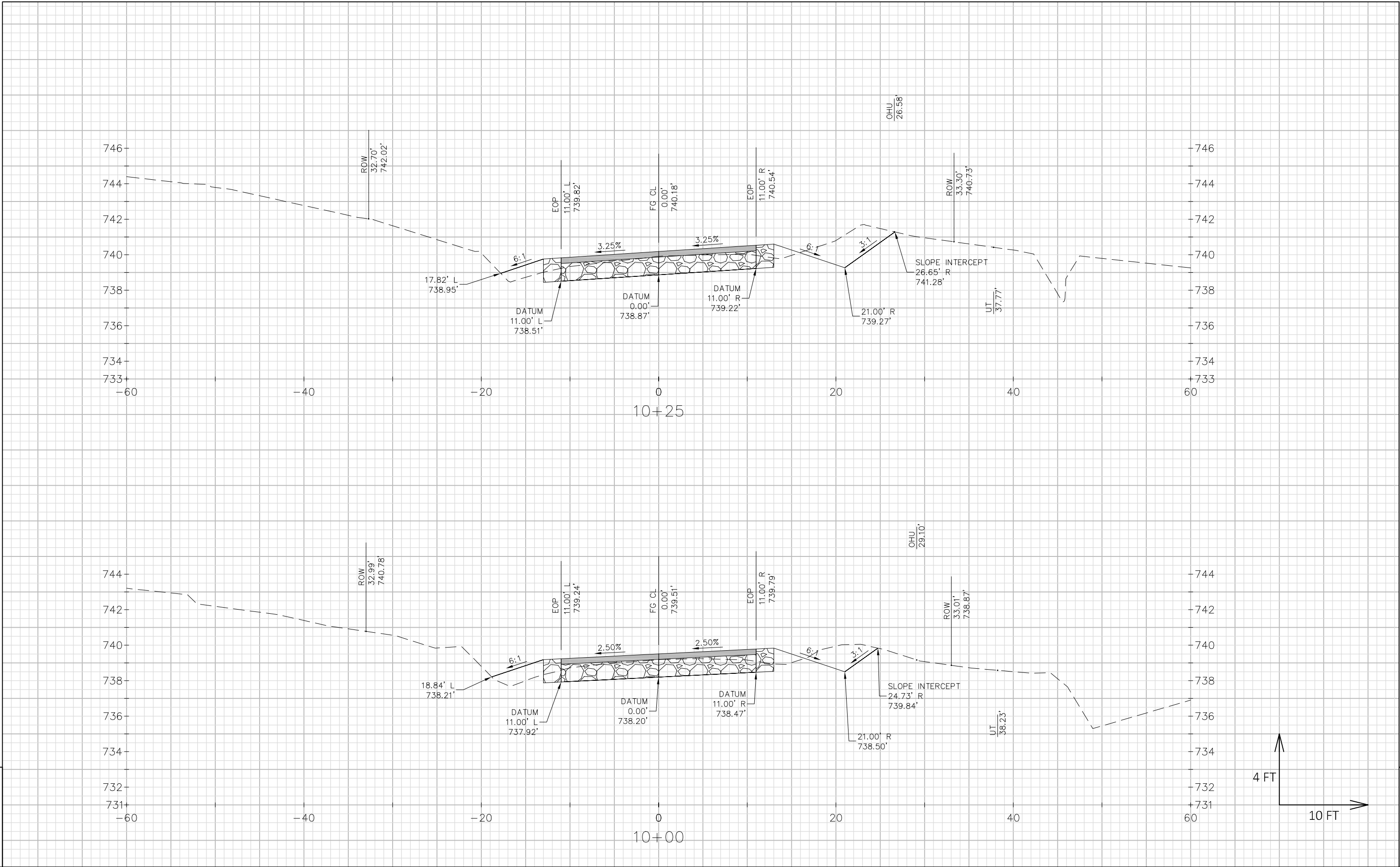


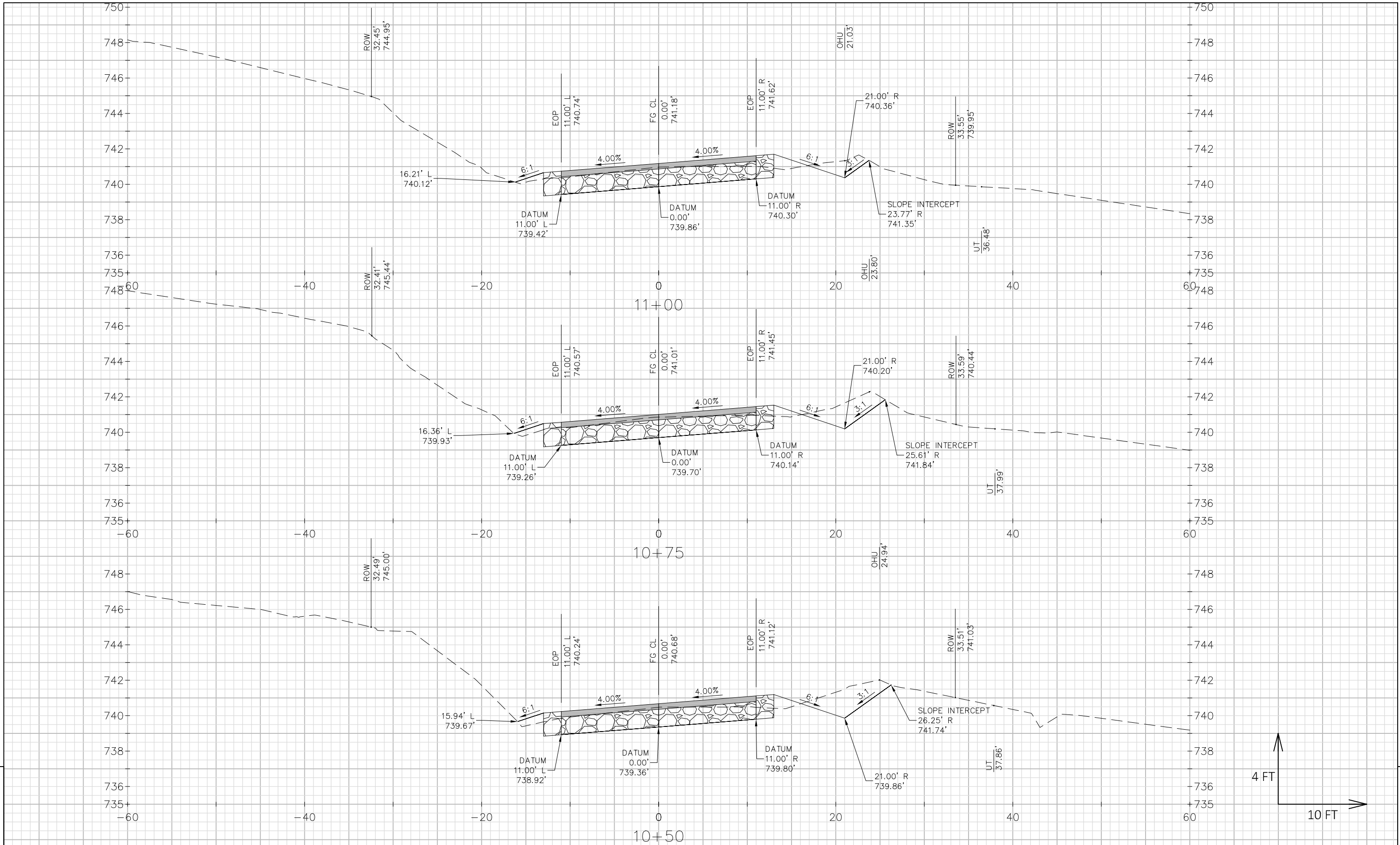


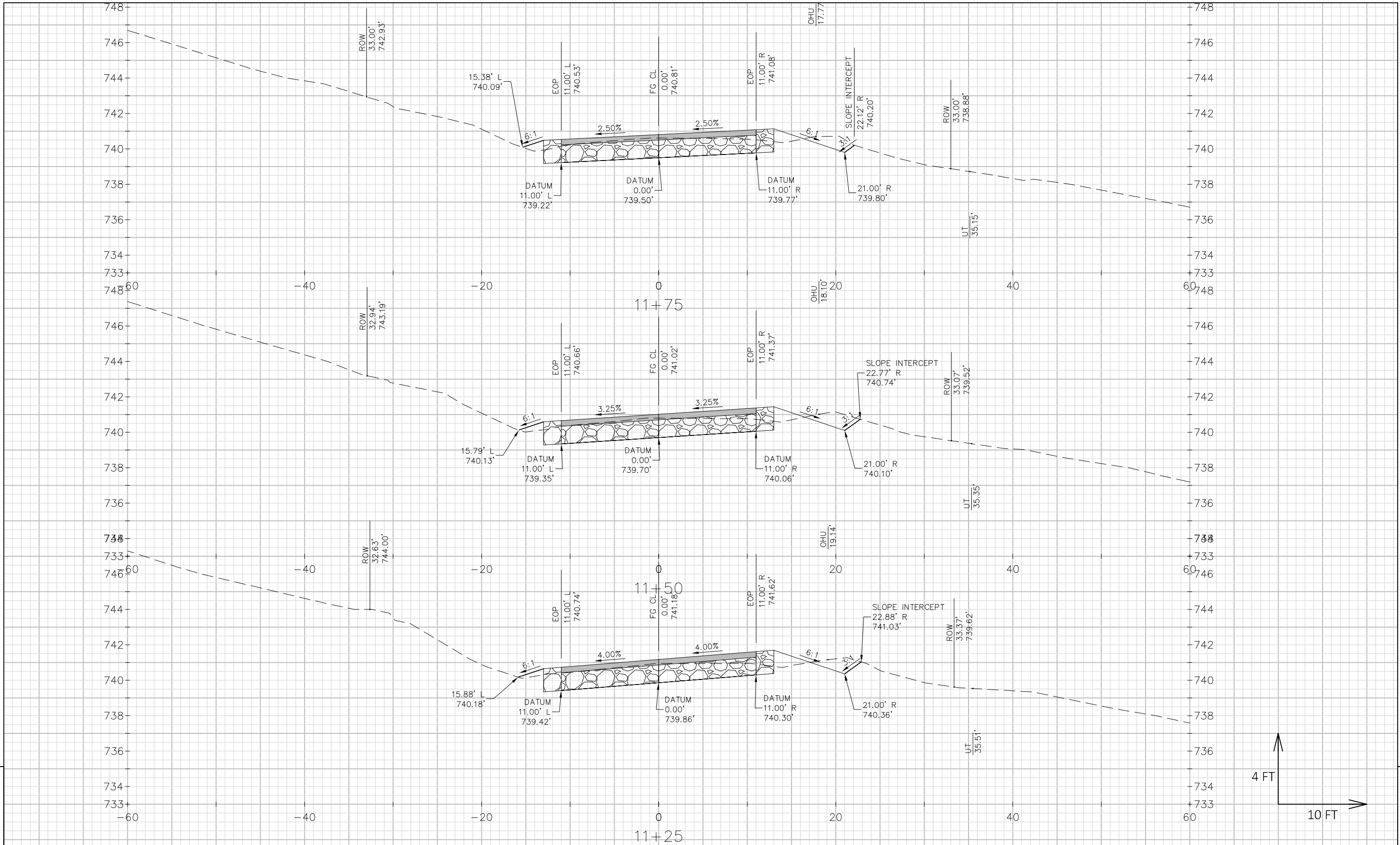
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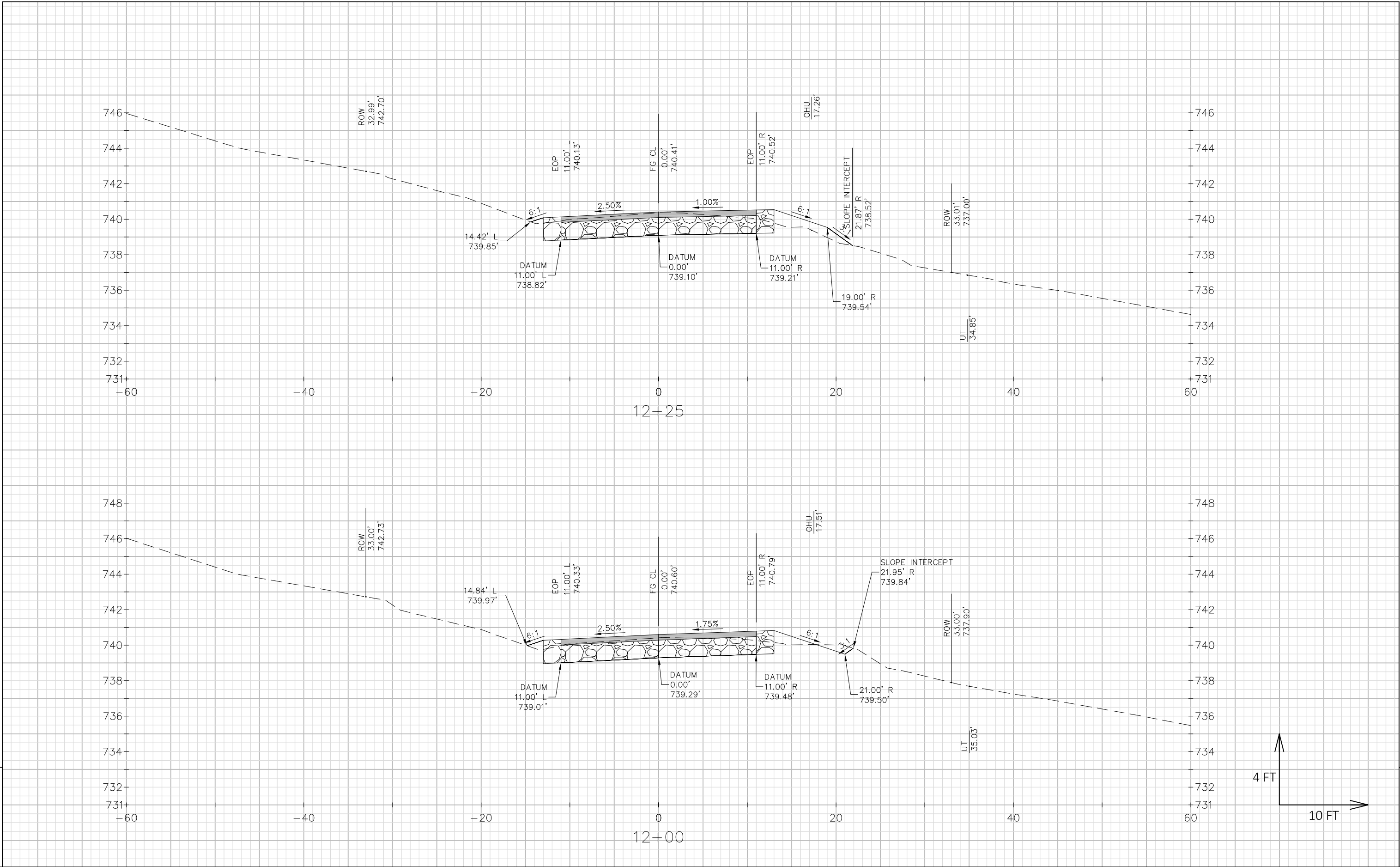
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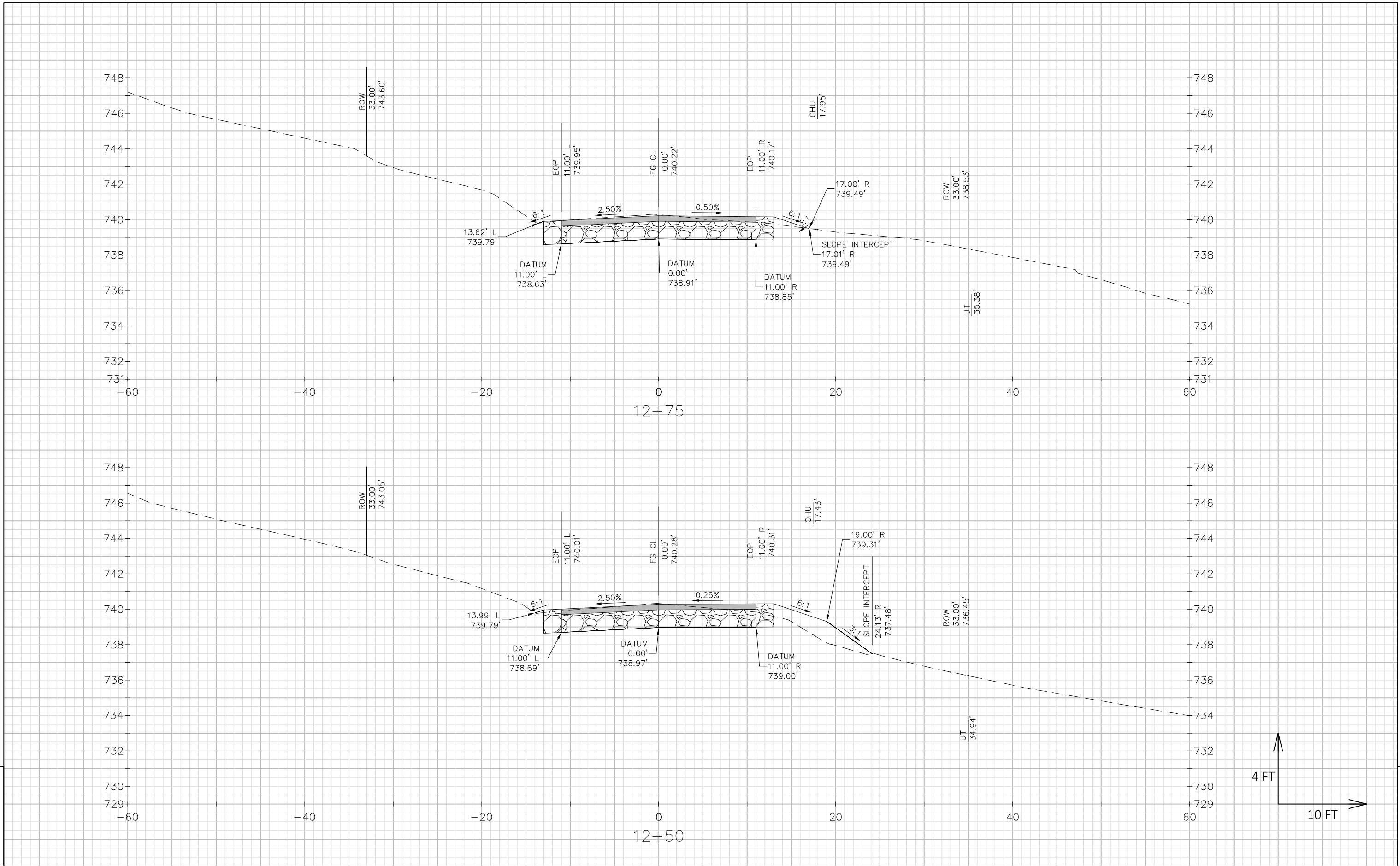


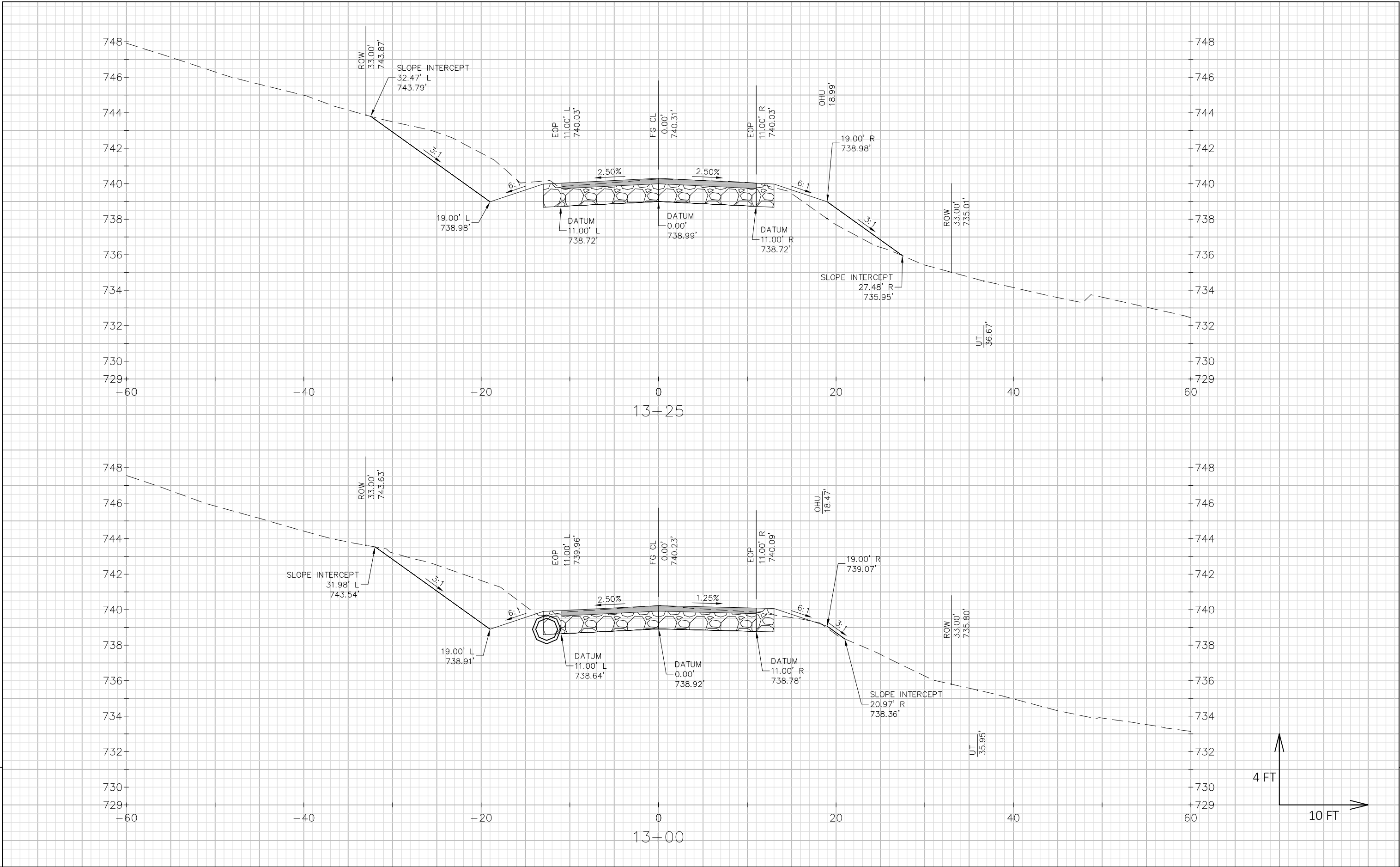


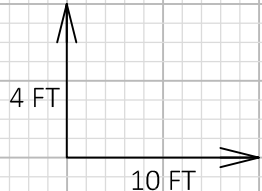
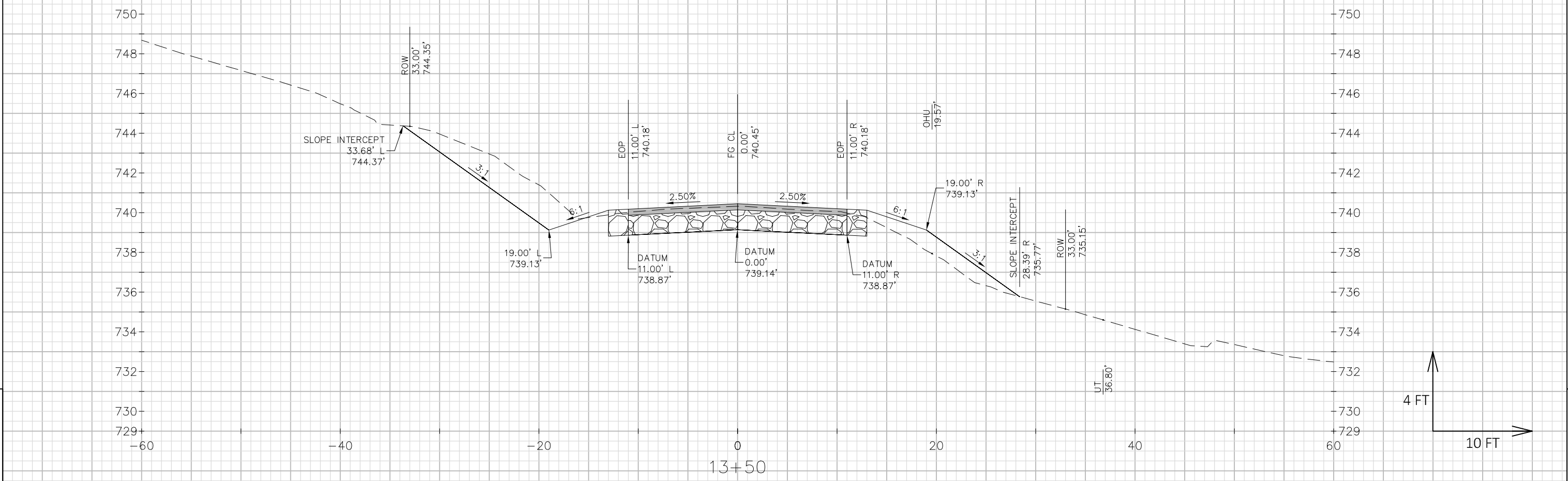
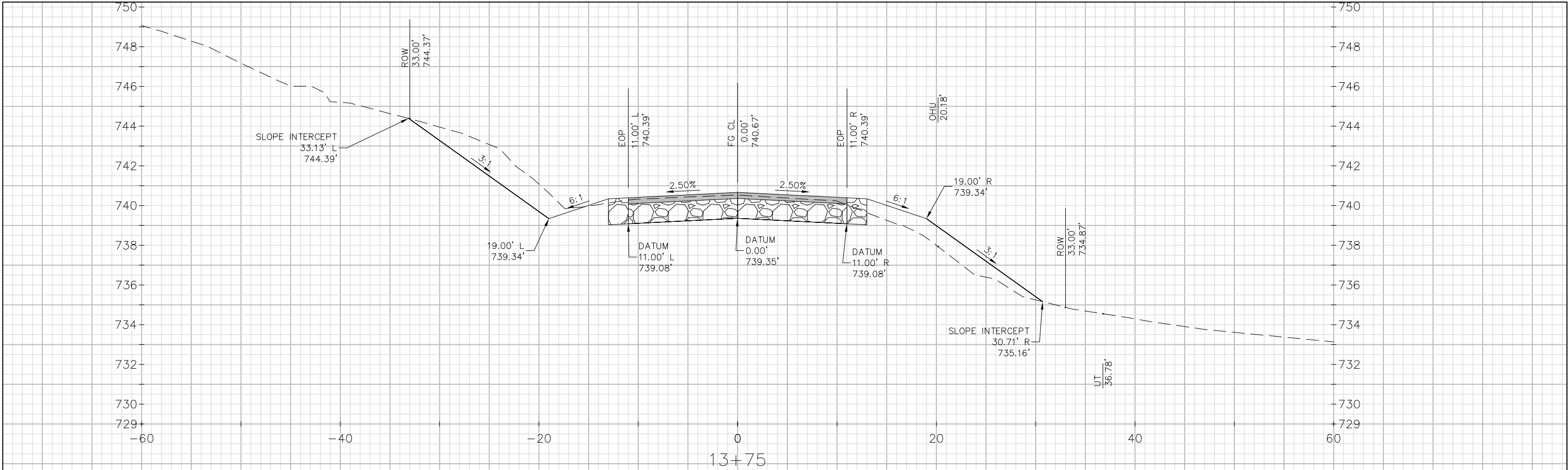


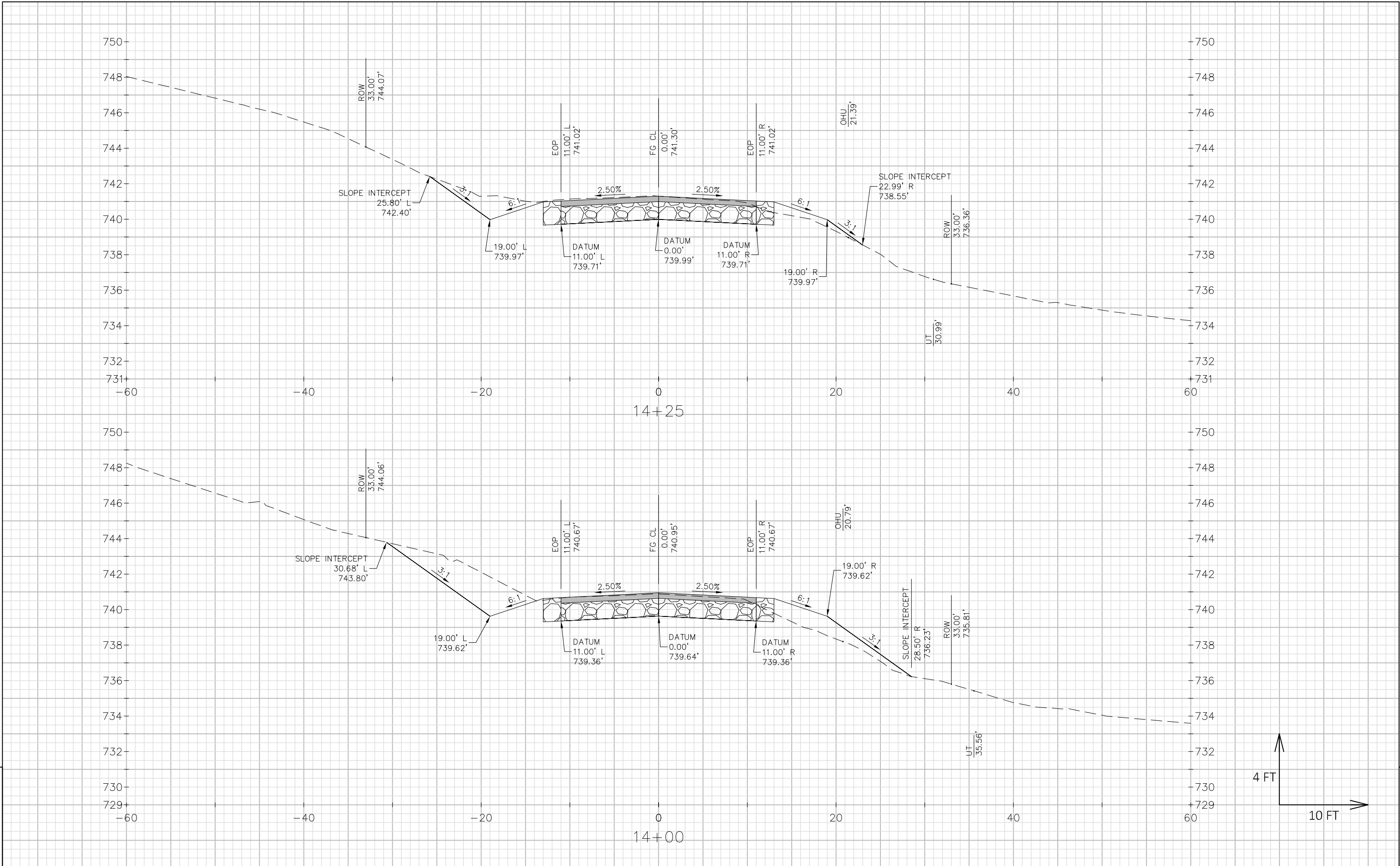


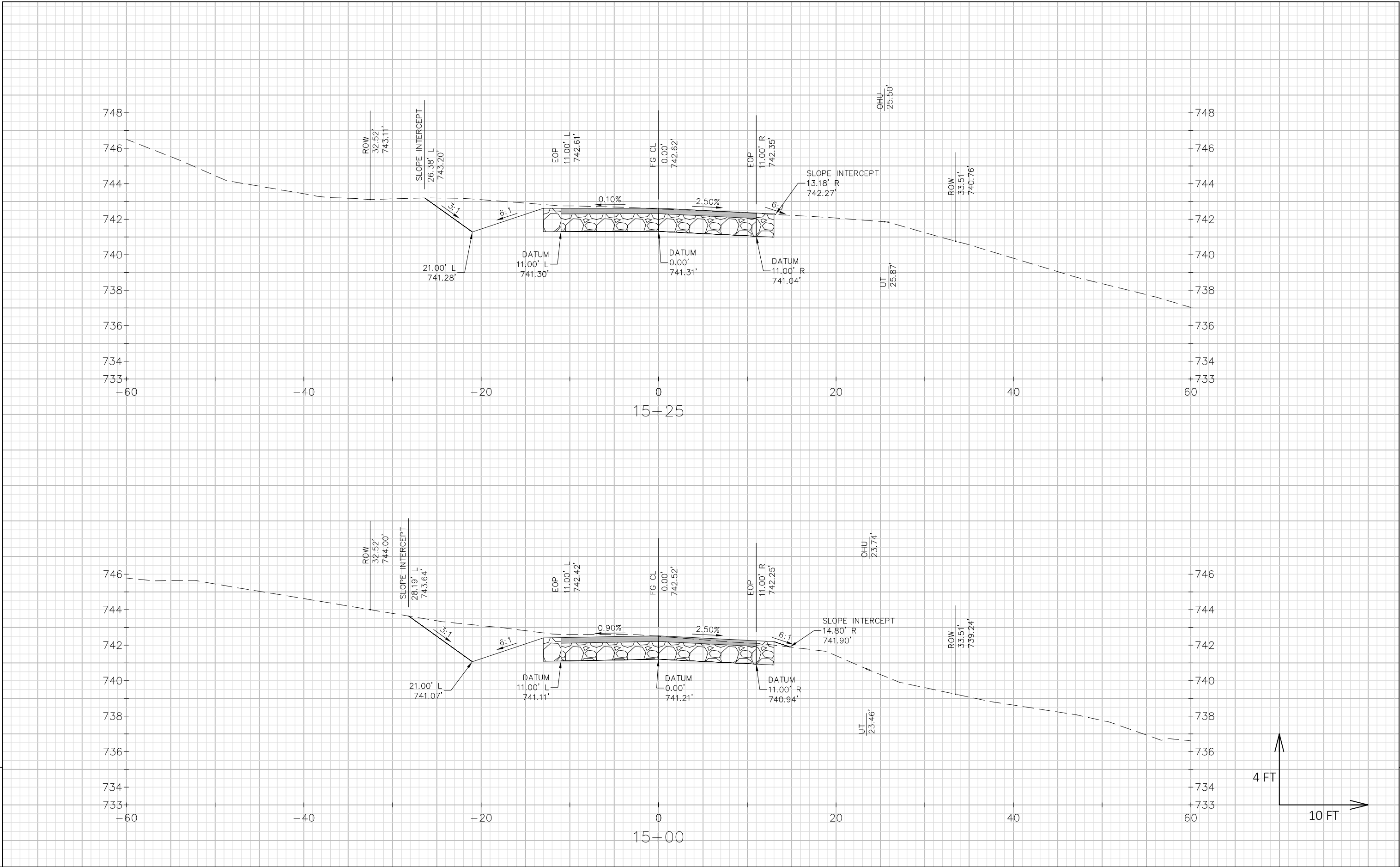


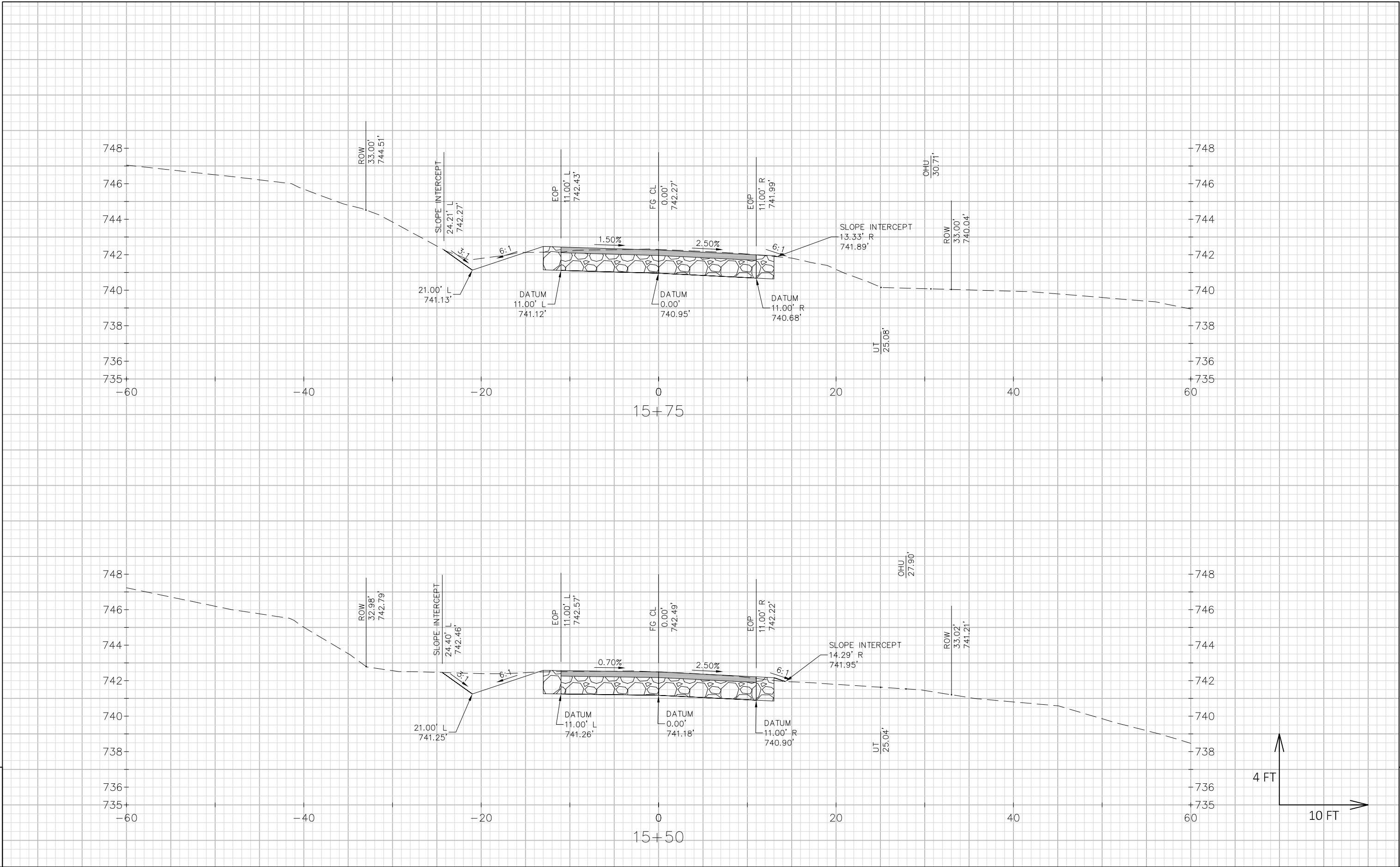


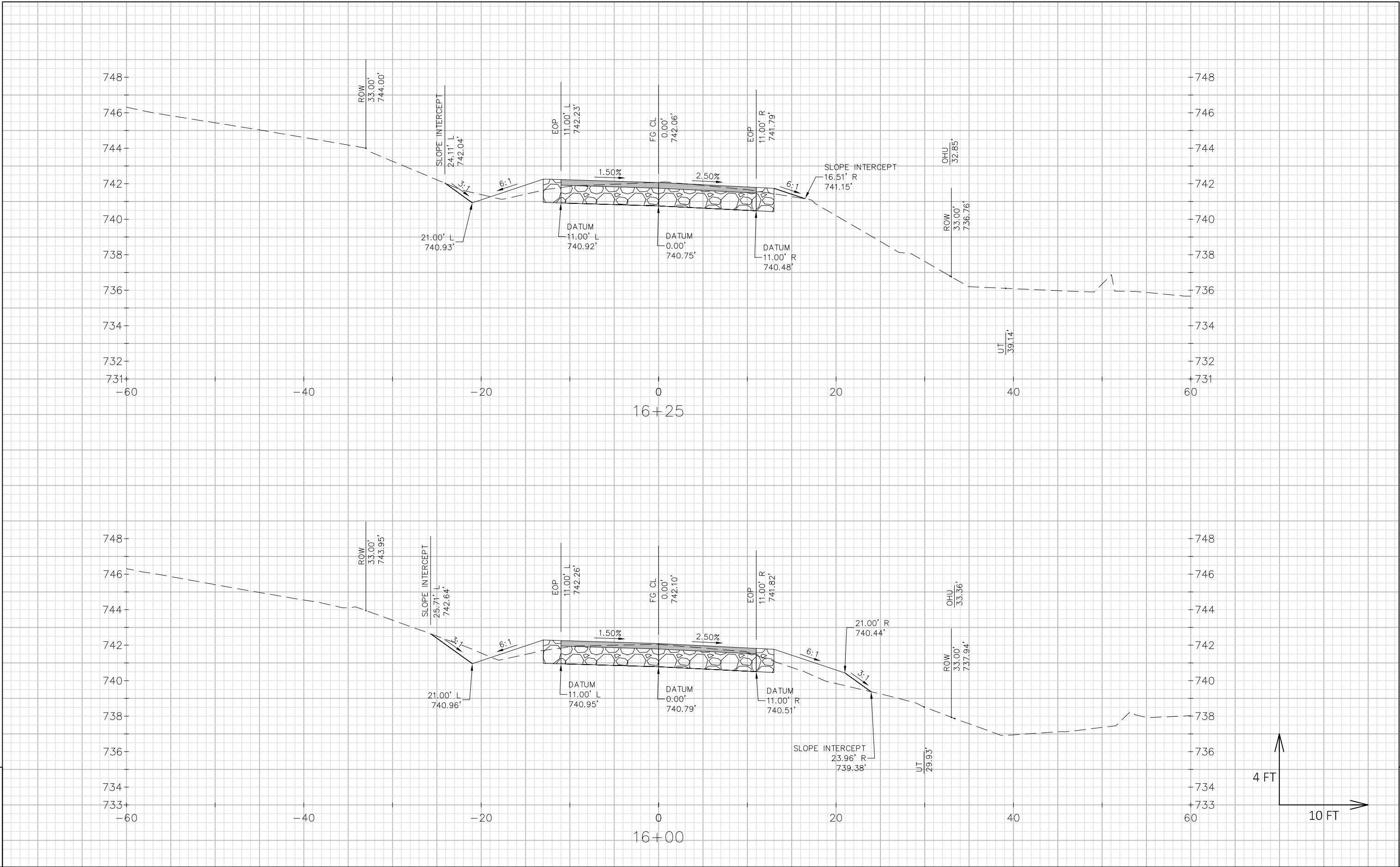


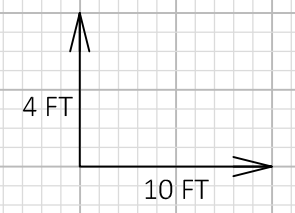
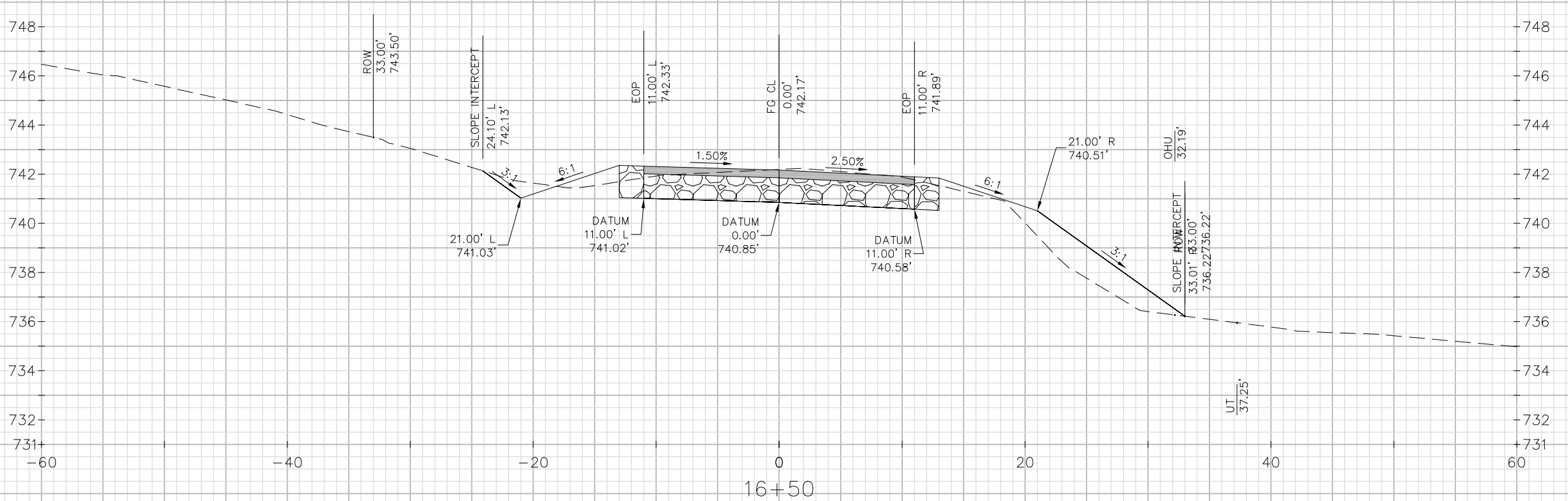
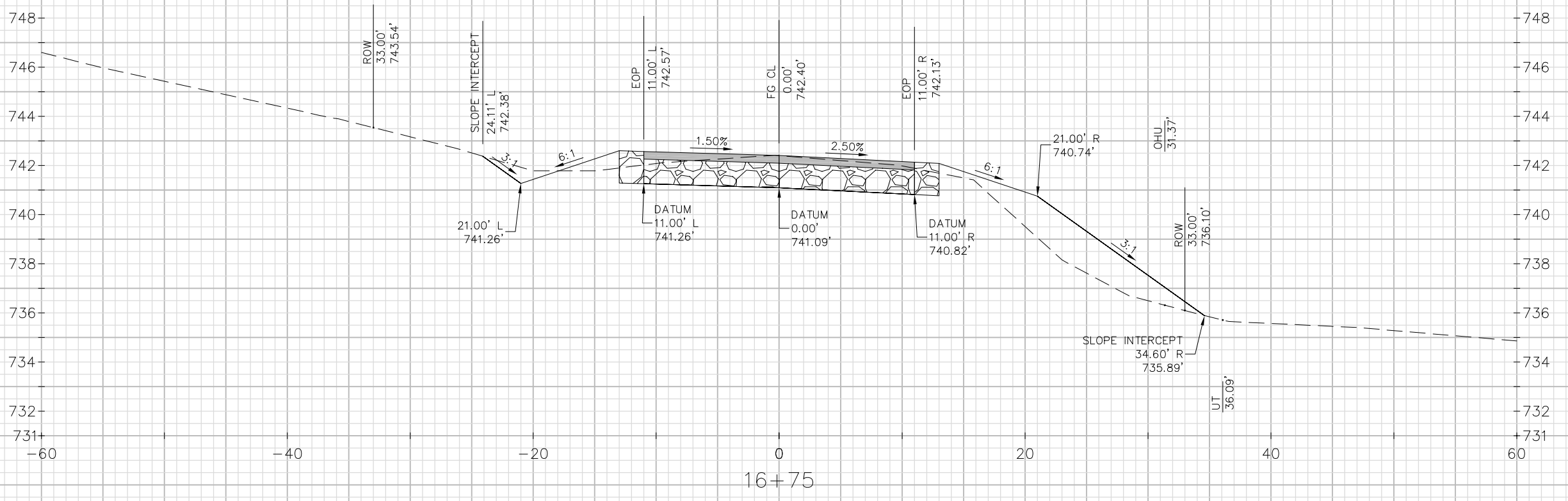


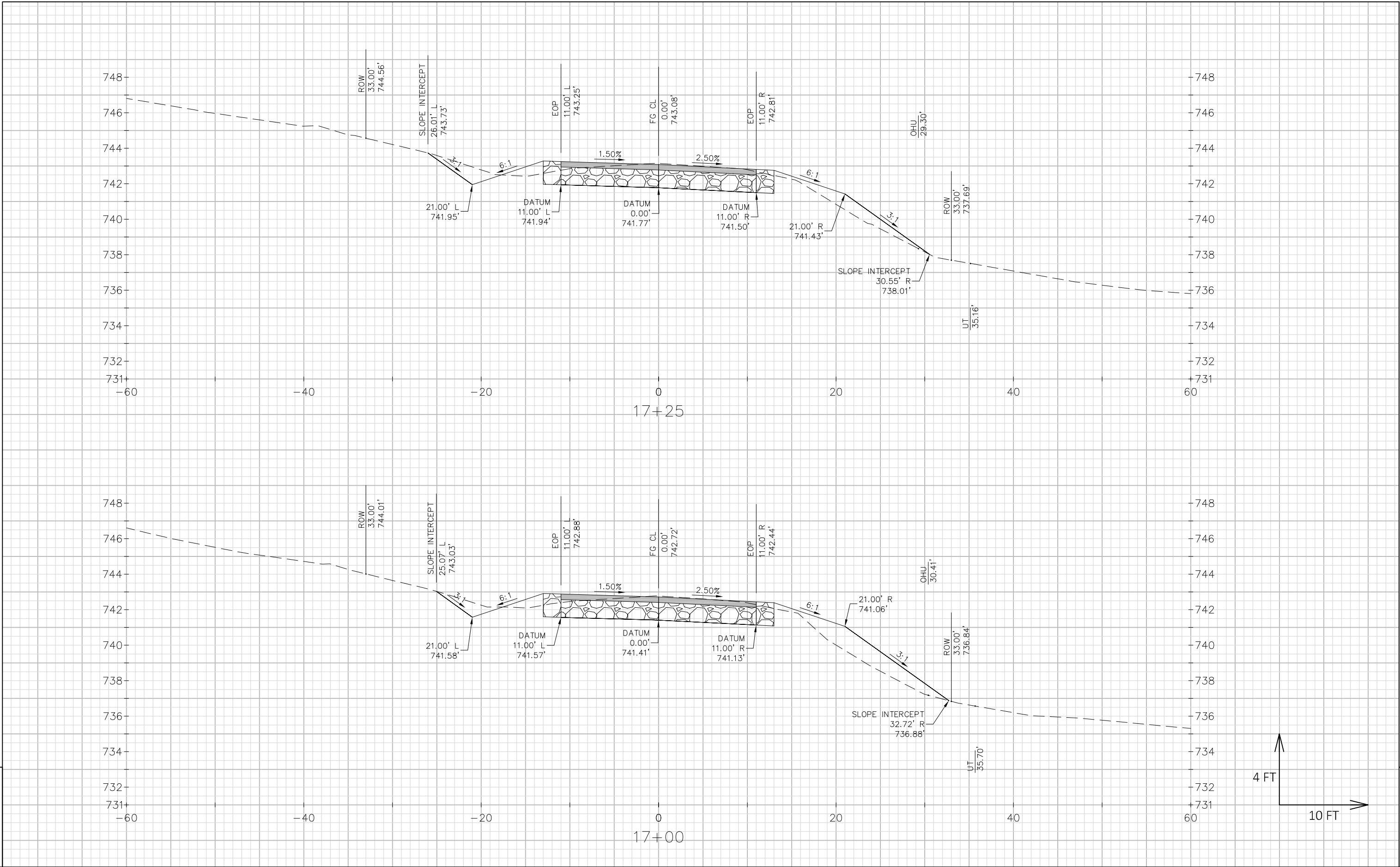


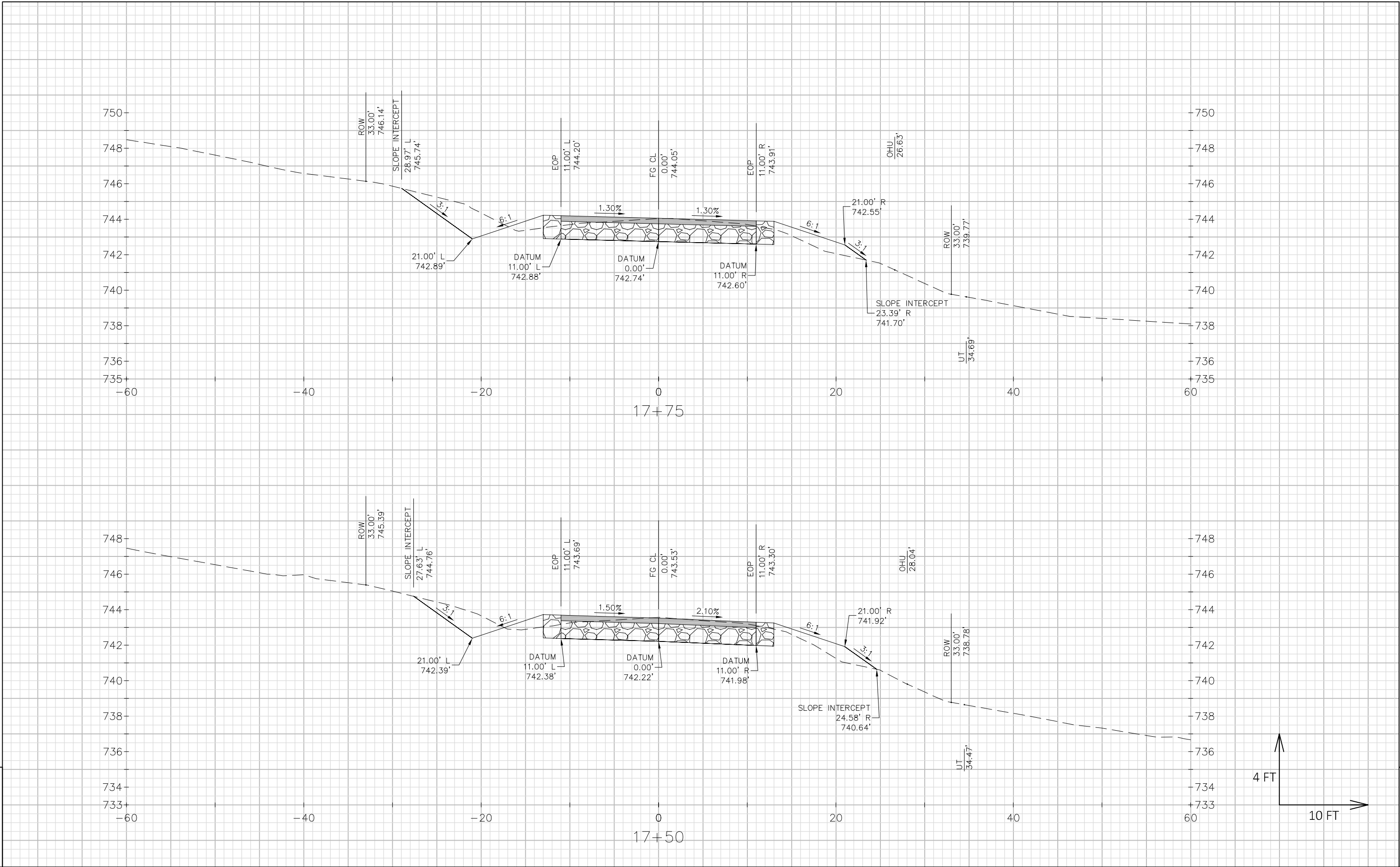


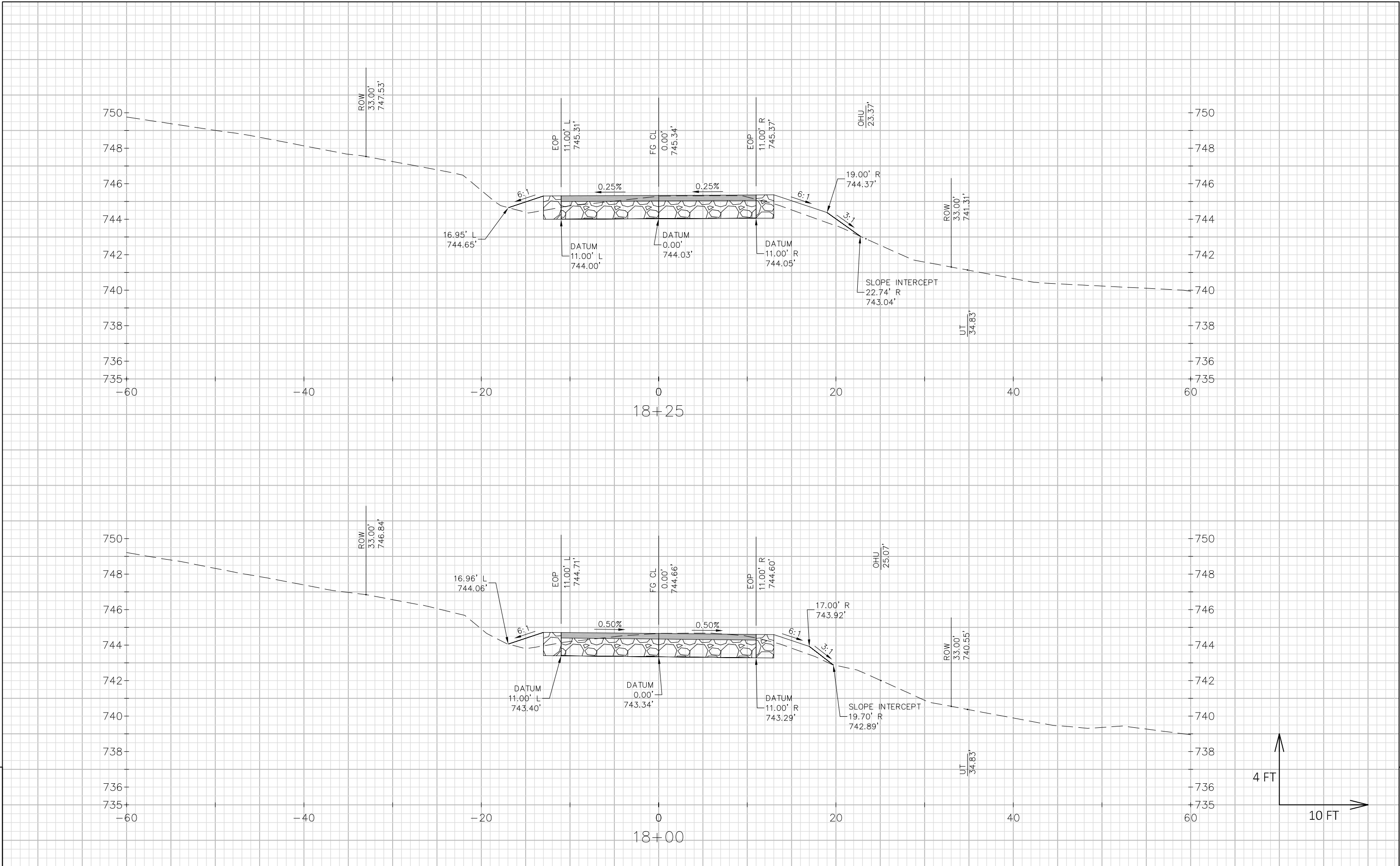


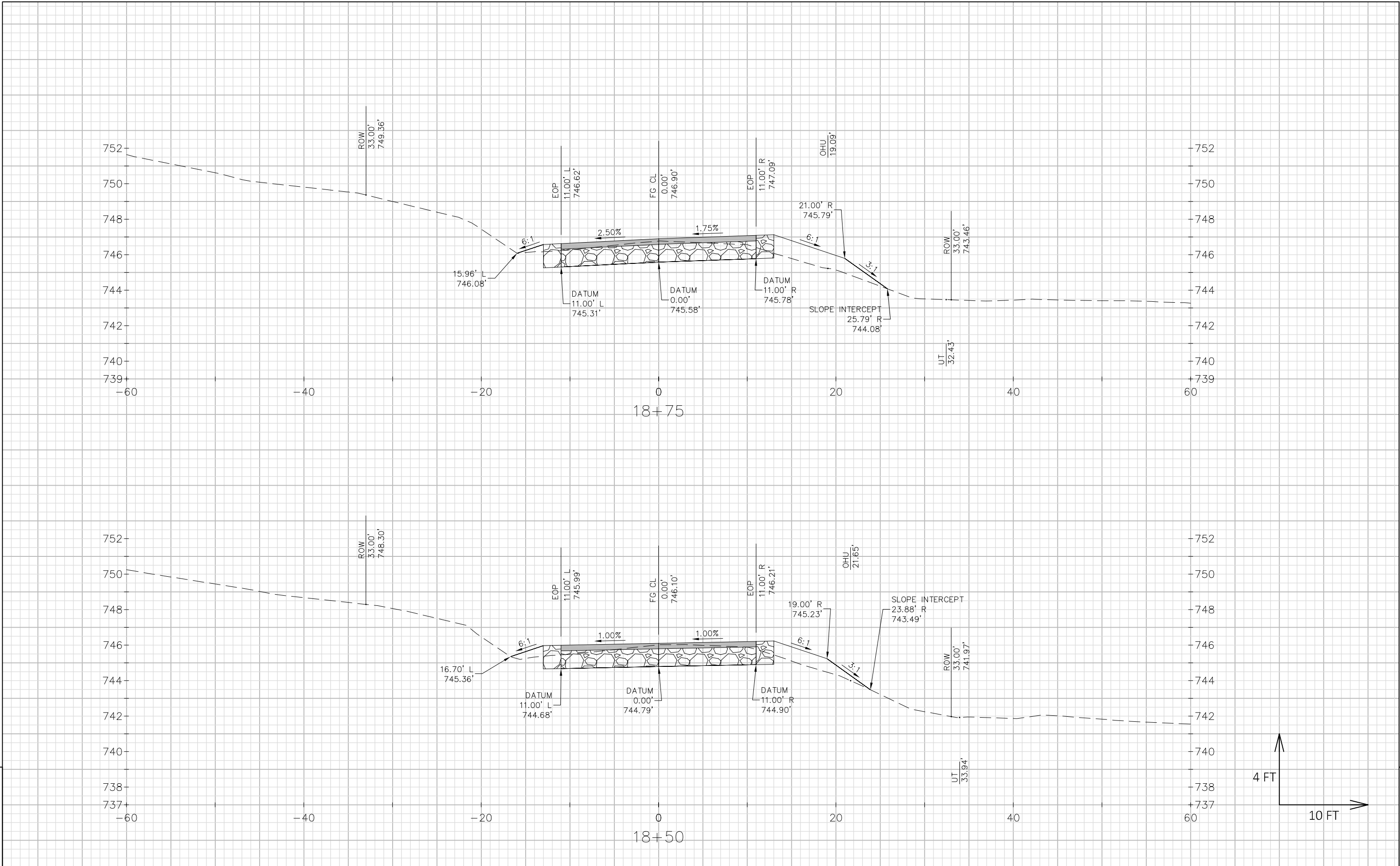


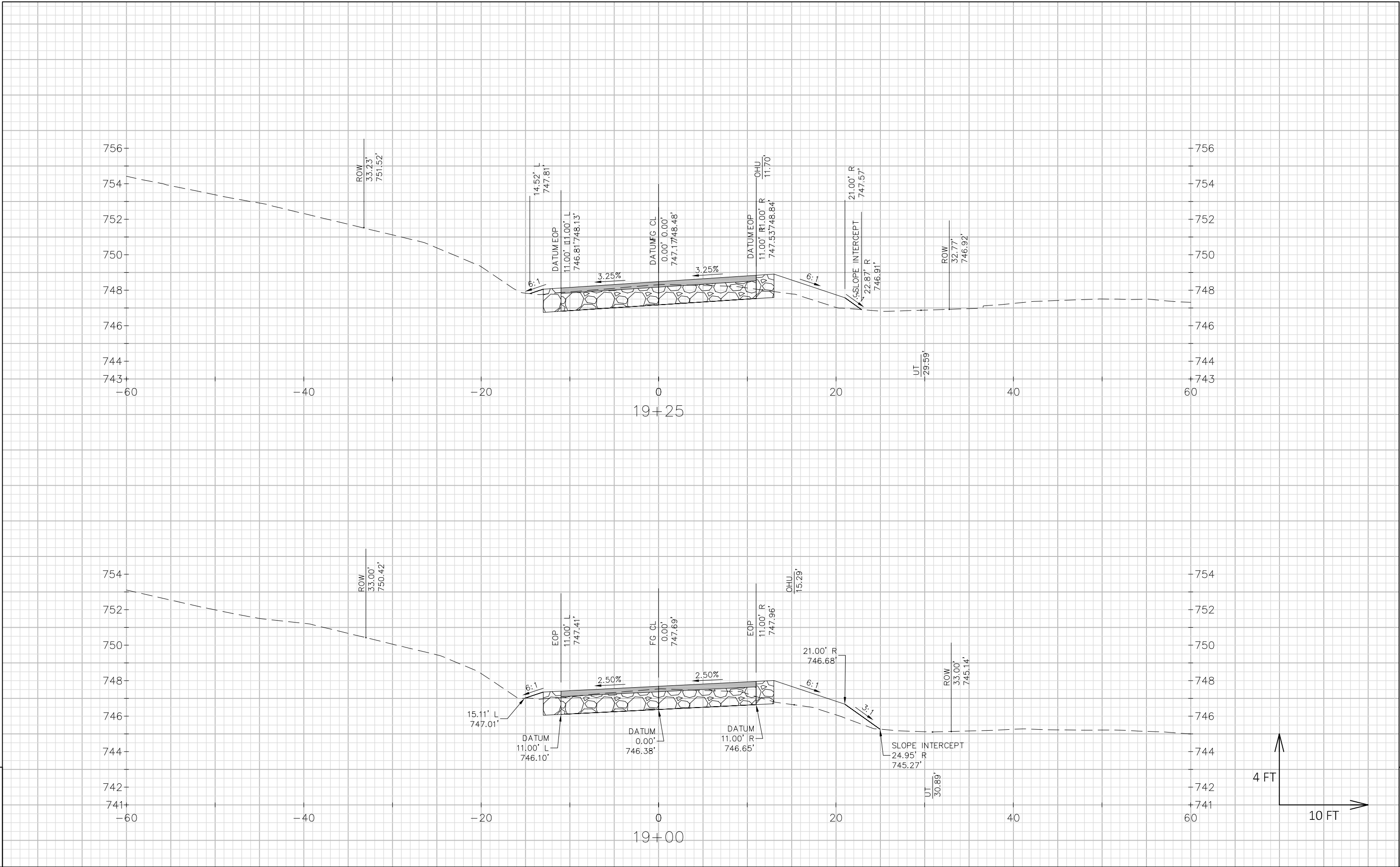


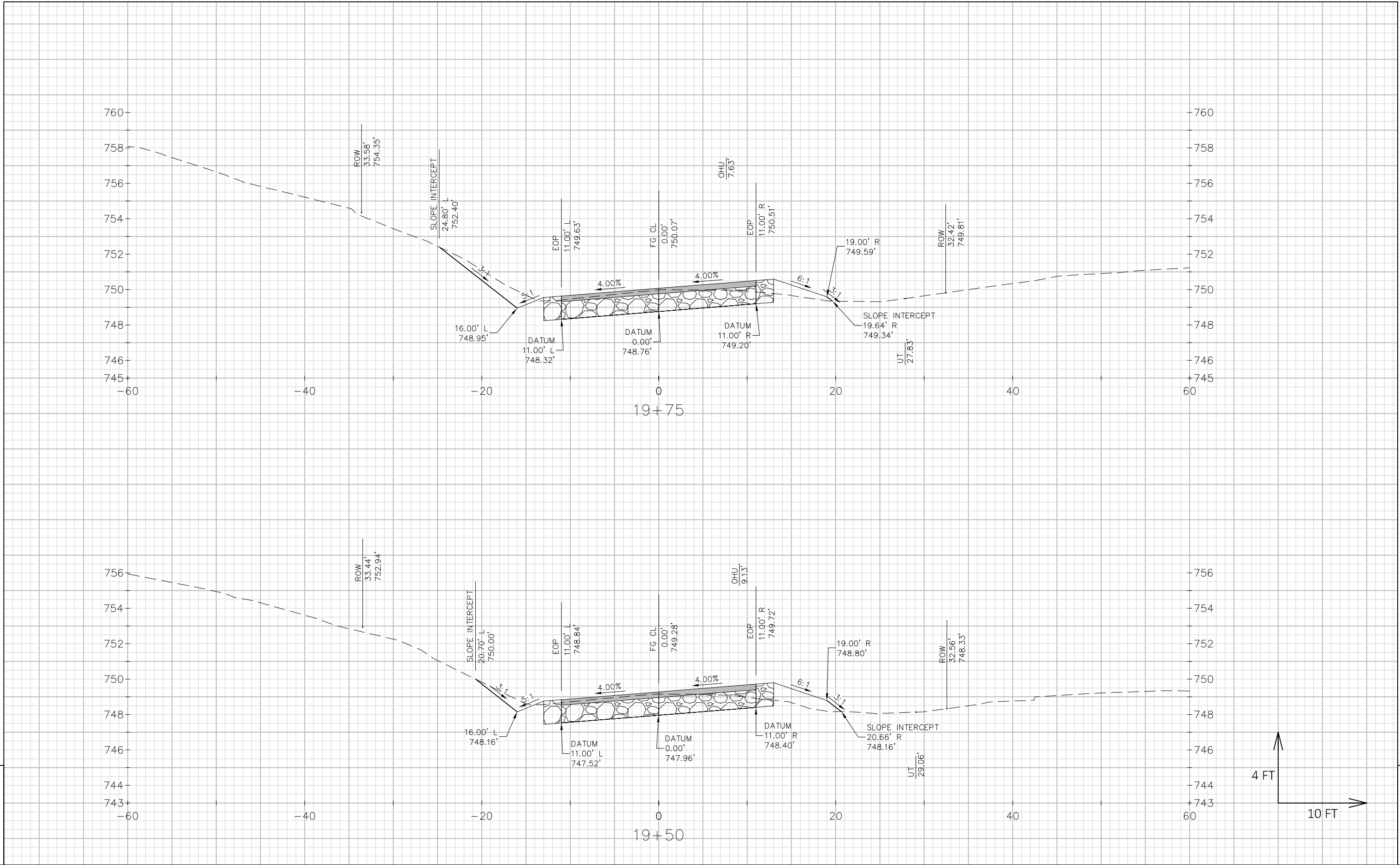




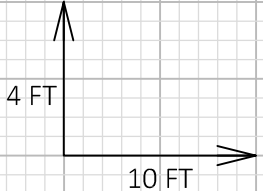
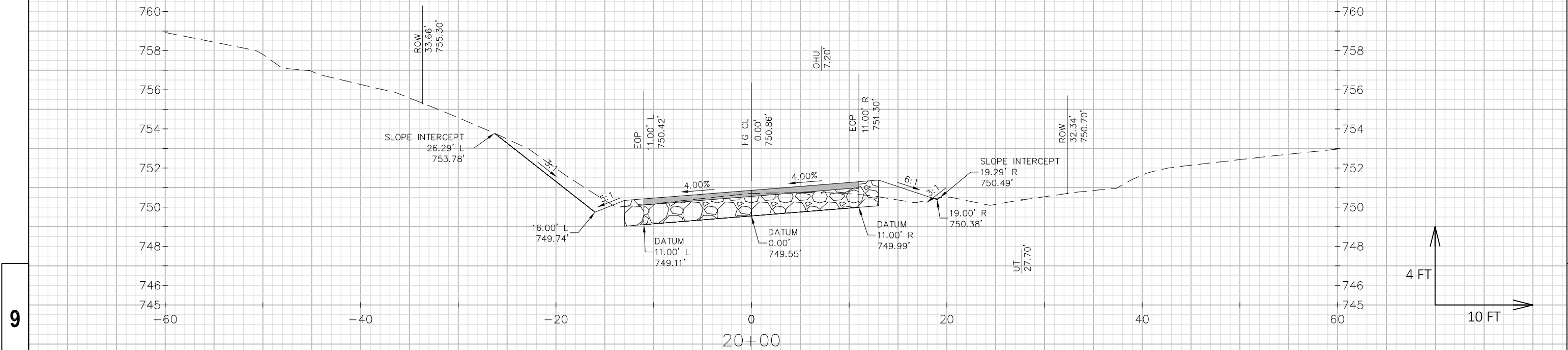
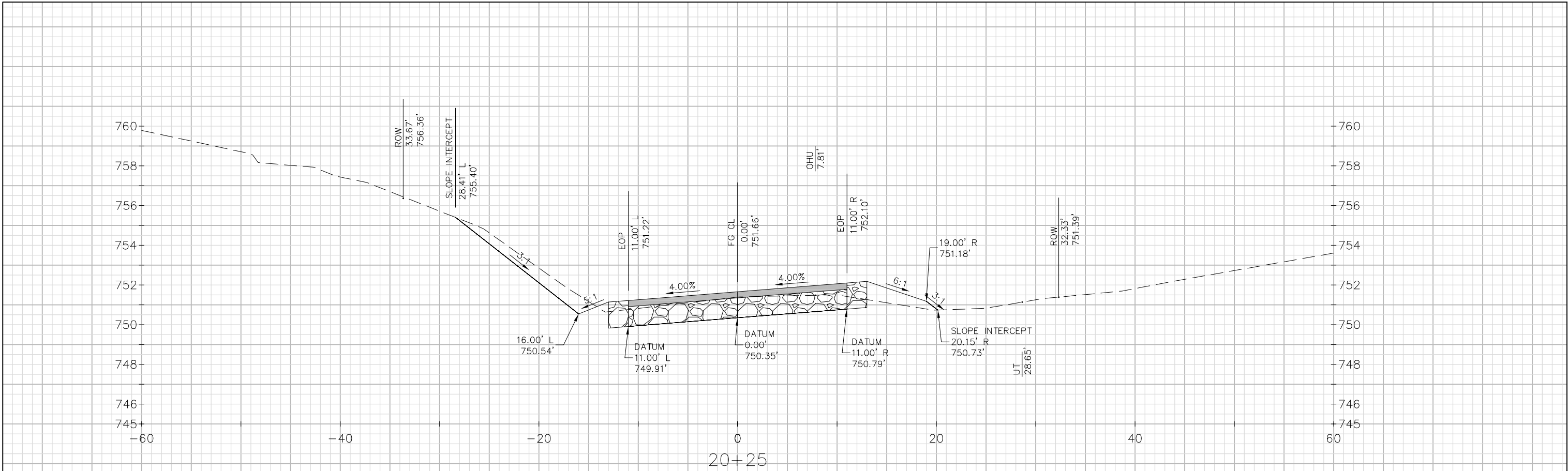


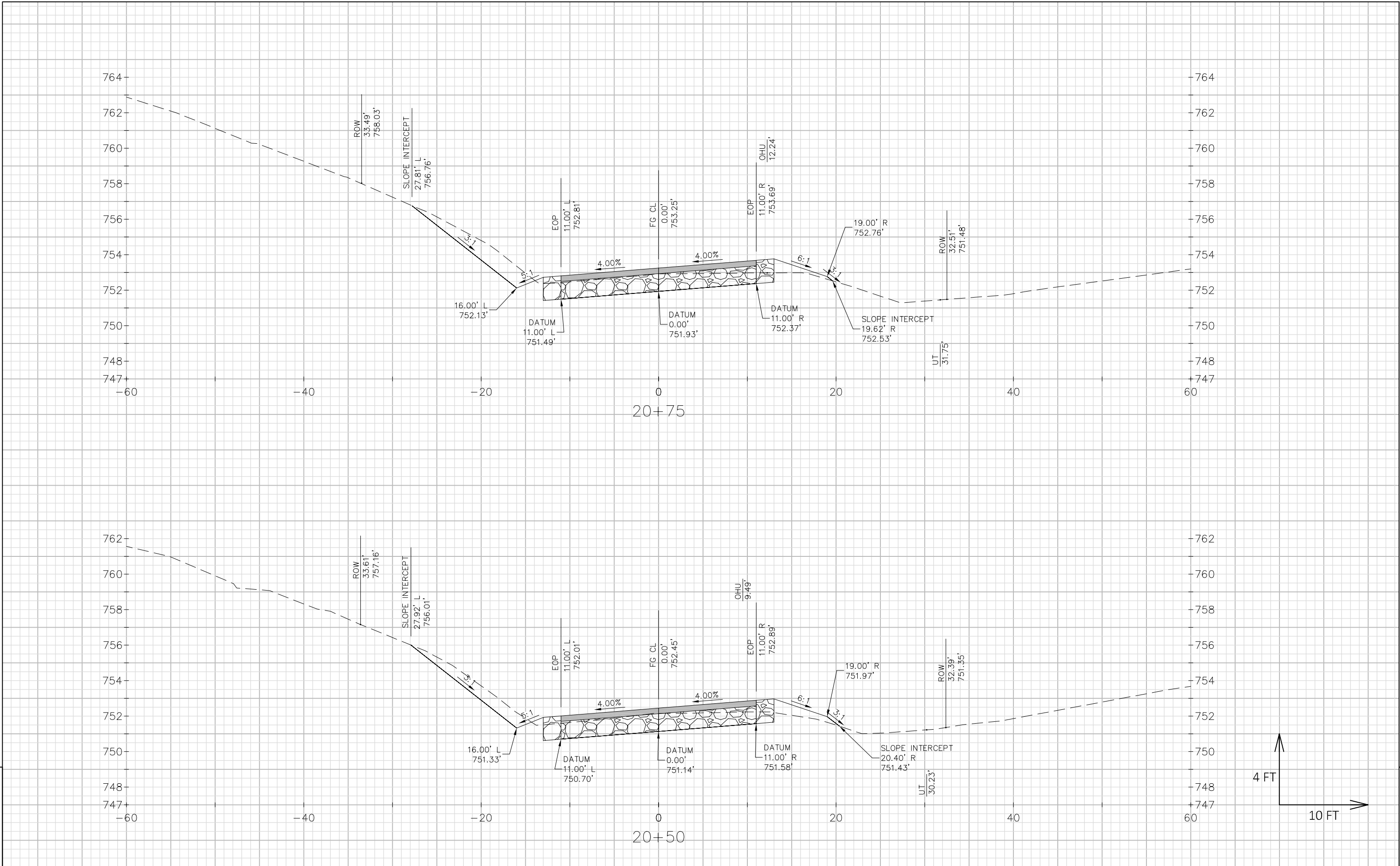


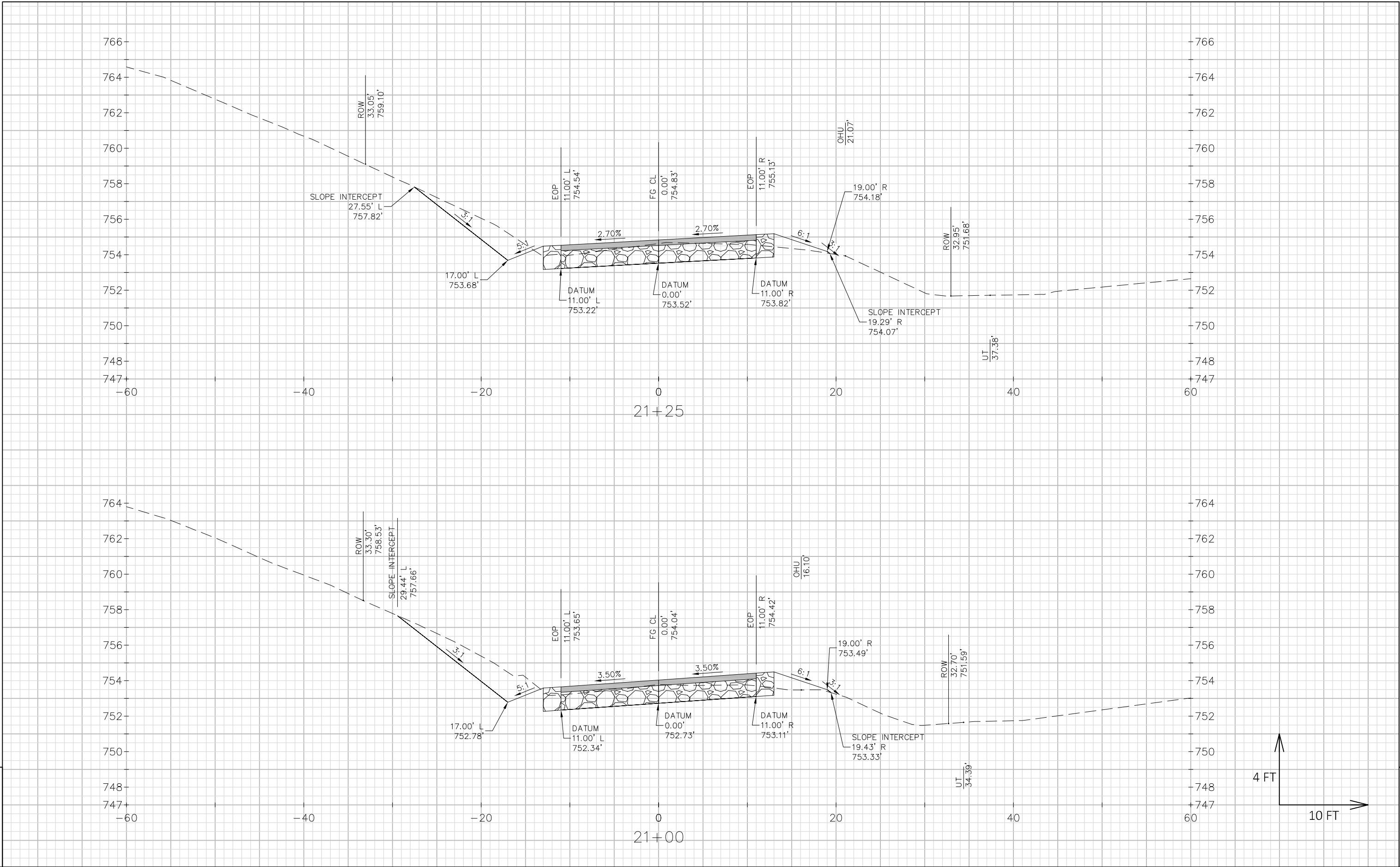


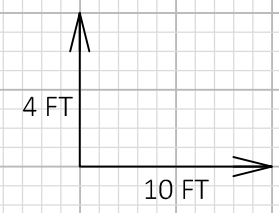
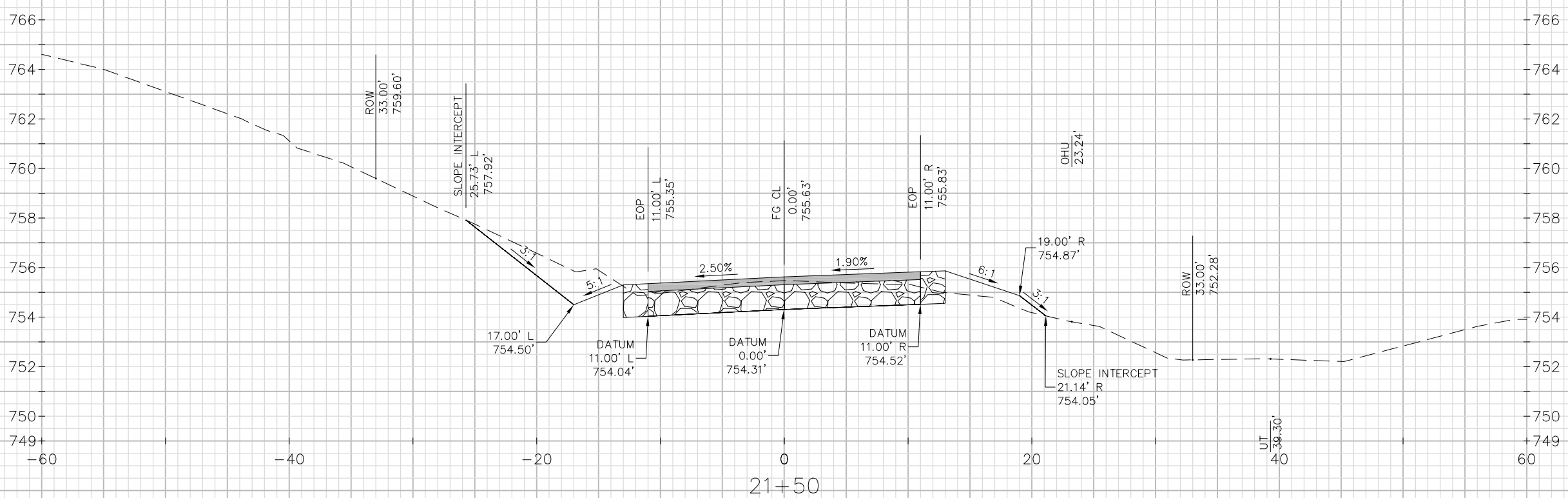
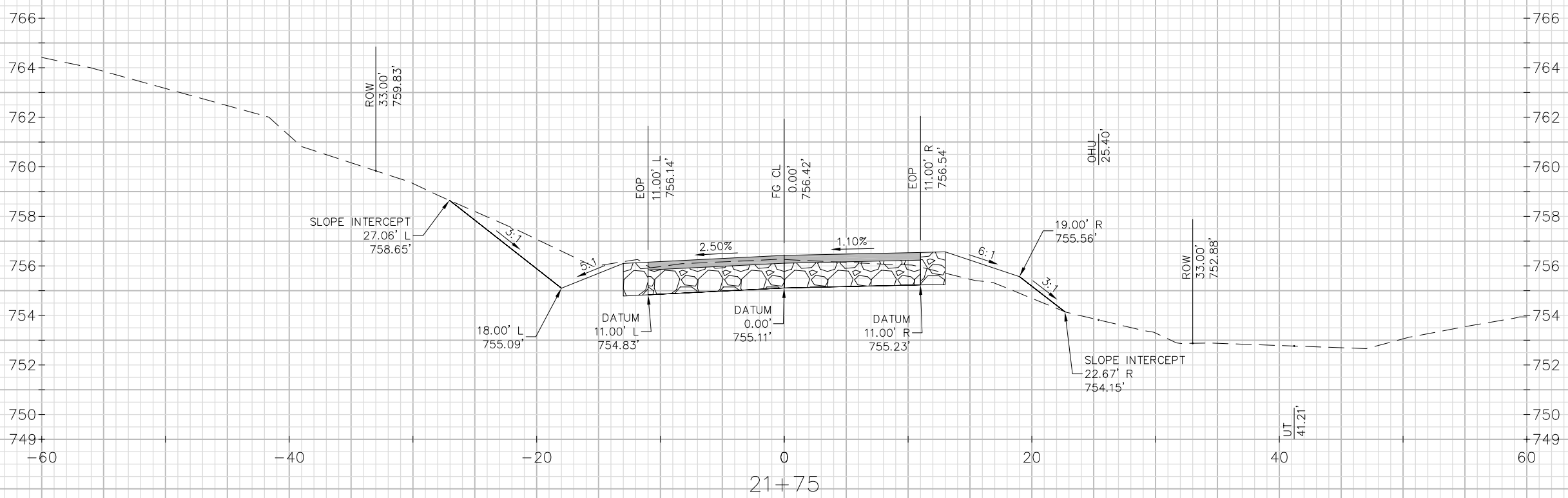


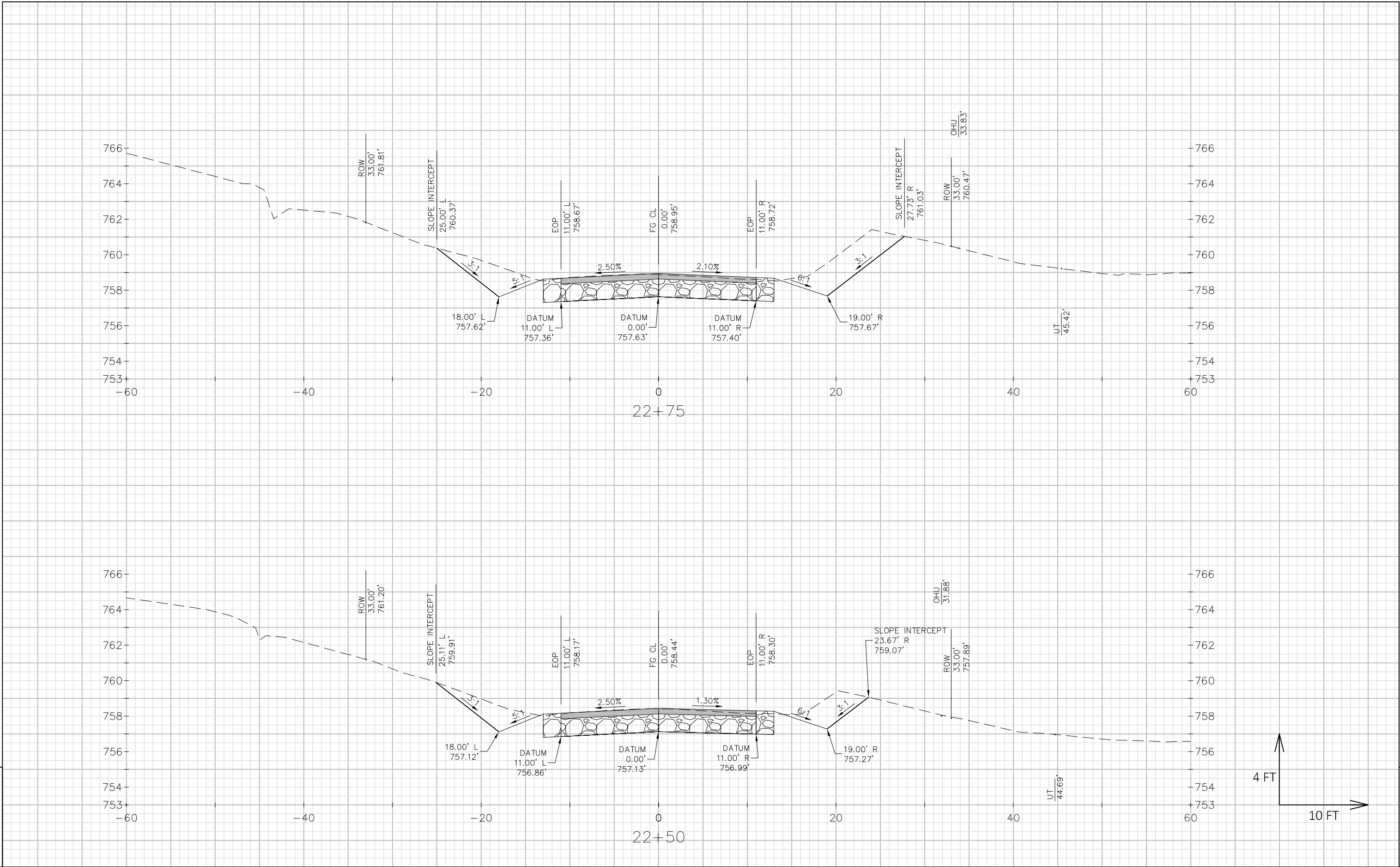
PROJECT NO: 5319-00-70	HWY: VINEYARD ROAD	COUNTY: CRAWFORD	CROSS SECTIONS: VINEYARD ROAD	SHEET	E
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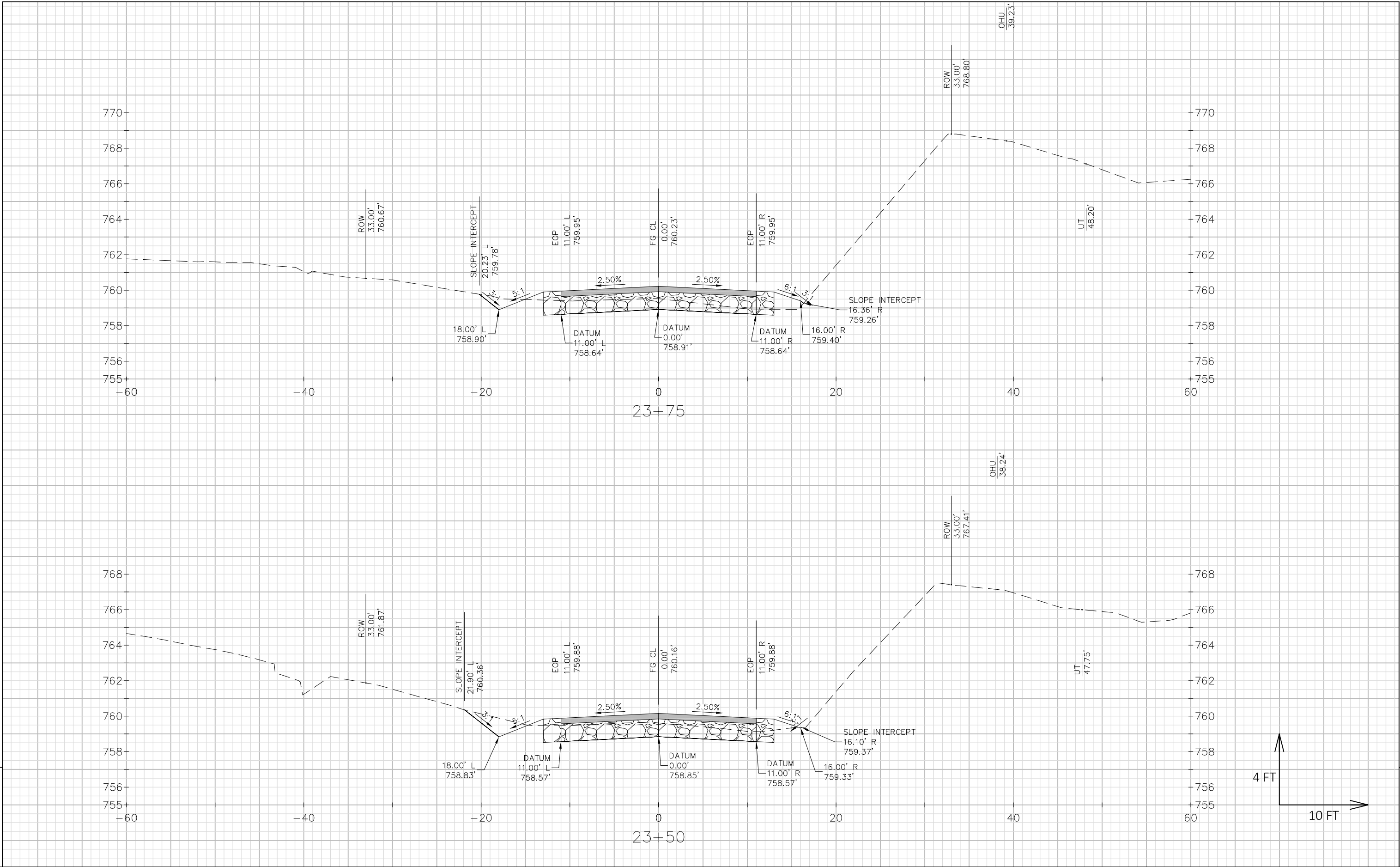


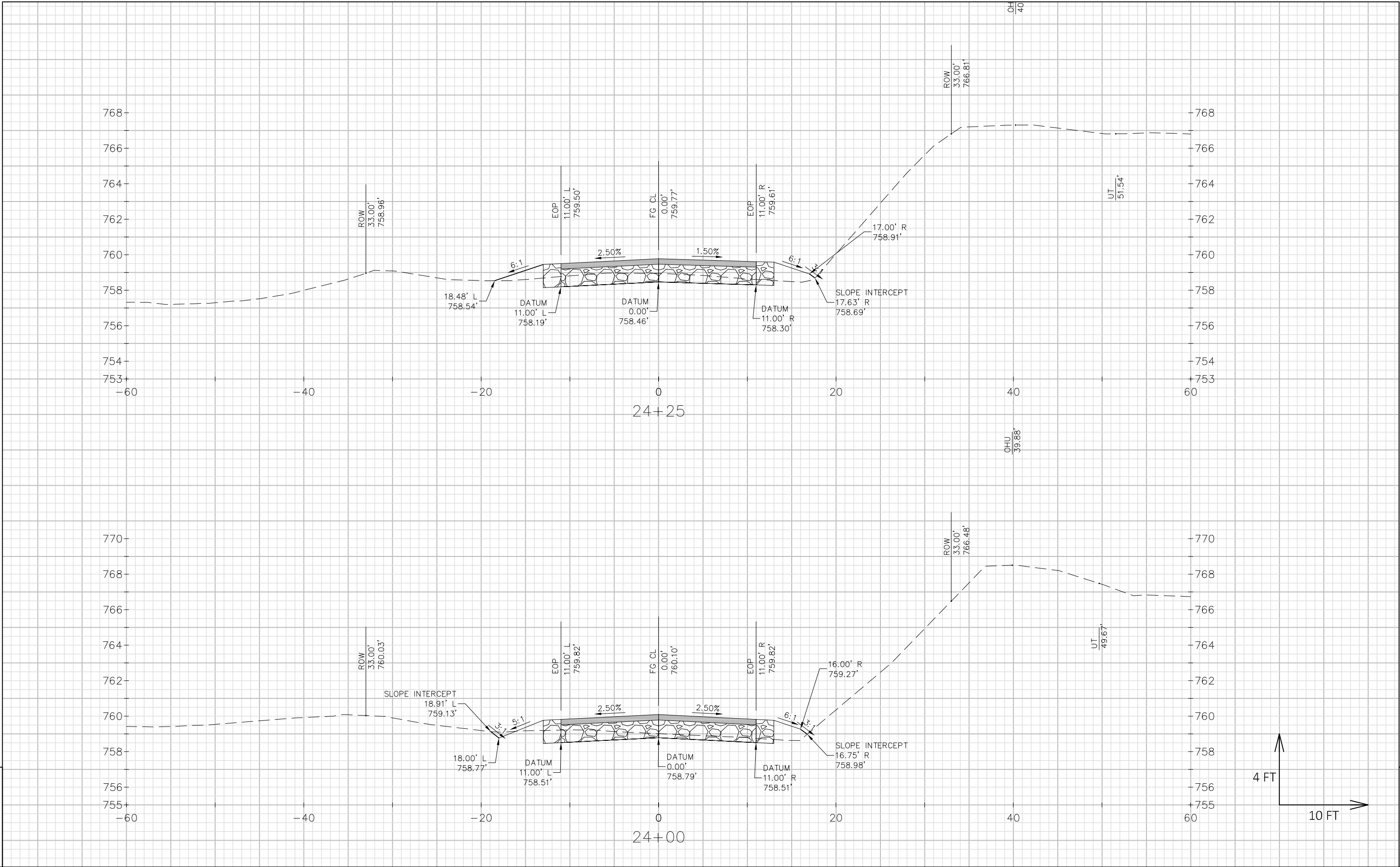


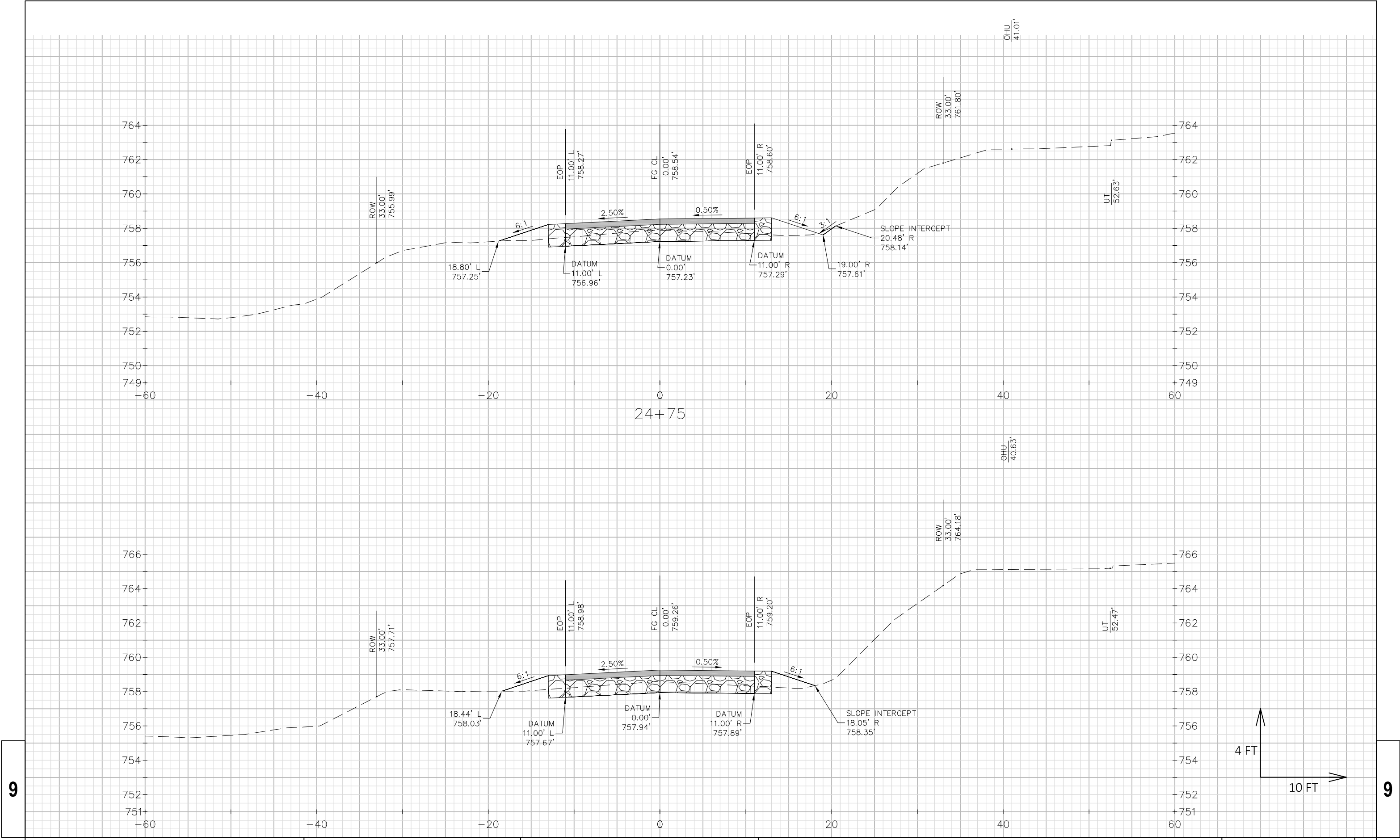


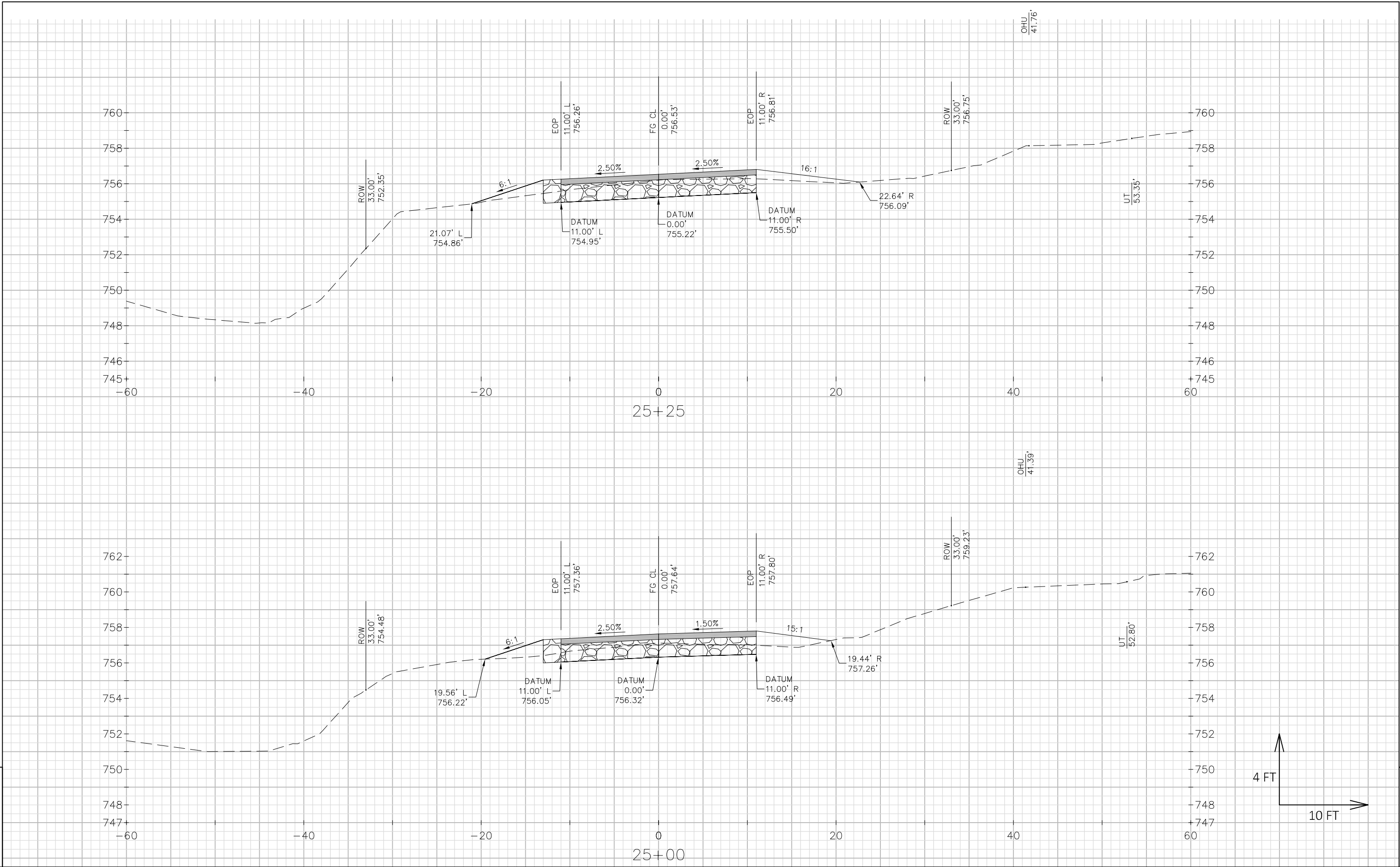


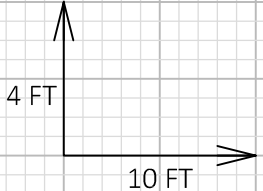
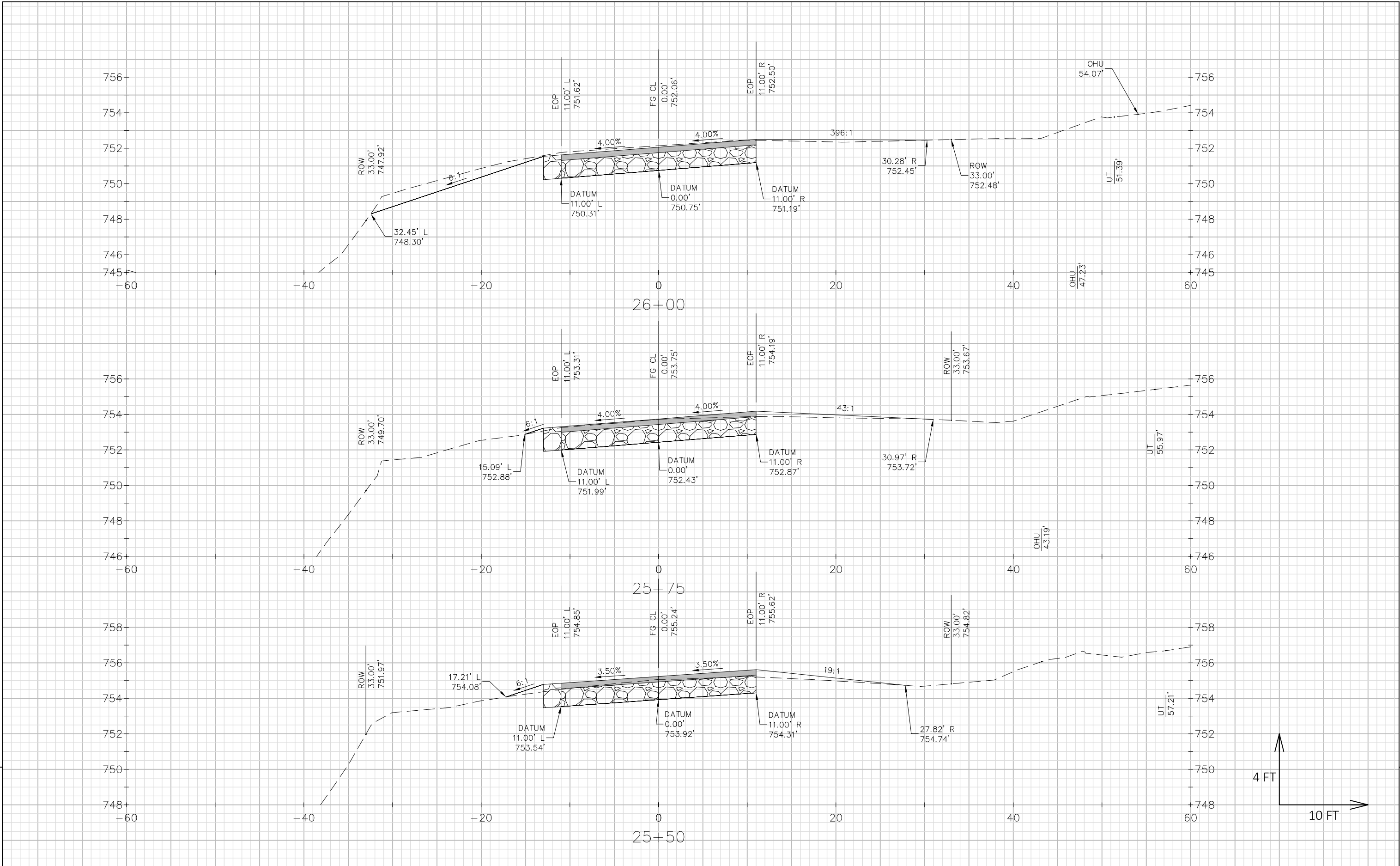


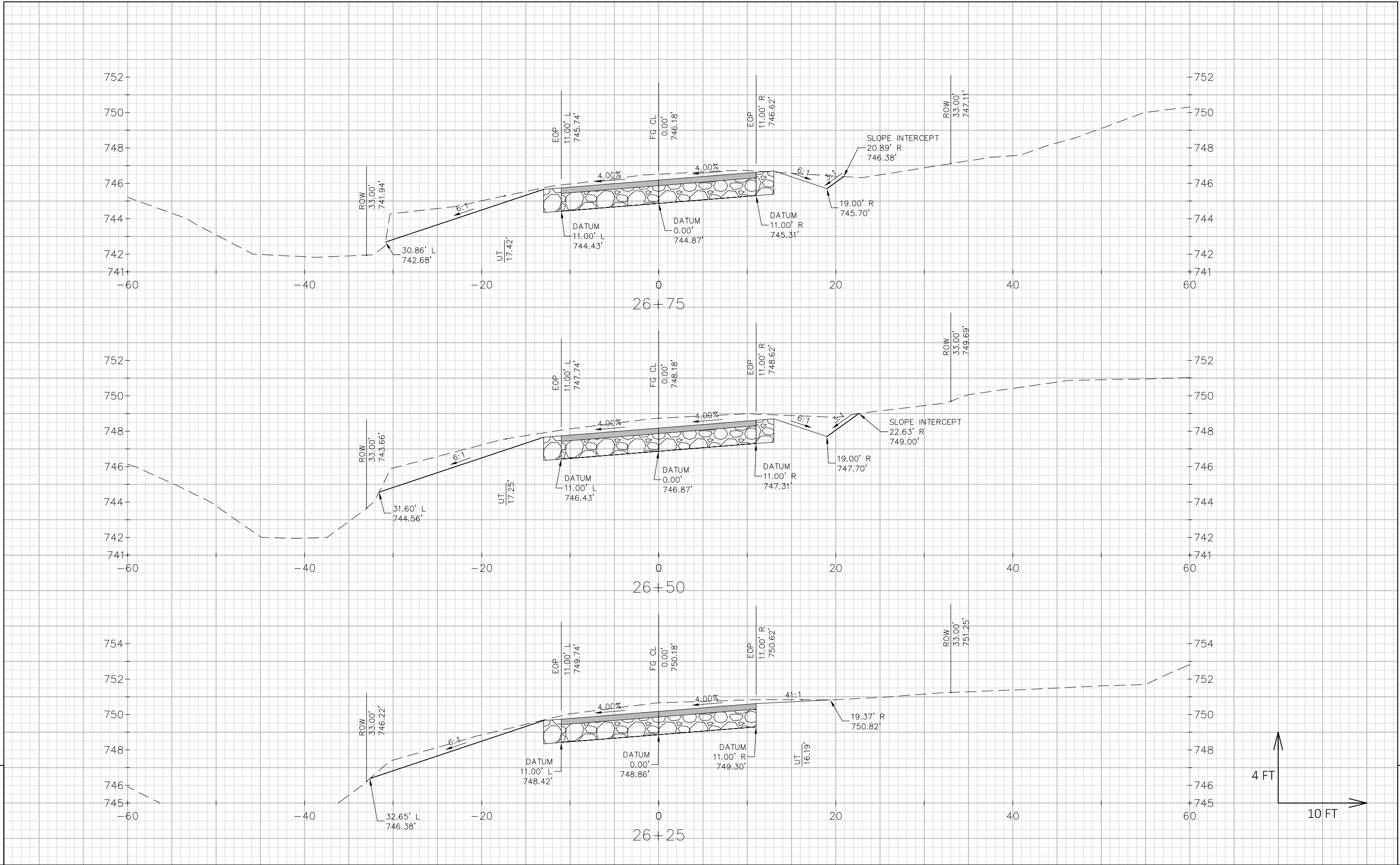


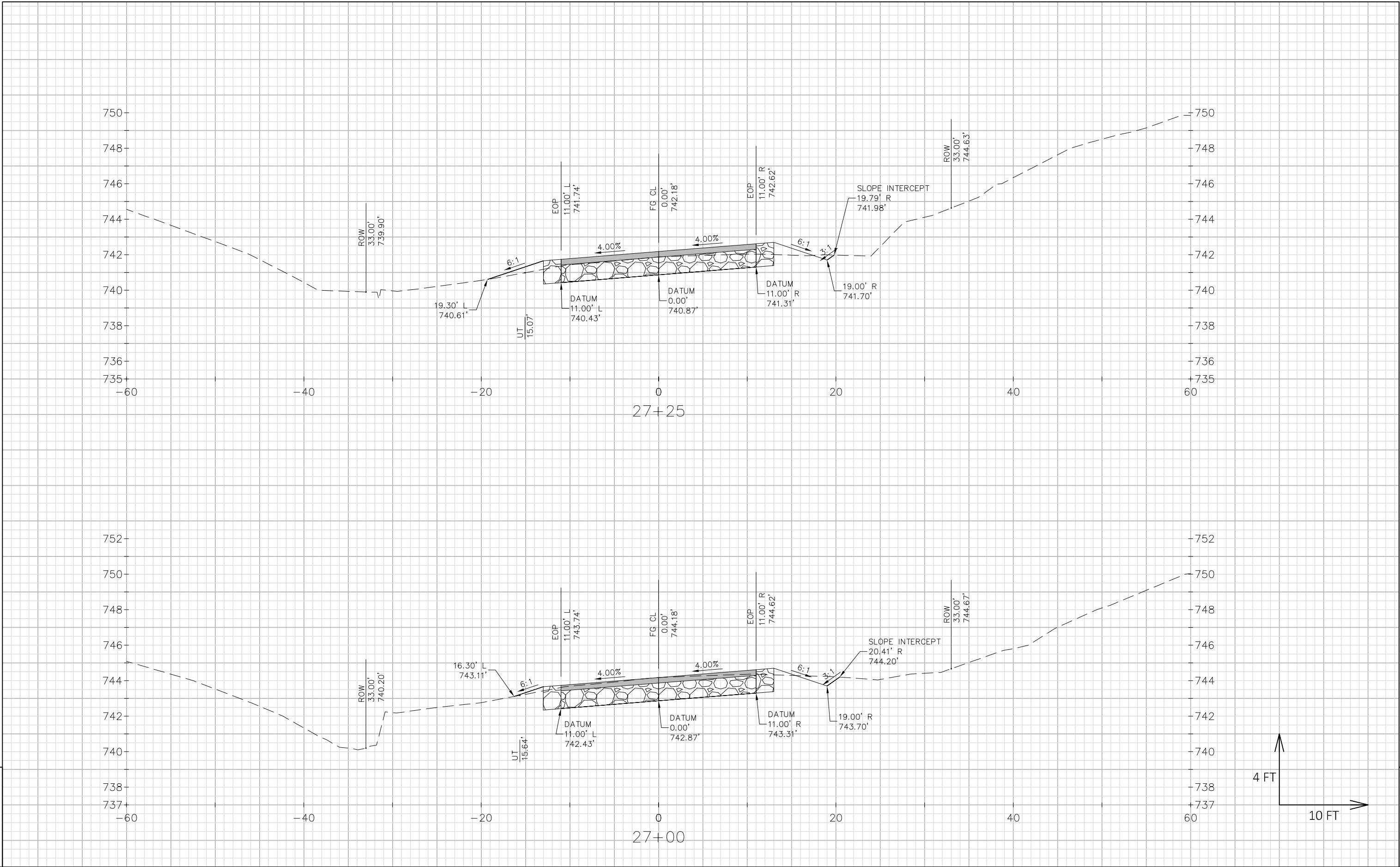


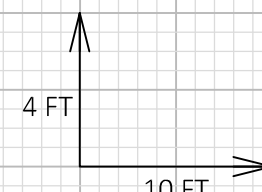
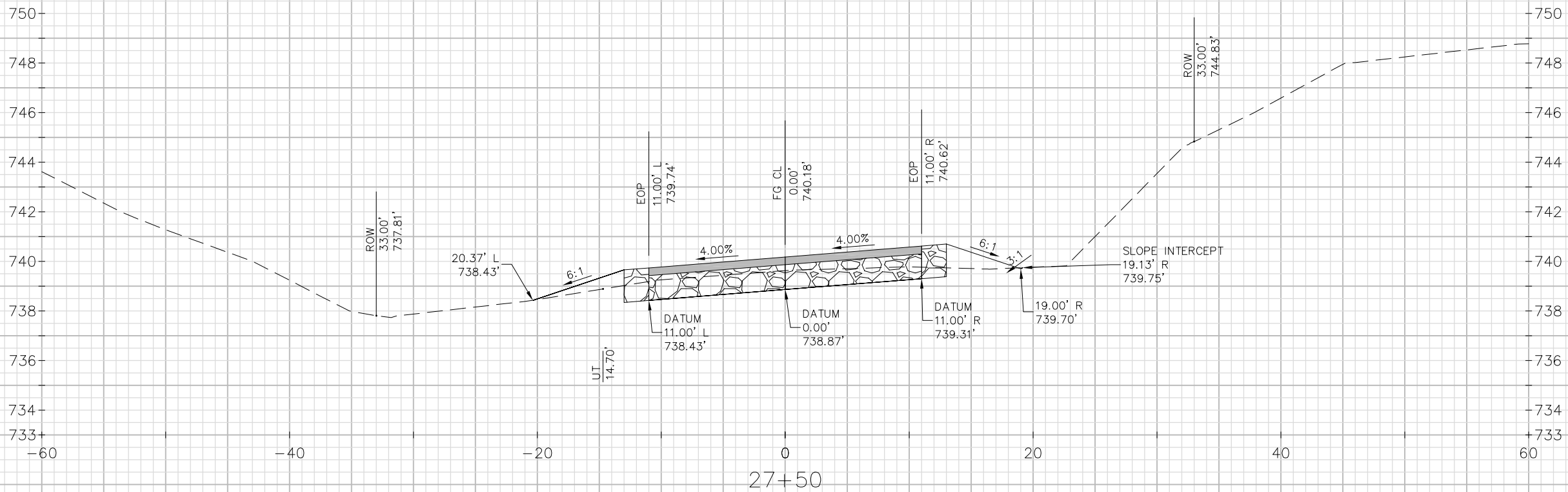
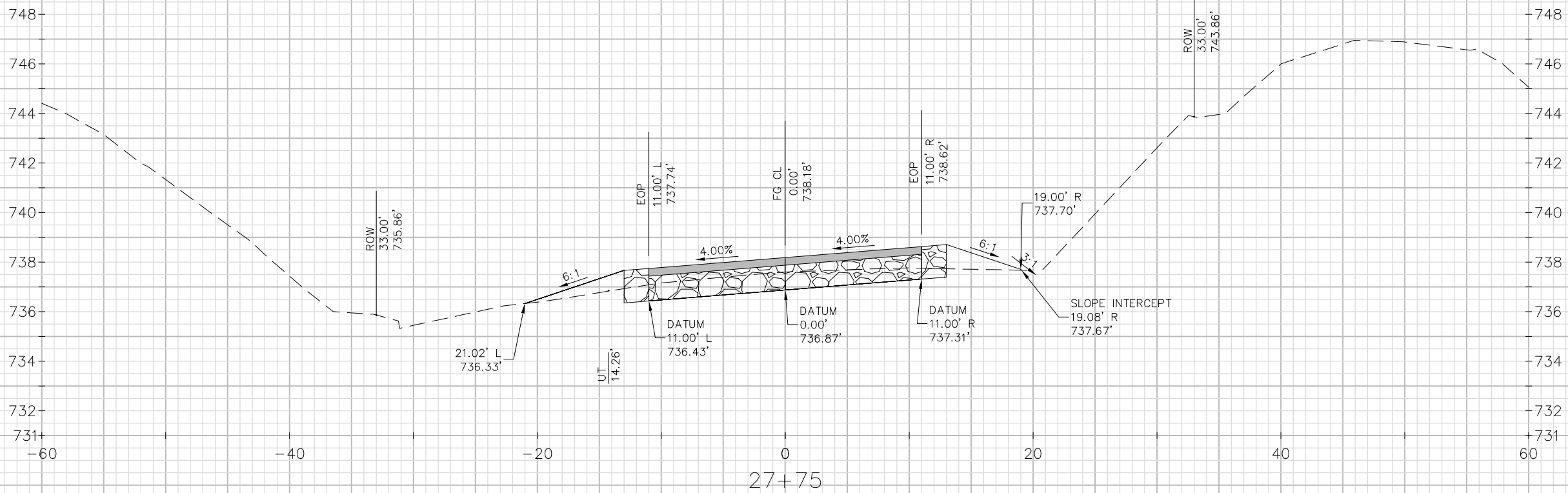


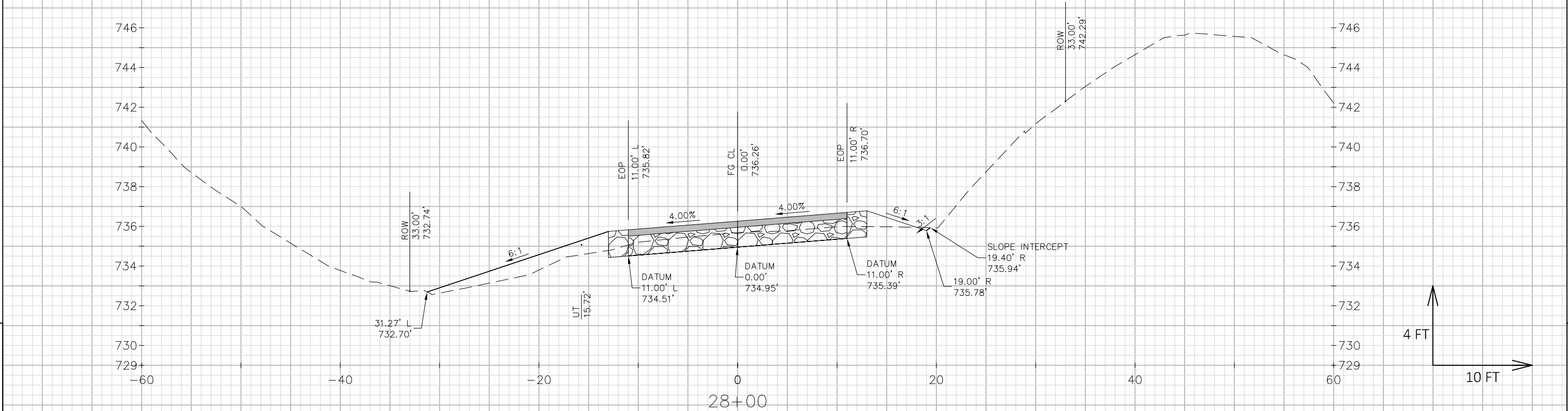
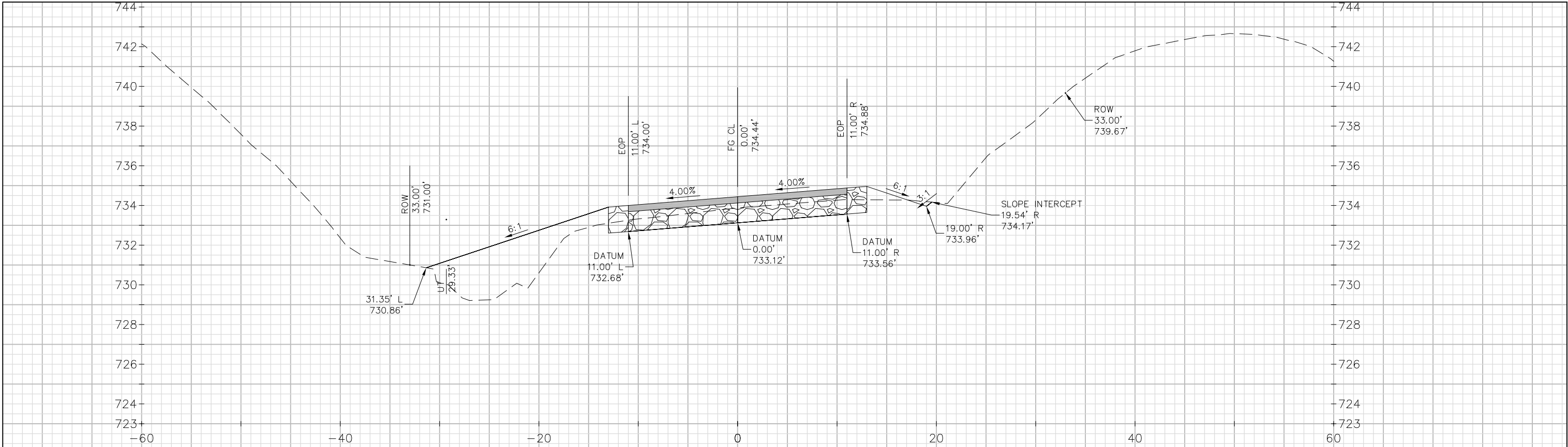


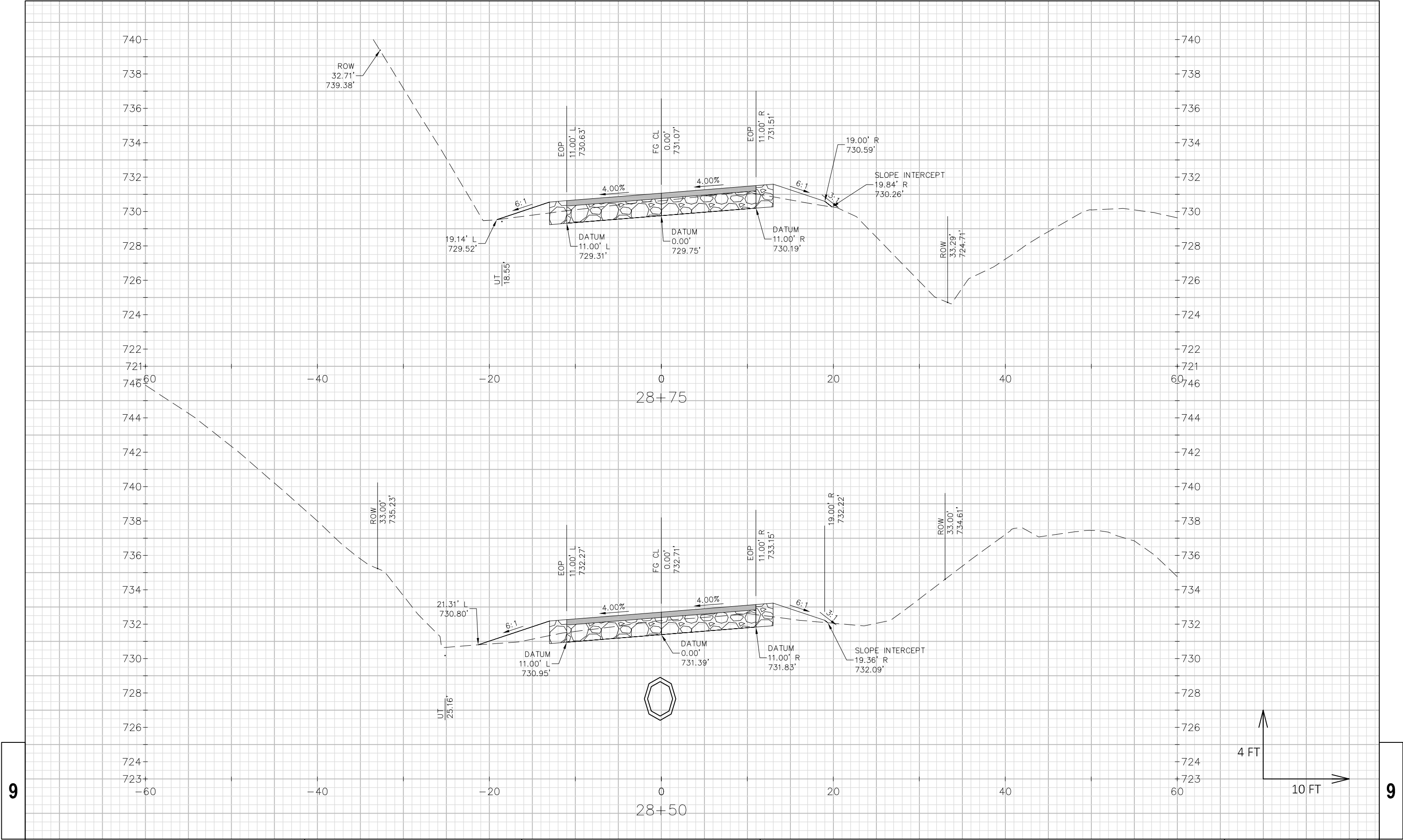








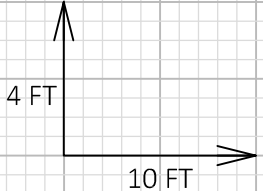
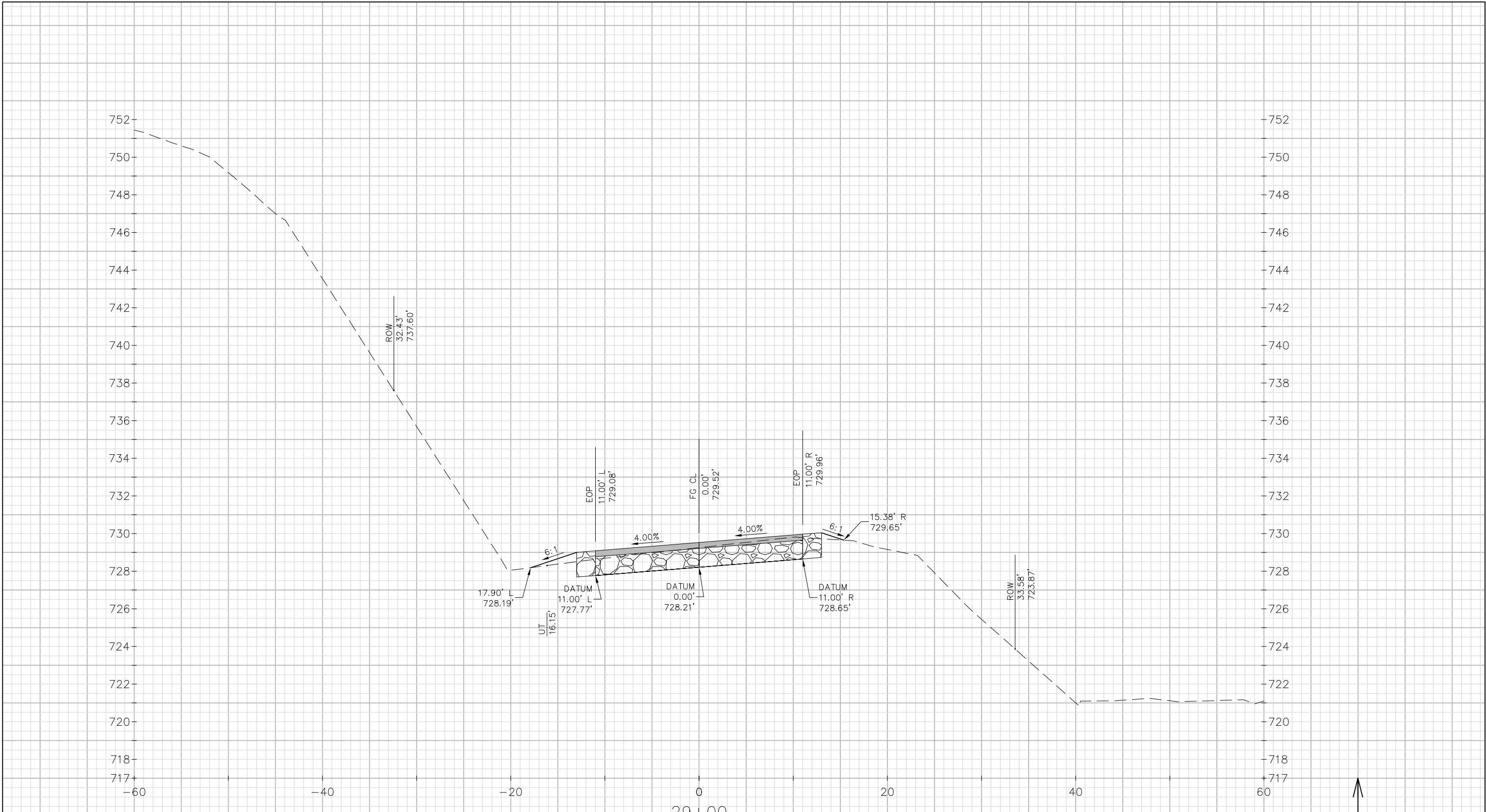


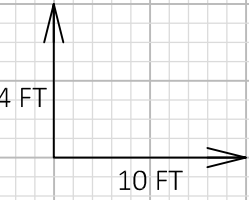
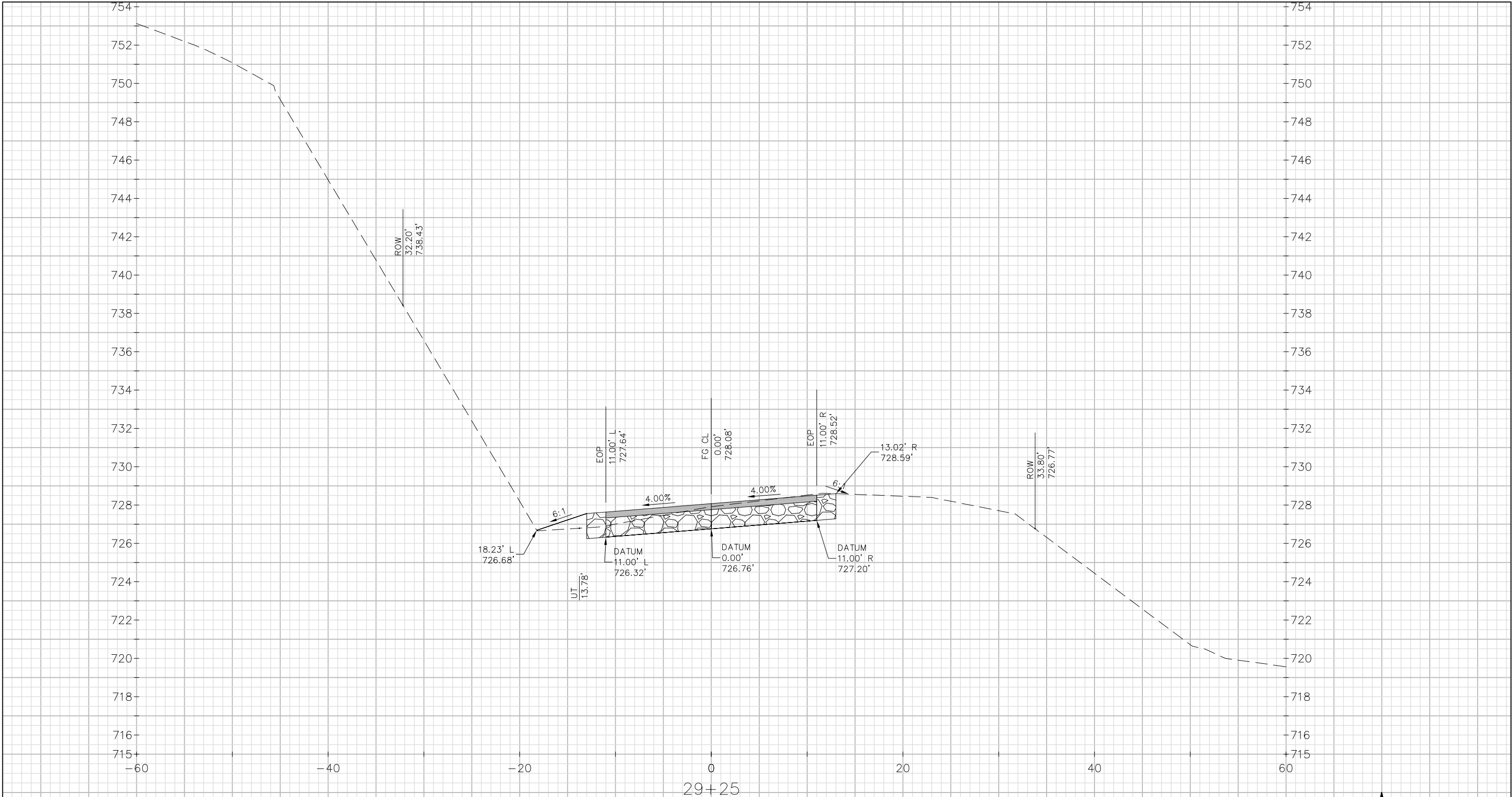


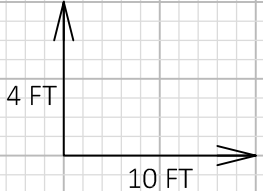
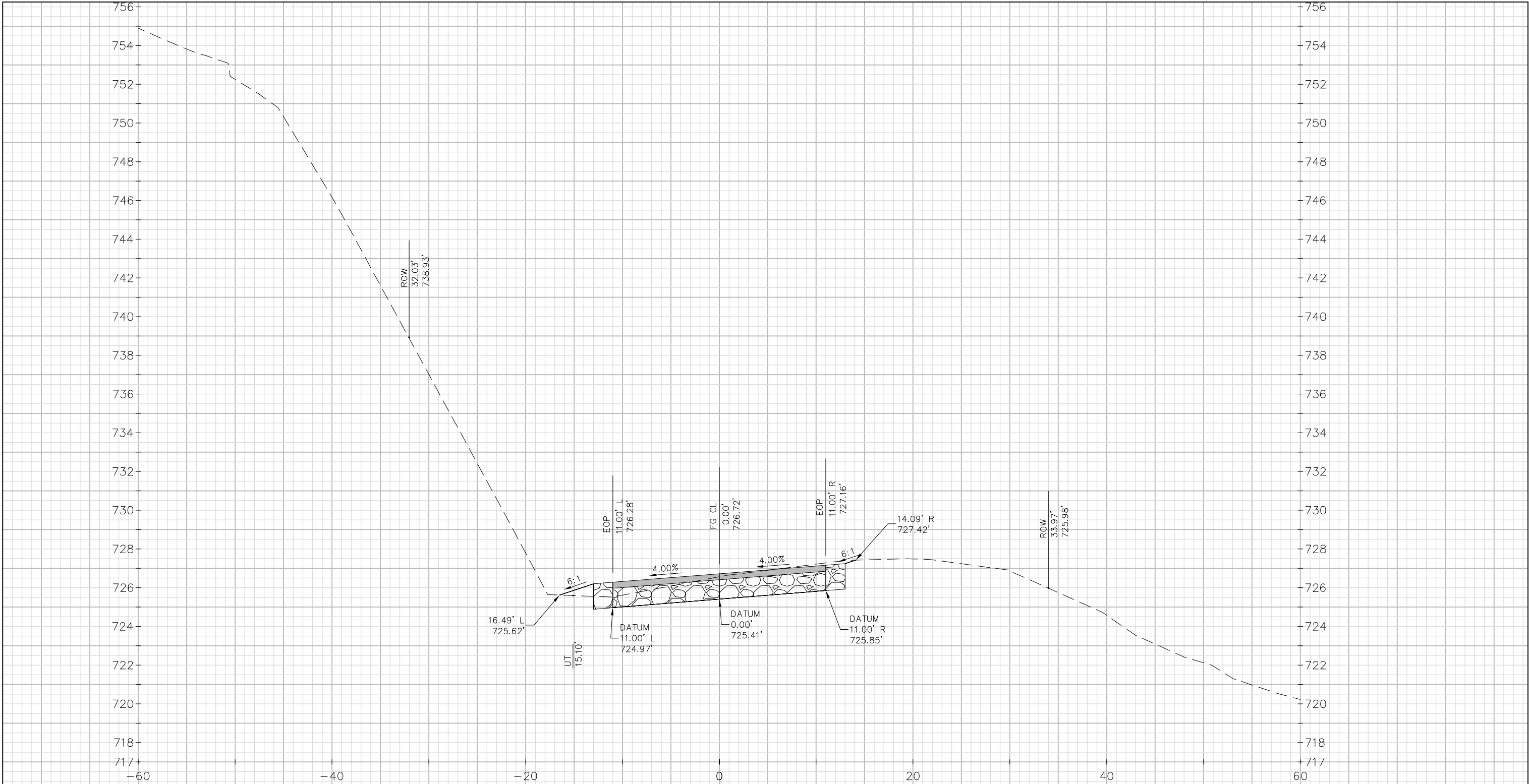
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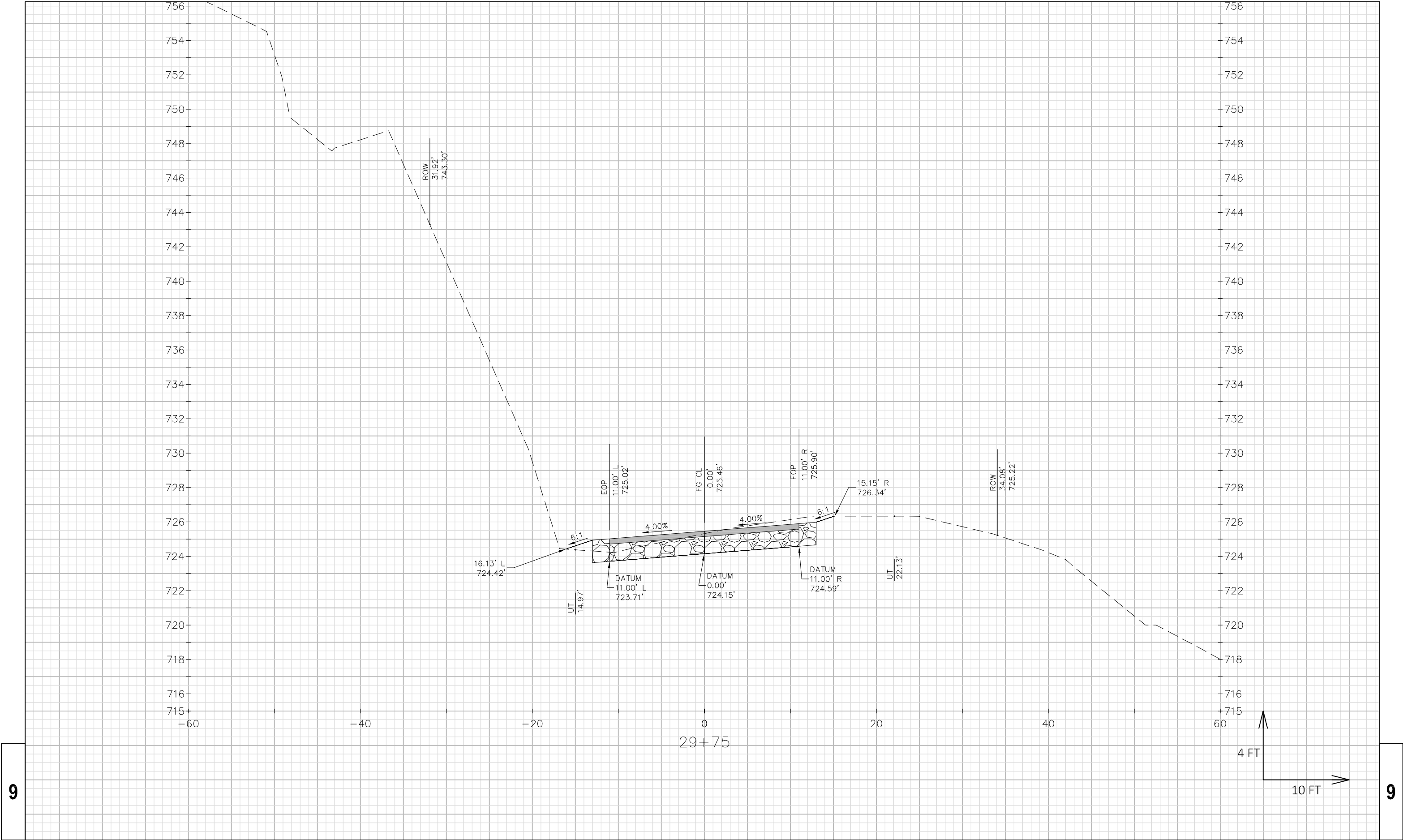
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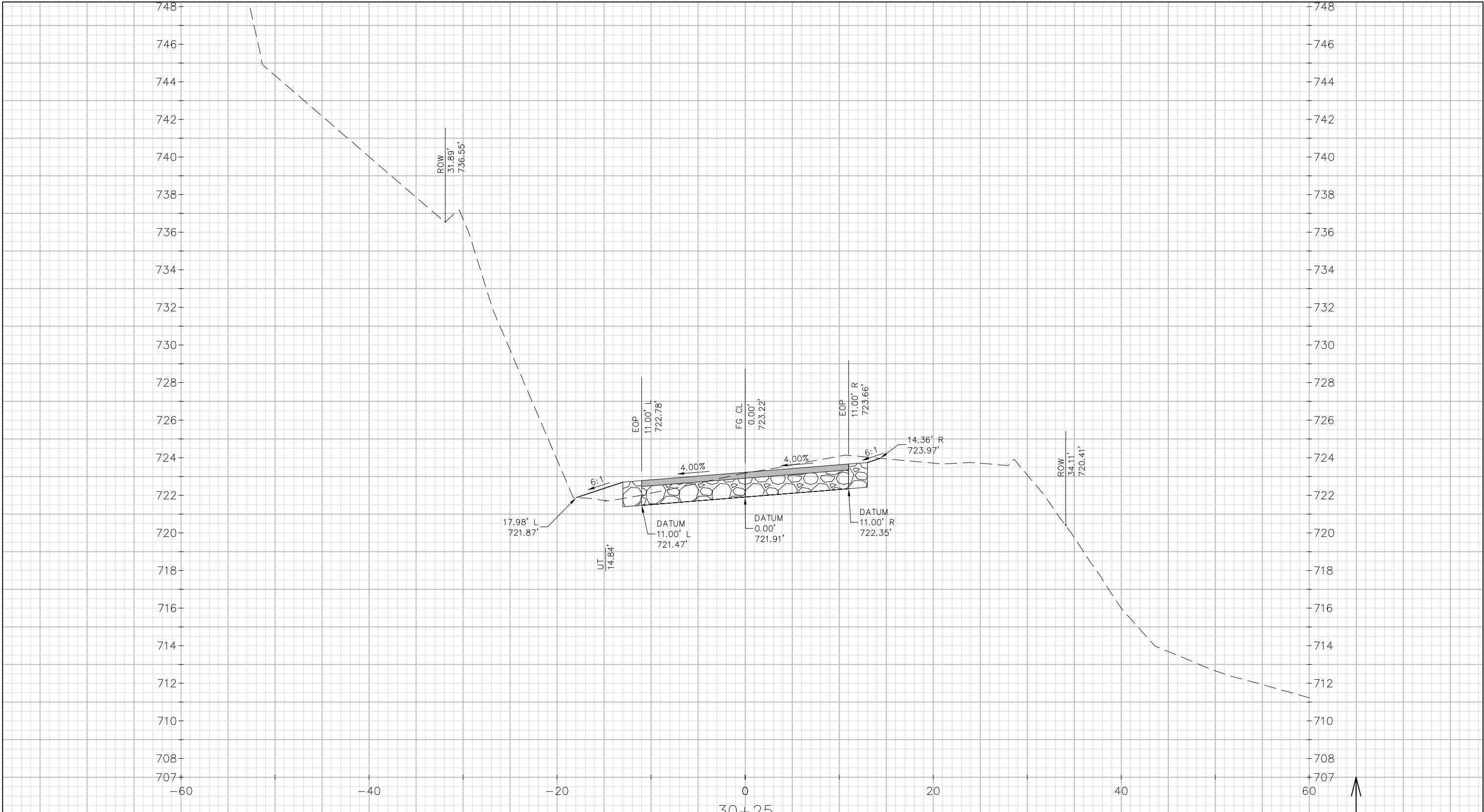
PROJECT NO: 5319-00-70	HWY: VINEYARD ROAD	COUNTY: CRAWFORD	CROSS SECTIONS: VINEYARD ROAD	SHEET E
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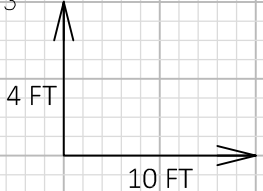
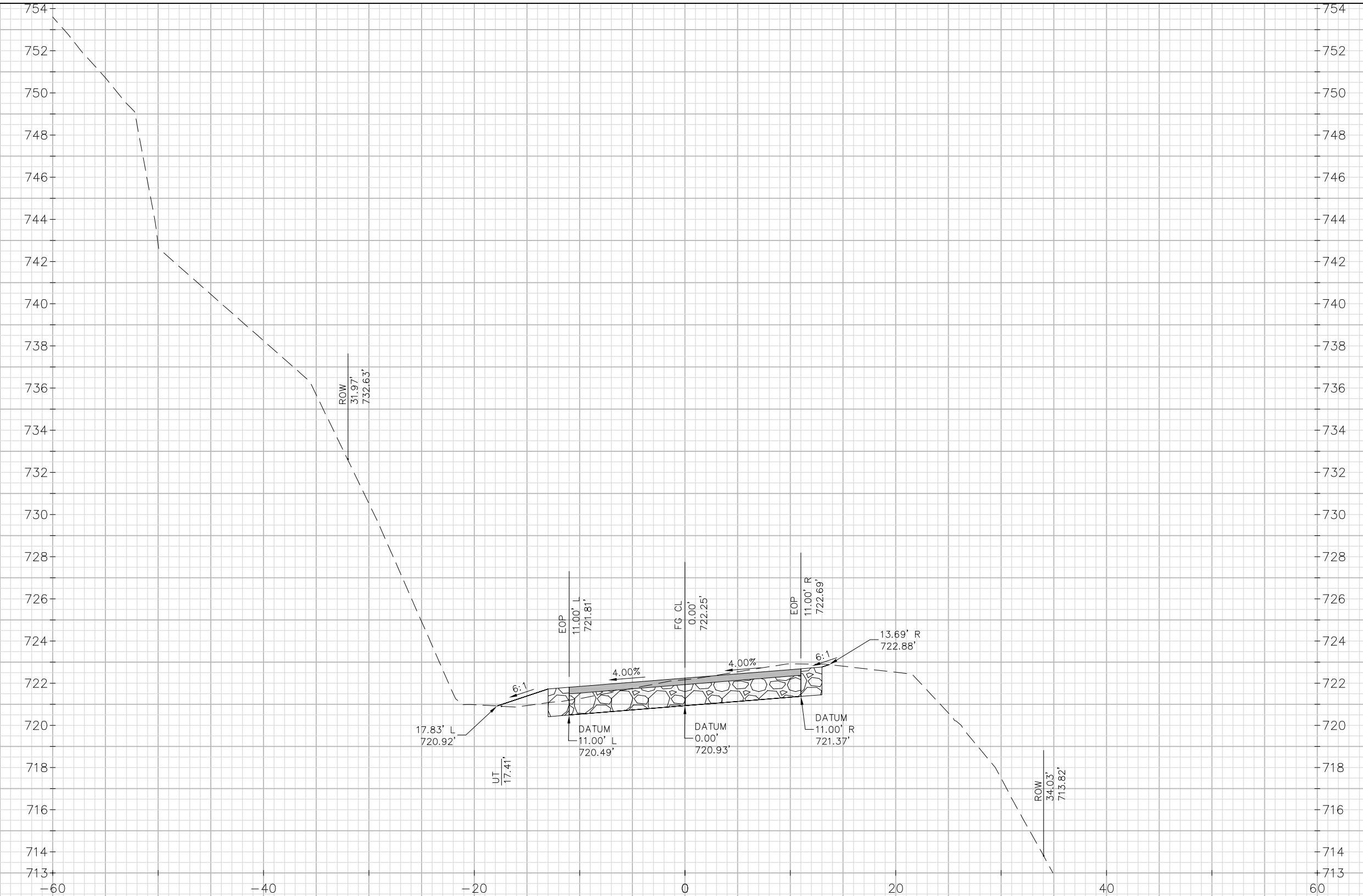


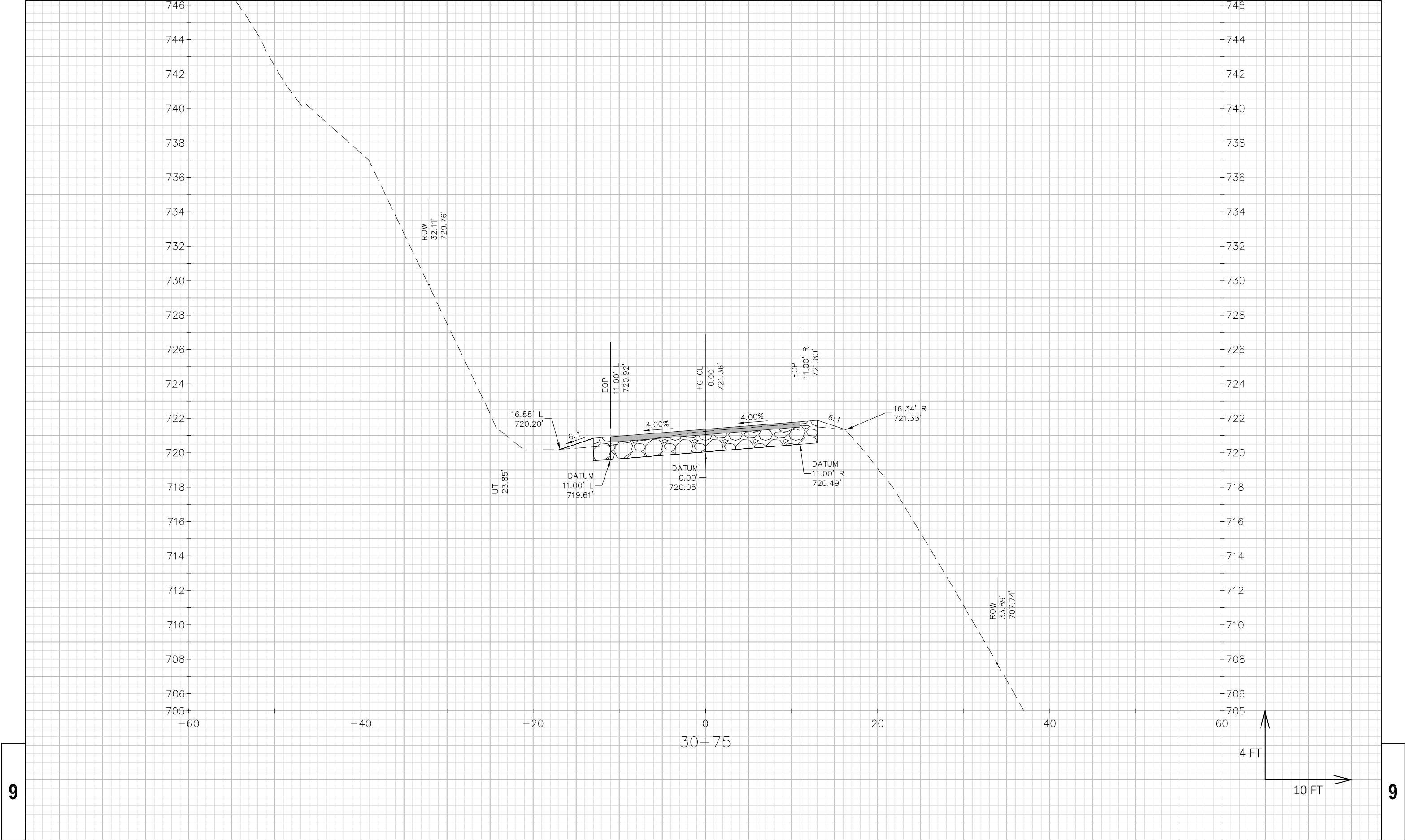








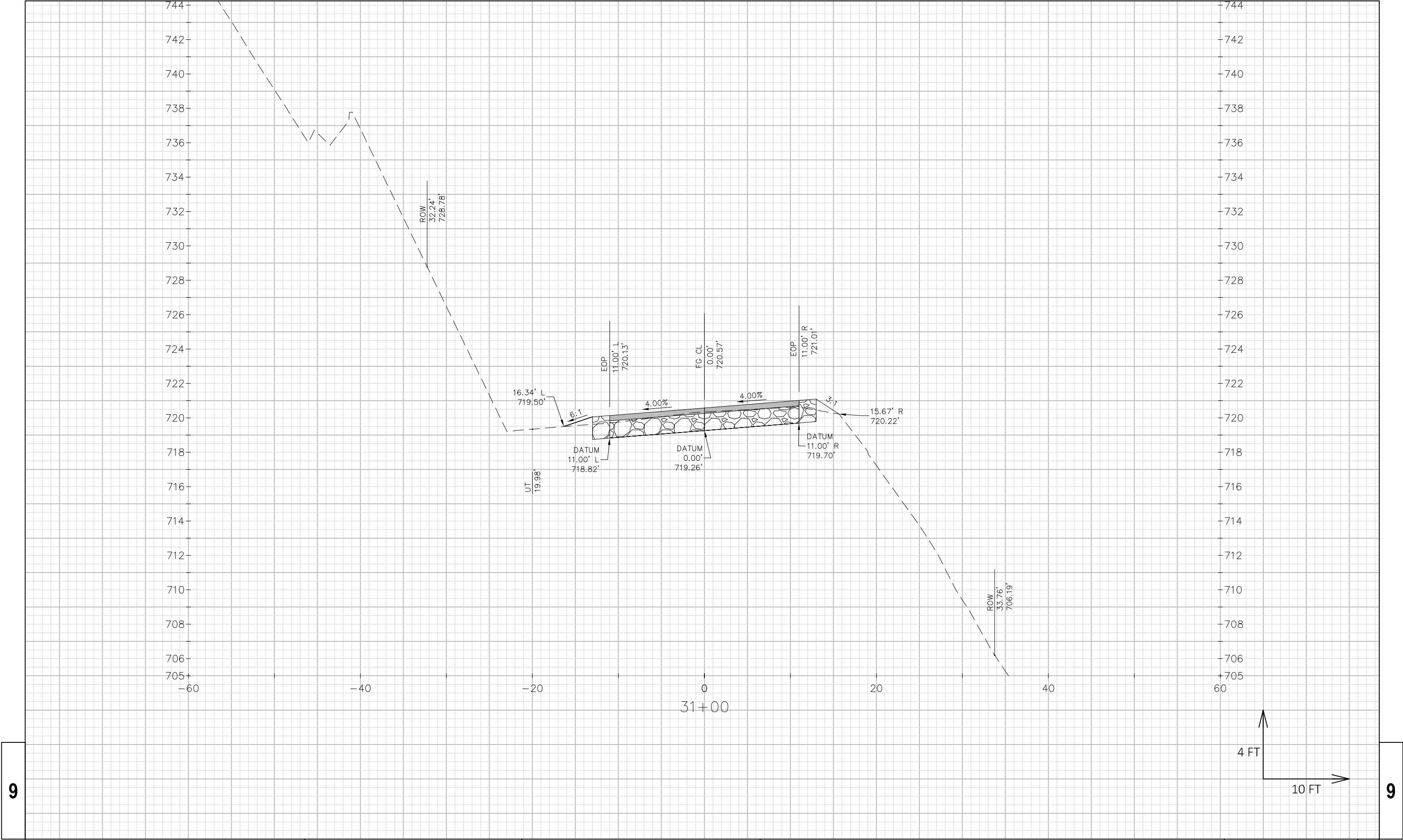


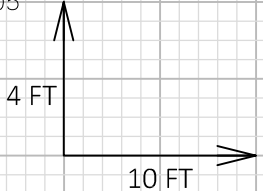
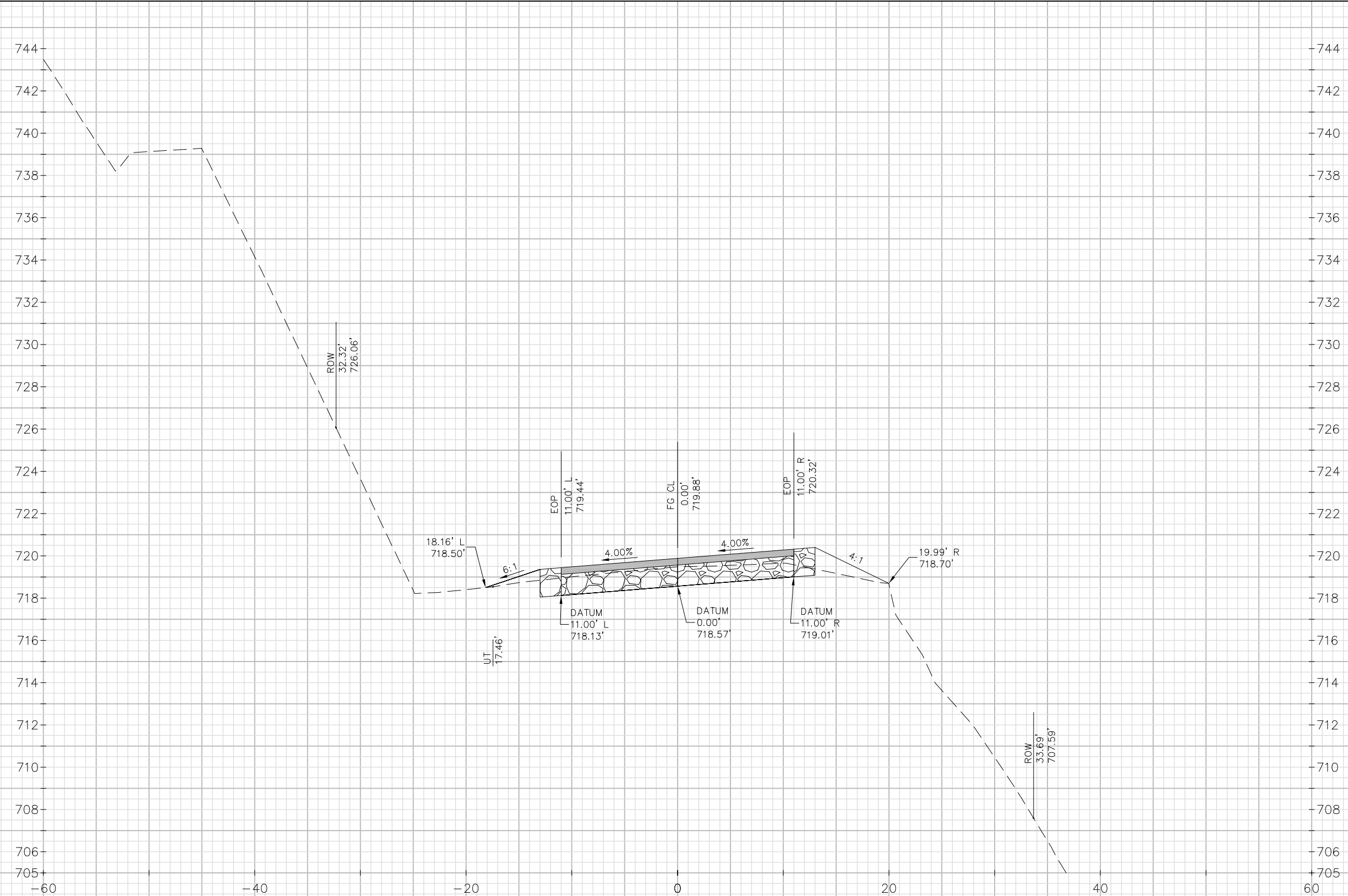


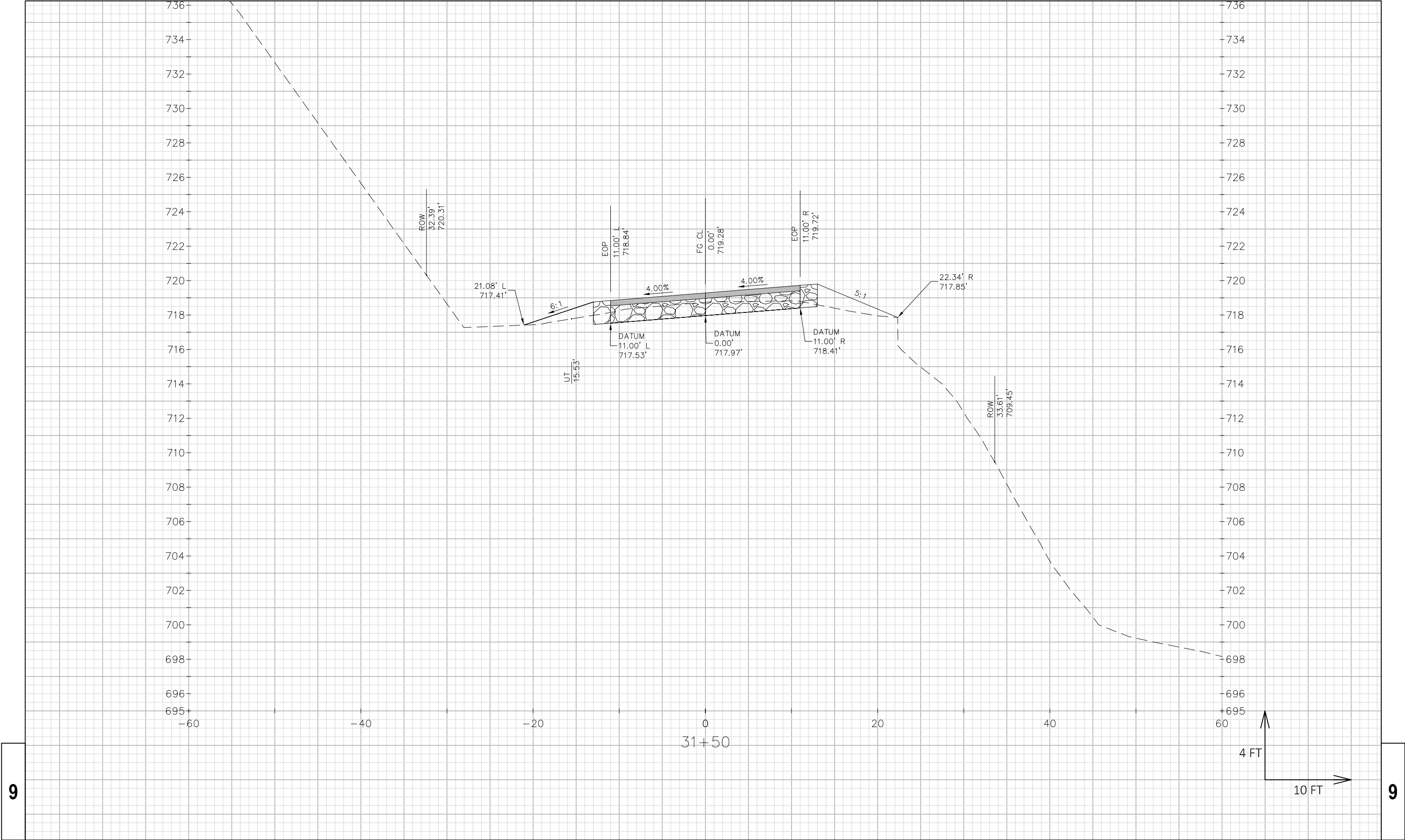
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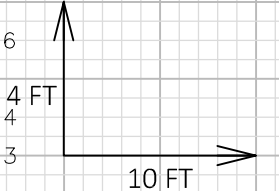
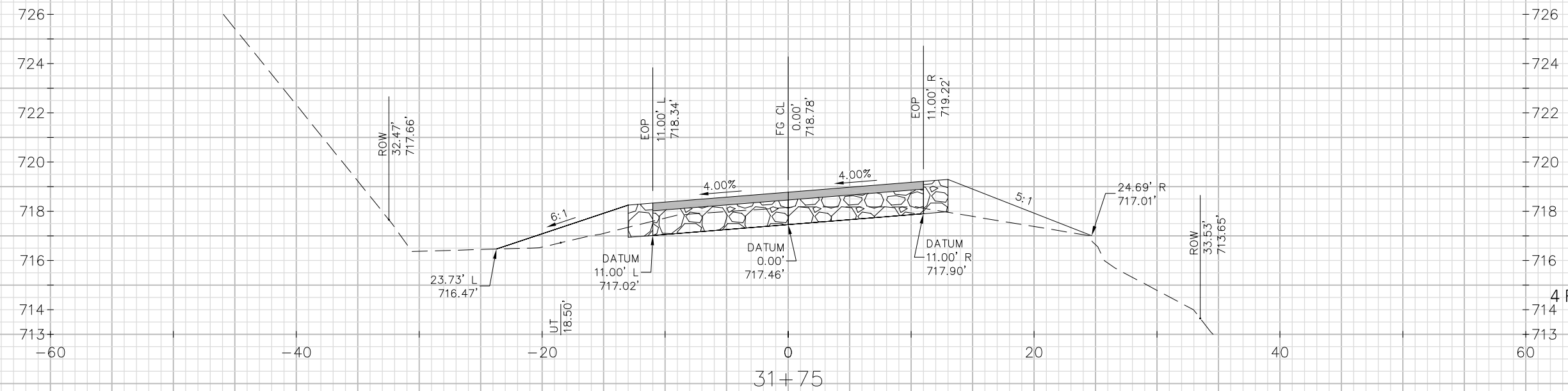
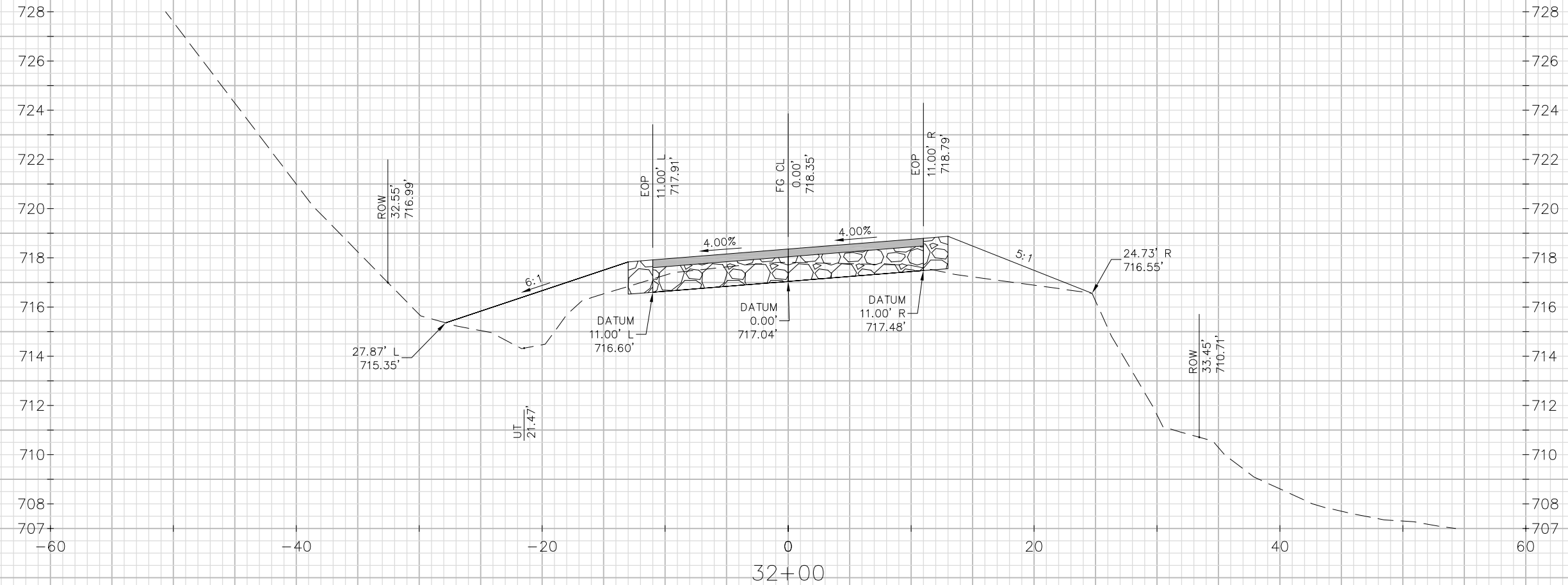
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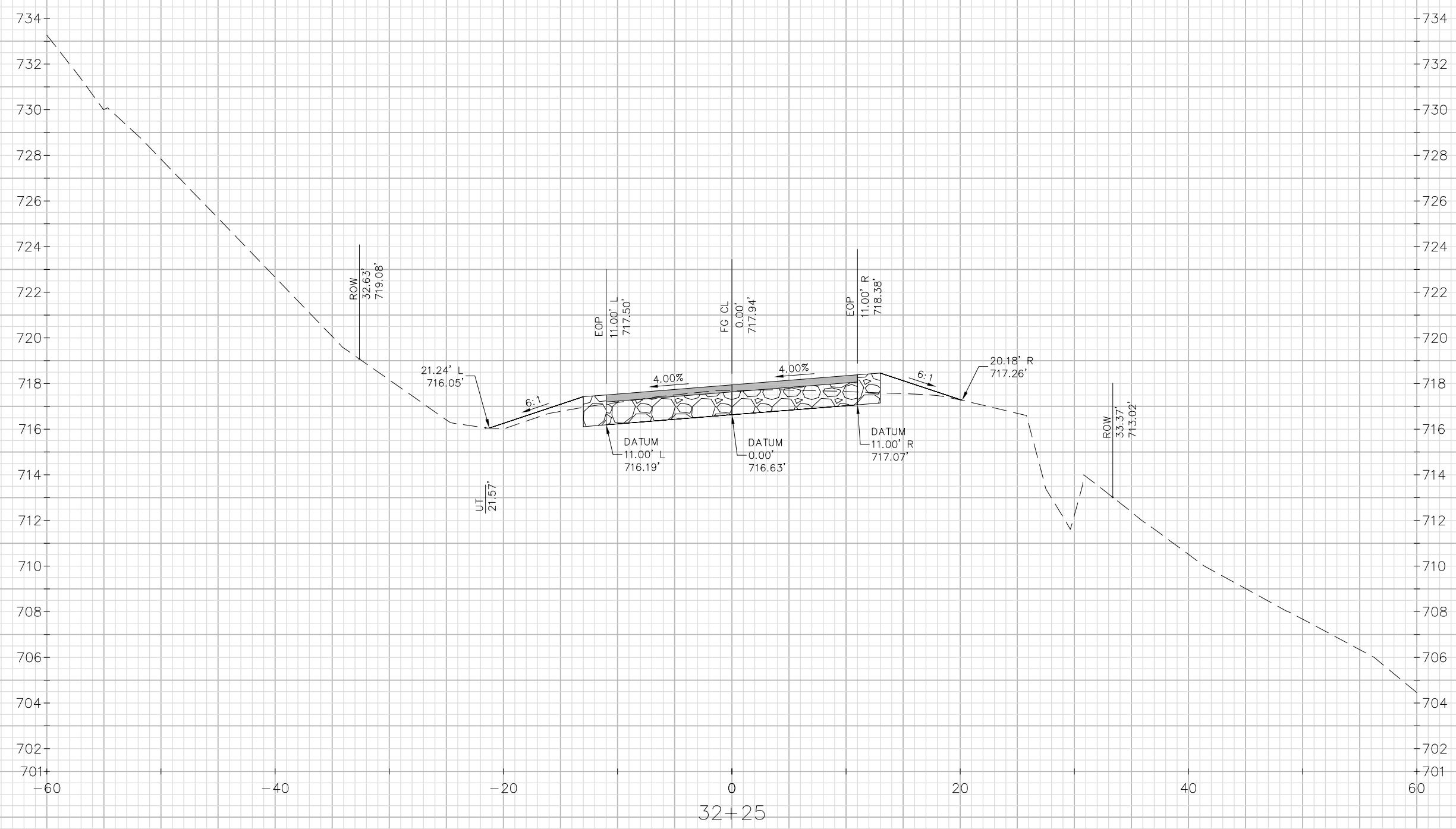
PROJECT NO: 5319-00-70	HWY: VINEYARD ROAD	COUNTY: CRAWFORD	CROSS SECTIONS: VINEYARD ROAD	SHEET E
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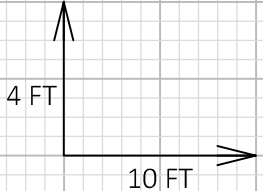
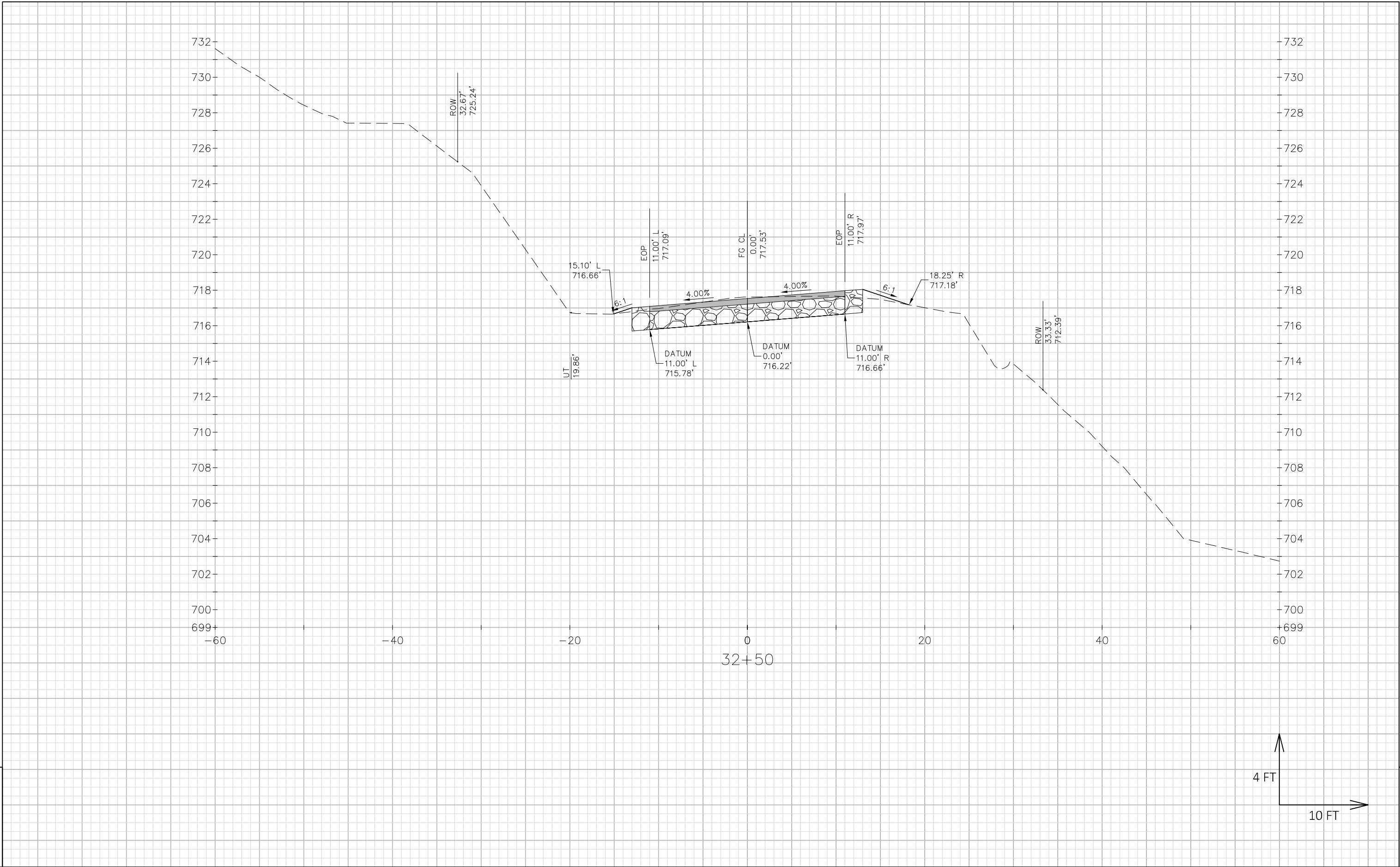


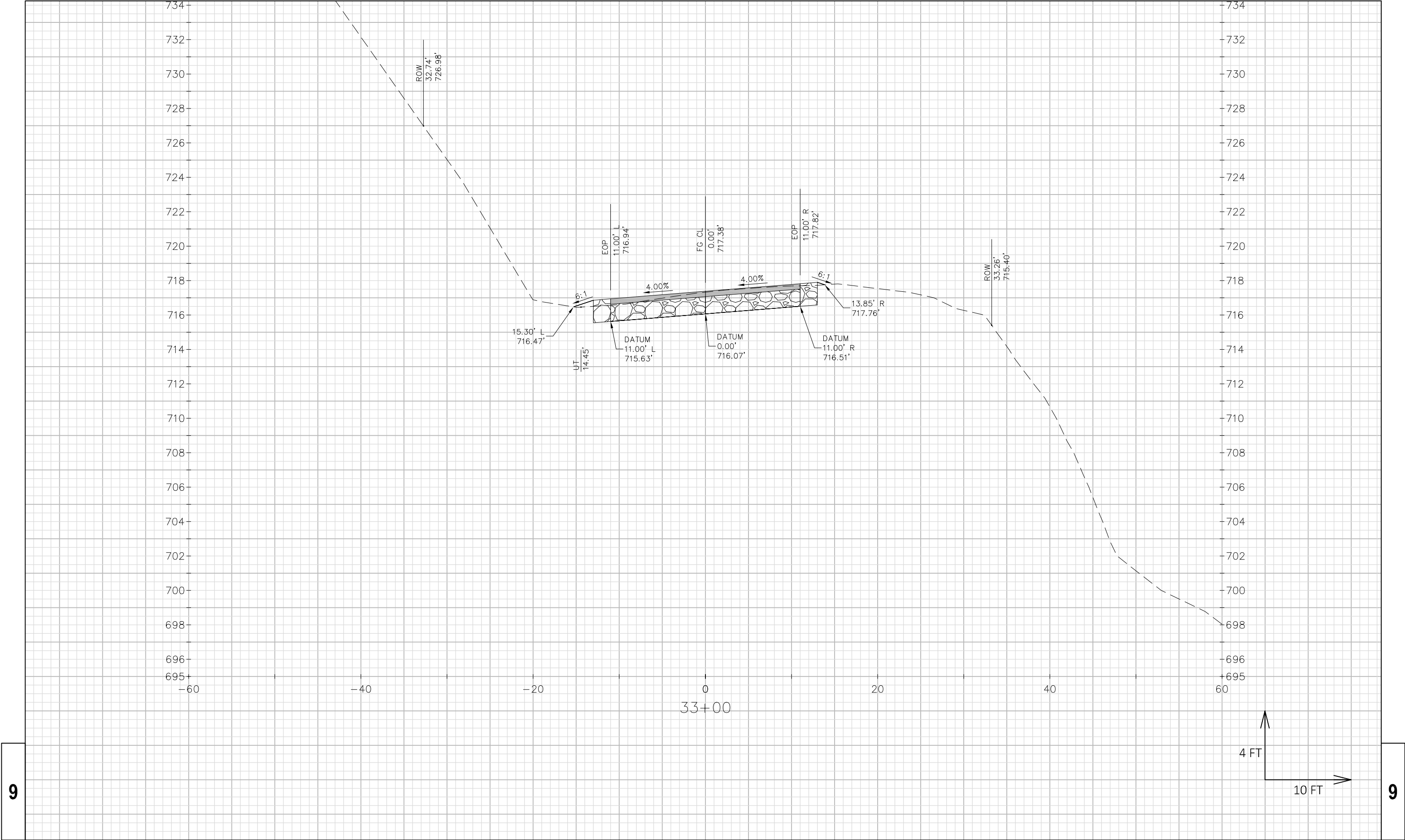








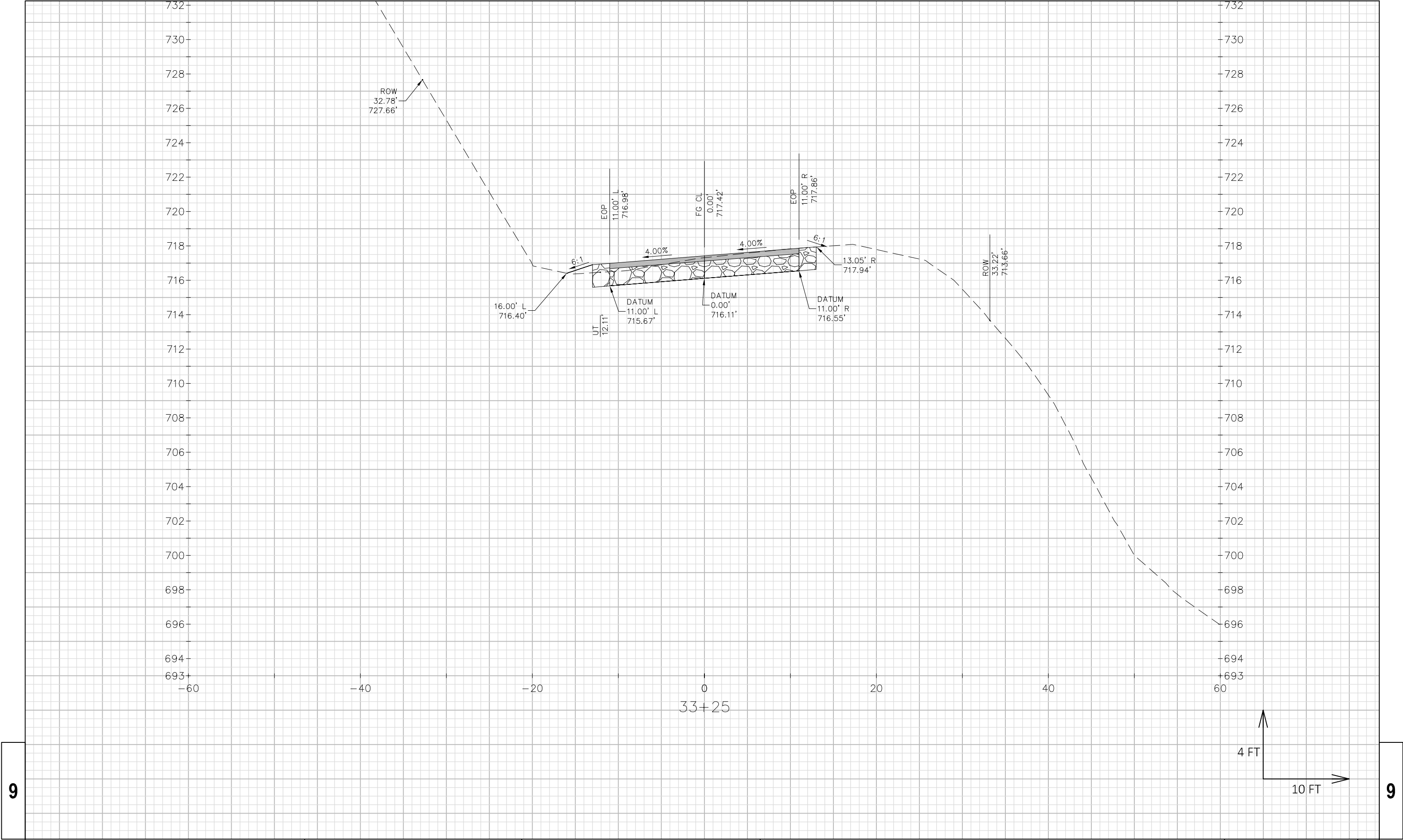




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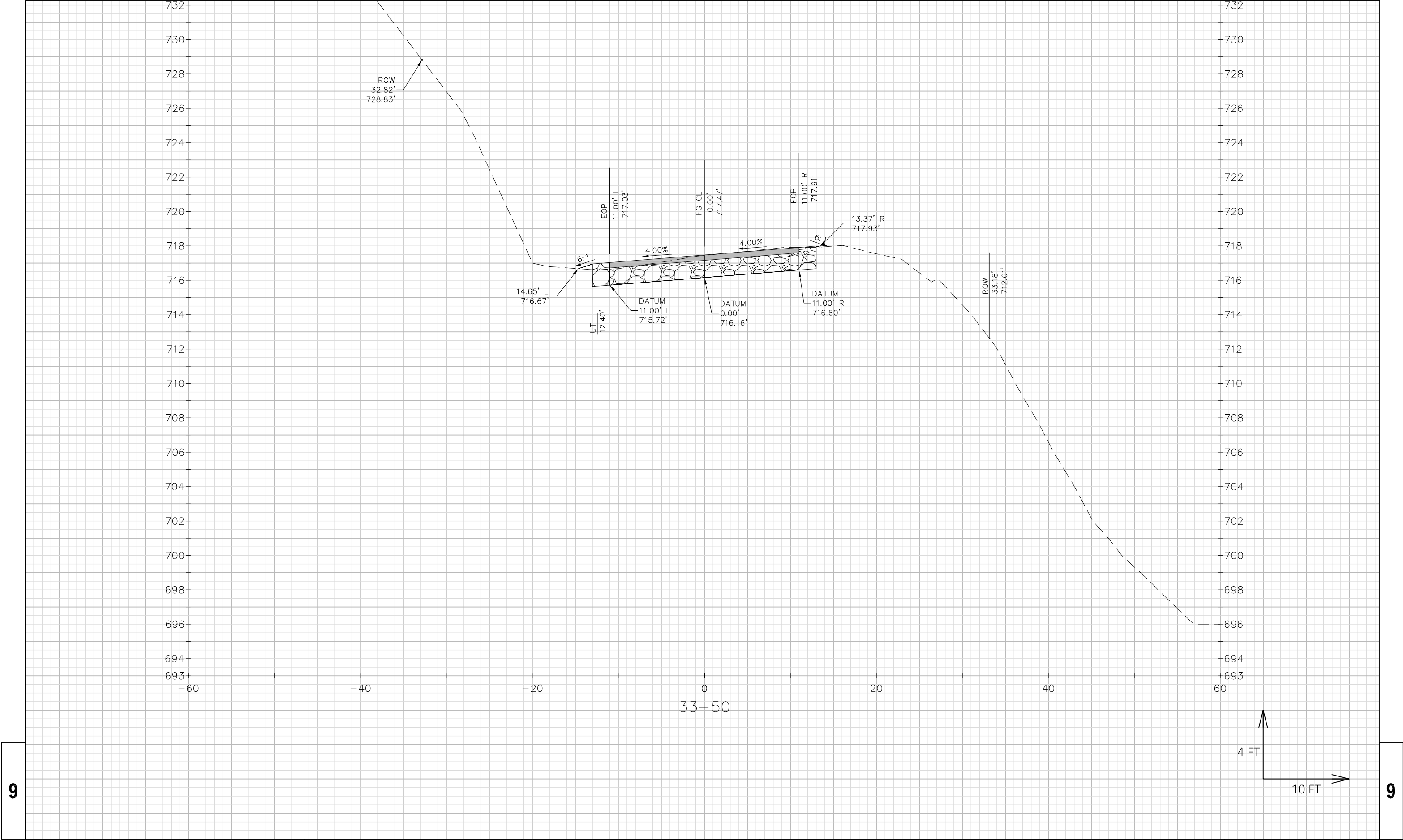
PROJECT NO: 5319-00-70	HWY: VINEYARD ROAD	COUNTY: CRAWFORD	CROSS SECTIONS: VINEYARD ROAD	SHEET E
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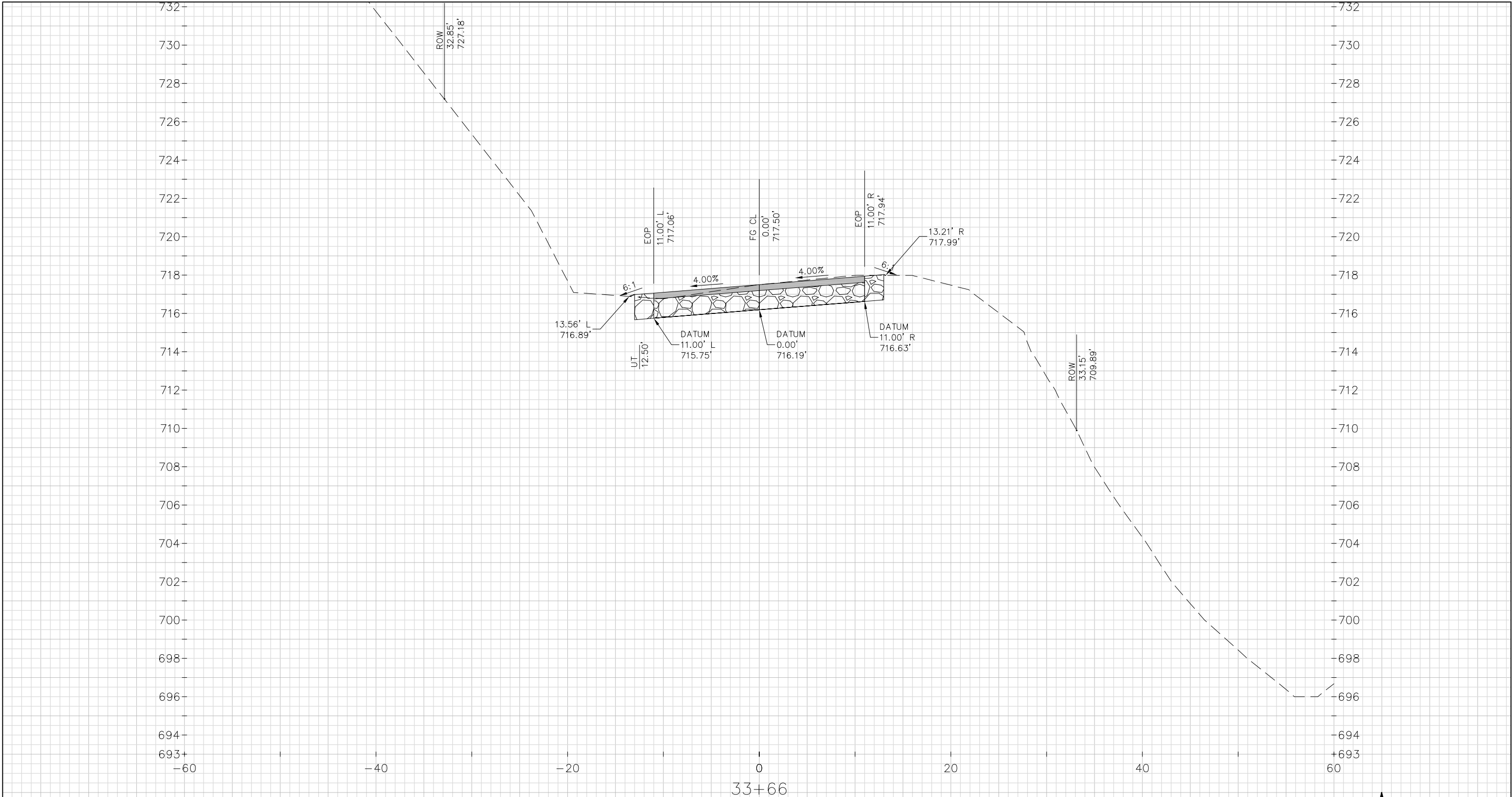
PROJECT NO: 5319-00-70	HWY: VINEYARD ROAD	COUNTY: CRAWFORD	CROSS SECTIONS: VINEYARD ROAD	SHEET E
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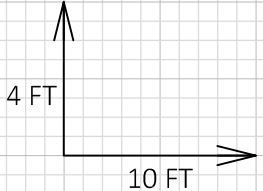
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PROJECT NO: 5319-00-70	HWY: VINEYARD ROAD	COUNTY: CRAWFORD	CROSS SECTIONS: VINEYARD ROAD	SHEET E
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END PROJECT
STA 33+67.3



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PROJECT NO: 5319-00-70	HWY: VINEYARD ROAD	COUNTY: CRAWFORD	CROSS SECTIONS: VINEYARD ROAD	SHEET E
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Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
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