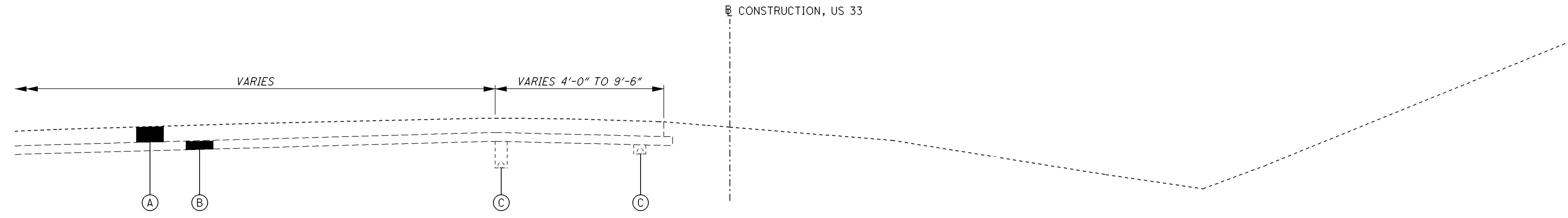
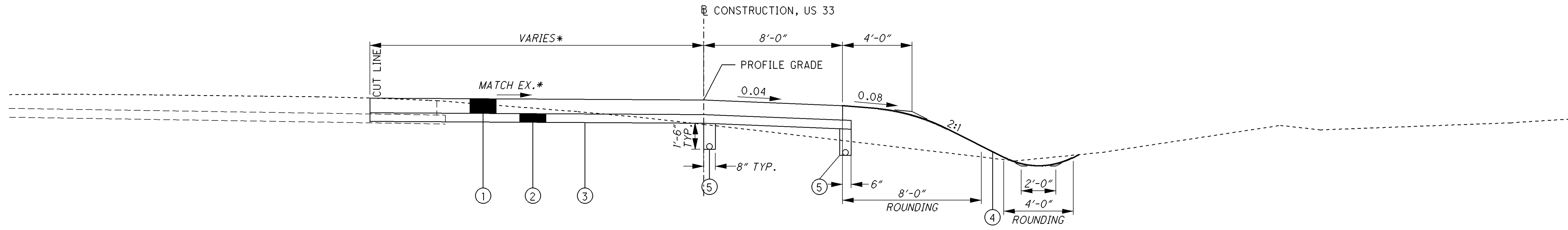


NOTES:
 * - VARIES, SEE PAVEMENT ELEVATION TABLE



EXISTING TYPICAL SECTION



WIDENING SECTION

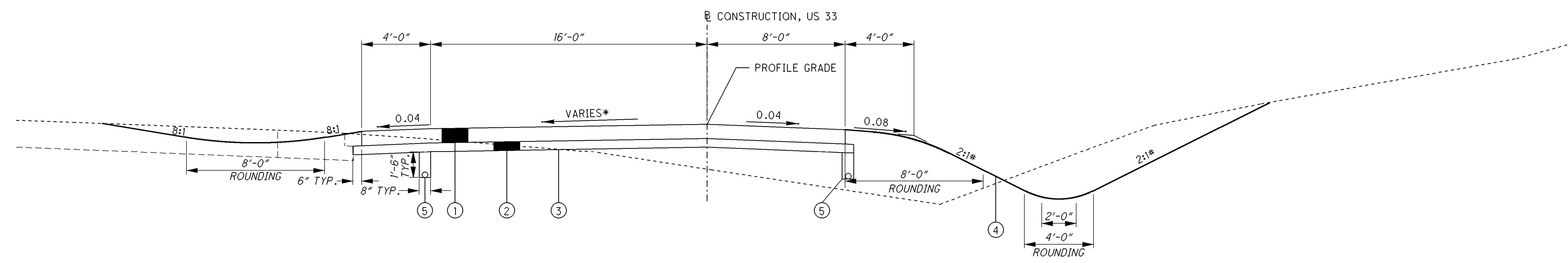
STATION 153+07.65 TO STATION 159+61.37
 STATION 164+90.90 TO STATION 169+31.04

LEGEND

- ① ITEM 452 - 10" NON-REINFORCED CONCRETE PAVEMENT
- ② ITEM 304 - 6" AGGREGATE BASE
- ③ ITEM 204 - SUBGRADE COMPACTION
- ④ ITEM 659 - SEEDING AND MULCHING
- ⑤ ITEM 605 - 4" BASE PIPE UNDERDRAINS
- (A) PLAIN CONCRETE PAVEMENT
- (B) AGGREGATE BASE
- (C) 4" UNDERDRAIN

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NOTES:
* - VARIES, SEE PAVEMENT ELEVATION TABLE
- SEE CROSS SECTIONS



NEW ALIGNMENT SECTION

STATION 159+61.37 TO STATION 164+90.90

PAVEMENT ELEVATION TABLE

LT SHOULDER OFFSET	LT SHOULDER ELEVATION	E.P. OFFSET	E.P. ELEVATION	LT SUPER	STATION	PROFILE GRADE ELEVATION	RT SHOULDER ELEVATION	RT SHOULDER OFFSET
					152+90.14	761.46		
					153+00	761.32		
		0.16'	760.66	0.000	153+50	760.66	760.34	8.00'
		0.65'	759.99	0.000	154+00	759.99	759.67	8.00'
		1.38'	759.32	-0.007	154+50	759.33	759.01	8.00'
		2.33'	758.64	-0.009	155+00	758.66	758.34	8.00'
		3.95'	758.02	0.005	155+50	758.00	757.68	8.00'
		5.64'	757.36	0.005	156+00	757.33	757.01	8.00'
		7.96'	756.71	0.005	156+50	756.67	756.35	8.00'
		10.41'	756.08	0.008	157+00	756.00	755.68	8.00'
		13.12'	755.46	0.009	157+50	755.34	755.02	8.00'
		16.15'	754.83	0.010	158+00	754.67	754.35	8.00'
		19.17'	754.22	0.010	158+50	754.02	753.70	8.00'
		16.37'	753.54	0.010	159+00	753.38	753.06	8.00'
		19.22'	752.84	0.006	159+50	752.73	752.41	8.00'
		22.53'	752.10	-0.001	160+00	752.08	751.76	8.00'
20'	751.01	16'	751.17	-0.016	160+50	751.43	751.11	8.00'
20'	750.37	16'	750.53	-0.016	161+00	750.79	750.47	8.00'

PAVEMENT ELEVATION TABLE

LT SHOULDER OFFSET	LT SHOULDER ELEVATION	E.P. OFFSET	E.P. ELEVATION	LT SUPER	STATION	PROFILE GRADE ELEVATION	RT SHOULDER ELEVATION	RT SHOULDER OFFSET
20'	749.72	16'	749.88	-0.016	161+50	750.14	749.82	8.00'
20'	749.07	16'	749.23	-0.016	162+00	749.49	749.17	8.00'
20'	748.42	16'	748.58	-0.016	162+50	748.84	748.52	8.00'
20'	747.78	16'	747.94	-0.016	163+00	748.20	747.88	8.00'
20'	747.13	16'	747.29	-0.016	163+50	747.55	747.23	8.00'
20'	746.47	16'	746.63	-0.017	164+00	746.90	746.58	8.00'
20'	745.82	16'	745.98	-0.017	164+50	746.25	745.93	8.00'
		15.68'	745.39	-0.014	165+00	745.61	744.89	8.00'
		13.60'	744.79	-0.013	165+50	744.96	744.64	8.00'
		11.35'	744.21	-0.009	166+00	744.31	743.99	8.00'
		8.92'	743.59	-0.013	166+50	743.71	743.39	8.00'
		6.16'	743.00	-0.019	167+00	743.12	742.80	8.00'
		3.67'	742.40	-0.033	167+50	742.52	742.20	8.00'
		1.74'	741.84	-0.046	168+00	741.92	741.60	8.00'
		0.55'	741.28	-0.091	168+50	741.33	741.01	8.00'
		0.05'	740.73	0.000	169+00	740.73	740.41	8.00'
					169+50	740.14		
					169+64.24	739.96		

LEGEND

- ① ITEM 452 - 10" NON-REINFORCED CONCRETE PAVEMENT
- ② ITEM 304 - 6" AGGREGATE BASE
- ③ ITEM 204 - SUBGRADE COMPACTION
- ④ ITEM 659 - SEEDING AND MULCHING
- ⑤ ITEM 605 - 4" BASE PIPE UNDERDRAINS
- (A) PLAIN CONCRETE PAVEMENT
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- (C) 4" UNDERDRAIN

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ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

THERE ARE NO UNDERGROUND UTILITIES ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA.

SURVEYING PARAMETERS

USE THE FOLLOWING VERTICAL POSITIONING AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: 03

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD 83 (CORS 96)
ELLIPSOID: GRS 80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: 3402 (OH SOUTH)
COMBINED SCALE FACTOR: NA

UNITS ARE IN U.S. SURVEY FEET. USE THE FOLLOWING CONVERSION FACTOR: 1 METER = 3.280833333 U.S. SURVEY FEET.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

SEEDING AND MULCHING

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

PAVEMENT MARKING

DUE TO THE UNIQUE CHARACTERISTICS OF THIS PROJECT, PROPERLY PLACED PAVEMENT MARKINGS ARE ESSENTIAL TO ENSURE THE PROPER FLOW OF TRAFFIC. THE CONTRACTOR SHALL CONTACT THOMAS CAMDEN (740-568-3903 OR TOM.CAMDEN@DOT.STATE.OH.US) IN THE PLANNING AND ENGINEERING DEPARTMENT IN DISTRICT 10 AT LEAST 48 HOURS PRIOR TO PLACING ANY PREMARKING OR PERMANENT PAVEMENT MARKINGS.

COORDINATE TABLE

STATION	NORTHING (Y)	EASTING (X)
152+90.14	2101100.52	420625.11
153+00	2101105.92	420616.86
153+50	2101133.32	420575.03
154+00	2101160.72	420533.21
154+50	2101188.12	420491.38
155+00	2101215.51	420499.56
155+50	2101242.91	420407.73
156+00	2101270.31	420365.91
156+50	2101297.71	420324.08
157+00	2101325.11	420282.25
157+50	2101352.52	420240.43
158+00	2101397.90	420198.60
158+50	2101407.30	420156.78
159+00	2101434.70	420114.95
159+50	2101462.09	420073.13
160+00	2101489.49	420031.30
160+50	2101516.89	419989.48
161+00	2101544.29	419947.65
161+50	2101571.68	419905.83
162+00	2101599.08	419864.00
162+50	2101626.48	419822.17
163+00	2101653.77	419780.51
163+50	2101681.27	419738.53
164+00	2101708.67	419696.70
164+00.27	2101708.82	419696.48
164+50	2101736.16	419646.93
165+00	2101763.83	419613.29
165+50	2101791.68	419571.76
166+00	2101819.71	419530.36
166+50	2101847.93	419489.08
167+00	2101876.32	419447.92
167+50	2101904.89	419406.89
167+91.81	2101928.92	419372.67
168+00	2101933.64	419365.98
168+50	2101962.45	419325.11
169+00	2101991.26	419284.25
169+50	2102020.07	419243.38
169+64.27	2102028.29	419231.72

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GENERAL NOTES

MEG - 33 - 3.09

ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN

THE MAINTENANCE OF TRAFFIC SHALL BE IN CONFORMANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST REVISION, THE REFERENCED STANDARD CONSTRUCTION DRAWINGS INCLUDING DESIGNER NOTES, THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS), POLICY NO. 516-003(P) TRAFFIC MANAGEMENT IN WORK ZONES INTERSTATE AND OTHER FREEWAYS, ODOT LOCATION AND DESIGN MANUAL, VOLUME 1, AND ALL REQUIREMENTS DETAILED IN THESE PLANS.

PAYMENT FOR ALL THE ITEMS REQUIRED TO MAINTAIN TRAFFIC IN ACCORDANCE WITH THESE REQUIREMENTS SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN.

3.09

PHASE 1

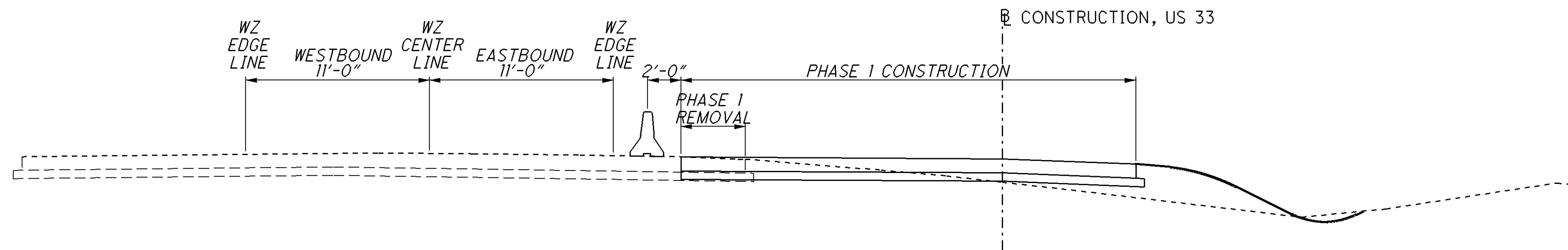
PHASE 1 CONSTRUCTION SHALL BE THE REMOVAL OF SHOULDER AND ADJACENT PAVEMENT FOLLOWED BY THE CONSTRUCTION OF ALL PROPOSED PAVEMENT. MAINTAIN ELEVEN FOOT LANES OF TRAFFIC IN BOTH DIRECTIONS WITH PORTABLE CONCRETE BARRIER, PLACED A MINIMUM OF 2' FROM THE EDGE OF CONSTRUCTION. UNTIL THE PHYSICAL GORE, BOTH LANES OF TRAFFIC WILL BE SHIFTED TOWARD THE WESTBOUND SHOULDER TO ALLOW FOR REQUIRED EASTBOUND LANE WIDTH. MINIMUM TAPER RATE AND FLARE RATE, MAXIMUM DRUM SPACING AND BUFFER MINIMUM SHALL CONFORM TO STANDARD CONSTRUCTION DRAWING MT-102.10, TABLE II, SPEED LIMIT 65 MPH. AFTER THE PHYSICAL GORE, THE EASTBOUND LANE SHALL BE SHIFTED TO THE EXISTING INTERIOR SHOULDER TO PROVIDE REQUIRED LANE WIDTH.

PHASE 2

PHASE 2 CONSTRUCTION SHALL BE THE REMOVAL OF REMAINING INTERIOR PAVEMENT FOLLOWED BY INTERIOR GRADING. PAVEMENT REMOVAL AND BACKFILL SHALL OCCUR ON THE SAME DAY AND BARRELS MAY BE USED FOR MAINTAINING TRAFFIC. NO LANE SHIFTS FROM FINAL PAVEMENT MARKINGS WILL BE REQUIRED TO PROVIDE A MINIMUM OF ELEVEN FOOT LANES IN EITHER DIRECTION.

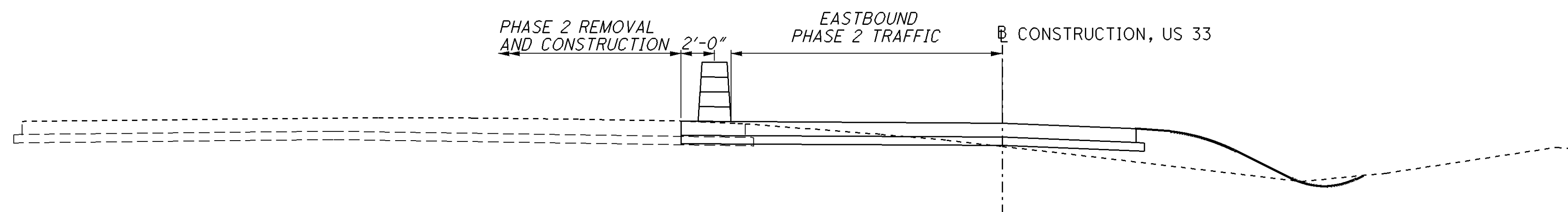
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MAINTAIN ELEVEN FOOT LANES OF TRAFFIC IN BOTH DIRECTIONS WITH DRUMS. THE MERGE TAPER RATE SHALL BE 65:1 AND THE SHOULDER TAPER RATE SHALL BE 22:1.



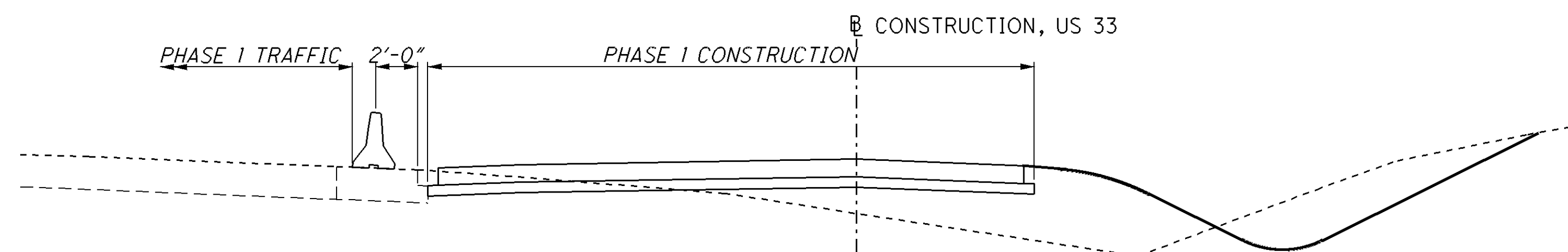
WIDENING SECTION- PHASE 1 3.09

Sta. 153+07.65 to Sta. 159+63.19



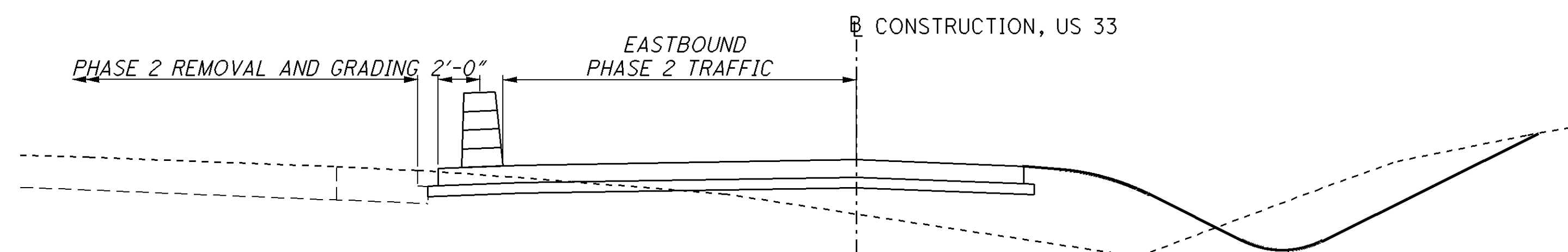
WIDENING SECTION- PHASE 2 3.09

Sta. 153+07.65 to Sta. 159+63.19



NEW ALIGNMENT SECTION- PHASE 1 3.09

Sta. 159+63.19 to Sta. 164+90.90



NEW ALIGNMENT SECTION- PHASE 2 3.09

Sta. 159+63.19 to Sta. 164+90.90

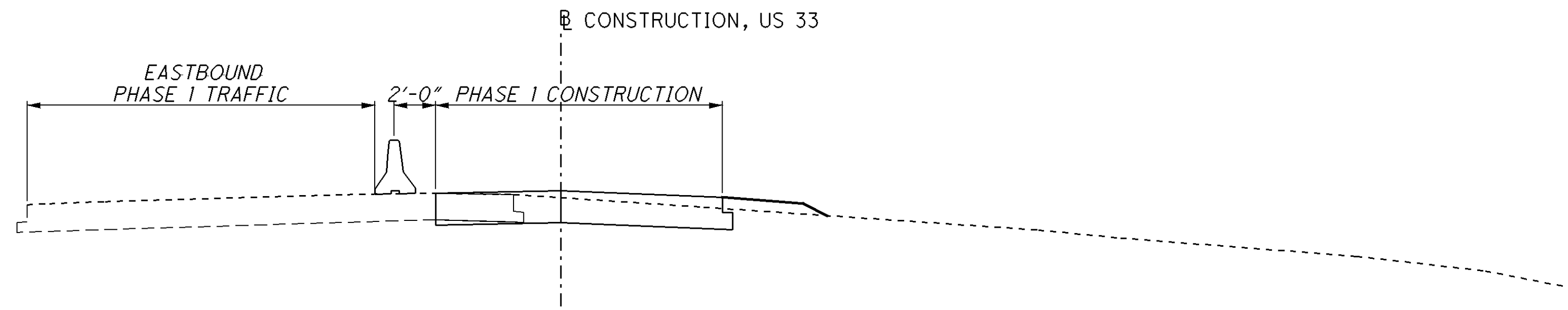
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MAINTENANCE OF TRAFFIC

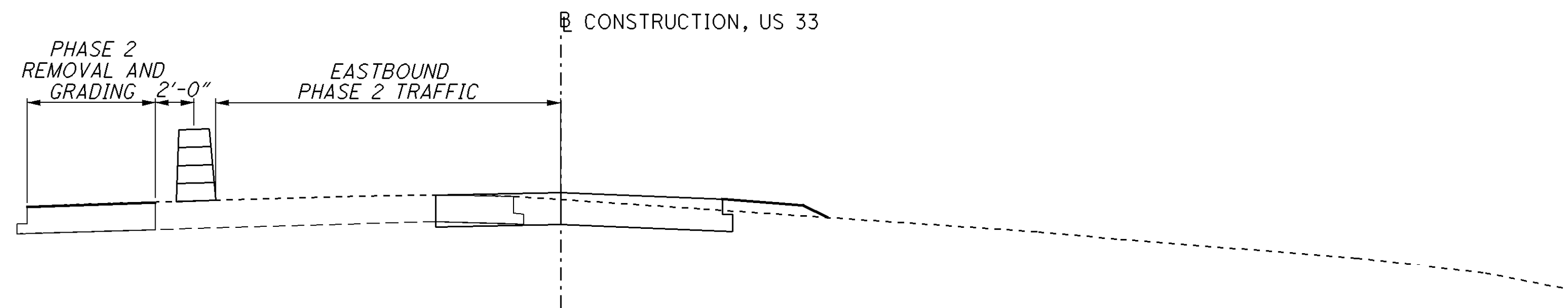
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WIDENING SECTION- PHASE 1 3.09

Sta. 164+90.90 to Sta. 169+31.04



WIDENING SECTION- PHASE 2 3.09

Sta. 164+90.90 to Sta. 169+31.04

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SHEET NUMBER													PLAN SPLIT	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
4	5	8	9	11	12	13	14	19	20	21	22	23	01/NHS/PV						
													ROADWAY						
LUMP		2099											LUMP	201	11000	LUMP		CLEARING AND GRUBBING	
								1111					2099	202	23000	2099	SQ YD	PAVEMENT REMOVED	
								966					1111	203	10000	1111	CU YD	EXCAVATION	
		4066											966	203	20000	966	CU YD	EMBANKMENT	
													4066	204	10000	4066	SQ YD	SUBGRADE COMPACTION	
													EROSION CONTROL						
								6805					6805	659	10000	6805	SQ YD	SEEDING AND MULCHING	
		0.61											0.61	659	20000	0.61	TON	COMMERCIAL FERTILIZER	
		1.41											1.41	659	31000	1.41	ACRE	LIME	
		19											19	659	35000	19	MGAL	WATER	
													LUMP	832	15000	LUMP		STORM WATER POLLUTION PREVENTION PLAN	
													3000	832	30000	3000	EACH	EROSION CONTROL	
													DRAINAGE						
				35	16	35	33						119	603	00410	119	FT	4" CONDUIT, TYPE F FOR UNDERDRAIN OUTLET	
				1	1	1	1						4	604	36600	4	EACH	PRECAST REINFORCED CONCRETE OUTLET	
				781	869	789	331						2770	605	06000	2770	FT	4" BASE PIPE UNDERDRAIN	
													PAVEMENT						
		640											690	304	20000	690	CU YD	AGGREGATE BASE	
		3718											3718	452	14000	3718	SQ YD	10" NON-REINFORCED CONCRETE PAVEMENT	
		0.45											0.45	618	40700	0.45	MILE	RUMBLE STRIPS, (CONCRETE)	
								0.16				0.20	0.36	618	42000	0.36	MILE	EDGE LINE, RUMBLE STRIPE (CONCRETE)	
													TRAFFIC CONTROL						
		10											10	620	31211	10	EACH	DELINEATOR REMOVED AND REERECTED, AS PER PLAN	8
		15							24			16	40	621	00100	40	EACH	RAISED PAVEMENT MARKER	
											20		35	621	54000	35	EACH	RAISED PAVEMENT MARKER REMOVED	
													2	630	08600	2	EACH	SIGN POST REFLECTOR	
													2	630	09000	2	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION	
													2	630	84500	2	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	
					1								3	630	85100	3	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
						1							1	630	85600	1	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION	
					1								4	630	86010	4	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND REERECTION	
													2	630	86250	2	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND REERECTION	
									0.30+0.53				0.01	642	00100	0.84	MILE	EDGE LINE, TYPE 1	
									0.40				0.40	642	00300	0.80	MILE	CENTER LINE, TYPE 1	
									186	80			136	642	00690	402	FEET	TRANSVERSE/DIAGONAL LINE	
		321	960										1281	642	00691	1281	FEET	TRANSVERSE/DIAGONAL LINE, AS PER PLAN	9
													254	646	50100	254	FEET	REMOVAL OF PAVEMENT MARKING	
											0.19		0.19	646	50300	0.19	MILE	REMOVAL OF PAVEMENT MARKING	
									350			328	678	SPECIAL	69098100	678	FEET	MISC.: LONGITUDINAL CHANNELIZER	9
		403											403	SPECIAL	69098100	403	FEET	MISC.: LONGITUDINAL CHANNELIZER REMOVED	8
											LUMP		LUMP	SPECIAL	69098400	LUMP		MISC.: BOLLARD REMOVAL	9
		LUMP											LUMP	614	11001	LUMP		MAINTAINING TRAFFIC, AS PER PLAN	5
													4	619	16010	4	MONTH	FIELD OFFICE, TYPE B	
													LUMP	623	10000	LUMP		CONSTRUCTION LAYOUT STAKES	
													LUMP	624	10000	LUMP		MOBILIZATION	

GENERAL SUMMARY

MEG-33-3.09

CALCULATED
JAMW
CHECKED
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ITEM 202 - PAVEMENT REMOVED

Sta. 153+07.65 to Sta. 169+31.04
Area found graphically = 18891.49 Sq. Ft.
 $18891.49 / 9 = 2099.05$ Sq. Yd.

A total of 2099 Sq. Yd. to be carried to the general summary.

ITEM 452 - 10" NON-REINFORCED CONCRETE PAVEMENT

Sta. 153+07.65 to Sta. 154+69.32, Avg. Width = 9.72'
 $9.72' \times 161.67' / 9 = 174.60$ Sq. Yd.
Sta. 154+69.32 to Sta. 158+63.60, Avg. Width = 18.87'
 $18.87' \times 394.28' / 9 = 826.67$ Sq. Yd.
Sta. 158+63.60 to Sta. 158+93.41, Width = 23.16'
 $23.16' \times 29.81' / 9 = 76.71$ Sq. Yd.
Sta. 158+93.41 to Sta. 159+61.37, Avg. Width = 26.00'
 $26.00' \times 69.78' / 9 = 196.33$ Sq. Yd.
Sta. 159+61.37 to Sta. 160+22.60, Width = 30.00'
 $30' \times 61.23' / 9 = 204.10$ Sq. Yd.
Sta. 160+22.30 to Sta. 164+90.90, Avg. Width = 28.00'
 $28.00' \times 468.30' / 9 = 1456.93$ Sq. Yd.
Sta. 164+90.90 to Sta. 169+31.04, Avg. Width = 26.00'
 $16.00' \times 440.14' / 9 = 782.47$ Sq. Yd.

A total of 3718 Sq. Yd. to be carried to the general summary.

ITEM 304 - AGGREGATE BASE

Sta. 153+07.65 to Sta. 154+69.32, Avg. Width = 10.22'
 $10.22' \times 161.67' \times 6" / 12 / 27 = 30.60$ Cu. Yd.
Sta. 154+69.32 to Sta. 158+63.60, Avg. Width = 19.37'
 $19.37' \times 394.28' \times 6" / 12 / 27 = 141.43$ Cu. Yd.
Sta. 158+63.60 to Sta. 158+93.41, Width = 23.66'
 $23.66' \times 29.81' \times 6" / 12 / 27 = 13.06$ Cu. Yd.
Sta. 158+93.41 to Sta. 159+61.37, Avg. Width = 26.50'
 $26.50' \times 69.78' \times 6" / 12 / 27 = 34.24$ Cu. Yd.
Sta. 159+61.37 to Sta. 160+22.60, Width = 30.50'
 $30.50' \times 61.23' \times 6" / 12 / 27 = 34.58$ Cu. Yd.
Sta. 160+22.60 to Sta. 164+90.90, Avg. Width = 29.00'
 $29.00' \times 468.30' \times 6" / 12 / 27 = 251.49$ Cu. Yd.
Sta. 164+90.90 to Sta. 169+31.04, Avg. Width = 16.50'
 $16.50' \times 440.14' \times 6" / 12 / 27 = 134.49$ Cu. Yd.

A total of 640 Cu. Yd. to be carried to the general summary.

ITEM 204 - SUBGRADE COMPACTION

Sta. 153+07.65 to Sta. 154+69.32, Avg. Width = 11.22'
 $11.22' \times 161.67' / 9 = 201.55$ Sq. Yd.
Sta. 154+69.32 to Sta. 158+63.60, Avg. Width = 20.37'
 $20.37' \times 394.28' / 9 = 892.39$ Sq. Yd.
Sta. 158+63.60 to Sta. 158+93.41, Width = 24.66'
 $24.66' \times 29.81' / 9 = 81.68$ Sq. Yd.
Sta. 158+93.41 to Sta. 159+61.37, Avg. Width = 27.50'
 $27.50' \times 67.96' / 9 = 207.66$ Sq. Yd.
Sta. 159+61.37 to Sta. 160+22.60, Width = 31.50'
 $31.50' \times 61.23' / 9 = 214.31$ Sq. Yd.
Sta. 160+22.60 to Sta. 164+90.90, Avg. Width = 31.00'
 $31.00' \times 468.30' / 9 = 1613.03$ Sq. Yd.
Sta. 164+90.90 to Sta. 169+31.04, Avg. Width = 17.50'
 $17.50' \times 440.14' / 9 = 855.83$ Sq. Yd.

A total of 4066 Sq. Yd. to be carried to the general summary.

ITEM 618 - RUMBLE STRIPS, CONCRETE

Sta. 154+75.94 to Sta. 169+31.04, Edge
 $1455.10' / 5280 = 0.28$ Miles
Sta. 160+22.84 to Sta. 169+31.04, Center
 $908.20' / 5280 = 0.17$ Miles
A total of 0.45 Miles to be carried to the general summary.

ITEM 659 - LIME

Seeding area to be used: 6805 Sq. Yd.
 $6805 \times 9 / 43560 = 1.41$ Acres

A total of 1.41 Acres to be carried to the general summary.

ITEM 659 - COMMERCIAL FERTILIZER

Rate of application to be 20 lbs / 1000 Sq. Ft.

Seeding area to be used: 6805 Sq. Yd.
 $6805 \times 9 \times 20 / 1000 / 2000 = 0.61$ Ton

A total of 0.61 Ton to be carried to the general summary.

ITEM 659 - WATER

Rate of application to be 300 Gal / 1000 Sq. Ft.

Seeding area to be used: 6805 Sq. Yd.
 $6805 \times 9 \times 300 / 1000 / 1000 = 18.4$ MGal

A total of 19 MGal to be carried to the general summary.

ITEM 621 - RAISED PAVEMENT MARKER REMOVED

Sta. 153+07.65 to Sta. 163+68.88
 $1061.23' / 80' = 13.27$ Each
 $14 + 1 = 15$ Each

A total of 15 Each to be carried to the general summary.

ITEM 620 - DELINEATOR REMOVED AND REERECTED, AS PER PLAN

Delineators to be reerected at 200' spacing.

Sta. 153+07.65 to Sta. 169+31.04
 $1623.39' / 200' = 8.11$ Each
 $9 + 1 = 10$ Each

A total of 10 Each to be carried to the general summary.

ITEM SPECIAL, MISC. - LONGITUDINAL CHANNELIZER REMOVAL

Sta. 159+54.81 to Sta. 163+57.92
Length = 403.11 Feet

This item shall include the removal of all longitudinal channelizer items and bollards.

A total of 403 Feet to be carried to the general summary.

ITEM 642 - TRANSVERSE/DIAGONAL LINE, AS PER PLAN

TRANSVERSE MARKINGS TO BE REPAINTED FOR LENGTH OF GORE AREA, FROM STA. 163+77.77 TO STA. 174+68.52. PAINTING DETAILS TO CONFORM WITH SPACING GIVEN IN STANDARD DRAWING TC-71.10, AS SHOWN IN THE TYPICAL ISLAND DETAIL TO SPACE TRANSVERSE/DIAGONAL LINES. SINCE ORIGINAL PAVEMENT MARKINGS MAY BE AT METRIC SPACING, CONFORM AS CLOSELY AS POSSIBLE TO TC-71.10 SPACING WHILE APPLYING PROPOSED MARKINGS OVER EXISTING MARKINGS.

STA. 163+77.77 TO STA. 170+01.77
48' SPACING
 $624' / 48' = 13$ SPACES
 $13 \times 17' = 221'$

STA. 170+01.77 TO STA. 173+85.77
48' SPACING
 $384' / 48' = 8$ SPACES
AVG. LENGTH = 10.5'
 $8 \times 10.5' = 84'$

STA. 173+85.77 TO STA. 174+33.77
2 LINES AT 24' SPACING
AVG. LENGTH = 5'
 $2 \times 5' = 10'$

STA. 174+33.77 TO STA. 174+69.77
3 LINES AT 12' SPACING
AVG. LENGTH = 2'
 $3 \times 2' = 6'$

TOTAL TO GENERAL SUMMARY = 321 FEET

ITEM SPECIAL - MISC.: LONGITUDINAL CHANNELIZER

SUPPLY AND INSTALL A LONGITUDINAL CHANNELIZER IN THE LOCATIONS SHOWN IN THE PLANS. USE ONLY DEVICES LISTED ON THE DEPARTMENT'S APPROVED PRODUCTS LIST FOR LONGITUDINAL CHANNELIZERS, CATEGORY II. INSTALL AS PER THE MANUFACTURER'S INSTRUCTIONS (PROVIDE THE ENGINEER WITH A COPY.).

RUMBLE STRIPES SHALL BE INSTALLED PRIOR TO INSTALLATION OF LONGITUDINAL CHANNELIZER TO ALLOW REQUIRED 34" LATERAL CLEARANCE FOR INSTALLATION OF RUMBLE STRIPES.

THE DEPARTMENT WILL MEASURE LONGITUDINAL CHANNELIZERS BY THE NUMBER OF LINEAR FEET INSTALLED, MEASURED FROM END TO END. PAYMENT SHALL INCLUDE THE PRICE OF ALL UPRIGHTS, REFLECTORS, AND HARDWARE NECESSARY TO INSTALL AND DELINEATE THE CHANNELIZER.

SUPPLY YELLOW CHANNELIZERS, REFLECTIVE SHEETING AND REFLECTORS.

ITEM SPECIAL - MISC.: BOLLARD REMOVAL

THIS ITEM SHALL INCLUDE THE REMOVAL OF ALL BOLLARDS.

ITEM 642 - TRANSVERSE/DIAGONAL LINE, AS PER PLAN

TRANSVERSE MARKINGS TO BE REPAINTED FOR LENGTH OF GORE AREA, FROM STA. 666+00 TO STA. 696+15.38. PAINTING DETAILS TO CONFORM WITH SPACING GIVEN IN STANDARD DRAWING TC-71.10, AS SHOWN IN THE TYPICAL ISLAND DETAIL TO SPACE TRANSVERSE/DIAGONAL LINES.

STA. 666+00 TO STA. 666+48
3 LINES AT 12' SPACING
AVG. LENGTH = 2'
 $3 \times 2' = 6'$

STA. 666+48 TO STA. 666+96
2 LINES AT 24' SPACING
AVG. LENGTH = 5'
 $2 \times 5' = 10'$

STA. 666+96 TO STA. 676+30
48' SPACING
 $934' / 48' = 19.45$ SPACES
AVG. LENGTH = 11.5'
 $20 \times 11.5' = 230'$

STA. 676+30 TO STA. 696+15.38
48' SPACING
 $1985.38' / 48' = 41.36$ SPACES
 $42 \times 17' = 714'$

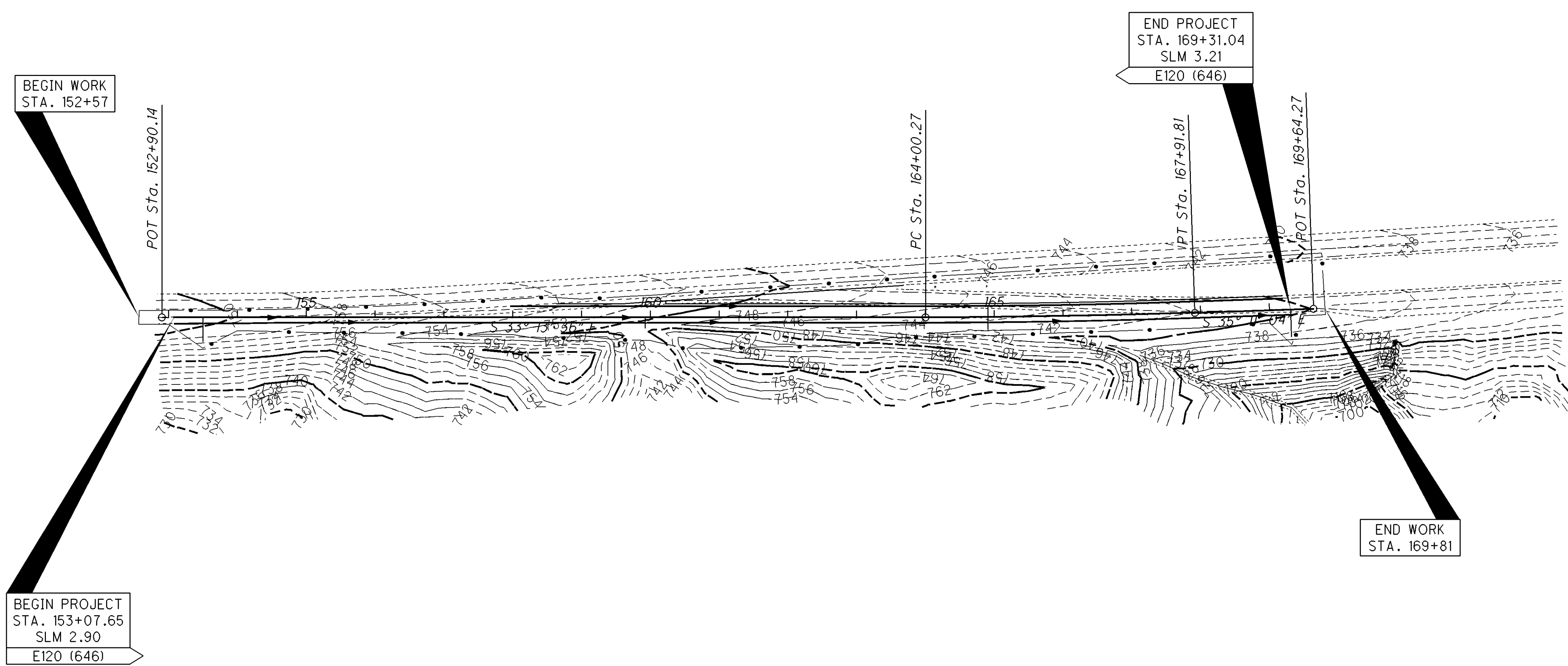
TOTAL TO GENERAL SUMMARY = 960 FEET

I:\project\MEG-33-3.09\dgn\14.15 Five Points\Five Points notes.dgn 12-FEB-2013 12:35PM jmorriso

CALCULATED
JAMW
CHECKED
SWL

NOTES AND CALCULATIONS - 14.15

MEG-33-3.09



PROJECT DATA	
Total Area (Right of Way)	2.82 Acres
Project Earth Disturbed Area:	1.60 Acres
Estimated Contractor Earth Disturbed Area:	0.20 Acres
Notice of Intent Earth Disturbed Area:	4.9 Acres
Impervious (Paved) Area For Pre-Construction Site:	1.01 Acres
Impervious (Paved) Area For Post Construction Site:	1.32 Acres
Runoff Coefficient for Pre-Construction Site	0.78
Runoff Coefficient for Post Construction Site	0.74
Soil and Water Conservation Map	Meigs Map 14
Immediate Receiving Waters	Unnamed Trib. of West Branch Shade River
Subsequent Receiving Waters	West Branch Shade River

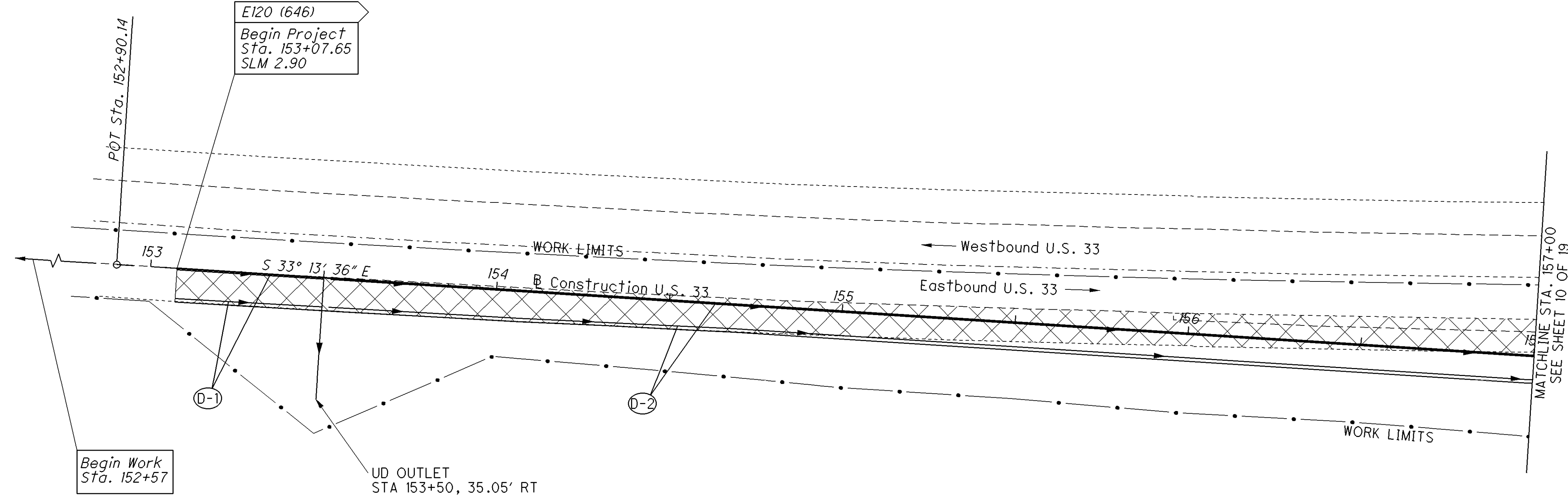
NOTE

- 1.) USGS QUADRANT No. N3907.5-W8200/7.5 SHADE, OHIO
- 2.) LATITUDE AND LONGITUDE TO THE APPROXIMATE CENTER OF PROJECT.
LATITUDE: 39°09'06" LONGITUDE: 82°02'49"

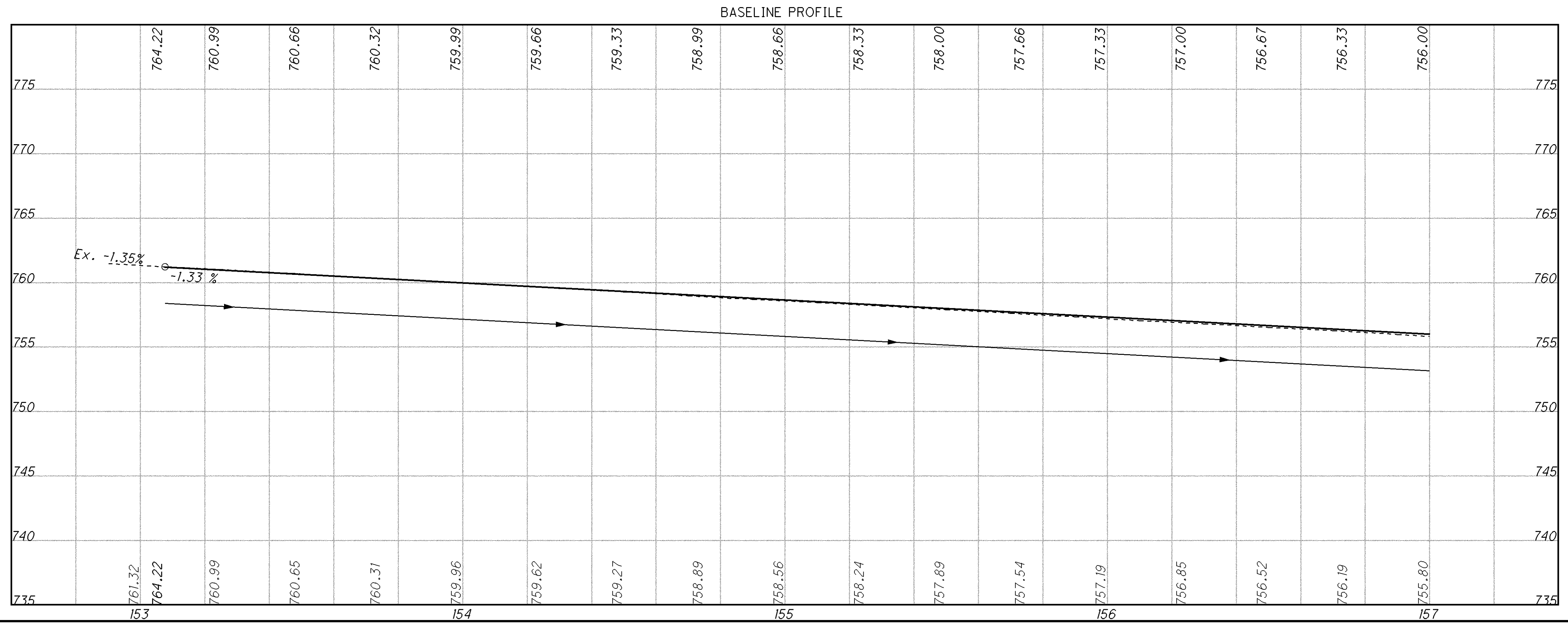
PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF IMPROVING TWO LANE TO FOUR LANE TRANSITION AREAS AT MEG-33-3.09. WORK AT MEG-33-3.09 INCLUDES PAVEMENT WIDENING, MINOR ROADWAY RELOCATION AND TRAFFIC CONTROL MEASURES WITH A LENGTH OF 1724'.

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LEGEND
 - Pavement Removed

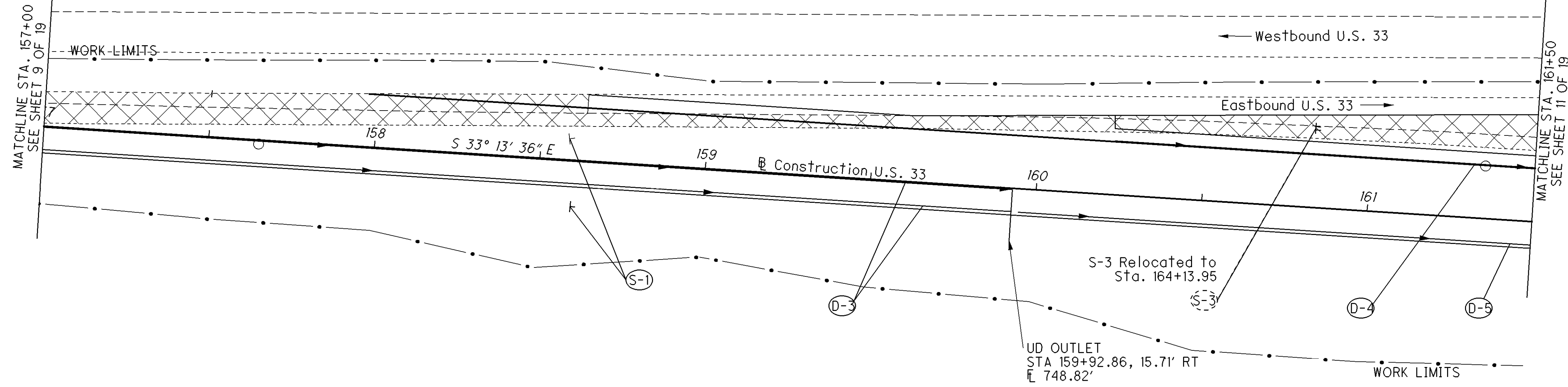


REF NO.	STATION		SIDE	ITEM	QUANTITY	UNIT	TOTALS CARRIED TO GENERAL SUMMARY		
	FROM	TO					STATION	QUANTITY	
D-1	153+07.65	153+50	R	4" Conduit, Type F	35	Ft	35		
D-2	153+52	157+00	R	Precast Reinforced Concrete Outlet	1	Each	1		
				4" Basepipe Underdrain	85	Ft	85		
					696				
TOTALS CARRIED TO GENERAL SUMMARY								781	

CALCULATED
 JAMM
 CHECKED
 SWL

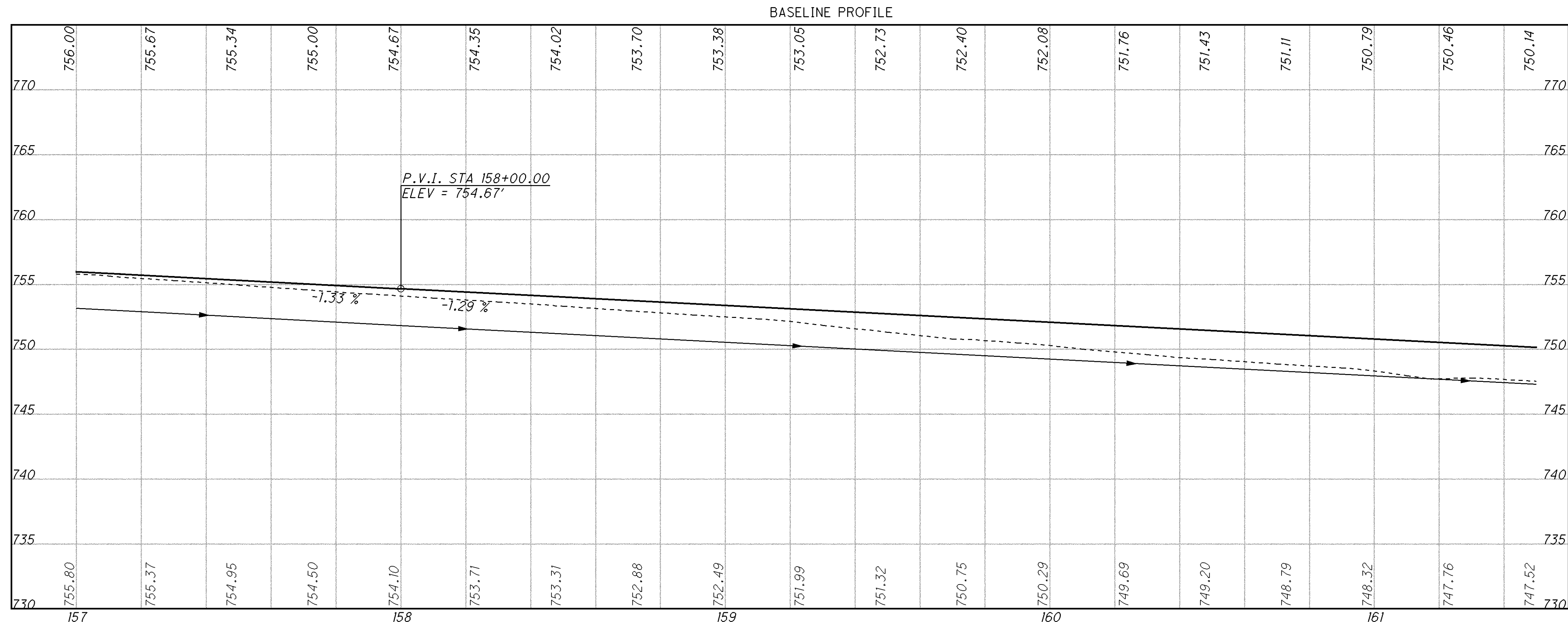
HORIZONTAL SCALE IN FEET

PLAN AND PROFILE - 3.09

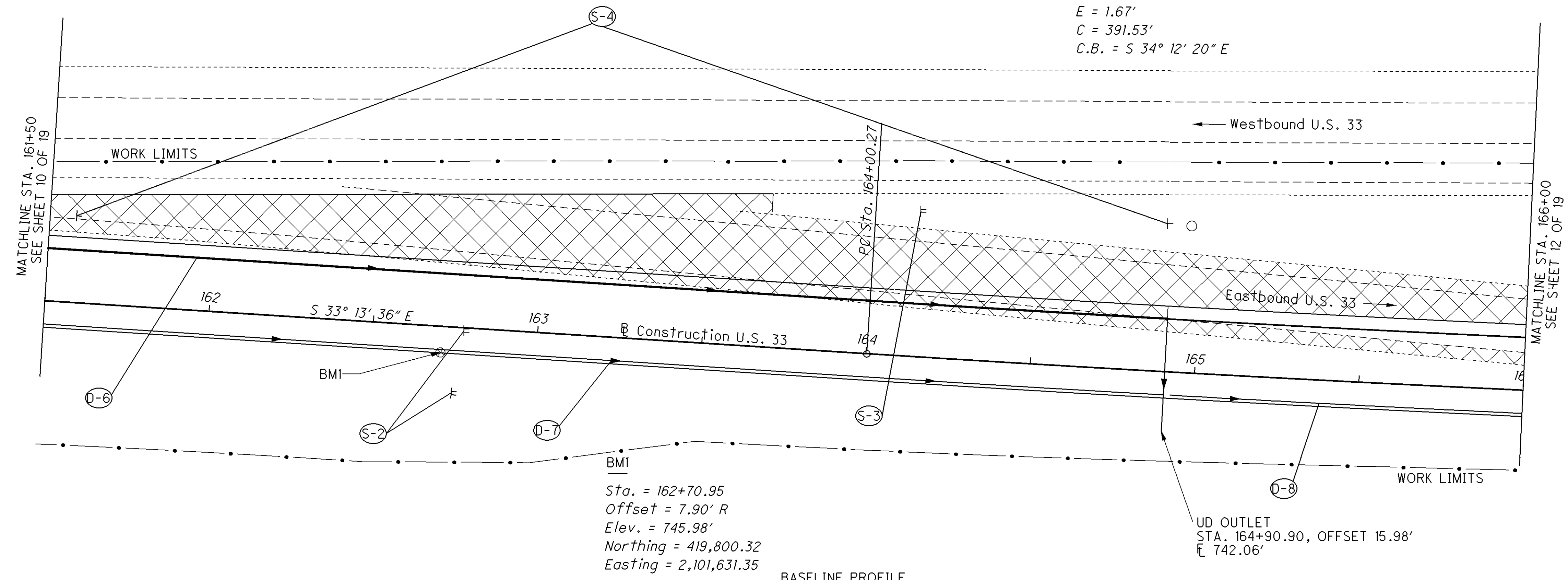


LEGEND
 - Pavement Removed

BM2
 Sta. = 160+83.00
 Offset = 96.59' L
 Elev. = 747.37'
 Northing = 420,014.80
 Easting = 2,101,615.77

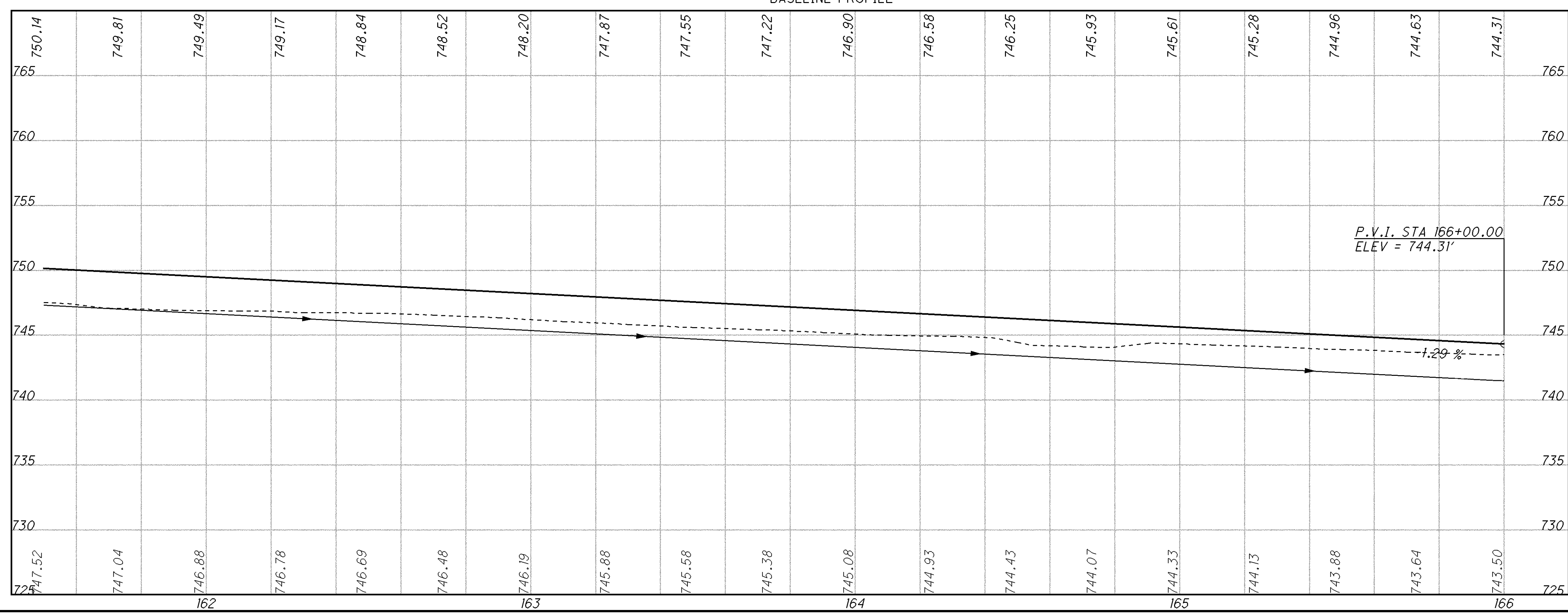


REF NO.	STATION		SIDE	DESCRIPTION	UNIT	QUANTITY	TOTALS CARRIED TO GENERAL SUMMARY		
	FROM	TO							
S-1	158+60	158+60	R&L	Removal of Ground Mounted Sign & Rereaction	Each	1	1		
D-3	157+00	159+92.86	R	Removal of Ground Mounted Sign & Support & Rereaction	Each	1			
D-4	160+22.68	161+50	L	4" Conduit, Type F	Ft	16	16		
D-5	159+95	161+50	R	Precast Reinforced Concrete Outlet	Each	1	1		
				4" Basepipe Underdrain	Ft	586		869	
						128			
						155			
TOTALS CARRIED TO GENERAL SUMMARY									

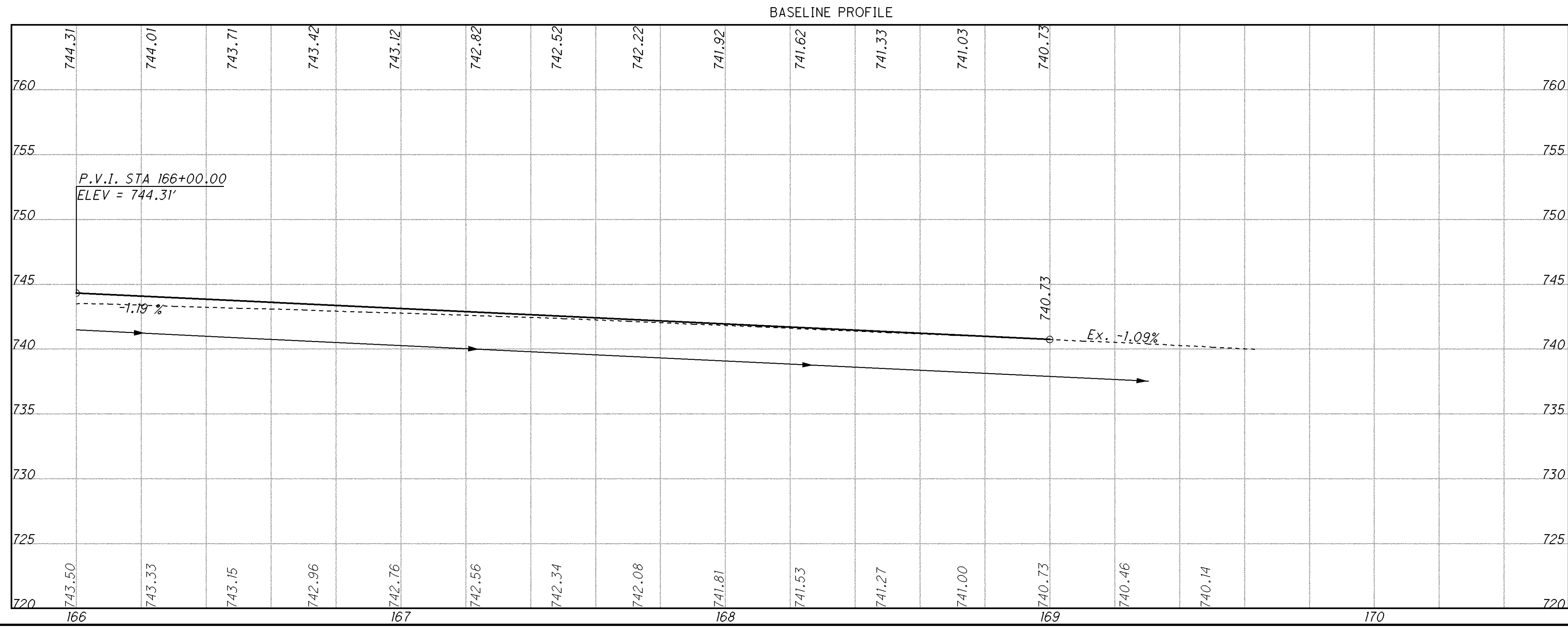
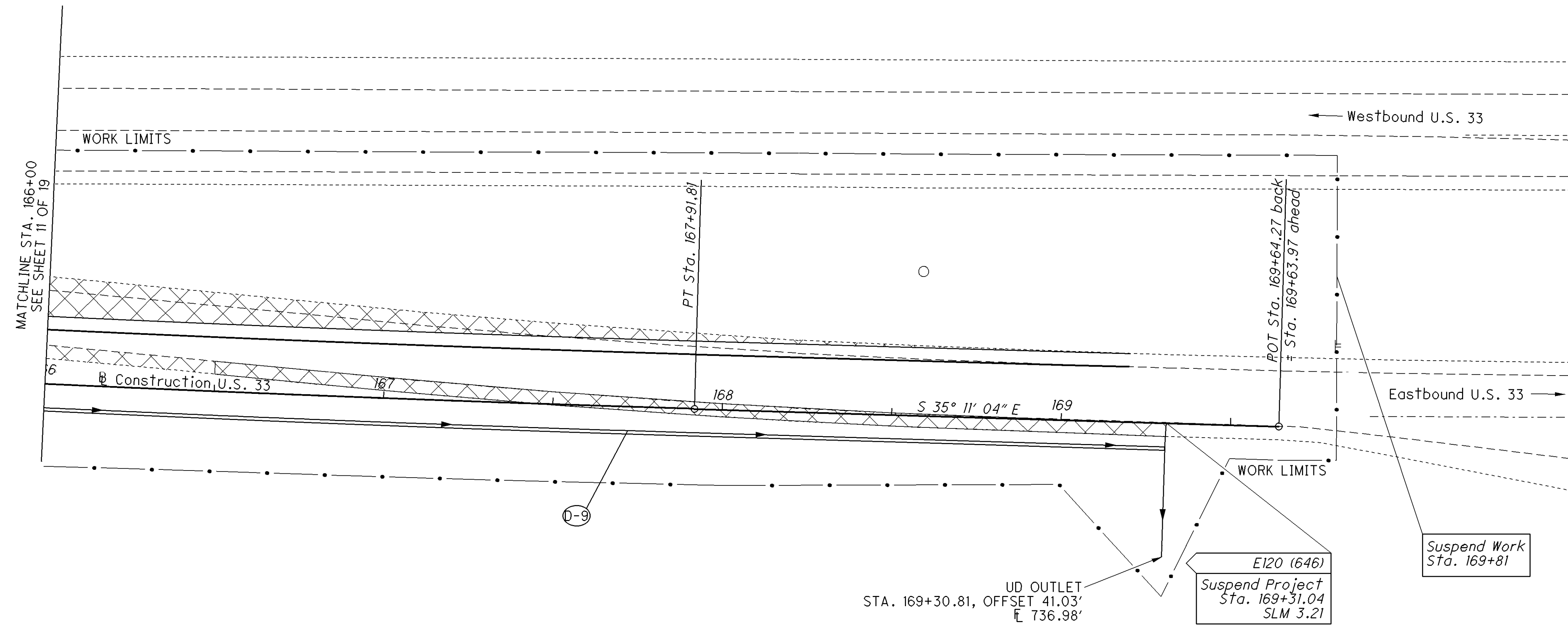


CURVE DATA
 P.I. Sta. 165+96.06
 $\Delta = 1^\circ 57' 28''$ (LT)
 $D_c = 0^\circ 30' 00''$
 $R = 11,459.00'$
 $T = 195.79'$
 $L = 391.54'$
 $E = 1.67'$
 $C = 391.53'$
 $C.B. = S 34^\circ 12' 20'' E$

LEGEND
 - Pavement Removed

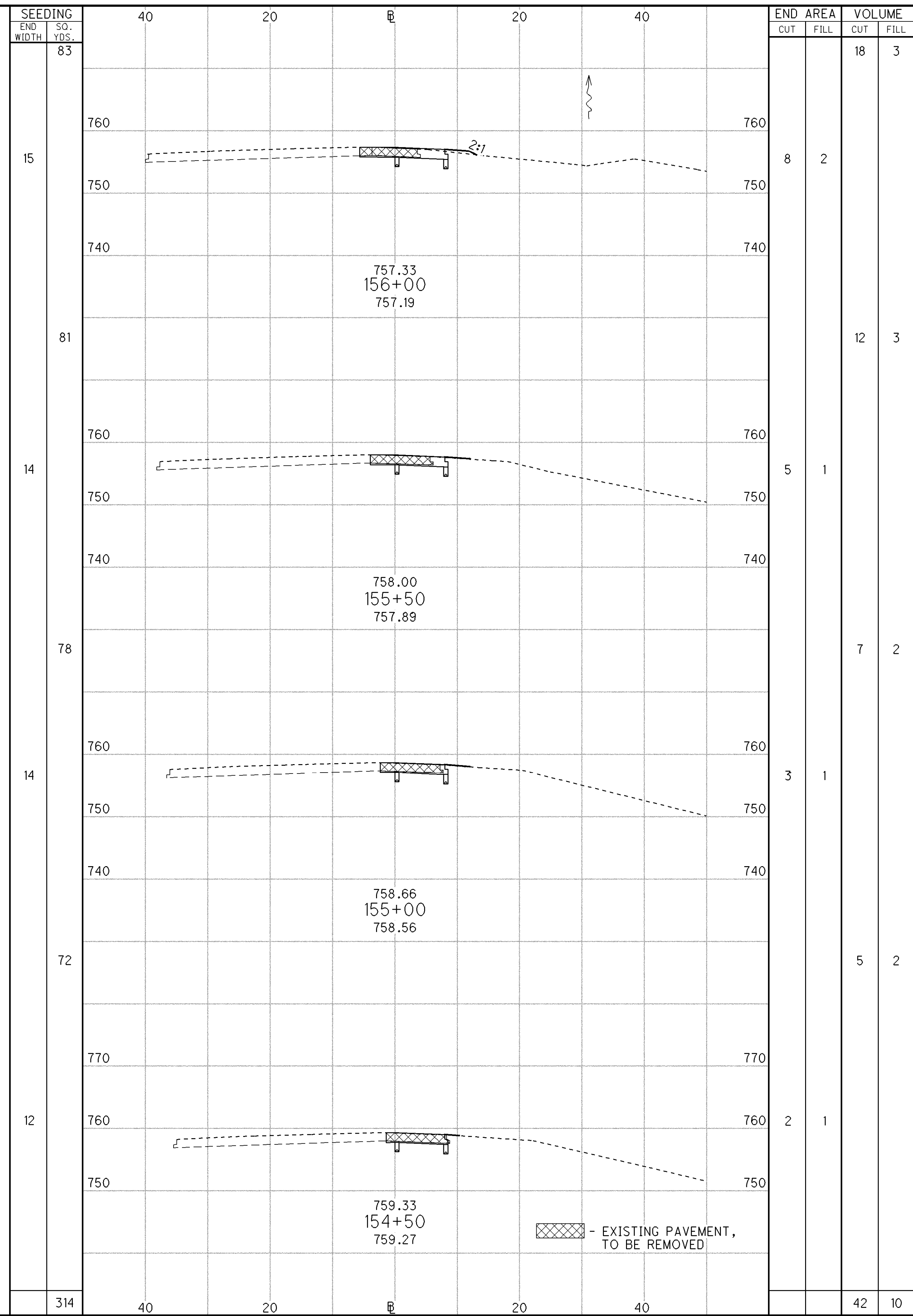
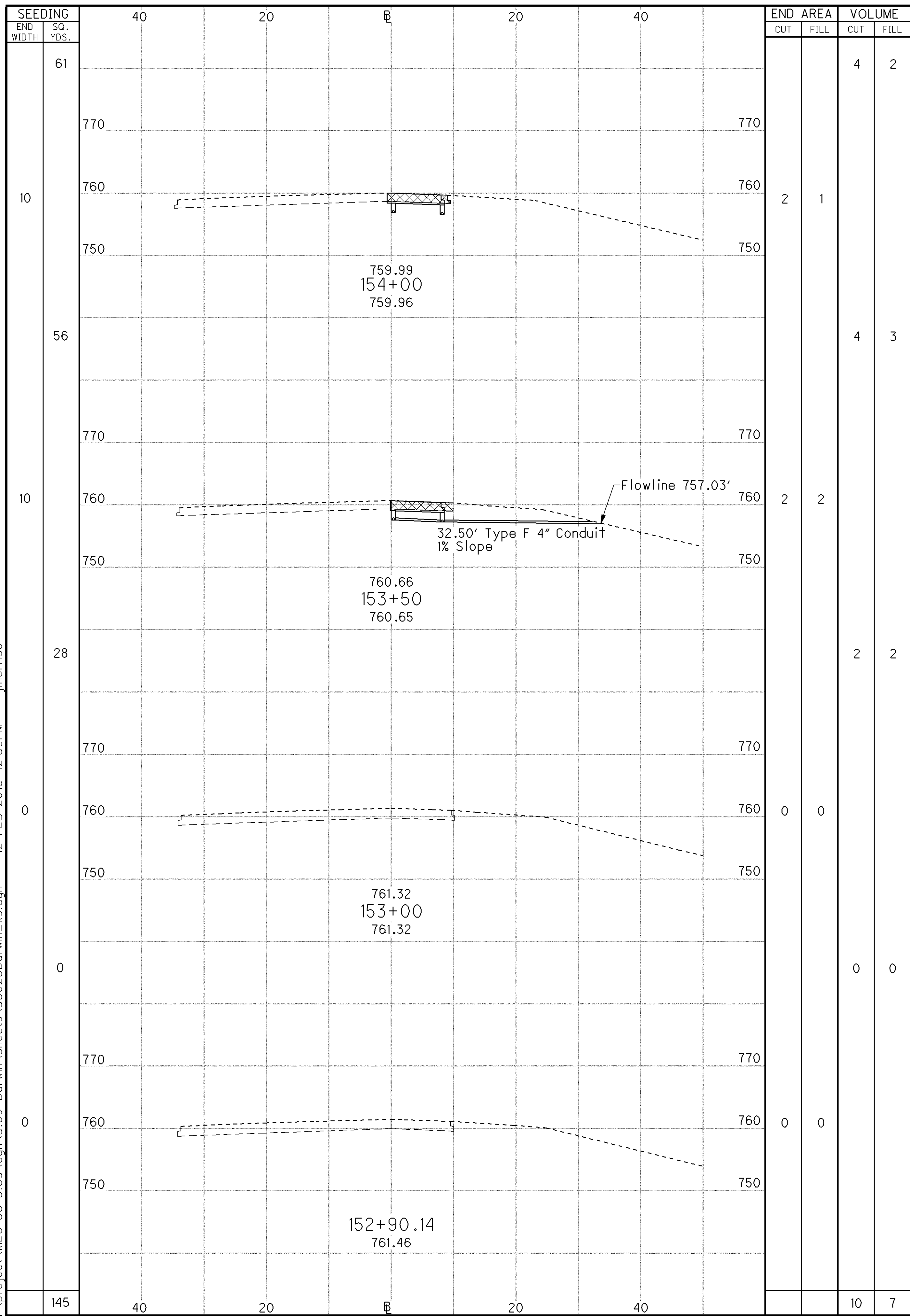


REF NO.	STATION		SIDE	DESCRIPTION	QUANTITY	UNIT
	FROM	TO				
S-2	162+75	164+13.95	R	Removal of Structural Beams Support & Reflection	2	Each
S-3	164+13.95	161+58	L	Removal of Major Sign & Rerection	1	Each
S-4	161+58	164+90.90	L	Removal of Ground Mounted Sign & Support	2	Each
D-6	161+50	164+90.90	L	Removal of Structural Beams Support & Reflection	1	Each
D-7	161+50	164+90.90	R	Removal of Structural Beams Support & Reflection	1	Each
D-8	164+93	166+00	R	Removal of Structural Beams Support & Reflection	1	Each
TOTALS CARRIED TO GENERAL SUMMARY						



REF NO.	STATION		SIDE	ITEM	UNIT	QUANTITY	TOTALS CARRIED TO GENERAL SUMMARY		
	FROM	TO					STATION	QUANTITY	
D-9	166+00	169+31.04	R	4" Conduit, Type F	FT	33	33		
				Precast Reinforced Concrete Outlet	Each	1	1		
				4" Basepipe Underdrain	FT	331	331		
TOTALS CARRIED TO GENERAL SUMMARY							33	1	331

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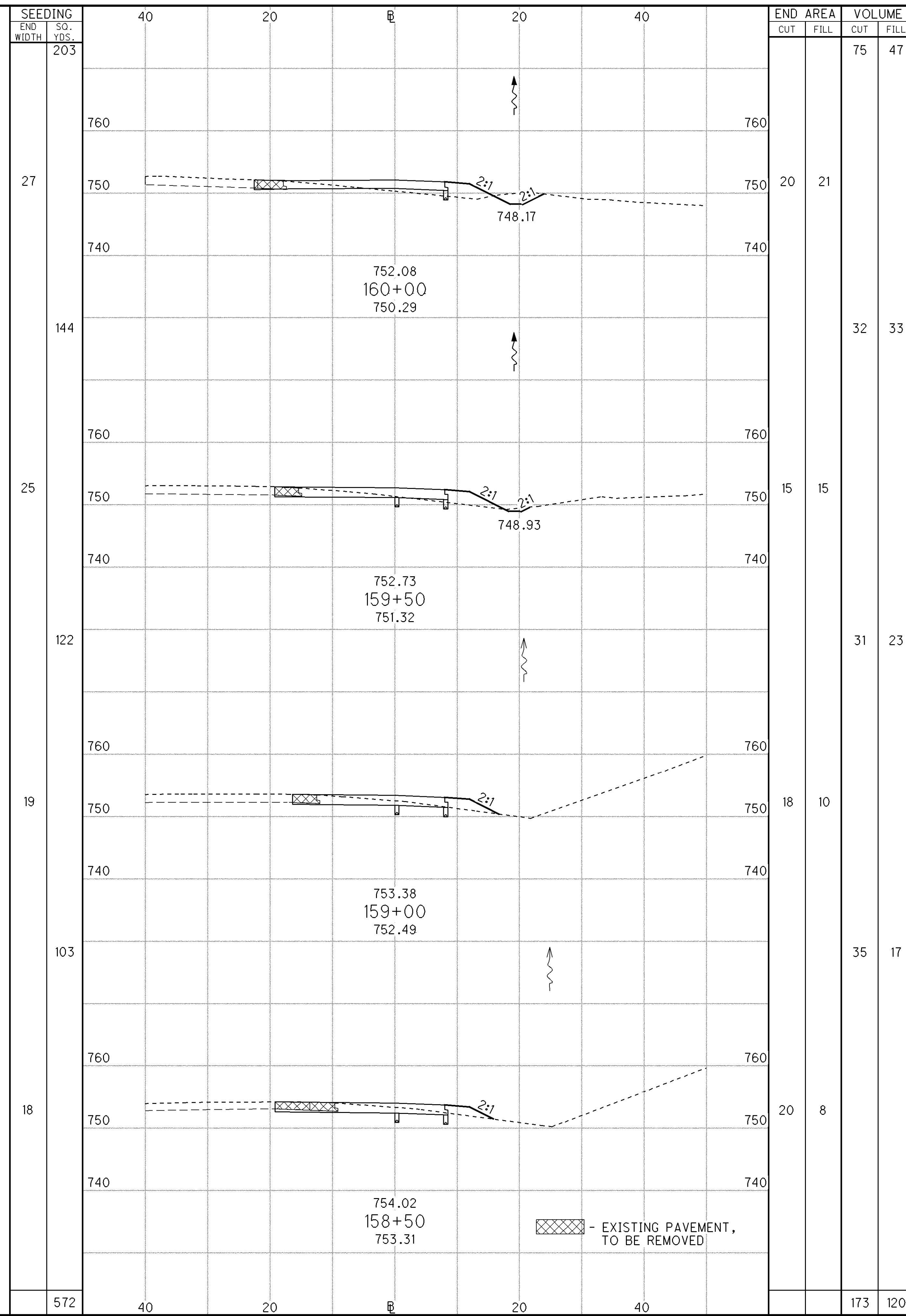
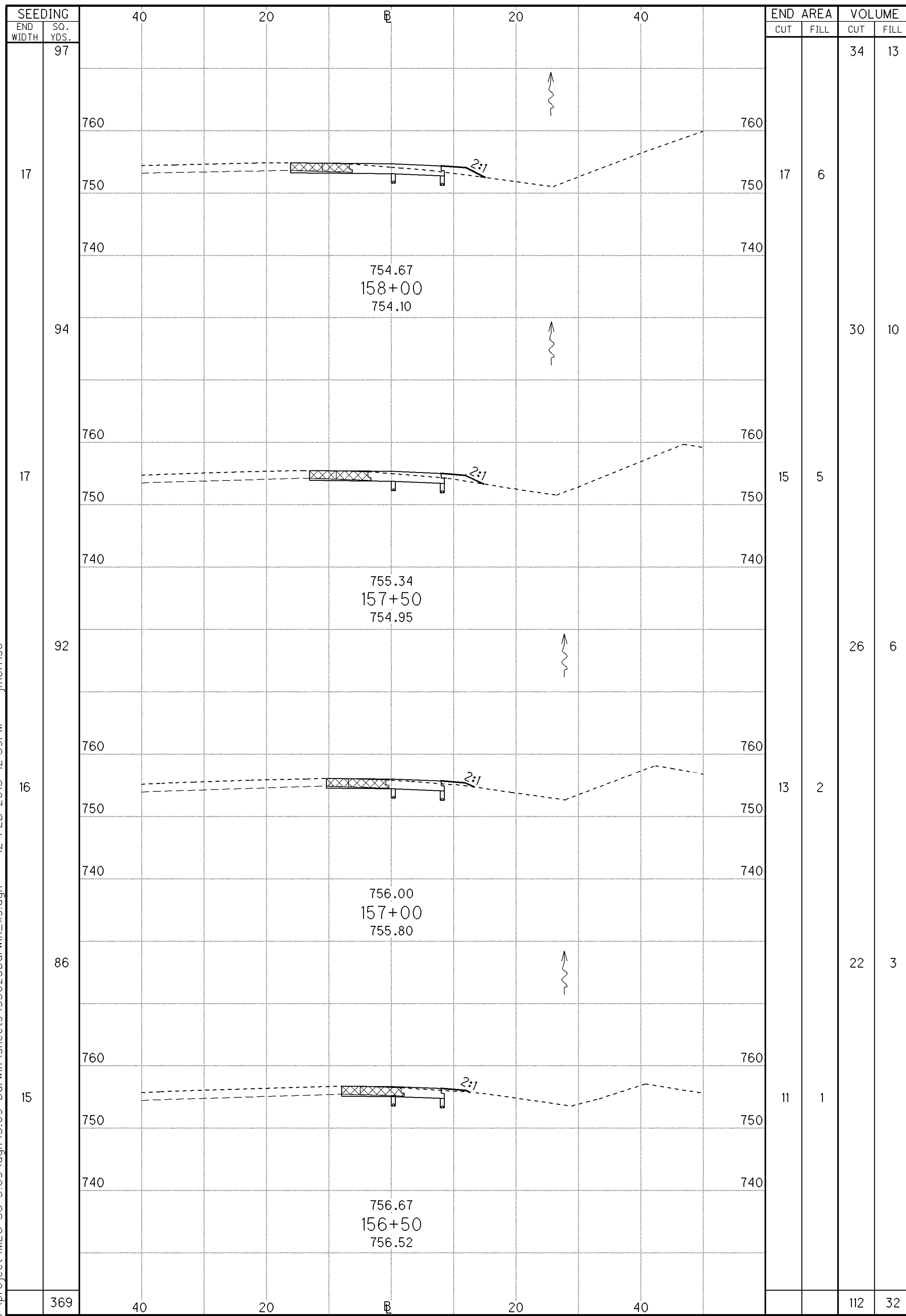
**CROSS SECTIONS
STA. 152+90.14 TO STA. 156+00**

MEG-33-3.09

15
25

EXISTING PAVEMENT, TO BE REMOVED

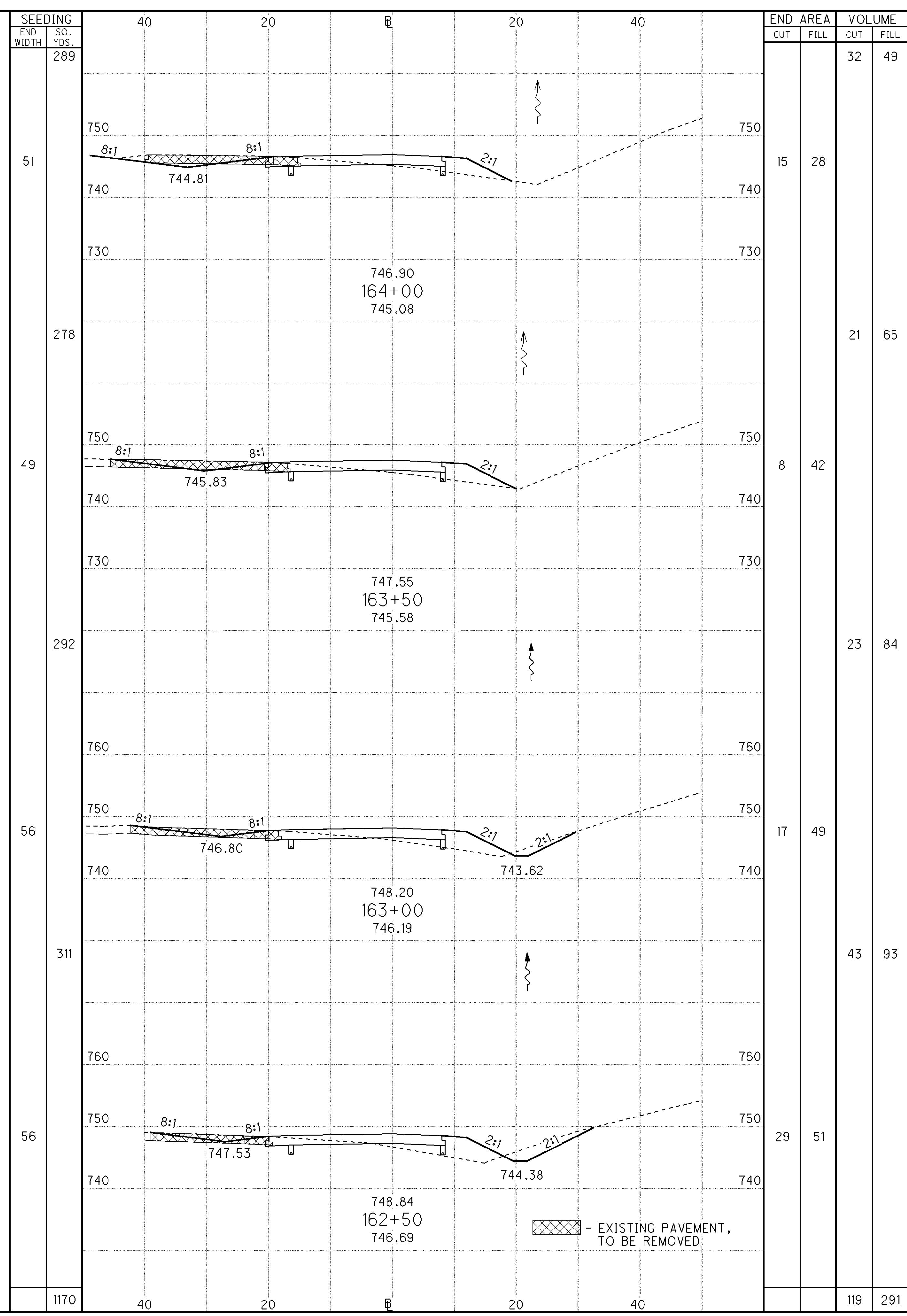
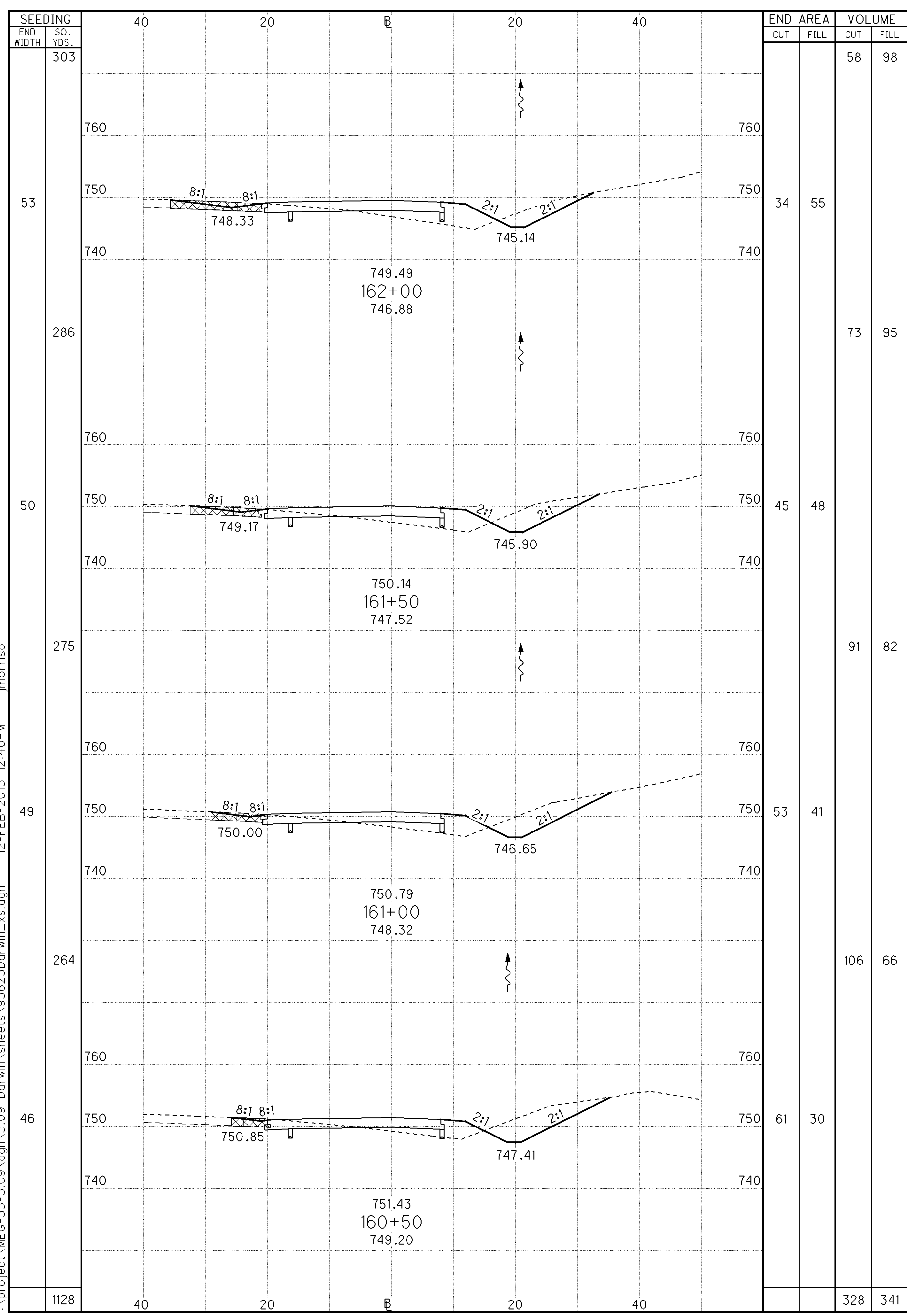
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**CROSS SECTIONS
STA. 156+50 TO STA. 160+00**

MEG-33-3.09

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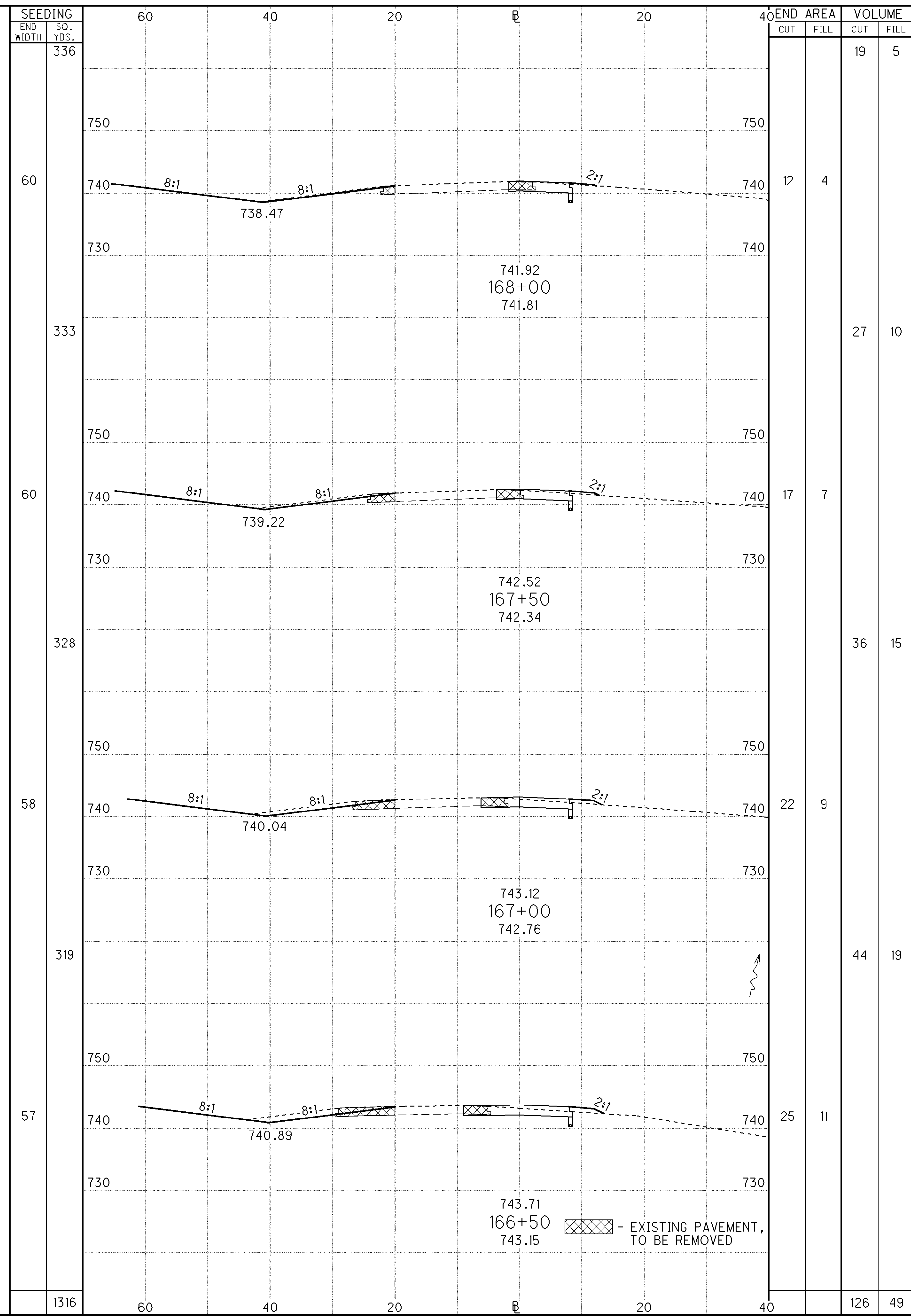
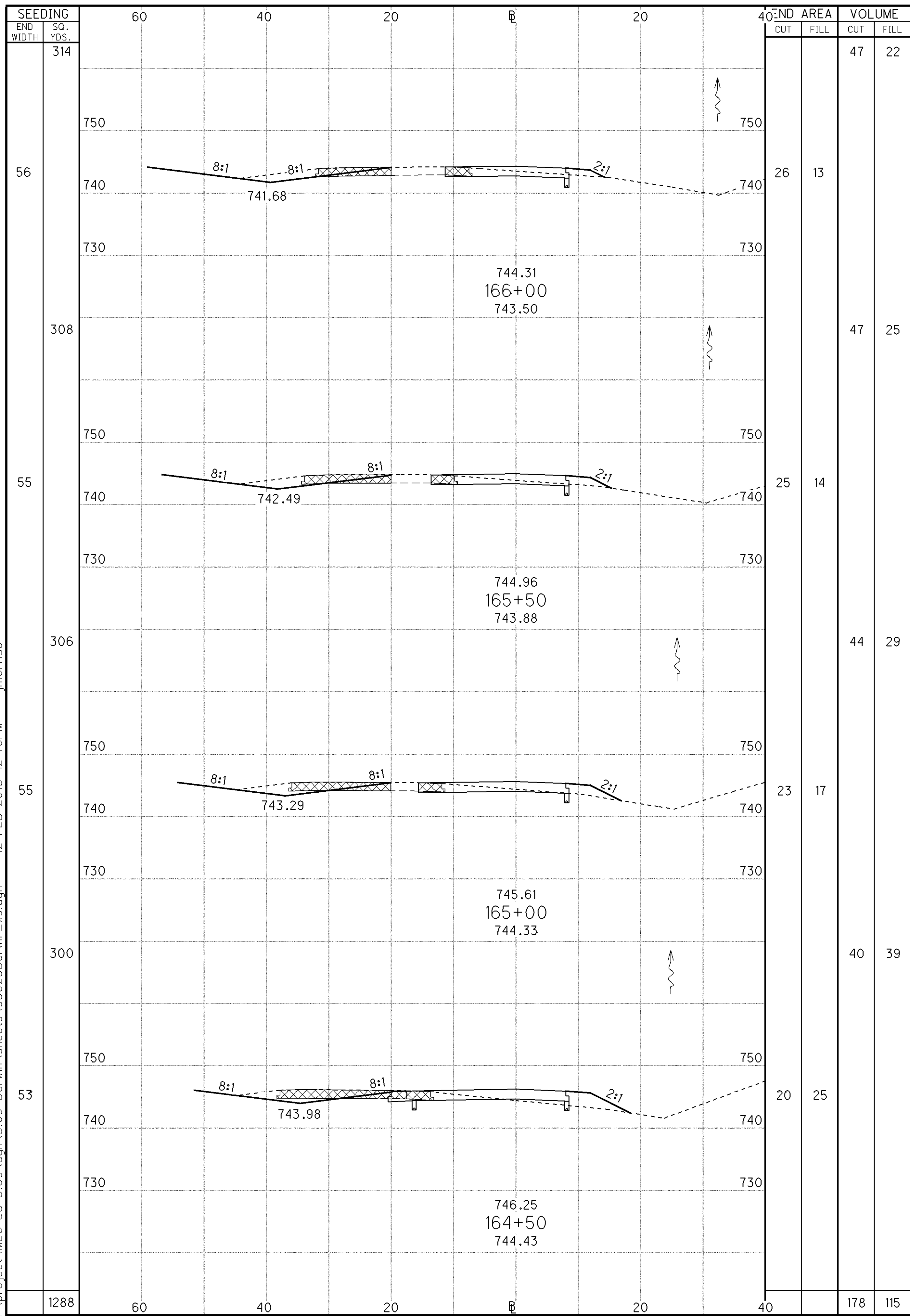


**CROSS SECTIONS
STA. 160+50 TO STA. 164+00**

MEG-33-3.09

CALCULATED
JAMW
CHECKED
SWL

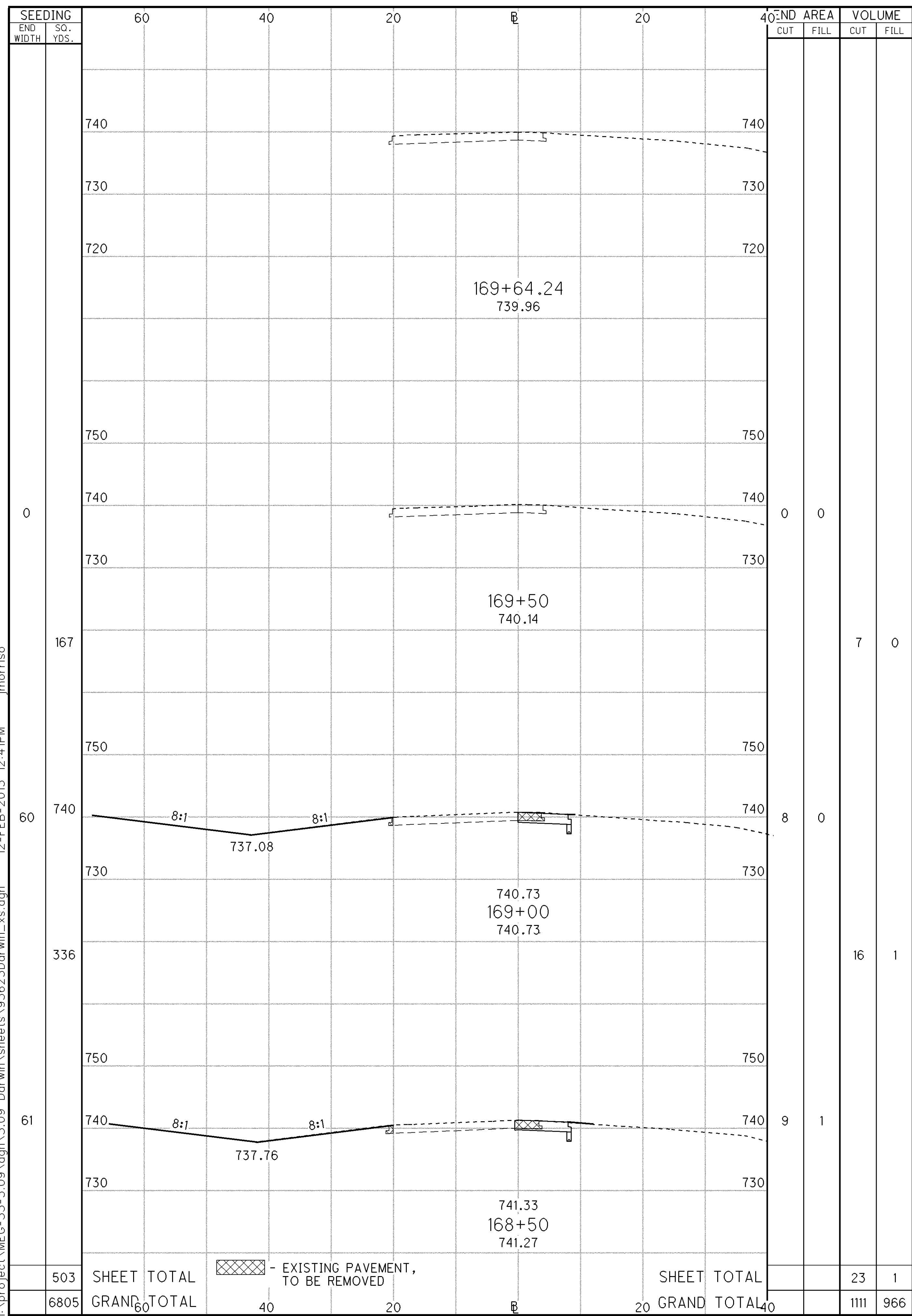
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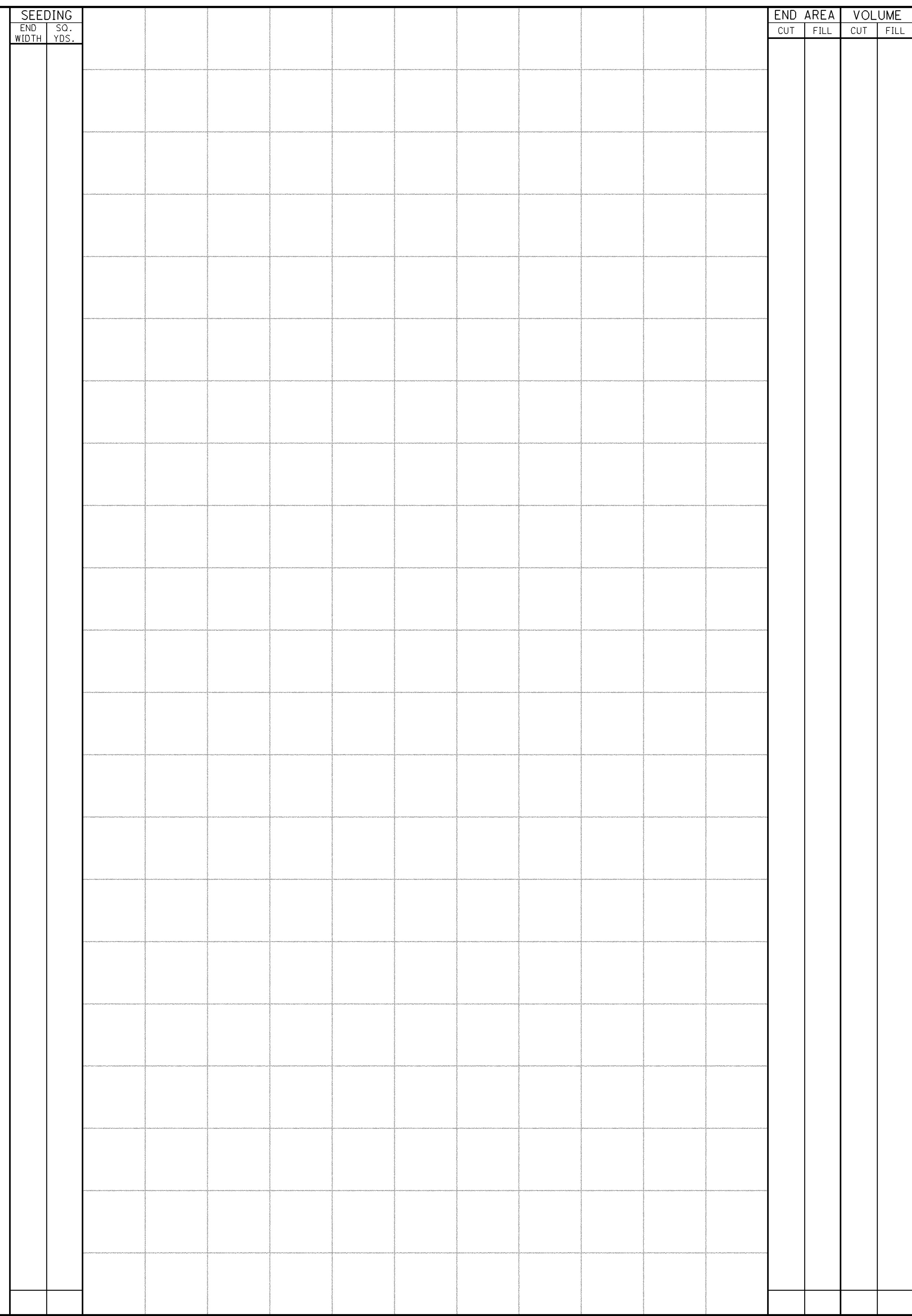
**CROSS SECTIONS
STA. 164+50 TO STA. 168+00**

MEG-33-3.09

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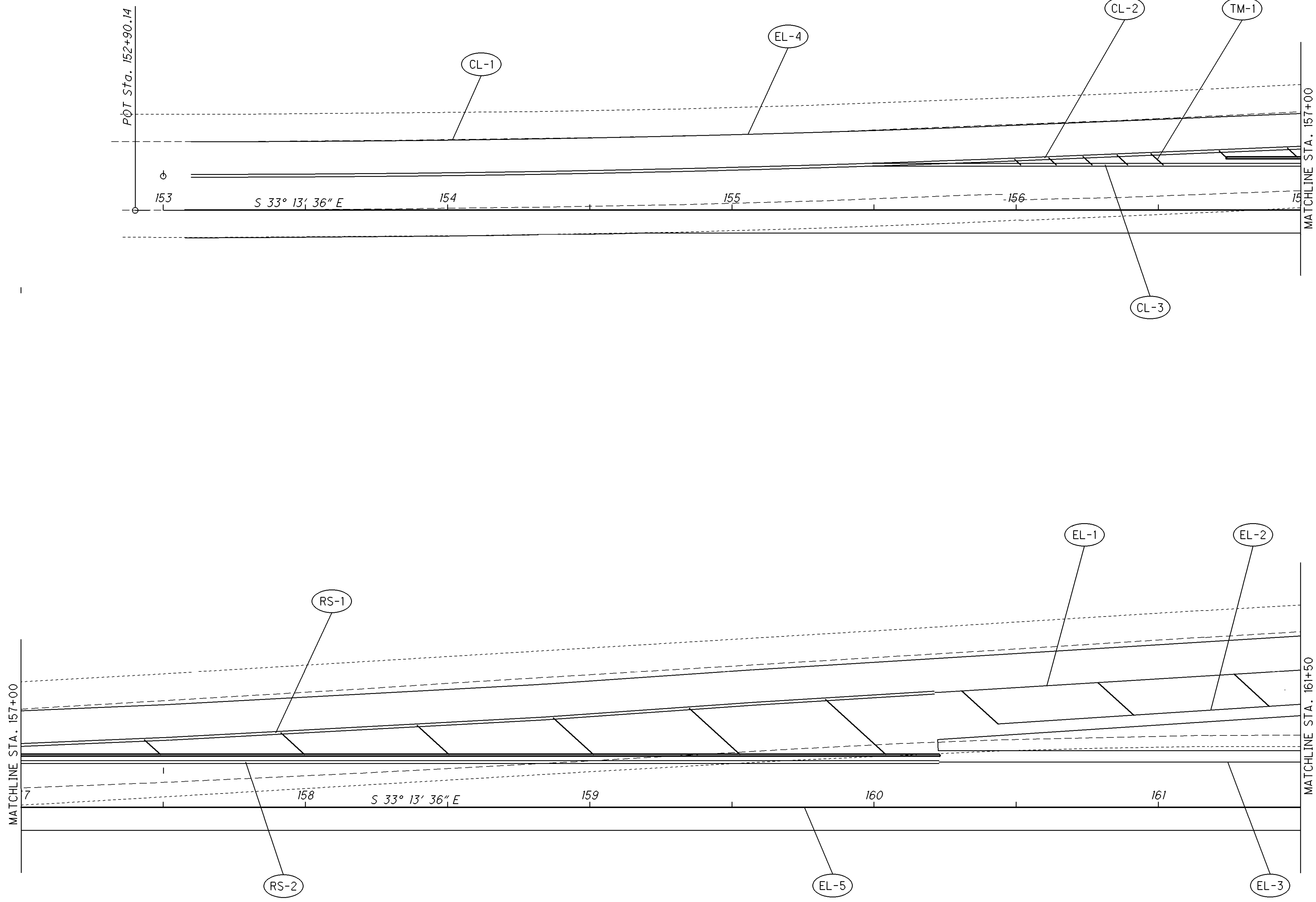
EXISTING PAVEMENT, TO BE REMOVED



STATION	SEEDING		END AREA		VOLUME	
	END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL
168+50	60	40	20	20	741.33	741.27
169+00	60	40	740.73	740.73	169+00	740.73
169+50	60	40	730	740	740.14	740.14
169+64.24	60	40	730	740	739.96	739.96
SHEET TOTAL	503				23	1
GRAND TOTAL	6805				1111	966

**CROSS SECTIONS
STA. 168+50 TO STA. 169+64.24**

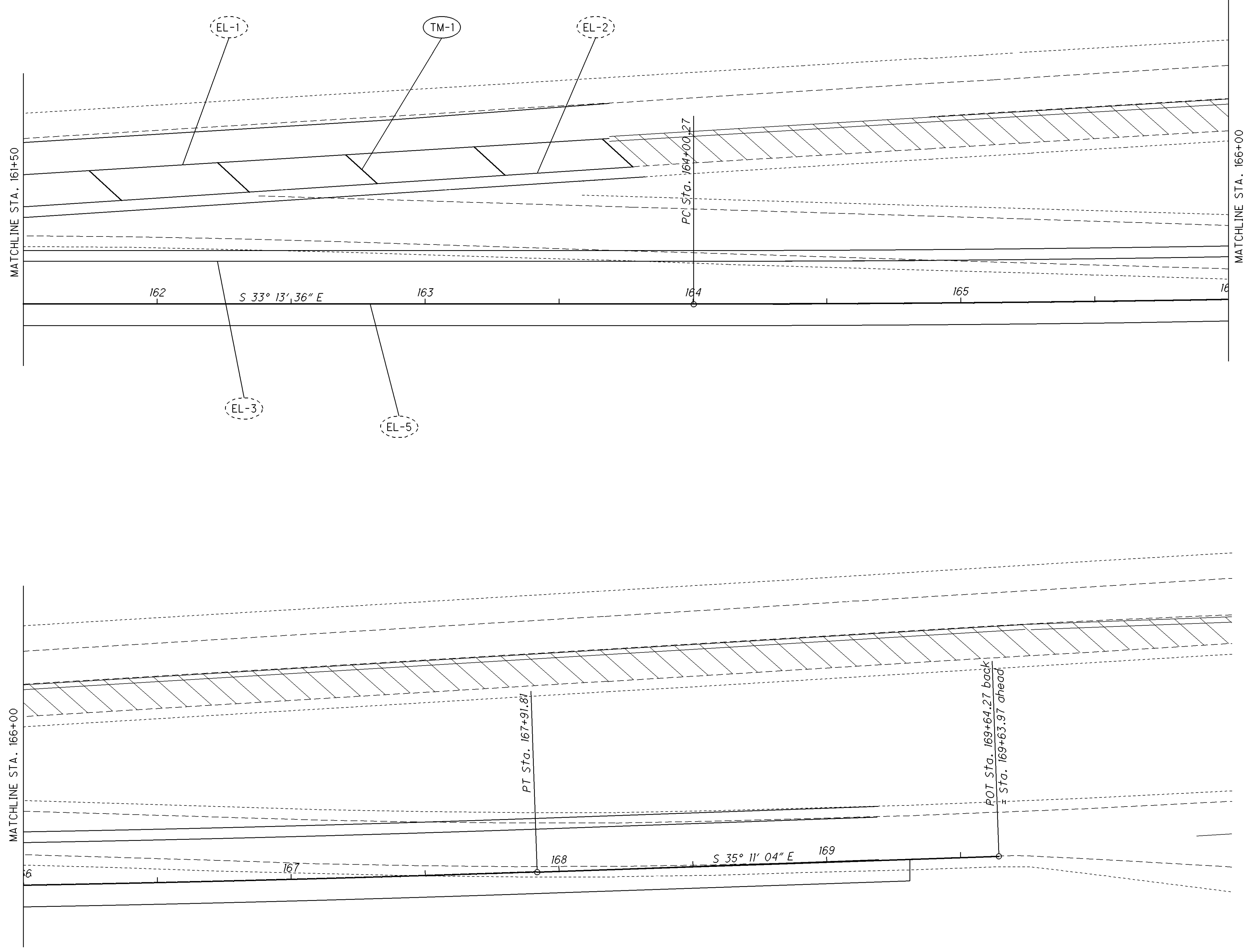
MEG-33-3.09



REF NO.	STATION		SIDE												
	FROM	TO		642	642	642	642	642	642	642	690	618	621		
CL-1	152+42.65	155+47.22	L	0.06											
CL-2	155+47.22	160+22.84	L	0.17											
CL-3	155+47.22	160+22.84	L	0.17											
EL-1	160+22.84	163+68.88	L		0.07										
EL-2	160+43.75	163+77.77	L		0.06										
EL-3	160+22.84	169+19.52	L		0.17										
EL-4	152+42.65	163+68.88	L			0.21									
EL-5	152+42.65	169+19.55	R			0.32									
RS-1	155+76.36	160+22.84	L								0.08				
RS-2	155+76.36	160+22.84	L								0.08				
TM-1	155+99.60	161+69.19	L				1.86								
LC-1	156+73.93	160+22.84	L						350						
TOTALS CARRIED TO GENERAL SUMMARY				0.40	0.30	0.53	1.86	0.16	350	24					

CALCULATED 0
 JAMW
 CHECKED TC

0 20 40
 HORIZONTAL SCALE IN FEET

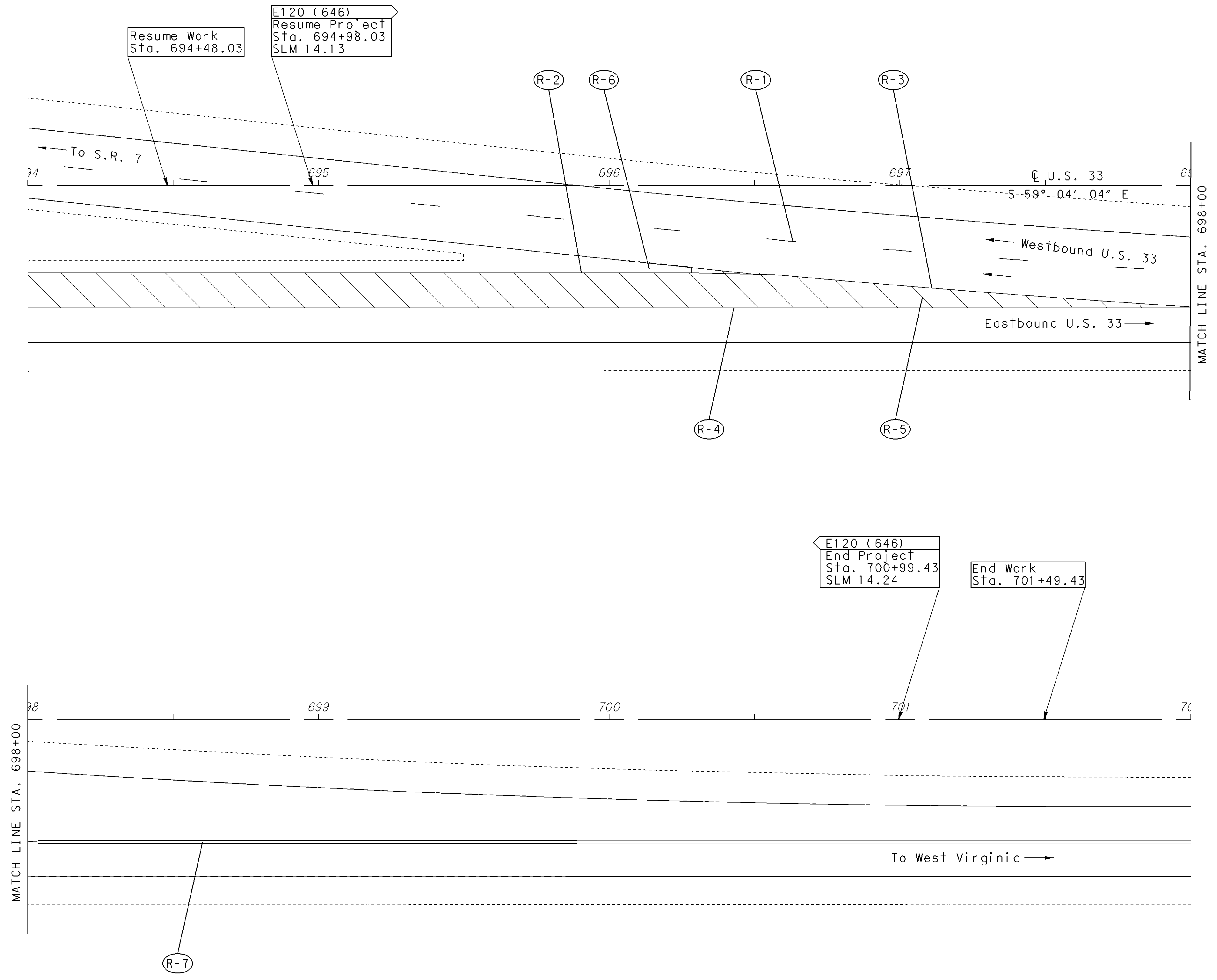


REF NO.	STATION		SIDE	TRANSVERSE / DIAGONAL LINE	FT
	FROM	TO			
TM-2	161+74.72	163+77.77	L		80
TOTALS CARRIED TO GENERAL SUMMARY					80

CALCULATED
 JAMM
 CHECKED
 TC

0 20 40
 HORIZONTAL
 SCALE IN FEET

TRAFFIC CONTROL - 3.09



* See Sheet 9 for notes and details

REF NO.	STATION		SIDE	646		646		SPECIAL		621	
	FROM	TO		REMOVAL OF PAVEMENT MARKINGS	REMOVAL OF PAVEMENT MARKINGS	REMOVAL OF PAVEMENT MARKINGS	REMOVAL OF PAVEMENT MARKINGS	RAISED PAVEMENT MARKER REMOVED	RAISED PAVEMENT MARKER REMOVED	RAISED PAVEMENT MARKER REMOVED	RAISED PAVEMENT MARKER REMOVED
R-1	694+99.02	698+04.13	R	0.06				LUMP		EACH	
R-2	695+31.38	696+49.23	R	0.02				LUMP		5	
R-3	694+98.03	698+03.35	R	0.06				LUMP		5	
R-4	695+43.38	698+03.35	R	0.05				LUMP		5	
R-5	695+43.38	697+83.38	R		254			LUMP			
R-6	695+49.82	696+28.40	R					LUMP		5	
R-7	698+03.35	700+99.43									
TOTALS CARRIED TO GENERAL SUMMARY				0.19	254			LUMP		20	

CALCULATED
JAMW
CHECKED
SWL

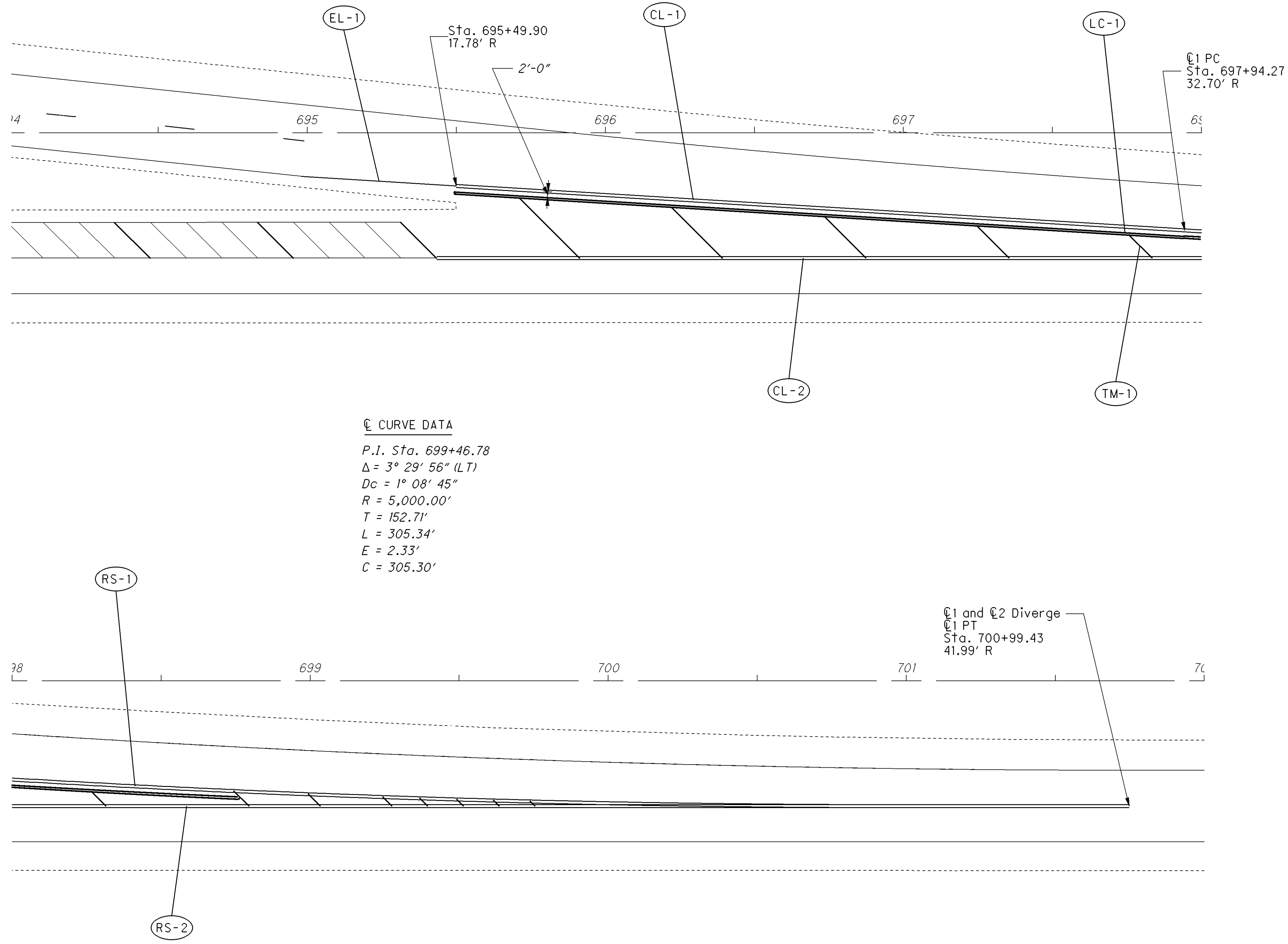
0 20 40
HORIZONTAL SCALE IN FEET

PLAN VIEW - REMOVAL 14.15

MEG-33-3.09

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* See sheet 8 for notes and details



☺ CURVE DATA

P.I. Sta. 699+46.78
 $\Delta = 3^\circ 29' 56'' \text{ (LT)}$
 $Dc = 1^\circ 08' 45''$
 $R = 5,000.00'$
 $T = 152.71'$
 $L = 305.34'$
 $E = 2.33'$
 $C = 305.30'$

REF NO.	STATION		SIDE	642		642		642		642		642		642		642		642		642		642	
	FROM	TO		CENTER LINE, TYPE 1	EDGE LINE, TYPE 1	TRANSVERSE/DIAGONAL LINE	SPECIAL-MISC: LONG CHANNEL -1ZER	EDGE LINE RUMBLE STRIPE	RAISED PAVEMENT MARKER (YELLOW/YELLOW)	642	642	642	642	642	642	642	642	642	642	642	642	642	642
CL-1	695+49.90	700+99.43	R	0.20																			
CL-2	695+43.38	700+99.43	R	0.20																			
EL-1	694+98.03	695+49.90	R		0.01																		
TM-1	695+70.76	699+75.38	R			136																	
LC-1	695+49.90	698+75.88	R				328																
RS-1	695+49.90	700+67.71	R																				
RS-2	695+49.90	700+67.71	R																				
TOTALS CARRIED TO GENERAL SUMMARY				0.40	0.01	136	328	0.20	16														

23
25

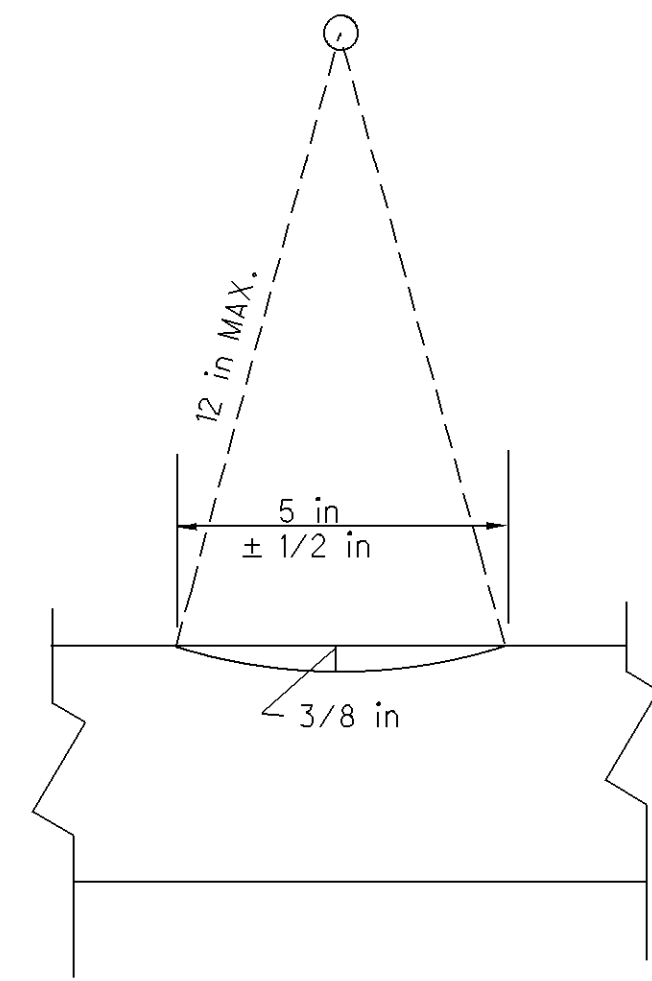
MEG-33-3.09

PLAN VIEW - PROPOSED 14.15

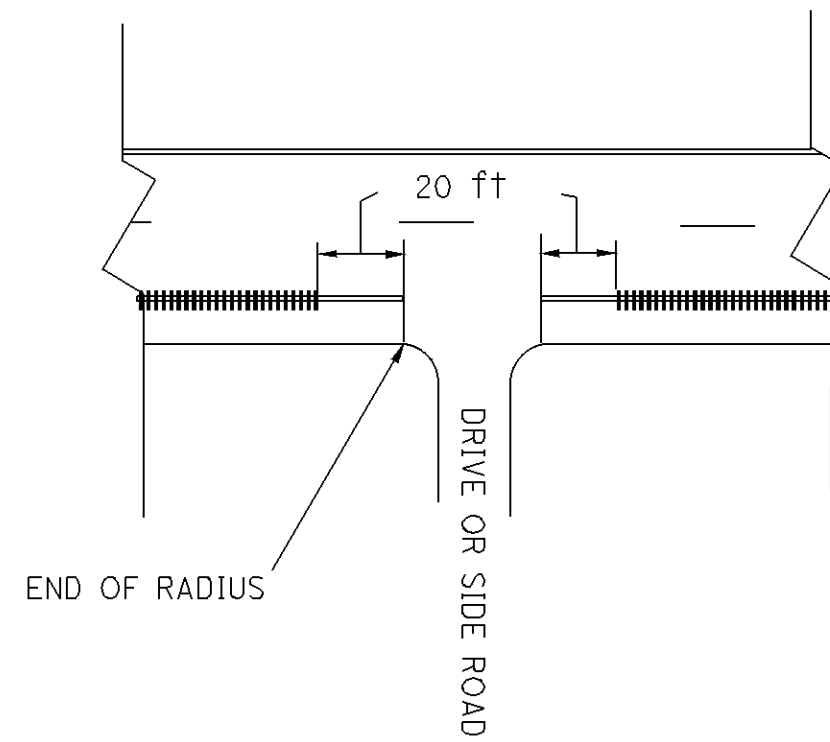
CALCULATED
 JAMW
 CHECKED
 SWL

HORIZONTAL SCALE IN FEET

I:\project\MEG-33-3.09\dgn\33623 Rumble Stripe PIS.dgn 12-FEB-2013 12:50PM jmorriso



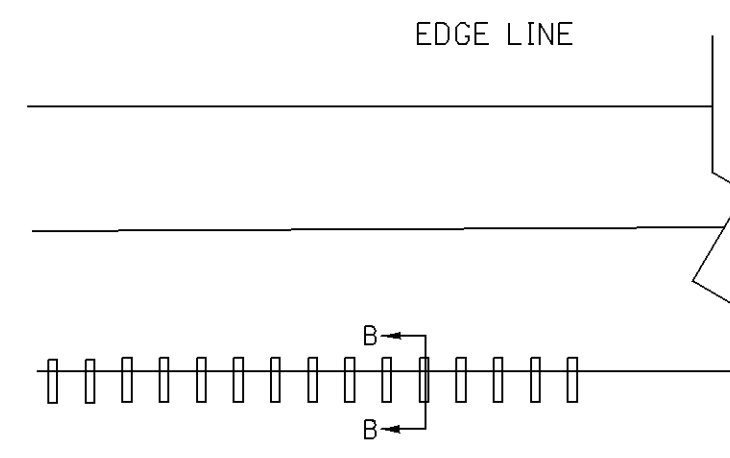
PROFILE



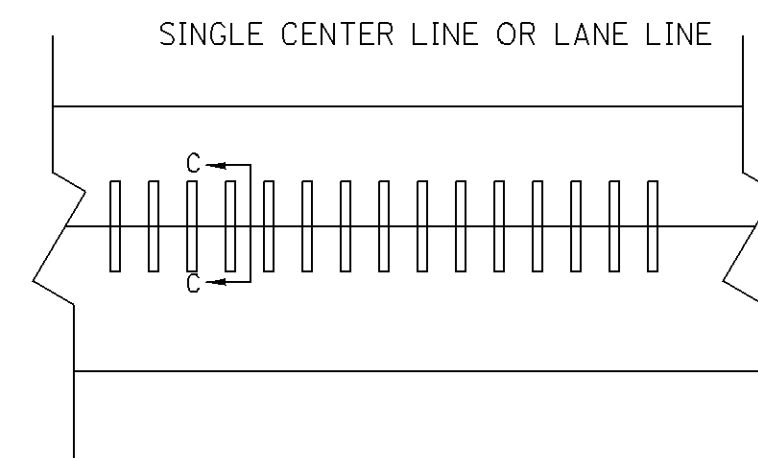
SIDE ROAD AND DRIVE RUMBLE STRIPE INSTALLATION DETAILS

NOTES

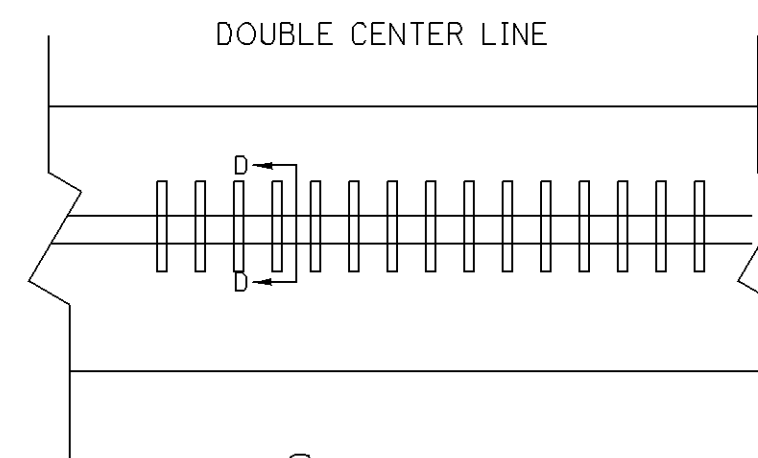
1. Rumble stripes shall be interrupted for driveways and intersections.
2. Rumble stripes shall be paid for in accordance with Item 618.
3. Rumble stripes shall be installed on a 62 foot cycle, i.e. 50 feet rumble stripes followed by a 12 foot gap.
4. Apply final pavement markings after rumble stripes are completed.
5. Location of the construction joint shall be verified in the field.



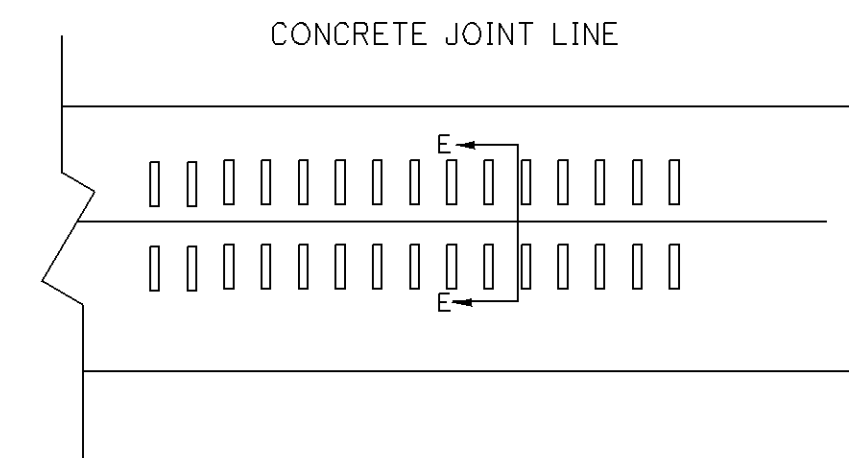
EDGE LINE



SINGLE CENTER LINE OR LANE LINE

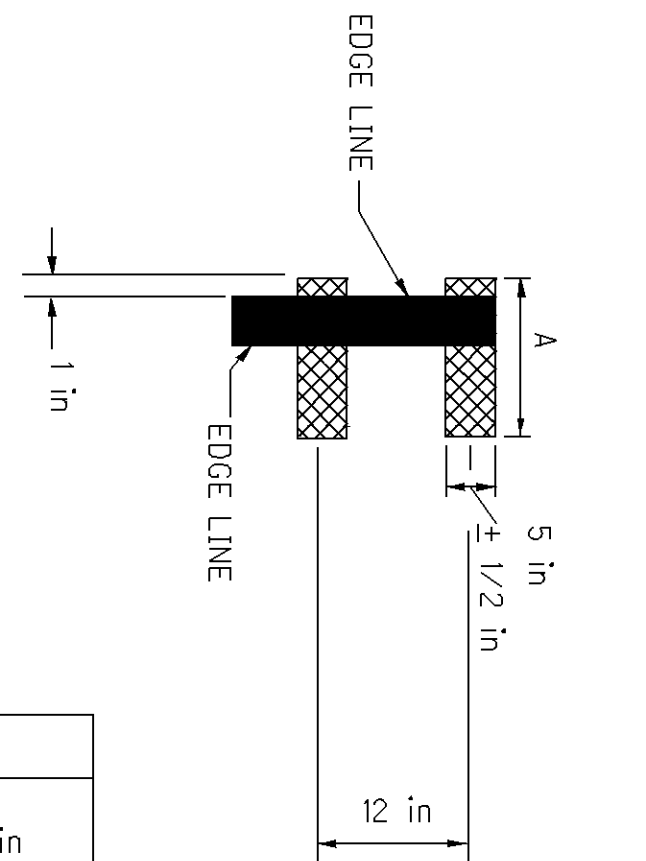


DOUBLE CENTER LINE

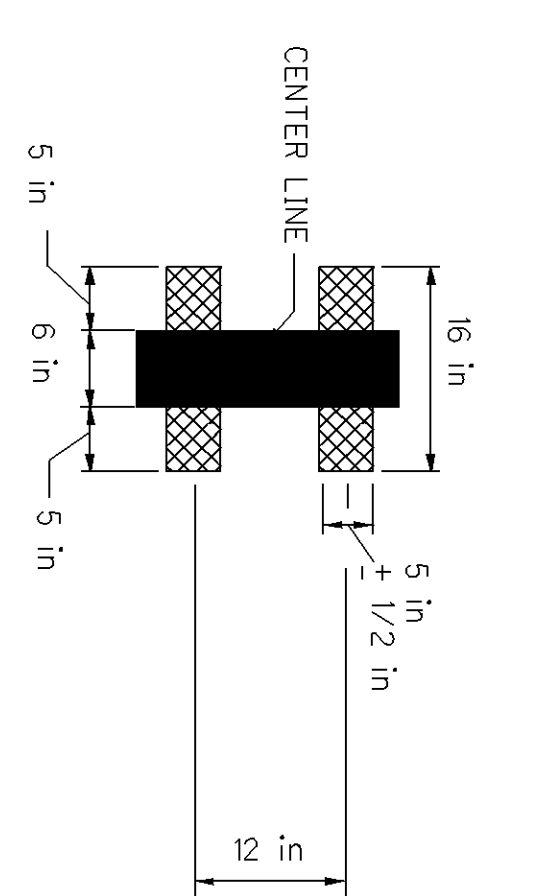


CONCRETE JOINT LINE

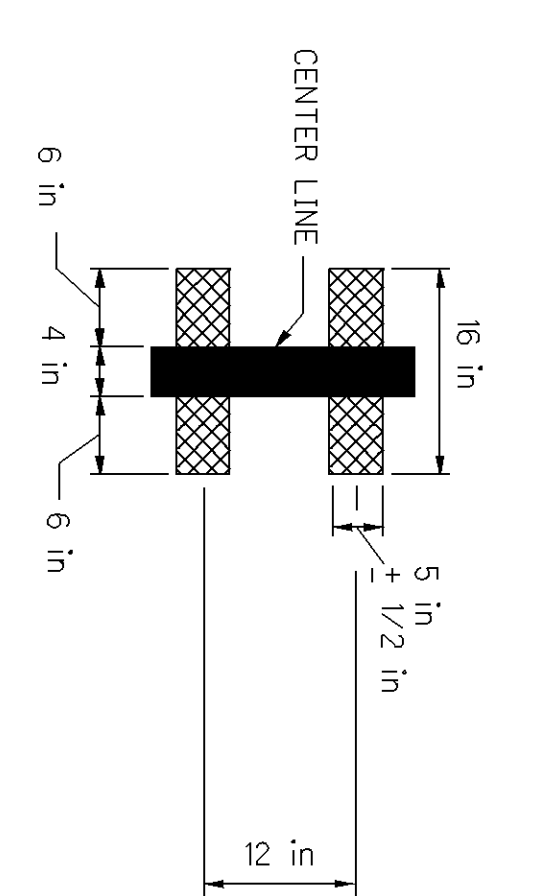
SHOULDER WIDTH	A
2-5 ft	6 in
5 ft-1 in - 8 ft	10 in
≥ 8 ft- 1 in	16 in



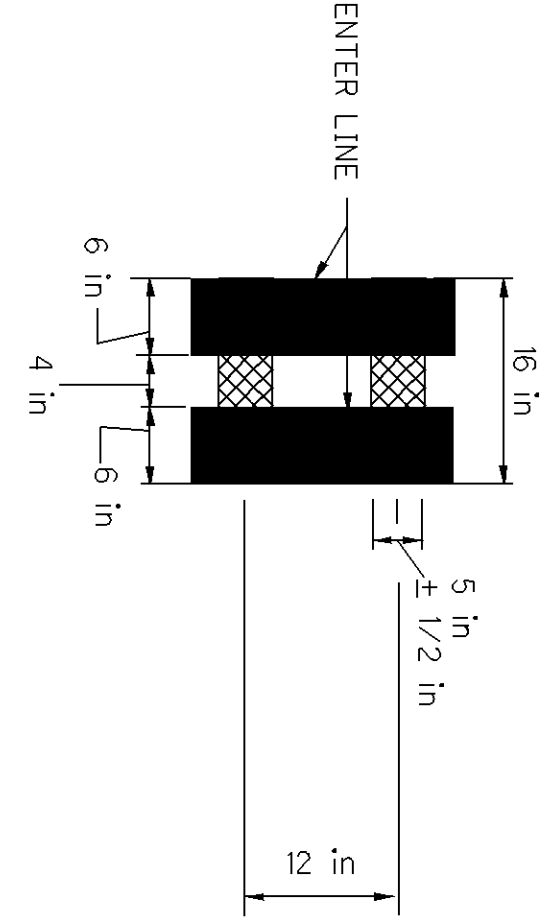
SECTION B-B
EDGE LINE RUMBLE STRIPE



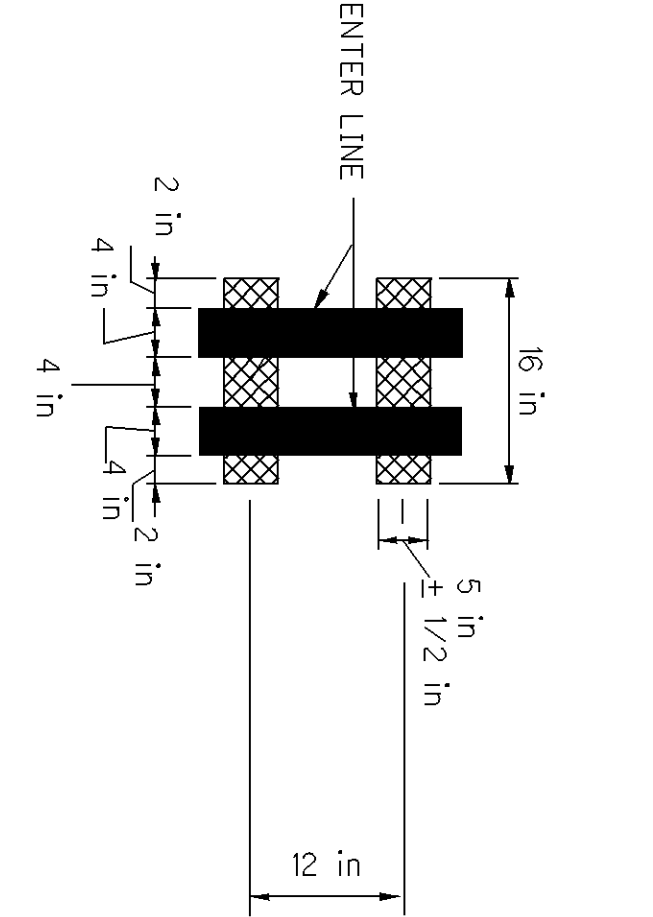
SECTION C-C
6" CENTER LINE OR LANE LINE
RUMBLE STRIPE



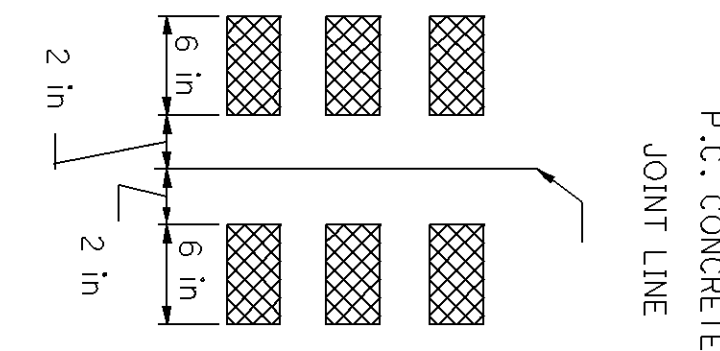
SECTION C-C
4" CENTER LINE OR LANE LINE
RUMBLE STRIPE



SECTION D-D
6" CENTER LINE RUMBLE STRIPE



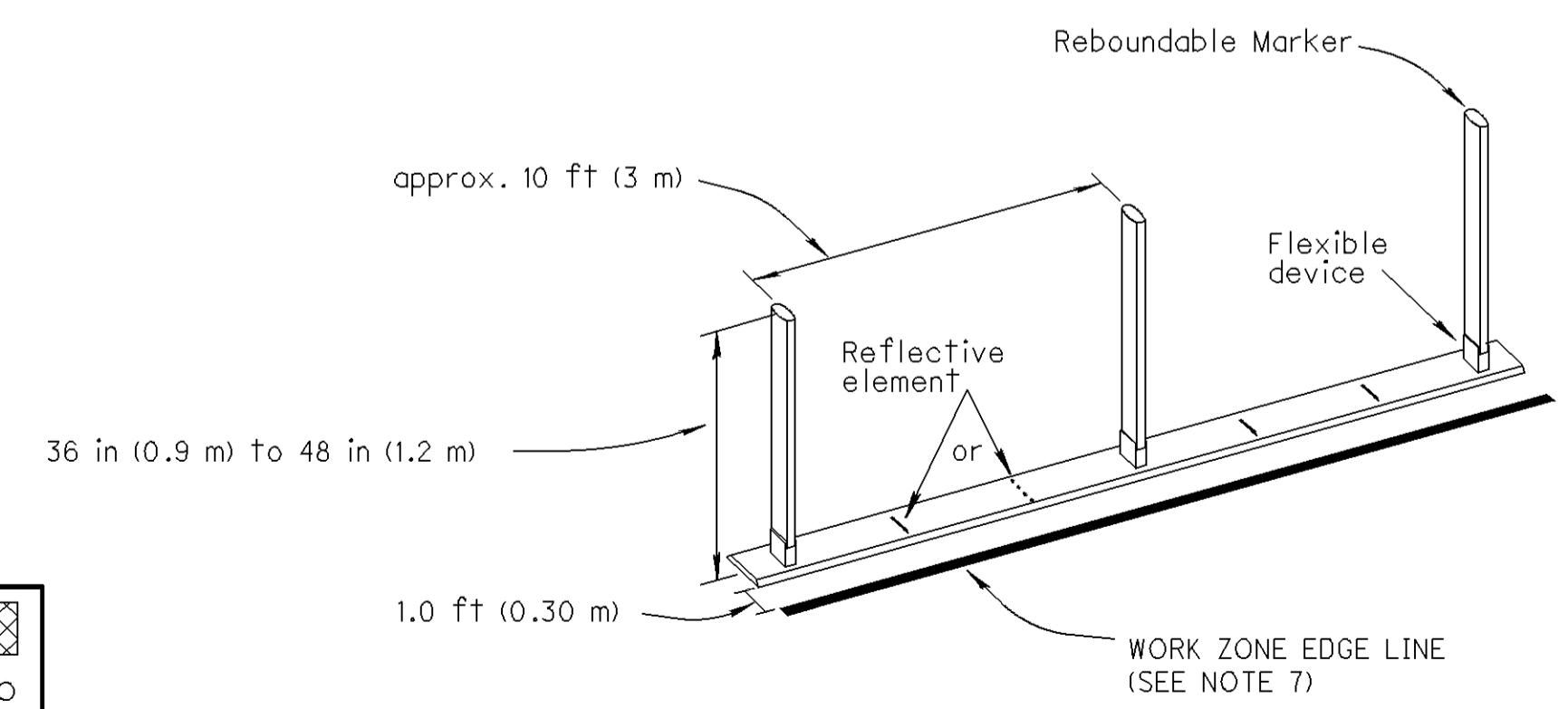
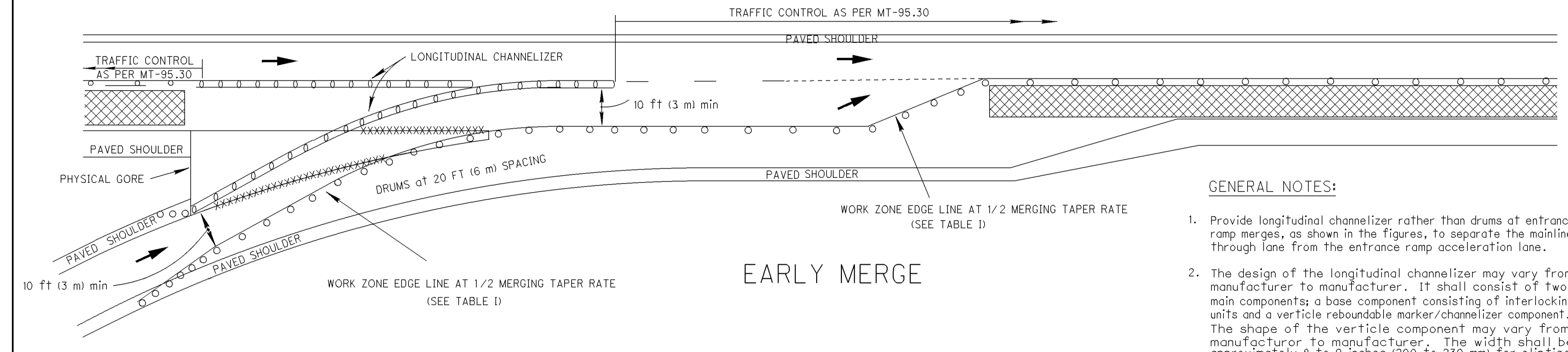
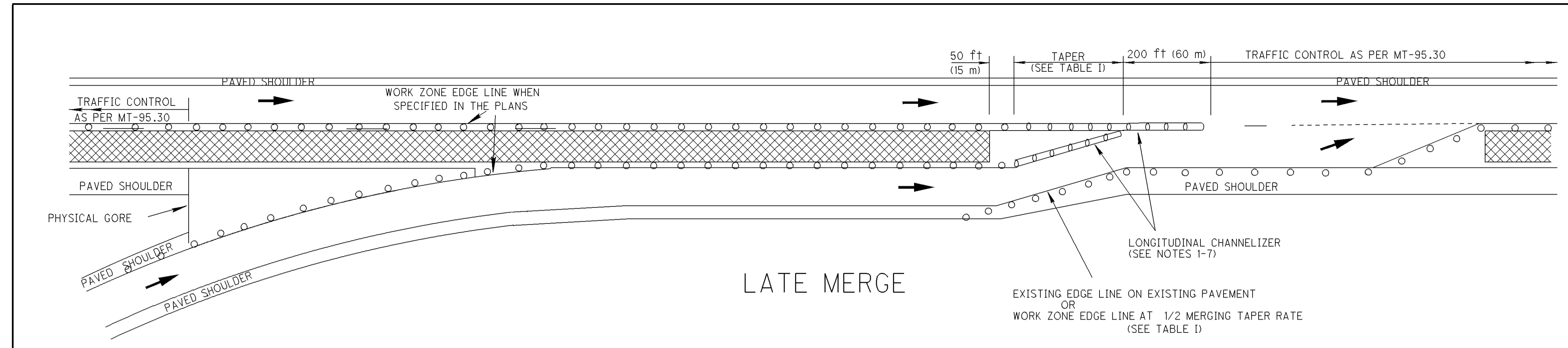
SECTION D-D
4" CENTER LINE RUMBLE STRIPE



SECTION E-E
PORTLAND CEMENT CONCRETE
JOINT CENTER LINE RUMBLE STRIPE

P.C. CONCRETE
JOINT LINE

DESIGNED	OFFICE OF TRAFFIC ENGINEERING	
	REVIEWED	LAM
REVISION DATE	4/20/12	CHECKED
PIS NUMBER	206410	
PLAN INSERT SHEET		
RUMBLE STRIPES		
MEG-33-3.09		
1 / 1		
24 / 25		



LEGEND

WORK AREA	
DRUMS	
LONGITUDINAL CHANNELIZER	
REMOVE EXISTING MARKINGS	
DIRECTION OF TRAVEL	

TABLE I

SPEED LIMIT (MPH)	MERGING TAPER RATE MINIMUM	1/2 MERGING TAPER RATE MINIMUM	SHOULDER TAPER RATE MINIMUM
25	11:1	6:1	4:1
30	15:1	8:1	5:1
35	21:1	11:1	7:1
40	27:1	14:1	9:1
45	45:1	23:1	15:1
50	50:1	25:1	17:1
55	55:1	28:1	18:1
60	60:1	30:1	20:1
65	65:1	33:1	22:1

- GENERAL NOTES:**
1. Provide longitudinal channelizer rather than drums at entrance ramp merges, as shown in the figures, to separate the mainline through lane from the entrance ramp acceleration lane.
 2. The design of the longitudinal channelizer may vary from manufacturer to manufacturer. It shall consist of two main components; a base component consisting of interlocking units and a verticle reboundable marker/channelizer component. The shape of the verticle component may vary from manufacturer to manufacturer. The width shall be approximately 8 to 9 inches (200 to 230 mm) for elliptical designs and 4 to 6 inches (100 to 150 mm) for round (tubular) designs. The height of the vertical component shall be within the range of 36 inches (0.9 m) minimum to 48 inches (1.2 m) maximum.
 3. The longitudinal channelizer shall be NCHRP 350 compliant.
 4. The vertical component shall be equipped with retro-reflective sheeting or with retro-reflective stripes. Where stripes are used, the stripes shall consist of two 3-inch wide bands placed a maximum of 2-inches from the top with a maximum of 6 inches between the bands.
 5. The base component shall be equipped with reflectors.
 6. The color of the base component, including the attached reflectors, and of the retro-reflective sheeting or bands for the vertical components shall be in conformance with the pavement marking colors established in the O MUTCD.
 7. Where edge line is provided adjacent to the longitudinal channelizer, the edge line should be located 1 foot (0.30 m) from the longitudinal channelizer. The edge line should be provided if the resulting lane width would be 11 feet (3.3 m) or greater.
 8. For additional information regarding traffic control at entrance ramps, see Standard Construction Drawings MT-98.10 and MT-98.11.

OFFICE OF TRAFFIC ENGINEERING

DESIGNED SHB
REVIEWED SHB

REVISION DATE 04/17/09
CORRECTED LAM

PLAN NUMBER 2010180

PLAN INSERT SHEET
LONGITUDINAL CHANNELIZER DETAIL

MEG-33-3.09

1 / 1

25
25