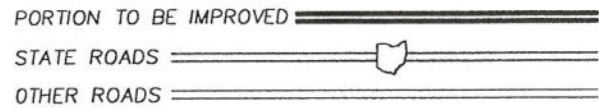


LATITUDE N 40°09'20" LONGITUDE W 82°02'25"



DESIGN EXCEPTIONS

DESIGN FEATURE	APPROVAL DATE	SHEET NUMBERS
NONE		

UNDERGROUND UTILITIES
2 WORKING DAYS
BEFORE YOU DIG
CALL TOLL FREE 800-362-2764
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS MUST BE
CALLED DIRECTLY

PLANS PREPARED BY:



RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

MUS-16-7.16

CASS TOWNSHIP
MUSKINGUM COUNTY

STAGE 3 COMPLIANCE
REVIEW SUBMITTAL

PROJECT DESCRIPTION

DESIGN OF 4.56 MILES OF NEW FOUR LANE HIGHWAY. THIS DESIGN INCLUDES GRADE SEPARATIONS AT TOWNSHIP ROAD 118 AND STATE ROUTE 60. THIS DESIGN INCLUDES SIX NEW STRUCTURES, TWO AT EACH GRADE SEPARATION AND TWO OVER THE LITTLE WAKATOMIKA CREEK.

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO.

1997 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEETS 31, 33, 36, AND 37.

APPROVED _____

DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED _____

DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

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(Crawford Rd)

STANDARD CONSTRUCTION DRAWINGS

AS-1-81	9-15-94	F-2	5-1-76	GR-7.1	10-30-92	MT-101.60	7-1-92	GSD-1-96	2-12-97
BR-1	5-29-79	F-3	5-1-76	GR-8.1	1-3-94			ICD-1-82	8-1-84
BP-1.1	2-21-92	F-5	5-1-76			TC-12.30	1-20-84	IRJ-8-95	7-6-95
BP-2.1	10-28-94	F-6	5-1-76	HW-4A	4-1-80	TC-21.20	9-1-92	BS-1-93	12-19-94
BP-2.2	10-28-94	F-6	5-1-76	HW-4B	4-1-80	TC-41.10	8-29-84	HL-50-11	5-1-87
BP-2.3	2-21-92					TC-41.20	6-21-94		
BP-3.1	2-21-92	GR-1.1	5-6-91	MC-1	6-13-69	TC-42.20	3-26-97		
BP-4.1	2-21-92	GR-1.2	10-30-92	MC-4	7-26-76	TC-52.10	4-3-79		
BP-5.1	10-28-94	GR-1.3	2-21-92	MC-5	6-12-75	TC-52.20	4-3-79		
BP-8.1	10-28-94	GR-2.1	5-6-91	MC-6	1-30-84	TC-65.10	7-7-95		
		GR-3.1	5-6-91	MC-7	10-15-76	TC-65.11	7-7-95		
CB-4	11-10-83	GR-3.2	5-6-91	MC-8	6-12-75	TC-65.12	7-7-95		
CB-5	11-10-83	GR-4.2	5-6-91	MC-9.2	5-6-91	TC-71.10	9-10-91		
CB-2-3 & 2-4	5-1-79	GR-5.1	10-30-92	MC-10	5-1-76	TC-72.20	2-26-82		
CB-458A	5-1-79	GR-6.1M	1-3-96	MC-11	8-1-78				

SUPPLEMENTAL SPECIFICATIONS

816	4-21-97
839	6-14-95
840	7-17-95
863	9-7-97
910	4-21-97
806	9-9-97
814	6-2-98
828	7-28-98

FEDERAL PROJECT NO.
FEDERAL

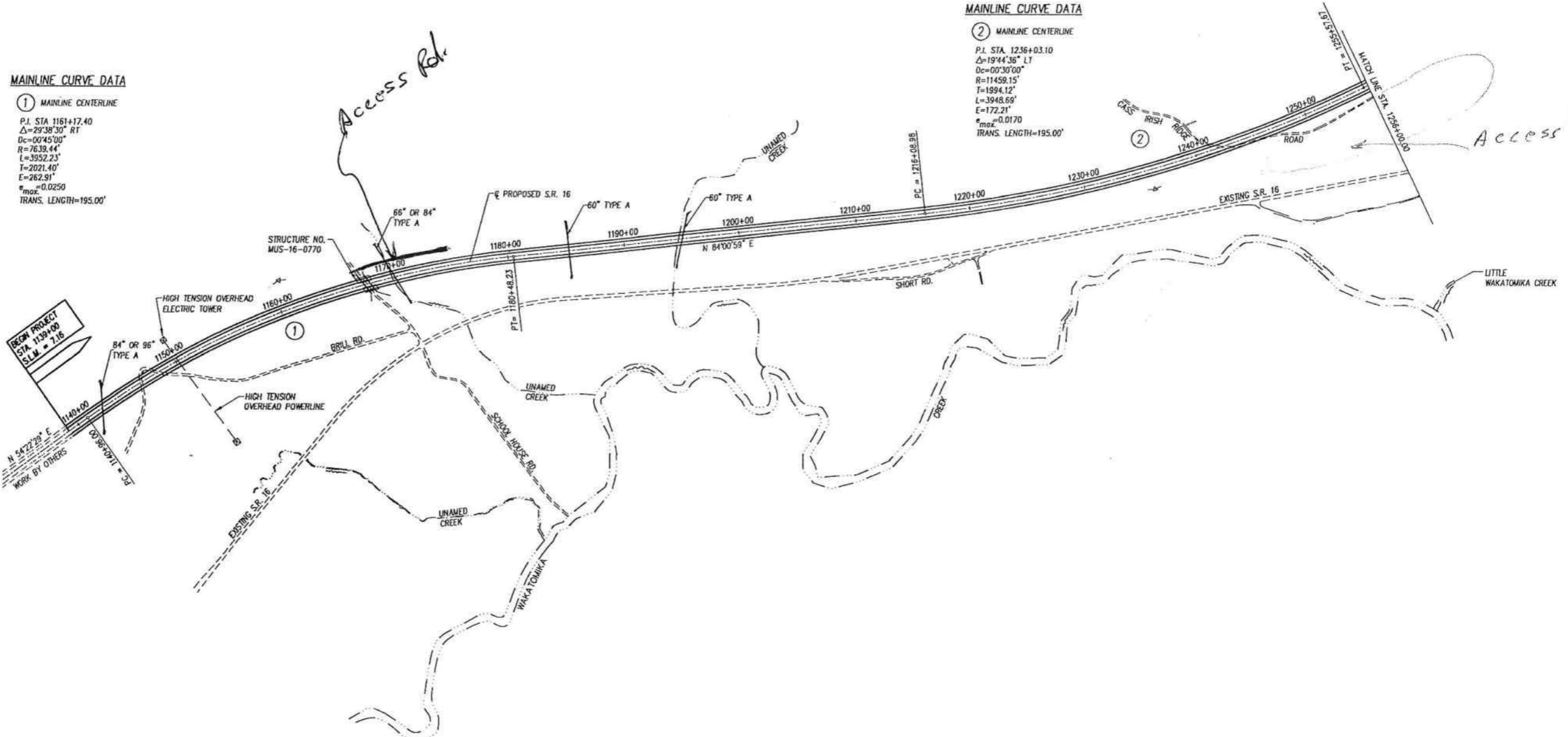
PID NO.
PID

CONSTRUCTION PROJECT NO.
CONST.

RAILROAD INVOLVEMENT
NONE

MUS-16-7.16

1
703



MAINLINE CURVE DATA
 ① MAINLINE CENTERLINE
 P.I. STA 1161+17.40
 $\Delta=29^{\circ}38'30''$ RT
 $D_c=00^{\circ}30'00''$
 $R=7639.44'$
 $L=3952.23'$
 $E=2021.40'$
 $E=262.91'$
 $e_{max}=0.0250$
 TRANS. LENGTH=195.00'

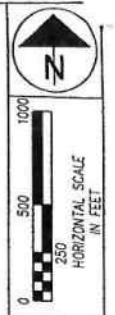
MAINLINE CURVE DATA
 ② MAINLINE CENTERLINE
 P.I. STA. 1236+03.10
 $\Delta=19^{\circ}44'36''$ LT
 $D_c=00^{\circ}30'00''$
 $R=11459.15'$
 $L=1994.12'$
 $E=3948.69'$
 $E=172.21'$
 $e_{max}=0.0170$
 TRANS. LENGTH=195.00'

DESIGN DESIGNATION
 PROPOSED S.R. 16

CURRENT ADT (1997)	6860
DESIGN YEAR ADT (2017)	66,900
DESIGN HOURLY VOLUME (2017)	6690
DIRECTIONAL DISTRIBUTION	50%
TRUCKS (24 HOUR B&C)	12%
DESIGN SPEED	65 mph
LEGAL SPEED	55 mph
DESIGN FUNCTIONAL CLASSIFICATION	RURAL EXPRESSWAY

DESIGN DESIGNATION
 SCHOOL HOUSE ROAD

CURRENT ADT (1997)	247
DESIGN YEAR ADT (2017)	6000
DESIGN HOURLY VOLUME (2017)	540
DIRECTIONAL DISTRIBUTION	50%
TRUCKS (24 HOUR B&C)	12%
DESIGN SPEED	55 mph
LEGAL SPEED	55 mph
DESIGN FUNCTIONAL CLASSIFICATION	RURAL COLLECTOR



CALCULATED
BCE
CHECKED
USB

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-5201

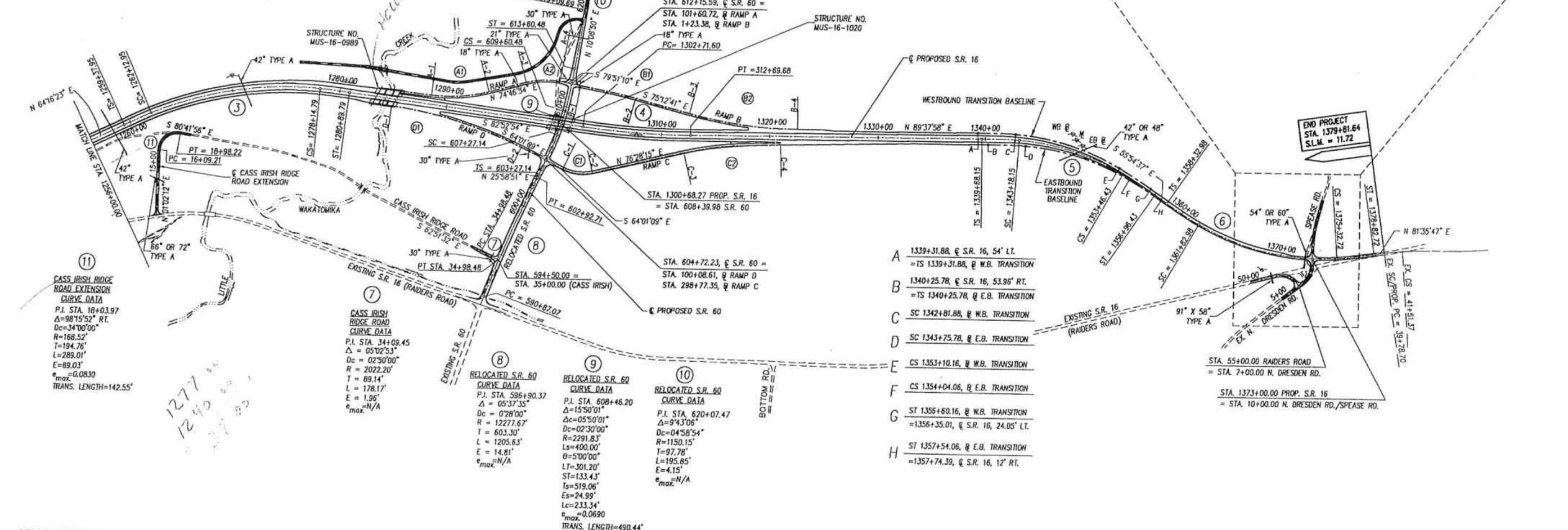
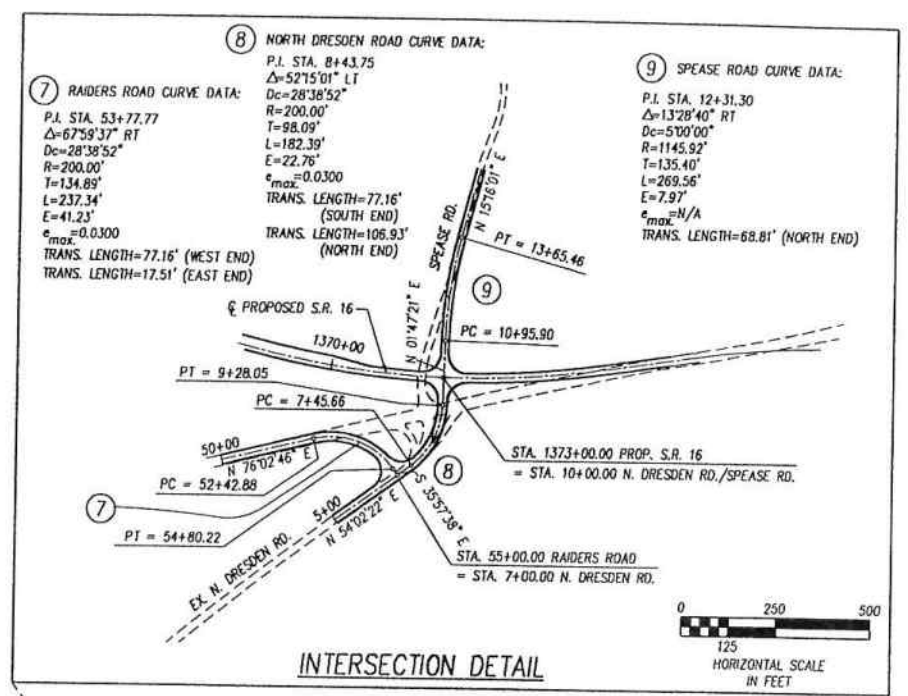
3 MAINLINE CENTERLINE	4 MAINLINE CENTERLINE	5 W.B. TRANS. BASELINE	5 MAINLINE CENTERLINE	5 E.B. TRANS. BASELINE	6 MAINLINE CENTERLINE
P.I. STA. 1270+60.02 Δ=32°50'43" RT Dc=2801'57" RT R=3274.00' Ls=275.00' T=998.08' θ=2°24'23" LT=183.35' ST=91.68' Es=100.47' Lc=1601.64' e=0.0530 max. TRANS. LENGTH=322.46'	P.I. STA. 1307+71.35 Δ=07°29'08" LT Dc=00'45'00" R=7639.44' Ls=350.00' T=499.75' θ=16.33' LT=116.73' ST=116.73' Es=886.35' Lc=1028.28' e=0.0250 max. TRANS. LENGTH=195.00'	P.I. STA. 1348+18.23 Q W.B. TRANSITION Δ=34°27'25" RT Dc=25'42'25" RT Dc=02'30'00" R=2291.83' Ls=350.00' T=2291.83' θ=2°24'23" LT=183.35' ST=91.68' Es=100.47' Lc=1601.64' e=0.0530 max. TRANS. LENGTH=322.46'	P.I. STA. 1348+54.50 Δ=34°27'25" RT Dc=25'42'25" RT Dc=02'30'00" R=2291.83' Ls=350.00' T=2291.83' θ=2°24'23" LT=183.35' ST=91.68' Es=100.47' Lc=1601.64' e=0.0530 max. TRANS. LENGTH=322.46'	P.I. STA. 1348+80.24 Q E.B. TRANSITION Δ=34°27'25" RT Dc=25'42'25" RT Dc=02'30'00" R=2291.83' Ls=350.00' T=2291.83' θ=2°24'23" LT=183.35' ST=91.68' Es=100.47' Lc=1601.64' e=0.0530 max. TRANS. LENGTH=322.46'	P.I. STA. 1368+89.90 Δ=42°29'36" LT Dc=33'44'36" LT Dc=02'30'00" R=2291.83' Ls=350.00' T=2291.83' θ=2°24'23" LT=183.35' ST=91.68' Es=100.47' Lc=1601.64' e=0.0530 max. TRANS. LENGTH=322.46'

S.R. 16 / S.R. 60 INTERCHANGE RAMP CURVE DATA

CURVE A1 DATA (RAMP A)	CURVE B1 DATA (RAMP B)	CURVE C1 DATA (RAMP C)	CURVE D1 DATA (RAMP D)
P.I. STA. 91+17.40 R RAMP A Δ=21°08'54" LT Dc=4'00'00" R=1432.39' Ls=267.40' T=528.71' E=24.75' e=0.073 max. TRANS. LENGTH=192.86'	P.I. STA. 5+74.32 Q RAMP B Δ=4'38'29" RT Dc=1'30'00" R=3819.72' Ls=154.80' T=309.43' E=3.14' e=0.072 max. TRANS. LENGTH=210.24' (EAST END) TRANS. LENGTH=188.40' (WEST END)	P.I. STA. 302+01.23 Q RAMP C Δ=18°51'46" RT Dc=1'30'00" R=409.26' Ls=146.98' T=282.21' E=33.65' e=0.072 max. TRANS. LENGTH=60.00' (WEST END) TRANS. LENGTH=68.54' (EAST END)	P.I. STA. 91+30.19 R RAMP D Δ=18°51'46" RT Dc=1'30'00" R=409.26' Ls=146.98' T=282.21' E=33.65' e=0.072 max. TRANS. LENGTH=60.00' (WEST END) TRANS. LENGTH=68.54' (EAST END)

S.R. 16 / S.R. 60 INTERCHANGE RAMP CURVE DATA

A-1: PC STA. 88+50.00 = STA. 1288+50.00, 85.25' LT. (SR 16)
A-2: PT STA. 93+78.71
A-3: PC STA. 97+32.09
A-4: PT STA. 100+49.23
B-1: PC STA. 4+19.52
B-2: PT STA. 7+28.95
B-3: PC STA. 12+43.90
B-4: PT STA. 22+54.31 = STA. 1322+54.31, 66.00' LT. (SR 16)
C-1: PC STA. 300+54.25
C-2: PT STA. 303+35.46
C-3: PC STA. 312+01.59
C-4: PT STA. 318+00.00 = STA. 1318+00.00, 85.25' RT. (SR 16)
D-1: PC STA. 84+95.69 = STA. 1284+95.69, 66.00' RT. (SR 16)
D-2: PT STA. 97+53.20



DESIGN DESIGNATION

S.R. 60 (NORTH OF PROP. S.R. 16)	DESIGN DESIGNATION
CURRENT ADT (1997)	1470
DESIGN YEAR ADT (2017)	5000
DESIGN HOURLY VOLUME (2017)	450
DIRECTIONAL DISTRIBUTION	50%
TRUCKS (24 HOUR B&C)	12%
DESIGN SPEED	55 mph
LEGAL SPEED	55 mph
DESIGN FUNCTIONAL CLASSIFICATION	RURAL COLLECTOR

DESIGN DESIGNATION

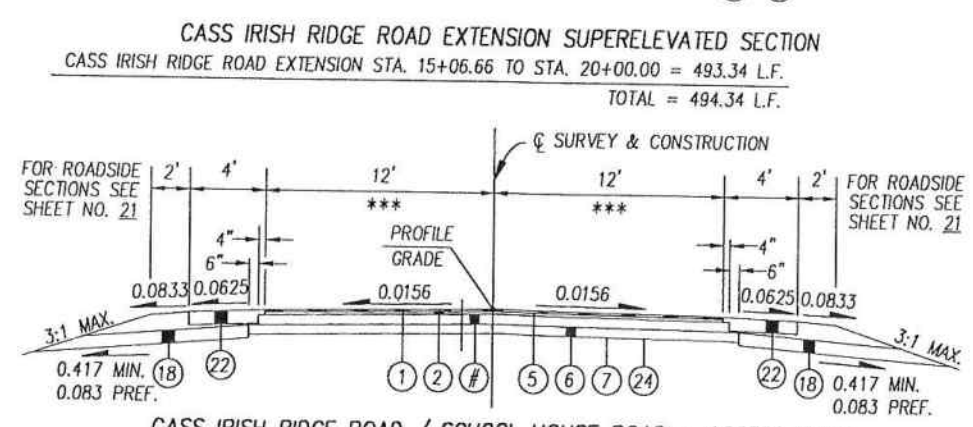
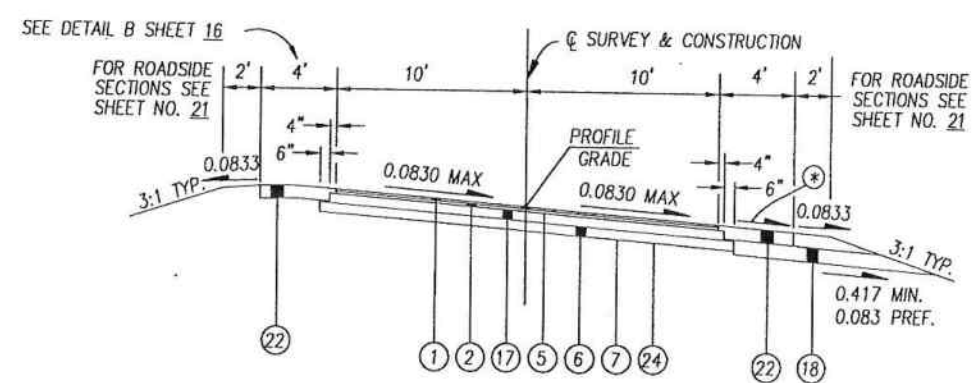
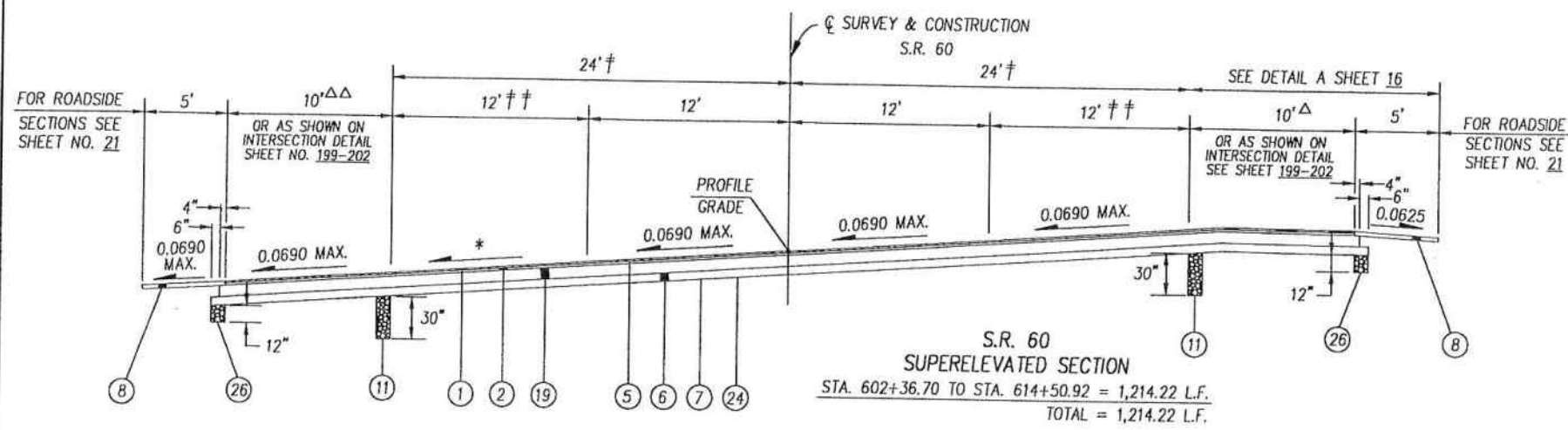
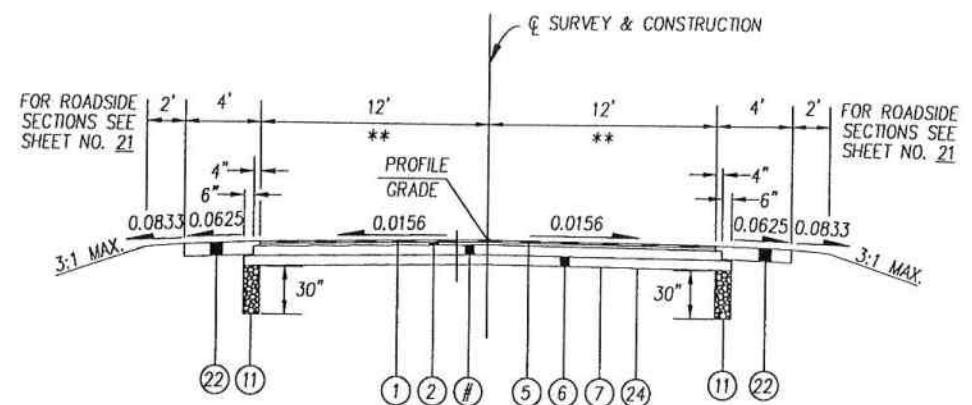
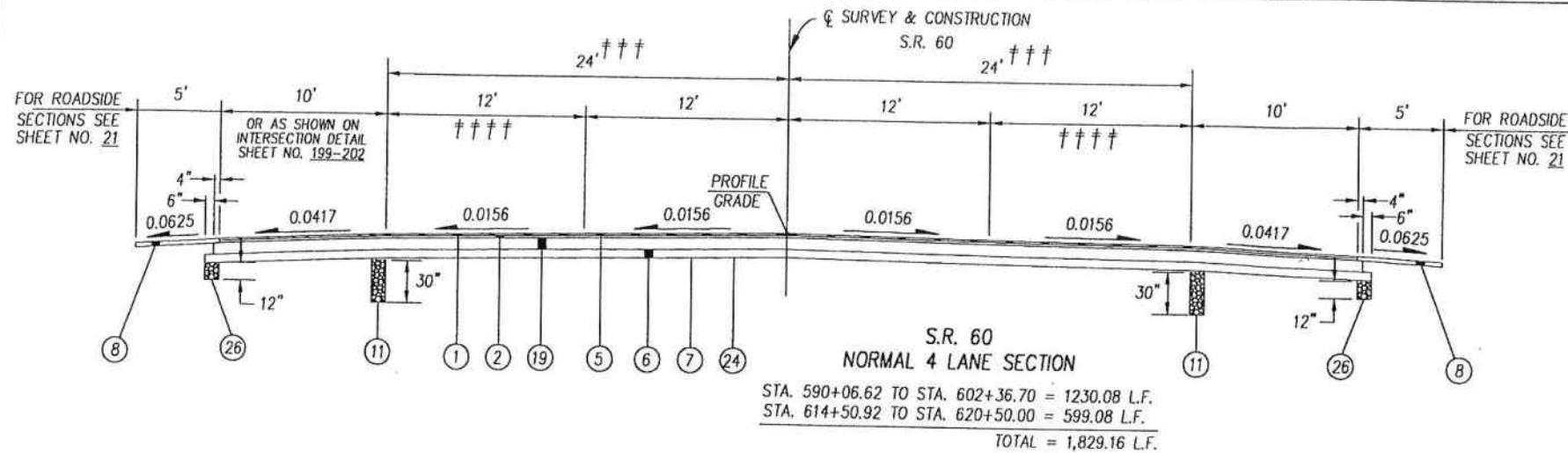
S.R. 60 (SOUTH OF PROP. S.R. 16)	DESIGN DESIGNATION
CURRENT ADT (1997)	6670
DESIGN YEAR ADT (2017)	19200
DESIGN HOURLY VOLUME (2017)	3578
DIRECTIONAL DISTRIBUTION	50%
TRUCKS (24 HOUR B&C)	12%
DESIGN SPEED	55 mph
LEGAL SPEED	55 mph
DESIGN FUNCTIONAL CLASSIFICATION	RURAL COLLECTOR

DESIGN DESIGNATION

SPEASE ROAD / NORTH DRESDEN ROAD	DESIGN DESIGNATION
CURRENT ADT (1997)	301
DESIGN YEAR ADT (2017)	439
DESIGN HOURLY VOLUME (2017)	40
DIRECTIONAL DISTRIBUTION	50%
TRUCKS (24 HOUR B&C)	12%
DESIGN SPEED	55 mph
LEGAL SPEED	55 mph
DESIGN FUNCTIONAL CLASSIFICATION	RURAL COLLECTOR

DESIGN DESIGNATION

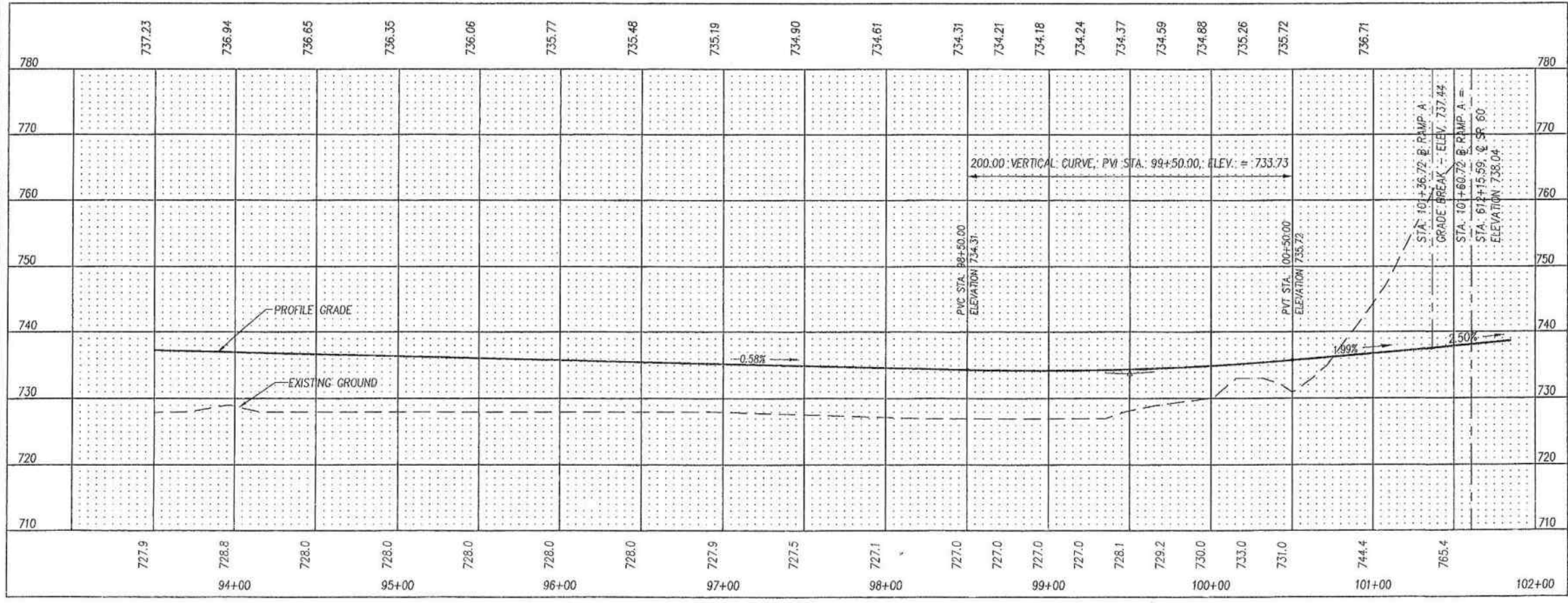
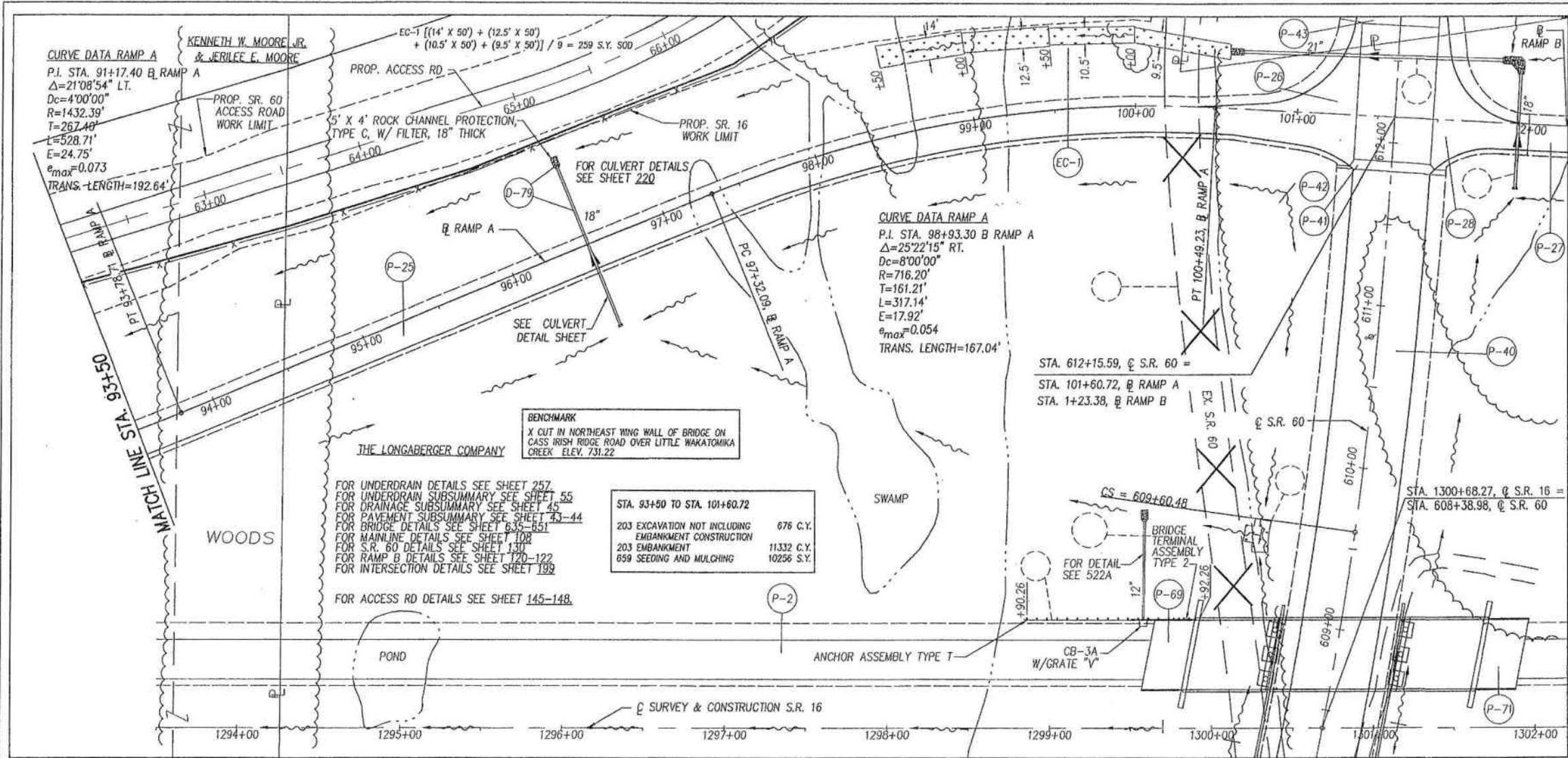
CASS IRISH RIDGE ROAD	DESIGN DESIGNATION
CURRENT ADT (1997)	100
DESIGN YEAR ADT (2017)	250
DESIGN HOURLY VOLUME (2017)	25
DIRECTIONAL DISTRIBUTION	50%
TRUCKS (24 HOUR B&C)	12%
DESIGN SPEED	25 mph
LEGAL SPEED	25 mph
DESIGN FUNCTIONAL CLASSIFICATION	RURAL COLLECTOR



LEGEND

- 1 ITEM 446 ~ 1-1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22
- 2 ITEM 446 ~ 1-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
- 3 ITEM 301 ~ 7" BITUMINOUS AGGREGATE BASE, PG64-22
- 4 ITEM SPECIAL ~ 4" ASPHALT TREATED FREE DRAINING BASE
- 5 ITEM 407 ~ TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTES)
- 6 ITEM 304 ~ 6" AGGREGATE BASE
- 7 ITEM 203 ~ SUBGRADE COMPACTION
- 8 ITEM 617 ~ 3" OR AS SHOWN COMPACTED AGGREGATE, TYPE A WITH ITEM 617 WATER
- 9 ITEM 659 ~ SEEDING AND MULCHING
- 10 ITEM 605 ~ 4" SHALLOW PIPE UNDERDRAIN WITH FILTER FABRIC WRAP, AS PER PLAN (12" DEPTH)
- 11 ITEM 605 ~ 4" SHALLOW PIPE UNDERDRAIN (30" DEPTH)
- 12 ITEM 605 ~ AGGREGATE DRAIN
- 13 ITEM 611 ~ REINFORCED CONCRETE APPROACH SLAB, T=15", AS PER PLAN (FOR MUS-16-0989 ONLY)
- 14 ITEM 609 ~ CURB, TYPE 4-A
- 15 ITEM 606 ~ GUARDRAIL, TYPE 5
- 16 ITEM 301 ~ 3" BITUMINOUS AGGREGATE BASE, PG64-22
- 17 ITEM 301 ~ 4" BITUMINOUS AGGREGATE BASE, PG64-22
- 18 ITEM 605 ~ AGGREGATE DRAINS
- 19 ITEM 301 ~ 8" BITUMINOUS AGGREGATE BASE, PG64-22
- 20 ITEM 452 ~ 9" PLAIN CONCRETE PAVEMENT
- 21 ITEM 653 ~ 3" TOPSOIL FURNISHED AND PLACED AND ITEM 667 ~ SEEDING AND JUTE MATTING
- 22 ITEM 304 ~ 8" AGGREGATE BASE
- 23 STANDARD LONGITUDINAL JOINT
- 24 ITEM 203 ~ PROOF ROLLING
- 25 ITEM 408 ~ BITUMINOUS PRIME COAT (@0.40 GAL/SY)
- 26 ITEM 605 ~ 4" SHALLOW PIPE UNDERDRAIN (12" DEPTH)

NOTE: SHEET NO. 21 FOR GUARDRAIL SECTIONS
 # - ITEM 16 FOR SPEASE, N. DRESDEN ROAD AND RAIDERS ROAD
 ITEM 17 FOR CASS IRISH RIDGE ROAD AND SCHOOL HOUSE ROAD - ACCESS ROAD
 ## - SHEET NO. 21 FOR 4" PIPE UNDERDRAIN PLACEMENT
 DETAIL WITH FABRIC WRAP, AS PER PLAN
 ### - AT LOCATIONS OF ROCK CUT AS SHOWN ON CROSS SECTIONS
 * - 0.0417 FT./FT. OR RATE OF SUPERELEVATION, WHICHEVER IS GREATER
 ⊙ - 0.0625 FT./FT. OR RATE OF SUPERELEVATION, WHICHEVER IS GREATER
 ** - VARIES SEE PAVEMENT DETAILS SHEET 201
 *** - LANE WIDTH = 10' ON SPEASE ROAD
 = 10' ON CASS IRISH RIDGE ROAD EXTENSION
 = 12' ON CASS IRISH RIDGE ROAD
 = 9' ON SCHOOL HOUSE ROAD - ACCESS ROAD
 † - VARIES FROM 24.00' AT STA. 613+35.00 TO 22.80' AT STA. 614+50.92.
 †† - VARIES FROM 12.00' AT STA. 613+35.00 TO 10.80' AT STA. 614+50.92.
 ††† - VARIES FROM 22.80' AT STA. 614+50.92 TO 11.00' AT STA. 620+50.00.
 †††† - VARIES FROM 10.80' AT STA. 614+50.92 TO 0.00' AT STA. 620+50.00.
 Δ - 12' FROM STA. 607+72.00 TO STA. 609+22.00
 ΔΔ - 12' FROM STA. 607+54.00 TO STA. 609+10.00



REF. NO.	STATION TO STATION	SIDE	ESTIMATED QUANTITIES	SEE SHEET NO.
EC-1	98+50 TO 100+50	L.T.	259	259
TOTALS CARRIED TO SHEET 42				

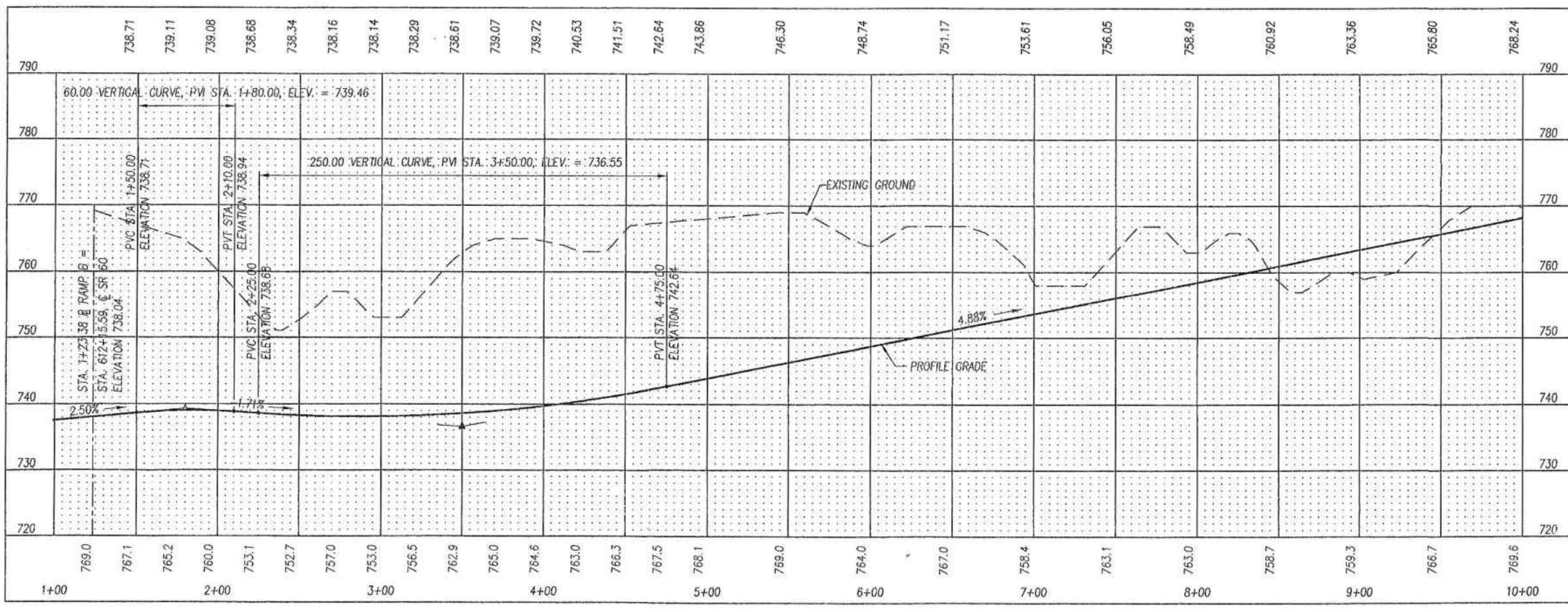
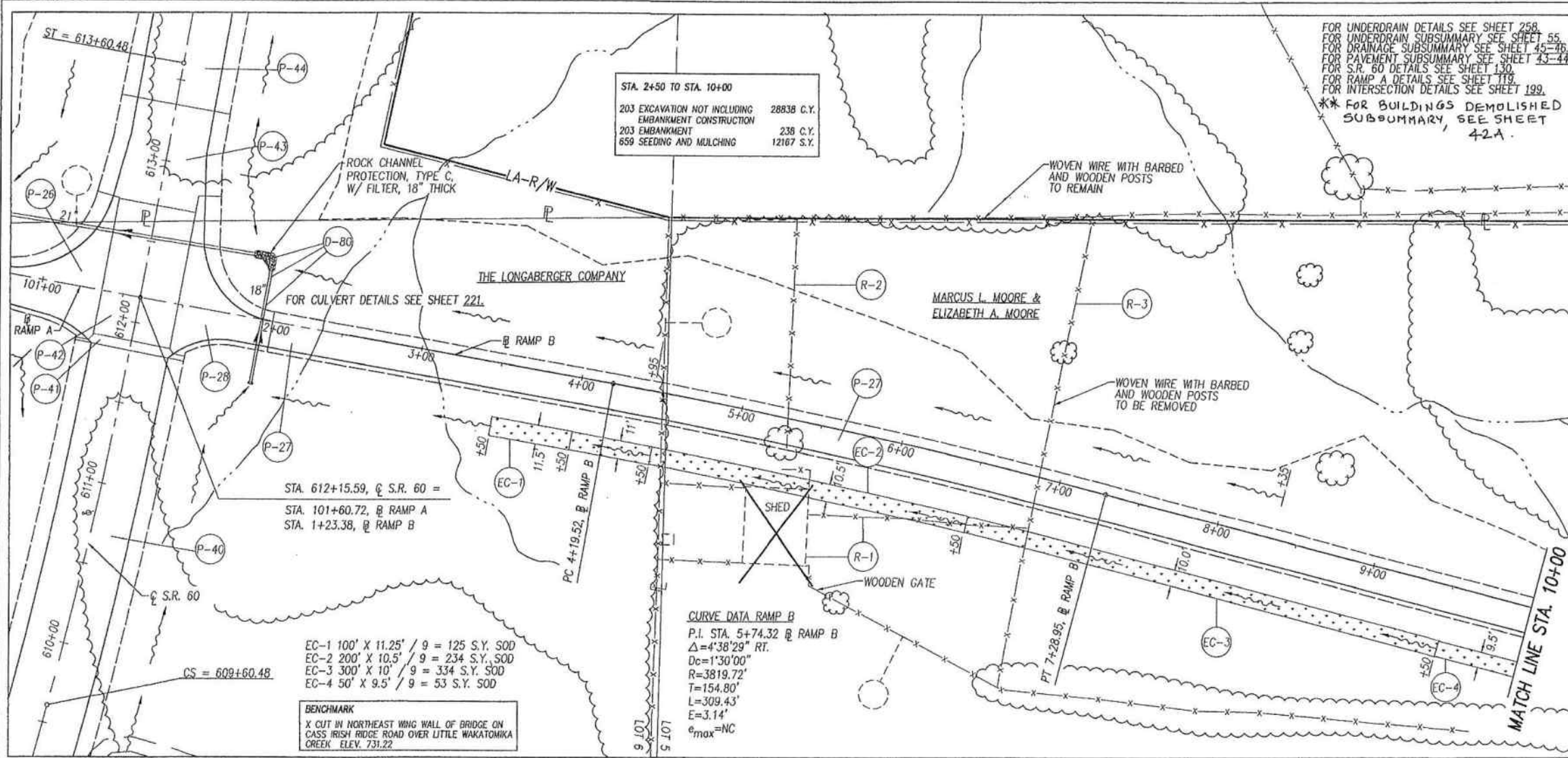
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PLAN AND PROFILE S.R. 16 / S.R. 60 RAMP A
STA. 93+50 TO STA. 101+60.72

CALCULATED: JRA
CHECKED: JSB

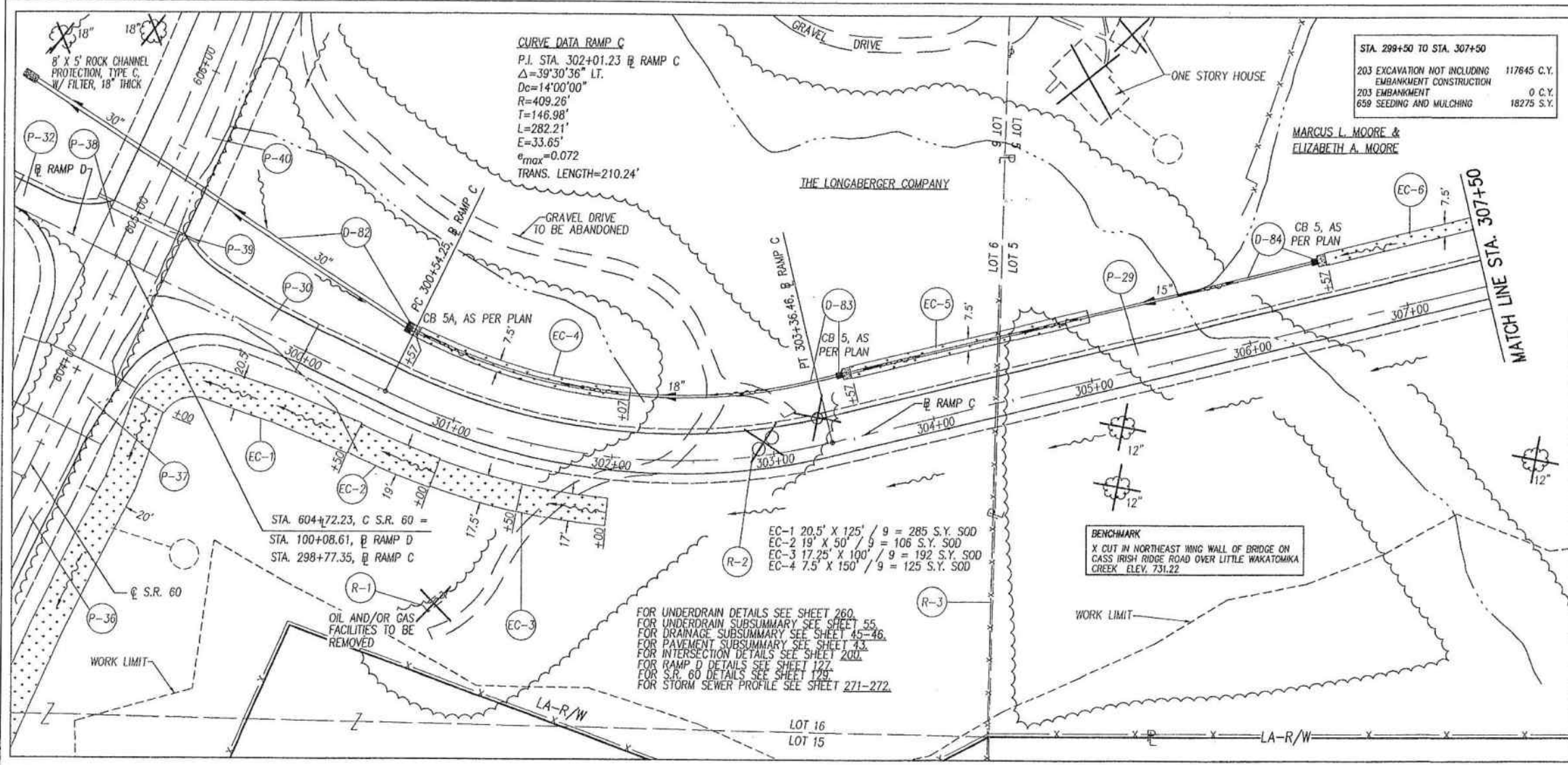
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703

RESOURCE INTERNATIONAL, INC.
PROJECT NO. W-5201

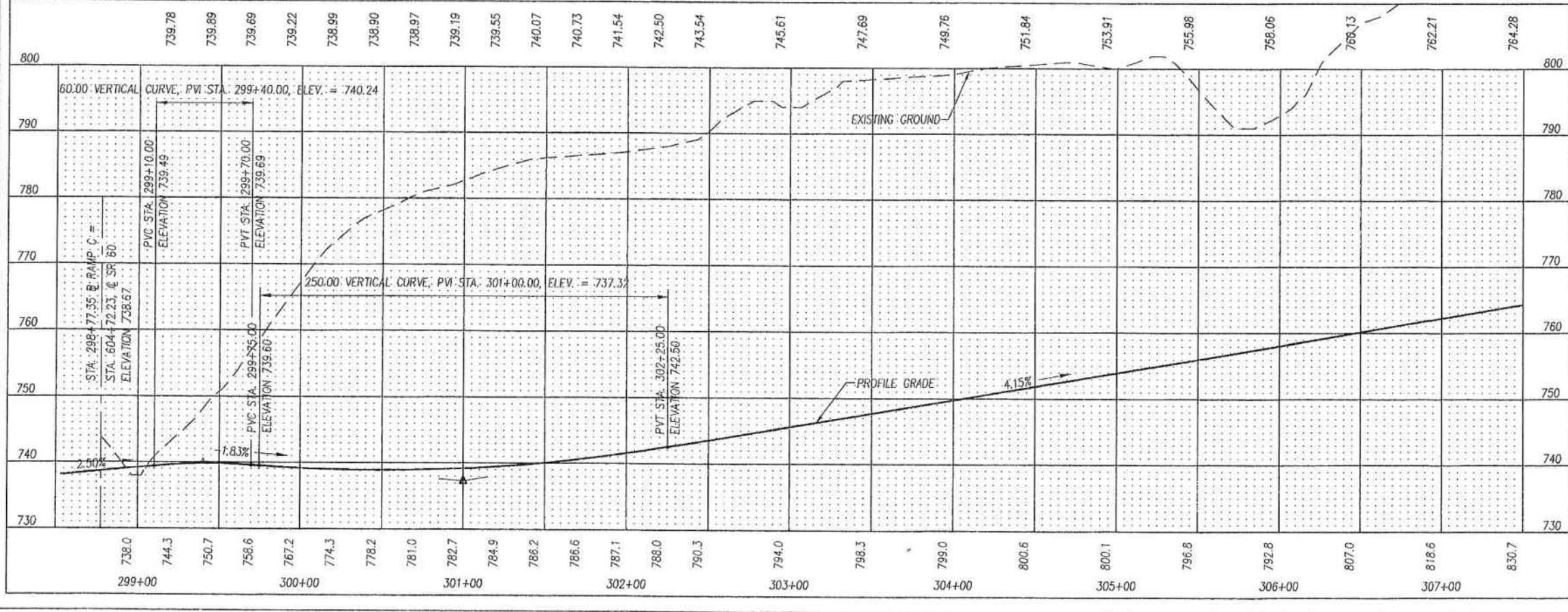


REF. NO.	STATION TO STATION	SIDE	BUILDING DEMOLISHED	FENCE REMOVED	ESTIMATED QUANTITIES		SEE SHEET NO.	
					CALCULATED	CHECKED		
EC-1	3+50 TO 4+50	RT.						
EC-2	4+50 TO 6+50	RT.						
EC-3	6+50 TO 9+50	RT.						
EC-4	9+50 TO 10+00	RT.						
R-1	4+55 TO 6+80	RT.	1	250				
R-2	5+15 TO 5+40	L.F.		190				
R-3	6+80 TO 7+00	L.F.		370				
TOTALS CARRIED TO SHEET 42.					1	810		
					746			

RESOURCE INTERNATIONAL, INC.
PROJECT NO. W-5201



STA. 299+50 TO STA. 307+50		
203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	117845 C.Y.	
203 EMBANKMENT	0 C.Y.	
659 SEEDING AND MULCHING	18275 S.Y.	



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	REMOVAL MISC. STORAGE TANKS REMOVED	FENCE REMOVED	ESTIMATED QUANTITIES	CHECKED	DATE	BY	SEE SHEET NO.
EC-1	299+25 TO 300+50	R/L							
EC-2	300+50 TO 301+00	R/L							
EC-3	301+00 TO 302+00	R/L							
EC-4	300+57 TO 302+07	L/L							
EC-5	303+57 TO 305+07	L/L							
EC-6	306+57 TO 308+07	L/L							
R-1	301+20	R/L							
R-2	302+90 TO 303+40	L/R/L							
R-3	304+00 TO 304+60	L/R/L							
TOTALS CARRIED TO SHEET 42					958				

PLAN AND PROFILE S.R. 16 / S.R. 60 RAMP C
STA. 298+77.35 TO STA. 307+50

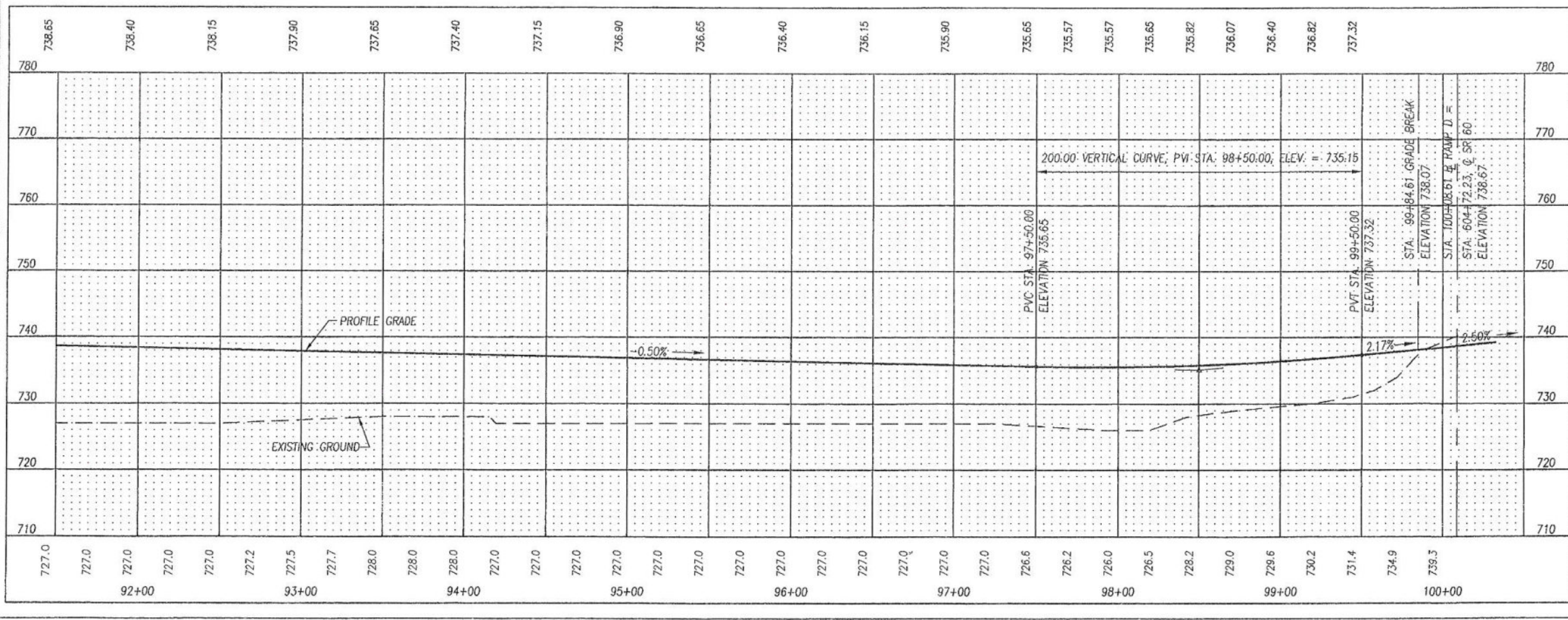
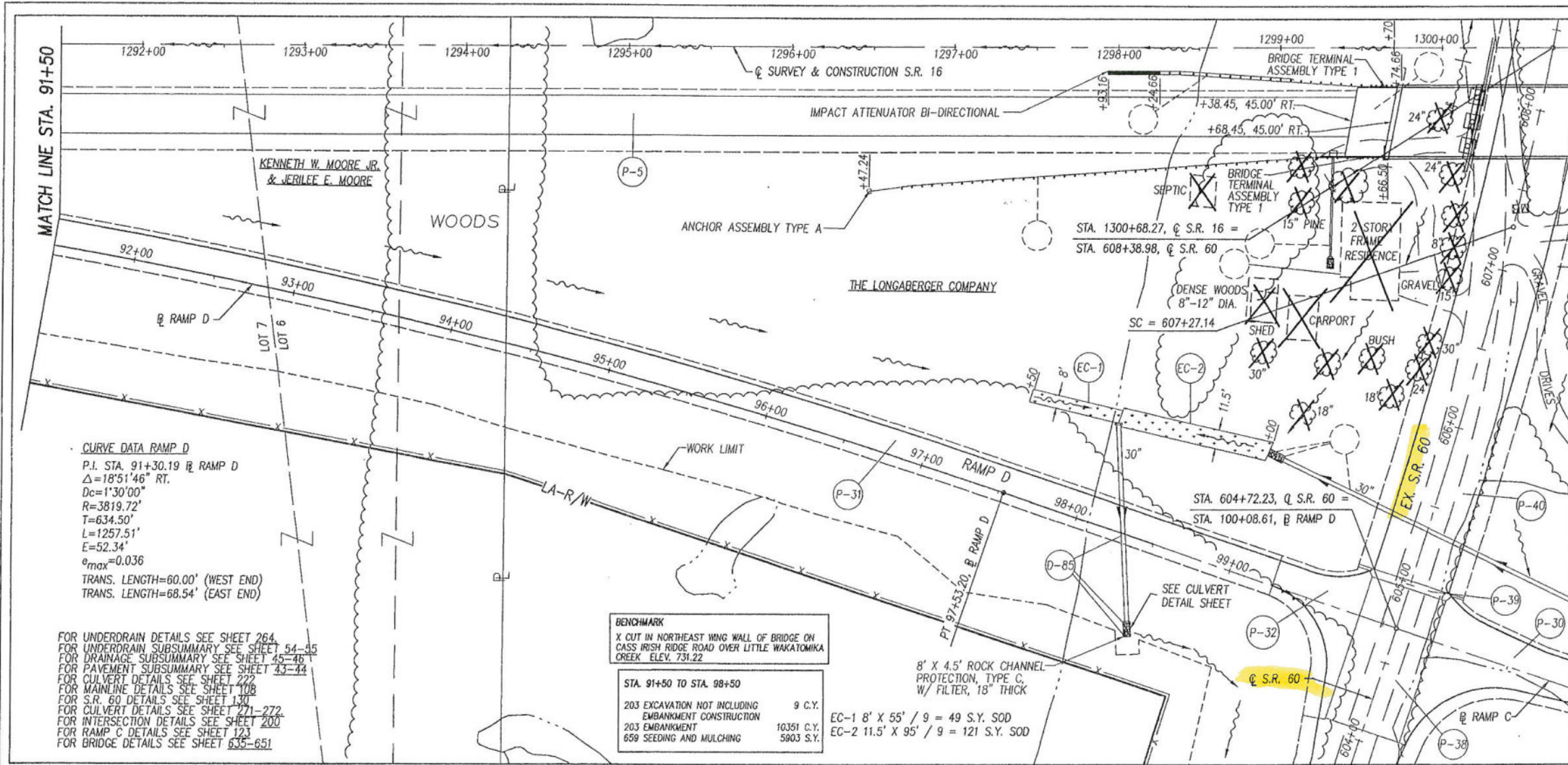
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123
703

0 40 80
HORIZONTAL SCALE
IN FEET

\\VMO\DEPT4\SR16\ROADWAY\copy\6ppr02.dwg Thu Jun 03 16:51:50 1999

RESOURCE INTERNATIONAL, INC.
PROJECT NO. W-5201



REF. NO.	STATION TO STATION	SIDE	ESTIMATED QUANTITIES	SEE SHEET NO.
EC-1	97+50 TO 98+05	Lt.		
EC-2	98+05 TO 99+00	Lt.		
			DITCH EROSION PROTECTION	
			S.Y.	
			49	
			121	
			170	
TOTALS CARRIED TO SHEET 42				

PLAN AND PROFILE S.R. 16 / S.R. 60 RAMP D
 STA. 91+50 TO STA. 100+08.61

MUS-16-7.16

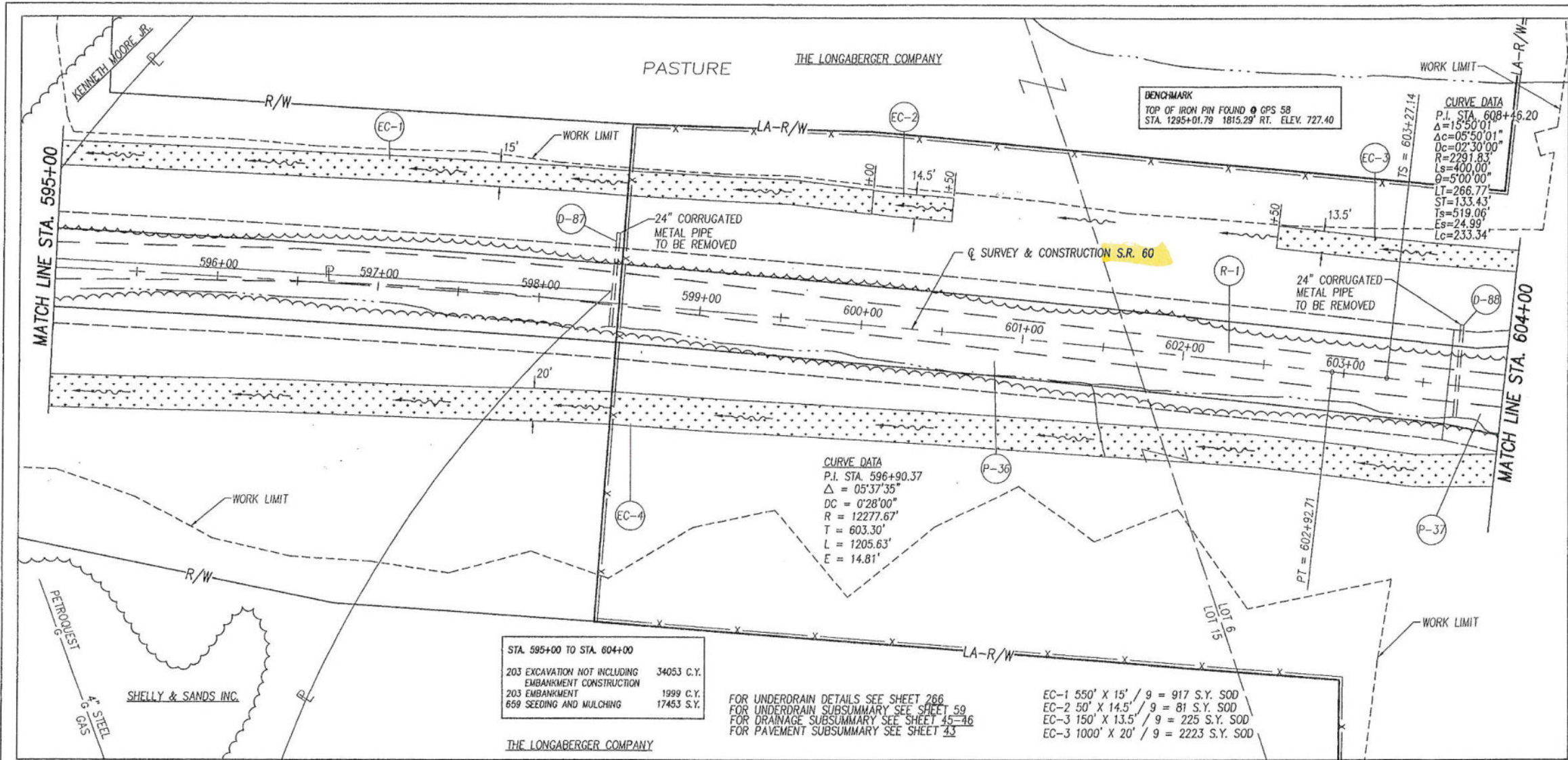
127
703

CALCULATED JRA
CHECKED JSB

HORIZONTAL SCALE
IN FEET

DWG: 06FT4\SP16\ROADWAY\plan\50pp-02.dwg Thu Jun 03 16:53:31 1999

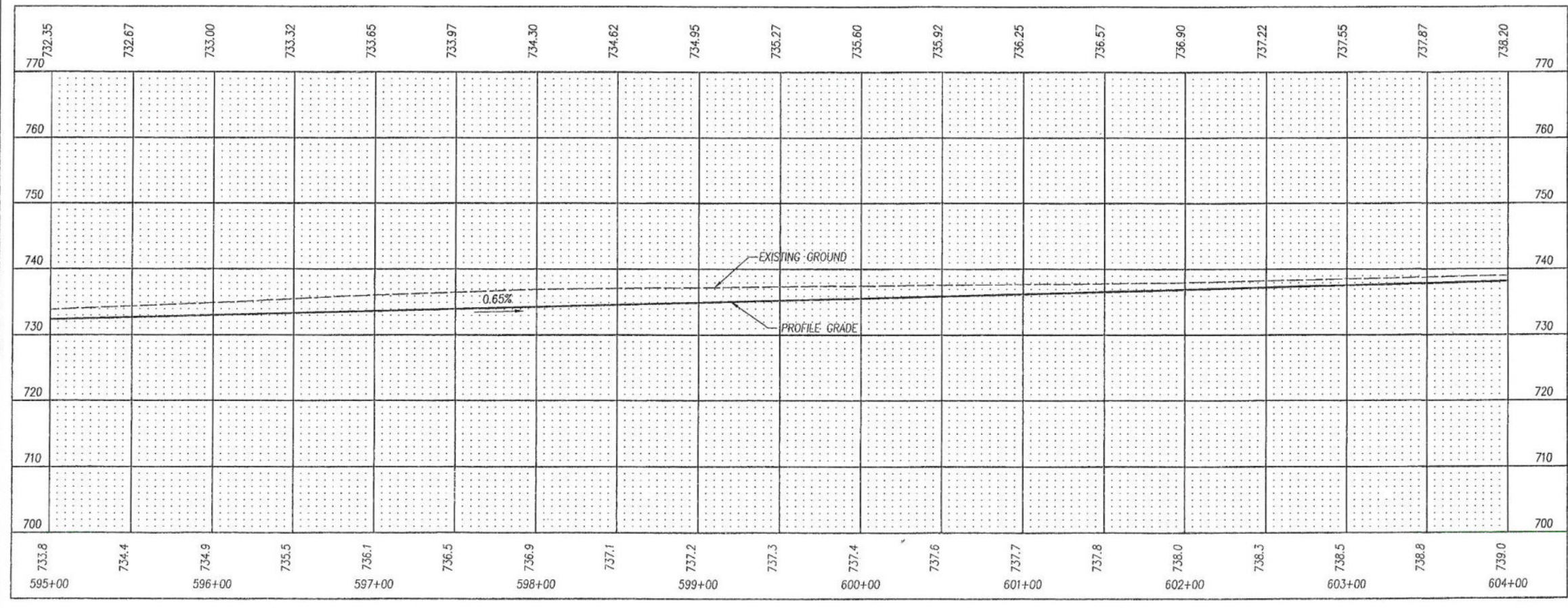
RESOURCE INTERNATIONAL, INC.
PROJECT NO. W-5201



STA. 595+00 TO STA. 604+00	
203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	34053 C.Y.
203 EMBANKMENT	1999 C.Y.
659 SEEDING AND MULCHING	17453 S.Y.

FOR UNDERDRAIN DETAILS SEE SHEET 266
FOR UNDERDRAIN SUBSUMMARY SEE SHEET 50
FOR DRAINAGE SUBSUMMARY SEE SHEET 45-46
FOR PAVEMENT SUBSUMMARY SEE SHEET 42

EC-1 550' X 15' / 9 = 917 S.Y. SOD
EC-2 50' X 14.5' / 9 = 81 S.Y. SOD
EC-3 150' X 13.5' / 9 = 225 S.Y. SOD
EC-3 1000' X 20' / 9 = 2223 S.Y. SOD



REF. NO.	STATION TO STATION	SIDE	PAVEMENT REMOVED	ESTIMATED QUANTITIES	DITCH EROSION PROTECTION	SEE SHEET NO.
EC-1	595+00 TO 600+00	LL				
EC-2	600+00 TO 600+50	LL				
EC-3	602+50 TO 604+00	LL				
EC-4	595+00 TO 604+00	RT				
R-1	595+00 TO 604+00	CL	2010			
TOTALS CARRIED TO SHEET 42						
				3446		

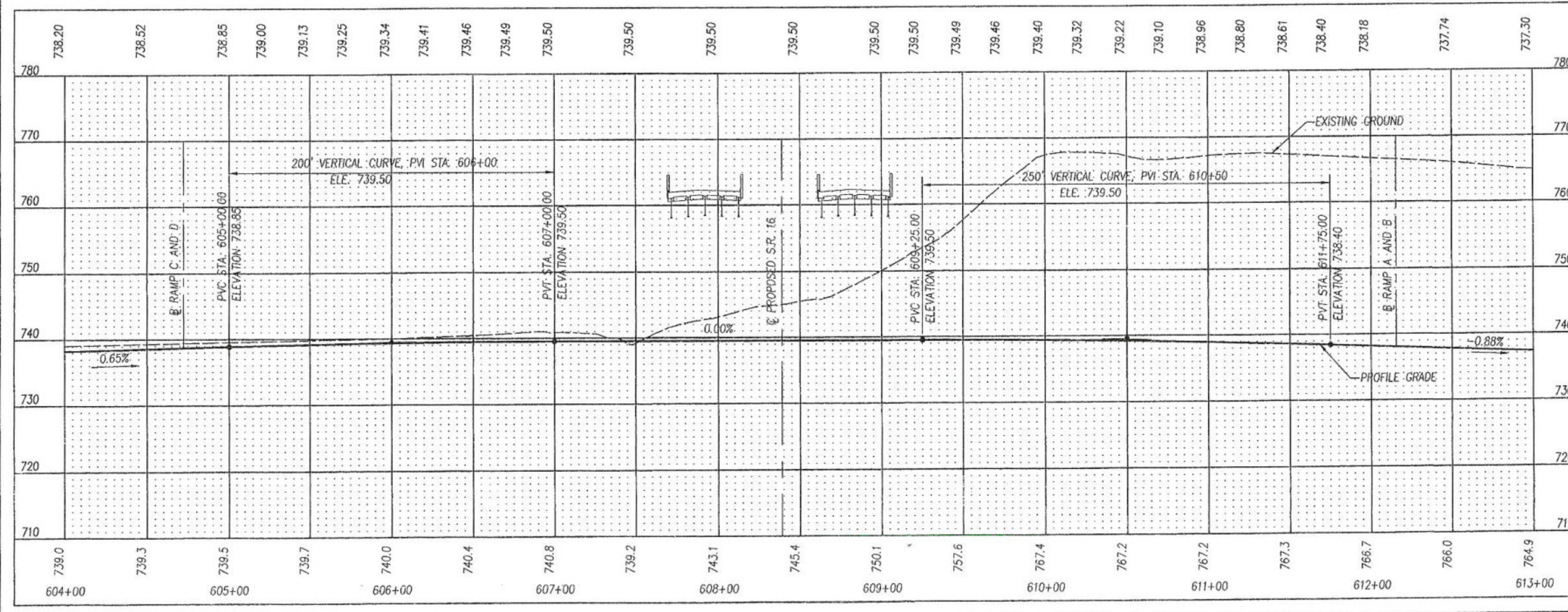
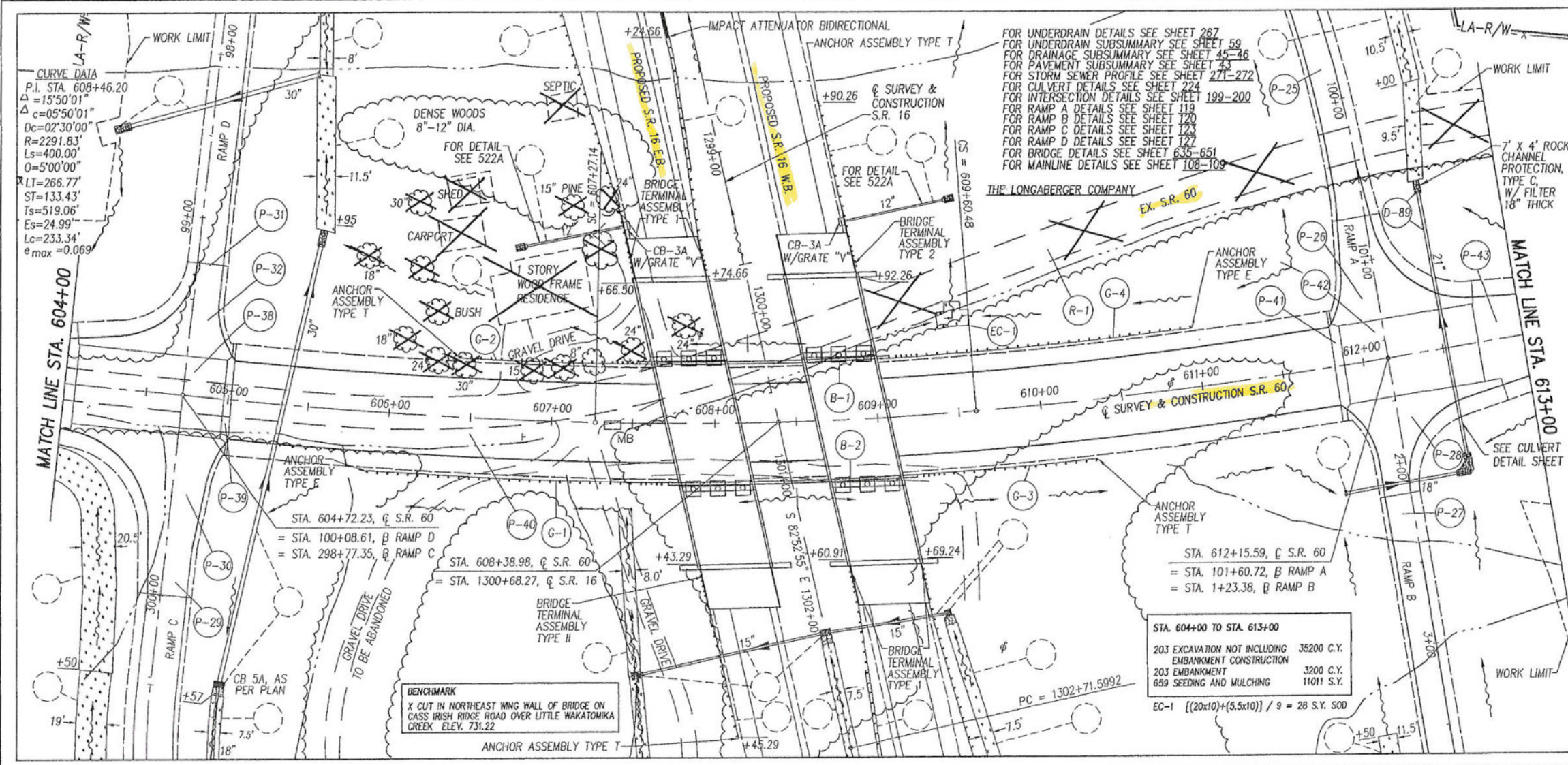
PLAN AND PROFILE S.R. 60
STA. 595+00 TO STA. 604+00

MUS-16-7.16

129
703

CALCULATED AREA CHECKED

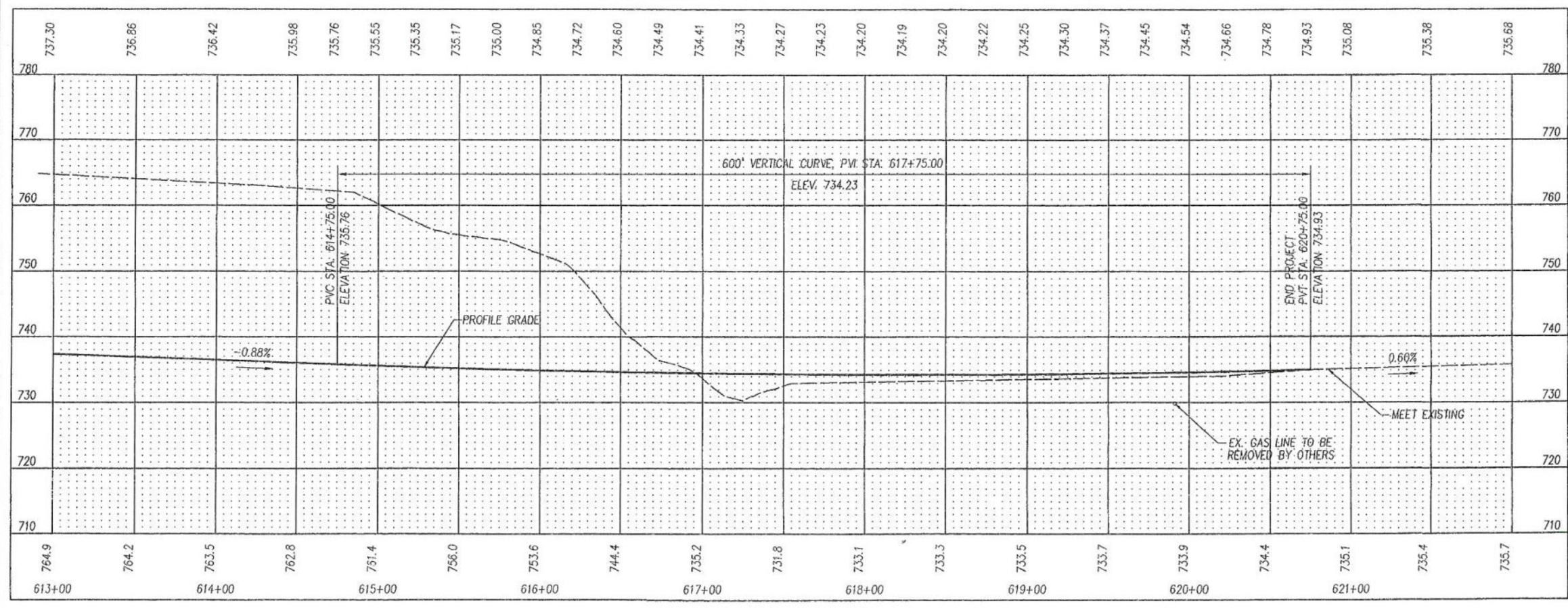
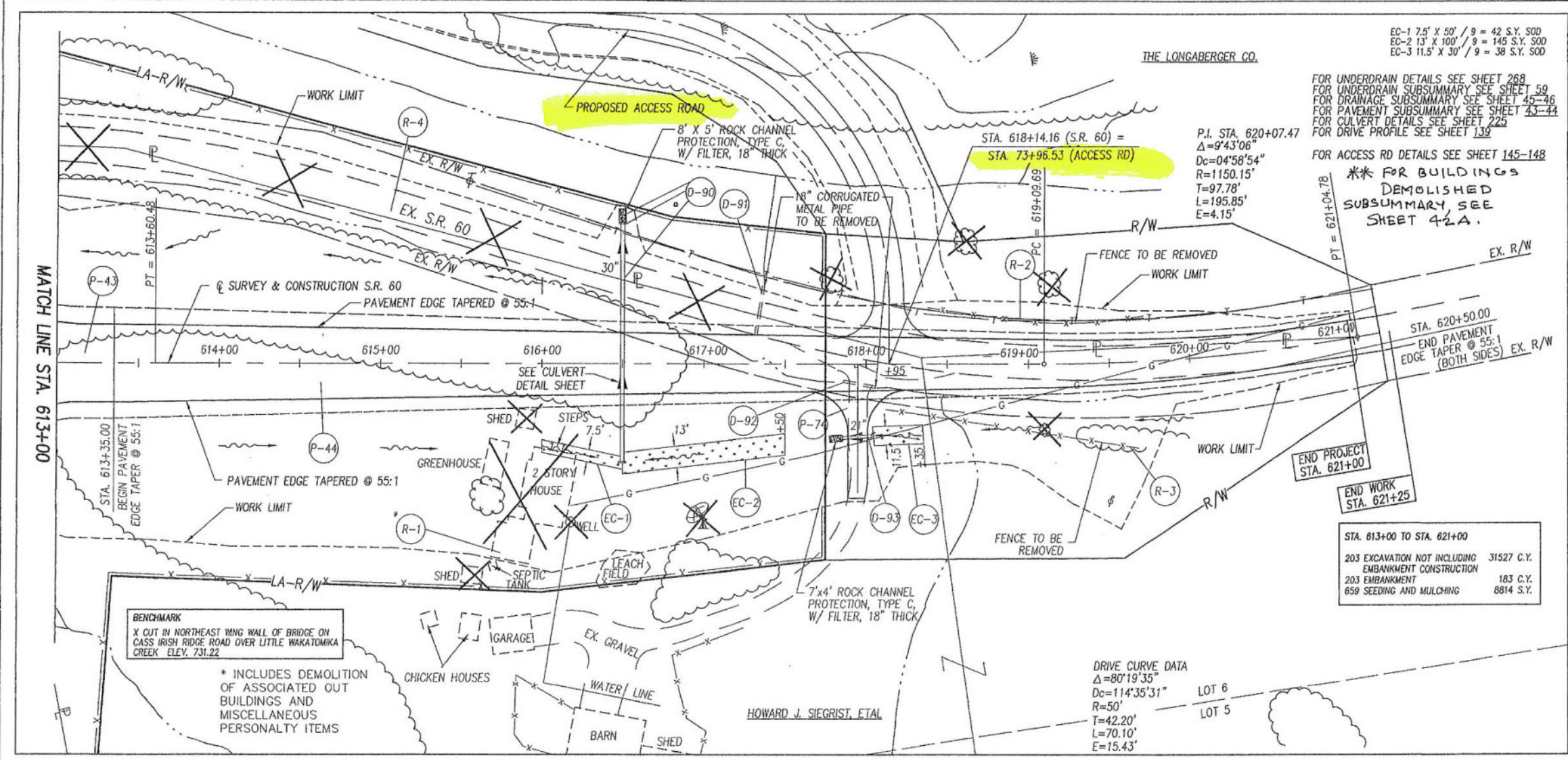
HORIZONTAL SCALE IN FEET



REF. NO.	STATION TO STATION	SIDE	PAVEMENT REMOVED	GUARDRAIL TYPE 5	BRIDGE TERMINAL ASSEMBLY TYPE 1	ESTIMATED QUANTITIES		CONCRETE BARRIER TYPE D	DITCH EROSION PROTECTION	SEE SHEET NO.
						AMOUNT	UNIT			
B-1	607+72 TO 609+22	RT.								
B-2	609+54 TO 609+10	LT.								
R-1	604+00 TO 613+00	CL.	2020							
G-1	605+86.6 TO 607+74.10	RT.		150						
G-2	606+43.60 TO 607+56.10	LT.		75						
G-3	609+19.90 TO 610+32.40	LT.		75						
G-4	609+07.90 TO 610+95.40	RT.		150						
EC-1	609+40 TO 609+60	LT.								
TOTALS CARRIED TO SHEET 42										
			2020	450	4	2	2	306		

J:\DEPT\ASR\15\ROADWAY\proj\60pp-04.dwg Thu Jun 03 16:58:34 1999

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-5201

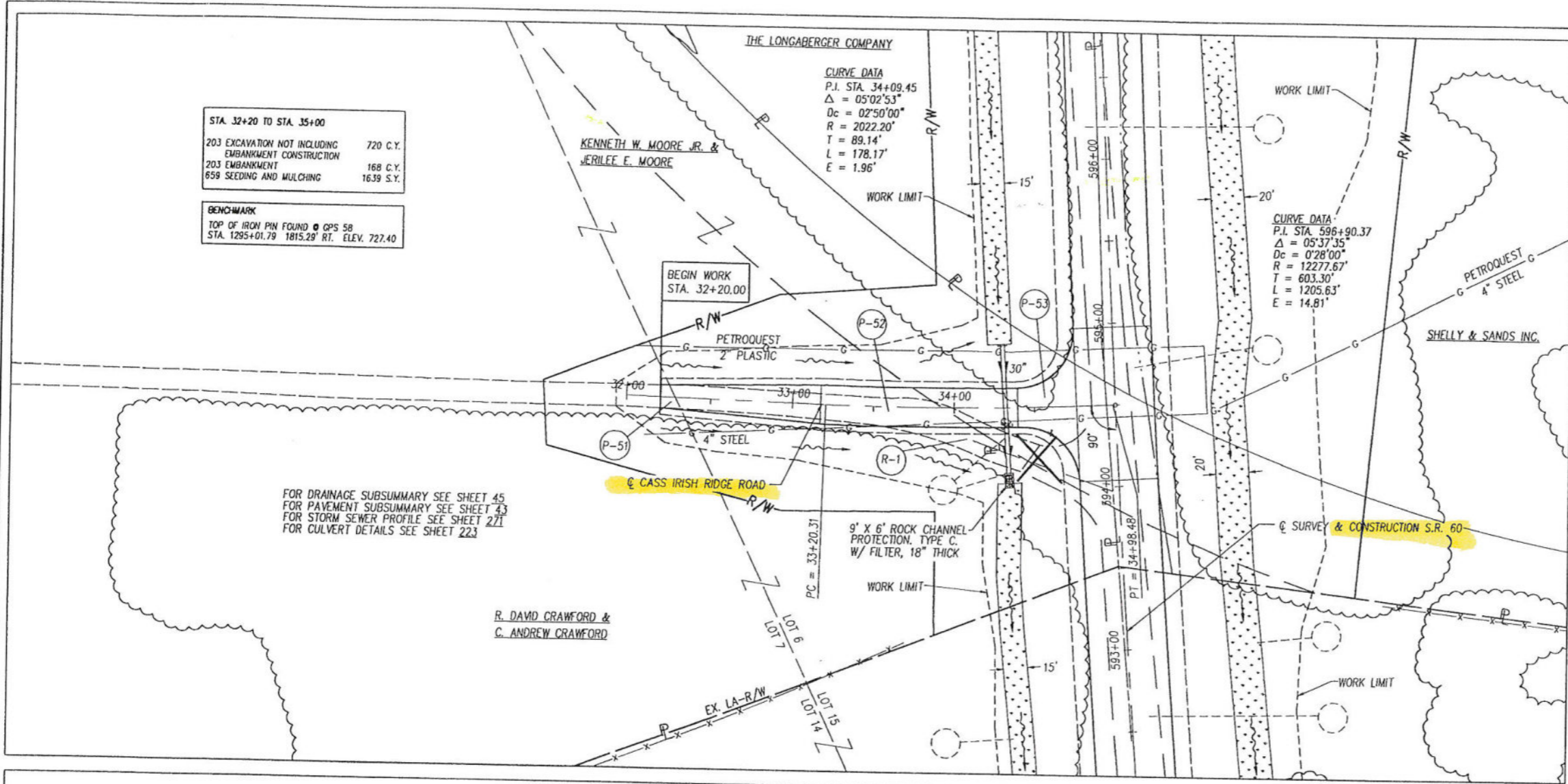


REF. NO.	STATION TO STATION	SIDE	BUILDINGS DEMOLISHED	STEPS REMOVED	SEPTIC TANK REMOVED	REMOVAL MISC. ANTENNA REMOVED	FENCE REMOVED	PAVEMENT REMOVED	ESTIMATED QUANTITIES		CALCULATED	CHECKED	SEE SHEET NO.
									L.F.	S.Y.			
R-1	615+50 TO 617+05	RT											
R-2	618+30 TO 619+75	LT											
R-3	618+15 TO 619+70	RT											
R-4	613+00 TO 620+50	LT						1775					
EC-1	616+00 TO 616+50	RT											
EC-2	616+50 TO 617+50	RT											
EC-3	618+70 TO 619+00	RT											
TOTALS CARRIED TO SHEET 42													

PLAN AND PROFILE S.R. 60
STA. 613+00 TO STA. 621+00

MUS-16-7.16

131
703



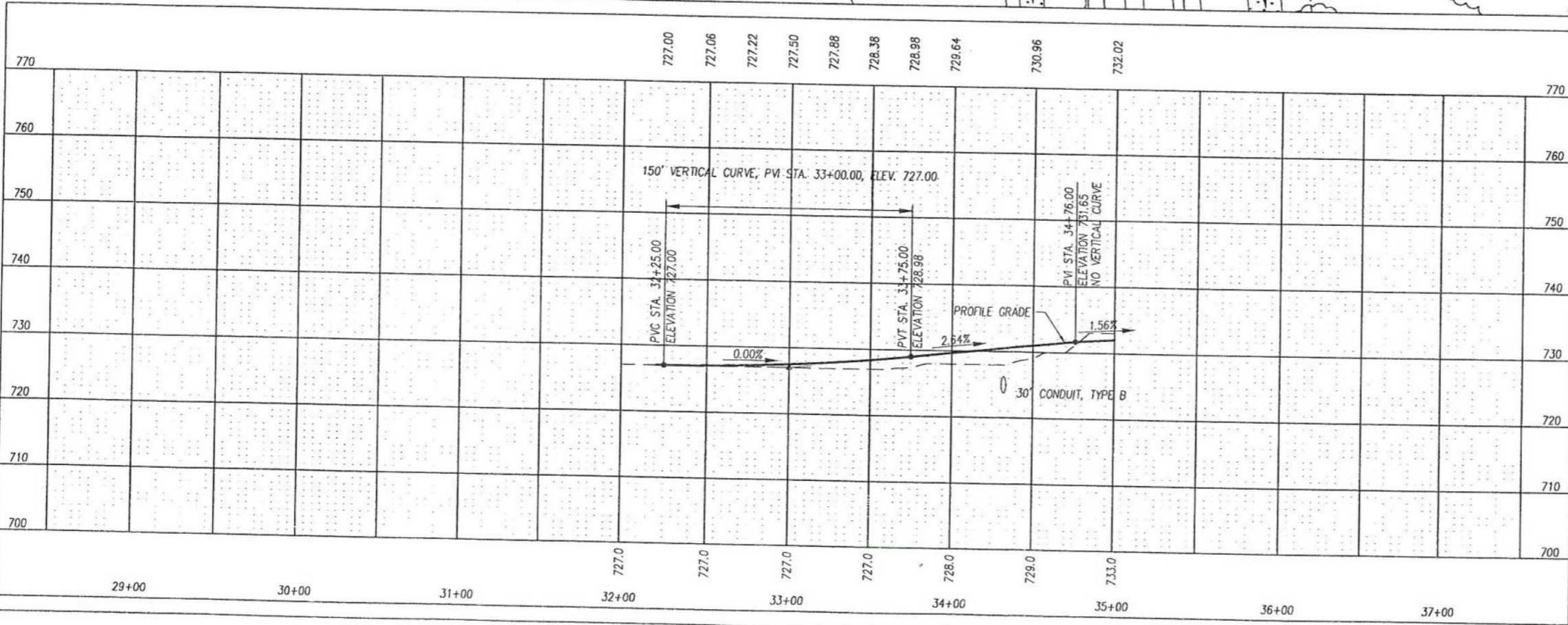
STA. 32+20 TO STA. 35+00
 203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION 720 C.Y.
 203 EMBANKMENT 168 C.Y.
 659 SEEDING AND MULCHING 1639 S.Y.

BENCHMARK
 TOP OF IRON PIN FOUND @ OPS 58
 STA. 1295+01.79 1815.29' RT. ELEV. 727.40

CURVE DATA
 P.I. STA. 34+09.45
 $\Delta = 05^{\circ}02'53''$
 $D_c = 02^{\circ}50'00''$
 $R = 2022.20'$
 $T = 89.14'$
 $L = 178.17'$
 $E = 1.96'$

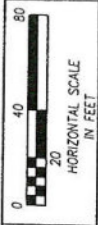
CURVE DATA
 P.I. STA. 596+90.37
 $\Delta = 05^{\circ}37'35''$
 $D_c = 0^{\circ}28'00''$
 $R = 12277.67'$
 $T = 603.30'$
 $L = 1205.63'$
 $E = 14.81'$

FOR DRAINAGE SUBSUMMARY SEE SHEET 45
 FOR PAVEMENT SUBSUMMARY SEE SHEET 43
 FOR STORM SEWER PROFILE SEE SHEET 271
 FOR CULVERT DETAILS SEE SHEET 223



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	PAVEMENT REMOVED	TOTALS CARRIED TO SHEET 42
R-1	32+20 TO 35+00	CL.	S.Y. 605	605
TOTALS CARRIED TO SHEET 42				605

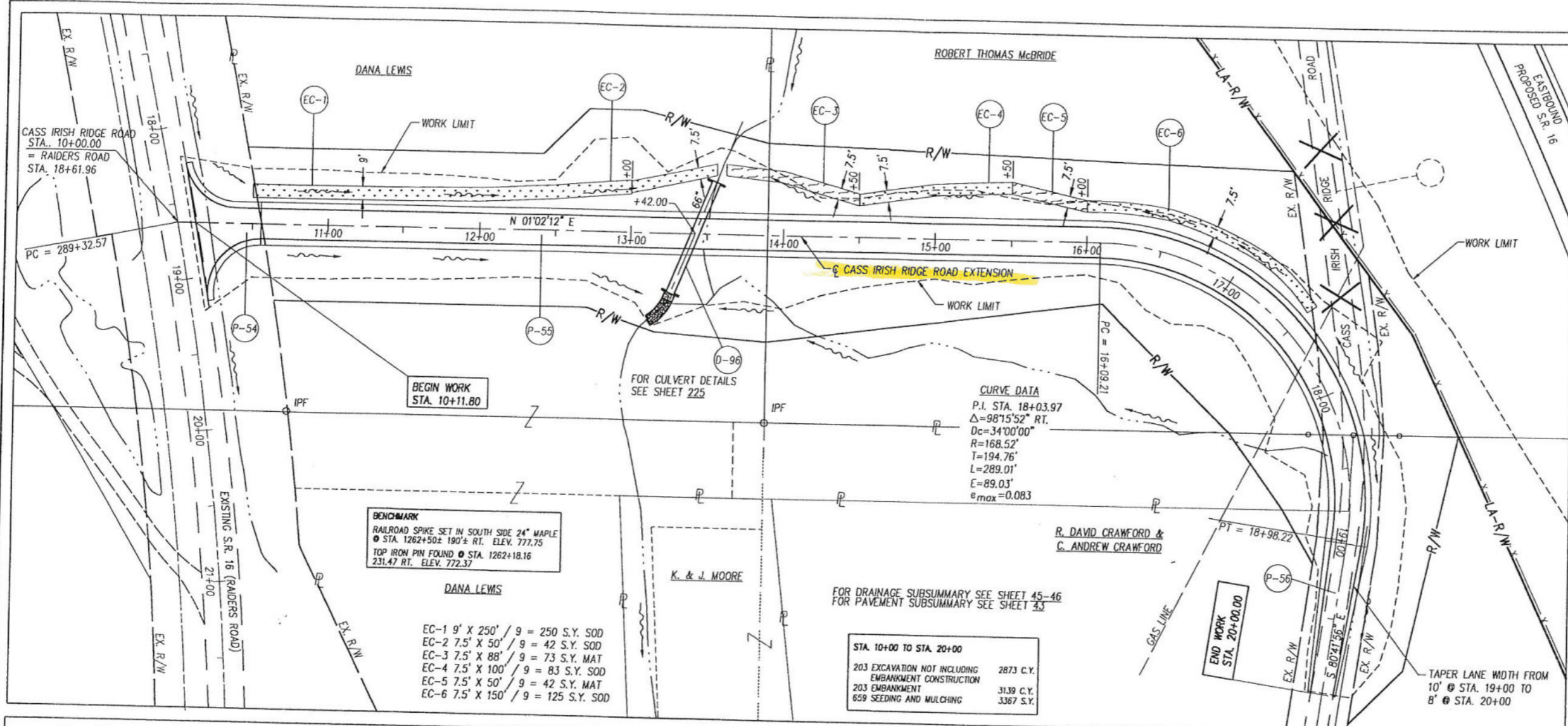


CALCULATED BBD
 CHECKED JSB

PLAN AND PROFILE CASS IRISH RIDGE ROAD
 STA. 32+20 TO STA. 35+00

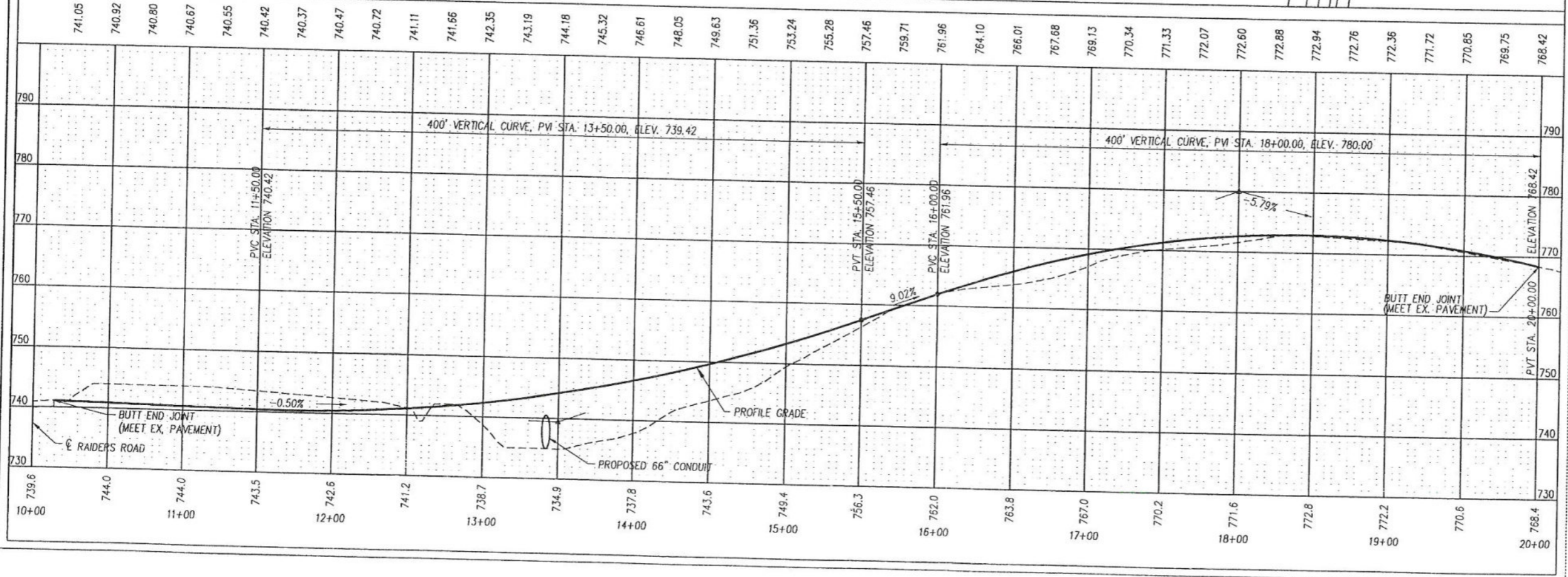
MUS-16-7.16

132
703



EC-1	9' X 250'	9	=	250	S.Y.	SOD
EC-2	7.5' X 50'	9	=	42	S.Y.	SOD
EC-3	7.5' X 88'	9	=	73	S.Y.	MAT
EC-4	7.5' X 100'	9	=	83	S.Y.	SOD
EC-5	7.5' X 50'	9	=	42	S.Y.	MAT
EC-6	7.5' X 150'	9	=	125	S.Y.	SOD

STA. 10+00 TO STA. 20+00	
203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	2873 C.Y.
203 EMBANKMENT	3139 C.Y.
659 SEEDING AND MULCHING	3367 S.Y.



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	DITCH EROSION PROTECTION	DITCH EROSION PROTECTION TYPE 1, AS PER SS 839 OR SS 840	ESTIMATED QUANTITIES
EC-1	10+50 TO 13+00	L	S.Y.	S.S.	250
EC-2	13+00 TO 13+56	L	S.Y.	S.S.	42
EC-3	13+62 TO 14+50	L	S.Y.	S.S.	83
EC-4	14+50 TO 15+50	L	S.Y.	S.S.	125
EC-5	15+50 TO 16+00	L	S.Y.	S.S.	42
EC-6	16+00 TO 17+60	L	S.Y.	S.S.	115
TOTALS CARRIED TO SHEET 42					500

MUS-16-7.16

PLAN AND PROFILE CASS IRISH RIDGE ROAD EXTENSION

STA. 10+00 TO STA. 19+60

133
703

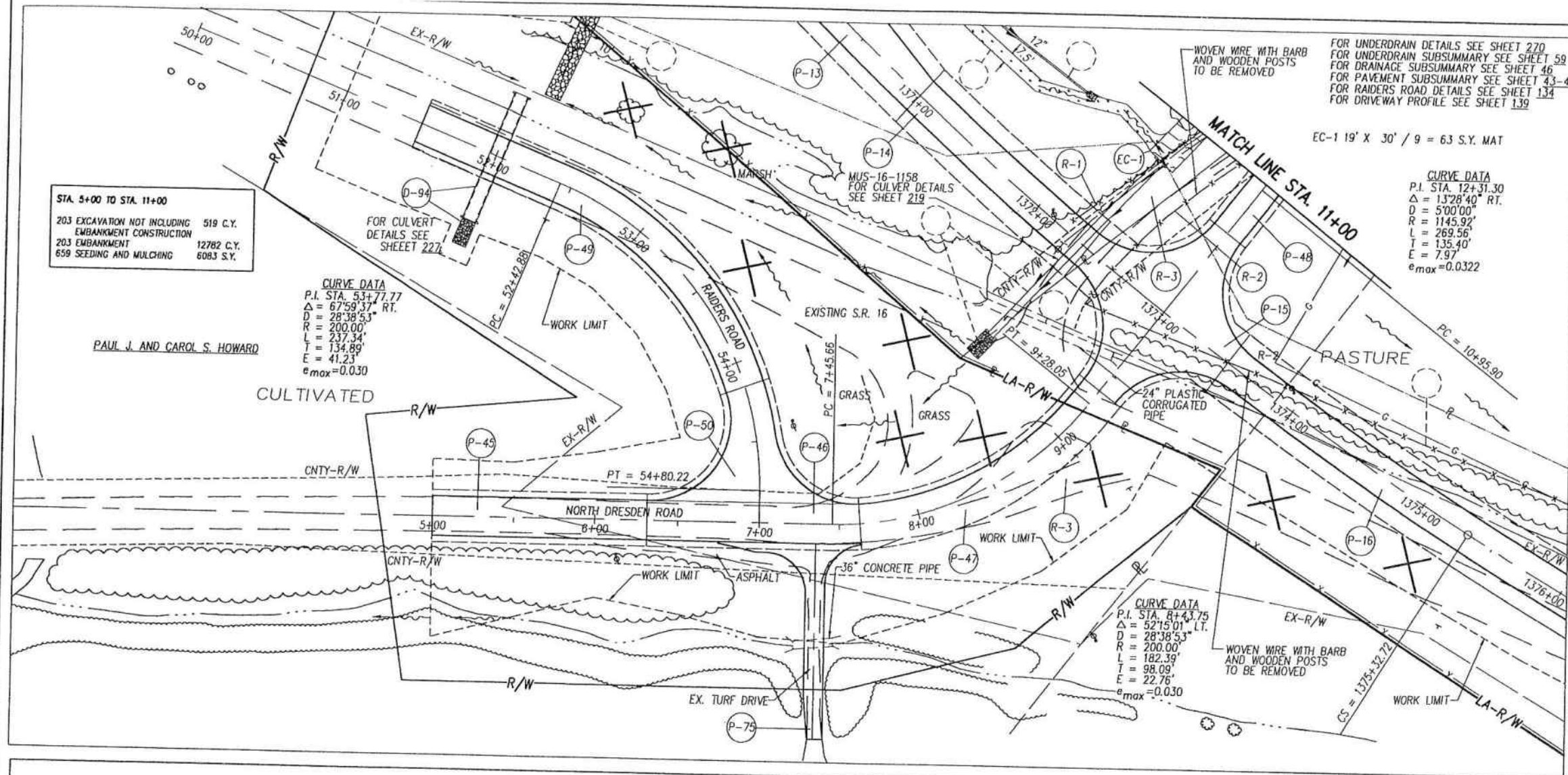
0 40 80
HORIZONTAL SCALE
IN FEET

0 20 40
VERTICAL SCALE
IN FEET

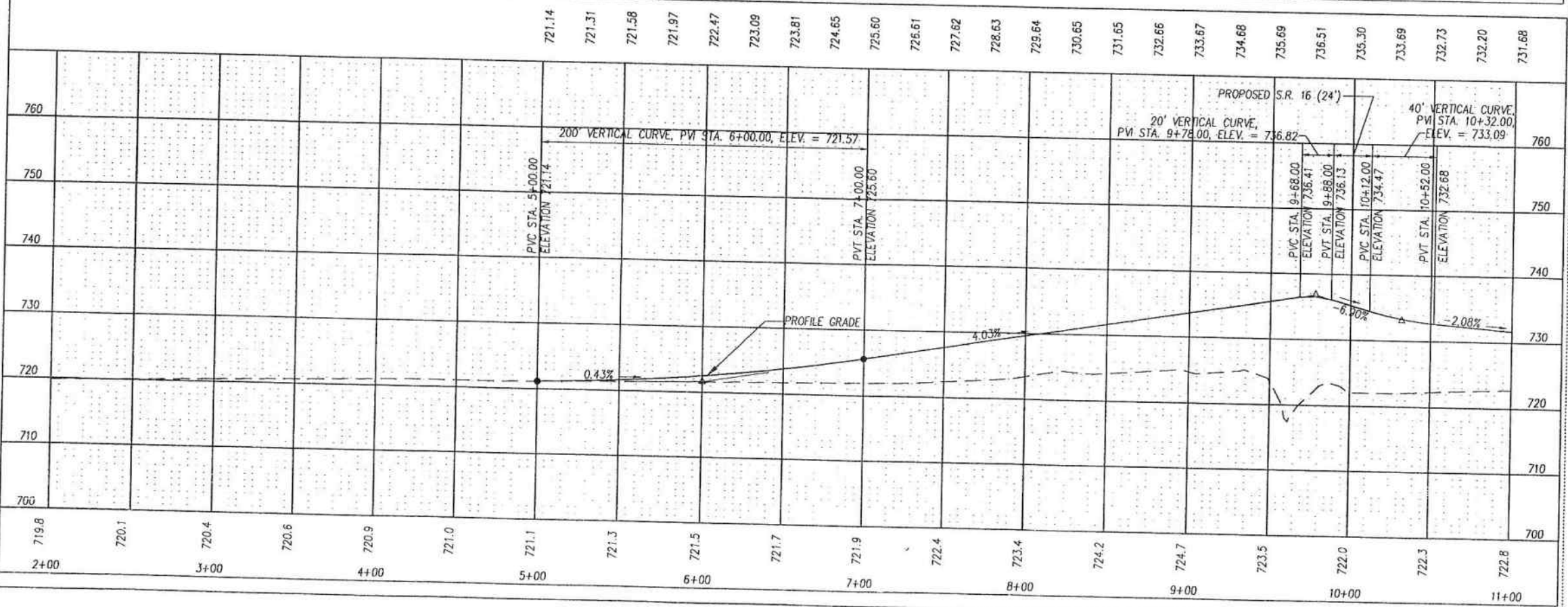
CALCULATED
SSK

CHECKED
JSB

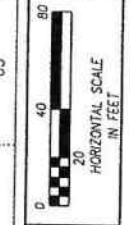
RESOURCE INTERNATIONAL INC.
PROJECT NO. W-5201



ESTIMATED QUANTITIES

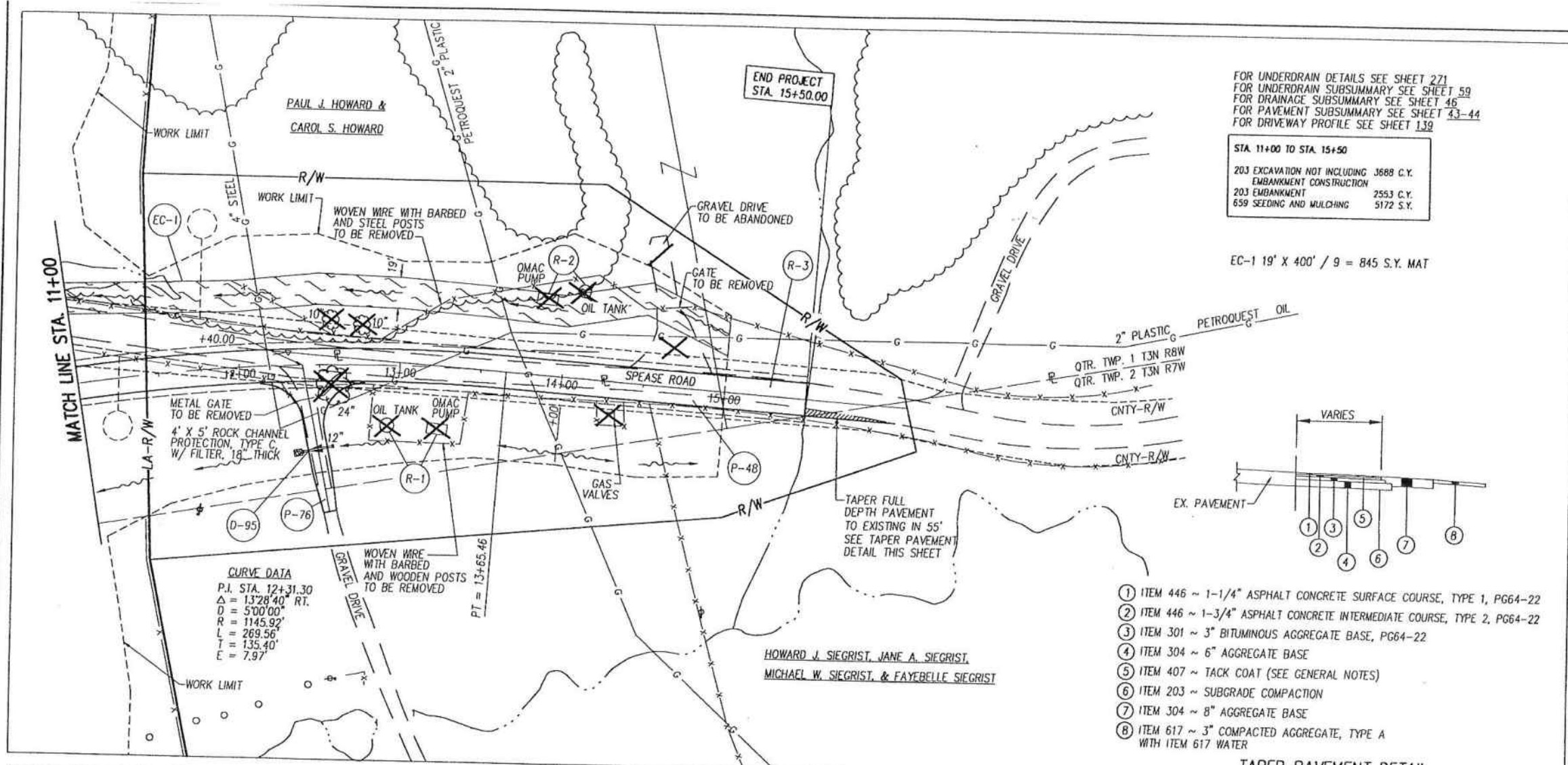


REF. NO.	STATION TO STATION	SIDE	PAVEMENT REMOVED	FENCE REMOVED	ESTIMATED QUANTITIES	SEE SHEET NO.
EC-1	10+70 TO 10+11+00	L.T.			63	
R-1	10+05 TO 16+05	L.T.				
R-2	9+70 TO 16+20	R.T.	860			
R-3	5+00 TO 11+00	CL	1885			
TOTALS CARRIED TO SHEET 42					1885	
					1795	



PLAN AND PROFILE NORTH DRESDEN ROAD / SPEASE ROAD
STA. 5+00 TO STA. 11+00

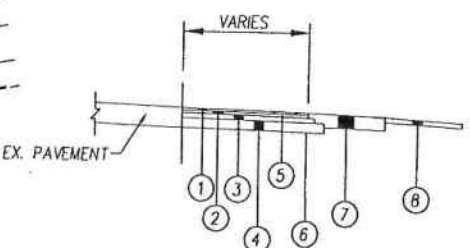
MUS-16-7.16



FOR UNDERDRAIN DETAILS SEE SHEET 271
FOR UNDERDRAIN SUBSUMMARY SEE SHEET 59
FOR DRAINAGE SUBSUMMARY SEE SHEET 46
FOR PAVEMENT SUBSUMMARY SEE SHEET 43-44
FOR DRIVEWAY PROFILE SEE SHEET 139

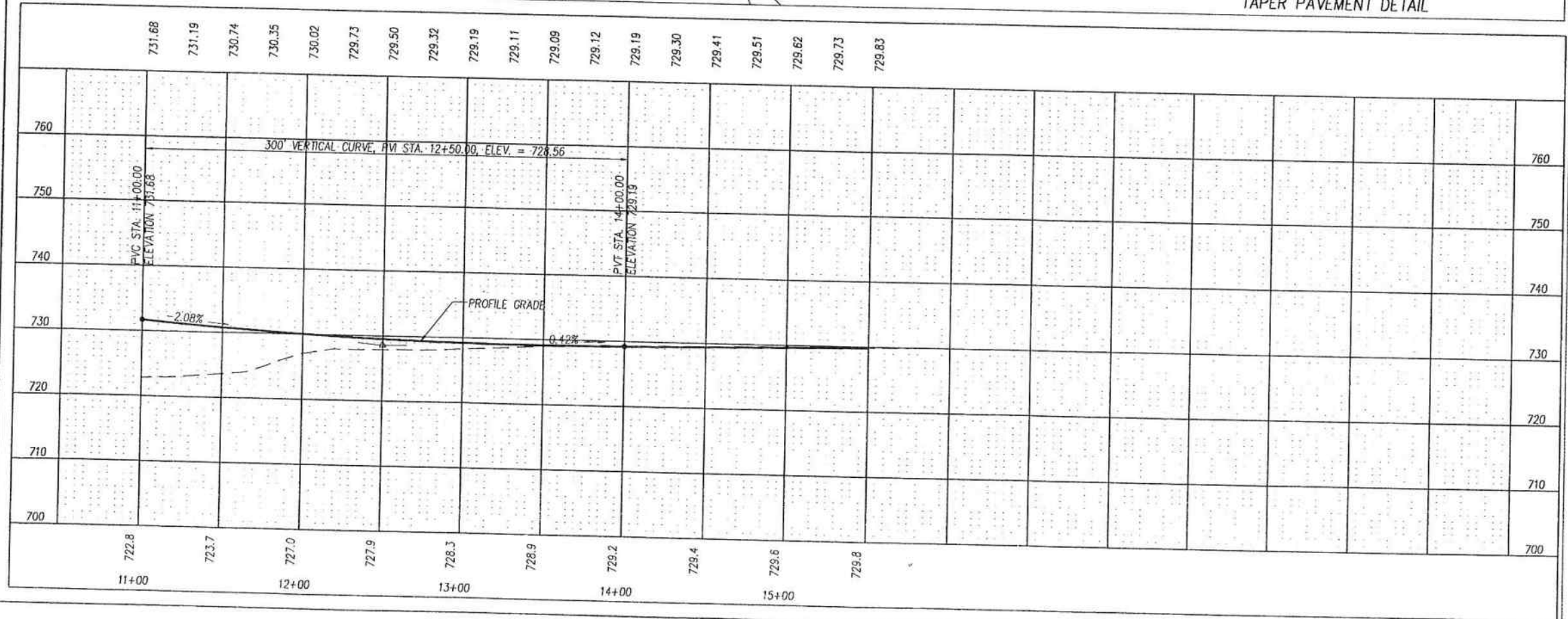
STA. 11+00 TO STA. 15+50
203 EXCAVATION NOT INCLUDING 3688 C.Y.
EMBANKMENT CONSTRUCTION
203 EMBANKMENT 2553 C.Y.
659 SEEDING AND MULCHING 5172 S.Y.

EC-1 19' X 400' / 9 = 845 S.Y. MAT

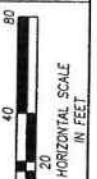


- ① ITEM 446 ~ 1-1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22
- ② ITEM 446 ~ 1-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
- ③ ITEM 301 ~ 3" BITUMINOUS AGGREGATE BASE, PG64-22
- ④ ITEM 304 ~ 6" AGGREGATE BASE
- ⑤ ITEM 407 ~ TACK COAT (SEE GENERAL NOTES)
- ⑥ ITEM 203 ~ SUBGRADE COMPACTION
- ⑦ ITEM 304 ~ 8" AGGREGATE BASE
- ⑧ ITEM 617 ~ 3" COMPACTED AGGREGATE, TYPE A WITH ITEM 617 WATER

HOWARD J. SIEGRIST, JANE A. SIEGRIST,
MICHAEL W. SIEGRIST, & FAYBELLE SIEGRIST



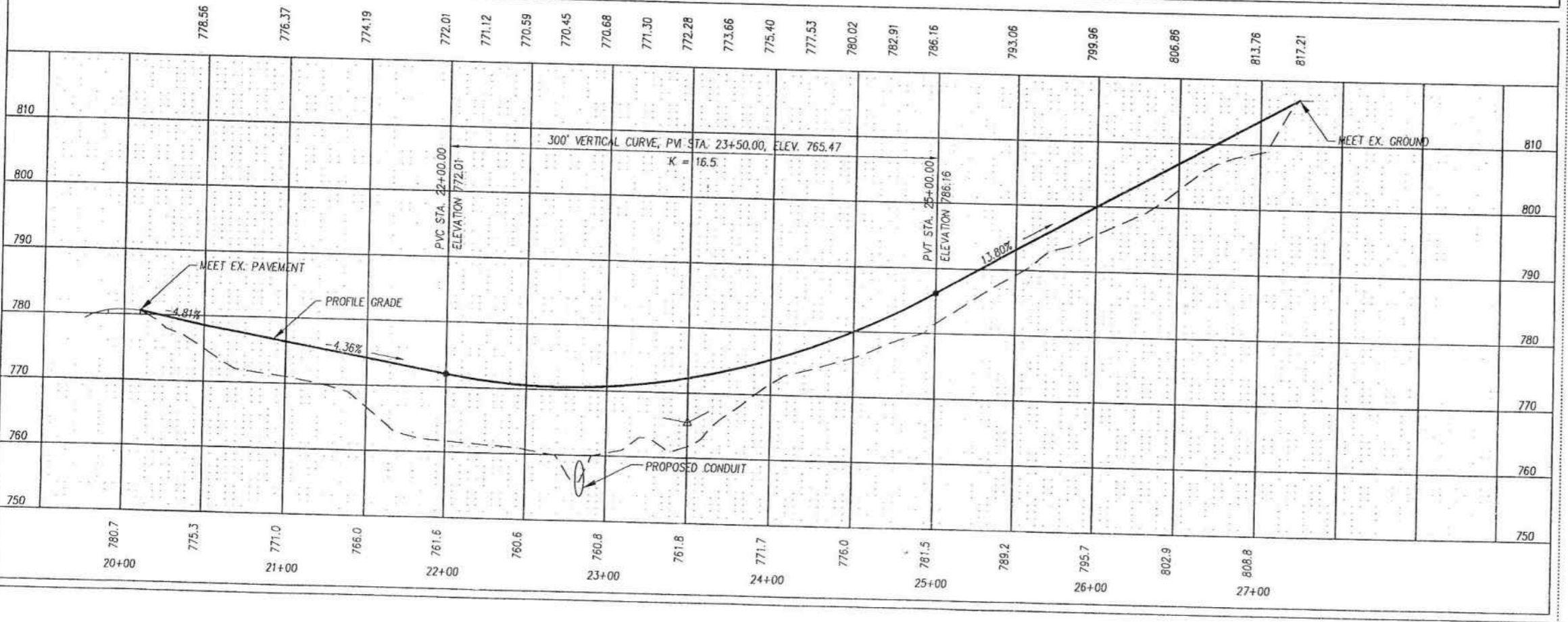
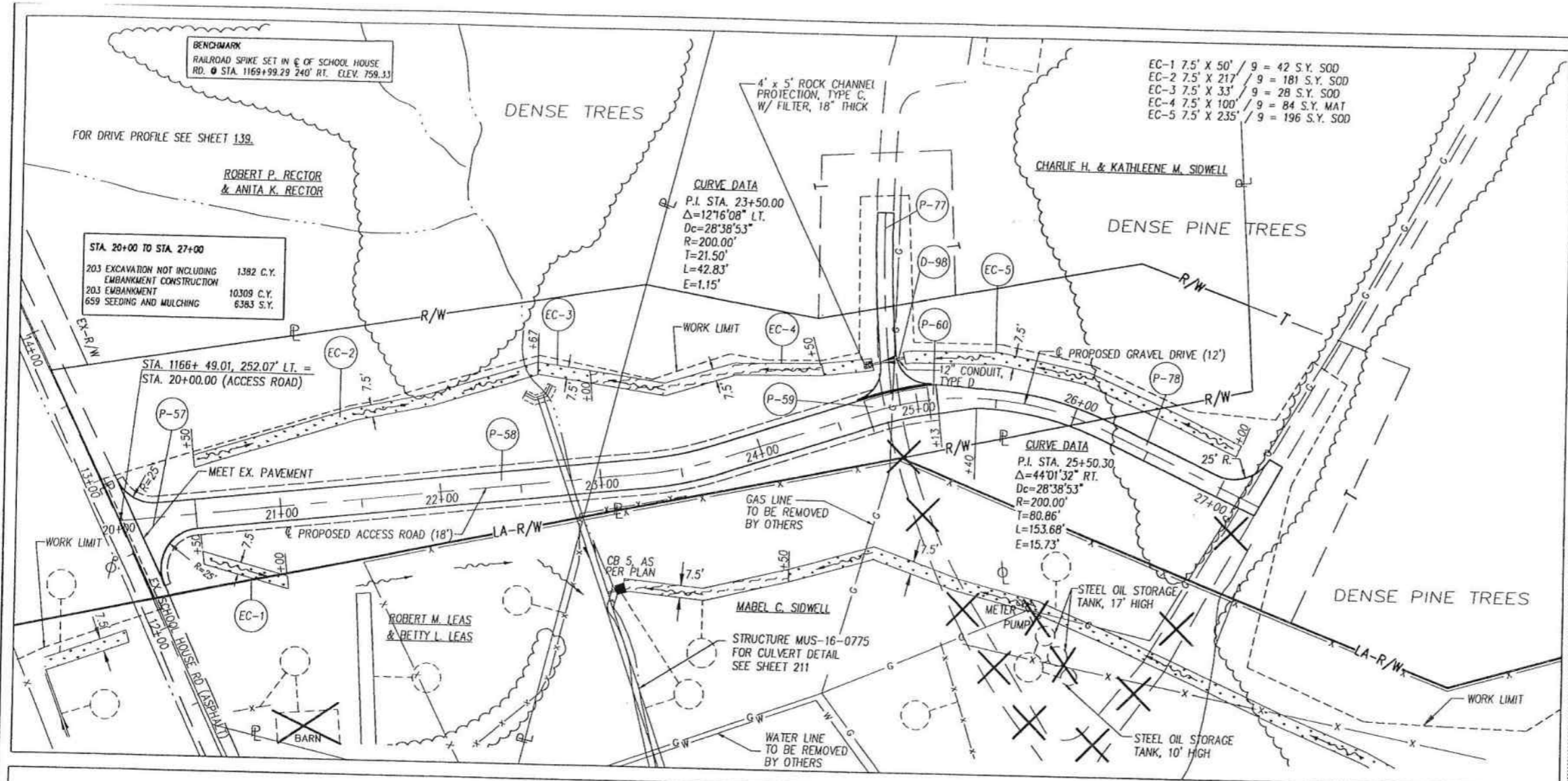
REF. NO.	STATION TO STATION	SIDE	PAVEMENT REMOVED	ESTIMATED QUANTITIES	PAVEMENT REMOVED	ESTIMATED QUANTITIES	PAVEMENT REMOVED	ESTIMATED QUANTITIES	PAVEMENT REMOVED	ESTIMATED QUANTITIES	PAVEMENT REMOVED	ESTIMATED QUANTITIES	PAVEMENT REMOVED	ESTIMATED QUANTITIES	PAVEMENT REMOVED	ESTIMATED QUANTITIES	PAVEMENT REMOVED	ESTIMATED QUANTITIES	PAVEMENT REMOVED	ESTIMATED QUANTITIES								
EC-1	11+00 TO 15+00	C.T.	PAVEMENT REMOVED	S.Y.	845	PAVEMENT REMOVED	S.Y.	845	PAVEMENT REMOVED	S.Y.	845	PAVEMENT REMOVED	S.Y.	845	PAVEMENT REMOVED	S.Y.	845	PAVEMENT REMOVED	S.Y.	845								
R-1	12+90 TO 13+25	RT.	MISC. STORAGE TANK REMOVED	EACH	1	MISC. STORAGE TANK REMOVED	EACH	1	MISC. STORAGE TANK REMOVED	EACH	1	MISC. STORAGE TANK REMOVED	EACH	1	MISC. STORAGE TANK REMOVED	EACH	1	MISC. STORAGE TANK REMOVED	EACH	1								
R-2	13+85 TO 14+15	LT.	MISC. STORAGE TANK REMOVED	EACH	1	MISC. STORAGE TANK REMOVED	EACH	1	MISC. STORAGE TANK REMOVED	EACH	1	MISC. STORAGE TANK REMOVED	EACH	1	MISC. STORAGE TANK REMOVED	EACH	1	MISC. STORAGE TANK REMOVED	EACH	1								
R-3	11+00 TO 15+50	C.T.	MISC. STORAGE TANK REMOVED	EACH	2	MISC. STORAGE TANK REMOVED	EACH	2	MISC. STORAGE TANK REMOVED	EACH	2	MISC. STORAGE TANK REMOVED	EACH	2	MISC. STORAGE TANK REMOVED	EACH	2	MISC. STORAGE TANK REMOVED	EACH	2								
TOTALS CARRIED TO SHEET 42											845	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2



PLAN AND PROFILE SPEASE ROAD
STA. 11+00 TO STA. 15+50

MUS-16-7.16

RESOURCE INTERNATIONAL, INC.
PROJECT NO. W-5201



REF. NO.	STATION TO STATION	SIDE	ESTIMATED QUANTITIES	
EC-1	20+50 TO 21+00	RT	42	84
EC-2	20+50 TO 22+67	LT	181	362
EC-3	22+67 TO 23+00	LT	28	56
EC-4	23+00 TO 24+50	LT	84	168
EC-5	24+50 TO 27+00	LT	196	392
TOTALS CARRIED TO SHEET 42.			447	894

PLAN AND PROFILE SCHOOL HOUSE ROAD - ACCESS ROAD
STA. 20+00 TO STA. 27+00

MUS-16-7.16

137
703

SEE SHEET NO.

DITCH EROSION PROTECTION TYPE I, AS PER SSB40

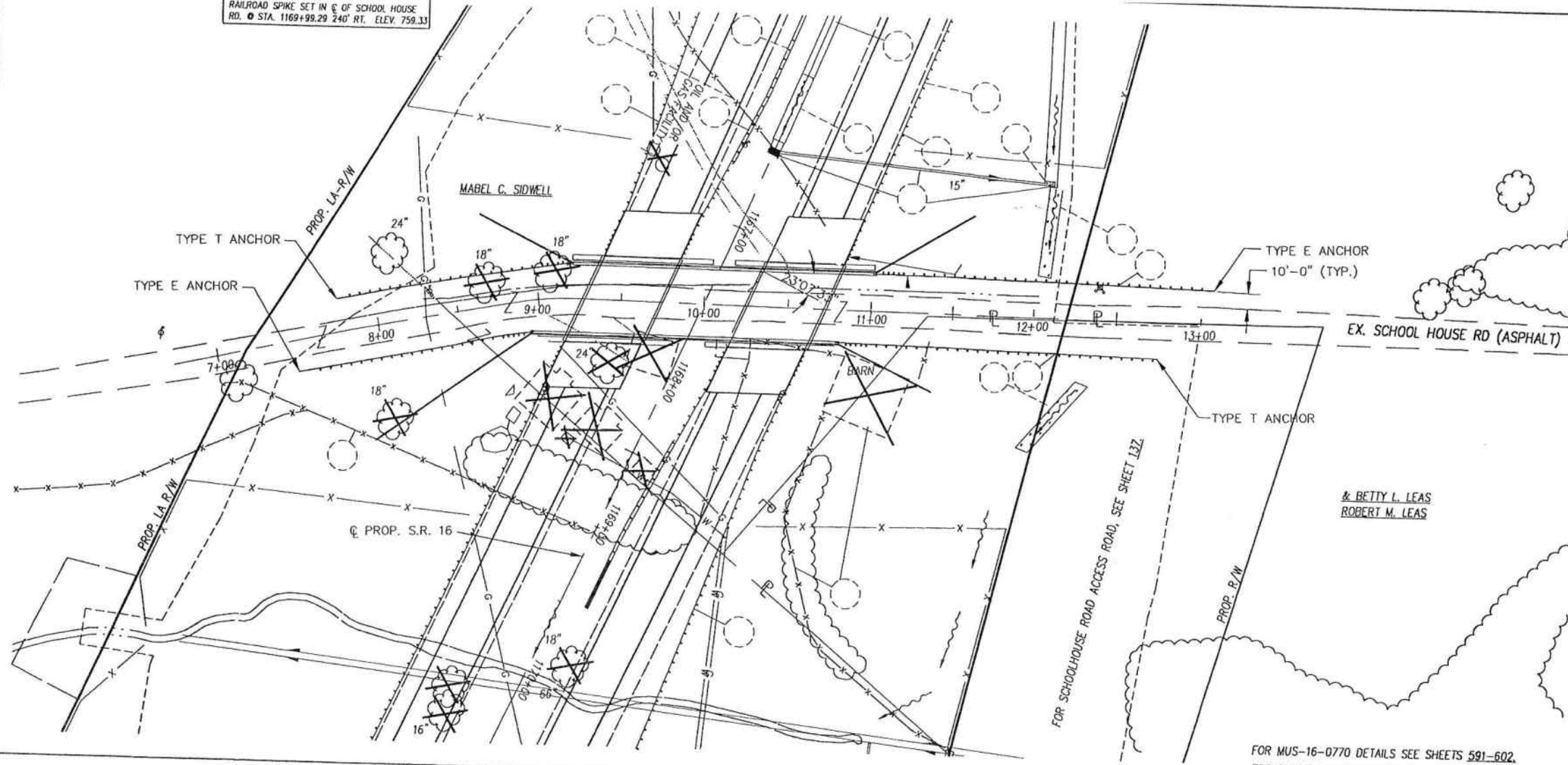
DITCH EROSION PROTECTION

CALCULATED SSK

CHECKED JSB

HORIZONTAL SCALE IN FEET

BENCHMARK
RAILROAD SPIKE SET IN E OF SCHOOL HOUSE
RD. @ STA. 1169+99.29 240° RT. ELEV. 759.33



PLAN SHEET NO.	REFERENCE NUMBER	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION C.Y.	203 EMBANKMENT C.Y.	203 SUBGRADE COMPACTION S.Y.	203 PROOF ROLLING HOURS	407 TACK COAT FOR INTERMEDIATE COURSE GAL.	409 SEAL COAT BITUMINOUS MATERIAL GAL.	409 SEAL COAT COVER AGGREGATE NO. 8 C.Y.	446 ASPHALT CONCRETE SURFACE COURSE, PG-64-22 C.Y.	446 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG-64-22 C.Y.	601 ROCK CHANNEL PROTECTION, 20" THICK, WITH FILTER FABRIC C.Y.	603 12" CONDUIT, TYPE A L.F.	605 AGGREGATE DRAINS L.F.	606 GUARDRAIL, TYPE 5 L.F.	606 ANCHOR ASSEMBLY, TYPE A EACH	606 BRIDGE TERMINAL ASSEMBLY, TYPE 4 EACH	659 SEEDING AND MULCHING S.Y.
141	P-81			703.64	0.23	35.18	211.09	5.63	24.43	53.75							
141	P-82			6557.26	2.19	327.86	1967.18	52.46	227.68	500.90							
141																	
145		149466	264										1364				
146		13643	3275														
147		0	8233								280						18889
148		16	5069										400	4	4		5326
												51					6847
																	3987
TOTALS CARRIED TO GENERAL SUMMARY		163125	16841	7260.90	2.42	363.05	2178.27	58.09	252.11	554.65	280	51	1364	400	4	4	35049

CALCULATED
BBD

CHECKED
JSB

S.R. 60 ACCESS ROAD SUB-SUMMARY

MUS-16-7.16

140
703

S.R. 60 ACCESS ROAD

P-81

STA. 4000 - 4117.9 LT. L = 117.9'

AREA FROM CAD = 6332.76 S.F.

ITEM 446 TYPE 1	6332.76 X (1.25/12)/27	=	24.43 C.Y.
ITEM 446 TYPE 2	6332.76 X (2.75/12) / 27	=	53.75 C.Y.
ITEM 407 (INTERMEDIATE)	6332.76 / 9 X 0.05	=	35.18 GAL
ITEM 304 (8")	6332.76 X (8/12) /27	=	117.27 C.Y.
ITEM 408	6332.76 / 9 X 0.40	=	281.46 GAL
ITEM 409 SEAL COAT BITUM. MTL.	6332.76 / 9 X 0.30	=	211.09 GAL
ITEM 409 SEAL COAT COVER AGG. NO. 8	6332.76 / 9 X 0.008	=	5.63 C.Y.
ITEM 203 (S. COMPACTION)	6332.76 / 9	=	703.64 S.Y.
ITEM 203 (P. ROLLING)	703.64 / 3000	=	0.23 HOURS

ITEM 605, AGGREGATE DRAINS

AGGREGATE DRAINS SHALL BE PLACED AT THE LOCATIONS SHOWN ON SHEET 19. A TOTAL OF 1384 L.F., ITEM 605 AGGREGATE DRAINS HAS BEEN CARRIED TO THE S.R. 60 ACCESS ROAD SUB-SUMMARY.

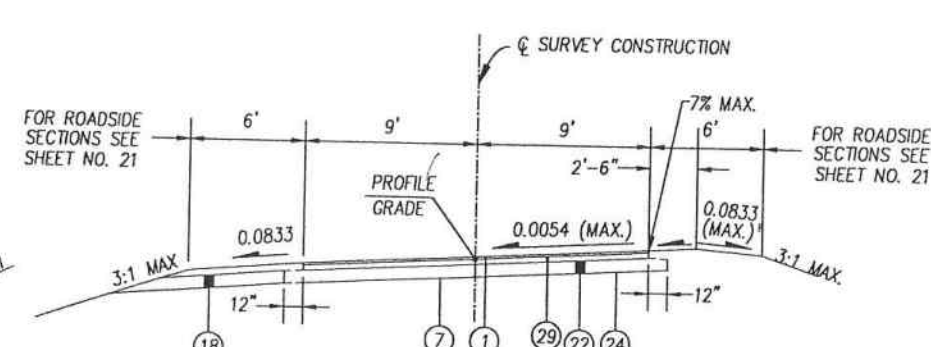
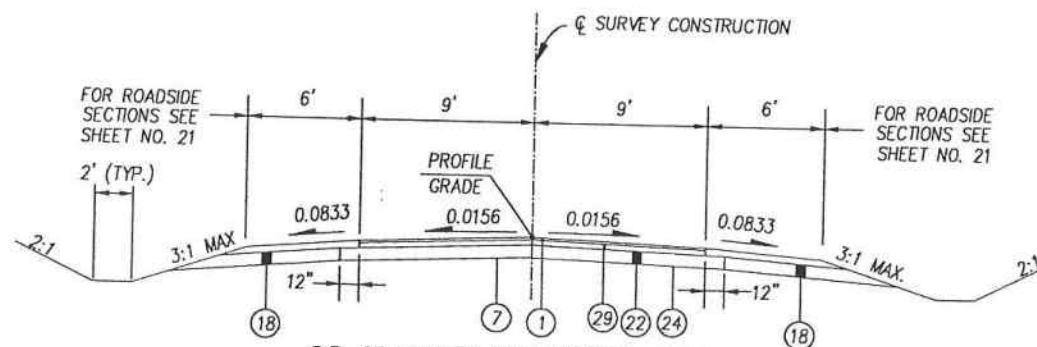
STA. TO STA.			
40+25 - 49+75	RT.	Ø 50' INTERVALS 19 EA. x 9' =	171
40+50 - 50+00	LT.	Ø 50' INTERVALS 19 EA. x 9' =	171
50+25 - 52+25	RT.	Ø 25' INTERVALS 9 EA. x 9' =	81
53+50 - 57+50	LT.	Ø 50' INTERVALS 9 EA. x 10' =	90
53+75 - 57+75	RT.	Ø 50' INTERVALS 9 EA. x 10' =	90
58+00 - 61+50	LT.	Ø 25' INTERVALS 15 EA. x 10' =	250
61+75 - 63+75	RT.	Ø 50' INTERVALS 5 EA. x 9' =	45
62+00 - 63+50	LT.	Ø 50' INTERVALS 4 EA. x 14' =	56
64+00 - 66+25	LT.	Ø 25' INTERVALS 10 EA. x 14' =	140
66+25 - 71+00	LT.	Ø 25' INTERVALS 19 EA. x 9' =	171
71+25 - 72+75	RT.	Ø 25' INTERVALS 7 EA. x 9' =	63
73+00 - 73+50	LT.	Ø 50' INTERVALS 2 EA. x 9' =	18
73+25 - 73+75	RT.	Ø 50' INTERVALS 2 EA. x 9' =	18
			<u>1364</u>

P-82

STA. 4117.9 - 7396.53 CL., L = 3278.63' Prop. SR. 60 Access Rd

PAVEMENT WIDTH = 18'

ITEM 446 TYPE 1	18 X 3278.63 X (1.25/12)/27	=	227.68 C.Y.
ITEM 446 TYPE 2	18 X 3278.63 X (2.75/12) / 27	=	500.90 C.Y.
ITEM 407 (INTERMEDIATE)	18 X 3278.63 / 9 X 0.05	=	327.86 GAL
ITEM 304 (8")	18 X 8/12 X 3278.63 / 27	=	1457.17 C.Y.
ITEM 408	18 X 3278.63 / 9 X 0.4	=	2622.90 GAL
ITEM 409 SEAL COAT BITUM. MTL.	18 X 3278.63 / 9 X 0.3	=	1967.18 GAL
ITEM 409 SEAL COAT COVER AGG. NO. 8	18 X 3278.63 / 9 X 0.008	=	52.46 C.Y.
ITEM 203 (S. COMPACTION)	18 X 3278.63 / 9	=	6557.26 S.Y.
ITEM 203 (P. ROLLING)	6557.26 / 3000	=	2.19 HOURS



S.R. 60 ACCESS ROAD NORMAL SECTION

S.R. 60 ACCESS ROAD SUPERELEVATED SECTION

LEGEND

- | | | | |
|---|---|---|--|
| 1 ITEM 446 ~ 1-1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 | 9 ITEM 659 ~ SEEDING AND MULCHING | 16 ITEM 301 ~ 3" BITUMINOUS AGGREGATE BASE, PG64-22 | 25 ITEM 408 ~ BITUMINOUS PRIME COAT (@0.40 GAL/SY) |
| 2 ITEM 446 ~ 1-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 | 10 ITEM 605 ~ 4" SHALLOW PIPE UNDERDRAIN WITH FILTER FABRIC WRAP, AS PER PLAN (12" DEPTH) | 17 ITEM 301 ~ 4" BITUMINOUS AGGREGATE BASE, PG64-22 | 26 ITEM 605 ~ 4" SHALLOW PIPE UNDERDRAIN (12" DEPTH) |
| 3 ITEM 301 ~ 7" BITUMINOUS AGGREGATE BASE, PG64-22 | 11 ITEM 605 ~ 4" SHALLOW PIPE UNDERDRAIN (30" DEPTH) | 18 ITEM 605 ~ AGGREGATE DRAIN | 27 ITEM 409 ~ SEAL COAT BITUMINOUS MATERIAL (0.3 GAL./S.Y.) |
| 4 ITEM SPECIAL ~ 4" ASPHALT TREATED FREE DRAINING BASE | 12 NOT USED | 19 ITEM 301 ~ 8" BITUMINOUS AGGREGATE BASE, PG64-22 | 28 ITEM 409 ~ SEAL COAT COVER AGGREGATE NO. 8 (0.008 C.Y./S.Y.) |
| 5 ITEM 407 ~ TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTES) | 13 ITEM 611 ~ REINFORCED CONCRETE APPROACH SLAB, T=17", AS PER PLAN (SEE GENERAL NOTES) | 20 ITEM 452 ~ 9" PLAIN CONCRETE PAVEMENT | 29 ITEM 446 ~ 2-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 |
| 6 ITEM 304 ~ 6" AGGREGATE BASE | 14 ITEM 609 ~ CURB, TYPE 4-A | 21 ITEM 653 ~ 3" TOPSOIL FURNISHED AND PLACED | |
| 7 ITEM 203 ~ SUBGRADE COMPACTION | 15 ITEM 606 ~ GUARDRAIL, TYPE 5 | 22 ITEM 304 ~ 8" AGGREGATE BASE | |
| 8 ITEM 617 ~ 3" OR AS SHOWN COMPACTED AGGREGATE, TYPE A WITH ITEM 617 WATER | | 23 STANDARD LONGITUDINAL JOINT | |
| | | 24 ITEM 203 ~ PROOF ROLLING | |

P.I. STA. 42+66.92
Dc = 11'27'33"
e_{max.} = 0.054

P.I. STA. 51+13.92
Dc = 11'27'33"
e_{max.} = 0.054

SUPERELEVATION TABLE S.R. 60 ACCESS ROAD

CALCULATED
JRA
CHECKED
JSB

SUPERELEVATION TABLE (S.R. 60 ACCESS ROAD)

MUS-16-7.16

142
703

STATION	LEFT SIDE										RIGHT SIDE										STATION	COMMENTS
	EDGE OF SHOULDER	SHOULDER WIDTH	SHOULDER SLOPE	PT. ON SHOULDER	SHOULDER WIDTH	SHOULDER SLOPE	EDGE OF PAVEMENT	PAVEMENT WIDTH	PAVEMENT SLOPE	CENTER OF ROADWAY	PAVEMENT SLOPE	PAVEMENT WIDTH	EDGE OF PAVEMENT	SHOULDER SLOPE	SHOULDER WIDTH	PT. ON SHOULDER	SHOULDER SLOPE	SHOULDER WIDTH	EDGE OF SHOULDER			
40+00	849.16	6.0'	-0.0833	849.66	0.0'	-0.0833	849.66	9'	-0.0156	849.80	-0.0156	9'	849.66	-0.0833	0.0'	849.66	-0.0833	6.0'	849.16	40+00		
40+25	849.61	6.0'	-0.0833	850.11	0.0'	-0.0833	850.11	9'	-0.0156	850.25	-0.0156	9'	850.11	-0.0833	0.0'	850.11	-0.0833	6.0'	849.61	40+25		
40+50	850.06	6.0'	-0.0833	850.56	0.0'	-0.0833	850.56	9'	-0.0156	850.70	-0.0156	9'	850.56	-0.0833	0.0'	850.56	-0.0833	6.0'	850.06	40+50		
40+75	850.51	6.0'	-0.0833	851.01	0.0'	-0.0833	851.01	9'	-0.0156	851.15	-0.0156	9'	851.01	-0.0833	0.0'	851.01	-0.0833	6.0'	850.51	40+75		
41+00	850.96	6.0'	-0.0833	851.46	0.0'	-0.0833	851.46	9'	-0.0156	851.60	-0.0156	9'	851.46	-0.0833	0.0'	851.46	-0.0833	6.0'	850.96	41+00		
41+24.87	851.23	6.0'	-0.0833	851.73	0.0'	-0.0833	851.73	9'	-0.0156	851.87	-0.0156	9'	851.73	-0.0833	0.0'	851.73	-0.0833	6.0'	851.23	41+24.87	NORMAL CROWN	
41+25	851.23	6.0'	-0.0833	851.73	0.0'	-0.0833	851.73	9'	-0.0156	851.87	-0.0156	9'	851.73	-0.0833	0.0'	851.73	-0.0833	6.0'	851.23	41+25		
41+44.67	851.20	6.0'	-0.0833	851.70	0.0'	-0.0833	851.70	9'	-0.0156	851.85	0.0000	9'	851.85	-0.0833	0.0'	851.85	-0.0833	6.0'	851.35	41+44.67	TANGENT RUNOUT	
41+50	851.16	6.0'	-0.0833	851.66	0.0'	-0.0833	851.66	9'	-0.0156	851.80	0.0042	9'	851.84	-0.0833	0.0'	851.84	-0.0833	6.0'	851.34	41+50		
41+64.47	850.96	6.0'	-0.0833	851.46	0.0'	-0.0833	851.46	9'	-0.0156	851.60	0.0156	9'	851.74	0.0156	2.5'	851.74	-0.0544	3.5'	851.79	41+64.47	CROWN REMOVAL	
41+75	850.66	6.0'	-0.0833	851.15	0.0'	-0.0833	851.15	9'	-0.0239	851.37	0.0239	9'	851.59	0.0239	2.5'	851.64	-0.0461	3.5'	851.67	41+75		
42+00	849.71	6.0'	-0.0833	850.21	0.0'	-0.0833	850.21	9'	-0.0436	850.60	0.0436	9'	850.99	0.0436	2.5'	851.10	-0.0264	3.5'	851.15	42+00		
FULL SUPERELEVATION																						
43+25	840.52	6.0'	-0.0833	841.02	0.0'	-0.0833	841.02	9'	-0.0496	841.47	0.0496	9'	841.92	0.0496	2.5'	842.04	-0.0204	3.5'	842.09	43+25		
43+50	837.83	6.0'	-0.0833	838.33	0.0'	-0.0833	838.33	9'	-0.0299	838.60	0.0299	9'	838.87	0.0299	2.5'	838.94	-0.0401	3.5'	838.97	43+50		
43+68.18	835.65	6.0'	-0.0833	836.15	0.0'	-0.0833	836.15	9'	-0.0156	836.29	0.0156	9'	836.43	0.0156	2.5'	836.47	-0.0544	3.5'	836.48	43+68.18	CROWN REMOVAL	
43+75	834.73	6.0'	-0.0833	835.23	0.0'	-0.0833	835.23	9'	-0.0156	835.37	0.0102	9'	835.46	-0.0833	0.0'	835.46	-0.0833	6.0'	834.96	43+75		
43+87.98	832.92	6.0'	-0.0833	833.42	0.0'	-0.0833	833.42	9'	-0.0156	833.56	0.0000	9'	833.56	-0.0833	0.0'	833.56	-0.0833	6.0'	833.06	43+87.98	TANGENT RUNOUT	
44+00	831.16	6.0'	-0.0833	831.66	0.0'	-0.0833	831.66	9'	-0.0156	831.80	-0.0095	9'	831.71	-0.0833	0.0'	831.71	-0.0833	6.0'	831.21	44+00		
44+07.78	829.99	6.0'	-0.0833	830.49	0.0'	-0.0833	830.49	9'	-0.0156	830.63	-0.0156	9'	830.49	-0.0833	0.0'	830.49	-0.0833	6.0'	829.99	44+07.78	NORMAL CROWN	
44+25	827.41	6.0'	-0.0833	827.91	0.0'	-0.0833	827.91	9'	-0.0156	828.05	-0.0156	9'	827.91	-0.0833	0.0'	827.91	-0.0833	6.0'	827.41	44+25		
44+50	823.66	6.0'	-0.0833	824.16	0.0'	-0.0833	824.16	9'	-0.0156	824.30	-0.0156	9'	824.16	-0.0833	0.0'	824.16	-0.0833	6.0'	823.66	44+50		
44+75	819.91	6.0'	-0.0833	820.41	0.0'	-0.0833	820.41	9'	-0.0156	820.55	-0.0156	9'	820.41	-0.0833	0.0'	820.41	-0.0833	6.0'	819.91	44+75		
45+00	816.16	6.0'	-0.0833	816.66	0.0'	-0.0833	816.66	9'	-0.0156	816.80	-0.0156	9'	816.66	-0.0833	0.0'	816.66	-0.0833	6.0'	816.16	45+00		
45+25	812.41	6.0'	-0.0833	812.91	0.0'	-0.0833	812.91	9'	-0.0156	813.05	-0.0156	9'	812.91	-0.0833	0.0'	812.91	-0.0833	6.0'	812.41	45+25		
45+50	808.66	6.0'	-0.0833	809.16	0.0'	-0.0833	809.16	9'	-0.0156	809.30	-0.0156	9'	809.16	-0.0833	0.0'	809.16	-0.0833	6.0'	808.66	45+50		
45+75	804.91	6.0'	-0.0833	805.41	0.0'	-0.0833	805.41	9'	-0.0156	805.55	-0.0156	9'	805.41	-0.0833	0.0'	805.41	-0.0833	6.0'	804.91	45+75		
46+00	801.16	6.0'	-0.0833	801.66	0.0'	-0.0833	801.66	9'	-0.0156	801.80	-0.0156	9'	801.66	-0.0833	0.0'	801.66	-0.0833	6.0'	801.16	46+00		
46+25	797.41	6.0'	-0.0833	797.91	0.0'	-0.0833	797.91	9'	-0.0156	798.05	-0.0156	9'	797.91	-0.0833	0.0'	797.91	-0.0833	6.0'	797.41	46+25		
46+50	793.66	6.0'	-0.0833	794.16	0.0'	-0.0833	794.16	9'	-0.0156	794.30	-0.0156	9'	794.16	-0.0833	0.0'	794.16	-0.0833	6.0'	793.66	46+50		
46+75	789.91	6.0'	-0.0833	790.41	0.0'	-0.0833	790.41	9'	-0.0156	790.55	-0.0156	9'	790.41	-0.0833	0.0'	790.41	-0.0833	6.0'	789.91	46+75		
47+00	786.16	6.0'	-0.0833	786.66	0.0'	-0.0833	786.66	9'	-0.0156	786.80	-0.0156	9'	786.66	-0.0833	0.0'	786.66	-0.0833	6.0'	786.16	47+00		
47+25	782.41	6.0'	-0.0833	782.91	0.0'	-0.0833	782.91	9'	-0.0156	783.05	-0.0156	9'	782.91	-0.0833	0.0'	782.91	-0.0833	6.0'	782.41	47+25		
47+50	778.66	6.0'	-0.0833	779.16	0.0'	-0.0833	779.16	9'	-0.0156	779.30	-0.0156	9'	779.16	-0.0833	0.0'	779.16	-0.0833	6.0'	778.66	47+50		
47+75	774.91	6.0'	-0.0833	775.41	0.0'	-0.0833	775.41	9'	-0.0156	775.55	-0.0156	9'	775.41	-0.0833	0.0'	775.41	-0.0833	6.0'	774.91	47+75		
48+00	771.16	6.0'	-0.0833	771.66	0.0'	-0.0833	771.66	9'	-0.0156	771.80	-0.0156	9'	771.66	-0.0833	0.0'	771.66	-0.0833	6.0'	771.16	48+00		
48+25	767.41	6.0'	-0.0833	767.91	0.0'	-0.0833	767.91	9'	-0.0156	768.05	-0.0156	9'	767.91	-0.0833	0.0'	767.91	-0.0833	6.0'	767.41	48+25		
48+50	763.66	6.0'	-0.0833	764.16	0.0'	-0.0833	764.16	9'	-0.0156	764.30	-0.0156	9'	764.16	-0.0833	0.0'	764.16	-0.0833	6.0'	763.66	48+50		
48+75	760.91	6.0'	-0.0833	761.41	0.0'	-0.0833	761.41	9'	-0.0156	761.55	-0.0156	9'	761.41	-0.0833	0.0'	761.41	-0.0833	6.0'	760.91	48+75		
49+00	757.16	6.0'	-0.0833	757.66	0.0'	-0.0833	757.66	9'	-0.0156	757.80	-0.0156	9'	757.66	-0.0833	0.0'	757.66	-0.0833	6.0'	757.16	49+00		
49+25	753.41	6.0'	-0.0833	753.91	0.0'	-0.0833	753.91	9'	-0.0156	754.05	-0.0156	9'	753.91	-0.0833	0.0'	753.91	-0.0833	6.0'	753.41	49+25		
49+50	750.91	6.0'	-0.0833	751.41	0.0'	-0.0833	751.41	9'	-0.0156	751.55	-0.0156	9'	751.41	-0.0833	0.0'	751.41	-0.0833	6.0'	750.91	49+50		
49+75	747.16	6.0'	-0.0833	747.66	0.0'	-0.0833	747.66	9'	-0.0156	747.80	-0.0156	9'	747.66	-0.0833	0.0'	747.66	-0.0833	6.0'	747.16	49+75		
50+00	743.41	6.0'	-0.0833	743.91	0.0'	-0.0833	743.91	9'	-0.0156	744.05	-0.0156	9'	743.91	-0.0833	0.0'	743.91	-0.0833	6.0'	743.41	50+00		
50+00.81	740.91	6.0'	-0.0833	741.41	0.0'	-0.0833	741.41	9'	-0.0156	741.55	-0.0156	9'	741.41	-0.0833	0.0'	741.41	-0.0833	6.0'	740.91	50+00.81	NORMAL CROWN	
50+20.61	737.16	6.0'	-0.0833	737.66	0.0'	-0.0833	737.66	9'	-0.0156	737.80	-0.0156	9'	737.66	-0.0833	0.0'	737.66	-0.0833	6.0'	737.16	50+20.61	TANGENT RUNOUT	
50+25	733.41	6.0'	-0.0833	733.91	0.0'	-0.0833	733.91	9'	-0.0156	734.05	-0.0156	9'	733.91	-0.0833	0.0'	733.91	-0.0833	6.0'	733.41	50+25		
50+40.41	729.66	3.5'	-0.0544	730.16	2.5'	0.0156	730.16	9'	0.0035	730.30	-0.0156	9'	729.66	-0.0833	0.0'	729.66	-0.0833	6.0'	729.16	50+40.41	CROWN REMOVAL	
50+50	725.91	3.5'	-0.0468	730.41	2.5'	0.0232	730.41	9'	0.0156	730.55	-0.0156	9'	725.91	-0.0833	0.0'	725.91	-0.0833	6.0'	725.41	50+50		
50+75	722.16	3.5'	-0.0271	730.66	2.5'	0.0429	730.66	9'	0.0429	730.80	-0.0429	9'	722.16	-0.0833	0.0'	722.16	-0.0833	6.0'	721.66	50+75		
FULL SUPERELEVATION																						
51+50	739.00	3.5'	-0.0250	739.20	2.5'	0.0450	739.09	9'	0.0450	738.68	-0.0450	9'	738.28	-0.0833	0.0'	738.28	-0.0833	6.0'	737.78	51+50		
51+75	735.25	3.5'	-0.0447	738.31	2.5'	0.0253	738.25	9'	0.0253	738.02	-0.0253	9'	737.79	-0.0833	0.0'	737.79	-0.0833	6.0'	737.29	51+75		
51+87.36	731.50	3.5'	-0.0544	737.42	2.5'	0.0156	737.36	9'	0.0156	737.13	-0.0156	9'	731.50	-0.0833	0.0'	731.50	-0.0833	6.0'	731.00	51+87.36	CROWN REMOVAL	
52+00	727.75	6.0'	-0.0833	728.25	0.0'	-0.0833	728.25	9'	-0.0156	728.39	-0.0156	9'	727.75	-0.0833	0.0'	727.75	-0.0833	6.0'	727.25	52+00		
52+07.16	724.00	6.0'	-0.0833	724.50	0.0'	-0.0833	724.50	9'	-0.0156	724.64	-0.0156	9'	724.00	-0.0833								

SUPERELEVATION TABLE S.R. 60 ACCESS ROAD

P.I. STA. 68+37.02 P.I. STA. 59+20.50
 Dc = 11'27'33" Dc = 11'27'33"
 e_{max.} = 0.054 e_{max.} = 0.054

CALCULATED
 JRA
 CHECKED
 JSB

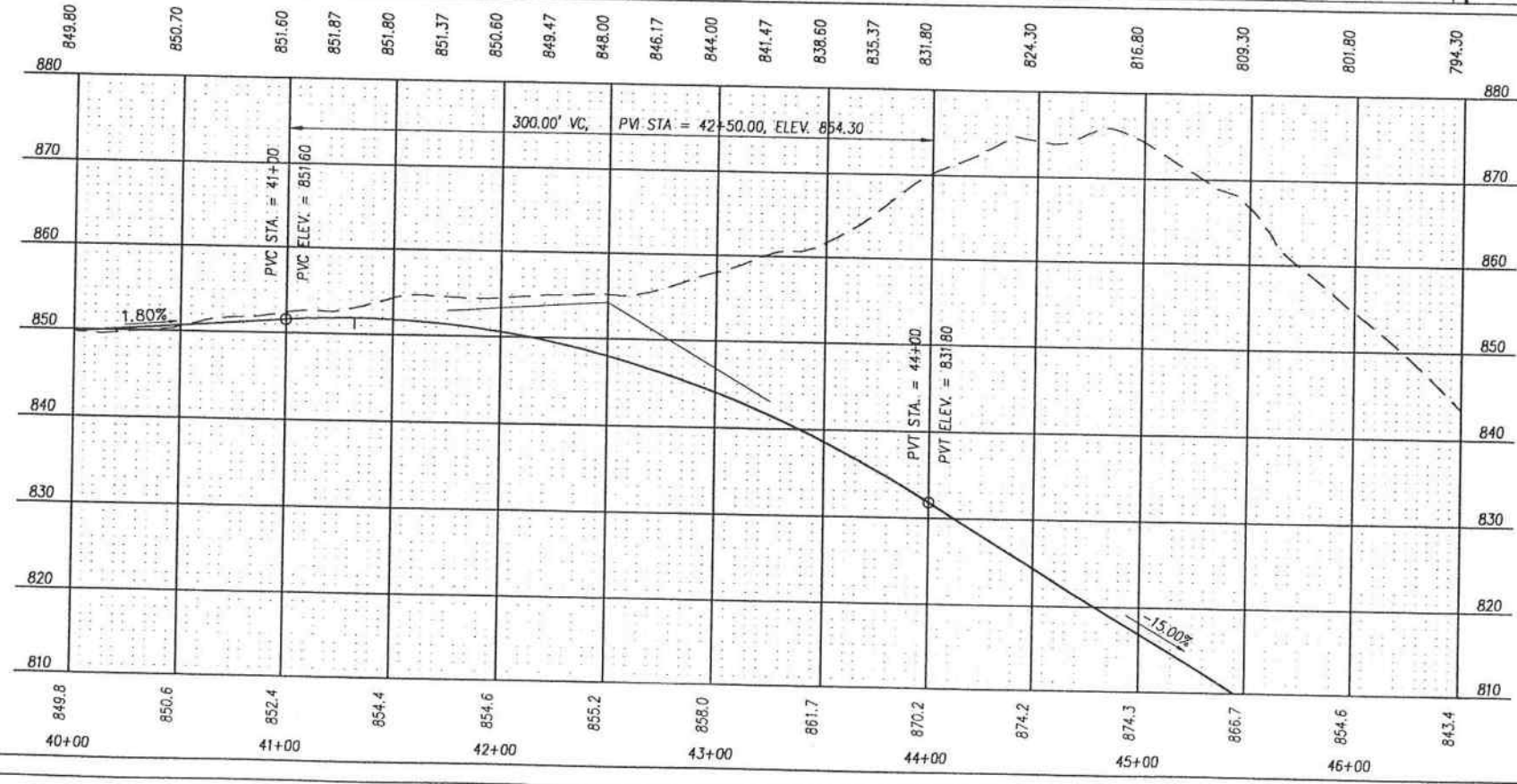
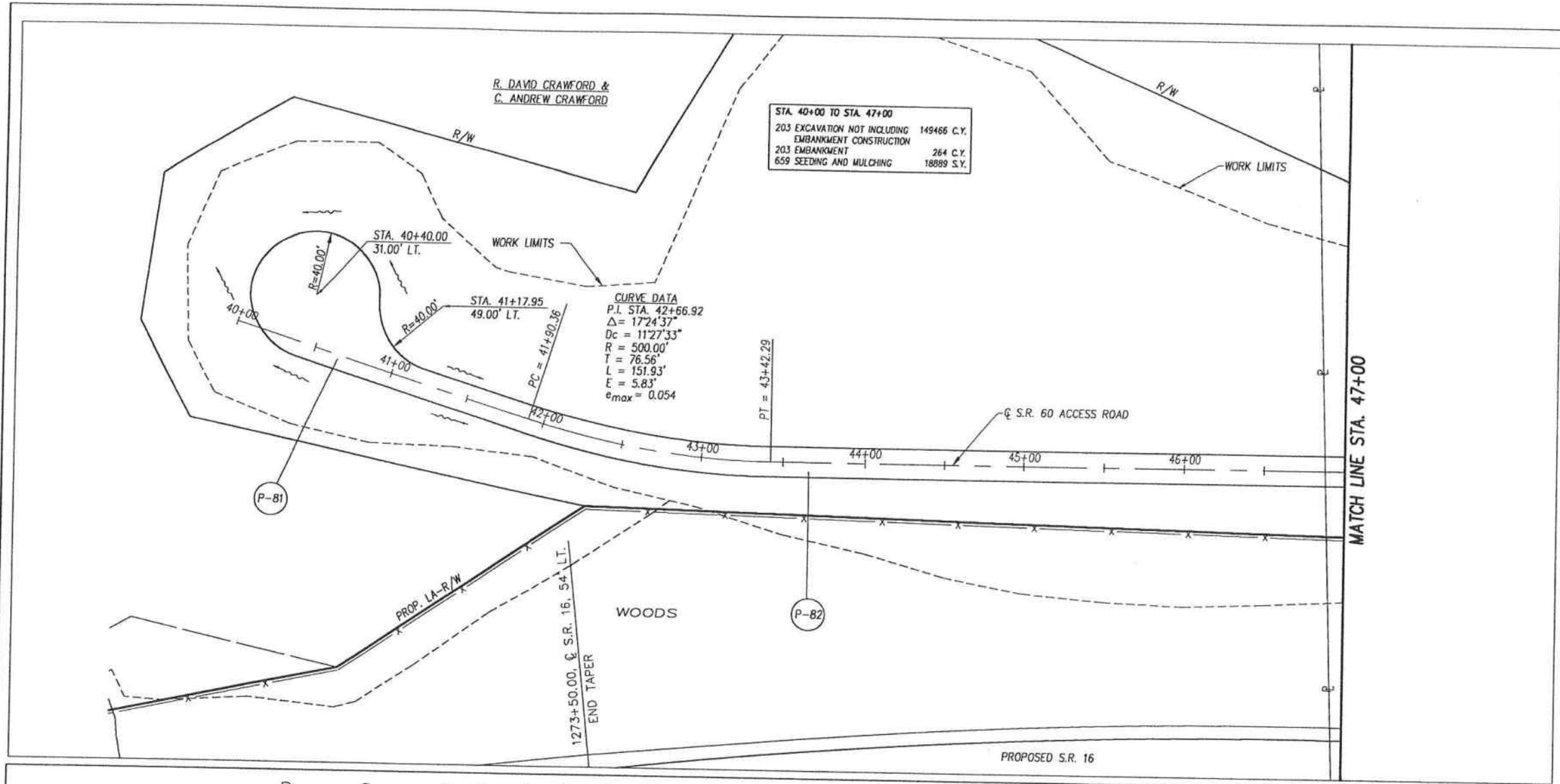
STATION	EDGE OF SHOULDER	SHOULDER WIDTH	SHOULDER SLOPE	PT. ON SHOULDER	SHOULDER WIDTH	SHOULDER SLOPE	EDGE OF PAVEMENT	PAVEMENT WIDTH	PAVEMENT SLOPE	CENTER OF ROADWAY	PAVEMENT SLOPE	PAVEMENT WIDTH	EDGE OF PAVEMENT	SHOULDER SLOPE	SHOULDER WIDTH	PT. ON SHOULDER	SHOULDER SLOPE	SHOULDER WIDTH	EDGE OF SHOULDER	STATION	COMMENTS
53+50	733.61	6.0'	-0.0833	734.11	0.0'	-0.0833	734.11	9'	-0.0156	734.25	-0.0156	9'	734.11	-0.0833	0.0'	734.11	-0.0833	6.0'	733.61	53+50	
53+75	733.08	6.0'	-0.0833	733.58	0.0'	-0.0833	733.58	9'	-0.0156	733.72	-0.0156	9'	733.58	-0.0833	0.0'	733.58	-0.0833	6.0'	733.08	53+75	
54+00	732.58	6.0'	-0.0833	733.08	0.0'	-0.0833	733.08	9'	-0.0156	733.22	-0.0156	9'	733.08	-0.0833	0.0'	733.08	-0.0833	6.0'	732.58	54+00	
54+25	732.18	6.0'	-0.0833	732.68	0.0'	-0.0833	732.68	9'	-0.0156	732.82	-0.0156	9'	732.68	-0.0833	0.0'	732.68	-0.0833	6.0'	732.18	54+25	
54+50	731.86	6.0'	-0.0833	732.36	0.0'	-0.0833	732.36	9'	-0.0156	732.50	-0.0156	9'	732.36	-0.0833	0.0'	732.36	-0.0833	6.0'	731.86	54+50	
55+00	731.64	6.0'	-0.0833	732.14	0.0'	-0.0833	732.14	9'	-0.0156	732.28	-0.0156	9'	732.14	-0.0833	0.0'	732.14	-0.0833	6.0'	731.64	54+75	
55+25	731.50	6.0'	-0.0833	732.00	0.0'	-0.0833	732.00	9'	-0.0156	732.14	-0.0156	9'	732.00	-0.0833	0.0'	732.00	-0.0833	6.0'	731.50	55+00	
55+50	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	55+25	
55+75	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	55+50	
56+00	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	55+75	
56+25	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	56+00	
56+50	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	56+25	
56+75	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	56+50	
57+00	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	56+75	
57+25	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	57+00	
57+50	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	57+25	
57+75	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	57+50	
58+00	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	57+75	
58+07.39	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	58+00	
58+25	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	58+07.39	NORMAL CROWN
58+27.19	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0177	9'	732.08	-0.0833	0.0'	732.08	-0.0833	6.0'	731.58	58+25	
58+46.99	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	0.0000	9'	732.10	-0.0833	0.0'	732.10	-0.0833	6.0'	731.60	58+27.19	TANGENT RUNOUT
58+50	731.44	6.0'	-0.0833	731.94	0.0'	-0.0833	731.94	9'	-0.0156	732.10	0.0156	9'	732.24	0.0156	2.5'	732.28	-0.0544	3.5'	732.30	58+46.99	CROWN REMOVAL
58+75	731.26	6.0'	-0.0833	731.76	0.0'	-0.0833	731.76	9'	-0.0377	732.10	0.0377	9'	732.44	0.0377	2.5'	732.53	-0.0323	3.5'	732.57	58+50	
FULL SUPERELEVATION																					
60+75	731.23	6.0'	-0.0833	731.73	0.0'	-0.0833	731.73	9'	-0.0410	732.10	0.0410	9'	732.47	0.0410	2.5'	732.57	-0.029	3.5'	732.61	60+75	
61+00	731.41	6.0'	-0.0833	731.91	0.0'	-0.0833	731.91	9'	-0.0213	732.10	0.0213	9'	732.29	0.0213	2.5'	732.34	-0.0487	3.5'	732.37	61+00	
61+07.29	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	0.0156	9'	732.24	0.0156	2.5'	732.28	-0.0544	3.5'	732.30	61+07.29	CROWN REMOVAL
61+25	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	0.0016	9'	732.11	-0.0833	0.0'	732.11	-0.0833	6.0'	731.61	61+25	
61+27.09	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	0.0000	9'	732.10	-0.0833	0.0'	732.10	-0.0833	6.0'	731.60	61+27.09	TANGENT RUNOUT
61+46.89	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	61+46.89	NORMAL CROWN
61+50	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	61+50	
62+00	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	61+75	
62+25	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	62+00	
62+50	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	62+25	
62+75	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	62+50	
63+00	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	62+75	
63+25	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	63+00	
63+50	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	63+25	
63+75	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	63+50	
64+00	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	63+75	
64+20.80	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	64+00	
64+25	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0156	9'	731.96	-0.0833	0.0'	731.96	-0.0833	6.0'	731.46	64+20.80	NORMAL CROWN
64+40.60	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	-0.0123	9'	731.99	-0.0833	0.0'	731.99	-0.0833	6.0'	731.49	64+25	
64+50	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	0.0000	9'	732.10	-0.0833	0.0'	732.10	-0.0833	6.0'	731.60	64+40.60	TANGENT RUNOUT
64+60.40	731.46	6.0'	-0.0833	731.96	0.0'	-0.0833	731.96	9'	-0.0156	732.10	0.0074	9'	732.17	-0.0833	0.0'	732.17	-0.0833	6.0'	731.67	64+50	
64+75	731.36	6.0'	-0.0833	731.86	0.0'	-0.0833	731.86	9'	-0.0156	732.10	0.0156	9'	732.24	0.0156	2.5'	732.28	-0.0544	3.5'	732.30	64+60.40	CROWN REMOVAL
65+00	731.18	6.0'	-0.0833	731.68	0.0'	-0.0833	731.68	9'	-0.0271	732.10	0.0271	9'	732.34	0.0271	2.5'	732.41	-0.0429	3.5'	732.44	64+75	
									-0.0468	732.10	0.0468	9'	732.52	0.0468	2.5'	732.64	-0.0232	3.5'	732.69	65+00	
FULL SUPERELEVATION																					

SUPERELEVATION TABLE (S.R. 60 ACCESS ROAD)

MUS-16-7.16

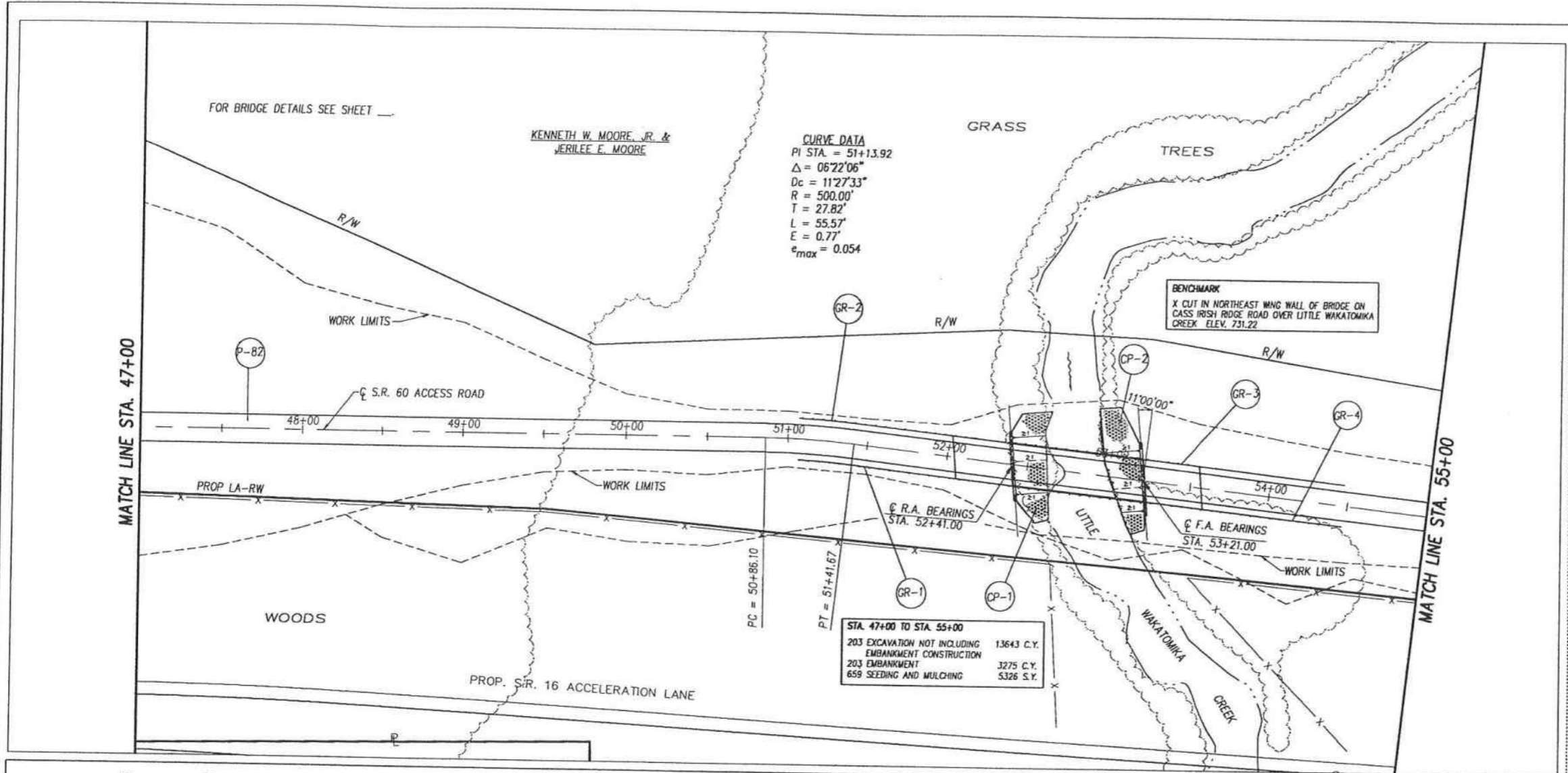
G:\DWG\DEPT4\W-8083\DWG\supertb12.dwg Tue Feb 02 13:41:00 1999

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-5201



REF. NO.	STATION TO STATION	SIDE	ESTIMATED QUANTITIES		SEE SHEET NO.
			TOTALS CARRIED TO SHEET 140		
MUS-16-7.16					145 703
PLAN AND PROFILE - S.R. 60 ACCESS ROAD STA. 40+00 TO STA. 47+00					 HORIZONTAL SCALE IN FEET

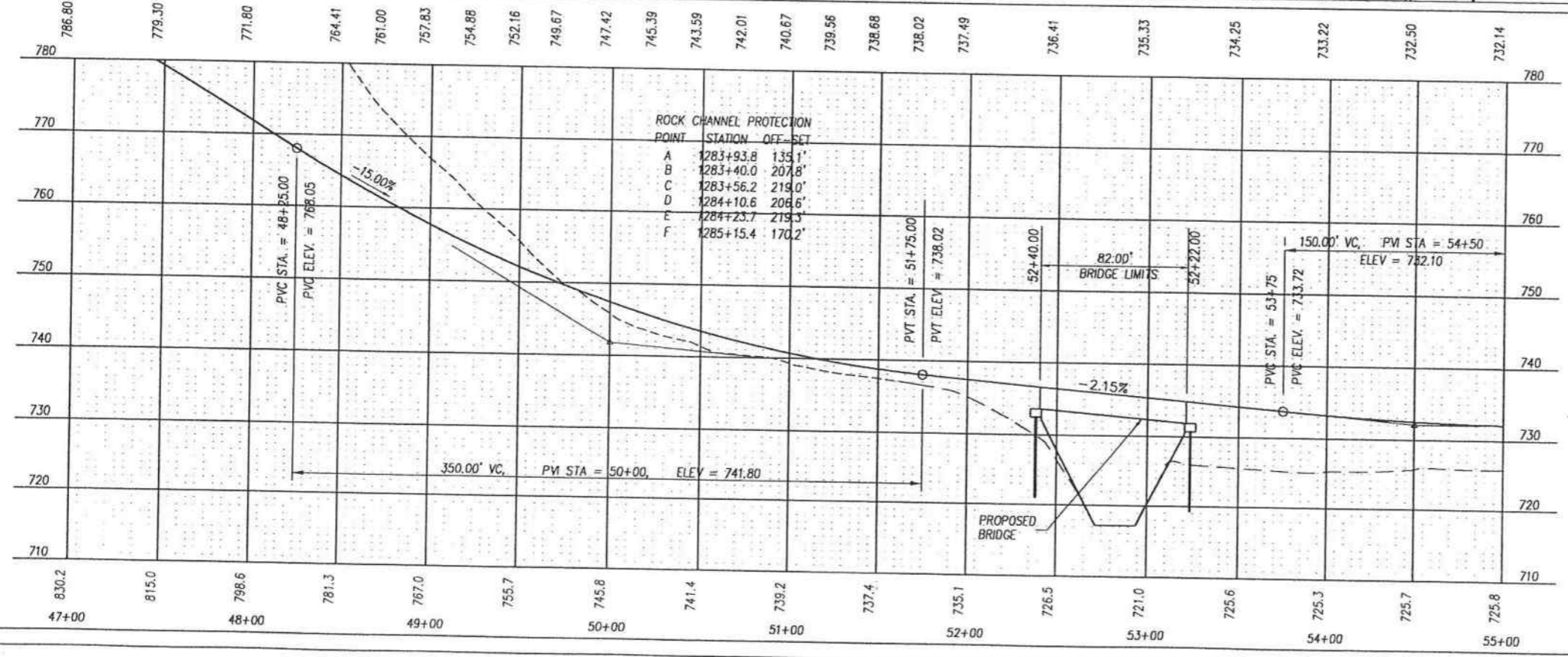
RESOURCE INTERNATIONAL INC.
PROJECT NO. W-5201



CURVE DATA
 PI STA = 51+13.92
 $\Delta = 06^{\circ}22'06''$
 $D_c = 1127.33'$
 $R = 500.00'$
 $T = 27.82'$
 $L = 55.57'$
 $E = 0.77'$
 $e_{max} = 0.054$

BENCHMARK
 X CUT IN NORTHEAST WING WALL OF BRIDGE ON
 CASS IRISH RIDGE ROAD OVER LITTLE WAKATOMIKA
 CREEK ELEV. 731.22

STA. 47+00 TO STA. 55+00
 203 EXCAVATION NOT INCLUDING 13643 C.Y.
 EMBANKMENT CONSTRUCTION
 203 EMBANKMENT 3275 C.Y.
 659 SEEDING AND MULCHING 5326 S.Y.

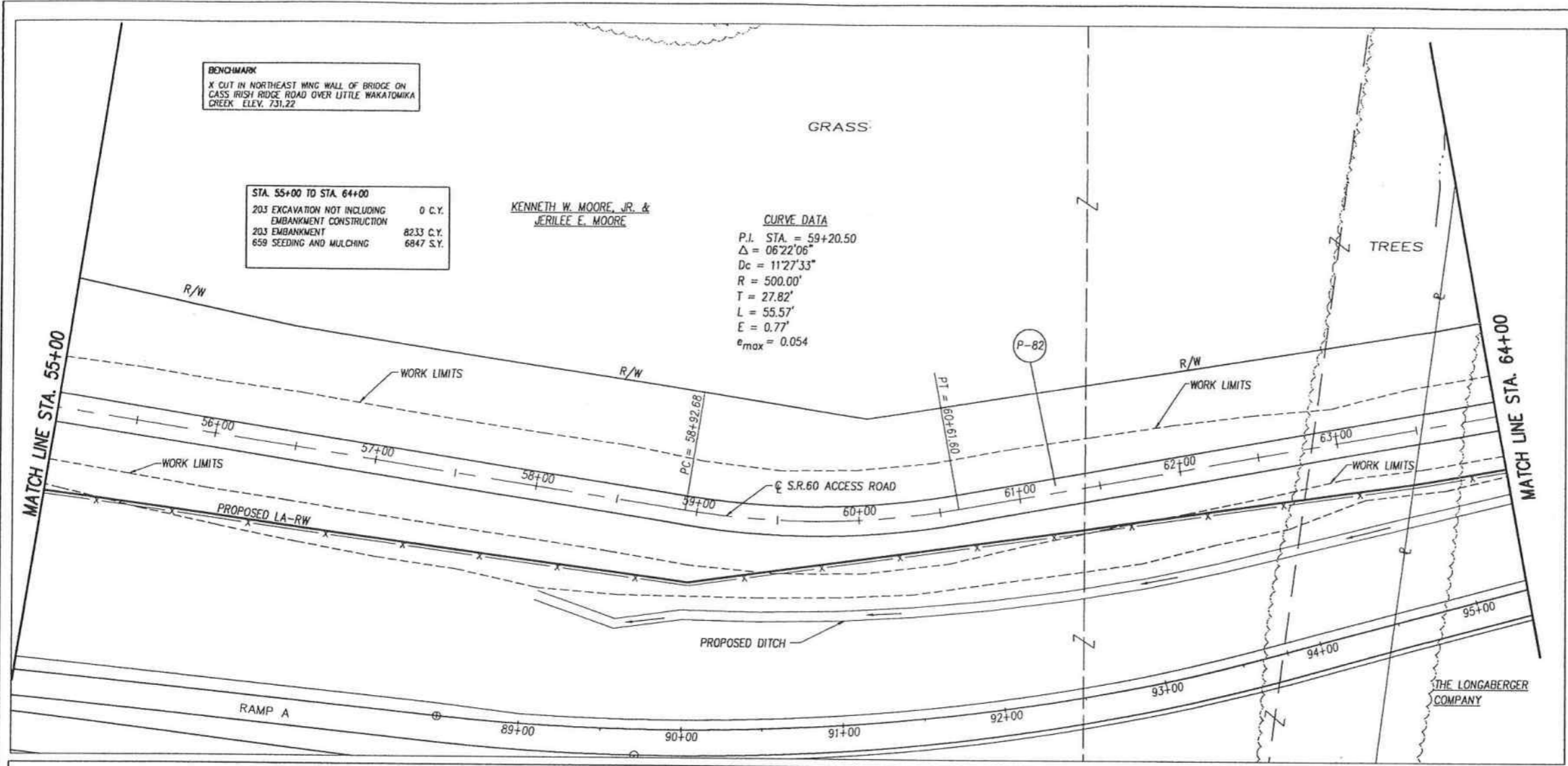


REF. NO.	STATION TO STATION	SIDE	ESTIMATED QUANTITIES	ANCHOR ASSEMBLY TYPE A	BRIDGE TERMINAL ASSEMBLY TYPE 4	GUARD-RAIL TYPE 5	ROCK CHANNEL PROTECTION 2'0" THICK WITH FILTER FABRIC	SEE SHEET NO.
CP-1	52+40 TO 52+60							
CP-2	53+00 TO 53+20							
GR-1	51+06.52 TO 52+37.70	I.T						
GR-2	51+06.92 TO 52+42.81	R.T						
GR-3	53+26.32 TO 54+47.71	R.T						
GR-4	53+19.18 TO 54+46.84	I.T						
TOTALS CARRIED TO SHEET 140								

PLAN AND PROFILE - S.R. 60 ACCESS ROAD
STA. 47+00 TO STA. 55+00

MUS-16-7.16

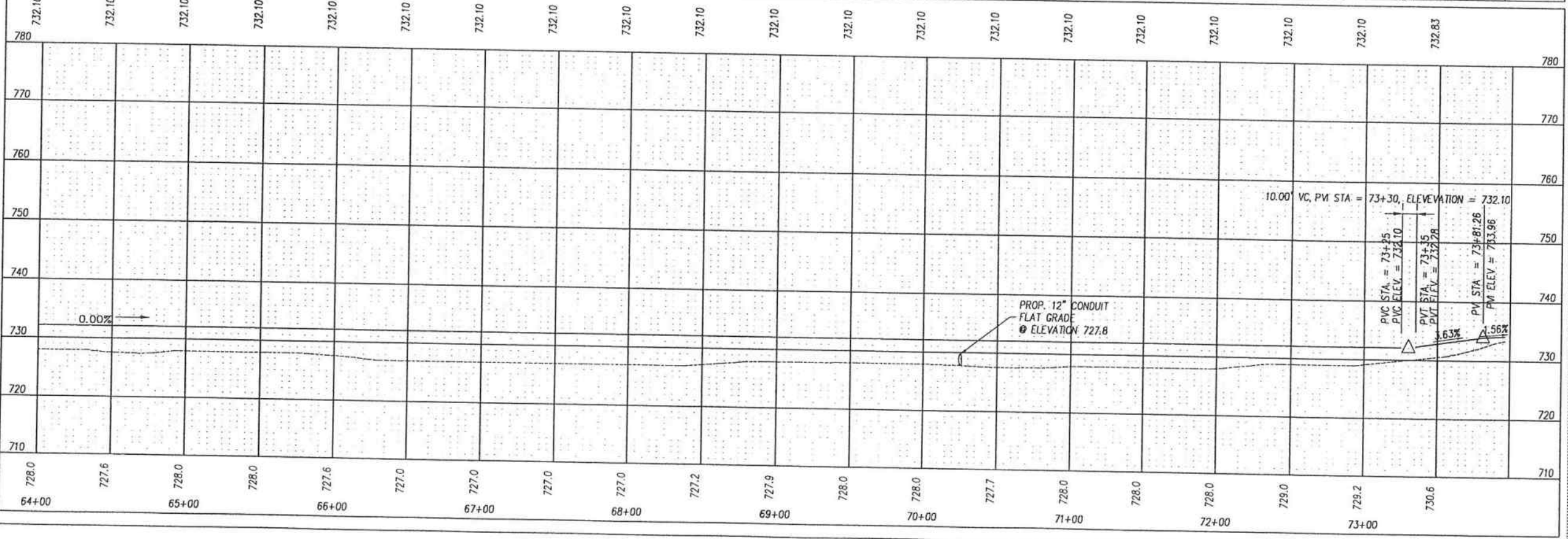
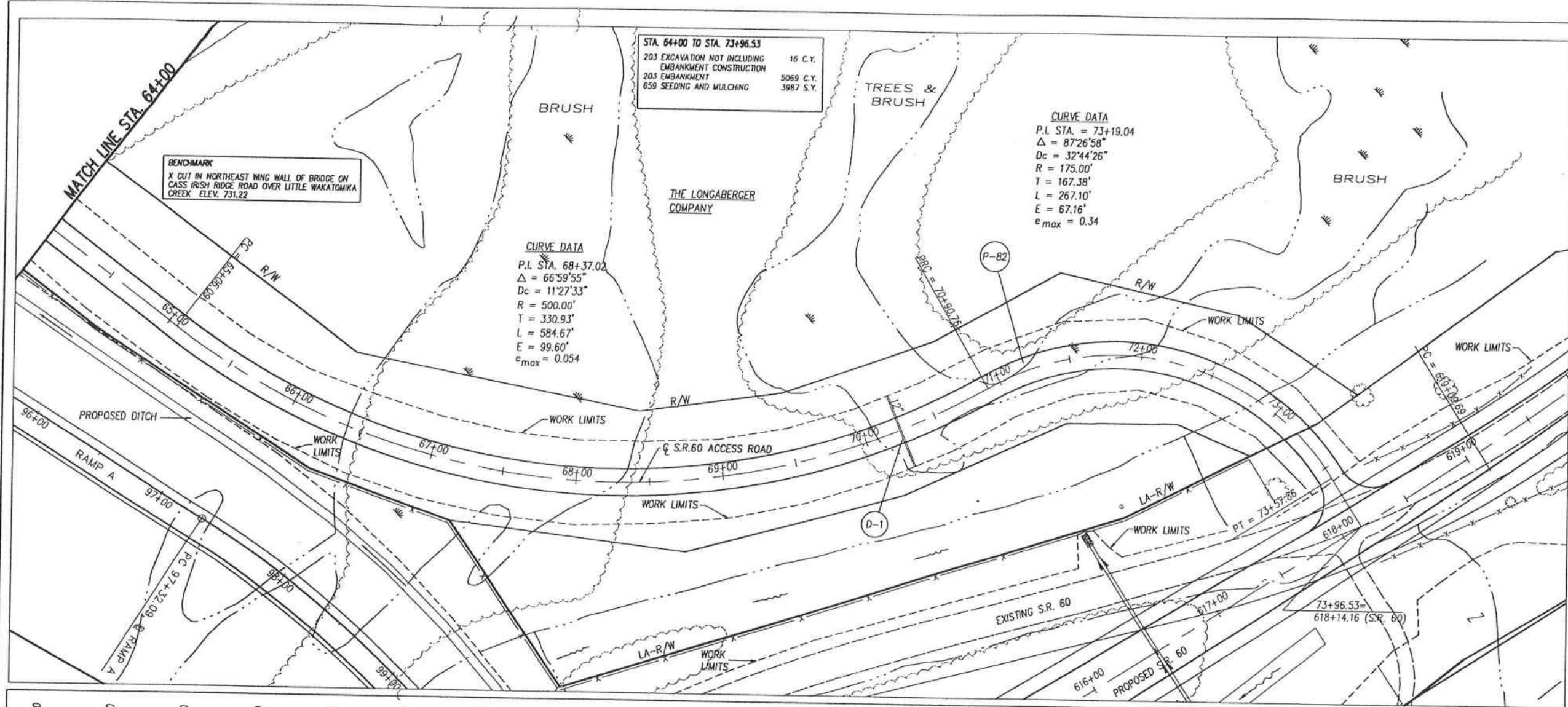
146
703



780	732.14	732.10	732.10	732.10	732.10	732.10	732.10	732.10	732.10	732.10	732.10	732.10	732.10	732.10	732.10	732.10	732.10	732.10	732.10	732.10	732.10	780
770																						770
760																						760
750																						750
740																						740
730																						730
720																						720
710																						710
55+00	725.8	725.4	725.3	725.0	725.0	725.0	725.1	725.4	726.0	726.0	725.9	725.9	726.5	726.9	727.1	727.8	728.9	728.0	728.0	728.0	64+00	

ESTIMATED QUANTITIES

SEE SHEET NO.																						
CALCULATED																						
SSK																						
CHECKED																						
JSB																						
TOTALS CARRIED TO SHEET 140																						



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	12" CONDUIT TYPE A	ESTIMATED QUANTITIES	SEE SHEET NO.
D-1	70+25		51		
TOTALS CARRIED TO SHEET 140				51	

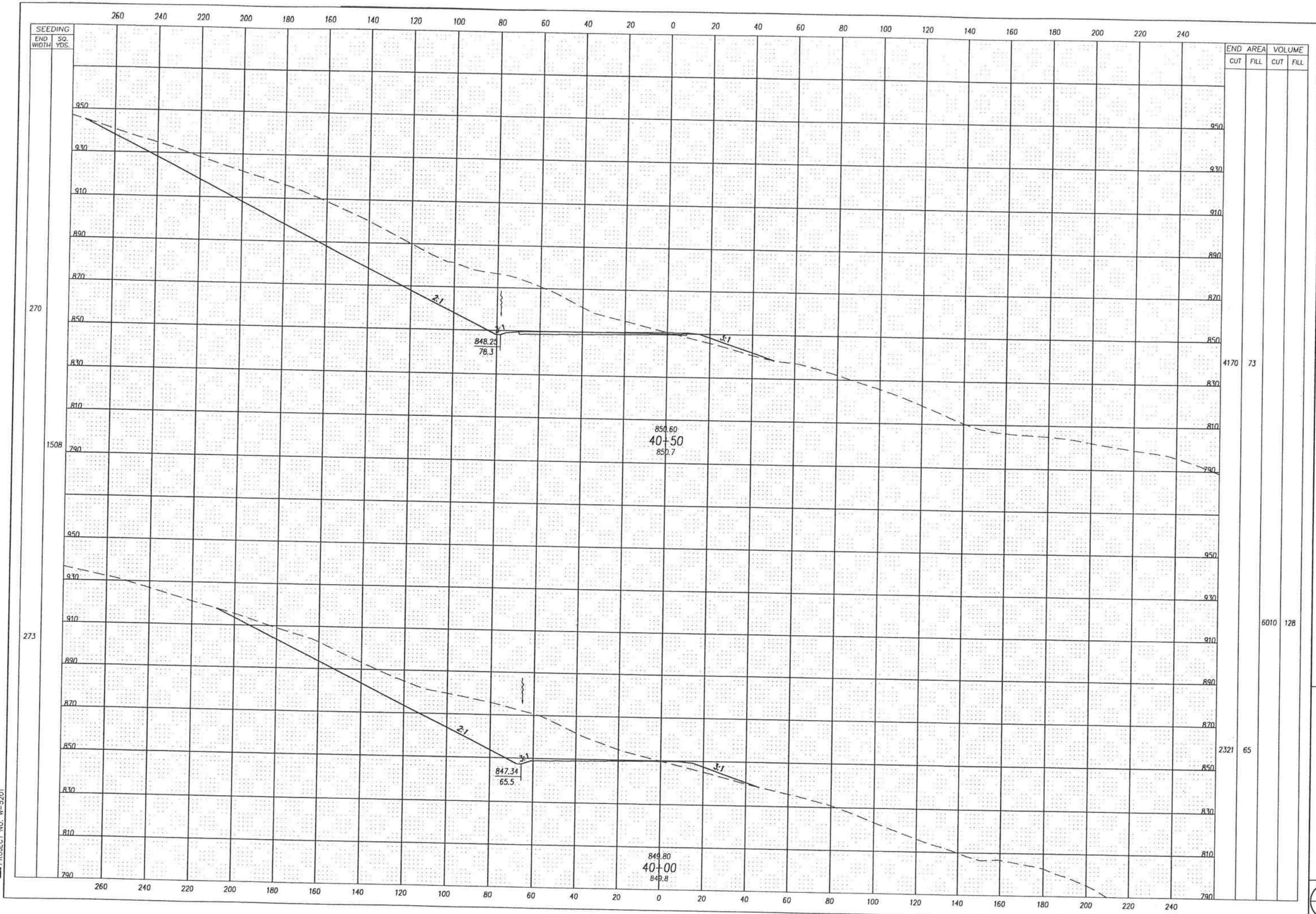
MUS-16-7-16

PLAN AND PROFILE - S.R. 60 ACCESS ROAD
STA. 64+00 TO STA. 73+96.53

148
703

0 40 80
HORIZONTAL SCALE
IN FEET

CALCULATED
SSK
CHECKED
JWB



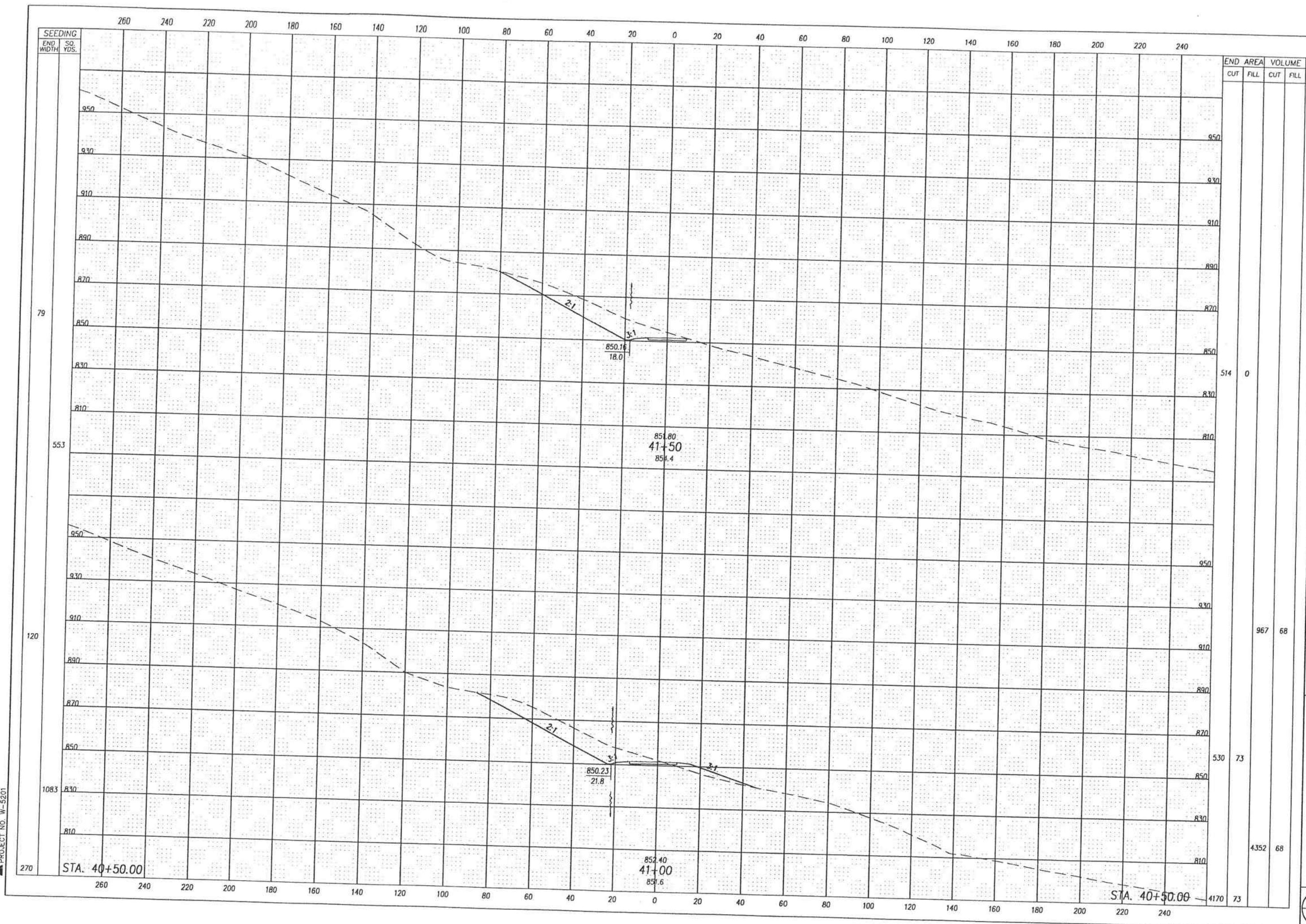
CROSS SECTIONS - S.R. 60 ACCESS ROAD
STA. 40+00 TO STA. 40+50

MUS-16-7.16

149
703

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RESOURCE INTERNATIONAL, INC.
PROJECT NO. W-5201



79

55.3

120

108.3

270

SEEDING

END WIDTH SQ. YDS.

END AREA VOLUME

CUT FILL CUT FILL

950				
930				
910				
890				
870				
850	514	0		
830				
810				
950				
930				
910				
890				
870				
850	967	68		
830				
810				
950				
930				
910				
890				
870				
850	530	73		
830				
810				
950				
930				
910				
890				
870				
850	4352	68		
830				
810				
950	4170	73		

STA. 40+50.00

41+50

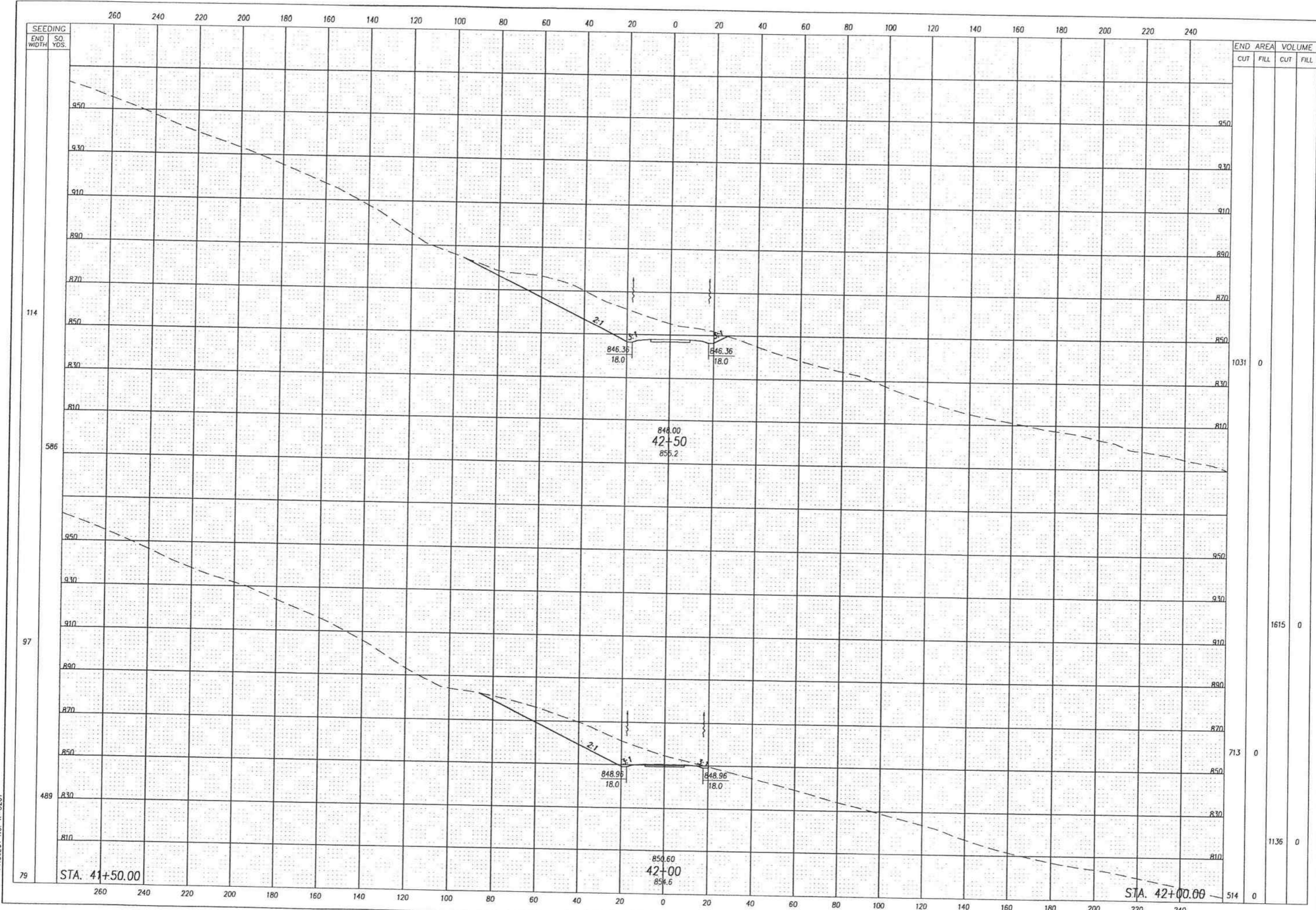
STA. 40+50.00

CROSS SECTIONS - S.R. 60 ACCESS ROAD
STA. 41+00 TO STA. 41+50

MUS-16-7.16

150
703

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-5201



SEEDING
END WIDTH SO. YDS.

114
586
97
489
79

END AREA		VOLUME	
CUT	FILL	CUT	FILL
1031	0		
1615	0		
713	0		
1136	0		
514	0		

CALCULATED BY: []
CHECKED BY: []
JOB: []

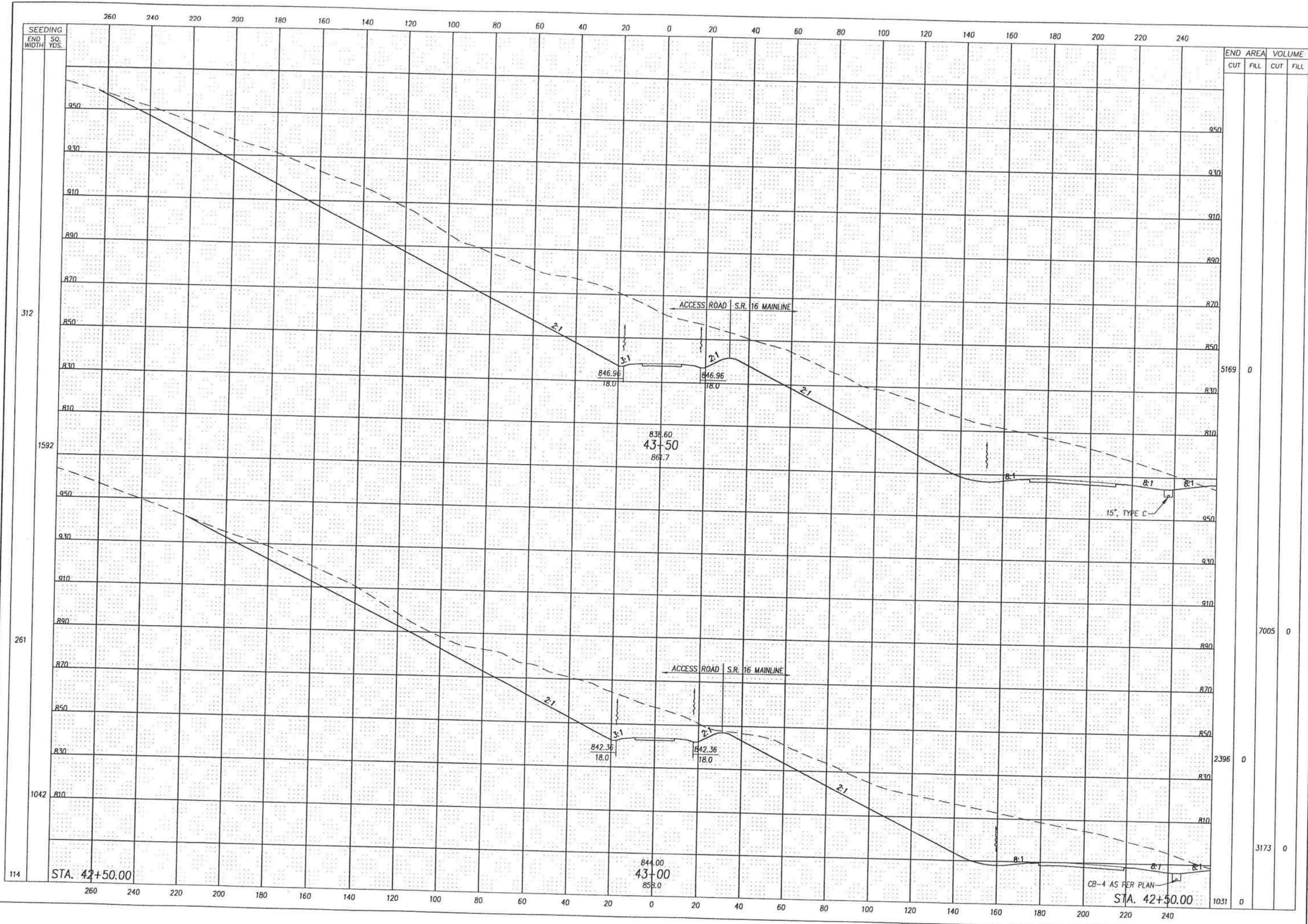
CROSS SECTIONS - S.R. 60 ACCESS ROAD
STA. 42+00 TO STA. 42+50

MUS-16-7.16

151
703

G:\DWG\DEPT4\W-8083\DWG\60arxsects.dwg Tue Feb 02 15:53:37 1999

RESOURCE INTERNATIONAL, INC.
PROJECT NO. W-5201



312

1592

261

1042

114

STA. 42+50.00

STA. 42+50.00

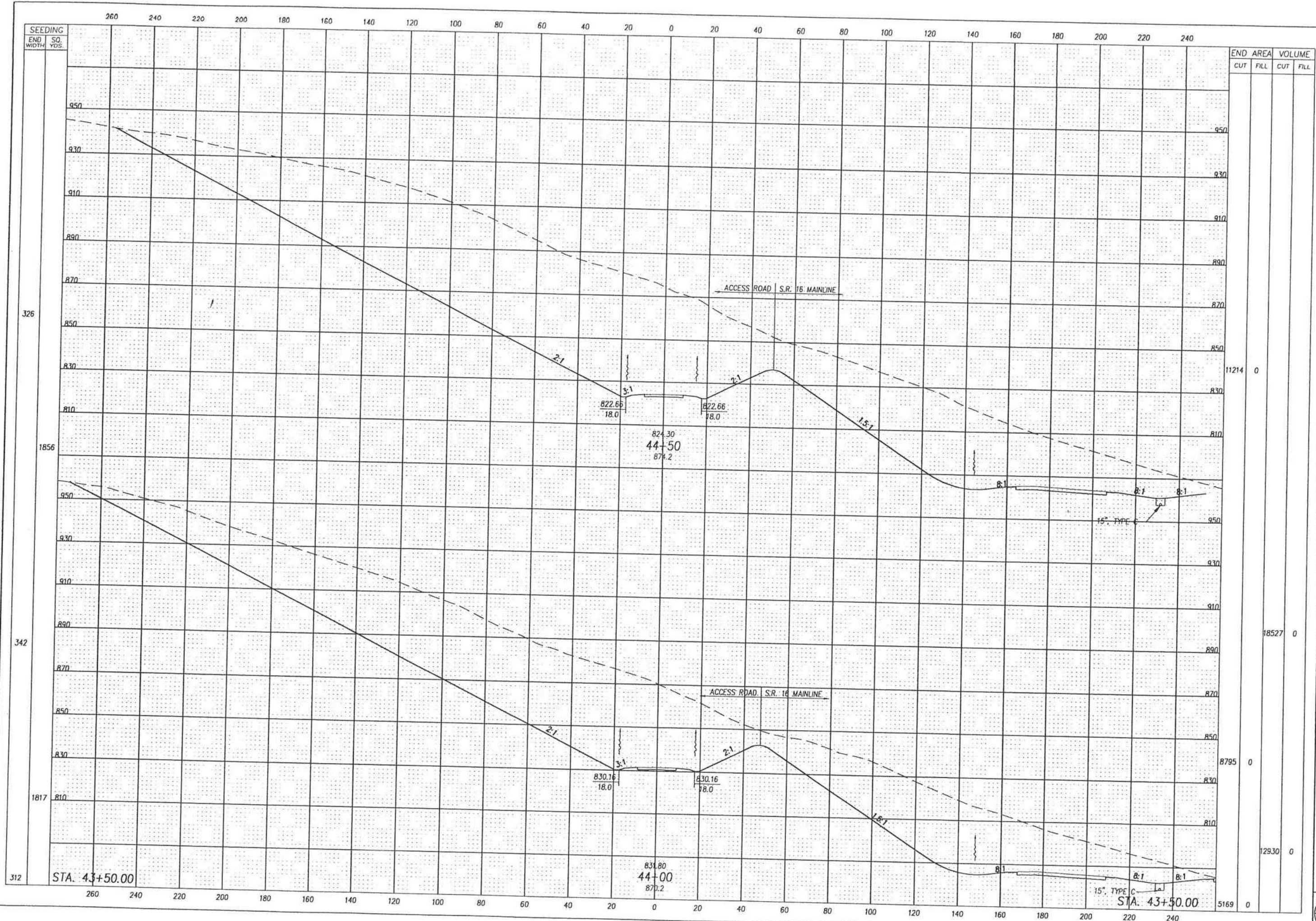
END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
950				
930				
910				
890				
870				
850				
830				
810				
790				
770				
750				
730				
710				
690				
670				
650				
630				
610				
590				
570				
550				
530				
510				
490				
470				
450				
430				
410				
390				
370				
350				
330				
310				
290				
270				
250				
230				
210				
190				
170				
150				
130				
110				
90				
70				
50				
30				
10				
0				
10				
30				
50				
70				
90				
110				
130				
150				
170				
190				
210				
230				
250				
270				
290				
310				
330				
350				
370				
390				
410				
430				
450				
470				
490				
510				
530				
550				
570				
590				
610				
630				
650				
670				
690				
710				
730				
750				
770				
790				
810				
830				
850				
870				
890				
910				
930				
950				

CALCULATED: BCE
CHECKED: JSB

CROSS SECTIONS - S.R. 60 ACCESS ROAD
STA. 43+00 TO STA. 43+50

MUS-16-7.16

152
703

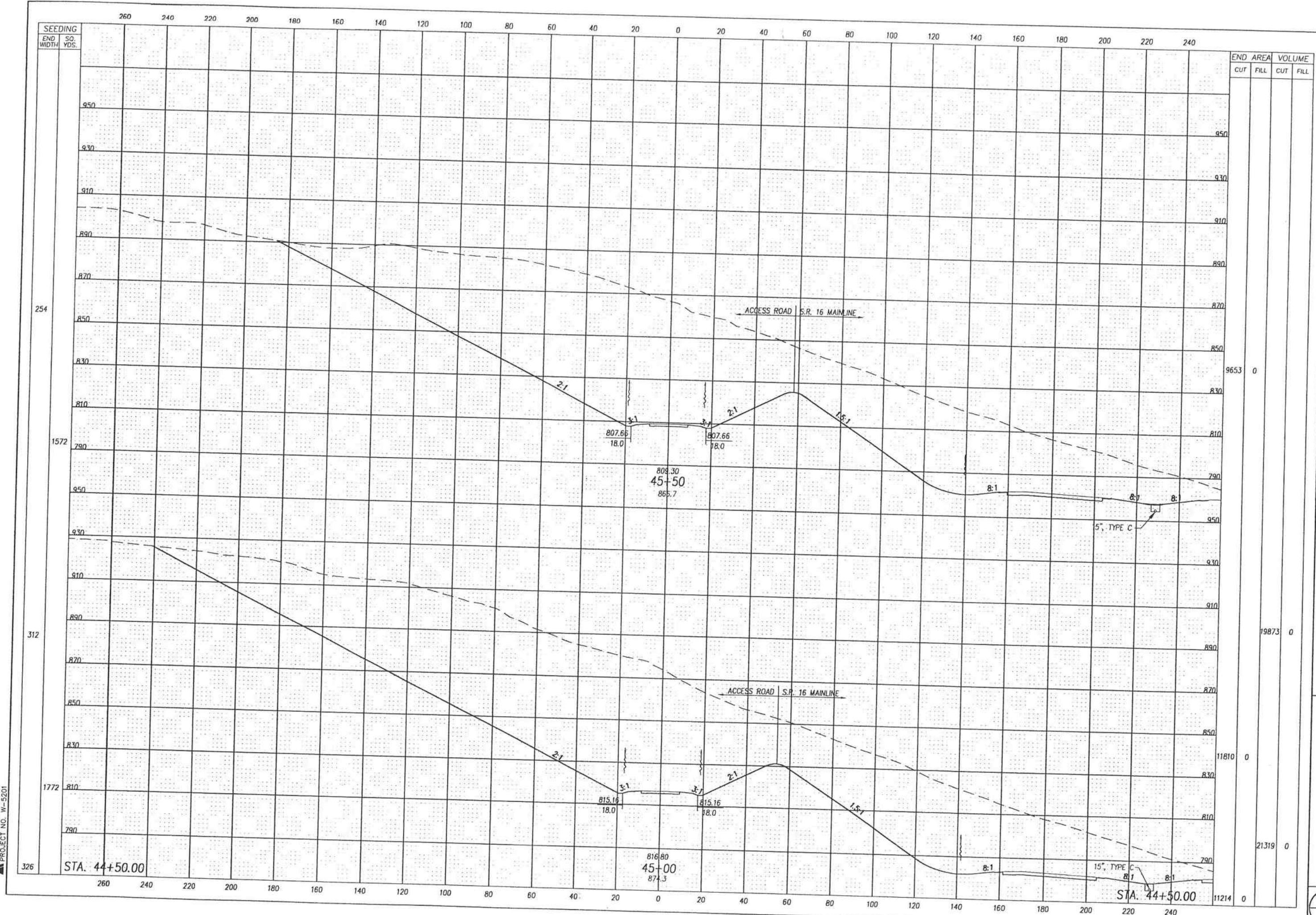


CROSS SECTIONS - S.R. 60 ACCESS ROAD
STA. 44+00 TO STA. 44+50

MUS-16-7.16

153
703

RESOURCE INTERNATIONAL, INC.
PROJECT NO. W-5201

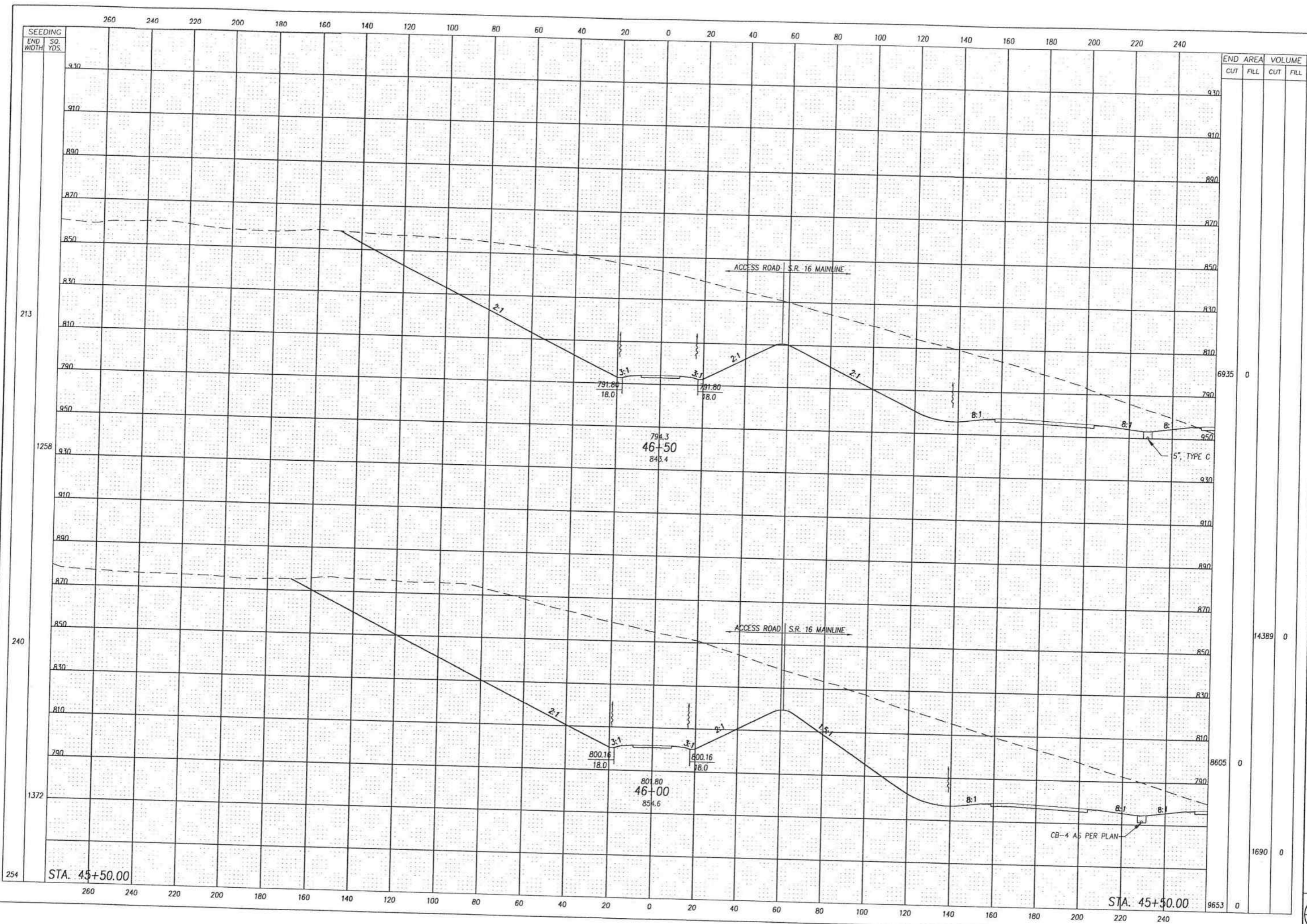


CROSS SECTIONS - S.R. 60 ACCESS ROAD
STA. 45+00 TO STA. 45+50

MUS-16-7.16

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RESOURCE INTERNATIONAL INC.
PROJECT NO. W-5201

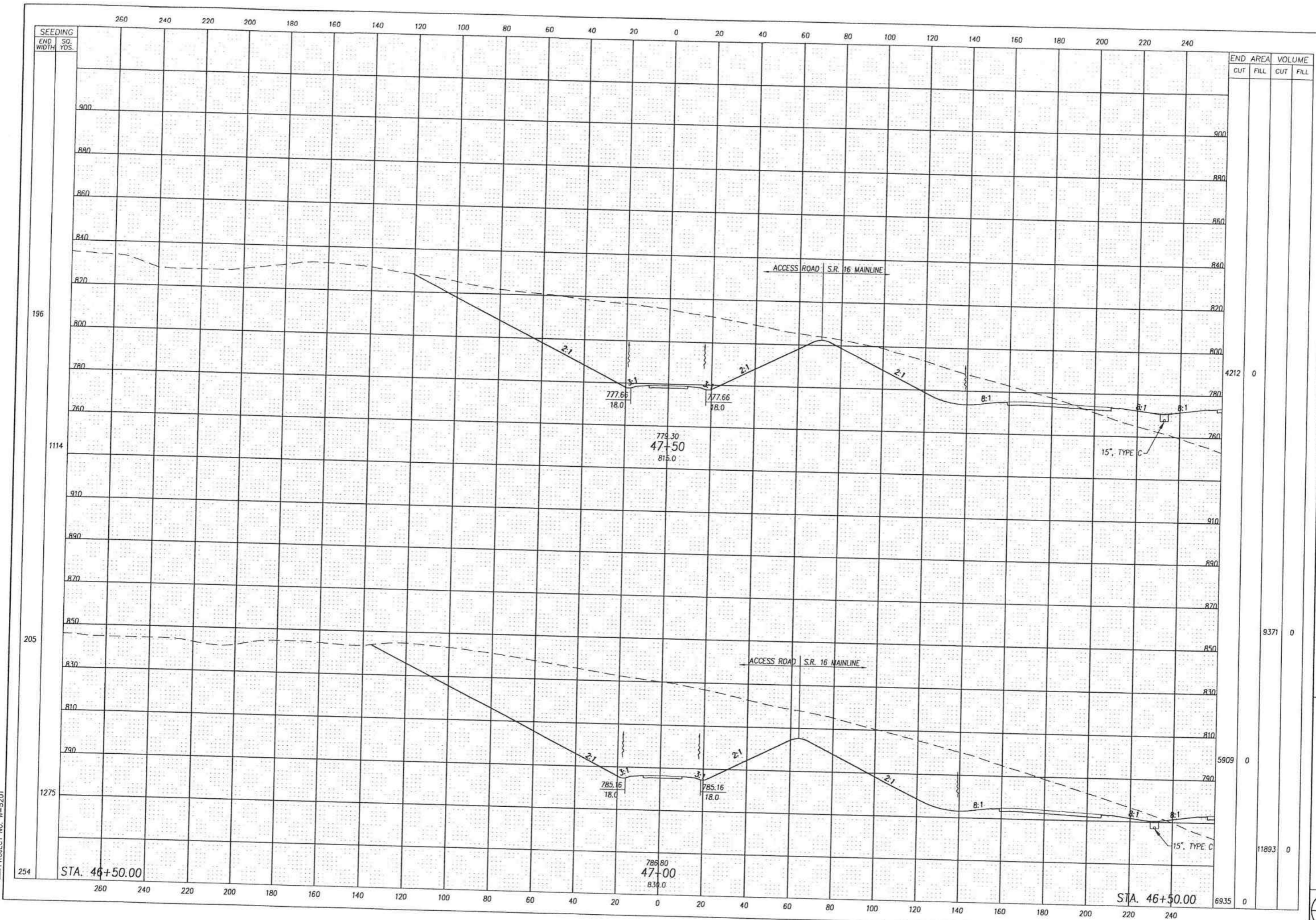


END STA.	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
213			6935	0
240			14389	0
254			1690	0
254	9553	0		

CALCULATED BY: []
 CHECKED BY: []
 CROSS SECTIONS - S.R. 60 ACCESS ROAD
 STA. 46+00 TO STA. 46+50
 MUS-16-7.16
 155
 703

G:\DWG\DEPT4\W-8083\DWG\60arxsects.dwg Tue Feb 02 15:56:22 1999

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-5201



END STA.	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
46+50.00	6935	0		
47+00			11893	0
47+50	4212	0		
47+50			9371	0

CALCULATED BY: BGE
CHECKED BY: JSB

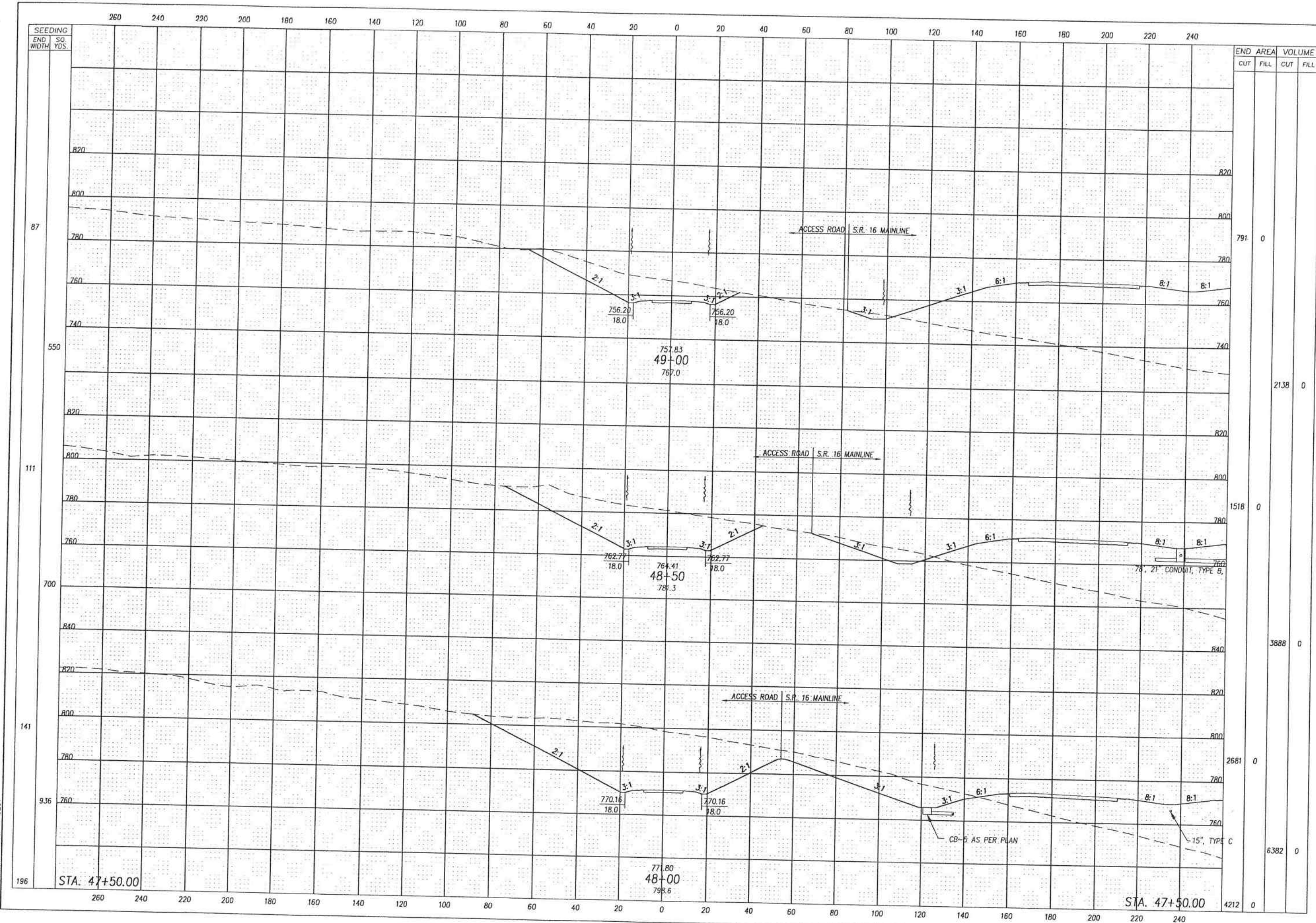
MUS-16-7.16

CROSS SECTIONS - S.R. 60 ACCESS ROAD
STA. 47+00 TO STA. 47+50

156
703

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ESSCAVE INTERNATIONAL, INC.
PROJECT NO. W-5201



END STA.	AREA	VOLUME	
		CUT	FILL
87	791	0	0
111	1518	0	0
141	2681	0	0
196	4212	0	0
TOTAL	2138	0	0

CALCULATED BY: []
 CHECKED BY: []
 JOB NO. []

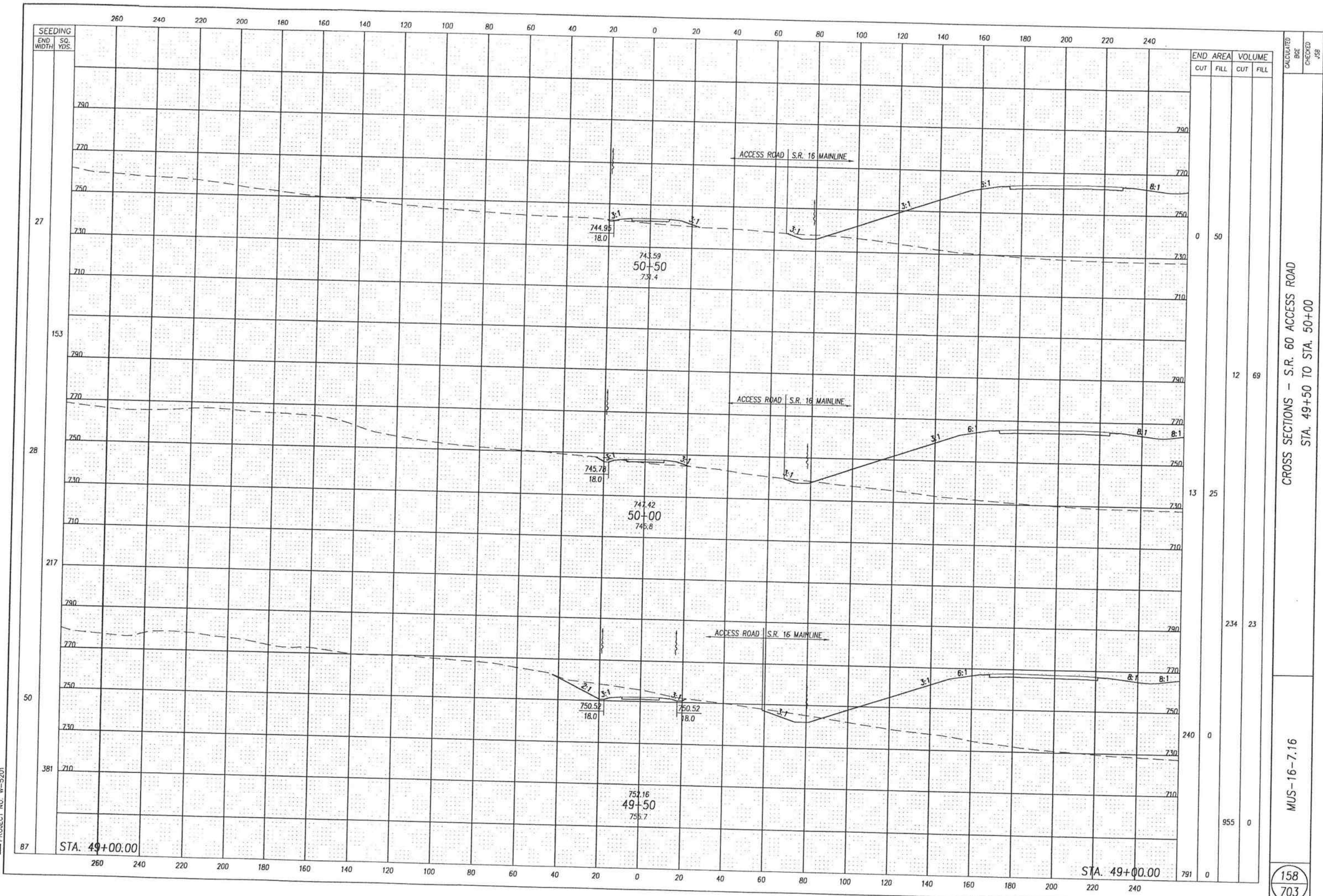
CROSS SECTIONS - S.R. 16 ACCESS ROAD
 STA. 48+00 TO STA. 49+00

MUS-16-7.16

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703

G:\DWG\DEPT4\W-8083\DWG\60arxsects.dwg Tue Feb 02 15:57:21 1999

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-5201



END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
0	50			
12		69		
13	25			
234		23		
240	0			
791	0	955	0	

CALCULATED BY: JGB
CHECKED BY: JGB

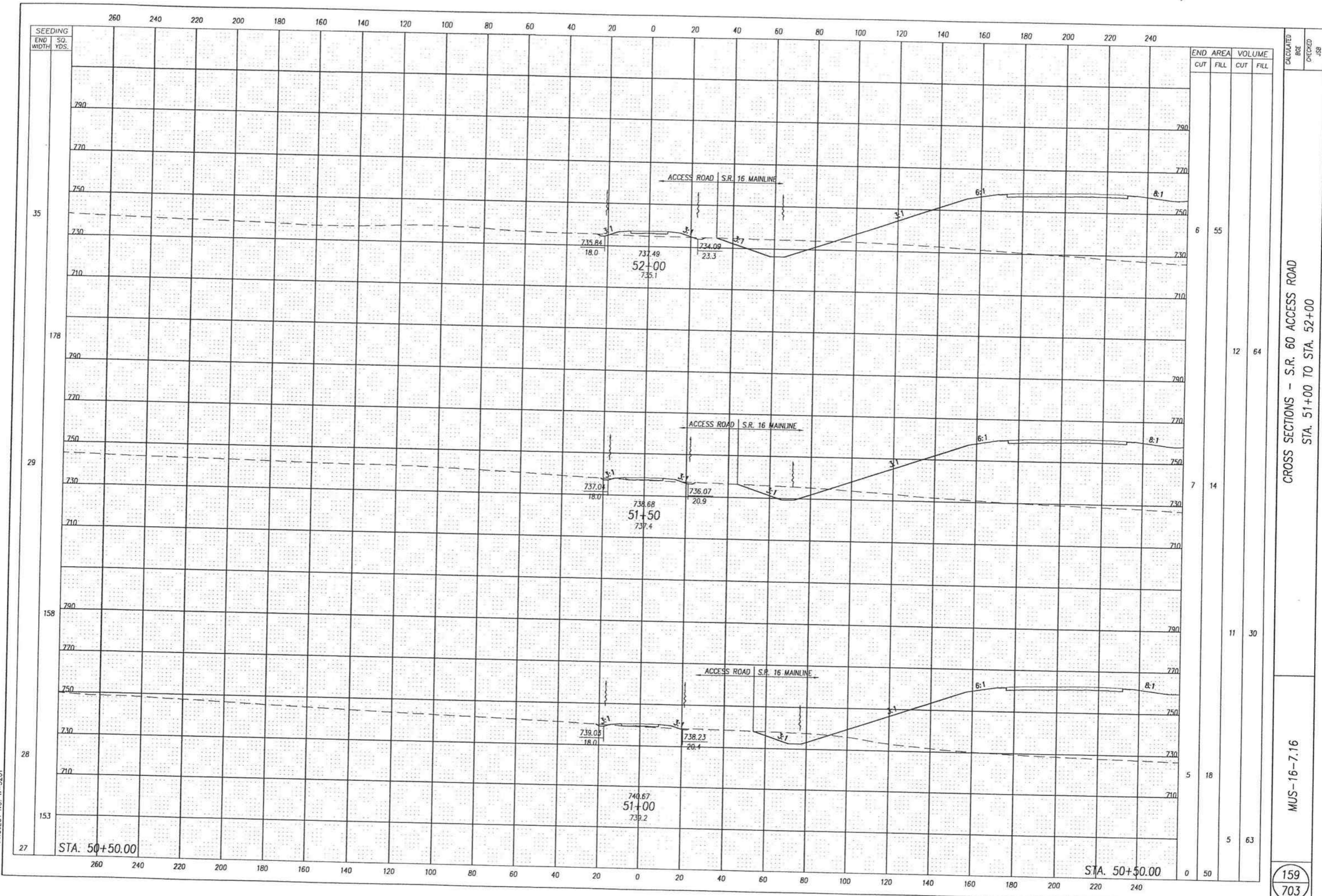
CROSS SECTIONS - S.R. 60 ACCESS ROAD
STA. 49+50 TO STA. 50+00

MUS-16-7.16

158
703

G:\DWG\DEPT4\W-8083\DWG\60arxsects.dwg Tue Feb 02 16:00:27 1999

RESOURCE INTERNATIONAL, INC.
PROJECT NO. W-5201



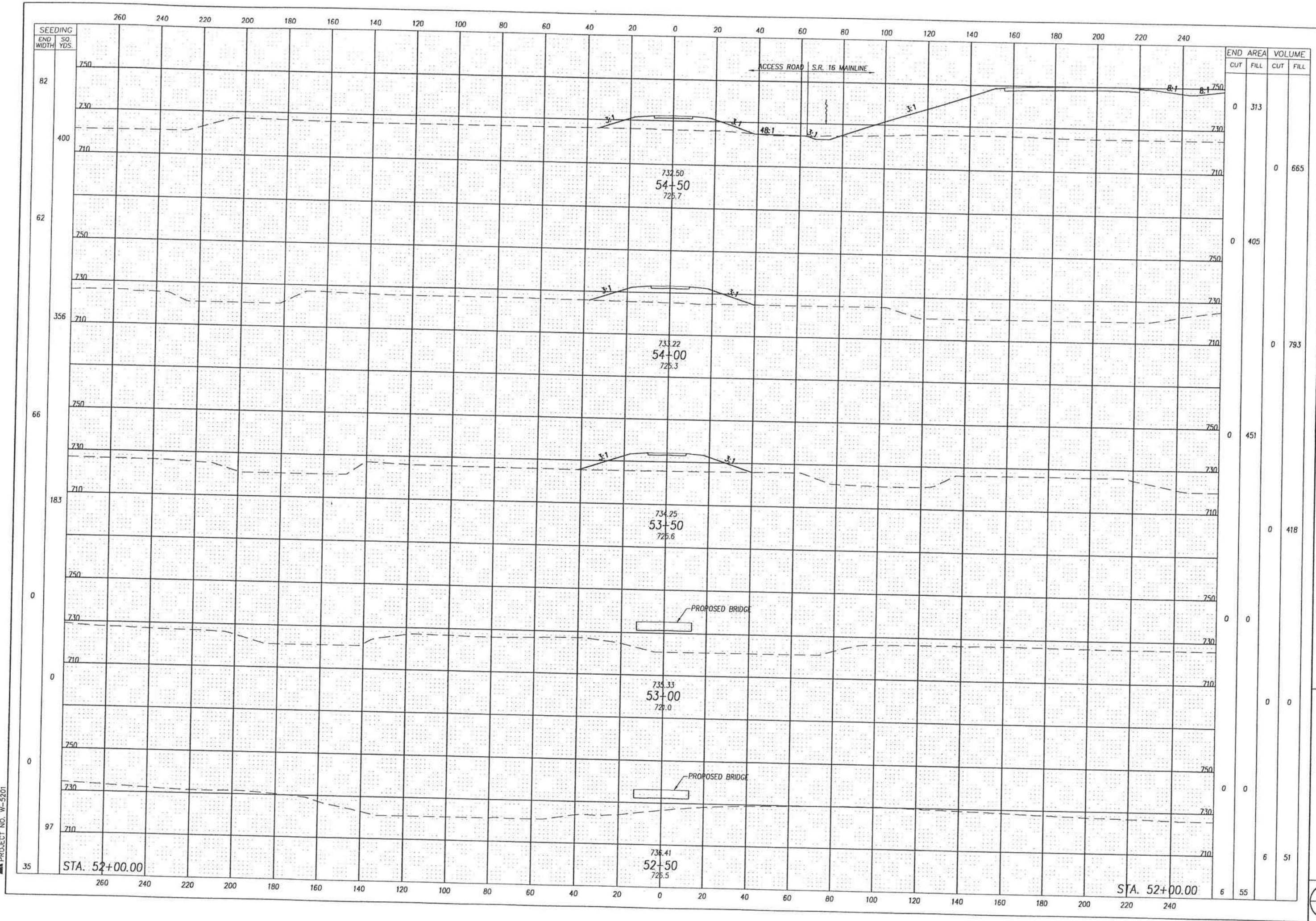
CROSS SECTIONS - S.R. 60 ACCESS ROAD
STA. 51+00 TO STA. 52+00

MUS-16-7.16

159
703

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RESOURCE INTERNATIONAL, INC.
PROJECT NO. W-5201

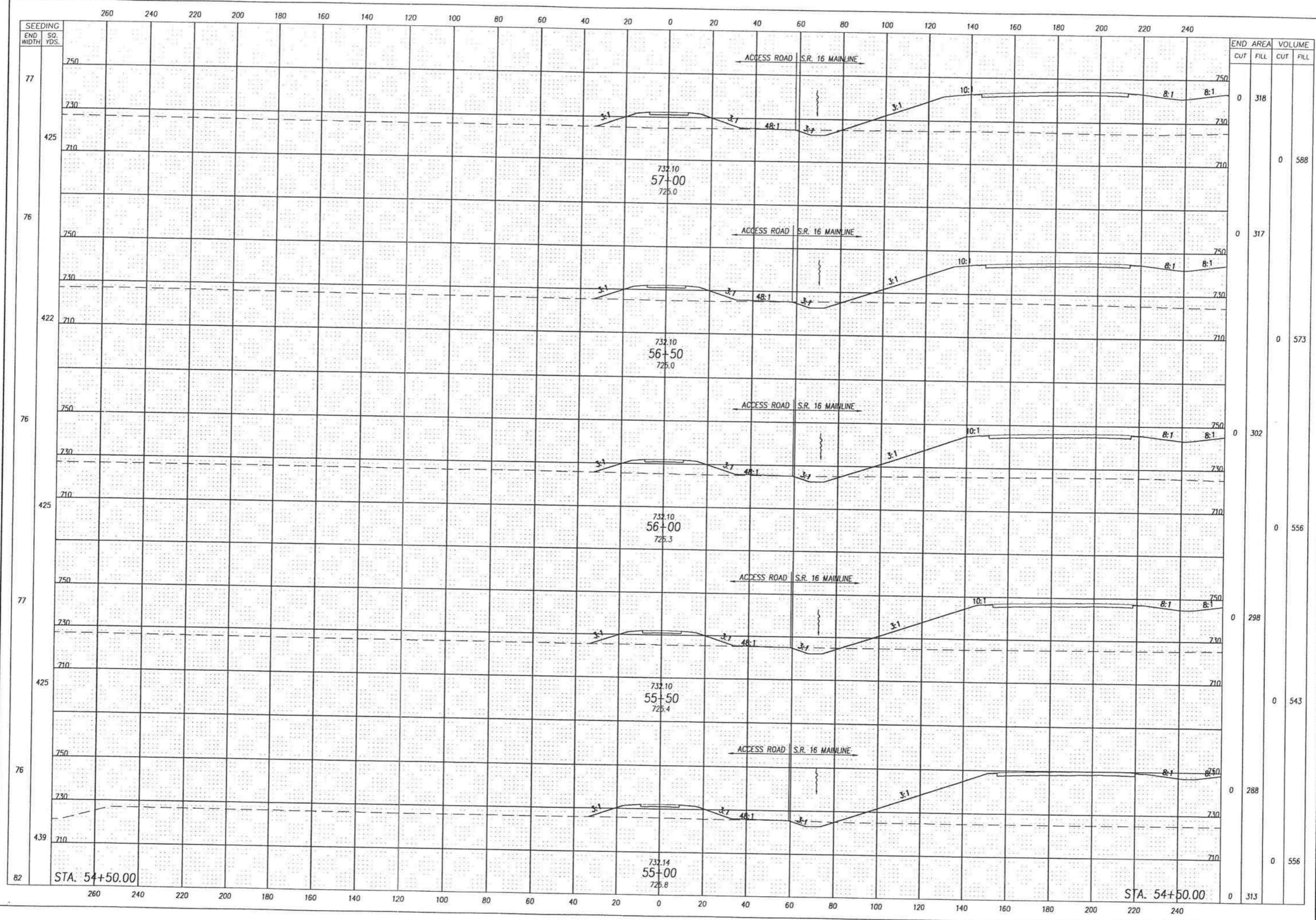


END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
82	0	313		
400			0	665
62	0	405		
356			0	793
66	0	451		
183			0	418
0	0	0		
0	0	0		
97			6	51
35	6	55		

CALCULATED BY: []
 CHECKED BY: []
 CROSS SECTIONS - S.R. 60 ACCESS ROAD
 STA. 52+50 TO STA. 54+50
 MUS-16-7.16
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 703

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RESOURCE INTERNATIONAL INC.
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STATION	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
57+00	0	318	0	588
56+50	0	317	0	573
56+00	0	302	0	556
55+50	0	298	0	543
55+00	0	288	0	556
STA. 54+50.00	0	313	0	

CALCULATED BY: BGE
CHECKED BY: JSB

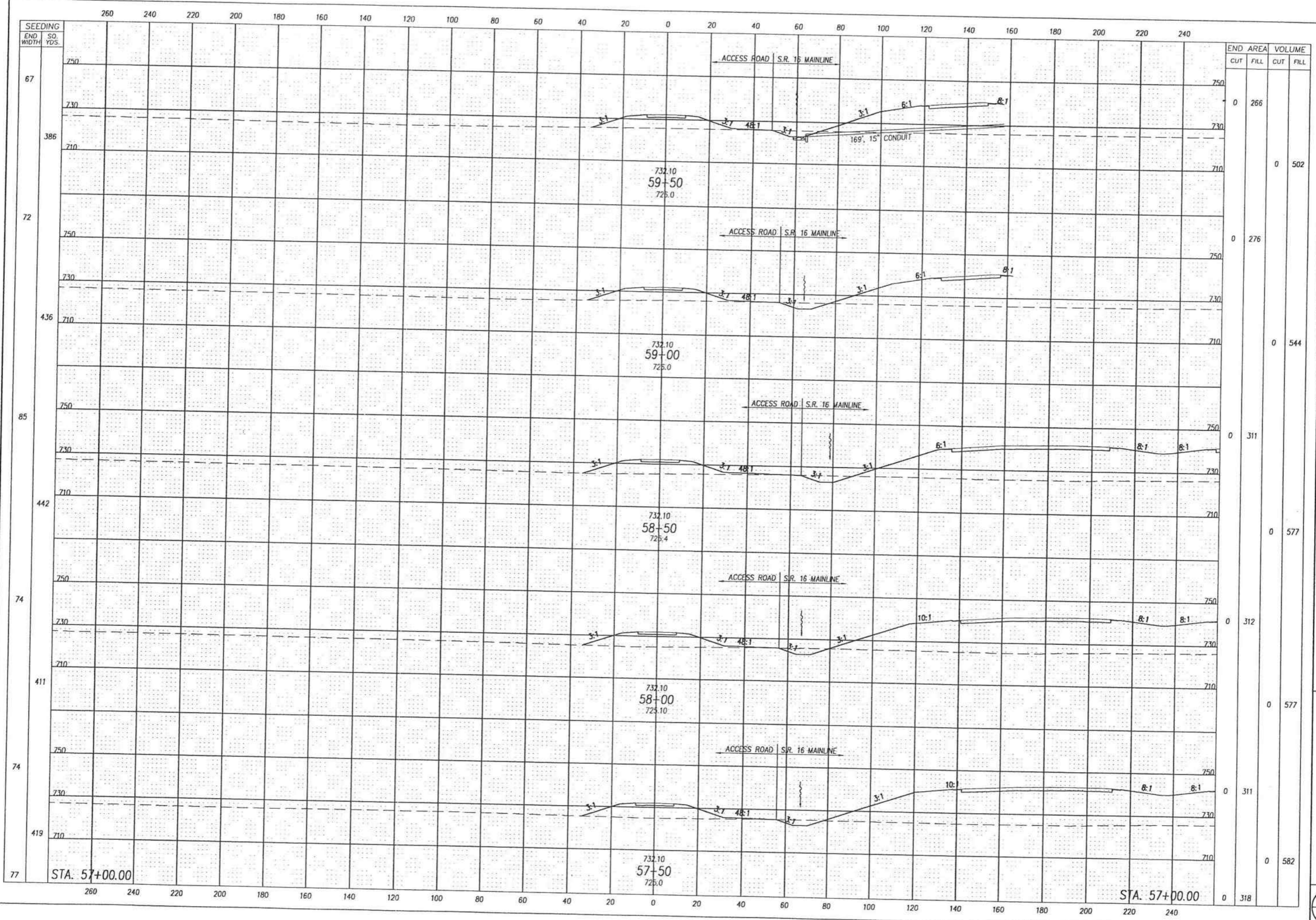
CROSS SECTIONS - S.R. 16 ACCESS ROAD
STA. 55+00 TO STA. 57+00

MUS-16-7.16

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G:\DWG\DEPT4\W-8083\DWG\60arxsects.dwg Tue Feb 02 16:02:04 1999

RESOURCE INTERNATIONAL, INC.
PROJECT NO. W-5201

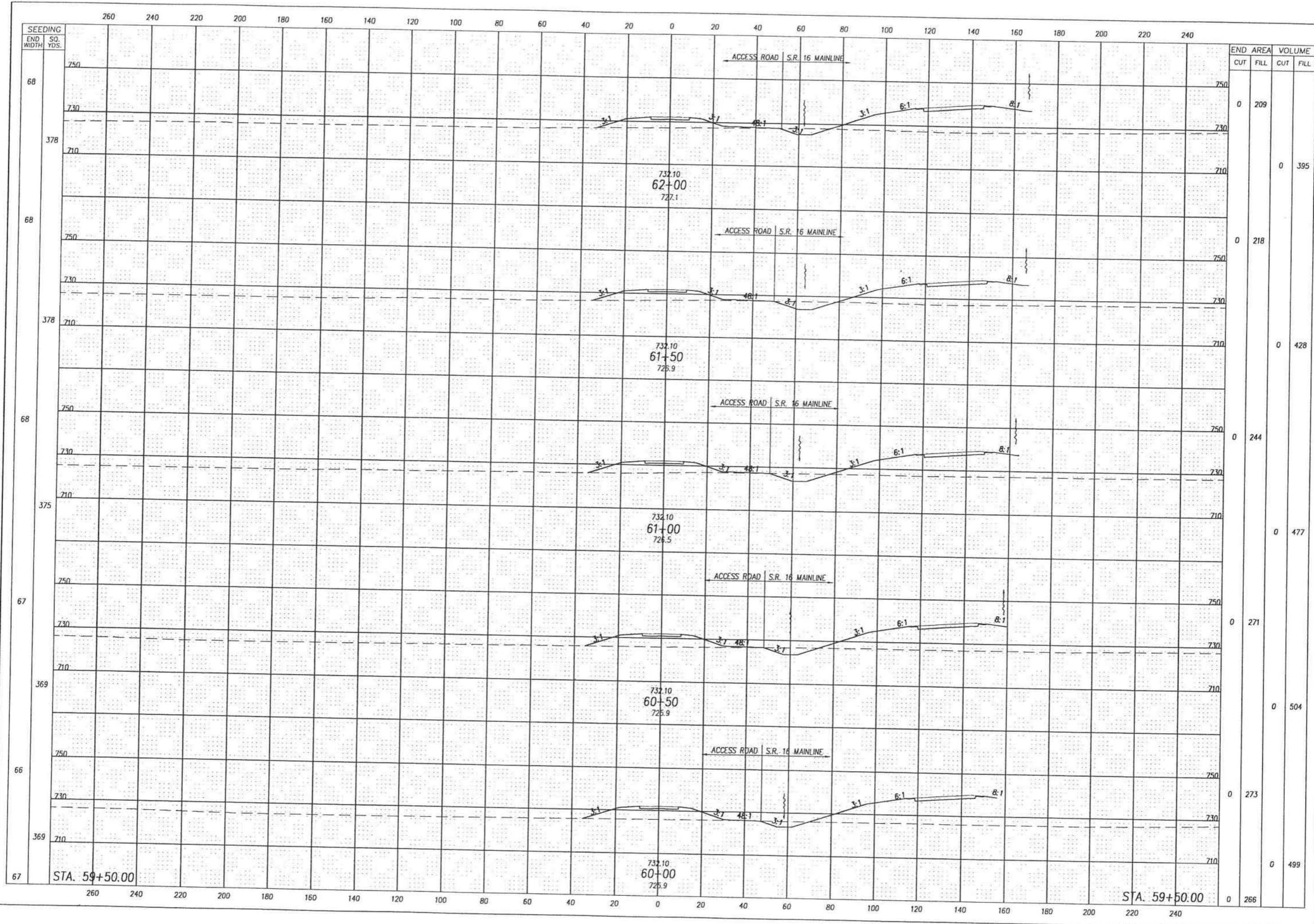


STATION	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
59+50	0	266	0	502
59+00	0	276	0	544
58+50	0	311	0	577
58+00	0	312	0	577
57+50	0	311	0	582
57+00.00	0	318	0	582

CALCULATED BY: []
 CHECKED BY: []
 CROSS SECTIONS - S.R. 60 ACCESS ROAD
 STA. 57+50 TO STA. 59+50
 MUS-16-7.16
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 703

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RESOURCE INTERNATIONAL, INC.
PROJECT NO. W-5201



END STA.	AREA		VOLUME	
	CUT	FILL	CUT	FILL
68	0	209		
378			0	395
68	0	218		
378			0	428
68	0	244		
375			0	477
67	0	271		
369			0	504
66	0	273		
369			0	499
67	0	266		

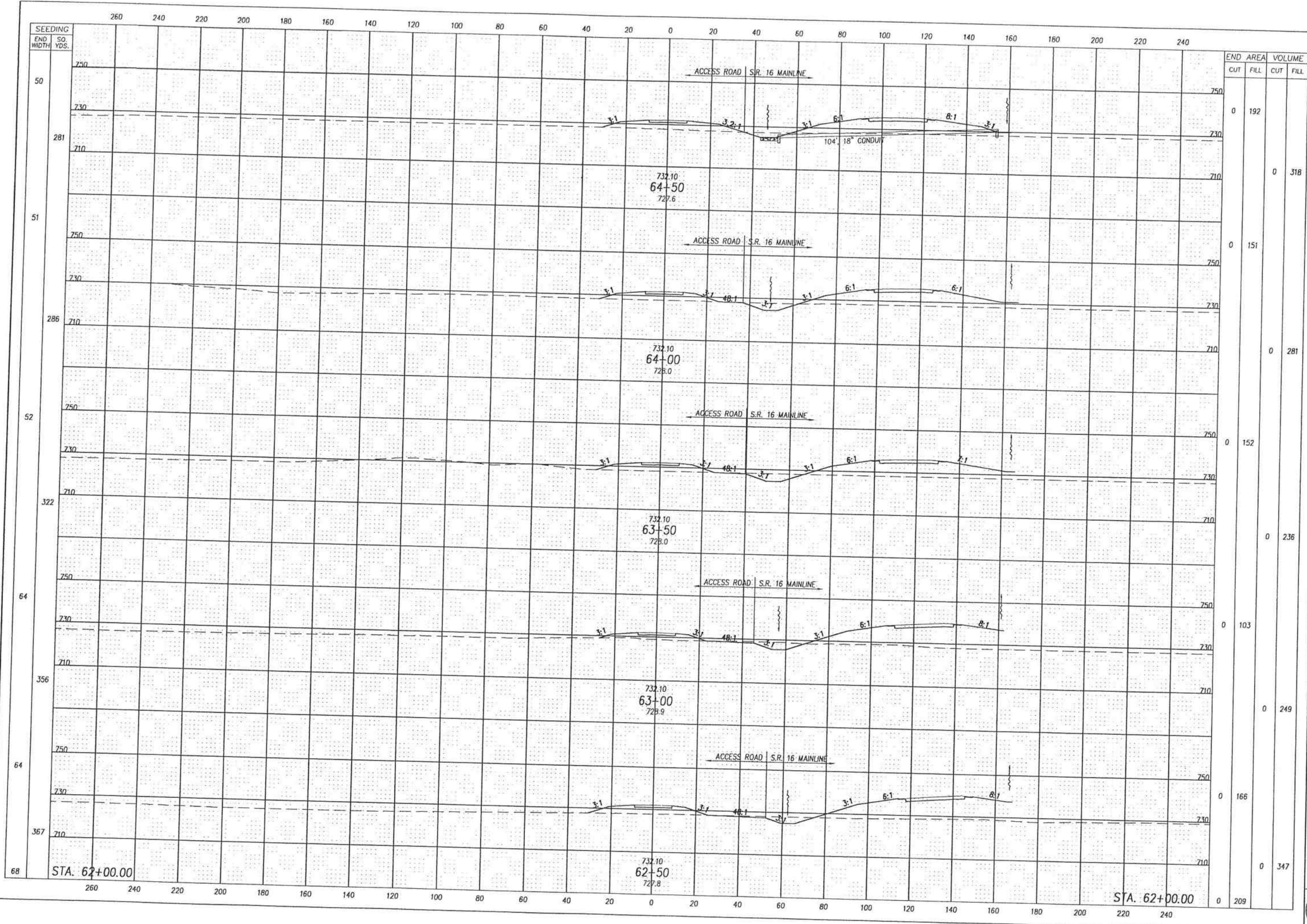
CROSS SECTIONS - S.R. 60 ACCESS ROAD
STA. 60+00 TO STA. 62+00

MUS-16-7.16

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RESOURCE INTERNATIONAL, INC.
PROJECT NO. W-5201



END STA.	AREA		VOLUME	
	CUT	FILL	CUT	FILL
50	0	192		
51	0	151		
52	0	152		
64	0	103		
68	0	166		
68	0	209		
63+50	0	236		
64+50	0	281		
65+00	0	318		
64+00	0	249		
62+50	0	347		

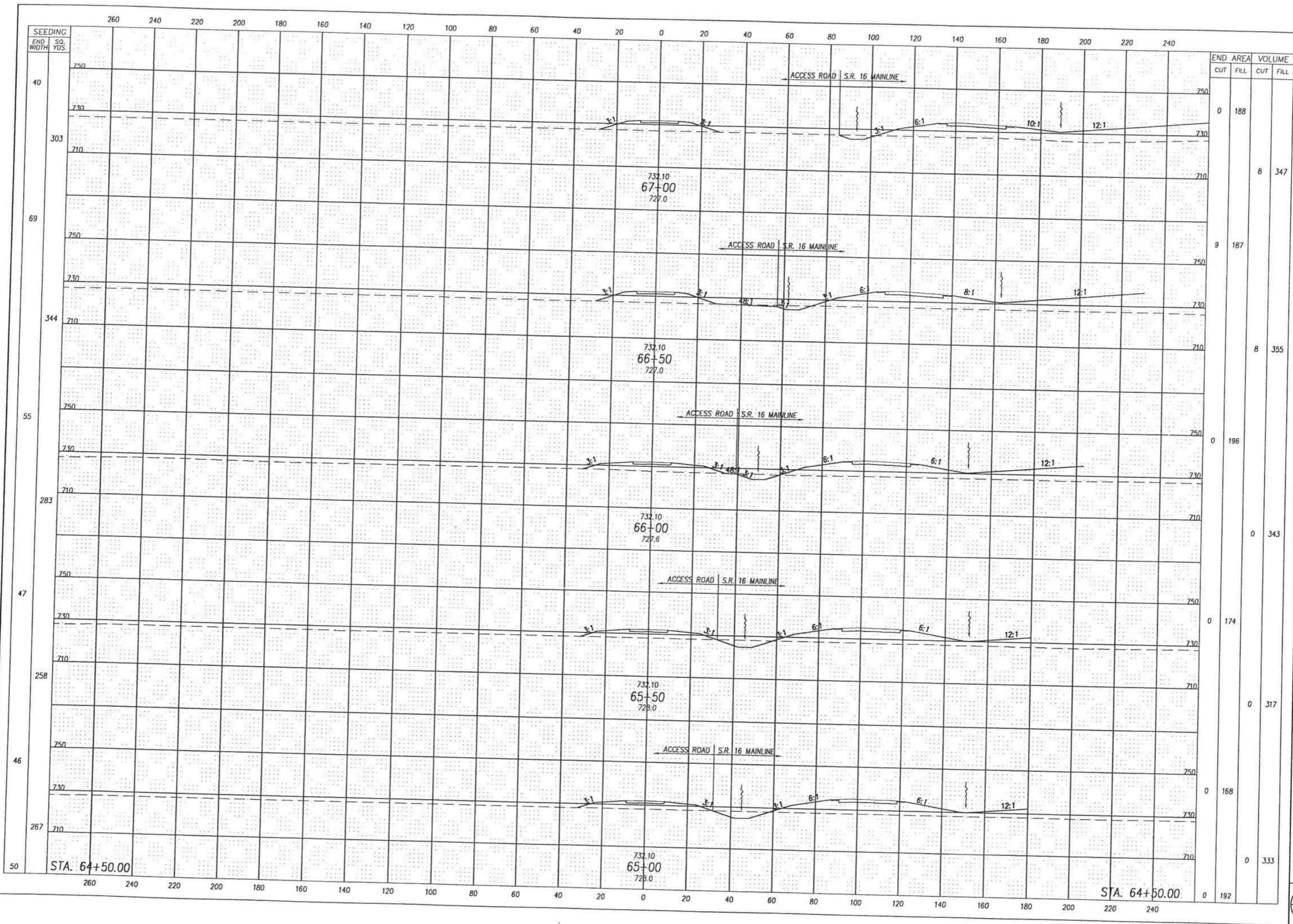
CROSS SECTIONS - S.R. 16 ACCESS ROAD
STA. 62+50 TO STA. 64+50

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RESOURCE INTERNATIONAL, INC.
PROJECT NO. W-5201



STATION	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
67+00	0	188	8	347
66+50	9	187	8	355
66+00	0	196	0	343
65+50	0	174	0	317
65+00	0	168	0	333
64+50.00	0	192	0	333

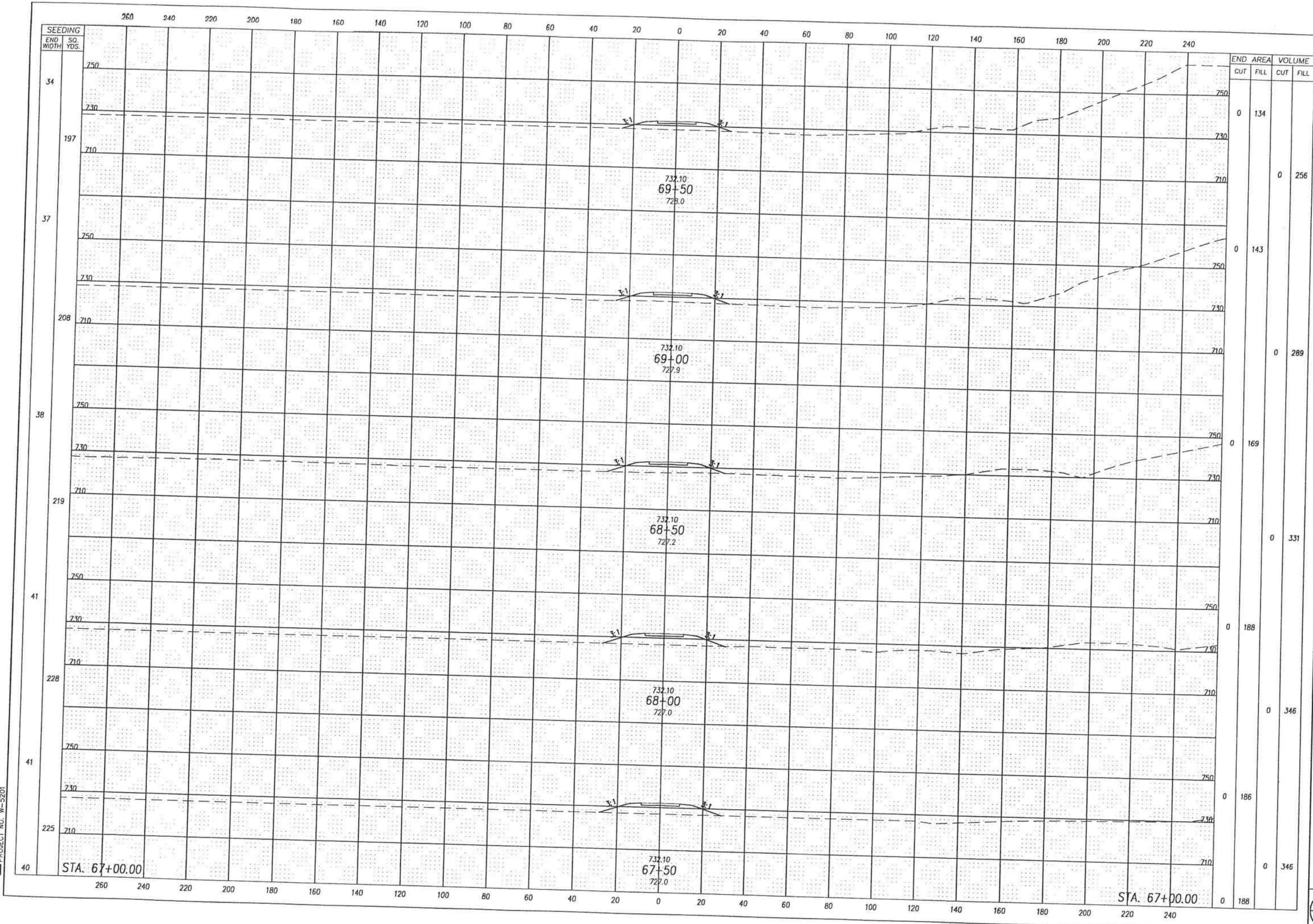
CROSS SECTIONS - S.R. 60 ACCESS ROAD
STA. 65+00 TO STA. 67+00

MUS-16-7.16

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G:\DWG\DEPT4\W-8083\DWG\60arxsects.dwg Tue Feb 02 16:05:59 1999

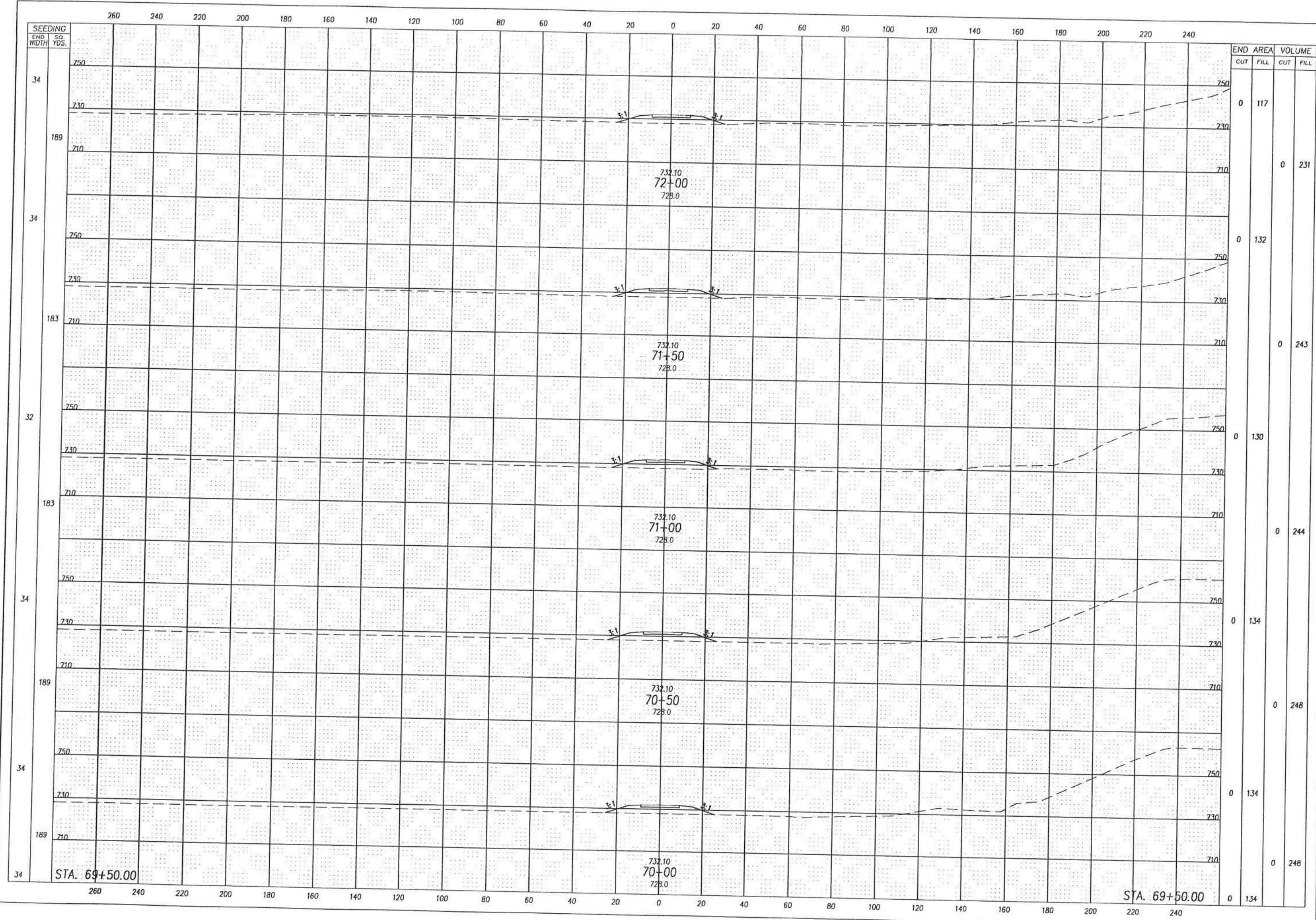
RESOURCE INTERNATIONAL INC.
PROJECT NO. W-5201



CALCULATED BY: []
 CHECKED BY: []
 CROSS SECTIONS - S.R. 60 ACCESS ROAD
 STA. 67+50 TO STA. 69+50
 MUS-16-7.16
 166
 703

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RESOURCE INTERNATIONAL, INC.
PROJECT NO. W-5201



END STA.	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
72+00	0	117		
71+50	0	231		
71+00	0	243		
70+50	0	244		
70+00	0	248		
69+50.00	0	248		

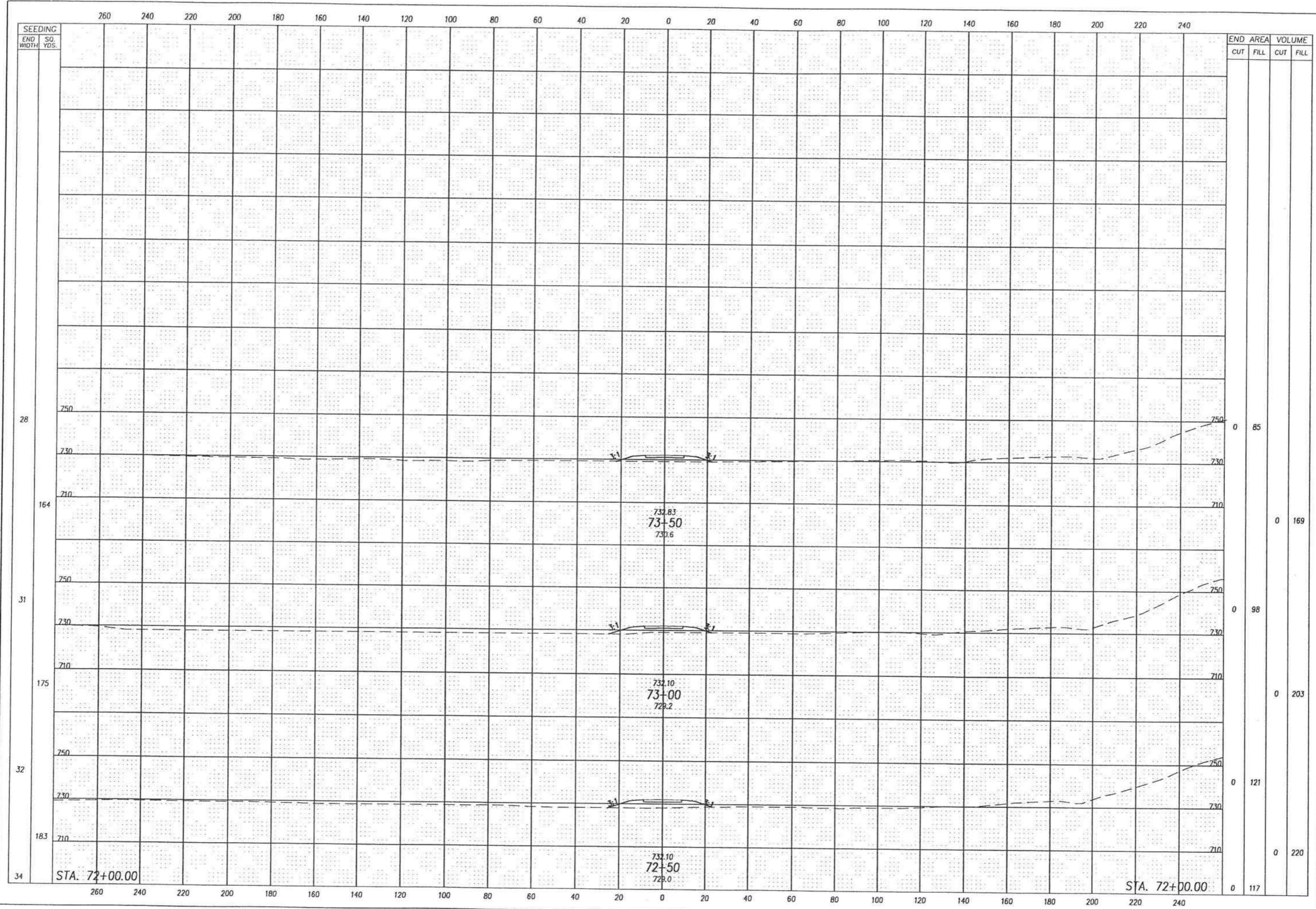
CROSS SECTIONS - S.R. 60 ACCESS ROAD
STA. 70+00 TO STA. 72+00

MUS-16-7.16

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RESOURCE INTERNATIONAL INC.
PROJECT NO. W-5201



SEEDING
END SO.
WIDTH YDS.

END CUT	AREA FILL	VOLUME	
		CUT	FILL
0	85		
0	169		
0	98		
0	203		
0	121		
0	220		
0	117		

CALCULATED BY: _____
CHECKED BY: _____
JOB: _____

CROSS SECTIONS - S.R. 60 ACCESS ROAD
STA. 72+50 TO STA. 73+50

MUS-16-7.16

168
703