Sheets 316, 325, 336, & 345 revised 11-7-75 EBL
Sheets 339 & 349 revised 6-14-76 EBL

FED. RD. DIVISION	STATE	PROJECT	
5	OHIO	I-275-3(9)27	

1/468

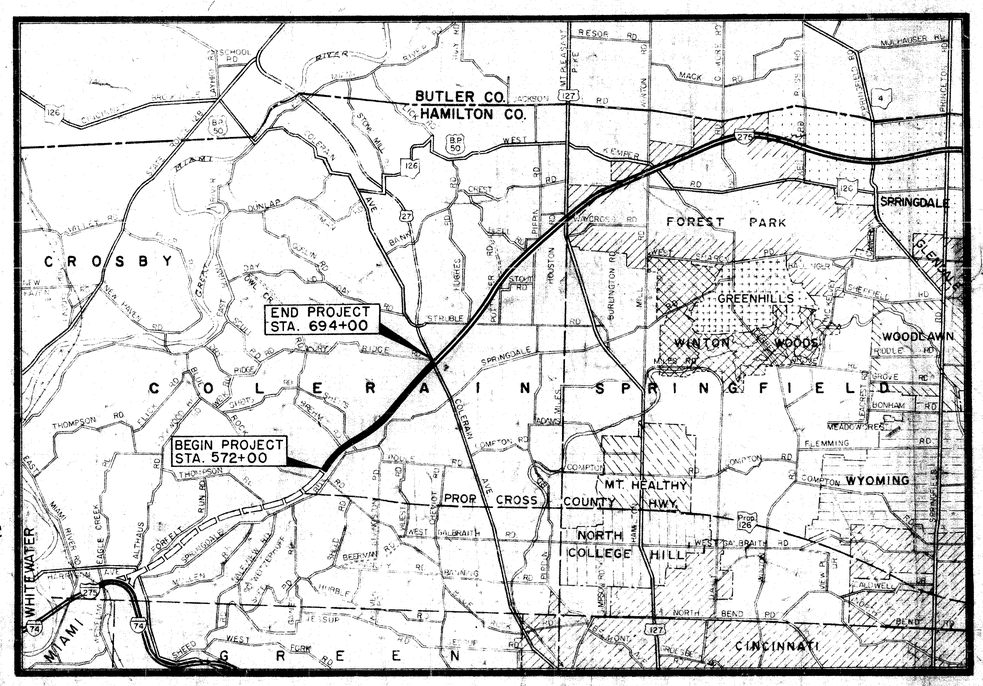
I-275-3(9)27

HAM-275-13.91
HAMILTON COUNTY

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
HAM-275-13.91

Rd 408
I-86

COLERAIN TOWNSHIP
HAMILTON COUNTY



LOCATION MAP

SCALE OF MILES
0 1 2 3 4

Portion to be improved
Future construction
Interstate Highways
State & Federal Roads
Other Roads

SCALES
Plan 0 50 100
Profile Horizontal
Profile Vertical 0 10 20
Cross Sections

CONVENTIONAL SIGNS

County Line
Township Line
Center Line
Corporation Line
Section Line
Fence Line
Guard Rail — Existing — Proposed
Railroad
Pole Line — Power — Telephone
Trees or Stumps (existing)
Existing Right of Way — Exist. R/W
Property Line — ℄
Limited Access only — LA
Right of Way only — R/W
Limited Access & Right of Way — LA - R/W
Existing Underground Utilities — Water W, Gas G, Telephone T, Electric E
Sewers — Existing — Proposed

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LINE DATA

Begin Project	Sta. 572+00.00
End Project	Sta. 694+00.00
Gross Length Project (Rural)	12,200.00 Lin. Ft.
Deduct For Equation (Sta. 656+00.00 Bk = Sta. 656+00.15 Ah.)	0.15 Lin. Ft.
Net Length Project (Rural)	12,199.85 Lin. Ft. or 2.310 Mi.
Add For Approaches and Side Roads	
Sta. 569+80.00 to Sta. 572+00.00	220.00 Lin. Ft.
Sta. 694+00.00 to Sta. 702+37.00	837.00 Lin. Ft.
Blue Rock Road Reloc. Sta. 71+50.00 to Sta. 116+40.00	4,490.00 Lin. Ft.
Springdale Road Sta. 4+85.00 to Sta. 30+45.00	2,560.00 Lin. Ft.
Springdale Connector Sta. 0+32.00 to Sta. 9+97.06	965.06 Lin. Ft.
Brehm Road Reloc. Sta. 45+13.50 to Sta. 55+70.00	1,056.50 Lin. Ft.
Blue Rock Road Connector Sta. 46+50 to Sta. 49+73.20	323.20 Lin. Ft.
Colerain Avenue (U.S. 27) Sta. 699+80 to Sta. 727+20.00	2,740.00 Lin. Ft.
Sta. 731+00.00 to Sta. 732+85.00	185.00 Lin. Ft.
Dry Ridge Road Reloc. Sta. 10+00.00 to Sta. 20+42.12	1,042.12 Lin. Ft.
Service Road at Hollis Drive Sta. 0+12 to Sta. 5+92.50	580.50 Lin. Ft.
Redskin Drive Extension Sta. 0+25 to 7+75.34	750.34 Lin. Ft.
Sheets Rd. Reloc. Sta. 20+12.4 to Sta. 32+87	1274.60 Lin. Ft.
Total Length of Work	29,224.17 Lin. Ft. or 5.534 Mi.

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 of Transportation in accordance with the provisions of Section 5511.02 of the Revised Code of Ohio.

DESIGN DESIGNATION
See Sheet 2

1975 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.

The right of way for this improvement will be provided by the State of Ohio.

I hereby approve these plans and declare that the making of this improvement will not require the closing to traffic of the highway and that provisions for the maintenance and safety of traffic will be as set forth on these plans and estimates.

Approved R. F. Bevis
Date 8/28/72 District Deputy Director Of Transportation

Approved Robert B. Pfeifer
Date 6-5-75 Engineer, Bureau Of Bridges

Approved E. J. Schaefer
Date 6-18-75 Engineer, Bureau Of Roadway Design

Approved John B. Ellis
Date 6-18-75 Assistant Deputy Director For Highway Design

Approved Kurt Billingsley
Date 6/18/75 Assistant Deputy Director For Real Estate

Approved Howard E. Nolan
Date 6/18/75 Assistant Deputy Director For Program Development

Approved R. E. Estlin
Date 6-18-75 Chief Engineer, Design

Approved David H. Allen
Date 6-19-75 Assistant Director, Department Of Transportation

Approved Rameses
Date 6-19-75 Director, Department Of Transportation

PREPARED BY
VOGT IVERS & ASSOCIATES, INC.
ENGINEERS ARCHITECTS
CINCINNATI, OHIO

Robert B. Vogt

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED
DIVISION ADMINISTRATOR DATE

REVISED DATE 9-22-75
Rev. 9-23-75

Standard Construction Drawings

HL-1	9-6-73	HL-8	9-6-73	HL-16	4-6-73								
HL-2	7-27-73	HL-9	9-6-73	TC-7.65	10-1-74	BP-1	6-1-65	CB-3	6-1-65	F-3	3-10-69	MC-6	6-1-65
HL-3	7-27-73	HL-10	9-6-73	TC-12.30	10-1-74	BP-2	12-1-68	CB-3A	6-1-65	F-5	3-10-69	MC-7	10-1-68
HL-4	9-6-73	HL-11	4-6-73	TC-18.24	10-1-74	BP-3	1-1-71	CB-4	9-1-69	L-1	6-1-73	MC-8	6-12-75
HL-5	9-6-73	HL-12	4-6-73	TC-21.10	10-1-74	BP-4	1-1-71	CB-5	9-1-69			MH-1	10-1-68
HL-7	9-6-73	HL-15	4-6-73	TC-22.10	10-1-74	BP-5	8-11-75	CB-458A	6-6-68	GR-2B	11-9-71	HW-4	1-1-70
						BP-6	6-1-65	CB-6	6-1-65	GR-3	11-9-71	MC-1	6-13-69
						BP-7	1-1-66	CB-8	9-1-69	GR-4	11-9-71	MC-3	6-1-73
						AS-1-72	6-30-72	F-1	6-1-72	GR-5	1-1-71	MC-4	6-13-69
						CB-2-2488	6-1-65	F-2	1-1-71	GR-6	1-1-71	MC-5	6-12-75

MH-1A	10-1-68				
BR-1-67	10-15-71				
-					
SD-1-69	6-12-69				
RB-1-55	2-2-59				

Supplemental Specs.

808	1-1-71	1001	9-20-72
836	3-12-75		
839	11-25-70		
842	8-29-74		
844	11-8-74		
934	1-1-69		
941	11-28-73		
948	2-19-74	3625	1-11-74
		3713	1-11-74

File No.	HAMILTON COUNTY	HAM-275-13.91
	Date of Letting	19
	Contract No.	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

2
468

HAM-275-13.91
HAMILTON COUNTY

END WORK 116+40
S.T.
END PAVEMENT 115+21.87
C5.
END PAVEMENT 45+73.20 TEMP. ROAD No. 5
℄ BLUE ROCK RD CONNECTOR
BEGIN PAVEMENT 16+10
BEGIN WIDE 16.50
END NORTHWEST RD. RELOC. 45+75
BEGIN WORK 47+10
NORTHWEST RD.
BEGIN PAVEMENT 47+10
TEMP. ROAD No. 6
EXIST. BLUE ROCK RD C.R. 71
BLUE ROCK RD RELOC.
88+48.60 BLUE ROCK RD. RELOC.= 576+28.70 RAMP 'C' = 576+16.65 RAMP 'D'
BEGIN PAVEMENT 574+74.12
BEGIN RAMP 'D' 576+50.80
℄ RAMP 'D'
END RAMP 'D' 589+94.61
℄ RAMP 'C'
END RAMP 'C' 575+94.90
℄ I-275
℄ RAMP 'E'
END RAMP 'E' 591+75
STRUCTURE No. HAM-275-14.29
STRUCTURES No. HAM-275-13.92
BEGIN WORK 569+80
STA. 572+00
83+15.13 BLUE ROCK RD. RELOC.= 578+33.69 RAMP 'E'
BEGIN RAMP 'E' 578+65.69
Structure - SPRINGDALE RD. over BLUE ROCK RD. RELOC.
SPRINGDALE RD C.R. 96
SLM 13.91
18+07.68 SPRINGDALE RD. = 10+09.06 SPRINGDALE CONN.
TEMPORARY ROAD No. 1
℄ SPRINGDALE RD.
BEGIN WORK 4+85
BEGIN PAVEMENT 7+50
BEGIN SPRINGDALE CONN. 0+32
END SPRINGDALE CONN. 9+97.06
TEMPORARY ROAD No. 4 (See General Note)
BEGIN P.I.T. 75+00
℄ SPRINGDALE CONN.
I-275-3(10)28 | I-275-3(9)27
END PROJECT HAM-275-10.66 | BEGIN PROJECT HAM-275-13.91
END PROJECT HAM-CR 453-H
BEGIN WORK 71+50
Sec. 20 T2 ER1 Sec. 21 T2 ER1
Sec. 14 T2 ER1 Sec. 15 T2 ER1
76+41.80 BLUE ROCK RD. RELOC.= 0+00 SPRINGDALE CONNECTOR
Sec. 14 T2 ER1 Sec. 20 T2 ER1
BREHM RD. C.R. 72
END PAVEMENT 35+00
END WORK 35+70
52+50 BREHM RD. RELOC.= 20+00 SHEITS RD. RELOC.
TEMPORARY ROAD No. 2
BEGIN SHEITS RD. 20+12.4
℄ SHEITS RD. RELOC.
END WORK 32+87
END PAVEMENT 32+87
TEMPORARY ROAD No. 7
BEGIN BREHM RD. 45+13.5
BREHM RD. RELOC.
25+68.09 SPRINGDALE RD. = 45+01.17 BREHM RD. RELOC.
END PAVEMENT 29+00
END WORK 30+45
30' SPRINGDALE RD. - CR. 96
Sec. 21 T2 ER1 Sec. 15 T2 ER1
SHEITS RD. C.R. 94
SHEITS Rd. CUL-DE-SAC Detail Sheet No. 32
℄ I-275
SHEET NO. 3

DESIGN DESIGNATION

ADT 1967	36,600
1990 DDHV (AM)	2240 & 2,550
1990 DDHV (PM)	3130 & 2,870
Trucks	5%
DS	70 mph
ADT 1990	55,000
DHV 1990	6,000
Dir. Dist.	65%

NOTE:
Temporary Roads No. 1, 2, 5, 6 & 7
Class 'B' Temporary Pavement.
Temporary Road No. 4 - Class 'A' Temporary Pavement.

REVISED DATE 8-28-75

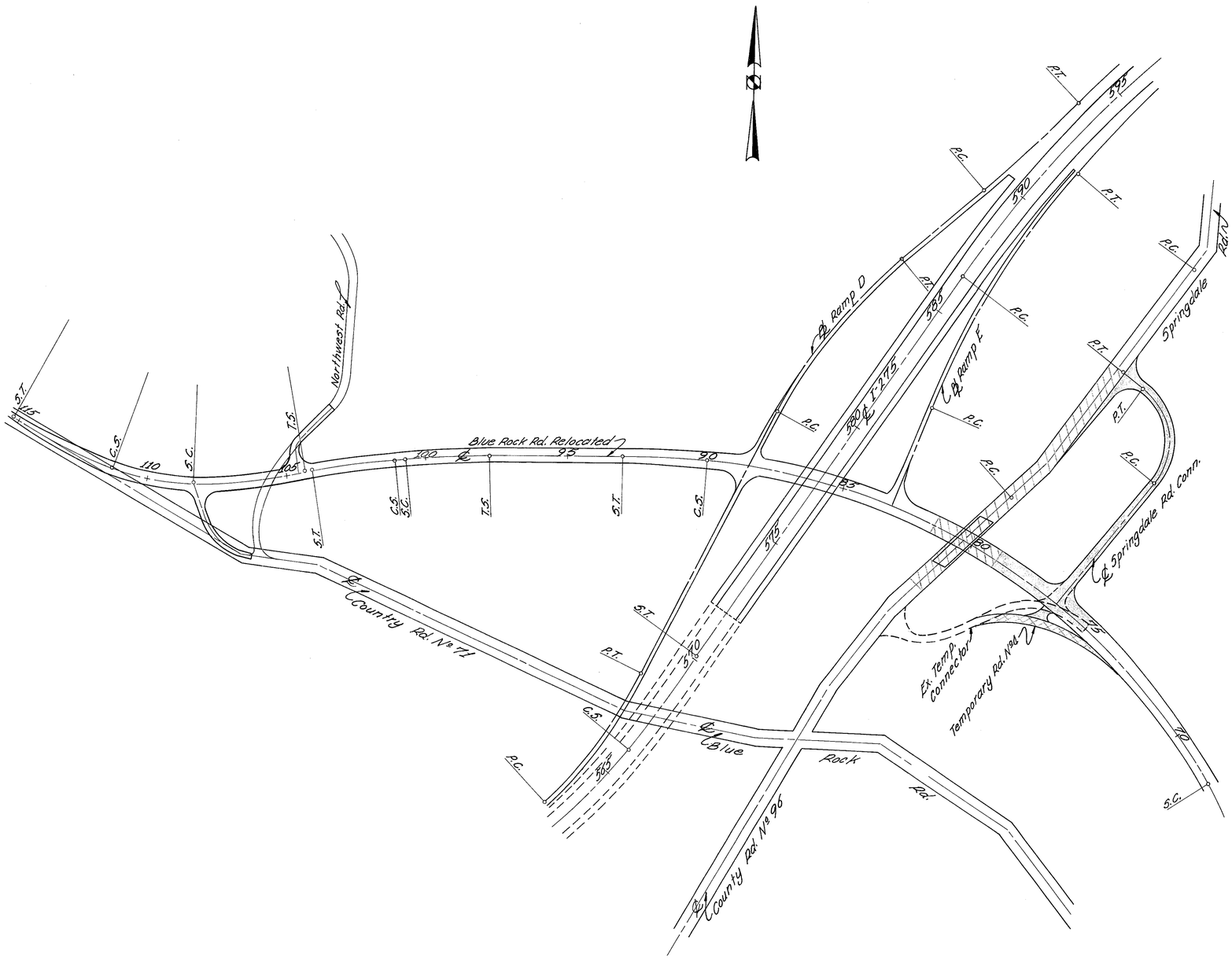
● Drawing not to scale
See Typical Section, Sht. No. 5 Rev. 9-23-75

SCHEMATIC PLAN STA. 572+00 TO STA. 627+50

FHWA REGION	STATE	PROJECT	
5	OHIO		

2A
46B

HAM-275-13.91



PHASE 1

Construct temporary road N°1 Route Blue Rock Rd. Traffic over this road.

PHASE 2

Construct Blue Rock Rd. from Sta. 75+00 to Sta. 79+50 and Proposed Springdale Rd. Connector from Blue Rock Rd. to Springdale Rd. Also construct Temporary Pavement between Blue Rock Rd. and Temporary Rd. N°1 opposite intersection with Springdale Rd. Route Springdale Rd. Traffic over Springdale Rd. connector.

PHASE 3

Construct Proposed Springdale Rd. between Sta. 71+50 to Sta. 17+00 and Blue Rock Rd. from Sta. 79+50 to Sta. 81+50.

While the above phase's are under construction the Contractor shall simultaneously construct Blue Rock Rd. from Sta. 81+50 to 115+23.87 including temporary roads as per paragraph 1a on page 20.

All of the above construction shall be completed within the first year of the Construction Contract.

Rev. 9-23-75

SCHEMATIC PLAN MODIFIED

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

3
468

HAM-275-13.91
HAMILTON COUNTY

PRECHTEL ROAD

DRY RIDGE RD.
C2-74
0

BEGIN WORK AT
10+00 ℄ DRY RIDGE RD. RELOC.
5+00 ℄ DRY RIDGE RD.

℄ DRY RIDGE RD. RELOC.

P.C.

P.T.

BEGIN DRY RIDGE RD.
RELOC. 10+10

END DRY RIDGE RD. RELOC.
20+42.12

731+64.57 ℄ COLERAIN AVE.=
20+67.38 ℄ DRY RIDGE RD. RELOC.

CEMETERY

END WORK
732+85

RESUME WORK
731+00

END PROJECT
HAM-275-13.91
I-275-3(9) 27

BEGIN PROJECT
HAM-275-16.15
I-275-3(8) 24

SUSPEND
WORK
727+20

724+92.00 ℄ CONN. RAMP J
20+22.00 ℄ RAMP J

DRY RIDGE RD. CUL-DE-SAC
Detail Sheet No. 56

END RAMP J
689+88.5

Angle Point
Sta. 723+75.00
-0°05'54.2"

P.C. END SALVAGE

SLM 16.15
STA. 694+00

℄ RAMP F

℄ RAMP J

STRUCTURE No.
HAM-275-1604

℄ RAMP H

END RAMP I
688+55.80

BEGIN RAMP I
673+23.98

BEGIN RAMP J
676+00

BEGIN RAMP H
674+63.48

PT. & ℄ ED.

PT. NB.

℄ WB. I-275

℄ EB. I-275

℄ I-275

℄ & WB

P.C. EB.

℄ COLERAIN AVE. (U.S. 27)

END WORK
STA. 702+37

END WORK
689+00

CAPSTAN CUL-DE-SAC
Detail Sheet No. 53

END PAVEMENT
Sta. 686+50

SWEETWOOD CT.

REGENCY CT.

CAPSTAN DR.

BEGIN RAMP G
683+51.78

End Work
Sta. 5+98.50

688+87.78 ℄ RAMP H =
714+10.42 ℄ COLERAIN AVE.

END RAMP H
688+55

TEMPORARY
ROAD No. 3

℄ SERVICE RD

END SERVICE RD
Sta 3+78.50

BEGIN SERVICE RD
Sta 0+00

Relocated
BEVIS LANE

Ext. Hollis Dr.

Sta 0+00 Service Rd
11+81.94 Hollis Dr.

Sta 0+00 ℄ Ext. Hollis Dr.

Sta 0+00 Redskin Dr.
Sta 7+00+43.03 ℄ Colerain

HAVERKOS CT.

705

720

715

710

695

690

685

680

675

670

665

660

655

650

645

640

635

630

30

18

SHEET NO. 2

MEDIAN CROSSOVER
627+50
Detail Sheet No. 33

SUSANNA DR.

BASEBRUSH LANE

YELLOWSTONE DR.

Sec. 15 T2 ER1

Sec. 16 T2 ER1

Sec. 10 T2 ER1

Sec. 9 T2 ER1

16
15
10
9

Redskin Dr Ext

Meet Existing
Sta 5+05.34
END WORK 7+75.3

Existing Redskin Dr

Begin Work Sta 699+80

●Drawing not to scale
See Typical Section, Sht. No. 5

NOTE:
Temporary Road No. 3 - Class 'A'
Temporary Pavement.

REVISED DATE 8-22-75

SCHEMATIC PLAN STA. 627+50 TO STA. 694+00

FED. RD. DIVISION	STATE	PROJECT		4 / 468
2	OHIO			

HAM-275-13.91
HAMILTON COUNTY

SHEET INDEX

PLAN & PROFILE SHEET INDEX

LOCATION	STATION TO STATION	SHEET NUMBER PLAN	PROFILE	SUB-SUMMARY	PAVEMENT DETAIL
I-275	572+00 - 582+00	28	28	29-30	
	582+00 - 591+75	29	29	29-30	274
	591+75 - 605+00	31	31	33-34	274
	605+00 - 620+00	32	32		
	620+00 - 630+00	33	33	33-34	
	630+00 - 645+00	35	35	37-38	
	645+00 - 660+00	36	36		
	660+00 - 670+00	37	37	37-38	
	670+00 - 685+00	39	39	40-41	279 & 282
	685+00 - 694+00	40	40	40-41	280
RAMP 'C'	574+74.12-575+94.90	42	42	46A-47	275
RAMP 'D'	576+50.08-590+01.07	42	42		274 & 275
RAMP 'E'	578+65.69-591+75	43	43		274 & 275
BLUE ROCK RD. RELOC.	75+00 - 87+00	44	44		275
	87+00 - 103+00	45	45		275
	103+00 - 115+21.87	46	46		276
BLUE ROCK RD. CONN.		46	46A		276
NORTHWEST RD. RELOC.		46A	46A	46A-47	276
SPRINGDALE RD.	7+50 - 23+82.76	48	49	51-52	277
	23+82.76-29+00	51	49		277
SPRINGDALE CONN.	0+32 - 10+09.06	48	49		275 & 277
SHEITS RD. RELOC.	20+00 - 32+67	50	50		
BREHM RD. RELOC.	45+01.17 - 55+00	51	51	51-52	277
RAMP 'G'	683+61.78-686+50	53	53	58-59	278
RAMP 'H'	674+63.48-688+87.74	54	55		279 & 281
RAMP 'I'	673+26.22-688+55.80	54	55		280 & 281
RAMP 'J'	676+00 - 690+22.80	56	56		282
COLERAIN AVE.(US.27)	707+50 - 720+00	57	57		278 & 281
	720+00 - 727+20	58	58	58-59	282
DRY RIDGE RD. RELOC.	10+00 - 20+67.38	60	60	64	
SERVICE RD.	0+00 - 3+78.50	63A	63A	64	277A
REDSKIN DR EXT	0+00 - 5+05.34	63	63	64	277A
CUL-DE-SACS					
SHEITS RD.		32		33-34	31
DRY RIDGE RD.		56		58-59	56
CAPSTAN DR.		53		58-59	53
TEMPORARY RD. NO. 1	0+00 - 6+00	61	49	26	
	6+00 -12+84	61A	49	26	
TEMPORARY RD. NO. 2	0+00 -10+86	61A	61A	26	
TEMPORARY RD. NO. 3	0+00 -11+77	57	57	26	
	11+77 -16+30	58	57	26	
TEMPORARY RD. NO. 4	0+56.94 - 8+02.47	61	61	26	
TEMPORARY RD. NO. 5	0+30 - 7+60	62	62	26	
TEMPORARY RD. NO. 6	0+00 - 2+46	62	62	26	
RAMP 'F'	689+63.66 - 691+00	58		58-59	278

CROSS SECTION SHEET INDEX

LOCATION	SHEET NUMBERS
I-275	67 - 174
RAMP 'C'	175 - 177
RAMP 'D'	178 - 182
RAMP 'E'	183 - 186
RAMP 'G'	187 - 188
RAMP 'H'	189 - 195
RAMP 'I'	196 - 205
RAMP 'J'	206 - 210
BLUE ROCK RD. RELOC.	211 - 233 & 211A
BLUE ROCK RD. CONN.	235
NORTHWEST RD. RELOC.	234 - 235
SPRINGDALE RD.	237 - 242
SPRINGDALE CONN.	243 - 248
BREHM RD. RELOC.	249 - 250
SHEITS RD. RELOC.	251 - 257
COLERAIN AVE.(US 27)	258 - 266
DRY RIDGE RD. RELOC.	267 - 269
REDSKIN DR EXT.	270
DRIVEWAY-COLERAIN AV.	273
CUL-DE-SACS	
SHEITS RD.	273A
DRY RIDGE RD.	273A
CAPSTAN DR.	273A
SERVICE RD.	271
TEMPORARY RD. NO. 1	239 - 242
TEMPORARY RD. NO. 2	243, 250A
TEMPORARY RD. NO. 3	258 - 260B, 265
TEMPORARY RD. NO. 4	273B - 273C
TEMPORARY RD. NO. 5	231 - 232
TEMPORARY RD. NO. 6	273C

ROAD NAME ABBREVIATIONS

ROAD NAME	ABBR.	ROAD NAME	ABBR.
I-275 MAINLINE	275	BLUE ROCK ROAD CONNECTOR	BRRC
RAMP C	C	SPRINGDALE ROAD RELOCATED	SPR
RAMP D	D	SPRINGDALE ROAD CONNECTOR	SPC
RAMP E	E	SHEITS ROAD RELOCATED	SR
RAMP F	F	BREHM ROAD RELOCATED	BR
RAMP G	G	COLERAIN AVENUE (U.S. 27)	CO
RAMP H	H	DRY RIDGE ROAD RELOCATED	DRR
RAMP I	I	REDSKIN DRIVE EXTENSION	RE
RAMP J	J	SERVICE ROAD	HS
BLUE ROCK ROAD RELOCATED	BRR	CAPSTAN DRIVE CUL-DE-SAC	CD
NORTHWEST ROAD RELOCATED	NWR	DRIVEWAY	DR

REVISED DATE 8-22-75

ITEM LEGEND

(1) Item 451 9" Reinforced Portland Cement Concrete Pavement.
(2) 310 Subbase, Grading 'A', thickness as noted.
(3) 310 Subbase, thickness as noted.
(4) 304 Aggregate Base, thickness varies
(5) 301 Bituminous Aggregate Base 702.01 AC-20 or 702.09 RT-11 or RT-12.
(6) 409 Seal Coat, using 0.008 cu. yd. #8 Cover aggregate per sq. yd. and 0.30 gal. bituminous material: 702.02, MC-800 or MC-3000; 702.03, CBAE 800; 702.04, RS-1, RS-2, CRS-1 or CRS-2; or 702.09, RT-9 or RT-10 per sq. yd.
(7) 605 6" Pipe Underdrain, See Note (C).
(8) 659 Seeding and Mulching.
(9) Standard Longitudinal Joint.
(10) Standard Longitudinal Key Joint without Tie Bars.
(11) Special Drainage Connection using No.8 Aggregate (See note in proposal.)
(12) 606 Guard Rail, Type 5.
(13) 310 Subbase, Grading 'B', thickness as noted.
(14) 605 Aggregate Drain (See General Notes for Spacing).
(15) 408 Bituminous Prime Coat: 702.09, RT-2 or RT-3; 702.02, MC-30 or MC-70; or 702.03, Primer 20 applied at the rate of 0.40 gal. per S.Y.
(16) 402 Asphalt Concrete, AC-20 thickness as noted
(17) 404 Asphalt Concrete, AC-20 thickness as noted
(18) 609 Concrete Curb and Gutter, Type 2.
(19) Hot Longitudinal Joint
(20) 609 Concrete Curb and Gutter, Type 3.
(21) 609 Concrete Curb, Type 6.
(22) 612 Concrete Median, as per plan.
(23) 612 4" Concrete Median, as per plan.
(24) 452 7" Plain Portland Cement Concrete Pavement
(27) Standard: Expansion Bolt Joint
(28) 609 Concrete Walk
(29) Special Lime for Subgrade Stabilization (See General Notes, Sht. No. 21A)

NOTES

(A) Slope Treatment Shown on Sheet No. 6. Cut and Fill Slopes for Speed Change Lanes are the same as for the Main Roadway, except as noted thereon.

(B) Rounding at top of cut slopes, unless otherwise shown: Main Roadway, Speed Change Lanes, Ramps & Blue Rock Road Reloc. - 10'-0" Side Roads - 4-0".

(C) Underdrain Classification:
Shallow - In Fills or Median - 23" Min. Cover to Subbase
- In Rock - 12" Min. Cover to Subbase (707.01 Type III & 707.12)
Deep - In Cuts - 43" Min. Cover to Subbase
Unclassified - Transition, Depth Variable.
For Location and Classifications used see appropriate roadway plan sheets.
Omit Underdrains at high side of normal and superelevated sections when in fill.

(E) Use the Pavement Slope on Shoulder when it exceeds the normal Shoulder Slope.

(F) Refer to the Proposal Notes for requirements relating to surface tolerance, use of pavers with automatic screed control, and a hot longitudinal joint in the surface course.

Item 451 9" Reinforced Portland Cement Concrete Pavement.
310 Subbase, Grading 'A', Thickness as noted.

Item 409 Seal Coat using 0.008 C.Y. #8 Cover Aggregate Per S.Y., and 0.30 Gal. Bituminous Material: 702.02, MC800 or MC3000; 702.03, CBAE 800; 702.04, RS-1, RS-2, CRS-1 or CRS-2; or 702.09, RT-9 or RT-10 Per S.Y.
301 Bituminous Aggregate Base 702.01 AC 20 or 702.09 RT-11 or RT-12.
Special Lime for Subgrade Stabilization.

PAVEMENT SYMBOLS

Item 404 1¼" Asphalt Concrete, AC-20
402 1¾" Asphalt Concrete, AC-20
301 10" Bituminous Aggregate Base, 702.01 AC-20 or 702.09 RT-11 or RT-12 (2-5" Courses)
310 9" Subbase

Item 404 1¼" Asphalt Concrete, AC-20
402 1¾" Asphalt Concrete, AC-20
301 3" or 6" (2 Courses) Bituminous Aggregate Base 702.01 AC-20 or 702.09 RT-11 or RT-12.
Special Lime for Subgrade Stabilization.

Item 404 1 ¾" Asphalt Concrete, AC-20
402 1¾" Asphalt Concrete, AC-20
408 Bituminous Prime Coat: 702.09, RT-2 or RT-3; 702.02, MC-30 or MC-70; or 702.03 Primer 20 applied at the rate of 0.40 gal. per S.Y.
304 7" Aggregate Base.
310 6" Subbase Grading 'B'.

Item 404 1" Asphalt Concrete, AC-20
402 1½" Asphalt Concrete, AC-20
301 8" Bituminous Aggregate Base, 702.01 AC-20 or 702.09 RT-11 or RT-12 (2-4" Courses)
310 12" Subbase Grading 'A'.

Item 409 Seal Coat, No. 8 Cover Aggregate applied at 0.008 C.Y. per S.Y. & Bituminous Material: 702.09, RT-9 or RT-10; 702.02, MC-800 or MC-3000; 702.04, RS-1, RS-2, CRS-1 or CRS-2; or 702.03, CBAE-800 @ 0.30 gal. per S.Y.
301 3" Bituminous Aggregate Base, 702.01 AC-20 or 702.09 RT-11 or RT-12
304 Aggregate Base, thickness varies as per plan.
310 Subbase, thickness varies as per plan.

Item 409 Seal Coat, No. 8 Cover Aggregate applied at 0.008 C.Y. per S.Y. & Bituminous Material: 702.09, RT-9 or RT-10; 702.02, MC-800 or MC-3000; 702.04, RS-1, RS-2, CRS-1 or CRS-2; or 702.03, CBAE-800 @ 0.30 gal. per S.Y.
451 9" Reinforced Portland Cement Concrete Pavement
310 Subbase, thickness varies as per plan

Item 409 Seal Coat, No. 8 Cover Aggregate 0.008 C.Y. per S.Y. & Bituminous Material: 702.09, RT-9 or RT-10; 702.02, MC-800 or MC-3000; 702.04, RS-1, RS-2, CRS-1 or CRS-2; or 702.03, CBAE-800 @ 0.30 gal. per S.Y.
408 Bituminous Prime Coat: 702.09, RT-2 or RT-3; 702.02, MC-30 or MC-70; or 702.03, Primer 20 applied at the rate of 0.40 gal. per S.Y.
304 Aggregate Base, thickness varies as per plan.

Item 612 4" Concrete Median, as per plan.

Item 612 Concrete Median, modified as per plan.

Item 404 0" to 3" Asphalt Conc., AC-20 Max. 1" courses.
407 Tack Coat, Bituminous Material 0.1 gal per Sq. yd. 702.04 MS-2 or RS-1, or 702.02 RC-70 or RC-250. & Cover Aggregate.

Item 404 2" Asphalt Conc., AC-20. Two 1" Courses.
408 Bituminous Prime Coat: 702.09, RT-2 or RT-3; 702.02, MC-30 or MC-70; or 702.03, Primer 20 applied at the rate of 0.40 gal. per S.Y.
304 5" Aggregate Base

Item 304 8" Aggregate Base

Item 404 2" Asphalt Conc., AC-20. Two 1" Courses.
402 3" Asphalt Concrete, AC-20
408 Bituminous Prime Coat: 702.09, RT-2 or RT-3; 702.02 MC-30, or MC-70; or 702.03, Primer 20 applied at the rate of 0.40 gal. per S.Y.
304 6" Aggregate Base, applied in 2-3" courses

TYPICAL SECTIONS

TYPE 404 ON 301

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

5
468

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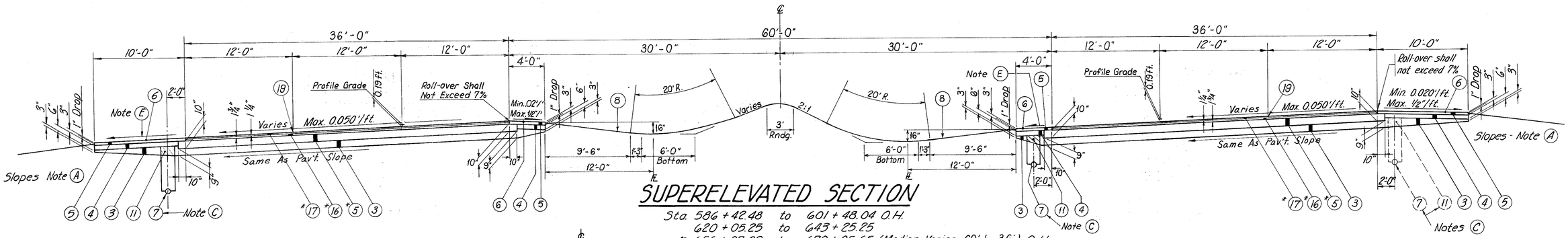
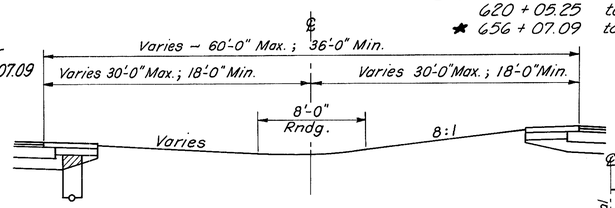
HAMILTON COUNTY



SUPERELEVATED SECTION

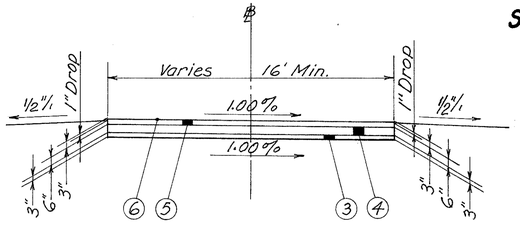
Sta. 586+42.48 to 601+48.04 O.H.
620+05.25 to 643+25.25
★ 656+07.09 to 670+05.65 (Median Varies 60' to 36') O.H.

Note: Median transition from barrier to depressed between Sta. 656+07.09 and Sta. 657+57.09.



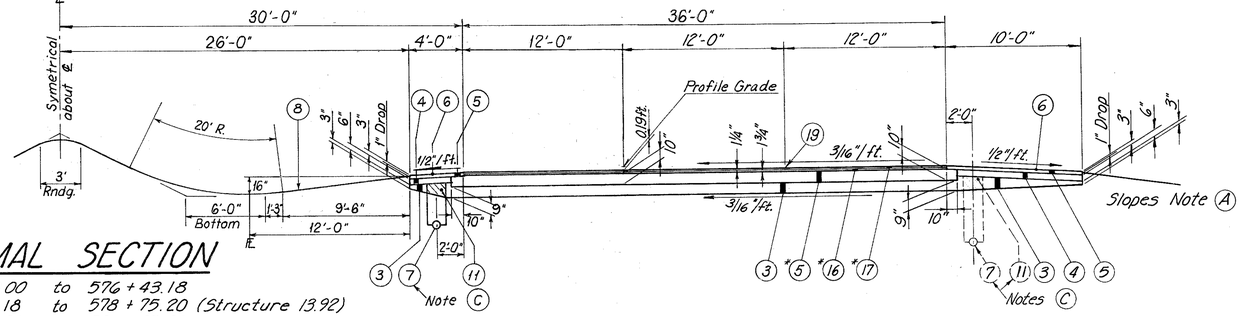
SUPERELEVATED VARIABLE ★ MEDIAN DETAIL

Sta. 656+07.09 to Sta. 670+05.65



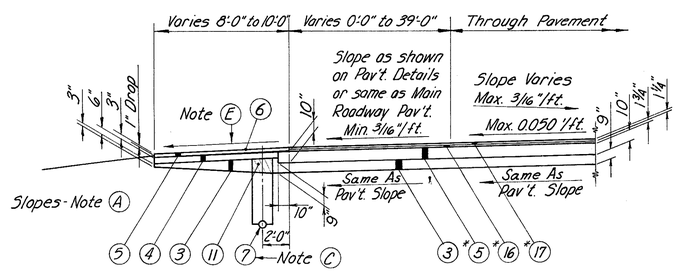
MEDIAN CROSSOVER

Sta. 627+50

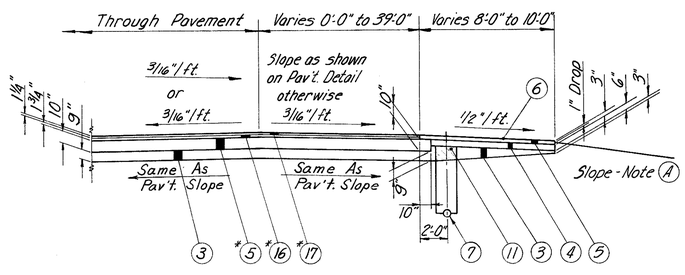


NORMAL SECTION

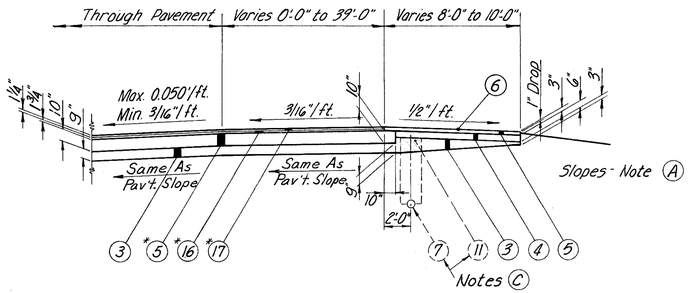
Sta. 572+00.00 to 576+43.18
576+43.18 to 578+75.20 (Structure 13.92)
578+75.20 to 586+42.48
601+48.04 to 620+05.25
643+25.25 to 656+07.09



SPEED CHANGE LANE ALONG LOW SIDE OF SUPERELEVATED SECTION



SPEED CHANGE LANES - TAPERS - ADDED LANES ALONG NORMAL SECTION



SPEED CHANGE LANE ALONG HIGH SIDE OF SUPERELEVATED SECTION

★ See "Note (F)" Sht. No. 4.
NOTE: O.H. = Opposite Hand

REVISED DATE 8-22-75

ITEM LEGEND & NOTES - Sheet No. 4

TYPICAL SECTIONS - 60 FT. MEDIAN

SEQ. NO.	NAME	REVISED		6
2	OHIO			468

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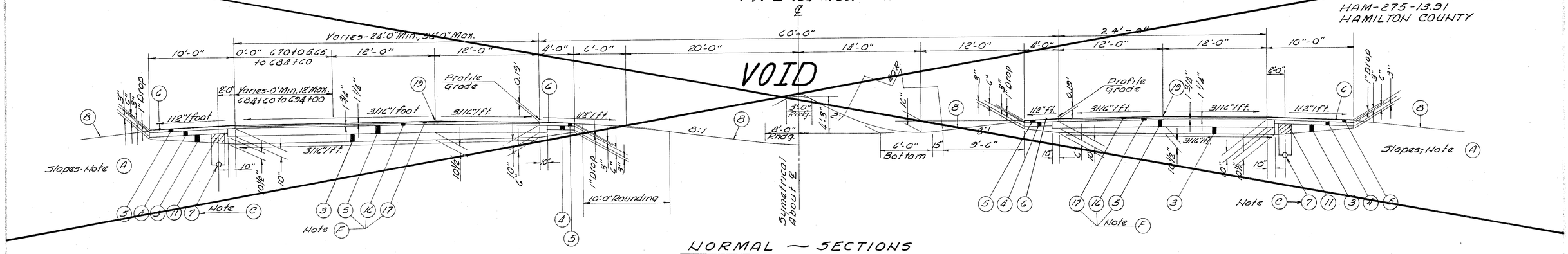
HAMILTON COUNTY

TYPICAL SECTIONS

TYPE 404 ON 301



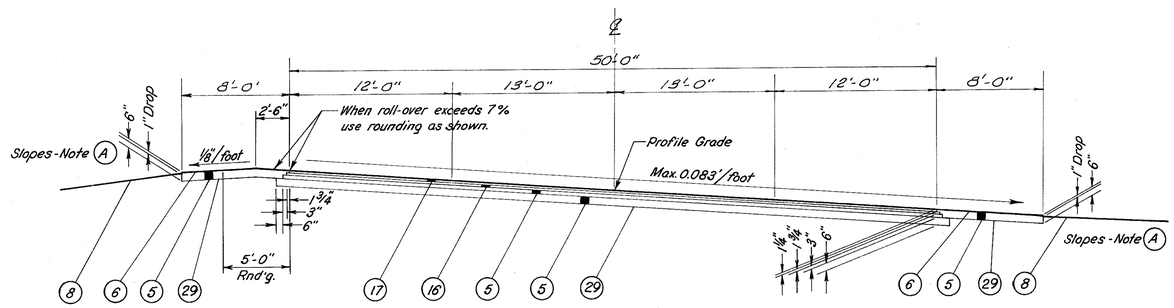
NORMAL — SECTIONS

Sta.C70+05.65 to Sta.694+00 Note: Median transition from barrier to depressed between Sta.691+00 and Sta.692+50.

Note: Speed Change Lanes and Tapers, See Sheet No.5 and Pavement Details.

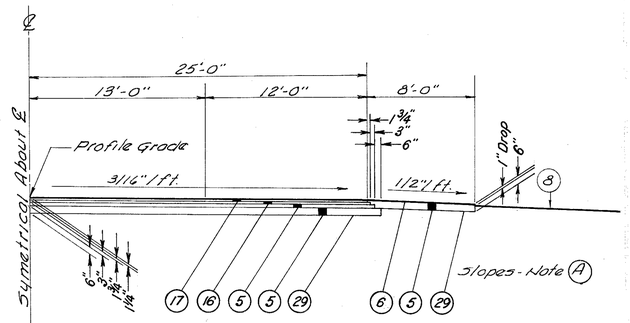
NOTE: SEE SHEET 6A

FOR TYPICAL SECTION STA.670+05.65 to STA.694+00 SEE SHT. No. 6A



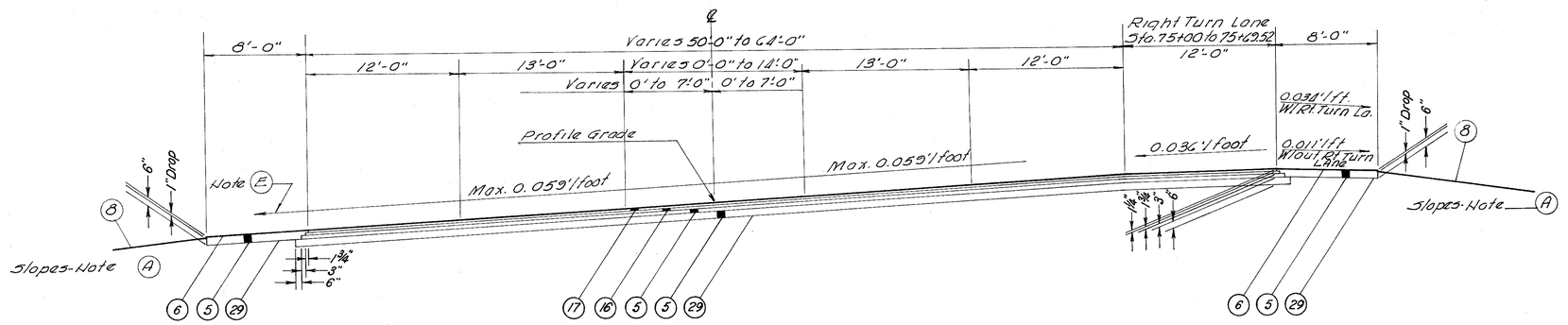
BLUE ROCK RD. RELOC.-SUPERELEVATED SECTION

Sta.104+33.71 to Sta.111+21.87



BLUE ROCK RD. RELOC.-NORMAL SECTION

Sta.93+00.00 to Sta.97+73.17
Sta.101+09.00 to Sta.104+33.71



BLUE ROCK RD. RELOC.-SUPERELEVATED SECTION

Sta.75+00.00 to Sta. 93+00.00
Sta.97+73.17 to Sta. 104+09.00

ITEM LEGEND & NOTES - SHEET NO.4

REVISED DATE 8-22-75

60 FT. MEDIAN & BLUE ROCK ROAD RELOCATED TYPICAL SECTIONS

FHWA REGION	STATE	PROJECT	
5	OHIO		

6A
468

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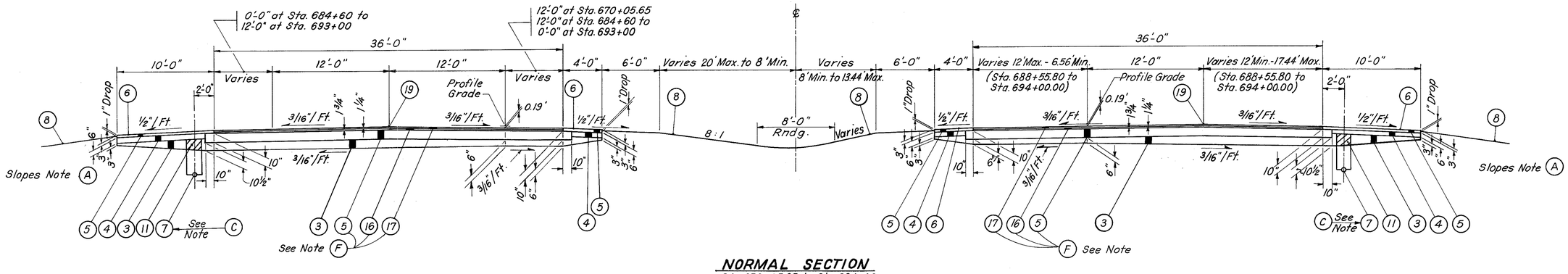
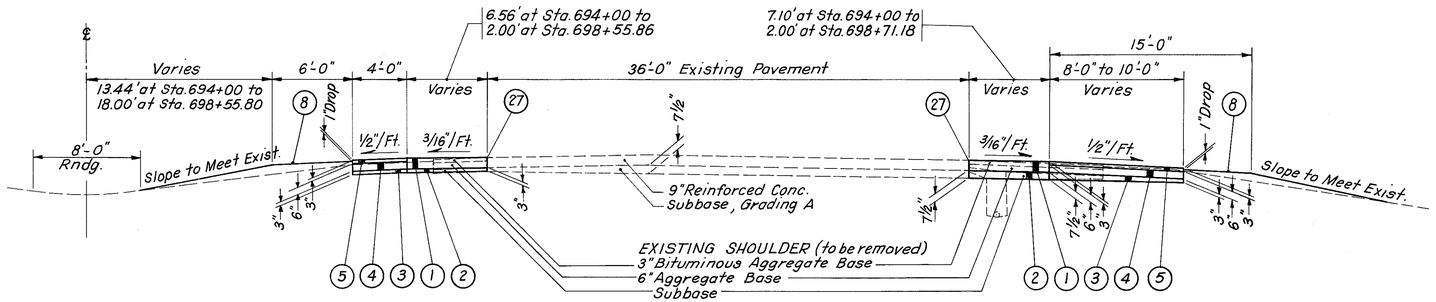
HAMILTON COUNTY

TYPICAL SECTION
404 on 301



NORMAL SECTION
Sta. 670+05.65 to Sta. 694+00

NOTE: Speed Change Lanes and Tapers, See Sheet No. 5 and Pavement Details.



NORMAL SECTION
Sta. 694+00 to Sta. 700+55.80

NOTE: Speed Change Lanes and Tapers, See Sheet No. 5 and Pavement Details.

REVISED DATE 8-22-75

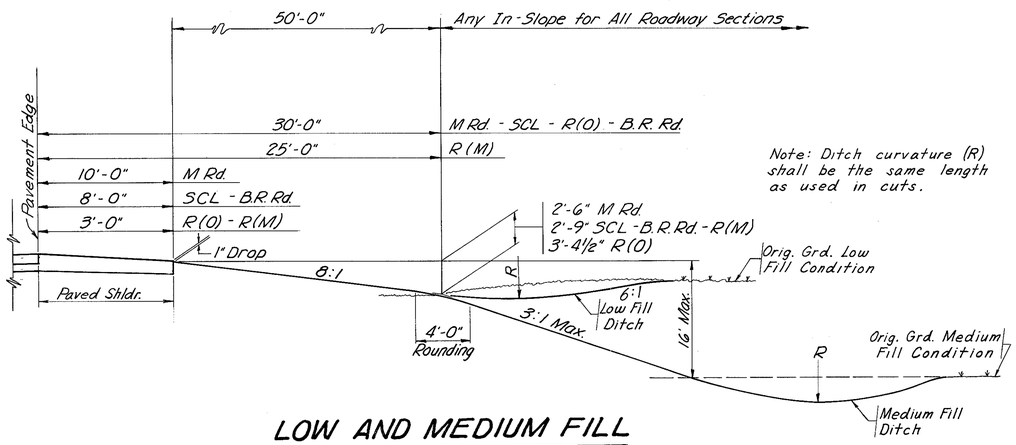
TYPICAL SECTIONS

TYPICAL SECTIONS
SLOPE TREATMENT

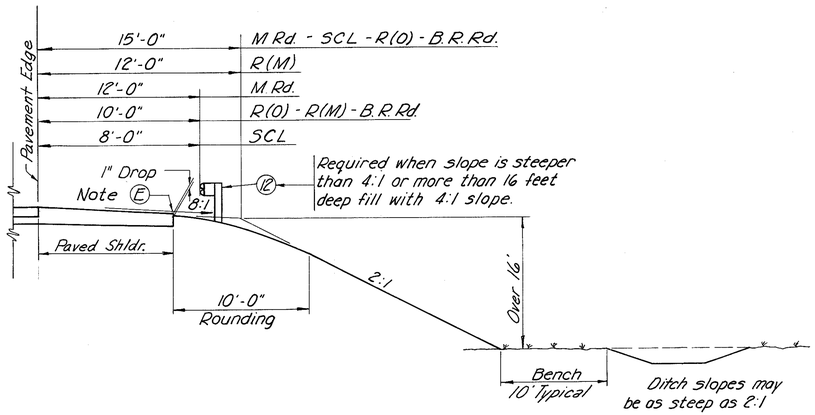
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

7
468

HAM - 275 - 13.91
HAMILTON COUNTY



LOW AND MEDIUM FILL



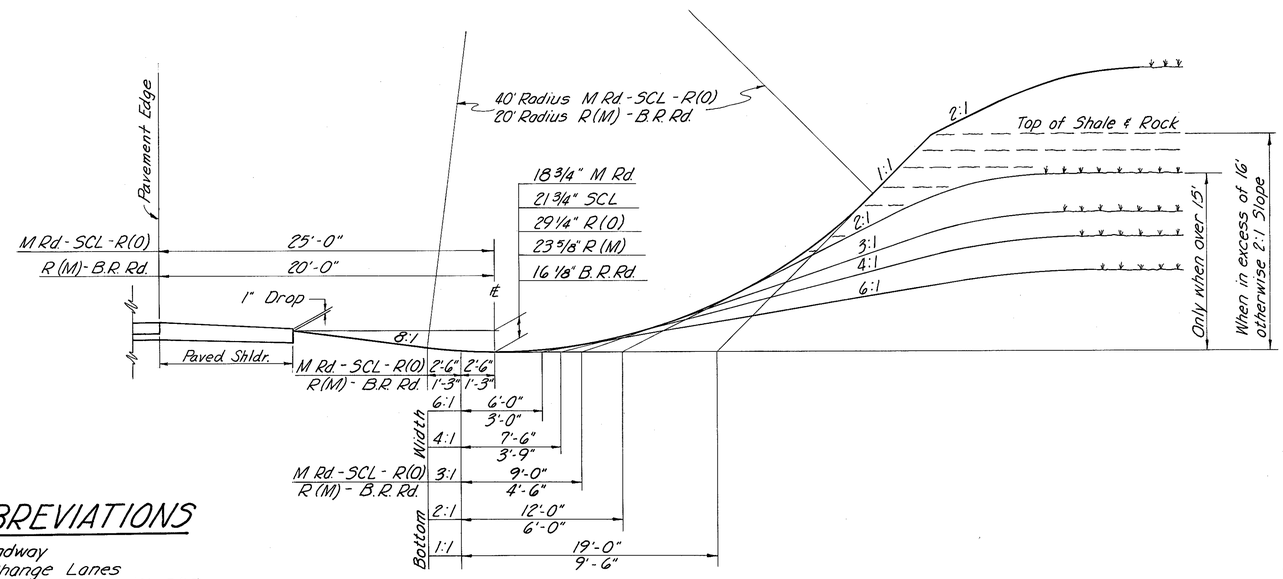
DEEP FILL

FILL SLOPE TREATMENTS

See Key to Abbreviations

KEY TO ABBREVIATIONS

M.Rd. —— Main Roadway
SCL —— Speed Change Lanes
R(O) —— Ramp - Outside Slopes, with R(M) as Alternate
R(M) —— Ramp - Median Slopes, also Alternate for R(O)
B.R. Rd. —— Blue Rock Road Relocated



CUT SLOPE TREATMENTS

See Key to Abbreviations

Side Road Slopes - Sheet Nos. 9 & 10
Item Legend & Notes - Sheet No. 4

TYPICAL SECTIONS
TYPE 404

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

8
468

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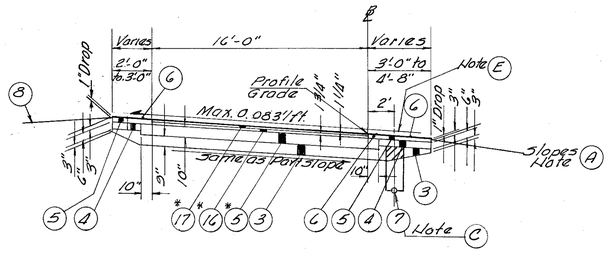
HAMILTON COUNTY

TYPE 404

Flexible Pavement Returns of Ramps G, H, I, & J at intersections with Colerain Ave. (U.S. 27), are to have same pavement section and curb treatment as Colerain Ave. Sheet No. 9. Pavement dimensions and curb locations are shown on Pavement Details, Sheet No's. 278, 281 & 282.

Flexible pavement returns of Ramps C, D & E at intersections with Blue Rock Road are to have same pavement section and shoulder treatment as Blue Rock Road, Sheet No. 6.
Pavement dimensions are shown on Pavement Detail, Sheet No. 275.

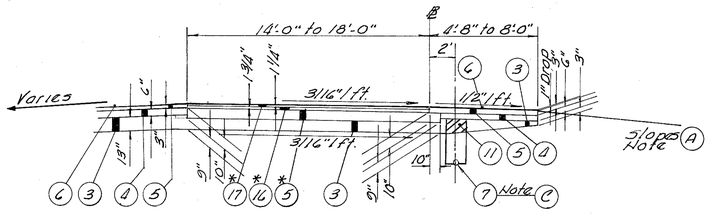


ENTRANCE TERMINAL

RAMP 'E'
Sta. 585+21.00 to Sta. 588+40.00

RAMP 'I'
Sta. 683+83.00 to Sta. 684+55.80

RAMP 'J'
Sta. 680+14.00 to Sta. 681+02.00

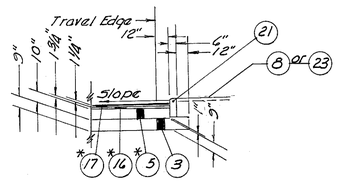


ENTRANCE TERMINAL

RAMP 'E'
Sta. 588+40.00 to Sta. 591+74.94

RAMP 'I'
Sta. 684+55.80 to Sta. 688+55.80

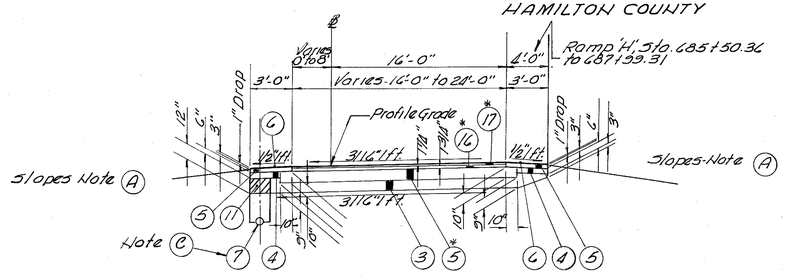
RAMP 'J'
Sta. 676+00.00 to Sta. 680+14.00



DETAIL (A)
RAMP H
Sta. 683+00.00 to Sta. 687+99.31-O.H.

RAMP 'I'
Sta. 674+25.98 to Sta. 679+70.00-O.H.

* See "Note (F)" Sheet No. 4
Notes: O.H. = Opposite Hand



NORMAL

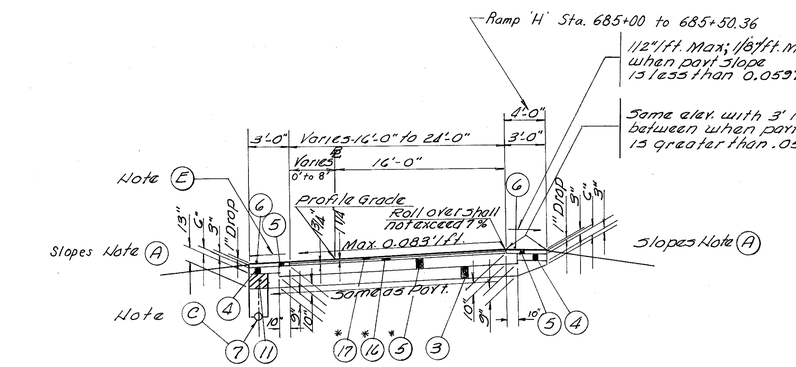
RAMP 'C'
Pavement Detail

RAMP 'D'
Sta. 576+99.12 to Sta. 578+32.58
585+20.55 to 589+00.11

RAMP 'E'
Sta. 579+58.78 to Sta. 582+04.39-O.H.

RAMP 'H'
Sta. 680+37.41 to Sta. 683+17.95-O.H. Detail A
685+50.36 to 687+99.31-O.H. Detail A

RAMP 'J'
Sta. 681+97.60 to Sta. 684+64.94
688+29.16 to 689+00.90



SUPERELEVATED

RAMP 'C'
Pavement Detail

RAMP 'D'
Sta. 578+32.58 to Sta. 585+20.55-O.H.
589+00.11 to. 589+34.61

RAMP 'E'
Sta. 582+04.39 to Sta. 585+21.00-O.H.

RAMP 'G'
Sta. 684+61.78 to Sta. 686+50.00-O.H.

RAMP 'H'
Sta. 674+63.48 to Sta. 680+37.41-O.H.
683+17.95 to 685+50.36 Detail (A)

RAMP 'I'
Sta. 674+25.98 to Sta. 683+83.00-O.H. Detail (A)

RAMP 'J'
Sta. 681+02.00 to Sta. 681+97.60
684+64.94 to 688+29.16-O.H.

REVISED DATE 8-22-75

ITEM LEGEND & NOTES - SEE SHEET No. 4

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

9
468

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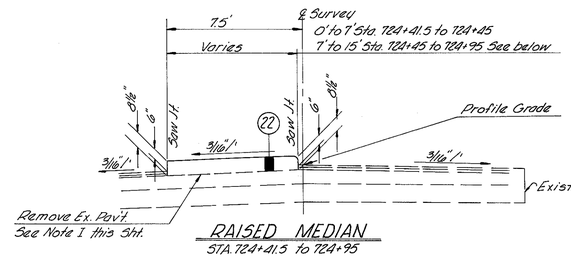
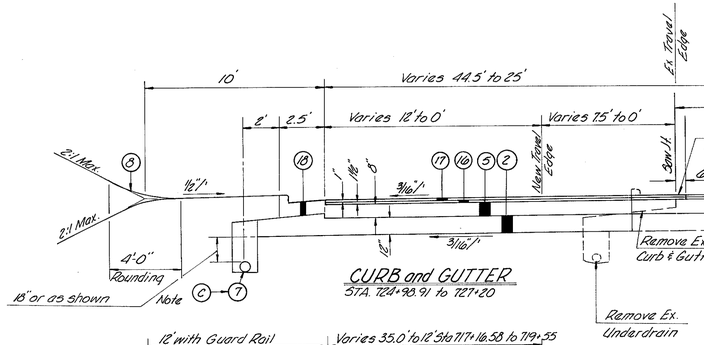
HAMILTON COUNTY

TYPICAL SECTIONS
TYPE 404

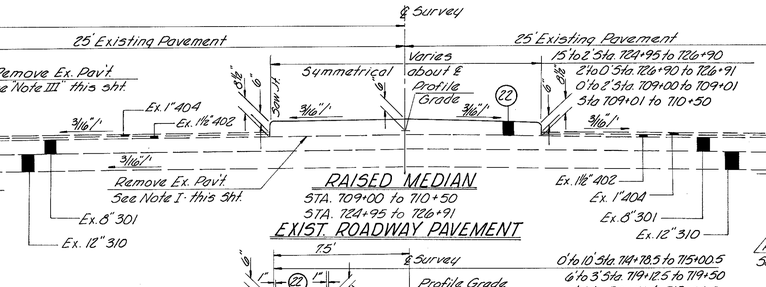
Note III - Saw cut through existing surface and leveling courses and remove existing pavement to provide a neat line and lap joint for the new paving operations. Payment for saw joint and pavement removal to be included in unit price bid for Item 404 Asphalt Concrete, Ac-20, Thickness as Noted.



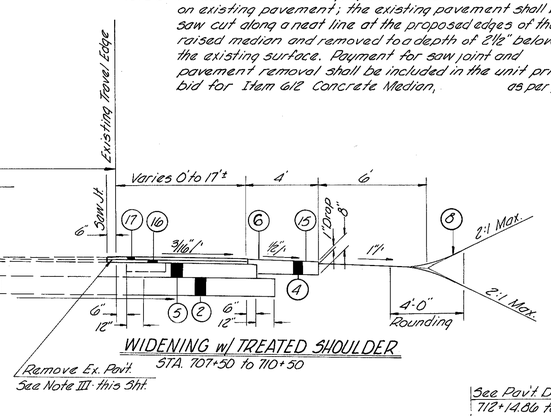
RAISED MEDIAN
STA. 724+41.5 to 724+95



CURB and GUTTER
STA. 724+90.91 to 727+20

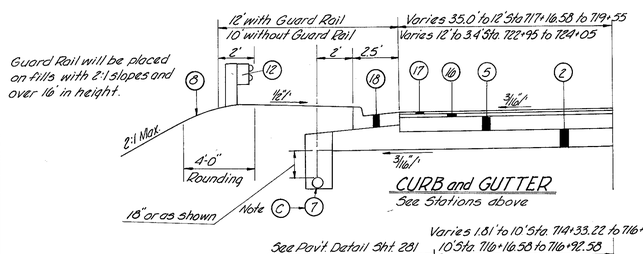


RAISED MEDIAN
STA. 709+00 to 710+50
STA. 724+95 to 726+91

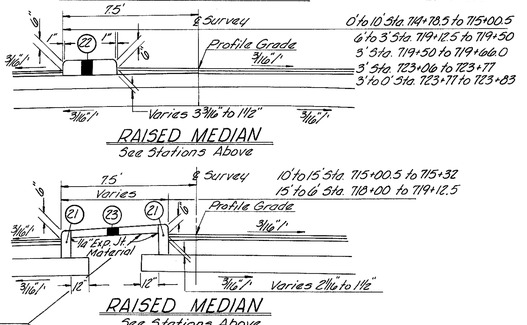


WIDENING w/ TREATED SHOULDER
STA. 707+50 to 710+50

Note I - At locations where the proposed median is constructed on existing pavement; the existing pavement shall be saw cut along a neat line at the proposed edges of the raised median and removed to a depth of 2 1/2" below the existing surface. Payment for saw joint and pavement removal shall be included in the unit price bid for Item 612 Concrete Median, as per plan.

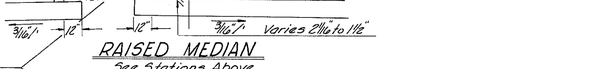


CURB and GUTTER
See Stations above

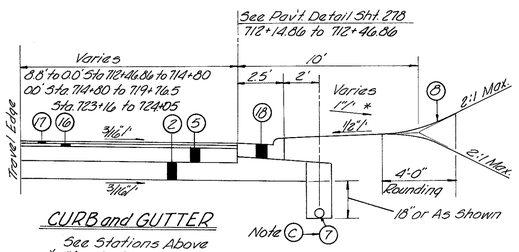


RAISED MEDIAN
See Stations Above

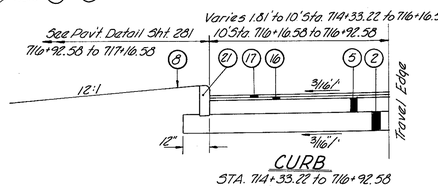
RAISED MEDIAN
See Stations Above



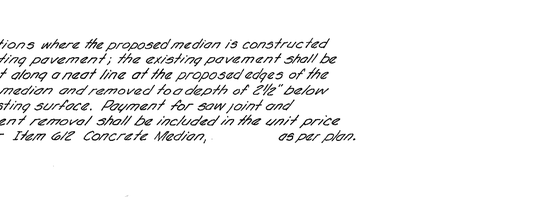
RAISED MEDIAN
STA. 710+50 to 712+51.01



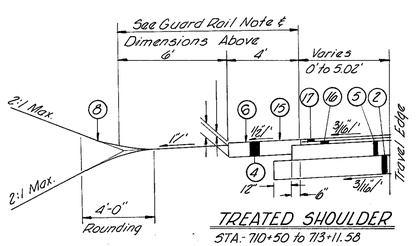
CURB and GUTTER
See Stations Above
* 17" Sta. 712+46.86 to 713+50



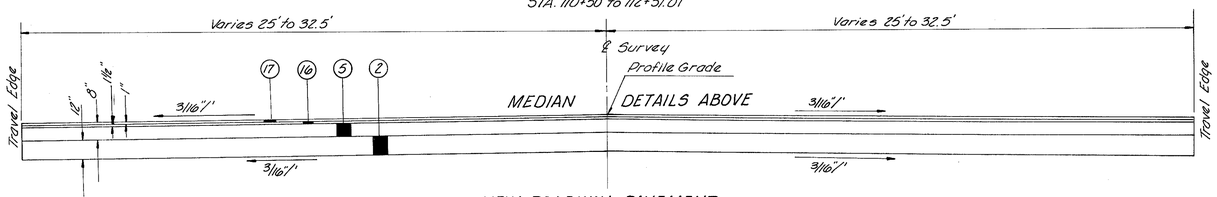
CURB
STA. 714+33.22 to 716+92.58



PAVEMENT and TREATED SHOULDER
STA. 710+50 to 712+14.86



TREATED SHOULDER
STA. 710+50 to 713+11.58



NEW ROADWAY PAVEMENT
STA. 710+50.00 to 719+67.12
STA. 719+67.12 to 723+07.53 Bridge HAM-275-1604 & Approach Slabs (See Sh. No. 345 for median detail on 611)
STA. 723+07.53 to 724+05.00

Note II - 4" Concrete Median Joints: 1/4 inch Expansion Joints Shall be constructed of 20 ft intervals. Metal separator plates or templets shall be used if necessary to hold the joint material in accurate position during the placing of the concrete. Separator plates or templets, if used, shall be removed as soon as the conc. is in place to insure the accurate retention of the joint material. Expansion joint material shall meet the requirements of 705.03.

In addition to the 1/4" expansion joints, contraction joints consisting of 1/16" min. depth impressed joint, formed and sealed as per Std. drawing BP-3, shall be placed in the concrete median at intervals not to exceed 10 feet.

Rev. 8-22-75

ITEM LEGEND and NOTES SHEET No. 4

TYPICAL SECTIONS - COLERAIN AVE. (U.S. 27)

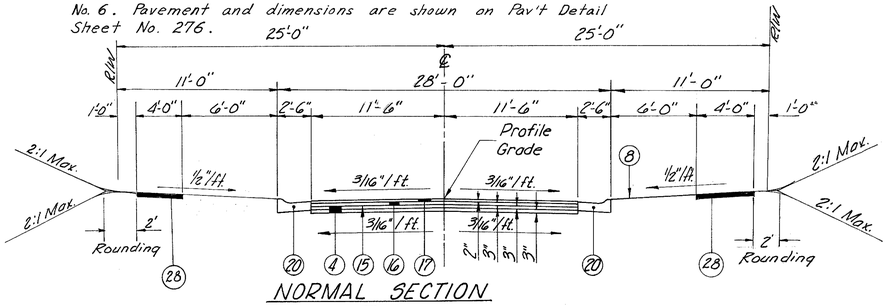
TYPICAL SECTIONS
TYPE 404 ON 304

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

10
468

HAM-275-13.91
HAMILTON COUNTY

NOTE: FLEXIBLE PAVEMENT TYPE 404 on 301
Flexible pavement returns of NWR., BRRC., and SPC. at intersections with Blue Rock Rd. Reloc. are to have same pavement section and shoulder treatment as BRR., Sheet No. 6. Pavement and dimensions are shown on Pav't Detail Sheet No. 276.

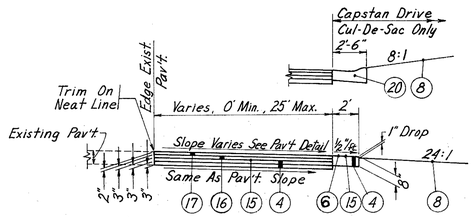


NORMAL SECTION

Redskin Dr. Ext. — Sta. 0+00 to 0+69.50 & 4+75 to 5+05.34 See Sht. 63
Sta. 4+25 to 4+75
Service Rd. — Sta. 0+35.00 to 3+38.50 & 0+00 to 0+35
Sta. 3+38.50 to 3+78.50 See Sht. 63A

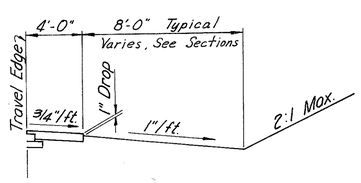
Note: For Superelevated section on Redskin Dr. See Sht. 277A

NOTE-
Flexible Pavement Return at intersection of Redskin Dr. Ext. with COLERAIN AVE. (U.S. 27) is to have same pavement section as COLERAIN AVE., Sheet No 9, Pavement dimensions are shown on Sheet No. 277A



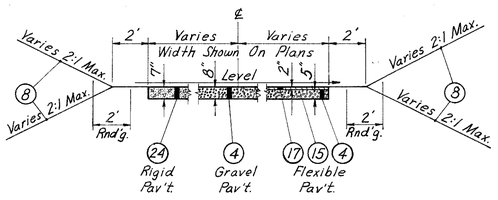
CUL-DE-SAC TYPICAL SECTION

Sheits Rd. 26+73 to 27+25 Both Sides Ex. Pav't.
Dry Ridge Rd. 12+87 to 13+57 Rt. Side Exist. Pav't.
Capstan Dr. 12+00 to 12+57.5 Both Sides Ex. Pav't.



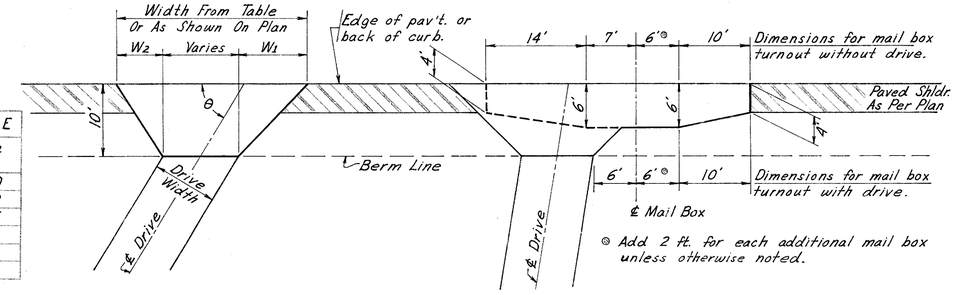
ALTERNATE CUT SLOPE

Springdale Rd.	7+50 to 8+75		
	13+00 to 13+50	Rt. Side	
	16+00 to 19+50	Lt. Side	
	28+50 to 29+00	Rt. Side	
Brehm Rd. Rel.	47+00 to 48+32		
	52+50 to 55+00	Rt. Side	
Sheits Rd. Reloc.	20+22 to 21+00	Lt. Side	
	32+00 to 32+67	Lt. Side	
Dry Ridge Rd. Rel.	15+50 to 20+49		



DRIVEWAY TYPICAL SECTIONS

Replace in kind and width or as noted on plans.

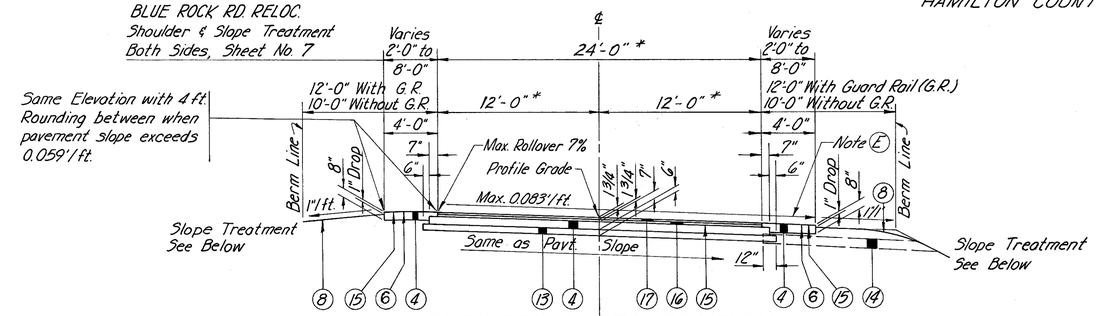


DIMENSION TABLE		
Angle θ°	W1 Ft.	W2 Ft.
30 - 40	11.0	5.0
40 - 50	10.0	6.0
50 - 60	9.5	6.5
60 - 70	9.0	7.0
70 - 80	8.5	7.5
80 - 90	8.0	8.0

TYPICAL DRIVE APRON

TYPICAL MAIL BOX TURNOUT

BLUE ROCK RD. RELOC.
Shoulder & Slope Treatment
Both Sides, Sheet No. 7



SUPERELEVATED SECTION

SPRINGDALE CONNECTOR
Sta. 5+46.80 to Sta. 9+20.08 O.H.

BREHM ROAD RELOC.
Sta. 51+94.13 to Sta. 53+89.47

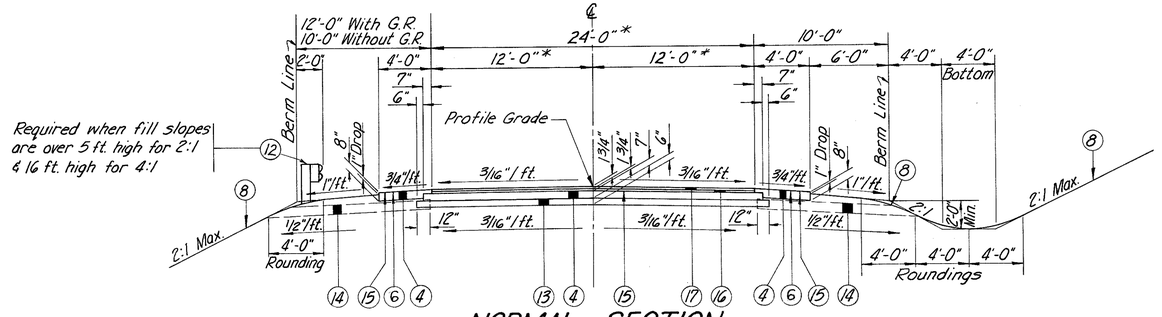
SHEITS ROAD RELOC.
Sta. 27+20.11 to Sta. 29+21.93 O.H.
Sta. 29+88.06 to Sta. 32+38.92 O.H.

DRY RIDGE ROAD RELOC.
Sta. 12+20.79 to Sta. 14+67.77
Sta. 18+22.51 to Sta. 18+72.51

SPRINGDALE ROAD
Sta. 12+25.86 to Sta. 18+12.91 O.H.
Sta. 22+47.21 to Sta. 23+82.76 O.H.
Sta. 23+94.58 to Sta. 27+62.73

BLUE ROCK ROAD RELOC
Sta. 111+21.87 to Sta. 115+21.87

* For variable widths see plan sheets.



NORMAL SECTION

SPRINGDALE CONNECTOR
Sta. 1+37.00 to Sta. 5+46.80
Sta. 9+20.08 to Sta. 9+97.06

BREHM ROAD RELOC.
Sta. 45+13.50 to Sta. 48+20.99
Sta. 48+20.99 to Sta. 51+70.76
(Structure HAM-275-1429)
Sta. 51+70.76 to Sta. 51+94.13
Sta. 53+89.47 to Sta. 55+00.00

SHEITS ROAD RELOC.
Sta. 20+12.40 to Sta. 27+20.11
Sta. 29+21.93 to Sta. 29+88.06
Sta. 32+38.92 to Sta. 32+67.00

DRY RIDGE ROAD RELOC.
Sta. 10+10.00 to Sta. 12+20.79
Sta. 14+67.77 to Sta. 18+22.51
Sta. 18+72.51 to Sta. 20+42.12

SPRINGDALE ROAD
Sta. 7+50.00 to Sta. 8+56.33
Sta. 8+56.33 to Sta. 11+33.32
(Structure over BLUE ROCK RD. RELOC.)
Sta. 11+33.32 to Sta. 12+25.86
Sta. 18+12.91 to Sta. 22+47.21
Sta. 23+82.76 to Sta. 23+94.58
Sta. 27+62.73 to Sta. 29+00.00

NORTHWEST ROAD
Sta. 47+10 to Sta. 49+25 (Begin Paved Shldr. @ 47+90)

BLUE ROCK ROAD CONNECTOR
Sta. 46+70 to Sta. 49+01.52

REVISED DATE 8-22-75

KEY-
O.H. - Opposite Hand

* For variable widths see plan sheets.

SYMBOLS, ITEM LEGEND, & NOTES - Sheet No. 4

DRIVE APRON AND MAIL BOX TURNOUT & TYPICAL SECTIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

11
468

HAM-275-13.91
HAMILTON COUNTY

Sta. 115+21.87
℄ 111+21.87
℄ 110+33.71
Sta. 108+33.71 ℄ B.R.R. Rel. = Sta. 50+00.00 ℄ B.R.R. Conn.
Curve No. BRR-2, 13.125
PT. Sta. 108+11.34
PC. Sta. 107+16.67
℄ BLUE ROCK RD. CONN.-2
BRRC-1
Sta. 104+66.02 ℄ BLUE ROCK RD. RELOC. = Sta. 50+00.00 ℄ NORTHWEST RD. RELOC.
PC. Sta. 46+81.02
PT. Sta. 47+50
℄ 110+33.71
NWR-2
NWR-1
PC. Sta. 48+68.22 N.W. Rd. Rel.
PT. Sta. 49+23.00 N.W. Rd. Rel.
Curve No. BRR-2
ST. 104+68.00
℄ 101+00.00
ST. 100+68.11
15' EX. BLUE ROCK RD.
100
℄ BLUE ROCK RD. RELOC.
95
ST. 97+00.00
Curve No. A-D-1
90
ST. 94+00.00
MATCH LINE "A"
P.C. 620+05.25
℄ I-275
625
630 Curve No. 275-2
635
640
P.T. 643+25.25
645
650
655
SHEET NO. 12
88+48.60 ℄ BLUE ROCK RD. = 576+28.70 ℄ RAMP 'C' = 576+16.65 ℄ RAMP 'D'
℄ RAMP 'D'
580
Curve No. D-1
585
590
P.C. 589+00.11
Curve No. D-2
P.T. 593+50.11
℄ I-275
595
600
605
610
615
Curve No. 275-1
50100 ℄ BREHM RD. RELOC. = 595+95.21 ℄ I-275
P.T. 601+48.04
MATCH LINE "A"
Curve No. BR-1
RD.
55
55+20
P.T. 53+89.47
96°55'01.9"
20+00 RELOC. SHEITS RD. = 52+50 RELOC. BREHM RD.
BREHM RELOC.
P.C. 51+94.13
25
℄ SHEITS ROAD RELOC.
P.C. 27+20.11
Curve No. NOSR-12
P.T. 29+21.33
P.C. 29+88.06
Curve No. (NOSR-2)
P.T. 32+38.32
32+67
95
RD.
SHEITS
"A"
75°08'03.4"
45+01.17 BREHM RD. RELOC.
25+68.09 SPRINGDALE RD.
Curve No. SPR-3
P.C. 23+94.58
P.T. 27+62.73
29+20
SPRINGDALE RD.
SHEITS
MATCH LINE "A"
P.C. 572+00
℄ RAMP 'C'
575
BEGIN RAMP 'C' Pav't. 574+74.12
Curve No. C-1
565
℄ W.B. - ℄ I-275 ℄ 565
℄ E.B. - ℄
S.C. - W.B. - ℄ 535+49.11
S.C. ℄ 555+79.30
S.C. - E.B. - ℄ 576+09.50
C.S. - W.B. - ℄ 565+82.59
C.S. ℄ 566+12.78
C.S. - E.B. - ℄ 566+42.98
P.T. 568+16.50
S.T. - W.B. - ℄ 569+82.59
ST. ℄ 570+12.78
S.T. - E.B. - ℄ 570+42.98
570+19.70 W.D. ℄
570+96.42 E.D. ℄
49'
42'
℄ RAMP 'E'
Curve No. E-1
580
577+59.20 ℄ I-275 = 85+86.55 ℄ BLUE ROCK RD. RELOC.
83+15.13 ℄ BLUE ROCK RD. RELOC. = 578+33.69 ℄ RAMP 'E'
90°
P.C. 582+04.39
P.C. 12+25.86
P.T. 18+12.16
P.C. 586+42.48
P.T. 591+76.54
21°28'42.2"
P.C. 22+47.21
20
℄ SPRINGDALE RD.
Curve No. SPR-1
Curve No. SPR-2
18+07.68 SPRINGDALE RD.
10+09.06 SPRINGDALE CONN.
10
15
90°
P.T. 9+20.08
7+30
P.C. 5+46.20
Curve No. SPC-1
90°
℄ SPRINGDALE CONNECTOR
80+32.97 ℄ BLUE ROCK RD. RELOC. = 10+00 ℄ SPRINGDALE RD.
76+41.80 ℄ BLUE ROCK RD. RELOC. = 0+00 SPRINGDALE CONNECTOR
END PAVEMENT Sta. 75+00 BEGIN HAM-CR-453 H
END HAM-275-13.66 Sta. 578+00
BEGIN HAM-275-13.91
S.C. 68+13.14
E. B. CROSS COUNTY HWY.
W.B. CROSS COUNTY HWY.
SPRINGDALE RD.
BLUE ROCK RD.
I-275-3(10)28 I-275-3(9) 27

CURVE DATA Sheet No. 13

GEOMETRIC LAYOUT STA. 572+00 TO STA. 655+0

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

12
468

HAM-275-13.91
HAMILTON COUNTY

EXIST. DRY RIDGE ROAD

83°54'00"

℄ DRY RIDGE ROAD RELOC.

Curve No. DRR-1

P.C. 12+20.79

P.T. 14+67.71

15

Curve No. DRR-2

20

735

P.C. 18+22.51

P.T. 18+72.31

38°10'22.5"

730

℄ COLERAIN AVE.

N 21° 46' 45" W

725

10

10+00.00 ℄ DRY RIDGE RD. RELOC. =
5+00.00 ℄ DRY RIDGE RD.

731+64.57 ℄ COLERAIN AVE. =
20+67.38 ℄ DRY RIDGE RD. RELOC.

724+71 ℄ COLERAIN AVE =
690+22.80 ℄ RAMP 'J'
723+75.00 ANGLE POINT ℄ COLERAIN AVE
△ = 0°05'54" RT.

690

70°

STATION EQUATION
655+00 Sta 656+00.15 Back =
656+00 Sta 656+00 Ahead

SHEET No. 11

℄ W.B. Curve No. 275 WB-3

℄ E.B. Curve No. 275 EB-3

655

660

665

670

675

680

685

690

695

700

705

710

715

℄ I-275

30'

30'

44'

P.C. ℄ WB-3 656+87.09

P.C. EB-3 ℄ 657+57.52

Curve No. H-1

66'

P.T. 669+48.04 WB-3 ℄

P.C. 670+10.00

℄ RAMP 'H'

Curve No. H-2

P.C. 675+56.16

P.T. 680+37.41

T.S. 683+17.05

Curve No. H-3

STATION EQUATION ℄

P.T. 670+05.65 I-275 ℄ =
P.T. 669+94.17 E.B. ℄ =
P.O.T. 670+18.47 W.B. ℄

℄ RAMP 'J'

676+00

Curve No. J-1

P.C. 679+00

680

P.T. 681+11.60

79°

N 52° 42' 06" E

685

Curve No. J-2

P.C. 684+04.04

P.T. 688+29.16

70°

689+06.35 ℄ I-275
721+45.45 ℄ COLERAIN AVE.

℄ RAMP 'F'

688+55.80

I-275 ℄ RAMP I

105°25'15"

P.C. 671+17.72
719+22.66
COLERAIN AVE.

C.S. 683+35.80

Curve No. I-2

C.S. 673+37.55

Curve No. I-1

5.4°

715 N 21°52' 39" W

714+10.44 ℄ COLERAIN AVE =
688+81.74 ℄ RAMP 'I'

℄ RAMP 'G'

P.C. 689+45.43

END HAM-275-13.01
STA. 694+00
BEGIN HAM-275-16.15

I-275-3(9)27 | I-275-3(8)24

686+50
END PAINT RAMP 'G'

P.T. 711+84.22

Curve No. G-1

P.C. 681+41.63
710+00 ℄ Colerain

CAPSTAIN DRIVE

SERVICE RD AT HOLLIS DR

RELOCATED BEVIS LANE

BEVIS LANE

CURVE DATA Sheet No. 13

P.C. 708+65.32

Curve No. G-2

End Service Road
Sta 3+78.50

Curve No. H-2

P.C.
P.T.
P.C.C.

109°

Tangent Ext.

12'

Sta 10+00
℄ Ex. Hollis Dr

℄ Existing HOLLIS DR

A MATCH LINE A

Sta 11+81.94 ℄ Hollis Dr.
Sta 0+00 Service Road.

A MATCH LINE A

0+00 Redskin Dr. Ext
700+49.09 Colerain

CURVE NO RE-1

83°-56'-40"

710

P.C. 2+46.80

P.T. 1+88.94

℄ COLERAIN AVE.

℄ Ex. Redskin Drive.

CURVE NO. RE-2

Meet Existing
Sta 5+05.34.

GEOMETRIC LAYOUT STA. 655+00 TO STA. 694+01

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

13
468

HAM-275-13.91.
HAMILTON COUNTY

CURVE DATA

CURVE NO.	△	Dc	Rc	SPIRAL BACK (1)	SPIRAL FORE (2)	θ1	θ2	CURVE LENGTH INCL. SPIRALS	TANGENT BACK	TANGENT FORE	TANGENT TO SPIRAL (T.S.) or TANGENT TO CURVE (P.C.) or CURVE TO CURVE (P.C.C.) SYMBOL	STATION	N. COORD.	E. COORD.	SPIRAL TO CURVE (S.C.) STATION	N. COORD.	E. COORD.	CURVE TO SPIRAL (C.S.) STATION	N. COORD.	E. COORD.	SPIRAL TO TANGENT (S.T.) or CURVE TO TANGENT (P.T.) or CURVE TO CURVE (P.C.C.) SYMBOL	STATION	N. COORD.	E. COORD.	POINT OF INTERSECTION (P.I.) STATION	N. COORD.	E. COORD.	CURVE NO.
275-1	22°04'53.2"	1°28'	3,906.53	—	—	—	—	1,505.55	762.23	762.23	P.C.	586+42.48	457,627.69	1,397,741.24	—	—	—	—	—	—	P.T.	601+48.04	458,676.02	1,398,808.84	594+04.71	458,256.01	1,398,172.77	275-1
275-2	23°12'00.0"	1°00'	5,729.58	—	—	—	—	2,320.00	1,176.11	1,176.11	P.C.	620+05.25	459,699.39	1,400,358.67	—	—	—	—	—	—	P.T.	643+25.25	461,329.75	1,401,986.91	631+81.36	460,347.45	1,401,340.12	275-2
275E-3	19°20'20.0"	1°28'	3,906.53	—	—	—	—	1,318.56	665.61	665.61	P.C.	656+87.09	462,467.03	1,402,735.75	—	—	—	—	—	—	P.T.	670+05.65	463,426.29	1,403,631.29	663+52.70	463,022.96	1,403,101.80	275E-3
275EB-3	19°20'20.0"	1°33.83'	3,663.85	—	—	—	—	1,236.65	624.26	624.26	P.C.	657+57.52	462,502.76	1,402,809.57	—	—	—	—	—	—	P.T.	669+94.17	463,402.43	1,403,649.47	663+81.78	463,024.15	1,403,152.87	275EB-3
275WB-3	19°20'20.0"	1°32.02"	3,735.85	—	—	—	—	1,260.95	636.53	636.53	P.C.	656+87.09	462,490.13	1,402,700.68	—	—	—	—	—	—	P.T.	669+48.04	463,407.48	1,403,557.08	663+23.62	463,021.77	1,403,050.73	275WB-3
C-1	19°49'13.2"	3°30'	1,637.02	—	—	—	—	566.30	286.01	286.01	P.C.	562+50.00	455,775.31	1,396,281.96	—	—	—	—	—	—	P.T.	568+16.30	456,227.14	1,396,618.65	565+36.01	455,971.82	1,396,489.77	C-1
D-1	20°38'20.5"	3°00'	1,909.86	—	—	—	—	687.97	347.75	347.75	P.C.	578+32.58	457,141.76	1,397,088.47	—	—	—	—	—	—	P.T.	585+20.55	457,673.23	1,397,519.45	581+80.33	457,446.73	1,397,255.57	D-1
D-2	4°30'00.0"	1°00'	5,729.58	—	—	—	—	450.00	225.12	225.12	P.C.	589+00.11	457,920.45	1,397,807.46	—	—	—	—	—	—	P.T.	593+50.11	458,226.65	1,398,137.06	591+25.23	458,067.08	1,397,978.27	D-2
E-1	19°24'40.0"	2°00'	2,864.79	—	—	—	—	970.56	489.97	489.97	P.C.	582+04.39	457,158.99	1,397,635.80	—	—	—	—	—	—	P.T.	591+74.94	457,983.52	1,398,138.95	586+94.36	457,614.29	1,397,816.87	E-1
G-1	26°55'57.8"	3°00'	1,909.86	—	—	—	—	897.76	457.33	457.33	P.C.	681+47.67	463,528.15	1,405,603.66	—	—	—	—	—	—	P.C.C.	690+45.43	464,414.64	1,405,530.41	686+05.00	463,962.63	1,405,460.90	G-1
H-1	8°10'38.0"	1°30'	3,819.72	—	—	—	—	545.15	273.04	273.04	P.C.	670+10.00	463,376.41	1,403,674.74	—	—	—	—	—	—	P.C.C.	675+55.15	463,674.76	1,404,130.47	672+83.04	463,541.88	1,403,891.94	H-1
H-2	33°45'31.1"	7°00'	818.51	—	—	—	—	482.27	248.36	248.36	P.C.C.	675+55.15	463,674.76	1,404,130.47	—	—	—	—	—	—	P.T.	680+37.41	463,775.54	1,404,594.98	678+03.51	463,795.62	1,404,347.43	H-2
H-3	26°30'54.0"	20°01.5'	286.11	200	—	20°01'32.3"	—	232.41	155.38	80.40	T.S.	683+17.95	463,752.86	1,404,874.60	685+17.95	463,759.91	1,405,073.39	—	—	—	P.T.	685+50.36	463,770.26	1,405,104.08	684+73.33	463,740.30	1,405,029.47	H-3
I-1	42°11'23.8"	6°00'	954.93	—	200	—	29°00'	419.83	277.92	161.27	P.C.	671+17.72	464,358.44	1,405,183.51	675+37.55	463,949.29	1,405,231.09	673+37.55	464,146.85	1,405,241.33	—	—	—	—	673+95.64	464,100.53	1,405,287.07	I-1
I-2	211°11'44.7"	23°00'	249.11	—	200	—	23°00'	1,018.24	—	—	—	—	—	—	675+37.55	463,949.29	1,405,231.09	683+55.80	464,154.66	1,404,778.56	S.T.	685+55.80	464,297.86	1,404,916.13	—	—	—	I-2
J-1	17°51'22.0"	6°00'	954.93	—	—	—	—	297.60	150.02	150.02	P.C.	679+00.00	464,036.01	1,404,291.03	—	—	—	—	—	—	P.T.	681+97.60	464,254.26	1,404,491.58	680+50.02	464,129.39	1,404,408.44	J-1
J-2	14°34'07.6"	4°00'	1,432.39	—	—	—	—	364.22	183.10	183.10	P.C.	684+64.94	464,476.80	1,404,639.72	—	—	—	—	—	—	P.T.	688+29.16	464,751.20	1,404,877.72	686+48.04	464,629.21	1,404,741.18	J-2
BRR-1	62°10'17"	2°30'	2,291.83	300	300	3°45'	3°45'	2,786.86	1,532.71	1,532.71	T.S.	65+13.14	455,593.17	1,398,763.45	68+13.14	455,857.34	1,398,621.38	90+00.00	456,969.40	1,396,834.30	S.T.	93+00.00	456,980.16	1,396,534.55	80+45.85	456,958.57	1,398,067.11	BRR-1
BRR-2	13°25'59"	4°00'	1,432.39	300	300	6°00'	6°00'	635.83	318.94	318.94	T.S.	97+73.17	456,986.83	1,396,061.43	100+73.17	456,980.59	1,395,761.64	101+09.00	456,976.90	1,395,726.00	S.T.	104+09.00	456,921.61	1,395,431.29	100+92.11	456,991.32	1,395,742.52	BRR-2
BRR-3	41°17'23"	6°00'	954.93	400	400	12°00'	12°00'	1,088.16	562.12	562.12	T.S.	104+33.71	456,916.21	1,395,407.18	108+33.71	456,856.32	1,395,012.48	111+21.87	456,896.37	1,394,728.21	S.T.	115+21.87	457,062.97	1,394,365.42	109+95.83	456,793.34	1,394,858.65	BRR-3
SPR-1	11°44'27.9"	2°00'	2,864.79	—	—	—	—	587.05	294.56	294.56	P.C.	12+25.86	456,848.97	1,397,918.67	—	—	—	—	—	—	P.T.	18+12.91	457,291.53	1,398,302.82	15+20.42	457,050.50	1,398,133.50	SPR-1
SPR-2	27°06'33.9"	20°00'	286.48	—	—	—	—	135.55	69.07	69.07	P.C.	22+47.21	457,646.90	1,398,552.48	—	—	—	—	—	—	P.T.	23+82.76	457,771.82	1,398,601.77	23+16.28	457,703.42	1,398,592.18	SPR-2
SPR-3	64°01'51.4"	17°23'34"	329.42	—	—	—	—	368.14	205.97	205.97	P.C.	23+94.58	457,783.53	1,398,603.41	—	—	—	—	—	—	P.T.	27+62.73	458,051.11	1,398,827.90	26+00.55	457,987.50	1,398,632.00	SPR-3
SPC-1	93°19'09.8"	25°00'	229.18	—	—	—	—	373.28	242.86	242.86	P.C.	5+46.80	456,905.97	1,398,419.77	—	—	—	—	—	—	P.T.	9+20.08	457,235.97	1,398,372.53	7+89.66	457,096.00	1,398,571.00	SPC-1
BR-1	5°51'36.7"	3°00'	1,909.86	—	—	—	—	195.34	97.76	97.76	P.C.	51+94.13	458,494.91	1,398,253.80	—	—	—	—	—	—	P.T.	53+89.47	458,656.69	1,398,144.48	52+91.89	458,573.00	1,398,195.00	BR-1
SR-1	12°06'32.1"	6°00'	954.93	—	—	—	—	201.82	101.29	101.29	P.C.	27+20.11	458,882.35	1,398,854.39	—	—	—	—	—	—	P.T.	29+21.93	458,996.27	1,399,020.53	28+21.40	458,930.50	1,398,943.50	SR-1
SR-2	75°38'56.1"	30°09.34"	190.00	—	—	—	—	250.86	147.51	147.51	P.C.	29+88.06	459,039.21	1,399,070.82	—	—	—	—	—	—	P.T.	32+38.92	459,267.42	1,399,118.01	31+35.57	459,135.00	1,399,183.00	SR-2
NWR-1	23°57'08"	34°43.48'	165.00	—	—	—	—	68.98	35.00	35.00	P.C.	46+81.02	457,186.78	1,395,480.29	—	—	—	—	—	—	P.T.	47+50.00	457,126.29	1,395,448.20	47+16.02	457,153.13	1,395,470.66	NWR-1
NWR-2	52°28'19"	———	62.00	—	—	—	—	56.78	30.56	30.56	P.C.	48+68.22	457,035.63	1,395,372.33	—	—	—	—	—	—	P.T.	49+25.00	456,982.37	1,395,359.36	48+98.78	457,012.20	1,395,352.72	NWR-2
CO-1	1°03'48.0"	0°22'	17,188.73	—	—	—	—	319.00	159.50	159.50	P.C.	708+65.22	463,388.93	1,405,617.57	—	—	—	—	—	—	P.T.	711+84.22	463,606.04	1,405,501.46	710+24.72	463,538.03	1,405,566.89	CO-1
BRRC-1	50°01'40"	28°38.87'	200.00	—	—	—	—	174.63	93.32	93.32	P.C.C.	47+16.69	456,636.36	1,395,171.68	—	—	—	—	—	—	P.T.	48+91.32	456,758.61	1,395,050.76	48+10.01	456,667.26	1,395,083.64	BRRC-1
DRR-1	70°45'15"	28°38.3'	200.00'	—	—	—	—	246.98'	142.01	142.01	P.C.	12+20.79	465,194.53	1,404,037.33	—	—	—	—	—	—	P.T.	14+67.77	465,373.30	1,404,184.54	13+62.80	465,336.18	1,404,047.47	DRR-1
DRR-2	01°32'45"	3°05.5'	1853.12	—	—	—	—	50.00'	25.00	25.00	P.C.	18+22.51	465,466.02	1,404,526.96	—	—	—	—	—	—	P.T.	18+72.51	465,478.44	1,404,575.39	18+47.51	465,472.56	1,404,551.09	DRR-2
R.E-1	31°43'20"	45°50'12"	125.00'	—	—	—	—	69.21'	35.52'	35.52'	P.C.	0+67.96	462,625.12	1,405,980.23	—	—	—	—	—	—	P.T.	1+37.17	462,638.17	1,406,047.30	1+03.48	462,641.18	1,406,011.91	R.E-1
R.E-2	46°44'15"	28°38'52"	200.00'	—	—	—	—	163.14'	86.42'	86.42'	P.C.	2+65.80	462,627.27	1,406,175.48	—	—	—	—	—	—	P.T.	4+28.94	462,677.65	1,406,325.93	3+52.22	462,619.96	1,406,261.58	RE-2
H.S-1	16°15'00"	45°50'12"	125.00'	—	—	—	—	35.45'	17.85'	17.85'	P.C.	1+07.18	463,558.66	1,406,107.57	—	—	—	—	—	—	P.T.	1+42.64	463,572.12	1,406,074.90	1+25.03	463,563.06	1,406,090.27	H.S-1
H.S-2	26°06'00"	45°50'12"	125.00'	—	—	—	—	56.94'	28.97'	28.97'	P.C.	2+26.06	463,614.49	1,406,003.04	—	—	—	—	—	—	P.T.	2+83.00	463,631.44	1,405,949.19	2+55.03	463,629.20	1,405,918.08	H.S-2

ROAD NAME ABBREVIATIONS SHEET NR 4

FED. AID DIVISION	STATE	PROJECT		14 / 468
2	OHIO			

HAM 275-13.91
HAMILTON COUNTY

MAIN ROADWAY I-275

CURVE NO. 275-1

P.C. STA. 586+42.48 P.I. STA. 594+04.71 P.T. STA. 601+48.04

STATION	PROFILE GRADE	W.B. PAVEMENT 12'LT.	W.B. PAVEMENT ℄	W.B. PAVEMENT 12'RT.	E.B. PAVEMENT 12'LT.	E.B. PAVEMENT ℄	E.B. PAVEMENT 12'RT.
584+50	884.35	884.54	884.35	884.16	884.16	884.35	884.54
584+75	884.75	884.94	884.75	884.56	884.56	884.69	884.81
585+00	885.15	885.34	885.15	884.96	884.96	885.03	885.09
585+25	885.55	885.74	885.55	885.36	885.36	885.36	885.36
585+50	885.95	886.14	885.95	885.76	885.76	885.70	885.64
585+75	886.35	886.54	886.35	886.16	886.16	886.04	885.91
586+00	886.75	886.94	886.75	886.56	886.56	886.38	886.19
586+25	887.15	887.47	887.22	886.96	886.96	886.71	886.46
586+50	887.55	887.99	887.68	887.36	887.36	887.05	886.74
586+75	887.95	888.52	888.14	887.76	887.76	887.39	887.01
587+00	888.35	889.04	888.60	888.16	888.16	887.73	887.29
587+25	888.75	889.57	889.06	888.56	888.56	888.06	887.56
587+50	889.15	890.09	889.53	888.96	888.96	888.40	887.84
600+25	895.08	896.02	895.46	894.89	894.89	894.33	893.77
600+50	894.85	895.66	895.16	894.66	894.66	894.16	893.66
600+75	894.60	895.29	894.85	894.41	894.41	893.97	893.53
601+00	894.35	894.92	894.54	894.16	894.16	893.79	893.41
601+25	894.10	894.54	894.23	893.91	893.91	893.60	893.29
601+50	893.85	894.17	893.92	893.66	893.66	893.41	893.16
601+75	893.60	893.79	893.60	893.41	893.41	893.22	893.04
602+00	893.35	893.54	893.35	893.16	893.16	893.04	892.92
602+25	893.10	893.29	893.10	892.91	892.91	892.85	892.79
602+50	892.85	893.04	892.85	892.66	892.66	892.66	892.66
602+75	892.60	892.79	892.60	892.41	892.41	892.48	892.54
603+00	892.35	892.54	892.35	892.16	892.16	892.29	892.41
603+25	892.10	892.29	892.10	891.91	891.91	892.10	892.29

CURVE NO. 275-2

P.C. STA. 620+05.20 P.I. STA. 631+81.36 P.T. STA. 643+25.25

STATION	PROFILE GRADE	W.B. PAVEMENT 12'LT.	W.B. PAVEMENT ℄	W.B. PAVEMENT 12'RT.	E.B. PAVEMENT 12'LT.	E.B. PAVEMENT ℄	E.B. PAVEMENT 12'RT.
618+25	877.10	877.29	877.10	876.91	876.91	877.10	877.29
618+50	876.85	876.92	876.79	876.66	876.66	876.85	877.04
618+75	876.60	876.56	876.49	876.41	876.41	876.60	876.79
619+00	876.35	876.20	876.18	876.16	876.16	876.35	876.54
619+06.83	876.28	876.09	876.09	876.09	876.09	876.28	876.47
619+25	876.10	875.83	875.87	875.91	875.91	876.10	876.29
619+50	875.85	875.47	875.57	875.66	875.66	875.85	876.04
619+75	875.60	875.10	875.26	875.41	875.41	875.60	875.79
619+88.86	875.46	874.90	875.09	875.28	875.28	875.46	875.65
620+00	875.35	874.74	874.95	875.16	875.16	875.38	875.59
620+25	875.10	874.37	874.64	874.91	874.91	875.18	875.45
620+50	874.85	874.01	874.34	874.66	874.66	874.99	875.32
620+75	874.60	873.65	874.03	874.41	874.41	874.80	875.18
642+75	852.60	851.65	852.03	852.41	852.41	852.80	853.18
643+00	852.35	851.51	851.84	852.16	852.16	852.49	852.82
643+25	852.10	851.37	851.64	851.91	851.91	852.18	852.45
643+50	851.85	851.24	851.45	851.66	851.66	851.88	852.09
643+61.14	851.74	851.18	851.36	851.55	851.55	851.74	851.98
643+75	851.60	851.10	851.26	851.41	851.41	851.60	851.79
644+00	851.35	850.97	851.06	851.16	851.16	851.35	851.53
644+25	851.10	850.83	850.87	850.91	850.91	851.10	851.29
644+43.01	850.92	850.73	850.73	850.73	850.73	850.92	851.11
644+50	850.85	850.69	850.68	850.66	850.66	850.85	851.04
644+75	850.60	850.36	850.49	850.41	850.41	850.60	850.79
645+00	850.35	850.42	850.29	850.16	850.16	850.35	850.54
645+25	850.10	850.29	850.10	849.91	849.91	850.10	850.29

CURVE NO. 275℄-3

P.C. STA. 656+87.09 P.I. STA. 663+52.70 P.T. STA. 670+05.65

STATION	PROFILE GRADE	W.B. PAVEMENT 12'LT.	W.B. PAVEMENT ℄	W.B. PAVEMENT 12'RT.	E.B. PAVEMENT 12'LT.	E.B. PAVEMENT ℄	E.B. PAVEMENT 12'RT.
653+83.6	848.04	848.22	848.04	847.85	847.85	848.04	848.22
654+00	848.15	848.34	848.15	847.96	847.96	848.13	848.30
654+25	848.325	848.52	848.33	848.14	848.14	848.28	848.42
654+50	848.50	848.69	848.50	848.31	848.31	848.42	848.54
654+75	848.675	848.87	848.68	848.49	848.49	848.58	848.66
655+00	848.85	849.04	848.85	848.66	848.66	848.72	848.78
655+25	849.025	849.22	849.03	848.84	848.84	848.87	848.90
655+50	849.20	849.39	849.20	849.01	849.01	849.01	849.01
655+32.09	849.215	849.41	849.22	849.03	849.03	849.03	849.03
655+75	849.375	849.57	849.38	849.19	849.19	849.14	849.09
656+00	849.55	849.74	849.55	849.36	849.36	849.25	849.15
656+25	849.725	849.92	849.73	849.54	849.54	849.38	849.22
656+34.33	849.804	849.99	849.80	849.62	849.62	849.43	849.25
656+50	849.90	850.14	849.93	849.71	849.71	849.49	849.28
656+75	850.075	850.44	850.16	849.89	849.89	849.62	849.34
657+00	850.25	850.72	850.39	850.06	850.06	849.73	849.40
657+25	850.425	851.01	850.62	850.24	850.24	849.86	849.47
657+50	850.60	851.29	850.85	850.41	850.41	849.97	849.53
657+75	850.775	851.58	851.09	850.59	850.59	850.09	849.60
658+00	850.95	851.86	851.31	850.76	850.76	850.21	849.66
658+22.07	851.105	852.12	851.52	850.92	850.92	850.32	849.72
658+70.64	858.445	859.46	858.86	858.26	858.26	857.66	857.06
665+75	858.475	859.47	858.88	858.29	858.29	857.70	857.11
669+00	858.65	859.53	859.00	858.46	858.46	857.92	857.39
669+25	858.825	859.60	859.12	858.64	858.64	858.16	857.68
669+50	859.00	859.66	859.23	858.81	858.81	858.39	857.96
669+75	859.175	859.73	859.36	858.99	858.99	858.62	858.25
670+00	859.35	859.78	859.47	859.16	859.16	858.86	858.54

Continued Column 2

CURVE NO. 275℄-3

Continuation Of Column 1

STATION	PROFILE GRADE	W.B. PAVEMENT 12'LT.	W.B. PAVEMENT ℄	W.B. PAVEMENT 12'RT.	E.B. PAVEMENT 12'LT.	E.B. PAVEMENT ℄	E.B. PAVEMENT 12'RT.
670+25	859.525	859.85	859.60	859.34	859.34	859.08	858.83
670+50	859.70	859.91	859.71	859.51	859.51	859.31	859.11
670+56.41	859.745	859.93	859.75	859.56	859.56	859.37	859.19
670+75	859.875	860.03	859.88	859.69	859.69	859.54	859.35
671+00	860.05	860.14	860.05	859.86	859.86	859.77	859.58
671+25	860.22	860.25	860.22	860.03	860.03	860.00	859.81
671+40.65	860.32	860.32	860.32	860.13	860.13	860.13	859.94
671+50	860.38	860.36	860.38	860.19	860.19	860.21	860.02
671+75	860.52	860.44	860.52	860.33	860.33	860.41	860.22
672+00	860.65	860.52	860.65	860.46	860.46	860.59	860.40
672+24.89	860.77	860.58	860.77	860.58	860.58	860.77	860.58

RAMP-'D'

CURVE NO. D-1

P.C. STA. 578+32.58 P.I. STA. 581+80.33 P.T. STA. 585+20.55

STATION	℄ AND P.G.	LT. EDGE PAV'T FT. LT. ℄	LT. EDGE PAV'T ELEV.	RT. EDGE PAV'T FT. RT. ℄	RT. EDGE PAV'T ELEV.
577+35	840.40	8.0	840.28	16.0	840.65
577+50	840.83	↑	840.77	↑	840.96
577+75	841.58	↓	841.62	↓	841.57
577+97.4	842.32		842.44		842.07
578+00	842.40		842.54		842.13
578+25	843.29		843.55		842.77
578+32.58	843.57		843.86		842.99
578+50	844.24		844.60		843.52
578+64.2	844.81		845.20		844.03
578+75	845.26		845.65		844.48
579+00	846.34		846.73		845.56
579+25	847.49	8.0	847.88		846.71
579+50	848.71	7.75	849.09		847.93
579+75	849.96	6.50	850.28		849.18
580+00	851.21	5.25	851.47		850.43
580+25	852.46	4.00	852.66		851.68
580+50	853.71	2.75	853.94		852.93
580+75	854.96	1.50	855.03		854.18
581+00	856.21	0.25	856.22		855.43
581+25	857.46	0.00	857.46	16.0	856.68
584+87	875.56	0.00	↑	16.0	874.78
585+00	876.21	↓	Same As ℄ P.G.	↓	875.33
585+20.55	877.24				876.72
585+25	877.46				876.98
585+50	878.71				878.43
585+53.8	878.90				878.63
585+75	879.96				879.74
586+00	881.21				881.33
586+16.2	882.00	0.00		16.0	882.25

RAMP-'E'

CURVE NO. E-1

P.C. STA. 582+04.39 P.I. STA. 586+94.36 P.T. STA. 591+74.94

STATION	℄ AND P.G.	LT. EDGE PAV'T FT. LT. ℄	LT. EDGE PAV'T ELEV.	RT. EDGE PAV'T FT. RT. ℄	RT. EDGE PAV'T ELEV.
581+85	871.47	16.0	871.92	0.00	871.67
582+00	872.19	16.0	872.51	0.00	872.19
582+25	873.06	16.0	873.51	0.00	873.06
582+40	873.58	16.0	874.11	0.00	873.58

RAMP-'G'

CURVE NO. G-1

P.C. STA. 681+47.67 P.I. STA. 686+05.00 P.C.C. STA. 690+45.43

STATION	Profile Grade, ℄, and Right Pavement Edge	16' left of ℄ and Left Pavement Edge
678+97.12 to 684+00.00	See Pav't. Detail Sheet No. 278.	
684+00.00 to 686+50.00	P.G.	P.G. plus 0.51 Ft.

RAMP-'H'

CURVE NO. H-2

P.C.C. STA. 675+55.15 P.I. STA. 678+103.51 P.T. STA. 680+37.41

STATION	℄ AND P.G.	LT. EDGE PAV'T FT. LT. ℄	LT. EDGE PAV'T ELEV.	RT. EDGE PAV'T FT. RT. ℄	RT. EDGE PAV'T ELEV.
675+75	859.92	16.0	860.78	0.00	
676+00	859.77	↑	860.75	↑	
676+25	859.61	↓	860.71	↓	
676+50	859.44		860.65		
676+75	859.26		860.59		
679+00	857.36		858.69		Same As ℄ P.G.
679+25	857.15		858.30		
679+50	856.93		857.90		
679+75	856.72		857.51		
680+00	856.50		857.11		
680+25	856.28		856.71		
680+50	856.07	16.0	856.32	0.00	

CURVE NO. H-3

T.S. STA 683+11.95, S.C. STA. 685+17.95 P.I. STA. 684+73.33 P.T. STA. 685+50.36

STATION	℄ AND P.G.	LT. EDGE PAV'T FT. LT. ℄	LT. EDGE PAV'T ELEV.	RT. EDGE PAV'T FT. RT. ℄	RT. EDGE PAV'T ELEV.
680+50	856.07	16.0	856.32	0.00	
680+75	855.88	↑	856.08	↑	
681+00	855.74	↓	855.89	↓	
681+25	855.65		855.75		
681+50	855.61		855.66		
681+75	855.62		855.62		
682+00	855.68		855.63		
682+25	855.79		855.69		Same As ℄ P.G.
682+50	855.95		855.80		
682+75	856.17		855.97		
683+00	856.43	16.0	856.18	0.00	

RAMP-'J'

CURVE NO. J-1

P.C. STA. 679+00.00 P.I. STA. 680+50.02 P.T. STA. 681+97.60

STATION	℄ AND P.G.	LT. EDGE PAV'T FT. LT. ℄	LT. EDGE PAV'T ELEV.	RT. EDGE PAV'T FT. RT. ℄	RT. EDGE PAV'T ELEV.
681+00	855.90	0.00	↑	16.0	857.01
681+25	856.00	↓		↓	857.00
681+50	856.20		Same As ℄ P.G.		857.09
681+75	856.46				857.25
681+97.60	856.79				856.10
682+00	856.82				857.50
682+25	857.26				857.83
682+50	857.78				858.24
682+75	858.34				858.70
683+00	858.90				859.15
683+25	859.46	0.00		16.0	859.54

CURVE NO J-2

P.C. STA. 684+64.94 P.I. STA. 686+48.04 P.T. STA. 688+29.16

STATION	℄ AND P.G.	LT. EDGE PAV'T FT. LT. ℄	LT. EDGE PAV'T ELEV.	RT. EDGE PAV'T FT. RT. ℄	RT. EDGE PAV'T ELEV.
683+50	860.02	0.00	↑	16.0	859.94
683+75	860.58	↓		↓	860.33
684+00	861.14		Same As ℄ P.G.		860.83
684+25	861.70				861.33
684+50	862.26				861.83
684+64.94	862.59				862.13
684+75	862.82				862.33
685+00	863.38				862.83
685+25	863.94				863.84
685+50	864.50				863.83
687+75	869.54		↑		868.87
688+00	870.10		↓		869.34
688+25	870.66		Same As ℄ P.G.		870.20
688+29.16	870.75				870.31
688+50	871.22				870.86
688+75	871.78				871.53
689+00	872.34	0.00		16.0	872.09

BLUE ROCK ROAD RELOC.

CURVE NO. BRR.-2

T.S. 97+73.17 P.T. 100+92.11 C.S. 101+09.00 S.T. 104+09.00
S.C. 100+73.17

Station	P.G. & ℄ Elevation	25' Lt of ℄	13' Lt of ℄	13' Rt of ℄	25' Rt of ℄
96+17.17	798.37	797.98	798.17	798.17	797.98
96+25	797.98	797.59	797.78	797.79	797.61
96+50	796.73	796.34	796.53	796.57	796.42
96+75	795.48	795.09	795.28	795.35	795.23
97+00.00	794.23	793.84	794.03	794.13	794.05
97+25	792.98	792.59	792.78	792.92	792.86
97+50	791.73	791.34	791.53	791.70	791.67
97+73.17	790.57	790.18	790.37	790.57	790.57
97+75	790.48	790.09	790.28	790.49	790.49
98+00.00	789.23	788.84	789.03	789.31	789.38
98+25	787.98	787.59	787.78	788.13	788.27
98+44.08	787.03	786.64	786.82	787.23	787.42
98+50	786.73	786.31	786.51	786.95	787.15
98+75	785.48	784.92	785.19	785.77	786.04
99+00.00	784.23	783.53	783.87	784.59	784.93
99+25	782.98	782.14	782.55	783.41	783.82
99+50	781.73	780.76	781.22	782.24	782.70
99+75	780.48	779.37	779.90	781.06	781.59
100+00.00	779.23	777.98	778.58	779.88	780.48
100+25	777.98	776.59	777.26	778.70	779.37
100+50	776.73	775.21	775.94	777.52	778.25
100+73.17	775.57	773.92	774.71	776.43	777.22
Full Superelevation -		100+73.17 to 101+09.00 X slope = .066 Ft/Ft			
101+09.00	773.78	772.13	772.92	774.64	775.43
101+25	772.98	771.41	772.17	773.79	774.55
101+50	771.73	770.30	770.98	772.98	773.16
101+75	770.98	769.18	769.80	771.16	771.78
102+00.00	769.23	768.06	768.62	769.84	770.40
102+25	767.98	766.94	767.44	768.52	769.02
102+50	766.73	765.82	766.26	767.20	767.64
102+75	765.48	764.70	765.07	765.89	766.26
103+00.00	764.23	763.58	763.89	764.57	764.88
103+25	762.98	762.46	762.71	763.25	763.50
103+50	761.73	761.34	761.53	761.93	762.12
103+75	760.48	760.23	760.35	760.61	760.73
104+00.00	759.23	759.11	759.17	759.29	759.35
104+23.49	758.06	758.06	758.06	758.06	758.06

CURVE NO. BRR.-3

T.S. 104+33.71 P.I. 109+95.83 C.S. 111+21.87 S.T. 115+21.87
S.C. 108+33.71

Station	P.G. & ℄ Elevation	25' Lt of ℄	13' Lt of ℄	13' Rt of ℄	25' Rt of ℄
104+23.49	758.06	758.06	758.06	758.06	758.06
104+25	757.98	757.99	757.98	757.98	757.97
104+50	756.73	756.86	756.80	756.66	756.60
104+75	755.48	755.74	755.62	755.34	755.22
105+00.00	754.23	754.62	754.43	754.03	753.84
105+25	752.98	753.49	753.25	752.71	752.47
105+50	751.73	752.37	752.06	751.40	751.09
105+75	750.48	751.25	750.88	750.08	749.71
106+00.00	749.23	750.12	749.69	748.77	748.34
106+25	747.98	749.00	748.51	747.45	746.96
106+50	746.73	747.88	747.33	746.13	745.58
106+75	745.48	746.75	746.14	744.82	744.21
107+00.00	744.23	745.63	744.96	743.50	742.83
107+25	742.98	744.51	743.77	742.19	741.45
107+50	741.73	743.38	742.59	740.87	740.08
107+75	740.48	742.26	741.40	739.56	738.70
108+00.00	739.23	741.13	740.22	738.24	737.33
108+25	737.98	740.01	739.04	736.92	735.95
108+33.71	737.54	739.62	738.62	736.47	735.47
Full Superelevation -		108+33.71 to 111+21.87 X slope = .083 Ft/Ft			

Station	P.G. & ℄ Elevation	Dist to Lt Edge Pav't.	Elevation	Dist to Rt Edge Pav't.	Elevation
111+21.87	723.14	25.00	725.21	25.00	721.06
111+25	722.98	24.89	725.04	24.89	720.92
111+50	721.73	24.01	723.64	24.01	719.82
111+75	720.48	23.14	722.25	23.14	718.71
112+00.00	719.23	22.26	720.86	22.26	717.60
112+25	717.98	21.39	719.46	21.39	716.50
112+50	716.73	20.51	718.07	20.51	715.39
112+75	715.48	19.64	716.68	19.64	714.28
113+00.00	714.23	18.76	715.28	18.76	713.18
113+25	712.98	17.89	713.89	17.89	712.07
113+50	711.73	17.01	712.50	17.01	710.96
113+75	710.48	16.14	711.10	16.14	709.86
114+00.00	709.23	15.26	709.71	15.26	708.75
114+25	708.00	14.39	708.34	14.39	707.66
114+46.69	706.96	13.63	707.17	13.63	706.75
114+50	706.81	13.51	707.01	13.51	706.60
114+75	705.65	12.64	705.78	12.64	705.52
115+00	704.53	11.76	704.59	11.76	704.47
115+21.87	703.57	11.00	703.57	11.00	703.57

ROAD NAME ABBREVIATIONS SHEET NO 4

SUPERELEVATION TABLES

FED. RD. DIVISION	STATE	PROJECT		(15/468)
2	OHIO			

HAM-275-13.91
HAMILTON COUNTY

SPRINGDALE ROAD

CURVE NO SP-1

P.C.-STA. 12+25.86 P.I.-STA. 15+20.42 P.T.-STA. 18+12.91

STATION	P.G. ℄ ℄	LEFT EDGE PAV'T. INTERMEDIATE				RIGHT EDGE PAV'T.	
		FT. LT.℄	ELEV.	FT. RT.℄	ELEV.	FT. RT.℄	ELEV.
11+35	897.73	12.00	897.54			12.00	897.54
11+50	897.80	↑	897.61			12.75	897.60
11+67.24	897.91		897.72			13.61	897.70
11+75	897.97		897.78			14.00	897.80
12+00	898.24		898.05			15.25	898.24
12+25	898.60		898.41			16.50	898.80
12+32.76	898.71		898.52			16.89	898.97
12+44.10	898.93		898.68			17.46	899.30
12+50	899.05		898.80			17.75	899.42
12+75	899.55		899.80			19.00	899.95
13+00	900.05		899.80			20.25	900.48
13+25	900.55		900.30			21.50	901.00
13+50	901.05		900.80			22.75	901.53
13+75	901.55		901.30			24.00	902.05
14+00	902.05		901.80			↓	902.55
14+25	902.52		902.27				903.02
14+50	902.91		902.66				903.41
14+75	903.25		903.00				903.75
14+90	903.41	12.00	903.16				903.91
15+00	903.51	12.50	903.25				904.01
15+25	903.71	13.75	903.42				904.21
15+50	903.84	15.00	903.52	12.00	904.09		904.34
15+75	903.90	16.25	903.56	↑	904.15		904.33
16+00	903.90	17.50	903.53		904.15		904.26
16+25	903.84	18.75	903.45		904.09		904.12
16+50	903.69	20.00	903.27		903.94		903.90
16+75	903.50	21.25	903.05		903.75		903.64
17+00	903.21	22.50	902.74		903.46		903.28
17+10	903.06	23.00	902.58		903.31		903.13
17+25	902.88	↑	902.40		903.13	↓	902.95
17+32.99	902.75		902.27		903.00	24.00	902.82
17+50	902.47		901.99		902.72		
17+75	902.00		901.52		902.25		
17+90	901.67		901.19		901.92		
18+00	901.45		901.08		901.64		
18+01.34	901.42		901.06		901.61		
18+25	900.88		900.52		900.93		
18+34.10	900.67		900.31		900.67		
18+50	900.30		899.94		900.21		
18+66.86	899.91	23.00	899.55	12.00	899.72		

Intersection Detail

CURVE NO SP-2

P.C.-STA 22+47.21 P.I.-STA 23+16.28 P.T.-STA 23+82.76

STATION	P.G. ℄ ℄	LEFT EDGE PAV'T.		RIGHT EDGE PAV'T.	
		FT. LT.℄	ELEV.	FT. RT.℄	ELEV.
21+81.28	897.10	23.00	896.74	12.00	896.91
22+00	897.41	23.00	897.05	↑	897.41
22+15	897.71	23.00	897.35		897.86
22+18.72	897.78	22.81	897.42		897.97
22+25	897.91	22.50	897.44		898.16
22+50	898.33	21.25	897.65		899.03
22+75	898.24	20.00	898.00		898.99
23+00	900.06	18.75	898.50		901.06
23+25	900.98	17.50	899.94		901.70
23+50	902.00	16.25	901.41	↓	902.43
23+75	903.08	15.00	902.89		903.23
23+88.67	903.66	14.32	903.66	12.00	903.66

CURVE NO SP-3

P.C.-STA 23+94.58 P.I.-STA 26+00.55 P.T.-STA 27+62.73

STATION	P.G. ℄ ℄	LEFT EDGE PAV'T.		RIGHT EDGE PAV'T.	
		FT. LT.℄	ELEV.	FT. RT.℄	ELEV.
23+88.67	903.66	14.32	903.66	12.00	903.66
24+00	904.15	13.15	904.28	↑	904.04
24+25	905.23	12.50	905.61		904.87
24+35	905.66	12.00	906.12		905.20
24+50	906.30	↑	906.91		905.69
24+75	907.88		908.24	↓	906.52
24+88.67	907.96		908.96		906.96
25+00	908.45	12.00	909.45	12.00	907.45
26+50	913.55	12.00	914.53	12.00	912.55
26+75	914.14	↑	915.14	↑	913.14
27+00	914.65		915.65		913.65
27+25	915.09		915.64		914.34
27+50	915.45		915.95		914.95
27+75	915.74		915.99		915.49
27+81.28	915.79		915.98	↓	915.60
28+00	915.95		915.95		915.76
28+18.72	916.06	12.00	915.87	12.00	916.06

SPRINGDALE CONNECTOR

CURVE NO SPC-1

P.C.-STA 5+46.80 P.I.-STA 7+89.66 P.T.-STA 9+20.08

STATION	P.G. ℄ ℄	LEFT EDGE PAV'T.		RIGHT EDGE PAV'T.	
		FT. LT.℄	ELEV.	FT. RT.℄	ELEV.
4+27.24	883.92	22.92	883.56	12.00	883.73
4+50	884.74	21.71	884.40	↑	884.68
4+60	885.10	21.17	884.77		885.10
4+75	885.64	20.38	885.32		885.73
4+92.76	886.28	19.43	885.98		886.47
5+00	886.54	19.05	886.18		886.77
5+25	887.44	17.71	886.89		887.81
5+50	888.34	16.38	887.64		888.85
5+75	889.24	15.05	888.42	12.00	889.90
6+00	890.14	13.71	889.23	12.27	890.96
6+25	891.04	12.38	890.07	13.60	892.07
6+35	891.40	12.00	890.40	14.13	892.58
6+50	891.94	↑	890.94	14.93	893.18
6+75	892.82		891.82	16.27	894.18
7+00	893.66		892.66	17.60	895.13
7+25	894.47		893.47	18.93	896.05
7+50	895.24		894.24	20.27	896.93
7+75	895.97		894.94	21.60	897.77
8+00	896.66		895.66	22.93	898.57
8+20	897.19		896.19	24.00	899.19
8+25	897.31		896.36	↑	899.21
8+50	897.94		897.24		899.34
8+75	898.54		898.09		899.44
9+00	899.13		898.93		899.53
9+20	899.61	12.00	899.61	24.00	899.61

BREHM ROAD

CURVE NO. BR-1

P.C.-STA 51+94.13 P.I.-STA 52+91.89 P.T. STA. 53+89.47

STATION	P.G. ℄ ℄	EDGE 12' LEFT ℄	EDGE 12' RIGHT ℄
51+75.76	920.55	920.36	920.36
51+94.13	920.64	920.64	920.45
52+00	920.67	920.73	920.48
52+12.85	920.73	920.92	920.54
52+25	920.79	921.08	920.50
52+32.53	920.83	921.21	920.45
53+55.84	921.24	921.62	920.86
53+75	921.16	921.43	920.89
53+90.28	921.07	921.26	920.88
54+00	921.00	921.13	920.81
54+23.04	920.77	920.77	920.58
54+25	920.75	920.74	920.56
54+50	920.41	920.26	920.22
54+56.80	920.30	920.11	920.11

SHEITS ROAD

CURVE NO. SR-1

P.C.-STA. 27+20.11 P.I.-STA 28+21.40 P.T.-STA. 29+21.93

STATION	P.G. ℄ ℄	EDGE 12' LEFT ℄	EDGE 12' RIGHT ℄
26+63.59	886.91	886.72	886.72
26+75	886.19	886.00	886.12
26+82.31	885.73	885.54	885.73
27+00	884.62	884.43	884.80
27+01.03	884.56	884.37	884.75
27+25	883.05	882.62	883.48
27+50	881.48	880.80	882.16
27+57.91	880.98	880.27	881.74
28+84.13	873.06	872.30	873.82
29+00	872.06	871.46	872.66
29+25	870.48	870.13	870.83
29+41.01	869.48	869.29	869.67
29+50	868.92	868.73	869.11

CURVE NO. SR-2

P.C.-STA 29+88.06 P.I.-STA 31+35.57 P.T.-STA 32+38.92

STATION	P.G. ℄ ℄	EDGE 12' LEFT ℄	EDGE 12' RIGHT ℄
29+50	868.92	868.73	869.11
29+56.78	868.49	868.30	868.68
29+75	867.35	866.98	867.72
30+00	865.78	865.16	866.40
30+25	864.16	863.29	865.03
30+38.06	863.28	862.28	864.28
31+77.96	852.12	851.12	853.12
32+00	850.08	849.38	850.78
32+25	847.73	847.36	848.10
32+38.92	846.30	846.11	846.49
32+50	845.10	844.91	845.14
32+52.96	844.80	844.61	844.80

STATION	P.G. ℄ ℄	EDGE 10' LEFT ℄	EDGE 10' RIGHT ℄
32+67	843.40	843.24	843.24

DRY RIDGE ROAD

CURVE NO DRR-1

P.C.-STA 12+20.79 P.I.-STA 13+62.80 P.T.-STA. 14+67.77

STATION	P.G. ℄ ℄	EDGE 12' LT. ℄	EDGE 12' RT. ℄
11+77.71	878.12	877.93	877.93
11+25	878.34	878.20	878.15
11+45.79	878.05	879.05	878.86
11+50	879.19	879.33	879.00
11+73.87	880.00	880.19	879.81
11+75	880.04	880.23	879.85
12+00	880.89	881.25	880.53
12+25	881.74	882.27	881.21
12+50	882.59	883.28	881.90
12+75	883.44	884.30	882.58
12+95.79	884.15	885.15	883.15
13+92.77	887.44	888.44	886.44
14+00	887.69	888.64	886.74
14+25	888.54	889.32	887.76
14+50	889.39	890.01	888.77
14+75	890.24	890.69	889.79
15+00	891.09	891.37	890.81
15+14.69	891.59	891.78	891.40
15+25	891.94	892.06	891.75
15+42.77	892.54	892.54	892.35
15+50	892.79	892.74	892.60
15+70.85	893.50	893.31	893.31

CURVE NO. DRR-2

P.C.-STA 18+22.51 P.I.-STA 18+47.51 P.T.-STA. 18+72.51

STATION	P.G. ℄ ℄	EDGE 12 FT. LT. ℄	EDGE 12 FT. RT. ℄
17+85.01	900.25	900.06	900.06
18+00	900.47	900.40	900.28
18+10.01	900.57	900.57	900.38
18+25	900.67	900.78	900.48
18+35.01	900.70	900.89	900.51
18+50	900.70	900.77	900.51
18+60.01	900.66	900.66	900.47
18+75	900.54	900.43	900.35
18+85.01	900.43	900.24	900.24

BLUE ROCK ROAD RELOC.

CURVE NO BRR-1

T.S. 65+13.14 S.C. 68+13.14 P.I. 80+45.85 C.S. 90+00.00 S.T. 93+00.00

Station	P.G. ℄ ℄ Elevation	Distances Left of Centerline						Distances Right of Centerline					
		Dist.	Elevation	Dist.	Elevation	Dist.	Elevation	Dist.	Elevation	Dist.	Elevation	Dist.	Elevation
FULL SUPERELEVATION - 75+00.00 TO 90+00.00 - X-SLOPE = .059 ft/ft													
90+00	828.43	32.00	826.54	20.00	827.25	7.00	828.02	7.00	828.84	20.00	829.61	32.00	830.32
90+25	827.26	31.41	825.54	19.41	826.19	6.41	826.89	6.41	827.63	19.41	828.33	31.41	828.98
90+50	826.09	30.83	824.53	18.83	825.12	5.83	825.76	5.83	826.42	18.83	827.06	30.83	827.65
90+75	824.92	30.25	823.53	18.25	824.06	5.25	824.64	5.25	825.20	18.25	825.78	30.25	826.31
91+00	823.75	29.66	822.53	17.66	823.00	4.66	823.51	4.66	823.99	17.66	824.50	29.66	824.97
91+25	822.58	29.08	821.52	17.08	821.94	4.08	822.38	4.08	822.78	17.08	823.22	29.08	823.64
91+50	821.41	28.50	820.52	16.50	820.87	3.50	821.26	3.50	821.56	16.50	821.95	28.50	822.30
91+75	820.24	27.91	819.51	15.91	819.81	2.91	820.13	2.91	820.34	15.91	820.66	27.91	820.96
92+00	819.05	27.33	818.49	15.33	818.73	2.33	818.99	2.33	819.11	15.33	819.37	27.33	819.61
92+20.68	818.06	26.85	817.64	14.85	817.83	1.85	818.03	1.85	818.09	14.85	818.29	26.83	818.48
92+25	817.86	26.75	817.44	14.75	817.62	↑	↑	↑	↑	14.75	818.07	26.75	818.25
92+50	816.65	26.16	816.24	14.16	816.43					14.16	816.80	26.16	816.91
92+75	815.44	25.58	815.04	13.58	815.22					13.58	815.51	25.58	815.57
93+00	814.21	25.00	813.82	13.00	814.01					13.00	814.21	25.00	814.21
93+25	812.98	↑	812.59	↑	812.77					↑	812.94	↑	812.91
93+50	811.73		811.34		811.53						811.67		811.61
93+75	810.48		810.09		810.28						810.38		810.29
94+00	809.23		808.84		809.03						809.10		808.98
94+25	807.98		807.59		807.78						807.82		807.67
94+50	806.73		806.34		806.53						806.54		806.36
94+56	806.43	25.00	806.04	13.00	806.23					13.00	806.23	25.00	806.04
NORMAL SECTION - 94+56 to 96+17.17													

ROAD NAME ABBREVIATIONS SHEET NO 4.

SUPERELEVATION TABLES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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HAM-275-13.91
HAMILTON COUNTY

GRADING LIMITATIONS
HAM-275-10.66 HAM-275-13.91

Cross Section Cut-off Line

BEGIN RAMP 'C' PAVEMENT 574+92.12

℄ RAMP 'C'

℄ WB I-275

℄ I-275

℄ BLUE ROCK RD. RELOC.

Berm Line

STA. EQUATION
℄ I-275 570+19.02=
℄ WB 569+96.42

BEGIN SUBGRADE HAM-275-13.91

END PROJECT HAM-275-10.66
BEGIN PROJECT HAM-275-13.91

℄ RAMP 'D'

℄ RAMP 'E'

Cross Section Cut-off Line

NOTE:
RAMP 'C' median as shown is the ultimate grading which will be accomplished when the HAM-275-10.66 construction section is completed in the future. For the extent of grading under this construction section, HAM-275-13.91, see cross section Sheet Nos. G7-72 & 175-177 and plan Sheet Nos. 28 and 42.

Symbols shown on Sheet No. 4.

GRADING - RAMPS 'C', 'D' & 'E'

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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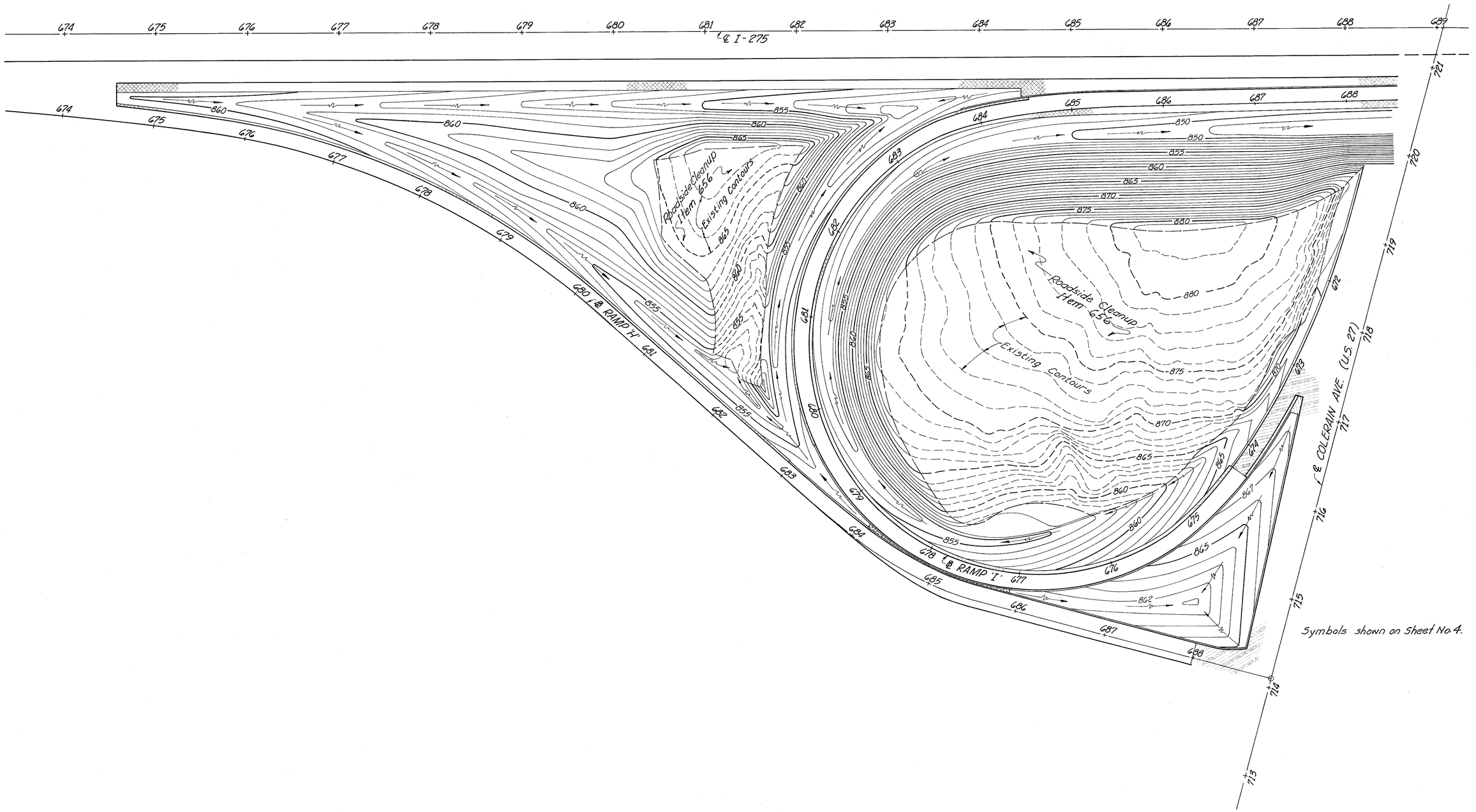
HAMILTON COUNTY



Symbols shown on Sheet No. 4.

GRADING - RAMPS 'H' & 'I'

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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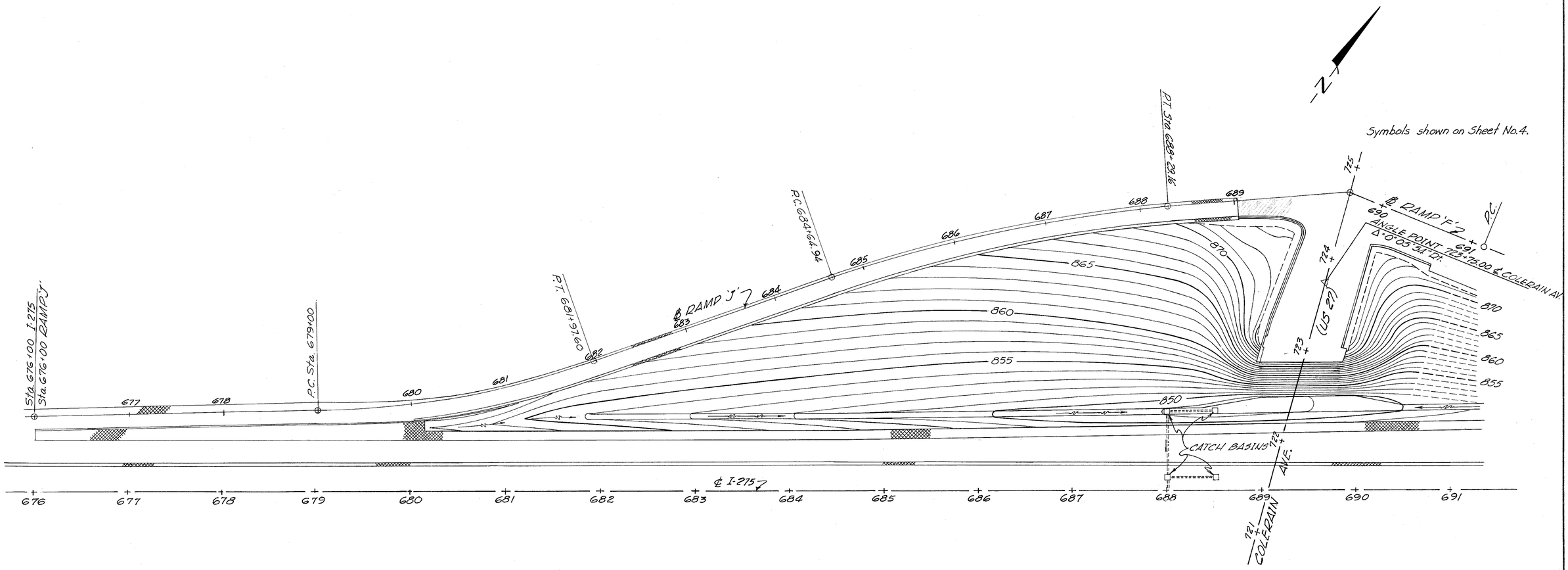

GRADING-RAMPS 'F'-'J'

GENERAL NOTES

FIELD OFFICE

The Contractor shall provide a suitable field office having a minimum of 800 sq. ft. of floor space and in addition to the requirements of Item 619, he shall provide and maintain sanitary provisions as per 107.06. All the above is included in the lump sum price bid for Item 619, Field Office.

ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS

The rounded corners shown on the typical sections apply to all cross sections even though otherwise shown on the plans.

UNDERGROUND UTILITIES

The locations of the underground utilities shown on the plans have been obtained by diligent field checks and searches of available records. It is believed that they are essentially correct, but the State of Ohio does not guarantee their accuracy or completeness.

ESTIMATED QUANTITIES

Specific locations and usage of estimated quantities set up on this plan to be used "as directed by the Engineer" shall be made a matter of record by incorporation into the final change order governing completion of this project. Estimated quantities of materials shall not be ordered for delivery to the project unless authorized by the Engineer.

UTILITY OWNERS

The following is a list of public and private utility service encountered within the limits of construction:

Hamilton County-Water
Temple Bar Bldg., Court and Main Sts., Cincinnati, Ohio 45202

Hamilton County-Highway Department
Temple Bar Bldg., Court and Main Sts., Cincinnati, Ohio 45202

Cincinnati Bell, Inc.
225 E. Fourth St., Cincinnati, Ohio 45202

Cincinnati Gas & Electric Co.
Fourth and Main Sts. Cincinnati, Ohio 45201

Metropolitan Sewer District
1600 Gest St., Cincinnati, Ohio 45204

SEQUENCE OF OPERATIONS

1. Install pipe underdrains where required.
2. Place subbase out to outside edge of paved shoulders. Payment shall be made for all subbase placed in this operation.
3. Construct pavement.
4. Remove subbase and any contaminated backfill over drain and replace with No. 8 aggregate as shown by Item (11) on typical sections.
5. Complete shoulder construction.

ITEM 611 REINFORCED CONCRETE APPROACH SLAB (T=15")

Approach slab shall be constructed in accordance with standard drawings AS-1-72 dated 6-30-72 except the width of the slab shall be the same width as the approach pavement and consistent with the pavement geometry at the location. Also, the cover on the top reinforcing steel shall be three (3) inches instead of two (2) inches as shown on the standard drawings. Jack holes as shown on the standard drawings AS-1-72 shall be omitted.

Approach slab shall be surfaced with 404 and 402 on 407 Tack Coat & Cover Aggregate. Tack Coat shall be applied at the rate of 0.1 gal per s.y. whereas the thickness of 404 and 402 shall be as shown on the applicable typical section.

REMOVAL OF TREES AND STUMPS

All trees and stumps specifically marked for removal within the construction limits of this project shall be removed under the lump sum price bid for Item 201 Clearing and Grubbing, except that those trees for which protection and preservation work is indicated elsewhere in these plans shall not be removed.

The following is an approximate estimate of the number of trees and stumps to be removed:

SIZES	No. TREES	No. STUMPS
18"	563	2
30"	30	–
48"	10	–
60"	1	–

The above estimate is approximate and the State of Ohio reserves the right to order the removal of additional trees or stumps outside of the limits of construction but within the right-of-way and/or easement lines. Payment for the removal of these additional trees or stumps shall be included in the lump sum price bid for Item 201 Clearing and Grubbing.

PAVEMENT REMOVAL OUTSIDE NORMAL CONSTRUCTION LIMITS

The existing pavement as indicated on the plans shall be removed and disposed of, the old roadway graded to the level of the surrounding ground, the old ditches filled, and the disturbed areas sloped to drain and left in a neat condition ready for seeding. Seeding shall be measured and paid for in accordance with Item 659 Seeding and Mulching. Payment for the above work, except seeding shall be included in the unit price bid for Item 202.

BENCHING OF FOUNDATION SLOPES

Although cross sections on this plan indicate specific widths and depths of proposed benching of the embankment foundation in certain areas, no waiver of the specifications is intended and all other sloped foundation areas shall be benched as set forth in 203.09. No additional payment will be made for benching required by the provisions of 203.09.

MONUMENTS

Monuments shall be constructed in accordance with details shown on Standard Drawing MC-1. For locations, see Sheet No. 26.

LOCATIONS OF GUARDRAIL

The locations of guardrail runs as shown in these plans are subject to adjustment to assure that the planned installations will afford maximum protection for traffic.

ITEM 203 PROOF ROLLING

An estimated quantity for this item has been provided in the general summary for use in proof rolling of subgrade for the mainline and ramp pavements, Blue Rock Rd. Reloc. and Colerain Ave. (U. S. 27), and for paved shoulders.

AGRICULTURAL LIMING, AS PER PLAN

The location and need for agricultural liming will be determined by laboratory tests, after rough grading operations have been performed. Quantities of agricultural liming, as shown on the plans, are sufficient for the entire project, but will be non-performed for the areas where tests show that the liming is not required.

CONTRACTION AND EXPANSION JOINTS

Although specific locations of certain expansion and contraction joints have been detailed on this plan, no waiver of the specifications is intended. Provision of expansion joints at all major structures and the maximum spacing between contraction joints shall in all cases be in accordance with Standard Construction Drawings and the Specifications.

ITEM 310 SUBBASE, GRADING A AS PER PLAN

Material for this item shall meet the requirements of grading A of 310.02 after all operations of placing and compacting have been completed.

PART-WIDTH CONSTRUCTION

Because of the necessity of building portions of this project under traffic and constructing the pavement part at a time, extreme care shall be taken to prevent the construction of a butt joint on centerline in the Item 304 and 310 courses. This shall be accomplished by building these courses, placed with the first portion of the pavement built, at least 18 inches beyond the centerline and by surfacing no closer than 18 inches to this edge of the above courses. When the second portion of the pavement is built, at least 12 inches of these projecting courses shall be broken down and thoroughly keyed in with the newly placed corresponding courses in the second portion of the pavement built. Payment for this operation shall be included in the unit prices bid for the pertinent pavement items.

TRENCH FOR WIDENING

Trench excavation for base widening shall be performed only on one side of the pavement at a time. The open trench shall be adequately maintained and protected with drums, cones, or barricades at all times. Placement of proposed subbase and base material shall follow as closely as possible behind the excavation operations. The length of widening trench which is open at any one time shall be held to a minimum and shall at all times be subject to approval of the Engineer.

SEEDING

Quantities for seeding are calculated for the soil areas between the right-of-way fence lines, between the right-of-way lines in unfenced areas, and within the work limits for areas outside the right-of-way lines covered by work agreement or slope easement.

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HAM-275-15.91
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DEVELOPED		CHECKED	
ALY	6-22-72	RAP	7-14-72

GENERAL NOTES

MAINTENANCE OF TRAFFIC

1. Minimum provisions for the maintenance of traffic on roads affected by this improvement shall be as follows:

   (a) BLUE ROCK ROAD

   Two-way traffic shall be maintained at all times by use of the existing pavement, the proposed relocated pavement, existing and proposed pavements of Springdale Road and the Springdale Connector, Temporary Road No. 4, Class 'A' temporary pavement and Temporary Roads 5 and 6, Class 'B' temporary pavements.

   (b) SPRINGDALE ROAD

   Two-way traffic shall be maintained at all times by use of the existing and proposed pavement, the proposed pavements of Blue Rock Road Relocated and the Springdale Connector, Temporary Road No. 4, Class 'A' temporary pavement and Temporary Road No. 1, Class 'B' temporary pavement.

   (c) & (d) BREHM ROAD & SHEITS ROAD

   Maintain Two-way traffic on Sheits Road and Brehm Road, while Temporary Road No. 2 is being constructed. Switch Brehm Road traffic to Temporary Road No. 2 and construct Proposed Sheits Road Relocation and Brehm Road from Sta. 52+00 ± to Sta. 55+00. Then route Brehm Road Traffic over Relocated Sheits Road to Existing Sheits Road to Springdale Road. Construct Proposed Brehm Road from Sta. 45+00 to Sta. 52+00 ±. After this is completed, route Sheits Road over this and close existing Sheits Road through the I-275 construction area.

   (e) COLERAIN AVENUE (U. S. 27)

   Two-lanes traffic in each direction shall be maintained at all times by use of the existing pavement, the proposed pavement and Temporary Road No. 3, Class 'A' temporary pavement. (See sheet No 20A)

   (f) DRY RIDGE ROAD

   Two-way traffic shall be maintained at all times by use of the existing pavement, the proposed pavement and the proposed pavement of Colerain Avenue and Ramp 'J'.

   (g) CAPSTAN DRIVE

   Two-way traffic shall be maintained at all times by use of the existing Capstan Drive pavement until the proposed Redskin Dr. Extention pavement is open to traffic.

   (h) I-275 East of Colerain Avenue (U. S. 27)

   Two-way traffic shall be maintained at all times by use of the existing pavement, existing Ramp 'F' pavement, the existing and the proposed Colerain Avenue (U. S. 27) pavement and Temporary Road No. 3, Class 'A' temporary pavement.

2. One-way traffic will be permitted for minimum periods of time subject to approval of the Engineer.

3. It is not intended that temporary pavements be used exclusively for maintaining traffic on this project but that a maximum usage be made of existing and proposed pavements. The limits and duration of use in all cases shall be subject to the approval of the Engineer.

4. Maintaining traffic on new asphalt concrete pavement will be permitted for minimum periods of time consistent with the requirements of the specifications for protection of completed asphalt concrete courses.

5. Item 410, Traffic Compacted Surface: Item 616, Calcium Chloride and Item 616 Water, for Dust Control shall be applied on temporary roadways on shoulders in the amounts requested by the Engineer. Quantities carried to General Summary are:

Item 410 Traffic Compacted Surface Type A or B	350 C.Y.
Item 616 Water	400 M-Gal.
Item 616 Calcium Chloride	30 Tons

6. The hardness and soundness requirements of the specifications shall be waived on all of the Item 410 material used for maintenance of traffic.

See additional note on sheet 455A.

LIGHTS AND SIGNS AT ADJACENT ROAD INTERSECTIONS

The Contractor shall in addition to the general requirements of Item 614 on this project performs the following:

Provide, erect, and maintain standard 48"x30" size "Road Closed" sign, sign support, and lights at the following location during periods in which the affected road is closed to traffic:

Sheits Road just east of Brehm Road Intersection.

Payment for providing, erecting, maintaining, and removing lights, sign, and sign supports shall be included in the lump sum price bid for "Item 614 Maintaining Traffic".

TEMPORARY ROAD No 4

Existing Temporary Road No 4 was constructed under a previous project, HAM-CR 453 H, and left in place. A portion of this temporary road is to be relocated, as shown on sheet No 61B. At the time of removal and restoration under this contract, the earth fill on temporary Parcel No 4-T of the Standard Oil Company is to be left in place with only the pavement to be removed.

ITEM SPECIAL DRILLED WELL ABANDONED

The existing concrete or stone slab well cover and pumping equipment shall be removed and disposed of. The casing shall be cut off at lease one (1) foot below the proposed finished grade outside proposed pavement areas or at least one (1) foot below the proposed subgrade elevation inside proposed pavement areas. The well shall be filled from bottom to top with clean puddled clay or concrete.

The unit price bid for each "Drilled Well Abandoned" shall include payment for all labor, tools, materials, and incidentals necessary to complete this item.

MEDIAN PAVEMENT ON APPROACH SLABS

The width and type of median pavement on approach slabs shall be transitioned from the standard section used on the approach pavement to the section used on the bridge within the limits of the approach slab.

COATED DOWELL BARS

Dowell bars required on Standard Drawing BP-4 shall be coated in accordance with Supplemental Specification 948.

CONTRACTORS RESPONSIBILITY IN ROCK AND SHALE AREAS

The cross sections sheets of these plans indicate approximate location of top of rock. The width of shoulder and side ditches must be maintained as well as the slope of both rock and earth backslope. Should the contractor encounter rock at an elevation differing from the elevation indicated it shall be his responsibility to make adjustments as are necessary to meet this requirement. Payment for this is included in Item 203, Excavation not including embankment construction.

EARTHWORK VOLUME COMPUTATIONS

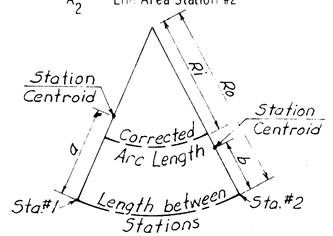
The volume computations in non-tangent cross sections was obtained by the following formula:

$$V = \frac{L_1 \left[A_1 + A_2 \right]}{54} \quad (cy)$$

Where: Lo = Length between Stations
Ro = Curve Radius
Ri = Adjusted Radius
= $Ro \pm \frac{(a+b)}{2}$

L_1 = Corrected Arc Length
= $Lo \frac{Ri}{Ro}$

A_1 = End Area Station #1
A_2 = End Area Station #2



SEQUENCE OF CONSTRUCTION

In Order to Insure the Early Utilization of the Colerain Ave. (U.S.27) Interchange the sequence of Construction Shall Follow in the Order Listed Below Unless Otherwise Directed by the Engineer

a. Colerain Ave. Sta. 705± to 726±& Reloc. Blue Rock Rd. Sta. 75+00 to 116+40
b. Ramps G, F & I
c. Main Line Sta. 685 ± to Sta. 694
d. Redskin Drive Extension
e. Service Road At Hollis Drive

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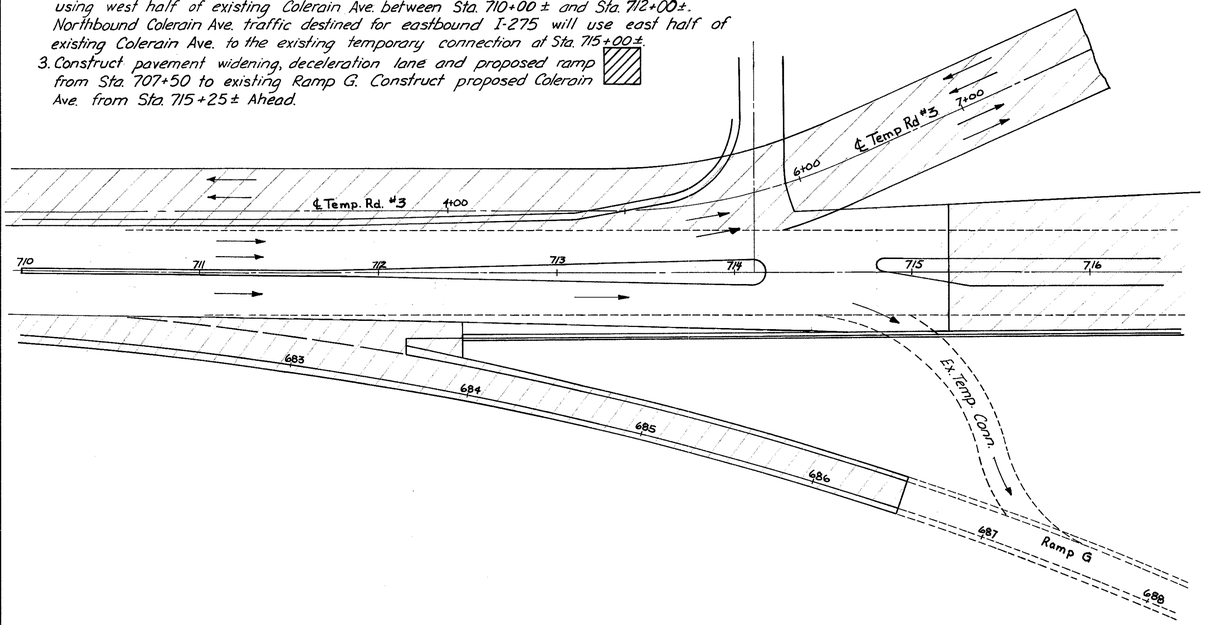
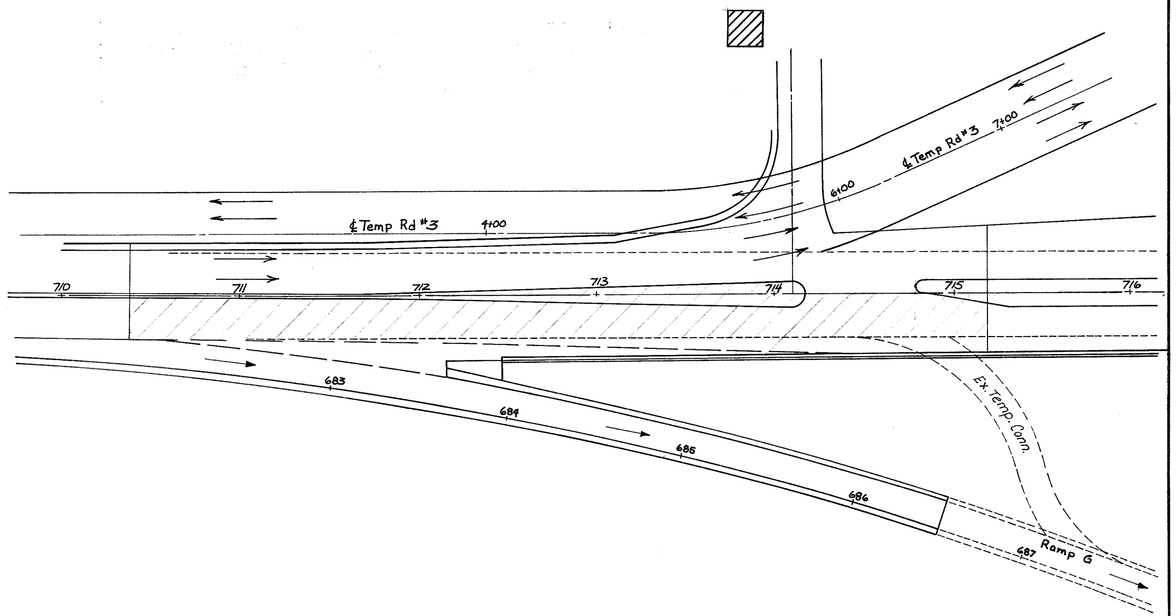
PHASE I

1. Construct Temporary Road No.3
2. Route northbound and southbound Colerain Avenue traffic over Temporary Road No.3, using west half of existing Colerain Ave. between Sta. 710+00 ± and Sta. 712+00±. Northbound Colerain Ave. traffic destined for eastbound I-275 will use east half of existing Colerain Ave. to the existing temporary connection at Sta. 715+00±.
3. Construct pavement widening, deceleration lane and proposed ramp from Sta. 707+50 to existing Ramp G. Construct proposed Colerain Ave. from Sta. 715+25± Ahead.



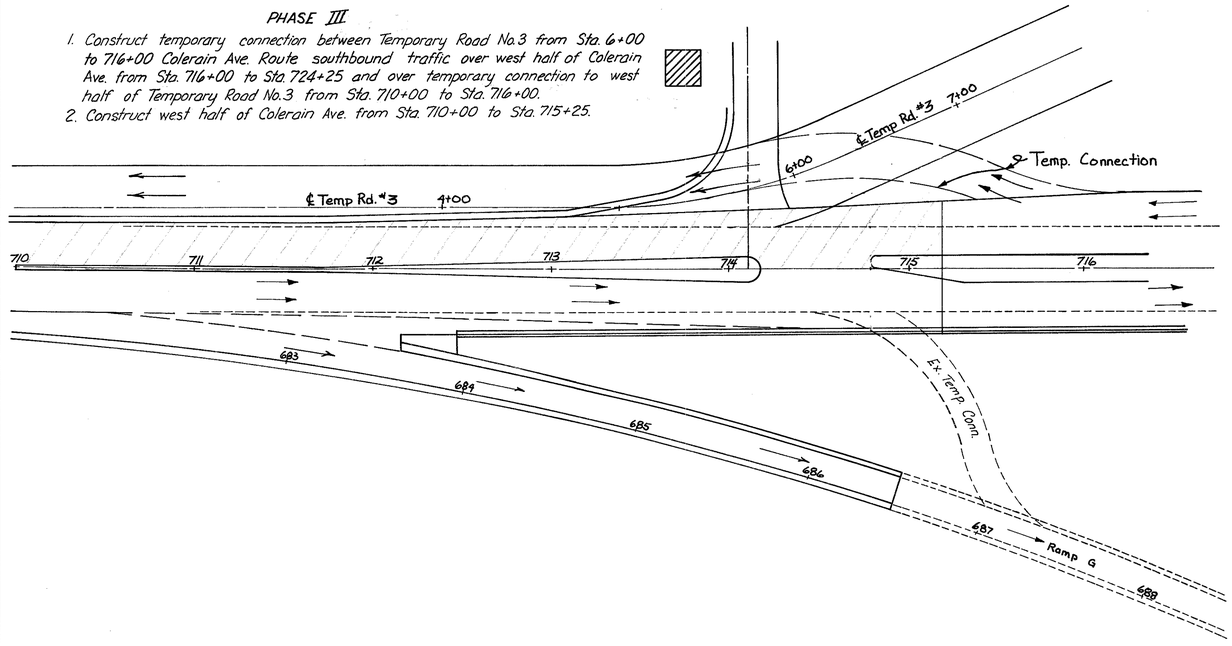
PHASE II

1. After deceleration lane and Ramp G has been completed, traffic destined for eastbound I-275 should be routed over this pavement.
2. Construct east half of proposed Colerain Ave. to Sta. 715+25.
3. After Step 2 above has been completed and proposed pavement from Sta. 715+25 to 724+25 has been constructed, route northbound traffic over east half.



PHASE III

1. Construct temporary connection between Temporary Road No.3 from Sta. 6+00 to 716+00 Colerain Ave. Route southbound traffic over west half of Colerain Ave. from Sta. 716+00 to Sta. 724+25 and over temporary connection to west half of Temporary Road No.3 from Sta. 710+00 to Sta. 716+00.
2. Construct west half of Colerain Ave. from Sta. 710+00 to Sta. 715+25.



Rev. 9-23-75

MAINTENENCE OF TRAFFIC

FHWA REGION	STATE	PROJECT	
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GENERAL NOTES

LIME - SOIL STABLIZED SUBGRADE

SCOPE OF WORK - THE SUBGRADE WITHIN THE AREAS OF THE MAINLINE, RAMPS, AND BLUE ROCK ROAD WHERE FULL DEPTH FLEXIBLE PAVEMENT IS TO BE PLACED SHALL BE TREATED AS FOLLOWS:

ALL EMBANKMENT SUBGRADE AREAS TO A DEPTH OF SIX INCHES SHALL BE LIME STABILIZED THE LIME AND EMBANKMENT MATERIAL SHALL BE THOROUGHLY MIXED AND UNIFORMLY PLACED FOR THE FULL PAVEMENT AND SHOULDER WIDTHS PLUS A MAXIMUM OF ONE FOOT BEYOND THE PAVED SHOULDER EDGE. THE EMBANKMENT MATERIAL (TOP SIX INCHES) SHALL BE SUITABLE SOIL FOR SUBGRADE EMBANKMENT CONSTRUCTION AND NO MATERIAL SHALL BE ANY LARGER IN SIZE THAN TWO INCHES. SUFFICIENT CLAY MATERIAL IS AVAILABLE ON THE PROJECT. THE LIME SHALL BE INCORPORATED INTO THE EMBANKMENT MATERIAL AT A RATE SPECIFIED BY THE ENGINEER OR THE COMPANY FURNISHING THE LIME AFTER AN ANALYSIS HAS BEEN MADE TO DETERMINE THE PERCENTAGE OF LIME REQUIRED. THE LIME SHALL BE COMPUTED AT THE PRESCRIBED PERCENTAGE TIMES THE DRY WEIGHT OF 110 LBS. PER CUBIC FOOT OF EMBANKMENT MATERIAL.

ITEM 203.04(B) OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL BE AMENDED TO READ "WHERE GRANULAR SUBBASE IS NOT A PART OF THE PAVEMENT DESIGN AND WHERE ROCK OR SHALE IS ENCOUNTERED IN THE SUBGRADE, NO ADDITIONAL EXCAVATION WILL BE REQUIRED UNLESS DIRECTED TO DO SO BY THE ENGINEER. IF IN THE OPINION OF THE ENGINEER THE SUBGRADE IS TOO IRREGULAR FOR PROPER PLACEMENT OF THE 301 BITUMINOUS AGGREGATE BASE THE CONTRACTOR MAY BE PERMITTED TO BACKFILL LOCAL DEPRESSIONS AND HOLED WITH MATERIAL NOTED IN THIS SPECIFICATION, ALTHOUGH THE ENGINEER HAS THE OPTION OF DIRECTING THE CONTRACTOR TO UNDERCUT THE SUBGRADE TO A PLAN UNIFORM DEPTH OF SIX INCHES BELOW THE PLAN SUBGRADE ELEVATIONS AND BACKFILLING WITH MATERIAL AS NOTED IN THIS SPECIFICATION. THIS ADDITIONAL EXCAVATION WILL BE FOR THE FULL PAVEMENT AND SHOULDER WIDTHS PLUS A MAXIMUM OF ONE FOOT BEYOND THE PAVED SHOULDER EDGE AND FOR THE FULL LENGTH OF THE ROCK OR SHALE IN EACH INDIVIDUAL CUT AREA. PARTIAL LONGITUDINAL OR LATERAL ADDITIONAL EXCAVATION WITHIN EACH INDIVIDUAL ROCK OR SHALE AREAS WILL NOT BE PERMITTED. IF THE UNDERCUTTING IS NOT PERFORMED. THE PLAN THICKNESS OF THE 301 BITUMINOUS AGGREGATE BASE AS SHOWN ON THE TYPICAL SECTIONS WILL BE USED FOR COMPUTING FINAL PAY QUANTITY. THE AREAS EXCAVATED BELOW THE SUBGRADE AS DIRECTED BY THE ENGINEER SHALL BE BACKFILLED WITH EMBANKMENT AND LIMING MATERIAL AS DESCRIBED ABOVE UNDER EMBANKMENT FOR THIS WORK PAYMENT FOR ALL ADDITIONAL EXCAVATION AS DIRECTED BY THE ENGINEER SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER ITEM 203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION.

IN AREAS OF CUT WHERE ROCK OR SHALE IS NOT ENCOUNTERED, THE ENGINEER WILL DETERMINE IF THE MOISTURE CONTENT OF THE SUBGRADE SOIL IS SUFFICIENT FOR PROPER COMPACTION OR INSUFFICIENT TO PROPERLY SUPPORT THE DESIGN PAVEMENT. IF DIRECTED BY THE ENGINEER, THE CONTRACTOR WILL UNDERCUT AND BACKFILL THESE AREAS AS DESCRIBED ABOVE UNDER THE ROCK OR SHALE SUBGRADE AREAS. PAYMENT FOR THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICE BID PER ITEM 203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION, ITEM 203 EMBANKMENT AND ITEMS SPECIALS AS DESCRIBED BELOW.

DESCRIPTION - THIS ITEM SHALL CONSIST OF AN ADMIXTURE OF HYDRATED LIME WITH THE SUBGRADE SOIL CONSTRUCTED IN ACCORDANCE WITH THESE SPECIFICATIONS AND IN CONFORMITY WITH THE LINES, GRADES AND TYPICAL CROSS SECTIONS AS SHOWN ON THE PLANS, MIXED, SPREAD, COMPACTED AND FINISHED READY FOR ACCEPTANCE.

THE SUBGRADE SHALL BE TREATED TO THE LINES SHOWN ON THE PLANS.

MATERIALS - HYDRATED LIME SHALL MEET THE REQUIREMENTS PRESCRIBED IN STANDARD SPECIFICATION FOR HYDRATED LIME FOR MASONRY,A.S.T.M. DESIGNATION C-207-49 TYPE N FOR CHEMICAL COMPOSITION, RESIDUE, SAMPLING, INSPECTION AND METHODS OF TEST. (SECTION 3-B, 4, AND 5 ARE NOT RELEVANT TO THE INTENDED USAGE).

CONSTRUCTION METHODS - LIME STABILIZATION WORK SHALL BE DONE WHEN THE AIR TEMPERATURE IS 40° F OR ABOVE AND THE MATERIAL TO BE TREATED IS NOT FROZEN. NO WORK SHALL BE DONE DURING WET OR UNSUITABLE WEATHER THE SUBGRADE IN THE AREAS TO BE STABILIZED WITH LIME, SHALL BE SHAPED TO THE PLAN LINES PRIOR TO ADMIXTURE OF LIME SO AS TO PERMIT CONSTRUCTION OF A UNIFORM COMPACTED COURSE OF LIME TREATED SOIL OF THE THICKNESS SHOWN ON THE PLANS. THE LIME SHALL THEN BE APPLIED AT THE RATE SET BY THE ENGINEER USING A BULK DISTRIBUTOR APPROVED HYDRAULIC METHODS OR BY MANUAL METHODS. CARE SHALL BE EXERCISED DURING THE SPREADING AND MIXING OPERATION TO PREVENT EXCESSIVE LOSS OF LIME BY DUSTING. IMMEDIATELY AFTER SPREADING DRY LIME, IF THE BULK DISTRIBUTOR OR MANUAL METHODS ARE USED, THE LIME SHALL BE SPRINKLED WITH WATER USING A PRESSURE DISTRIBUTOR. THE SPREADING OF THE LIME SHALL BE FOLLOWED IMMEDIATELY BY AN MIXING OPERATION CONSISTING OF THE USE OF A SPRING TOOTH OR DISC HARROW FOLLOWED BY AN APPROVED POWER DRIVEN ROTARY TYPE MIXER, DURING THIS INITIAL MIXING OPERATION, WATER SHALL BE ADDED IF NECESSARY TO BRING THE MIXED MATERIAL TO OPTIMUM MIXING SHALL BE CONTINUED UNTIL THE LIME HAS BEEN THOROUGHLY INCORPORATED INTO THE MIX AND ALL SOIL CLODS HAVE BEEN REDUCED TO A MAXIMUM SIZE OF 2 INCHES. FOLLOWING THE INITIAL MIXING, THE MATERIAL SHALL BE LIGHTLY COMPACTED WITH A STEEL WHEELED OR PNEUMATIC TIRED ROLLER TO SEAL IT AGAINST RAIN OR EXCESSIVE DRYING. THE PARTIALLY MIXED MATERIAL SHALL BE PERMITTED TO STAND FOR A PERIOD OF NOT LESS THAN 24 HOURS NOR MORE THAN 7 DAYS PRIOR TO FINAL MIXING. IF CONDITIONS DURING CONSTRUCTION ARE SUCH THAT MORE THAN 7 DAYS ELAPSE BETWEEN INITIAL MIXING AND FINAL COMPACTION AN ADDITIONAL 1/2 PERCENT OF LIME SHALL BE ADDED DURING THE FINAL MIXING. THE ADDED LIME SHALL BE FURNISHED AT THE CONTRACTORS EXPENSE UNLESS THE DELAY BEYOND THE 7 DAY LIMIT IS CAUSED BY CONDITIONS BEYOND THE CONTROL OF THE CONTRACTOR. THE FINAL MIXING SHALL BE DONE WITH APPROVED POWER DRIVEN ROTARY TYPE EQUIPMENT UNTIL THE SOIL HAS BECOME COMPLETELY PULVERIZED WITH ALL CLODS REDUCED TO A MAXIMUM SIZE OF 1 INCH AND AT LEAST 60% OF THE CLODS REDUCED TO SUCH A SIZE THAT THEY WILL PASS A NO. 4 SIEVE. MIXING SHALL BE CONTINUED UNTIL THE LIME HAS BEEN UNIFORMLY DISTRIBUTED THROUGH THE PULVERIZED SOIL. THE MIXTURE SHALL AGAIN BE BROUGHT TO OPTIMUM DURING THE FINAL MIXING AND THE MIXTURE SHALL THEN BE SHAPED AND COMPACTED IN ACCORDANCE WITH THE REQUIREMENTS OF 203.13 EXCEPT THAT ON THIS PROJECT SOILS WITH MAXIMUM LABORATORY DRY WEIGHTS OF NOT LESS THAN 100 POUNDS WILL BE PERMITTED IN SUBGRADE AND SHOULD BE COMPACTED TO 100% OF LABORATORY MAXIMUM DRY WEIGHT. FINAL ROLLING SHALL BE DONE WITH A TYPE 3-E OR 2-T ROLLER AND THE COMPACTED LIME SOIL MIXTURE SHALL BE SHAPED TO PLAN LINES WITHIN TOLERANCES SET UP IN 203.06 FOR SUBGRADE.

THE COMPACTED LIME STABILIZED SUBGRADE SHALL BE PERMITTED TO CURE FOR A PERIOD OF AT LEAST 5 DAYS PRIOR TO PLACEMENT OF THE SUBBASE. THE SURFACE SHALL BE LIGHTLY SPRINKLED DURING HOT, DRY WEATHER THROUGH THE CURING PERIOD TO PREVENT EXCESSIVE MOISTURE LOSS, AS DIRECTED BY THE ENGINEER. DURING THE CURING PERIOD, HEAVY EQUIPMENT SHOULD BE KEPT OFF THE TREATED SUBGRADE. THE LIME STABILIZED SUBGRADE SHALL BE COVERED BY THE OVERLYING PAVEMENT COURSE WITHIN FOUR WEEKS OF THE FINAL MIXING OPERATION, OR PROTECTED BY A BITUMINOUS PRIME COAT AT NO ADDITIONAL COST TO THE STATE IF MORE THAN FOUR WEEKS ELAPSE BEFORE PLACING THE OVERLYING COURSE. THE BITUMINOUS PRIME SHALL CONSIST OF 0.2 GALLON PER SQUARE YARD OF 702.02 RC-70 OR RC-702.04 RS-1.

THE SUBGRADE IN AREAS OF LIME-STABILIZATION SHALL BE TEST ROLLED AFTER ROUGH GRADING & PRIOR TO THE ADDITION OF LIME, USING A GRADER HAVING A MINIMUM WEIGHT OF 15 TONS. AREAS LACKING SUFFICIENT STABILITY IN THE OPINION OF THE ENGINEER, SHALL BE TREATED AS SOFT SUBGRADE. THE COST OF THE TEST ROLLING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR 203 EXCAVATION AND 203 EMBANKMENT.

PROOF ROLLING AND SUBGRADE COMPACTION WILL NOT BE REQUIRED IN AREAS WHERE LIME STABILIZED SUBGRADE IS REQUIRED AND THE QUANTITIES FOR THESE ITEMS SHOWN IN THE PLANS WILL BE NON PERFORMED IN LIME STABILIZED SUBGRADE AREAS.

MEASUREMENT AND PAYMENT - THE QUANTITIES TO BE PAID FOR SHALL BE AS FOLLOWS:

A. ITEM SPECIAL, PER SQ. YD: SPREADING, MIXING, SHAPING AND COMPACTING LIME SOIL STABILIZED MIXTURE.

B. ITEM SPECIAL, PER TON-DELIVERED HYDRATED LIME FOR LIME SOIL STABILIZED MIXTURE.

C. 616, PER THOUSAND GALLONS (M GAL) WATER.

PAYMENT FOR THE ABOVE ITEMS SHALL INCLUDE FULL COMPENSATION FOR FURNISHING LIME AND WATER, HAULING, SCARIFYING, BLADING, SPREADING, MIXING, SHAPING AND COMPACTING LIME WITH THE SOIL, AND FOR ALL LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM.

ANY WATER REQUIRED FOR THIS ITEM SHALL BE MEASURED AND PAID FOR IN ACCORDANCE WITH THE REQUIREMENTS OF 616, EXCEPT THAT WATER USED FOR SPREADING LIME HYDRAULICALLY SHALL NOT BE MEASURED FOR PAYMENT IF IT BRINGS THE SOIL TO MORE THAN 5 PERCENT ABOVE OPTIMUM IMMEDIATELY AFTER THE APPLICATION OF THE LIME. ALL PAY QUANTITIES SHALL BE DETERMINED BY FINAL MEASUREMENT.

FOR QUANTITY CALCULATIONS SEE SHEET NO. 27A.

ADDITIONAL 12' LANES

SUBSEQUENT TO THE COMPLETION OF THIS PLAN, TWO ADDITIONAL 12 FT. LANES WERE ADDED TO EACH ROADWAY ON THE MEDIAN SIDE, RESULTING IN THREE 12' LANES IN EACH DIRECTION. THIS CHANGE HAS BEEN REFLECTED ON THE TYPICAL SECTIONS AND ONLY THOSE CROSS-SECTIONS ON WHICH DRAINAGE DETAILS APPEAR. THE PLAN-PROFILE SHEETS HAVE NOT BEEN CHANGES AND ARE NOT TO SCALE WITHIN THE MEDIAN AREA: HOWEVER, A NOTE TO THIS EFFECT AND DIMENSIONS HAVE BEEN PROVIDED ON EACH SHEET. FOR ADDITIONAL PAVEMENT, EARTHWORK, AND SEEDING QUANTITIES SEE SHEET NO. 27A. ALL DRAINAGE, LIGHTING, AND TRAFFIC CONTROL ITEMS AFFECTED BY THIS CHANGE HAVE BEEN CORRECTED AND INCLUDED IN THEIR RESPECTIVE SUMMARIES.

ALL TYPE 7 AND 8 CURB HAS BEEN REMOVED FROM THIS PROJECT AND THE APPROPRIATE CORRECTIONS HAVE BEEN MADE ON THE TYPICAL SECTIONS, PLAN-PROFILE SHEETS AND PAVEMENT DETAILS, HOWEVER, REFERENCE TO THESE ITEMS MAY STILL APPEAR ON OTHER DETAILS THROUGHOUT THE PLAN AND ARE TO BE DISREGARDED. ADDITIONAL QUANTITIES OF ITEM 301, ITEM 304 AND ITEM 310 HAVE BEEN INCLUDED ON SHEET NO. 27A TO REPLACE TYPE 8 CURB.

REVISED DATE 8-22-75

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

22
168

HAM-275-13.91
HAMILTON COUNTY

GENERAL SUMMARY

SHEET NUMBER

Code Type 6203 Unless Otherwise Noted

ITEM	20 GEN. NOTES	26	27	27A	29	33	37	40	46A	51A	58	58B	61B	64
201	Lump													
202		2022												
202		80												
202		997												
202		485											2488	
202		195												
202		835											100	
202		Lump												
202		Lump												
203		1,778,525		16,872										
203		1,643,244		-13,602										
203		180,960		31,352										
203		46		10										
410	350													
601			25											
601			30											
606					118.125	29.62.5	2852.5	1295	29.62.5	2075	188.125			
606					150						387.50			
606					2	12	10	7	18	13	11		1	
606					2						2			
606					5					8				
606													75	
607			1167											
607			22536											
608										32				5949
615			Lump											
615			9131											
615			6484											
616	400			63										
616	30													
656		144												
Spl				31,386										
Spl				467										
Spl			Lump											
Spl			4											
606											2			
301				8,660	3300	7761	7881	5579	8797	205		4684	52	842
304				22	819	1791	1794	1098	923	4110		583		390
310				1,381	3792	8370	8298	6097	1672			2798		
310				80								3390		62
310									487	2750				539
402				1,520	474	1122	1086	824	1552	786		797	10	324
402				1,087	342	801	768	589	1086	783		559	7	270
404									5	60		10		20
407					27				70	46		60		31
407					0.9				0.3	1.6		2.1		1.1
408						53			1620	8006		402		2511
409				2	65	97	98	60	69	31		26		10.10
409				40	1671	3620	3677	2229	2595	1156		971		378
451				541										
452										159				25
609												1773		
609												149		1703
609												3413		
609														279
611				134	267					213		362		
612												460		
612												873.26		
Spl					197	453	506	289	122			231		

ITEM	QUAN.	UNIT	DESCRIPTION
			ROADWAY
201	Lump		Clearing and grubbing
202	2022	S.F.	Sidewalk removed
202	80	L.F.	Curb removed
202	997	L.F.	Curb and gutter removed
202	2973	S.Y.	Pavement removed
202	195	Each	Precast traffic dividers removed
202	735	L.F.	Guard rail removed for reuse or storage
202	Lump		Portions of structuree removed
202	Lump		Structures removed
203	1,795,455	C.Y.	Excavation not including embankment construction
203	1,629,642	C.Y.	Embankment
203	212,312	S.Y.	Sub grade compaction
203	56	Hours	Proof rolling
410	330	C.Y.	Trafffic compacted surface, Type A or B, as per plan
601	25	Each	Reference monuments
601	30	Each	Monument assemblies
606	14,750	L.F.	Guard rail, Type 5
606	537.50	L.F.	Guard rail, Type 5, barrier design
606	74	Each	Anchor assembly
606	4	Each	Anchor assembly, barrier design
606	13	Each	Bridge terminal assembly, Type A
606	75	L.F.	Guard Rail Rebuilt, Type 5
607	1167	L.F.	Fence, Type CL
607	22,536	L.F.	Fence, Type 4T
608	6001	S.F.	4" Concrete walk
615	Lump		Temporary Roads
615	9131	S.Y.	Temporary pavement, Class A
615	6484	S.Y.	Temporary pavement, Class B
616	463	M gal	Water
616	30	Tons	Calcium chloride
656	144	M S.F.	Roadside cleanup
Special	31,386	Sq. Yds.	Spreading, Mixing, Shaping and Compacting Lime Soil Stabilizing Mixture
Special	467	Tons	Delivered Hydrated Lime for Lime Soil Stabilized Mixture
Special	Lump		Temporary road removed
Special	4	Each	Drilled well abandoned
606	2	Each	Bridge Terminal Assembly, as per plan
			PAVEMENT
301	47,461	C.Y.	Bituminous aggregate base; 702.01, AC-20; or 702.09, RT-11 or RT-12
304	11,480	C.Y.	Aggregate base
310	38,408	C.Y.	Subbase
310	3,732	C.Y.	Subbase, Grading A
310	3776	C.Y.	Subbase, Grading B
402	8,485	C.Y.	Asphalt Concrete, AC-20
404	6,292	C.Y.	Asphalt Concrete, AC-20
404	104	C.Y.	Asphalt Concrete, AC-20 (Driveways)
407	174	Gal.	Tack coat; 702.04, SS-1, SS-1h, MS-2 or RS-1 ; or 702.02, RC-250
407	6	Tons	Cover Aggregate
408	12,594	Gal.	Bituminous prime coat; 702.02, RT-2 or RT-3; 702.02, MC-30 or MC-70 or 702.05, Prime 20
409	439	C.Y.	Seal coat cover aggregate No. 8
409	16,337	Gal.	Seal coat bituminous material; 702.09, RT-9 or RT-10; or 702.02, MC-800 or MC-3000; 702.04, RS-1, RS-2, CRS-1 or CRS-2 ; or 702.03, CBAE-800
451	541	S.Y.	9" Reinforced portland cement concrete pavement
452	184	S.Y.	7" Plain portland cement concrete pavement
609	1773	L.F.	Combination curb and gutter, Type 2
609	1852	L.F.	Combination curb and gutter, Type 3
609	3413	L.F.	Curb, Type 6
609	279	L.F.	Asphalt Curb, Type 1
611	976	S.Y.	Reinforced concrete approach slab (T=15")
612	460	S.Y.	Concrete median, as per plan
612	874	S.Y.	4" concrete median, as per plan
Special	1760	C.Y.	Drainage connection, using No. 8 aggregate

DEVELOPED		CHECKED	
R.A.P.	7-12-72	C.E.S.	7-12-72

Rev 9-23-75 REVISED DATE 8-22-75

GENERAL SUMMARY

GENERAL SUMMARY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

23/468

HAM-275-13.91
HAMILTON COUNTY

SHEET NUMBER

★ FARM DRAINS

CODE TYPE 6203 UNLESS OTHERWISE SHOWN

LINE	ITEM	GEN. NOTES 21	30	34	38	41	47	52	59	64
A										
B										
C										
D										
E	202						3	2	7	1
F	202						35	319	78	134
G	202						LUMP			
H	202								1,210	
I										
J	603	5	4	7	9	1	5		5	
K										
L	603	5								
M										
N										
O										
P										
Q										
R										
S	602		2.0	8.0	7.8	4.4	7.5	2.3	2.8	0.8
T	202						2		1	
U	202			3		1		2		
V										
W	603			288						
X										
Y	603		425							
Z	603						128	88		
A-1	603									
B-1	603			324						
C-1	603			902						
D-1	603						190			
E-1	603		634							
F-1	603			424						
G-1										
H-1	603						74			
I-1	603						74			
J-1	603				296					
K-1										
L-1	603					437				
M-1	603									87
N-1	603				315					
O-1										
P-1	603	300								
Q-1	603	300								
R-1	603						26	126	37	201
S-1										
T-1	603		116	382	345	138		171	375	80
U-1	603		224							
V-1	603						53			
W-1										
X-1	603				279		118		144	660
Y-1										
Z-1	603				97					
A-2	603								46	
B-2	603							101		
C-2										
D-2	603						118			
E-2	603					133				
F-2										
G-2										
H-2	603					475				
I-2	603								130	
J-2										
K-2	603	100								
L-2	603								40	38
M-2	603		107		113	200			222	113
N-2	603				28				35	296
O-2	603						334			
P-2	603		28	112	56			402		
Q-2	603					50	43			
R-2	603				28		37			
S-2										
T-2	603					20				
U-2	603								324	
V-2	603						25			
W-2	603						22	387	38	
X-2	603									16
Y-2	603	150								
Z-2	603	150								
A-3										
B-3	603	50	80	160	190	40	60		170	
C-3	603	50					146			
D-3	603									
E-3	603			280	130				68	
F-3	603			133						122
G-3										
H-3										
I-3										
J-3										
K-3										
L-3										

ITEM	QUAN.	UNIT	DESCRIPTION
			DRAINAGE
202	13	EA.	Catch Basins Removed
202	566	LIN. Ft.	Pipe Removed 24" and Under
202	LUMP		Structures Removed
202	1,210	L. F.	6" Underdrain Removed
603	36	EACH	6" Animal Guard for Pipe Outlet
603	5	EACH	8" Animal Guard for Pipe Outlet
602	356	C.Y.	Concrete Masonry
202	3	EA.	Privy Vault Removed
202	6	EA.	Septic Tank Removed
603	288	L.F.	18" Conduit, Type A, 707.05
603	425	L.F.	21" Conduit, Type A, 707.05
603	128	L.F.	Conduit Type A: 24" 706.01, 706.02 or 706.08; or 27" 707.05
603	88	L.F.	24" Conduit Type A
603	324	L.F.	30" Conduit Type A 707.05
603	902	L.F.	36" Conduit Type A 707.07 (0.079)
603	190	L.F.	Conduit, Type A: 36" 706.02, 706.08 or 42" 707.05
603	634	L.F.	42" Conduit Type A 707.07
603	424	L.F.	48" Conduit Type A 707.07 (0.138)
603	74	L.F.	Conduit Type A: 30" 706.02 Class III; or 36" 707.05
603	74	L.F.	48" Conduit Type A 707.05
603	296	L.F.	48" Conduit Type A 707.07
603	437	L.F.	Conduit Type A: 60" 706.02 Class V or 66" 707.07
603	87	L.F.	17"x13" Conduit, Type A, 707.05
603	315	L.F.	Conduit Type A: 54" 706.02 Class V or 60" 707.07 (0.079)
603	300	L.F.	★ 6" Conduit Type B
603	300	L.F.	★ 8" Conduit Type B
603	398	L.F.	12" Conduit Type B
603	1607	L.F.	15" Conduit Type B
603	224	L.F.	15" Conduit Type B 706.02 Class IV or 707.13
603	53	L.F.	15" Conduit Type B 706.02 Class III or 707.13
603	1201	L.F.	18" Conduit Type B
603	97	L.F.	21" Conduit Type B
603	46	L.F.	24" Conduit Type B
603	101	L.F.	24" Conduit Type B 706.02 Class III, 706.08 or 707.13
603	118	L.F.	27" Conduit Type B
603	133	L.F.	30" Conduit Type B
603	475	L.F.	36" Conduit Type B
603	130	L.F.	42" Conduit Type B 706.02 Class III or 707.13
603	100	L.F.	6" Conduit Type C
603	78	L.F.	12" Conduit Type C
603	755	L.F.	15" Conduit Type C
603	359	L.F.	18" Conduit Type C, 706.01 Cl 3, 706.02, 706.08 ES or 707.13
603	334	L.F.	18" Conduit Type C 706.02 Class V or 707.13
603	598	L.F.	15" Conduit Type C 706.01 Class 3, 706.02, 706.08 ES. or 707.13
603	93	L.F.	21" Conduit Type C
603	65	L.F.	21" Conduit Type C 706.01 Class 3, 706.02, 706.08 ES or 707.13
603	20	L.F.	30" Conduit Type C
603	324	L.F.	36" Conduit Type C 706.02 Class III, 706.08 ES or 707.13
603	25	L.F.	42" Conduit Type C
603	447	L.F.	12" Conduit Type D
603	16	L.F.	3" Conduit Type E 711.29
603	150	L.F.	6" Conduit Type E
603	150	L.F.	8" Conduit Type E
603	750	L.F.	6" Conduit Type F
603	50	L.F.	8" Conduit Type F
603	146	L.F.	42" Conduit, Type F, 707.05
603	478	L.F.	15" Conduit Type F
603	255	L.F.	12" Conduit Type C, 706.01 Class 3, 706.02, 706.08 E.S or 707.13

REVISED DATE 8-22-75

DEVELOPED	CHECKED
BRS	RPS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

24
468

HAM-275-13.91
HAMILTON COUNTY

GENERAL SUMMARY

⊕ INDICATES 100% METROPOLITAN SEWER DISTRICT

SHEET NUMBER

CODE TYPE 6203 UNLESS OTHERWISE SHOWN

LINE	ITEM	27A	GEN. NOTES 21	26	30	34 ⊕	38 ⊕	41 ⊕	47	52	59	64	TOTAL I-275-3(9)27 PARTICIPATION	TOTAL 100% M.S.D.	ITEM	QUAN.	UNIT	DESCRIPTION
A																		
B																		
C									1	10	1	3	15		604	15	EA.	Standard No. 2-2-B Catch Basin
D	604										4	2	6		604	6	EA.	Standard No. 3 Catch Basin
E	604										6		6		604	6	EA.	Standard No. 3-A Catch Basin
F	604						3	2			3		8		604	8	EA.	Standard No. 4 Catch Basin
G	604						2	2	2		1		7		604	7	EA.	Standard No. 5 Catch Basin
H	604							1			1		2		604	2	EA.	Standard No. 5-A Catch Basin
I	604								3	1		2	6		604	6	EA.	Standard No. 5 Catch Basin with "B" Grate
J	604							1			1	2	4		604	4	EA.	Standard No. 6 Catch Basin
K	604							4					25		604	25	EA.	Standard No. 8 Catch Basin
L	604				4	9	8											
M									2			2	4		604	4	EA.	Standard No. 1-A Manhole
N	604							2					2		604	2	EA.	Standard No. 1 Manhole, Modified as per plan
O	604												2		604	2	EA.	Inspection Wells
P	604		2									2	2		604	2	EA	Standard No. 1 Manhole using Heavy Frame and Cover
Q	604										1	1	2		604	2	EA.	Manhole Adjusted to Grade
R	604											1	1		604	1	EA.	Catch Basin Adjusted to Grade
S	604																	
T																		
U																		
V	605				2359	5917	4405	1909	1594		3348		19,526		605	19,526	L.F.	6" Shallow Pipe Underdrain
W	605				1273	2736	3097	1376	678		580		9740		605	9740	L.F.	6" Shallow Pipe Underdrain, 707.01 Type III or 707.12
X	605		500										500		605	500	L.F. X	6" Unclassified Pipe Underdrain, 707.01 Type III or 707.12 as per plan
Y	605				100	896	567	100	100		100		1863		605	1863	L.F.	6" Unclassified Pipe Underdrain
Z	605				1103	1117	3414	1504	596		2022		9756		605	9756	L.F.	6" Deep Pipe Underdrain
A-1																		
B-1	605									1250		475	1725		605	1,725	L.F.	Aggregate Drains X
C-1	605		25										25		605	25	L.F.	Aggregate Drains For Springs, as per plan
D-1																		
E-1																		
F-1																		
G-1																		SANITARY TYPE CODE Y060
H-1																		
I-1	603					188	173	168						529	603	529	L.F.	12" Conduit, Type B 706.02 Class V with 706.11 Joints
J-1							201	335						536	603	536	L.F.	12" Conduit, Type B, 706.02 Class V with 706.11 Joints and Class A Bedding
K-1	603						160							160	603	160	L.F.	21" Conduit, Type B 706.02 Class V with 706.11 Joints
L-1																		
M-1	603													320	603	320	L.F.	12" Conduit, Type B, 706.02 Class V with 706.11 Joints and Concrete Arch as per plan
N-1																		
O-1						320												
P-1	603													349	603	349	L.F.	21" Conduit, Type B, 706.02 Class V with 706.11 Joints and Concrete Arch as per plan.
Q-1							349											
R-1	603																	
S-1																		
T-1	604					2	4	2						8	604	8	EA.	Manhole, Type S
U-1																		
V-1																		
W-1																		
X-1																		
Y-1																		
Z-1																		
A-2																		
B-2	601				4.0	40	83	76	13.0	2.4	30.6		249		601	249	S.Y.	Riprap, Using 6" Reinforced Concrete Slab
C-2																		
D-2	601					12	25						37		601	37	C.Y.	Rock Channel Protection, Type A with bedding
E-2	601		5		12	344	399	2.6	1,141	314	120	15	2376		601	2376	C.Y.	Rock Channel Protection, Type B with bedding
F-2																		
G-2	601						5						5		601	5	C.Y.	Rock Channel Protection, as per plan
H-2																		
I-2	601				290	52							342		601	342	L.F.	Standard, Type 2 Paved Gutter
J-2																		
K-2	659	-31,150		583,662									552,512		659	552,512	S.Y.	Seeding and Mulching
L-2	659	-2.80	24.95	52.34									74.49		659	74.49	TON	Commercial Fertilizer (12-12-12)
M-2	659	-14.02		261.71									247.69		659	247.69	TON	Agricultural Liming, as per plan
N-2	660				388								388		660	388	S.Y.	Sodding for Special Slope and Berm Protection, as per plan
O-2	660				2,145								2,145		661	2,145	S.Y.	Seeding and Jute Matting
P-2	660				1,470	2,670	3,063	490	4,115	1,641	2661	808	16,918		660	16,918	S.Y.	Sodding
Q-2																		
R-2	207		116,600										116,600		207	116,600	S.Y.	Temporary Seeding and Mulching
S-2	207		258										252		207	258	M. GALS.	Water
T-2	207		7,500										7,500		207	7,500	L.F.	Temporary Slope Drains
U-2	207		1,600										1,600		207	1,600	C.Y.	Temporary Benches, Dikes, Dams and Sediment Basins
V-2	659		30,000										30,000		659	30,000	S.Y.	Repair Seeding and Mulching
W-2	207		1,300										1,300		207	1,300	M.SQ.FT.	Mowing
X-2																		
Y-2																		
Z-2																		
A-3																		
B-3																		
C-3																		
D-3																		
E-3																		
F-3																		
G-3																		
H-3																		
I-3																		
J-3																		
K-3																		
L-3																		

DEVELOPED	CHECKED
RRS	RRS

REVISED DATE 8-22-75

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

25
168

HAM-275-13.91
HAMILTON COUNTY

GENERAL SUMMARY

SHEET NUMBER

Type Code 6203, unless otherwise shown

ITEM	19	20	303	309	31	60	63A
202							LUMP
202					LUMP		
202						LUMP	
503			328	92			
503			82687	26518			
509				210			
511			640	183			
518				LUMP			
202			908				
511							
619	LUMP						
623							
614		LUMP					

ITEM	QUAN.	UNIT	DESCRIPTION
			BUILDING REMOVAL
202	LUMP		Parcel No. 309-WL, removal of one 1-story frame residence
202	LUMP		Parcel No. 346-WL, removal of one 1-story brick residence, and 3 car brick garage
202	LUMP		Parcel No. 416-WL, removal of one 1½-story block tavern, and 2 car frame garage
			STRUCTURES UNDER 20 FT. SPAN
503	328	CU.YD.	Shale Excavation
503	92	CU.YD.	Unclassified Excavation, including rock
509	109,205	LBS.	Reinforcing Steel
511	210	CU.YD.	Class C Concrete
518	1,743	CU.YD.	Porous Backfill
202	LUMP		Portions of Structure Removed
511	908	CU.YD.	Class C Concrete, as per plan
			SHEET REFERENCES FOR QUANTITIES ON FOLLOWING ITEMS:
			Structures Over 20 Ft. Span —
			HAM-275-13.92 I-275 over Blue Rock Rd. Reloc. 325
			HAM-275-14.02 Cretmo Rd over I-275 336
			HAM-275-14.04 Colerain Ave (US 27) over I-275 305
			Springdale Rd over Blue Rock Rd. Reloc. 316
			County Water (Cincinnati Water Works) Type Code 4060 392
			Lighting 395
			Traffic Control, Including Signing 420
			Traffic Control - Signals 455A
619	Lump		Field Office
623	Lump		Construction Layout Stakes
614	Lump		Maintaining Traffic

DES.	DET.	CH.	QC
R.A.P. 7-12-72	C.E.S. 7-12-72		

QUANTITY CALCULATIONS

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

26/468

HAM-275-13.91
HAMILTON COUNTY

TABLE I

LOCATION	ITEM 203 EXCAVATION C.Y.	ITEM 203 EMBANKMENT C.Y.	ITEM 659 SEEDING AND MULCHING. S.Y.	ITEM 659 COMM. FERTILIZER (12-12-12) TON	ITEM 659 AGRICULUTURAL LIMING TON	ITEM 203 SUBGRADE COMPACTION S.Y.	ITEM 203 PROOF ROLLING HR.
I-275 MAINLINE							
569+80 to 582+00	32,420	214,987	37,406	3.37	16.83	7,008	2.3
582+00 to 591+75	106,887	69,132	19,943	1.79	8.97	5,103	3.0
591+75 to 605+00	175,908	155,637	39,910	3.59	17.96	14,200	4.7
605+00 to 620+00	108,023	221,272	54,548	4.91	24.55	13,667	4.6
620+00 to 630+00	42,388	191,251	34,395	3.10	15.48	9,625	3.2
630+00 to 645+00	355,497	20,320	51,303	4.62	23.09	13,667	4.6
645+00 to 660+00	149,408	302,004	51,749	4.66	23.29	13,667	4.6
660+00 to 670+00	57,312	66,448	26,492	2.38	11.92	9,723	3.2
670+00 to 685+00	94,426	31,344	25,510	2.30	11.48	16,241	5.4
685+00 to 694+00	139,899	367	18,194	1.64	8.19	10,049	3.3
RAMP 'C'	22,630	96	2,993	0.27	1.35	610	0.2
RAMP 'D'	14,696	82,468	18,564	1.67	8.35	4,250	1.4
RAMP 'E'	38,103	22,608	14,758	1.33	6.64	3,781	1.3
RAMP 'G'	214	1,165	2,111	0.19	0.95	818	0.3
RAMP 'H'	13,300	44,440	20,278	1.83	9.13	4,160	1.4
RAMP 'I'	72,328	17,259	16,791	1.51	7.56	4,216	1.4
RAMP 'J'	33,601	6,979	13,681	1.23	6.16	3,988	1.3
RELOC. BLUE ROCK RD.							
75+00 to 87+00	104,918	27,415	19,733	1.78	8.88	—	—
87+00 to 102+00	145,594	13,477	23,250	2.09	10.46	—	—
102+00 to 115+25	6,388	34,852	17,029	1.53	7.66	—	—
BLUE ROCK RD. CONN.	465	5,389	3,570	0.32	1.61	1,350	—
NORTHWEST RD.	451	2,520	1,491	0.13	0.67	1,043	—
SPRINGDALE RD.							
7+50 to 23+83	3,075	4,498	5,430	0.49	2.44	6,803	—
23+83 to 29+00	5,573	19	2,600	0.23	1.17	1,945	—
SPRINGDALE CONNECTOR	9,884	44,856	11,868	1.07	5.34	6,454	—
BREHM RD. RELOC.	10,087	741	4,604	0.41	2.07	2,651	—
RELOC. SHEITS RD.	24,073	36,537	10,757	0.97	4.84	5,038	—
COLERAIN AVENUE							
707+50 to 720+00	1,858	23,678	8,467	0.76	3.81	8,204	—
720+00 to 727+20	1,660	107	1,648	0.15	0.74	1,539	—
DRY RIDGE RD. RELOC.	5,586	626	4,479	0.40	2.02	4,894	—
REDSKIN DR. EXT.	476	672	2476	0.04	0.21	1,419	—
SERVICE RD.	656	0	950	0.06	0.31	1,447	—
SHEITS CUL-DE-SAC	78	0	67	0.01	0.03	—	—
CAPSTAN CUL-DE-SAC	69	0	35	0.01	0.02	—	—
DRY RIDGE CUL-DE-SAC	594	0	346	0.03	0.16	—	—
FILL FOR CISTERN & DUG WELL	—	80	—	—	—	—	—
MEDIAN-RAMP H & I & I-275	—	—	2,556	0.23	1.15	—	—
MEDIAN-INSIDE LOOP RAMP I	—	—	13,444	1.21	6.05	—	—
SEED FOR REMOVAL ITEMS	—	—	230	0.03	0.17	—	—
TOTALS TO GENERAL SUM.	1,778,525	1,643,244	583,662	52.34	261.71	180,960	46.2

TABLE II

ITEM 656 ROADSIDE CLEANUP

SH. NO.	LOCATION	QUANTITY M.S.F.	SEEDING S.Y.
54	Undisturbed Area Between Ramps H-I & I-275	23	2556
54	Undisturbed Area Inside Loop of Ramp I	121	13444
	Quantities carried to Table I, Item 659		
	TOTAL (Carried to General Summary)	144	

TABLE III

FILL FOR CISTERNS & DUG WELLS

SH. NO.	LOCATION	DESCRIPTION	EMB. C.Y.
46	109+00, 70' Rt. - BRR.	2 Dug Wells - 1 Cistern	30
33	628+01, 92' Lt. I-275	Dug Well	20
54	675+38, 170' Rt. Ramp I	Cistern	30
	TOTAL (Carried to Table I, Item 203)		80

DEVELOPED		CHECKED	
7-12-72	R.A.P.	7-14-72	D.L.M.

TABLE IV

ITEM 202 REMOVALS

SH. NO.	LOCATION	SIDEWALK S.F.	CURB L.F.	CURB & GLUTTER L.F.	PAVEMENT S.Y.	TRAFFIC DIVIDER EA.	GUARD RAIL L.F.	SEEDING S.Y.
46	109+00, 85' Rt. - B.R.R.	360						
46	Drive @ 114+99, 15' Rt. B.R.R.				37			
48	Drive @ 13+21 Lt. , - Springdale				32			
48	14+37, 33' Lt. Springdale	20						
48	15+20, 32' Rt. " "	32						
48	Drive @ 15+92 Lt., " "				40			
48	Drive @ 20+25, 36' Lt. Springdale				20			
48	Drive @ 21+25, 38' Lt. " "				20			
48	Drive @ 22+02, 30' Lt. " "				20			
48	Drive @ 22+87, Lt. Springdale				35			
51	Drive @ 25+12, Rt. " "				80			
51	47+45, 110' Rt. to 48+30, 45' Rt. - B.R.				65			80
53	10+55 to 12+00, Lt. & Rt. - C.D.	860		290				
56	629+30, 50' Lt. to 630+00, 40' Lt. - J			80				
56	629+53, 12' Rt. to 629+68, 40' Rt. - J			30				
56	13+64 to 14+25 - Exist. DRR.				136			70
57	713+30, 35' Lt. to 715+75, 35' Lt. - CO.						245	
57	714+40, 35' Rt. to 715+80, 35' Rt. - CO.						140	
57	705+87 ℄ to 720+00 ℄ - CO.					118		
58	721+35, 25' Lt. to 724+15, 37' Lt. - CO.			287				
58	725+00, 33' Lt. to 727+20, 25' Lt. - CO.			220				
58	723+15, 70' Lt. to 723+20, 52' Lt. - CO.		80					
58	720+00 ℄ to 726+90 ℄ - CO.					65		
58	720+75, 35' Rt. to 723+28, 40' Rt. - CO.						250	
60	731+00 ℄ to 732+20 ℄ - CO.					12		
	10+40 to 12+18.50 Hollis Dr. Rt.	750		90				
	Quantity from Table V below							80
	TOTALS (Carried to Gen. Summary)	2022	80	997	485	195	635	
	Quantity carried to Table I, Item 659							230

For road name abbreviations see Sht. No. 4.

TABLE V

ITEM 202 REMOVALS

SH. NO.	LOCATION	PORTIONS OF STRUCTURES REMOVED	UNIT	STRUCTURES REMOVED	UNIT	SEEDING S.Y.
33	628+01, 92' Lt. I-275			Well & Storage Cellar	Lump	
46	109+05, 18' Lt. - B.R.R.			Conc. Bridge w/Wing Walls	Lump	
46	109+30, 55' Rt. - B.R.R.			Conc. Steps	Lump	
48	8+20, 80' Lt. - S.R.			Conc. Foundation	Lump	80
50	32+08, 34' Lt. - S.R.	12 L.F. Stone Wall	Lump			
51	54+26, 22' Rt. - B.R.			2 Conc. Post	Lump	
54	675+38, 170' Rt. - Ramp I			Conc. Slab over Cistern, 8'x20'	Lump	
57	710+75 to 711+40, 40' Rt. - CO.			Reinf. Conc. Wall, 65 L.F.	Lump	
57	711+10, 70' Lt. - CO.	12 L.F. Stone Wall	Lump			
57	711+45, 40' Rt. - CO.			Reinf. Conc. Wall, 27 L.F.	Lump	
57	711+60, 40' Rt. - CO.			Reinf. Conc. Wall, 47 L.F.	Lump	
57	711+42, 40' Rt. - CO.			Conc. Steps	Lump	
	TOTALS (Carried To General Summary)		Lump		Lump	
	Quantity carried to Table IV above					80

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QUANTITY CALCULATIONS

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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HAMILTON COUNTY

ITEM SPECIAL - DRILLED WELL ABANDONED

Sht. No.	Location	Quan. Ea.
44	79+48, 22' Lt. - BRR.	1
46	108+10, 70' Lt. - BRR	1
51	51+45, 47' Rt. - BR	1
31	596+55, 138' Lt. ℄ I.R. 275	1
TOTAL (Carried to General Summary)		4

ITEM SPECIAL - TEMPORARY ROAD REMOVED

Sht. No.	Description	Quan.
40A	Remove exist. Temporary Pavement, Class B, between 700+26 to 708+37 - I-275 ℄ Grade, seed, and restore paved shoulders. Payment for all material, equipment, and labor to be included in Lump Sum bid for Item - Special Temporary Road Removal	Lump
61B	Remove existing temporary road and pavement, Class A between Sta. 0+00 to Sta. 5+80 and remove existing temporary pavement only, Class A, between Sta. 5+80 and Sta. 7+93.86, Seed and restore to original condition. (See Note on Sheet № 20 for additional information. Payment for all material, equipment and labor to be included in lump sum bid for Item - Special, Temporary Road Removed.	Lump
TOTAL (To General Summary		Lump

ITEM 607 - FENCE

Station From	Station To	Side	Type 47 Lin. Ft.	Type CL. Lin. Ft.
574+50 ℄ Ramp 'C'	93+00 ℄ BRR	Lt.	358	
82+00 ℄ BRR.	84+20 ℄ BRR.	Lt.	217	
75+00 ℄ BRR.	84+20 ℄ BRR.	Lt	878	
73+81 ℄ BRR.	1+40 ℄ SPC.	Rt.	255	
1+38 ℄ SPC.	580+00 ℄ Ramp 'E'	Rt.	639	
580+00 ℄ Ramp 'E'	590+00 ℄ I-275	Rt.	986	
91+00 ℄ BRR.	590+50 ℄ I-275	Lt.	1554	
590+00 ℄ I-275	598+41 ℄ I-275	Rt.	770	
590+50 ℄ I-275	21+00 ℄ SR.	Lt.	649	
21+00 ℄ SR.	610+50 ℄ I-275	Lt.	1414	
598+41 ℄ I-275	610+00 ℄ I-275	Rt.	1190	
610+00 ℄ I-275	625+50 ℄ I-275	Rt.	1577	
610+50 ℄ I-275	625+00 ℄ I-275	Lt.	1485	
625+50 ℄ I-275	639+50 ℄ I-275	Rt.	1476	
625+00 ℄ I-275	640+65 ℄ I-275	Lt.	1540	
639+50 ℄ I-275	654+04 ℄ I-275	Rt.	1477	
640+66 ℄ I-275	654+50 ℄ I-275	Lt.	1434	
654+50 ℄ I-275	669+93 ℄ I-275	Lt	2222	
654+04 ℄ I-275	669+60 ℄ I-275	Rt.	1528	
669+93 ℄ I-275	685+56 ℄ I-275	Lt.	1260	306
669+60 ℄ I-275	682+45 ℄ Ramp H	Rt.	1251	
685+56 ℄ I-275	725+00 ℄ CO.	Lt.		410
682+45 ℄ Ramp 'H'	713+00 ℄ CO.	Rt.	376	197
715+49 ℄ CO.	689+30 ℄ Ramp 'G'	Rt.		254
TOTALS (To General Summary)			24536	1167

ITEM 615 TEMPORARY ROADS

	CL. A PAV'T	CL. B PAV'T	TEMP. ROADS
Temporary Road No. 1		2880 S.Y.	Lump Sum
2		1112 S.Y.	Lump Sum
3	7882 S.Y.		Lump Sum
4	1249 S.Y.		Lump Sum
5		1508 S.Y.	Lump Sum
6		767 S.Y.	Lump Sum
7		217 S.Y.	Lump Sum
TOTALS (To General Summary)	9131 S.Y.	6484 S.Y.	Lump Sum

ITEM 604 - MONUMENT ASSEMBLIES (Set On ℄)

℄ Station	Point Description	Quan. Ea.
76+41.80 - BR.R.	P.O.C. } 1 Mon.	1
0+00.00 - SPC.	P.O.T. }	
80+00.00 - BRR	P.O.C.	1
85+00.00 - "	P.O.C.	1
90+00.00 - "	C.S.	1
93+00.00 - "	S.T.	1
97+73.17 - "	T.S.	1
100+73.17 - "	S.C.	1
104+33.71 - "	T.S.	1
108+33.71 - "	S.C.	1
111+21.87 - BRR.	C.S.	1
12+25.86 - SPR.	P.C.	1
18+12.91 - "	P.T.	1
22+47.21 - "	P.C.	1
23+82.76 - "	P.T.	1
27+62.73 - SPR.	P.T.	1
5+46.80 - SPC.	P.C.	1
9+20.08 - SPC	P.T.	1
20+00.00 - SR	P.O.T. } 1 Mon.	1
52+50.00 - BR.	P.O.C. }	
25+00.00 - SR.	P.O.T.	1
29+88.06 - SR.	P.C.	1
32+38.92 - SR.	P.T.	1
12+20.79 - DRR.	P.C.	1
14+67.77 - DRR.	P.T.	1
18+22.51 - DRR.	P.C.	1
711+84.22 - CO.	P.T.	1
715+00.00 - CO.	P.O.T.	1
719+00.00 - CO.	P.O.T.	1
723+75.00 - CO.	Angle Point	1
0+67.96 Redskin Dr.	P.C.	1
4+28.94 "	P.T.	1
TOTAL (Carried to	Gen. Summary)	30

ITEM 604 - REFERENCE MONUMENTS (Set On ℄)

℄ Station I-275	Point Description	Quan. Ea.
575+00.00	P.O.T.	1
580+00.00	P.O.T.	1
586+42.48	P.C.	1
591+50.00	P.O.C.	1
596+50.00	P.O.C.	1
601+48.04	P.T.	1
605+00.00	P.O.T.	1
610+00.00	P.O.T.	1
615+00.00	P.O.T.	1
620+05.25	P.C.	1
625+00.00	P.O.C.	1
630+00.00	P.O.C.	1
635+00.00	P.O.C.	1
640+00.00	P.O.C.	1
643+25.25	P.T.	1
647+50.00	P.O.T.	1
652+50.00	P.O.T.	1
656+87.09	P.C.	1
661+75.00	P.O.C.	1
666+00.00	P.O.C.	1
670+05.65	P.T.	1
675+00.00	P.O.T.	1
680+00.00	P.O.T.	1
685+00.00	P.O.T.	1
690+00.00	P.O.T.	1
TOTAL (Carried to Gen. Summary)		25

DEVELOPED		CHECKED	
7-12-72	CES	7-14-72	ALY

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QUANTITIES - ADDITIONAL 12' LANE

ADDITIONAL EARTHWORK

STATION to STATION			VOLUME CUT	VOLUME FILL
570+28	to	570+42	5	0
570+42	to	571+56	101	0
571+56	to	572+00	58	-11
572+00	to	572+50	38	-38
572+50	to	573+10	0	-13
573+10	to	573+50	0	-62
573+50	to	576+19	0	-363
576+19	to	576+50	0	-28
576+50	to	578+69	0	0
578+69	to	578+97	0	-25
578+97	to	579+10	0	-15
579+10	to	579+50	0	-38
579+50	to	581+63	0	-292
581+63	to	582+00	0	-82
582+00	to	583+50	0	-456
583+50	to	584+00	17	-135
584+00	to	584+50	93	-59
584+50	to	597+68	4007	0
597+68	to	598+00	92	-5
598+00	to	598+50	89	-65
598+50	to	599+00	22	-133
599+00	to	611+00	0	-3648
611+00	to	611+50	11	-141
611+50	to	612+00	87	-65
612+00	to	612+50	152	0
612+50	to	615+50	912	0
615+50	to	616+00	76	-76
616+00	to	618+00	0	-608
618+00	to	618+50	76	-76
618+50	to	619+50	304	0
619+50	to	620+00	76	-76
620+00	to	620+50	0	-152
620+50	to	621+00	25	-115
621+00	to	621+50	101	-39
621+50	to	623+00	456	0
623+00	to	623+50	76	-76
623+50	to	628+50	0	-1520
628+50	to	629+00	17	-135
629+00	to	630+00	96	-176
630+00	to	630+50	108	-29
630+50	to	631+00	152	0
631+00	to	635+00	1216	0
635+00	to	636+38	420	0
636+38	to	636+50	26	-4
636+50	to	637+00	110	-17
637+00	to	642+00	1520	0
642+00	to	642+50	85	-59
642+50	to	643+00	25	-117
643+00	to	643+50	47	-91
643+50	to	645+00	189	-195
645+00	to	647+00	130	-434
647+00	to	653+50	0	-1976
653+50	to	654+00	17	-141
654+00	to	654+50	94	-65
654+50	to	656+00	456	0
656+00	to	657+50	578	0
657+50	to	659+50	778	0
659+50	to	660+00	78	-88
660+00	to	662+00	0	-626
662+00	to	662+50	64	-69
662+50	to	667+00	1107	0
667+00	to	667+50	59	-54
667+50	to	669+00	0	-251
669+00	to	670+00	0	-119
670+00	to	671+00	59	-59
671+00	to	677+50	774	0
677+50	to	677+85	21	-21
677+85	to	680+15	0	-274
680+15	to	680+50	21	-21
680+50	to	687+00	774	0
687+00	to	687+50	56	0
687+50	to	690+00	333	0
690+00	to	690+34	28	-13
690+34	to	691+00	28	-37
691+00	to	691+50	27	-10
691+50	to	692+50	11	0
692+50	to	694+00	14	29
694+00	to	700+55.80	480	10
TOTALS			16872C.Y.	-13602 C.Y.

ADDITIONAL PAVEMENT QUANTITIES

ITEM 402 ASPHALT CONCRETE
Sta. 572+00 to Sta. 576+16.81 = 416.81 Lin. Ft.
Width = 24 Ft.
Volume = 416.81 x 24 x .1458 ÷ 27 = 54.02 Cu. Yds.
Sta. 578+99.09 to Sta. 684+60 = 10,560.91 Lin. Ft.
Width = 24 Ft.
Volume = 10,560.91 x 24 x .1458 ÷ 27 = 1368.70 Cu. Yds.
Sta. 684+60 to Sta. 693+00 (Taper) W.B. Lanes = 840 Lin. Ft.
Average Width = 6 Ft.
Volume = 840 x 6 x .1458 ÷ 27 = 27.22 Cu. Yds.
Sta. 694+60 to Sta. 688+55.80 E.B. Lanes = 395.80 Lin. Ft.
Volume = 395.80 x 12 x .1458 ÷ 27 = 25.65 Cu. Yds.
Sta. 688+55.80 to Sta. 694+00 E.B. Lanes
Area #1 + Area #2 from ITEM 310 SUBBASE = 6983.32 Sq. Ft.
Volume = 6983.32 x .1458 ÷ 27 = 37.71 Cu. Yds.
Additional Area for Approach Slabs on Bridge (Blue Rock Rd.) = 1200 Sq. Ft.
Volume = 1200 x .1458 ÷ 27 = 6.48 Cu. Yds.
TOTAL = 1519.78 Cu. Yds.
TO SUMMARY USE = 1520 Cu. Yds.

ITEM 404 ASPHALT CONCRETE
Sta. 572+00 to Sta. 576+16.81 = 416.81 Lin. Ft.
Width = 24 Ft.
Volume = 416.81 x 24 x .1042 ÷ 27 = 38.61 Cu. Yds.
Sta. 578+99.09 to Sta. 684+60 = 10,560.91 Lin. Ft.
Width = 24 Ft.
Volume = 10,560.91 x 24 x .1042 ÷ 27 = 978.18 Cu. Yds.
Sta. 684+60 to Sta. 693+00 (Taper) W.B. Lanes = 840 Lin. Ft.
Average Width = 6 Ft.
Volume = 840 x 6 x .1042 ÷ 27 = 19.45 Cu. Yds.
Sta. 694+60 to Sta. 688+55.80 E.B. Lanes = 395.80 Lin. Ft.
Width = 12 Ft.
Volume = 395.80 x 12 x .1042 ÷ 27 = 18.33 Cu. Yds.
Sta. 688+55.80 to Sta. 694+00 E.B. Lanes
Area #1 + Area #2 from ITEM 310 SUBBASE = 6983.32 Sq. Ft.
Volume = 6983.32 x .1042 ÷ 27 = 26.95 Cu. Yds.
Additional Area for Approach Slabs on Bridge (Blue Rock Rd.) = 1200 Sq. Ft.
Volume = 1200 x .1042 ÷ 27 = 4.63 Cu. Yds.
TOTAL = 1086.15 Cu. Yds.
TO SUMMARY USE = 1087 Cu. Yds.

ITEM 301 BITUMINOUS AGGREGATE BASE
Sta. 572+00 to Sta. 576+16.81 = 416.81 Lin. Ft.
Width = 24 Ft.
Volume = 416.81 x 24 x .8333 ÷ 27 = 308.74 Cu. Yds.
Sta. 578+99.09 to Sta. 684+60 = 10,560.91 Lin. Ft.
Width = 24 Ft.
Volume = 10,561.91 x 24 x .8333 ÷ 27 = 7822.58 Cu. Yds.
Sta. 684+60 to Sta. 693+00 (Taper) W.B. Lanes = 840 Lin. Ft.
Average Width = 6 Ft.
Volume = 840 x 6 x .8333 ÷ 27 = 155.55 Cu. Yds.
Sta. 684+60 to Sta. 688+55.80 E.B. Lanes = 395.80 Lin. Ft.
Width = 12 Ft.
Volume = 395.80 x 12 x .8333 ÷ 27 = 146.59 Cu. Yds.
Sta. 688+55.80 to Sta. 694+00 E.B. Lanes
Area = 544.20 x (12 + 6.56) ÷ 2 = 5050.18 Sq. Ft.
Volume = 5050.18 x .8333 ÷ 27 = 155.87 Cu. Yds.
Sta. 688+55.80 to Sta. 694+00 E.B. Lanes
Area = 544.20 x 7.1045 ÷ 2 = 1933.14 Sq. Ft.
Volume = 1933.14 x .8333 ÷ 27 = 59.67 Cu. Yds.
TOTAL = 8649.00 Cu. Yds.
TO SUMMARY USE = 8649 Cu. Yds.

ITEM 310 SUBBASE
Sta. 572+00 to Sta. 576+16.81 = 416.31 Lin. Ft.
Width = 24 Ft.
Volume = 416.81 x 24 x .7500 ÷ 27 = 277.88 Cu. Yds.
Sta. 578+99.09 to Sta. 670+05.65 = 9,106.56 Lin. Ft.
Width = 24 Ft.
Volume = 9,106.56 x 24 x .7500 ÷ 27 = 6071.04 Cu. Yds.
Sta. 670+05.65 to Sta. 684+60 = 1,454.35 Lin. Ft.
Width = 24 Ft.
Volume = 1,454.35 x 24 x .5000 ÷ 27 = 646.38 Cu. Yds.
Sta. 684+60 to Sta. 693+00 (Taper) W.B. Lanes = 840 Lin. Ft.
Average Width = 6 Ft.
Volume = 840 x 6 x .5000 ÷ 27 = 93.34 Cu. Yds.
Sta. 684+60 to Sta. 688+55.80 E.B. Lanes = 395.80 Lin. Ft.
Width = 12 Ft.
Volume = 395.80 x 12 x .5000 ÷ 27 = 87.96 Cu. Yds.
Sta. 688+55.20 to Sta. 694+00 E.B. Lane
Area #1 = 544.20 x (12 + 6.56) ÷ 2 = 5,050.18 Sq. Ft.
Volume = 5,050.18 x .5000 ÷ 27 = 93.52 Cu. Yds.
Area #2 = 544.20 x 7.1045 ÷ 2 = 1933.14 Sq. Ft.
Volume = 1933.14 x .8750 ÷ 27 = 62.65 Cu. Yds.
Additional Area for Approach Slabs on Bridge (Blue Rock Rd.) = 1200 Sq. Ft.
Volume = 1200 x .7500 ÷ 27 = 33.34 Cu. Yds.
TOTAL = 7366.11 Cu. Yds.
TO SUMMARY USE = 7367 Cu. Yds.

ITEM 611 REINFORCED CONCRETE APPROACH SLABS
Additional Areas for Approach Slabs on Bridge (Blue Rock Rd.)
Area = 12 x 25 x 4 ÷ 9 = 133.34 Sq. Yds.
TOTAL = 133.34 Sq. Yds.
TO SUMMARY USE = 134 Sq. Yds.

ITEM 451 REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
Sta. 694+00 to Sta. 698+55.86 E.B. Lanes = 455.86 Lin. Ft.
Area = 455.86 x (6.56 + 2) ÷ 2 ÷ 9 = 216.79 Sq. Yds.
Sta. 698+55.86 to Sta. 700+55.80 E.B. Lanes = 199.94 Lin. Ft.
Area = 199.94 x 2 ÷ 9 = 44.43 Sq. Yds.
Sta. 694+00 to Sta. 698+71.18 E.B. Lanes = 471.18 Lin. Ft.
Area = 471.18 x (7.10 + 2) ÷ 2 ÷ 9 = 238.21 Sq. Yds.
Sta. 698+71.18 to Sta. 700+55.80 E.B. Lanes = 184.62 Lin. Ft.
Area = 184.62 x 2 ÷ 9 = 41.03 Sq. Yds.
TOTAL = 540.46 Sq. Yds.
TO SUMMARY USE = 541 Sq. Yds.

ITEM 310 SUBBASE, GRADING "A", AS PER PLAN
Sta. 694+00 to Sta. 698+55.86 E.B. Lanes = 455.86 Lin. Ft.
Area = 455.86 x (6.56 + 2) ÷ 2 = 1951.08 Sq. Ft.
Volume = 1951.08 x .2500 ÷ 27 = 18.07 Cu. Yds.
Sta. 698+55.86 to Sta. 700+55.80 E.B. Lanes = 199.94 Lin. Ft.
Area = 199.94 x 2 = 399.88 Sq. Ft.
Volume = 399.88 x .2500 ÷ 27 = 3.71 Cu. Yds.
Sta. 694+00 to Sta. 698+71.18 E.B. Lanes = 471.18 Lin. Ft.
Area = 471.18 x (7.10 + 2) ÷ 2 = 2143.87 Sq. Ft.
Volume = 2143.87 x .6250 ÷ 27 = 49.63 Cu. Yds.
Sta. 698+71.18 to Sta. 700+55.80 E.B. Lanes = 184.62 Lin. Ft.
Area = 184.62 x 2 = 369.24 Sq. Ft.
Volume = 369.24 x .6250 ÷ 27 = 8.55 Cu. Yds.
TOTAL = 79.96 Cu. Yds.
TO SUMMARY USE = 80 Cu. Yds.

ADDITIONAL SEEDING AND MULCHING

ITEM 659 SEEDING AND MULCHING
Seeding To Be Deducted
Sta. 572+00 to Sta. 576+16.81 = 416.81 Lin. Ft.
Width = 24'
Area = 416.81 x 24 ÷ 9 = 1111.49 Sq. Yds.
Sta. 578+99.09 to Sta. 684+60 = 10,560.91 Lin. Ft.
Width = 24'
Area = 10,560.91 x 24 ÷ 9 = 28162.43 Sq. Yds.
Sta. 684+60 to Sta. 693+00 (Taper) W.B. Lanes = 840 Lin. Ft.
Average Width = 6'
Area = 840 x 6 ÷ 9 = 560.00 Sq. Yds.
Sta. 694+60 to Sta. 688+55.80 E.B. Lanes = 395.80 Lin. Ft.
Width = 12'
Area = 395.80 x 12 ÷ 9 = 527.73 Sq. Yds.
Sta. 688+55.80 to Sta. 694+00 E.B. Lanes = 544.20 Lin. Ft.
Area #1 = 544.20 x (12 + 6.56) ÷ 2 ÷ 9 = 561.13 Sq. Yds.
Area #2 = 544.20 x 7.1054 ÷ 9 = 429.64 Sq. Yds.
TOTAL DEDUCTION = 31352.42 Sq. Yds.
Seeding To Be Added
Sta. 694+00 to Sta. 700+55.80 E.B. Lanes (North Side) = 655.80 Lin. Ft.
Area = 655.80 x 2 ÷ 9 = 145.73 Sq. Yds.
Sta. 694+00 to Sta. 696+56 E.B. Lanes (South Side) = 256 Lin. Ft.
Area = 256 x 2 ÷ 9 = 56.89 Sq. Yds.
TOTAL ADDITION = 202.62 Sq. Yds.
NET DIFFERENCE = -31352.42 + 202.62 = -31,149.80 Sq. Yds.
TO SUMMARY USE = -31,150 Sq. Yds.

ADDITIONAL FERTILIZER AND LIMING

ITEM 659 COMMERCIAL FERTILIZER (12-12-12)
Area From Item 659 Seeding and Mulching = -31,150 Sq. Yds.
Fertilizer @ 20 lbs. per 1000 Sq. Ft.
[(-31,150 x 9) ÷ 1000] x 20 ÷ 2000 = -2.80 Tons
TOTAL = -2.80 Tons
TO SUMMARY USE = -2.80 Tons

ITEM 659 AGRICULTURAL LIMING
Area From Item 659 Seeding and Mulching = -31,150 Sq. Yds.
Liming @ 100 lbs. per 1000 Sq. Ft.
[(-31,150 x 9) ÷ 1000] x 100 ÷ 2000 = -14.02 Tons
TOTAL = -14.02 Tons
TO SUMMARY USE = -14.02 Tons

SUBGRADE COMPACTION AND PROOF ROLLING

ITEM 203 SUBGRADE COMPACTION
Area From Item 659 Seeding and Mulching (Total Deduction)
Area = 31352.42 Sq. Yds.
TOTAL = 31352.42 Sq. Yds.
TO SUMMARY USE = 31352 Sq. Yds.

ITEM 203 PROOF ROLLING
Area From Item 203 Subgrade Compaction = 31352 Sq. Yds.
Hours = 31352 ÷ 3000 = 10.45 Hrs.
TOTAL = 10.45 Hrs.
TO SUMMARY USE = 10 Hrs.

QUANTITIES

ITEM-SPECIAL-LIME FOR SUBGRADE STABILIZATION

Area to Use for Subgrade Stabilization Calculations
BLUE ROCK RD. RELOC.
Sta. 75+00 to Sta. 87+00
Area = 8625.83 (Pvm't.) + 1875.56 (Shl'd.) = 10,501.39 Sq. Yds.
Sta. 87+00 to Sta. 102+00
Area. = 9033.33 (Pvm't.) + 2474.67 (Shl'd) = 11,508.00 Sq. Yds.
Sta. 102+00 to Sta. 111+21.87
Area = 5121.50 (Pvm't.) + 1432.89 (Shl'd.) = 6,554.39 Sq. Yds.
RAMP "C"
Sta. 574+74.12 to Sta. 575+95
Area = 465.67 (Pvm't.) + 83.33 (Shl'd.) = 594.00 Sq. Yds.
RAMP "D"
Sta. 576+50 to Sta. 576+99.12
Area = 240.67 (Pvm't.) + 50.00 (Shl'd.) = 290.67 Sq. Yds.
RAMP "E"
Sta. 578+65.69 to Sta. 579+58.78
Area = 309.22 (Pvm't.) + 66.67 (Shl'd.) = 375.89 Sq. Yds.
BLUE ROCK RD. CONNECTOR
Sta. 49+01.52 to Sta. 49+73.50
Area = 336.11 (Pvm't.) + 146.67 (Shl'd.) = 428.78 Sq. Yds.
NORTHWEST RD. RELOC.
Sta. 49+25 to Sta. 49+75
Area = 252.56 (Pvm't.) + 40.00 (Shl'd.) = 292.56 Sq. Yds.
SPRINGDALE CONNECTOR
Sta. 0+32 to Sta. 1+37
Area = 715.33 (Pvm't.) + 124.45 (Shl'd.) = 839.78 Sq. Yds.
TOTAL AREA = 31,386 Sq. Yds.

ITEM-SPECIAL-SPREADING, MIXING, SHAPING, AND COMPACTING LIME SOIL STABILIZED MIXTURE
Area of Pavement and Shoulders (From Above) = 31,386 Sq. Yds.
TO SUMMARY USE = 31,386 Sq. Yds.

ITEM-SPECIAL-DELIVERED HYDRATED LIME FOR LIME SOIL STABILIZED MIXTURE
Area of Pavement and Shoulders (From Above) = 31,386 Sq. Yds.
Volume = 31,386 x 9 x 0.50 x 110 x 0.06 ÷ 2000 = 466.09 Tons
TOTAL = 466.09 Tons
TO SUMMARY USE = 467 Tons

ITEM 616 WATER
Area of Pavement and Shoulders (From Above) = 31,386 Sq. Yds.
Volume = 31,386 x 2 ÷ 1000 = 62.78 M. Gals.
TOTAL = 62.78 M. Gals.
TO SUMMARY USE = 63 M. Gals.

SHOULDER REPLACEMENT FOR TYPE B CURB

Lengths to be used in calculations
Ramp "E" - Sta. 588+40.00 to Sta. 591+74.94 = 340 Lin. Ft.
Ramp "J" - Sta. 676+00.00 to Sta. 680+14.00 = 418 Lin. Ft.
Ramp "I" - Sta. 684+55.80 to Sta. 698+55.80 = 414 Lin. Ft.

ITEM 310 SUBBASE T = 3 3/16" = 0.3177'
Ramp "E" = 340.00 (0.3172) ÷ 27 = 4.00 Cu. Yds.
Ramp "J" = 418.00 (0.3177) ÷ 27 = 4.92 Cu. Yds.
Ramp "I" = 414.00 (0.3177) ÷ 27 = 4.87 Cu. Yds.
TOTAL = 13.79 Cu. Yds.
TO SUMMARY USE = 14 Cu. Yds.

ITEM 304 AGGREGATE BASE T = 6" = 0.5000'
Ramp "E" = 340.00 (0.5000) ÷ 27 = 6.30 Cu. Yds.
Ramp "J" = 418.00 (0.5000) ÷ 27 = 7.74 Cu. Yds.
Ramp "I" = 414.00 (0.5000) ÷ 27 = 7.67 Cu. Yds.
TOTAL = 21.71 Cu. Yds
TO SUMMARY USE = 22 Cu. Yds.

ITEM 301 BITUMINOUS AGGREGATE BASE T = 3" = 0.2500'
Ramp "E" = 340.00 (0.2500) ÷ 27 = 3.15 Cu. Yds.
Ramp "J" = 418.00 (0.2500) ÷ 27 = 3.87 Cu. Yds.
Ramp "I" = 414.00 (0.2500) ÷ 27 = 3.83 Cu. Yds.
TOTAL = 10.85 Cu. Yds.
TO SUMMARY USE = 11 Cu. Yds.

ITEM 409 - Seal coat using No. 8 Cover Aggregate applied at 0.008 per Sq. Yd. and Bituminous Material applied at 0.30 Gal. per Sq. Yd.
ITEM 409 No. 8 Cover Aggregate
Ramp "E" = 340.00 (1) ÷ 9 x 0.008 = 0.30 Cu. Yds.
Ramp "J" = 418.00 (1) ÷ 9 x 0.008 = 0.37 Cu. Yds.
Ramp "I" = 414.00 (1) ÷ 9 x 0.008 = 0.37 Cu. Yds.
TOTAL = 1.04 Cu. Yds.
TO SUMMARY USE = 2 Cu. Yds.

ITEM 409 BITUMINOUS MATERIAL
Ramp "E" = 340.00 (1) ÷ 9 x 0.30 = 11.33 Gal.
Ramp "J" = 418.00 (1) ÷ 9 x 0.30 = 13.93 Gal.
Ramp "I" = 414.00 (1) ÷ 9 x 0.30 = 13.80 Gal.
TOTAL = 39.06 Gal.
TO SUMMARY USE = 40 Gal.

FHWA REGION	STATE	PROJECT	
5	OHIO		

27A
468

HAM-275-13.91
HAMILTON COUNTY

Calc. By: R.J.M. Date: 8-5-75
Chk'd By: G.A.W. Date: 8-15-75

REVISED DATE 8-22-75

QUANTITY CALCULATIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

28
468

HAM-275-13.91
HAMILTON COUNTY

LA-R/W
C.S. Sta. 566+42.98 ℄ E.B.
C.S. Sta. 566+42.78 E I-275
C.S. Sta. 569+82.59 ℄ W.B.
C.S. Sta. 570+12.78 E I-275
℄ W.B.
℄ I-275
℄ E.B.
℄ RAMP C
℄ RAMP D
Ft. Blue Rock Road
C.R. 11
Curve No. C-12
Grape Arbor
Fr. Shed
Conc. Bl. Outhouse
Dirt Porch
Utility Pole
1 Sty. Frame w/Attic
Asphalt
Woven Wire
Gravel
1 Sty. Gar.
Conc.
1 Sty. Res.
Con. Stable
#5732
Conc. Stor. Shed
Stone Wall
Conc. Bl. Wall
Fr. Shed
Grill
Stone Wall
Septic Tank
Asphalt
1 Sty. Fr. & Br.
Asphalt
Wovep Wire ?
20" Maple
7" Willow
Fire Plug
Sign
Conc. Wall
1 Sty. Br.
Fr. Gas
Garden Area
5 Steps
20" Maple
22" Sassafras
Rock Channel Prot. 8'x4'x18" Type B
SHEET NO. 42
SHEET NO. 43
SHEET NO. 44
SHEET NO. 29
Blue Rock Rd. Reloc.
Slope Limit
12'x3" Sod Strip
10' Type F
9'x3' Sod Strip
Sodding 6' Wide
Sodding 9' Wide
Sodding 6" Wide
To be removed with future construction
Begin Guard Rail
MEDIAN GRADING SHEET NO. 16
Special Berm & Slope Protection
Terminal Assembly Type-A
Anchor Assembly
6" Shallow U.D.
6" Deep U.D.
Begin Approach Slab +16.81
End Approach Slab +99.09
15" Type-B 296 CB-8
15" Type-C 296 CB-8
42" Type-A 284
21" Type-A 283
Earth Dike Elev. 861.5
Paved Gutter
Curve No. B-C-12
Excavation 32,420 C.Y.
Embankment 214,987 C.Y.
Seeding 37,406 S.Y.
S.L.M. 13.91 END PROJECT HAM-275-10.66 STA. 572+00
BEGIN PROJECT HAM-275-13.91 STA. 572+00
I-275-3(10)28 I-275-3(9)27
BEGIN WORK Sta. 569+80
BM Fire plug bolt 191 ft. rt of ℄ on Blue Rock Rd. Sta 568+25 Elev. = 900.66
●Drawing not to scale See Typical Section, Sht. No. 5
Sta 85+86.55 BLUE ROCK RD. RELOC.
Sta 577+59.20 E-I-275

TYPICAL SECTION
ADJACENT ROADWAY
No Scale
36' 60' 36'
10' 12' 12' 12' 4' 4' 12' 12' 12' 10'
Bit. Agg. Base
Agg. Base
3" Asph. Conc.
9" Cement Conc. Base
6" Agg. Sub-base
3" Bit. Agg. Base
6" Agg. Base

Nail & BC 3" Red Buck
15.94'
29.50'
27.48'
Nail & BC 4" Elm
Nail & BC 4" Ash
ST. Sta. 570+12.78 E I-275

18" Ash N. & BC.
Wood Post N. & BC.
41.10'
47.06'
14" Ash N. & BC.
P.O.T. Sta. 568+45.53

+95 E.B. Lt. E 6" = 859.48
+95 W.B. Rt. E 6" = 859.08
+25 E.B. Rt. E 6" = 860.45
+25 114' Rt. E 6" Type F = 860.00
+95 132' Lt. E 6" Type F = 845.0
+82 21" Type A E 21" = 842.10
+28 E.B. Lt. E 6" = 866.41
+00 W.B. Rt. E 6" = 865.96
+1.60%
576+41.81
Bridge Length 232.28'
578+74.09
+75 E.B. Rt. E 6" = 864.45
+76 18" Type B E 18" = 834.45
+90 W.B. Rt. E 6" = 871.51
+20 E.B. Lt. E 6" = 871.08
+20 W.B. Rt. E 6" = 871.14
+20 3' Rt. E 6" Type F = 868.60 Outlet @ C.B. - 8
+00 E.B. Lt. & W.B. Rt. E 6" = 875.56
+19 15" Type B E 15" = 867.38
+35 15" Type C E 15" = 868.25
+28 42" Type A E 42" = 834.56
6" U.D.

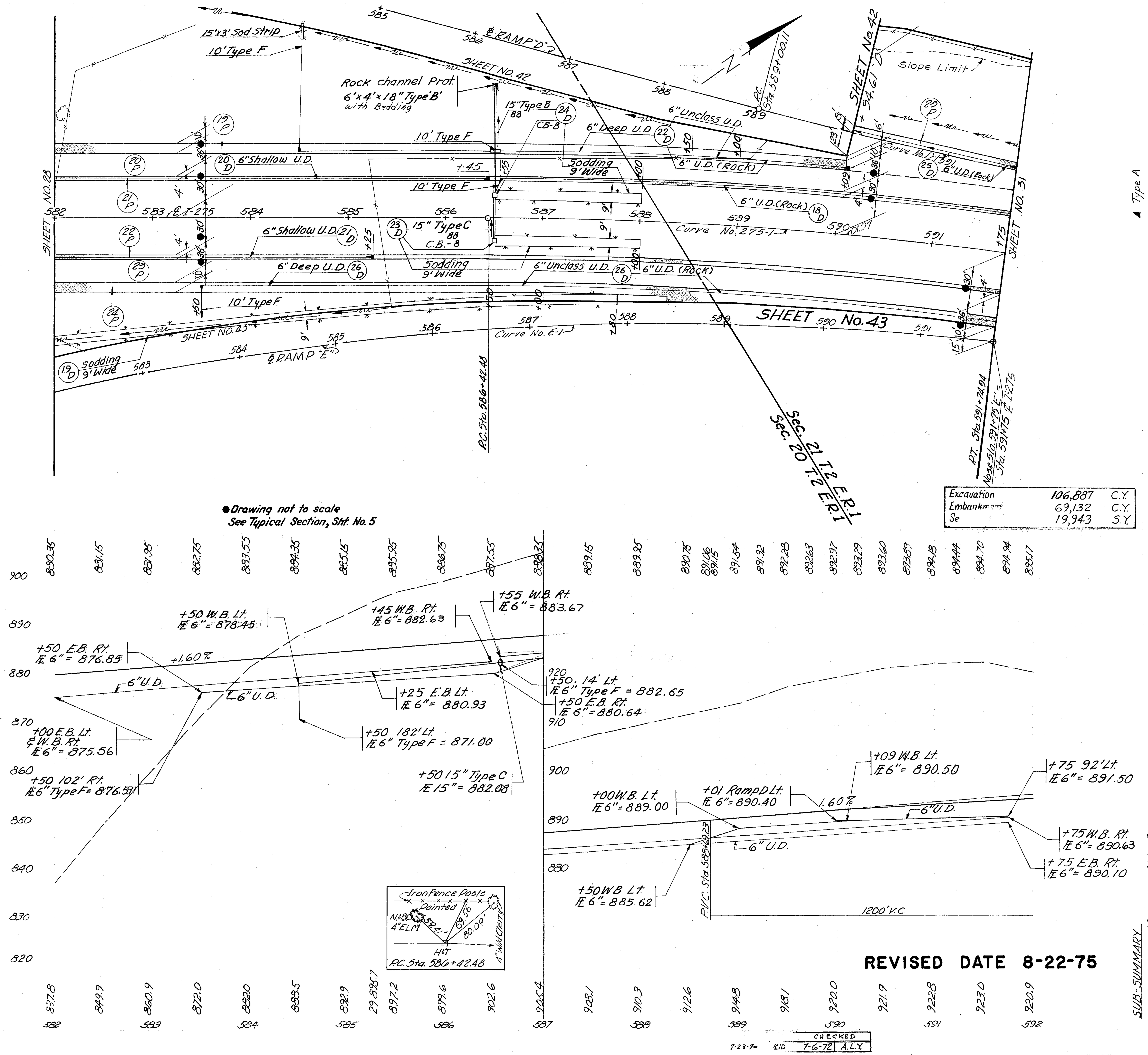
BRIDGE NO. HAM-275-1398 L & R
Begin Sta. 576+41.81 End Sta. 578+74.09
Type: Cont. welded plate girder w/reinf. Conc. Deck & Substructure
Spans: 64'3", 99'0", 64'3"
Approach Slabs - 25' Long
Bridge Data Sheet No. 324

B.M. Fire plug bolt 50 ft. rt. of ℄ on Springdale Rd. Sta 581+00 Elev. = 899.62

REVISED DATE 8-22-75

DRAWN	CHECKED
7-28-75 RJP	7-6-76 A.L.Y.

I-275 STA. 572+00 TO STA. 582+00



Excavation	106,887	C.Y.
Embankment	69,132	C.Y.
Se	19,943	S.Y.

REVISED DATE 8-22-75

CHECKED 7-6-72 A.L.Y.
7-28-70 RJD

SUB-SUMMARY

I-275 STA. 572+00 TO STA. 591+75

▲ Type A

Item	Station	Side	301 Bit. Aggr. Base C.Y.	304 Aggr. Base C.Y.	310 Subbase C.Y.	402 Asphalt Conc. C.Y.	404 Asphalt Conc. C.Y.	409 Seal Coat Cover Aggr. C.Y.	409 Seal Coat Bit. Material Gal.	407 Tack Coat Bit. Material Gal.	407 Cover Aggregate Tons	Special Drainage Conn No. 8 Aggr. C.Y.	606 Guard Rail Type 5 L.F.	606 Anch. Ass. Barrier Design E.O.	606▲ Bridge Terminal Assembly E.O.	606 Gd. Rail Type 5, Bar. Des. L.F.	606 Anchor Assembly E.O.	611 Reinf. Conc. Approach Slab S.Y.	Sheet
PAVEMENT																			
1P	572+00 to 576+20	Lt.	38.89	71.24	95.04			3.73	140.00										28
2P	572+00 to 575+96	Lt.	313.74		282.37	51.33	36.67												28
3P	572+00 to 576+30	Lt.	15.93	25.16	33.60			1.53	57.33			16.61							28
4P	572+00 to 576+55	Rt.	16.85	26.63	35.56			1.62	60.67			17.75							28
5P	572+00 to 576+34	Rt.	343.85		309.47	56.26	40.19												28
6P	572+00 to 576+65	Rt.	43.06	78.88	105.23			4.13	155.00			11.75							28
7P	575+96 to 576+21	Lt.			17.83	3.24	2.31			6.7	0.23							66.67	28
8P	576+34 to 576+59	Rt.			17.83	3.24	2.31			6.7	0.23							66.67	28
9P	578+55 to 578+80	Lt.			17.83	3.24	2.31			6.7	0.23							66.67	28
10P	578+93 to 579+18	Rt.			17.83	3.24	2.31			6.7	0.23							66.67	28
11P	578+50 to 582+00	Lt.	32.41	59.37	79.20	41.48	29.63	3.11	116.67										28
12P	578+80 to 582+00	Lt.	253.53		228.18														28
13P	578+60 to 582+00	Lt.	12.59	19.90	26.57			1.21	45.33			12.71							28
14P	578+90 to 582+00	Rt.	11.48	18.14	24.23			1.10	41.33			11.81							28
15P	579+18 to 582+00	Rt.	223.42		201.08	36.56	26.11												28
16P	579+00 to 582+00	Rt.	27.78	50.89	67.89			2.67	100.00										28
19P	582+00 to 590+01.07	Lt.	74.17	135.89	181.28			7.12	267.02			26.27							29
20P	582+00 to 591+75	Lt.	929.50		836.55	149.17	109.91												29
21P	582+00 to 591+75	Lt.	36.11	57.06	76.19			3.47	130.00			39.57							29
22P	582+00 to 591+75	Rt.	36.11	57.06	76.19			3.47	130.00			13.33							29
23P	582+00 to 591+75	Rt.	772.48		695.23	126.39	90.28												29
24P	582+00 to 591+75	Rt.	105.60	196.17	335.76			10.18	381.50			38.78							29
25P	590+01.07 to 591+75	Lt.	12.88	23.06	30.79			1.24	46.38			8.13							29
ROADWAY																			
1R	572+03.25 to 575+97	Lt.											393.75		1				28
2R	573+62.50 to 576+37.50	Rt.											175.00	1	1	75.00			28
4R	574+53 to 576+51	Rt.											175.00		1		1		28
5R	578+65 to 581+52.50	Rt.											262.50		1		1		28
6R	578+77 to 581+52	Lt.											175.00	1	1	75.00			28
Total			3300.38	819.45	3791.73	474.15	342.03	44.58	1671.23	26.8	0.92	196.71	1181.25	2	5	150.00	2	266.68	

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

30
468

HAM-275-13.91
HAMILTON COUNTY

REF. NO.	STATION TO STATION	SIDE	Bends & Branches: 6" 90°	Bends & Branches: 6" TEE	601 Riprap Using 6" Reinf. Conc. Slab (S.Y.)	601 Rock Chan. Prot. Type B w/Bedding (C.Y.)	601 Paved Gutter Type 1-2 (L.F.)	602 Conc. Masonry (C.Y.)	603 Type A 707.05 21" (L.F.)	603 Type A 707.07 42" (L.F.)	603 Type B 706.02 cl. II or 707.13 15" (L.F.)	603 Type B 15"	603 Type C 706.01 (1.3, 706.02, 706.08 E5 or 707.13 15" (L.F.)	603 Type C 15"	603 Type F 6" (L.F.)	603 6" Animal Guard for pipe outlet (EACH)	604 Catch Basin CB-8 (Ea)	605 Underdrains Shallow 6" (L.F.)	605 Underdrains Shallow 707.01, III 707.12 6" (L.F.)	605 Underdrains Unclass 6" (L.F.)	605 Underdrains Deep 6" (L.F.)	660 Sodding (S.Y.)	660 Sodding Spec. Slope & Berm Prot (S.Y.)	667 Seeding and Jute Matting (S.Y.)	SEE SHEET NO.
1-D	571+95	Lt													10	1		198				4			28
2-D	571+95 to 576+28 ML	Rt	1															433							28
3-D	571+95 to 576+00 ML	Lt		1														405							28
4-D	572+82 ML	Lt & Rt			4.0	2.4		0.78	425																28
5-D	572+50 to 574+00 ML	Rt																				114			28
6-D	578+10 ML	Lt & Rt					290															38			28
7-D	573+25 to 575+75 ML	Rt	1												10	1					286	3			28
8-D	576+00 ML to 84+75 BR	Lt																				98			28
9-D	576+51 ML	Rt																					73	417	28
10-D	575+96 ML	Lt																					103	445	28
11-D	578+65 ML	Lt																					147	915	28
12-D	579+20 ML	Rt																					65	368	28
13-D	579+20 to 580+70 ML	Rt									224						1					150			28
14-D	579+20 to 582+00 ML	Lt		1											10			298							28
15-D	580+28 ML					7.3		.92		634															28
16-D	579+20 to 580+25 ML	Lt											107				1					150			28
17-D	579+12 to 582+00 ML	Rt		1											10			305							28
18-D	586+50 to 591+75 ML	Lt	1												10				524						29
19-D	582+00 to 587+80 ML	Rt																				603			29
20-D	582+00 to 586+45 ML	Lt																445							29
21-D	582+00 to 585+25 ML	Rt																325							29
22-D	584+50 to 590+09 ML	Lt	1												20	1			110	50	492	5			29
23-D	586+50 ML	Lt & Rt											28				1					150			29
24-D	586+50 ML	Lt				1.8		0.25				116					1					150			29
25-D	590+01 to 591+75 ML	Lt																	174						29
26-D	583+50 to 591+75 ML	Rt	1												10	1			465	50	325				29
TOTALS			5	3	4.0	11.5	290	2.0	425	634	224	116	107	28	80	4	4	2359	1273	100	1103	1470	388	2145	

REVISED DATE 8-22-75

DEVELOPED		CHECKED	
RMF	6-27-75	BRS	7-6-75

STA. 572+00 TO STA. 591+75

Excavation	175,908	C.Y.
Embankment	155,637	C.Y.
Seeding & Mulching	39,910	S.Y.

REVISED DATE 8-22-75

I-275 STA. 591+75 TO STA. 605+00

I-275-13.91
HAMILTON COUNTY

For Continuation See Sheet No. 50

SHEET NO. 31

SHEET NO. 33

SHEET NO. 50

Type '5' MH

Rock Channel Prot. 6'x4'x18" Type 'B'

Sodding 6' Wide (21 D)

LA-R/W

Slope Limit

Rock Channel Prot. 12'x6'x30" Type 'B'

Sodding 6' Wide

Ex. R/W

C.P. 94

30' ROAD Asphalt

(15 P)

(17 D) 36" Type A 28ß

(20 D) CB-8

15" Type F 109

15" Type 'B' 109

Sodding 9' Wide

10' Type F

Anchor Assembly +75

(35 P)

Riprap Using 6" Reinf. Conc. Slab 5'x5'

Rock Chan. Prot. 11'x5'x30" Type 'B'

Rock Channel Protection 6'x12'x18" Type 'B'

15'x3' Sod Strip

(27 D) Sodding 6' Wide

10' Type F Sign Support

Anchor Assembly +55

15" Type 'B' 113 CB-8 Sodding (28 D)

Anchor Assembly +80

(15 D) 6" Shallow U.D.

Sta. 607+20 I-275

Sta. 29+15 SHEITS RD

(32 P)

(33 P)

6" Unclass U.D. (25 D)

(36 P)

6" Deep U.D. (25 D)

(16 D) 6" Shallow U.D.

(14 D) 36" Type 'A' 285

605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620

6" U.D. (Rock) (22 D)

6" Shallow U.D. (22 D)

6" Shallow U.D. (23 D)

6" Unclass U.D. (24 D)

(37 P)

6" U.D. (Rock)

(38 P)

Dike Elv. 884.0

Brush

Fence Post

Woven Wire

Bar'd Wire

10' Type F

6" Deep U.D. (34 D)

6" Shallow U.D. (31 D)

6" Shallow U.D. (32 D)

6" Deep U.D. (33 D)

30" Type 'A' 287 (30 D)

15" Type 'C' CB-8 113 (29 D)

Sodding

(1 S) 489'-12" San. Sewer @ 5.0% Grade Sht. #286 & 301A

Sodding 9' Wide

(18 D) Sodding 6' Wide

(19 D) 15" Type 'C' 109 CB-8

20'

6'

Ex. R/W

28 SHEITS

Ex. R/W

Slope Limit

R/W

LA-R/W

(12 P)

(13 P)

SHEITS RD CUL-DE-SAC DETAIL SHEET 31 TYPICAL SECTION SHEET 50

Rock Channel Prot. 295' 8'x18" Type 'B'

Type '5' MH

(26 D) Sodding 6' Wide

Slope Limit

LA-R/W

● Drawing not to scale
See Typical Section, Sht. No. 5

B.M. Pk nail in 22" Locust 44.9 ft. Rt of ℄ Sta. 613+66 El. = 918.96

Excavation	108,023	C.Y.
Embankment	221,272	C.Y.
Seeding & Mulching	54,548	S.Y.

B.M. Pk nail in 17" Walnut 205 ft. Rt of ℄ Sta. 617+40 Elev. = 870.77

B.M. R.R. Spike in power pole 454' Rt. of ℄ on Sheits Rd Sta 606+50 El. 921.49

+00 E.B. Lt. ℄ E 6" = 880.56

+00 14' Rt. ℄ E 6" Type F = 880.05

+50 E.B. Rt. ℄ W.B. Lt. ℄ E 6" = 880.05

+00 E.B. Rt. ℄ W.B. Lt. ℄ E 6" = 879.00

+00 E.B. Rt. ℄ W.B. Lt. ℄ E 6" = 877.00

+45 W.B. Rt. ℄ E 6" = 873.11

+65 E.B. Rt. ℄ E 6" = 872.8

+50 15" Type C ℄ E 15" = 872.41

+50 E.B. Lt. ℄ E 6" = 873.06

+50, 14' Lt. & Rt. ℄ E 6" Type F = 872.88

+55 E.B. Lt. ℄ W.B. Rt. ℄ E 6" = 873.01

+00 E.B. Rt. ℄ E 6" = 870.48

+00 E.B. Lt. ℄ E 6" = 870.53

+50 W.B. Rt. ℄ E 6" = 873.37

6" U.D.

-1.00%

+00 E.B. Lt. & W.B. Rt. ℄ E 6" = 885.54

+95 W.B. Rt. ℄ E 6" = 880.61

+05 E.B. Lt. & W.B. Rt. ℄ E 6" = 880.51

+00 15" Type C ℄ E 15" = 879.23

+00 14' Lt. ℄ E 6" Type F = 879.75

+50 E.B. Rt. & W.B. Lt. ℄ E 6" = 873.95

+65 E.B. 110' Rt. ℄ E 6" Type F = 872.30

+00 E.B. Rt. & W.B. Lt. ℄ E 6" = 871.45

+00 W.B. Lt. ℄ E 6" = 868.64

+50 E.B. Rt. & W.B. Lt. ℄ E 6" = 872.95

+50 W.B. 156' Lt. ℄ E 6" Type F = 854.00

+08 30" Type A ℄ E 30" = 855.40

+54 36" Type A ℄ E 36" = 836.9

EXISTING SHEITS ROAD

+05, 12" San. ℄ E 824.30

+26 36" Type A ℄ E 36" = 829.00

Iron Fence Post Painted

6" Elm Nail & B.C.

3" Oak Nail & B.C.

P.O.T. Sta. 606+69.97

Ex. Sheits Rd.

R.R. Spike

X-Notch in Post

Pole #1-13-12 O.E. & T. Co. Nail & B.C.

P.O.T. Sta. 607+20.47

4" Pear Nail & B.C.

5" Pear Nail & B.C.

Fence Post Nail & B.C.

P.O.T. Sta. 613+66.70

3" Sassafras Nail & B.C.

3" Sassafras Nail & B.C.

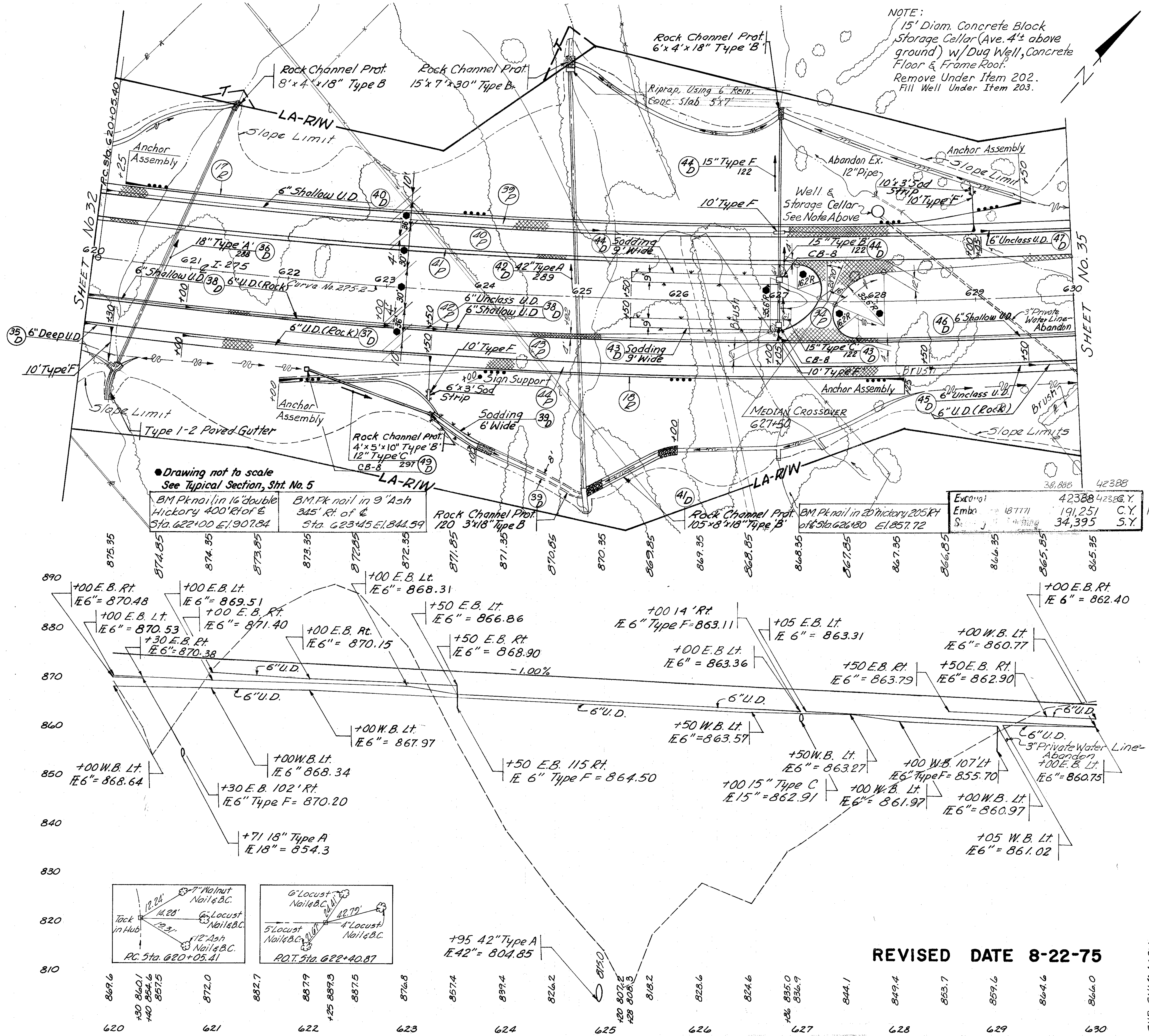
3" Sassafras Nail & B.C.

P.O.T. Sta. 618+76.29

DEVELOPED		CHECKED	
7-28-72	R.D.	7-6-72	A.L.K.

REVISED
DATE 8-22-75

I-275 STA. 605+00 TO STA. 620+00



SUB-SUMMARY
I-275 STA. 591+75 TO 630+00 & SHEITS RD. CUL-DE-SAC

				301 Bit. Aggr. Base C.Y.	304 Aggr. Base C.Y.	310 Subbase C.Y.	402 Asphalt Conc. C.Y.	404 Asphalt Conc. C.Y.	408 Bit. Prime Coat Gal	Special Drainage Comm. No.8 Aggr. C.Y.	409 Seal Coat Cover Aggr. C.Y.	409 Seal Coat Bit. Material Gal.	606 Guard Rail Type 5 L.F.	606 Anchor Assembly Ea.	Sheet
PAVEMENT															
26P	591+75 to 605+00	Lt.		111.94	203.27	271.28				48.18	10.75	403.00			31
27P	591+75 to 605+00	Lt.		1284.86		1156.37	212.90	152.07							31
28P	591+75 to 605+00	Lt.		49.07	77.54	103.55				53.92	4.71	176.67			31
29P	591+75 to 605+00	Rt.		49.07	77.54	103.55				10.25	4.71	176.67			31
30P	591+75 to 605+00	Rt.		1512.74		1301.47	252.78	180.56							31
31P	591+75 to 605+00	Rt.		101.35	182.09	243.09				50.53	9.73	364.87			31
32P	605+00 to 620+00	Lt.		55.56	87.78	117.22				54.54	5.33	200.00			32
33P	605+00 to 620+00	Rt.		55.56	87.78	117.22				61.10	5.33	200.00			32
35P	605+00 to 620+00	Lt.		138.89	254.44	339.44				32.90	13.33	500.00			32
36P	605+00 to 620+00	Lt.		1188.43		1069.58	194.44	138.89							32
37P	605+00 to 620+00	Rt.		1188.43		1069.58	194.44	138.89							32
38P	605+00 to 620+00	Rt.		138.89	254.44	339.44				33.61	13.33	500.00			32
17P	26+73.5P to 27+25.5R	Lt.&Rt.			16.04		8.02	5.35	38.49						32
18P	26+73.5P to 27+27.5P	Lt.&Rt.			8.10				14.58		0.29	10.93			32
39P	620+00 to 630+00	Lt.		92.59	169.63	226.30	129.63	92.59		46.77	8.89	333.33			33
40P	620+00 to 630+00	Lt.		792.28		713.06									33
41P	620+00 to 630+00	Lt.		37.04	58.52	78.15					3.56	133.33			33
42P	620+00 to 630+00	Lt.		37.04	58.52	78.15				40.80	3.56	133.33			33
34P	627+50	Lt.&Rt.		42.84	85.69	42.84					4.11	154.23			33
43P	620+00 to 630+00	Rt.		792.28		713.06	129.63	92.59							33
44P	620+00 to 630+00	Rt.		92.59	169.63	226.30	129.63	92.59		20.21	8.89	333.33			33
ROADWAY															
13R	595+25 to 597+50	Lt.											175.00	2	31
14R	594+35 to 596+60	Rt.											175.00	2	31
15R	602+50 to 612+87.50	Lt.											987.50	2	31
16R	616+05 to 617+80	Lt.											125.00	2	32
12R	27+27.5P	Lt.&Rt.											50.00		32
17R	620+25 to 629+50	Lt.											875.00	2	33
18R	622+00 to 628+25	Rt.											575.00	2	33
				7761.45	1791.01	8369.65	1121.84	800.94	53.07	452.81	96.52	3619.69	2962.50	12	

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

34
468

HAM-275-13.91
HAMILTON COUNTY

⊕ INDICATES 100% METROPOLITAN SEWER DISTRICT

★ 706.01 Cl. 3, 706.02, 706.08 ES or 707.13

REF. NO.	STATION TO STATION	SIDE	Bends and Branches 6" 90°	Bends and Branches 15" 25°	601 Diprags, Using 6" Reinf. Conc. S/Lab S.Y.	601 Rock Chan. Prof. Type A with Bedding C.Y.	601 Rock Chan. Prof. Type B with Bedding C.Y.	601 Paved Gutter Type 1-2 L.F.	602 Conc. Masonry C.Y.	603 Type A 707.05 18" L.F.	603 Type A 707.05 30" L.F.	603 Type A 707.07 (0.079) 36" L.F.	603 Type A 707.07 (0.138) 42" L.F.	603 Type B 12" L.F.	603 Type B 15" L.F.	603 Type C 706.08 Class 3 706.02 706.08 ES-01 707.13 ★ L.F.	603 Type C 15" L.F.	603 Type F 6" L.F.	603 Type F 15" L.F.	603 Type B 12" L.F	604 Catch Basin CB-B Ea.	603 6" Animal Guard for pipe outlet EACH	605 Underdrain Shallow 6" L.F.	605 Underdrain Shallow 707.01, III 707.12 6" L.F.	605 Underdrain Unclass. 6" L.F.	605 Underdrain Deep 6" L.F.	660 Sodding S.Y.	604 MH Type 5 as per plan Ea	202 Septic Tank Removed Ea.	SEE SHEET NO.
1-D	591+75 - 596+00 M.L.	Lt.																10					435						31
2-D	596+00 - 602+00 M.L.	Lt.	1															10				1	208	102	340				31
3-D	591+75 - 596+00 M.L.	Lt.																					431						31
4-D	596+00 - 603+00 M.L.	Lt.	1															10					204	50					31
5-D	591+75 - 596+00 M.L.	Rt.																				457	418						31
6-D	596+00 - 602+50 M.L.	Rt.	1															10				1	528	100	100		3		31
7-D	597+75 - 603+00 M.L.	Rt.																									476		31
8-D	601+50 - 603+00 M.L.	Lt.														28					1						150		31
9-D	601+50 - 603+00 M.L.	Rt.		2			1.8		0.25						111				51		1						150		31
10-D	602+50 - 605+00 M.L.	Rt.																10				240							31
11-D	603+00 - 605+00 M.L.	Lt.																				197							31
12-D	600+00 - 605+00 M.L.	Lt.																									500		31
13-D	603+00 - 605+30 M.L.	Rt.					175																						31
14-D	605+30 M.L.	Lt. Rt.			3.6		7.3		1.52			472																	32
15-D	605+00 - 610+00 M.L.	Lt.	1															10				502							32
16-D	605+00 - 610+00 M.L.	Rt.	1															10				502							32
17-D	609+26	Lt. Rt.			3.6		8.0		1.52			430																	32
18-D	608+50 - 609+70 M.L.	Rt.																									90		32
19-D	608+50 - 610+00 M.L.	Rt.														28					1						150		32
20-D	608+50 - 610+00 M.L.	Lt.		2			1.8		0.27						73				112		1						150		32
21-D	608+78 - 611+00 M.L.	Lt.																									84		32
22-D	610+05 - 617+50 M.L.	Lt.	1															10				747							32
23-D	610+05 - 617+50 M.L.	Rt.	1															10				747							32
24-D	611+50 - 616+65 M.L.	Rt.	1															10					200	200	145				32
25-D	611+50 - 616+50 M.L.	Lt.	1															10					200	200	178		5		32
26-D	616+00 - 617+30 M.L.	Rt.																									94		32
27-D	615+25 - 616+80 M.L.	Lt.																									124		32
28-D	616+00 - 617+50 M.L.	Lt.					1.8		0.25						130						1						150		32
29-D	616+00 - 617+50 M.L.	Rt.														28					1						150		32
30-D	617+08	Lt & Rt			3		6.1		1.20			324																	32
31-D	617+50 - 618+50 M.L.	Lt.	1															10				92							32
32-D	617+55 - 620+00 M.L.	Rt.																				245							32
33-D	618+00 - 620+00 M.L.	Rt.																							200				32
34-D	618+00 - 620+00 M.L.	Lt.																							200				32
35-D	620+00 - 620+30 M.L.	Rt.	1															10							54				33
36-D	620+71 M.L.	Lt.-Rt.					2.4	52	0.66	288																	17		33
37-D	621+00 - 623+50 M.L.	Rt.	1															10				1	288				2		33
38-D	620+00 - 627+00 M.L.	Rt.	1															10				455	202	50					33
39-D	623+25 - 625+00 M.L.	Rt.					72.																				64		33
40-D	620+00 - 629+00 M.L.	Lt.	1															20				1	906				2		33
41-D	625+07 - 626+00 M.L.	Rt.					62.2																						33
42-D	624+35	Lt.-Rt.			29.9	11.7			1.84				424														9		33
43-D	625+50 - 627+00 M.L.	Rt.														28					1						150		33
44-D	625+50 - 627+00 M.L.	Lt.		2			1.8		0.27						68				117		1						150		33
45-D	628+50 - 630+00 M.L.	Rt.																						50	100				33
46-D	627+05 - 630+00 M.L.	Rt.																				299							33
47-D	629+05 - 630+00 M.L.	Lt.																						94					33
48-D	597+78 M.L.	Rt.																										1	31
49-D	622+25 - 623+52 M.L.	Rt.					1.5		.20							133					1								33
50-D	596+10	Lt.																										1	31
51-D	597+10	Lt.																										1	31
S-1	609+06	Lt & Rt												⊕ 188						⊕ 320							⊕ 2		32
TOTALS			14	6	40.1	11.7	343.7	52	8.0	288	324	902	424	⊕ 188	382	133	112	160	280	⊕ 320	9	7	5917	2736	896	1117	2,670	⊕ 2	3	

Concrete Arch as per plan

706.02 Class II with 706.11 Joints

706.02 Class II with 706.11 Joints & Concrete Arch as per plan

REVISED DATE 8-22-75

DEVELOPED	CHECKED
RMP 6-29-71	7-6-71

STA. 591+75 TO STA. 630+00

SHEET NO. 33

SHEET NO. 36

Slope Limit

LA-R/W

6"Unclass U.D. (7D) 6"U.D.(Rock)

Apple Trees

Brush

+50

48" TREE

631 632 633 634 635 636 637 638 639 ℄ I-275 640 641 642 643 644 645

Curve No. 275-2

+00

6"Unclass U.D. (2D) 6"U.D.(Rock)

6"U.D.(Rock) (1D)

Abandon plug

6" Soft Maple

3-18" Trees

Brick Grill

Fire Place

Bushes

6" Soft Maple

12" Apple Trees

Board Fence

3-Apple Trees

Hedges

12" Apple

Hedges

2' Asphalt Walk

Slope Limit

12" Stump

Conc. Block

Septic Tank

12" TREE

Water Valve

2 Sty. Brick Res. w/ Wash

Porch

1 Sty. Gar.

2 Sty. Stone Res.

Birch

Rock Channel Protection 4'x10'x18" Type 'B'

Sodding 6' Wide (3D)

10' Type 'F'

18" Type 'B' Sodding 129 (4D)

CB-8

Brush

18" Type 'C' 637 129

Sodding 9' Wide CB-8 (5D)

+25

10' Type 'F'

18" Type 'B' CB-5 (6D)

Sodding 9' Wide (6D)

+20.91' Rt. C.B.-5

Earth Dike Top Elev.=858.5

● Drawing not to scale
See Typical Section, Sht. No. 5

6"U.D.(Rock) (8D)

6"Unclass U.D. 6"Shallow U.D.

6"U.D.(Rock) (9D) 6"Unclass U.D.

Sodding 6' Wide (14D)

6"x3' Sod Strip

Anchor Assembly

10' Type F

MATCH LINE A-A

6"Unclass U.D. (7D)

+50 Sign Support

10' Type F

6"U.D.(Rock) (7D) 6"Unclass U.D. 6" Deep U.D.

Sodding 9' Wide (13D)

21" Type 'B' 136 CB-8 (13D)

6" Shallow U.D. (16D)

21" Type 'C' 136 CB-8 (12D)

Sodding 9' Wide (12D)

6" Deep U.D. (18D)

10' Type F

6" Shallow U.D. (17D)

18" Type 'C' 136

10' Type F

Earth Dike Top Elev.=851.5

Sodding 9' Wide CB-5 (11D)

Erosion Control Swales (10D)
See Detail Sheet No. 300

Excavation	355497	C.Y.
Embankment 18274	203,20	C.Y.
Seeding & Mulching	51,303	S.Y.

2046

B.M. RR Spike in Telephone pole on E. side of Springdale Rd. 360' Rt. of ℄ Sta. 634+80 El. = 882.38

865.35 864.85 864.35 863.85 863.35 862.85 862.35 861.85 861.35 860.85 860.35 859.85 859.35 858.85 858.35 857.85 857.35 856.85 856.35 855.85 855.35 854.85 854.35 853.85 853.35 850.85 850.35

900
890
880
870
860
850
840
830

+00 W.B. Lt. ℄E 6" = 860.77
+00 E.B. Lt. ℄E 6" = 860.06
+00 E.B. Rt. ℄E 6" = 862.40
+00 W.B. Lt. ℄E 6" = 859.90
+00 E.B. Lt. ℄E 6" = 859.21
+20 91' Rt. ℄E 6" Type F = 855.50
+15 E.B. Rt. ℄E 6" = 856.30
+25 E.B. Rt. ℄E 6" = 856.20
+25 E.B. Lt. ℄E 6" = 855.01
+00 E.B. Lt. ℄E 6" = 848.36
+25 21" Type C ℄E 21" = 844.76
+25.14' Rt. ℄E 6" Type F = 846.46
+75 E.B. Rt. ℄E 6" = 845.07
+00 E.B. Lt. ℄E 6" = 855.56
+00 W.B. Rt. ℄E 6" = 845.62
+50 E.B. Lt. ℄E 6" = 849.81
+20 E.B. Lt. ℄E 6" = 847.27
+30 E.B. Lt. ℄E 6" = 847.19
+00 E.B. Rt. ℄E 6" = 844.45
+00 E.B. Rt. ℄E 6" = 851.40
+20 W.B. Lt. ℄E 6" = 845.32
+00 W.B. Rt. ℄E 6" = 846.82
+00 E.B. Lt. ℄E 6" = 860.36
+15 E.B. Lt. ℄E 6" = 855.11
+20, 14' Rt. ℄E 6" Type F = 854.82
+20 18" Type C ℄E 18" = 852.92
+50 E.B. Rt. ℄E 6" = 848.32
+50 W.B. Lt. ℄E 6" = 849.40
+00 W.B. Lt. ℄E 6" = 846.30
+75 E.B. Rt. ℄E 6" = 846.07
+00 W.B. Lt. ℄E 6" = 846.59
+20 103' Lt. ℄E 6" Type F = 844.00

6"U.D. -1.00% 6"U.D. 6"U.D. 6"U.D. 6"U.D. 6"U.D.

866.0 871.0 881.9 891.9 899.9 903.2 903.1 879.8 876.2 892.6 887.7 879.5 870.8 +38 864.7 +55 859.4 +55 858.6 868.5 878.6 888.9 895.7 898.0 897.2 893.6 886.7 880.8 874.3 866.8 853.0 +91 834.2 +25 839.2 +25 845.0 850.3 852.7 852.6 852.9

630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645

M.P.C. Sta. 631+65.41
P.I. Sta. 631+81.52
P.O.T. Sta. 633+41.16
P.O.T. Sta.
P.T. Sta. 643+25.25

R/W C.G.&E. R/W Dirt Const. Rd. H&T

N&C. 12" Ash N&C. 10" Maple N&C. 15" Walnut

LA-R/W Slope Limit Rock Channel Prot. 16.5'x8'x18" Type B MATCH LINE A-A SHEET NO. 36 (15D)

DEVELOPED 7-26-72 BD | DESIGNED 7-6-72 A.L.Y.

REVISED DATE 8-22-75

I-275 STA. 630+00 TO STA. 645+00

HAM-275-13.91
HAMILTON COUNTY

SHEET No. 35

SHEET No. 37

Type 'S' Manhole (26 D)

Rock Channel Protection
235 'x 8 'x 18" Type B

B.M. Pk. nail in 40" Sycomore
290' Rt. of ℄
Sta. 650+95 Elev. = 844.27

B.M. Spike in twin 8" Tree halfway on West slope 80'± South of fence and 80'± East of fence 250' rt.
Sta. 658+00. Elev. 852.42

● Drawing not to scale
See Typical Section, Sht. No. 5

LA-R/W

Slope Limit

Anchor Assembly

Sodding 6' Wide (27 D)

3'x3' Sod Strip (34 P)

15" Type 'F' 144

6" Shallow U.D. (28 D)

15" Type 'F' 145

10' Type 'F'

15" Type 'B' 144 CB-8 (25 D)

15" Type 'B' 145 CB-8 (29 D)

6" Deep U.D. (34 D)

W.B. ℄ I-275

Curve 275 WB-3

Curve No. 275 ℄ -3

E.B. ℄ Curve 275 EB-3

Sodding 9' Wide (20 D)

Sodding 5' Wide (25 D)

+80, 16'-0" x 10'-5" R.C. Arch Culv. Sheet No. 302

Earth Dike El. 845.26

15" Type 'C' 144 CB-8 (24 D)

15" Type 'C' 145 CB-8 (30 D)

Sodding 9' Wide (29 D)

Sodding 9' Wide CB-4 (36 D)

15" Type 'B' 150

6" Shallow U.D. (19 D) (32 P)

6" Deep U.D. (18 D)

6" Shallow U.D. (31 D)

6" Deep U.D. (33 D) (58 P)

10' Type E

Anchor Assembly

6'x3' Sod Strip (52 P)

Use care in installing guard rail posts at pipe.

Sign Support +00

21" San. Sewer See Sh. 295 ℄ 301-A (1-S)

Sodding 6' Wide (23 D)

Sodding 6' Wide (21 D)

Rock Channel Prot. 90'x6'x18" Type 'B' (22 D)

Type 'S' Manhole

BM Pk nail in 24" Cherry
200' Rt. of ℄
Sta. 645+75 El. = 909.10

BM Pk nail in 20" Sycomore
260' Rt. of ℄
Sta. 648+75 El. = 846.96

Excavation	149,408	C.Y.
Embankment	302,004	C.Y.
Seeding & Mulching	51,749	S.Y.

Apple Tree

Pole

Board Wire Fence

3-Lines

Shed

1 Sty. Frame w/Attic

Conc. Slab

STA. EQUATION
656+00.00 BACK =
656+00.15 AHEAD

P.C. Sta. 656+87.09

P.C. Sta. 656+87.09
℄ E.B. ℄
BEGIN MEDIAN TRANSITION

Sta. 657+51.52
P.C. E.B. ℄

Sec. 16 T.2 F.R.1 E.R.1

4" Elm Nail ¢ B.C.
5" Elm Nail ¢ B.C.
8" Elm Nail ¢ B.C.
48.79'
15.52'
17.59'
P.O.T. Sta. 646+83.10

12" Wild Cherry
14" Hickory
12" Hickory
65.6'
34.10'
H.H.T.
P.C. Sta. 656+87.09

STA. 648+80 ℄
16'x 10'5" ARCH CULVERT
FL. 774.40

STA. 649+56±, 21" SANITARY
FL. = 769.06

℄ Creek

400' V.C.

-1.00%

+0.70%

6" U.D.

+50 E.B. Lt.
FE6" = 841.39

+00 E.B. Lt.
℄ W.B. Rt.
FE6" = 845.62

+00 E.B. Rt.
FE6" = 844.45

+50 E.B. Rt.
FE6" = 841.95

+50, 106' Rt.
FE6" = 841.50

P.V.T. Sta. 650+00
Elev. 845.35

+45 W.B. Rt.
FE6" = 841.39

+50, 14' Lt.
FE6" Type F = 840.55

+50, 14' Rt.
FE6" Type F = 840.85

+55 W.B. Rt.
FE6" = 841.39

STA. 650+50 ℄
FE15" = 840.26

+45 W.B. Rt.
FE6" = 841.67

+50, 104 Rt.
FE6" = 840.50

400 V.C.

STA. 651+50 ℄
FE15" = 840.69

+00 W.B. Lt.
FE6" = 841.55

+55 W.B. Rt.
FE6" = 841.69

+50 E.B. Rt.
FE6" = 841.20

+50 14' Lt.
FE6" = 841.35

+00 105' Lt.
FE6" Type F = 840.80

+50 E.B. Lt.
FE6" = 844.58

+00 W.B. Rt.
FE6" = 847.15

+50 W.B. Rt.
FE6" = 846.90

+50, ℄
FE6" Type "F" = 846.70

+45 W.B. Rt.
FE6" = 846.87

Std. # 4 C.B.
Sta. 659+50 ℄
FE15" = 846.70

+00 E.B. Rt.
FE6" = 844.86

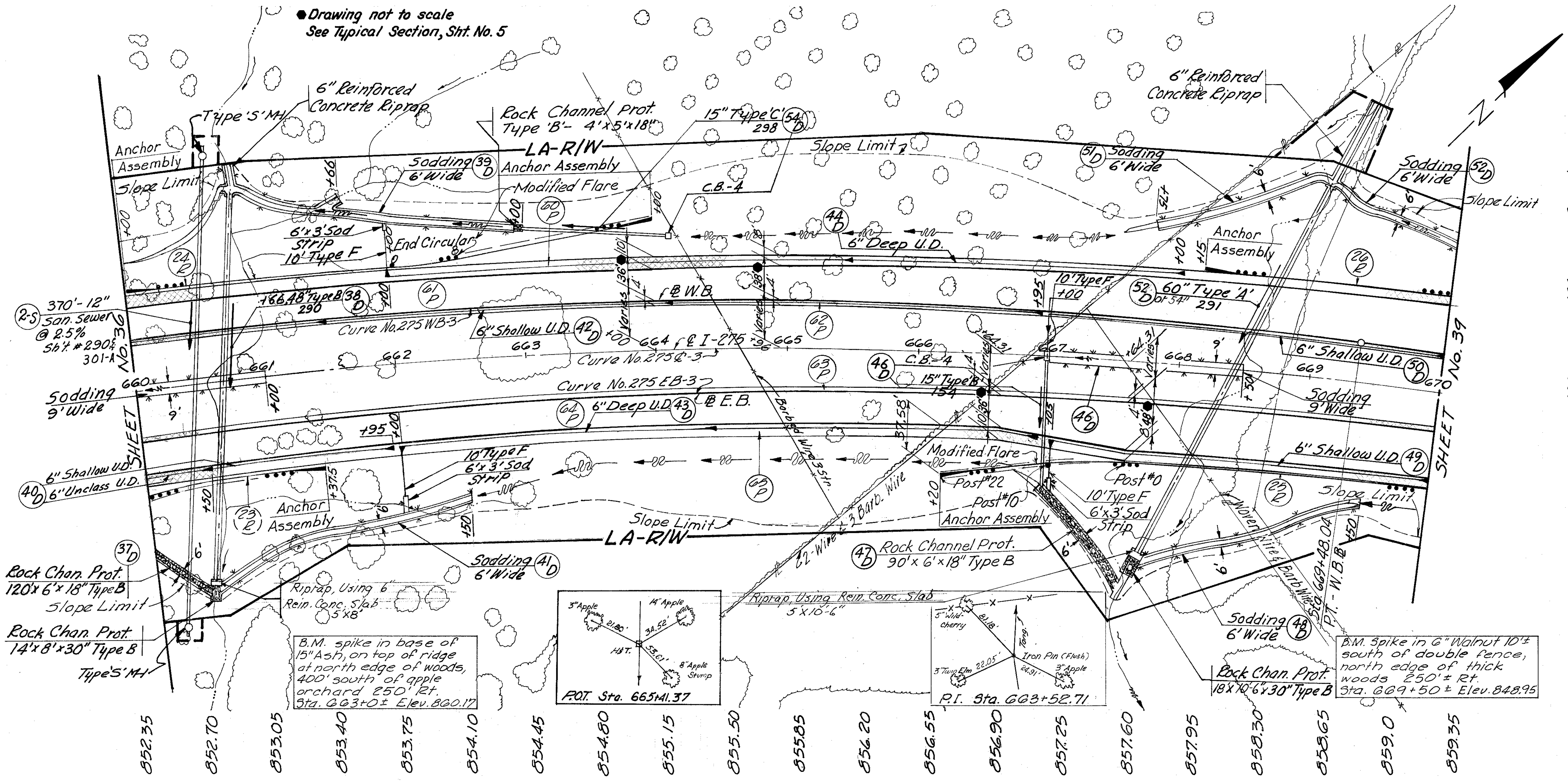
+00 W.B. Lt.
FE6" = 847.30

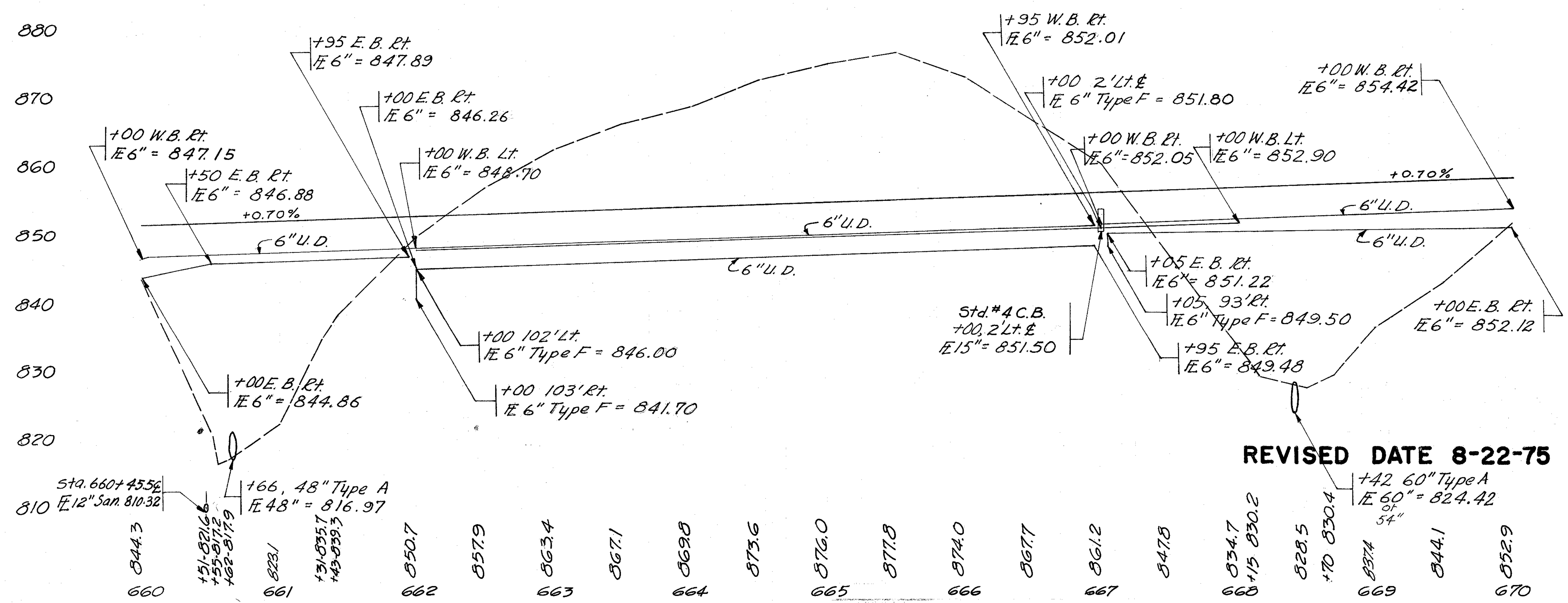
DEVELOPED	CHECKED
7-28-70 - RJD	11-6-72 A.L.Y.

REVISED DATE 8-22-75

I-275 STA. 645+00 TO 656+00.00 BACK TO 660+00
656+00.15 AHEAD

[illegible]	57,312	C.Y.
[illegible]	66,448	C.Y.
[illegible]	26,492	S.Y.





REVISED DATE 8-22-75

SUB-SUMMARY
I-275 STA. 630+00 TO 670+00

Sheet		Stations		Special Drainage Conn. No. 8 Aggr. C.Y.	606 Anchor Assembly Ea.	606 Guard Rail Type 5 L.F.	301 Bit. Aggr. Base C.Y.	304 Aggr. Base C.Y.	310 Subbase C.Y.	402 Asphalt Conc. C.Y.	404 Asphalt Conc. C.Y.	409 Seal Coat Cover Aggr. C.Y.	409 Seal Coat Bit. Material G.
	PAVEMENT												
35	25P	630+00 to 645+00	Lt.	65.80			138.89	254.44	339.44			13.33	500.00
35	46P	630+00 to 645+00	Lt.				1188.43		1069.58	194.44	138.89		
35	47P	630+00 to 645+00	Lt.				55.56	87.78	117.22			5.33	200.00
35	48P	630+00 to 645+00	Rt.	60.69			55.56	87.78	117.22			5.33	200.00
35	49P	630+00 to 645+00	Rt.				1188.43		1069.58	194.44	138.89		
35	50P	630+00 to 645+00	Rt.	70.04			138.89	254.44	339.44			13.33	500.00
36	51P	645+00 to 660+00	Lt.	61.10			55.56	87.78	117.22			5.33	200.00
36	52P	645+00 to 660+00	Rt.	43.05			55.56	87.78	117.22			5.33	200.00
36	54P	645+00 to 660+00	Lt.	32.90			138.89	254.44	339.44			13.33	500.00
36	55P	645+00 to 660+00	Lt.				1188.43		1069.58	194.44	138.89		
36	58P	645+00 to 660+00	Rt.				1188.43		1069.58	194.44	138.89		
36	59P	645+00 to 660+00	Rt.	47.00			138.89	254.44	339.44			13.33	500.00
37	60P	660+00 to 670+00	Lt.	37.60			82.37	149.18	199.10			7.91	296.53
37	61P	660+00 to 670+00	Lt.				908.02		817.23	149.88	107.06		
37	62P	660+00 to 670+00	Lt.	40.80			37.04	58.52	78.15			3.56	133.33
37	63P	660+00 to 670+00	Rt.				37.04	58.52	78.15			3.56	133.33
37	64P	660+00 to 670+00	Rt.				898.10		808.24	148.15	105.82		
37	65P	660+00 to 670+00	Rt.	46.77			87.30	159.05	212.23			8.38	314.28
	ROADWAY												
35	20R	643+00 to 653+00	Lt.		2	750.00							
36	22R	647+50 to 652+00	Rt.		2	400.00							
36	23R	658+50 to 661+37.50	Rt.		2	237.50							
37	24R	660+00 to 664+00	Lt.		2	350.00							
37	25R	660+20 to 670+00	Rt.		1	355.00							
37	26R	668+15 to 670+00	Lt.		1	160.00							
				505.75	10	2252.50	7581.39	1794.15	8298.06	1075.79	768.44	98.05	3677.47

DEVELOPED		CHECKED
7-28-70	RJD	7-6-72 A.L.Y.

I-275 STA. 660+00 - STA. 670+00

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

38
468

HAM-275-13.91
HAMILTON COUNTY

⊕ INDICATES 100% METROPOLITAN SEWER DISTRICT

★ 706.01 Cl 3, 706.02, 706.08 ES or 707.13

REF. NO.	STATION TO STATION	SIDE	Bends and Branches 6" 90°	15" 22.5°	6" TEE	601 Riprap Using 6" Reinf. Conc. Slab S.Y.	601 Rock Chan. Prot. Type A Bedding C.Y.	601 Rock Chan. Prot. Type B Bedding C.Y.	601 Rock Chan. Prot. as per plan C.Y.	602 Conc. Masonry C.Y.	603 Type B 12" L.F.	603 Type B 21" L.F.	603 Type A 707.01 48" L.F.	603 Type A 707.02 Cl. II or 60" 707.01 (0.079) L.F.	603 Type B 15" L.F.	603 Type B 18" L.F.	603 Type B 21" L.F.	603 Type B 706.02 Class V with 706.11 Joints 12" L.F.	603 Type B 706.02 Class V with 706.11 Joints 21" L.F.	603 Type C 15" L.F.	603 Type C ★ 18" L.F.	603 Type C ★ 21" L.F.	603 Type F 6" L.F.	603 Type F 15" L.F.	604 Catch Basin CB-4 Ea.	604 Catch Basin CB-5 Ea.	604 Catch Basin CB-8 Ea.	604 Manhole Type S Ea.	605 Underdrain Shallow 6" L.F.	605 Underdrain Shallow 707.01, 707.12 6" L.F.	605 Underdrain Unclass. 6" L.F.	605 Underdrain Deep 6" L.F.	603 Type C ★ 15"	660 Sodding S.Y.	603 Animal Guards for pipe outlet EACH	SEE SHEET NO.
	I-275																																			
1-D	630+00 - 636+60	ML	Rt	1																				10					635					1		35
2-D	630+00 - 636+60	ML	Rt	1																				10					422	202						35
3-D	635+30 - 636+20	ML	Rt																														60			35
4-D	634+70 - 636+20	ML	Lt				3.0			0.31						125											1						150			35
5-D	634+70 - 636+20	ML	Rt																		28						1						150			35
6-D	634+70 - 636+20	ML	Rt													77										1							150			35
7-D	630+00 - 644+00	ML	Lt	1		1																		30					1030	220	145		2			35
8-D	636+25 - 643+25	ML	Rt	1																				10					528	50						35
9-D	636+25 - 645+00	ML	Rt																					10					482	50	344					35
10-D	641+30	ML	Rt				11.7	5.0																												35
11-D	641+93 - 643+25	ML	Rt													77										1							130			35
12-D	641+75 - 643+25	ML	Rt																			28					1						150			35
13-D	643+25	ML	Rt							0.37							97										1						150			35
14-D	642+75 - 643+25	ML	Lt																														36			35
15-D	643+25 - 644+75	ML	Lt				97.7																													35
16-D	644+00 - 645+00	ML	Lt																																	35
17-D	643+00 - 645+00	ML	Rt																																	35
18-D	645+00 - 647+50	ML	Rt	1																				10										1		36
19-D	645+00 - 650+50	ML	Rt			1																		10					552							36
20-D	645+00 - 650+50	ML	Lt	1																				10					547							36
21-D	646+50 - 648+50	ML	Rt																														144			36
22-D	648+50 - 649+00	ML	Rt				40.0																													36
23-D	649+10 - 653+00	ML	Rt																														270			36
24-D	649+00 - 650+50	ML	Rt																								1					28	150			36
25-D	649+00 - 650+50	ML	Lt		2					0.27						70											1						150			36
26-D	649+50 - 651+50	ML	Lt				139.0																													36
27-D	651+50 - 654+00	ML	Lt																														167			36
28-D	650+00 - 650+55	ML	Lt	1																				10					92							36
29-D	651+50 - 653+00	ML	Lt		2					0.27						69											1						150			36
30-D	651+50 - 653+00	ML	Rt																								1					28	150			36
31-D	650+50 - 655+50	ML	Rt																										500							36
32-D	651+50 - 659+45	ML	Lt	1																				10					795							36
33-D	652+50 - 660+00	ML	Rt	1																				10							774		2		1	36
34-D	653+00 - 660+00	ML	Lt	1																				10							730		1		1	36
36-D	659+50 - 660+00	ML	Rt							0.27						105										1							150			36 & 37
37-D	659+50 - 660+50	ML	Rt				53.2																										7			37
38-D	660+66	ML	Lt & Rt				18.4			2.20																							155			37
39-D	660+95 - 663+00	ML	Lt																										143		45					37
40-D	660+00 - 661+95	ML	Rt																														137			37
41-D	660+47 - 662+55	ML	Rt																										761							37
42-D	660+00 - 666+95	ML	Lt																					10							513		2		1	37
43-D	662+00 - 666+95	ML	Rt																					10							634		2		1	37
44-D	662+00 - 668+00	ML	Lt	1																				10												37
46-D	667+00 - 668+50	ML	Rt							.27						101										1							150			37
47-D	666+97 - 669+62	ML	Rt				40.0																										120			37
48-D	667+75 - 669+50	ML	Rt																														2		1	37
49-D	667+05 - 670+00	ML	Rt	1																				10					310							37
50-D	667+00 - 670+00	ML	Lt	1																				10					308							37
51-D	667+75 - 668+92	ML	Lt																														91			37
52-D	668+42	ML	Lt & Rt				56.7	24.5		3.56				315																			17			37
53-D	669+10 - 670+00	ML	Lt																														68			37
54-D	663+00 - 669+10	ML	Lt				1.5			.27																	1									37
S-1	649+56	ML	Lt & Rt									⊕349								⊕160							⊕ 2								36
S-2	660+95	ML	Lt. & Rt.									⊕201						⊕173									⊕ 2								37
TOTALS				13	4	2	834	24.5	398.5	5.0	7.8	⊕201	⊕349	296	315	345	279	97	⊕173	⊕160	113	28	28	190	130	3	2	8	⊕ 4	4405	3097	567	3414	56	3063	9	

REVISED DATE 8-22-75

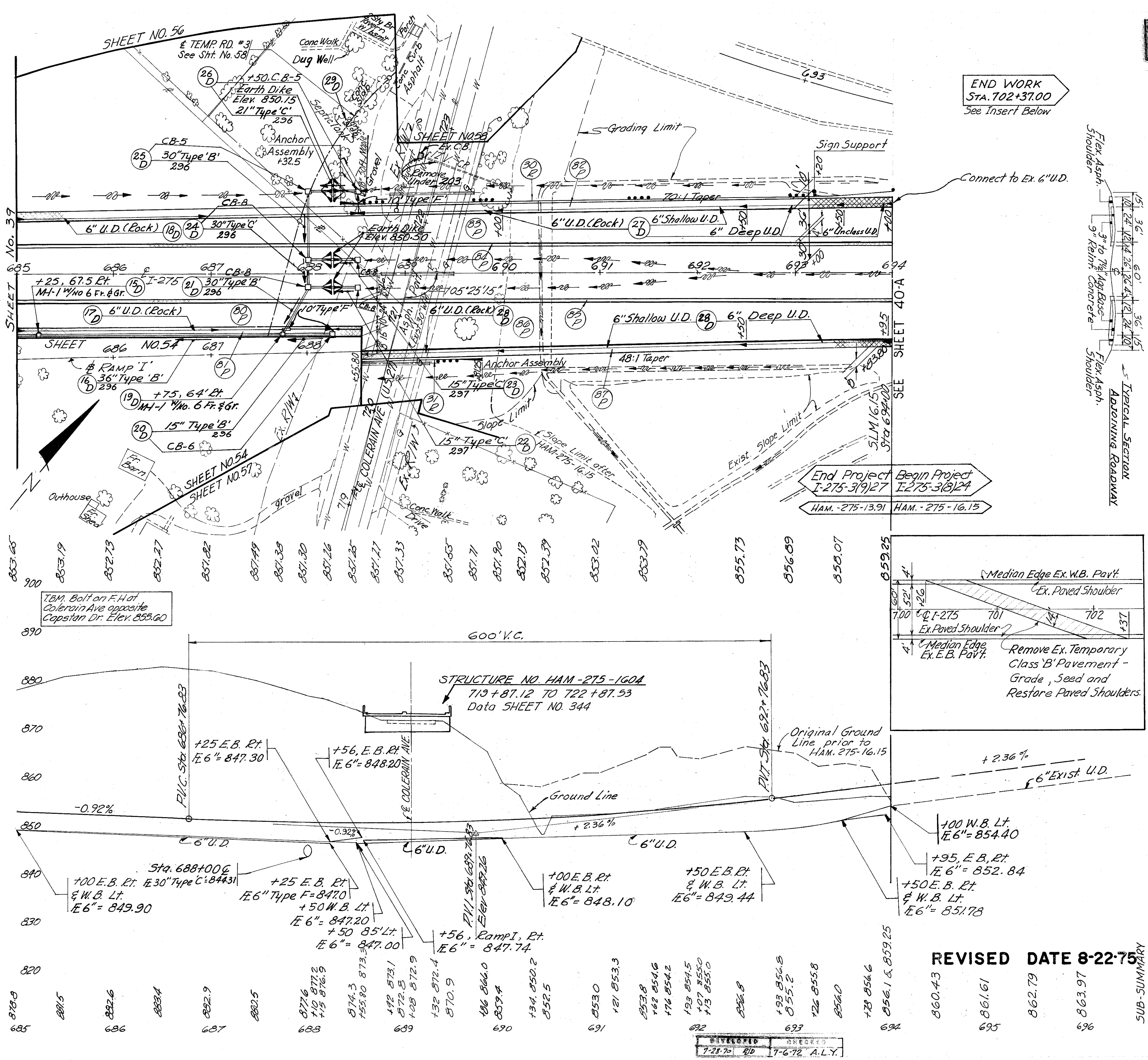
DEVELOPED		CHECKED	
RMF	7-3-72	~~BBB~~	7-7-72

STA. 630+00 TO STA. 670+00

REVISED DATE 8-22-75

I-275 STA. 670+00 - STA. 685+00

[illegible]	139,899	C.Y.
[illegible]	367	C.Y.
[illegible]	18,194	S.Y.



REVISED DATE 8-22-75

SUB-SUMMARY
I-275 STA. 670+00 TO 694+00

PAVEMENT

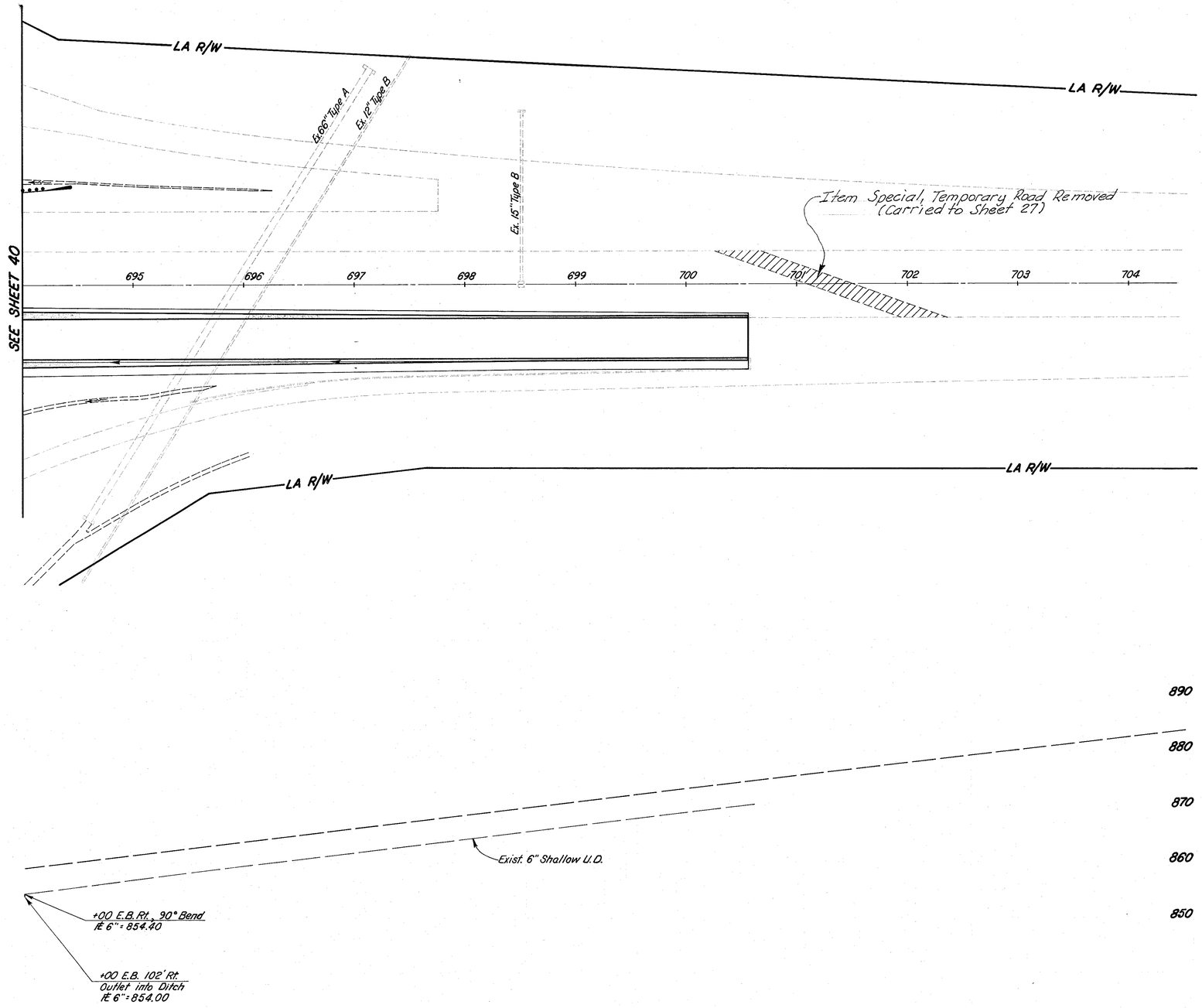
	Sheet	301 Bit. Aggr. Base C.Y.	304 Aggr. Base C.Y.	310 Subbase C.Y.	402 Asphalt Conc. C.Y.	404 Asphalt Conc. C.Y.	409 Seal Coat Cover Aggr. C.Y.	409 Seal Coat Bit. Material G.	Special Drainage Conn. No. 8 Aggr. C.Y.
70P 670+00 to 676+00 Lt.	39	44.44	79.56	106.22			4.27	160.00	25.85
71P 670+00 to 684+60 Lt.	39	1503.95		1353.56	250.02	178.59			
72P 670+00 to 685+00 Rt.	39	1479.49		1331.54	245.38	175.28			
73P 670+00 to 674+64.31 Rt.	39	34.33	61.45	82.05			3.30	123.59	21.82
74P 670+00 to 685+00 Lt.	39	55.56	87.78	117.22			5.33	200.00	6.15
75P 670+00 to 685+00 Rt.	39	55.56	87.78	117.22			5.33	200.00	
76P 670+00 to 680+16 Lt.	39	57.78	109.16	236.52			5.55	208.00	
77P 674+64.51 to 684+45 Rt.	39	90.80	166.35	221.93			8.72	326.90	48.68
78P 680+16 to 685+00 Lt.	39	44.81	82.10	109.53			4.30	161.33	42.30
79P 684+45 to 685+00 Rt.	39	8.91	16.98	36.79			0.86	15.58	
80P 685+00 to 688+55.80 Rt.	40	281.89		253.71	46.12	32.94	3.95	148.25	
81P 685+00 to 688+55.80 Rt.	40	37.89	76.89	166.60			8.00	300.00	16.72
82P 685+00 to 694+00 Lt.	40	83.33	152.67	203.67					42.30
83P 684+60 to 694+00 Lt.	40	937.34		843.61	155.55	111.11			
84P 685+00 to 694+00 Lt.	40	33.33	52.67	70.33			3.20	120.00	
85P 685+00 to 694+00 Rt.	40	33.33	52.67	70.33			3.20	120.00	
86P 688+55.80 to 694+00 Rt.	40	755.83		680.25	127.36	90.97			
87P 688+55.80 to 694+00 Rt.	40	40.31	72.16	96.34			3.87	145.12	25.58
Total		5578.88	1098.22	6097.42	824.43	588.89	59.88	2228.77	229.40

ROADWAY

	Sheet	606 Anchor Assembly Ea.	606 Guard Rail Type 5 L.F.
27R 670+00 to 672+31 Lt.	39	1	202.50
28R 670+95 to 672+70 Rt.	39	2	125.00
29R 670+00 to 672+70 Rt.	39	1	245.00
30R 688+32.50 to 694+45 Lt.	40	2	562.50
31R 688+55.80 to 689+81.25 Rt.	40	1	100.00
Total		7	1235.00

I-275 STA. 685+00 TO STA. 694+00

DEVELOPED		CHECKED
7-28-70	E/D	7-6-72 A.L.Y.



REVISED DATE 8-22-75

I-275 STA. 694+00 TO STA. 704+00

Rev. 9-23-75

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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HAM-275-13.91
HAMILTON COUNTY

⊕ INDICATES 100% METROPOLITAN SEWER DISTRICT

REF. NO.	STATION TO STATION	SIDE	BENDS & BRANCHES 6" 90°	BENDS & BRANCHES 6° TEE	601 Riprap Using 6" Reinf. Concrete Slab C.Y.	601 Rock Chan. Prot. Type B With Bedding C.Y.	602 Conc. Masonry C.Y.	603 Type A 60" 706.02 Cl. V or 66" 707.01 L.F.	603 Type B 12" L.F.	603 Type B 15" L.F.	603 Type B 30" L.F.	603 Type B 36" L.F.	603 Type C 15" L.F.	603 Type C 21" L.F.	603 Type C 30" L.F.	603 Type F 6" L.F.	604 Type B L.F	604 Catch Basin CB-4 Ea.	604 Catch Basin CB 5 Ea	604 Catch Basin CB 5A Ea	604 Catch Basin CB 6 Ea.	604 Catch Basin CB 8 Ea	604 Manhole MH-1 Modified as per plan Ea.	604 Manhole Type 5 Ea	605 Underdrain Shallow 6" L.F.	605 Underdrain Shallow 707.12 6" L.F.	605 Underdrain Unclass. 6" L.F.	605 Underdrain Deep 6" L.F.	603 Animal Guard for pipe outlet EACH	660 Sodding S.Y.	202 Septic Tank Removed Ea.	SEE SHEET NO.
1-D	670+00 - 672+50	ML Lt				2.4	.27						100					1													39
2-D	670+00 - 671+50	ML Lt																											68		39
3-D	670+50 - 676+00	ML Lt	1													10								150							39
4-D	672+00 - 672+65	ML Rt																									573	1			39
5-D	670+00 - 674+64	ML Rt																						264		50	150		46		39
6-D	678+82	ML Rt			75.8	23.5	4.12	437																							39
7-D	674+64 - 685+00	ML Rt														10								495	195		336		31.3		39
8-D	681+52 - 683+02	ML Rt																											195		39
9-D	681+50 - 683+00	ML Rt																											150		39
11 D	676+00 - 685+00	ML Lt																						500	200		200				39
13 D	683+00	ML Rt								88								1													39
14 D	683+00 - 685+25	ML Rt										225							1												40
15 D	685+25	ML Rt																					1								
16 D	685+25 - 687+75	ML Rt										250																			40
17 D	685+00 - 688+56	ML Rt	1													20									336						40
18 D	685+00 - 688+50	ML Lt		1																					350						40
19 D	687+75	ML Rt																					1								40
20 D	687+75 - 688+25	ML Rt								50										1											40
21 D	688+00 - 687+75	ML Rt									60										1										40
22 D	688+00 - 688+50	ML Rt											50								1										40
23 D	688+00 - 688+50	ML Lt											50								1										40
24 D	688+00	ML —													20						1										40
25 D	688+00	ML Lt									73								1												40
26 D	688+00 - 688+50	ML Lt												50					1												40
27 D	688+50 - 694+00	ML Lt		1																				250	150	50	100				40
28 D	688+56 - 693+95	ML Rt																						250	145		145				40
29 D	688+50	Lt.																												1	40
1-S	678+58	M L Lt & Rt						⊕168								⊕335							⊕2								39
TOTALS					75.8	25.9	4.39	437	⊕168	138	133	475	200	50	20	40	⊕335	2	2	1	1	4	2	⊕2	1909	1,376	100	504	1	490	1	

REVISED DATE 8-22-75

DEVELOPED		CHECKED	
RMF	7-5-72	[illegible]	7-7-72

STA. 670+00 TO STA. 694+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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HAM-275-13.91
HAMILTON COUNTY

37,326 C.Y.
82,564 C.Y.
21,557 S.Y.

3" Asph. Conc. / 9" Cem. Conc. Base / 6" Agg. Subbase / 3' Bit. Agg. Base / 6" Agg. Base
TYPICAL SECTION
ADJACENT RAMP PAVEMENT
NO SCALE

Sec. 21 T.2 E.R.1
Sec. 20 T.2 E.R.1

Rock Channel Prot. 11'x7'x30" Type 'B' — Riprap Using 6" Rein. Conc. Slab 5'x7'
Rock Channel Prot. 195'x8'x18" Type 'B' (8D)
Sodding 6" Wide (3D)
Anchor Assembly +06.5
Sodding 9' Wide (10D)
Erosion Control at Swale See Sheet-300 (11D)
6'x3' Sod Strip
10' Type 'F' Sodding 6' Wide (12D)
LA-R/W
Slope Limit
3' Sod Strip
10' Type 'F' 6" U.D. (2D)
42" Type 'C' MHI-A 284 (6D)
Introduced Flare
Anchor Assembly 8.3' Tan Ext.
Anchor Assembly (92P)
℄ RAMP 'D'
℄ BLUE ROCK ROAD RELOC. SHEET NO. 45
SHEET NO. 89
SHEET NO. 28
SHEET NO. 29
6" Shallow U.D. (7D)
42" Type 'F' MHI-A 284 (5D)
10' Type 'F'
21" Type 'C' CB-5 297 (4D)
Brush 1-30" Tree
For Quantities See Sheet No. 28
For Continuation See Sheet No. 28
℄ I-275
Sodding 9' Wide (9D)
P.T. 583+20.55
6" Unclass U.D. 6" Deep U.D. (13D)
6" U.D. (Rock)
Curve No. D-2
℄ RAMP 'C'
Begin Pavement Sta. 574+74.12
Sta. 574+74.12 ℄ BLUE ROCK ROAD RELOC.
6" U.D. (Rock) (1D)
Sta. 88+48.60 ℄ BLUE ROCK RD
Sta. 576+28.70 ℄ RAMP 'C'
Sta. 576+16.65 ℄ RAMP 'D'

574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590

RAMP 'C' STA. 574+74.12 TO STA. 575+94.90 — RAMP 'D' STA. 576+50.80 TO STA. 590+01.07

℄ Blue Rock Rd Reloc. Sta. 88+48.60 = ℄ Ramp 'D' Sta. 576+16.62 Elev. 835.52
℄ Blue Rock Rd Reloc. Sta. 88+48.60 = ℄ Ramp 'C' Sta. 576+28.70 Elev. 835.52
Begin Pavement Sta. 574+74.12
Ramp C
Ramp D
Sta. 575+94.90 Elev. 833.12
200' V.C.
+50, 27" Type B ℄ E 27" = 825.91
+48 Ramp D, 40' Lt. ℄ E 6" = 831.72
P.V.I. Sta. 575+94.90 Elev. 833.12
Sta. 576+50.80 ℄ Ramp D Elev. 837.47
+74 Ramp C Lt. ℄ E 6" = 827.60
Rough Grade
0.00%
-4.80%
+3.00%
+34 Ramp D, Rt. ℄ E 6" = 835.85
+50 Ramp D 40' Lt. ℄ E 6" = 839.72
P.V.C. 577+50 840.83
P.V.I. 579+50 848.71
+2.88%
6" U.D.
+34 Ramp D, 59 Lt. ℄ E 6" Type F = 833.50
+36, Ramp C, 15' Lt. ℄ E 6" = 826.90
+30, Ramp C, 55' Lt. ℄ E 6" Type F = 826.40
+55 Ramp D 68' Lt. ℄ E 6" Type F = 827.50
+78, 42" Type C ℄ E 42" = 818.00
P.V.I. 578+50 Elev. 843.71
Blue Rock Rd. Reloc.
P.V.I. Sta. 574+50 ℄ El 828.78
+85, Ramp D Rt. ℄ E 6" = 876.23
+85, Ramp D Lt. ℄ E 6" = 874.62
+85 Ramp D 67' Lt. ℄ E 6" Type F = 861.00
P.V.C. 586+00 891.21
400' V.C.
Traffic
+5.00%
6" U.D.
P.V.I. Sta. 588+00 Elev. 891.21
+1.30%
+01 Ramp 'D' Lt. ℄ E 6" = 890.50
+00 Ramp 'D' Lt. ℄ E 6" = 888.60
+50 Ramp 'D' Lt. ℄ E 6" = 884.77
P.V.T. 590+00 Elev. 893.81
Graphical Solution
Ramp 'D' Cross Sta. 590+01.07 Elev. 893.82

REVISED DATE 8-22-75

7-28-72 R/D 7-6-72 A.L.Y.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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HAM-275-13.91
HAMILTON, COUNTY

For Continuation See Sheet No. 28

SHEET NO. 28

SHEET NO. 29

SHEET NO. 31

SHEET NO. 48

SHEET NO. 44

For Quantities See Sheet No. 28

Top Dike Elev. 864.1

CB-5

Sodding 6' Wide

18" Type 'B' 2.5%

10' Type F

12'x3' Sod Strip

Grade To Drain

Slope Limit

Sign Support +50 Blue Rock Road Reloc.

Anchor Assembly +19

+58.18

Anchor Assembly +00

Sodding 6' Wide

6" Shallow U.D.

10' Type 'F'

6" Deep U.D.

RAMP "E" 585 Curve No. E-17

586 6" Unclass U.D.

Anchor Assembly +75

Sodding 9' Wide

6" U.D.

6" U.D. (Rock)

Slope Limit

LA-R/W

Rock Channel Prot. 173'x6'x18" Type 'B'

Rock Channel Prot. 8'x4'x18" Type 'B'

BLUE ROCK RD. RELOC.

BLUE ROCK RD. RELOC. STA. 83+15.13

RAMP "E" @ STA. 578+33.69

BLUE ROCK RD. RELOC. SHEET NO. 44

SPRINGDALE RD.

P.C. 586+42.48

P.T. 591+74.94

Sec. 21 T. 2 E.R. 1

Sec. 20 T. 2 E.R. 1

Excavation	38,103	C.Y.
Emban	22,608	C.Y.
Seedin · c	14,758	S.Y.

861.75 863.49 865.23 866.97 868.71 870.45 872.19 873.93 875.67 877.41 879.15 879.99 880.78 881.50 882.17 882.76 883.34 883.85 884.29 886.12 887.95 886.78 887.61 888.44 889.27 890.02 890.65 891.19 891.70 892.20

920 910 900 890 880 870 860 850

BLUE ROCK RD. RELOC.

℄ BLUE ROCK RD. STA. 83+15.13
℄ RAMP "E" STA. 578+33.69 El. 858.67
PGT. 578+65.69 360.56

+54 Blue Rock, 34' Rt. E 6" = 858.60

+135 Ramp E, 6' Rt. E 6" = 858.15

+38 Ramp E 37' Rt. E 6" Type F = 857.95

Traffic

+3.48%

6" U.D.

STA. 581+00 ℄ E 18" Type 'B' = 858.65

+16, 42" Type A E 42" = 837.77

+00 Ramp E, Rt. E 6" = 873.05

+95 Ramp E, Rt. E 6" = 874.55

P.V.I. Sta 585+00 Elev. 882.63

P.V.C. 584+00 874.15

P.V.T. 586+00 884.29

200' V.C.

+00 Ramp E 40' Rt. E 6" Type F = 865.20

+1.66%

+00 Ramp E, Rt. E 6" = 882.40

+50 Ramp E, Rt. E 6" = 879.02

Sta. 589+00 Elev. 889.27

Graphic Solution

I-275 SPEED CHANGE LANE

Ramp "E" Nose Sta. 591+75 El. 892.45

+75 Ramp E, Rt. E 6" = 889.40

871.2 869.4 868.4 867.6 865.9.0 864.3 862.4 861.6 +90 859.1 858.5 858.9 859.4 859.9 861.3 870.7 880.0 886.9 893.4 897.3 901.0 903.3 +40 905.0 905.3 +70 905.5 906.4 906.0 908.4 911.7 911.8 911.3 911.72 915.8 913.0

578 579 580 581 582 583 584 585 586 587 588 589 590 591

REVISED DATE 8-22-75

7-28-70 RJD 7-6-72 A.L.Y.

RAMP "E" STA. 578+65.69 TO STA. 591+75

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

44
468

HAM-275-13.91
HAMILTON COUNTY

104,918 C.Y.
27,415 C.Y.
19,733 S.Y.

Begin Work Sta. 71+50 Sign

Sec. 20 T.2 E.R.1
Sec. 14 T.2 E.R.1

Ex. LA

Constructed Under HAM CR-453H

Slope Limit

Berm Line

Remove Existing Median and Pave (See Sheet No. 6 (B))

Begin Project HAM-275-13.91 Sta. 75+00

Temporary Road No. 4 (Sheet No. 6 (B))

Sta. 10+00 Springdale Conn. Sta. 76+41.80 Blue Rock Rd.

Sta. 10+00 Springdale Rd. = Sta. 80+32.97 Blue Rock Rd. Reloc.

Ex. R/W

Springdale Road CR-96

Sta. 57+53.20 ℄ I-275

Sta. 83+04.55 Blue Rock Rd.

SHEET NO. 48

SHEET NO. 28

SHEET NO. 45

SHEET NO. 43

Remove Slab Under 202, and Restore

LA-R/W

CB-5
257 18" Type "C" (21 D)

Sodding 9' Wide (22 D)

Anchor Assembly

Sta. 83+33.13 Blue Rock Rd.

Sta. 83+45.13 Blue Rock Rd. Ramp E

℄ BLUE ROCK RD. RELOC.

Curve No. BRR-1

Sodding 9' Wide (20 D)

Introduced Flare

Frame Barn w/ Loft

Sign Support

Sta. 57+50

℄ RAMP 'E'

Sta. 83+15.18

Bridge-Springdale Rd. over Blue Rock Rd. Relocated
Structure Data Sheet Nos. 49 & 315

Bridge - HAM-275-13.91
Structure Data
Sheet Nos. 28 & 324

SECTION OF ADJOINING PAVEMENT the same as Typical Section of BLUE ROCK RD. RELOC. as shown on Sheet No. 6.

VERTICAL EQUATION
TAN. 874.90
TAN. 873.09 =

CURVE 88.753
CURVE 867.72

P.V.I. 774+75
EL. 883.76

℄ SPRINGDALE CONNECTOR 76+41.80

℄ SPRINGDALE RD.

℄ I-275 85+86.55

℄ RAMP 'E' 83+15.18

P.V.I. 85+35
EL. 848.32

+3.88%

-4.68%

1½:1

By Others

1600' V.C.

End Project HAM-CR-453H Sta. 75+00

Begin Project HAM-275-13.91

REVISED DATE 8-22-75

Rev. 9-23-75

7-28-72 R.D. 7-6-72 A.L.Y.

BLUE ROCK ROAD RELOC. STA. 75+00 TO STA. 87+00

BLUE ROCK ROAD RELOC. STA. 87+00 TO STA. 102+00

HAM-275 13.91
HAMILTON COUNTY

NOTE:
DO NOT DISTURB LEACHING FIELD. USE HAND LABOR TO GRADE ADJACENT AREA IF NECESSARY.

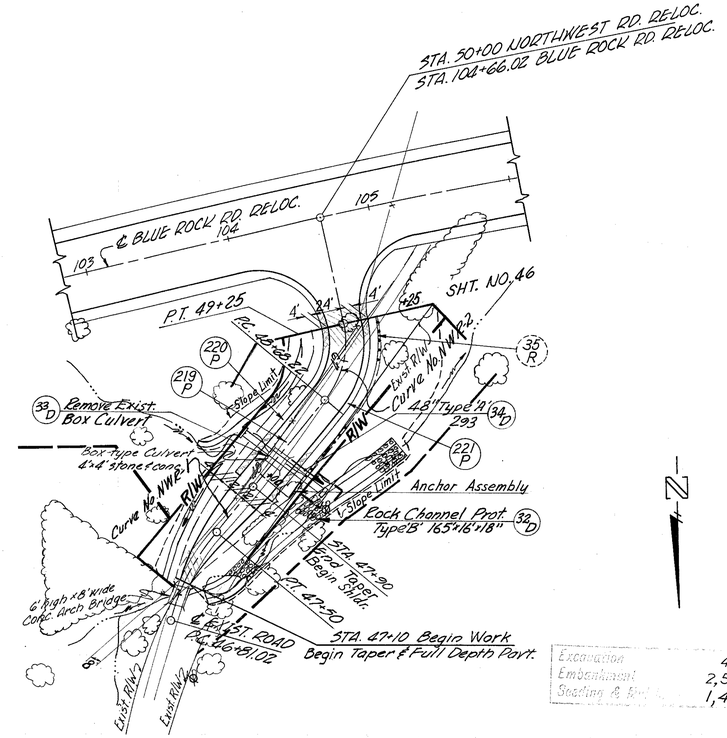
Note: Detail of Temporary Roads No. 5&6, Sheet No. 62

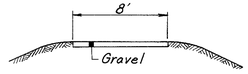
Excavation	6853	C.Y.
Embankment	40241	C.Y.
Seeding & Mulching	20,749	S.Y.

REVISED DATE 8-22-75

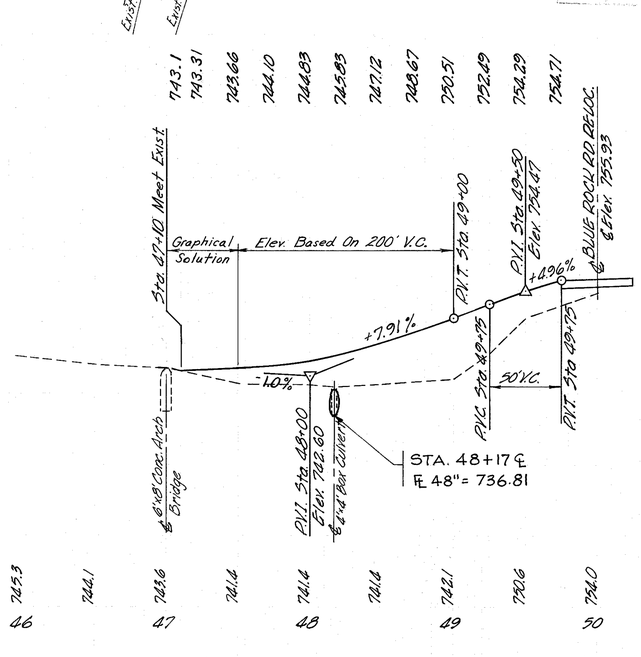
7-21-71 7-6-72 7-6-72 A.L.Y. BLUE ROCK CONNECTOR AND BLUE ROCK ROAD RELOC. STA 102+00 TO STA 115+25

HAM-275-13.91 HAMILTON COUNTY





TYPICAL SECTION
ADJOINING PAVEMENT



REVISED DATE 8-22-75

DEVELOPED	CHECKED
7-30-71 RJD	7-6-72 A.L.Y.

SUB-SUMMARY

ESTIMATED QUANTITIES

RAMPS C, D, E, BLUE ROCK & CONN., NORTHWEST 120

REF. NO.	STATION TO STATION	SIDE	301 Bit. Aggr. Base C.Y.	304 Aggr. Subbase C.Y.	310 Subbase Grad B C.Y.	404 Asphalt Conc. (Driveway) C.Y.	402 Asphalt Conc. C.Y.	404 Asphalt Conc. C.Y.	407 Tack Coat Bit. material G.	408 Bit. Prime Coat G.	409 Bit. Cover Aggregate Tons	409 Bit. Seal Coat Cover Material G.	606 Guard Rail Type 5 L.F.	606 Anchor Assembly Ea.	Special Drainage Conn. No. 3 Appr. C.Y.	SEE SHEET NO.
	PAVEMENT															42
	RAMP C															42
88 P	STA. 47+10 to STA. 47+35	Lt.	7.41													42
90 P	STA. 47+10 to STA. 47+35	Lt. Rt.	121.32				22.83	16.18								42
91 P	STA. 47+10 to STA. 47+35	Rt.	6.44													42
	RAMP D															42
68 P	STA. 47+48 to STA. 47+99.12	Rt.	1.54													42
69 P	STA. 47+50 to STA. 47+99.12	Lt. Rt.	60.17				11.70	8.36								42
69 P	STA. 47+16 to STA. 47+99.12	Lt.	8.94	48.04	77.76											42
92 P	STA. 47+99.12 to STA. 48+00.11	Lt.	33.36	5.02	57.78											42
93 P	STA. 47+99.12 to STA. 48+01.46	Rt.	35.99	7.08	70.89											42
94 P	STA. 47+99.12 to STA. 48+01.46	Lt. Rt.	78.99	8.15	12.08											42
95 P	STA. 48+00.11 to STA. 48+01.46	Lt.	4.01													42
	RAMP E															42
96 P	STA. 47+48.68 to STA. 47+99.12	Rt.	5.88													42
100 P	STA. 47+48.78 to STA. 47+99.12	Lt.	4.70													42
102 P	STA. 47+48.78 to STA. 47+99.12	Lt. Rt.	79.13				15.10	10.74								42
97 P	STA. 47+48.78 to STA. 48+01.75	Lt.	22.46	32.19	46.29											42
98 P	STA. 47+48.78 to STA. 48+01.84	Lt.	64.71	9.28	13.35		104.02	72.90							31.64	42
99 P	STA. 47+48.78 to STA. 48+01.84	Rt.	31.16	83.36	119.60										42.95	42
	BLUE ROCK RD RELOC.															42
200 P	75+00 to 87+00	Lt. Rt.	2193.32				420.65	299.61							0.65	42
201 P	75+00 to 75+49.97	Rt.	9.97													42
202 P	75+00 to 82+33.85	Rt.	70.69													42
203 P	75+00 to 87+00	Lt.	172.44													42
204 P	83+41 to 87+00	Rt.	51.59													42
225 P	87+00 to 103+00	Lt. Rt.	2310.39				441.05	313.76								42
226 P	87+00 to 103+00	Lt.	20.12													42
227 P	87+00 to 88+07	Rt.	15.38													42
228 P	89+51.32 to 103+00	Rt.	183.22													42
229 P	103+00 to 111+28.87	Lt. Rt.	1308.33				249.99	177.89								42
210 P	103+00 to 107+47.77	Lt.	38.72													42
211 P	103+00 to 111+28.87	Lt.	35.33													42
212 P	103+78.01 to 104+62.82	Rt.	29.31													42
214 P	103+62.82 to 104+76.94	Rt.	58.32													42
230 P	111+28.87 to 113+94	Lt.		57.20							11.9%					42
231 P	111+28.87 to 114+76	Lt.		3.21							4.74					42
232 P	103+00 to 114+60	Lt.	27.00	42.71							81.98					42
233 P	111+28.87 to 115+28.87	Lt. Rt.		0.36							.072					42
234 P	111+28.87 to 115+41.87	Lt. Rt.		521.22		282.74		177.78	1.36	4.89	888.89	0.17				42
235 P	114+60 to 114+94	Lt.		3.46							15.75					42
237 P	114+99 to 115+28.87	Rt.		3.94		2.19					11.93					42
238 P	114+99 to 115+40	Rt.		11.51		1.57					1.56					42
						1.05										42
	BLUE ROCK RD RELOC.															42
209 P	86+70 to 88+50	Lt. Rt.			125.26	111.64			1.36	4.89	225.42	0.17				42
240 P	86+70 to 89+01.92	Lt. Rt.					27.05	19.85								42
239 P	89+01.92 to 89+39.30	Lt. Rt.	87.68				16.48	11.68								42
238 P	89+39.30 to 89+48.82	Rt.	8.54	9.56							18.60					42
	89+48.82 to 100+80.82	Rt.	9.91	10.95							21.35					42
	NORTHWEST RD RELOC.															42
220 P	89+25 to 89+75		63.14				12.28	8.78								42
240 P	89+25 to NW-2	Lt. Rt.	3.48													42
242 P	89+25 to NW-2	Lt. Rt.	3.48													42
220 P	89+25 to 89+75	Lt.				1.20										42
221 P	89+25 to 89+75	Rt.				1.20										42
	ROADWAY															42
310 P	89+75 to 90+00	Lt.														42
350 P	89+75 to 92+00	Lt.														42
351 P	89+75 to 93+00	Lt.														42
140 P	77+75 to 82+00	Lt.														42
141 P	77+75 to 82+00	Rt.														42
142 P	82+00 to 90+90	Lt.														42
143 P	82+00 to 90+90	Rt.														42
177 P	82+67 to 82+00	Rt.														42
12 P	23+35 to 82+00	Lt.														42
252 P	48+00 NW-2 to 48+66.66	Rt.														42
TOTALS			8796.17	923.03	1622.19	406.72	4.81	1552.17	1086.08	2.78	1619.44	0.34	6722.19	2595.34	208	

NORTHWEST ROAD RELOC. STA. 47+10 to STA. 50+00

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

47 / 468

HAM-275-13.91
HAMILTON COUNTY

★ 24" 706.01, 706.02 or 706.08; or 27" 707.05

REF. NO.	STATION TO STATION	SIDE	BENDS & BRANCHES 6" 90°	BENDS & BRANCHES 6" TEE	202 Catch Basins Removed	202 Exist. Struct. Removed	202 Pipe Removed 24" and Under	601 Rock Channel Prot. Type B on Bedding	602 Riprap Grout Filled & Conc. Slab	603 Type A Conc. Masonry	603 Type A ★	603 Type A 36" 706.03 or 42" 706.05	603 Type A 30" 706.02 Cl. III or 36" 707.05	603 Type A 48" 707.05	603 Type B 12"	603 Type B 706.02 Class III or 707.13 18"	603 Type B 18"	603 Type B 27"	603 Type C 706.02 Cl. IV 707.13 18"	603 Type C 21"	603 Type C 42"	603 Type C 706.01 Cl. 3, 706.02, 706.08E.S. or 707.13	603 Type D 12"	603 Type F 6"	604 Catch Basin CB 5	604 Catch Basin CB 5 with B/Gr	604 Catch Basin CB 2-2-B	604 Manhole MH 1-A	603 Type F 707.05 42"	603 Animal Guard for pipe outlet	605 Underdrains Shallow 6"	605 Underdrains Shallow 707.01 III 707.12 6"	605 Underdrains Unclass 6"	605 Underdrains Deep 6"	660 Sodding	202 Privy Vault Removed	SEE SHEET NO.
					Ea	Lump	LF	CY	SY	CY	LF	LF		LF	LF	LF	LF	LF	LF	LF	LF	L.F.	LF	LF	Ea	Ea	Ea	Ea	LF	EACH	LF	LF	LF	LF	SY	Ea.	
1-D	574+74 - 575+30 C	Lt	1																					10					1		102					42
2-D	576+55 - 578+50 D	Lt	1																					10					1	237				3		42
3-D	577+00 - 577+75 D	Lt																																58		42
4-D	577+34 - 577+78 D	Rt																	43						1			1	146							42
5-D	577+78 D	Rt & Lt																																		42
6-D	577+78	Lt & Rt						8.6	4.2	.92											25							1								42
7-D	577+34 - 585+85 D	Rt	1																					10						877						42
8-D	577+81 - 581+50 D	Lt						231.																												42
9-D	577+34 - 588+05 D	Rt																																1062		42
10-D	581+50 - 585+10 D	Lt																																372		42
11-D	585+10 - 585+20 D	Lt						19.7																												42
12-D	585+20 - 587+50 D	Lt																																162		42
13-D	585+85 - 590+00 D	Lt	1																					10										2		42
14-D	579+25 - 583+95 E	Lt & Rt		1																				10					1	480		101	50	316	4		43
15-D	581+00	Lt & Rt						2.4		.33							118								1										100		43
16-D	581+00 - 582+72 E	Lt																																114		43
17-D	582+82 - 584+50 E	Rt						76.9																												43
18-D	584+50 - 589+00 E	Rt																																450		43
19-D	584+00 - 591+75 E	Rt																						10					1	475	50	280				43
20-D	83+25 - 84+75 BR	Lt																																150		44
21-D	84+75 - 88+14 BR	Lt																	334						1											44
22-D	86+70 - 87+00 BR	Lt																																30		44
23-D	87+00 - 88+14 BR	Lt																																120		45
24-D	88+14 - 89+36 BR	Lt								.53							118								1											45
25-D	96+50 - 98+25 BR	Lt																																175		45
26-D	98+25 - 99+40 BR	Lt						92.5																												45
27-D	99+10							5.4																												45
28-D	98+50 - 100+50 BR	Rt																																200		45
29-D	99+40 - 104+45 BR	Lt																																140		45
30-D	101+30	Lt & Rt								9.	1.84		190																					4		45
31-D	101+85 BR - 103+55 BR	Rt						153.0																												45 & 46
32-D	103+55 - 105+00	Rt						195.0																												46A
33-D	48+17 NW. Rd.					Lump																														46A
34-D	48+17 NW Rd.									2.20				74																						46A
35-D	105+60 - 108+00 BR	Rt						356																												46
36-D	103+00 - 107+75 BR	Lt																																475		46
37-D	147+50 - 149+00 BR Con.									.53	128																							80		46
38-D	49+00 BR. Conn.	Lt & Rt														53												1								46
39-D	110+38 - 110+25 BR																				22															46
40-D	109+60 BR	Rt																																90		46
41-D	109+00 - 110+40 BR	Rt				Lump																														46
42-D	110+45 BR	Rt			1					.76		74																								46
43-D	110+40 BR	Lt					20																													46
44-D	110+41 - 110+56 BR	Rt																																124		46
45-D	112+25 BR	Lt																																120		46
46-D	111+00 - 112+75 BR	Lt														26												1								46
47-D	112+00 - 113+25 BR	Rt																																		46
48-D	113+24	Rt			1		15																											80		46
49-D	113+00																																			46
50-D	113+50 - 114+75 BR	Lt																																		46
51-D	47+25 BR Conn.	Rt			1					.37													37												1	46
52-D	112+78 BR	Lt																																	1	46
53-D	107+68 B.R.	Lt.																																		
54-D	108+04 B.R.	Rt.																																		
TOTALS			4	1	3	LUMP	35	1140.5	13.2	7.48	128	190	74	74	26	53	118	118	334	43	25	37	22	60	2	3	1	2	146	5	1594	678	100	596	4,115	2	

DEVELOPED		CHECKED	
RHF	7-7-72	RRS	7-11-72

RAMPS D & E
BLUE ROCK ROAD RELOCATED
NORTHWEST ROAD RELOCATED

Note: Remove existing concrete drives at 13+41, 15+92, 20+25, 21+25, 22+02, and 22+87 under Item 202. For quantities see sht. no. 26. Replace these drives with Item 452.

Note: Detail of Temporary Road No. 1, see Detail Sheet Nos. 61 & 61-A.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

48
468

SPRINGDALE RD.
EXISTING SECTION
NO SCALE

Excavation	12,959	C.Y.
Embankure	49,354	C.Y.
Seeding & M	17,378	S.Y.

REVISED DATE 8-22-75

SPRINGDALE RD. RELOC. STA. 7+50 TO STA. 23+83

Rev. 9-23-75 SPRINGDALE CONN. STA. 0+32 TO STA. 10+09.06

DESIGNED	DRAWN	CHECKED
7-28-70	R.D.	7-7-72 A.L.Y.

HAM-275-13.92
HAMILTON COUNTY

STRUCTURE
Springdale Rd. over Reloc. Blue Rock Road
Begin Sta. 8+76.33 End Sta. 11+13.32
Type: Cont. welded plate girders w/ Reinf. Conc. Deck & Substructure
Spans: 75'-0", 96'-3", 63'-0"
Approach Slabs, 20' long
Bridge Data Sheet No. 3/5

BM Fire Plug Bolt 28 ft. Lt. ℄ Springdale Road Sta. 12+23 Elev. 899.62

SPRINGDALE ROAD

TEMPORARY ROAD NO. 1

SPRINGDALE CONNECTOR

SPRINGDALE CONNECTOR STA. 0+32 TO STA. 9+97.06
SPRINGDALE RD. RELOC. STA. 7+50 TO STA. 26+50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

50
468

HAM-275-13.91
HAMILTON COUNTY

RELOC. BEHIM RD STA. 52+50
RELOC. SHEITS RD STA. 20+00

SHEET NO. 31

SHEET NO. 32

Sec. 21 T.2 E.R.1
Sec. 15 T.2 E.R.1

Septic Tank

Slope Limit
Berm Line

R/W

LA

RELOC. SHEITS ROAD

Curve No. SR-1

Sodding 6' Wide (38 D)

Rock Channel Prot 135'x6'x18" Type 'B' (48 D)
Rock Chan Prot 14'x6'x30" Type B
Rock Chan Prot 297'x6'x18" Type 'B' (39 D)

Riprap Using Conc. Slab 5" Rein

Aggregate Drain (53 D)

Anchor Assembly 32+05

Sta. 31+22 Relc. Sheits Rd.
Sta. 0+00 Temp. Rd. No. 7

C.B. 2-B (43 D)

32+80 End Work
32+60 End Pavement
32+52.96 End Full Pavement Width
P.T. 32+38.92

Woven wire fence
Stone wall
Ex. R/W
Ex. Slope Limit
LA-R/W

Remove Headwall and Pipe Under 203

Remove 12 Lin. Ft. of existing stone wall under Item 202.

End Work Sta. 0+90
Temp. Rd. No. 7

Sodding 6' Wide (40 D)

C.B. 5 25" W/Grate 15" Type 'B' (41 D)

TYPICAL SECTION
EXISTING SHEITS ROAD

2'6" | 9'6" to 9'9" | 9'6" to 9'9" | 2'6"
4" Bituminous
5" Gravel Base

Excavation	24,073	C.Y.
Embankment	36,537	C.Y.
Seeding & Mulchi	10,757	S.Y.

For Continuation See Sheet No. 32

I-275 ℄ 596 597 598 599 600 601 602 603 604 605 606 607 I-275 608 609

20+00 ℄ RELOC. BREHM RD
PVI 20+12
El. 920.54

PVI 21+50
El. 919.16

-1.00%

200' V.C.

-6.28%

PVI 31+00
El. 859.50

+2.12%

+00.15" Type 'B'
FE 15" = 849.31

+49, 36" Type A
FE 36" = 825.74

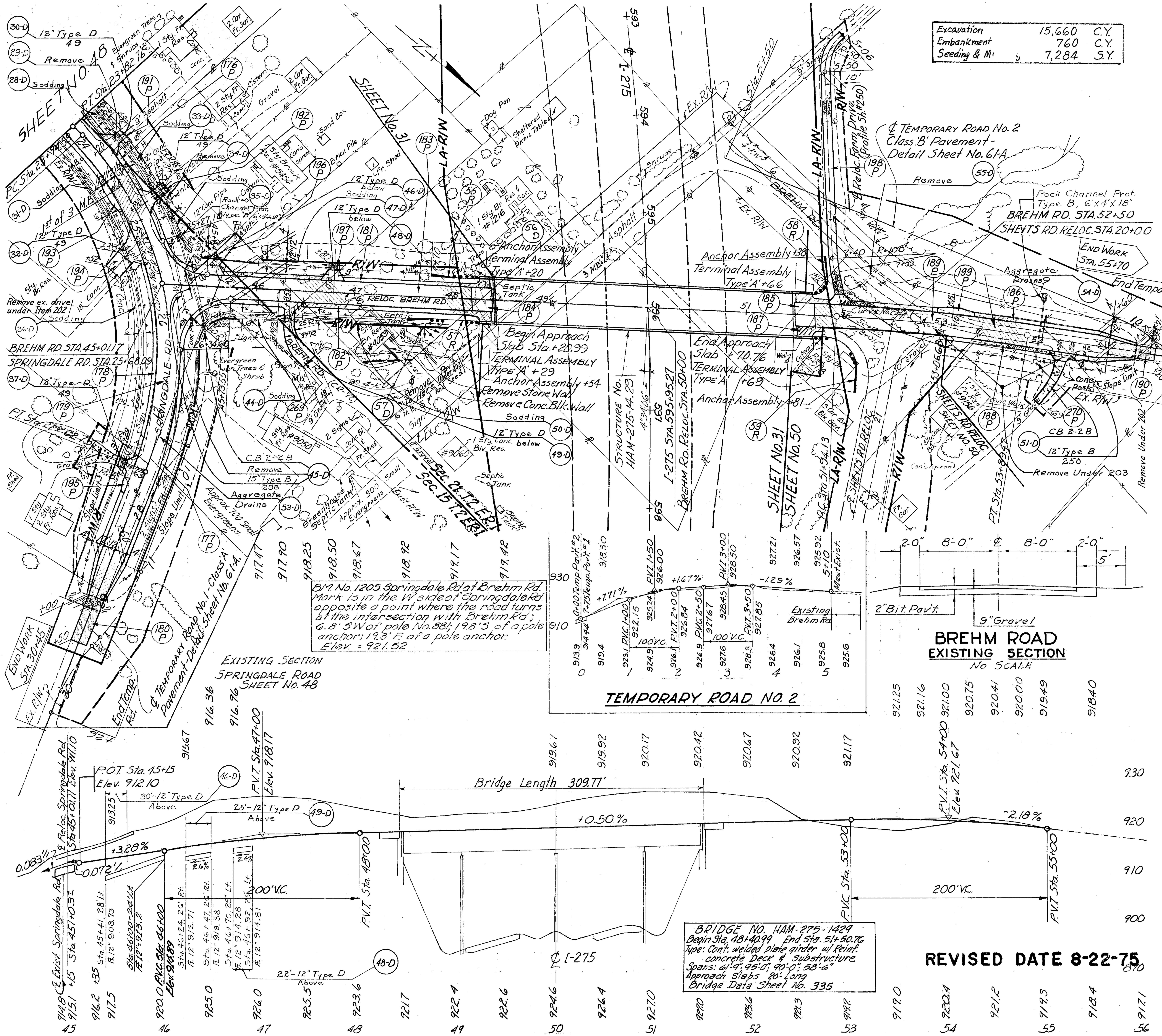
P.O.T. 32+67.00 End New Pavement

Temporary Road No. 7
Relc. Sheits Rd. ℄
+5.00%
25' V.C.
End Work Sta. 0+90
0+00
1+00

DEVELOPED 7-28-72 RJD | CHECKED 7-7-72 A.L.Y.

Rev. 9-23-75 SHEITS ROAD RELOC. STA. 20+00 to STA. 32+67

HAM-275-13.91



SPRINGDALE ROAD STA. 23+83 TO STA 29+00

RELOC. BREHM ROAD STA. 45+01.17 TO STA. 55+20

SUB-SUMMARY SPRINGDALE CONN., SPRINGDALE, SHEITS, BREHM

PAVEMENT		301 Bit. Aggr. Base C.Y.	304 Aggr. Base C.Y.	310 Subbase Grading B C.Y.	404 Asphalt Conc. (Driveways) C.Y.	402 Asphalt Conc. C.Y.	404 Asphalt Conc. C.Y.	407 Tack Coat Bit. Material G.	408 Bit. Prime Coat G.	409 Seal Coat Cover Aggr. C.Y.	409* Seal Coat Bit. Material G.	451 2" Rein. Port. Cem. Conc. Pavt. S.Y.	452 7" Pl. Port. Cem. Conc. Pavt. S.Y.	407 Cover Aggregate Tons	606 Guard Rail Type 5 L.F.	606 Bridge Terminal Assembly Each	606 Anchor Assembly Each	611 Rein. Conc. Approach Slab S.Y.	
SPRINGDALE CONN.																			
147P 75+69.37 BRR to 1+37 SPC	Rt.	10.88								0.49	18.59								48
148P 77+62 BRR to 1+37 SPC	Lt.	13.48								0.69	25.80								48
138P 0+32 to 1+37	Lt. & Rt.	180.26																	48
149P 1+37 SPC to 19+28.71 SPR	Rt.		86.42			34.82	24.85		170.01	3.40	127.51								48
150P 1+37 to 9+97.06	Lt. & Rt.		703.32	619.10		170.32	170.32		101.38										48
151P 1+37 SPC to 17+32.99 SPR	Lt.		77.58						152.61	3.05	114.46								48
SPRINGDALE RD.																			
152P 7+30 to 7+50	Lt. & Rt.						1.23	4.44						0.16					48
153P 7+50 to 8+76.33	Lt.		10.20						20.27	0.41	15.20								48
154P 7+50 to 8+56.33	Lt. & Rt.		56.07	50.03		13.35	13.35		109.86										48
155P 7+50 to 8+76.33	Rt.		11.60						22.98	0.46	17.23								48
156P 8+56.33 to 8+76.33	Lt. & Rt.			5.65		2.59	2.59	5.33						0.19				53.33	48
158P 11+13.32 to 11+33.32	Lt. & Rt.			5.65		2.59	2.59	5.33						0.19				53.33	48
159P 11+33.32 to 13+13	Lt.		20.50						39.78	0.80	29.83								48
160P 11+33.32 to 13+19	Rt.		25.20						49.02	0.98	36.77								48
161P 13+36 to 23+82.76	Lt.		74.01						145.60	2.91	109.20								48
162P 14+22 to 17+32.99	Rt.		19.07						37.51	0.75	28.13								48
163P 19+28.71 to 23+82.76	Rt.		28.83						50.71	1.13	42.53								48
164P 11+33.32 to 23+82.76	Lt. & Rt.		971.67	856.00		235.02	235.02		1933.89										48
165P 7+95	Lt.		4.40		1.05				7.56										48
166P 13+41	Lt.		2.93		1.17				8.44				14.22						48
167P 14+44	Lt.		5.51		1.05				7.56										48
168P 15+07	Lt.		4.84		0.99				7.11										48
169P 15+92	Lt.		2.62		1.05				7.56										48
170P 17+60	Lt.		15.40		1.42				10.22				21.00						48
171P 18+47	Lt.		7.41		2.96				21.33										48
172P 19+90	Lt.		7.72		1.11				8.00										48
173P 20+25	Lt.		2.62		1.05				7.56				24.00						48
174P 21+25	Lt.		2.62		1.05				7.56				27.00						48
175P 22+02	Lt.		2.62		1.05				7.56				17.00						48
261P 22+87	Rt.		2.62		1.05				7.56				18.00						48
262P 13+85	Rt.		5.35		1.85				13.29										48
263P 15+50	Rt.		3.43		1.37				9.87										48
264P 15+97	Rt.		4.40		1.05				7.56										48
265P 17+15	Rt.		3.06		1.22				8.80										48

FOR CONTINUATION SEE SH. 51A

Rev. 9-23-75

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

51A 468

HAM-275-13.91
HAMILTON COUNTY

SUB-SUMMARY SPRINGDALE CONN, SPRINGDALE, SHEITS, BREHM

▲ Type A

REF. NO.	STATION TO STATION	SIDE	301 Bit. Aggr. Base C.Y.	304 Aggr. Base C.Y.	310 Subbase Grading B C.Y.	404 Asphalt Concrete (Driveways)	402 Asphalt Concrete C.Y.	404 Asphalt Concrete C.Y.	407 Tack Coat Bit. Material G.	408 Bit. Prime Coat G.	409 Seal Coat Cover Aggr. C.Y.	409 Seal Coat Bit. Material G.	407 Cover Aggregate Tons	451 2" Reinf. Port. Conc. Pavt. S.Y.	452 7" Plain Port. Conc. Pavt. S.Y.	606 Guard Rail Type 3 L.F.	606 Bridge Termina▲ Assembly Each	606 Anchor Assembly Each	608 4" Concrete Walk S.F.	611 Reinf. Concrete Approach Slab S.Y.	SEE SHEET NO.
	PAVEMENT (CONT.)																				
	SPRINGDALE RD. (CONT.)																				
266P	19+48	Rt.		15.20		3.07				22.13											48
267P	20+73	Rt.		3.21		1.30				2.33											48
268P	22+78	Rt.		22.99		9.20				66.22											48
	SHEITS RD.																				
125P	20+12 to 32+67	Lt. & Rt.		707.78	630.38		168.86	168.86		1339.46											50
126P	53+06.68 BR to 32+67 SR	Lt.		115.92						228.02	2.56	17.03									50
127P	51+78.04 BR to 32+67 SR	Rt.		115.37						229.16	3.52	17.037									50
128P	32+67 to 32+87	Lt. & Rt.						1.42	5.11				0.18								50
	SPRINGDALE RD.																				
176P	23+82.76 to 25+27.18	Lt.		2.67						19.02	0.38	14.27									
177P	26+34.60 to 29+00	Lt.		23.38						46.37	0.93	34.78									
178P	23+82.76 to 29+00	Rt.		33.85						66.77	1.34	50.08									
179P	23+82.76 to 29+00	Lt. & Rt.		281.01	250.45		66.98	66.98		551.19											
180P	29+00 to 29+50	Lt. & Rt.						3.09	11.11				0.39								51
	BREHM RD.																				
181P	25+27.18 SPR to 48+00.99 BR	Lt.		28.64						56.09	1.12	42.07									51
182P	26+34.60 SPR to 48+00.99 BR	Rt.		28.23						56.62	1.13	42.46									51
183P	45+13 to 48+20.99	Lt. & Rt.		105.23	164.92		44.23	44.23		303.90											51
184P	48+20.99 to 48+40.99	Lt. & Rt.			5.65		2.59	2.59	5.33				0.19							53.33	51
185P	51+50.76 to 51+70.76	Lt. & Rt.			5.65		2.59	2.59	5.33				0.19							53.33	51
186P	51+50.76 to 55+00	Lt.		27.24						53.42	1.08	20.06									51
187P	51+50.76 to 51+78.04	Rt.		4.69						8.85	0.18	6.64									51
188P	53+06.68 to 55+00	Rt.		12.75						25.65	0.52	19.24									51
189P	51+70.76 to 55+00	Lt. & Rt.		175.59	154.59		41.81	41.81		344.08											51
190P	55+00 to 55+20	Lt. & Rt.						0.99	3.56				0.12								51
	SPRINGDALE RD.																				
191P	22+20	Lt.		4.01		1.60				11.56											51
192P	22+90	Lt.		2.86		1.71				12.31											51
193P	24+60	Rt.		3.43		1.37				9.87											51
194P	25+12	Rt.		6.85		2.74				19.73					38.00						51
195P	27+63	Rt.		16.11		1.91				13.78											51
	BREHM RD.																				
196P	48+30	Lt.		10.60		4.24				30.53											51
197P	46+78	Lt.		3.75		1.05				7.56											51
198P	52+00	Lt.		69.69		1.11				8.00											51
199P	53+10	Lt.		3.06		1.22				8.80											51
269P	46+35	Rt.		17.26		7.02				50.53											51
270P	50+26	Rt.		13.06		1.58				11.38											51
	ROADWAY																				
	SPRINGDALE CONN.																				
77R	75+70 BRR to 79+15 SPR	Rt.														1000.00		2			48
	SPRINGDALE RD.																				
76R	19+70 to 22+45	Rt.														225.00		2			48
78R	8+03 to 8+52	Lt.														50.00	1				48
79R	8+07.50 to 8+70	Rt.														37.50	1	1			48
80R	11+21 to 12+08.50	Lt.														62.50	1	1			48
81R	11+30 to 12+02.50	Rt.														37.50	1	1			48
82R	13+20	Rt.																	32.00		48
83R	18+35	Lt.																	20.00		48
	SHEITS RD.																				
55R	26+25 to 32+05	Lt.														500.00		2			50
	BREHM RD.																				
56R	47+70 to 48+20	Lt.														25.00	1	1			51
57R	47+54 to 48+29	Rt.														50.00	1	1			51
58R	51+66 BR to 71+38 DR	Lt.														25.00	1	1			51
59R	51+69 BR to 20+81 SR	Rt.														62.50	1	1			51
TOTAL			204.62	4109.10	2750.07	59.61	785.75	782.51	45.54	8005.56	30.85	1156.17	1.61		159.22	2075.00	8	13	52.00	213.32	

DEVELOPED 7-3-72 R.A.P. | CHECKED 7-7-72 C.E.S.

REVISED DATE 8-22-75

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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HAM-275-13.91
HAMILTON COUNTY

REF. NO.	STATION TO STATION			SIDE	202 Catch Basins Removed	202 Pipe Removed 24" and Under	601 Rock Channel Prot. Type B w/ Bedding	602 Conc. Masonry	603 Type A 24"	603 Type B 12"	603 Type B 15"	603 Type B 24"	603 Type C 706.01 (Class 3, 706.02, 706.08 E.S. or 707.13 15"	603 Type D 12"	601 Riprap, 6" Using 6" Rein. Conc. Slab	604 Catch Basin CB-5 with IB Grate	604 Catch Basin CB 2-2-B	605 Aggregate Drains	202 Septic Tank Removed	660 Sodding	SEE SHEET NO.
					Ea		C.Y.	S.Y.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Sq. Yds	Ea	Ea	L.F.	Ea	S.Y.	
1-D	1+10	SPR. CONN.		Lt & Rt			4	.92	88						2.4						48
2-D	1+05	- 7+80	SPR. CONN	Lt																	48
3-D	5+96	- 8+06	SPR. CONN	Rt			111.9														48
4-D		11+50	S.R.				1.5	.20		62							1				48
5D	11+50	-	12+00	S.R. Rt																32	48
6D	11+50	-	12+50	SR Lt																64	48
7D	13+07	-	13+29	SR Lt										22							48
8D	13+60	-	13+36	SR Lt		20															48
9D	14+34	-	14+56	SR Lt										23							48
10D	14+96	-	15+19	SR Lt										22							48
11D	17+45	-	18+34	SR Lt									89				1				48
12D	18+34	-	19+73	SR Lt									140				1				48
13D	19+73	-	20+10	SR Lt									37				1				48
14D	20+10	-	21+04	SR Lt									95				1				48
15D		21+04		SR Lt & Rt	2	100	1.7	.46				101					1				48
16D	21+04	-	21+45	SR Lt									41				1				48
17D	21+47	-	21+89	SR Lt																29	48
18D	21+05	-	22+48	SR Rt																34	48
19D	22+48	-	22+83	SR Rt										39							48
20D	21+89	-	22+14	SR Lt										24							48
21D	21+95	-	22+10	SR Lt		15															48
22D	22+14	-	22+73	SR Lt																40	48
23D	22+73	-	23+03	SR Lt										25							48
24D	22+80	-	22+94	SR Lt		14															48
25D	22+53	-	22+80	SR Rt		26															48
26D	22+83	-	23+83	SR Rt																72	48
27D	23+03	-	23+83	SR Lt																46	48
28D	23+83	-	24+11	SR Lt																20	51
29D	24+10	-	24+30	SR Lt		20															51
30D	24+11	-	24+30	SR Lt										23							51
31D	23+83	-	25+08	SR Rt																80	51
32D	25+08	-	25+47	SR Rt										35							51
33D	24+30	-	24+71	SR Lt																30	51
34D	24+71	-	24+96	SR Lt		24								27							51
35D	24+96	-	45+41	SR Lt																14	51
36D	25+47	-	27+00	SR Rt																94	51
37D	27+42	-	27+83	SR Rt										40							51
38D	21+00	-	26+50	SH Lt																368	50
39D	26+50	-	29+42	SH Lt			132														50
40D	605+00	-	31+00	S Rt																136	50
41D		31+00		S Rt				.27		79						1					50
42D	29+50		31+00	S Lt			60										1				50
43D		32+58																			50
44D	26+34	SR -	46+24	B Rt																64	51
45D	45+19	B	45+47	B Rt		70	1.8	.27		92							1				51
46D	45+41	B -	45+71	B Lt										60							51
47D	45+71	B -	46+50	B Lt										22						52	51
48D	46+70	B -	46+92	B Lt										25							51
49D	46+24	B -	46+47	B Rt																	51
50D	46+47	B -	47+50	B Rt																68	51
51D		54+00		B Rt			1.3	.21		64							1				51
52D	0+50	-	10+00	SPR. CONN														75			45
53D	7+00	-	29+50	SR														900			48 & 51
54D	45+50	B -	55+00	B														275			51
55D	52+20	B —	52+35	B Lt.		30															51
56D	48+20	B		Lt.													1				51
57D	47+70	B		Rt.													1				51
TOTALS					2	319	314.2	2.33	88	126	171	101	402	387	2.4	1	10	1250	2	1641	

DEVELOPED		CHECKED	
RHF	7-10-72	RRS	7-11-72

SPRINGDALE ROAD RELOCATED
SPRINGDALE CONNECTOR
SHEITS ROAD RELOCATED
BREHM ROAD RELOCATED

HAM-275-13.91
HAMILTON COUNTY

283 C.Y.
1,165 C.Y.
2,146 S.Y.

8-5-70 R/D 7-7-72 A.L.Y.

RAMP 'G' STA. 683+61.78 TO STA. 686+50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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HAM-275-13.91
HAMILTON COUNTY

● Drawing not to scale
See Typical Section, Sht. No. 5

SHEET NO. 39
SHEET NO. 40
SHEET NO. 30
SHEET NO. 57

Sod Strip 50' Long (7D)
Curve No. 11-1
Slope Limit
LA-RIW
Sta. 674+44.31 & 1.275 Rt.
Sta. 674+03.40 & RAMP H
P.C.C. Sta. 675+55.15
(10A P) (8D) 6" Deep U.D.
(4E P) Anchor Ass'y +315
Barn Drive (Sh't.)
(9D) Sodding 6' Wide
Rock Channel Prot. 16'x10'x30" Type 'B'
Sec. 16 T.2 E.R.1
Sec. 10 T.2 E.R.1
Type 'S' MH
10' Type 'E'
Curve No. 11-2
(10B P) Anchor Assembly +75
(10C P) 2 RAMP H
P.T. Sta. 680+37.41
(13D) C.B.S-A 42" Type 'B'
(16D) Sodding 6' Wide
(14D) Sodding 6' Wide
Riprap, Using 6" Rein. Conc. Slab 5'x7'
Rock Channel Prot. 10'x7'x30" Type 'B'
(15D) Sodding 6' Wide
Sta. 683+17.97
7.5 Sta.
Sta. 683+50 Begin Taper
(10C P) Curve No. 11-3
Post #20
Anchor Assy. +5
Slope Limit
LA-RIW
Post #10
End Taper Sta. 685+17.50
℄ Sta. 685+50.36
P.T. Sta. 685+50.36
Rock Channel Prot. 6'x4'x18" Type 'B'
(20D) Erosion Control at Swale See Detail sh't. 300
Rock Chan. Prot. 6'x4'x18" Type 'B'
Plugged
Sta. 674+37.23
Ex. R/W
Ex. R/W 2
Sta. 673+25.98 RAMP 'I'
Sta. 673+16.58 COLERAIN AVE.
Sta. 714+10.44 COLERAIN AVE.
Sta. 008+87.74 RAMP H
Anchor Assembly +00
Sta. 717+16.58 COLERAIN AVE.
Sta. 673+25.98 RAMP 'I'
Sta. 671+77.72 RAMP 'I'
Sta. 679+20.68 COLERAIN AVE.
Sta. 685+55.80 RAMP 'I'
Sta. 685+55.80 ℄ RAMP 'I'
℄ COLERAIN AVE. (U.S. 27)
℄ RAMP 'I'
℄ RAMP 'H'
℄ I-275
Sodding 9' Wide
Roadside Cleanup Item 656
6" Deep U.D.
Field 6" Shallow U.D.
(11D) 6" Unclass U.D.
36" Type 'E' 296
Slope Limit
Sodding 9' Wide
Earth Dike
Curb Turnout See Sh't. 301
Sodding 12' Wide
6" Unclass U.D. (18D)
Sodding 9' Wide
6" Shallow U.D. (22D)
Curve No. I-2
6" Shallow U.D.
Anchor Assembly Type 'C' Curb
C.B. 2-A
Type 'C' Curb
Type 'E' Curb
C.B. 3-A 15" Type 'B' 15" Type 'E' 198
Anchor Assembly +00
Slope Limit
Sodding 9' Wide
6" Shallow U.D. (Rock)
Roadside Clean-up Item 656
18" Type 'B' C.B-4 298
Frame Barn
Out House Frame Shed
Frame Shed
Small Barn W/Loft
Fill-Cistern W/Pump Conc. Slab (Remove Under 202)
Barn W/Loft Stable Basmt.
Frame Sheds
Basin Ramp Drain Sta. 674+25.98
Type 'C' Curb
C.B. 3-A 15" Type 'C' 298
Type 'C' Curb
Ex. R/W 1
Ex. R/W 2
Ex. R/W 3
Ex. R/W 4
Ex. R/W 5
Ex. R/W 6
Ex. R/W 7
Ex. R/W 8
Ex. R/W 9
Ex. R/W 10
Ex. R/W 11
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Ex. R/W 998
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Ex. R/W 1000

Excavation	85,628	C.Y.
Embankment	61,729	C.Y.
Seeding & Mulching	53,072	S.Y.

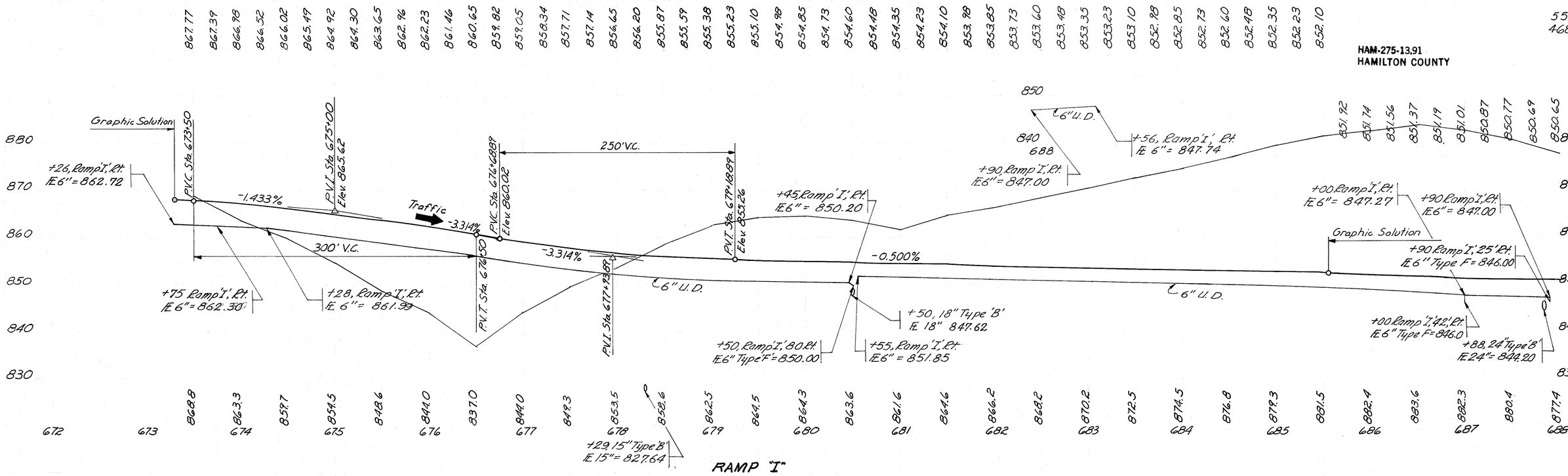
REVISED DATE 8-22-75

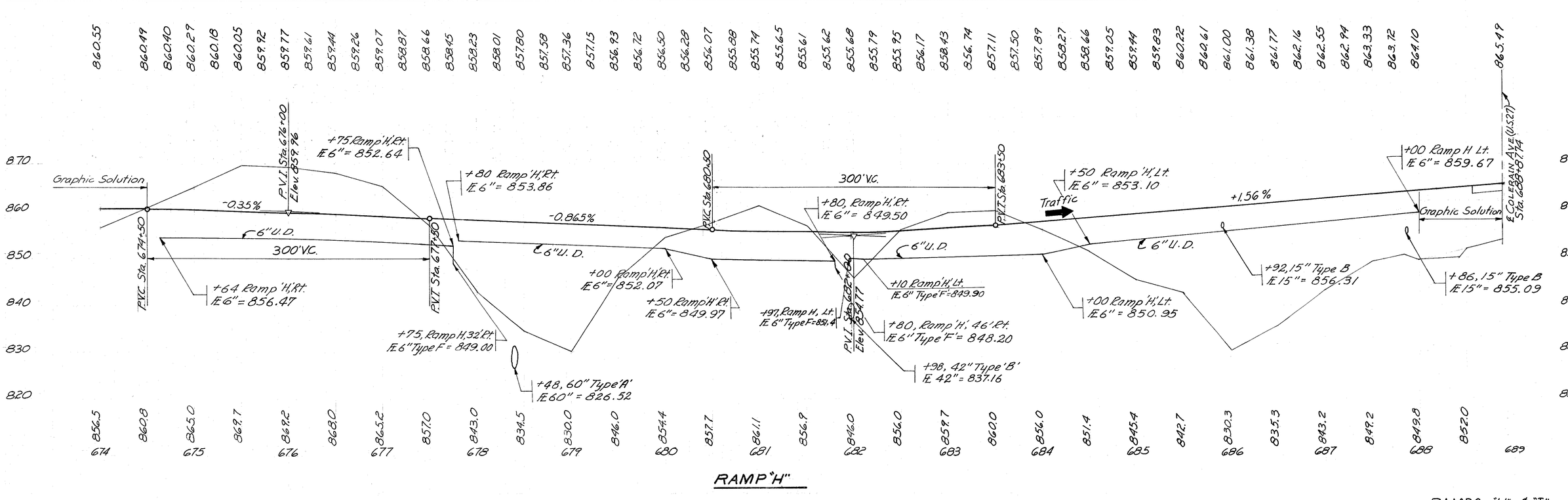
Ramp Profiles: Sheet No. 55
Pavement Details: Sheet No's. 279, 280 & 281

DEVELOPED 7-28-72 R.D.
CHECKED 7-7-72 A.L.Y.

PLAN – COLERAIN INTERCHANGE – RAMPS "H" & "I"

HAM-275-13.91
HAMILTON COUNTY





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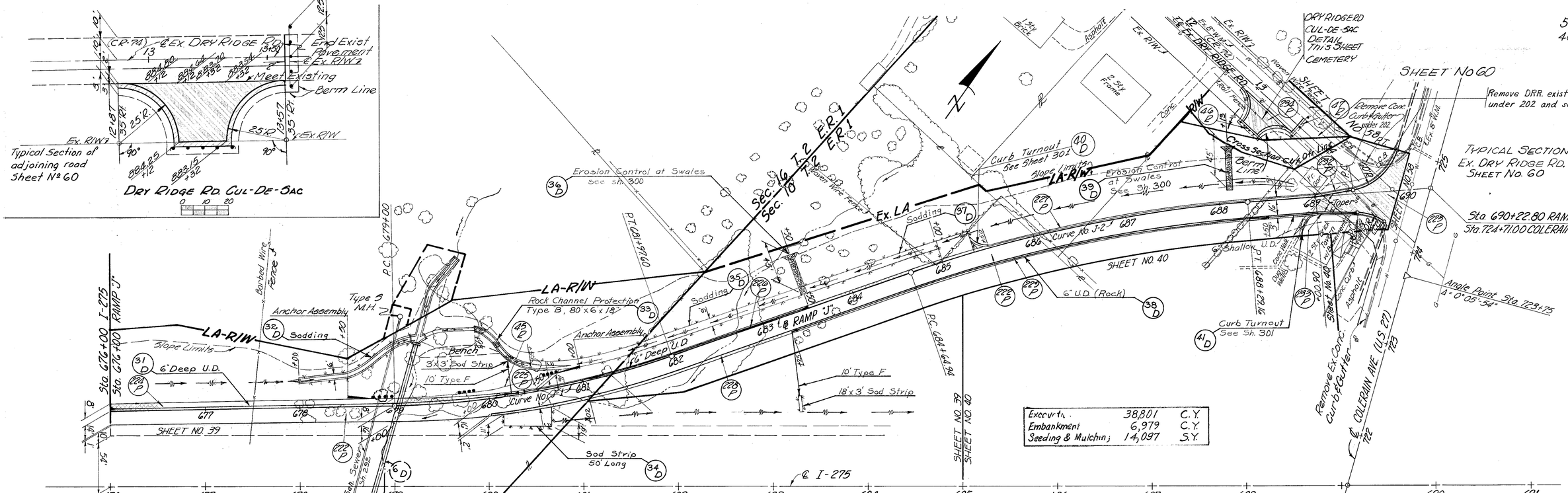

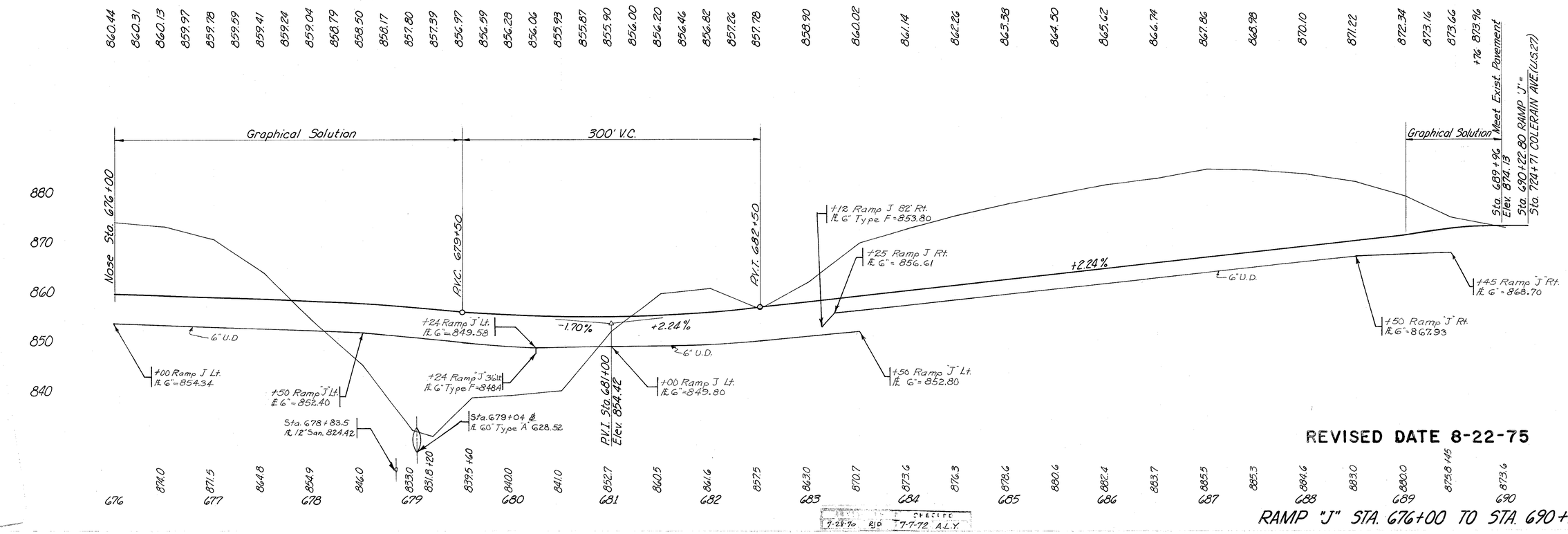

REVISED DATE 8-22-75

RAMP "J" STA. 676+00 TO STA. 690+22.80

DEVELOPED 7-28-70 RJD | CHECKED 7-7-72

Rev. 9-23-75

(U.S. 27) COLERAIN AVE. STA. 707+50 TO STA. 720+00

℄ TEMPORARY ROAD NO. 3 (Temporary Pavement, Class A) {Profile, Sheet No. 57 {Cross Sections, Sht. No. 258-260B & 265.

Remove 6" U.D. (67 D)

Sign Support No. 17

Slope Limits To Orig. Grd. Temp. Rd. No. 3

SHEET NO. 40

SHEET NO. 50

SHEET NO. 54

SHEET NO. 57

Temp. Rd. P.I. 122+57 Lde., 125' Lt.

Terminal 20 Assembly, Type A

P.T. 688+29.16 ℄ Ramp "J"

Sta. 1244+70.00 ℄ Ramp "J" & ℄ COLERAIN AVE.

Anchor Assembly 724+15

SUSPEND WORK STA. 727+20

COLERAIN AVE. Existing Roadway Section same as Proposed Typical Section SHEET NO. 9

CEDAR GROVE CEMETERY

Remove exist precast traffic dividers under Item 202 between 705+87 to 726+90 Colerain Ave.

Slope Limits

12" Type B 299 (68 D)

C.B.-3 (69 D)

10' Type F

6" Shallow U.D.

LA-R/W

Type 6 Conc. Curb & Gutter (27 D)

Remove Exist. Conc. Curb & Gutter Under Item 202

Meet Exist. Sta. 727+20

6" Shallow U.D.

Ex. R/W

Ex. 6" W.M.

Ex. 30" W.M.

℄ COLERAIN AVE. (U.S. 27)

Meet Exist.

Remove Under 202

Remove Under 203

Beam Line

Pavt. Detail SHEET NO. 58

℄ RAMP "F"

18" Type B 299

Remove C.B. & Grnl. 18" Pipe (70 D)

16" Type B 299 C.B.-6 (66 D)

Ex. L.A.

Asphalt

Gravel

Sign

Remove exist. guard rail under Item 202.

C.B. 3-A 15" Type B 299 (62 D)

6" Shallow U.D. (63 D)

C.B. 3-A 15" Type C 299 (64 D)

6" Shallow U.D. (65 D)

Sta. 669+00.22 ℄ Ramp "J" & ℄ COLERAIN AVE.

Angle Point Sta. 123+15

Sta. 669+00.35 L.T. 275' from ℄ COLERAIN AVE.

Sta. 721+45.45 ℄ COLERAIN AVE.

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	1,660	C.Y.
Embankment	107	C.Y.
Sec[illegible] Machine	1,648	S.Y.

T.B.M. Bolt on F.H. at Colerain Ave. opposite Capstan Dr. Elev. 855.60

872.47 873.06 873.34 873.57 873.75 873.88 873.97 874.02 874.02 873.97 873.88 873.74 873.56 873.36 873.35 873.40 +05 873.42

890 880 870 860 850 840 830

Bridge Length = 300.41'

+1.184%

-1.007

℄ L. 275 +45.45

PVI. Sta. 722+00 Elev. 874.84

+00 Lt. ℄ 6" Type F 869.30

+00 Lt. ℄ 6" = 869.7

222+97.53 Begin Appr. Slab

Graphic Solution

Meet Existing Sta. 724+05

Sta. 689+45 Ramp "J" Rt. ℄ 6" 869.7

Sta. 690+55 Ramp "F" Rt. ℄ 6" = 869.4

6" U.D.

+20 Lt. ℄ 6" = 879.28

+12 Lt. ℄ 6" Type "F" = 870.61

+75 Rt. ℄ 6" Type "F" 868.90

+22 Rt. ℄ 6" = 869.15

300' V.C.

BRIDGE NO. HAM-275-1604
Begin Sta. 719+87.12
End Sta. 722+87.53
Type: Continous welded plate girder with reinf. Conc. Deck and Substructure.
Spans: 61'-6"; 94'-6"; 84'-9"; 55'-0"
Approach Slabs - 20' Long
Bridge Data Sheet No. 344

PVC. Sta. 720+50

PVT. Sta. 723+50

720 721 722 723 724 725 726 727 728 729 730 731

+10 873.0 +03 872.9 +12 873.0 +10 873.5 +25 873.6 +10 873.5 +25 873.6

870.9 871.8 872.3 872.8 872.9 +10 873.0 873.2 873.4 874.9 876.0 877.2 878.7 880.4 881.6 883.2 885.0

REVISED DATE 8-22-75

SUB-SUMMARY CAPSTAN DR., RAMPS G, H, I, J, DEY RIDGE RD., COLERAIN AVE.				▲ as per plan
606 Guard Rail Type 5	606 ▲ 606 Bridge Terminal Type 5 BAR Assembly	606 Guard Rail Transition L.F.	606 Anchor Assembly (Barrier) Each	606 Anchor Assembly (Barrier) Each
			2	
			2	
		387.50	1	2
			2	
			2	
			1	
			1	
			2	
			1	
			1	
2	2	387.50	11	2

NOTE: SEE SHEET NO. 58 A FOR PAVEMENT ITEM QUANTITIES

ROADWAY

CAPSTAN DR. CUL-DE-SAC

212 1"-A 25.0 CO UNIT 2.000

RAMP H

422 6" U.D. 750 to 6" P.I. 791.73 EA 2.000

432 6" Shallow U.D. 791.73 to 808.00 EA 2.000

RAMP I

442 6" U.D. 680+50 to 683+23.80 LF 272.80

511 R 6" Type F 676+07.10 to 680+00 RAMP J 390.00

RAMP J

432 6" Shallow U.D. 680+00 to 681.50 LF 150.00

DEY RIDGE RD.

464 P 24" C.S.P. 19+32.00 to 19+55.00 EA 1.000

472 18" R.C.P. 19+55.00 LF 23.00

COLERAIN AVE.

432 6" Shallow U.D. 705.86 to 710.61 EA 1.000

452 6" Type B 709.84 to 719.84 EA 1.000

502 6" Pavt. Repair 719.84 to 726.15 LF 100.00

TOTALS FOR ROADWAY ITEMS

COLERAIN AVE. STA. 720+00 TO STA. 727+20

7-29-70 R/D. 7-7-72 A.L.Y.

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

58A 468

HAM-275-13.91
HAMILTON COUNTY

SUB-SUMMARY RAMPS G, H, I, J, CAPSTAN DR., COLERAIN AVE., DRY RIDGE RD.

REF. NO.	STATION TO STATION	SIDE	301 Bit. Aggr. Base C.Y.	304 Aggr. Base C.Y.	310 Subbase C.Y.	310 Subbase Grading A C.Y.	404 Asphalt Concrete (Driveways) C.Y.	402 Asphalt Concrete C.Y.	404 Asphalt Concrete C.Y.	407 Tack Coat Bit. Material G.	408 Bit. Prime Coat G.	409 Seal Coat Cover Aggr. C.Y.	409 Seal Coat Bit. Material G.	407 Cover Aggregate Tons	Special Drainage Conn. No. 8 Aggr. C.Y.	609 Comb. Curb&Gutt. Type 2 L.F.	609 Comb. Curb&Gutt. Type 3 L.F.	609 Concrete Curb Type 6 L.F.	611 Reinf. Conc. Approach Slab S.Y.	612 Concrete Median S.Y.	612 4" Concrete Median S.Y.	SEE SHEET NO.
	RAMP G																					
100 P	683+61.78 to 686+50	Lt.	102.65		92.38			16.27	11.62													53
101 P	683+61.78 to 684+61.78	Lt.	41.78			10.37		7.01	4.94													53
102 P	684+61.78 to 686+50	Lt.	5.23	7.53	10.04							0.50	18.82									53
103 P	684+61.78 to 686+50	Rt.	3.23	7.53	16.38							0.50	18.82		14.01							53
271 P	683+61.78 to 684+61.78	Lt.		9.07							1.78	0.36	13.33									53
272 P	683+61.78 to 684+61.78	Rt.		7.83							15.56	0.31	11.67									53
273 P	683+73 to 684+61.78	Lt.																68.78				53
	CAPSTAN DR CUL-DE-SAC																					
274 P	11+33 to 12+00	Rt.		5.81				2.91	1.94		13.96						71.00					53
275 P	11+33 to 12+00	Lt.		5.06				2.53	1.69		12.13						78.00					53
276 P	11+60	Lt.		1.73			0.69				4.98											53
	RAMP H																					
104 P	674+63.48 to 675+63.48	Rt.	5.09	8.63	13.80							0.49	18.33		4.90							54
105 P	675+63.48 to 681+80	Rt.	17.13	24.66	53.66							1.64	61.65		30.58							54
106 P	681+80 to 687+99.31	Rt.	20.67	31.71	42.32							1.98	74.41									54
107 P	683+00 to 688+55	Lt.													25.00			555.00				54
108 P	674+63.48 to 683+00	Lt.	23.24	33.46	48.08							2.23	83.65		5.15							54
109 P	674+63.48 to 687+99.31	Lt. & Rt.	823.41		761.88			13.31	9.39													54
110 P	687+99.31 H to 713+11.58 CO	Rt.		10.62							20.80	0.42	15.60									54
111 P	687+99.31 to 688+50	Lt. & Rt.	6.09			9.80		11.18	7.85													54
112 P	683+73 to 686+17	Lt.																			131.55	54
	RAMP I																					
113 P	684+46 to 688+55.80	Lt.			11.47																	54
115 P	673+48 to 679+70	Lt.																661.00				54
116 P	673+25.98 to 674+25.98	Rt.				18.07									5.00		100.00					54
117 P	673+25.98 to 674+25.98	Lt.	10.74			6.48		7.81	4.94													54
118 P	673+25.98 to 674+25.98	Lt.		9.07							17.78	0.36	13.33									54
119 P	674+25.98 to 684+05.80	Rt.	27.22	32.19	85.28							2.61	97.98		48.99							54
120 P	679+70 to 684+55.80	Lt.	14.12	20.20	26.93							1.35	50.81									54
121 P	674+25.98 to 688+55.80	Lt.	708.27		732.90			12.91	9.22													54
122 P	684+05.80 to 688+55.80	Rt.	7.64	12.94	19.81							0.73	27.50		7.35							54
123 P	685+55.80 to 688+55.80	Rt.	22.22	32.78	53.11							2.13	80.00		14.10							54
	RAMP J																					
222 P	676+00 to 689+00	Rt.	692.92		623.64			111.35	79.53													56
223 P	683+00.90 to 689+89	Rt.	68.77			103.48		12.91	8.62													56
224 P	676+00 to 679+00	Lt.	22.22	32.78	53.11							2.13	80.00		14.10							56
225 P	679+00 to 680+50	Lt.	7.64	12.94	19.81							0.73	27.50		7.35							56
226 P	680+50 to 683+50	Lt.	8.33	12.00	26.11							0.80	30.00		15.00							56
227 P	683+50 to 683+00.90	Lt.	15.30	22.04	29.98							1.47	55.09					3.51				56
228 P	680+00 to 683+25	Rt.	8.80	12.54	16.73							0.84	31.67									56
229 P	683+25 to 683+00.90	Rt.	16.00	23.04	50.12							1.54	57.59		28.80							56
230 P	676+00 to 680+14	Rt.			11.50																	
231 P	680+14 to 681+02	Rt.																				
232 P	689+00.90 J to 702+91.60	Lt.				12.16											106.00					56
233 P	689+00.90 J to 702+18.86 CO	Rt.				13.92									2.21		77.00					56
234 P	12+87 DRY to 13+57 DRY	Rt.		19.16				7.11	4.74		43.02	0.18	6.67									56
	COLERAIN AVE.																					
132 P	710+30 to 710+50	Lt. & Rt.							2.96	10.67				0.37								57
133 P	710+50 to 713+11.58	Lt.		23.74							46.50	0.93	34.88									57
134 P	707+50 to 712+42.86	Rt.		22.16							82.61	1.65	61.95									57
135 P	707+50 to 712+31.01	Rt.	433.29			662.64		77.30	51.33													57
136 P	712+31.01 to 713+32	Rt.	213.90			320.85		40.11	26.73													57
137 P	712+31.01 to 714+82	Lt.	270.18			409.54		50.39	33.60													57
138 P	716+16.58 to 719+67.12	Lt.	346.84			512.60		64.95	43.30													57
140 P	713+32 to 719+67.12	Rt.	277.03			428.15		56.15	37.43													57
141 P	719+67.12 to 719+87.12	Lt. & Rt.				48.97		7.55	5.03	18.11				0.63					181.11			57
142 P	709+77.50 to 716+16.58	Lt.		22.71			17.90				128.82							353.00				57
277 P	709+00 to 712+31.01	Lt. & Rt.																		95.53		57
278 P	712+31.01 to 714+17.04	Lt. & Rt.				18.94												341.00			165.82	57
279 P	714+78.90 to 715+00.50	Lt. & Rt.	4.62			6.93														20.78		57
280 P	715+00.50 to 719+12.50	Lt. & Rt.				45.78												824.00			378.89	57
281 P	719+12.50 to 719+67.12	Lt. & Rt.	3.33			7.99														29.98		57
282 P	714+33.22 to 716+92.58	Lt.				9.61												252.36				57
283 P	716+92.58 to 717+16.28	Lt.		2.67																12.33		57
284 P	717+16.58 to 719+67.12	Lt.				22.65											296.00					57
285 P	712+14.86 to 712+46.86	Rt.		3.58																25.78		57
286 P	712+46.86 to 719+67.12	Rt.				131.87											729.60					57
	FOR CONTINUATION SEE SHEET 58B																					

DEVELOPED	CHECKED
7-3-72 R.A.P.	7-10-72 C.E.S.

REVISED DATE 8-22-75

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

58-B 468

HAM-275-13.91
HAMILTON COUNTY

SUB-SUMMARY RAMPS G, H, I, J, CAPSTAN DR., COLERAIN AVE.

REF. NO.	STATION TO STATION PAVEMENT (CONT.)	SIDE	301 Bit. Aggr. Base C.Y.	304 Aggr. Base C.Y.	310 Subbase C.Y.	310 Subbase Grading A C.Y.	404 Asphalt Concrete (Driveways) C.Y.	402 Asphalt Concrete C.Y.	404 Asphalt Concrete C.Y.	407 Tack Coat Bit. Material G.	408 Bit. Prime Coat G.	409 Seal Coat Cover Aggr. C.Y.	409 Seal Coat Bit. Material G.	407 Cover Aggregate Tons	Special Drainage Comp. No. 8 Aggr. C.Y.	609 Comb Curb & Gutt. Type 2 L.F.	609 Comb Curb & Gutt. Type 3 L.F.	609 Concrete Curb Type 6 L.F.	611 Reinf. Conc. Approach Slab S.Y.	612 Concrete Median S.Y.	612 4" Concrete Median S.Y.	SEE SHEET NO.
	COLERAIN AVE. (CONT.)																					
143 P	722+87.33 to 723+07.33	Lt. & Rt.				48.37		7.55	5.03	18.11				0.63					181.11			58
144 P	723+07.33 to 724+05	Rt.		74.63		111.94		13.99	9.33													58
145 P	723+07.33 to 724+05	Lt.		105.23		157.85		18.69	12.46													58
146 P	724+05 to 724+98.91	Lt.		11.53		17.30		3.47	2.31													58
287 P	724+98.91 to 727+20	Lt.		73.71		92.41		14.33	9.55													58
288 P	724+05 to 724+25	Lt. & Rt.							3.55	12.78				0.45								58
289 P	723+07.33 to 723+83	Lt.																		83.00		58
290 P	724+95 to 726+91	Lt. & Rt.																		249.89		58
291 P	723+07.33 to 724+18.86	Lt.				28.59										13.00						58
292 P	724+98.91 to 727+20	Lt.				39.96										221.09						58
293 P	723+07.33 to 600+69.34 F	Rt.				32.17										178.00						58
294 P	600+67 F	Lt. & Rt.				2.78			2.78						8.25							58
TOTAL			468.42	533.23	279.84	3590.34	18.59	79.01	559.22	59.67	40.96	25.88	9.71.25	2.08	230.79	1772.69	149.00	3413.14	362.22	460.29	873.26	

DEVELOPED 7-3-72 R.A.P. | CHECKED 7-11-72 C.E.S.

REVISED DATE 8-22-75

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

59
468

HAM-275-13.91
HAMILTON COUNTY

★ 706.01 Cl 3, 706.02, 706.08 ES or 707.13 ★★ 706.02 Class III, 706.08 ES or 707.13

REF. NO.	STATION TO STATION	SIDE	Bends & Branches 90° 6"	45° 6"	25° 15"	TEE 6"	202 Catch Basins Removed Ea	202 Pipe Removed 24" and Under LF	202 6" UD Removed LF	601 Rock Chan Prot Class B CY	601 Riprap using 6" Reinf Conc slab SY	602 Conc Masonry CY	603 B 12" LF	B 15" LF	B 18" LF	B 24" LF	B 30" CLASS III LF	C 15" LF	C ★ 18" LF	C ★★ 36" LF	D 12" L.F.	F 12" L.F.	F 6' LF	F 15' LF	604 CB 3 Ea	CB 3A Ea	CB 4 Ea	CB 22B Ea	CB 5 Ea	C.B. 5-A Ea.	C.B. 6 Ea.	San MH Reconst to grade Ea	603 Animal Guard for pipe outlet EACH	605 Underdrains Shallow 6" LF	Shallow 707.01 III 707.12 6" LF	Unclass 6" LF	Deep 6' LF	202 Priv Vault Removed Ea	660 Sodding SY	SEE SHEET NO.
1-D	712+50 CA - 584+00 G	Rt								1.8		.27		51'											1														53
2-D	684+08	Rt								1.8		.31																												53
3-D	684+08 G - 684+24 G	Lt & Rt					1	66																																53
4-D	683+67 G - 689+00 G	Rt																																				348		53
5-D	684+62 G - 686+50 G	Rt																																		188				53
6-D	685+43 G	Lt					2																																	53
7-D	674+63.48 G - 675+13	Lt																																				72		54
8-D	674+63.48 H - 677+75 H	Lt	1																				10									1				332			54
9-D	677+35 H - 678+31 H	Rt																																				86		54
10-D	685+80	Rt																																					1	54
11-D	677+80 H - 680+00 H	Rt	1																				10									1		220		50	263			54
12-D	680+98 H - 682+74 H	Lt																																				210		54
13-D	681+85 H - 682+13 H	Lt & Rt								7.8		.92					130													1									50	54
14-D	681+50 H - 682+09 H	Rt																																				68		54
15-D	682+17 H - 683+00 H	Rt																																						54
16-D	683+00 H	Lt									10																													54
17-D	685+98 H	Lt			2					1.8		.27		35'										68		1													54
18-D	681+85 H - 688+00 H	Lt	1																				10									1		340		50	231			54
19-D	687+96 H	Lt								1.8		.27		114'														1											54
20-D	686+43 H	Rt								7.2																														54
21-D	674+23 I - 674+36 I	Rt								1.5		.27						30								1													54
22-D	673+26 I - 680+45 I	Rt	1																				10											730						54
23-D	674+35 I - 680+50 I	Rt																																				634		54
24-D	680+50 I - 681+85 H	Rt													104												1												54
25-D	681+85 H - 683+2 H																			324																			54
26D	682+00 I - 683+02 ML																																					150		54
27-D	680+55 I - 688+56 I	Rt			1																		20											803						54
28-D	686+40 I - 687+90 I	Rt																																				150		54
29-D	687+75 ML - 687+90 I	Rt													46												1												54
30-D	687+90 I - 688+75 I	Rt																35									1												54
31-D	676+06 J - 683+50 J	Lt			1																		10									1				774			56
32-D	678+00 J - 679+20 J	Lt																																				86		56
33-D	679+93 J - 680+50 J	Lt								35.5																												78		56
34-D	680+10 J - 680+59 J	Rt																																				294		56
35-D	680+50 J - 683+47 J	Lt																																						56
36D	683+50 J	Lt								20.9																												220		56
37D	683+55 J - 685+00 J	Lt																																				6		56
38D	683+12 J - 689+45 J	Rt																					10									1		95	580					56
39D	688+13	Lt								20.9																														56
40D	689+00	Lt									10.6																													56
41D	689+00	Rt									10.0																													56
42D	707+71 CA - 709+18 CA	Rt																																				106		57
43D	710+00 CA - 717+50 CA	Rt							250																															57
44D	715+75 - 719+50 CA	LT							385																															57
45D	709+18						1	6							14							1																		
46-D	709+72.5 CA	LT																			38																			57
47-D	712+29 CA	Rt					1																																	57
48-D	712+47 CA - 714+63 CA	Rt																					10											206						57
49-D	713+71 CA	Rt					1																																	57
50-D	714+38 CA - 687+86 H	Lt																77								1														
51-D	714+68 CA	Rt								1.8		.27									40					1														57
52-D	714+92 CA	Rt																													1									57
53-D	714+68 CA - 717+50 CA	Rt	1																				10											272						57
54-D	715+75 CA - 720+00 CA	Rt							375	15.5																												108		57
55-D	716+00 CA - 717+57 CA	Rt																																						57
56-D	717+55 CA	Rt								1.8		.27						32								1														57
57-D	717+75 CA	Lt												95												1											234			57
58-D	673+26 I - 719+49 CA	Lt																					10											205						57
59-D	719+55 CA - 719+50 CA	Rt																					10											40						58
60-D	723+00 CA - 723+50 CA	Lt		1																			10																	58
61D	723+60 CA - 689+45 J	Lt		1																			10											90						58
62D	723+50	Lt												80												1													58
63D	723+22 CA - 723+65 CA	Rt		1																			10											43						58
64D	723+75 CA	Rt																88								1														58
65D	690+67 F - 723+85 CA	Rt		1																			10											88						58
66D	690+67 F	Rt												51'																	1									58
67D	723+05 to 725+05	Lt							200																															58
68D	724+80 CA - 725+12 CA	Lt											37													1							210						58
69D	725+12 CA - 725+22 CA	Lt													26'								20																	58
70D	725+03 CA - 725+12 CA	Lt					1	6																																
TOTALS			5	4	2	1	7	78	1210	120.1	30.6	2.79	37	375	194	46	130	222	35	324	40	38	170	68	4	6	3	1	1	1	1	1	5	3348	580	100	2022	1	2661	

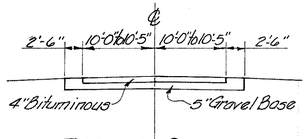
DEVELOPED	CHECKED.
RMF 6/19-72	6-23-72

RAMPS G, H, I & J
COLERAIN AVENUE STA. 707+50 to 727+20

HAM-275-13.91
HAMILTON COUNTY

Ex. 18" R.C.P.
Ex C.B.
18" Type C 299
Drive restoration to be included in unit price bid for pipe
1 Sty Warehouse
Sodding 6D
Erosion Control at Swales 268 & 300 7D
Sodding 8D
Slope Limits
Curve No. DRR-1
Curve No. DRR-2
DRY RIDGE ROAD RELOCATED
RIW
Sodding 5D
P.T. 16+61.77
8" Plum
12" Cherry
12" Apple
18"
4" Pear
12" Apple Trees
10" Apple Trees
10"
Hedgerow
Slope Limits 18D P
Aggregate Drains 21D
C.B. 5/18 Grate 2D
1½ Sty brick
Ex. 12" Pipe Abandon & Plug
3D Remove C.B.
Sta. 10+00 Dry Ridge Rd. Reloc.
Sta. 5+00 Exist. Dry Ridge Rd.
E. EXIST. DRY RIDGE RD.
Start Improvement
25D P
18" Type B 267
C.B. 5/18 Grate 4D
Ex. R/W
P.C. 18+22.51
Hickory
P.T. 18+72.51
Septic Tank
Lodge F.&A.M.
Ex Catch Basin Adjust to Grade 10D
SEC. 16 TZ E.R.I.
SEC. 10 TZ E.R.I.
Existing 2-2-B C.B.
15" Type C 299 12D
Sign Support No 16
12" Evergreen
Maple
Crabapple
24" Maple
Septic Tank
Res.
732+37.98
END WORK STA. 732+65
19D
Remove
Sta. 731+64.57 U.S. 27
Sta. 20+67.38 Dry Ridge Rd. Reloc.
C.B. 2-2-B
15" Type B 299 11D
23D P
Manhole Adjusted to Grade 9D
U.S. 27
731
(COLERAIN AVE.)
RESUME WORK STA. 731+00
Remove & Dispose of Precast Conc. Traffic Dividers under Item 202
100
Ex. 18" R.C.P.

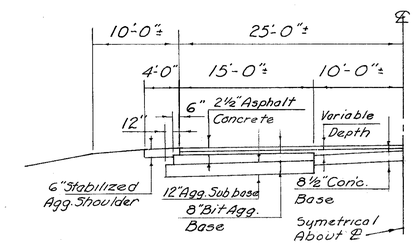
Excavation	5,586	C.Y.
Embankment	626	C.Y.
Seeding & Mulching	4,479	S.Y.



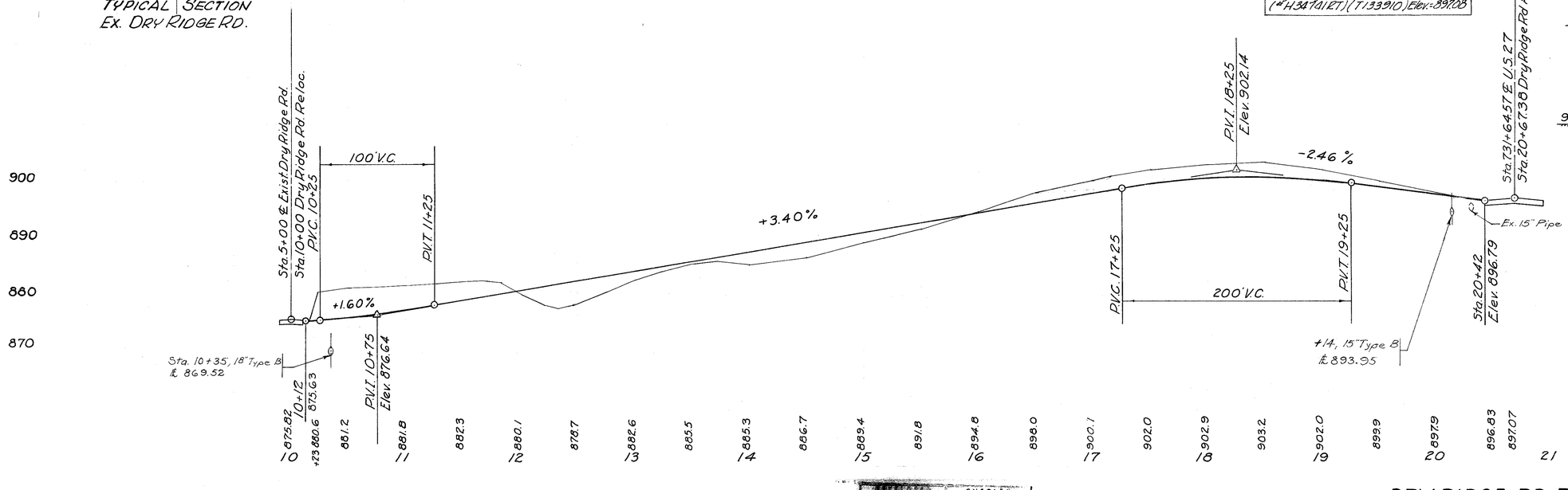
TYPICAL SECTION
EX. DRY RIDGE RD.

T.B.M. F.H. @ N. side of Exist. Dry Ridge Rd. 200' W. of & Relocated Dry Ridge Rd. Elev. 885.34

T.B.M. R.R. Spike in P. Pole @ S.W. side Colerain Ave. 60' Lt. of & Relocated Dry Ridge Rd. at Sta. 20+45± (4" H 3A 7A IRT) (T 1339.10) Elev. = 897.08



COLERAIN AVE.
EXIST SECTION



EXECUTED	CHECKED
7-28-72 R.D.	7-7-72 A.L.Y.

DRY RIDGE RD. RELOC. STA. 10+00 to STA. 20+67.38

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HAMILTON COUNTY

Lake

P.I. = Sta 3+03.74
Δ = 18°50'
Dc = 19°05'55"
R = 300'
Lc = 98.61'
T = 49.75'

SECTION A-A
ROCK CHANNEL PROTECTION TYPE B

Item 601 R.C.P. Type B, w/ Bedding 60" x 42" x 18"

Sta. 3+02.47 Temp. Rd. = Sta. 3+40 Springdale Rd.

Temporary Const. Limits

12' Temporary Fill

HW-4

Item 601 R.C.P. Type B, with Bedding 60" L.F.

EXIST. TEMP. EASEMENT

EXIST. LA-R/W

Sta. 76+41.80 Reloc. Blue Rock Rd. = Sta. 0+00 Springdale Rd. Comm. = P.I. Sta. 1+33.90

P.C. 2+53.99

P.T. 3+60.90

R = 300' E

(24 T)

Temporary Const. Limits

Temporary Road No. 4

Const. Limits

Temporary Const. Limits

P.I. Sta. 6+30.18
Δ = 47°10'31"
Dc = 28°38'52"
R = 200'
Lc = 164.61'
T = 87.33'

(4 T)

R = 200' E

P.T. 4+90.80

R = 75'

Springdale Road Ext. R/W

Springdale Road

LA-R/W

Construction Limits

R/W

Construction Limits

(4 T) Existing Temporary Easement
The Standard Oil Company

(24 T) Existing Temporary Easement
Edward Zillig

4' 12' 12' 4' 2'
2' 6' 4:1
Non. 0.059 ft. Non. 0.015 ft. 2:1
Class 'A' Temp. Pav't.

TYPICAL SECTION
TEMPORARY ROAD NO. 4
No Scale

See General Note Sheet No. 20

℄ RELOCATED BLUE ROCK ROAD

P.I. = Sta. 1+33.90
Δ = 47°00'00"
Dc = 28°38'52"
R = 200'
Lc = 164.06'
T = 86.90'

P.C. of ℄ Sta. 0+85.94 Temp. Rd. = Sta. 0+85 Springdale Rd. Comm.

P.T. 2+21
R = 200' E

℄ Springdale Rd. Comm.

For Cross Sections Temp. Rd. #4 See Sht. 273 B & C

Sta. 3+80 Springdale Comm. = 0+00 Temporary Road No. 1

1 Sty. Br. Res.

15' Gravel

10' Asphalt

10' Gravel

9' Conc.

P.I. 18+07.68
30' Lt.

Temporary Const. Limits

Temporary Road No. 1

℄ Springdale Road Reloc.

P.C. 4+90
3° 24'
R = 1685.6'

P.T. 5+16.9
32' Lt.

MATCH LINE SHEET NO. 6 HA

P.T. 2+60.16
R = 60' E

℄ Springdale Comm.

℄ Springdale Rd. Comm.

℄ Temp. Rd. No. 1
4' 11'-0" 11'-0" 4'
2:1 17 ft. 3/16" / ft. 3/16" / ft. 17 ft. 2:1
2:1
Class "B" Temp. Pav't.

TYPICAL SECTION
TEMPORARY ROAD NO. 1
No Scale

For Cross Sections Temporary Road No. 1 See Sh. 233
For Profile Tempory Road No. 1 See Sh. 49

Temporary Pavement
This Sheet Only

PROFILE TEMPORARY ROAD NO. 4

Sta. 7+70, 22' Lt.
60" Std. No. 228 C.B.
℄ Grate 894.30
Inv. 12" 891.30

P.I. Sta. 6+00
Elev. 891.34

Sta. 7+93.86

℄ Springdale Road

12.60%

14.01%

Sta. 6+40, 65' Lt.
HW-4
Inv. 12" = 868.00

15'

+7.51%

Exist. Ground

100' V.C.

Excavation for Proposed Reloc. Blue Rock Road

-3.33%

60" R.C.P. Type B, with Bedding

Item 603, 166' 12" Cond. Type B

200' V.C.

P.I. Sta. 2+50
Elev. 863.04

Proposed Reloc. Blue Rock Road

890
880
870
860

0 1 2 3 4 5 6 7 8

866.91 866.21 864.34 862.25 860.31 878.56 876.32 882.08 883.83 885.63 887.28 888.78 890.12 891.30 892.33 893.21 893.91 894.24 894.35

881.5 884.2 881.8 878.2 880.0 881.2 877.7 873.0 870.0 870.5 880.0 885.0 896.4

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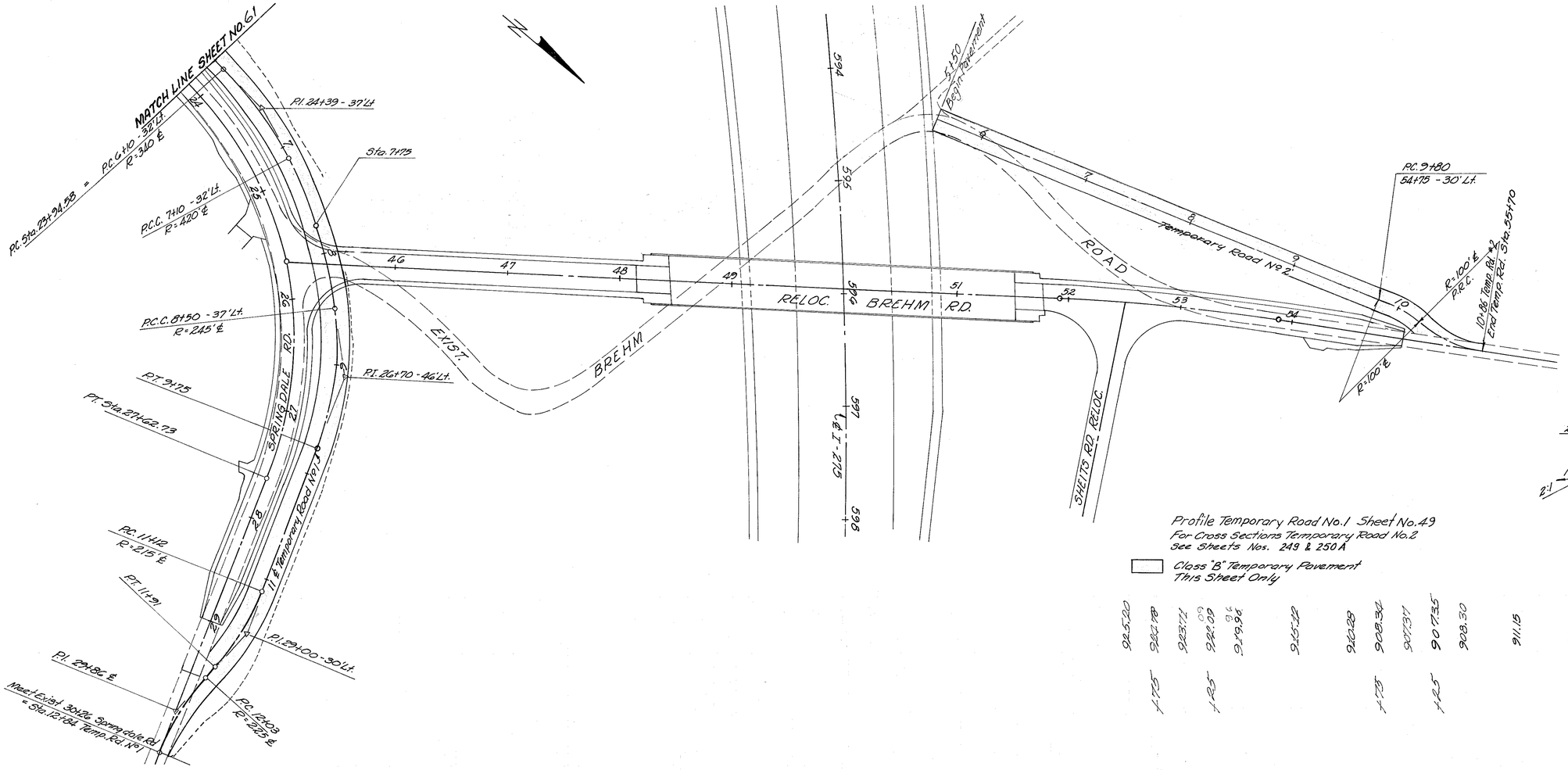
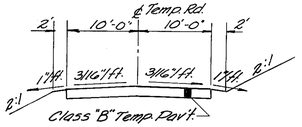
HAMILTON COUNTY



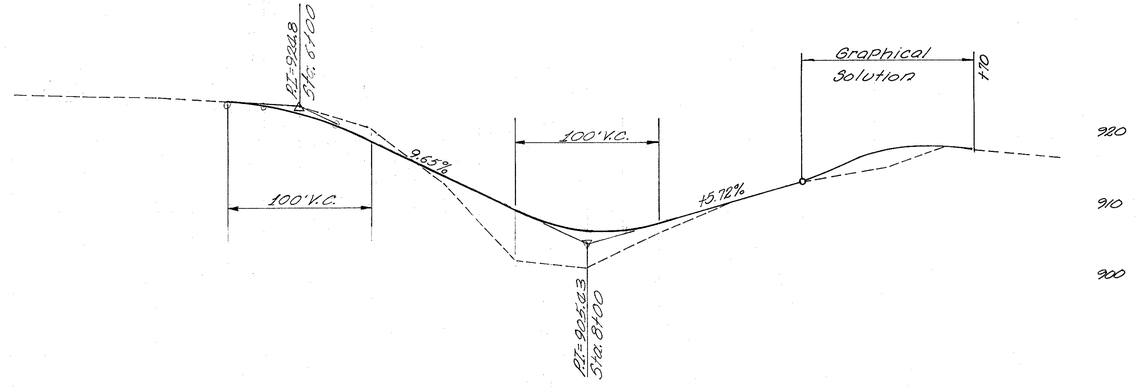


TYPICAL SECTION TEMPORARY ROAD NO. 2
No Scale

Profile Temporary Road No. 1 Sheet No. 49
For Cross Sections Temporary Road No. 2
See Sheets Nos. 249 & 250A

Class "B" Temporary Pavement This Sheet Only

925.20	924.78	923.72	922.09	919.96	925.32	920.28	908.30	907.39	907.35	908.30	911.15	914.01	918.00	Meet Exist.
	-1.75		-1.25				-1.75		-1.25					
				6										



PROFILE TEMPORARY ROAD NO. 2.

926.4	926.2	926.0	925.3	924.8	921.8	914.0	903.8	902.0	907.0	911.0	914.2	915.8
4		5		6		7		8		9	10	

TEMPORARY ROADS NO. 1 & NO. 2

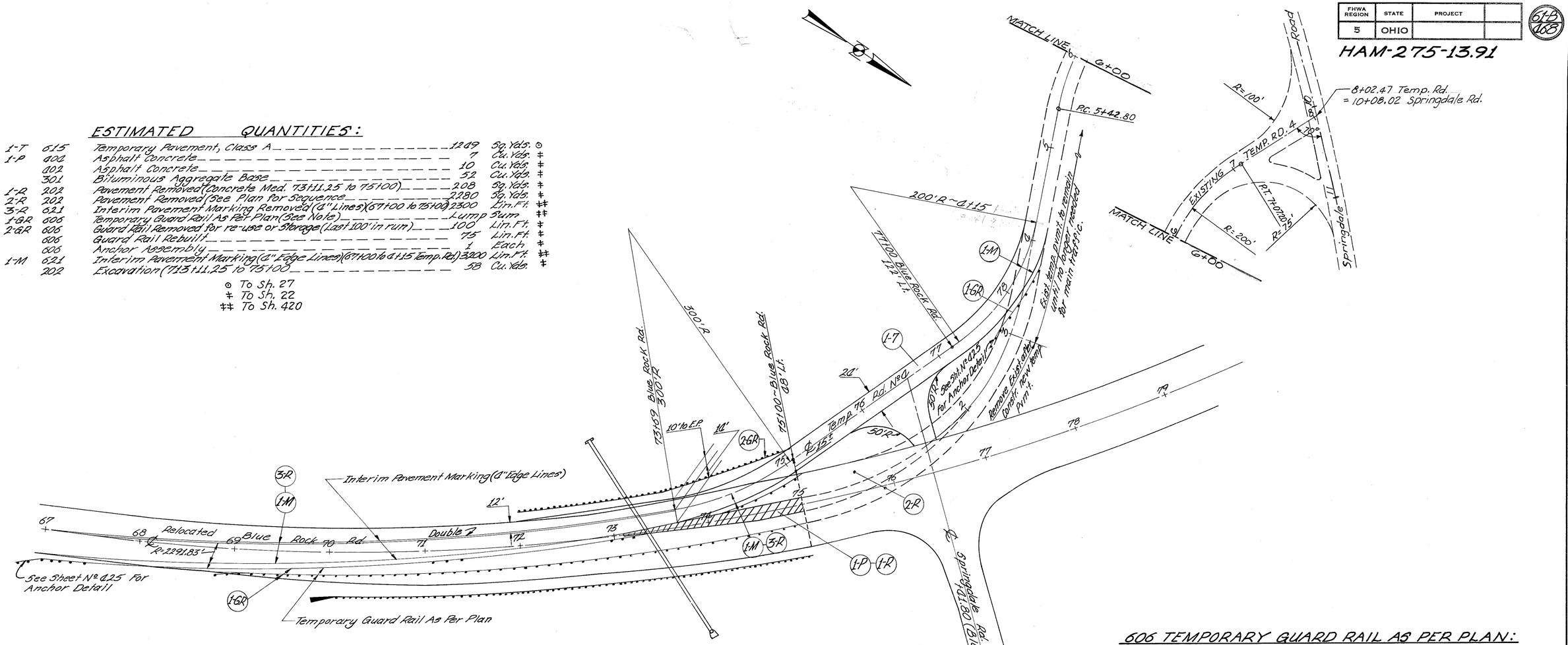
FHWA REGION	STATE	PROJECT	
5	OHIO		

HAM-275-13.91

ESTIMATED QUANTITIES:

1-T	615	Temporary Pavement, Class A	1249	Sq. Yds. ⊙
1-P	602	Asphalt Concrete	7	Cu. Yds. ‡
	402	Asphalt Concrete	10	Cu. Yds. ‡
	301	Bituminous Aggregate Base	52	Cu. Yds. ‡
1-R	202	Pavement Removed (Concrete Med. 73+11.25 to 75+00)	208	Sq. Yds. ‡
2-R	202	Pavement Removed (See Plan for Sequence	2280	Sq. Yds. ‡
3-R	621	Interim Pavement Marking Removed (4" Lines) (67+00 to 75+00)	2300	Lin. Ft. ‡‡
1-GR	606	Temporary Guard Rail As Per Plan (See Note)	Lump	Sum ‡‡
2-GR	606	Guard Rail Removed for re-use or Storage (Last 100' in run)	100	Lin. Ft. ‡
	606	Guard Rail Rebuilt	75	Lin. Ft. ‡
	606	Anchor Assembly	1	Each ‡
1-M	621	Interim Pavement Marking (4" Edge Lines) (67+00 to 6+15 Temp. Rd.)	3200	Lin. Ft. ‡‡
	202	Excavation (71+13+11.25 to 75+00	58	Cu. Yds. ‡

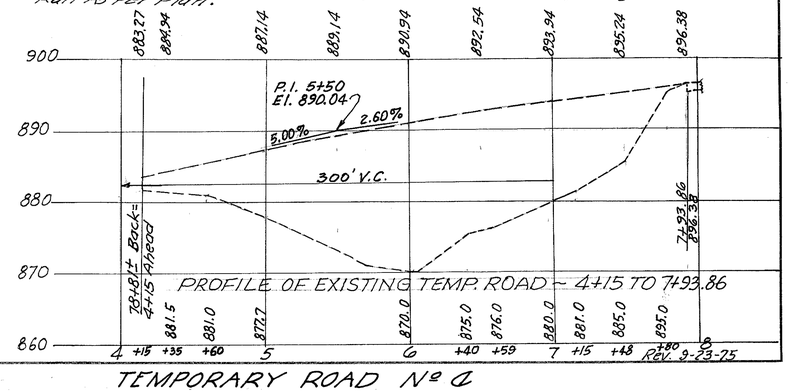
⊙ To Sh. 27
‡ To Sh. 22
‡‡ To Sh. 420



606 TEMPORARY GUARD RAIL AS PER PLAN:

NOTE: This item shall include the providing and constructing of all temporary guard rail as shown, including also the moving of signs, existing temporary guard rail, existing double amber delineators and signs; furnishing and erecting additional new temporary Guard Rail, type 6, necessary to complete this item.

All the material, labor, etc. required for this item shall be included for payment in the Lump Sum bid 606 Temporary Guard Rail As Per Plan.

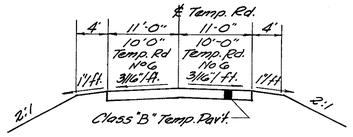


TEMPORARY ROAD No. 1

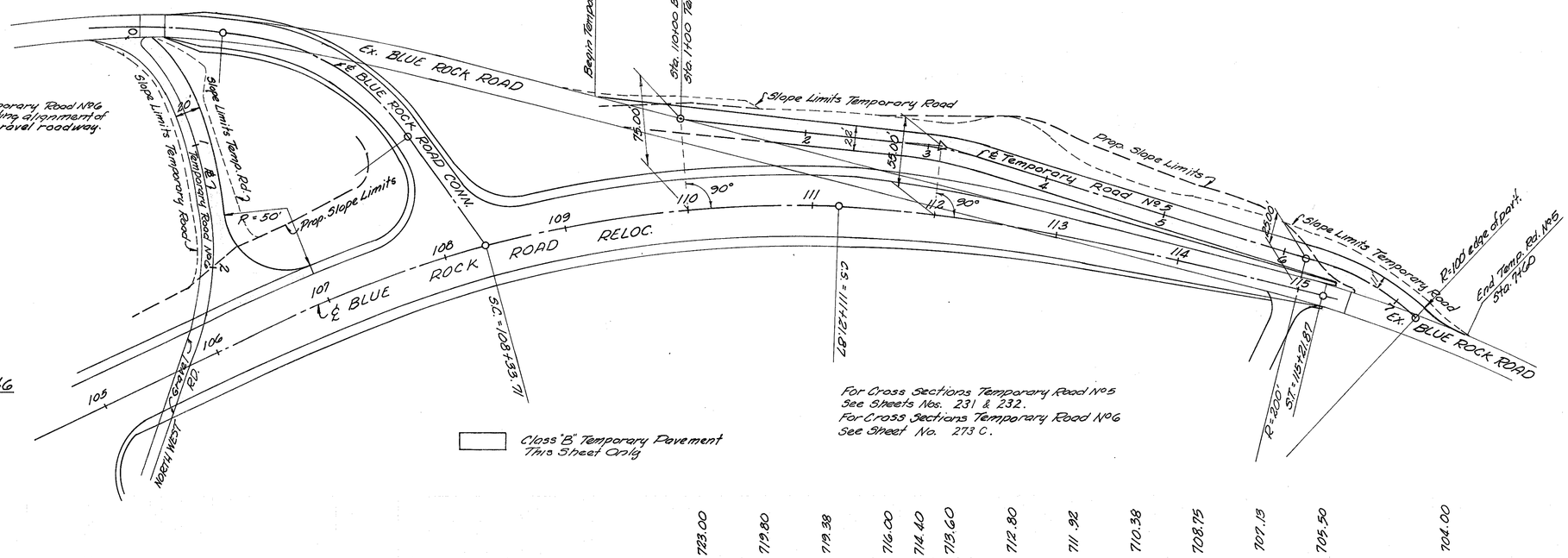
Rev. 9-23-75

HAM-275-13.91
HAMILTON COUNTY

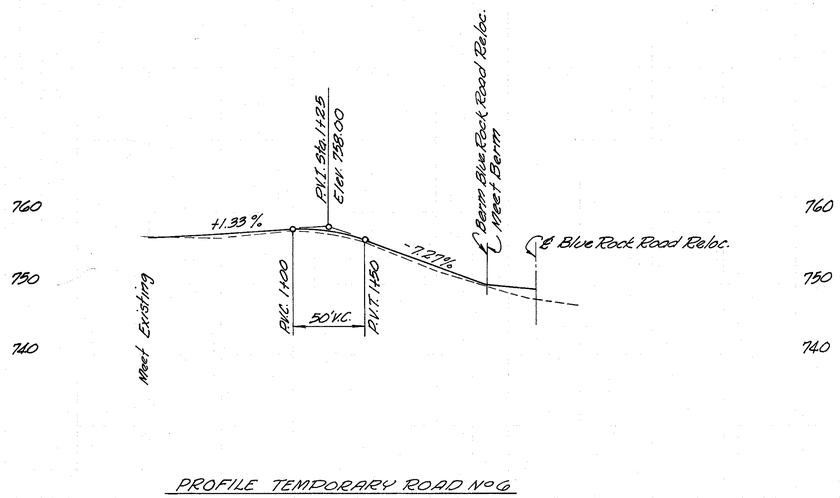
Note:
The Alignment for Temporary Road No6 shall conform to the existing alignment of Northwest Road a 10't gravel roadway.



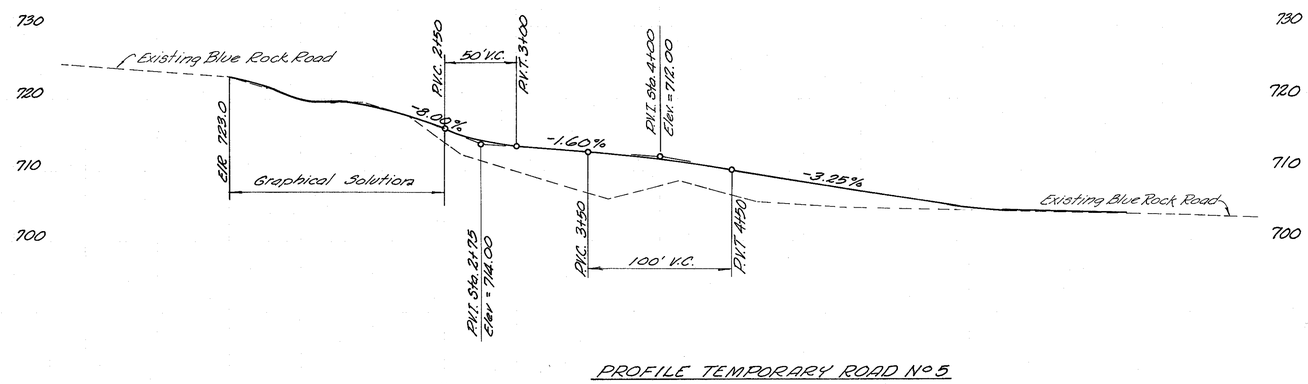
TYPICAL SECTION
TEMPORARY ROADS NOS. 5&6
No Scale



For Cross Sections Temporary Road No 5
See Sheets Nos. 231 & 232.
For Cross Sections Temporary Road No 6
See Sheet No. 273 C.



PROFILE TEMPORARY ROAD No 6



PROFILE TEMPORARY ROAD No 5

TEMPORARY ROADS No 5 & No 6

Developed		Checked	
DSM	2-5-74	KBS	2-26-74

FED.RD. DIVISION	STATE	PROJECT	
2	OHIO		

63
4608

HAMILTON COUNTY
HAM 275 - 13.91

Pull Box No. 16
701+25, 53' Rt.

701+10.00 Ex. R/W

14 D

14"x 13" SHT. 270

400' R

+39.50

701

50'-0"

232 P

233 P

Curve No. 1
RE-1

Constr. Limits

R/W

22'-0"

239 P

℄ Haverkos Ct.

0+00 REDSKIN DR.
700+49.09 COLERAIN AVE.

Seal coat with cover aggregate

0+00 Dr.
1+06 Redskin Dr.

+1.06

P.C. 0+63.95

2'-0" conc. walk

12" sht. 270

2+00 385°08'31"E

15 D

0+00 Dr.
2+20 Redskin Pl.

℄ Driveway

P.T. 1+72.70

4'-0" conc. walk

R/W

700

+01.75

2"CMP

238 P

℄ Driveway 420

240 P

BEGIN WORK
STA. 699+80 COLERAIN AVE.

Remove under Item 203

Ex. R/W

Meet Existing

Constr. Limits

Meet existing
Sta. 0+72

℄ COLERAIN AVE.

57.27'

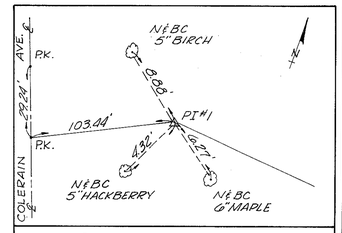
Provident Bank

Meet existing
Sta. 0+32

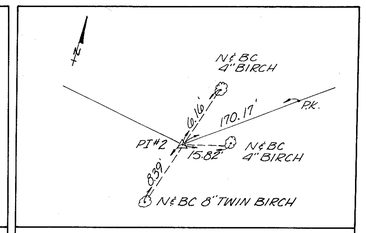
Excavation	476 C.Y.
Embankment	672 C.Y.
Seeding and Mulching	2476 S.Y.

234 P

N



P.I. No. 1 STA. 1+03.48



P.I. No. 2 3+52.22

235 P

℄ Driveway 440

P.T. 4+28.94

constr. Limits

R/W

4'-0" Conc. Walk

22'-0"

241 P

18"

16 D

4+00

236 P

3+00

℄ REDSKIN DRIVE EXT.
Curve No. RE-2

4'-0" Conc. Walk

R/W

constr. Limits

237 P

Ex. Drive

Ex. Drive

1½ Sty Bldg.

1½ Sty Bldg.

242 P

For detail see sht. 300

Meet existing Sta 5+05.34

Ex. R/W

Ex. 10" Storm

270'

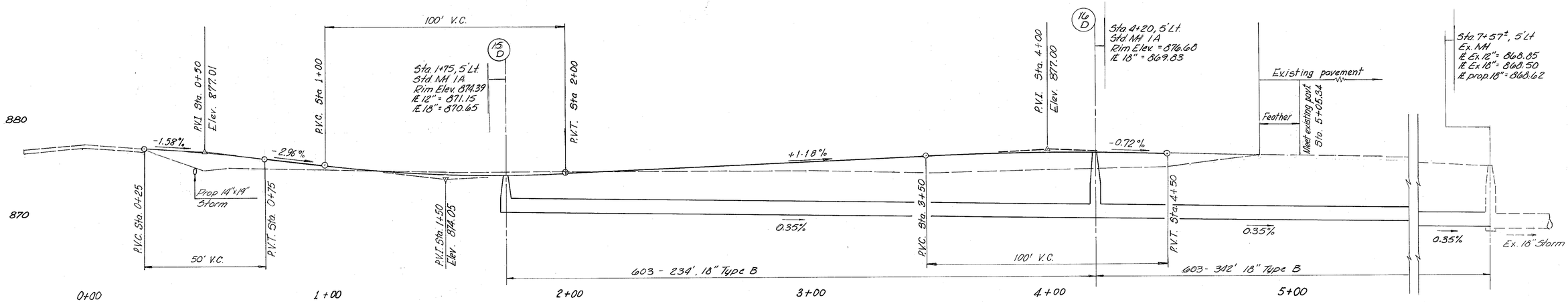
N 08°01' 14" E

Ex. 12" Son.

5+00

Pavt. Restoration

Ex. R/W



REDSKIN DRIVE EXTENSION

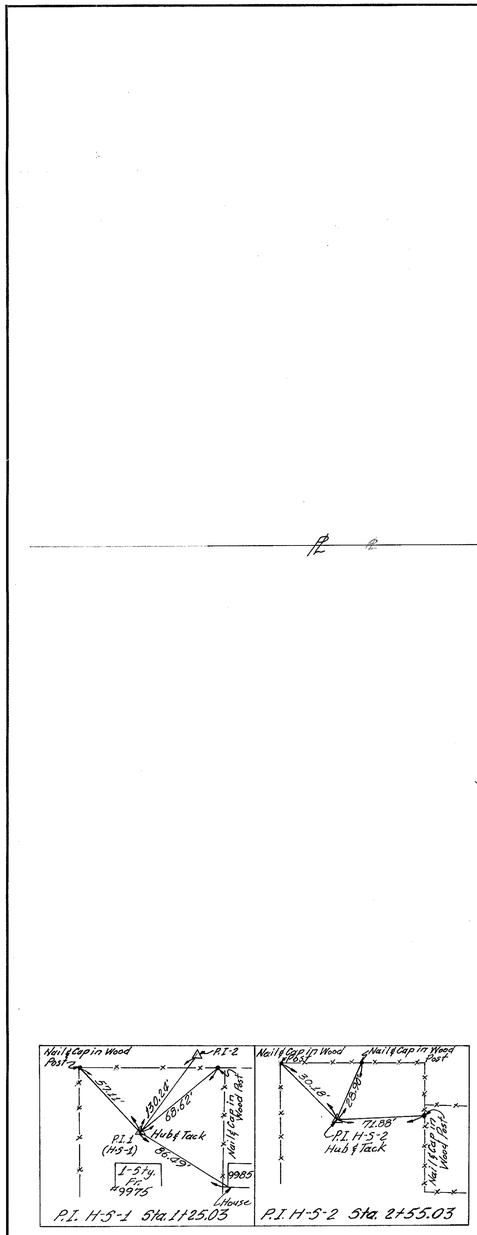
For Pavt. Legend See Sht. 4
For Quant. See Sht. 64
For Typical Section See Sht. 10, 277A
For Curve Data See Sht. 13

Drawn by		Checked by		
G.S.A	10-30-74	GRP	1-75	

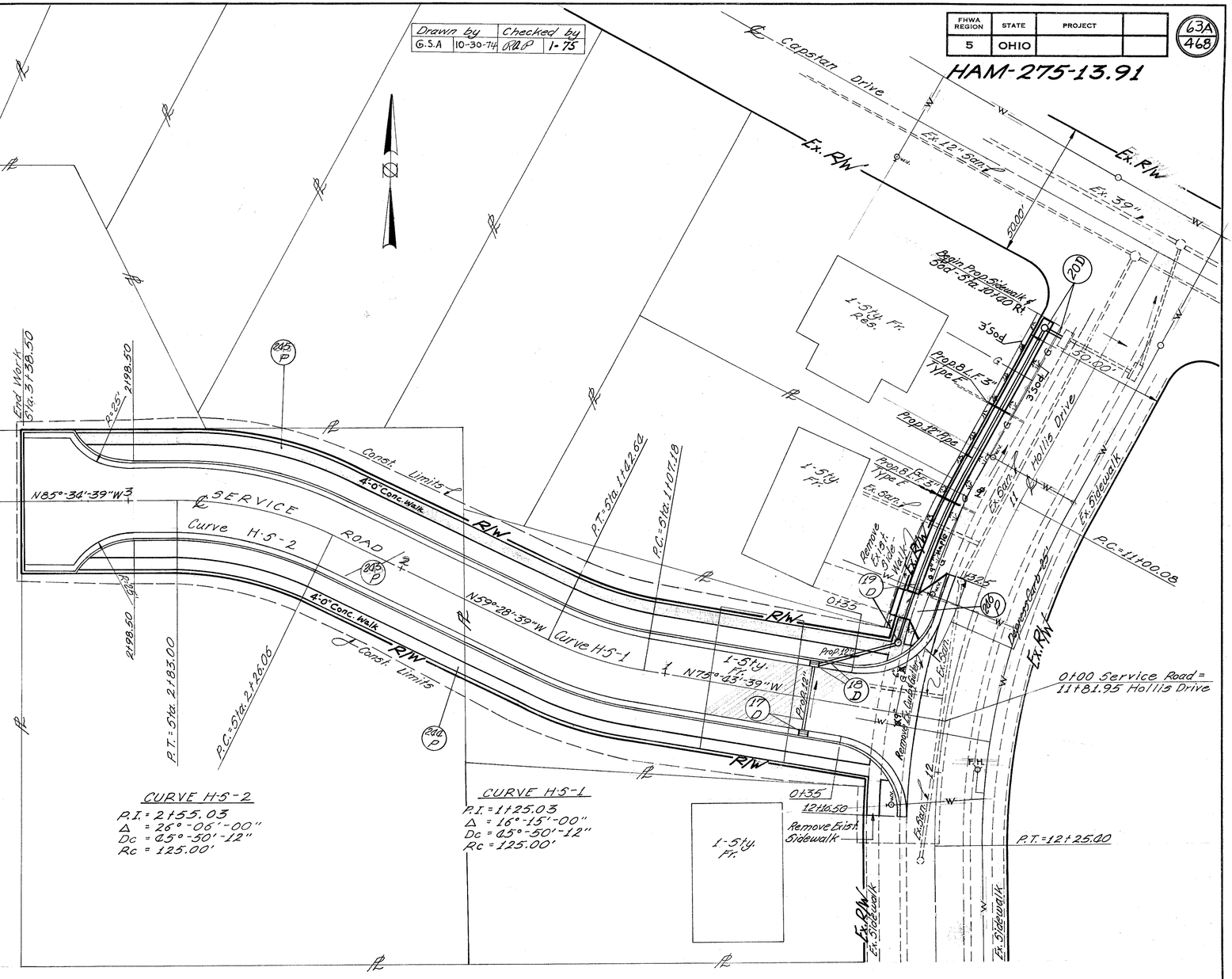
FHWA REGION	STATE	PROJECT	
5	OHIO		

63A
468

HAM-275-13.91



TBM - Valve nut, top of fire hydrant - Hollis Dr. Elev. 875.17



CURVE H-S-2
P.I. = 2+55.03
Δ = 26°-06'-00"
Dc = 45°-50'-12"
Rc = 125.00'

CURVE H-S-1
P.I. = 1+25.03
Δ = 16°-15'-00"
Dc = 45°-50'-12"
Rc = 125.00'

For Pavement Legend See Sheet 2
For Quantities See Sheet 6A
For Typical Section See Sheet 10
For Curve Data See Sheet 13

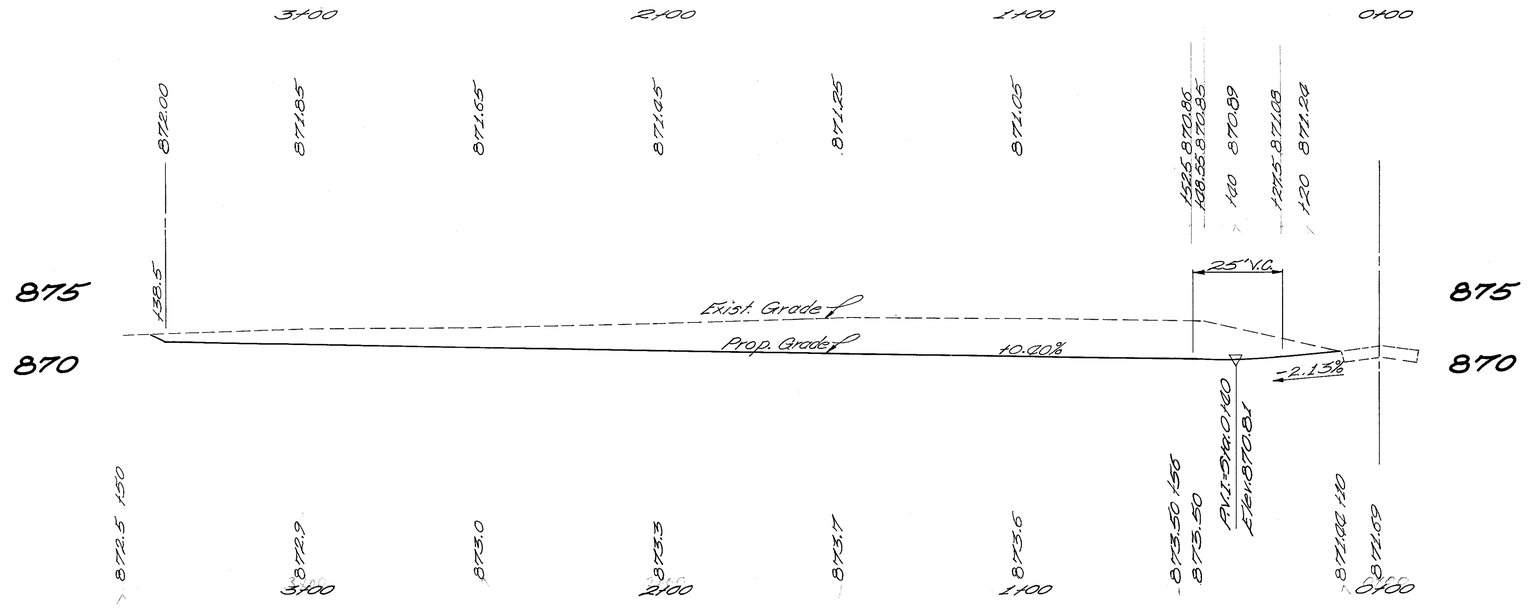
For Service Rd. Profile & Drainage Detail See Sheet 63B

Excavation	1453 C.Y.
Embankment	0 C.Y.
Seeding & Mulching	967 S.Y.

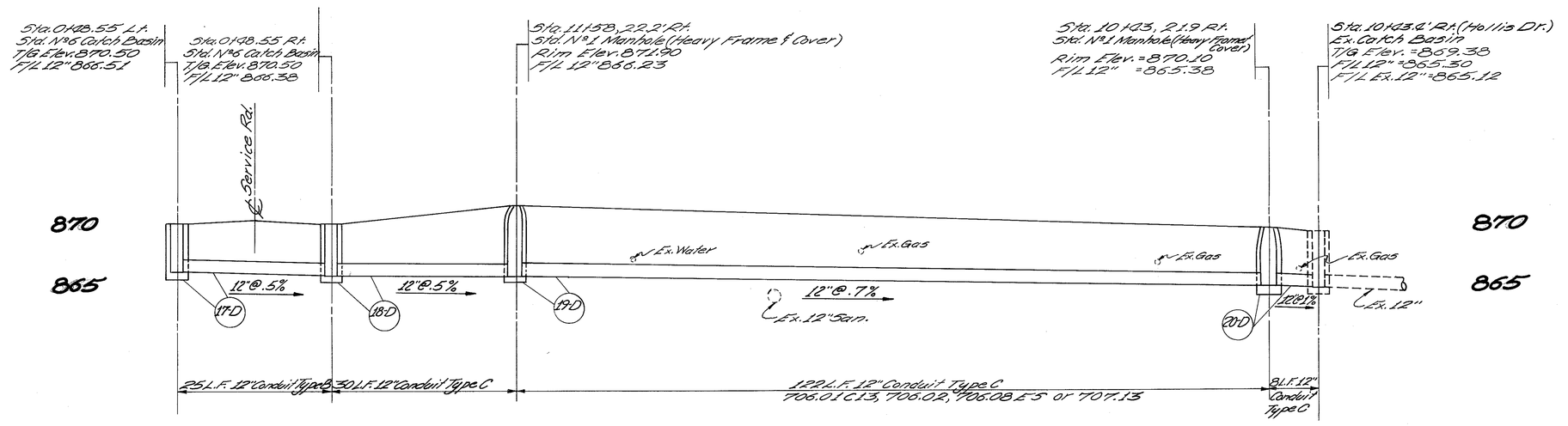
HOLLIS DRIVE SERVICE ROAD

63B
468

HAM-275-13.91



PROFILE HOLLIS DR. SERVICE RD.



HOLLIS DRIVE SERVICE ROAD

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

65/468

HAM-275-13.91
HAMILTON COUNTY

END WORK 115+91.87
ST.
END PAVEMENT 115+21.87
C.S.
SC.
TS
NORTHWEST RD
ST.
C.S.
SC.
TS
EXIST. BLUE ROCK RD CR-71
ST.
C.S.
SC.
570 ℄ RAMP C
580 ℄ RAMP D
585
590
℄ RAMP E
℄ I-275
℄ SPRINGDALE RD
℄ SPRINGDALE RD CONN
℄ BREHM RD RELOC
℄ SHEITS RD
BREHM RD
CR-72
SHEITS RD
CR-94
SPRINGDALE RD
C.R.96
SPRINGDALE RD. CR-96
END HAM-275-10.66 STA 572+00
BEGIN HAM-275-13.91
I-275-3(10)28 I-275-3(9)27
SHEET 65

CROSS SECTION LAYOUT STA. 572+00 TO STA. 627+50

FED. RD. DIVISION	STATE	PROJECT		66/468
2	OHIO			

HAM-275-13.91
HAMILTON COUNTY

CROSS SECTION LAYOUT STA. 627+50 TO STA. 694+00

67
468

HAM-275-13.91
HAMILTON COUNTY

900
890
880
870
860
850
840

Ramp 'C'

3:1

D
890
880
140
160
180
LA-R/W
D

D
860.9
D

C
890
880
C
160
LA-R/W

Spl. Bench 3205 706
C
C

862.75
571+00
870.8

349
1846
5841 758

870
860
850
840

Future Proposed

861.82
570+42
865.3

224
341

B
890
880
B
140
160
LA-R/W
B
B

2283 0
1234 0

870
860
850

861.60
570+28
863.0

Profile Temporary Ditch

215
261

A
890
880
A
140
160
2:1
LA-R/W
A
A

2527 0
902 0

Ramp 'C'

870
860
850

2:1

Profile Temporary Ditch

177
354
0

861.41
570+16
862.0

1894 0
1263 0
0 0

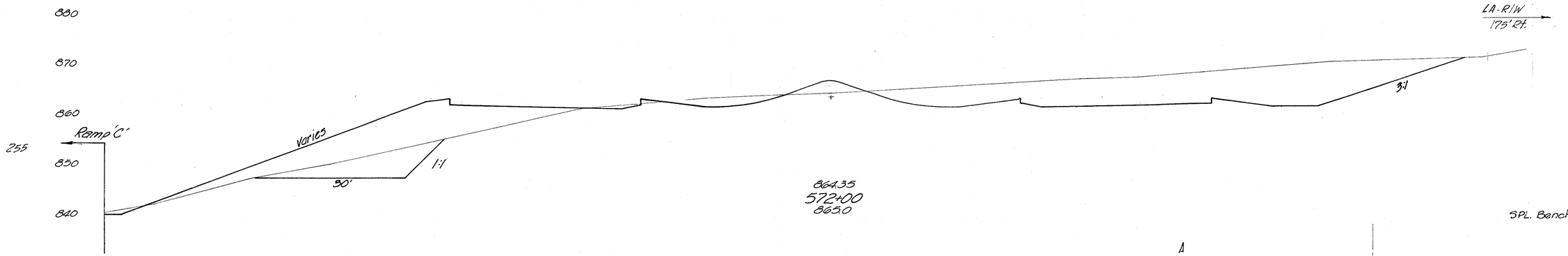
Zero End Area
Sta. 569+80

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

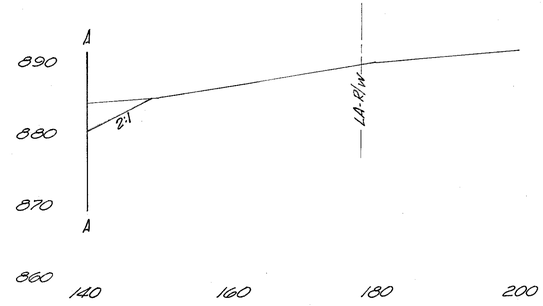
DEVELOPED 7-13-72 RJD CHECKED 7-11-72 A.L.Y.

I-275 STA. 569+80 TO STA. 571+00

HAM-275-13.91
HAMILTON COUNTY

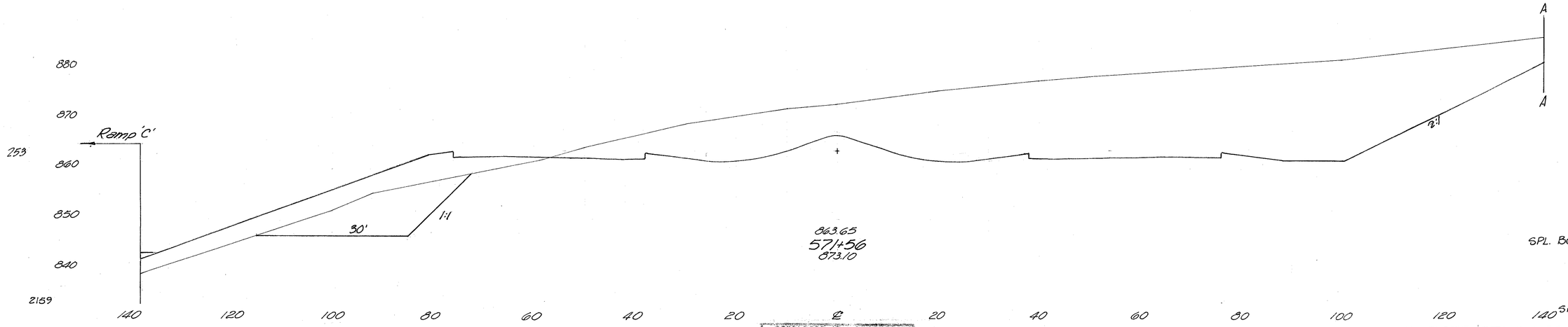


381 423
SPL. Bench 108 108



2290 573
267 267
SPL. Bench

1467



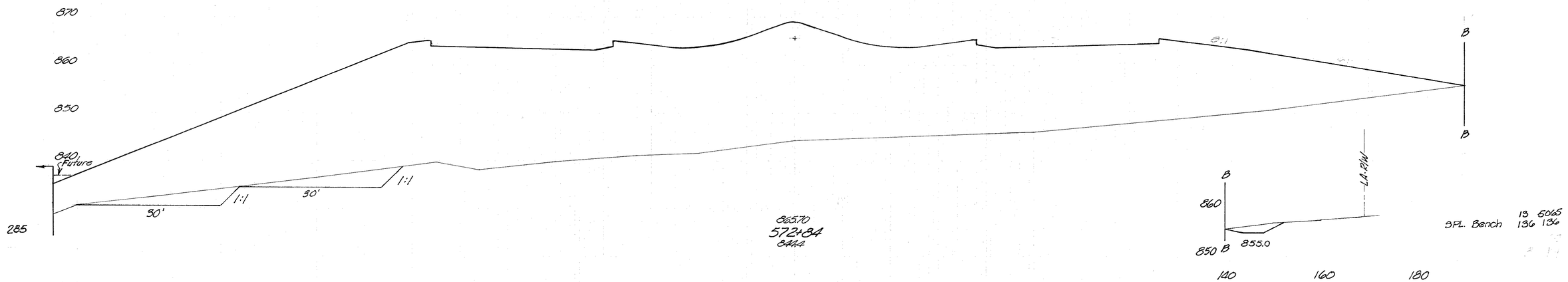
2430 280
SPL. Bench 220 220

5844 1023
228 228
SPL. Bench

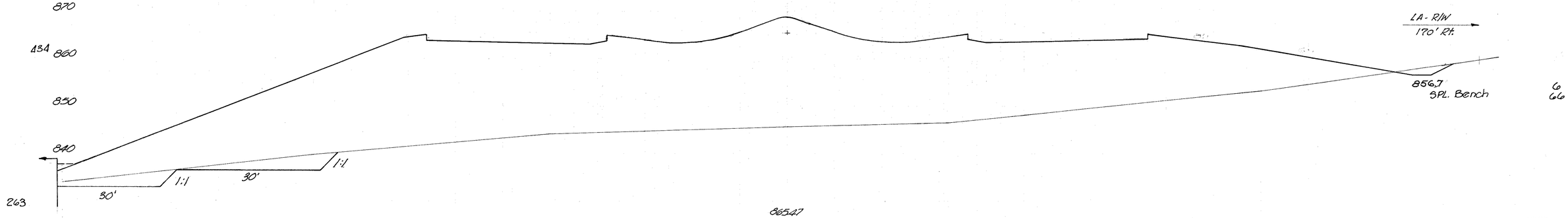
DEVELOPED	CHECKED
7-10-70 BD	7-11-72 A.L.Y.

I-275 STA. 571+56 TO STA. 572+00

HAM-275-13.91
HAMILTON COUNTY

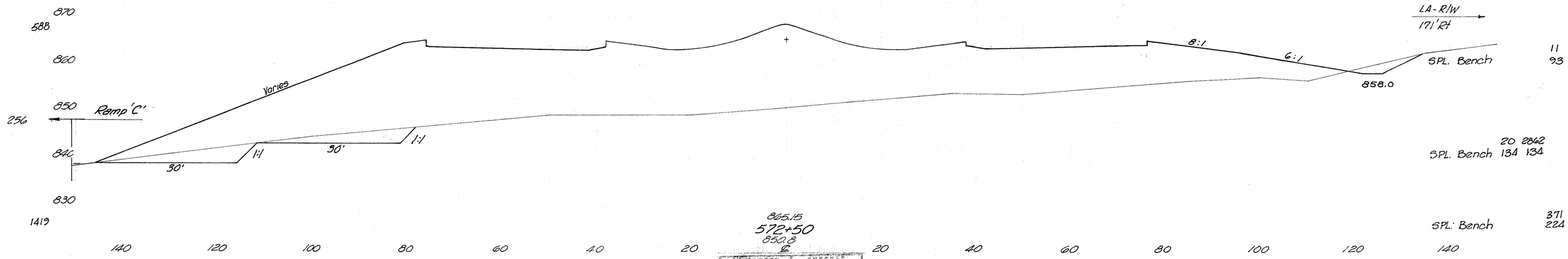


3PL. Bench 13 5065
136 136



3PL. Bench 6 2416
66 66

3PL. Bench 11 4263
118 118



3PL. Bench 11 2635
93 93

3PL. Bench 20 2862
134 134

3PL. Bench 371 3042
224 224

DEVELOPED 7-10-72 RJD
CHECKED 7-11-72 A.L.Y.

I-275 STA. 572+50 TO STA. 572+84

HAM-275-13.91
HAMILTON COUNTY

DEVELOPED		CHECKED	
7-10-72	R.D	7-11-72	A.L.Y

I-275 STA. 572+91 TO STA. 573+10

71
468

HAM-275-13.91
HAMILTON COUNTY

Ramp 'C'

D 860 850 840 D
180 160 140
279
880 870

D 860
1536
880
Approx. Rock Line
D
870
C 860 850 840 C
160 140
Ramp 'C'
274
C 860
880
C
160
870
1511
B 860 850 B
140
860
B 850
270
B
A 840 830 A
160 140
1486 870
860
Varies
265
850
A
840
A
1191

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

LA-R/W 154' Rt.
3:1
869.15
575+00
867.9
2473 226

LA-R/W 157' Rt.
4099 411

868.35
574+50
866.2
1954 218

LA-R/W 161' Rt.
3:1
22821533

867.55
574+00
857.9
511 1438

LA-R/W 165' Rt.
8:1
6:1
862.3
511 4521

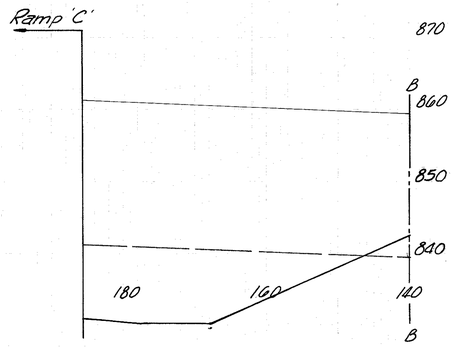
866.75
573+50
849.0
41 3445

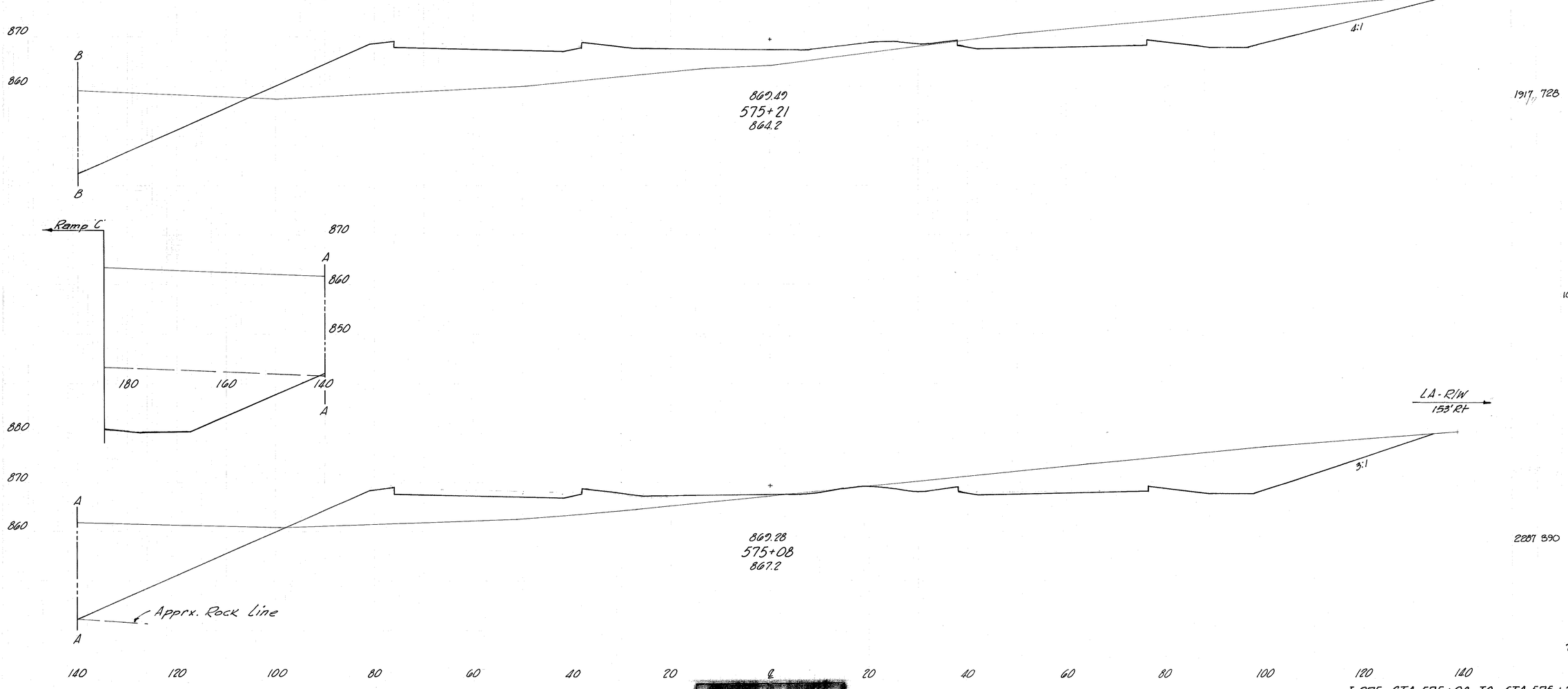
93 6223

DESIGNED	CHECKED
7-10-72 BJD	7-11-72 A.L.Y.

I-275 STA. 573+50 TO STA. 575+00

72
468

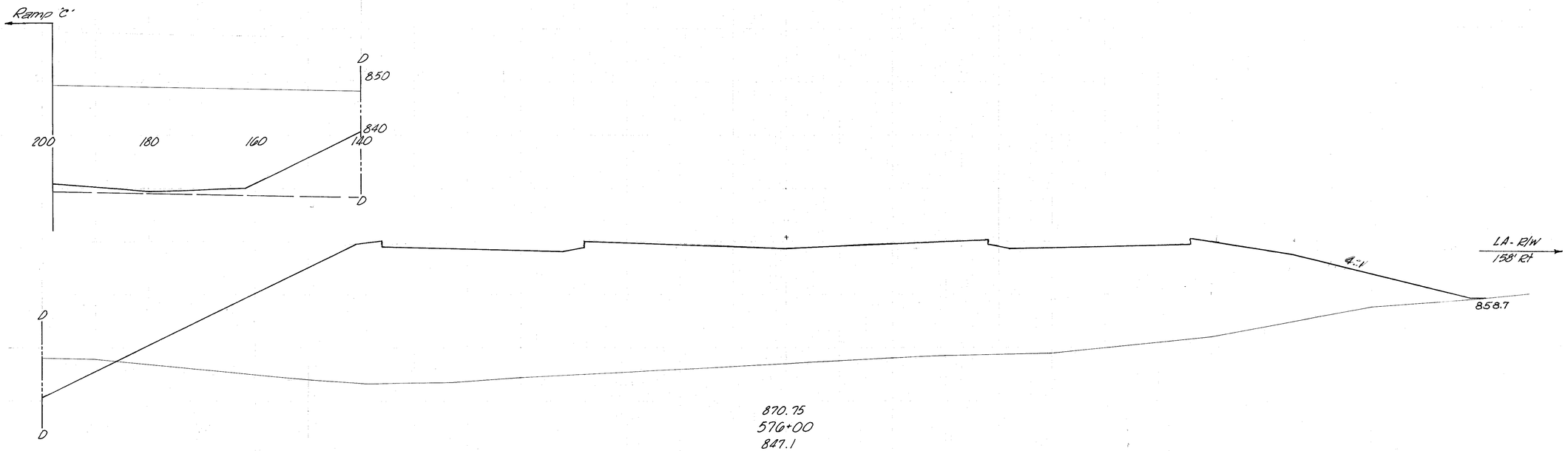




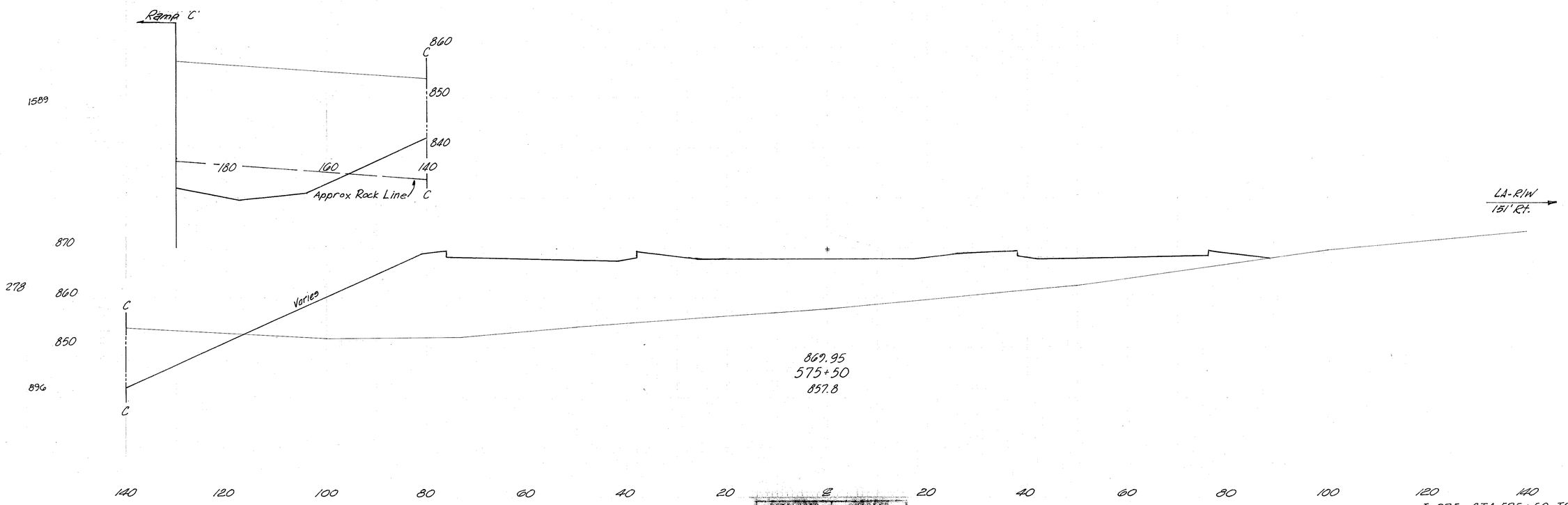
7-10-72 R.J.D. 7-15-72 A.L.Y.

I-275 STA. 575+08 TO STA. 575+21

HAM-275-13.91
HAMILTON COUNTY



1021 4612



2131 6053

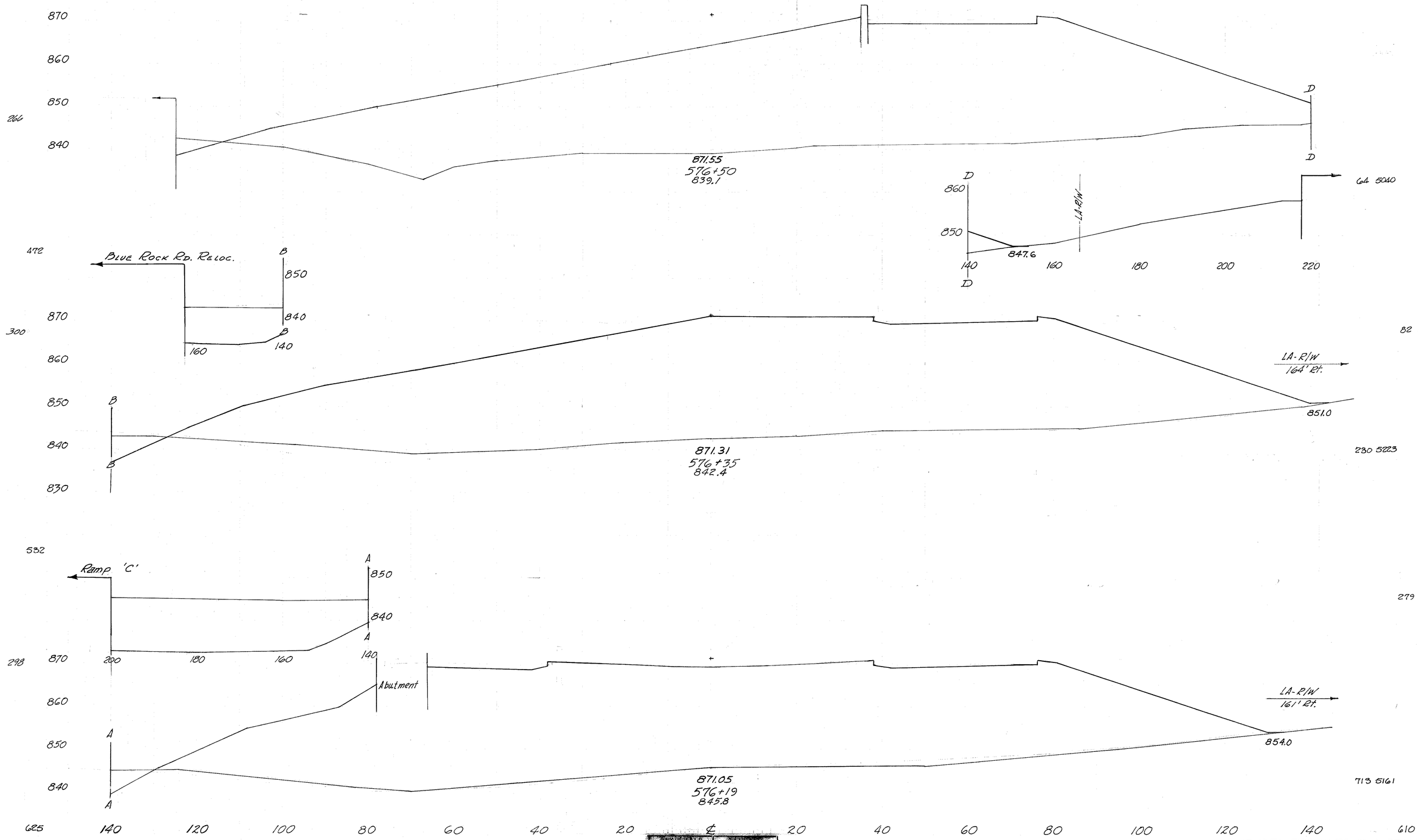
1281 1925

1717 1425

DEVELOPED	CHECKED
7-10-72 RJD	7-12-72 A.L.Y.

I-275 STA. 575+50 TO STA. 576+00

HAM-275-13.91
HAMILTON COUNTY

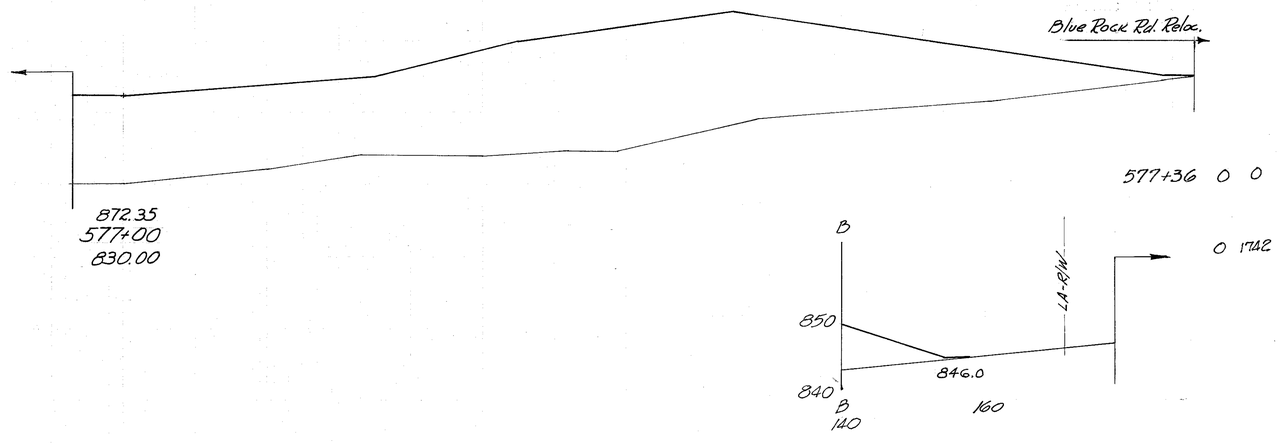


DESIGNED	DRAWN	CHECKED
7-10-78 RJD	7-12-78 A.L.Y.	

I-275 STA. 576+19 TO STA. 576+50

HAM-275-13.91
HAMILTON COUNTY

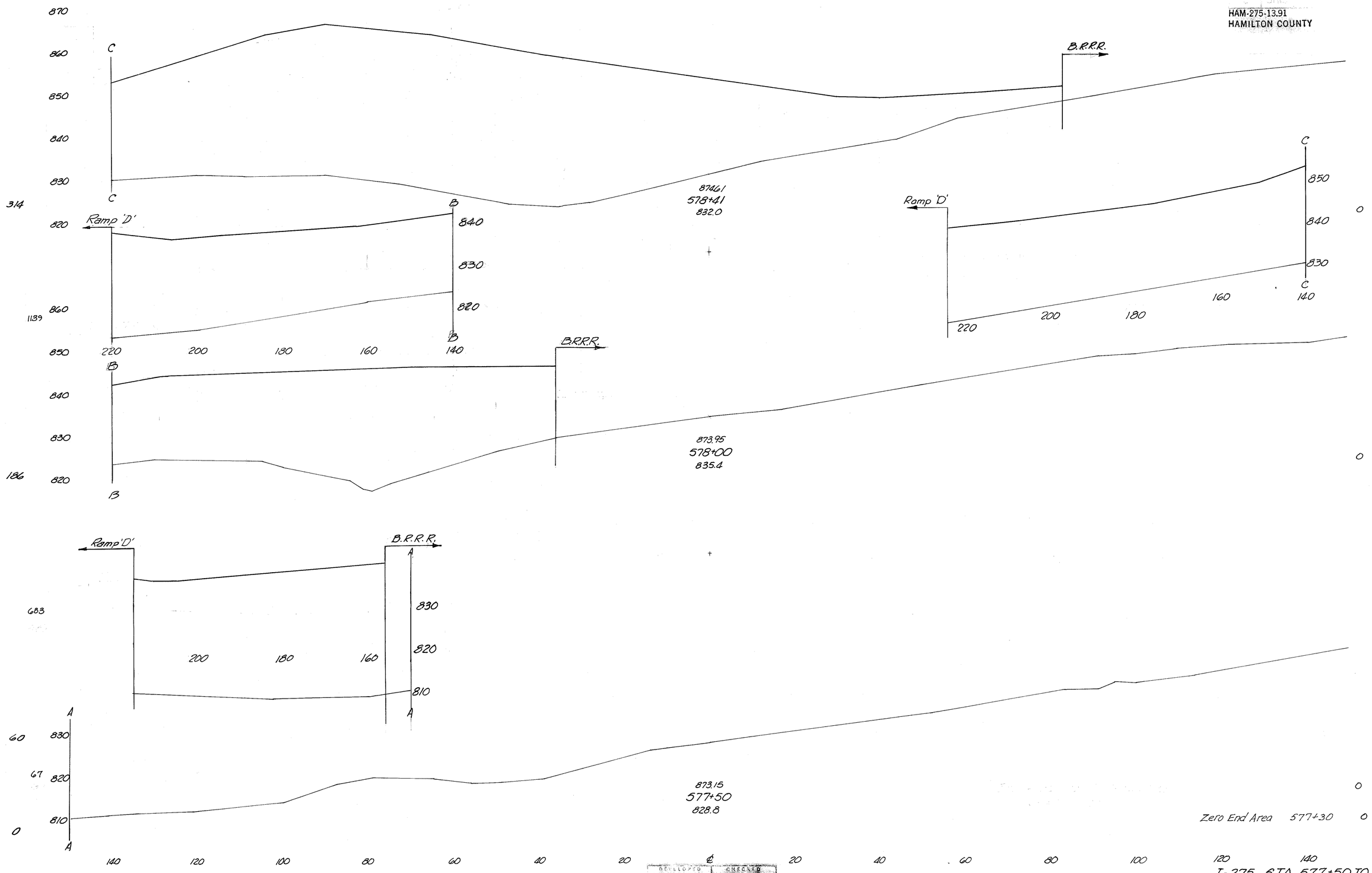
End Area Sta. 577+36
(Back Only)



DEVELOPED		CHECKED	
7-10-70	RJD	7-12-72	A.L.Y.

I-275 STA. 576+60 TO STA. 577+00

HAM-275-13.91
HAMILTON COUNTY

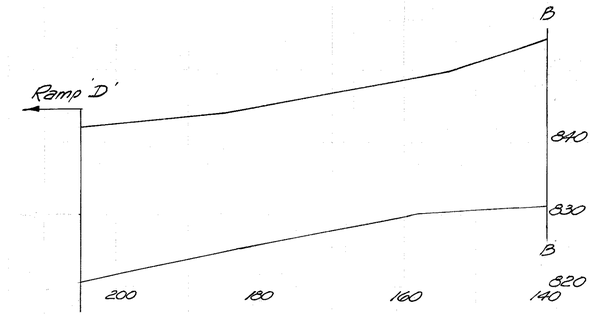


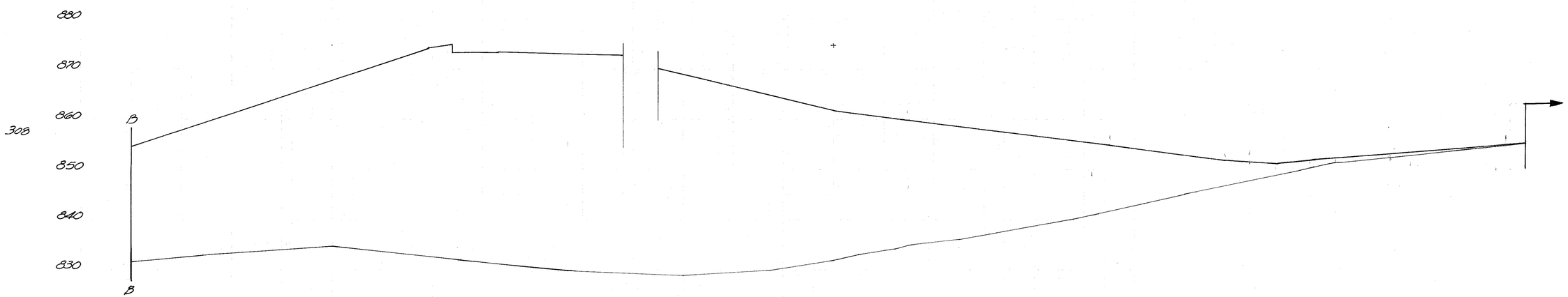
DEVELOPED 7-10-70 RJD | CHECKED 7-12-72 A.L.Y.

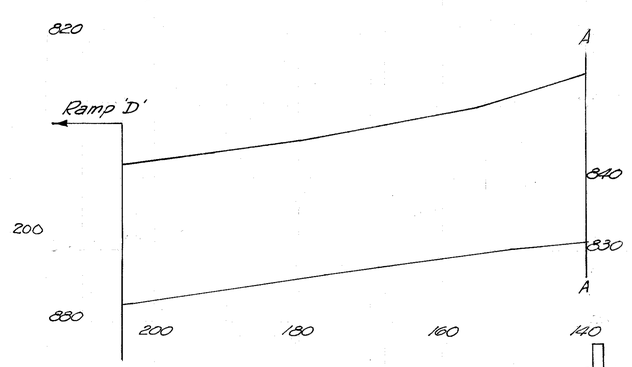
I-275 STA. 577+50 TO STA. 578+41

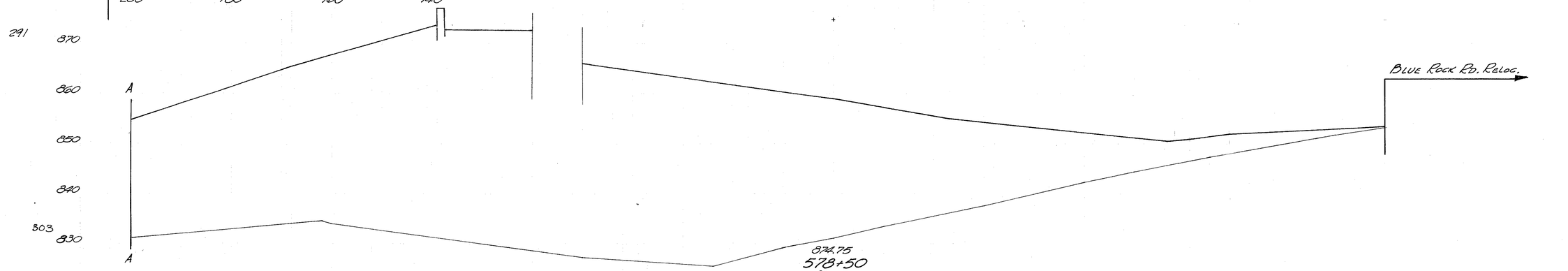
77
468

HAM-275-13.91
HAMILTON COUNTY









874.85
578+56
832.00

O 7835

O 1686

O 7342

874.75
578+50
831.1

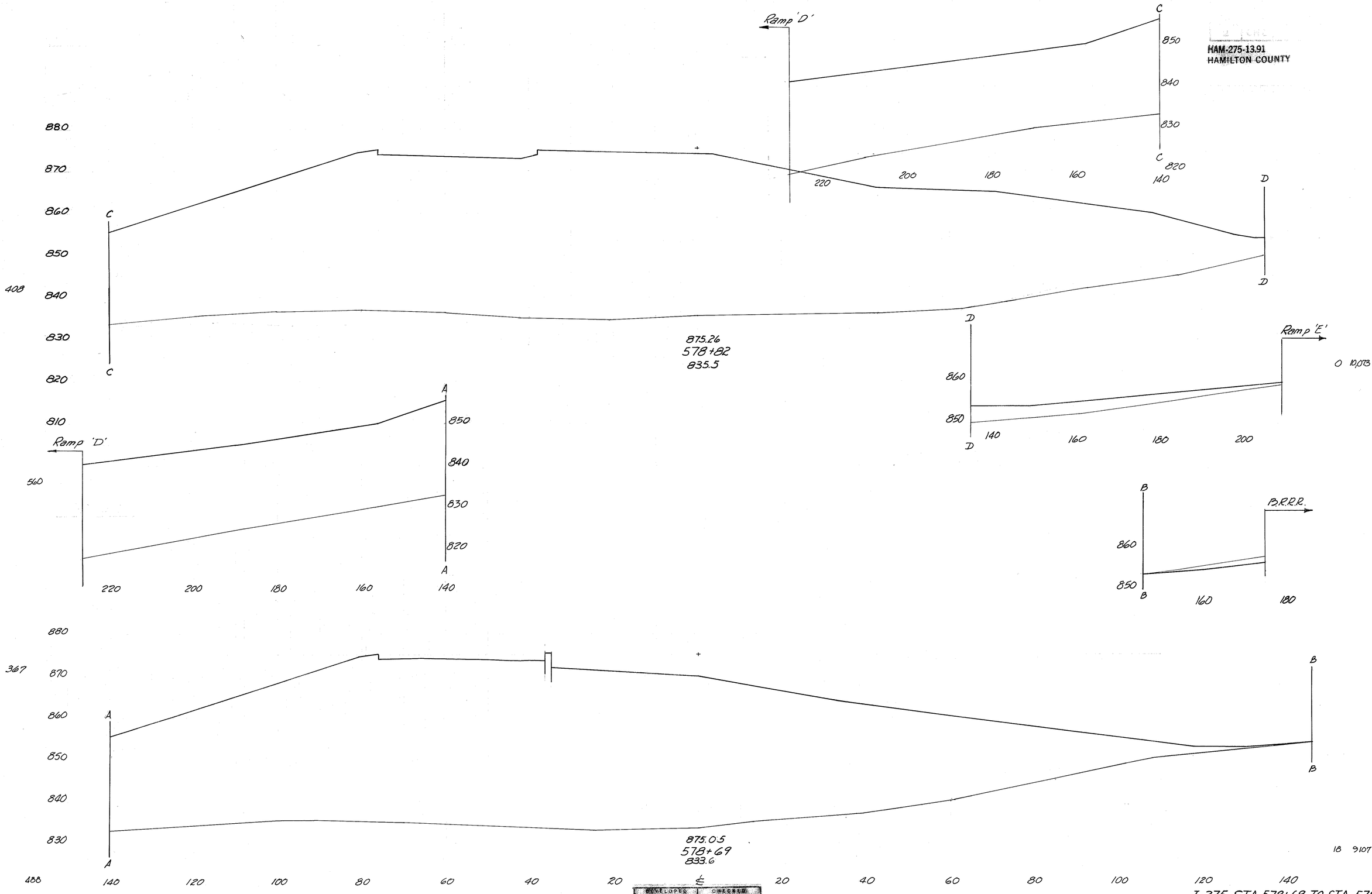
140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

O 2813

REVISED	CHECKED
7-10-75 R/D	7-1272 A.L.Y.

I-275 STA. 578+50 TO STA. 578+56

HAM-275-13.91
HAMILTON COUNTY



4 4617

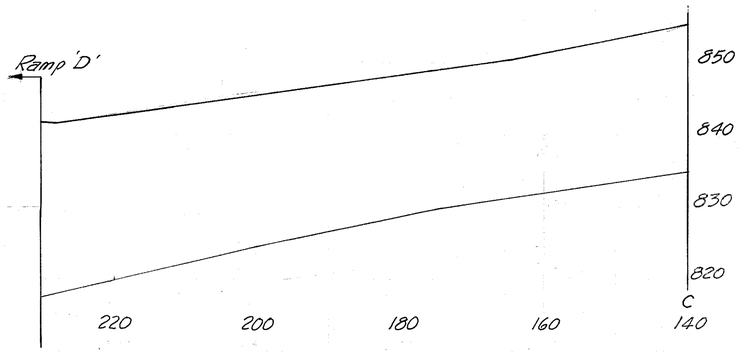
18 9107

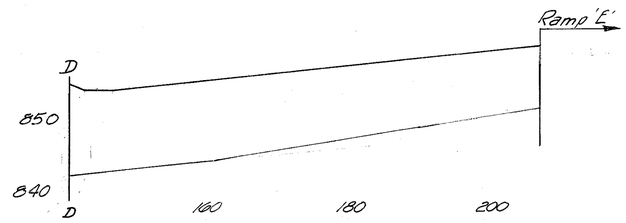
4 4079

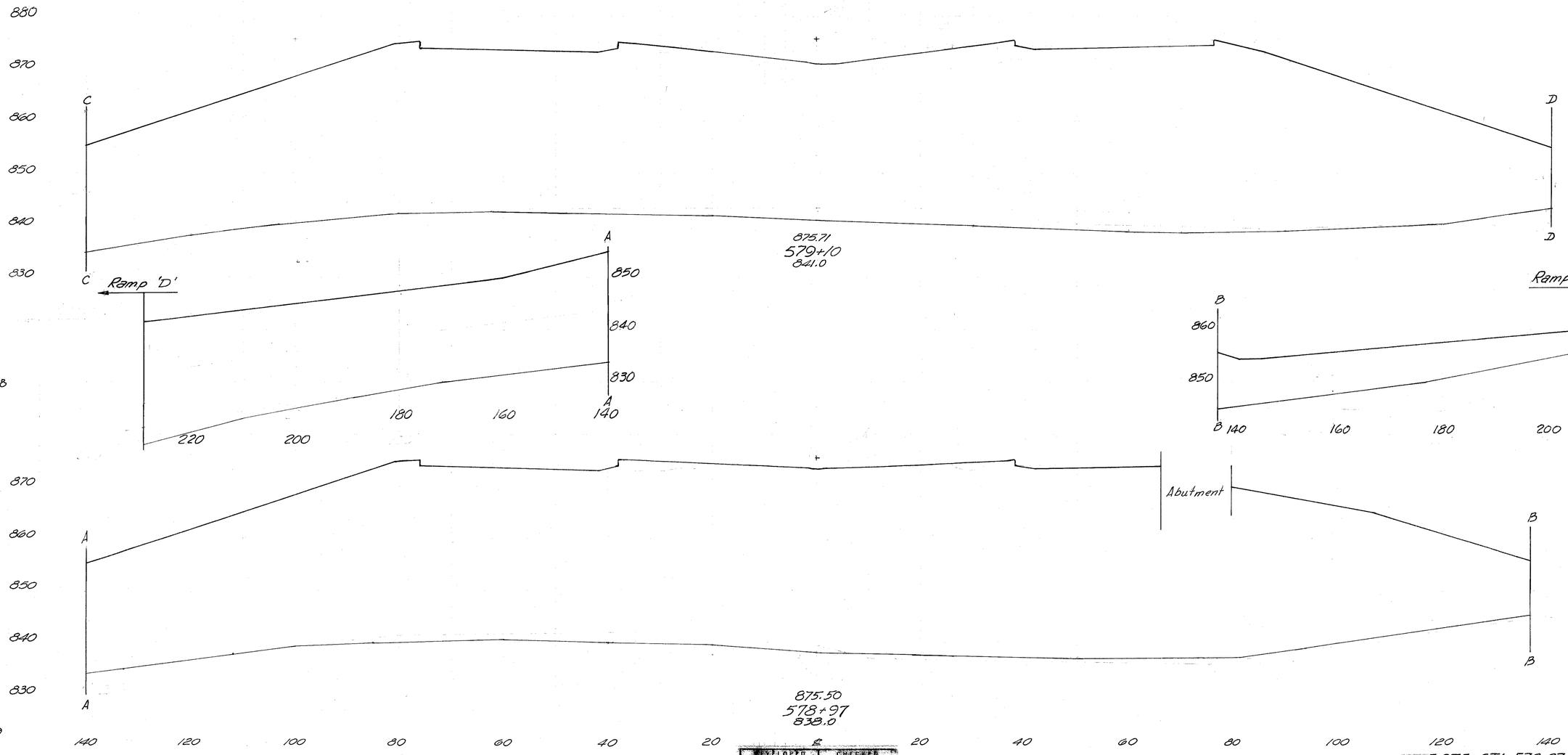
DEVELOPED	CHECKED
7-10-72 R/D	7-12-72 A.L.Y.

I-275 STA. 578+69 TO STA. 578+82

HAM-275-13.91
HAMILTON COUNTY





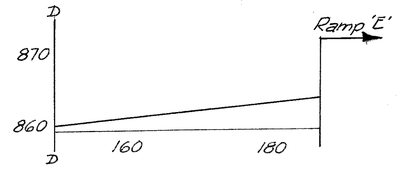


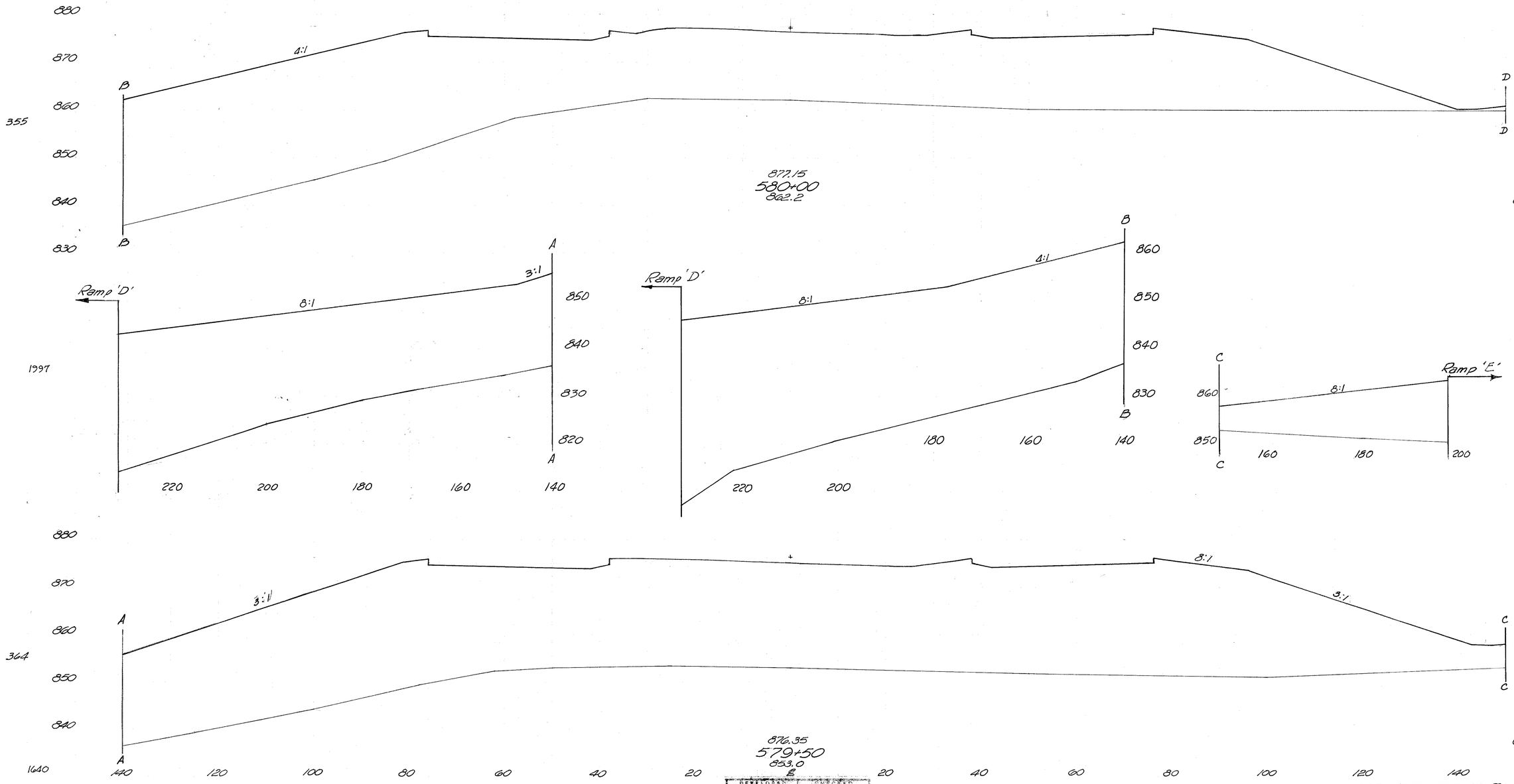
DEVELOPED		CHECKED	
7-10-72	RJD	7-12-72	A.L.Y.

I-275 STA. 578+97 TO STA. 579+10

80
468

HAM-275-13.91
HAMILTON COUNTY



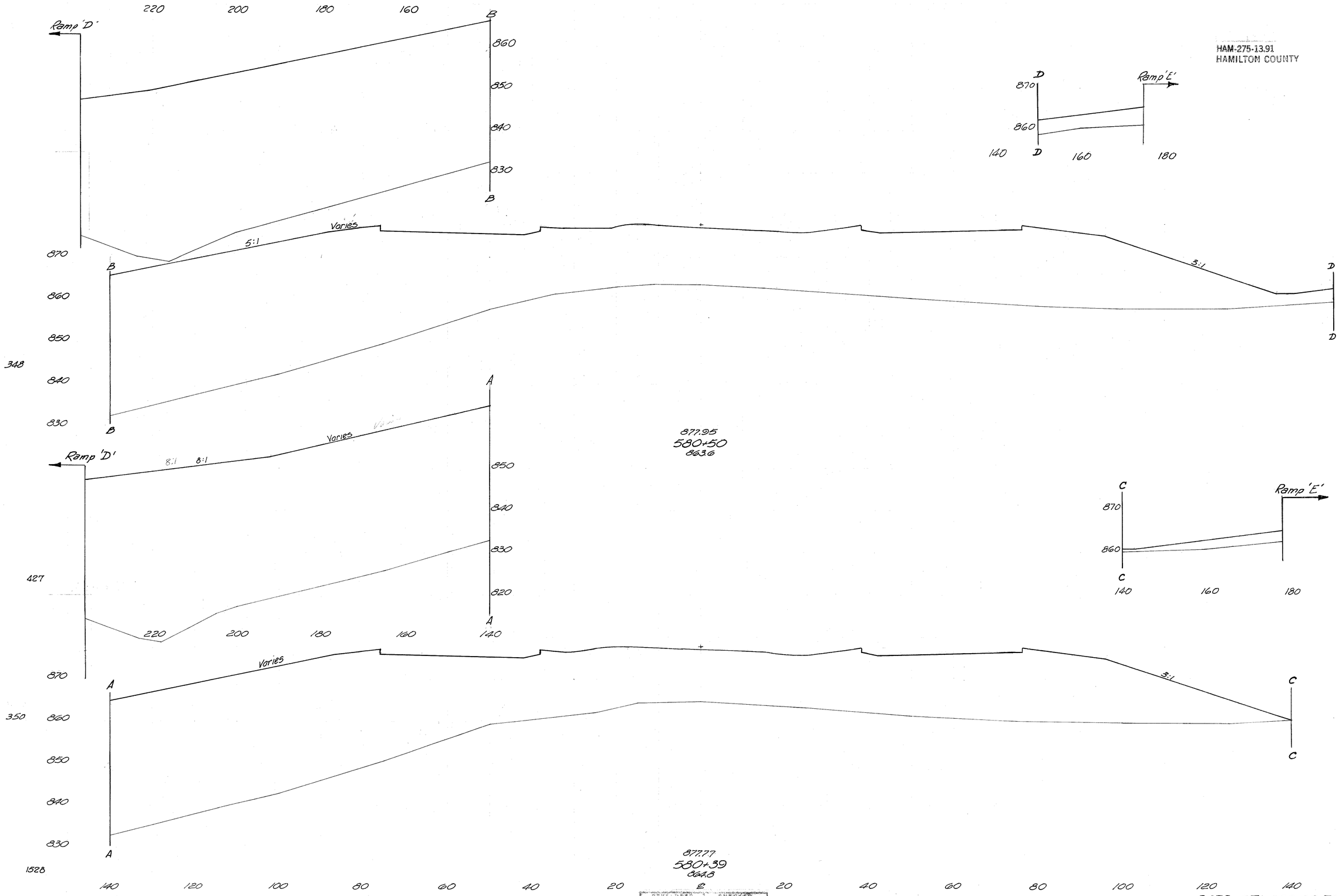


0 7549
0 14,802
4 14,921
0 8437
0 14,072

DEVELOPED	CHECKED
7-10-72 RJD	7-12-72 A.L.Y.

I-275 STA. 579+50 TO STA. 580+00

HAM-275-13.91
HAMILTON COUNTY



877.95
580+50
863.6

877.77
580+39
864.8

0 8998

0 3517

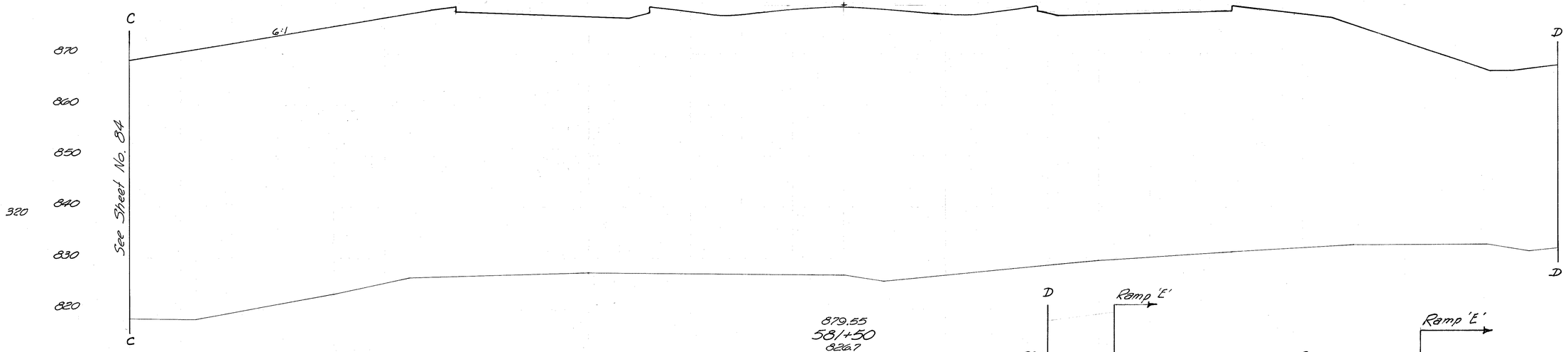
0 8265

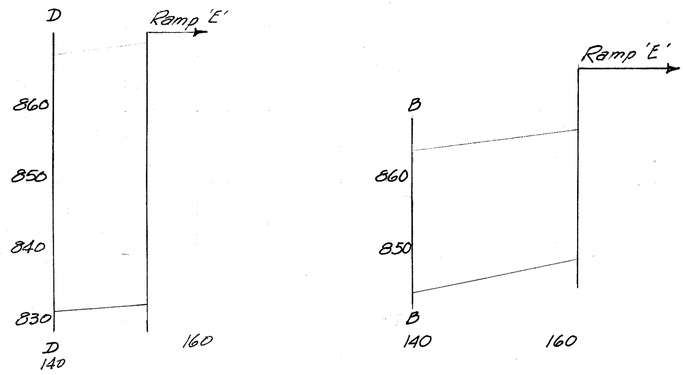
0 11821

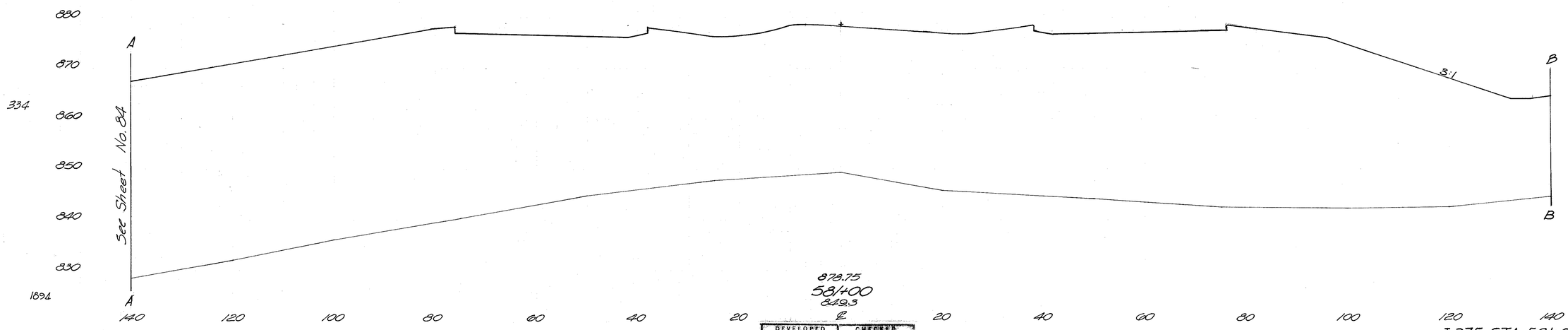
DEVELOPED	CHECKED
7-10-78 RJD	7-18-78 A.L.Y.

I-275 STA. 580+39 TO STA. 580+50

HAM-275-13.91
HAMILTON COUNTY





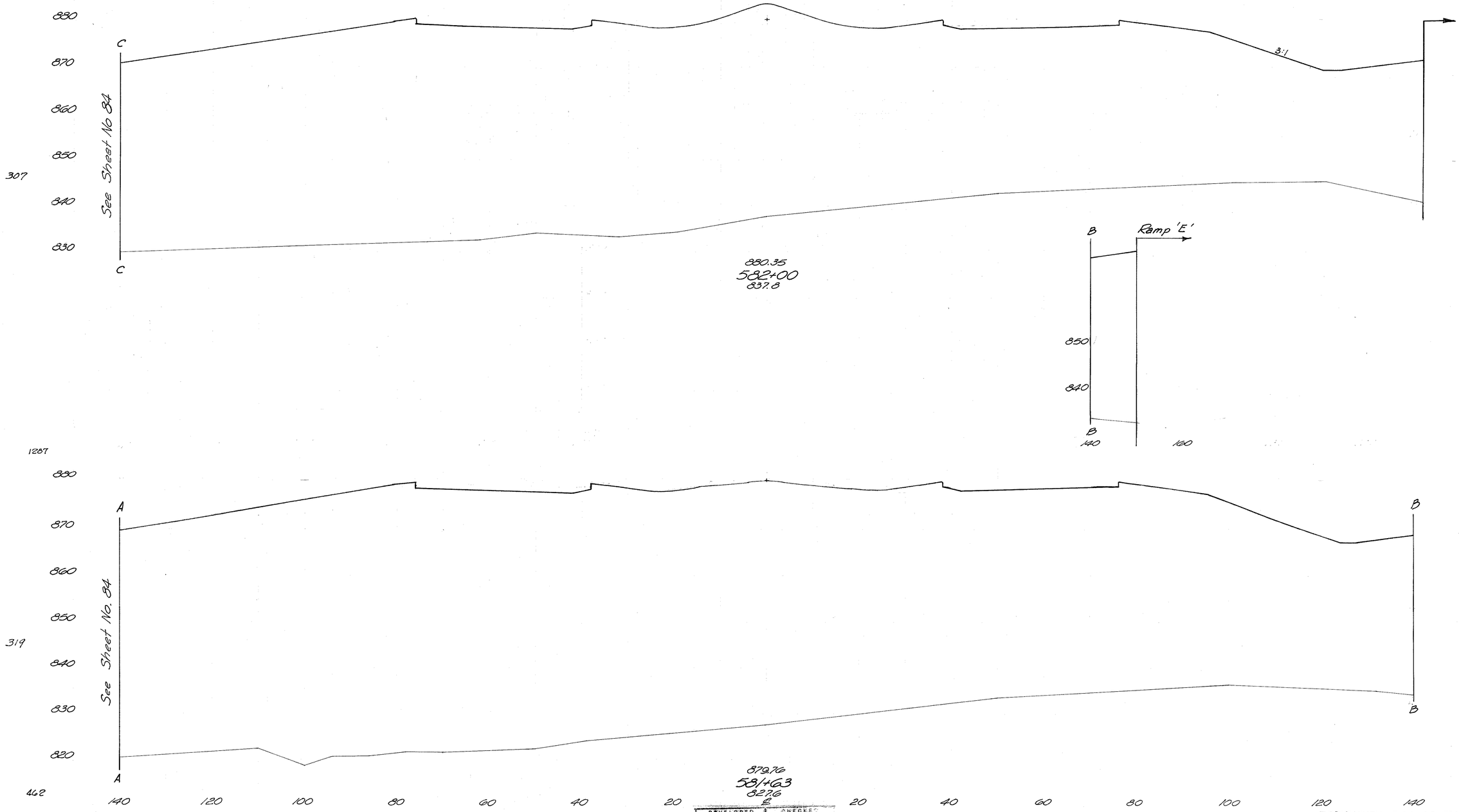


0 18,158
18.17
0 28,319
18.94
0 12,426
0 19,837

DEVELOPED 7-10-70 RJO
CHECKED 7-12-72 A.L.Y

I-275 STA. 581+00 TO STA. 581+50

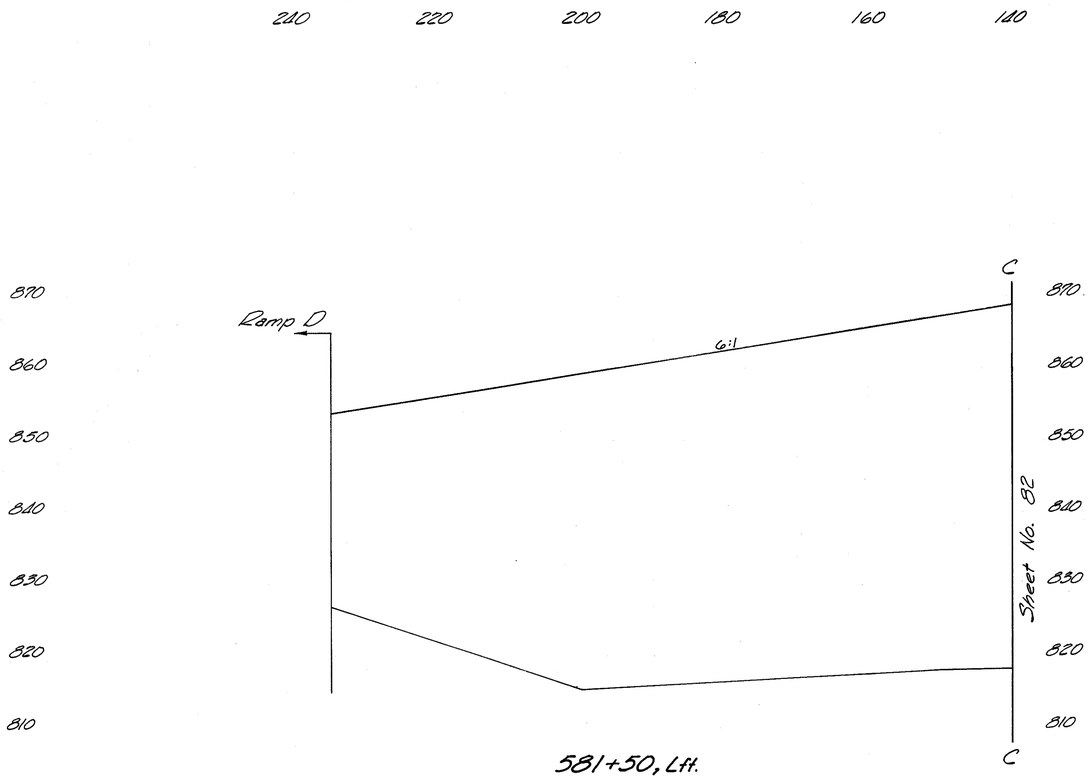
HAM-275-13.91
HAMILTON COUNTY

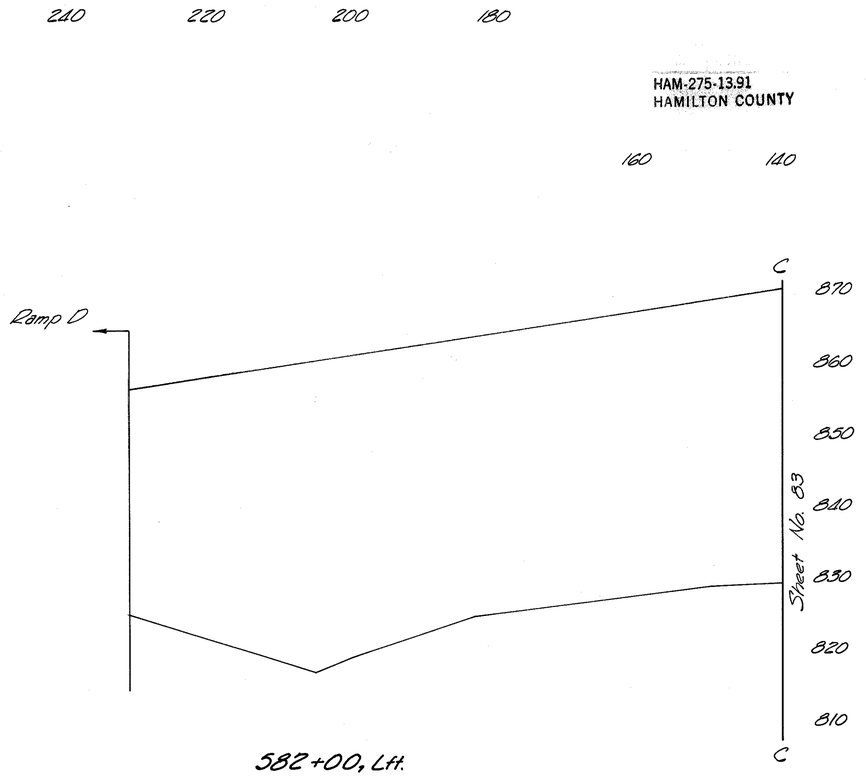


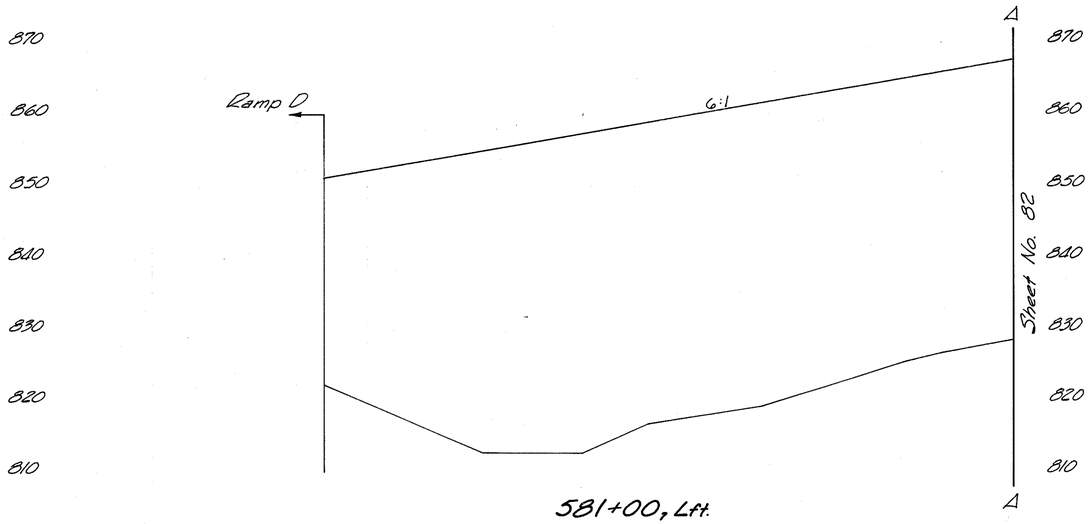
DEVELOPED		CHECKED	
7-10-72	R.D.	7-12-72	A.L.Y.

I-275 STA. 581+63 TO STA. 582+00

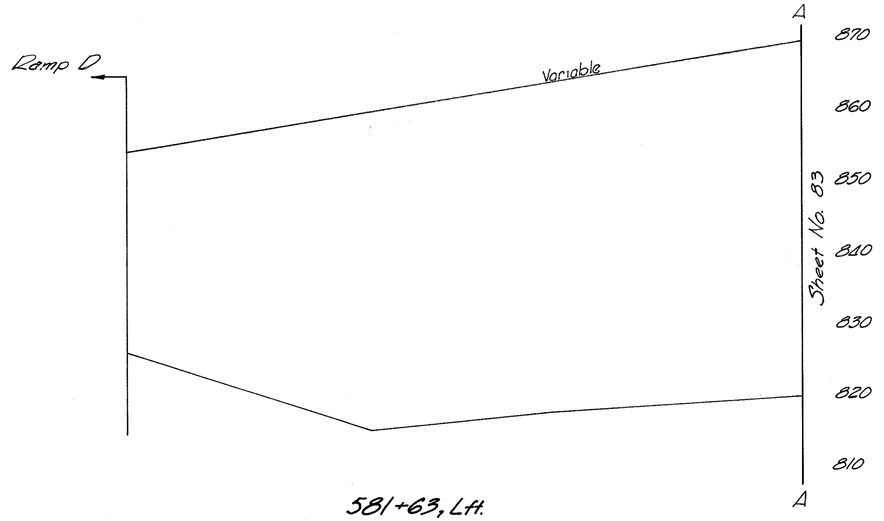
HAM-275-13.91
HAMILTON COUNTY





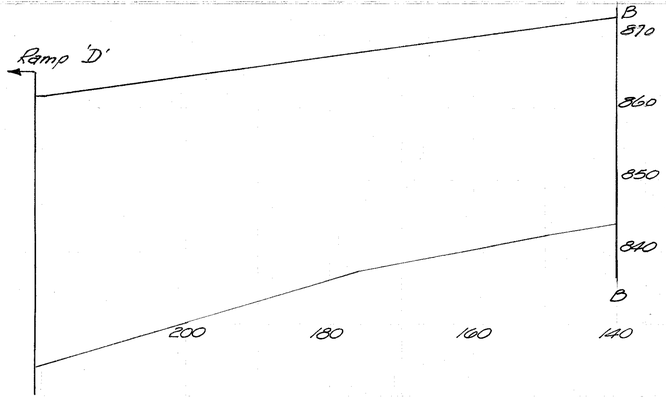


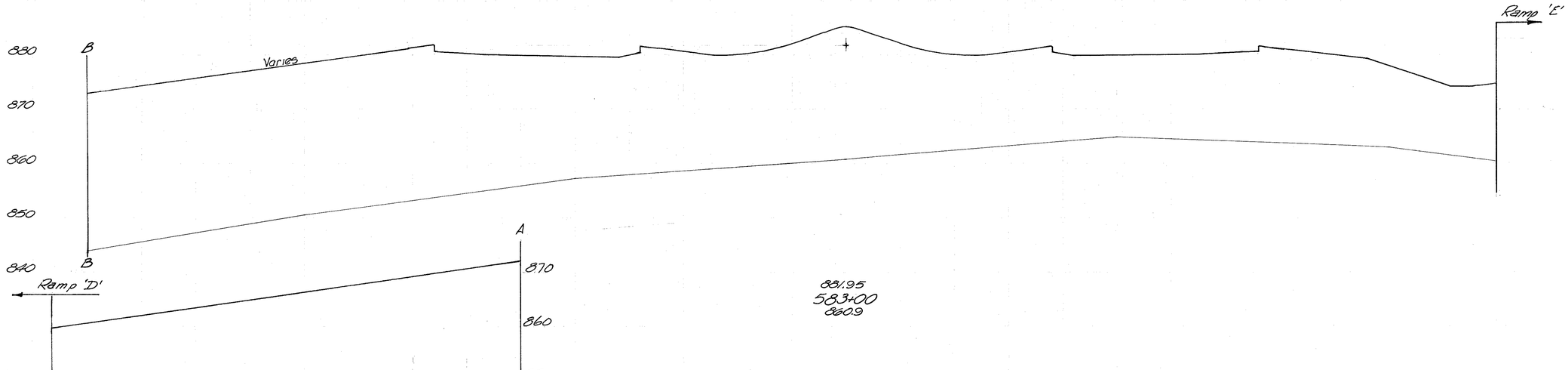
REVISED	CHECKED
7-10-78 RJD	7-18-78 A.L.Y.



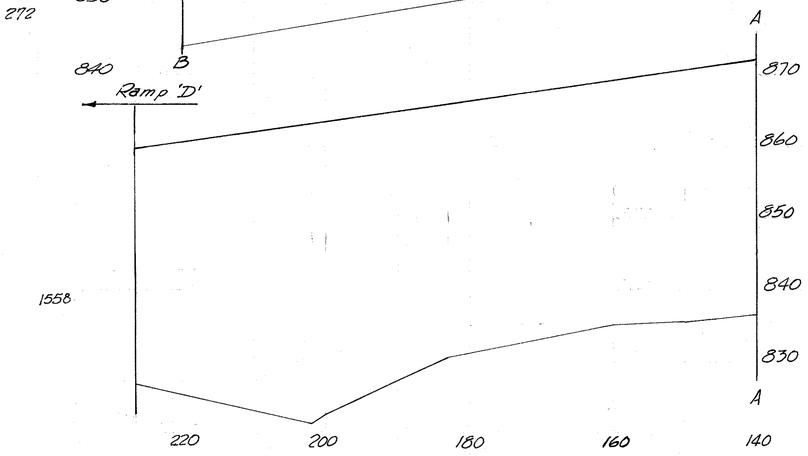
I-275, STA. 581+00 to STA. 582+00 Ext. Left

HAM-275-13.91
HAMILTON COUNTY





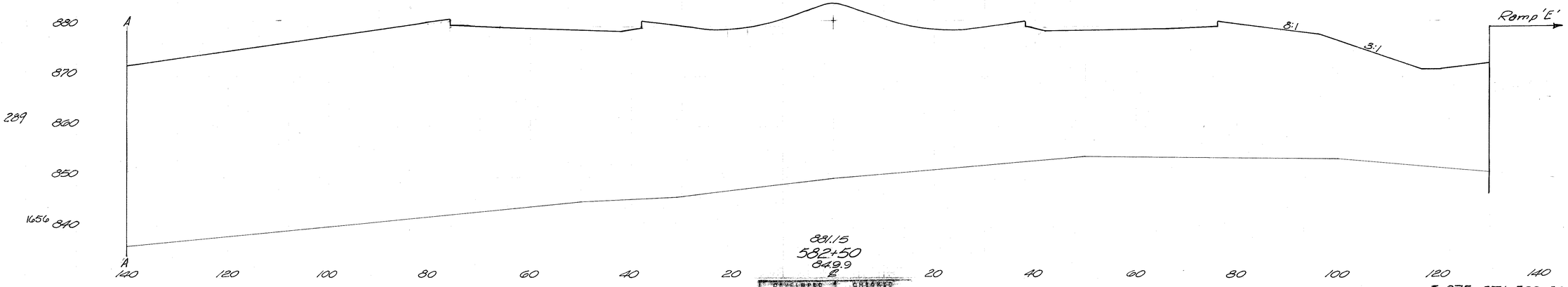
272



881.95
583+00
860.9

0 8170

0 18,203



881.15
582+50
849.9

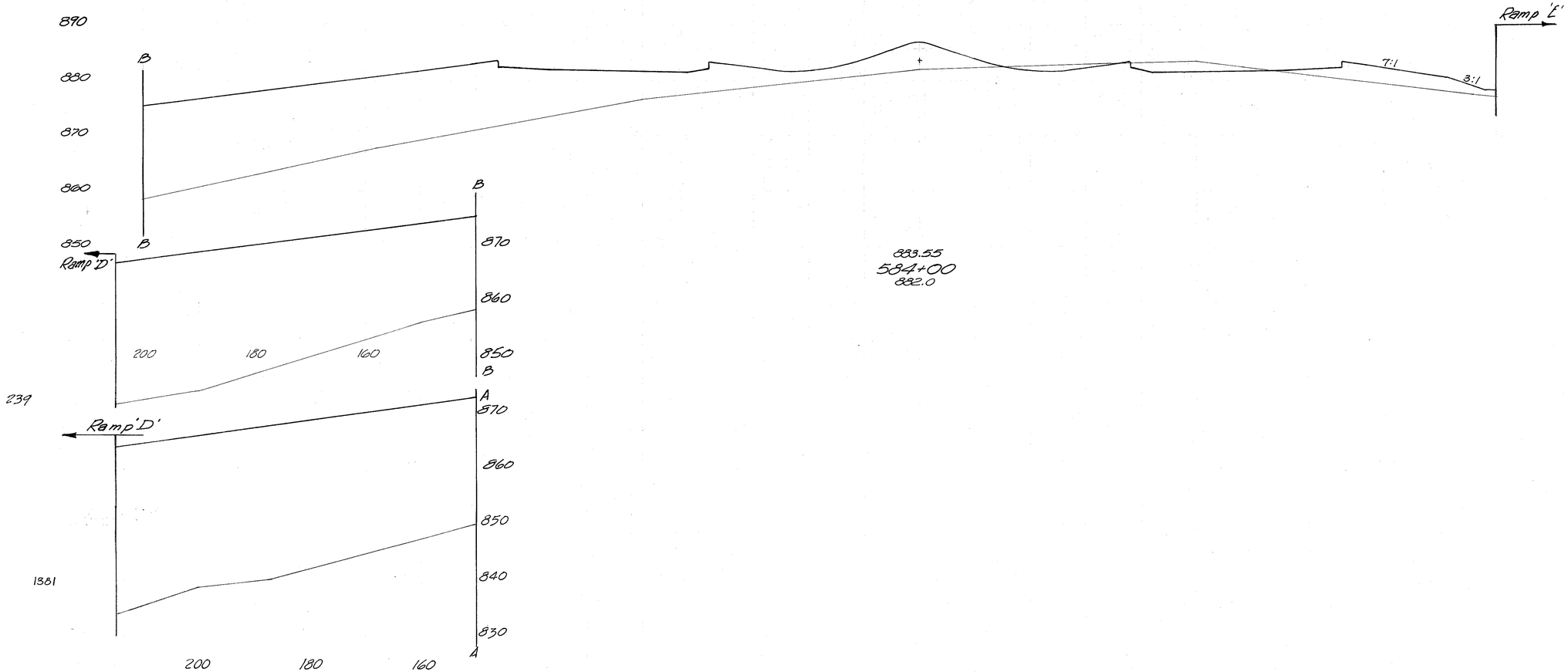
0 11,489

0 20026

DEVELOPED	CHECKED
7-10-78 RJD	7-12-78 A.L.Y

I-275 STA 582+50 TO STA 583+00

HAM-275-13.91
HAMILTON COUNTY



DEVELOPED	CHECKED
7-10-70 RJD	7-12-72 A.L.Y.

I-275 STA. 583+50 TO ST

87
468

HAM-275-13.91
HAMILTON COUNTY

182 - 182

R&D 419

Ramp 'D'

D 880

870 D

160 140

900
890
880
870

D

196

Ramp 'E'

885.95
585+50
897.2

2113 8

D C

900 880

Δ66 890 C 870

160 140

C
890

870 C

203

B

870

B

890 180 160 860

885.62
585+29
895.7

1603 125

669

880 B A

870 870

212 Ramp 'D'

860

850

180 160

1217
1217

A

880
A

870

226

860

A

885.15
585+00
892.9

1529 424

1245 664

Ramp 'E'

1697 2008

884.35
584+50
888.5

588 1505

579 4221

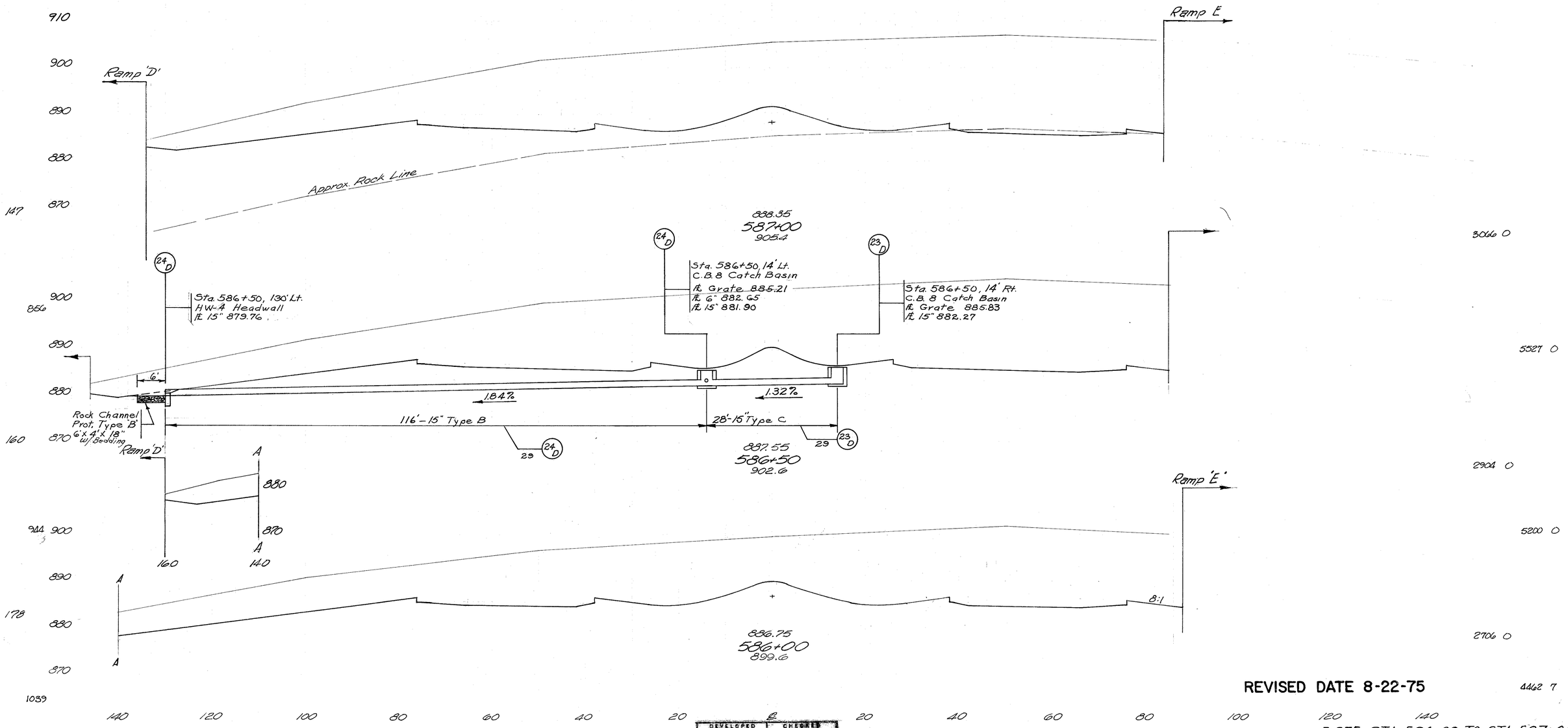
1292 140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DEVELOPED 7-10-70 RJD CHECKED 7-12-72 A.L.Y.

I-275 STA. 584+50 TO STA. 585+50

88
468

HAM-275-13.91
HAMILTON COUNTY



DEVELOPED		CHECKED	
7-10-70	R/D	7-18-72	A.L.Y.

REVISED DATE 8-22-75

4462 7

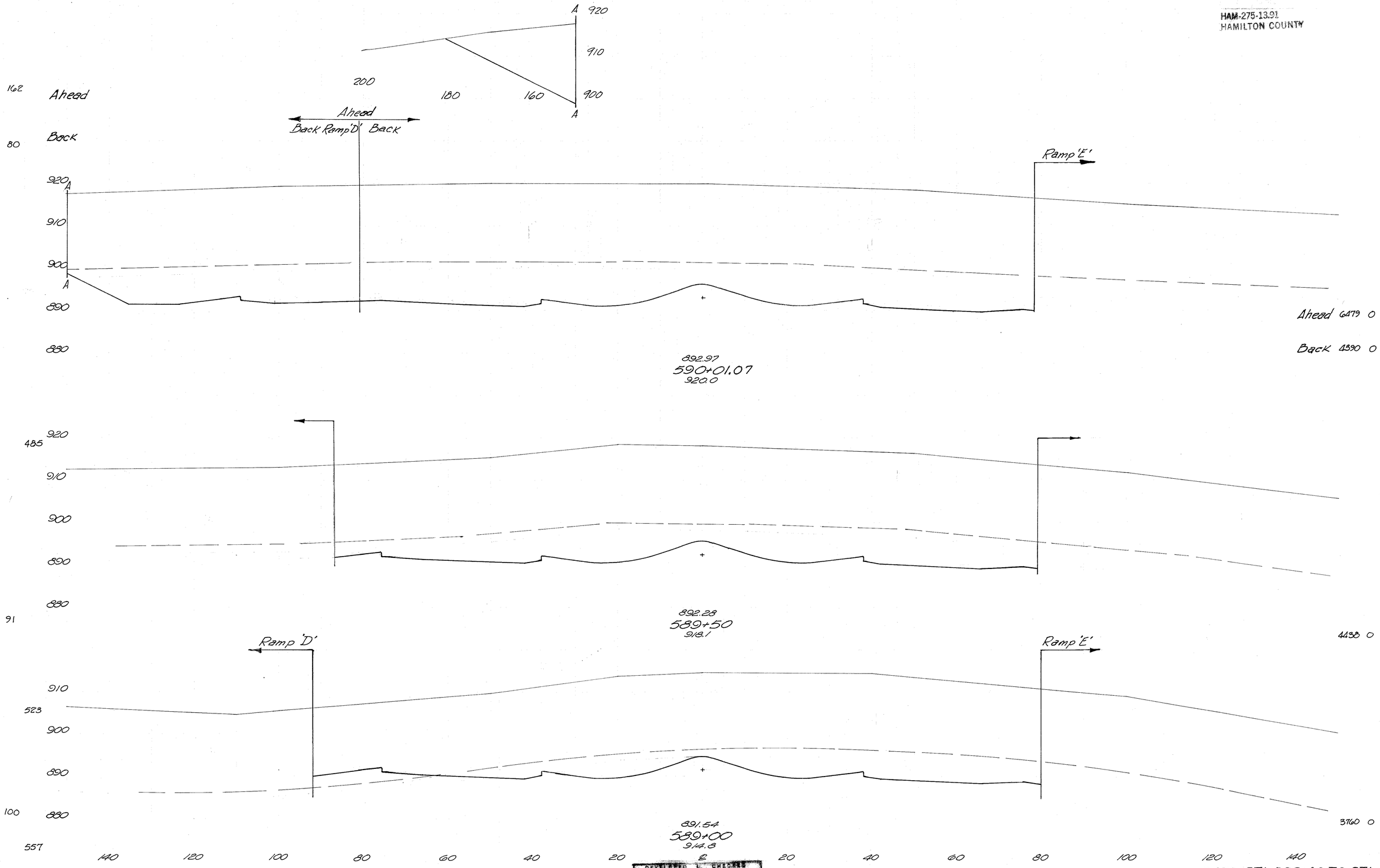
I-275 STA. 586+00 TO STA. 587+00

HAM-275-13.91
HAMILTON COUNTY

DEVELOPED		CHECKED	
7-10-78	RJD	7-12-78	A.L.Y.

I-275 STA. 587+50 TO STA. 588+50

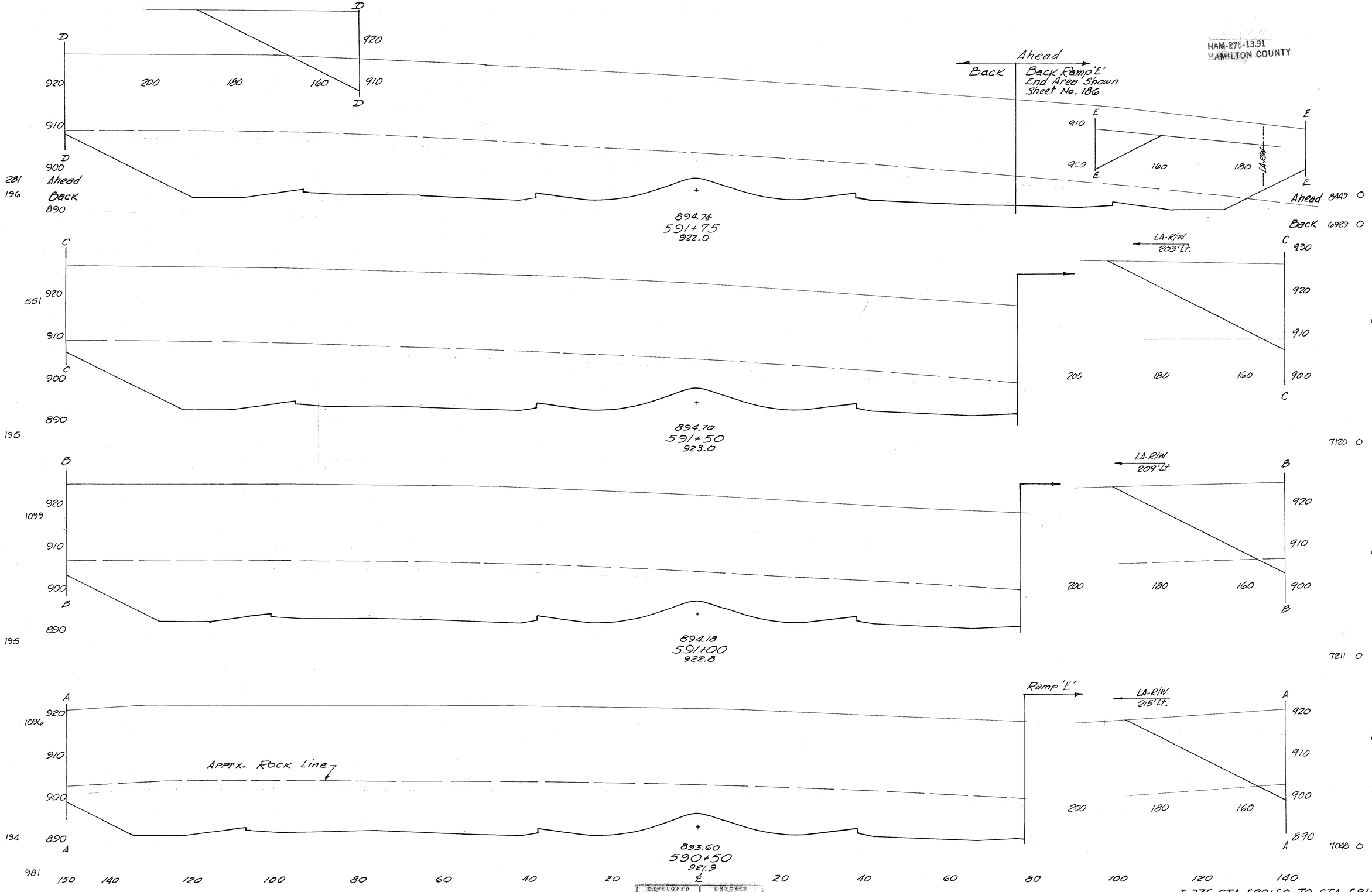
HAM-275-13.91
HAMILTON COUNTY



DEVELOPED	CHECKED
7-10-78 RJD	7-12-78 A.L.Y

I-275 STA. 589+00 TO STA. 590+02

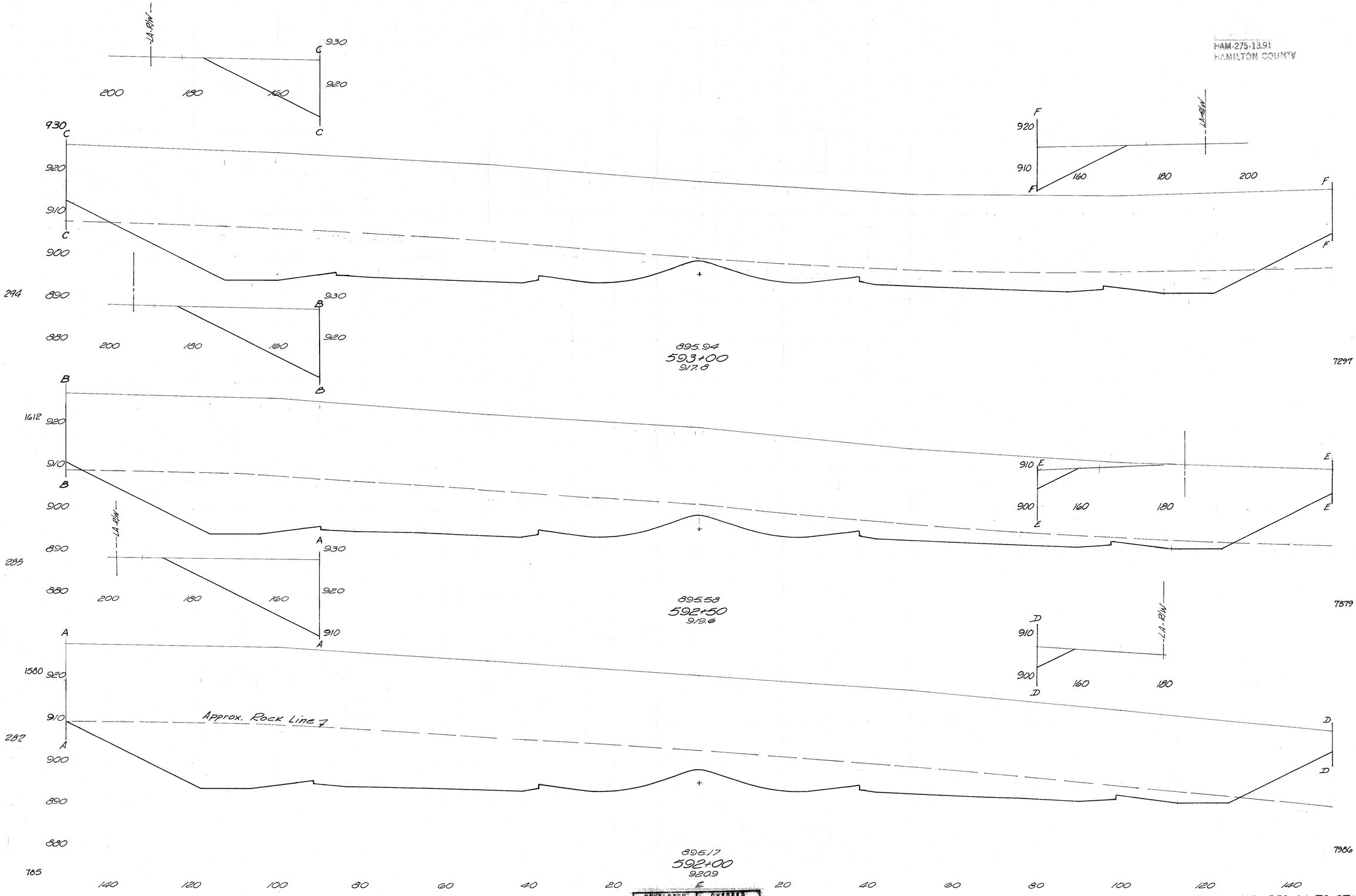
HAM-275-13.91
HAMILTON COUNTY



DEVELOPED	CHECKED
7-10-72 RJD	7-12-72 A.L.Y.

I-275 STA. 590+50 TO STA. 591+75

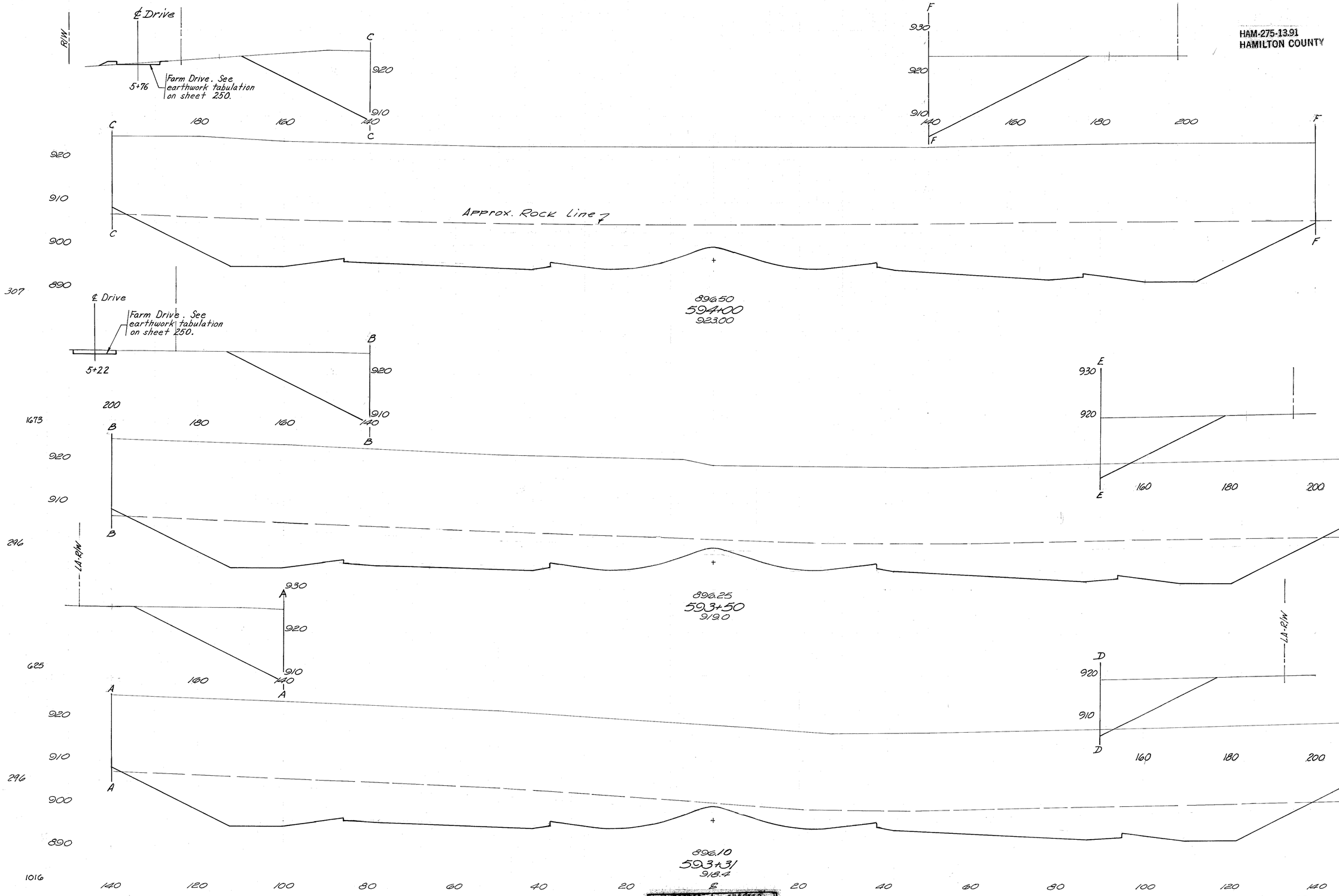
HAM-275-13.91
HAMILTON COUNTY



DEVELOPED	CHECKED
7-10-70 RJD	7-13-72 A.L.Y.

I-275 STA. 592+00 TO STA. 593+00

HAM-275-13.91
HAMILTON COUNTY

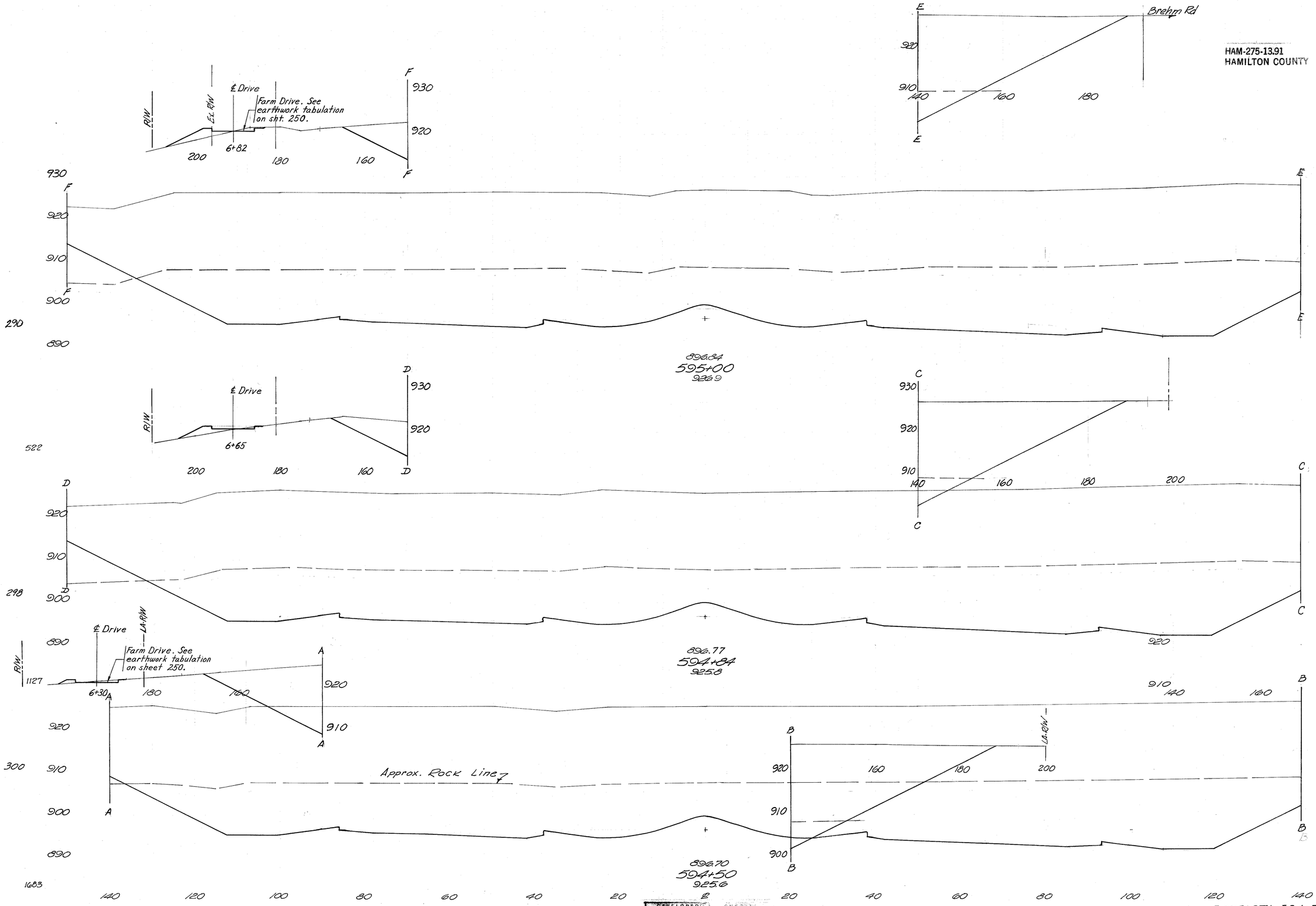


DESIGNED	CHECKED
7-10-72 RJD	7-18-72 A.L.Y.

I-275 STA. 593+31 TO STA. 594+00

94
468

HAM-275-13.91
HAMILTON COUNTY



DEVELOPED		CHECKED
7-10-70	RJD	7-15-72 A.L.Y.

I-275 STA. 594+50 TO STA. 595+00

HAM-275-13.91
HAMILTON COUNTY

G 930 / 180 / 160 / 140 / 920 G — G 930 920 910 900 890 — G — G — 2:1 — 221

896.97
596+00
923.5

H Brehm Rd. — 920 910 — 160 180 200 — H — H

7824 O

Back Ahead — Brehm Rd. — E 930 920 — 180 160 140 — E — E — 364 — 920 910 900 — 216 Ahead — 231 Back

F — 920 910 — 160 180 — F — F

4453 O

Ahead 8216 O

Back 8326 O

℄ Drive — 890 — 7+42 — Farm Drive — I-275 — See earthwork tabulation, sht. 250. — C 930 920 910 — 180 160 — C — C — 693 — 910 900 — C — ℄ A.H.W. — 231

896.96
595+85
924.75

D — Brehm Rd. — 920 910 — 160 180 200 — D — D

8282 O

℄ — 890 — 7+28 — Farm Drive — I-275 — See tabulation on sht. 250. — A 930 920 — 180 160 — 24:1 — 2:1 — A — 406 — 920 910 — A — 291 — 900 890

896.94
595+58
926.7

B — Brehm Rd. — ℄ A.H.W. — 920 910 — 160 180 — B — B 140

8839 O

4471 O

Approx. Rock Line

896.92
595+44
926.7

9017 O

14923 O

1418 140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

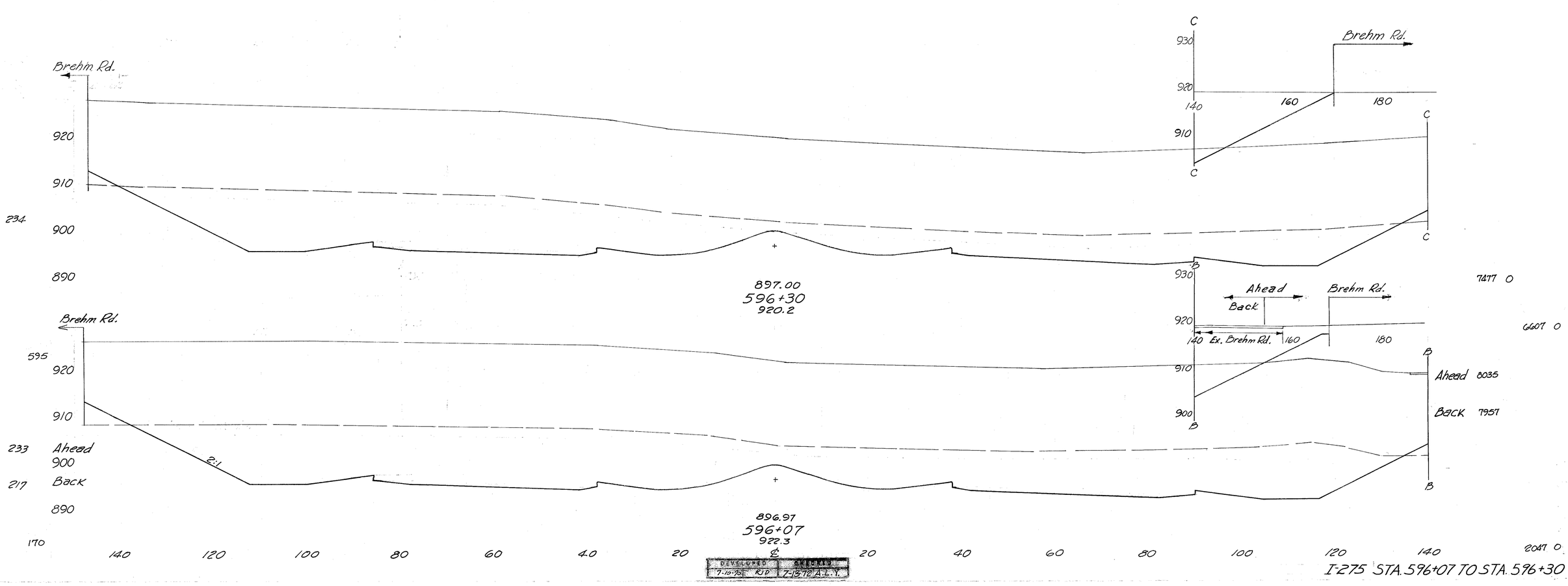
DATE	BY	DATE	BY
7/10/70	RD	7-13-72	A.L.Y.

I-275 STA. 595+44 TO STA. 596+00

96
468

HAM-275-13.91
HAMILTON COUNTY

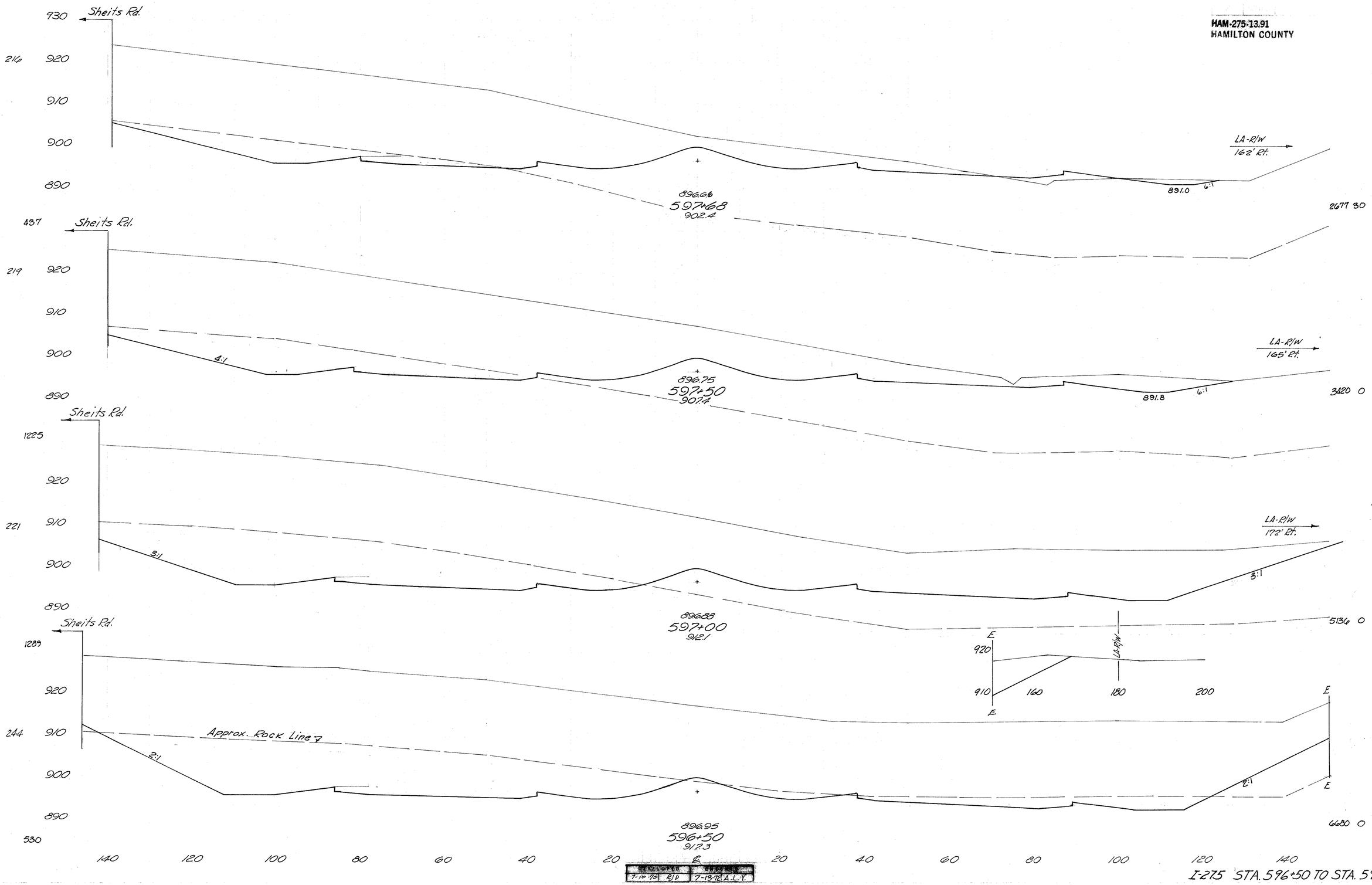
C



DEVELOPED	CHECKED
7-18-72 RD	7-18-72 A.L.Y.

I-275 STA. 596+07 TO STA. 596+30

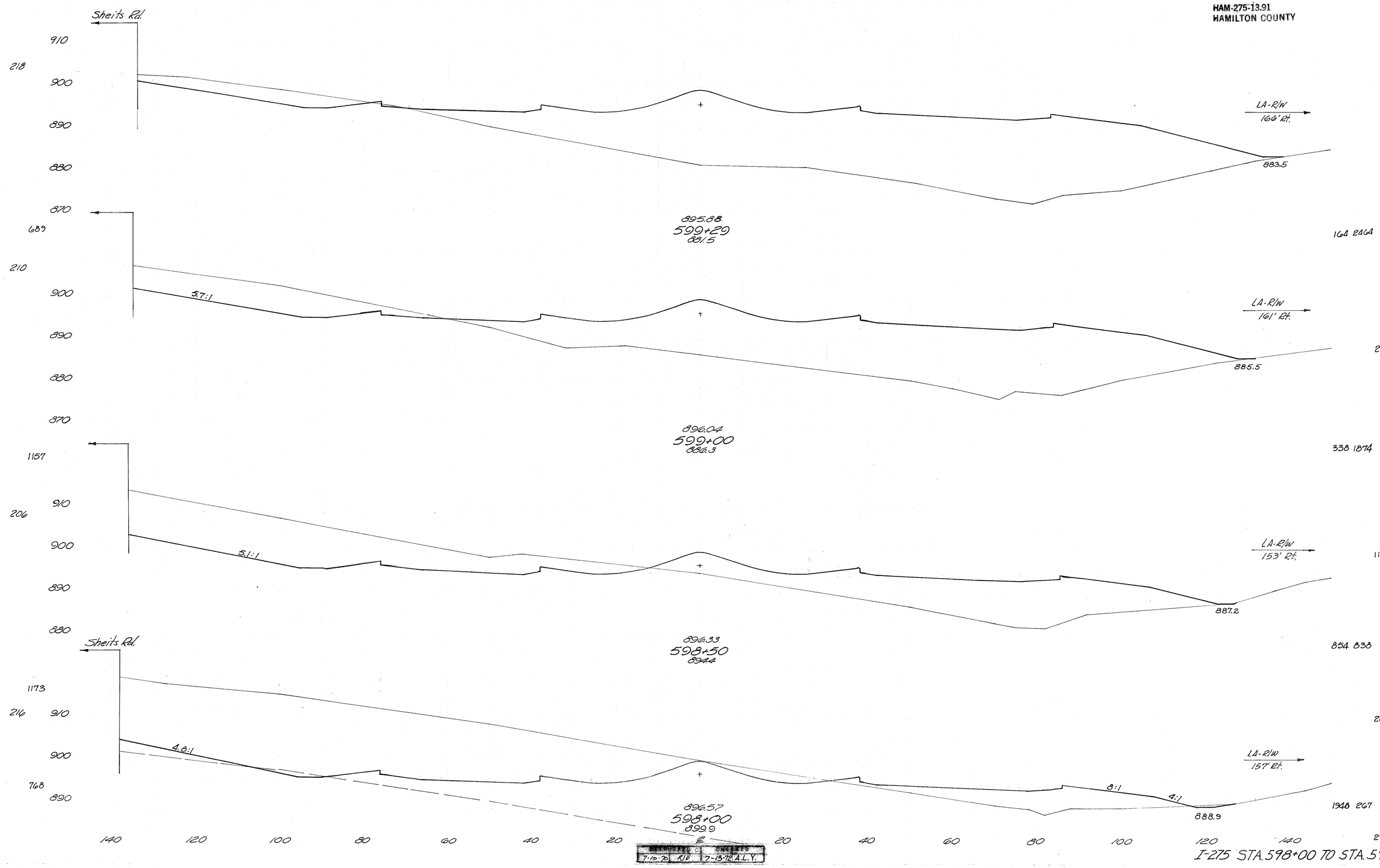
HAM-275-13.91
HAMILTON COUNTY



DESIGNED	DETAILED	CHECKED
7-10-93 R.D	7-13-93 A.L.Y.	

I-275 STA. 596+50 TO STA. 597+68

HAM-275-13.91
HAMILTON COUNTY



DESIGNED		CHECKED	
7-10-72	R.D.	7-15-72	A.L.Y.

I-275 STA. 598+00 TO STA. 599+29

HAM-275-13.91
HAMILTON COUNTY

99
468

C
890
880
879.0
160
180
200
C

Sheits Rd.

900
890
880
870
860
248
440
250
331
247
1326
233
523

8:1
892.6
894.84
600+50
872.1
893.0
895.08
600+34
870.8
894.0
895.30
600+00
876.4
6.8:1
895.70
599+50
881.3

B
850
879.3
160
180
B

A
880
880.0
870
160
180
A

LA. R/W

LA. R/W
17.1' Rt.
4:1
882.0

78 4304
24 2591
3 4516
2 5719
0 4625
1 6905
1 2895
65 2061

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DESIGNED	DRAWN	CHECKED
7-10-78	R/D	7-13-78 A.L.Y.

I-275 STA. 599+50 TO STA. 600+50

100
468

HAM-275-13.91
HAMILTON COUNTY

C
880
870
860 C
140 160 180 200
LA-R/W
213' Rt.
868.2

Sheits Rd.
282
890
880
870
860
850
6:1
6:1
8:1
886.5
8:1
C
C
890
880
870
860
850

893.35
602+00
870.1

B
880
870
B
8:1
874.2
160
180
LA-R/W
204' Rt.
12 6072
900
890
880
870
860
B
B
225 10,282

1583
271
900
890
880
870
860
8:1
8:1
889.0
8:1

893.85
601+48
873.5

A
880
870
A
877.8
160
180
LA-R/W
220 4745
900
890
880
870
860

1412
Sheits Rd.
262
900
890
880
1406 870
860
8:1
8:1
891.0
4:1
A
A
890
880
870
860
516 7720
355 4046

894.35
601+00
875.5

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

404 7643

DEVELOPED BY	CHECKED
7-10-76 R.D.	7-13-76 A.L.Y.

I-275 STA. 601+00 TO STA. 602+00

HAM-275-13.91
HAMILTON COUNTY

Sta. 603+00, 14' Lt.
C.B. 8
Ft. Grate 890.13
Ft. 6" 887.53
Ft. 15" 887.10

Sta. 603+00, 14' Rt.
C.B. 8
Ft. Grate 890.19
Ft. 15" 886.73

Cover 30" Min.
+00, 162' Rt.
15"-25° Bend
Ft. 862.68
Sta. 603+00, 171' Rt.
HW-4 Headwall
Ft. 15" 862.50
LA-R/W
232' Rt.
2:1
50%
6'
48:1
Rock Channel Protection
Type B, 6'x4'x18'
51'-15" Type F

Sheits Rd.
3:1
3:1
880.6
1.32%
28'-15" Type C
31
4.98%
111'-15" Type B
31
8:1
MC-4 Conc. Collar
+00, 125' Rt.
15"-25° Bend
Ft. 881.20
50%
y

373

892.35
603+00
860.9

LA-R/W
22.3' Rt.
8:1
862.6

Sheits Rd.
4:1
4:1
8:1
883.3

290

892.85
602+50
865.9

0 8599
0 15,212
0 7830
11 12,812

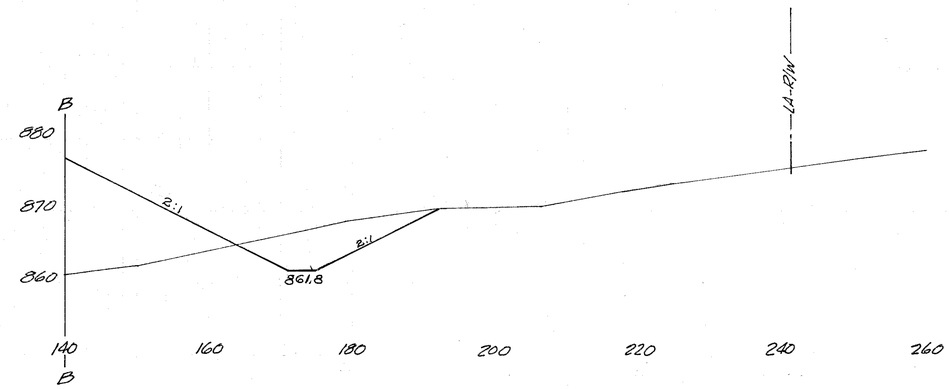
1842
1589

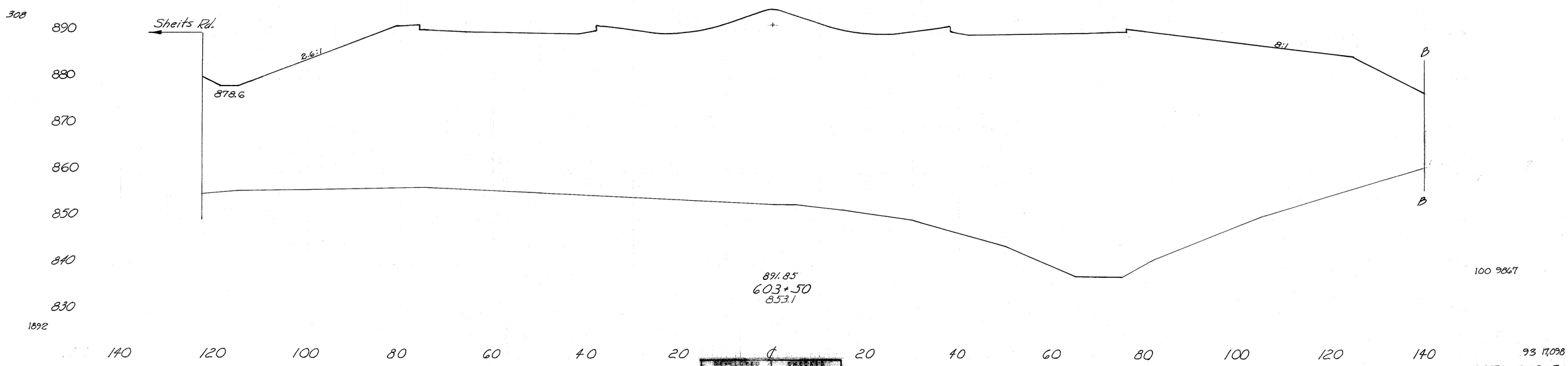
DEVELOPED: 7-13-72 RJD
CHECKED: 7-15-72 A.L.Y.

REVISED DATE 8-22-75

I-275 STA. 602+50 TO STA. 603+00

HAM-275-13.91
HAMILTON COUNTY





103
468

HAM-275-13.91
HAMILTON COUNTY

LA-R/W
260' Rt.

B
880
870
860 B
140 160 180 200 220 240
2:1
2:1
861.3
B

890
880
870
860
850
840
830
873.0
890.85
604+50
830.6
332
B
B
LA-R/W

A
880
870
860
A
140 160 180 200 220 240
2:1
2:1
861.6
891 11,568

1806

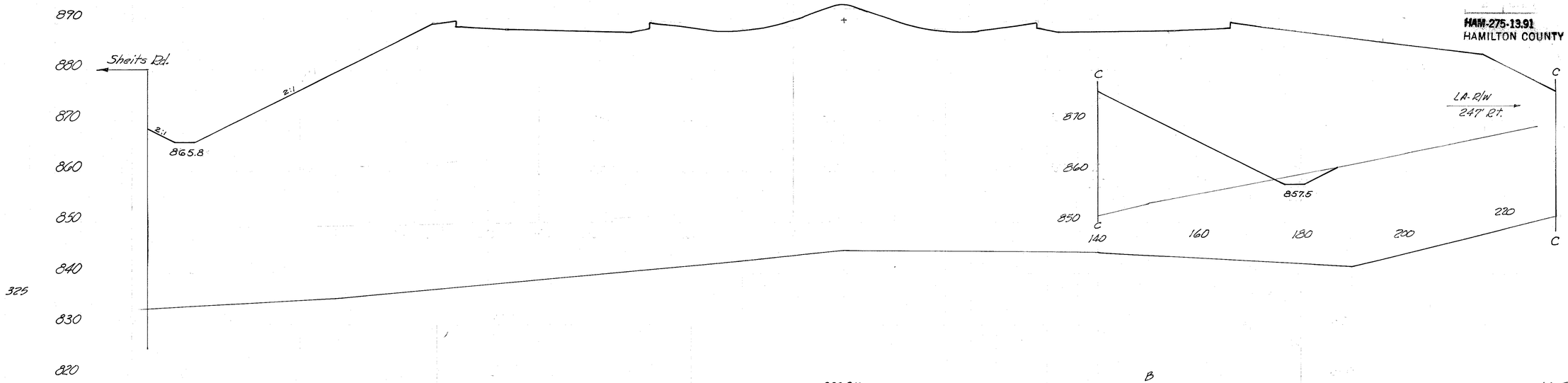
Sheits Rd.
890
880
870
860
850
840
876.2
2:1
318
1739
891.35
604+00
845.8
A
A
1362 20,211
580 10,295
630 18,669

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

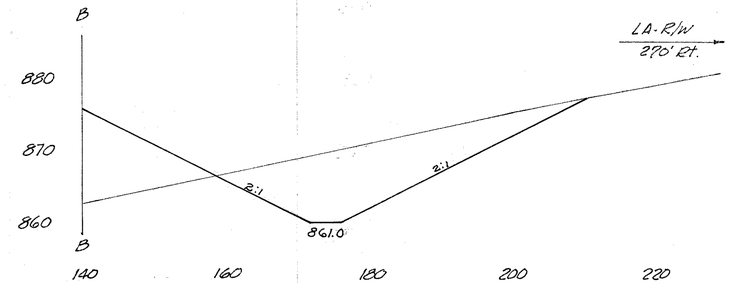
DEVELOPED		CHECKED	
7-13-20	R.J.D.	7-13-20	A.L.Y.

I-275 STA. 604+00 TO STA. 604+50

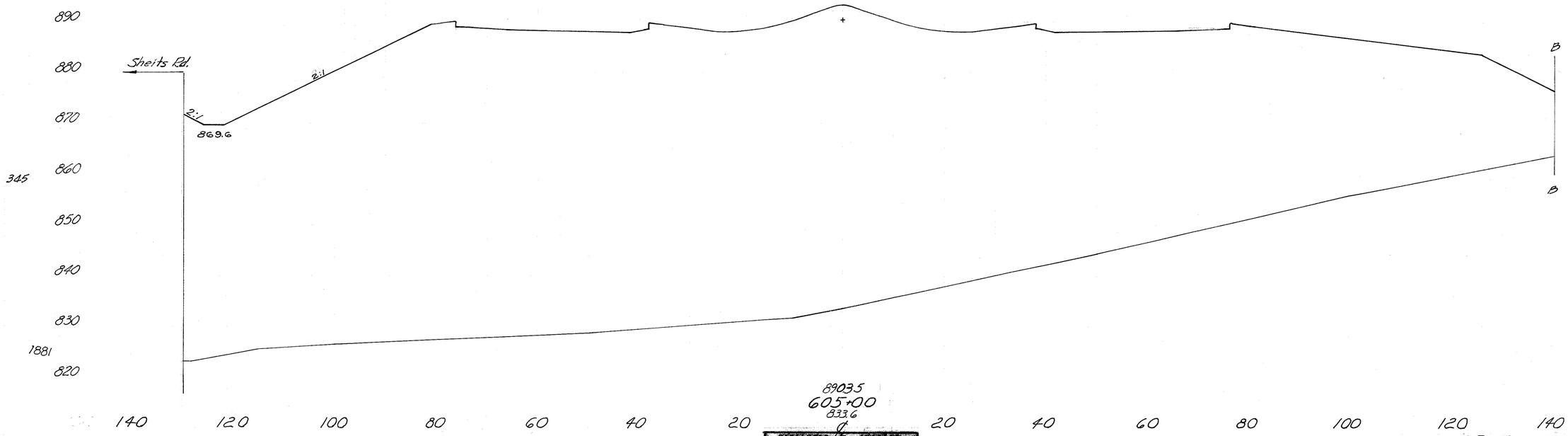
HAM-275-13.91
HAMILTON COUNTY



889.85
605+50
874.6



15 12,545



266
23,545

272 12,884

1861

1881

89035
605+00
833.6

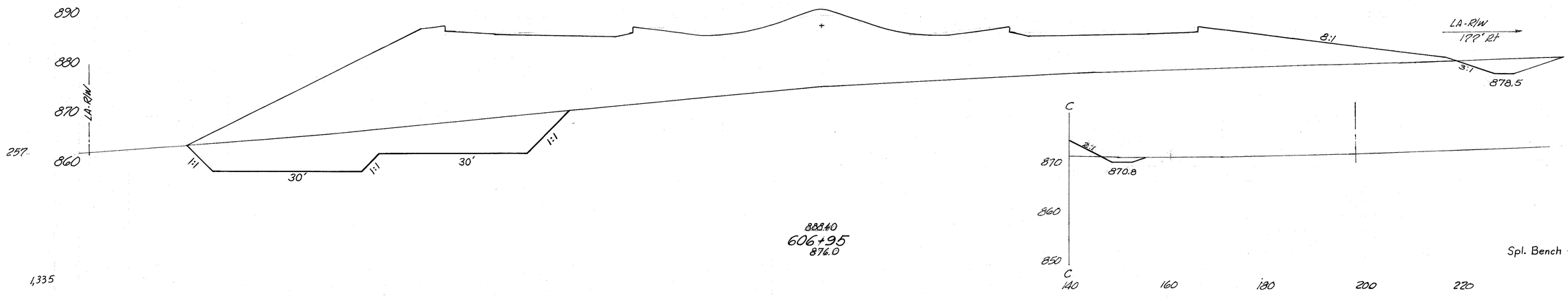
4 07722,641

DEVELOPED		CHECKED	
7-13-72	RJD	7-12-72	A.L.Y.

I-275 STA. 605+00 TO STA. 605+50

105
468

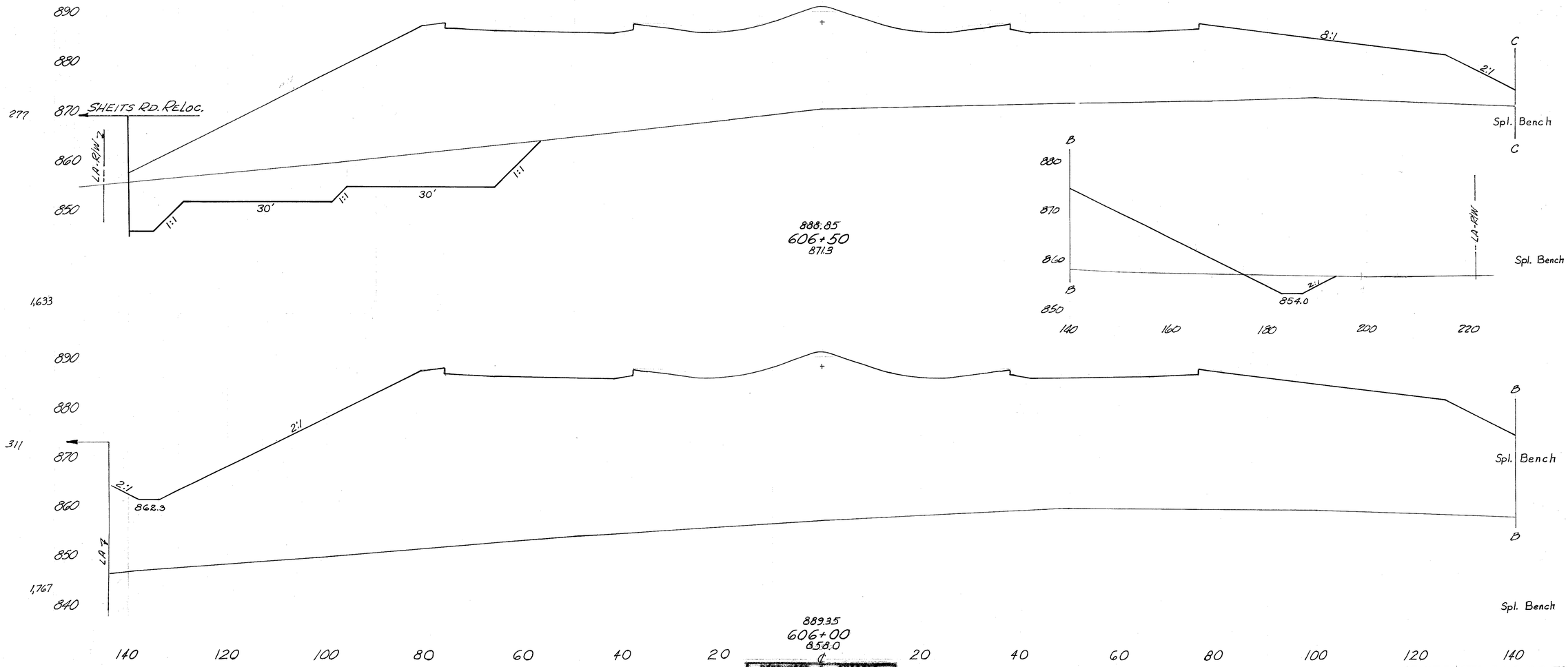
HAM-275-13.91
HAMILTON COUNTY



88840
606+95
876.0

28 2,658
Spl. Bench 459 459

1,335



888.85
606+50
871.3

29 5,864
836 836

7 4,379
Spl. Bench 544 544

1,633

47 11,624
Spl. Bench 504 504

1,767

44 8,175
Spl. Bench 0 0

889.35
606+00
858.0

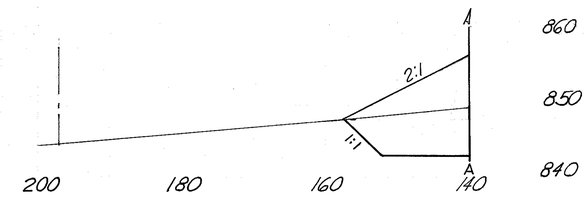
55 13,185

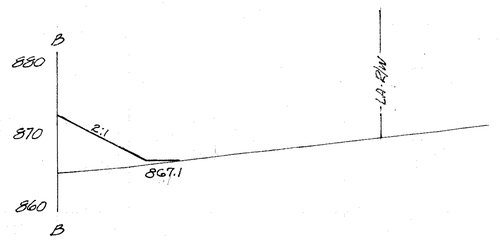
DESIGNED	DETAILED
7-18-72 RJD	7-12-72 A.L.Y.

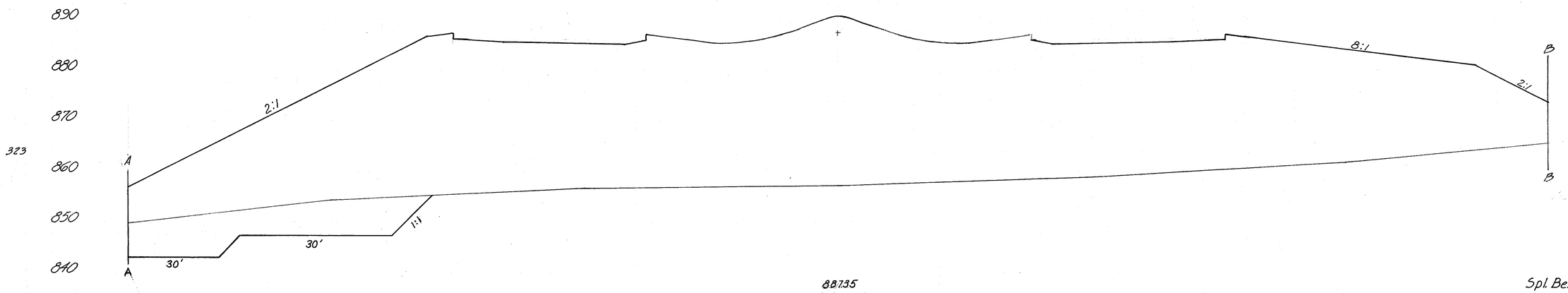
I-275 STA. 606+00 TO STA. 606+95

106
468

HAM-275-13.91
HAMILTON COUNTY



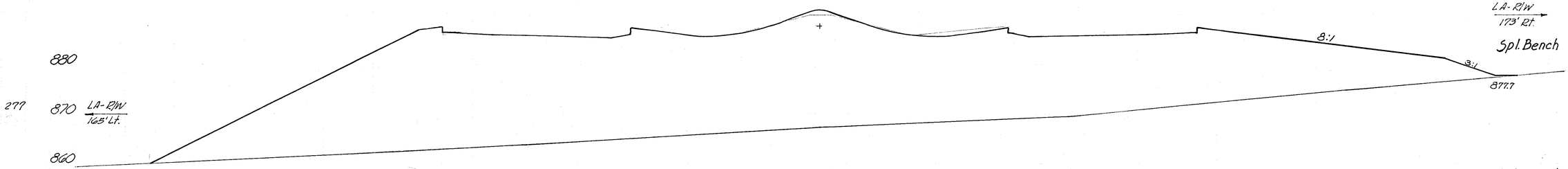




88735
608+00
857.2

0 7,002
Spl. Bench 482 482

1,667

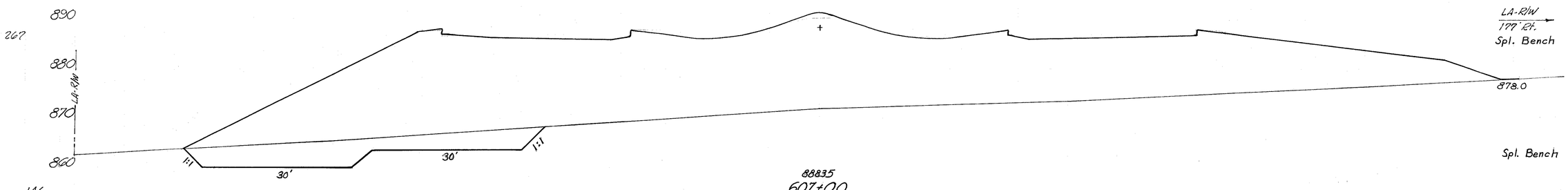


0 10,436
Spl. Bench 447 447

0 4,269
Spl. Bench 0 0

88785
607+50
867.2

1,511



0 7,202
Spl. Bench 264 264

0 3,509
Spl. Bench 285 285

88835
607+00
871.9

146

3 571
Spl. Bench 69 69

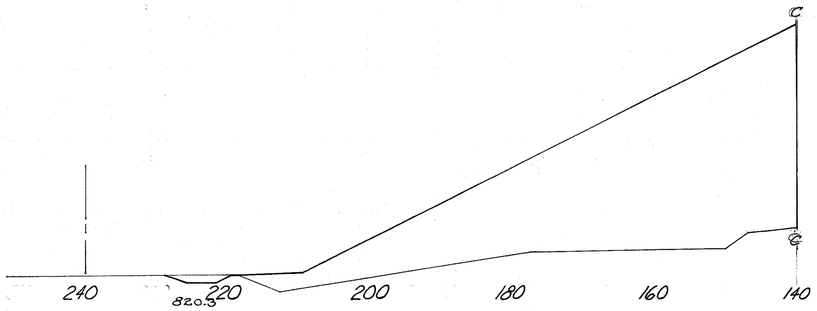
140 120 100 80 60 40 20 20 40 60 80 100 120 140

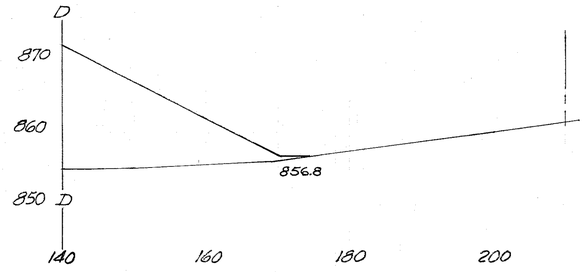
DEVELOPED		CHECKED	
7-13-70	EJD	7-12-72	A.L.Y.

I-275 STA. 607+00 TO STA. 608+00

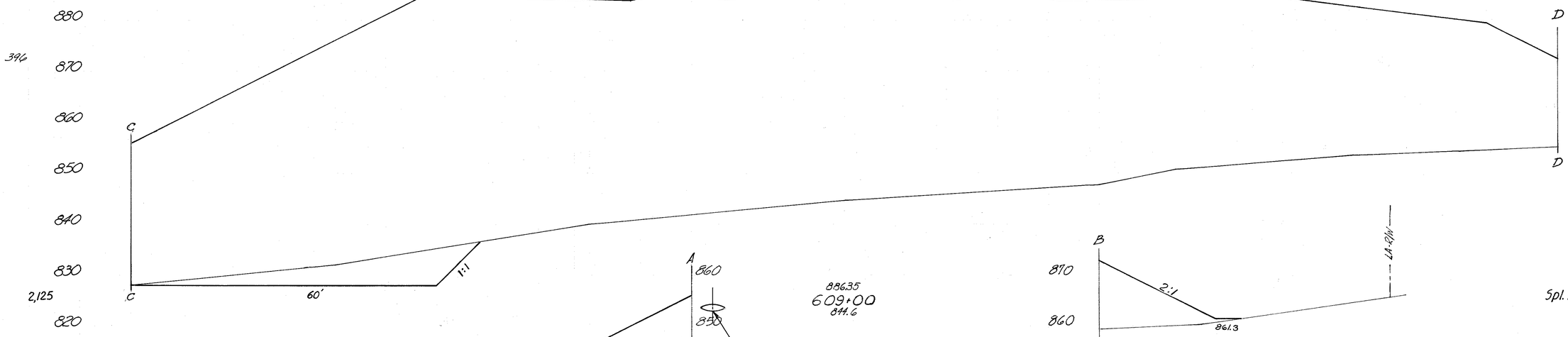
107
468

HAM-275-13.91
HAMILTON COUNTY

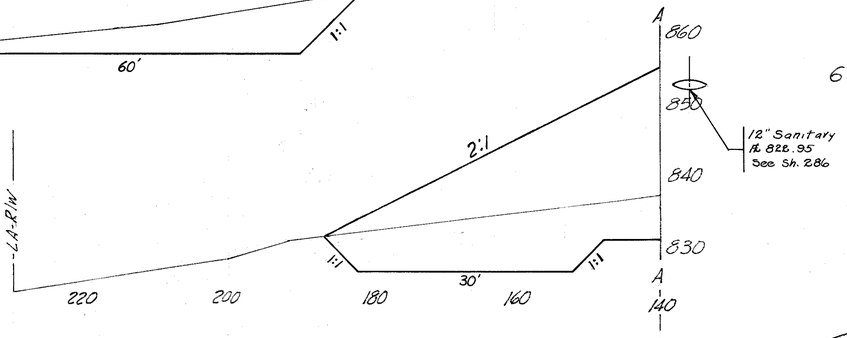




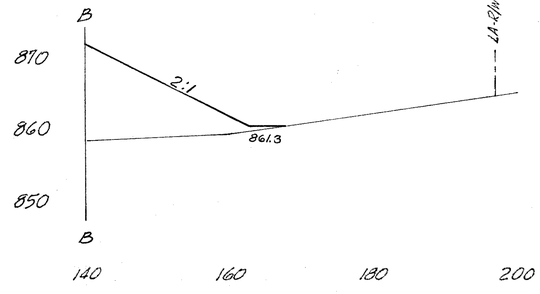
396



2,125



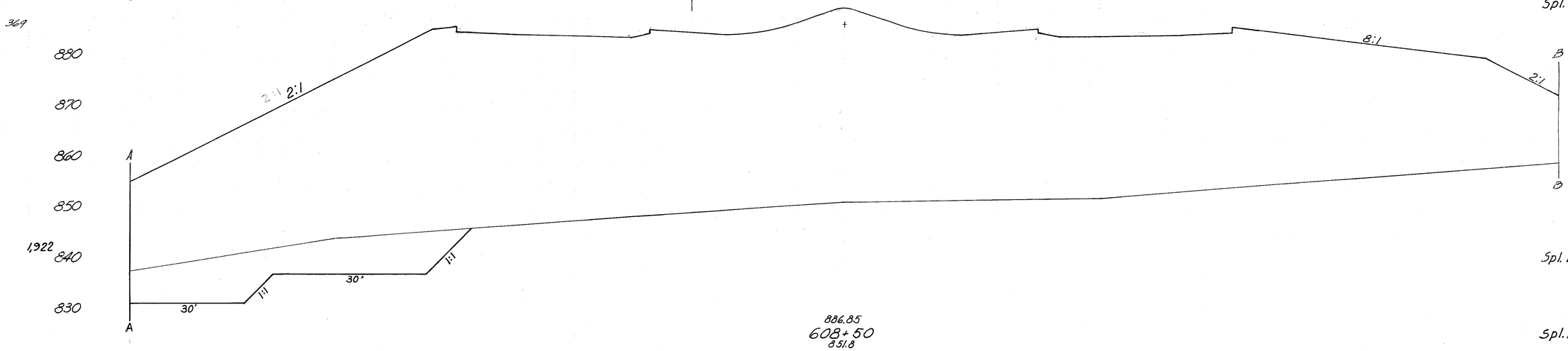
886.35
609+00
844.6



7 11,944
Spl. Bench 223 223

6 19,690
Spl. Bench 922 922

369

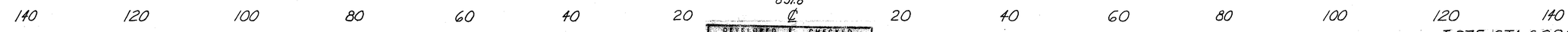


1,922

0 9,321
Spl. Bench 772 772

0 15,114
Spl. Bench 1162 1162

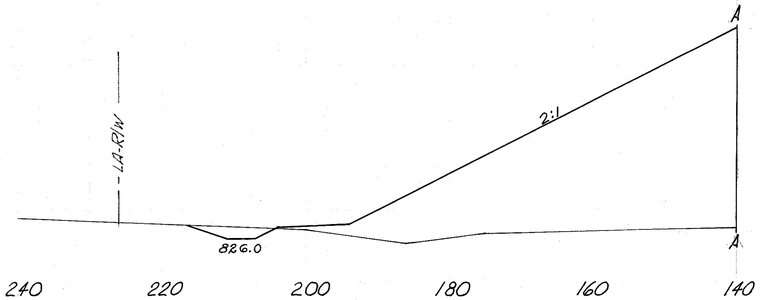
886.85
608+50
851.8

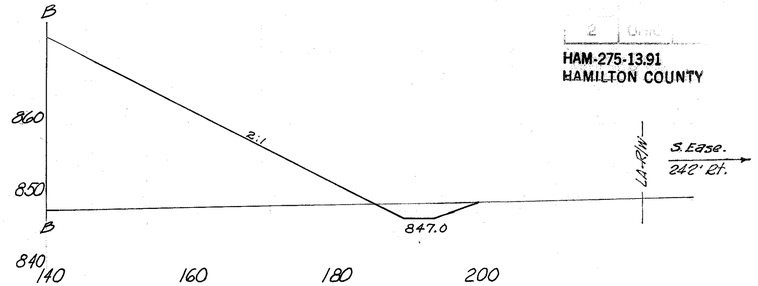


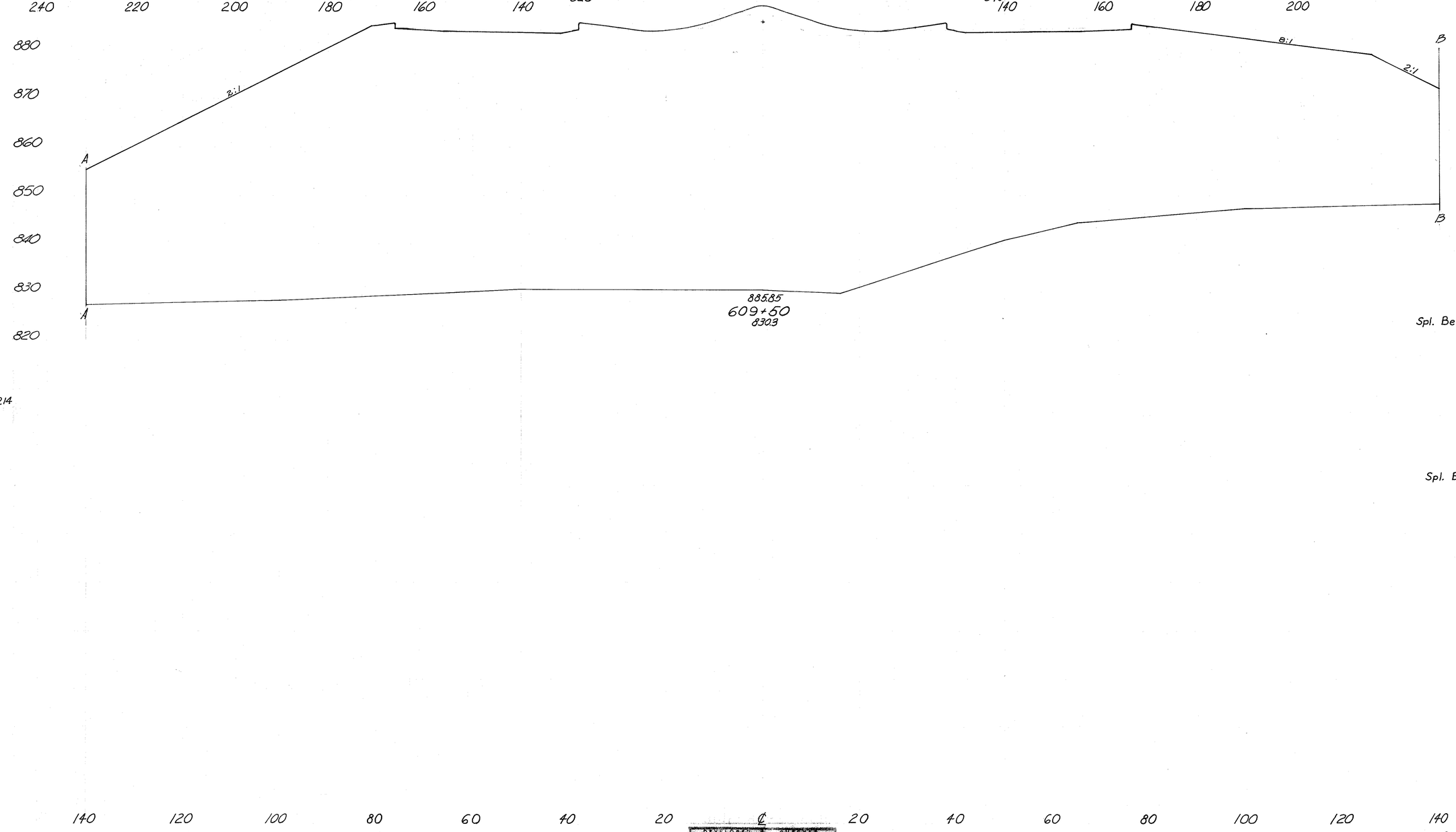
DEVELOPED	CHECKED
7-13-72 EJD	7-12-72 A.L.Y.

I-275 STA. 608+50 TO STA. 609+00

HAM-275-13.91
HAMILTON COUNTY







401

2,214

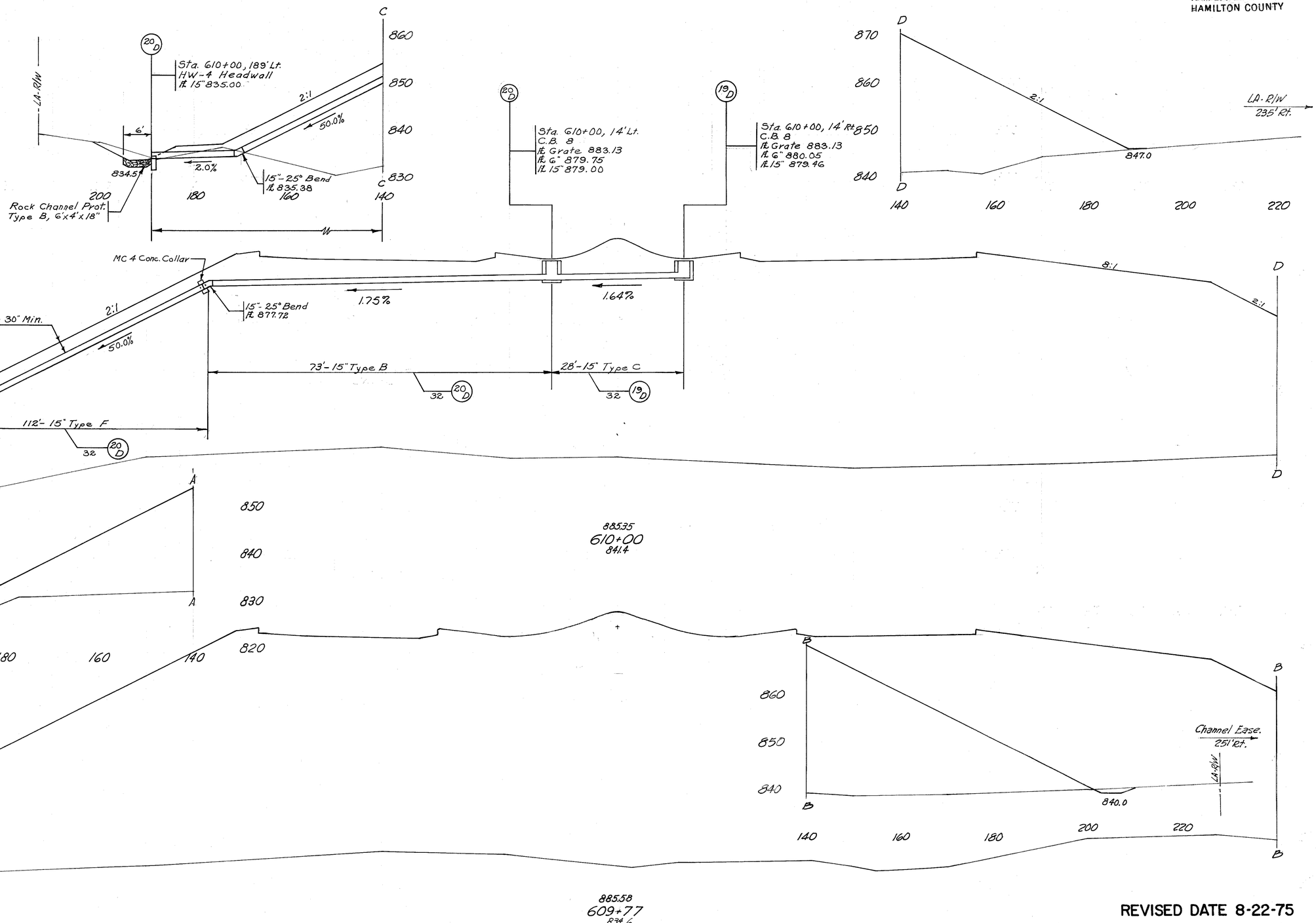
18 14,051
Spl. Bench 0 0

23 24,069
Spl. Bench 207 207

DEVELOPED	CHECKED
7-13-70 RJD	7-1272 A.L.Y.

I-275 STA. 609+50

HAM-275-13.91
HAMILTON COUNTY

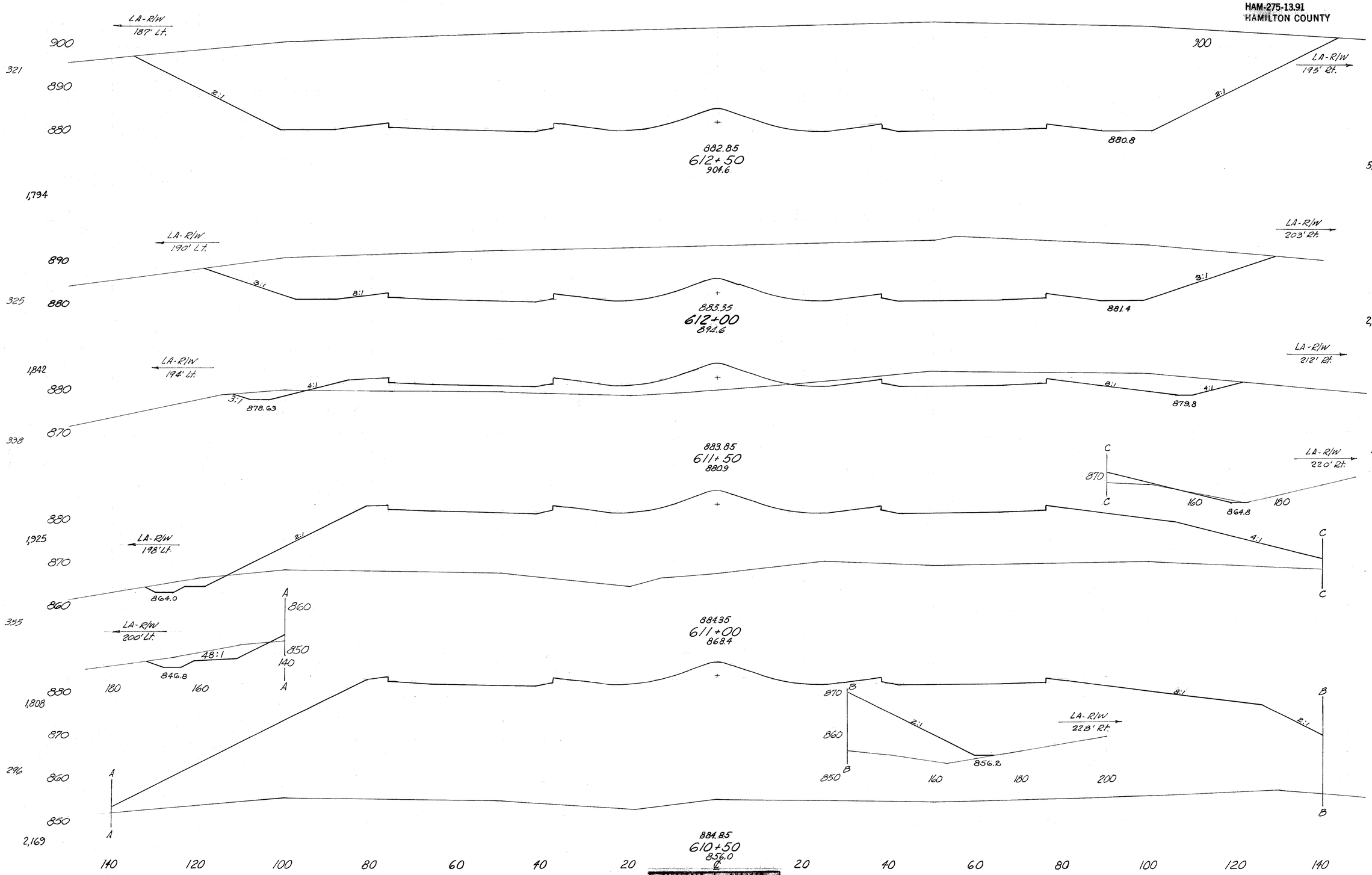


DEVELOPED	CHECKED
7-13-72 RJP	7-12-72 A.L.Y.

REVISED DATE 8-22-75

I-275 STA. 609+77 TO STA. 610+00

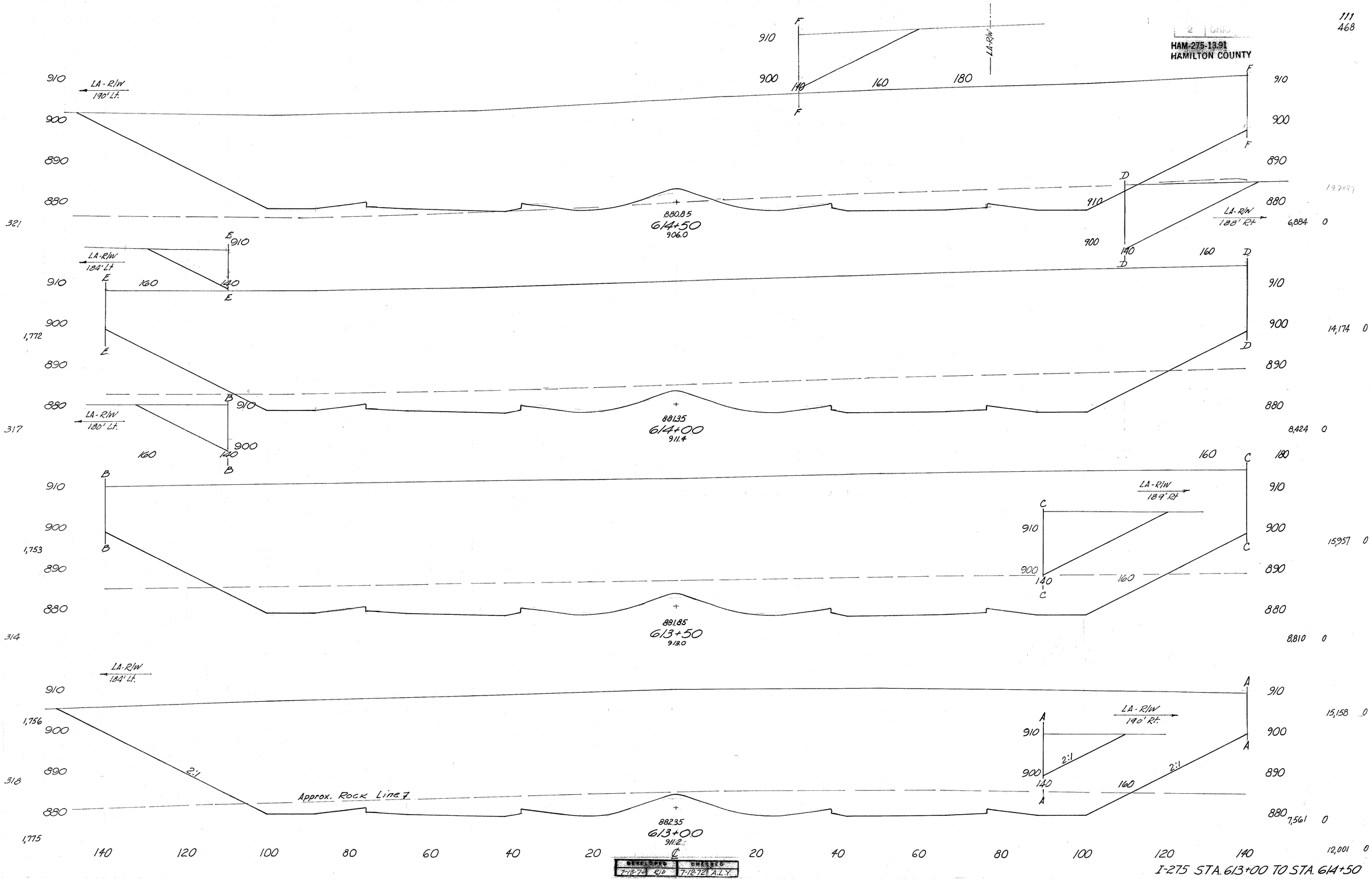
HAM-275-13.91
HAMILTON COUNTY



DEVELOPED	CHECKED
7-13-70 EJD	7-12-72 A.L.Y.

I-275 STA. 610+50 TO STA. 612+50

HAM-275-13.91
HAMILTON COUNTY



321
1,772
317
1,753
314
1,756
318
1,775

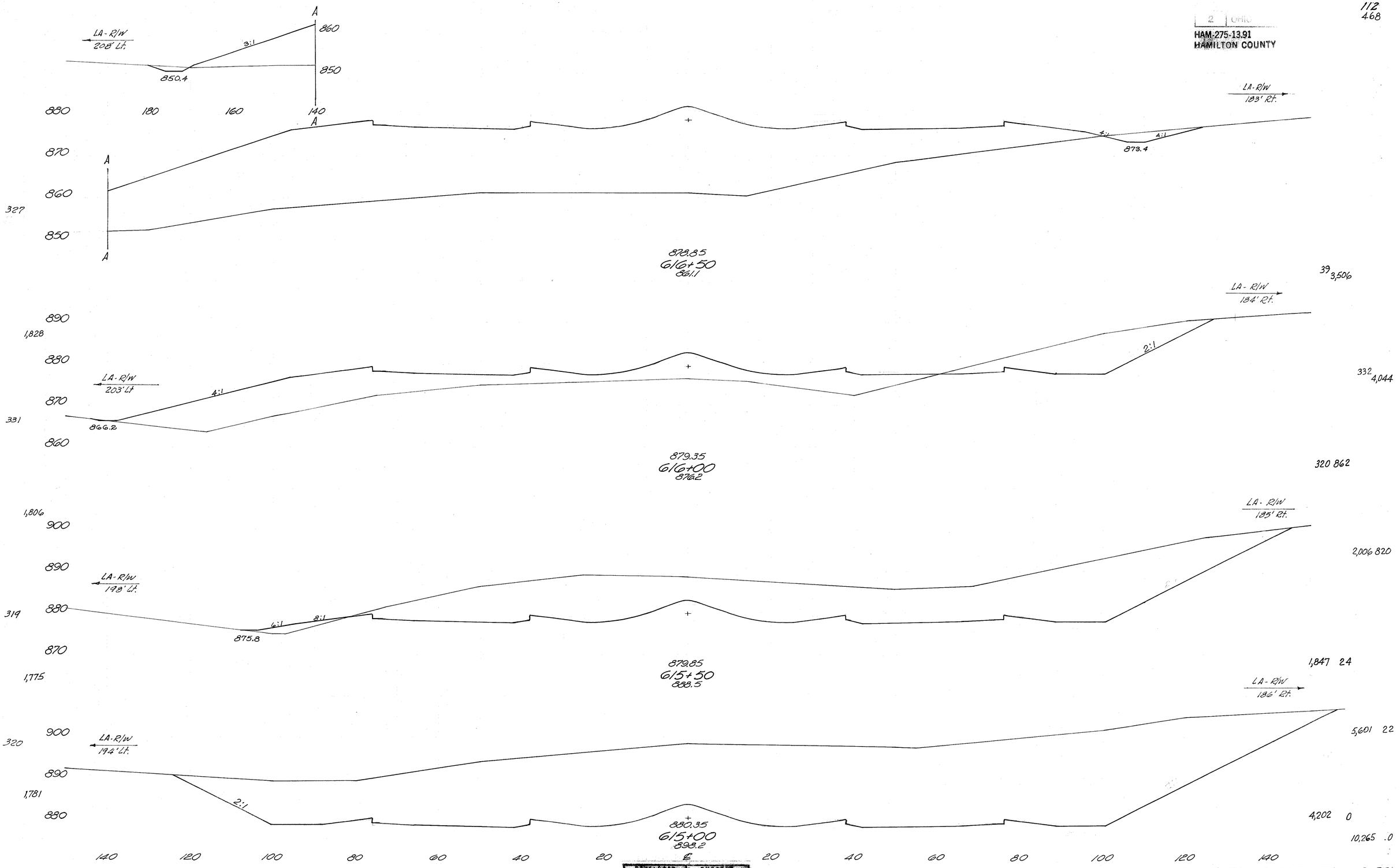
197097

6,884 0
14,174 0
8,424 0
15,957 0
8,810 0
15,158 0
7,561 0
12,001 0

DEVELOPED		CHECKED	
7-18-72	R.D	7-18-72	A.L.Y.

I-275 STA. 613+00 TO STA. 614+50

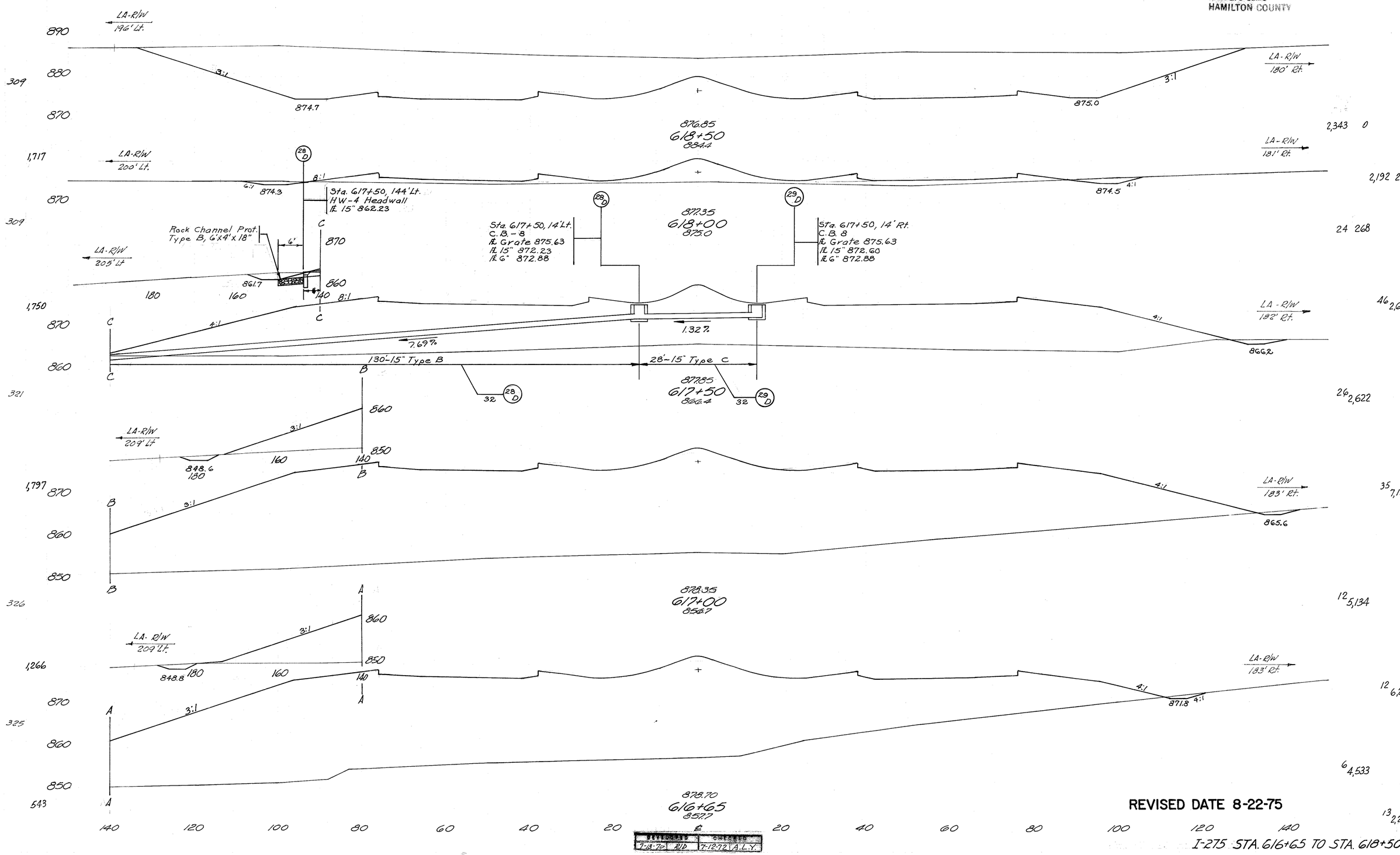
2 Offic
HAM-275-13.91
HAMILTON COUNTY



DEVELOPED		CHECKED	
7-13-72	R/D	7-12-72	A.L.Y.

I-275 STA. 615+00 TO STA. 616+50

HAM-275-13.91
HAMILTON COUNTY



309 309 321 326 325 543

1,717 1,750 1,797 1,266

2,343 0
2,192 248
24 268
46 2,676
26 2,622
35 7,181
12 5,134
12 6,266
6 4,533
13 2,233

REVISED DATE 8-22-75

REVISED	CHECKED
7-18-72 RJD	7-12-72 A.L.Y.

I-275 STA. 616+65 TO STA. 618+50

114
468

HAM-275-13.91
HAMILTON COUNTY

870
860
850

285

LA-R/W 180' Lt.

3:1

858.1

3:1 8:1

869.8

LA-R/W 176' Rt.

875.05
620+30
860.1

953

36 2,455

880
870
860

LA-R/W 183' Lt.

294

3:1 8:1

866.0

3:1

LA-R/W 176' Rt.

131 1,767

875.35
620+00
869.6

1,647

200 740

890
880
870

LA-R/W 187' Lt.

299

3:1

LA-R/W 177' Rt.

2,344 685

875.85
619+50
882.7

1,681

2,332 0

LA-R/W 191' Lt.

LA-R/W 179' Rt.

890
880
870

306

819

5,919 0

876.35
619+00
889.5

4,060 0

LA-R/W 194' Lt.

308

LA-R/W 179' Rt.

890
880
870

891

3,434 0

876.59
618+76
889.6

3,667 0

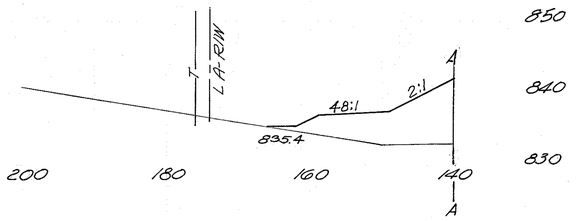
2,894 0

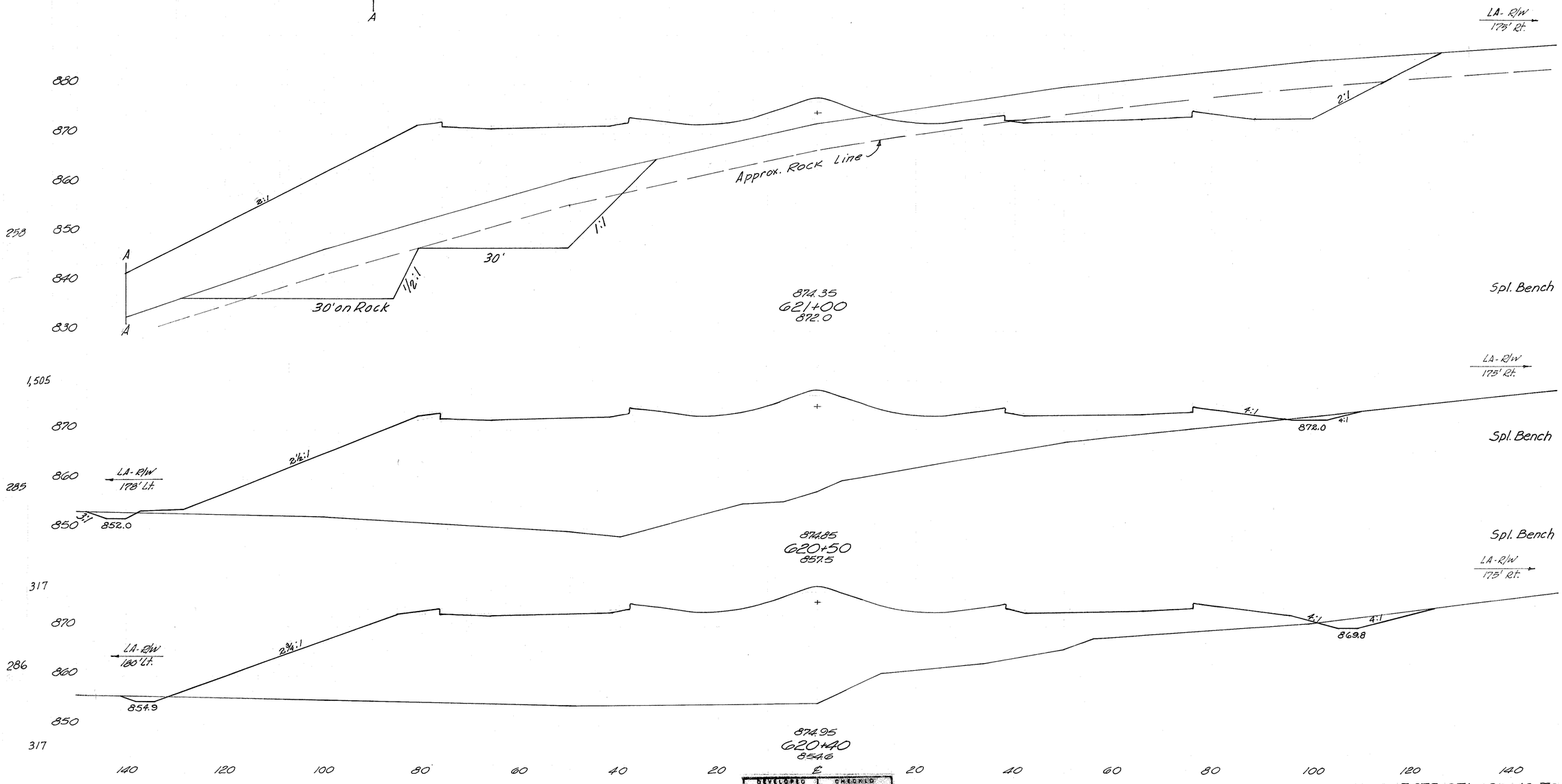
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DEVELOPED	CHECKED
7-13-72 RJD	7-12-72 A.L.Y.

I-275 STA. 618+76 TO STA. 620+30

HAM-275-13.91
HAMILTON COUNTY



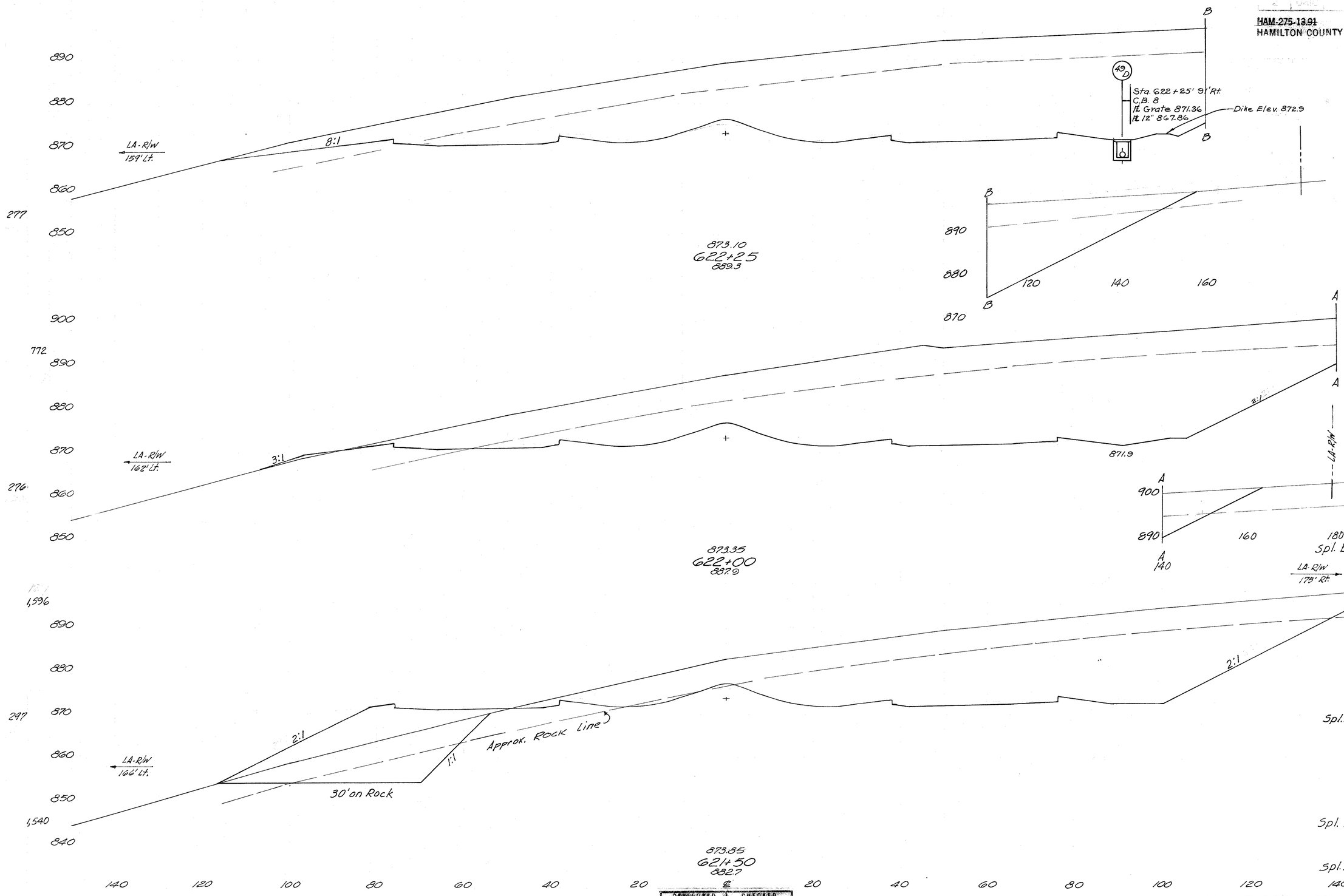


DEVELOPED		CHECKED	
7-13-72	RJD	7-13-72	A.L.Y.

I-275 STA. 620+40 TO STA. 621+00

116
468

~~HAM-275-13.91~~
HAMILTON COUNTY

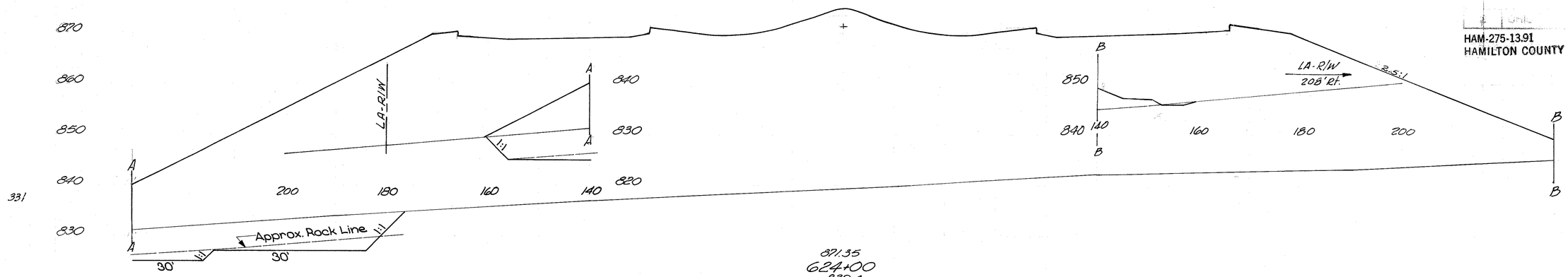


DEVELOPED	CHECKED
7-13-72 R.J.D.	7-13-72 A.L.Y.

I-275 STA. 621+50 TO STA 622+25

117
468

HAM-275-13.91
HAMILTON COUNTY

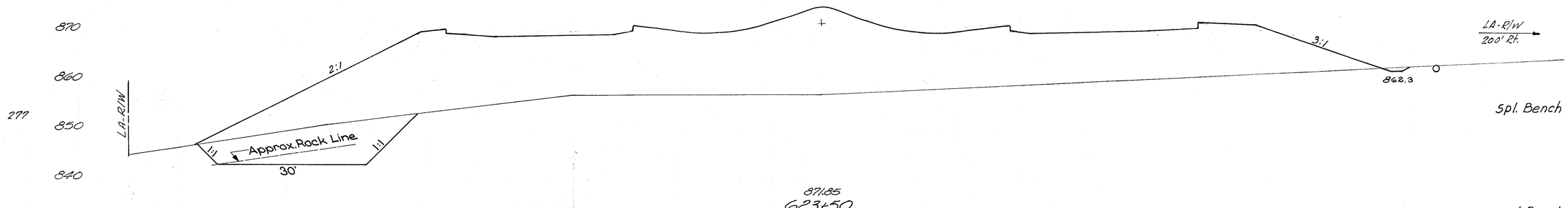


331

871.35
624+00
839.4

1,690

3
7,360
Spl. Bench 425 425



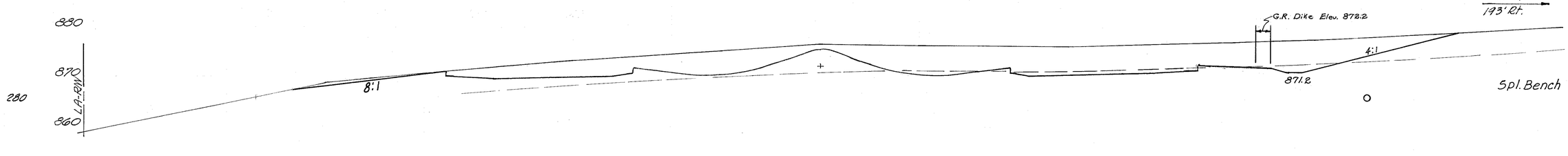
277

871.85
623+50
857.4

1,551

7
9,214
Spl. Bench 642 642

5
2,609
Spl. Bench 268 268



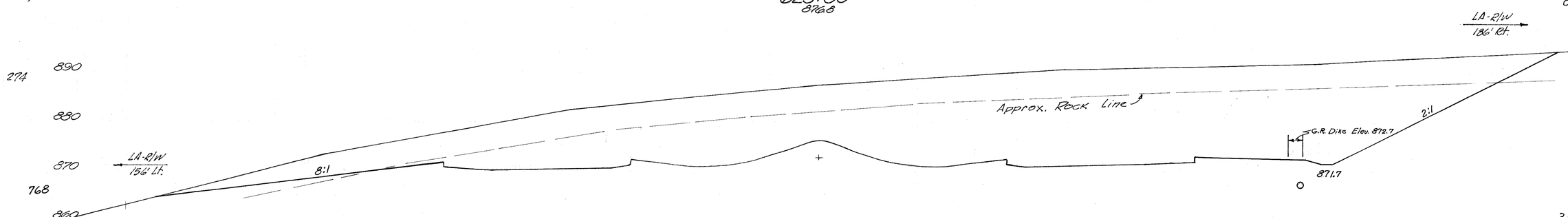
280

872.35
623+00
876.8

1,545

814
2,415
Spl. Bench 248 248

Spl. Bench 0 0
870 0



274

768

872.35
622+50
887.5

4,064 0

3,493 0

3,396 0

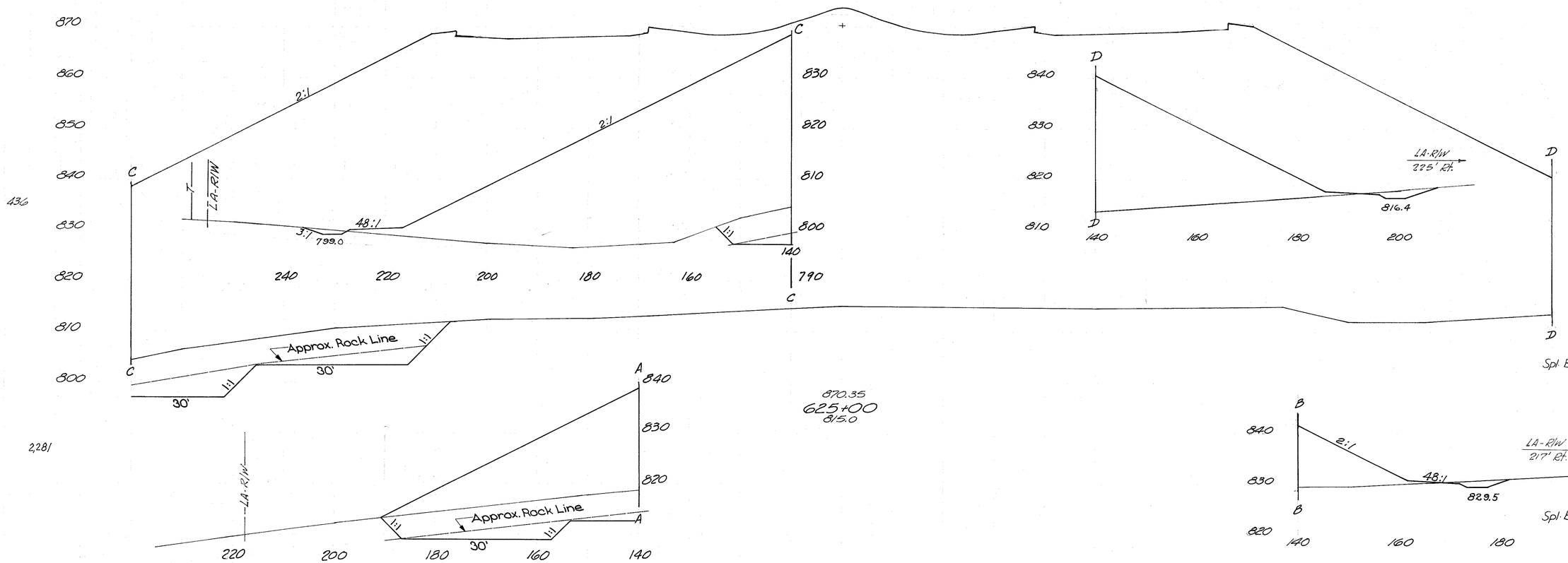
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DEVELOPED		CHECKED	
7-13-70	RJD	7-13-70	A.L.Y.

I-275 STA. 622+50 TO STA. 624+00

118
468

HAM-275-13.91
HAMILTON COUNTY

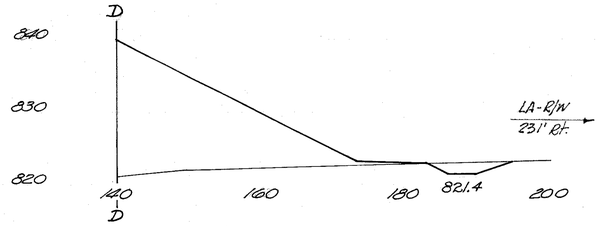


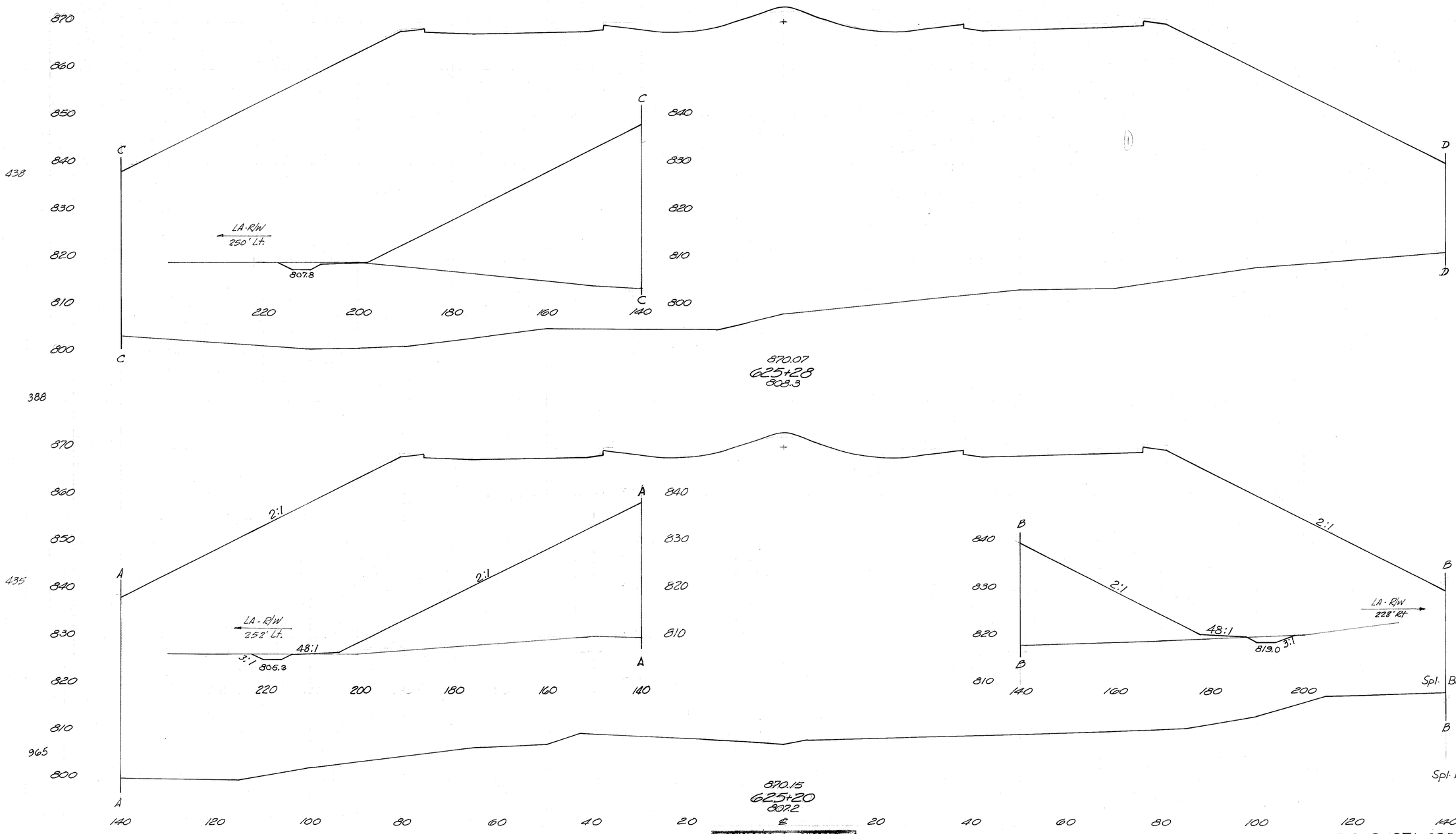
Spl. Bench 538 538

DEVELOPED		CHECKED	
7-13-72	RJD	7-13-72	A.L.Y.

I-275 STA. 624+50 TO STA. 625+00

HAM-275-13.91
HAMILTON COUNTY





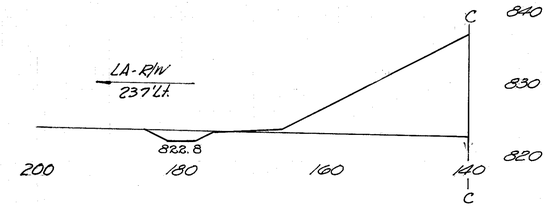
438
24
18,818
6
5,286
17
16,872
199 199
13
12,260

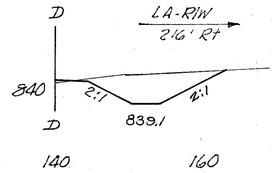
DEVELOPED	CHECKED
7-13-70 RJD	7-13-72 A.L.Y.

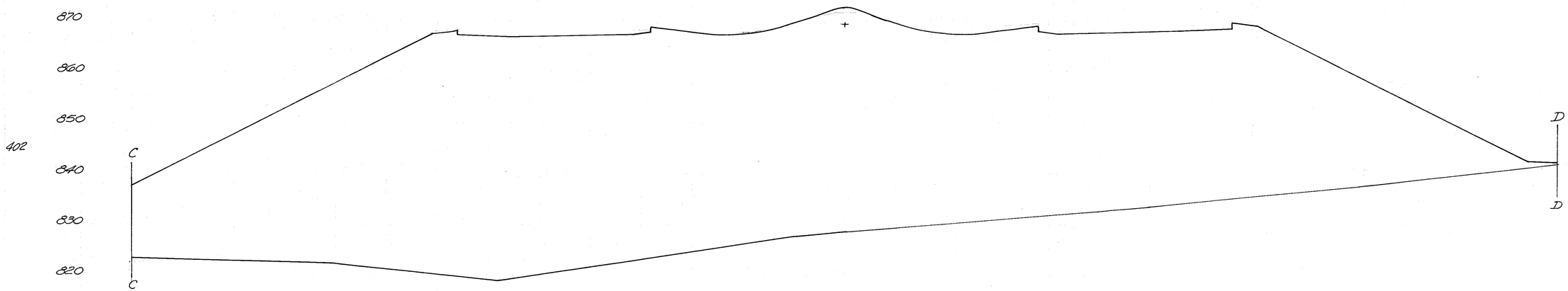
I-275 STA. 625+20 TO STA. 625+28

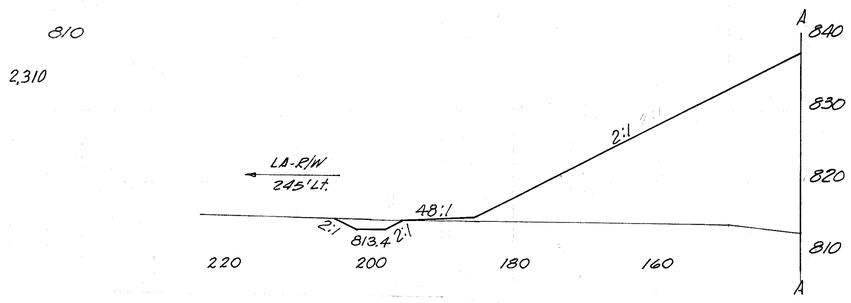
120
468

HAM-275-13.91
HAMILTON COUNTY



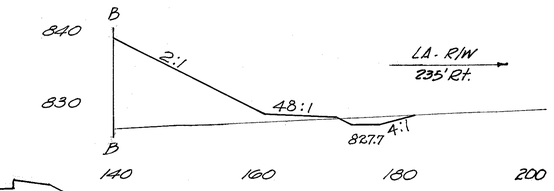


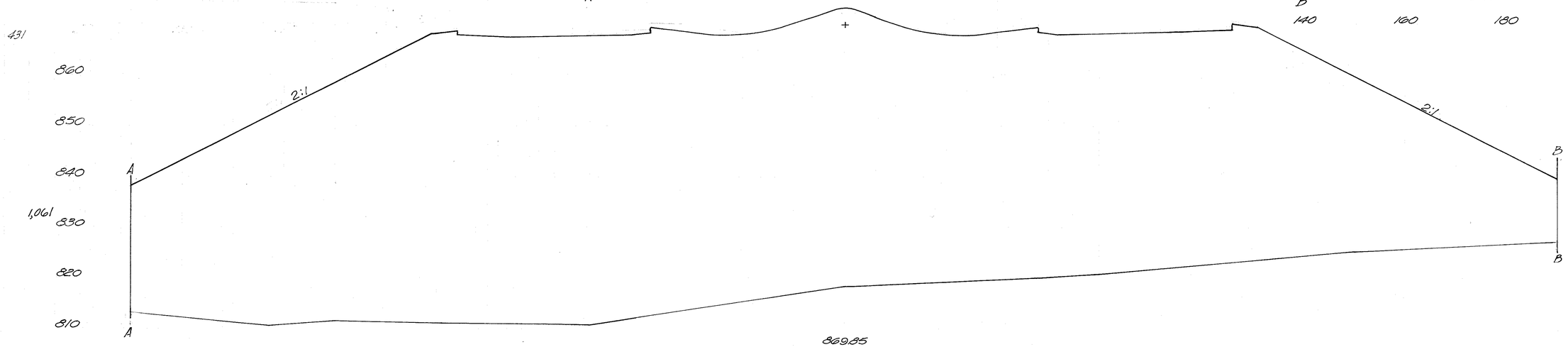




869.35
626+00
828.6

68
9,480





79
21,041

17
13,303

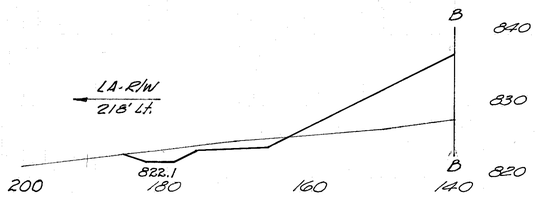
17
13,077

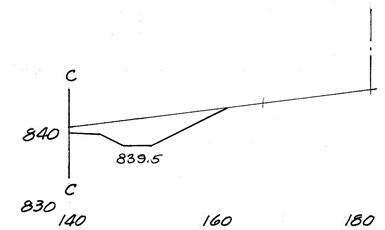
869.35
625+50
818.2

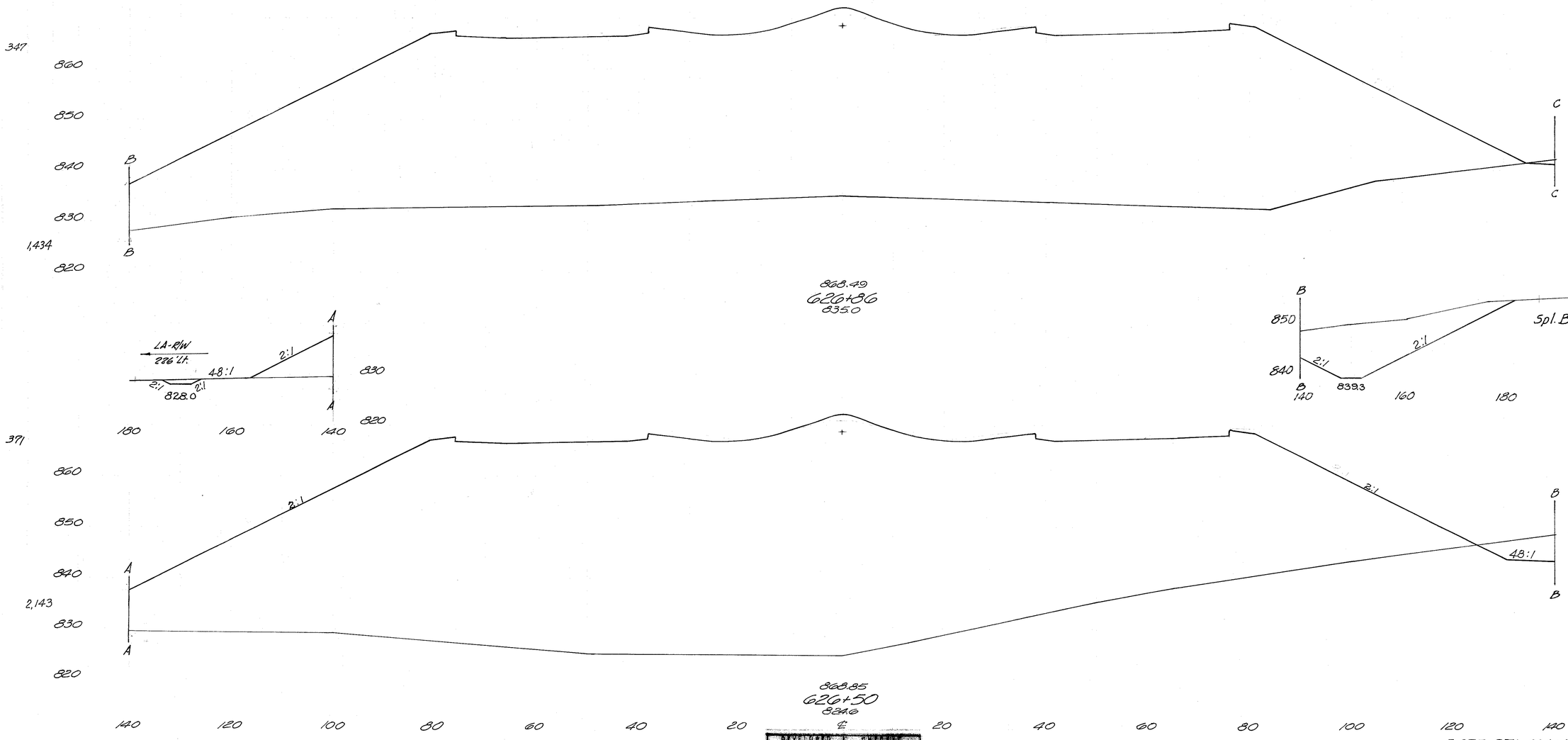
DEVELOPED		CHECKED	
7-13-70	RJD	7-13-72	A.L.Y.

I-275 STA. 625+50 TO STA. 626+00

HAM-275-13.91
HAMILTON COUNTY







DEVELOPED		CHECKED	
7-9-70	RJD	7-13-72	A.L.Y.

I-275 STA. 626+50 TO STA. 626+86

HAM-275-13.91
HAMILTON COUNTY

LA. R/W 140' Rt.

LA. R/W 192' Lt.

LA. R/W 204' Lt.

LA. R/W 215' Lt.

LA. R/W 158' Rt.

867.35
628+00
84.94

Spl. Bench 17 3,956 0 0

Spl. Bench 39 8,730 377 377

Spl. Bench 25 5,525 407 407

867.85
627+50
84.41

868.35
627+00
83.89

Spl. Bench 27 3,971 114 114

Spl. Bench 38 12,081 784 784

Spl. Bench 16 7563 440 440

Sta. 827+00, 189' Lt.
HW-4 Headwall
Ø 15" 816.80

Cover 30" Min.

15"-25° Bend
Ø 817.14

Sta. 827+00, 14' Lt.
C.B. 8
Ø Grate 866.70
Ø 15" 862.73

Sta. 827+00, 14' Rt.
C.B. 8
Ø Grate 865.93
Ø 6" 863.11
Ø 15" 863.10

15"-25° Bend
Ø 861.65
MC 4 Conc. Collar

68'-15" Type B

28'-15" Type C

117'-15" Type F

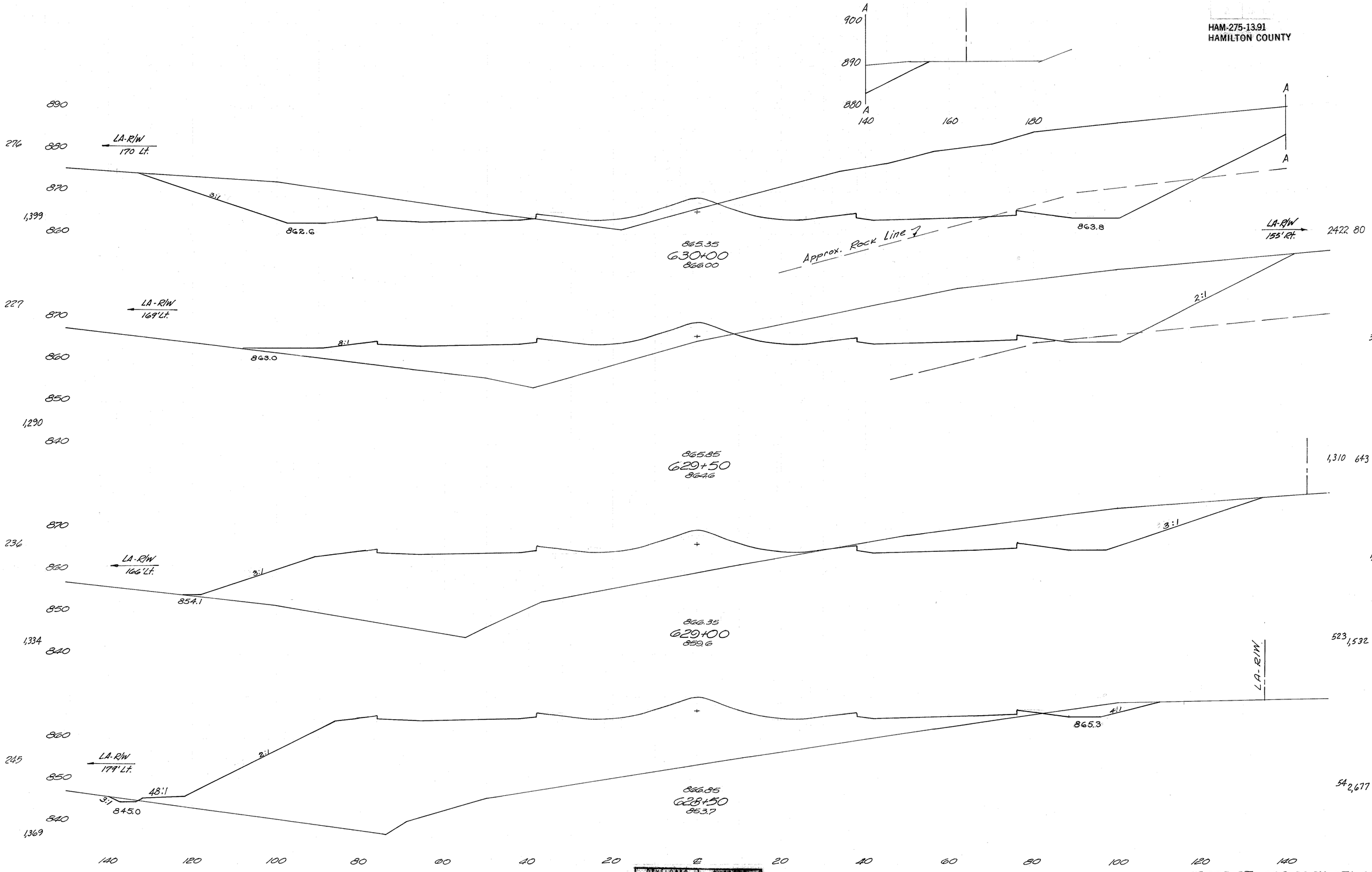
Rock Channel Prot. Type 'B', 6'x4'x18"

REVISED DATE 8-22-75

DESIGNED		CHECKED	
7-9-70	RJD	7-13-72	A.L.Y.

I-275 STA. 627+00 TO STA. 628+00

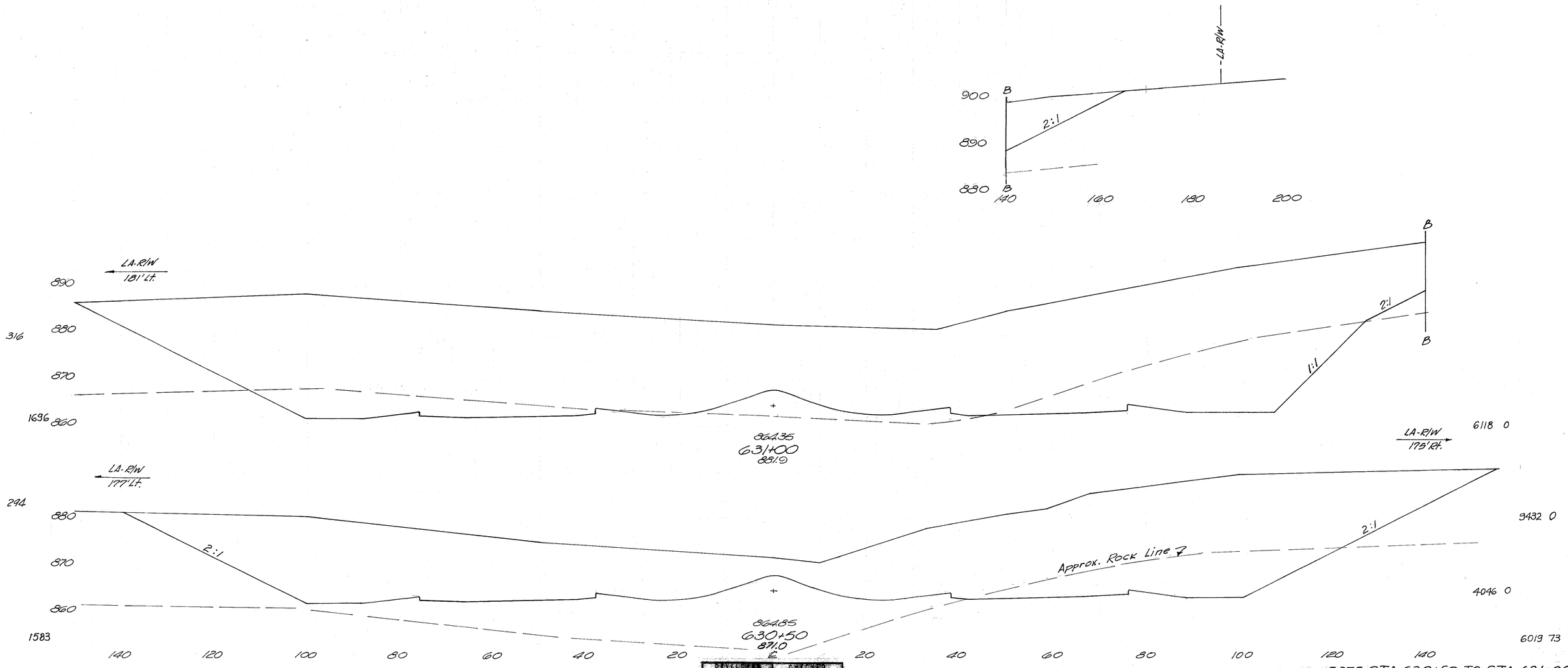
HAM-275-13.91
HAMILTON COUNTY



DEVELOPED	CHECKED
1-9-70 RJD	7-11-72 A.L.Y.

I-275 STA. 628+50 TO STA. 630+00

HAM-275-13.91
HAMILTON COUNTY

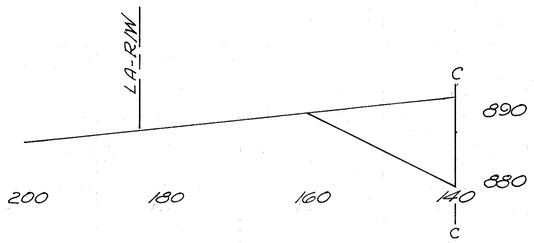


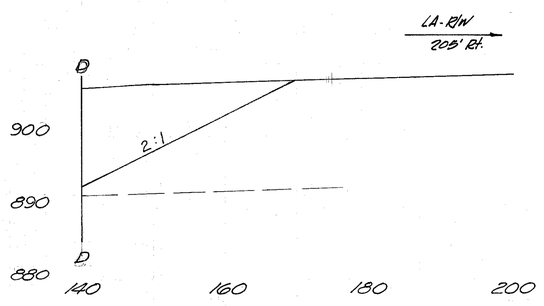
DEVELOPED	CHECKED
7-9-76 RJD	7-11-72 A.L.Y.

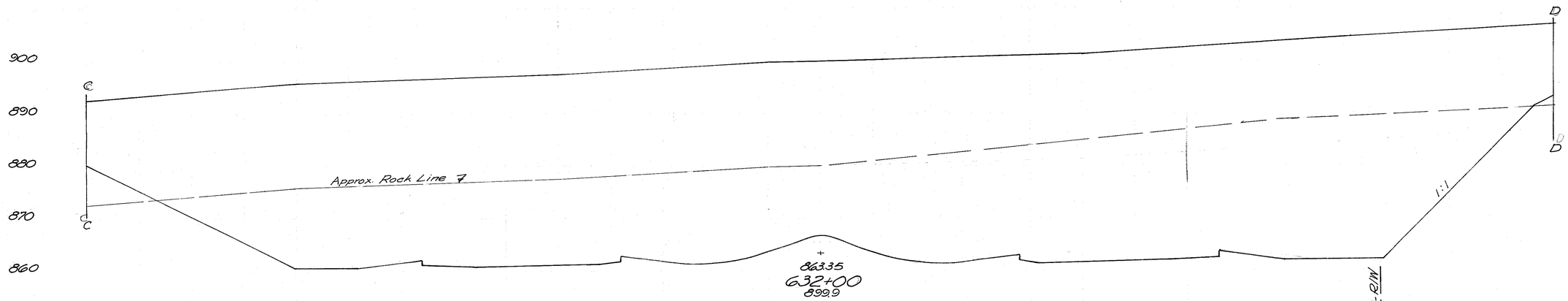
I-275 STA. 630+50 TO STA. 631+00

125
468

HAM-275-13.91
HAMILTON COUNTY







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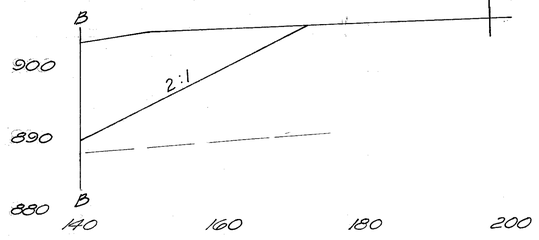
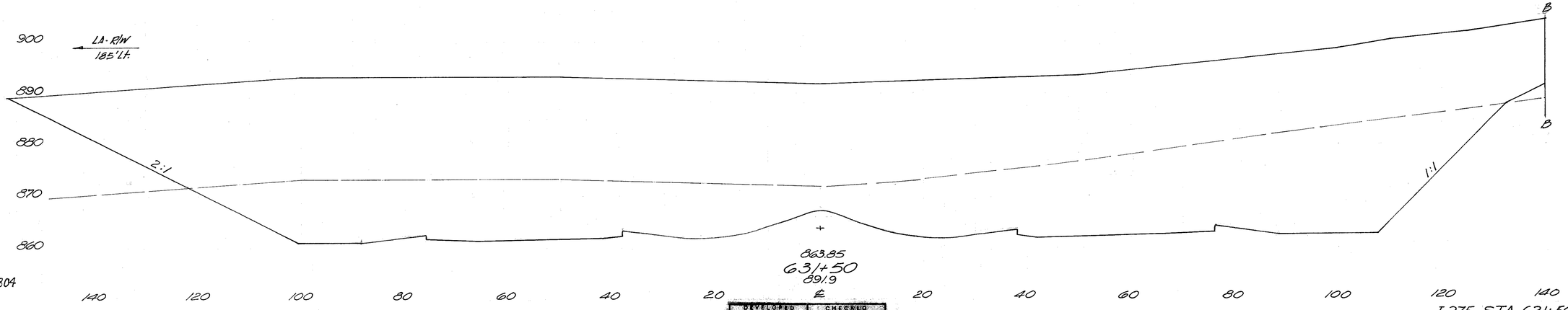


17,084 0

1617

1888

333



8404 0

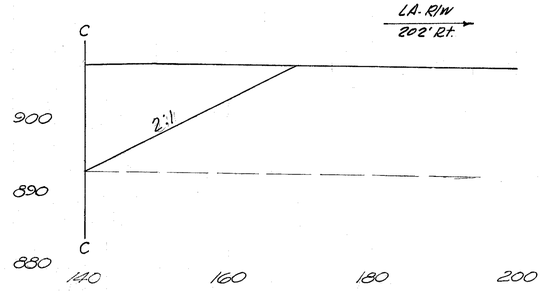
1804

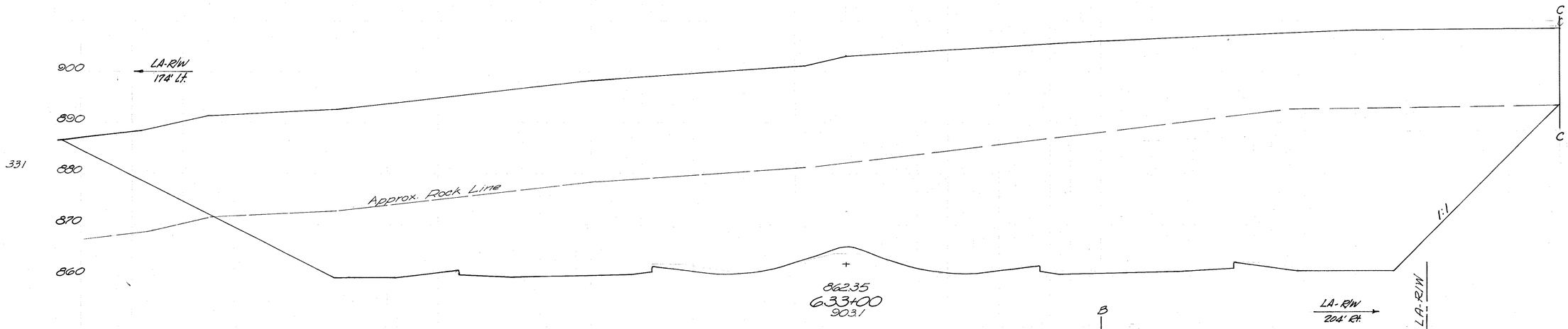
13,463 0

DEVELOPED	CHECKED
7-9-72 RJD	7-11-72 A.L.Y.

I-275 STA. 631+50 TO STA. 632+00

HAM-275-13.91
HAMILTON COUNTY





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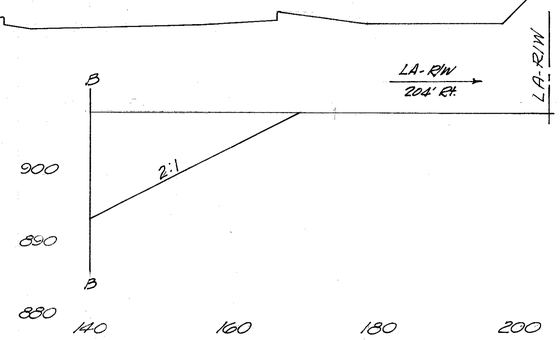
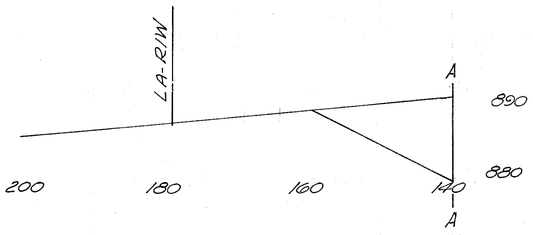


19,969 0



1886

10,851 0

1927

19,357 0

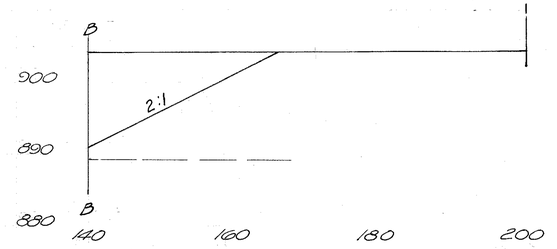
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

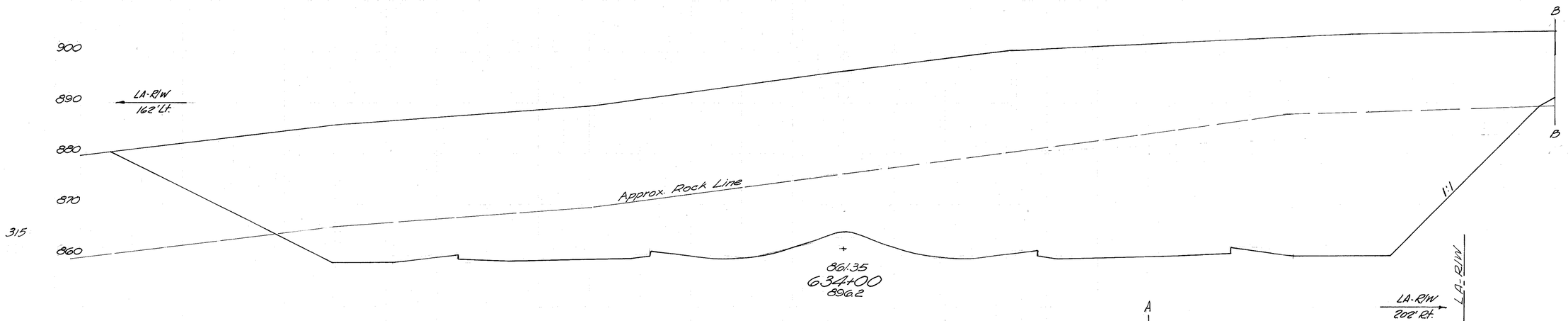
DEVELOPED		CHECKED	
1-9-70	RJD	7-11-72	A.L.K.

I-275 STA. 632+50 TO STA. 633+00

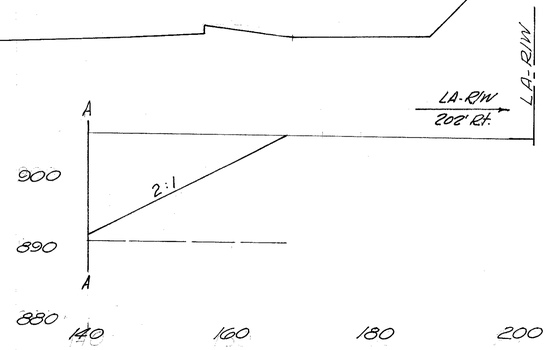
127
468

HAM-275-13.91
HAMILTON COUNTY



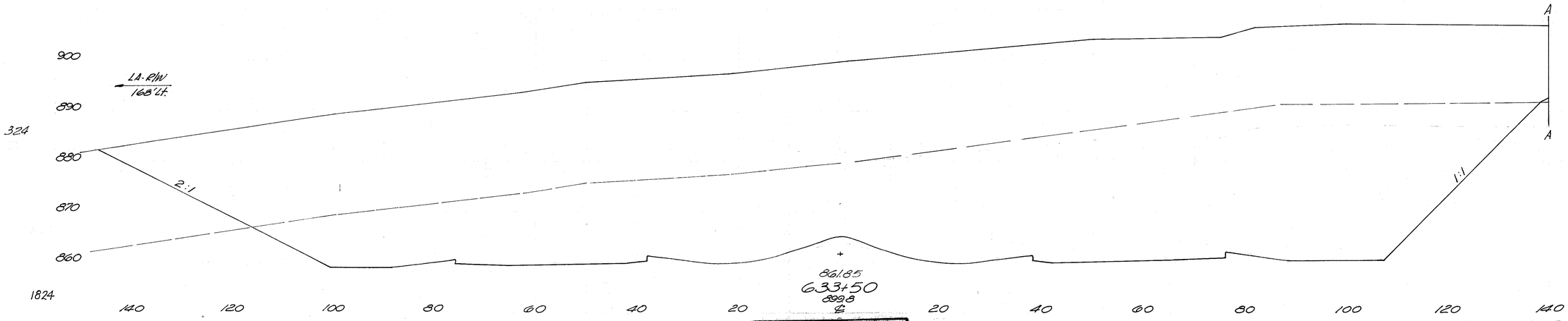


9091 0



1525
1779

17,737 0

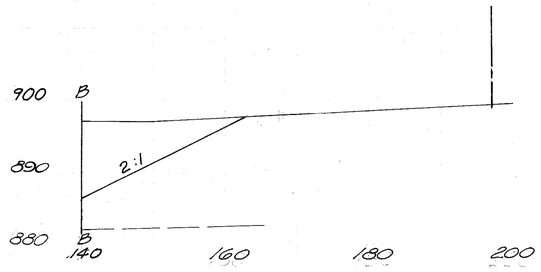


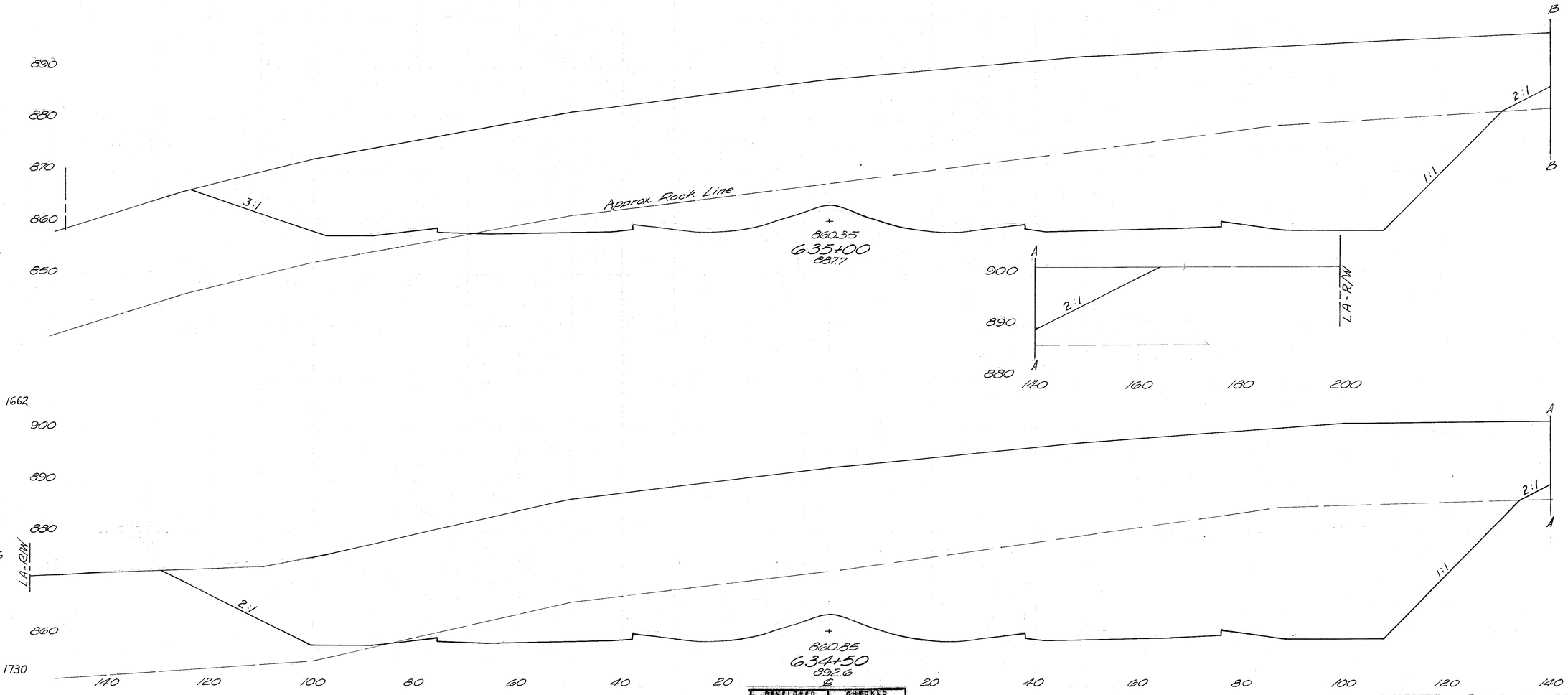
10,005 0
13,198 0

DEVELOPED	CHECKED
7-9-72 BID	7-11-72 A.L.Y.

I-275 STA. 633+50 TO STA. 634+00

HAM-275-13.91
HAMILTON COUNTY





DEVELOPED	CHECKED
7-9-72 RJD	7-11-72 A.L.Y.

I-275 STA. 634+50 TO STA. 635+00

HAM-275-13.91
HAMILTON COUNTY

LA-R/W 190' Rt.

LA-R/W 161' Lt.

3.5:1

846.8

858.85
636+50
859.4

4 D Sta. 636+20, 14' Lt.
C.B.-8
Rt. Grate 857.32
Rt. 18" 852.00
Rt. 18" 850.00

5 D Sta. 636+20, 14' Rt.
C.B.-8
Rt. Grate 856.55
Rt. 18" 853.82
Rt. 6" 854.82

6 D Sta. 636+20, 91' Rt.
C.B.-5
Rt. Grate 857.5
Rt. 18" 854.5
Rt. 6" 855.5

LA-R/W 190' Rt.

Approx. Rock Line

4 D Sta. 636+20, 139' Lt.
HW-4 Headwall
Rt. 18" 840.70

LA-R/W 160' Lt.

6.50%

0.88%

7.44%

858.97
636+38
864.7

841.2

125'-18" Type B — 35 — 4 D

28'-18" Type "C" — 35 — 5 D

77'-18" Type "B" — 35 — 6 D

LA-R/W 192' Rt.

LA-R/W 155' Lt.

8:1

3:1

2:1

847.5

859.35
636+00
870.8

LA-R/W 194' Rt.

A
890
880
2:1
150
170
A

LA-R/W 149' Lt.

6:1

859.85
635+50
879.5

2:1

140 120 100 80 60 40 20 | 20 40 60 80 100 120 140

DEVELOPED	CHECKED
7-9-70 RJD	7-11-72 A.L.Y.

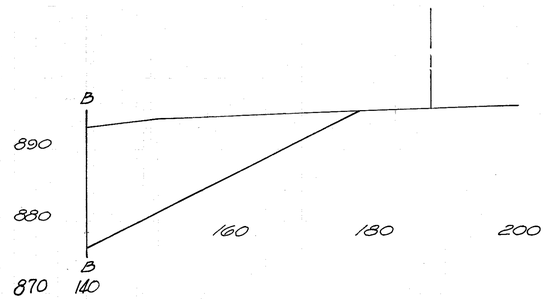
1542 314
744 194
1762 570
3362 397
2973 0
7677 0
5255 0
11,202 0

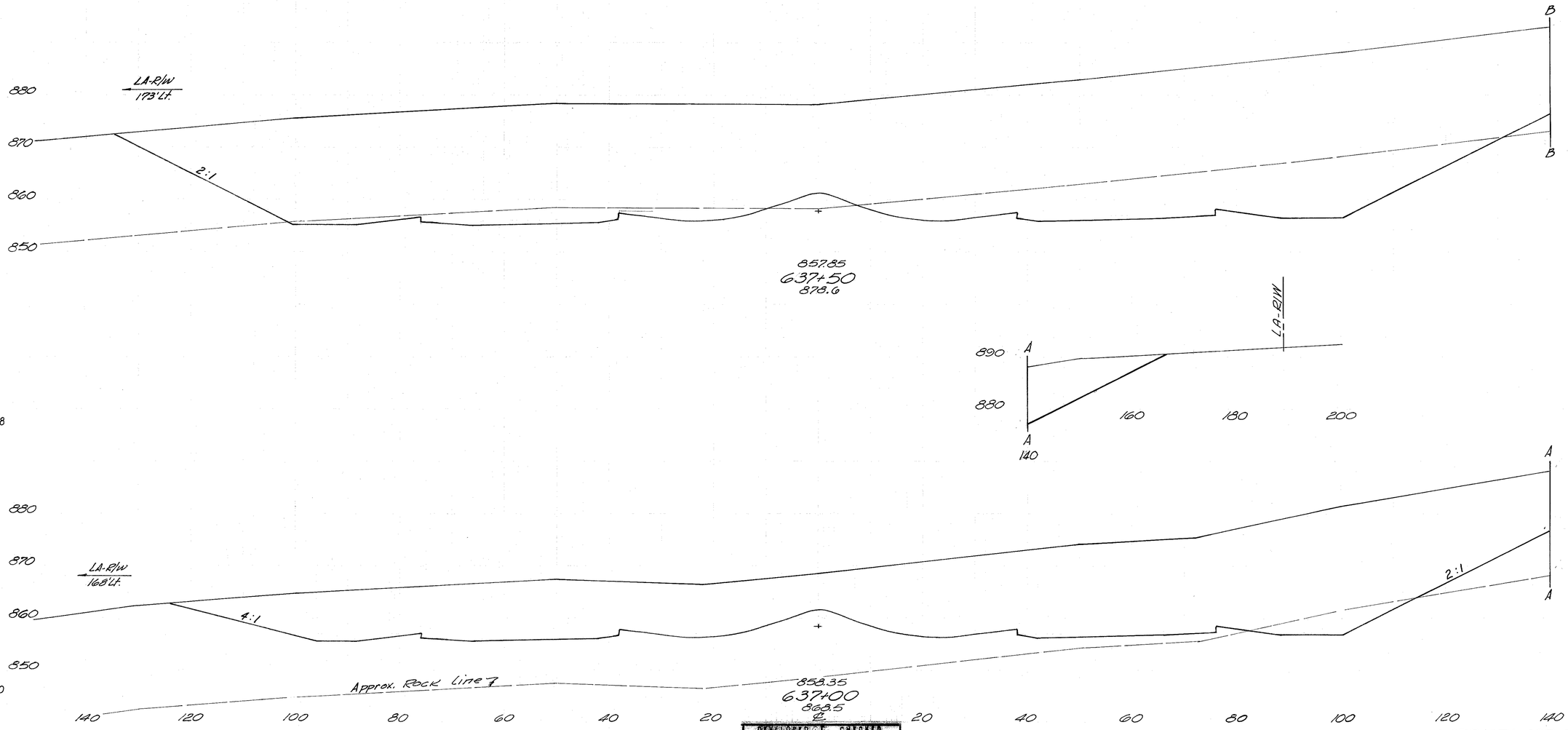
291 288 1214 285 1581 281 1594

REVISED DATE 8-22-75

I-275 STA. 635+50 TO STA. 636+50

HAM-275-13.91
HAMILTON COUNTY





6448 0

1648

9415 0

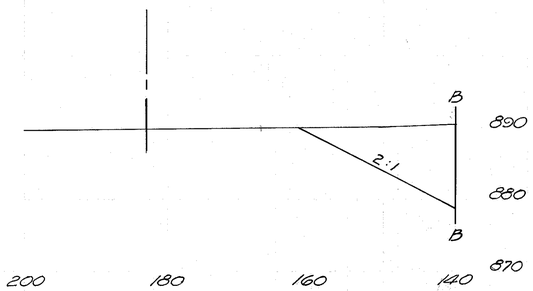
3664 0

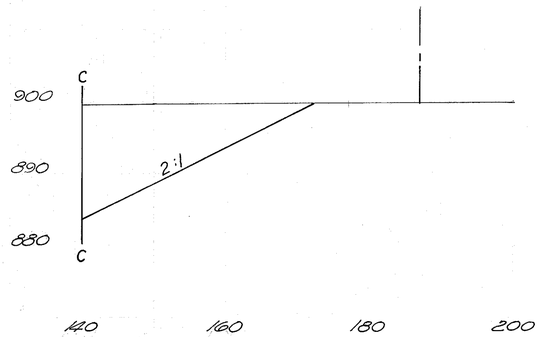
4866 283

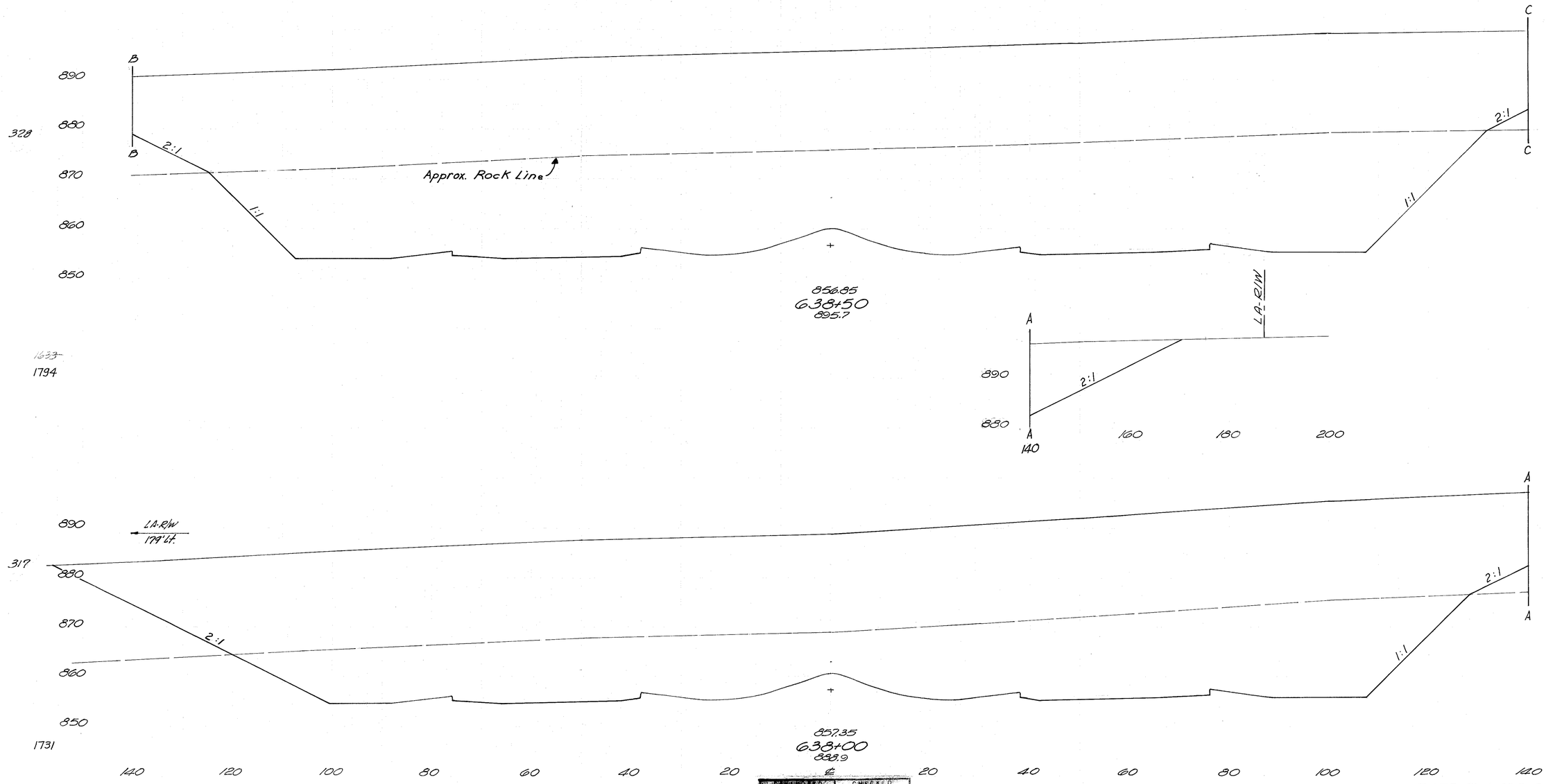
DEVELOPED 7-9-70 RJD | CHECKED 7-11-72 A.L.Y

I-275 STA. 637+00 TO STA. 637+50

HAM-275-13.91
HAMILTON COUNTY



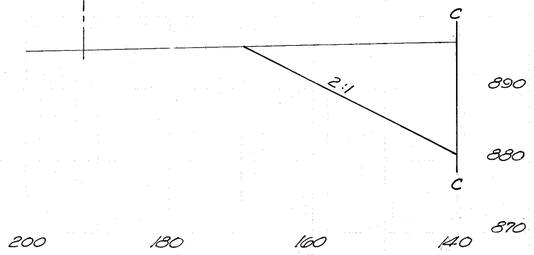


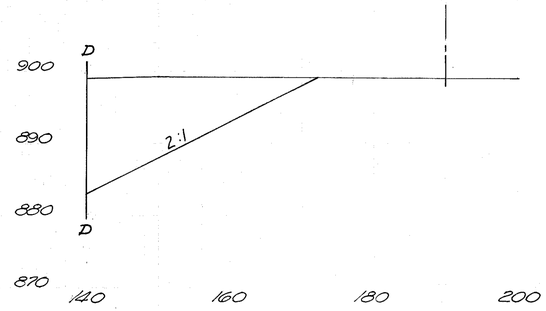


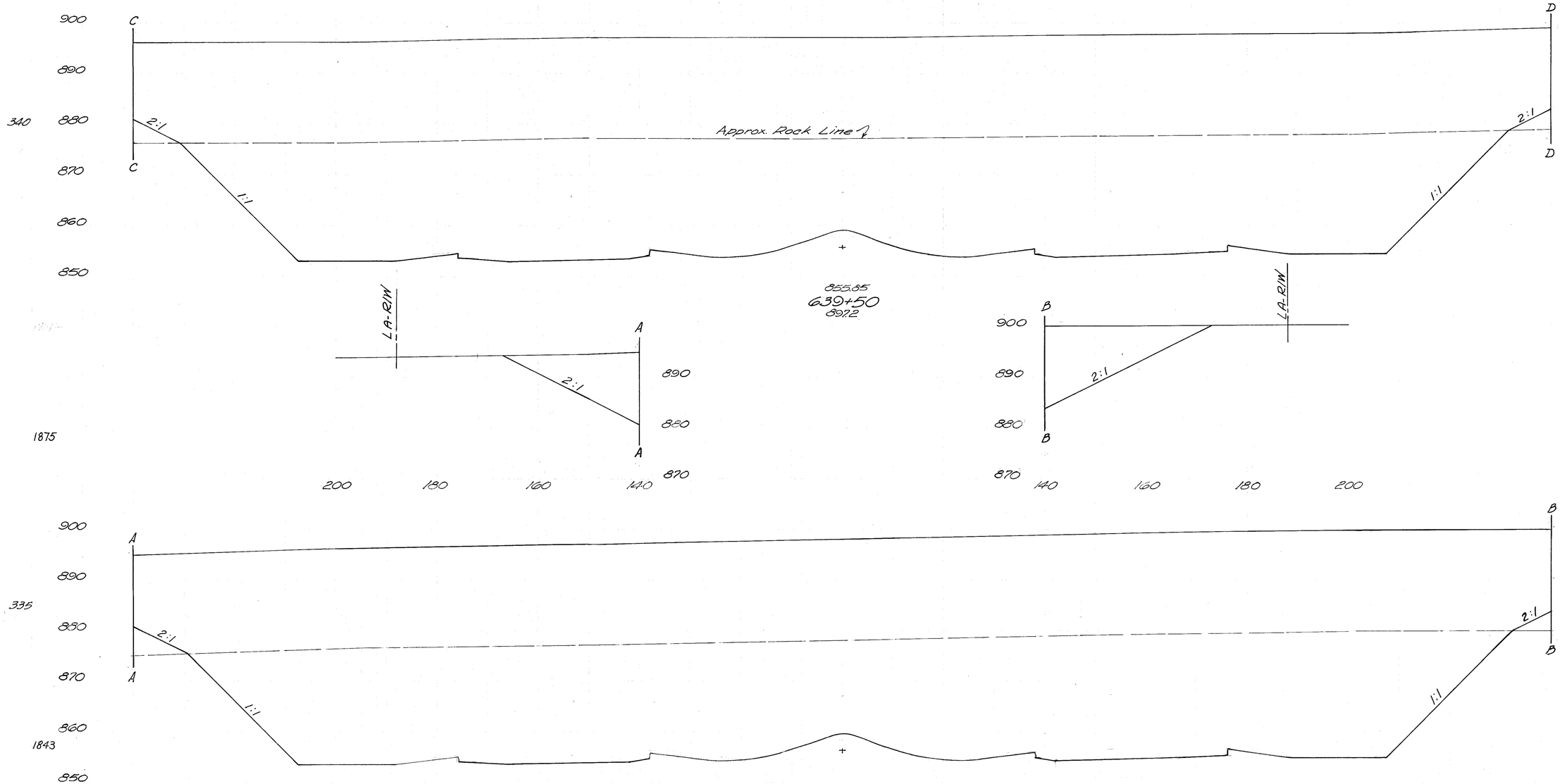
DESIGNED	CHECKED
7-9-76 BJD	7-11-72 A.L.X.

I-275 STA. 638+00 TO STA. 638+50

HAM-275-13.91
HAMILTON COUNTY







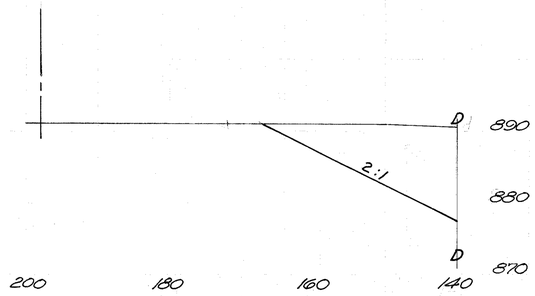
1875

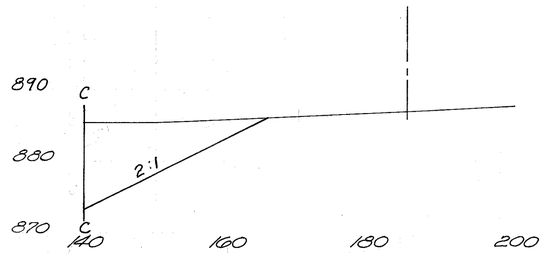
1843

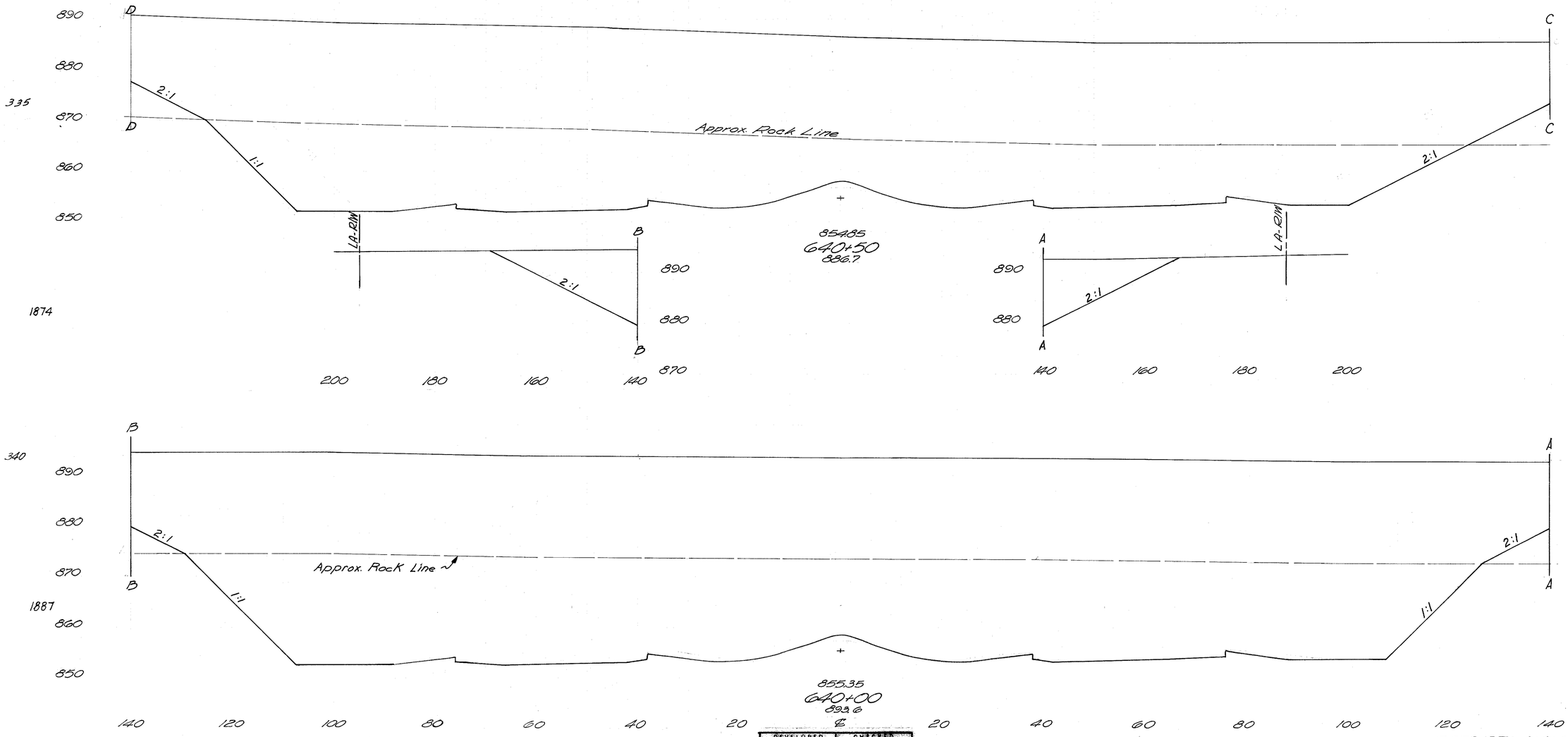
DEVELOPED		CHECKED	
7-9-70	RJD	7-11-72	A.L.Y.

I-275 STA. 639+00 TO STA. 639+50

HAM-275-13.91
HAMILTON COUNTY



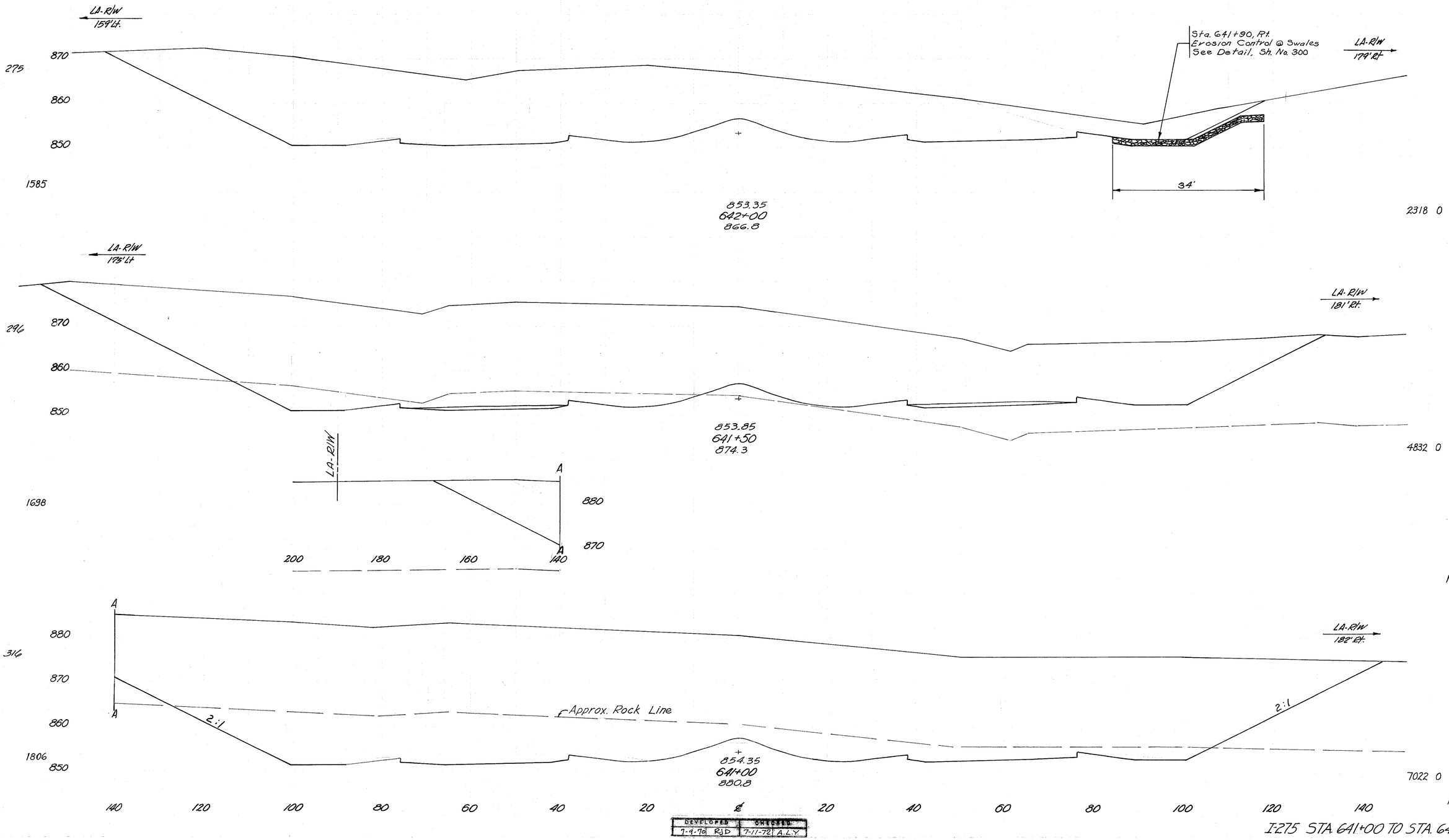




DEVELOPED		CHECKED	
7-9-76	RJD	7-11-72	A.L.Y.

I-275 STA. 640+00 TO STA. 640+50

HAM-275-13.91
HAMILTON COUNTY

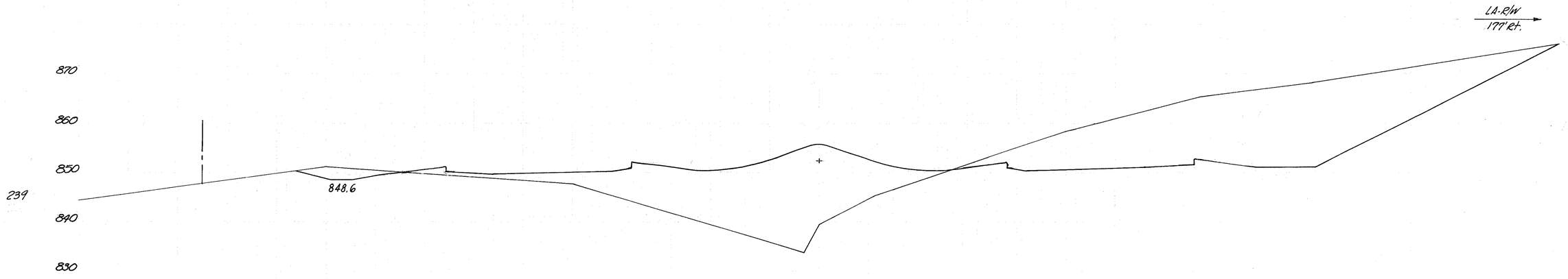


DEVELOPED	CHECKED
7-9-70 RJD	7-11-72 A.L.Y.

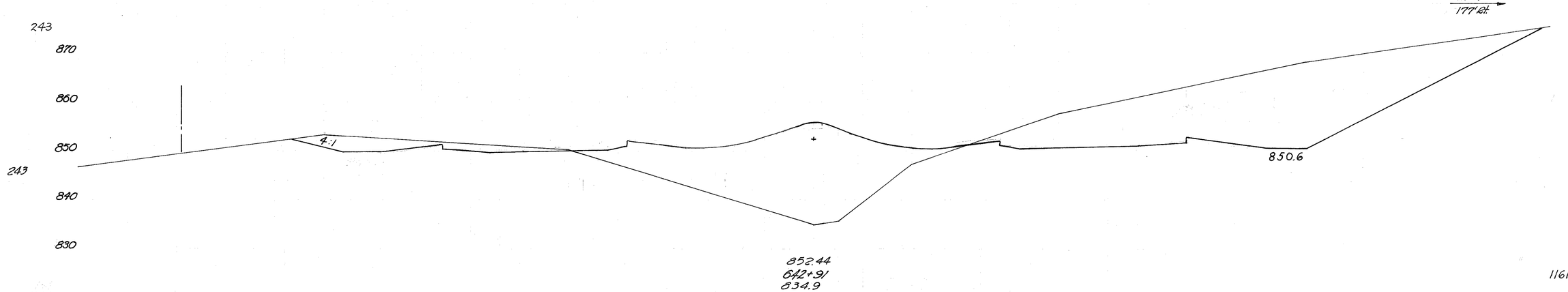
I-275 STA. 641+00 TO STA. 642+00

135
468

HAM-275-13.91
HAMILTON COUNTY



1192 781



398 1158

1161 734

1893 709

1319 196

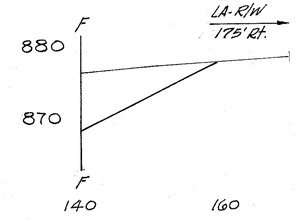
3362 183

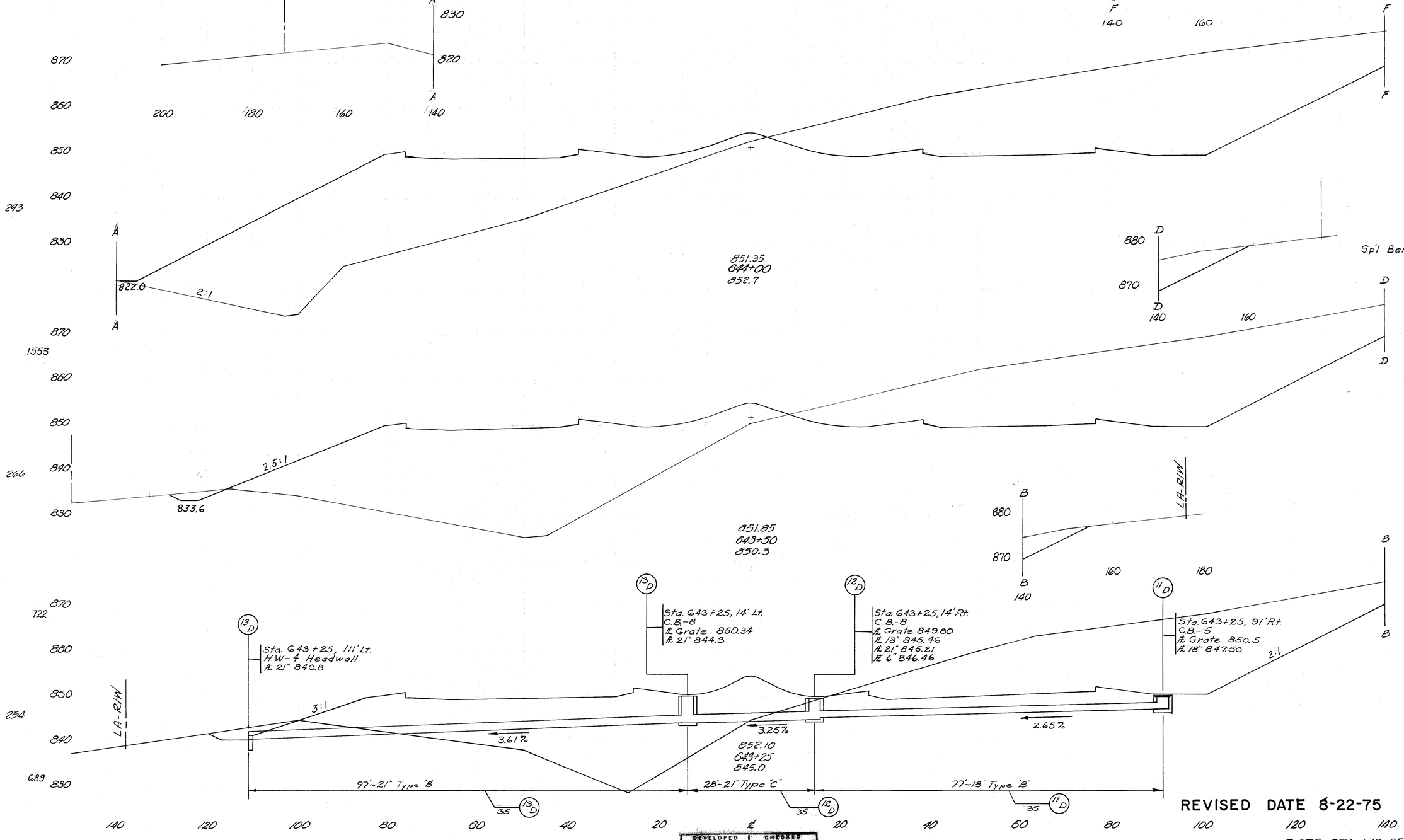
DEVELOPED		CHECKED	
7-9-70	RJD	7-11-72	A.L.Y.

I-275 STA. 642+50 TO STA. 643+00

136
468

HAM-275-13.91
HAMILTON COUNTY





DEVELOPED	CHECKED
7-9-70 RJD	7-11-72 A.L.Y.

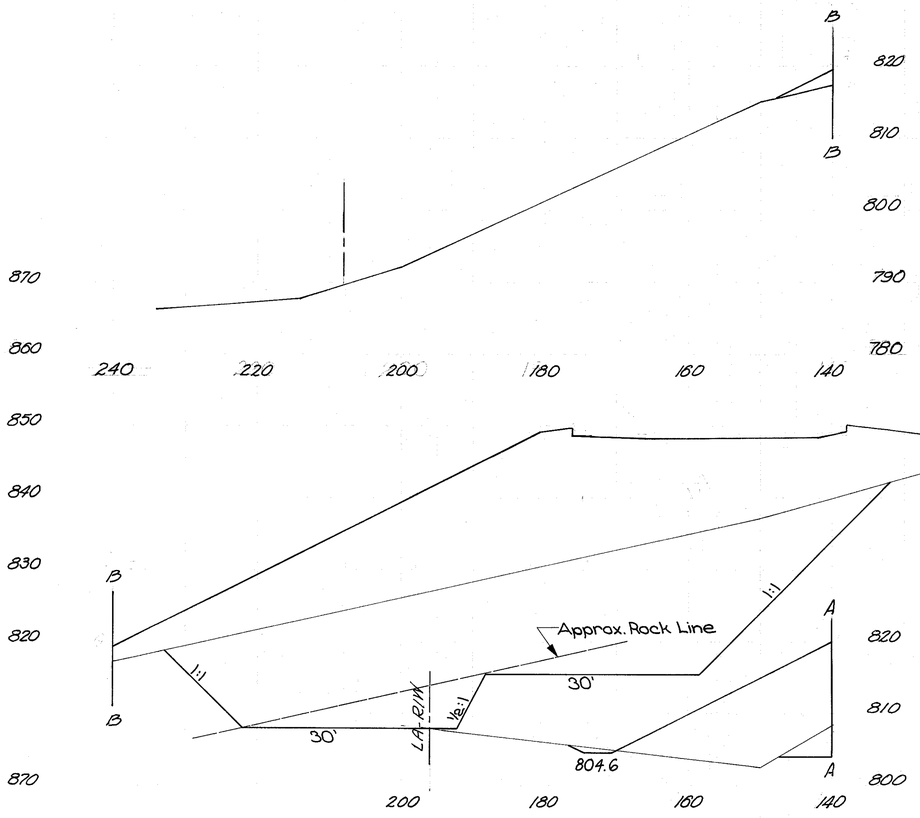
REVISED DATE 8-22-75

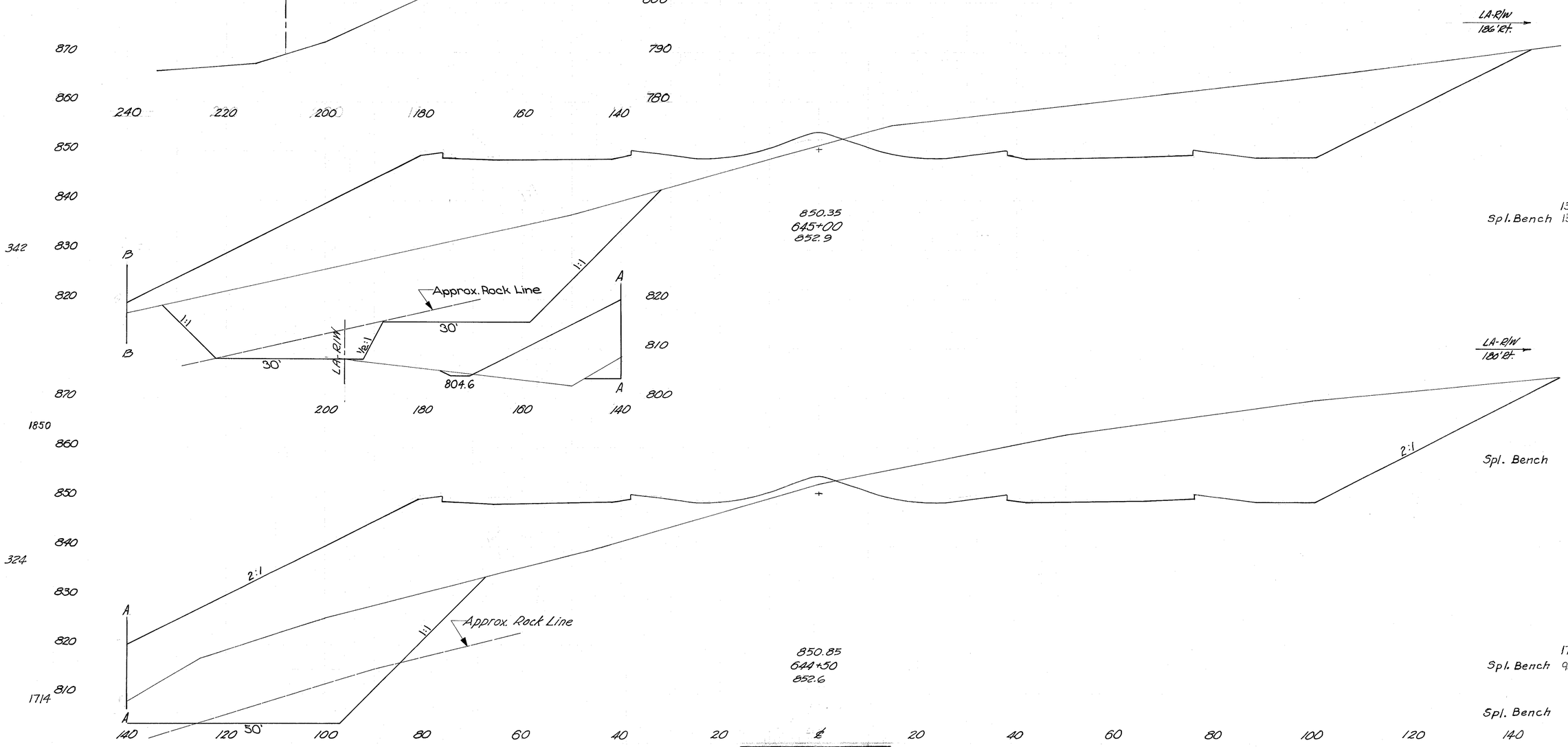
1220 3523

I-275 STA. 643+25 TO STA. 644+00

137
468

HAM-275-13.91
HAMILTON COUNTY





850.35
645+00
852.9

13551347
Spl. Bench 1374 1374

LA-R/W
180'Ref.

1850
860
2:1

28632844
Spl. Bench 2186 2186

850.85
644+50
852.6

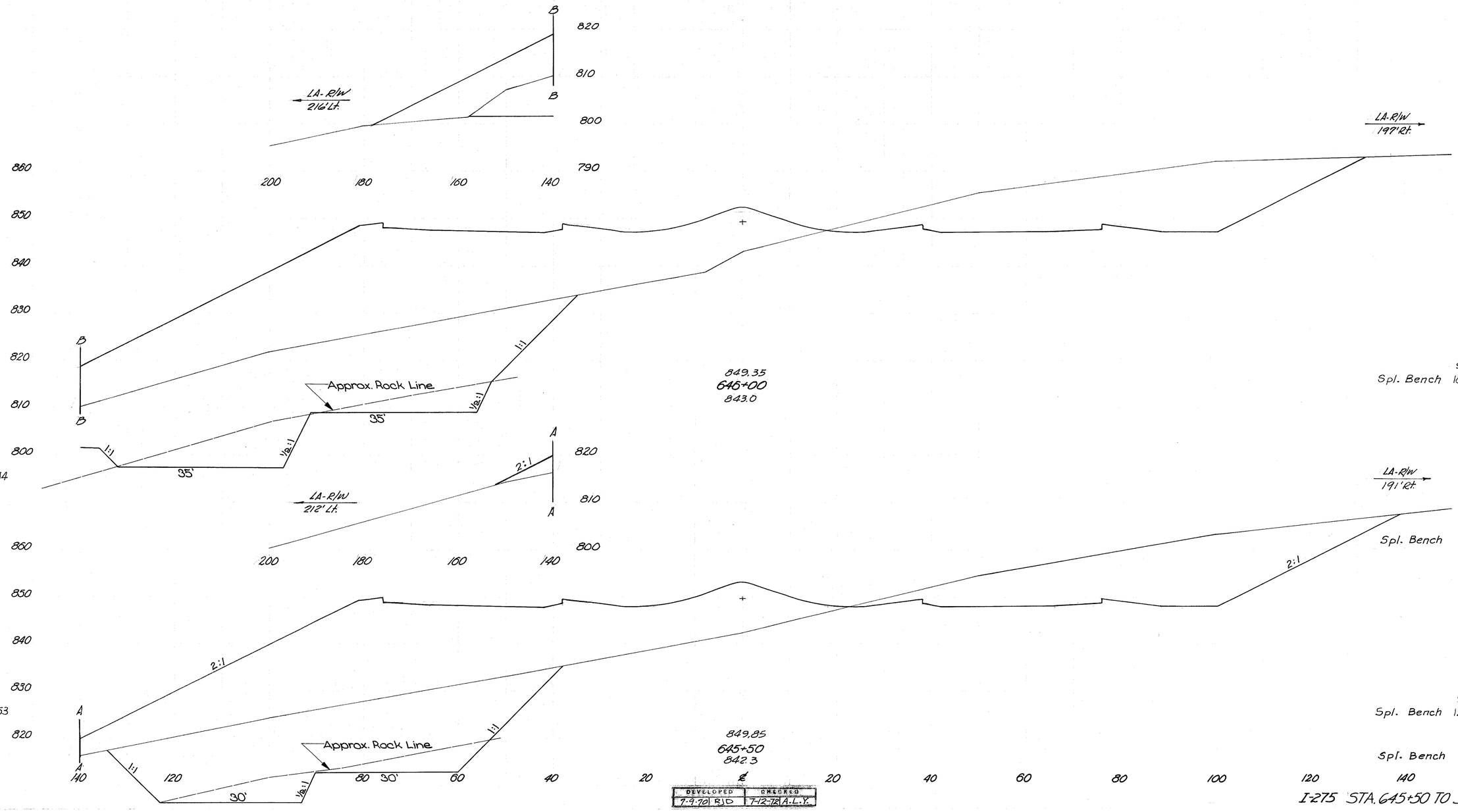
1737 1725
Spl. Bench 987 987

34993216
Spl. Bench 914 914

DEVELOPED	CHECKED
7-9-70 RJD	7-11-72 A.L.Y.

I-275 STA. 644+50 TO STA. 645+00

HAM-275-13.91
HAMILTON COUNTY

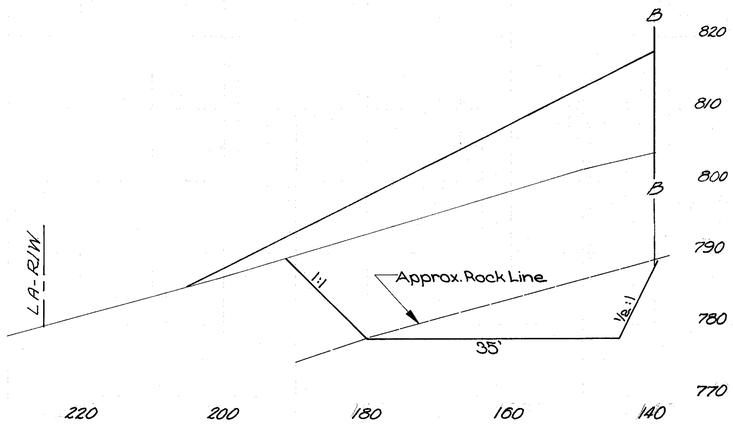


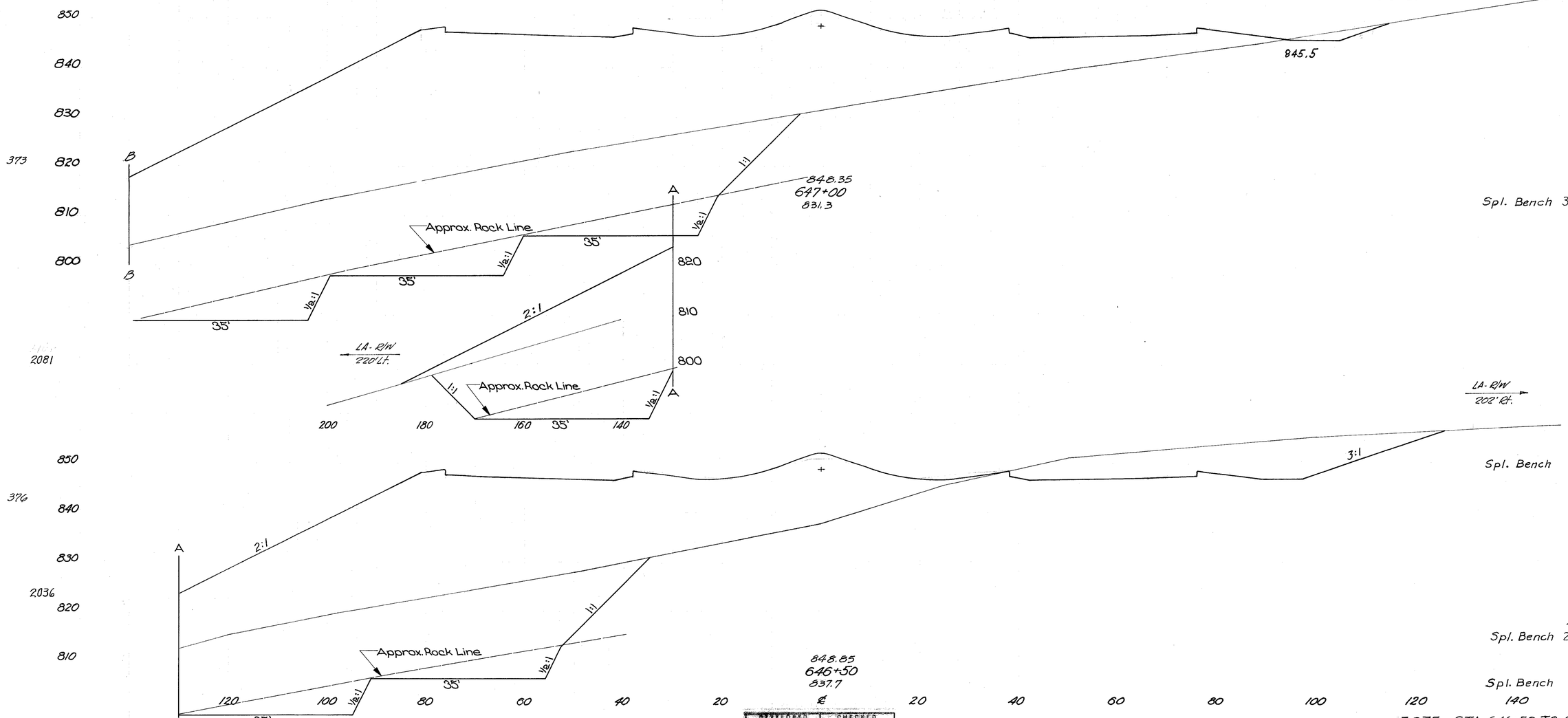
DEVELOPED	CHECKED
7-9-70 RJD	7-12-72 A.L.Y.

I-275 STA. 645+50 TO STA. 646+00

139
468

HAM-275-13.91
HAMILTON COUNTY





17 5303
Spl. Bench 32543254

439 8287
Spl. Bench 50485048

4573561
Spl. Bench 21982198

12675580
Spl. Bench 37243724

DEVELOPED		CHECKED	
7-9-70	RJD	7-12-72	A.L.Y.

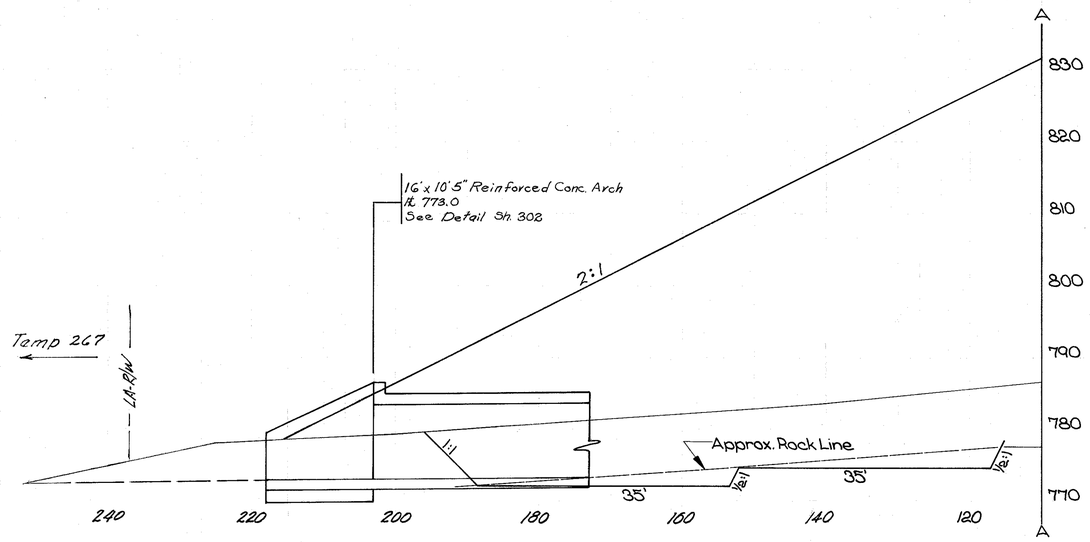
I-275 STA. 646+50 TO STA. 647+00

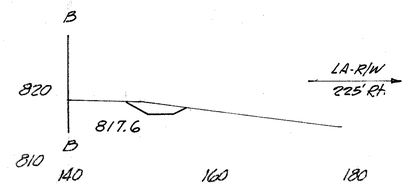
HAM-275-13.91
HAMILTON COUNTY

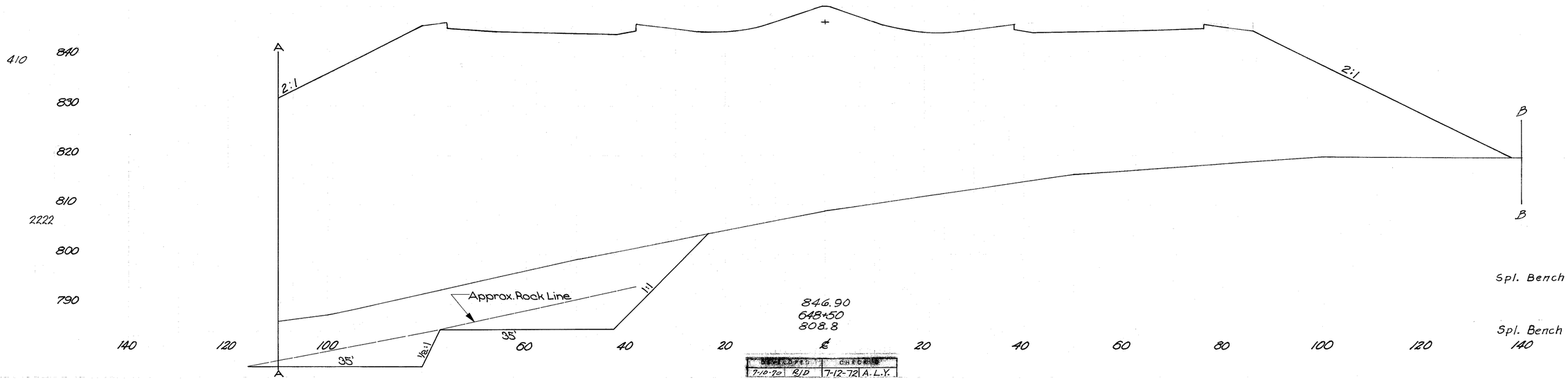
DEVELOPED	CHECKED
7-11-72 RJD	7-12-72 A.L.Y.

I-275 STA. 647+50 TO STA. 648+00

HAM-275-13.91
HAMILTON COUNTY







846.90
648+50
308.8 ℄

DESIGNED		CHECKED	
7-10-72	BJD	7-12-72	A.L.Y.

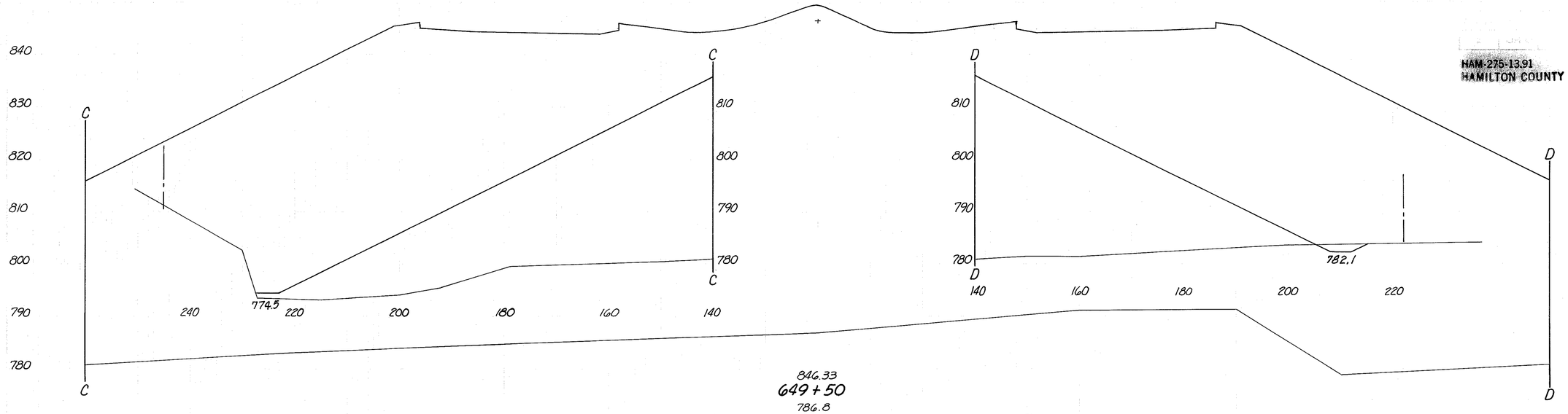
13 10,910
Spl. Bench 1710 1710

27 18,204
Spl. Bench 37453745

STA. 648+50

142
468

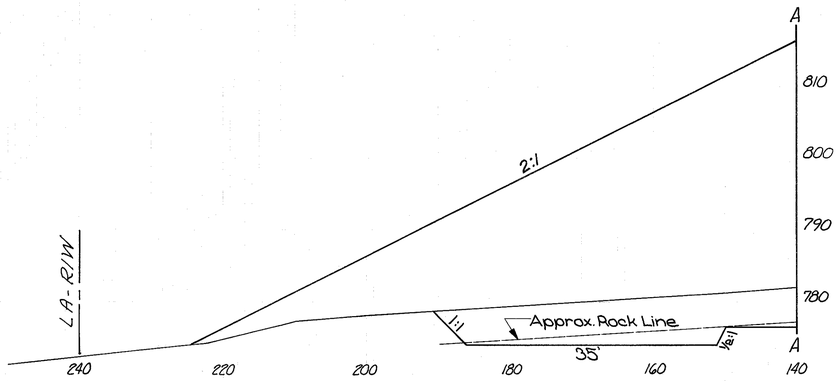
HAM-275-13.91
HAMILTON COUNTY

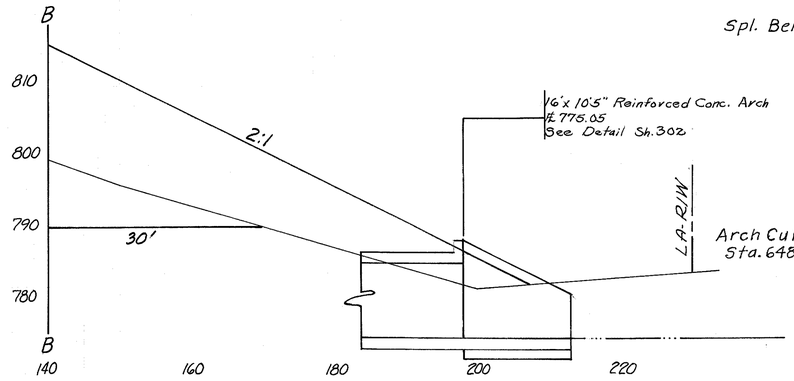


846.33
649+50
786.8

11 17,776
Spl. Bench 0 0

436

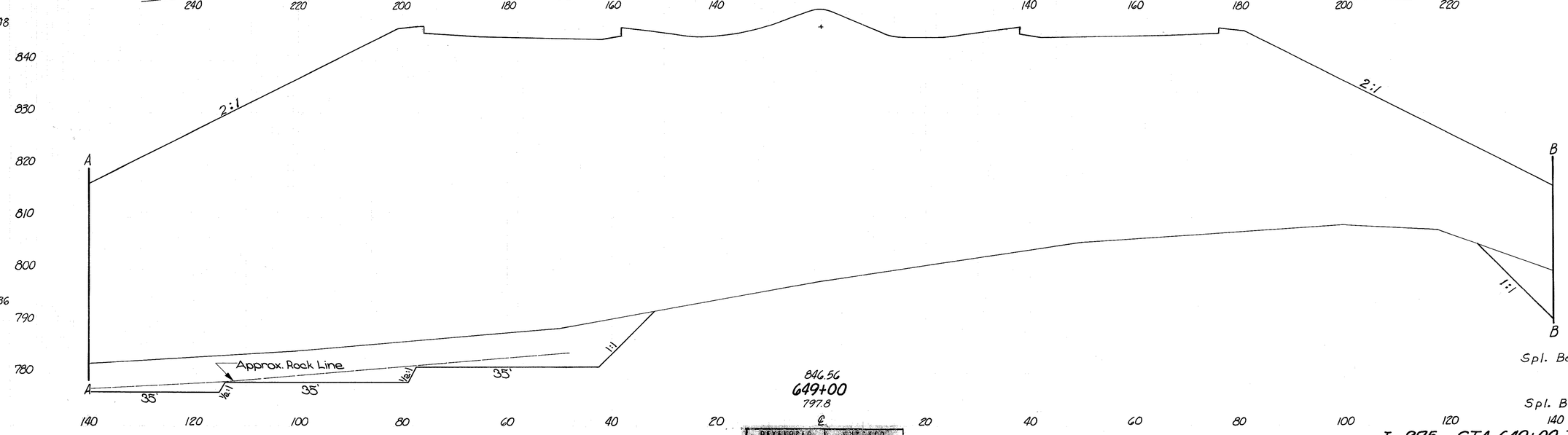




Arch Culvert
Sta. 648+80

16,953
13,068

2408



10 29,464
Spl. Bench 1062 1062

431

2336

0 14,045
Spl. Bench 1147 1147

846.56
649+00
797.8

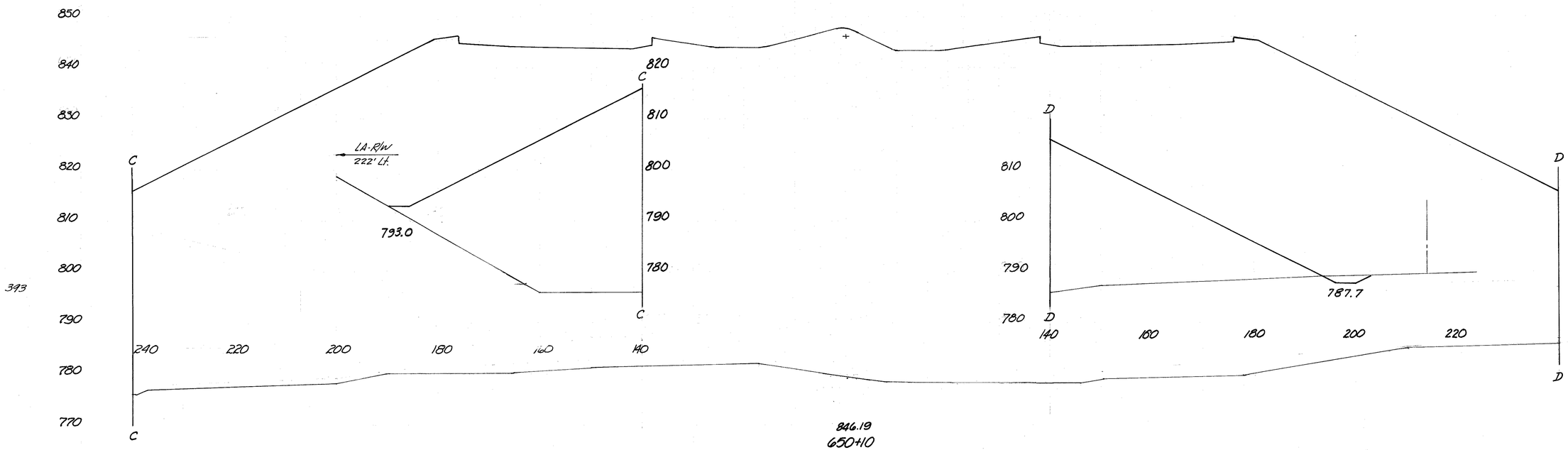
12 23,106
Spl. Bench 26452645

DEVELOPED		CHECKED	
75574	R.D.	7-12-72	A.L.Y.

I-275 STA 649+00 TO STA 649+50

143
468

HAM-275-13.91
HAMILTON COUNTY

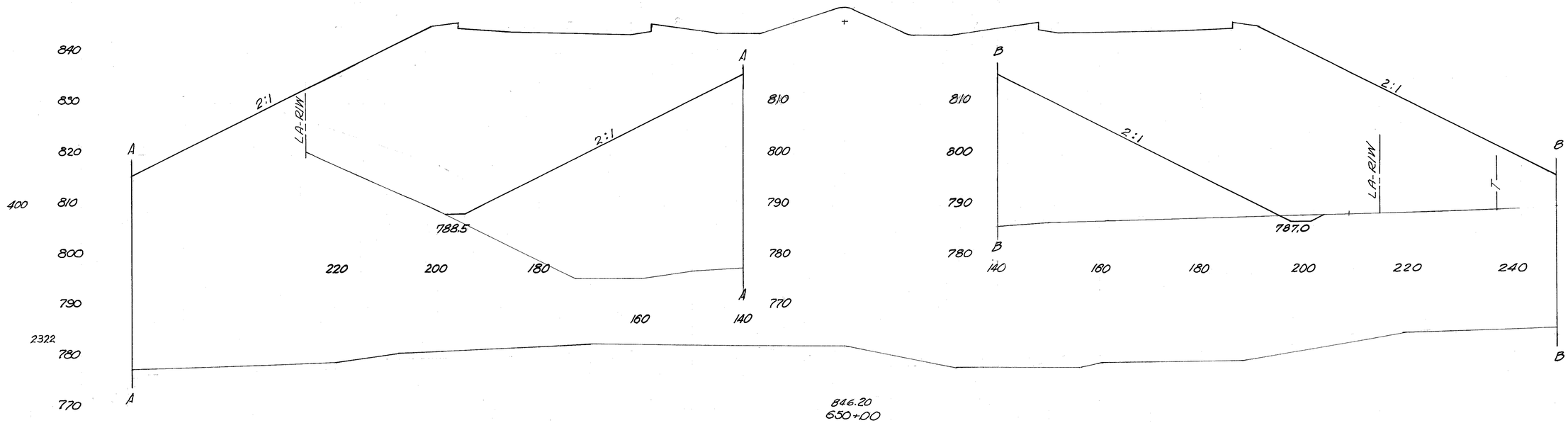


393

846.19
650+10
779.5

11 18,251

441



400

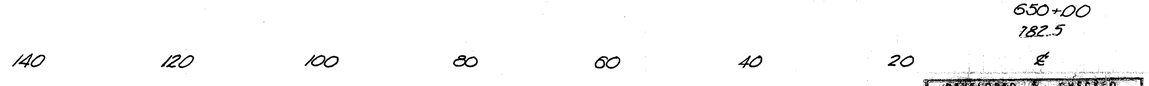
2322

4 6774

8 18,330

846.20
650+00
782.5

18 33,431



DEVELOPED	CHECKED
7-10-72 RJD	7-12-72 A.L.Y.

I-275 STA. 650+00 TO STA. 650+10

HAM-275-13.91
HAMILTON COUNTY

Sta. 650+50, 14' Lt.
C.B.-8
℄ Grate 843.43
℄ 6" 840.55
℄ 15" 839.80

Sta. 650+50, 14' Rt.
C.B.-8
℄ Grate 843.96
℄ 6" 840.85
℄ 15" 840.73

Cover 4'-0"

1.74%

3.32%

15"-25° Bend
MC-4 Conc. Collar
℄ 838.58

28'-15" Type C

846.18
650+50
776.5

50.0%

70'-15" Type B

87'-15" Type F

L.A.-R/W
207' Lt.

Sta. 650+50, 163' Lt.
HW-4 Headwall C
℄ 15" 804.2

15"-25° Bend
℄ 804.44

Rock Channel Prot., Type B

803.7

793.4

846.18
650+41
777.2

2:1

800.0

792.9

LA-R/W

LA-R/W
210' Lt.

REVISED DATE 8-22-75

DEVELOPED	CHECKED
7-10-70 RJD	7-12-72 A.L.Y.

I-275 STA. 650+41 TO STA. 650+50

366
369
372
1318
5 16,381
5 5546
26 16,892
21 20,175

HAM-275-13.91
HAMILTON COUNTY

Sta. 651+50, 123' Lt.
HW-4 Headwall
℄ 15" 825.0

Cover 4'-0"

LA-R/W
168' Lt.

840
830
292
824.5
820
810
800

Rock Channel Prot., Type B

2.0%

50.0%

15"-25° Bend
℄ 825.26

15"-25° Bend
℄ 839.04
M.C:4 Conc. Collar

1.72%

3.29%

Sta. 651+50, 14' Lt.
C.B.-8
℄ Grate 844.23
℄ 6" 841.35
℄ 15" 840.23

Sta. 651+50, 14' Rt.
C.B.8
℄ Grate 844.23
℄ 15" 841.15

43'-15" Type F

69'-15" Type B

28'-15" Type C

36

29 D

30 D

C
820
810
C
813.1
180
180
200

1522
LA-R/W
188' Lt.
A
820
810
2:1
814.1
180
160
A

846.45
651+50
804.1

B
810
800
2:1
800.8
160
180
200
LA-R/W
B

6 7902

13 18,130

840
830
820
256
810
800
1728
790
780
A
2:1
A
2:1
B
B

846.26
651+00
788.4

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

8 11,678

REVISED DATE 8-22-75

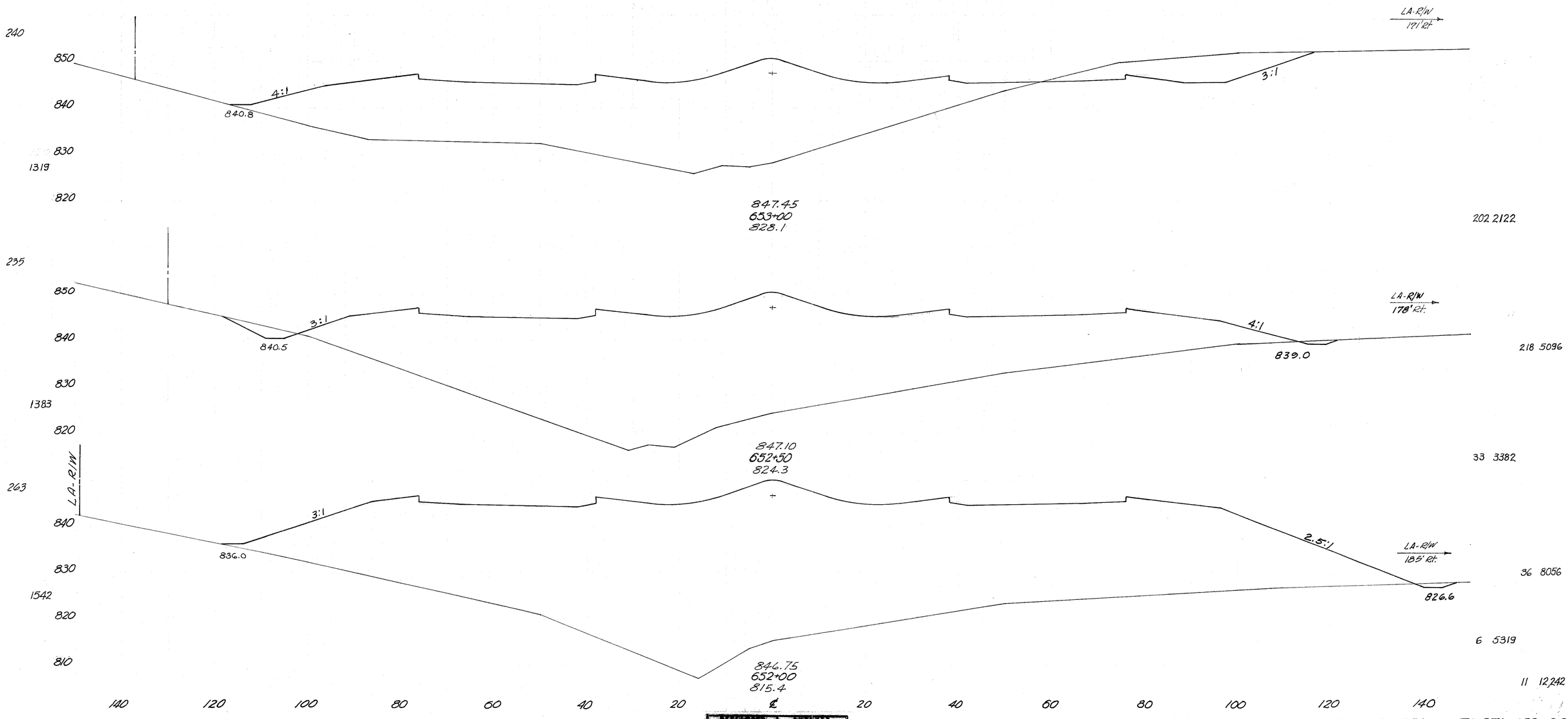
12 25,981

DEVELOPED	CHECKED
7-10-72 R/D	7-12-72 A.L.Y.

I-275 STA. 651+00 TO STA. 651+50

146
468

HAM-275-13.91
HAMILTON COUNTY



218 5096

33 3382

36 8056

6 5319

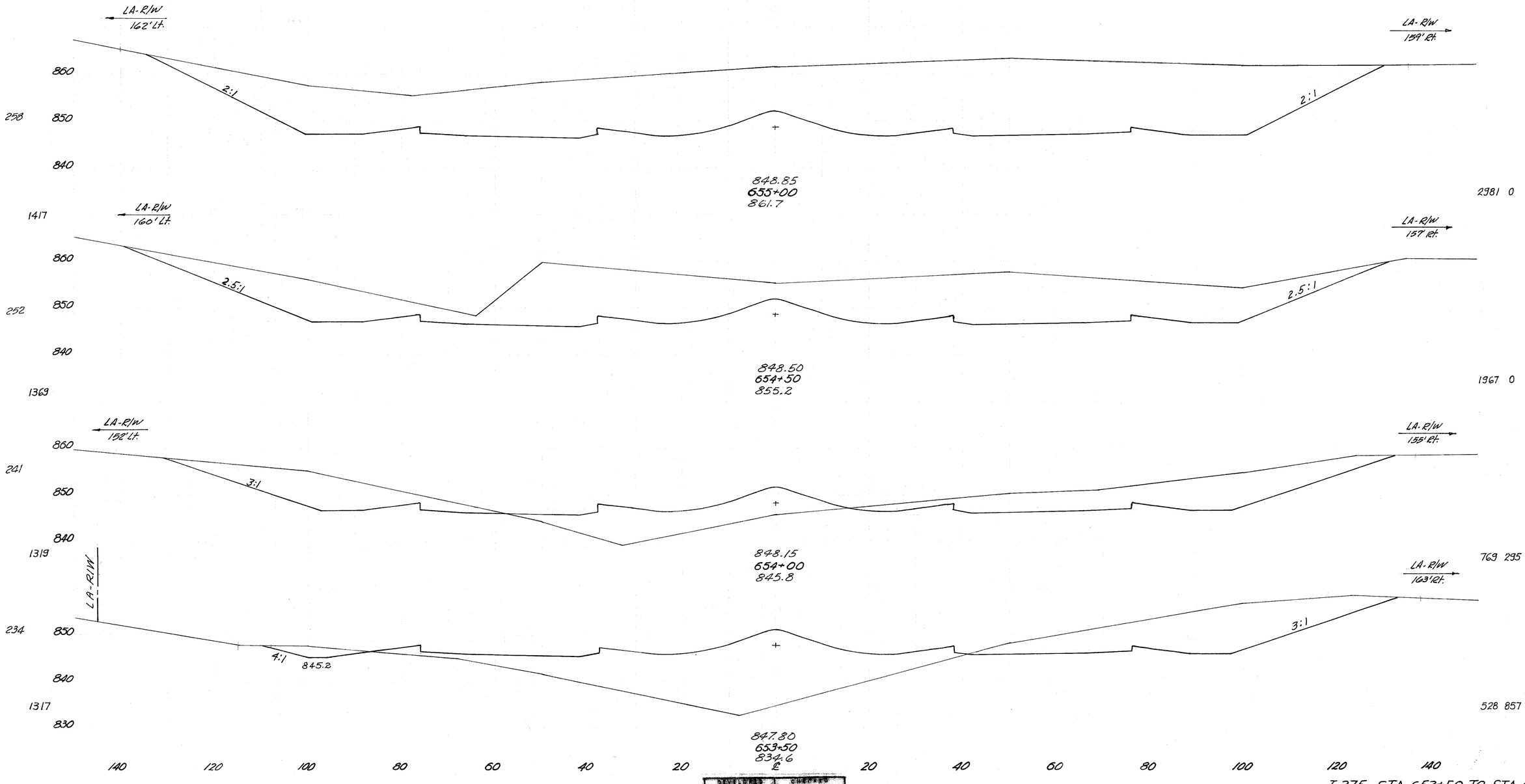
11 12,242

202 2122

DESIGNED	CHECKED
7-10-72 R/D	7-12-72 A.L.Y.

I-275 STA. 652+00 TO STA. 653+00

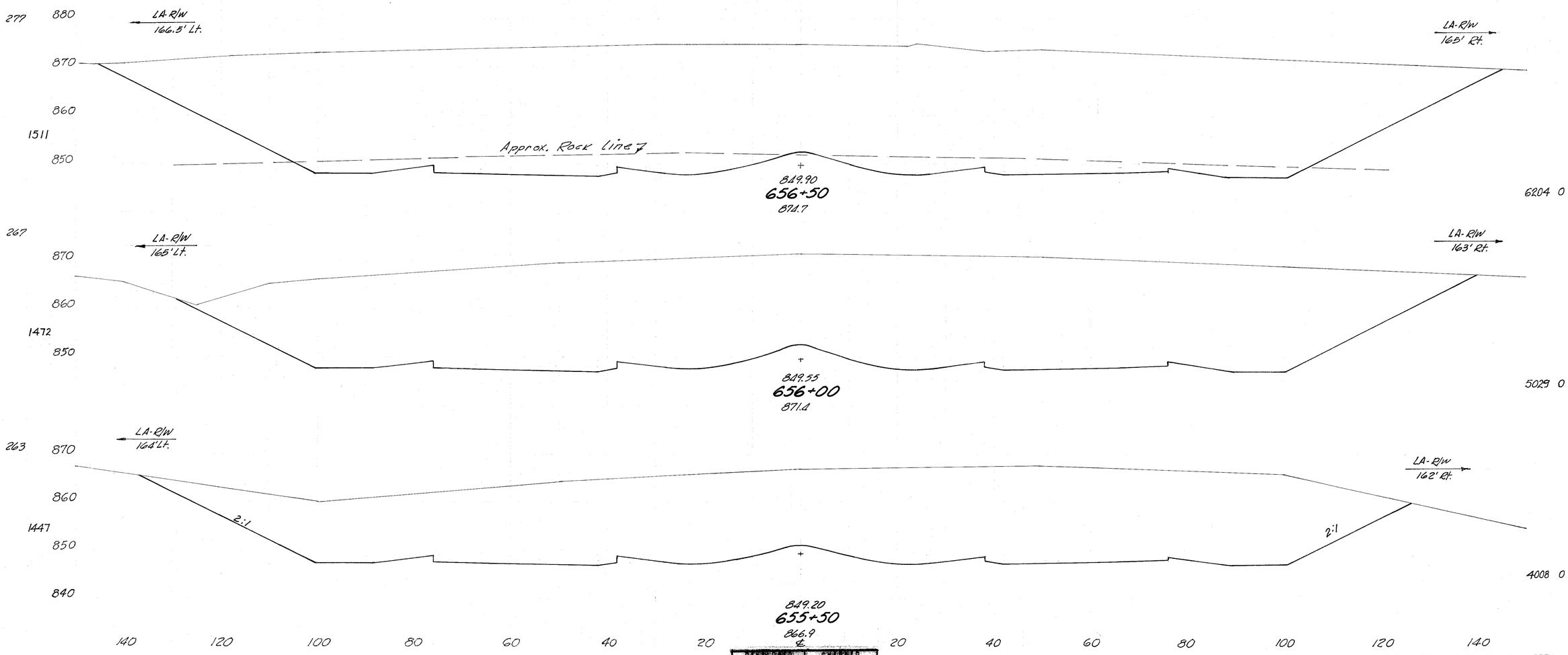
HAM-275-13.91
HAMILTON COUNTY



DEVELOPED		CHECKED	
7-10-72	R/D	7-12-72	A.L.Y.

I-275 STA. 653+50 TO STA. 655+00

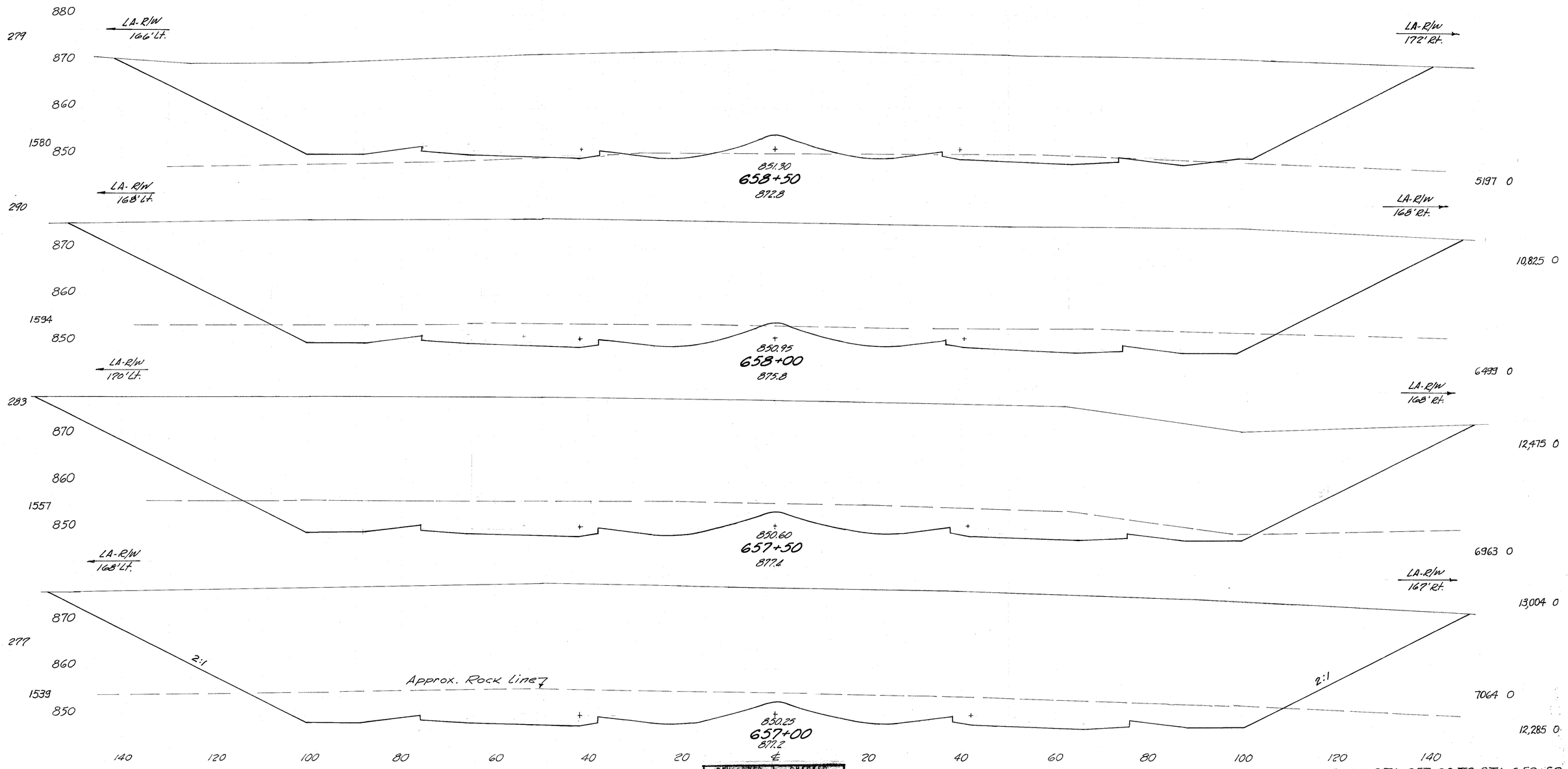
HAM-275-13.91
HAMILTON COUNTY



REVISED	CHECKED
7-10-72 RJD	7-12-72 A.L.Y.

I-275 STA. 655+50 TO STA. 656+50

HAM-275-13.91
HAMILTON COUNTY



DEVELOPED		CHECKED	
7-10-72	R.D.	7-12-72	A.L.Y.

I-275 STA. 657+00 TO STA. 658+50

HAM-275-13.91
HAMILTON COUNTY

Sta. 660+42, 151' Rt.
HW-4 Headwall
℄ 48" 812.5

860
850
840
830
820
810

286
1569
271
1521
279
1417
277
121
271
1525

LA-R/W 164' Lt.
LA-R/W 163' Lt.
LA-R/W 163' Lt.
LA-R/W 164' Lt.
LA-R/W 164' Lt.

2:1
837.0
852.71
660+51
821.6
A
820
813.0
160
180
LA-R/W
A
A
9 5617
Spl. Bench 0 0

62 6626
Spl. Bench 56 56

2:1
827.0
LA-R/W 178' Rt.
57 1460
Spl. Bench 60 60

852.35
660+00
844.3
36 D
STA. 659+50 ℄
C.B. -1
℄ GRATE 849.25
℄ 15" 846.70
℄ 6" 846.70
14.5:1
6:1
852.00
659+50
855.1
36 D
Sta. 659+50, 105' Rt.
HW-4 Headwall
℄ 15" 845.9
878 1335
LA-R/W 177' Rt.
Spl. Bench 55 55
4:1
0.76%
Rock Channel Prot. Type 'B'
891 0
Spl. Bench 0 0
105'-15" Type "B"
36
36 D
LA-R/W 175' Rt.

3308 0

851.68
659+04
866.1
848.6
848.8
2998 0
LA-R/W 175' Rt.

452 0

3:1
3126 0

851.65
659+00
867.1
848.2
848.8
3:1
7696 0

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

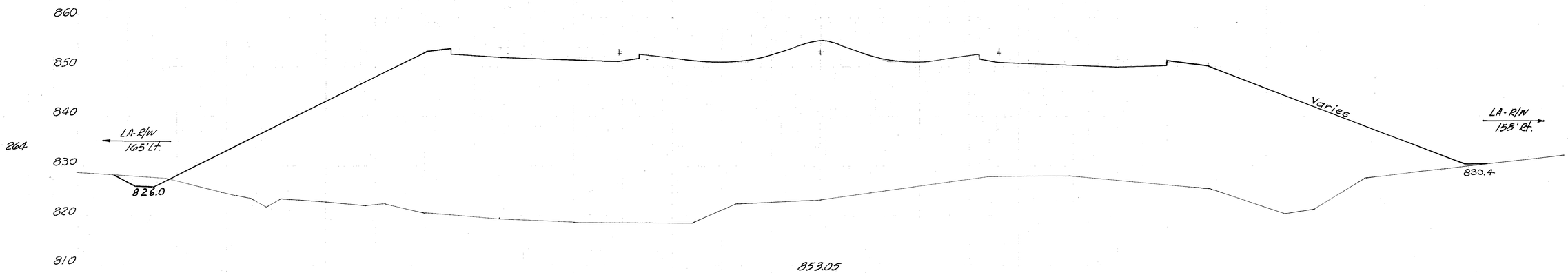
DEVELOPED		CHECKED	
7-14-72	BJD	7-12-72	A.L.Y.

REVISED DATE 8-22-75

I-275 STA. 659+00 TO STA. 660+51

151
468

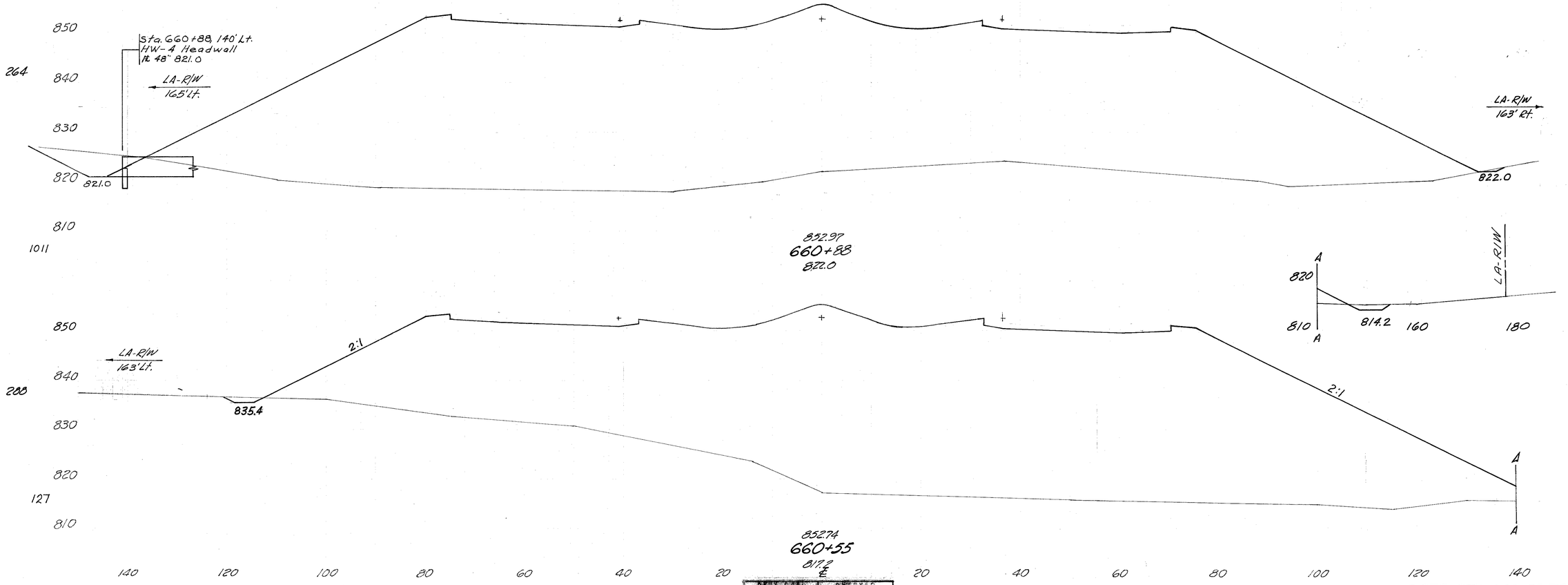
HAM-275-13.91
HAMILTON COUNTY



353

853.05
661+00
823.1

13 6139



19 2860

68 6709

49 7831

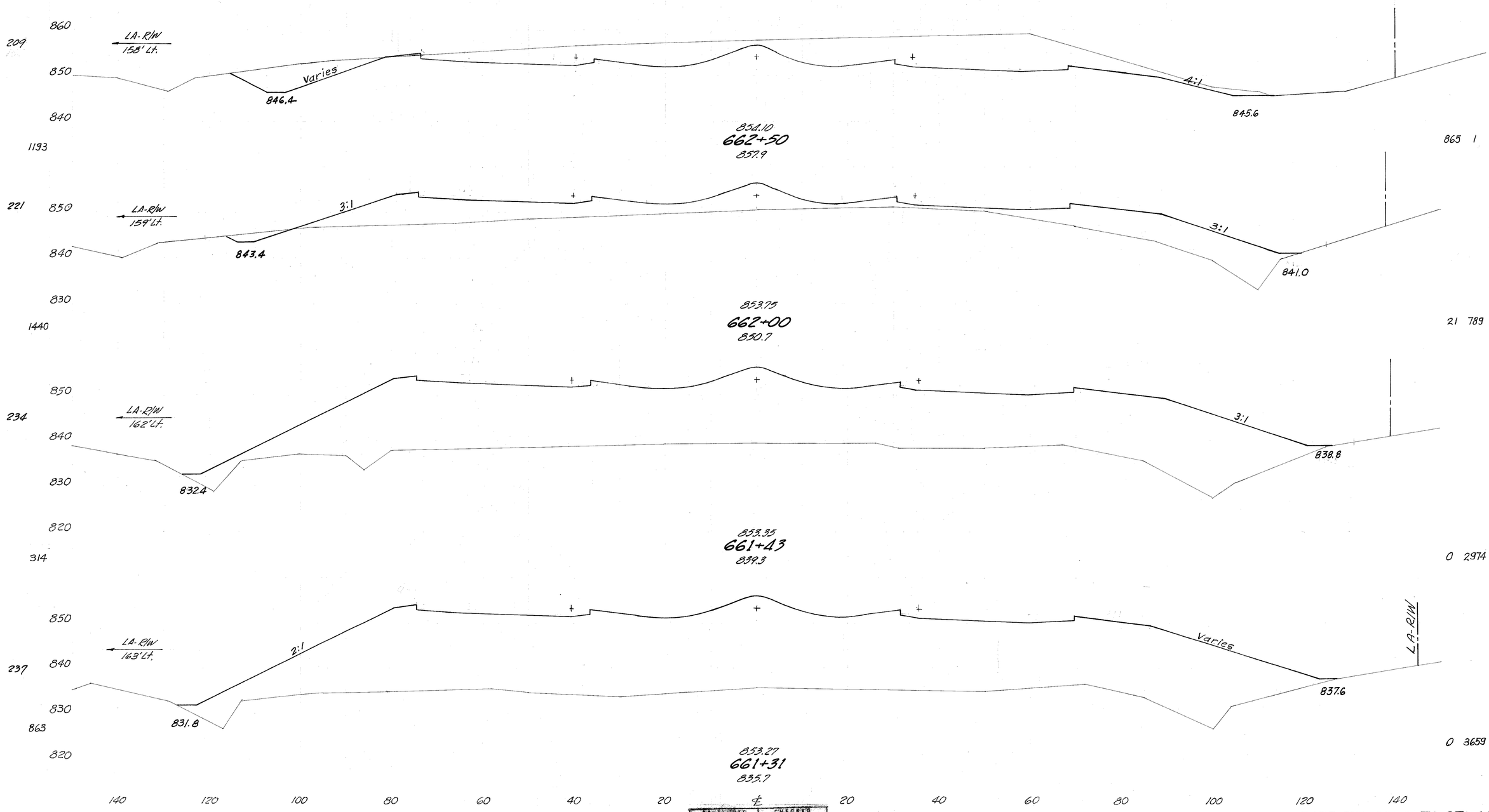
12 6129

2 865

DESIGNED | DRAWN | CHECKED
7-14-72 | RJD | 7-13-72 | A.L.Y.

I-275 STA. 660+55 TO STA. 661+00

HAM-275-13.91
HAMILTON COUNTY



DEVELOPED		CHECKED
7-14-70	R/D	7-13-72 A.L.Y.

I-275 STA. 661+31 TO STA. 662+50

153
468

HAM-275-13.91
HAMILTON COUNTY

LA-R/W 160' Lt.

249

870

860

1353

850

855.85
665+00
876.0

852.4

4926 0

LA-R/W 158' Lt.

239

870

860

1319

850

855.50
664+50
873.6

852.0

8507 0

4246 0

LA-R/W 157' Lt.

237

860

850

1302

855.15
664+00
869.8

851.6

2:1

6987 0

3288 0

LA-R/W 157' Lt.

231

860

850

1283

24:1

854.3

854.80
663+50
867.1

851.2

3:1

5024 0

2127 0

LA-R/W 157' Lt.

230

860

850

1220

2:1

849.0

854.45
663+00
863.1

8:1

24:1

850.0

LA-R/W

3422 0

1561 0

2245 1

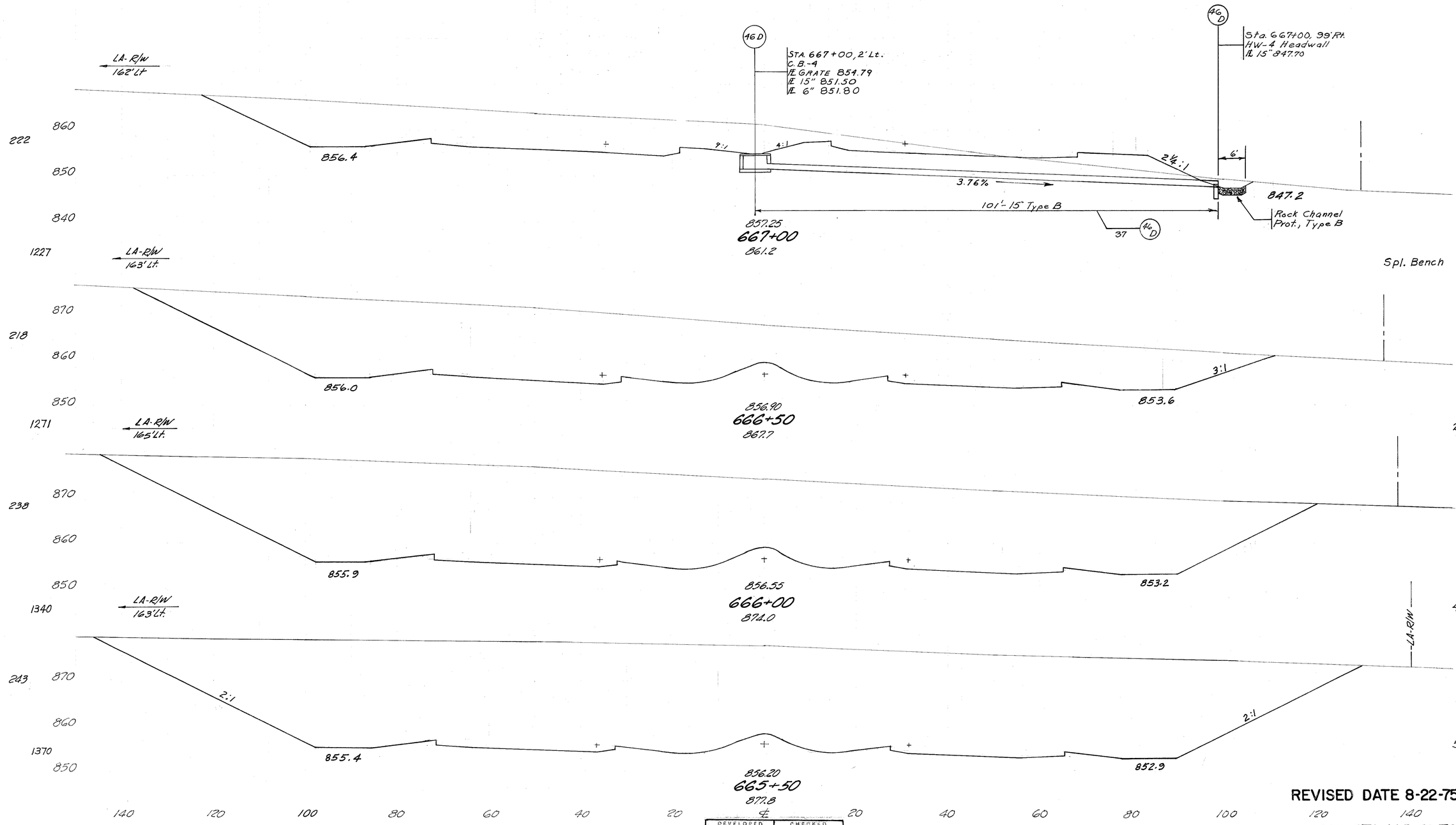
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DEVELOPED		CHECKED	
7-14-70	RD	7-13-72	A.L.Y.

I-275 STA. 663+00 TO STA. 665+00

151
468

HAM-275-13.91
HAMILTON COUNTY



		366	75
Spl. Bench		0	0
			3517 61
			2802 0
			6663 0
			4358 0
			8875 0
			5137 0
			9392 0

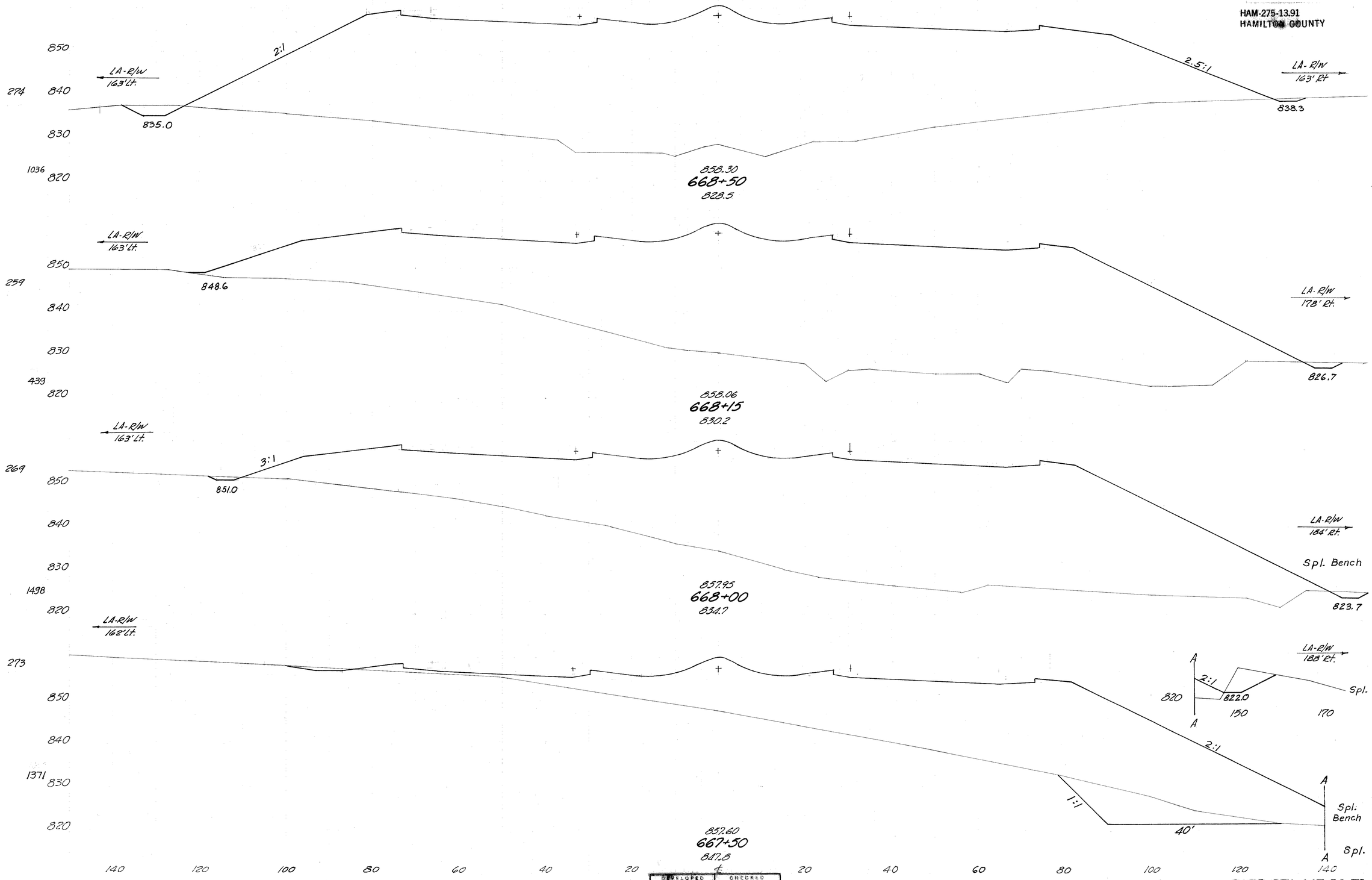
DEVELOPED		CHECKED	
7-14-72	BJD	7-13-72	A.L.Y.

REVISED DATE 8-22-75

I-275 STA. 665+50 TO STA. 667+00

155
468

HAM-275-13.91
HAMILTON COUNTY



274 1036
259 439
269 1498
273 1371

31 5303
26 6691
8 5043
6 2644
14 4535
Spl. Bench 0 0
51 6362
Spl. Bench 207 207
42 2412
Spl. 227 227
Bench
939 2263
Spl. Bench 207 207

DEVELOPED		CHECKED	
7-14-70	BD	7-13-72	A.L.Y.

I-275 STA. 667+50 TO STA. 668+50

156
468

HAM-275-13.91
HAMILTON COUNTY

860
850
840
830
820
LA-R/W
3:1
853.0
856.8
4:1
859.70
670+50
859.7
429 68
172
850
844.7
2:1
856.1
4:1
859.55
670+00
852.9
488 923
972
178
98 929
1028
850
836.6
4:1
854.2
2:1
859.00
669+50
844.1
105 3127
190
15 2415
1182
850
840
830
Sta. 669+02, 146' Lt.
HW-4 Headwall
@ 60° 826.0
LA-R/W
165' Lt.
214' Lt.
826.0
Channel Easem't.
205' Lt.
858.65
669+00
857.1
850.0
53 5880
233
41 3887
803
247
177' Lt.
829.0
2:1
3:1
LA-R/W
155' Rt.
844.6
32 5075
16 5196
858.44
668+70
850.1
580
18 3895

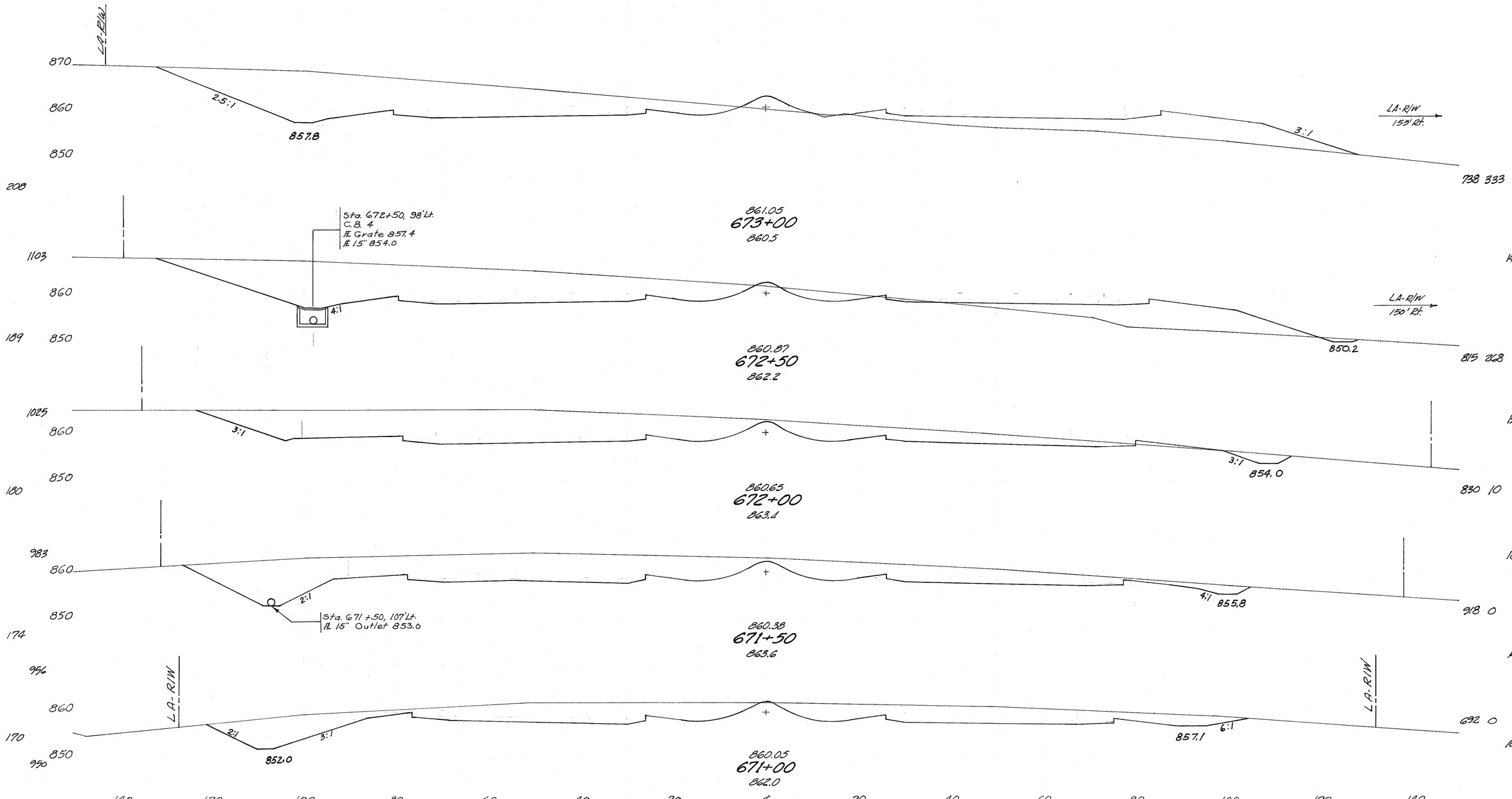
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DESIGNED		CHECKED	
7-14-72	BJD.	7-12-72	A.L.Y.

I-275 STA. 668+70 TO STA. 670+50

157
468

HAM-275-13.91
HAMILTON COUNTY


LT. R/W
870
860
850
2.5:1
857.8
LA-R/W
158' Rt.
3:1
738 333
208
Sta. 672+50, 98' Lt.
C.B. 4
Æ Grate 857.4
Æ 15" 854.0
861.05
673+00
860.5
1103
860
4:1
LA-R/W
150' Rt.
1438 556
189
850
850.2
860.87
672+50
862.2
815 268
1025
860
3:1
3:1
854.0
1823 857
850
180
860.65
672+00
863.1
830 10
983
860
2:1
4:1
855.8
1619 9
850
Sta. 671+50, 107' Lt.
Æ 15" Outlet 853.0
918 0
174
860.38
671+50
863.6
956
LA-R/W
LA-R/W
1491 0
860
2:1
3:1
6:1
857.1
692 0
170
850
852.0
1038 63
950
860.05
671+00
862.0
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DEVELOPED		CHECKED	
7-14-70	RJD	7-12-72	RLS

I-275 STA. 671+00 TO STA. 673+00

158
408

HAM-275-13.91
HAMILTON COUNTY

880
870
860
850
840

LA-R/W 157' Lt.

141 — 2:1 — 858.7

861.23
675+00
871.5

Ramp 'H'

2521 0

539

131 Ahead
201 Back

858.5

861.25
674+64.31
869.7

I-275 Back
I-275 Ahead
Ramp H, Ahead only
End Area Shown
on Sheet No 189

312A 0

LA-R/W 174' Rt.

Ahead 2199 0

6:1
855.2
Back 2494 0

329

858.4

LA-R/W 172' Rt.

1225 0

3:1
855.0

202

861.26
674+50
868.4

2128 0

1142

858.2

LA-R/W 167' Rt.

3481 139

851.0

1632 150

203

861.24
674+00
867.2

LA-R/W

1106

2:1
858.0

LA-R/W 162' Rt.

2655 215

3:1

195
1119

1239 82

861.17
673+50
864.9

1827 384

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

7-14-70	RD	7-12-72	ALS

I-275 STA. 673+50 TO STA. 675+00

152
468

HAM-275-13.91
HAMILTON COUNTY

Ramp J

Ramp H

860
850
92
860.32
677+50
865.8
12:1
1116 O

870
70
860
313 O
860.36
677+43
866.9
6:1
89
1302 O

870
413
860
2526 O
860.61
677+00
870.7
6:1
84
1870 O

444
870
3574 O
860
76
LA-R/W
165'Lt.
860.84
676+50
872.9
1990 O

Back
Ahead Ramp 'J'
I-275 Ahead
400
870
3587 O
GB Ahead
860
150 Back
LA-R/W
161'Lt.
858.3
861.02
676+00
873.2
Ahead 1884 O
Back 2284 O

872
870
3687 O
Ramp H
10
2:1
860
2810 O
858.7
861.16
675+47
872.7
8:1
749
4645 O

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

7-14-70	RD.
7-12-72	DG.P.

I-275 STA. 675+47 TO STA. 677+50

160
468

HAM-275-13.91
HAMILTON COUNTY

860
850
840

Ramp J

6:1 12:1

Ramp 'H'

112

859.57
678+54
832.3

0 4521

639

860
850
840

0 5085

859.99
678+00
852.6

0 1164

101

166

Ramp J

Ramp 'H'

4 435

860
850

98

15 402

860.10
677+85
857.1

793 261

369

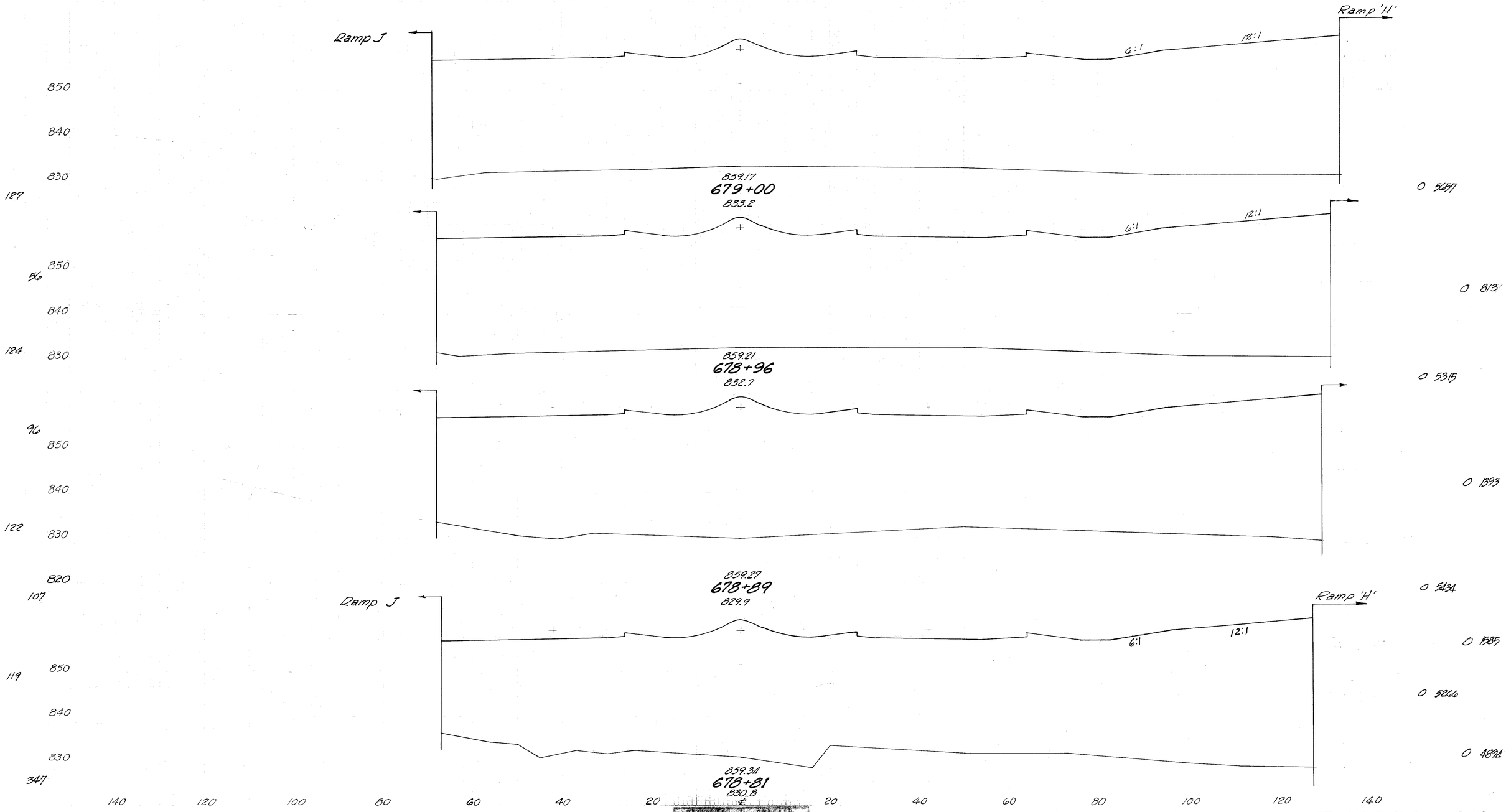
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DESIGNED	ENGINEER
7-14-70 RDD	7-12-72 ALS

I-275 STA. 677+85 TO STA. 678+54

161
468

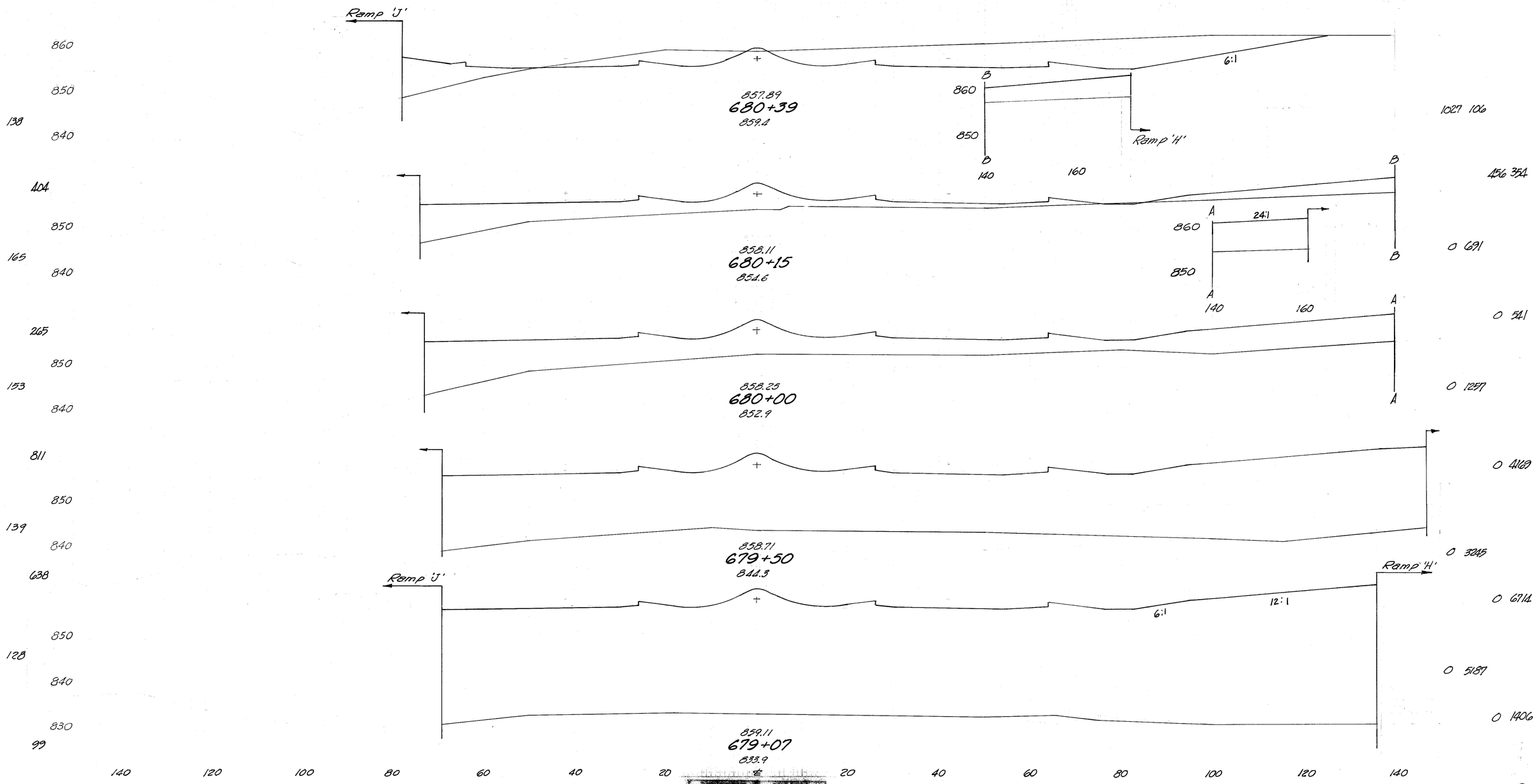
HAM-275-13.91
HAMILTON COUNTY



DESIGNED	DRAWN	CHECKED
9-14-72 BD	7-13-72 AL.R.	

I-275 STA 678+81 TO STA 679+00

162
468


Ramp 'J'
860
850
840
138
404
850
840
165
850
840
265
850
153
840
811
850
139
840
638
850
128
840
830
99
140
120
100
80
60
40
20
857.89
680+39
859.4
B
860
850
B
140
160
6:1
Ramp 'H'
B
1027 106
456 354
858.11
680+15
854.6
A
860
850
A
140
24:1
B
B
0 691
160
A
A
0 541
858.25
680+00
852.9
0 1257
858.71
679+50
844.3
0 4169
0 3245
Ramp 'J'
Ramp 'H'
6:1
12:1
0 6714
0 5187
859.11
679+07
833.9
0 1406
20
40
60
80
100
120
140
7-14-72 RD 7-12-72 A.C.R.
I-275 STA. 679+07 TO STA. 680+39

275-13.91
HILTON COUNTY

163
468

Ramp 'J'

B
80
B

850
860
850

B
B

156

3:1

856.41
682+00
863.2

Ramp 'I'

1493 8

A
80
A

856
860
850

A
A

152

856.87
681+50
866.5

Ramp 'I'

2821 100

1614 100

Ramp 'H'

3066 238

839
860
850

150
840

3:1

857.33
681+00
867.1

1697 157

238
860
850

156
840

704

4:1

857.46
680+86
867.4

921 50

1356 58

2060 109

Ramp 'H'

Ramp 'J'

196
860
850

204

857.79
680+50
861.7

Approx. Rock Line

1234 99

461 42

80 60 40 20 ℄ 20 40 60 80 100 120 140 160 180 200

I-275 STA. 680+50 TO STA. 682+00

2 | OHIO
HAM-275-13.91
HAMILTON COUNTY

164
468

Ramp 'J'

B
870
860
850
160
140
B

Ramp I

B
870
860
850
163
B

851.57
684+00
874.1

4468 0

A
870
860
850
150
140
A

891

A
870
860
159
850
A

855.03
683+50
872.3

7764 0

14 D
Sta. 683+02, 88' Rt.
C.B. - 5 A
℄ Grate 851.80
℄ 15" 847.96
℄ 36" 840.26

3917 0

878
870
860
157
850

13 D
STA. 683+00, ℄
C.B. -4
℄ GRATE 852.85
℄ 15" 850.00

6110 0

Approx. Rock Line

855.49
683+00
870.4

2.32%

3362 0

5525 0

875

88'-15" Type 'B'
39
13 D

Ramp 'I'

Ramp 'J'

2645 0

158
860
850
872

3:1

3789 7

855.95
682+50
866.5

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

REVISED DATE 8-22-75

I-275- STA. 682+50 TO STA. 684+00

HAM-275-13.91
HAMILTON COUNTY

SEEDING
END WIDTH | SQ. YDS.

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		11430	0
		12742	0
		6331	0
		10810	0
		5314	0
		9085	0

Ramp 'J'

880
870
860
850

206

853.19
685+50
881.5

Ramp I

1106

870
860
850

192

853.65
685+00
878.8

1031

179

Ramp 'J'

870
860
850

950

Approx. Rock Line
Varies

854.11
684+50
876.3
℄

Ramp I

220 200 180 160 140 120 100 80 60 40 20 ℄ 20 40 60

DESIGNED	CHECKED
[illegible]	[illegible]

I-275 STA. 684+50 TO STA. 685+50

2 | DHC

HAM-275-13.91
HAMILTON COUNTY

SEEDING END AREA WIDTH SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	Ramp J C–C: 880 / 870 / 240 / 220				
236	Ramp I C–C: 880 / 870 / 860 / 850; 851.82 / 687+00 / 882.9			8,922	0
1,292	Ramp J B–B: 880 / 870 / 220				
229	Ramp I B–B: 880 / 870 / 860 / 850; 852.27 / 686+50 / 883.4			16,361	0
1,250	Ramp J A–A: 880 / 870 / 220			8,748	0
221	Ramp I A–A: 880 / 870 / 860 / 850; Approx. Rock Line; Varies; 852.73 / 686+00 / 882.6 ℄			15,765 8,278 14,544	0 0 0

220 200 180 160 140 120 100 80 60 40 20 ℄ 20 40 60

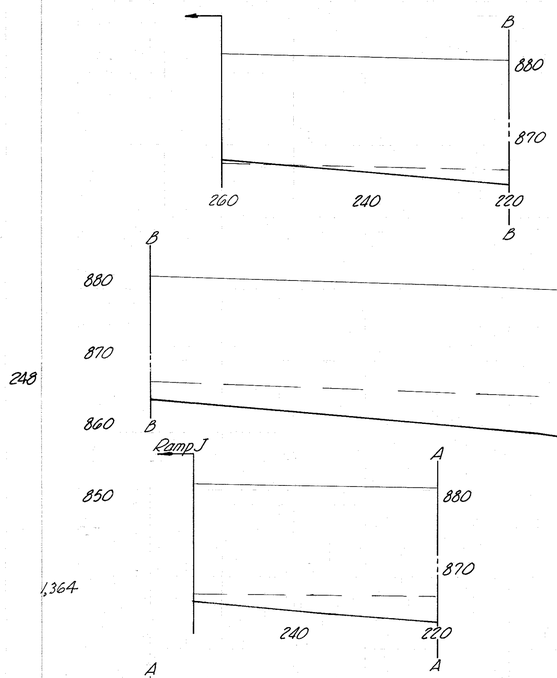
DEVELOPED		CHECKED	
7-13-72	J.D.	7-13-72	A.L.Y.

I-275 STA. 686+00 TO STA. 687+00

SEEDING
END SQ.
WIDTH YDS.

HAM-275-13.91
HAMILTON COUNTY

END AREA		VOLUME	
CUT	FILL	CUT	FILL

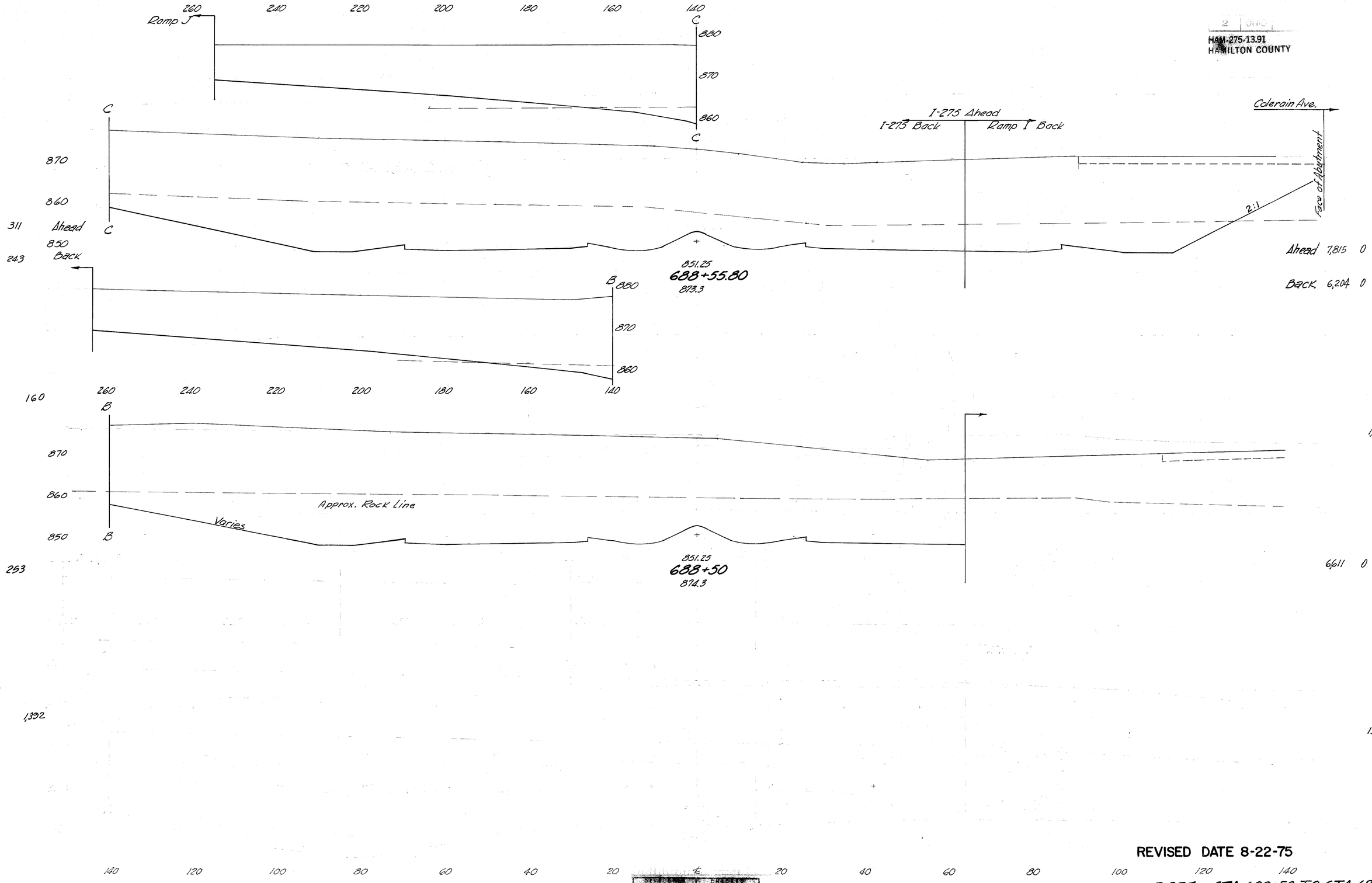


REVISED DATE 8-22-75

DEVISED BY 7-13-72 RJD CHECKED BY 7-13-72 W.L.Y.

I-275 STA. 687+50 TO STA. 688+00

HAM-275-13.91
HAMILTON COUNTY

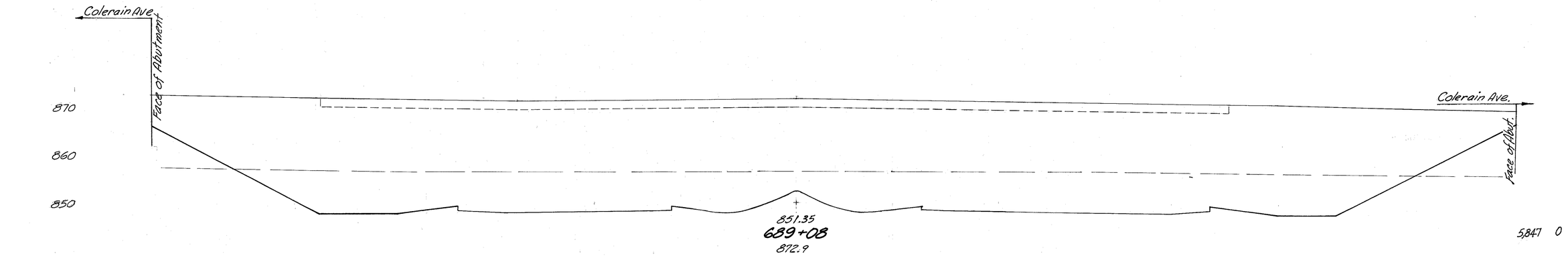


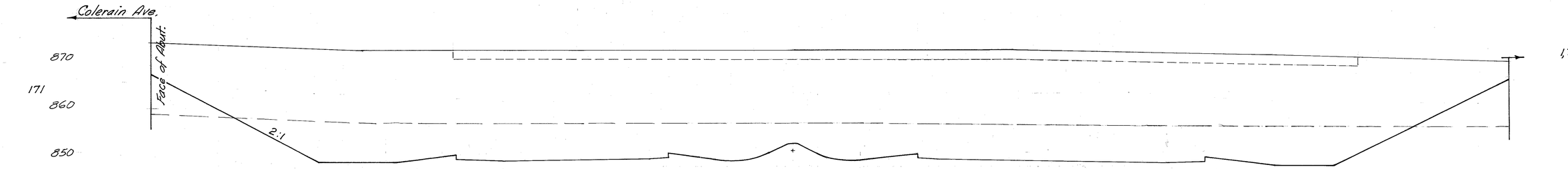
DESIGNED	CHECKED
7-13-72 R.J.D	7-13-72 A.L.Y.

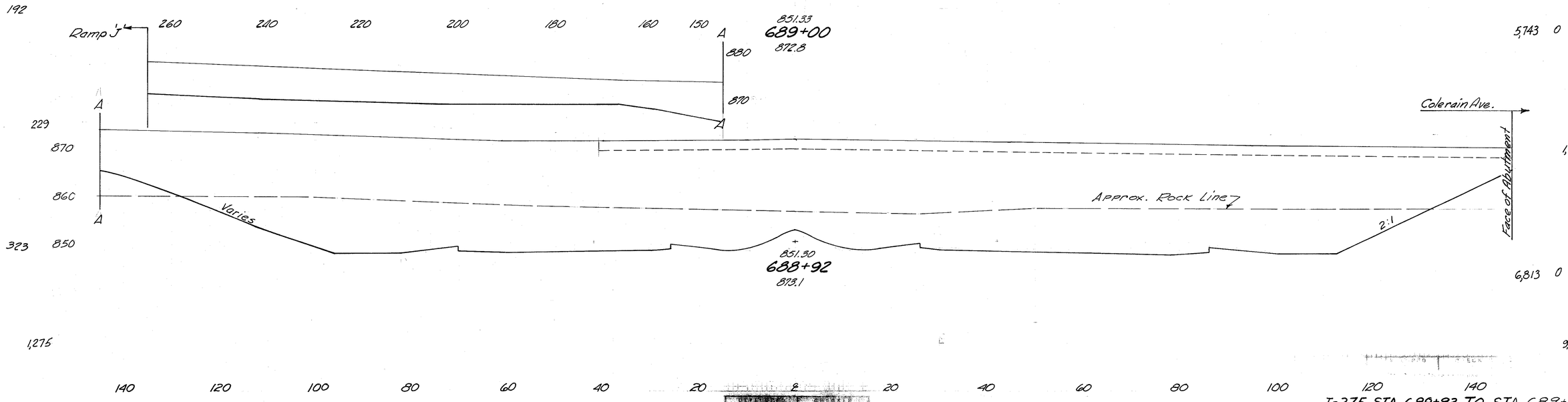
REVISED DATE 8-22-75

I-275 STA. 688+50 TO STA. 688+55.80

HAM-275-13.52
HAMILTON COUNTY





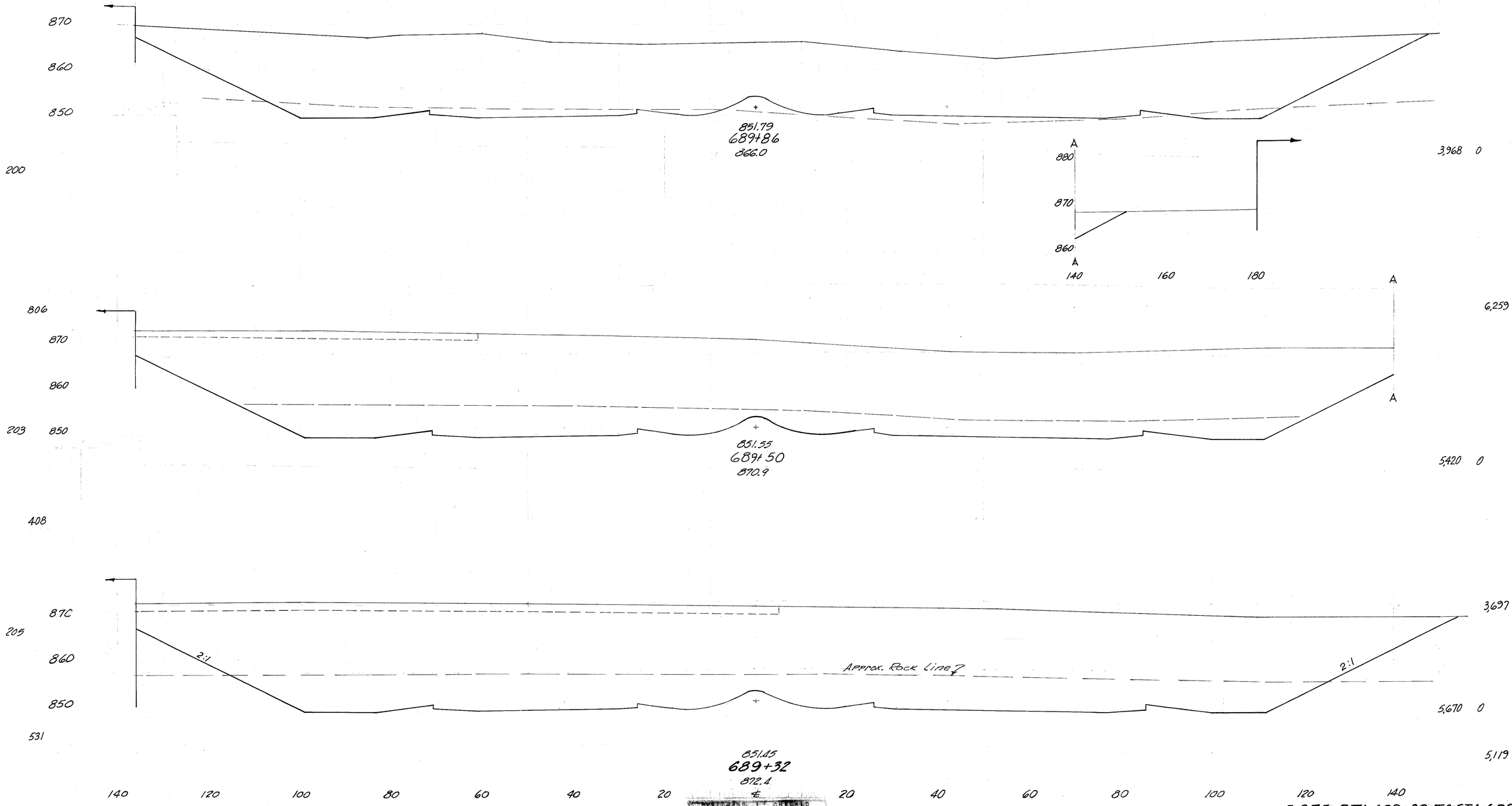


DESIGNED 7-13-72 RJD | DRAWN 7-13-72 A.L.Y.

I-275 STA. 688+92 TO STA. 689+08

170
468

HAM-275-13.91
HAMILTON COUNTY



STRUCTURES	STRUCTURES
7-13-76 R.J.D.	7-13-72 A.L.Y.

I-275 STA. 689+32 TO STA. 689+86

171
468

HAM-275-13.91
HAMILTON COUNTY

860
850
116
853.02
691+00
853.0
201 20

870
297
860
850
107
852.72
690+76
852.7
172 29
185 45

870

364
860
850
125
870
860
340
850
180 160 140
852.39
690+50
852.5
179 73
186 107
6:1
192 61
4:1

Existing Ramp 'F'
237
870
822
860
850
198
310
Varies
852.21
690+34
850.2
463 100
1,952 86
2:1
851.90
690+00
859.4
2,586 36
Approx. Rock Line
1,712 9

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

7-13-72 RJD 7-13-72 A.L.Y.

I-275 STA. 690+00 to STA. 691+00

172
468

HAM-275-13.91
HAMILTON COUNTY

870
860
850

854.24
691+76
854.2

200 11

104 870
860
159 850

103 5

853.90
691+62
854.6

197 8

101 870
860
137 850

88 4

853.79
691+50
853.8

105

197 8

870 Existing Ramp F
343 860
850

8:1
8:1
6:1

197 16

108

853.33
691+21
853.3

170 22

261

144 16

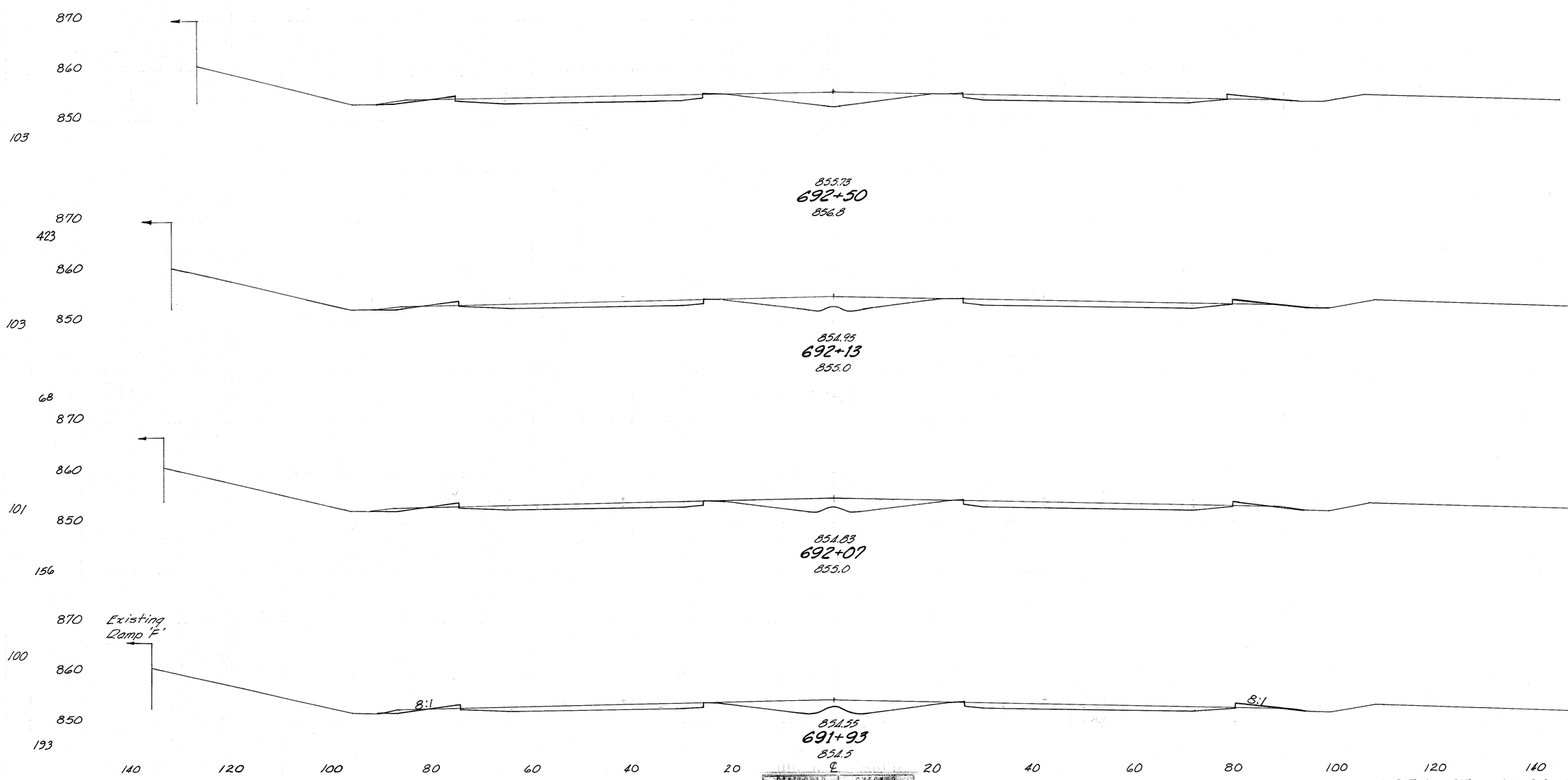
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DEVELOPED	CHECKED
7-9-73 RD	7-13-73 A.L.Y.

I-275 STA.691+21 TO STA. 691+76

173
468

HAM-275-13.91
HAMILTON COUNTY



192 13

DESIGNED	CHECKED
7-73-74 ED	7-13-76 A.L.K.

I-275 STA. 691+93 TO STA. 692+93

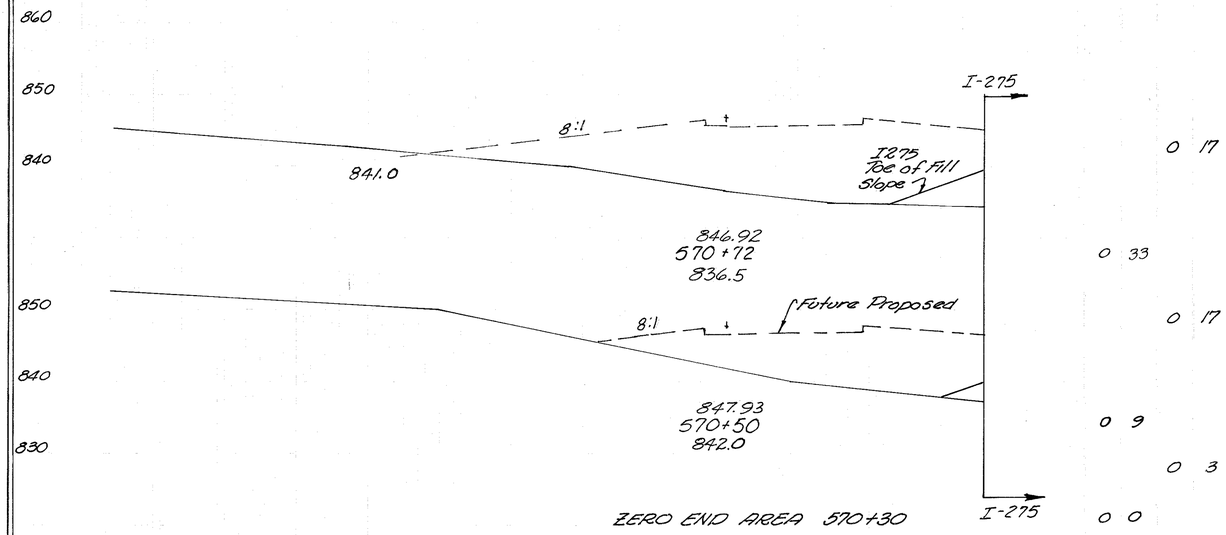
HAM-275-13.91
HAMILTON COUNTY

DESIGNED 7-13-70 EJD
CHECKED 7-13-72 A.L.Y.

I-275 STA. 693+00 TO STA. 694+00

HAM-275-13.91
HAMILTON COUNTY

22		
14	570+72	
24		
6	570+50	
7		
0	570+30	



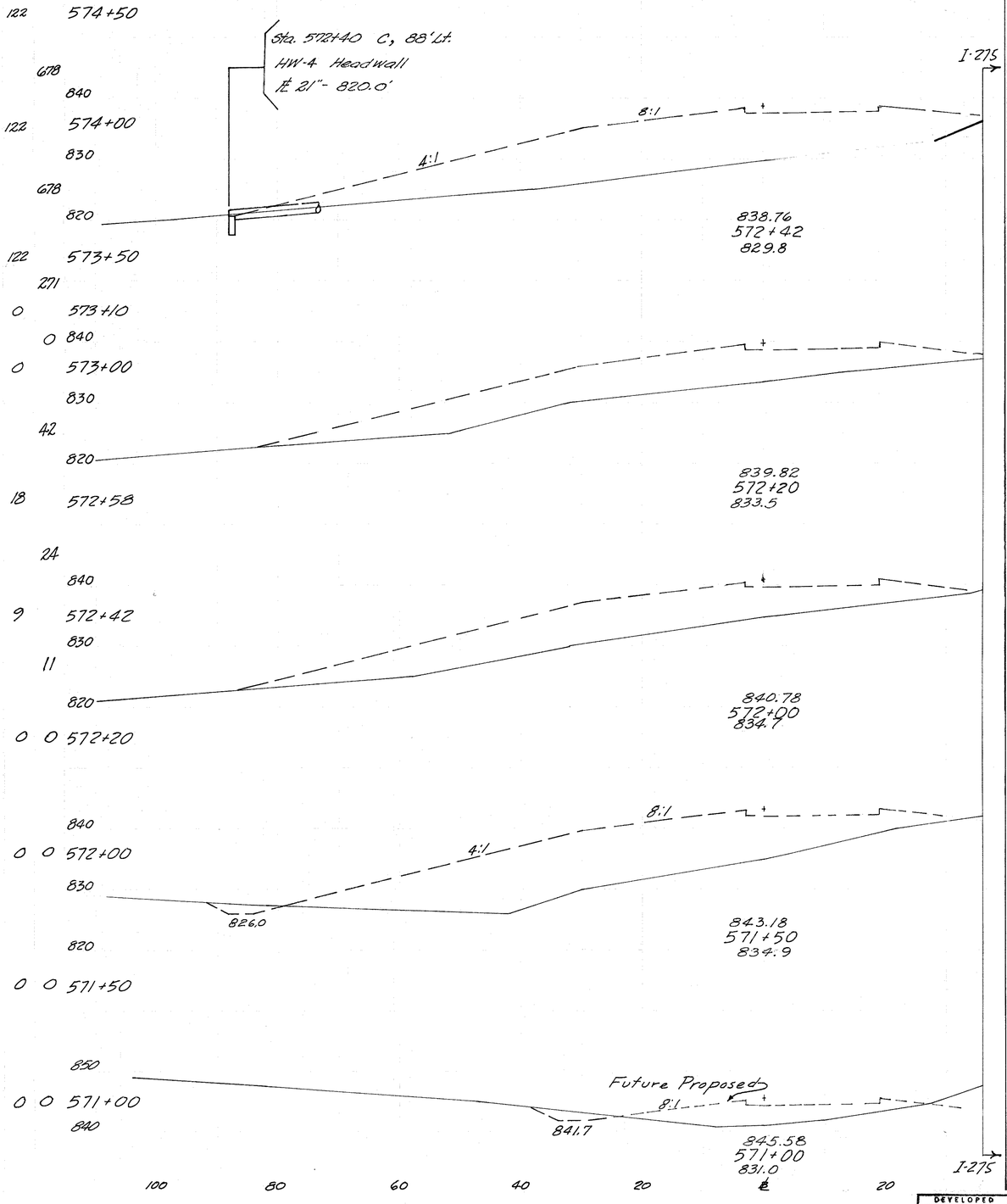
0	17
0	33
0	17
0	9
0	3
0	0

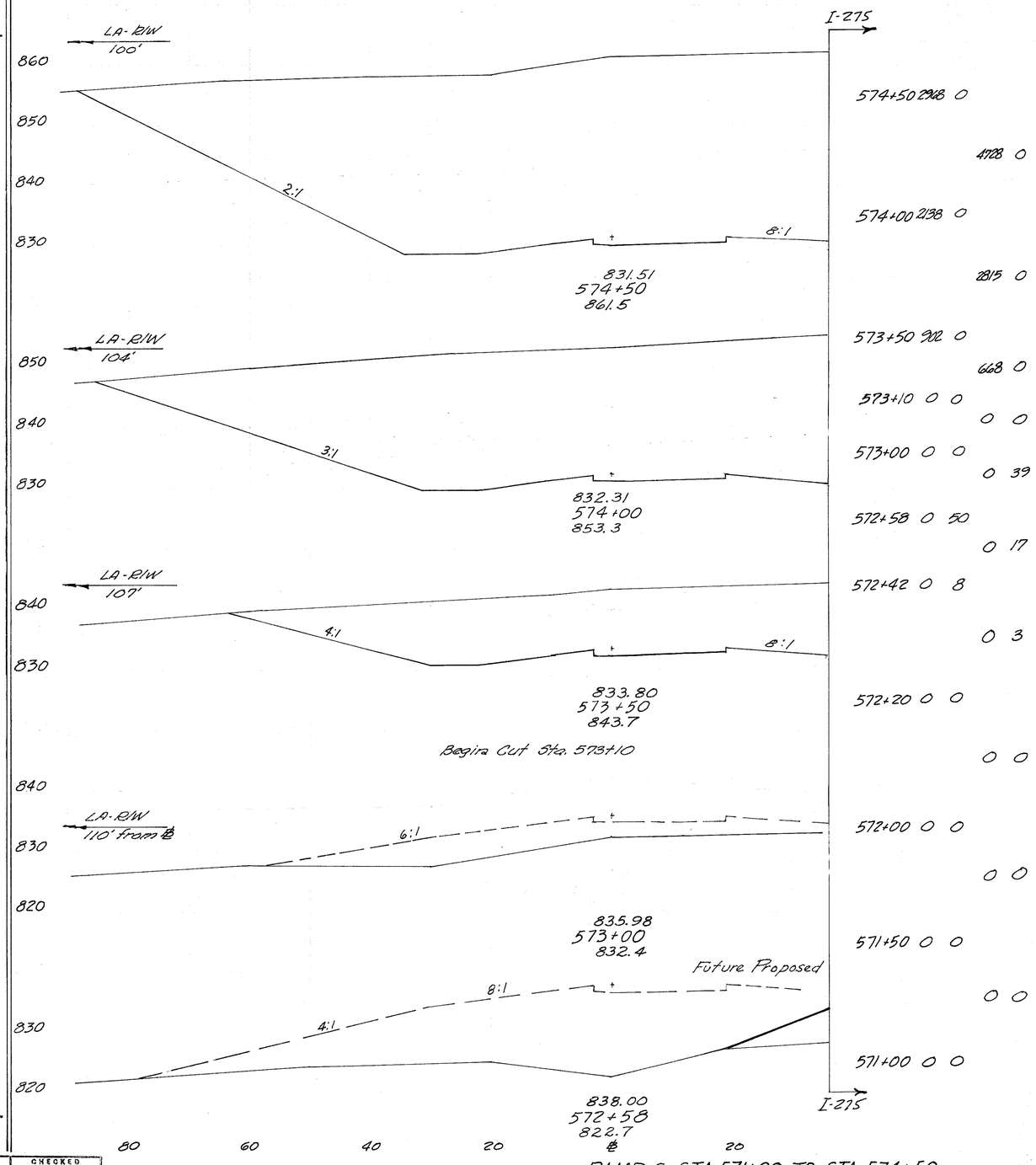
ZERO END AREA 570+30

DEVELOPED	CHECKED
7-7-70 RJD	7-7-72 ALC

RAMP C, STA. 570+50 TO STA. 570+72

HAM-275-13.91
HAMILTON COUNTY

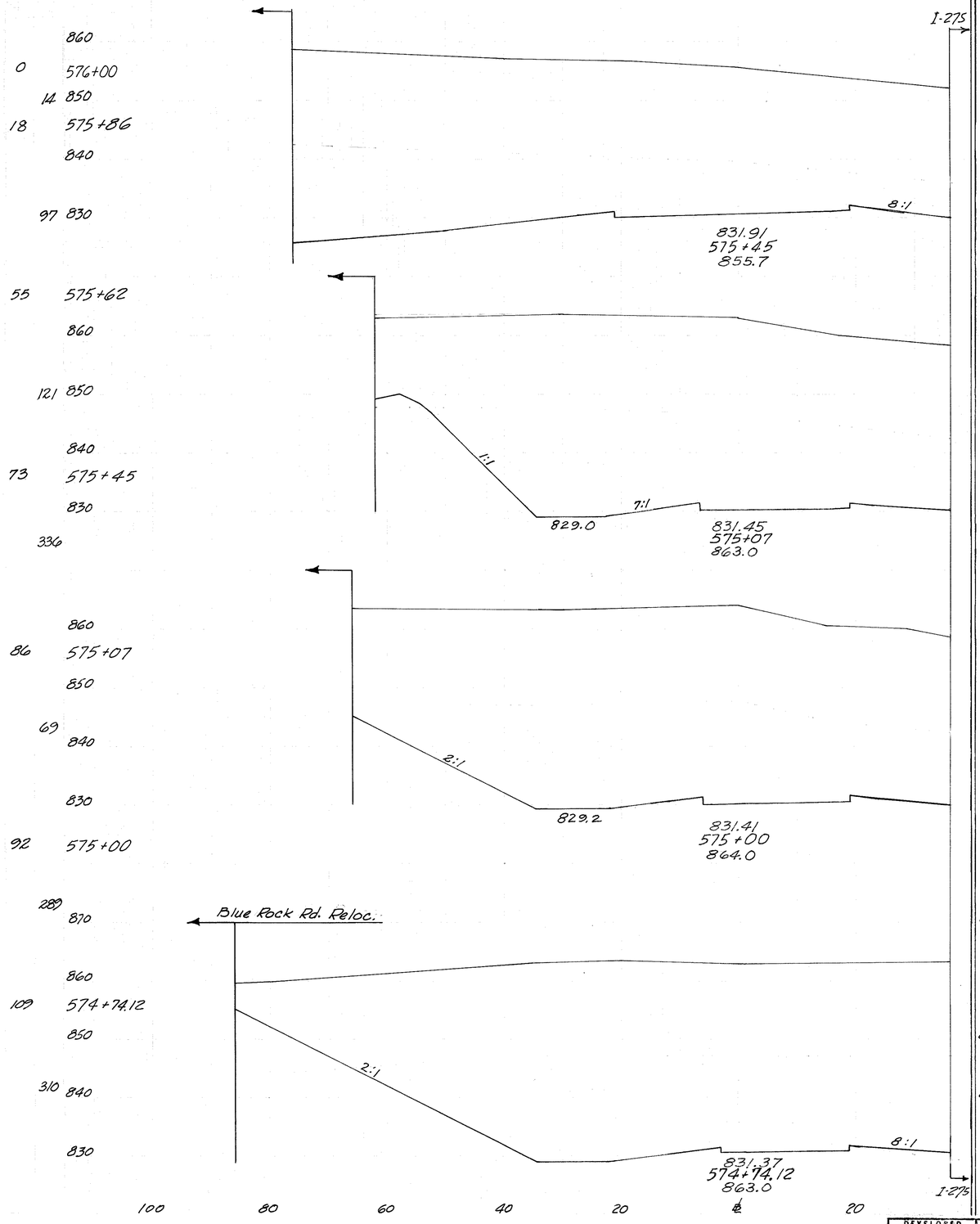


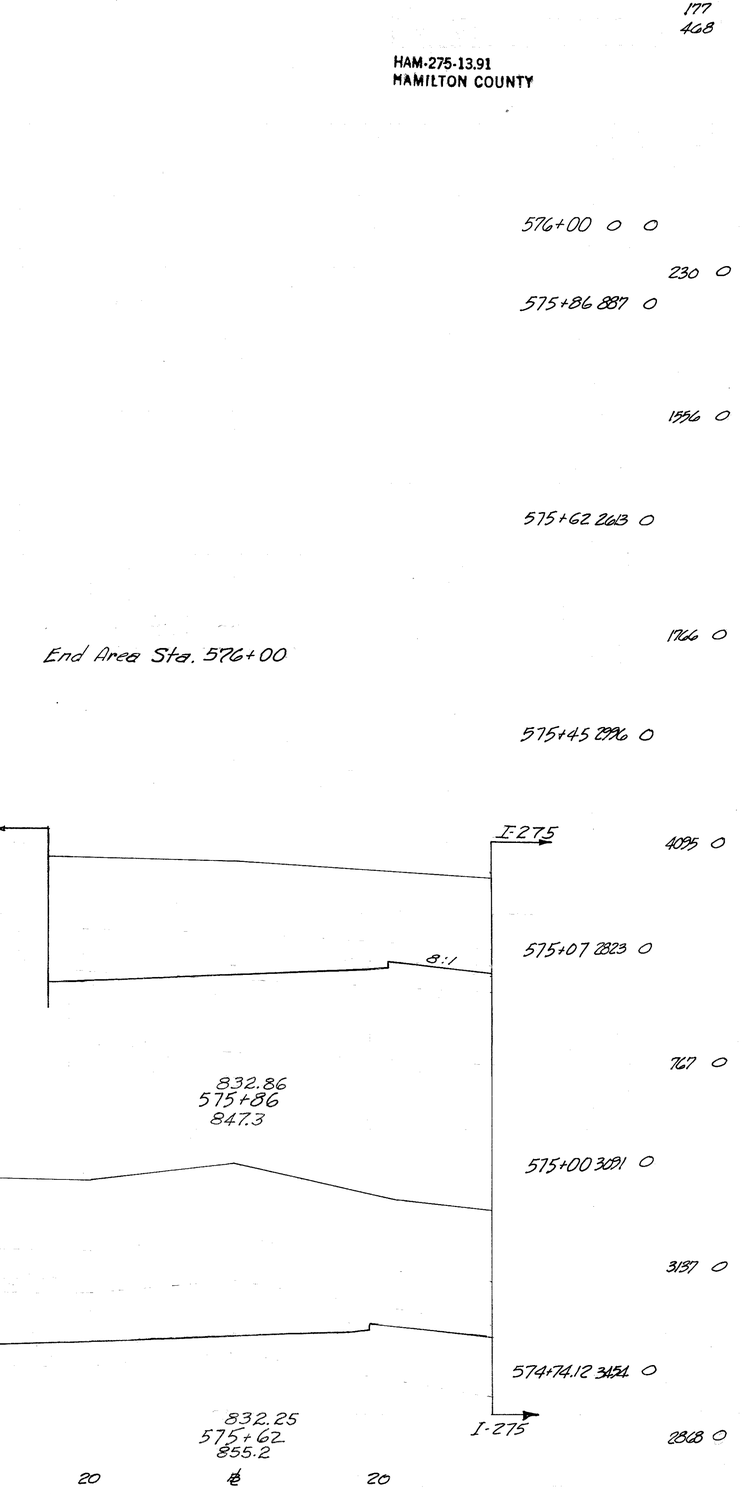


DEVELOPED		CHECKED	
1-9-78	RJD	7-7-78	AL.S.

RAMP C, STA. 571+00 TO STA. 574+50

HAM-275-13.91
HAMILTON COUNTY

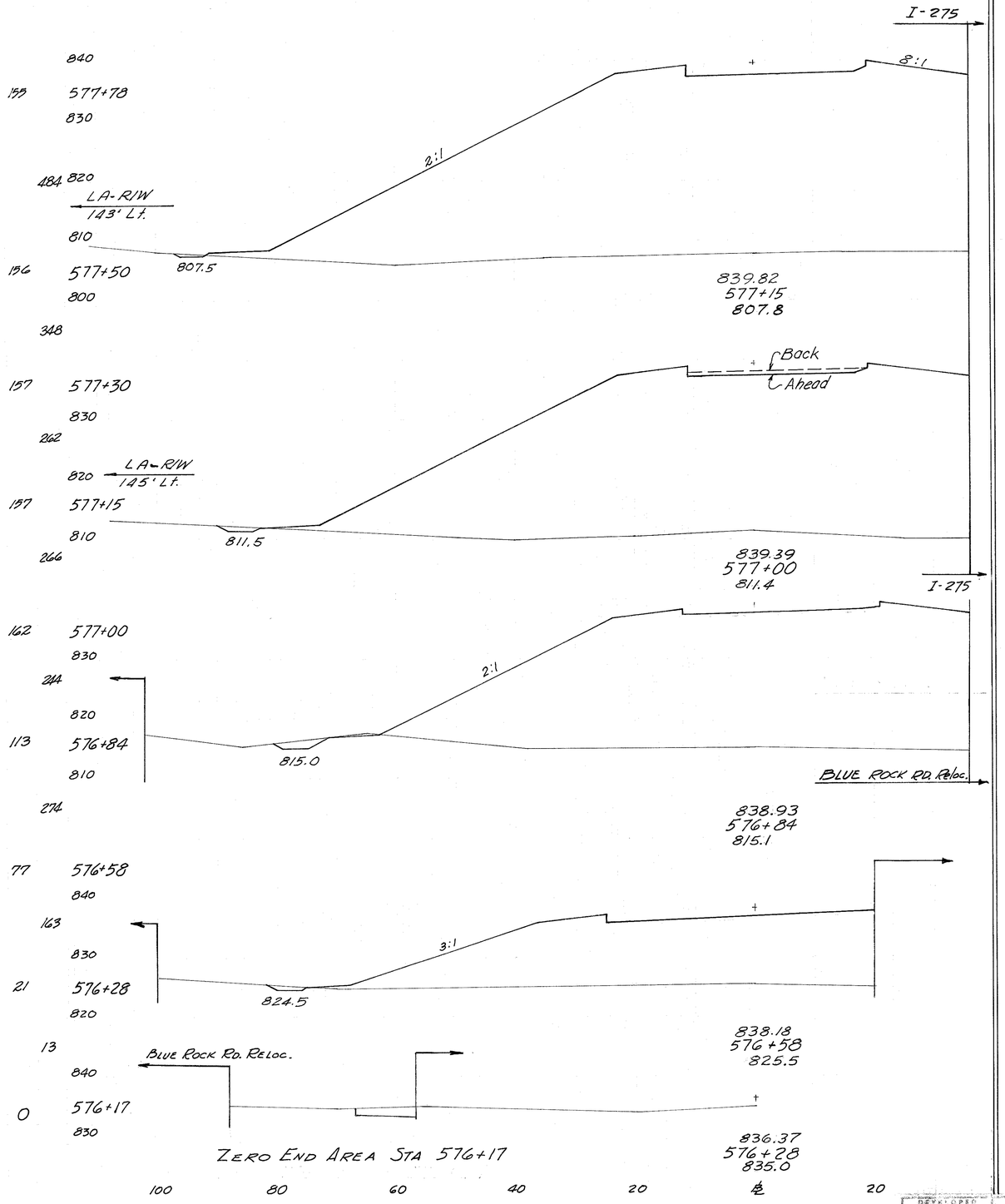




DEVELOPED		CHECKED	
7-9-92	RJD	7-6-92	ALG

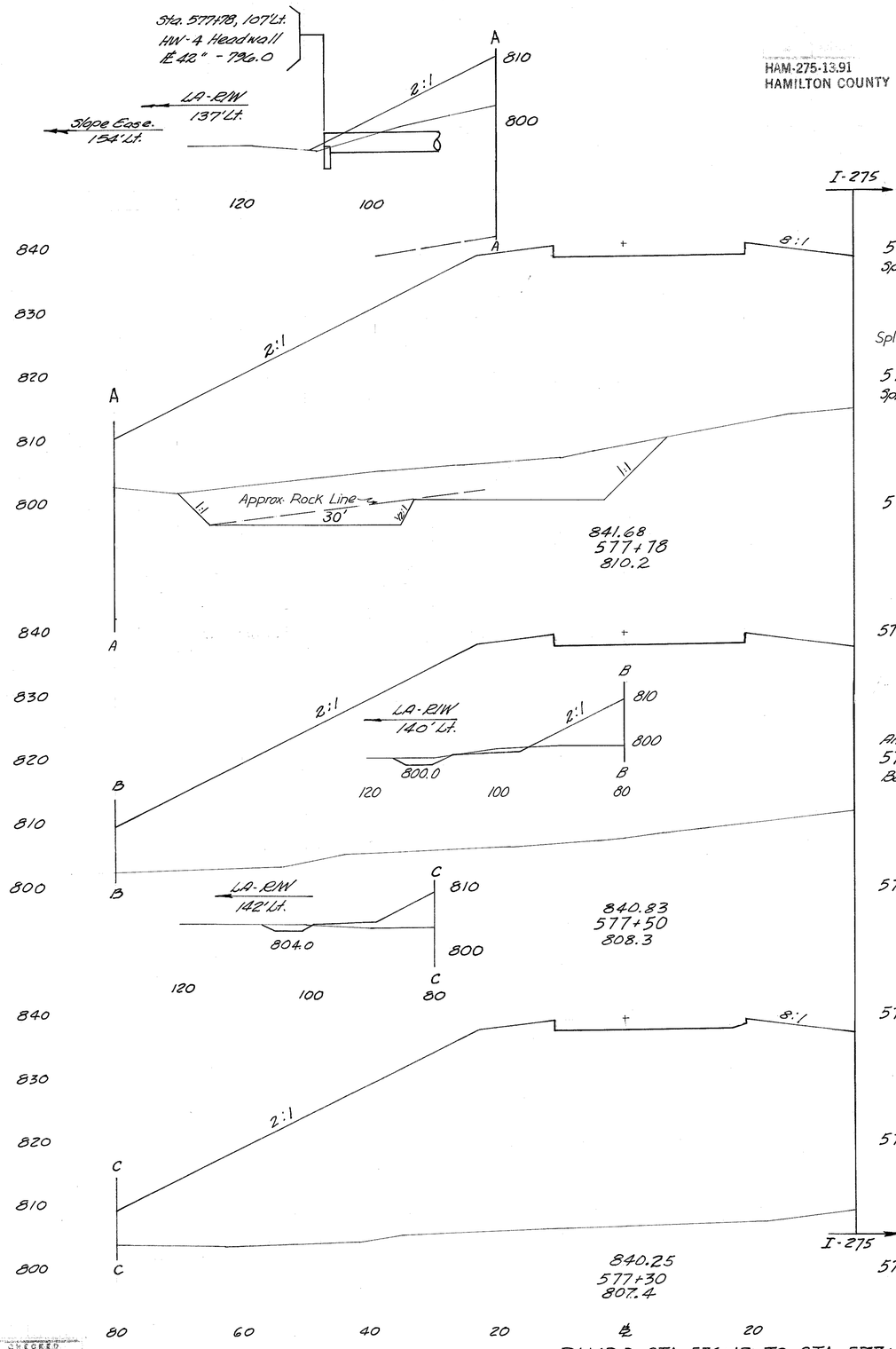
RAMP C, STA. 574+73 TO STA. 576+00

HAM-275-13.91
HAMILTON COUNTY



ZERO END AREA STA 576+17

DES'N. OPER.	CHECKED
7-6-70 RJD	7-7-72 RL.P.



RAMP D STA. 576+17 TO STA. 577+78

577+78	0	2999	
Spl. Bench	375	375	
			6 3078
Spl. Bench	194	194	
577+50.12		2937	
Spl. Bench	0	0	
			7 2185
577+30	6	2962	
			2 1591
577+15	2	2765	
			2 1413
Ahead	4	2321	
577+00			
Back	4	2337	
			4 1234
576+84	9	1807	
			G 1281
576+58	4	833	
			9 463
576+28	12	0	
			2 0
576+17	0	0	

HAM-275-13.91
HAMILTON COUNTY

146 579+50
840
830
781 820 ← LA-RIW 123' Lt.
810
135 579+00
2:1
8:1
814.0
845.17
578+73
804.9

181 840
830
136 578+88
820 ← LA-RIW 125' Lt.
224 810
813.0
844.64
578+60
808.0

135 578+73
840
199 830
820 ← LA-RIW 127' Lt.
140 578+60
810
811.0
844.24
578+50
809.0

156 ← LA-RIW 135' Lt.
830
799.5
141 578+50
820
120
100
A
800
2:1
8:1
817 810
800
153 578+00
376
A
30'
Approx. Rock Line
842.40
578+00
810.3
I-275

100 80 60 40 20 ℄ 20

850
840 ← LA-RIW 113' Lt.
830
827.2
820
810
848.71
579+50
813.2

840
830 ← LA-RIW 120' Lt.
820
818.0
810
846.34
579+00
806.5

840
830 ← LA-RIW 121' Lt.
820
816.5
810
800
845.81
578+88
805.5

I-275
579+50 1 2869
16 5444
579+00 16 3010
6 1866
578+88 10 3138
7 1777
578+73 14 3259
5 1546
578+60 7 3161
3 1179
578+50 9 3205
Spl. Bench 0 0
13 6010
Spl. Bench 457 457
578+00 11 3286
Spl. Bench 494 494
4 2561
I-275 Spl. Bench 354 354

DRVEL 7-6-70 RJD 7-6-72 ALS

RAMP D STA. 578+00 TO STA. 579+50

HAM-275-13.91
HAMILTON COUNTY

I-275

850
840
830
820

120 581+00
LA-RIW
667
120 580+50
540
123 580+10
136
122 580+00
744

843.7
3:1
8:1
856.21
581+00
832.0

122 582+00
679
121 581+50
683

832.2
853.71
580+50
827.4

835.2
851.71
580+10
820.9

834.5
851.21
580+00
819.8

100 80 60 40 20 ℄ 20

I-275

860
850
840
830

LA-RIW
106' Lt.
844.5
2.5:1
865.06
582+77
835.8

LA-RIW
104' Lt.
844.3
3:1
863.71
582+50
835.7

LA-RIW
103' Lt.
844.1
861.21
582+00
834.0

LA-RIW
102'
843.9
2:1
3:1
858.71
581+50
833.8

80 60 40 20 ℄ 20

I-275

180
468
582+77 110 2072
98 2081
582+50 85 2089
130 3886
582+00 55 2054
94 3539
581+50 47 1768
44 3217
581+00 0 1799
0 3556
580+50 0 2102
0 3399
580+10 0 2886
0 346
580+00 0 2221
1 3083

DEVELOPED 1-6-70 R.D.
CHECKED 1-6-72 R.L.G.

RAMP D STA. 580+00 TO STA. 582+77

HAM-275-13.91
HAMILTON COUNTY

I-275

LA-R/W 115'Lt.
2:1
8:1
1:1
35'
845.3
873.71
584+50
853.6
870
860
850
840
830
589+50
589+00
588+50
588+00
587+50
587+00
586+50
586+00
585+50
585+00
584+66
584+50
584+00
583+50
583+00
169 625 116 664 123 711 133 514 139 245 137 731 126 722 134 728 128 325
LA-R/W 118'Lt.
845.1
LA-R/W 112'Lt.
844.9
LA-R/W 107'Lt.
844.7
868.71
583+50
831.8
871.21
584+00
843.0
866.21
583+00
834.9
℄
100 80 60 40 20 0 20
I-275

LA-R/W 93'Lt.
4:1
872.8
883.59
586+50
874.9
LA-R/W 98'Lt.
3:1
862.0
881.21
586+00
871.6
LA-R/W 103'Lt.
862.0
878.71
585+50
867.6
LA-R/W 108'Lt.
846.0
876.21
585+00
862.7
LA-R/W 113'Lt.
845.5
874.51
584+66
856.5
℄
80 60 40 20 0 20
I-275

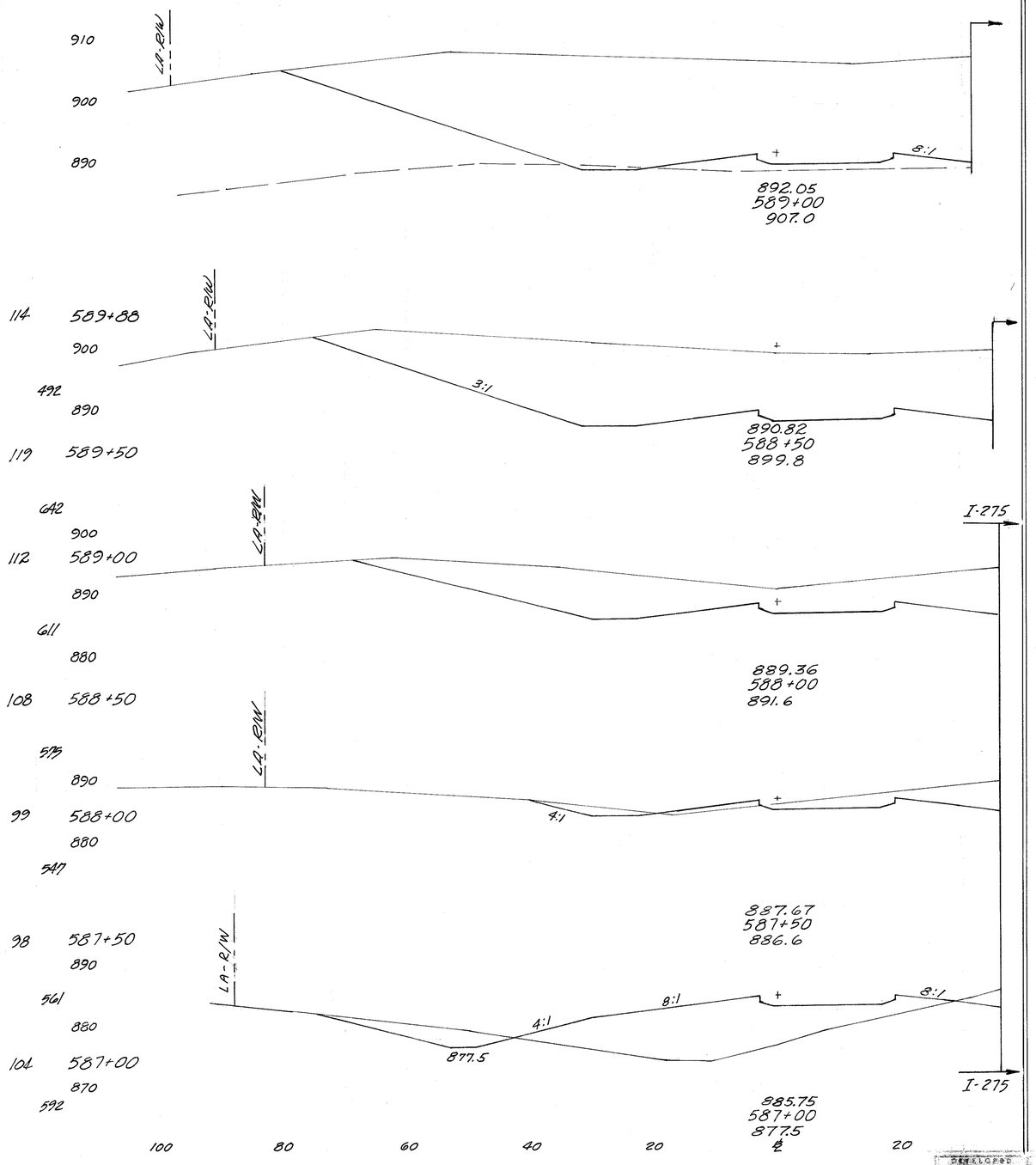
181
468
586+50 2 696
13 1307
586+00 12 716
Spl Bench 0 0
31 1606
311 311
585+50 22 1019
Spl Bench 336 336
20 930
634 634
585+00 0 1475
Spl Bench 349 349
0 1933
370 370
584+66 0 1835
Spl Bench 238 238
0 1025
124 124
584+50 0 1866
Spl Bench 180 180
17 3767
167 167
584+00 18 2202
Spl Bench 0 0
112 4445
583+50 103 2275
200 3903
583+00 113 1962
95 1718

DESIGNED 7-6-70 RJD
CHECKED 7-6-72

RAMP D STA. 583+00 TO STA. 586+50

182
428

HAM-275-13.91
HAMILTON COUNTY



589+88 2028 0

3110 0

589+50 2152 0

3412 0

589+00 1533 0

2382 0

588+50 1040 0

1445 0

588+00 521 0

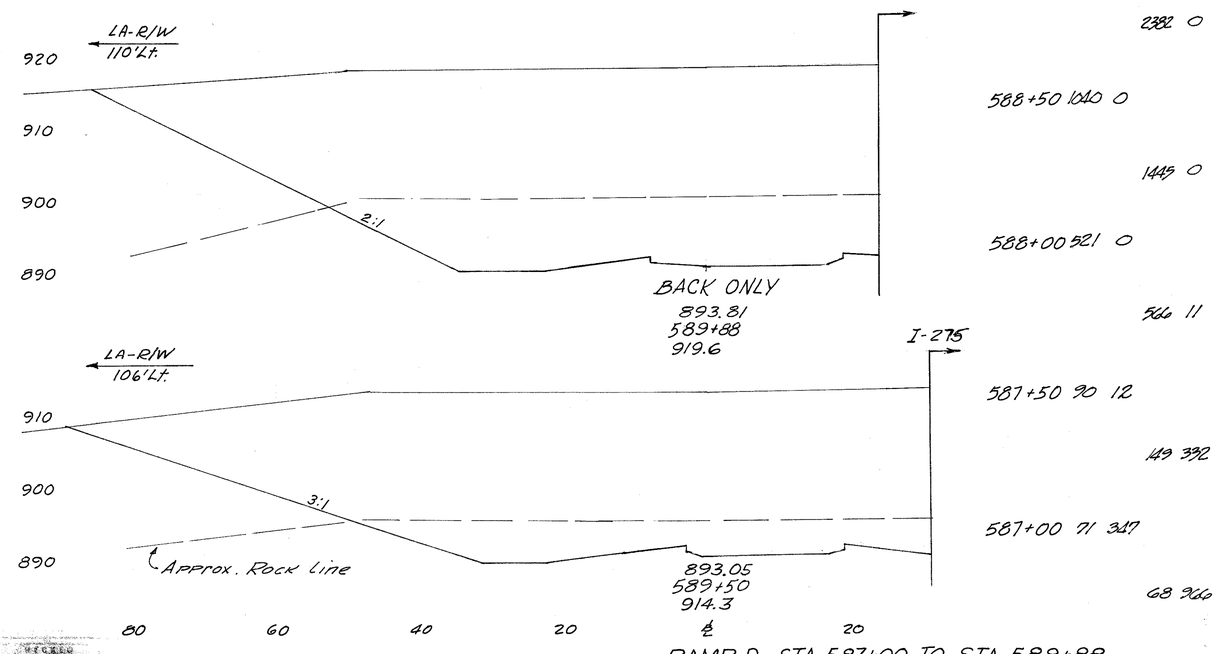
506 11

587+50 90 12

149 392

587+00 71 347

68 960



RAMP D STA. 587+00 TO STA. 589+88

DEVELOPED		CHECKED	
7-6-70	RJD	7-6-72	M.L.K.

HAM-275-13.91
HAMILTON COUNTY

183
468

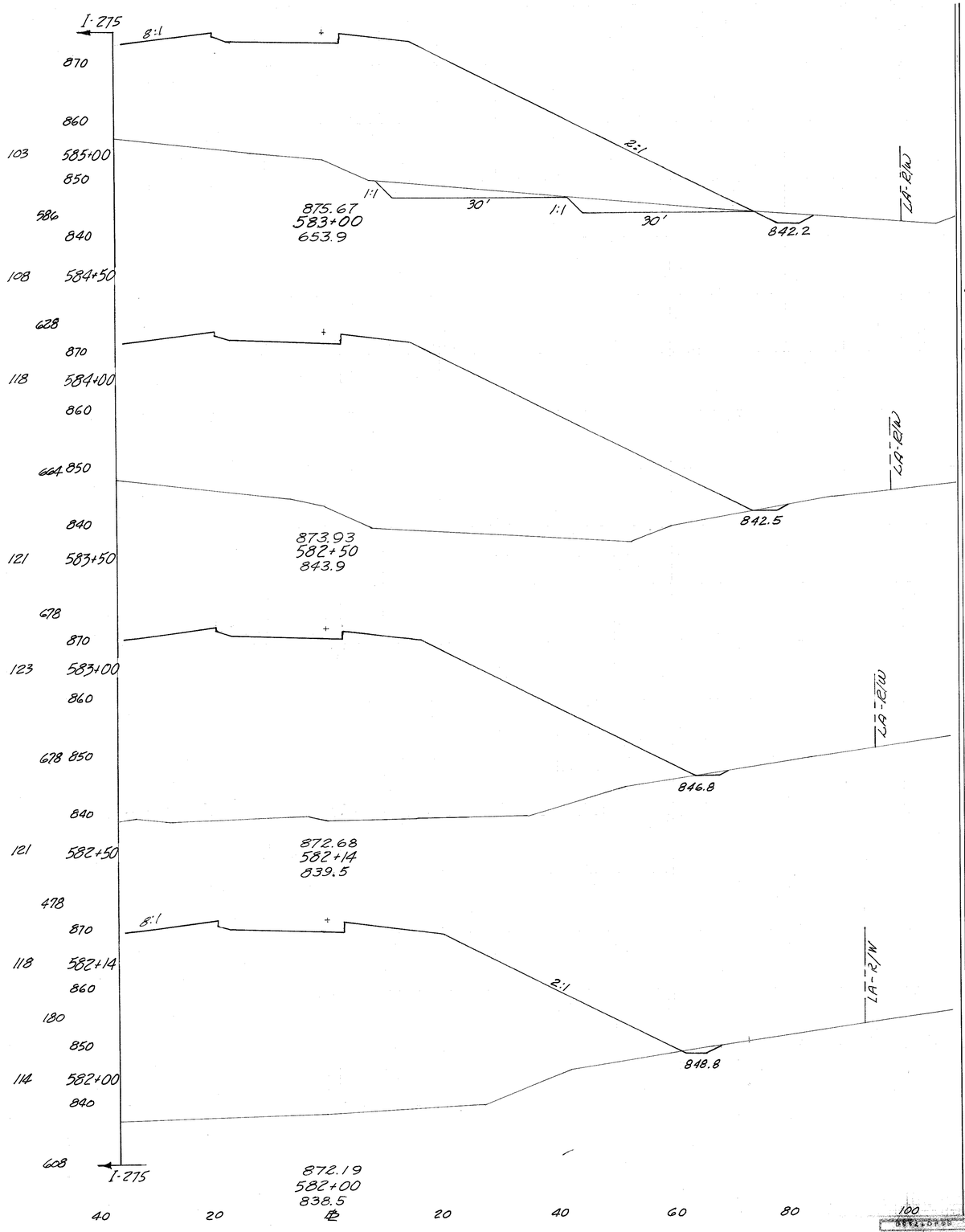
I-275
870
860
850
8:1
+
LA-R/W
858.25
109 581+50
173
102 581+35
865.23
580+00
859.0
Blue Rock Rd.
870
391 860
GRADE TO DRAIN
858.5
850
99 581+00
272
97 580+75
863.49
579+50
850.6
870
860
264
850
858.8
93 580+50
494
85 580+00
862.38
579+18
856.8
870
525 860
850
104 579+50
318
75 579+18
861.75
579+00
860.4
870
145 I-275
860
8:1
70 579+00
861.23
578+85
863.6
Blue Rock Rd.
108
870
60 578+85
63 860
0 578+66
860.56
578+66
867.2
℄
40 20 20 40 60 80 100

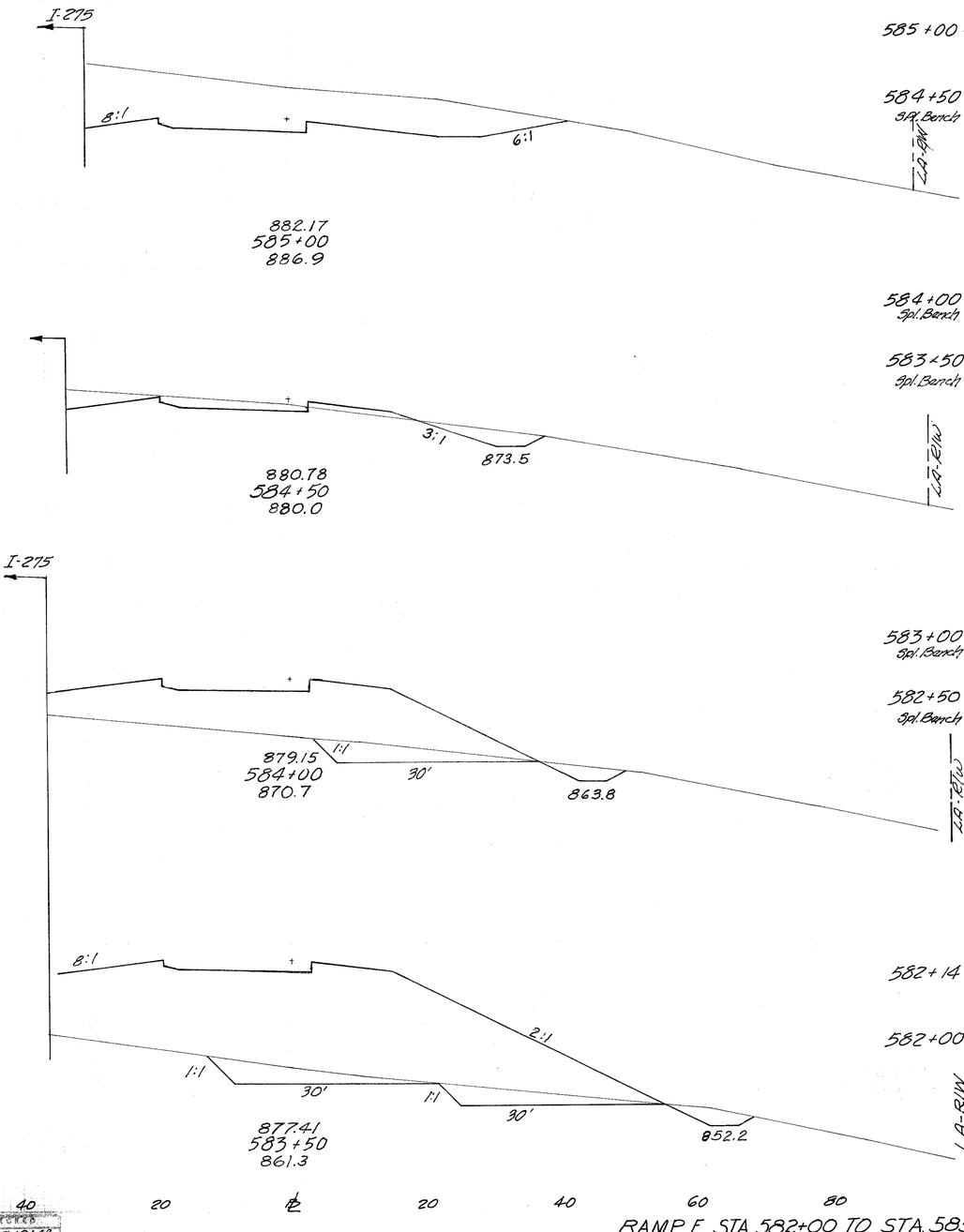
I-275
870
860
850
840
860
850
8:1
2:1
LA-R/W
852.5
870.45
581+50
845.6
854.2
869.93
581+35
850.0
Sta. 581+00 5.50' Rt.
4W-4 Headwall
12" 18° - 857.9
870
860
3:1
857.6
868.71
581+00
856.4
870
860
857.8
867.84
580+75
860.4
870
860
8:1
3:1
858.0
I-275
868.97
580+50
864.3
℄
40 20 20 40 60 80

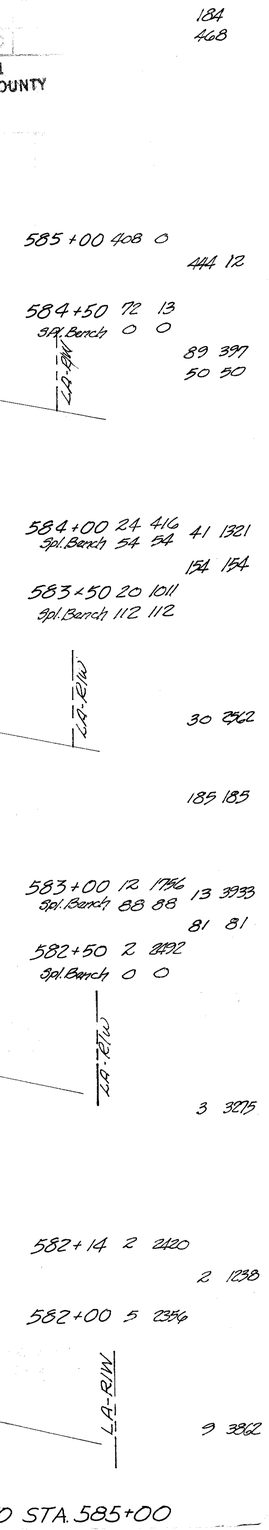
581+50 S 1815
3 924
581+35 4 1513
1
45 1466
581+00 66 749
111 529
580+75 174 394
220 289
580+50 302 101
371 366
580+00 99 294
92 1139
579+50 0 936
7 744
579+18 11 319
121 125
579+00 352 56
265 16
578+85 603 0
528 0
578+66 897 0

RAMP E STA. 578+66 TO STA. 581+50

DEVELOPED 7-6-72 RJD CHECKED 7-6-72 ALH



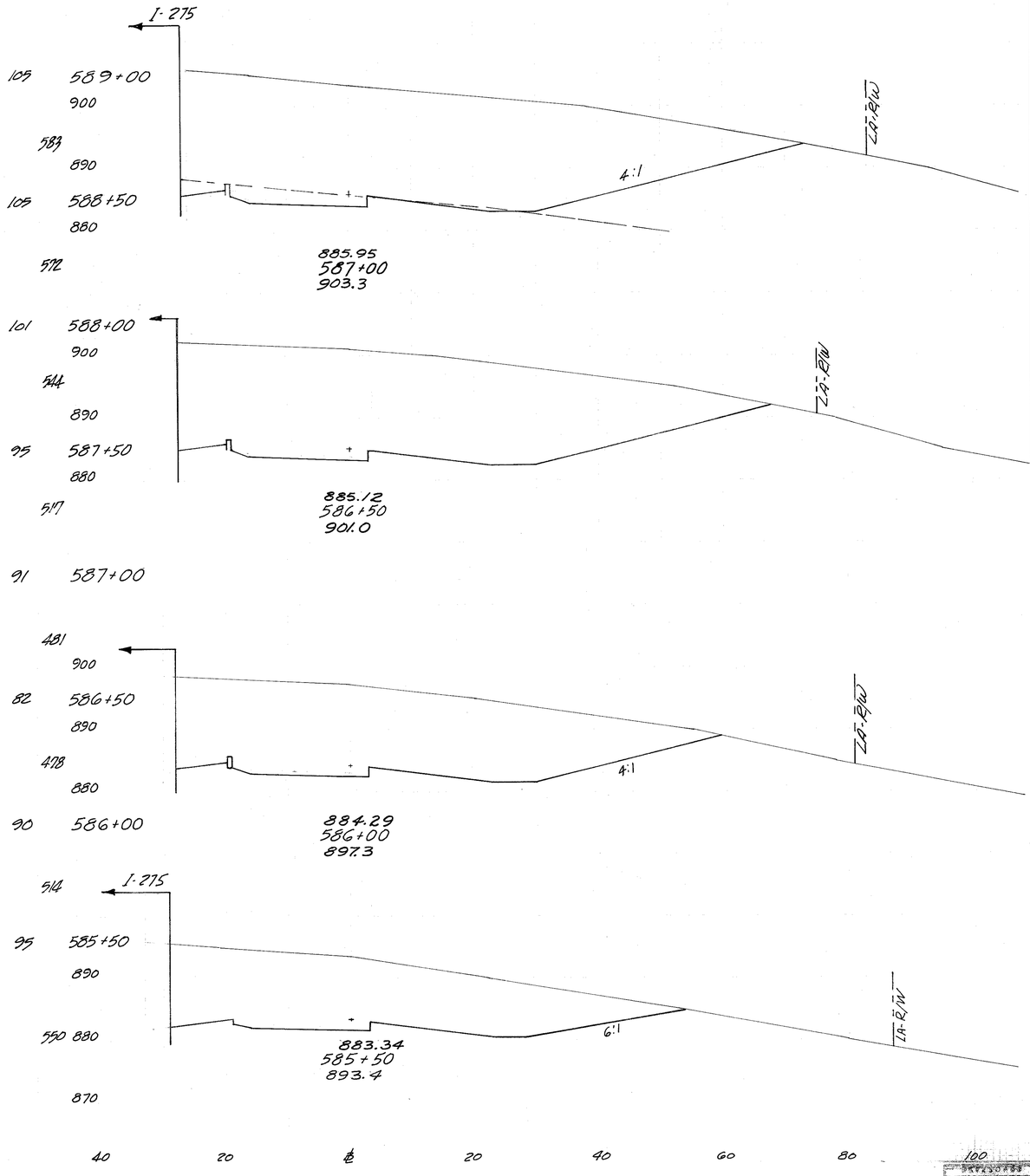


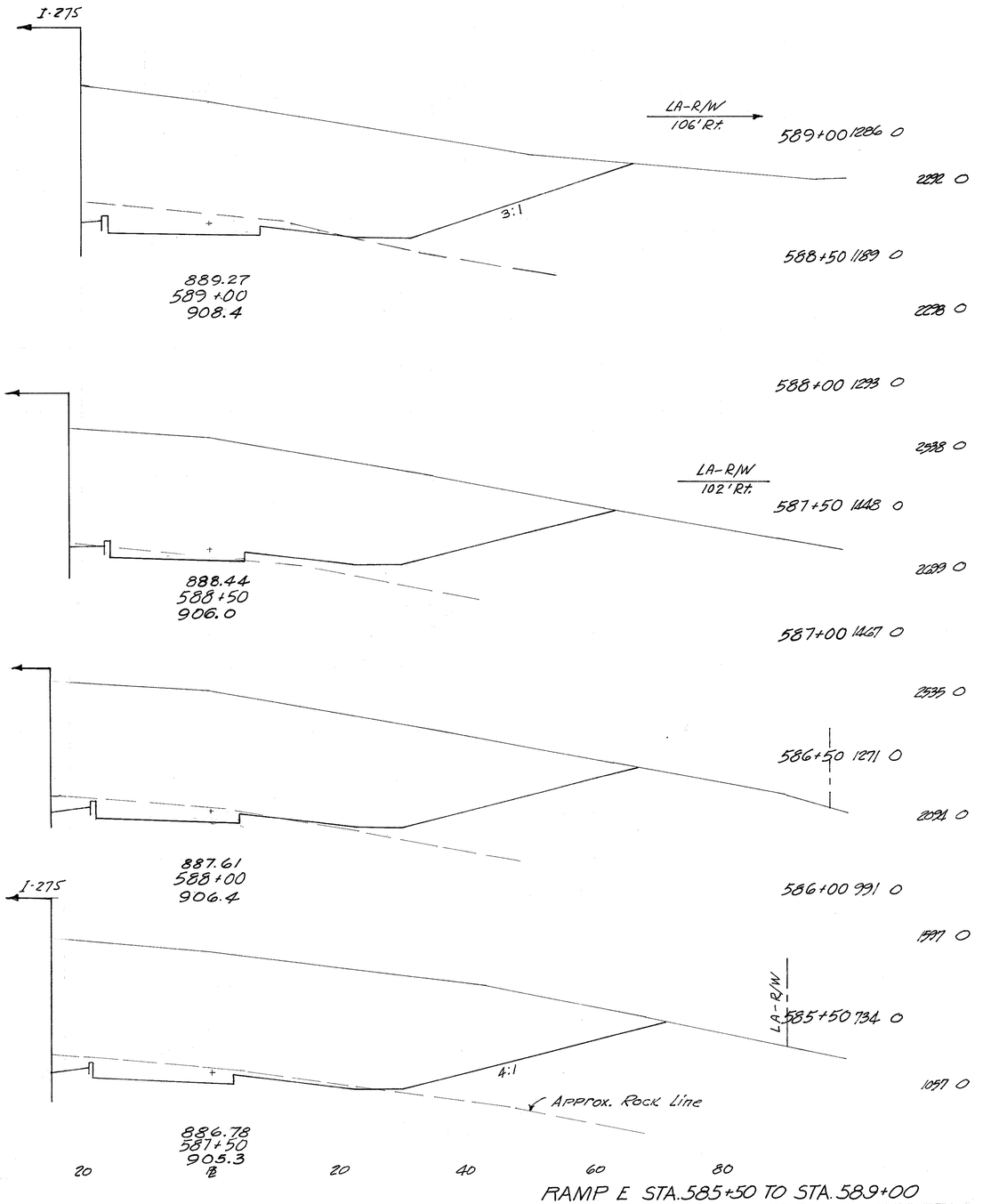


DESIGNED	DETAILED
7-6-78 RJD.	7-6-78 RLB.

RAMP E STA. 582+00 TO STA. 585+00

HAM-275-13.91
HAMILTON COUNTY

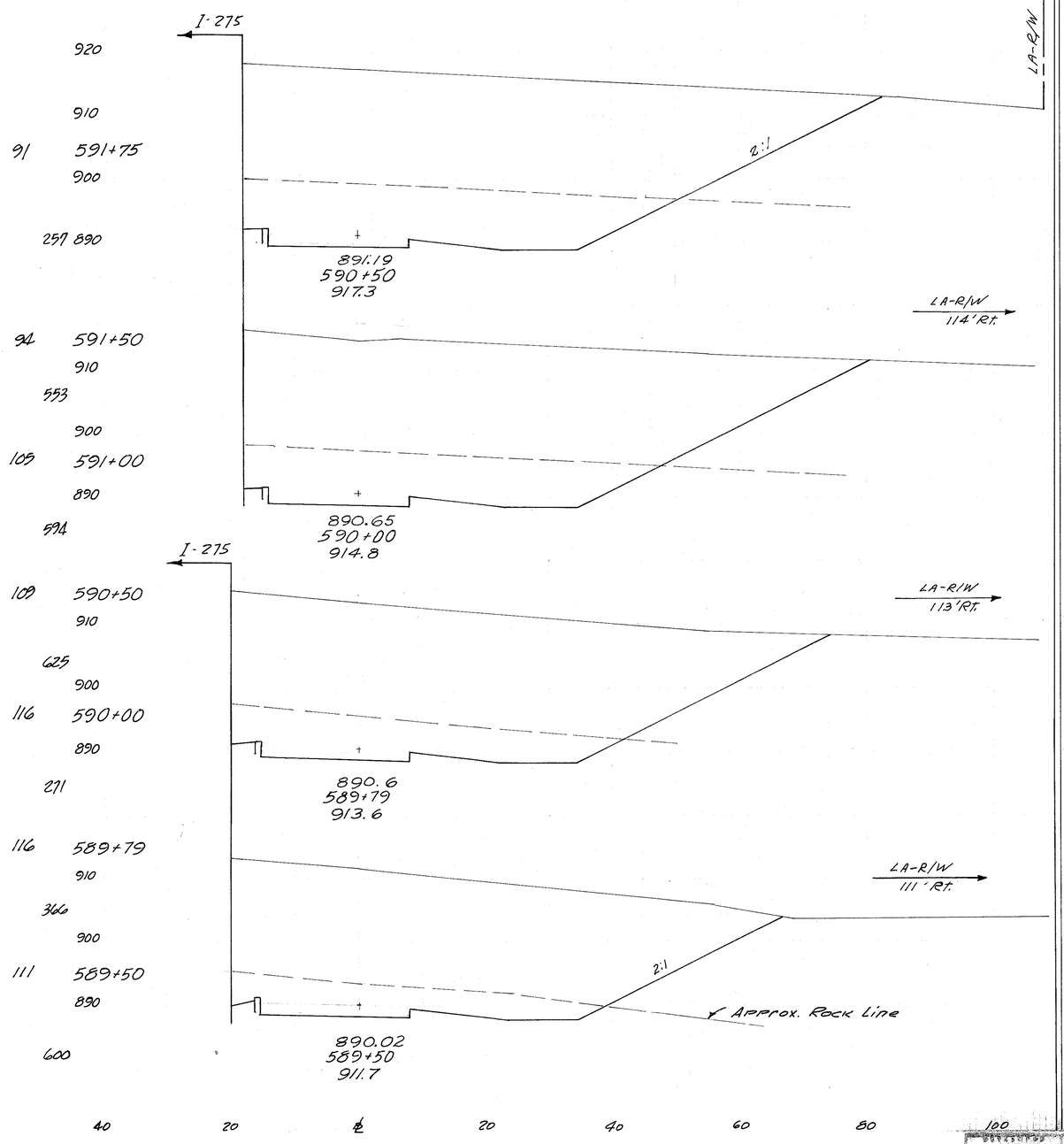




DATE/DES	CHECKED
7-6-70 BJD	7-7-72 R.L.S.

RAMP E STA. 585+50 TO STA. 589+00

MAR-275-13.91
HAMILTON COUNTY



BY	DATE
7-6-72 RJD	7-6-72 RLP

End Area from Sheet No. 91 591+75 1550 0

1480 0

591+50 1649 0

3345 0

591+00 1966 0

3243 0

590+50 2076 0

3707 0

590+00 1928 0

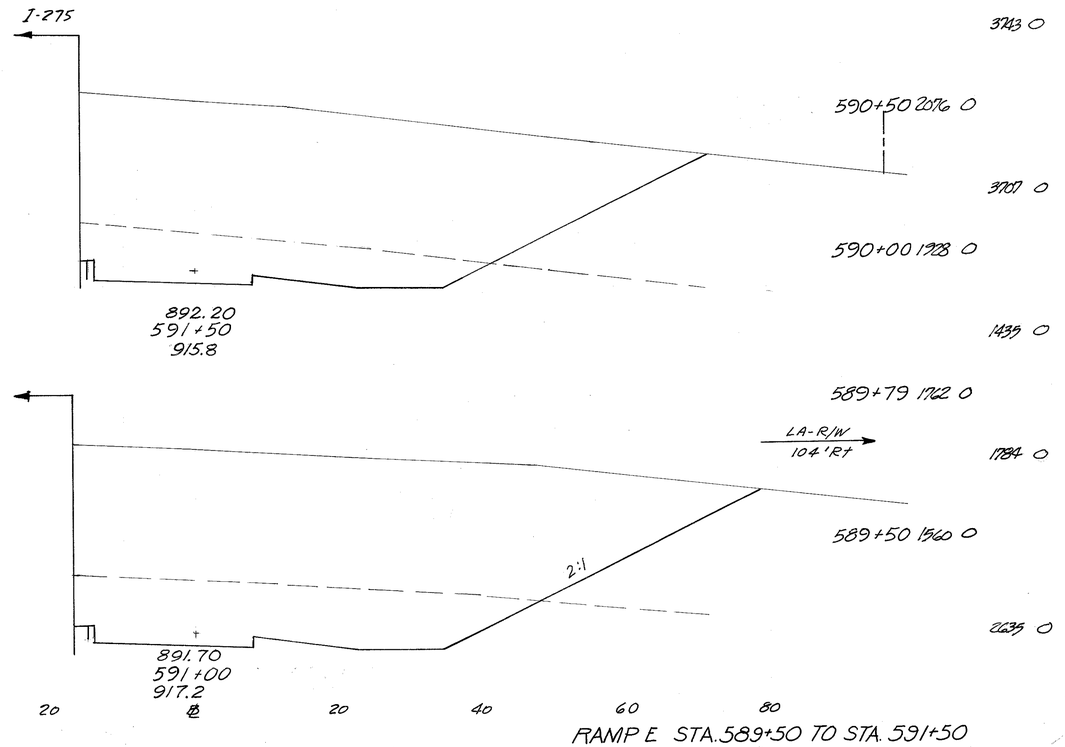
1439 0

589+79 1762 0

1784 0

589+50 1560 0

2635 0



RAMP E STA. 589+50 TO STA. 591+50

HAM-275-13,91
HAMILTON COUNTY

69 685+00

364

62 684+50

317

52 684+00

79

50 683+86

72

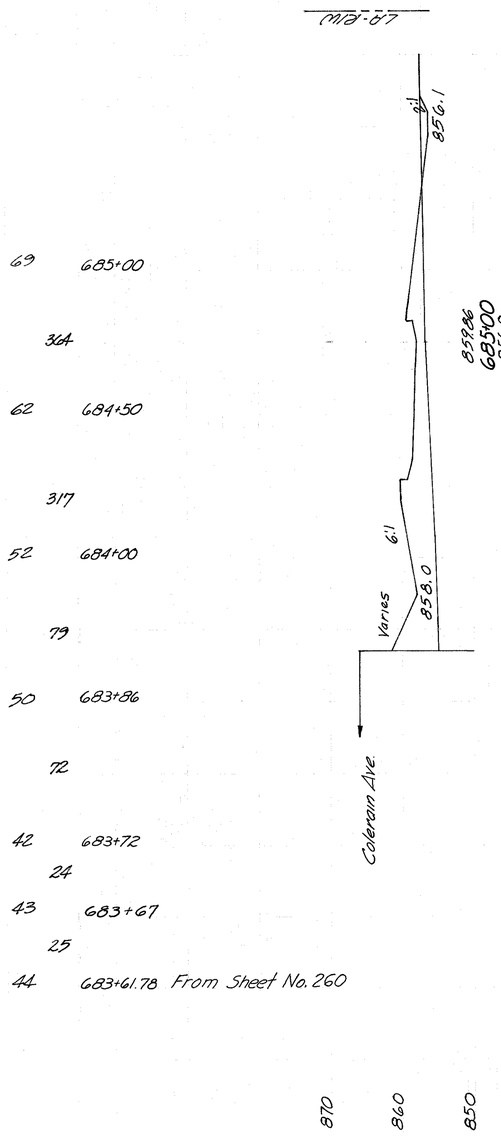
42 683+72

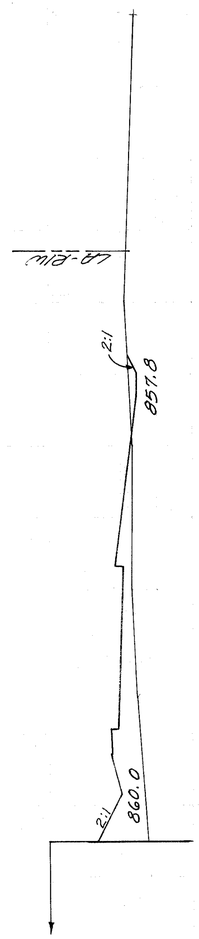
24

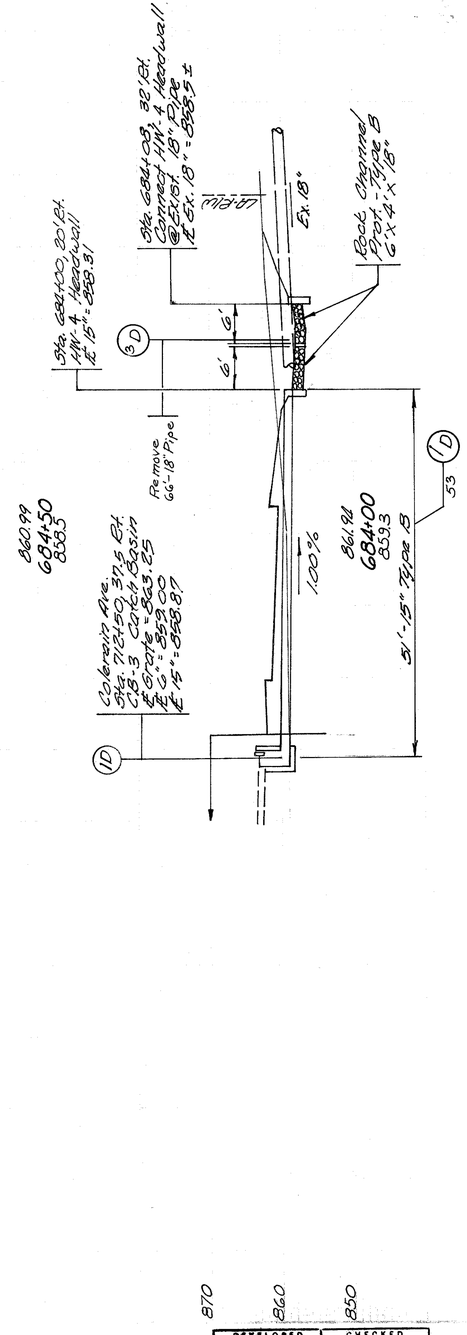
43 683+67

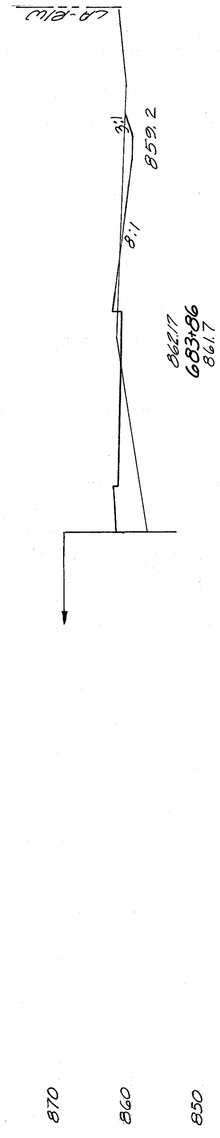
25

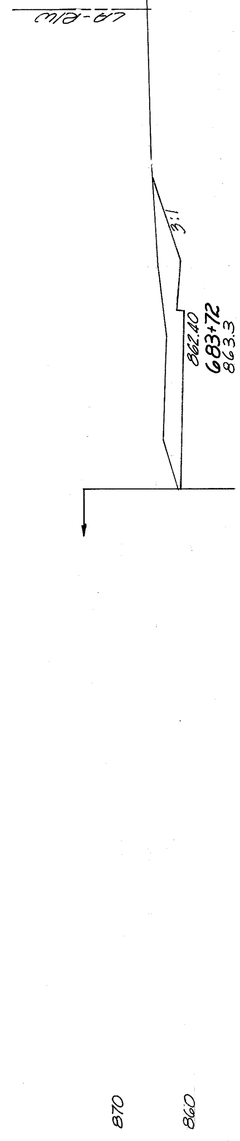
44 683+61.78 From Sheet No. 260

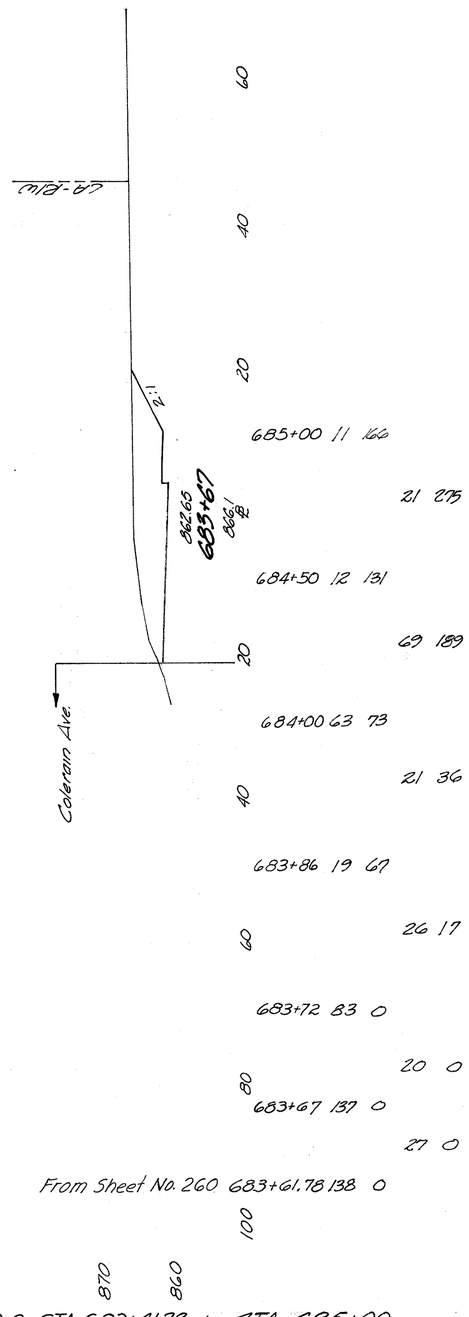












685+00 11 166

21 275

684+50 12 131

69 189

684+00 63 73

21 36

683+86 19 67

26 17

683+72 83 0

20 0

683+67 137 0

27 0

From Sheet No. 260 683+61.78 138 0

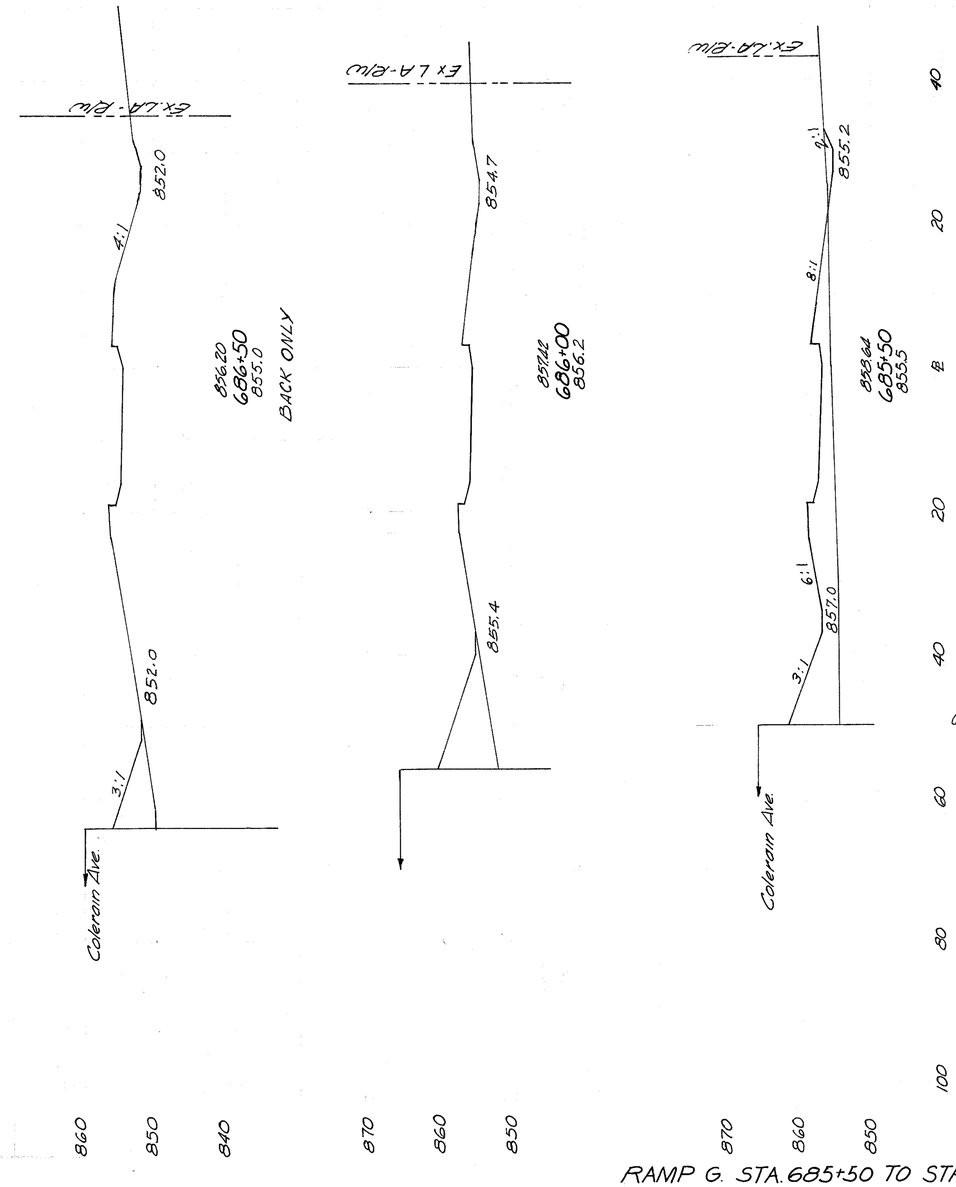
DEVELOPED		CHECKED	
7-6-78	RJD	7/6/78	A.L.S.

RAMP G, STA 683+61.78 to STA. 685+00

188
408

HAM-275-13.91
HAMILTON COUNTY

80 686+50
428
74 686+00
408
73 685+50
394



RAMP G. STA. 685+50 TO STA. 686+50

DEVELOPED		CHECKED	
7-6-70	RJD	7/6/72	ALP

HAM-275-13.91
HAMILTON COUNTY

93 677+35
360
92 677+00
517
94 676+50
517
92 676+00
506
90 675+50
478
82 675+00
319
75 674+63.48

LA-RIW
4:1
856.5
857.0
6:1
12:1
I-275

858.79
677+35
863.8

LA-RIW
4:1
857.0
852.8

859.07
677+00
865.2

LA-RIW
3:1
857.3
854.6

859.44
676+50
868.0

LA-RIW
852.3

859.77
676+00
869.2

LA-RIW
856.1

860.05
675+50
869.7

LA-RIW
3:1
855.8
8:1
I-275

860.29
675+00
865.0

END AREA STATION
674+63.48
AHEAD
From Sheet No. 158

80
60
677+35 494 0
40
747 0
677+00 659 0
20
1368 0
676+50 818 0
℄
1610 0
20
676+00 921 0
40
1689 0
675+50 871 0
60
1193 0
675+00 417 0
80
482 0
From Sheet No. 158 674+63.48 295 0
100

870 860 850 | 870 860 850 | 870 860 850 | 870 860 850 | 870 860 850 | 870 860 850

7-6-70 R/D 7-7-72 ALS?

RAMP "H" STA. 674+63.48 TO STA. 677+35

200 679+00

687

191 678+70

443

175 678+50

882

132 678+00

629

91 677+50

153

LA-R/W 123' Rt.

829.4

2:1

857.36
679+00
830.0

12:1

I-275

LA-R/W 113' Rt.

826.5

857.63
678+70
828.0

Tama Edge 127' Rt.

LA-R/W 103' Rt.

829.1

857.80
678+50
634.5

LA-R/W

834.1

2:1

858.23
678+00
843.0

LA-R/W

80

859.0

24:1

858.66
677+50
857.0

12:1

I-275

850 840 830 850 840 830 820 850 840 830 850 840 830 860 850 840

DEVELOPED 7-6-90 RJD PLOTTED 7-6-7 ALS

190
428

[illegible] COUNTY

60

40

20

679+00 5 3693

9 4498

20

678+70 11 3991

40

10 2868

678+50 14 3184

60

21 4437

678+00 8 1507

48 1454

80

677+50 43 39

100

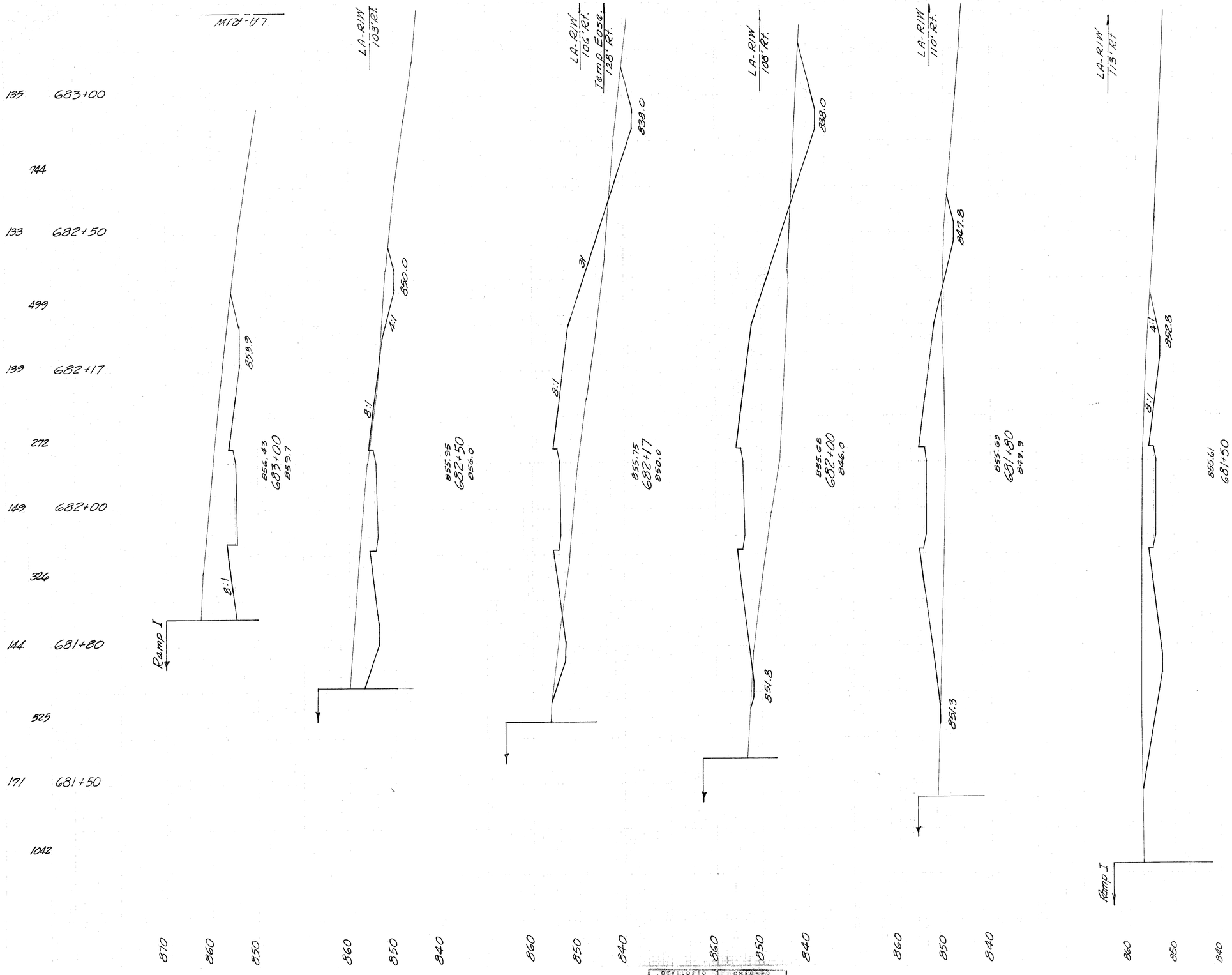
149 11

RAMP 'H' STA. 677+50 TO STA. 679+00

DEVELOPED	CHECKED
7-6-72 RJD	7-7-72 AL.P.

RAMP 'H' STA. 679+50 TO STA. 681+00

HAM-275-13.91
HAMILTON COUNTY



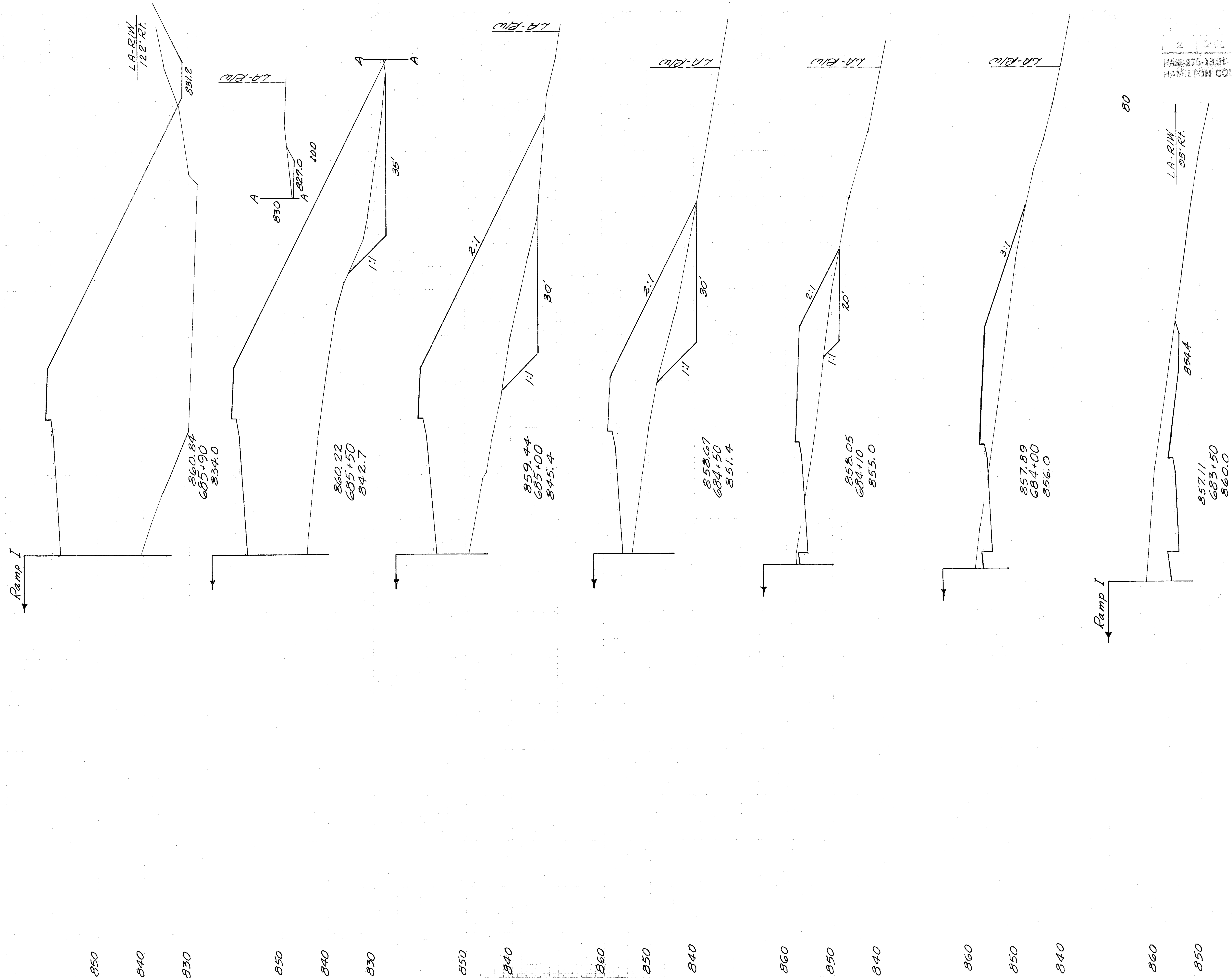
80			
60	683+00	322	0
40		499	4
	682+50	217	4
20		174	219
	682+17	67	354
0			
		54	284
20	682+00	104	547
40		49	314
	681+80		
60		172	167
	681+50		
80			
		1095	0
100			

DESIGNED	CHECKED
7-7-70 RJD	7-7-72 ALC

RAMP "H" STA. 681+50 TO STA. 683+0

2
HAM-275-13.91
HAMILTON COUNTY

119	685+90
516	
113	685+50
618	
92	685+00
516	
85	684+50
378	
81	684+10
84	
71	684+00
472	
99	683+50
650	



			193	
			468	
685+90	40	1987		
Spl.Bench	0	0		
			35	2524
			74	74
685+50	7	1421		
Spl.Bench	100	100		
			7	2517
			231	231
685+00	0	1083		
Spl.Bench	130	130		
			0	1484
			249	249
684+50	0	444		
Spl.Bench	126	126		
			14	478
			122	122
684+10	18	186		
Spl.Bench	35	35		
			10	64
			6	6
684+00	34	158		
Spl.Bench	0	0		
			219	146
683+50	203	0		
			486	0

DEVELOPED	CHECKED
7-7-70 RJD	7-7-72 ALY

RAMP H STA. 683+50 TO STA. 685+9

56 688+43

425

122 688+00

203

139 687+86

1218

116 687+00

631

111 686+50

642

120 686+00

133

194
408

688+43 0 1222

6 2039

688+00 7 1336

5 715

687+86 13 1422

32 4677

687+00 7 1515

71 3697

686+50 70 1830

115 3281

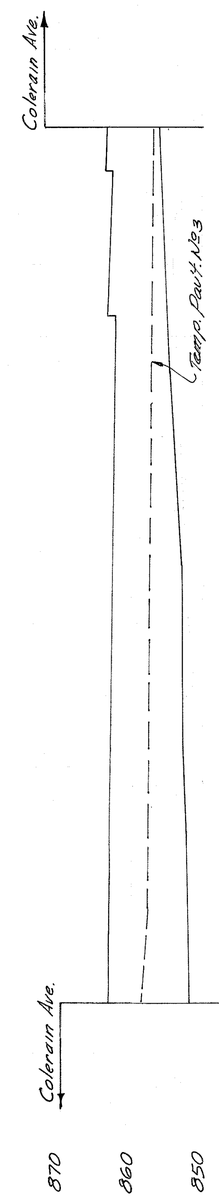
100 686+00 54 2145

17 76

HAMILTON COUNTY

DEVELOPED	CHECKED
7-7-70	RJD 7-7-72 ALG

HAM-275-13.91
HAMILTON COUNTY



ZERO END AREA STA. 688+57

0 688+57

1

6 688+55

41

864.95
688+55
852.1

688+57 0 0

0 41

688+55 0 1111

0 518

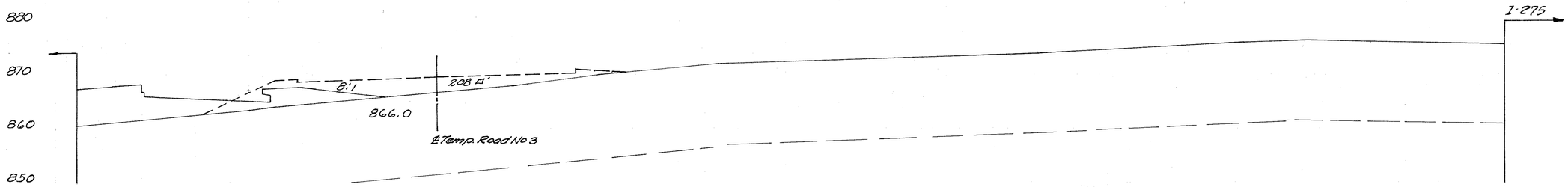
120
100
80
60
40
20
20
40

RAMP 'H' STA. 688+55 TO STA. 688+

DEVELOPED		CHECKED	
7-7-70	RJD	7-7-72	ALG

196
468

HAM-275-13.91
HAMILTON COUNTY

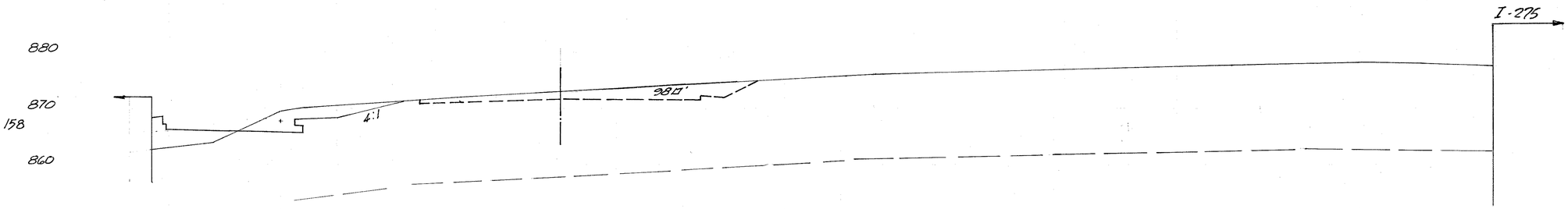


0 784

36

866.98
674+00
863.3

0 193



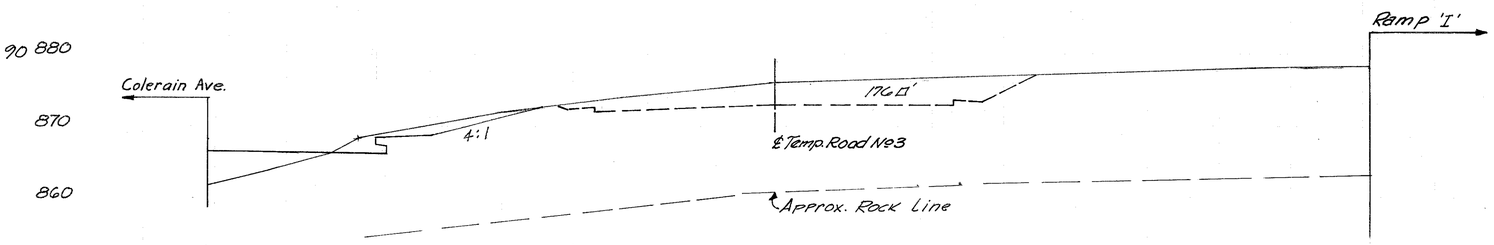
158

43 194

27

867.70
673+55
868.2

51 40



44 45

29

868.12
673+25.98
868.5
AHEAD ONLY

30 43

40 20 ℄ 20 40 60 80 100 120 140 160 180 200 220 240

DES	DRSD	CALC'D
6-16-70	RJD	7-7-72 AL&T

RAMP I, STA. 673+26 TO STA. 674+

HAM-275-13.91
HAMILTON COUNTY

880
870
860
850
840

B
B

Temp. Road No. 3
1128 LT'
858.0
Ramp 'I'
0 2029

863.94
675+39
850.3

Colerain Ave Back
Ramp 'H' Ahead
Temp. Road No 3
B
860
850
840
B
830

111

80 60 40

880
870
860
850
840

A
A

Temp. Road No 3
1300 LT'
859.5
0 2781

864.92
675+00
854.5

A
860
850
840
A

492
88

80 60 40

880
870
860
850
840

Colerain Ave.
8:1
6450'
863.0
℄ Temp. Road No 3
℄ Approx. Rock Line
Ramp 'I'
0 1942
0 546
0 1347
0 734

866.02
674+50
859.7

64
298
468

40 20 ℄ 20 40 60 80 100 120 140 160 180 200 220 240

DEVELOPED | CHECKED
6-16-70 EJD | 7-7-72 ALB

RAMP I, STA. 674+50 TO STA. 675+39

198
468

HAM-275-13.91
HAMILTON COUNTY

880
870
860
850
840
78

Ramp 'H'

8541

859.05
677+00
844.0

Ramp 'I'

O 807

880
870
489
860
850
840
96
830

855.1

860.65
676+50
837.0

O 2284

O 1633

880
510
870
Ramp 'H'
860
850
80
840
717

8:1

856.0

862.23
676+00
844.0

Approx. Rock Line

Ramp 'I'

O 3116

O 1590

O 4531

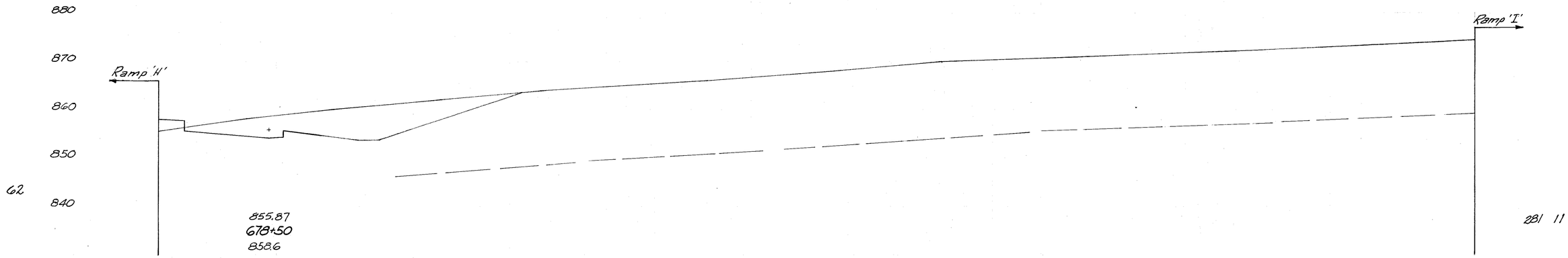
40 20 0 20 40 60 80 100 120 140 160 180 200 220 240

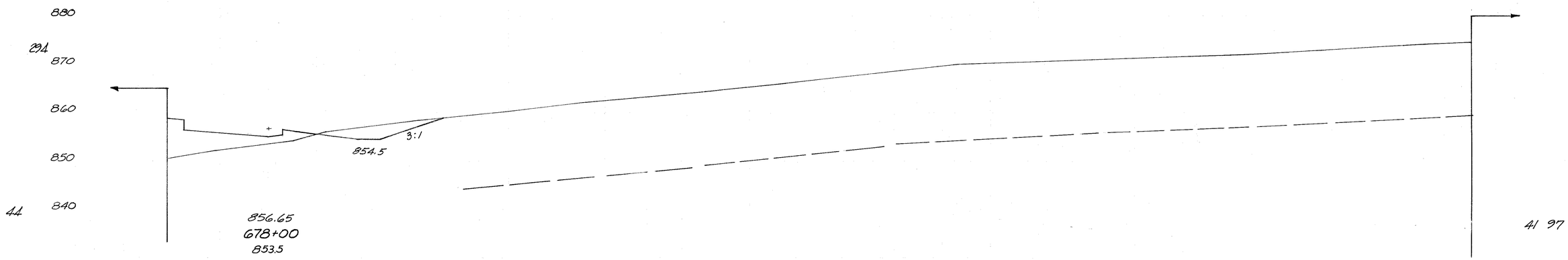
RAMP I, STA. 676+00 TO STA. 677+00

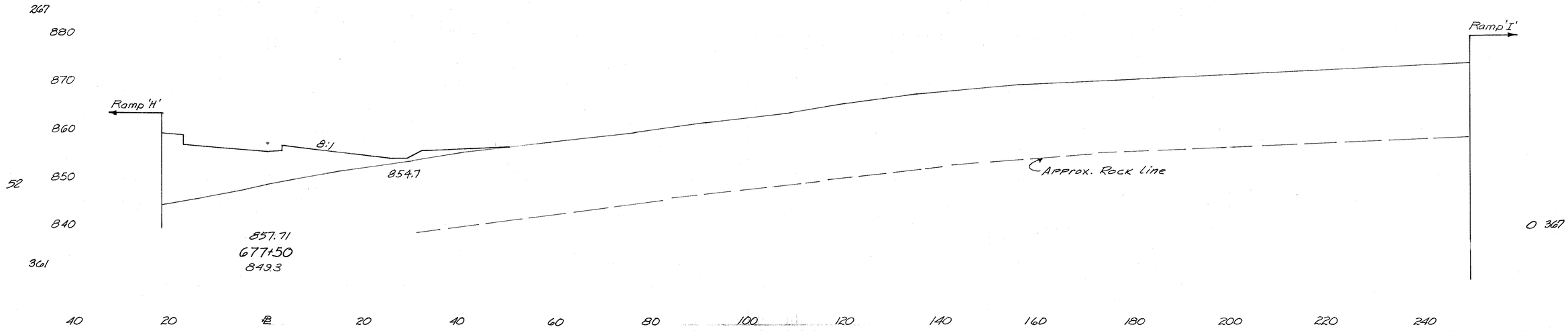
6-16-70 RJD 7-7-72 ALH

199
468

HAM-275-13.91
HAMILTON COUNTY



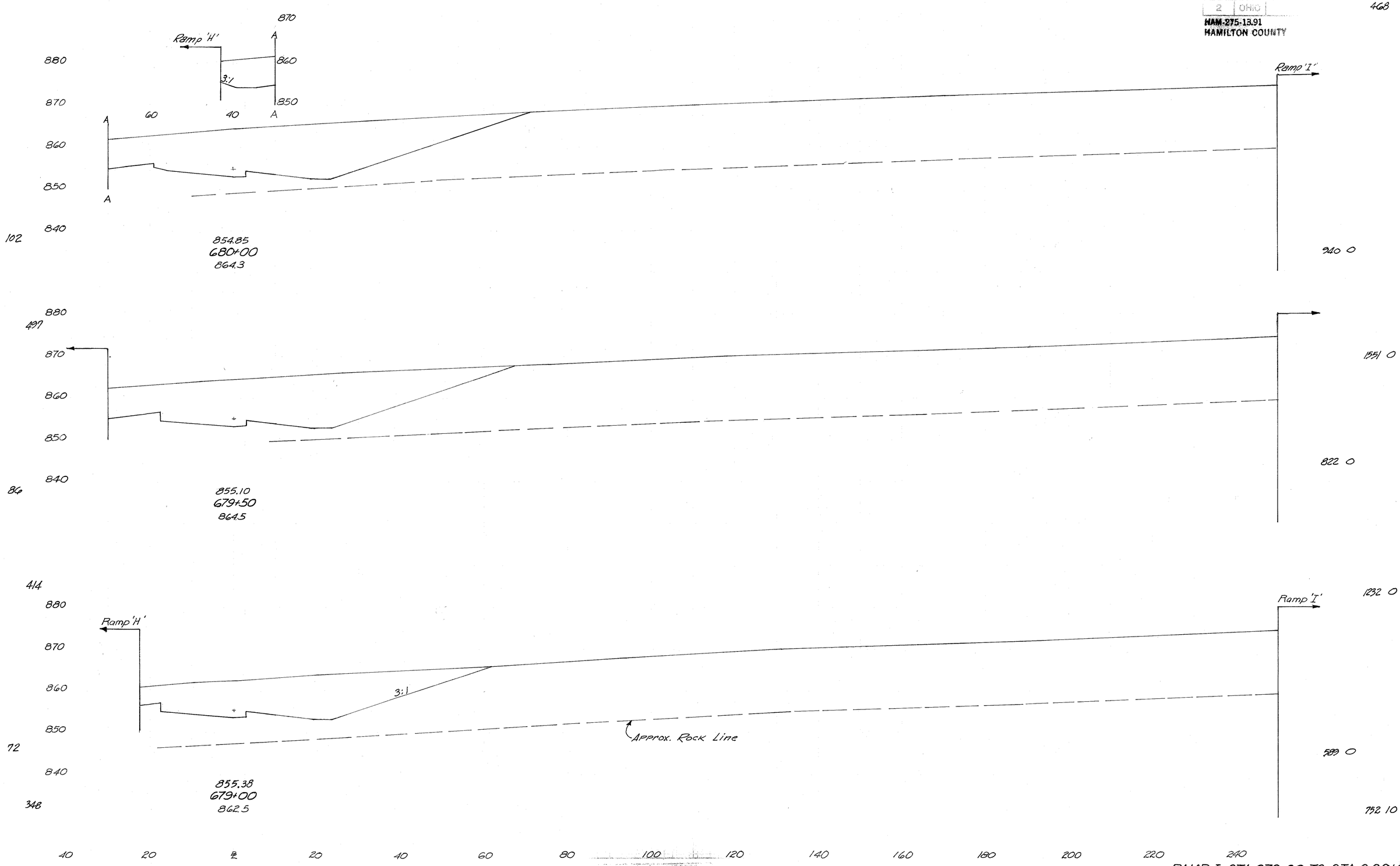




RAMP I, STA. 677+50 TO STA. 678+50

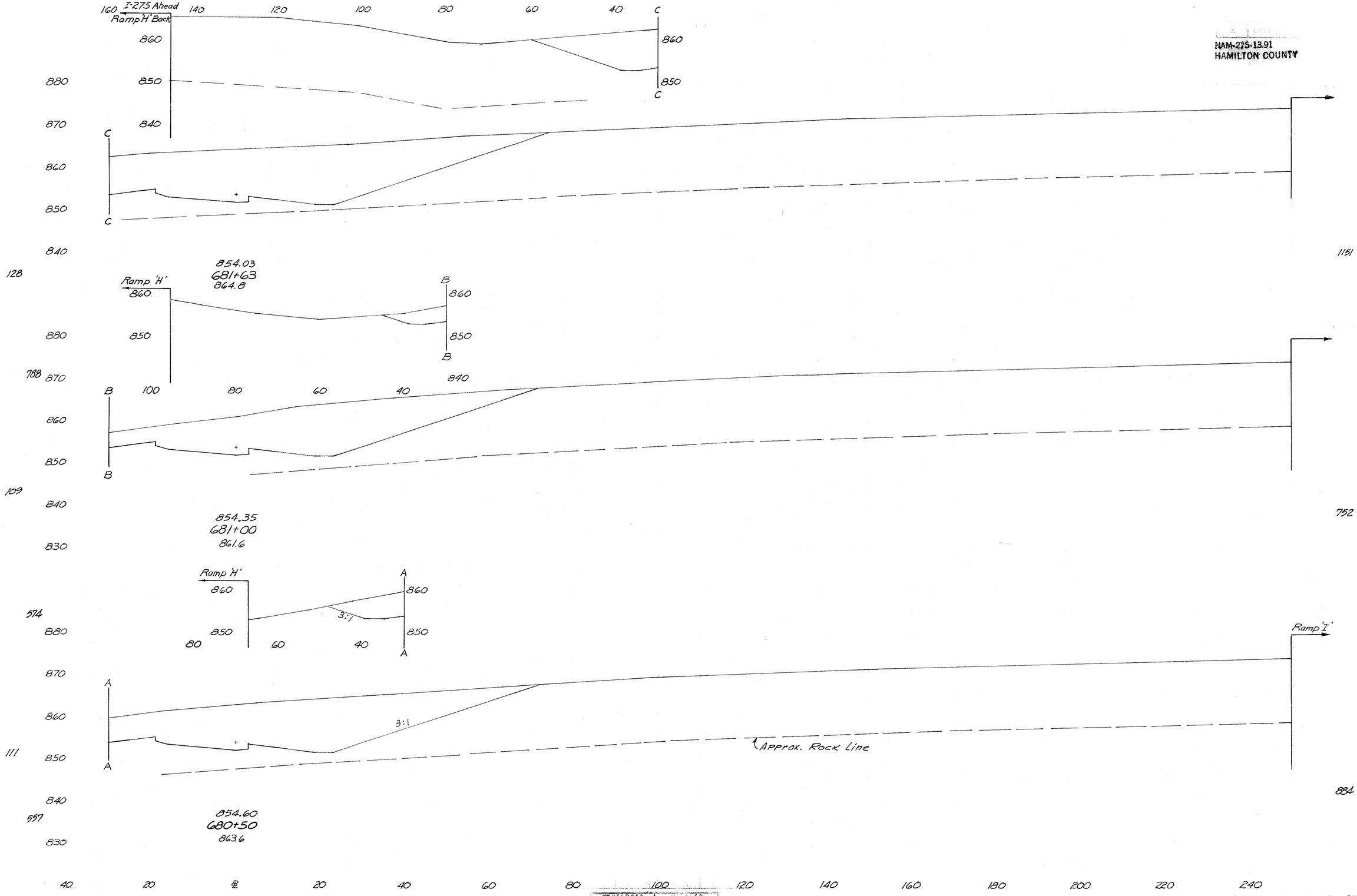
6-16-70 R.J.D. 7-7-72 AL.Y.

200
468



6-16-70 R.L.D. 7-7-22 ALL

RAMP I, STA. 679+00 TO STA. 680+C



DEVELOPED	DESIGNED
6-16-72 RJD	7-7-72 ALV

RAMP I, STA. 680+50 TO STA. 681+6

2 | OHIO
HAM-275-13.91
HAMILTON COUNTY

202
468

C 870 860 850 C
60 40

880
870
860
850
133

C
853.35
683+00
870.2

B 870 860 850 B
80 60 40

761 880
870
860
850
145

B

840

853.60
682+50
868.2

I-275

A 870 860 850 A
3:1
120 100 80 60 40

779
880
870
860
139 850
840

A
3:1

853.85
682+00
866.2
536

Approx. Rock Line

Ramp 'I'

1389 O

3419 O

1756 O

Ramp 'I'

2808 O

1313 O

1648 O

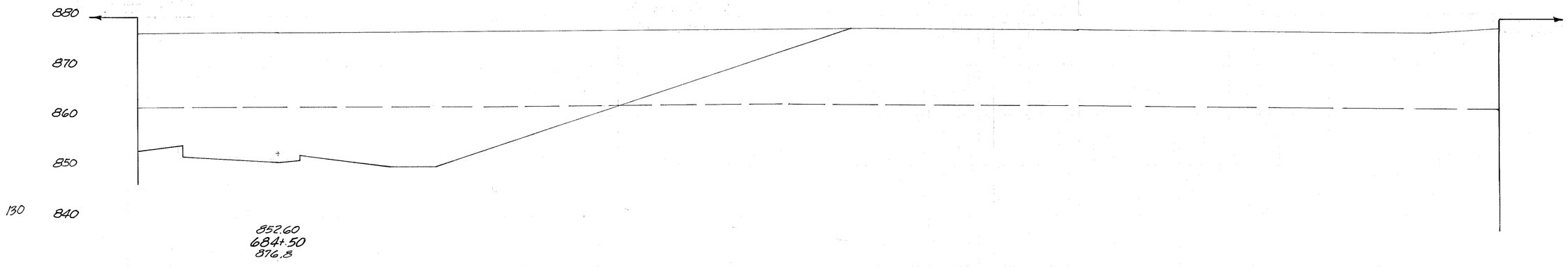
40 20 0 20 40 60 80 100 120 140 160 180 200 220 240

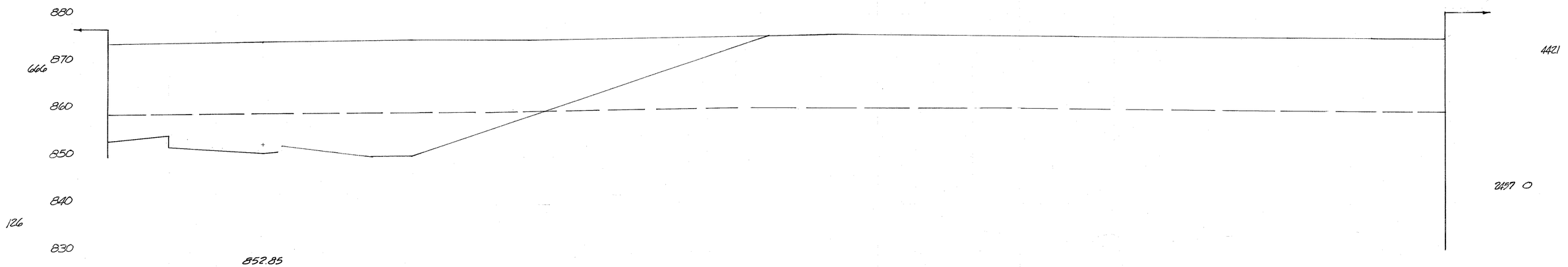
DEVELOPED 6-16-70 EJD | CHECKED 7-7-70 DLU

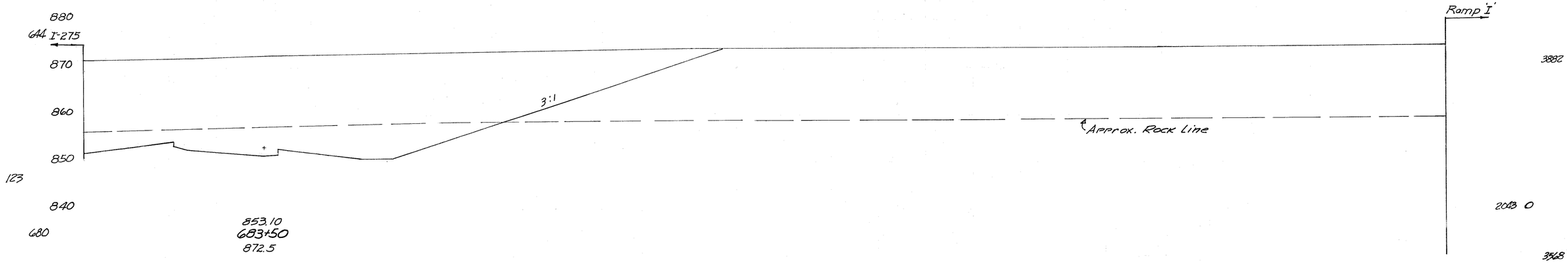
RAMP I, STA. 682+00 TO STA. 683+40

203
468

HAM-275-13.91
HAMILTON COUNTY







40 20 ℄ 20 40 60 80 100 120 140 160 180 200 220 240

DEVELOPED	CHECKED
6-16-70 RJD	7-7-72 ALS

RAMP I, STA. 683+50 TO STA. 684+5

HAM-275-13.91
HAMILTON COUNTY

204
468

I-275

COLERAIN AVE.

880
870
860
850
840

138

851.74
686+00
882.4

3309 O

761

Ramp 'I'

880
870
860
850
840

136

851.10
685+50
881.5

6121 O

3302 O

736

I-275

Ramp 'I'

880
870
860
850
840

129

690

3:1

Approx. Rock Line

852.35
685+00
879.3

5723 O

2879 O

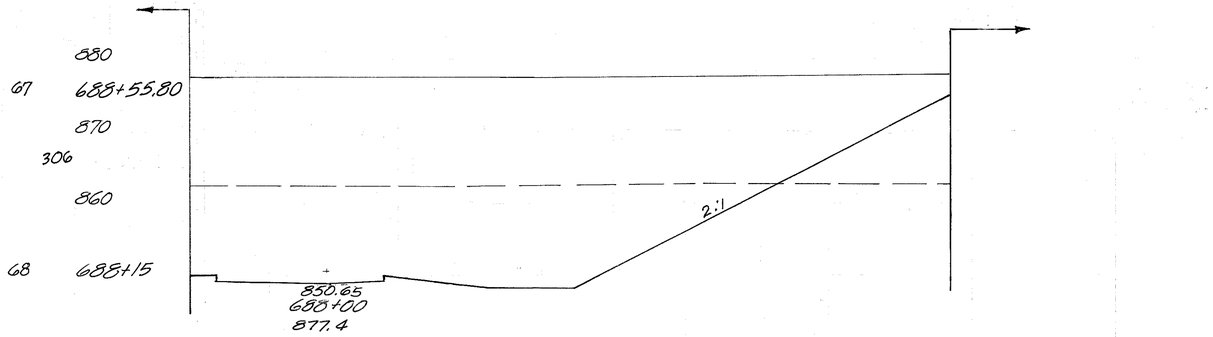
4897 O

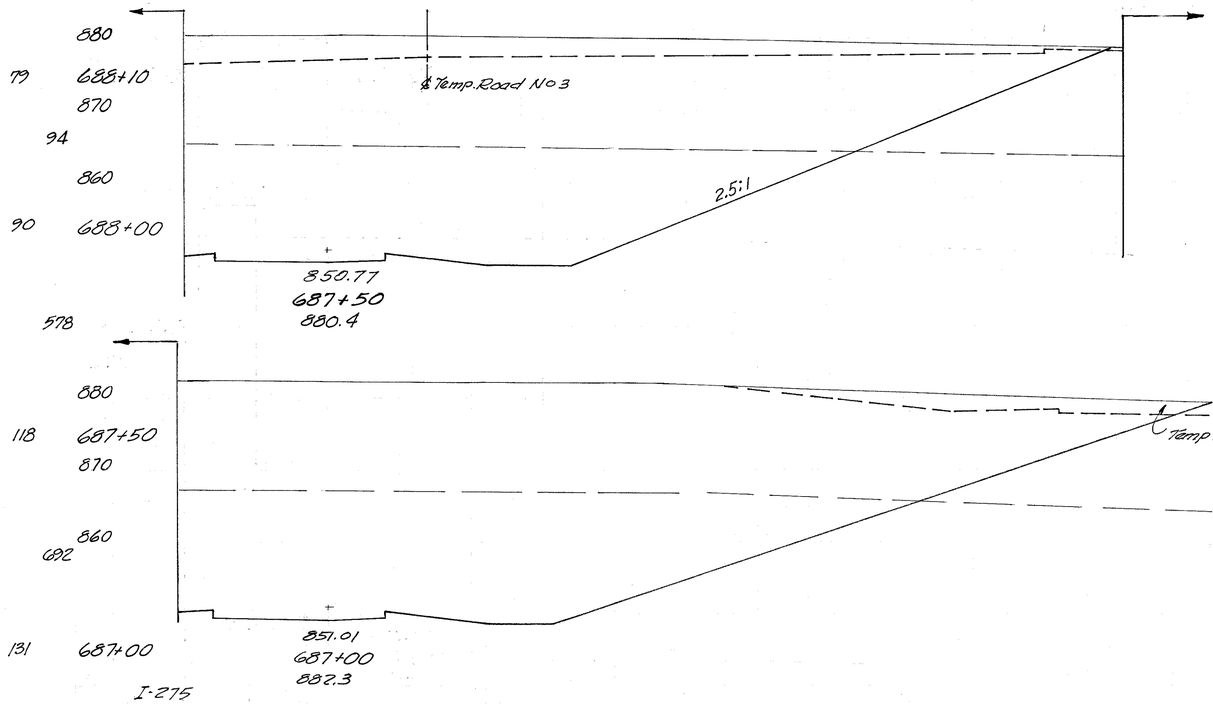
40 20 ℄ 20 40 60 80 100 120 140 160 180 200 220 240

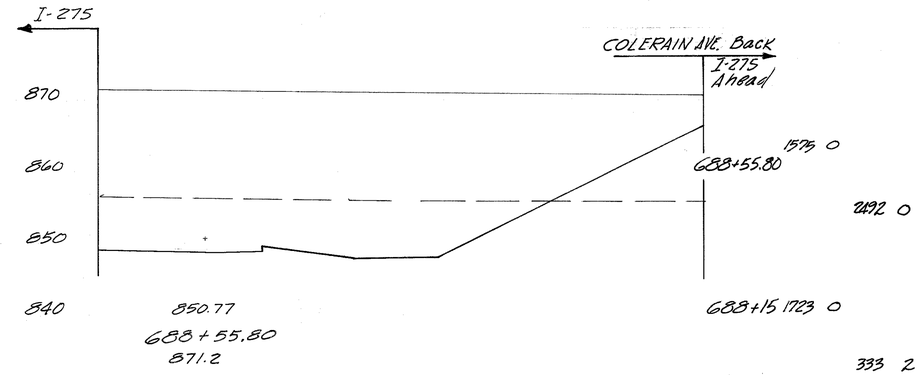
DISTRICT 8 DEC.
6-1670 R/D 77-78 ALG

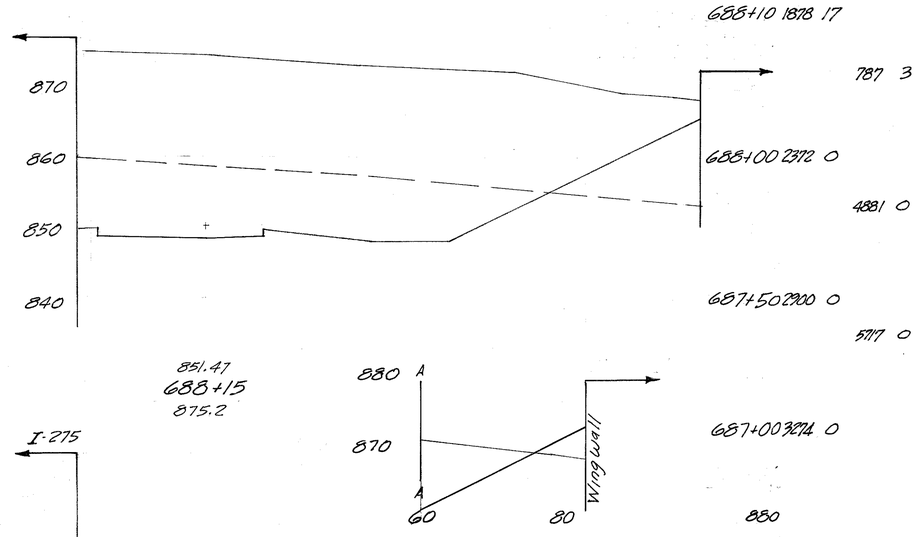
RAMP I STA. 685+00 TO STA. 686+00

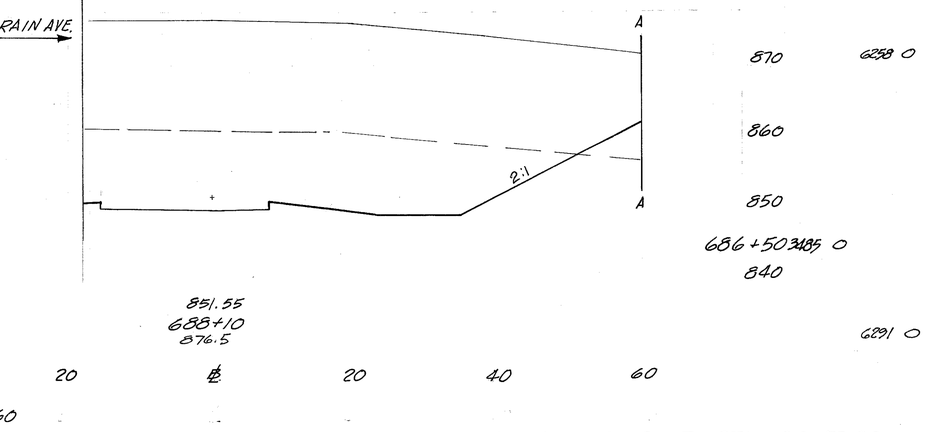
HAM-275-13.91
HAMILTON COUNTY





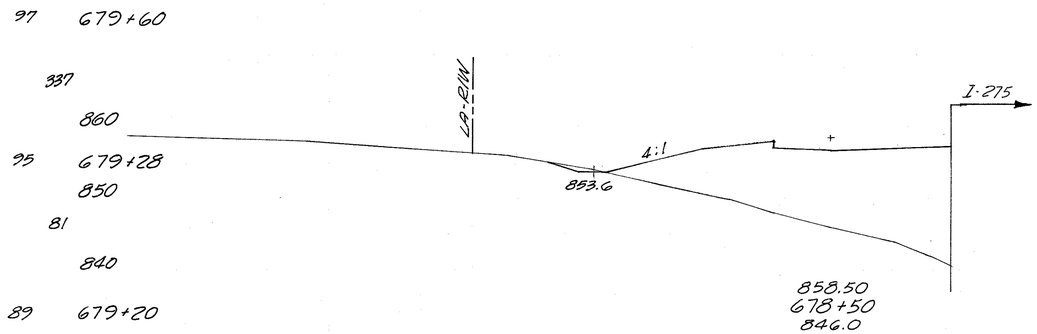


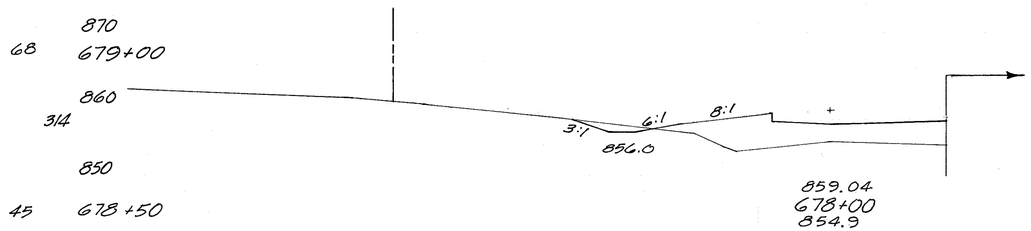


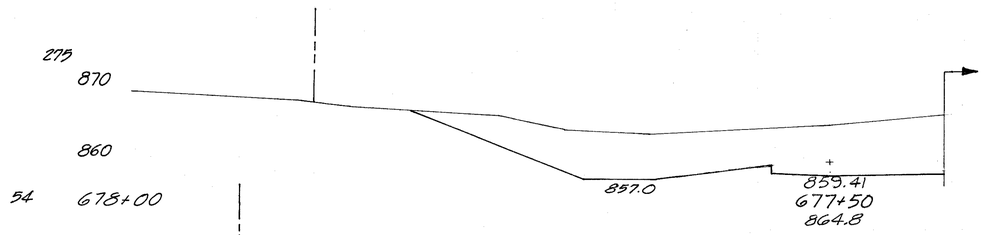


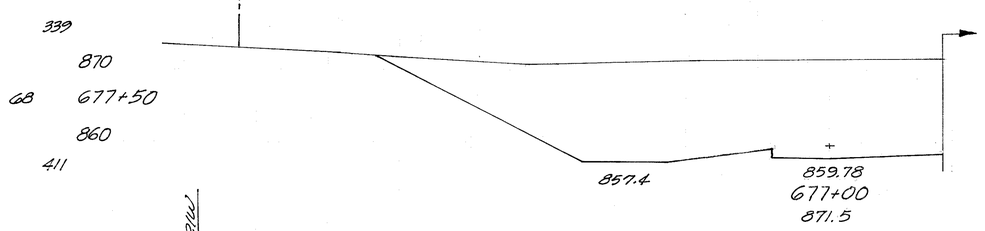
RAMP I STA. 686+50 TO STA. 688+55.80

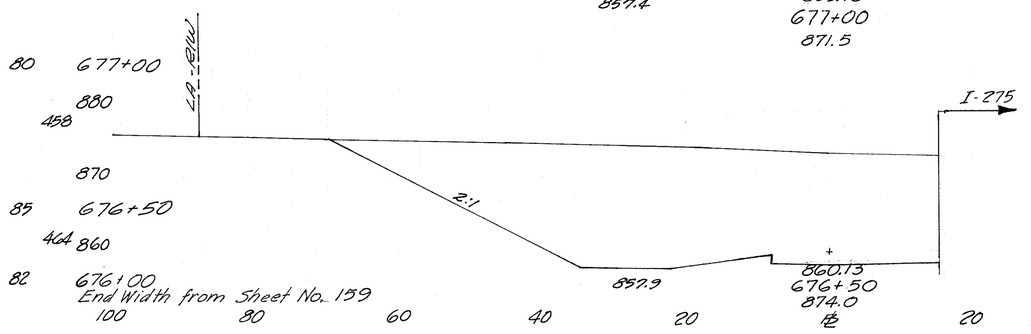
HAM-275-13.91
HAMILTON COUNTY





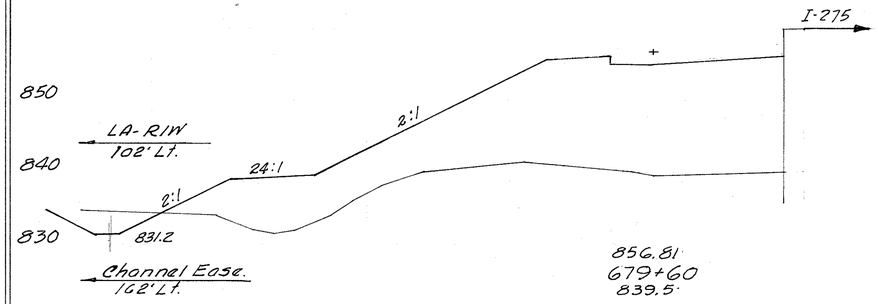


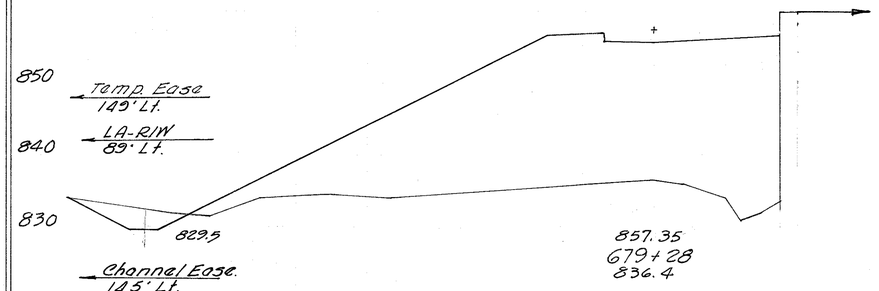


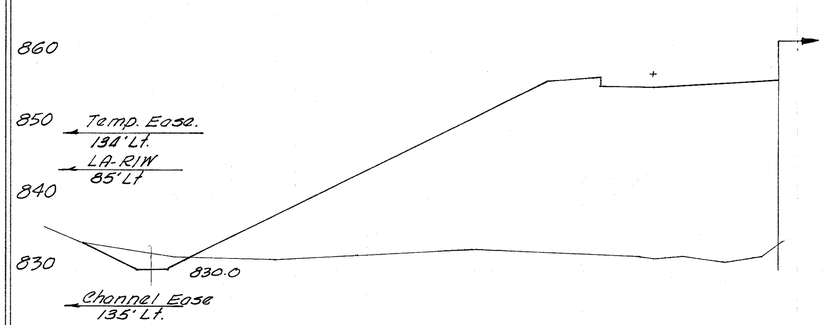


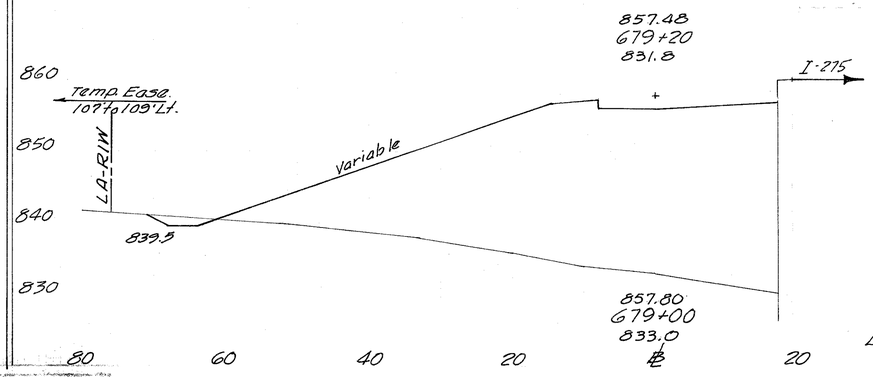
End Width from Sheet No. 159

100 80 60 40 20 0 20 40









End Area from Sh. No. 159

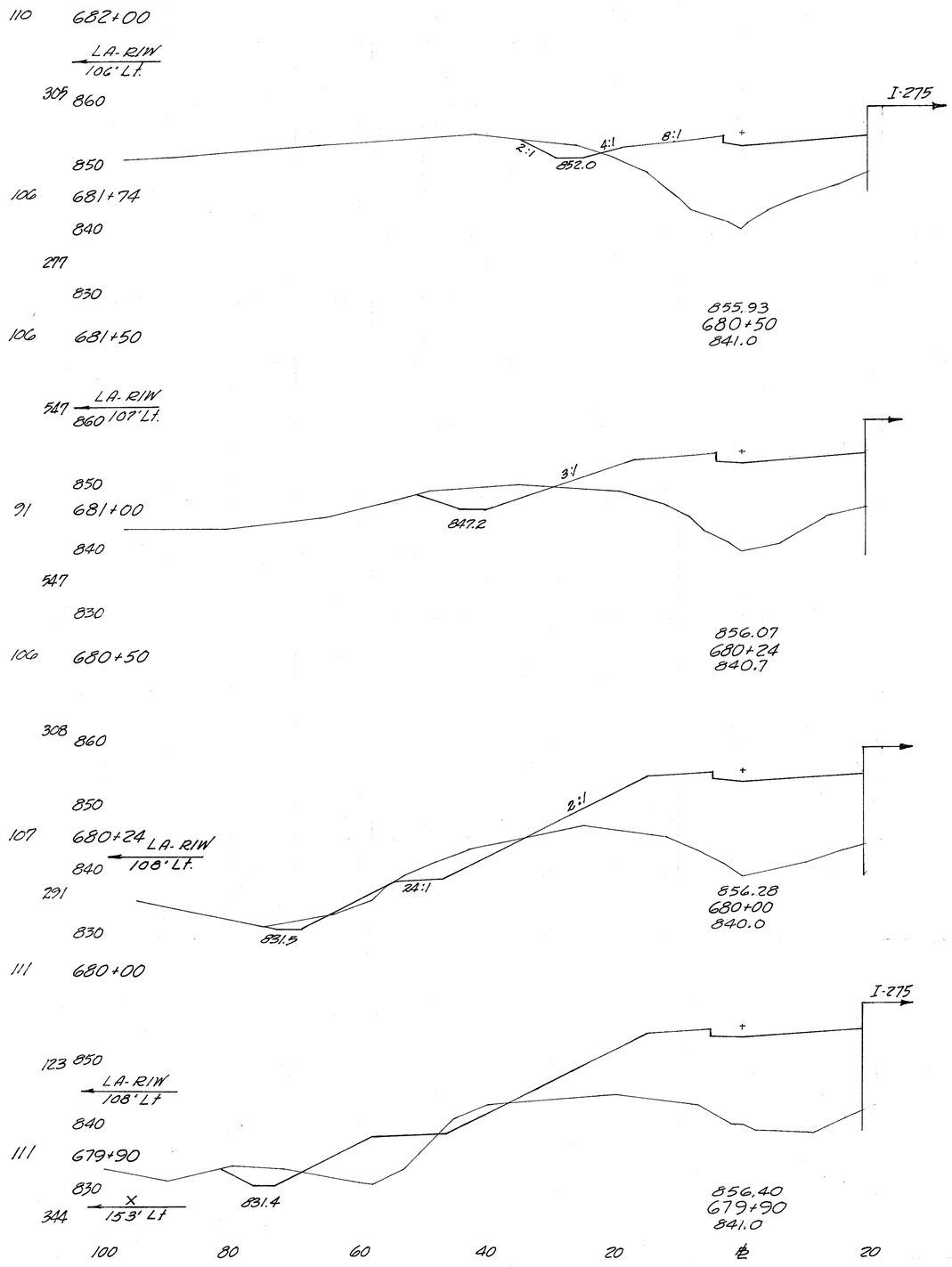
4.0 2 0 1 0

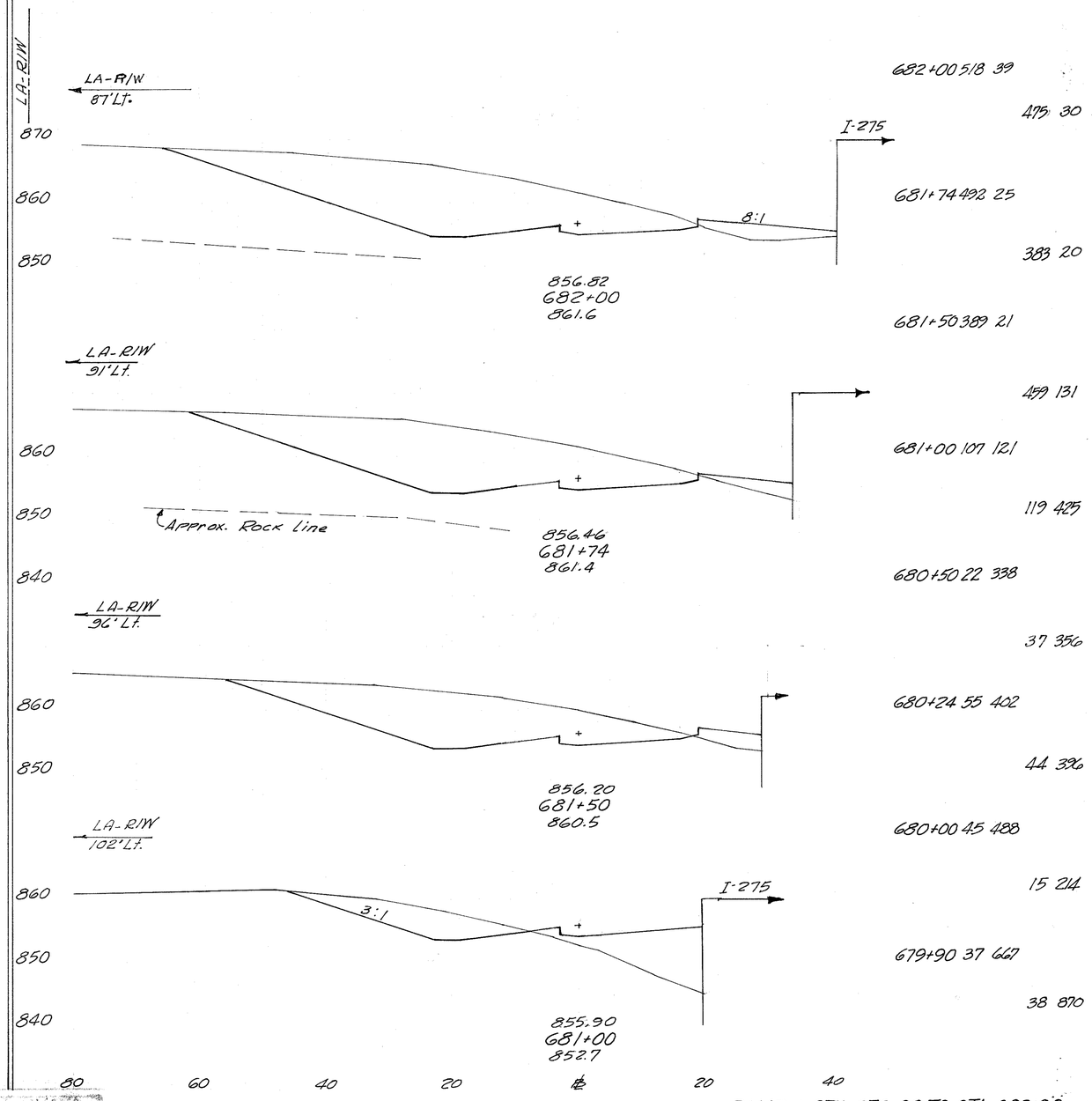
679+60	32	911			
			37	1228	
679+28	32	1186			
			8	375	
679+20	25	1371			
			13	899	
679+00	11	1079			
			14	1391	
678+50	4	423			
			12	496	
678+00	9	113			
			402	105	
677+50	425	0			
			1201	0	
677+00	872	0			
			1822	0	
676+50	1026	0			
			2126	0	
676+00	1200	0			

DESIGNED	CHECKED
7-7-70 RJD	7-7-72 A.L.P.

RAMP J, STA. 676+50 TO STA. 679+60

HAM-275-13.91
HAMILTON COUNTY



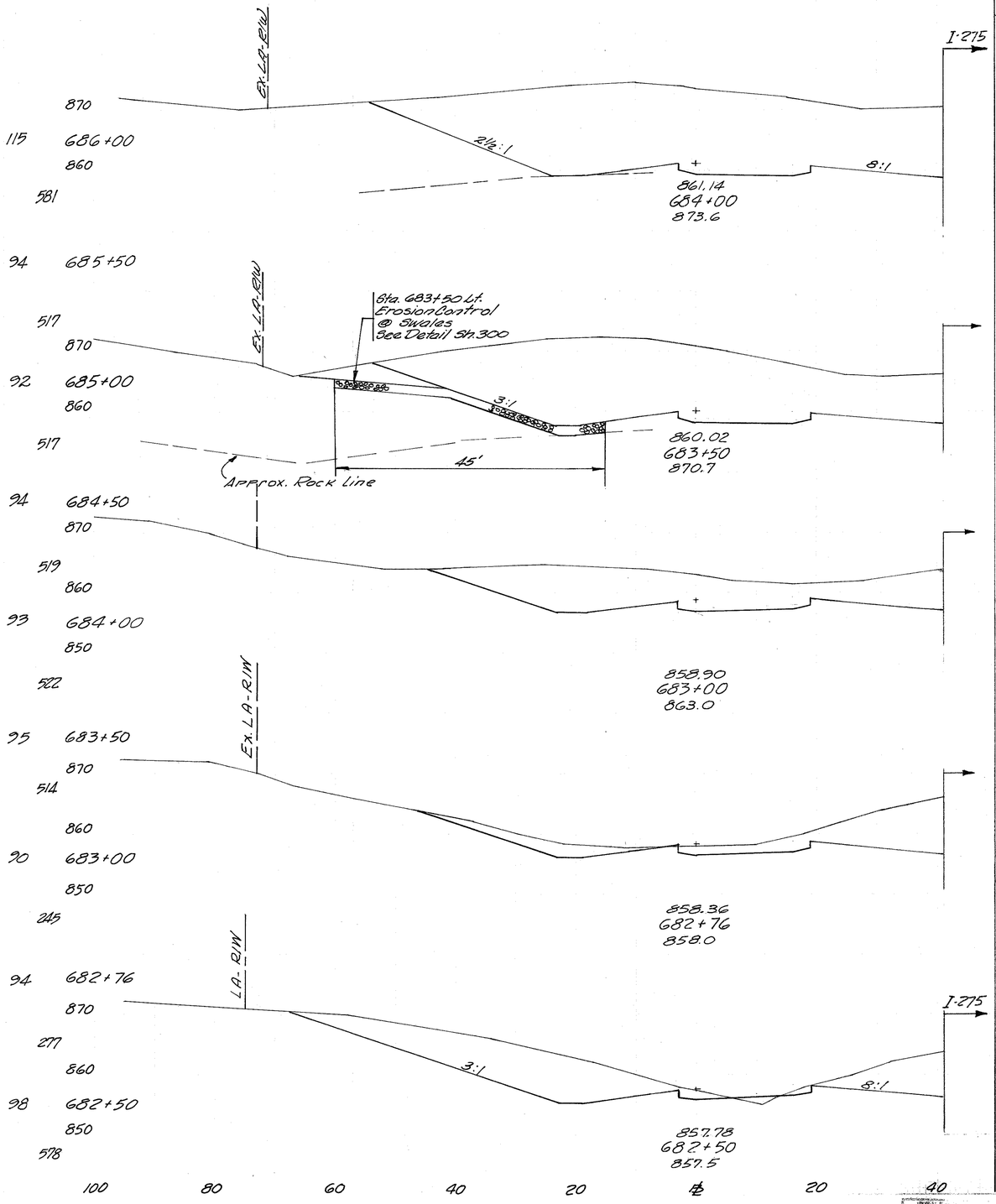


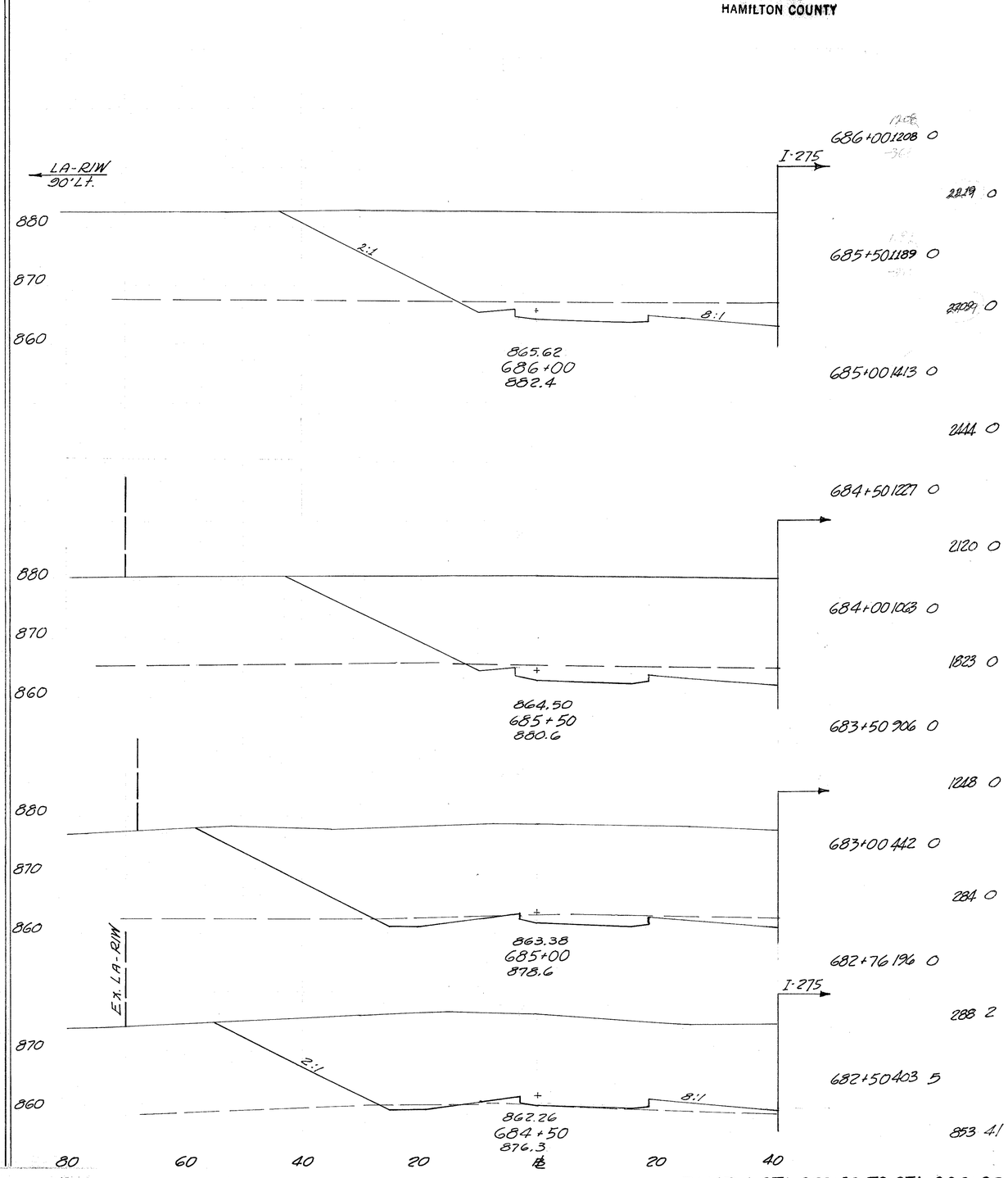
7-9-70 R/D 7-7-72 ALY

RAMP J, STA. 679+90 TO STA. 682+00

208
4GB

HAM-275-13.91
HAMILTON COUNTY





REVISED
7-7-78 RJD 7-7-78 ALG

RAMP J, STA. 682+50 TO STA. 686+00

HAM-275-13.91
HAMILTON COUNTY

209
468

70 689+45
194
64 689+19
890
133
880
62 689+00
870
73
47 688+88
890
232 880
870
63 688+50
860
489
113 688+00
890
228
880
113 687+50
870
222
860
111 687+00
880
619
870
112 686+50
860
631

LA-EW

Sta. 688+13
Erosion Control @ Swale
See Detail Sheet 300

I-275

2:1

870.10
688+00
884.6

868.98
687+50
885.3

867.86
687+00
885.5

866.74
686+50
883.7

Approx. Rock Line

80 60 40 20 ℄ 20 40 80

890
880
870

COLERAIN AVE.

Colerain Ave

4:1

873.35
689+45
875.8

DRY RIDGE RD. Cul-de-sac

3:1

872.77
689+19
879.4

872.34
689+00
880.0

872.07
688+88
881.0

DRY RIDGE RD. Cul-de-sac

872.22
688+50
883.0

689+45 261 0
329 0
689+19 423 0
325 0
689+00 501 0
237 0
688+88 566 0
967 0
688+50 808 0
1688 0
688+00 1015 0
2007 0
687+50 1153 0
2250 0
687+00 1277 0
2314 0
686+50 1222 0
2250 0

Sta. 686+00 1208

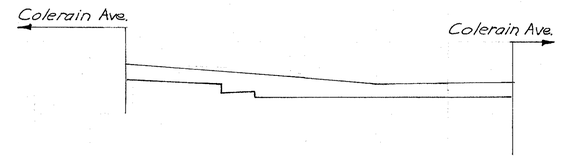
RAMP J, STA. 686+50 TO STA. 689+45

DEVELOPED	CHECKED
7-7-70 RJD	7-7-72 A.L.?

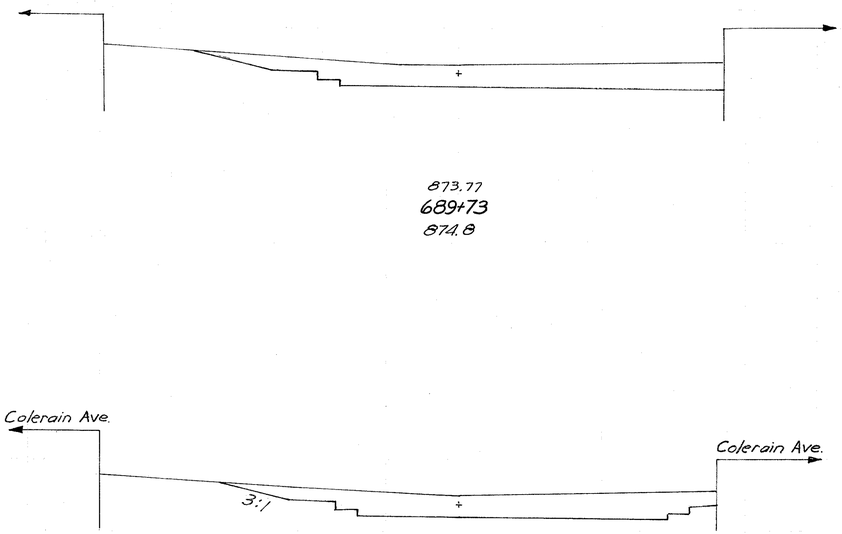
210
468

HAM-275-13.91
HAMILTON COUNTY

0 690+00
890
880
2 870
860
689+83
874.1
4 689+90



7
890
880
14 689+83
870
860
873.77
689+73
874.8
25



31 689+73
890
880
12 870
860
873.73
689+70
875.0
38 689+70
150

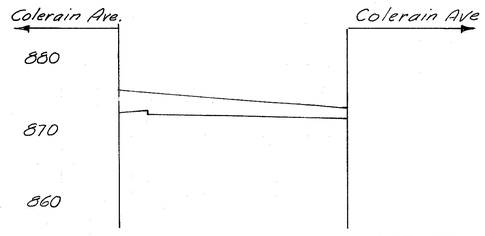
100 80 60 40 20 ℄ 20 40

DEVELOPED		CHECKED	
7-9-72	BD	7-7-72	GL.S.

690+00 0 0
17 0
689+90 93 0
30 0
689+83 137 0

ZERO AREA
STA. 690+00

64 0
689+73 207 0



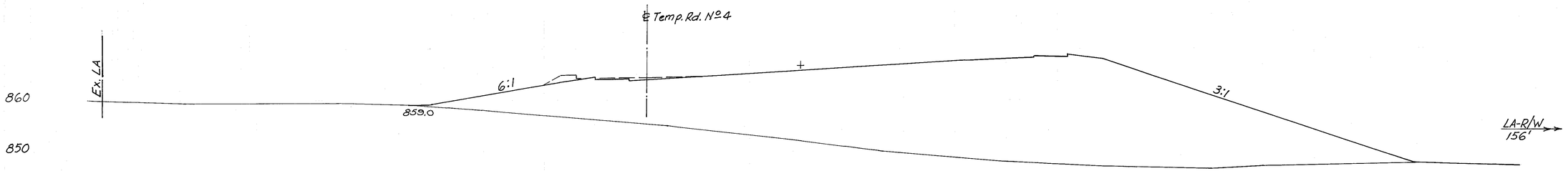
22 0
689+70 188 0
208 0

40 20 ℄ 20 40

RAMP J, STA. 689+70 TO STA. 690+00

211
468

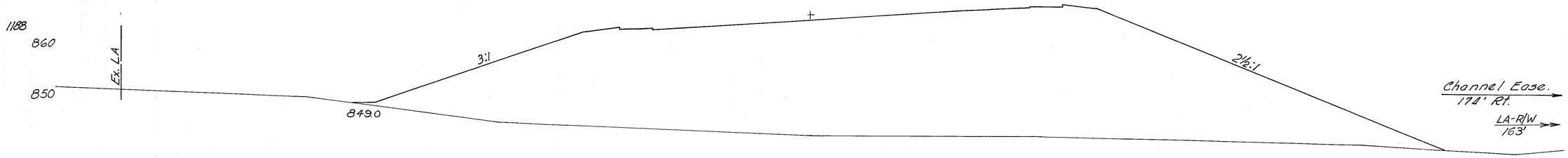
HAM-275-13.91
HAMILTON COUNTY



866.92
74+50
852.0

201

0 2363



0 3614

866.19
74+00
842.1

219

0 3633

0 3040

550

0 0

73+55 ZERO END AREA

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

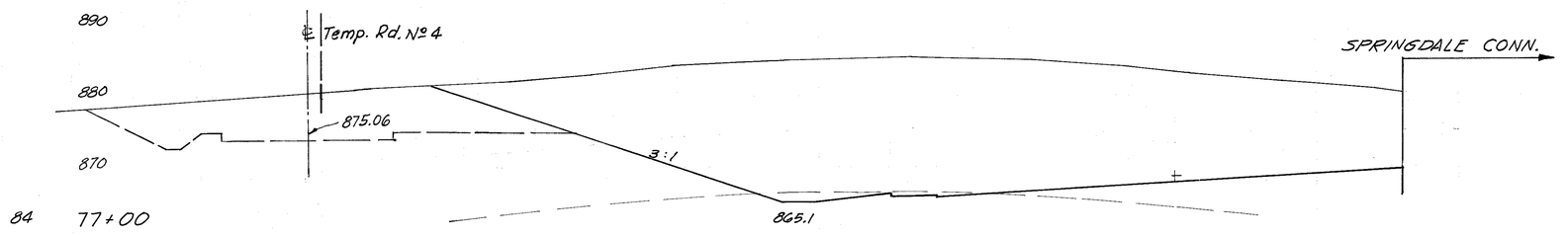
DEVELOPED	CHECKED
BAR 6-2-72	ALG 7-7-72

Rev. 9-23-75

BLUE ROCK ROAD RELOCATED STA. 73+55 TO 74+50

211A
468

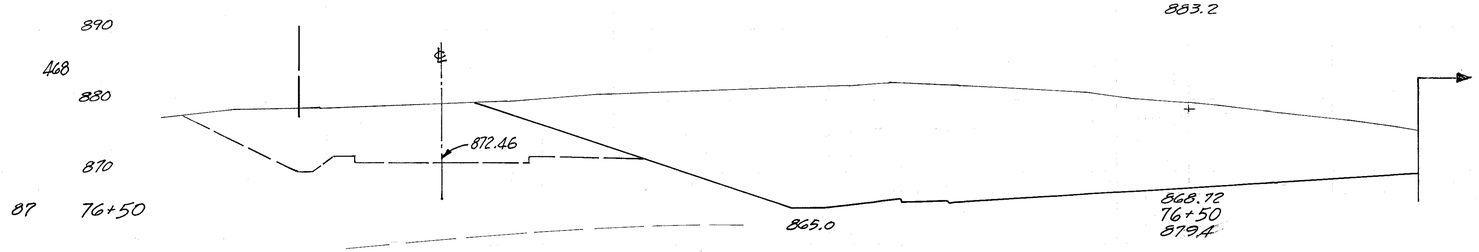
HAM-275-13.91
HAMILTON COUNTY



84 77+00

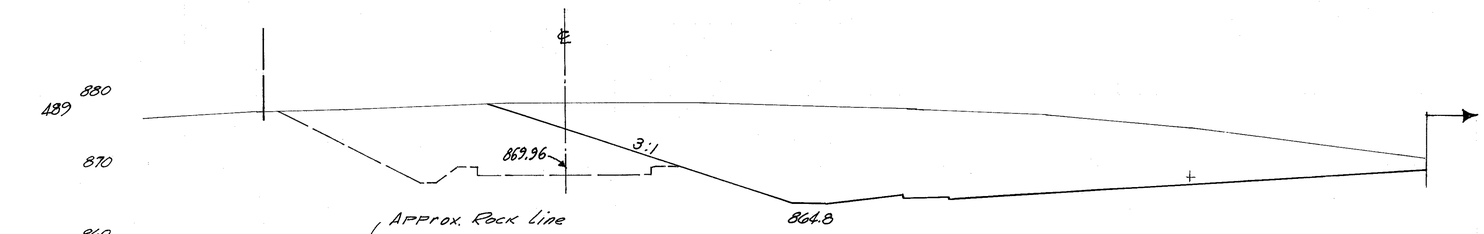
868.79
77+00
883.2

77+00 1926 0



468
87 76+50

3136 0



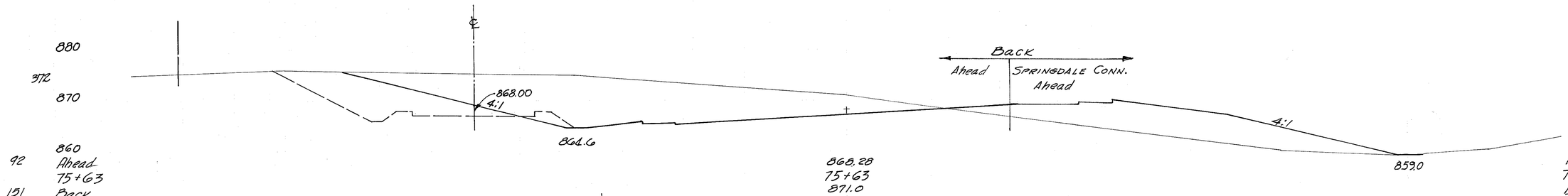
489
92 76+00

868.52
76+00
875.2

76+50 1510 0

2336 0

76+00 1075 0

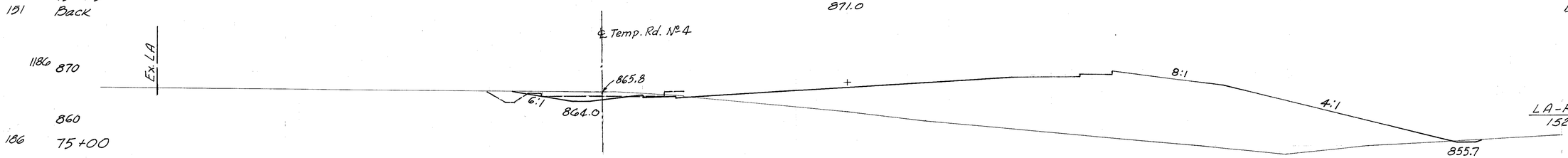


372
92 Ahead 75+63
131 Back

868.28
75+63
871.0

1189 9

Ahead 691 14
75+63
Back 691 322



186 75+00
1104

867.72
75+00
862.0

845 1697

2 3060

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

REVISIONS			
7-22-70	RJD	7-24-70	DLH

REV. 9-23-

BLUE ROCK RD. RELOC. STA. 75+00 TO STA. 77

212
468

LA-RW
142'Rt.

890
880
870
860

864.0

867.72
79+00
896.7

203 79+00

79+00 4971 0

890
880
870
860

1100

864.5

868.19
78+50
893.9

194 78+50

78+50 4097 0

8814 0

890
880
870
860

1040

864.8

868.52
78+00
890.5

182 78+00

78+00 3360 0

6878 0

LA-RW

Ahead
Back
SPRINGDALE CONN.
Back

SPRINGDALE CONN.

4554 0

890
880
870
860

746

2:1
2:1

℄ APPROX. ROCK LINE

864.9

868.70
77+60
888.2

155 Ahead
77 77+60
Back
536

Ahead 2816 0
77+60
Back 2250 0

4631 0

140 120 100 80 60 40 20 20 40 60 80 100 120 140

DEVELOPED	CHECKED
7-22-72 RJD	7-7-72 ALG

BLUE ROCK RD. RELOC. STA. 77+60 TO STA. 79+00

213
468

2 OHIO
HAM-275-13.91
HAMILTON COUNTY

900
890
880
870
860

2:1

866.75
79+76
899.2

188 79+76

79+76.5997 O

SPRINGDALE RD.

900
890
65
880
870
860

863.0

866.80
79+73
899.2

202 79+73

79+73.5996 O

661 O

L.A. R/W

900
890
494
880
870
186 79+50
860
1078

2:1
2:1

Approx. Rock Line

863.4

867.12
79+50
899.2

494A O

79+50.5440 O

9999 O

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DEVELOPED	CHECKED
7-22-76 DJD	7-7-76 RLP

BLUE ROCK RD. RELOC. STA. 79+50 TO STA. 79+76

214
468

SPRINGDALE RD.

Back
Ahead

Ex. R/W

Ex. R/W

SPRINGDALE RD.

900
890
880
870
860

171 Ahead
80+45
186 Back

865.61
80+45
898.1

Ahead 5908 0
80+45
Back 6011 0

Ex. R/W

Ahead
Back

Springdale Rd.

5027 0

900
890
473
880
870
860

186 Ahead
80+22
174 Back

866.02
80+22
898.6

Ahead 5853 0
80+22
Back 5837 0

SPRINGDALE RD.

SPRINGDALE RD.

4775 0

LA. R/W

900
430
890
880
179 80+00
870
860
487

℄ Approx. Rock Line

2:1

2:1

80+00 5931 0

5053 0

866.39
80+00
898.8

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DEVELOPED	CHECKED
7-22-72 RD.	7-7-72 A.L.S.

BLUE ROCK RD. RELOC. STA. 80+00 TO STA. 80+45

2 | OHIO
FAI 275-13.91
HAMILTON COUNTY

LA-R/W

890
880
870
860

224 81+50

LA-R/W
155' Rt.

863.39
81+50
889.9

81+50 4066 0

890
880
752
870
860

217 81+19

LA-R/W
152' Rt.

5192 0

864.10
81+19
892.9

81+19 5066 0

890
880
443
870
860

207 81+00

LA-R/W
151' Rt

3639 0

864.51
81+00
893.9

81+00 5364 0

SPRINGDALE RD.

900
89
890
880
195 80+96
870
1030 860

LA-R/W

784 0

Approx Rock Line

2:1

2:1

80+96 5305 0

10522 0

864.60
80+96
894.3

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

7-22-70 RJD 1-7-72 RLS

BLUE ROCK RD. RELOC. STA. 80+96 TO STA. 81+50

2 | OHIO
HAM-275-13.91
HAMILTON COUNTY

216
468

870
860
850
74 83+56
RAMP 'E'
3:1
857.29
83+56
865.9
83+56 1057 O

870
107
860
65 83+42
2.5:1
857.77
83+42
867.8
567 O
83+42 1152 O

880
328 870
860
77 83+00
RAMP 'E'
859.17
83+00
873.6
2162 O
83+00 1698 O

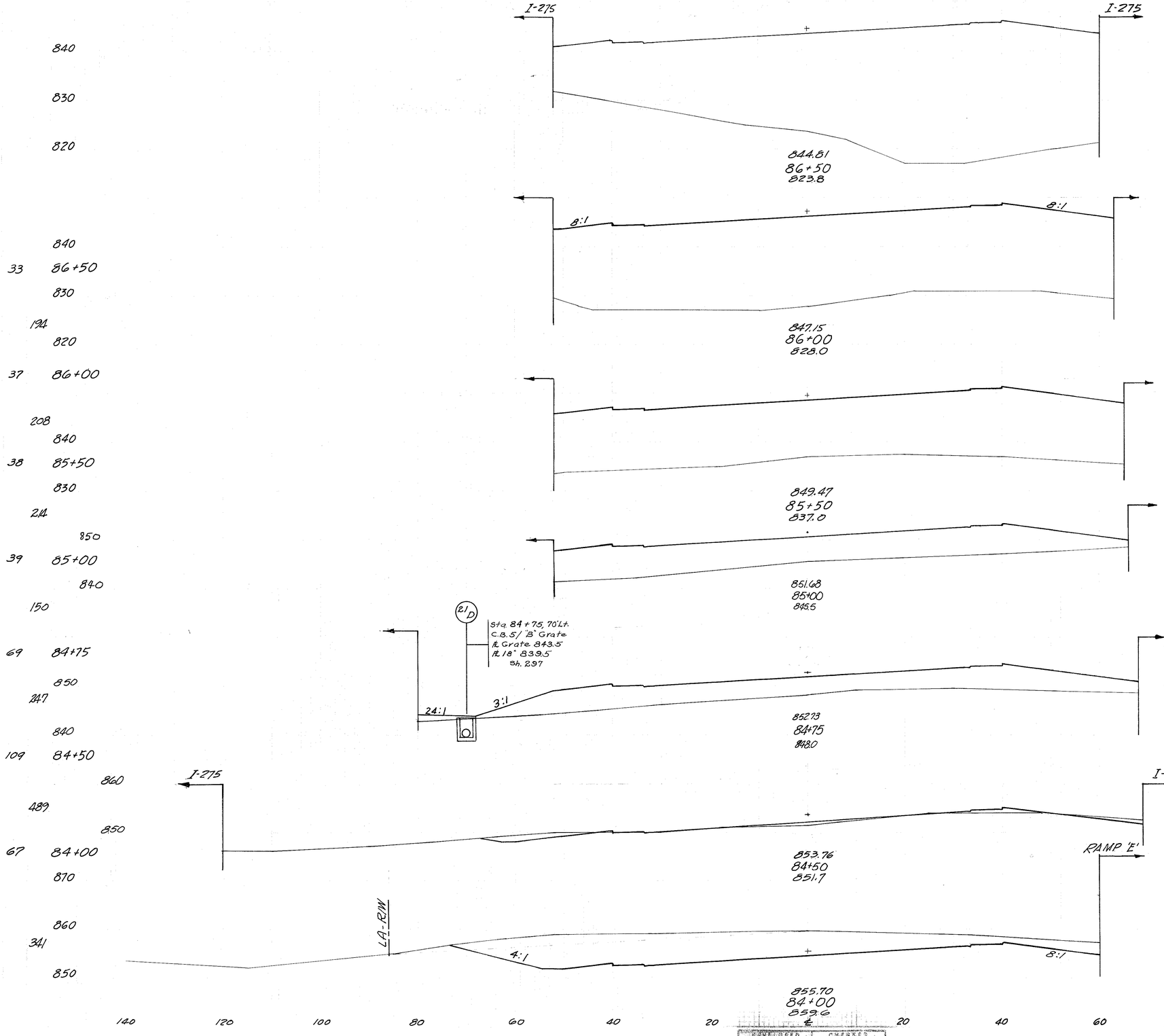
880
809
870
860
217 82+50
LA-RW
167' Rt.
859.7
860.70
82+50
879.7
4275 O
82+50 3004 O
6244 O

890
1177
880
870
211 82+00
860
1196'
LA-RW
2:1
℄ Approx. Rock Line
3:1
862.5
862.11
82+00
884.6
Ramp "E"
82+00 3806 O
9212 O

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

7-22-70 RD 7-7-72 ALR

BLUE ROCK RD. RELOC. STA. 82+00 TO STA. 83+56



840
830
820

840
33 86+50
830
194
820
37 86+00

208
840
38 85+50
830
214
850
39 85+00
840
150
69 84+75
850
247
840
109 84+50
860
489
850
67 84+00
870
860
341
850

217
468

86+50 O 2308
O 3979
86+00 O 1989
O 3208
85+50 O 1476
O 1952
85+00 O 632
O 541
84+75 O 537
19 254
84+50 42 12
578 11
84+00 582 O
1322 O

DEVELOPED	CHECKED
7-22-72 RJD	7-7-72 ALS

BLUE ROCK RD. RELOC. STA. 84+00 TO STA. 86+50

2 | OHIO

HAM-275-13.91
HAMILTON COUNTY

218
468

840
830
820
12 88+14
830
32
820
29 88+00
840
24 830
820
25 87+92
840
107 830
820
21 87+50
840
119
830
820
22 87+00
810
153

I-275
Ramp "D"
8:1
837.13
88+14
833.0
Ramp 'O'
8:1
837.79
88+00
831.1
Ramp 'D'
838.16
87+92
830.0
I-275
840.13
87+50
827.5
I-275
8:1
8:1
I-275
842.47
87+00
824.5

88+14 239 279

106 284

88+00 168 816

45 254

87+92 137 901

118 1736

87+50 15 1331

14 2885

87+00 0 1893

0 3890

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DEVELOPED 7-22-72 R/D | CHECKED 7-10-72 A.L.K.

BLUE ROCK RD. RELOC. STA. 87+00 TO STA. 88+14

2 OHIO
HAM-275-13.91
HAMILTON COUNTY

RAMP "C"

AHEAD
BACK

860
850
840
830
820

1:1
6:1
3:1
825.0

LA-RW
131' RT.

830.77
89+51.32
848.1

157 Ahead 89+51.32
94 Back

850
240 840
830

91 Ahead 89+28
0 Back

850
0
840
0 89+00
830

0

840
0 88+40
830

11

840
13 88+25
830
15

140 120 100 80 60 40 20

Ahead 3175 0
89+51.32
Back 1329 0

988 0

AHEAD
BACK

831.80
89+28
845.4

Ahead 958 0
89+28
Back 922 0

824 0

RAMP "D"

833.11
89+00
843.0

Approx. Rock Line

89+00 667 0

389 108

Ramp "C"

835.92
88+40
837.6

88+40 223 97

I-275

8:1

164 70

836.62
88+25
834.5

88+25 367 156

RAMP "D"

123 89

℄

20 40 60 80 100 120 140

DEVELOPED	CHECKED
7-22-72 RJD	7-10-72 RLV

BLUE ROCK RD. RELOC. STA. 88+25 TO STA. 89+51.32

220
468

2 | OHIO
HAM-275-13.91
HAMILTON COUNTY

860
850
840
830
820

2:1

823.75
91+00
855.9

91+00 4955 O

186 91+00

860
850
1048
840
830
820

LA-RIW

2:1

826.09
90+50
855.9

9131 O

90+50 4978 O

194 90+50

8128 O

1127
860
850
840
216 90+00
830
994
820

2:1
1:1
6:1
3:1
824.2
Approx. Rock Line
LA-RIW

828.43
90+00
853.8

90+00 3929 O

6309 O

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DEVELOPED CHECKED
7-22-70 RJO 7-10-72 ALG

BLUE ROCK RD. RELOC. STA. 90+00 TO STA. 91+00

221
468

2 | OHIO
HAM-275-13.91
HAMILTON COUNTY

850
840
830
820

168

3:1

816.65
92+50
834.6

2934.0

214

614.0

850
840
830
820

172

819.05
92+00
842.5

3668.0

975

7672.0

850
840
830
820

179

1008

LA-R/W

LA-R/W

2:1

2:1

821.41
91+50
848.6
℄

4047.0

8813.0

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

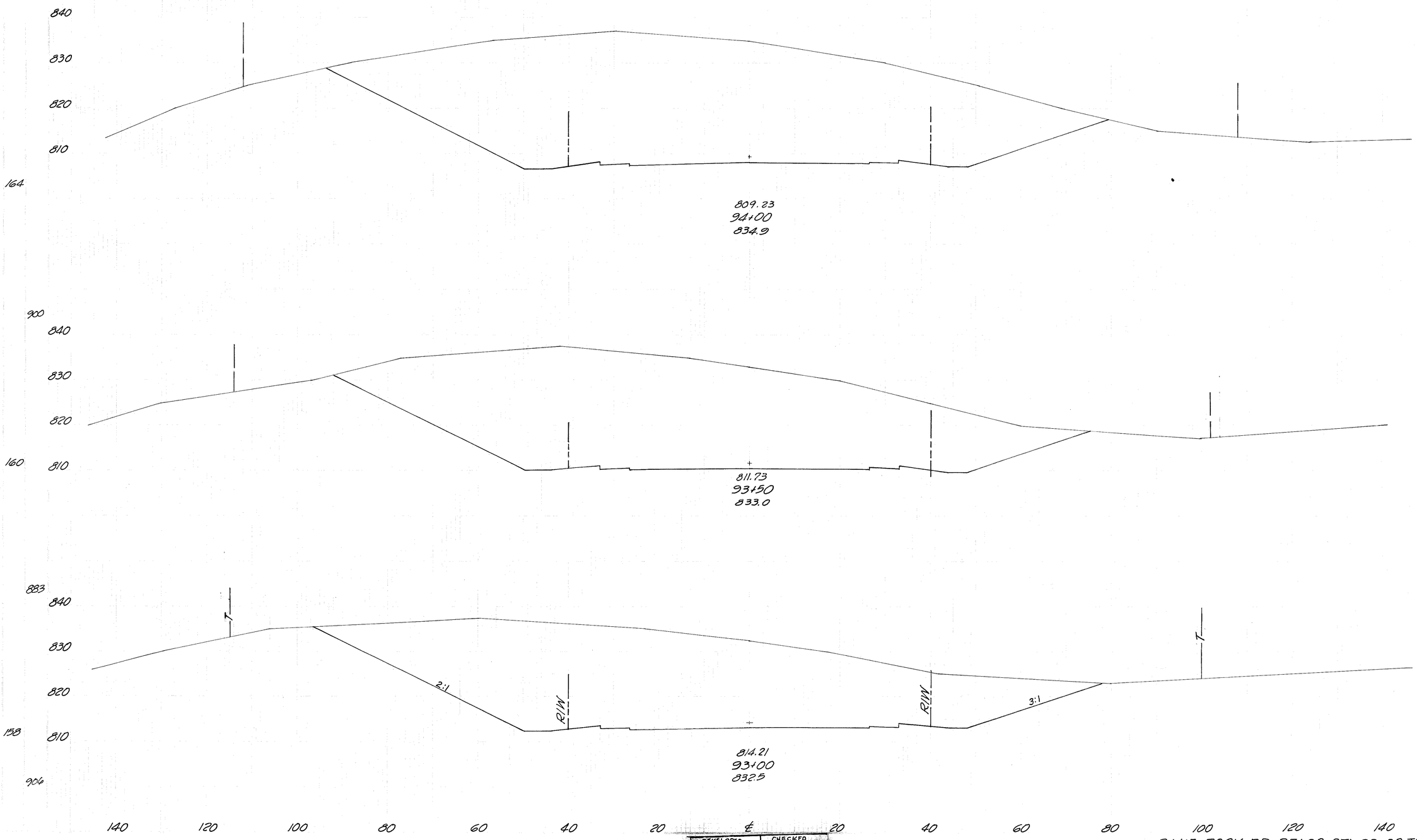
LOPED	CHECKED
7-22-70 RJO	7-10-72 A.L.Q.

BLUE ROCK RD. RELOC. STA 91+50 TO STA. 92+50

2	OHIO

HAM-275-13.91
HAMILTON COUNTY

222
408



DEVELOPED	CHECKED
7-22-70 RJD	7-10-72 A.L.

BLUE ROCK RD. RELOC. STA 93+00 TO STA 94+00

223
468

2 | OHIO

HAM-275,13.91
HAMILTON COUNTY

840
830
820
810
800
157

801.73
95+50
837.0

4856 O

840
872
830
820
810
157
800

804.23
95+00
836.3

8651 O

4487 O

867
840
830
820
155
810
886
800

2:1
R/W
R/W
2:1

806.73
94+50
836.6

7917 O

4063 O

7038 O

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DEVELOPED		CHECKED	
2-22-72	R.J.D.	3-10-72	A.L.S.

BLUE ROCK RD. RELOC. STA 94+50 TO STA 95+50

Z | OHIO
HAM-275 13.91
HAMILTON COUNTY

830
820
810
800
790

161

794.23
97+00
826.3

4422 O

830
897 820
810
800

162

796.73
96+50
831.3

4974 O

8881 O

840
911
830
820
810
800

166

897

2:1
R/W
R/W
2:1

799.23
96+00
835.6

9330 O

5122 O

9239 O

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

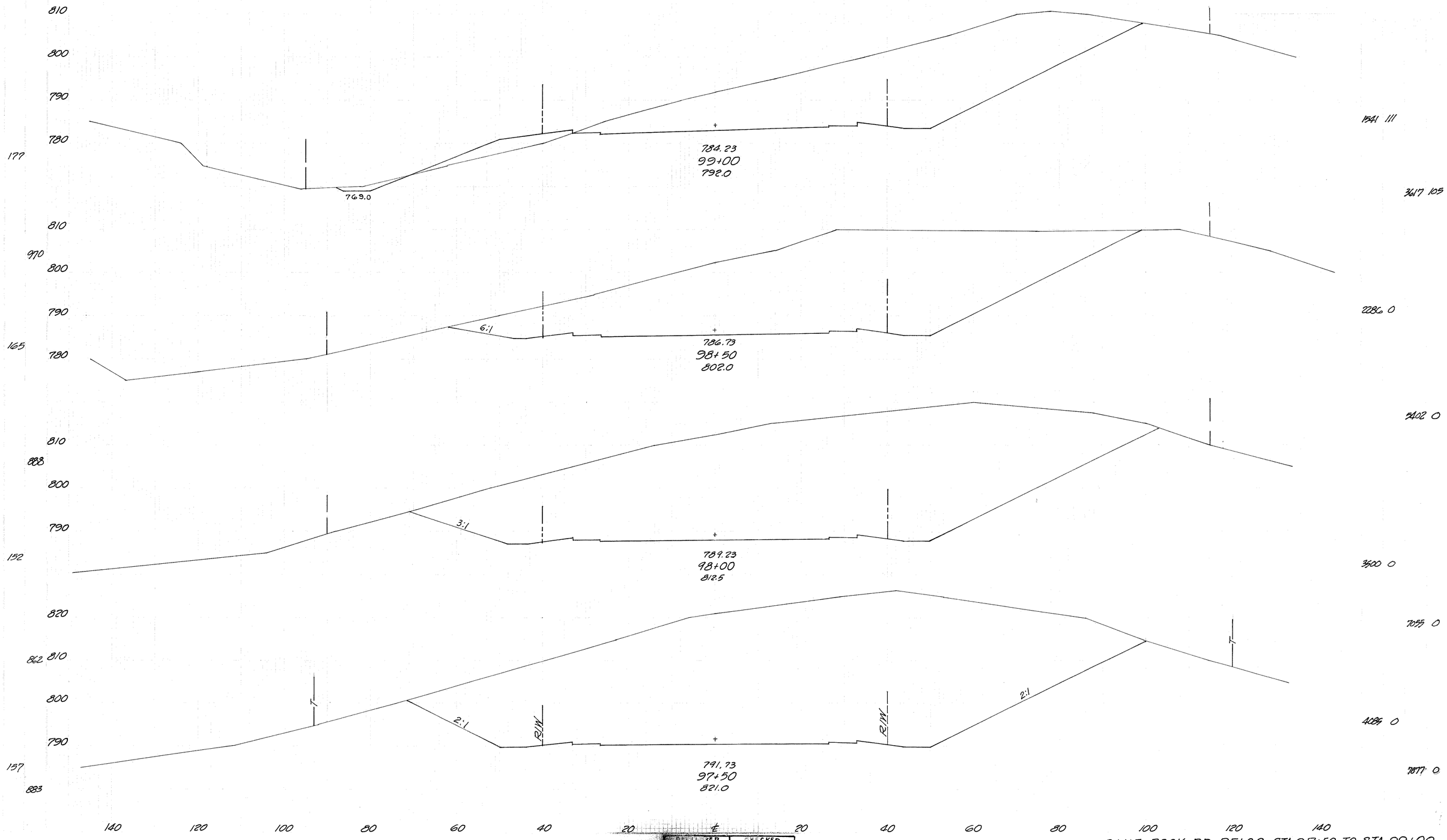
DESIGNED	CHECKED
2270 R.T.D.	7-10-72 A.L.S.

BLUE ROCK RD. RELOC. STA 96+00 TO STA 97+00

225
468

2	OHIO

HAM-275-13.91
HAMILTON COUNTY



DRAWN	CHECKED
7-22-70 RJD	7-10-72 DCS

BLUE ROCK RD. RELOC. STA 97+50 TO STA 99+00

OHIO
HAM-275-13.91
HAMILTON COUNTY

226
468

790
780
770
760

769.0

6 1021

Culvert @ Sta. 101+10± (Inlet)
E = 769.42

102

771.73
101+50
760.0

8 1773

790
780
553
770

773.8

3 891

Temp. Ease
160' Lt.

97

774.23
101+00
762.8

569 1465

790
780
844
770

100+60, 76' Lt.
HW-4 Headwall
E 36" = 764.00

764.5

776.8

3:1

612 688

207

776.73
100+50
768.7

887 1154

1039 780
770

346 558

167

779.23
100+00
776.0

1084 869

922
790

R/W

R/W

2:1

780

825 381

165
976
770

3:1

781.73
99+50
782.5

768.8

2251 468

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DESIGNED	CHECKED
7-22-70 R.L.D.	7-30-70 A.L.S.

BLUE ROCK RD. RELOC. STA 99+50 TO STA 101+50

OHIO
HAM-275-13.91
HAMILTON COUNTY

227
468

790
780
790
780
770
770
790
780
770
790
780
770
760
750

138
872
176
958
169
669
132
147
132
650

3:1
761.73
103+50
763.5
1:1
30'
764.23
103+00
761.5
1:1
30'
745.7
766.73
102+50
754.8
2:1
754.3
768.73
102+10
751.3
8:1
8:1
3:1
760.8
769.23
102+00
754.8
760.0

Spl. Bench 94 94
560 202
888 960
Spl. Bench 200 200
399 835
Spl. Bench 122 122
570 1973
Spl. Bench 113 113
217 1296
Spl. Bench 0 0
201 1988
55 1388
Sta. 101+82, 70' Rt.
HW-4 Headwall
E 36" = 762.0
17 491
36 1265
39 2117

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

CHECKED
7-22-70 P.J.D. 7-10-72 A.S.

BLUE ROCK RD. RELOC. STA. 102+00 TO STA 103+50

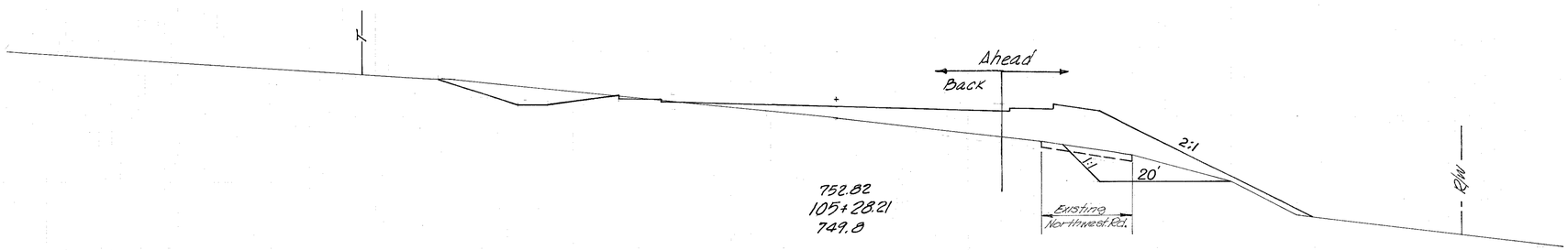
2 | OHIO

HAM-275-13.91
HAMILTON COUNTY

228
468

107 AHEAD

41 BACK

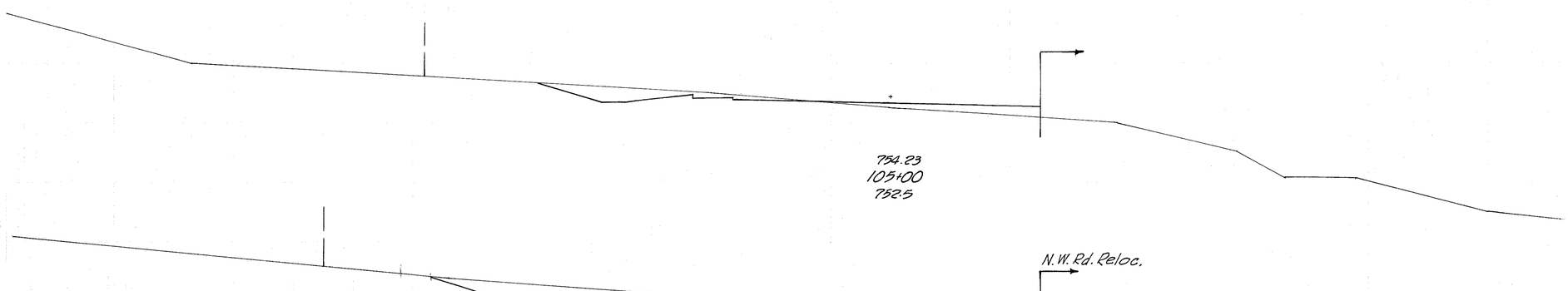


Spl. Bench 73 73

Spl. Bench 63 63
AHEAD 50 237
BACK 50 88

186

46



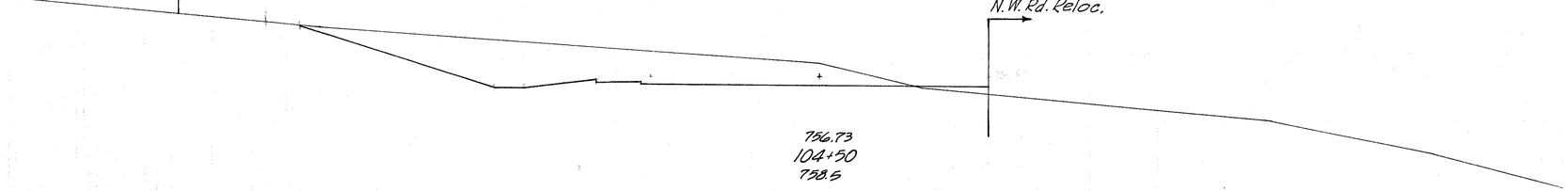
Spl. Bench 33 33
59 63

62 32
Spl. Bench 0 0

306

388 35

64



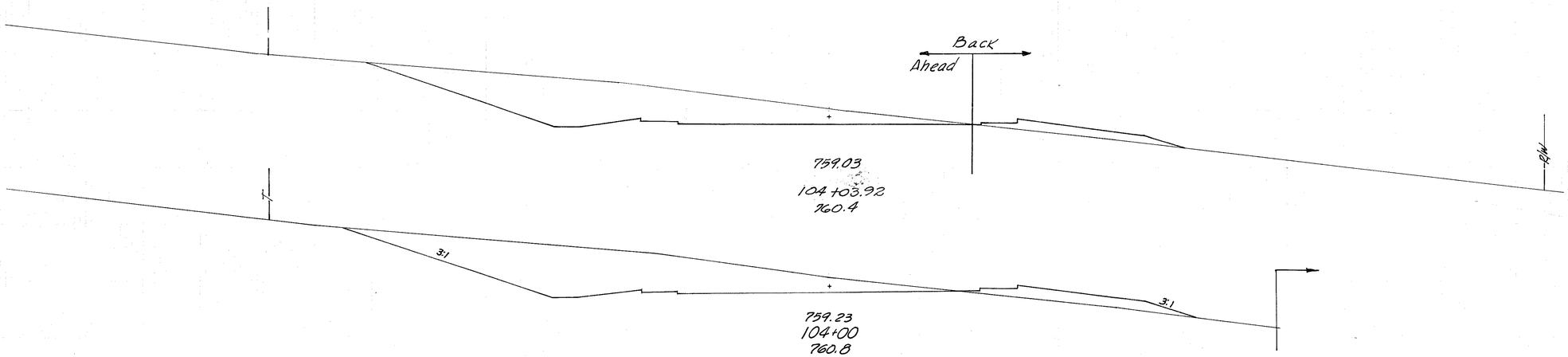
357 6

388

684 5

68 AHEAD

161 BACK



AHEAD 444 0

BACK 444 46

60

68 8

114

494 64

Spl. Bench 0 0

700

976 846

Spl. Bench 87 87

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DEVELOPED	CHECKED
7.22.72	BJ.D. 7.10.72

BLUE ROCK ROAD RELOC. STA 104+00 TO STA 105+28.21

2	OHIO	

HAM-275-13.08
HAMILTON COUNTY

229
408

161

398

742.0

744.23
107+00
730.5

725.3

Ex. Elev.

70 1575

53 1366

143

4:1

744.0

3:1

745.37
106+76
733.0

725.5

52 1555

46 1446

401

744.8

2.75:1

746.73
106+50
736.3

725.7

45 1504

Spl. Bench 0 0

140

697

748.6

83 2216

Spl. Bench 131 131

1:1

20'

Ex. Elev.

727.0

749.23
106+00
741.5

46 927

Spl. Bench 142 142

115

569

3:1

47 1259

Spl. Bench 241 241

1:1

20'

2:1

1:1

20'

751.73
105+50
749.6

5 433

90

238

Ex. Channel
727.2

22 270

Spl. Bench 118 118

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

ELEVATED	CHECKED
7-10-20 R.J.P.	7-10-20 A.G.S.

BLUE ROCK ROAD RELOC. STA 105+50 TO STA 107+00

230
468

164 AHEAD

54 BACK

Ahead
Back
Variable Slope
726.8

735.43
108+76.01
717.8

AHEAD 30 1845

BACK 30 1054

153

53

16 1084

727.0

736.73
108+50
717.3

3 1225

341

Blue Rock Rd. Conn.
Headwall

21 2342

20 1375

72

739.23
108+00
719.8

463

Back
Ahead
3:1
727.7
3:1
725.0

80 2708

91 AHEAD

146 BACK

741.84
107+47.77
728.0

AHEAD 65 1485

BACK 55 1630

800

109 2835

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DEVELOPED 7-22-70 R.J.D. | CHECKED 7-10-72 ACT.

BLUE ROCK ROAD RELOC. STA. 107+47.77 TO STA. 108+76.39

2 | CHIO

HAM-275-13.91
HAMILTON COUNTY

231
468

740
730
106 740
622 730
118 740
856 730
190 740
978 730
720
162 740
889 730
720
158
1002 730
720
209
505

17 529
23 984
8 534
302 1235
318 800
312 1618
19 947
30 1672
13 859
16
19 2068
8 1414
17 1471

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

℄

C-3 F-9 C-4 717.5 715.26 3:1

2+60 Temporary RD. No5
712.50

721.73
111+50
715.3

C-61 720.0 718.80

2+10
719.5

39 D
Sta. 110+38, 75' Lt.
C/B -5
E Grate 721.0
E 15" 719.0

724.23
111+00
717.0

Sta. 110+25, 22' Lt.
-Ex. 8'x6' R.C. Box
E Ex. 12" & Prop. 15" = 712.75

Dike Elev. 722.5
8:1
2:1
C-62
719.8
1+55
719.8
10%

726.73
110+50
717.9

53'-15" Conduit Type B, 706.02 Class III
Ot 707.13

39 D 46

C-33 722.3 722.7

723.00
1+00 Begin Temporary RD. No5

Ex. R/W

729.23
110+00
719.6

Drive Profile
-2%
+4%
8:1
726.2
723.0

Drive, 109+40 Rt.

Drive @ 109+40 Rt.

731.73
109+50
722.5

Ex. R/W
160' Lt.
3:1
8:1
3:1
724.0
726.5

Existing
Blue Rock Rd.

734.23
109+00
718.0

BLUE ROCK RD. RELOC. STA 109+00 TO STA 111+50

RED
7-22-8 R.J.D. 7-10-92 RP.91

HAM-275.13.91
HAMILTON COUNTY

Meet Existing Sta. 7+60
Temporary Road No5

F-34

703.57
115+21.87
703.5
BACK

C-47

Meet Exist. Drive
0+20±

Prop. Drive Apron

F-58

704.88
6+19
704.1

704.53
115+00
705.0

F-55

C-4

706.81
114+50
705.9

706.0

701.0

706.57
5+67
705.0

F-73

708.5

703.8

708.13
5+19 Temporary Road
705.2 No5

709.23
114+00
708.9

R/W

F-62

C-2

706.8

709.83
4+67
706.8

711.73
113+50
710.5

710.2

48 D

Sta. 113+24, 39' Rt.
C.B. 2-2B
E Grate - 711.0
E 12" - 708.5

Remove Ex. 2'x2' Conc. Box & Connect Pipe Through

F-57

707.0

60 D

Stg. 112+78, 67' Rt.
HW-4
E 21" - 706.8

711.47
4+15
709.2

714.23
113+00
710.1

26'-12" Type 'B'

46

48 D

Dike Elev. 710.5

F157

5.0%

712.57
3+64
707.8

714.73
112+50
712.5

Sta. 112+78, 30' Lt
Ex. 8'x6' R.C. Box
E 21" 706.0

39'-21" Type C, 706.02, 706.08 E.S.
or 707.13

46

60 D

3:1

2:1

F-103

712.7

713.42
3+11 Temporary Rd. No5
709.2

Ex. Blue Rock Road

719.23
112+00
714.2

℄

T

T

710
700
710
700
710
700
710
700
710
700
720
710
700
730
720
710
600

62
153
64
389
76
425
77
442
82
567
122
694
128
661
110

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

232
468
32 0
34 0
51 0
58 38
12 41
13 135
2 105
6 219
4 131
91 421
94 324
160 750
79 486
87 996
15 590
30 1036

BLUE ROCK RD. RELOC. STA 112+00 TO STA 115+21.87

0 49+75 — Reloc. B.R. Rd. — Reloc. B.R. Rd.

755.71
49+75 (End sections Reloc. Northwest Rd.)
753.0

28 — Reloc. B.R.R.D. — Reloc B.R.R.D.

34 49+60

68

754.90
49+60
752.8

34 49+42

105

77 49+25

79 — 2:1

83 49+00

129

753.84
49+42
751.1

78 48+68.22

146

66 48+50 — R/W — 749.0'

268

752.49
49+25
745.6

72 48+15

105

54 48+00 — 3:1 — 747.0' — R/W — Channel Ease. 98' Rt.

58

51 47+90

233

54 47+50 — 1:1 — 40'

244

750.51
49+00
741.9

56 47+10

31

0 47+00 — R/W — 2:1 — 745.2 — R/W — 2:1 — 1:1 — 25' — 730.3' — Channel Ease. 78' Rt.

748.22
48+68.22
741.1

60 40 20 ℄ 20 40 60

Channel Ease. 74' Rt. — R/W — R/W — 744.0 — 732.0

747.12
48+50
741.4

Sta. 48+12, 31' Lt.
HW-4 Hd'wall
℄ 48" = 739.20'

Channel Ease. 65' Rt.

Sta. 48+12, 43' Rt.
HW-4 Hd'wall
℄ 48" = 733.30'

739.5'

745.40
48+15
740.7

733.0'

744.83
48+00
741.4

2:1 — 735.0'

Begin G. R. 48+00 Rt.

744.50
47+90
741.4

2:1 — 735.2'

743.66
47+50
741.4

2:1 — 740.8' — 2:1 — ℄ Creek — 735.6'

R/W — 740.0' — ℄ Creek — Ex. R/W — Channel Ease.

Meet Exist. Pav't.
47+10
743.1

ZERO AREA
STATION 47+00

				233
				468
49+75	0	183		
				0 96
49+60	0	163		
				0 104
49+42	0	148		
				3 189
49+25	10	451		
Spl. Bench	0	0		3 181
Channel Ease.				107 107
49+00	11	649		
Spl. Bench	183	183		6 316
				241 241
48+68.22	11	531		
Spl. Bench	91	91		5 288
				31 31
48+50	4	324		
Spl. Bench	0	0		19 447
48+15	25	365		
				7 165
48+00	0	229		
				0 80
47+90	0	201		
				5 212
47+50	7	85		
				20 63
47+10	20	0		
				4 0
47+00	0	0		

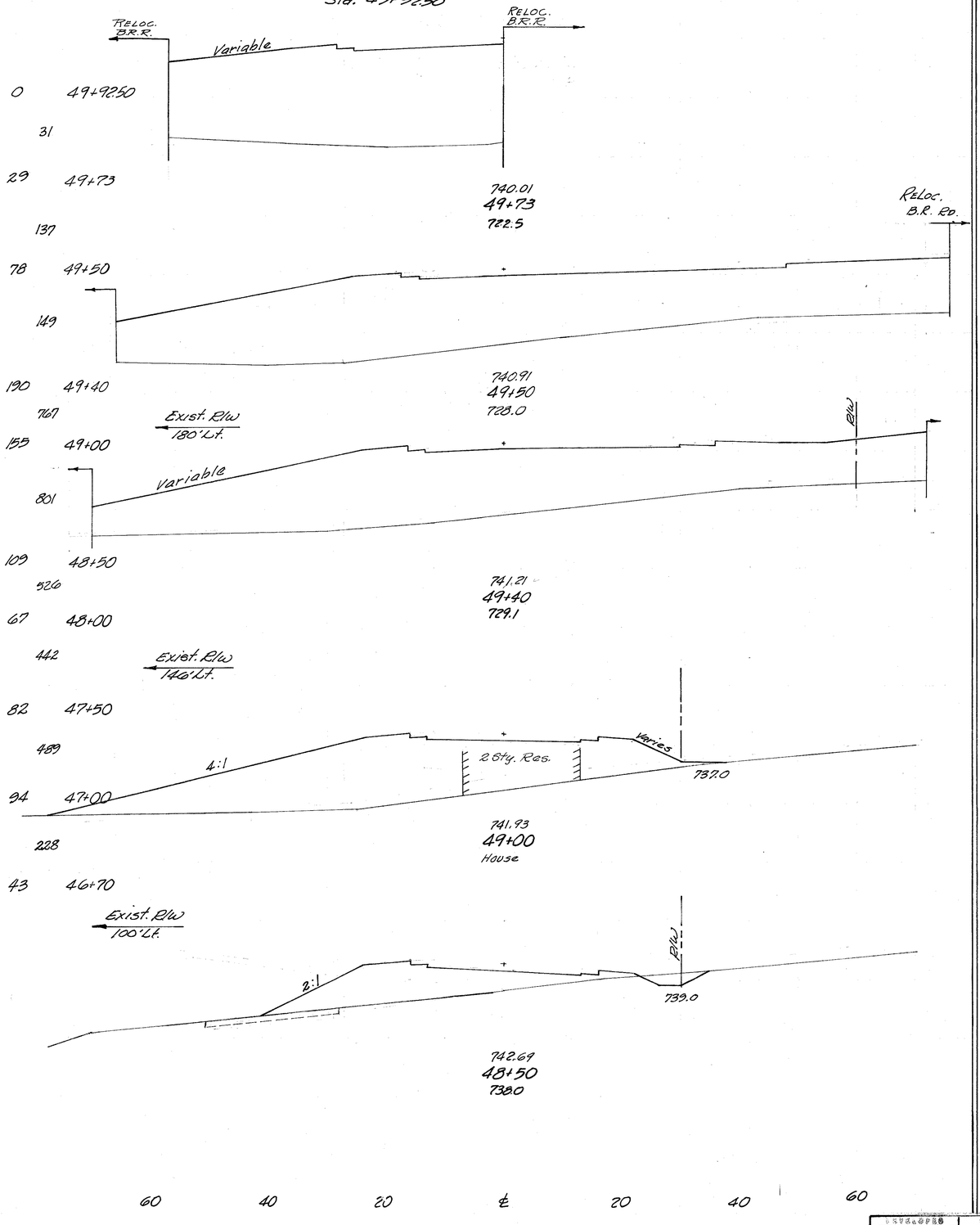
DEVELOPED — CHECKED
7-22-76 E.J.C. 7-10-72 A.C.S.

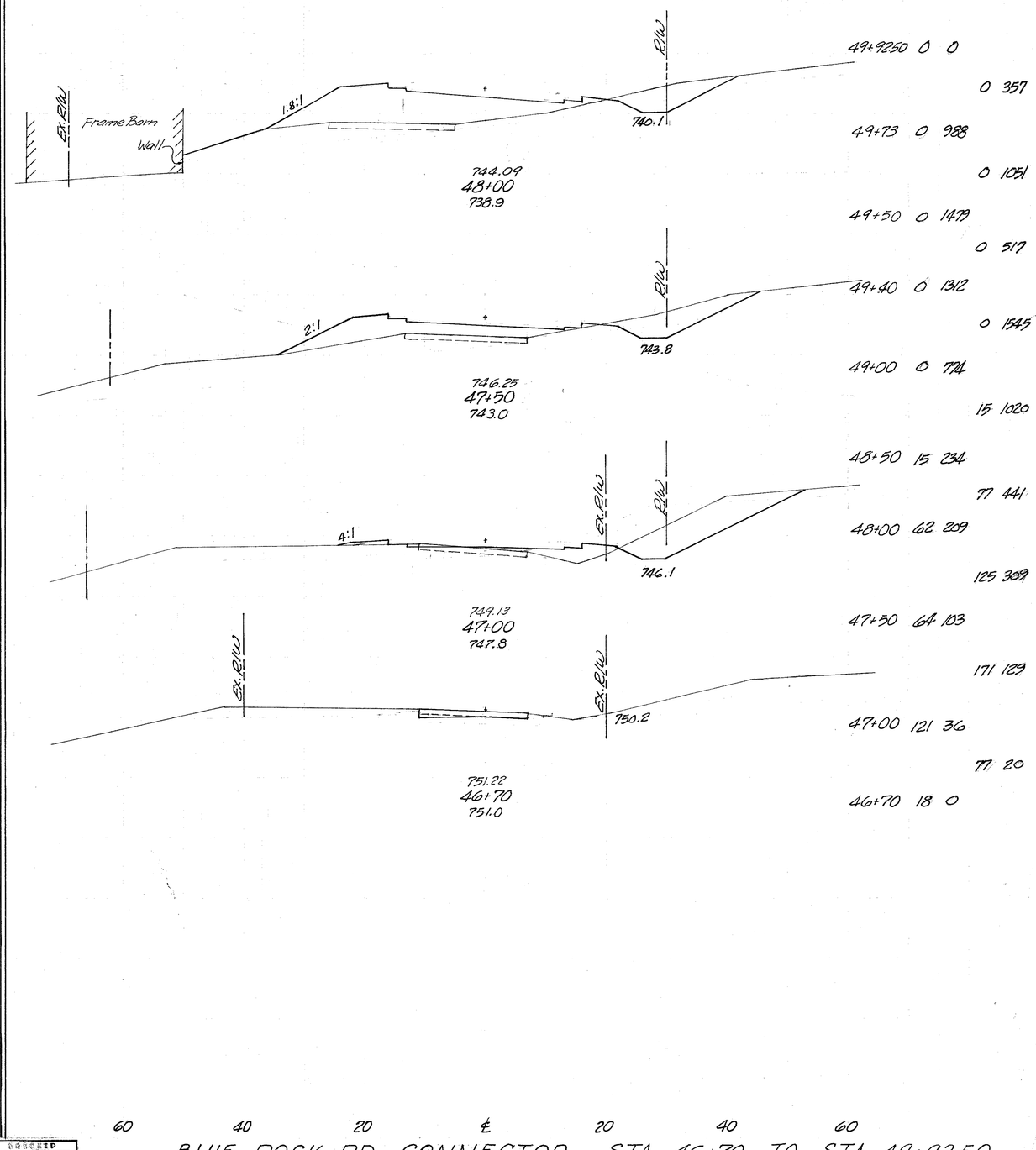
60 40 20 ℄ 20 40 60

RELOC. NORTHWEST RD. STA. 47+00 TO STA. 49+75

HAM-275-13.91
HAMILTON COUNTY

Zero Area
Sta. 49+92.50





STARTED	FINISHED
7-22-70 R.J.D.	7-10-72 R.L.S.

BLUE ROCK RD. CONNECTOR STA. 46+70 TO STA. 49+92.50

22 11+40

18

11 11+30

10 900

8 11+21

3 890

4 Ahead 11+14

4 Back

0

900

0 11+08

0 890

0 11+02

0 8+87

1

900

4 8+82

3

890

3 Ahead 8+75

29 Back

37

22 8+62

900

39

890

37 8+50

172

25 8+00

900

69

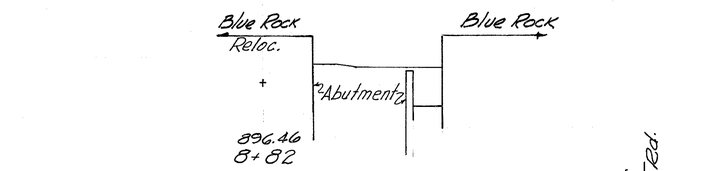
890

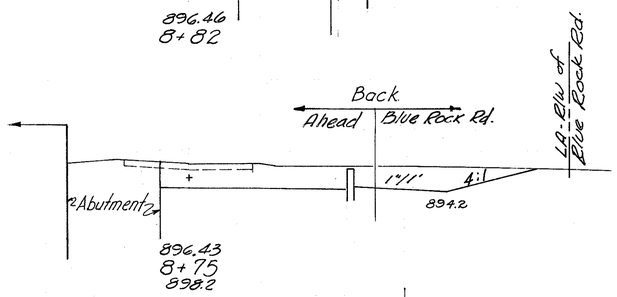
4 7+50

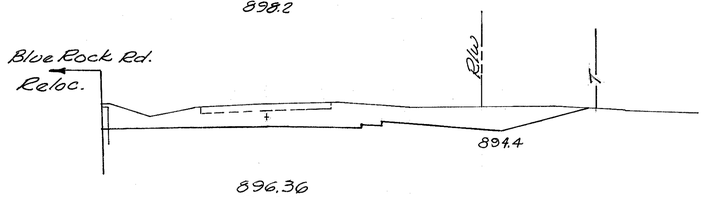
900

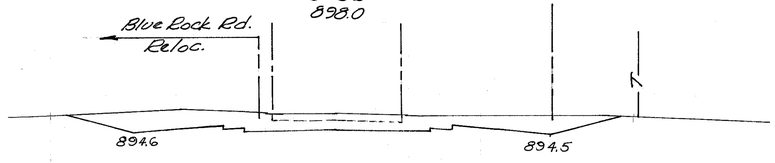
890

Zero Area
Sta. 8+87

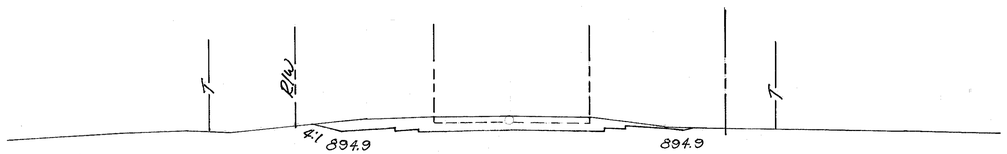


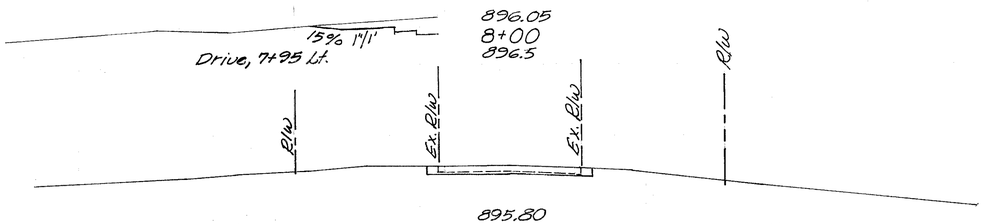






896.30
8+50
897.4

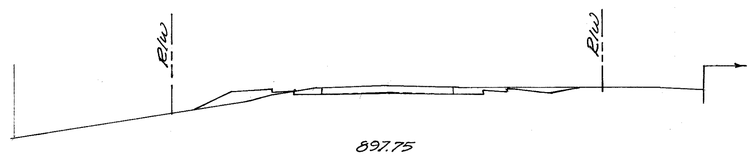




895.80
7+50 Begin Full Depth Pavmt.
895.8

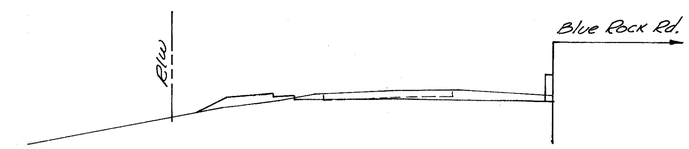
60 40 20 ℄ 20 40 60

900
890



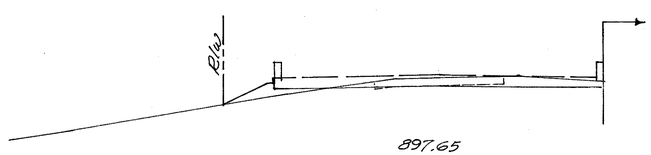
897.75
11+40
897.2

900
890



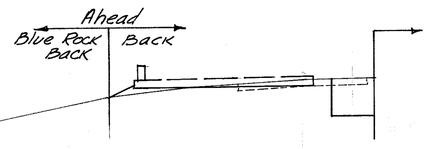
897.70
11+30
897.2

900
890



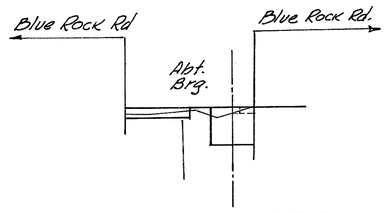
897.65
11+21
897.1

900
890



897.62
11+14
897.3

900
890



897.59
11+08

11+02 = Zero Area

60 40 20 ℄ 20 40 60

SPRINGDALE RD. RELOC. STA. 7+50 TO STA. 11+40

DEVELOPED 7-21-70 RJD
CHECKED 7-10-72 DLC

231
468

2 SHTS

HAM-275-13.91
HAMILTON COUNTY

11+40 29 12

12 4

11+30 37 12

12 4

11+21 34 10

5 2

Ahead 11+14 8 4
Back

1 0

11+08 5 0

1 0

11+02 0 0

8+87 0 0

2 0

8+82 22 0

16 0

Ahead 8+75 100 0
Back 156 0

83 0

8+62 189 0

82 0

8+50 178 0

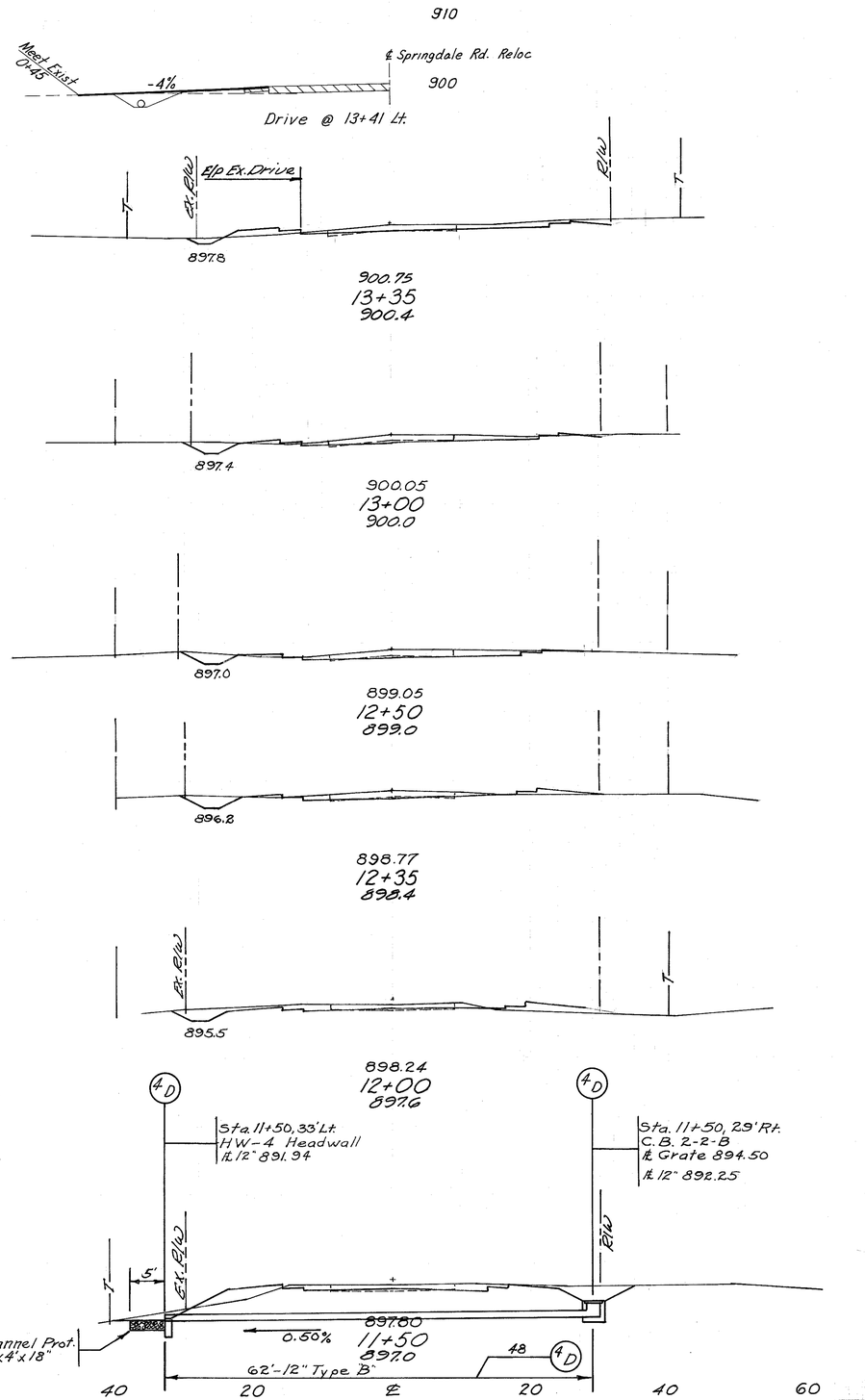
250 0

8+00 92 0
Drive @ 7+95 Lt. 5
85 0

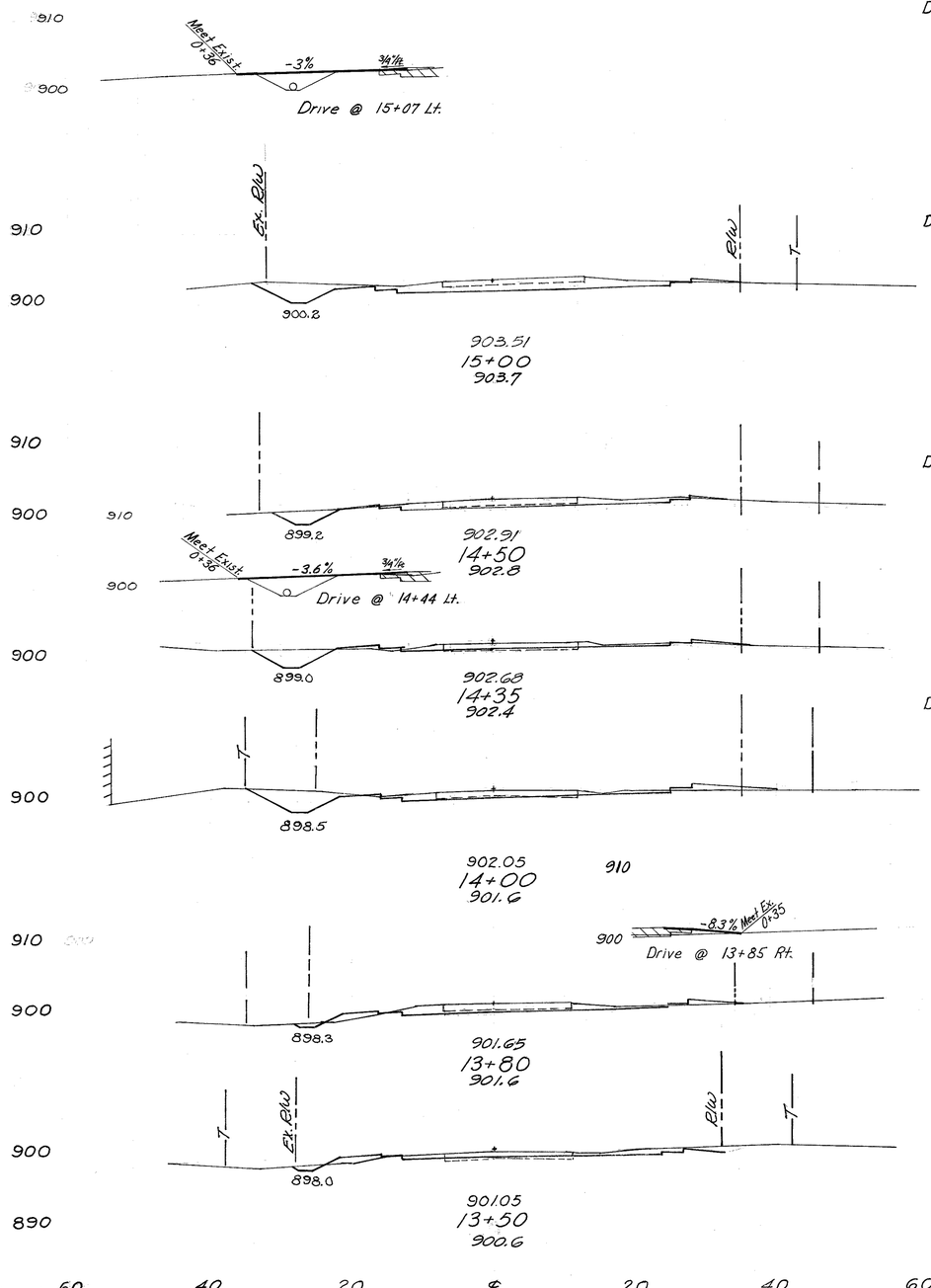
7+50 30 0

2 Copies

HAM-275-13.91
HAMILTON COUNTY



27	15+00	
147	910	
26	14+50	
	900	
47		
	890	
30	14+35	
128		
36	14+00	
	900	
64		
22	13+80	
	910	
82		
	900	
27	13+50	
47		
29	13+35	
109	900	
27	13+00	
	890	
136		
22	12+50	
41	900	
27	12+35	
	890	
113		
31	12+00	
225		
	900	
50	11+50	
	890	
40		



Drive @ 15+07 Lt. -4

15+00	55	2
		83 2
14+50	35	0
		18 1

Drive @ 14+44 Lt. -4

14+35	30	5
		44 8
14+00	38	7
		26 6

Drive @ 13+85 Rt. 2

13+80	33	9
		36 9
13+50	31	7
		17 4

Drive @ 13+41 Lt. -1

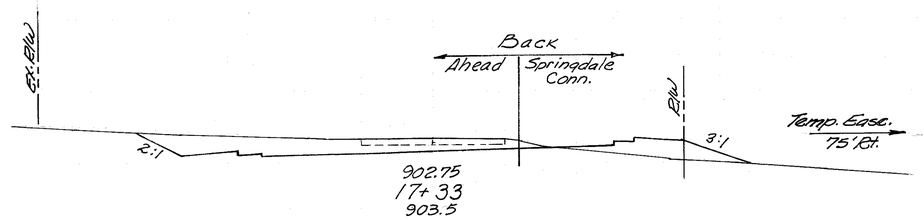
13+35	29	8
		40 7
13+00	33	3
		62 6
12+50	34	3
		19 3
12+35	33	7
		40 11
12+00	28	10
		60 20
11+50	37	12
		12 4

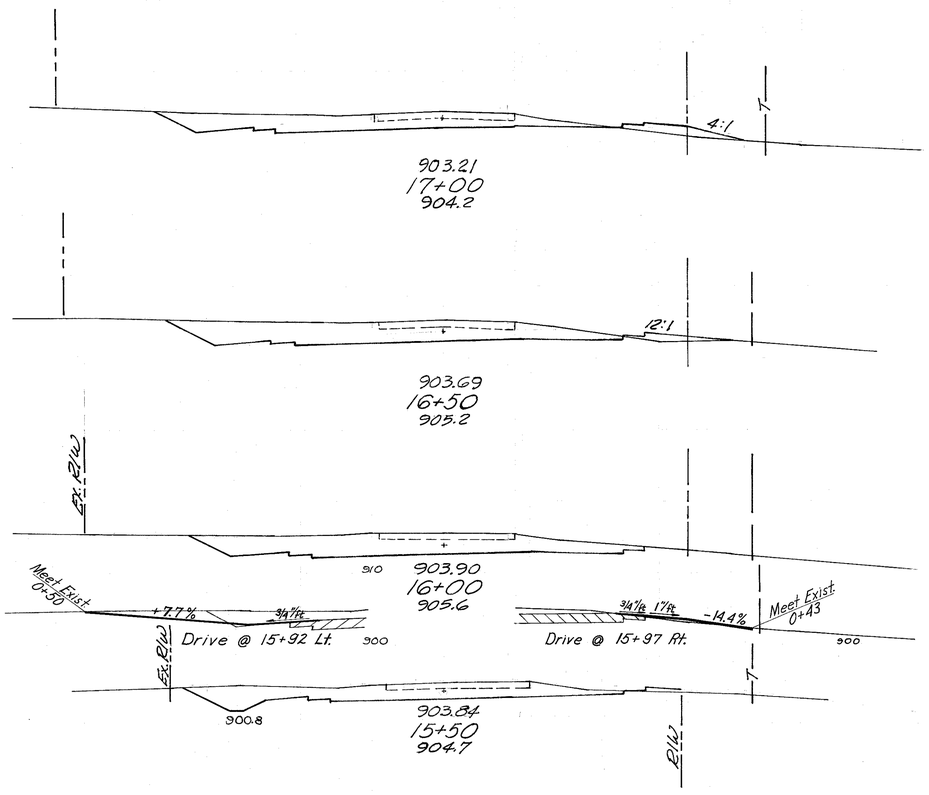
DESIGN	DRAWN	CHECKED
7-21-72	RJD.	7-11-72 RLS.

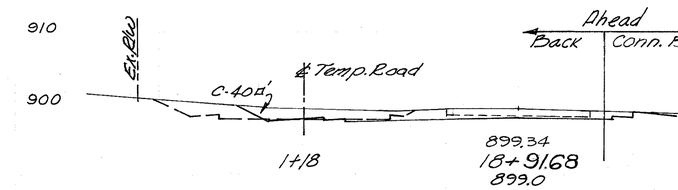
SPRINGDALE RD. RELOC. STA. 11+50 TO STA 15+00

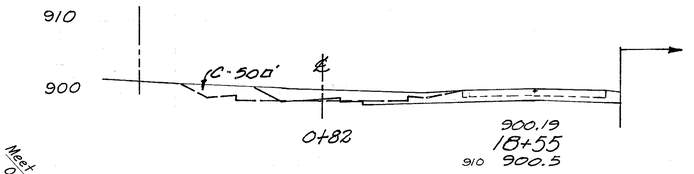
HAM-275-13.91
HAMILTON COUNTY

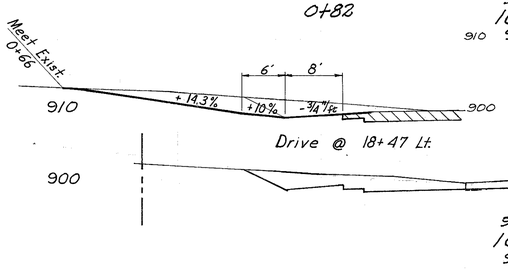
25 Ahead 18+91.68
15 Back
61
15 18+55
27
17 18+40
910
76
900
17 18+00
49
18 17+75
49
910
17 17+50
900
32
17 Ahead 17+33
34 Back
121 910
32 17+00
900
172
30 16+50
910
150
24 16+00
910
156
900
32 15+50
164

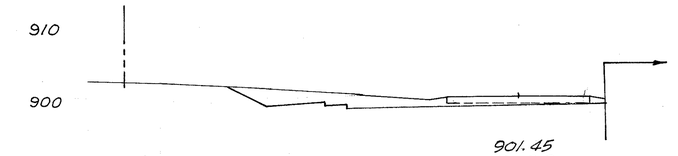


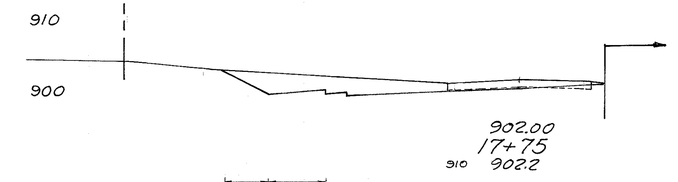


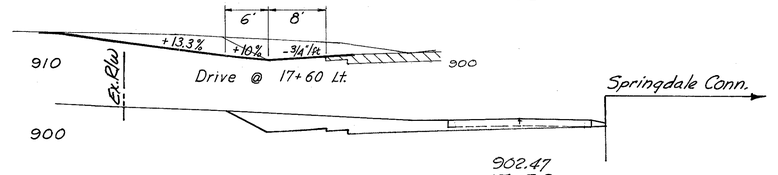












Ahead 73 0
18+91.68
Back 68 0
99 0
18+55 78 0
40 0
Drive @ 18+47 Lt. 35
18+40 66 0
102 0
18+00 72 0
69 0
17+75 76 0
74 0
Drive @ 17+60 Lt. 48
17+50 83 0
60 0
Ahead 109 0
17+33
Back 111 41
138 34
17+00 114 15
242 21
16+50 147 8
271 7
16+00 146 0
Drive @ 15+97 Rt. 4
Drive @ 15+92 Lt. 11
220 3
15+50 92 3
136 5

60 40 20 ℄ 20 40 60 (left)
60 40 20 ℄ 20 40 (right)

DESIGN 7-20-70 BJD
DRAWN 7-11-72 ALS

SPRINGDALE RD. RELOC. STA. 15+50 TO STA. 18+91.6

HAM-275-13.91
HAMILTON COUNTY

50 22+50
278
10' Rnd'g.
-15%
-1"/ft
Meet Exist. 0+58
900
890
60 40 20 ℄
Drive @ 20+25 Lt.

50 22+00
308
900
890
Ex. Elw.
10□'
891.3
50□'
℄ Temp. Rd. No.1
2+52
2:1
Elw
T
896.75
20+25
891.2

68 21+53
226

77 21+25
229
15□'
890
892.5
℄
2+27
35□'
897.06
20+00
892.8

88 21+00
379

57 20+53
162
900
Meet Exist. 0+51
Drive @ 19+90 Lt.
-8.3%
2□'
890
℄
2+17
25□'
2:1
Bldg.
897.21
19+90
893.5

47 20+25
119
5□'
3□'
4:1
Bldg.

39 20+00
890
1+75
898.00
19+50
895.9

41

35 19+90
127
47□'
℄
1+90
2□'
12:1
-9%
Meet Exist. 0+39
Drive @ 19+42 Rt.
900
890

22 19+50
890
℄
1+50
898.58
19+25
897.6

72

30 19+25
86
Ex. Elw.
42□'
Elw
T

32 19+00
890
℄ Temp. Rd. No.1
1+27
899.15
19+00
893.9

26

40 20 ℄ 20 40 60

Meet Exist. 0+47
10' Rnd'g.
+15%
-7.2%
900
890
Drive @ 22+87 Lt.
T
900
890
35□'
Ex. Elw.
894.7
℄
4+77
25□'
898.53
22+50
893.9

Meet Exist. 0+49
6' Rnd'g.
-8.3%
900
890
Drive @ 22+02 Lt.
900
890
40□'
893.3
℄
4+28
20□'
897.41
22+00
891.8

900
890
890.0
℄
3+82
47□'
896.73
21+53
890.0
1:1
20'
888.7

Meet Exist. 0+81
9' Rnd'g.
-15%
6'
-1"/ft
900
890
60 40 20
Drive @ 21+25 Lt.

900
890
889.5
℄
3+53
55□'
896.51
21+25
889.8
1:1
20'
881.3

15D
Sta. 21+04, 47' Lt.
C.B. 2-2-B
℄ Grate 889.0
℄ 12" 884.88 Ex.
℄ 15" 884.50
℄ 24" 884.0
15D
Remove Ex. C.B.
15D
Remove Ex. C.B
15D
Sta. 21+05, 53.5' Rt.
HW-4 Headwall
℄ 24" 880.0

900
890
Exist 12" R.C.P.
889.0
℄
80□'
Ex 24" R.C.P.
3.96%
896.41
21+00
889.7
1:1
20'
6'
18'
Rock Channel Prot.
Type B, 6'x4'x18"

101'- 24" Type B, 706.02 Cl. III 706.08 or 707.13

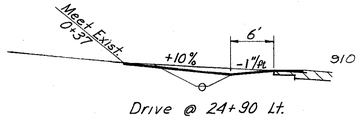
900
Lex. Elw.
48
15D
890
891.0
32□'
℄ Temp. Rd. No.1
2+80
896.51
20+53
890.5
Elw
T
880

40 20 ℄ 20 40 60 80

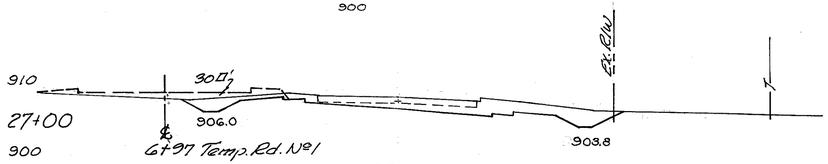
DEVELOPED	CHECKED
7-20-70 RJD	7-23-70 DLH

SPRINGDALE RD. RELOC. STA. 19+00 TO STA. 22+50

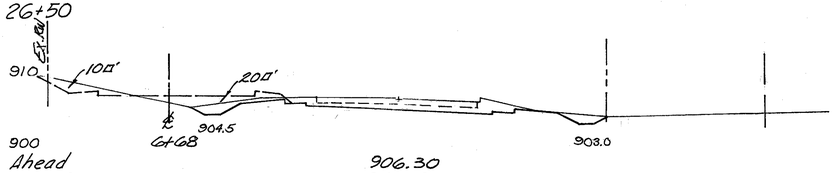
-7
Drive @ 22+78 Rt. 60
22+50 18 192
26 430
Drive @ 22+02 Lt. -2 1
22+00 10 272
45 599
21+53 42 416
50 473
Drive @ 21+25 Lt. -2 13
21+25 55 496
46 476
21+00 44 532
40 839
20+53 2 432
2 404
Drive @ 20+25 Lt. 10
20+25 2 348
2 269
20+00 2 224
0 75
Drive @ 19+90 Lt. 1
19+90 0 180
0 165
19+50 0 43
Drive @ 19+42 Rt. 4 -4
3 29
19+25 6 19
33 9
19+00 65 0
21 0



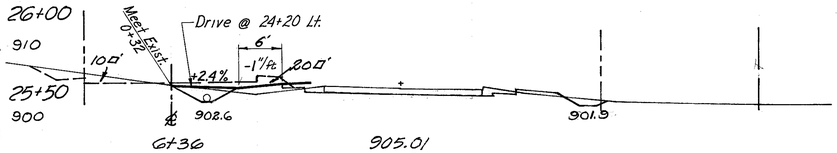
900



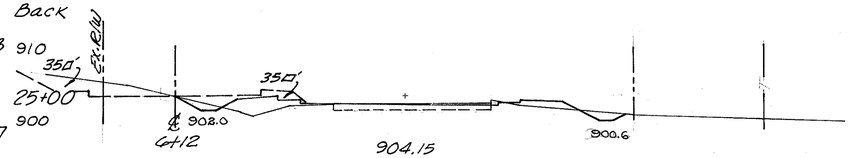
907.38
24+75
907.9



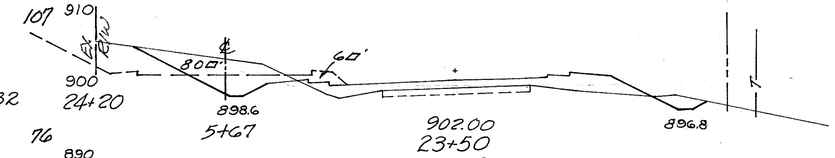
906.30
24+50
906.7



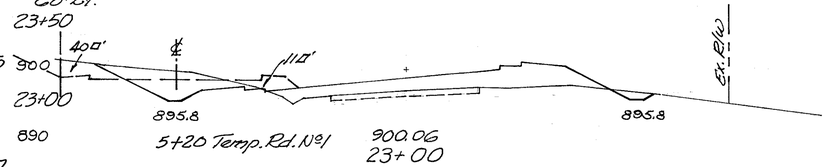
905.01
24+20
904.4



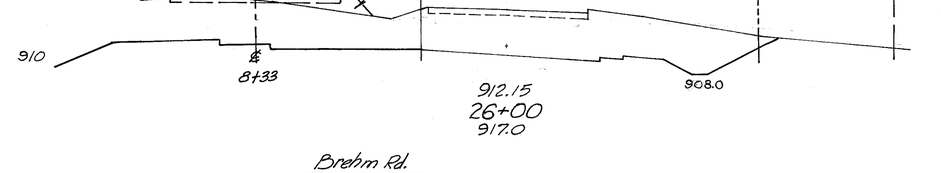
904.15
24+00
903.0



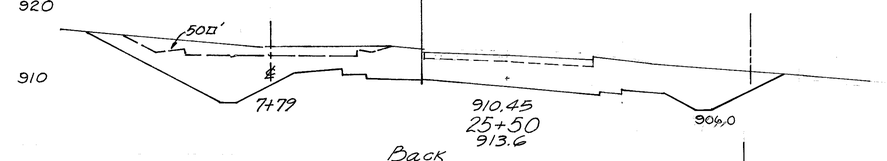
902.00
23+50
899.6



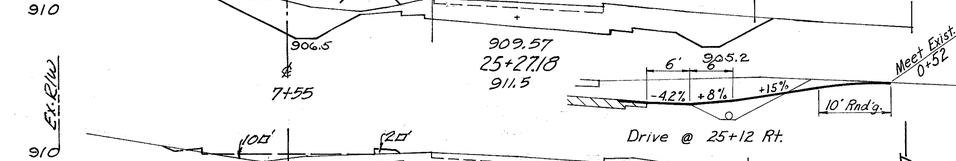
900.06
23+00
896.9



914.65
27+00
921.4



913.55
26+50
919.8



913.15
26+34.60
919.0

912.15
26+00
917.0

910.45
25+50
913.6

909.57
25+27.18
911.5

908.45
25+00
910.0

241
468

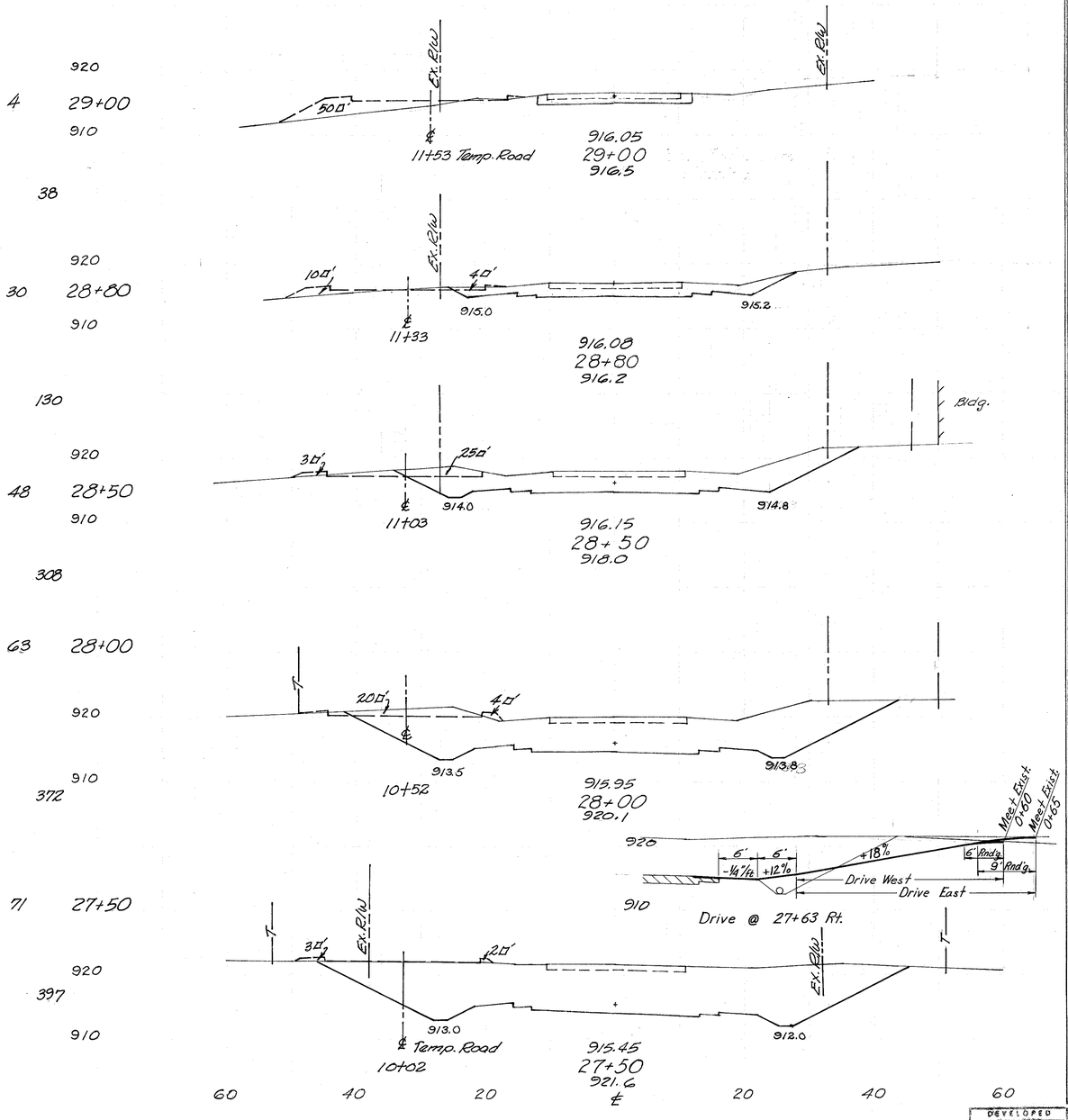
27+00 636 0
1105 0
26+50 557 0
287 0
Ahead 450 0
26+34.60
Back 269 0
345 0
26+00 269 0
444 0
25+50 211 0
158 0
Ahead 162 0
25+27.18
Back 194 0
174 0
Drive @ 25+12 Rt. 3
25+00 152 0
Drive @ 24+90 Lt. -1
114 0
24+75 95 0
73 0
24+50 63 0
58 6
Drive @ 24+20 Lt -6
24+20 41 10
19 13
24+00 10 26
74 86
23+50 70 67
114 145
23+00 53 90
66 261

DEVELOPED	CHECKED
7-20-78 RJD	7-11-12 R.L.G.

SPRINGDALE RD. RELOC. STA. 23+00 TO STA. 27+00

242
468

HAM-275-13.91
HAMILTON COUNTY



29+00 31 0

44 0

28+80 88 0

179 0

28+50 234 0

583 0

28+00 396 0

870 0

Drive @ 27+63 Rt. 31

27+50 544 0

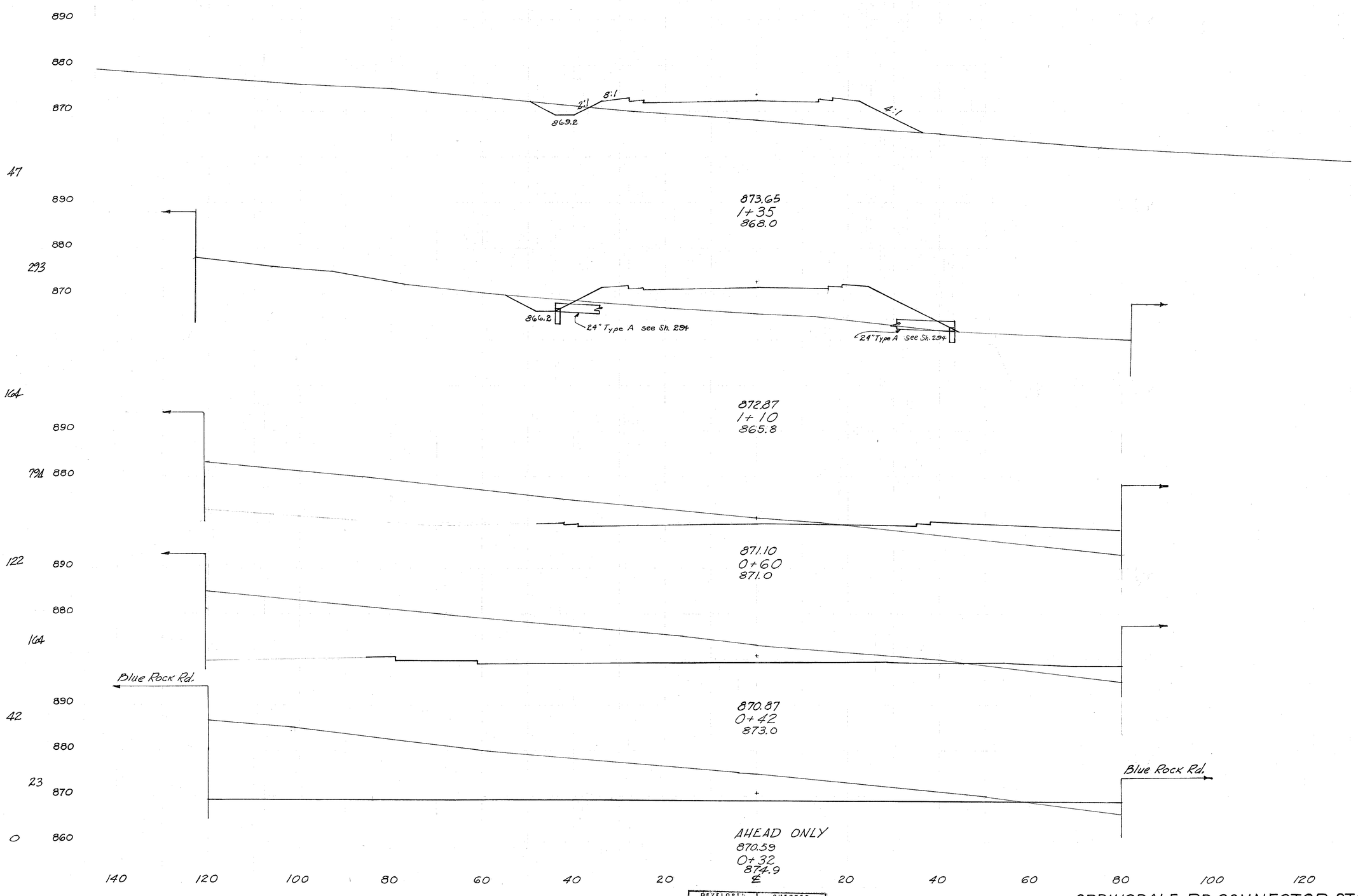
1093 0

DEVELOPED	CHECKED
7-20-70 EJD	7-10-72 A.L.S.

SPRINGDALE RD. RELOC. STA. 27+50 TO STA. 29+00

243
468

HAM-275-13.91
HAMILTON COUNTY



111 222

19 261

22 306

29 401

822 554

859 197

702 84

1246 56

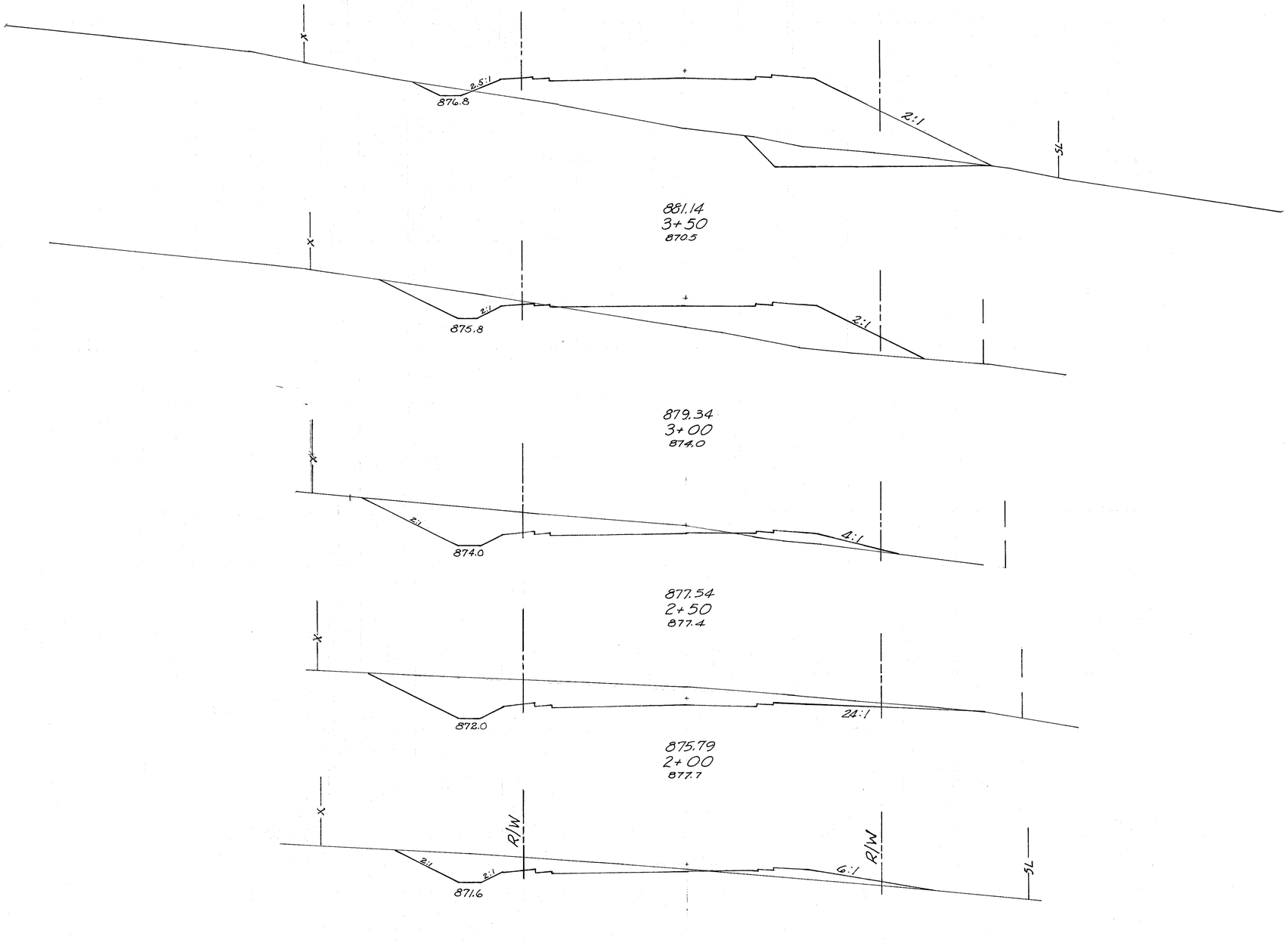
515 16

1535 30

DEVELOPED	CHECKED
6-15-70 RJD	7-12-78 A.L.P.

SPRINGDALE RD. CONNECTOR STA. 0+32 TO STA. 1+35

HAM-275-13.91
HAMILTON COUNTY



69
367
63
333
57
364
74
186
60
238

244
468

12 1480
361 361

11 679
Spl.Bench 106 106

76 895
98 98

Spl.Bench 0 0

269 293

219 28

530 26

353 0

226 18

135 39
114 222

DEVELOPED	CHECKED
6-15-72 RJD	7-18-72 A.L.H.

SPRINGDALE RD. CONNECTOR STA. 1+75 to STA. 3+50

243
468

HAM-275-13.91
HAMILTON COUNTY

890
880
870

8:1
8:1
4:1
869.2

114 222

47

890
880
293
870

873.65
1+35
868.0

19 201

866.2
24" Type A see Sh. 294
24" Type A see Sh. 294

22 306

164

872.87
1+10
865.8

890
791 880

29 401

822 554

122 890
880
164

871.10
0+60
871.0

859 197

702 84

Blue Rock Rd.

890
42 880
23 870
0 860

870.87
0+42
873.0

1246 56

Blue Rock Rd.

515 16

AHEAD ONLY
870.59
0+32
874.9
℄

1535 30

140 120 100 80 60 40 20 20 40 60 80 100 120 140

DEVELOPED	CHECKED
6-15-70 RJD	7-12-72 A.C.F.

SPRINGDALE RD. CONNECTOR STA. 0+32 TO STA. 1+35

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HAMILTON COUNTY

244
468

12 1480
361 361

11 679
Spl. Bench 106 106

76 895
98 98

Spl. Bench 0 0

269 293

219 28

530 26

353 0

226 18

135 39
114 222

880
870
860

69

881.14
3+50
870.5

X
2.5:1
876.8
2:1
SL

880
870

367

X
2:1
875.8
2:1

860

63

879.34
3+00
874.0

880
870

333

X
2:1
874.0
4:1

57

877.54
2+50
877.4

880
870

364

X
872.0
24:1

74

875.79
2+00
877.7

880
870

186

X
R/W
2:1
2:1
871.6
6:1
R/W
SL

60

238

874.95
1+75
874.0
℄

80 60 40 20 0 20 40 60 80 100

DEVELOPED		CHECKED	
6-15-72	R/D	7-18-72	A.L.J.

SPRINGDALE RD. CONNECTOR STA. 1+75 to STA. 3+50

HAM-275-13.91
HAMILTON COUNTY

245
468

890
1013
880
870
152

878.3
4:1
2:1
888.22
5+46.80
871.0
℄

54 3894
946 946

10 1692
Spl. Bench 455 455

890
738
880
870
860
132

878.1
4:1
2:1
24:1
886.54
5+00
871.2

29 2604
794 794

24 1313
Spl. Bench 461 461

880
683
870
860
114

877.8
4:1
2:1
24:1
884.74
4+50
871.1

48 2170
751 751

28 1031
Spl. Bench 350 350

890
511
880
870
70
860
386
850

R/W
R/W
877.3
3:1
2:1
℄
Approx. Rock Line
882.94
4+00
870.6

28 1806
587 587

2 919
Spl. Bench 284 284

100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DEVELOPED		CHECKED	
6-15-78	RJD	7-12-78	A.L.R.

SPRINGDALE RD. CONNECTOR STA. 4+00 to STA. 5+46.80

2A6
468

HAM-275-13.91
HAMILTON COUNTY

890
880
157
870

4:1
883.3
895.24
7+50
875.6
2:1
860.7

10 2228
Spl. Bench 323 323

954
890
880
157
870

880.8
893.66
7+00
874.0
857.5

16 4639
GD 669

6 2352
Spl. Bench 338 338

971
880
870
163
860

879.3
891.94
6+50
871.5
853.6

10 4083
756 756

4 2280
Spl. Bench 410 440

1000
880
169
870
860
850

R/W
4:1
878.6
R/W
2:1
890.14
6+00
871.0
Approx Rock Line
851.8

45 4306
857 857

41 2010
Spl. Bench 444 444

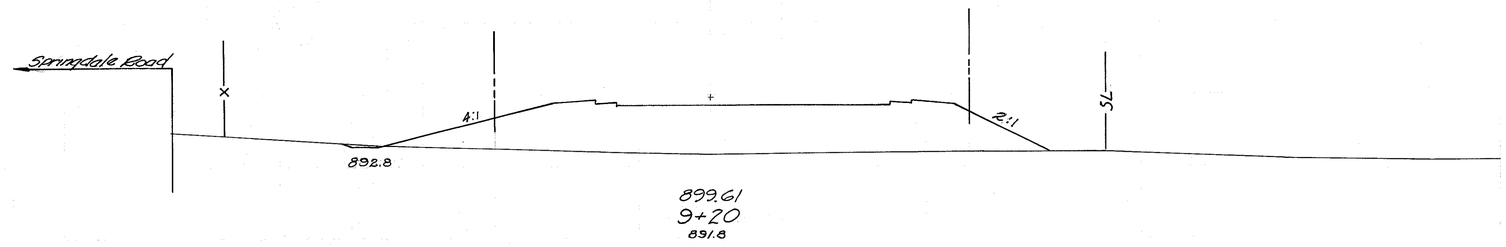
120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DEVELOPED	CHECKED
6-15-72 RJD	7-12-72 R.L.Q.

SPRINGDALE RD. CONNECTOR STA. 6+00 TO STA. 7+50

247
468

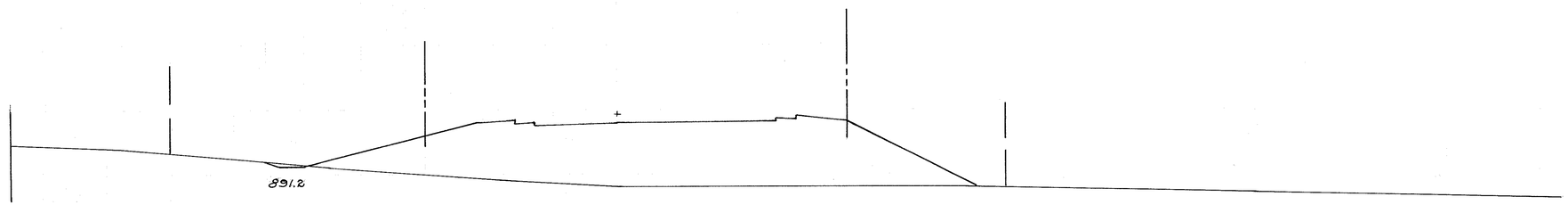
HAM-275-13.91
HAMILTON COUNTY



899.61
9+20
891.8

59

2 506



899.13
9+00
888.0

155 73

2 509

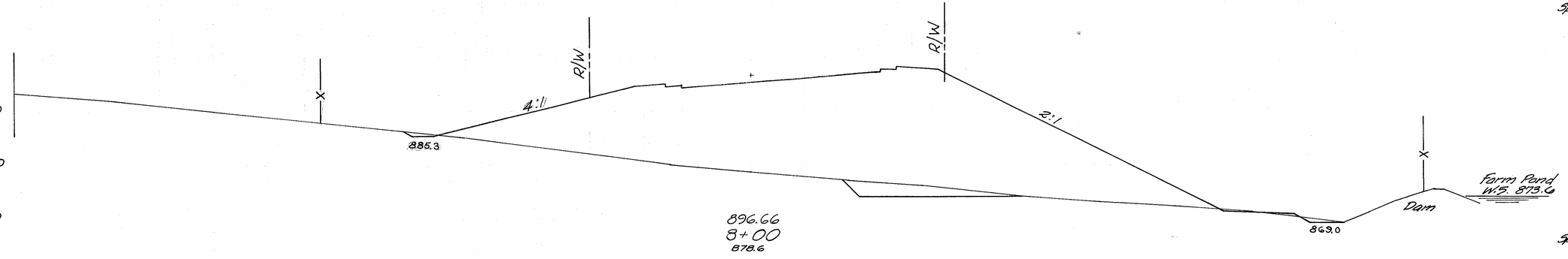
2 798

897.93
8+50
883.0

503 99

4 2129

2 1385
Spl. Bench O O



896.66
8+00
878.6

722 142 905

12 3234
G2 G2

10 1853
Spl. Bench G2 G2

20 4117
388 388

120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DEVELOPED	CHECKED
6-15-70 RJD	7-12-72 R.L.C.

SPRINGDALE R.D. CONNECTOR STA. 8+00 TO STA. 9+20.08

248
468

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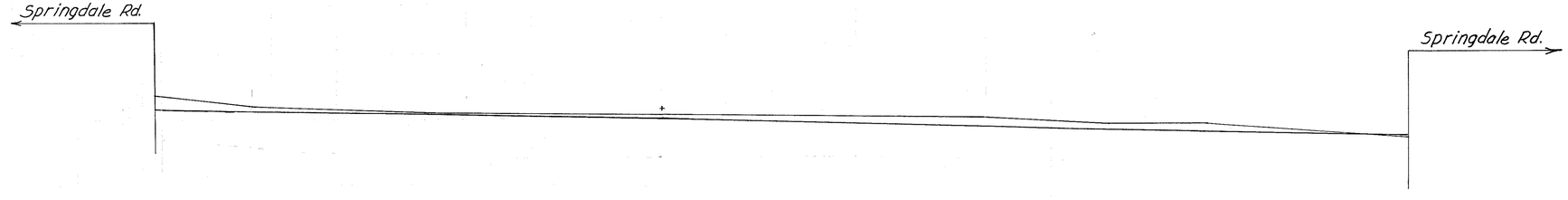
HAMILTON COUNTY



900
890

0

901.46
9+97
900.6
BACK ONLY

152 1

98

53 39

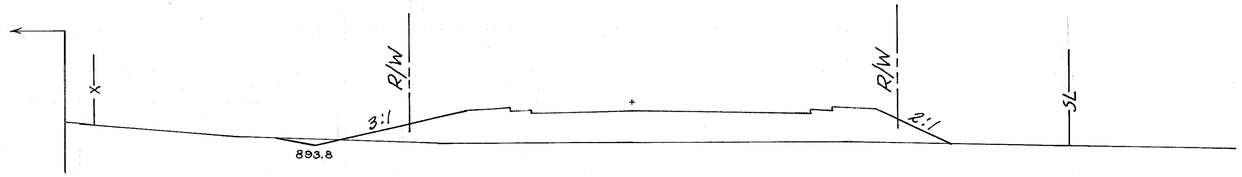
900
93
890

901.00
9+78
899.0

0 112

379

4 358



900
60
890

899.93
9+33.36
894.0

5 321

88

2 205

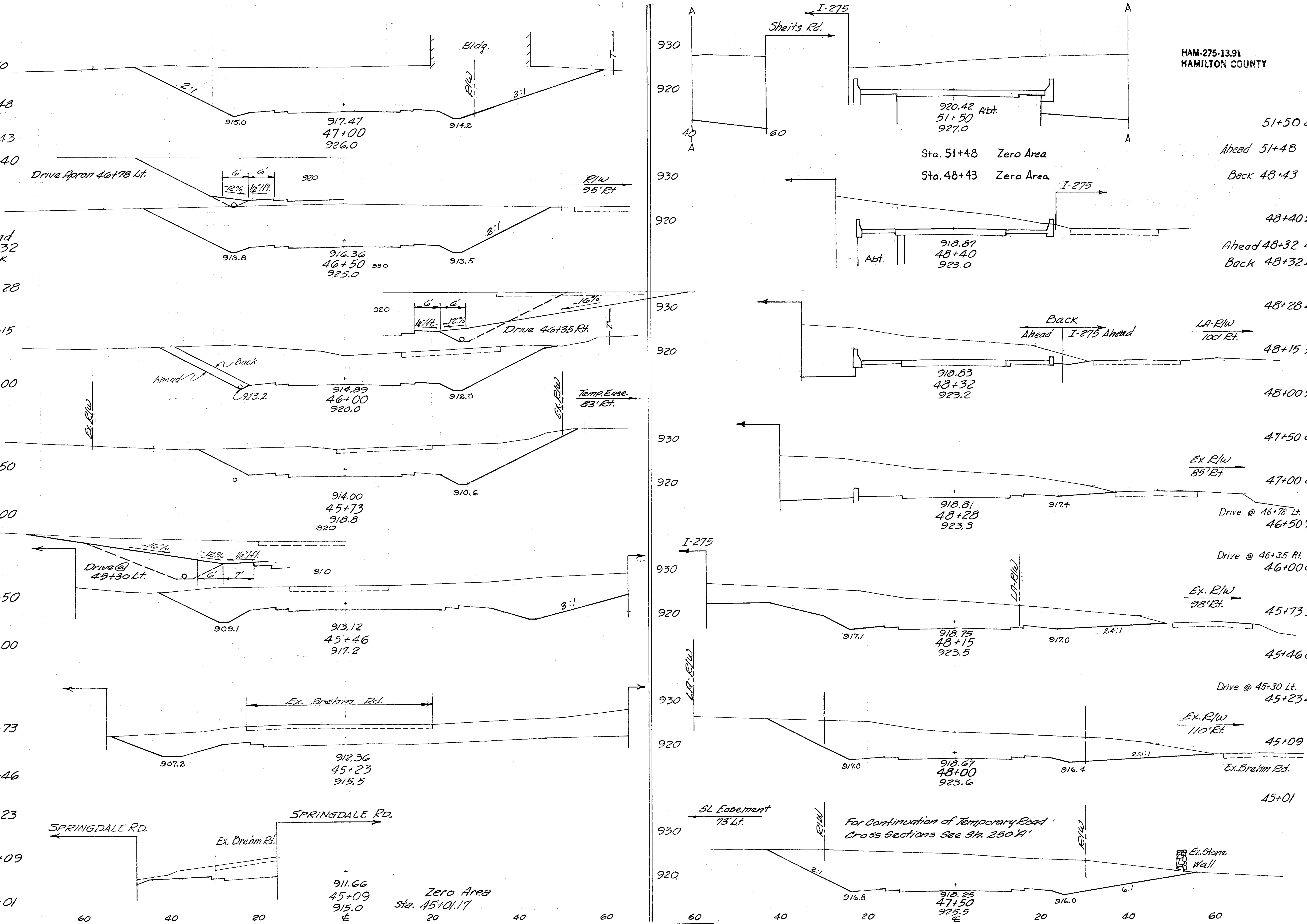
120 100 80 60 40 20 ℄ 20 40 60 80 100

DEVELOPED		CHECKED	
6-15-70	RJD	6-16-70	DLH

SPRINGDALE RD. CONNECTOR STA. 9+33 TO STA. 9+97

HAM-275-13.91
HAMILTON COUNTY

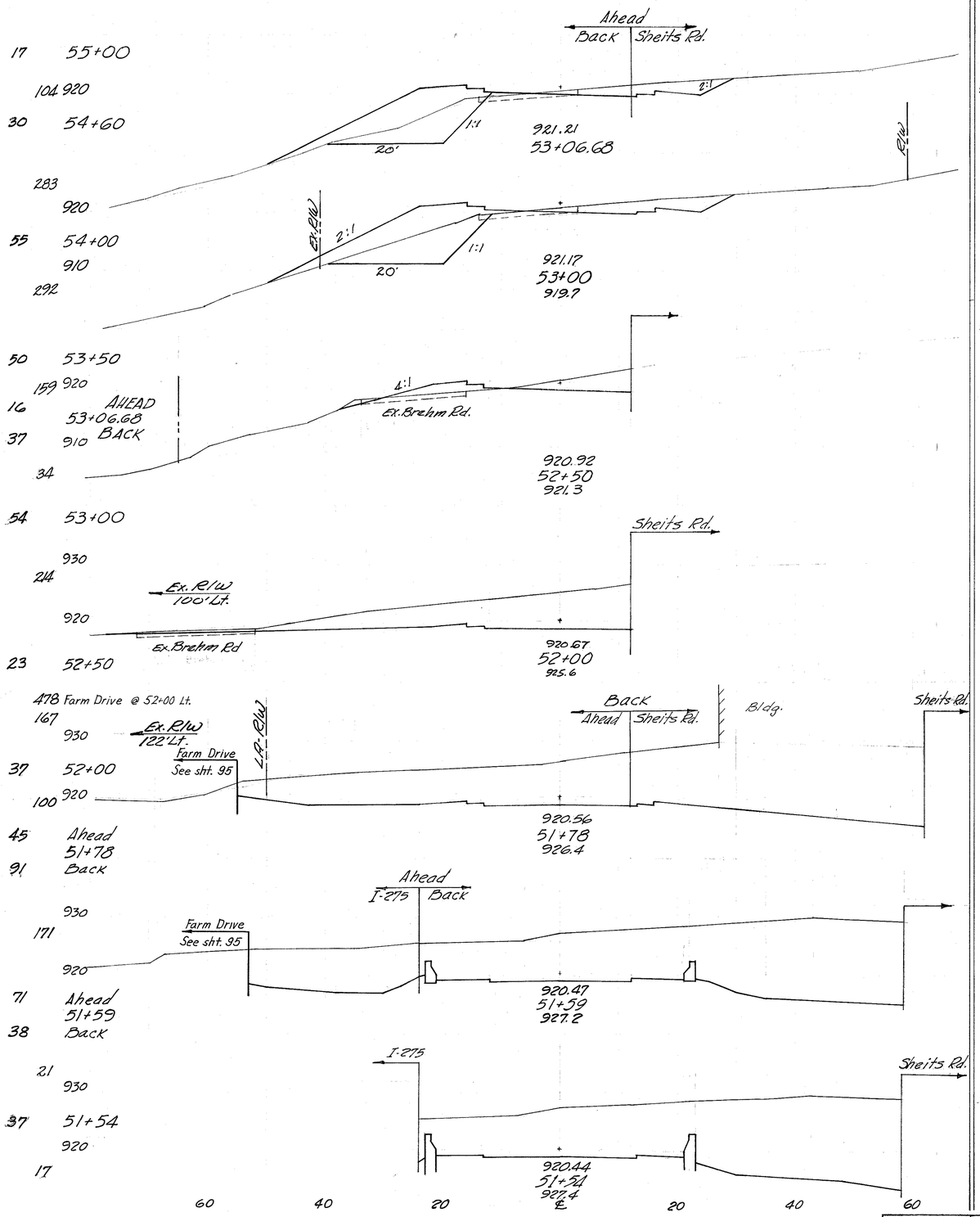
930
39 51+50
4
920
0 51+48
0
0 48+43
1
5 48+40
930
9
920
15 Ahead
48+32
24 Back
14
40 48+28
85 930
77 48+15
129 920
78 48+00
422 920
74 47+50
442 910
85 47+00
436 920
72 46+50
400 910
72 46+00
219 920
74 45+73
218 910
71 45+46
137
36 45+23
41 920
17 45+09
7 910
0 45+01

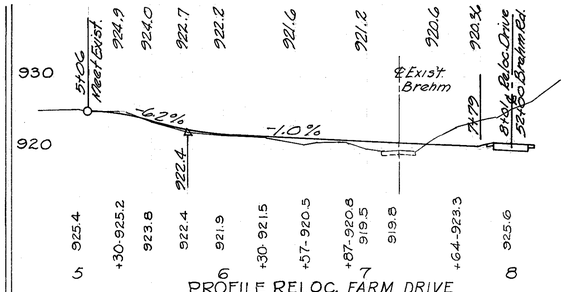


249
468
51+50 627 0
23 0
Ahead 51+48 0 0
Back 48+43 0 0
13 0
48+40 229 0
95 0
Ahead 48+32 415 0
Back 48+32 422 0
66 0
48+28 466 0
240 0
48+15 531 0
293 0
48+00 523 0
1067 0
47+50 629 0
1389 0
47+00 871 0
1481 0
-1
Drive @ 46+78 Lt.
46+50 728 0
1261 0
70
Drive @ 46+35 Rt.
46+00 634 0
582 0
45+73 530 0
569 0
45+46 608 0
466 0
-32
Drive @ 45+30 Lt.
45+23 486 0
147 0
45+09 80 0
12 0
45+01 0 0

DEVELOPED		CHECKED	
7-20-70	RJD	7-12-72	A.C.G.

BREHM ROAD STA. 45+01 TO STA. 51+50



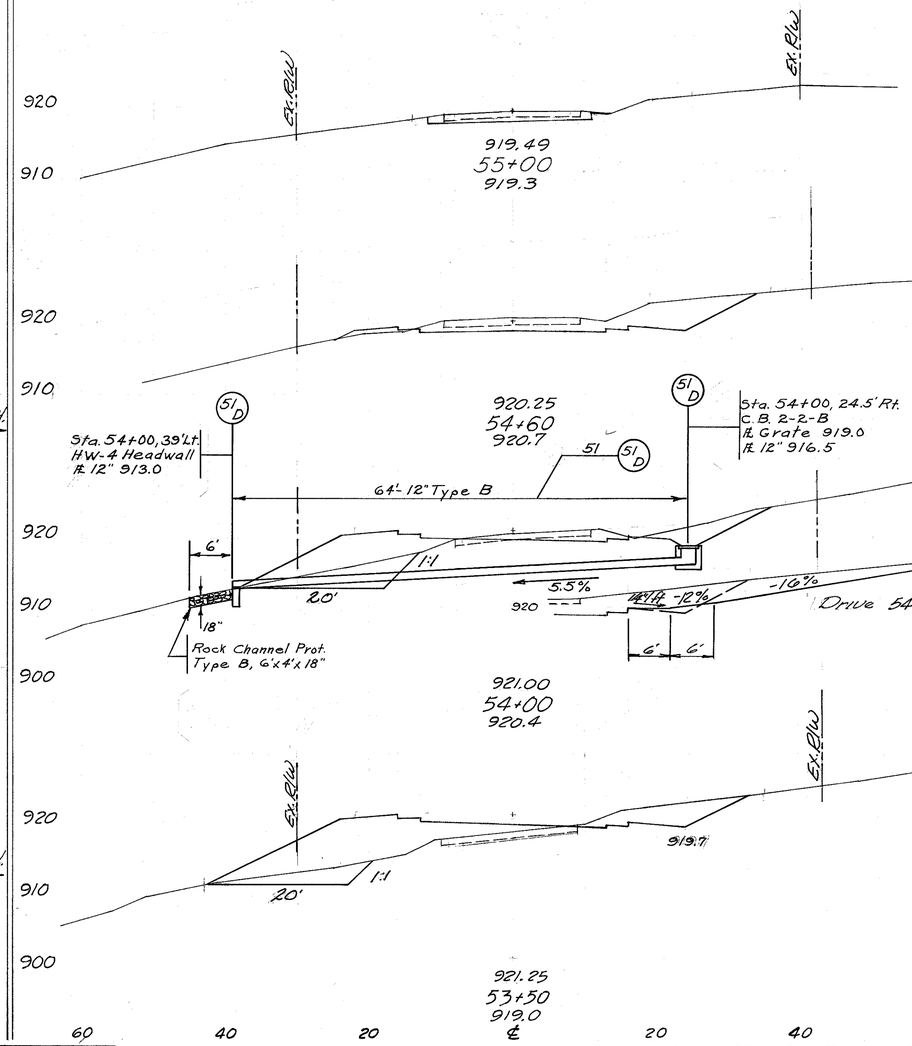


PROFILE RELOC. FARM DRIVE
STA. 52+00 LT. BREHM

(For cross sections see shts. 93-95.)

RELOCATED FARM DRIVE
SEEDING & EARTHWORK TABLE

STATION	SEEDING		END AREA		VOLUME	
	END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
5+06	14		7	0		
		29			4	0
5+22	19		7	0		
		105			11	3
5+76	16		4	3		
		105			7	6
6+30	19		3	3		
		76			3	9
6+65	20		1	11		
		38			1	9
6+82	20		3	17		
		89			3	23
7+28	15		0	10		
		36			21	4
7+42	31		82	4		
TOTAL		478			50	54



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HAMILTON COUNTY

250
408

55+00 32 0
94 0
54+60 95 0
196 141
54+00 81 127
144 288
Drive @ 54+26 Rt. 43
53+50 75 184
145 171
AHEAD 106 29
53+06.68
BACK 106 19
26 8
53+00 101 47
131 61
52+50 40 19
282 18
Farm Drive @ 52+00 Lt. 50 54
52+00 265 0
270 0
Ahead 51+78 398 0
Back 51+78 948 0
700 0
Ahead 51+59 1641 0
Back 51+59 837 0
156 0
51+54 850 0
109 0

DEVELOPED		CHECKED	
7-26-72	RJD.	7-12-72	ALG

RELOC. DRIVEWAY - BREHM ROAD STA. 51+54 TO STA. 55+00

HAM-275-13.91

50 40 30 20 10 ℄ 10 20 30 40 50 60

920
910

Area = 2.8 Sq. Ft. Fill
" = 3 Sq. Ft. Cut

915.12
7+00
913.5

930
920

Area = 0 Sq. Ft. Fill
" = 82 Sq. Ft. Cut

919.96
6+50
921.0

930
920

Area = 0.6 Sq. Ft. Fill
" = 56 Sq. Ft. Cut

923.71
6+00
920.9

5+50 MEET EXISTING

60 50 40 30 20 10 ℄ 10 20 30 40 50 60

40 50 60

Area = 58 Sq. Ft. Fill
" = 8 Sq. Ft. Cut

918.00
10+00
915.8

920
910

Area = 7 Sq. Ft. Fill
" = 45 Sq. Ft. Cut

914.01
9+50
914.2

920
910

Area = 50 Sq. Ft. Fill
" = 34 Sq. Ft. Cut

911.15
9+00
910.8

920
910
900

Area = 66 Sq. Ft. Fill
" = 29 Sq. Ft. Cut

908.30
8+50
906.9

920
910
900

Area = 298 Sq. Ft. Fill
" = 0 Sq. Ft. Cut

907.37
8+00
900.8

920
910
900

Area = 254 Sq. Ft. Fill
" = 0 Sq. Ft. Cut

910.28
7+50
903.3

60 50 40 30 20 10 ℄ 10 20 30 40 50 60

BREHM RD. TEMPORARY RD. № 2

110	21+00	
353		
109	Ahead 20+71	
79	Back	
141		
90	20+56	
234		
34	20+22	
19		
0	20+12	
0		
0	20+06	

ZERO SECTION - STA. 20+06

21+00	1668 O
	1920 O
Ahead 20+71	1534 O
Back	1094 O
	580 O
20+56	993 O
	1053 O
20+22	680 O
	164 O
20+12	206 O
	23 O
20+06	O O

DEVELOPED CHECKED

252
468

57 23+50

394

85 23+00

517

101 22+50

592

112 22+00

636

119 21+50

631

1:2.75

8:1

EL 41.2

78

90660
23+50
904.6

1:2.75

5:1

EL 41.2

78

90924
23+00
915.1

5:1

91288
22+50
922.9

1:2.75

5:1

EL 41.2

78

91569
22+00
927.2

1:2.75

6:1

EL 41.2

2:1

78

91784
21+50
930.2

920 910 900 930 920 910 900 930 920 910 900 930 920 910 930 920 910 930 920 910

0 20 40 60 80 100

23+50 22 78

GAT 72

23+00 677 0

1806 0

22+50 1273 0

2694 0

22+00 1687 0

3289 0

21+50 1915 0

3318 0

DEVELOPED	CHECKED
7/8/70 RJD	7-12-72 AQ.C.

SHEITS ROAD RELOC. STA. 21+50 to STA. 23+50

253
408

HAM-275-13.91
HAMILTON COUNTY

59 25+50

378

77 25+00

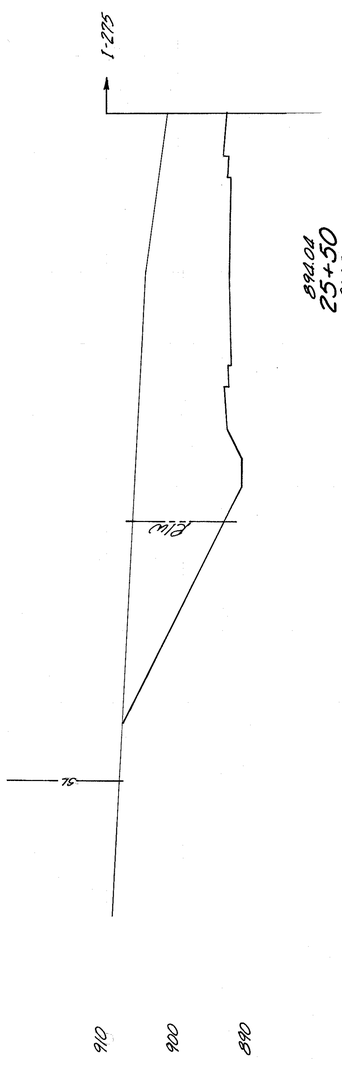
431

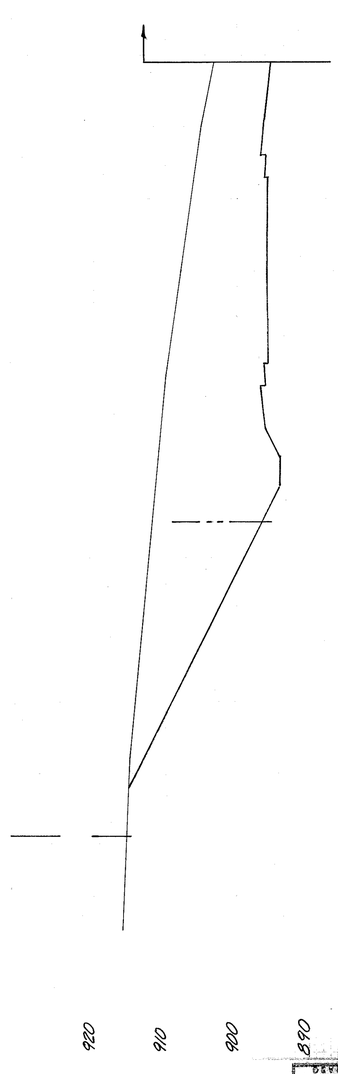
78 24+50

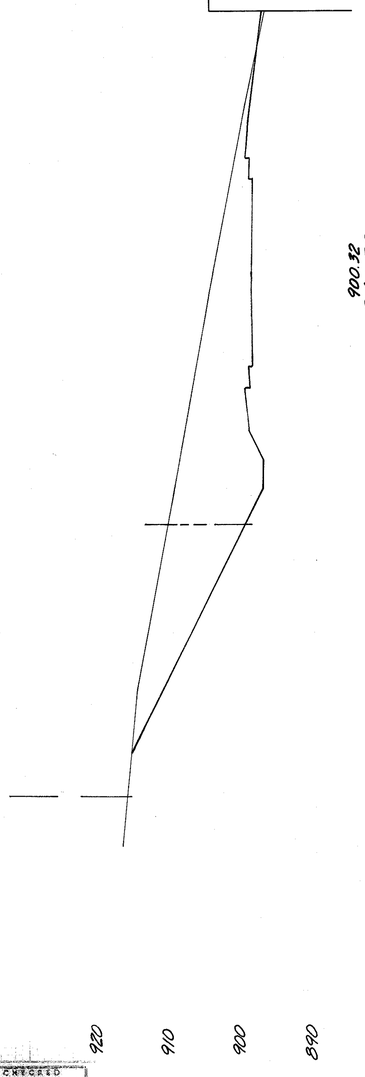
389

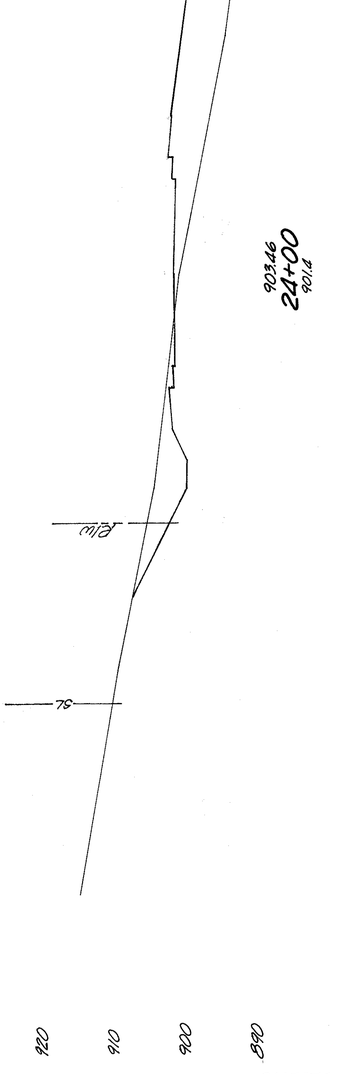
62 24+00

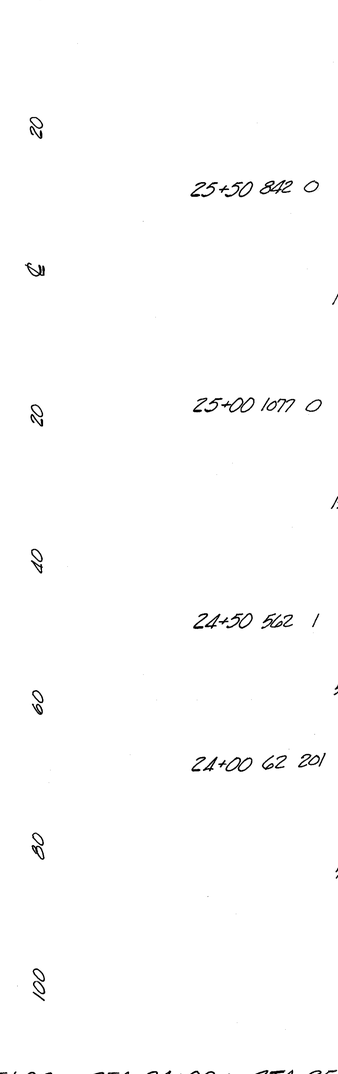
331











25+50 842 0

1777 0

25+00 1077 0

1518 1

24+50 562 1

578 187

24+00 62 201

78 258

DEVELOPED	CHECKED
7/8/76 RJD	7-12-76 ALY

SHEITS ROAD RELOC. STA. 24+00 to STA. 25+50

254
468

HAM-275-13.91
HAMILTON COUNTY

880 870 860 850

82 28+00

388

I-275

59 27+50

283

849.34
28+00
849.4

43 27+00

194

Elev.

2:1

27 26+50

197

849.8

44 26+00

286

880 870 860 850

840 830 870

863.6

840 830 870

874.2

890 880 870

884.1

920 890 880

870.90
26+00
869.8

2:1

Elev.

920 890 880

60 40 20 ℄ 20 40 60 80 100

28+00 7 1936

11 2873

27+50 5 1199

7 1730

27+00 3 669

6 789

26+50 4 183

328 169

26+00 350 0

1104 0

DEVELOPED	CHECKED
7-8-70 RJD	7-12-70 RLG

SHEITS ROAD RELOC. STA. 26+00 to STA. 28+00

255
468

HAM-275-13.91
HAMILTON COUNTY

870 860 850 840 830 820

130 29+15

208

I-275

125 29+00

662

871.12
29+15
822.5

119 28+50

548

C 840 830 820 C

BLW

2:1

100

822.2

120

140

C C

870 860 850 840 830 820

870 860 850 840 830

B 840 830 B

2:1

100

824.7

120

140

B B

830 870 860 850 840 830

872.06
29+00
822.4

830 870 860 840 830 810

I-275

875.20
28+50
839.5

A 840 830 A

BLW

2:1

90

100

830.8

76

120

140

A A

830 870 860 850 840 830

60 40 20 ℄ 20 40 60 80 100

29+15 9 4210

5 2177

29+00 8 3816

14 6519

28+50 8 3326

14 4844

7-9-70 RJD 7-12-72 ALG

SHEITS ROAD RELOC. STA. 28+50 to STA. 29+15

256
408

HAM-275-13.01
HAMILTON COUNTY

96 30+50
494
98 30+00
661
140 29+50
290
135 29+31
236

862.44
30+50
862.9

865.78
30+00
859.7

868.95
29+50
859.4

870.11
29+31
859.3

1-275

30+50 16 952
Spl.Bench 816 816

25 2519
1162 1162

30+00 13 2019
Spl.Bench 496 496

45 5329
459 459

29+50 36 3736
Spl.Bench 0 0

15 2813

29+31 8 4260

5 2510

DENIED P.D. 7-9-70 RJD
CHECKED 7-12-72 ALC

SHEITS ROAD RELOC. STA. 29+31 to STA. 30+50

27 32+67
40
24 32+52.96
147
26 32+00
233
58 31+50
386
81 31+00
458

Sta. 31+00, 30' Rt.
C.B. 5 / 8' Grate
Rt. Grate 856.00
Rt. 15" 852.50

Sta. 31+00, 49' Lt.
H/W: 4 Headwall
Rt. 15" 844.1

BACK ONLY
844.2
32+67
841.1

844.9
32+52.96
844.9

850.08
32+00
852.2

854.58
31+50
853.4

848.0

838.71
31+00
852.2

10.6%
1:1
30'
75'-15" Type B
6'
843.6
75'
Rock Channel Prot.
Type B, 6'x 1'x 18"

EX. ELEV.
PROP. ELEV.

257
468

32+67 34 6
16 4
32+52.92 28 11
120 12
32+00 94 1
259 2
31+50 186 1
0 0
240 193
101 101
31+00 73 207
Spl. Bench 109 109
77 999
815 815

DEVELOPED		CHECKED	
7-9-20	BJD	7-12-12	ALV.

SHEETS ROAD RELOC. STA. 31+00 to STA. 32+67

HAM-275-13.91
HAMILTON COUNTY

23 709+69
48
22 709+50
153
33 709+00
206
41 708+50
141
41 708+19
89
43 708+00
242
44 707+50
184
30 707+05.36

Ex. R/W
Driveway
865.0
Ex. R/W
865.1
℄ Temp. Road No. 3
1+08
1+28
B B
A A
870 860 850

709+69
866.8
709+50
867.0
709+00
867.9
708+50
869.6
708+19
870.5
708+00
871.2
707+50
872.6

Sta. 709+18, 52' Rt.
C.B.-5
℄ Grate 865.40
℄ 18" 863.86
865.5
45°
45°
57
14'-18° Type 'B'
70.1%
±6'
Sta. 709+21, 42' Rt.
Existing C.B. 2-A
℄ Grate 862.0
℄ 18" 862.5
Remove C.B. & 6'-18" Pipe
Existing 18" Pipe

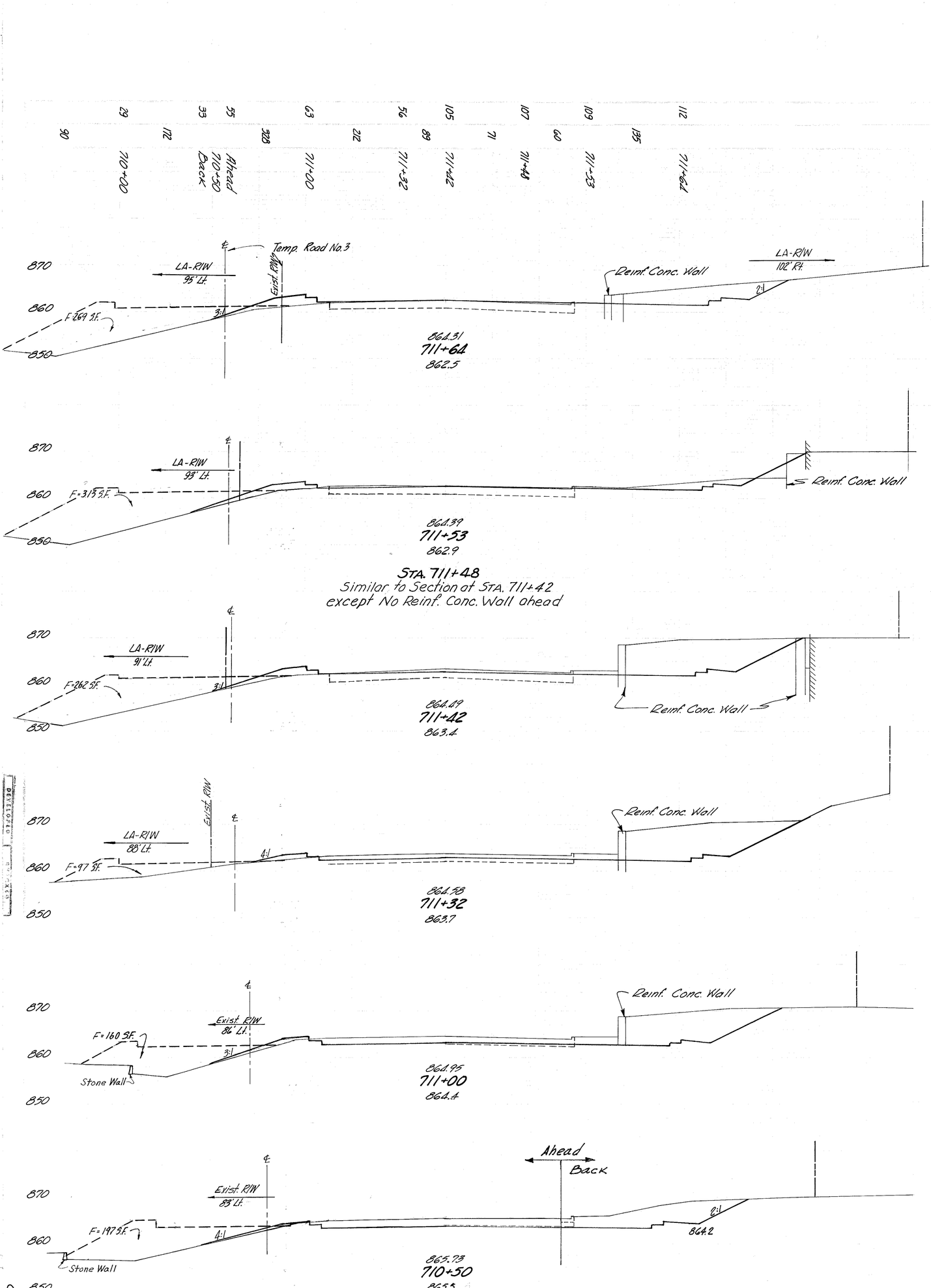
DITCH END AREA
STA. 707+05.36 = 48 S.F.

709+69	43	0	
		25	0
709+50	28	0	
		37	19
709+00	12	21	
		17	32
708+50	6	14	
		9	8
708+19	9	0	
		9	2
708+00	16	5	
		21	5
707+50	7	0	
		45	0
707+05.36	48	0	

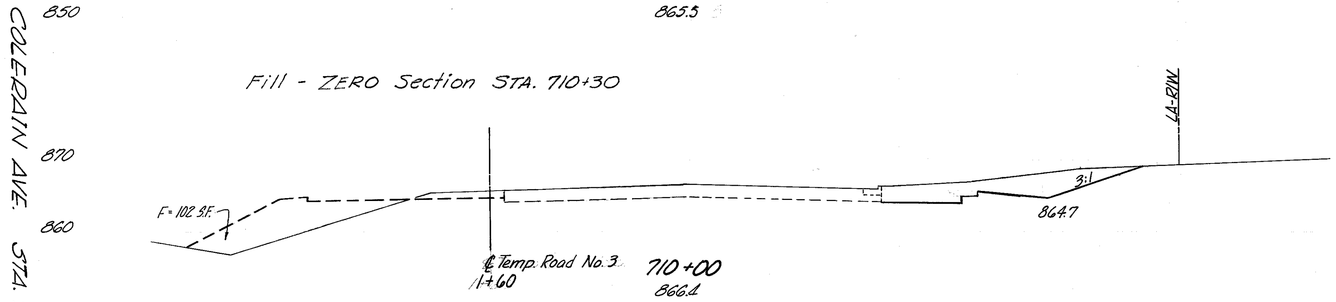
120 100 80 60 40 20 0

DEVELOPED	CHECKED
7/6/70 RJD	7/10/72 ALY

COLE RAIN AVE. STA. 707+05.36 TO STA. 709+69



Fill - ZERO Section STA. 710+30

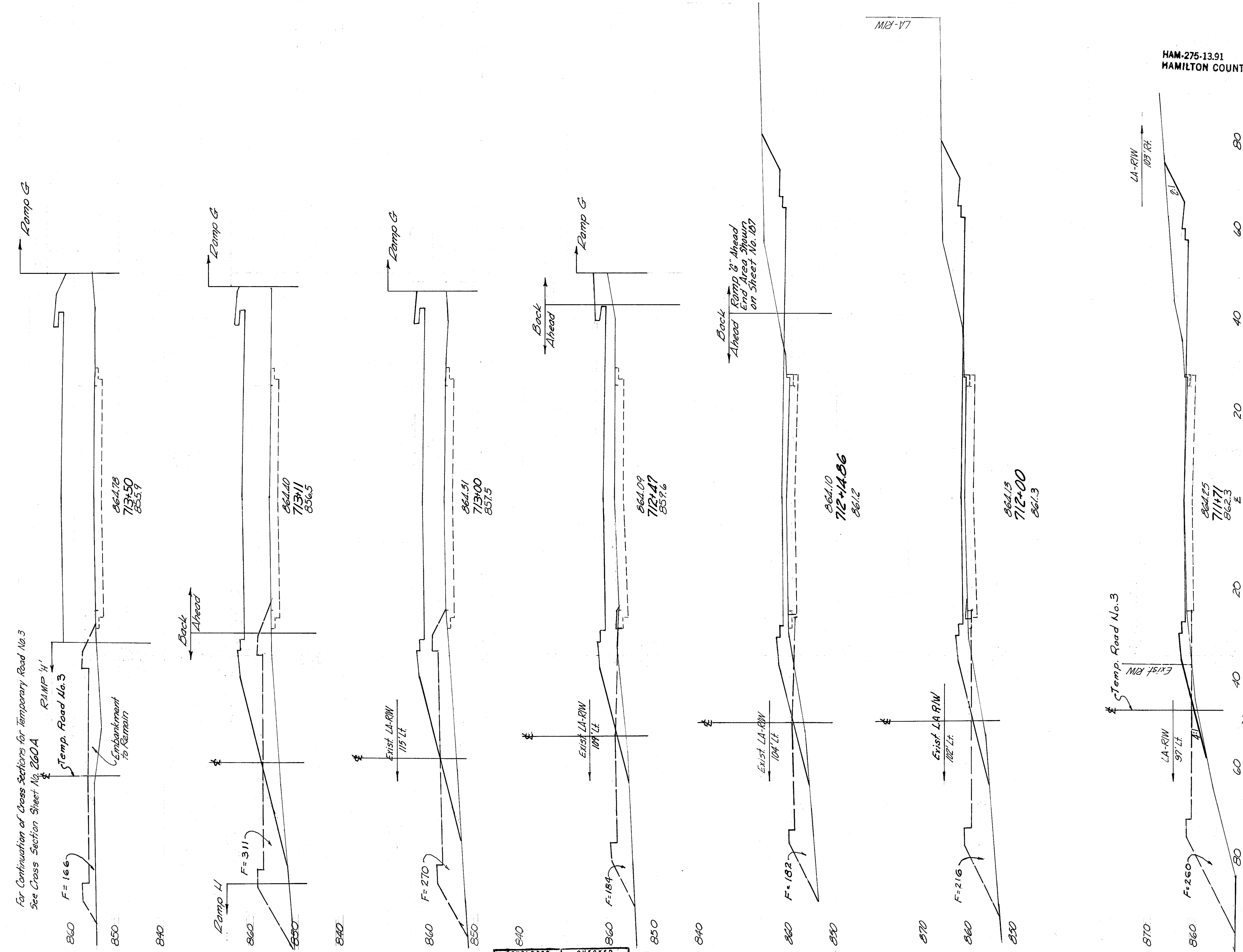


COLERAIN AVE. STA. 710+00 to 711+64

REVISED 9-23-71
513-275-1391
HAMILTON CO.

HAM-275-13.91
HAMILTON COUNTY

13	713+50	
48		
9	Ahead	
	713+11	
63	Back	
94		
91	713+00	
512		
83	Ahead	
	712+47	
89	Back	
293		
75	Ahead	
	712+14.86	
119	Back	
195		
117	712+00	
372		
114	711+71	
88		

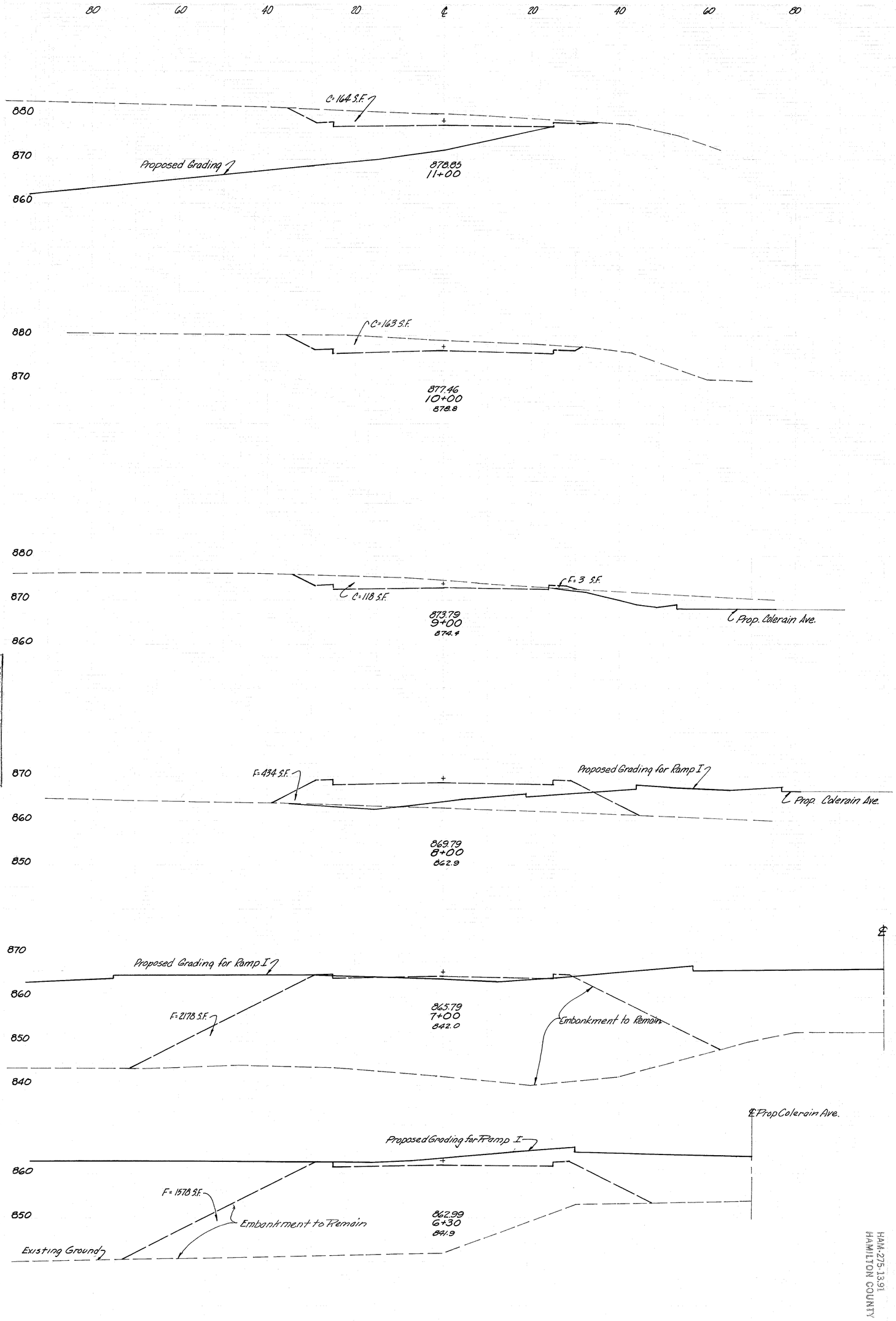


713+50	0	584	
			0 765
Ahead	0	475	
713+11			
Back	2	711	
			1 264
713+00	0	584	
			0 853
Ahead	0	285	
712+47			
Back	0	315	
			4 272
Ahead	6	142	
712+14.86			
Back	144	142	
			73 77
712+00	120	138	
			124 92
711+71	111	33	
			20 9

DEVELOPED		CHECKED	
7-6-70	RJD	7/12/72	ALY

COLERAIN AVE. STA. 711+71 TO STA. 713+50

Rev. 9-23-7



DEVELOPED 5-5-72 DLM
CHECKED 7/10/72 JMC

TEMPORARY ROAD NO.3 (COLERAIN AVE.) STA. 6+30 TO STA. 11+00

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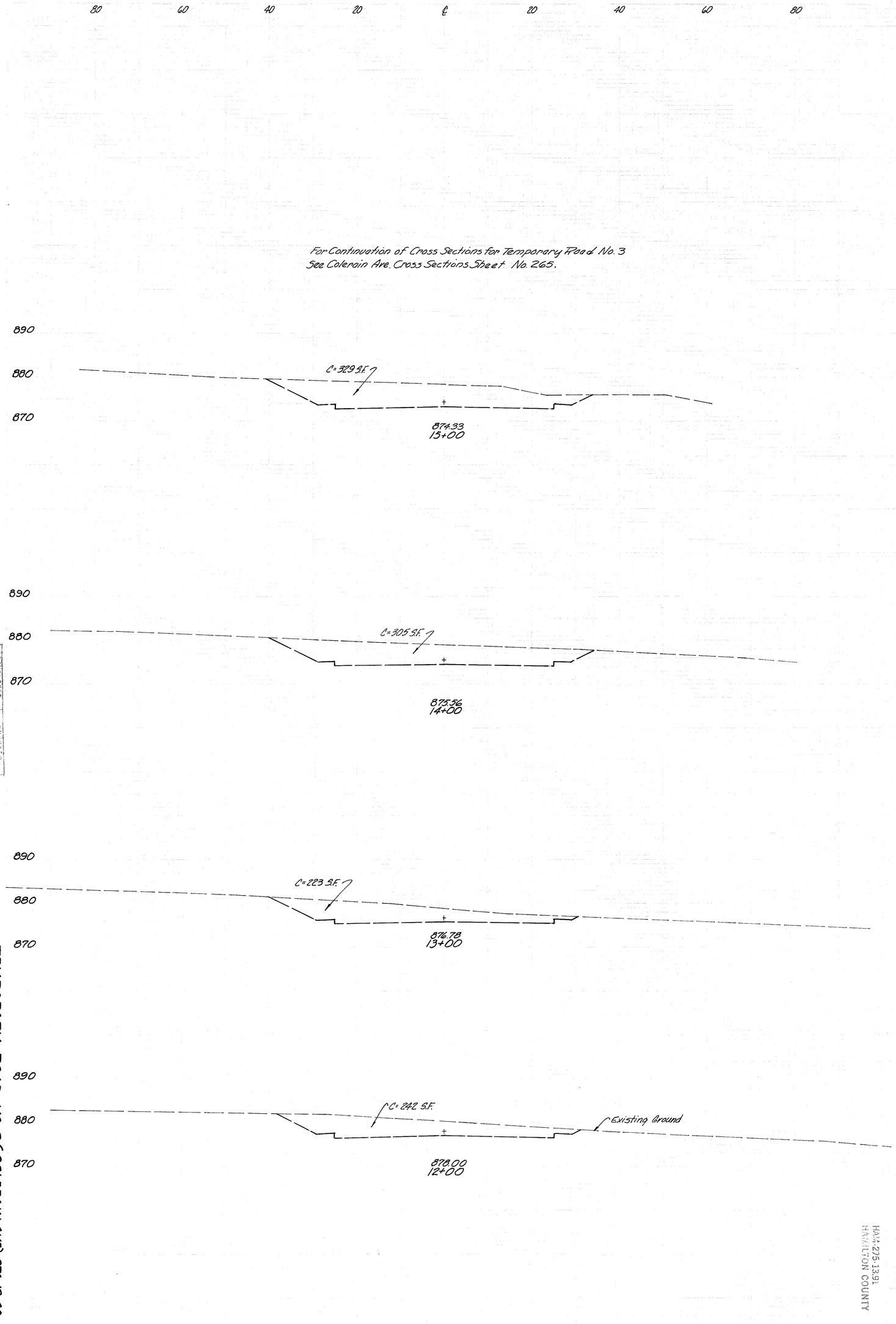
HAMILTON COUNTY

2604
423



DEVELOPED CONCEPT
8-3-72 DLM
STATE ALY

TEMPORARY ROAD NO. 3 (COLERAIN AVE.) STA. 12+00 to STA. 15+00

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HAMILTON COUNTY

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HAMILTON COUNTY

Ramp G
Exist. RW
Varies
8568
3:1
8610
Sta. 714+92, 42' Rt. San. Manhole Reconstructed To Grade Rim Elev. 866.7 For Detail See Sh. No. 39.
Grading from adj. Project
Ex. Rim Elev 852.0±
853.9
Original Ground
Ex. 15" San.
Ex. 15" San.
Sta. 714+68, 75' Rt. HW-4 Headwall W. 12" 855.3
6'
Rock Channel Prot. Type B, 6'x 9'x 18"
Sta. 714+68, 34.5' Rt. C.B. 3-A W. Grate 865.12 W. 6" Bot. 20 W. 12" Bot. 10
14.5%
Exist. RW
40'-12" Type "C"
57
867.24
716+00
857.0
867.14
715+50
854.8
866.63
715+11
854.5
866.55
715+00
853.6
865.96
714+68
853.6
865.76
714+33.22
853.9
865.37
714+00
854.6
82
716+00
547
115
715+50
438
877
715+11
108
90
715+00
331
96
714+68
247
12:1
32
Ahead
714+33.22
25
Back
81
19
714+00
89
Ramp I
Ramp H
Ahead
Back
Ramp G
3:1
Ramp H
Exist. RW
Exist. RW
Exist. RW
Exist. RW
12:1
860
850
840
850
840
850
840
850
840
830
850
840
830
860
850
840
860
850
DEVELOPED
7-6-70 RJD
CHECKED
7/10/72 ALY

40			
716+00	5	1289	
			10 2862
20			
715+50	6	1802	
			4 2970
715+11	0	2310	
20			0 986
715+00	0	2530	
40			0 2975
714+68	0	2491	
60			0 2322
Ahead 714+3322	0	1114	
Back	0	946	
80			0 1031
714+00	0	730	
100			0 1217

COLERAIN AVE. STA. 714+00 TO STA. 716+00

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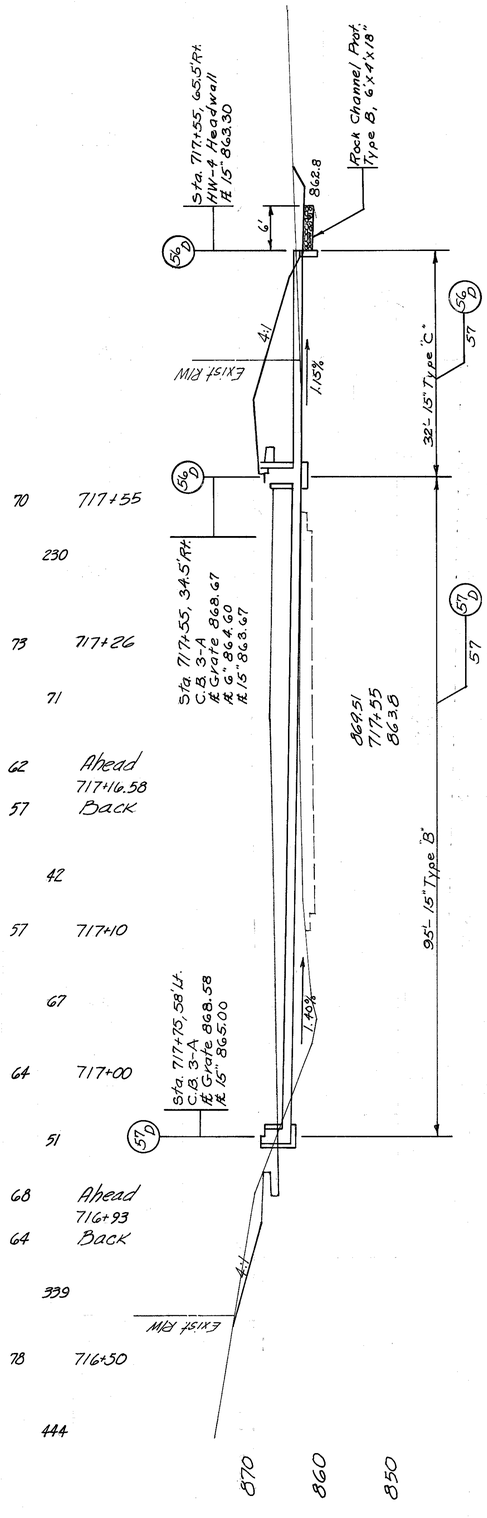
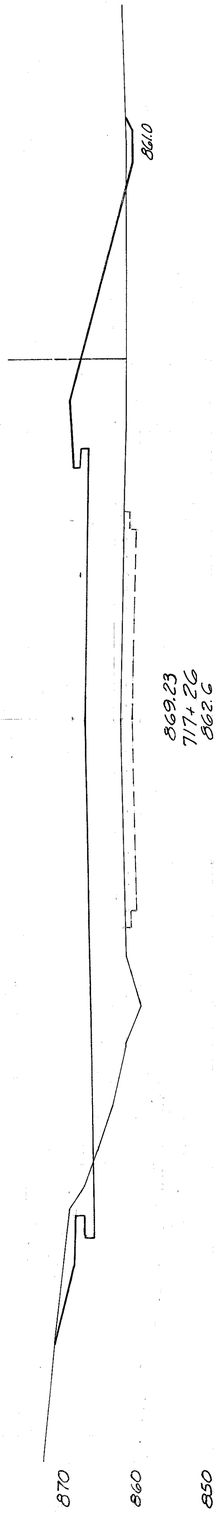
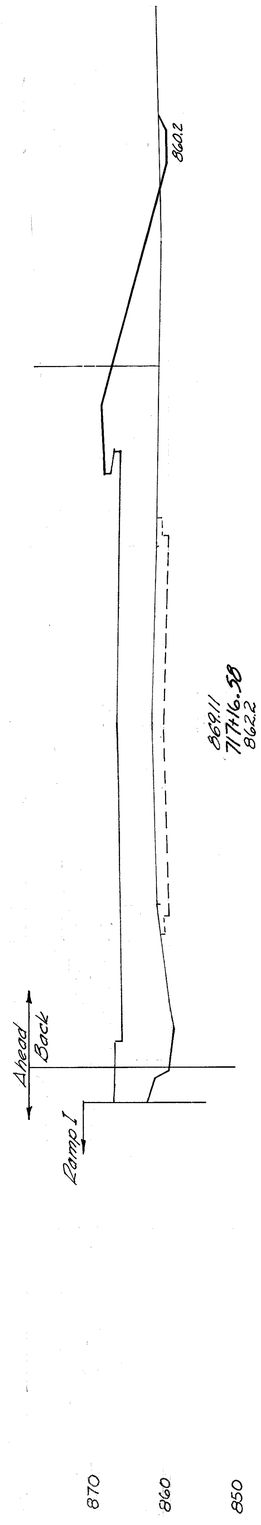
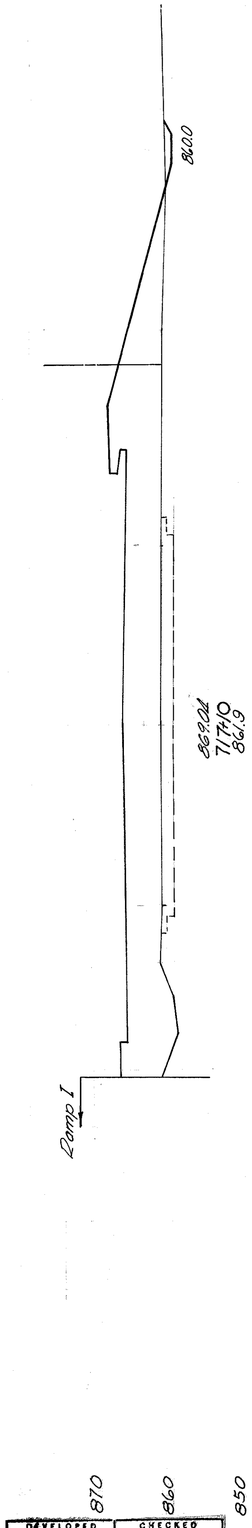
HAMILTON COUNTY

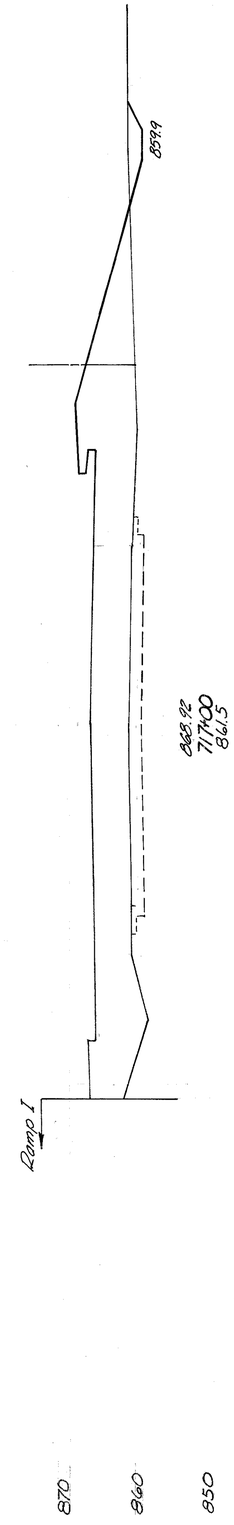


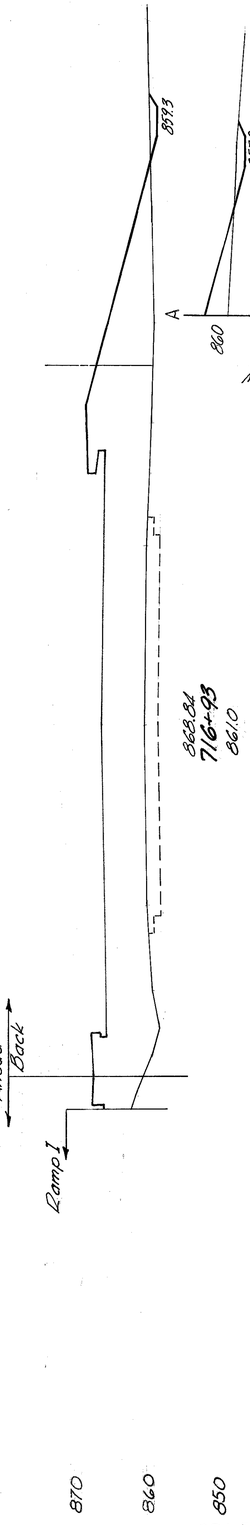
70	717+55	
		230
73	717+26	
71		
62	Ahead	
	717+16.58	
57	Back	
		42
57	717+10	
		67
64	717+00	
51		
68	Ahead	
	716+93	
64	Back	
		339
78	716+50	
		444

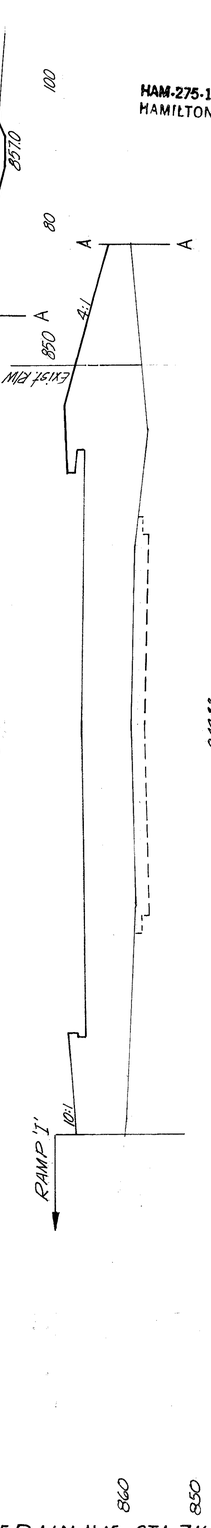












			262
			468
60			
40			
	717+55	40	481
			42 604
20			
	717+26	38	644
			8 229
	Ahead	6	667
	717+16.58		
	Back	6	638
20			1 154
	717+10	6	627
40			5 845
	717+00	21	697
60			4 206
	Ahead	13	893
	716+93		
	Back	13	826
80			25 1425
	716+50	18	963
100			21 2085

DEVELOPED	CHECKED
7-6-72 RJD	7/11/72 ALV

COLE RAIN AVE. STA. 716+50 TO STA. 717+55

48 719+00

267

48 718+50

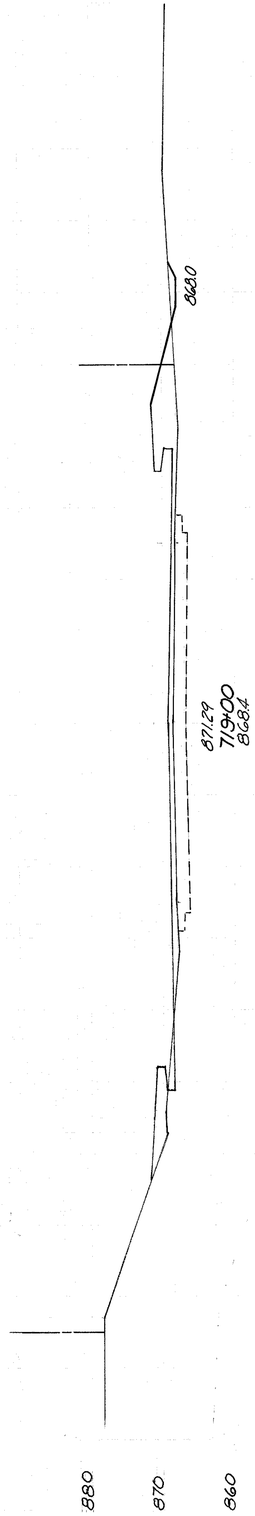
261

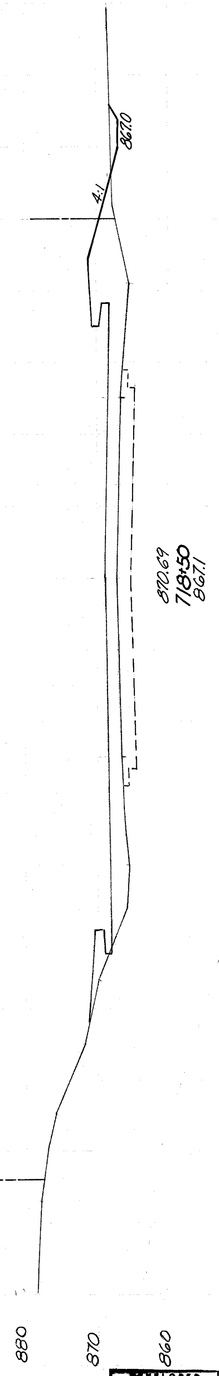
46 718+00

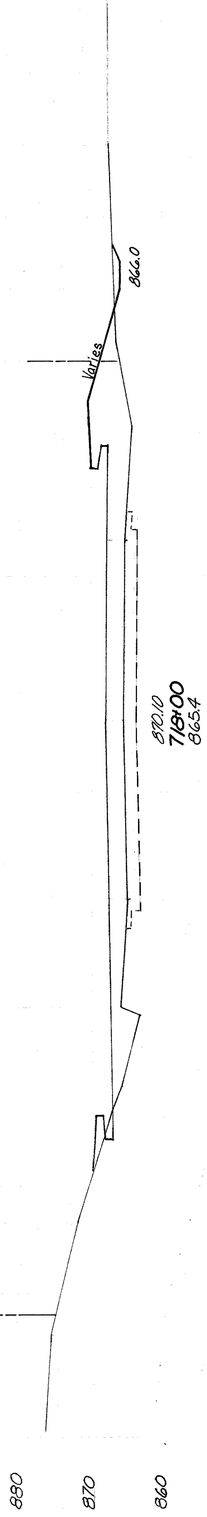
191

58 717+67

85







263
468

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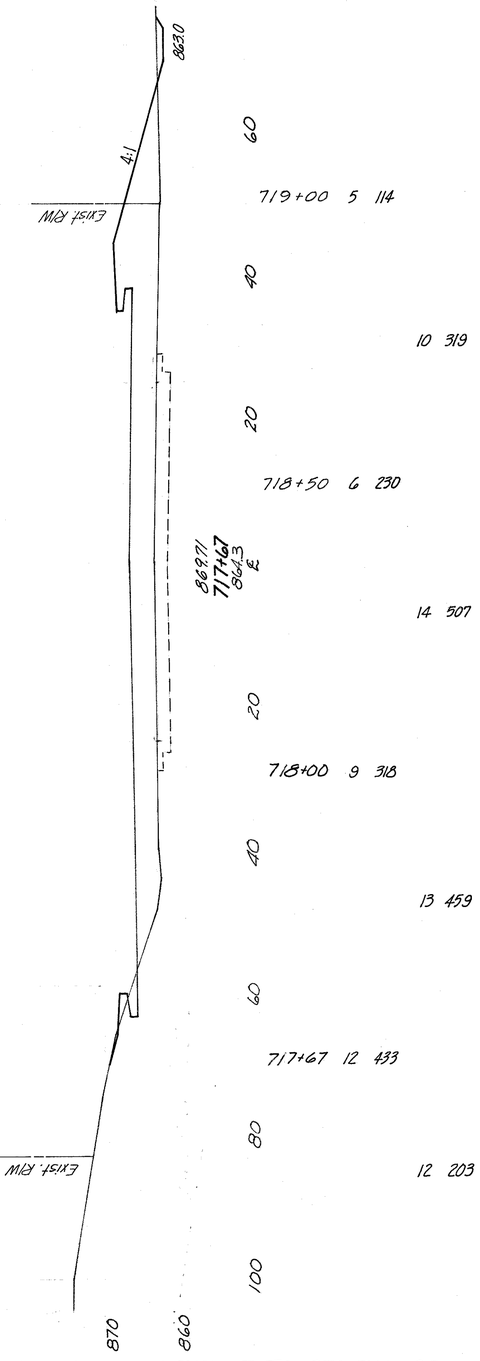
HAMILTON COUNTY



DEVELOPED	CHECKED
7-6-90 RJD	7/18/72 ALY

COLERAIN AVE. STA. 717+67 TO STA. 719+00

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HAMILTON COUNTY

0	719+98	
2		
4	719+91	
20		
23	719+78	
38		
23	719+63	
43		
36	719+50	
233		

Zero Area
Sta. 719+98

Colerain Ahead Back

I-275

872.37
719+91
870.8

4:1

872.71
719+78
870.4

RAMP 'I'

872.03
719+63
870.1

4:1

871.88
719+50
869.8

RAMP 'I'

60			
40			
20			
0	719+98 Back	0	0
20			2 1
	719+91	12	6
40			7 9
	719+78	17	30
60			5 24
	719+63	0	56
80			0 42
	719+50	1	118
100			6 215

890 870 860 | 880 870 660 | 880 870 860 | 880 870

DEVELOPED	CHECKED
7-6-72 RJD	7/12/72 ALY

COLERAIN AVE. STA. 719+50 TO STA. 719+98

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HAMILTON COUNTY

Ramp F
Work by Adjacent Project

C 100 C
C 80 C
870

B 100 B
B 80 B

A 100 A
A 80 A

724+25
873.6

724+19
873.5

873.42
724+05
873.4

873.36
723+96
873.4

873.36
723+50
873.2

873.65
723+12
873.0

873.20
723+03
872.9

873.18
723+96
872.9
E

Zero Area
Sta. 724+30

0	724+30	
6		
20	724+25	
29		
66	Ahead	
	724+19	
69	Back	
128		
95	724+05	
105	723+96	
432		
64	723+50	
192		
27	723+12	
23		
18	723+03	
13		
16	722+96	
21		
0	722+72	

Ramp J

Back
Ahead

16+12 End Temp Road No.3

Ramp J

15+98

C_2 90 S.F.

C_1 168 S.F.

RAMP 'J'

15+89

C_2 84 S.F.

Temp. Road No.3

I-275

15+40

I-275

Zero Area
Sta. 722+72

60			
40			
	724+30	0	0
			6 1
	724+25	68	10
20			
			11 3
	Ahead	29	14
	724+19		
	Back	42	14
			62 11
	724+05	199	30
			101 7
	723+96	405	12
20			598 19
	723+50	297	10
40			303 41
	723+12	134	48
60			43 11
	723+03	121	20
80			87 5
	722+96	89	20
100	722+72	0	0

DEVELOPED	CHECKED
7-6-70 RJD	7/18/72 ALY

COLERAIN AVE. STA. 722+72 TO STA. 724+

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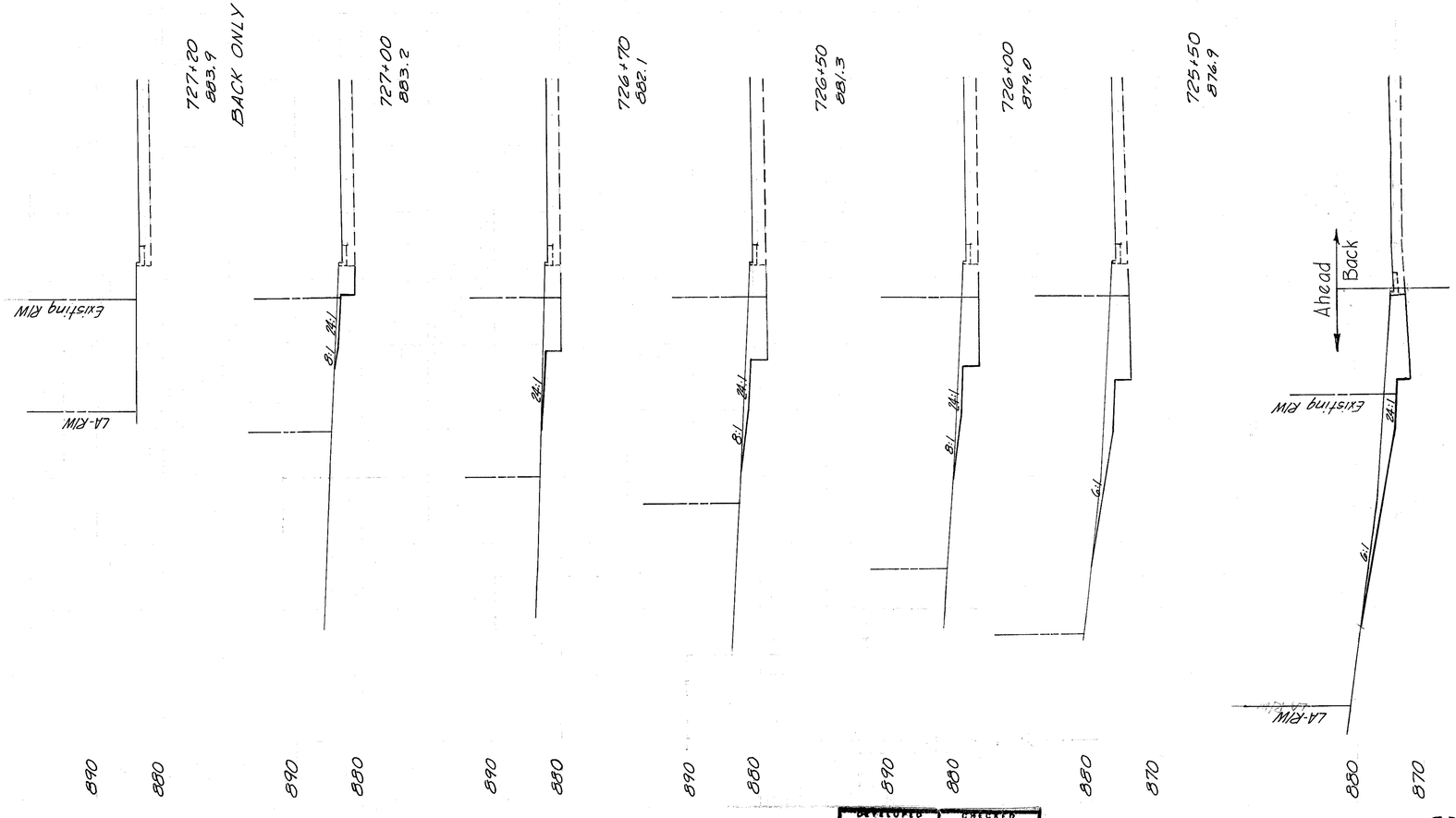
HAMILTON COUNTY

2	727+20	
17		
13	727+00	
53		
19	726+70	
46		
22	726+50	
147		
31	726+00	
194		
39	725+50	
247		
50	Ahead 725+00	
0	Back	
0		
0	724+50	
0		



60			
	727+20	0	0
40			7 0
	727+00	18	0
20			31 0
	726+70	38	0
			34 0
	726+50	54	0
20			101 0
	726+00	55	0
40			117 0
	725+50	71	0
60			154 0
	Ahead 725+00	95	0
	Back	12	0
80			21 0
	724+50	11	0
100			4 0

DEVELOPED	CHECKED
7-6-70 RJD	7/10/72 ALV

COLERAIN AVE. STA. 724+50 TO STA. 727+20

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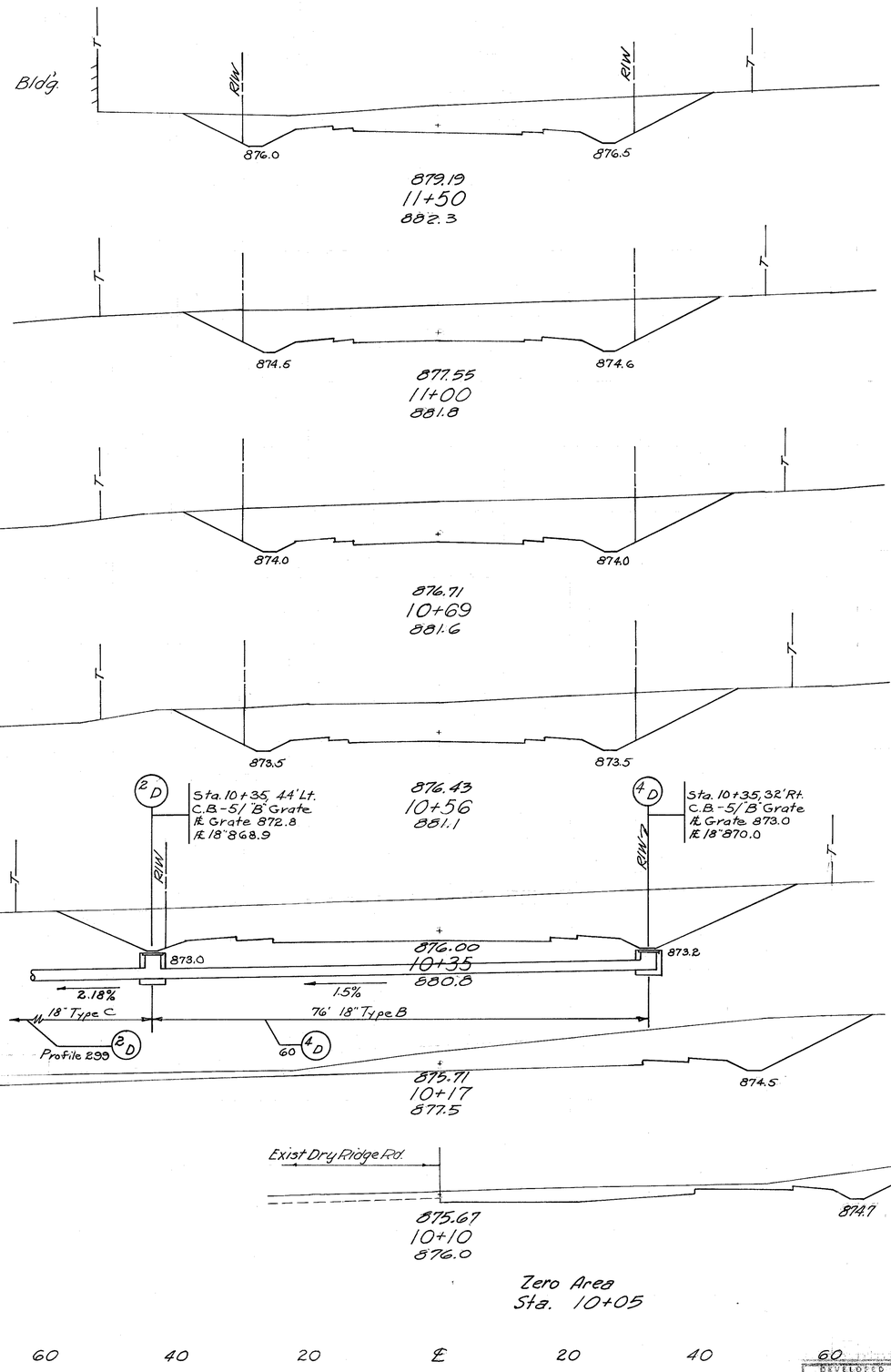
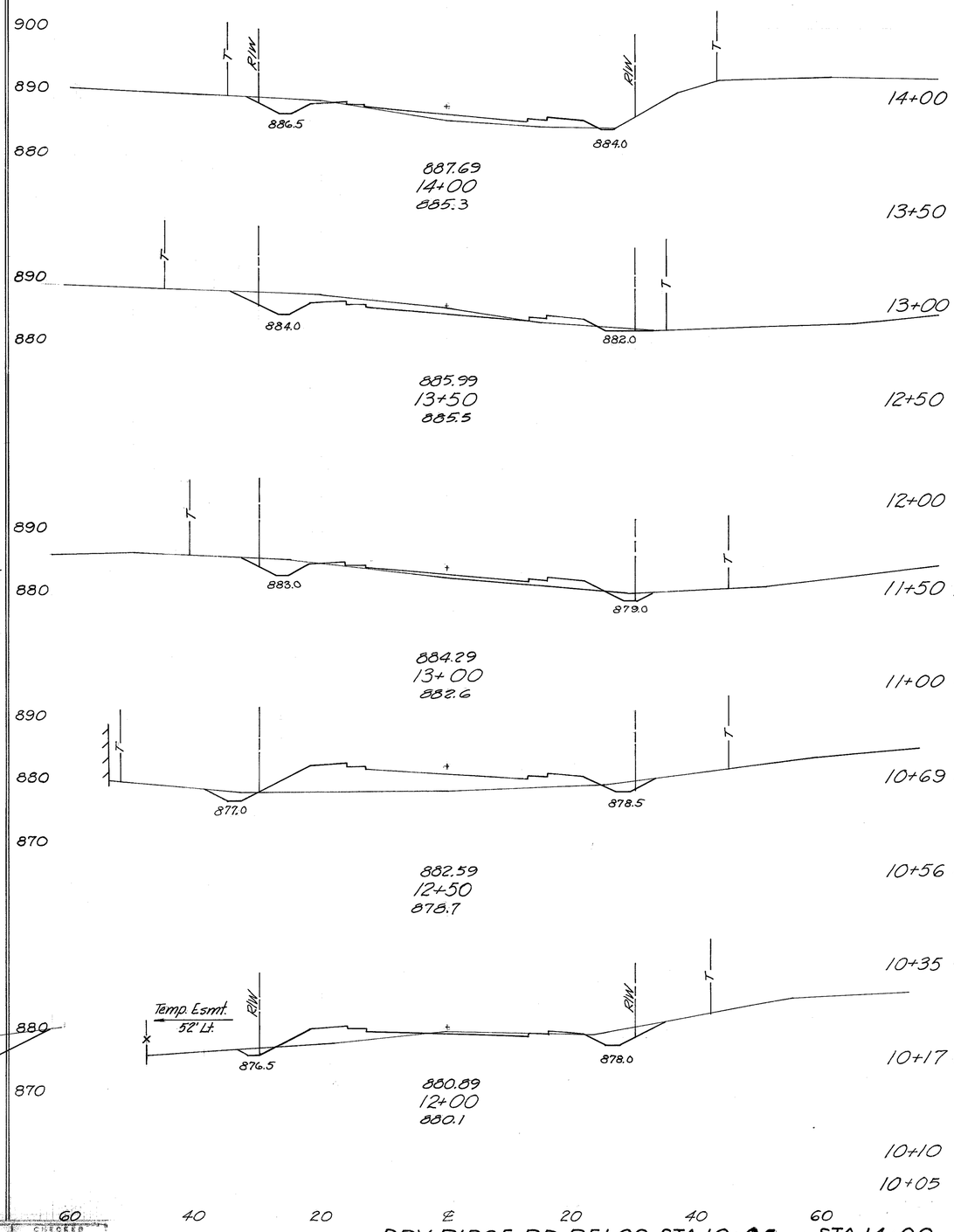
HAMILTON COUNTY

267
468

33 14+00 Bldg.
880
208
870
42 13+50
228
40 13+00
880
242
870
47 12+50
253
44 12+00
880
283
870
58 11+50
325
880
59 11+00
870
207
61 10+69
89 880
62 10+56
870
155
71 10+35
880
104 870
880
53 10+17
23 870
26 10+10
7
0 10+05





14+00 19 30
73 36
13+50 60 9
77 34
13+00 23 28
35 159
12+50 15 144
38 166
12+00 26 35
308 32
11+50 307 0
658 0
11+00 404 0
491 0
10+69 451 0
221 0
10+56 465 0
422 0
10+35 620 0
339 0
10+17 398 0
70 0
10+10 143 0
13 0
10+05 0 0

60 40 20 ℄ 20 40 60

DEVELOPED	CHECKED
7-16-79 BD.	7-14-72 ALY

60 40 20 ℄ 20 40 60

DRY RIDGE RD. RELOC. STA. 10+05 to STA 14+00

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HAMILTON COUNTY

38 17+50

211

38 17+00

900

206

890

891.6 891.6

36 16+50

880

892.79
15+50
891.8

186

31 16+00

890

888.5 889.8

158 880

7D Sta. 14+72 to 14+87
Erosion Control at Swales
See Detail Sheet 300

891.09
15+00
889.4

26 15+50

150

890

887.5 887.0

20'

28 15+00

880

890.00
14+68
887.4

107

32 14+68

890

887.3 886.0

67 880

889.39
14+50
886.7

35 14+50

189

80 60 40 20 ℄ 20 40 60

17+50 204 0

900

890

899.50
17+50
902.0

373 0

17+00 199 0

340 0

900

890

897.89
17+00
900.1

16+50 168 0

234 0

16+00 85 0

900

890

896.19
16+50
898.0

98 0

15+50 21 0

30 22

900

890

894.49
16+00
894.8

15+00 11 24

9 54

14+68 4 67

4 42

14+50 8 58

25 81

60 40 20 ℄ 20 40 60

DEVELOPED	CHECKED
7-16-70 R.D.	7-14-72 ALY

DRY RIDGE RD. RELOC. STA. 14+50 TO STA. 17+50

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HAMILTON COUNTY

0 0 20+49

3

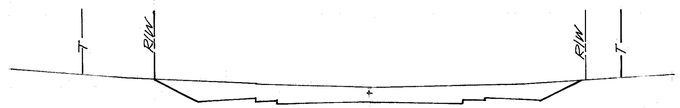
8 20+42

900

13

890

16 20+32



899.06
19+50
899.9

20

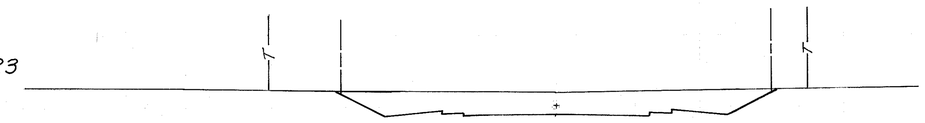
24 20+23

900

66

890

28 20+00



900.20
19+00
902.0

53

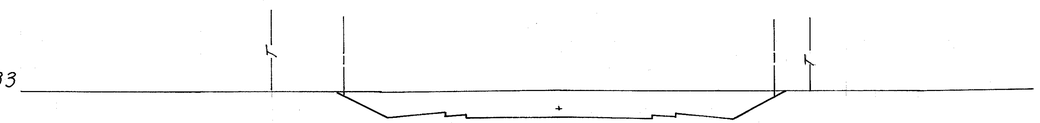
28 19+83

900

114

890

34 19+50



900.70
18+50
903.2

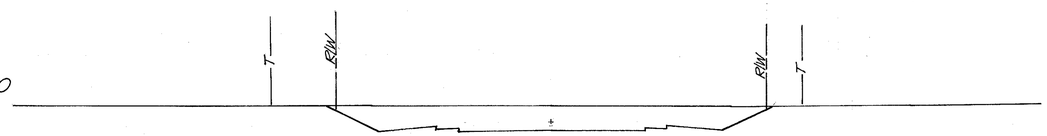
194

910

36 19+00

900

206



900.47
18+00
902.9

38 18+50

206

36 18+00

206

80 60 40 20 ℄ 20 40 60

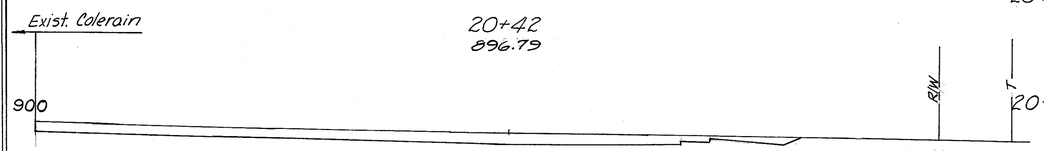
Zero Area
Sta 20+49

20+49 0 0

10 0

20+42 76 0

39 0

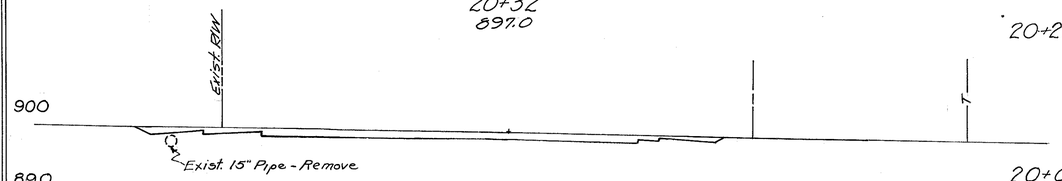


20+42
896.79

20+32 132 0

53 0

897.04
20+32
897.0



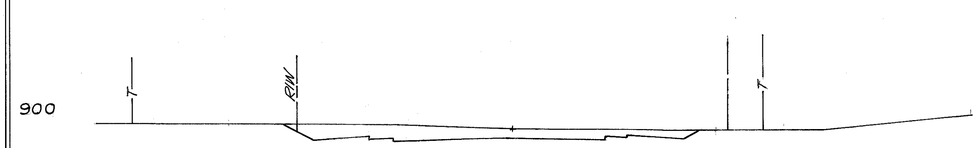
20+23 184 0

116 0

20+00 88 0

51 0

897.26
20+23
896.9



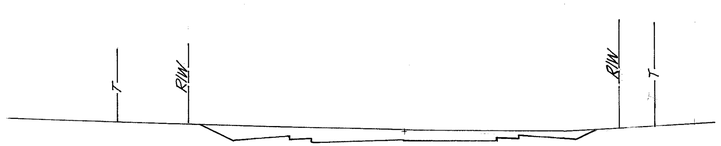
19+83 74 0

118 0

19+50 119 0

272 0

897.88
20+00
897.9



19+00 175 0

348 0

18+50 201 0

359 0

898.25
19+83
898.6

18+00 187 0

362 0

40 20 ℄ 20 40 60

DEVELOPED	CHECKED
7-16-72 E/D.	7-18-72 ALY

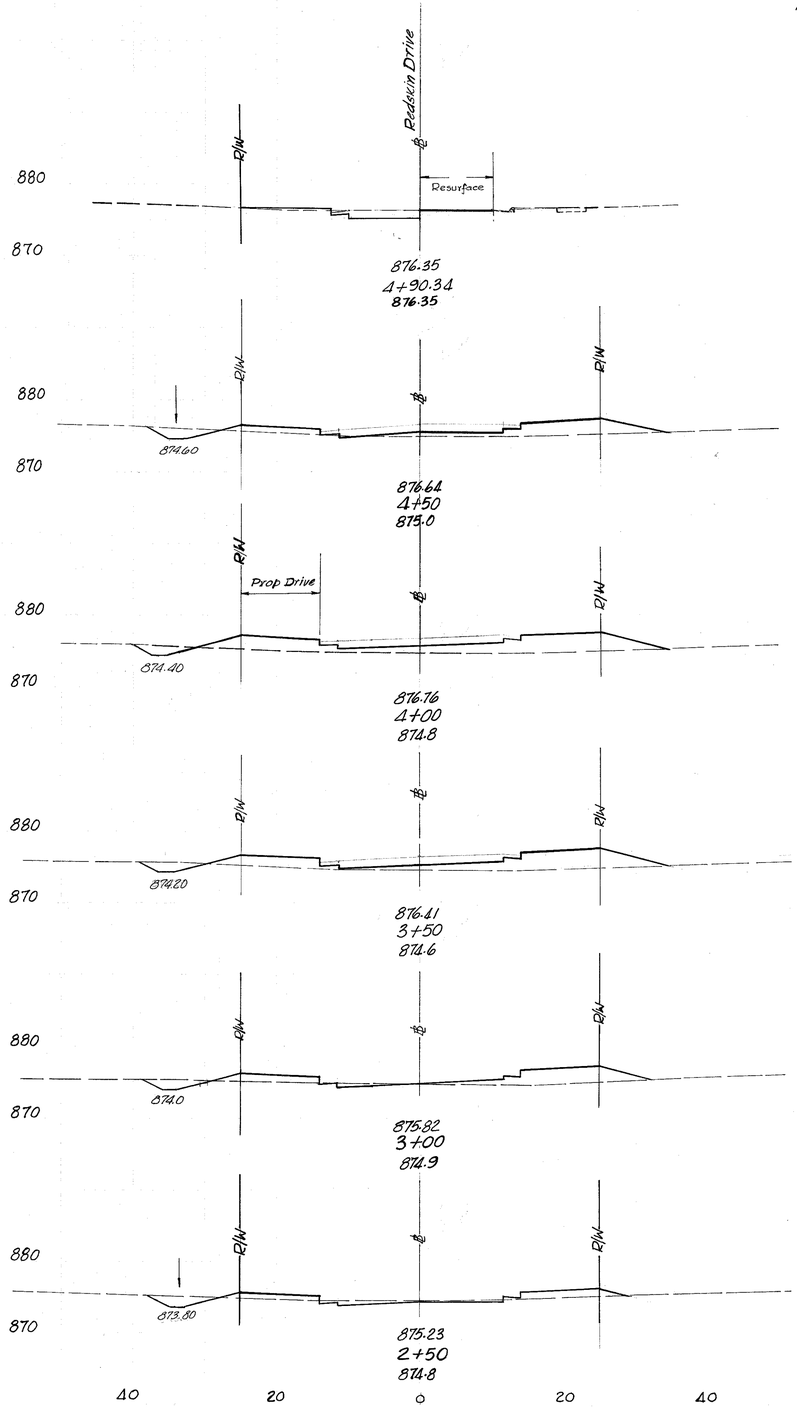
DRY RIDGE RD. RELOC. STA. 18+00 to STA. 20+49

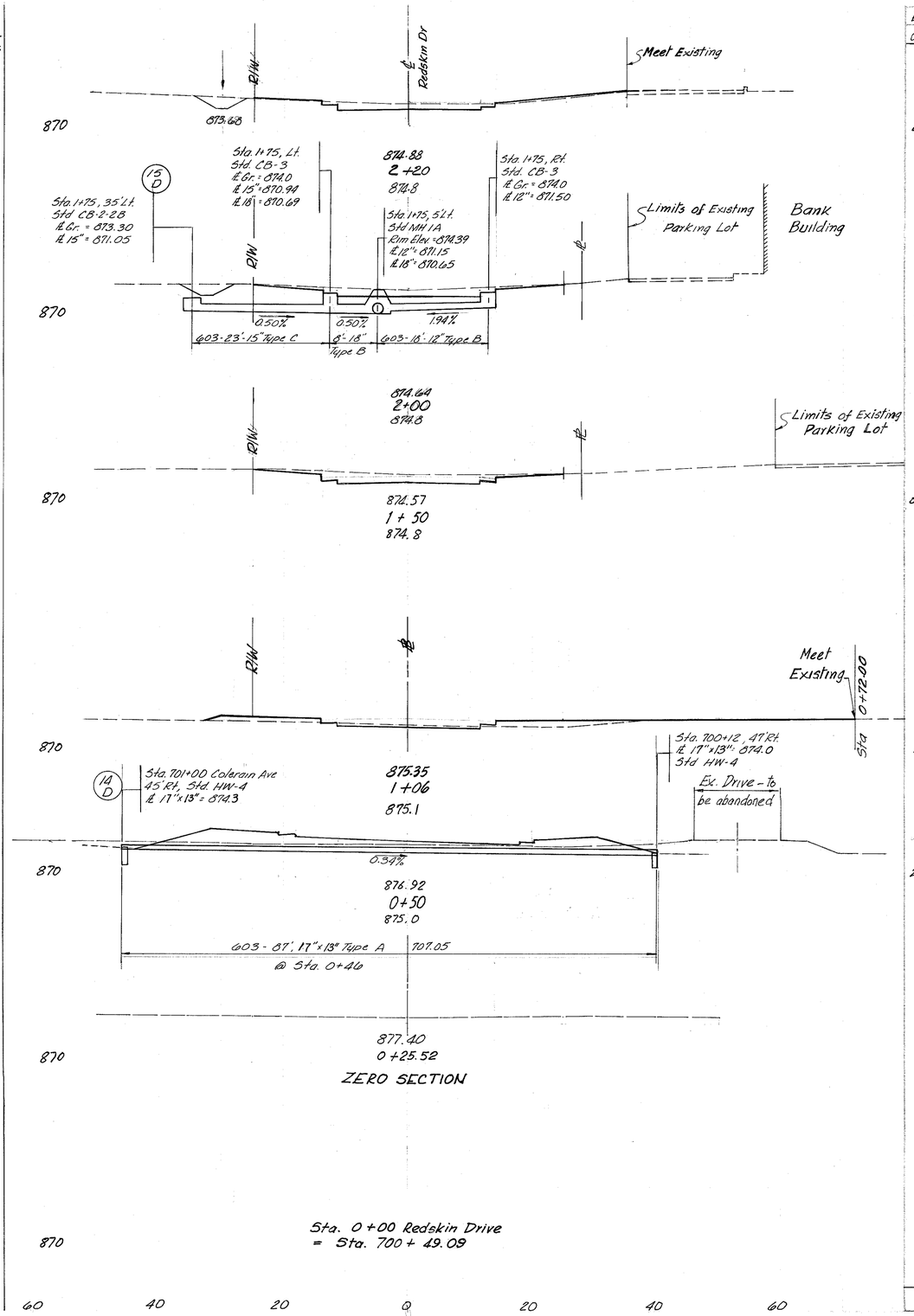
Developed		Checked	
DSM	2-5-74	KBS	2-26-74

HAMILTON COUNTY
HAM 275- 13.91

270
408

END REDSKIN DRIVE EXT STA 5+05.34





Sta. for Seeding Quantities		End area cut	End area fill	Volume cut	Volume fill
0	5+05.34				
10		40	0	74	0
12	4+90.34				
134		40	0		
58	4+50			102	0
322					
58	4+00				
325					
59	3+50	89	0		
317					
55	3+00				
264				82	24
40	2+50				
130					
38	2+20				
79					
33	2+00	19	16		
192					
36	1+50			42	97
212					
51	1+06	27	79		
320				25	73
52	0+50				
71					
0	0+25.52	0	0		
				325	184

10	0	
20	47	
12	49	
28	122	
18	84	
33	147	
18	75	
35	109	
20	42	
35	63	
18	26	
151	488	

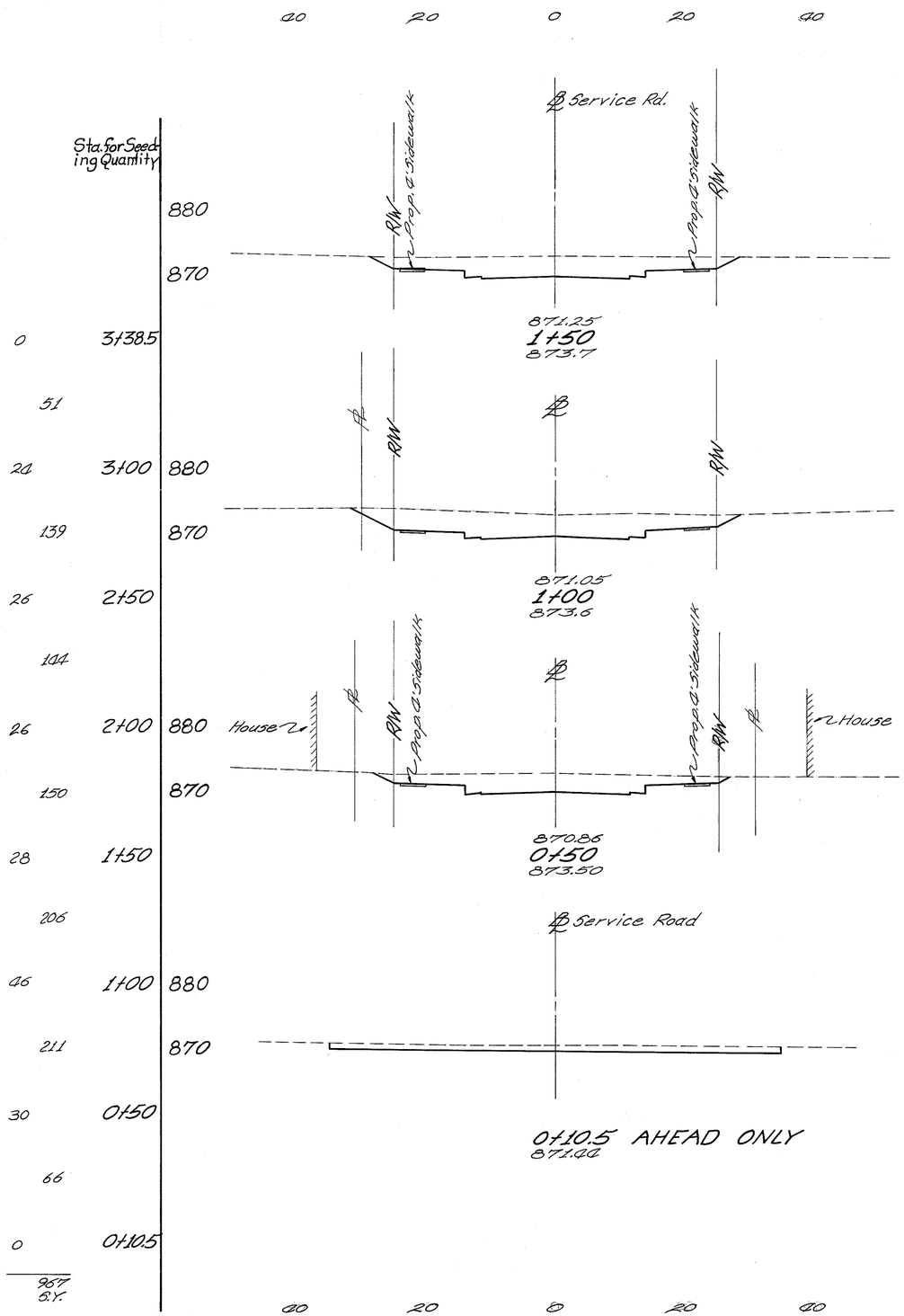
2476

60 40 20 0 20 40 60 40 20 0 20 40 60

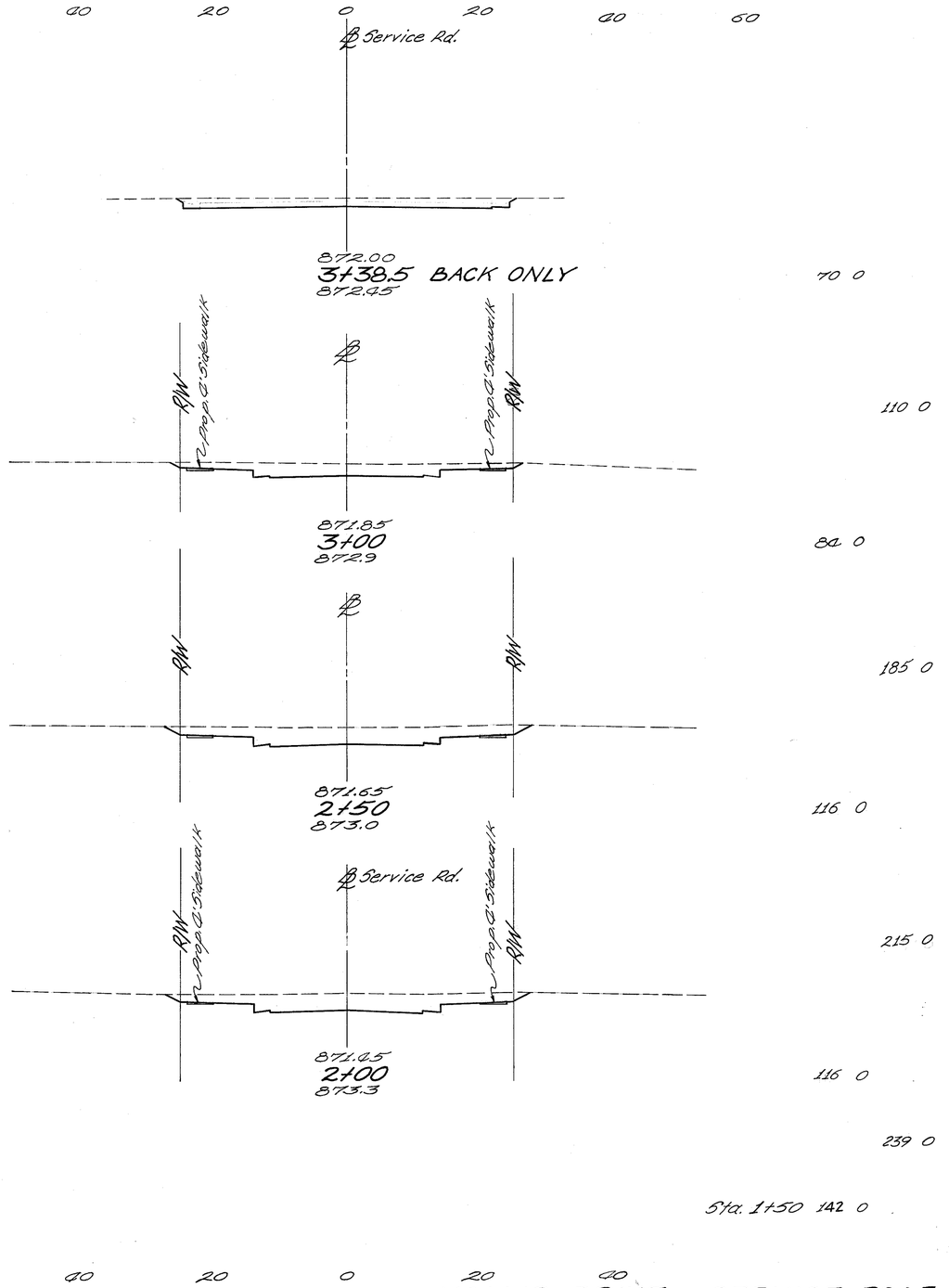
REDSKIN DRIVE EXTENSION

Drawn by	Checked by
G.S.A	10-30-14

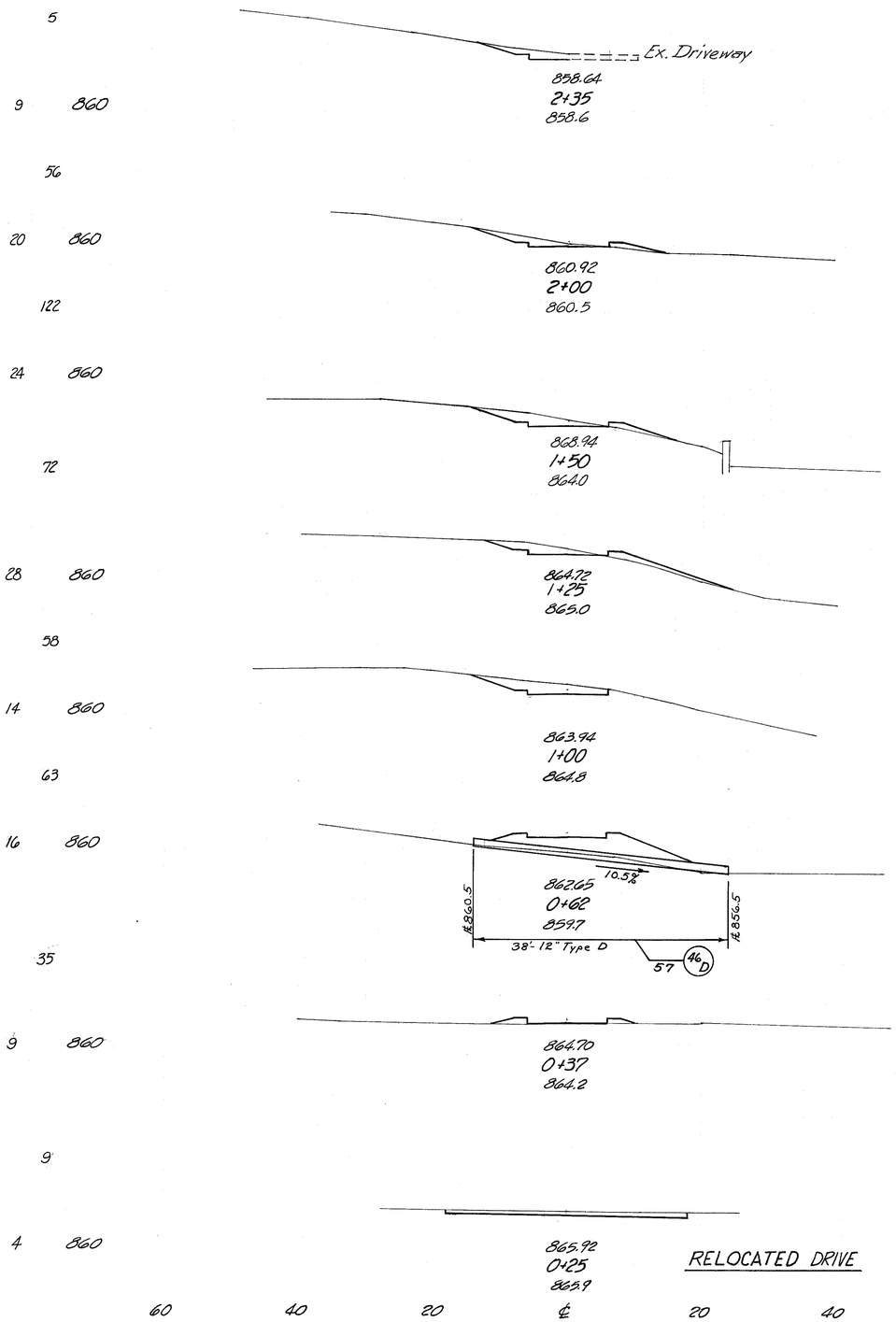
HAM-275-13.91



End Area		Volume	
Cut	Fill	Cut	Fill
102	0		
		291	0
172	0		
		275	0
125	0		
		138	0
64	0		
Total		1053	



ZERO SECTION 2+45



RELOCATED DRIVE

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
		2	0
11	0		
		17	3
15	5		
		32	14
20	10		
		19	12
20	15		
		21	7
25	0		
		28	35
15	50		
		7	28
0	10		
		5	2
21	0		

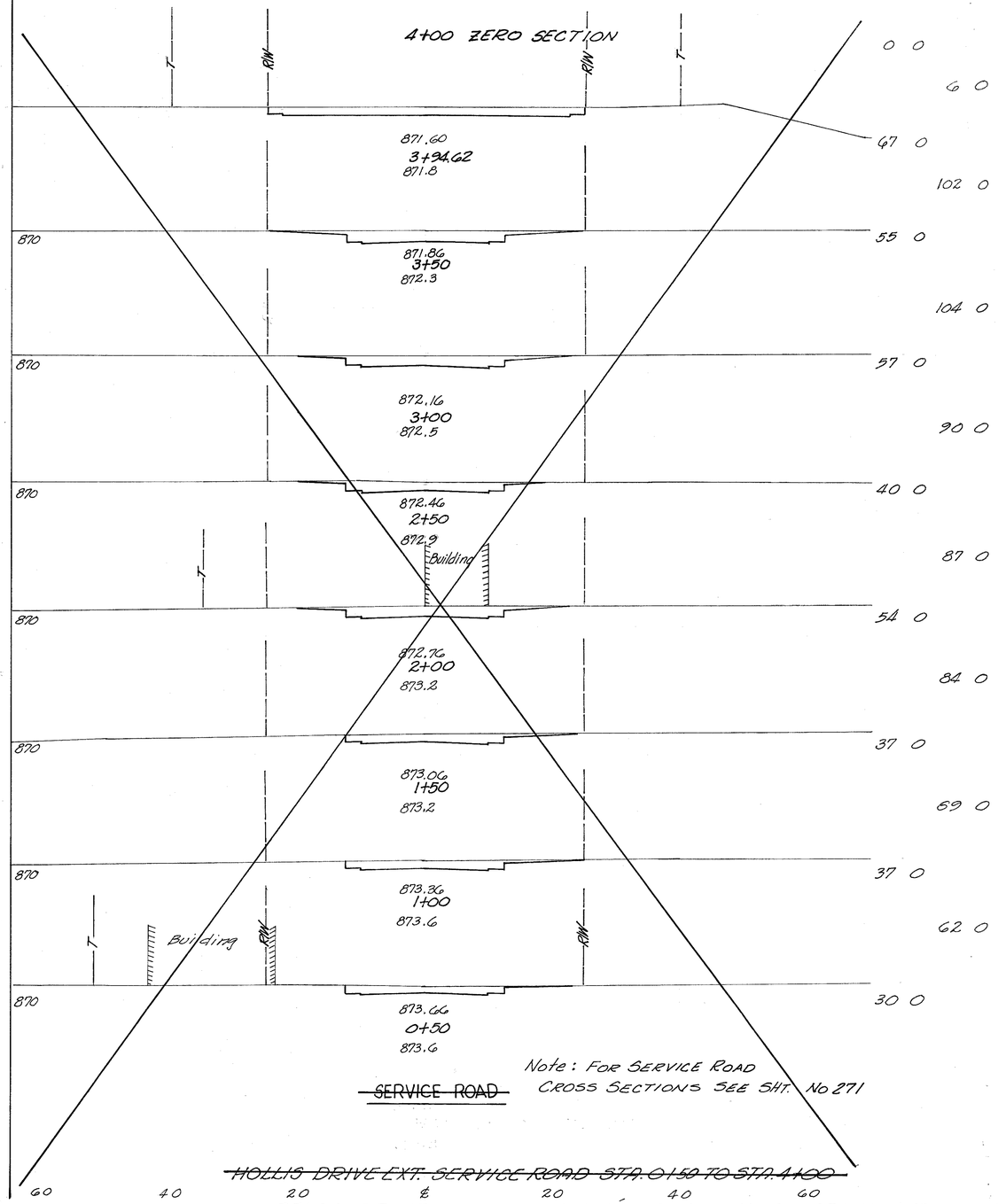
SEEDING	
END WIDTH	SQ YDS.

ENVELOPED 5-4-72 DLM | CHECKED 7/18/72 ALY

HAM-275-13.91
HAMILTON COUNTY

272
468

4+00 ZERO SECTION



Note: FOR SERVICE ROAD CROSS SECTIONS SEE SHT. No 271

~~SERVICE ROAD~~

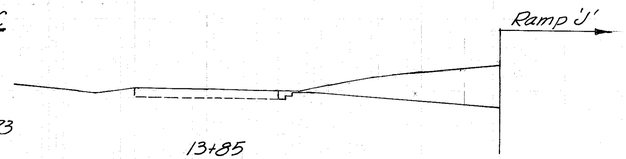
~~HOLLIS DRIVE EXT. SERVICE ROAD STA. 0+50 TO STA. 4+00~~

RELOC. DRIVE - LEFT OF STA. 709+77.50 ON COLERAIN AVE.

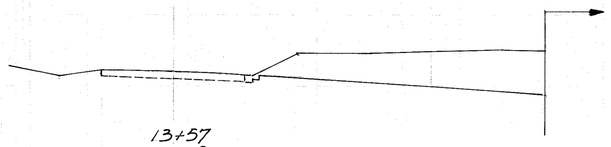
HAM-275-13.91
HAMILTON COUNTY

0 12+00
13
9 11+75
20
9 11+55
2
0 11+51

CAPSTAN
CUL-DE-SAC

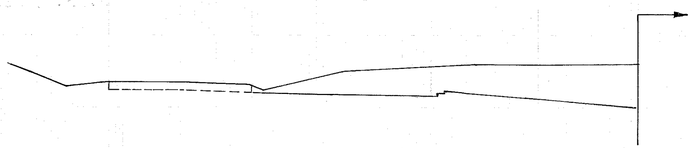


0 26+73
2 870
4 26+83
24
16 27+05
31 880

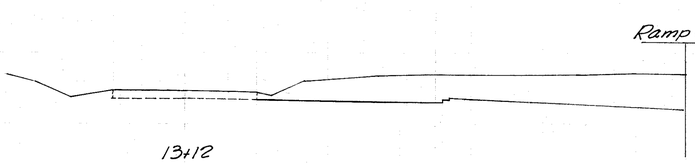


12 27+25
10 870
0 27+40

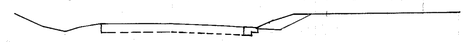
SHEITS RD.
CUL-DE-SAC



0 14+08
35
27 870
13+85
101
38 13+57
88
880
25 13+32
62 870
31 13+12
60



12 12+87
880

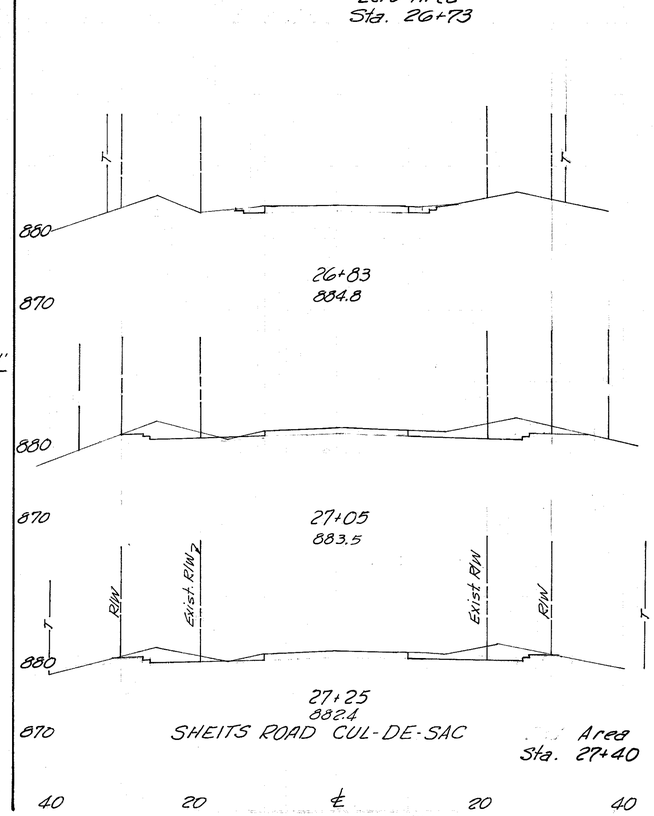


DRY RIDGE
CUL-DE-SAC
870

DRY RIDGE RD. CUL-DE-SAC

20 ℄ 20 40 60

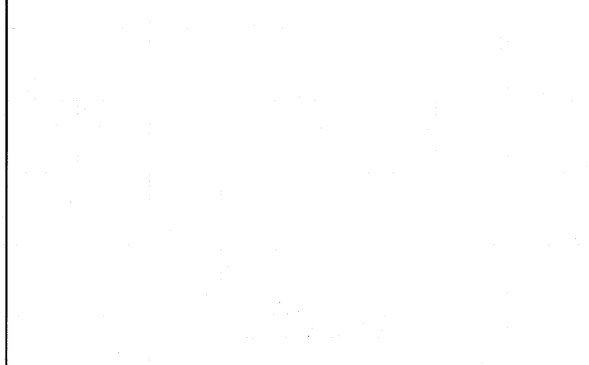
Zero Area
Sta. 26+73



SHEITS ROAD CUL-DE-SAC

Zero Area
Sta. 27+40

40 20 ℄ 20 40



CAPSTAN CUL-DE-SAC

Zero Area
Sta. 11+51

20 ℄ 20 40

12+00 4 0
26 0
11+75 53 0
39 0
11+55 52 0
4 0
11+51 0 0

CAPSTAN-CUL-DE-SAC

26+73 0 0
1 0
26+83 7 0
28 0
27+05 62 0
38 0
27+25 40 0
11 0
27+40 0 0

SHEITS RD. CUL-DE-SAC

14+08 0 0
38 0
13+85 90 0
135 0
13+57 170 0
167 0
13+32 190 0
150 0
13+12 215 0
104 0
12+87 10 0

DRY RIDGE RD.
CUL-DE-SAC

CUL - DE - SACS

T-24-70 R/D 7-24-70 MLS

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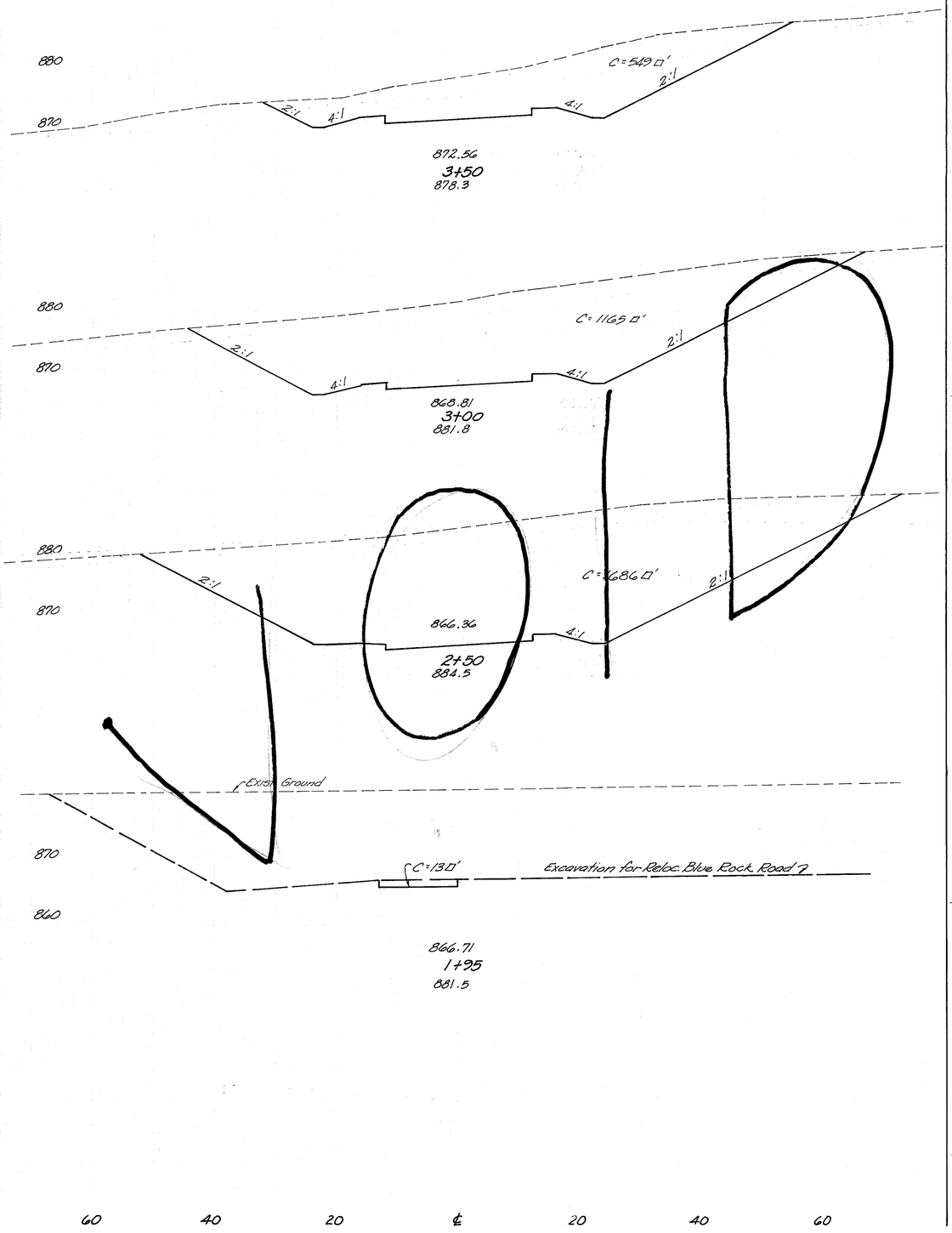
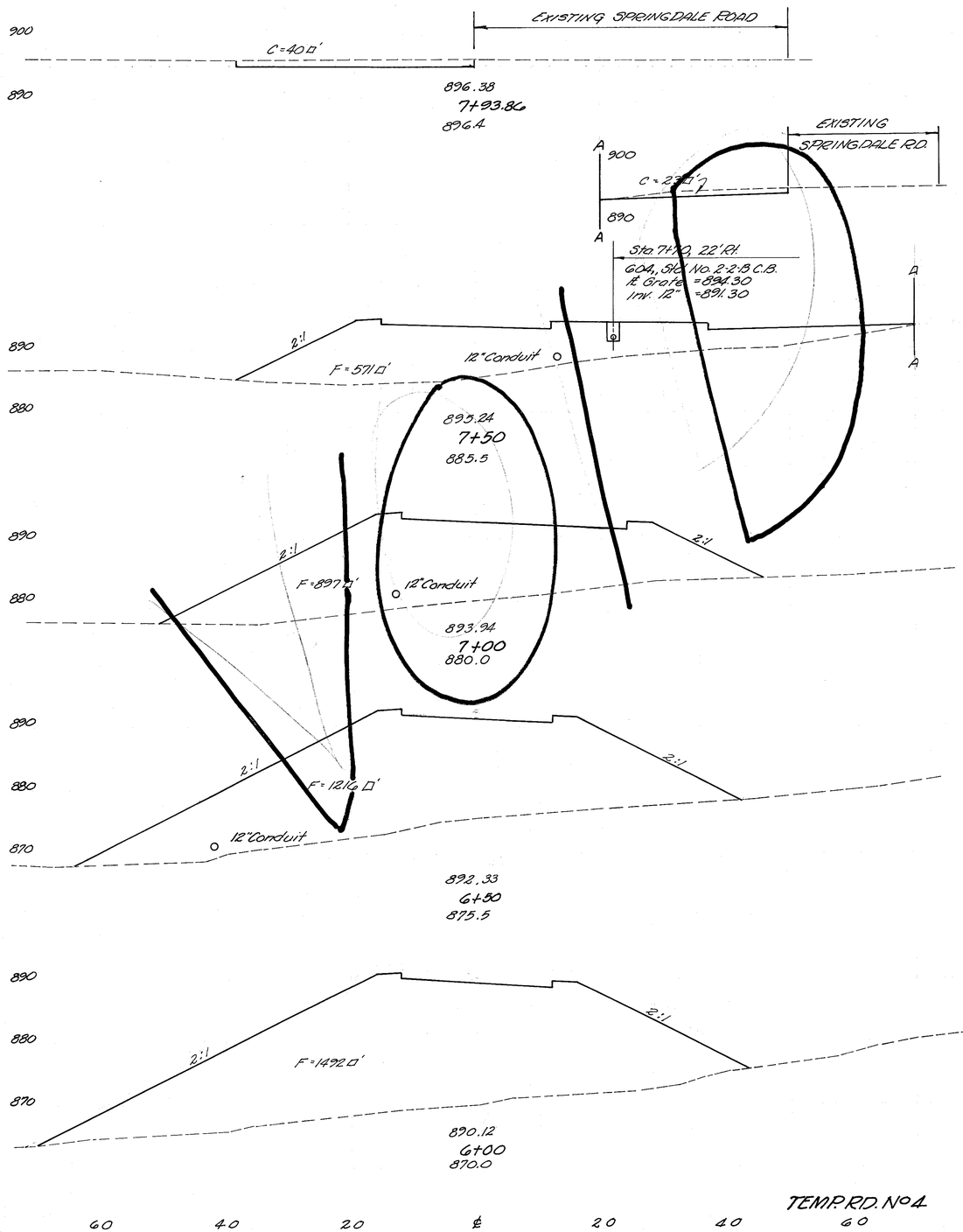
HAMILTON COUNTY

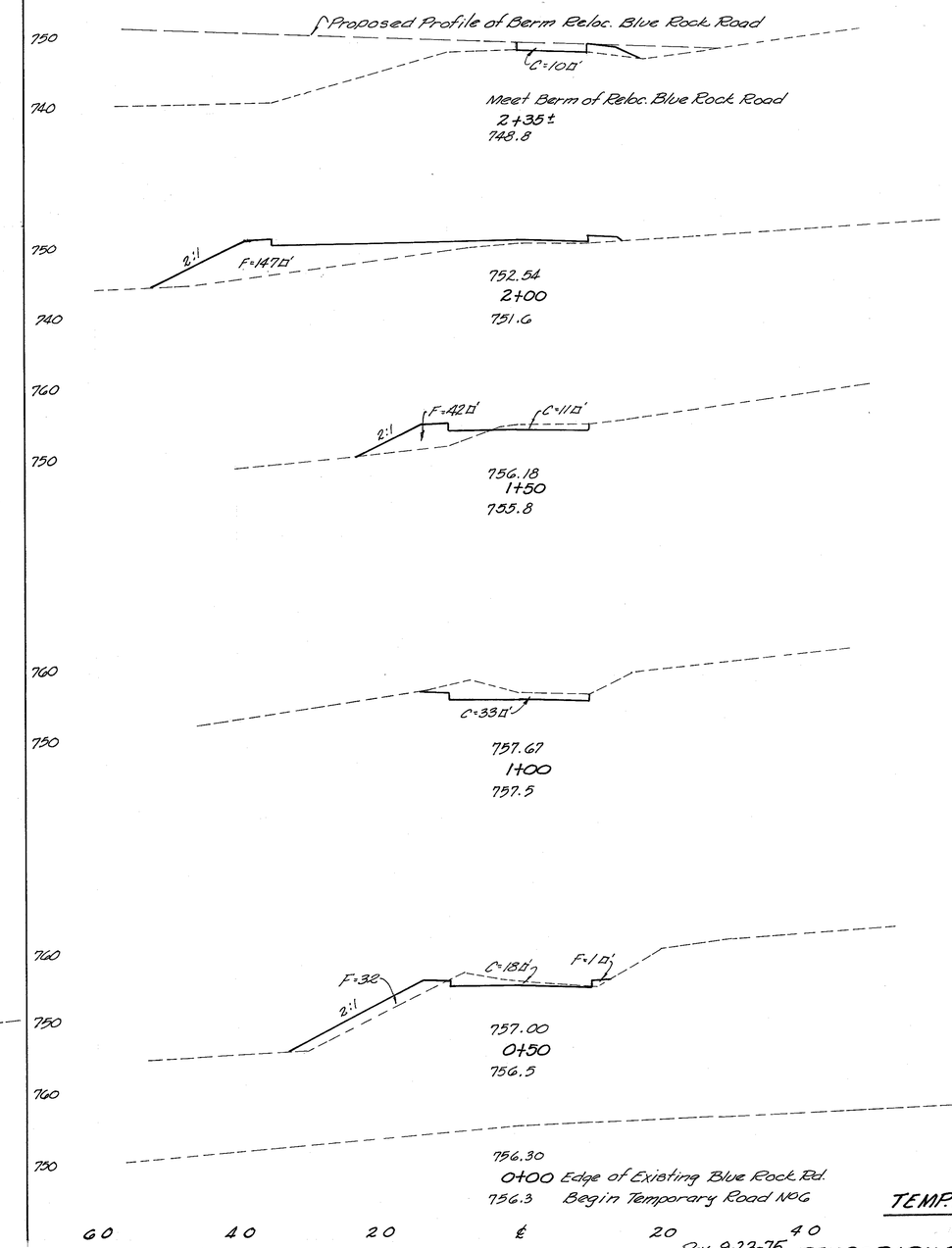


TEMPORARY ROAD No 4 STA. 1+95 TO STA. 5+50 Rev

HAM-275-13.91
HAMILTON COUNTY

ZERO SECTION STA. 8+02.47



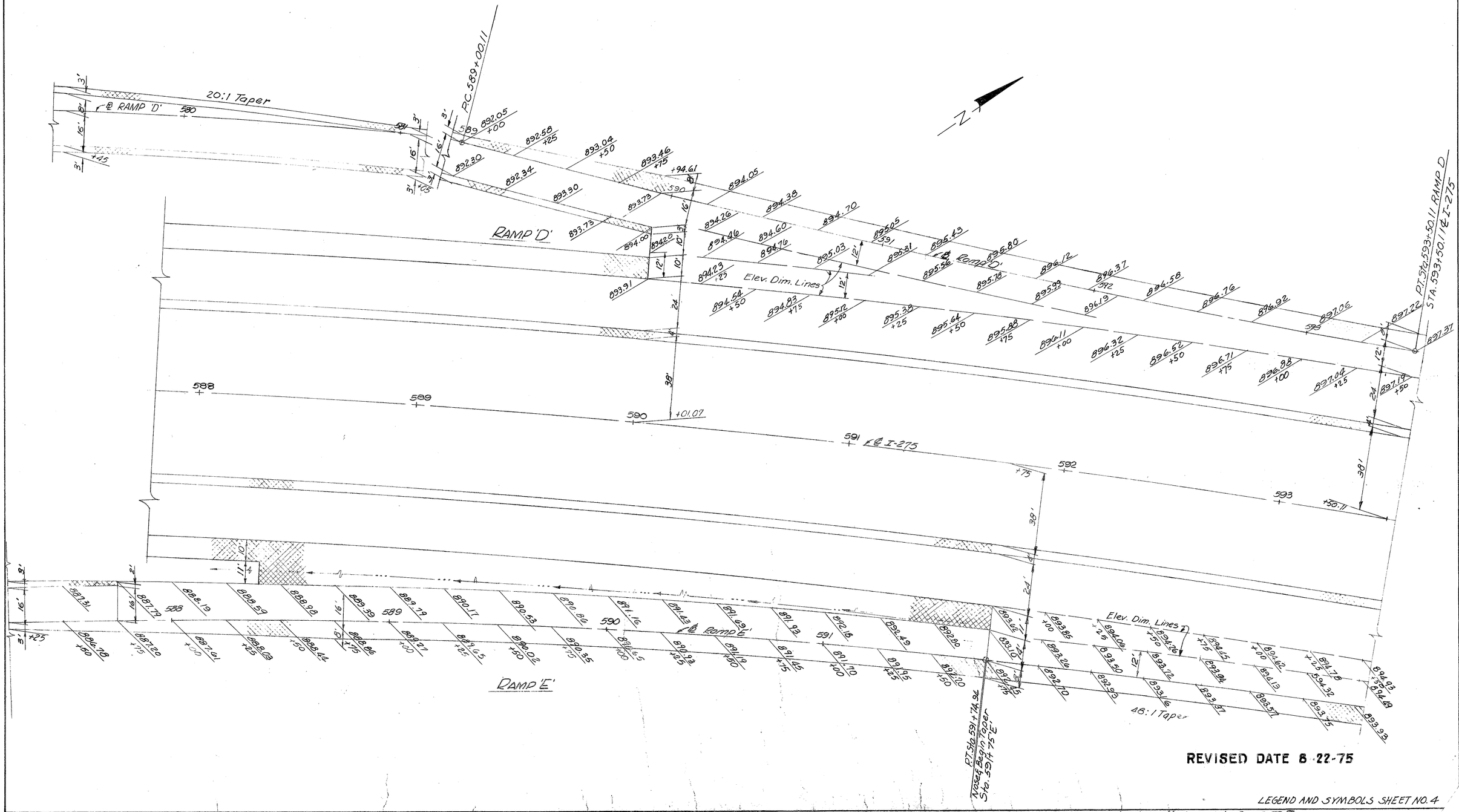


Rev. 9-23-75 TEMPORARY R.D. NO.4 AND R.D. N

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

274
468

HAM-275-13.91
HAMILTON COUNTY



LEGEND AND SYMBOLS SHEET NO. 4

PAVEMENT DETAIL RAMPS 'D' & 'E' W/ I-275

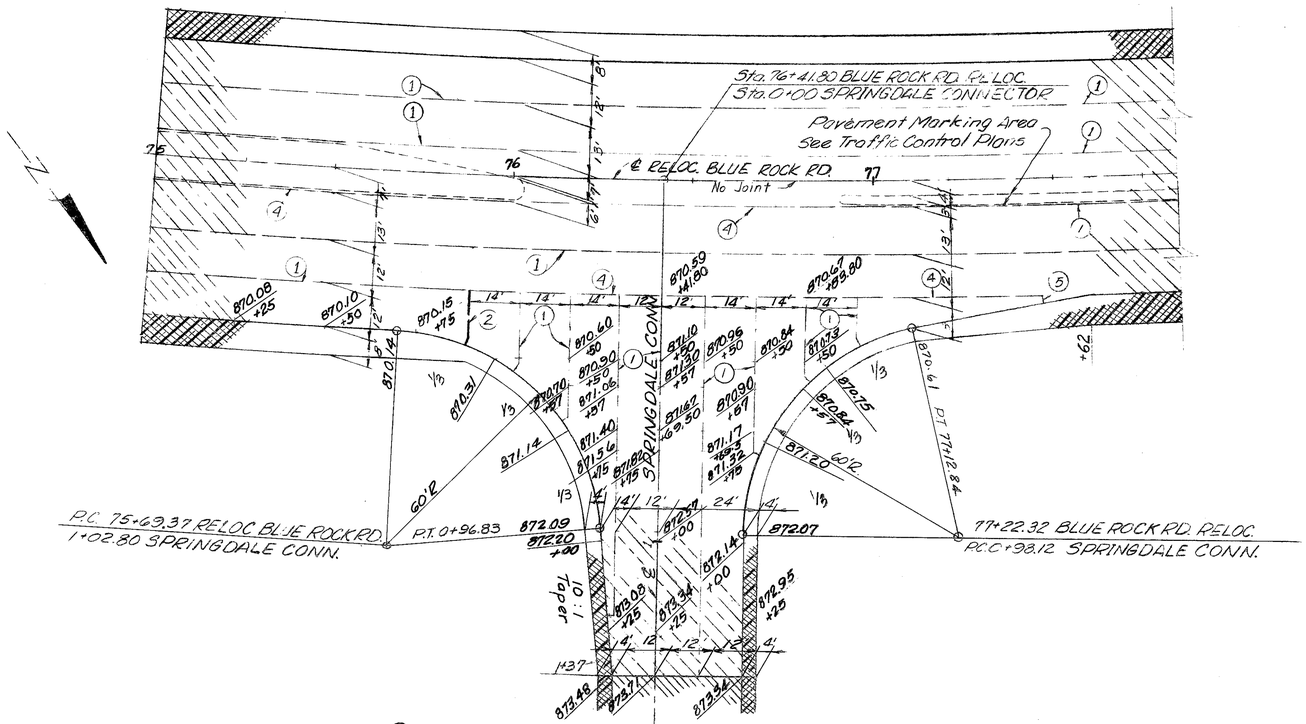
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

275
428

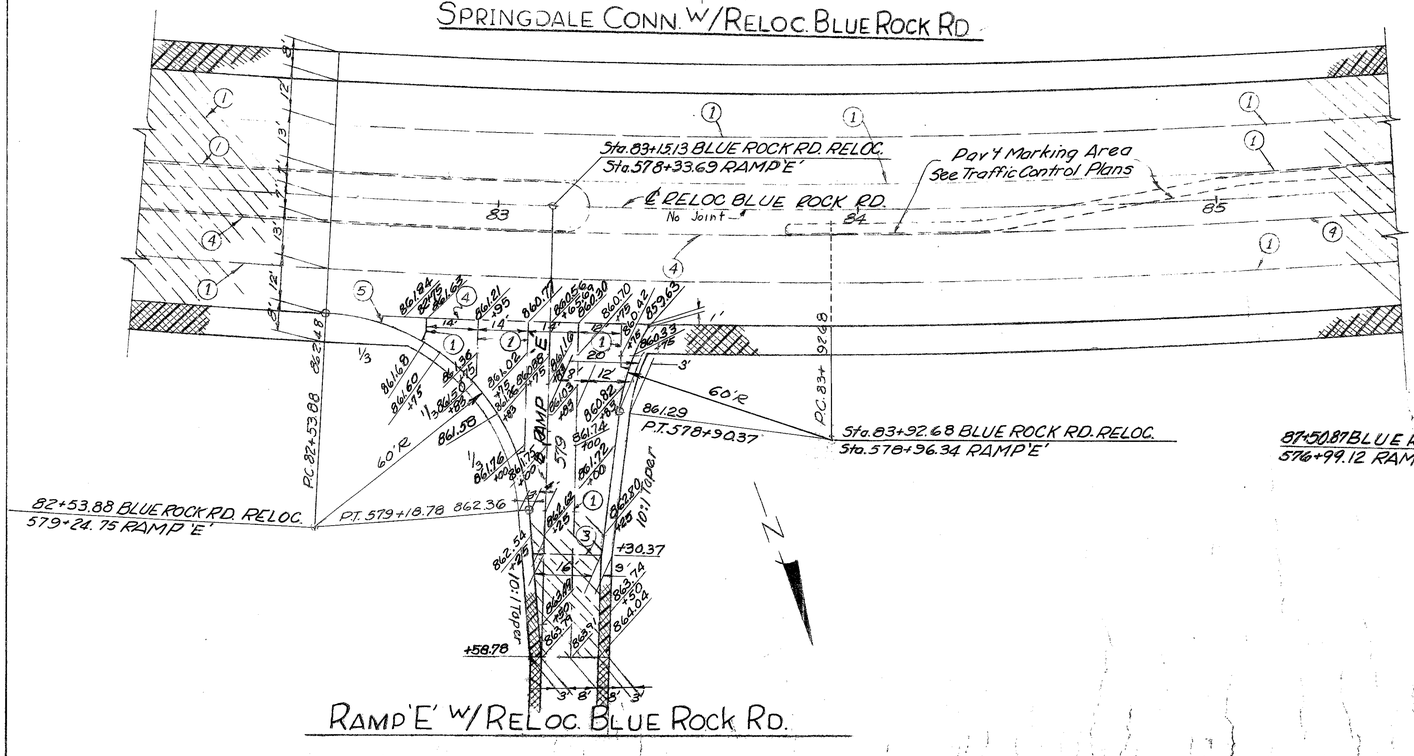
HAM-275-13.91
HAMILTON COUNTY

JOINT LEGEND

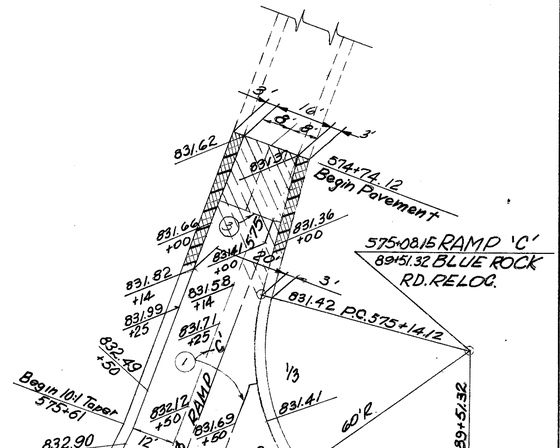
1. Standard Longitudinal Joints
2. Standard Expansion Joint
3. Standard Contraction Joint
4. Key Joint without Tiebars
5. Expansion Joint without Dowels



SPRINGDALE CONN. W/ RELOC. BLUE ROCK RD.



RAMP 'E' W/ RELOC. BLUE ROCK RD.



RAMP 'C' & 'D' W/ RELOC. BLUE ROCK RD.

REVISED DATE 3-22-76

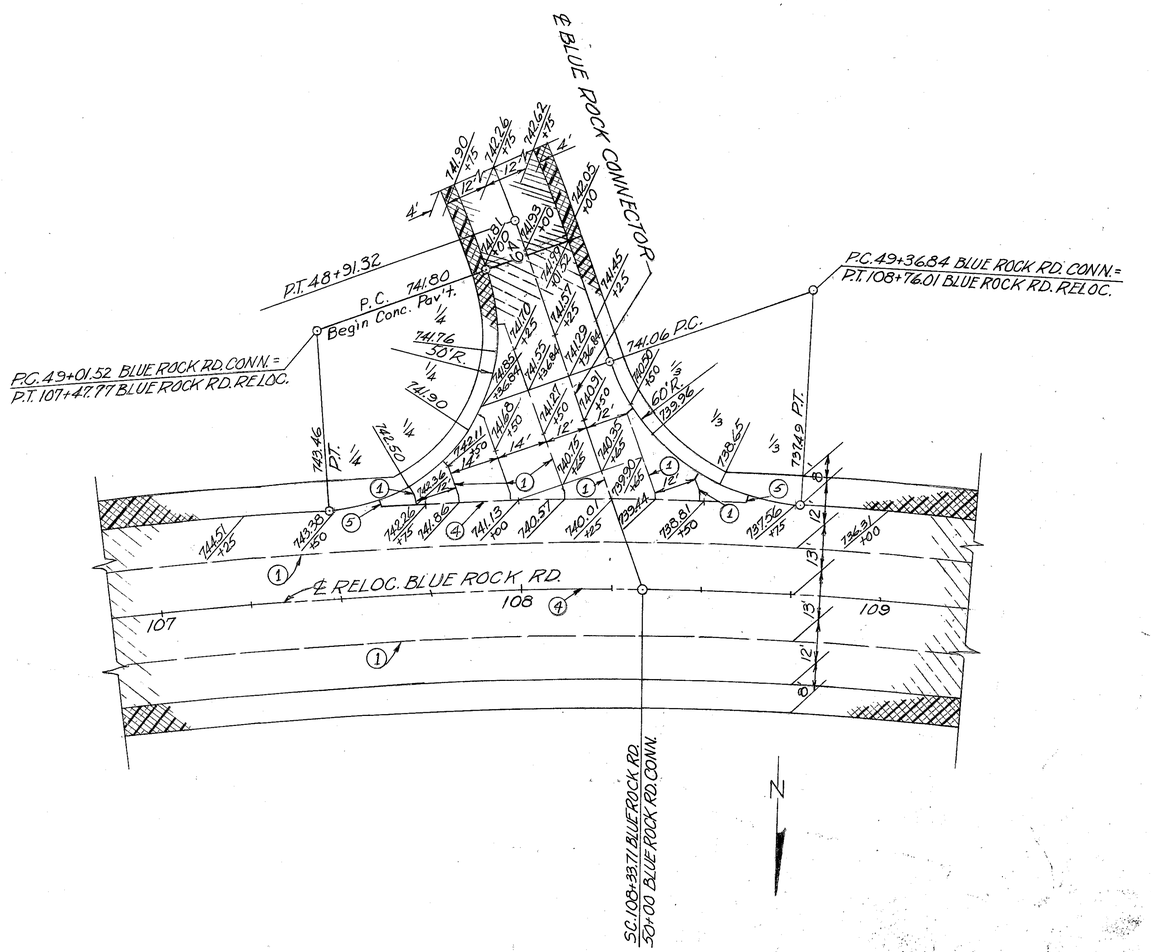
LEGEND AND SYMBOLS SHEET NO. 4

PAVEMENT DETAILS — RAMPS 'C', 'D' & 'E' AND SPRINGDALE CONNECTOR W/ ROCK ROAD RELOC.

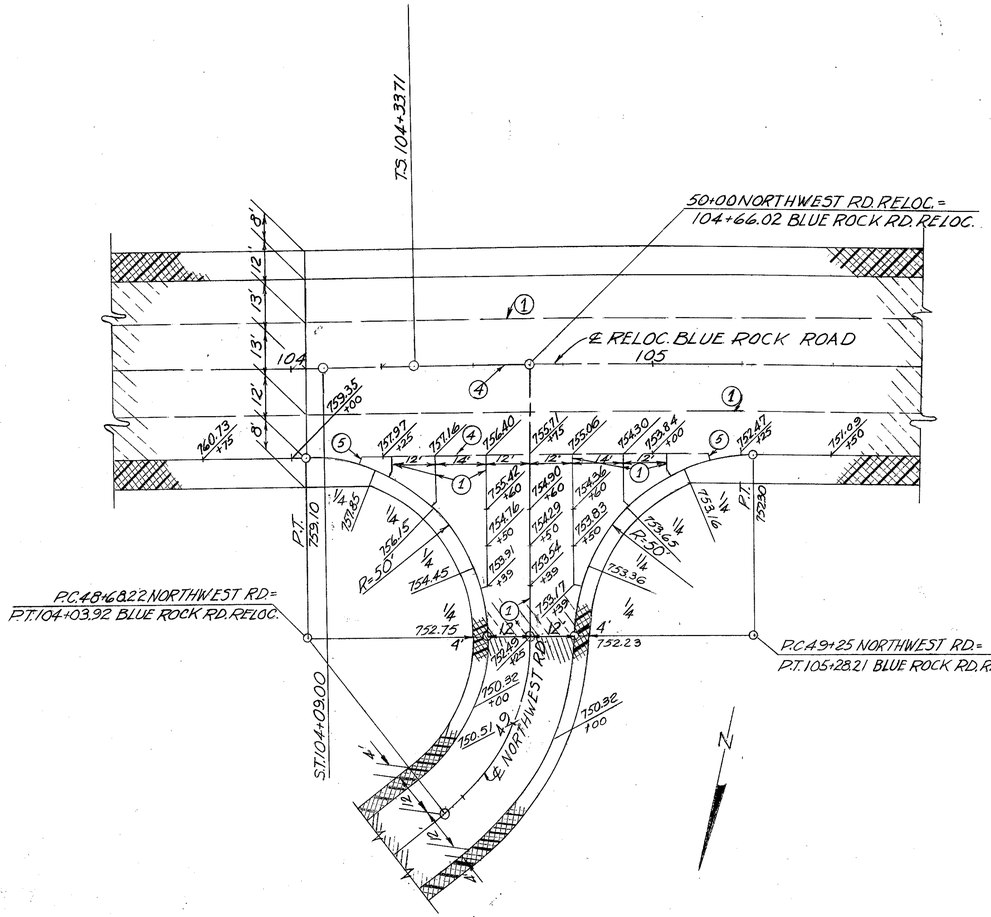
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

276
468

HAM-275-13.91
HAMILTON COUNTY



BLUE ROCK RD. CONNECTOR AT RELOCATED BLUE ROCK RD.



NORTHWEST RD. AT RELOCATED BLUE ROCK RD.

REVISED DATE 8-22-75

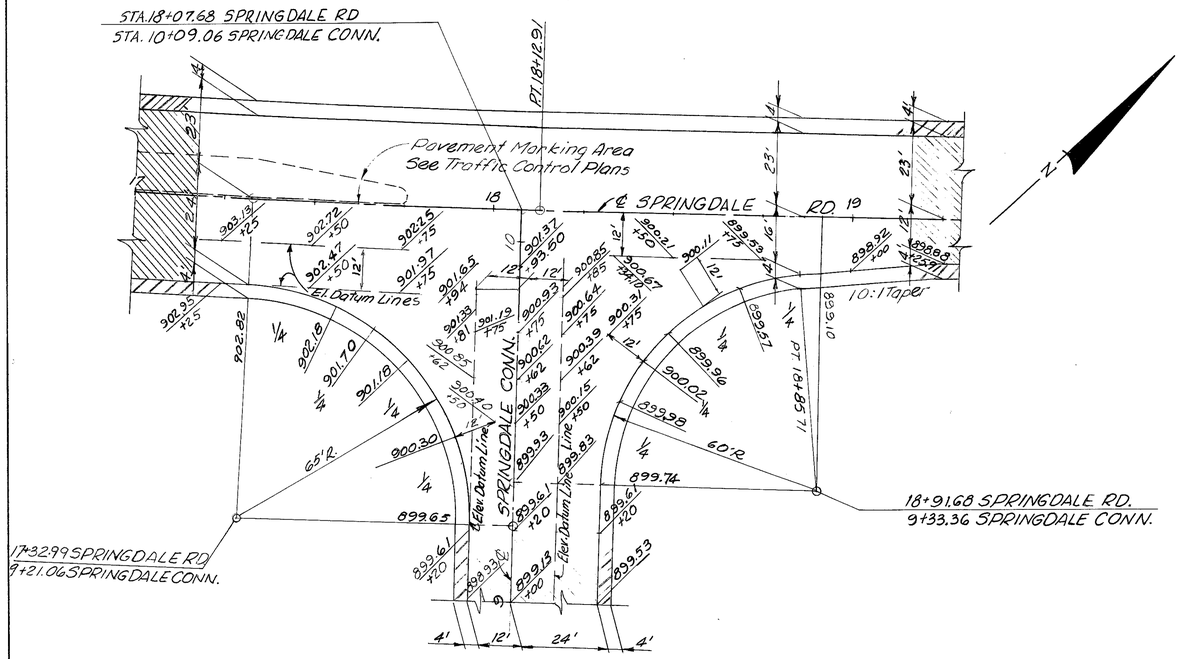
JOINT LEGEND SHEET NO. 275
LEGEND AND SYMBOLS SHEET NO. 4

PAVEMENT DETAILS BLUE ROCK RD. CONN. & NORTHWEST RD. AT RELOCATED BLUE ROCK RD.

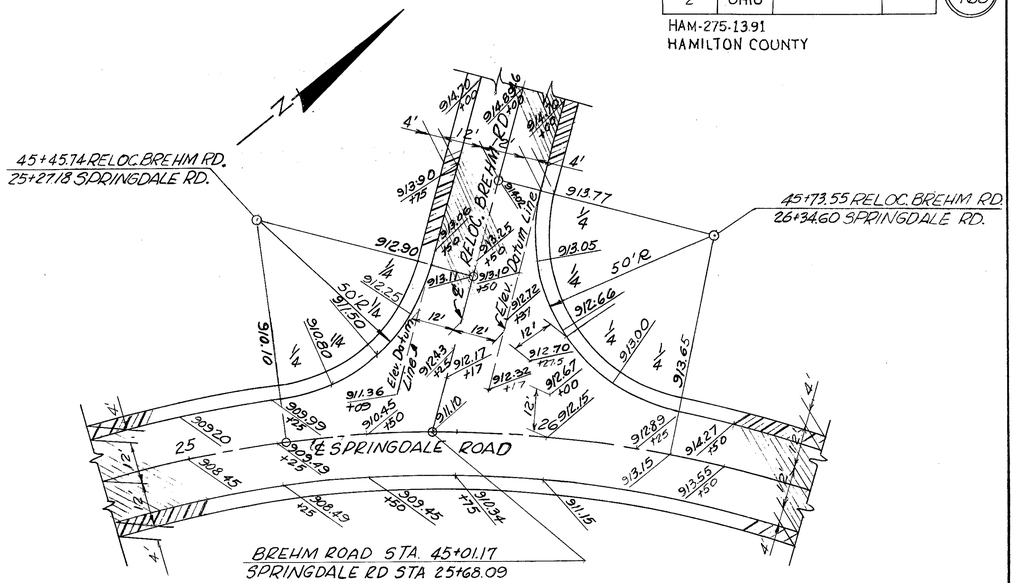
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

277
468

HAM-275-13.91
HAMILTON COUNTY



SPRINGDALE CONN. W/ SPRINGDALE RD.



RELOC. BREHM RD. W/ SPRINGDALE RD.

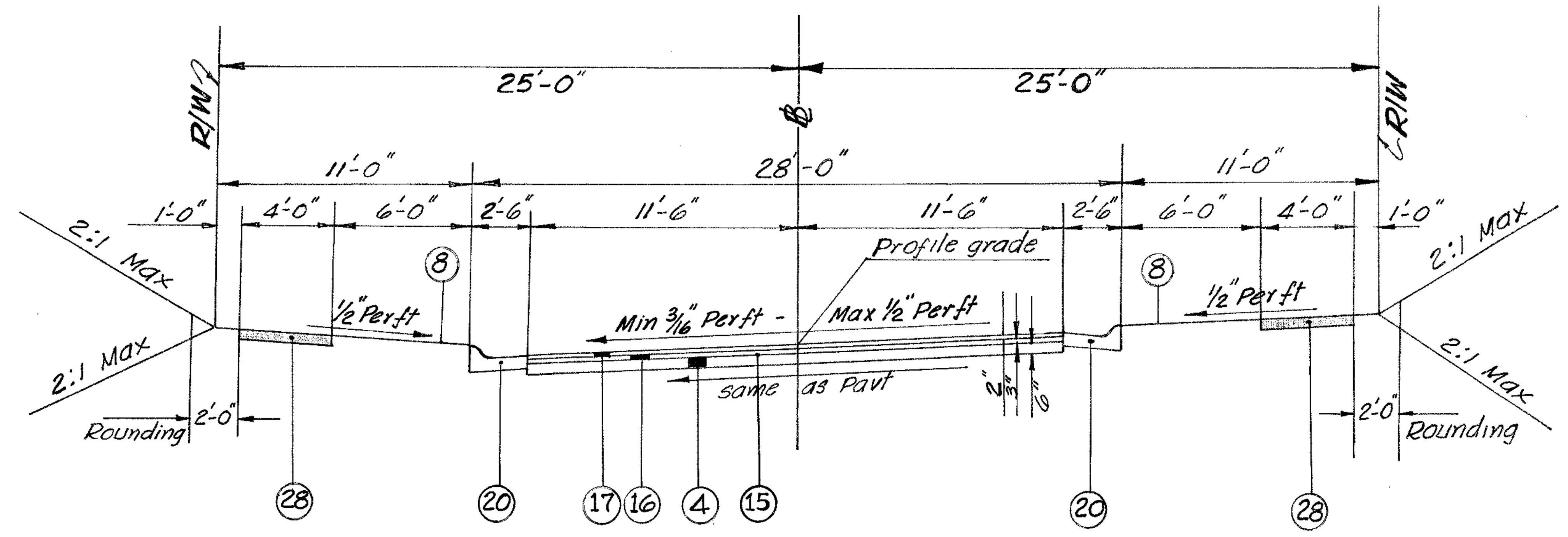
JOINT LEGEND SHEET NO. 275
LEGEND AND SYMBOLS SHEET NO. 4

PAVEMENT DETAILS — SPRINGDALE CONN. AND RELOC. BREHM W/ SPRINGDALE RD.

FED RD DIVISION	STATE	PROJECT	
2	OHIO		

277A / 468

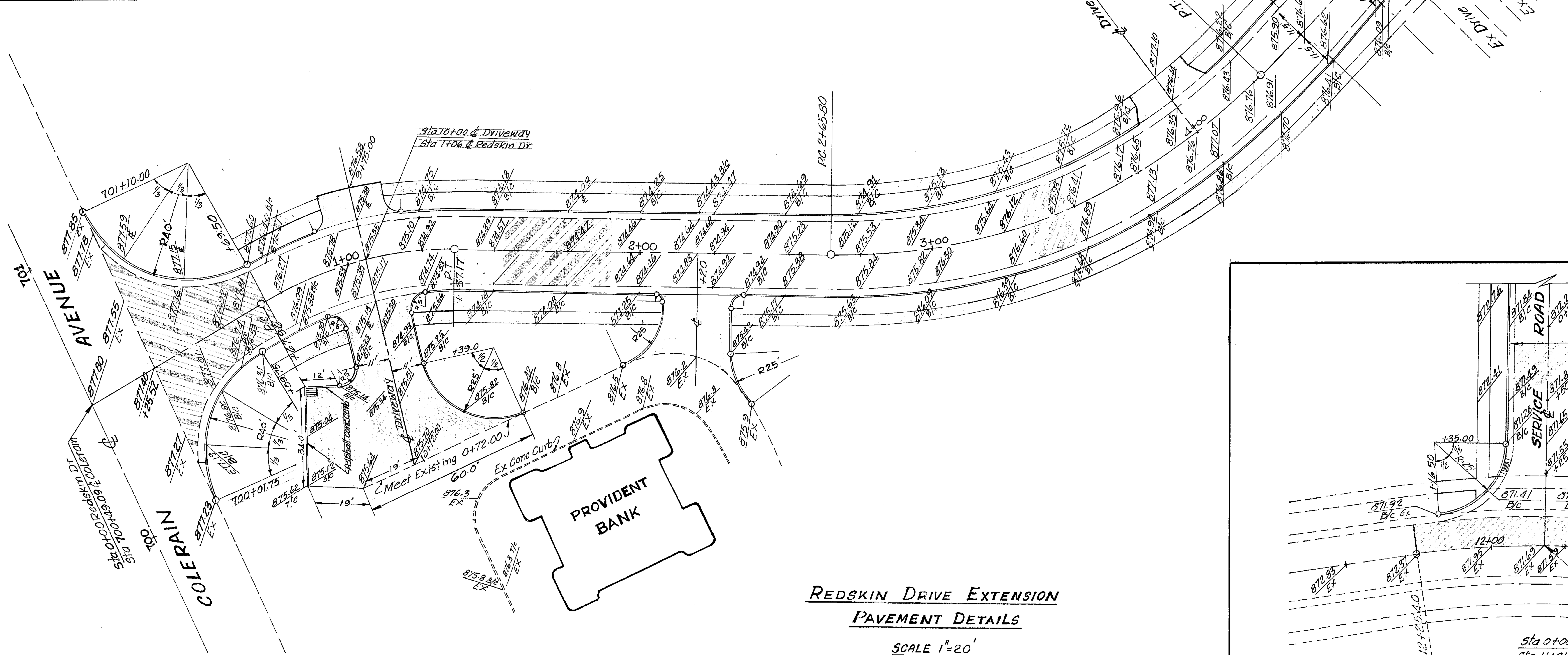
HAM 275-13.91
HAMILTON COUNTY



REDSKIN DRIVE EXTENSION

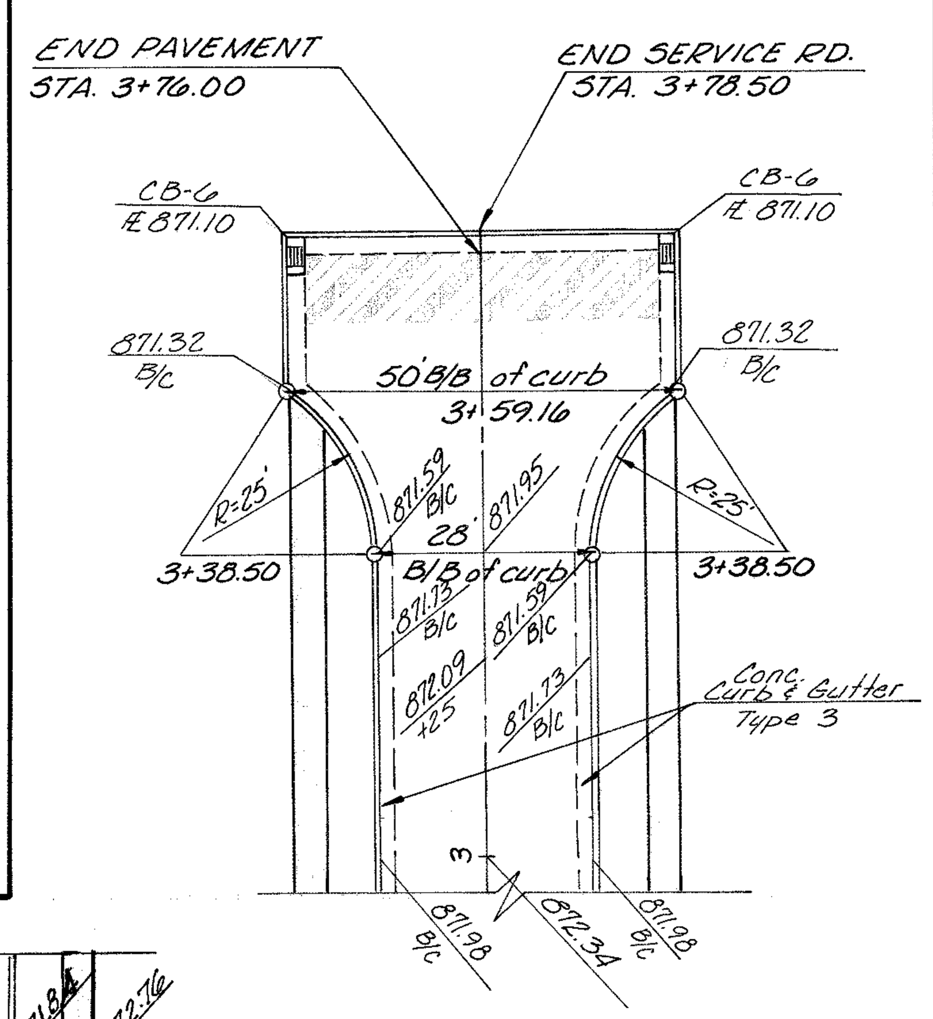
LIMITING STATIONS Sta 0+69.50 to Sta 1+50
Sta 3+00 to Sta 4+25

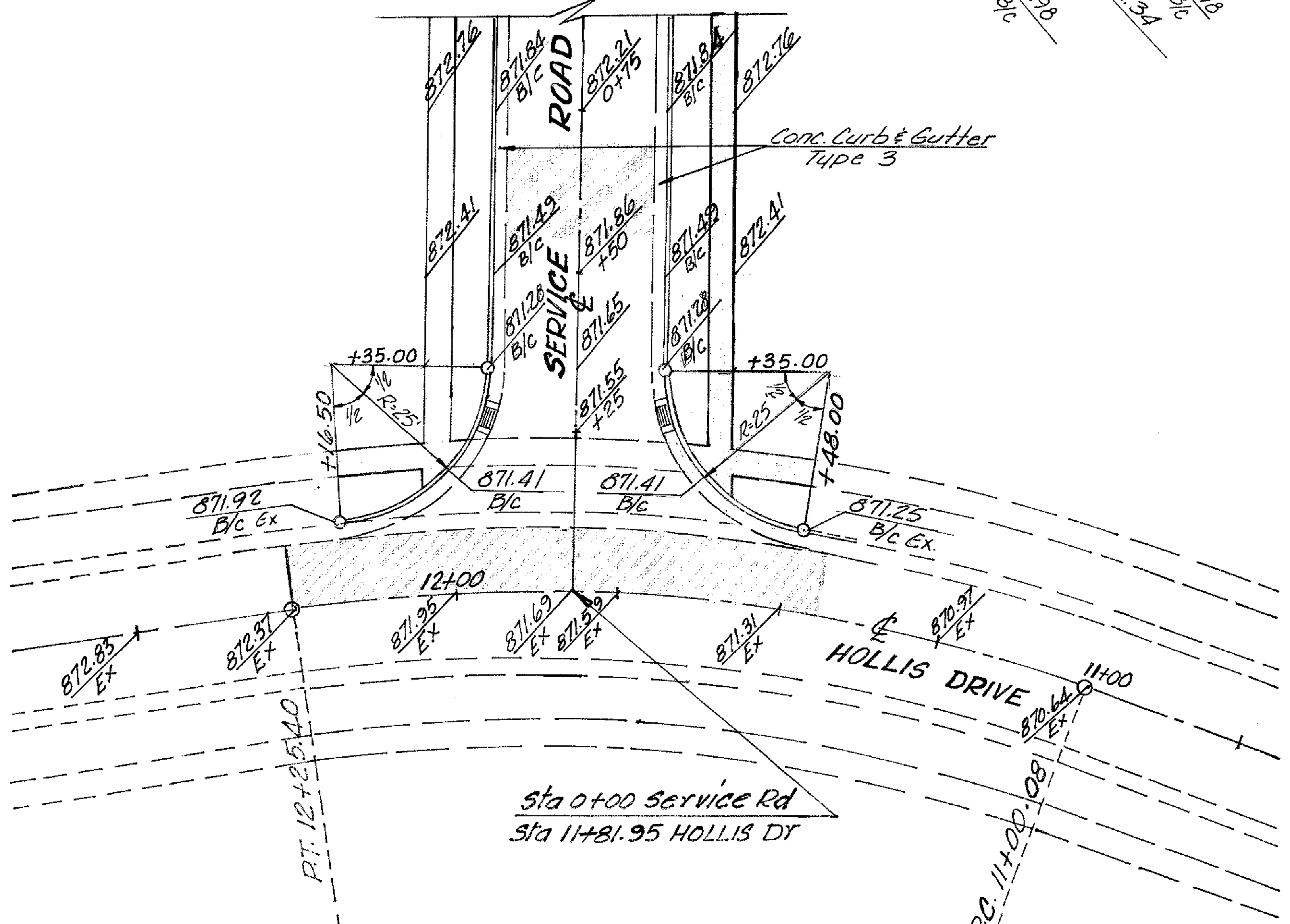
For Normal Typical See Sh 10
For Item Legend See Sh 4
For Pavement Edge Elev See this Sheet



Redskin Drive Extension
Pavement Details

Scale 1"=20'





Service Road At Hollis Drive
Scale 1"=20'

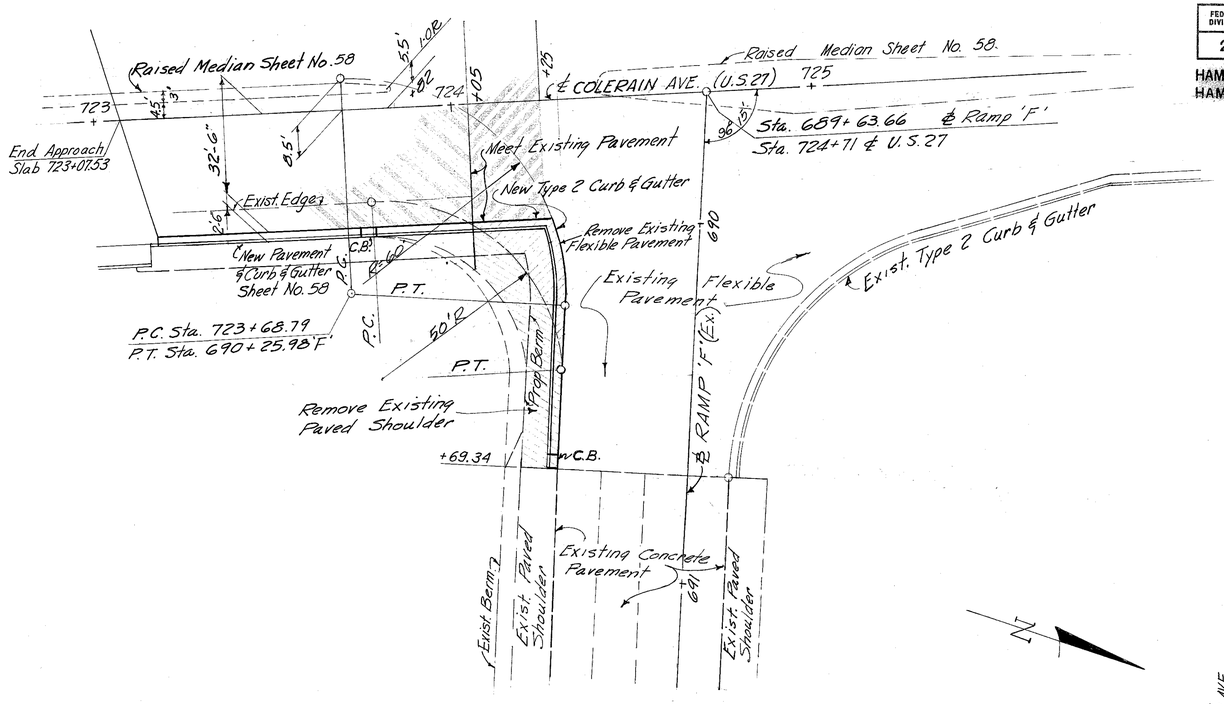
LEGEND	
Ex	Existing Elevation
B/c	Bottom of Curb
T/c	Top of Curb
℄	Flow Line
B/B	Back to Back of Curb

PAVEMENT DETAILS

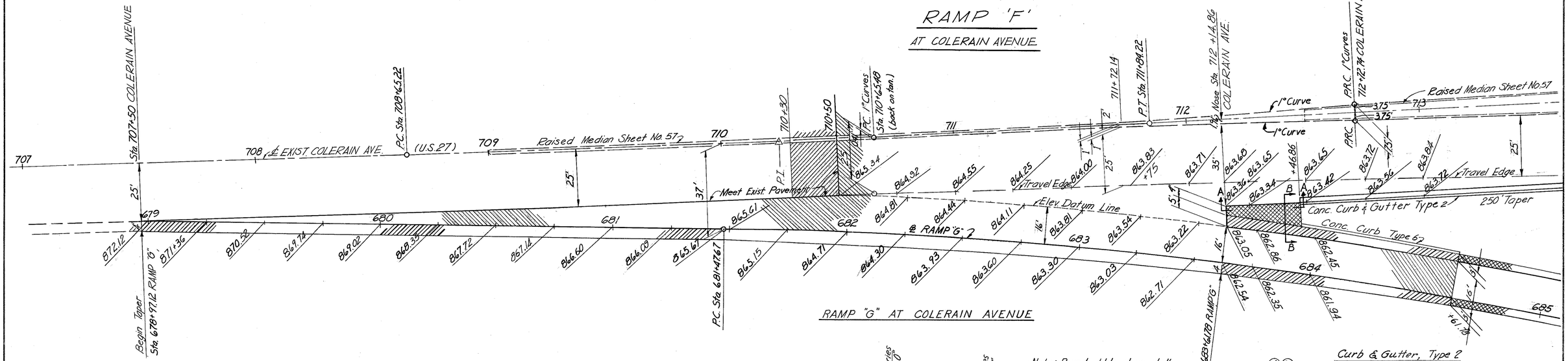
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

278
468

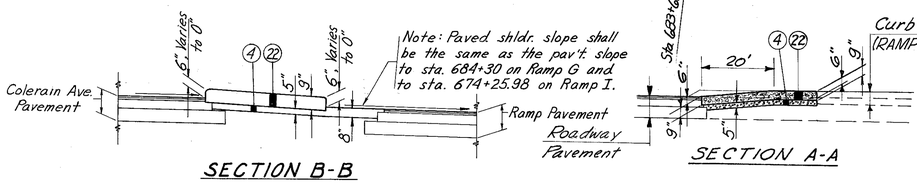
HAM-275-13.91
HAMILTON COUNTY



RAMP 'F'
AT COLERAIN AVENUE.



RAMP "G" AT COLERAIN AVENUE



SECTION B-B

SECTION A-A

Curb & Gutter, Type 2
(RAMP 'I' Type 6)

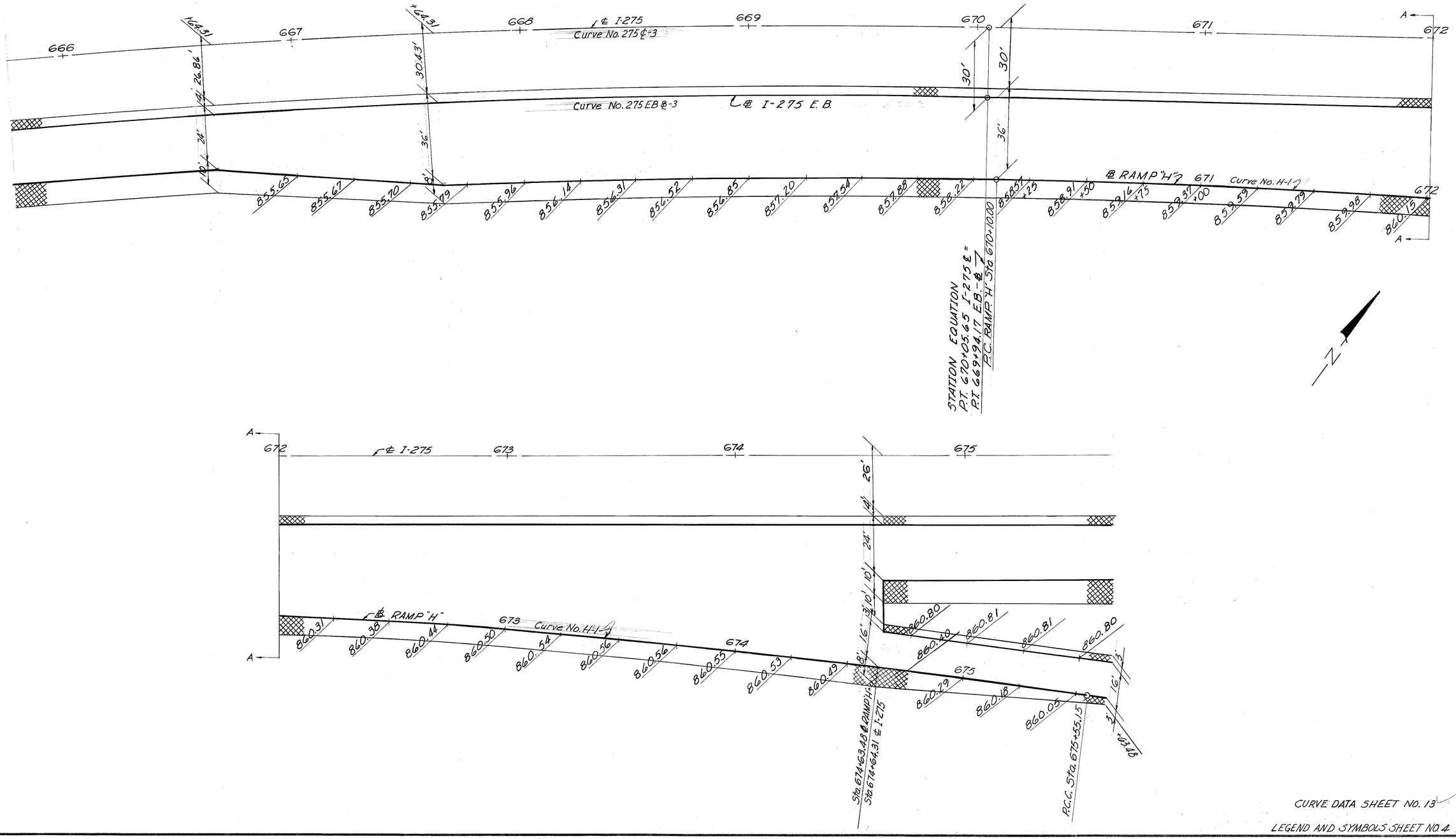
LEGEND AND SYMBOLS SHEET NO. 4

PAVEMENT DETAILS - RAMPS 'F' & 'G' W/ COLERAIN AVE. (U.S.27)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

279
468

HAM-275-13.91
HAMILTON COUNTY



CURVE DATA SHEET NO. 13

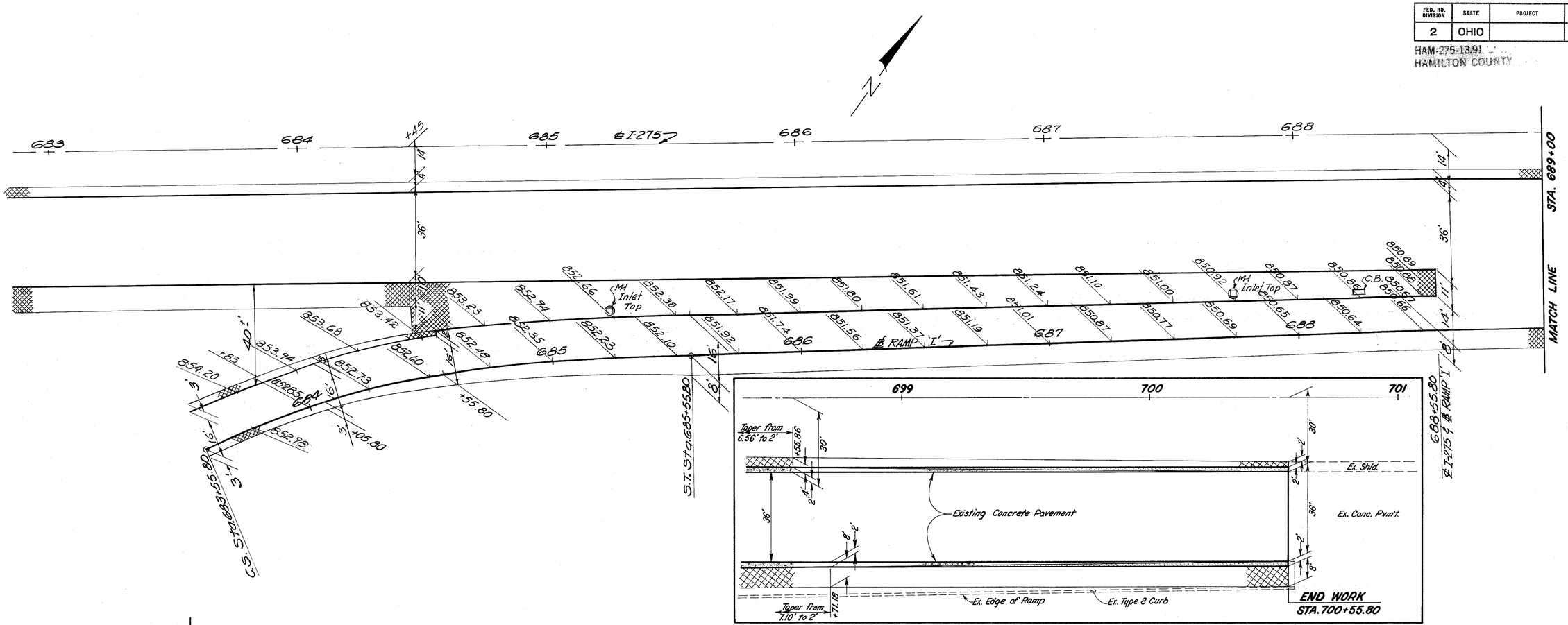
LEGEND AND SYMBOLS SHEET NO. 4

PAVEMENT DETAIL - COLERAIN INTERCHANGE - RAMP "H" W/ I-275

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

280
468

HAM-275-13.91
HAMILTON COUNTY



19.44
6.56
36.00
19.44
7.10

REVISED DATE 8-22-75

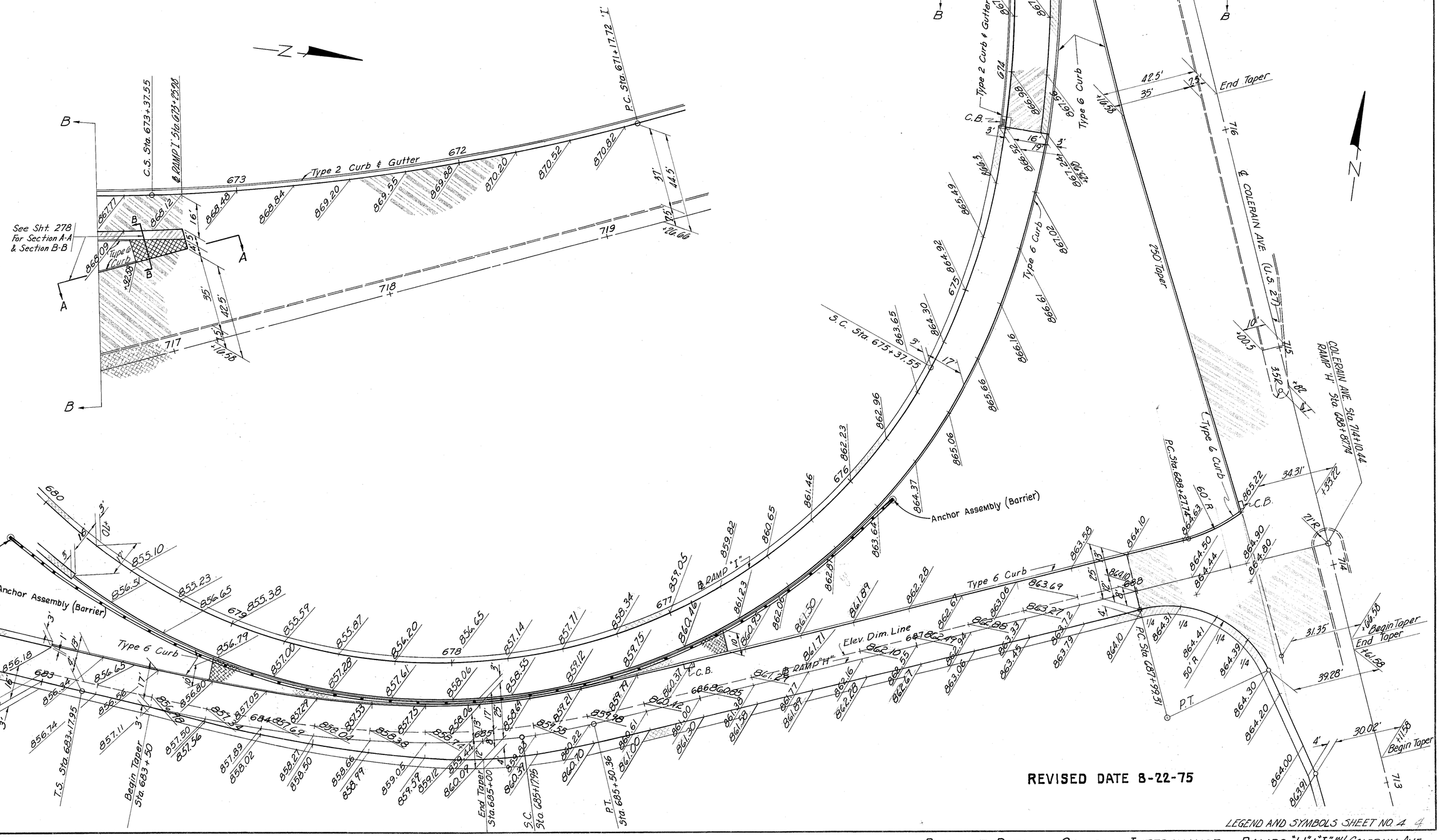
LEGEND AND SYMBOLS SHEET NO. 4

PAVEMENT DETAIL - COLERAIN INTERCHANGE - RAMP "I" W/I-275

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

281
468

HAM-275-13.91
HAMILTON COUNTY



PAVEMENT DETAIL - COLERAIN INTERCHANGE - RAMPS "H" & "I" W/ COLERAIN AVE.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

282
468

HAM-275-13.91
HAMILTON COUNTY

* Gutter Flare from 2'-0" to 3'-0" in 10'
Cost included with Type 2 Curb & Gutter

P.T. 688 + 29.16 'J'

℄ RAMP 'J'

689+00.90
End Ramp Pav't. & Paved Berms
± 10.90

Angle Point ℄ COLERAIN AVE.
Sta 723 + 75.00
Δ = 0° 05' 54" Rt.

Sta. 723+77.00 ℄ COLERAIN AVE. Offset 54.50' Lt.
Sta. 689+39.41 ℄ RAMP 'J' Offset 67.75' Rt.

Sta. 724+19.36 ℄ COLERAIN AVE. Offset 39.49' Lt.
Sta 689+68.03 ℄ RAMP 'J' Offset 35.02' Rt.

Sta. 725+00.81 ℄ COLERAIN AVE. Offset 104.36' Lt.
Sta. 689+34.93 ℄ RAMP 'J' Offset 63.70' Lt.

P.C.
P.T.
P.C.C.
50' R
5' R
200' Rt.
60' R
L/4

Curb & Gutter-Type 2
Curb & Gutter, Type 2 'J'
C.B.
Meet Existing Pavement
30:1 Taper
1.0' R +90
℄ COLERAIN AVE. (U.S.27)
724+71.00 ℄ COLERAIN AVE. (U.S.27)
= 690+22.80 ℄ RAMP 'J'
P.T. Sta 681+97.60 'J'
Curve No. J-12
Sta. 676+00 - I-275 ℄ RAMP 'J'
48:1 Taper
℄ RAMP 'J'
P.C. Sta 679+00 'J'
681+02 'J'
℄ I-275

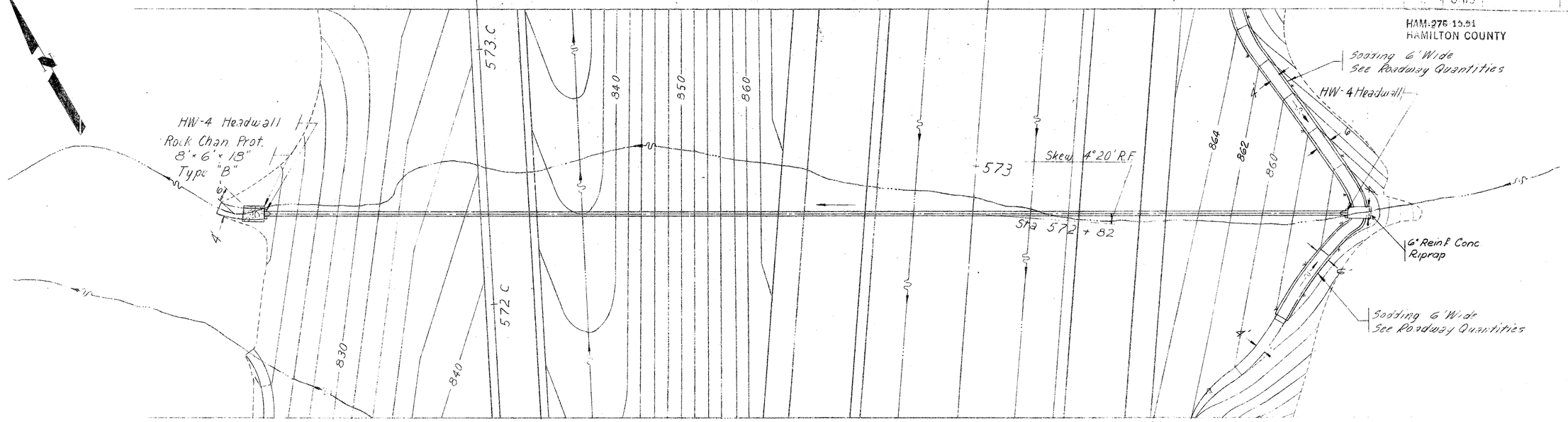
722 723 724 725 726 727 728
GT6 677 678 679 680 681 682

REVISED DATE 8-22-75

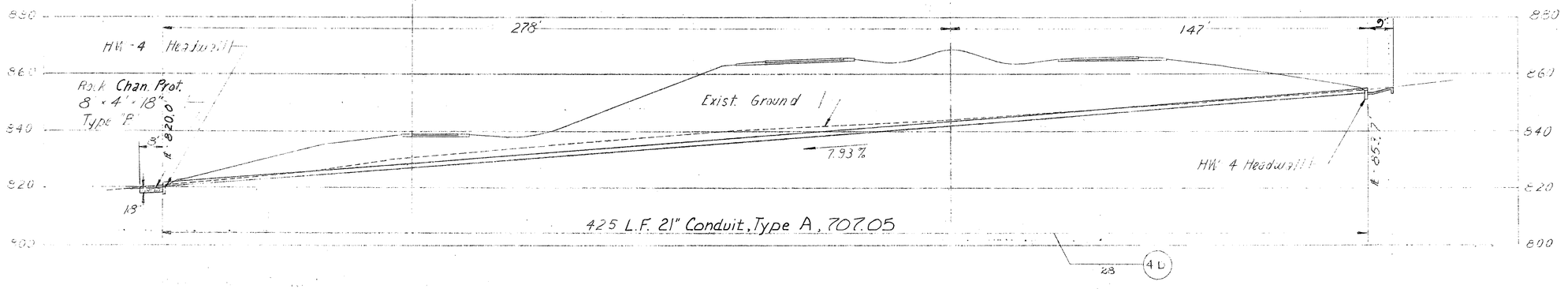
LEGEND AND SYMBOLS - SHEET NO. 4

PAVEMENT DETAIL - RAMP 'J' WITH I-275 AND COLERAIN AVE. (U.S.27)

HAM-275-19.81
HAMILTON COUNTY



D.A = 3.6 Acres
Q_{50} = 19.4 c.f.s.



ESTIMATED QUANTITIES

601	Riprap Using 6 Reinforced Concrete Slab,	4 Sq. Yds.
601	Rock Channel Protection - Type B w/Bed.	24 Cu. Yds.
602	Concrete Masonry	0.73 Cu. Yds.
603	21" Conduit, Type "A" 707.05	425 L.F.

20 10 0 20 40

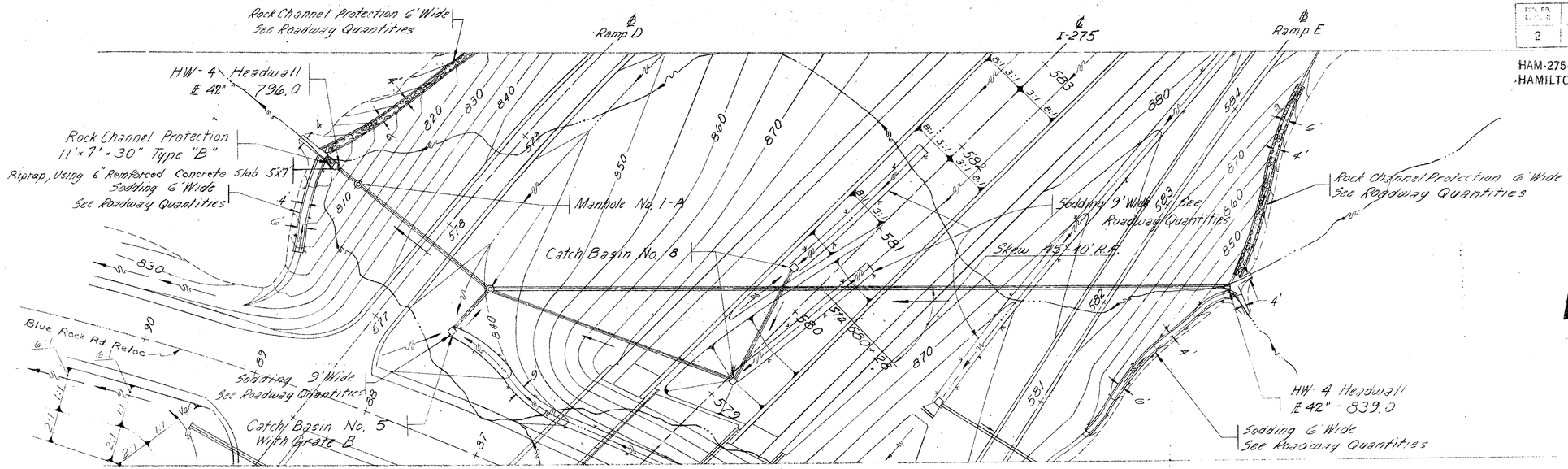
DEVELOPED	CHECKED
K.M. 11-2-69	R.M.E. 6-19-72

PIPE CULVERT STA. 572+82 I-27

FED. ROAD SECTION	STATE	PROJECT	
2	OHIO		

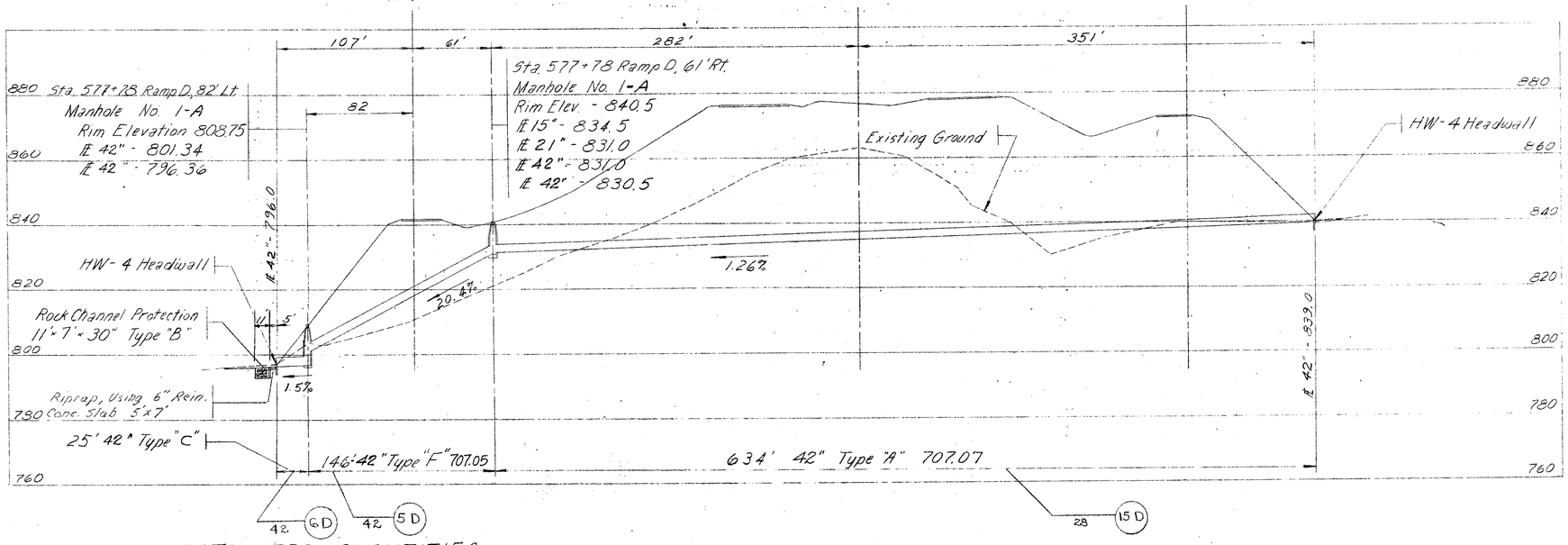
284
468

HAM-275-13.91
HAMILTON COUNTY



42" Pipe
D.A. = 28 Acres
Q50 = 81 c.f.s.

42" Pipe
D.A. = 18 Acres
Q50 = 66 c.f.s.



ESTIMATED QUANTITIES

601	Rock Channel Protection - Type B with Bedding	8.6 Cu. Yds.
602	Concrete Masonry	1.84 Cu. Yds.
603	42" Conduit, Type "A" 707.07	634 L.F.
603	42" Conduit, Type "F" 707.05	146 L.F.
604	Manhole # 1-A	2 Ea.
603	42" Conduit, Type "C"	25 L.F.
601	Riprap, Using 6" Reinforced Concrete Slab	4.2 Sq. Yds.

50 25 0 50 100

DEVELOPED	CHECKED
K.M. 12-7-70	R.M.P. 6-9-72

PIPE CULVERT STA. 580+28 I-275

HAM-275-13.91
HAMILTON COUNTY

℄ Reloc. Sheits Rd.

℄ I-275

HW-4 Headwall
℄ 36" - 817.0

Rock Channel Protection
14' × 6' × 30"
Type "B"

Rock Channel Protection 6' Wide
See Roadway Quantities

Cutoff Wall

5'x6' Riprap, Using 6"
Reinf. Conc. Slab

+30 +29 +606 +605

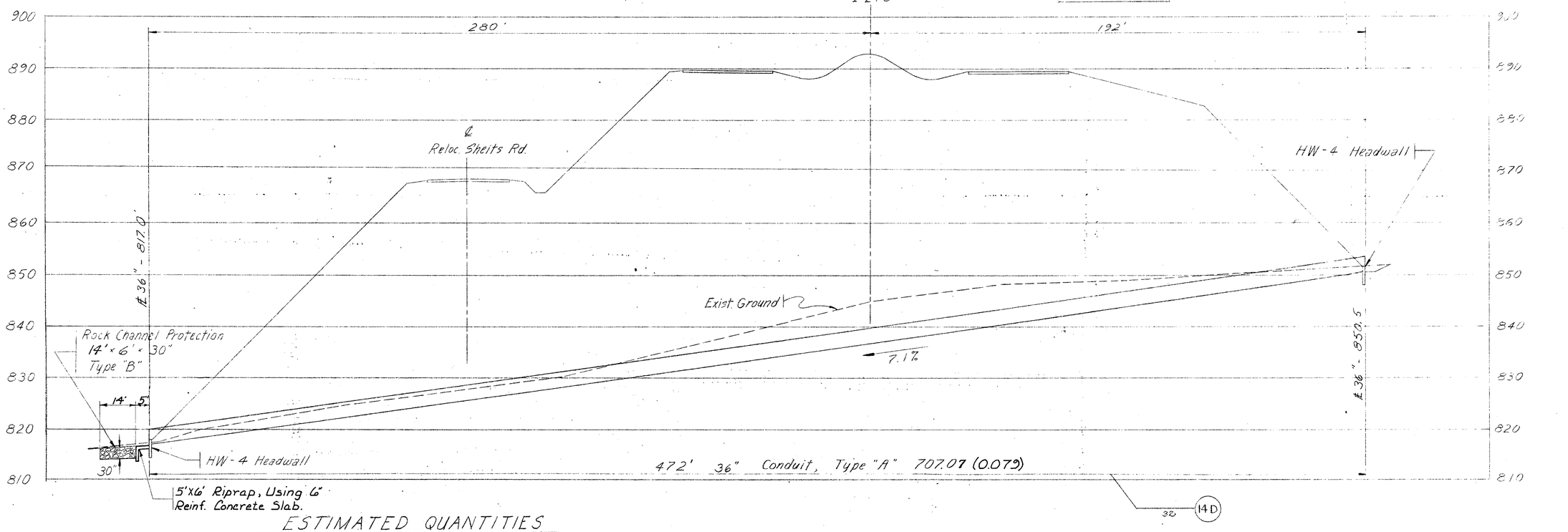
Skew 91°-00' R.F.

Sta. 605+54

HW-4 Headwall
℄ 36" - 850.5

Rock Channel Protection
90' × 8' × 16" Type "B"
See Roadway Quantities

D.A. = 16 Acres
Q_{50} = 57 C.F.S.



ESTIMATED QUANTITIES

601	Riprap, Using 6" Reinf. Concrete Slab	3.6 Sq. Yds.
601	Rock Channel Protection - Type B w/Bedding	9.3 Cu. Yds.
602	Concrete Masonry	1.52 Cu. Yds.
603	36" Conduit, Type "A" 707.07 (0.07?)	472 L.F.

20 10 0 20 40

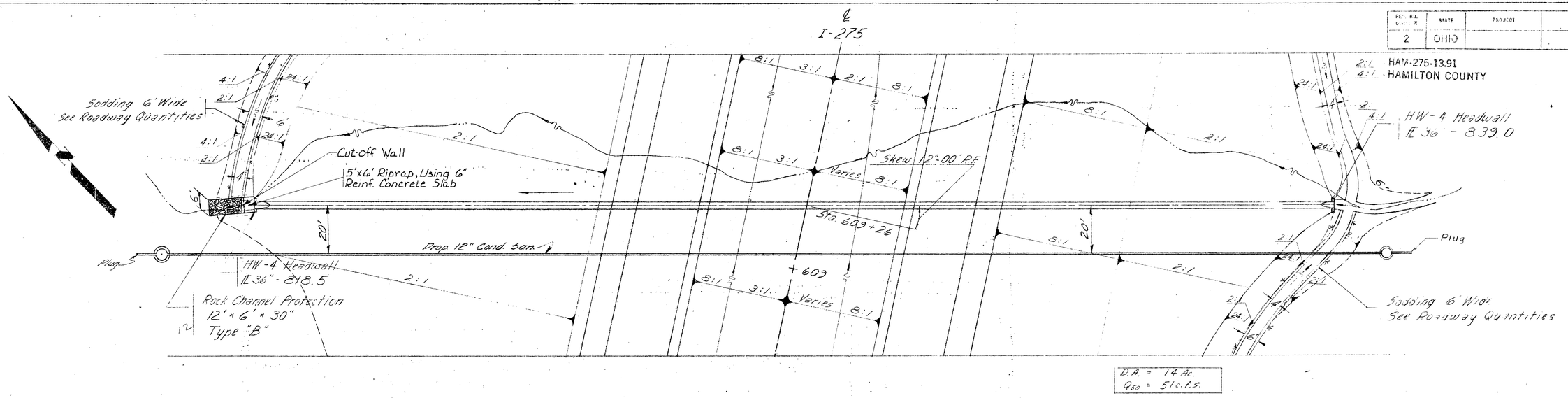
DEVELOPED	CHECKED
K.M. 11-7-69	R.M.F. 6-19-72

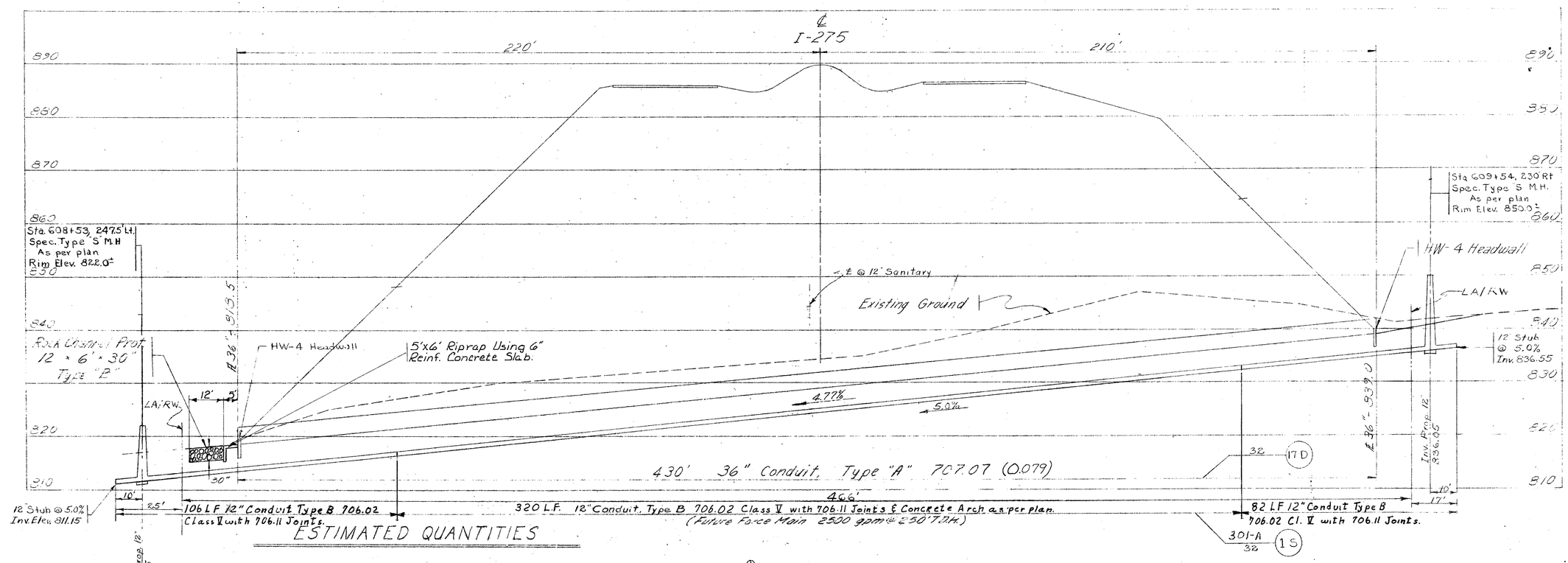
PIPE CULVERT STA. 605+54 I-5

FED. RD. DIV. NO.	STATE	PROJECT	
2	OHIO		

256
408

HAM-275-13.91
HAMILTON COUNTY





ESTIMATED QUANTITIES

601	Riprap, Using 6" Reinf. Concrete Slab	3.6	Sq. Yds
601	Rock Channel Protection - Type B with Bedding	8.0	Cu Yds
602	Concrete Masonry	1.52	Cu. Yds.
603	36" Conduit, Type "A" 707.07 (0.079)	430	L. F.
⊕603	12" Conduit, Type "B" 706.02 Class V with 706.11 Joints	188	L.F.
⊕604	Manhole, Type S	2	Each

⊕603 12" Conduit Type B 706.02 Class V with 706.11 Joints & Concret Arch as per plan. 320 l F.

⊕100% Metropolitan Sewer District

DEVELOPED	CHECKED
K.M. 11-29-62	R.M.P. 6-6-63

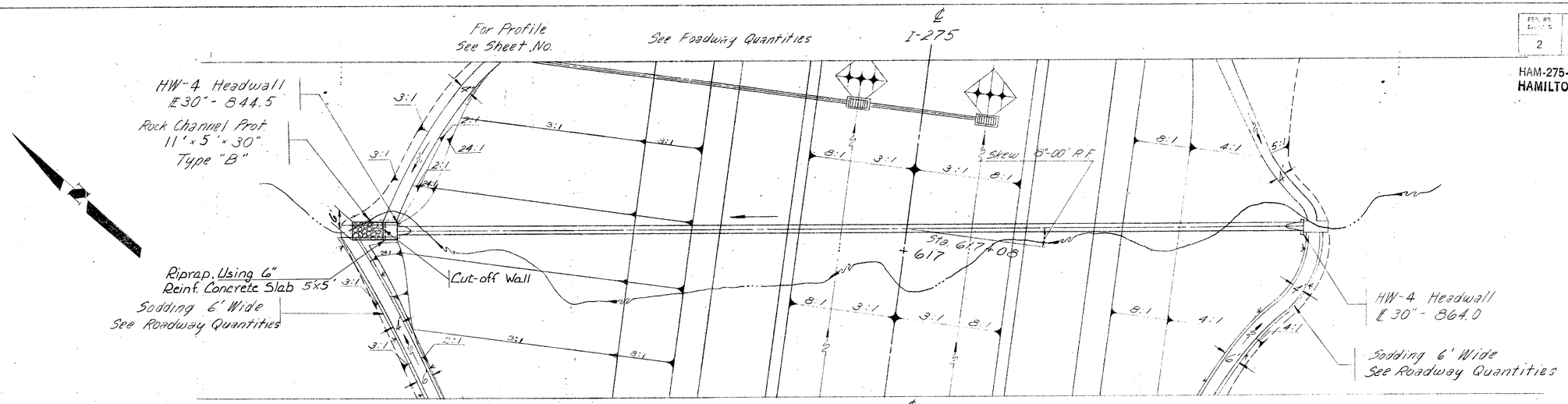
20 10 0 20 40

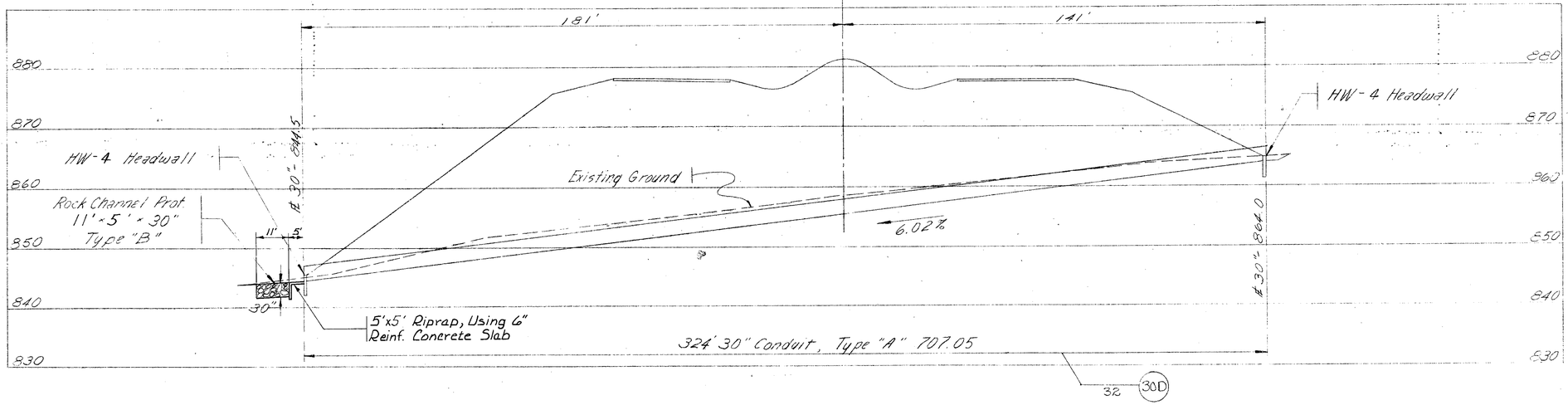
PIPE CULVERT STA. 609+26

FED. RD. DESIGN NO.	STATE	PROJECT	
2	OHIO		

287
468

HAM-275-13.91
HAMILTON COUNTY





ESTIMATED QUANTITIES

601	Riprap, Using 6" Reinf. Concrete Slab	3.0 Sq. Yds.
601	Rock Channel Protection - Type B w/Bedding	6.1 Cu. Yds.
602	Concrete Masonry	1.20 Cu. Yds.
603	30" Conduit, Type "A" 707.05	324 L.F.

20 10 0 20 40

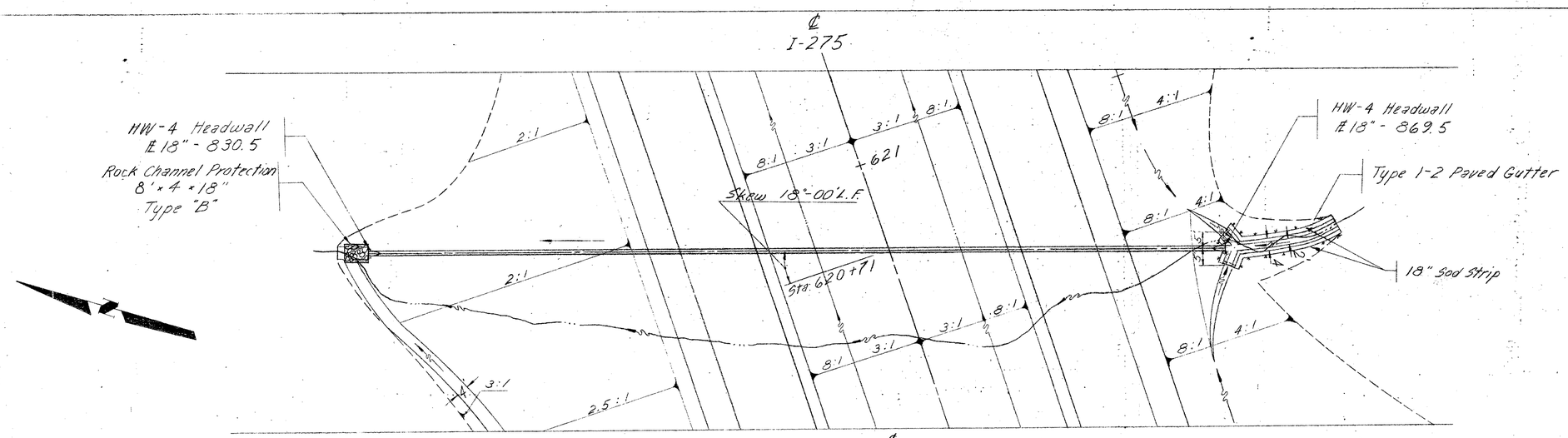
DEVELOPED		CHECKED	
K.M.	12-3-69	R.M.F.	6-6-70

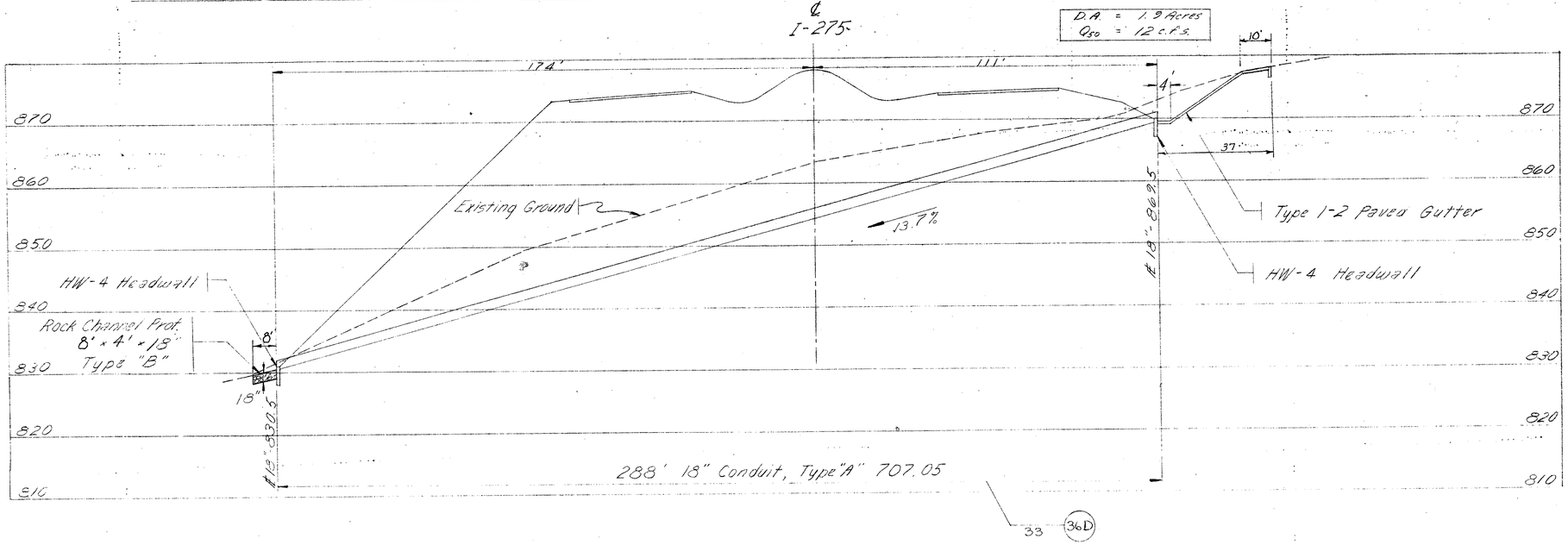
PIPE CULVERT STA. 617+08 I-2

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

228
468

HAM-275-13.91
HAMILTON COUNTY





ESTIIMATED QUANTITIES

601	Rock Channel Protection - Type B w/Bedding	2.4 Cu. Yds.
601	Paved Gutter - Type 1-2	52 L.F.
602	Concrete Masonry	0.66 Cu Yds.
603	18" Conduit, Type "A" 707.05	288 L.F.
660	Sodding	17 Sq. Yds.

20 10 0 20 40

DEVELOPED	CHECKED
K.M. 1-19-80	R.M.F. 6-9-76

PIPE CULVERT STA. 620+71 I-2

HAM-275-13.91
HAMILTON COUNTY

℄ I-275

5'x7' Riprap, Using 6" Reinf. Concrete Slab

Rock Channel Protection 15'x7'x30" Type "B"

HW-4 Headwall E42" - 794.0

Skew 4°-30' R.F.

+625 Sta 624+95

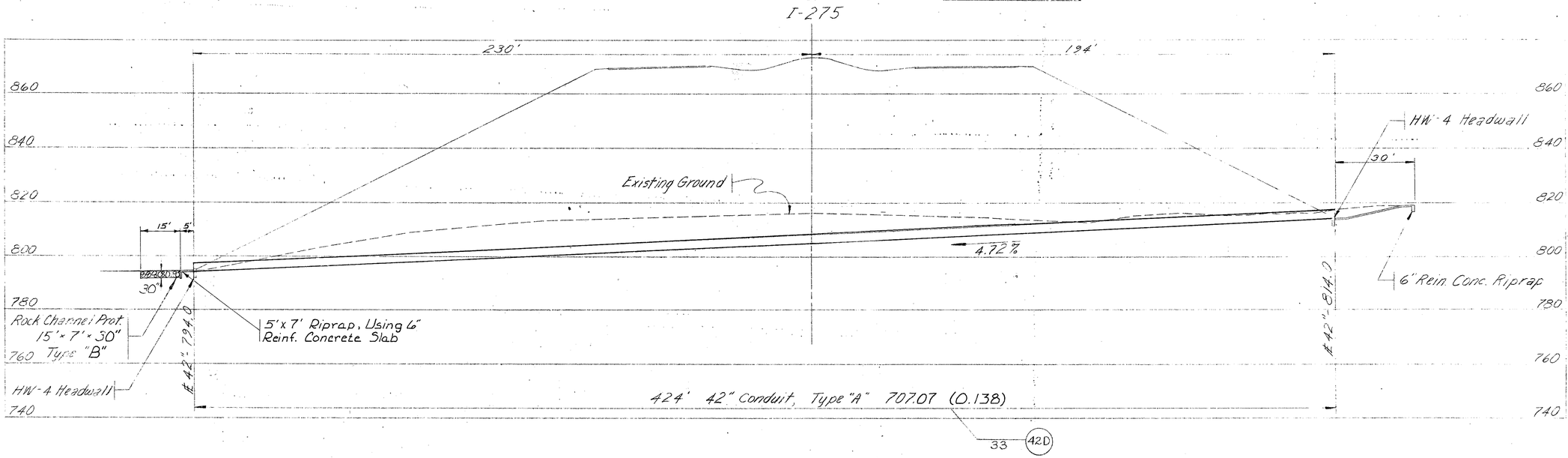
Rock Chan Prot Type B See Roadway Quantities

HW-4 Headwall E42" - 814.0

Paved Entrance Detail As Per Plan Using 6" Reinf. Conc. Riprap

Rock Chan Prot Type B See Roadway Quantities

D.A. = 30 Acres
Q_{50} = 86 C.F.S.



ESTIMATED QUANTITIES

601	Riprap, Using 6" Rein. Concrete Slab	29.9 Sq. Yds
601	Rock Channel Protection - Type "B" w/Bedding	11.7 Cu. Yds.
602	Concrete Masonry	1.84 Cu. Yds.
603	42" Conduit, Type "A" 707.07 (0.138)	424 L.F.
660	Sodding	9.3 SY

20 10 0 20 40

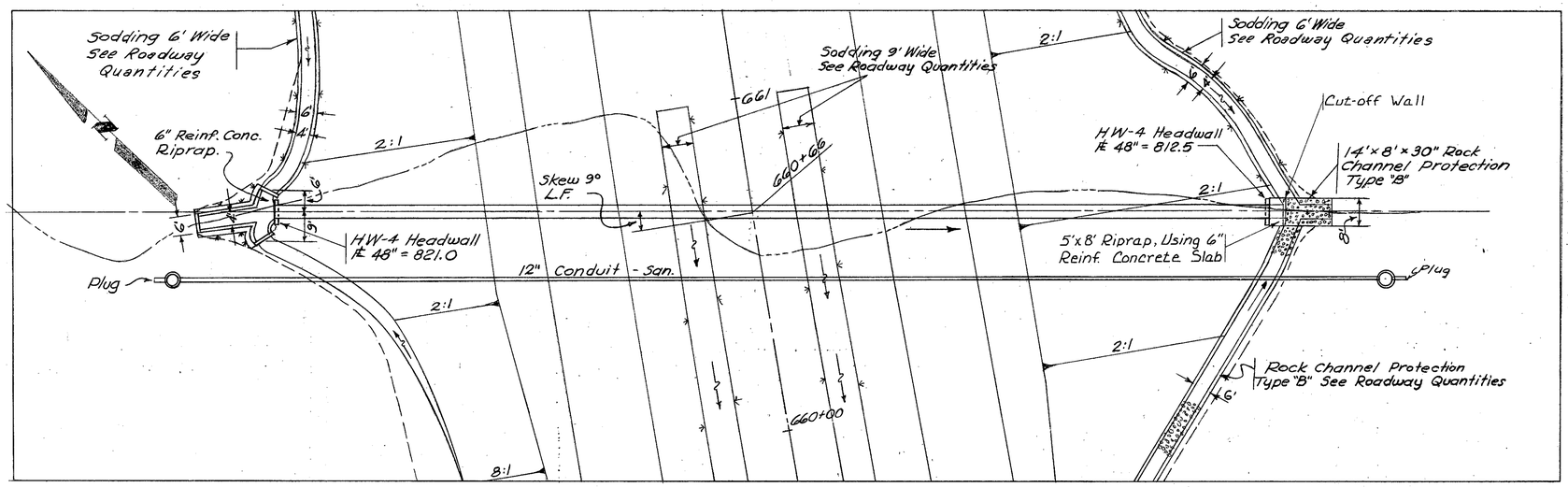
DEVELOPED	CHECKED
K.M. 12-6-68	R.M.F. 6-26-72

PIPE CULVERT STA. 624+

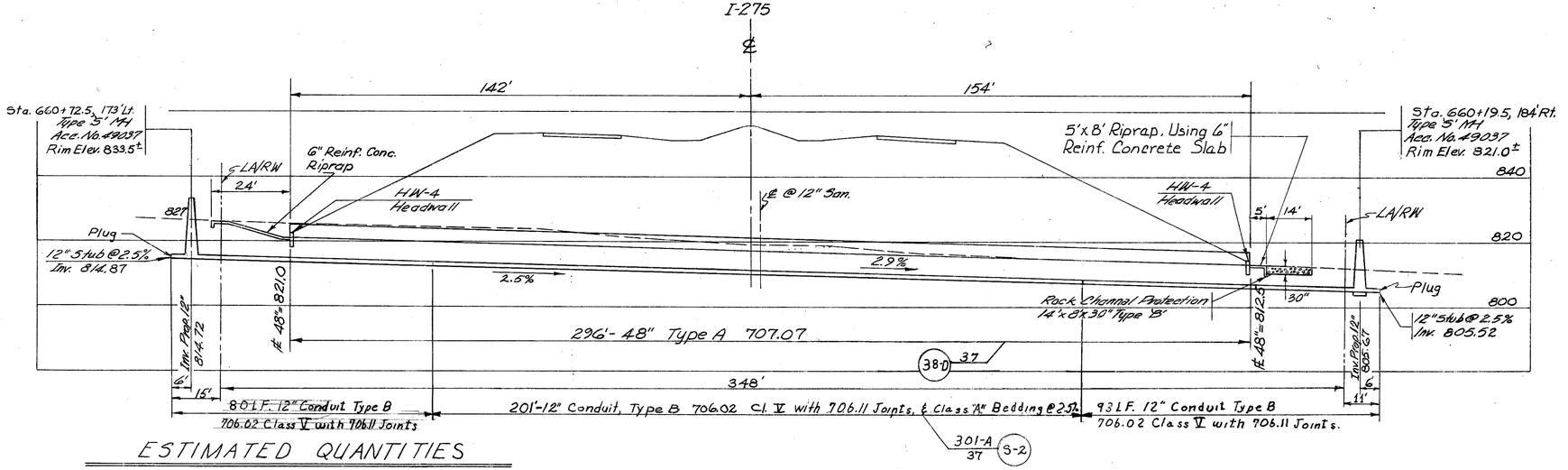
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

290/468

HAM-275-13.91
HAMILTON COUNTY



D.A. = 4.0 Acres
Q50 = 107 cfs



ESTIMATED QUANTITIES

601	Riprap, Using 6" Rein. Concrete Slab	27.0 Sq. Yds.
601	Rock Channel Protection - Type B w/Bedding	12.4 Cu. Yds.
602	Concrete Masonry	2.20 Cu. Yds.
603	48" Conduit, Type "A" 707.07	296 L.F.
660	Sodding	7. Sq. Yds
⊕603	12" Conduit, Type "B", 706.02 Class V with 706.11 Joints	173 L.F.
⊕604	Manhole, Type "S"	2 Each
⊕603	12" Conduit, Type B 706.02 Class V with 706.11 Joints & Class A Bedding	201 L.F.

⊕100% Metropolitan Sewer District

20 10 0 20 40

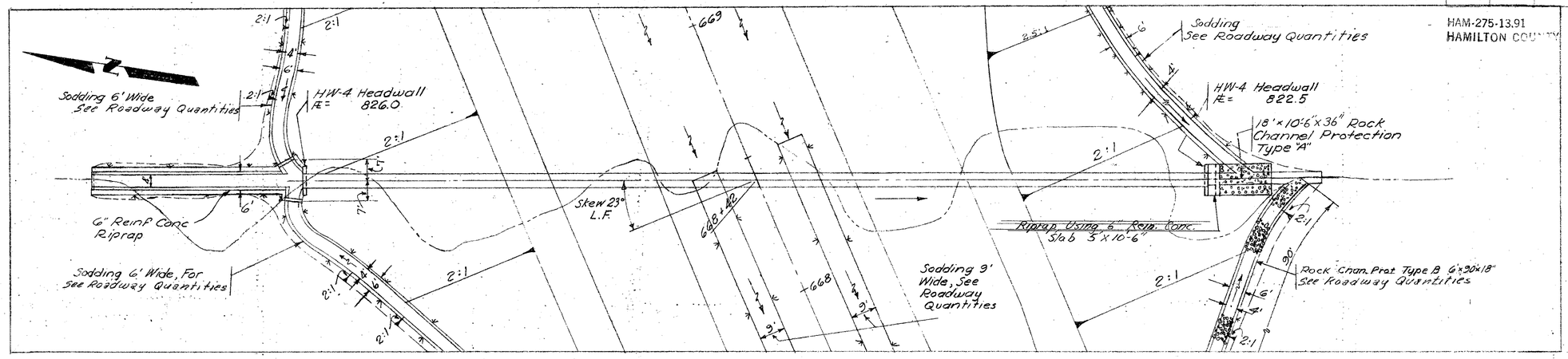
DEVELOPED	CHECKED
K.M. 12-1769	R.M.F. 6-9-72

PIPE CULVERT STA. 660+6'

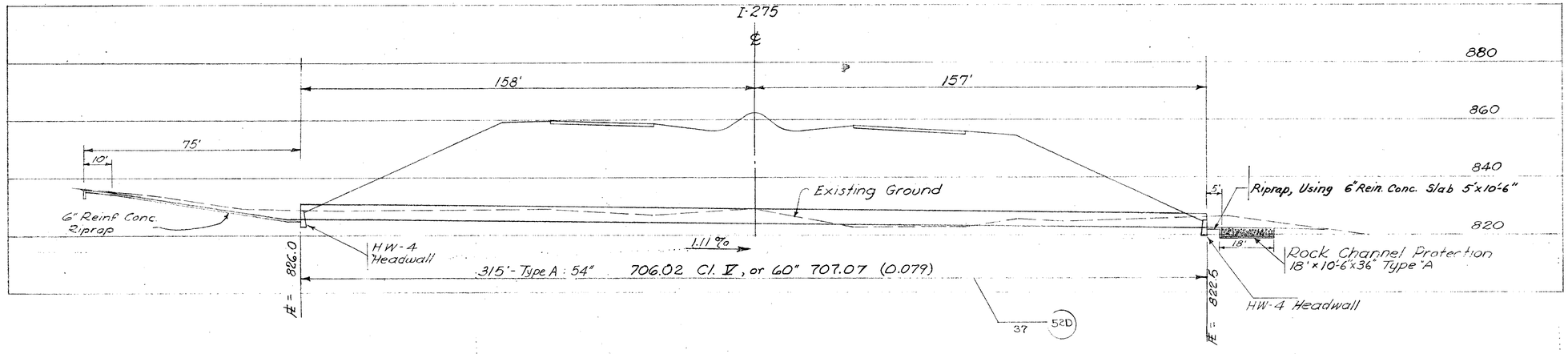
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

221/468

HAM-275-13.91
HAMILTON COUNTY



D.A. = 76 Acres
Q50 = 170 cfs



ESTIMATED QUANTITIES

601	Riprap, Using 6" Rein. Concrete Slab	56.4 Sq Yds.
601	Rock Channel Protection - Type "A" w/ Bedding	24.5 Cu. Yds.
602	Concrete Masonry	3.56 Cu. Yds.
603	Conduit, Type "A" 54" 706.02 Cl. V or 60" 707.07 (0.079)	315 L. F.
660	Sodding	16.7 Sq Yds.

20 10 0 20 40

DEVELOPED	CHECKED
K.M. 12-16-6	R.M.F. 6-16-72

PIPE CULVERT STA. 668+42 I-

DIST. NO. DIVISION	STATE	PROJECT	
2	OHIO		

292
468

HAM-275-13.91
HAMILTON COUNTY

℄ Ramp J

℄ I-275

See Roadway Quantities

℄ Ramp H

Sodding 9' Wide

9'

679+

8:1

8:1

Sodding 6' Wide
See Roadway Quantities

4'

6'

HW-4 Headwall
℄60" - 826.0

2:1

Rock Channel Prot.
18' x 11'9" x 30"
Type "B"

5'x11'9" Riprap Using 6"
Reinf. Concrete Slab

4' 2:1 24:1

2:1 2:1 24:1

2:1

2:1

8:1 2:1 2:1 8:1

Skew 15°-00' ℄ F. +679

Top of Dike Elev. = 835.0

6" Rein. Conc. Riprap

Plug

679

Sta. 678+82

20'

12" Conduit-San.

Plug

8:1

8:1

HW-4 Headwall
℄60" - 829.0

2:1

3:1

2.5:1

3:1

4:1

8:1 2:1 2:1 8:1

678+

2:1

2:1

Sodding 6' Wide
See Roadway Quantities

678

2:1

2:1

D.A. = 100 Acres
Q_{50} = 193 c.f.s.

℄ Ramp J

℄ I-275

℄ Ramp H

158'

279'

Sta. 679+05, 179' Lt.
Type S M.H.
Acc. No. 49037
Rim Elev. 843.0±

Sta. 677+82, 300' Rt
Type S M.H.
Acc. No. 49037
Rim Elev. 835.0±

860

850

840

830

820

810

HW-4 Headwall

100'

Existing Ground

℄ at San.

069%

12" Stub @
1.2 %
Inv. 825.57

6" Reinf. Conc. Riprap

Inv. 12'-825.50

829.0

826.0

HW-4 Headwall

Rock Channel Prot.
18' X 11'-9" X 30" Type "B"

5'

18'

30"

12" Stub
@ 1.2%
Inv. 819.51

437' Conduit, Type "A", 60" 706.02 Cl. V or 66" 707.07

39 (C D)

5'x11'9" Riprap, Using 6"
Reinf. Concrete Slab

472'

76 L.F. 12" Conduit Type B
Class V 706.02 with 706.11 Joints

336 335 L.F. 12" Conduit, Type B 706.02 Cl. V with 706.11 Joints & Class A Bedding.

92 L.F. 12" Conduit Type B 706.02
Class V with 706.11 Joints

301-A
39 (S 1)

19'

12

ESTIMATED QUANTITIES

601	Riprap, Using 6" Rein. Concrete Slab	75.8 Sq. Yds.	⊕603	12" Conduit, Type B, 706.02 Class V with 706.11 Joints — 168 L.F.
601	Rock Channel Protection - Type B w/Bedding	23.5 Cu. Yds.		
602	Concrete Masonry	4.12 Cu. Yds.	⊕604	Manhole, Type S — 2 Each
603	Conduit, Type "A", 60" 706.02 Cl. V, or 66" Conduit Type "A", 707.07	437 L.F.	⊕603	12" Conduit Type B 706.02 Class V with 706.11 Joints & Class "A" Bedding — 335 L.F.
660	Sodding	31.3 Sq. Yds.		

⊕100% Metropolitan Sewer District.

DEVELOPED	CHECKED
K.M. 12-13-69	R.M.F. 6-30-72

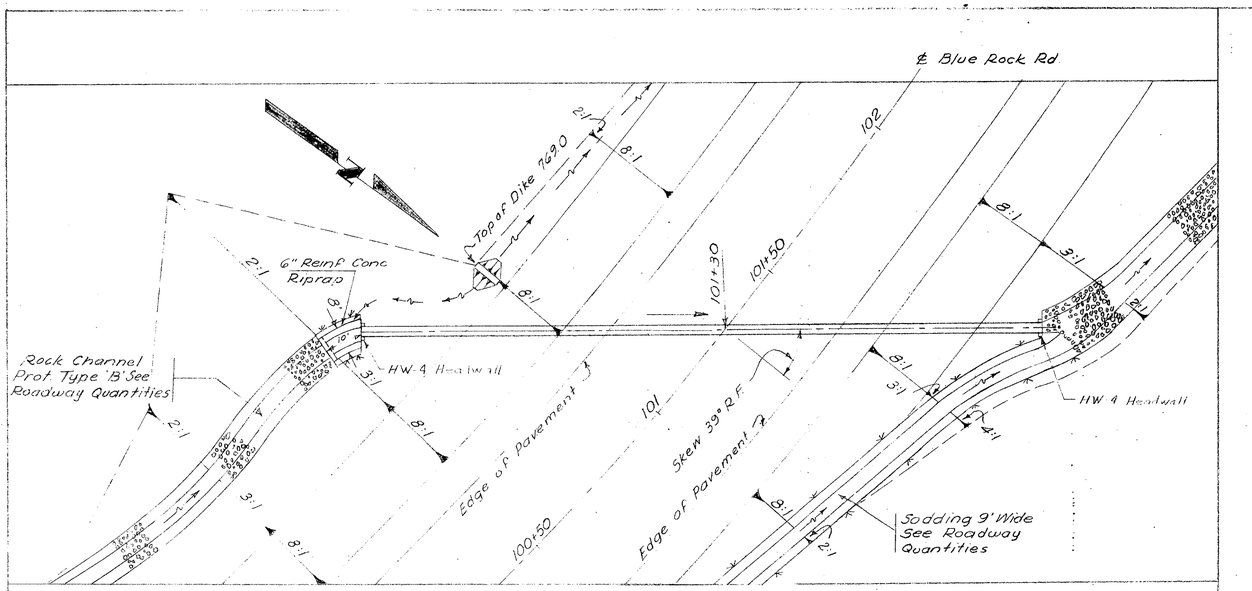
20 10 0 20 40

PIPE CULVERT STA 678+82

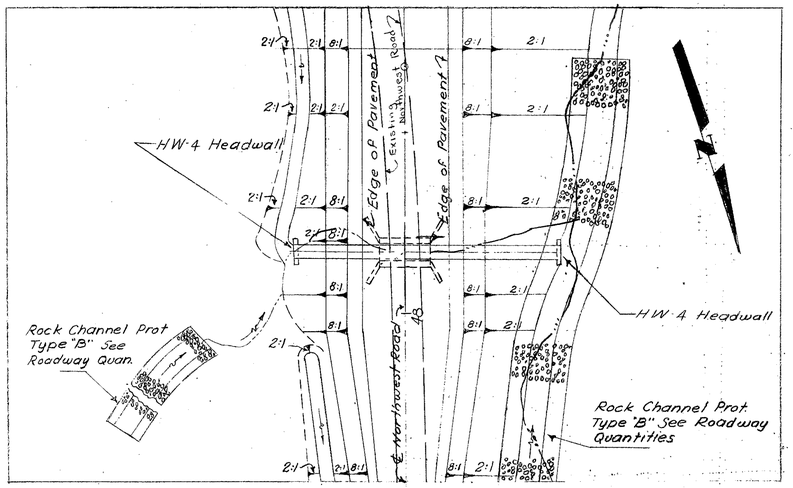
FED. RDS. DIVISION	STATE	PROJECT	
2	OHIO		

293
468

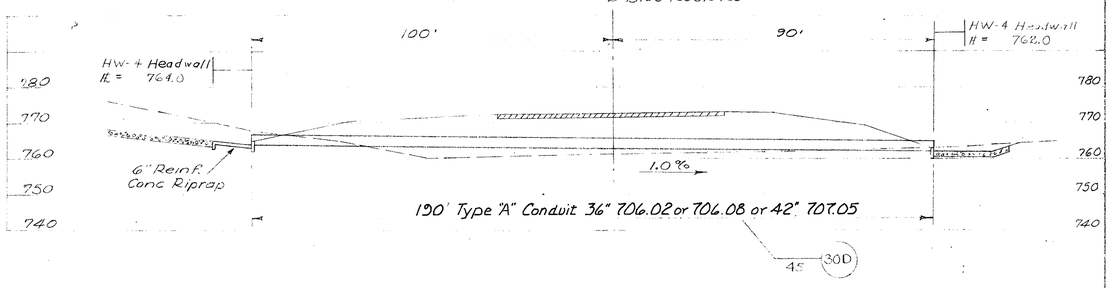
HAM-275-13.91
HAMILTON COUNTY



DA = 25 Acres
Q_{25} = 63 cfs

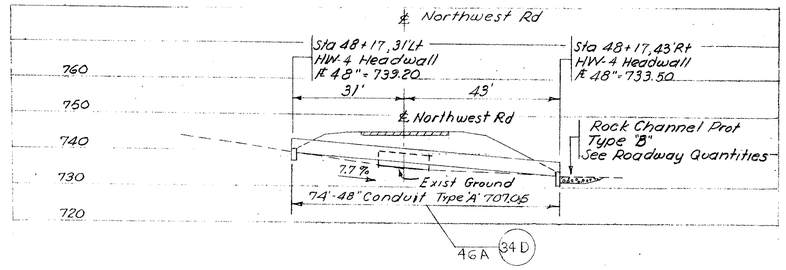


DA = 28 Acres
Q_{25} = 67.2 cfs



ESTIMATED QUANTITIES

ITEM NO	DESCRIPTION	QUANTITY
601	Riprap Using 6" Reinforced Concrete Slab	9 Sq Yds
602	Concrete Masonry	1.84 Cu Yds
603	Conduit Type 'A': 36" 706.02 or 706.08; or 42" 707.05	190 Lin Ft
660	Sodding	4 Sq. Yds.



ESTIMATED QUANTITIES

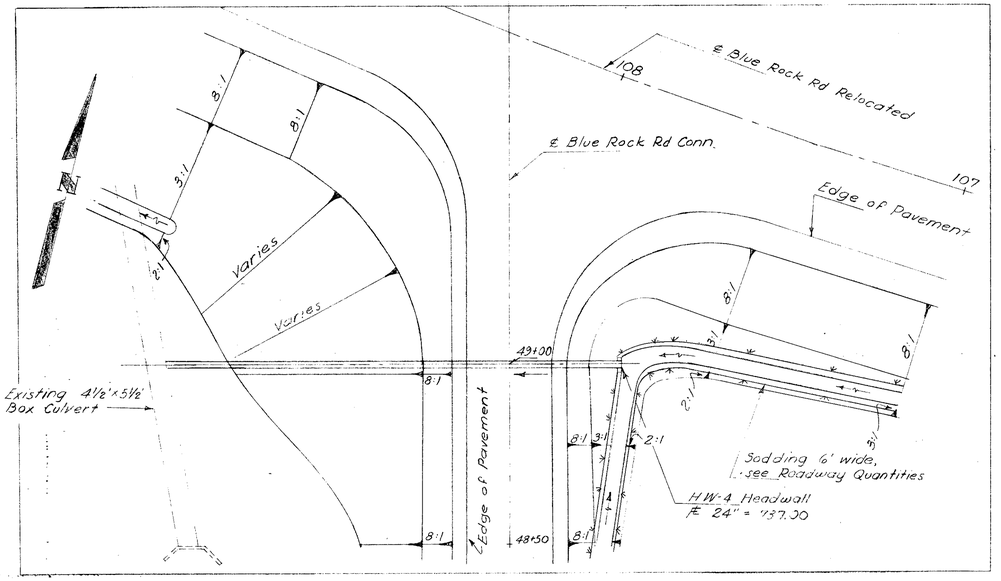
Item No	Description	Quantity
602	Concrete Masonry	2.20 Cu Yds
603	48" Conduit Type 'A' 707.05	74 Lin Ft

20 10 0 20 40

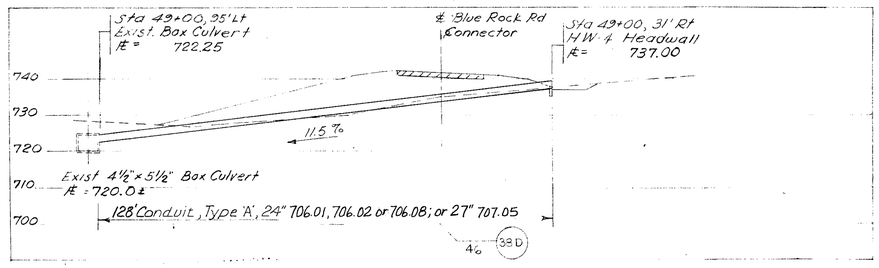
DEVELOPED	CHECKED
K.M. 6-25-74	R.M.F. 6-26-74

PIPE CULVERT 101+30 BLUE ROCK RD RELOCATED

PIPE CULVERT 48+17 NORTHWEST ROAD



D.A. = 40 Acres
Q_{25} = 18.5 c.f.s



ESTIMATED QUANTITIES

Item No.	Description	Quantity
602	Concrete Masonry	0.53 Cu Yds
603	Conduit, Type 'A', 24" 706.01, 706.02 or 706.08; or 27" 707.05	128 Lin. Ft.

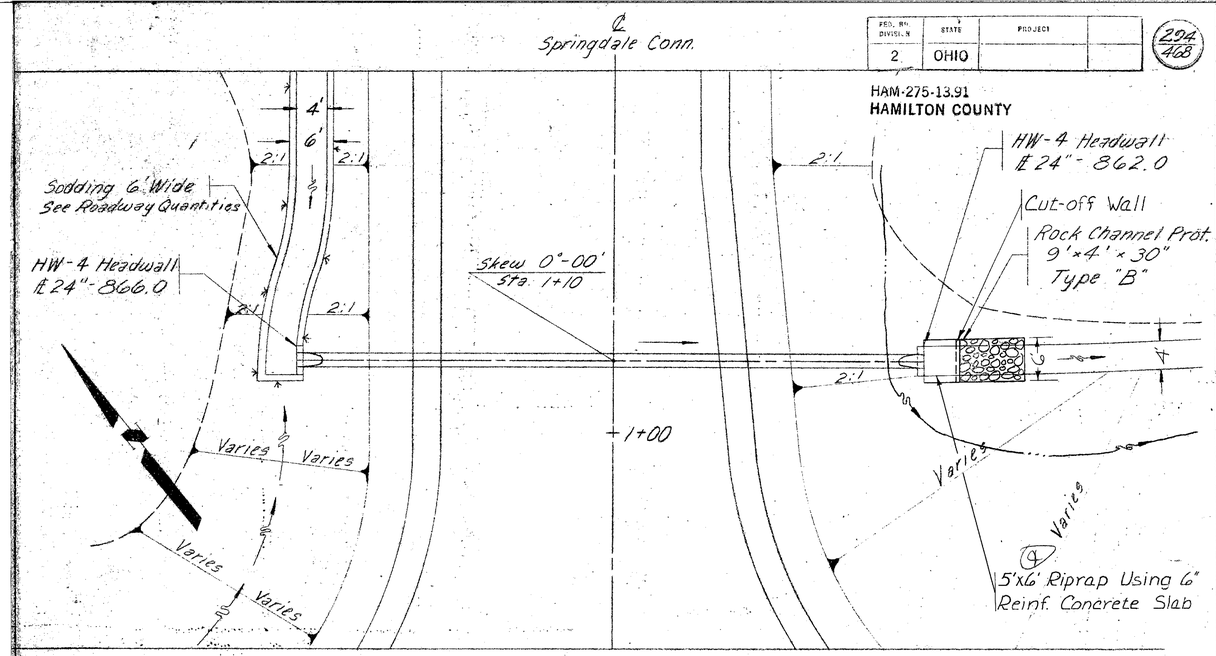
20 10 0 20 40

PIPE CULVERT 49+00 BLUE ROCK RD CONNECTOR

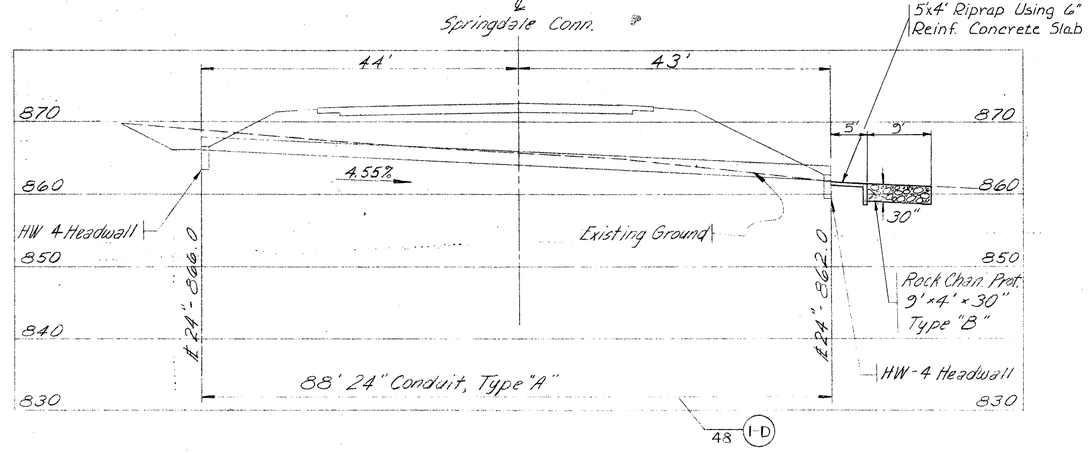
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

294
468

HAM-275-13.91
HAMILTON COUNTY



D.A. = 5.0 Acres
Q_{25} = 21 c.f.s.



ESTIMATED QUANTITIES

601	Riprap Using 6" Reinf. Concrete Slab	2.4 Sq. Yds.
601	Rock Channel Protection - Type B w/Bedding	4.0 Cu Yds.
602	Concrete Masonry	0.92 Cu. Yds.
603	24" Conduit, Type "A"	88 L.F.

10 5 0 10 20

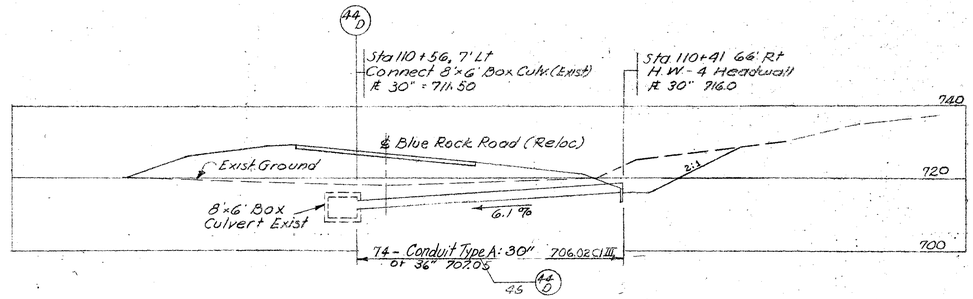
DEVELOPED	CHECKED
K.M. 10-27-71	R.M.F. 6-5-72

PIPE CULVERT STA 1+10 SPRINGDALE CONN.

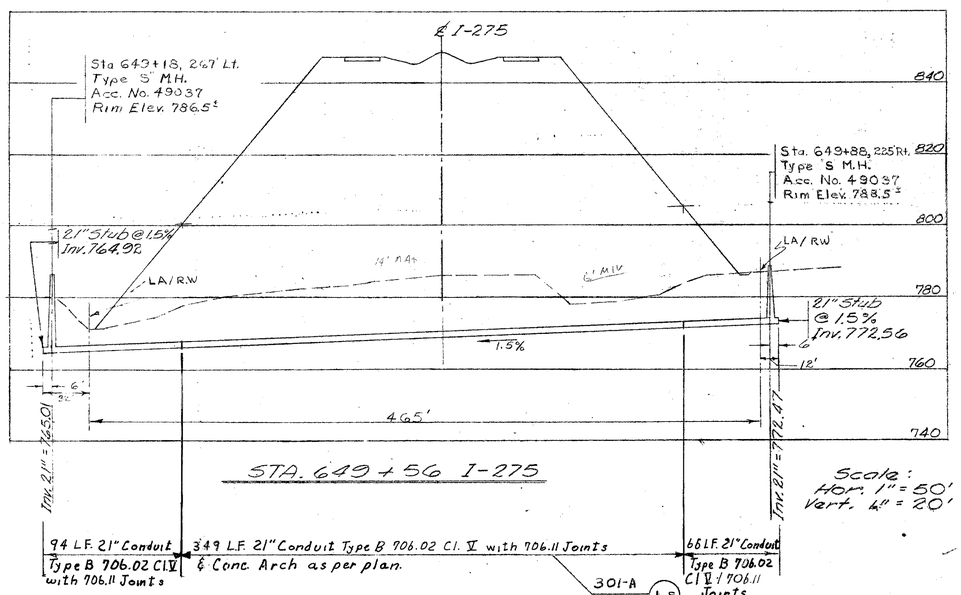
STATE | PROJECT

295
468

...275-13.91
HAMILTON COUNTY



Sta 110+55 Blue Rock Rd. Reloc



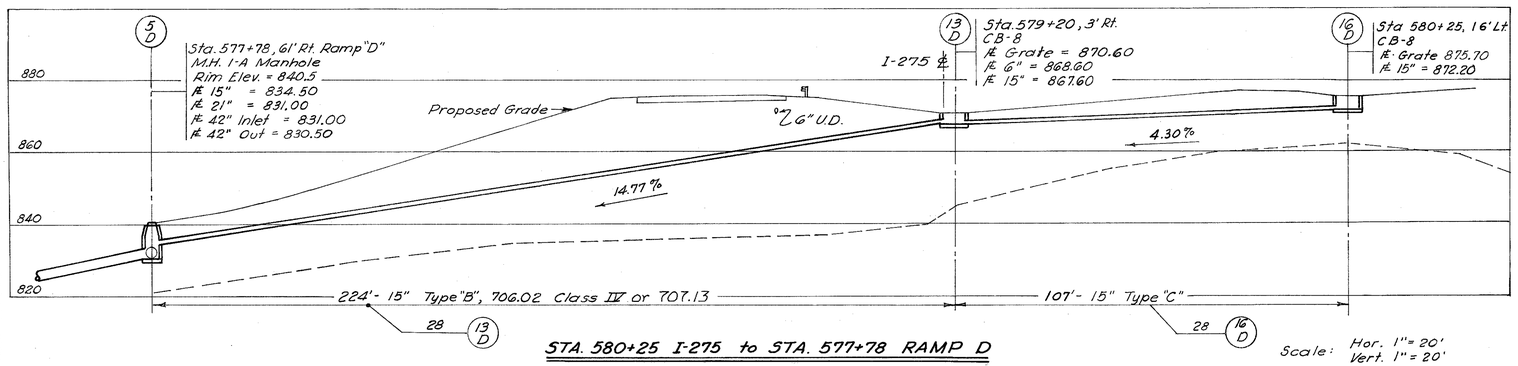
DEVELOPED	CHECKED
K.M	R.N.F

PIPE CULVERT STA. 110+55 BLUE ROCK ROAD
SANITARY STA. 649+56 I-275

SHEET NO.	STATE	PROJECT	
2	OHIO		

296
468

HAM-275-13.91
HAMILTON COUNTY



STA. 580+25 I-275 to STA. 577+78 RAMP D

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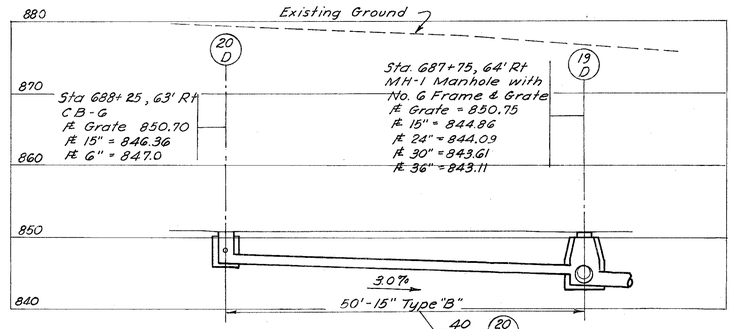
Vert. 1"= 20'



I-275 STA. 688+25 to STA. 687+75

Scale: Hor. 1"= 10'
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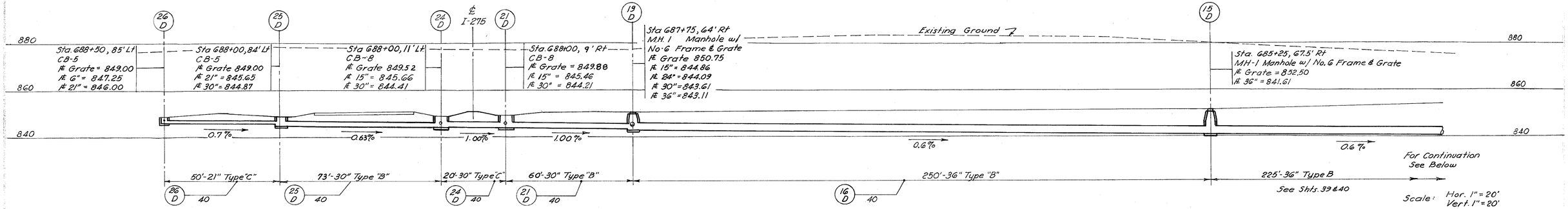

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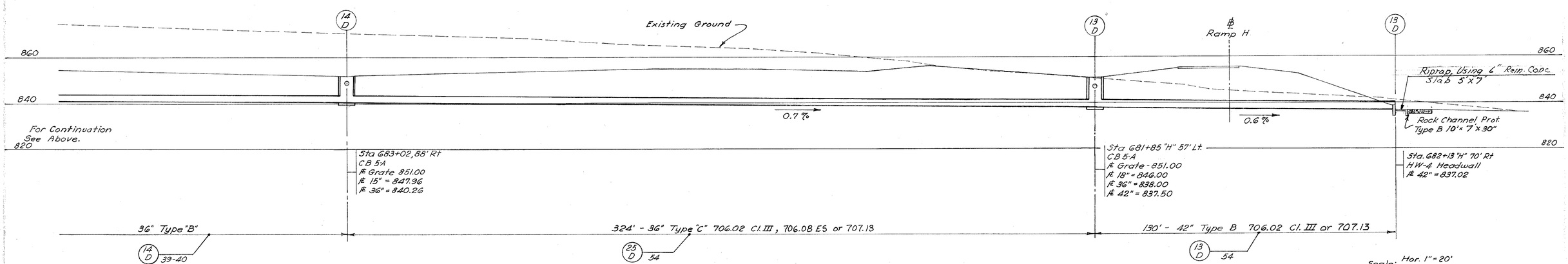


I-275 & RAMP "H" INFIELD AREA

Scale: Hor. 1"= 20'
Vert. 1"= 20'

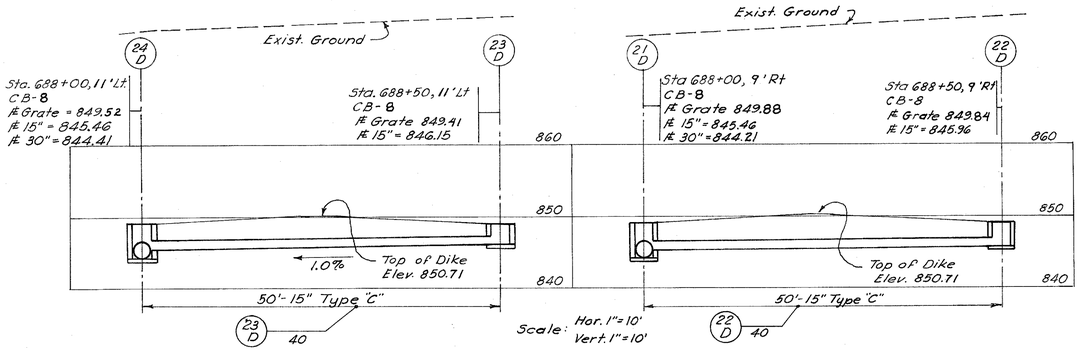
DEVELOPED		CHECKED	
RBS.	3-12-70	R.M.F.	6-9-72

REVISED DATE 8-22-75

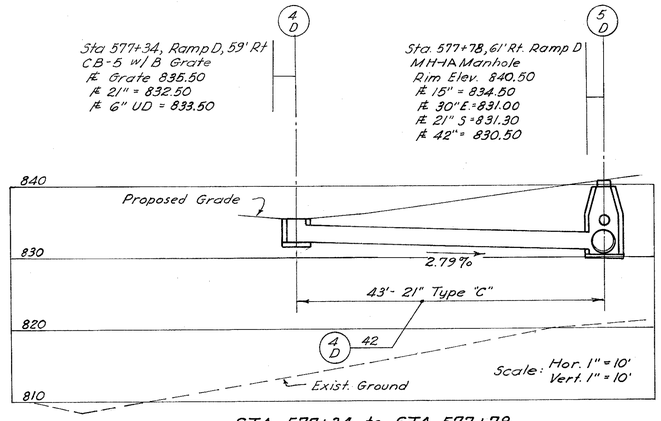
STORM SEWER PROFILES

FED. ROAD DIVISION	STATE	PROJECT		297 468
2	OHIO			

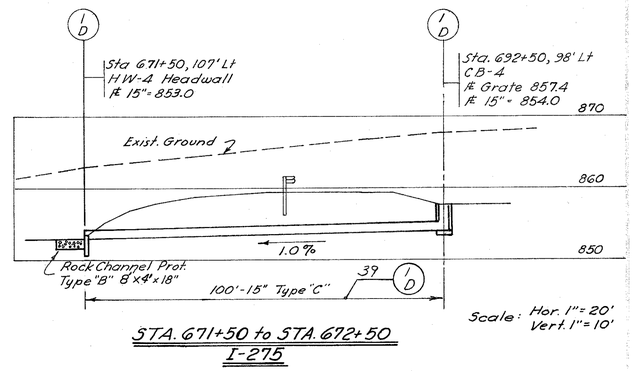
HAM-275-13.91
HAMILTON COUNTY



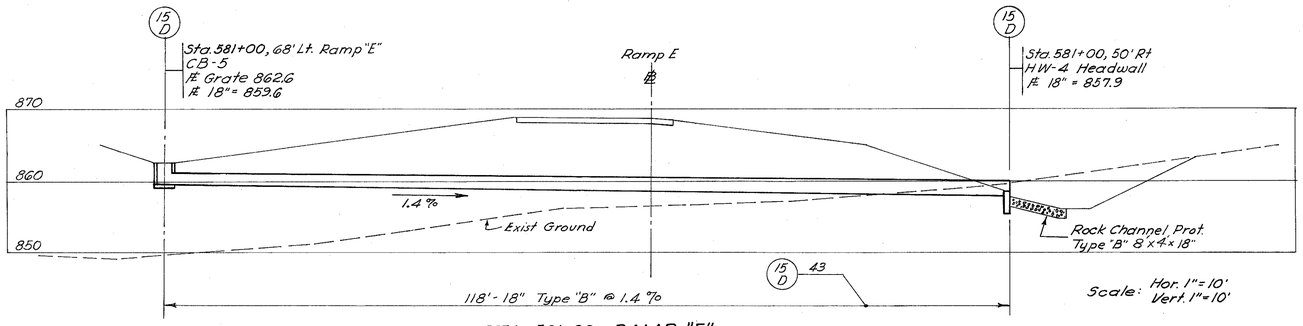
MEDIAN I-275



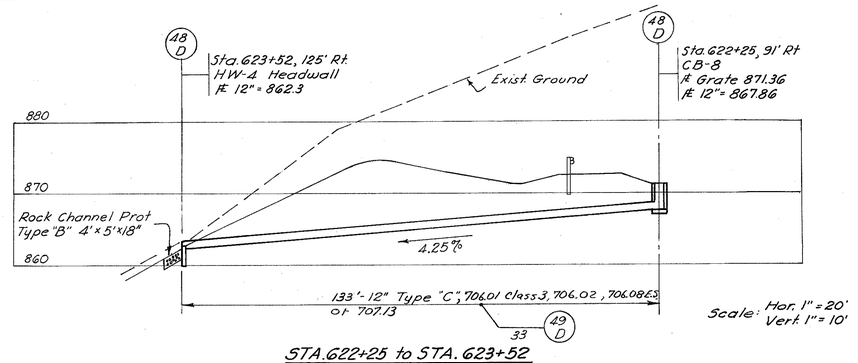
STA. 577+34 to STA. 577+78
RAMP "D"



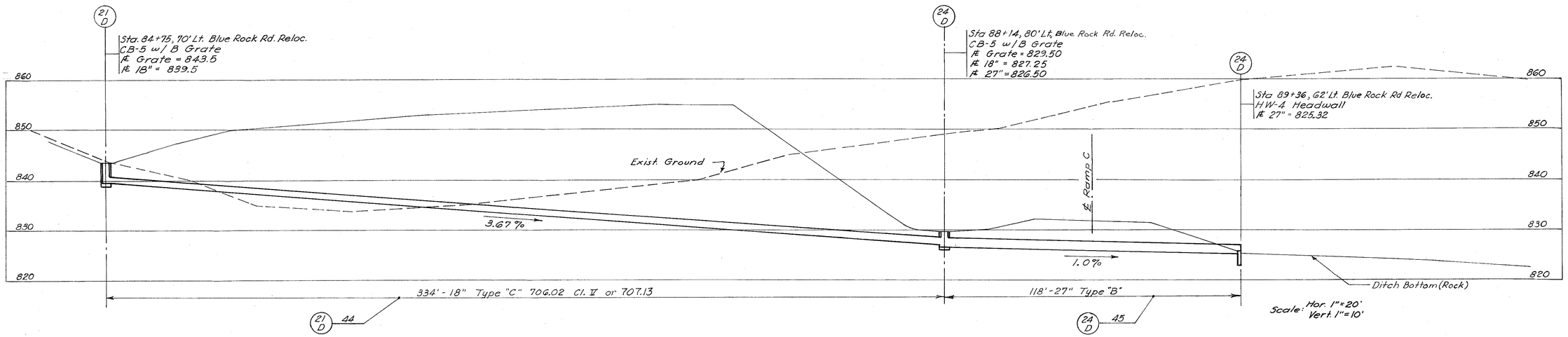
STA. 671+50 to STA. 672+50
I-275



STA. 581+00 RAMP "E"



STA. 622+25 to STA. 623+52
I-275



STA. 84+75 to STA. 89+36
BLUE ROCK ROAD RELOCATED

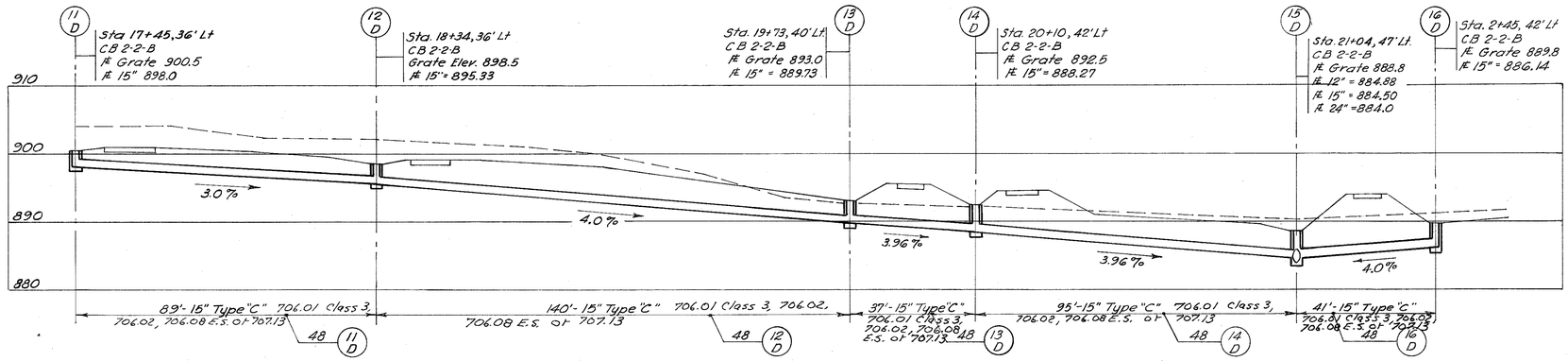
REVISED DATE 8-22-75

DEVELOPED		CHECKED	
BRS	12-9-69	R.H.F.	6-13-72

STORM SEWER PROFILES

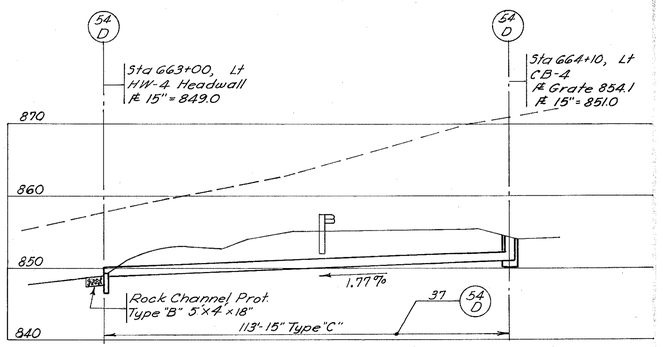
FED. AID PROJECT NO.	STATE	PROJECT		298 468
2	OHIO			

HAM-275-13.91
HAMILTON COUNTY



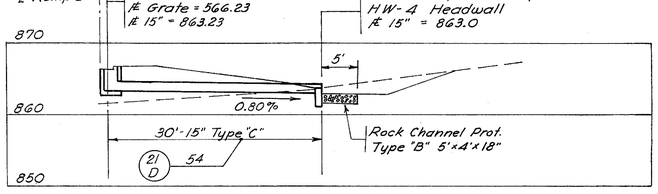
Scale: Hor. 1"= 20'
Vert. 1"= 10'

SPRINGDALE ROAD RELOCATED



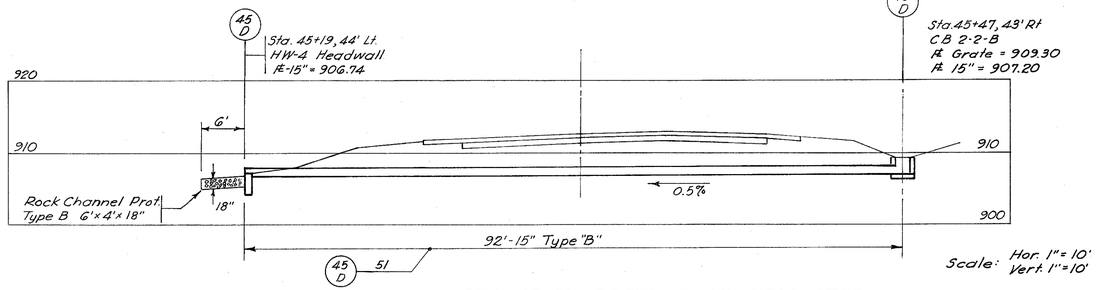
Scale: Hor. 1"= 20'
Vert. 1"= 10'

STA. 663+00 to STA. 664+10 I-275



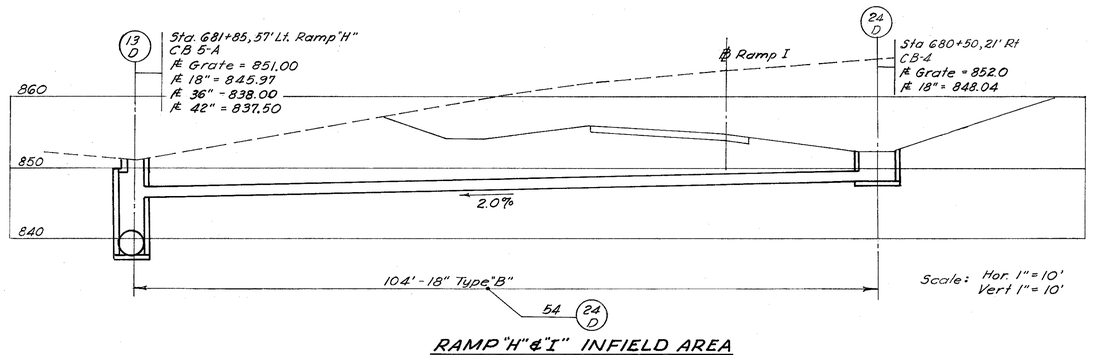
Scale: Hor. 1"=10'
Vert. 1"=10'

RAMP "I" INFIELD



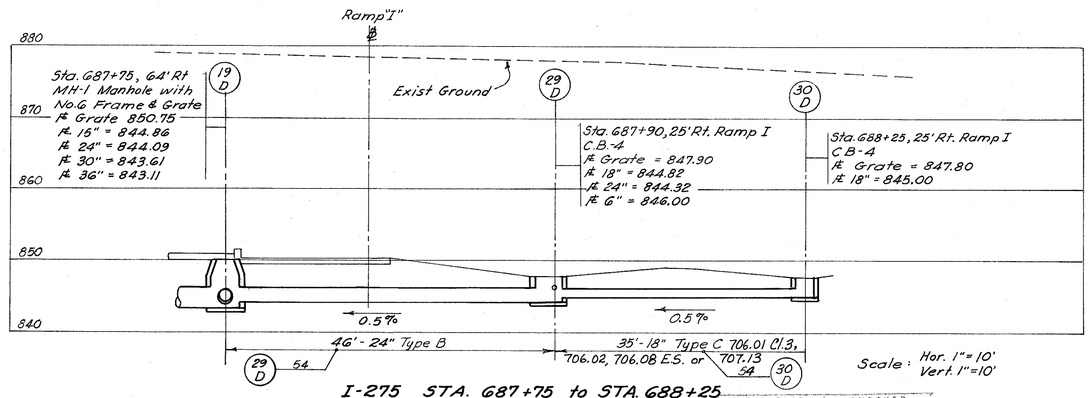
Scale: Hor. 1"= 10'
Vert. 1"=10'

STA. 45+33 BREHM ROAD RELOCATED



Scale: Hor. 1"= 10'
Vert 1"= 10'

RAMP "H" & "I" INFIELD AREA
STA. 680+50 RAMP "I" to STA. 681+85 RAMP "H"



Scale: Hor. 1"= 10'
Vert. 1"=10'

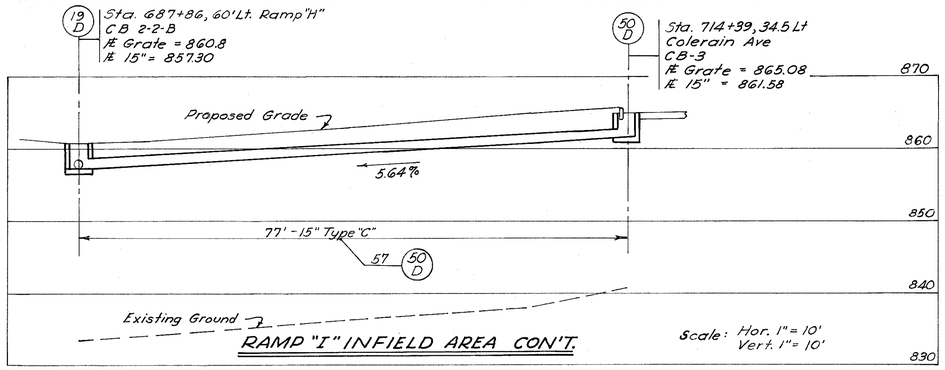
I-275 STA. 687+75 to STA. 688+25

DEVELOPED		CHECKED	
RRL	11-25-69	R.M.F	6-15-72

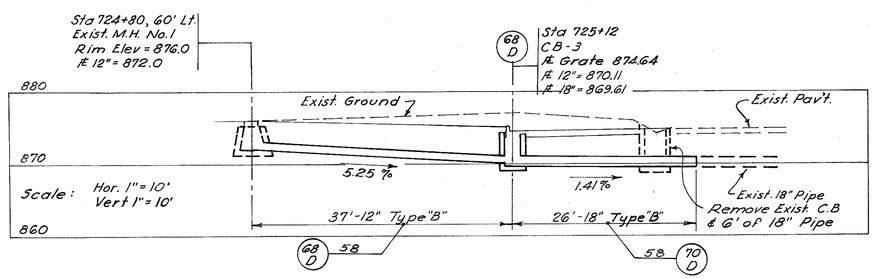
STORM SEWER PROFILES

ADM. NO. DIVISION	STATE	PROJECT		299 468
2	OHIO			

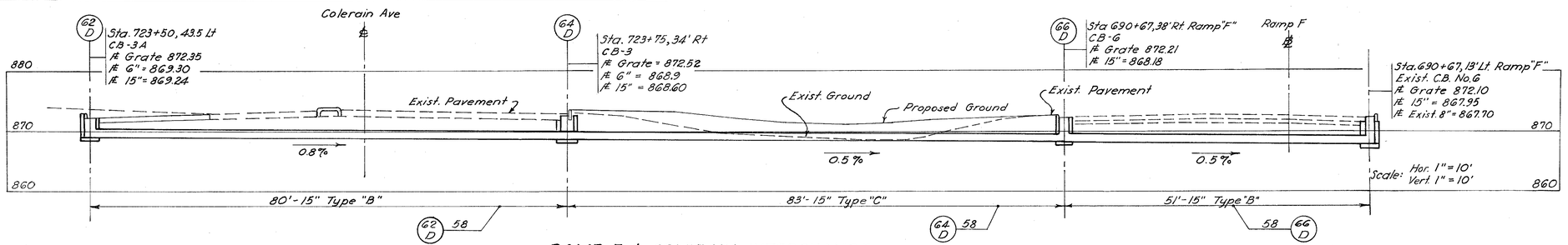
HAM-275-13.91
HAMILTON COUNTY



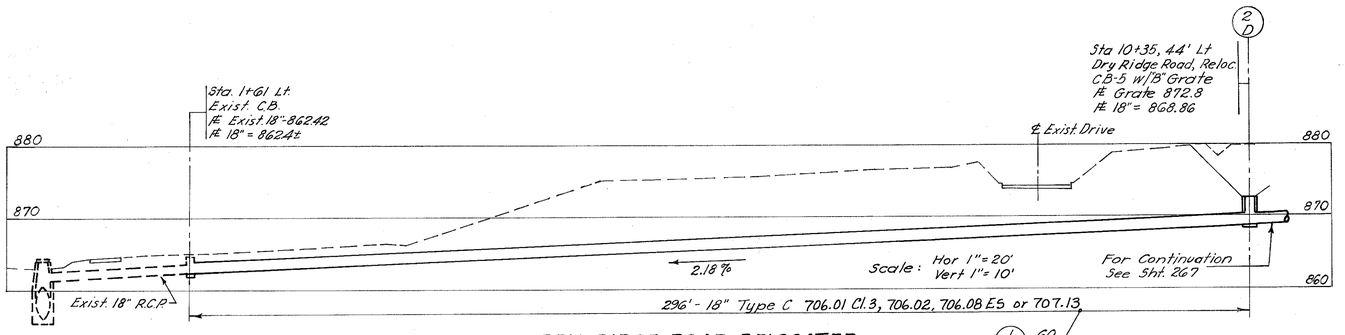
RAMP "I" INFIELD AREA CON'T.



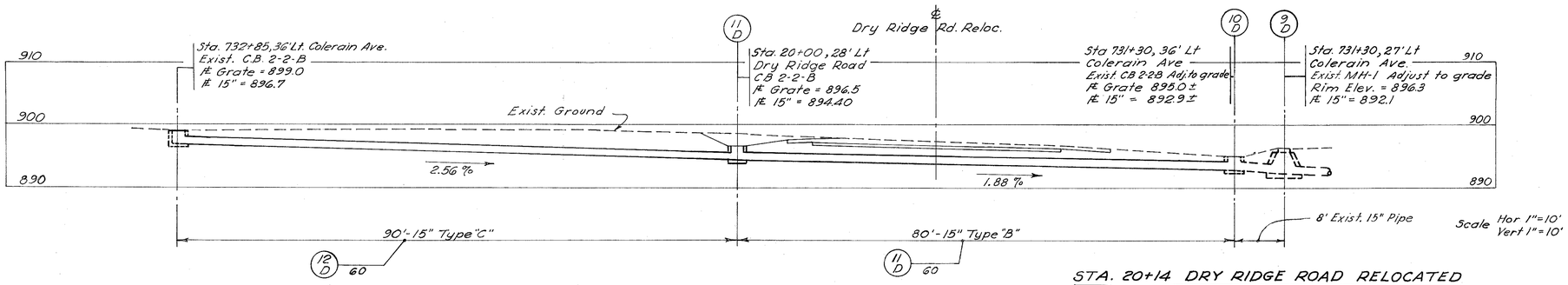
COLERAIN INTERCHANGE



RAMP F & COLERAIN INTERCHANGE



DRY RIDGE ROAD RELOCATED

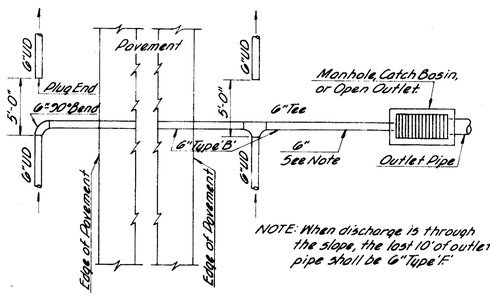


STA. 20+14 DRY RIDGE ROAD RELOCATED

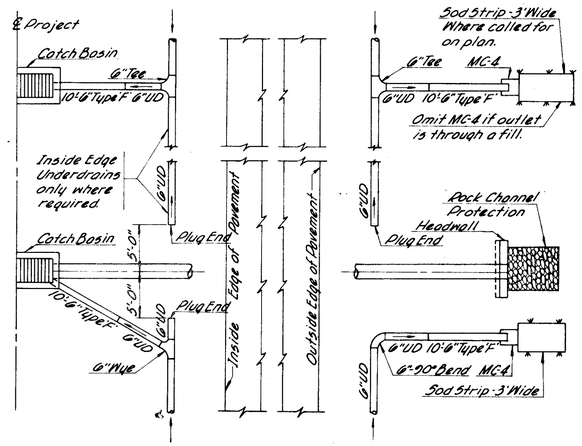
DEVELOPED		CHECKED	
RRS	12-10-69	R.M.F	6-15-72

STORM SEWER PROFILES

NOTE: 600+ refers to construction details in the Manual of Standard Construction Drawings.

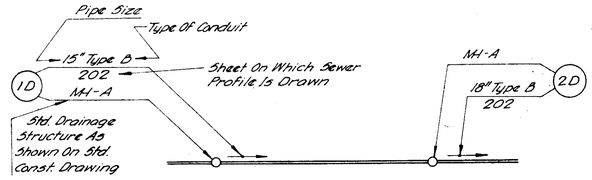


NOTE: When discharge is through the slope, the last 10'of outlet pipe shall be 6"Type'F'

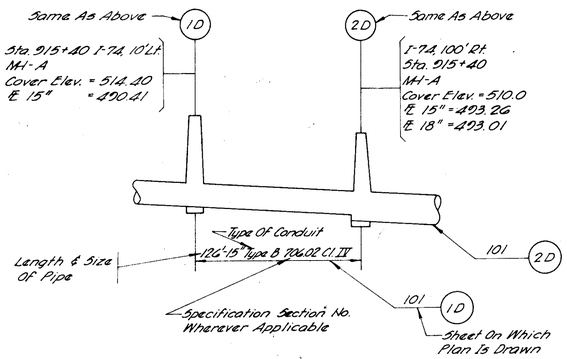


UNDERDRAIN OUTLET DETAILS

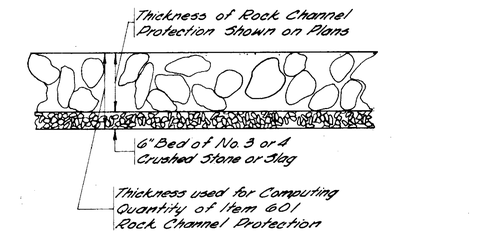
Underdrains to be placed in accordance with the Typical Sections and Plan-Profile Sheets.



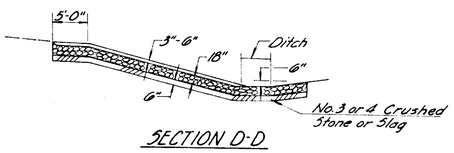
LEGEND FOR PLAN SHEETS



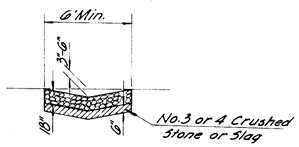
LEGEND FOR SEWER PROFILE SHEETS



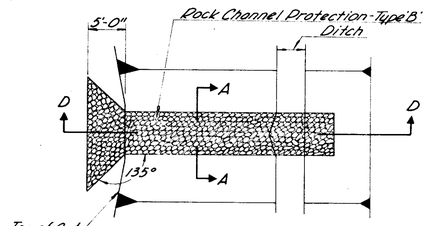
DETAIL OF ROCK CHANNEL PROTECTION WITH BEDDING



SECTION D-D

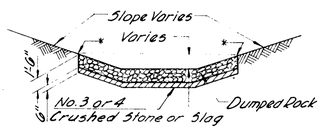


SECTION A-A

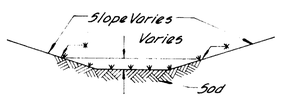


PLAN
EROSION CONTROL AT SWALES

NOTE: The portion of the protection that falls within an area 30'from the pavement edge shall conform to aggregate as per Item 601.05 of the specifications. Payment shall be under Item 601-Rock Channel Protection, as per plan.



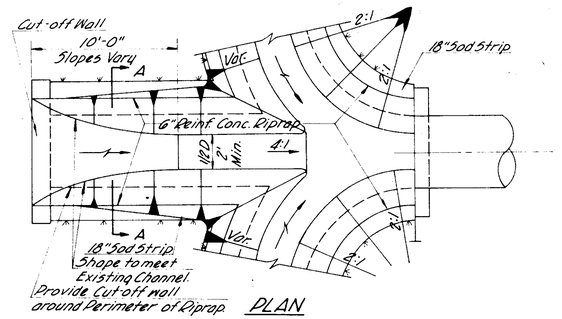
ROCK CHANNEL PROTECTION W/BEDDING



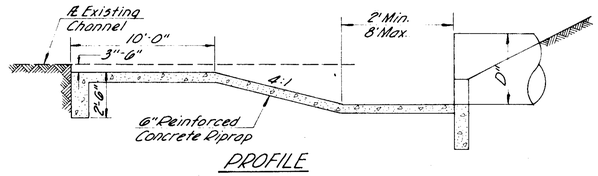
SOD

TYPICAL DITCH PROTECTION

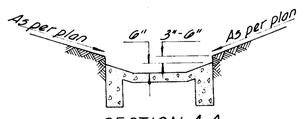
* NOTE: Ditch Protection carried to the same elevation regardless of the side slopes of the ditch.



PLAN

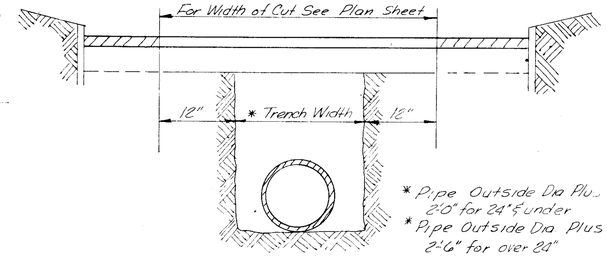


PROFILE

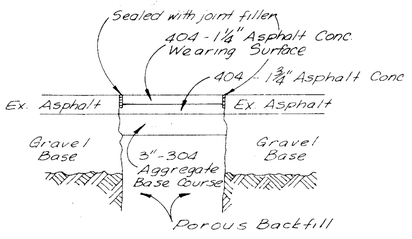


SECTION A-A

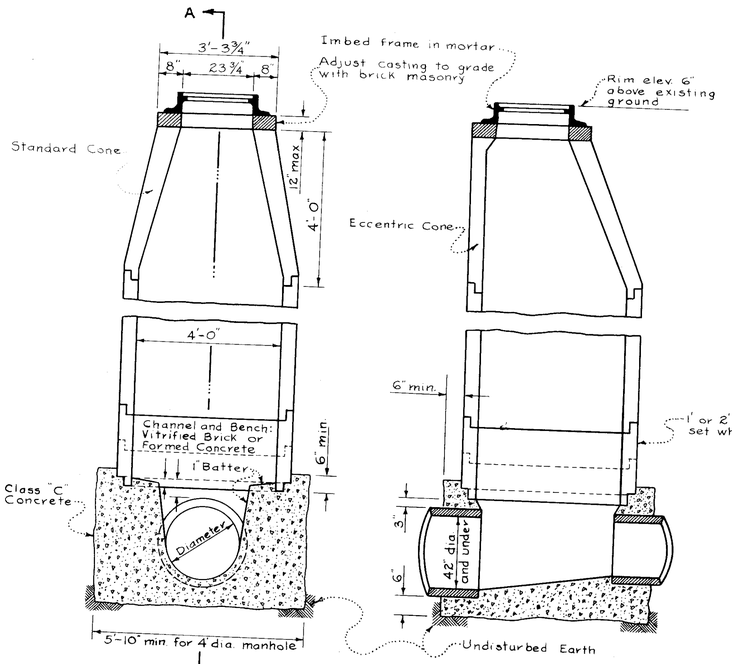
PAVED ENTRANCE DETAIL



PAVEMENT REPLACEMENT



PAVEMENT RESTORATION CLASS 4-ASPHALT PAVEMENT ON STONE OR GRAVEL BASE



SECTION A-A

TYPE "S" MANHOLE ON SANITARY CONDUIT

NOTES:

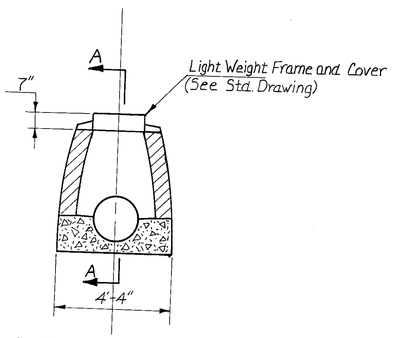
Manhole frame and vented cover to be R-1664 by Neenah Foundry Company, Neenah, Wisconsin or equal approved by the Engineer

3' Eccentric Cone may be used only where permission is granted by the Engineer.

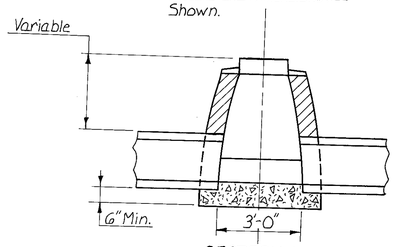
Precast concrete barrels and cones shall meet the requirements of ASTM C-478 (Latest Edition)

Joints on manhole sections shall be made with a rubber gasket meeting the requirement of ASTM C-443 except that only "O" Ring and "Tylox GR" gaskets are acceptable.

Lift holes shall be grouted with Water-plug, Embeco Grout or approved equal.

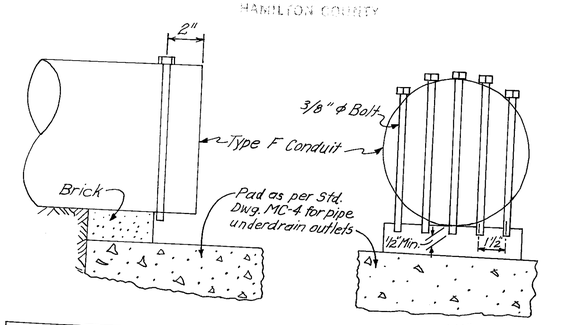


Note: See Standard Drawing for Details and Dimensions not Shown.



SECTION A-A

STANDARD Nº1 MANHOLE MODIFIED

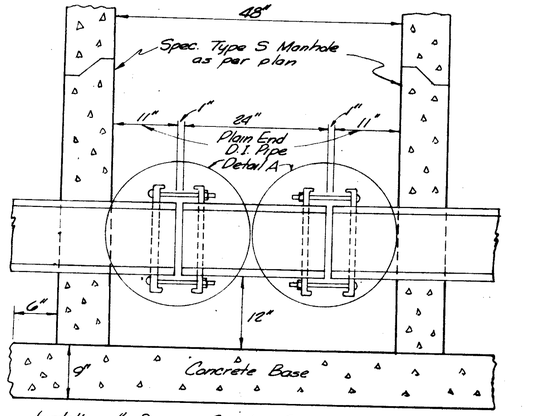


ROD DETAIL

BOLT OR ROD TABLE							
Conduit Size	4"	6"	8"	10"	12"	15"	18"
No. of Bolts or Rods	2	3	5	6	7	9	11

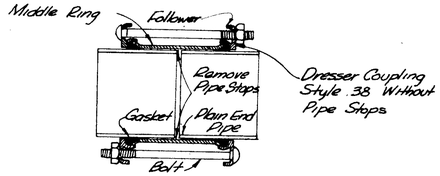
The steel bolts or rods shall be galvanized in accordance with ASTM A153. The holes in the pipe shall be ½" diameter. In lieu of drilling or punching holes into the pipe, a metal collar meeting all the above requirements may be clamped on the end of the pipe if, in the opinion of the Engineer, it will provide the same results. When a pad as shown on Std. Drawing MC-4 is required at the outlet end of the pipe, a brick may be placed between the pad and the pipe to provide clearance for the bolts or rods.

ANIMAL GUARD FOR PIPE OUTLET



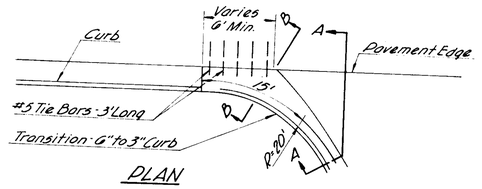
Install " Dresser Coupling Style 38 With Pipe Stops Removed

MANHOLE DETAIL

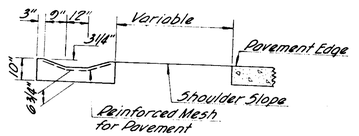


DETAIL A

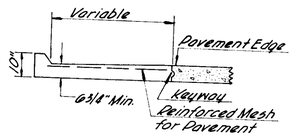
SPECIAL MANHOLE ON FORCE MAIN



PLAN



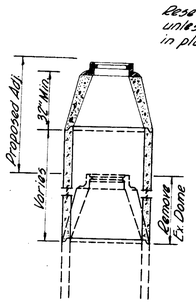
SECTION A-A



SECTION B-B

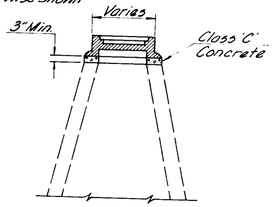
CURB TURNOUT

NOTE: Payment for Curb Turnout shall be made under Item 601 Riprap using 6" Reinforced Concrete Slab.



Item 604

This treatment shall be used where the existing casting is to be raised an amount exceeding 12".



Item 604

This treatment shall be used where the existing casting is to be raised an amount less than 12" or lowered less than 6" sufficient brick shall be removed to permit a minimum concrete thickness of 3".

MANHOLE RECONSTRUCTED TO GRADE MANHOLE ADJUSTED TO GRADE

REVISIONS TO EXISTING MANHOLES

NOTE: All required construction shall be in accordance with the pertinent details of Standard Construction Drawings MH-1A. When used on Sanitary Sewers joints as per 706.11 of the specifications must be used.

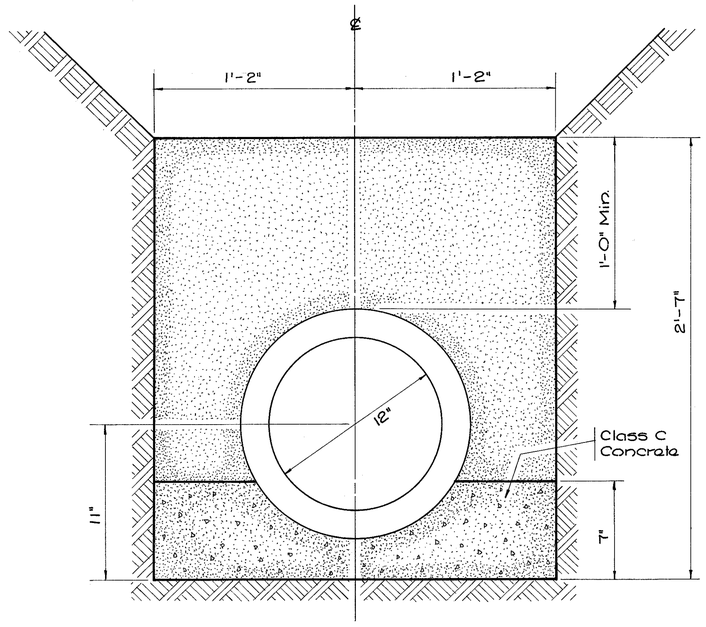
FHWA REGION	STATE	PROJECT	
5	OHIO		

301-A
468

HAM-275-13.91
HAMILTON COUNTY

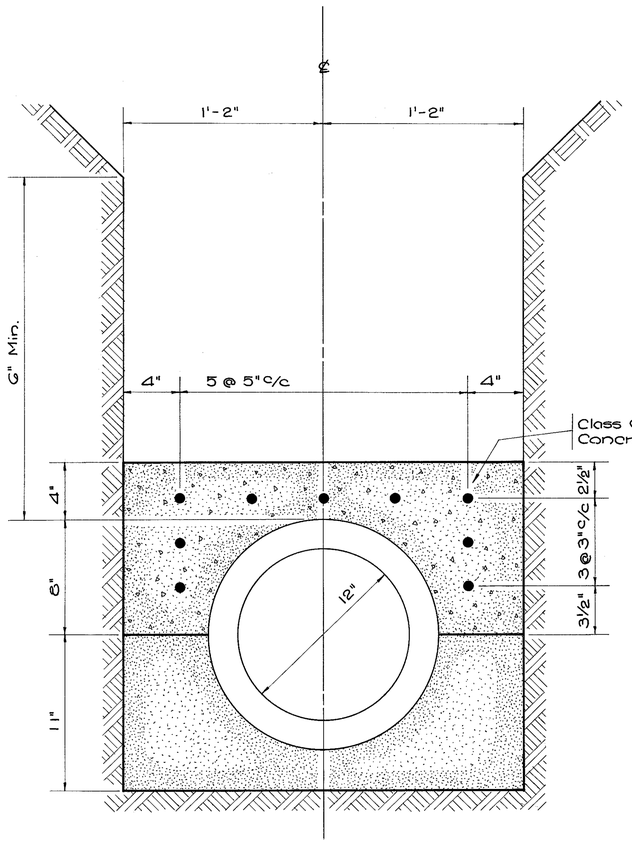
NOTES

Reinforcing Steel: All reinforcing bars shall be No. 5 in accordance with steel details shown hereon and conforming to 509.
Concrete: Concrete to be Class "C".
Excavation: The trench for excavation shall conform to the dimensions shown on the details.
Bedding: The bedding shall be Class B conforming to 603.04. The cost of furnishing and placing of reinforcing steel, excavation, placing granular bedding, backfill, furnish and installing pipe with required joints, performing leakage tests, constructing concrete arch and all materials required will be paid for at the contract unit price per linear foot complete in place for Item 603 "__" conduit, Type B 706.08 Class V with 706.11 joints with Concrete Arch as per plan.



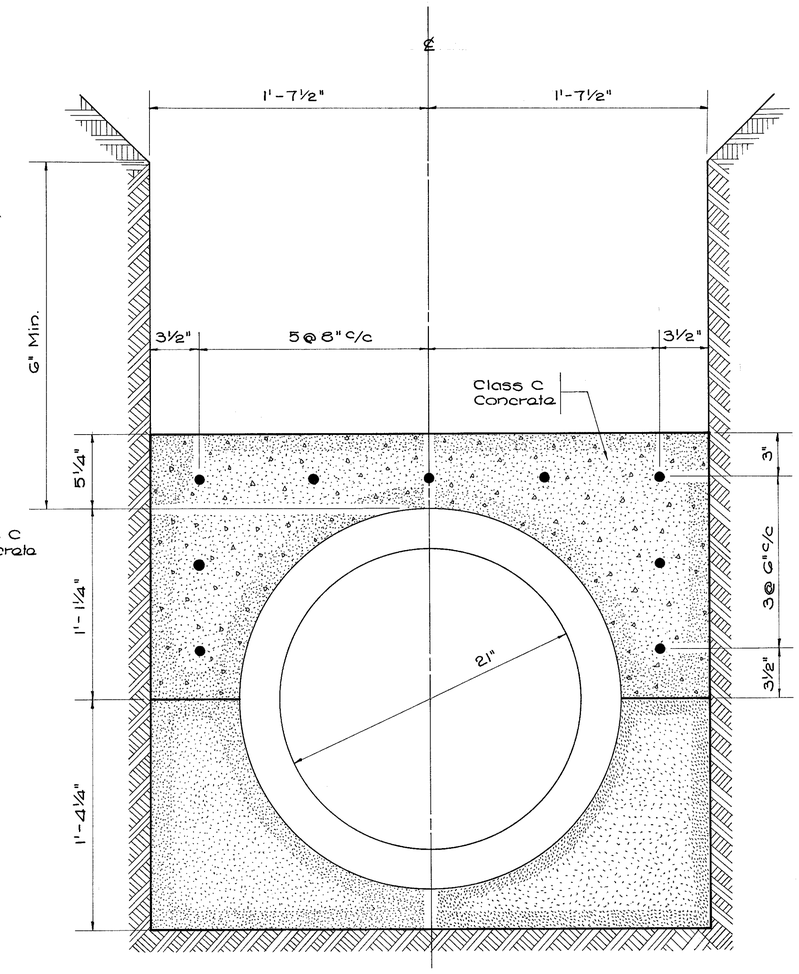
CLASS "A" BEDDING DETAIL

Sta. 660+45 See Sheet #890
Sta. 678+58 See Sheet #892



CONCRETE ARCH DETAIL

Sta. 609+06 See Sheet #286



CONCRETE ARCH DETAIL

Sta. 649+56 See Sheet #895

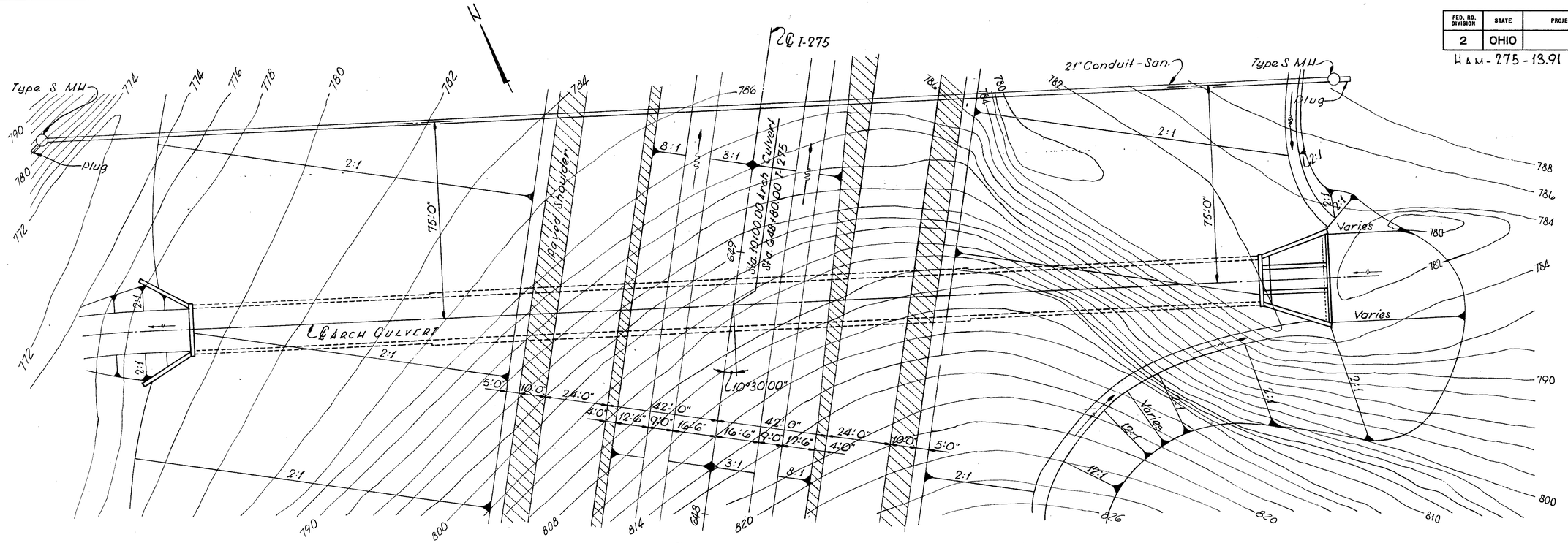
SCALE 1"=5'

DRAINAGE DETAILS

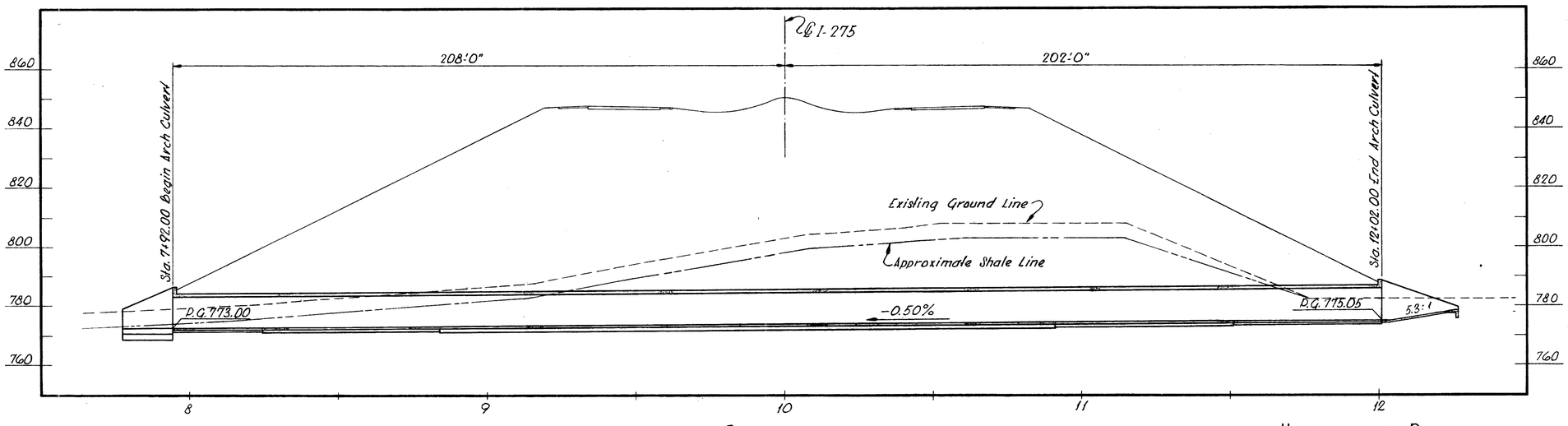
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

302
468

HAM-275-13.91



PLAN

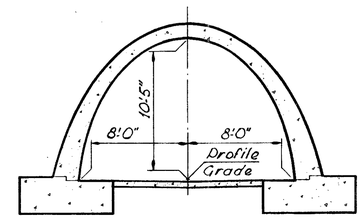


PROFILE

Drainage Area = 1160 Acres
Q_{50} = 1688 cfs
HW = 14.1 ft.
Outlet Velocity = 15.8 ft./sec.

HYDRAULIC DATA

Normal Depth = 7.6 ft.
Area of Flow = 107 sq. ft.
Wetted Perimeter = 32.4 ft.
Hydraulic Radius = 3.30 ft.
Urbanization Factor = 1.25
Slope = 0.005 ft./ft.



SECTION

PROPOSED STRUCTURE

TYPE: Reinforced concrete arch culvert.
SPAN: 16'0" (Inside face to inside face.)
DESIGN LIVE LOAD: HS 20-44.
DESIGN DEAD LOAD: A.A.S.H.O. TP 1.2.2(A).
ALIGNMENT: Tangent.
SKEW: 10°30'00"

VOGT, IVERS, & ASSOCIATES 1/6
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

SITE PLAN

ARCH CULVERT

AT STA. 648+80

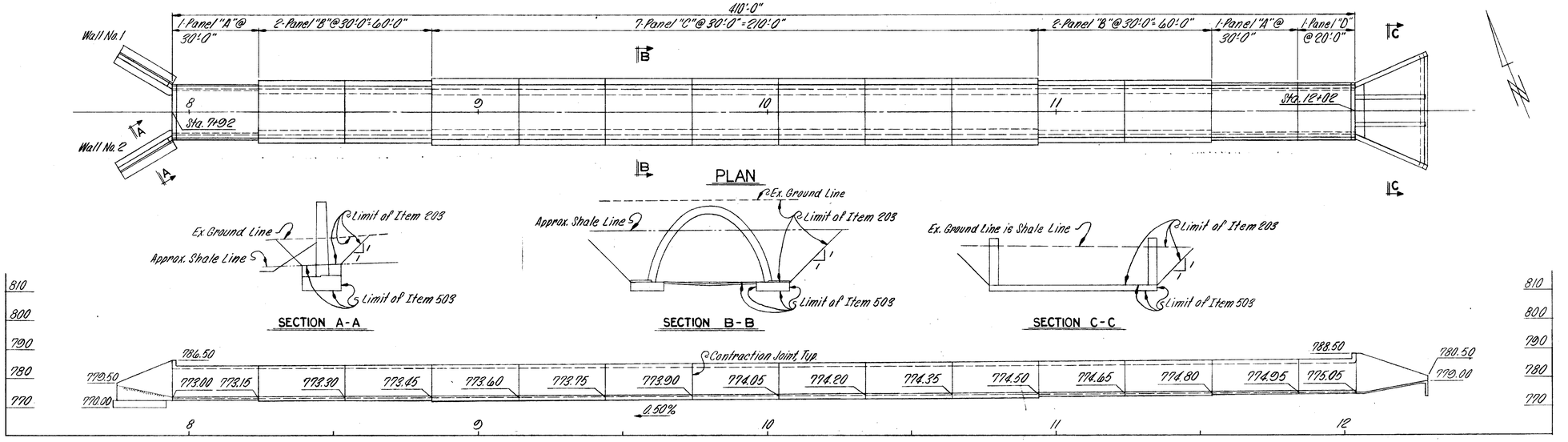
HAMILTON COUNTY STA. 7+92.00 to STA. 12+02.00

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS
Aerial	–	JJJ/DRH	EDA	A.Y.	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

303
428

HAM-275-13.91



GENERAL NOTES

DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1969, including the Ohio "Supplement" to these specifications.

DESIGN DATA:

Design Loading - HS-20-44
Concrete Class "C" - f'_c = 1333 psi
Reinforcing Steel - ASTM A615, A616 or A617 - f_s 20,000 psi.

Welded Wire Fabric - ASTM A185 and A495

FOUNDATION BEARING PRESSURE: Footings are designed for a maximum bearing pressure of 10 tons per square foot.

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	WALLS	BARREL	INLET	GENERAL	TOTAL	CK. BY	DATE
503	Shale Excavation	Cu.Yd.				328	328	T.W.N.	9-71
509	Reinforcing Steel	lbs.	1750	74034	6903		82687	T.W.N.	9-71
511	Class "C" Concrete, as per plan	Cu.Yd.	58	** 789	* 61		908	T.W.N.	9-71
518	Porous Backfill	Cu.Yd.				1640	1640	T.W.N.	9-71

* H-Beam and 4x4 welded wire to be included for payment under Item 511
** 5470 sq. Ft. of 6x6 welded wire to be included for payment under Item 511

VOGT, IVERS, & ASSOCIATES 2 6
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PLAN AND ELEVATION
ARCH CULVERT
AT STA. 648+80

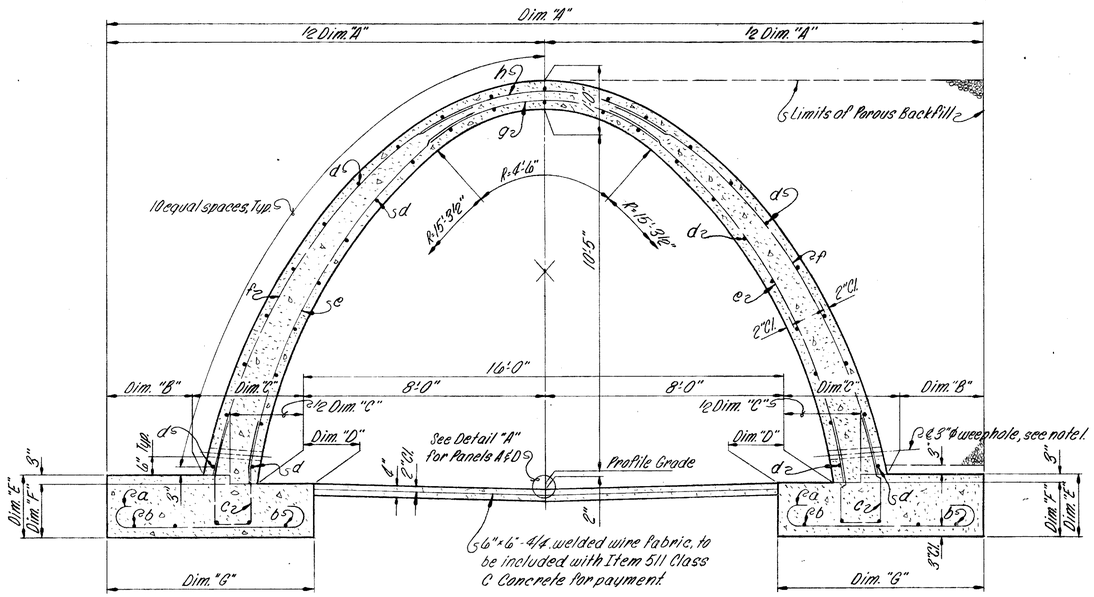
HAMILTON COUNTY STA. 7+92.00 to STA. 12+02.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.J.J.	T.W.N.					

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

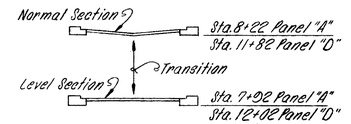
304
468

HAM-275-13.01

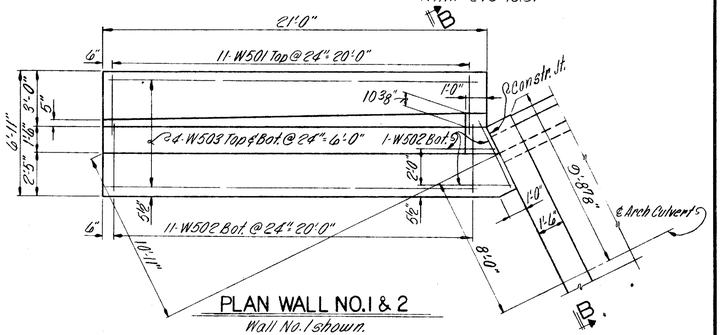


TYPICAL SECTION

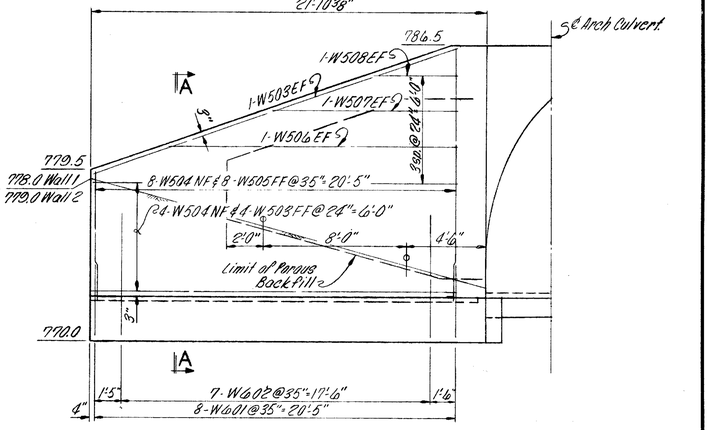
TABLE OF DIMENSIONS			
Dim.	Panels "A" & "D"	Panel "B"	Panel "C"
Dim. "A"	19'-2"	22'-2"	24'-4"
Dim. "B"	7"	2'-1"	2'-8"
Dim. "C"	1'-0"	1'-0"	1'-6"
Dim. "D"	7"	1'-5"	1'-7"
Dim. "E"	1'-3"	1'-6"	1'-9"
Dim. "F"	1'-0"	1'-3"	1'-6"
Dim. "G"	2'-2"	4'-6"	5'-9"



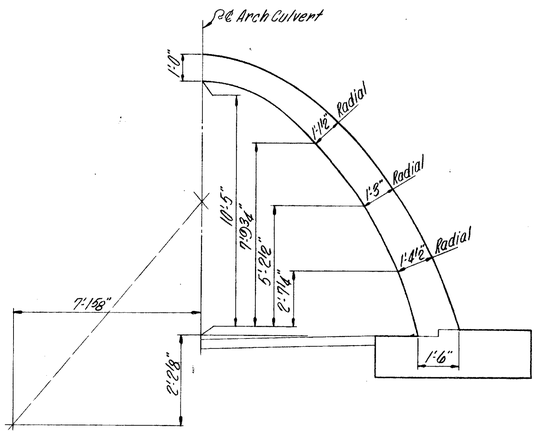
DETAIL "A"



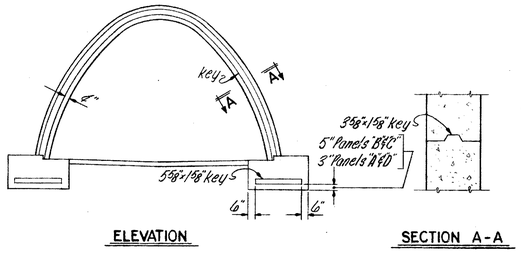
PLAN WALL NO. 1 & 2
Wall No. 1 shown.



ELEVATION WALL NO. 1 & 2
Wall No. 1 shown

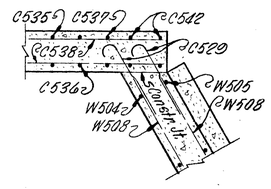


PANEL "C" WALL THICKNESS VARIATION DETAIL

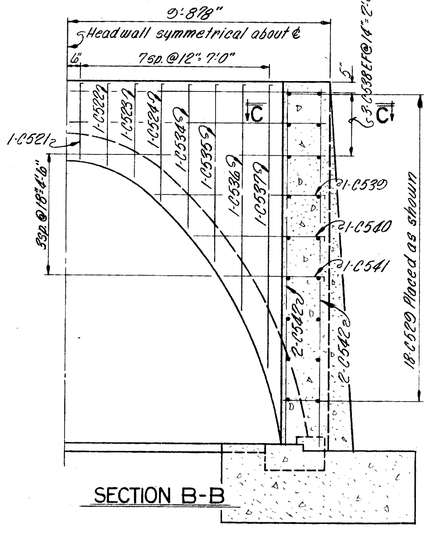


ELEVATION SECTION A-A

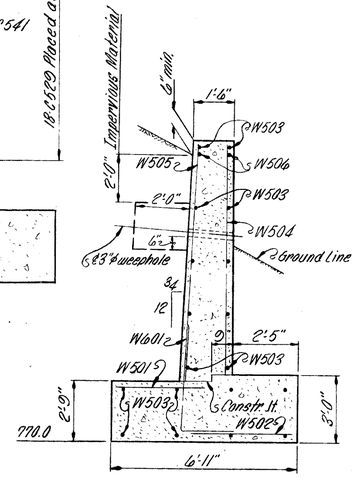
CONTRACTION JOINT DETAIL



SECTION C-C



SECTION B-B



SECTION A-A

NOTES

1. Provide 3" ø weepholes in walls spaced at 8'-0" ± centers so as to miss contraction joints by 1'-0" min.
2. Embankment shall be placed symmetrically on both sides of the culvert.
3. For Reinforcing Steel List see sheet 5 | 6
4. For General Notes see sheet 2 | 6

PANELS			REINFORCING STEEL																					
			a			b			c			d			e			f			g			h		
Mark	No.	Length	No. ea. Panel	Mark	Sp.	No. ea. Panel	Mark	Sp.	No. ea. Panel	Mark	Sp.	No. ea. Panel	Mark	Sp.	No. ea. Panel	Mark	Sp.	No. ea. Panel	Mark	Sp.	No. ea. Panel	Mark	Sp.	No. ea. Panel	Mark	Sp.
•"A"	2		——	——	—	4			46	C502	16"															
"B"	4	30'-0"	80	C901	9"	8	C501	*	90	C601	8"	42	C501	*	46	SP501	16"	46	SP502	16"	23	SP504	16"	23	SP505	16"
"C"	7		90	C902	8"	10			46	C503	16"								SP503							
•"D"	1	20'-0"	——	——	—	4	C504		28	C502	18"		C504		28	SP501	18"	28	SP502	18"	14	SP504	18"	14	SP505	18"

* Spaced as shown in Typ. Sec.
• For additional reinforcement see appropriate Headwall Details

VOGT, IVERS, & ASSOCIATES 3 | 6
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

BARREL & HEADWALL DETAILS
ARCH CULVERT
AT STA. 6+48+80

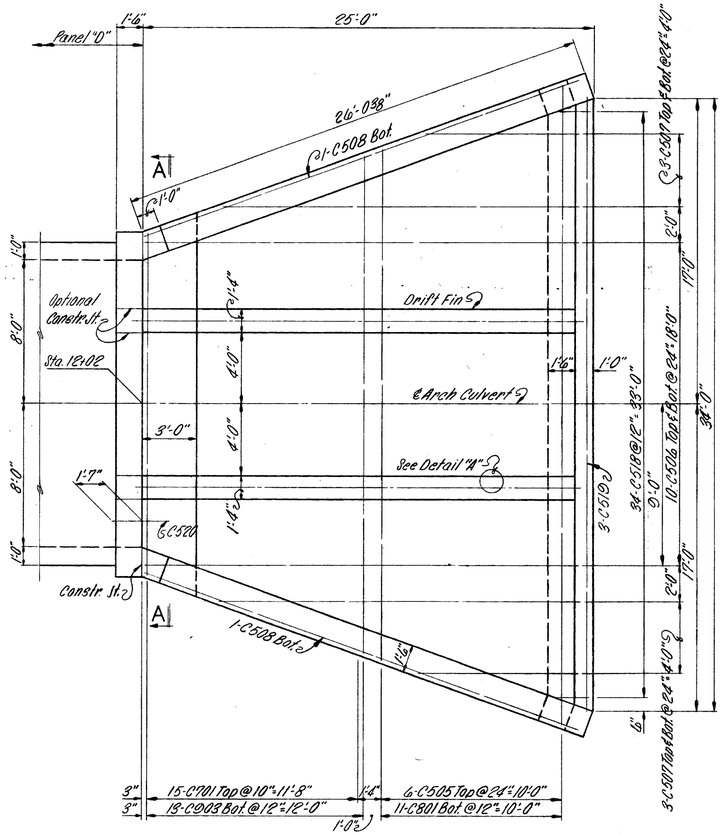
HAMILTON COUNTY STA. 7+02.00 to STA. 12+02.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.I.I.	T.W.N.	TV	AY			

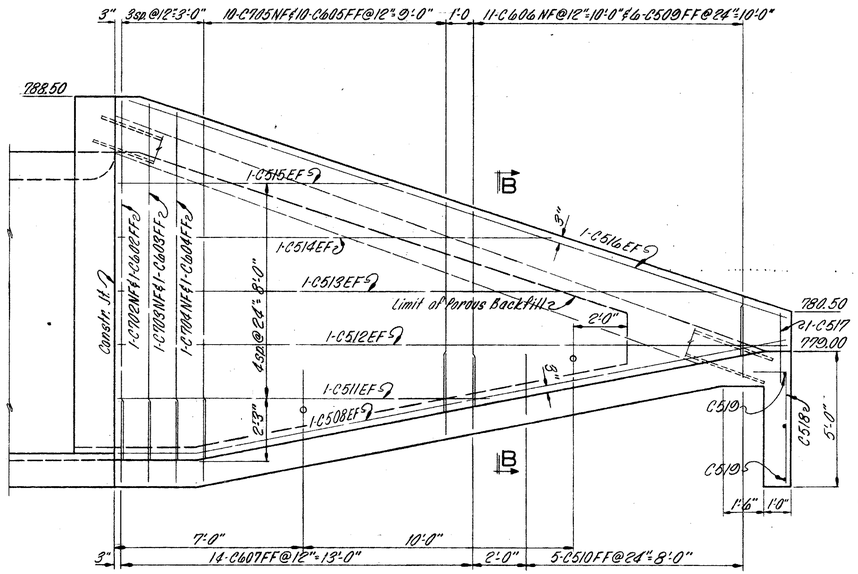
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-275-13.91

305
468

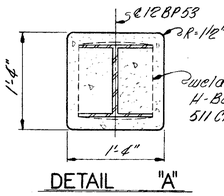


PLAN

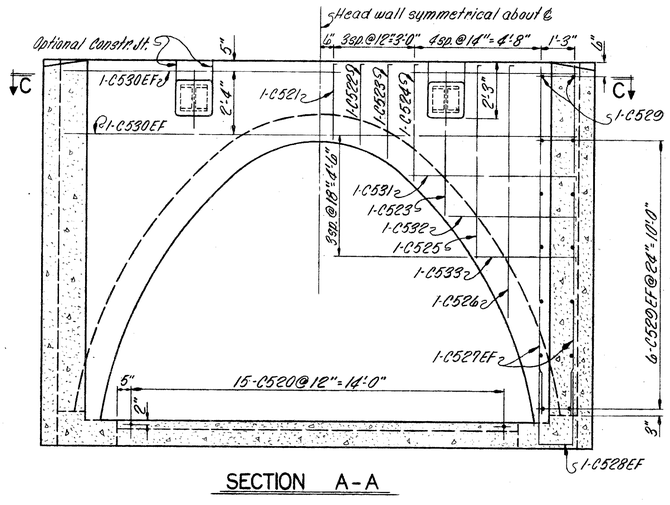


ELEVATION

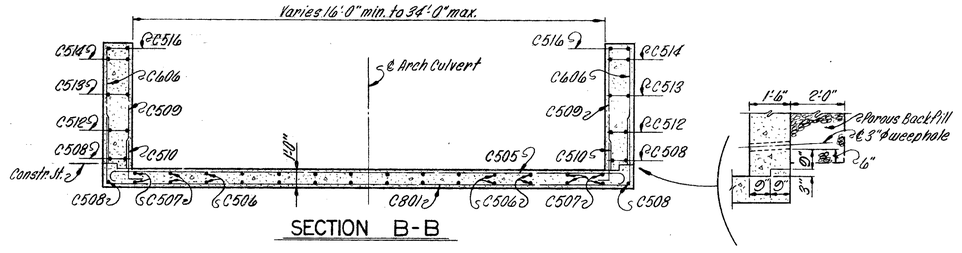
Note: This is a typical Inlet Structure Wall Detail.



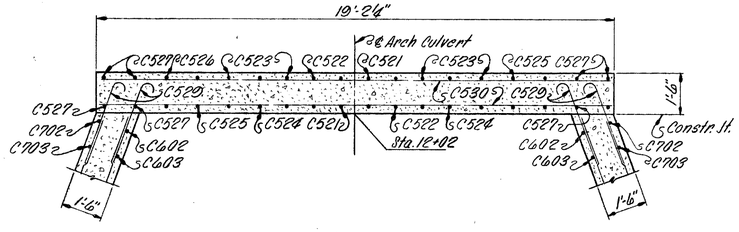
DETAIL "A"



SECTION A-A



SECTION B-B



SECTION C-C

NOTES

1. For Reinforcing Steel List see sheet 5 6
2. For General Notes see sheet 2 6

LEGEND

EF = each face
NF = near face
FF = far face

VOGT, IVERS, & ASSOCIATES 4 6
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

HEADWALL DETAILS ARCH CULVERT AT STA. 648+80

HAMILTON COUNTY STA. 7+02.00 to STA. 12+02.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S.S.S.	T.W.D.		A.Y.			

ARCH CULVERT

MARK	NO.	LENGTH	TYPE	WEIGHT
C501	656	29'-8"	Str.	20208
C502	120	5'-11"	Bt.	741
C503	322	7'-5"	Bt.	2491
C504	46	10'-8"	Str.	944
C505	6	29'-3" to 36'-4" by 17", 1 ea.	Bt.	205
C506	20	24'-4"	Bt.	508
C507	12	20'-0" to 9'-0" by 5'-6", 4 ea.	Str.	182
C508	6	26'-0"	Bt.	163
C509	12	7'-2½" to 2'-0" by 1'-0½", 2 ea.	Str.	58
C510	10	2'-9"	Bt.	29
C511	4	15'-0"	Str.	63
C512	4	25'-7"	Str.	107
C513	4	23'-0"	Str.	96
C514	4	16'-9"	Str.	70
C515	4	10'-6"	Str.	44
C516	4	26'-6"	Str.	111
C517	2	5'-11"	Bt.	12
C518	34	5'-10"	Bt.	207
C519	3	34'-0"	Str.	106
C520	15	3'-2"	Str.	50
C521	4	6'-5"	Bt.	27
C522	4	6'-11"	Bt.	29
C523	6	7'-11"	Bt.	50
C524	4	9'-7"	Bt.	40
C525	2	15'-3"	Bt.	32
C526	2	19'-5"	Bt.	41
C527	8	13'-0"	Str.	108
C528	4	6'-2"	Bt.	26
C529	64	3'-7"	Bt.	230
C530	4	18'-10"	Str.	79
C531	2	13'-3"	Bt.	28
C532	2	10'-3"	Bt.	21
C533	2	8'-3"	Bt.	17
C534	2	11'-9"	Bt.	25
C535	2	14'-7"	Bt.	30
C536	2	17'-9"	Bt.	37
C537	2	22'-7"	Bt.	47
C538	6	19'-2"	Str.	120
C539	2	13'-7"	Bt.	28
C540	2	10'-7"	Bt.	22
C541	2	8'-7"	Bt.	18
C542	8	13'-0"	Str.	108
C601	360	7'-0"	Bt.	3785
C602	2	13'-3"	Str.	40
C603	2	13'-2"	Str.	40
C604	2	12'-10"	Str.	39
C605	20	12'-5" to 7'-8¾" by 6¼", 2 ea.	Str.	303
C606	22	7'-2½" to 2'-0" by 6¼", 2 ea.	Str.	152
C607	28	3'-4"	Bt.	140
C701	15	20'-4" to 28'-9¼" by 7¼", 1 ea.	Bt.	753
C702	2	13'-0"	Str.	53
C703	2	12'-11"	Str.	53
C704	2	12'-6"	Str.	51
C705	20	12'-2" to 7'-5¾" by 6¼", 2 ea.	Str.	402
C801	11	32'-11" to 40'-0" by 8½", 1 ea.	Bt.	1071
C901	320	6'-6"	Bt.	7072
C902	630	7'-9"	Bt.	16601
C903	13	24'-11½" to 32'-9" by 8⅝", 1 ea.	Bt.	1257
SP501	626	12'-7"	Bt.	8216
SP502	304	12'-11"	Bt.	4096
SP503	322	13'-2"	Bt.	4422
SP504	313	6'-11"	Bt.	2258
SP505	313	7'-7"	Bt.	2476

WALLS

MARK	NO.	LENGTH	TYPE	WEIGHT
W501	22	3'-4"	Str.	176
W502	28	3'-9"	Str.	112
W503	28	20'-8"	Str.	1604
W504	16	16'-3" to 13'-3" by 1'-0", 2 ea.	Str.	1163
W505	16	16'-6" to 13'-6" by 1'-0", 2 ea.	Str.	1167
W506	4	15'-8"	Str.	65
W507	4	10'-0"	Str.	42
W508	4	4'-4"	Str.	18
W509	8	21'-4"	Str.	178
W601	16	16'-2"	Bt.	148
W602	14	8'-6"	Bt.	179

MARK	NO.	LENGTH	TYPE	WEIGHT

MARK	NO.	LENGTH	TYPE	WEIGHT

MARK	NO.	LENGTH	TYPE	WEIGHT

MARK	NO.	LENGTH	TYPE	WEIGHT

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

306
468

HAM-275-13.91

NOTES

1. BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATE THE BAR SIZE NUMBER.
2. SPIRAL REINFORCING BARS: THE "LENGTH" SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE DISTANCE FROM TOP OF THE FOOTING TO THE BOTTOM OF CAP, OR TO WITHIN 2" (±) OF THE TOP OF COLUMN FOR PIERS WITHOUT CAPS, TO THE NEAREST INCH.
   SPIRAL REINFORCING BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM 509.
   FOUR STEEL CHANNEL, TEE OR ANGLE SPACERS, WEIGHING NOT LESS THAN 0.80 LB. PER LIN. FT. OF SPACER, SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.80 LB. PER LIN. FT., WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS.
3. SEE SHEET 6 / 6 FOR BENDING DETAILS.

Refer to CMS Sections 106.03, 700, 709.01 through 709.05 and 709.08. Sufficient additional reinforcing steel shall be provided for sampling. Random samples shall be replaced in the structures by the additional steel, spliced in accordance with 509.08.

VOGT, IVERS & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

5 / 6

REINFORCING STEEL LIST

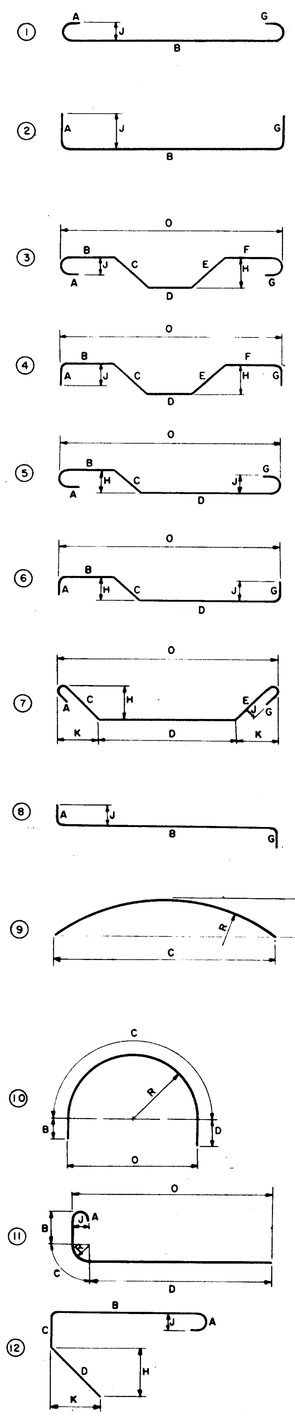
ARCH CULVERT

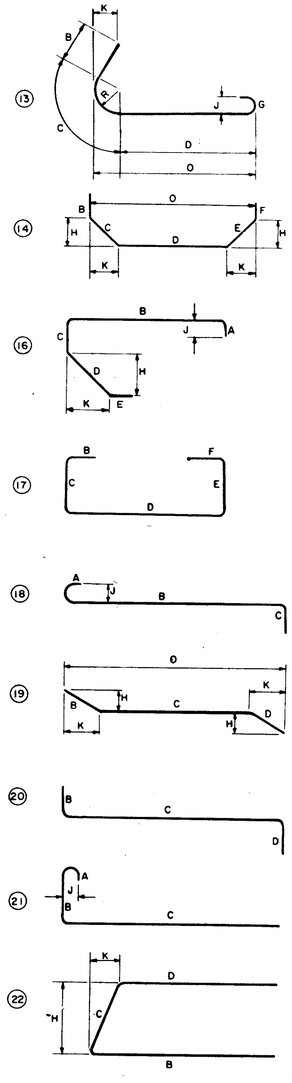
AT STA. 648+80

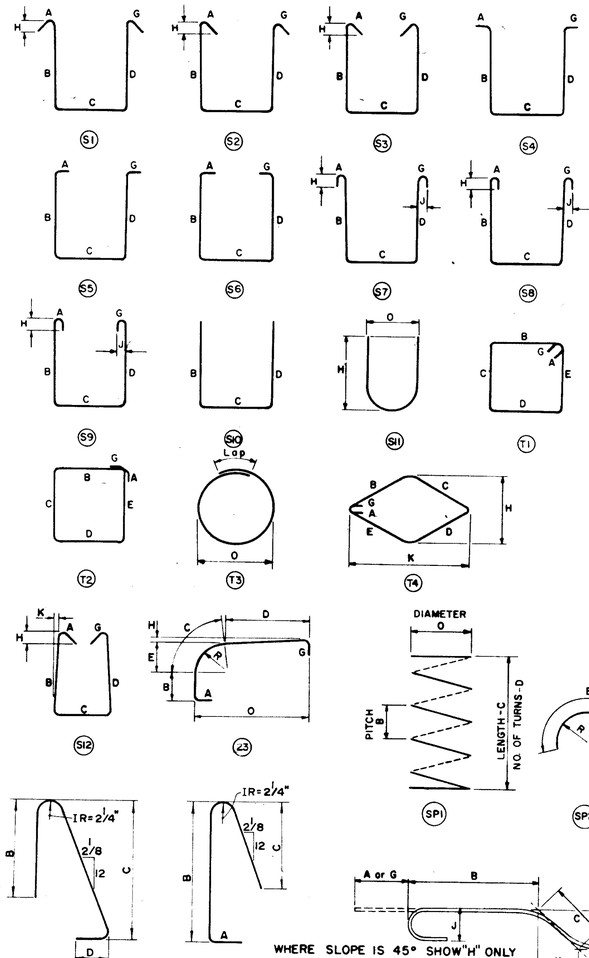
HAMILTON COUNTY STA. 7+92.00 to STA. 12+02.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	NO.
W	T.W.M.	W	H.Y.			

MARK	TYPE	DIMENSIONS FOR BENDING											
		A	B	C	D	E	F	G	H	J	K	R	O
C502	17		—	2'-10"	6"	2'-10"	—						
C503	17		—	3'-4"	1'-0"	3'-4"	—						
C505	1	7"	28'-1" to 35'-2" by 1"					7"					
C506	19		2'-10"	21'-6"	—				6"		2'-2"		
C508	19		3'-0"	23'-0"	—				6"		2'-11"		
C510	2	6"	2'-3"					—					
C517	17		—	2'-6"	1'-2"	2'-6"	—						
C518	20		1'-6"	4'-6"	—								
C521	17		—	2'-9"	1'-2"	2'-9"	—						
C522	17		—	3'-0"	1'-2"	3'-0"	—						
C523	17		—	3'-6"	1'-2"	3'-6"	—						
C524	17		—	4'-4"	1'-2"	4'-4"	—						
C525	17		—	7'-2"	1'-2"	7'-2"	—						
C526	17		—	9'-3"	1'-2"	9'-3"	—						
C528	17		—	2'-7"	1'-3"	2'-7"	—						
C529	1	7"	3'-0"					—					
C531	17		—	6'-2"	1'-2"	6'-2"	—						
C532	17		—	4'-8"	1'-2"	4'-8"	—						
C533	17		—	3'-8"	1'-2"	3'-8"	—						
C534	17		—	5'-5"	1'-2"	5'-5"	—						
C535	17		—	6'-10"	1'-2"	6'-10"	—						
C536	17		—	8'-5"	1'-2"	8'-5"	—						
C537	17		—	10'-10"	1'-2"	10'-10"	—						
C539	17		—	6'-4"	1'-2"	6'-4"	—						
C540	17		—	4'-10"	1'-2"	4'-10"	—						
C541	17		—	3'-10"	1'-2"	3'-10"	—						
C601	17		—	3'-5"	6"	3'-5"	—						
C607	2	8"	2'-8"					—					
C701	1	10"	18'-8" to 27'-14" by 7"					10"					
C801	17		—	2'-8"	28'-1" to 35'-2" by 2"	2'-8"	—						
C901	1	1'-3"	41'-0"					1'-3"					
C902	1	1'-3"	51'-3"					1'-3"					
C903	17		—	3'-0"	18'-8" to 27'-4" by 8"	3'-0"	—						
SP501	SP2		12'-7"										15'-6 1/2"
SP502	SP2		12'-11"										16'-0 1/2"
SP503	SP2		13'-2"										16'-5"
SP504	SP2		6'-11"										8'-9"
SP505	SP2		7'-7"										5'-3"
W601	22		11'-11"	4'-5"	—				4'-4 7/8"		3 1/4"		
W602	22		11'-11"	6'-9"	—				6'-8 7/8"		5 1/8"		







NOTES

1. FIGURES IN CIRCLES SHOW BAR TYPES.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. "J" DIMENSION ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. WHERE "J" IS NOT SHOWN "J" WILL BE KEPT EQUAL TO OR LESS THAN "H." WHERE "J" CAN EXCEED "H" IT SHOULD BE SHOWN.
5. "H" DIMENSION ON STIRRUPS TO BE SHOWN WHERE NECESSARY TO RESTRICT HOOKS.
6. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT STIRRUPS S11, TIES T3, SPIRALS SP1 AND WHERE RADIUS "R" IS INDICATED.
7. RADIUS DIMENSION "R" IS TO OUTSIDE OF BAR.
8. THE LENGTH OF BENT BARS IS MEASURED ALONG THE CENTERLINE.
9. FOR STANDARD HOOK DIMENSIONS, SEE SECT. 509.05 OF THE SPECIFICATIONS.
10. FOR BAR TYPE SP1, THE NO. OF TURNS "D" IS THE LENGTH "C" DIVIDED BY THE PITCH "B", PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER. 1½ CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.

ENLARGED VIEW SHOWING
BAR BENDING DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-275-13.91

307
468

VOGT, IVERS & ASSOCIATES
ENGINEERS CINCINNATI
ARCHITECTS CHICAGO

6 6

BAR BENDING DETAILS

ARCH CULVERT

AT STA. 648+80

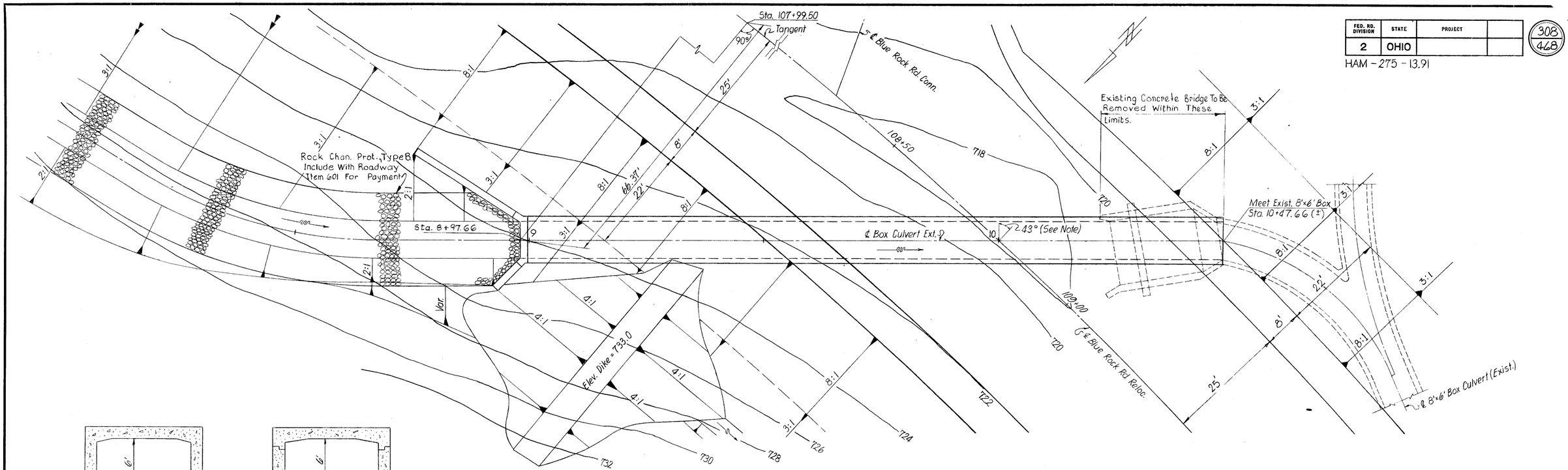
HAMILTON COUNTY STA. 7+92.00 to STA. 12+02.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
✓	T.W.N.	✓	AE			

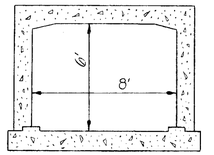
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

308/468

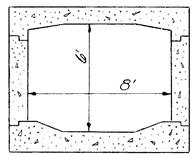
HAM – 275 – 13.91



PLAN



EXISTING 8'×6' CULVERT

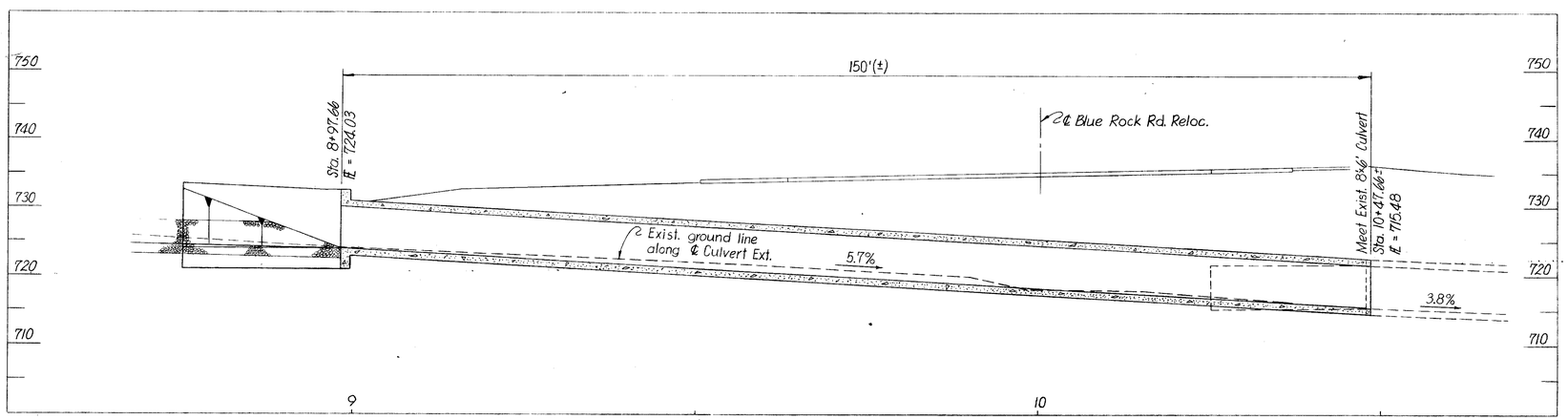


PROP. 8'×6' CULVERT EXT.

D.A. = 144 Acres
Q50 = 410 c.f.s.

50 Year Flood HW Elev. 730.93

NOTE: The skew angle is approximate and should be disregarded in the layout of the center line for the Box Culvert.



PROFILE

PROPOSED STRUCTURE

TYPE: Reinforced concrete box culvert
SPAN: 8'-0"
DESIGN LIVE LOAD: HS 20-44 and A.A.S.H.O. alternate loading
DESIGN DEAD LOAD: A.A.S.H.O. P1.2.2. (A)
ALIGNMENT: Tangent
SKEW: 43° (See Note)

VOGT, IVERS, & ASSOCIATES 1 / 5
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

SITE PLAN

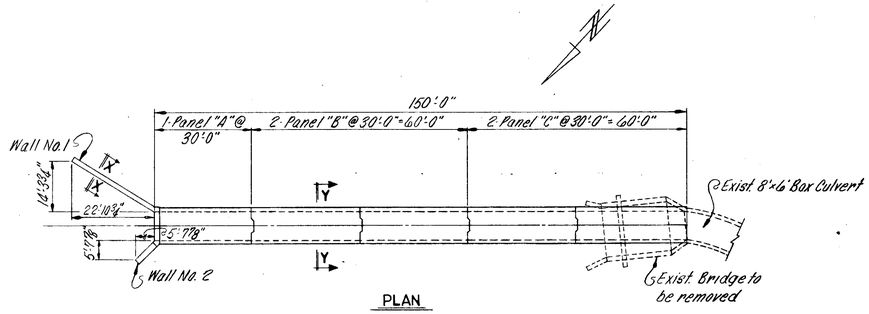
BOX CULVERT EXTENSION
AT STA. 108+80.19±
BLUE ROCK ROAD RELOC.
STA. 8+97.66 to
STA. 10+47.66

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIS
Aerial	T.W.N.	T.W.N.	H.J.Z.	A.Y.	

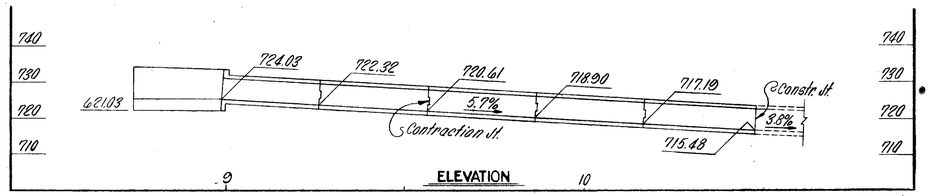
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

309
428

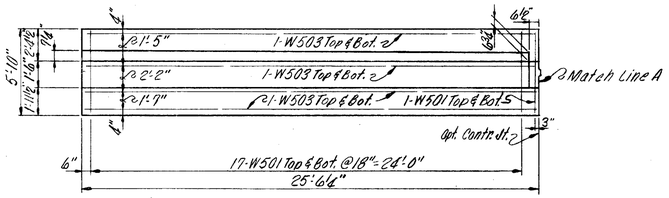
HAM-275-13.91



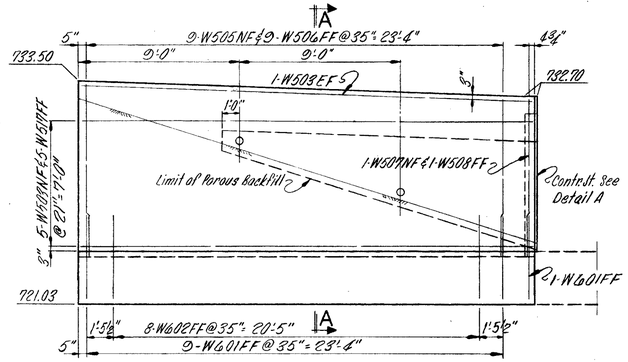
PLAN



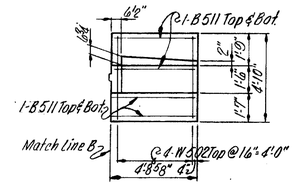
ELEVATION



PLAN WALL NO. 1



ELEVATION WALL NO. 1



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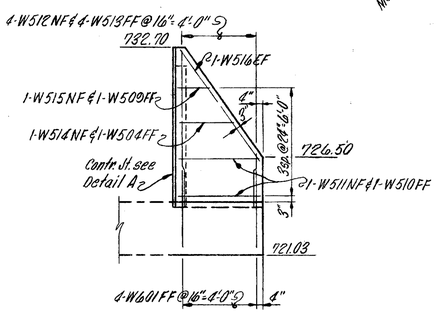
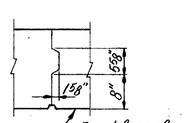
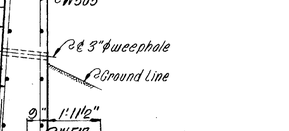


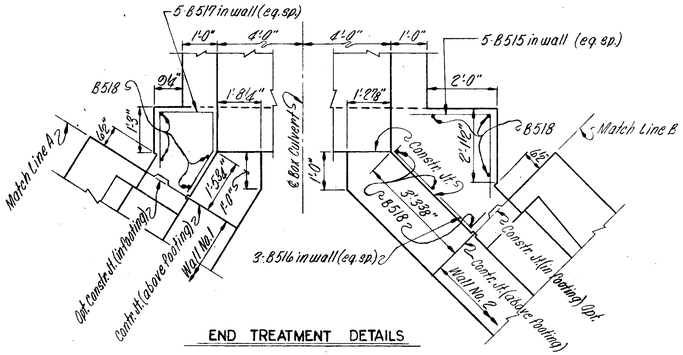
ELEVATION WALL NO. 2



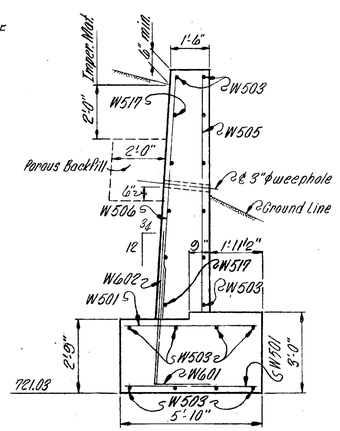
SECTION Y-Y



SECTION X-X



END TREATMENT DETAILS

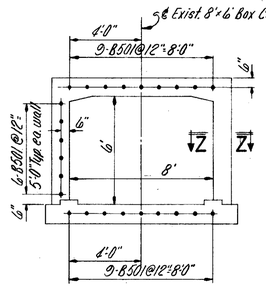


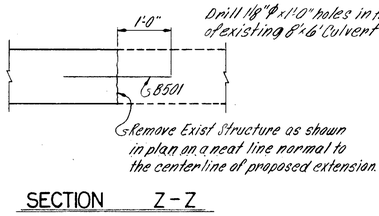
SECTION A-A

DETAIL A

EXISTING 8 x 6 BOX CULVERT

Proposed connection dowel layout at the face of existing 8'6' Box Culvert.





SECTION Z-Z

GENERAL NOTES

DESIGN SPECIFICATIONS: This Structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1969 and Interim Specifications 1970 thereof, including the Ohio "Supplement to these specifications."

DESIGN DATA:
Design Loading HS 20 44

MATERIALS: Concrete Class "C" - f'_c = 1338 psi
Reinforcing Steel ASTM A615, A616 or A617 - f_s 20,000 psi

FOUNDATION BEARING PRESSURE: Footings are designed for a maximum bearing pressure of 4 tons per square foot.

NOTES

1. For Legend and Notes, see sh. 3 | 5
2. For Reinforcing Steel List see sh. 4 | 5

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	WALLS	BARREL	GENERAL	TOTAL	CK.BY	DATE
503	Unclassified Excavation, incl. rock	Cu.Yd.	27	65	——	92	T.N.	11-71
509	Reinforcing Steel	lbs.	1278	25,240		26,518	A.Y.	11-71
511	Class "C" Concrete	Cu.Yd.	36	174	——	210	T.N.	11-71
518	Porous Backfill	Cu.Yd.	4	99	——	103	T.N.	11-71
202	Portions of Existing Structure removed	Lump Sum			Lump Sum			

VOGT, IVERS, & ASSOCIATES, INC. 2 | 5
ENGINEERS ARCHITECTS
CINCINNATI

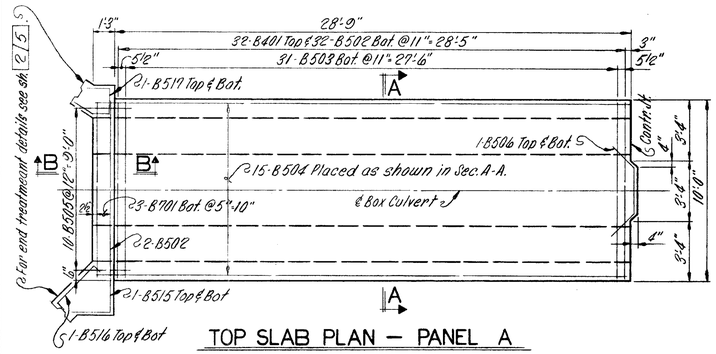
GENERAL PLAN & ELEVATION
BOX CULVERT EXTENSION
AT STA. 108+80.19 ±
BLUE ROCK ROAD RELOC.
HAMILTON COUNTY STA. 8+97.66 to STA. 10+47.66

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
B.C.S.	T.W.N.		A.Y.		

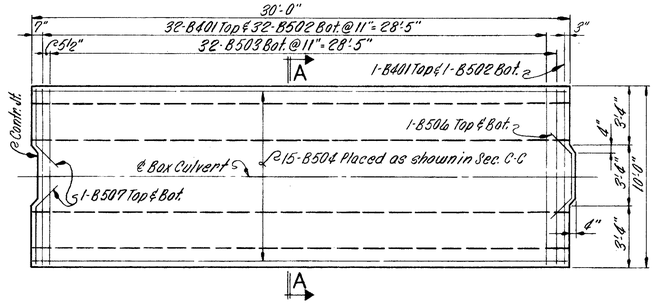
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

310
468

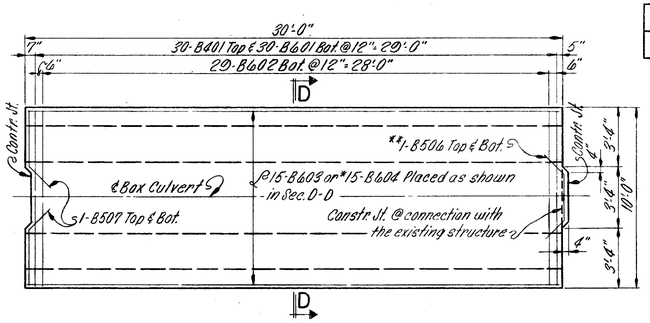
HAM-275-13.91



TOP SLAB PLAN — PANEL A

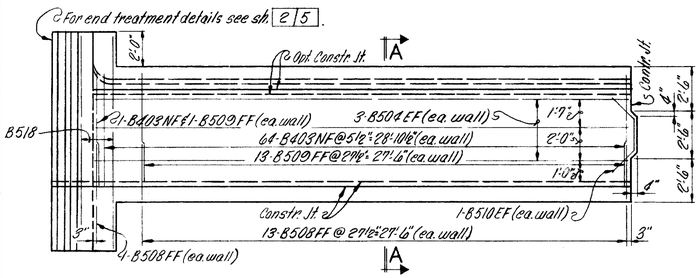


TOP SLAB PLAN — PANEL B

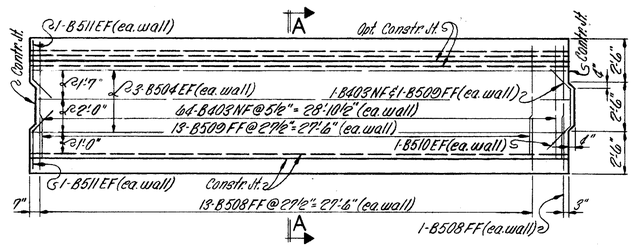


TOP SLAB PLAN — PANEL C

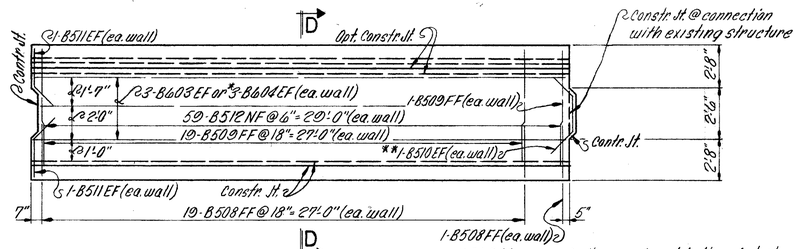
* B604 bars are in the panel next to the exist. structure
** Omit the B506 bars at the connection with the existing structure.



ELEVATION — PANEL A

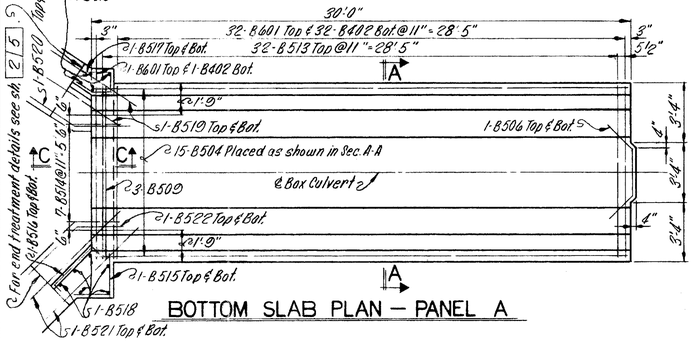


ELEVATION — PANEL B

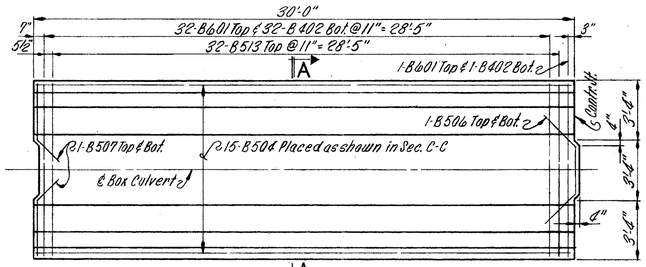


ELEVATION PANEL C

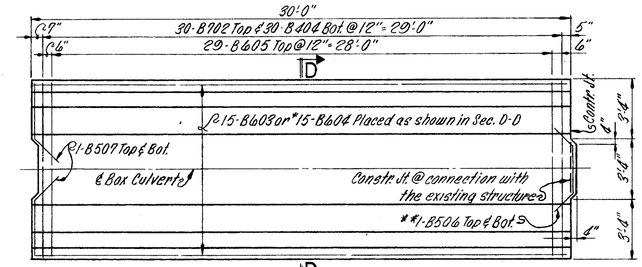
* B604 bars are in the panel next to the exist structure
** Omit the B510 bars at the connection with the existing structure.



BOTTOM SLAB PLAN — PANEL A

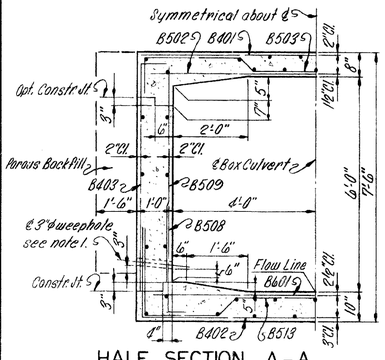


BOTTOM SLAB PLAN — PANEL B



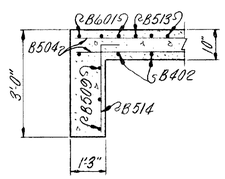
BOTTOM SLAB PLAN — PANEL C

* B604 bars are in the panel next to the exist. structure
** Omit the B506 bars at the connection with the existing structure.

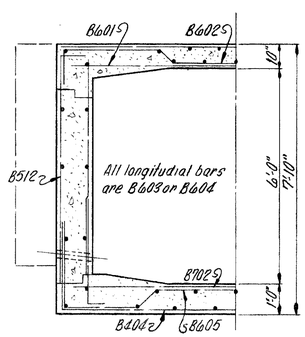


HALF SECTION A-A

All longitudial bars are B504

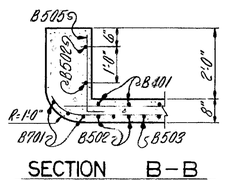


SECTION C-C



HALF SECTION D-D

Section D-D same as A-A except as shown.



SECTION B-B

NOTES

1. Provide 3" ø weepholes in walls spaced at 8'-0" ± centers so as to miss contraction joints by 1'-0" min.
2. For additional reinforcing steel at connection with the existing structure see details on sheet 2 5
3. For Reinforcing Steel List see sheet 4 5.
4. Embankment shall be placed symmetrically on both sides of the culvert after the top slab is in place. Embankment over the barrel shall be placed in horizontal layers simultaneously with that on each side of the culvert.
5. For General Notes see sheet 2 5

LEGEND

EF = each face
NF = near face
FF = far face

VOGT, IVERS, & ASSOCIATES, INC. 3 5
ENGINEERS ARCHITECTS
CINCINNATI

PANEL DETAILS BOX CULVERT EXTENSION AT STA. 108+80.19 ± BLUE ROCK ROAD RELOC.

HAMILTON COUNTY STA. 8+97.66 to STA. 10+47.66

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
B.C.S.	T.W.N.	V	A.Y.			

MARK	NO.	LENGTH	TYPE	WEIGHT
B401	158	9'-6"	Str.	1003
B402	99	14'-5"	Bt.	953
B403	390	7'-2"	Bt.	1837
B404	60	15'-1"	Bt.	295
B501	30	2'-0"	Str.	63
B502	100	9'-6"	Str.	991
B503	95	11'-5"	Bt.	1181
B504	126	29'-8"	Str.	3899
B505	10	2'-10"	Bt.	30
B506	16	5'-4"	Bt.	89
B507	32	4'-8"	Bt.	156
B508	164	3'-3"	Bt.	556
B509	167	6'-0"	Str.	1045
B510	16	4'-6"	Bt.	75
B511	32	3'-10"	Bt.	128
B512	236	7'-2"	Bt.	1764
B513	96	14'-9"	Bt.	1477
B514	7	4'-0"	Bt.	29
B515	9	4'-4"	Bt.	41
B516	7	3'-9"	Bt.	27
B517	9	5'-0"	Bt.	47
B518	10	11'-3"	Str.	117
B519	4	3'-7"	Str.	15
B520	2	5'-6"	Bt.	11
B521	4	5'-7"	Str.	23
B522	2	7'-6"	Bt.	16
B601	159	9'-6"	Str.	2269
B602	58	11'-9"	Bt.	1024
B603	42	29'-8"	Str.	1871
B604	42	29'-4"	Str.	1850
B605	58	16'-3"	Bt.	1416
B701	3	11'-4"	Bt.	69
B702	30	9'-6"	Str.	583
W501	36	5'-6"	Str.	207
W502	4	4'-6"	Str.	19
W503	15	25'-2"	Str.	394
W504	1	2'-9"	Str.	3
W505	9	9'-3" to 8'-6" by 1 1/8" (1 Each)	Str.	83
W506	9	9'-6" to 8'-9" by 1 1/8" (1 Each)	Str.	86
W507	1	8'-6"	Str.	9
W508	1	8'-9"	Str.	9
W509	1	1'-3"	Str.	1
W510	2	3'-10"	Str.	8
W511	10	4'-5"	Str.	46
W512	4	9'-6" to 8'-4 5/8" by 1'-11 5/8" (1 Ea.)	Str.	23
W513	4	2'-9" to 8'-7 5/8" by 1'-11 5/8" (1 Ea.)	Str.	24
W514	1	3'-3"	Str.	3
W515	1	1'-10"	Str.	2
W516	2	7'-2"	Str.	15
W517	5	24'-7"	Str.	128
W601	14	6'-1"	Bt.	128
W602	8	7'-6"	Bt.	90

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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HAM-275-13.91

NOTES

1. BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATE THE BAR SIZE NUMBER.
2. SPIRAL REINFORCING BARS: THE "LENGTH" SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE DISTANCE FROM TOP OF THE FOOTING TO THE BOTTOM OF CAP, OR TO WITHIN 2" (±) OF THE TOP OF COLUMN FOR PIERS WITHOUT CAPS, TO THE NEAREST INCH.
   SPIRAL REINFORCING BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM 509.
   FOUR STEEL CHANNEL, TEE OR ANGLE SPACERS, WEIGHING NOT LESS THAN 0.80 LB. PER LIN. FT. OF SPACER, SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.80 LB. PER LIN. FT., WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS.
3. SEE SHEET 5 / 5 FOR BENDING DETAILS.

Refer to CMS Sections 106.03, 700, 709.01 through 709.05 and 709.08. Sufficient additional reinforcing steel shall be provided for sampling. Random samples shall be replaced in the structures by the additional steel, spliced in accordance with 509.08.

VOGT, IVERS & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

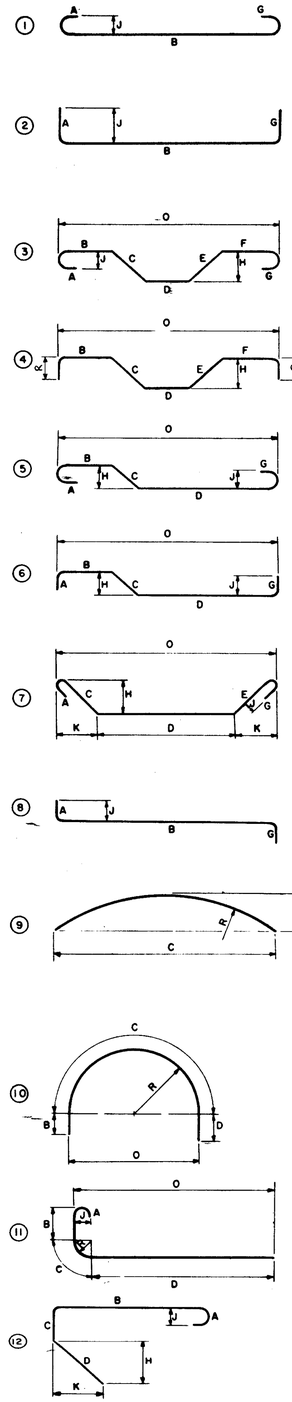
4 / 5

REINFORCING STEEL LIST

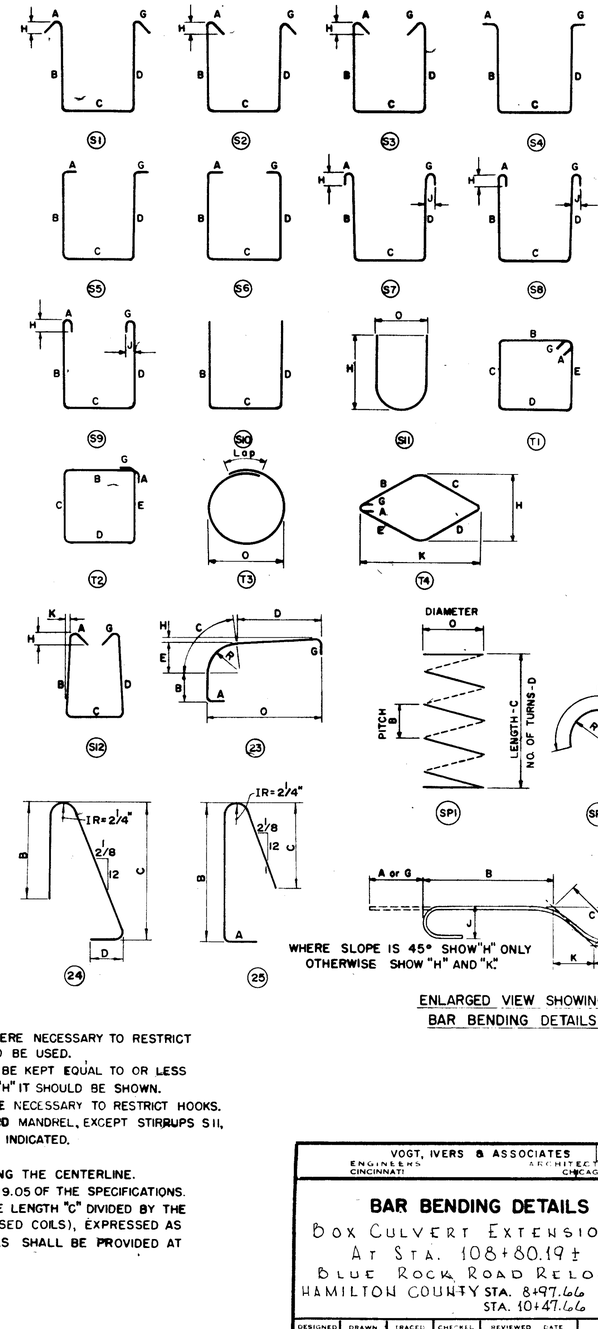
BOX CULVERT EXTENSION
AT STA. 108+80.19 ±
BLUE ROCK ROAD RELOC.
HAMILTON COUNTY STA. 8+97.66 to STA. 10+47.66

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
–	CWM	–	AY			

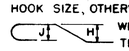
MARK	TYPE	DIMENSIONS FOR BENDING											
		A	B	C	D	E	F	G	H	J	K	R	O
B402	17		÷	2'-6"	9'-8"	9'-6"	-						
B403	20		9"	6'-6"	-								
B404	17	-	-	2'-10"	9'-8"	2'-10"	-						
B503	4		2'-0 1/2"	5 1/2"	4'-11 1/4"	5 1/2"	2'-0 1/2"		3 7/8"			10 3/4"	9'-8"
B505	2	6"	2'-4"					-					
B506	14		-	1'-6"	2'-4"	1'-6"	-		1'-0 3/4"		1'-0 3/4"		
B507	19		1'-6"	3'-9"	-				1'-0 3/4"		1'-0 3/4"		
B508	2	6"	2'-9"					-					
B510	14		-	1'-6"	1'-6"	1'-6"	-		1'-0 3/4"		1'-0 3/4"		1
B511	19		1'-6"	2'-4"	-				1'-0 3/4"		1'-0 3/4"		
B512	20		9"	6'-6"	-								
B513	4		2'-0 1/2"	6 7/8"	4'-9 1/4"	6 7/8"	2'-0 1/2"		4 7/8"			2'-6"	9'-8"
B514	20		1'-6"	2'-7"	-								
B515	20		2'-3"	2'-3"	-								
B516	2	6"	2'-9"					6"					
B517	16	-	1'-5"	1'-1"	1'-4"	-			1'-1 1/2"		8 1/2"		
B520	19		3'-0"	2'-6"	-				1'-7 1/4"		2'-6 1/2"		
B522	19		5'-0"	2'-6"	-				3'-6 1/2"		3'-6 1/2"		
B602	4		1'-11 1/2"	8 1/8"	4'-9 1/2"	8 1/8"	1'-11 1/2"		5 3/4"			1'-0"	9'-8"
B605	4		1'-11 1/2"	9 1/2"	4'-7 1/2"	9 1/2"	1'-11 1/2"		6 3/4"			3'-3"	9'-8"
B701	1	10"	9'-8"					10"					
W601	22		1'-11"	4'-4"	-				4'-3"		3 1/4"		
W602	22		1'-11"	5'-9"	-				5'-8"		4 3/8"		



15 NOT USED



NOTES

1. FIGURES IN CIRCLES SHOW BAR TYPES.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. "J" DIMENSION ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4.  WHERE "J" IS NOT SHOWN "J" WILL BE KEPT EQUAL TO OR LESS THAN "H". WHERE "J" CAN EXCEED "H" IT SHOULD BE SHOWN.
5. "H" DIMENSION ON STIRRUPS TO BE SHOWN WHERE NECESSARY TO RESTRICT HOOKS.
6. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT STIRRUPS S11, TIES T3, SPIRALS SP1 AND WHERE RADIUS "R" IS INDICATED.
7. RADIUS DIMENSION "R" IS TO OUTSIDE OF BAR.
8. THE LENGTH OF BENT BARS IS MEASURED ALONG THE CENTERLINE.
9. FOR STANDARD HOOK DIMENSIONS, SEE SECT. 509.05 OF THE SPECIFICATIONS.
10. FOR BAR TYPE SP1, THE NO. OF TURNS "D" IS THE LENGTH "C" DIVIDED BY THE PITCH "B", PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER. 1 1/2 CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.

ENLARGED VIEW SHOWING BAR BENDING DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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BAR BENDING DETAILS

BOX CULVERT EXTENSION
AT STA. 108+80.19±
BLUE ROCK ROAD RELOC.
HAMILTON COUNTY STA. 8+97.66 to STA. 10+47.66

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
-	GWM	-	A.Y.		

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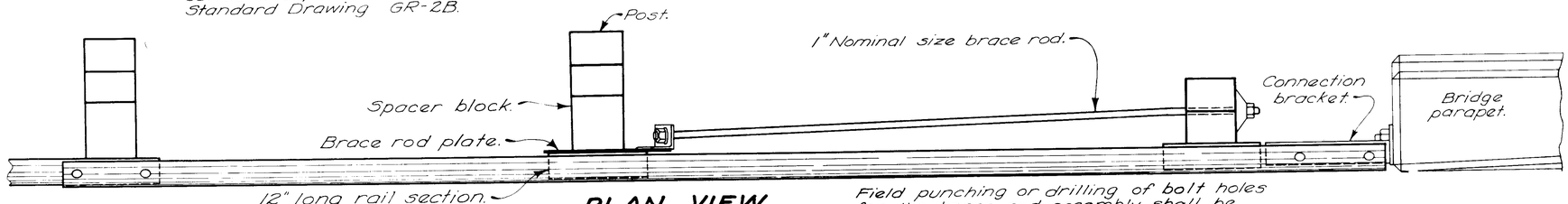
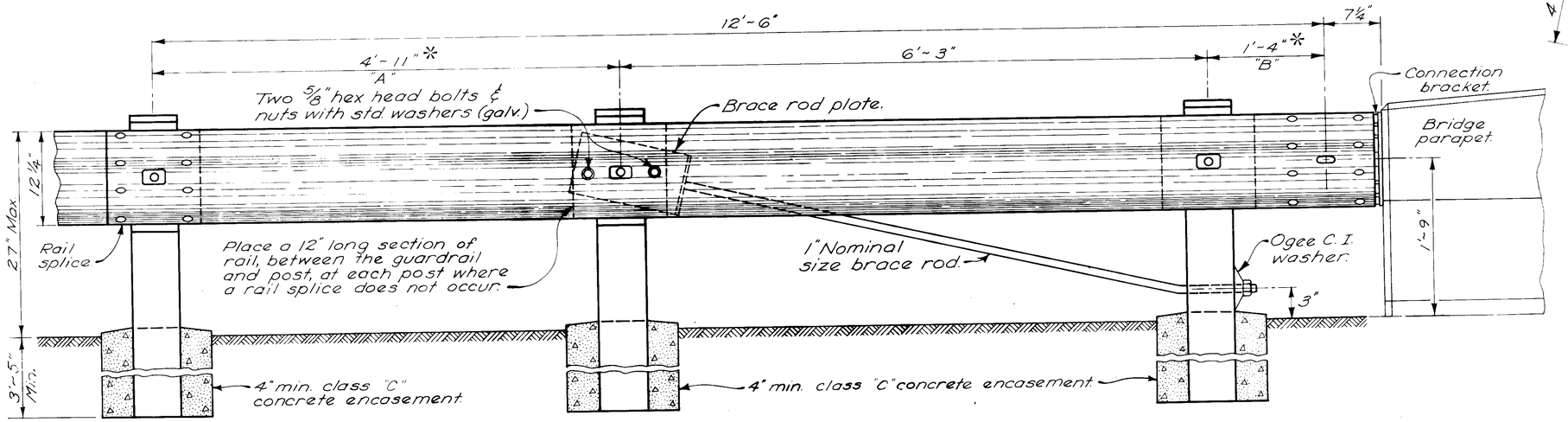
Posts may be round or square-sawed wood, or W6x8.5 steel. See Standard Drawing GR-2B.



PLAN VIEW

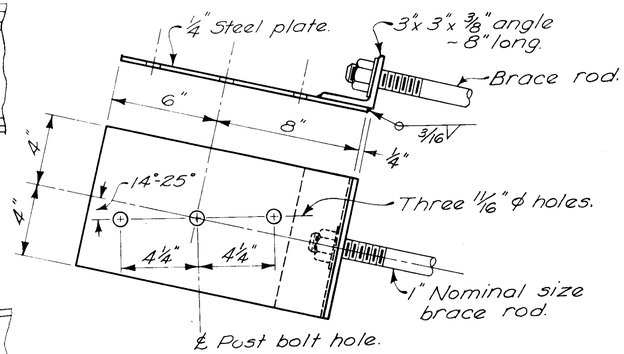
Field punching or drilling of bolt holes for the brace rod assembly shall be accomplished as provided for in 606.05.



ELEVATION

GUARDRAIL TERMINAL AT BRIDGE

* Dimension "A" shall decrease as dimension "B" increases to accommodate interference by the bridge substructure.



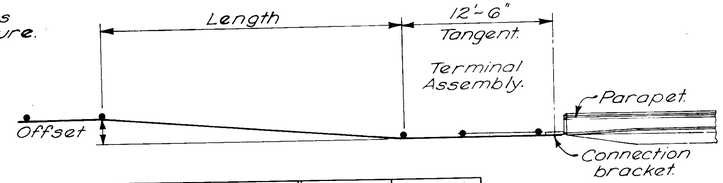
BRACE ROD PLATE

NOTES

BRIDGE TERMINAL ASSEMBLY, AS PER PLAN

The price bid for bridge terminal assembly, as per plan shall include the additional cost, in excess of normal guardrail cost, for concrete encasement, brace rod, brace rod plate and all component parts as detailed.

The connection bracket and anchor bolts are included with the bridge railing for payment. See Std. Dwg. BR-2-67 for connection bracket details.



Offset	Length	Offset	Length
1'-0"	25.00'	5'-0"	100.00'
2'-0"	50.00'	6'-0"	100.00'
4'-0"	100.00'	7'-0"	100.00'

GUARDRAIL OFFSET DETAIL

1604

Rev. 1-1-71

BRIDGE TERMINAL ASSEMBLY, AS PER PLAN

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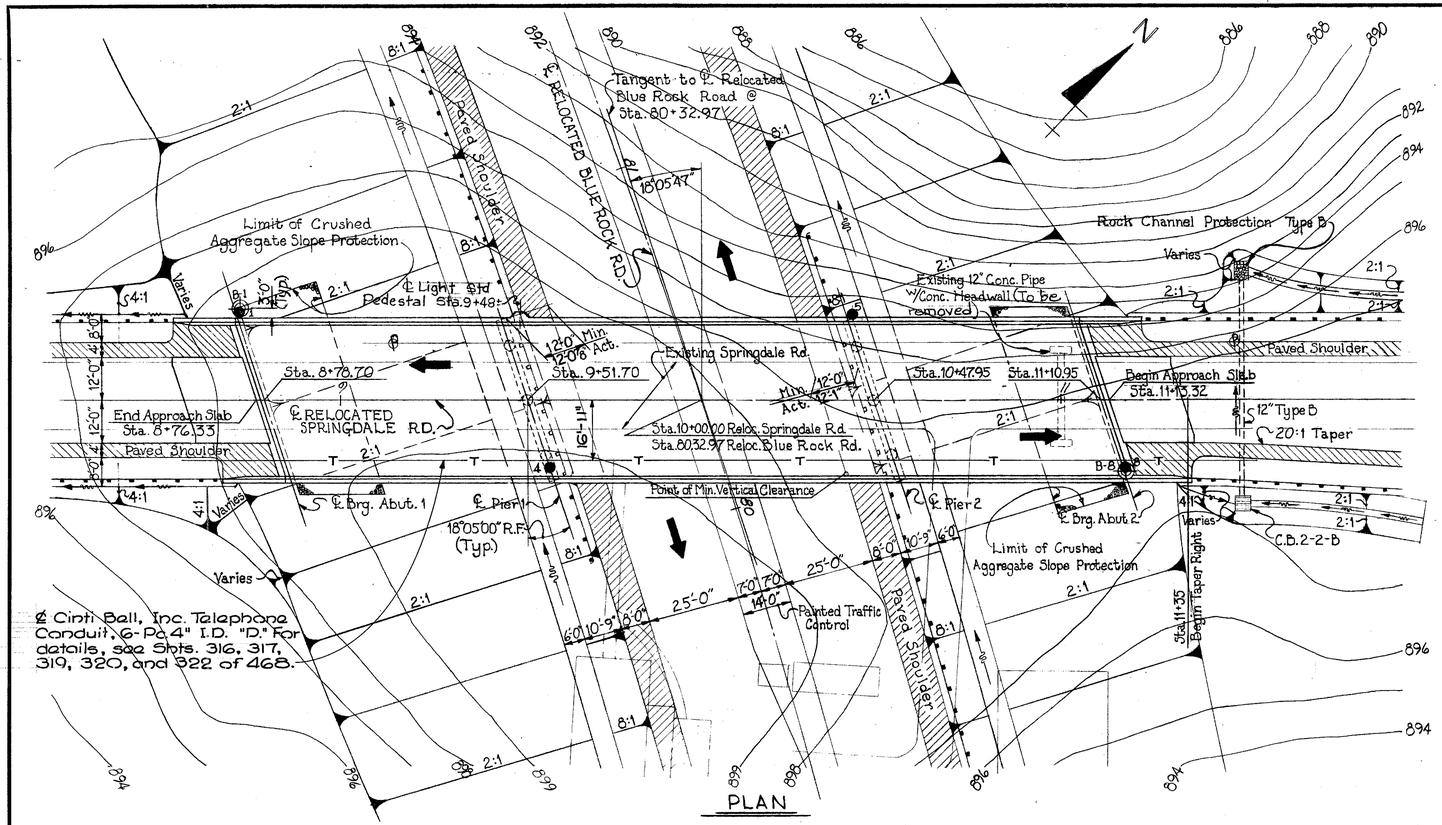
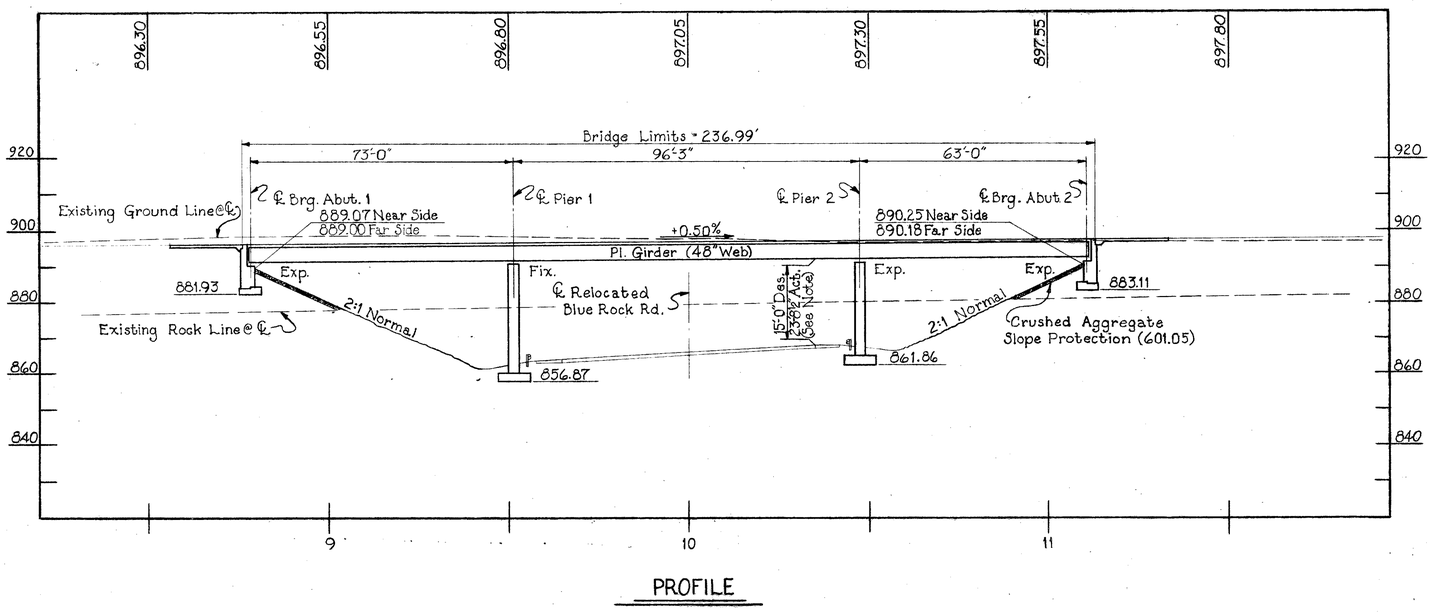
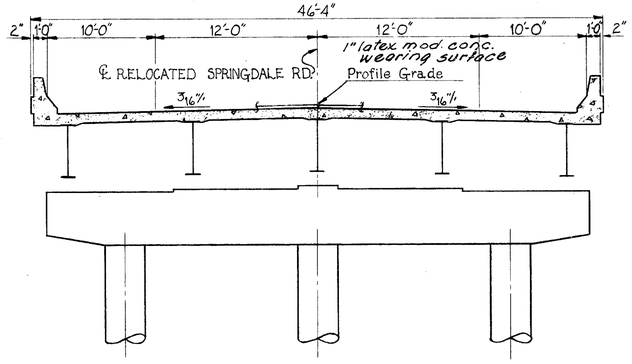


PLAN



PROFILE



TYPICAL SECTION

LEGEND

- ● Drive rod penetration resistance sounding.
- ⊕ Drive Sample - Core Boring

NOTES:

1. Earthwork limits shown are schematic. Actual slopes shall conform to plan cross-sections.

PROPOSED STRUCTURE

TYPE: Continuous welded plate girder with reinforced concrete deck and substructure.
SPANS: 73'-0", 96'-3", 63'-0"
ROADWAY: 44'-0" face to face of parapets
DESIGN LOAD: H S 20-44
SKEW: 18°05'00" R.F.
WEARING SURFACE: 1" latex mod. conc.
ALIGNMENT: Tangent
APPROACH SLABS: AS-1-72 (20' long) Modified

1988 ADT = 13,740 V.P.D.
1988 DDHV = 1,480 V.P.H.

Modify AS-1-72 by providing 3" cover over the top rebars instead of the 2" shown, changing from full width to the width of the approach pavement and eliminating the jacking holes.

NOTE:
Profile of Relocated Springdale Road controlled by existing development along roadway. Profile of Relocated Blue Rock Road controlled by I-275 interchange, Springdale Connector and approach grades.

VOGT, IVERS, & ASSOCIATES 1/9
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SITE PLAN

RELOCATED SPRINGDALE ROAD OVER RELOCATED BLUE ROCK ROAD

HAMILTON COUNTY STA. 8+76.33 To STA. 11+13.32

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS
Aerial	VIA	CJF	RES	RLS	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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ESTIMATED QUANTITIES

	ITEM	TOTAL	UNIT	DESCRIPTION	ABUIMENTS	PIERS	SUPER-STRUCTURE	GENERAL	CHECKED BY	DATE		
	503	329	C.Y.	Unclassified excavation	329				E.F.F.	1-19-71		
	503	122	C.Y.	Rock excavation		122			E.F.F.	1-19-71		
	509	146325	Lbs.	Reinforcing steel	12259	35899	98167		R.L.S.	3-20-74		
	511	334-~~365~~	C.Y.	Class "C" concrete - Superstructure			~~365~~ 334		E.F.F.	1-19-71		
	511	84	C.Y.	Class "C" concrete - Pier caps and columns		84			E.F.F.	1-19-71		
	511	157	C.Y.	Class "C" concrete - Abutments above footings	157				E.F.F.	1-19-71		
	511	115	C.Y.	Class "C" concrete - Footings	59	56			E.F.F.	1-19-71		
*	513	283274	Lbs.	Structural steel			283274		R.L.S.	3-20-74		
*	514	283274	Lbs.	Field painting of structural steel			283274		R.L.S.	3-20-74		
	518	85	C.Y.	Porous backfill	85				E.F.F.	1-19-71		
	518	81	Lin.Ft.	6" perforated, helical corrugated metal pipe, 707.01	81				E.F.F.	1-19-71		
	518	95	Lin.Ft.	6" non-perforated, helical corrugated metal pipe, including specials, 707.01	95				E.F.F.	1-19-71		
	518	6	Each	Scuppers, including supports			6		E.F.F.	1-19-71		
	601	330	Sq.Yd.	Crushed aggregate slope protection				330	E.F.F.	1-19-71		
	808	334-~~365~~	Units	Chemical admixture for concrete, Type A, B or D.			~~365~~ 334		E.F.F.	1-19-71		
S	625		——	See sheet ~~354~~ 348 for Lighting Summary								
	Special	1102	Sq.Yd.	Surface preparation			1102					
	Special	31	C.Y.	Latex modified portland cement concrete			31					
	Special	1102	Sq.Yd.	Finishing and curing			1102					

* 3,010 lbs. of structural steel shall be paid for by the Cincinnati Bell, Inc.

Materials in the approach slabs are not included in the above estimated quantities.

GENERAL NOTES

REFERENCE shall be made to the following:

Standard Drawings: SD-1-69, dated 6-12-69
RB-1-55, revised 2-2-59
BR-1-67, revised 10-15-71
AS-1-72 dated 6-30-72
HL-4, dated 9-6-73 HL-5, dated 9-6-73.

Supplemental Specifications: 808, dated 1-1-71
836, dated 3-12-75
S625 dated 1-11-74

DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1969, including the Ohio "Supplement" to these specifications.

DESIGN DATA:

Design Loading - HS 20-44

Concrete Class "C" - unit stress 1,200 p. s. i. for superstructure
- unit stress 1,333 p. s. i. for substructure

Structural Steel - ASTM A36 - unit stress 20,000 p. s. i.
Reinforcing Steel - ASTM A615, A616 or A617 - unit stress 20,000 p. s. i.
Spiral reinforcement may be plain bars ASTM A82 or A615.

FOUNDATION BEARING PRESSURE: Abutment footings are designed for a maximum bearing pressure of 2 tons per sq. ft. Pier footings are designed for a maximum bearing pressure of 4 tons per sq. ft.

FOOTINGS: Pier footings shall extend a minimum of 3 inches into bedrock or to the elevation shown, whichever is lower.

UTILITY LINES: All expense involved in relocating (installing) the affected utility lines shall be borne by the Owner(s). The Contractor and Owner(s) are requested to cooperate by arranging their work in such a manner that inconvenience to either would be held to a minimum.

VOGT, IVERS, & ASSOCIATES 2/9
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

ESTIMATED QUANTITIES & GENERAL NOTES
RELOCATED SPRINGDALE ROAD OVER RELOCATED BLUE ROCK ROAD
HAMILTON COUNTY STA. 8+76.33 to STA. 11+13.32

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
—	EFF	—	RLS		

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-275-13.91

WINGWALL 2 Ⓐ
WINGWALL 3 Ⓑ
WINGWALL 1 Ⓐ
WINGWALL 4 Ⓑ
4" I.D. Plastic Conduit
5" I.D. Steel Sleeve (Grouted firmly in place) see note 8.
4" I.D. Iron Pipe, see Note 8.
Front face of Backwall
SECTION E-E
℄ 6-5" I.D. Steel Sleeves and ℄ of Telephone Conduit Hole 20"x14" (see note 8) (Abutment 'A' only)
℄ 6-5" I.D. Steel Sleeves and ℄ of Telephone Conduit Hole 20"x14" (see note 8) (Abutment 'B' only)
Conduit (Abut. 2)
Conduit (Abut. 1)
Porous Backfill
Sta. 8+78.71 Ⓐ
Sta. 11+11.95 Ⓑ
℄ Reloc. Springdale Road
Approach Slab Seat
4" I.D. Plastic Conduit
4" I.D. Iron Pipe
PLAN
2" ϕ conduit
Top of Fillet
Approach Slab Seat
Typ. between Girder Seat
6" Helical Non-Perf. C.M.P. (Typ.)
6" Helical Perf. C.M.P.
ELEVATION
FOOTING PLAN
407 Tack coat @ 0.1 gal per sq. yd and cover aggregate
ELEVATION WINGWALLS 1,2,3&4
(Wingwalls 1&4 as shown, wingwalls 2&3 Opposite Hand)
Crushed aggregate slope protection
6' Helical Non-Perf. C.M.P.
SECTION B-B
SECTION D-D
Backwall elevations shown are to this point
Porous Backfill
Slope 3" to face of abutment between Girder Seat
Crushed aggregate slope protection
Paved Shoulders
Constr. ut.

LEGEND

NF = Near Face
FF = Far Face
EF = Each Face
Ⓐ Abutment 1
Ⓑ Abutment 2
① Wingwall 1
② Wingwall 2
③ Wingwall 3
④ Wingwall 4

NOTES

1. BACKWALL CONCRETE: In addition to the provisions of 511.08, backwall concrete shall not be placed until after the deck concrete in the span adjacent to the backwall has been placed.
2. Porous backfill, 1'-6" thick shall extend up to the plane of the subgrade and laterally to the ends of the wing-walls. Porous backfill, 2'-0" thick and limits as shown in wingwall plan, shall extend up to bottom of paved shoulder.
3. For End Dam Details see Std. Dwg. SD-1-69 sh. 1 and 2 of 4.
4. For Curb Plate Weld see Std. Dwg. SD-1-69 sh. 2 of 4.
5. The clearance between reinforcing steel and surface of footing conc. shall be 3".
6. For Reinforcing Steel List, see sh. 8 / 9
7. This note has been deleted.
8. The 5" Dsteel sleeve, grouting, 4" I.D. plastic conduit and iron pipe shall be furnished and placed by Cincinnati Bell, Inc.
9. Parapet transitions and wingwall ends shall be as shown on Std. Dwg. BR-1-67 revised 10-15-71. Reinforcing steel shall be field bent or cut to fit the revised shape.

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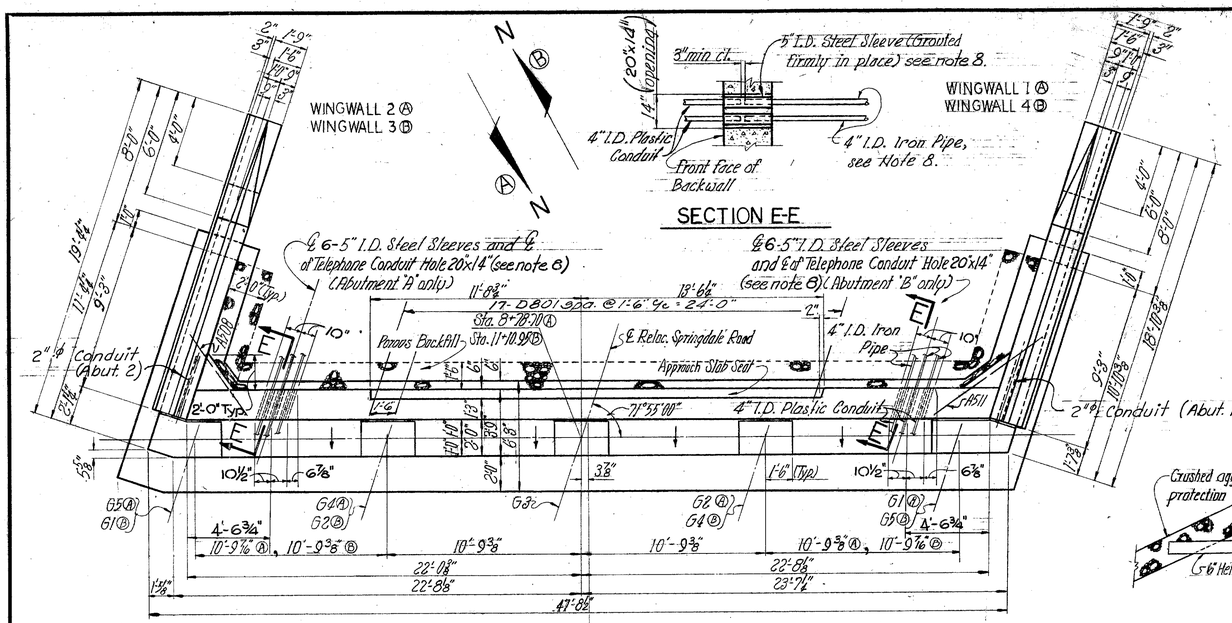

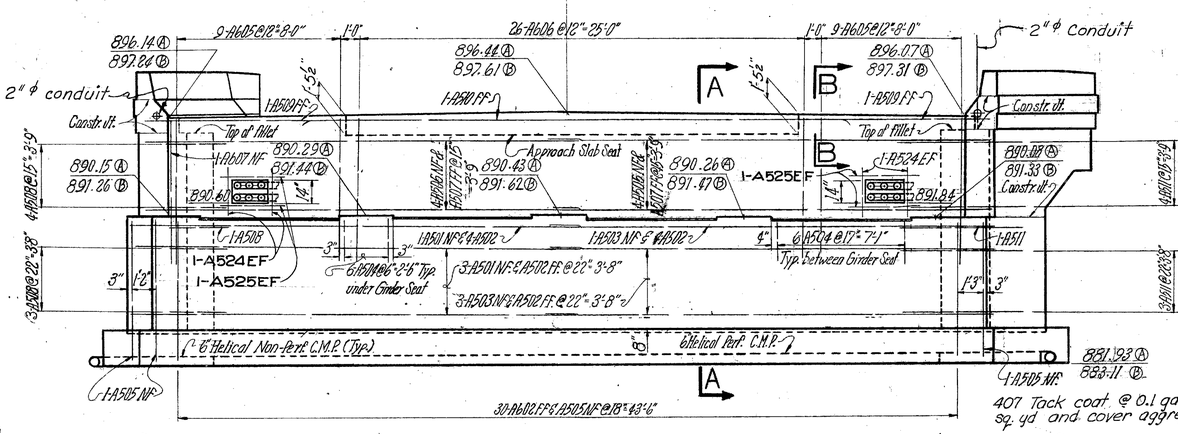

LEGEND

NF = Near face
FF = Far face
EF = Each face
Ⓐ Abutment 1
Ⓑ Abutment 2
① Wingwall 1
② Wingwall 2
③ Wingwall 3
④ Wingwall 4

NOTES

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2. Porous backfill, 1'-6" thick shall extend up to the plane of the subgrade and laterally to the ends of the wingwalls. Porous backfill, 2'-0" thick and limits as shown in wingwall plan, shall extend up to bottom of paved shoulder.
3. For End Dam Details see Std. Dwg. SD-1-69 sh. 1 and 2 of 4.
4. For Curb Plate detail see Std. Dwg. SD-1-69 sh. 2 of 4.
5. The clearance between reinforcing steel and surface of footing conc. shall be 3".
6. For Reinforcing Steel List, see sh. 8 / 9
7. This note has been deleted.
8. The 5" I.D. steel sleeve, grouting, 4" I.D. plastic conduit and iron pipe shall be furnished and placed by Cincinnati Bell, Inc.
9. Parapet transitions and wingwall ends shall be as shown on Std. Dwg. BR-1-67 revised 10-15-71. Reinforcing steel shall be field bent or cut to fit the revised shape.

VOGT, IVERS, & ASSOCIATES 3 / 9
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

ABUTMENTS
RELOCATED SPRINGDALE RD. OVER RELOCATED BLUE ROCK ROAD

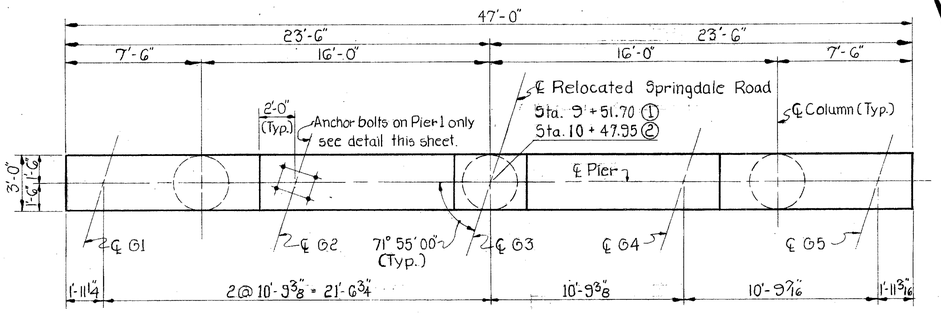
HAMILTON COUNTY STA. 8+76.33 to STA. 11+13.32

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
GKS	GKS		J.J.J.		

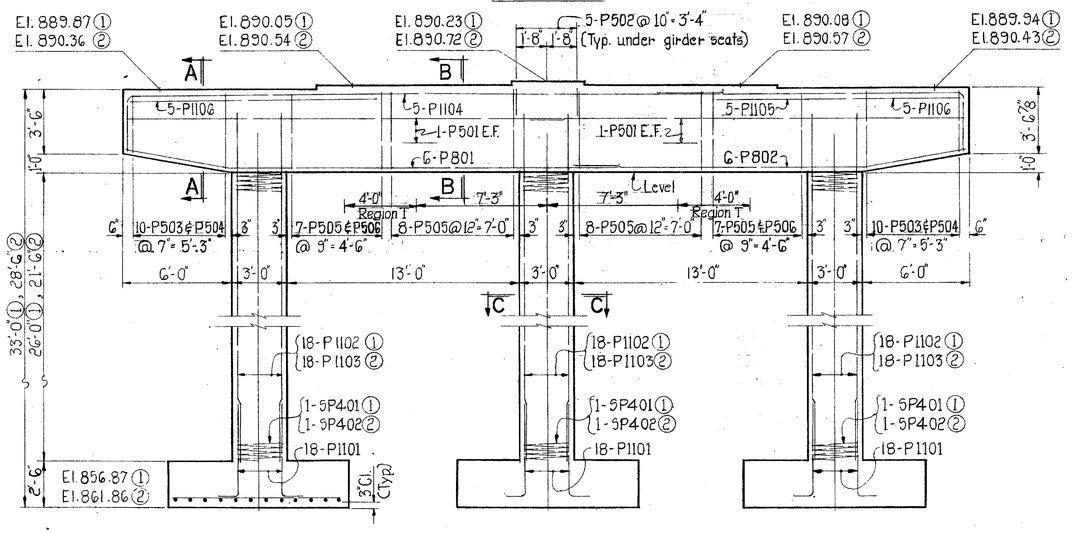
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

318
468

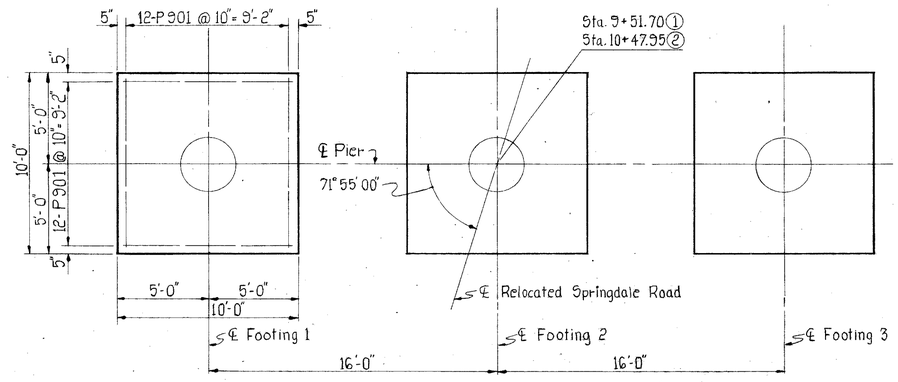
HAM-275-13.91



CAP PLAN

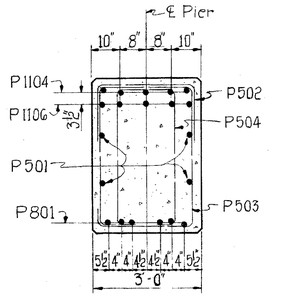


ELEVATION

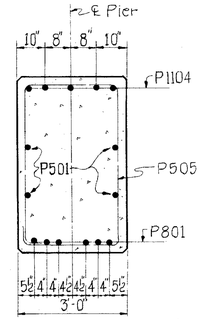


Note - All footings are identical.

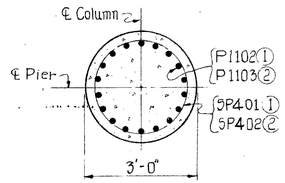
FOOTING PLAN



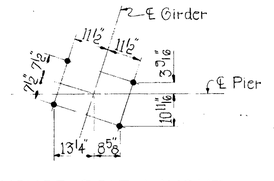
SECTION A-A



SECTION B-B



SECTION C-C



ANCHOR BOLT LAYOUT

(Applies to Pier 1 Only)

BEARING ANCHORS: At the option of the Contractor, bearing anchors (or formed holes), located and supported by templates, may be cast in place

NOTES

1. Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor bolt holes, or the presetting of brg. anchors.
2. For Reinforcing Steel List see Sheet 8/9
3. Place dowels in footing to insure correct spacing of main column steel.
4. Except as otherwise shown, place hooks in the stirrups in the bottom of the cap.

LEGEND

① = Pier 1
② = Pier 2
E.F. = Each Face
Region T = Hooks in stirrups are located in top of the cap.

VOGT, IVERS, & ASSOCIATES 4/9
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PIERS 1 & 2

RELOCATED SPRINGDALE RD. OVER RELOCATED BLUE ROCK RD.

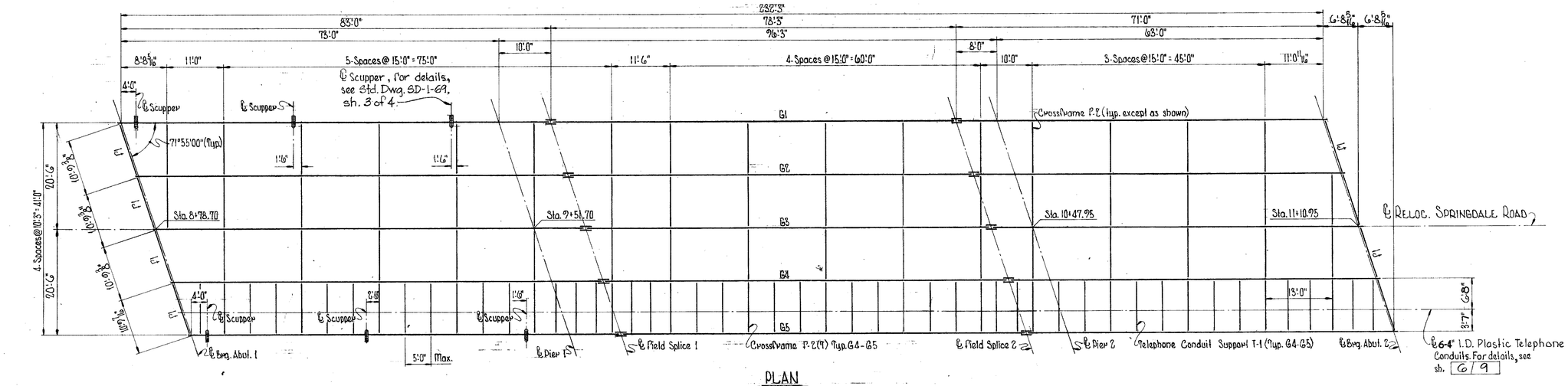
HAMILTON COUNTY STA. 8+76.33 to STA. 11+13.32

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	RE
DSM	JRG	~	J.J.J.			

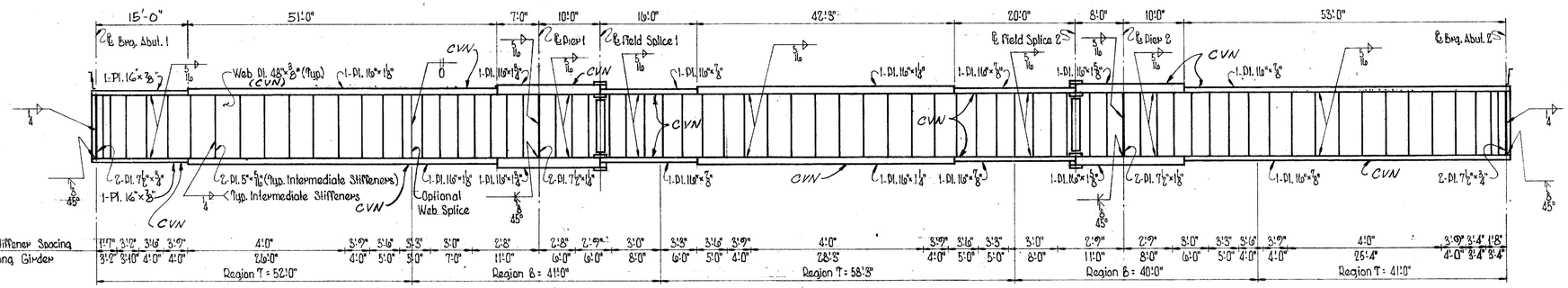
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

319
468

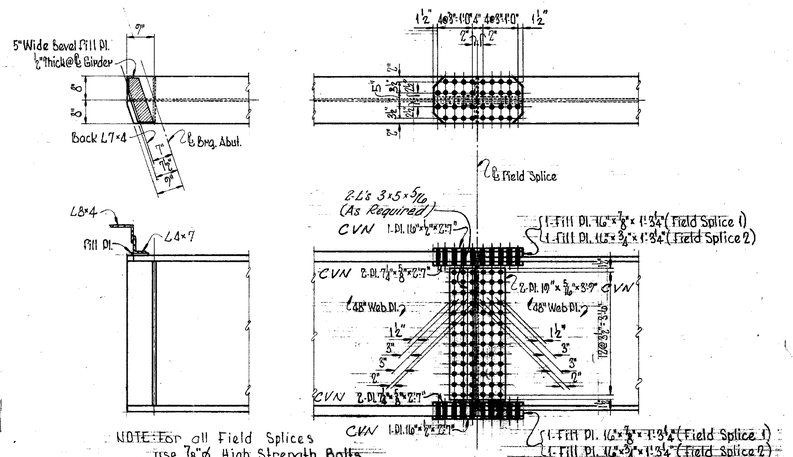
HAM-275-13.91



PLAN



ELEVATION



NOTE: For all Field Splices use ⅞ø High Strength Bolts

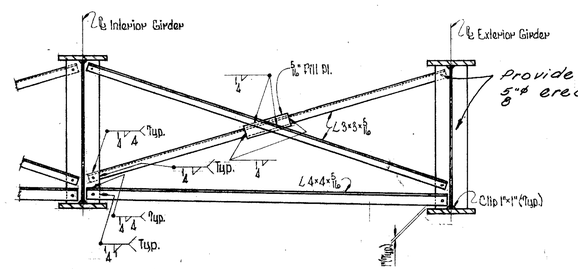
NOTES

1. For details of end crossframe F1, end dam, and curb plate, see Std. Dwg. SD-1-69, sheets 1 and 2 of 4.
2. For Scupper details, see Std. Dwg. SD-1-69, Sh. 3 of 4 except that scupper pipes shall extend 8" below the bottom of girders instead of 2".
3. For Elevation Layout and for details of crossframe F-2(T) and support T-1, see sheet 6/9
4. Anchor bars for the end dam shall be 3⅜" clear from the top of slab.
5. Shapes or plates designated "CVN" shall meet specified minimum notch toughness requirements. The Fabricator shall submit to the Director a procedure designed for positive identification of material through all phases of fabrication. No material shall be fabricated until the Director has approved the procedure.
6. STEEL ERECTION: During the erection of end dams and crossframes care shall be taken to insure that girders, bearing parts and bridge seats remain in bearing contact.

LEGEND

Region T: Interm. Stiff. shall have contact bearing with or be welded to top flange and shall have contact bearing with the bottom flange.

Region B: Interm. Stiff. shall have contact bearing with or be welded to the bottom flange, and shall have contact bearing with the top flange.



TYPICAL INTERMEDIATE CROSSFRAME-F2

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

5/9

FRAMING PLAN
RELOCATED SPRINGDALE ROAD-OVER
RELOCATED BLUE ROCK ROAD

HAMILTON COUNTY — STA. 8+76.38 to STA. 11+13.38

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED
JRG	GWM	D	JJJ	

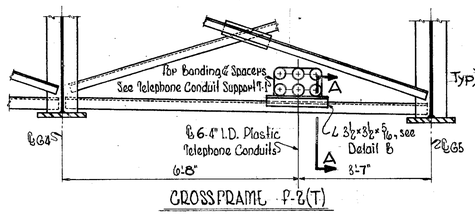
REVISED

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

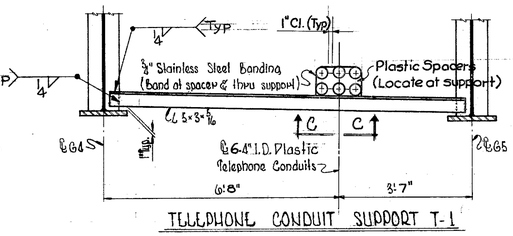
320
468

HAM-275-13.91

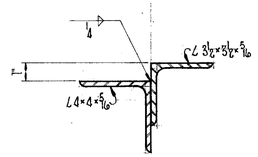
NOTE: For details not shown, see Typical Intermediate Crossframe P.C., sh. 5 / 9



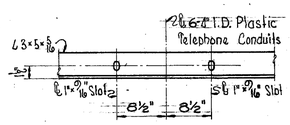
CROSSFRAME P-2(T)



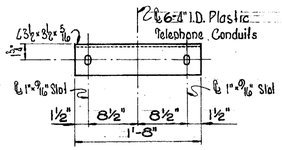
TELEPHONE CONDUIT SUPPORT T-1



SECTION A-A



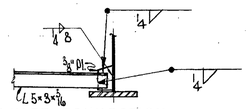
VIEW C-C



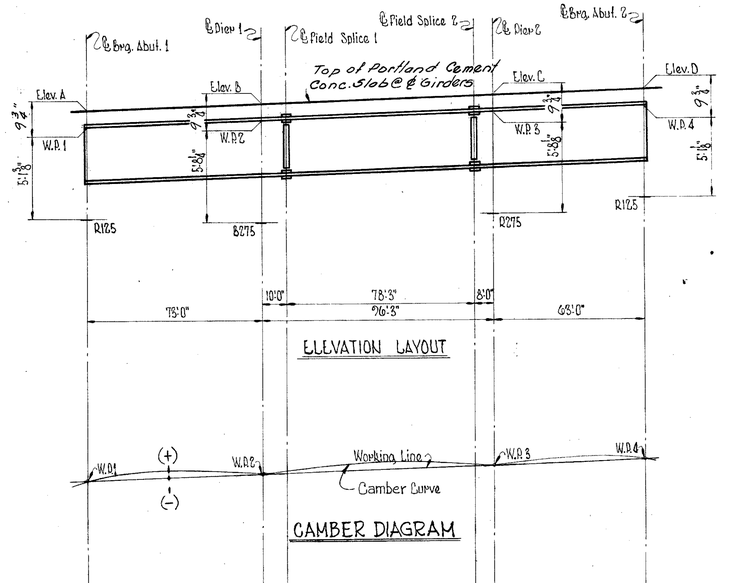
DETAIL B

NOTES FOR TELEPHONE CONDUIT

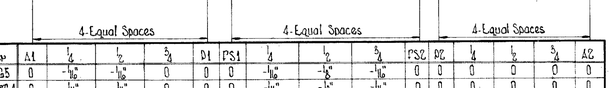
1. The Contractor shall furnish and install the support angles, bolts and gusset plates for support of Cincinnati Bell Inc. conduit system. The cost of labor and materials therefore shall be included in the unit price bid for Item 513 and Item 514 and is chargeable to Cincinnati Bell Inc.
2. The 6-4" I.D. Plastic Conduits, together with couplings, spacers and bonding will be furnished and installed by Cincinnati Bell Inc.



ALTERNATE CONNECTION FOR T-1 AT GIRDER



ELEVATION LAYOUT



CAMBER DIAGRAM

4-Equal Spaces | 4-Equal Spaces | 4-Equal Spaces

	Girder	A1	¼	½	¾	D1	PS1	¼	½	¾	PS2	P2	¼	½	¾	A2
Deflections due to Steel DL	G1 & G5	0	-1/16"	-1/16"	0	0	0	-1/16"	-1/8"	-1/16"	0	0	0	0	0	0
	G2, G3 & G4	0	-1/16"	-1/16"	0	0	0	-1/16"	-1/8"	-1/16"	0	0	0	0	0	0
Deflections due to Remaining DL	G1 & G5	0	-1/4"	-1/4"	-1/4"	0	-1/2"	-5/8"	-1/2"	-5/8"	-1/8"	0	-1/8"	-1/8"	-1/8"	0
	G2, G3 & G4	0	-3/16"	-5/16"	-3/16"	0	-3/8"	-1/2"	-5/16"	-1/2"	-1/8"	0	-1/8"	-5/16"	-1/8"	0
Total Camber Required	G1 & G5	0	+5/16"	+5/16"	+1/8"	0	+1/8"	+1/16"	+5/16"	+1/16"	+1/8"	0	+1/8"	+1/16"	+1/8"	0
	G2, G3 & G4	0	+1/8"	+1/8"	+1/8"	0	+1/8"	+1/16"	+1/8"	+1/16"	+1/8"	0	+1/8"	+1/16"	+1/8"	0

Girder	Elev. A	Elev. B	Elev. C	Elev. D
G1	876.007	876.372	876.853	877.168
G2	876.184	876.549	877.030	877.345
G3	876.361	876.726	877.207	877.522
G4	876.217	876.582	877.063	877.378
G5	876.074	876.439	876.920	877.235

NOTES FOR ELEVATION LAYOUT

1. The Working Line is a straight line passing through the Work Points.
2. Tabulated values in the Deflection And Camber Table are measured from the Working Line.
3. Working Point (W.P.) is the top of web.

NOTES

1. For Rockers and Bolster details, see Std. Dwg. RB-1-55.
2. For additional Notes, see sh. 5 / 9 .

VOGT, IVERS, & ASSOCIATES 6 / 9
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

FRAMING DETAILS
RELOCATED SPRINGDALE ROAD OVER RELOCATED BLUE ROCK ROAD

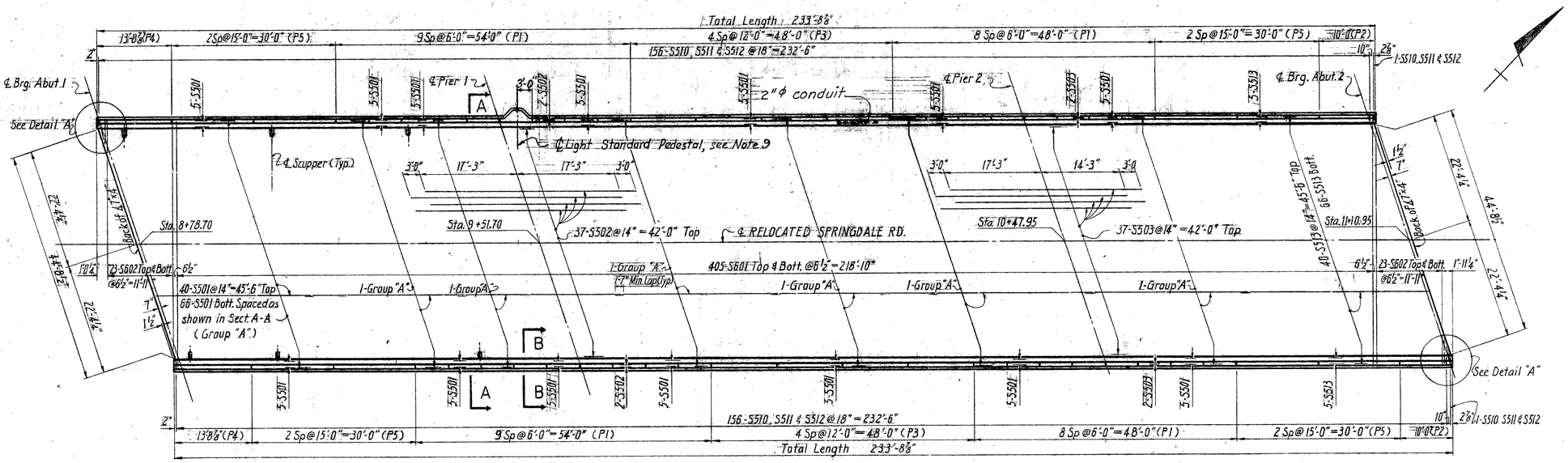
HAMILTON COUNTY STA. 8+76.33 to STA. 11+13.32

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JRG	GWM	S	JJJ			

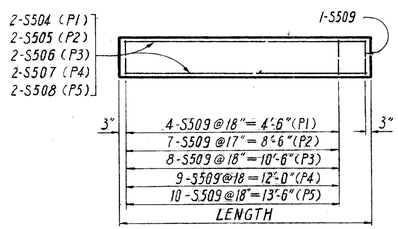
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

321
468

HAM-275-13.91

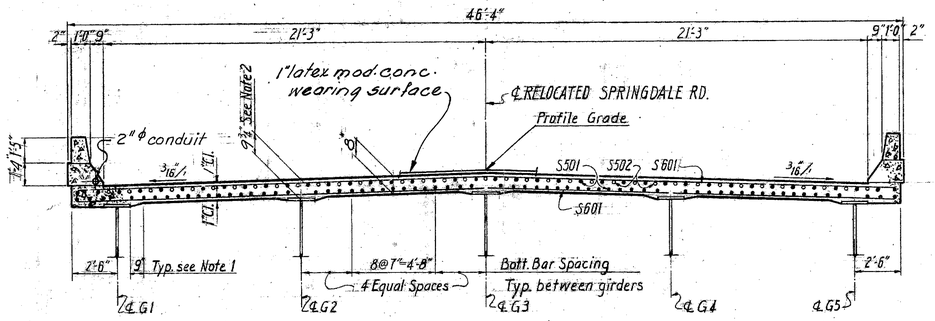


PANELS		
MARK	LENGTH	NO.
P1	6'-0"	34
P2	10'-0"	2
P3	12'-0"	8
P4	13'-8⅞"	2
P5	15'-0"	8

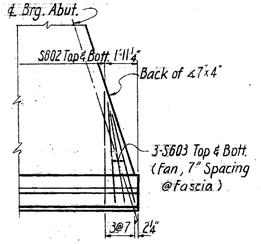


PARAPET PANELS

PAVEMENT ELEVATIONS Top of Latex Modified Concrete			
STATION	LEFT CURB	PROFILE GRADE	RIGHT CURB
8+50	895.97	896.30	895.97
+75	896.09	896.43	898.09
9+00	896.22	896.55	896.22
+25	896.34	896.68	896.34
+50	896.47	896.80	896.47
+75	896.59	896.93	896.59
10+00	896.72	897.05	896.72
+25	896.84	897.18	896.84
+50	896.97	897.30	896.97
+75	897.09	897.43	897.09
11+00	897.22	897.55	897.22
+25	897.34	897.68	897.34



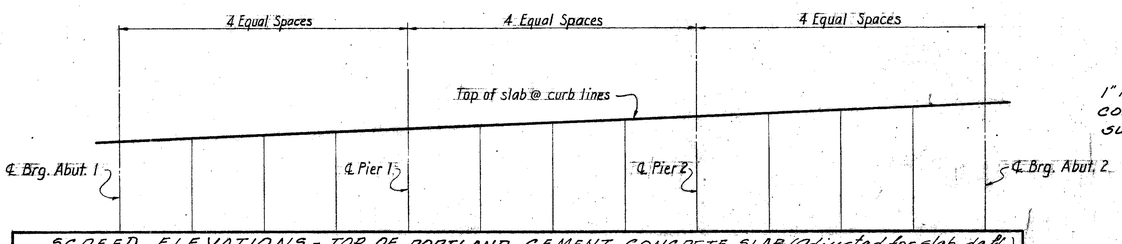
SECTION A-A



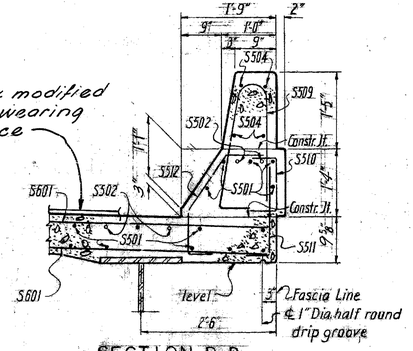
DETAIL "A"

NOTES

1. A typical haunch width of 9" shall be used for computing the quantity of concrete; however, the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.
2. This is the design dimension. The quantity of deck concrete to be paid for shall be based on the design slab thickness shown between the girders and this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per 511.18.
3. This note has been deleted.
4. For End Dam and Curb Plate Details see Std. Dwg. SD-1-69 sheet 1 of 2 of 4.
5. For Reinforcing Steel List see sheet 8/9
6. For Bridge Roadway Railing details see Std. Dwg. Br-1-67, sheet 1 of 3.
7. For Scupper Details, see Std. Dwg. SD-1-69, Sh. 3 of 4 except that scupper pipes shall extend 8" below the bottom of the girders instead of 2".
8. For Scupper Location see sheet 5/9
9. For Light Standard Pedestal details, see sheet 2/9 Br. No. HAM-275-1429



SCREED ELEVATIONS - TOP OF PORTLAND CEMENT CONCRETE SLAB (Adjusted for slab deft.)													
POINT	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬
Left Curb	896.00	896.11	896.20	896.28	896.36	896.51	896.65	896.75	896.84	896.92	897.01	897.09	897.16
Right Curb	896.07	896.18	896.27	896.35	896.43	896.58	896.72	896.82	896.91	896.99	897.08	897.16	897.23



SECTION B-B

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

7/9

ROADWAY SLAB

RELOCATED SPRINGDALE ROAD
OVER
RELOCATED BLUE ROCK ROAD
HAMILTON COUNTY STA. 8+76.33
STA. 11+13.32

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.R.G.	C.T.S.	C.T.S.	J.J.J.			

10

ABUTMENTS					PIERS					SUPERSTRUCTURE				
MARK	NO.	LENGTH	TYPE	WEIGHT	MARK	NO.	LENGTH	TYPE	WEIGHT	MARK	NO.	LENGTH	TYPE	WEIGHT
A501	8	26'-6"	Bt.	221	P501	16	24'-2"	Str.	403	S501	812	30'-0"	Str.	25407
A502	28	24'-7"	Str.	718	P502	50	5'-5"	Bt.	282	S502	41	37'-6"	Str.	1604
A503	8	26'-2"	Bt.	213	P503	40	14'-3" to 12'-4½" by 2½", 4 ea.	Bt.	555	S503	41	34'-6"	Str.	1475
A504	108	7'-0"	Bt.	789	P504	40	10'-9" to 8'-10½" by 2½", 4 ea.	Bt.	409	S504	136	5'-8"	Str.	804
A505	70	8'-2"	Bt.	596	P505	60	14'-3"	Bt.	892	S505	8	9'-8"	Str.	81
A506	16	24'-6"	Bt.	409	P506	28	10'-9"	Bt.	314	S506	32	11'-8"	Str.	389
A507	16	23'-0"	Str.	384						S507	8	13'-5"	Str.	112
A508	20	5'-6"	Str.	115						S508	32	14'-8"	Str.	490
A509	8	9'-9"	Str.	81						S509	366	5'-4"	Bt.	2036
A510	2	29'-0"	Str.	60	P801	12	27'-7"	Bt.	884	S510	314	2'-0"	Bt.	655
A511	16	7'-6"	Str.	125	P802	12	21'-8"	Bt.	694	S511	314	2'-0"	Bt.	655
A512	32	6'-4"	Bt.	211						S512	314	3'-3"	Bt.	1064
A513	52	2'-0"	Bt.	108						S513	116	34'-9"	Str.	4204
A514	40	2'-10" to 3'-2" by 1", 8 ea.	Str.	125										
A515	64	16'-11"	Str.	1129	P901	144	9'-6"	Str.	4651					
A516	16	4'-0"	Str.	67										
A517	4	5'-0"	Str.	21						S601	810	45'-8"	Str.	55559
A518	20	7'-0"	Str.	146						S602	92	6'-10" to 43'-6" by 1'-8", 4 ea.	Str.	3478
A519	4	14'-4"	Bt.	60	P1101	108	7'-0"	Bt.	4017	S603	12	5'-0" to 5'-6" by 3", 4 ea.	Str.	95
A520	4	12'-4"	Bt.	51	P1102	54	29'-7"	Str.	8488					
A521	20	10'-6"	Str.	219	P1103	54	25'-1"	Str.	7196					
A522	28	6'-9"	Str.	197	P1104	10	36'-0"	Bt.	1913					
A523	4	11'-0"	Str.	46	P1105	10	20'-0"	Bt.	1063	SA501	4	4'- 11"	Bt.	21
A524	8	3'-0"	Str.	25	P1106	20	14'-0"	Str.	1488	SA502	6	3'- 9"	Bt.	32
A525	8	4'-10"	Str.	40						SA503	2	2'- 8"	Bt.	6
A601	8	13'-6"	Str.	162	SF401	3	26'-0"	Bt.	1446					
A602	60	12'-10"	Bt.	1157	SF402	3	21'-6"	Bt.	1204					
A603	2	25'-9"	Bt.	77										
A604	14	25'-7"	Str.	538										
A605	36	16'-5"	Bt.	888										
A606	52	16'-6"	Bt.	1445										
A607	2	8'-10"	Bt.	27										
A608	4	10'-3"	Bt.	82										
A609	24	19'-10"	Bt.	715										
A610	24	7'-10"	Bt.	282										
A611	4	6'-3"	Bt.	38										
A701	4	4'-0"	Str.	33										
A702	4	4'-9"	Bt.	39										
A703	4	4'-10"	Bt.	40										
A704	4	4'-11"	Bt.	40										
A705	4	5'-11"	Bt.	48										
D801	34	5'-7"	Bt.	507										

FED. RD. DIVISION	STATE	PROJECT	
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1. BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATE THE BAR SIZE NUMBER.
2. SPIRAL REINFORCING BARS: THE "LENGTH" SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE DISTANCE FROM TOP OF THE FOOTING TO THE BOTTOM OF CAP, OR TO WITHIN 2" (±) OF THE TOP OF COLUMN FOR PIERS WITHOUT CAPS, TO THE NEAREST INCH.

FOUR STEEL ANGLE SPACERS WEIGHING NOT LESS THAN 0.80 LB. PER LIN. FT. OF SPACER, SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.80 LB. PER LIN. FT., WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS.

3. SEE SHEET 9/9 FOR BENDING DETAILS.
4. Refer to CMS Sections 106.03, 700, 709.01 through 709.05 & 709.08. Sufficient additional reinforcing steel shall be provided for sampling. Random samples shall be replaced in the structures by the additional steel, spliced in accordance with 509.08.

VOGT, IVERS & ASSOCIATES 8/9
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

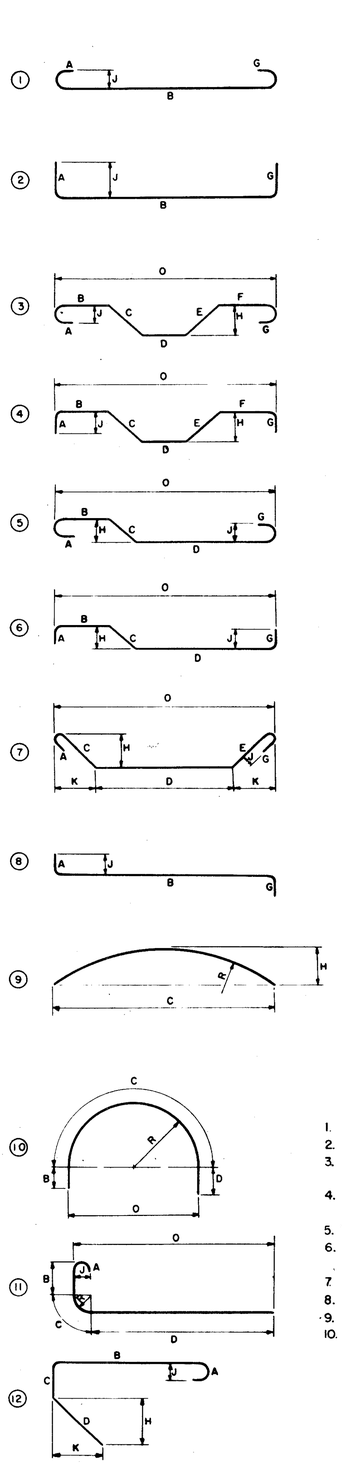
REINFORCING STEEL LIST

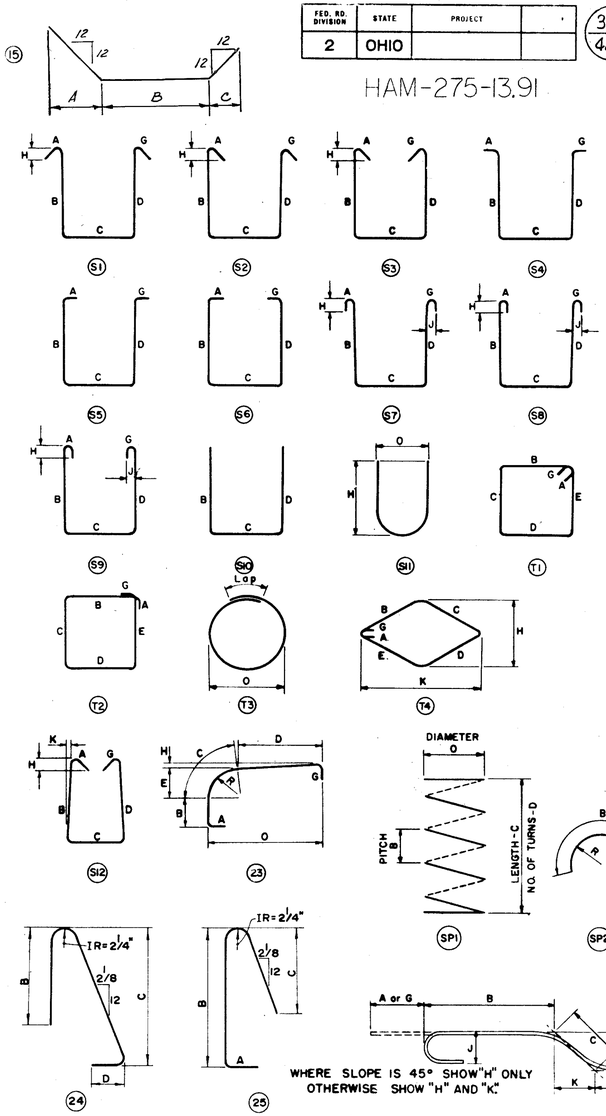
RELOCATED SPRINGDALE ROAD OVER
RELOCATED BLUE ROCK ROAD

HAMILTON COUNTY STA. 8 + 76.33 TO STA. 11 + 13.32

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
—	BCS	—	E.F.F.			

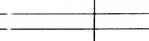
MARK	TYPE	DIMENSIONS FOR BENDING											
		A	B	C	D	E	F	G	H	J	K	R	O
A501	12	–	2'-0"	1'-4"	23'-3"				22'-1"		7'-3"		
A503	22		—	1'-7"	24'-7"				1'-6"		6"		
A504	S10		1'-11"	3'-5"	1'-11"								
A505	8	6"	7'-8"					—					
A506	19		1'-4"	23'-2"	—				1'-3"		5"		
A512	25	6"	3'-2"	2'-5"									
A513	2	6"	1'-0"					6"					
A519	19		5'-4"	9'-0"	—				2'-4"		4'-9"		
A520	19		5'-4"	7'-0"	—				2'-4"		4'-9"		
A602	20		—	7'-9"	5'-3"								
A603	19		2'-5"	23'-4"	—				9"		2'-3½"		
A605	S10		7'-8"	1'-5"	7'-8"								
A606	17		2'-8"	11"	7'-9"	1'-5"	6'-4"						
A607	20		—	7'-9"	1'-3"								
A608	2	8"	9'-7"					—					
A609	S10		9'-6"	1'-2"	9'-6"								
A610	14		9"	1'-2"	6'-0"	—	—		9"		11½"		
A611	14		9"	1'-2"	4'-6"	—	—		9"		11½"		
A702	14		9"	11"	3'-2"	—	—		2¼"		11½"		
A703	14		9"	1'-0"	3'-2"	—	—		4"		11½"		
A704	14		9"	1'-1"	3'-2"	—	—		6"		11½"		
A705	14		9"	1'-2"	4'-1"	—	—		9"		11½"		
DB01	*15*	*1:1"*	*3'5"*	*6"*									
P502	S10		1'-6"	2'-8"	1'-6"								
P503	T2	6"	2'-8"	4'-2"to 3'-2¾" by1¼	2'-8"	4'-2"to 3'-2¾" by1¼		6"					
P504	S6	6"	4'-2"to 3'-2¾" by1¼	1'-8"	4'-2"to 3'-2¾" by1¼			6"					
P505	T2	6"	2'-8"	4'-2"	2'-8"	4'-2"		6"					
P506	S6	6"	4'-2"	1'-8"	4'-2"			6"					
P801	19		5'-10"	21'-9"	—				11½"		5'-9"		
P802	19		—	15'-10"	5'-10"				11½"		5'-9"		
P1101	2	1'-2"	5'-10"										
P1104	20		3'-2"	33'-2"	—								
P1105	20		—	17'-2"	3'-2"								
SP401	SP1		4½"	26'-0"	72								2'-8"
SP402	SP1		4½"	21'-6"	60								2'-8"
S509	24		2'-2"	2'-5"	7½"			6"					
S510	2	6"	1'-0"					—					
S511	2	6"	1'-6"										
S512	16	–	8"	10"	1'-2"	9"			11½"		9"		
RE401	SP2		7'-6"									1'-4"	
SA501	17		—	1'-11"	1'-4"	1'-11"	—	—	3¼"		3¼"		3'-5¼"
SA502	19		1'-1"	2'-8"	—								
SA503	2	6"	2'-2"										





ENLARGED VIEW SHOWING
BAR BENDING DETAILS

NOTES

1. FIGURES IN CIRCLES SHOW BAR TYPES.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. "J" DIMENSION ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4.  WHERE "J" IS NOT SHOWN "J" WILL BE KEPT EQUAL TO OR LESS THAN "H." WHERE "J" CAN EXCEED "H" IT SHOULD BE SHOWN.
5. "H" DIMENSION ON STIRRUPS TO BE SHOWN WHERE NECESSARY TO RESTRICT HOOKS.
6. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT STIRRUPS S11, TIES T3, SPIRALS SP1 AND WHERE RADIUS "R" IS INDICATED.
7. RADIUS DIMENSION "R" IS TO OUTSIDE OF BAR.
8. THE LENGTH OF BENT BARS IS MEASURED ALONG THE CENTERLINE.
9. FOR STANDARD HOOK DIMENSIONS, SEE SECT. 509.05 OF THE SPECIFICATIONS.
10. FOR BAR TYPE SP1, THE NO. OF TURNS "D" IS THE LENGTH "C" DIVIDED BY THE PITCH "B", PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER. 1½ CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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VOGT, IVERS & ASSOCIATES 9/9
ENGINEERS CINCINNATI · ARCHITECTS CHICAGO

BAR BENDING DETAILS

RELOCATED SPRINGDALE ROAD OVER
RELOCATED BLUE ROCK ROAD

HAMILTON COUNTY STA. 8+76.33 TO STA. 11+13.32

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
–	BCS	–	E.F.P.			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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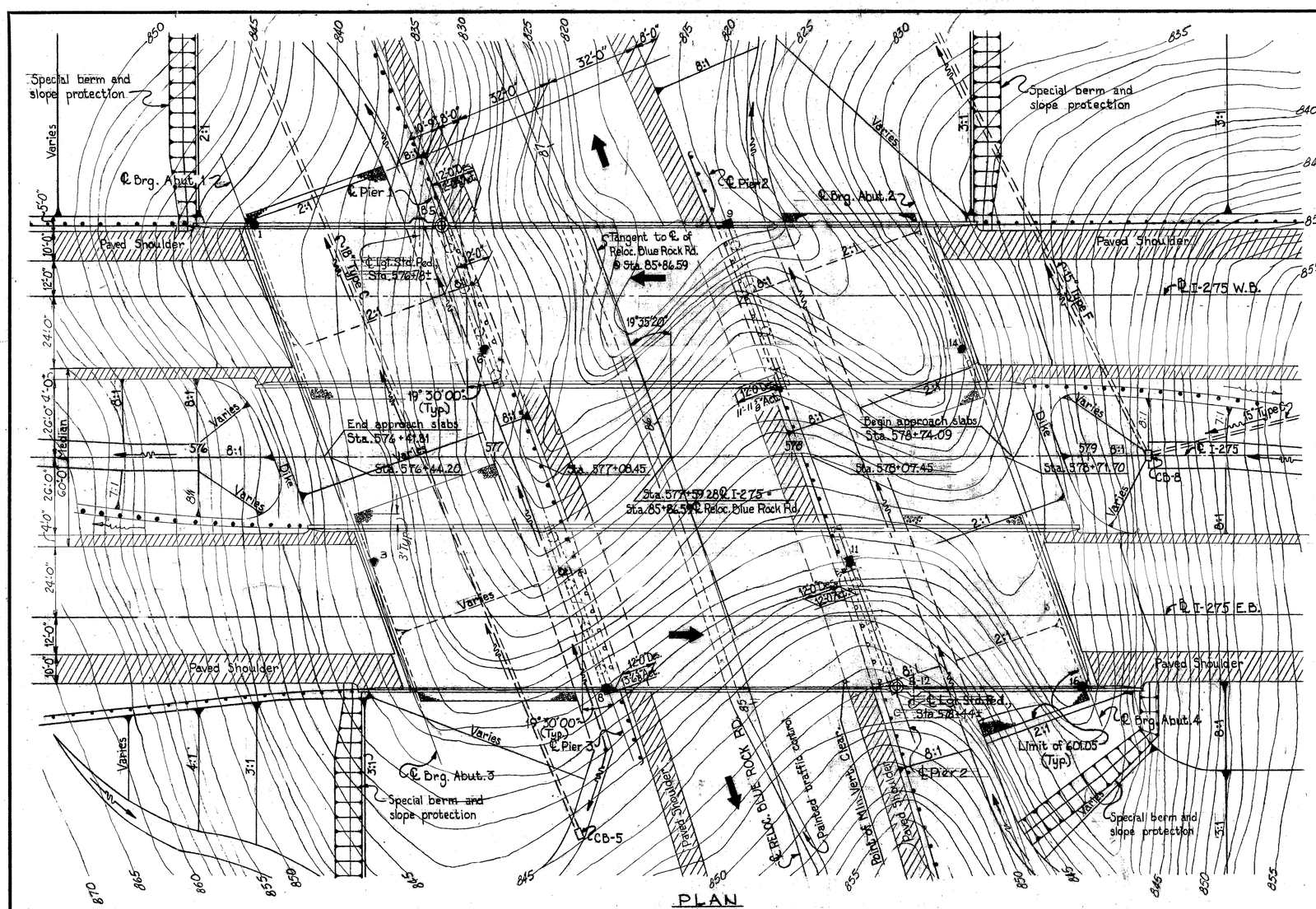
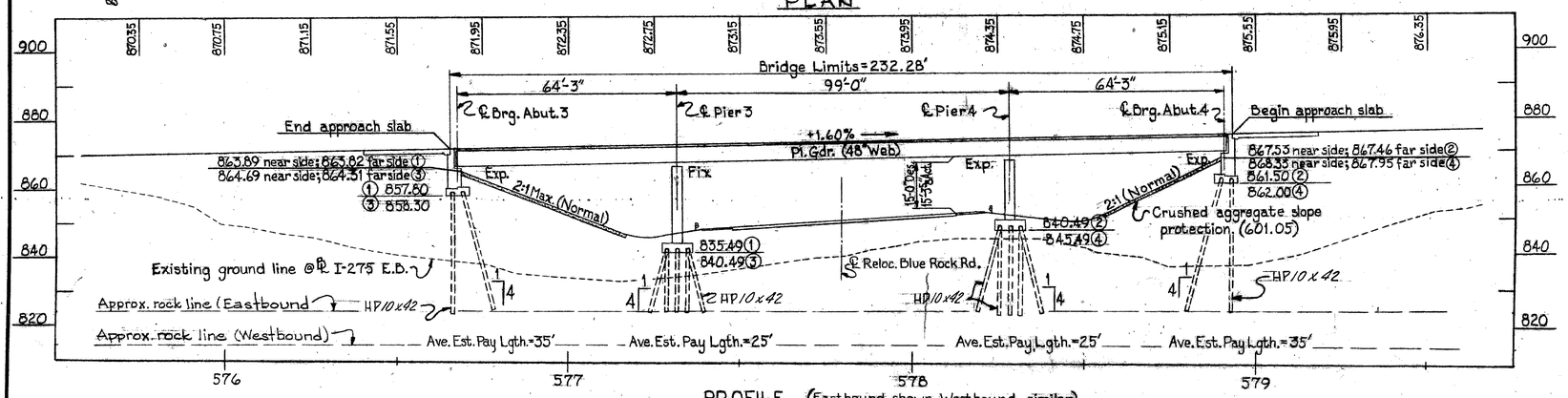
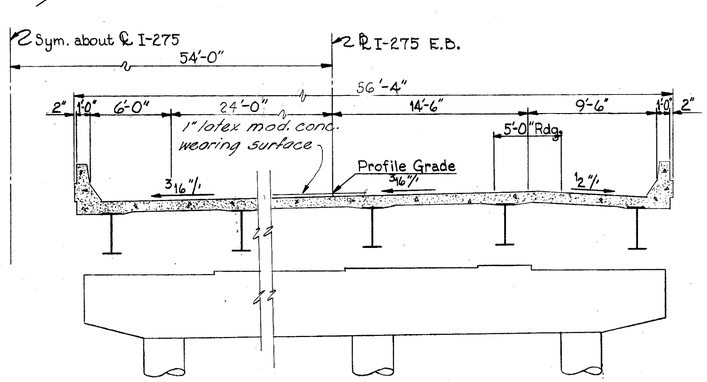


PLAN



PROFILE (Eastbound shown, Westbound similar)



TYPICAL SECTION

NOTE:
Earthwork limits shown are schematic. Actual slopes shall conform to plan cross-sections.

MODIFY AS-1-72 by providing 3" cover over the top rebars instead of the 2" shown, changing from full width to the width of the approach pavement and eliminating the jacking holes.

PROPOSED STRUCTURE

TYPE: Continuous welded plate girder with reinforced concrete deck and substructure.
SPANS: 64'-3"; 99'-0"; 64'-3"
ROADWAY: 54'-0" face to face of parapets
WEARING SURFACE: 1" latex modified conc.
ALIGNMENT: Tangent
DESIGN LOAD: HS20-44 and the Interstate Alternate Loading
SKEW: 19° 30'00" R.F.
APPROACH SLABS: AS-1-72 (25' long) Modified

	1988 ADT	1988 DDHV
EASTBOUND	29,130 VPD	2,345 VPH
WESTBOUND	28,750 VPD	2,810 VPH

VOGT, IVERS, & ASSOCIATES 1 / 11
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

LEGEND
①=Abut. 1
②=Abut. 2
③=Abut. 3
④=Abut. 4
EB.=Eastbound
W.B.=Westbound
●=Drive rod penetration resistance sounding.
⊕=Drive Sample-Core Boring.

REVISED DATE 8-22-75

SITE PLAN

BRIDGE NO. HAM-275-1392 L&R.
I-275
OVER RELOCATED BLUE ROCK RD
HAMILTON COUNTY STA. 576 + 41.81 To STA. 578 + 74.09

PRESENT TOPOGRAPHY		PROPOSED WORK				
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS	
Aerial	VIA	E.F.F.	E.F.F. R.E.S.	R.L.S.		

EFF

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER-STRUCTURE	GENERAL
503	Lump	Lump Sum	Cofferdams, cribs and sheeting	Lump			
503	1,104	C.Y.	Unclassified Excavation	669	435		
505	Lump	Lump Sum	Test Pile				Lump
507	5,780	Lin. Ft.	Steel Piles, HP 10 x 42	3,140	2640		
509	306,813	Lbs.	Reinforcing steel	35,504	55,095	216,214	
511	772+846	C.Y.	Class "C" concrete - Superstructure			846	+772
511	200	C.Y.	Class "C" concrete - Pier Caps and Columns		200		
511	295	C.Y.	Class "C" concrete - Abutments above footings	295			
511	346	C.Y.	Class "C" concrete - Footings	202	144		
513	625,900	Lbs.	Structural Steel			625,900	
514	625,900	Lbs.	Field painting of structural steel			625,900	
518	170	C.Y.	Porous backfill	170			
518	205	Lin. Ft.	6" perforated, helical corrugated metal pipe, 707.01	205			
518	176	Lin. Ft.	6" non-perforated, helical corrugated metal pipe, including specials, 707.01	176			
518	14	Each	Scuppers, including supports			14	
601	1,660	Sq. Yd.	Crushed aggregate slope protection				1,660
808	772+846	Units	Chemical admixture for concrete, Type A, B or D			846	772
S 625		----	See sheet 325/468 for Lighting Summary				
SPECIAL	2,669	Sq. Yd.	Surface preparation			2,669	
SPECIAL	74	C.Y.	Latex modified portland cement concrete			74	
SPECIAL	2,669	Sq. Yd.	Finishing and curing			2,669	

Materials in the approach slabs are not included in the above estimated quantities.

GENERAL NOTES

REFERENCE shall be made to the following:

Standard Drawings: BR-1-67, revised 10-15-71 AS-1-72 dated 6-30-72
SD-1-69, dated 6-12-69 HL-5, dated 9-6-73
RB-1-55, revised 2-2-59
HL-4, dated 9-6-73

Supplemental Specifications: 808, dated 1-1-71
836, dated 3-12-75
S625, dated 1-11-74

DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1969, including the Ohio "Supplement" to these specifications.

DESIGN DATA:

Design Loading - HS 20-44 and the Interstate Alternate Loading

Concrete Class "C" - unit stress 1,200 p. s. i. for superstructure
- unit stress 1,333 p. s. i. for substructure

Structural Steel - ASTM A36 - unit stress 20,000 p. s. i.
Reinforcing Steel - ASTM A615, A616 or A617 - unit stress 20,000 p. s. i.
Spiral reinforcement may be plain bars ASTM A82 or A615

EMBANKMENT CONSTRUCTION: The embankments shall be constructed to the level of the subgrade for a minimum distance of 200 feet back of the abutments. Excavation shall then be made for the abutments and piers and the piles driven.

PILES shall be driven to refusal on bedrock or to 20 blows per inch for the last few inches of penetration. The design load is 45 tons per pile for the abutment piles and 45 tons per pile for pier piles.

Item 511, Class C concrete, superstructure, shall include the use of Type K shrinkage compensating cement. See Proposal Note.

UTILITY LINES: All expense involved in relocating (installing) the affected utility lines shall be borne by the Owner(s). The Contractor and Owner(s) are requested to cooperate by arranging their work in such a manner that inconvenience to either would be held to a minimum.

REVISED DATE 8-22-75

VOGT, IVERS, & ASSOCIATES 2/11
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

ESTIMATED QUANTITIES & GENERAL NOTES
BRIDGE NO. HAM-275-13.92 L&R.
I-275 OVER RELOC. BLUE ROCK ROAD
HAMILTON COUNTY STA. 576+41.81 TO STA. 578+74.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
—	E.F.H.	—	R.L.S.			11-7-75

FFE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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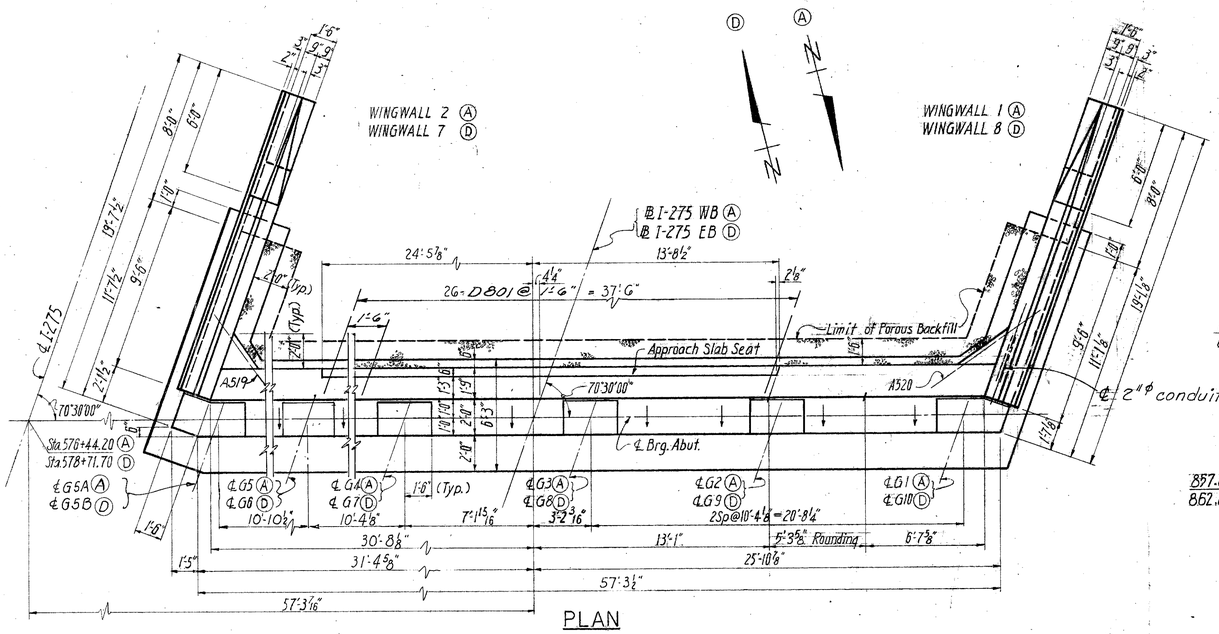
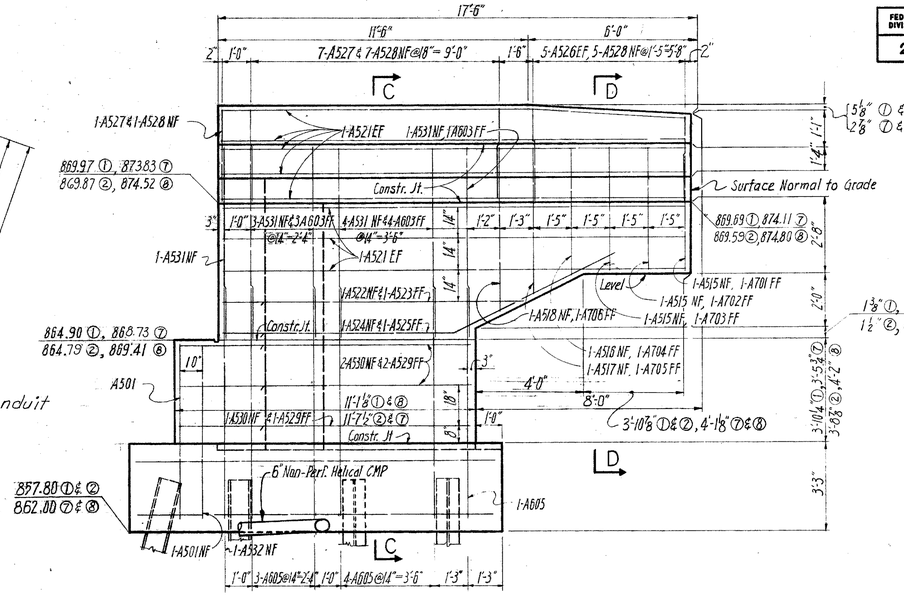
HAM-275-13.91



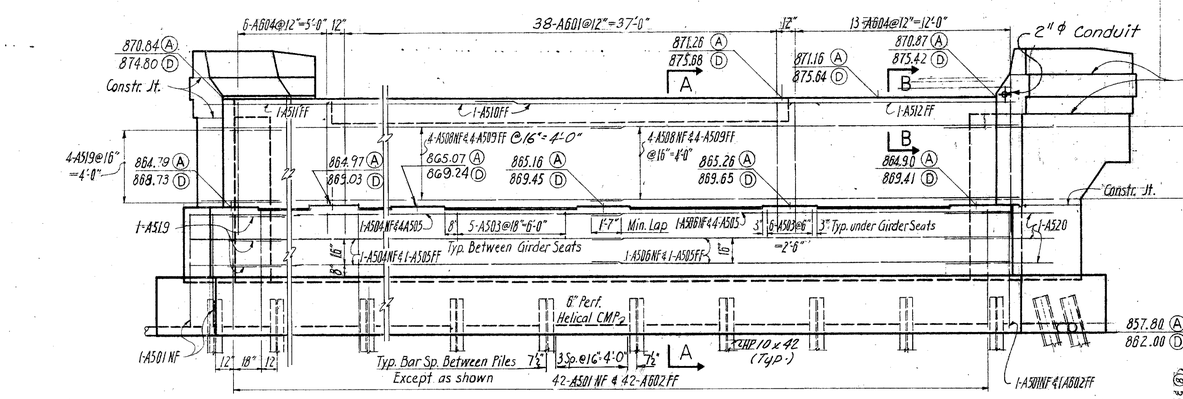
PLAN



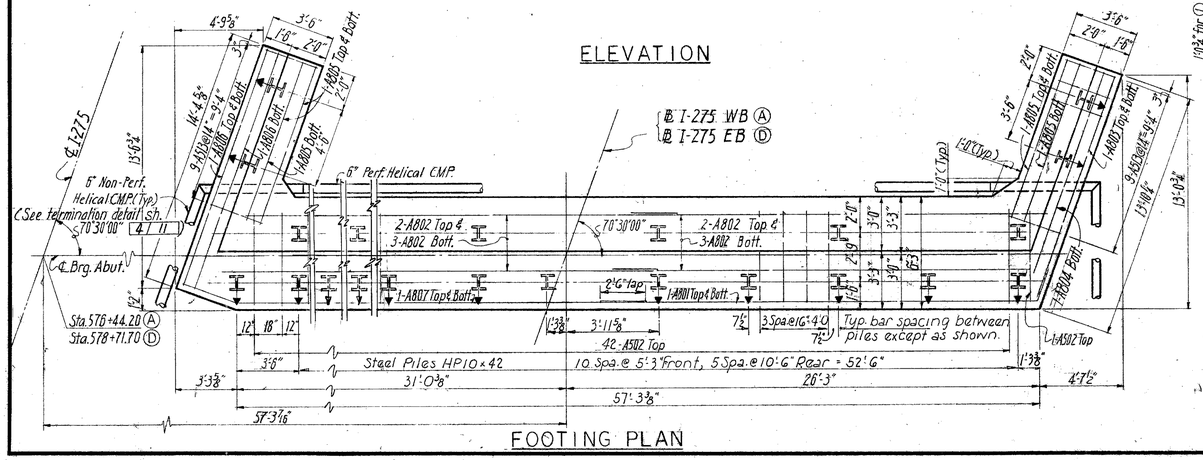
WINGWALLS 1&8 ELEVATION (WINGWALLS 2&7 SIMILAR)

LEGEND

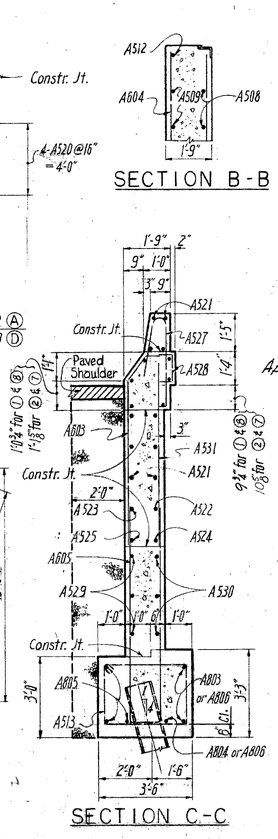
NF = Near Face
FF = Far Face
EF = Each Face
Ⓐ = Abutment 1
Ⓓ = Abutment 4
① = Wingwall 1
② = Wingwall 2
⑦ = Wingwall 7
⑧ = Wingwall 8
HP10x42 Vertical piles
HP10x42 Batter piles 1:4 in direction of arrow.



ELEVATION



FOOTING PLAN



NOTES

1. The minimum clearance between reinforcing steel and the surface of footing concrete shall be: 3 inches.
2. For End Dam and Curb Plate Details see Std. Dwg. SD-1-69 Sheet 142 of 4
3. For Reinforcing Steel List see sheet 10 / 11
4. BACKWALL CONCRETE: In addition to the provisions of 511.08, backwall conc. shall not be placed until after the deck conc. in the span adjacent to the backwall has been placed
5. Porous backfill, 1'-6" thick shall extend up to the plane of the subgrade and laterally to the ends of the wingwalls. Porous backfill, 2'-0" thick and limits as shown in wingwall plan, shall extend up to bottom of paved shoulder.
6. Parapet transitions and wingwall ends shall be as shown on Std. Dwg. BR-1-67 revised 10-15-71. Reinforcing steel shall be field bent or cut to fit the revised shape.

REVISED DATE 8-22-75

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

3 / 11

ABUTMENTS 1&4

BRIDGE NO. HAM-275-1392 L&R
I-275
OVER RELOCATED BLUE ROCK RD.
HAMILTON COUNTY STA. 576+41.81 to STA. 578+74.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JJJ	C.T.S.	C.T.S.	JJJ			

FFE

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

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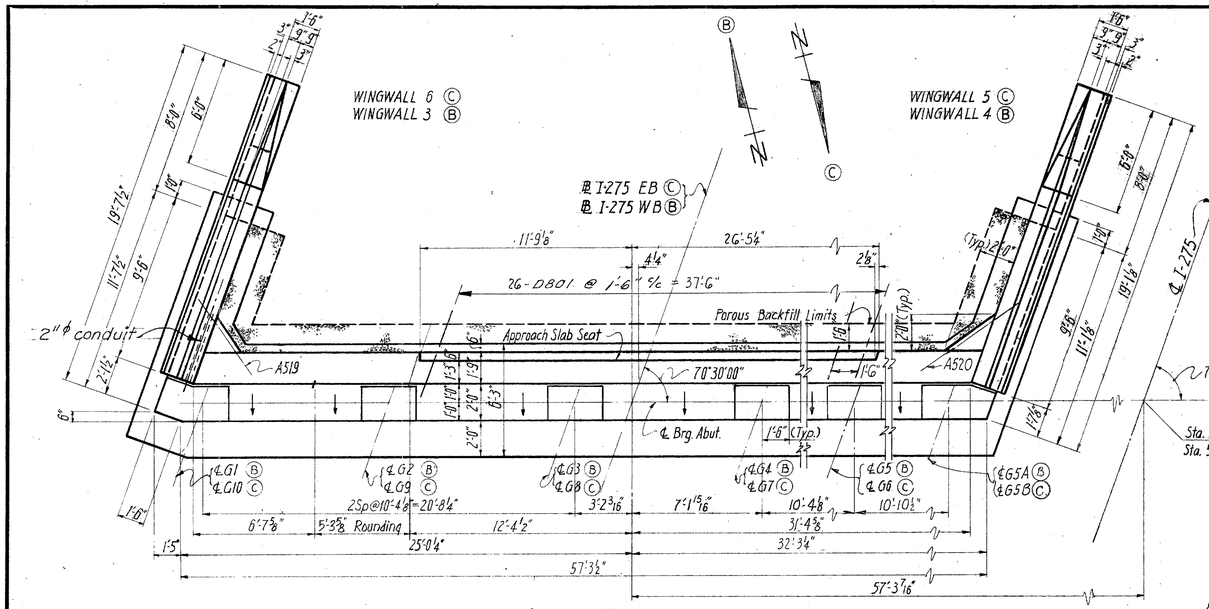
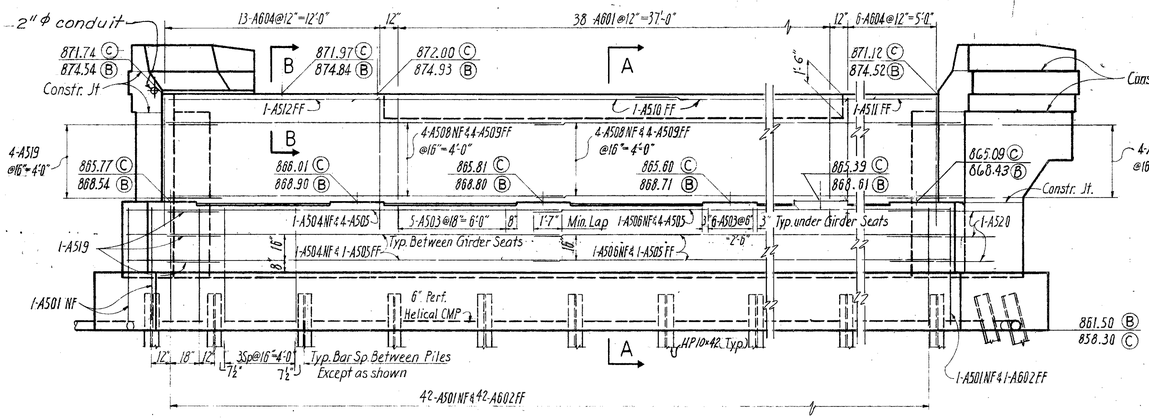
468

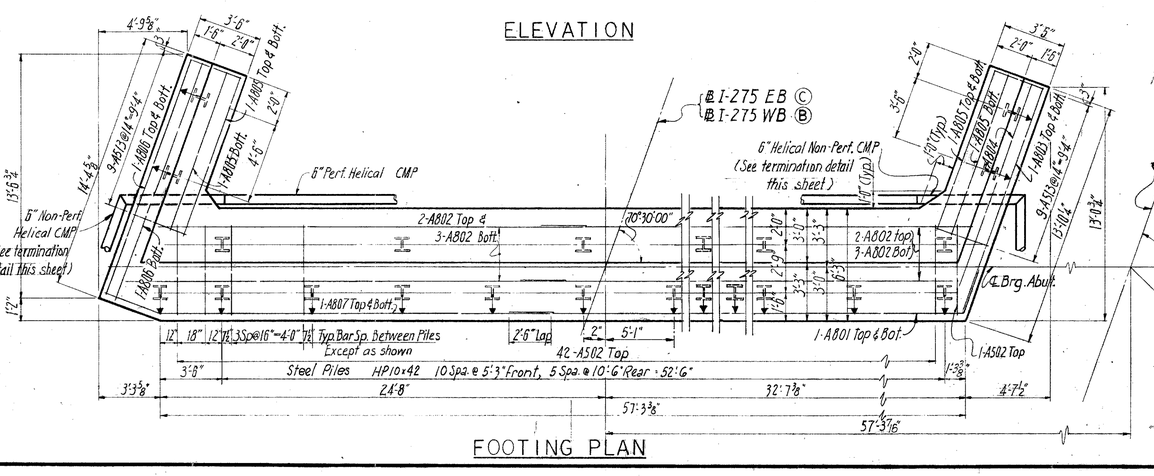
HAM-275-13.91



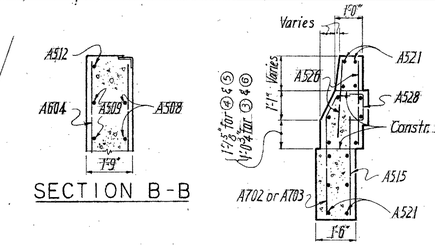
PLAN



ELEVATION

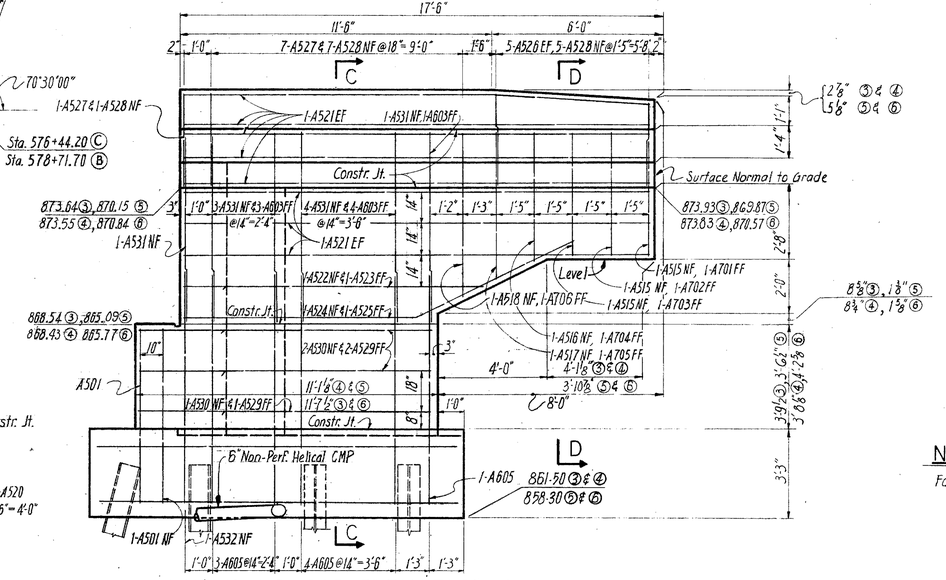


FOOTING PLAN

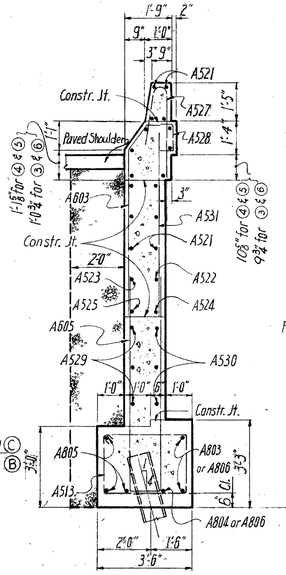


SECTION B-B

SECTION D-D



WINGWALLS 4&5 ELEVATION (WINGWALLS 3&6 SIMILAR)



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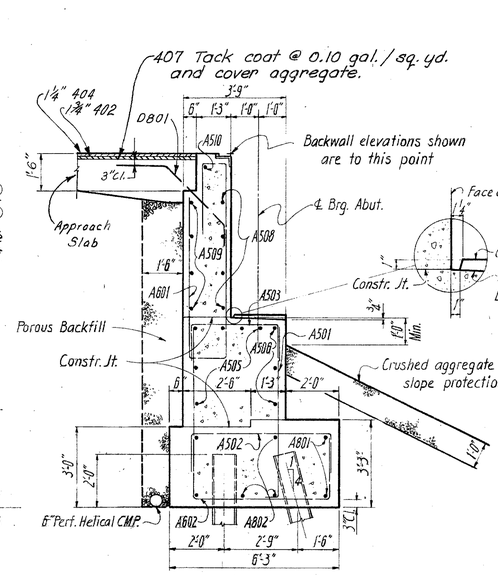
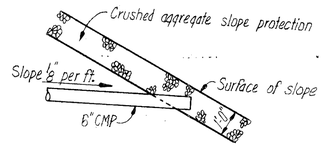


SECTION A-A



METHOD OF TERMINATING 6" CMP AT FRONT SLOPE

LEGEND

NF = Near Face
FF = Far Face
EF = Each Face
Ⓑ = Abutment 2
Ⓒ = Abutment 3
③ = Wingwall 3
④ = Wingwall 4
⑤ = Wingwall 5
⑥ = Wingwall 6
= HP10×42 Vertical piles
= HP10×42 Batter piles 1:4 in direction of arrow

NOTES

For Notes see Sh. 3 / 11

REVISED DATE 8-22-75

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI
ARCHITECTS CHICAGO
4/11

ABUTMENTS 2&3

BRIDGE NO. HAM-275-1392 L&R
I-275
OVER RELOCATED BLUE ROCK RD.
HAMILTON COUNTY STA. 576+41.81 to STA. 578+74.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JJJ	C.T.S.	C.T.S.	JJJ			

FFE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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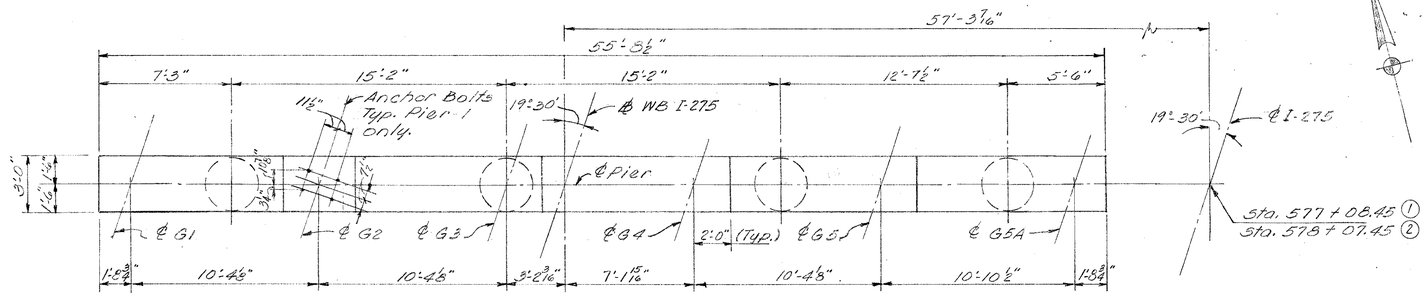
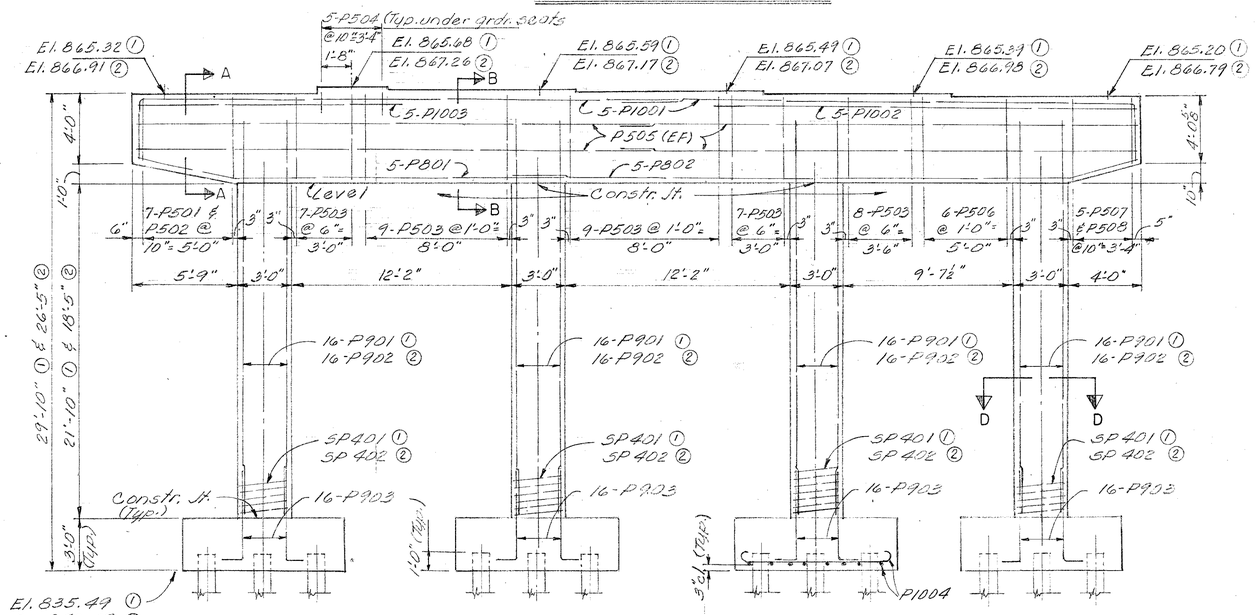
468

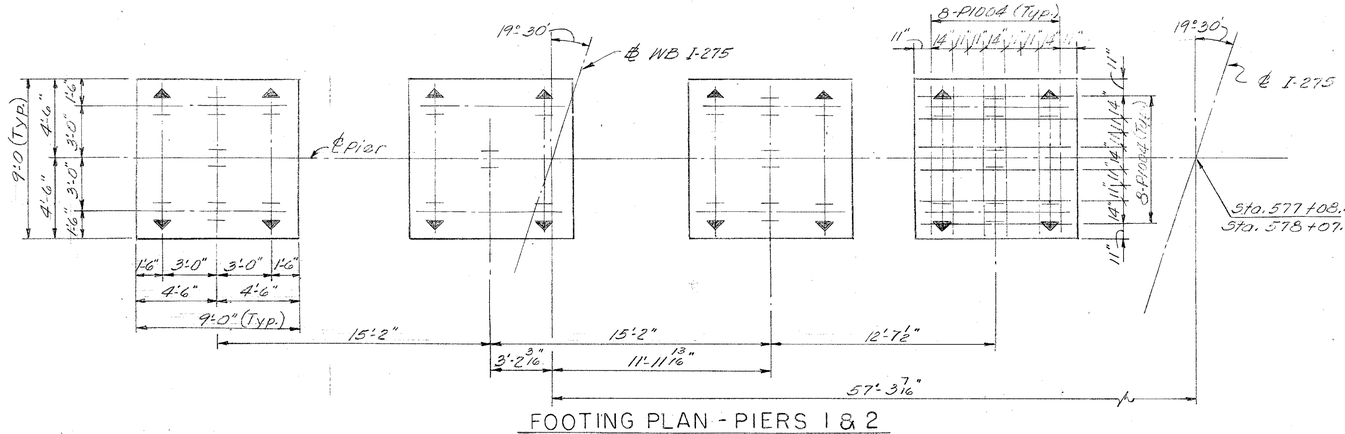
HAM-275-13.91



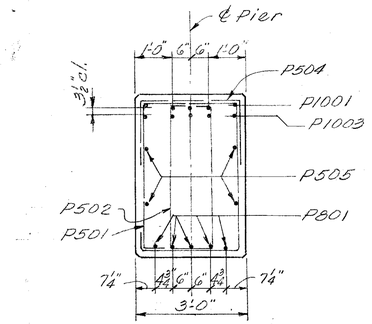
CAP PLAN - PIERS 1 & 2



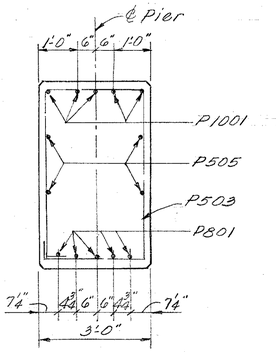
ELEVATION



FOOTING PLAN - PIERS 1 & 2



SECTION A-A



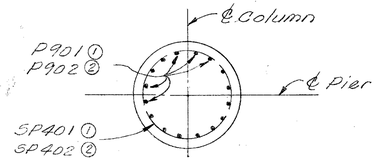
SECTION B-B

LEGEND

I indicates vertical pile

I indicates battered pile. battered 1:4 in the direction shown.

All piles shall be HP10 x 42



SECTION D-D

NOTES

1- Special care shall be taken in placing reinforcing steel in the vicinity of the girder seat so as to avoid interference with the drilling of anchor bolt holes or the presetting of bearing anchors.

2- Bearing Anchors: At the option of the Contractor, bearing anchors (or formed holes), located and supported by templates, may be cast in place.

3- Place dowels in footing to insure correct spacing of main column steel.

4- Hooks in all stirrups shall be located in the bottom of the cap.

REVISED DATE 8-22-75

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

5 | 11

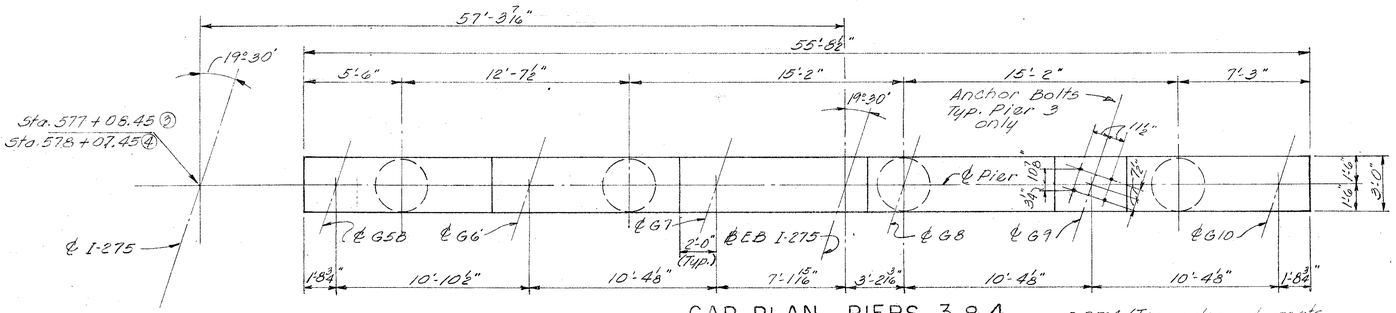
PIER 1 & 2 DETAILS
BRIDGE NO. HAM-275-1392 L & R
I-275 OVER
RELOCATED BLUE ROCK RD.
HAMILTON COUNTY STA-576+41.81 TO STA-578+74.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FFE	BDB		J.D.R.	BFG	8-14-75	

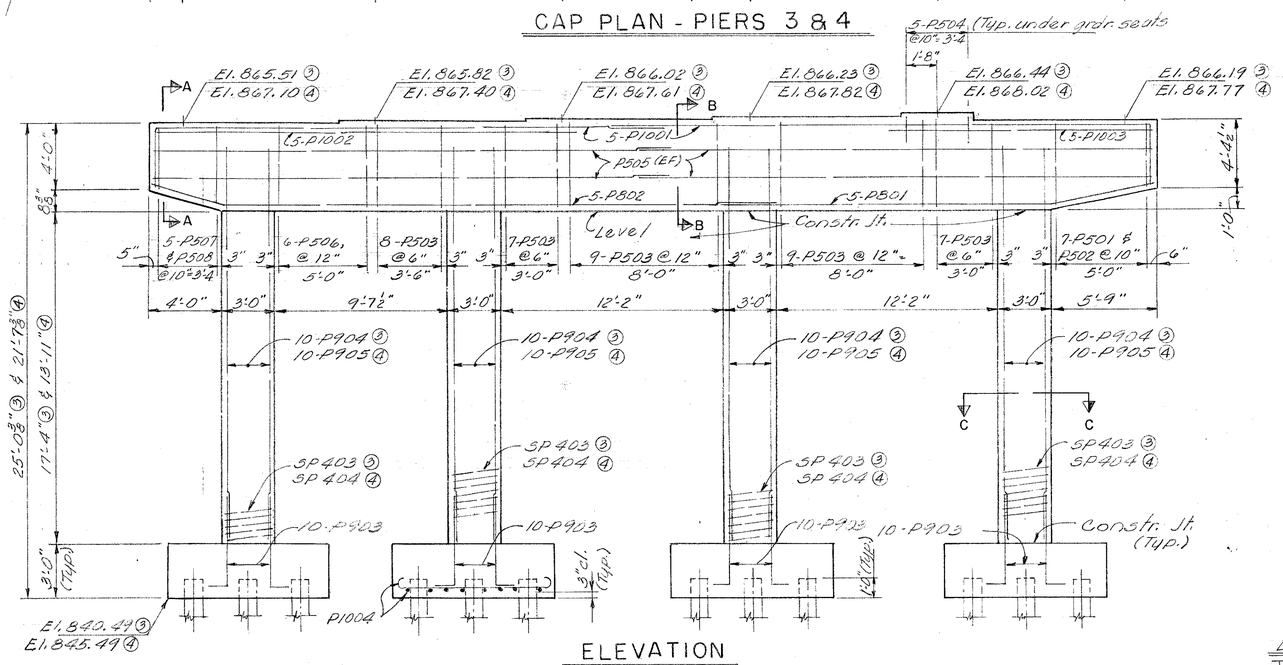
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

328A 468

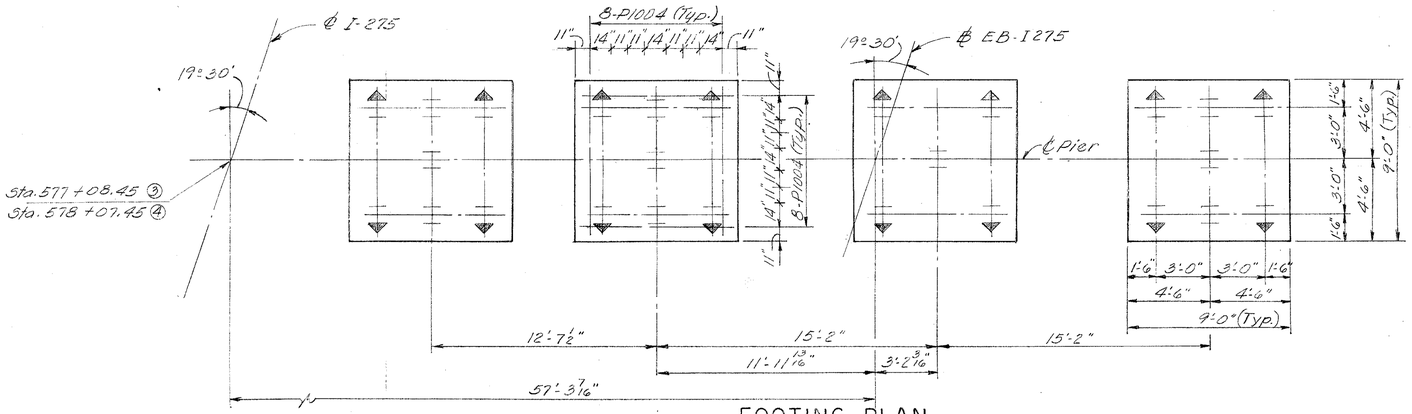
HAM-275-13.91



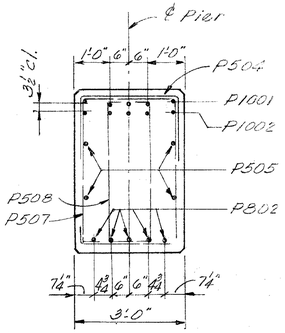
CAP PLAN - PIERS 3 & 4



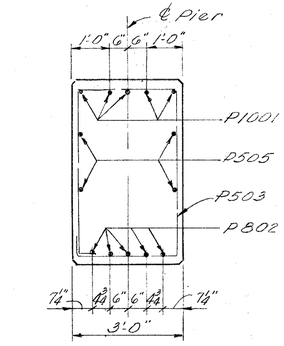
ELEVATION



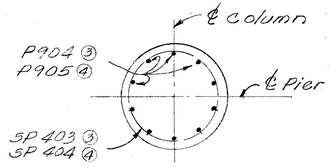
FOOTING PLAN



SECTION A-A



SECTION B-B



SECTION C-C

LEGEND

I indicates vertical pile.
I indicates battered pile (Battered 1:4 in direction shown.
All piles shall be HP10x42

NOTES

1- Special care shall be taken in placing reinforcing steel in the vicinity of the girder seat so as to avoid interference with the drilling of anchor bolt holes or the presetting of bearing anchors.

2- Bearing Anchors: At the option of the Contractor, bearing anchors (or formed holes), located and supported by templates, may be cast in place.

3- Place dowels in footing to insure correct spacing of main column steel.

4- Hooks in all stirrups shall be located in the bottom of the cap.

REVISED DATE 8-22-75

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

5A 11

PIER 3 & 4 DETAILS

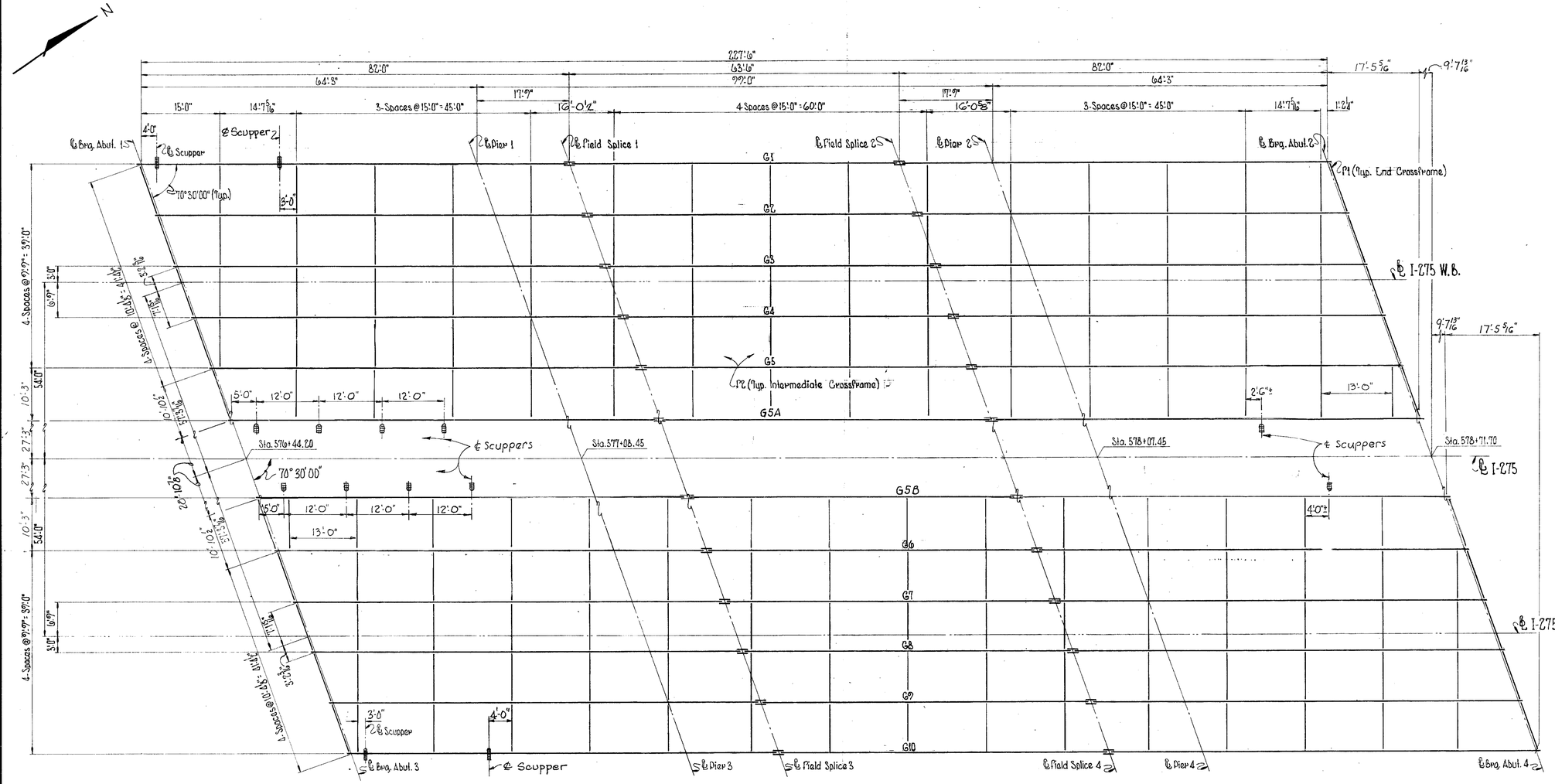
BRIDGE NO. HAM-275-13.91 L & R
I-275 OVER
RELOCATED BLUE ROCK RD
HAMILTON COUNTY STA-576+41.91 TO STA-578+74.07

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FFE	BDB		J.J.R.	BFG	8-14-75	

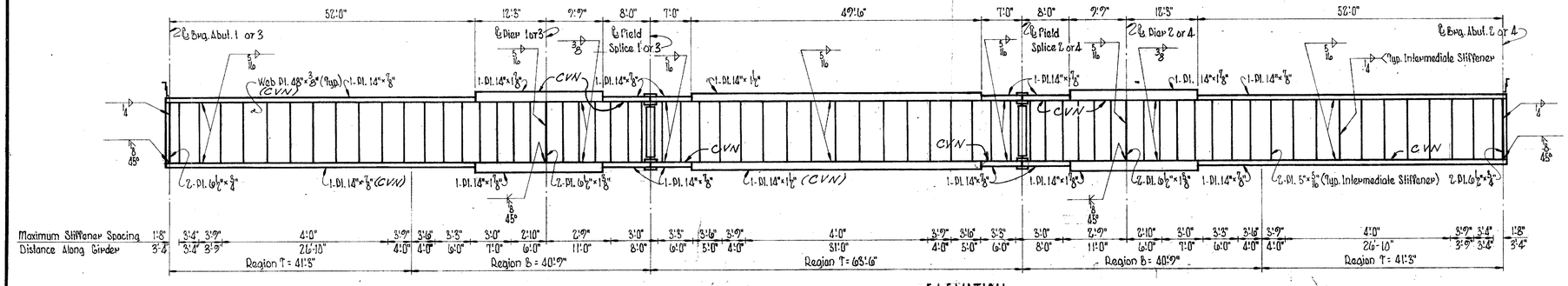
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

329
468

HAM-275-13.91



PLAN



ELEVATION

NOTES

1. For Typ. End Crossframe (P1) Detail see Std. Dwg. SD-1-69 sht. 1 of 4.
2. For End Dam & Curb Plate Details see Std. Dwg. SD-1-69 shts. 1 & 2 of 4
3. For Rocker & Bolster Details see Std Dwg. RB 1-55.
4. For Scupper Details, see Std Dwg. SD-1-69 sht. 3 of 4 except that scupper pipes shall extend 5" below the bottom of the girders instead of 2".
5. Intermediate stiffeners shall have contact bearing with or be welded to the top flange within Region T, and shall have contact bearing with the bottom flange. Intermediate stiffeners shall have contact bearing with or be welded to the bottom flange within Region B, and shall have contact bearing with the top flange.
6. Anchor bars for the end dam shall be 3 3/8" clear from the top of slab.
7. Charpy Tests: Shapes or plates designated "CVN" shall meet specified minimum notch toughness requirements. The Fabricator shall submit to the Director a procedure designed for positive identification of material through all phases of fabrication. No material shall be fabricated until the Director has approved the procedure.
8. Steel Erection. During the erection of end dams and crossframes care shall be taken to insure that girders, bearing parts and bridge seats remain in bearing contact.

REVISED DATE 8-22-75

VOGT, IVERS, & ASSOCIATES 6/11
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

FRAMING PLAN
BRIDGE NO. HAM-275-1398 L&R
I-275
OVER RELOCATED BLUE ROCK ROAD
HAMILTON COUNTY STA. 576+41.81 to STA. 578+74.09

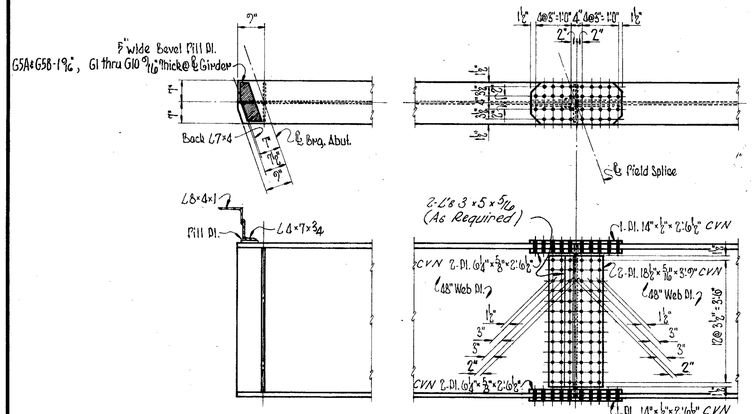
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
JRG	GWM	ν	JJJ		

FFE

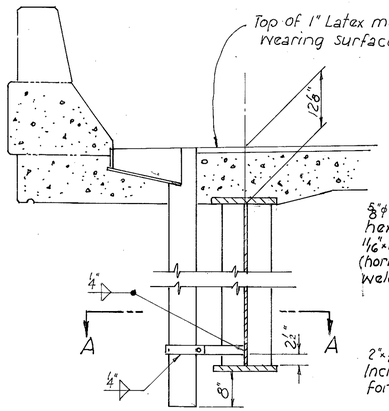
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

330
468

HAM - 275-13.91

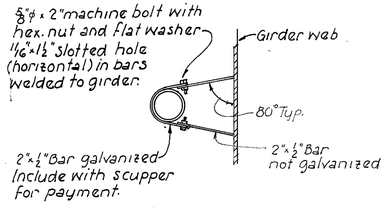


Note: For all Field Splices use 7/8" ϕ High Strength Bolts.

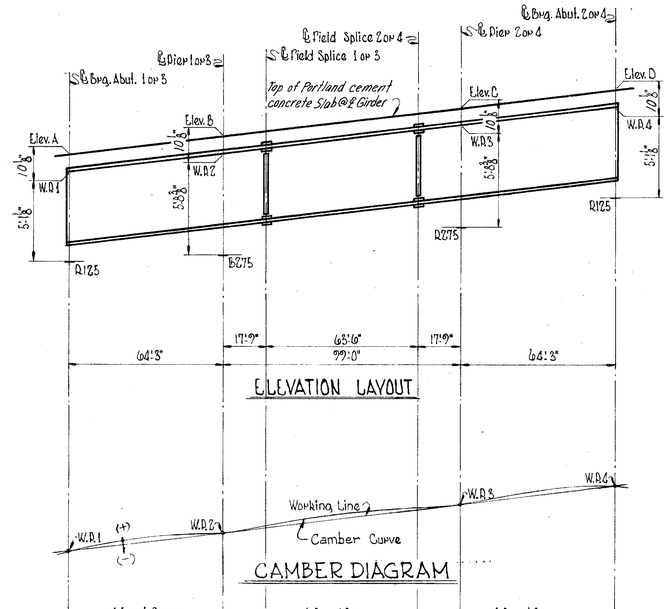


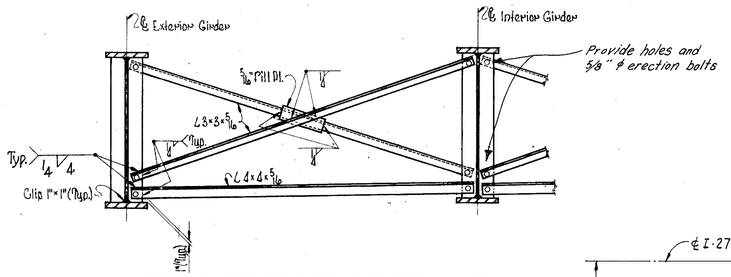
SCUPPER DETAIL FOR GIRDERS G5A & G5B

For additional details see Std. Dwg. SD-1-69

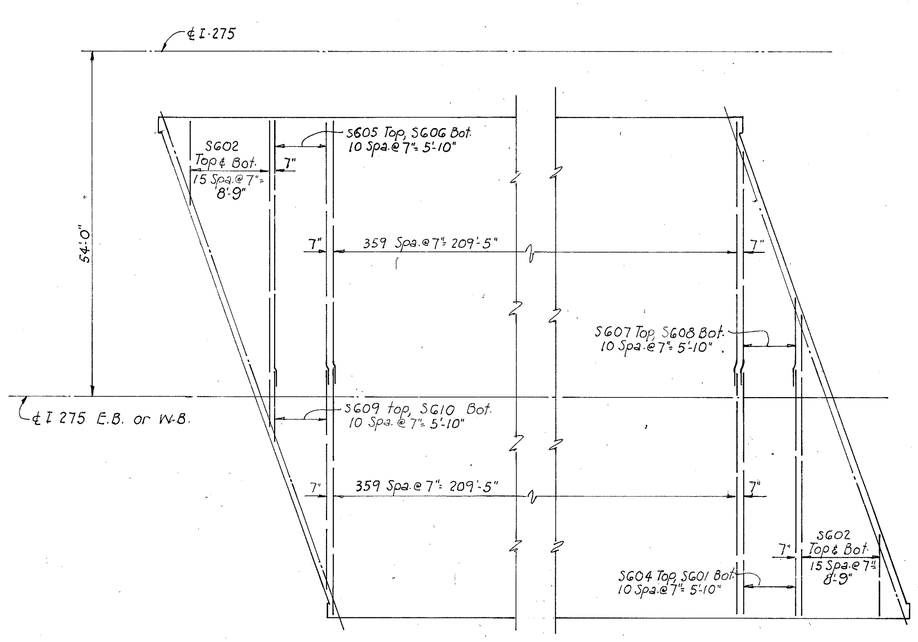


SECTION A-A





TYPICAL INTERMEDIATE CROSSFRAME - P2



PART SLAB PLAN

Showing transverse reinforcing steel at ends of slab

For additional details see sheets 8/11 & 9/11

Girder	Elev. A	Elev. B	Elev. C	Elev. D
G1	870.834	871.864	873.448	874.476
G2	871.194	872.222	873.806	874.834
G3	871.100	872.128	873.712	874.740
G4	871.003	872.031	873.615	874.643
G5	870.906	871.934	873.518	874.546
G6	871.331	872.359	873.943	874.971
G7	871.539	872.567	874.151	875.179
G8	871.746	872.774	874.358	875.386
G9	871.951	872.979	874.563	875.591
G10	871.703	872.731	874.315	875.343
G5A	870.804	871.832	871.416	874.444
G5B	871.112	872.140	873.724	874.752

	Girder	1/4	1/2	3/4		1/4	1/2	3/4		1/4	1/2	3/4	
Deflection due to Steel DL	G1 & G10	0	0	0	0	-1/16"	-1/8"	-1/8"	-1/16"	0	0	0	0
	G2 thru G9	0	0	0	0	-1/16"	-1/8"	-1/8"	-1/16"	0	0	0	0
Deflection due to Remaining DL	G1 & G10	0	-3/16"	-1/8"	0	-1/8"	-1/4"	-1/8"	-1/16"	0	0	-1/8"	-3/16"
	G2 thru G9	0	-3/16"	-1/8"	0	-1/16"	-1/8"	-1/16"	-1/16"	0	0	-1/16"	-1/16"
Total Camber Required	G1 & G10	0	+5/16"	+1/8"	0	+1/8"	+1/8"	+1/16"	+1/16"	0	0	+1/16"	+5/16"
	G2 thru G9	0	+5/16"	+1/8"	0	+1/16"	+1/16"	+1/16"	+1/16"	0	0	+1/16"	+5/16"

NOTES FOR ELLEVATION LAYOUT

1. The Working Line is a straight line passing through the Work Points.
2. Tabulated values in the Deflection And Camber Table are measured from the Working Line.
3. Working Point (W.P.) is the top of web.

REVISED DATE 8-22-75

VOGT, IVERS, & ASSOCIATES — ENGINEERS CINCINNATI — ARCHITECTS CHICAGO — 7/11

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-275-1392 L&R

I-275

OVER RELOCATED BLUE ROCK ROAD

HAMILTON COUNTY — STA. 576+41.81 to STA. 578+74.09

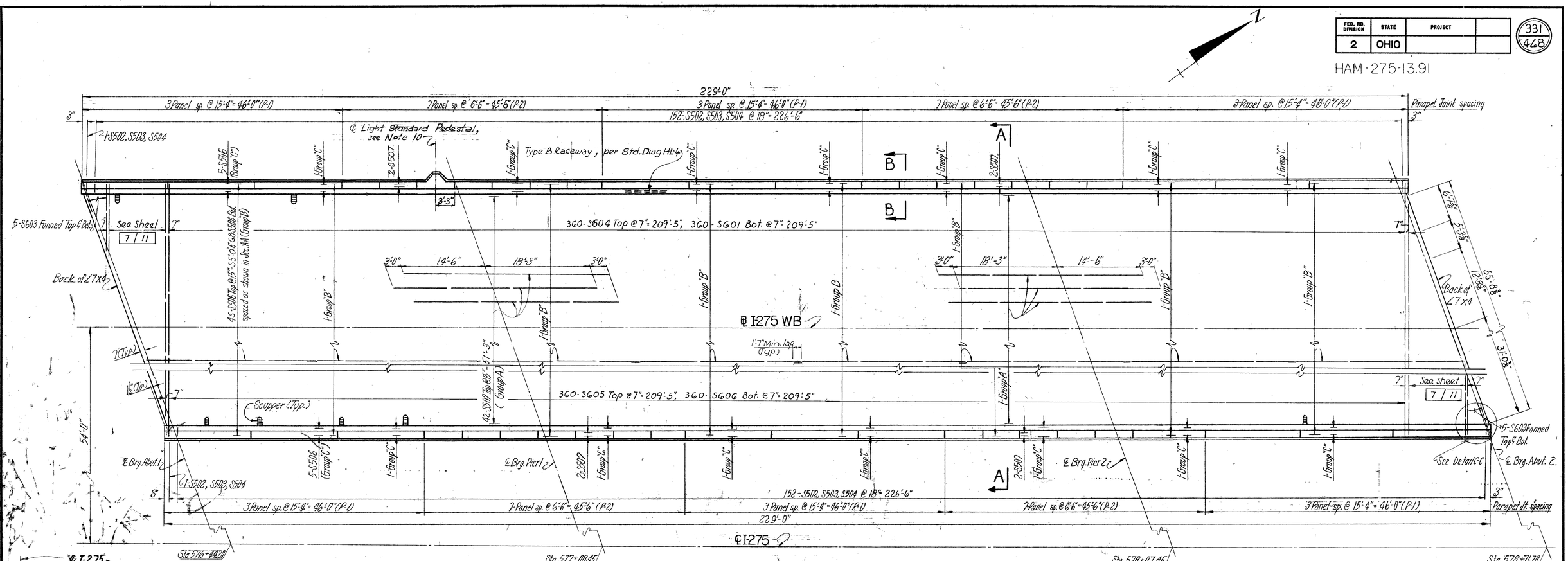
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JRG	GWM	12	JJJ			

FFE

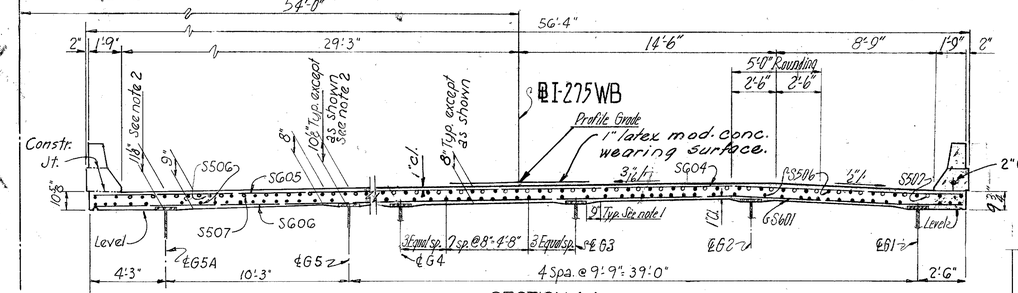
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

331
428

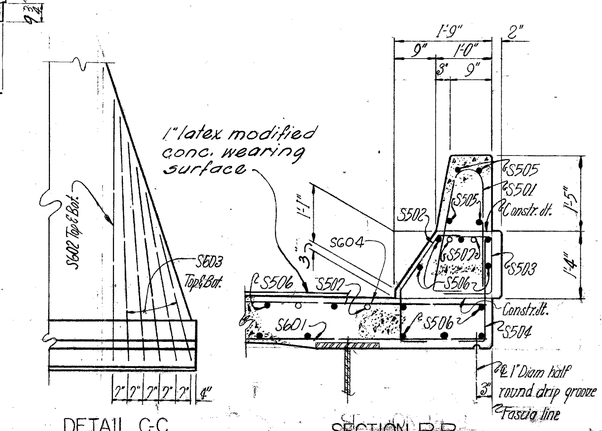
HAM-275-13.91



SLAB PLAN



SECTION A-A

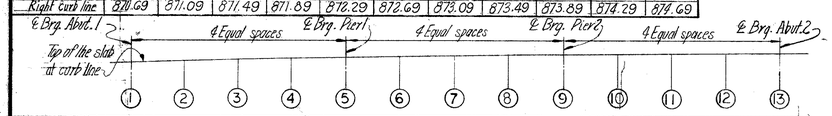


DETAIL C-C

SECTION B-B

PAVEMENT ELEVATIONS (Top of latex modified concrete)

Station	576+25	576+50	576+75	577+00	577+25	577+50	577+75	578+00	578+25	578+50	578+75
Left curb line	871.01	871.41	871.81	872.21	872.61	873.01	873.41	873.81	874.21	874.61	875.01
Lt. rdg. line	871.27	871.67	872.07	872.47	872.87	873.27	873.67	874.07	874.47	874.87	875.27
Rt rdg. line	871.34	871.74	872.14	872.54	872.94	873.34	873.74	874.14	874.54	874.94	875.34
Profile grade	871.15	871.55	871.95	872.35	872.75	873.15	873.55	873.95	874.35	874.75	875.15
Right curb line	870.69	871.09	871.49	871.89	872.29	872.69	873.09	873.49	873.89	874.29	874.69



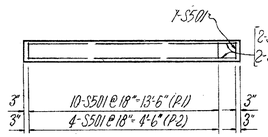
SCREED ELEVATIONS (Top of Portland Cement Conc.) (Adjusted to remain D.L.)

Point	1	2	3	4	5	6	7	8	9	10	11	12	13
Left curb line	870.80	871.07	871.33	871.58	871.83	872.26	872.68	873.05	873.42	873.67	873.94	874.20	874.44
Right curb line	870.78	871.05	871.31	871.55	871.81	872.24	872.66	873.03	873.39	873.65	873.92	874.18	874.42

PANELS		
MARK	LENGTH	NO.
P-1	15'-4"	18
P-2	6'-6"	28

NOTES

1. A typical haunch width of 9" shall be used for computing the quantity of concrete; however, the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.
2. This is the design dimension. The quantity of deck concrete to be paid for shall be based on the design slab thickness shown between the girders and this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per 511.18.
3. This note has been deleted.
4. For End Dam Details see Std. Dwg. SD-1-69 sheet 1 of 4.
5. For reinforcing steel list see sheet 10 / 11
6. For Curb Plate Detail, see Std. Dwg. SD-1-69 sheet 2 of 4.
7. For additional Bridge Roadway Railing Details see Std. Dwg. BR-1-67 sheets 1 of 3
8. For Scupper Location, see sheet 6 / 11
9. Reinforcing Steel shall be cut to accommodate the placing of scuppers.
10. For details of Light Standard Pedestal, see sheet 2 / 8 Br. No. HAM-275/1429



PAPAPET PANELS

REVISED DATE 8-22-75

VOGT, IVERS, & ASSOCIATES — ENGINEERS CINCINNATI — ARCHITECTS CHICAGO — 8 / 11

ROADWAY SLAB
BRIDGE NO. HAM-275-13 92 L
I-275 WB
OVER RELOCATED BLUE ROCK ROAD

HAMILTON COUNTY STA. 576+41.81 to STA. 578+74.09

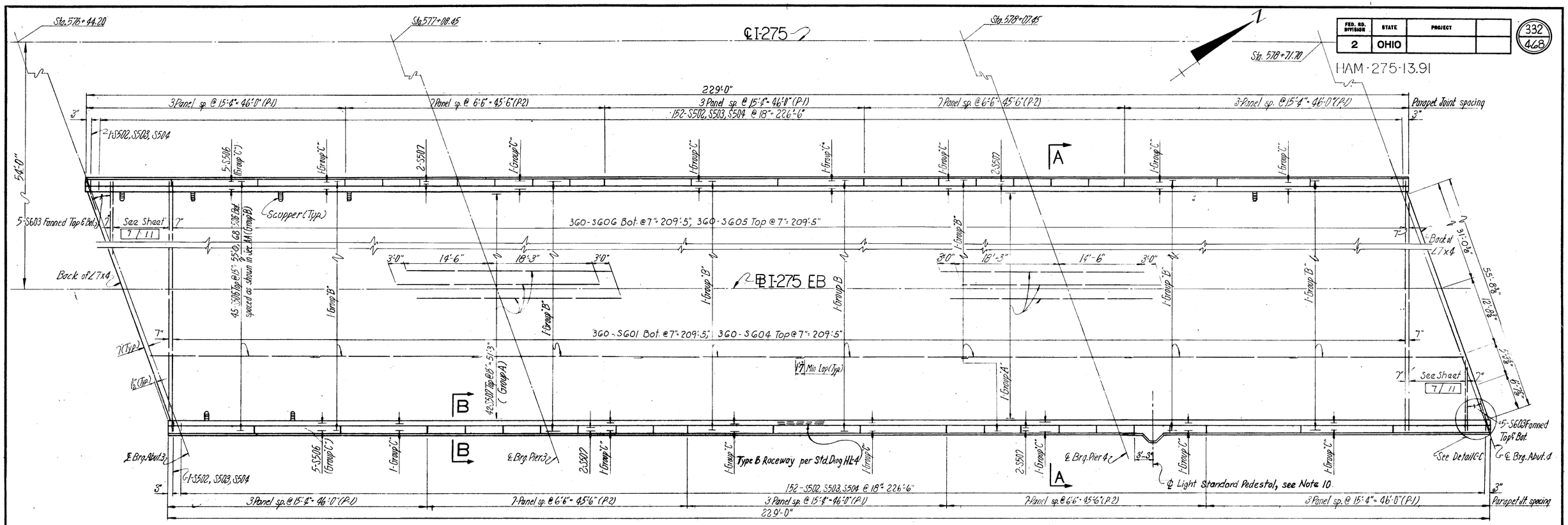
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.R.G.	GKS		JJS			

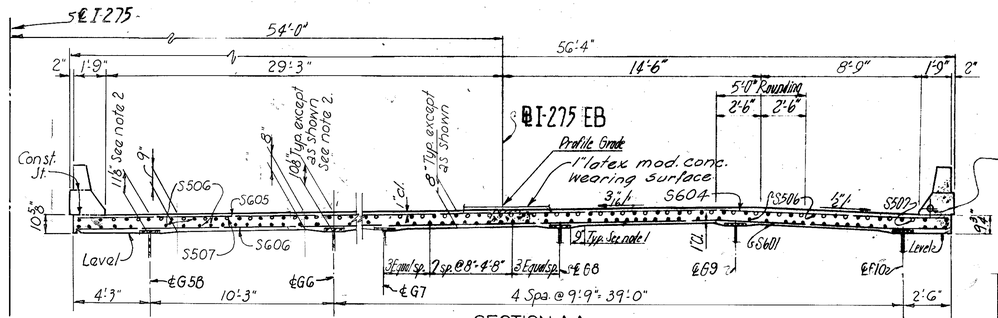
FFE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

332
468

HAM-275-13.91

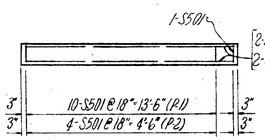




SECTION A-A

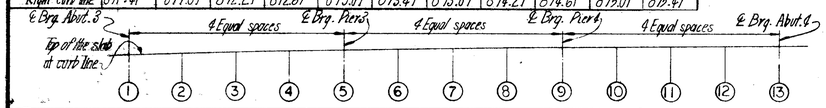
SLAB PLAN

PANELS		
MARK	LENGTH	NO.
P-1	15'-4"	18
P-2	6'-6"	28

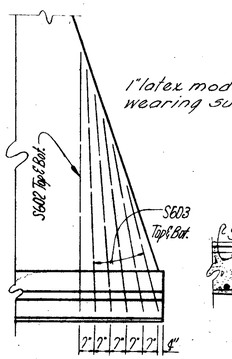


PAPAPET PANELS

PAVEMENT ELEVATIONS (Top of latex modified concrete)												
Station	576+50	576+75	577+00	577+25	577+50	577+75	578+00	578+25	578+50	578+75	579+00
Left curb line	871.09	871.49	871.89	872.29	872.69	873.09	873.49	873.89	874.29	874.69	875.09
Profile grade	871.55	871.95	872.35	872.75	873.15	873.55	873.95	874.35	874.75	875.15	875.55
Lt. rdy. line	871.74	872.14	872.54	872.94	873.34	873.74	874.14	874.54	874.94	875.34	875.74
Rt. rdy. line	871.61	872.07	872.47	872.87	873.27	873.67	874.07	874.47	874.87	875.27	875.67
Right curb line	871.41	871.81	872.21	872.61	873.01	873.41	873.81	874.21	874.61	875.01	875.41



SCREED ELEVATIONS (Top of Portland cement conc.) (Adjusted to Remain Dry)													
Point	1	2	3	4	5	6	7	8	9	10	11	12	13
Left Curb line	871.06	871.33	871.59	871.83	872.09	872.52	872.94	873.31	873.67	873.93	874.20	874.46	874.70
Right Curb line	871.68	871.95	872.20	872.45	872.71	873.14	873.55	873.93	874.29	874.55	874.82	875.07	875.32



DETAIL C-C

SECTION B-B

NOTES

1. A typical haunch width of 9" shall be used for computing the quantity of concrete; however, the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.
2. This is the design dimension. The quantity of deck concrete to be paid for shall be based on the design slab thickness shown between the girders and this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per 511.18.
3. This note has been deleted.
4. For End Dam Details see Std. Dwg. SD-1-69 sheet 1 of 4.
5. For reinforcing steel list, see sheet 10 / 11
6. For Curb Plate Detail, see Std. Dwg. SD-1-69 sheet 2 of 4.
7. For additional Bridge Roadway Railing Details see Std. Dwg. BR-1-67 sheets 1 of 3
8. For Scupper Location, see sheet 6 / 11
9. Reinforcing Steel shall be cut to accommodate the placing of Scuppers.
10. For Light Standard Pedestal Details, see sheet 2 / 9 Br. No. HAM-275-1929

REVISED DATE 8-22-75

VOGT, IVERS, & ASSOCIATES 9 / 11
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ROADWAY SLAB
BRIDGE NO. HAM-275-13 92 IR
I-275 EB
OVER RELOCATED BLUE ROCK ROAD
HAMILTON COUNTY STA. 576+41.81 to STA. 578+74.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.R.G.	GKS	~	JJJ			

PFE

ABUTMENTS

MARK	NO.	LENGTH	TYPE	WEIGHT
A501	188	6'-9"	Bt.	1,324
A502	172	8'-3"	Bt.	1,480
A503	244	6'-3"	Bt.	1,591
A504	12	32'-2"	Bt.	403
A505	48	29'-11"	Str.	1,498
A506	12	30'-10"	Bt.	386
A507		Not Used		
A508	32	30'-1"	Bt.	1,004
A509	32	28'-9"	Str.	960
A510	8	21'-6"	Str.	179
A511	4	6'-6"	Str.	27
A512	4	13'-0"	Str.	34
A513	72	11'-1"	Bt.	832
A514		Not Used		
A515	24	4'-0"	Str.	100
A516	8	4'-4"	Str.	36
A517	8	5'-0"	Str.	42
A518	8	5'-8"	Str.	47
A519	28	5'-3"	Str.	153
A520	28	6'-3"	Str.	183
A521	128	17'-2"	Str.	2292
A522	8	11'-2"	Str.	93
A523	8	9'-2"	Str.	76
A524	8	15'-10"	Bt.	132
A525	8	13'-10"	Bt.	115
A526	80	3'-2"	Str.	264
A527	64	6'-4"	Bt.	423
A528	104	2'-0"	Bt.	217
A529	24	8'-10"	Str.	221
A530	24	10'-9"	Str.	269
A531	72	6'-6"	Str.	468
A532	8	9'-2"	Bt.	76
A601	152	18'-6"	Bt.	4,225
A602	172	13'-11"	Bt.	3,595
A603	64	7'-11"	Bt.	761
A604	76	16'-5"	Bt.	1874
A605	64	18'-10"	Bt.	1810
A701	8	4'-4"	Str.	71
A702	8	5'-1"	Bt.	83
A703	8	5'-1"	Bt.	83
A704	8	5'-4"	Bt.	87
A705	8	6'-2"	Bt.	101
A706	8	6'-10"	Bt.	112
A801	8	32'-2"	Bt.	687
A802	40	30'-11"	Str.	3,302
A803	8	13'-2"	Str.	281
A804	4	12'-6"	Str.	134
A805	24	9'-6"	Str.	609
A806	12	13'-10"	Str.	443
A807	8	33'-1"	Bt.	707
D801	104	5'-8"	Bt.	1,574

PIERS

MARK	NO.	LENGTH	TYPE	WEIGHT
P501	28	13'-3" to 15'-3" by 4", 4 Each	Bt.	416
P502	28	9'-3" to 11'-3" by 4", 4 Each	Bt.	299
P503	160	15'-3"	Bt.	2,545
P504	120	5'-5"	Bt.	678
P505	32	28'-6"	Str.	951
P506	24	14'-7"	Bt	365
P801	20	23'-4"	Bt.	1,246
P802	20	34'-8"	Bt	1,851
P901	64	24'-8"	Str.	5,367
P902	64	21'-3"	Str.	4,624
P903	208	6'-6"	Str.	4,597
P904	40	20'-2"	Str.	2,743
P905	40	16'-9"	Str.	2,278
P1001	40	32'-0"	Bt	5,508
P1002	20	24'-4"	Str.	2,094
P1003	20	13'-6"	Str.	1,162
P1004	256	11'-4	Bt.	12,484
SP401	4	21'-10"	Bt.	1,629
SP402	4	18'-5"	Bt.	1,391
SP403	4	17'-4"	Bt.	1,307
SP404	4	13'-11"	Bt.	1,063
P507	20	13'-3 to 14'-7" by 4" 4 Ea.	Bt	290
P508	20	9'-3 to 10'-7" by 4" 4 Ea.	Bt.	207

SUPERSTRUCTURE

MARK	NO.	LENGTH	TYPE	WEIGHT
S501	676	5'-4"	Bt.	3760
S502	612	3'-1"	Bt.	1968
S503	612	2'-0"	Bt.	1277
S504	612	2'-0"	Bt.	1277
S505	224	6'-2"	Str.	1441
S506	1968	30'-0"	Str.	61,579
S507	184	35'-9"	Str.	6861
S508	144	15'-0"	Str.	2253
S601	742	32'-7"	Str.	36,314
S602	128	10'-2" to 35'-2" by 1'-8" 8 Each	Str.	4,358
S603	40	6'-9" to 8'-9" by 6" 8 Each	Str.	466
S604	742	27'-8"	Str.	30,834
S605	742	29'-11"	Str.	33,342
S606	742	25'-1"	Str.	27,954
SA501	8	4'-11"		41
SA502	16	3'-9"		63
SA503	4	2'-8"		11
S607	22	11'-1" to 27'-9" by 1'-8" 2 Each	Str.	642
S608	22	6'-2" to 22'-10" by 1'-8" 2 Each	Str.	479
S609	22	8'-10" to 25'-6" by 1'-8" 2 Each	Str.	567
S610	22	13'-8" to 30'-4" by 1'-8" 2 Each	Str.	727

REPLACEMENT BARS

MARK	NO.	LENGTH	TYPE	WEIGHT

MARK	NO.	LENGTH	TYPE	WEIGHT

MARK	NO.	LENGTH	TYPE	WEIGHT

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

333
468

HAM-275-13.91

NOTES

1. BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATE THE BAR SIZE NUMBER.
2. SPIRAL REINFORCING BARS : THE "LENGTH" SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE DISTANCE FROM TOP OF THE FOOTING TO THE BOTTOM OF **CAP**, OR TO WITHIN 2"(±) OF THE TOP OF COLUMN FOR PIERS WITHOUT CAPS, TO THE NEAREST INCH.

FOUR STEEL ANGLE SPACERS, WEIGHING NOT LESS THAN 0.80 LB. PER LIN. FT. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT.

THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.80 LB. PER LIN. FT. WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS.

3. SEE SHEET 11/11 FOR BENDING DETAILS

4. *Refer to CMS SECTIONS 106.03, 700, 709.01, through 709.05 and 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING, RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL, SPLICED IN ACCORDANCE WITH 509.08.*

REVISED DATE 8-22-75

VOGT, IVERS & ASSOCIATES 10/11
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

REINFORCING STEEL LIST

BRIDGE NO. HAM-275-1392 L&R.
I-275
OVER RELOCATED BLUE ROCK RD.
HAMILTON COUNTY STA. 576+41.81 To STA. 578+74.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
~	RES	~	RLS		

FFE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-275-13.91

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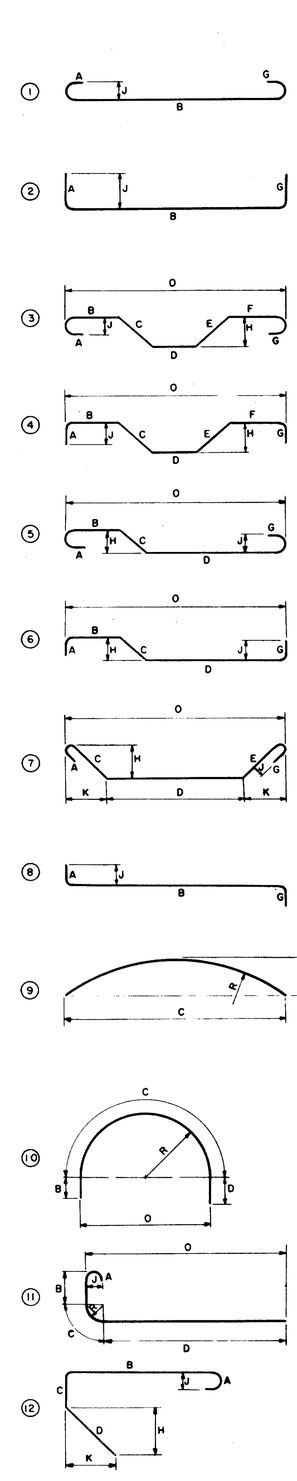
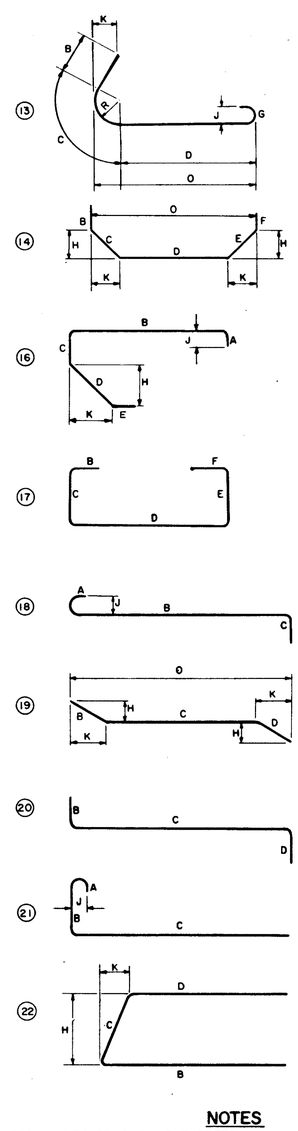
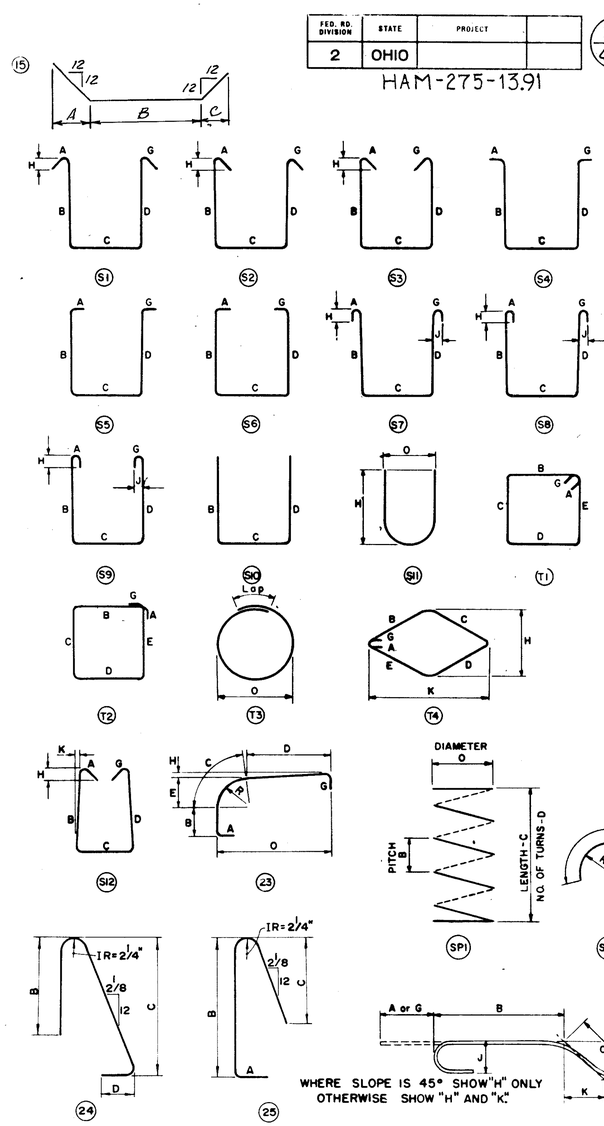
468

MARK	TYPE	DIMENSIONS FOR BENDING												
		A	B	C	D	E	F	G	H	J	K	R	O
A501	2	—	6'-3"					6"					
A502	S10		1'-7"	5'-4"	1'-7"								
A503	S10		1'-7"	3'-4"	1'-7"								
A504	12	—	1'-7"	1'-4"	29'-5"				28'-10"	—	9'-10"		
A506	19		1'-7"	29'-5"	—				1'-6"		6½"		29'-11½"
A508	19		1'-4"	28'-9"	—				5½"		1'-3"		30'-0"
A513	T1	6"	3'-0"	2'-5"	3'-0"	2'-3"		6"					
A524	19		—	9'-2"	6'-8"				2'-11½"		5'-11"		15'-1"
A525	19		—	7'-2"	6'-8"				2'-11½"		5'-11"		13'-1"
A527	25	6"	3'-2"	2'-5"									
A528	2	6"	1'-0"					6"					
A532	2	—	8'-8"					6"					
A601	17		2'-10"	11"	7'-8"	1'-5"	6'-4"						
A602	S10		6'-4"	5'-4"	2'-7"								
A603	14		9"	1'-3"	6'-1"	—	—		9"		11½"		7'-0½"
A604	S10		7'-8"	1'-5"	7'-8"								
A605	S10		9'-0"	1'-2"	9'-0"								
A702	14		9"	1'-0"	3'-6"	—	—		2¼"		11½"		4'-5½"
A703	14		9"	1'-0"	3'-6"	—	—		4"		11½"		4'-5½"
A704	14		9"	1'-1"	3'-8"	—	—		6"		11½"		4'-7½"
A705	14		9"	1'-3"	4'-4"	—	—		9"		11½"		5'-3½"
A706	14		9"	1'-3"	5'-0"	—	—		9"		11½"		5'-11½"
DB01	15	1'-1"	3'-6"	6"									
A801	19		—	29'-11"	2'-6"				2'-4½"		10"		30'-9"
A807	19		3'-2"	29'-11"	—				1'-1"		3'-0"		32'-11"
P501	T2	6"	2'-8"	3'-8"to4'-8"by 2"	2'-8"	3'-8"to4'-8"by 2"		6"					
P502	S6	6"	3'-8"to4'-8"by 2"	1'-2¼"	3'-8"to4'-8"by 2"			6"					
P503	T2	6"	2'-8"	4'-8"	2'-8"	4'-8"		6"					
P504	S10		1'-6"	2'-8"	1'-6"								
P506	T2	6"	2'-8"	4'-4"	2'-8"	4'-4"		6"					
P507	T2	6"	2'-8"	3'-8"to4'-4" by 2"	2'-8"	3'-8"to4'-4" by 2"		6"					
P801	19		5'-8"	17'-8"	—				11⅝"		5'-7⅛"		23'-3⅛"
P802	19		3'-11"	30'-9"	—				9⅝"		3'-10"		34'-7"
P903	2	1'-0"	5'-6"										
P508	T2	6"	1'-2¼"	3'-8"to4'-4" by 2"	1'-2¼"	3'-8"to4'-4" by 2"		6"					
P1001	20		3'-0"	29'-3"	—								
P1004	1	1'-5"	8'-6"					1'-5"					
SP401	SP1		4½"	21'-10"	61								2'-8"
SP402	SP1		4½"	18'-5"	52								2'-8"
SP403	SP1		4½"	17'-4"	49								2'-8"
SP404	SP1		4½"	13'-11"	40								2'-8"
S501	24		2'-2"	2'-5"	7½"								
S502	16	—	7½"	8"	1'-2"	9"		6"	11½"	—	9"		
S503	2	6"	1'-0"										
S504	2	6"	1'-6"									1'-4"	
RE401	SP2		7'-6"										
SA501	17		—	1'-11"	1'-4"	1'-11"	—						
SA502	19		1'-1"	2'-8"	—				9¼"		9¼"		3'-5¼"
SA503	2	6"	2'-2"										







ENLARGED VIEW SHOWING
BAR BENDING DETAILS

NOTES

1. FIGURES IN CIRCLES SHOW BAR TYPES.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. "J" DIMENSION ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. WHERE "J" IS NOT SHOWN "J" WILL BE KEPT EQUAL TO OR LESS THAN "H" WHERE "J" CAN EXCEED "H" IT SHOULD BE SHOWN.
5. "H" DIMENSION ON STIRRUPS TO BE SHOWN WHERE NECESSARY TO RESTRICT HOOKS.
6. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT STIRRUPS S11, TIES T3, SPIRALS SP1 AND WHERE RADIUS "R" IS INDICATED.
7. RADIUS DIMENSION "R" IS TO OUTSIDE OF BAR.
8. THE LENGTH OF BENT BARS IS MEASURED ALONG THE CENTERLINE.
9. FOR STANDARD HOOK DIMENSIONS, SEE SECT. 509.05 OF THE SPECIFICATIONS.
10. FOR BAR TYPE SP1, THE NO. OF TURNS "D" IS THE LENGTH "C" DIVIDED BY THE PITCH "B", PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER. 1½ CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.

REVISED DATE 8-22-75

VOGT, IVERS & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

BAR BENDING DETAILS

BRIDGE NO. HAM-275-1392 L&R.
I-275
OVER RELOCATED BLUE ROCK RD.

HAMILTON COUNTY STA. 576+41.81 To STA. 578+74.09

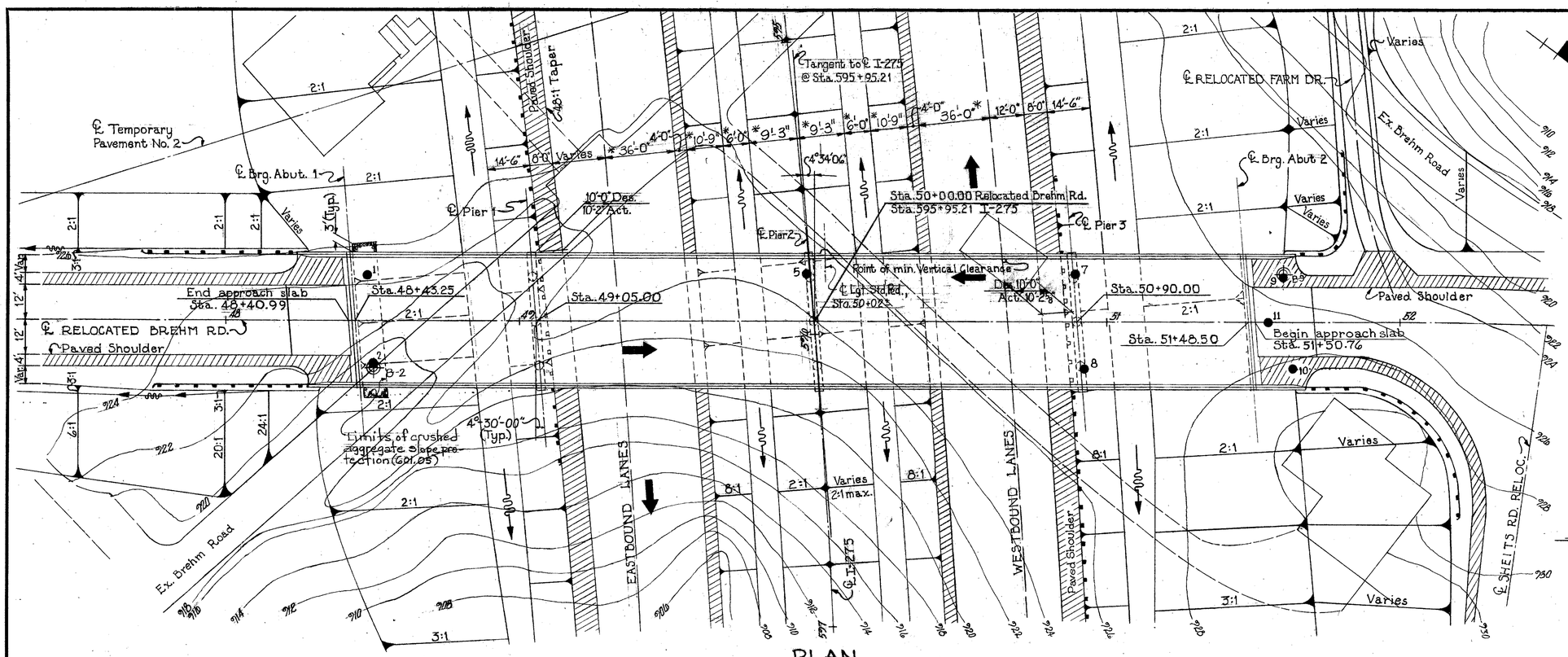
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	RES	~	EFF			

FFE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

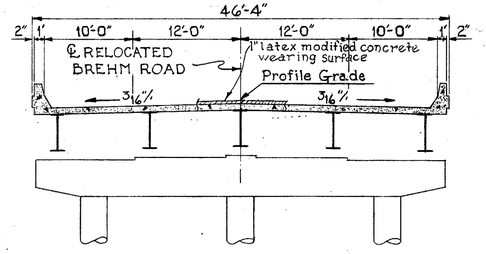
335/468

HAM-275-13.91



PLAN

* These dimensions are not to scale.
See TYPICAL SECTIONS sh. no. 5/468.

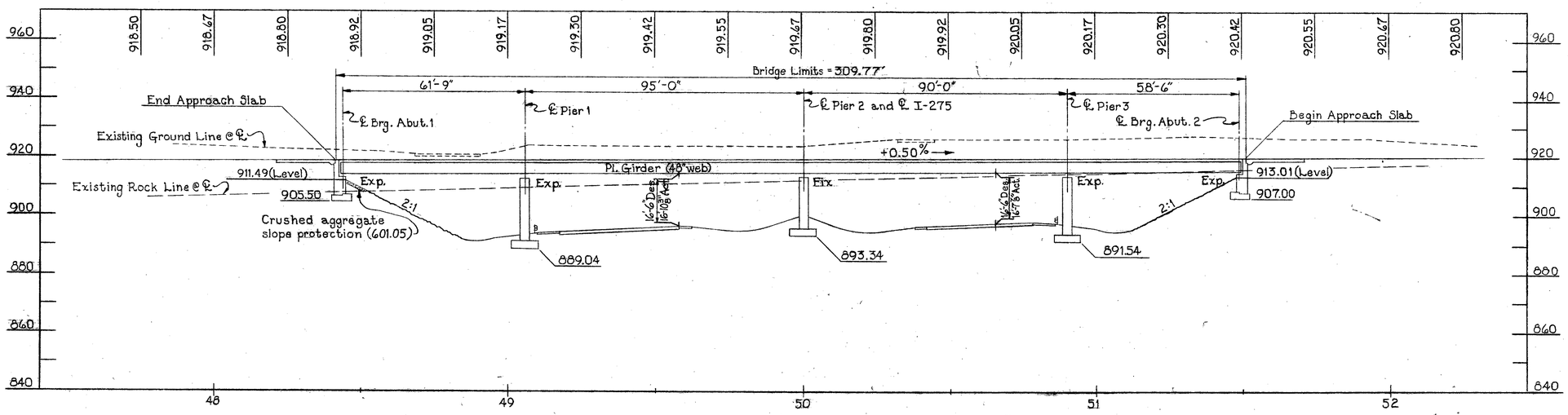


TYPICAL SECTION

CURVE DATA - ℄ I-275
PI Sta. 594+04.71
Δ = 22°04'53.2"
D = 1°28'00"
L = 1505.55'
T = 762.23'
R = 3906.53'

LEGEND
- ● Drive rod penetration resistance sounding
- ⊕ Drive Sample - Core Boring.

NOTE:
Earthwork limits shown are schematic. Actual slopes shall conform to plan cross-sections.



PROFILE

Modify AS-1-72 by providing 3" cover over the top rebars instead of the 2" shown, changing from full width to the width of the approach pavement and eliminating the jacking holes.

REVISED DATE 8-22-75

PROPOSED STRUCTURE

TYPE: Continuous welded plate girder with reinforced concrete deck and substructure.
SPANS: 61'-9"; 95'-0"; 90'-0"; 58'-6"
ROADWAY: 44'-0" f. to f. parapets
DESIGN LOAD: HS 20-44
SKEW: 4°-30'-00" R.F.
WEARING SURFACE: 1" latex modified conc.
ALIGNMENT: Tangent
APPROACH SLABS: AS-1-72 (20' long) (Modified)

1988 ADT = 2,670 V.P.D.
1988 DDHV = 290 V.P.H.

VOGT, IVERS, & ASSOCIATES 1/9
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

SITE PLAN

BRIDGE NO. HAM-275-1429
I-275
UNDER RELOCATED BREHM ROAD
HAMILTON COUNTY STA. 48+40.99 To STA. 51+50.76

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS
Aerial	V.I.A.	E.F.F	E.F.F RES.	R.L.S	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

336
468

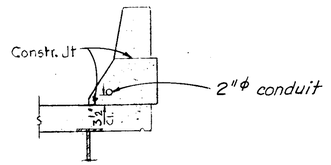
HAM-275-13.91

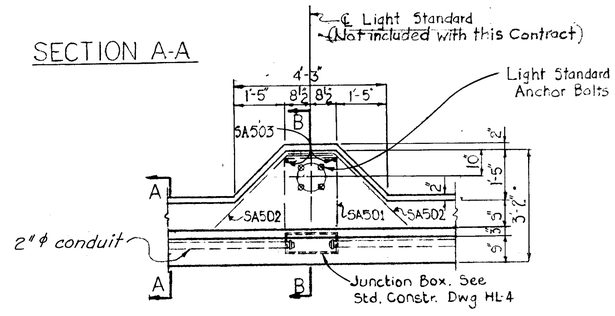
ESTIMATED QUANTITIES

	ITEM	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER-STRUCTURE	GENERAL	CHECKED BY	DATE
	503	96	C.Y.	Unclassified excavation	96				E.F.F.	1-12-71
	503	313	C.Y.	Shale excavation	147	166			E.F.F.	1-12-71
	509	174,225	Lbs.	Reinforcing steel	11886	32817	129522		E.F.F.	1-11-71
	511	~~481~~ 477	C.Y.	Class "C" concrete - Superstructure			~~481~~ 477		B.C.S.	1-14-71
	511	101	C.Y.	Class "C" concrete - Pier caps and columns		101			E.F.F.	1-12-71
	511	133	C.Y.	Class "C" concrete - Abutments above footings	133				E.F.F.	1-12-71
	511	130	C.Y.	Class "C" concrete - Footings	55	75			E.F.F.	1-12-71
*	513	358854	Lbs.	Structural steel			358854		B.C.S.	1-14-71
*	514	358854	Lbs.	Field painting of structural steel			358854		B.C.S.	1-14-71
	518	68	C.Y.	Porous backfill	68				B.C.S.	1-14-71
	518	77	Lin. Ft.	6" perforated, helical corrugated metal pipe, 707.01	77				B.C.S.	1-14-71
	518	86	Lin. Ft.	6" non-perforated, helical corrugated metal pipe, including especials, 707.01	86				B.C.S.	1-14-71
	518	8	Each	Scuppers, including supports			8		B.C.S.	1-14-71
	601	47	Sq.Yd.	Crushed aggregate slope protection				47	B.C.S.	1-14-71
	808	~~481~~ 477	Units	Chemical admixture for concrete, Type A, B or D			~~481~~ 477		B.C.S.	1-14-71
	S625		——	See sheet 335/468 for Lighting Summary						
	SPECIAL	1447	Sq.Yd.	Surface preparation			1447			
	SPECIAL	40	Cu.Yd.	Latex modified portland cement concrete			40			
	SPECIAL	1447	Sq.Yd.	Finishing and curing			1447			

* 3784 lbs. of structural steel shall be paid for by the Cincinnati Bell, Inc.

Materials in the approach slabs are not included in the above estimated quantities.





SECTION A-A

LIGHT STANDARD PEDESTAL

Note: For additional details see Standard Construction Drwg. HL-4

GENERAL NOTES

REFERENCE shall be made to the following:

Standard Drawings:	SD-1-69, dated	6-12-69	
	RB-1-55, revised	2- 2-59	
	BR-1-67, revised	10-15-71	
	AS-1-72, dated	6-30-72	
	HL-4 , dated	9-6-73	HL-5, dated 9-6-73
Supplemental Specifications:	808, dated	1-1-71	
	836, dated	3-12-75	
	S625, dated	1-11-74	

DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1969, including the Ohio "Supplement" to these specifications.

DESIGN DATA:

Design Loading - HS 20-44

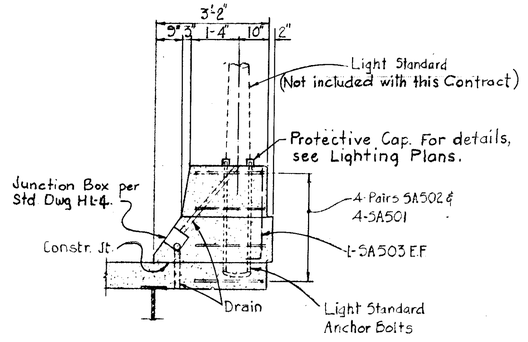
Concrete Class "C" - unit stress 1,200 p. s. i. for superstructure
- unit stress 1,333 p. s. i. for substructure

Structural Steel - ASTM A36 - unit stress 20,000 p. s. i.
Reinforcing Steel - ASTM A615, A616 or A617 - unit stress 20,000 p. s. i.
Spiral reinforcement may be plain bars ASTM A82 or A615.

FOUNDATION BEARING PRESSURE: Abutment and pier footings are designed for a maximum bearing pressure of 4 tons per sq. ft.

FOOTINGS: Abutment and pier footings shall extend a minimum of 3 inches into bedrock or to the elevation shown, whichever is lower.

UTILITY LINES: All expense involved in relocating (installing) the affected utility lines shall be borne by the Owner(s). The Contractor and Owner(s) are requested to cooperate by arranging their work in such a manner that inconvenience to either would be held to a minimum.



SECTION B-B

Note: The anchor bolts shall be included under Item S-625 for payment. For Anchor Bolts: Size, type, projection and bolt circle diameter, see Lighting Plans

VOGT, IVERS, & ASSOCIATES 279
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

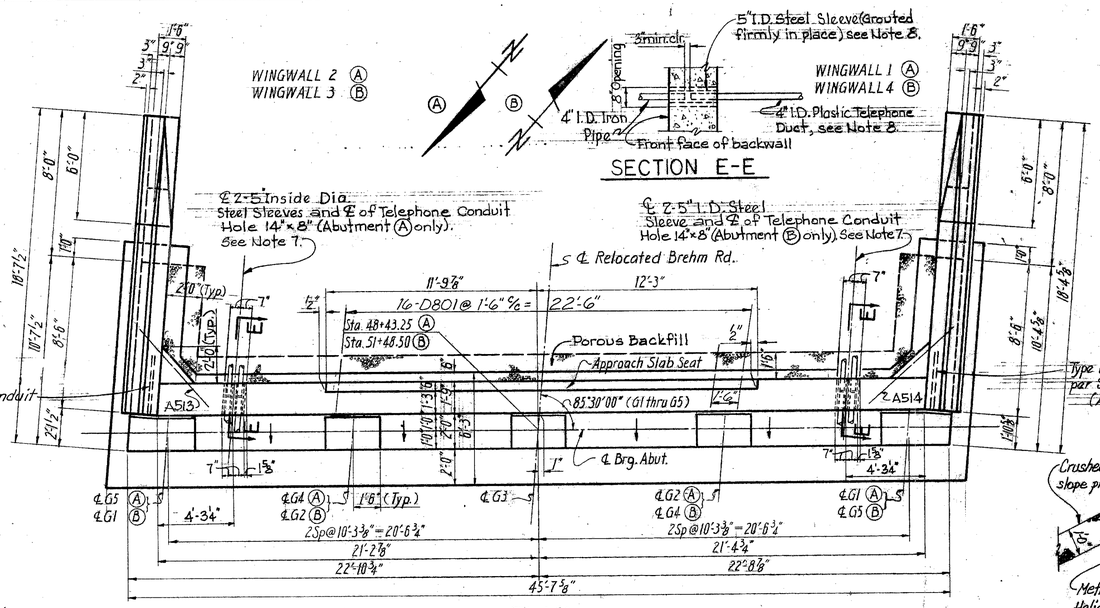
ESTIMATED QUANTITIES & GENERAL NOTES
BRIDGE NO. HAM-275-1429
I-275
UNDER RELOCATED BREHM RD.
HAMILTON COUNTY STA. 48+40.99 to STA. 51+50.76

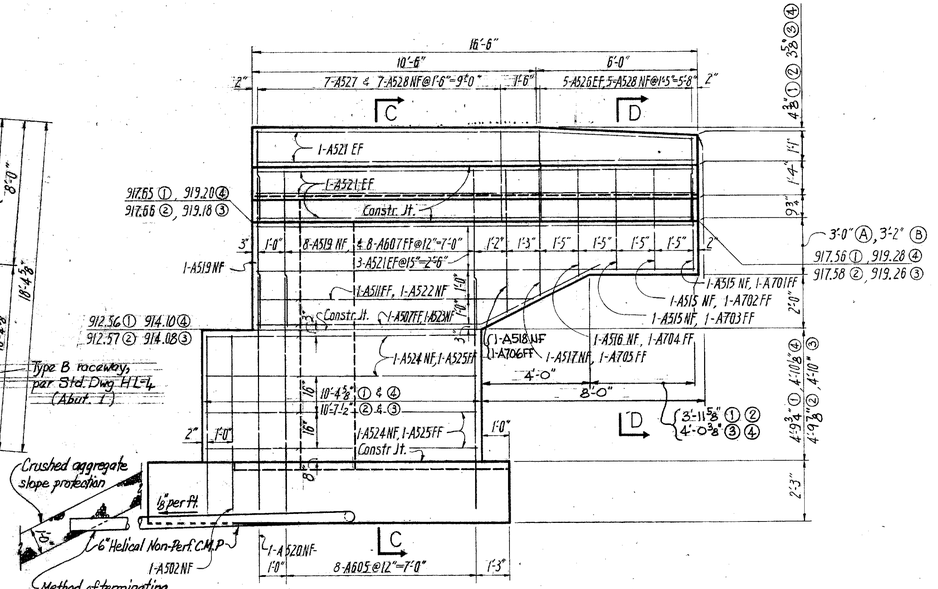
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
—	E.F.F.	—	R.L.S.			11-1-72

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

337
448

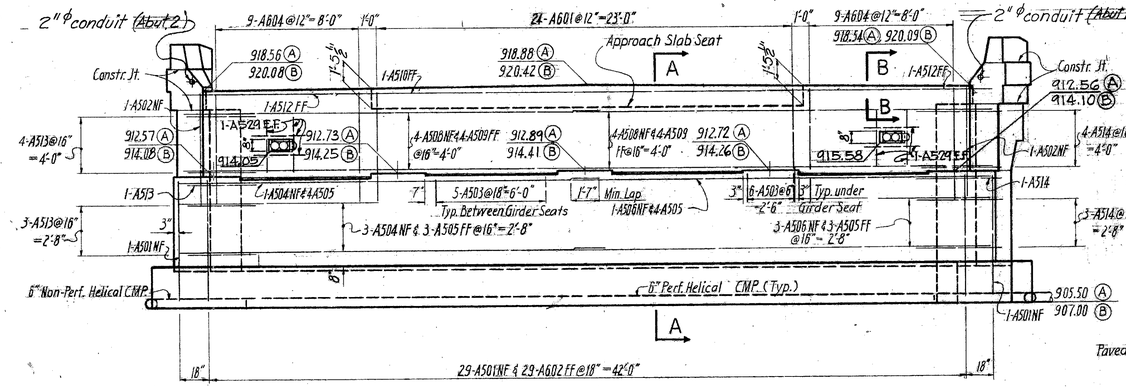
HAM-275-13.91

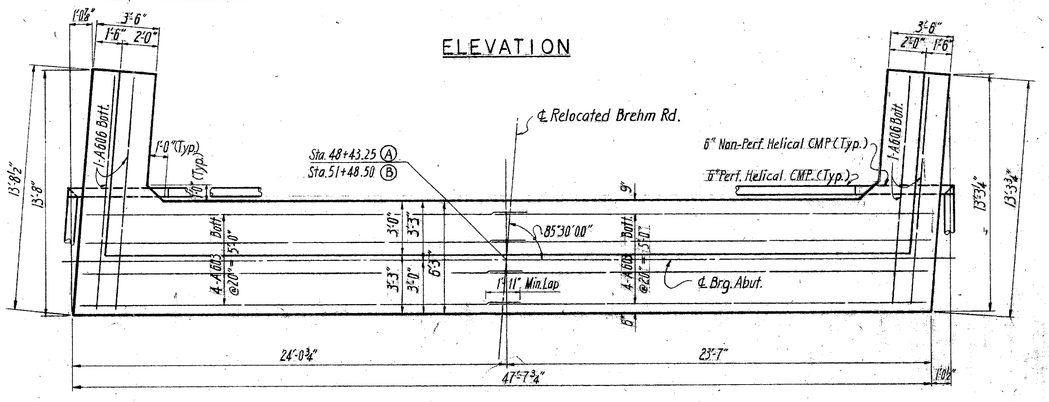


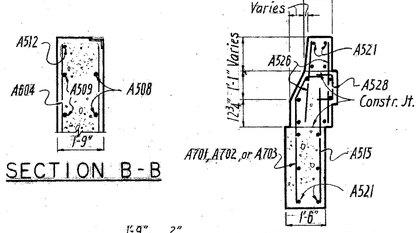


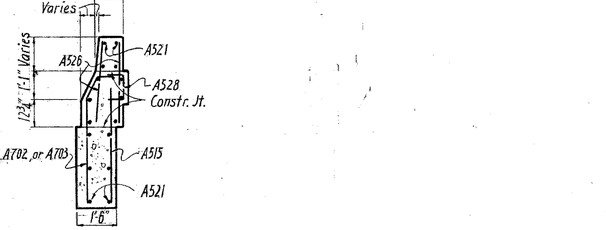
LEGEND

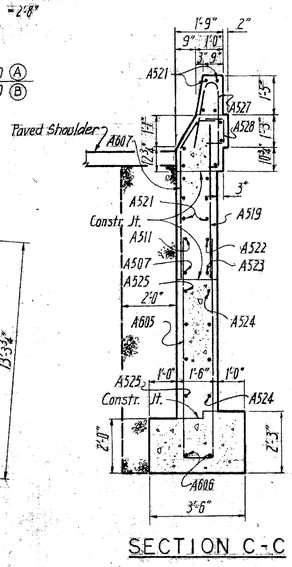
NF = Near Face
FF = Far Face
EF = Each Face
(A) = Abutment 1
(B) = Abutment 2
(1) = Wingwall 1
(2) = Wingwall 2
(3) = Wingwall 3
(4) = Wingwall 4

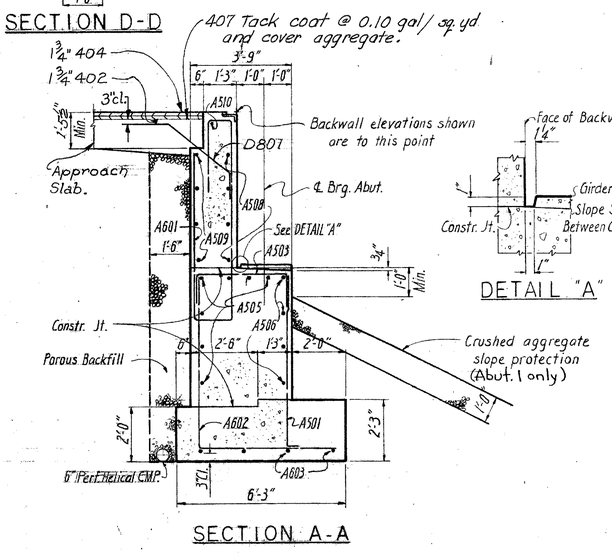


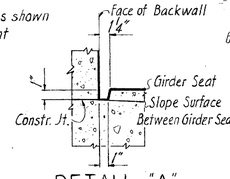












NOTES

1. The minimum clearance between reinforcing steel and the footing surface of concrete shall be 3 inches.
2. For End Dam Detail see Std. Dwg. SD-1-69, Sheets 1 & 2 of 4.
3. For Curb Plate Detail see Std. Dwg. SD-1-69 Sheet 2 of 4.
4. For Reinforcing Steel List see sheet 3/9
5. Parapet transitions and wingwall ends, shall be as shown on Std. Dwg. BR-1-67 revised 10-15-71. Reinforcing steel shall be field bent or cut to fit the revised shape.
6. Porous backfill, 1'-6" thick shall extend up to the plane of the subgrade and laterally to the ends of the wingwalls. Porous backfill, 2'-0" thick and limits as shown in wingwall plan, shall extend up to bottom of paved shoulder.
7. Backwall Concrete: In addition to the provisions of 511.08, backwall concrete shall not be placed until after the deck concrete in the span adjacent to the backwall has been placed.
8. The 5" I.D. steel sleeve, grouting 4" I.D. iron pipe & plastic duct shall be furnished and placed by Cincinnati Bell Inc.

VOGT, IVERS, & ASSOCIATES 3/9
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

ABUTMENTS

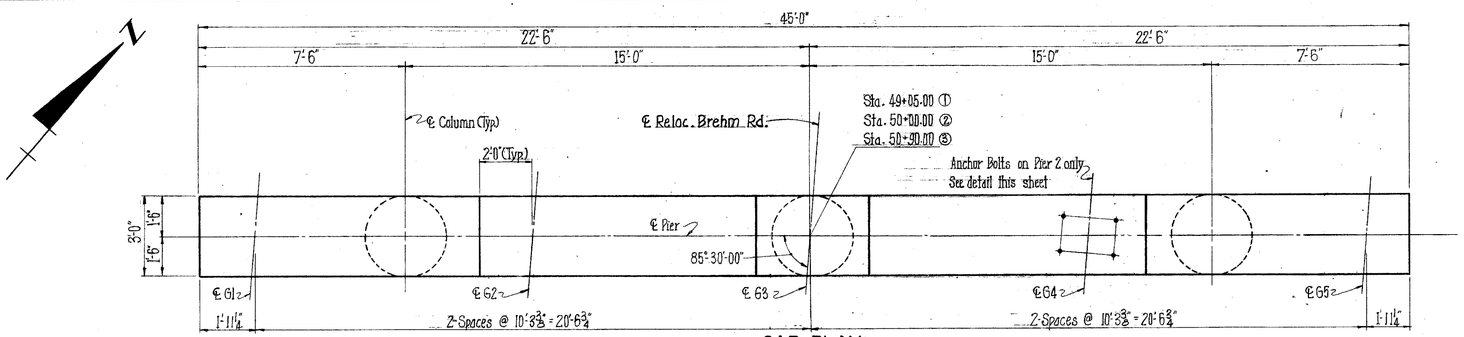
BRIDGE NO. HAM-275-1429
I-275
UNDER RELOCATED BREHM ROAD
HAMILTON COUNTY STA. 48+40.99 to STA. 51+50.76

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
—	C.T.S.	~	J.J.J.			

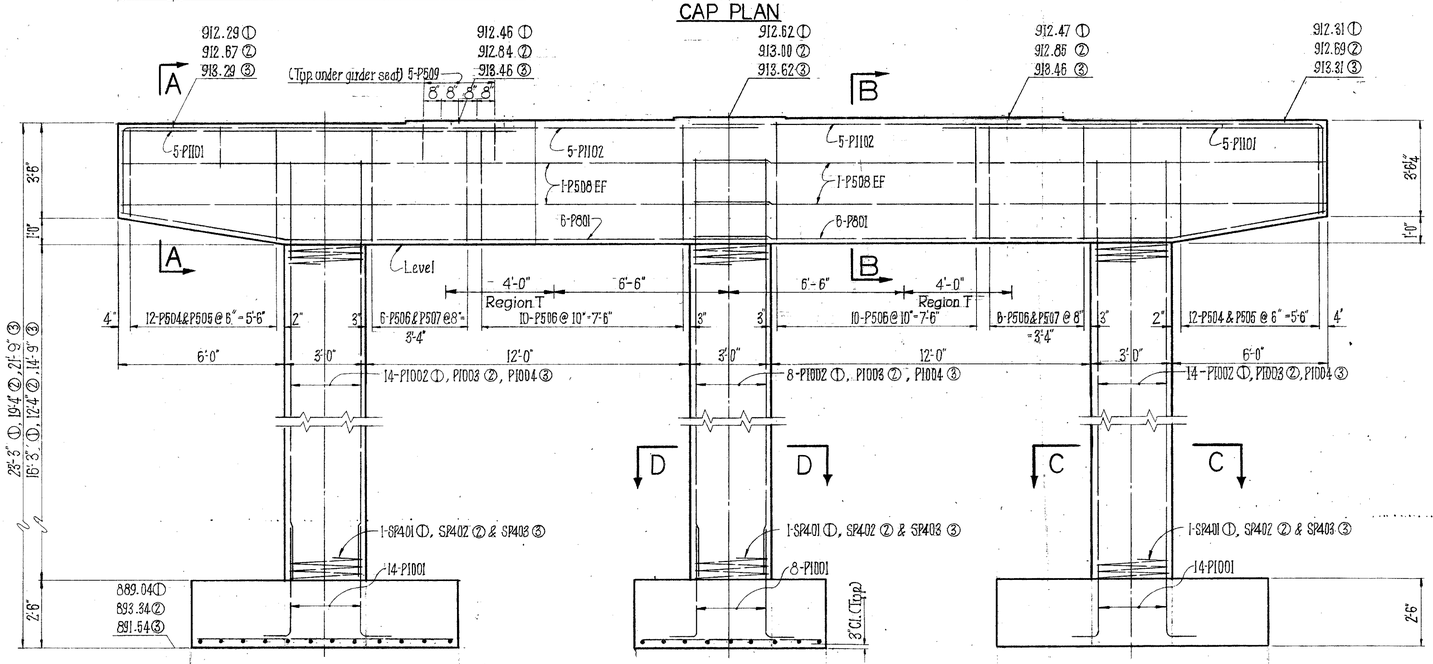
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

338
468

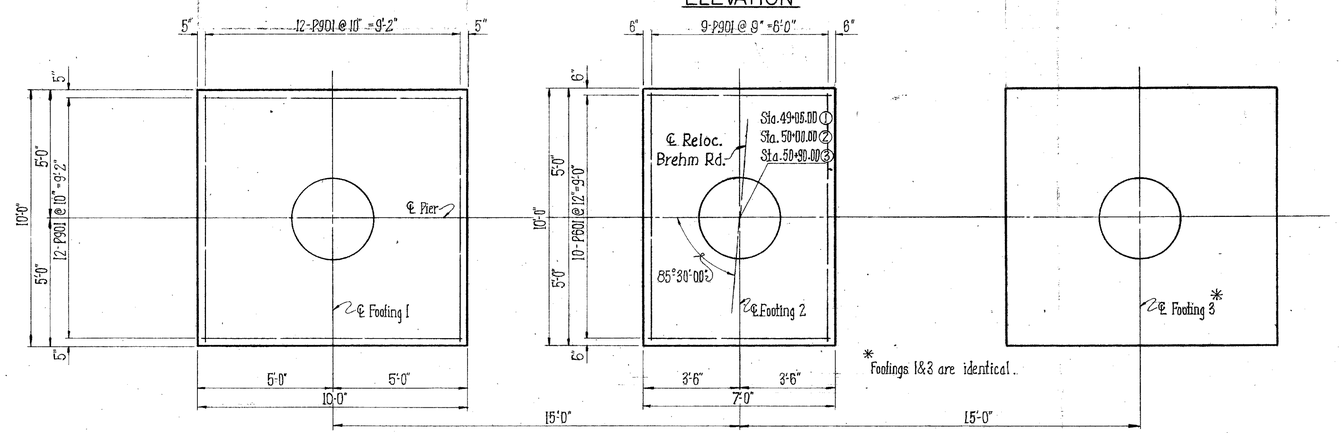
HAM-275-13.91



CAP PLAN

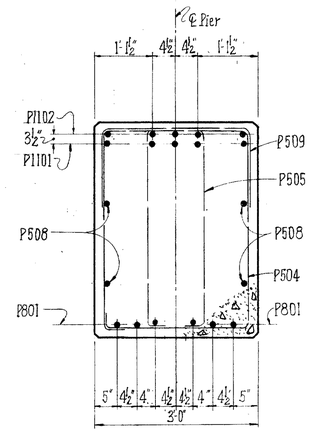


ELEVATION

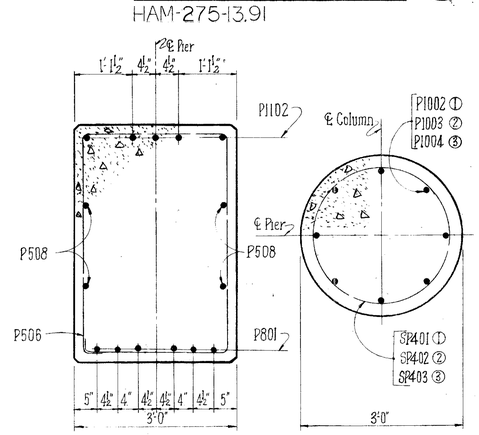


* Footings 1&3 are identical.

FOOTING PLAN

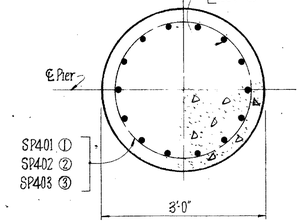


SECTION A-A

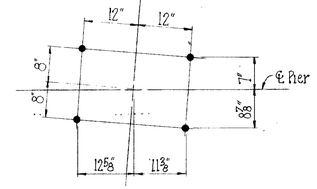


SECTION B-B

SECTION D-D



SECTION C-C



ANCHOR BOLT LAYOUT
PIER 2 ONLY

BEARING ANCHORS: At the option of the Contractor, bearing anchors (or formed holes), located and supported by templates, may be cast-in-place.

NOTES

1. Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor bolt holes or the presetting of bearing anchors.
2. For Reinforcing Steel List see Sheet 8/9
3. Place dowels in footing to insure correct spacing of main column steel.
4. Except as otherwise shown, place hooks in the stirrups in the bottom of the cap.

LEGEND

① = Pier 1
② = Pier 2
③ = Pier 3
Region T = Hooks in stirrups are located in top of the cap.

VOGT, IVERS, & ASSOCIATES 4/9
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

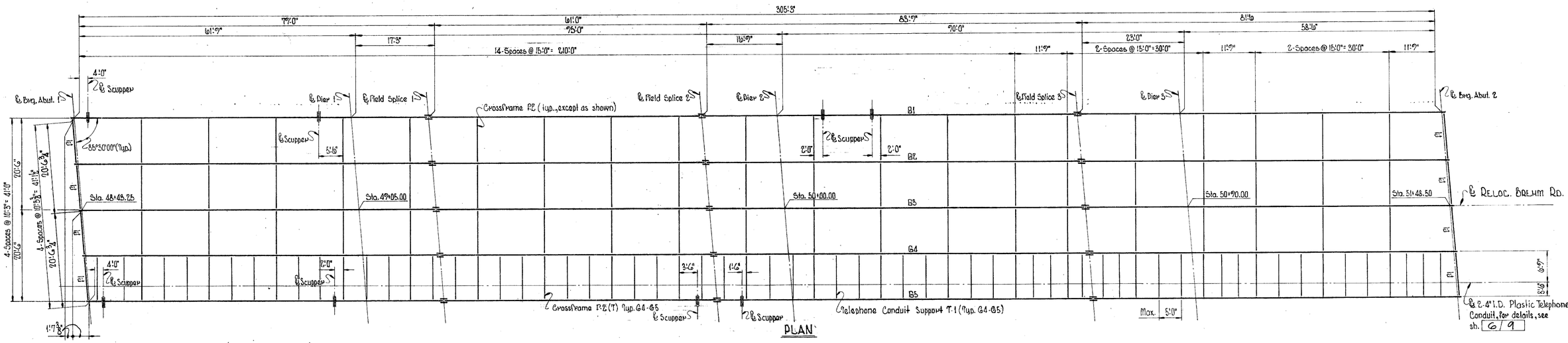
PIERS 1,2&3
BRIDGE NO. HAM-275-1429
I-275
UNDER RELOCATED BREHM ROAD
HAMILTON COUNTY STA. 48+40.99 to STA. 51+50.76

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DSM	GKS		J.J.J.			

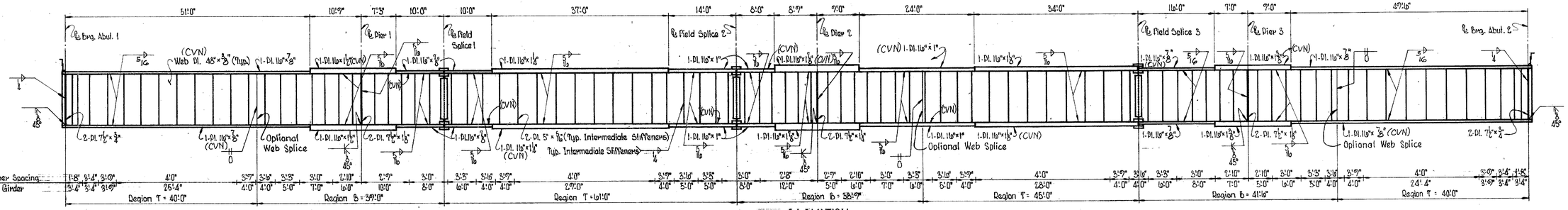
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

339
428

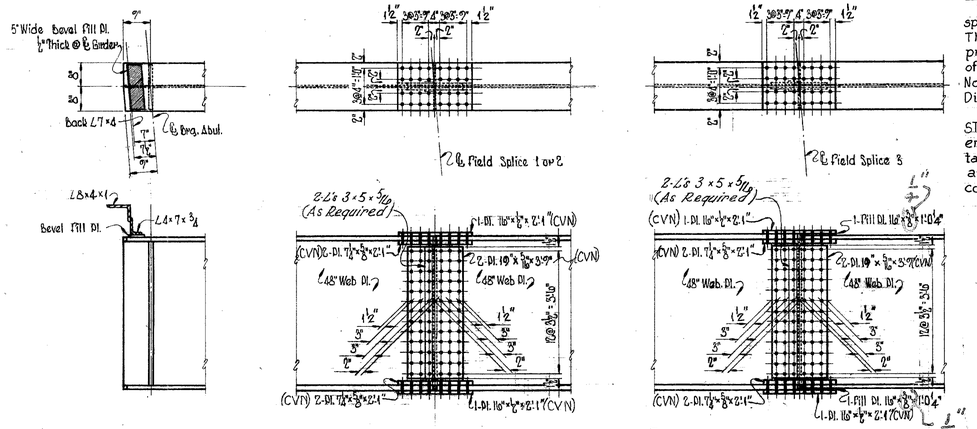
HAM-275-13.91



PLAN



ELEVATION



NOTE: For all Field Splices use 7/8" ϕ High Strength Bolts.

NOTES:

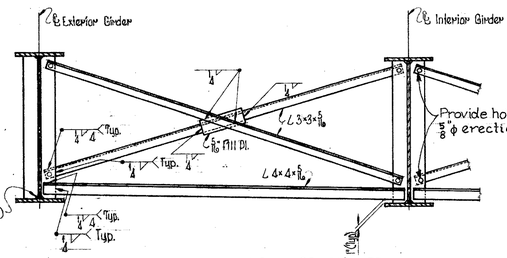
Shapes or plates designated "CVN" shall meet specified minimum notch toughness requirements. The Fabricator shall submit to the Director a procedure designed for positive identification of material through all phases of fabrication. No material shall be fabricated until the Director has approved the procedure.

STEEL ERECTION: During the erection of the end dams and crossframes care shall be taken to insure that girders, bearing parts and bridge seats remain in bearing contact.

LEGEND

Region T = Intermediate stiffener shall have contact bearing with or be welded to the top flange, and shall have contact bearing with the bottom flange.

Region B = Intermediate stiffener shall have contact bearing with or be welded to the bottom flange, and shall have contact bearing with the top flange.



TYPICAL INTERMEDIATE CROSSFRAME - P2

NOTES:

1. Anchor bars for the end dam shall be 3 3/8" clear from the top of slab.
2. For additional Notes & Details, see sh. 6/9

VOGT, IVERS, & ASSOCIATES 5/9
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

FRAMING PLAN
BRIDGE NO. HAM-275-1429
I-275
UNDER RELOCATED BREHM ROAD
HAMILTON COUNTY STA. 48+40.99 to STA. 51+50.76

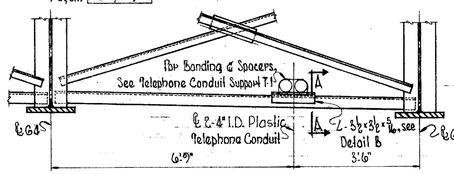
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JRG	GWM	2	JJJ			6-12-78

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

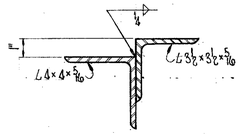
340
428

HAM-275-13.91

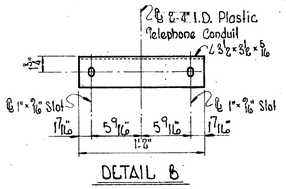
NOTE: For details not shown, see Typical Intermediate Crossframe P-2, sh. 5 / 9



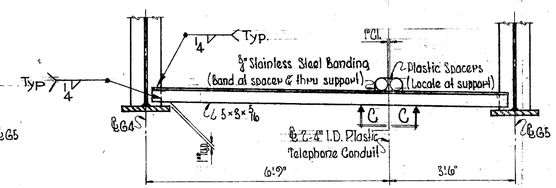
CROSSFRAME P-2(T)



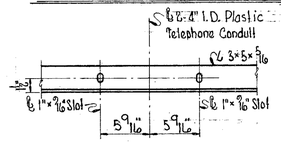
SECTION A-A



DETAIL B



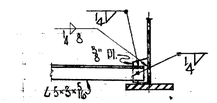
TELEPHONE CONDUIT SUPPORT T-1



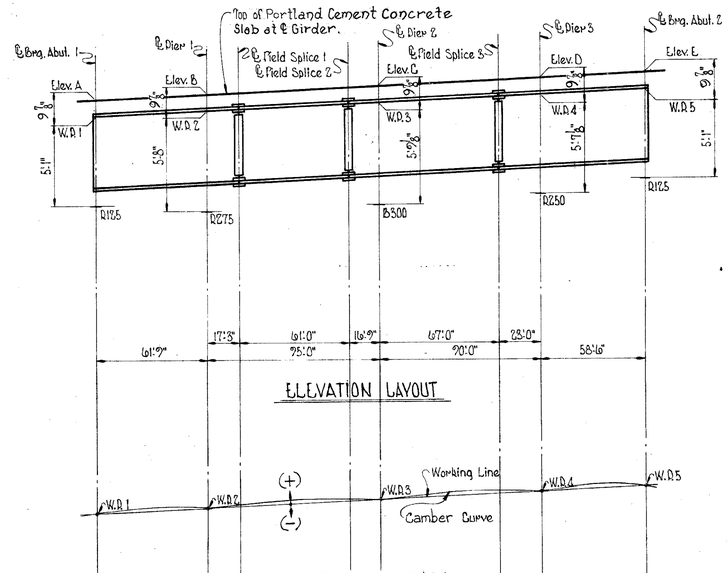
VIEW C-C

NOTES FOR TELEPHONE CONDUIT

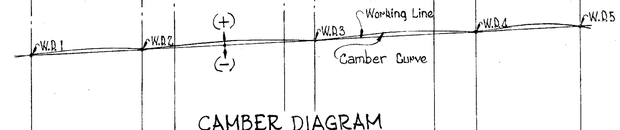
1. The Contractor shall furnish and install the support angles and gusset plates for support of Cincinnati Bell Inc. conduit system. The cost of labor and materials therefore shall be included in the unit price bid for Item 518 and Item 514 and is chargeable to Cincinnati Bell Inc.
2. The 2-4" I.D. Plastic Conduits, together with couplings, spacers and banding will be furnished and installed by Cincinnati Bell Inc..



ALTERNATE CONNECTION FOR T-1 AT GIRDER



ELEVATION LAYOUT



CAMBER DIAGRAM

	Girder	A1	¼	½	¾	P1	FS1	¼	½	¾	FS2	P2	¼	½	¾	FS3	P3	¼	½	¾	A2
		4-Equal Spaces						4-Equal Spaces					4-Equal Spaces					4-Equal Spaces			
Deflection due to Steel DL	G1&G5	0	0	0	0	0	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"	0	0	-1/16"	-1/16"	-1/16"	0	0	0	0	0
	G2,G3&G4	0	0	0	0	0	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"	0	0	-1/16"	-1/16"	-1/16"	0	0	0	0	0
Deflection due to Remaining DL	G1&G5	0	-3/16"	-5/16"	0	0	-1/16"	-3/16"	-5/16"	-5/16"	-3/16"	0	0	-5/16"	-5/16"	-3/16"	0	0	-1/16"	-3/16"	0
	G2,G3&G4	0	-3/16"	-5/16"	0	0	-1/16"	-3/16"	-5/16"	-5/16"	-3/16"	0	0	-5/16"	-5/16"	-3/16"	0	0	-1/16"	-3/16"	0
Total Camber Required	G1&G5	0	+⅜"	+⅜"	0	0	+1/16"	+3/16"	+1/16"	+1/16"	+1/16"	0	0	+1/16"	+3/16"	+1/16"	0	0	+1/16"	+1/16"	0
	G2,G3&G4	0	+5/16"	+5/16"	0	0	+1/16"	+1/16"	+3/16"	+3/16"	+1/16"	0	0	+1/16"	+1/16"	+1/16"	0	0	+1/16"	+3/16"	0

Girder	Elev. A	Elev. B	Elev. C	Elev. D	Elev. E
G1	918.475	918.784	919.259	919.709	920.001
G2	918.639	918.948	919.423	919.873	920.165
G3	918.803	919.112	919.587	920.037	920.330
G4	918.647	918.956	919.431	919.881	920.173
G5	918.491	918.800	919.275	919.725	920.017

NOTES FOR ELEVATION LAYOUT

1. The Working Line is a straight line passing through the Work Points.
2. Tabulated values in the Deflection And Camber Table are measured from the Working Line.
3. Working Point (W.P.) is the top of web.

NOTES

1. For Rockers and Bolster details, see Std. Dwg. RB-1-55.
2. For details of End Crossframe F1, End Dam, and Curb Plate, see Std. Dwg. SD-1-69, sheets 1 and 2 of 4.
3. For Scupper details, see Std. Dwg. SD-1-69, sheet 3 of 4 except that scupper pipes shall extend 8" below the bottom of the girders instead of 2".

VOGT, IVERS, & ASSOCIATES 6 / 9
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

FRAMING DETAILS
BRIDGE NO. HAM-275-1429
I-275
UNDER RELOCATED BREHM ROAD

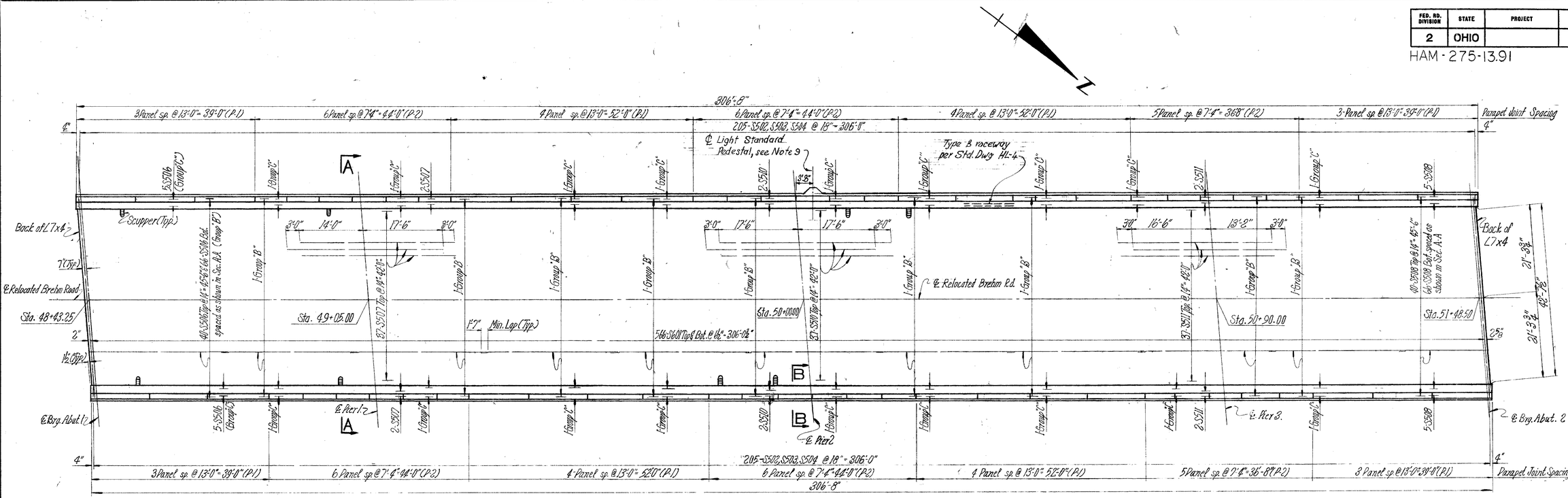
HAMILTON COUNTY STA. 48+40.99 to STA. 51+50.76

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JRG	GWM	2	JJJ			

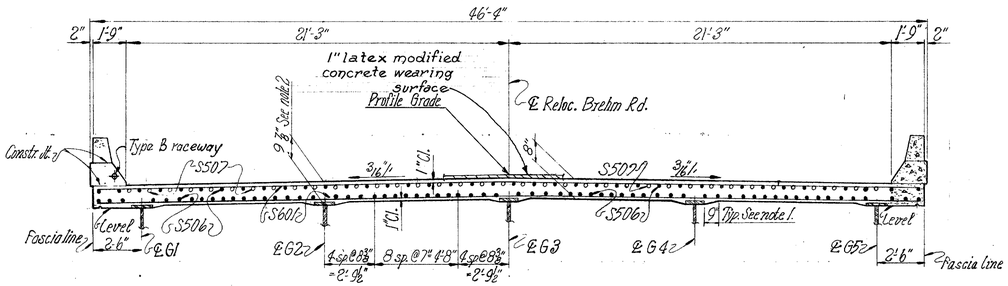
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

341
468

HAM-275-13.91

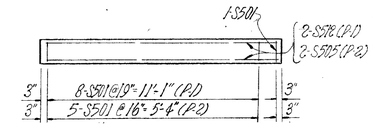


SLAB PLAN

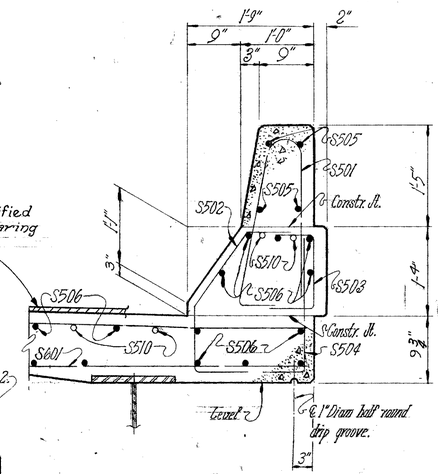


SECTION A-A

PANELS		
MARK	LENGTH	NO.
P-1	13'-0"	28
P-2	7'-4"	34



PAPAPET PANELS



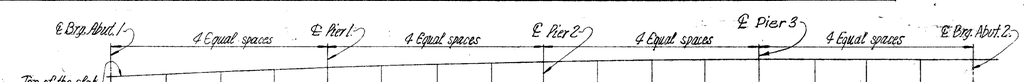
SECTION B-B

NOTES

1. A typical haunch width of 9" shall be used for computing the quantity of concrete; however, the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.
2. This is the design dimension. The quantity of deck concrete to be paid for shall be based on the design slab thickness shown between the girders and this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per 511.18.
3. This Note has been deleted.
4. For End Panel & Curb Plate Details see Std. Dwg. SD-1-69 sheets 1 & 2 of 4.
5. For Reinforcing Steel List see sheet 8/9
6. For location of Scuppers see, sheet 5/9
7. Cut reinforcing steel in slab to clear scuppers.
8. For Parapet Joint Detail see Std. Dwg. BR-1-67 sheet 1 of 3.
9. For details of Light Standard Pedestal, see sheet 2/9

PAVEMENT ELEVATIONS (TOP OF LATEX MODIFIED CONCRETE)

Station	48+25	48+50	48+75	49+00	49+25	49+50	49+75	50+00	50+25	50+50	50+75	51+00	51+25	51+50	51+75
Left Curb Line	918.46	918.59	918.71	918.84	918.96	919.09	919.21	919.34	919.46	919.59	919.71	919.84	919.96	920.01	920.21
Profile Grade	916.80	918.92	919.05	919.17	919.30	919.42	919.55	919.67	919.80	919.92	920.06	920.12	920.30	920.42	920.55
Right Curb Line	918.46	918.59	918.71	918.84	918.96	919.09	919.21	919.34	919.46	919.59	919.71	919.84	919.96	920.01	920.21



SCREED ELEVATIONS-TOP OF PORTLAND CEMENT CONCRETE SLAB (Adjusted for remaining dead load)

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Left Curb Line	918.47	918.55	918.63	918.70	918.77	918.92	919.05	919.15	919.25	919.38	919.51	919.61	919.70	919.78	919.86	919.93	919.99
Right Curb Line	918.48	918.57	918.65	918.72	918.79	918.94	919.07	919.17	919.27	919.39	919.52	919.62	919.72	919.79	919.83	919.95	920.01

VOGT, IVERS, & ASSOCIATES 7/9
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

ROADWAY SLAB
BRIDGE NO. HAM-275-1429
I-275
UNDER RELOCATED BREHM ROAD
HAMILTON COUNTY STA. 48+90.99 to STA. 51+50.76

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JRG	EKS		J.J.J.			

ABUTMENTS

MARK	NO.	LENGTH	TYPE	WEIGHT
A501	66	7'-1"	Bt.	488
A502	4	8'-0"	Bt.	33
A503	100	7'-2"	Bt.	747
A504	8	24'-11"	Bt.	208
A505	26	23'-5"	Str.	684
A506	8	24'-11"	Bt.	208
A507	4	12'-0"	Bt.	50
A508	16	23'-6"	Bt.	392
A509	16	22'-6"	Str.	375
A510	2	27'-3"	Str.	57
A511	4	9'-0"	Str.	38
A512	4	9'-7"	Str.	40
A513	16	6'-0"	Str.	100
A514	16	6'-6"	Str.	108
A515	12	4'-9"	Str.	59
A516	4	5'-0"	Str.	21
A517	4	5'-9"	Str.	24
A518	4	6'-3"	Str.	26
A519	36	6'-9"	Str.	253
A520	4	9'-0"	Bt.	38
A521	64	16'-2"	Str.	1079
A522	4	10'-2"	Str.	42
A523	4	13'-4"	Bt.	56
A524	16	10'-0"	Str.	167
A525	16	6'-9"	Str.	113
A526	40	2'-10" to 3'-2" by 1", 8 Ea.	Str.	125
A527	28	6'-4"	Bt.	185
A528	48	2'-0"	Bt.	100
A529	16	3'-0"	Str.	50
A601	48	19'-0"	Bt.	1370
A602	58	11'-9"	Bt.	1024
A603	16	24'-6"	Str.	589
A604	36	16'-1"	Bt.	870
A605	32	18'-6"	Bt.	889
A606	8	12'-9"	Str.	153
A607	32	7'-9"	Bt.	372
A701	4	4'-8"	Str.	38
A702	4	5'-4"	Bt.	44
A703	4	5'-5"	Bt.	44
A704	4	5'-8"	Bt.	46
A705	4	6'-6"	Bt.	53
A706	4	7'-1"	Bt.	58
D801	32	5'-6"	Bt.	470

PIERS

MARK	NO.	LENGTH	TYPE	WEIGHT
P501	—	Not Used	—	—
P502	—	Not Used	—	—
P503	—	Not Used	—	—
P504	72	11'-7" to 13'-5" by 2", 6 Each	Bt.	939
P505	72	8'-1" to 9'-11" by 2", 6 Each	Bt.	676
P506	96	13'-7"	Bt.	1360
P507	36	10'-1"	Bt.	379
P508	24	23'-4"	Str.	584
P509	75	5'-7"	Bt.	437
P601	30	6'-6"	Str.	293
P801	36	23'-7"	Bt.	2267
P901	171	9'-6"	Str.	5523
P1001	108	6'-7"	Bt.	3059
P1002	36	19'-6"	Str.	3021
P1003	36	15'-7"	Str.	2414
P1004	36	18'-0"	Str.	2788
P1101	30	14'-6"	Str.	2311
P1102	30	26'-11"	Bt.	4290
SP401	3	16'-3"	Bt.	922
SP402	3	12'-4"	Bt.	712
SP403	3	14'-9"	Bt.	842

SUPERSTRUCTURE

MARK	NO.	LENGTH	TYPE	WEIGHT
S501	456	5'-4"	Bt.	2537
S502	410	3'-2"	Bt.	1354
S503	410	2'-0"	Bt.	855
S504	410	2'-3"	Bt.	962
S505	136	7'-0"	Str.	993
S506	1160	30'-0"	Str.	36296
S507	41	34'-6"	Str.	1475
S508	116	22'-4"	Str.	2702
S509	—	Not Used	—	—
S510	41	38'-0"	Str.	1625
S511	41	32'-8"	Str.	1397
S512	112	12'-8"	Str.	1480
S601	1132	45'-9"	Str.	77787
SA501	4	4'-11"	Bt.	21
SA502	8	3'-9"	Bt.	32
SA503	2	2'-8"	Bt.	6

MARK	NO.	LENGTH	TYPE	WEIGHT

MARK	NO.	LENGTH	TYPE	WEIGHT

MARK	NO.	LENGTH	TYPE	WEIGHT

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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HAM-275-13.91

NOTES

1. BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATE THE BAR SIZE NUMBER.
2. SPIRAL REINFORCING BARS: THE "LENGTH" SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE DISTANCE FROM TOP OF THE FOOTING TO THE BOTTOM OF CAP, OR TO WITHIN 2" (±) OF THE TOP OF COLUMN FOR PIERS WITHOUT CAPS, TO THE NEAREST INCH

FOUR STEEL ANGLE SPACERS, WEIGHING NOT LESS THAN 0.80 LB. PER LIN. FT. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT.

THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.80 LB. PER LIN. FT. WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS.

3. SEE SHEET 9/9 FOR BENDING DETAILS
4. REFER TO CMS SECTIONS 106.03, 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL, SPLICED IN ACCORDANCE WITH 509.08.

VOGT, IVERS & ASSOCIATES
ENGINEERS CINCINNATI
ARCHITECTS CHICAGO

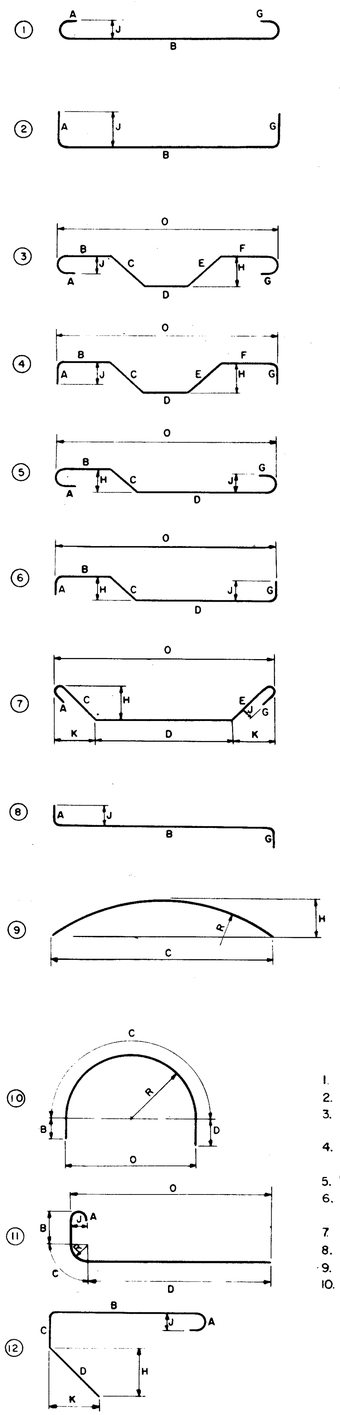
8/9

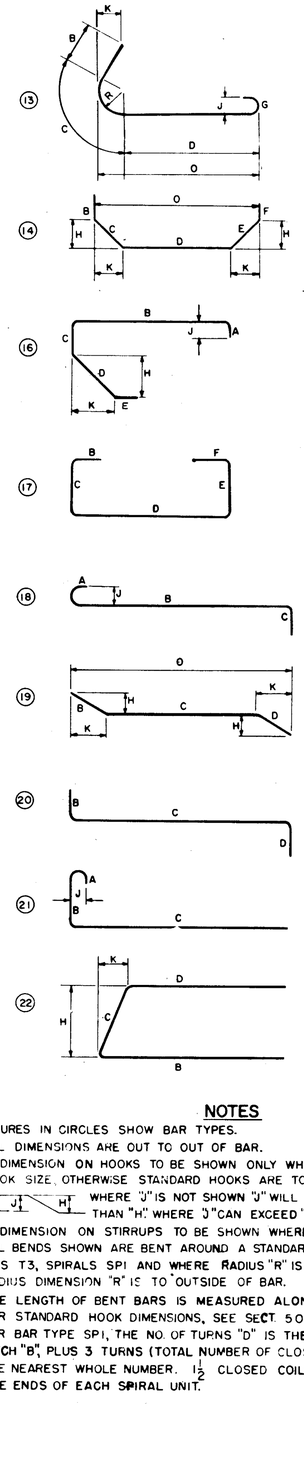
REINFORCING STEEL LIST

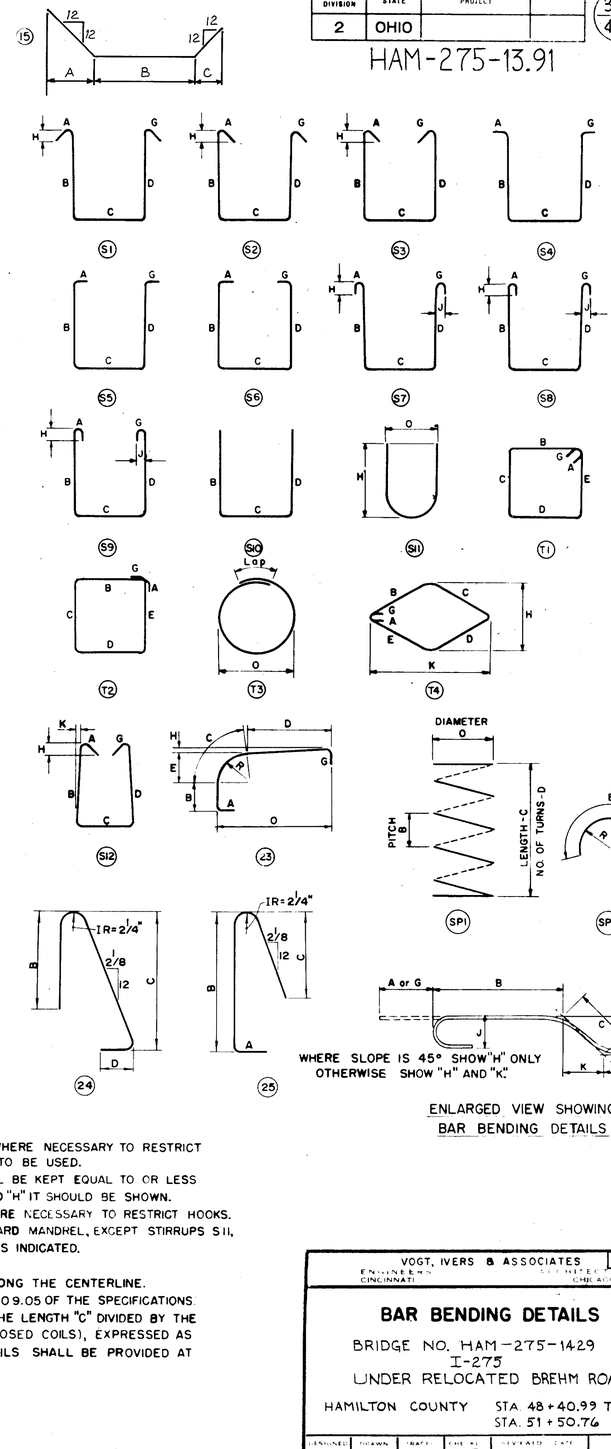
BRIDGE NO. HAM-275-1429
I-275
UNDER RELOCATED BREHM ROAD
HAMILTON COUNTY STA. 48+40.99 To STA. 51+50.76

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	R.F.S.	~	E.F.F.			

MARK	TYPE	DIMENSIONS FOR BENDING A	B	C	D	E	F	G	H	J	K	R	O
A501	2	6"	6'-7"										
A502	2	6"	7'-6"										
A503	17			2'-0"	3'-5"	2'-0"							
A504	22		23'-5"	1'-8"					1'-8"		1½"		
A506	19			23'-5"	1'-8"				1'-8"		1½"		23'-6½"
A507	19			7'-0"	5'-0"				2'-3"		4'-6"		11'-6"
A508	19			22'-2"	1'-4"				1½"		1'-4"		23'-6"
A520	2	6"	8'-6"										
A523	19			8'-4"	5'-0"				2'-3"		4'-6"		12'-10"
A527	25	6"	3'-2"	2'-5"									
A528	2	6"	1'-0"					6"					
A601	17		2'-8"	11"	8'-0"	1'-5"	6'-7"						
A602	20			5'-4"	6'-7"								
A604	17			7'-6"	1'-5"	7'-6"							
A605	S10		8'-10"	1'-2"	8'-10"								
A607	14		9"	1'-2"	6'-0"				9"		11½"		6'-11½"
A702	16	—		9"	11"	3'-10"			2¼"	—	11½"		
A703	16	—		9"	1'-0"	3'-10"			4"	—	11½"		
A704	16	—		9"	1'-1"	4'-0"			6"	—	11½"		
A705	16	—		9"	1'-2"	4'-9"			9"	—	11½"		
A706	16	—		9"	1'-2"	5'-4"			9"	—	11½"		
D801	15	1-1	3'-4"	6"									
P504	T2	6"	2'-4"	3'-2" to 4'-1" by 1"	2'-4"	3'-2" to 4'-1" by 1"		6"					
P505	S6	6"	3'-2" to 4'-1" by 1"	1'-0"	3'-2" to 4'-1" by 1"			6"					
P506	T2	6"	2'-4"	4'-2"	2'-4"	4'-2"		6"					
P507	S6	6"	4'-2"	1'-0"	4'-2"			6"					
P509	S10		1'-7"	2'-8"	1'-7"								
P801	19		5'-10"	17'-9"	—				1'-0"		5'-9"		23'-6"
P1001	2	1-1	5'-6"					—					
P1102	20		—	24'-3"	3'-0"								
S501	24		2'-2"	2'-5"	7½"								
S502	16	—	7½"	9"	1'-2"	9"		6"	11½"	—	9"		
S503	2	6"	1'-0"					—					
S504	2	6"	1'-9"										
SP401	SP1		4½"	16'-3"	46								2'-8"
SP402	SP1		4½"	12'-4"	36								2'-8"
SP403	SP1		4½"	14'-9"	42								2'-8"
RE401	SP2		7'-6"									1'-4"	
SA501	17		—	1'-11"	1'-4"	1'-11"	—						
SA502	19		1'-1"	2'-8"	—				9¼"		9¼"		3'-5¼"
SA503	2	6"	2'-2"					—					







NOTES

1. FIGURES IN CIRCLES SHOW BAR TYPES.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. "J" DIMENSION ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. WHERE "J" IS NOT SHOWN "J" WILL BE KEPT EQUAL TO OR LESS THAN "H." WHERE "J" CAN EXCEED "H" IT SHOULD BE SHOWN.
5. "H" DIMENSION ON STIRRUPS TO BE SHOWN WHERE NECESSARY TO RESTRICT HOOKS.
6. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT STIRRUPS S11, TIES T3, SPIRALS SP1 AND WHERE RADIUS "R" IS INDICATED.
7. RADIUS DIMENSION "R" IS TO OUTSIDE OF BAR.
8. THE LENGTH OF BENT BARS IS MEASURED ALONG THE CENTERLINE.
9. FOR STANDARD HOOK DIMENSIONS, SEE SECT. 509.05 OF THE SPECIFICATIONS.
10. FOR BAR TYPE SP1, THE NO. OF TURNS "D" IS THE LENGTH "C" DIVIDED BY THE PITCH "B", PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER. 1½ CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.

ENLARGED VIEW SHOWING BAR BENDING DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

343
468

HAM-275-13.91

VOGT, IVERS & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

9/9

BAR BENDING DETAILS

BRIDGE NO. HAM-275-1429
I-275
UNDER RELOCATED BREHM ROAD

HAMILTON COUNTY STA 48+40.99 To STA. 51+50.76

DESIGNED	DRAWN	TRACED	CHECKED	QUANTITIES	REVISED
~	R.E.S.	~	E.F.F.		

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

344
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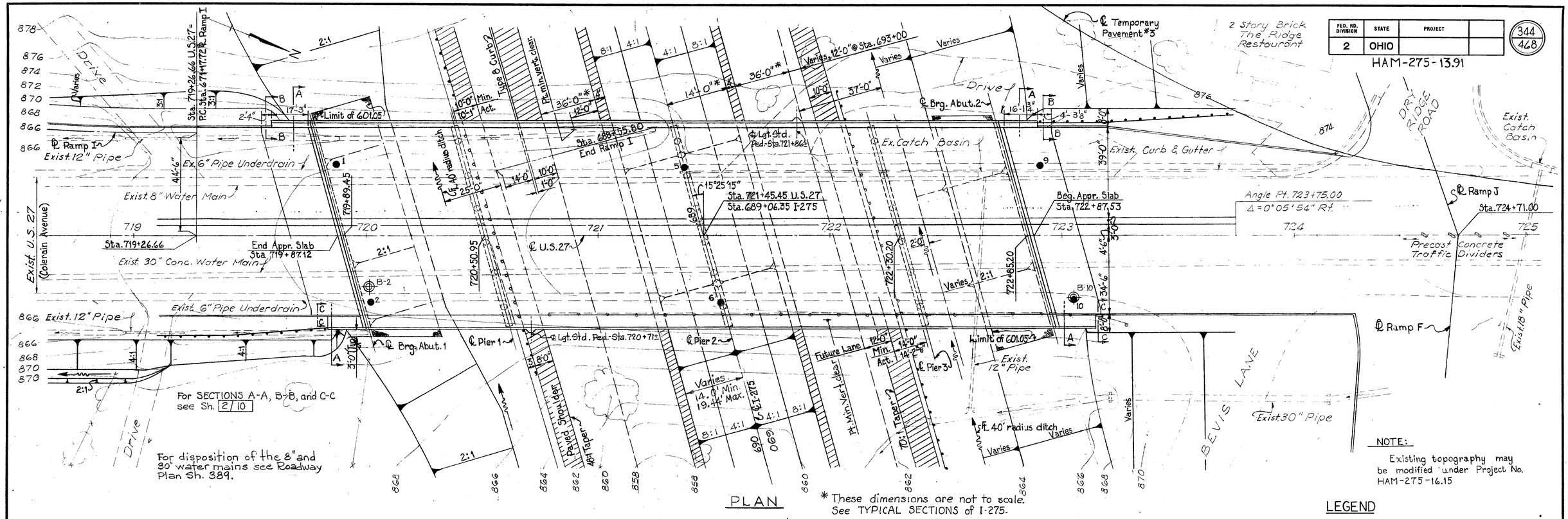
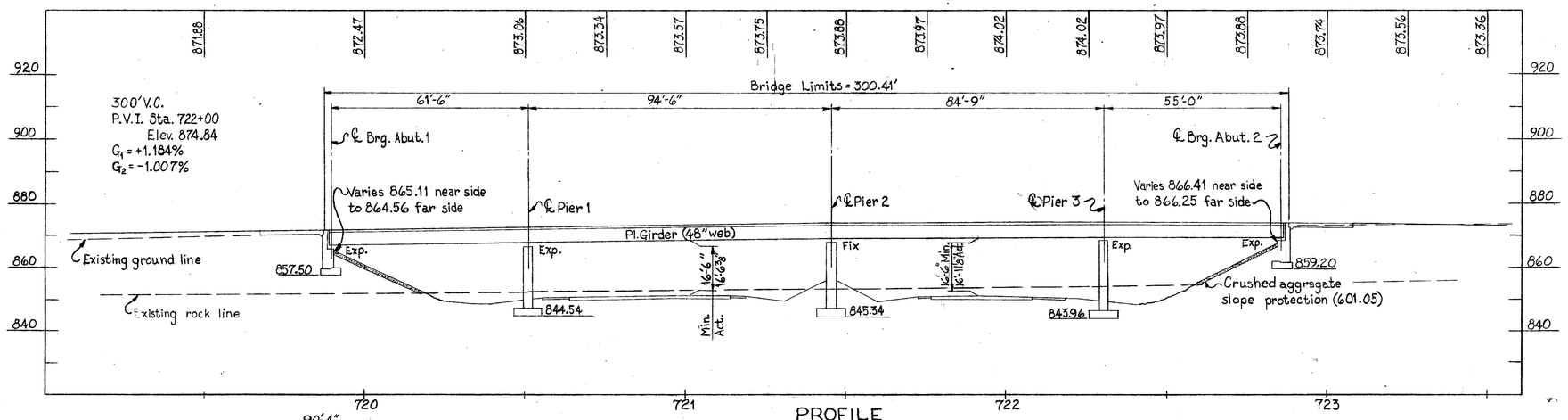
HAM-275-13.91

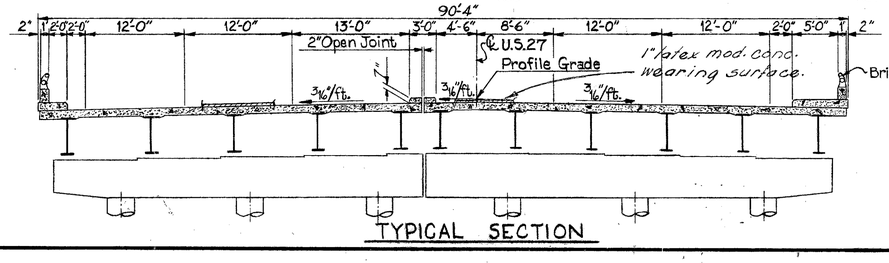


PLAN

* These dimensions are not to scale. See TYPICAL SECTIONS of I-275.



PROFILE



TYPICAL SECTION

MODIFY A5-1-72 by providing 3" cover over the top rebars instead of the 2" shown and eliminating the jacking holes.

LEGEND

- ● Drive rod penetration resistance sounding
- ⊕ Drive Sample - Core Boring.

NOTE:
Existing topography may be modified under Project No. HAM-275-16.15

NOTES:
1. Earthwork limits shown are schematic. Actual slopes shall conform to plan cross-sections.

PROPOSED STRUCTURE

TYPE: Continuous welded plate girder with reinforced concrete deck and substructure.
SPANS: 61'-6", 94'-6", 84'-9", 55'-0"
ROADWAY: 88'-0" f/f parapets, includes 3'-0" raised median & 5'-0" sidewalk.
DESIGN LOAD: H S 20-44
SKEW: 15°25'15" RF
WEARING SURFACE: 1" *latex mod. conc.*
ALIGNMENT: Tangent
APPROACH SLABS: AS-1-72 (20' long) *(Modified)*
1988 ADT = 17,555 N.B., 26,330 S.B., V.P.D.
1988 DDHV = 2060 N.B., 2495 S.B., V.P.H.

VOGT, IVERS, & ASSOCIATES — ENGINEERS CINCINNATI — ARCHITECTS CHICAGO — 1 / 10

SITE PLAN

BRIDGE NO. HAM-275-1604
I-275
UNDER U.S. 27
HAMILTON COUNTY STA. 719+87.12 To STA. 722+87.53

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS
V.I.A.	G.L.M.	E.P.A.	E.P.A. R.E.S.	E.F.F.	

REVISED DATE 8-22-75

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

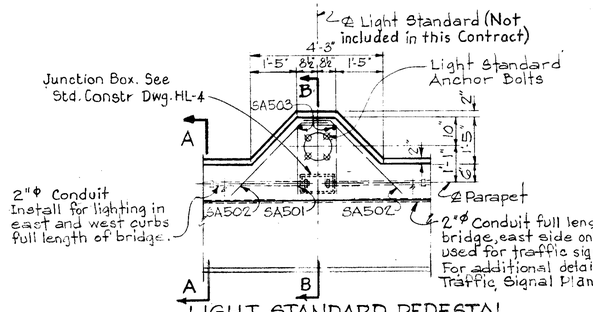
345
468

HAM-275-13.91

ESTIMATED QUANTITIES

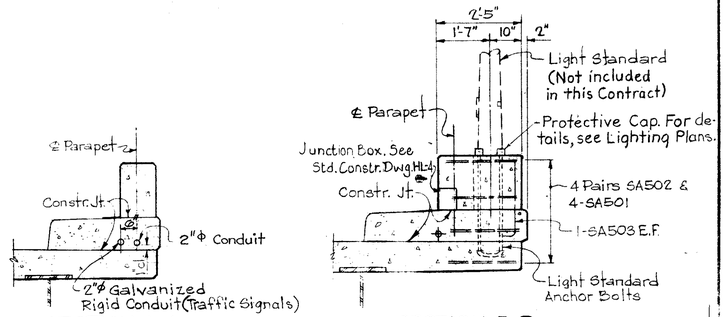
ITEM	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER-STRUCTURE	GENERAL	CHECKED BY	DATE
503	705	C.Y.	Unclassified excavation	663	42			E.F.F.	12-24-70
503	348	C.Y.	Rock excavation		348			E.F.F.	12-24-70
509	279,610	Lbs.	Reinforcing steel	20,860	52988	205,762		R.L.S./E.F.F.	12-24-70
511	772-877	C.Y.	Class "C" concrete - Superstructure			772-877		B.C.S.	12-21-70
511	222	C.Y.	Class "C" concrete - Pier Caps & columns		222			B.C.S.	12-21-70
511	229	C.Y.	Class "C" concrete - Abutments above footings	229				B.C.S.	12-21-70
511	241	C.Y.	Class "C" concrete - Footings	104	137			B.C.S.	12-21-70
513	686982	Lbs.	Structural Steel			686982		B.C.S.	12-21-70
514	686982	Lbs.	Field painting of structural steel			686982		B.C.S.	12-21-70
517	666.44	Lin. Ft.	Railing (concrete parapet with double pipe rail)	7200		594.44		B.C.S.	12-21-70
518	151	C.Y.	Porous backfill	151				E.F.F.	12-24-70
518	172	Lin. Ft.	6" perforated, helical corrugated metal pipe, 707.01	172				E.F.F.	12-24-70
518	103	Lin. Ft.	6" non-perforated, helical corrugated metal pipe, including specials, 707.01	103				E.F.F.	12-24-70
518	22	Each	Scuppers including supports			22		E.F.F.	12-24-70
601	687	Sq. Yd.	Crushed aggregate slope protection				687	E.F.F.	12-24-70
S625		—	See Sheet 395/428 for Lighting Summary						
808	772-877	Units	Chemical admixture for concrete, Type A, B or D			772-876		E.F.F.	12-31-70
512	44	Lin. Ft.	Premolded sealing strip	44				B.C.S.	1-8-71
SPECIAL	2574	Sq. Yd.	Surface preparation			2574			
SPECIAL	72	C.Y.	Latex modified portland cement concrete			72			
SPECIAL	2574	Sq. Yd.	Finishing and curing			2574			

Materials in the approach slabs are not included in the above estimated quantities.



LIGHT STANDARD PEDESTAL

Note: For additional details see Lighting Plans and Traffic Signal Plans.



SECTION A-A

SECTION B-B

Note: The anchor bolts shall be included under Item S625 for payment.
For Anchor Bolts: Size, type, projection and bolt circle diameter, see Lighting Plans.

GENERAL NOTES

REFERENCE shall be made to the following:

Standard Drawings: BR-2-67, revised 10-15-71; AS-1-72 dated 6-30-72
SD-1-69, dated 6-12-69; HL-4 dated 9-6-73
RB-1-55, revised 2-2-59; HL-5 dated 9-6-73

Supplemental Specifications: 808, dated 1-1-71
836, dated 3-12-75
S625, dated 1-11-74

DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1969, including the Ohio "Supplement" to these specifications.

DESIGN DATA:

Design Loading - HS 20-44

Concrete Class "C" - unit stress 1,200 p. s. i. for superstructure
- unit stress 1,333 p. s. i. for substructure

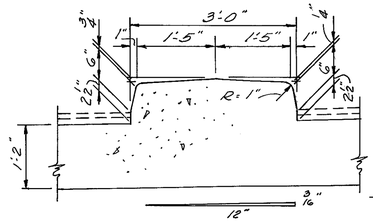
Structural Steel - ASTM A36 - unit stress 20,000 p. s. i.
Reinforcing Steel - ASTM A615, A616 or A617 - unit stress 20,000 p. s. i.
Spiral reinforcement may be plain bars ASTM A82 or A615.

STAINLESS STEEL FASTENERS shall be properly passivated to remove surface impurities and shall be furnished with a lustrous finish.

FOUNDATION BEARING PRESSURE: Abutment footings are designed for a maximum bearing pressure of 2 tons per sq. ft. Pier footings are designed for a maximum bearing pressure of 4 tons per sq. ft.

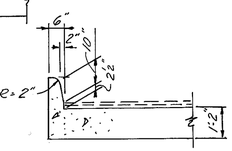
FOOTINGS: Pier footings shall extend a minimum of 3 inches into bedrock or to the elevation shown, whichever is lower.

UTILITY LINES: All expense involved in relocating (installing) the affected utility lines shall be borne by the Owner(s). The Contractor and Owner(s) are requested to cooperate by arranging their work in such a manner that inconvenience to either would be held to a minimum.

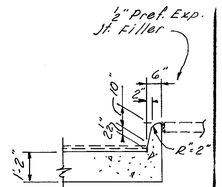


MEDIAN DETAIL

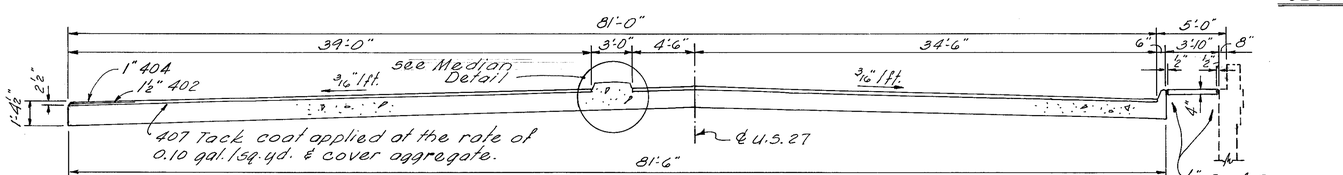
For location of sections see Sh. 7/10



SECTION B-B



SECTION C-C



SECTION A-A

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

2 / 10

ESTIMATED QUANTITIES & GENERAL NOTES

BRIDGE NO. HAM-275-1604

I-275 UNDER U.S. 27

HAMILTON COUNTY STA. 719+87.12 To STA. 722+87.53

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	P.L.	P.E.S.	E.F.F.			9-27-75 11-7-75

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

346
468

HAM-275-13.91

WINGWALL NO. 2

WINGWALL NO. 1

SECTION F-F

DETAIL A

PLAN

ELEVATION

SECTION G-G

FOOTING PLAN

ELEVATION WINGWALL 1&3

(Wingwall 1 shown
Wingwall 3 similar)

SECTION A-A

SECTION C-C

SECTION B-B

LEGEND

① Wingwall No 1
② Wingwall No 3
NF = Near face
FF = Far face
EF = Each face

For notes & additional details, see Sh. 4/10

VOGT, IVERS, & ASSOCIATES 3/10
ENGINEERS CINCINNATI
ARCHITECTS CHICAGO

ABUTMENT 1.
BRIDGE NO. HAM-275-1604
I-275 UNDER U.S.27

HAMILTON COUNTY STA. 719+87.12 To
STA. 722+87.53

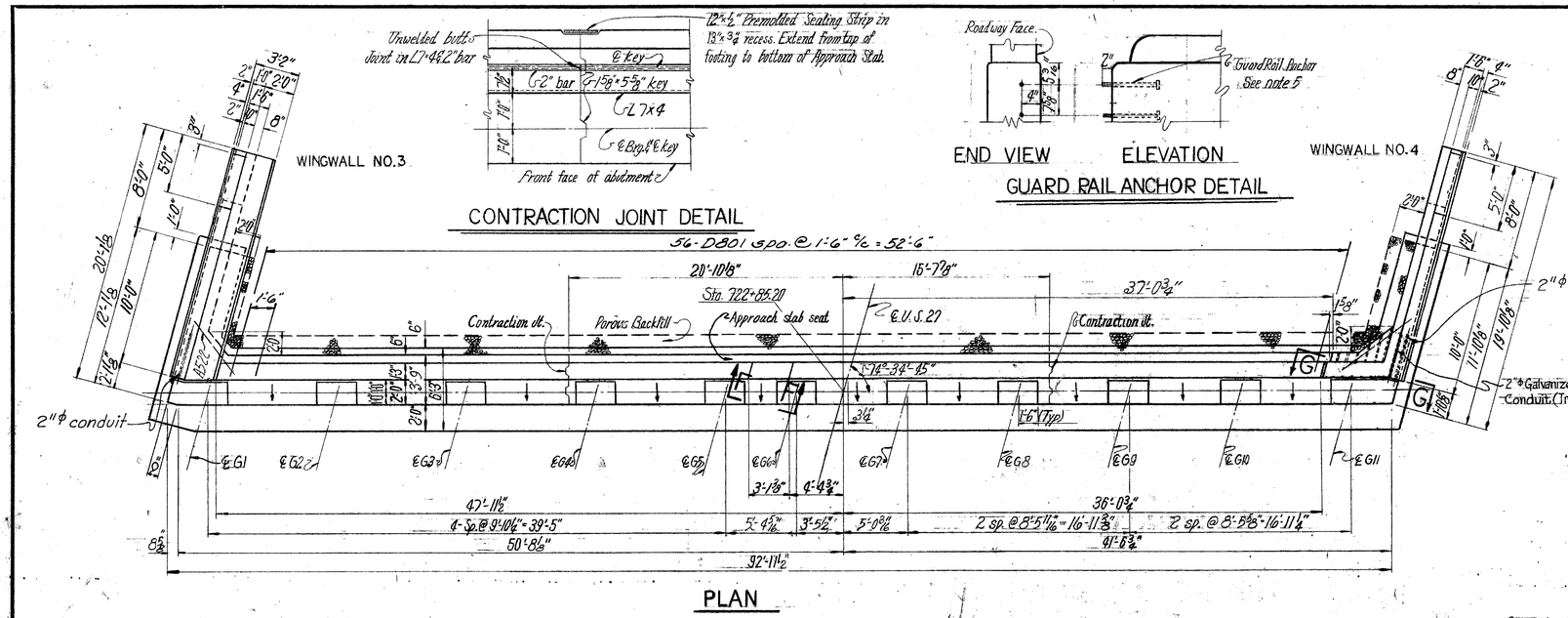
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
GKS	GKS		J.J.J.			

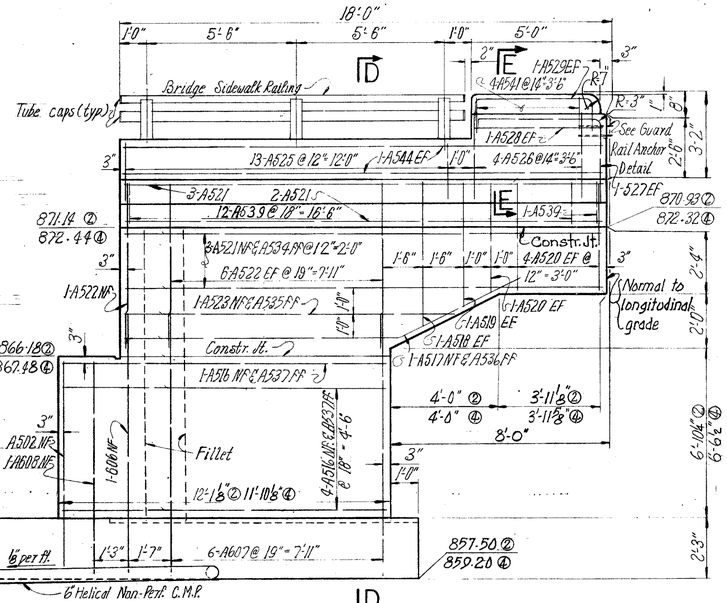
REVISED DATE 8-22-75

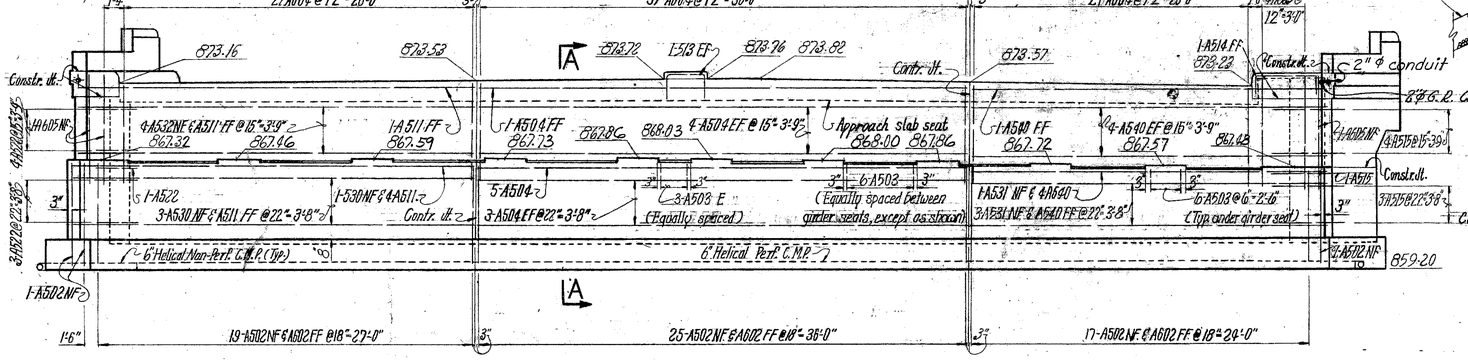
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

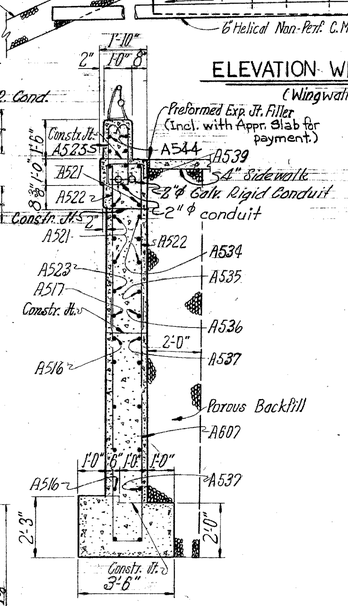
347
468

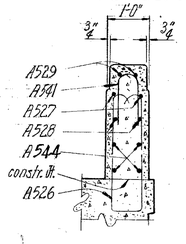
HAM-275-13.91











NOTES

1. Porous backfill, 1'-6" thick shall extend up to the plane of the subgrade and laterally to the ends of the wingwalls. Porous backfill, 2'-0" thick and limits as shown in wingwall plan, shall extend up to bottom of sidewalk or safety curb.
2. For end dam and curb plate details, see Std. Dwg. SD-1-69, sheets 1 and 2 of 4.
3. For Wingwalls 1 and 3 details, see Sheet 3/10
4. For Reinforcing Steel List, see sheet 9/10
5. Guard rail anchors are 1¼"ϕ x 20" steel machine bolts with hex nuts, ASTM A325. Thread 3" Galvanize the nuts and a minimum of 6" of the threaded end of bolts. Include with Item 517, Railing; for payment
6. For Bridge Sidewalk Railing Detail, see Std. Dwg. BR-2-67.
7. For sec. G-G, see sh. 3/10
8. For sec. A-A, see sh. 3/10
9. For sec. F-F, see sh. 3/10
10. This note has been deleted.
11. Guard rail anchors are required for Wingwalls 2 and 3 only.
12. BACKWALL CONCRETE: In addition to the provisions of 511.08, backwall concrete shall not be placed until after the deck concrete in the span adjacent to the backwall has been placed.

LEGEND

② Wingwall No. 2
④ Wingwall No. 4
EF - Each Face.
FF - Far Face.
NF - Near face.

VOGT, IVERS, & ASSOCIATES 4/10
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

ABUTMENT 2
BRIDGE NO. HAM-275-1604
I-275 UNDER U.S. 27
HAMILTON COUNTY STA. 719+87.12 To STA. 722+87.53

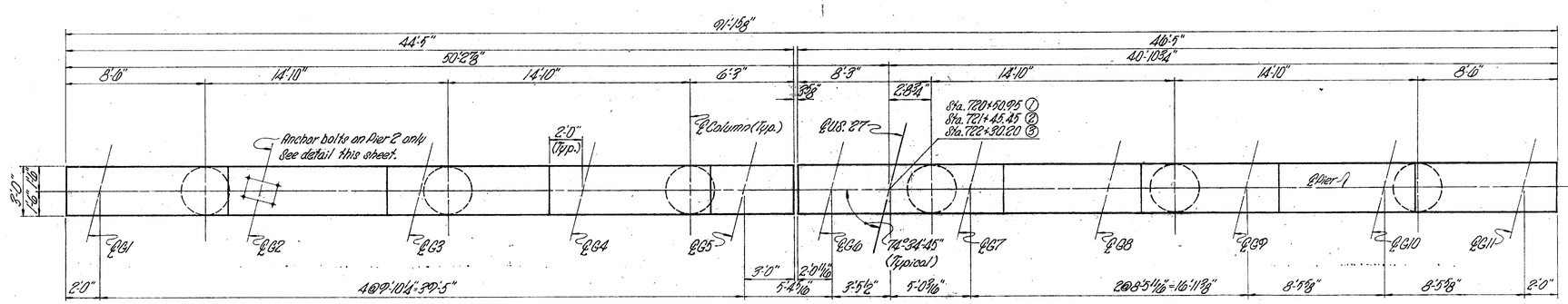
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
GKS	GKS		J.J.J.		

REVISED DATE 8-22-75

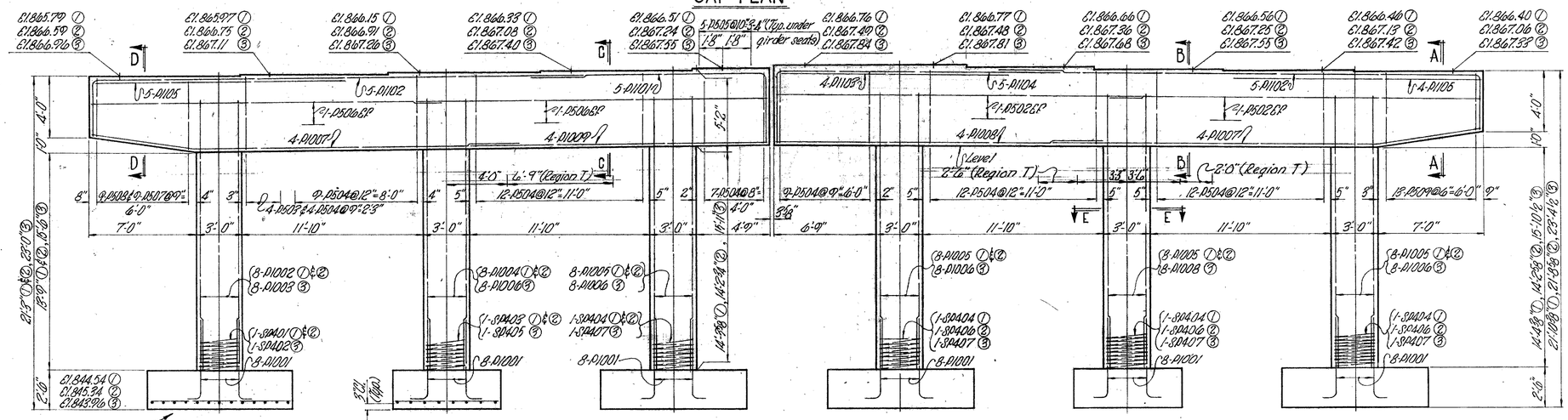
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

348
468

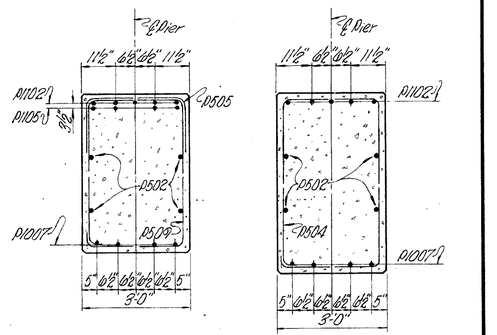
HAM-275-15.91

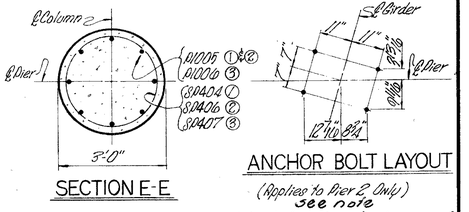


CAP PLAN



ELEVATION





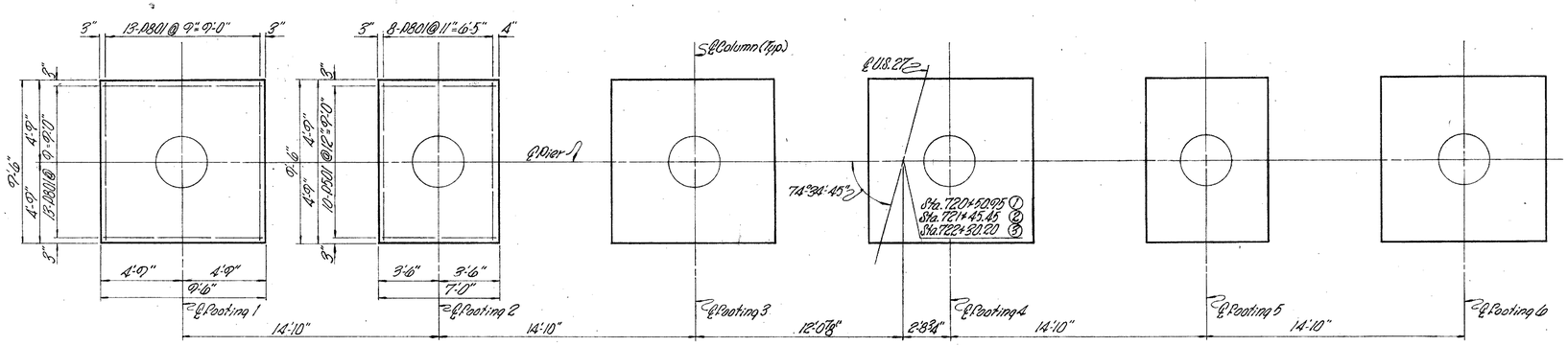
SECTION C-C

SECTION D-D

(Applies to Pier 2 Only) See note

BEARING ANCHORS: At the option of the Contractor, bearing anchors (or formed holes) located and supported by templates, may be cast in place.

1. Special care shall be taken in placing reinf. stl. in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor boltholes, or the presetting of brg. anchors.
2. For Reinforcing Steel List see Sheet 9 / 10
3. Place dowels in footing to insure correct spacing of main column steel.
4. Except as otherwise shown, place hooks in the stirrups in the bottom of the cap.



FOOTING PLAN

Note:
Footings 1, 3, 4 & 6 are identical
Footings 2 & 5 are identical

LEGEND

① = Pier 1
② = Pier 2
③ = Pier 3
CD = Each Face
Region T = Hooks in stirrups are located in top of the cap

VOGT, IVERS, & ASSOCIATES 5 / 10
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

PIERS 1, 2 & 3

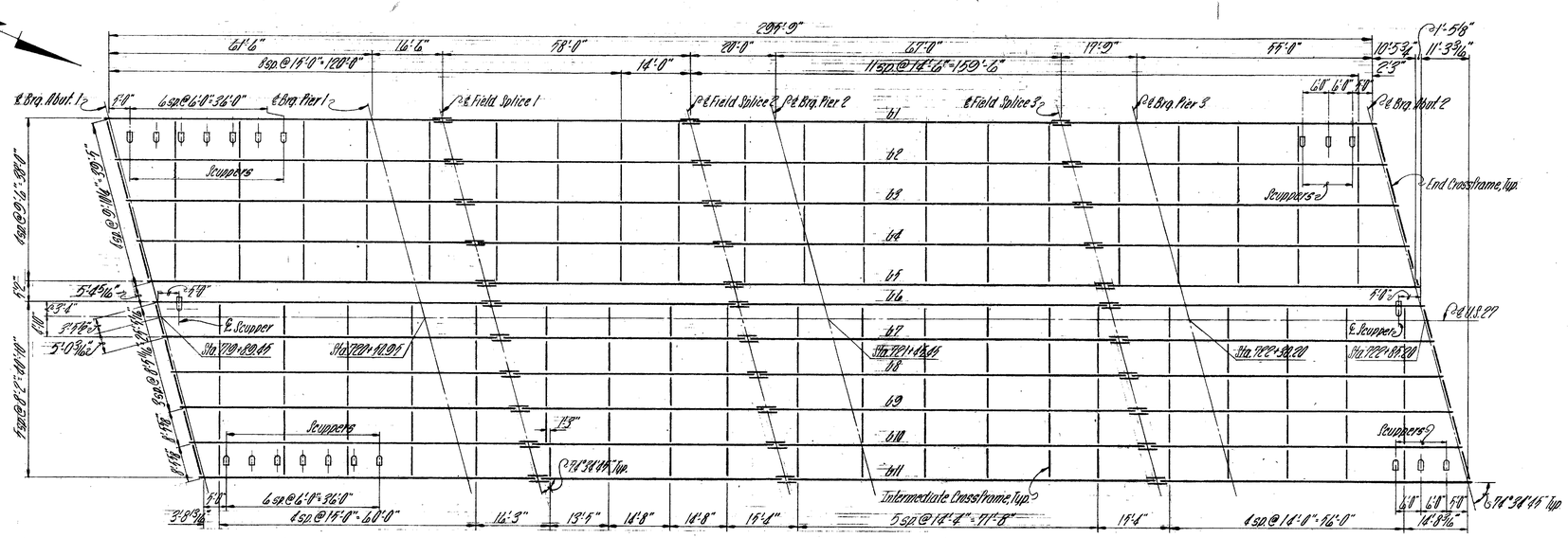
BRIDGE NO. HAM-275-1604
I-275
UNDER U.S. 27
HAMILTON COUNTY STA. 719+87.12 to STA. 722+87.53

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
K.C.D.	D.D.M.		J.J.J.			

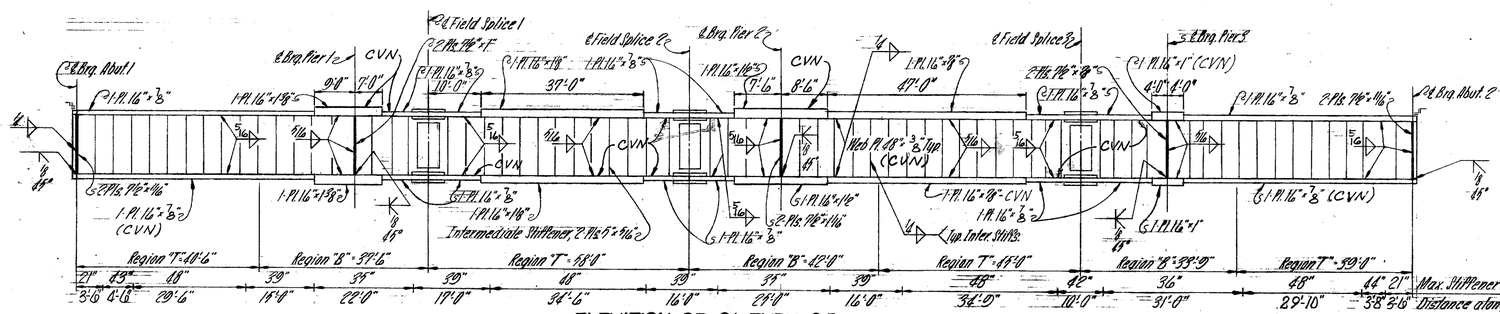
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

349
468

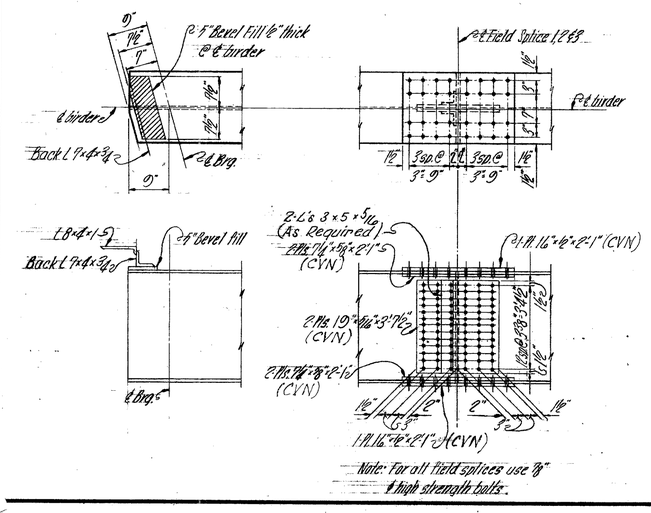
HAM-275-18.91

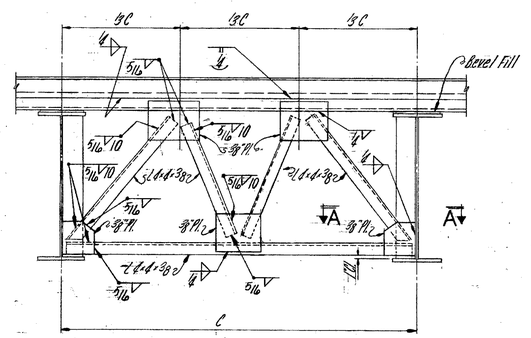


FRAMING PLAN

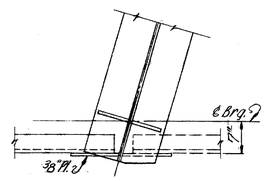


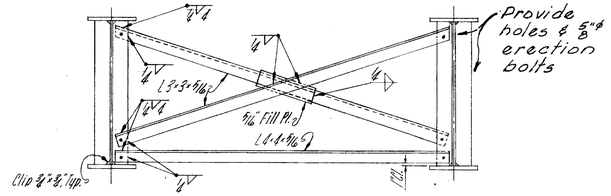
ELEVATION OF G1 THRU G5



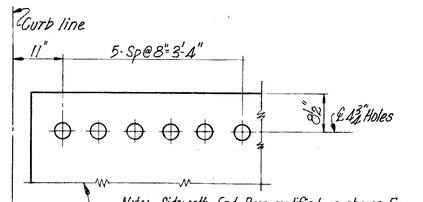


END CROSSFRAME





INTERMEDIATE CROSSFRAME



Note:- Sidewalk End Dam modified as shown. For other details see Std. Dwg. SD-1-69 sheet 1 & 2 of 4.

MODIFIED SIDEWALK END DAM

1. For details of Sidewalk, End Dam and Curb Plates see Std. Dwg. SD-1-69, shts. 1 & 2 of 4.
2. For Scupper Details see Std. Dwg. SD-1-69, sht. 3 of 4, except that scupper pipes shall extend 8" below bott. of girders instead of 2".
3. For Rocker & Bolster details, see Std. Dwg. RB-1-55
4. For Elevation of girders 6 thru 11 and Elevation Layout see sheet 7 | 10
5. Intermediate stiffeners shall have contact bearing with or be welded to the top flange within Region T and shall have contact bearing with the bottom flange. Interm. stiffeners shall have contact bearing with or be welded to the bott. flg. within Region B & shall have contact bearing with the top flg.
6. Anchor bars for the end dam shall be 3/8" clear from the top of slab.
7. Shapes or plates designated "CVN" shall meet specified minimum notch toughness requirements. The fabricator shall submit to the Director a procedure designed for positive identification of material through all phases of fabrication. No material shall be fabricated until the Director has approved the procedure.
8. Steel Erection: During the erection of End Dams and Crossframes care shall be taken to insure that girders, bearing parts and bridge seats remain in bearing contact.

VOGT, IVERS, & ASSOCIATES 6 | 10
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

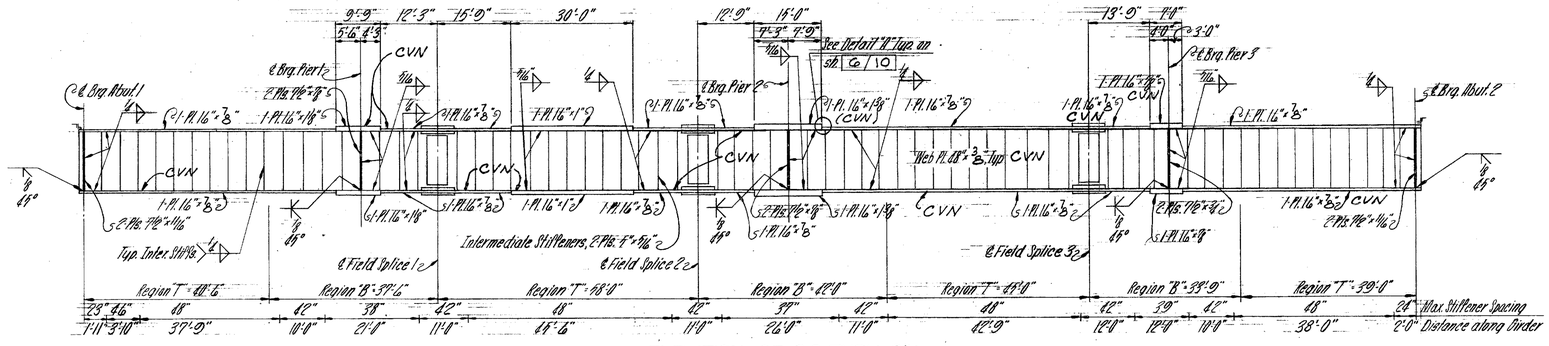
FRAMING PLAN
BRIDGE No HAM-275-16.06
I-275 UNDER
U.S. 27
HAMILTON COUNTY STA. 719+87.12 to STA. 722+89.53

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.R.L.	J.M.K.	M	J.J.J.			5-19-72

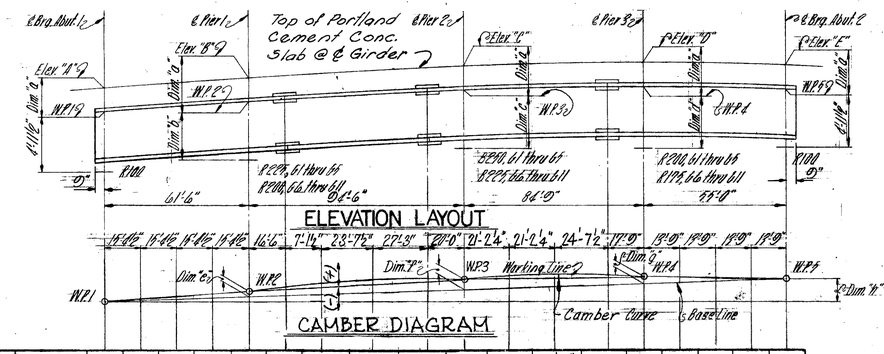
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

350
428

HAM-275-15.91



ELEVATION OF G6 THRU G11



ELEVATION LAYOUT

CAMBER DIAGRAM

Deflection Due to steel dead load	G1 thru G5	0	0	0	0	0	-1/16"	-1/16"	-1/8"	-1/16"	0	0	-1/16"	0	0	0	0	0	0
	G6 thru G11	0	0	0	0	0	-1/16"	-1/16"	-1/8"	-1/16"	0	0	-1/16"	-1/16"	0	0	0	0	0
Deflection Due to remaining dead load	G1 thru G5	0	-3/16"	-3/16"	0	0	-1/4"	-7/16"	-5/8"	-1/4"	0	-3/16"	-3/8"	-3/16"	0	-1/16"	-1/8"	-1/8"	0
	G6 thru G11	0	-1/8"	-1/8"	0	0	-1/4"	-5/8"	-5/8"	-1/4"	0	-3/16"	-3/8"	-3/16"	0	0	-1/8"	-1/8"	0
Camber required for deflection	G1 thru G5	0	+3/16"	+3/16"	0	0	+5/16"	+7/16"	+3/4"	+5/16"	0	+3/16"	+7/16"	+1/4"	0	+1/16"	+1/8"	+1/8"	0
	G6 thru G11	0	+1/8"	+1/8"	0	0	+5/16"	+7/16"	+3/4"	+5/16"	0	+3/16"	+7/16"	+1/4"	0	0	+1/8"	+1/8"	0
Correction for vertical curve	G1 thru G11	0	0	0	0	0	+9/16"	+3/4"	+1"	+5/8"	0	+9/16"	+13/16"	+1/2"	0	+1/4"	+5/16"	+1/4"	0
Total camber required	G1 thru G5	0	+3/16"	+3/16"	0	0	+7/8"	+1/4"	+1 3/16"	+15/16"	0	+3/4"	+1 1/4"	+3/4"	0	+5/16"	+7/16"	+3/8"	0
	G6 thru G11	0	+1/8"	+1/8"	0	0	+7/8"	+1 3/16"	+1 3/16"	+15/16"	0	+3/4"	+1 1/4"	+3/4"	0	+1/4"	+7/16"	+3/8"	0

TABLE OF ELEVATIONS AND DIMENSIONS

Girder	Elev. "A"	Elev. "B"	Elev. "C"	Elev. "D"	Elev. "E"	Dim. "a"	Dim. "b"	Dim. "c"	Dim. "d"	Dim. "e"	Dim. "f"	Dim. "g"	Dim. "h"
G1	871.386	872.114	872.983	873.213	873.082	9 1/2"	5'-6 3/8"	5'-7 1/4"	5'-3 5/8"	4'-6"	8 7/16"	5'-3 5/8"	1'-8 3/4"
G2	871.565	872.293	873.147	873.360	873.218	9 1/2"	5'-6 3/8"	5'-7 1/4"	5'-3 5/8"	4'-8"	8 1/2"	5'-3 5/8"	1'-7 11/16"
G3	871.745	872.473	873.310	873.507	873.354	9 1/2"	5'-6 3/8"	5'-7 1/4"	5'-3 5/8"	4'-8"	8 9/16"	5'-3 5/8"	1'-7 11/16"
G4	871.924	872.652	873.472	873.653	873.490	9 1/2"	5'-6 3/8"	5'-7 1/4"	5'-3 5/8"	4 11/16"	8 5/8"	5'-3 5/8"	1'-7 11/16"
G5	872.104	872.832	873.634	873.799	873.625	9 1/2"	5'-6 3/8"	5'-7 1/4"	5'-3 5/8"	4 11/16"	8 3/4"	5'-3 5/8"	1'-6 3/4"
G6	872.201	872.929	873.722	873.878	873.699	8 3/8"	5'-4 7/8"	5'-5 3/4"	5'-2 1/8"	5"	8 3/4"	5'-3 5/8"	1'-6"
G7	872.204	872.932	873.709	873.852	873.643	8 3/8"	5'-4 7/8"	5'-5 3/4"	5'-2 1/8"	4 15/16"	8 13/16"	5'-3 5/8"	1'-5 3/4"
G8	872.103	872.831	873.592	873.721	873.523	8 3/8"	5'-4 7/8"	5'-5 3/4"	5'-2 1/8"	4 15/16"	8 7/8"	5'-3 5/8"	1'-5 3/4"
G9	872.003	872.729	873.475	873.599	873.383	8 3/8"	5'-4 7/8"	5'-5 3/4"	5'-2 1/8"	5"	8 7/8"	5'-3 5/8"	1'-4 13/16"
G10	871.902	872.627	873.357	873.457	873.242	8 3/8"	5'-4 7/8"	5'-5 3/4"	5'-2 1/8"	5 1/8"	9"	5'-3 5/8"	1'-4 13/16"
G11	871.848	872.571	873.286	873.372	873.148	8 3/8"	5'-4 7/8"	5'-5 3/4"	5'-2 1/8"	5 1/16"	9"	5'-3 5/8"	1'-3 7/8"

Note:
1. Tabulated values in the Deflection and Camber table shall be measured from the Working Lines.
2. Working Points (W.P.) are at the top of web.
3. Working Lines are straight lines through the indicated Working Points (W.P.)
4. The Base Line is a straight line through Working Points 1 and 5.

NOTES
1. For additional notes see sheet 6 / 10
2. For framing Plan see sheet 10 / 10

VOGT, IVERS, & ASSOCIATES 7 / 10
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

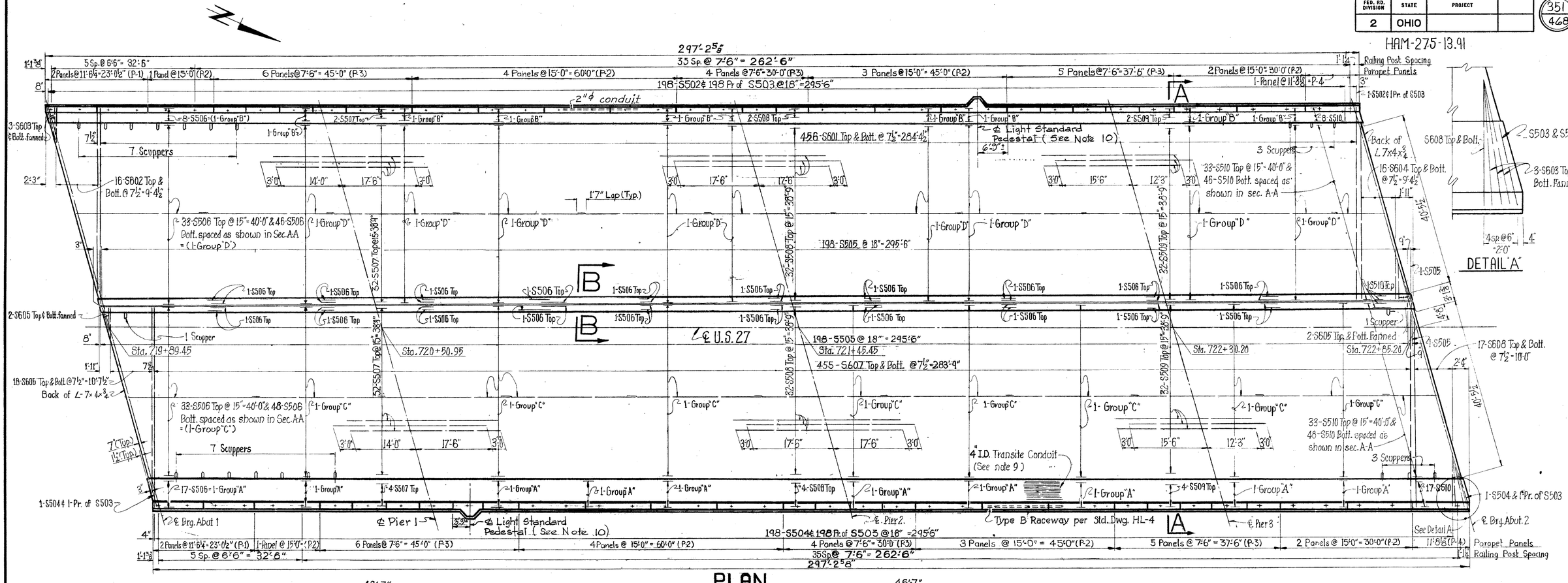
SUPERSTRUCTURE DETAILS
BRIDGE No HAM-275-15.91
I-275 UNDER
U.S. 27
HAMILTON COUNTY STA. 1101+87.12 to STA. 1122+87.59

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.E.B.	T.M.H.		J.J.J.			

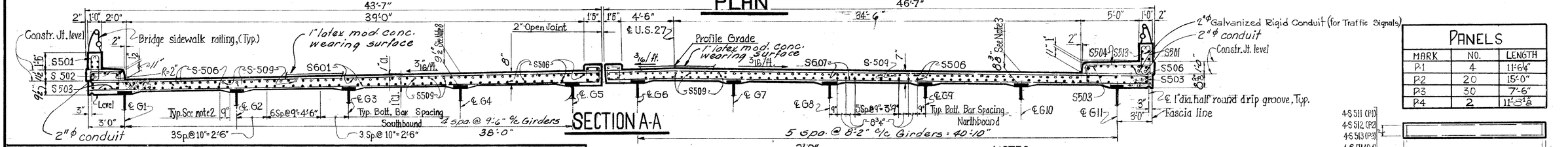
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

351
468

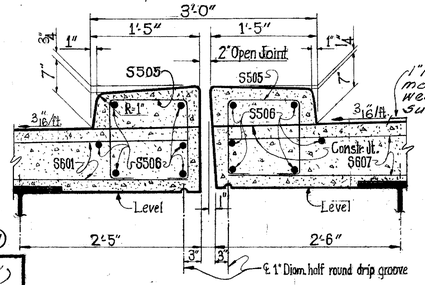
HAM-275-13.91



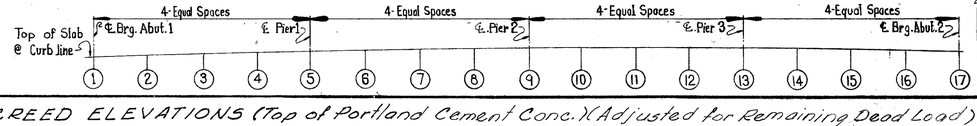
PLAN



SECTION A-A



SECTION B-B



FINISHED PAVEMENT ELEVATIONS (Top of Latex-Mod. Conc. Wearing Surface)

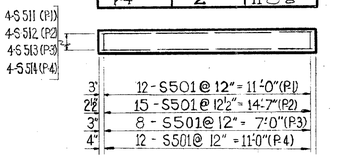
STATION	719+75	720+00	720+25	720+50	720+75	721+00	721+25	721+50	721+75	722+00	722+25	722+50	722+75	723+00
Left Curb line	871.45	871.75	872.04	872.34	872.61	872.84	873.02	873.16	873.25	873.29	873.29	873.24	873.15	873.02
Left Median line	872.06	872.35	872.65	872.95	873.22	873.45	873.63	873.77	873.86	873.90	873.90	873.85	873.76	873.62
Right Median line	872.11	872.40	872.70	872.99	873.27	873.49	873.68	873.81	873.90	873.95	873.95	873.90	873.81	873.67
Profile Grade	872.18	872.47	872.77	873.06	873.34	873.56	873.75	873.88	873.97	874.02	874.02	873.97	873.88	873.74
Right Curb line	871.84	871.93	872.23	872.52	872.80	873.03	873.21	873.34	873.43	873.48	873.48	873.43	873.34	873.20

SCREED ELEVATIONS (Top of Portland Cement Conc.) (Adjusted for Remaining Dead Load)

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Left Curb line	871.39	871.58	871.76	871.94	872.12	872.42	872.68	872.86	872.99	873.11	873.20	873.23	873.22	873.21	873.19	873.15	873.08
Left Median line	872.13	872.32	872.50	872.67	872.85	873.14	873.38	873.54	873.65	873.76	873.83	873.84	873.82	873.80	873.77	873.71	873.64
Right Median line	872.18	872.37	872.55	872.73	872.91	873.20	873.44	873.59	873.71	873.80	873.88	873.89	873.86	873.84	873.81	873.76	873.69
Right Curb line	871.84	872.03	872.21	872.39	872.56	872.84	873.06	873.20	873.29	873.37	873.43	873.42	873.38	873.34	873.30	873.24	873.16

PANELS

MARK	NO.	LENGTH
P-1	4	11'-6 1/4"
P2	20	15'-0"
P3	30	7'-6"
P4	2	11'-3 3/8"



PARAPET PANELS

NOTES

1. *This note has been deleted.*
2. A typical haunch width of 9" shall be used for computing the quantity of concrete; however, the haunch width may vary between 6" & 12" provided that the slope shall not be more than 1:4 for a haunch less than 9" in width.
3. This is the design dimension. The quantity of deck concrete to be paid for shall be based on the design slab thickness shown between the girders and this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per 511.18.
4. For End Dam and Curb Plate details, see Std. Dwg. SD-1-89 3/8 sh. 1 & 2 of 4.
5. For scupper locations, see sh. 6/10
6. For reinforcing steel list, see sh. 9/10
7. Spread reinforcing steel around scuppers as necessary.
8. For Bridge Sidewalk Railing details, see Std. Dwg. BR-2-67.
9. This note has been deleted.
10. For Light Standard Pedestal Details, see sh. 2/10

REVISED DATE 8-22-75

VOGT, IVERS, & ASSOCIATES — ENGINEERS CINCINNATI — ARCHITECTS CHICAGO — 8/10

ROADWAY SLAB
BRIDGE NO. HAM-275-1604
I-275
UNDER U.S. 27

HAMILTON COUNTY — STA. 719+87.12 to STA. 722+87.53

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.J.I.	G.K.S.		TWN JJI			

ABUTMENTS

MARK	NO.	LENGTH	TYPE	WEIGHT
A501	8	13'-6"	Str.	113
A502	129	8'-1"	Bt.	1088
A503	246	8'-2"	Bt.	2095
A504	40	36'-2"	Str.	1509
A505	4	27'-6"	Bt.	115
A506	4	31'-3"	Bt.	130
A507		Not Used		
A508	16	29'-9"	Str.	496
A509	12	25'-6"	Str.	319
A510	4	25'-6"	Bt.	106
A511	12	28'-0"	Str.	350
A512		Not Used		
A513	4	4'-4"	Bt.	18
A514	2	7'-5"	Bt.	15
A515	16	6'-6"	Str.	108
A516	20	11'-6"	Str.	240
A517	4	15'-0"	Bt.	63
A518	8	4'-11"	Str.	41
A519	8	4'-2"	Str.	35
A520	40	3'-8"	Str.	153
A521	32	17'-8"	Str.	590
A522	68	5'-10"	Str.	414
A523	4	11'-6"	Str.	48
A524	52	5'-1"	Bt.	276
A525	52	5'-7"	Bt.	303
A526	16	7'-7"	Bt.	127
A527	8	8'-3"	Bt.	*
A528	8	4'-8"	Str.	*
A529	8	6'-7"	Bt.	*
A530	4	3'-8"	Bt.	132
A531	4	2'-0"	Bt.	113
A532	4	29'-8"	Bt.	124
A533		Not Used		
A534	12	16'-4"	Str.	204
A535	4	11'-0"	Str.	46
A536	4	13'-8"	Bt.	57
A537	20	8'-6"	Str.	177
A538		Not Used		
A539	26	2'-5"	Bt.	66
A540	16	25'-8"	Str.	428
A541	16	3'-3"	Bt.	*
A542	2	18'-0"	Str.	38
A543	2	17'-0"	Str.	35
A544	16	17'-8"	Str.	*
A601	22	32'-9"	Str.	1082
A602	123	12'-9"	Bt.	2356
A603	8	19'-2"	Bt.	230
A604	170	16'-10"	Bt.	4298
A605	6	9'-4"	Bt.	84
A606	4	11'-4"	Bt.	68
A607	24	21'-6"	Bt.	775
A608	4	8'-7"	Bt.	52
A609	2	32'-9"	Bt.	98
D801	112	5'-6"	Bt.	1645

PIERS

MARK	NO.	LENGTH	TYPE	WEIGHT
P1101	15	19'-8"	Bt.	1567
P1102	30	35'-7"	Bt.	5672
P1103	12	15'-2"	Str.	967
P1104	15	21'-8"	Bt.	1727
P1105	27	15'-6"	Str.	2223
P1001	144	6'-6"	Bt.	4028
P1002	16	17'-0"	Str.	1170
P1003	8	18'-9"	Str.	645
P1004	16	17'-4"	Str.	1193
P1005	64	17'-7"	Str.	4842
P1006	40	19'-2"	Str.	3299
P1007	24	28'-0"	Bt.	2892
P1008	12	21'-6"	Str.	1110
P1009	12	19'-6"	Str.	1007
P801	360	9'-0"	Str.	8651
P501	60	6'-6"	Str.	407
P502	24	23'-10"	Str.	597
P503	4	11'-5"	Bt.	48
P504	195	15'-3"	Bt.	3102
P505	165	5'-7"	Bt.	961
P506	24	23'-0"	Str.	576
P507	27	13'-5"to15'-1" by 2½", 3ea.	Bt.	401
P508	27	9'-7"to11'-3" by 2½", 3ea.	Bt.	293
P509	39	13'-5"to15'-2" by 1¾", 3ea.	Bt.	581
SP401	2	13'-9"	Bt.	525
SP402	1	15'-6"	Bt.	294
SP403	2	14'-0"	Bt.	534
SP404	5	14'-4"	Bt.	1366
SP405	1	15'-9"	Bt.	299
SP406	3	14'-2"	Bt.	811
SP407	4	15'-10"	Bt.	1200

SUPERSTRUCTURE

MARK	NO.	LENGTH	TYPE	WEIGHT
S501	612	5'-7"	Bt.	3564
S502	199	3'-6"	Bt.	726
S503	804	2'-4"	Bt.	1957
S504	200	6'-6"	Bt.	1356
S505	398	4'-0"	Bt.	1660
S506	1890	30'-0"	Str.	59139
S507	70	34'-6"	Str.	2519
S508	70	38'-0"	Str.	2774
S509	70	30'-9"	Str.	2245
S510	189	12'-9"	Str.	2513
S511	16	11'-2"	Str.	*
S512	80	14'-8"	Str.	*
S513	120	7'-2"	Str.	*
S514	8	11'-4"	Str.	*
S601	912	43'-1"	Str.	59017
S602	32	7'-9"to41-9¾" by 2'-3", 2ea.	Str.	1191
S603	12	7'-9"	Str.	140
S604	32	5'-10"to39'-10¾" by 2'-3¼", 2ea.	Str.	1099
S605	8	5'-10"	Str.	70
S606	36	5'-10"to44'-5¼" by 2'-3¼", 2ea.	Str.	1359
S607	910	46'-1"	Str.	62988
S608	34	7'-9"to44'-1" by 2'-3¼", 2ea.	Str.	1324
SA501	8	5'-3"	Bt.	44
SA502	16	4'-0"	Bt.	67
SA503	4	2'-8"	Bt.	11

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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HAM-275-13.91

NOTES

1. BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATE THE BAR SIZE NUMBER.
2. SPIRAL REINFORCING BARS: THE "LENGTH" SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE DISTANCE FROM TOP OF THE FOOTING TO THE BOTTOM OF CAP, OR TO WITHIN 2"(±) OF THE TOP OF COLUMN FOR PIERS WITHOUT CAPS, TO THE NEAREST INCH.

FOUR STEEL ANGLE SPACERS, WEIGHING NOT LESS THAN 0.80 LB. PER LIN. FT. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT.

THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.80 LB. PER LIN. FT. WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS.

3. SEE SHEET 10/10 FOR BENDING DETAILS
4. BARS MARKED WITH AN ASTERISK TO BE INCLUDED FOR PAYMENT UNDER ITEM 517, RAILING.

5. Refer to CMS Sections 106.03, 700, 709.01 through 709.05 and 709.08. Sufficient additional reinforcing steel shall be provided for sampling. Random samples shall be replaced in the structures by the additional steel, spliced in accordance with 509.08.

VOGT, IVERS & ASSOCIATES 9/10
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

REINFORCING STEEL LIST

BRIDGE NO. HAM-275-1604
I-275 UNDER U.S.27
HAMILTON COUNTY STA. 719+87.12 To STA. 722+87.53

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	R.E.S.	~	E.F.E.			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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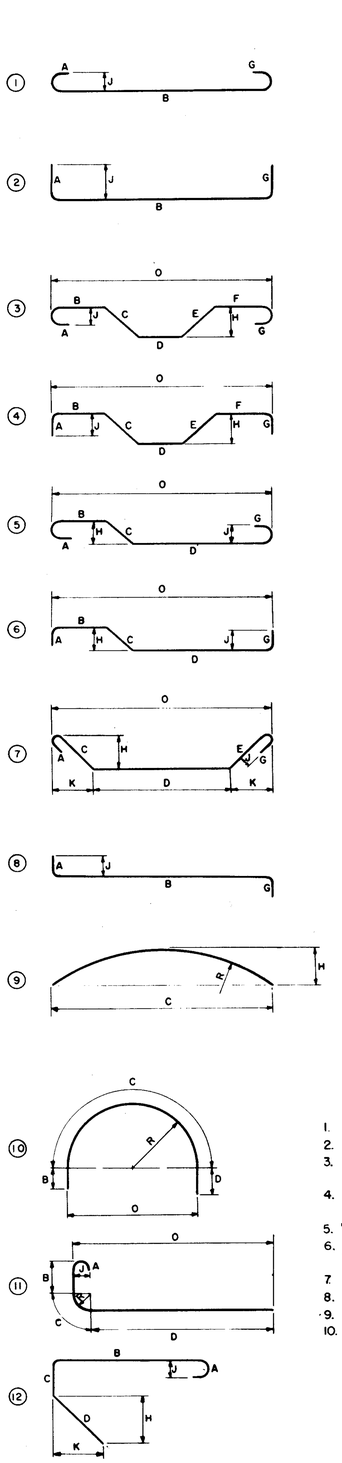
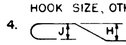
HAM-275-13.91

MARK	TYPE	DIMENSIONS FOR BENDING											
		A	B	C	D	E	F	G	H	J	K	R	O
A502	8	6"	7'-7"					—					
A503	S10		2'-6"	3'-5"	2'-6"								
A505	16	—	1'-7"	7"	2'5-4"	—			24'-7"		6'-9⅜"		
A506	22		—	1'-7"	2'9"-8"				1'-6"		5"		
A510	19		8"	24'-10"	—				2"		7¾"		25'-5¾"
A513	S10		1'-0"	2'-7"	1'-0"								
A514	S10		1'-5"	4'-10"	1'-5"								
A517	19		5'-2"	9'-10"	—				2'-4"		4'-7"		14'-5"
A524	S10		2'-0"	1'-4"	2'-0"								
A525	S3	5"	2'-2"	8"	2'-2"			5"					
A526	S3	5"	3'-2"	8"	3'-2"			5"					
A527	16	6"	4'-8"	3'-2"	—	—		—	—		—		
A529	23	6"	1'-0"	7"	4'-0"	5"		6"	1"			5"	4'-5"
A530	16	—	1'-7"	7"	2'9"-8"	—			2'8"-7⅛"		7'-10⅝"		
A531	22		—	1'-7"	2'5"-6"				1'-6"		5"		
A532	19		8"	29'-0"	—				2"		7¾"		29'-7¾"
A536	19		5'-2"	8'-6"	—				2'-4"		4'-7"		13'-1"
A539	S10		9"	1'-2"	9"								
A541	S11								1'-6"				6½"
A602	20		5'-4"	7'-7"	—								
A603	17		1'-6"	9"	8'-3"	1'-5"	7'-11"						
A604	17		1'-6"	9"	7'-7"	1'-5"	6'-3"						
A605	20		1'-3"	8'-3"	—								
A606	20		1'-0"	10'-6"	—								
A607	S10		10'-4"	1'-2"	10'-4"								
A608	20		1'-0"	7'-9"	—								
A609	19		3'-3"	29'-6"	—				1'-0"		3'-1"		32'-7"
D801	15	1'-1"	3'-4"	6"									
P503	S6	6"	4'-8"	1'-4"	4'-8"			6"					
P504	T2	6"	2'-8"	4'-8"	2'-8"	4'-8"		6"					
P505	S10		1'-7"	2'-8"	1'-7"								
P507	T2	6"	2'-8"	3'-9 to 4'-7" by 1¼"	2'-8"	3'-9 to 4'-7" by 1¼"		6"					
P508	S6	6"	3'-9 to 4'-7" by 1¼"	1'-4"	3'-9 to 4'-7" by 1¼"			6"					
P509	T2	6"	2'-8"	3'-9 to 4'-7½ by ⅜"	2'-8"	3'-9 to 4'-7½ by ⅜"		6"					
P1001	2	1'-1"	5'-5"					—					
P1007	19		6'-11"	21'-1"	—				1'-0"		6'-10"		27'-11"
P1101	20		4'-6"	15'-6"	—								
P1102	20		3'-6"	32'-5"	—								
P1104	20		4'-6"	17'-6"	—								
SP401	SP1		4½"	13'-9"	40								2'-8"
SP402	SP1		4½"	15'-6"	44								2'-8"
SP403	SP1		4½"	14'-0"	40								2'-8"
SP404	SP1		4½"	14'-4"	41								2'-8"
SP405	SP1		4½"	15'-9"	45								2'-8"
SP406	SP1		4½"	14'-2"	41								2'-8"
SP407	SP1		4½"	15'-10"	45								2'-8"
S501	S3	5"	2'-2"	8"	2'-2"			5"					
S502	2	6"	2'-6"					6"					
S503	2	6"	1'-4"					6"					
S504	2	6"	5'-6"					6"					
S505	S6	6"	1'-1"	1'-1"	1'-1"			6"					
RE401	SP2		7'-6"									1'-4"	
SA501	17		—	2'-1"	1'-4"	2'-1"	—		9¼"		9¼"		3'-8¼"
SA502	19		1'-1"	2'-11"	—			—					
SA503	2	6"	2'-2"										



ENLARGED VIEW SHOWING
BAR BENDING DETAILS

NOTES

1. FIGURES IN CIRCLES SHOW BAR TYPES.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. "J" DIMENSION ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4.  WHERE "J" IS NOT SHOWN "J" WILL BE KEPT EQUAL TO OR LESS THAN "H" WHERE "J" CAN EXCEED "H" IT SHOULD BE SHOWN.
5. "H" DIMENSION ON STIRRUPS TO BE SHOWN WHERE NECESSARY TO RESTRICT HOOKS.
6. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT STIRRUPS S11, TIES T3, SPIRALS SP1 AND WHERE RADIUS "R" IS INDICATED.
7. RADIUS DIMENSION "R" IS TO OUTSIDE OF BAR.
8. THE LENGTH OF BENT BARS IS MEASURED ALONG THE CENTERLINE.
9. FOR STANDARD HOOK DIMENSIONS, SEE SECT. 509.05 OF THE SPECIFICATIONS.
10. FOR BAR TYPE SP1, THE NO. OF TURNS "D" IS THE LENGTH "C" DIVIDED BY THE PITCH "B", PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER. 1½ CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.

VOGT, IVERS & ASSOCIATES
ENGINEERS — ARCHITECTS
CINCINNATI — CHICAGO

10/10

BAR BENDING DETAILS

BRIDGE NO. HAM-275-1604
I-275 UNDER U.S.27

HAMILTON COUNTY STA. 719+87.12 To STA. 722+87.53

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	R.E.S.	~	E.F.F.			

	STATE	PROJECT	
	OHIO		

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LATEX MODIFIED CONCRETE WEARING COURSE

LATEX MODIFIED PORTLAND CEMENT CONCRETE

1. Description. This work shall consist of constructing a wearing course of Latex Modified Portland Cement concrete on the prepared surface of the Portland Cement concrete bridge deck. The work shall be done in accordance with these specifications and in reasonably close conformity with grades, thickness and cross-sections shown on the plans or established by the Engineer.

2. First Course Curing and Surface Preparation.

The surface shall have a uniformly gritty texture. The surface of the portland cement concrete first course shall be cured by use of burlap mats, waterproof paper, polyethylene sheeting or waterproof curing blankets. The entire surface of the top and sides of the newly placed concrete shall be covered. The surface shall have cured sufficiently, 14 days or when 650 p.s.i. average beam test is obtained, but not less than 7 days, prior to placement of Latex Modified Portland Cement Concrete. All laitance or any foreign material shall be removed from the surface by sandblasting, within 24 hours of placing overlayment. Immediately before placement of the wearing course begins, the surface shall be cleaned by air blast or pressure water flushing. Thorough soaking of the surface with clean water for not less than one hour prior to placement, will be required.

3. Materials

A. Portland cement shall be Type I, 701.04 or, if required by weather conditions, Type III, 701.05, at the direction of the latex manufacturer.

B. Sand shall be natural sand conforming to 703.02 of the CMS.

C. Coarse aggregate shall be size No. 8 limestone meeting the requirements of section 703.02 of the CMS.

D. The latex modifier shall conform to the requirements of Dow Chemical Company, Modifier A, or approved equal.

E. Water shall conform to the requirements of section 499.02 of the CMS and the storage and handling of all materials shall be in accordance with the CMS and the latex manufacturer's requirements. The latex modified concrete shall be designed by the Engineer, using the following as a guide.

	Material or Property	Latex Modified Concrete
	Average Thickness	1" and greater
	Cement content, sacks/cu.yd.	7.0
	Latex Emulsion Admixture, gal./sack	3.5
**	Water, gal. per sack	2.5
	Air content, % of plastic mix	5 ± 2
*	Slump, inches	4-6
	Percent Fine Aggregate as percent of Total agg., by weight	50-55
***	Weight ratio of cement: sand: coarse aggregate dry basis agg. specific gravity = 2.65	1:2.5:2.0

Note: * The slump shall be measured 4 to 5 minutes after discharge from the mixer. During this waiting period, it shall be deposited on the deck and not be disturbed.

** The net water added shall be adjusted to control the slump within the prescribed limits and should produce net water cement ratios of 0.35-0.40, by weight.

*** The dry weight ratios are approximate and should produce good workability but due to gradation changes may be adjusted within limits by the Engineer. The sand ratio may be increased by as much as 0.2 if the coarse aggregate is reduced by an equivalent volume.

4. Equipment: Sandblasting equipment must be of such size and capacity to blast clean the deck area in allotted time.

Proportioning and mixing equipment shall be self-contained, mobile, continuous mixing subject to the following:

A. The mixer shall be self-propelled and be capable of carrying sufficient unmixed dry, bulk cement, sand, coarse aggregate, latex modifier, and water to produce on the site not less than 6 cubic yards of concrete.

B. The mixer shall be capable of positive measurement of cement introduced into the mix. A recording meter visible at all times and equipped with a ticket printout shall indicate this quantity.

C. Mixers shall be calibrated to accurately proportion the specified mix. Certification of the calibration by approved testing authority will be accepted as evidence of this accuracy if the yield is shown to be true within a tolerance of 1.0 percent according to the following test:
With the cement meter set on zero and all controls set for the desired mix activate the mixer discharging mixed material into a one quarter cubic yard container- 36"x 36"x 9". When the container is level-struck full, making provisions for settling the material into all corners, the cement meter must show a discharge of 1 ¾ bags of cement for latex modified concrete, (7 bags/cu.yd.).

D. The mixer shall provide positive control of the flow of water and latex emulsion into the mixing chamber. Water flow shall be indicated by flow meter and be readily adjustable to provide for minor variations in aggregate moisture.

E. The mixer shall be capable of being calibrated to automatically proportion and blend all components of indicated composition on a continuous or intermittent basis as required by the finishing operation, and shall discharge mixed material through a conventional chute directly in front of the finishing machine.

F. The mixer shall be capable of spraying water over the entire placement width as it moves ahead to insure that the surface to be overlaid is wetted to receive the modified material.

Placing and Finishing Equipment shall include hand tools for placement and brushing-in freshly mixed modified concrete and for distributing it to approximately the correct level for striking-off with the screed. Approved hand operated vibrators and screeds may be used to place and finish small areas of work.

An approved finishing machine complying with the following requirements shall be used for finishing all large areas of work:

The finishing machine shall be self-propelled and capable of forward and reverse movement under positive control. Provistons shall be made for raising all screeds to clear the screeded surface for traveling in reverse.

The machine shall be equipped with vibrating screeds designed to consolidate the modified composition by vibration. Vibration frequency shall be variable with positive control between 3000 and 11,000 vpm. The bottom face of the screeds shall be not less than 4" wide and be metal covered. The screeds shall be provided with positive control of the vertical position. A Gomaco C450 or equivalent self-propelled screed with one or more rollers, augers, and 1500 to 2500 vpm vibratory pans may be used.
Any modifications shall be subject to approval by the Engineer. A suitable portable lightweight or wheeled work bridge shall be required and used behind the finishing operation.

Supporting rails upon which the finishing machine travels will be required and shall be sufficiently rigid that they do not deflect under the weight of the machine. They shall be so attached to the old surface that they may be removed without damage to the edge of the new overlayment.

5. Proportioning, Mixing, Placing, Finishing and Curing of Modified Compositions.

The operations of proportioning and mixing modified materials shall comply with the following requirements: Mixers shall be clean and the ingredients accurately proportioned.

Modified mortar or concrete materials shall be mixed at the site in accordance with the specified requirements for the equipment used. The modified mortar or concrete as discharged from the mixer shall be uniform in composition and consistency. Mixing capability shall be such that finishing operations can proceed at a steady pace with final finishing completed before the formation of the plastic surface film. If required by the Engineer, uniformity tests shall be run according to ASTM C685 and shall meet the requirements of Table A1, therein.

Screed rails shall be placed and fastened in position to insure finishing the new surface to the required profile. Anchorage for supporting rails shall provide horizontal and vertical stability. Screed rails shall not be treated with parting compound to facilitate their removal.
All surfaces shall be completely cleaned as approved by the Engineer prior to placing mixtures.
The mixture shall be brushed onto the wetted, prepared surface. Care shall be exercised to insure that all vertical as well as horizontal surfaces receive a thorough, even coating and the rate of progress is limited so that the brushed material does not become dry before it is covered with additional material as required for the final grade. Material used for brushing which has had the concrete used up, shall be disposed of.

5. (Continued)

The mixture shall be placed and struck-off to approximately ¼" above final grade, it shall then be consolidated and finished at final grade with the vibrating screeds. Hand finishing with a wood float may be required along the edge of the pour or on small areas of repair.

When a tight, uniform surface has been achieved it shall be texturized by broom or burlap drag before the plastic film forms on the surface. Texturizing shall be transverse.

Screed rails and/or construction bulkheads shall be separated from the newly placed material by passing a pointing trowel along their inside face. Metal expansion dams shall not be separated from the overlayment. Care shall be exercised to insure that this trowel cut is made for the entire depth and length of rails or dams after the mixture has stiffened sufficiently.

The surface shall be promptly covered with a single layer of clean, wet burlap as soon as the surface will support it without deformation.

Within one hour of covering with wet burlap, a layer of 4 mil, polyethylene film shall be placed on the wet burlap and the surface cured for 24 hours. The curing material shall then be removed for an additional 72 hour air cure before traffic use.

Wet burlap-polyethylene sheets may be substituted for the polyethylene film with the approval of the Engineer but shall not replace the initial wet burlap.

A representative of the manufacturer shall be present during the proportioning, mixing, placing and finishing of the concrete. Operations and procedures which are considered by this representative as being detrimental to the integrity and durability of the concrete will not be permitted. Surface smoothness shall conform to the requirements of 451.12.

6. Limitation of Operations

No vehicular traffic shall be permitted on the latex cement surface until 96 hours after placement. At temperatures below 55 degrees F the Engineer may require a longer curing period.

No latex modified mixtures shall be placed at temperatures lower than 45 degrees F. They may be placed at 45 degrees F when rising temperature is predicted and then only if and until the prediction indicates 8 hours over 45 degrees F for the curing period. At temperatures above 85 degrees F the Engineer may require placements to be made at night or early morning hours if in his opinion a satisfactory surface finish is not being achieved.

A construction dam or bulkhead shall be installed in case of major delay in the placement operation exceeding one hour in duration. During minor delays one hour or less the end of the placement may be protected from drying with several layers of wet burlap.

Adequate precautions shall be taken to protect freshly placed modified material from sudden or unexpected rain. All placing operations shall stop when it starts to rain. The Engineer may order removal of any material damaged by rainfall.

7. Method of Measurement.

A. Surface preparation will be computed in Sq. Yds. from measurements of areas so prepared and accepted.

B. Latex modified portland cement material shall be computed in Cu. Yds. of materials mixed and placed. Meter ticket printout of continuous mixers so equipped and properly calibrated will be accepted for this calculation. No deduction will be made for coarse aggregate thrown out due to brushing operations.

C. Finishing and curing will be computed in Sq. Yds. from measurements of the areas so finished and cured.

The quantities of various other pay items which contribute to the completed and accepted work will be measured for payment according to the plans and specifications for the several items.

8. Basis of Payment.

The quantities measured as provided above will be paid for at the contract unit price for the pay items, which price shall be full compensation for furnishing, hauling and placing of all materials and for all labor, equipment, tools and incidentals.

LATEX MODIFIED CONCRETE WEARING COURSE

HAM-275-13.91

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DLM	GFJ			WJJ	3-19-75	

LOCATION PLAN

HAM-275-13.91

HAMILTON COUNTY

COLERAIN TWP E.R.I., T.2

SEC. 10, 14, 15, 16, 20 & 21

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-275-3(71)

354
468

HAM. 275-13.91
R/W PLANS
LIMITED ACCESS
SHEET 1 OF 3

1
26

SURVEYORS SEAL

I HEREBY CERTIFY THAT THIS PLAT IS A TRUE DELINEATION OF A SURVEY MADE FOR THE OHIO DEPARTMENT OF HIGHWAYS

IN _____ BY _____

DATE _____

RECEIVED _____

RECORDED _____

BOOK _____ PAGE _____

COUNTY RECORDER _____

SIGNED R. T. Berio

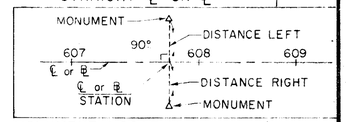
DATE 9/28/72 DIVISION DEPUTY DIRECTOR

THIS IMPROVEMENT HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY FROM STATION 572+00 TO STATION 694+00 BY ACTION OF THE DIRECTOR OF HIGHWAYS AND RECORDED IN VOLUME _____ PAGE _____ OF DIRECTORS JOURNAL PURSUANT TO LAW

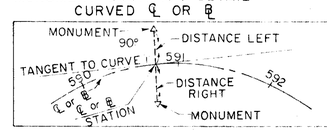
THIS PLAN PREPARED FOR THE STATE OF OHIO DEPARTMENT OF HIGHWAYS.

MATCH LINE SEE SHEET 2

MONUMENT LOCATION DETAIL STRAIGHT ℄ OR ℄



MONUMENT LOCATION DETAIL CURVED ℄ OR ℄



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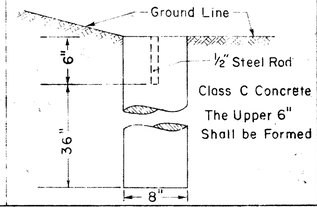

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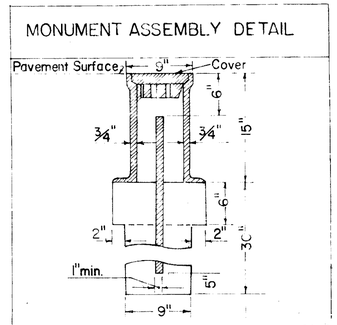


DATE	REVISED	BY

Note: For Curve Data See Sheet 3 of 3

1
26

R/W PLAN - LOCATION PLAN

LOCATION PLAN

0 200 400 600 800

HAM-275-13.91

HAMILTON COUNTY

COLERAIN TWP. E.R.I, T.2

SEC. 10, 14, 15, 16, 20 & 21

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I-275 3(7)~~	

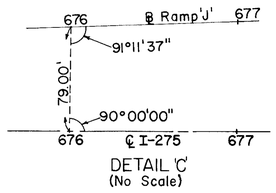
355 / 468

HAM.-275-13.91
R/W PLANS
LIMITED ACCESS
SHEET 2 OF 3

2 / 26

MONUMENT ASSEMBLIES (SET ON ℄)	
℄ STATION	POINT DESCRIPTION
80+00 ℄ Reloc. Blue Rock Rd.	P.O.C.
85+00 "	P.O.C.
90+00 "	P.O.C.
93+32.36 "	C.S.
96+32.36 "	S.T.
100+00.00 "	P.O.T.
102+72.79 "	T.S.
106+72.79 "	S.C.
111+67.19 "	P.C.C.
114+46.85 "	P.T.
121+25.85 ℄ Springdale Rd.	P.C.
181+12.91 "	P.T.
22+47.21 "	P.C.
23+82.76 "	P.T.
27+62.73 "	P.T.
51+46.80 Springdale Conn.	P.C.
9+20.08 "	P.T.
20+00 ℄ Reloc. Sheits	P.O.T. | Mon.
52+50 ℄ Reloc. Brehm	P.O.C.
25+00 ℄ Reloc. Sheits	P.O.T.
29+88.06 "	P.C.
32+38.92 "	P.T.
0+25.00 ℄ Dry Ridge Rd. Reloc.	P.O.T.
12+20.79 "	P.C.
41+67.72 "	P.I.
81+72.51 "	P.T.
711+84.22 Colerain Ave.	P.T.
715+00 "	P.O.T.
719+00 "	P.O.T.
723+75.00 "	Angle Point
0+67.96 ℄ Redskin Dr. Ext	P.C.
4+28.92 "	P.T.

REFERENCE MONUMENTS (SET ON ℄)	
℄ STATION	POINT DESCRIPTION
575+00 ℄ I-275	P.O.T.
580+00 "	P.O.T.
586+42.48 "	P.C.
591+55 "	P.O.C.
596+50 "	P.O.C.
601+48.04 "	P.T.
605+00 "	P.O.T.
610+00 "	P.O.T.
615+00 "	P.O.T.
620+05.25 "	P.C.
625+00 "	P.O.C.
630+00 "	P.O.C.
635+00 "	P.O.C.
640+00 "	P.O.C.
643+25.25 "	P.T.
647+50 "	P.O.T.
652+50 "	P.O.T.
656+87.09 "	P.C.
661+75.00 "	P.O.C.
666+00 "	P.O.C.
670+05.65 "	P.T.
675+00 "	P.O.T.
680+00 "	P.O.T.
685+00 "	P.O.T.
690+00 "	P.O.T.



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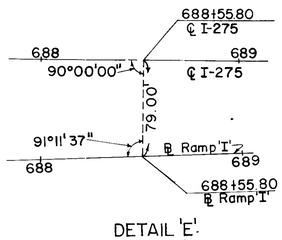

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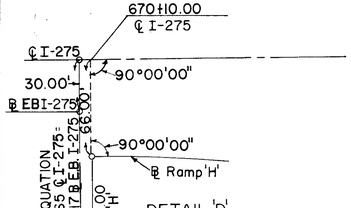

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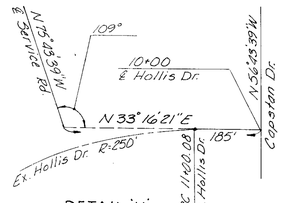

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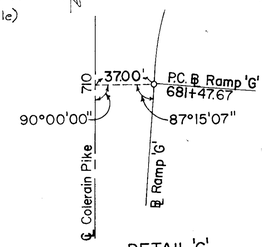

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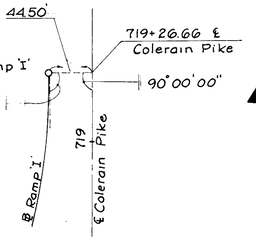

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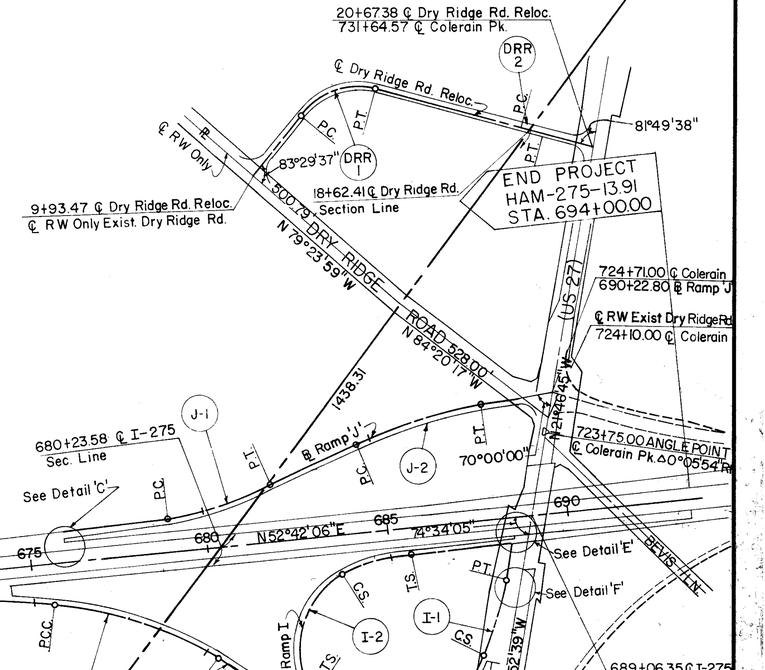

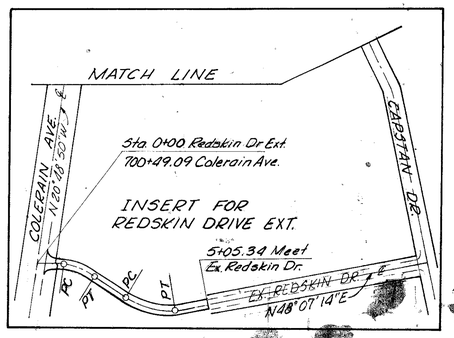

Note: For Curve Data see Sheet 3 of 3

DATE	REVISED	BY

2 / 26

R/W PLAN - LOCATION PLAN

CURVE DATA

CURVE NO.	△	Dc	Rc	SPIRAL BACK (1)	SPIRAL FORE (2)	θ1	θ2	CURVE LENGTH INCL SPIRALS	TANGENT BACK	TANGENT FORE	TANGENT TO SPIRAL (T.S.) or TANGENT TO CURVE (P.C.) or CURVE TO CURVE (P.C.C.) SYMBOL	STATION	N. COORD	E. COORD	SPIRAL TO CURVE (S.C.) STATION	N. COORD	E. COORD	CURVE TO SPIRAL (C.S.) STATION	N. COORD	E. COORD	SPIRAL TO TANGENT OR CURVE TO TANGENT OR CURVE TO CURVE (S.T. or C.C.) SYMBOL	STATION	N. COORD	E. COORD	POINT OF INTERSECTION (P.I.) STATION	N. COORD	E. COORD	CURVE NO.
275-1	22°04'53.2"	1°28'	3,906.53	—	—	—	—	1,505.55	762.23	762.23	P.C.	586+42.48	457,627.69	1,397,741.24	—	—	—	—	—	—	P.T.	601+48.04	458,676.02	1,398,808.84	594+04.71	458,256.01	1,398,172.77	275-1
275-2	23°12'00.0"	1°00'	5,729.58	—	—	—	—	2,320.00	1,176.11	1,176.11	P.C.	620+05.25	459,699.39	1,400,358.67	—	—	—	—	—	—	P.T.	643+25.25	461,329.75	1,401,986.91	631+81.36	460,347.45	1,401,340.12	275-2
275E-3	19°20'20.0"	1°28'	3,906.53	—	—	—	—	1,318.56	665.61	665.61	P.C.	656+87.09	462,467.03	1,402,735.75	—	—	—	—	—	—	P.T.	670+05.65	463,426.29	1,403,631.29	663+52.70	463,022.96	1,403,101.80	275E-3
275EB-3	19°20'20.0"	1°33.83'	3,663.85	—	—	—	—	1,236.65	624.26	624.26	P.C.	657+57.52	462,502.76	1,402,809.57	—	—	—	—	—	—	P.T.	669+94.17	463,402.43	1,403,649.47	663+8.78	463,026.15	1,403,152.87	275EB-3
275WB-3	19°20'20.0"	1°32.02'	3,735.85	—	—	—	—	1,260.95	636.53	636.53	P.C.	656+87.09	462,490.13	1,402,700.68	—	—	—	—	—	—	P.T.	669+48.04	463,407.48	1,403,557.08	663+33.62	463,021.77	1,403,050.73	275WB-3
C-1	19°49'13.2"	3°30'	1637.02	—	—	—	—	566.30	286.01	286.01	P.C.	562+50.00	455,775.31	1,396,281.96	—	—	—	—	—	—	P.T.	568+16.30	456,227.14	1,396,618.65	565+36.01	455,971.82	1,396,489.77	C-1
D-1	20°38'20.5"	3°00'	1,909.86	—	—	—	—	687.97	347.75	347.75	P.C.	578+32.58	457,141.76	1,397,088.47	—	—	—	—	—	—	P.T.	585+20.55	457,673.23	1,397,519.45	581+80.33	457,446.13	1,397,255.57	D-1
D-2	4°30'00.0"	1°00'	5,729.58	—	—	—	—	450.00	225.12	225.12	P.C.	589+00.11	457,920.45	1,397,807.46	—	—	—	—	—	—	P.T.	593+50.11	458,226.65	1,398,137.06	591+25.23	458,067.08	1,397,918.27	D-2
E-1	19°24'40.0"	2°00'	2,864.79	—	—	—	—	970.56	489.97	489.97	P.C.	582+04.39	457,158.99	1,397,635.80	—	—	—	—	—	—	P.T.	591+74.94	457,983.52	1,398,138.95	586+94.36	457,614.29	1,397,816.87	E-1
G-1	26°55'57.8"	3°00'	1,909.86	—	—	—	—	897.76	457.33	457.33	P.C.	681+47.67	463,528.15	1,405,603.66	—	—	—	—	—	—	P.C.C.	690+45.43	464,414.64	1,405,530.41	686+05.05	463,962.63	1,405,460.90	G-1
H-1	8°10'38.0"	1°30'	3,819.72	—	—	—	—	545.15	273.04	273.04	P.C.	670+10.00	463,376.41	1,403,674.74	—	—	—	—	—	—	P.C.C.	675+55.15	463,674.76	1,404,130.47	672+83.04	463,541.88	1,403,891.94	H-1
H-2	33°45'31.1"	7°00'	818.51	—	—	—	—	482.27	248.36	248.36	P.C.C.	675+55.15	463,674.76	1,404,130.47	—	—	—	—	—	—	P.T.	680+37.41	463,775.54	1,404,594.98	678+03.51	463,795.62	1,404,347.43	H-2
H-3	26°30'54.0"	20°01.5'	286.11	200	—	20°32.5'	—	232.41	155.38	80.40	T.S.	683+17.95	463,752.86	1,404,874.60	685+17.95	463,759.91	1,405,073.39	—	—	—	P.T.	685+50.36	463,770.26	1,405,104.08	684+73.33	463,740.30	1,405,029.47	H-3
I-1	42°11'23.8"	6°00'	954.93	—	200	—	29°00'	419.83	277.92	161.27	P.C.	671+17.72	464,358.44	1,405,183.51	675+37.55	463,949.29	1,405,231.09	673+37.55	464,146.85	1,405,241.33	—	—	—	—	673+95.64	464,00.53	1,405,287.07	I-1
I-2	211°11'44.7"	23°00'	249.11	—	200	—	23°00'	1,018.24	—	—	—	—	—	—	675+37.55	463,949.29	1,405,231.09	683+55.80	464,154.66	1,404,778.56	S.T.	685+55.[illegible]	464,297.86	1,404,916.13	—	—	—	I-2
J-1	17°51'22.0"	6°00'	954.93	—	—	—	—	297.60	150.02	150.02	P.C.	679+00.00	464,036.01	1,404,291.03	—	—	—	—	—	—	P.T.	681+97.[illegible]	464,254.26	1,404,491.58	680+50.02	464,129.39	1,404,408.44	J-1
J-2	14°34'07.6"	4°00'	1,432.39	—	—	—	—	364.22	183.10	183.10	P.C.	684+64.94	464,476.80	1,404,639.72	—	—	—	—	—	—	P.T.	688+29.16	464,751.20	1,404,877.72	686+48.04	464,629.21	1,404,741.18	J-2
BRR-1	62°10'17"	2°30'	2,291.83	300	300	3°45'	3°45'	2,786.86	1,532.71	1,532.71	T.S.	65+13.14	455,593.17	1,398,763.45	68+13.14	455,857.34	1,398,621.38	90+00.00	456,969.20	1,396,831.30	S.T.	93+00.00	456,980.16	1,396,534.55	80+45.85	456,958.57	1,398,067.11	BRR-1
BRR-2	13°25'59"	4°00'	1,432.39	300	300	600'	6°00'	635.83	318.71	318.71	T.S.	97+73.17	456,986.83	1,396,061.45	100+73.17	456,980.59	1,395,761.64	101+09.00	456,976.70	1,395,726.00	S.T.	104+09.00	456,921.61	1,395,453.29	100+92.11	456,991.32	1,395,742.52	BRR-2
BRR-3	41°17'23"	6°00'	954.93	400	400	12°00'	12°00'	1008.16	562.12	562.12	T.S.	104+33.71	456,916.21	1,395,807.18	108+33.71	456,856.32	1,395,012.48	111+21.87	456,836.37	1,394,728.21	S.T.	115+21.87	457,002.97	1,394,365.42	109+95.83	456,793.38	1,394,858.65	BRR-3
SPR-1	11°44'27.9"	2°00'	2,864.79	—	—	—	—	587.05	294.56	294.56	P.C.	12+25.86	456,848.97	1,397,918.67	—	—	—	—	—	—	P.T.	18+12.91	457,291.53	1,398,302.82	15+20.42	451,050.53	1,398,133.50	SPR-1
SPR-2	27°06'33.9"	20°00'	286.48	—	—	—	—	135.55	69.07	69.07	P.C.	22+47.21	457,646.90	1,398,552.48	—	—	—	—	—	—	P.T.	23+82.76	457,771.82	1,398,601.77	23+16.28	457,703.42	1,398,592.18	SPR-2
SPR-3	64°01'51.4"	17°23'34"	329.42	—	—	—	—	368.14	205.97	205.97	P.C.	23+94.58	457,783.53	1,398,603.41	—	—	—	—	—	—	P.T.	27+62.73	458,051.11	1,398,827.90	26+00.55	457,987.50	1,398,632.00	SPR-3
SPC-1	93°19'03.8"	25°00'	229.18	—	—	—	—	373.28	242.86	242.86	P.C.	5+46.80	456,905.97	1,398,418.77	—	—	—	—	—	—	P.T.	9+20.[illegible]	457,235.97	1,398,372.53	7+89.66	457,096.00	1,398,571.00	SPC-1
BR-1	5°51'36.7"	3°00'	1,909.86	—	—	—	—	195.34	97.76	97.76	P.C.	51+94.13	458,494.91	1,398,253.80	—	—	—	—	—	—	P.T.	53+89.47	458,656.69	1,398,144.48	52+91.89	458,573.00	1,398,195.00	BR-1
SR-1	12°06'32.1"	6°00'	954.93	—	—	—	—	201.82	101.29	101.29	P.C.	27+20.11	458,882.35	1,398,884.39	—	—	—	—	—	—	P.T.	29+21.93	458,996.27	1,399,020.53	28+21.40	458,930.50	1,398,943.50	SR-1
SR-2	75°38'56.1"	30°09.34'	190.00	—	—	—	—	250.86	147.51	147.51	P.C.	29+88.06	459,039.21	1,399,070.82	—	—	—	—	—	—	P.T.	32+38.92	459,267.42	1,399,118.01	31+35.57	459,135.00	1,399,183.00	SR-2
NWR-1	23°57'08"	30°33.48'	165.00	—	—	—	—	68.98	35.00	35.00	P.C.	46+81.02	457,186.79	1,395,280.29	—	—	—	—	—	—	P.T.	47+50.00	457,126.29	1,395,008.20	47+16.02	457,153.13	1,395,042.66	NWR-1
NWR-2	52°28'17"		62.00	—	—	—	—	56.78	30.56	30.56	PC	48+68.22	457,035.63	1,395,312.33	—	—	—	—	—	—	PT	49+25.00	456,982.31	1,395,259.56	48+93.78	457,012.20	1,395,334.12	NWR-2
CO-1	1°03'48.0"	0°22'	17,188.73	—	—	—	—	319.00	159.50	159.50	P.C.	708+65.22	463,388.93	1,405,617.57	—	—	—	—	—	—	P.T.	711+84.22	463,686.04	1,405,501.46	710+24.72	463,538.03	1,405,560.89	CO-1
EXRC-1	50°01'40"	26°38'37"	200.00					174.63	93.32	93.32	PC.C	47+16.69	456,636.96	1,395,171.68	—	—	—	—	—	—	PT	48+91.32	456,704.61	1,395,050.[illegible]	48+40.01	456,666.26	1,395,096.[illegible]	EXRC-1
DRR-1	70°45'15.0"	28°38.9	200.00	—	—	—	—	246.98	142.01	142.01	PC	12+20.79	465,194.53	1,404,037.33	—	—	—	—	—	—	PT	14+67.77	465,373.30	1,404,184.54	13+62.80	465,336.18	1,404,047.97	DRR-1
DRR-2	1°32'45.0"	3°05.5'	1,853.12	—	—	—	—	50.00	25.00	25.00	PC	18+22.51	465,406.02	1,404,526.96	—	—	—	—	—	—	P.T.	18+72.51	465,478.41	1,404,575.39	18+47.51	465,472.56	1,404,551.09	DRR-2
RE-1	31°43'20"	45°50'12"	125.00'	—	—	—	—	69.21'	35.52'	35.52'	PC	0+67.96	462,625.12	1,405,980.23	—	—	—	—	—	—	PT	1+37.17	462,638.17	1,406,047.30	1+03.48	462,641.18	1,406,011.91	RE-1
RE-2	46°44'15"	28°38.52"	200.00'	—	—	—	—	163.14'	86.42'	86.42'	P.C.	2+65.80	462,627.27	1,406,175.48	—	—	—	—	—	—	P.T.	4+28.94	462,677.65	1,406,325.93	3+52.22	462,619.96	1,406,261.58	RE-2
HS-1	16°15'00	45°50'12"	125.00'					35.45'	17.85'	17.85'	PC	1+07.18	463,558.66	1,406,107.57	—	—	—	—	—	—	PT	1+42.64	463,572.12	1,406,074.90	1+25.03	463,563.06	1,406,090.27	HS-1
HS-2	26°06'00"	45°50'12"	125.00'	—	—	—	—	56.94'	28.97'	28.97'	P.C.	2+26.06	463,614.49	1,406,003.04	—	—	—	—	—	—	P.T.	2+83.00	463,631.44	1,405,949.19	2+55.03	463,629.20	1,405,973.08	HS-2

PROPERTY PLAN

HAM-275-13.91
HAMILTON COUNTY
COLERAIN TWP. E.R.I., T.2

0 200 400 600 800

SEC. 10, 14, 15, 16, 20 & 21

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I-275-3(7)~~	

357/468

4/26

HAM. 275-13.91
R/W PLANS
LIMITED ACCESS

Note: For Total Property Parcels 312, 354 & 440 See Detail On Sheet No. 5

℄ Blue Rock Conn.

END R/W ACQUISITION STA. 115+21.87 BLUE ROCK RD. RELOC

END PROJECT STA. 572+00 HAM-275-10.66

BEGIN PROJECT STA. 572+00 HAM-275-13.91

I-275-3(10)28 I-275-3(9)27

END R/W ACQUISITION STA. 567+60.49 HAM-275-10.66

BEGIN R/W ACQUISITION STA. 567+60.49 HAM-275-13.91

I-275-3(10)28 I-275-3(9)27

BEGIN R/W ACQUISITION STA. 7+40 RELOC. SPRINGDALE RD

END R/W ACQUISITION STA. 30+25 RELOC. SPRINGDALE RD.

END R/W ACQUISITION STA. 75+89.84 HAM CR-453-H

BEGIN R/W ACQUISITION STA. 75+89.84 HAM-275-13.91

S-SU-242(5) I-275-3(9)27

END PROJECT STA. 75+00 HAM CR-453-H

BEGIN PROJECT STA. 75+00 HAM-275-13.91

S-SU-242(5) I-275-3(9)27

LEGEND

TYPICAL PARCEL DESIGNATION

- 357 WL — WARRANTY DEED WITH LIMITATIONS OF ACCESS
- 357 WD — WARRANTY DEED (RIGHT OF WAY)
- 357 SL — SLOPE EASEMENT
- 357 S — SEWER EASEMENT
- 357 X — CHANNEL EASEMENT
- 357 T — TEMPORARY EASEMENT
- 357 EL — EXCESS LAND

TYPICAL LINE DESIGNATION

- LA-R/W — PROPOSED LIMITED ACCESS RIGHT OF WAY LINE
- R/W — PROPOSED RIGHT OF WAY
- ℄ — PROPERTY LINE
- SECTION LINE
- -x-x-x- PROPOSED R/W FENCE
- E.P.A. END POST ASSEMBLY
- I.A.P.A. INTERMEDIATE ANCHOR POST ASSEMBLY
- A/C ABUTMENT CONNECTION

UTILITY OWNERS

OWNERS	ADDRESS
CINCINNATI GAS & ELECTRIC CO.	CINCINNATI, OHIO
HAMILTON COUNTY WATER DEPT.	" "
CINCINNATI BELL	" "
METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI	" "

OWNERS

- 312 S. DAVID SHOR
- 323 Eugene F. Harris
- 324 Helen Haenning
- 325 Alma Fallen
- 326 Margaret L. & Carl T. Herrmann
- 327 Edward G. Sprandel & Ruth M. Sprandel
- 328 Frank R. Maringer & Myrtle C. Maringer
- 329 Martha A. Shea
- 330 Eleanora C. Manegold
- 331 Jonathan E. Rhoads Jr. "Tr"
- 332 Alcide E. Foreman & Elizabeth S. Foreman
- 333 Clem Haenning & Rosella Haenning
- 334 Frey Electric Co.
- 335 Patricia A. Fleischer
- 336 Alphonse Graff & Clarence M. Graff
- 337 Phoebe Alvis

DATE	REVISED	BY
29 Nov. 73	Rev. Owners Par. 326	A.A.B.
4-16-73	Name Chg. Par. 335	Eff.
10-5-72	Added Easement Par. 326	P.W.G.
4-18-72	Name Change Par. 331	J.T.C.

4/26

R/W PLAN - PROPERTY PLAN

PROPERTY PLAN
CONTINUED
HAM-275-13.91
HAMILTON COUNTY

0 200 400 600 800

COLERAIN TWP. E.R.1., T.2
SEC. 10, 14, 15, 16, 20, & 21

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I-275-3(7)~~	

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HAM.-275-13.91
R/W PLANS
LIMITED ACCESS

339 Margie Rieger, Regina Townsley
340 Carol S. Imwold
341 Mary Lucy Mosier
342 Glen J. Rieman & Betty Schomaker
343 Arthur Graff
344 Mary Dolores Krizsa
345 Helen P. Dreihs
346 Howard W. Alvis & Phoebe C. Alvis
347 Raymond J. Ruhl & Ida F. Ruhl
348 Ruth Wolff
349 Jacob Frankenstein & Mary Frankenstein

SEE DETAIL — 359 — DETAIL NO SCALE

SEE DETAIL — 401 — DETAIL NO SCALE

Detail No Scale See Sht. No. 4 — 440, 354, 312, Blue Rock Rd.

SEE DETAIL — 405 — DETAIL NO SCALE

L.L. E.L. 401 E.L. 405 E.L. L.L.

COLERAIN TWP. SEC. 16 T.2 E.R.1
COLERAIN TWP. SEC. 15 T.2 E.R.1
PRECHTEL RD.

LA-R/W 615 620 625 630 635 640 645 650 655 660 665 670 675 LA-R/W
P.C. P.T. P.C. P.T.

357 358 359 360 361 362 363 21 22 23 19 20 400 403 404

SPRINGDALE ROAD — POOLE ROAD — YELLOW SPRINGS DRIVE — COUNTY RD. NO. 94 — SUGANNA DRIVE — SAGEBRUSH LANE — YELLOWSTONE DRIVE — HAVERKOS COURT

COLERAIN TWP. SEC. 16 T2 E.R1
COLERAIN TWP. SEC. 10 T2 E.R1
COLERAIN TWP. SEC. 15 T2 E.R1
COLERAIN TWP. SEC. 9 T2 E.R1
COLERAIN TWP. SEC. 10 T2 E.R1
COLERAIN TWP. SEC. 9 T2 E.R1

For Continuation See Sheet No. 4
For Continuation See Sheet No. 6

350 Mildred B. Fehrenbach
351 George C. Kolb, Jr. 1/2 & Marie W. Kolb 1/2
352 Virginia Ruth Wolff
353 Winston C. Ellison & Sue J. Ellison
354 Thressa J. Sutfin & George V. Sutfin
355 Elmer Lohr
356 William A. Baumann
357 Anna Wenning
358 Shirley Engel
359 Clarence Newberry
360 Orville E. Stifel & Hildegarde A. Stifel
361 John L. Rains & Clara Rains
362 Joseph E. Graff & Helen Graff
363 Frieda Meier
365 Donald C. Schmidt & Shirley C. Schmidt
366 Lawrence F. Martin & Marlene E. Martin
367 Patricia R. Findley & Beatrice Findley
396 Edna R. Frey
397 Helen Nesper
398 Doris R. Oelerich
400 Walter L. Tarr, Trustee
401 Edwin Bibee & Rose Mary Bibee
402 June J. Grubbs
403 Angela C. Dorrman
404 Fred W. Vogel
405 Emerson Hoock & Dorothy L. Hoock
406 Lawrence E. Engelbrink & Patricia A. Engelbrink
407 U. W. Schmidt
408 Ronald G. Emerson & Cheryl L. Emerson
409 James R. Douthit & Jeanette A. Douthit
410 Elva Brunner & Roland Brunner
411 William E. Furr & Cecelia Furr
413 Robert F. Shea & Phyllis V. Shea
440 Warren McClintock & Oma McClintock
451 Frank Weishaupt & Rose M. Weishaupt
452 Emma K. Weishaupt
453 Walter C. Weishaupt & Betty Lou Weishaupt
454 Alfred G. Riedl & Katharina Riedl

5/26

DATE	REVISIONS	BY
4-23-74	Name Change Par. 361	S.E.W.
9-28-72	Name change Par. 339	J.T.C.
8-7-72	Rev. LA line Par. 360	WJR

R/W PLAN - PROPERTY PLAN

PROPERTY PLAN
CONTINUED
HAM-275-13.91
HAMILTON COUNTY

0 200 400 600 800

COLERAIN TWP. E.R.I., T. 2
SEC. 10, 14, 15, 16, 20 & 21

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I-275-3(7)~~	

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HAM. 275-13.91
R/W PLANS
LIMITED ACCESS

6/26

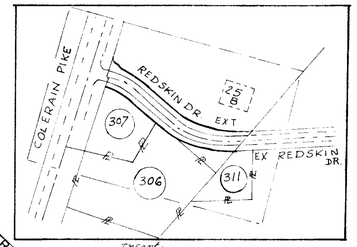
END R/W ACQUISITION STA. 680+23.58 HAM-275-13.91 | BEGIN R/W ACQUISITION STA. 680+23.58 HAM-275-16.15

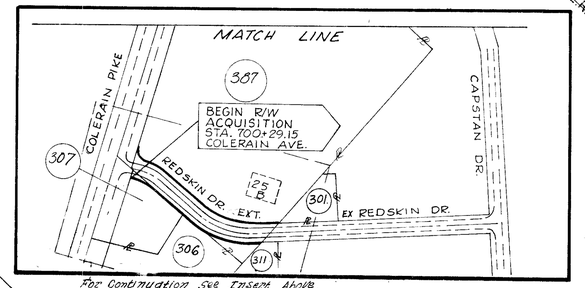
I-275-3(7) | I-275-

END R/W ACQUISITION STA. 727+20 COLERAIN AVE.

END PROJECT STA 694+00 HAM-275-13.91 | BEGIN PROJECT STA. 694+00 HAM-275-16.15

I-275-3(9)27 | I-275-





COLERAIN TWP SEC 11 T2 ERI
COLERAIN TWP SEC 10 T2 ERI

STRUBLE ROAD
HUGHES ROAD
DRY RIDGE ROAD
HAVERKOS CT.
COLERAIN PIKE
SWEETWOOD COURT
REGENCY COURT
CAPSTAN DR.
HOLLIS DR.
SERVICE RD.
BEVIS LANE
DE WHILL LANE
STORM DRIVE
OCTOBER DRIVE
POTTINGER ROAD
SEPTEMBER DRIVE
SEASON DRIVE
NEWYEAR DRIVE
REDFERN

R/W
Ex. LA
LA. R/W

For Continuation See Sheet No. 5

For Continuation See Inert Above
Match Line

(344) E. Elmer & Mary Mayborg
(315) Ronald Rains & Sandra L. Rains
(306) Donna S. Bradshaw
(307) Thomas Tierney (trustee)
(308) John Jones & Margaret Jones
(309) Bertha Rack
(310) Marlene F. Martin
(311) Donald R. Castle and Nellie Castle
(301) Walter Napier & Dollie Napier
(377) Margaret J. Bartram & Stanley F. Bartram
(378) Norbert Strobl & Joyce Strobl
(385) Standard Oil Company
(386) Joseph Lierer & Clara Lierer
(387) Bertha Rack
(395) Mark McCrackin, Jr. & Judy McCrackin
(415) Anna Litschgi
(416) Kenneth Nelson & Olive A. Nelson
(447) Virginia Sorn
(448) Bevis Cedar Grove Cemetery
(449) Colerain Lodge No. 759 F & AM
(450) Edwin H. Bernhard & Alice Bernhard
(455) Carl Lemperle, Jr.
(458) Joseph G. Lierer & Vera Lierer
(394) James H. Dohme & Audrey N. Dohme
(399) Arthur Bryant, Jr. & Mary A. Bryant
(417) Board of County Commissioners Hamilton County, Ohio

6/26

DATE	REVISIONS	BY
4/14/75	Name Change Par 30	P.W.E.
11-7-74	Add Par 314 & 315	H.J.
4-29-74	Deleted Par 301-T.	H.J.
3-7-74	Name change Par 309	H.R.J.
5-4-73	Rev. Par 455 W.L.	E.H.

R/W PLAN – PROPERTY PLAN

R/W JOB NUMBER	FED. RD. DIVISION	STATE	PROJECT	
08560(0)	2	OHIO	~~I-275-3(7)~~	

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SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

TOTAL NUMBER OF---
88 Owners
6 Total Takes
18 Owner With Structures Involved

R/W ONLY

PARCEL NO.	OWNER	RECORDED BOOK	RECORDED PAGE	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O IN TAKE	NET TAKE LAND	NET TAKE BLDG.	NET RESIDUE LEFT	NET RESIDUE RIGHT	SHEET NO.	TYPE FUND	REMARKS
312 X	S. DAVID SHOR	3872	510	25.293	0			0.194	No	23.487	0	14, 14A	I	1.806 Ac. Acquired for Ham. 275-10.66
312 S								0.009				14, 14A		
313 to 322														To Be Acquired HAM-275-10.66
323 WL	Eugene F. Harris	2638	220	0.688	0.15	0.688	0.15	0.538	Yes	0	0	12		Whole Take AP 8-222 WD
324 WL	Helen Haenning	1900	476	1.35	0	1.35	0	1.35	Yes	0	0	12		Whole Take
325 WL	Alma Fallen	2381	423	2.02	0	1.538	0	1.538	Yes	0	0	12	I	Whole Take AP 8 197 WD
325 EL						0.482	0	0.482					State	
326 WL-1	Margaret L. Herrmann and Carl T. Herrmann	3937	613	41.685	1.86	2.112	0	2.112	No	23.81	11.785	12,15	I	Record Area Calculated
326 WL-2						0.380	0.003	0.317				12		
326 WD						1.801	0	1.801				12,14,14B		
326 S-1								0.022				14,14B		
326 S-2								0.027				14,14B		
326 T-1								0.647				12		
326 T-2								1.173				12,14		
326 X-1								0.643				12,14,14B		
326 X-2								0.361				12,14,14B		
327 WD	Edward G. Sprandel & Ruth M. Sprandel	3636	201	0.48	0	0.020	0	0.020	No	0	0.46	14,14A		
327 X								0.044				14,14A		
328 WD	Frank R. Maringer & Myrtle C. Maringer	3571	326	0.85	0.07	0.001	0	0.001	No	0.779	0	14,14B		
328 T								0.061				14,14B		
328 X								0.065				14,14B		
329 WD	Martha A. Shea	2054	232	13.99	0.23	0.723	0	0.723	No	1.769	11.268	14,14B		
329 X-1								0.359				14,14B		
329 X-2								0.171				14,14B		
329 T								0.150				14,14B		
330 WD	Eleanora C. Manegold	2883	573	0.55	0.016	0.066	0.016	0.050	No	0	0.484	13,13A		
330 T								0.022				13,13A		Construct Temporary Road & Grade & Seed
331 WL	Jonathan E. Rhoads, Jr. "Tr."	3843	279	5.71	0.99	1.777	0.003	1.774	No	0	2.946	12		
332 WL	Alcide E. Foreman & Elizabeth J. Foreman	3026	32	1.169	0.024	0.702	0	0.702	No	0	0.715	12		
332 WD						0.042	0.014	0.028				13		
332 T								0.006				13		Grade & Seed
333 WL	Clem Haenning & Rosella Haenning	2863	305	9.515	0.150	7.828	0.104	7.724	Yes	0.954	0.580	12,13,15		Calculated Area
333 WD-1						0.033	0.008	0.025				13		
333 WD-2						0.120	0.038	0.082				13,13A		
333 T-1								0.021				13		Grade & Seed
333 T-2								0.037				13,13A		Grade & Seed
333 T-3								0.017				13		Grade & Seed
334 WL	Frey Electric Co.	3509	855	30.622	0.038	17.469	0.038	17.431	No	9.905	3.208	15,13A		Residue Right Landlocked
334 X-1								0.020				15		
334 X-2								0.010				15		
335 WL	Patricia A. Fleisch	3882	375	24.662	1.41	0.208	0.087	0.121	No	22.989	0	16,17		
335 WD						0.142	0.030	0.112				16,17		
335 T								0.388				16,17		Construct temp road grade & seed
336 WL	Alphonse Graff & Clarence M. Graff	3003 2446	468 359	0.64	0.10	0.64	0.10	0.54	Yes	0	0	16,13A		Whole Take
337 WL	Phoebe Alvis	3107	83	1.594	0.325	1.576	0.308	1.268	Yes	0	0	16	I	Record Area Corrected
337 WD						0.018	0.017	0.001				16	I	
338	Edward Zillig	2949	379											Acquired HAM CR 453 H

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REV.	DATE	DESCRIPTION
A.A.B.	11-30-73	Update Par. 326.
E.H.	8-28-73	Chg remarks note par 335 T
N.M.	7-Nine73	Rev Par 331 WL to conform with Sh 12
E.H.	4-16-73	Name Chg. Par 335
W.J.Y.	9-14-72	Rev. Record Area & Residue Par. 326
W.J.Y.	8-14-72	Rev. Record Area & Residue Par. 335
J.T.C.	4-18-72	Name Change Par. 331

R/W JOB NUMBER	FED. RD. DIVISION	STATE	PROJECT	
08560 (0)	2	OHIO	~~I 275-3 (7)~~	

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SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

PARCEL NO.	OWNER	RECORDED BOOK	RECORDED PAGE	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O IN TAKE	NET TAKE LAND	NET TAKE BLDG.	NET RESIDUE LEFT	NET RESIDUE RIGHT	SHEET NO.	TYPE FUND	REMARKS
333 WL	Margie Rieger, Regina Townsley	3765	757	7.78	0.139	2.818	0.069	2.749	Yes	0	3.579	13	I	
333 WD-1						0.642	0	0.642				13		
333 WD-2						0.084	0.025	0.059				13		
333 WD-3						0.100	0.029	0.071				13,13A		
333 SL								0.541				13		
333 X-1								0.340				13		
333 X-2								0.016				13		
333 T-1								0.029				13,13A		Grade & Seed
333 T-2								0.022				13		Grade & Seed
340 WD-1	Carol S. Imwold	3364	828	2.10	0.102	0.278	0.102	0.176	No	0	1.206	13,13A		
340 WD-2						0.389	0	0.389				13		
340 SL								0.187				13		
340 X								0.321				13		
340 T								0.059				13,13A		Grade & Seed
341 WD	Mary Lucy Mosier	2628	154	1.68	0.193	0.717	0.193	0.524	No	0	0.770	13,16		
341 SL								0.193				13		
341 X								0.083				13,13A		
341 T								0.011				16		Grade & Seed
342 WL	Glen J. Rieman & Betty Schomaker	2427	71	0.50	0.102	0.415	0.102	0.313	Yes	0	0	16,13A		
342 WD						0.010	0	0.010				16,13A		
342 T								0.075				16,13A	I	
342 E								0.075				16,13A	State	
343 WL	Arthur Graff	2370	311	0.500	0.06	0.035	0	0.035	No	0	0	16,13A	I	
343 WD						0.084	0.042	0.042				16,13A	I	
343 T								0.107				16,13A		Const. Temp Run-around, Grade & seed
343 E								0.363					State	
344 WL	Mary Dolores Krizsa	3186	283	0.988	0.090	0.759	0.022	0.737	Yes	0	0	16,17	I	Loss of Sanitary
344 EL						0.229	0.068	0.161				16	State	
* 345 WL	Helen P. Dreihs	3755	253	0.50	0.180	0.012	0.011	0.001	Yes	0	0	16,13A	I	
345 WD						0.211	0.026	0.185				16,13A		
345 EL-1						0.042		0.042				16,13A		
345 EL-2						0.235	0.143	0.092				16,13A		
346 WL	Howard W. Alvis & Phoebe C. Alvis	1740	220	2.632	0.111	1.027	0	1.027	Yes	0.179	0	17		
346 WD						0.882	0.114	0.768				17		
346 SL								0.100				17		
347 WD	Raymond J. Ruhl & Ida F. Ruhl	2503	261	100	0	0.043	0	0.043	Yes	0.862	0	16,17		
347 SL								0.035				16,17		
347 T								0.021				17		Correct Drawing.
348 WL-1	Ruth Wolff	1996	231	52.04	1.01	3.380	0	3.380	No	40.595	3.378	17,18		
348 WL-2						0.337	0.074	0.263				17		
348 WD-1						0.813	0.018	0.795				17		
348 WD-2						0.131	0.037	0.094				18		
348 SL								0.420				17		
348 T								0.172				18		Grade & Seed
348 WL-3	Ruth Wolff					2.101	0	2.101				17,19	I	
348 S								0.011				17	M	Acquired in name of Metropolitan Sewer Dist.
349 WL	Jacob Frankenstein & Mary Frankenstein	2785	273	2.30	0.11	0.528	0	0.528	No	0	1.578	18	I	
349 WD						0.090	0.036	0.054				16,18		
349 T-1						0.12		0.120				16,18		
349 T-2								0.021				18		
350 WD	Mildred B. Fehrenbach	3544	767	10.00	0.04	0.080	0	0.044	No	9.398	0	17		
350 SL								0.118				17		
351 WL	George C. Kolb, Jr. ½ & Marie W. Kolb ½	3157	302	6.07	0.65	1.800	0.071	1.766	No	0	3.625	17,18	I	
351 WD-1						0.007	0	0.007				17		
351 WD-2						0.056	0.034	0.022				18		
351 T								0.010				18	I	Grade & Seed
* 345 T-1	Helen P. Dreihs					0.042		0.042				13A		CONST. TEMP. ROAD.
345 T-2						0.078		0.078				13A		GRADE & SEED

REV.	DATE	DESCRIPTION
E.H.	8-20-74	Chg. 342 to 342 E & T
P.R.D	11 Feb 74	Change Par. 345 E-1 & E-2 to 345 EL-1 & EL-2
E.H.	3-27-73	Add: Par 345 EL-1 & 345 EL-2
W.J.R	7-26-72	Added Par. 343 E

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R/W JOB NUMBER	FED. RD. DIVISION	STATE	PROJECT	
08560 (0)	2	OHIO	~~I 275-3(7)~~	

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SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

PARCEL NO.	OWNER	RECORDED BOOK	RECORDED PAGE	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O IN TAKE	NET TAKE LAND	NET TAKE BLDG.	NET RESIDUE LEFT	NET RESIDUE RIGHT	SHEET NO.	TYPE FUND	REMARKS
352 WD	Virginia Ruth Wolff	2891	11	0.58	0.016	0.171	0.016	0.125	No	0	0	17	I	EL Parcel Includes SL Area
352 SL								0.237				17	I	
352 EL								0.369				17	State	
353 WD	Winston C. Ellison & Sue J. Ellison	3016	648	0.53	0.016	0.021	0.016	0.005	No	0.439	0	17	I	
353 X	Thressa J. Sutfin & George V. Sutfin	3792	844	22.28	0.17			0.076	No	22.11	0	14,14A		
354 T		2089	22					0.018				14		Construct a temporary runaround
355 WD	Elmer Lohr	3551	4	0.567	0	0.360	0	0.360	Yes	0	0	14,14A		
355 X								0.108				14		
355 T								0.027				14	I	Construct a temporary runaround
355 EL								0.209					State	
356 X-3								0.069					I	
356 WD	William A. Boumann	3083	29	2.30	0.09	0.816	0.090	0.726	Yes	0.022	8.462	14,14A,14B		
356 X-1								0.601				14,14B		
356 X-2								0.015				14,14B		
356 S-1								0.014				14,14A		
356 S-2								0.036				14,14A		
356 T-1								0.038				14,14A		Grade & Seed
356 T-2								0.025				14,14A		Grade & Seed
356 T-3								0016				14		Construct a temporary runaround
357 WL	Anna Wenning	2608	303	21.70	0.76	8.168	0.150	8.018	No	3.681	9.272	17,18,19		Residue Left Landlocked, Area = 3.546 Ac.
357 WD						0.011	0035	0.009				18		
357 U								0.008				18		
357 X								0.011				18		
357 T								0.009				18		Grade & Seed
358 WL	Shirley Engel	2L183	66264	10.15	0	0.471	0	0.471	No	0	9.679	19		
359 WL	Clarence Newberry	2006	431	72.08	0.43	10.015	0	10.015	No	51.537(L.L.)	10.498	19,20		
359 X-1		2937	327					0.012				19		
359 X-2								0.021				19		
360 WL	Orville E. Stifel & Hildegarde A. Stifel	3003	816	3.62	0.30	1.681	0.	1.681	Yes	0	1.639	20		
361 WD	John L. Rains & Clara Rains	3935	500	0.66	0.017	0.057	0.017	0.040	No	0	0.403	13,13A		
361 T								0.013				13,13A		Grade & Seed
362 WD	Walter B. & Christine Kuhn	3940	11	0.50	0.015	0.067	0.015	0.052	No	0	0.433	13,13A		
362 T		3921	28					0.017				13,13A		Grade & Seed
363 WL	Frieda Meier	1701	21	18.106	0.28	11.435	0	11.035	No	13.038	20.653	22,23,24	I	Residue Left Landlocked
363 U-1								0.011				23	M	Acquired in name of Metropolitan Sewer District
363 U-2								0.013				23	M	do
363 X-1								0.010				23	I	
363 X-2								0.080				23		
363 X-3								0.073				22		
364														Acquired Under HAM-275-16.15
365 WD	Donald C. Schmidt & Shirley C. Schmidt	3073	618	0.48	0	0.014	0	0014	No	0	0.466	14,14A		
365 X								0.038				14,14A		
366 WD	Lawrence F. Martin & Marlene E. Martin	3531	858	0.51	0	0.120	0	0.120	No	0	0.390	14,14A		
366 X								0.082				14,14A		Overlaps 0.003 Ac of 366 S
366 S								0.003				14,14A		Overlaped by 366 X
367 WD	Patricia R. Findley & Beatrice Findley	2778	501	0.46	0	0.029	0	0.029	No	0	0.431	14,14A		
367 X								0.039				14,14A		
368 thru 376														Acquired Under HAM-275-16.15
377 WL	Margaret J. Bortram & Stanley F. Bortram	3037	208	1.16	0.35	0.239	0.166	0.073	No	0	0.737	24,25		
377 T								0.181				24,25		Construct Drive and Grade & Seed
378 WL	Norbert Strobl & Joyce Strobl	2606	93	1.00	0.120	0.260	0.094	0.166	No	0	0.714	24,25	I	
378 T	Norbert Strobl & Joyce Strobl	2606	93		0.120	0.022	0	0.022	No			2-A		Grade & Seed
378 T-1								0.014				25A		Grade & Seed
378 S								0.054				25A	I	
378 T-2								0.046				25A	I	Grade & Seed

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REV.	DATE	DESCRIPTION
H.J.	11-7-74	Del Parcel 378-T-1, S, T-2. Add 378-T.
S.E.W.	3-22-74	Name Change Par. 361
N.M.	6-26-74	Revise Par. 366 X.
S.E.W.	11-20-73	Name Change Par. 362.
S.E.W.	9-17-73	NAME CHANGE PAR. 362
D.W.F.	10-4-72	ADDED PARCEL 355-E
J.I.C.	9-28-72	Name Change Par. 364
W.J.K.	9-11-72	Added Parcel 356X-3 & Rev. Residues
W.J.K.	8-7-72	Rev. Take Area & Residue Par. 360

R/W JOB NUMBER	FED. RD. DIVISION	STATE	PROJECT	
08560 (0)	2	OHIO	~~I-275-3(7)~~	

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SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

PARCEL NO.	OWNER	RECORDED BOOK	RECORDED PAGE	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O IN TAKE	NET TAKE LAND	NET TAKE BLDG.	NET RESIDUE LEFT	NET RESIDUE RIGHT	SHEET NO.	TYPE FUND	REMARKS
379 thru 384														Acquired Under HAM-275-16.15
385 WL	Standard Oil Company	3440	58	0.22	0	0.22	0	0.22	No	0	0	25	I	Whole Take
386 WL	Joseph Lierer & Clara Lierer	1727	563	1.750	0.166	0.378	0.166	0.212	Yes	0	1.185	25		Building Removal, Grade & Seed
386 WD		1902	308			0.187	0	0.187				25A		
386 T-1								0.022				25		Building Removal
* 386 T-2								0.045				25A	I	Grade & Seed
386 E								0.026				25A	S	
387 WL	Bertha Rock	1921	248	12.782	1.009	0.413	0.306	0.107	NO	0	11.158	25	I	Large Sign To Be Taken (P)
387 WD						0.508	0	0.508				25B		
387 X								0.314				25B		Construct Ditch
387-T								0.093				25B		Grade & Seed
306 Thru 315														See Sheet 11.
393														Used under Ham-275-16.15
394 T	James L. Dohme & Audrey N. Dohme	3818	633	0.183	0	0.005	0	0.005	No	0	0.183	25		Construct Turnaround and Grade & Seed
														Record Area Calculated
395 WL	Mark McCrackin, Jr. & Judy McCrackin	3671	84	0.193	0	0.014	0	0.014	No	0	0.179	25		
395 T								0.010				25		Grade & Seed
396 WD	Edna R. Frey	3533	351	0.50	0.003	0.048	0.003	0.045	No	0	0.452	13, 13A		
396 T								0.020				13, 13A		Grade & Seed
397 T	Helen Nesper	3591	690	0.72	0			0.011	No	0	0.72	13		Construct Drive and Grade & Seed
398 T	Doris R. Oelerich	3367	363	0.61	0			0.009	No	0	0.61	13		Construct Drive and Grade & Seed
399 S	Arthur Bryant, Jr. & Mary A. Bryant	3288	365	0.207	0			0.002	No		0.207	25A		
400 WL	Walter L. Torr, Trustee	3125	79	46.639	0.32	17.301	0	17.301	No	0	0	20,21,22	I	Whole Take - Acquired St. of Ohio D.B. 3346, P. 68
400 EL-1						16.035	0.320	16.115			Rt.	20,21	State	
400 EL-2						10.711	0	10.711		Lt.		20	State	
400 EL-3						3.992	0	3.992		Lt.		21,22	State	
400 U-1								0.011				21	M	Acquired in name of Metropolitan Sewer District
400 U-2								0.012				21	M	do
400-X								0.002						
401 WL	Edwin Bibee & Rose Mary Bibee	2898	282	33.70	0	2.318	0	2.318	No	31.382	0	21	I	
401 X								0.055				21		
402 WD	June J. Grubbs	3377	13	0.68	0	0.011	0	0.011	No	0	0.47	14, 14A		
402 T								0.007				14		
403 WL	Angela C. Dorriman	3680	70	9.00	0	0.804	0	0.804	No	0	8.196	21, 22		
404 WL	Fred W. Vogel	2291	32	20.38	0.01	0.795	0	0.795	No	0	19.575	22		
405 WL	Emerson Hoock & Dorothy L. Hoock	2816	126	60.61	0.52	7.073	0	7.073	No	50.200	2.847	22	I	Residue Right Landlocked
405 U-1		3219	673					0.007				22	M	Acquired in name of Metropolitan Sewer District
405 U-2								0.010				22	M	do
406 T	Lawrence E. Engelbrink & Patricia A. Engelbrink	3042	482	0.36	0			0.018	No	0	0.36	16	I	Const. Temp. Run-around and Drive and Grade & Seed
407 T	U. W. Schmidt	3439	790	0.36	0			0.019	No	0	0.36	16		Const. Temp. Run-around and Drive and Grade & Seed
408 T	Ronald G. Emerson & Cheryl L. Emerson	3402	126	0.35	0			0.030	No	0	0.35	16		Const. Temp. Run-around and Drive and Grade & Seed
409 T	James R. Douthit & Jeanette A. Douthit	3640	396	0.31	0			0.019	No	0	0.31	16		Const. Temp. Run-around and Drive and Grade & Seed
410 T	Elva Brunner & Roland Brunner	2843	156	0.50	0.06			0.018	No	0	0.44	16		Const. Temp. Run-around and Drive and Grade & Seed
411 T	William E. Furr & Cecelia Furr	2734	164	0.50	0.06			0.015	No	0	0.44	16	I	Const. Temp. Run-around and Drive and Grade & Seed
301	Walter Napier And Dollie Napier	3416	744											Not Required
* 386T-3	Joseph Lierer & Clara Lierer.							0.026				25A	I	Construct Slope, Grade & Seed.

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REV.	DATE	DESCRIPTION
H.J.	4-29-74	Deleted Parc 301-T.
H.R.J	3-14-74	Added Parc 301-T
H.R.J	3-7-74	Rev Parc 386 & 387.
H.R.J	3-6-74	Rev Parc 386T-1 to 386E, Added 386T-3.
P.W.F.	10-29-73	Rev Parc 397-T.
H.R.J.	3-6-74	Rev Parc 386T-2.
W & L	9-24-73	Rev. Record Area and Residues Parcel 386
P.W.F.	6/26/74	Rev Parc 395 WL & T

R/W JOB NUMBER	FED. RD. DIVISION	STATE	PROJECT	
08560 (0)	2	OHIO	~~I 275 3(7)~~	

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SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

PARCEL NO.	OWNER	RECORDED BOOK	RECORDED PAGE	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O IN TAKE	NET TAKE LAND	NET TAKE BLDG.	NET RESIDUE LEFT	NET RESIDUE RIGHT	SHEET NO.	TYPE FUND	REMARKS
413 WD	Robert F. Shea & Phyllis V. Shea	3119	53	3.950	0	0.112	0	0.112	No	0.007	3.831	14,14B	I	
413 X-1								0.253				14,14B		
413 X-2								0.006				14,14B		
413 S								0.009				14,14B		
414 WL	Edward Sunderhause													Acquired Under HAM-275-16.15
415 WL	Anna Litschgi	2079	320	0.741	0.083	0.620	0.013	0.607	No	0	0	24		
415 WD						0.121	0.070	0.051				24		
416 WL	Kenneth Nelson & Olive A. Nelson	3254	629	1.28	0.29	1.28	0.29	0.99	Yes	0	0	24		Whole Take
417 T	Board of County Commissioners, Hamilton Co., Ohio	3377	72	1.56	0			0.007	No		1.56	25		Construct Turnaround and Grade & Seed
418 thru 439														Acquired Under HAM-275-16.15
440 WD	Warren McClintock & Oma McClintock	3127	493	7.612	0	0.026	0	0.026	No	0	7.586	14		Not to be acquired
441 thru 446														Acquired Under HAM-275-16.15
447 S	Virginia Sorn	2286	627	0.68	0.06			0.013	No	0.62	0	26		
448 WL	Beris Cedar Grove Cemetery	959	67	7.19	1.05	0.516	0.321	0.195	No	7.805	0	25		
448 WD		355	48			0.611	0.076	0.540				26		
448 T-1								0.140				26		Grade & Seed
448 T-2								0.153				26		Grade & Seed
449 WD	Colerain Lodge #759 F&AM	117	436	1.201	0.160	0.010	0	0.010	No	1.031	0	26		
449 T								0.008				26		Grade & Seed
450 WD	Edwin H. Bernhard & Alice Bernhard	1601	1	7.756	0.23	0.758	0.108	0.850	No	6.480	0	26		
450 T-1								0.045				26		Grade & Seed
450 T-2								0.135				26		Grade & Seed
450 T-3								0.028				26		Grade & Seed
450 S-1								0.018				26		
450 S-2								0.004				26		
451 X	Frank Weishoupt & Rose M Weishoupt	3645	70	1.784	0	0.107	0	0.107	No	0	1.784	13		
452 WD	Emma K. Weishoupt	1966	239	17.65	0.072	0.221	0.072	0.149	No	0	17.429	16		
452 X-1		3770	931					0.304				13		
452 X-2								0.068				16		
452 T								0.137				16		Construct Drive & Grade & Seed
453 WD	Walter C. Weishoupt & Betty Lou Weishoupt	2872	260	4.150	0.589	0.055	0.014	0.041	No	0	3.520	16		
453 T		2795	328					0.151				16		Grade & Seed
454 WD	Alfred G. Riedl & Katharina Riedl	3351	766	0.737	0.027	0.103	0.027	0.076	No	0	0.634	16		
454 T								0.075				16,18		Grade & Seed
455 WL	Carl Lemperle, Jr.	3312	907	0.75	0.08	0.183	0	0.183	No	0.487	0	23,24		
456 & 457														Acquired Under HAM-275-16.15
458 T	Joseph G. Lierer & Vera Lierer	2100	333	0.111	0	0.014	0	0.014	No	0	0.444	25A		Grade & Seed
306-T	Donna S. Bradshaw	4004	1013	1.497	0	0.042	0	0.042	No	0	1.497	25B	I	Grade & Seed
307 WD	Thomas Tierney (Trustee)	3573	816	0.962	0.303	0.009	0	0.009	No	0	0.650	25B	I	
307 T								0.146	No			25 B	I	Construction of Driveways
308 T	John L. Jones and Margaret Jones.	3498	34	0.213	0	0.005	0	0.005	No	0	0.213	25A	I	Const New Walk and remove Ex Walk
309 WD	Bertha Rack	3952	282	0.244	0	0.244	0	0.244	Yes	0	0	25A	I	Total Take
309 E-1													I	
309 E-2													I	
310 T	Marlene F. Martin	3407	630	0.205	0	0.005	0	0.005	No	0	0.205	25A	I	Const New Walk & Remove Ex Walk.
311 T	Donald R. Carte and Nellie Carte.	3935	447	0.299	0	0.008	0	0.008	No	0	0.299	25B	I	Grade & Seed.
310T-1	Marlene F. Martin.					0.006	0	0.006	No			25A	I	Const New Walk & Remove Ex Walk.
314 T	Elmer W. Maybarg & Mary E. Maybarg	3761	893	0.22	0	0.003	0	0.003	NO	0	0.22	25A	I	Grade & Seed.
315 T	Ronald Rains And Sandra L. Rains	3959	707	0.242	0	0.006	0	0.006	NO	0	0.242	25A	I	Grade & Seed.

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REV.	DATE	DESCRIPTION
P.W.F.	4/14/75	Name Change Par 306
H.J.	11-7-74	Del. Par 458 WD & Rev 458T
H.J.	11-7-74	Add Par 315T-1, 314T, 315T.
P.E.		Added Par 306 Thru 311, Rev Par 458
H.R.J.	3-7-74	Name change Par 309.
H.R.J.	3-7-74	Delcated Par 309 E-1 & E-2.
H.R.J.	3-7-74	Rev Par 309-WD to be a total Take
H.R.J.	11-29-73	Rev Par 452-T.
K.W.F.	9-14-73	Deleted Parcel 440 WD
E.H.	5-4-73	Rev. Par: 455 WL
W.J.L.	7-17-72	Rev. Record Area Par. 415

RIGHT OF WAY FENCE			
CODE 607			
STATION FROM	TO	SIDE	TYPE 47 Lin. Ft.
574+50 ℄ Ramp C	93+00 ¢ Rel. B.R.R.	Lt.	358
82+00 ¢ Rel. B.R.R.	84+20 ¢ Rel. B.R.R.	Lt.	217

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I-275-3(7)~~	

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HAM - 275 - 13.91
R/W PLANS
LIMITED ACCESS
SCALE 1" = 50'

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TYPE OF FUND	DATE	REVISIONS	BY
I	29 Nov. 73	Rev. Owner, Par. 326.	A.A.B.
	4-18-72	Name Change Par. 331	J.T.C.

¢ RELOC. BLUE ROCK RD. STA. 83+00 TO STA. 99+00 LT.

R/W PLAN ¢ I-275 STA. 567+50 TO STA. 578+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I-275-3(7)~~	

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HAM-275-13.91
R/W PLANS
LIMITED ACCESS
SCALE 1"= 50'

Note: Temporary Easements for Temporary Rd No 4 acquired under Project Ham CR-453-H

BEGIN WORK
STA 7+50.00
RELOC SPRINGDALE RD

BEGIN R/W ACQUISITION
STA 7+40.00
RELOC SPRINGDALE RD

END R/W ACQUISITION
STA. 75+89.84
HAM CR-453-H

BEGIN R/W ACQUISITION
STA. 75+89.84
HAM-275-13.91

S-SU-242(5) | I-275-3(9)27

Sta. 76+41.80 Blue Rock Road
Sta. 0+00.00 Springdale Connector

Begin Project Ham-I-275-13.91 Sta. 75+00
End Project Ham-CR-453 H

Begin Type 47 Fence
EPA 133±
℄ Reloc B.R.R. (Balke)
End Exist. Type 47 Fence

Begin Type 47 Fence
Left ± EPA
℄ Reloc. B.R.R. 73+81±

To be constructed under HAMCR-453H

For Continuation See Sheet No. 15

For Continuation, See Inset Below

For Continuation See Above

For Detail Sheet, Springdale Road See Sheet No. 13A

For Continuation, See 3rd Nbg. 16

RIGHT OF WAY FENCE
CODE 607

STATION FROM	STATION TO	SIDE	TYPE 47 Lin. Ft.
75+00 ℄ Reloc. B.R.R. (Balke)	84+20 ℄ Reloc. B.R.R.	Lt.	878
73+81 ℄ Reloc. B.R.R.	1+40 ℄ S.R. Conn.	Rt.	255
1+38 ℄ S.R. Conn.	580+00 ℄ Ramp E	Rt.	639

HAMILTON CO. - COLERAIN TWP.
SEC. 14 & 20, T.2, E.R.1

℄ RELOC. BLUE ROCK RD. STA. 72+00 TO STA. 82+00
℄ SPRINGDALE RD. CONN. STA. 0+00 TO STA. 10+09.06

R/W PLAN ℄ RELOC. SPRINGDALE RD. STA. 7+50 TO STA. 20+00

TYPE OF FUND			
I	20 Aug 73	Add Driveway Flood Light	N.M.
	5-21-73	Added save note 6 Par. 397	P.W.F.
	5-21-73	Added Trees to Pars. 397 & 339	P.W.F.
	9-11-72	Rev. Par. 339 to Original Configuration	W.W.F.
	10/29/73	Rev. Par. 397-T	P.W.F.
	DATE	REVISIONS	BY

4-23-74 | Name Change Par. 361 | S.E.W.

11-20-73	NAME CHANGE PAR 362	S.E.W.
11 Feb 74	Chg For 345E-1&2 & 345EL-1&EL-2	PRD

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I-275-3(7)~~	

HAM-275-13.91
R/W PLANS
LIMITED ACCESS
SCALE 1" = 20'

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13A / 26

Clem & Rosella Haenning
333 WD-2 Cont. = 0.082 Ac. P.R.O. = 0.038 Ac. Total = 0.120 Ac.
333 T-2 Cont. = 0.037 Ac.
40.00' ℄ S.R. 11+45.28
30.00' ℄ S.R. 11+48.28
S 55°33'10" E
LA-R/W
N 46°28'19" E 154.34'
PC. Sta. 12+25.85
30.00' ℄ S.R. 12+25.85
1044
31.49'
N 46°49'46" E 77.57'
R/W
R=2834.79' L=82.70' S 45°59'37" W 82.70'
30.00' ℄ S.R. 11+63.00
40.00' ℄ S.R. 11+64.89
S 55°56'19" E
339 WD-3 Cont. = 0.071 Ac. P.R.O. = 0.029 Ac. Total = 0.100 Ac.
N 46°49'46" E 62.86'
79.45'
N 47°52'06" E
Ex. R/W
12 148.00 180.15' S 46°55'24" W
13
339 T-1 Cont. = 0.029 Ac.
Margie Rieger
Regina Townsley
S 46°23'10" W 140.40'
30.00' ℄ S.R. 12+25.85
362 T Cont. = 0.017 Ac.
Walter B. & Christine Kuhn
362 WD Cont. = 0.052 Ac. P.R.O. = 0.015 Ac. Total = 0.067 Ac.
361 WD Cont. = 0.040 Ac. P.R.O. = 0.017 Ac. Total = 0.057 Ac.
John L. & Clara Rains
S 89°39'36" E
40.00' ℄ S.R. 13+00.67
Cont. = 0.013 Ac.
361 T
N 48°17'41" E 76.70'
30.00' ℄ S.R. 13+09.43
R=2834.79' L=72.19' S 44°25'43" W 72.19'
422.94'
47.17'
6.47'
N 39°50'46" E 97.01'
35.00' ℄ S.R. 13+78.23
30.00' ℄ S.R. 13+82.38
40.00' ℄ S.R. 14+17.40
30.00' ℄ S.R. 14+80.46
S 89°39'36" E
S 87°04'50" E
396 WD Cont. = 0.045 Ac. P.R.O. = 0.003 Ac. Total = 0.048 Ac.
Edna R. Frey
48.52' ℄ S.R. 15+70.36
30.00' ℄ S.R. 15+70.91
S 51°45'36" E
℄ Prok 17.2m
N 35°36'56" E 92.89'
18.53'
396 T Cont. = 0.020 Ac.
+36
107.77'
+87
R=2834.79' L=89.50' S 40°09'58" W 89.50'
30.00'
21.50'
R=2834.79' L=97.06' S 42°43'05" W 97.05'
Ex. R/W
80.00' N 36°04'24" E 268.05'
108.65'
629.13'
17
16
15
℄ Springdale Road
Ex. R/W
80.00'
75.00'
27.14'
14
13
80.01' S 46°55'24" W
330 WD Cont. = 0.050 Ac. P.R.O. = 0.016 Ac. Total = 0.066 Ac.
R=2899.79' L=60.04' N 43°45'12" E 60.04'
N 47°52'06" E 46.19'
S 47°33'45" W 116.53'
32.53' ℄ S.R. 13+04.41
35.00' ℄ S.R. 13+50.00
35.00' ℄ S.R. 14+09.32
47.00' ℄ S.R. 14+18.79
330 T Cont. = 0.022 Ac.
40.00' ℄ S.R. 13+04.20
Eleanora C. Manegold
N 43°04'56" W
N 85°56'37" W
S 39°37'17" W 301.65'
340 WD-1 Cont. = 0.176 Ac. P.R.O. = 0.102 Ac. Total = 0.278 Ac.
R=2899.79' L=304.16' N 40°09'19" E 304.02'
340 T Cont. = 0.059 Ac.
Carol S. Imwold
35.00' ℄ S.R. 17+09.81
45.00' ℄ S.R. 17+15.80
51.22'
R=45.00' L=82.49' S 89°39'08" W 71.41'
N. 84°41'36" W 125.63'
52.19'
341 X Cont. = 0.083 Ac.
Mary Lucy Mosier
For R/W Plan, Springdale Road Sta 7+50 to Sta 20+00, See Sheet 13

N 80°54'36" W 126.70'
25.99'
139.22'
N 80°54'25" W
147.58'
117.66'
116.95'
25.40'
Ex. R/W
Sta 593+50.11 ℄ I-275 P.T. Sta 593+50.11 ℄ Ramp D
℄ I-275
594
593
S 9°05'24" W 192.52'
N 9°05'38" E 146.83'
138.78' (166.23') S 80°45'32" E
27.38'
52.57'
67.62'
61.89'
90.20'
8.80'
168.82' S 80°54'25" E
Ex. R/W
N 80°54'25" W
Glen J. Rieman & Betty Schomoker
342 WD Cont. = 0.010 Ac.
30.00' ℄ Rel. B.R. 48+05.10
342 WL Cont. = 0.313 Ac. P.R.O. = 0.102 Ac. Total = 0.415 Ac.
Alphonse Graff 1/2
Clarence Graff 1/2
336 WL
334 WL Cont. = 17.431 Ac. P.R.O. = 0.038 Ac. Total = 17.469 Ac.
Frey Electric Co.
200.12' ℄ I-275 594+51.79
342 E
342 T
Cont. = 0.075 Ac.
345 WL Cont. = 0.001 Ac. P.R.O. = 0.011 Ac. Total = 0.012 Ac.
6500' ℄ Rel. B.R. 47+64.21
345 T-2 0.018 Ac. NET Cont. = 0.092 Ac.
345 WD Cont. = 0.155 Ac. P.R.O. = 0.026 Ac. Total = 0.211 Ac.
30.00' ℄ Rel. B.R. 47+79.07 N 36°55'38" W
30.00' ℄ Rel. B.R. 46+42.38
345 T-1 Cont. = 0.042 Ac.
345 EL-1
℄ Relocated Brehm Road
LA-R/W
R/W
Sta 599+00.11 ℄ I-275 P.T. Sta 599+50.11 ℄ Ramp D
℄ I-275
℄ Brehm Rd.
118.94'
70.00' ℄ Rel. B.R. 47+13.42
345 EL-2 Cont. = 0.092 Ac. P.R.O. 0.143 Total 0.235
Helen P. Dreihs
Ex. R/W Cont. 0.092 Ac. P.R.O. 0.143 Total 0.235
Sec. 21, T.2, E.R.1 -- Sec. 15, T.2, E.R.1
S 42°35'38" E 51.04'
S 36°58'38" E 130.42'
N 5°45'31" E 58.44'
30.00' ℄ Rel. B.R. 46+69.83
30.00' N 84°14'29" W
N 5°45'31" E 289.91'
N 80°45'32" W 59.90'
Sec. 15, T.2, E.R.1 to Sec. 21, T.2, E.R.1
343 WD Cont. = 0.042 Ac. P.R.O. = 0.042 Ac. Total = 0.084 Ac.
343 T Cont. = 0.107 Ac.
N 47°50'40" W 117.55'
73.11' ℄ Rel. B.R. 47+38.06
343 E Cont. = 0.363 Ac.
Arthur Graff
343 WL Cont. = 0.035 Ac.
N 15°45'35" E 58.81'
S 49°18'04" W 76.18'
195.42' ℄ I-275 593+71.70
For R/W Plan I-275, Sta. 590+00 to Sta 599+00 and Relocated Brehm Road See Sheet 16

8-22-74	Chg Par 342 to 342T	E.H.
8-14-74	Chg Par 342EL to 342T	E.H.

13A / 26

TYPE OF FUND	DATE	REVISIONS	BY
I	6-13-73	Remove Temporary Road	W.J.K.
	3-26-73	Rev. Par. Calls 345	E.H.
	3-2-73	Add Par 345EL-1 & 345EL-2	E.H.
	7-26-72	Added Par. 343E	W.J.K.

4-23-74	Name Change Par 321	S.E.W.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I 275-3(7)~~	

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HAM-275-13.91
R/W PLANS
LIMITED ACCESS
SCALE: 1" = 50'

RACK'S 5TH SUBDIVISION
P.B. 70 P. 61-62 R.O.

END WORK
STA. 115+21.87
BLUE ROCK RD. RELOC.

END R/W ACQUISITION
STA. 115+21.87
BLUE ROCK RD RELOC.

Substitute Curve Data-R/W Only

Curve B.R.R-2	Curve B.R.R-3
P.I. Sta. = 99+79.25	P.I. Sta. = 107+00.79
P.I. Sta. = 102+09.11	P.I. Sta. = 112+55.77
D_c = 2°59'58"	D_c = 4°29'51"
R = 1910.14'	R_c = 1273.97'
Δ = 6°00'00"	Δ = 12°00'00"
L_c = 200.02'	L_c = 266.82'
T = 100.11'	T = 133.90'

NOTE
DO NOT DISTURB THIS LEACHING FIELD. USE HAND LABOR TO GRADE ADJACENT AREAS IF NECESSARY

Norren M. Cornbrook & Cora M. Cornbrook

June J. Grubbs

Donald C. Schmidt & Shirley C. Schmidt

Edward G. Spandel & Ruth M. Spandel

Patricia P. Findley & Beatrice Findley

Thressa J. Sutfin & George V. Sutfin

William A. Bourmann

Elmer Lohr

Margaret L. & Carl T. Herrmann

Frank R. Maringer & Myrtle C. Maringer

Martha A. Shea

S. DAVID SHOR

HAMILTON CO. - COLERAIN TWP.
SEC. 20, T.2, E.R.1

DETAIL "B"
Not To Scale

DETAIL "A"
Not To Scale

BLUE ROCK ROAD RELOC. STA. 115+00 TO STA. 99+00

DATE	REVISIONS	BY
10/17/74	Added Sewer Easa. To 326	R.W.F.
7/9/74	Add Note - Steps Par 326	R.W.F.
16 Feb 1974	Rev. Par. 326 - Add Note	N.M.
30 Nov. 73	Rev. Owner, Par. 326	A.A.B.
22 June 73	Add Septic Tank & Leaching Field for 368	N.M.
10-4-72	Added Parcel 355-E	R.W.F.
9-28-72	Name Change Par. 354	J.T.C.
9-11-72	Added Parcel 356X-3	W.J.L.
8-22-72	REV. TOPO PAR. 355	J.T.C.

TYPE OF FUND: T

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R.W.F. / N.M. / A.A.B. / N.M. / R.W.F. / J.T.C. / W.J.L. / J.T.C.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I-275-3(7)~~	

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HAM-275-13.91
R/W PLANS
LIMITED ACCESS
SCALE 1" = 20'

14A
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RACK'S 5TH SUBDIVISION

P.B. 70 P. 61-62 R.O.

23 5 4 3 2 1

Warren McClintock & Oma McClintock

June J Grubbs

Donald C. Schmidt & Shirley C. Schmidt

Edward G Sprandel & Ruth M. Sprandel

Patricia R Findley & Beatrice Findley

Lawrence F. Martin & Marlene E. Martin

William A. Baumann

Elmer Lohr

Thressa J. Sutfin & George V. Sutfin

S. DAVID SHOR

P.T. (R/W Only) 113+88.69 Back = 113+88.50 Ahead

C.S. Sta 111+21.87 P.C.C. (R/W Only)

S.C. Sta 108+33.71 P.C.C. (R/W Only)

N 29°07'34" E

N 29°07'38" E

N 0°08'26" E 1282.00'

N 60°50'0" E 25.91'

S 80°21'19" E 33.73'

N 12°05'22" W 20.10'

S 12°07'34" W 90.00'

N 12°07'34" W 63.22'

N 88° 34' 49" E 54.79'

S 66°28'35" E 20.00'

N 23°31'25" E 30.40'

S 23°31'25" W 30.40'

N 23°31'25" E 30.40'

N 0°08'26" E 1259.91'

S 0°08'26" W 1109.15'

N 0°08'26" E 1109.15'

S 29°07'34" W 10.00'

N 29°07'34" E 10.00'

N 0°08'26" E 1109.15'

N 60°52'26" W 1359.00'

N 77°10'22" W 170.22'

N 81°02'43" E 171.42'

N 60°34'14" E 144.07'

N 82°51'32" E 49.96'

S 7°08'28" E 27.32'

N 87°27'22" W 59.24'

N 2°32'38" W 132.44'

N 41°22'11" W 90.00'

N 48°37'49" E 34.07'

S 41°22'11" E 68.81'

S 66°28'35" E 77.79'

N 23°31'25" W 17.51'

N 78°27'05" W 11.46'

N 83°50'03" W 171.07'

S 84°11'59" E 204.80'

S 88°33'27" W 23.53'

N 89°55'24" W 22.43'

N 0°08'26" E 1259.91'

S 60°52'26" E 143.11'

S 29°07'34" W 93.67'

N 54°15'42" W 83.09'

N 54°15'42" W 127.43'

N 0°47'55" E 240.00'

S 60°52'26" E 353.67'

S 60°52'26" E 240.00'

N 71°42'11" W 218.98'

N 60°52'26" W 87.47'

S 29°07'34" W 39.26'

N 60°52'26" W 195.45'

N 60°52'26" W

Ex R/W

Reloc. Blue Rock Road

Blue Rock Road

Blue Rock Conn.

BLUE ROCK ROAD

Cont. = 0.007 Ac. (402 T)

Cont. = 0.038 Ac. (365 X)

Cont. = 0.044 Ac. (327 X)

Cont. = 0.035 Ac. (367 X)

Cont. = 0.082 Ac. (366 X)

Cont. = 0.0014 Ac. (356 S-1)

Cont. = 0.0039 Ac. (356 T-1)

Cont. = 0.0025 Ac. (356 T-2)

Cont. = 0.0036 Ac. (356 S-2)

Cont. = 0.600 Ac. (356 X-1)

Cont. = 0.069 Ac. (356 X-3)

Cont. = 0.0026 Ac. (440 WD)

Cont. = 0.011 Ac. (402 WD)

Cont. = 0.014 Ac. (365 WD)

Cont. = 0.020 Ac. (327 WD)

Cont. = 0.029 Ac. (367 WD)

Cont. = 0.120 Ac. (366 WD)

Cont. = 0.003 Ac.

Cont. = 0.833 Ac.
P.R.O. = 0.073 Ac.
Total = 0.906 Ac. (356 WD)

Cont. = 0.371 Ac. (355 WD)

Cont. = 0.076 Ac. (354 X)

Cont. = 0.0009 Ac. (312 S)

Cont. = 0.194 Ac. (312 X)

Ex R/W 7 N 60°52'26" W 143.93'

L = 10.62' R = 1233.97' S 61°56'18" E 10.62'

L = 23.18' R = 1233.97' N 63°46'38" W 23.18'

L = 50.15' R = 1233.97' N 65°19'00" W 50.15'

L = 50.36' R = 1233.97' N 67°39'00" W 50.35'

L = 52.61' R = 1233.97' S 69°58'35" E 52.66'

L = 44.59 R = 1233.97' S 72°18'01" E 44.59

L = 61.93' R = 914.93' N 75°19'32" W 61.92'

L = 8.94' R = 914.93' N 77°04'16" W 8.94'

L = 11.46' R = 914.93' N 78°27'05" W 11.46'

L = 171.32' R = 914.93' N 83°50'03" W 171.07'

L = 205.23' R = 914.93' S 84°11'59" E 204.80'

L = 23.53' R = 1233.97' S 88°33'27" W 23.53'

L = 22.44' R = 914.93' N 89°55'24" W 22.43'

L = 190.37' R = 1233.97' S 83°52'28" W 190.18'

L = 213.90' R = 1233.97' N 84°23'23" E 213.63'

40.00' ℄ Rel. B.R.R. 113+77.73

65.00' ℄ Rel. B.R.R. 113+24.56

80.00' ℄ Rel. B.R.R. 112+70.09

70.00' ℄ Rel. B.R.R. 111+64.24

75.00' ℄ Rel. B.R.R. 112+17.10

70' ℄ Rel. B.R.R. 111+10.00

70.41' ℄ Rel. B.R.R. 110+51.02

77.79' ℄ Rel. B.R.R. 110+49.45

73.68' ℄ Rel. B.R.R. 110+28.19

40.00' ℄ Rel. B.R.R. 110+47.91

40.00' ℄ Rel. B.R.R. 110+35.95

80.00' ℄ Rel. B.R.R. 109+95.00

84.01' ℄ Rel. B.R.R. 109+45.00

85.62' ℄ Rel. B.R.R. 108+80.00

40.00' ℄ Rel. B.R.R. 108+57.12

40.00' ℄ Rel. B.R.R. 108+09.42

40.00' ℄ Rel. B.R.R. 108+33.71

165.00' ℄ Rel. B.R.R. 110+35.00

145.00' ℄ Rel. B.R.R. 110+24.76

145.00' ℄ Rel. B.R.R. 109+85.00

150.00' ℄ Rel. B.R.R. 110+60.29

81.89' ℄ Rel. B.R.R. 109+75.00

100.00' ℄ Rel. B.R.R. 109+45.00

110.00' ℄ Rel. B.R.R. 108+90.00

85.00' ℄ Rel. B.R.R. 108+50.00

130.00' ℄ Rel. B.R.R. 107+00.00

84.94' ℄ Rel. B.R.R. 108+01.89

61.61' ℄ Rel. B.R.R. 107+81.86

40.00' ℄ Rel. B.R.R. 113+88.69 Bk = 113+88.50 Ah

40.00' ℄ Rel. B.R.R. 113+50.00

40.00' ℄ Rel. B.R.R. 113+26.07

40.00' ℄ Rel. B.R.R. 112+74.28

40.00' ℄ Rel. B.R.R. 112+22.29

40.00' ℄ Rel. B.R.R. 111+70.01

40.00' ℄ Rel. B.R.R. 111+21.87

53.29' ℄ Rel. B.R.R. 112+89.42

55.16' ℄ Rel. B.R.R. 112+70.32

73.22' ℄ Rel. B.R.R. 112+91.04

75.06' ℄ Rel. B.R.R. 112+72.22

76.65' ℄ Rel. B.R.R. 113+69.42

100.00' ℄ Rel. B.R.R. 112+50.00

100.96' ℄ Rel. B.R.R. 110+49.61

For R/W Plan, Blue Rock Road
Sta. 115+00 to Sta. 99+00
See Sheet No. 14

14A
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TYPE OF FUND	DATE	REVISIONS	BY
I	℄ Feb 1974	Rev. Par 366 X.	N.M.
	12-19-72	front line dist. Par 366 & 367	E.H.
	9-28-72	Name Change. Par. 354.	J.T.C.
	9-11-72	Added Parcel 356 X-3	WJL

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I 275-3(7)~~	

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14B / 26

HAM-275-13.91
R/W PLANS
LIMITED ACCESS
SCALE 1" = 20'

356 X-3 Cont. 0.069 Ac.
130.00' ℄ Rel B.R.R 107+00.00
171.42' N 81°02'43" E
144.07' N 68°34'14" E
100.46' S 87°39'03" E
William A Baumann
356 X-1 Cont. = 0.600 Ac.
110.00' ℄ Rel B.R.R 105+91.26
413.35' to Section Line ℄ S 5°09'14" W
80.00' ℄ Rel N.W.R 48+68.82
65.00' ℄ Rel N.W.R 48+10.00
N 34°48'24" E 58.43'
111.02' N 47°28'43" E
30.00' ℄ Rel. N.W.R 48+10.80
30.00' ℄ Rel N.W.R 47+49.20
N 39°42'55" E 20.00'
S 39°42'55" W 20.00'
30.00' ℄ Rel N.W.R 48+30.80
413 S Cont. = 0.009 Ac.
30.00' ℄ Rel N.W.R 48+30.80
N 48°26'30" E 126.72'
Robert F. Shea & Phyllis V. Shea
413 X-1 Cont. = 0.253 Ac.
296.60' N 39°42'55" E
30.00' ℄ Rel. N.W.R 48+10.80
L = 29.96' R = 443.36' S 34°15'05" W 29.96'
℄ Rel. Northwest Road
48+
P.C. (R/W ONLY) Sta 105+67.08 Bk = 105+66.89 Ah
P.T. 47+50
L = 71.02' R = 473.36' N 31°53'21" E 70.96'
S 50°17'05" E 36.57'
3448 ℄ Rel N.W.Rd 47+12.51
3000 ℄ Reloc N.W.Rd 47+40.00
S 35°26'10" E 56.25'
125.00' ℄ Rel B.R.R 103+00.00
N 89°49'31" E 54.65'
114.17' ℄ Rel B.R.R 102+49.59
826.34' to Section Line S 5°42'24" W
℄ Sewer Easement O.B. 3123 Pg 539
326 Margaret L. & Carl T. Herrmann
105.00' ℄ Rel. B.R.R 102+00.00
N 89°49'31" E 53.23'
83.72' ℄ Rel B.R.R 101+80.79
138.77' S 80°39'20" E
326 X-2 Cont. = 0.361 Ac.
N 43°10'57" E 10.60'
S 46°49'03" E 50.00'
Cont. = 0.022 Ac.
N 43°10'57" W 59.87'
71.46' ℄ Rel B.R.R 101+95.97
40.00' ℄ Rel B.R.R 101+72.14
326 S-1
L = 256.2' R = 1950.16' S 81°51'24" W 256.2'
40.00' ℄ Rel B.R.R 101+47.05
40.00' ℄ Rel B.R.R 101+09.00
L = 36.53' R = 1432.39' N 84°05'21" E 36.53'
Martha A Shea
329 X-1 Cont. = 0.359 Ac.
30.00' ℄ Rel N.W.R 48+49.67
L = 39.37' S 31°27'19" E R = 40.00' 25.26'
℄ Rel Blue Rock Rd 103+08.99 Ah = 103+09.03 Bk
40.00' ℄ Rel B.R.R 103+84.3
75.34' S 77°22'27" W
40.00' ℄ Rel B.R.R 102+69.83
L = 40.02' R = 1950.16' N 77°57'43" E 40.02'
R/W
L = 164.20' R = 1950.16' N 80°57'43" E 164.15'
℄ Reloc. Blue Rock Road
326 WD Cont = 1.801 Ac.
83.44' 77.30'
℄ 97.11'
6'
107 106 105 104 103 102 101
L = 213.90' R = 1233.97' S 83°52'28" W 190.18'
40.00' ℄ Rel B.R.R 106+00.07
40.00' ℄ Rel B.R.R 106+12.87
L = 190.37' R = 1233.97' S 83°52'28" W 190.18'
413 WD Cont. = 0.112 Ac.
℄ 197.76' S 36°11'14" W
P.C. (R/W ONLY) Sta 105+67.08 Bk = 105+66.89 Ah
L = 142.96' R = 4447.2' S 26°58'40" W 142.35'
℄ 172.89'
S 5°09'14" W 82.91'
L = 12.40 R = 1233.97' N 79°09'14" E 12.40'
356 WD Cont = 0.833 Ac. PRO = 0.073 Ac. Total = 0.906 Ac.
P.T. 49+25
T.S. Sta. 104+33.71
49
197.76'
N 36°11'14" E
P.C. 48+48.21
℄ Rel. Northwest Road
48+
R/W
S 39°42'55" W 109.67'
L = 116.79' R = 414.72' N 28°07'10" E 116.40'
329 WD Cont. = 0.723 Ac.
L = 116.14' R = 1313.97' N 82°57'11" E 116.11'
L = 11.09' R = 1313.97' S 80°31'37" W 11.09'
40.00' ℄ Rel B.R.R 106+23.88
40.00' ℄ Rel B.R.R 107+47.95
356 X-2 Cont = 0.116 Ac.
81.34' ℄ Rel B.R.R 107+25.96
76.44' ℄ Rel B.R.R 106+45.68
57.55'
87.50' S 79°28'18" W
N 77°10'22" W
76.33' ℄ Rel B.R.R 106+40.53
40.00' ℄ Rel B.R.R 106+34.64
Cont = 0.006 Ac.
413 X-2
31.71'
3.34'
L = 28.61' R = 414.72' N 18°04'33" E 28.60'
L = 30.20' R = 447.15' S 25°35'08" W 30.04'
30'
S 5°09'14" W
℄ Ex R/W
L = 24.24' R = 1313.97' S 77°54'10" W 24.24'
40.00' ℄ Rel B.R.R 105+66.89 Ah = 105+67.08 Bk
329 X-2 Cont. = 0.171 Ac.
258.09' S 77°22'27" W
40.00' ℄ Rel B.R.R 105+90.39
65.00' ℄ Rel B.R.R 106+03.85
304.30' S 77°29'58" W
329 T Cont. = 0.150 Ac.
60.49' ℄ Rel B.R.R 105+50.00
104.74' N 85°41'26" W
95.00' ℄ Rel B.R.R 104+50.00
136.27' S 81°30'58" W
S.T. Sta. 104+09.00
L = 15.16' R = 1870.16' S 77°36'23" W 15.16'
328 WD Cont = 0.001 Ac.
40.00' ℄ Rel B.R.R 103+08.99 Ah = 103+09.03 Bk
40.00' ℄ Rel B.R.R 102+71.53
L = 159.12' R = 1870.16' N 80°56'16" E 159.07'
L = 34.83' R = 1392.39' N 84°05'27" E 34.83'
Cont = 0.027 Ac.
326 S-2
N 5°42'24" W 64.61'
40.00' ℄ Rel B.R.R 101+09.00
40.00' ℄ Rel B.R.R 101+06.70
N 5°42'24" W 88.18'
85.00' ℄ Rel B.R.R 101+99.14
85.00' ℄ Rel B.R.R 101+00.00
N 5°42'24" W 88.18'
℄ 26.16'
6.44'
L = 21.56' R = 1870.16' S 78°10'08" W 21.56
328 X Cont = 0.065 Ac.
79.33' S 85°51'36" E
100.25' N 89°22'03" W
35.18'
94.58' S 82°09'19" W
328 T Cont = 0.061 Ac.
41.81'
60.89' S 7°18'11" W
59.30' S 57°26'15" W
326 X-1 Cont = 0.643 Ac.
65.00' ℄ Rel B.R.R 103+01.41
105.00' ℄ Rel B.R.R 103+14.14
105.00' ℄ Rel B.R.R 102+50.00
Frank R. Moringer & Myrtle C. Moringer
P.T. (R/W ONLY) Sta 103+08.99 Ah = 103+09.03 Bk
S 5°42'24" W
N 5°42'24" E
C.S. Sta 101+09.00 P.C.C. (R/W ONLY)

For R/W Plan, Blue Rock Road Sta 115+00 to Sta 99+00 See Sheet No. 14

14B / 26

TYPE OF FUND	DATE	REVISIONS	BY
I	10-17-74	Add Sewer Ease. Par 326	P.W.F.
	30 Nov. 73	Rev. Owner, Par. 326	A.A.B.
	9-11-72	Added Parcel 356 X-3	W.J.K.

RIGHT OF WAY FENCE CODE 607			
STATION FROM	STATION TO	SIDE	TYPE 47 Lin. Ft.
580+00 ℄ Ramp "E"	590+00	Rt.	986
91+00 ℄ Reloc. B.R.R.	590+50	Lt.	1354

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I-275-3(7)~~	

371
468

15
26

HAM-275-13.91
R/W PLANS
LIMITED ACCESS
SCALE 1" = 50'

Margaret L. & Carl T. Herrmann (326)

Clem Haenning
Rosella Haenning
Cont.=7.766 Ac.
PRO=0.062 Ac.
Total=7.828 Ac.
(333 WL)

Frey Electric Co.
Cont.=17.431 Ac.
P.R.O.=0.038 Ac.
Total=17.469 Ac.
(334 WL)

(334 X-2) Cont.=0.010 Ac.

(334 X-1) Cont.=0.020 Ac.

HAMILTON CO. - COLERAIN TWP.
SEC. 20 & 21, T.2, E.R.1

For Continuation See Sheet No.12

For Continuation See Sheet No.13

For Continuation See Sheet No.16

MATCH LINE SEE SHT. NO.

Sta. 85+86.55 Blue Rock Rd.
Sta. 577+59.20 I-275

Sta. 83+15.13 Blue Rock Rd.
Sta. 578+33.69 Ramp "E"

Sec. 21 T.2 E.R.1
Sec. 20 T.2 E.R.1

N83°44'57"E 1220.00' ℄ Reloc. B.R.R.

LA-R/W

1220.00' ℄ Reloc. B.R.R. 576+65.27 = 100.64' ℄ Reloc. B.R.R. 89+66.33

442.10' ℄ Ramp D' 576+65.27

110.23' ℄ Ramp D' 577+75.00

N1°51'04"W 20.04'

155.00' ℄ Ramp D' 577+75.00

N67°22'44"E 32.02'

737.59' to Section Line

135.00' ℄ Ramp D' 578+00.00

133'± IAPA ℄ Ramp D' 578+00±

65.17'

N38°19'28"E

50.27'

Sta 88+86.60 Blue Rock Rd.
Sta. 576+16.60 ℄ Ramp D'
Sta. 576+16.60 ℄ Reloc. B.R.R.

136'± Crossing Type 1 ℄ Ramp D' 577+76

N34°41'37"E 135.46'

Wooded Area & Brush

438.10'

℄ 402.41'

C.S. Sta. 90+00

N42°42'24"E

Brush

N85°36'34"W

Sta. 576+32.58

784.01'

120.00' ℄ Ramp D' 584+15.00

116'± IAPA ℄ Ramp D' 584+15±

N55°06'23"E

368.43'

224.47' ℄ I-275 = 588+11.43

80.00' ℄ Ramp D' 587+75.00

N40°51'28"E

215.00' ℄ I-275 590+50.00

213'± IAPA ℄ Ramp D 590+50±

52.13'

P.C. Sta. 589+00.11

106'± IAPA ℄ Ramp D 587+75±

106'± Crossing Type 1 ℄ Ramp D 585+22±

P.T. Sta. 585+20.55

N9°18'24"W

588+26.34 ℄ I-275 Section Line

739.54'

To Section Corner

A.C. Sta. 588+42.48

354.40'

S40°41'08"W 340.18'

Constr. Limits

208'± IAPA 590+00±

210.00' ℄ I-275 598+00.00

75.00' ℄ Ramp E' = 586+50.00

188.69' ℄ I-275 = 586+42.13

73'± IAPA ℄ Ramp E 586+50±

96'± IAPA ℄ Ramp E 582+85±

97.03' ℄ Ramp E' 582+50.00

96'± Crossing Type 1 ℄ Ramp E 583+03±

L'A-R/W

S22°54'48"W

S45°46'46"E 26.78'

33.93'

100.00' ℄ Ramp E' 582+85.00

125.00' ℄ Ramp E' 582+75.00

S0°04'54"W 25.80'

135.00' ℄ Ramp E' 582+50.00

P.C. Sta. 582+10.39

212.04'

70.00' ℄ Ramp E' 580+00.00

167.29' ℄ Reloc. B.R.R. 82+49.87

96'± Crossing Type 1 ℄ Ramp E 582+70±

S22°58'31"W

71.84'

N67°24'03"W 31.97'

77.87' ℄ Ramp E' 580+71.41

68'± IAPA ℄ Ramp E 581+00±

S39°33'10"E

R&L 42'

1 Sty Res. Brick w/Attic w/Basmt.

1 Sty Brick Res.

Gravel

398

399

397

361

TYPE OF FUND			
30 Nov. 73	Rev. Owner, Par. 326.		A.A.B.
DATE	REVISIONS		BY

RELOC. BLUE ROCK RD. STA. 83+00 TO STA. 91+00
R/W PLAN ℄ I-275 STA. 574+00 TO STA. 590+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I-275-3(7)~~	

372/468

HAM-275-13.91
R/W PLANS
LIMITED ACCESS
SCALE 1" = 50'

16/26

MATCH LINE SEE SHEET NO.18

MATCH LINE SEE SHEET NO.17

For Continuation See Sheet No.17

For Continuation See Sheet No.15

For Detail of Parcel No.336, Parcel No.342, and Parcel No.345 See Sheet 13A

RIGHT OF WAY FENCE			
CODE 607			
STATION		SIDE	TYPE 47 Lin.Ft.
FROM	TO		
590+00	598+41	Rt.	770
590+50	21+00 ℄ Reloc Sheits	Lt.	649

DATE	REVISIONS	BY
8-20-74	Chg. 342 To 342E E.T.	E.H.
8-14-74	Add Part 345 EL-L2	E.H.
8-14-74	Remove Part 342EL	E.H.
11-29-78	Rev. Parcel 452-T	H.R.J.
8-28-73	Const. Temp Rd. Gr. & Sod 335T	E.H.
6-13-73	Rev. Service Rd. #2	W.J.W.
4-16-73	Name Chg. Part 335	E.H.
7-26-72	Added Par. 343E	W.J.W.

TYPE OF FUND: I

16/26

℄ RELOC. BREHM RD. STA. 45+01.17 TO STA. 54+00
℄ RELOC. SPRINGDALE RD. STA. 20+00 TO STA. 30+00
R/W PLAN ℄ I-275 STA. 590+00 TO STA. 599+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I-275-3(7)~~	

373/468

HAM-275-13.91
R/W PLANS
LIMITED ACCESS
SCALE: 1"=50'

17/26

RIGHT OF WAY FENCE			
CODE 607			
STATION FROM	TO	SIDE	TYPE 47 Lin. Ft.
21+00 ℄ Reloc. Sheits	610+50	Lt.	1414

TYPE OF FUND	DATE	REVISIONS	BY
I	8-28-73	Const. Temp. Rd. Gr. & Seed 3351	E.H.
	6-13-73	Rev. Service Road No. 2	W.J.L.

17/26

R/W PLAN - STA. 595+00 TO STA. 610+00 LT.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I-275-3(7)~~	

374/468

HAM-275-13.91
R/W PLANS
LIMITED ACCESS
SCALE: 1" = 50'

18/26

HAMILTON CO. SEC. 21 & 15
COLERAIN TWP. T.2. E.R.1

RIGHT OF WAY FENCE			
CODE 607			
STATION FROM	STATION TO	SIDE	TYPE 47 Lin. Ft.
598+41	610+00	Rt.	1190

TYPE OF FUND	DATE	REVISIONS	BY
I			

18/26

R/W PLAN - STA. 595+00 TO STA. 610+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I-275-3(7)~~	

375
468

19
26

HAM-275-13.91
R/W PLANS
LIMITED ACCESS
SCALE: 1" = 50'

SEE SHT. NO. 17
MATCH LINE

200.00' ℄ I-275
610+50.00

198' ± IAPA
610+50 ±

180.00'
613+50.00

N51°22'06"E
58.18'

178' ± IAPA
613+50 ±

185.27'
614+07.94

208' ± IAPA
616+80 ±

210.00'
616+80.00

180.51'
620+05.63

N60°22'37"E

LA-R/W

300.67'

N51°22'06"E

273.18'

N61°44'14"E

326.96'

180' ± IAPA
620+15 ±

Const. Limits

348
A-WL

Ruth Wolff
Cont=2.101 Ac.

N15°15'31"E

Brush

Woven Wire & Brush

S61°06'20"E

377.72'

℄ I-275

N56°33'46"E

Steel Post & Wire

Steel Post & Wire

Const. Limits

℄ 274.92'

P.C.

STA. 620+05.25

112.50' ℄ I-275
620+90.00

Cont=0.012 Ac.

359
X-1

Reside Landlocked

185.00' ℄ I-275
621+35.00

N39°29'18"E
45.35'

S72°18'08"E
23.89'

38.58'

Cont=0.021 Ac.

359
X-2

MATCH LINE
SEE SHT. NO. 20

275.00' ℄ I-275
624+75.00

S88°16'06"E
3.12'

N15°22'32"W
62.17'

255.00' ℄ I-275
625+00.00

60.79'

217.61' ℄ I-275
624+50.00

138' ± CPA
623+50 ±

140.00' ℄ I-275
623+50.00

253' ± CPA
625+00 ±

N13°35'03"E
184.92'

337.13'
N61°44'15"E

166.05' ℄ I-275
621+50.00

169' ± Crossing Type 1
621+30 ±

610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625

357
WL

Cont=8.018 Ac.
PRO=0.150 Ac.
Total=8.168 Ac.

Anna Wenning

Const Limits

Brush

S55°26'59"W

435.47'

278.66'

190.00' ℄ I-275
612+75.00

S47°16'10"W

188' ± IAPA
612+75 ±

235.00 ℄ I-275
610+00.00

233' ± IAPA
610+00 ±

180' ± Crossing Type 1
617+05 ±

180' ± IAPA
617+25 ±

S1°34'15"E (R.L.)

Woven Wire & Bold Wire

N5°45'53"E

192.25'

358
WL

Cont=0.471 Ac.
(Registered Land)

Shirley Engel

S55°26'59"W (Hwy.)

S48°07'13"W (R.L.)

279.78'

181.54' ℄ I-275
617+10.38

180' ± Crossing Type 1
617+45 ±

176.11
619+90.12

174' ± Crossing Type 1
620+51 ±

213.65'

N36°35'37"W (R.L.)

N18°13'14"W (Hwy.)

STONE

359
WL

Cont=10.015 Ac.

Clarence Newberry

12"

190.07'
S55°26'59"W

S61°46'12"W

392.95'

173' ± IAPA
621+75 ±

175.00' ℄ I-275
621+75.00

LA-R/W

233' ± CPA
625+50 ±

235.00' ℄ I-275
625+50.00

MATCH LINE
SEE SHT. NO. 20

Earthen Embankment

SEE SHT. NO. 18
MATCH LINE

RIGHT OF WAY FENCE

CODE 607

STATION FROM	STATION TO	SIDE	TYPE 47 Lin. Ft.
610+00	625+50	Rt.	1577
610+50	625+00	Lt.	1485

HAMILTON CO. COLERAIN TWP.
SEC. 15 T2 E.R.1

19
26

TYPE OF FLD	DATE	REVISIONS	BY
I			

R/W PLAN-STA. 610+00 TO STA. 625+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I-275 3(7)~~	

376/468

20/26

HAM-275-13.91
R/W PLANS
LIMITED ACCESS
SCALE: 1"=50'

RIGHT OF WAY FENCE			
CODE 607			
STATION FROM	STATION TO	SIDE	TYPE 47 Lin. Ft.
625+50	639+50	Rt	1476'
625+00	640+65	Lt	1540'

SEE SHT. NO. 19 MATCH LINE

MATCH LINE SEE SHT. NO. 21

Residue Landlocked

N6°04'17"E 746.46' → to property corner

253' CPA 625+00±

255.00 ℄ I-275 625+00.00

213'± Crossing Type 1 627+04±

LA-R/W

N62°23'53"E

42"

15"

405.00'

165.00' ℄ I-275 629+10.00

163'± IAPA 629+10±

185.00' ℄ I-275 631+73.26

183'± IAPA 631+73±

N41°43'13"E 255.97'

400 EL-2 Cont=10.711 Ac.

Residue Landlocked

143'± IAPA 635+25±

145.00' ℄ I-275 635+25.00

N49°48'07"E 343.89'

N32°41'14"E

LA-R/W

154'± Crossing Type 1 636+18±

N80°19'13"W → to property corner 629.79'

200.00 ℄ I-275 640+66.80

528.16'

198'± IAPA 640+66±

Conc. Block Storage Cellar & Wellhouse

6" Apple Trees

Brush & 2-18" TREES

N22°38'43"W 387.77'

Orchard

Brush

625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640

℄ I-275

18" 630

3" Water Line (Private)

354.60'

361.58'

460.35'

Brush

128'± IAPA 628+25±

Brush

359 WL Cont=10.015 Ac.

360 WL Cont=1.681 Ac.

400 WL Cont=17.301 Ac.

233'± CPA 625+50±

155'± Crossing Type 1 627+53±

Clarence Newberry

166.52'

S57°49'42"W

302.53'

S29°26'22"W

LA-R/W

130.00 ℄ I-275 628+25.00

171'± Crossing Type 1 627+01±

N5°04'17"E Brush

Orville E. & Hildegarde A. Stifel

6" Soft Maple

Frame Shed

Brick Grill

Bushes

12" TREES

Hedges

12" Apple

Walter L. Torr, Trustee

198.54'± IAPA 633+48.18±

188'± IAPA 639+50±

2'± Asphalt Walk

S51°10'23"W

376.93'

Conc. Blk.

Septic Tank

8" Asphalt

12" TREES

Water Valve

Porch

Con. Walk

Hedges

542.28'

S38°41'02"W

LA-R/W

190.00' ℄ I-275 639+50.00

198'± IAPA 634+25±

Small Metal Silo

159.67' 629+84.83

Shelter

Frame Shed

Earthen Embankment

235.00 ℄ I-275 625+50.00

N79°33'43"W

Well

Cistern

Asphalt

S42°21'49"W

200.00' ℄ I-275 634+25.48

400 EL-1

Cont. = 14.115 AC.
P.R.O. = 0.320 AC.
Total = 14.435 AC.

8" Asphalt

200.54' 633+48.18

(400.51')

SPRINGDALE RD.

℄ Sub. Line

60'

Ex. R/W

N5°04'17"E (614')

County Road No. 66

Ex. R/W

N76°33'13"W 30.07'

Lot Line

HAMILTON CO. COLERAIN TWP.
SEC. 15 T.2 E.R.1

SEE SHT. NO. 19 MATCH LINE

MATCH LINE SEE SHT. NO. 21

20/26

TYPE OF FUND			
I			
	8-7-72	Rev. L.A. line Fig. 360	wjk
	DATE	REVISIONS	BY

R/W PLAN-STA. 625+00 TO STA. 640+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I-275-3(7)~~	

377
468

21
26

HAM-275-13.91
R/W PLANS
LIMITED ACCESS
SCALE: 1"=50'

SEE SHT. NO. 20 MATCH LINE

200.00'℄ I-275
640+66.80

198'± IAPA
640+66±

N53°05'43"E

238.65'

125.00'℄ I-275
643+00.00

123' CPA
643+00±

Edwin & Rose Mary Bibee

401 WL
Cont.=2.318 Ac.

S80°19'13"E

341.08'

STA. 643+25.25

N8°06'15"E

187.36'

203'± IAPA
644+10±

205.00'℄ I-275
644+70.00

217'± Crossing Type 1
646+22±

Cont.=0.055 Ac.

206'± Crossing Type 1
644+93±

382.12'

N28°35'57"E

290.00'℄ I-275
648+00.00

290.00'℄ I-275
648+25.00

236.73'
648+50.80

N33°21'46"E
25.00'

N67°09'14"W
21.20'

261.78'℄ I-275
648+97.31

243.97'℄ I-275
648+67.95

271.74'℄ I-275
649+15.81

S67°08'14"E
29.63'

703.11'

Residue Landlocked

242'± Crossing Type 1
649+25±

400 U-2
Cont.=0.012 Ac.

N79°04'12"E
61.51'

10.09'

40.94'

19.49'

99.55'

N26°35'57"E
52.42'

52.10'

N5°03'47"E

245.00'℄ I-275
649+50.00

249'± IAPA
649+50±

400 EL-3
Cont.=3.992 Ac.

N54°20'11"E

321.29'

130.00'℄ I-275
652+50.00

128'± IAPA
652+50±

156'± IAPA
654+50±

160.00'℄ I-275
654+50.00

202.24'

N24°49'55"E

136'± Crossing Type 1
655+11±

MATCH LINE SEE SHT. NO. 22

233.33'℄ I-275
648+10.00

400 Cont.=0.002 Ac.

231'± CPA
648+10±

214'± AC
648+42±

217'± AC
648+58±

238.75'℄ I-275
648+75.00

236'± CPA
648+75±

20.10'

242.60'℄ I-275
649+21.21

240.93'℄ I-275
649+

724.47'
N5°03'47"E

Walter L. Torr, Trustee

400 WL
Cont.=17.301 Ac.

241'± Crossing Type 1
649+16±

640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655

℄ I-275

℄ I-275
649+56.00

N33°21'46"E

16'-0"x 8'-6" Arch Culvert

SEE SHT. NO. 20 MATCH LINE

188'± IAPA
639+50±

S33°04'40"W

462.18'

LA-R/W

175.00'℄ I-275
644+00.00

178'± Crossing Type 1
641+76±

173'± IAPA
644+00±

Brush

S39°38'24"W

503.02'

Bard Wire (Mostly Down)

228'± CPA
649+00±

230.00'℄ I-275
649+00.00

206'± AC
649+19±

215'± IAPA
649+86±

20.01'

S24°57'19"W

LA-R/W

510.47'

153'± IAPA
654+04±

S5°03'47"W
353.21'

155.36'
654+04.98

403 WL

Angela C. Dorrmann

1 St'y. Frame W/Attic

Conc. Slab

8' Gravel Drive

214.35'℄ I-275
650+05.90

S67°08'14"E
24.07'

400 U-1
Cont.=0.011 Ac.

217.27'℄ I-275
649+86.16

N67°08'14"W
24.80'

238.01'℄ I-275
650+10.28

S22°51'46"W
50.00'

241.65'℄ I-275
649+90.62

MATCH LINE SEE SHT. NO. 22

400 EL-1
Cont = 14.115 AC.
R.P.O. = 0.320 AC.
Total = 14.435 AC.

RIGHT OF WAY FENCE			
CODE 607			
STATION		SIDE	TYPE 47 Lin. Ft.
FROM	TO		
639+50	654+04	Rt.	1477
640+66	654+50	Lt.	1434

HAMILTON CO. COLERAIN TWP.
SEC. 15 T. 2 E.R. 1

21
26

TYPE OF FUND			
	DATE	REVISIONS	BY

R/W PLAN-STA. 640+00 TO STA. 655+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I-275-3(7)~~	

378
468

22
26

HAM-275-13.91
R/W PLANS
LIMITED ACCESS
SCALE: 1" = 50'

SEE SHT. NO. 21 MATCH LINE

MATCH LINE SEE SHT. NO. 23

Residue Land Locked
400 FL-3
Cont.=3.992 Ac.

441.41'

168'± IAPA
657+50±

170.00 ℄ I-275
657+50.00

166.19'
656+48.00

158'± IAPA
654+50±

N 31°34'15" E 198.10'

N 31°34'15" E 104.78'

N 37°38'11" E 364.92'

144'± Crossing Type 1
660+88±

Walter L. Torr, Trustee
Cont.=17.301 Ac.
400 WL

Brush & 36" Sycamore
168.43' Rt. of Rt/W Lines

163.96' ℄ I-275
660+61.77

N 47°55'13" E 20.00'

183.35' ℄ I-275
660+84.06

S 42°04'47" E 19.13'

Cont.=0.010 Ac.

165.00'
661+00.00

163'± IAPA
661+00±

186.43' ℄ I-275
660+65.19

405 LI-2

N 42°04'47" W 22.76'

S 19.53'

158'± Crossing Type 1
661+96±

N 43°05'08" E 520.76'

Apple Orchard
(Abandoned - Most Trees Dead)

165.00'
666+00.00

163'± IAPA
661+00±

262.22' N 48°57'08" E

220.00 ℄ I-275
669+04.20

144'± AC
669+03±

165.00'
669+00.00

163'± CPA
669+00±

163.38'
668+51.68

N 66°18'06" E 39.07'

210.00 ℄ I-275
669+40.00

S 21°22'44" E 53.75'

N 6°09'01" E 178.65'

363 X-3
Cont.=0.073 Ac.

20.33'

164.44' ℄ I-275
660+81.27

30.37'

N 5°02'31" E 179.45'

146'± AC
669+00±

156'± CPA
669+25±

158.60' ℄ I-275
669+25.00

163'± Crossing Type 1
668+94±

140'± Crossing Type 1
669+93±

Brush & File

Emerson & Dorothy L. Hoock

12" San

179.53' ℄ I-275
660+25.53

405 WL
Cont.=7.073 Ac.

℄ I-275

1550.46' To section corner

N 5°03'47" E 3 Line Barb Wire ℄ 353.21'

403 WL
Cont.=0.804 Ac.

Angela C. Dorrmann Garden

179.00' ℄ I-275
660+04.38

20.21'

139.60'
665+28.27

S 43°38'50" W 364.86'

264.18' Woven Wire with Barbed

443.63'

243.06'

N 80°26'13" W

Frieda Meier

404 WL
Cont.=0.795 Ac.

144'± AC
667+74±

141'± Crossing Type 1
667+56±

363 WL
Cont.=14.435 Ac.

153'± IAPA
654+04±

146'± IAPA
658+01±

P.C. STA. 656+87.09

S 43°38'50" W 166.07'

130.00
667+00.00

128'± IAPA
667+00±

N 80°53'32" W 90.56'

S 26°41'02" W 78.71'

P.T. STA. 670+06.65

S 59°21'39" W 773.88'

Fred. W. Vogel

200.00'
667+60.00

148'± AC
667+82±

113'± IAPA
669+60±

115.00
669+60.00

S 35°29'59" W 391.55'

155.36'
654+04.98

Cont. Rebar Found

Crushed

168.36'
658+01.19

S 39°39'50" W 237.96'

105.99'

S 14°17'52" W

133'± IAPA
661+50±

135.00'
661+50.00

S 42°04'47" E 17.26'

178'± IAPA
660+50±

N 42°04'47" W 14.36'

193.14' ℄ I-275
660+01.78

405 LI-1

Cont.=0.007 Ac.

123.33'

180.00'
660+50.00

196.54' ℄ I-275
660+22.52

178'± Crossing Type 1
660+40±

S 47°55'13" W 20.00'

381.07'

Residue Landlocked
Cont.=2.847 Ac.

615.60'

Sec. 16 T2 E.R.1
Sec. 15 T2 E.R.1

SEE SHT. NO. 21 MATCH LINE

MATCH LINE SEE SHT. NO. 23

RIGHT OF WAY FENCE			
CODE 607			
STATION		SIDE	TYPE 47 Lin. Ft.
FROM	TO		
654+30	669+93	Lt.	2222
654+04	669+60	Rt.	1528

HAMILTON CO. COLERAIN TWP.
SEC. 15 & 16 T.2 E.R.1

22
26

TYPE OF FUND			
1			
	DATE	REVISIONS	BY

R/W PLAN-STA. 655+00 TO STA. 670+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I-275-3(7)~~	

379
468

23
26

HAM-275-13.91
R/W PLAN
LIMITED ACCESS
SCALE: 1"=50'

END R/W ACQUISITION
HAM-275-13.91
STA. 680+23.58

BEGIN R/W ACQUISITION
HAM-275-16.15
STA. 680+23.58

I-275-3(9)27 I-275

SEE SHT. NO. 22
MATCH LINE

140'± Crossing Type 1
669+93±

125.00'
670+70.00

123'± IAPA
670+70±

178.65'
N65°09'01"E

LA-R/W

601.69'
N48°24'45"E

Cont=14.435 Ac.

363
WL

Frieda Meier

170.00
676+70.00

168'± IAPA
676+70

135.00'
678+50.00

133'± IAPA
678+50±

N63°42'19"E
183.37'

192.25'℄I-275
678+98.66

Cont=0.080 Ac.

363
U-2

Cont=0.013 Ac.

363
X-2

255.00'℄I-275
679+35.00

N67°42'06"E
20.00'

N66°44'16"E
41.23'

N22°17'54"W
37.23'

N24°05'23"E
125.30'

245.00'℄I-275
679+75.00

S20°35'57"E
52.20'

195.00'
679+60.00

270.37'

LA-R/W

N45°49'46"E

193'± IAPA
679+60±

187.07'℄I-275
679+17.98

227'± IAPA-End Type 47 Fence
682+29-Begin Chain Link Fence

70'± IAPA
℄ Ramp J 685+56±

Ex LA

S45°50'01"W

260'± Crossing Type 1
683+35±

MATCH LINE
SEE SHT. NO. 24

℄ Ramp J

S22°17'54"E
18.18'

162.51'℄I-275
679+43.27

S24°05'28"W
27.62'

300.46'

670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685

℄ I-275

N 52°42'06"E

Corn Field

Hay Field

P.I. STA. 670+06.65

S59°21'39"W
773.86'

150'± Crossing Type 1
672+73±

158'± IAPA
673+40±

163'± Crossing Type 1
673+85±

P.C.C.

673+55.15

Fence

Pasture

Corn Field

203'± CPA
677+30±

205.00'℄I-275
677+30.00

N22°17'54"W
33.65'

363
U-1

Cont=0.011 Ac.

146.24'
N68°17'37"W

Sec. 10 T2 E.R.I

307.07'℄I-275
677+64.87

S67°42'06"W
20.00'

S22°16'12"E
Sec. 10 T2 E.R.I

36.83'

328.94'℄I-275
678+07.63

125.00'℄ Ramp 'H'
679+00.00

123'± IAPA
℄ Ramp 'H' 679+00±

HAMILTON CO. COLERAIN TWP
SEC. 10 & 16 T.2 E.R.I

312.25'℄I-275
677+84.19

103.30'℄ Ramp 'H'
682+00.00

130.00'℄ Ramp 'H'
682+15.00

363
X-1

Cont=0.010 Ac.

S31°08'09"W
33.62'

30.19'

N24°41'23"W
30.62'

99.91'℄ Ramp 'H'
682+30.00

101'± IAPA
℄ Ramp 'H' 682+45±

Edward Sunderhous

414
WL

Corn Field

1812.01' to Section Corner

S85°36'37"E
729.50'

297.72'℄I-275
677+88.08

305'± Crossing Type 1
677+93±

70.54'

S86°11'38"W
15.04'

P.T.
680+37.41

℄ Ramp H

℄ Ramp H

SEE SHT. NO. 22
MATCH LINE

MATCH LINE
SEE SHT. NO. 24

RIGHT OF WAY FENCE
CODE 607

STATION FROM	STATION TO	SIDE	TYPE 47 Lin. Ft.	TYPE-CL Lin. Ft.
669+93	685+56	Lt.	1260	306
669+60	682+45 ℄ Ramp 'H'	Rt.	1251	

TYPE OF FUND			
	DATE	REVISIONS	BY

23
26

R/W PLAN-STA. 670+00 TO STA. 685+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I 275 3(7)~~	

380
468

HAM-275-13.91
R/W PLAN
LIMITED ACCESS
SCALE: 1" = 50'

24
26

MATCH LINE SEE SHEET NO. 23

MATCH LINE SEE SHEET NO. 25

For Continuation See Sheets Nos 25 & 26

RIGHT OF WAY FENCE CODE 607				
STATION FROM	STATION TO	SIDE	TYPE 47 Lin. Ft.	TYPE CL Lin. Ft.
685+56	725+00 ℄ Colerain	Lt.	—	410
682+45 ℄ Ramp H	713+00 ℄ Colerain	Rt.	376	197
715+49 ℄ Colerain	689+30 ℄ Ramp G	Rt.	—	254

HAMILTON CO. COLERAIN TWP.
SEC. 10 T. 2 E. R. 1

DATE OF FUND	DATE	REVISION	BY
	8.14.74	Add Par. 376 EL	E.H.
	9.19.73	Added Easement Par. 363	W.H.
	5.14.73	Rev. Par. 455 WL	E.H.
	21 Dec. 1972	Add Septic Tank & Leaching Pit	455

R/W PLAN - COLERAIN AVE. (U.S. 27) STA. 711+00 TO STA. 726+00

RIGHT OF WAY FENCE Colerain Pike				
CODE				
STATION FROM	TO	SIDE	TYPE 47 Lin. Ft.	TYPE CL Lin. Ft.
725+00	727+20	Lt.	—	245
726+66	692+40 ℄ Ramp F	Rt.	—	263
713+00	710+26	Lt.	—	332
707+05	714+49	Rt.	—	882

TYPE OF FUND	DATE	REVISION	
I	8-14-74	Add 376EL & dimensions	E.H.
	6/26/74	Added Detail B & Rev. Par. 396	R.W.F.
	9-19-73	Added Easement Par. 363	W.J.L.

R/W PLAN - COLERAIN PIKE (U.S. 27) STA. 705+00 TO STA. 731+00

FED. RD DIVISION	STATE	PROJECT	
2	OHIO	~~I-275-3(7)~~	

381A / 468

HAM-275-13.91
R/W PLANS
LIMITED ACCESS
SCALE: 1"=20'

25A / 20

NORTHBROOK SECOND SUBDIVISION
BLOCK H-H
PB 105 P29 RO

CAPSTAN DRIVE

HOLLIS DRIVE

Ex. R/W

Sub Line N 85° 34' 39" W 220.46'

N 04° 25' 21" E 140'

N 04° 25' 21" E 150'

399 Arthur Bryant Jr & Mary A. Bryant

399 S Cont = 0.002 Ac.

S 60° 25' 21" E 23.57'

10'

21.34'

21.62'

38.38'

1688 1689 1690 1691 1692 1693 1694 1695 1696 1697 1702 1701 1700

Gerald & Naomi Bostin

315 Ronald Rains And Sandra L. Rains.

314 Elmer & Mary Mayborg

Dog Kennel w/ Covered Run

378 Norbert & Joyce Strobl

Leaching Field

1st Cone Block

Septic Tank

Cont = 0.054 Ac.

N 85° 34' 39" W 280.63'

N 21° 52' 38" W 89.84'

N 33° 04' 51" E

315 T Cont = 0.006 Ac.

R = 150.00'
Arc = 58.36'
Ch. = 57.99'
N 70° 17' 02" W

378 T Cont = 0.022 AC

69.13'

S 85° 34' 39" E

14.50'

7.91'

5.00'

C51.52'

S 74° 06' 44" E

50.00'

73.55' R/W

314 T Cont = 0.003 AC.

S 60° 59' 55" E 25.46'

N 33° 04' 51" E 83.90'

310 Marlene F. Montin

N 57° 45' 09" W 124.38'

Dorm Disturb

14+42.64
25' Rt.

R = 100.00'
Arc = 28.36'
Ch. = 28.27'
N 67° 36' 10" W

#9985
1 Sty Fr.

310 T-1 Cont = 0.006 Ac.

Ex. Bldg.

PROP 12"

Ex. 12"

Ex. 39"

N 56° 43' 39" W

50.00'

N 33° 16' 21" E

50.00'

R = 275.00'
Arc = 56.77'
Ch = 56.67'
N 26° 31' 15" E

R = 275.00'
Arc = 26.01'
Ch = 26.00'
N 25° 57' 31" E

R = 275.00'
Arc = 30.00'
Ch = 20.00'
N 22° 25' 30" E

R = 275.00'
Arc = 4.26'
Ch = 4.26'
N 20° 09' 52" E

R = 275.00'
Arc = 50.07'
Ch = 50.00'
N 14° 30' 12" E

R = 275.00'
Arc = 2.49'
Ch = 2.49'
N 09° 01' 50" E

R = 275.00'
Arc = 56.82'
Ch = 56.71'
S 14° 41' 16" W

R = 275.00'
Arc = 20.20'
Ch = 20.20'
N 06° 39' 24" E

458 T Cont = 0.014

End Service Rd Sta. 3+38.50

Clean out

S 42° 25' 21" W 162.00'

SERVICE ROAD

R = 25'

N 85° 34' 39" W 3

2.00'

10.00'

55.50' R/W

55.50'

N 85° 34' 39" W

2+83.00
25' Lt.

386 T-2 Cont = 0.045 Ac.

R = 100.00'
Arc = 45.55'
Ch = 45.16'
N 72° 31' 40" W

R = 88.00'
Arc = 40.09'
Ch = 39.74'
N 72° 31' 40" W

386 WD Cont = 0.187 Ac.

2 N 59° 28' 39" W

N 59° 28' 39" W 62.23'

Const. Limit

68.81'

Pt 26.06

25' Lt.

1+42.64
25' Lt.

386 E Cont = 0.026 Ac.

386 F3

S 74° 06' 44" E 38.43'

N 59° 28' 39" W 144.99'

130.70'

3.00'

1+07.18
25' Rt.

N 69° 35' 09" W

83.48'

75° 43' 39" W RTW

309 WD Cont = 0.244 Ac.

PC 1+26.06

PT 1+70.49

R = 150.00'
Arc = 42.54'
Ch. = 42.40'
S 67° 36' 10" E

1+07.18
25' Lt.

140.90'

N 81° 25' 09" W

S 75° 43' 39" E RTW

83.22'

A Walk

Bertha Rock.

1 Sty Stucco

#9975
1 Sty Fr.

N 75° 43' 39" W

PROP 4"

Ex. 8"W

Const. Limit

8.74'

Ex. 8"W

N 04° 25' 21" E 168.08'

N 04° 25' 21" E 108.08'

N 04° 25' 21" E 111.80'

Leaching Lines

Gravel Drive Way

Septic Tank

386

458 Joseph G & Vera Lieser

Joseph & Clara Lierer

386

115.00'

N 85° 34' 39" W

Ex. Easement

20.00'

Gravel Drive Way

N 85° 34' 39" W 392.49'

308 John & Margaret Jones

Lot No. 1699

308 T Cont = 0.005 Ac.

#9967
1 Sty Fr.

N 04° 25' 09" W 36.40'

N 04° 33' 01" E

4.78'

N 04° 33' 01" E

N 04° 33' 01" E

139.64' N 85° 34' 39" W

387 Bertha Rock

HAM. CO. COLERAIN TWP.
SEC. 10 T-2 E.R.-1

DATE	REVISIONS	BY
11-7-74	Del Parc 458 WD, Rev 4.58T	H.J.
11-7-74	Add Parc 378-T.	H.J.
11-7-74	Del Parcel 378-T-1, S, T-2.	H.J.
11-7-74	Added Parc 310T-1, 314T & 315T	H.J.
9-26-74	Field Parc 458	H.R.J.
9-26-74	Add Septic Tank & Leaching -	H.R.J.
19 Aug 74	Add Leach Field - Par. 378	P.R.D.
30 July 74	Add Bldgs - Parcel 378	NM
3-7-74	Name change Parc 309	H.R.J.
3-7-74	Deleated Parc 309 E-1 & E-2.	H.R.J.
3-7-74	Rev Parc 309 WD to Total Take	H.R.J.
3-6-74	Added Parc 386-T-3.	H.R.J.
3-6-74	changed Parc 386 E-1 to 386 E.	H.R.J.

25A / 20

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I-275-3(67)~~	

381B / 468

HAM.-275-13.91
R/W PLANS
LIMITED ACCESS
SCALE: 1"=20'

25B / 26

For Continuation of parcel 387, see insert at right.

Ex. R/W

N 12°38'50" W

11.34'
N 76°08'32" E

Fosker Kelsey Bldg Board

R = 25.00'
Arc = 40.09'
Ch. = 35.93'
S 66°45'16" E

R = 150.00'
Arc = 72.15'
Ch. = 71.46'
N 81°04'44" E

10.44'

R = 182.50'
Ch. = 99.88'
Arc = 101.17'
N 81°45'20" E

50.00'
N 69°11'09" E

365.54'

28.53'

52.56'

700+78.33 E

S 85°08'31" E
63.54'

0+00 Redskin Dr. Ext. =
700+49.09 Colerain Ave.

40.11'

Begin R/W Acquisition
Sta. 700+29.15
Colerain Ave.

Const. Limit

307 WD — Cont. = 0.009 Ac.

S 32°54'57" E
128.73'

4' Walk

R/W

1+37.17
25' Lt.

25'

25'

12'

12'

20.05'

2

REDSKIN DRIVE EXT.

2+65.80
25' Lt.

R = 100.00'
Arc = 43.71'
Ch. = 43.37'
N 68°07'16" E

PT 1+31.11

307 T — Cont. = 0.146 Ac.

6" W

A/C Pad 3'x8'

129.37'

143.33'

55.35'

PC 0+87.96

700

699 COLERAIN AVE.

N 20°48'50" W

244.03'

Const. Limit

114.82'
N 67°40'16" E

3.15'

17.15'

40.47'

PROVIDENT BANK

Roof Projection Line

23.02'
S 88°02'14" E

23.59'

Ex. R/W

N 20°48'50" W

139.50'

Thomas Tierney (Trustee)

307

111.77'
N 10°55'10" W

149.73'
N 69°11'09" E

57.27'

698+34.30 E

P.T. 698+00.44
Colerain Ave.

Bertha Rock

387

INSERT. PARCEL
387
Bertha Rack

Record Area
12.782 Ac.

P.C. 708+63.22

COLERAIN AVE.

N 20°48'50" W

366.54'

N 20°11'25" W

Ex. R/W

40'

S 03°39'39" W
803.91'

N 20°51'25" W
566.84'

N 25°32'09" E
650.49'

N 85°08'31" W
452.25'

P.T. 698+00.44

387 X — Cont. = 0.314 Ac.

P.C. 2+63.80

R = 147.50' Arc = 120.42'
Ch. = 117.10' N 69°14'35" E

PT 4+28.94

Const. Limit

R = 175.00' Arc = 142.75' Ch. = 138.83'
N 71°29'21" E

4+28.94
25' Lt.

2+65.80
25' Lt.

90.51'

4' Walk

R/W

387 WD — Cont. = 0.508 Ac.

18"

3

80

4

R = 225.00' Arc = 183.54' Ch. = 178.49'
N 71°29'21" E

2+65.80
241.99' Rt.

3.06'

N 01°55'16" E

109.41'

R/W

4' Walk

387 T — Cont. = 0.093 Ac.

4+28.94
25' Rt.

Const. Limit

118.77'
N 74°40'37" E

57.20'

306 T — Cont. = 0.042 Ac.

Donna S. Bradshow

306

S 85°08'31" E
78.00'

5+52.09
55' Lt.

63.91'

5+19.45
25' Lt.

44.33'

N 48°07'14" E
123.15'

EX. R/W

Ex. REDSKIN DR.
N 48°07'14" E

60.00'

4+92.25 E

Ex. R/W

N 48°07'14" E
36.11'

4+18.18

0+65.05
25' Rt.

37.16'

N 5°32'
35.58'

15.58'

32.13'

N 44°57'10" E

69.62
N 61°21'43" E

63.00'

N 05°32'09" E

311 — Cont = 0.008 AC.

NORTHBROOK SECOND SUBDIVISION
BLOCK "GG"
PB 100, P 69, 70.

301

1597

Walter Napier And Dollie Napier.

1594

1595

1596

Donald R. Carte And Nellie Carte.

311

1536

HAM. CO. COLERAIN TWP.
SEC. 10 T. 2 E.R. 1

DATE	REVISIONS	BY
4/14/75	Name Change Par. 306	P.W.E.
4-29-74	Deleted Par. 301-T	H.J.
4-29-74	Rev Construction Limits	H.J.
3-19-74	Added Par. 301-T & 311-T	H.R.J.

25B / 26

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	~~I 275-3(7)~~	

382
468

HAM-275-13.91
R/W PLAN
LIMITED ACCESS
SCALE: 1"=50'

26
26

Ham. Co. Colerain Twp.
Sec. 10 T.2. E.R.1

NOTE: FOR DETAILS OF PARCELS 386, 387, 378, 399, 458 SEE SHEET Nos. 25A, 25B

Ham. Co. Colerain Twp.
Sec. 10, Sec. 16 T.2. E.R.1

TYPE OF FUND			
I			
	3-8-74	General Deletions.	H.R.J.
	DATE	REVISIONS	BY

℄ HOLLIS DR. EXT. STA. 4+78 TO STA. 10+77.38

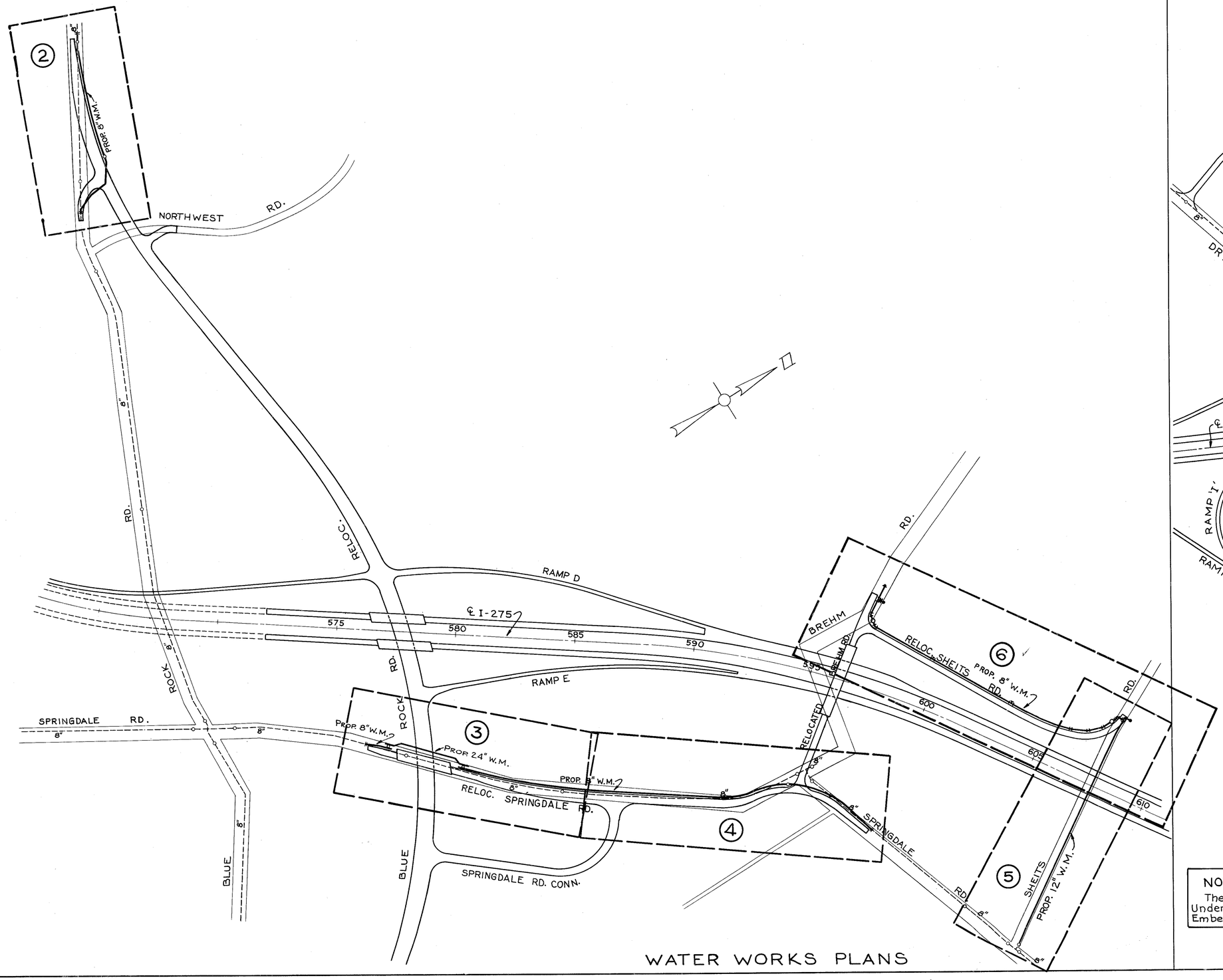
R/W PLAN ℄ DRY RIDGE RD. RELOC. STA. 10+00 TO STA. 20+67.38

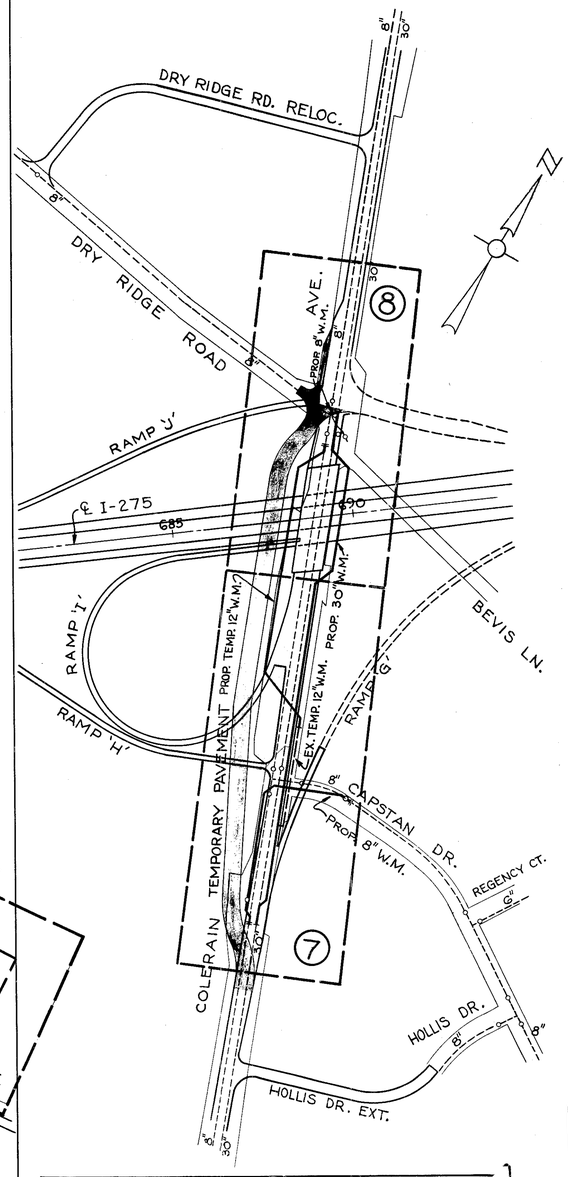
26
26

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

383
468

HAM.-275-13.91
HAMILTON COUNTY





NOTE:
The Water Main Work in This Contract Is Being Done Under The 1975 Specifications. Pipe Is To Be Laid In Embedment Material And Not On Hardwood Blocks.

WATER WORKS PLANS

INDEX

DRAWING NO.
SCALE: 1" =
SHEET NO.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

384
468

HAM-275-13.91
HAMILTON COUNTY

DEVELOPED		CHECKED	
JEK	7-30-71	E.L.B.	9-2-71

PARTICIPATION
8" WATER MAIN
100% Project – 90% Federal }
– 10% State }

1-8" Solid Sleeve (P.J.)
2-8" 22½° Bends-2M.J.

1-8"x6" Tee-3M.J.
1-6" 90° Bend-2M.J.
1-6" Valve-C.J.
1-Valve Box Complete
1-Relocate Ex. Fire Hydrant

1-8" 45° Bend-2M.J.
1-8" 22½° Bend-2M.J.
1-8" Valve-C.J.
1-8" Valve Chamber
2-1" Ferrules (A.C.)
1-M.H.C.&C.
1-8"x6" Tee-3M.J.
1-6" 90° Bend-2M.J.
1-6" Valve-C.J.
1-Valve Box Complete
1-Relocate Ex. Fire Hydrant

1-8" Valve-C.J.
1-8" Valve Chamber
1-M.H.C.&C.
2-1" Ferrules (A.C.)
1-8" S Bend-M.J. x P.E.
1-8" Solid Sleeve (P.J.)

Renew Ex. ¾" Branch
10-Lin. Ft. ¾" Copper Service Pipe
1-¾" Ferrule
1-¾" Stop Cock
1-Reset Ex. ⅝" Frost Proof Meter Setting
1-¾" Copper to ¾" Copper Coupling

#5852 H-204371 Ex. ¾" Br.
#5896 H-196995 Ex. ¾" Br.
#5904 H-197116 Ex. ¾" Br.
#5912 H-229657 Ex. ¾" Br.
#5926 H-217058 Ex. ¾" Br.

Rock Chan Prot Type B 160'×12'×18"
Rock Chan Prot Type B 190'×20'×18"
48" Type A 295
24" Type D 295A
8'×6' Box
Remove Exist Box Culvert
box type culvert Aver. x. 4'-6" Span & Conc. Walls
4'6" high × 5½' wide box type culvert with wing walls C.B.-5
Remove Exist C.B.
Remove Exist Headwall
Remove & 6 of 22" Pine
Remove Ex. Pipe
Remove Exist Pipe
Sta. 49+00 Prop. 24" Sewer Inv. Elev. 735.8

Sta. 47+12 Begin Prop. 8" Sleeve
Sta. 47+60 Prop. 22½° Bend
Sta. 48+09 Prop. 22½° Bend
Sta. 49+78 Prop. 8"45° Bend
Sta. 49+80 Bk= Sta. 108+20 Ahd.
Sta. 108+35 Prop. 22½° Bend
Sta. 108+65 Prop. 6"x6" Box Inv. Elev. 718±
Sta. 109+04 Prop. 8" Valve
Sta. 109+25 Prop. 8"x6" Tee
Sta. 110+60 Prop. 30" P.S. Inv. Elev. 713.75
Sta. 112+72 Prop. 8"x6" Tee
Sta. 113+28 Prop. 12" P.S. Inv. Elev. 707.7
Sta. 114+67 Prop. 8" Valve
Sta. 115+18 Prop. 8" Sleeve Meet Ex. 8" W.M.

Ex. 8" W.M.
Ex. Surface
PROP. SURFACE
PROP. 8" W.M.

BLUE ROCK RD. CONNECTOR
BLUE ROCK RD. RELOC.
BLUE ROCK ROAD

WATER WORKS PLANS

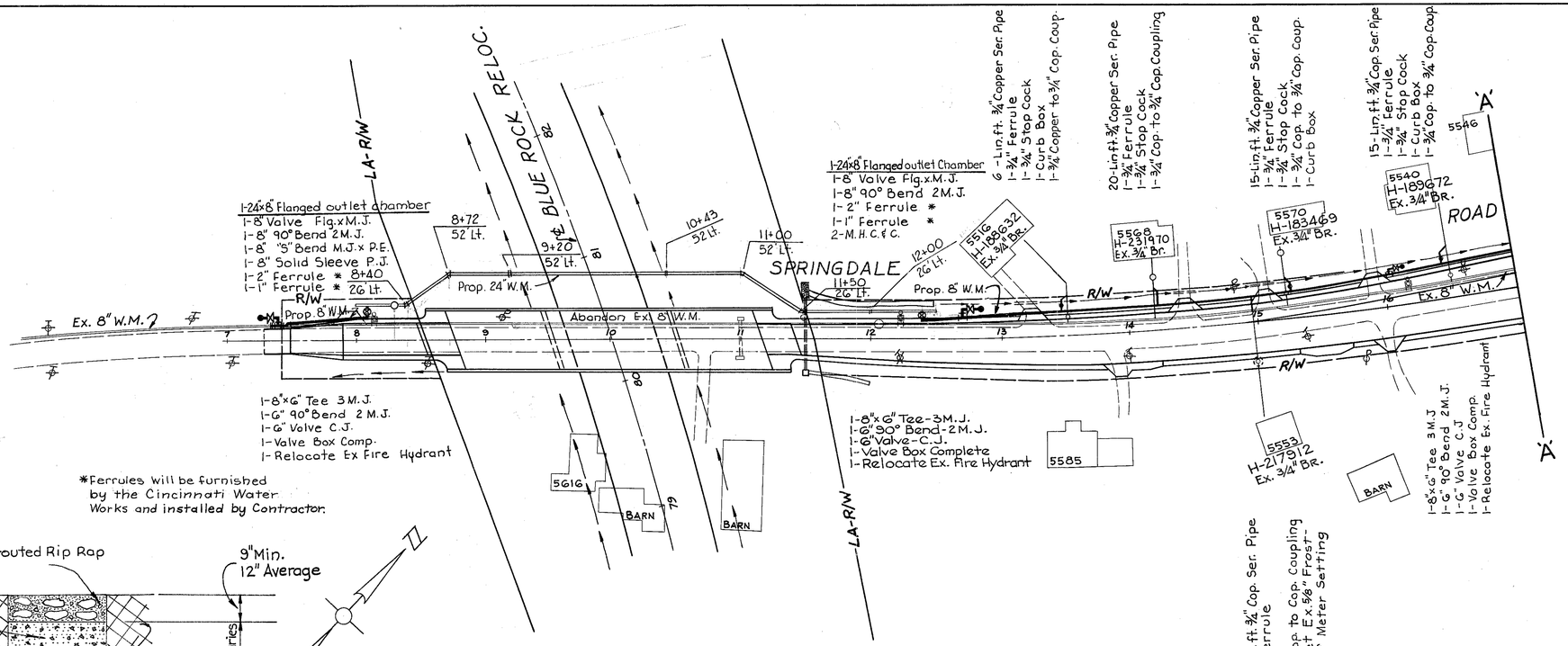
DRAWING NO. D-33-16
SCALE: 1"=50'
SHEET NO. 2 OF 11

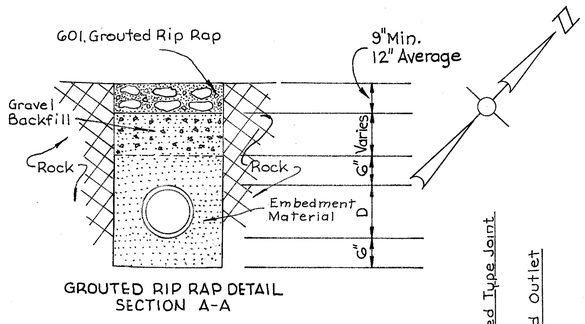
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

385/468

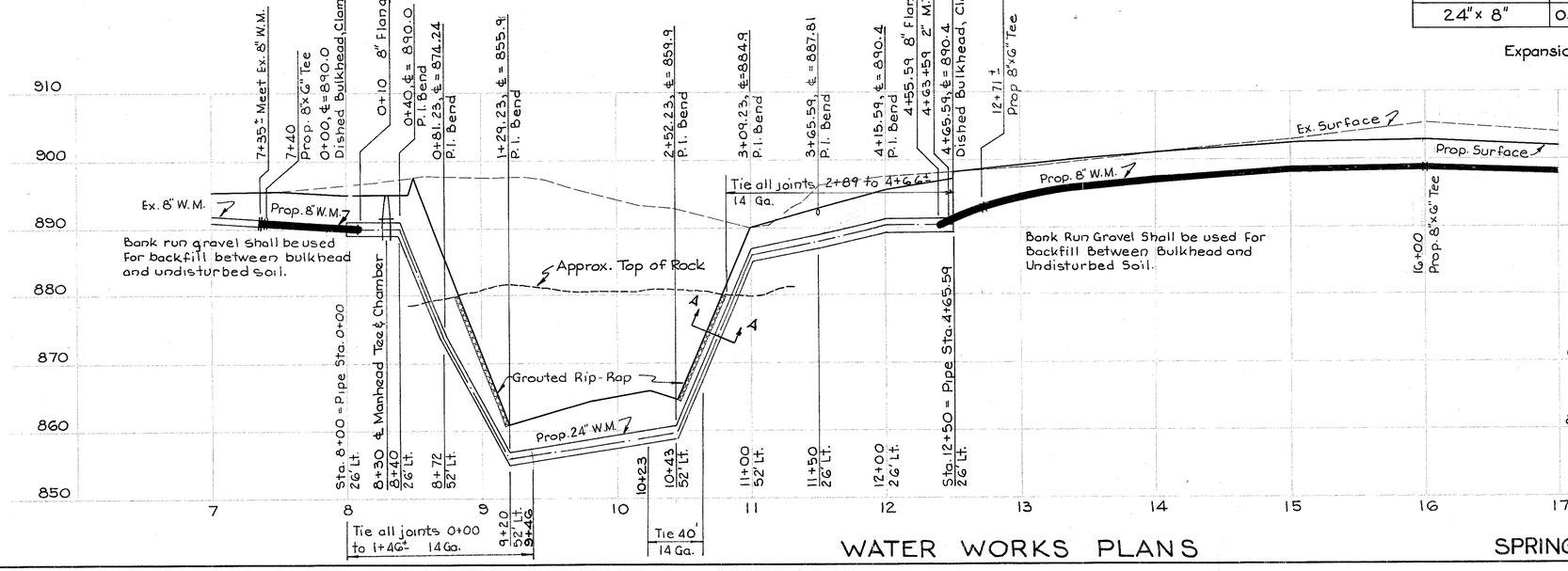
HAM. 275-13.91

412 Red 385-468 pink purple





GROUTED RIP RAP DETAIL
SECTION A-A



WATER WORKS PLANS

PARTICIPATION

8" WATER MAIN

100% Project - 90% Federal
- 10% State

24" WATER MAIN

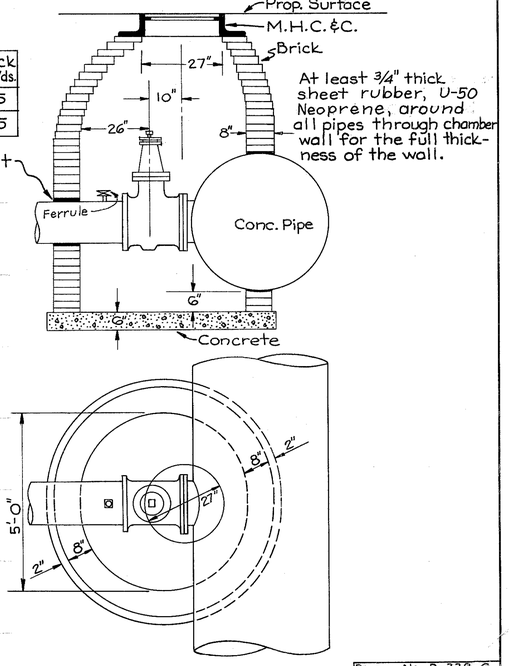
61.73% County - 100% County
38.27% Project - 90% Federal
10% State

Calc'd. JK Date 3-21-75
Checked. EJB Date 3-21-75

FOR ESTIMATE ONLY

Size of W.W. Connection	Conc. Cu.Yds.	Brick Cu.Yds.
30" x 12"	0.7	2.5
24" x 8"	0.7	2.5

TYPICAL FLANGED OUTLET VALVE CHAMBER



DRAWING No. D-332-G
SCALE: 1"=50'
SHEET No. 3 OF 11

SPRINGDALE ROAD STA. 7+00 TO 17+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

386
468

HAM. 275 - 13.91

'A'

12-Lin.Ft. 1" Cop. Ser. Pipe
1-1" Ferrule
1-1" Stop Cock
1-Curb Box
1-1" Cop. to 1" Cop. Coupling

5546
H-190673
Ex. 1" BR.

23-Lin.Ft. 3/4" Cop. Ser. Pipe
1-3/4" Ferrule
1-3/4 Stop Cock
1-Curb Box
1-3/4" Cop. to 3/4" Cop. Coup.

5560
H-190591
Ex. 3/4" BR.

23-Lin.Ft. 3/4" Cop. Ser. Pipe
1-3/4" Ferrule
1-3/4" Stop Cock
1-Curb Box
1-3/4" Cop. to 3/4" Cop. Coup.

5532
H-206098
Ex. 3/4" BR.

7-Lin.Ft. 3/4" Cop. Ser. Pipe
1-3/4" Ferrule
1-3/4" Stop Cock
1-Curb Box
1-3/4" Cop. to 3/4" Cop. Coup.

5528
H-190601
Ex. 3/4" BR.

10-Lin.Ft. 3/4" Cop. Ser. Pipe
1-3/4" Ferrule
1-3/4" Stop Cock
1-Curb Box
1-3/4" Cop. to 3/4" Cop. Coup.

5520
H-193919
Ex. 3/4" BR.

10-Lin.Ft. 3/4" Cop. Ser. Pipe
1-3/4" Ferrule
1-3/4" Stop Cock
1-Curb Box
1-3/4" Cop. to 3/4" Cop. Coupling

5512
H-191142
Ex. 3/4" BR.

35-Lin.Ft. 3/4" Cop. Ser. Pipe
1-3/4" Ferrule
1-3/4" Stop Cock
1-Curb Box
1-3/4" Cop. to 3/4" Cop. Coupling

5504
H-191141
Ex. 3/4" BR.

5488
H-184008
Ex. 3/4" BR.

3/4" Cop. Ser. Pipe
3/4" Ferrule
3/4" Stop Cock
40-Lin.Ft. 3/4" Cop. Coupling
1-3/4" Curb Box
1-3/4" Cop. to 3/4" Cop. Coupling
1-Relocate Ex. 5/8" Frost Proof Meter Setting

5454
H-227868
Ex. 3/4" BR.

10-Lin.Ft. 3/4" Cop. Ser. Pipe
1-3/4" Ferrule
1-3/4" Stop Cock
1-3/4" Curb Box
1-3/4" Cop. to 3/4" Cop. Coupling
1-Relocate Ex. 5/8" Frost Proof Meter Setting

Abandon
#9059
H-235516
Ex. 3/4" BR.

BREHM RD.
3-Remove Existing M.H.C. & C.

RELOC. BREHM

Ex. 8" W.M.

Abandon

PROP. 8" W.M.

ROAD

SPRINGDALE

PROP. 8" W.M.

SPRINGDALE RD. CONN.

5511
H-217694
Ex. 3/4" BR.

1-8"x6" Tee-2 M.J. x Flg.
1-6" 90° Bend 2 M.J.
1-6" Valve-C.J. x Flg.
1-Valve Box Comp.
1-Relocate Ex. F.H.

30-Lin.Ft. Furnish And Install 6" Temp. W.M.
1-Relocate Ex. F.H.

60-Lin.Ft. 1" Cop. Ser. Pipe
1-1" Ferrule
1-1" Stop Cock

1-1" Cop. to 1" Cop. Coup.
1-Relocate Ex. 1" Frost Proof Meter Setting

5501
H-216455
Ex. 1" BR.

1-8"x6" Tee-2 M.J. x Flg.
1-6" 90° Bend 2 M.J.
1-6" Valve-C.J. x Flg.
1-Valve Box Comp.
1-Relocate Ex. F.H.

30-Lin.Ft. Furnish And Install 6" Temp. W.M.
1-Relocate Ex. F.H.

5471
H-192907
Ex. 3/4" BR.

1-Reconnect Ex. 3/4" Copper Ser. Br.
1-3/4" Ferrule

1-Reset Ex. Curb Box
1-3/4" Cop. to 3/4" Cop. Coup.

1-8" Valve C.J.
1-8" Valve & Chamber
1-M.H.C. & C.
1-1" Ferrule

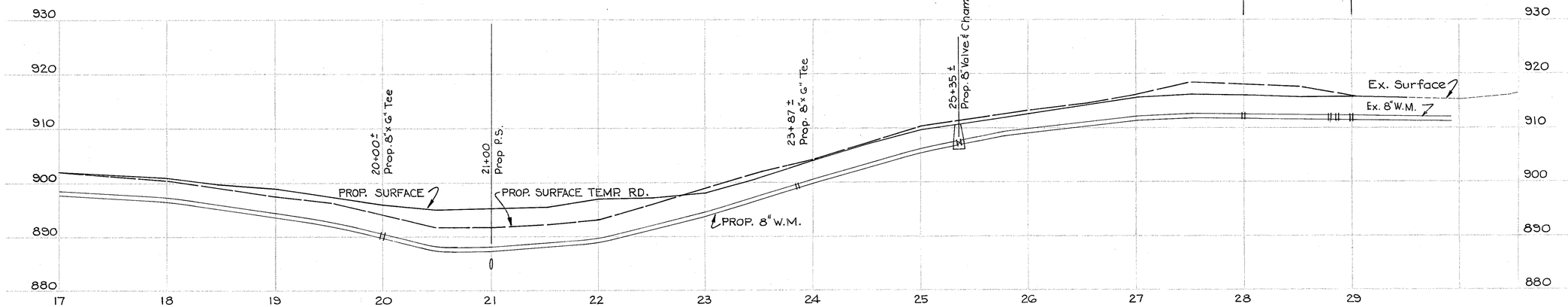
5383
H-188606
Ex. 3/4" BR.

55-Lin.Ft. 3/4" Cop. Ser. Pipe
1-3/4" Ferrule
1-3/4" Stop Cock
1-Curb Box
1-3/4" Cop. to 3/4" Cop. Coupling
1-Relocate Ex. 5/8" Frost Proof Meter Setting

2-8" 45° Bends - 2 M.J.
1-8" Solid Sleeve - (P.J.)

1-8"x6" Tee-2 M.J. x Flg.
1-6" 90° Bend-2 M.J. x Flg.
1-6" Valve-C.J. x Flg.
1-Valve Box Complete
1-Relocate Ex. F.H.

PARTICIPATION
8" WATER MAIN
100% Project - 90% Federal
- 10% State



Calc'd. . . . JK. . . . Date 3-21-75
Checked . . EJB. . . Date 3-21-75

WATER WORKS PLANS

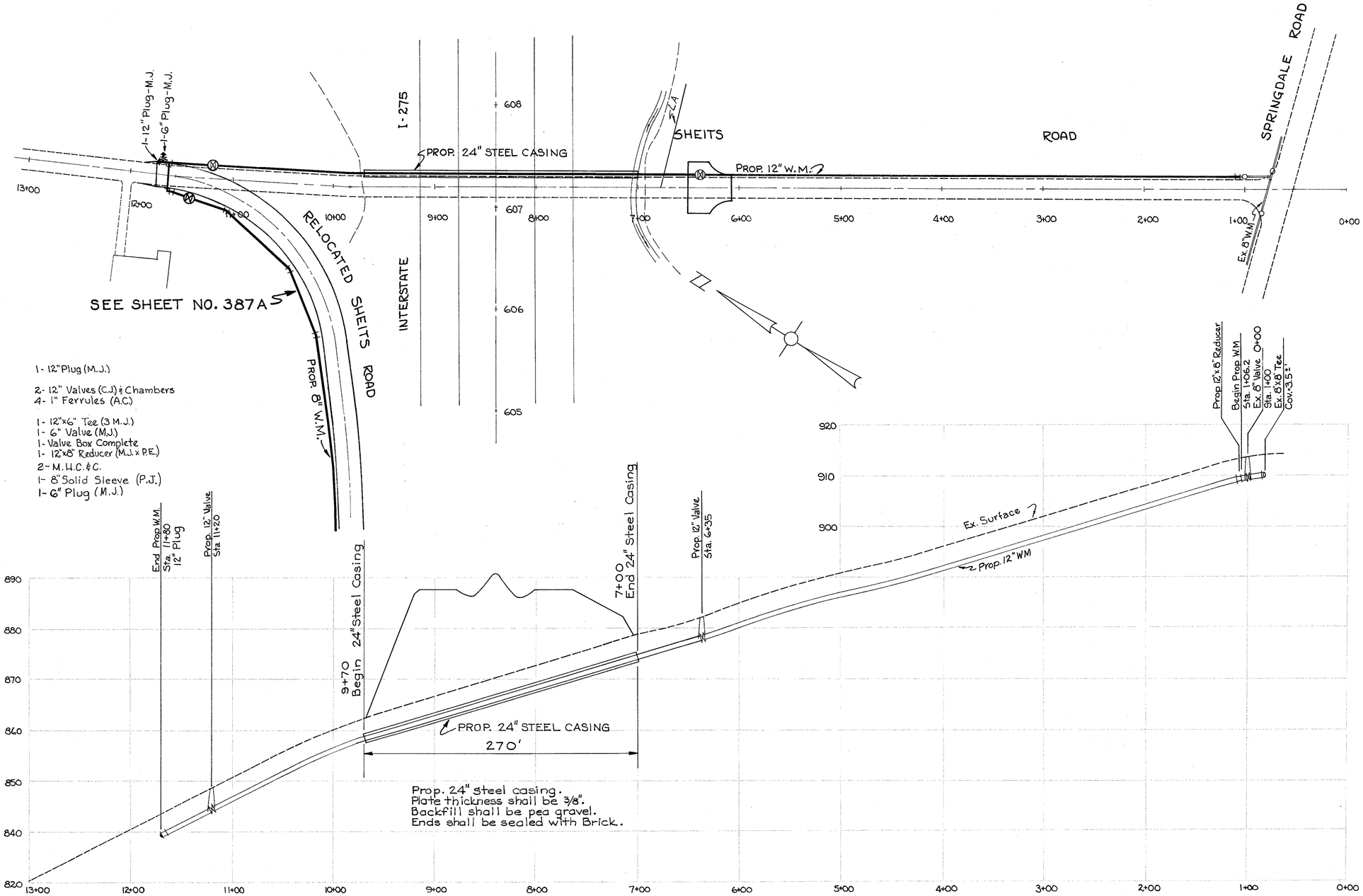
SPRINGDALE ROAD STA. 17+00 TO 29+50

DRAWING No. D-332-G
SCALE: 1" = 50'
SHEET No. 4 OF 11

FED. RD DIVISION	STATE	PROJECT	
2			

387
468

HAM-275-13.91
HAMILTON COUNTY



PARTICIPATION
12" WATER MAIN
100% County

Prop. 24" steel casing.
Plate thickness shall be 3/8".
Backfill shall be pea gravel.
Ends shall be sealed with Brick.

Calc'd. . . JK. . . . . Date. 3-21-75
Checked. ELB. . . Date. 3-21-75

WATER WORKS PLANS

SHEITS ROAD

DRAWING NO. D-332-9
Scale = 50' Hor., 10' Vert.
Sheet No. 5 of 11

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

387A
468

HAM. 275-13.91
HAMILTON COUNTY

Calc'd. JK Date. 3-21-75
Checked. EJB Date. 3-21-75

Thom. S. Flynn
2-6-73

SHEITS ROAD

BREHM ROAD

1-8" Plug - C.J.
1-8"x6" Tee - 3 M.J.
1-6" Valve - C.J.
1-Valve Box Complete
6" Fire Hydrant relocated from 726+00 Colerain Ave.

PROP. 8" W.M.

510-240-26

510-240-32

2-8"45° Bends - 2 M.J.
1-8" Valve - C.J.
1-8" Valve Chamber
1-M.H.C.&C.
2-1" Ferrules

510-240-25

1-8"x6" Tee - 3 M.J.
1-6" Plug M.J.

510-240-24

1-8"x6" Tee - 3 M.J.
1-6" Plug M.J.

510-190-25

510-190-24

Sec. 21 T2 E.R.1
Sec. 15 T2 E.R.1

510-190-161

1-8" 90° Bend - 2 M.J.
1-8" Valve - C.J.
1-8" Valve Chamber
1-M.H.C.&C.
2-1" Ferrules

510-190-160

4-8" 22½° Bends - 2 M.J.

510-190-159

1-12"x8" TEE - 3 M.J.

R/W

LA

L.C. Reloc. Sheits Road

LA-R/W

PROPOSED 12" W.M.

INTERSTATE I-275

E.B.
D.H.

12-72

595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610

8" Valve & Chamber

8"x6" Tee

PROP. 8" W.M.

EX. GRD. PROFILE

PROP. PROFILE

3.5' MIN. COV.

930 920 910 900 890 880 870 860 850

20 12 21 11 22 10 23 9 24 8 25 7 26 6 27 5 28

Prop. 8" Plug

STA. 52+50 TO 55+00

13 14 15

870 860 850 840 830 820

28 4 29 3

30 2 31 1 32 0 33

WATER SUPPLY LINE № 2334

COLERAIN TOWNSHIP SECTION 21, T.3, E.R.1.

BREHM ROAD

HAMILTON COUNTY SANITARY ENGINEERING DEPT.

APPROVED

ALAN MONTAGUE - SANITARY ENGINEER

Drawing No. D-332-G
Scale: 1" = 50'
Sheet No. 6 OF

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

388 / 468

HAM. 275-13.91
HAMILTON COUNTY

PARTICIPATION

8" WATER MAIN
100% County

12" WATER MAIN (TEMPORARY)
100% County

30" WATER MAIN
100% County

Calc'd. J.K. Date 3-21-75
Checked E.L.B. Date 3-21-75

See Sheet 8 of 11

REVISED DATE 8-22-75

WATER WORKS PLANS

COLERAIN AVE.

Drawing No. D-332-G
Scale: 1"=50'
Sheet No. 7 of 11

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

389
468

HAM. 275-13.91
HAMILTON COUNTY

Connections to the existing 30" W.M.
Shall be made only between
Oct. 1ST and April 1ST.

1-12" 22½° Bend-2 M.J.
4-12" 11¼° Bend-2 M.J.
1-12"x 8" Reducer-12" M.J. X 8" P.E.
1-8" Solid Sleeve-M.J.
1-8" Plug-M.J.
1-12"x 12" Tee-2 M.J. x FLG.
2-12" Valves-FLG. x M.J.
1-30"x12" R.C.P. Outlet
2-Valve Boxes
1-30" R.C. Cap (for SPS Pipe)

1-30"x 12" Flanged Outlet Chamber
1-6" Plug Clamp
1-12"x 8" Reducer-12" M.J. X. 8" P.E.
1-12" Valve Flg. x M.J.
1-M.H.C. & C
1-1" ferrule (A.C.)
1-6" Plug-P.J.

1-Relocate Ex. Fire Hydrant
(This 6" Fire Hydrant To Be Used
On Brehm Road At Station 54+00,
See Sheet 387-A.)

2-Adjust Ex. Val. Chambers to Grade

1-Remove Ex. F.H. Head

1-Plug Ex. 6" W.M.

1-Plug Ex. 8" W.M.

Abandon # 10093 H-195657 ¾" Br.

10161 H-220177 ¾" Br.

10201 H-199712 ¾" Br.

10152 H-195835 ¾" Br. F.O.D. 1-6-71

10166 H-200028 ¾" Br.

10134 H-195746 ¾" Br.

Prop. Temp. 12" W.M.

PROP. 12" W.M.

PROP. TEMPORARY 12" W.M.

Ex. 8" W.M.

Ex. 30" W.M.

Ex. 8" G.M.

Prop. 30" W.M.

Sta. 723+70
30" Cap.

Abandon Ex. 8" W.M.

2-Remove Ex. Valve Box
3-Remove Ex. M.H.C. & C.

724+23.00 AHEAD =
724+35.36 BACK
13.1 Rt.

Ex. RAMP F

Ex. LA

End Prop. 30" W.M. Ex. SP-5 Spigot
725+29.10
℄ Elev. 866.39

720+04.00 AHEAD =
720+10.73 BACK
65 Rt.

720+47
65 Rt.

722+65
65 Rt.

723+70
65 Rt.

1-Plugging Exist. 30" W.M. and Fittings
1-Excavating For 30"x 12" Tapping Sleeve and Valve

NOTE:
Cincinnati Furnishes and Installs Tapping Sleeve and Tap the 30" Water Main.

NOTE: The size of the excavation for the 30"x12" connection shall be 5'-7" x 13'-3". The excavation shall extend to 18" in back of and 18" below the 30" R.C.P.

WORKING PRESSURE 82#

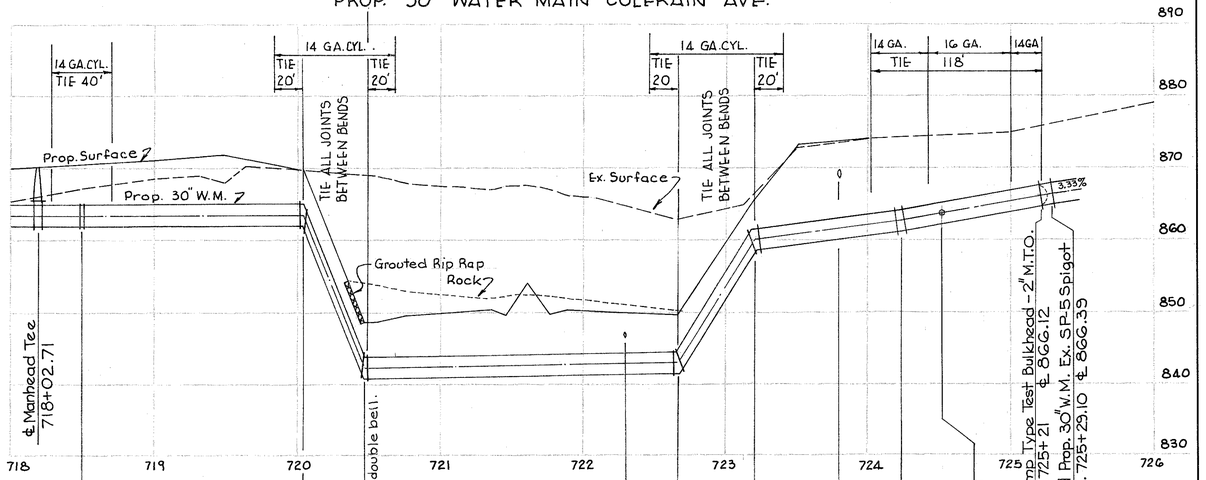
PARTICIPATION
12" WATER MAIN (TEMPORARY)
(100% County)

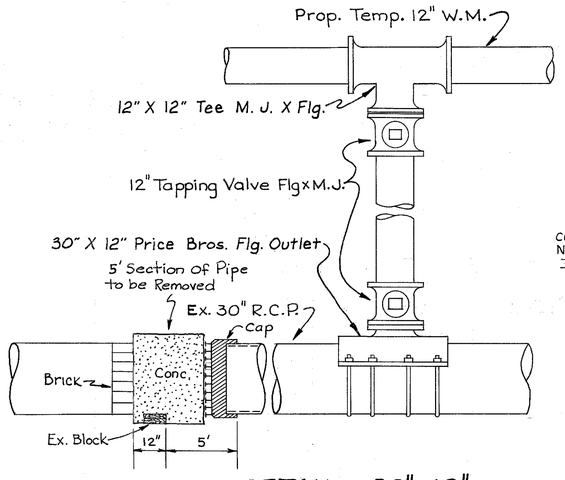
30" WATER MAIN
100% County

LAY BELLS TO CLOSURE | LAY BELLS TO CLOSURE

Calc'd.... J.K. .... Date.. 3-21-75...
Checked. E.E.B. .... Date.. 3-21-75...

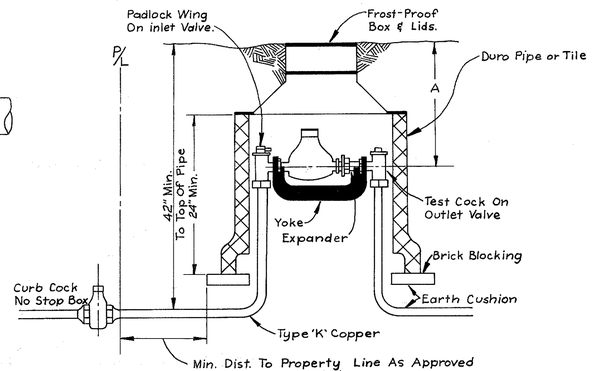
PROP. 30" WATER MAIN COLERAIN AVE.





DETAIL 30" CAP
STA. 723+70

DETAIL - 30"x12" CONNECTION



Meter to be set at right angles to Right-Of-Way and must be level and centered with yoke valves upright.

Frost-Proof Setting in an embankment may require a retaining wall.

When a meter smaller than the branch size is used, the pipe reducer shall be located on the riser within 4" of the inlet valve.

Meter box cover to be Ford Meter Box Co. No. W-3 or an approved equal.

Meter Size	Tile or Duro Pipe Dia	A
5/8", 3/4", 1"	20"	15"- 19"

STANDARD OUTSIDE METER SETTING FOR 5/8", 3/4" AND 1" METERS

WATER WORKS PLANS

COLERAIN AVE.

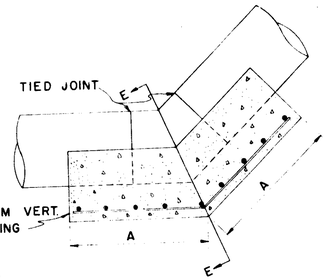
DRAWING No. D-332-G
SCALE: 1" = 50'
SHEET No. 8 OF 1'

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

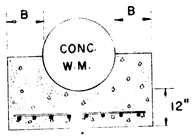
390
468

HAM. 275 - 13.91

NOTE:
PRESSURE RANGES AS SHOWN ARE OPERATING PRESSURES. CONCRETE AND STEEL QUANTITIES ARE CALCULATED USING OPERATING PRESSURE PLUS 50 P.S.I.



NOTE:
CONCRETE BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH ON THE THRUST SIDE.

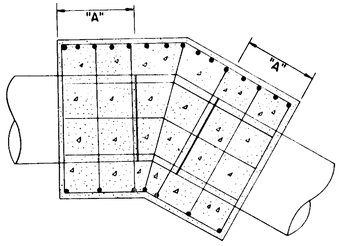


BOTTOM VERT.
SECTION E - E

3/4" REINFORCING BARS, TO BE PLACED ON THRUST SIDE 6" O.C.

NOTE:
THE "A" DIMENSION IS BASED ON A MINIMUM OF 12" FROM THE END OF THE CONCRETE BLOCK TO THE FACE OF THE BELL RING MEASURED ALONG THE CENTER OF THE PIPE.

NOTE:
"A" DISTANCE IS THE DIMENSION FROM THE END OF THE CONCRETE BLOCK TO THE FACE OF THE BELL RING.



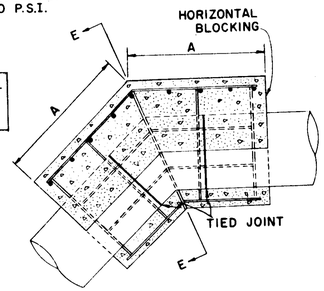
NOTE:
PRESSURE RANGES AS SHOWN ARE OPERATING PRESSURES. CONCRETE AND STEEL QUANTITIES ARE CALCULATED USING OPERATING PRESSURE PLUS 50 P.S.I.

TYPICAL BLOCKING DETAIL
CONCRETE PIPE BENDS
HORIZONTAL

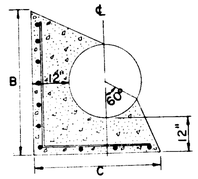
SIZE	75 TO 125 P.S.I.			
	A	B	CU YDS CONC.	LBS. STEEL
24	2'-0"	1'-0"	1.1	120
	2'-9"	1'-0"	1.4	160
	3'-2"	1'-0"	1.5	180
30	2'-3"	1'-0"	1.3	150
	2'-11"	1'-0"	1.6	190
	3'-5"	1'-0"	1.8	225

TYPICAL BLOCKING DETAIL
CONCRETE PIPE BENDS
BOTTOM VERTICAL

NOTE:
PRESSURE RANGES AS SHOWN ARE OPERATING PRESSURES. CONCRETE AND STEEL QUANTITIES ARE CALCULATED USING OPERATING PRESSURE PLUS 50 P.S.I.



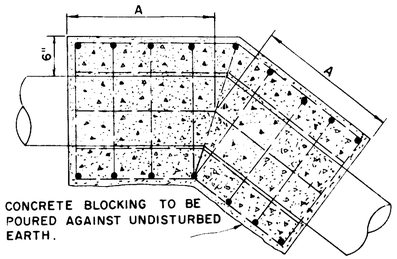
NOTE:
CONCRETE BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH ON THE THRUST SIDE.



HORIZONTAL
SECTION E-E

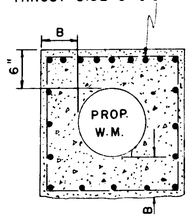
3/4" REINFORCING BARS TO BE PLACED 6" O.C. ON THRUST SIDE AND 12" O.C. ON BOTTOM.

SIZE	75 TO 125 P.S.I.					
	DEGREE BEND	A	B	C	CU YDS CONC.	LBS. STEEL
24	5° To 20°	2'-0"	4'-4"	3'-10"	1.1	120
	21° To 35°	2'-9"	4'-4"	3'-10"	1.5	230
	36° To 45°	3'-2"	4'-4"	3'-10"	1.6	255
30	5° To 20°	2'-3"	4'-11"	4'-5"	1.5	225
	21° To 35°	2'-11"	4'-11"	4'-5"	1.8	290
	36° To 45°	3'-5"	4'-11"	4'-5"	2.0	340



CONCRETE BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.

ALL BARS 3/4 ϕ 12" O.C. EXCEPT LONG BARS ON THRUST SIDE 6" O.C.



SIZE	DEGREE BEND	75 TO 125 P.S.I. A	B	CU YDS CONC.	LBS. STEEL
6	11 1/4	1'6"	0'9"	0.6	90
	22 1/2	2'6"	1'0"	1.3	168
	45	6'0"	1'0"	3.2	403
8	11 1/4	1'0"	0'9"	0.3	44
	22 1/2	1'6"	0'9"	0.4	67
	45	2'0"	1'0"	0.8	116
12	11 1/4	1'6"	0'9"	0.5	79
	22 1/2	2'0"	0'9"	0.6	105
	45	3'6"	1'0"	1.5	210

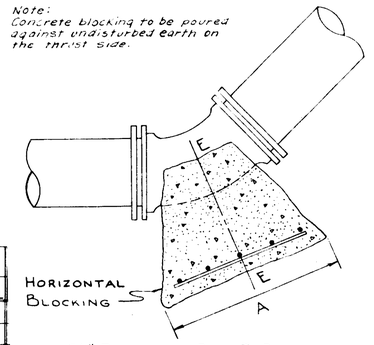
NOTE:
PRESSURE RANGES AS SHOWN ARE OPERATING PRESSURES. CONCRETE AND STEEL QUANTITIES ARE CALCULATED USING OPERATING PRESSURE PLUS 50 P.S.I.

SPECIAL REQUIREMENTS
1. WHERE THE DIMENSIONS INDICATED WILL NOT PERMIT THE BLOCKING TO BEAR AGAINST UNDISTURBED EARTH, WATER MAIN SHALL BE ENCASED AS SHOWN ON STANDARD DRAWING NO. 101-4.
2. WHERE THE DISTANCE BETWEEN CONCRETE BLOCKING FOR A TOP VERTICAL BEND AND BLOCKING FOR A BOTTOM VERTICAL BEND IS LESS THAN 3 FEET APART, STANDARD DRAWING NO. 101-4 SHALL APPLY.
3. THIS STANDARD DRAWING DOES NOT APPLY TO CREEK CROSSING, SEE STANDARD DRAWING NO. 105-1.

TYPICAL BLOCKING DETAIL
CAST IRON BENDS
TOP VERTICAL

Note:
Pressure ranges as shown are operating pressures
Concrete and steel quantities are calculated using operating pressure plus 50 P.S.I.

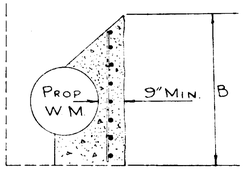
Note:
Concrete blocking to be poured against undisturbed earth on the thrust side.



3/4" REINFORCING BARS TO BE PLACED ON THRUST SIDE 6" O.C.

TYPICAL BLOCKING DETAIL
CAST IRON BENDS
HORIZONTAL

SIZE	DEGREE BEND	75 TO 125 P.S.I. A	B	CU YDS CONC.	LBS. STEEL
6	11 1/4	1'6"	1'6"	0.1	14
	22 1/2	1'6"	1'6"	0.1	14
	45	1'6"	1'6"	0.1	14
8	11 1/4	1'6"	1'9"	0.1	17
	22 1/2	1'6"	1'9"	0.1	17
	45	2'0"	1'9"	0.2	20
12	11 1/4	1'6"	2'0"	0.2	20
	22 1/2	2'0"	2'0"	0.2	24
	45	3'6"	2'6"	0.4	45

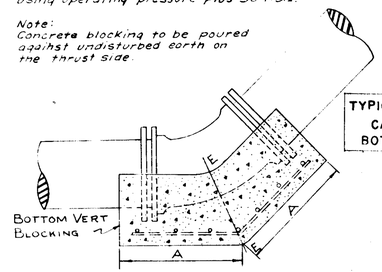


HORIZONTAL
SECTION E-E

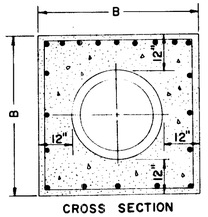
SIZE	DEGREE BEND	75 TO 125 P.S.I. A	B	CU YDS CONC.	LBS. STEEL
6	11 1/4	0'2	1'0	„9.0	„0.1
	22 1/2	0'2	1'0	„9.0	„0.1
	45	0'2	1'0	„9.0	„0.1
8	11 1/4	9'1	1'0	„9.0	„0.1
	22 1/2	9'1	1'0	„9.0	„0.1
	45	9'1	1'0	„9.0	„0.1
12	11 1/4	1'0"	0'6"	0.2	25
	22 1/2	1'0"	0'6"	0.2	25
	45	2'0"	0'6"	0.4	46

Note:
Pressure ranges as shown are operating pressures.
Concrete and steel quantities are calculated using operating pressure plus 50 P.S.I.

Note:
Concrete blocking to be poured against undisturbed earth on the thrust side.



TYPICAL BLOCKING DETAIL
CAST IRON BENDS
BOTTOM VERTICAL



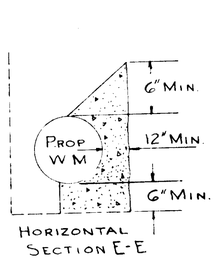
CROSS SECTION

TYPICAL BLOCKING DETAIL
CONCRETE PIPE BENDS
TOP VERTICAL

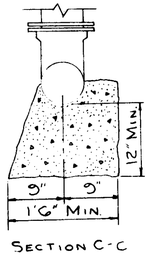
SIZE	75 TO 125 P.S.I. A	B	CONC. CY/LIN.FT.	STEEL LBS./LIN.FT.
24	1'-6"	4'-4"	0.53	65
30	1'-6"	4'-11"	0.65	75

3/4" REINFORCING BARS TO BE PLACED 6" O.C. ON THRUST SIDE AND 12" O.C. ON REMAINING SIDES.

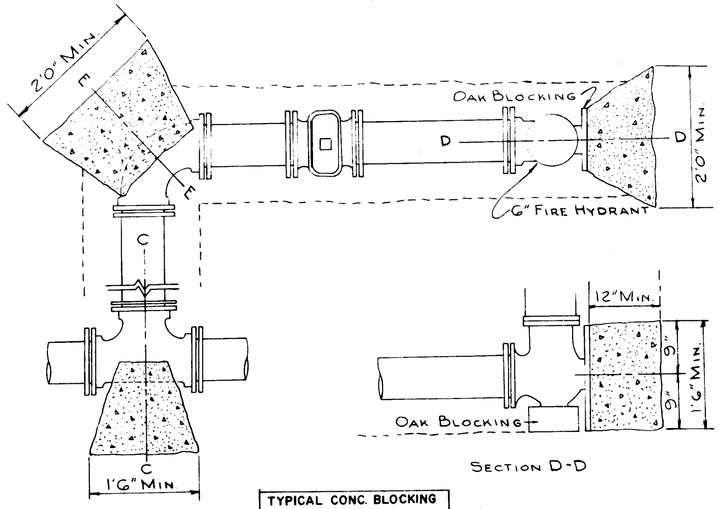
NOTE:
THE CONCRETE BLOCKING, FOR A GIVEN PIPE SIZE, HAS THE SAME DIMENSIONS FOR ANY BEND DEFLECTION TO 45° IN EACH OF THE PRESSURE RANGES.



HORIZONTAL
SECTION E-E



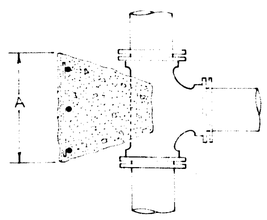
SECTION C-C



TYPICAL CONC. BLOCKING
FOR
FIRE HYDRANT SETTING

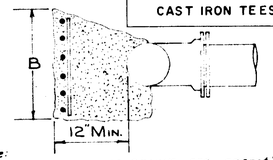
SECTION D-D

Note:
Refer to blocking of bends and tees for placement of reinforcing steel.



CONC. BLOCK TO BE POURED AGAINST SOLID GROUND.

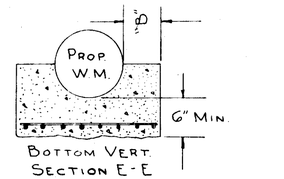
TYPICAL BLOCKING DETAIL
CAST IRON TEES



Note:
Pressure ranges as shown are operating pressures.
Concrete and steel quantities are calculated using operating pressure plus 50 P.S.I.
Note:
Concrete blocking to be poured against undisturbed earth on the thrust side.

SIZE			75 TO 125 P.S.I.			
RUN	BRANCH	A	B	CU YDS CONC.	LBS. STEEL
6	6	2'0"	1'6"	0.1	20
8	6	2'0"	1'9"	0.1	20
12	6	2'0"	2'0"	0.2	25

3/4" REINFORCING BARS TO BE PLACED ON THRUST SIDE 6" O.C.



BOTTOM VERT.
SECTION E-E

SPECIAL REQUIREMENTS
1. WHERE THE DISTANCE BETWEEN CONCRETE BLOCKING FOR A TOP VERTICAL BEND AND BLOCKING FOR A BOTTOM VERTICAL BEND IS LESS THAN 3 FEET APART, STANDARD DRAWING NO 101-4 SHALL APPLY.
2. THIS STANDARD DRAWING DOES NOT APPLY TO CREEK CROSSING, SEE STANDARD DRAWING NO. 105-1.

WATER WORKS PLANS

STANDARDS

DRAWING No. D-332-G
SCALE: 1" = 50'
SHEET No. 9 OF 11

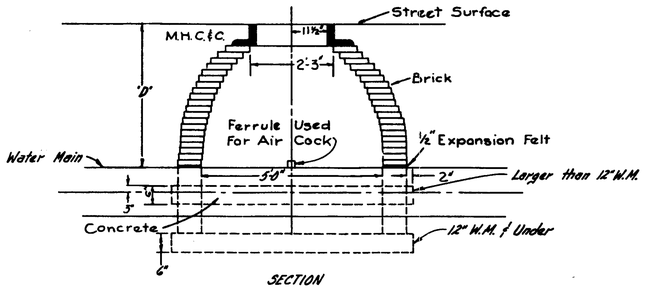
Restoration Class	TYPICAL RESTORATION SECTIONS	Backfill
I-R CONCRETE ROADWAY	3" Min. Saw Cut - Both Edges; 5/8"x1'-0" Tie Bar 5'-0" O.C.; 6"; Ex. Conc. Pav't.; 6"; 3" Variable; 3"; Granular Backfill Item 310; Class "C" Conc. With 78# - 100# Road Mesh; Unless At Existing Joint With a Minimum Of 3' Width	GRANULAR MATERIAL / 310 GRADATION GRADE "A"
I-D CONCRETE DRIVEWAY	3" Min. Saw Cut - Both Edges; 5/8"x1'-0" Tie Bar 5'-0" O.C.; 6"; Exist. Conc. Pav't.; Exist. Conc. Dr.; 6"; 3" Variable; 3"; 6"; Granular Backfill Item 310; Class "C" Conc. With 78# - 100# Road Mesh; Unless At Existing Joint With a Minimum Of 3' Width	GRANULAR MATERIAL / 310 GRADATION GRADE "A"
2 BRICK OR BLOCK PAVEMENT	1" 404 Asphalt Conc. Surface Course; 1-1/2" 402 Asphalt Conc Leveling Course; 6"; Exist. Asphalt Conc. Surface; 5/8"x1" Tie Bar 5"O.C.; 6"; Exist. Conc. Base; Sand Cushion; 3"; 3"; Class "C" Conc. With 78# - 100# Road Mesh; Variable; Gran. Backfill Item 310; If Existing Base Is Bituminous Or Aggregate Delete The 5/8" Tie Bars; Unless At Exist. Joint With a Minimum Of 3' Width	GRANULAR MATERIAL / 310 GRADATION GRADE "A"
3 ASPHALT OR BITUMINOUS MATERIAL ON CONCRETE BASE	3" Min. Saw Cut - Both Edges; 2" 404 Asphalt Conc. Surface Course; Exist. Mac.; 5/8"x1'-0" Tie Bar 5'-0" O.C.; Exist. Conc. Base; 6"; 3" Variable; 3"; 6"; Class "C" Conc. With 78# - 100# Road Mesh; Unless At Existing Joint With a Minimum Of 3' Width	GRANULAR MATERIAL / 310 GRADATION GRADE "A"

Restoration Class	TYPICAL RESTORATION SECTIONS	Backfill
4-R BITUMINOUS MACADAM ON STONE BASE	3" Min. Saw Cut - Both Edges; Item 404 - 2" Asphalt Concrete (70-85 or AC-20); Exist. Bituminous Conc.; Exist. Bituminous Conc.; Variable; Granular Backfill Item 310; Item 301 2-4" Courses Bituminous Aggregate Base; Unless At Exist. Joint With a Minimum Of 3' Width	GRANULAR MATERIAL / 310 GRADATION GRADE "A"
4-D MACADAM DRIVE	3" Min. Saw Cut - Both Edges; Item 404-2" Asphalt Concrete (70-85 or AC-20); Exist. Bituminous Concrete Drive; Exist. Bituminous Concrete Drive; Variable; Granular Backfill Item 310; Item 301-4" Bituminous Aggregate Base; Unless At Exist. Joint With a Minimum Of 3' Width	GRANULAR MATERIAL / 310 GRADATION GRADE "A"
5-D GRAVEL SURFACE DRIVE	3" Gravel Or Chips; Exist. Road; Edge Of Rd.; Exist. Gravel Drive; Item 304 Base Course 2-4" Courses	GRANULAR MATERIAL / 310 GRADATION GRADE "A"
6 SIDEWALK	Replace Entire Block; 5" Concrete Walk; Exist. Surface; Exist. Surface; Class "C" Concrete	GRANULAR MATERIAL / 310 GRADATION GRADE "A"

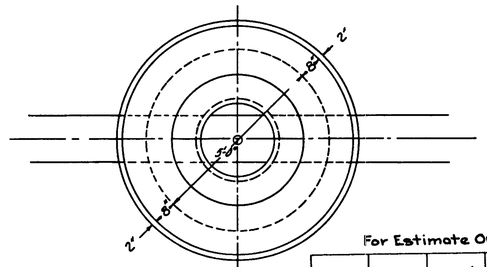
Restoration Class	TYPICAL RESTORATION SECTIONS	Backfill
8-A DITCH LESS THAN 2' BUT NOT ADJACENT TO EDGE OF PAVEMENT ALSO ROAD UNDER CONSTRUCTION OR PROPOSED CONSTRUCTION	Edge Of Road; Less Than 2'*; Restore Surface To Original Condition Or Better.; Existing Or Proposed Surface.; Ex. Rd.; *If 1' Or Less, a Pavement Section Shall Be Utilized As Directed By The County Engineer.	GRANULAR MATERIAL / 310 GRADATION GRADE "A"
8-B UNIMPROVED AREA	Over 2'; Restore Surface To Original Condition Or Better.; Ex. Rd.; Ex. Surface; Edge Of Road	EXCAVATED MATERIAL (COARSE FILL) Or GRANULAR MATERIAL
9 SODDED AREA	Over 2'; Sod Or Seed (As Req'd.); Ex. Sod; Ex. Rd.; 3" Top Soil; Edge Of Road	EXCAVATED MATERIAL (COARSE FILL) Or GRANULAR MATERIAL
10 DITCH ADJACENT TO EDGE OF PAVEMENT	Item 404-2" Asphalt Conc. (70-85 or AC-20); Exist. Rd.; Variable; Granular Backfill Item 310; Item 301-2-4" Courses Bituminous Aggregate Base.; Unless At Exist. Joint With a Minimum Of 3' Width.	GRANULAR MATERIAL / 310 GRADATION GRADE "A"

BACKFILL CROSS SECTION	METHOD DESIGNATION	FOR NOMINAL PIPE SIZES	PIPE AREA	BALANCE OF BACKFILL
4" 6" 6" 4"	A	UNDER 12"	EMBEDMENT MATERIAL	GRANULAR MATERIAL
BALANCE OF BACKFILL; PIPE AREA; 4" 6" 6" 4"	B	UNDER 12"	EMBEDMENT MATERIAL	COARSE FILL
4" 6" 6" 4"	A	12" & 16"	EMBEDMENT MATERIAL	GRANULAR MATERIAL
4" 6" 6" 4"	B	12" & 16"	EMBEDMENT MATERIAL	COARSE FILL
4" 6" 6" 4"	A	20" & OVER	EMBEDMENT MATERIAL	GRANULAR MATERIAL

TYPICAL RESTORATION SECTIONS IN HAMILTON COUNTY, OHIO BUT OUTSIDE CORPORATION LIMITS OF CITY OF CINCINNATI



SECTION



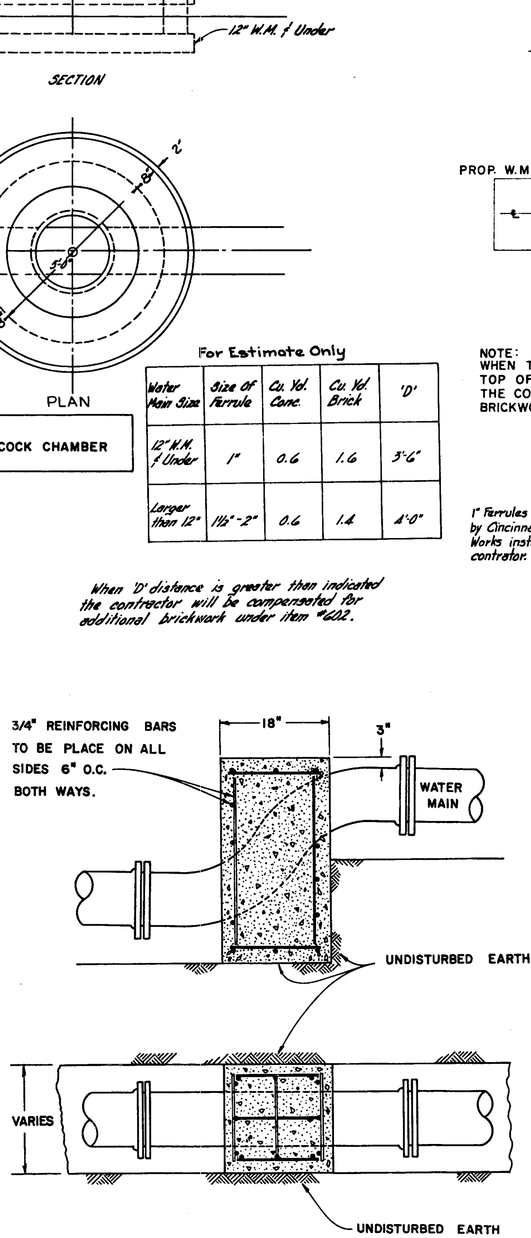
PLAN

AIR COCK CHAMBER

For Estimate Only

Water Main Size	Size Of Ferrule	Cu. Yd. Conc.	Cu. Yd. Brick	'D'
12" W.M. & Under	1"	0.6	1.6	3'-6"
Larger than 12"	1½"-2"	0.6	1.4	4'-0"

When 'D' distance is greater than indicated the contractor will be compensated for additional brickwork under item #602.

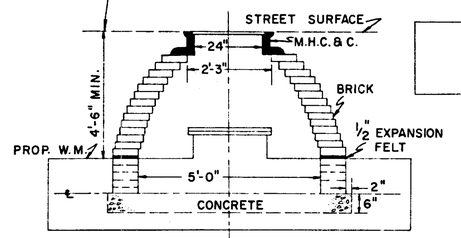


FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

391
468

HAM. 275-13.91
HAMILTON COUNTY

NOTE:
RECTANGULAR CHAMBER TO BE BUILT WHEN DISTANCE SHOWN IS LESS THAN 4'-6"



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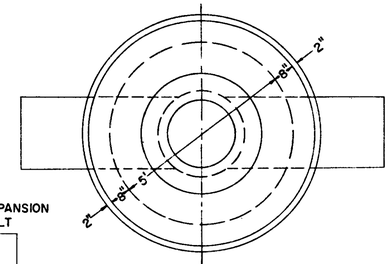


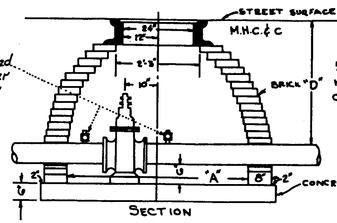
PLAN

FOR ESTIMATE ONLY

VOLUME OF CONCRETE	VOLUME OF BRICK
0.6 CU.YD.	1.6 CU.YD.

STANDARD MANHEAD CHAMBER

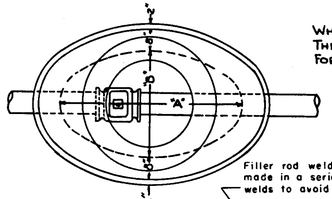
NOTE:
WHEN THE DISTANCE FROM THE STREET SURFACE TO THE TOP OF THE PROPOSED WATER MAIN IS GREATER THAN 4'-6" THE CONTRACTOR WILL BE COMPENSATED FOR ADDITIONAL BRICKWORK UNDER ITEM #602.



SECTION

SIZE OF VALVE	A	B	D	Conc. Cu. Yds.	Back Cu. Yds.
4"-6"-8"	5'-0"	5'-0"	3'-6"	0.5	1.3
10"-12"	5'-0"	5'-0"	5'-6"	0.6	1.6

WHEN "D" DISTANCE IS GREATER THAN 3'-6" THE CONTRACTOR WILL BE COMPENSATED FOR ADDITIONAL BRICKWORK UNDER ITEM #602.

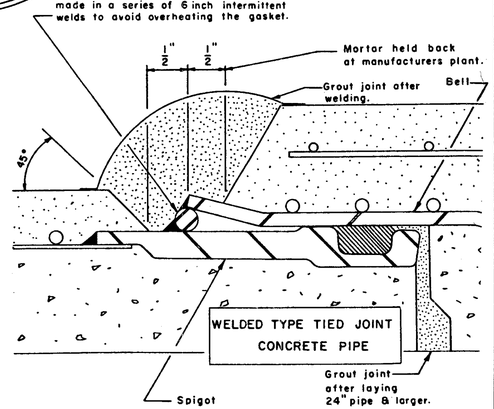


VALVE CHAMBER 4" TO 12"

FOR ESTIMATING ONLY

PIPE SIZE	CU. YD. CONC.	LBS. STEEL
4"	.2	69
6"	.2	69
8"	.2	69
10"	.25	83
12"	.3	88

CAST IRON OFFSET BENDS OVER 100 P.S.I.



WATER WORKS PLANS

RESTORATION SECTIONS & STANDARDS

Drawing No. D-332-G
Scale : As Shown
Sheet No. 10 of 11

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

392
468

HAM. 275-13.91
HAMILTON COUNTY

The Following List Is A Suggested Bill of Material Necessary To Perform The Water Main Work As Proposed On The Drawings. The Contractor Shall Furnish Additional Material Where Needed. No Allowance Will Be Made For Unused Material Nor Will Any Extra Payment Be Made For Additional Specials Required To Complete The Water Main Work. The Contractor Is Responsible For Making His Own Field Measurements Before Ordering Material

NOTE:
‡ 61.73% County = 100% = County
38.27% Project = 90% = Federal, 10% = State

Project Participation: Federal 90%; State 10%

GENERAL SUMMARY CODE TYPE YOGO

BILL OF MATERIAL
CODE TYPE Y060
Quantities for Estimating Purposes Only - By Contractor

SHEITS RD. 8" W.M.	BLUE ROCK RD.	SPRINGDALE RD.	SHEITS RD. 12" W.M.	COLERAIN AVE.		
			58.6	54.4	113 Lengths	12" C.I.P. Class 25, C.J. - 18' long
81	54.5	97.5		35	268 Lengths	8" C.I.P. Class 23, C.J. - 18' long
0.3	1.0	6.0	0.3	1.4	9 Lengths	6" C.I.P. Class 22, C.J. - 18' long
				2	2 each	12" 45 Bends - 2 M.J.
1		2			3 each	8" 90 Bends - 2 M.J.
				5	5 each	12" 11¼° Bends -2 M.J.
2	1	2		4	9 each	8" 45 Bends -2 M.J.
4	3			1	8 each	8" 22½ Bends - 2 M.J.
				2	2 each	8" 11¼ Bends - 2 M.J.
	1	1			2 each	8" Offset Bends - M.J. x P.E.
	2	6		1	9 each	6" 90 Bends - 2 M.J.
			1		1 each	12" Plug - M.J.
1				1	2 each	8" Plug -(1-M.J. & 1-C.J.)
2			1	1	4 each	6" Plug -(3-M.J. & 1-P.J.)
				1	1 each	6" Plug Clamp
			1	2	3 each	12" x 8" Reducers - 12" M.J. X 8" P.E.
				1	1 each	12" Solid Sleeve - M.J.
	2	2	1		5 each	8" Solid Sleeve - P.J.
				4	4 each	8" Solid Sleeve - M.J.
			1		1 each	12" x 6" Tee - 3 M.J.
3	2	6		1	12 each	8" x 6" Tee-(8- 3M.J., 3-8" M.J. X 6" Flg.)
			2		2 each	12" Valve - C.J.
				3	3 each	12" Valve - Flg. x M.J.
2	2	1		2	7 each	8" Valve - C.J.
		2			2 each	8" Valve - Flg. x M.J.
1	2	3		1	11 each	6" Valve-(7-C.J., 3 Flg X M.J., 1-M.J.)
2	2	3	2	5	14 each	M.H.C. & C.
1	2	6	1	3	13 each	Valve Box complete
1				1	1 each	12" x 12" Tee, 2 M.J. x Flg.
				1	1 each	12" x 8" Tee, 3 M.J.
				2	2 each	12" 22½° Bend, 2 M.J.

					SERVICE BRANCH MATERIAL FURNISHED BY C.W.W.
		2			2 each 1" Copper to Copper Coupling
		72			72 Lin.ft. 1" Copper Service Pipe
				10	10 Lin.ft. 2" Copper Service Pipe
	130	313		248	691 Lin.ft. ¾" Copper Service Pipe
	4	17		5	26 each ¾" Ferrules
4	4	5	4	6	23 each 1" Ferrules
		2		2	4 each 2" Ferrules
	4	14		4	22 each ¾" Stop Cocks
		2			2 each 1" Stop Cocks
	4	17		4	25 each ¾" x ¾" Copper to Copper Couplings
	2	14		4	20 each Curb Box
				1	1 each 8" x 2" Service Saddle
				1	1 each 2" x 2" Copper to Copper Coupling

GENERAL PROVISIONS

Water main items are to be constructed in accordance with the provisions of the State of Ohio, Department of Transportation, Construction and Material Specifications, and modified by the City of Cincinnati Supplement to said State of Ohio Specifications, effective January 1, 1975 and any supplements or changes thereto. Copies of these Specifications are on file at the Office of Contract Sales of the State Highway Department, 25 South Front Street, Columbus, Ohio and at the Offices of the City Engineer of Cincinnati, Ohio.

A cushion of 12" shall be maintained between the proposed water mains and the existing sewers, inlet connections and drains. If a greater clearance is desired, it will be so designated. Building sewer laterals are not to be disturbed or trapped. Existing drains, sewers and culverts are not to be disturbed. If the water main is to be under culverts or pipe sewers, they shall be tunneled and backfilled with Class "T" concrete.

It shall be the contractor's responsibility to arrange for removal and replacement of any poles and guys necessary for the installation of the proposed water mains and any cost connected thereto shall be his expense.

All instructions shall be worked through the Project Engineer. All water main work shall be done under the direction, supervision, and inspection of the Cincinnati Water Works and the Project Engineer.

Calc'd... J.K. ..Date. 3-21-75
Checked. E.R.B. .Date. 3-21-75

No extra payment will be made for lead joints.

No part of any fire hydrant setting shall be installed closer than five feet to any driveway, inlet, utility pole or guy wire anchor.

All restorations within this area shall conform to the State of Ohio, Department of Transportation, "Construction and Material Specifications" and C.W.W. Standard Drawings pertaining to Street Restoration.

The concrete pipe and specials will be delivered, by the pipe fabricator, to any spot designated by the contractor which is accessible by "over the road" Tractor trailer.

SPECIAL PROVISIONS

The Cincinnati Water Works will furnish all ferrules required. The contractor will be responsible for their proper installation.

Connections to the existing 30" Water Main shall be made only between October 1st and April 1st.

CONCRETE PIPE MATERIAL FURNISHED BY CINCINNATI WATER WORKS

1468 Lin.ft.	30" R.C. Pipe - Cincinnati Class II
466 Lin.ft.	24" R.C. Pipe - Cincinnati Class II
1 each	30" x 12" Service Saddle for SP-5 R.C. Pipe
1 each	30" Cap for SP-5 R.C. Pipe

Item No.	Sheits Road Prop. 8" W.M. 100% County	Blue Rock Rd. Prop. 8" W.M. 100% Project	Springdale Rd. Prop. 24" W.M. 38.27% Project ‡ 61.73% County	Springdale Rd. Prop. 8" W.M. 100% Project	Sheits Rd. Prop. 12" W.M. 100% County	Colerain Ave. Prop. 30" W.M. 100% County	Colerain Ave. Temp. 12" W.M. 100% County	Colerain Ave. Prop. 8" W.M. 100% County	PARTICIPATION: 100% COUNTY TOTAL	PARTICIPATION: PROJECT TOTAL	PARTICIPATION: ‡ 61.73% COUNTY 38.27% PROJECT	GRAND TOTAL QUANTITY	UNIT	DESCRIPTION	City of Cincinnati ITEM NO.
Special						1468			1468			1468	Lin.ft.	Laying 30" Reinforced Concrete Pipe and Fittings	1101
"			466								466	466	Lin.ft.	Laying 24" Reinforced Concrete Pipe and Fittings	1101
"					1060	28			1088			1088	Lin.ft.	Furnishing and Laying 12" C.I.P. and Fittings	1101
"	1450	985		1755				630	2080	2720		4800	Lin.ft.	Furnishing and Laying 8" C.I.P. and Fittings	1101
"	6	18		45	6			26	38	63		101	Lin.ft.	Furnishing and Laying 6" C.I.P. and Fittings	1101
"							1		1			1	Each	Plugging existing 30" Water Mains and Fittings	1105
"								1	1			1	Each	Furnishing and Installing 8" Plug in existing W.M. and Fittings	1105
"								1	1			1	Each	Furnishing and Installing 6" Plug in existing W.M. and Fittings	1105
"					270				270			270	Lin.ft.	Furnishing and Installing 24" Steel Casing	1108
"	2	3	16	5	6	17	3	10	38	8	16	62	Cu.yds.	Concrete, Class 'C'	1110
"		2		1				2	2	3		5	Cu.yds.	Concrete Class 'C' High Early Strength	1110
"		1		1	1	1			2	2		4	Cu.yds.	Concrete, Class 'T'	1110
"							1		1			1	Each	1" Air Cock Chamber on 12" W.M.	1111
"					2				2			2	Each	12" Valve Chamber	1111
"	2	2		1				2	4	3		7	Each	8" Valve Chamber	1111
"						1			1			1	Each	30" Manhead Chamber	1111
"						1			1			1	Each	30" x 12" Flanged Outlet Valve Chamber	1111
"				2						2		2	Each	24" x 8" Flanged Outlet Valve Chamber	1111
"		2		6				2	2	8		10	Each	Relocating existing Fire Hydrant	1113
"							1		1			1	Each	Excavating for 30" x 12" Tapping Sleeve and Valve	1109
"								3	3			3	Each	Removing Fire Hydrant	1114
"	1	2		6	1		2	1	5	8		13	Each	Furnishing and Installing Valve Box Complete	1116
"						24			24			24	Each	Field Welding Tied Joint 30" Diameter	1117
"			26								26	26	Each	Field Welding Tied Joint 24" Diameter	1117
"		2		1				2	2	3		5	Cu.yds.	Additional Excavation	1119
"		3						3	3	3		6	Cu.yds.	Filling Abandoned Water Works Chamber	1121
"								3	3			3	Each	Removing existing Manhole Curb and Cover	1122
"				50				50	50	50		100	Lin.ft.	Changing Pipe Sewer 12" and under	1123
"							950		950			950	Lin.ft.	Furnishing, Installing, and Maintaining Temp. 12" Water Mains	1124
"								10	10			10	Lin.ft.	Hauling, Installing, and Connecting 2" Copper Service Pipe	1126
"		130		385				248	248	515		763	Lin.ft.	Hauling, Installing, and Connecting ¾" & 1" Copper Service Pipe	1126
"				100						100		100	Lin.ft.	Lowering existing ¾" Thru 1" Service Branches	1127
"				60						60		60	Lin.ft.	Furnishing, Installing and Maintaining Temp. 6" Water Mains	1124
"		2		15				4	4	17		21	Each	Hauling and Installing Curb and Roadway Boxes	1131
"		3		4				3	3	7		10	Each	Relocating existing ⅝" Thru 1" Frost-Proof Meter Setting	1134
"		1		2						3		3	Each	Resetting existing ⅝" Thru 1" Frost-Proof Meter Setting	1135
Special						10			10			10	Cu.yds.	Special Excavation	204
509	136	200	1990	292	455	1835		1465	3891	492	1990	6373	Lbs.	Reinforcing Steel	509
Special			30			7			7		30	37	Sq.yds.	Grouted Riprap	601
"								1	1			1	Cu.yds.	Brick Masonry	602
"								2	2			2	Each	Valve Chamber adjusted to grade	604
Special		1		1	1	1		1	3	2		5	MFBM	Sheeting and Bracing ordered left in place	626
"				1				2	2	1		3	Each	Reset Ex. Curb and Roadway Boxes	1132
"								1	1			1	Each	Hauling & Installing ¾" Stop Cocks in Ex. Line	1129
"								1	1			1	Each	Reconnecting Ex. ¾" & 1" Copper Service Branches	1128
Special								1	1			1	Each	Reconnecting Ex. 1½" & 2" Copper Service Branches	1128

WATER WORKS PLANS GENERAL PROVISIONS & GENERAL SUMMARY

DRAWING No. D-332-G
SCALE: NONE
SHEET No. 11 of 11

LIGHTING INDEX SHEET

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

393
468

HAM-275-13.91
HAMILTON COUNTY

LEGEND

- Proposed Light Pole, 400 Watt 34.2' Mtg. Hgt.
- Future Light Pole, 400 Watt 34.2' Mtg. Hgt.
- Proposed Light Pole, 700 Watt 41.7' Mtg. Hgt.
- Future Light Pole, 700 Watt 41.7' Mtg. Hgt.
- Proposed Underpass Luminaire, 250 Watt
- Proposed Pull Box
- Proposed Duct-Cable
- Proposed Conduit 3"
- Proposed Conduits 2"
- Proposed Power Source
- Proposed Illuminated Overhead Signs
- B — Bridge Grounding

DESIGN DATA

Clear Mercury Lamps
1.0 to 1.2 FC. AVG. Initial
4:1 Maximum Uniformity Ratio
120/240 &480 Volts Multiple Circuits

INDEX TO LIGHTING PLANS

Title Sheet _____ 1
General Notes_____ 2
General Summary ___ 3
Lighting Plan _____ 4-13
Sub-Summaries ____ 14-18
Details_____ 19-20

TYPICAL POLE IDENTIFICATION

(A) 2026+63(14) — III-400-B2-9 — (321)

- 2026+63 – Location Station
- (14) — Offset
- III — ANSI-IES Type Luminaire
- 400 — Lamp Watts
- B2 — Power Source and Circuit
- 9 — Light Standard Number
- (321) — Sub-Summary Reference Number
- (A) — Light Pole Code – See General Summary and Light Pole Data Table.

℄ 18"–4.5' — Proposed or Existing Drainage Pipe
18"- Pipe ϕ
4.5'- Approx. Depth of Flow Line Below Finished Grade

1
20

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

394
468

HAM-275-13.91
HAMILTON COUNTY

LIGHTING GENERAL NOTES

SPECIFICATIONS

These notes are supplemental to Items 625 and 713 of the State of Ohio Department of Transportation Construction and Material Specifications.

625.03 - GENERAL

The power supplying agency for this project is:

Cincinnati Gas & Electric Company
Fourth and Main Streets
Cincinnati, Ohio 45202

625.07 - 713.11 LUMINAIRES, EXCEPT UNDERPASS LUMINAIRES

1. 400-watt luminaires shall have dual rated 240/480 volt integral regulator ballasts and shall be General Electric M400, Westinghouse OV-25, McGraw-Edison "Unistyle," or equal approved by the Engineer.

2. 700-watt luminaires shall have single rated 480 volts 700-watt integral regulator ballasts and shall be General Electric M-1000, Westinghouse OV-50, McGraw-Edison "Unistyle," or equal approved by the Engineer.

DISTRIBUTION TRANSFORMERS

The distribution transformer installed on this project shall be single-phase with dual primary windings for 2400/7200-480 volts, 15 KVA, 60 Hz, self-cooled, oil-immersed, completely self-protected, 2 wire, one side grounded and provided with two, 2-1/2% taps both above and below the rated voltage tap.

625.08 - 713.14 LAMPS

Mercury lamps shall be General Electric "Bonus Line," Westinghouse "Lifeguard," Sylvania "Rough Service," or equal approved by the Engineer.

LIGHT POLE ANCHOR BOLTS FOR BRIDGES AND RETAINING WALLS

Anchor bolts for mounting light poles on bridges and retaining walls shall conform to the requirements of 713.01 and details shown on the plans and standard drawings, for the respective poles to be placed thereon. Payment shall be made at the unit price bid for each set of *the size required and necessary to install one pole, and this payment shall constitute full compensation for furnishing and placing the bolts.*

ELECTRICAL SERVICE FOR ILLUMINATED SIGNS

The pay items in the Lighting General Summary include the pull box or junction box adjacent to each lighted sign and the electrical service connections leading into the box, including connector kits in the pull box or junction box. Quantities for electrical service from the connector kits in the pull box or junction box to the sign are included in the Traffic Control General Summary.

CONNECTOR KITS

At the option of the Contractor, Type IX cable connections may be substited where Type II or III cable connections are specified in hand holes or transformer bases of light poles.

Type I through Type VII cable connections in pull boxes, junction boxes, and other enclosures below ground may be accomplished by use of either of the following:
1. A sleeve or tee cable connector conforming to the general requirements of Style "S" or "H", or other connecting device approved by the Engineer. The connector shall be installed in accordance with the manufacturer's directions and the connection shall be sealed and waterproofed with a high dielectric compound such as "Aqua Seal" as manufactured by KEARNEY, or equal approved by the Engineer. The sealing material shall be applied in accordance with the manufacturer's directions to make a water-tight connection. Connections not accomplished in-line or in Tee form shall be additionally protected by use of a high dielectric PVC, or other approved material, boot with an approved fastening device.
2. A pre-assembled kit, as manufactured by Joy or Bussman, or an approved equal, with a water-proof or water-tight rating acceptable to the Engineer.

CONDUIT ON STRUCTURES

Expansion fittings for conduit on structures shall be OZ Type AX, Crouse Hinds Type XJ-4, Appelton Type XJ-4, or equal approved by the Engineer for bridge numbers HAM-275-1392 L & R, HAM-275-1429, HAM-275-1604 and Relocated Springdale Road over relocated Blue Rock Road Each expansion fitting shall have a copper external bonding jumper.

CONDUIT (713.04) CONCRETE ENCASED

Where called for on the plans, conduit shall be encased with a specified thickness of Class "C" concrete.

Payment for furnishing and placing the concrete encasement and for any additional excavation required shall be included in the unit price bid per lineal foot of Item 625 "Conduit Type (713.04) Concrete Encased" to which it applies.

625 CONTROL CENTERS

Control center "BR" shall consist of a combination safety switch and lighting contactors in stainless steel enclosure, 3 pole, 600 V. 30 amp.
Control center "X" shall consist of a combination safety switch and lighting contactor in stainless steel enclosure, 3 pole, 250V, 30 amp.

Payment for Item 625 "Control Centers" will be made at the contract lump sum price in place, completed, and accepted, including wiring, terminals, connections, splicing, testing and all incidentals necessary.

DUCT CABLE PROTECTION

Where duct cable is run under guardrail and between guardrail posts in a flared area, it shall be protected against future damage per Std. Constr. Dwg. HL-12.

STANDARD CONSTRUCTION DRAWING HL-3

Pole base details shown on this drawing are essentially for galvanized steel poles. For aluminum designs, or other permitted steel material designs, variations from these details will be acceptable, as approved by the Engineer.

STANDARD CONSTRUCTION DRAWING HL-15

Weephole diameters of 1/8 inch shown on this drawing shall be increased to 1/4 inch.

HIGH VOLTAGE DIRECT CURRENT TEST

A High Voltage Test, as described in Supplemental Specification 839, shall be performed on all distribution cable, and duct cable systems installed on this project after all construction is completed, including guardrail, fences, delineator posts, signs, etc.

PLAN SPECIFICATION REFERENCES

References to Items 625 and 713 in these plans shall be considered to read as respective references to Items S625 and S713.

ITEM 625 TEMPORARY LIGHTING, AS PER PLAN

This item shall consist of providing lighting for temporary roadways numbered as follows

#1 - Sta. 1+00 to 12+00
#2 - Sta. 0+50 to 10+00
#3 - Sta. 0+00 to 16+00
#4 - Sta. 2+00 to 8+00
#5 - Sta. 1+50 to 6+00
#6 - Sta. 0+00 to 2+00

Should the contractor require the removal of lighting on existing roadway, the contractor shall then be responsible for adequate temporary lighting of that portion of the existing roadway affected by the removal of the existing lighting.

Temporary lighting for above referenced temporary roads shall provide an initial intensity of 1.0 footcandles, and shall be installed before temporary roads are opened to traffic.

On permanent new roadways opened to traffic, either the permanent new lighting shall be installed before opening or temporary lighting providing the same intensity as permanent lighting shall be installed before opening.

The contractor shall submit four (4) sets of layout plans of the temporary lighting to the engineer for review and approval. These plans shall show location of poles, length of bracket arms, type and size of luminaires and lamps, mounting height and other pertinent information.

Wood poles with overhead wiring may be used. All materials necessary to complete the temporary lighting shall be furnished by the contractor and the temporary lighting installations shall be removed and disposed of by the contractor when no longer needed.

Reconditioned or approved used materials may be furnished for temporary lighting. Temporary overhead construction shall not be less than Grade A for strength requirement as defined by the National Electric Safety Code. Mounting height for temporary luminaires shall not be less than 27 feet and minimum overhead conductor clearance shall be 20 feet.

The contractor will pay for the electrical energy, installation, removal and maintenance of any temporary lighting required.

The lump sum bid price for "Item 625-Temporary Lighting, as per plan" shall include payment for all labor, equipment, materials and incidentals necessary to provide the temporary lighting as specified.

DEVELOPED		CHECKED	
REP	Sept. '72	WCT	Oct. '72

GENERAL SUMMARY LIGHTING QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

395
468

HAM-275-13.91
HAMILTON COUNTY

I-275-3(9)27
RURAL

STRUCTURES												ROADWAY																		GRAND TOTAL				
HAM.-275 1392-L		HAM.-275 1392-R		SPRINGDALE OVER BLUE ROCK		HAM.-275 1429		HAM.-275 1604		HAM.-275 TOTAL		NORMAL														100% STATE								
NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL																								
SHEET NO.		4		4		5		7	11	12		TOTAL		4	5	6	7	8	9	10	11	12	13		TOTAL		5	TOTAL		ITEM	QUAN.	UNIT	DESCRIPTION	POLE CODE	REF. LINE NO.
												-										1	1		2			-							1
												-																-							2
												-									1	7			8			-	S625	8	EACH	LIGHT POLE, DESIGN - AT 12 B 34.2	C	3
												-																-							4
												-		3	4	3	2			5		2			19			-	S625	19	EACH	LIGHT POLE, DESIGN - AT 15 B 34.2	E	5
												-		1			2			2					5			-	S625	5	EACH	LIGHT POLE, DESIGN - AT 20 B 34.2	F	6
												-									2				2			-	S625	2	EACH	12' BRACKET ARM	M	7
																																			8
												-										1	1		2			-	S625	2	EACH	LIGHT POLE FOUNDATION, 24"x8'0" DEEP		9
												-		4	4	3	4			7	1	9			32			-	S625	32	EACH	LIGHT POLE FOUNDATION, 24"x6'0" DEEP		10
																																			11
												-		4	4	3	4			7	3	10	1		36			-	S625	36	EACH	GROUND ROD		12
																																			13
												-										1	1		2			-	S625	2	EACH	LUMINAIRE, TYPE III, 700 WATT, S713.11		14
												-				1				1		2			4			-	S625	4	EACH	LUMINAIRE, TYPE II, 400 WATT, S713.11		15
												-		4	4	2	4			6	3	7			30			-	S625	30	EACH	LUMINAIRE, TYPE III, 400 WATT, S713.11		16
												-										1	1		2			-	S625	2	EACH	LAMP, 700 WATT, S713.14, MERCURY		17
												-		4	4	3	4			7	3	9			34			-	S625	34	EACH	LAMP, 400 WATT, S713.14, MERCURY		18
																																			19
																																			20
																																			21
														13	11	3	4	6	1	4	7	10			59				S625	59	EACH	PULL-BOX, 18" CIRCULAR, S713.09		22
												-		3668	1889	1196	788	3083	600	3198	766	2245	234		17667			-	S625	17667	LIN. FT.	TRENCH, 24" DEEP		23
																																			24
		290		284		279		340	604	97		1894																-	S625	1894	LIN. FT.	CONDUIT 2", S713.04		25
												-		378	367	148		245		189	215	319			1861			-	S625	1861	LIN. FT.	CONDUIT 3", S713.04		26
												-			63			89							152			-	S625	152	LIN. FT.	CONDUIT 3", ENCASED, S713.04		27
																																			28
												-		407	396	297	418			715	279	963	114		3589			-	S625	3589	LIN. FT.	#10 AWG POLE AND BRACKET CABLE		29
																																			30
									740			740		856	1198	132		536		132	876	718			4448			-	S625	5188	LIN. FT.	#4 AWG DISTRIBUTION CABLE, 600 VOLTS		31
												-																							32
																																			33
												-		3700	1509	1200	798	3019	610	3242	911	2056	244		17289			-	S625	17289	LIN. FT.	1½" DUCT- CABLE WITH 2-#4 AWG 600 VOLT CABLES		34
																																			35
																																			36
												-		4	4	3	4			7	2	10	1		35			-	S625	35	EACH	CONNECTOR KIT, TYPE II, AS PER PLAN		37
												-		4	4	3	4			7	2	10	1		35			-	S625	35	EACH	CONNECTOR KIT, TYPE III, AS PER PLAN		38
												-		14	14	-	2	8	2	-	22	4	-		66			-	S625	66	EACH	CONNECTOR KIT, TYPE I, AS PER PLAN		39
												-		8	8	6	2	4		8	6	14	2		58			-	S625	58	EACH	CONNECTOR KIT, TYPE VII B, AS PER PLAN		40
																																			41
												-																							42
												-			LUMP					LUMP					LUMP			-	S625	LUMP		SERVICE POLE & CONTROL CENTER "BR"		43
												-						LUMP		LUMP					LUMP			-	S625	LUMP		SERVICE POLE & CONTROL CENTER "X"		44
												-																-							45
																																			46
		1										1													-			-	S625	1	EACH	STRUCTURE GROUNDING SYSTEM HAM.-275-1392 L		47
				1								1													-			-	S625	1	EACH	STRUCTURE GROUNDING SYSTEM HAM.-275-1392 R		48
						1						1													-			-	S625	1	EACH	STRUCTURE GROUNDING SYSTEM SPRINGDALE ROAD - OVER RELO. BLUE ROCK ROAD		49
								1				1													-			-	S625	1	EACH	STRUCTURE GROUNDING SYSTEM HAM.-275-1429		50
									1			1													-			-	S625	1	EACH	STRUCTURE GROUNDING SYSTEM HAM.-275-1604		51
		1		1		1		1	1	1		6													-			-	S625	6	EACH	JUNCTION BOX - 18"x8"x6" DEEP		52
		1		1		1		1	1	1		6													-			-	S625	6	SETS	LIGHT POLE ANCHOR BOLTS FOR STRUCTURES	S713.01	53
																																			54
												-													-			-	839	LUMP		HIGH VOLTAGE TEST		55
																																			56
												-													-		1	1	S625	1	EACH	15 KVA. DISTRIBUTION TRANSFORMER 2400/7200, 480 VOLTS		57
																													S625	LUMP		TEMPORARY LIGHTING, TEMPORARY RD. NO. 1, AS PER PLAN		58
																													S625	LUMP		TEMPORARY LIGHTING, TEMPORARY RD. NO. 2, AS PER PLAN		59
																													S625	LUMP		TEMPORARY LIGHTING, TEMPORARY RD. NO. 3, AS PER PLAN		60
																													S625	LUMP		TEMPORARY LIGHTING, TEMPORARY RD. NO. 4, AS PER PLAN		61
																													S625	LUMP		TEMPORARY LIGHTING, TEMPORARY RD. NO. 5, AS PER PLAN		62
																													S625	LUMP		TEMPORARY LIGHTING, TEMPORARY RD. NO. 6, AS PER PLAN		63
																																			64
																																			65
																																			66

REVISED DATE 8-22-75

3
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SEC. ADV. DIVISION	STATE	PROJECT	
2	OHIO		

396
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HAM-275-13.91
HAMILTON COUNTY

MATCH LINE STA. 97+00

4 Ct. BR-1, 2/C #4 AWG

95

℄ BLUE ROCK RD. RELOC.

MATCH LINE STA. 90+00

3 99+40 'BR', 38' Rt. Pull Box # 18

Ct. BR-1, 2/C #4AWG

100

2 3" Conduit 2 #4AWG Distrib. Cable

SIGN # 31
250 Watts
4.6 Volts Drop

99+40 'BR', 38' Lt. Pull Box # 19

1

℄ RAMP 'C'

566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581

Sta. 566+00 ℄

Ex. Blue Rock Road

℄ I-275

END PROJECT I-275-3(10)28 | BEGIN PROJECT I-275-3(9)27

BEGIN HAM-275-13.91 STA. 574+74 RAMP 'C'

MATCH LINE STA. 90+00

4 Ct. BR-1, 2/C #4 AWG

8 9 10 SR-50 ℄

III-400 - BRI-8

577+00 'D', 21' Lt. ℄ Pull Box # 16

FUTURE

577+10 'D' FUTURE

F

7

89 ± ℄ BLUE ROCK RD. RELOC. 87

578 RAMP "D" 579

Sta. 580+00

3" Conduit 2 #4AWG Distribution Cable 9

577+00 'D', 33' Rt. Pull Box # 14

3" Conduit 2 #4AWG Distribution Cable 10 11

578+89 ℄ 81' Lt. Pull Box # 27 35

SIGN # 30
850 Watts
4.3 Volts Drop

88+20 'BR', 45' Lt. ℄ Pull Box # 15 12

87+90 'BR', 45' Lt. ℄ III-400 - BRI-7 14

13

E

5 Stub out

15

32

34

HAM-275-1392 L

HAM-275-1392 R

B

86

85

84

83

582+00 SEE SHEET NO. 6

MATCH LINE STA.

31 575+39 ℄ 81' Lt. PULL BOX #26

33 576+78 ℄ FUTURE SEE NOTE

36 576+44 ℄ 81' Rt. Pull Box # 28

37

39 579+28 ℄ 81' Rt. Pull Box # 29 40

578+44 ℄ FUTURE SEE NOTE 38

Ct. BR-1, 2/C #4AWG

17 19

RAMP E

Sta. 580+00

579

16 83+85 'BR', 45' Rt. ℄ III-400 - BRI-6

18 83+60 'BR', 45' Rt. ℄ Pull Box # 13

SIGN # 29
500 Watts
2.8 Volts Drop

29 82+55 'BR', 45' Lt. III-400 - BRI-5

26 3" Conduit 2 #4 AWG Distribution Cable

STUB-OUT

24

Ct. BR-2, 2C #4 AWG

3" Conduit 2 #4AWG Distribution Cable 21

579+60 'E', 29' Lt. Pull Box # 12 23 20

579+60 'E', 13' Rt. Pull Box # 11 22

Ct. BR-1, 2C #4AWG
Ct. BR-2, 2C #4AWG

579+35 'E' FUTURE

30

82+55 'BR', 45' Rt. Pull Box # 10 25

MATCH LINE STA + 82+00 SEE SHEET NO. 5

NOTE:

DESIGN DATA FOR FUTURE LIGHT POLES ON STRUCTURES HAM.-275-1392 L & R

15" BOLT CIRCLE
1" ϕ x 40" BOLT
[ST 15 B 34.2]

Scale: 1" = 50'

4
25

LIGHTING PLAN

DIST. NO. DIVISION	STATE	PROJECT	
2	OHIO		

397
468

HAM-275-13.91
HAMILTON COUNTY

NOTE:
DESIGN DATA FOR FUTURE LIGHT POLES ON STRUCT.
RELOCATED SPRINGDALE ROAD OVER
RELOCATED BLUE ROCK ROAD

15" BOLT CIRCLE
1"ϕx40" BOLT
[ST 10B 34-2]

SEE SHEET NO. 4
MATCH LINE STA. 82+00

67 — 8+54 'S', 25' Lt., Pull Box #30
68
69 — 9+48 'S', FUTURE, SEE NOTE
30 — Ct. BR-1, 2/C #4AWG; Ct. BR-2, 2/C #4AWG
41 — 80+28 'BR', 48' Rt., Pull Box #2
42 — 3" Conduit Encased 4-#4AWG Distribution Cable
43 — 80+28 'BR', 111' Rt., Pull Box #1
44 — 3" Conduit 4-#4AWG Distribution Cable
45 — 11+33 'S', 37' Lt., Power Source 'BR', 15KVA TRANSFORMER 2400/7200, 480V.
71 — 11+33 'S', 25' Lt., Pull Box #31
62 — 17+10 'S', 36' Lt., III-400-BR1-3

STRUCTURE RELOC. SPRINGDALE RD. OVER RELOCATED BLUE ROCK RD.

℄ SPRINGDALE RD. — R/W — 15 — 10 — 80 — 20

Stub Out

61 — 3" Conduit 2-#4AWG Distribution Cable
60 — 17+35 'S', 38' Rt., Pull Box #9
59 — 2/C #4AWG, Ct. BR-1
58 — 9+10 'SC', 25' Lt., Pull Box #7
63 — 3" Conduit 2-#4AWG Distribution Cable
56 — Ct. BR-1, 2/C #4AWG
65 — Ct. BR-1, 2/C #4AWG
66 — 18+90 'S', 29' Rt., III-400-BR1-4
64 — 9+10 'SC', 41' Rt., Pull Box #8
9+00 'SC', 37' Rt., FUTURE

℄ BLUE ROCK RD. RELOC.

46 — 78+10 'BR', 48' Rt., PULL BOX #2A
46A — SIGN #28, 425 WATTS, 1.6 VOLT DROP
46B — 77+10 'BR', 62' Rt., III-400-BR1-1
47 — Ct. BR-1, 2/C #4AWG
49 — 1+20 'SC', 39' Lt., Pull Box #3
48 — ℄ 24'-8.8'
56 — Ct. BR-1, 2/C #4AWG
Ct. BR-1, 2/C #4AWG

SPRINGDALE CONNECTOR

℄ 24'-7.0'
52 — Ct. BR-1, 2/C #4AWG
50 — 3" Conduit 2-#4AWG Distribution Cable, 1+20 'SC', 27' Rt., Pull Box #4
51 — 1+00 'SC' FUTURE
55 — 75+90 'BR', 45' Lt., III-400-BR1-2
Stub Out
75+90 'BR', 79' Rt., Pull Box #5
53 — 3" Conduit 2-#4AWG Distribution Cable
54

MEET EXISTING
Sta. 75+00 Blue Rock Rd.

scale: 1"=50'

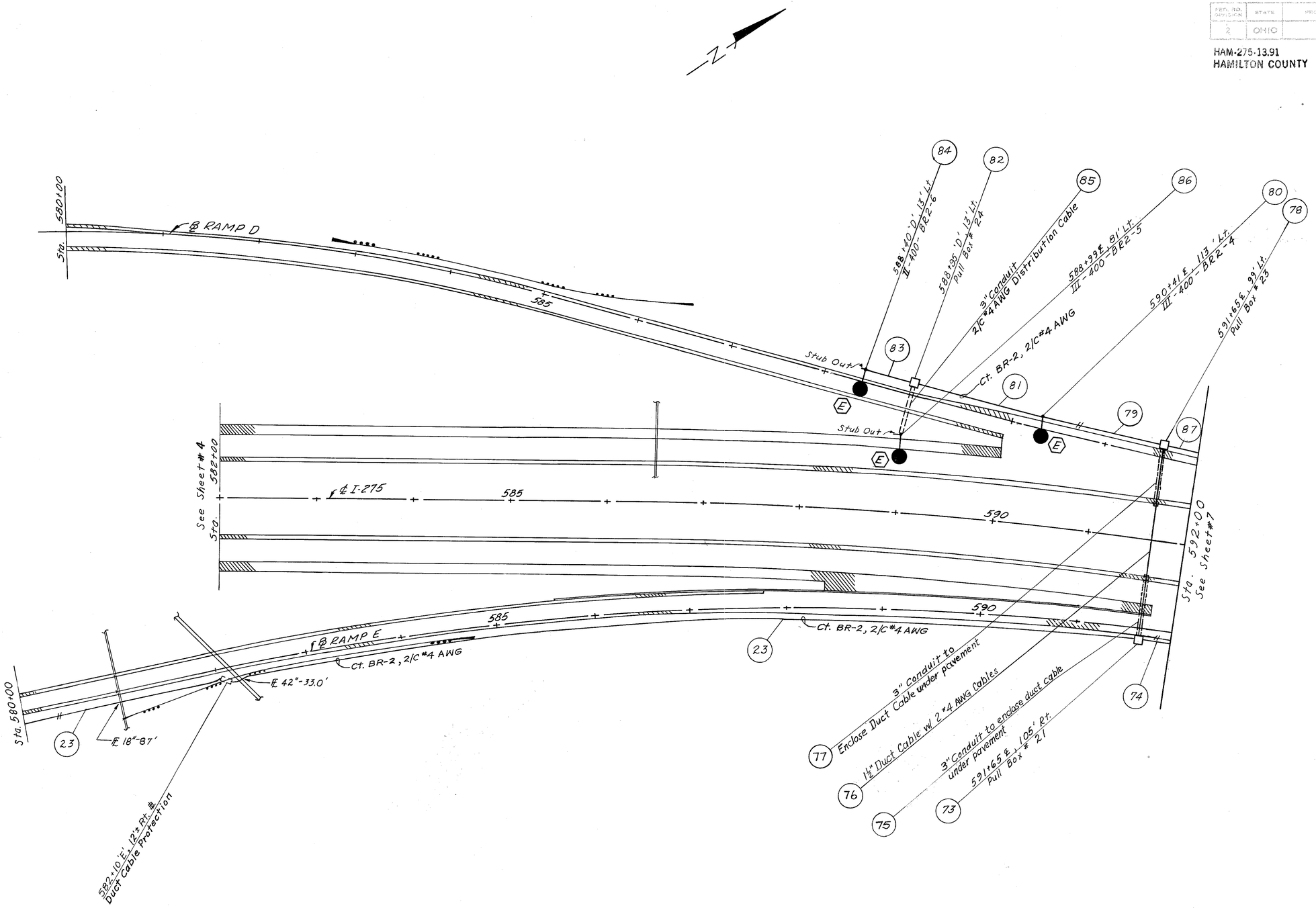
5
20

LIGHTING PLAN

FED. ROD DIVISION	STATE	PROJECT	
2	OHIO		

398
468

HAM-275-13.91
HAMILTON COUNTY



REVISED DATE 8-22-75

Scale: 1" = 50'

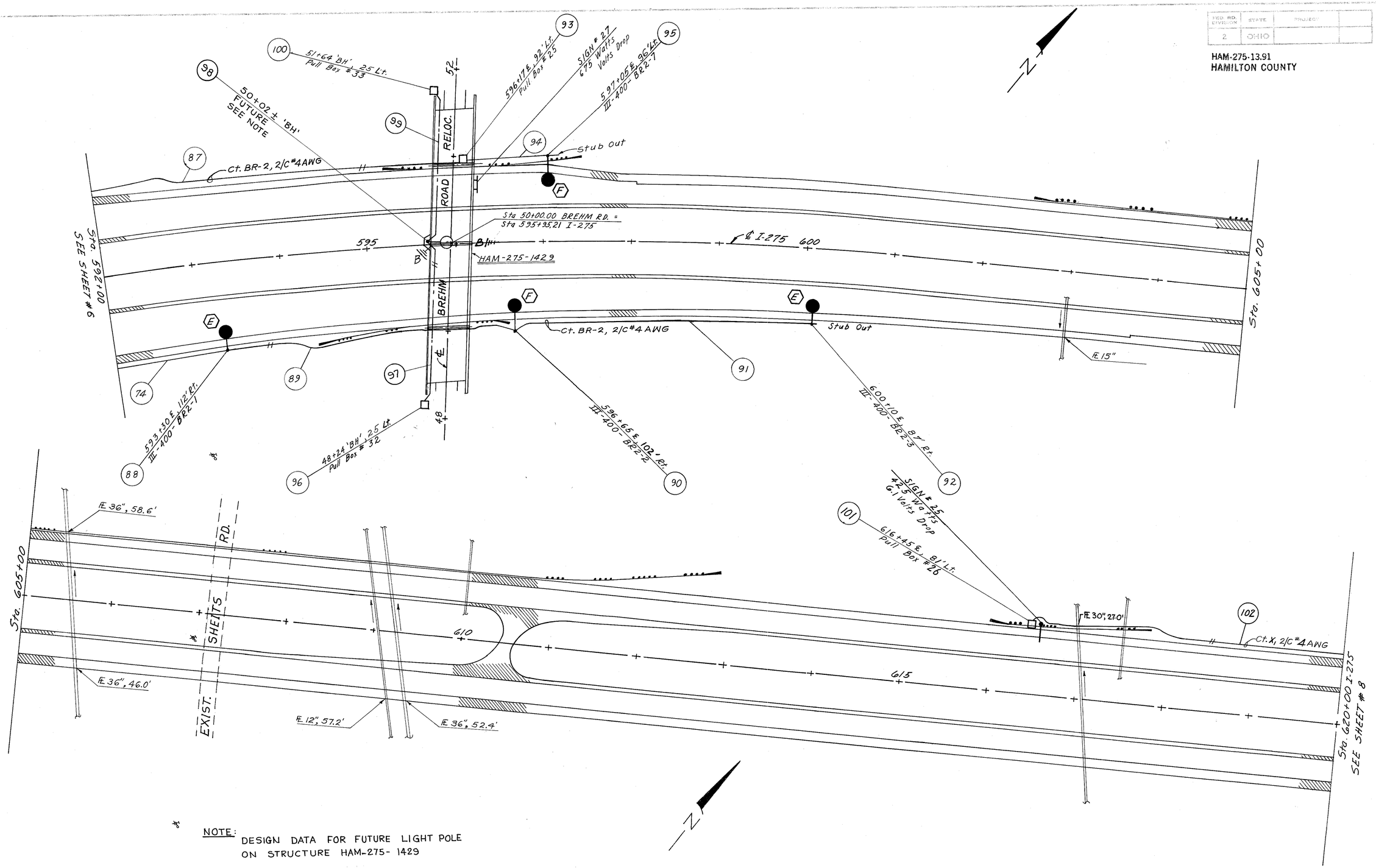
6
20

LIGHTING PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

399
468

HAM-275-13.91
HAMILTON COUNTY



NOTE: DESIGN DATA FOR FUTURE LIGHT POLE ON STRUCTURE HAM-275-1429

15" BOLT CIRCLE
1" ϕ x 40" BOLT
[ST 10B 34.2]

Scale: 1" = 50'

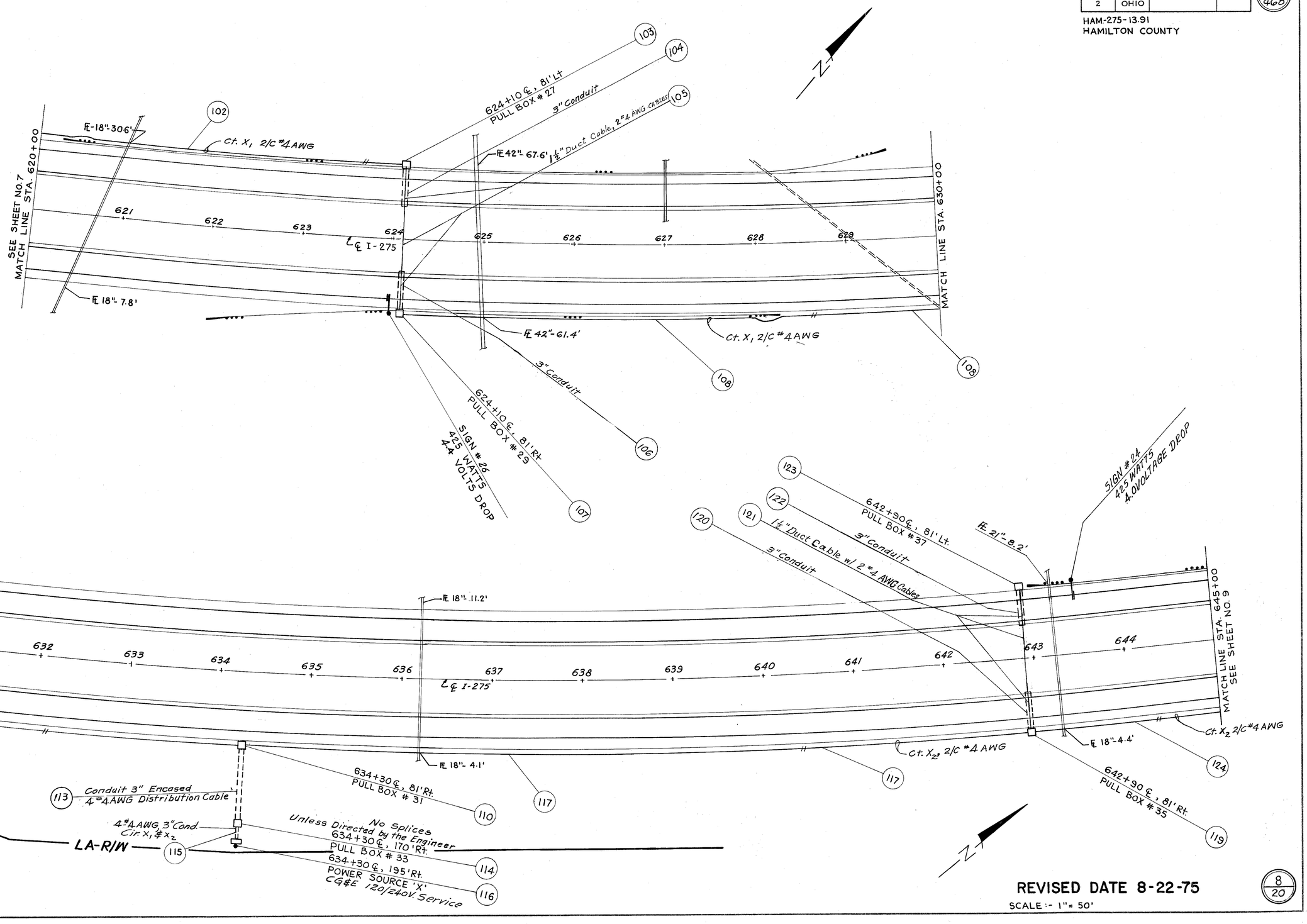
7
20

LIGHTING PLAN

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

400
468

HAM-275-13.91
HAMILTON COUNTY



REVISED DATE 8-22-75

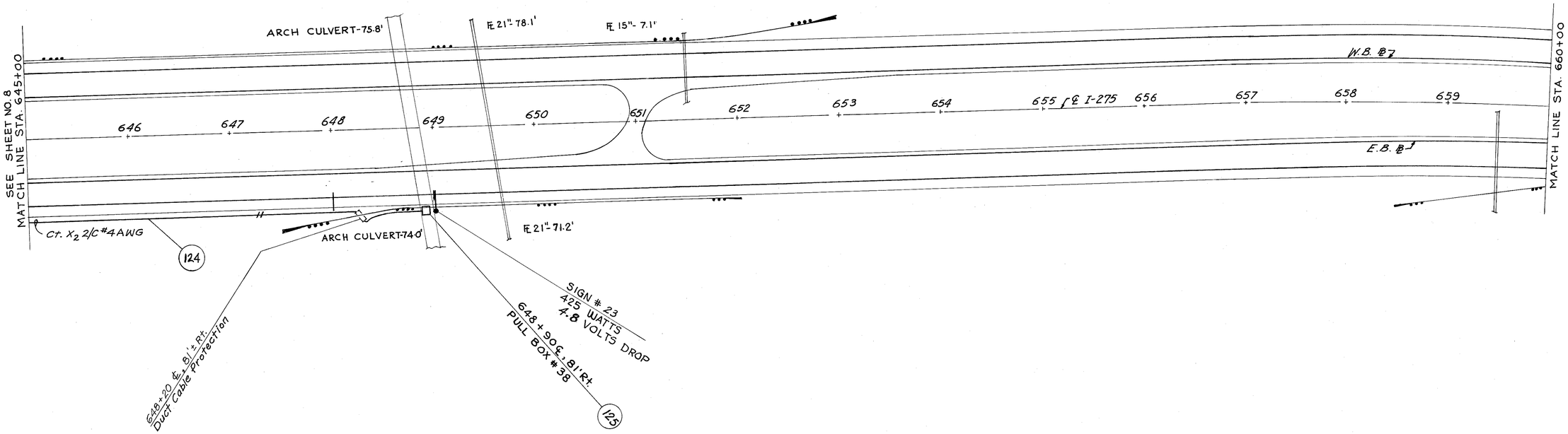
SCALE :- 1"= 50'

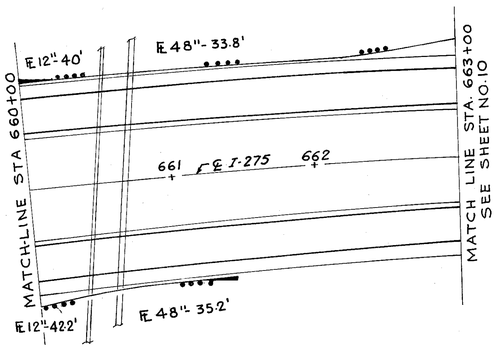
8
20

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

401
468

HAM-275-13.91
HAMILTON COUNTY





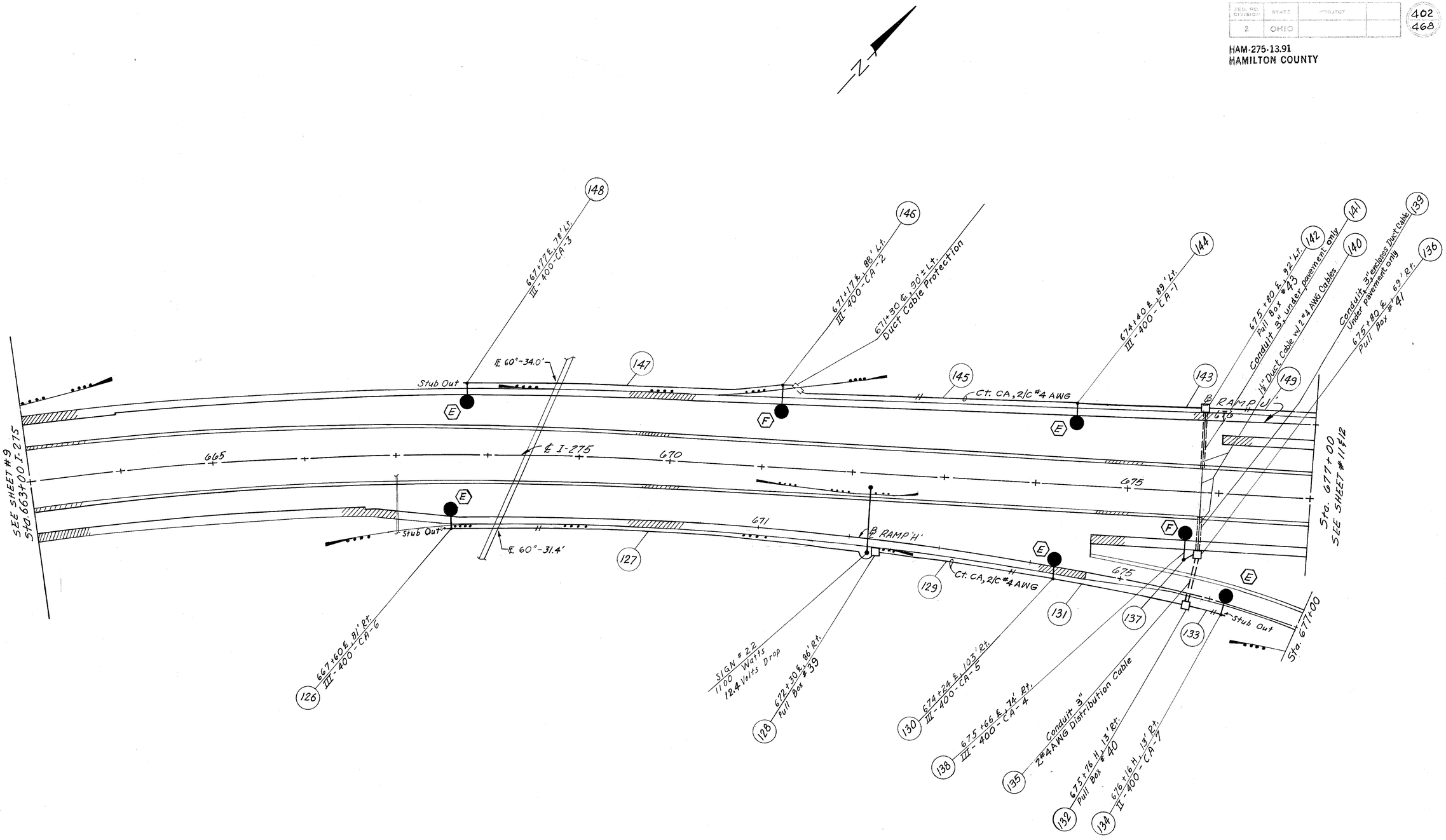
SCALE :- 1"= 50'

9
20

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

402
468

HAM-275-13.91
HAMILTON COUNTY



REVISED DATE 8-22-75

scale: 1" = 50'

LIGHTIN

FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

403
468

HAM-275-13.91
HAMILTON COUNTY

Connect Circuit 'CC' to Existing 'C' Service Pole and Control Center

Ex. 726+50 'C', 60' Rt. Existing Power Source 'C'

166 726+50 'C', 39' Rt. Existing Pull Box #1

Match Line A Sta. 727+00

Ct. CC 2/C #4 AWG

168

164 725+30 'C', 53' Rt. III-400-CC-2 Comb. Signal & Light Pole

165A

167

162

165

Ct. CC, 2/C #4 AWG Ct. CA, 2/C #4 AWG

690+70 'F', 27' Lt. Ex. Pull Box #66

725+40

163

161

151 688+90 'J', 13' Lt. Pull Box #45

152 2-#4 AWG Distribution Cable 3" Conduit

153 688+90 'J', 29' Rt. Pull Box #46

690+42 'F' Future

690

℄ RAMP F

149

Ct. CA, 2/C #4 AWG

685

2/C #4 AWG, Ct. CA

154

Combination Sign and Light Pole SIGN #17 850 Watts 4.8 Volts Drop

724+10 'C', 50' Lt. III-400-CC-3

156

170

724+00 'C', 50' Lt. Pull Box #47

155

2/C #4 AWG, Ct. CC

723+00 'C', 58' Lt. Pull Box #49

171

(US 27) 724

℄ RAMP J

℄ 12"-32.0'

℄ 60"-27.9'

149

Ct. CA, 2/C #4 AWG

680

SEE SHEET #10 Sta. 677+00

℄ 12" San. Sewer

680

℄ I-275

685

Structure HAM-275-1604

172

2/C #4 AWG

℄ 30", 4.7'

℄ COLERAIN AVE. (US 27) 723

3" conduit 4 #4 AWG, Distribution Cables 723+25 'C', 45' Rt. Pull Box #47

SEE SHEET 35 Sta. 690+00

724+00 'C', 45' Rt. Pull Box #48

160

158

157

175

174

176

SIGN #16 425 Watts 0.0 Volts Drop

721+86 'C' FUTURE SEE NOTE

173

Match Line A Sta. 727+00

730

℄ COLERAIN AVE. U.S.27

Stub Out

168

727+20 'C', 40' Rt. III-400-CC-1

169

NOTE: DESIGN DATA FOR FUTURE LIGHT POLE ON STRUCTURE HAM-275-16.04

15" BOLT CIRCLE
1"ϕx40" BOLT
[ST 10B 34-2]

scale: 1"=50'

11
20

LIGHTING PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

404
468

HAM-275-13.91
HAMILTON COUNTY

SEE SHEET #10 Sta. 677+00

680 ℄ I-275 ℄

685

FE 60", 30.6'

FE 15"

685

℄ RAMP "I"

720+71 'C' FUTURE SEE NOTE

Structure HAM-275-1604

Sta. 690+00 SEE SHEET #13

Ct. CB, 2/C #4 AWG

Stub Out

689+80 E, 91' Rt. III-700-CB-1

719+74 'C', 45' Rt. Pull Box #52

Sta. 677+00

12" San Sewer

℄ RAMP "H"

FE 12", 35.6'

FE 60", 29.7'

680

FE 42", 16.4'

FE 42", 17'

18"

680

℄ RAMP "F"

685

15"

2/C #4 AWG, Ct. CC

719+50 'C', 56' Lt. Pull Box #51

719+40 'C', 56' Lt. III-400-CC-4

2/C #4AWG, Ct. CC

SIGN #18 425 Watts 8.9 Volts Drop

718+50 'C', 59' Lt. Pull Box #53

717+57 'C', 73' Lt. III-400-CC-5

717+10 'C', 84' Lt. Pull Box #54

2/C #4AWG, Ct. CC

674+12 'I', 13' Rt. Pull Box #55

716+20 'C', 56' Lt. III-400-CC-7

674+75 'I', 13' Rt. II-400-CC-6

Stub Out

675

715

℄ COLERAIN AVE. (US27)

3" Conduit 2/C #4 AWG Distribution Cable

Stub Out

3" Conduit 2/C #4AWG Distribution Cable

717+10 'C', 45' Rt. Pull Box #56

SIGN #19 425 Watts 10.6 Volts Drop

690

701+25 'C' SIGN #21 250 Watts 0.0 Volts Drop

707+00 'C', 39' Rt. III-400-CC-12

SIGN #20 225 Watts 12.8 Volts Drop

710+20 'C', 54' Rt. Pull Box #60

711+75 'C', 70' Rt. III-400-CC-11

684+35 'C', 13' Rt. Pull Box #59

712+90 'C', 49' Rt. Pull Box #57

712+30 'C', 42' Lt. Pull Box #58

3" Conduit 2/C #4 AWG Distribution Cable

Sta. 713+00 MATCH LINE

715

℄ COLERAIN AVE.

Ct. CC, 2/C #4AWG

714+25 'C', 45' Rt. III-400-CC-8

℄ RAMP "G"

707

℄ Exist. COLERAIN AVE.

680 ℄ RAMP "G"

Stub Out

2/C #4 AWG, Ct. CC

684

3" Conduit 2/C #4 AWG Distribution Cable

713+15 'C', 43' Lt. III-400-CC-9

2/C #4 AWG, Ct. CC

Stub Out

Sta. 713+00 MATCH LINE

685

685+17 'G', 13' Rt. II-400-CC-10

Ct. CC, 2/C #4AWG

Stub Out

NOTE: DESIGN DATA FOR FUTURE LIGHT POLE ON STRUCTURE HAM-275-1604 :

15" BOLT CIRCLE
1"Φx40" BOLT
[ST 10B 34-2]

scale: 1" = 50'

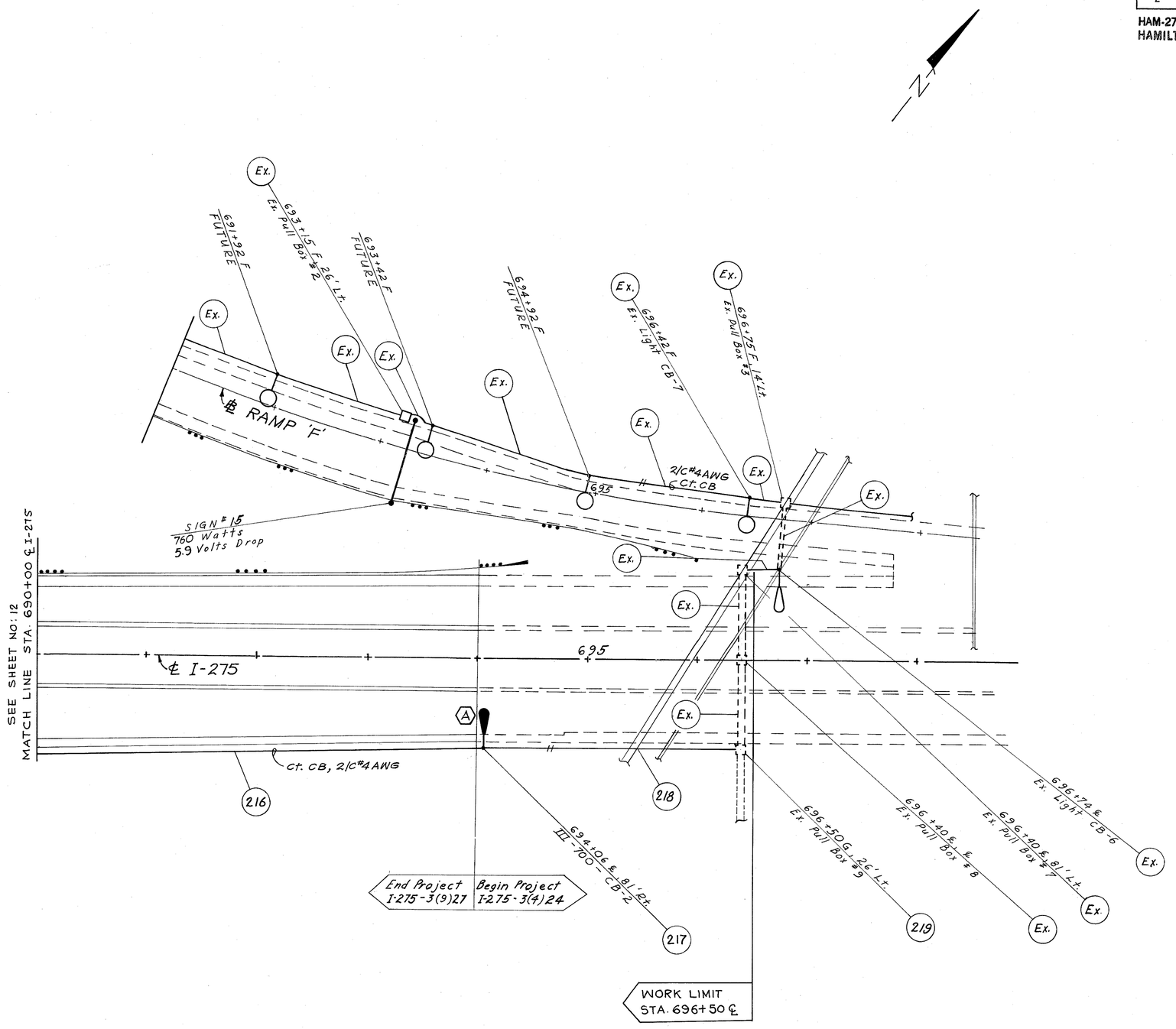
12
20

LIGHTING PLAN

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

405
468

HAM-275-13.91
HAMILTON COUNTY



scale: 1"=50'

13
20

LIGHTING PLAN

DEVELOPED		CHECKED	
REP	Sept.'72	ARS	Oct.'72

SUB-SUMMARY LIGHTING QUANTITIES

FED RD DIVISION	STATE	PROJECT	
2	OHIO		

HAM-275-13.91
HAMILTON COUNTY

Reference Number	Side	Station	Station			A: Light Pole, Design AT 15 B 41.7			C: Light Pole, Design AT 12 B 34.2		E: Light Pole, Design AT 15 B 34.2	F: Light Pole, Design AT 20 B 34.2	Light Pole Foundation 24"x 8' Deep	Light Pole Foundation 24"x 6' Deep	Ground Rod	Luminaire, Type III 700 Watt	Luminaire, Type II 400 Watt	Luminaire, Type III 400 Watt	Lamp, 700 Watt	Lamp, 400 Watt	Pull Box 18"		Trench	Conduit 2"	Conduit 3"	Conduit 3" Encased	#10 AWG Pole and Bracket Cable	#4 AWG Distribution Cable	#2 AWG Distribution Cable	#1 AWG Distribution Cable	#1/0 AWG Distribution Cable	#2/0 AWG Distribution Cable	#4 AWG Duct - Cable	#2 AWG Duct - Cable	#1 AWG Duct - Cable	#1/0 AWG Duct - Cable	#2/0 AWG Duct - Cable	Connector Kit Type II	Connector Kit Type III	Connector Kit Type I	Connector Kit Type VII B	Connector Kit Type VII C	Service Pole and Control Center BR	Service Pole and Control Center X	Service Pole and Control Center C		Structure Ground HAM-275-1392 L	Structure Ground HAM-275-1392 R	Structure Ground Springdale Road	Structure Ground HAM-275-1429	Structure Ground HAM-275-1604	Junction Box	Anchor Bolt		12' Mast Arm	15 KVA Transformer 2400/7200-480 V.
		UNIT				Ea.			Ea.		Ea.	Ea.	Ea.	Ea	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.		L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Lump	Lump	Lump		Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Sets		Ea.	Ea.
1	Lt.	99+40BR																			1																			2																
2	Lt./Rt.	99+40BR	99+40BR																				76		76			172																												
3	Rt.	99+40BR																			1																			2																
4	Rt.	99+40BR	89+05BR																				1035										1045																							
5																																																								
6	Rt.	89+05BR										1		1	1			1		1							110											1	1																	
7	Rt./Lt.	89+05BR	577+00 D																				92										102																							
8	Lt.	577+00D																			1																			2																
9	Lt./Rt.	577+00D	577+00 D																				54		54			128																												
10	Rt.	577+00 D																			1																				2															
11	Rt./Lt.	577+00 D	88+20 BR																				116		116			252																												
12	Lt.	88+20BR																			1																				2															
13	Lt.	88+20 BR.	87+90 BR																				30										40																							
14	Lt.	87+90 BR									1			1	1			1		1							99											1	1																	
15	Rt./Rt.	577+00 D	83+85 BR																				443										453																							
16	Rt.	83+85 BR									1			1	1			1		1							99											1	1																	
17	Rt.	83+85 BR	83+60 BR																				25										35																							
18	Rt.	83+60 BR																			1																				2															
19	Rt./Lt.	83+60 BR	579+60 E																				80										90																							
20	Lt.	579+60 E																			1																			2																
21	Lt./Rt.	579+60 E	579+60 E																				42		42			104																												
22	Rt.	579+60 E																			1																			4																
23	Rt./Rt.	579+60 E	591+65 ℄																				1205										1215																							
24	Rt./Rt.	579+60 E	82+55 BR																				113										246																							
25	Rt.	82+55 BR																			1																			2	2															
26	Rt./Lt.	82+55BR	82+55 BR																				90		90			200																												
29	Lt.	82+55BR									1			1	1			1		1							99											1	1																	
30	Rt.	82+55BR	80+28 BR																				227										474																							
31	Lt.	575+99 ℄																			1																																			
32	Lt.	575+99 ℄	576+78 ℄																				10	79*																																
33	Lt.	576+78 ℄																																																		1*	1*			
34	Lt.	576+78 ℄	578+89 ℄																				10	211*																							1*									
35	Lt.	578+89 ℄																			1																																			
36	Rt.	576+44 ℄																			1																																			
37	Rt.	576+44 ℄	578+44 ℄																				10	200*																								1*								
38	Rt.	578+44 ℄																																																		1*	1*			
39	Rt.	578+44 ℄	579+28 ℄																				10	84*																																
40	Rt.	579+28 ℄																			1																																			
STRUCTURE-TOTAL-SHEET #4																								574																							1	1				2	2			
ROADWAY-TOTAL-SHEET #4				-	-	-	-	-	-	-	3	1	-	4	4	-	-	4	-	4	13	-	3668	-	378	-	407	856	-	-	-	-	3700	-	-	-	-	4	4	14	8	-	-	-	-		-	-	-	-	-	-	-		-	-
41	Rt.	80+28BR																			1																			2	2															
42	Rt./Rt.	80+28BR	80+28BR																				63			63		292																												
43	Rt.	80+28BR																			1																			4																
44	Rt./Lt.	80+28BR	11+33 'S'																				26		26			144																												
45	Lt.	11+33'S'																																									LUMP													‡1
46	Rt.	80+28 BR	78+10 BR																				218										228																							
46A	Rt.	78+10 BR																			1																				2															
46B	Rt.	78+10 BR	77+10 BR																				100										110																							
47	Rt.	77+10 BR									1			1	1			1		1							99											1	1																	
48	Rt./Lt.	77+10 BR	1+20 'SC'																				77										87																							
49	Lt.	1+20'SC'																			1																				2															
50	Lt./Rt.	1+20'SC'	1+20'SC'																				64		64			148																												
ROADWAY-SUB-TOTAL #5				-	-	-	-	-	-	-	1	-	-	1	1	-	-	1	-	1	4	-	548	-	90	63	99	584	-	-	-	-	425	-	-	-	-	1	1	6	6	-	LUMP	-	-		-	-	-	-	-	-	-		-	‡1

* STRUCTURE QUANTITIES ‡ 100% STATE PARTICIPATION

DEVELOPED		CHECKED	
REP	Sept. '72	WCT	Oct. '72

SUB-SUMMARY LIGHTING QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-275-13.91
HAMILTON COUNTY

407/468

Reference Number	Side	Station	Station		A: Light Pole, Design AT 15 B 41.7		C: Light Pole, Design AT 12 B 34.2		E: Light Pole, Design AT 15 B 34.2	F: Light Pole, Design AT 20 B 34.2	Light Pole Foundation 24"x 8' Deep	Light Pole Foundation 24"x 6' Deep	Ground Rod	Luminaire, Type III 700 Watt	Luminaire, Type II 400 Watt	Luminaire, Type III 400 Watt	Lamp, 700 Watt	Lamp, 400 Watt	Pull Box 18"	Trench	Conduit 2"	Conduit 3"	Conduit 3" Encased	#10 AWG Pole and Bracket Cable	#4 AWG Distribution Cable	#2 AWG Distribution Cable	#1 AWG Distribution Cable	#1/0 AWG Distribution Cable	#2/0 AWG Distribution Cable	#4 AWG Duct – Cable	#2 AWG Duct – Cable	#1 AWG Duct – Cable	#1/0 AWG Duct – Cable	#2/0 AWG Duct – Cable	Connector Kit Type II	Connector Kit Type III	Connector Kit Type I	Connector Kit Type VII B	Connector Kit Type VIII C	Service Pole and Control Center BR	Service Pole and Control Center X	Service Pole and Control Center C		Structure Ground HAM-275-1392 L	Structure Ground HAM-275-1392 R	Structure Ground Springdale Road	Structure Ground HAM-275-1429	Structure Ground HAM-275-1604	Junction Box	Anchor Bolt		12' Mast Arm	15 KVA Transformer 2400/7200-480 V.	
UNIT					Ea.		Ea.		Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Lump	Lump	Lump		Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Sets		Ea.	Ea.	
ROADWAY-SUB-TOTAL-SHEET #5	-	-	-	-	-	-	-	-	1	-	-	1	1	-	-	1	-	1	4	548	-	90	63	99	584	-	-	-	-	425	-	-	-	-	1	1	6	6	-	LUMP	-	-		-	-	-	-	-	-	-		1	1 ‡	
51	Rt.	1+20 'SC'																	1																	2																		
52	Rt/Rt	1+20 'SC'	75+90 BR																	66										76																								
53	Rt.	75+90 BR																	1																	2																		
54	Rt/Lt.	75+90 BR	75+90 BR																	135		135			290																													
55	Lt.	75+90 BR							1			1	1			1		1						99										1	1																		
56	Lt.	1+20 'SC'	9+10 'SC'																	790										800																								
57																																																							
58	Lt.	9+10 'SC'																	1																		2																		
59	Lt./Rt.	9+10 'SC'	17+35 'S'																	90										100																								
60	Rt.	17+35 'S'																	1																	2																		
61	Rt./Lt.	17+35 'S'	17+10 'S'																	80		80			180																													
62	Lt.	17+10 'S'							1			1	1			1		1						99										1	1																		
63	Lt./Rt.	9+10 'SC'	9+10 'SC'																	62		62			144																													
64	Rt.	9+10 'SC'																	1																	2																		
65	Rt/Rt.	9+10 'SC'	18+90 'S'																	98										108																								
66	Rt.	18+90 'S'							1			1	1			1		1						99										1	1																		
67	Lt.	8+54 'S'																	1																																				
68	Lt.	8+54 'S'	9+48 'S'																	10	94	*																																			
69	Lt.	9+48 'S'																																																					
70	Lt.	9+48 'S'	11+33 'S'																	10	185	*																																			
71	Lt.	11+33 'S'																	1																																				
ROADWAY-TOTAL - SHEET# 5				-	-	-	-	-	-	-	4	-	-	4	4	-	-	4	-	4	11	1889	-	367	63	396	1198	-	-	-	-	1509	-	-	-	-	4	4	14	8	-	LUMP	-	-		-	-	-	-	-	-	-		-	1 ‡	
STRUCTURE-TOTAL-SHEET #5																						279																																	
72																																																							
73	Rt.	591+65 ℄																	1																		2																		
74	Rt.	591+65 ℄	593+30 ℄																	165										175																								
75	Rt.	591+65 ℄	591+65 ℄																			46																																	
76	R/L	591+65 ℄																		204										214																								
77	L#	591+65 ℄	591+65 ℄																			46																																	
78	Lt.	591+65 ℄																	1																	2																		
79	Lt.	591+65 ℄	590+41 ℄																	124										134																								
80	Lt.	590+41 ℄							1			1	1			1		1						99										1	1																		
81	Lt./Lt.	590+41 ℄	588+95 'D'																	140										150																								
82	Lt.	588+95 'D'																	1																	2																		
83	Lt.	588+95 'D'	588+40 'D'																	55										65																								
84	Lt.	588+40 'D'							1			1	1			/		1						99										1	1																		
85	Lt./Lt.	588+95 'D'	588+99 ℄																	56		56			132																													
86	Lt.	588+99 ℄							1			1	1			1		1						99										1	1																		
87	Lt.	591+65 ℄	596+17 ℄																	452										462																								
ROADWAY-TOTAL - SHEET# 6				-	-	-	-	-	-	-	3	-	-	3	3	-	1	2	-	3	3	1196	-	148	-	297	132	-	-	-	-	1200	-	-	-	-	3	3	-	6	-	-	-	-		-	-	-	-	-	-	-				
88	Rt.	593+30 ℄							1			1	1			1		1						99										1	1																		
89	Rt.	593+30 ℄	596+65 ℄																	335										345																								
90	Rt.	596+65 ℄								1		1	1			1		1						110										1	1																		
91	Rt.	596+65 ℄	600+10 ℄																	345										355																								
92	Rt.	600+10 ℄							1			1	1			1		1						99										1	1																		
93	Lt.	596+17 ℄																	1																	2																		
94	Lt.	596+17 ℄	597+05 ℄																	88										98																								
95	Lt.	597+05 ℄								1		1	1			1		1						110										1	1																		
96	Lt.	48+24 BH																	1																																				
97	Lt.	48+24 BH	50+02 BH																	10	178	*																																			
98	Lt.	50+02 BH																																																			
99	Lt.	50+02 BH	51+64 BH																	10	162	*																																			
100	Lt.	51+64 BH																	1																																				
101	Lt.	616+45 ℄																	1																		2																		
ROADWAY- TOTAL - SHEET# 7				-	-	-	-	-	-	-	2	2	-	4	4	-	-	4	-	4	4	788	-	-	-	418	-	-	-	-	-	798	-	-	-	-	4	4	2	2	-	-	-	-		-	-	-	-	-	-	-		-	-	
STRUCTURE-TOTAL-SHEET #7																						340																																	

* STRUCTURE QUANTITIES ‡ 100% STATE PARTICIPATION

15/20

REVISED DATE 8-22-75

DEVELOPED		CHECKED	
REP	Sept. '72	OCT '72	WCT

SUB-SUMMARY LIGHTING QUANTITIES

FED. HD. DIVISION	STATE	PROJECT	
2	OHIO		

408
468

HAM-275-13.91
HAMILTON COUNTY

Reference Number	Side	Station	Station	A: Light Pole, Design AT 15 B 41.7	C: Light Pole, Design AT 12 B 34.2	E: Light Pole, Design AT 15 B 34.2	E: Light Pole, Design AT 20 B 34.2	F: Light Pole Foundation 24"x8' Deep	F: Light Pole Foundation 24"x6' Deep	Ground Rod	Luminaire, Type III 700 Watt	Luminaire, Type II 400 Watt	Luminaire, Type III 400 Watt	Lamp, 700 Watt	Lamp, 400 Watt	Pull Box 18"	Trench	Conduit 2"	Conduit 3"	Conduit 3" Encased	#10 AWG Pole and Bracket Cable	#4 AWG Distribution Cable	#2 AWG Distribution Cable	#1 AWG Distribution Cable	#1/0 AWG Distribution Cable	#2/0 AWG Distribution Cable	#4 AWG Duct – Cable	#2 AWG Duct – Cable	#1 AWG Duct – Cable	#1/0 AWG Duct – Cable	#2/0 AWG Duct – Cable	Connector Kit Type II	Connector Kit Type III	Connector Kit Type I	Connector Kit Type VII B	Connector Kit Type VII C	Service Pole and Control Center BR	Service Pole and Control Center X	Service Pole and Control Center C		Structure Ground HAM-275-1392 L	Structure Ground HAM-275-1392 R	Structure Ground Springdale Road	Structure Ground HAM-275-1429	Structure Ground HAM-275-1604	Junction Box Anchor Bolt		12' Mast Arm
		UNIT		Ea.		Ea.		Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Lump	Lump	Lump		Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	sets		Ea.
102	Lt.	616+45 ℄	624+10 ℄														765											775					2																
103	Lt.	624+10 ℄														1																																		
104	Lt.	624+10 ℄	624+10 ℄																55																															
105	Lt/Rt	624+10 ℄															162											172																					
106	Rt.	624+10 ℄	624+10 ℄																55																															
107	Rt.	624+10 ℄														1																						2												
108	Rt.	624+10 ℄	634+30 ℄														1020											1030																					
109																																																	
110	Rt.	634+30 ℄														1																				4														
113	Rt.	634+30 ℄	634+30 ℄														89			89		396																												
114	Rt.	634+30 ℄														1																																		
115	Rt.	634+30 ℄	634+30 ℄														25		25			140																												
116	Rt.	634+30 ℄																																								LUMP								
117	Rt.	634+30 ℄	642+90 ℄														860											870																					
118																																																	
119	Rt.	642+90 ℄														1																						2												
120	Rt./Rt.	642+90 ℄	642+90 ℄																55																															
121	Rt.	642+90 ℄															162											172																					
122	Rt/Lt.	642+90 ℄	642+90 ℄																55																															
123	Lt.	642+90 ℄														1																						2												
ROADWAY TOTAL		SHEET # 8		-	-	-	-	-	-	-	-	-	-	-	-	6	3083	-	245	89	-	536	-	-	-	-	3019	-	-	-	-	-	8	4	-	-	LUMP	-	-	-		-	-	-	-	-	-	-	-	-
124	Rt.	642+90 ℄	648+90 ℄														600											610																					
125	Rt.	648+90 ℄														1																						2												
ROADWAY TOTAL		SHEET # 9		-	-	-	-	-	-	-	-	-	-	-	-	1	600	-	-	-	-	-	-	-	-	-	610	-	-	-	-	-	2	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
126	Rt.	667+60 ℄			1		1	1		1		1									99																												
127	Rt.	667+60 ℄	672+30 ℄														470											480																					
128	Rt.	672+30 ℄														1																							2											
129	Rt.	672+30 ℄	674+24 ℄														194											204																					
130	Rt.	674+24 ℄			1		1	1		1		1									99																												
131	Rt./Rt.	674+24 ℄	675+76 'H'														150											160																					
132	Rt.	675+76 'H'														1																							2											
133	Rt.	675+76 'H'	676+16 'H'														40											50																					
134	Rt.	676+16 'H'			1		1	1		1		1									99																												
135	Rt./Rt.	675+76 'H'	675+80 ℄														56		56			132																												
136	Rt.	675+80 ℄														1																							2											
137	Rt.	675+80 ℄	675+66 ℄														14											24																					
138	Rt.	675+66 ℄				1		1	1		1		1								110																												
139	Rt./Rt.	675+80 ℄	675+80 ℄																53																															
140	Rt.	675+80 ℄															161											171																					
141	Rt/Lt.	675+80 ℄	675+80 ℄																80																															
142	Lt.	675+80 ℄														1																							2											
143	Lt.	675+80 ℄	674+40 ℄														140											150																					
144	Lt.	674+40 ℄			1		1	1		1		1									99																												
145	Lt.	674+40 ℄	671+17 ℄														323											333																					
146	Lt.	671+17 ℄			/		1	1		1		1									110																												
147	Lt.	671+17 ℄	667+77 ℄														340											350																					
148	Lt.	667+77 ℄			1		1	1		1		1									99																												
149	Lt/Lt.	675+80 ℄	688+90 'J'														1310											1320																					
ROADWAY TOTAL		SHEET # 10		-	-	-	-	-	-	5	2	-	7	7	-	1	6	-	7	4	3198	-	189	-	715	132	-	-	-	-	3242	-	-	-	-	7	7	-	8	-	-	-	-	-	-	-	-	-	-	-	-

16
20

REVISED DATE 8-22-75

DEVELOPED		CHECKED	
REP	sept '72	WCT	oct '72

SUB-SUMMARY LIGHTING QUANTITIES

FED RD DIVISION	STATE	PROJECT	
2	OHIO		

409/468

HAM-275-13.91
HAMILTON COUNTY

Reference Number	Side	Station	Station	Light Pole, Design AT 15 B 41.7	Light Pole, Design AT 12 B 34.2	Light Pole, Design AT 15 B 34.2	Light Pole, Design AT 20 B 34.2	Light Pole Foundation 24"x 8' Deep	Light Pole Foundation 24"x 6' Deep	Ground Rod	Luminaire, Type III 700 Watt	Luminaire, Type II 400 Watt	Luminaire, Type III 400 Watt	Lamp, 700 Watt	Lamp, 400 Watt	Pull Box 18"	Trench	Conduit 2"	Conduit 3"	Conduit 3" Encased	#10 AWG Pole and Bracket #4 AWG Cable	Distribution Cable #2 AWG	Distribution Cable #1 AWG	Distribution Cable #1/0 AWG	Distribution Cable #2/0 AWG	Distribution Cable #4 AWG	Duct – Cable #2 AWG	Duct – Cable #1 AWG	Duct – Cable #1/0 AWG	Duct – Cable #2/0 AWG	Connector Kit Type II	Connector Kit Type III	Connector Kit Type I	Connector Kit Type VII B	Connector Kit Type VIII C	Service Pole and Control Center BR	Service Pole and Control Center X	Service Pole and Control Center C	Structure Ground HAM-275-1392 L	Structure Ground HAM-275-1392 R	Structure Ground Springdale Road	Structure Ground HAM-275-1429	Structure Ground HAM-275-1604	Junction Box Anchor Bolt	12' Mast Arm
UNIT				Ea.	Ea.	Ea.	Ea.	Ea.	Ea	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Lump	Lump	Lump	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Sets	Ea.
150																																												
151	Lt.	688+90 'J'														1																	2												
152	Lt./Rt.	688+90 'J'	688+90 'J'														42		42		104																								
153	Rt.	688+90 'J'														1																	2												
154	Rt./Lt.	688+90 'J'	724+00 'C'														71																												
155	Lt.	724+00 'C'								1						1																	2	2											
156	Lt.	724+10 'C'											1		1					93																									1
157	Lt./Rt.	724+00 'C'	724+00 'C'														95		95		420																								
158	Rt.	724+00 'C'														1																	4												
159	Rt./Rt.	724+00 'C'	690+70 'F'														65																												
160	Rt.	690+70 'F'																															4												
161	Rt./Lt.	690+70 'F'	690+70 'F'														78		78		352																								
162	Lt.	690+70 'F'																															4												
163	Lt./Rt.	690+70 'F'	725+30 'C'														74																												
164	Rt.	725+30 'C'								1			1		1					93												1	1											1
165	Rt.	725+30 'C'	726+50 'C'														120																												
165A	Rt.	725+40 'C'														1																		2											
166	Rt.	726+50 'C'																															2	2											
167	Rt./Rt.	726+50 'C'	SOURCE 'C'														21																												
168	Rt.	726+50 'C'	727+20 'C'														70																												
169	Rt.	727+20 'C'			1				1	1			1		1					93												1	1											
170	Lt.	724+00 'C'	723+00 'C'														100																												
171	Lt.	723+00 'C'														1																	2												
172	Lt.	723+00 'C'	721+86 'C'														10	112*			244*																								1* 1*
173	Lt.	721+86 'C'																																										
174	Lt.	721+86 'C'	719+50 'C'														10	238*			496*																								
175	Rt.	723+25 'C'														1																												
176	Rt.	723+25 'C'	720+71 'C'														10	254*																										1*	
STRUCTURE-TOTAL-SHEET #11																		604			740																							1 1 1 –
ROADWAY-TOTAL SHEET#11				– – – –	1	– – –	1	3	– –	3	–	3	7				766	–	215	–	279	876	– – – –										2	2	22	6	– – – –	– – – –	– – – –	– – – –	– – – –	– – – –	2
177	Rt.	720+71 'C'																																									1* 1*
178	Rt.	720+71 'C'	719+74 'C'														10	97*																											
179	Rt.	719+74 'C'														1																												
180	Lt.	719+50 'C'														1																	2												
181	Lt.	719+50 'C'	719+40 'C'														10																												
182	Lt.	719+40 'C'			1				1	1			1		1					93												1	1											
183	Lt.	719+40 'C'	718+50 'C'														90																												
184	Lt.	718+50 'C'														1																		2											
185	Lt.	718+50 'C'	717+57 'C'														93																												
186	Lt.	717+57 'C'			1				1	1			1		1					93												1	1											
187	Lt.	717+57 'C'	717+10 'C'														47																												
188	Lt.	717+10 'C'														1																		2											
189	Lt./Rt.	717+10 'C'	674+12 'I'														77																												
190	Rt.	674+12 'I'														1																		2											
191	Rt./Lt.	674+12 'I'	716+20 'C'														55		55		130																								
192	Lt.	716+20 'C'			1				1	1			1		1					93												1	1											
193	Rt.	674+12 'I'	674+75 'I'														63																												
194	Rt.	674+75 'I'				1			1	1		1			1					99												1	1											
195	Lt./Rt.	717+10 'C'	717+10 'C'														129		129		278																								
196	Rt.	717+10 'C'														1																		2											
197	Rt.	717+10 'C'	714+25 'C'														285																												
198	Rt.	714+25 'C'			1				1	1			1		1					93												1	1											
199	Rt.	714+25 'C'	712+90 'C'														135																												
200	Rt.	712+90 'C'														1																		2											
ROADWAY-SUB-TOTAL-SHEET#12				– – – –	4	1	– –	5	5	–	1	4	–	5	7		994	–	184	–	471	408	– – – –										5	5	2	10	– – – –	– – – –	– – – –	– – – –	– – – –	– – – –	–
STRUCTURE-SUB-TOTAL-SHEET#12																		97																										1 1

* STRUCTURE QUANTITIES

17/20

DEVELOPED		CHECKED	
REP	Sept.'72	WCT	Oct.'72

SUB-SUMMARY LIGHTING QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-275-13.91
HAMILTON COUNTY

Reference Number	Side	Station	Station			A Light Pole, Design AT 15 B 41.7			C Light Pole, Design AT 12 B 34.2		E Light Pole, Design AT 15 B 34.2	F Light Pole, Design AT 20B 34.2	Light Pole Foundation 24"x8' Deep	Light Pole Foundation 24"x6' Deep	Ground Rod	Luminaire, Type III 700 Watt	Luminaire, Type II 400 Watt	Luminaire, Type III 400 Watt	Lamp, 700 Watt	Lamp, 400 Watt	Pull Box 18"	
UNIT						Ea.			Ea.		Ea.	Ea.	Ea.	Ea	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	
ROADWAY-SUB-TOTAL-SHEET#12				–	–	–			4		1	–	–	5	5	–	1	4	–	5	7	
201	Rt./Lt.	712+90'C'	712+90'C'																			
202	Lt.	712+90'C'																			1	
203	Lt.	712+90'C'	713+15'C'																			
204	Lt.	713+15'C'							1					1	1			1		1		
205	Rt./Rt.	712+90'C'	684+35'G'																			
206	Rt.	684+35'G'																			1	
207	Rt.	684+35'G'	685+17'G'																			
208	Rt.	685+17'G'									1			1	1		1			1		
209	Rt./Rt.	684+35'G'	711+75'C'																			
210	Rt.	711+75'C							1					1	1			1		1		
211	Rt.	711+75'C'	710+20'C'																			
212	Rt.	710+20'C'																			1	
213	Rt.	710+20'C'	707+00'C'																			
214	Rt.	707+00'C'							1					1	1			1		1		
215	Rt.	689+80℄				1							1		1	1			1			
216	Rt.	689+80℄	694+06 ℄																			
ROADWAY-TOTAL-SHEET#12				–	–	1			7		2	–	1	9	10	1	2	7	1	9	10	–
STRUCTURE-TOTAL-SHEET#12																						
217	Rt.	694+06℄				1							1		1	1			1			
218	Rt./Lt.	694+06℄	696+50'G'																			
219	Lt.	696+50'G'																				
ROADWAY-TOTAL - SHEET#13				–	–	1			–		–	–	1	–	1	1	–	–	1	–	–	–

Reference Number	Trench	Conduit 2"	Conduit 3"	Conduit 3" Encased	#10 AWG Pole and Bracket Cable	#4 AWG Distribution Cable	#2 AWG Distribution Cable	#1 AWG Distribution Cable	#1/0 AWG Distribution Cable	#2/0 AWG Distribution Cable	#4 AWG Duct – Cable	#2 AWG Duct – Cable	#1 AWG Duct – Cable	#1/0 AWG Duct – Cable	#2/0 AWG Duct – Cable
UNIT	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.
ROADWAY-SUB-TOTAL-SHEET#12	994	–	184	–	471	408	–	–	–	–	880	–	–	–	–
201	91		91			202									
202															
203	25										35				
204					93										
205	44		44			108									
206															
207	82										92				
208					99										
209	108										118				
210					93										
211	155										165				
212															
213	320										330				
214					93										
215					114										
216	426										436				
ROADWAY-TOTAL-SHEET#12	2245		319	–	963	718	–	–	–	–	2056	–	–	–	–
STRUCTURE-TOTAL-SHEET#12		97													
217					114										
218	234										244				
219															
ROADWAY-TOTAL - SHEET#13	234	–	–	–	114	–	–	–	–	–	244	–	–	–	–

Reference Number	Connector Kit Type II	Connector Kit Type III	Connector Kit Type I	Connector Kit Type VII B	Connector Kit Type VII C	Service Pole and Control Center BR	Service Pole and Control Center X	Service Pole and Control Center C		Structure Ground HAM-275-1392 L	Structure Ground HAM-275-1392 R	Structure Ground Springdale Road	Structure Ground HAM-275-1429	Structure Ground HAM-275-1604	Junction Box	Anchor Bolt		12' Mast Arm
UNIT	Ea.	Ea.	Ea.	Ea.	Ea.	Lump	Lump	Lump		Ea.	Ea.	Ea.	Ea.	Ea.	Ea.			Ea.
ROADWAY-SUB-TOTAL-SHEET#12	5	5	2	10	–	–	–	–		–	–	–	–	–	–	–		
201																		
202			2															
203																		
204	1	1																
205																		
206				2														
207																		
208	1	1																
209																		
210	1	1																
211																		
212				2														
213																		
214	1	1																
215	1	1																
216																		
ROADWAY-TOTAL-SHEET#12	10	10	4	14	–	–	–	–		–	–	–	–	–	–	–	–	–
STRUCTURE-TOTAL-SHEET#12															1	1		
217	1	1																
218																		
219				2														
ROADWAY-TOTAL - SHEET#13	1	1	–	2	–	–	–	–		–	–	–	–	–	–	–		–

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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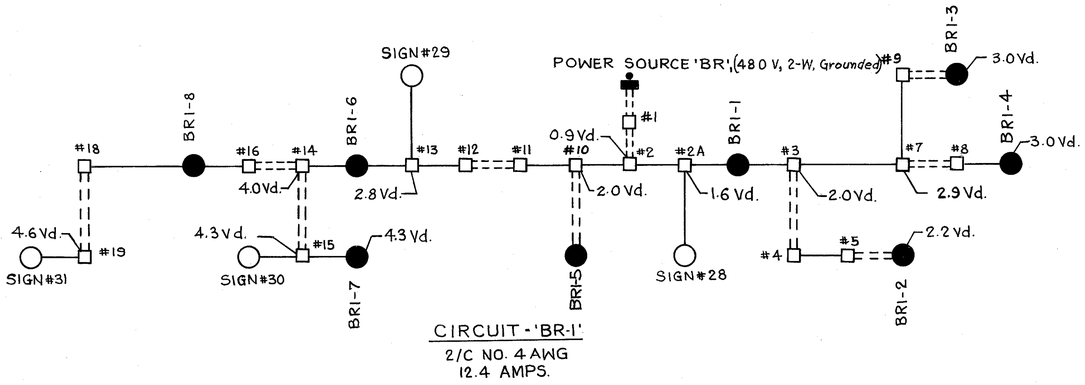
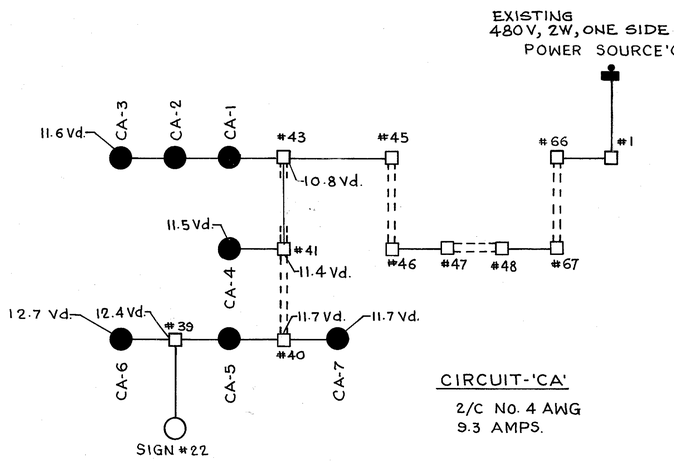
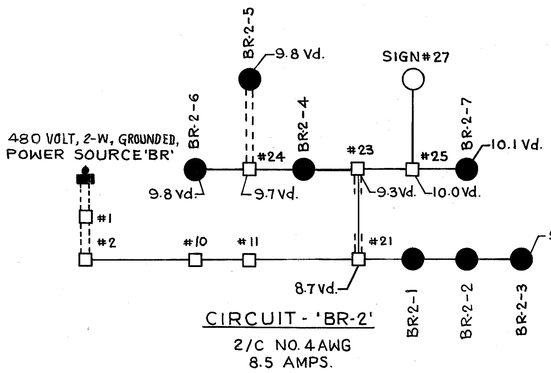
HAM.- 275 - 13.91
HAMILTON COUNTY

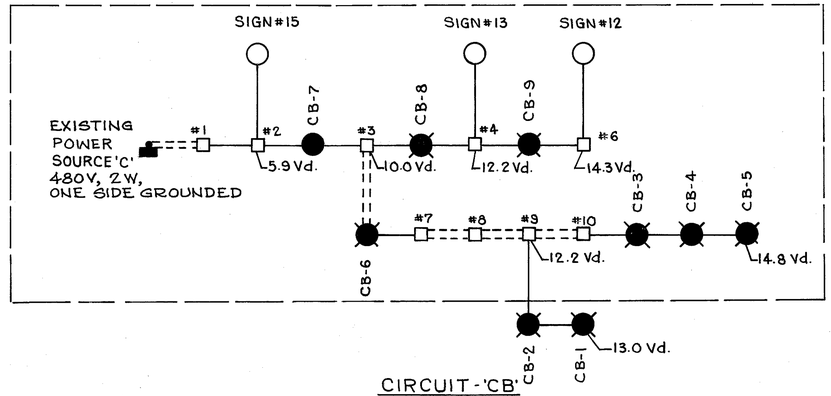


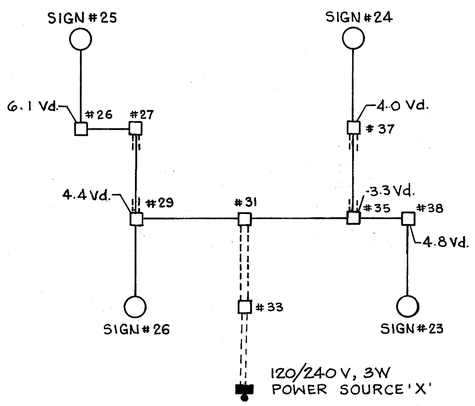


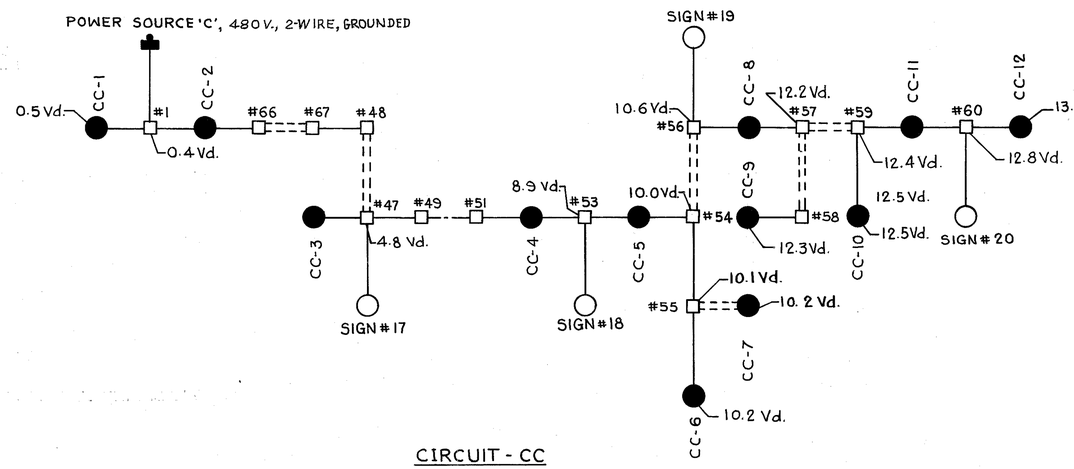


REFERENCE LETTER	POLE DESIGN NUMBER	TRANSFORMER BASE STYLE	FOUNDATION ANCHOR BOLTS SIZE	FOUNDATION ANCHOR BOLTS DIA. BOLT CIRCLE
	LIGHT POLE DATA			
A	AT15B41.7	AT-A	1"x40"	15"
C	AT12B 34.2	AT-A	1"x 40"	15"
E	AT 15B34.2	AT-A	1"x 40"	15"
F	AT20B 34.2	AT-A	1"x 40"	15"

EXISTING AS PART OF
HAM.-275-16.15







LEGEND

- 400 W Light Unit
- 700 W Light Unit
- 3" Conduit
- 2" Conduit
- Duct Cable
- Pull Box
- Sign
- Service Pole & Control Center *

* Note-
Control Transformers (480 / 120 VOLTS), installed in the control center enclosures, shall be rated 300 V.A. with the secondary fuse rated 5 A.

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20

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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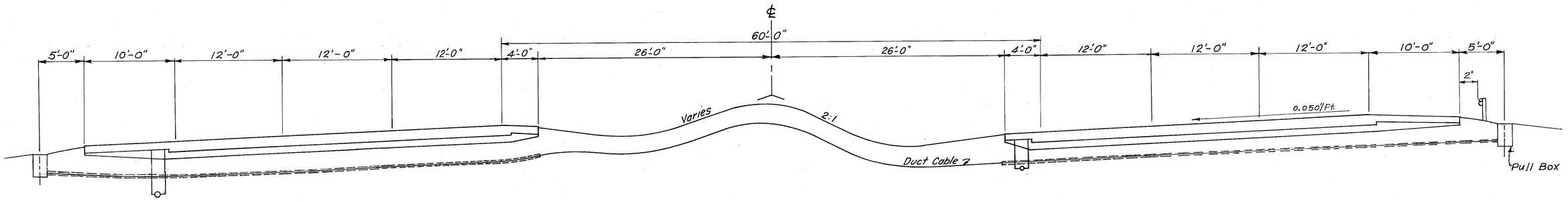
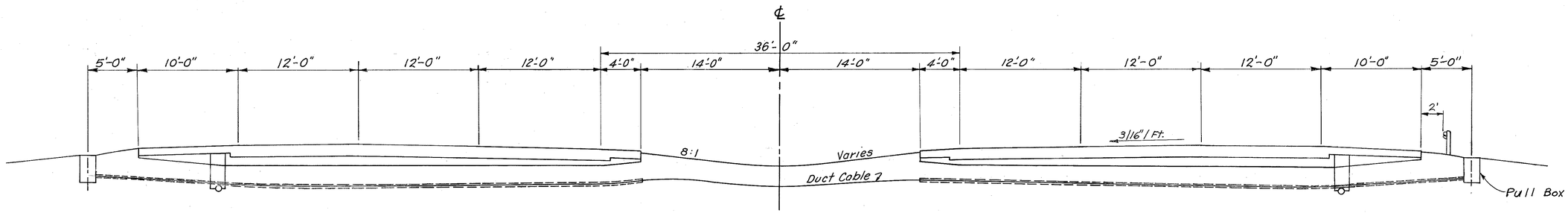
HAMILTON COUNTY



SUPERELEVATED SECTION

Sta. 591+65
Sta. 624+10
Sta. 642+90



NORMAL SECTION

Sta. 675+80

(Typical Median Electrical Conduit Crossover)
(Conduit Drainage Detail)

REVISED DATE 8-22-75

20
20

CONDUIT DRAINAGE DETAIL

SIGNING TITLE SHEET

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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HAMILTON COUNTY

CONVENTIONAL SIGNS

COUNTY LINE
CORPORATION LINE
GUARD RAIL (EXISTING)
GUARD RAIL (PROPOSED)
GROUND MOUNTED SIGNS ON ONE SUPPORT
GROUND MOUNTED SIGNS ON TWO SUPPORTS
GROUND MOUNTED SIGNS ON THREE SUPPORTS
GROUND MOUNTED SIGNS, BACK-TO-BACK ON ONE SUPPORT
GROUND MOUNTED SIGNS, BACK-TO-BACK ON TWO SUPPORTS
SPECIAL "ONE WAY" SIGN SUPPORT
OVERHEAD SIGN SUPPORTS
OVERHEAD SIGN SUPPORT (CANTILEVER TYPE)
OVERHEAD SIGN SUPPORT (BUTTERFLY TYPE)

INDEX

TITLE SHEET ---------- 1
GENERAL NOTES ---------- 2, 3 & 4
TRAFFIC CONTROL SUMMARY ---------- 5
SIGNING PLANS ---------- 6, 7, 8, 9, & 10
SIGNING DETAILS ---------- 11, 12, 13 & 14
PAVEMENT MARKING DETAILS ---------- 15, 16, 17 & 18
PAVEMENT MARKING QUANTITIES ---------- 19
TRAFFIC CONTROL QUANTITIES ---------- 20
SUPPLEMENTAL STD. TRACINGS ---------- 22 Thru 37

1
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FHWA REGION	STATE	PROJECT	
5	OHIO		

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202 REMOVAL OF GROUND MOUNTED SIGN INSTALLATIONS FOR STORAGE

This work shall consist of the removal of sign installations as shown on the plans.

Work shall consist of the removal of sign supports, signs and foundations and the disposal of surplus material.

All signs, supports and accessories removed shall be stored within the limits of the projects at locations approved by the Engineer for removal by state forces.

To assure maintenance of adequate traffic control at all times, no signs shall be removed without the approval of the Engineer.

Payment for removal of ground mounted sign installations will include all necessary labor and equipment required to perform the required work as indicated above.

Basis of payment will be as follows:

(1) 202 REMOVAL OF GROUND MOUNTED SIGN INSTALLATION FOR STORAGE, at the contract bid price per each.

620 DELINEATORS, BY TYPE

The Contractor shall have the option of driving or concrete embedding delineator posts in accordance with details shown on Sheet 440.

Posts may be trimmed on the embedded end to adjust for grade and required delineator mounting height. Concrete shall be 499 Class C.

The Contractor shall be responsible for damage to underground utilities or cable during performance of this work.

Compensation for the above item will be incidental to various delineator items included within this project.

620 INTERIM DELINEATORS

This work shall consist of furnishing and installing interim delineators as specified.

The work shall include No. 2 posts, 4'-0" long bolted to the inside of interim barrels furnished under 606 using a minimum of three 5/16" steel bolts spaced on 12" centers. Post flanges shall be 90 degrees to interim edge lines facing approaching traffic. Type D delineators shall be mounted on the drive post flanges with the top of the delineator 4'0" above the pavement.

The quantity furnished and installed will be paid for at the price bid per each, 620 INTERIM DELINEATORS, which price will be full compensation for furnishing and installing drive posts and delineators including necessary hardware, labor and equipment.

625 PLAN SPECIFICATION REFERENCES

References to Item 625 and 713 in these plans shall be considered to read as respective references to Items 625 and 713.

844 SIGNS FURNISHED BY THE STATE

The Contractor shall submit, in triplicate, a schedule for sign erection to the Engineer at least 120 calendar days prior to the start of any scheduled erection work. The schedule shall include proposed dates, sign numbers and delivery point. The Engineer will furnish copies of the schedule to the District Traffic Engineer and to the Engineer of Design Services, 25 South Front Street, Columbus, Ohio 43215.

844 DRIVE POSTS

Drive posts shall be steel in accordance with 712.20.

BALLASTS

In addition to the requirements of 844.10, ballasts for mercury vapor luminaires shall be located within the luminaire housing or contained in a weatherproof housing contiguous to the luminaire.

844 MILE MARKER LOCATIONS

The locations shown in the plans for mile markers are approximate. The Bureau of Transportation Technical Services will locate the longitudinal position of the mile markers by a paint mark on the completed pavement edge. On divided highways only one pavement edge will be marked. Markers for the opposite direction shall be set across from those on the marked edge. The Contractor shall notify the Project Engineer 30 days in advance of the planned marker installation. The Project Engineer will then notify the Bureau of Transportation Technical Services. Any delineator within 50 feet of a mile marker shall be omitted.

844 ALTERNATE DESIGNS FOR SIGN SUPPORTS

If the Contractor desires to furnish alternate designs or materials for sign supports, the alternate designs shall be submitted to the State at least 21 days prior to opening of bids. The bidder will be notified as to acceptance or rejection of alternate designs at least 7 days before bids are to be opened. Submissions shall be made to the Ohio Department of Transportation, Bureau of Design Services, 25 South Front Street, Columbus, Ohio 43215.

844 INTERIM POSTS, NO. 3, AS PER PLAN

This work shall consist of furnishing and installing interim posts as specified for interim pavement width transitions. Details are shown on Sheet 425.

Work shall consist of No. 3 posts 11'-0" long bolted to the inside of temporary barrels furnished under 606 using a minimum of three 5/16" steel bolts spaced on 12" centers.

Post flanges shall be 90 degrees to the interim edge lines facing approaching traffic. Bearing plates 3" X 2" shall be used at each bolt outside the barrel to prevent pull through. Signs mounted on the posts shall have a seven foot clearance from the bottom of the sign to the surface of the pavement. Payment for furnishing and erection of these signs is covered under separate items within the plans.

The quantity furnished and installed will be paid for at the contract price bid per linear foot, 844 INTERIM POSTS, NO. 3, AS PER PLAN which price will be full compensation for furnishing and installing the posts, including necessary hardware, labor and equipment.

844 GROUND MOUNTED SUPPORTS, NO. 6 STEEL POST, AS PER PLAN

This work shall consist of the furnishing, assembly and installation of two (2) No. 3 drive posts (No. 6 post) in combination with a square welded or seamless galvanized tubular post extension spliced to the top of the No. 6 post. Details are shown on Sheet 449.

Square tubular post material shall conform to ASTM A 570 Grade B.

Work shall include all labor, materials, equipment, tools and hardware necessary to perform the required work.

Basis of payment will be for 844 GROUND MOUNTED SUPPORTS, NO. 6 STEEL POST, AS PER PLAN per linear foot measured by the total overall length of combination post.

844 COMBINATION OVERHEAD SIGN SUPPORT AND LIGHT POLE, BY TYPE

This work shall consist of the furnishing and installation of the combination overhead sign support and light pole as detailed on Sheet 426 and TC-22.10.

The support shall also conform to all applicable requirements of 844.

Payment for sign, sign support foundation, roadway lighting items and bracket arm is covered under separate pay items.

Payment for this work will be made at the contract price bid per each, 844 COMBINATION OVERHEAD SIGN SUPPORT AND LIGHT POLE, BY TYPE, installed in place and accepted, which price will be full compensation for furnishing all anchor bolts, 2" and 3/4" EMT conduit ells and for furnishing and installing all sign brackets, sign lighting support arms, switch enclosure mounting brackets and all components parts necessary to make a complete workable installation.

844 SWITCH ENCLOSURE MOUNTING BRACKETS

This work shall include the fabricating, furnishing and installation of disconnect switch enclosure mounting brackets when enclosures are attached to concrete bridge columns or abutments.

Work shall consist of field drilling, attachment and hardware as detailed on Sheet 441.

Basis of payment will be at the contract bid price per each, 844 SWITCH ENCLOSURE MOUNTING BRACKET which price will be full compensation for furnishing, fabrication and installation including all labor, material and incidentals necessary to complete this work.

844 PADLOCKS AND KEYS

Padlocks furnished shall be either brass or bronze padlocks equal to Master No. 4 BKA or Wilson Bohannan 660 and shall be keyed in accordance with 844.10.

Payment will be included in the bid for the items being locked.

621 INTERIM PAVEMENT MARKINGS REMOVED, BY TYPE

This work shall consist of the removal or obliteration of interim pavement markings on the pavement.

The markings may be removed by applying heat or a solvent or by any other method approved by the Engineer, except that the method shall not be injurious to the appearance, texture or strength of the pavement.

Upon removal of all pull up tape, the primer stains shall be removed by use of kerosene, gasoline or other approved solvent.

Payment for 621 INTERIM PAVEMENT MARKINGS REMOVED, BY TYPE, will be made at the contract bid price per linear foot and will constitute full compensation for all work, including materials, equipment, labor, incidentals and disposal of surplus materials.

621 INTERIM PAVEMENT MARKING, BY TYPE

This work shall consist of the furnishing and installation of interim removable markings as specified herein and shown on the plans.

1. MATERIAL

Material shall consist of a backing coated with a pressure sensitive adhesive and a weather and traffic resistant reflective white or yellow colored surface and additional requirements as follows:

A. Reflection — The white and yellow striping material shall be reflex-reflective, reflecting white or yellow respectively and shall be readily visible when viewed with automobile headlights at night.

B. Adhesive — The striping material shall have a precoated pressure-sensitive adhesive which shall not require a liner for protection from contamination, preadhesion or blocking within the roll as delivered.

C. Conformability — The striping material shall be thin, flexible, formable and following application shall remain conformed to the texture of the pavement surface.

D. Removability — The striping material backing shall permit removal without requiring sandblast, solvent or grinding methods.

E. Durability — The striping material applied in accordance with recommended procedures shall be weather resistant and show no appreciable fading, lifting or shrinkage prior to completion of this project.

F. General — The striping material as supplied shall be of good appearance, free from cracks and edges shall be true, straight and unbroken. The striping material shall be supplied in rolls and there shall be no more than 3 splices per 60 yards of length.

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The striping material shall be prepared for delivery in standard commercial containers so constructed as to insure acceptance by the carrier and prevent damage during proper shipment and storage.
The Contractor shall store the material in a cool, dry location where temperature will not exceed 100 degrees Farenheit prior to application of marking on roadway surfaces.

2. ROAD SURFACE PREPARATION
The road surface must be clean and dry, free of oils and grease, dust or dirt. All surfaces must be primed.
Concrete pavement shall be surface treated in accordance with section 621.04. Surface shall then be generously flushed with clean water and allowed to dry thoroughly prior to application of primer and interim markings.

3. PRIMING
Method of priming shall be as approved by the Engineer. The Contractor shall submit a proposal for type of priming to be used.

4. APPLICATION
Interim lines shall be applied to the road surface with a roller type applicator and rolled immediately afterwards by rubber tired roller with approximate single wheel load between one thousand (1000) and two thousand (2000) pounds.

5. SPECIAL PLAN DETAILS
Details for location of interim markings are shown in the plans.

6. BASIS OF PAYMENT
Cost of furnishing and installation of INTERIM PAVEMENT MARKING, BY TYPE shall be at the contract unit price per linear foot.

621 THERMO-PLASTIC PAVEMENT MARKING, BY TYPE

THIS PAVEMENT MARKING MATERIAL SHALL BE REFLECTORIZED "PERMALINE" THERMO-PLASTIC COMPOUND OR RELFECTORIZED "CATATHERM" THERMO-PLASTIC COMPOUND AS MANUFACTURED BY CATAPHOTE CORPORATION, OR APPROVED EQUAL. IN ADDITION, THE THERMOPLASTIC MATERIAL FURNISHED ON THIS CONTRACT. SHALL MEET THE FOLLOWING SPECIFICATIONS:

GLASS BEADS MEETING OHIO SPECIFICATION NO. 712.05 SHALL BE UNIFORMLY MIXED THROUGHOUT THE MATERIAL AT THE RATE OF NOT LESS THAN 250 LBS. OF BEADS PER 1,000 LBS. OF THERMO-PLASTIC MATERIAL. IMMEDIATE REFLECTORIZATION SHALL BE ACCOMPLISHED BY THE APPLICATION OF BEADS CONFORMING TO THE FOLLOWING GRADING:

SIEVE NO.	TOTAL PERCENT PASSING
20	90-100
35	0-10

BEADS SHALL BE APPLIED TO THE SURFACE OF THE COMPOUND AT THE TIME THE THERMO-PLASTIC MATERIAL IS APPLIED TO THE PAVEMENT. A GLASS BEAD DISPENSER OF APPROVED DESIGN SHALL BE USED FOR A UNIFORM SURFACE APPLICATION OF BEADS AT A RATE OF NOT LESS THAN TWO (2) POUNDS OF BEADS PER 33 SQUARE FEET OF LINE.

THE MATERIAL SHALL WITHSTAND TEMPERATURE VARIATION FROM MINUS 20 DEGREES F. TO PLUS 120 DEGREES F., WITHOUT DEFORMATION OR DISCOLORATION, AND SHALL MAINTAIN ITS ORIGINAL DIMENSIONS AND PLACEMENT, FREE FROM TACK, CHIPPING, OR SPALLING. WHITE THERMO-PLASTIC MATERIAL SHALL BE FREE OF DIRT OR TINT. THE MATERIAL SHALL HARDEN SUFFICIENTLY WITHIN 15 MINUTES AFTER APPLICATION TO ALLOW TRAFFIC OVER THE LINE WITHOUT PICKUP OR IMPRESSION.

SAMPLES

THE CONTRACTOR SHALL FURNISH A 10 POUND MATERIAL SAMPLE OF THE THERMOPLASTIC COMPOUNDS FOR EACH COLOR HE PROPOSES TO FURNISH AND ALSO TYPICAL SAMPLES OF LINE 4 INCHES WIDE BY 10 INCHES LONG FOR EACH COLOR SPECIFIED TO BE USED.

MATERIAL INSTALLED ON THE ROAD ON THIS CONTRACT IN ACCORDANCE WITH THE CONTRACTOR'S STANDARD PRACTICE SHALL BE COMPARED WITH THE ORIGINAL SAMPLES AT LEAST 90 DAYS AFTER CONSTRUCTION AND SHALL SHOW NO DARKENING OR DISCOLORATION.

CONSTRUCTION DETAILS

PRE-MARKING: THE EXISTING EDGE LINES AND LANE LINES SHALL BE ADEQUATELY REFERENCED BY THE CONTRACTOR, BEFORE PAVING OPERATIONS BEGIN, TO ASSURE PROPER ALIGNMENT OF THE NEW PAVEMENT MARKINGS. PRE-MARKING SHALL BE LOCATED FROM THESE REFERENCE POINTS, AND ACCURATELY FOLLOW AN OFFSET LINE PARALLEL TO THE ORIGINAL PAVEMENT MARKINGS, PLAN PAVEMENT MARKINGS OR AS DIRECTED BY THE ENGINEER. NO MORE THAN ONE INCH DEVIATION FROM THE THEORETICAL LOCATION WILL BE PERMITTED. THE OFFSET SHALL BE PLACED IN SUCH A MANNER THAT THE EDGE OF THE PRE-MARK LINE WILL BE NO FURTHER THAN ONE (1) INCH FROM THE EDGE OF THE THERMOPLASTIC LINE. ALL OFFSETS SHALL BE IN THE SAME DIRECTION FROM CENTERLINE OF MAINLINE ROADWAY.

APPLICATION: LINES SHALL BE SHARP, AND WELL DEFINED. SCREED SPILLAGE OR NON-UNIFORM APPLICATION ARE UNACCEPTABLE. THE MATERIAL SHALL BE APPLIED TO A UNIFORM MINIMUM THICKNESS OF 1/8 INCH TO THE WIDTH SPECIFIED. LINE WIDTHS SHALL BE ACHIEVED BY THE USE OF 4", 6", 8", 10" and 12" COMBINATION APPLICATORS. THE MINIMUM NUMBER OF PASSES SHALL BE USED, THAT IS, A 24" LINE SHOULD CONSIST OF TWO 12" PASSES. WHEN THE WIDTH OF A LINE REQUIRES MORE THAN ONE PASS, THE INDIVIDUAL LINES SHALL NOT OVERLAP. A 1/4" GAP WILL BE ACCEPTABLE BETWEEN LINES IN THIS CASE.

ALL PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH THE STANDARD PAVEMENT MARKING SYMBOL, WORK OR LINE SPECIFICATIONS, DIMENSIONS DRAWING GOVERNING THE TYPES OF SYMBOLS OR LINES SHOWN ON THE PLANS. A SET OF TEMPLATES ARE REQUIRED FOR LAYOUT PRIOR TO THE INSTALLATION OF ARROWS AND WORDS.

ON ALL PAVEMENT SURFACES AND AT LOCATIONS WHERE A NEW THERMO-PLASTIC LINE IS TO BE APPLIED OVER AN OLD PAINTED LINE, THE CONTRACTOR SHALL PREPARE THE SURFACE TO INSURE ADHESION. NO LINES SHALL BE APPLIED DIRECTLY LONGITUDINALLY OVER ANY CONSTRUCTION CRACK OR JOINTS.

THE AIR TEMPERATURE AT THE TIME OF APPLICATION SHALL BE NOT LESS THAN 50 DEGREES F. THE TEMPERATURE OF THE COMPOUND DURING APPLICATION SHALL NEVER FALL BELOW 375 DEGREES F.

LINES SHALL BE STRAIGHT AND TRUE, AND SHALL BE PLACED IN THE SAME LOCATION AS THE ORIGINAL PAVEMENT MARKINGS, IN CONFORMANCE WITH THE PLANS, OR AS DIRECTED BY THE ENGINEER. LINES SHALL DEVIATE FROM THE APPROVED PRE-MARK LINE NO MORE THAN TWO (2) INCHES IN ONE HUNDRED (100) FEET, OR AN EQUIVALENT RATIO OF THE ABOVE DISTANCES (I.E. 1 INCH IN 50 FOOT, ETC.). UNDER NO CIRCUMSTANCE WILL ANY DEVIATION GREATER THAN THREE (3) INCHES FROM THE APPROVED PRE-MARK LINE BE PERMITTED. WHEN A LINE IS SKEWED IN SUCH A MANNER THAT IT CROSSES THE PRE-MARK LINE, THE OFFSETS TO THE RIGHT & LEFT OF THE PRE-MARK LINE WILL BE ADDED, AND THE TOLERANCE WILL BE DETERMINED FROM THE SUM OF THE OFFSETS.

PAVEMENT MARKINGS WHICH ARE IMPROPERLY LOCATED SHALL BE CORRECTED. IMPROPERLY LOCATED LINES SHALL BE REMOVED AND LINES SHALL BE APPLIED IN THE CORRECT LOCATIONS AT THE CONTRACTOR'S EXPENSE, INCLUDING ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS.

ALL SPILLED MATERIALS SHALL BE REMOVED AT THE CONTRACTORS EXPENSE.

METHOD OF MEASUREMENT

THE LENGTH PAID FOR WILL BE THE NUMBER OF LINEAR FEET OR MILES OF THE SEVERAL TYPES OF LINES INSTALLED AND ACCEPTED, MEASURED IN PLACE. MEASUREMENTS WILL BE MADE BY A REPRESENTATIVE OF THE CONTRACTOR AND THE ENGINEER. THE LENGTH OF LANE LINES TO BE PAID FOR WILL BE THE ACTUAL NUMBER OF MILES, EXCLUSIVE OF GAPS, MEASURED IN PLACE, COMPLETED AND ACCEPTED. PAVEMENT ARROWS WILL BE MEASURED PER EACH AND TRANSVERSE STRIPES WILL BE PAID FOR ON A PER LINEAR FOOT BASIS.

BASIS OF PAYMENT

THESE ITEMS WILL BE PAID FOR IN ACCORDANCE WITH 621 OR AT THE CONTRACT UNIT PRICE PER MILE OF 4" OR 6" THERMO-PLASTIC LANE OR EDGE LINES: PER LINEAR FEET OF 8" THERMO-PLASTIC CHANNELIZATION LINES, AND 24" THERMO-PLASTIC STOP LINES, PER EACH FOR THERMO-PLASTIC PAVEMENT ARROWS AND PER LINEAR FOOT FOR 16" TRANSVERSE STRIPES AS SPECIFIED HEREIN. PRICE AND PAYMENT WILL CONSTITUTE FULL COMPENSATION FOR PROVIDING MATERIALS, HAULING, SURFACE PREPARATION, PLACING, PROTECTING ALL APPLIED ITEMS AS SPECIFIED OR REQUIRED BY THE ENGINEER, AND FOR ALL LABOR, TOOLS, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO LAY OUT AND COMPLETE THE WORK.

MAINTAINING TRAFFIC

PLACEMENT OF PAVEMENT MARKINGS ON FREEWAY LANES AND FREEWAY RAMP GORE AREAS SHALL BE ACCOMPLISHED ON WEEKDAYS (MONDAY THROUGH FRIDAY) BETWEEN THE HOURS OF 9:00 AM AND 3:00 PM, WITH A MAXIMUM OF ONE DIRECTIONAL FREEWAY LANE CLOSED AT ANY TIME.

THE CONTRACTOR SHALL PROVIDE 2 TRAILING VEHICLES PLUS A POLICE CRUISER WITH FLASHER FOLLOWING THE PAVEMENT MARKING EQUIPMENT WHEN MARKINGS ARE PLACED, IN ORDER TO PROVIDE ADVANCE WARNING TO MOTORISTS OF THE TEMPORARY LANE CLOSURE AND CONSTRUCTION. THE 2 TRAILING VEHICLES SHALL TRAVEL 500 FEET APART WITH THE REMOTE VEHICLE TRAVELING ON THE SHOULDER (LEFT OR RIGHT AS APPLICABLE) WHERE USABLE SHOULDER IS AVAILABLE. THE INTERMEDIATE TRAILING VEHICLE SHALL TRAVEL IN THE CLOSED LANE, 500 FEET BEHIND THE PAVEMENT MARKING EQUIPMENT. THE POLICE CRUISER SHALL TRAVEL 500 TO 1000 FEET BEHIND THE REMOTE TRAILING VEHICLE.

EACH TRAILING VEHICLE SHALL HAVE FLASHERS PLUS BLACK AND YELLOW WARNING SIGNS MOUNTED ON THE BACK FACING TRAFFIC WITH STANDARD TYPE MESSAGES ADVISING MOTORISTS OF THE WORK AHEAD, ADVISORY WARNING SPEED, AND WHICH LANE IS CLOSED.

WHEN MARKINGS ON RAMPS ARE PLACED, ONE FLAGMAN MAY BE SUBSTITUTED FOR ONE OF THE TRAILING VEHICLES WITH THE SAME DISTANCE INTERVALS TRAILING THE PAVEMENT MARKING EQUIPMENT.

COST OF ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS FOR MAINTAINING TRAFFIC SHALL BE INCLUDED IN THE COST OF THE VARIOUS THERMO-PLASTIC PAVEMENT MARKING ITEMS.

DEVELOPED		CHECKED	
ARS	3-1972	RCP	3/72

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2	OHIO		

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HAMILTON COUNTY

TRAFFIC CONTROL SUMMARY

ITEM	OVERHEAD SIGNING AND SIGNS LIGHTING QUANTITIES																
	SIGN #14	SIGN #16	SIGN #17	SIGN #18	SIGN #19	SIGN #20	SIGN #21	SIGN #22	SIGN #23	SIGN #24	SIGN #25	SIGN #26	SIGN #27	SIGN #28	SIGN #29	SIGN #31	SIGN #30
								1							1		
					1									1			
		1		1		1											
	1																
										1	1						
							1						1				
																1	
									1			1					
	3.7	3.7	3.7	3.1	3.1	3.1	3.1	9.0	4.2	4.2	4.2	4.2		3.7	2.6	3.7	3.1
																	1
	135	143	273	119	117	119	99	304*	193*	221*	221*	193*	214*	137	231	85	273
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
													2				
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
			1														
	2	2	4	2	2	2	1	5	2			2	3	2	2	2	4
										2	2						
	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1
	1	1	2	1	1	1	1	2	1	1	1	1	1	1	2	1	2
	2	2	4	2	2	2	1	5	2			2	3	2	2	2	4
										2	2						

* Includes Exit Panel

61B	TOTAL SHEET #5	TOTAL SHEET #21	TOTAL SHEET #19	TOTAL SHEET #20	ITEM	QUAN.	UNIT	DESCRIPTION
				44	844	44	L.F.	Ground Mounted Supports, No. 2 Steel Post
				160	844	160	L.F.	Ground Mounted Supports, No. 3 Steel Post
		66		850	844	916	L.F.	Ground Mounted Supports, No. 6 Steel Post
				77	844	77	L.F.	Ground Mounted Supports, W10x21
				64	844	64	L.F.	Ground Mounted Supports, No. 6 Steel Post, As Per Plan
				2	844	2	Ea.	Breakaway Beam Connection
		170			844	170	L.F.	Interim Posts, No. 3, As Per Plan
	1				844	1	Ea.	Overhead Sign Support No. 7.65, Des. 6, Modified, 79'0" Span
	1				844	1	Ea.	Overhead Sign Support No. 9.24, Des. 1, Modified, 11'0" Arms
	2				844	2	Ea.	Overhead Sign Support No. 12.30, Des. 5, Modified, 22'0" Arms
	3				844	3	Ea.	Overhead Sign Support No. 12.30, Des. 5, Modified, 20'0" Arms
	1				844	1	Ea.	Overhead Sign Support No. 12.30, Des. 6, Modified, 24'0" Arms
	2				844	2	Ea.	Overhead Sign Support No. 12.30, Des. 9, Modified, 26'0" Arms
	1				844	1	Ea.	Overpass Structure Mounted Sign Support, Type 18.24
	1				844	1	Ea.	Overhead Sign Support No. 12.30, Des. 4, Modified, 18'0" Arms
	1				844	1	Ea.	Overhead Sign Support No. 12.30, Des. 4, Modified, 22'0" Arms
	2				844	2	Ea.	Overhead Sign Support No. 12.30, Des. 8, Modified, 26'0" Arms
	62.4				844	62.4	C.Y.	Concrete for Anchor Base, Foundations
				5.0	844	5.0	C.Y.	Concrete for Embedded Foundations
	1				844	1	Ea.	Overhead Sign Support No. 9.24, Des. 2, Modified, 13'0" Arms
		191		533	844	724	Sq. Ft.	Signs Erected, Flat Sheet
	3077			355	844	3432	Sq. Ft.	Signs Erected, Extru Sheet
	17				844	17	Ea.	Sign Service
	2				844	2	Ea.	Switch Enclosure Mounting Brackets
	17				844	17	Ea.	Disconnect Switch With Enclosure, Type X
	1				844	1	Ea.	Combination Overhead Sign Support and Light Pole No. 12.30, Design 5, Modified, 22'0" Arms
			4825		621	4825	L.F.	8" Channelizing Lines, Thermoplastic, As Per Plan
			0.30		621	0.30	Mi.	4" Lane Lines, Thermoplastic, As Per Plan
			13.83		621	13.83	Mi.	Edge Lines, Thermoplastic, As Per Plan
	37				844	37	Ea.	Ballasts, Type CMRI-175-480V
	4				844	4	Ea.	Ballasts, Type CMRI-250-480V
		2270			606	2270	L.F.	Guard Rail, Type 6
Lump					606	Lump	Lump	Temporary Guard Rail, As Per plan
	37				844	37	Ea.	Mercury Vapor Luminaire with Type 175 Watt Lamp
	4				844	4	Ea.	Mercury Vapor Luminaire with Type 250 Watt Lamp
	16				5625	16	Ea.	Ground Rods
	20				844	20	Ea.	Signs Wired
	1				844	1	Ea.	Signs Wired, Overpass Structure Mounted
		13			620	13	Ea.	Interim Delineators
				123	620	123	Ea.	Delineators, Type A, Post Mounted
				1	620	1	Ea.	Delineators, Type A, Bracket Mounted
				144	620	144	Ea.	Delineators, Type D, Post Mounted
			4		621	4	Ea.	Lane Arrows, Thermoplastic, As Per Plan
			1.07		621	1.07	Mi.	Edge Lines
			2.51		621	2.51	Mi.	4" Lane Lines
			10.81		621	10.81	Mi.	6" Lane Lines, Thermoplastic, As Per Plan
			4		621	4	Ea.	Word (ONLY) On Pavement, Thermoplastic, As Per Plan
			493		621	493	L.F.	24" Stop Lines
			2412		621	2412	L.F.	8" Channelizing Lines
			2719		621	2719	L.F.	12" Broad Transverse Lines
			1053		621	1053	L.F.	Curb Marking
			1657		621	1657	S.F.	Island Marking
			2.56		621	2.56	Mi.	Center Line
			175		621	175	L.F.	24" Stop Lines, Thermoplastic, As Per Plan
3200		4540			621	7140	L.F.	Interim Pavement Marking, 4" Edge Line
			1746		621	1746	L.F.	24" Broad Transverse Lines, Thermoplastic, As Per Plan
		32			621	32	L.F.	Interim Marking Removed-24" Stop Line
				11	202	11	Ea.	Removal of Ground Mounted Sign Installations For Storage
2300		9809			621	10,039	L.F.	Interim Pavement Marking Removed - 4" Edge Line
		1500			621	1500	L.F.	Interim Pavement Marking Removed - 4" Center Lines
		192			621	192	L.F.	Interim Pavement Marking Removed - 8" Channelizing Line
		180			621	180	L.F.	Interim Pavement Marking Removed - 12" Broad Transverse Lines

REVISED DATE 8-22-75

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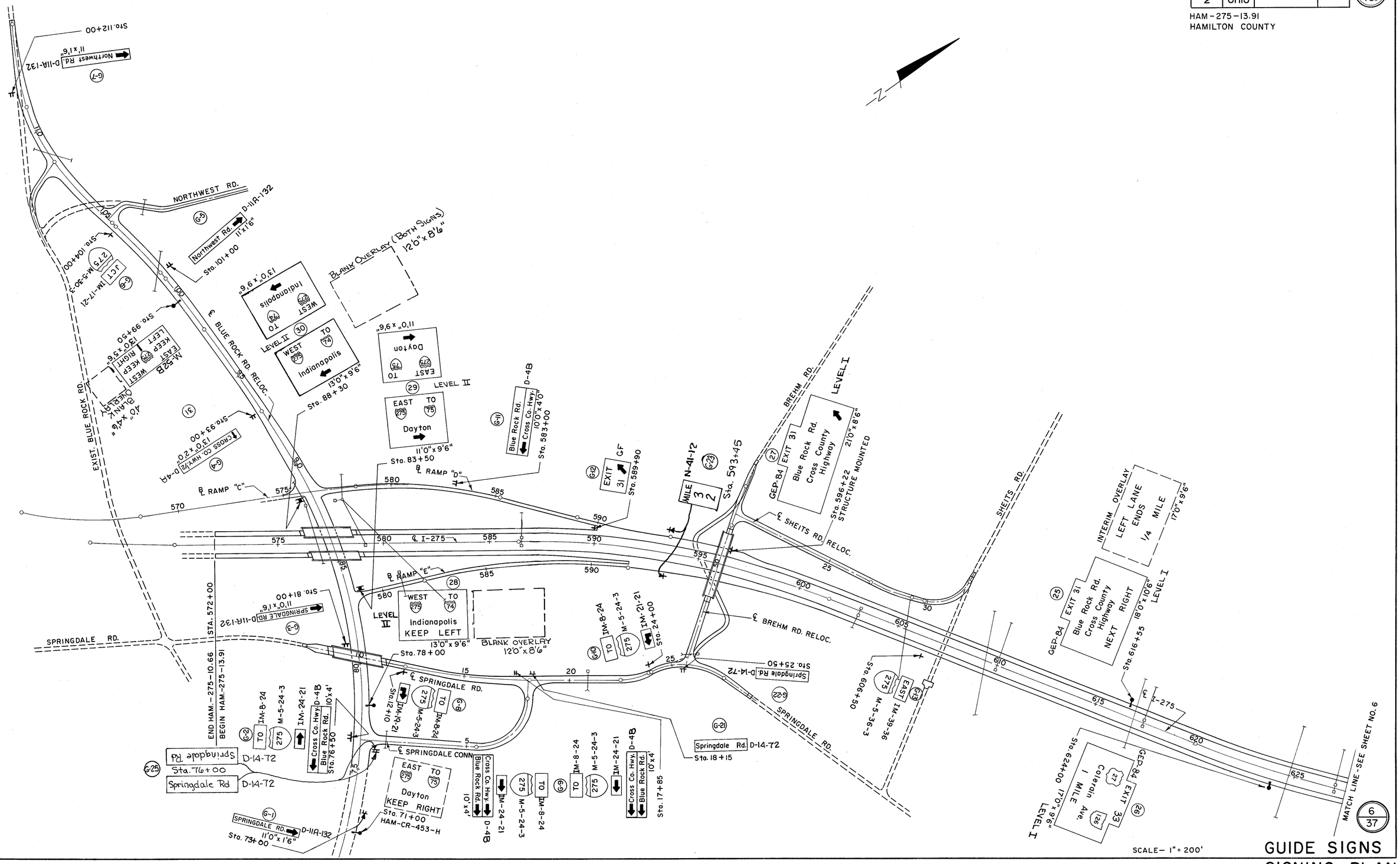
TRAFFIC CONTROL SUMMARY

Rev. 9-23-75

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

421
468

HAM-275-13.91
HAMILTON COUNTY



6
37

GUIDE SIGNS
SIGNING PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

422
468

HAM-275-13.91
HAMILTON COUNTY

SCALE - 1"= 200'

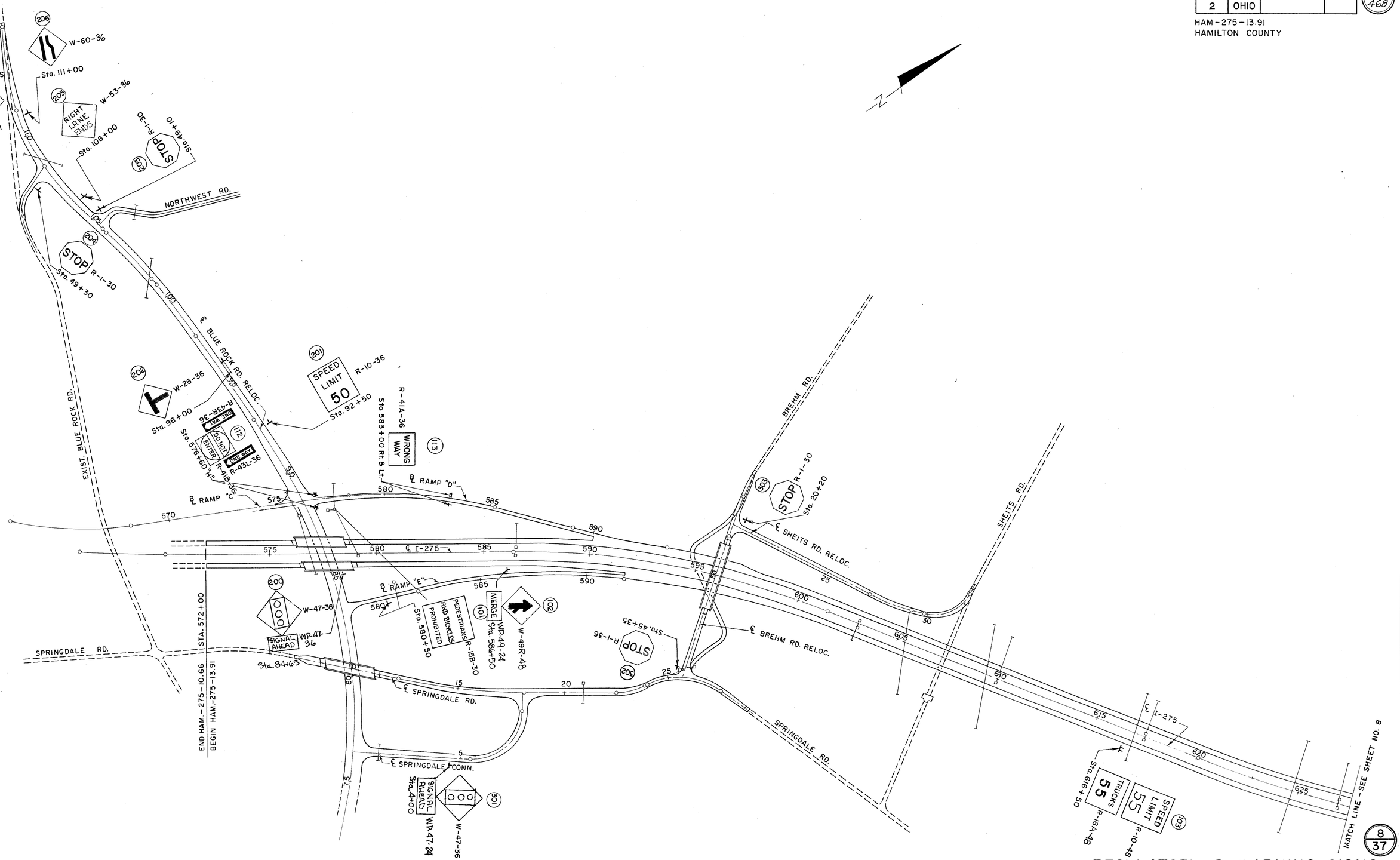
GUIDE SIGNS
SIGNING PLAN

7
37

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

423
468

HAM-275-13.91
HAMILTON COUNTY



SCALE- 1" = 200'

8
37

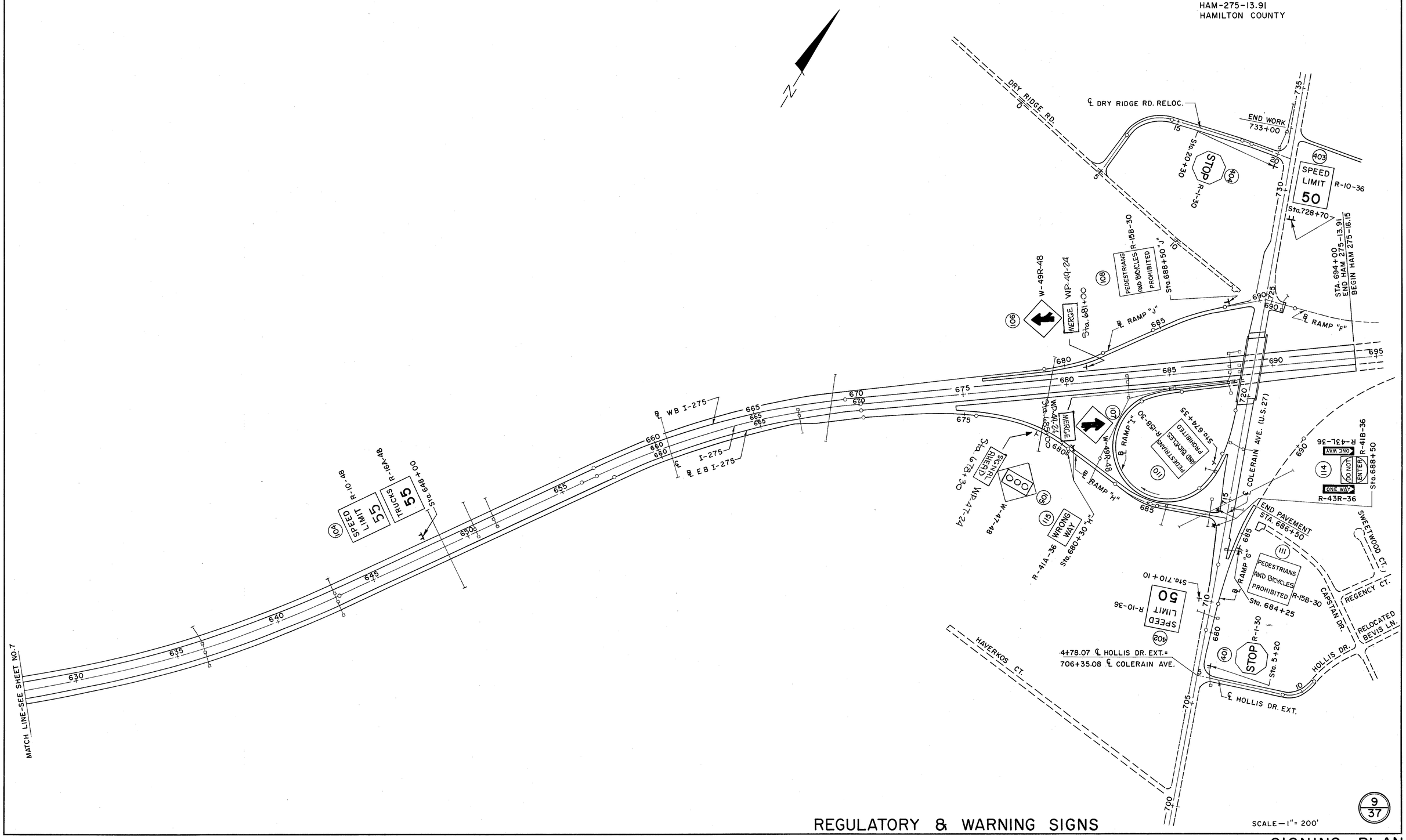
REGULATORY & WARNING SIGNS

SIGNING PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

424
468

HAM-275-13.91
HAMILTON COUNTY



REGULATORY & WARNING SIGNS

SCALE — 1" = 200'

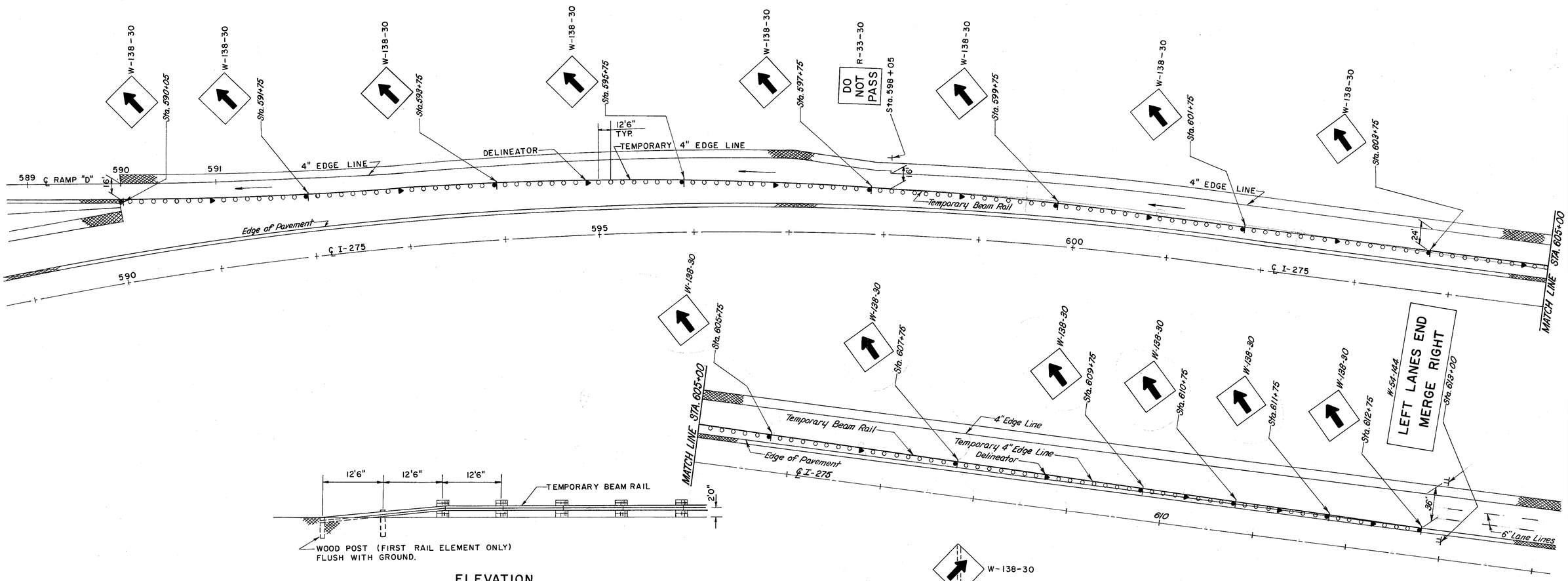
9
37

SIGNING PLAN

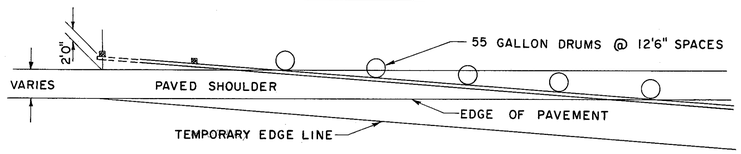
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

425
468

HAM-275-13.91
HAMILTON COUNTY



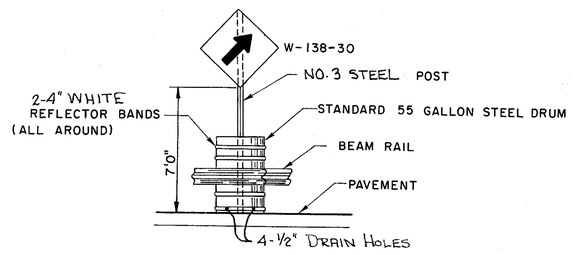
ELEVATION



PLAN

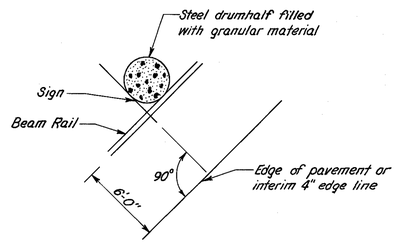
ANCHOR DETAIL FOR TEMPORARY BEAM RAIL

NO SCALE



SIGN ATTACHMENT TO TEMPORARY BEAM RAIL

NO SCALE



Note:

Erect W-138-30 sign on first barrel, then at every 100' for 300', then every 200' thereafter. For further information see Page 2-62, Figure W5-4 of the "Ohio Manual of Uniform Traffic Control Devices".

Double amber delineators (Type D) shall be erected approximately midway between signs on barrels.

All barrels erected on asphalt pavement should be mounted on 3/4"-30" X 30" plywood bases.

REVISED DATE 8-22-75

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INTERIM PAVEMENT MARKING AND TRANSITION SIGNING

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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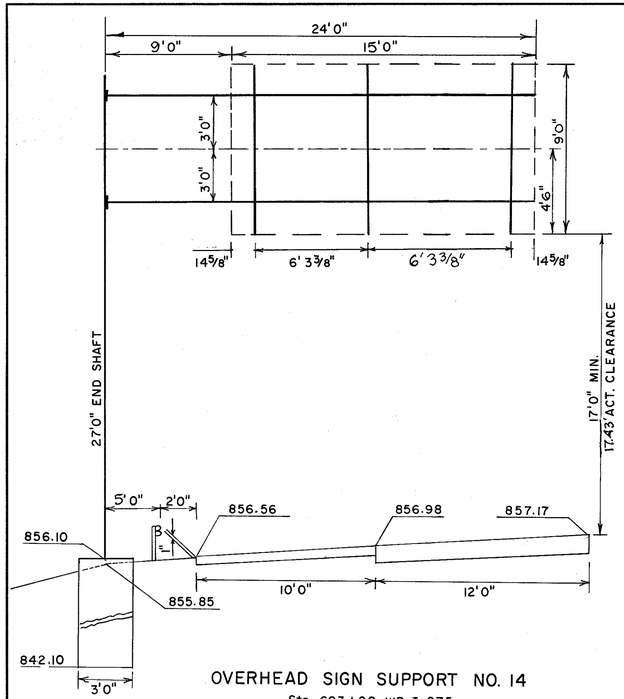
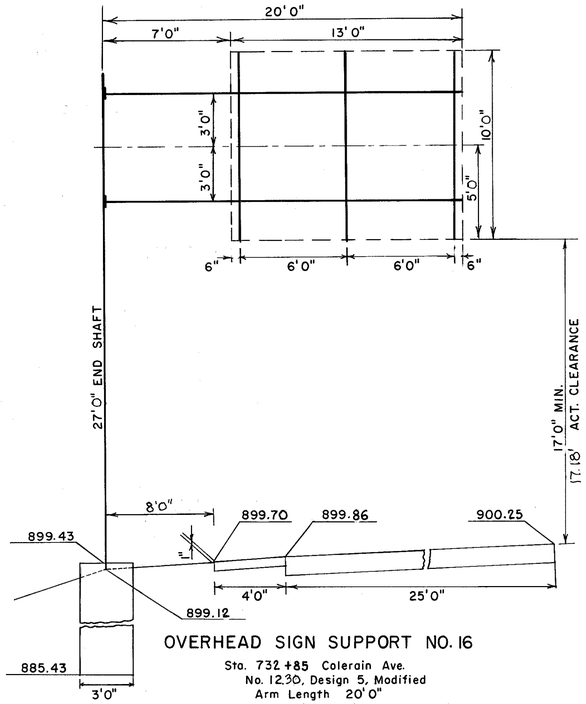
HAMILTON COUNTY

426
468

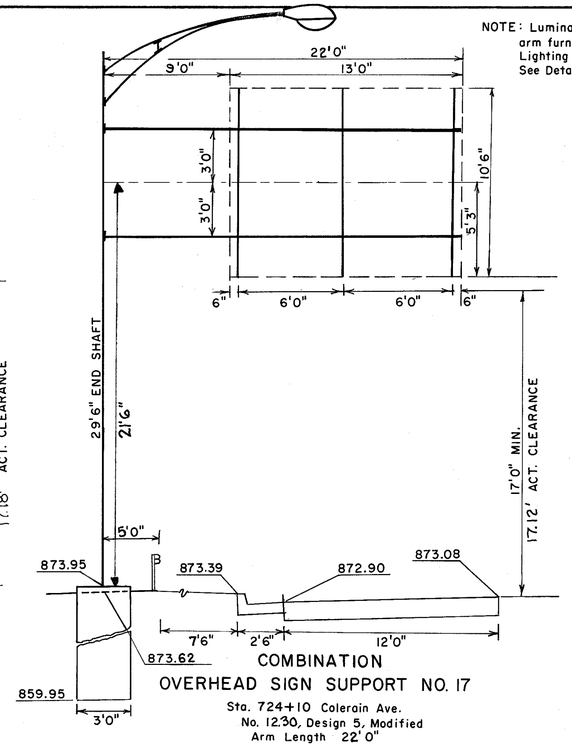
NOTE: Luminaire and Bracket arm furnished under Lighting Quantities. See Detail Const. Dwg. HL-2



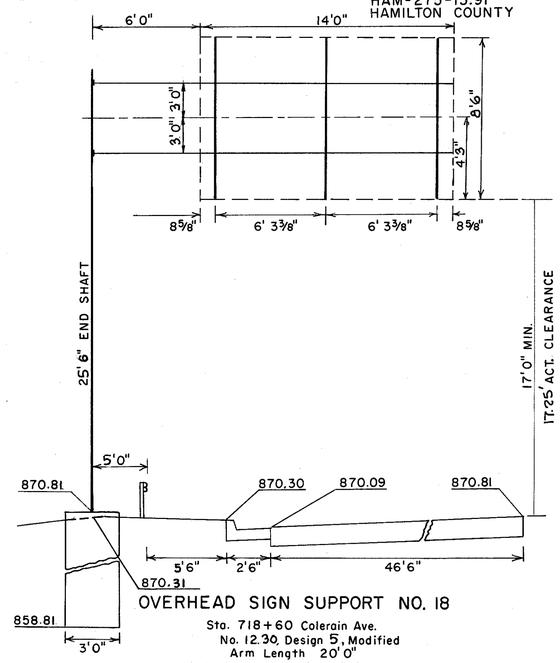
OVERHEAD SIGN SUPPORT NO. 14
Sta. 693+20 WB I-275
No. 12.30, Design 6, Modified
Arm Length 24'0"
Illuminated



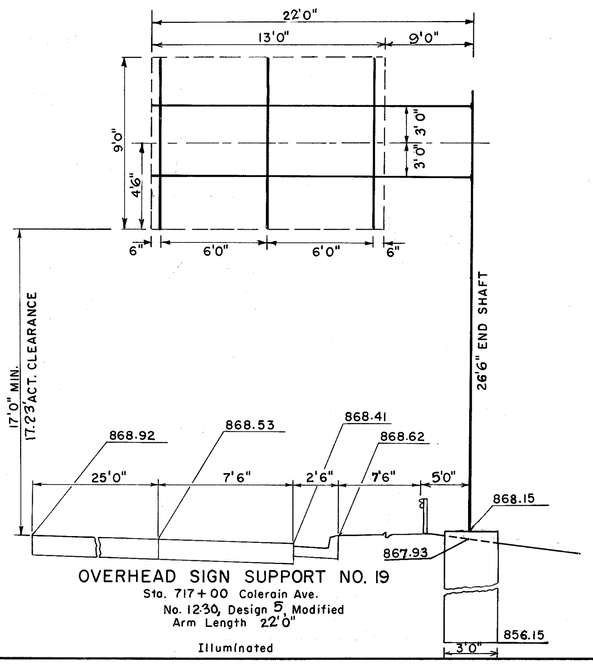
OVERHEAD SIGN SUPPORT NO. 16
Sta. 732+85 Colerain Ave.
No. 12.30, Design 5, Modified
Arm Length 20'0"
Illuminated



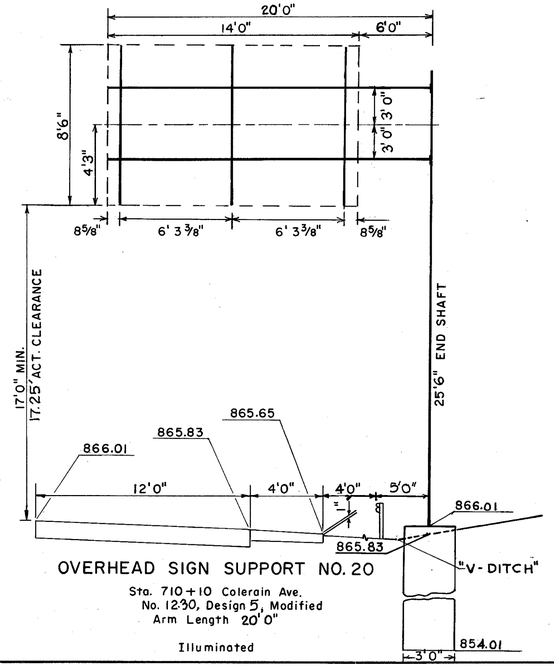
COMBINATION
OVERHEAD SIGN SUPPORT NO. 17
Sta. 724+10 Colerain Ave.
No. 12.30, Design 5, Modified
Arm Length 22'0"
Illuminated



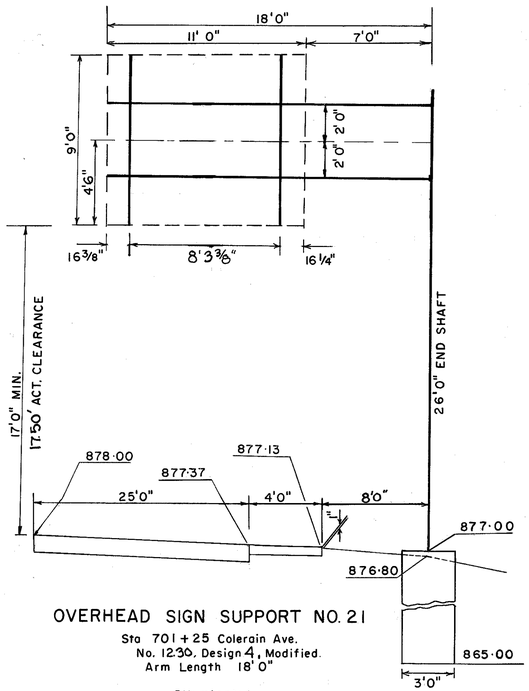
OVERHEAD SIGN SUPPORT NO. 18
Sta. 718+60 Colerain Ave.
No. 12.30, Design 5, Modified
Arm Length 20'0"
Illuminated



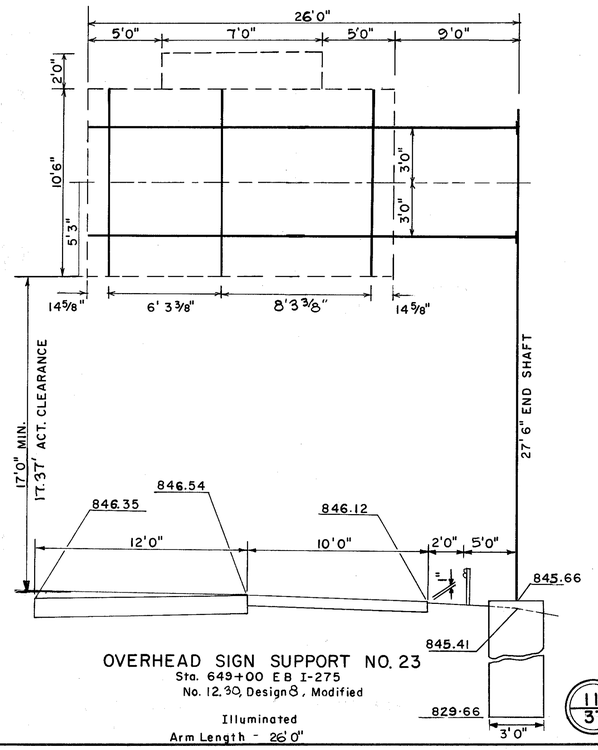
OVERHEAD SIGN SUPPORT NO. 19
Sta. 717+00 Colerain Ave.
No. 12.30, Design 5, Modified
Arm Length 22'0"
Illuminated



OVERHEAD SIGN SUPPORT NO. 20
Sta. 710+10 Colerain Ave.
No. 12.30, Design 5, Modified
Arm Length 20'0"
Illuminated



OVERHEAD SIGN SUPPORT NO. 21
Sta 701+25 Colerain Ave.
No. 12.30, Design 4, Modified.
Arm Length 18'0"
Illuminated



OVERHEAD SIGN SUPPORT NO. 23
Sta. 649+00 EB I-275
No. 12.30, Design 8, Modified
Illuminated
Arm Length - 26'0"

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37

SIGNING DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

427
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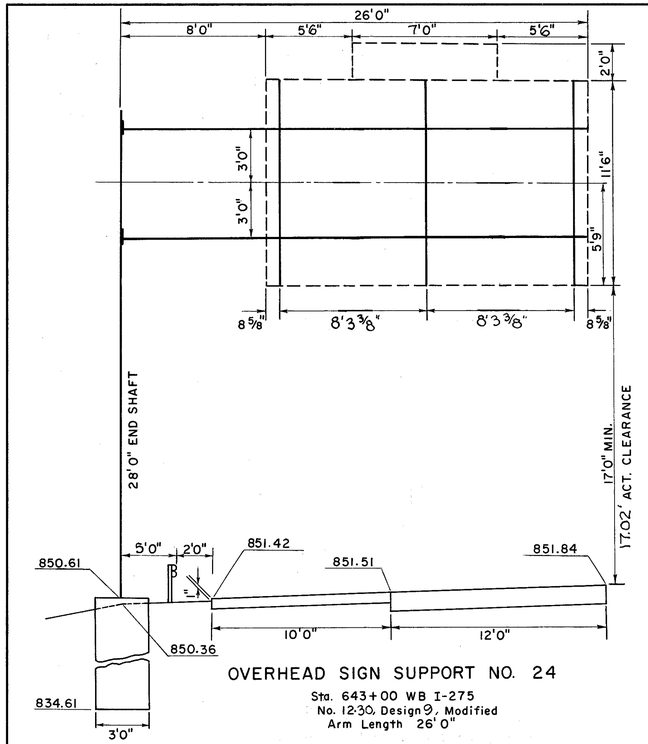
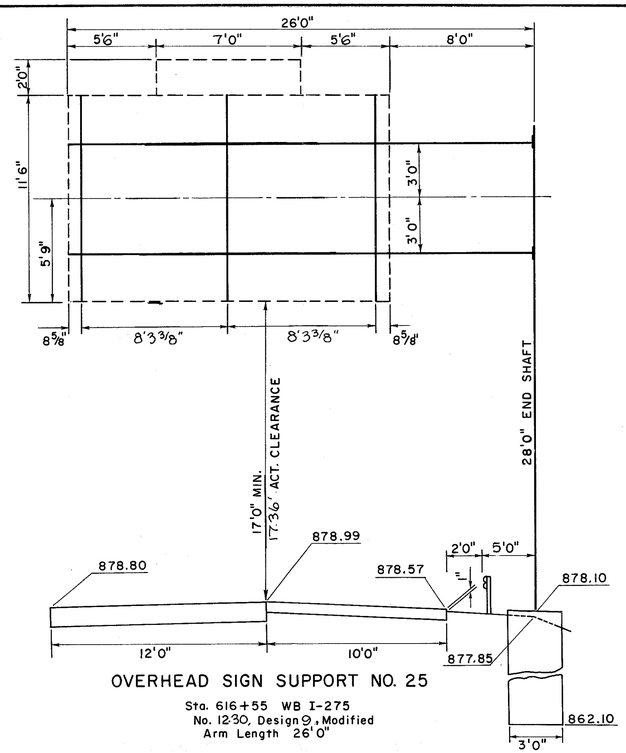


OVERHEAD SIGN SUPPORT NO. 24

Sta. 643+00 WB I-275
No. 12-30, Design 9, Modified
Arm Length 26'0"

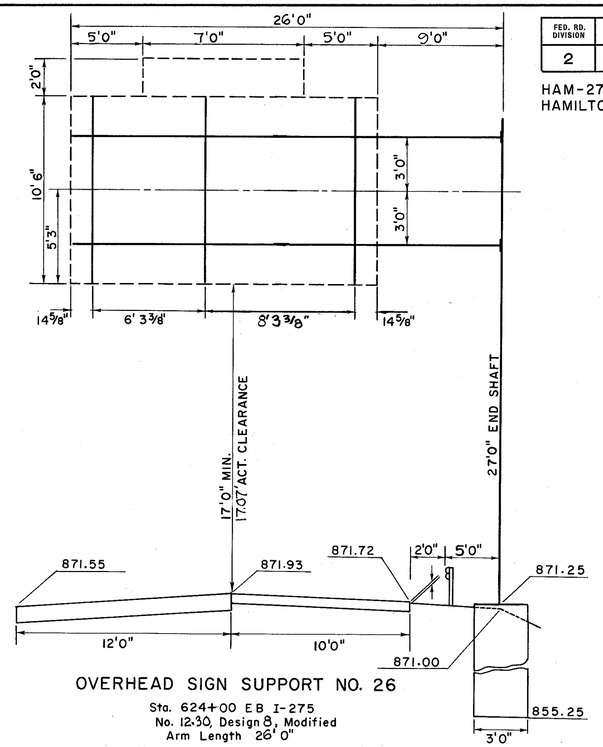
Illuminated



OVERHEAD SIGN SUPPORT NO. 25

Sta. 616+55 WB I-275
No. 12-30, Design 9, Modified
Arm Length 26'0"

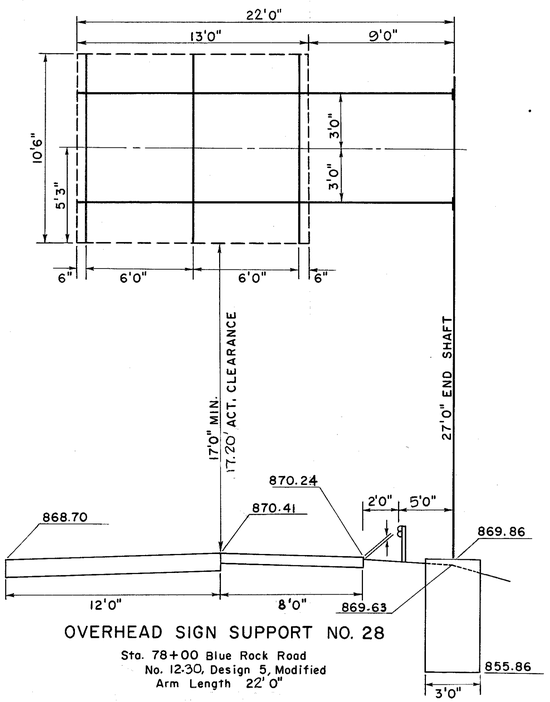
Illuminated



OVERHEAD SIGN SUPPORT NO. 26

Sta. 624+00 EB I-275
No. 12-30, Design 8, Modified
Arm Length 26'0"

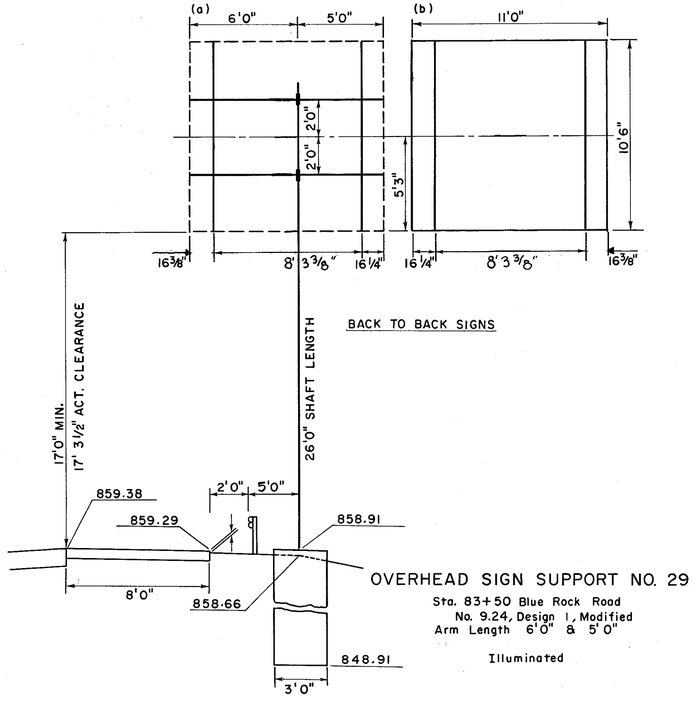
Illuminated



OVERHEAD SIGN SUPPORT NO. 28

Sta. 78+00 Blue Rock Road
No. 12-30, Design 5, Modified
Arm Length 22'0"

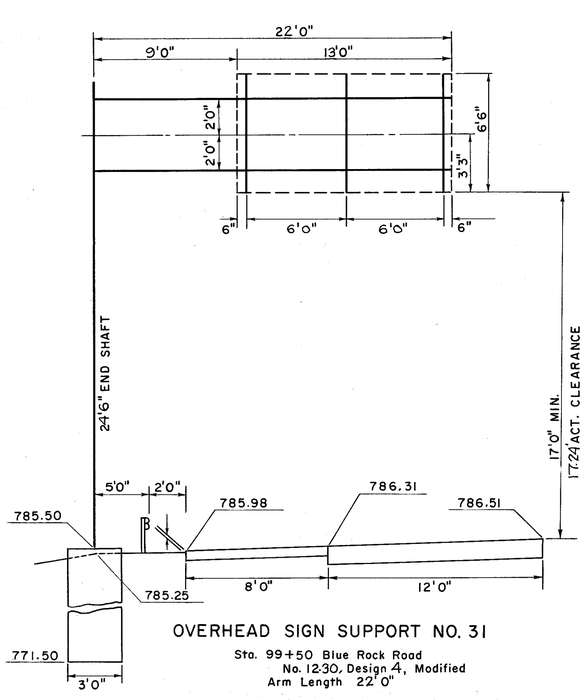
Illuminated



OVERHEAD SIGN SUPPORT NO. 29

Sta. 83+50 Blue Rock Road
No. 9.24, Design 1, Modified
Arm Length 6'0" & 5'0"

Illuminated



OVERHEAD SIGN SUPPORT NO. 31

Sta. 99+50 Blue Rock Road
No. 12-30, Design 4, Modified
Arm Length 22'0"

Illuminated

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37

SIGNING DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

428
468

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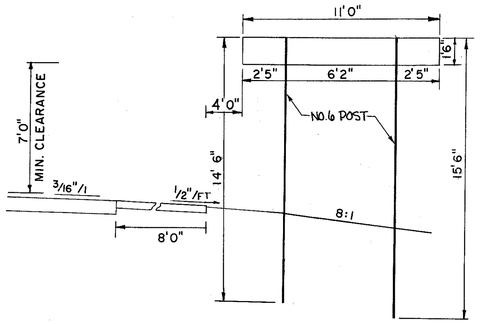
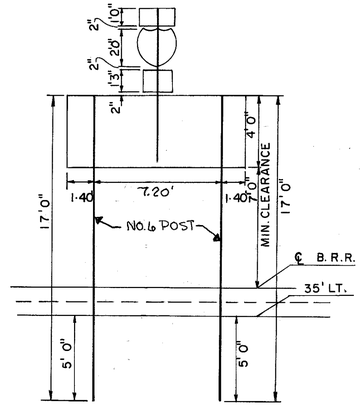
HAMILTON COUNTY



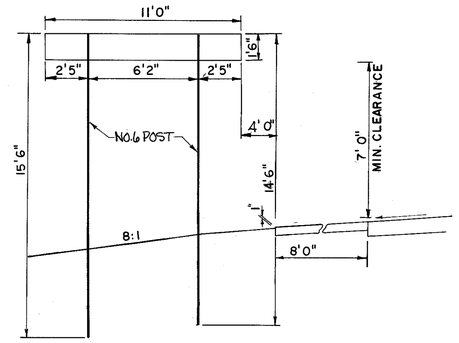
GROUND MOUNTED SIGN SUPPORT NO. G-1

Sta. 73+00, Blue Rock Road Relocated



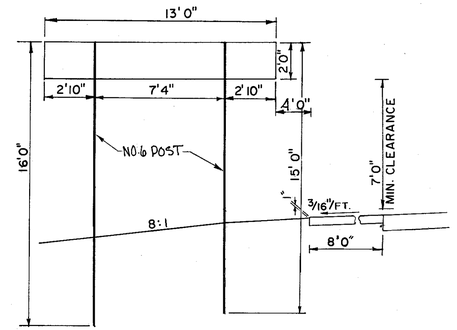
GROUND MOUNTED SIGN SUPPORT NO. G-2

Sta. 76+50, Blue Rock Road Relocated



GROUND MOUNTED SIGN SUPPORT NO. G-3

Sta. 81+00, Blue Rock Road Relocated

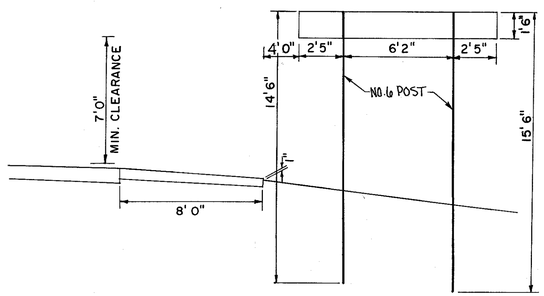


GROUND MOUNTED SIGN SUPPORT NO. G-4

Sta. 93+00, Blue Rock Road Relocated

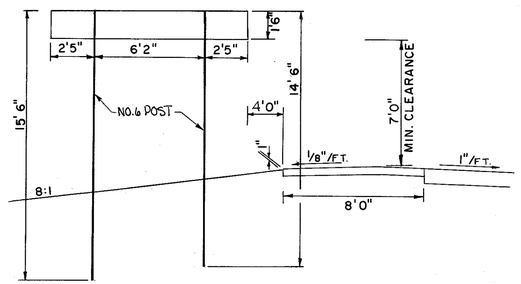
NOTE

All No.6 posts are to be driven to depth 5' 0" with no fundation.



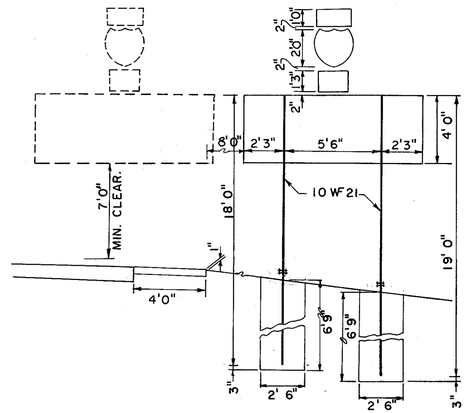
GROUND MOUNTED SIGN SUPPORT NO. G-5

Sta. 101+00, Blue Rock Road Relocated



GROUND MOUNTED SIGN SUPPORT NO. G-7

Sta. 112+00, Blue Rock Road Relocated



BACK TO BACK SIGNS

GROUND MOUNTED SIGN SUPPORT NO. G-9

Sta. 17+85, Springdale Road

13
37

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SIGNING DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

429
468

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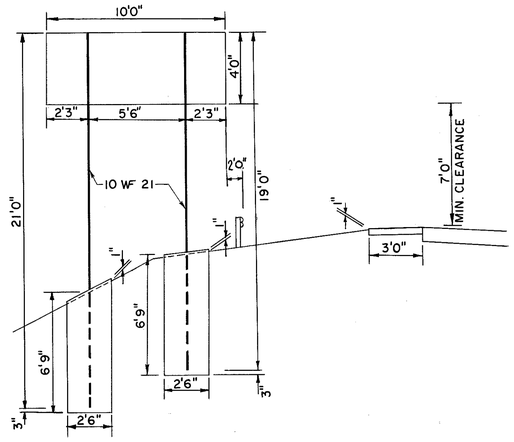
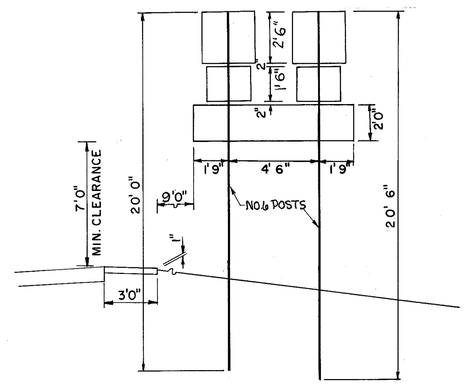
HAMILTON COUNTY



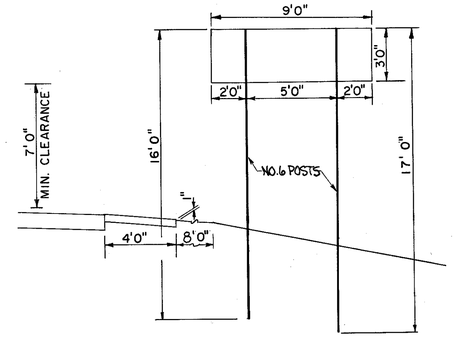
GROUND MOUNTED SIGN SUPPORT NO. G-11

Sta. 583+00 — Ramp D



GROUND MOUNTED SIGN SUPPORT NO. G-16

Sta. 680+30 — Ramp H

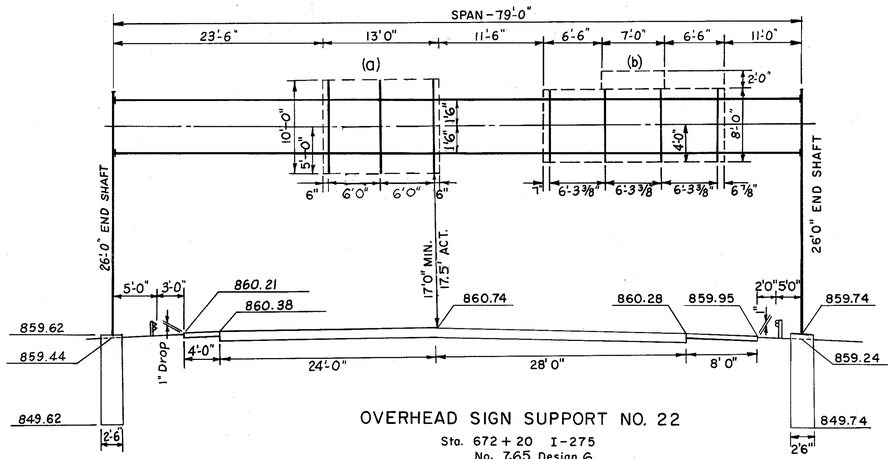


GROUND MOUNTED SIGN SUPPORT NO. G-19

Sta. 731+75 – Colerain Ave.

Note:

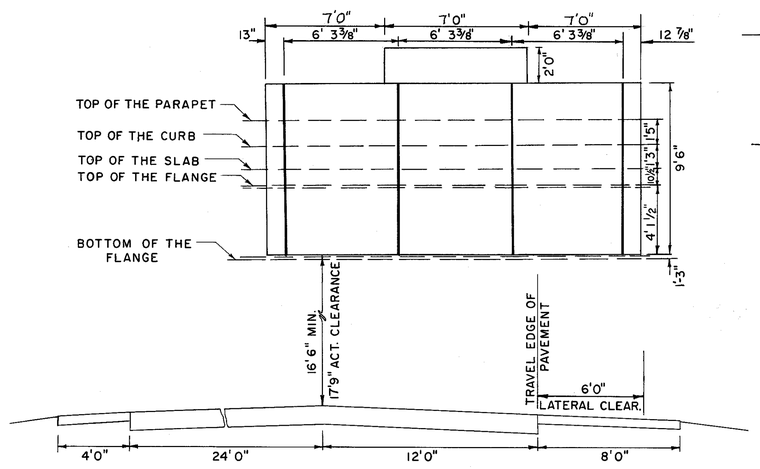
All No.6 Posts are to be driven to 5'0" depth with no foundation.



OVERHEAD SIGN SUPPORT NO. 22

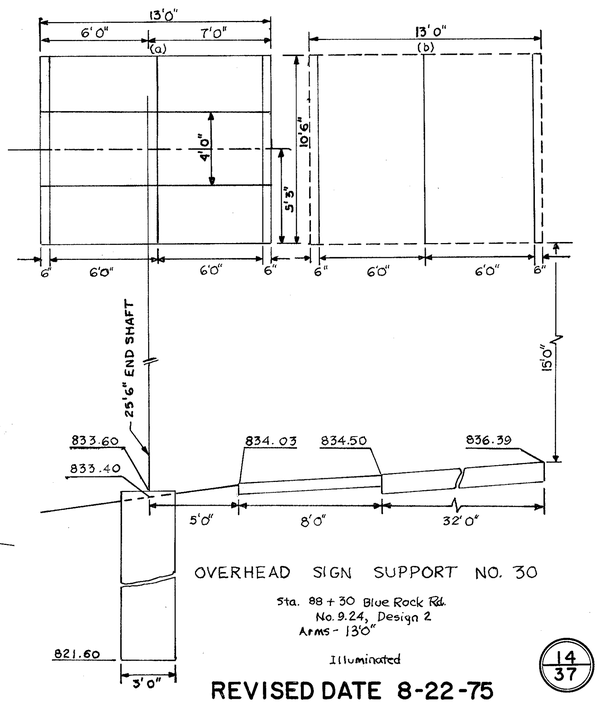
Sta. 672+20 I-275
No. 7.65 Design 6
Span Length 79'-0"

Illuminated



OVERHEAD STRUCTURE MOUNTED SIGN NO. 27

Sta. 596+20 WB I-275 ℄
TYPE 18.24
Bridge Skew - 4°-30'-06" Frame Skew - 0°-0'-0"
Bottom Illuminated



OVERHEAD SIGN SUPPORT NO. 30

Sta. 88+30 Blue Rock Rd.
No. 9.24, Design 2
Arms - 13'0"

Illuminated

14
37

REVISED DATE 8-22-75

SIGNING DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

430
468

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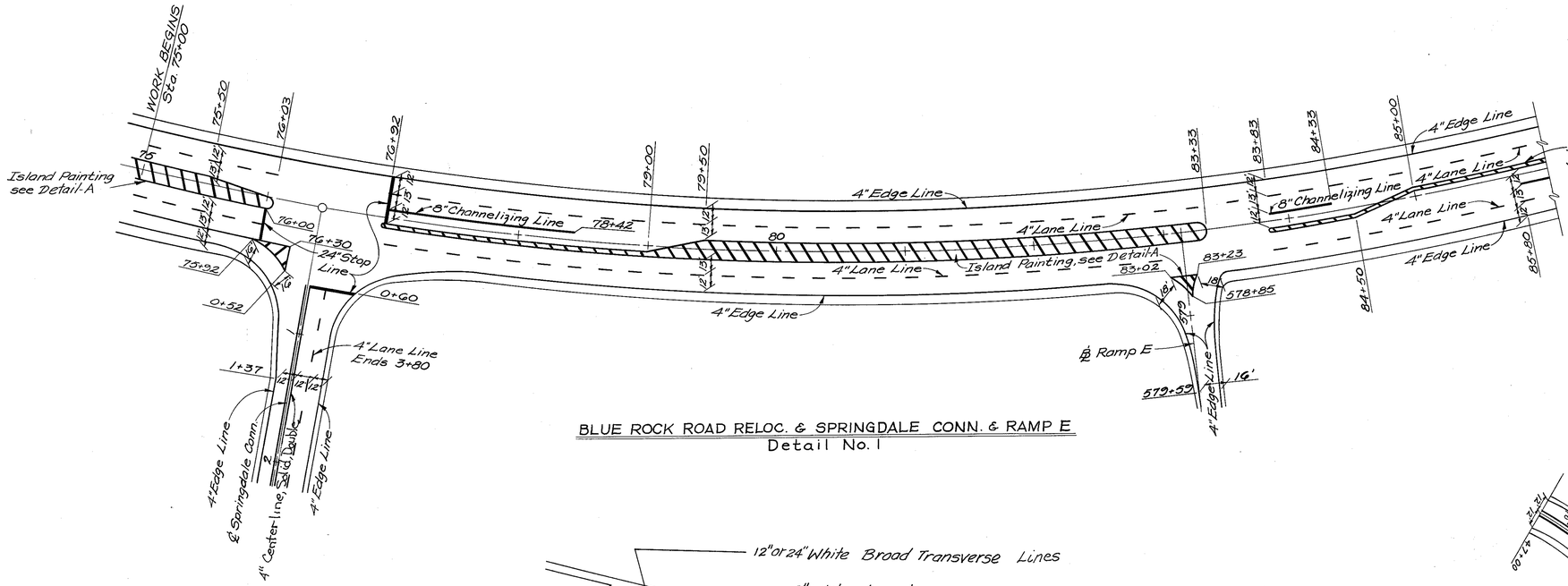
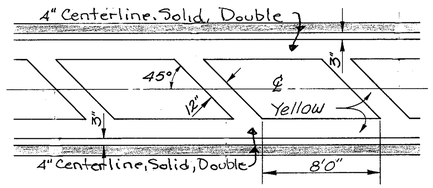
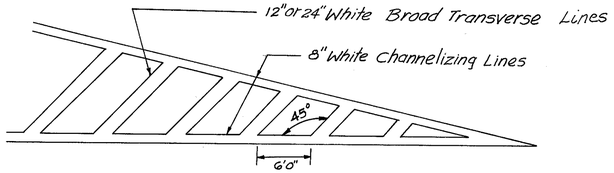


BLUE ROCK ROAD RELOC. & SPRINGDALE CONN. & RAMP E
Detail No. 1

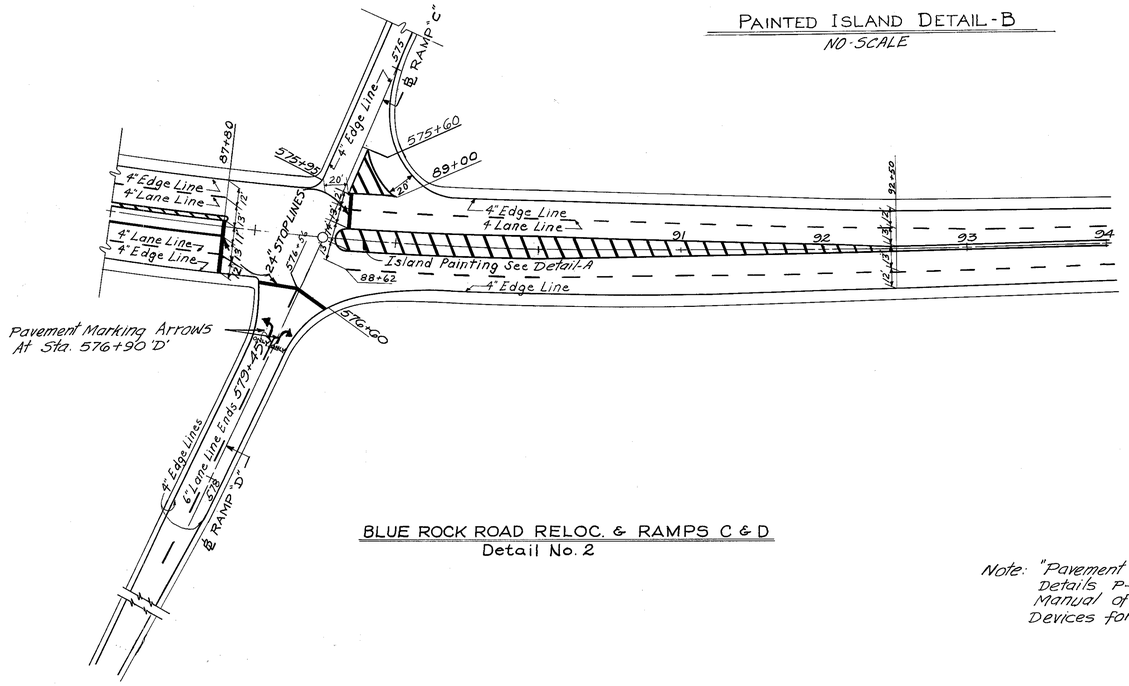
Note:
See Painted Island Detail this sheet, "Ohio Manual of Uniform Traffic Control Devices for Streets & Highways," Dwg. P-9



PAINTED ISLAND DETAIL-A
No Scale

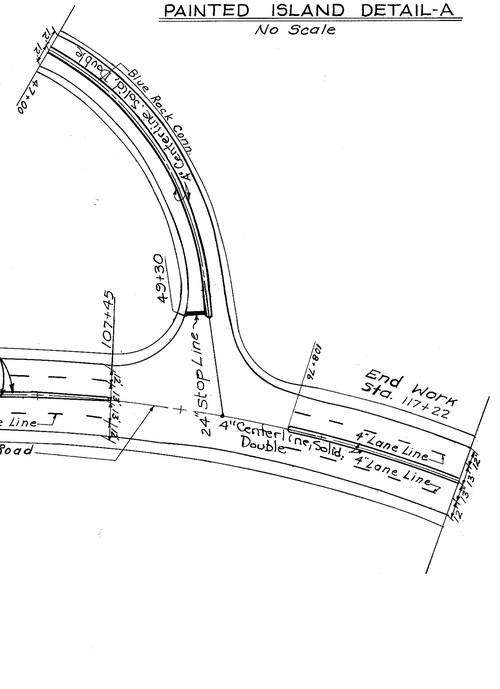


PAINTED ISLAND DETAIL-B
NO-SCALE



BLUE ROCK ROAD RELOC. & RAMPS C & D
Detail No. 2

Note: "Pavement Marking Arrows" - See Details P-27 on Page 3-41 of "Ohio Manual of Uniform Traffic Control Devices for Streets & Highways."



BLUE ROCK ROAD RELOC. & NORTHWEST ROAD & BLUE ROCK CONN.
Detail No. 3

SCALE - 1" = 50'

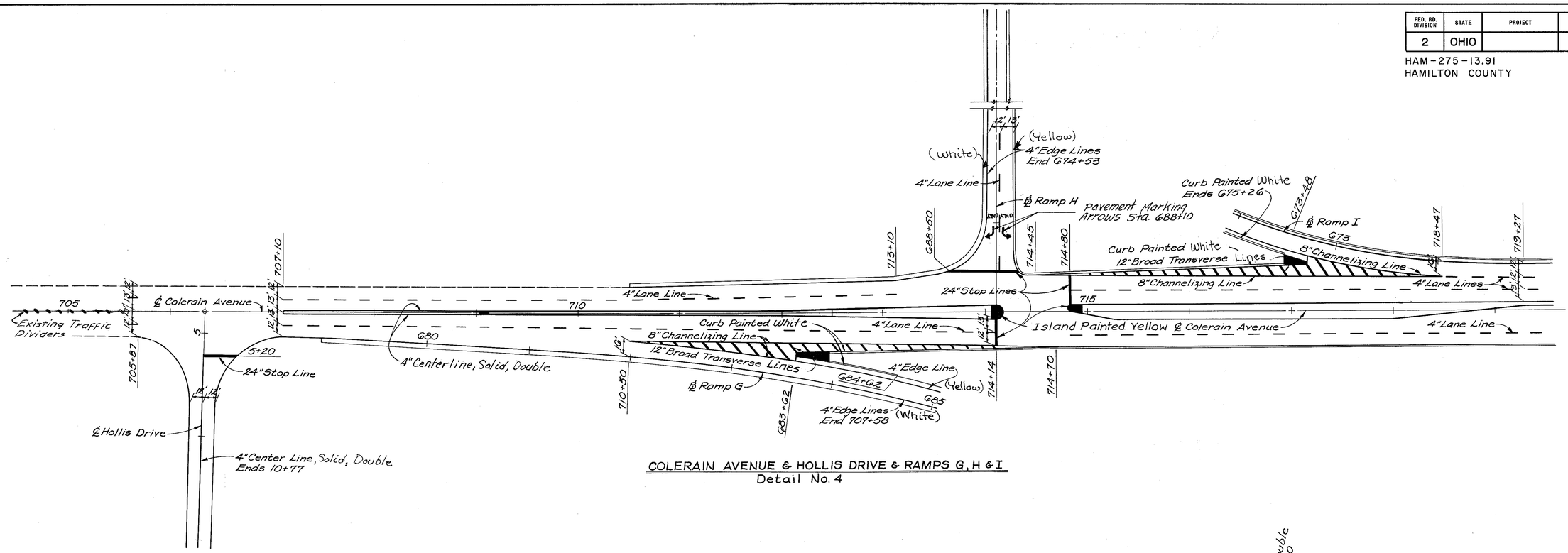
15
37

PAVEMENT MARKING DETAILS

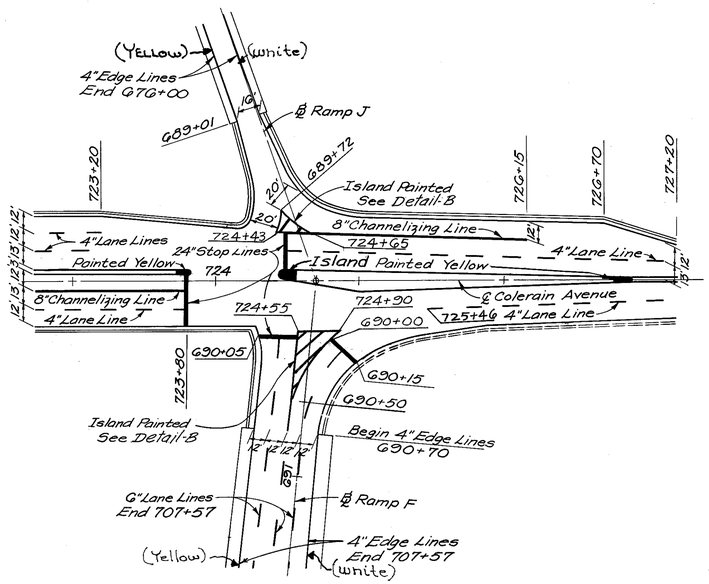
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-275-13.91
HAMILTON COUNTY

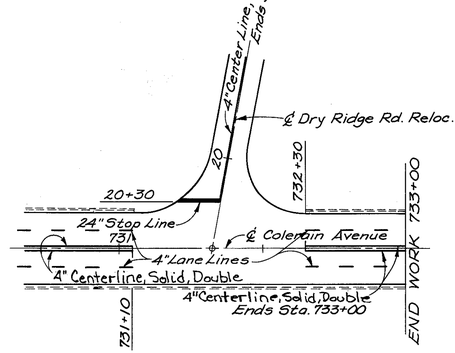
431
468



COLERAIN AVENUE & HOLLIS DRIVE & RAMPS G, H & I
Detail No. 4



COLERAIN AVENUE & RAMPS F & J
Detail No. 5



COLERAIN AVENUE & DRY RIDGE RD. RELOC.
Detail No. 6

SCALE - 1"= 50'

16
37

PAVEMENT MARKING DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

432
468

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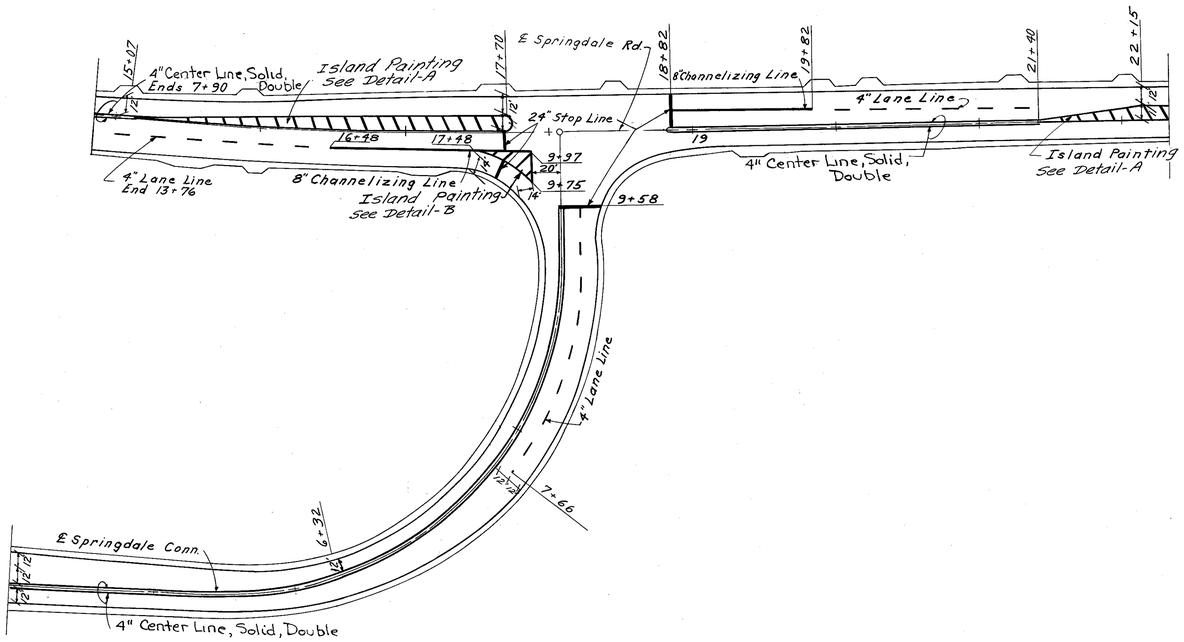
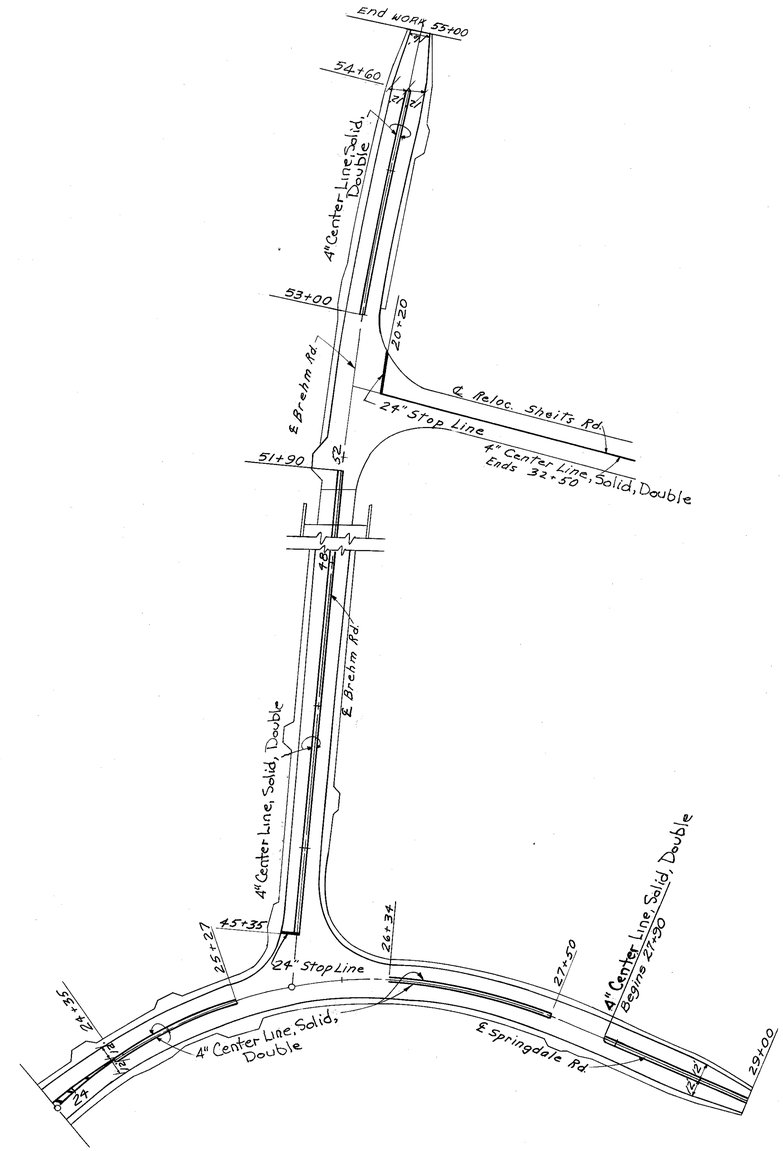
HAMILTON COUNTY



SPRINGDALE ROAD & SPRINGDALE CONNECTOR
Detail No. 7



SPRINGDALE ROAD & BREHM ROAD & RELOC SHEITS ROAD
Detail No. 8

SCALE – 1" = 50'

17
37

PAVEMENT MARKING DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

433
468

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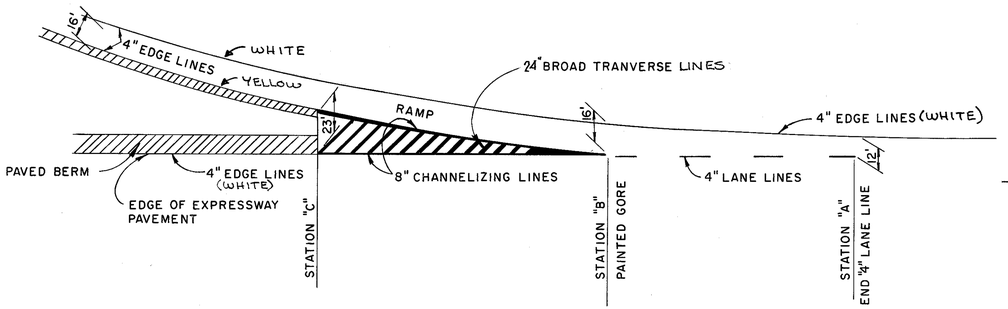
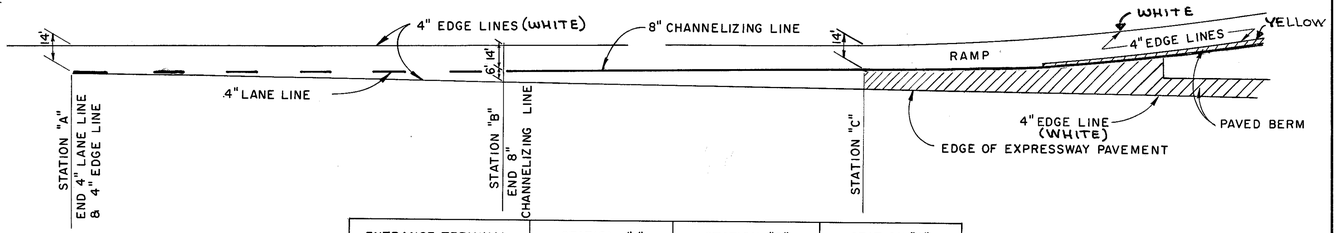
HAMILTON COUNTY



EXIT TERMINAL	STATION "A"	STATION "B"	STATION "C"
I-275 E. B. RAMP H	669+92	672+20	674+63
I-275 W. B. RAMP D	594+45	592+25	590+00

TYPICAL EXIT TERMINAL — EXPRESSWAY

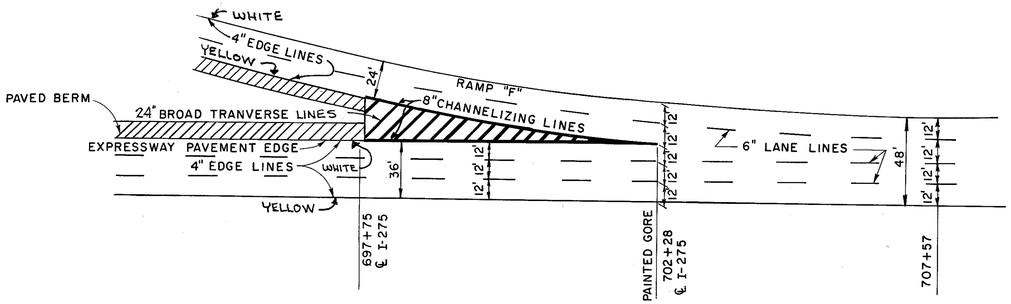
DETAIL NO. 9



ENTRANCE TERMINAL	STATION "A"	STATION "B"	STATION "C"
RAMP I - I275 E.B.	693+84	690+96	688+56
RAMP J - I275 W.B	670+72	673+60	676+00
RAMP E - I275 E.B.	597+03	594+15	591+75
RAMP G - I275 E.B.	705+86	702+98	700+58

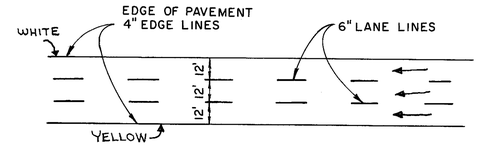
TYPICAL ENTRANCE TERMINAL — EXPRESSWAY

DETAIL NO. 10



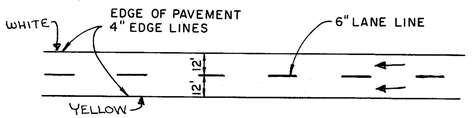
EXIT TERMINAL — RAMP "F"

DETAIL NO. 11



TYPICAL 3 LANE SECTION

DETAIL NO. 13



TYPICAL 2 LANE SECTION

DETAIL NO. 12

SCALE — NONE

18
37

Rev. 9-23-75

PAVEMENT MARKING DETAILS

DEVELOPED		CHECKED	
ARS	3-1972	REP	3/72

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

434
468

HAM—275—13.91
HAMILTON COUNTY

* THERMOPLASTIC, AS PER PLAN

ITEM 621 PAVEMENT MARKING QUANTITIES

DETAIL NO.	LOCATION	STATION TO STATION		4" EDGE LINE WHITE LIN. FT.	4" EDGE LINE YELLOW LIN. FT.	4" LANE LINE LIN. FT.	6" LANE LINE LIN. FT.	8" CHANNELIZING LINE (WHITE) LIN. FT.	12" BROAD TRANSVERSE LINE WHITE LIN. FT.	12" BROAD TRANSVERSE LINE YELLOW LIN. FT.	CURB PAINTING (WHITE) LIN. FT.	24" STOP LINES LIN. FT.	24" BROAD TRANSVERSE LINES (WHITE) LIN. FT.	4" CENTER LINE, SOLID, DOUBLE LIN. FT.	ISLAND PAINTING SQ. FT.	ARROW EA.	WORD (ONLY) EA.
INTERSTATE ROUTE — 275 — MAINLINE				* ↓	* ↓												
9 & 10	I-275 EB	572+00	591+75	1975	1975			1975 *									
"	I-275 EB	591+75	597+03	1056	528	288 *		528 *						240 *			
"	I-275 EB	597+03	669+92	7289	7289			7289 *									
"	I-275 EB	669+92	672+20	228	228	228 *		228 *									
"	I-275 EB	672+20	674+63	243	243			243 *					349 *	486 *			
"	I-275 EB	674+63	688+56	1393	1393			1393 *									
"	I-275 EB	688+56	693+84	1056	528	288 *		528 *						240 *			
"	I-275 EB	693+84	700+58	674	674			1348 *									
"	I-275 EB	700+58	705+86	1056	528	288 *		1056 *						240 *			
"	I-275 EB	572+00	694+00					12,200 *									
9, 10 & 11	I-275 WB	572+00	590+00	1800	1800			1800 *									
"	I-275 WB	590+00	592+25	225	225			225 *					324 *	450 *			
"	I-275 WB	592+25	594+45	220	220	220 *		220 *									
"	I-275 WB	594+45	670+72	7627	7627			7627 *									
"	I-275 WB	670+72	676+00	1056	528	288 *		528 *						240 *			
"	I-275 WB	676+00	693+00	1700	1700			1700 *									
"	I-275 WB	693+00	697+75	475	475			950 *									
"	I-275 WB	697+75	702+28	453	453			1359 *					850 *	906 *			
"	I-275 WB	702+28	707+57	529	529			1587 *									
"	I-275 WB	572+00	694+00					12,200 *									
RAMPS — C, D, E, F, G, H, I AND J																	
2	RAMP "C"	574+74	575+95	121	121			110 *					76 *				
2 & 9	RAMP "D"	576+56	579+45	289	289		289 *					55 *			2*	2*	
"	RAMP "D"	579+45	589+95	1050	1050												
1 & 10	RAMP "E"	578+66	585+60	694	694			65 *					27 *				
"	RAMP "E"	585+60	587+75	215	215						215						
"	RAMP "E"	587+75	591+75	400				400									
5 & 11	RAMP "F"	690+05	693+50	345	345		990 *	150 *				50 *	120 *				
"	RAMP "F"	693+50	697+77	427	427		427 *										
4 & 10	RAMP "G"	683+62	695+60	1198	1198						68			224			
"	RAMP "G"	695+60	700+58	192				498									
4 & 9	RAMP "H"	674+63	683+00	837	837												
"	RAMP "H"	683+00	685+00	200	200						86			387			
"	RAMP "H"	685+00	688+50	350	350		350 *				92	70 *		410	2*	2*	
4 & 10	RAMP "I"	673+26	674+26	100	100						100						
"	RAMP "I"	674+26	683+83	957	957						177						
"	RAMP "I"	683+83	684+56	73	73						73						
"	RAMP "I"	684+56	688+56	400				400									
5 & 10	RAMP "J"	676+00	680+00	400				400									
"	RAMP "J"	680+00	681+02	102	102						102						
"	RAMP "J"	681+02	689+68	866 ↑	866 ↑												
				*	*												
SUB-TOTAL #1				38271	34767	1600 *	57,040 *	4,825 *	—	—	913	175 *	1746 *	—	1,021	4*	4*

ITEM 621 PAVEMENT MARKING QUANTITIES

DETAIL NO.	LOCATION	STATION TO STATION		4" EDGE LINE WHITE LIN. FT.	4" EDGE LINE YELLOW LIN. FT.	4" LANE LINE LIN. FT.	6" LANE LINE LIN. FT.	8" CHANNELIZING LINE (WHITE) LIN. FT.	12" BROAD TRANSVERSE LINE WHITE LIN. FT.	12" BROAD TRANSVERSE LINE YELLOW LIN. FT.	CURB PAINTING (WHITE) LIN. FT.	24" STOP LINES LIN. FT.	24" BROAD TRANSVERSE LINE (WHITE) LIN. FT.	4" CENTER LINE, SOLID, DOUBLE LIN. FT.	ISLAND PAINTING SQ. FT.	ARROW EA.	WORD (ONLY) EA.
1, 2 & 3	Reloc. Blue	75+00	76+03	206		206		100		154		25		216			
"	Rock Road	76+03	76+92	89				100	64			37					
"	"	76+92	79+00	416		416		150		78				420			
"	"	79+00	83+33	866		866				688				888			
"	"	83+33	83+83	100		50											
"	"	83+83	87+80	794		794		250		140		36		804			
"	"	87+80	92+50	866		776				650		25		800			
"	"	92+50	104+56	2320		2412								1206			
"	"	104+56	105+29					72	25			30					
"	"	105+29	107+45			432								216			
"	"	107+45	117+22			1468								846			
4, 5 & 6	Colerain																
"	Avenue	707+10	709+00			380								190			
"	"	709+00	710+50			300											
"	"	710+50	714+80			624		582	210		140	25			266		
"	"	714+80	718+47			734		530	230			25			305		
"	"	718+47	723+80			1479		100				37			30		
"	"	723+80	727+06			420		208	22			24			35		
"	"	727+06	731+10			808								404			
"	"	732+30	733+00			140								70			
7 & 8	Springdale	7+90	13+76											586			
"	Road	13+76	15+07			131								131			
"	"	15+07	17+70			141		100		182				526			
"	"	17+70	18+82					120	66			50					
"	"	18+82	21+40			158		100						258			
"	"	21+40	24+35							210				590			
"	"	24+35	25+27											92			
"	"	26+34	29+00											226			
1 & 7	Springdale	0+60	3+80			320						38		320			
"	Connector	3+80	7+66											386			
"	"	7+66	9+58			192						25		192			
8	Brehm	45+35	51+90									12		655			
"	Road	53+00	54+60											160			
8	Sheits Road	20+20	32+50									30		1,230			
3	Northwest Road	47+10	49+50											240			
3	Blue Rock Connector	46+50	49+30									12		280			
4	Hollis Drive	5+20	10+77									32		557			
6	Dry Ridge Road Relocated	10+10	20+30									30		1,020			
SUB-TOTAL # 2				565T	—	13247	—	2412	617	2102	140	493	—	13509	636	—	—
SUB-TOTAL # 1				*38271	34767*	1600 *	57,040 *	4825 *	—	—	913	175 *	1746 *	—	1021	4*	4*
TOTAL				14.90 MI		2.81 MI	10.8/MI	7237	2719		1053	668	1746	2.56 MI	1657	4	4

REVISED DATE 8-22-75

Rev. 9-23-75

ITEM 621 PAVEMENT MARKING QUANTITY CALCULATIONS

DEVELOPED		CHECKED	
ARS	3-1972	RSD	3/72

DIST. NO.	STATE		
2	OHIO		

HAM-275-13.91
HAMILTON COUNTY

REGULATORY & WARNING SIGNS

SIGN NO.	CODE NO.	LOCATION	SIDE	844 SIGNS ERECTED FLAT SHEET SQ. FT.	844 SIGN SUPPORTS: NO.6 POST AS PER PLAN LIN. FT.	NO.3 POST LIN. FT.	NO.6 POST LIN. FT.
101	R-15B-30	580+50 RAMP "E"	Rt.	3.75		14.0	
102	W-49R-48 WP-49-24	586+50 I-275	Lt.	16.00 3.00			17.5
103	R-10-48 R-16A-48	616+50 I-275	Rt.	20.00 16.00			21.5 22.0
104	R-10-48 R-16A-48	648+00 I-275	Lt.	20.00 16.00			21.5 22.0
105	W-47-48 WP-47-24	678+30 RAMP "H"	Rt.	16.00 3.00			17.5
106	W-49R-48 WP-49-24	681+00 I-275	Lt.	16.00 3.00			17.5
107	W-49R-48 WP-49-24	685+00 I-275	Rt.	16.00 3.00			17.5
108	R-15B 30	688+50 RAMP "J"	Lt.	3.75		14.0	
110	R-15B-30	674+35 RAMP "I"	Rt.	3.75		14.0	
111	R-15B-30	684+25 RAMP "G"	Rt.	3.75		14.0	
200	W-47-36 WP-47-24	84+50 B. R. R.	Rt.	9.00 3.00			16.5
201	R-10-36	92+50 B.R.R.	Rt.	12.00			16.5
202	W-26-36	96+00 B.R.R.	Rt.	9.00			16.5
203	R-1-30	49+60 N.W.R.	Rt.	6.25		15.0	
204	R-1-30	49+30 N.W.R.	Rt.	6.25		15.0	
205	W-53-36	106+00 B.R.R.	Rt.	9.00			16.5
206	W-60-36	111+00 B.R.R.	Rt.	9.00			16.5
207	W-26-36	116+00 B.R.R.	Rt.	9.00			16.5
112	R-43R-36 R-41B-36 R-43R-36	576+30 RAMP "D"	Rt.	15.00	16.0		
			Lt.	15.00	16.0		
113	R-41A-36	583+00 RAMP "D"	Rt.	6.00		14.5	
			Lt.	6.00		ON SIGN SUPPORT G-11	
301	W-47-36 WP-47-24	4+00 S. C.	Rt.	9.00 3.00			16.5
302	R-1-36	45+35 Br. R.	Lt.	9.00			15.5
303	R-1-30	20+20 Sh. R.	Lt.	6.25		15.0	
401	R-1-30	5+20 Hollis Dr.	Lt.	6.25		15.0	
402	R-10-36	710+10 C. A.	Lt	12.00			16.5
403	R-10-36	728+70 C.A.	Rt.	12.00			16.5
404	R-1-30	20+30 D. R. R.	Rt.	6.25		15.0	
114	R-43R-36 R-41B-36 R-43L-36	688+50 RAMP "H"	Rt.	15.00	16.0		
			Lt.	15.00	16.0		
115	R-41A-36	680 30 RAMP "H"	Lt.	6.00		14.5	
			Rt.	6.00		ON SIGN SUPPORT G-16	
TOTAL				383.25	64.0	160	321

B.R.R. — Blue Rock Road
N.W.R. — Northwest Road
S.C. — Springdale Connector
C.A. — Colerain Avenue
D.R.R. — Dry Ridge Road
Br. R. — Brehm Road
Sh. R. — Sheits Road

REGULATORY & WARNING SIGNS

SHEET NO.	CODE NO.	LOCATION	SIDE	202 Removal of Ground Mounted Sign Installations For Storage
REMOVAL OF EXISTING SIGNS				
	M-39-24 M-5-24-3 M-26-20	708+20 Colerain Avenue	Rt.	1
	M-39-24 M-5-24-3 M-19-20	717+20 Colerain Avenue	Rt.	1
	M-39-24 M-5-24-3 M-24-20	724+00 Colerain Avenue	Lt.	1
	M-39-24 M-5-24-3 M-24-20	725+20 Colerain Avenue	Rt.	1
	M-39-24 M-5-24-3 M-21-20	730+70 Colerain Avenue	Lt.	1
	M-39-24 M-5-24-3 M-26-20	730+00 Colerain Avenue	Lt.	1
	W-53-48	691+50 I-275	Rt.	1
	W-60-48	693+50 I-275	Rt.	1
	R-37A-36	696+00 I-275	Ctr.	1
	R-45-30	699+00 RAMP "F"	Lt.	1
	R-45-30	699+00 I-275	Rt.	1
TOTAL				11

GROUND MOUNTED GUIDE SIGNS

SIGN NO.	CODE NO.	LOCATION	844 SIGNS ERECTED EXTRU SHEET SQ. FT.	844 SIGNS ERECTED FLAT SHEET SQ. FT.	844 SIGN SUPPORTS: NO.6 POST LIN. FT.	NO.2 POST LIN. FT.	10 WF 21 LIN. FT.	12 WF 31 LIN. FT.	CONCRETE CU. YD.	BREAKAWAY CONNECTION EACH
G-1	D-11A-132	71+50 B.R.R.	16.50		14.5 15.5					
G-2	IM-8-24 M-5-24-3 IM-24-21 D-4B	76+50 B.R.R.	40.00	2.00 5.00 2.19 —	17.0 17.0					
G-3	D-11A-132	81+00 B.R.R.	16.50		14.5 15.5					
G-4	D-4A	93+00 B.R.R.	26.00		15.0 16.0					
G-5	D-11A-132	101+00 B.R.R.	16.50		14.5 15.5					
G-6	IM-17-21 M-5-30-3	104+00 B.R.R.		2.19 8.33	17.5					
G-7	D-11A-132	112+00 B.R.R.	16.50		14.5 15.5					
G-8	IM-8-24 M-5-24-3 IM-19-21	12+10 S.R.		2.00 5.00 2.19	17.0					
G-9	(2)IM-8-24 (2)M-5-24-3 (2)IM-24-21 (2)D-4B	17+85 S. R.	80.00	4.00 10.00 4.38 —			18.0 19.0		2.5	2
G-10	IM-8-24 M-5-24-3 M-21-21	24+00 S.R.		2.00 5.00 2.19	17.0					
G-11	D-4B	583+00 I-275	40.00				19.0 21.0		2.5	
G-12	GF	589+90 I-275	30.00		17.5 17.5					
G-13	IM-39-36 M-5-36-3	606+50 I-275		4.50 12.00	17.5					
G-14	IM-40-36 M-5-36-3	657+00 I-275		4.50 12.00	17.5					
G-15	GF	674+70 I-275	30.00		17.5 17.5					
G-16	M-1-30-2 M-2-30-3 M-25-24 M-25-24 D-4A	680+30 RAMP "H"	16.00	6.23 7.81 3.00 3.00	20.0 20.5					
G-17	M-38-24 M-1-24-2	712+85 C.A.		2.00 4.00	15.0					
G-18	M-37-24 M-1-24-2	725+95 C.A.		2.00 4.00	15.0					
G-19	GI	731+75 C.A.	27.0		16.0 17.0					
G-21	D-14-72	18+15 S. R.		4.00	14.0 14.0					
G-22	D-14-72	25+50 S. R.		4.00	14.0 14.0					
G-23	(2)N-41-12	593+50 I-275		6.00		22				
G-24	(2)N-41-12	646+25 I-275		6.00		22				
G-25	(2)D-14-72	76+00 B.R.R.		8.00	14.0 14.0					
TOTAL			355	149.53	529	44	77.0		5.00	2

B.R.R. — Blue Rock Road
S.R. — Springdale Road
C.A. — Colerain Avenue

ITEM 620 DELINEATOR

REFERENCE	STATION	TO STATION	SIDE	INTERVAL	A: POST	A: BRACKET	D: POST	D: BRACKET
I-275	572+40	586+40	Rt.	200'	7	1		
E.B.	587+40	588+40	Rt.	100'	2			
	INTERCHANGE — RAMP "E"							
	592+40	668+40	Rt.	200'	40			
	INTERCHANGE — RAMP "H"							
	675+40	683+40	Rt.	200'	5			
	684+40			100'	1			
	INTERCHANGE — RAMP "I"							
	689+20	693+20	Rt.	200'	3			
I-275	572+00	590+00	Lt.	200'	10			
W.B.	INTERCHANGE — RAMP "D"							
	594+60	674+60	Lt.	200'	41			
	INTERCHANGE — RAMP "J"							
	680+20	692+20	Lt.	200'	13			
	693+90		Lt.		1			
RAMP "D"	576+60	587+60	Lt.	100'			12	
	588+60	589+60	Lt. & Rt.	100'			4	
	590+60	593+60	Lt.	100'			4	
RAMP "E"	578+40	580+40	Rt.	100'			4	
	581+40		Rt. & Lt.	100'			2	
	582+40	587+40	Lt.	100'			6	
	588+40		Lt. & Rt.	100'			2	
	589+40	590+40	Rt.	100'			3	
RAMP "F"	690+20		Lt.				1	
RAMP "G"	681+50	683+50	Rt.	100'			3	
	684+50		Rt. & Lt.	100'			2	
	685+50		Lt.	100'			1	
RAMP "H"	670+40	673+40	Rt.	100'			4	
	674+20		Rt.	80'			1	
	674+70		Rt. & Lt.	50'			2	
	675+20	680+20	Lt.	50'			11	
	681+00		Lt. & Rt.	80'			2	
	682+00	683+00	Rt.	100'			2	
	683+60		Rt.	60'			1	
	683+90	685+70	Rt.	30'			7	
	686+30		Rt.	60'			1	
	687+30	688+30	Rt	100'			2	
RAMP "I"	670+70	672+70	Rt.	100'			3	
	673+50		Rt. & Lt.	80'			2	
	674+00	675+50	Lt.	50'			4	
	675+80	677+00	Lt.	30'			5	
	677+30*	678+50*	Lt.	30'			10	
	678+80	683+60	Lt.	30'			16	
	684+20		Lt. & Rt.	60'			2	
	685+20	688+20	Rt.	100'			4	
RAMP "J"	676+00	679+00	Lt.	100'			4	
	679+60		Lt.	60'			2	
	680+20		Lt. & Rt.	60'			2	
	680+80	681+40	Rt.	60'			2	
	682+00		Rt. & Lt.	60'			2	
	683+00	684+00	Lt.	100'			2	
	684+80	688+00	Lt.	80'			5	
	688+00	689+00	Lt.	100'			2	
TOTAL					123	1	144	

*Delineators on Median are Double, Type D. Vertical, Back to Back on Single Post.

TRAFFIC CONTROL QUANTITY CALCULATIONS

DEVELOVED		CHECKED	
ARS	3-1972	RDP	3/72

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

436
468

HAM-275-13.91
HAMILTON COUNTY

ITEM 621 INTERIM PAVEMENT MARKING QUANTITIES

LOCATION	STATION TO STATION		4" EDGE LINE	4" LANE LINE	6" LANE LINE	8" CHANNELIZING LINE	12" BROAD TRANSVERSE LINES	CURB PAINTING	24" STOP LINES	4" CENTER LINES	4" CENTER LINE	ISLAND PAINTING	PARTICIPATION
			LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	SQ. FT.	
I-275 WB	590+05	612+75	4540										
TOTAL			4540										

ITEM 621 INTERIM PAVEMENT MARKING REMOVED

I-275 EB - RAMP "F"	689+90	693+50	440							720			
I-275 EB - RAMP "F"	693+50	696+00	250							500			
I-275 EB	696+00F	704+50	1700										
I-275 WB - RAMP "F"	689+89	690+31	50			192	180		32	280			
I-275 WB - RAMP "F"	690+31	693+50	319										
I-275 WB - RAMP "F"	693+50	696+00	250										
I-275 WB	696+00F	710+00	2800										
I-275 WB	710+00	725+00	3000										
I-275 WB	725+00	730+00	1000										
TOTAL			9809			192	180		32	1500			

ITEM 844 INTERIM SIGN SUPPORTS

SHEET NO.	CODE NO.	LOCATION	SIDE	844 SIGNS ERECTED FLAT SHEET SQ. FT.	SIGN SUPPORTS No. 3 POST LIN. FT.	SIGN SUPPORTS No. 6 POST LIN. FT.		PARTICIPATION
10	W-54-144	613+00 I-275 WB	Rt.	48.0		16.0		
						17.0		
10	W-54-144	613+00 I-275 WB	Lt.	48.0		16.0		
						17.0		
10	W-138-30	612+75 I-275 WB	Lt.	6.25	11.0*			
10	W-138-30	611+75 I-275 WB	Lt.	6.25	11.0*			
10	W-138-30	610+75 I-275 WB	Lt.	6.25	11.0*			
10	W-138-30	609+75 I-275 WB	Lt.	5.25	11.0*			
10	W-138-30	607+75 I-275 WB	Lt.	6.25	11.0*			
10	W-138-30	605+75 I-275 WB	Lt.	6.25	11.0*			
10	W-138-30	603+75 I-275 WB	Lt.	6.25	11.0*			
10	W-138-30	601+75 I-275 WB	Lt.	6.25	11.0*			
10	W-138-30	599+75 I-275 WB	Lt.	6.25	11.0*			
10	W-138-30	597+75 I-275 WB	Lt.	6.25	11.0*			
10	W-138-30	595+75 I-275 WB	Lt.	6.25	11.0*			
10	W-138-30	593+75 I-275 WB	Lt.	6.25	11.0*			
10	W-138-30	591+75 I-275 WB	Lt.	6.25	11.0*			
10	W-138-30	590+05 I-275 WB	Lt.	6.25	11.0*			
	R-33-30	598+05 I-275 WB	Lt.	7.50	16.0			
*	As Per Plan, Sheet No. 10							
	TOTAL			191	170.0	66.0		

ITEM 620 INTERIM DELINEATORS

SHEET NO.	LOCATION	SIDE	INTERVAL	TYPE D POST MOUNTED ON BARRELS EACH	PARTICIPATION
10	AS PER PLAN	Lt.	50 & 100	13	
	TOTAL			13	

606-TEMPORARY GUARD RAIL

Location	Station to Station		Guard Rail, Type 6
			Lin. Ft.
I-275 WB	590+05	612+75	2270

REVISED DATE 8-22-75

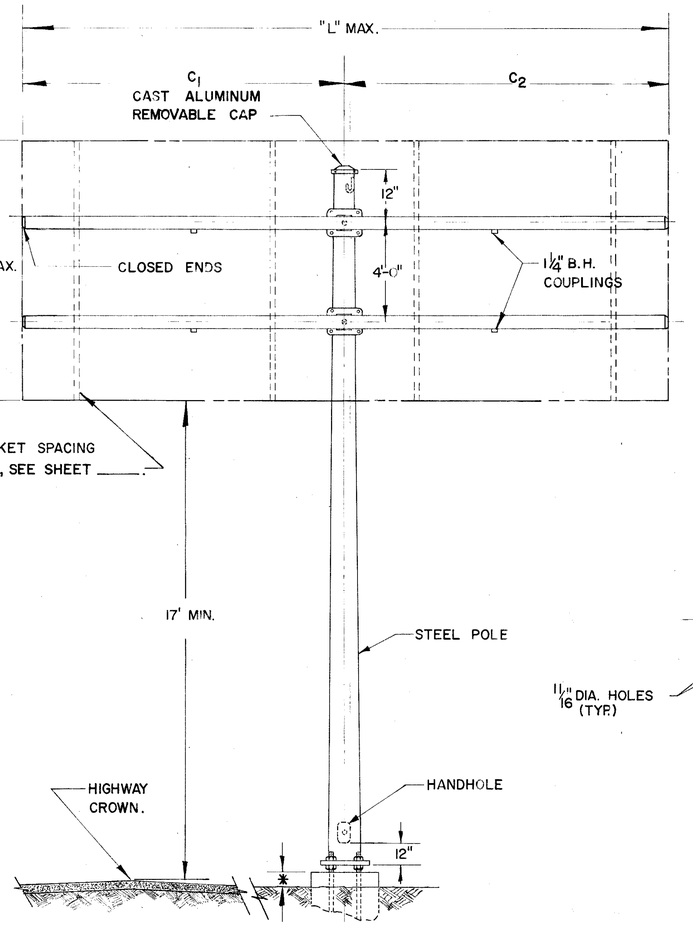
21
37

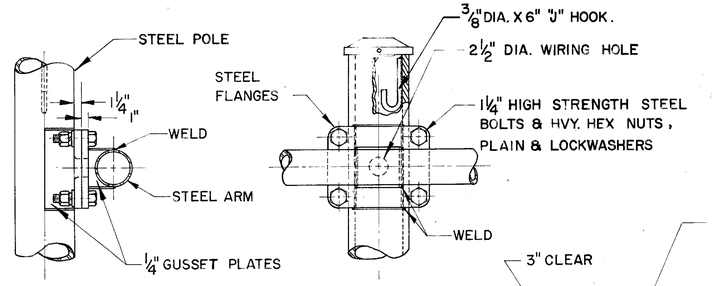
INTERIM QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

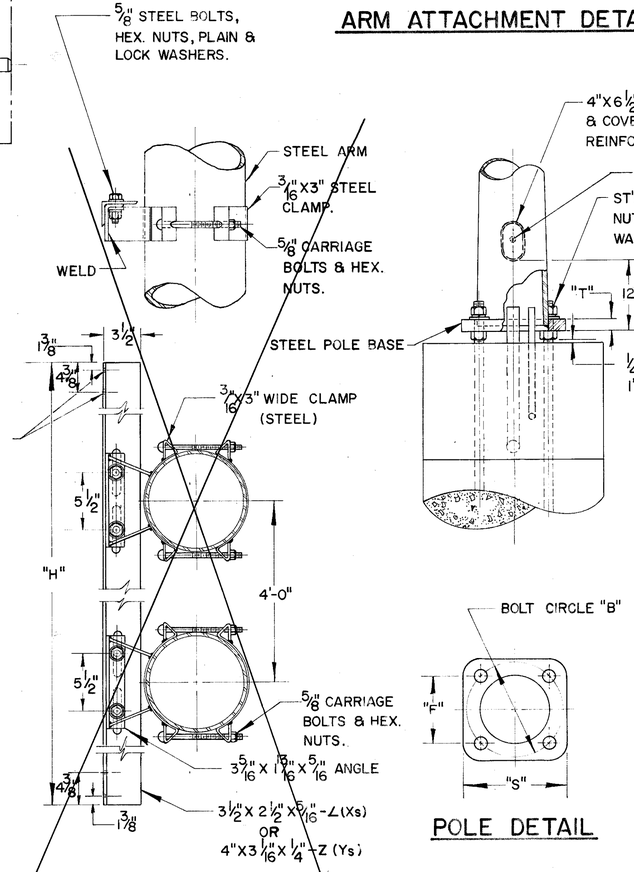
438
468

HAM.-275-13.91
HAMILTON COUNTY



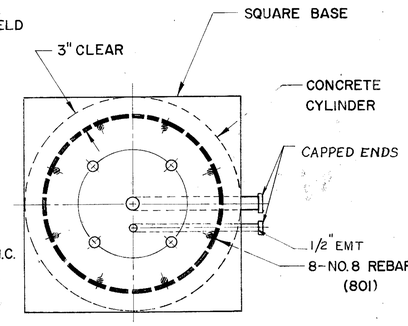


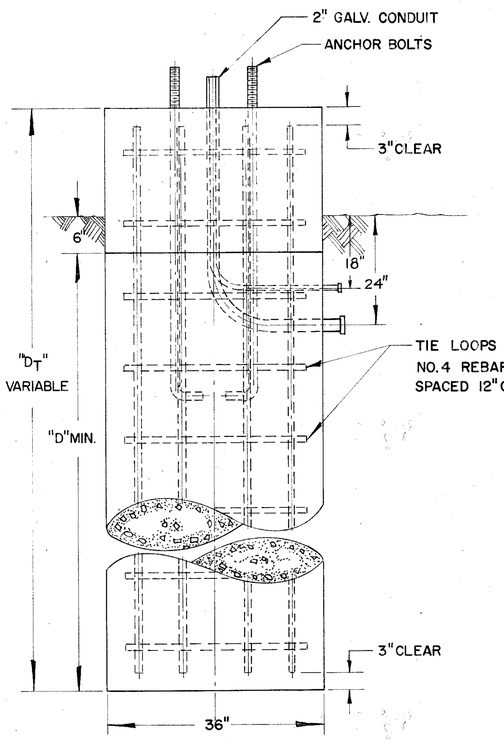
ARM ATTACHMENT DETAIL



SIGN ATTACHMENT DETAIL

POLE DETAIL





FOUNDATION DETAIL

DESIGN	POLE SIZE (STD.)	MAX. ARM SIZE	MAX. SIGN LENGTH "L"	MAX. SIGN AREA	B	F	P	S	T	ANCHOR BOLTS	"D" MIN.
1.	3GA. 14"X10.78"X23'	4" SCH. 40 12'-0"	24'-0"	120 SQ FT	20"	14⅛"	7"	20½"	2"	1¾" X 90"	9'
2.	3GA. 16.5"X13"X 25'	4"SCH. 40 9'-0"	18'-0"	180 SQ FT	23½"	16⅝"	8"	24½"	2"	2"X 96"	11'
3.	3GA. 16.5"X13.28"X25'	6"SCH. 40 12'-0"	24'-0"	180 SQ FT	23½"	16⅝"	8"	24½"	2"	2"X 96"	11'
4.	0GA. 18"X 14.5"X25'	6"SCH. 40 12'-0"	24'-0"	240 SQ FT	25½"	18"	9"	26½"	2½"	2¼"X96"	13'

REINFORCEMENT SCHEDULE				
MARK	NO.	LEN.	TYPE	
402	12"c/c	8'-6"	103	2'-6"
801	8	D_T-6"	STR.	103

NOTES

GENERAL

MAXIMUM SIGN AREAS AND ARM LENGTHS SHOWN IN TABLE, ARE FOR BALANCED DESIGN ($C_1 = C_2$).

FOR UNBALANCED DESIGN ($C_1 \gtrless C_2$), THE PRODUCT OF THE ACTUAL SIGN AREA (C_1 H OR C_2 H) TIMES 1/2 OF ACTUAL ARM (1/2 C_1 OR 1/2 C_2) SHALL BE LESS THAN THE PRODUCT OF 45% OF MAXIMUM SIGN AREA TIMES 1/2 MAX. ARM FOR BALANCED DESIGN. (0.45 H 2C_1 1/2C_1 OR 0.45 H 2C_2 1/2C_2).

DESIGN

THE DESIGN OF OVERHEAD SUPPORTS SHALL BE IN ACCORDANCE WITH A.A.S.H.O. SPECIFICATION FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, ADOPTED JUNE 13, 1961.

FOUNDATION

THE TOP ELEVATION OF FOUNDATIONS SHALL BE VARIED SO AS TO MAINTAIN A MINIMUM CLEARANCE OF 17' BETWEEN THE BOTTOM OF THE SIGN AND THE HIGHWAY CROWN.

SOILS

THE FOUNDATION DETAILS SHOWN ARE FOR AVERAGE SOIL CONDITIONS (MEDIUM CLAY, CEMENTED SAND AND GRAVEL, SANDY CLAY, OR STIFF CLAY). FOR POOR SOIL CONDITIONS, INCREASE "D" MIN. BY: 50% IN DRY OR WET SAND, 60% IN SILTY CLAY, 100% IN SOFT CLAY, AND FROM 75% TO 150% IN WET SILT, DEPENDING ON QUICKSAND ACTION.

FINISH

ALL STRUCTURAL PORTIONS OF THE SIGN SUPPORTS, SIGN BRACKETS, HARDWARE AND CONDUIT SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH SEC. 711.02 (EXCEPT AS OTHERWISE SHOWN).

MATERIALS

ALL MATERIALS TO BE FURNISHED SHALL BE IN ACCORDANCE WITH SEC. 711.02 WITH THE FOLLOWING ADDITIONS:

TAPERED TUBES SHALL BE STEEL, SAE 1015 AND COLD ROLLED TO OBTAIN A MINIMUM YIELD STRENGTH OF 48,000 PSI.

STEEL PIPE: 4" DIAMETER AND UNDER SHALL BE STEEL ASTM-A 120, OVER 4" DIA. SHALL BE ASTM-A 53 GRADE B.

ANCHOR BOLTS SHALL BE HIGH STRENGTH STEEL ASTM-A 107, GRADE C-1035.

HIGH STRENGTH CLAMPS SHALL BE STEEL ASTM-A 242.

PAYMENT FOR CONDUIT

PAYMENT FOR THE GALVANIZED CONDUIT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OVERHEAD SIGN SUPPORTS.

REINFORCING STEEL

COST OF REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM 816 CONCRETE FOR SIGN SUPPORT FOUNDATIONS.

BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATE THE BAR SIZE NUMBER.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

OVERHEAD SIGN SUPPORT	816 No. 9.24	DATE 6-17-64 7-8-66

APPROVED _____
ENGINEER OF TRAFFIC

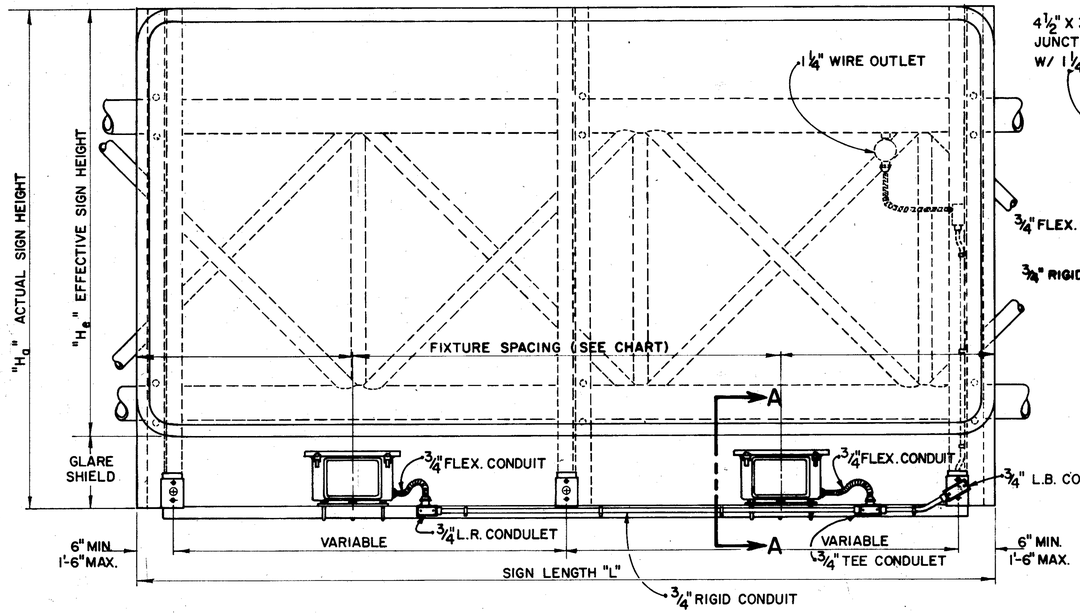
23
37

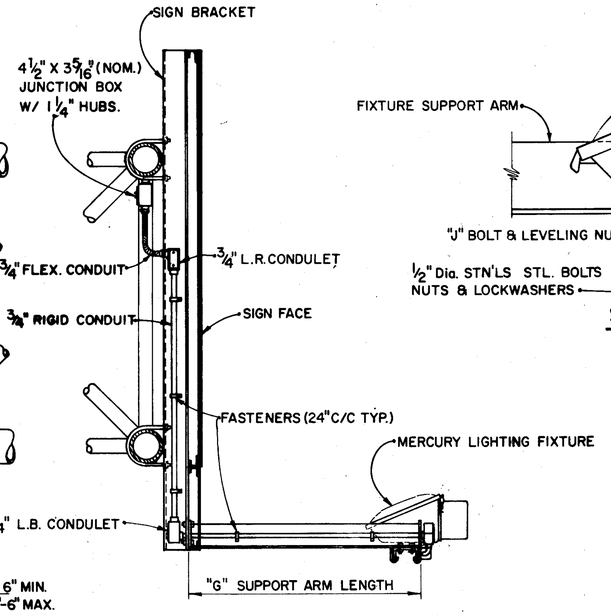
OVERHEAD SIGN SUPPORT, 816 No. 9.24

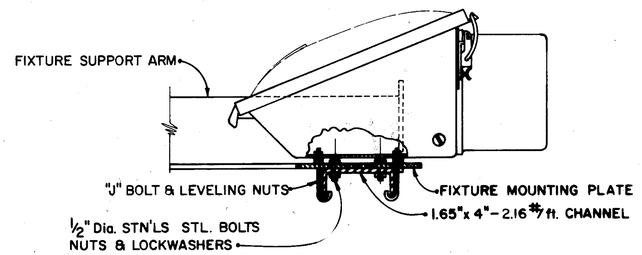
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

439
468

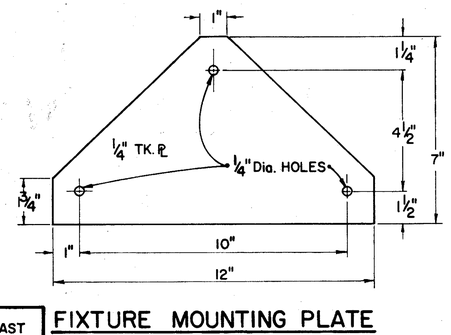
HAM - 275 - 13.91
HAMILTON COUNTY







SECTION A-A



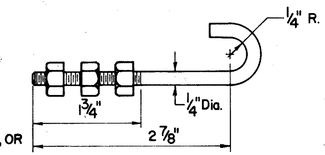
SIGN LENGTH "L"	NO. OF FIXTURES	LIGHT FIXTURE SPACING						SUPPORT ARM SPACING					NO. OF SIGN BRACKETS
4'-0"	1	2"-0"	2'-0"					6"	36"	6"			2
5'-0"	1	2'-6"	2"-6"					6"	48"	6"			2
6'-0"	1	3'-0"	3'-0"					6"	60"	6"			2
7'-0"	1	3'-6"	3'-6"					6"	72"	6"			2
8'-0"	1	4'-0"	4'-0"					10 3/8"	75 3/8"	10 1/4"			2
9'-0"	1	4'-6"	4'-6"					16 3/8"	75 3/8"	16 1/4"			2
10'-0"	1	5'-0"	5'-0"					10 3/8"	99 3/8"	10 1/4"			2
11'-0"	1	5'-6"	5'-6"					16 3/8"	99 3/8"	16 1/4"			2
12'-0"	2	3'-0"	6'-0"	3'-0"				6"	66"	66"	6"		3
13'-0"	2	3'-6"	6'-0"	3'-6"				6"	72"	72"	6"		3
14'-0"	2	4'-0"	6'-0"	4'-0"				8 5/8"	75 3/8"	75 3/8"	8 5/8"		3
15'-0"	2	4'-6"	6'-0"	4'-6"				14 5/8"	75 3/8"	75 3/8"	14 5/8"		3
16'-0"	2	4'-0"	8'-0"	4'-0"				8 5/8"	75 3/8"	99 3/8"	8 5/8"		3
17'-0"	2	4'-6"	8'-0"	4'-6"				14 5/8"	75 3/8"	99 3/8"	14 5/8"		3
18'-0"	2	4'-0"	10'-0"	4'-0"				8 5/8"	99 3/8"	99 3/8"	8 5/8"		3
19'-0"	2	4'-6"	10'-0"	4'-6"				14 5/8"	99 3/8"	99 3/8"	14 5/8"		3
20'-0"	3	4'-0"	6'-0"	6'-0"	4'-0"			7"	75 3/8"	75 3/8"	75 3/8"	6 7/8"	4
21'-0"	3	4'-6"	6'-0"	6'-0"	4'-6"			13"	75 3/8"	75 3/8"	75 3/8"	12 7/8"	4
22'-0"	3	4'-0"	7'-0"	7'-0"	4'-0"			7"	75 3/8"	75 3/8"	99 3/8"	6 7/8"	4
23'-0"	3	4'-6"	7'-0"	7'-0"	4'-6"			13"	75 3/8"	75 3/8"	99 3/8"	12 7/8"	4
24'-0"	3	4'-0	8'-0"	8'-0	4'-0"			7"	75 3/8"	99 3/8"	99 3/8"	6 7/8"	4
25'-0"	3	4'-6"	8'-0"	8'-0"	4'-6			13"	75 3/8"	99 3/8"	99 3/8"	12 7/8"	4
26'-0"	4	4'-0"	6'-0"	6'-0"	6'-0"	4'-0"		7"	99 3/8"	99 3/8"	99 3/8"	6 7/8"	4
27'-0"	4	4'-6"	6'-0"	6'-0"	6'-0"	4'-6"		13"	99 3/8"	99 3/8"	99 3/8"	12 7/8"	4

EFFECTIVE SIGN HEIGHT "H"	SUPPORT ARM LENGTH "G"	APPROX. AIMING ANGLE	LAMP WATTS	ANSI LAMP CODE	BALLAST TYPE
3'-0" to 5'-0"	2'-9"	0°	100	H38-4HT	CMRI-100-(a)
5'-1" to 6'-6"	3"-3"	0°	175	H39-22KB	CMRI-175-(a)
6'-7" to 10'-0"	4'-3"	2°	175	H39-22KB	CMRI-175-(a)
10'-1" to 13'-0"	5'-9"	8°	250	H37-5KB	CMRI-250-(a)
13'-1" to 15'-0"	7'-3"	8°	250	H37-5KB	CMRI-250-(a)

(a) = OPERATING VOLTAGE (120V., 208V., 240V., 277V., OR 480V.)

FIXTURE MOUNTING PLATE

(ALUMINUM)



"J" BOLT

(STAINLESS STEEL BOLT, NUTS & LOCKWASHERS)

BUREAU OF DESIGN SERVICES
OHIO DEPARTMENT OF HIGHWAYS

MERCURY VAPOR SIGN LIGHTING DETAILS

DATE 4-13-72

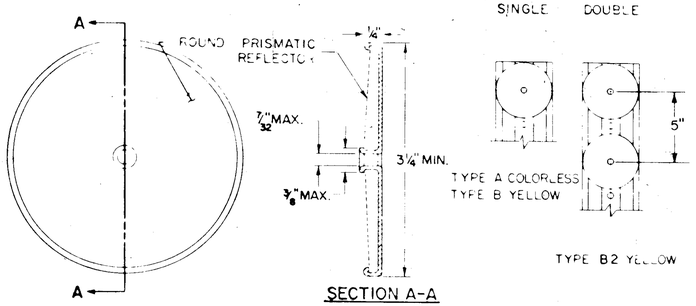
STANDARD CONSTRUCTION DRAWING

APPROVED _____
ENGINEER OF DESIGN SERVICES

24
37

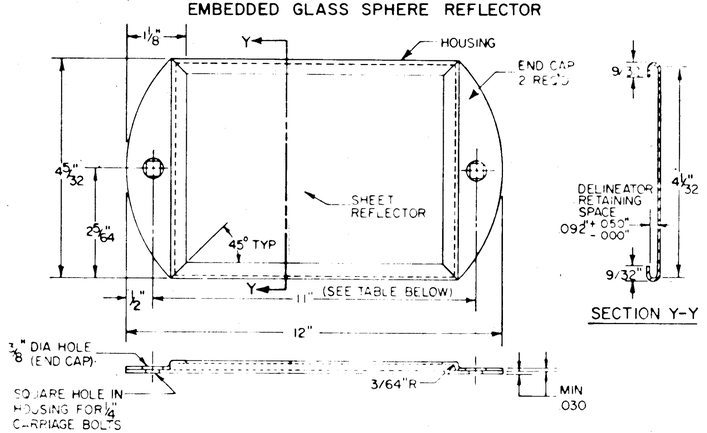
BRUNING 44-560 10943

ROUND DELINEATORS

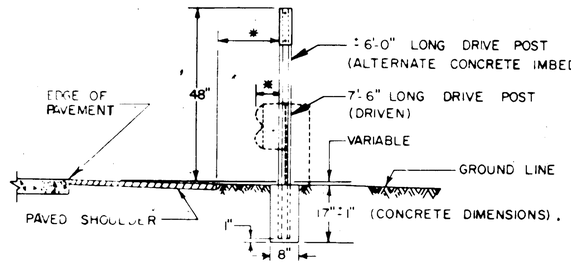


SECTION A-A

RECTANGULAR SHEET DELINEATORS

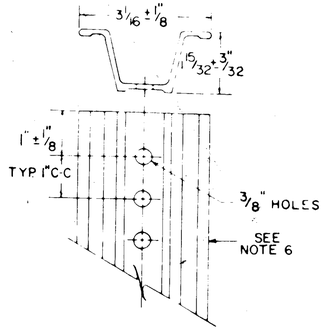


RECTANGULAR TYPES
C - COLORLESS
D - YELLOW
E - RED

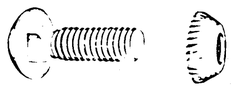


LATERAL PLACEMENT OF DELINEATORS

* DELINEATORS SHALL BE 6" BEHIND FACE OF TYPICAL GUARDRAIL LOCATION BUT WITH A MINIMUM DISTANCE OF 2'6" FROM EDGE OF PAVED SHOULDER WHERE GUARDRAIL IS NOT PRESENT



2 LB./FT. DELINEATOR DRIVE POST



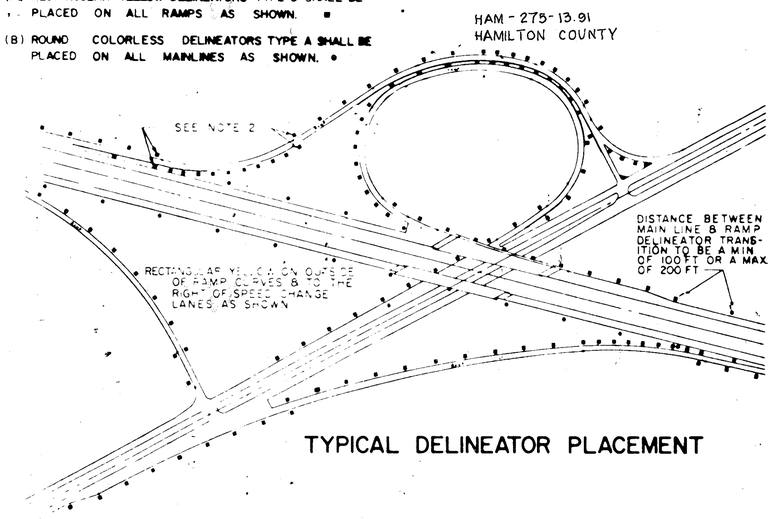
TAMPER RESISTANT FASTENERS SHALL BE USED TO FASTEN DELINEATORS TO POST AS/OR SIMILAR TO ONE SHOWN ABOVE.

TAMPER RESISTANT FASTNERS

NOTE

(A.) RECTANGULAR YELLOW DELINEATORS TYPE D SHALL BE PLACED ON ALL RAMPS AS SHOWN. ■

(B) ROUND COLORLESS DELINEATORS TYPE A SHALL BE PLACED ON ALL MAINLINES AS SHOWN. ●



TYPICAL DELINEATOR PLACEMENT

DELINEATOR SPACING ON RAMP HORIZONTAL CURVES

RADII, FT. FROM	RADII, FT. TO	SPACING ON CURVE	* TRANSITION SPACING	
TANGENT	1,801	100'	100'	100'
1,800	1,401	80'	100'	100'
1,400	1,001	70'	100'	100'
1,000	751	60'	100'	100'
750	551	50'	80'	100'
550	326	40'	70'	100'
325	——	30'	60'	100'

* SUCH AS 40' TO 70' TO 100' OR 100' TO 80' TO 50' OR ANY OTHER COMBINATION SHOWN ABOVE.

NOTES

1. TYPE A DELINEATORS ON THE RIGHT OF THE THROUGH ROADWAY ARE TO BE SPACED AT 200 FT. INTERVALS THROUGHOUT, REGARDLESS OF CURVES.

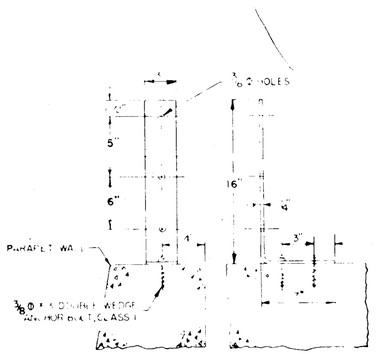
2. WHEN CROSSING FROM LEFT TO RIGHT OR FROM RIGHT TO LEFT ON THE RAMPS THE DELINEATORS AT THE POINT OF CROSSOVER ARE TO BE AT THE SAME STATION ON EACH SIDE.

3. NO DELINEATORS ARE TO BE PLACED IN PAVED BERM

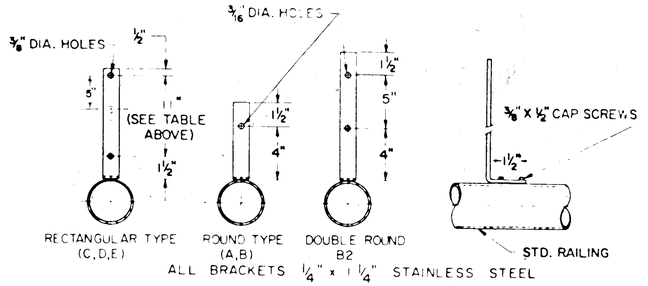
4. WHEN RADII OF CURVE ON RAMPS REQUIRE 100' SPACING THE DELINEATORS SHALL BE PLACED ON THE RIGHT IN RELATION TO THE FLOW OF TRAFFIC.

5. IN ADDITION TO MATERIALS LISTED IN 620.02, RECTANGULAR SHEET REFLECTORS MAY CONSIST OF REFLECTIVE SHEETING COMPOSED OF GLASS SPHERES IMBEDDED IN A WEATHER PROOF SYNTHETIC RESIN SHEET, THE REFLECTIVE FACE OF WHICH SHALL BE PLACED BEHIND AND SEALED TO A WEATHERPROOF RIGID PLASTIC FACE OF METHYL METHACRYLATE OF 0.060 INCHES MINIMUM THICKNESS.

6. SUPPLEMENTING THE DRIVE POST DETAILS SHOWN, ALTERNATE POST SECTIONS MAY BE FURNISHED. ANY ALTERNATE SECTION FURNISHED SHALL MEET ALL THE MATERIAL REQUIREMENTS OF 620, HAVE A SHAPE APPROXIMATELY AS DETAILED, AND HAVE A MOMENT OF INERTIA EQUAL TO OR GREATER THAN THE SECTION DETAILED. THE REQUIREMENTS OF 712.20 REALTIVE TO MAXIMUM WEIGHT TOLERANCE ARE HEREBY WAIVED. NO ALTERNATE SECTION FURNISHED SHALL EXCEED THE WEIGHT OF THE CORRESPONDING SECTION BY MORE THAN 10 PERCENT.



BRIDGE PARAPET BRACKET



BRIDGE RAIL BRACKET

BUREAU OF DESIGN SERVICES
DIVISION OF HIGHWAYS
OHIO DEPARTMENT OF TRANSPORTATION

DELINEATOR DETAILS

DATE 1/1/73 3/12/73

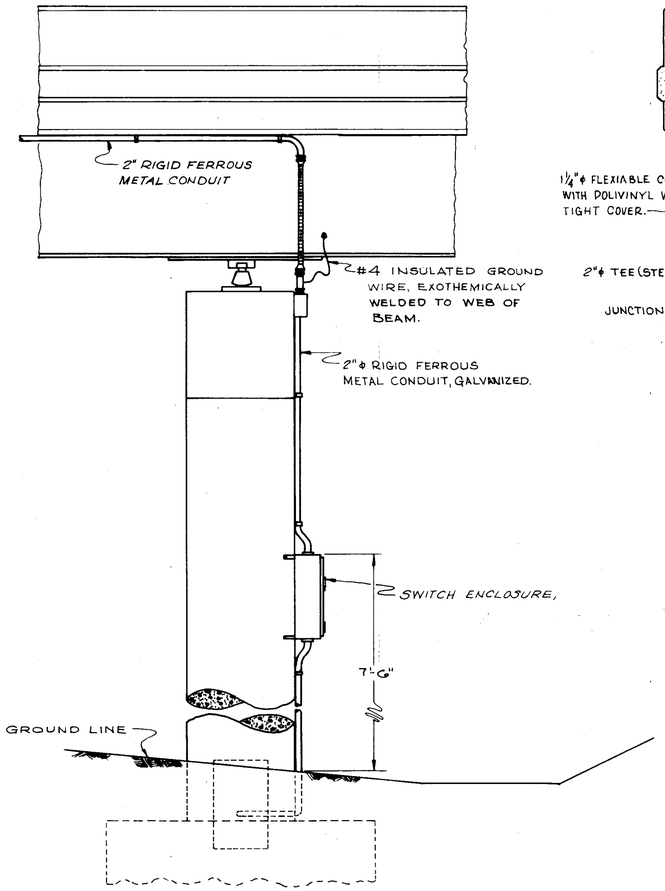
APPROVED _____
ENGINEER OF DESIGN SERVICES

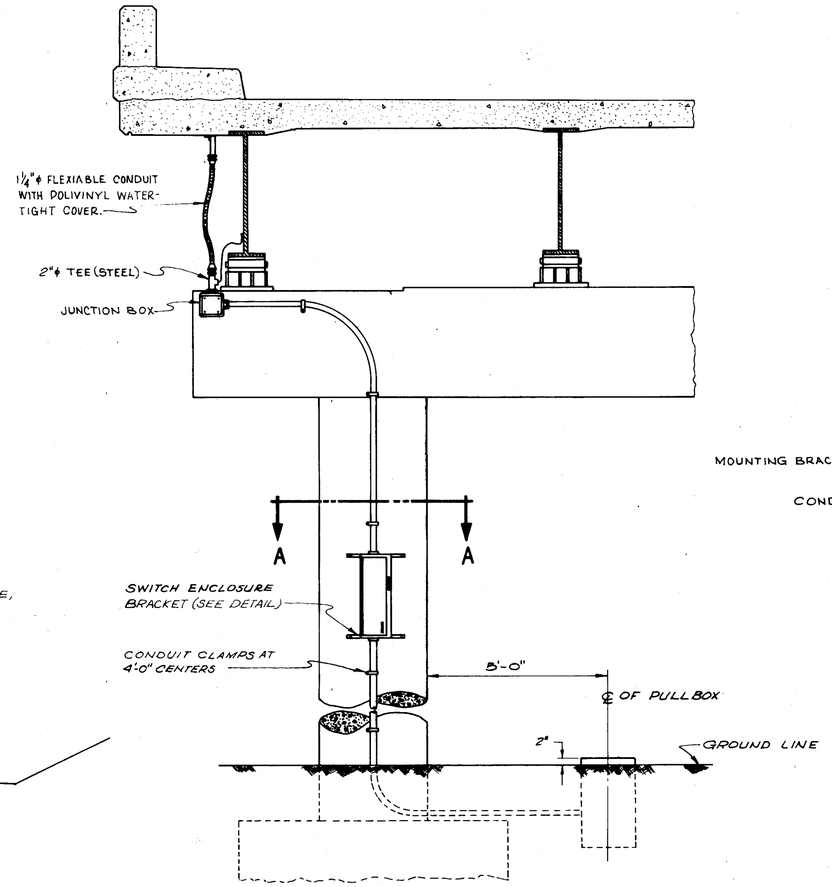
25/37

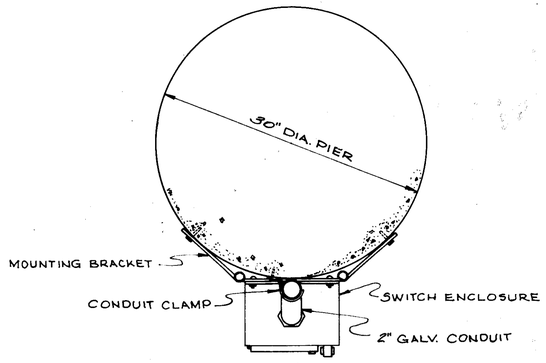
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

441/468

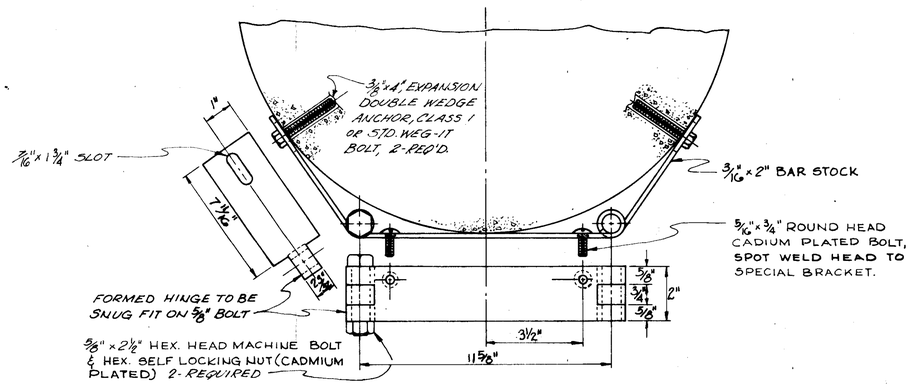
HAM-275-13.91
HAMILTON COUNTY







SECTION A-A



ENCLOSURE MOUNTING BRACKET

26/37

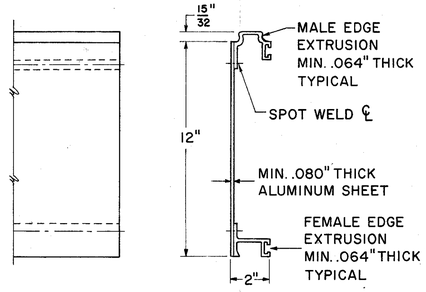
STRUCTURE MOUNTED SIGN SERVICE DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

442/468

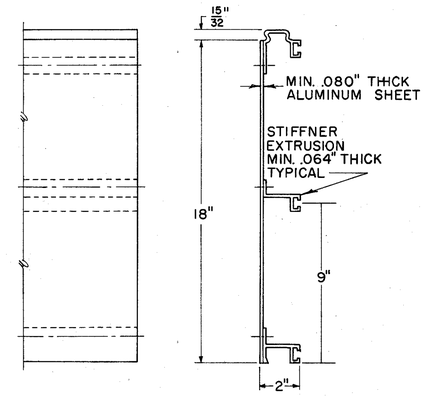
HAM - 275 - 13.91
HAMILTON COUNTY

12" EXTRUSHEET PANEL



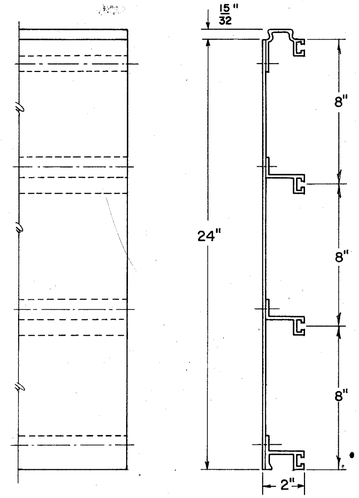
FRONT VIEW SIDE VIEW

18" EXTRUSHEET PANEL



FRONT VIEW SIDE VIEW

24" EXTRUSHEET PANEL



FRONT VIEW SIDE VIEW

NOTES:

EXTRUSHEET PANELS SHALL BE ALUMINUM; SPOT WELDING AND ALL MATERIALS SHALL CONFORM WITH SUPPLEMENTAL SPECIFICATION

COMBINATIONS OF 12", 18", AND 24" PANELS ARE USED TO ATTAIN REQUIRED SIGN HEIGHT.

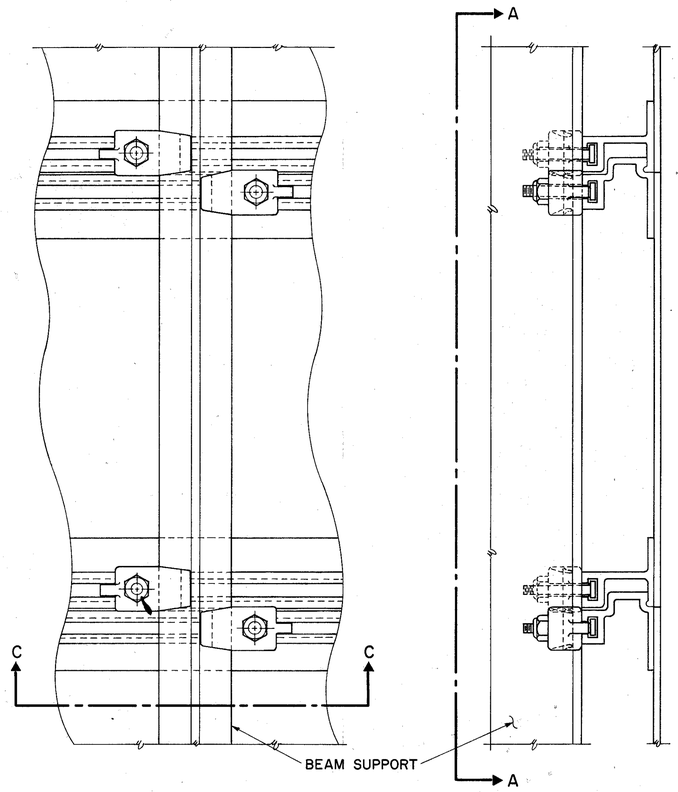
INDIVIDUAL PANELS SHALL BE THE SAME LENGTH AS THE HORIZONTAL LENGTH OF SIGN WITH NO SPLICES.

PANELS SHALL BE INTERLOCKED AND ERECTED WITH THE MALE EXTRUSION LOCATED AT THE TOP EDGE OF THE SIGN.

EXTRUSHEET PANELS SHALL BE FASTENED TO EACH VERTICAL SUPPORT MEMBER WITH MOUNTING CLIPS; ALTERNATELY AT EACH HORIZONTAL EXTRUSION; BOTH SIDES AT EACH JOINT, AND ON BOTH SIDES AT TOP AND BOTTOM EDGE OF SIGN.

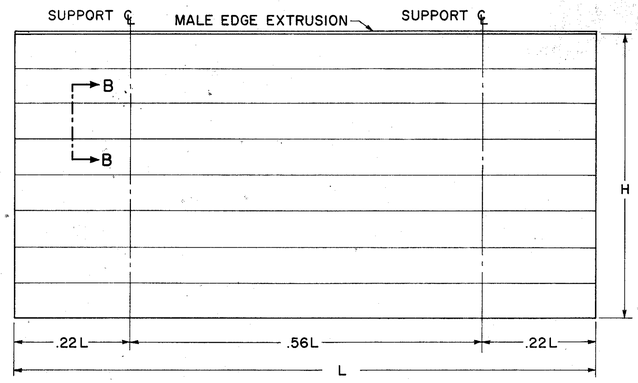
THE PANELS SHALL BE DESIGNED TO WITHSTAND A WIND LOAD OF 35 POUNDS PER SQUARE FOOT, IN ACCORDANCE WITH THE A.A.S.H.O. SPECIFICATION FOR DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS.

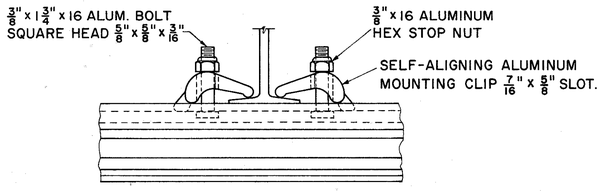
THE MAXIMUM SIGN LENGTH FOR TWO SUPPORTS IS 19'-0".
THE MAXIMUM SIGN LENGTH FOR THREE SUPPORTS IS 29'-0".



SECTION A-A SECTION B-B

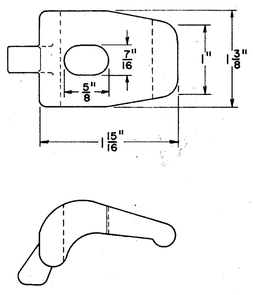
GENERAL ARRANGEMENT





SECTION C-C

CLIP DETAIL



SPOT WELDS

PANEL SIZE	MAXIMUM SPOT WELD SPACING	
	CENTER TO CENTER	BETWN ROWS
12 INCH	4 INCH	10 INCH
18 & 24 INCH	4 INCH	8 INCH

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

ALUMINUM EXTRUSHEET PANEL SIGN

ECD 1

DATE
9-25-63
5-19-64
10-21-65
5-24-67

APPROVED Fred C Farber
ENGINEER OF TRAFFIC

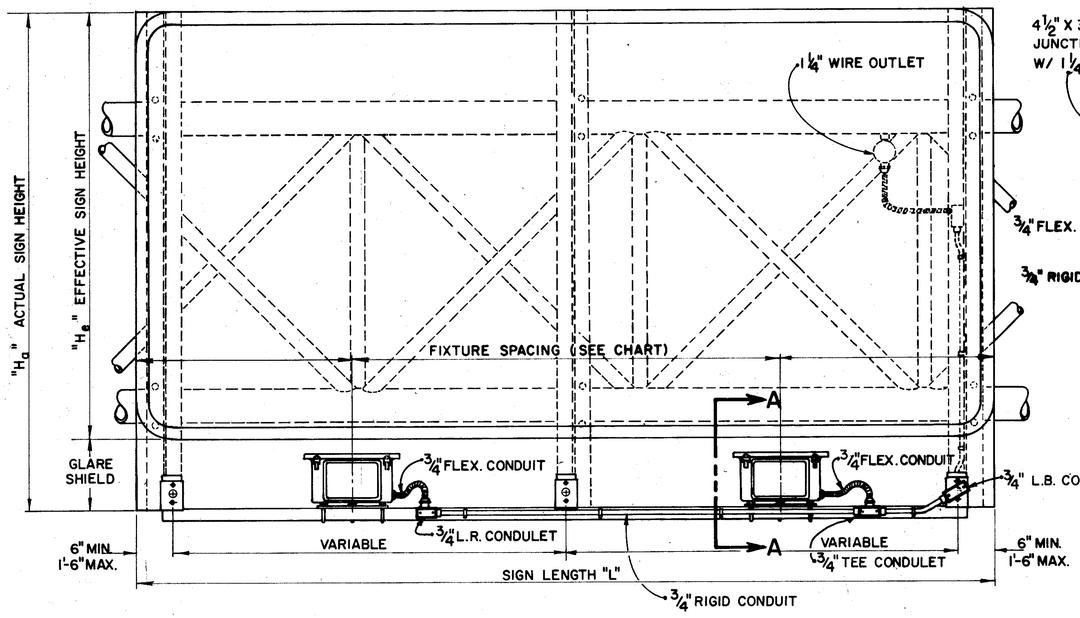
27/37

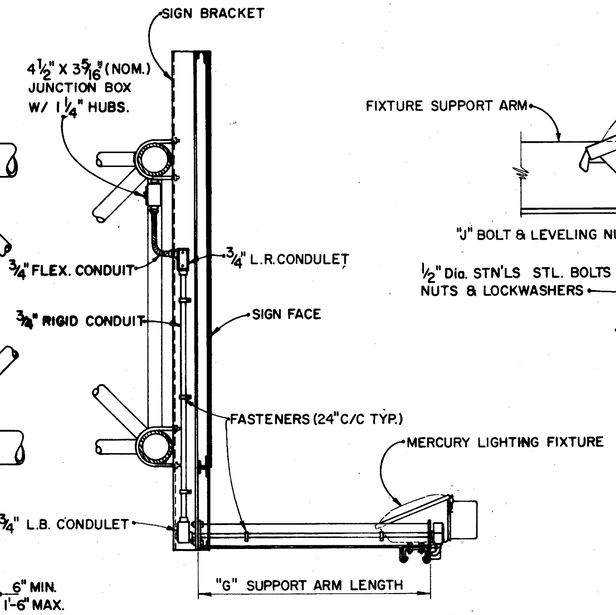
ALUMINUM EXTRUSHEET PANEL SIGN

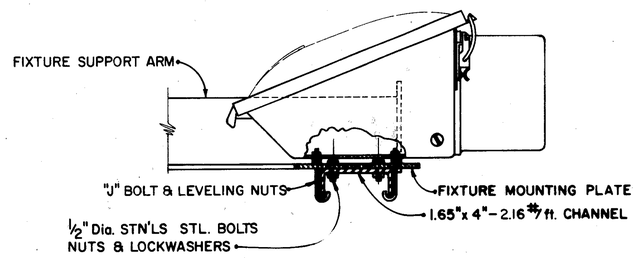
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

439
468

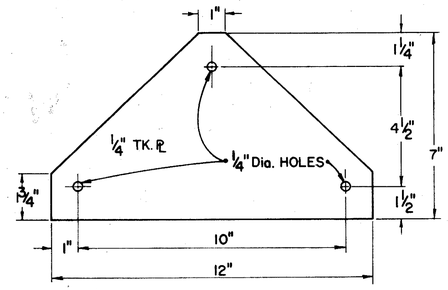
HAM - 275 - 13.91
HAMILTON COUNTY







SECTION A-A



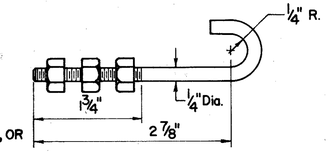
SIGN LENGTH "L"	NO. OF FIXTURES	LIGHT FIXTURE SPACING					SUPPORT ARM SPACING					NO. OF SIGN BRACKETS
4'-0"	1	2'-0"	2'-0"				6"	36"	6"			2
5'-0"	1	2'-6"	2'-6"				6"	48"	6"			2
6'-0"	1	3'-0"	3'-0"				6"	60"	6"			2
7'-0"	1	3'-6"	3'-6"				6"	72"	6"			2
8'-0"	1	4'-0"	4'-0"				10 3/8"	75 3/8"	10 1/4"			2
9'-0"	1	4'-6"	4'-6"				16 3/8"	75 3/8"	16 1/4"			2
10'-0"	1	5'-0"	5'-0"				10 3/8"	99 3/8"	10 1/4"			2
11'-0"	1	5'-6"	5'-6"				16 3/8"	99 3/8"	16 1/4"			2
12'-0"	2	3'-0"	6'-0"	3'-0"			6"	66"	66"	6"		3
13'-0"	2	3'-6"	6'-0"	3'-6"			6"	72"	72"	6"		3
14'-0"	2	4'-0"	6'-0"	4'-0"			8 5/8"	75 3/8"	75 3/8"	8 5/8"		3
15'-0"	2	4'-6"	6'-0"	4'-6"			14 5/8"	75 3/8"	75 3/8"	14 5/8"		3
16'-0"	2	4'-0"	8'-0"	4'-0"			8 5/8"	75 3/8"	99 3/8"	8 5/8"		3
17'-0"	2	4'-6"	8'-0"	4'-6"			14 5/8"	75 3/8"	99 3/8"	14 5/8"		3
18'-0"	2	4'-0"	10'-0"	4'-0"			8 5/8"	99 3/8"	99 3/8"	8 5/8"		3
19'-0"	2	4'-6"	10'-0"	4'-6"			14 5/8"	99 3/8"	99 3/8"	14 5/8"		3
20'-0"	3	4'-0"	6'-0"	6'-0"	4'-0"		7"	75 3/8"	75 3/8"	75 3/8"	6 7/8"	4
21'-0"	3	4'-6"	6'-0"	6'-0"	4'-6"		13"	75 3/8"	75 3/8"	75 3/8"	12 7/8"	4
22'-0"	3	4'-0"	7'-0"	7'-0"	4'-0"		7"	75 3/8"	75 3/8"	99 3/8"	6 7/8"	4
23'-0"	3	4'-6"	7'-0"	7'-0"	4'-6"		13"	75 3/8"	75 3/8"	99 3/8"	12 7/8"	4
24'-0"	3	4'-0	8'-0"	8'-0	4'-0"		7"	75 3/8"	99 3/8"	99 3/8"	6 7/8"	4
25'-0"	3	4'-6"	8'-0"	8'-0"	4'-6		13"	75 3/8"	99 3/8"	99 3/8"	12 7/8"	4
26'-0"	4	4'-0"	6'-0"	6'-0"	6'-0"	4'-0"	7"	99 3/8"	99 3/8"	99 3/8"	6 7/8"	4
27'-0"	4	4'-6"	6'-0"	6'-0"	6'-0"	4'-6"	13"	99 3/8"	99 3/8"	99 3/8"	12 7/8"	4

EFFECTIVE SIGN HEIGHT "H"	SUPPORT ARM LENGTH "G"	APPROX. AIMING ANGLE	LAMP WATTS	ANSI LAMP CODE	BALLAST TYPE
3'-0" to 5'-0"	2'-9"	0°	100	H38-4HT	CMRI-100-(a)
5'-1" to 6'-6"	3'-3"	0°	175	H39-22KB	CMRI-175-(a)
6'-7" to 10'-0"	4'-3"	2°	175	H39-22KB	CMRI-175-(a)
10'-1" to 13'-0"	5'-9"	8°	250	H37-5KB	CMRI-250-(a)
13'-1" to 15'-0"	7'-3"	8°	250	H37-5KB	CMRI-250-(a)

(a) = OPERATING VOLTAGE (120V., 208V., 240V., 277V., OR 480V.)

FIXTURE MOUNTING PLATE

(ALUMINUM)



"J" BOLT

(STAINLESS STEEL BOLT, NUTS & LOCKWASHERS)

BUREAU OF DESIGN SERVICES
OHIO DEPARTMENT OF HIGHWAYS

MERCURY VAPOR SIGN LIGHTING DETAILS

STANDARD CONSTRUCTION DRAWING

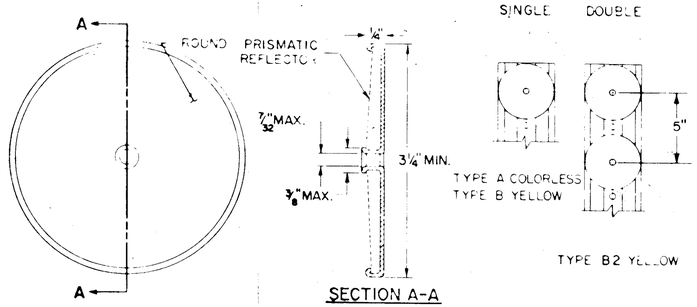
DATE 4-13-72

APPROVED _____
ENGINEER OF DESIGN SERVICES

24
37

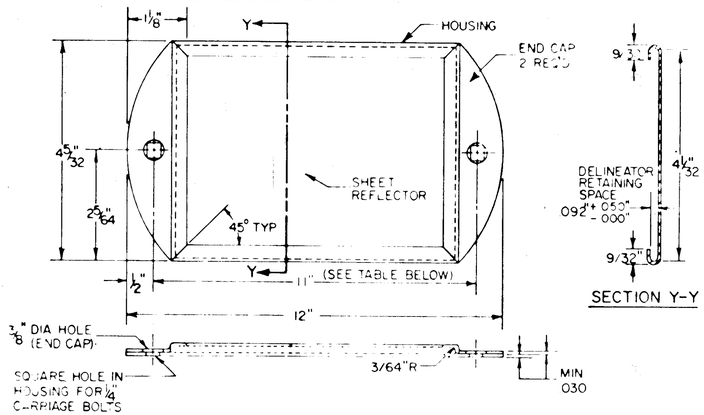
BRUNING 44-560 10943

ROUND DELINEATORS

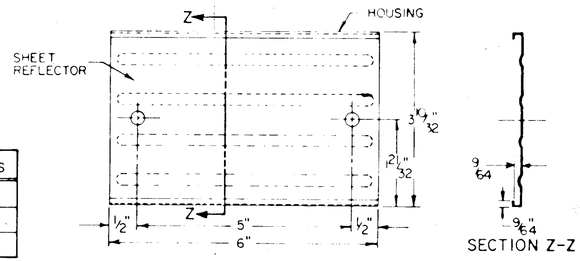


RECTANGULAR SHEET DELINEATORS

EMBEDDED GLASS SPHERE REFLECTOR

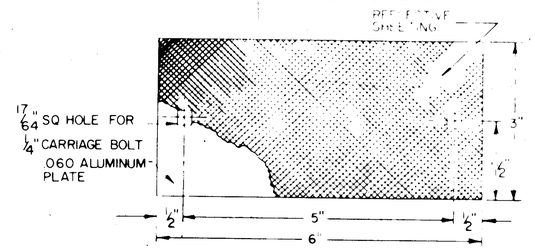


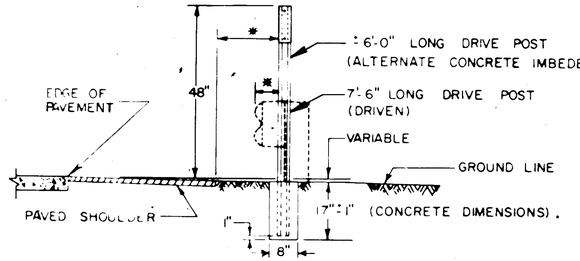
ACRYLIC PLASTIC PRISMATIC REFLECTOR



RECTANGULAR TYPES
C - COLORLESS
D - YELLOW
E - RED

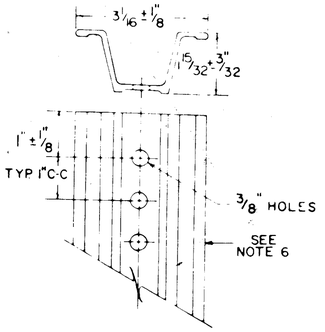
REFLECTIVE SHEETING REFLECTOR





LATERAL PLACEMENT OF DELINEATORS

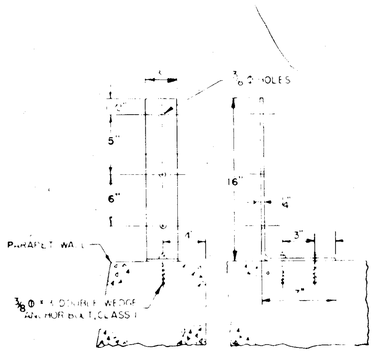
* DELINEATORS SHALL BE 6" BEHIND FACE OF TYPICAL GUARDRAIL LOCATION BUT WITH A MINIMUM DISTANCE OF 2'6" FROM EDGE OF PAVED SHOULDER WHERE GUARDRAIL IS NOT PRESENT



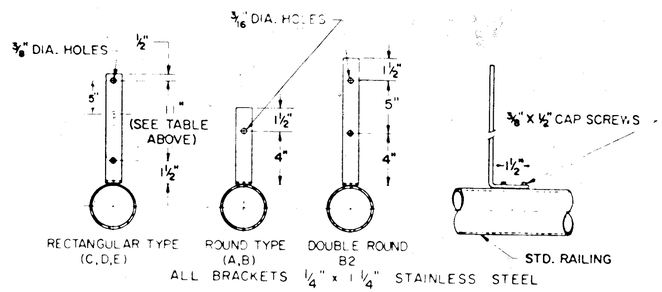
2 LB./FT. DELINEATOR DRIVE POST

TAMPER RESISTANT FASTENERS SHALL BE USED TO FASTEN DELINEATORS TO POST AS/OR SIMILAR TO ONE SHOWN ABOVE.

TAMPER RESISTANT FASTNERS



BRIDGE PARAPET BRACKET



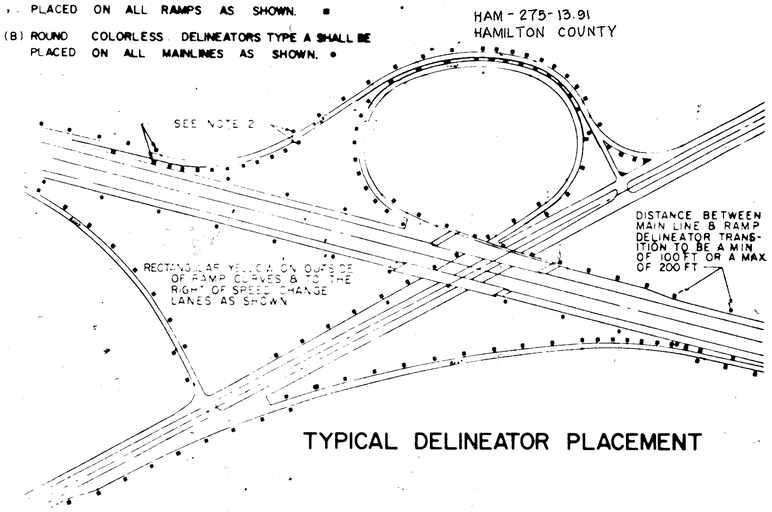
ALL BRACKETS 1/4" x 1 1/4" STAINLESS STEEL

BRIDGE RAIL BRACKET

NOTE

(A) RECTANGULAR YELLOW DELINEATORS TYPE D SHALL BE PLACED ON ALL RAMPS AS SHOWN. *

(B) ROUND COLORLESS DELINEATORS TYPE A SHALL BE PLACED ON ALL MAINLINES AS SHOWN. *



TYPICAL DELINEATOR PLACEMENT

DELINEATOR SPACING ON RAMP HORIZONTAL CURVES

RADII, FT.		SPACING	* TRANSITION SPACING	
FROM	TO	ON CURVE		
TANGENT	1,801	100'	100'	100'
1,800	1,401	80'	100'	100'
1,400	1,001	70'	100'	100'
1,000	751	60'	100'	100'
750	551	50'	80'	100'
550	326	40'	70'	100'
325	——	30'	60'	100'

* SUCH AS 40' TO 70' TO 100' OR 100' TO 80' TO 50' OR ANY OTHER COMBINATION SHOWN ABOVE.

NOTES

1. TYPE A DELINEATORS ON THE RIGHT OF THE THROUGH ROADWAY ARE TO BE SPACED AT 200 FT. INTERVALS THROUGHOUT, REGARDLESS OF CURVES.

2. WHEN CROSSING FROM LEFT TO RIGHT OR FROM RIGHT TO LEFT ON THE RAMPS THE DELINEATORS AT THE POINT OF CROSSOVER ARE TO BE AT THE SAME STATION ON EACH SIDE.

3. NO DELINEATORS ARE TO BE PLACED IN PAVED BERM

4. WHEN RADII OF CURVE ON RAMPS REQUIRE 100' SPACING THE DELINEATORS SHALL BE PLACED ON THE RIGHT IN RELATION TO THE FLOW OF TRAFFIC.

5. IN ADDITION TO MATERIALS LISTED IN 620.02, RECTANGULAR SHEET REFLECTORS MAY CONSIST OF REFLECTIVE SHEETING COMPOSED OF GLASS SPHERES IMBEDDED IN A WEATHER PROOF SYNTHETIC RESIN SHEET, THE REFLECTIVE FACE OF WHICH SHALL BE PLACED BEHIND AND SEALED TO A WEATHERPROOF RIGID PLASTIC FACE OF METHYL METHACRYLATE OF 0.060 INCHES MINIMUM THICKNESS.

6. SUPPLEMENTING THE DRIVE POST DETAILS SHOWN, ALTERNATE POST SECTIONS MAY BE FURNISHED. ANY ALTERNATE SECTION FURNISHED SHALL MEET ALL THE MATERIAL REQUIREMENTS OF 620, HAVE A SHAPE APPROXIMATELY AS DETAILED, AND HAVE A MOMENT OF INERTIA EQUAL TO OR GREATER THAN THE SECTION DETAILED. THE REQUIREMENTS OF 712.20 RELATIVE TO MAXIMUM WEIGHT TOLERANCE ARE HEREBY WAIVED. NO ALTERNATE SECTION FURNISHED SHALL EXCEED THE WEIGHT OF THE CORRESPONDING SECTION BY MORE THAN 10 PERCENT.

BUREAU OF DESIGN SERVICES
DIVISION OF HIGHWAYS
OHIO DEPARTMENT OF TRANSPORTATION

DELINEATOR DETAILS

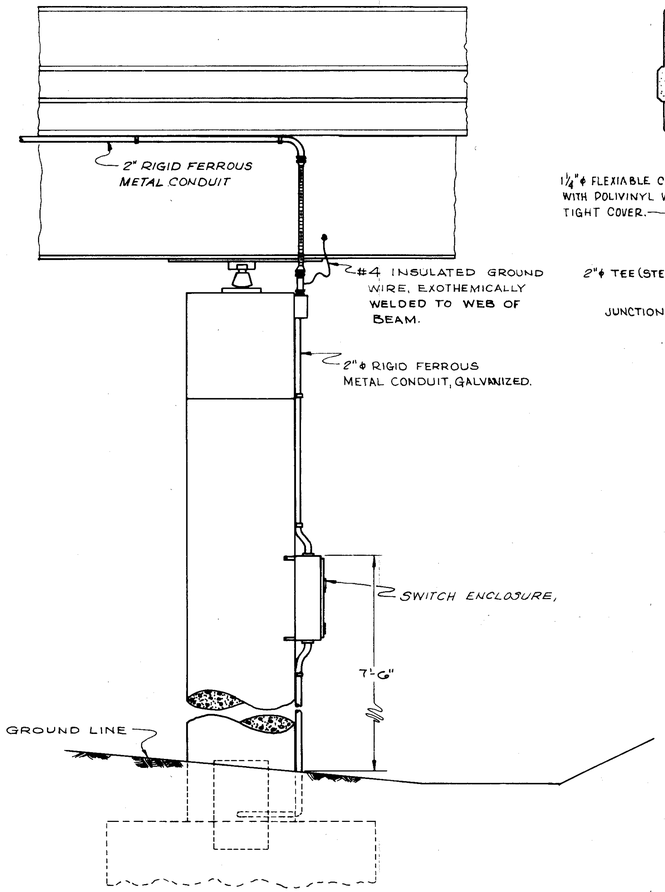
DATE 1/1/73 3/12/73

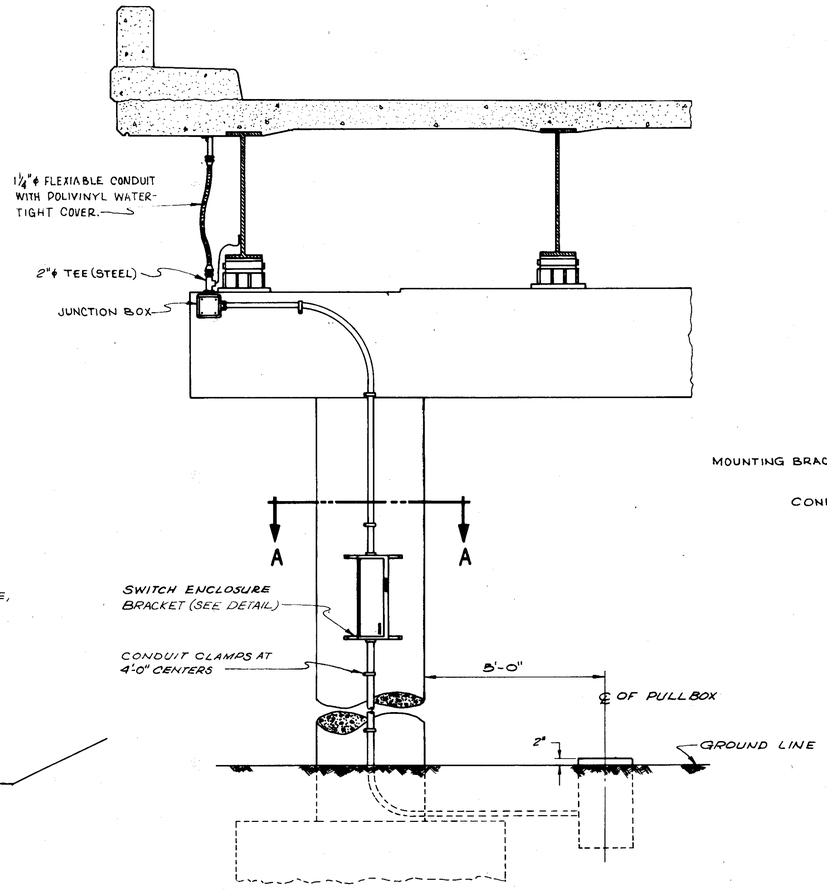
APPROVED _____
ENGINEER OF DESIGN SERVICES

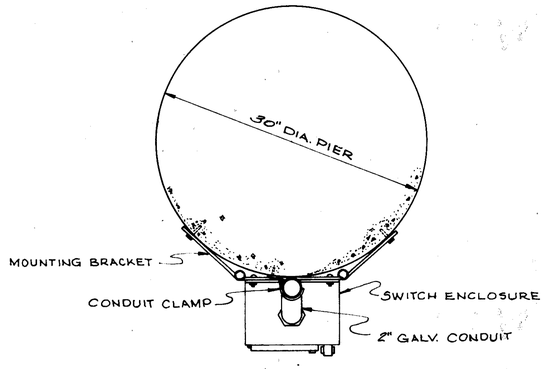
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

441/468

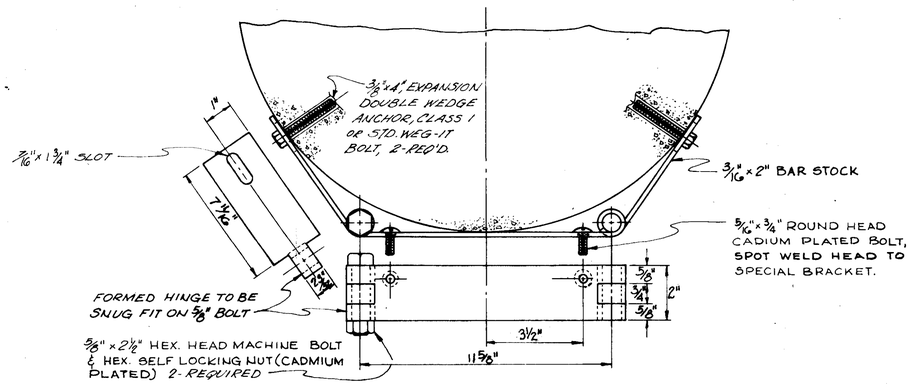
HAM-275-13.91
HAMILTON COUNTY







SECTION A-A



ENCLOSURE MOUNTING BRACKET

26/37

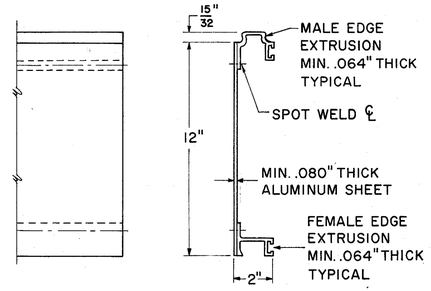
STRUCTURE MOUNTED SIGN SERVICE DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

442
468

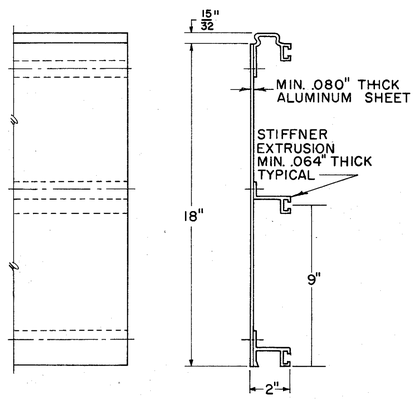
HAM-275-13.91
HAMILTON COUNTY

12" EXTRUSHEET PANEL



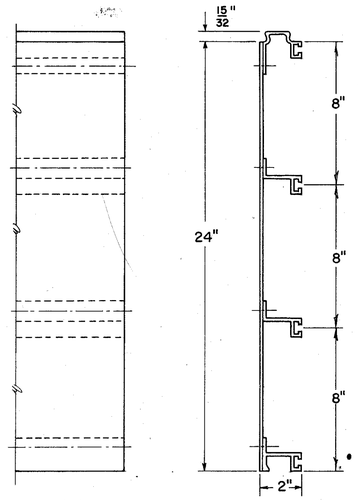
FRONT VIEW SIDE VIEW

18" EXTRUSHEET PANEL



FRONT VIEW SIDE VIEW

24" EXTRUSHEET PANEL



FRONT VIEW SIDE VIEW

NOTES:

EXTRUSHEET PANELS SHALL BE ALUMINUM; SPOT WELDING AND ALL MATERIALS SHALL CONFORM WITH SUPPLEMENTAL SPECIFICATION

COMBINATIONS OF 12", 18", AND 24" PANELS ARE USED TO ATTAIN REQUIRED SIGN HEIGHT.

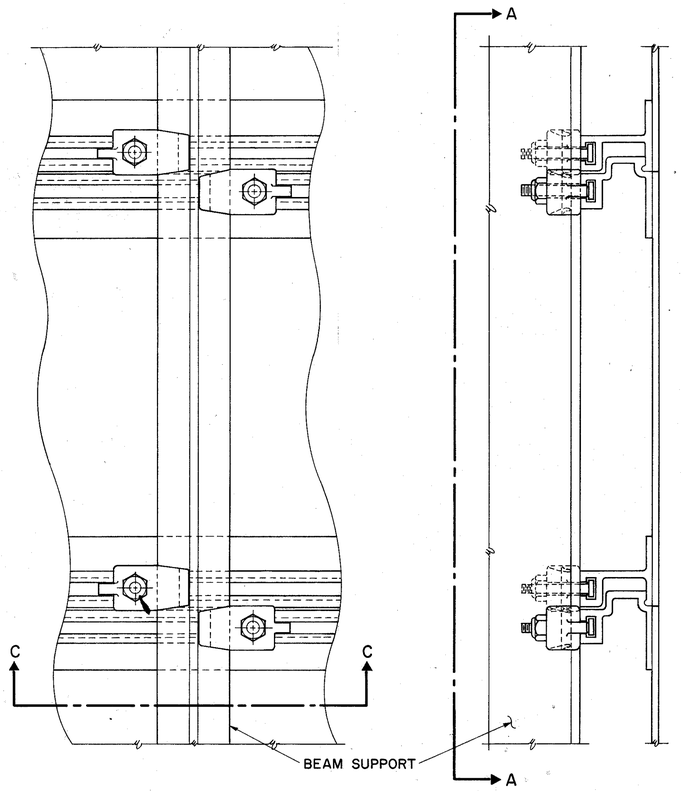
INDIVIDUAL PANELS SHALL BE THE SAME LENGTH AS THE HORIZONTAL LENGTH OF SIGN WITH NO SPLICES.

PANELS SHALL BE INTERLOCKED AND ERECTED WITH THE MALE EXTRUSION LOCATED AT THE TOP EDGE OF THE SIGN.

EXTRUSHEET PANELS SHALL BE FASTENED TO EACH VERTICAL SUPPORT MEMBER WITH MOUNTING CLIPS; ALTERNATELY AT EACH HORIZONTAL EXTRUSION; BOTH SIDES AT EACH JOINT, AND ON BOTH SIDES AT TOP AND BOTTOM EDGE OF SIGN.

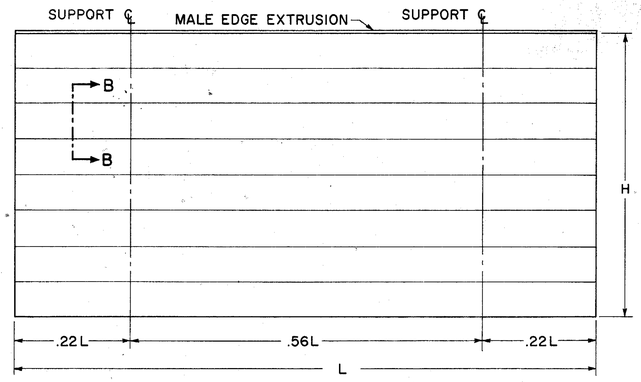
THE PANELS SHALL BE DESIGNED TO WITHSTAND A WIND LOAD OF 35 POUNDS PER SQUARE FOOT, IN ACCORDANCE WITH THE A.A.S.H.O. SPECIFICATION FOR DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS.

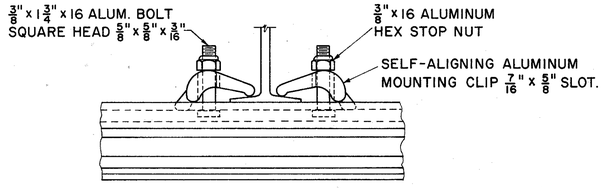
THE MAXIMUM SIGN LENGTH FOR TWO SUPPORTS IS 19'-0".
THE MAXIMUM SIGN LENGTH FOR THREE SUPPORTS IS 29'-0".



SECTION A-A SECTION B-B

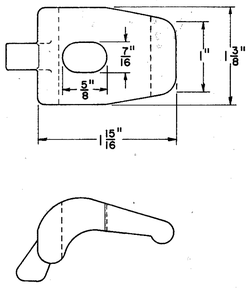
GENERAL ARRANGEMENT





SECTION C-C

CLIP DETAIL



SPOT WELDS

PANEL SIZE	MAXIMUM SPOT WELD SPACING	
	CENTER TO CENTER	BETWN ROWS
12 INCH	4 INCH	10 INCH
18 & 24 INCH	4 INCH	8 INCH

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

ALUMINUM EXTRUSHEET PANEL SIGN

ECD 1

DATE
9-25-63
5-19-64
10-21-65
5-24-67

APPROVED Fred C Garbe
ENGINEER OF TRAFFIC

27
37

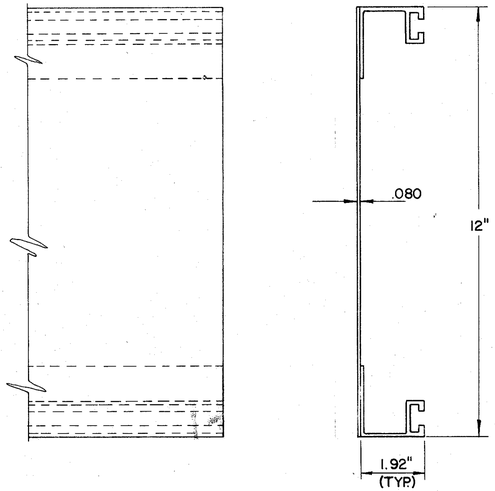
ALUMINUM EXTRUSHEET PANEL SIGN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

443
468

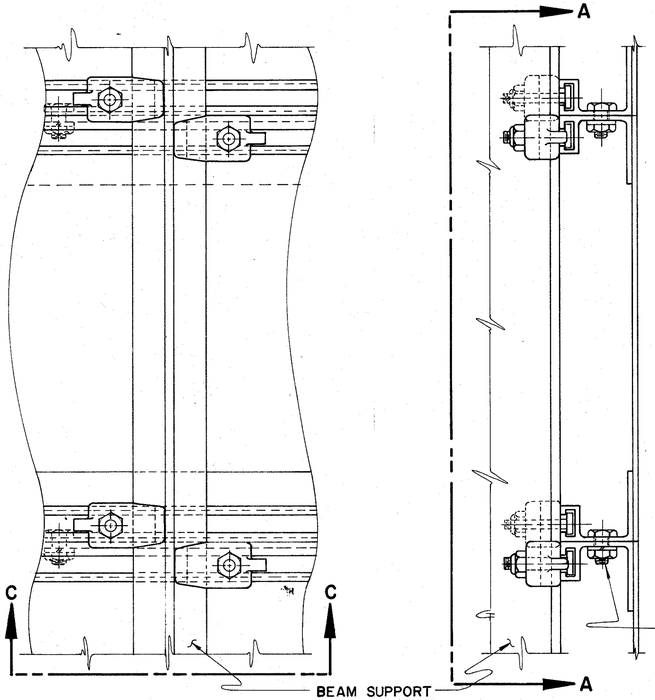
HAM.- 275-13.91
HAMILTON COUNTY

12" BOLTED-EXTRUSHEET PANEL



FRONT VIEW

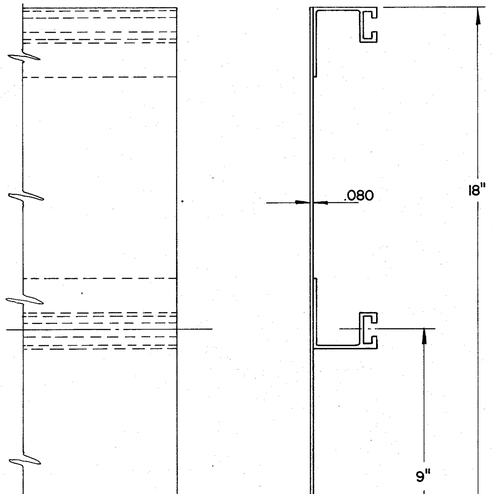
SIDE VIEW



SECTION A-A

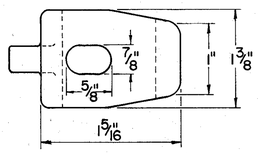
SECTION B-B

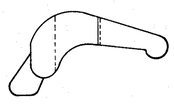
18" BOLTED-EXTRUSHEET PANEL



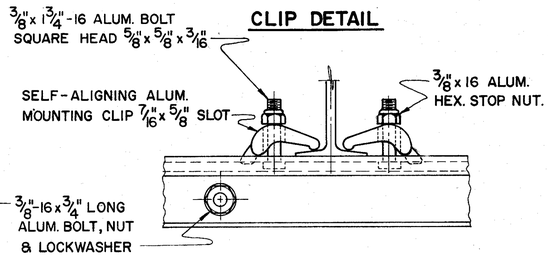
FRONT VIEW

SIDE VIEW



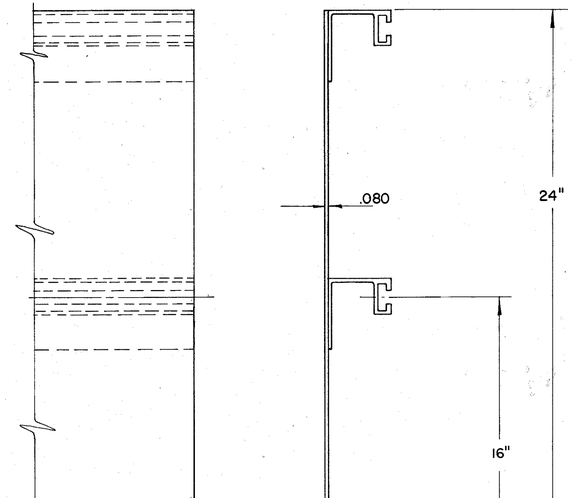


CLIP DETAIL



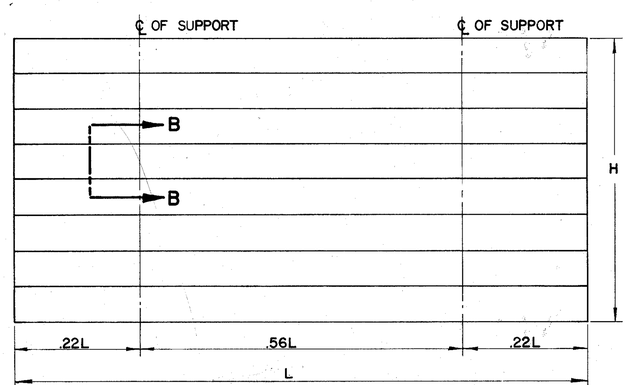
SECTION C-C

24" BOLTED-EXTRUSHEET PANEL



FRONT VIEW

SIDE VIEW



GENERAL ARRANGEMENT

NOTES

EXTRU-SHEET PANELS SHALL BE ALUMINUM; SPOT WELDING, MATERIALS AND HARDWARE SHALL CONFORM WITH SPECIFICATION NO. 815

COMBINATIONS OF 12", 18" AND 24" PANELS ARE TO BE USED TO ATTAIN REQUIRED SIGN HEIGHT.

INDIVIDUAL PANELS SHALL BE THE SAME LENGTH AS THE HORIZONTAL LENGTH OF SIGN, WITH NO SPLICES.

THE PANELS SHALL BE ERECTED HORIZONTALLY AND BOLTED ON 24" CENTERS.

THE PANELS SHALL BE FASTENED TO EACH VERTICAL SUPPORT MEMBER WITH MOUNTING CLIPS; ALTERNATELY AT EACH HORIZONTAL EXTRUSION; BOTH SIDES AT EACH JOINT, AND BOTH SIDES AT TOP AND BOTTOM EDGES OF SIGN.

THE PANELS SHALL BE DESIGNED IN ACCORDANCE WITH THE A.A.S.H.O SPECIFICATION FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, BASE ON A WIND LOAD OF 35#/SQ.FT.

THE MAXIMUM SIGN LENGTH FOR TWO SUPPORTS IS 19'-0". THE MAXIMUM SIGN LENGTH FOR THREE SUPPORTS IS 29'-0".

SPOT WELDS

PANEL SIZE	MAXIMUM SPOT WELD SPACING	
	CENTER TO CENTER	BETWN ROWS
12 INCH	4 INCH	10 INCH
18 & 24 INCH	4 INCH	8 INCH

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

ALUMINUM BOLTED EXTRUSHEET PANEL SIGN

ECD 2

DATE 10-14-65

APPROVED Fred C. Talbot
ENGINEER OF TRAFFIC

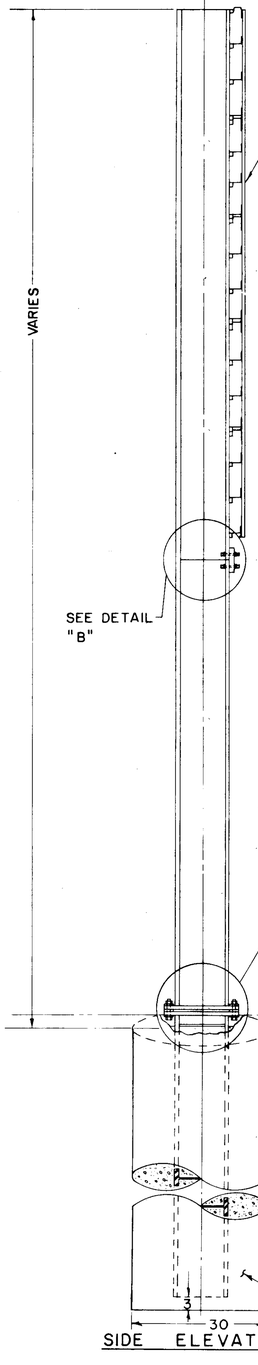
28
37

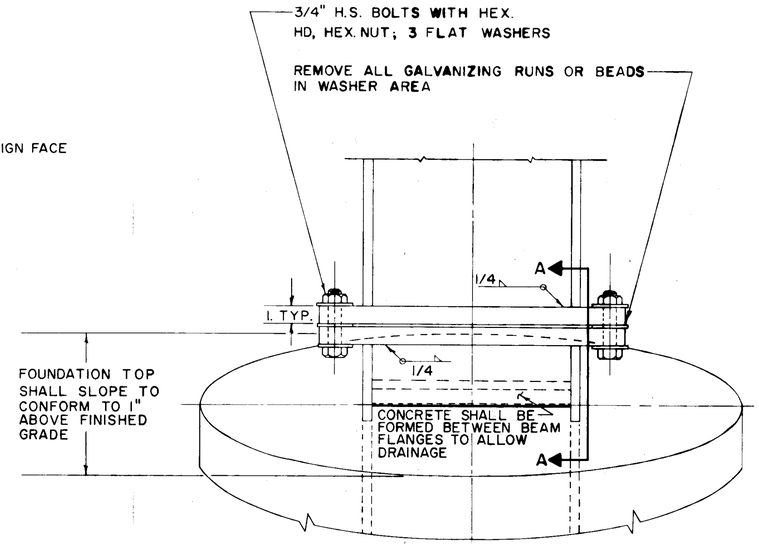
ALUMINUM BOLTED-EXTRUSHEET PANEL SIGN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

447
468

HAM-275-13.91
HAMILTON COUNTY



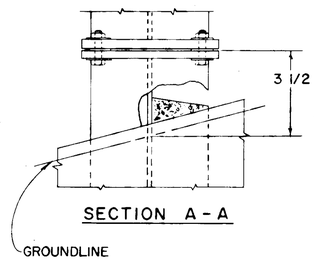


BOLTING PROCEDURE

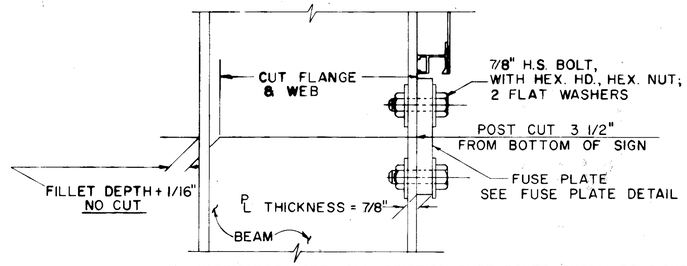
1. ASSEMBLE POST TO STUB W/BOLTS & ONE FLAT WASHER ON EACH BOLT BETWEEN PLATES.
2. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE W/12" TO 15" WRENCH TO BED & TO CLEAN BOLT THREADS. LOOSEN EACH BOLT IN TURN & RETIGHTEN BOLTS IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE OF 750 IN. LBS.
3. BURR THREADS AT JUNCTION W/NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NOTE: TIGHTEN THE H.S. BOLTS IN THE BASE CONNECTION ONLY TO GIVEN TORQUE DO NOT OVER TIGHTEN

VIEW "A" ROTATED 180°



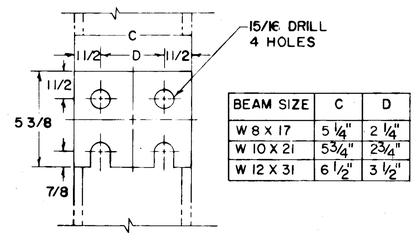
SECTION A-A



FABRICATOR NOTE: ALL FRICTION FUSE BOLTS SHALL BE TIGHTENED IN THE SHOP FOLLOWING A METHOD APPROVED BY THE ENGINEER. TIGHTENING SHALL BE TO SUCH A DEGREE AS TO OBTAIN MINIMUM RESIDUAL TENSION IN EACH BOLT OF 36,050 LBS.

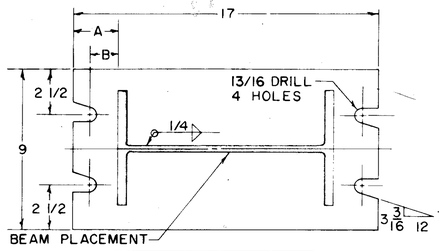
NOTE: INSTALL FUSE PLATE WITH NOTCHES TOWARD BASE

DETAIL "B"



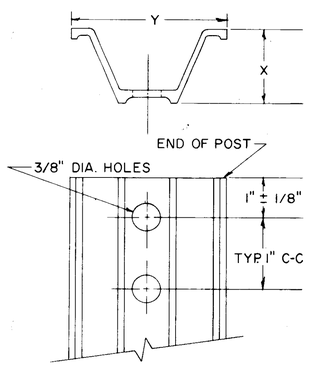
BEAM SIZE	C	D
W 8 X 17	5 1/4"	2 1/4"
W 10 X 21	5 3/4"	2 3/4"
W 12 X 31	6 1/2"	3 1/2"

FUSE PLATE DETAIL



BEAM SIZE	A	B
W 8 X 17	4 1/2"	3 5/8"
W 10 X 21	3 1/2"	2 5/8"
W 12 X 31	2 1/2"	1 5/8"

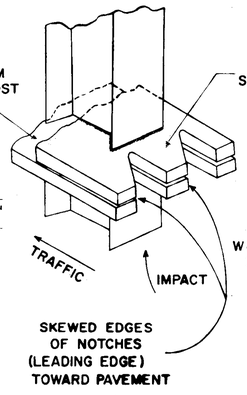
BASE PLATE DETAIL
(TOP VIEW)

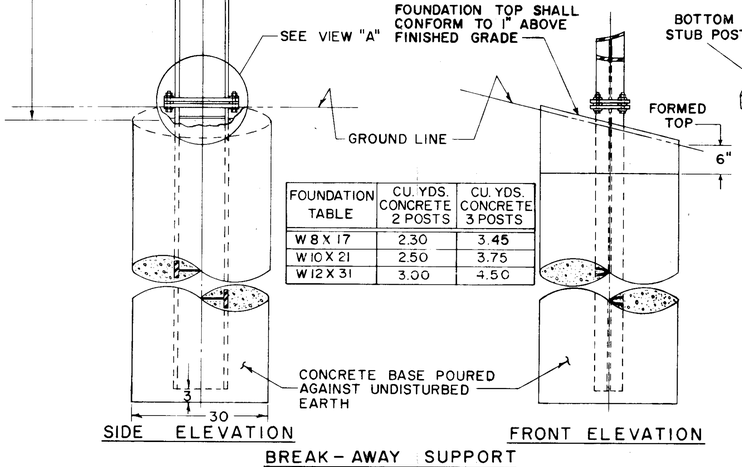


WEIGHT PER FOOT	X ± 3/32"	Y ± 1/8"
2.00 #	1 15/32"	3 1/16"
3.00 #	1 7/8"	3 1/2"
4.00 #	2"	3 5/8"

DRIVE POST DETAIL

BREAKAWAY SIGN SUPPORT BASE PLATE ORIENTATION



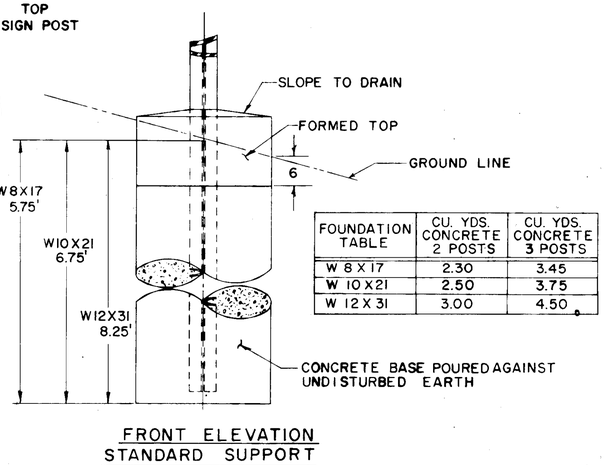


FOUNDATION TABLE	CU. YDS. CONCRETE 2 POSTS	CU. YDS. CONCRETE 3 POSTS
W 8 X 17	2.30	3.45
W 10 X 21	2.50	3.75
W 12 X 31	3.00	4.50

SIDE ELEVATION

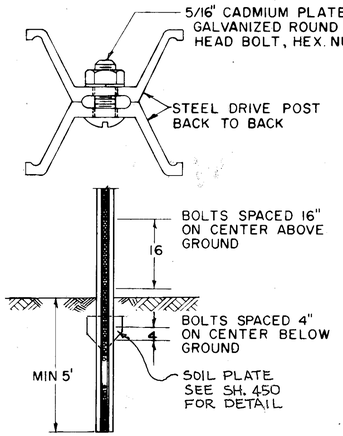
FRONT ELEVATION

BREAK-AWAY SUPPORT



FOUNDATION TABLE	CU. YDS. CONCRETE 2 POSTS	CU. YDS. CONCRETE 3 POSTS
W 8 X 17	2.30	3.45
W 10 X 21	2.50	3.75
W 12 X 31	3.00	4.50

FRONT ELEVATION
STANDARD SUPPORT



6# BEAM DETAIL

NOTES: ALL MATERIALS SHALL CONFORM TO THE STATE OF OHIO, CONSTRUCTION & MATERIALS SPECIFICATIONS OR AS OTHERWISE SPECIFIED

1) 511 FOUNDATIONS
2) 711.01 STRUCTURAL STEEL SHAPES & PLATES
3) 711.09 H.S. STEEL BOLTS, NUTS & WASHERS

ALL DIMENSIONS IN INCHES UNLESS OTERWISE SHOWN

STRUCTURAL SUPPORTS

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

GROUND MOUNTED SIGN SUPPORTS

GMSS

DATE
5-10-68
7-12-68
5-23-69
9-16-69
12-20-71

APPROVED _____
ENGINEER OF TRAFFIC

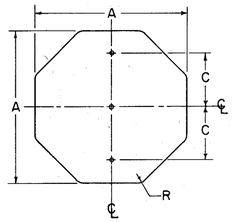
32
37

Rev. 9-23-75

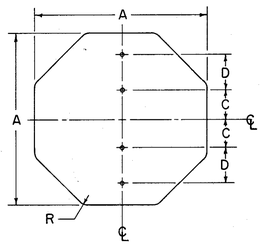
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

448
468

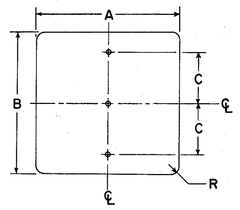
HAM.-275 -13.91
HAMILTON COUNTY



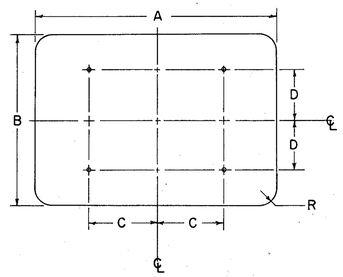
A	C	R	GAUGE
30	8	1 1/2	.080
36	8	1 1/2	.080



A	C	D	R	GAUGE
48	8	10	1 1/2	.100

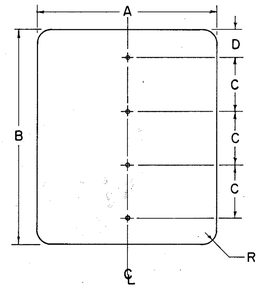


A	B	C	R	GAUGE
24	30	8	1 1/2	.063
24	48	15	1 1/2	.100
30	36	11	1 1/2	.080
30	42	12	1 1/2	.080
36	36	11	1 1/2	.080
36	42	15	1 1/2	.080
36	48	15	1 1/2	.080
48	24	10	3	.100
48	36	13	3	.100

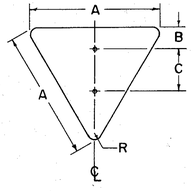


A	B	C	D	R	GAUGE
48	48	22	16	3	.100
48	60	22	22	3	.100

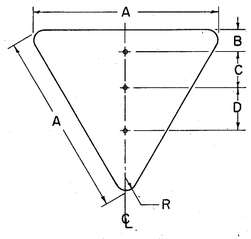
SPEED LIMIT SIGNS ON TWO SUPPORTS



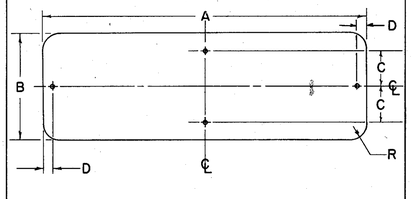
A	B	C	D	R	GAUGE
48	48	12	6	3	.100
48	60	15	7 1/2	3	.100



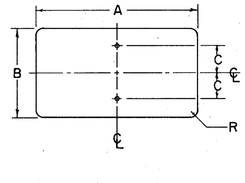
A	B	C	R	GAUGE
36	3	16	2 1/2	.080



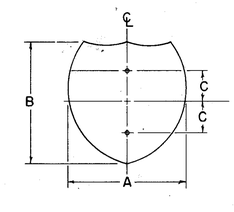
A	B	C	D	R	GAUGE
48	4	10	15	3	.100
60	5	10	15	4	.100



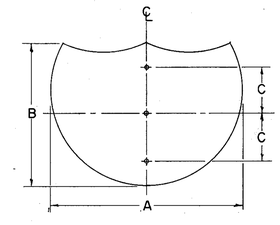
A	B	C	D	R	GAUGE
36	12	4	1	1 1/2	.080
72	12	—	16	1 1/2	.100
60	12	—	13	1 1/2	.100



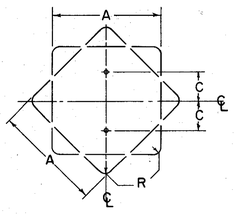
A	B	C	R	GAUGE
12	6	1 1/2	1 1/2	.063
20	15	6	1 1/2	.063
24	12	4 1/2	1 1/2	.063
24	18	7 1/2	1 1/2	.063
8	26	8	1	.063
36	18	7 1/2	1 1/2	.080



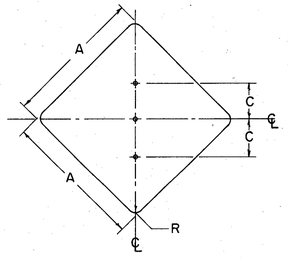
A	B	C	GAUGE
24	24	8	.063
30	24	8	.080



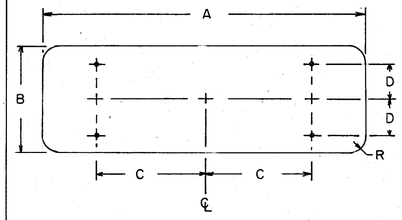
A	B	C	GAUGE
36	36	11	.080
48	36	11	.100



A	C	R	GAUGE
18	7 1/2	1 1/2	.063
24	8	1 1/2	.063
30	8	1 1/2	.080

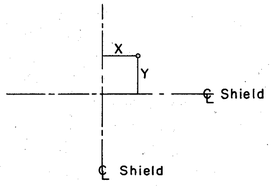


A	C	R	GAUGE
36	12	1 1/2	.080
48	14	3	.100



A	B	C	D	R	GAUGE
72	18	20	6	1 1/2	.100
72	24	20	8	1 1/2	.100
60	30	17	10	1 1/2	.100
96	18	27	6	1 1/2	.100

Location of holes on "Demountable Shields" (attached to guide signs)



SIZE	NO. HOLES	X	Y
(26) 24X24	4	7	7
30X24	4	8	8
(39) 36X36	4	10	10
		0	10
48X36	6	15	10

For notes on fastening see drawing for miscellaneous "Signing Items" sheet.

NOTES:

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

MATERIAL

FLAT SIGN BLANKS SHALL BE FURNISHED IN ALUMINUM ALLOY 6061-T6, (ASTM-B209, GSIIA-T6) WITH MILL FINISH.

BOLT HOLES

THE BOLT HOLES SHALL BE 3/8" IN DIAMETER, AND MAY BE DRILLED, BLANKED OR PUNCHED TO FINISHED SIZE.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

SIGN BLANK DETAILS

SBD

DATE
4-14-67
5-10-68
10-1-68
5-27-69
6-18-69

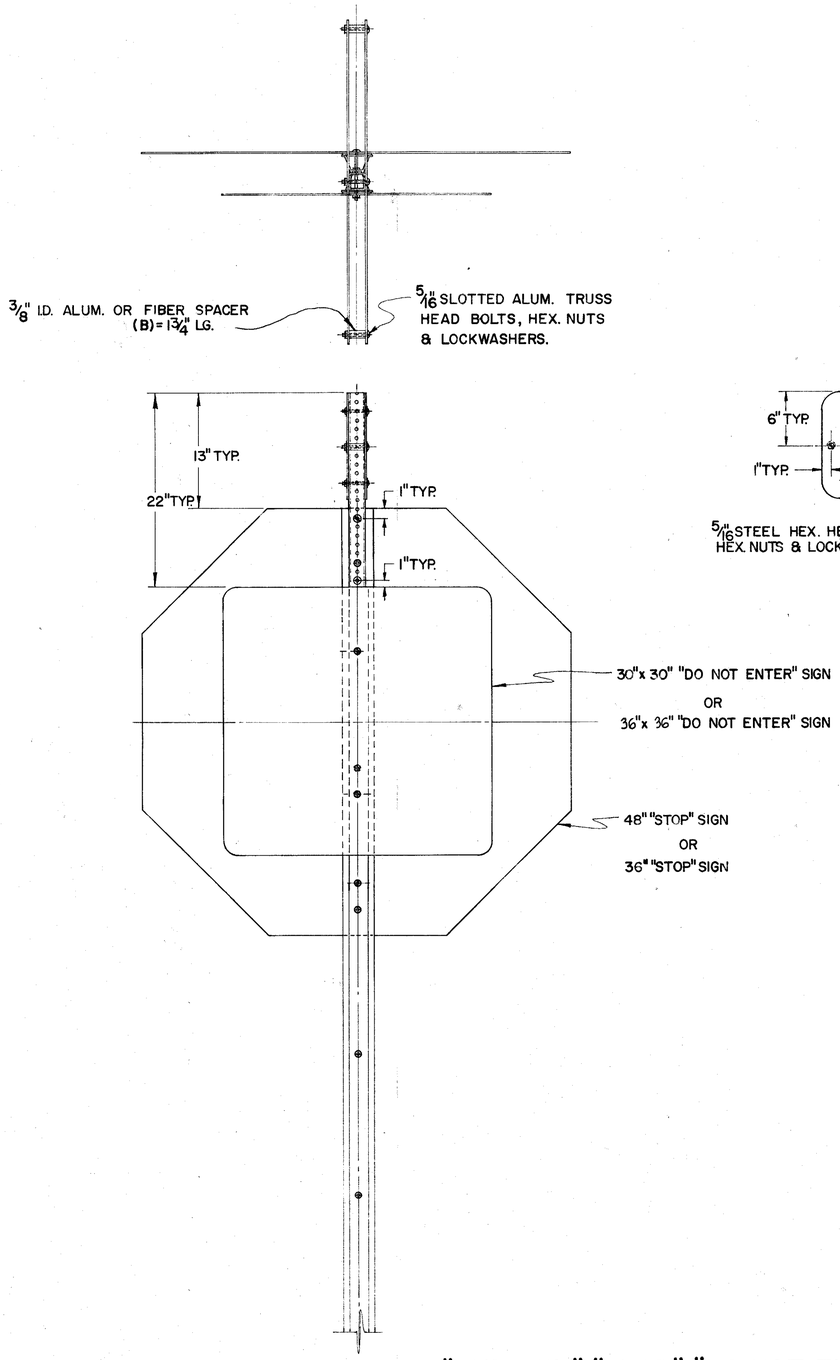
APPROVED _____
ENGINEER OF TRAFFIC

33
37

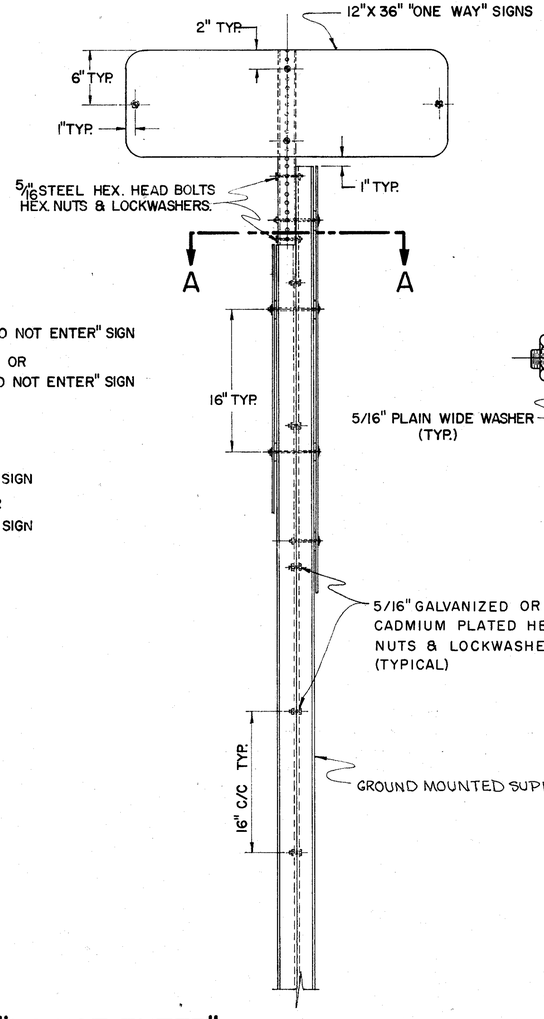
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

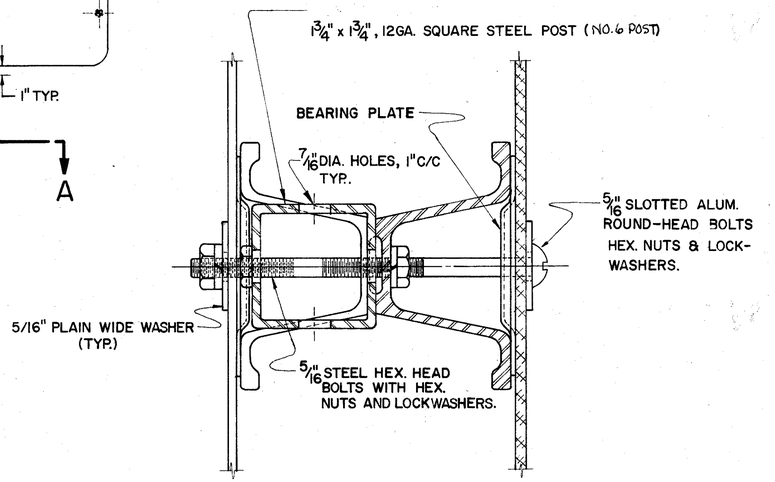
449
468

HAM.-275-13.91
HAMILTON COUNTY

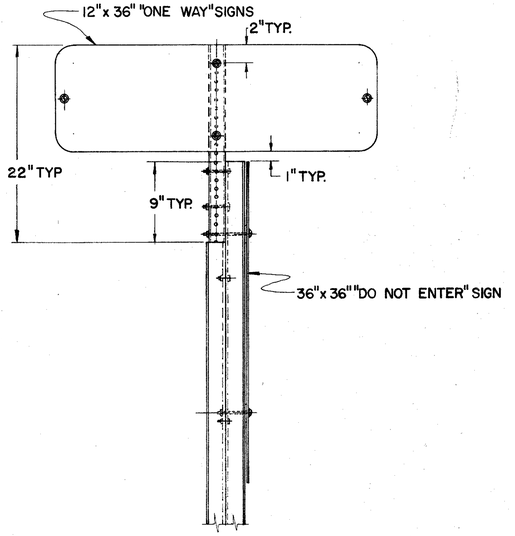


"ONE WAY", "STOP", "DO NOT ENTER",
SIGN INSTALLATION.





SECTION A-A



"ONE WAY", "DO NOT ENTER"
SIGN INSTALLATION

NOTES

MATERIALS

ALL SIGN MATERIALS SHALL BE IN ACCORDANCE WITH SUPPLEMENT SPECIFICATION 844.

ALL STRUCTURAL MATERIALS SHALL BE IN ACCORDANCE WITH SUPPLEMENT SPECIFICATION 844.

FOR SPECIFICATIONS FOR THE 1 3/4" SQUARE STEEL POST SEE GENERAL NOTES, SHEET NO.____.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

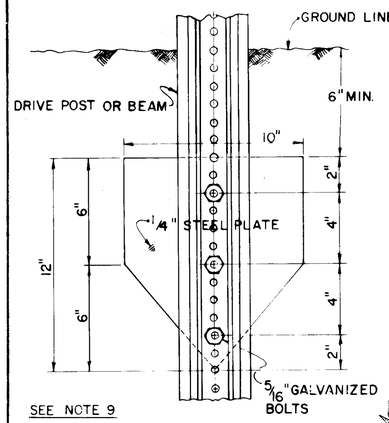
SPECIAL "ONE WAY" SIGN SUPPORT DETAILS	SOW	DATE 2-7-66 4-18-67
APPROVED ENGINEER OF TRAFFIC		34 37

SPECIAL "ONE WAY" SIGN SUPPORT DETAILS

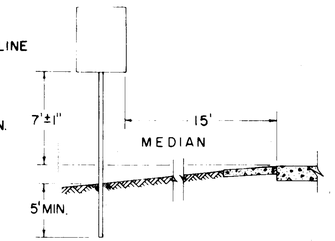
FED. RD. DIVISION	STATE	PROJ	
2	OHIO		

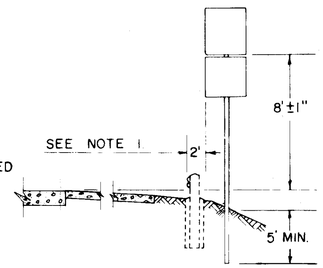
450
468

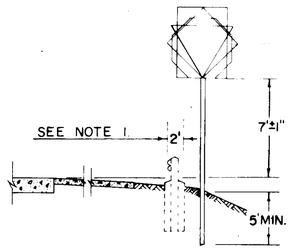
HAM-275-13.91
HAMILTON COUNTY

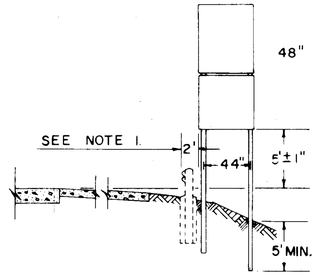


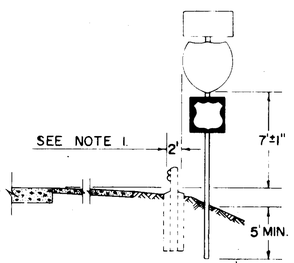
SOIL PLATE DETAIL

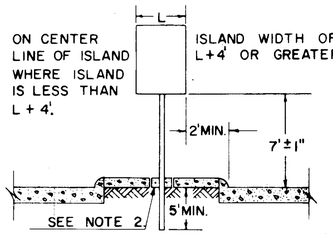


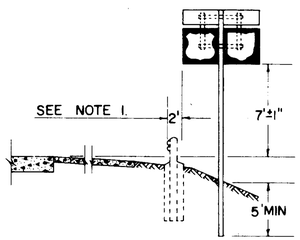


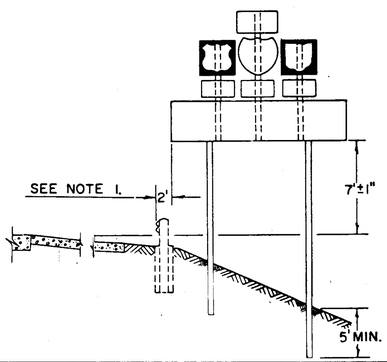


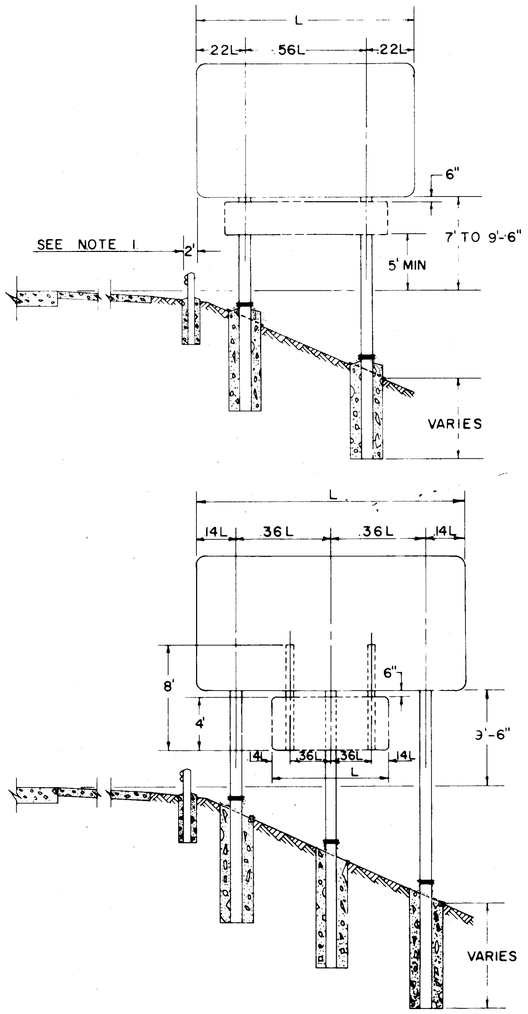


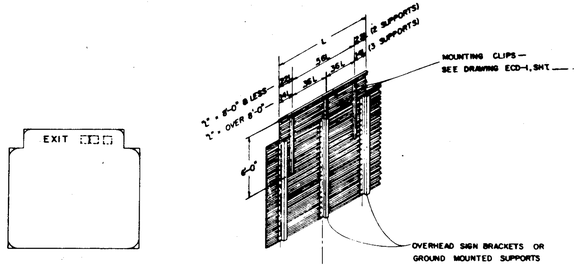




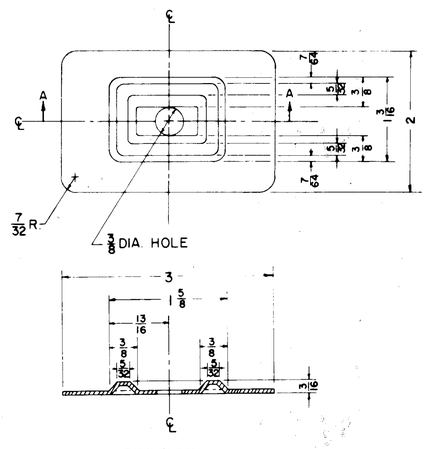








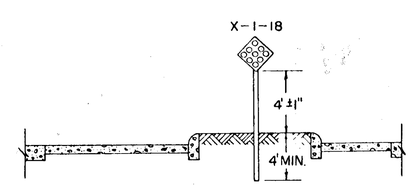
"EXIT" SIGN ATTACHMENT DETAIL



SECTION AA

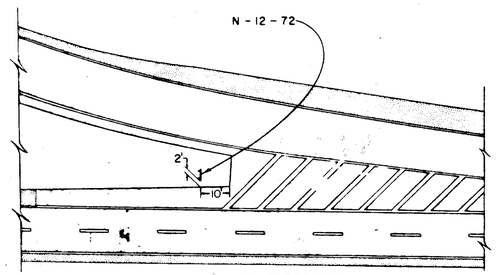
NOTE
THE PLATE IS SYMMETRICAL ABOUT EITHER CENTERLINE.
METAL SHALL BE 16 GAUGE STEEL.
ALL DIMENSIONS ARE IN INCHES.

BEARING PLATE DETAIL



SIGN SUPPORT SPACING

L=FT	2 SUPPORTS .22	2 SUPPORTS .56	3 SUPPORTS .14	3 SUPPORTS .36	L=FT	2 SUPPORTS .22	2 SUPPORTS .56	3 SUPPORTS .14	3 SUPPORTS .36
5.0	1.10	2.80	0.70	1.80	17.0	3.74	9.52	2.38	6.12
6.0	1.32	3.36	0.84	2.16	18.0	3.96	10.08	2.52	6.48
7.0	1.54	3.92	0.98	2.52	19.0	4.18	10.64	2.66	6.84
8.0	1.76	4.48	1.12	2.88	20.0			2.80	7.20
9.0	1.98	5.04	1.26	3.24	21.0			2.94	7.56
10.0	2.20	5.60	1.40	3.60	22.0			3.08	7.92
11.0	2.42	6.16	1.54	3.96	23.0			3.22	8.28
12.0	2.64	6.72	1.68	4.32	24.0			3.36	8.64
13.0	2.86	7.28	1.82	4.68	25.0			3.50	9.00
14.0	3.08	7.84	1.96	5.04	26.0			3.64	9.36
15.0	3.30	8.40	2.10	5.40	27.0			3.78	9.72
16.0	3.52	8.96	2.24	5.76	28.0			3.92	10.08



DIRECTION OF TRAFFIC

NOTES

1. THE NEAR EDGE OF ALL MAIN LINE SIGNS, EXCEPT GORE INSTALLATIONS, SHALL BE LOCATED TWO FEET (2') BACK OF GUARD RAIL FACE. THIS DIMENSION SHALL BE DETERMINED BY ROADWAY TYPICAL SECTION & USED WHETHER OR NOT GUARD RAIL IS PRESENT.
   ON RAMPS THE NEAR EDGE OF SIGNS SHALL BE LOCATED TWO FEET (2') BACK OF GUARD RAIL FACE. THIS DIMENSION WILL BE DETERMINED AND USED AS FOR MAIN LINE ABOVE.
   ON APPROACHES THE NEAR EDGE OF SIGNS SHALL BE
   (A) TWO FOOT (2') BEHIND EXISTING GUARD RAIL
   (B) TWO FEET (2') FROM THE EDGE OF PAVED OR TRAVELED SHOULDER WITH A MINIMUM OF 6' FROM EDGE OF ROADWAY PAVEMENT.

2. POSTS PLACED IN CONCRETE MEDIANS SHALL BE INSTALLED BY DRIVING THROUGH A 6" SLEEVE OR CORE DRILLED HOLE. THE HOLE SHALL BE FILLED WITH ASPHALTIC CONCRETE AFTER THE POST IS IN THE PROPER POSITION.

3. HORIZONTAL BACK BRACING SHALL ALWAYS BE MOUNTED ON THE FRONT FLANGE OF THE SUPPORT EXCEPT WHERE SIGNS ARE MOUNTED BACK TO BACK. BACK BRACING SHALL NEVER EXTEND ABOVE TOP EDGE OF UPPERMOST SIGN PLATE AND SHALL BE ATTACHED TO SUPPORTS USING 5/16" GALVANIZED STEEL BOLTS.

4. SCREWS, NUTS, AND WASHERS FOR SIGN ERECTION SHALL BE ALUMINUM EXCEPT AS NOTED ABOVE. 5/16" TRUSS HEAD SLOTTED MACHINE SCREWS WITH HEX. NUTS PLAIN AND LOCKWASHERS SHALL BE USED. PLAIN WASHERS SHALL BE 5/16" "WIDE", USED ON SIGN FACE ONLY

5. SIGN INSTALLATIONS SHALL BE PLACED SO THAT SUPPORTS ARE NOT PLACED IN DRAINAGE DITCHES.

6. HORIZONTAL CLEARANCES SHOWN PERTAIN TO NON-CURBED SECTIONS. SECTIONS WITH UNMOUNTABLE CURB SHALL HAVE A HORIZONTAL CLEARANCE OF 2'-0" MINIMUM FROM THE CURB FACE TO THE SIGN EDGE.

7. VERTICAL AND HORIZONTAL CLEARANCE BETWEEN SIGNS ON ONE ASSEMBLY SHALL BE A MAXIMUM OF 2" AND A MINIMUM OF 1".

8. GALVANIZED STEEL BEARING PLATES SHALL BE INCLUDED BETWEEN ALL SHEET ALUMINUM SIGNS ATTACHED TO VERTICAL SUPPORTS AT EACH SIGN BOLT LOCATION.

9. SOIL PLATES SHALL BE ATTACHED TO ALL 6 LB. BEAMS BETWEEN POSTS AS DETAILED ON THIS SHEET, EXCEPT WHERE BEAMS ARE PLACED IN CONCRETE MEDIANS AS COVERED IN NOTE 2.

Rev. 9-23-75

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

TYPICAL PLACEMENT OF SIGNS

TPS-1

DATE
9-27-67
7-12-68
5-13-69
3-5-71
12-21-71
3-7-72

APPROVED _____
ENGINEER OF TRAFFIC

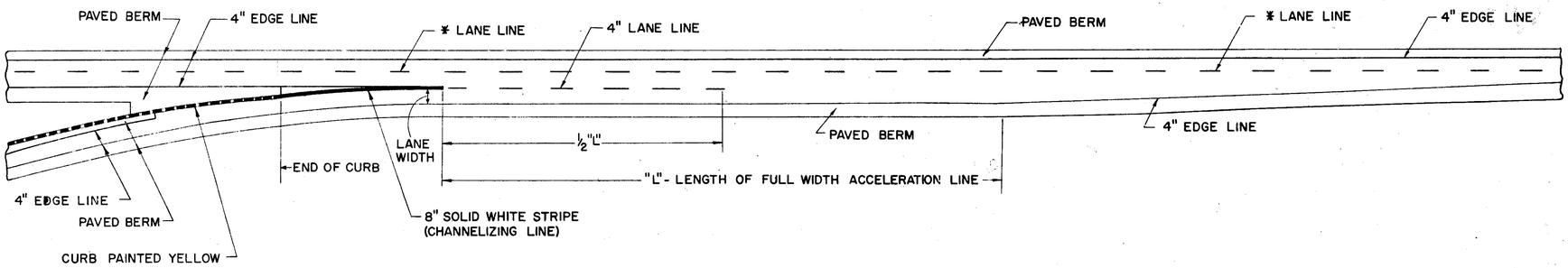
35
37

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

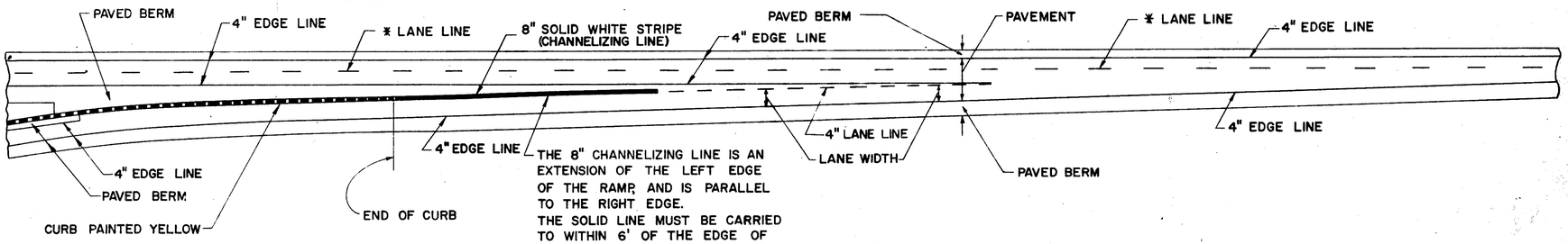
452
468

HAM-275-13.91
HAMILTON COUNTY

ENTRANCE TERMINAL - PARALLEL ACCELERATION LANE

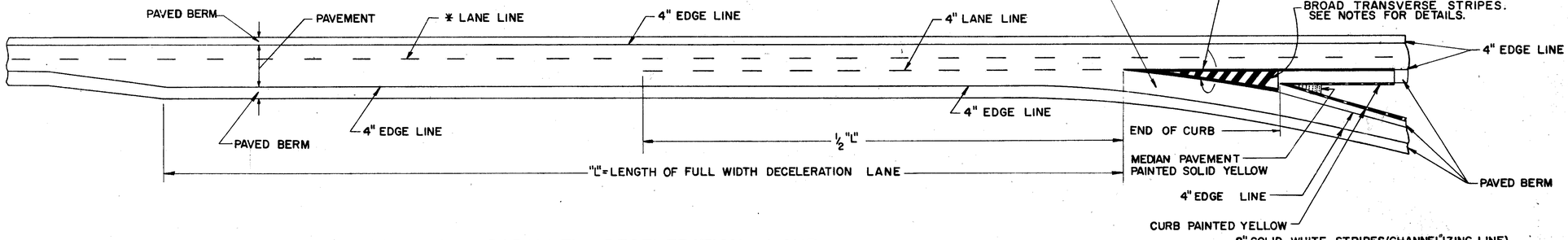


ENTRANCE TERMINAL - TAPERED ACCELERATION LANE

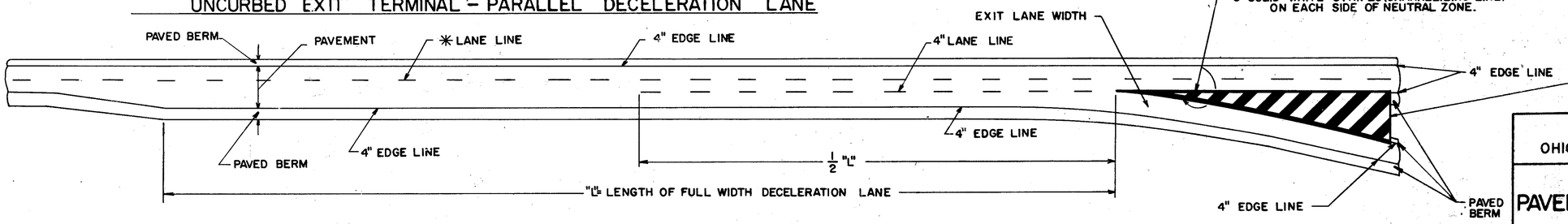


THE 8" CHANNELIZING LINE IS AN EXTENSION OF THE LEFT EDGE OF THE RAMP AND IS PARALLEL TO THE RIGHT EDGE.
THE SOLID LINE MUST BE CARRIED TO WITHIN 6' OF THE EDGE OF THE THROUGH LANE, OR TO THE END OF THE RAMP CURVE IF CLOSER. THE 4" DASHED LINE SHOULD CONTINUE TO THE EDGE OF THE THROUGH LANE.

CURBED EXIT TERMINAL - PARALLEL DECELERATION LANE



UNCURBED EXIT TERMINAL - PARALLEL DECELERATION LANE



NOTES

DIAGONAL STRIPES AT EXIT RAMPS SHALL BE 24" BROAD TRANSVERSE STRIPES, 621.11, WITH A 6' SPACE BETWEEN STRIPES.

* 6" LANE LINE ON INTERSTATE HIGHWAYS ONLY.
4" LANE LINE ON ALL OTHER HIGHWAYS.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

PAVEMENT MARKING | 621

DATE
7-17-61
4-6-62
5-24-65
9-[illegible]-67
4-17-68

APPROVED Robert E. Lower
ENGINEER OF TRAFFIC

37
37

TRAFFIC SIGNAL TITLE SHEET

FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

453
468

HAM-275 13.91
HAMILTON COUNTY

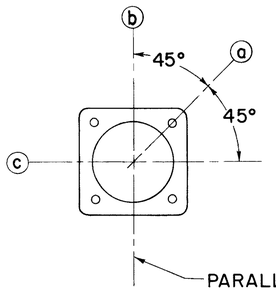
LEGEND

- VEHICLE SIGNAL HEAD
- PEDESTRIAN SIGNAL HEAD
- PERMANENT PROPOSED STEEL POLE
- C.G.&E. CO. OR C.&S., B.T. CO. EXISTING POLE
- PULL BOX
- LOOP DETECTOR
- CONTROLLER CABINET
- REFLECTOR SIGN
- ILLUMINATED SIGN
- PROPOSED CONDUIT, SIZE AS INDICATED ON PLANS
- MESSENGER WIRE & CONTROL CABLE

INDEX TO PLANS

TRAFFIC SIGNAL TITLE SHEET	1
GENERAL NOTES	2,3,4&5
TRAFFIC SIGNAL GENERAL SUMMARY	6
TRAFFIC SIGNAL PLAN	7,9,11,13&15
TRAFFIC SIGNAL SUB-SUMMARIES	8,10,12,14&16
TRAFFIC SIGNAL SPECIAL DETAILS	17
STANDARD DRAWINGS	18&19

STANDARD POLE ORIENTATION LEGEND



ⓐ ANCHOR BOLT ORIENTATION
ⓑ HAND HOLE
ⓒ WEATHERHEAD (2 1/2")

1
19

FHWA REGION	STATE	PROJECT	
5	OHIO		

453A
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HAM - 275 - 13.91
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842 SIGNAL CONTROLLER, THREE PHASE, FULL ACTUATED WITH CABINET

The Contractor shall urnish and install a full actuated, three phase electronic actuated ontroller and cabinet at the intersections indicated on the plns. The controller shall be capable of providing the basic signal sequence, operations and functions as indicated herein and in the slans.

The controller shll be manufactured by a company normally engaged in the manufacturing of signal controllers.

The controller shll have the following features for each phase:

A1. Initial green nterval, adjustable from about 5 to 30 seconds.
A2. Extendible gren interval, adjustable from about 2 to 14 seconds.
A3. Maximum gree limit, adjustable from about 10 to 90 seconds.
A4. Clearance intrval, adjustable from about 2 to 8 seconds.
A5. All red clearace interval, adjustable from about 0 to 8 seconds.
A6. A recall switch. This switch shall cause the controller to return to this pase, in the normal sequence, irregardless of whether there re calls on this phase, but extension timing and maximum tming shall still function for the phase.

The controller sall have the following overall features:

B1. A signal shtdown switch.
B2. A manual peration switch.
B3. A signal flsher sub-base and local flash switch.
B4. The controler shall be designed to operate on 115 volts, 60 cycle single phase alternating current.
B5. The controllr shall operate satisfactory at any temperature between -25° F and + 160° F.
B6. The controllr shall have complete provision for system coordination so that coordinated operation may be effected without any change in wiring; i.e., no cutting, splicing or soldering of wring, or altering of any mechanical unit.
B7. Standard fetures and/or accessories shall be available and the installatin of same should not require any alteration of any mechanicalunit, or the cutting or soldering of any wire. It must be acomplished through the plugging in of prewired devices, or thrugh the attaching of wiring to suitable marked terminals, or the attaching of a device to a suitable machined cabnet or panel.
B8. All panels shall be machined to accept the mounting of all features and accessories. All panels shall be equipped with the maximum number of terminal blocks for all future accesories designed for operation with the controller. The panel shol be equipped with mounting for a standard nec fuse cutut.
B9. The cabine shall be of cast or fabricated aluminum construction and of adequate size to accommodate the controller, loop detector onpliFiers and other accessories. The cabinet shall be weatherproF and contain suitable shelves for the support of traffic signal ontrol equipment. The cabinet shall have a gasketed, hinged door with lock, and shall also be equipped with a locking auxiliary doo in the main cabinet door to permit access to certain switaes and controls by police or other authorized personnel. Both locks shall be keyed to the Hamilton County standard. The cabinet shal be furnished with a thermostatically controlled ventilating fan and suitable lightning protection. The cabinet shall be provided with a blank plate with slotted mounting ear on the top and a two inch hub and pole mounting bracket on the bottom. Thecabinet and fan housing shall be prime coated and finished with two coats of yellow enamel paint using Federal Standard 595 Color Number 13655.
B10. Timing shall be accomplished by vacuum tubes and similar electronic circuitry, switching of signal loads shall be by mechanical mans.

Payment for 842 SIGNAL CONTROLLER, THREE PHASE, FULL ACTUATED WITH CABINET will be made at the contract price for each controller comlete and in place, including pre-wired cabinet, all connections and testing.

842 SIGNAL CONTROLLER, THREE PHASE, FULL ACTUATED WITH CABINET (CROUSE HINDS) (ALTERNATE BID)

The controller shall be an FVA 312A with provisions for manual operation as manufactured by Crouse Hinds Company.
The controller shall contain all the features of the auxilliary devices, hardware, cabinet and fittings as described in the like bid item.
Payment for 842 SIGNAL CONTROLLER, THREE PHASE, FULL ACTUATED WITH CABINET (CROUSE HINDS) (ALTERNATE BID) will be made at the contract bid price per each, complete and in place including all connections and testing.

PLAN SPECIFICATION REFERENCES

Reference to Item 625 and 713 in these plans shall be considered to read as respective references to Items 5625 and 5713.

TRAFFIC SIGNAL GENERAL NOTES

TESTING OF TRAFFIC SIGNALS

The Contractor shall furnish all personnel, equipment and appliances required to successfully test the completed installations.

The Contractor shall test and demonstrate to the satisfaction of the Engineer, or his authorized representative, that the circuits are properly connected, continuous and free from short circuits, crosses and unspecified grounds, and that they are connected in accordance with the wiring instructions and that each circuit is operable correctly and independently of any other circuit.

The Contractor shall test each ungrounded circuit and spare wires for signals interconnect and detectors terminating at the traffic controller cabinet for resistance to ground. This resistance to ground shall be not less than ten (10) megohms. The Contractor shall furnish a complete report of all megohm readings of each circuit and spare conductors in cables appearing at the controller base. The ground rod at the traffic controller shall have a resistance of not more than 15 OHMS to ground.

After all circuits and spare conductors have been tested the Contractor will install the traffic controller and connect the field wiring to the terminal contacts of the traffic controller. The completed installation shall operate continuously for a period of 10 days without interruption or failure attributable to poor workmanship or defective material prior to acceptance and after any defective parts have been replaced and all faults corrected.

The Contractor shall have the responsibility of correcting malfunctions of the installation. Power for the test will be furnished from the service installed as a part of this contract. The cost of the power to conduct the test will be borne by the Contractor. Costs of conducting tests by the Contractor shall be included in the bid price for the item tested.

Loop Detector Amplifier

The loop detector amplifier is an electronic device that will detect the presence or motion of a mass of metal. This detection is accomplished by the passage of a car over a wire loop imbedded in the roadway.

The amplifier shall conform to the following:

1. The detector shall operate satisfactory at any temperature between -30 F. and +165 F.
2. The operating voltage shall be 115 volt, 60 cycle.
3. The internal circuitry shall be incorporated into printed circuit board assemblies.
4. The detector design shall include a fixed frequency crystal which will generate a sine wave form of signal.
5. No external equipment shall be necessary for installation, tuning or sensitivity adjustments.
6. Various types of outputs shall be available including pulse and presence. These outputs shall be available by switching from one to the other without changing any internal parts.
7. All transistors, crystals, and relays shall be of the plug-in type to facilitate replacement.
8. The amplifier and power supply shall be capable of driving several loops from the one source. The amplifier shall be capable of detecting vehicles in a total area of up to 400 sq. ft. and shall properly function with lead-in lengths totaling up to 750 feet.

The above types of loop detector amplifiers and power supply shall be Automatic Signal No. LD-1, or LD-2 Decatur No. L. S. M. H. or Automatic Control Equipment Model LD-100 or approved equal.

Payment for Item 624 "Loop Detector Amplifier" will be made at the contract unit price for each detector amplifier, completely wired and installed in controller cabinet.

625 Signal Cable 5/C #14 AWG, By Type

Traffic signal cable shall be weatherproof and shall consist of the number of conductors as specified on the plans. All conductors shall be AWG #14. Cables shall be insulated, jacketed, rated 600 volts for use in underground conduit or as aerial cable supported by a messenger. It shall be color coded and in every respect follow the International Municipal Signal Association specification number 19-1-1967. Wires may be solid or stranded.

Payment for Item 625 "Signal Cable 5/C #14 AWG" will be made at the contract unit price per lineal foot by type, in place, completed and accepted, including wiring, terminals, connections, testing, and all incidentals necessary.

625 Interconnect Cable Stranded 9/C, #14 AWG

Interconnect cable shall be weatherproof and shall consist of the number of conductors as specified on the plans. All conductors shall be A.W.G. #14. Cables shall be insulated, jacketed, rated at 600 volts for use in underground conduit or as aerial cable supported by a messenger. It shall be color coded and in every respect follow the International Municipal Signal Association specification number 19-1-1967. Conductors may be solid or stranded.

Payment for Item 625 "Interconnect Cable Stranded 9/C, #14 AWG" will be made at the lineal price bid per lineal foot, in place, completed, and accepted including wiring, terminals, connections, splicing, testing and all incidentals necessary.

CONTROLLER CABINET 0 7.7

The cabinet shall be clean-cut in design and appearance and shall conform to the following:

It shall be made of die cast aluminum alloy with a wall thickness of approximately one-quarter inch and a minimum of 18,000 psi yield strength.

The minimum inside dimensions shall be: height 38", width 28" and depth 12-7/16".

The cabinet shall contain at least 7.7 cubic feet of usable volume.

Hinged door, with police panel, shall be provided on the front of the cabinet which shall include substantially the full area of the front of the cabinet.

All doors shall be fully gasketed with elastomeric gasketing material so that when closed they shall fit closely to the gasketing material, making the cabinet weather resistant and dust tight. Three point latching shall be provided for this purpose.

The door shall be provided with lock with permanent type lubrication and a weatherproof tab and furnished with two keys for both the door and the police panel.

An elbow vent shall be mounted on both sides of the cabinet base and shall be mechanically screened and baffled to protect against rain, dust and all types of foreign objects.

There shall be one bar door stop at approximately 135°.

The door pins, recessed to prevent break and entry, shall be grease-lubricated and fabricated of a non-corroding material.

Cabinet shall contain two cast metal or plywood (3/4") shelves for the support of traffic control equipment. The shelves shall be adjustable on a minimum of 1-1/2" centers from a minimum of 10" from the top of the cabinet to the bottom of the cabinet.

The cabinet shall be equipped with a police panel door and the following equipment:

1 each Thyrector (providing steady state input voltage of 150 RMS or 210 peak, and providing a maximum current of 3 amps at .001 sec. pulse at 60 Hz), for lighting protection of traffic control equipment for connection across the line after the fuses and before flasher filter mounted using 150 V minimum breakdown insulated hollow rivet using #8-32 screw.

10 each 12 wire terminal blocks (Penn Union #6012 Marathon #6012 or approved equal).

3 each 4 PDT 10 ampere 250 V. A.C. Switch (Cutler-Hammer #7693, Carling Electric IL 253 or approved equal).

1 each ground bus bar with 15 ground terminal points.

The outgoing traffic control signal circuits shall be of the same polarity as the line side of the power supply; the common return of the signal circuit shall be of the same polarity as the ground side of the power supply.

The grounded side of the power supply shall be grounded to the controller cabinet in an approved manner.

The cabinet shall be base mounted and furnished with two 3/4" x 16" anchor bolts for keying to a concrete foundation. A drawing showing proper construction of the cabinet foundation and method of mounting the cabinet shall be furnished with the cabinet base.

The cabinet shall be equipped with a top mounted ventilating fan 134 C.F.M. at 0.160" of water static pressure. Separate adjustable thermostat.

All cast pieces shall be clean, smooth, and free from flaws, cracks, blow holes, and other imperfections.

A flexible plastic or other insulating material is to be mounted with sheet metal screws to cover switch terminals on the police panel.

The cabinet and fan housing shall be prime coated and shall be finished with two coats of yellow enamel paint using Federal Standard 595 color #13655.

Payment for Controller Cabinet, 07.7 C.F. shall be included in the various signal controller pay items.

625 FULLY ACTUATED 3 PHASE SIGNAL CONTROLLER (SOLID STATE)

The Contractor shall furnish and install a fully actuated 3ϕ traffic signal controller. The controller shall consist of completely interchangeable phase modules as tabulated. It shall be capable of providing the basic signal sequence in accordance with signal operation drawings.

The controller shall be one moduvac multi-phase traffic signal controller contained in one completely wired type EL-343 cabinet as manufactured by Eagle Signal Company, a division of E.W. Bliss Company, Davenport, Iowa or one traf-o-matic multi-phase traffic signal controller contained in one completely wired G cabinet as manufactured by Automatic Signal Company, a division of Laboratories for Electronics, Inc., Norwalk, Connecticut, or an approved equal.

Controller cabinets shall be as specified above and shall be manufactured by the controller supplier. The cabinet shall be prewired at the factory. The cabinet shall be equipped with screened vents and large (6 inch minimum diameter) fans with thermostatic control. The cabinets shall contain a separate jack mounted flashing unit complete with separate jack mounted load relays, radio interference filter and fuse cutout switch. The cabinets shall be installed with necessary equipment to insure that conflicting green indications cannot occur.

Payment for item 625 "Fully Actuated 3 Phase, Signal Controller, (Solid State)" will be made at the contract price for each controller by type complete and in place, including prewired cabinet, all connections and testing.

842 SIGNAL CONTROLLER, TWO PHASE, SEMI-ACTUATED (SOLID STATE) W/CABINET

The contractor shall furnish and install a semi-actuated (Solid State), two-phase Electronic Actuated Controller and Cabinet at the intersection indicated on the plans. The controller shall be capable of providing the basic signal sequence, operations and functions as indicated herein and on the plans.

The controller shall be Crouse Hinds Series SST-12, Eagle Signal Series ET-415 or Automatic Signal Series 507 or approved functional equal.
The controller shall have the following features:

1. Major street minimum green period, adjustable from 10 to 90 seconds.
2. Major street clearance interval, adjustable from 1 to 10 seconds.
3. Minor street initial green interval, adjustable from 0 to 30 seconds.
4. Minor street extendible green interval, adjustable from 0 to 30 seconds
5. Minor street maximum green limit, adjustable from 10 to 120 seconds.
6. Minor street clearance interval, adjustable from 0 to 10 seconds.
7. All red clearance interval, adjustable from 0 to 10 seconds.
8. A recall switch. This switch shall cause the controller to cycle continuously on a pre-timed basis and, in addition, the controller must provide extensions as obtained during normal operation.
9. A signal shut down switch.
10. A signal flasher with rapid interference suppressors, flasher sub-base, and local flash switch.
11. The controller shall have complete provision for system coordination so that coordinated operation may be effected without any change in wiring; i.e., no cutting, splicing or soldering of wiring, or altering of any mechanical unit.
12. Standard features and/or accessories shall be available and the installation of same should not require any alteration of any mechanical unit, or the cutting or soldering of any wiring. It must be accomplished through the plugging in of pre-wired devices, or through the attaching of wiring to suitable marked terminals, or the attaching of a device to a suitable machined cabinet or panel.
13. All panels shall be machined to accept the mounting of all features and accessories. All panels shall be equipped with the maximum number of terminal blocks for all future accessories designed for operation with the controller. The panel shall be equipped with mounting for a standard nec fuse cutout.
14. The controller shall be designed to operate on 115 volts, 60 cycle single phase alternating current
15. The controller shall operate satisfactorily at any temperature between -25°F and 160°F.
16. The external load switching devices used in conjunction with the controllers shall be included in each cabinet. The load switching devices shall be solid state consisting of a base of high grade insulating material and a separate plug-in unit. The plug-in unit shall have high quality connectors and be capable of carrying 10 amps rated current at 120 Vac at ambient temperatures between -20°F and 160°F without overheating. A signal monitor, either internal or external to the signal load switching devices, shall be included with each controller specified. The monitor circuitry shall continuously check operation of the green signal indications (output from load switching devices) and upon detection of conflicting green signal indications shall immediately and automatically cause transfer to flashing operation. Any transfer relays and other equipment, including the flasher itself, necessary to accomplish this transfer shall be supplied in each cabinet.
17. The controller cabinet shall be equipped with a convenience outlet.
18. The controller cabinet shall meet the requirements specified under Control Cabinet (7.7 cu. ft.).

Payment for Item 842 Signal Controller, Two Phase, Semi-Actuated, (Solid State) W/Cabinet will be made at the contract price for each controller complete and in place, including prewired cabinet, all connectors and testing.

TRAFFIC SIGNAL GENERAL NOTES

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842 SIGNAL CONTROLLER, TWO PHASE, SEMI-ACTUATED (SOLID STATE) W/CABINET (CROUSE HINDS) (ALTERNATE BID)

The contractor shall furnish and install a semi-actuated two phase electronic actuated controller and cabinet at the intersections indicated on the plans, the controller shall be capable of providing the basic signal sequence, operations and functions as indicated herein and on the plans.

The controller shall be SST-12 as manufactured by Crouse-Hinds Company.

The controller shall be furnished with all of the appurtenances and features described in the like bid item.

Payment for item 842 Signal controller, two phase, semi actuated w/cabinet (Crouse-Hinds) (Alternate Bid) will be made at the contract price for each controller complete and in place, including prewired cabinet, all connections and testing.

842 SIGNAL CONTROLLER, THREE PHASE, SEMI-ACTUATED (SOLID STATE) W/CABINET

The contractor shall furnish and install a semi-actuated, three phase electronic actuated controller and cabinet at the intersections indicated on the plans. The controller shall be capable of providing the basic signal sequence, operations and functions as indicated herein and on the plans.

The controller shall be Eagle Signal Series ET600, Crouse Hinds SST2-33 or Automatic Signal Series MF-10 or approved functional equal. The controller shall have the following features:

1. Initial green interval, all actuated phases, adjustable from 0 to 30 seconds.
2. Extendible green interval, adjustable from 0 to 30 seconds.
3. Maximum green limit, all actuated phases, adjustable from 10 to 120 seconds.
4. Major street minimum green period adjustable from 10 to 90 seconds.
5. Major street clearance interval adjustable from 1 to 10 seconds.
6. Major street all red interval adjustable from 0 to 10 seconds.
7. Clearance interval, all actuated phases, adjustable from 1 to 10 seconds.
8. Recall switches, when closed, will cause the automatic return of the right-of-way to the desired traffic phase, or to all traffic phases in pre-determined rotation.
9. All red clearance interval on actuated phases adjustable from 0 to 10 seconds.
10. A signal shut down switch.
11. A signal flasher sub-base with suppressors and local flash switch.
12. The controller shall be arranged for true sequential phase preference; i.e., an actuation of a detector on Phase B during Phase A amber will cause the controller to go to Phase B first, even though there was a prior call on Phase C. This operational feature shall be effective on all three phases.
13. The controller shall have complete provision for system coordination so that coordinated operation may be effected, without any change in wiring; i.e., no cutting, splicing or soldering or wiring, or altering of any mechanical unit.
14. Standard features and/or accessories shall be available and the installation of same should not require any alteration of any mechanical unit or the cutting or soldering of any wiring. It must be accomplished through the plugging in of pre-wired devices, or through the attaching of a device to a suitably machined cabinet or panel.
15. All panels shall be machined to accept the mounting of all features and accessories. All panels shall be equipped with the maximum number of terminal blocks for all future accessories designed for operation with the controller. The panel shall be equipped with mounting for a standard nec fuse cutout.
16. The controller shall be designed to operate on 115 volts, 60 cycle single phase alternating current.
17. The controller shall operate satisfactorily at any temperature between -25°F and +160°F.
18. The external load switching devices used in conjunction with the controllers shall be included in each cabinet. The load switching devices shall be solid state consisting of a base of high grade insulating material and a separate plug-in unit. The plug-in unit shall have high quality connectors and be capable of carrying 10 amps rated current at 120 vac at ambient temperatures between -20°F and 160°F. without overheating. A signal monitor, either internal or external to the signal load switching devices, shall be included with each controller specified. The monitor circuitry shall continuously check operations of the green signal indications (output from load switching devices) and upon detector of conflicting green signal indications shall immediately and automatically cause transfer to flashing operation. Any transfer relays and other equipment, including the flasher itself, necessary to accomplish this transfer shall be supplied in each cabinet.
19. The controller cabinet shall be equipped with a convenience outlet.
20. The controller cabinet shall meet the requirements specified under Controller Cabinet (7.7 Cu. Ft.).

Payment for Item 842 Signal Controller, three phase, semi-actuated, (solid state) w/cabinet will be made at the contract price for each controller complete and in place, including prewired cabinet, all connections and testing.

842 DIAL COORDINATING UNIT

A. The dial coordinating unit (DCU) shall operate satisfactorily at any temperature between -30° and 165° F. inside ambient.
B. The DCU shall be designed to operate from a 115 volt, 60 Hz single phase power source.
C. The DCU shall function satisfactorily at any voltage, within plus or minus 10% of the rated voltage.
D. The DCU shall be expansible, having provision for a maximum of 3 dial units.
E. Each dial unit shall be plug-connected and shall be so constructed that it may be installed or removed without the use of tools.
F. The timing dial of each dial unit shall be driven by a self--starting sealed, synchronous motor requiring no lubrication. This motor shall have ample torque to drive the dial at constant speeds under all normal operating conditions.
G. The dial unit shall have a manually operated reset switch normally used to disconnect the dial reset contacts from the motor brake relay (For Secondary DCU's) and for de-energization of the motor (For Master DCU's). This switch may readily be changed to an on-off motor switch at secondary DCU's.
H. On the front of each timing dial there shall be calibrated scale for the setting of each function such as yield and force-off. The dial shall at all times show a visual indication of the percentage of the time cycle allocated to each interval.
I. The timing dial shall have an offset scale for setting the offset relationship between Master and Secondary DCU within interconnected system.
J. Each dial shall be equipped with color coded keys which shall snap in and out easily without tools and shall be self-locking.
K. The dial shall be equipped with an easily removable time cycle gear, available 30-120 seconds in 5 second steps.
L. Each dial unit shall have a visual indication of the time cycle set on the dial.
M. Each dial unit shall be equipped with a seven contact block wired for the following functions: Three reset contacts, one split, one interlock (yield) and two contacts that may be used as required (additional splits and/or resets).
N. DCU shall be for Master or Secondary use as specified.
O. Each DCU shall be designed for provision of split transfer through use of an optional DCU printed circuit board to provide split transfer capability in association with the 7 contact dial unit.
P. All printed circuit board control relays shall be plug-in type and completely interchangeable with one another to simplify maintenance requirements.
Q. The DCU shall be plug-connected to the controller panel so that it may be replaced with a similar unit without the necessity of disconnecting or re-connecting individual wires. The plug connection shall be MS Type.
R. The DCU shall be equipped with indicating lights for cycle, offset and/or split functions in effect and include test switches to determine cycle and/or split called for by the master.
S. A free operation relay assembly shall be included to allow free operation of the timer when system inter-connect is off or when the DCU is removed from the circuit.
T. The master DCU shall be equipped with master supervisory dial unit contacts for automatically establishing the offset relationship of the secondary DCU's within the system.
U. It shall be possible to set up a separate and distinct program of interval timing on each dial unit.
V. It shall be possible to transfer operation from one dial to another, and/or one split to another, remotely or automatically. Automatic transfer shall be accomplished through the use of time switches. Remote transfer shall be accomplished from the master-interconnect circuit.
W. The DCU shall be so arranged that the transfer of the interval timing from one dial unit to another and/or one split to another may be accomplished at the beginning of the main street green interval or any other chosen interval.
X. The switching from one dial to another and/or one split to another, shall be accomplished through the use of electrically latched relays.
Y. Payment for item 842 dial coordinator unit will be made at the contract price for each unit complete and in place including all connections and testing.

842 SIGNAL CONTROLLER, THREE PHASE, SEMI-ACTUATED (SOLID STATE) W/CABINET (CROUSE HINDS) (ALTERNATE BID)
The controller shall be SST2-33 as manufactured by Crouse Hinds Company.
The controller shall be furnished with all of the appurtenances and features described in the like bid item.
Payment for Item 842 SIGNAL CONTROLLER, THREE PHASE, SEMI-ACTUATED (SOLID STATE) W/CABINET (CROUSE HINDS) (ALTERNATE BID) will be made at the contract price for each controller complete and in place, including prewired cabinet, all connections and testing.

Loop Detector Wire and Lead-in Cable

Loop Detector wire shall consist of single conductor, insulated, No. 14 AWG RHW (or RHW type) 600 V. stranded copper wire, and be installed in accordance with the typical loop detector detail. Each wire loop shall consist of the number of turns as required by the manufacturer of the loop detector. The loop wire shall run continuously to the adjacent pull box where it shall be spliced to the loop detector lead-in cable.

Payment for Item 625 "Loop Detector Wire" will be made at the contract unit price per lineal foot in place for #14 Detector wire and shall include detector wire, installation, jacket, conduit from roadway edge to pull box splice and all incidentals necessary to complete the installation. The estimated quantities of loop detector wire shown on the plans is based on an anticipated required number of turns. Payment will be based on the actual linear feet installed as this is controlled by the detector manufacturer's requirements for loops.

Payment for Item 625 "Loop Detector Lead-in Cable" will be made at the contract unit price per lineal foot in place for #14 AWG 2 cond., polyethylene insulated, twisted pair, shielded and jacketed cable, including soldered waterproof poured splice.

POWER CABLE 3/c #8 AWG - RHW (OR RHW TYPE) STRANDED

Power cable shall be weatherproof and shall be 3 conductor AWG #8 RHW (or RHW Type) stranded copper. Power cable shall be installed from the controller cabinet through the appropriate conduit, signal pole, and weatherhead. It shall be attached by the Cincinnati Gas and Electric Co. to the service cable with pressure connectors covered with mastic insulation. Three single conductor #8 RHW wires may be substituted; however, payment will be based upon the equivalent length of 3 conductor cable.

Payment for Item 625 "Power Cable" will be made at the contract unit price per lineal foot, in place, complete and accepted, including wiring, terminals, connections, testing, and all incidentals necessary and shall also include any costs incurred to arrange the service installation by the Cincinnati Gas and Electric Co. in conformance with the plans.

842 Concrete for Cabinet Foundation

Controller foundations shall be constructed as shown in the plan. The Contractor shall stake the longitudinal and lateral location and elevation of the top of each foundation subject to the approval of the Engineer. The Contractor shall be responsible for the proper elevation, offset and leveled each foundation. Excavations shall be made to the dimensions shown on the plans. Where sub-surface obstructions are encountered, the Engineer may require the Contractor to remove the obstruction or to replace the excavated material and relocate the foundation. If caving of the excavation occurs, the Contractor shall excavate to the specified depth, maintaining the sidewalls as nearly vertical as possible. No payment shall be made for any excavation or concrete used in excess of the planned quantities.

Portland cement concrete shall be used and shall conform with Class "C" of the current construction & material specifications prepared by the Department of Transportation of the State of Ohio. The concrete shall be placed against undisturbed soil or compacted embankment. The foundation shall have anchor bolts and conduit accurately held in position with a templet when concrete is poured. Forms shall be used for the upper portion of all foundations and no backfilling shall be permitted from the bottom to within 6 inches below ground level.

Concrete for service step in front of controller as shown in detail on Sheet No. 17 will be included in the above described concrete

Payment for Item 842 "Concrete for Cabinet Foundation" shall be made per cubic yard for each foundation constructed in accordance with the typical foundation details and shall include concrete, excavation and backfill.

TRAFFIC SIGNAL GENERAL NOTES

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CABLE SUPPORT ASSEMBLY

A cable support assembly shall be installed for each group of cables passing through each wire outlet near the top of pole. It shall be attached to the "J" hook as shown in the plans and shall consist of the following major items.

1. One piece of three-strand copper-clad messenger, length as required.
2. Two hot-dipped galvanized thimbles.
3. Two #6 split bolt connectors.
4. One bronze or stainless steel cable grip with single "U" eye bale.
5. All other miscellaneous items that may be necessary to make the assembly complete.

The messenger shall be 0.164 inches in diameter consisting of three strands of 0.075 inch copper-covered steel wires twisted in the form of a cable. Guy thimbles shall be grooved to fit the guy strand and bent to the proper radius to prevent the strand from being sharply bent. The cable grip shall have a single "U" eye bale. The grips shall be of the proper size to fit the cable and shall have a minimum rated breaking strength of 250 lbs.

The grip shall be either the "closed" or "split with rod" type.

Payment for Item 625 Cable Support Assembly will be made at the contract unit price each, completely assembled in place and accepted.

LOOP DETECTOR PAVEMENT CUTTING

Loop detector pavement cutting shall consist of a 1-1/4 inch or 2 inch x 1/4 inch wide saw cut in accordance with typical loop detector installation detail. The saw cut shall be filled with a joint sealer after the wire has been installed. The joint sealer shall be as specified on sheet 19.

Payment for Item 625 "Loop Detector Pavement Cutting" will be made at the contract unit price per lineal foot for saw cutting and treatment including joint sealer.

GROUND RODS

This item of work shall consist of furnishing and installing ground rod and cable as detailed and specified on sheet 15 & 17.

The cable shall be exothermically welded to the top of the ground rod.

Basis of payment for this item shall be at contract unit price per each, which shall include all labor, materials and equipment required to complete this item of work.

SIGNAL STRAIN POLE (By Type)

This item of work shall consist of furnishing and erection of poles as shown and specified in the plans.

Shafts shall be tapered tubes.

Each pole shall be galvanized and include the furnishing of anchor bolts, rigid ferrous metal 3" conduit ell and a 3/4" electrical metallic tubing ell for grounding lead for installation in foundations plus handhole with cover, "J" hook, pole clamp, and cable service entrance with blind half-coupling for each pole in accordance with details on Sheet 18.

The poles shall be installed and adjusted to the proper rake so that the weight of the signal installation will not cause the poles to be off vertical alignment by more than 1%.

Basis of payment shall be at the contract bid price per each 816 Signal Strain Pole, by size, including all labor, material, equipment and incidentals related to this item of work.

MESSENGER WIRE, 3/8" , 7-STRAND WITH ACCESSORIES

Messenger wire shall be utility grade galvanized steel as per ASTM A-475-Class B. It shall consist of seven strand 3/8" nominal diameter with a breaking load of 11,500 lbs Galvanized steel lashing rods shall be used to suspend the signal cable from the messenger wire, tightly secured Wet-porcelain strain insulators (600 volt), guy clamps, and galvanized preformed guy grip dead ends, thimbles, and bull rings (when required) with a rated loading strength equal to, or greater than, the breaking load of the messenger wire shall be installed as shown on the plans and/or specified by the Engineer The messenger wire shall be installed so that the entire load of the signal equipment will not cause sag to exceed a maximum of 5% or a minimum of 3% of the span.

Payment for Item 625 "Messenger Wire 3/8" 7-Strand with Accessories" will be made at the contract unit price per lineal foot (measured to center of pole or aerial corners) completely assembled in accordance with the typical signal installation details and shall include messenger wire, lashing rods, strain insulators, preformed guy grips, thimbles, guy clamps, and aerial corner bull rings, as described above and shown on the details on sheet

CONCRETE FOR SIGNAL SUPPORT FOUNDATIONS

Traffic signal pole foundations shall be constructed as shown in the plans. The contractor shall stake the longitudinal and lateral location and the elevation of the top of each foundation subject to the approval of the Engineer. The contractor shall be responsible for the proper elevation, offset and level of each foundation. Excavations shall be made to the dimensions shown on the plans and shall be performed by means of an earth auger of the specified diameter unless otherwise directed by the Engineer. Where sub-surface obstructions are encountered, the Engineer may require the contractor to remove the obstruction or to replace the excavated material and relocate the foundation. If caving of the foundation occurs, the contractor shall excavate to the specified depth, maintaining the side walls as nearly vertical as possible. No payment shall be made for any excavation, concrete or reinforcing steel used in excess of the planned quantities.

Portland cement concrete shall be used and shall conform with Class "C" of the current construction & material specifications by the Department of Transportation of the State of Ohio.

The concrete shall be placed against undisturbed soil or compacted embankment. The foundation shall have anchor bolts and conduit accurately held in position with a templet when concrete is poured. Forms shall be used for the upper portion of all foundations and no backfilling shall be permitted from the bottom to within 6 inches below ground level. No grouting of concrete shall be permitted between the foundation and the steel pole.

Payment for Item 816 "Concrete for Signal Support Foundations" shall be made per cubic yard for each foundation constructed in accordance with the typical foundation details and shall include concrete, reinforcing steel, excavation and backfill.

625 Weatherhead and Conduit Riser

The weatherhead and conduit riser shall provide a wiring raceway for signal cable from the controller to the overhead span wire.

The weatherhead and conduit riser shall consist of a weatherhead, two (2) inch conduit, two (2) inch conduit fittings and ells, and stainless steel straps as shown in details A, B, & C on Page 15 & 17.

The weatherhead shall be cast aluminum or galvanized cast ferrous metal and shall prevent entry of water into the conduit.

Conduit shall be as specified in 713.04. Stainless steel straps shall be 3/4 of an inch wide by .020 inch thick and shall be spaced at maximum intervals of five (5) feet.

Payment for 625 "Weatherhead and Conduit Riser" will be made at unit price bid for each weatherhead and conduit riser installation, completely installed and accepted including all labor, material, equipment and incidentals necessary to perform the required item of work.

POWER SERVICE

This item shall consist of the necessary componets to run the power cable down the service pole and into the controller.

Power service shall consist of weather head, one (1) inch conduit, stainless steel conduit straps, fused safety disconnect, one (1) inch conduit fittings and ells and number four (4) insulated seven (7) strand copper ground wire connected to handhole ground lug as shown in "Power Service Details". (Sheet No.17)

Weather head shall be cast aluminum or galvanized cast ferrous metal and shall prevent entry of water. Conduit shall be as specified in 713.04. Stainless steel straps shall be 3/4 inch wide by 0.020 inch thick and shall be spaced at maximum intervals of five (5) feet.

CONTROL CENTER "C"

Existing lighting control center "C" and service pole are located at Sta. 726+50, 60' Rt. Colerain Avenue. This control center "C" will serve power (480 V, 2-wire) to interchange numbers 1 and 2.

A 30 amp fused disconnect switch with fully lockable NEMA Type 4 enclosure shall be used and mounted on existing lighting control center service pole "C" See power service detail "A" on sheet No.17.

CONTROL CENTER "BR"

Proposed lighting control center "BR" and service pole are located at Sta. 11+33, 37' Lt. Springdale Road. This control center "BR" will serve power (480 V, 2-wire) to interchanges numbers 3 and 4.

A 30 amp fused disconnect switch with fully lockable NEMA Type 4 enclosure shall be used and mounted on control center service pole "BR". See power service details "B" on sheet No. 17.

CONTROL CENTER "J"

Proposed traffic signal control center "J" is located at 18+00, 40' Lt. Springdale Road on signal strain pole "J". This control center "J" will serve power (120 V, 2-wire) to interchange number 5. Power service (120 V, 2-wire) will be provided by Cincinnati Gas & Electric Co. to the weather head on signal strain pole "J".

A 30 amp fused disconnect switch with fully lockable NEMA Type 4 enclosure shall be used and mounted on signal strain pole "J". See power service details "C" on sheet No. 15.

Payment for 625, "Power Service" will be made at the lump sum price bid for each power service completely installed and accepted, including all labor, material, equipment and incidentals necessary to perform the required item of work.

CONDUIT JACKED UNDER PAVEMENT, BY SIZE

This item shall consist of installing conduit for the size or sizes indicated under existing pavement and contiguous shoulders by an approved method such as "drilling" or "jacking".

The Contractor shall place the conduit with the least amount of distrubance to the existing pavement, subbase, berm pavement, or shoulders of the roadway. All push pits or any necessary excavations shall be backfilled and restored in accordance with 603.09.

Measurement of the conduit shall be the actual amount of linear feet installed under pavement and shoulders, measured in place, as accepted by the Engineer. The unit price bid for Item 625, "Conduit Jacked Under Pavement, by size " shall be full compensation for excavation, drilling or jacking, backfilling, compaction, restoration, and all labor, material, equipment, and incidentals necessary to complete the work as specified.

625 Covering of Traffic Signal Heads

All vehicle traffic signal heads erected at locations where traffic will be maintained prior to energizing of the signal, shall be covered.

The covering shall be plastic coated burlap blankets, as per Item 705.06. They shall be firmly attached and completely cover the signal head without damage to the head. The covering shall be maintained in place at all times while traffic is using the area and the signal is not in operation.

Payment shall be at the unit price bid per each for Item 625 "Covering of Traffic Signal Heads" which shall be full compensation for all labor, materials and equipment required to erect, maintain and remove the covering.

614. MAINTAINING TRAFFIC

The existing traffic signal at the intersection of US 27 (Colerain Avenue) and Ramp "F" shall be kept in fully actuated operation until the new signal is operational. This may include relocation of existing detectors and signal heads. When the new signal is put into operation, the existing signal shall be turned off and the heads removed or bagged.

If it is necessary at anytime to turn the signal off or put it on flasher, the following requirements shall apply:

A. Signal on Flasher
   1. 6AM to 8 PM - The contractor shall provide one (1) special duty State Highway Patrolman with Patrol Car for the purpose of controlling traffic within the intersection
   2. 8 PM to 6 AM - No Patrolman required.

B. Signal Turned Off
   1. Anytime the signal is turned off completely, the contractor shall provide two (2) special duty State Highway Patrolmen with Patrol Car for the purpose of controlling traffic within the intersection.

Information regarding arrangements and payments by the contractor for special duty patrol services may be obtained by contacting the Ohio Highway Patrol Headquarters - telephone (614) 469-2660.

All of the above items including labor, equipment, and miscellaneous hardware, cable, etc. shall be included in the lump sum price bid for Item 614 "Maintaining Traffic."

202. REMOVAL OF EXISTING SIGNAL INSTALLATION

In accordance with Standard Specification 202, this item shall include the removal of signal heads, controller and cabinet, radar detectors, temporary poles, pole foundations, messenger wire and all other portions of the existing signal installation. The signal heads, controller cabinet and all items therein and radar detectors including conduit, cable, amplifier and amplifier housing shall be removed and stored on the project for removal by State forces.

All other items such as poles, span wire, and miscellaneous hardware shall become the property of the contractor.

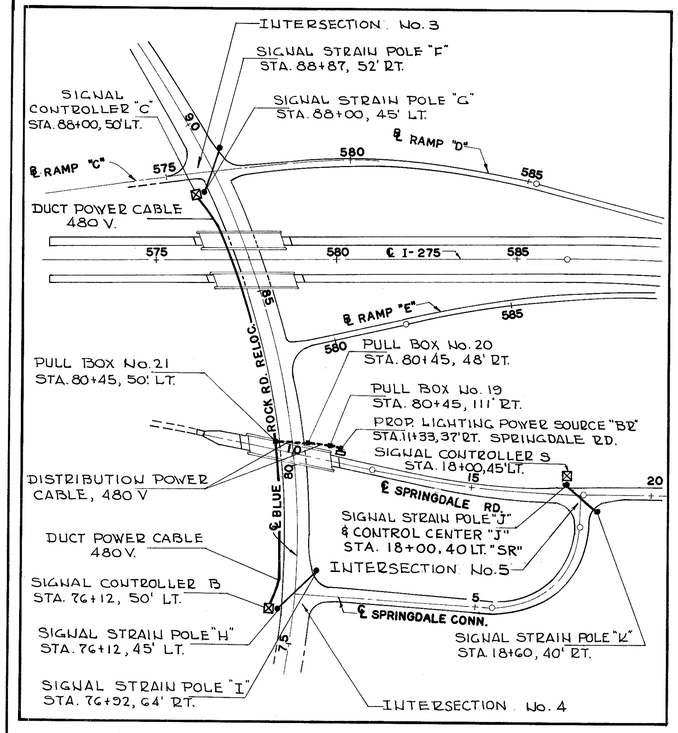
Payment for the removal of the existing signal at US 27 and Ramp "F" shall be included in the per each bid for Item 202 "Removal of Existing Signal Installation".

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

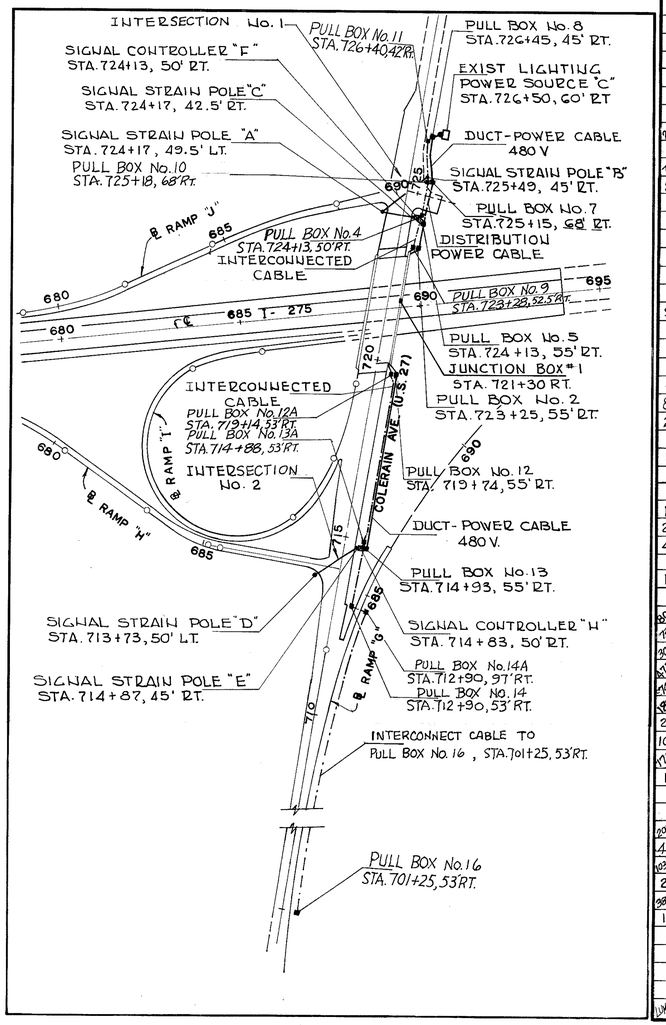
455A
468

HAM. 275-13.91
HAMILTON COUNTY

TRAFFIC SIGNAL SCHEMATIC PLAN



BLUE ROCK ROAD



COLERAIN AVE

GENERAL SUMMARY

SHEET #8	SHEET #10	SHEET #12	SHEET #14	SHEET #16	ITEM	QUAN.	UNIT	DESCRIPTION
1		2			842	3	EA.	SIGNAL STRAIN POLE 0.6250" X 12" X 30'-0"
1					842	1	EA.	SIGNAL STRAIN POLE 0.5000" X 11" X 28'-0"
1					842	1	EA.	SIGNAL STRAIN POLE 0.3125" X 11" X 28'-0"
	1				842	1	EA.	SIGNAL STRAIN POLE 0.6250" X 13" X 30'-0"
	1				842	1	EA.	SIGNAL STRAIN POLE 0.6250" X 13" X 28'-0"
			1		842	1	EA.	SIGNAL STRAIN POLE 0.6250" X 13" X 32'-0"
			1		842	1	EA.	SIGNAL STRAIN POLE 0.6250" X 12" X 28'-0"
				1	842	1	EA.	SIGNAL STRAIN POLE 0.5000" X 12" X 32'-0"
				1	842	1	EA.	SIGNAL STRAIN POLE 0.5000" X 12" X 30'-0"
120	60	80	80	121	842	773	L.F.	MESSENGER WIRE 7 STRAND (3/8) WITH ACCESSORIES
12	63	62	65	63	842	28.9	C.Y.	CONCRETE FOR ANCHOR BASE FOUNDATIONS
9	9	9	9	9	842	4.5	C.Y.	CONCRETE FOR CABINET FOUNDATIONS
	2				844	2	EA.	INTERNALLY ILLUMINATED SIGN
9	2	2	3		842	16	EA.	VEHICULAR SIGNAL HEAD, 3 SECTION, 12" LENS, ONE WAY
1		1			842	2	EA.	VEHICULAR SIGNAL HEAD, 4 SECTION, 12" LENS, ONE WAY
	2	2	1	2	842	7	EA.	VEHICULAR SIGNAL HEAD, 3 SECTION, 12" LENS, TWO WAY
			1	1	842	2	EA.	VEHICULAR SIGNAL HEAD, COMBINATION OF 1-3 SECTION & 1-4 SECTION, 12" LENS, TWO WAY
8	4	4			S625	16	EA.	CONNECTOR KIT, TYPE I
2		2			S625	4	EA.	CONNECTOR KIT, TYPE VII B
	1				842	1	EA.	SIGNAL CONTROLLER, 2 PHASE, SEMI ACTUATED (SOLID STATE) W/CABINET
1					842	1	EA.	SIGNAL CONTROLLER, 3 PHASE, SEMI ACTUATED (SOLID STATE) W/CABINET
			1	1	842	3	EA.	SIGNAL CONTROLLER, 3 PHASE, FULL ACTUATED W/CABINET
1	1				842	2	EA.	DIAL COORDINATING UNIT
2	1	2	2	2	842	9	EA.	LOOP DETECTOR AMPLIFIER
4	3	3	3	3	S625	16	EA.	GROUND ROD
1	1	1	1		S625	4	EA.	TRANSFORMER 480/120 V
1	1	1	1		S625	4	EA.	DISCONNECT SWITCH, 15AMP
800	350	535	650	350	842	3117	L.F.	SIGNAL CABLE, 5/C No. 14 AWG
724	948				842	2682	L.F.	INTERCONNECT CABLE, 9/C No. 14 AWG
305	561	1135	443		842	2044	L.F.	DUCT-POWER CABLE, 3/C No. 8 AWG
473		2328		50	842	761	L.F.	DISTRIBUTION-POWER CABLE, 3/C No. 8 AWG
474	144	1468	1044	548	842	3678	L.F.	LOOP DETECTOR WIRE
181	288	1551	1157	1145	842	3842	L.F.	LOOP DETECTOR LEAD IN CABLE
2	1	1	1	1	842	6	EA.	CABLE SUPPORT ASSEMBLY
10	10	10	6	6	S625	42	EA.	PULL BOX 18" CIRCULAR S713.09
471	55	225	328	214	842	1044	L.F.	LOOP DETECTOR PAVEMENT CUTTING
1					S625	1	EA.	STRUCTURE JUNCTION BOX, 18"x8"x6"
		110			S625	110	L.F.	CONDUIT 3", S713.04, ENCASED
		215	109	85	S625	409	L.F.	CONDUIT 3", S713.04
201		37	123	106	S625	527	L.F.	CONDUIT JACKED UNDER PAVEMENT, 3"
4	139		31	72	S625	306	L.F.	CONDUIT 2", S713.04
1024	159	651	2246	1383	S625	4003	L.F.	CONDUIT 1", S713.04
2	2	3			842	7	EA.	COVERING OF TRAFFIC SIGNALS
281	1419	825	1579	1501	S625	6305	L.F.	TRENCH
1	1	1	1	1	842	5	EACH	WEATHER HEAD AND CONDUIT RISER (2")
		LUMP			S625	LUMP	LUMP	CONTROL CENTER "BR"
				LUMP	S625	LUMP	LUMP	CONTROL CENTER "J"
LUMP					202	LUMP	LUMP	REMOVAL OF EXISTING SIGNAL INSTALLATION

ALTERNATE BID ITEMS

1					842	1	EA.	SIGNAL CONTROLLER, 3 PHASE, SEMI-ACTUATED (SOLID STATE) W/CABINET (CROUSE-HINDS BRAND)
	1				842	1	EA.	SIGNAL CONTROLLER, 2 PHASE, SEMI-ACTUATED (SOLID STATE) W/CABINET (CROUSE-HINDS BRAND)
		1	1	1	842	3	EA.	SIGNAL CONTROLLER, 3 PHASE, FULL ACTUATED W/CABINET (CROUSE-HINDS BRAND)

6
19

TRAFFIC SIGNAL SCHEMATIC PLAN AND TRAFFIC SIGNAL GENERAL SUMMARY

INTERSECTION No 1

NO.	STATE	PROJECT	
2	OHIO		

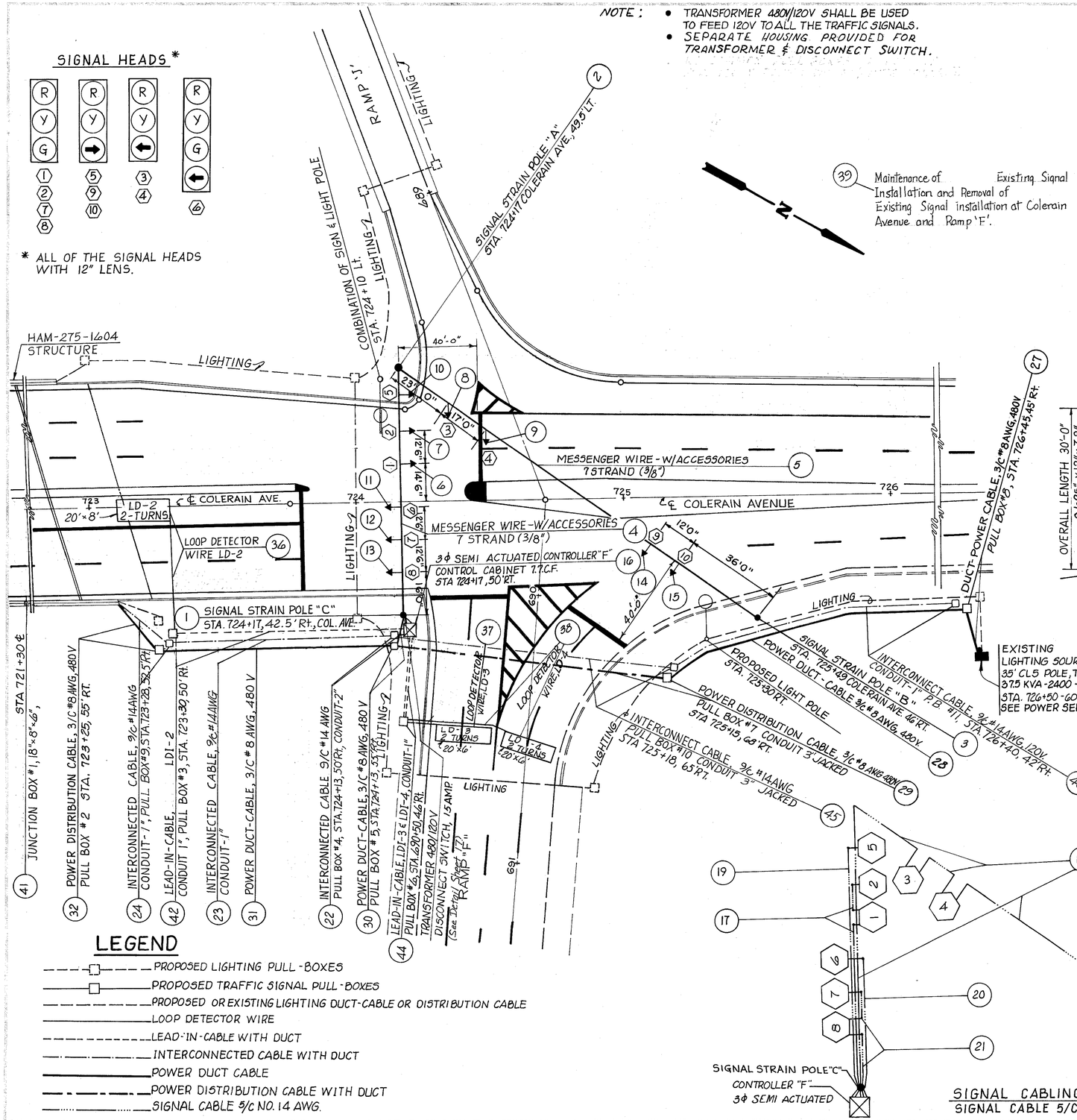
456
468

HAM - 275 - 13.91
HAMILTON COUNTY

NOTE :
- TRANSFORMER 480V/120V SHALL BE USED TO FEED 120V TO ALL THE TRAFFIC SIGNALS.
- SEPARATE HOUSING PROVIDED FOR TRANSFORMER & DISCONNECT SWITCH.

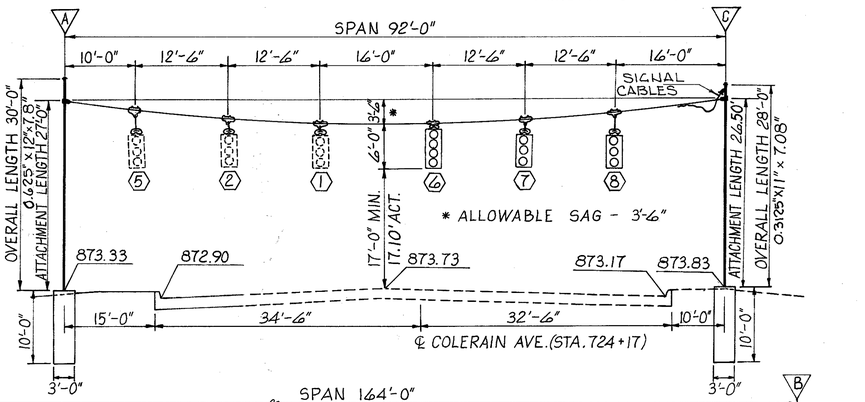
SIGNAL HEADS *

* ALL OF THE SIGNAL HEADS WITH 12" LENS.



39 Maintenance of Existing Signal Installation and Removal of Existing Signal installation at Colerain Avenue and Ramp 'F'.

EXISTING LIGHTING SOURCE "C"
35' CL5 POLE, TRANSFORMER
37.5 KVA - 2400 - 7200/480V.
STA. 726+50 - 60' RT. COLERAIN AVE.
SEE POWER SERVICE DETAIL SHT. #17 Detail 'A'.

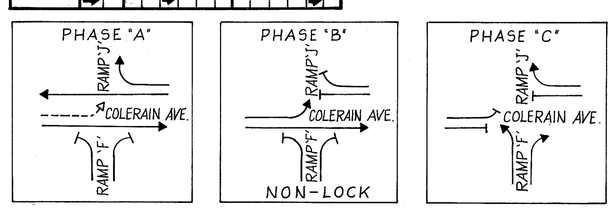


SIGNAL NO.	LENS	FLASH	DIAL # 1, 60 Sec 1	2	3	4	DIAL # 2, 80 Sec. 1	2	3	4	5	6
1 & 2	R				R	R			R	R	R	R
	Y	Y		Y				Y				
	G		G				G					
3 & 4	R	R	R	R			R	R	R	R		
	Y				Y							Y
	⬅			⬅							⬅	
5	R								R	R		
	Y	Y						Y				
	➡		➡	➡	➡	➡	➡				➡	➡
7 & 8	R			R	R						R	R
	Y	Y		Y					Y			
	G		G				G	G	G			
6	R	R		R	R						R	R
	Y		Y						Y			
	G		G				G	G	G			
	⬅							⬅				
9 & 10	R	R	R	R			R	R	R	R		
	Y				Y							Y
	➡			➡							➡	

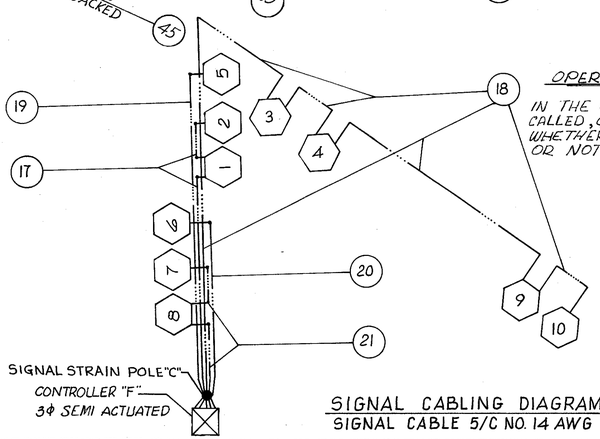
DIAL # 1 ALL OTHER TIME						DIAL # 2 7-9 A.M. & 3-6 P.M. MON. - FRI.						
1	2	3	4			1	2	3	4	5	6	
39	3	15	3									VEH. MINIMUM
33	3	21	3									VEH. MAXIMUM
						48	3	15	3	18	3	VEH. MINIMUM
						33	3	18	3	30	3	VEH. MAXIMUM

NOTE :
THE COVERING OF TRAFFIC SIGNAL HEADS #5 & #6 SHALL BE MAINTAINED IN PLACE AT ALL TIMES WHILE TRAFFIC IS USING THE COLERAIN AVE. AND UNTIL THE MAIN-LINE I-275 SECTION IS READY TO USE FOR TRAFFIC.

NO.	3 DIAL	OFFSET
1	60 SECONDS 2¢	28 SECONDS
2	80 SECONDS 3¢	46 SECONDS
3	120 SECONDS –	FUTURE



PHASING SEQUENCE



SIGNAL CABLING DIAGRAM
SIGNAL CABLE 5/C NO. 14 AWG

OPERATION NOTE
IN THE EVENT ØB IS CALLED, ØC WILL FOLLOW WHETHER ACTUATED OR NOT.

LEGEND

- PROPOSED LIGHTING PULL-BOXES
- PROPOSED TRAFFIC SIGNAL PULL-BOXES
- PROPOSED OR EXISTING LIGHTING DUCT-CABLE OR DISTRIBUTION CABLE
- LOOP DETECTOR WIRE
- LEAD-IN-CABLE WITH DUCT
- INTERCONNECTED CABLE WITH DUCT
- POWER DUCT CABLE
- POWER DISTRIBUTION CABLE WITH DUCT
- SIGNAL CABLE 5/C NO. 14 AWG.

INTERSECTION COLERAIN AVE. & RAMPS "F" & "J"

TRAFFIC SIGNAL PLAN

7
19

SUB-SUMMARY TRAFFIC SIGNAL QUANTITIES

FED RD DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

457/468

HAM-275-13.91
HAMILTON COUNTY

INTERSECTION OF COLERAIN AND RAMPS "F" AND "J"

INTERSECTION No. 1

REFERENCE NO.	STATION TO STATION AND LOCATION		MAINTENANCE OF EXISTING SIGNAL INSTALLATION	REMOVAL OF EXISTING SIGNAL INSTALLATION	SIGNAL STRAIN POLE 0.3125"x1/"x20'0"	SIGNAL STRAIN POLE 0.50"x1/"x28'0"	SIGNAL STRAIN POLE 0.625"x1/2"x30'0"	MESSENGER WIRE WITH ACCESSORIES 7 STRAND (3/8")	CONCRETE FOR ANCHOR BASE FOUNDATIONS	CONCRETE FOR CABINET FOUNDATIONS	VEHICULAR SIGNAL HEAD 3 SECTION, 12" LENS ONE WAY	WEATHERHEAD AND CONDUIT RISER (2")	DIAL COORDINATING UNIT	TRANSFORMER 480/120V	DISCONNECT SWITCH, 15 AMP	VEHICULAR SIGNAL HEAD 4 SECTION, 12" LENS ONE WAY	SIGNAL CONTROLLER 3Ø, SEMI-ACTUATED (SOLID STATE) W/CABINET (CROUSE HINES BRAND)	SIGNAL CONTROLLER 3Ø, SEMI-ACTUATED (SOLID STATE) W/CABINET	CONNECTOR KIT TYPE I	CONNECTOR KIT TYPE III B	COVERING OF TRAFFIC SIGNALS	LOOP DETECTOR AMPLIFIER	SIGNAL CABLE 5/C NO.14 AWG	INTERCONNECT CABLE 9/C NO.14 AWG	POWER CABLE 3/C NO.8 AWG	LOOP DETECTOR WIRE	LOOP DETECTOR LEAD-IN-CABLE	CABLE SUPPORT ASSEMBLY	GROUND ROD	LOOP DETECTOR PAVEMENT CUTTING	PULL BOX 18" CIRCULAR 713.09	STRUCTURE JUNCTION BOX 18"x18"x6"	CONDUIT 3" 713.04	Conduit Locked Under-Pavement, 3"	CONDUIT 2" 713.04	CONDUIT 1" 713.04	TRENCH
			LUMP	LUMP	EACH	EACH	EACH	L.F.	C.Y.	C.Y.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	L.F.	L.F.	L.F.	L.F.	L.F.	EACH	EACH	L.F.	EACH	EACH			L.F.	L.F.	L.F.
1	724+17 Rt	Colerain Ave.			1				2.6					1	1														1								
2	724+17 Lt.	Coleroin Ave.							2.6																				1								
3	725+09 Rt	Coleroin Ave.				1			2.6																				1								
4	724+17.49 Lt - 724+17.42 Rt. Colerain Ave							92																				1								
5	724+17.49 Lt - 725+09.46 Rt. Coleroin Ave.							164																				1								
6	SIGNAL #	1									1																									
7	SIGNAL #	2									1																									
8	SIGNAL #	3									1																									
9	SIGNAL #	4									1																									
10	SIGNAL #	5									1											1														
11	SIGNAL #	6														1						1														
12	SIGNAL #	7									1																									
13	SIGNAL #	8									1																									
14	SIGNAL #	9									1																									
15	SIGNAL #	10									1																									
16	Controller "F"									0.9		1	1					1		1			2							1						
17	C "F" → P "C" → 1 → 2																							140												
18	C "F" → P "C" → 3 → 4 → 9 → 10																							320												
19	C "F" → P "C" → 5																							182												
20	C "F" → P "C" → 6																							101												
21	C "F" → P "C" → 7 → 8																							99												
22	724+17	→ 724+13																							28							1		4			4
23	724+13	→ 723+28																							95											85	
24	723+28	→ 719+74																							364							1				354	
27	726+50	→ 726+45															2									25 •						1					15
28	726+45	→ 725+15															2									140 •						1					130
29	725+15	→ 724+13																2								112 *						1		102			
30	724+13.55 Rt	→ 724+17.42.5' Rt - 724+17.50' Rt.															2									42 •						1					22
31	724+13	→ 723+25																								98 •											88
32	723+25	→ 719+74															2									361 *						1				351	
36	723+30 (LD-2) Coleroin Ave.																										212		58								
37	690+50 (LD-3) Ramp "F"																										138		57								
38	690+50 (LD-4) Ramp "F"																										194		56								
39	Coleroin Ave. & Ramp "F"		LUMP	LUMP																																	
41	721+30 Rt																															1					
42	723+30 Rt	→ 724+17 Rt (LD-2)																										97				1				87	87
44	690+50 Rt - 690+15 Rt (LD-3 & 4)																											90				1				35	35
45	724+13 Rt	→ 725+18 Rt.																							115							1		105			
46	725+18 Rt	→ 726+40 Rt.																							132							1				122	
																																					381
	TOTAL		LUMP	LUMP	1	1	1	256	7.8	0.9	9	1	1	1	1	1	1	1	1	8	2	2	2	802	734	473 * 305 •	744	187	2	4	171	10	1	207	4	1034	

* DISTRIBUTION POWER CABLE • DUCT - POWER CABLE

8/19

SUB-SUMMARY TRAFFIC SIGNAL QUANTITIES

INTERSECTION No. 2

STATE	DIST.	COUNTY		
	2	OHIO		

458
468

HAM. -275 - 13.91
HAMILTON COUNTY

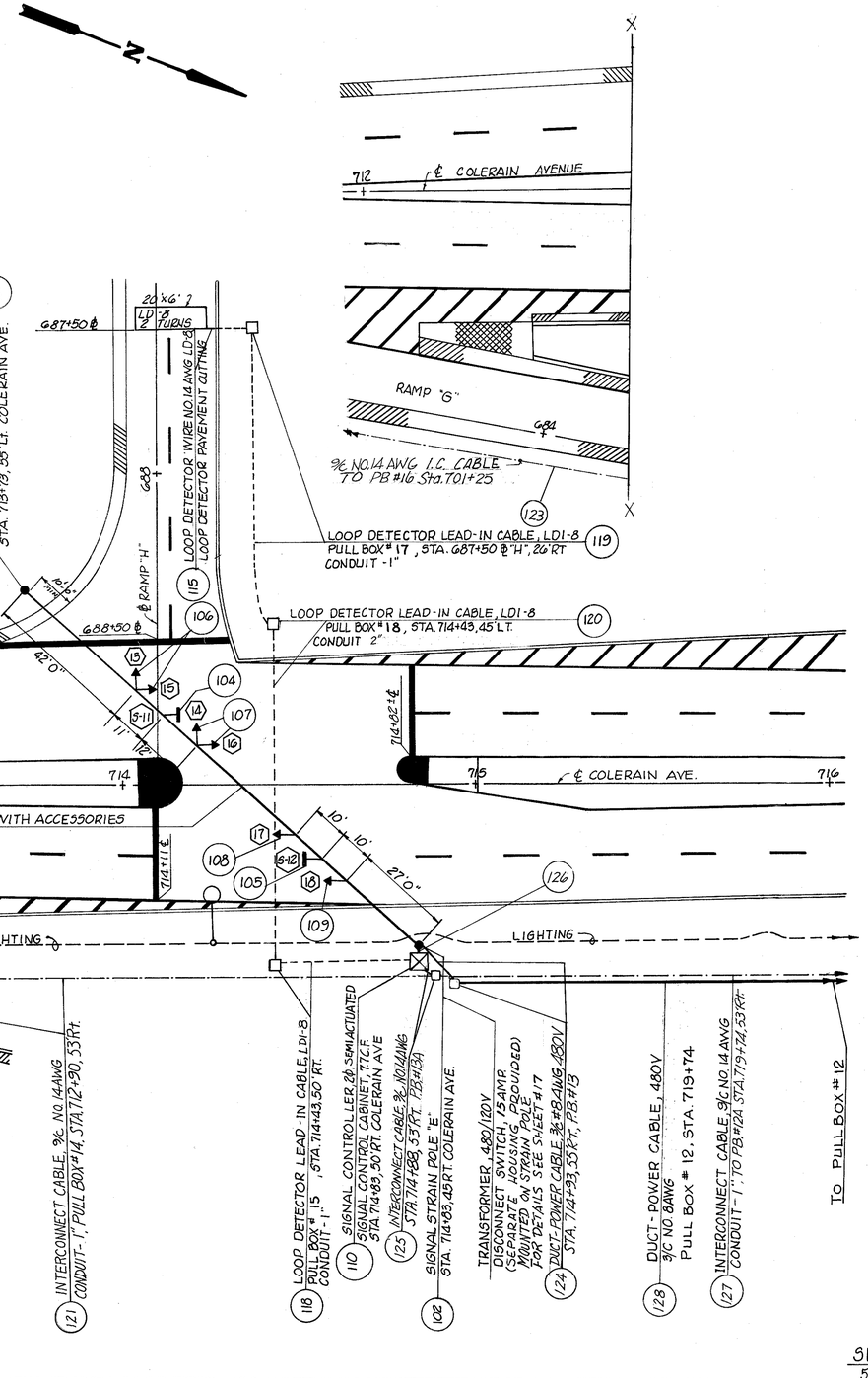
SIGNAL HEADS ✱

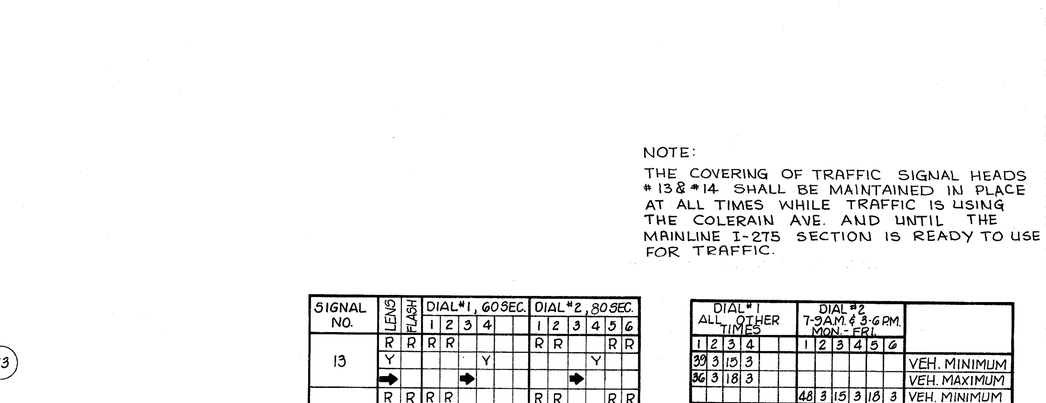
ILLUMINATED SIGN R-21-2A

NO TURNS

(13) (14) (15) (16) (17) (18) (5-11) (5-12)

✱ ALL OF THE SIGNAL HEADS WITH 12" LENS





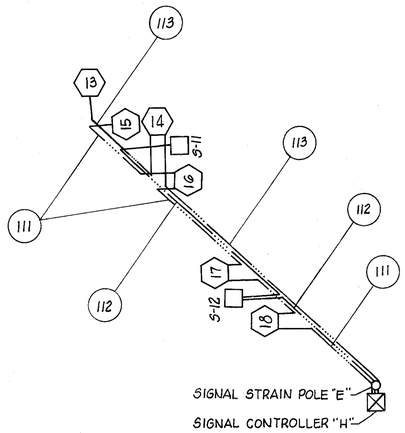
SECTION X-X

NOTE:
THE COVERING OF TRAFFIC SIGNAL HEADS #13 & #14 SHALL BE MAINTAINED IN PLACE AT ALL TIMES WHILE TRAFFIC IS USING THE COLERAIN AVE. AND UNTIL THE MAINLINE I-275 SECTION IS READY TO USE FOR TRAFFIC.

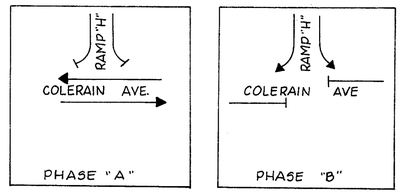
SIGNAL NO.	LENS	FLASH	DIAL #1, 60 SEC. 1	2	3	4		DIAL #2, 80 SEC. 1	2	3	4	5	6
13	R	R	R	R				R	R			R	R
	Y					Y					Y		
	➡				➡					➡			
14	R	R	R	R				R	R			R	R
	Y					Y					Y		
	⬅				⬅					⬅			
15 & 16	R				R	R				R	R		
	Y	Y		Y					Y				
	G		G					G				G	G
17 & 18	R				R	R				R	R		
	Y	Y		Y					Y				
	G		G					G				G	G

DIAL #1 ALL OTHER TIMES				DIAL #2 7-9 AM & 3-6 PM MON - FRI						
1	2	3	4	1	2	3	4	5	6	
30	3	15	3							VEH. MINIMUM
36	3	18	3							VEH. MAXIMUM
				48	3	15	3	18	3	VEH. MINIMUM
				30	3	30	3	21	3	VEH. MAXIMUM

	3 DIAL	OFFSET
1	60 SEC.	58 SEC.
2	80 "	41 "
3	120 "	FUTURE



SIGNAL CABLING DIAGRAM
5/C NO. 14 AWG



PHASING SEQUENCE

9/19

INTERSECTION COLERAIN AVE. & RAMP "H"
TRAFFIC SIGNAL PLAN

SUB-SUMMARY TRAFFIC SIGNAL QUANTITIES

KED RD DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

459/468

HAM-275-13.91
HAMILTON COUNTY

INTERSECTION OF COLERAIN AVENUE AND RAMP "H"

INTERSECTION No. 2

REFERENCE NO.	STATION TO STATION AND LOCATION	SIGNAL STRAIN POLE 0.625"x13'x30' EACH	SIGNAL STRAIN POLE 0.625"x13"x28' INTERNALLY ILLUMINATED SIGN EACH	MESSENGER WIRE WITH ACCESSORIES 7/STRAND (7/8") L.F.	CONCRETE FOR ANCHOR BASE FOUNDATIONS C.Y.	CONCRETE FOR CABINET FOUNDATIONS C.Y.	VEHICULAR SIGNAL HEAD 3 SECTION, 12" LENS ONE WAY EACH	VEHICULAR SIGNAL HEAD 3 SECTION, 12" LENS TWO WAY EACH	COVERING OF TRAFFIC SIGNAL EACH	SIGNAL CONTROLLER 24, SEMI-ACTUATED (GOULD STATE) W/CABINET (CROUSE HINES BRAND) EACH	SIGNAL CONTROLLER 24, SEMI-ACTUATED (GOULD STATE) W/CABINET EACH	DIAL COORDINATING UNIT EACH	TRANSFORMER 480/120V EACH	DISCONNECT SWITCH, 15AMP EACH	WEATHER HEAD AND CONDUIT RISER (2") EACH	CONNECTOR KIT TYPE I EACH	LOOP DETECTOR AMPLIFIER EACH	SIGNAL CABLE 5/C NO.14 AWG L.F.	INTERCONNECT CABLE 9/C NO.14 AWG L.F.	POWER CABLE 3/C NO.8 AWG L.F.	LOOP DETECTOR WIRE L.F.	LOOP DETECTOR LEAD-IN-CABLE L.F.	CABLE SUPPORT ASSEMBLY EACH	GROUND ROD EACH	LOOP DETECTOR PAVEMENT CUTTING L.F.	PULL BOX 18" CIRCULAR 713.09 EACH	CONDUIT-JACKED UNDER PAVEMENT L.F.	CONDUIT 2" 713.04 L.F.	CONDUIT 1" 713.04 L.F.	TRENCH L.F.
101	713+73 & Colerain Ave.	1			2.6								1	1											1						
102	714+83 & Colerain Ave		1		2.6																				1						
103	713+73.55'Lt. Colerain Ave. 714+83.45'Rt.			150																				1							
104	ILLUMINATED SIGN # 11		1																												
105	ILLUMINATED SIGN #12		1																												
106	SIGNAL # 13 & 15							1	1																						
107	SIGNAL # 14 & 16							1	1																						
108	SIGNAL # 17						1																								
109	SIGNAL # 18						1																								
110	CONTROLLER "H"					0.9					1	1	1		1		1														
111	C"H" → P"D" → 18 → 17 → 16 → 15																			198											
112	C"H" → P"D" → 14 → 13																			178											
113	C"H" → P"D" → 12 → 11																			156											
116	687+50 'H' (LD-8)																						140					55				
118	714+43 'E' - 714+83 'E' COLERAIN (LDI-8)																							50		1			40		40	
119	687+50 'H' - 688+23 'H' (LDI-8)																							103		1			93		93	
120	688+43 'H' .26' Lt. 714+43 'E' SOR (LDI-8)																							105		1		95				
121	714+88.53'Rt. Colerain Ave. 712+90.53'Rt.																			208						1			198		198	
122	712+90.53'Rt. 712+90.97'Rt.																			54						1		44				
123	712+90.97'Rt. Colerain Ave. 712+25.53'Rt.																			1175						1			1165		1165	
124	714+93.55'Rt. 714+83.45'Rt.																	2				25				1					15	
125	714+88 714+83																			15						1			5		5	
126	714+83.45'Rt. 714+83.50'Rt.																					15									5	
127	713+74 714+88																			496						1					486	
128	713+74 714+93																	2				50				1					491	
	TOTAL	1	1	2	150	5.2	0.9	2	2	2	1	1	1	1	1	1	1	4	1	532	1948	541	140	258	1	2	55	10	139	1501	2498		

● DUCT-POWER CABLE

10/19

SUB-SUMMARY TRAFFIC SIGNAL QUANTITIES

INTERSECTION No. 3

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

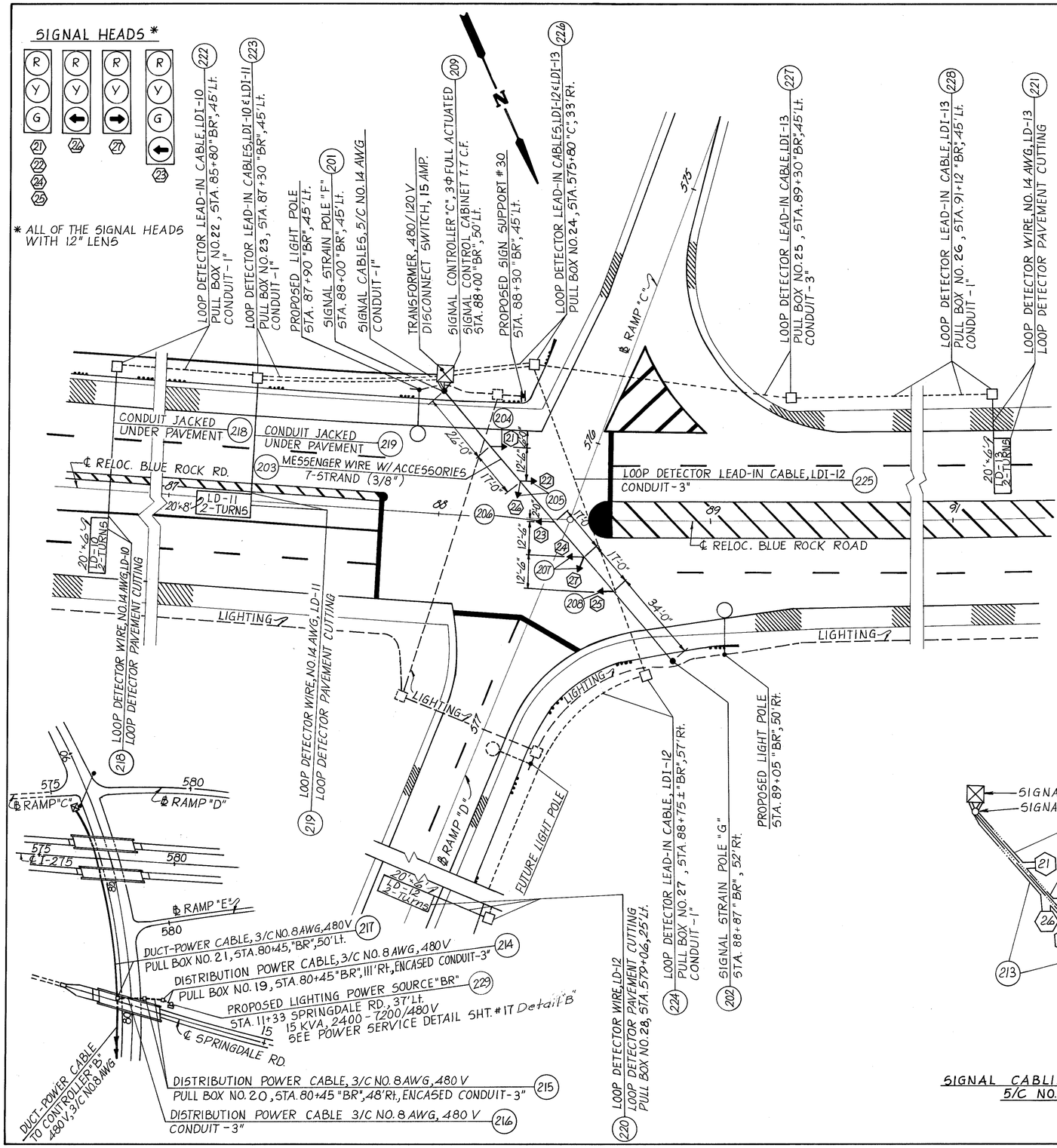
460
468

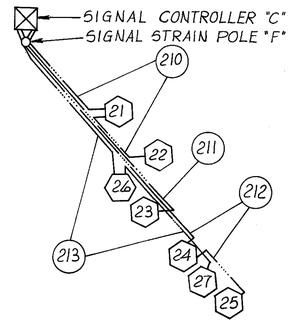
HAM-275-13.91
HAMILTON COUNTY

NOTE: • TRANSFORMER 480/120 V AND DISCONNECT SWITCH 15 AMP, SHALL BE USED TO FEED 120V TO ALL OF THE TRAFFIC SIGNALS AND BOTH OF THEM WILL BE PLACED IN CONTROL CABINET WITH CONTROLLER "C".

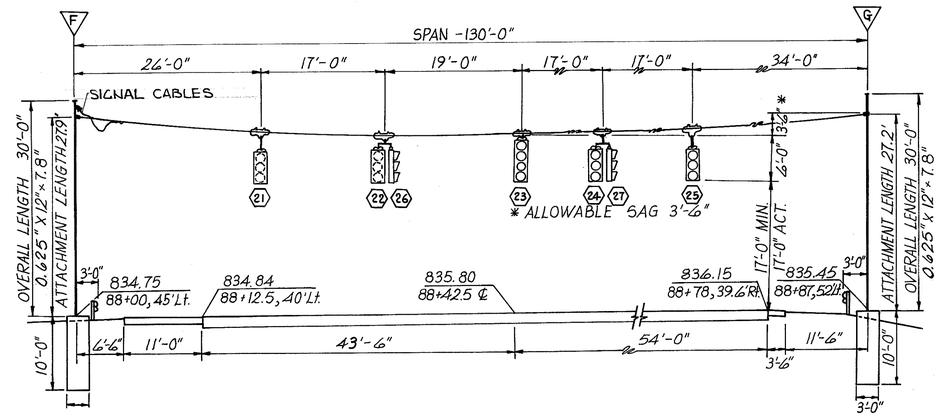
SIGNAL HEADS *

* ALL OF THE SIGNAL HEADS WITH 12" LENS





SIGNAL CABLING DIAGRAM
5/C NO. 14 AWG

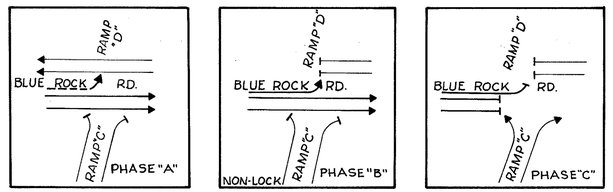


NOTE: 2
THE COVERING OF TRAFFIC SIGNAL HEADS # 23, # 26 AND # 27 SHALL BE MAINTAINED IN PLACE AT ALL TIMES WHILE TRAFFIC IS USING THE RELOC. BLUE ROCK RD. AND UNTIL THE MAINLINE I-275 SECTION IS READY TO USE FOR TRAFFIC

NOTE: 3
IN THE EVENT ℄B IS CALLED, ℄C SHALL AUTOMATICALLY FOLLOW

PHASE	A		B		C	
MOVEMENT	R/W	CL	R/W	CL	R/W	CL
SIGNAL						
21	G	Y	R	R	R	R
22	G	Y	R	R	R	R
23	G	G	←	Y	R	R
24	G	G	G	Y	R	R
25	G	G	G	Y	R	R
26	R	R	R	R	←	Y
27	R	R	R	R	→	Y

TIMING INTERVAL	A	B	C
INITIAL	18	16	15
VEHICAL	4	4	4
MAXIMUM	41	39	38
YELLOW	4	3	4
ALL RED			



PHASING SEQUENCE

11
19

INTERSECTION OF BLUE ROCK RD & RAMPS C & D

TRAFFIC SIGNAL PLAN

SUB-SUMMARY TRAFFIC SIGNAL QUANTITIES

DIST.	STATE		
2	OHIO		

(461 468)

HAM-275-13.91
HAMILTON COUNTY

INTERSECTION OF RELOC. BLUE ROCK ROAD AND RAMPS "C" & "D"

INTERSECTION No. 3

REFERENCE NO.	STATION TO STATION AND LOCATION	SIGNAL STRAIN POLE 0.025"X12"x30' EACH	CONTROL CENTER "BR" LUMP	MESSENGER WIRE WITH ACCESSORIES 7/STRAND (28') L.F.	CONCRETE FOR ANCHOR BASE C.Y.	FOUNDATIONS CONCRETE FOR CABINET FOUNDATIONS C.Y.	VEHICULAR SIGNAL HEAD 3 SECTION, 12"LENS ONE WAY EACH	VEHICULAR SIGNAL HEAD 3 SECTION, 12"LENS TWO WAY EACH	COVERING OF TRAFFIC SIGNAL EACH	VEHICULAR SIGNAL HEAD 4 SECTION, 12"LENS ONE WAY EACH	CONNECTOR KIT TYPE I EACH	CONNECTOR KIT TYPE VII B EACH	TRANSFORMER 480/120V EACH	DISCONNECT SWITCH, 15AMP EACH	WEATHER HEAD AND CONDUIT RISER (2") EACH	SIGNAL CONTROLLER 3φ FULL ACTUATED W/CABINET EACH	LOOP DETECTOR AMPLIFIER EACH	SIGNAL CABLE 5/C NO.14 AWG L.F.	SIGNAL CONTROLLER 3φ, FULL ACTUATED W/CABINET (GROUSE HINDS BRAND) EACH	POWER CABLE 3/C NO.8 AWG L.F.	LOOP DETECTOR WIRE L.F.	LOOP DETECTOR LEAD-IN-CABLE L.F.	CABLE SUPPORT ASSEMBLY EACH	GROUND ROD EACH	LOOP DETECTOR PAVEMENT CUTTING L.F.	PULL BOX 18" CIRCULAR, 713.09 EACH	CONDUIT 3" 713.04, CONDUIT JACKED UNDER PAVEMENT 3" L.F.	CONDUIT 3" 713.04 ENCASED L.F.	CONDUIT 1" 713.04 L.F.	TRENCH L.F.
201	88+00 "BR", 45' Lt.	1			2.6																				1					
202	88+87 "BR", 52' Rt.	1			2.6																				1					
203	88+00 "BR" 45 Lt, 88+87 "BR" 52' Rt.			130																				1						
204	SIGNAL #21						1																							
205	SIGNAL #22 & 26							1	1																					
206	SIGNAL #23								1	1																				
207	SIGNAL #24 & 27							1	1																					
208	SIGNAL #25						1																							
209	88+00 "BR", 50' Lt.					0.9							1	1	1	1	2				1				1					
210	C "C" → P "F" → 21 → 22																	113												
211	C "C" → P "F" → 23																	122												
212	C "C" → P "F" → 24 → 25																	166												
213	C "C" → P "F" → 26 → 27																	192												
214	11+33 "SR", 3T Lt 80+45 "BR", 111' Rt.										2									40 *					1			30	30	
215	80+45 "BR", 111' Rt 80+45 "BR", 48' Rt										2									90 *					1			80	80	
216	80+45 "BR", 48' Rt 80+45 "BR", 50' Lt.																			108 *							98			98
217	80+45 "BR", 50' Lt 88+00 "BR", 50' Lt.											2								755 •					1					745
218	85+80 "BR" LD. - 10																				234		54				55			
219	87+30 "BR" LD. - 11																				216		58				42			
220	579+06 "D" LD. - 12																				162		54		1					
221	91+12 "BR" LD. - 13																				156		54							
222	85+80 "BR" 87+30 "BR" (LDI-10)																					160			1				150	150
223	87+30 "BR" 88+00 "BR" (LDI-10 & 11)																					160			1				70	70
224	579+06 "D" 88+75 "BR" (LDI-12)																					260			1				250	250
225	88+75 "BR", 57' Lt, 575+80 "C", 33' Rt. (LDI-2)																					135					125			125
226	575+80 "C" 88+00 "BR" (LDI-1 & 13)																					90			1				35	35
227	89+30 "BR" 575+80 "C" (LDI-3)																					100			1		90			90
228	91+12 "BR" 89+30 "BR" (LDI-3)																					192			1				182	182
229	11+33 SPRINGDALE RD., 3T Lt.		LUMP																											
																														1855
TOTAL		2	LUMP	130	5.2	0.9	2	2	3	1	4	2	1	1	1	1	2	593		238 * 755 •	768	1097	1	3	220	10	215	97	110	687

(12 19)

"C" - RAMP 'C', "D" - RAMP 'D' BR" - RELOCATED BLUE ROCK RD. "SR" - SPRINGDALE RD. • DUCT POWER CABLE * DISTRIBUTION POWER CABLE

SUB-SUMMARY TRAFFIC SIGNAL QUANTITIES

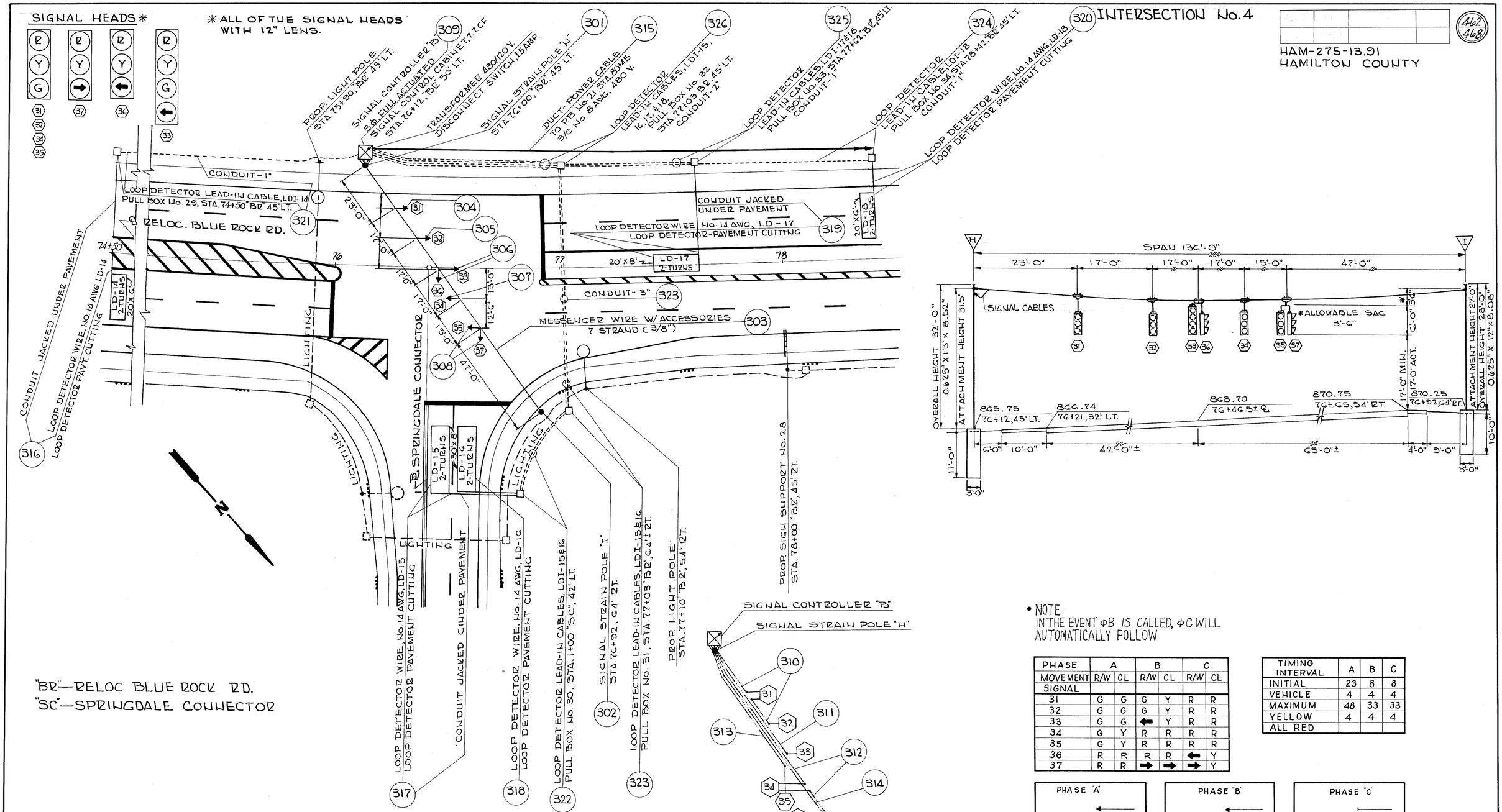
INTERSECTION No. 4

HAM-275-13.91
HAMILTON COUNTY

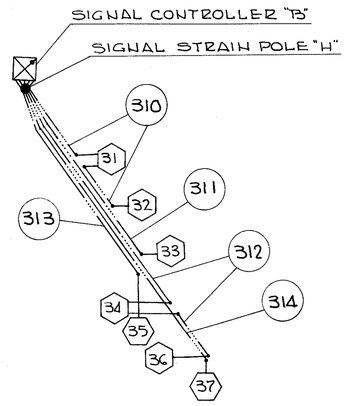
462
468

SIGNAL HEADS *

* ALL OF THE SIGNAL HEADS WITH 12" LENS.



NOTE:
TRANSFORMER 480/120 V. AND DISCONNECT SWITCH, 15 AMP. SHALL BE USED TO FEED 120 V. TO ALL OF THE TRAFFIC SIGNALS, AND BOTH OF THEM SHALL BE PLACED IN CONTROL CABINET WITH CONTROLLER "B".

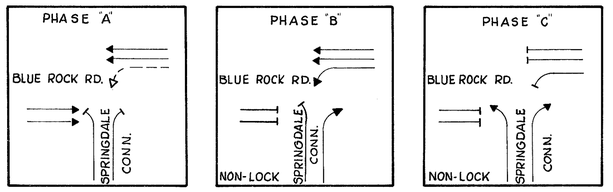


SIGNAL CABLING DIAGRAM
5/C No. 14 AWG

• NOTE
IN THE EVENT ΦB IS CALLED, ΦC WILL AUTOMATICALLY FOLLOW

PHASE	A		B		C	
MOVEMENT	R/W	CL	R/W	CL	R/W	CL
SIGNAL						
31	G	G	G	Y	R	R
32	G	G	G	Y	R	R
33	G	G	←	Y	R	R
34	G	Y	R	R	R	R
35	G	Y	R	R	R	R
36	R	R	R	R	←	Y
37	R	R	→	→	→	Y

TIMING INTERVAL	A	B	C
INITIAL	23	8	8
VEHICLE	4	4	4
MAXIMUM	48	33	33
YELLOW	4	4	4
ALL RED			



PHASING SEQUENCE

13
19

INTERSECTION OF BLUE ROCK RD. AND SPRINGDALE CONN.

TRAFFIC SIGNAL PLAN

SUB-SUMMARY TRAFFIC SIGNAL QUANTITIES

HAM-275-13.91
HAMILTON COUNTY

463
468

INTERSECTION OF RELOC. BLUE ROCK RD. AND SPRINGDALE CONNECTOR — INTERSECTION No. 4

REFERENCE NO.	STATION TO STATION AND LOCATION	SIGNAL STRAIN POLE 0.625"x12"x28" EACH	SIGNAL STRAIN POLE 0.625"x13"x32" EACH	MESSENGER WIRE WITH ACCESSORIES 7/STRAND(3/8") L.F.	CONCRETE FOR ANCHOR BASE FOUNDATIONS C.Y.	CONCRETE FOR CABINET FOUNDATIONS C.Y.	VEHICULAR SIGNAL HEAD 3 SECTION, 12" LENS ONE WAY EACH	VEHICULAR SIGNAL HEAD 3 SECTION, 12" LENS TWO WAY EACH	VEHICULAR SIGNAL HEAD COMBINATION OF 1-3 SECTION, 12" LENS & 1-4 SECTION, 12" LENS TWO WAY EACH	TRANSFORMER 480/120V EACH	DISCONNECT SWITCH, 15AMP WEATHER HEAD AND CONDUIT RISER(2") EACH	SIGNAL CONTROLLER 36, FULL ACTUATED W/CABINET EACH	LOOP DETECTOR AMPLIFIER EACH	SIGNAL CABLE 5/C NO.14 AWG L.F.	SIGNAL CONTROLLER 36, FULL ACTUATED W/CABINET (COUSE HINDS BRAND) EACH	POWER CABLE 3/C NO.8 AWG L.F.	LOOP DETECTOR WIRE L.F.	LOOP DETECTOR LEAD-IN-CABLE L.F.	CABLE SUPPORT ASSEMBLY EACH	GROUND ROD EACH	LOOP DETECTOR PAVEMENT CUTTING L.F.	PULL BOX 18" CIRCULAR, 713.09 EACH	CONDUIT JACKED UNDER PAVEMENT EACH	CONDUIT 3" 713.04 L.F.	CONDUIT 2" 713.04 L.F.	CONDUIT 1" 713.04 L.F.	TRENCH L.F.
301	76+12 "BR", 45' LT.		1		2.9																1							
302	76+92 "BR", 64' RT.	1			2.6																1							
303	76+12 "BR", 45' LT. 76+92 "BR" RT.			136																1								
304	SIGNAL # 31						1																					
305	SIGNAL # 32						1																					
306	SIGNAL # 33 & 36								1																			
307	SIGNAL # 34						1																					
308	SIGNALS # 35 & 37							1																				
309	76+12 "BR", 50' LT.				0.9					1	1	1	1	2		1					1							
310	C "B" – PH – 31 – 32														110													
311	C "B" – PH – 33														117													
312	C "B" – PH – 34 – 35	SIGNAL CABLE													159													
313	C "B" – PH – 36	5/C NO.14 AWG.													117													
314	C "B" – PH – 37														149													
315	76+12 "BR", 80 145 "BR"																443 •											433
316	74+50 "BR", LD-14																	234			55		55					
317	1+00 "SC", LD-15																	236			78		30					
318	1+00 "SC" LD-16																	212			78		–					
319	77+42 "BR", LD-17																	222			58		38					
320	78+42 "BR", LD-18																	156			55		–					
321	74+50 "BR" 76+12 "BR"	(LDI-14)																	172						1			162	162
322	1+00 "SC" 77+03 "BR"	(LDI-15 & 16)																	110						1			45	45
323	77+03 RT. "BR" 77+03 LT. "BR"	(LDI-15 & 16)																	238						1		109		109
324	78+42 "BR" 77+62 "BR"	(LDI-18)																	90						1			80	80
325	77+62 "BR" 77+03 "BR"	(LDI-17 & 18)																	138						1			59	59
326	77+03 "BR" 76+12 "BR"	(LDI-15,16,17 & 18)																	404						1		91		91
																												979
TOTAL		1	1	136	5.5	0.9	3	1		1	1	1	1	2	652	443	1060	1152	1	3	321	6	123	109	91	346		

"BR"- BLUE ROCK ROAD, "SC"- SPRINGDALE CONNECTOR

• DUCT- POWER- CABLE

14
19

SUB-SUMMARY TRAFFIC SIGNAL QUANTITIES

INTERSECTION No. 5

HAM-275-13.51
HAMILTON COUNTY

464
468

SIGNAL HEADS * *ALL OF THE SIGNAL HEADS WITH 12" LENS

41 43 44 45 46 42

401 COMBINATION OF SIGNAL STRAIN POLE CENTER CONTROL POLE 37' CONTROL STA. 18+00, 40' LT. "SE"

407 SIGNAL CONTROLLER "S" & CONTROL CABINET 7.7'CF STA. 18+00, 45' LT. "SE"

424 LOOP DETECTOR LEAD-IN CABLES, LDI-20,21,22 & 23 PULL BOX No. 38 STA. 18+72 45' LT. SE. CONDUIT-2"

423 LOOP DETECTOR LEAD-IN CABLES LDI-22 & 23 PULL BOX No. 39 STA. 19+32 45' LT. SE CONDUIT-1"

422 LOOP DETECTOR LEAD-IN CABLE LDI-23, PULL BOX No. 40 STA. 20+82, 40' LT. "SE"

419 LOOP DETECTOR LEAD-IN CABLE, LDI-19 PULL BOX No. 35, STA. 16+50, 40' LT. "SE", CONDUIT-1"

LIGHTING POLE STA. 17+10, 36' LT. "SE"

CB 2-2-B STA. 17+45, 36' LT.

CB 2-2-B STA. 18+34, 36' LT.

15" TYPE C

CB 2-2-B STA. 21+04, 47' LT.

414 CONDUIT JACKED UNDER PAVEMENT

404 405 406

CONDUIT JACKED UNDER PAVEMENT

8 XG LD-23 3-TURNS

418 LOOP DETECTOR WIRE, LD-23 LOOP DETECTOR PAVEMENT CUTTING

20'x8' 2-TURNS LD-22

417 LOOP DETECTOR WIRE LD-22 LOOP DETECTOR PAVEMENT CUTTING

3 TURNS, LD-19

8 XG

℄ SPRINGDALE RD.

LIGHTING

403 MESSENGER WIRE, W/ACCESSORIES 7 STRAND (3/8")

414 LOOP DETECTOR WIRE, LD-19 LOOP DETECTOR PAVT. CUTTING

406

LIGHT POLE STA. 18+90, 29' RT. "SE"

421 LOOP DETECTOR LEAD-IN CABLES, LDI-20 & 21 PULL BOX No. 37, STA. 18+72, 40' RT. "SE" CONDUIT- 3"

402 SIGNAL STRAIN POLE "K" STA. 18+60, 40' RT. "SE"

℄ SPRINGDALE CONN.

30'x8'

2-TURNS LD-20

2-TURNS LD-21

420 LOOP DETECTOR LEAD-IN CABLE, LDI-20 & 21 PULL BOX No. 36, STA. 9+00, 40' RT. "SE" CONDUIT-1"

LIGHTING

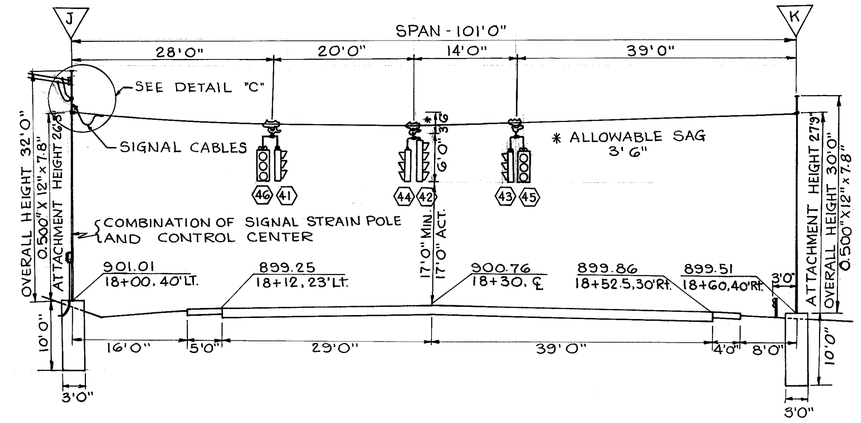
416 LOOP DETECTOR WIRE, LD-21 LOOP DETECTOR PAVEMENT

CONDUIT JACKED UNDER PAVEMENT

415 LOOP DETECTOR WIRE, LD-20 LOOP DETECTOR PAVEMENT CUTTING

"SE" SPRINGDALE ROAD
"SC" SPRINGDALE CONNECTOR

N



COMBINATION STRAIN POLE "J" AND CONTROL CENTER POLE STA. 18+00, 45' LT., SPRINGDALE RD.

120V. SERVICE FROM C.G.&E.

WEATHER HEAD

CONDUIT SUPPORTS SPACED A MAXIMUM OF 5'-0" APART.

2" CONDUIT

30 AMP. FUSED SAFETY DISCONNECT SWITCH WITH FULLY LOCKABLE NEMA TYPE 4 ENCLOSURE.

5'-0" TO GRADE LEVEL

SPAN WIRE CLAMP

3 BOLT CLAMP OR PREFORMED GUY-GRIP

STRAIN INSULATOR

MESSENGER WIRE

SIGNAL CABLE

PREFORMED GUY-GRIPS

1'-5" MIN.
1'-0"
1'-0"
20'0" MIN.
26'-3"

2" LB FITTING

No. 4 INSULATED STRAND COPPER GROUND WIRE

GROUND ROD

413 POWER CABLE TO CONTROLLER "S"

DETAIL "C"

COMBINATION OF SIGNAL STRAIN POLE & CONTROL CENTER
NO. SCALE

CONTROL PANEL No. 1

INCOMING 120 V

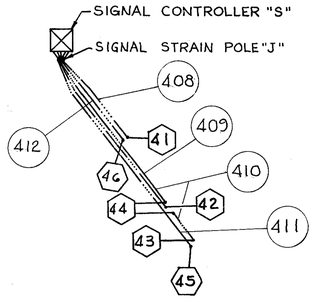
30 AMP. FUSED 2-POLE DISCONNECT SWITCH

FUTURE

GROUND ROD

POWER TO CONTROLLER "S"

SINGLE UNIT
120 V, 2 WIRE GROUNDED NEUTRAL
NO. SCALE

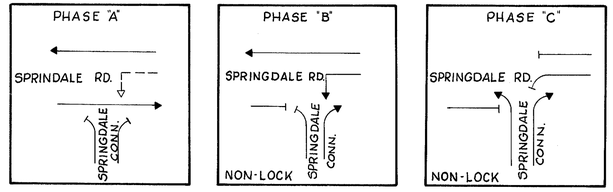


SIGNAL CABLING DIAGRAM
5/C No. 14 AWG.
NO SCALE

•NOTE
IN THE EVENT ΦB IS CALLED, ΦC WILL AUTOMATICALLY FOLLOW

PHASE	A		B		C	
MOVEMENT	R/W	CL	R/W	CL	R/W	CL
SIGNAL						
41	G	G	G	Y	R	R
42	G	G	←	Y	R	R
43	G	Y	R	R	R	R
44	G	Y	R	R	R	R
45	R	R	→	→	→	Y
46	R	R	R	R	←	Y

TIMING INTERVAL	A	B	C
INITIAL	18	15	15
VEHICLE	4	4	4
MAXIMUM	57	54	54
YELLOW	4	4	4
ALL RED			



PHASING SEQUENCE

INTERSECTION OF SPRINGDALE RD. AND SPRINGDALE CONN.

15/19

TRAFFIC SIGNAL PLAN

SUB-SUMMARY TRAFFIC SIGNAL QUANTITIES

FED. ROAD DIV. NO.	STATE	PROJECT	FED. AID PROJ. NO.
2	OHIO		

465
468

HAM-275-13.91
HAMILTON COUNTY

INTERSECTION OF RELOC. SPRINGDALE RD. AND SPRINGDALE CONNECTOR — INTERSECTION NO. 5

REFERENCE NO.	STATION TO STATION AND LOCATION	SIGNAL STRAIN POLE 0.500"X12"x 32' EACH	SIGNAL STRAIN POLE 0.500"X12"x 30' EACH	CONTROL CENTER "J" LUMP	MESSENGER WIRE WITH ACCESSORIES 7 STRAND (3/8") L.F.	CONCRETE FOR ANCHOR BASE FOUNDATIONS C.Y.	CONCRETE FOR CABINET FOUNDATIONS C.Y.	VEHICULAR SIGNAL HEAD 3 SECTION, 12" LENS TWO WAY EACH	VEHICULAR SIGNAL HEAD COMBINATION OF 1-3 SECTION, 12" LENS & 1-4 SECTION, 12" LENS TWO WAY EACH	WEATHER HEAD AND CONDUIT RISER (2") EACH	SIGNAL CONTROLLER 3Ø, FULL ACTUATED W/CABINET EACH	LOOP DETECTOR AMPLIFIER EACH	SIGNAL CABLE 5/C NO.14 AWG L.F.	SIGNAL CONTROLLER 3Ø, FULL ACTUATED W/CABINET (CROUSE HINDS BRAND) EACH	POWER CABLE 3/C NO.8 AWG L.F.	LOOP DETECTOR WIRE L.F.	LOOP DETECTOR LEAD-IN-CABLE L.F.	CABLE SUPPORT ASSEMBLY EACH	GROUND ROD EACH	LOOP DETECTOR PAVEMENT CUTTING L.F.	PULL BOX 18" CIRCULAR 7.13.09 EACH	CONDUIT JACKED UNDER PAVEMENT L.F.	CONDUIT 3" 7.13.04 L.F.	CONDUIT 2" 7.13.04 L.F.	CONDUIT 1" 7.13.04 L.F.	TRENCH L.F.
401	18+00, 40' LT. "SR"	1		LUMP		2.6														1							
402	18+60, 40' RT. "SR"		1			2.6														1							
403	18+00, 40' LT. 18+60, 40' RT. SR				101																						
404	SIGNALS No. 41 & 46							1											1								
405	SIGNALS No. 42 & 44								1																		
406	SIGNALS No. 43 & 45							1																			
407	18+00, 45 LT. "SR"						0.9			1	1	2		1					1								
408	C "S" → P "J" → 41												88														
409	C "S" → P "J" → 42												108														
410	C "S" → P "J" → 44 → 43												132														
411	C "S" → P "J" → 45												122														
412	C "S" → P "J" → 46												88														
	SIGNAL CABLE 5/C NO. 14 AWG																										
413	POWER CABLE															50 *											
414	16+50 "SR" LD-19																188			30		40					
415	9+00 "SC" LD-20																232			78		28					
416	9+00 "SC" LD-21																208			78		—					
417	19+32 "SR" LD-22																200			58		32					
418	20+82 "SR" LD-23																138			30		—					
419	16+50, 40' LT. SR 18+00, 45' LT. "SR" (LDI-19)																	160			1			150	150		
420	9+00, 40' RT. "SC" 18+72, 40' RT. "SR" (LDI-20 & 21)																	170			1			75	75		
421	18+72, 40' RT. "SR" 18+72, 45' LT. "SR" (LDI-20 & 21)																	190			1		85		85		
422	20+82, 40' LT. SR 19+32, 45' LT. SR (LDI-23)																	160			1			150	150		
423	19+32, 45' LT. SR 18+72, 45' LT. SR (LDI-22 & 23)																	140			1			60	60		
424	18+72, 45' LT. SR 18+00, 45' LT. SR (LDI-20, 21, 22, & 23)																	328			1				72	72	
																										592	
	TOTAL	1	1	LUMP	101	5.2	0.9	2	1	1	1	2	538			50 *	966	1148	1	3	274	6	100	85	72	435	

16
19

"SC" - SPRINGDALE CONNECTOR "SR" - SPRINGDALE ROAD * DISTRIBUTION - POWER CABLE

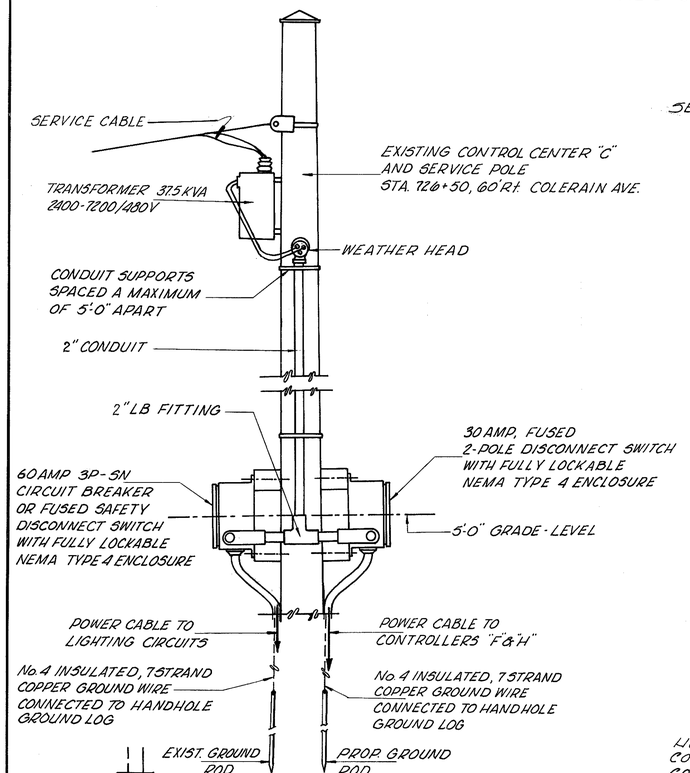
SUB-SUMMARY TRAFFIC SIGNAL QUANTITIES

FED. NO. DIVISION	STATE	PROJECT	
2	OHIO		

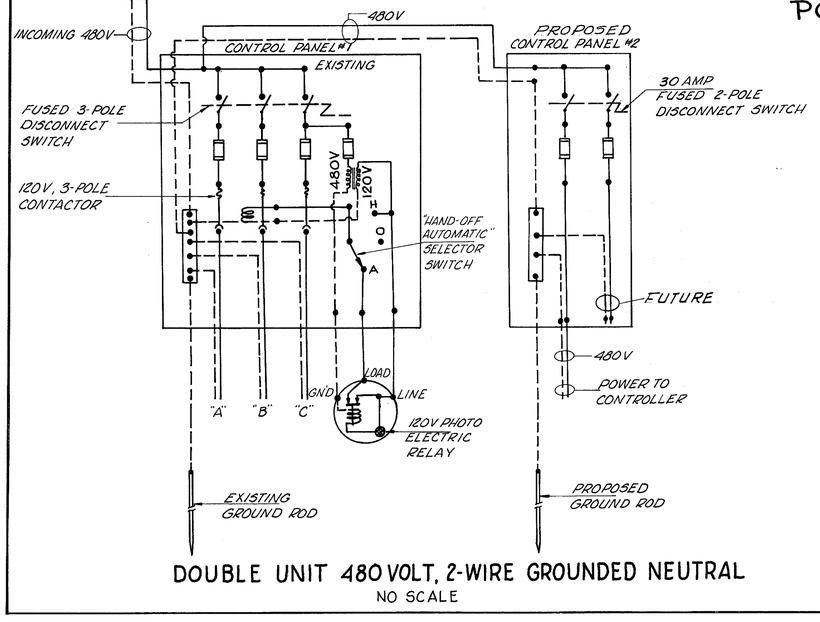
HAM. -275 -13.91
HAMILTON COUNTY

466
468

EXISTING LIGHTING SIDE — PROPOSED TRAFFIC SIGNALS SIDE

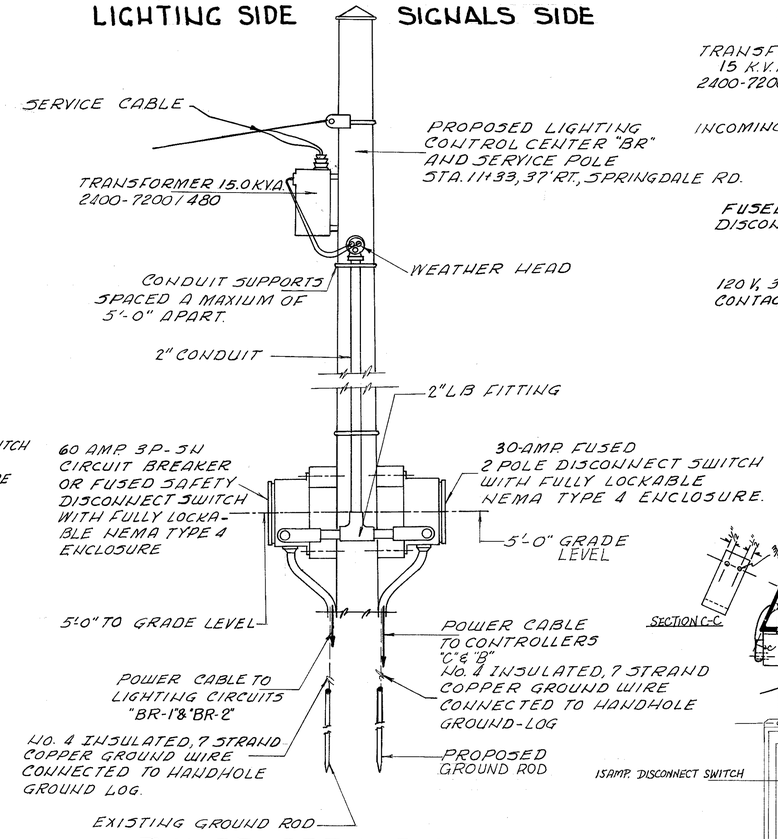


POWER SERVICE DETAILS "A"
NO SCALE

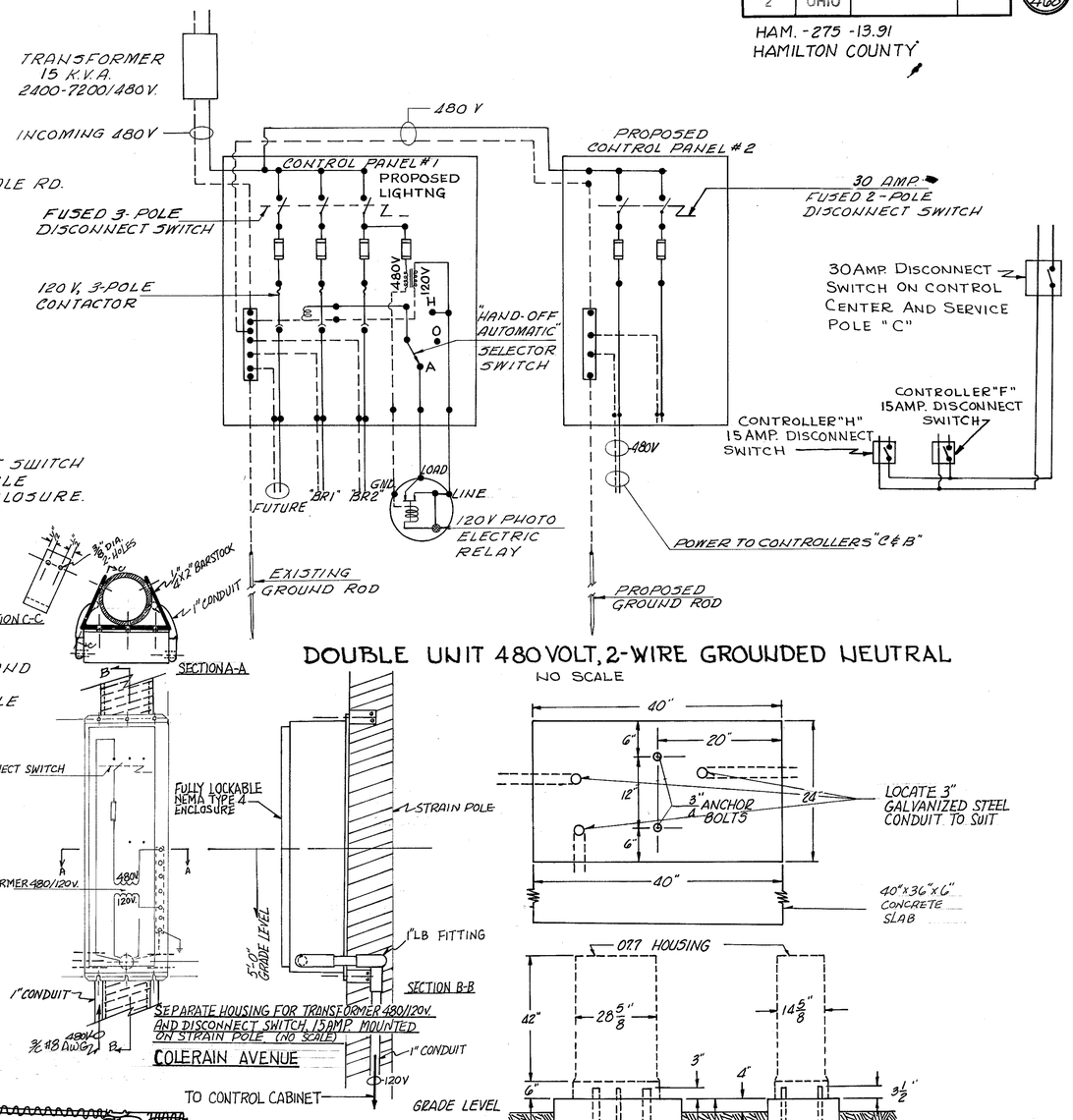


DOUBLE UNIT 480 VOLT, 2-WIRE GROUNDED NEUTRAL
NO SCALE

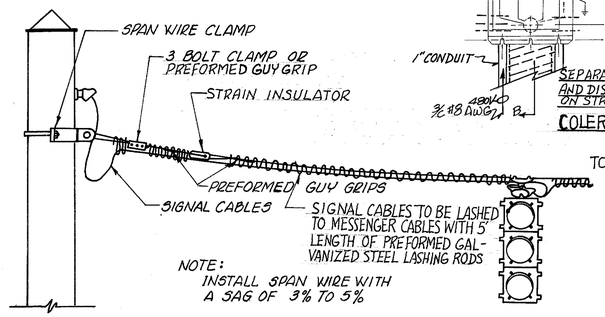
PROPOSED LIGHTING SIDE — PROPOSED TRAFFIC SIGNALS SIDE



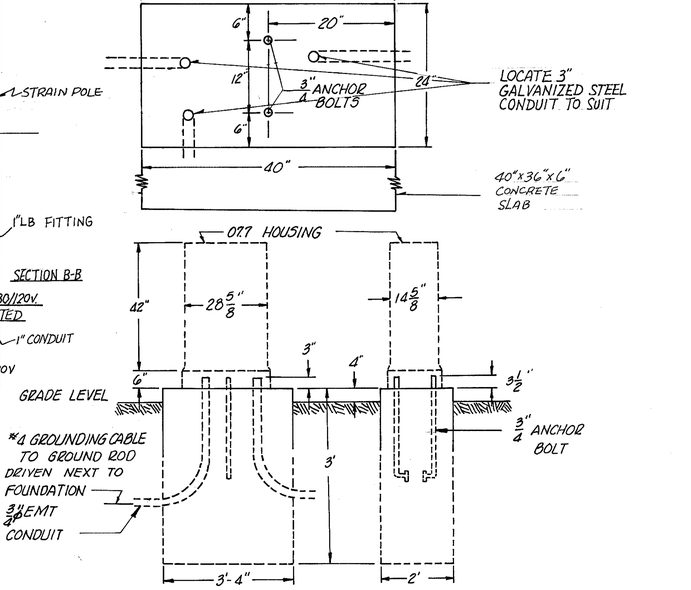
POWER SERVICE DETAILS "B"
NO SCALE



DOUBLE UNIT 480 VOLT, 2-WIRE GROUNDED NEUTRAL
NO SCALE



MESSENGER WIRE INSTALLATION DETAILS
NO SCALE



FOUNDATION DETAILS FOR 7.7 CF CONTROL CABINET
NO SCALE

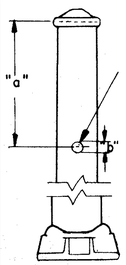
17
19

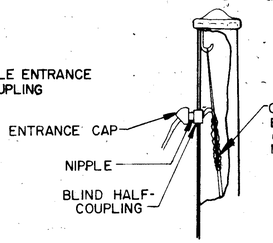
TRAFFIC SIGNAL SPECIAL DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

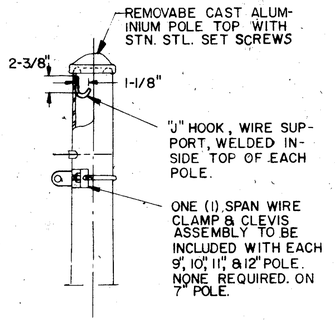
467-468

HAM.-275-13.91
HAMILTON COUNTY





TYPICAL CABLE STRAIN RELIEF & ENTRANCE CAP DETAILS



POLE TOP DETAILS

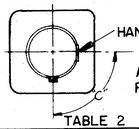
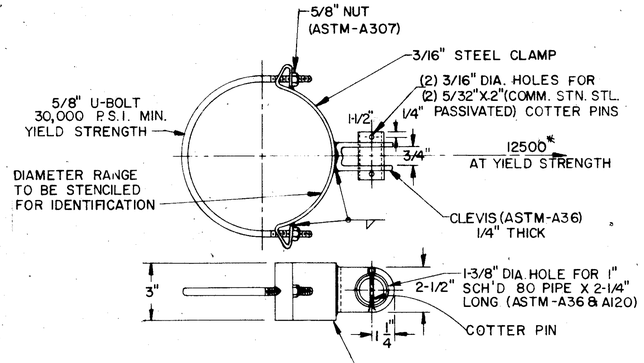


TABLE 2

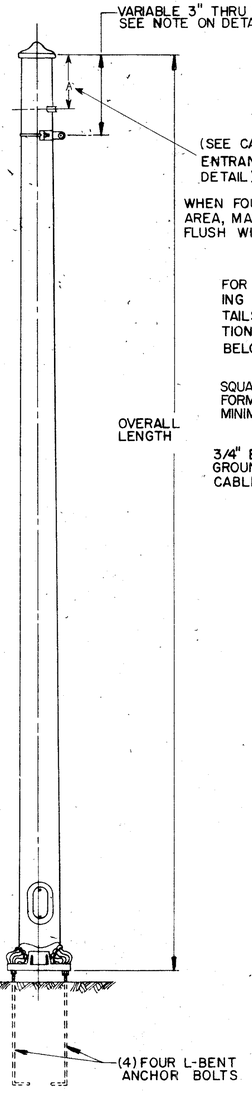
CONFIG.	"a"	"b"	"c"
A	30"	2"	90°
B	30"	2"	180°
C	30"	2"	270°
D	48"	2"	90°
E	48"	2"	180°
F	48"	2"	270°
G	NO HOLE REQUIRED		

CABLE ENTRANCE LOCATION DETAIL

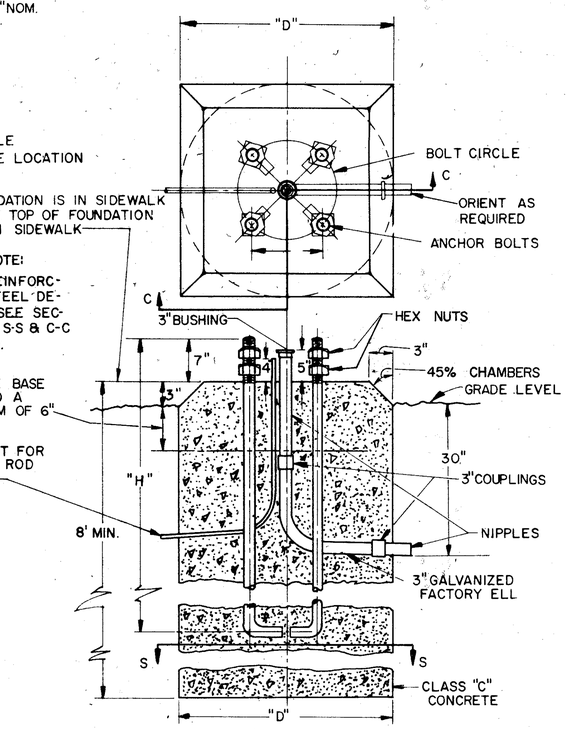


TYPE	CLAMP RANGE MIN.	CLAMP RANGE MAX.
I	3.1"	3.6"
II	3.6"	4.4"
III	4.4"	5.2"
IV	5.2"	5.8"
V	5.8"	6.8"
VI	6.8"	7.9"
VII	7.9"	9.0"
VIII	9.0"	10.1"
IX	10.1"	11.3"
X	11.3"	12.1"
XI	12.1"	13.4"
XII	13.4"	14.5"
XIII	14.5"	15.5"
XIV	15.5"	16.5"

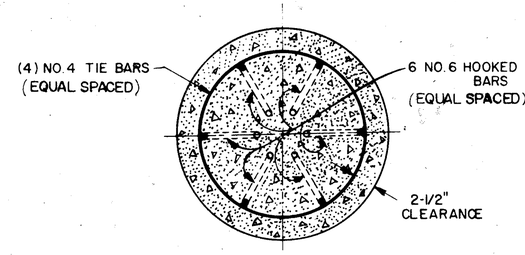
SPAN WIRE CLAMP DETAILS



STEEL STRAIN POLE



TYPICAL STRAIN POLE FOUNDATION



SECTION - S-S

NOTES:

MATERIAL SPECIFICATIONS

1. TAPERED TUBES (S.A.E.-1020 STEEL PROCESSED TO MINIMUM YIELD STRESS OF 55,000 P.S.I.
2. CAST ANCHOR BASE & HANDHOLE FRAME - ASTM-A27-GRADE 65-35.
3. HANDHOLE COVER PLATE - 11 GA. STEEL SAE-1015
4. CAST ALUMINUM POLE TOP - ALUMINUM ALLOY 43
5. SPAN WIRE CLAMP - LOW ALLOY, HIGH STRENGTH STEEL ASTM-A242 - OR 375, LOAD PRODUCING DISTORTION 12,500 LBS. DIRECT TENSION
6. ALL BOLTS & NUTS LESS THAN 5/8" DIA. PASSIVATED STAINLESS STEEL AISI-300 SERIES - COMMERCIAL GRADE.
7. ALL OTHER NUTS & BOLTS 5/8" DIA. & OVER - ASTM-A307 AND GALVANIZED IN ACCORDANCE WITH ASTM-A153
8. ANCHOR BASE & U-BOLTS - HIGH STRENGTH STEEL - MINIMUM YIELD STRESS 55,000 LBS. SQ. IN. - MIN. ULTIMATE 90,000 P.S.I.
9. WELDING ROD - ASTM-A233 - CLASS E60XX OR 70XX.
10. GALVANIZING - WHEN SPECIFIED ASTM-A123.

TRAFFIC SIGNAL POLE FOUNDATIONS

THE CONTRACTOR SHALL STAKE THE LONGITUDINAL AND LATERAL LOCATION, AND THE ELEVATION OF THE TOP OF EACH FOUNDATION SUBJECT TO THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER ELEVATION, OFFSET, AND LEVEL OF EACH FOUNDATION. THE FOUNDATION LOCATIONS MAY BE CHANGED AS DIRECTED BY THE ENGINEER, IN CASE OF SLOPE OR SUBSURFACE DIFFICULTIES.

EXCAVATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 503. EXCAVATION SHALL BE TO THE DIMENSIONS SHOWN ON THE PLANS, AND SHALL BE PERFORMED BY MEANS OF AN EARTH AUGER OF THE SPECIFIED DIA. UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

WHERE SUBSURFACE OBSTRUCTIONS ARE ENCOUNTERED, THE ENGINEER MAY REQUIRE THE CONTRACTOR TO REMOVE THE OBSTRUCTION OR TO REPLACE THE EXCAVATED MATERIAL AND RELOCATE THE FOUNDATION.

IF CAVING OF THE EXCAVATION OCCURS, THE CONTRACTOR SHALL EXCAVATE THE SPECIFIED DEPTH MAINTAINING THE THE SIDES AS NEARLY VERTICAL AS POSSIBLE. NO PAYMENT SHALL BE MADE FOR ANY EXCAVTION, CONCRETE, OR REINFORCING STEEL USED IN EXCESS OF THE PLAN QUANTITES.

CONCRETE, CLASS C, SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 511, AND SHALL BE PLACED AGAINST UNDISTURBED SOIL OR COMPACTED EMBANKMENT. STEEL REINFORCEMENT BARS, WHERE REQUIRED, SHALL BE POSITIONED AS SHOWN ON THE PLANS AND PLACED IN ACCORDANCE WITH ITEM 509.

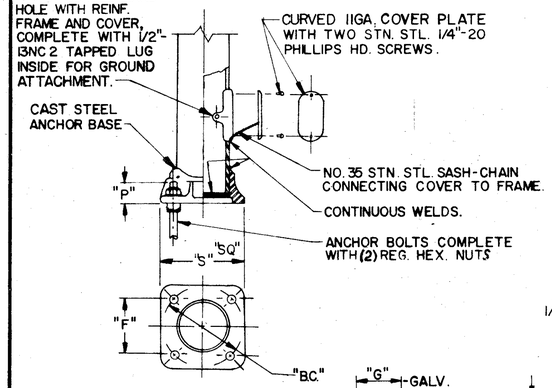
CYLINDRICAL ANCHOR BASE TYPE FOUNDATIONS FOR TRAFFIC SIGNAL POLES SHALL HAVE ANCHOR BOLTS AND CONDUIT ACCURATELY HELD IN POSITION WITH A TEMPLET WHILE CONCRETE IS PLACED. FORMS SHALL BE USED FOR THE UPPER PORTIONS OF ALL FOUNDATIONS AND NO BACKFILLING SHALL BE PERMITTED FROM THE BOTTOM TO SIX INCHES BELOW THE GRADE LEVEL. NO GROUTING OF CONCRETE SHALL BE PERMITTED BETWEEN THE FOUNDATION TOP AND THE POLE BASE.

TRAFFIC SIGNAL POLE

WHERE A WIRE ENTRANCE IS REQUIRED, THE SERVICE ENTRANCE HEAD SHALL BE LOCATED APPROXIMATELY 12" BELOW SPAN WIRE CLAMP.

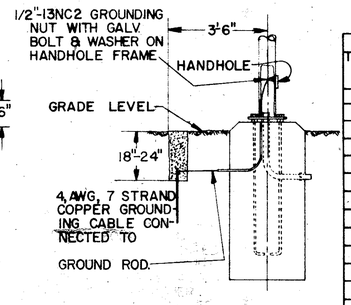
GROUND ROD

GROUND ROD SHALL BE IN ACCORDANCE WITH TYPICAL GROUND ROD DETAIL AND TESTED IN ACCORDANCE WITH 625.22 "CONSTRUCTION AND MATERIAL SPECIFICATIONS."



ANCHOR BASE DATA					ANCHOR BOLT DATA			
POLE DIA.	"BC."	"F"	"S"	"P"	SIZE	"L"	"T"	"G"
7"	10"	7 1/16	10 1/2"	2 1/4"	H/4" X 48"	42"	8"	10"
9"	12-1/2"	8-7/8"	12-3/4"	3"	1-1/2" X 60"	54"	9"	11"
10"	13-1/2"	9-9/16"	14-1/8"	3-3/8"	1-1/2" X 60"	54"	9"	11"
11"	15"	10-5/8"	15-5/8"	3-5/8"	1-3/4" X 90"	84"	9"	11"
12"	16"	11-5/16"	17"	4"	1-3/4" X 90"	84"	9"	11"

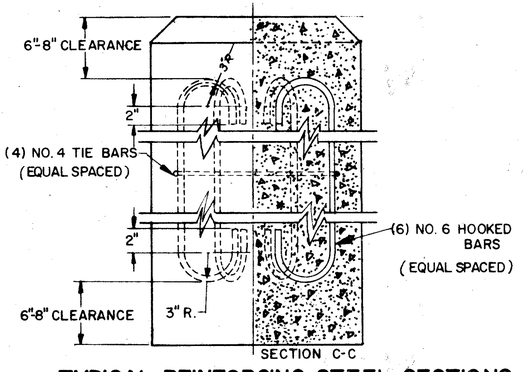
TYPICAL HANDHOLE, ANCHOR BASE & ANCHOR BOLT DETAILS



TYPICAL GROUND ROD DETAIL

TYPE	BASE DIA.	TOP DIA.	OVERALL LENGTH	WALL THICKNESS	DESIGN DATA FOR TRANSVERSE LOAD AT 18" DOWN FROM TOP ELAST DEFL. RATE	ELD. AT YIELD STRENGTH	"H"	"D"
1	7.0"	4.20	20.0'	(3 GA.) .250"	.59"/100#	2135#	42"	24"
2	9.0"	5.36"	26.0'		.64"/100#	2730#	54"	24"
3	10.0"	6.36"			.44"/100#	3400#	54"	24"
4	11.0"	7.36"			.32"/100#	4140#	84"	30"
5	12.0"	8.36"			.24"/100#	4960#	84"	36"
6	9.0"	5.08"	28.0'		.84"/100#	2520#	54"	24"
7	10.0"	6.08"			.54"/100#	3140#	54"	24"
8	11.0"	7.08"			.41"/100#	3850#	84"	30"
9	12.0"	8.08"			.31"/100#	4590#	84"	36"
10	9.0"	4.80"	30.0'		1.10"/100#	2350#	54"	24"
11	10.0	5.80"			.74"/100#	2920#	54"	24"
12	11.0"	6.80"			.53"/100#	3560#	84"	30"
13	12.0	7.80"			.39"/100#	4260#	84"	36"

STRAIN POLE TYPES



SECTION C-C

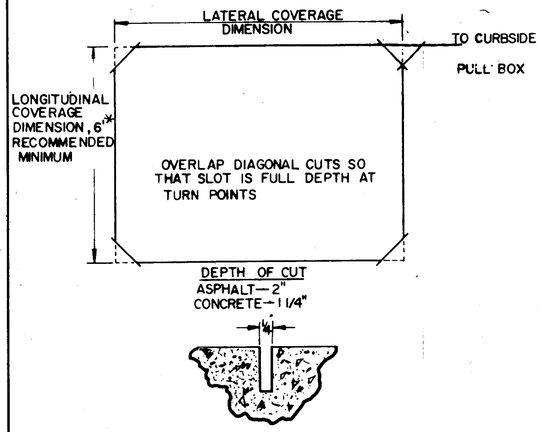
TYPICAL REINFORCING STEEL SECTIONS

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

STEEL STRAIN POLE & FOUNDATION DETAILS

APPROVED _____
ENGINEER OF TRAFFIC

18/19



SOLID LINES SHOW SAW CUTS USED TO ACCOMODATE ROADWAY WIRE LOOP. DOTTED LINES SHOW UNUSED SAW CUTS.

FIGURE 1
TYPICAL LOOP SLOT CONSTRUCTION

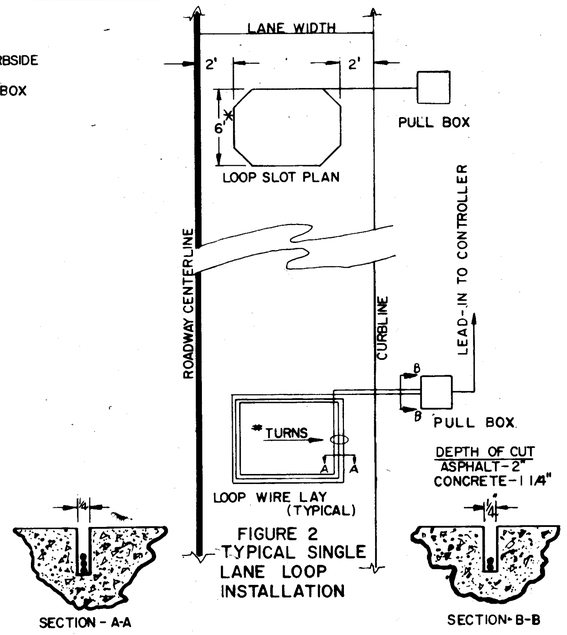


FIGURE 2
TYPICAL SINGLE LANE LOOP INSTALLATION

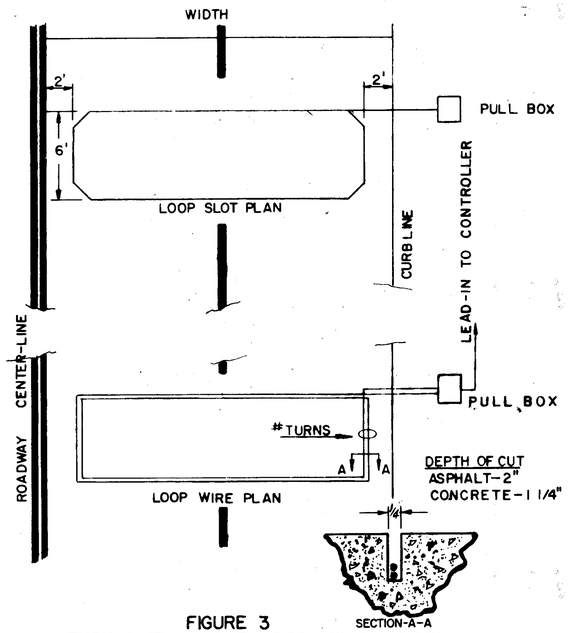


FIGURE 3
TYPICAL TWO LANE LOOP INSTALLATION

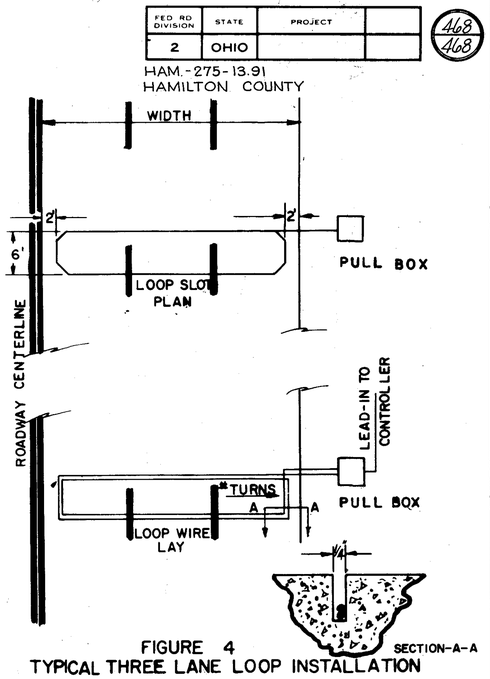


FIGURE 4
TYPICAL THREE LANE LOOP INSTALLATION

TABLE-1 ROADWAY LOOP CONSTRUCTION

LOOP PERIMETER	NO. OF TURNS
UP TO 40 FEET	3
40 TO 160 FEET	2
160 AND UP	1

MAINTAIN 6' MINIMUM DIMENSION IN DIRECTION OF TRAVEL.

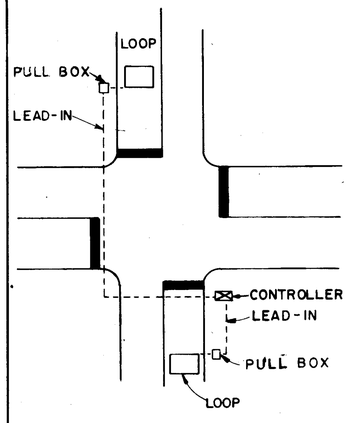
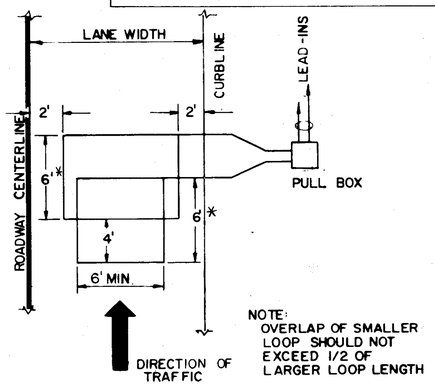


FIGURE 5
TYPICAL LEAD-IN DETAIL



NOTE:
OVERLAP OF SMALLER LOOP SHOULD NOT EXCEED 1/2 OF LARGER LOOP LENGTH

FIGURE 6
TYPICAL DIRECTIONAL DETECTION LOOP INSTALLATION (OVERLAPPED)

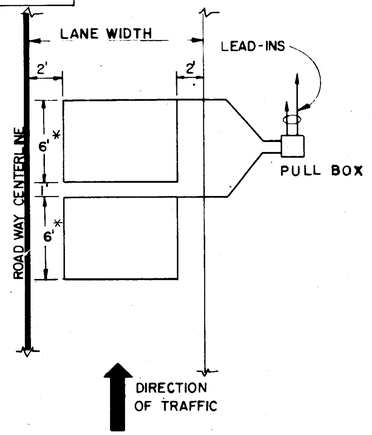
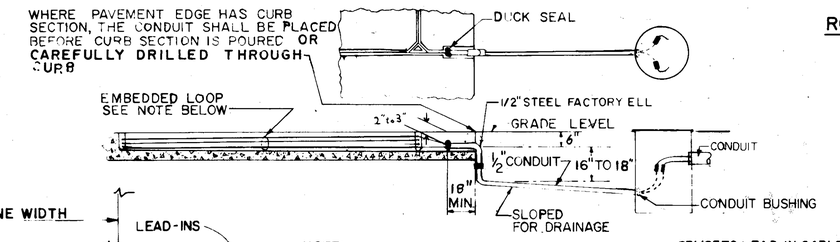


FIGURE 7
TYPICAL DIRECTIONAL DETECTION LOOP INSTALLATION (ADJACENT)



NOTE:
IT IS EXTREMELY IMPORTANT THAT THE SAWED SLOT BE THOROUGHLY CLEANED AND COMPLETELY DRY BEFORE APPLYING SLOT SEALER

SPLICE TO LEAD IN CABLE BY SOLDERING AND APPLYING WATERPROOF SPLICING KIT

FIGURE 8
INTERFACE BETWEEN EMBEDDED LOOP AND ROAD SIDE PULL BOX

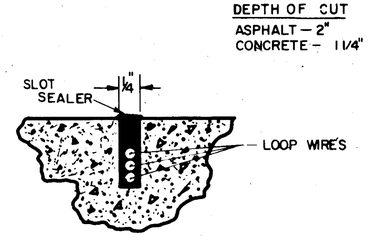


FIGURE 9
TYPICAL SLOT SEALING DETAIL

ROADWAY LOOP INSTALLATION

THE ROADWAY WIRE LOOP IS POSITIONED IN THE PAVEMENT IN A SAWED SLOT THAT OUTLINES THE REQUIRED DETECTION AREA. THE SLOT **SHALL** BE 1/4" WIDE AND FROM 1 1/4" **OR** 2" DEEP. RIGHT ANGLE TURNS **SHALL** BE CHAMFERED TO PREVENT SHARP BENDS OF WIRE (SEE FIG. 1). THE SLOT MUST BE BRUSHED AND BLOWN CLEAN OF ALL LOOSE MATERIAL. THE LOOP WIRE MUST BE CAREFULLY PUSHED INTO THE SLOT WITH A BLUNT STICK TO AVOID DAMAGING ITS INSULATION. RESISTANCE OF THE WIRE LOOP TO GROUND SHOULD BE CHECKED AFTER THE WIRE IS PLACED IN THE SLOT, BOTH BEFORE AND AFTER THE SLOT IS SEALED. THIS IS ESPECIALLY IMPORTANT IF THE ROADWAY WIRE LOOP IS SPLICED TO LEAD-IN CABLE AT CURBSIDE JUNCTION BOX. A RESISTANCE OF LESS THAN 10 MEGOHMS INDICATES A FAULTY SPLICE OR WIRE INSTALLATION WHICH MUST BE CORRECTED BEFORE THE ROADWAY LOOP IS SEALED IN PLACE.

INSTALLATIONS IN NEW ASPHALT PAVEMENT SHALL BE MADE IN THE SUBBASE PRIOR TO PLACING THE TOP COURSE.

SEALING

A FLEXIBLE EMBEDDING SEALANT NO. 491-HP MANUFACTURED BY EUCLID CHEMICAL CO. OF CLEVELAND, OHIO OR *E-702* MANUFACTURED BY *THE BONDO CORP. OF NORTHFORD*, CONNECTICUT OR EQUIVALENT. SHALL BE MIXED ACCORDING TO DIRECTIONS, POURED INTO THE SAW SLOTS AND LEFT UNDISTURBED UNTIL CURED INTO A SOLID MASS.

*DIMENSIONS

IN CASES WHERE THE LATERAL DIMENSION WOULD BE LESS THAN EIGHT (8) FEET, THE LONGITUDINAL DIMENSION SHALL BE INCREASED TO OBTAIN A MINIMUM AREA OF 48 S.F.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

EMBEDDED VEHICLE DETECTOR LOOP DETAILS

Rev 11-3-67
Rev 6-1-71
Rev 2-3-72

APPROVED _____
ENGINEER OF TRAFFIC

19
19

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500-7-68

GENERAL INFORMATION

INTRODUCTION

THIS REPORT CONSISTS OF THE SOILS INVESTIGATION OF 2.3 MILES OF IR 275, BEGINNING IMMEDIATELY NORTH OF THE BLUE ROCK ROAD-SPRINGDALE ROAD INTERSECTION, EXTENDING NORTHEASTWARD AND TERMINATING AT USR 27, APPROXIMATELY 0.6 MILE NORTH OF SPRINGDALE ROAD. THE SOIL PROFILES INCLUDED IN THIS REPORT ARE LISTED IN THE PROJECT INDEX ON THIS SHEET.

FOR MAXIMUM PROPOSED CUTS AND FILL EMBANKMENTS, SEE THE PROJECT INDEX ON THIS SHEET.

GEOLOGY AND OBSERVATIONS OF THE PROJECT

THE PROJECT IS LOCATED ON THE DISSECTED LEXINGTON PENEPLAIN, IN AN AREA WHERE MODERATELY THICK TO THIN GLACIAL DRIFT OVERLIES INTERBEDDED SHALE AND LIMESTONE BEDROCK, OF ORDOVICIAN AGE. ROCK EXPOSURES WERE OBSERVED IN CREEKS AND SMALL TRIBUTARIES THROUGHOUT THE PROJECT.

EXPLORATION

EXPLORATORY BORINGS WERE MADE BY MEANS OF TRUCK-MOUNTED MECHANICAL SOIL AUGER, HAND AUGER (IN DIFFICULT ACCESS AREAS) AND ROTARY-TYPE DRILL RIG, BETWEEN NOVEMBER 4 AND 11, 1970 AND ON MAY 25, 1971. INCLUDED IN THIS REPORT ARE LOGS OF BORINGS MADE FOR THE STRUCTURE FOUNDATION INVESTIGATIONS AND A PORTION OF THIS PROJECT THAT WAS PREVIOUSLY TRANSMITTED.

INVESTIGATIONAL FINDINGS

MATERIALS ENCOUNTERED ON THE PROJECT WERE PREDOMINANTLY COMPRISED OF SILT CLAYS (A-6a AND A-6b) AND CLAY (A-7-6), GENERALLY HAVING MOISTURE CONTENTS IN THE LOWER PORTIONS OF THE PLASTIC RANGE.

INTERBEDDED SHALE AND LIMESTONE ARE ANTICIPATED IN THE FOLLOWING EXCAVATION AREAS:

IR 275-
STATIONS 574+50 TO 575+00 - POSSIBLY IN THE RIGHT DITCH.

STATIONS 586+00 TO 598+00 - AT BOTH GRADES AND IN THE DITCHES AND LOWER PORTIONS OF THE BACKSLOPES.

STATIONS 611+75 TO 615+75 - AT BOTH GRADES AND IN THE DITCHES AND LOWER PORTIONS OF THE BACKSLOPES.

STATIONS 621+25 TO 623+00 - AT BOTH GRADES AND IN THE DITCHES AND RIGHT BACKSLOPE.

STATIONS 630+50 TO 642+50 - AT BOTH GRADES AND IN THE DITCHES AND BACKSLOPES.

STATIONS 654+50 TO 659+50 - AT BOTH GRADES AND IN THE DITCHES.

STATIONS 664+00 TO 666+50 - POSSIBLY IN THE DITCHES.

STATIONS 682+00 TO 690+00 - AT BOTH GRADES AND IN THE DITCHES AND BACKSLOPES.

BLUE ROCK ROAD-
STATIONS 76+00 TO 83+00 - AT GRADE AND IN THE DITCHES AND LOWER PORTIONS OF THE BACKSLOPES.

RAMP E-
STATIONS 586+00 TO 591+80 - AT GRADE AND IN THE RIGHT DITCH AND RIGHT BACKSLOPE.

SHEITS ROAD-
STATIONS 20+50 TO 23+00 - POSSIBLY AT GRADE AND IN THE DITCHES.

STATIONS 24+50 TO 26+00 - AT GRADE AND IN THE DITCHES.

RAMP I-
STATIONS 682+00 TO 688+00 - AT GRADE AND IN THE RIGHT DITCH AND RIGHT BACKSLOPE.

WET MATERIAL WAS ENCOUNTERED AT IR 275 STATION 670+00.

ELASTIC CLAY WAS ENCOUNTERED AT IR 275 STATION 675+00.

LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS— 25 SAMPLES TESTED

DESCRIPTION	H.R.B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
GRAVEL AND/OR STONE FRAGMENTS	A-1-a(0)	A-1-a	72	17	5	3	3	NP	NP	6	3
COARSE AND FINE SAND	------	A-3a	15	31	35	12	7	NP	NP	18	1
GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT	A-2-4(0)	A-2-4	59	6	5	15	15	NP	NP	12	1
GRAVEL AND/OR STONE FRAGMENTS WITH SAND, SILT, AND CLAY	A-2-6(0)	A-2-6	49	6	10	16	19	29	11	11	1
SANDY SILT	A-4(4)	A-4a	18	10	16	28	28	29	4	17	9
SILT	A-4(8)	A-4b	0	2	3	53	42	34	9	19	4
SILT AND CLAY	A-6(7)	A-6a	20	6	8	28	38	34	13	17	76
SILTY CLAY	A-6(10)	A-6b	15	6	10	27	42	30	18	18	61
ELASTIC CLAY	A-7-5(20)	A-7-5	5	1	3	21	69	64	30	30	6
CLAY	A-7-6(15)	A-7-6	8	3	6	27	56	49	26	24	91
BOULDERS			VISUAL CLASSIFICATION								-
WEATHERED SHALE			VISUAL CLASSIFICATION								2
SHALE			VISUAL CLASSIFICATION								1
LIMESTONE			VISUAL CLASSIFICATION								-
VARIOUS OTHER MATERIALS			VISUAL CLASSIFICATION								-

SOD AND/OR TOPSOIL-"X"=APPROXIMATE DEPTH.

BEAM MATERIAL.

AUGER BORING-PLAN VIEW.

DRIVE SAMPLE AND/OR CORE BORING-PLAN VIEW.

AUGER BORING PLOTTED TO VERTICAL SCALE ONLY.

DRIVE SAMPLE AND/OR CORE BORING PLOTTED TO VERTICAL SCALE ONLY.

FREE WATER. B INDICATES BROKEN ROCK INTERVAL.

NUMBER OF BLOWS FOR "STANDARD PENETRATION" TEST.
X=NUMBER OF BLOWS FOR FIRST 6 INCHES.
Y=NUMBER OF BLOWS FOR SECOND 6 INCHES.

INDICATES BORINGS TAKEN FROM HAM-50B-7.58, HAM-50B-11.41, HAM-50B-13.08 AND RELATED STRUCTURES

NOTE: FIGURES BESIDE BORINGS INDICATE WATER CONTENT IN PERCENT, E.G. 22

Soil Information - All available soil and bedrock information which can be conveniently shown on the soil profile and/or structure foundation investigation sheets has been so reported. Additional subsurface investigation may have been made to study some special aspect of the project. Copies of this data, if any, may be inspected in the District Deputy Director's Office, the Bureau of Tests at 1600 West Broad Street, the Pavement and Soils Section of the Bureau of Roadway Design or in the Bridge Bureau at 25 South Front Street.

Rev. 8-22-75

SOIL PROFILE

HAMILTON COUNTY

HAM-275-13.91

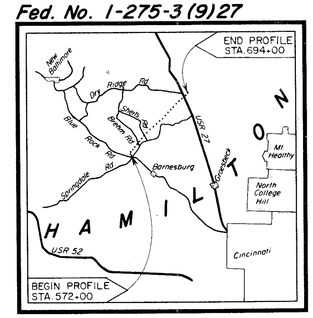
OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS, OHIO 43223

1/30

1/17

NOTE: INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS OBTAINED SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. THE STATE OF OHIO DOES NOT GUARANTEE THE ACCURACY OF THIS DATA AND IT IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT.

Fed. No. I-275-3(9)27



LOCATION MAP

Recon.- JSM - 9/17/70 & 3/8/71

Auger- T.R.S., J.W.P.- 11/4 to 11/10 & 5/25/71

DS-Core - C.A.P.- 11/10 & 11/70

Drafting - L.N.L.- 7/13/71

PROJECT INDEX

STATIONS FROM		STATIONS TO	PLAN VIEW SHEET	PROFILE SHEET	CUT MAX.	FILL EMP. MAX.
IR 275						
572+00	-	604+00	4	5	30'	53'
604+00	-	636+00	6	6	41'	63'
636+00	-	668+00	7	7	42'	70'
668+00	-	694+00	8	9	31'	30'
RELOCATED BLUE ROCK ROAD						
75+00	-	114+00	4	9	36'	25'
RAMP 'C'						
564+64	-	576+29	4	11	33'	-
RAMP 'D'						
576+16	-	590+01	4	11	26'	40'
RAMP 'E'						
578+34	-	591+75	4	11	26'	37'
SPRINGDALE ROAD						
7+30	-	28+00	4	12	7'	7'
SPRINGDALE CONNECTOR						
0+00	-	10+09	4	12	9'	20'
BREHM ROAD						
45+01	-	55+20	4	12	9'	2'
SHEITS ROAD						
20+00	-	32+39	4	12	13'	47'
COLERAIN AVENUE						
706+00	-	731+00	8	13	-	13'
RAMP 'J'						
676+00	-	690+23	8	13	18'	26'
RAMP 'H'						
674+63	-	688+88	8	13	10'	31'
RAMP 'I'						
673+25	-	688+56	8	13	32'	24'
RAMP 'G'						
678+97	-	686+50	8	14	6'	3'
DRY RIDGE ROAD						
10+60	-	20+67	8	14	5'	3'
HOLLIS DRIVE EXTENSION						
4+78	-	10+77	8	14	1'	2'

SOIL PROFILE
HAMILTON COUNTY
HAM-275-13.91

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W BROAD ST. COLUMBUS 23, OHIO

(2/30) (2/17)

SUMMARY OF SOIL TEST DATA

NOTE: NP SHOWN IN LIQUID LIMIT AND PLASTICITY INDEX COLUMNS INDICATES THAT THE MATERIAL IS NON-PLASTIC.
*DENOTES SAMPLE TAKEN AT OR NEAR GRADE.

STATION & OFFSET	DEPTH FROM	TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
MAINLINE											
575+00 CL	0.2-5.0	25	10	4	26	35	39	18	14		A-6b *
	5.0-10.0	19	10	18	26	27	26	7	9		A-4a
580+00 CL	0.2-5.0	49	6	10	16	19	29	11	11		A-2-6
	5.0-10.0	19	7	5	29	40	35	14	18		A-6a
583+00 CL	0.2-2.5	38	6	4	22	30	37	15	12		A-6a
587+00 CL	0.0-6.0	1	2	4	27	66	57	28	28		A-7-6
	6.0-12.0	0	1	3	32	64	52	24	23		A-7-6
	12.0-16.0	41	8	8	17	26	32	11	10		A-6a
591+00 CL	0.2-7.0	10	1	1	22	66	63	30	34		A-7-5
	7.0-12.0	32	11	8	19	30	32	11	13		A-6a
	12.0-17.0	59	6	5	15	15	NP	NP	12		A-2-4
	17.0-23.0	33	8	8	24	27	29	11	7		A-6a
593+00 CL	0.2-5.0	0	2	4	32	62	40	14	39		A-6a
	5.0-10.0	0	4	4	28	64	48	14	23		A-7-5
	10.0-12.0	38	8	5	20	29	33	11	12		A-6a
595+50 CL	0.2-5.0	10	1	2	22	65	70	30	35		A-7-5
	5.0-8.0	6	12	7	25	50	42	19	19		A-7-6
599+00 CL	0.0-5.0	26	12	12	19	31	30	9	10		A-4a
	5.0-10.0	37	5	5	23	30	33	13	14		A-6a
	10.0-14.0	39	6	5	20	30	31	11	11		A-6a
605+00 CL	0.2-2.0	20	2	5	25	48	52	24	26		A-7-6
607+30 CL	0.0-6.0	21	6	7	27	39	41	18	26		A-7-6
610+00 CL	0.2-5.0	25	14	12	19	30	28	9	9		A-4a
613+50 CL	0.2-5.0	30	12	14	7	37	29	11	10		A-6a
	5.0-10.0	41	7	6	20	26	34	15	12		A-6a
	10.0-15.0	45	6	5	21	23	30	12	9		A-6a
	15.0-21.0	31	5	10	16	38	33	11	13		A-6a
617+00 CL	0.2-5.0	28	6	9	22	35	34	11	17		A-6a
618+40 CL	0.2-5.0	27	10	11	24	28	36	16	13		A-6b
	5.0-11.0	22	9	14	31	24	37	11	13		A-6a*
	11.0-17.0	47	4	4	20	25	38	16	16		A-6a
622+00 CL	0.5-2.0	31	14	9	15	31	33	17	8		A-6b
622+50 CL	0.5-2.5	41	9	6	14	30	37	18	10		A-6b
626+10 CL	0.5-3.0	21	6	4	20	49	42	18	15		A-7-6
	3.0-6.0	0	1	1	42	56	37	14	17		A-6a
	6.0-7.0	0	1	5	41	53	36	12	21		A-6a
629+40 CL	0.5-5.0	13	3	3	27	54	53	25	16		A-7-6*
633+00 CL	0.2-5.0	0	2	4	30	64	45	16	23		A-7-6
	5.0-10.0	27	8	11	15	39	38	15	19		A-6a
	10.0-15.0	49	8	5	12	26	34	14	9		A-6a
	15.0-17.0	52	4	6	15	23	32	11	11		A-6a
	17.0-20.0	24	5	10	16	45	34	13	7		A-6a
636+00 CL	0.2-5.0	51	4	6	11	28	37	14	12		A-6a
	5.0-8.0	10	6	10	25	49	31	11	16		A-6a
639+00 CL	0.2-5.0	0	2	4	30	64	47	19	24		A-7-6
	5.0-10.0	45	6	5	15	29	37	17	15		A-6b
	10.0-15.0	39	4	7	22	28	37	14	13		A-6a
	15.0-20.0	23	8	8	24	37	36	13	11		A-6a
641+00 CL	0.2-5.0	0	2	3	29	66	54	25	23		A-7-6
	5.0-10.0	17	4	4	26	49	35	12	16		A-6a
	10.0-15.0	39	4	8	18	31	31	11	12		A-6a
	15.0-17.0	37	9	6	17	31	36	14	11		A-6a
646+00 CL	0.5-4.0	15	3	6	26	50	42	18	16		A-7-6
650+75 10'Rt	0.5-2.5	4	6	15	8	67	43	16	17		A-7-6
655+00 CL	0.5-3.0	0	1	2	46	51	38	13	23		A-6b
	3.0-7.0	33	4	4	22	37	39	14	19		A-6a
657+50 CL	0.5-3.0	0	1	2	56	41	35	9	17		A-4b
	3.0-6.0	0	2	3	40	55	40	14	20		A-6a
	6.0-11.0	19	7	10	21	43	32	11	16		A-6a
	11.0-16.0	19	4	4	25	48	41	17	17		A-7-6
	16.0-19.5	34	5	8	19	34	35	15	14		A-6a

STATION & OFFSET	DEPTH FROM	TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
662+00 CL	0.5-4.0	0	2	4	46	48	38	13	18		A-6a
	4.0-6.0	0	3	17	41	39	24	11	18		A-6a
	6.0-11.0	0	3	39	49	9	NP	NP	12		A-4a
665+50 CL	0.5-4.5	0	2	3	51	44	33	8	20		A-4b
	4.5-7.0	0	3	7	29	61	42	20	24		A-7-6
	7.0-10.0	0	2	6	32	60	58	33	30		A-7-6
	10.0-13.0	27	1	3	20	49	52	23	26		A-7-6
	13.0-18.0	18	5	7	24	46	39	17	12		A-6b
	18.0-22.0	31	6	8	15	40	35	15	16		A-6a
	22.0-23.5	11	3	5	23	58	44	17	17		A-7-6
670+00 CL	0.5-5.0	1	3	11	26	59	49	22	22		A-7-6
	5.0-10.0	7	3	8	28	54	45	21	21		A-7-6
	10.0-11.5	0	3	7	50	40	33	8	19		A-4a
	11.5-13.0	1	2	31	48	18	NP	NP	20		A-4a
	13.0-15.0	15	31	35	12	7	NP	NP	18		A-3a
675+00 CL	0.5-3.0	0	2	3	50	45	35	13	16		A-6a
	3.0-8.0	0	2	3	55	40	36	11	22		A-6a
	8.0-10.0	0	3	4	34	59	49	22	24		A-7-6
	10.0-14.5	45	4	4	16	31	42	20	19		A-7-6*
	14.5-20.0	13	3	5	21	58	48	17	24		A-7-5
677+50 CL	0.5-5.0	9	5	6	21	59	53	29	23		A-7-6
	5.0-10.0	17	6	13	23	41	32	14	17		A-6a*
	10.0-15.0	8	6	12	28	46	36	16	16		A-6b
679+00 CL	0.5-4.0	15	5	15	27	38	35	17	21		A-6b
	4.0-8.0	11	6	13	27	43	35	18	20		A-6b
	8.0-13.0	1	1	2	23	73	49	29	29		A-7-6
	13.0-15.0	0	2	3	25	70	49	26	27		A-7-6
684+00 CL	0.5-3.0	0	1	1	58	40	39	14	18		A-6a
	3.0-7.0	0	1	1	55	43	33	9	20		A-4b
	7.0-8.5	0	2	5	27	66	48	22	27		A-7-6
	8.5-11.5	0	2	6	35	57	34	11	17		A-6a
	11.5-13.0	18	8	7	28	39	31	11	14		A-6a
689+31 CL	0.5-5.0	63	21	8	4	4	NP	NP	4		A-1-a *
	5.0-10.0	92	6	1	0	1	NP	NP	3		A-1-a
690+00 CL	0.5-4.0	0	4	4	46	46	40	15	29		A-6a
	4.0-7.0	49	7	5	12	27	32	11	13		A-6a
	7.0-9.0	GRAY BROKEN SHALE				-	NP	NP	6		VISUAL
692+10 CL	0.5-4.0	0	4	6	29	61	41	15	17		A-7-6
	4.0-9.0	31	4	5	18	42	44	20	29		A-7-6
	9.0-14.0	13	8	12	22	45	38	16	13		A-6b*
	14.0-15.0	25	6	5	26	38	32	13	12		A-6a
BLUE ROCK ROAD											
76+40 CL	0.2-6.0	20	2	3	19	56	55	29	23		A-7-6
84+00 CL	0.2-5.0	0	3	15	31	51	44	27	16		A-7-6*
	5.0-8.5	4	7	17	27	45	43	25	17		A-7-6*
88+50 CL	0.3-6.0	0	3	13	25	59	49	28	20		A-7-6*
	6.0-12.0	13	5	14	29	39	39	13	15		A-6a
99+50 CL	0.0-3.5	10	4	15	27	44	46	27	22		A-7-6 *
102+00 CL	0.0-4.5	0	2	12	56	30	29	11	24		A-6a
103+50 CL	0.3-5.0	15	3	3	35	44	44	33	20		A-7-6 *
	5.0-7.5	26	5	4	26	39	45	24	21		A-7-6
105+60 CL	0.0-3.0	0	1	3	34	62	48	29	19		A-7-6
114+00 10'Lt	0.0-5.5	6	3	3	40	46	39	20	20		A-6a *
RAMP D											
578+00 BL	0.2-5.5	0	0	2	35	63	50	27	20		A-7-6
581+00 50'Rt	0.2-6.0	0	1	4	21	74	68	39	24		A-7-6
	6.0-9.5	6	1	2	44	47	39	20	20		A-6b
585+00 40'Lt	0.0-3.0	22	2	3	24	49	50	28	23		A-7-6
588+50 BL	0.2-4.0	0	1	4	34	61	53	28	25		A-7-6
	4.0-9.0	19	8	15	20	38	31	14	14		A-6a

STATION & OFFSET	DEPTH FROM	TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
RAMP E											
582+00 BL	0.0-2.0	35	5	6	27	27	41	20	29		A-7-6
	2.0-5.0	6	9	19	23	43	32	18	14		A-6b
584+50 BL	0.2-5.0	0	1	6	19	74	62	35	26		A-7-6*
	5.0-9.0	4	5	13	27	51	36	20	15		A-6b
591+00 50'Rt	0.2-6.0	0	2	4	21	73	63	36	25		A-7-6*
	6.0-9.0	15	8	9	26	42	34	18	12		A-6b*
SPRINGDALE ROAD											
21+50 35'Rt	0.3-4.0	0	2	4	51	43	36	18	25		A-6b
	4.0-10.0	12	6	8	18	56	51	27	30		A-7-6
28+00 50'Lt	0.2-4.0	0	1	1	63	35	47	25	23		A-7-6
	4.0-10.0	15	13	13	20	39	33	16	14		A-6b*
SPRINGDALE ROAD CONNECTOR											
1+00 CL	0.5-6.0	0	3	4	48	45	38	17	20		A-6b
	6.0-8.5	20	5	5	21	49	45	23	26		A-7-6
5+00 CL	0.2-6.0	0	0	10	37	53	45	22	26		A-7-6
6+50 30'Rt	0.0-5.0	21	4	7	28	40	39	19	22		A-6b
	5.0-7.5	0	3	8	24	65	59	35	27		A-7-6
7+00 40'Rt	0.2-5.0	0	3	8	33	56	40	20	19		A-6b
	5.0-7.0	10	6	12	28	44	40	21	17		A-6b
9+50 CL	0.3-3.0	0	2	3	46	49	35	14	20		A-6a
	3.0-6.0	0	1	4	16	79	62	33	31		A-7-6
	6.0-10.0	20	8	15	24	33	33	16	15		A-6b
BREHM ROAD											
46+50 CL	0.4-5.0	0	1	1	52	46	44	24	18		A-7-6
	5.0-7.0	0	1	2	20	77	59	34	25		A-7-6
54+40 15'Rt	0.0-5.5	5	5	5	39	46	43	22	17		A-7-6*
SHEITS ROAD											
21+00 CL	0.1-5.0	0	1	1	45	53	47	28	21		A-7-6
	5.0-10.5	0	2	7	33	58	39	20	18		A-6a
24+00 CL	0.2-5.0	18	6	9	23	44	40	20	18		A-6b*
	5.0-8.5	26	4	6	21	43	44	23	21		A-7-6
26+25 CL	0.3-6.0	8	4	7	27	54	50	31	21		A-7-6*
29+20 CL	0.6-4.5	17	7	5	24	47	44	26	27		A-7-6
31+25 CL	0.3-5.0	0	1	3	33	63	52	29	26		A-7-6*
	5.0-10.0	0	1	6	27	66	54	31	27		A-7-6
	10.0-14.0	0	1	7	26	66	56	33	26		A-7-6
COLERAIN AVENUE											
713+00 45'Lt	0.0-5.0	0	2	5	51	42	36	17	21		A-6b
	5.0-10.0	0	1	5	31	63	49	27	23		A-7-6
726+50 50'Rt	0.0-5.0	40	8	8	23	21	34	15	14		A-6a*
RAMP J											
658+00 BL	0.0-5.0	0	2	4	53	41	35	15	15		A-6a
	5.0-10.0	3	4	11	35	47	55	38	47		A-7-6
	10.0-12.0	4	3	16	27	50	43	29	17		A-7-6
687+00 25'Rt	0.2-6.0	0	1	4	53	42	35	15	22		A-6a
	6.0-12.0	4	2	4	31	59	53	29	26		A-7-6
	12.0-17.5	23	4	8	20	45	42	23	20		A-7-6
RAMP H											
681+00 BL	0.2-5.0	0	1	4	27	68	60	34	27		A-7-6
	5.0-9.5	19	7	14	22	38	36	18	17		A-6b*
687+75 BL	0.0-5.0	7	3	6	37	47	42	24	24		A-7-6
	5.0-10.0	18	9	9	16	48	36	19	18		A-6b
	10.0-12.0	18	4	6	36	36	38	19	24		A-6b

STATION & OFFSET	DEPTH FROM	TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
RAMP I											
678+25 BL	0.2-4.0	0	2	3	22	73	67	38	28		A-7-6*
	4.0-8.5	32	5	11	20	32	43	26	16		A-7-6
682+00 BL	0.2-6.0	0	5	4	38	53	32	12	19		A-6a
	6.0-11.0	27	5	8	23	37	36	18	17		A-6b
RAMP G											
685+00 10'Rt	0.0-5.0	0	1	3	58	38	35	16	25		A-6b*
	5.0-10.0	18	2	7	22	51	44	25	19		A-7-6
DRY RIDGE ROAD											
11+00 CL	0.2-5.5	0	1	2	52	45	37	19	17		A-6a*
	5.5-10.0	0	1	7	31	61	55	34	25		A-7-6*
14+50 CL	0.4-5.0	0	4	5	57	34	32	13	24		A-6a*
	5.0-8.5	0	2	7	43	48	54	31	25		A-7-6
18+00 CL	0.3-6.0	0	2	3	51	44	31	14	19		A-6a*
	6.0-12.0	0	1	1	24	74	68	41	35		A-7-6
20+00 CL	1.5-5.0	0	2	3	47	48	33	16	19		A-6b*
HOLLIS DRIVE EXTENSION											
0+00 CL	0.2-5.0	0	4	8	36	52	42	21	20		A-7-6*
	5.0-10.0	10	6	10	37	37	30	13	16		A-6a
10+60 CL	0.2-5.0	4	2	5	42	47	44	22	18		A-7-6*
	5.0-10.0	8	2	7	36	47	41	20	18		A-7-6
DRIVE SAMPLE SOIL TEST DATA											
MAINLINE											
574+21 175'Rt	5.0-6.0	33	4	7	16	40	38	16	26		A-6a
	10.0-11.0	0	6	4	40	50	35	15	19		A-6a
	15.0-16.0	32	8	5	21	34	32	12	21		A-6a
574+94 96'Rt	5.0-5.5	47	4	5	11	33	44	20	24		A-7-6
575+00 170'Lt	5.0-6.0	0	4	15	29	52	35	17	16		A-6b
	10.0-11.0	0	7	8	40	45	36	16	18		A-6b
	15.0-16.0	11	6	14	29	40	35	16	17		A-6b
	25.0-26.0	19	9	16	24	32	34	15	17		A-6a
	30.0-31.0	0	2	37	38	23	19	2	12		A-4a *
	35.0-36.0	14	5	6	26	49	42	20	17		A-7-6
575+21 98'Lt	5.0-6.0	0	3	14	30	53	40	18	18		A-6b
	7.5-8.5	2	4	19	32	43	35	17	21		A-6b
	10.0-11.0	21	6	13	23	37	40	21	17		A-6b
	12.5-13.5	8	6	19	29	38	32	14	16		A-6a
	15.0-16.0	7	6	16	35	36	35	15	25		A-6a
	17.5-18.5	10	10	16	21	43	42	21	28		A-7-6
	20.0-21.0	15	10	13	16	46	37	18	20		A-6b
	22.5-23.5	23	14	16	16	31	28	11	18		A-6a
	24.5-25.5	24	11	6	17	42	26	4	14		A-4a
588+00 CL	5.0-6.0	32	2	6	15	45	55	27	30		A-7-6
	10.0-11.0	8	18	14	18	42	38	11	31		A-6a
	15.0-15.5	38	4	5	22	31	36	15	21		A-6a
613+00 CL	5.0-6.0	5	0	12	32	51	37	16	18		A-6b
639+50 CL	5.0-6.0	6	9	19	22	44	32	13	19		A-6a
	10.0-11.0	29	12	17	16	26	NP	18			A-4a
	15.0-16.0	27	13	15	13	32	31	17	11		A-6b
656+95 5'Lt	5.0-6.0	0	1	2	19	78	71	40	29		A-7-5
	10.0-11.0	38	4	3	20	35	39	17	24		A-6a
665+50 CL	5.0-6.0	17	5	8	22	48	36	12	28		A-6a
	10.0-11.0	0	1	2	32	65	54	26	28		A-7-6
	15.0-16.0	20	0	6	30	44	42	17	25		A-7-6
686+50 CL	5.0-6.0	0	1	4	13	82	83	48	35		A-7-5
BLUE ROCK ROAD											
84+99 43'Rt	5.0-6.0	0	8	18	24	50	32	16	20		A-6b
	7.5-8.5	12	7	18	22	41	35	16	23		A-6b
	10.0-11.0	11	5	19	27	38	33	17	21		A-6a
	15.0-16.0	14	9	18	23	36	30	14	17		A-6a
	17.5-18.5	0	1	3	29	67	44	23	27		A-7-6
	20.0-21.0	0	2	8	27	63	41	21	28		A-7-6
86+87 44'Lt	5.0-6.0	13	7	20	24	36	35	19	22		A-6b
	7.5-8.5	4	10	40	14	32	28	12	18		A-6a
	10.0-11.0	8	19	17	18	38	30	14	22		A-6a
	12.5-13.0	41	13	9	10	27	-	-	20		A-4a
	15.0-16.0	28	4	6	18	44	45	23	22		A-7-6
	17.5-18.0	(3	3	1	34	62	36	18	17)		
	GR	WEATHERED SHALE									VISUAL

SOIL PROFILE

HAMILTON COUNTY

HAM-275-13.91

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3
17

SUMMARY OF SOIL TEST DATA

NOTE: NP SHOWN IN LIQUID LIMIT AND PLASTICITY INDEX COLUMNS INDICATES THAT THE MATERIAL IS NON-PLASTIC.
*DENOTES SAMPLE TAKEN AT OR NEAR GRADE.

STATION & OFFSET	DEPTH FROM	TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
91+00 150'Lt	5.0-6.0		6	5	18	30	41	38	21	19	A-6b
	10.0-11.0		18	6	15	24	37	46	28	19	A-7-6
	15.0-16.0		-	-	-	-	-	28	13	10	A-6a
	20.0-21.0		7	6	20	29	38	33	18	18	A-6b
	25.0-26.0		6	7	20	32	35	31	16	16	A-6b
	30.0-31.0		7	6	19	31	37	33	16	16	A-6b
96+00 75'Rt	2.5-3.5		0	3	18	26	53	49	27	21	A-7-6
	5.0-6.0		0	4	13	31	52	42	23	20	A-7-6
	10.0-11.0		4	3	18	33	42	35	21	15	A-6b
	15.0-16.0		29	5	11	29	26	35	21	17	A-6b
	20.0-21.0		5	6	19	30	40	34	20	14	A-6b
	25.0-26.0		9	6	19	29	37	31	17	15	A-6b
	30.0-31.0		12	7	19	30	32	30	15	15	A-6a
	35.0-36.0		5	6	20	32	37	29	16	16	A-6b
	40.0-41.0		7	9	21	29	34	34	21	18	A-6a*
	45.0-46.0		8	7	20	31	34	28	14	16	A-6a
SPRINGDALE ROAD											
8+72 25'Lt	5.0-6.0		0	8	13	27	52	37	18	20	A-6b
	10.0-10.7		17	9	17	18	39	32	14	15	A-6a
	15.0-15.6		23	6	9	16	46	33	14	18	A-6a
11+18 20'Rt	5.0-6.0		0	7	7	9	77	62	33	28	A-7-6
	10.0-11.0		23	13	15	15	34	34	33	13	A-6b
	15.0-15.5		(0	6	8	29	57	36	17	16)	
GRAY WEATHERED SHALE											VISUAL
BREHM ROAD											
48+50 16'Rt	5.0-6.0		23	10	9	19	39	30	7	24	A-4a
	7.5-8.5		21	9	15	18	37	29	11	15	A-6a
51+60 16'Lt	5.0-5.4		15	8	9	10	58	43	23	20	A-7-6*
COLERAIN AVENUE											
720+01 22'Rt	5.0-6.0		61	24	7	4	4	NP	NP	10	A-1-a
	10.0-11.0		43	2	4	19	32	37	12	20	A-6a
	15.0-15.3		34	12	7	16	31	0	31	18	A-6b
723+05 27'Rt	5.0-6.0		0	12	5	47	36	31	8	22	A-4a
	7.5-8.5		0	7	7	20	66	57	29	28	A-7-6
	10.0-11.0		0	4	8	18	70	53	29	26	A-7-6
	12.5-13.5		30	7	9	17	37	39	19	20	A-6b
	15.0-15.5		10	5	5	32	48	36	18	20	A-6b

SOIL PROFILE

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HAMILTON COUNTY

HAM-275-13.91

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W BROAD ST. COLUMBUS 23, OHIO

(4/17)

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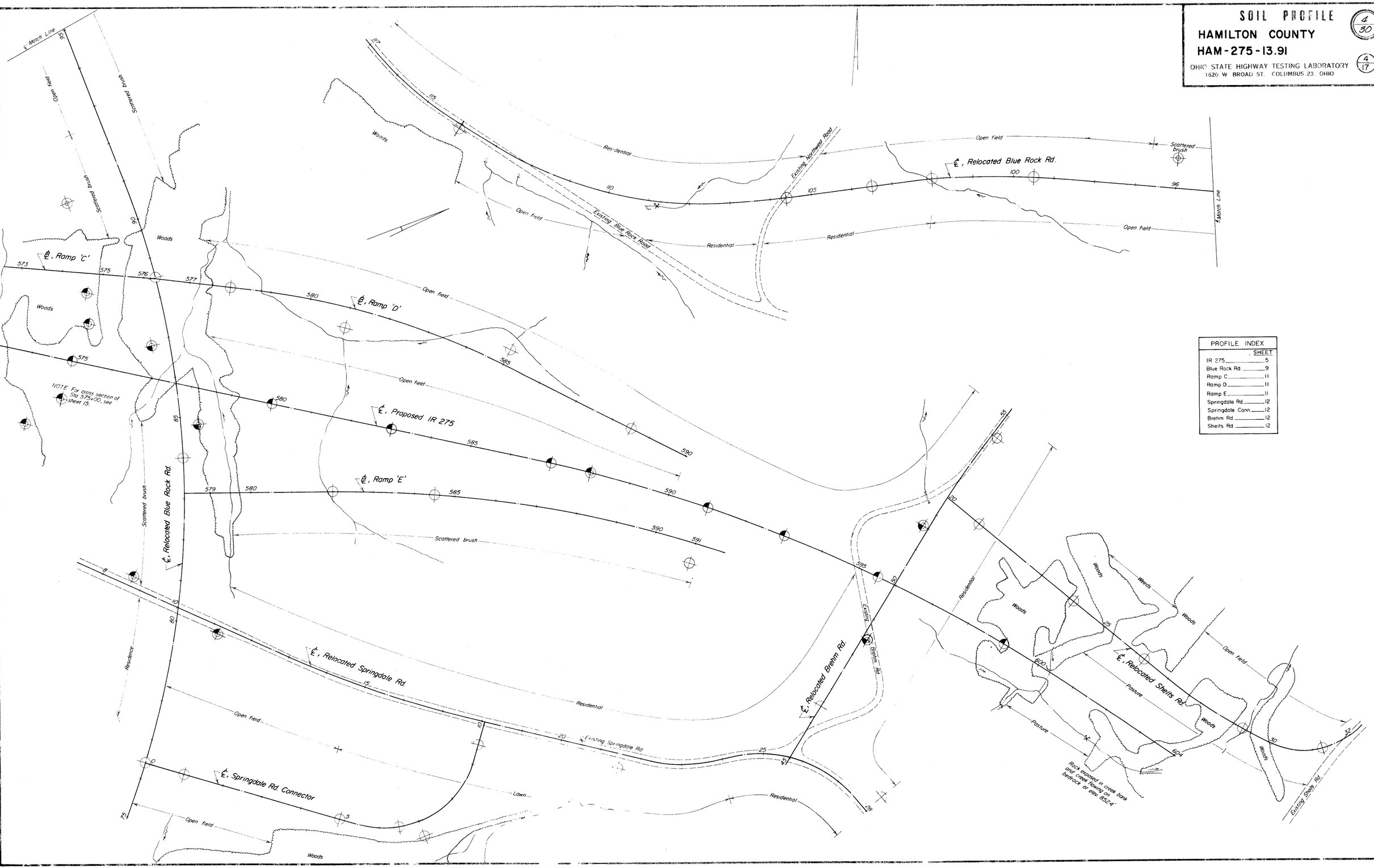
Ramp C	11
Ramp D	11
Ramp E	11
Springdale Rd.	12
Springdale Conn.	12
Brehm Rd.	12
Sheits Rd.	12



SOIL PROFILE

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HAMILTON COUNTY

HAM-275-13.91

OHIO STATE HIGHWAY TESTING LABORATORY

1620 W. BROAD ST. COLUMBUS, OHIO 43223

5/17

930 920 910 900 890 880 870 860 850 840 830 820 810 800

572 573 574 575 576 577 578 579 580 581 582 583 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604

175' Rt.

26 (25/26) 19 (19/25) 21 (17/70)

Top of Rock

Sod-0.2'

14 9

Refusal

170' Lt.

18 (13/19) 17 (13/22) 17 (11/12) 12 (15/25) 17 (20/35)

Top of Rock

Shale, gray, argillaceous, calcareous, fissile, hard, broken to badly broken, with limestone interbeds (light-gray, crystalline, fossiliferous, hard, dense, broken) comprising 22% of the interval Core loss 5%

Proposed grade, Blue Rock Rd

Sod-0.2'

11 18

Refusal

Shale, gray, argillaceous, calcareous, fissile, firm to hard, broken to badly broken, with limestone interbeds (light-gray, crystalline, fossiliferous, hard, dense, broken) comprising 26% of the interval, with clay seams intervals between elevations 822.1' and 817.1'. Core loss 16%

Sod-0.2'

12

Refusal

Sod-0.2'

28 23 10

Refusal

30 (5/7) 31 (21/50) 21 (50/0.5')

Top of Rock

Shale, gray, argillaceous, fossiliferous, calcareous, fissile, hard, broken, firm, weathered, crumbly to elev. 884.2', with small clay seams at irregular intervals to elev. 884.2', with interbedded limestone (light-gray, crystalline, fossiliferous, hard, broken) comprising 18% of the interval. No core loss

Sod-0.2'

34 13 12 7

Refusal

Sod-0.2'

39

23 12

Refusal

Sod-0.2'

Proposed grade, Brehm Rd (Sta 48+50-16' Rt, Brehm Rd.)

151' Rt.

35 19

Refusal

(27/66) 105' (50)

24 15

Top of Rock

Shale, brown, argillaceous, fossiliferous, calcareous, soft, extremely weathered, crumbly, with limestone nodules throughout. No core loss.

Shale, gray, argillaceous, calcareous, fossiliferous, firm to hard, weathered to 20.0', broken, with limestone interbeds (light-gray, crystalline, fossiliferous, hard, dense, badly broken) comprising 25% of the interval, and with small clay seams (0.1' to 0.2') at irregular intervals to 27.0'. No core loss.

10 14 11

Refusal

TE - 12
1500-12-68

SOIL PROFILE

HAMILTON COUNTY

HAM-275-13.91

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS, OHIO 43223

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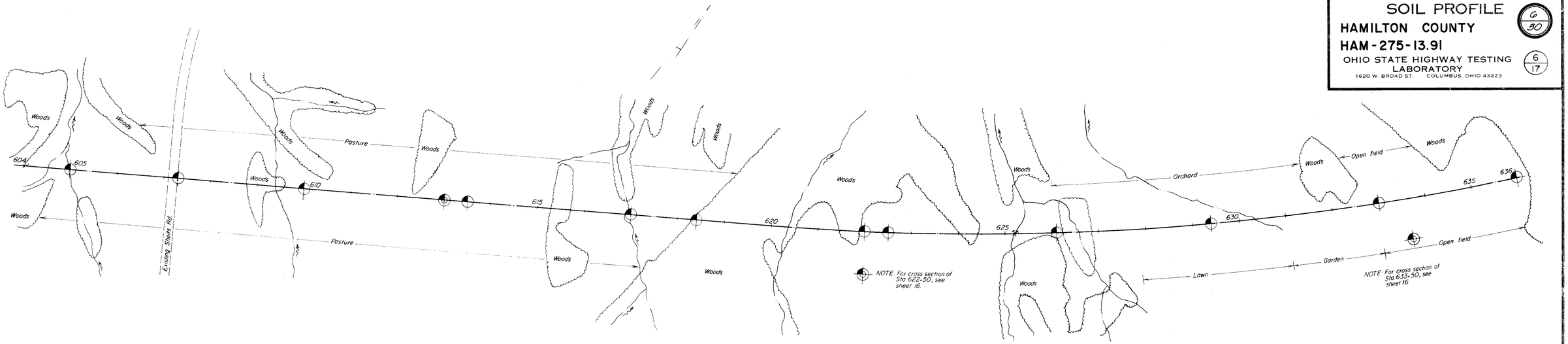

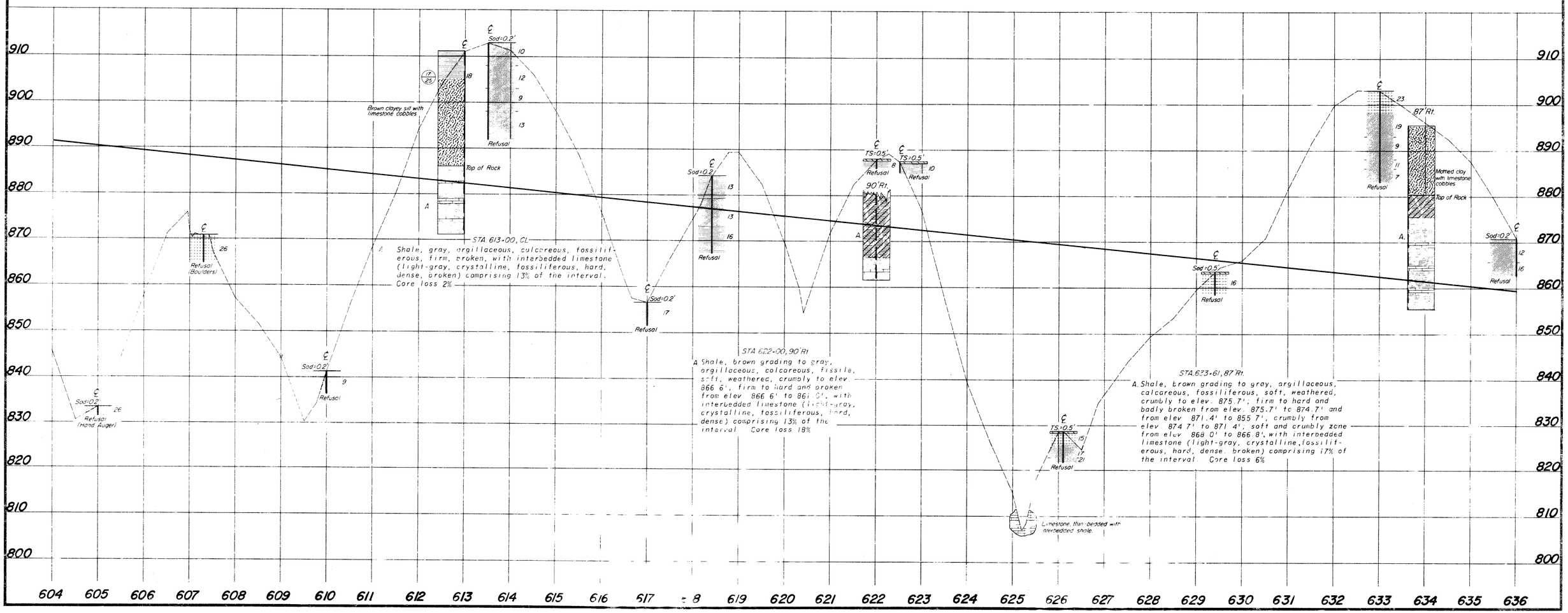

TE - 127
1500-12-66

SOIL PROFILE

HAMILTON COUNTY

HAM-275-13.91

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS, OHIO 43223

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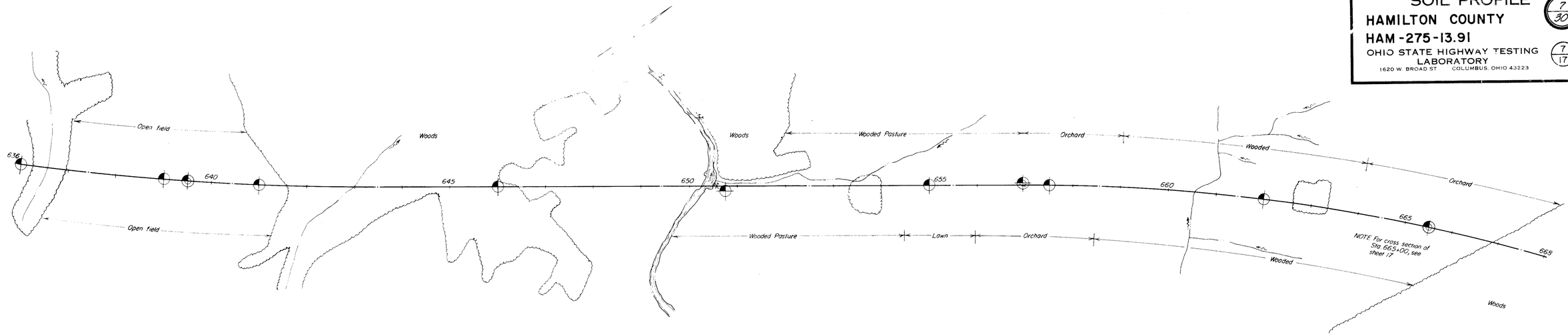

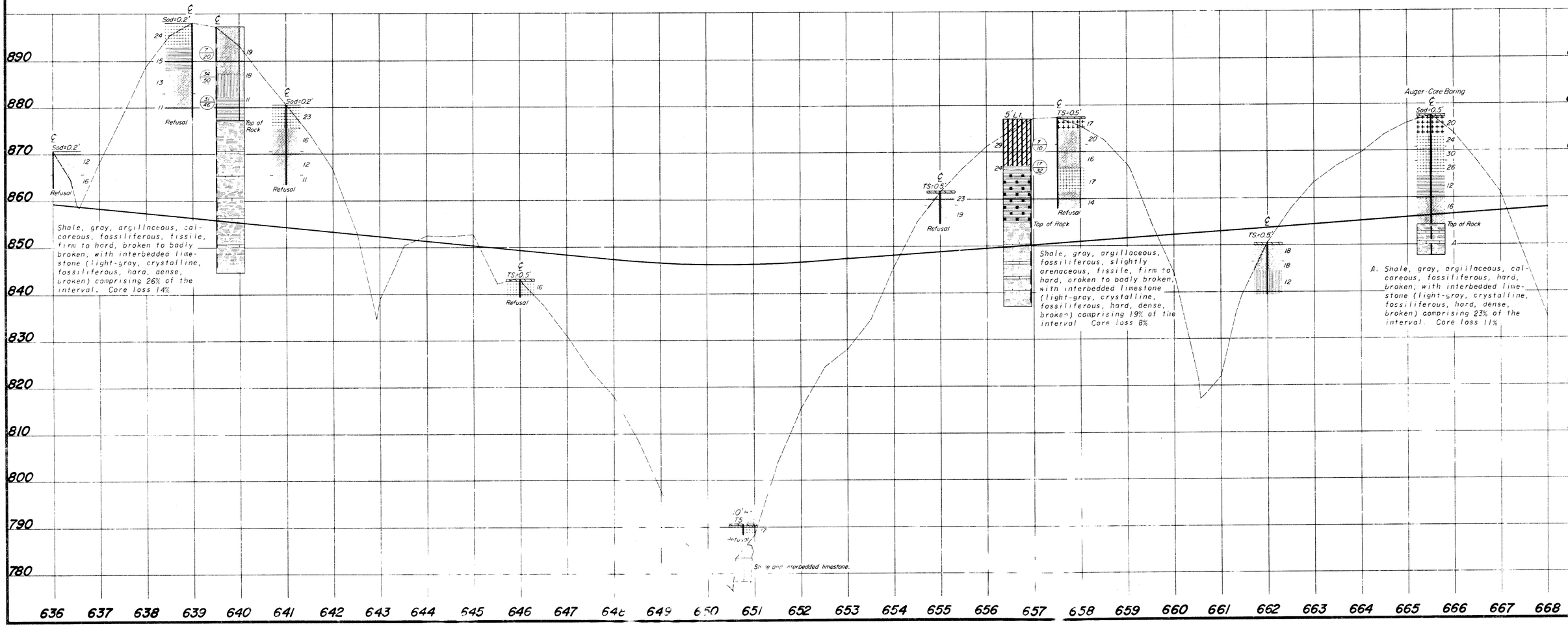

SOIL PROFILE

(8/30)

HAMILTON COUNTY

HAM-275-13.91

OHIO STATE HIGHWAY TESTING LABORATORY (8/17)
1620 W. BROAD ST. COLUMBUS 23, OHIO

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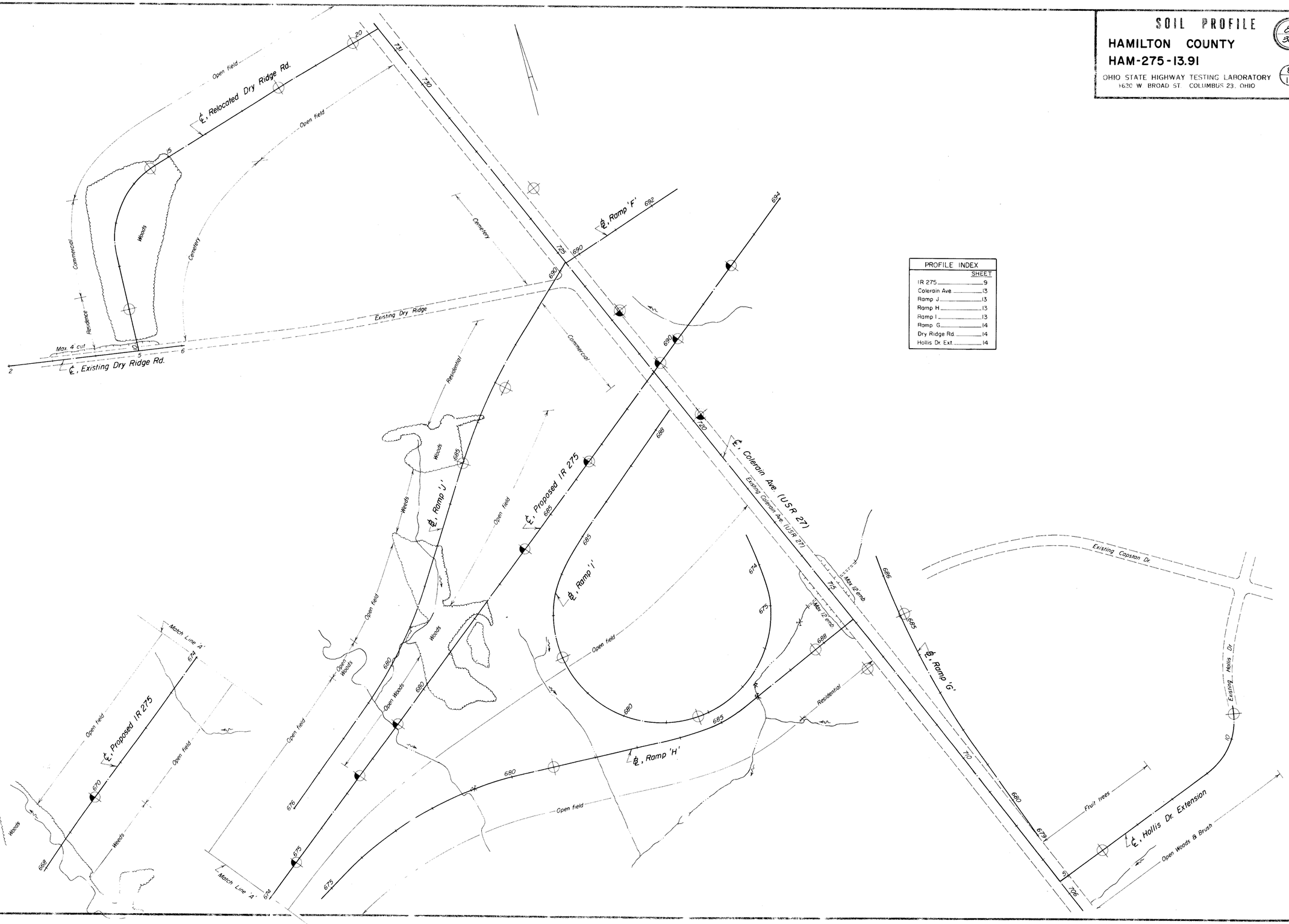


TE-96
1900-12-66

SOIL PROFILE

HAMILTON COUNTY

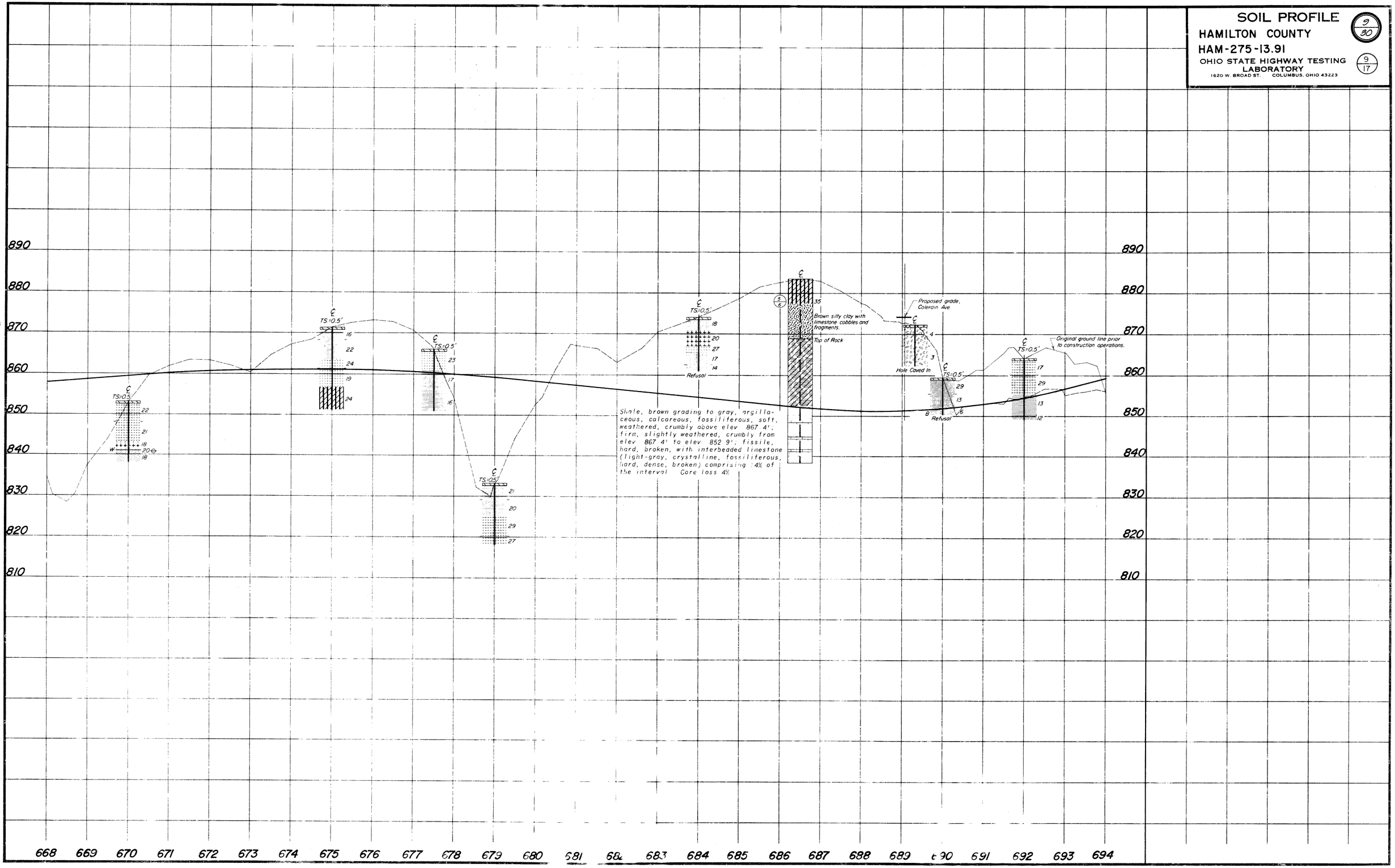
HAM-275-13.91

OHIO STATE HIGHWAY TESTING LABORATORY

1620 W. BROAD ST. COLUMBUS, OHIO 43223

9/30

9/17



TE-96
1500-12-66

SOIL PROFILE

(10/30)

HAMILTON COUNTY
HAM-275-13.91

OHIO STATE HIGHWAY TESTING LABORATORY (10/17)
1620 W. BROAD ST. COLUMBUS, OHIO 43223

Relocated Springdale Road Profile Grade

(Sta 11+18-20 Rt, Springdale Rd)

(Sta 8+72-25 Lt, Springdale Rd)

℄, Springdale Rd. Conn.

℄ TS=0.2'

23

Refusal

105' Rt.

116' Lt.

28 13 16

Top of Rock

Limestone, gray-blue, hard, dense, thin-bedded, with interbedded calcareous shale (comprising 30% of the interval). There are scattered thin clay seams throughout. Core loss 7%

20 15 18

Top of Rock

Shale, gray, medium-firm, fossiliferous, argillaceous, calcareous-in-part, highly broken. Interbedded with (A) Limestone, gray, firm, fossiliferous, crystalline, slightly argillaceous (comprising 21% of the interval) (B) Thin clay seams. Core loss 20%

Proposed grade, IR 275 - elev 873.3

℄, Proposed IR 275

℄ TS=0.2'

16

17

Refusal (Boulders)

℄, Ramp E

43' Rt.

20 23 21 17 27 28

Top of Rock

Shale, gray, medium-firm to firm, carbonaceous, argillaceous, slightly calcareous. Interbedded with (A) Limestone, gray, firm, fossiliferous, crystalline, slightly argillaceous (comprising 1% of the interval), (B) Thin clay seams. Core loss 36%

℄, Ramps C&D

℄ TS=0.3'

20

15

44' Lt.

22 18 22 20 22 17

Top of Rock

Shale, gray, medium-firm, argillaceous, calcareous-in-part. Interbedded with (A) Limestone, gray, firm, fossiliferous, crystalline, slightly argillaceous, thin-bedded (comprising 20% of the interval), (B) thin clay seams. Core loss 9%

150' Lt.

19 19 10 18 16 16

Limestone, hard, crystalline, thin-bedded with shale seams. Core loss 55%

Shale, gray, calcareous, soft, with a thin limestone layer at bottom. Core loss 43%

38' Rt.

21 20 15 17 14 15 15 16 18 16

Top of Rock

℄ 22

Refusal (Boulders) (Hand Auger)

℄ 24

Refusal (Hard Auger)

℄ TS=0.3'

20 21

Refusal

℄ 19

Refusal

10' Lt.

Rock Section

Calcareous shale and thin-bedded limestone exposed in creek bed

10' Lt.

20

Refusal

Reloc. Blue Rock Rd. (Cont'd.)

Reloc. Blue Rock Rd.

SOIL PROFILE

HAMILTON COUNTY

HAM-275-13.91

OHIO STATE HIGHWAY TESTING LABORATORY

1620 W. BROAD ST. COLUMBUS, OHIO 43223

11/30

11/17

RAMP 'C'

RAMP 'D'

RAMP 'E'

(Sta. 575+00-170'Lt, IR 275)
49'Rt
15/19 16
13/19 18
13/22 17
Limestone Boulders
11/12 17
15/25 12
20/35 17
Top of Rock
Shale, gray, argillaceous, calcareous, fissile, firm to hard, broken to badly broken, with limestone interbeds (light-gray, crystalline, fossiliferous, hard, dense, broken) comprising 26% of the interval, with clay seams in the interval between elevations 822.1' and 817.1'. Core loss 16%

℄, Relocated Blue Rock Rd.

(Sta. 88+50-℄, Blue Rock Rd.)
3'Lt
TS=0.3'
20
15

(Sta. 88+50-℄, Blue Rock Rd.)
3'Lt
TS=0.3'
20
15

℄, Relocated Blue Rock Rd.

℄
TS=0.2'
20
Refusal

40'Lt
23
Refusal

50'Rt
Sod & TS=0.2'
24
20
Refusal

℄
Sod & TS=0.2'
25
14
Refusal

℄, Relocated Blue Rock Rd.

(Sta. 84+00-℄, Blue Rock Rd.)

88'Lt
TS=0.2'
16
17
Refusal (Boulders)

℄
Sod & TS=0.2'
26
15
Refusal

℄
29
14
Refusal

(Sta. 588+00-℄, IR 275)
105'Lt
5/7 30
21/50 31
50/10" 21
Top of Rock
Shale, gray, argillaceous, fossiliferous, calcareous, fissile, hard, broken, firm, weathered, crumbly to elev. 884.2', with small clay seams at irregular intervals to elev. 884.2', with interbedded limestone (light-gray, crystalline, fossiliferous, hard, broken) comprising 18% of the interval. No core loss.

50'Rt
TS=0.2'
25
12
Refusal

920 910 900 890 880 870 860 850 840 830 820 810 800

575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591

TE - 96
1100-12-66

SOIL PROFILE

HAMILTON COUNTY

HAM-275-13.91

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS, OHIO 43223

12/30

12/17

SPRINGDALE RD.

25' Lt.

(11/27) 20
(50/10") 15
(50/10") 18
(50/10") 50

Top of Rock
Shale, gray, medium-firm, fossiliferous, argillaceous, calcareous in part, highly broken, interbedded with; (A) Limestone, gray, firm, fossiliferous, crystalline, slightly argillaceous, (comprising 21% of the interval); (B) Thin clay seams Core loss 20%

20' Rt.

(3/9) 28
(27/36) 13
(38/10") 16

Top of Rock
Gray weathered shale
Limestone, gray-blue, hard, dense, thin-bedded with interbedded calcareous shale, (comprising 30% of the interval), there are scattered thin clay seams throughout Core loss 7%

Sta. --+-- - ℄, Springdale Conn

58' Rt. Sod=0.3'
20
31
15

35' Rt. Sod=0.3'
25
30

50' Lt. Sod & TS=0.2'
23
14
Refusal

BREHM RD.

℄, Relocated Springdale Rd.

℄ TS=0.4'
18
25
Refusal (Boulders)

16' Rt.
(27/66) 24
(50/10.5") 15
Top of Rock

Shale, brown, argillaceous, fossiliferous, calcareous, soft, extremely weathered, crumbly, with limestone nodules throughout No core loss.

Shale, gray, argillaceous, calcareous, fossiliferous, firm to hard, weathered to 20.0', broken, with limestone interbeds (light-gray, crystalline, fossiliferous, hard, dense, badly broken) comprising 25% of the interval; and with thin clay seams (0.1' to 0.2') at irregular intervals to 27.0' No core loss

Proposed grade IR 275

16' Lt.
(40/10.4") 20
Brown silty clay with limestone boulders.
Top of Rock

℄, Relocated Sheits Rd.

15' Rt.
17
Refusal

Shale, brown, argillaceous, calcareous, fossiliferous, fissile, soft, very weathered, crumbly. Core loss 16%

Shale, brown grading to gray, argillaceous, calcareous, fossiliferous, fissile, hard, badly broken; with limestone interbeds (light-grey, crystalline, fossiliferous, hard, dense, broken) comprising 22% of the interval. No core loss

SPRINGDALE CONNECTOR

℄, Relocated Blue Rock Rd.

℄ TS=0.5'
20
26
Refusal (Boulders)

℄ Sod & TS=0.2'
26
Refusal (Boulders)

30' Rt.
22
27
Refusal

40' Rt. Sod & TS=0.2'
19
17
Refusal

℄, Reloc Springdale Rd

℄ Sod=0.3'
20
31
15

SHEITS RD.

℄, Relocated Brehm Rd.

(Sta. 5+60 - 16' Lt. Brehm Rd.)
91' Rt.
(40/10.4") 20
Top of Rock
Brown silty clay with limestone boulders.

℄
21
18
Refusal

Shale, brown, argillaceous, calcareous, fossiliferous, fissile, soft, very weathered, crumbly Core loss 16%

Shale, brown grading to gray, argillaceous, calcareous, fossiliferous, fissile, hard, badly broken; with limestone interbeds (light-gray, crystalline, fossiliferous, hard, dense, broken) comprising 22% of the interval No core loss

℄ Sod & TS=0.2'
18
21
Refusal

℄ Sod & TS=0.3'
21
Refusal

℄ Sod & TS=0.3'
26
27
26

℄ TS=0.6'
24
Refusal

SOIL PROFILE

HAMILTON COUNTY

HAM-275-13.91

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS, OHIO 43223

13/30

13/17

COLERAIN AVE. (USR 27)

(Sta 6+00-℄, Hollis Dr. Ext.)
122' Rt.
TS=0.2'
20
16

℄, Hollis Dr. Ext.

45' Lt.
21
23

℄, Ramp J

50' Rt.
14
Refusal

(Sta 7+23.31 ℄ R.P.'S)
23' Rt.
4
3
Hole Caved In

22' Rt.
35/6" 10
45/12" 20
50/(0.2') 18
Top of Rock

Proposed grade IR 275

27' Rt.
4/10 22
5/6 28
8/14 26
23/26 20
35/(0.5') 20
Top of Rock

Limestone, gray, crystalline, fossiliferous, hard, dense, badly broken, with shale interbeds (gray, argillaceous, calcareous, fossiliferous, firm, broken) comprising approximately 10% of the interval, and with clay seams at irregular intervals throughout. Core loss 27%

Limestone, gray, crystalline, fossiliferous, hard, dense, badly broken, with shale interbeds (gray, argillaceous, calcareous, fissile, firm, weathered in top of interval) comprising 15% of the interval and with thin (0.2'-0.3') clay seams at irregular intervals throughout. Core loss 40%

ROCK SECTION 100' Lt.
Thin-bedded limestone with calcareous shale.

RAMP 'J'

(Sta 677+50-℄, IR 275
81' Rt.
TS=0.5'
23
17
16

(Sta 679+00-℄, IR 275)
83' Rt.
TS=0.5'
21
20
29
27

25' Rt.
Sod & TS=0.2'
22
26
20
Refusal (Boulders)

℄
15
47
17

℄, Colerain Ave

(Sta 723+05-27' Rt., Colerain Ave. (USR 27)
165' Rt.
4/10 22
5/6 28
8/14 26
23/26 20
35/(0.5') 20
Top of Rock

Limestone, gray, crystalline, fossiliferous, hard, dense, badly broken with shale interbeds (gray, argillaceous, calcareous, fissile, firm, weathered in top of interval) comprising 15% of the interval and with thin (0.2'-0.3') clay seams at irregular intervals throughout. Core loss 40%

RAMP 'I'

(Sta 687+75-℄, Ramp 'H')
112' Lt.
24
18
24

℄
TS=0.2'
28
16
Refusal (Boulders)

℄
TS=0.2'
19
17
Refusal

(Sta 686+50-℄, IR 275)
85' Lt.
5/6
35
Brown silty clay with limestone cobbles and fragments.
Top of Rock

Shale, brown grading to gray, argillaceous, calcareous, fossiliferous, soft, weathered, crumbly above elev. 867.4'; firm, slightly weathered, crumbly from elev. 867.4' to elev. 852.9'; fissile, hard, broken, with interbedded limestone (light-gray, crystalline, fossiliferous, hard, dense, broken) comprising 14% of the interval. Core loss 4%

℄, Colerain Ave.

RAMP 'H'

(Sta 675+00-℄, IR 275)
100' Lt.
TS=0.5'
16
22
24
19
24

℄
Sod & TS=0.2'
27
17
Refusal (Boulders)

(Sta 678+25-℄, Ramp 'I')
35' Lt.
TS=0.2'
28
16
Refusal (Boulders)

℄
24
18
24

Calcareous shale with a few thin limestone layers.

Calcareous shale and thin-bedded limestone (25%)

℄, Colerain Ave.

SOIL PROFILE

HAMILTON COUNTY

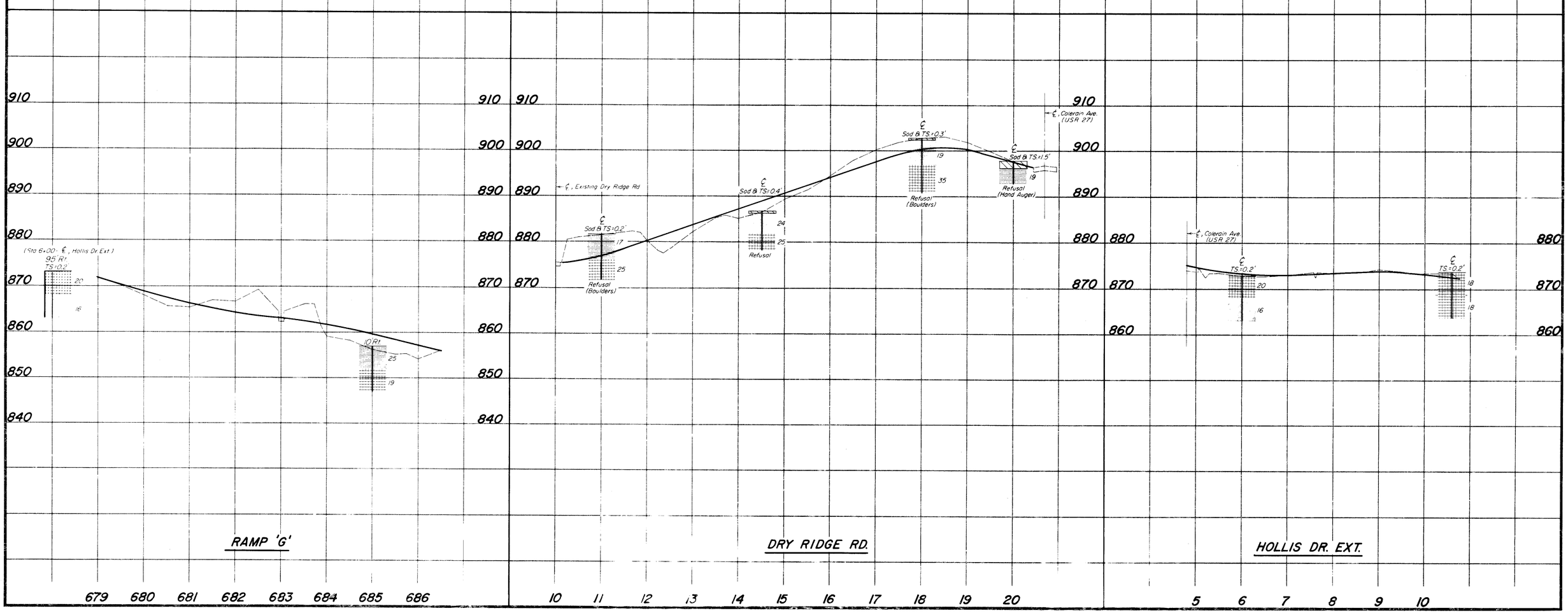
HAM-275-13.91

OHIO STATE HIGHWAY TESTING LABORATORY

1620 W. BROAD ST. COLUMBUS, OHIO 43223

14/30

14/17



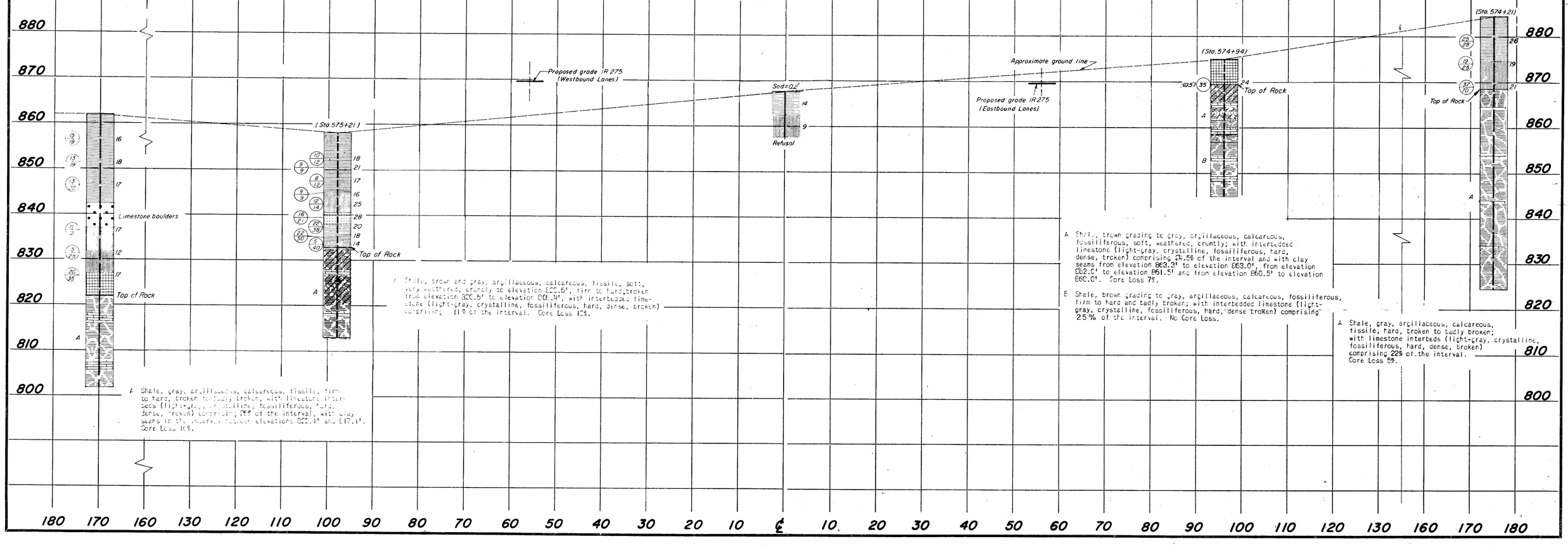
R-96 (FORMERLY TE-54-B)
2000-10-61

SOIL PROFILE
HAMILTON COUNTY
HAM-275-13.91

(15/30)

OHIO STATE HIGHWAY TESTING LABORATORY (15/17)
1620 W. BROAD ST., COLUMBUS 23, OHIO

Cross Section
Sta. 575+00
IR 275



A Shale, gray, argillaceous, calcareous, fissile, firm to hard, broken to badly broken, with limestone interbeds (light-gray, crystalline, fossiliferous, hard, dense, broken) comprising 89% of the interval, with clay seams in the interval between elevations 822.1' and 817.1'. Core Loss 16%.

A Shale, brown and gray, argillaceous, calcareous, fissile, soft, very weathered, crumbly to elevation 822.6', firm to hard, broken from elevation 822.6' to elevation 808.4', with interbedded limestone (light-gray, crystalline, fossiliferous, hard, dense, broken) comprising 11% of the interval. Core Loss 10%.

A Shale, brown grading to gray, argillaceous, calcareous, fossiliferous, soft, weathered, crumbly; with interbedded limestone (light-gray, crystalline, fossiliferous, hard, dense, broken) comprising 24.5% of the interval and with clay seams from elevation 863.3' to elevation 863.0', from elevation 862.0' to elevation 861.5' and from elevation 860.5' to elevation 860.0'. Core Loss 7%.

B Shale, brown grading to gray, argillaceous, calcareous, fossiliferous, firm to hard and badly broken; with interbedded limestone (light-gray, crystalline, fossiliferous, hard, dense broken) comprising 25% of the interval. No Core Loss.

A Shale, gray, argillaceous, calcareous, fissile, hard, broken to badly broken; with limestone interbeds (light-gray, crystalline, fossiliferous, hard, dense, broken) comprising 22% of the interval. Core Loss 5%.

TE-96 (FORMERLY TE-54-B)
2000-10-01

SOIL PROFILE

HAMILTON COUNTY (16/30)

HAM – 275-13.91

OHIO STATE HIGHWAY TESTING LABORATORY (16/17)

1620 W. BROAD ST., COLUMBUS 23, OHIO

Cross Section Sta. 633 + 50 IR 275

(Sta. 633 + 00)

23
19
9
11
7
Refusal

(Sta. 633 + 61)

Mottled clay with limestone cobbles.

Top of Rock

Shale, brown grading to grey, argillaceous, calcareous, fossiliferous, soft, weathered, crumbly to elev. 875.7'; firm to hard and badly broken from elev. 875.7' to elev. 874.7' and from elev. 871.4' to elev. 855.7' crumbly zone from elev. 868.0' to elev. 866.8' with interbedded limestone (light-grey, crystalline fossiliferous, hard, dense, broken) comprising 17% of the interval. Core Lost 6%.

Proposed section

900
890
880
870
860
850

150 100 50 ℄ 50 100 150

Cross Section Sta. 622 + 50 IR 275

(Sta. 622 + 00)

TS=0.5'
8
Refusal

TS=0.5'
10
Refusal

(Sta. 622 + 00)

Silty clay with limestone cobbles.

Top of Rock

Shale, brown grading to gray, argillaceous, calcareous, fissile, soft, weathered, crumbly to elev 866.6, firm to hard and broken from elev. 866.6' to 861.6'; with interbedded limestone (light-gray, crystalline, fossiliferous, hard, dense) comprising 13% of the interval. Core Loss 18%.

Proposed section

890
880
870
860

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

TE-96 (FORMERLY TE-54-B)
2000-10-01

SOIL PROFILE

HAMILTON COUNTY

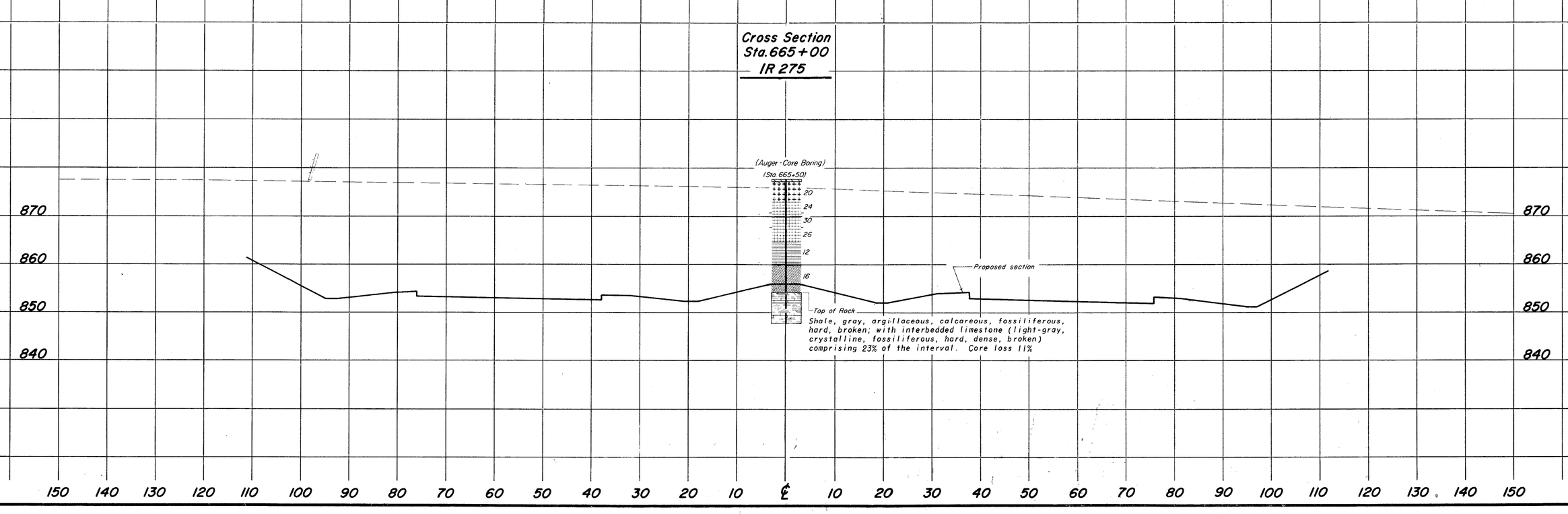
HAM - 275-13.91

17/30

OHIO STATE HIGHWAY TESTING LABORATORY (17/17)

1620 W. BROAD ST. COLUMBUS 23, OHIO

Cross Section Sta. 665+00 IR 275



TE - 1 1 8
600 - 12 - 68

HAMILTON COUNTY
HAM-275-13.91

18
30

GEOLOGY OF THE SITE

THE STRUCTURE SITE IS LOCATED IN THE DEEPLY DISSECTED PORTION OF THE LEXINGTON PENEPLAIN, IN AN AREA WHERE MODERATELY DEEP GLACIAL DRIFT OVERLIES INTERBEDDED SHALE AND LIMESTONE BEDROCK, OF ORDOVICIAN AGE.

EXPLORATION

THE EXPLORATION CONSISTED OF TWO DRIVE SAMPLE-CORE BORINGS AND EIGHT DRIVE ROD PENETRATION TESTS, MADE BETWEEN MAY 21 AND 23, 1969.

INVESTIGATIONAL FINDINGS

BORINGS DISCLOSED THAT BEDROCK SURFACE, ENCOUNTERED AT 17 AND 24-FOOT DEPTHS, ELEVATIONS 824 AND 814 FEET, IS OVERLAIN BY STIFF AND VERY STIFF CLAYS AND DENSE SANDY GRAVELS. THE BORINGS WERE TERMINATED AT 30 AND 39-FOOT DEPTHS, ELEVATIONS 809 AND 802 FEET, AFTER PENETRATING 13 AND 15 FEET BELOW BEDROCK SURFACE.

THE ROD SOUNDINGS ENCOUNTERED RAPID INCREASE IN PENETRATION RESISTANCE WITH INCREASE IN DEPTH, AND WERE TERMINATED UPON ENCOUNTER WITH REFUSAL AND NEAR-REFUSAL TO PENETRATION AT 4 TO 17-FOOT DEPTHS, ELEVATIONS 829 TO 813 FEET, CONSIDERED TO BE IN VERY STIFF CLAYS, AS DISCLOSED BY THE BORINGS.

NO FREE WATER WAS ENCOUNTERED IN ANY OF THE ROD SOUNDING HOLES.

LEGEND

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.
- Capped Pile
- Footing
- Footing on Pile
- TR — Top of Rock
- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- X/Y — Figures Beside the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test.
  X = Number of Blows for First 6 inches.
  Y = Number of Blows for Second 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Casing
- Resistance "R" < 10,000 lbs.
- Resistance "R" > 10,000 lbs.
- Z — Indicates Final Measurement of Penetration, in Inches.
- W — Indicates Free Water Elevation.
- Indicates Static Water Elevation.

SYMBOLS OF ROCK TYPES

- Coal
- Weathered Siltstone, Mudstone, or Claystone
- Siltstone, Mudstone, or Claystone
- Weathered Shale
- Shale
- Boulders or Cobbles
- Weathered Sandstone
- Sandstone
- Leached Dolomite
- Dolomite
- Leached Limestone
- Limestone

GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be readily compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and / or 5-foot depth intervals, driven by means of a 140 - pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 12 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sampler is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in two 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system-and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Particle Size Definitions

Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
12"	3"	2.0mm (No. 10 sieve)	0.42mm (No. 40 sieve)	0.074mm (No. 200 sieve)	0.005mm	

LOG OF BORING

Date Started 5-21-69 — Sampler Type SS — Dia 1 3/8" — Water Elev —
Date Completed 5-23-69 — Casing: Length 15' — Dia 3 1/2" — Surface Elev 832.0'
Boring No B-5 — Station & Offset 576+82, 78' Lt. (Rear Pier)

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
832.0	0														
	2														
	4														
827.0	6	3/9			Brown Sandy Clay	1	13	7	20	24	36	35	19	22	A-6b
824.5	8	5/10			Brown Sandy Clay	2	4	10	40	14	32	28	12	18	A-6a
822.0	10	5/12			Brown Sandy Clay	3	8	19	17	18	38	30	14	22	A-6a
819.5	12														
	14	46/*			Brown Silty Sandy Gravel with Cobbles	4	41	13	9	10	27	-	-	20	-
817.0	16	21/32			Brown Gravelly Clay with Cobbles	5	28	4	6	18	44	45	23	22	A-7-6
814.5					TOP OF WEATHERED ROCK										
814.0	18	46/*			Gray Weathered Shale	6	3	3	1	34	62	36	18	17	
					TOP OF ROCK										
	20		1.2	0.8											
	22														
	24		5.0	0.0	Shale, gray, medium-firm, argillaceous, calcareous in part, interbedded with; (A) Limestone, gray, firm, fossiliferous, crystalline, slightly argillaceous, thin-bedded, (comprising 20% of the interval); (B) Thin clay seams. Core Loss 8%.										
	26														
	28		4.8	0.2											
802.0	30				BOTTOM OF BORING										

*Refusal

LOG OF BORING

Date Started 5-21-69 — Sampler Type SS — Dia 1 3/8" — Water Elev —
Date Completed 5-21-69 — Casing: Length — Dia —
Boring No B-12 — Station & Offset 578+35, 78' Rt. (Forward Pier) — Surface Elev 848.0'

Elev	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
848.0	0														
	2														
	4														
843.0	6	15/12			Brown Sandy Clay	1	0	8	18	24	50	32	16	20	A-6b
840.5	8	9/10			Brown Sandy Clay	2	12	7	18	22	41	35	16	23	A-6b
838.0	10	7/10			Brownish-Gray Sandy Clay	3	11	5	19	27	38	33	17	21	A-6b
835.5	12				No Sample Recovered										
833.0	14	9/14			Brownish-Gray Sandy Clay	4	14	9	18	23	36	30	14	17	A-6a
830.5	18	7/11			Brownish-Gray Clay	5	0	1	3	29	67	44	23	27	A-7-6
828.0	20	8/10			Brownish-Gray Clay	6	0	2	8	27	63	41	21	28	A-7-6
824.0	24														
					TOP OF ROCK										
	26														
	28		3.9	1.1	Shale, gray, medium-firm to firm, carbonaceous, argillaceous, slightly calcareous, interbedded with; (A) Limestone, gray, firm, fossiliferous, crystalline, slightly argillaceous, (comprising 1% of the interval); (B) Thin Clay seams. Core Loss 36%.										
	30														
	32														
	34		1.0	4.0											
	36														
809.0	38		4.0	0.0	BOTTOM OF BORING										

NOTE: Information shown by this subsurface investigation was obtained solely for the use in establishing design controls for the project. The State of Ohio does not guarantee the accuracy of this data and it is not to be construed as a part of the plans governing construction of the project.

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS, OHIO 43223

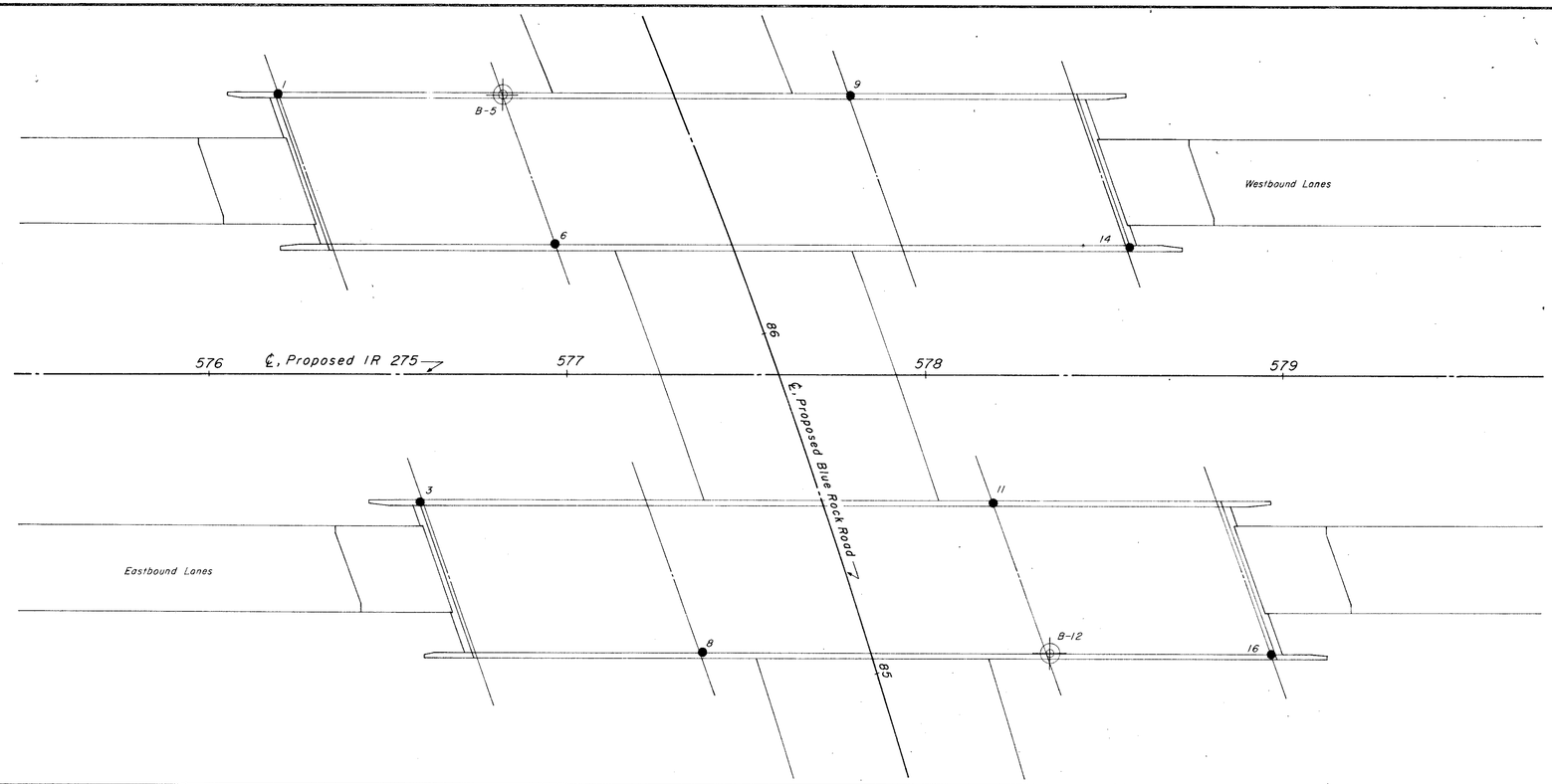
STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HAM-275-1392 L/R
OVER BLUE ROCK ROAD
SEC. HAM-275-13.91

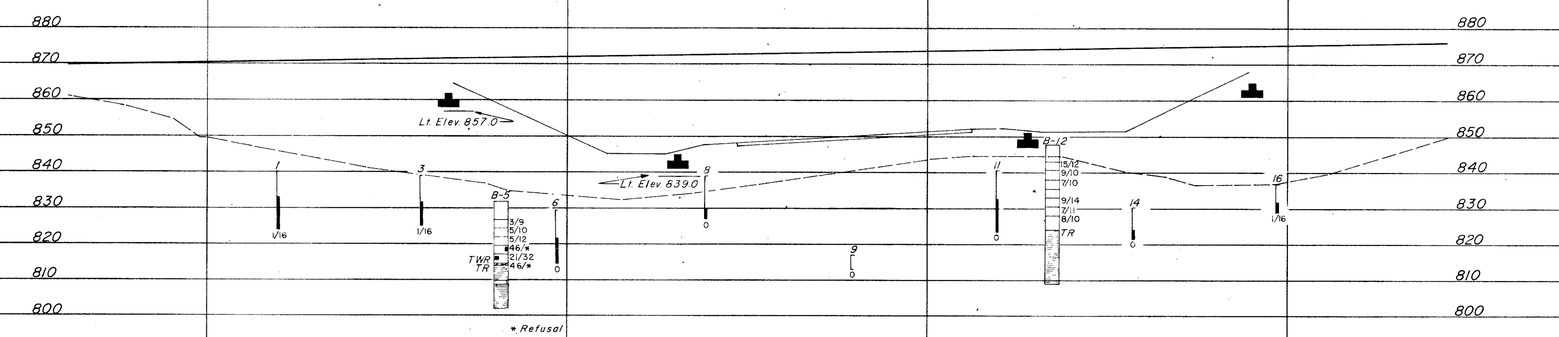
CHECKED BY	REVIEWED BY	DATE
L.N.L.	R.D.R.	6/23/69

TE - 119
1000 - 4 - 66

19
30

HAM-[illegible] (2/3)





SCALE: 1" = 20'

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION

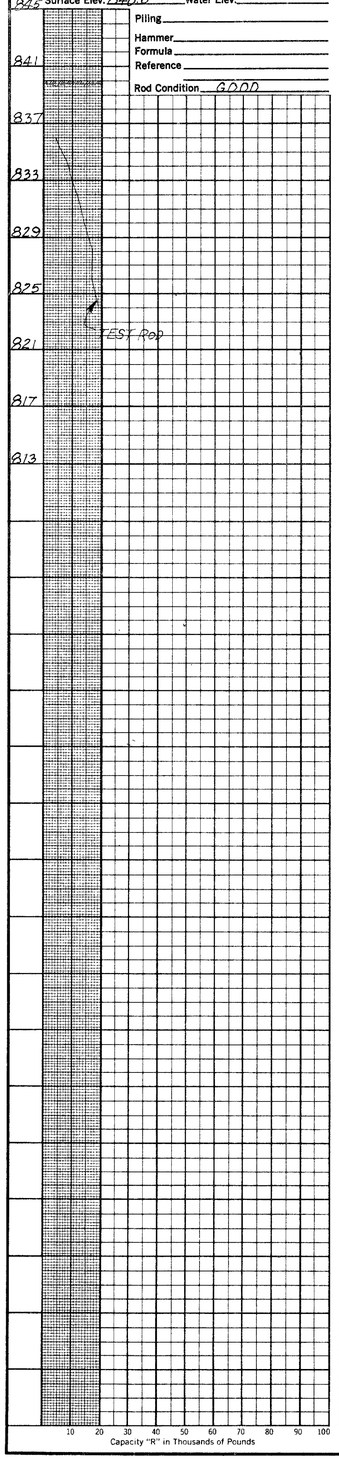
BRIDGE NO. HAM-275-1392 L/R
OVER BLUE ROCK ROAD
SEC. HAM-275-13.91

PLAN AND PROFILE

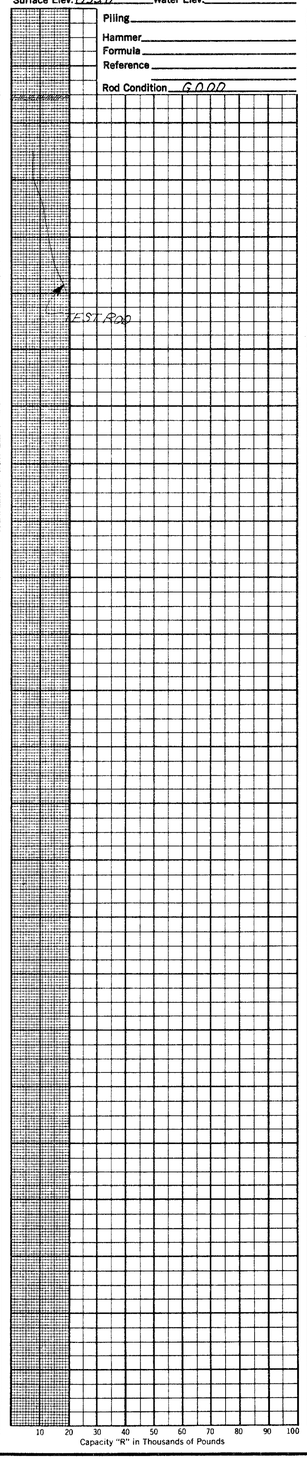
DRAWN BY	CHECKED BY	REVIEWED BY	DATE
J.E.C.	L.N.L.	R.D.R.	6/23/69

TE-114
1000-7-67

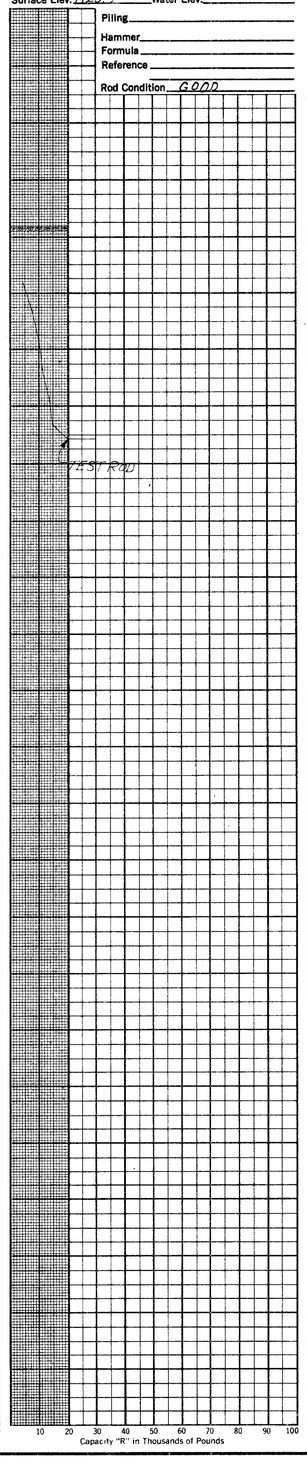
Test Location No. 1
Station & Offset 574+18 78'LT
REAR ABUTMENT
Surface Elev. 840.0 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition GOOD



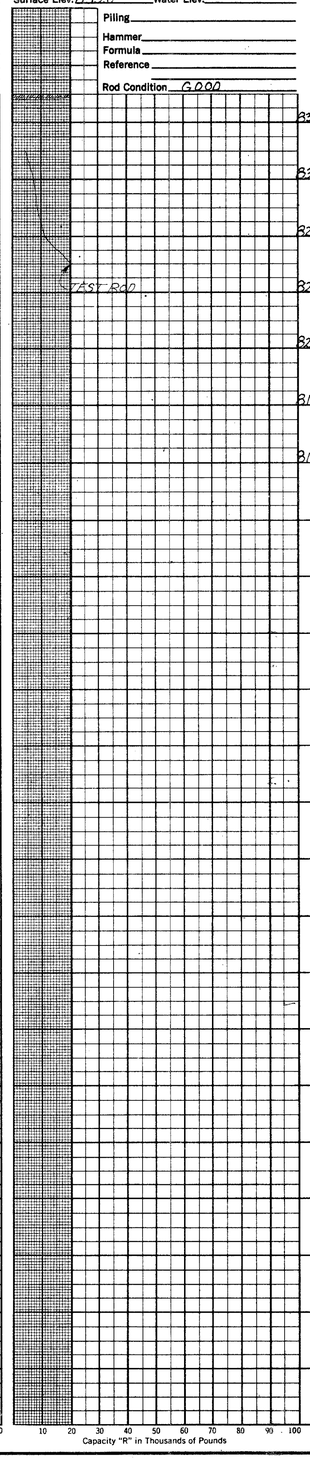
Test Location No. 3
Station & Offset 574+59 36'RT
REAR ABUTMENT
Surface Elev. 839.0 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition GOOD



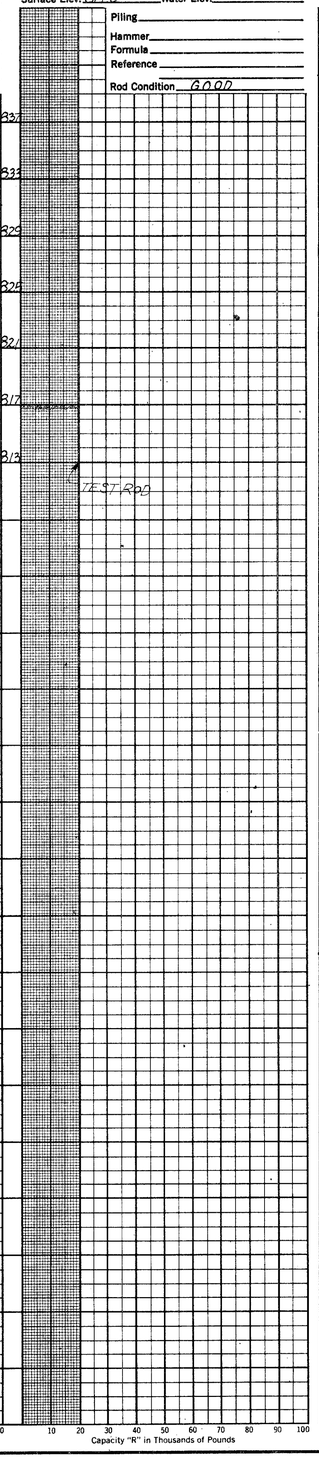
Test Location No. 6
Station & Offset 574+97 36'LT
REAR PIER
Surface Elev. 829.7 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition GOOD



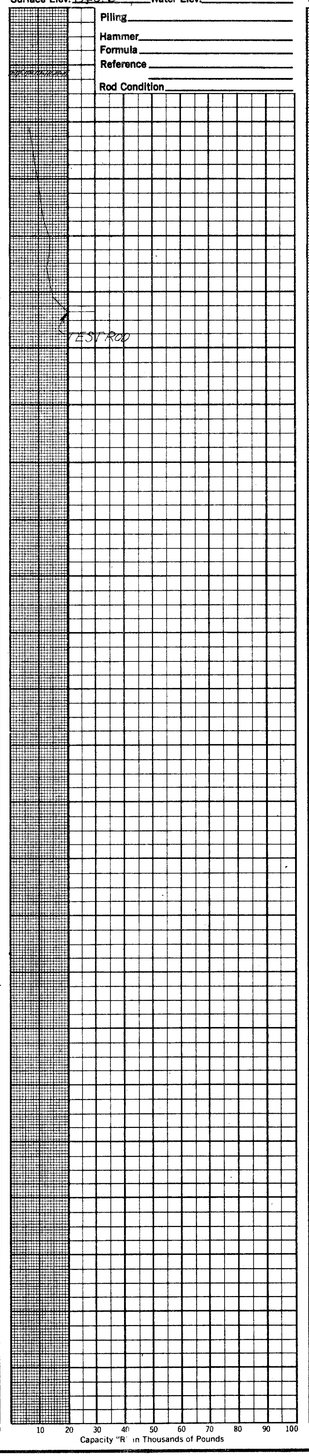
Test Location No. 8
Station & Offset 577+38 78'RT
REAR PIER
Surface Elev. 839.0 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition GOOD



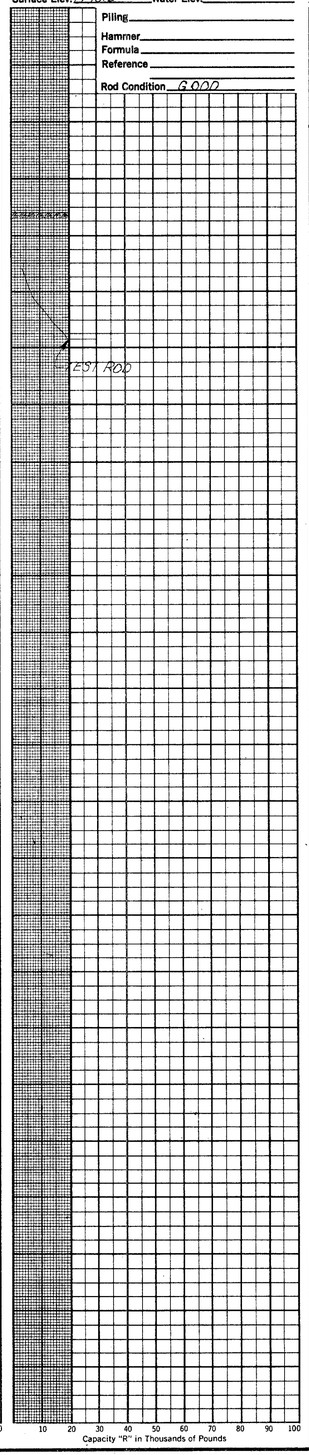
Test Location No. 9
Station & Offset 577+79 78'LT
FORWARD PIER
Surface Elev. 817.0 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition GOOD



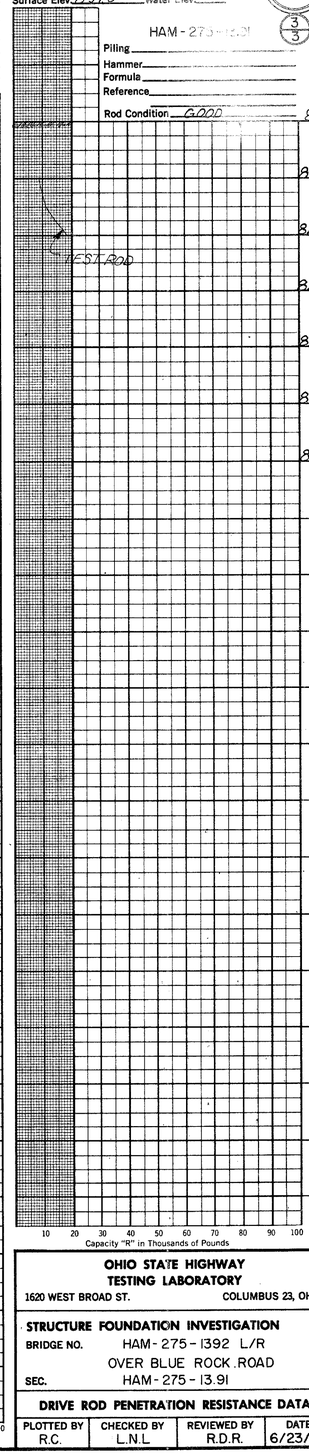
Test Location No. 1
Station & Offset 578+10 36'RT
FORWARD PIER
Surface Elev. 840.6 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition



Test Location No. 14
Station & Offset 578+57 36'LT
FORWARD ABUTMENT
Surface Elev. 830.6 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition GOOD



Test Location No. 16
Station & Offset 578+97 78'RT
FORWARD ABUTMENT
Surface Elev. 827.0 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition GOOD



20
30
3
3

HAM-275-13.91

OHIO STATE HIGHWAY TESTING LABORATORY
1620 WEST BROAD ST. COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HAM-275-1392 L/R
OVER BLUE ROCK ROAD
SEC. HAM-275-13.91

DRIVE ROD PENETRATION RESISTANCE DATA

PLOTTED BY	CHECKED BY	REVIEWED BY	DATE
R.C.	L.N.L	R.D.R.	6/23/69

H. COLE CO.-BDM-10-67-1000

TE - 1 1 8
600 - 12 - 68

HAMILTON COUNTY
HAM-275-13.91

21/30 — 3/4

GEOLOGY OF THE SITE

THE STRUCTURE SITE IS LOCATED IN THE DEEPLY DISSECTED PORTION OF THE LEXINGTON PENEPLAIN, IN AN AREA WHERE MODERATELY DEEP GLACIAL DRIFT OVERLIES INTERBEDDED SHALE AND LIMESTONE BEDROCK, OF ORDOVICIAN AGE.

EXPLORATION

THE EXPLORATION CONSISTED OF TWO DRIVE SAMPLE-CORE BORINGS AND FOUR DRIVE ROD PENETRATION TESTS, MADE BETWEEN MAY 20 AND 23, 1969.

INVESTIGATIONAL FINDINGS

BORINGS DISCLOSED THAT BEDROCK SURFACE, ENCOUNTERED AT 15 AND 20-FOOT DEPTHS, ELEVATIONS 881 AND 878 FEET, IS OVERLAIN BY STIFF AND VERY STIFF SANDY, GRAVELLY CLAYS AND CLAY WITH COBBLES. THE BORINGS WERE TERMINATED AT 50 AND 54-FOOT DEPTHS, ELEVATIONS 846 AND 844 FEET, AFTER PENETRATING 34 TO 35 FEET BELOW BEDROCK SURFACE.

THE ROD SOUNDINGS ENCOUNTERED RAPID INCREASE IN PENETRATION RESISTANCE WITH INCREASE IN DEPTH, AND WERE TERMINATED UPON ENCOUNTER WITH REFUSAL TO PENETRATION AT 10 TO 12-FOOT DEPTHS, ELEVATIONS 887 TO 885 FEET, CONSIDERED TO BE IN VERY STIFF CLAYS, AS DISCLOSED BY THE BORINGS.

NO FREE WATER WAS ENCOUNTERED IN ANY OF THE ROD SOUNDING HOLES.

IF IT IS THE INTENTION TO FOUND THE ABUTMENTS ON BEDROCK, IT IS CONSIDERED ADVISABLE THAT THE OPEN EXCAVATIONS BE INSPECTED IN THE FIELD IN ORDER TO INSURE THAT THE EXCAVATIONS HAVE BEEN EXTENDED TO ROCK THROUGHOUT THE ENTIRE FOUNDING AREA. IT IS FURTHER SUGGESTED THAT THE AREA OF THE FOOTING CONTACT NOT BE SUBJECTED TO PROLONGED ATMOSPHERIC EXPOSURE, AND THAT THE EXCAVATIONS BE WELL DRAINED AT ALL TIMES.

UNCONFINED COMPRESSION TESTS ON SIMILAR INTERBEDDED SHALE AND LIMESTONE BEDROCK INDICATE A CRUSHING STRENGTH ON THE ORDER OF 150 TONS PER SQUARE FOOT.

LEGEND

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.
- Capped Pile
- Footing
- Footing on Pile
- TR — Top of Rock
- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- X/Y — Figures Beside the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test.
  X = Number of Blows for First 6 inches.
  Y = Number of Blows for Second 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Casing
- Resistance "R" $\leq$ 10,000 lbs.
- Resistance "R" $>$ 10,000 lbs.
- Z — Indicates Final Measurement of Penetration, in Inches.
- W — Indicates Free Water Elevation.
- Indicates Static Water Elevation.

SYMBOLS OF ROCK TYPES

- Coal
- Weathered Siltstone, Mudstone, or Claystone
- Siltstone, Mudstone, or Claystone
- Weathered Shale
- Shale
- Boulders or Cobbles
- Weathered Sandstone
- Sandstone
- Leached Dolomite
- Dolomite
- Leached Limestone
- Limestone

GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be readily compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and / or 5-foot depth intervals, driven by means of a 140 - pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 12 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sampler is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in two 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system - and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Particle Size Definitions

Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
12"	3"	2.0mm (No. 10 sieve)	0.42mm (No. 40 sieve)	0.074mm (No. 200 sieve)		0.005mm

NOTE: Information shown by this subsurface investigation was obtained solely for the use in establishing design controls for the project. The State of Ohio does not guarantee the accuracy of this data and it is not to be construed as a part of the plans governing construction of the project.

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS, OHIO 43223

STRUCTURE FOUNDATION INVESTIGATION

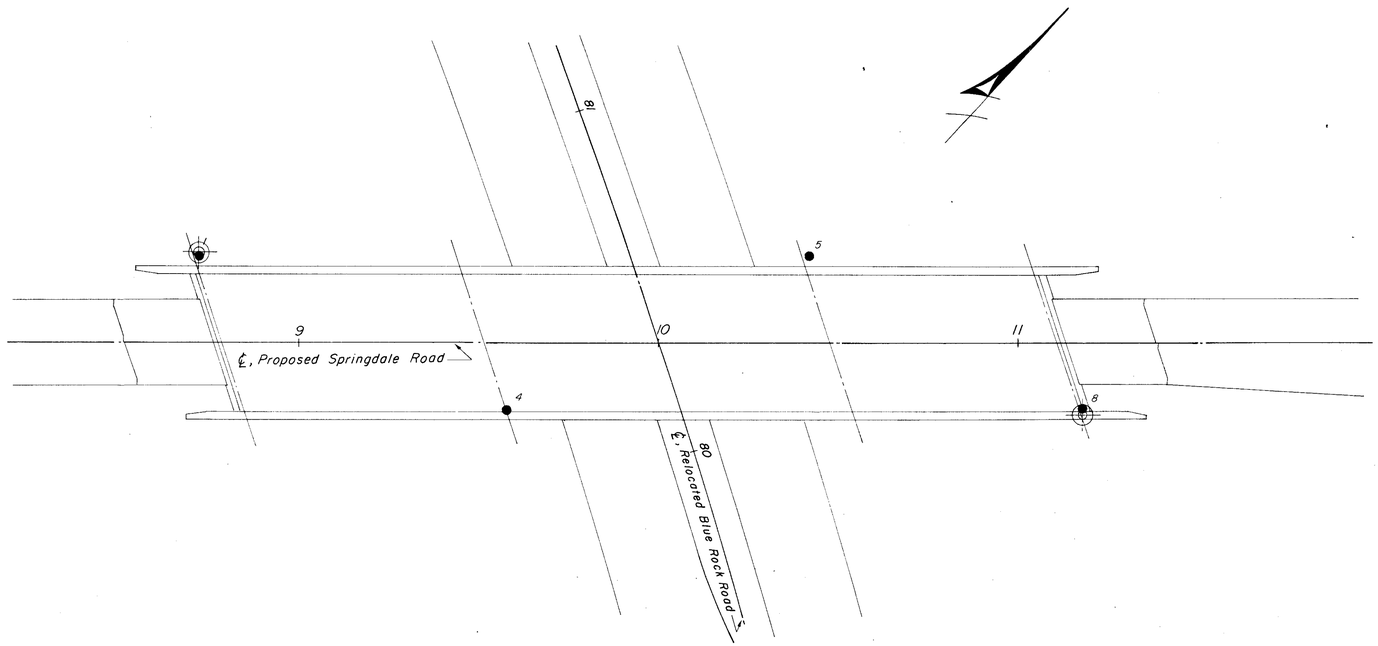
BRIDGE NO. HAM-275-
SPRINGDALE ROAD OVER
RELOCATED BLUE ROCK ROAD
SEC. HAM-275-13.91

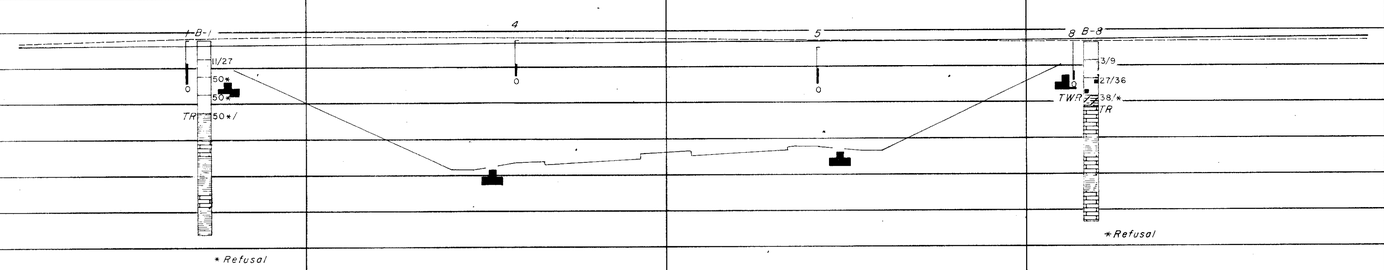
CHECKED BY	REVIEWED BY	DATE
L.N.L.	R.D.R.	6/23/69

TE - 119
1000 - 4 - 66

HAM-275-13.91

22/30 (2/4)





SCALE: 1" = 20'

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION

BRIDGE NO. HAM-275-
SPRINGDALE ROAD OVER
RELOCATED BLUE ROCK ROAD
SEC. HAM-275-13.91

PLAN AND PROFILE

DRAWN BY	CHECKED BY	REVIEWED BY	DATE
L.L.L.	L.N.L.	R.D.R.	6/23/69

TE - 122
600 - 4 - 66

LOG OF BORING

Date Started 5-20-69 | Sampler Type SS | Dia 1 3/8" | Water Elev. —
Date Completed 5-20-69 | Casing: Length 25' | Dia 3 1/2" | Surface Elev 897.5'
Boring No B-1 | Station & Offset 8+72, 25' Lt. (Rear Abutment)

Elev.	Depth	Std. Pen (N)	Rec. ft.	Loss ft.	Description	Sample No.	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
897.5	0														
	2														
892.5	4														
	6	11/27			Brown Sandy Clay	1	0	8	13	27	52	37	18	20	A-6b
887.5	8														
	10	50* (0.7')			Brown Gravelly Sandy Clay	2	17	9	17	18	39	32	14	15	A-6a
882.5	12														
	14	50* (0.6')			Brown Sandy Gravelly Clay	3	23	6	9	16	46	33	14	18	A-6a
877.5	16														
	18														
	20	50*/ (0.2')			TOP OF ROCK										
	22		3.7	1.3											
	24														
	26		3.5	1.5											
	28														
	30		2.8	2.2	Shale, gray, medium-firm, fossiliferous, argillaceous, calcareous in part, highly broken, interbedded with; (A) Limestone, gray, firm, fossiliferous, crystalline, slightly argillaceous, (Comprising 21% of the interval); (B) Small clay seams. Core Loss 20 %.										
	32														
	34														
	36														
	38		4.8	0.2											
	40														
	42		4.3	0.7											
	44														
	46														
	48		4.8	0.2											
	50														
	52														
843.5	54		3.2	0.8	BOTTOM OF BORING										

*Refusal

LOG OF BORING

Date Started 5-20-69 | Sampler Type SS | Dia 1 3/8" | Water Elev. —
Date Completed 5-21-69 | Casing: Length 15' | Dia 3 1/2" | Surface Elev 896.3'
Boring No B-8 | Station & Offset 11+18, 20' Rt. (Forward Abutment)

Elev.	Depth	Std. Pen (N)	Rec. ft.	Loss ft.	Description	Sample No.	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
896.3	0														
	2														
891.3	4														
	6	3/9			Brown Clay	1	0	7	7	9	77	62	33	28	A-7-6
886.3	8														
	10	27/36			Brown Gravelly Sandy Clay with Cobbles	2	23	13	15	15	34	34	33	13	A-6a
	12														
	14				TOP OF WEATHERED ROCK										
881.3	16	38/*			Gray Weathered Shale	3	0	6	8	29	57	36	17	16	Visual
878.3	18														
	20		1.4	0.6	TOP OF ROCK										
	22														
	24		4.3	0.7											
	26														
	28		4.4	0.6	Limestone, gray-blue, hard, dense, thin-bedded with interbedded calcareous shale, (comprising 30 percent of the interval), there are scattered thin clay seams throughout. Core Loss 7%.										
	30														
	32		5.0	0.0											
	34														
	36		5.0	0.0											
	38														
	40														
	42		5.0	0.0											
	44														
	46														
	48		4.8	0.2											
846.3	50				BOTTOM OF BORING										

*Refusal

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HAM-275-
SPRINGDALE ROAD OVER
RELOCATED BLUE ROCK ROAD
SEC. HAM-275-13.91

BORING DATA

TYPED BY	CHECKED BY	REVIEWED BY	DATE
S.A.J.	R.C.	R.D.R.	6/23/69

TE-114
1620-9-67

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

902 898 894 890 886 882

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. 1
Station & Offset 6+72, 24'Lt.
REAR ABUTMENT
Surface Elev. 892.6' Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

894 890 886 882
TEST ROD

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. 4
Station & Offset 9+58, 19'Rt.
REAR PIER
Surface Elev. 897.4' Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

TEST ROD

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. 5
Station & Offset 10+42, 24'Lt.
FORWARD PIER
Surface Elev. 895.0' Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

TEST ROD

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. 6
Station & Offset 11+18, 19'Rt.
FORWARD ABUTMENT
Surface Elev. 896.7' Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

894 890 886 882
TEST ROD

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

24
30
4
4

HAM-275-13.91

OHIO STATE HIGHWAY TESTING LABORATORY
1620 WEST BROAD ST. COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HAM-275
SPRINGDALE ROAD OVER
RELOCATED BLUE ROCK ROAD
SEC. HAM-275-13.91

DRIVE ROD PENETRATION RESISTANCE DATA

PLOTTED BY	CHECKED BY	REVIEWED BY	DATE
J.M.M.	L.N.L.	R.D.R.	6/23/69

M. COLE CO. -ISM-10-67-1000

GEOLOGY OF THE SITE

THE STRUCTURE SITE IS LOCATED ON THE GLACIATED UPLAND PORTION OF THE LEXINGTON PENEPLAIN, IN AN AREA WHERE SHALLOW GLACIAL-DERIVED SOILS OVERLIE INTERBEDDED SHALE AND LIMESTONE BEDROCK, OF ORDOVICIAN AGE.

EXPLORATION

THE EXPLORATION CONSISTED OF TWO DRIVE SAMPLE-CORE BORINGS AND EIGHT DRIVE ROD PENETRATION TESTS, MADE BETWEEN NOVEMBER 14 AND 19, 1961.

INVESTIGATIONAL FINDINGS

THE BORINGS DISCLOSED THAT GENTLY SLOPING BEDROCK SURFACE, ENCOUNTERED AT 10-FOOT DEPTH, ELEVATION 915 FEET, IN THE FORWARD PORTION OF THE STRUCTURE SITE, AND ELEVATION 909 FEET, IN THE REAR PORTION OF THE STRUCTURE SITE, IS OVERLAIN BY DENSE SILT AND STIFF CLAYS. THE BORINGS WERE TERMINATED AT 35 AND 40-FOOT DEPTHS, ELEVATIONS 885 AND 884 FEET, AFTER PENETRATING 25 AND 30 FEET BELOW BEDROCK SURFACE.

ROD SOUNDINGS ENCOUNTERED RELATIVELY HIGH RESISTANCE TO PENETRATION, AND WERE TERMINATED DUE TO ABRUPT ENCOUNTER WITH REFUSAL TO PENETRATION AT 5 TO 12-FOOT DEPTHS, ELEVATIONS 922 TO 911 FEET, CONSIDERED TO BE IN VERY DENSE AND VERY STIFF MATERIALS WITH BOULDERS, AS REVEALED BY THE BORINGS.

SINCE SUBSTRUCTURE UNITS WILL BE FOUNDED ON BEDROCK, IT IS SUGGESTED THAT THE AREA OF THE FOOTING CONTACT NOT BE SUBJECTED TO PROLONGED ATMOSPHERIC EXPOSURE AND THAT THE EXCAVATIONS BE KEPT DRAINED AT ALL TIMES DUE TO THE FACT THAT WHILE THIS SHALE IS GENERALLY FIRM IN PLACE, IT IS SUSCEPTIBLE TO DISINTEGRATION UPON EXPOSURE TO THE ATMOSPHERE AND WATER.

UNCONFINED COMPRESSION TESTS ON SIMILAR BEDROCK INDICATE THAT THE CRUSHING STRENGTH OF THE EXTREMELY WEATHERED SHALE IS ON THE ORDER OF 40 TONS PER SQUARE FOOT, AND IS IN EXCESS OF 150 TONS PER SQUARE FOOT FOR THE FIRM TO HARD SHALE.

FREE WATER WAS NOTED IN THE REAR PORTION OF THE SITE, IN SOUNDING HOLES NUMBERS 1, 2, AND 5, AT ELEVATIONS 914, 916, AND 917 FEET, RESPECTIVELY.

LEGEND

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.
- Capped Pile
- Footing
- Footing on Pile
- TR — Top of Rock
- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- X/Y — Figures Beside the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test. X = Number of Blows for First 6 inches. Y = Number of Blows for Second 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Casing
- Resistance "R" < 10,000 lbs.
- Resistance "R" > 10,000 lbs.
- Z — Indicates Final Measurement of Penetration, in Inches.
- W — Indicates Free Water Elevation.
- Indicates Static Water Elevation.

SYMBOLS OF ROCK TYPES

- Coal
- Weathered Siltstone, Mudstone, or Claystone
- Siltstone, Mudstone, or Claystone
- Weathered Shale
- Shale
- Boulders or Cobbles
- Weathered Sandstone
- Sandstone
- Leached Dolomite
- Dolomite
- Leached Limestone
- Limestone

GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be readily compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and / or 5-foot depth intervals, driven by means of a 140 - pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 12 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sampler is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in two 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system-and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Particle Size Definitions

Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
	12" / 3"	2.0mm	0.42mm	0.074mm	0.005mm	
		No. 10 sieve	No. 40 sieve	No. 200 sieve		

LOG OF BORING

Date Started 11-15-61 — Sampler Type SS — Dia. 1 3/8" — Water Elev. —
Date Completed 11-16-61 — Casing: Length 10' — Dia. 3 1/2"
Boring No. B-2 — Station & Offset 48+50, 16' Rt. (Rear Abutment) — Surface Elev 918.6'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
918.6	0														
	2														
	4														
913.6	6	27/66			Brown Sandy Gravelly Silt, Trace of Roots	1	23	10	9	19	39	30	7	24	A-4a
911.1	8	50* (6")			Brown Gravelly Sandy Clay	2	21	9	15	18	37	29	11	15	A-6a
908.6	10				TOP OF EXTREMELY WEATHERED ROCK										
	12														
	14		5.0	0.0	Shale, brown, argillaceous, fossiliferous, calcareous, soft, extremely weathered, crumbly, with limestone nodules throughout. No Core Loss.										
903.6	16				TOP OF HARD ROCK										
	18		5.0	0.0											
	20														
	22		5.0	0.0											
	24														
	26				Shale, gray, argillaceous, calcareous, fossiliferous, firm to hard, weathered to 20.0', broken; with limestone interbeds (light gray, crystalline, fossiliferous, hard, dense, badly broken) comprising 25% of the interval; and with small clay seams (0.1' to 0.2') at irregular intervals to 27.0'. No Core Loss.										
	28		5.0	0.0											
	30														
	32		5.0	0.0											
883.6	34				BOTTOM OF BORING										

*Refusal

LOG OF BORING

Date Started 11-14-61 — Sampler Type SS — Dia. 1 3/8" — Water Elev. —
Date Completed 11-15-61 — Casing: Length 15' — Dia. 3 1/2"
Boring No. B-9 — Station & Offset 51+60, 16' Lt. (Forward Abutment) — Surface Elev 925.1'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
925.1	0														
	2														
	4														
920.1	6	40* (5")	0.8	1.3	Brown and Gray Gravelly Sandy Clay	1	15	8	9	10	58	43	23	20	A-7-6
	8				Brown Silty Clay with Limestone Boulders										
915.1	10		0.9	1.6											
	12				TOP OF EXTREMELY WEATHERED ROCK										
	14		4.1	0.9											
	16				Shale, brown, argillaceous, calcareous, fossiliferous, fissile, soft, very weathered, crumbly. Core Loss 16%.										
905.1	18		4.3	0.7											
	20				TOP OF HARD ROCK										
	22		5.0	0.0											
	24														
	26														
	28		5.0	0.0											
	30														
	32		5.0	0.0	Shale, brown grading to gray, argillaceous, calcareous, fossiliferous, fissile, hard, badly broken; with limestone interbeds (light-gray, crystaline, fossiliferous, hard, dense, broken) comprising 22% of the interval. No Core Loss.										
	34														
	36														
	38		5.0	0.0											
885.1	40				BOTTOM OF BORING										

*Refusal

NOTE: Information shown by this subsurface investigation was obtained solely for the use in establishing design controls for the project. The State of Ohio does not guarantee the accuracy of this data and it is not to be construed as a part of the plans governing construction of the project.

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS, OHIO 43223

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HAM-275-1429
UNDER RELOCATED BREHM RD
SEC. HAM-275-13.91

CHECKED BY	REVIEWED BY	DATE
L.N.L.	R.D.R.	5/1/69

TE - 119
1000 - 4 - 66

HAM-275-13.91

26
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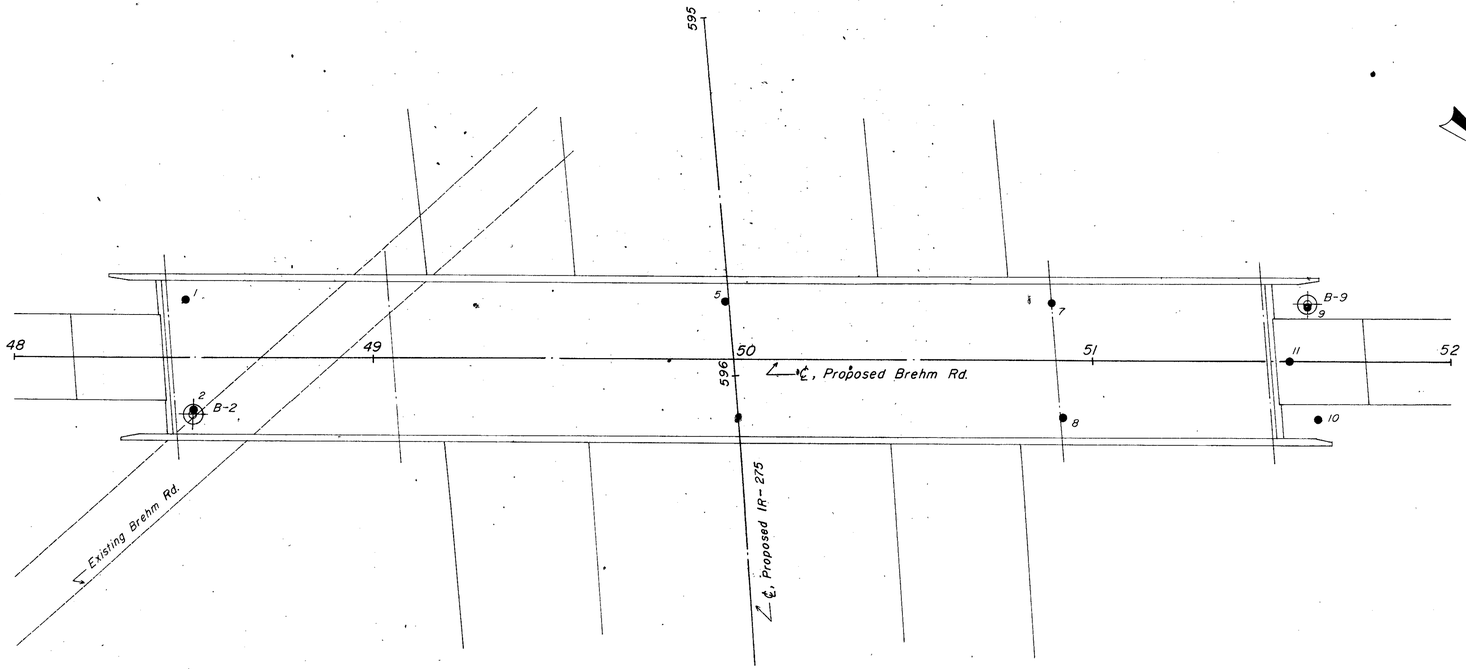
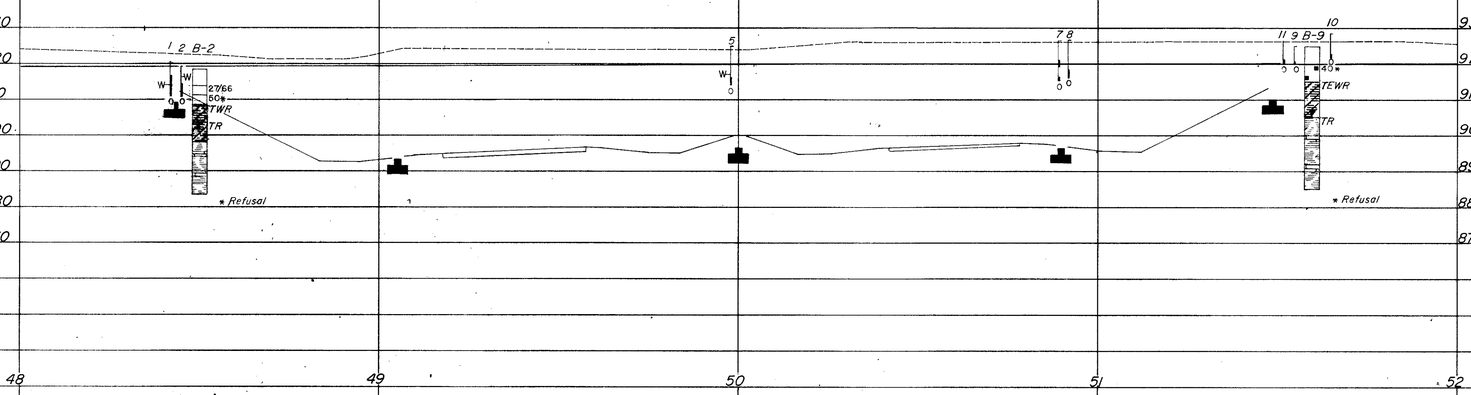




SCALE: 1" = 20'

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

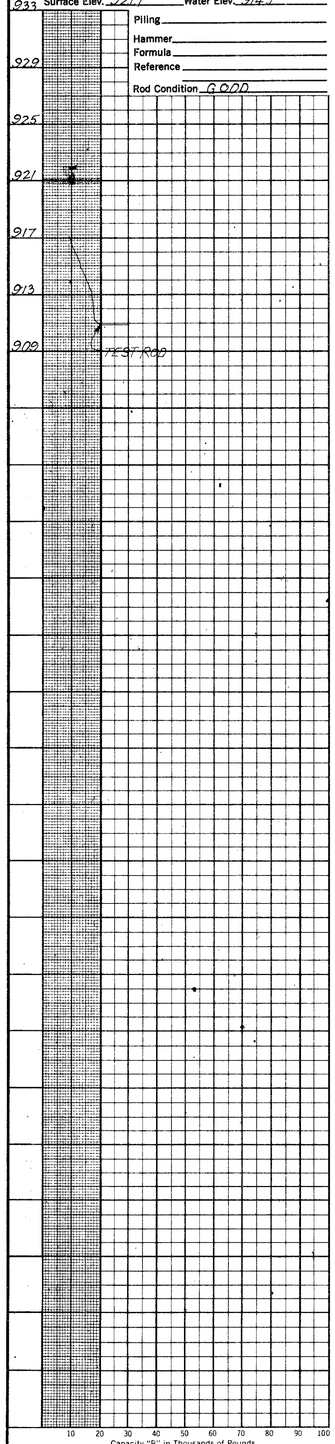
STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HAM-275-1429
UNDER RELOCATED BREHM RD.
SEC. HAM-275-13.91

PLAN AND PROFILE

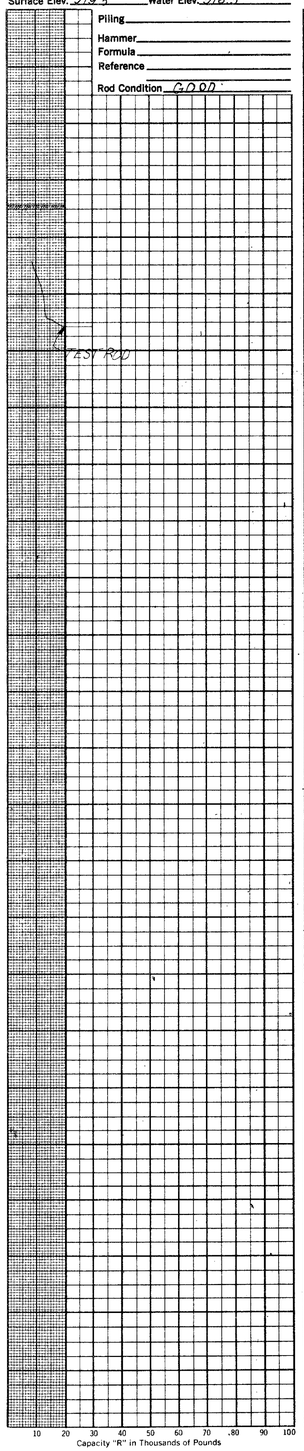
DRAWN BY	CHECKED BY	REVIEWED BY	DATE
L.L.L.	L.N.L.	R.D.R.	5-21-69

FE-114
1000-9-67

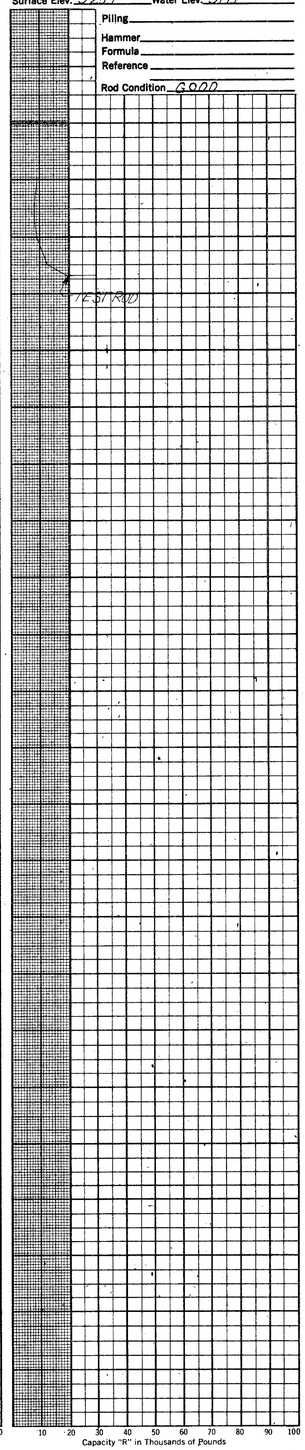
Test Location No. 1
Station & Offset 48+48 16' LT REAR ABUTMENT
Surface Elev. 921.1' **Water Elev.** 914.1'
Piling
Hammer
Formula
Reference
Rod Condition GOOD



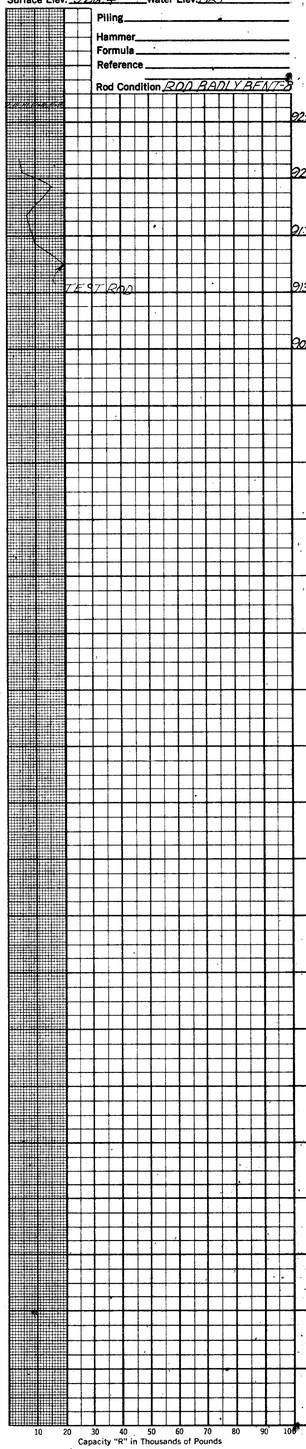
Test Location No. 2
Station & Offset 48+50 15' RT REAR ABUTMENT
Surface Elev. 918.3' **Water Elev.** 916.3'
Piling
Hammer
Formula
Reference
Rod Condition GOOD



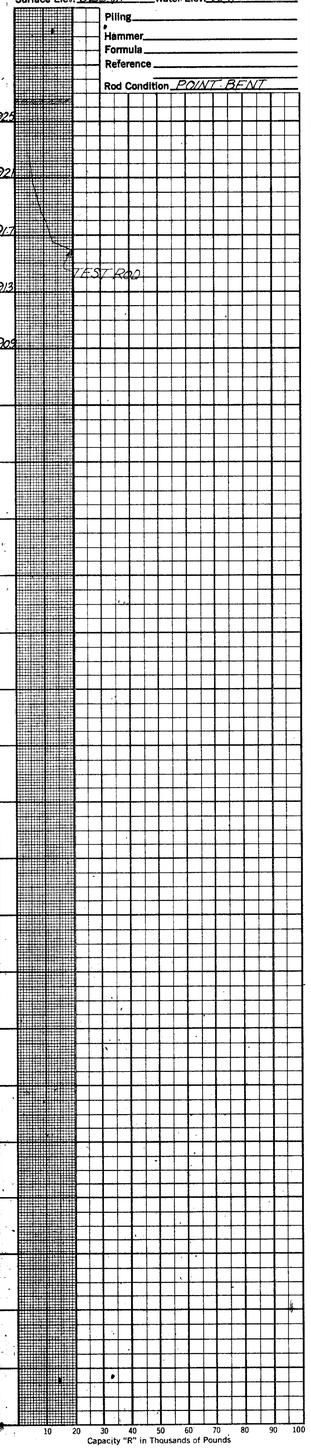
Test Location No. 5
Station & Offset 49+08 16' LT CENTER PIER
Surface Elev. 925.1' **Water Elev.** 917.1'
Piling
Hammer
Formula
Reference
Rod Condition GOOD



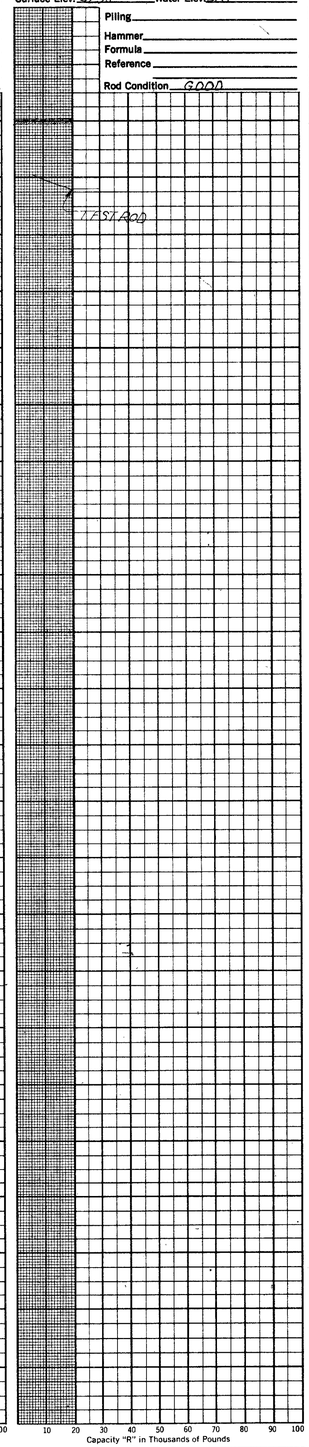
Test Location No. 7
Station & Offset 50+89 16' LT FORWARD PIER
Surface Elev. 926.4' **Water Elev.** DRY
Piling
Hammer
Formula
Reference
Rod Condition ROD BADLY BENT



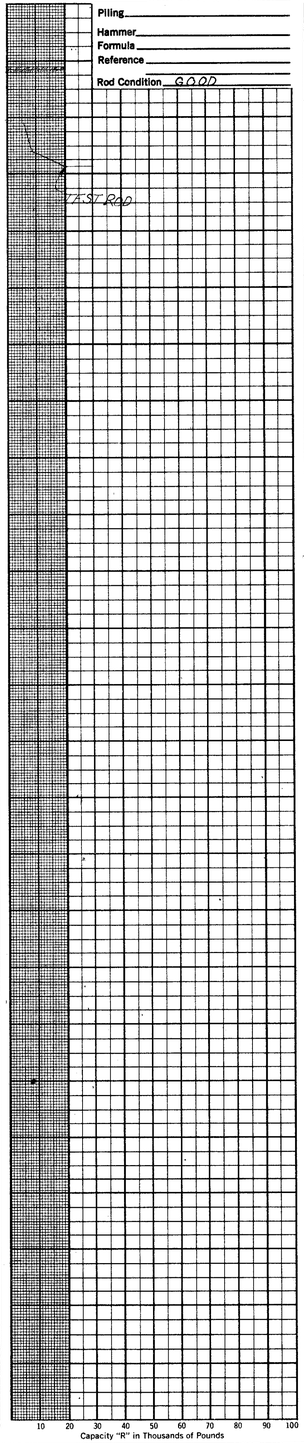
Test Location No. 9
Station & Offset 50+92 16' RT FORWARD PIER
Surface Elev. 926.6' **Water Elev.** DRY
Piling
Hammer
Formula
Reference
Rod Condition POINT BENT



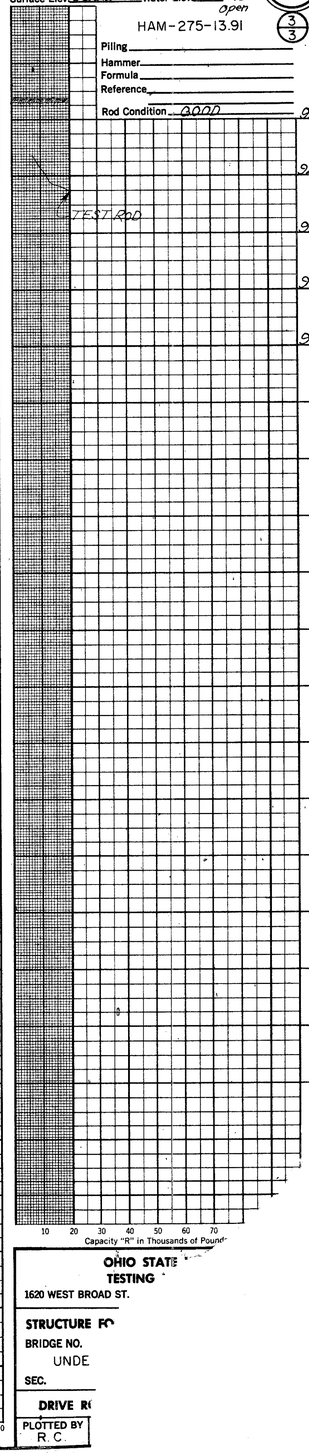
Test Location No. 9
Station & Offset 51+60 15' LT FORWARD ABUTMENT
Surface Elev. 925.1' **Water Elev.** DRY
Piling
Hammer
Formula
Reference
Rod Condition GOOD



Test Location No. 10
Station & Offset 51+73 16' RT FORWARD ABUTMENT
Surface Elev. 928.6' **Water Elev.** DRY
Piling
Hammer
Formula
Reference
Rod Condition GOOD



Test Location No. 11
Station & Offset 51+55 C.L. FORWARD ABUTMENT
Surface Elev. 926.5' **Water Elev.** DRY Hole open
HAM-275-13.91
Piling
Hammer
Formula
Reference
Rod Condition GOOD



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OHIO STATE
TESTING
1620 WEST BROAD ST.

STRUCTURE FO
BRIDGE NO.
UNDE
SEC.

DRIVE R(
PLOTTED BY
R. C.

COLE CO. -BDM-10-67-1000

TE - 118
600 - 12 - 68

HAMILTON COUNTY
HAM-275-13.91

28
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1
3

GEOLOGY OF THE SITE

THE STRUCTURE SITE IS LOCATED ON THE GENTLY ROLLING GLACIATED UPLAND PLAIN, IN AN AREA WHERE MODERATELY DEEP SOIL COVER OVERLIES INTERBEDDED LIMESTONE AND SHALE BEDROCK, OF ORDOVICIAN AGE.

EXPLORATION

THE EXPLORATION CONSISTED OF TWO DRIVE SAMPLE-CORE BORINGS AND SIX DRIVE ROD PENETRATION TESTS, MADE BETWEEN OCTOBER 19 AND NOVEMBER 16, 1961.

INVESTIGATIONAL FINDINGS

BORINGS DISCLOSED THAT SLOPING BEDROCK SURFACE, ENCOUNTERED AT 16-FOOT DEPTH, ELEVATION 855 FEET, IN THE FORWARD PORTION OF THE STRUCTURE SITE, AND AT 18-FOOT DEPTH, ELEVATION 852 FEET, IN THE REAR PORTION OF THE STRUCTURE SITE, IS OVERLAIN BY MEDIUM-STIFF AND VERY STIFF GRAVELLY SANDY CLAYS AND SOME DENSE GRAVELS AND SILTS. THE BORINGS WERE TERMINATED AT 30 AND 35-FOOT DEPTHS, ELEVATIONS 841 AND 835 FEET, AFTER PENETRATING 14 AND 16 FEET BELOW BEDROCK SURFACE.

ROD SOUNDINGS ENCOUNTERED RAPID INCREASE IN PENETRATION RESISTANCE WITH INCREASE IN DEPTH, AND WERE TERMINATED AT 14 TO 17-FOOT DEPTHS, ELEVATIONS 859 TO 854 FEET, CONSIDERED TO BE IN VERY STIFF SANDY GRAVELLY CLAYS, WITH THE EXCEPTION OF ROD SOUNDING NUMBER 10 WHICH IS CONSIDERED TO HAVE TERMINATED UPON ENCOUNTER WITH BEDROCK SURFACE, AS REVEALED BY THE BORINGS.

IF IT IS THE INTENTION TO FOUND SUBSTRUCTURE ELEMENTS ON BEDROCK SURFACE, IT IS CONSIDERED ADVISABLE THAT THE OPEN EXCAVATIONS BE INSPECTED IN THE FIELD IN ORDER TO INSURE THAT THE EXCAVATIONS HAVE BEEN EXTENDED THROUGHOUT THE ENTIRE FOUNDING AREA. IT IS FURTHER SUGGESTED THAT THE AREAS OF FOOTING CONTACT NOT BE SUBJECTED TO PROLONGED ATMOSPHERIC EXPOSURE AND THAT THE EXCAVATIONS FOR THE SUBSTRUCTURE UNITS BE KEPT DRAINED AT ALL TIMES DUE TO THE FACT THAT WHILE THIS BEDROCK IS GENERALLY FIRM IN PLACE, THE SHALE IS SUSCEPTIBLE TO DISINTEGRATION UPON EXPOSURE TO THE ATMOSPHERE AND WATER.

UNCONFINED COMPRESSION TESTS ON SIMILAR BEDROCK INDICATE THE CRUSHING STRENGTHS OF THE LIMESTONE AND THE SHALE ARE IN EXCESS OF 350 AND 150 TONS PER SQUARE FOOT, RESPECTIVELY.

FREE WATER WAS OBSERVED IN THE ROD SOUNDING HOLES AT 10 TO 13-FOOT DEPTHS, BETWEEN ELEVATIONS 862 AND 859 FEET, WITH EXCEPTION OF ROD SOUNDING NUMBER 10.

LEGEND

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.
- Capped Pile
- Footing
- Footing on Pile
- TR — Top of Rock
- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- X/Y — Figures Beside the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test. X = Number of Blows for First 6 inches. Y = Number of Blows for Second 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Casing
- Resistance "R" < 10,000 lbs.
- Resistance "R" > 10,000 lbs.
- Z — Indicates Final Measurement of Penetration, in Inches.
- W — Indicates Free Water Elevation.
- Indicates Static Water Elevation.

SYMBOLS OF ROCK TYPES

- Coal
- Weathered Siltstone, Mudstone, or Claystone
- Siltstone, Mudstone, or Claystone
- Weathered Shale
- Shale
- Boulders or Cobbles
- Weathered Sandstone
- Sandstone
- Leached Dolomite
- Dolomite
- Leached Limestone
- Limestone

GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be readily compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and / or 5-foot depth intervals, driven by means of a 140 - pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 12 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sampler is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in two 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system - and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Particle Size Definitions

Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
12"	3"	2.0mm (No. 10 sieve)	0.42mm (No. 40 sieve)	0.074mm (No. 200 sieve)	0.005mm	

LOG OF BORING

Date Started 11-14-61
Date Completed 11-16-61
Boring No. B-2
Sampler Type SS Dia. 1 3/8"
Casing: Length 15' Dia. 3 1/2"
Station & Offset [illegible] 22' Rt. (Rear Abutment)
Water Elev. ____
Surface Elev 870.3'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
870.3	0														
	2														
865.3	4														
	6	35/61			Brown Sandy Gravel	1	61	24	7	8	-	NP	NP	10	A-1-a
	8														
860.3	10														
	12	45/52			Brown and Gray Gravelly Clay	2	43	2	4	19	32	37	12	20	A-6a
	14														
855.3	16														
	18	50* (3")			Brown Sandy Gravelly Clay	3	34	12	7	16	31	PL=	31	18	A-6a
851.8			1.1	0.4	TOP OF ROCK										
	20														
	22		2.7	2.3											
	24														
	26				Limestone, gray, crystalline, fossiliferous, hard, dense, badly broken, with shale interbeds (gray, argillaceous, calcareous, fossiliferous, firm, broken) comprising approximately 10% of the interval, and with clay seams at irregular intervals throughout. Core Loss 2%.											
	28		4.9	0.1											
	30														
	32														
	34		3.4	0.6											
835.3					BOTTOM OF BORING										

*Refusal

LOG OF BORING

Date Started 11-9-61
Date Completed ____
Boring No. B-10
Sampler Type SS Dia. 1 3/8"
Casing: Length ____ Dia. ____
Station & Offset 723+05, 27' Rt. (Forward Abutment)
Water Elev. ____
Surface Elev 871.3'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
871.3	0														
	2														
866.3	4														
	6	4/10			Brown Clayey Silt	1	0	12	5	47	36	31	8	22	
863.8	8	5/6			Brown and Gray Clay	2	0	7	7	20	66	57	29	28	
861.3	10														
	12	8/14			Mottled Brown and Gray Clay	3	0	4	8	18	70	53	29	26	
858.8	14	23/26			Brown Sandy Gravelly Clay	4	30	7	9	17	37	39	19	20	
856.3	16	36/* (6")													
854.8					Brown and Gray Sandy Clay	5	10	5	5	32	48	36	18	20	
	18				TOP OF ROCK										
	20		0.8	1.2											
	22														
	24		2.5	2.5	Limestone, gray, crystalline, fossiliferous, hard, dense, badly broken, with shale interbeds (gray, argillaceous, calcareous, fissile, firm, weathered in top of interval) comprising 15% of the interval and with small (0.2'-0.3') clay seams at irregular intervals throughout. Core Loss 40%.										
	26														
	28		4.0	1.0											
841.3	30				BOTTOM OF BORING										

*Refusal

NOTE: Information shown by this subsurface investigation was ob... the use in establishing design controls for the project. The St... guarantee the accuracy of this data and it is not to be... plans governing construction of the project.

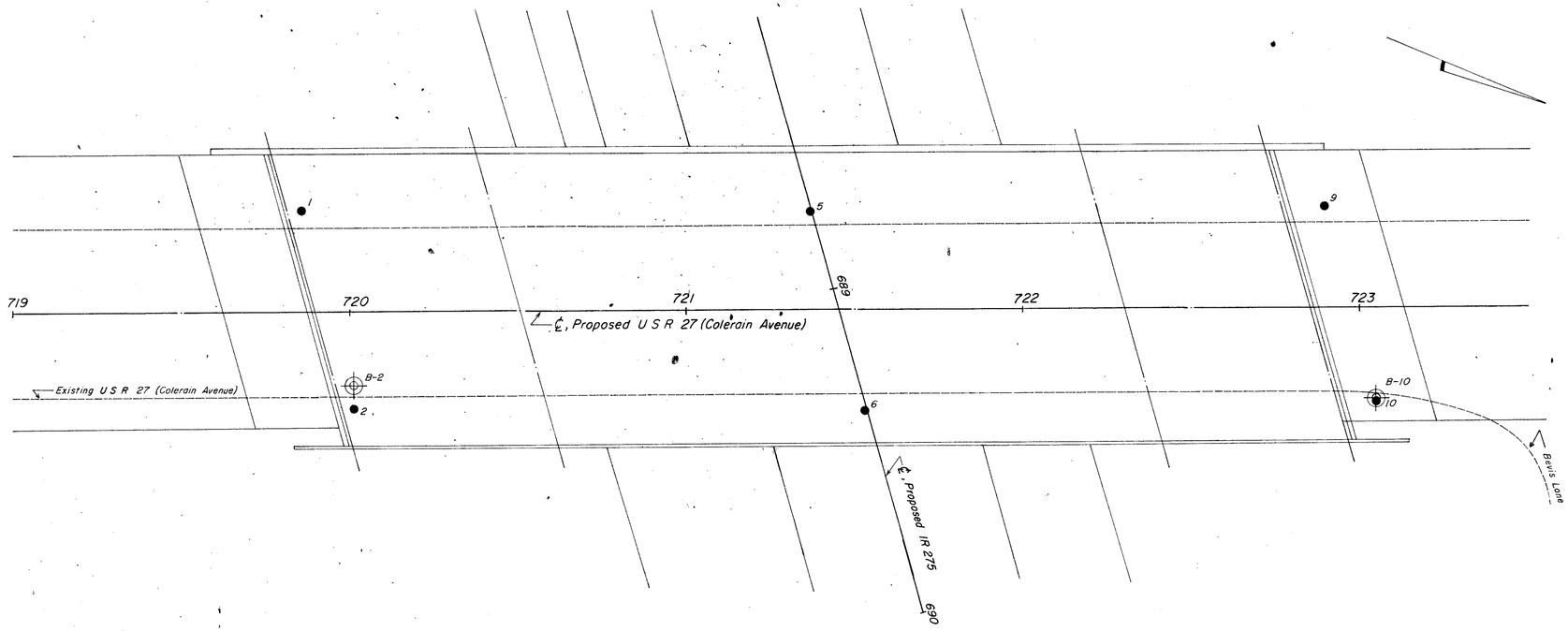
OHIO DEPARTMENT ... TESTING L...
1620 WEST BROAD S...

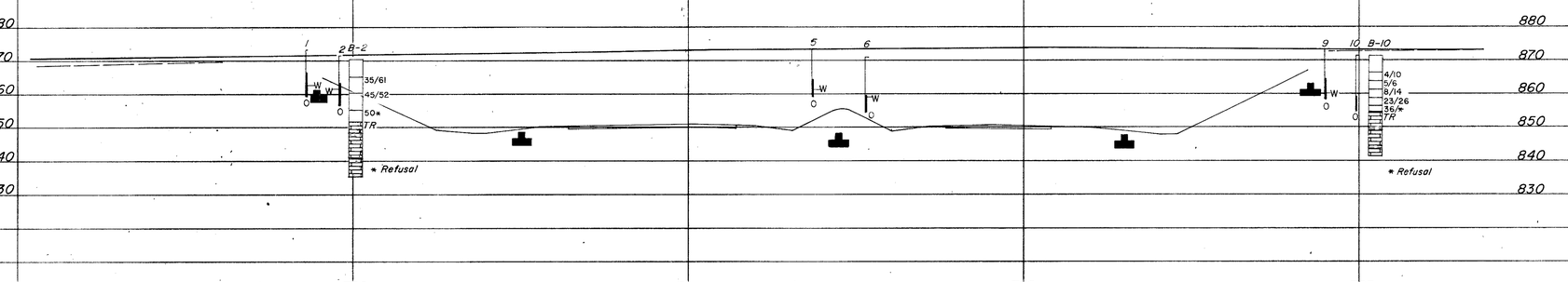
STRUCTURE FC...
BRIDGE NO.
UNDER
SEC.

CHECKED BY
L.N.L.

TE - 119
1000 - 4 - 66

HAM-275-13.91





SCALE: 1" = 20'

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HAM-275-1604
UNDER U S R 27 (COLERAIN AVE)
SEC. HAM-275-13.91

PLAN AND PROFILE

DRAWN BY	CHECKED BY	REVIEWED BY	DATE
L.L.L.	L.N.L.	R.D.R.	4/29/69

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

880 876 872 868 864 860 856 852

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. 1
Station & Offset 719+84, 30' LT.
REAR ABUTMENT
Surface Elev. 873.3 Water Elev. 862.8'
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

TEST ROD

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. 2
Station & Offset 720+01, 29' RT.
REAR ABUTMENT
Surface Elev. 871.6 Water Elev. 861.6'
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

TEST ROD

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. 5
Station & Offset 721+37, 29' LT.
CENTER PIER
Surface Elev. 873.3 Water Elev. 861.3'
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

880 876 872 868 864 860 856 852 848

TEST ROD

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. 6
Station & Offset 721+53, 30' RT.
CENTER PIER
Surface Elev. 871.0 Water Elev. 859.0'
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

TEST ROD

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. 9
Station & Offset 722+90, 30' LT.
FORWARD ABUTMENT
Surface Elev. 873.1 Water Elev. 860.1'
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

TEST ROD

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. 10
Station & Offset 723+05,
FORWARD
Surface Elev. 871.6 Water
HAM-
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

TEST ROD

10 20 30 40
Capacity "R"

OHIO
TESTIN
1620 WEST BROAD ST.

STRUCTURE FOUNDA
BRIDGE NO. HAM-
UNDER U S R
SEC. HAM-2

DRIVE ROD PENETR

PLOTTED BY	CHECKED B
J.E.C.	L.N.L

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