STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
MIA-75-9.17-9.35
MIA-41-11.16-11.38

OHIO | FHWA REGION 5 | 1/174

I-75-4(26)74 ; M4-G00(1) — FEDERAL PROJECT

I-75-4 (26)74
M-4 G00(I)

MIAMI COUNTY
MIA-75-(9.17 - 9.35)
MIA-41-(11.16-11.38)

	DESIGN		DESIGNATION
I.R. 75		S.R. 41	
1975 CURRENT ADT	= 24,960	1975 CURRENT ADT	= 10,300
1995 DESIGN YEAR ADT	= 46,720	1995 DESIGN YEAR ADT	= 19,680
DHV (.12 x 46,720 x 0.67)	= 3,760	DHV (.12 x 19680 x 0.67)	= 1,580
D	= 67%	D	= 67%
T	= 16%	T	= 6%
V	= 70 MPH	V	= MPH

MIAMI COUNTY
CITY OF TROY
CONCORD TOWNSHIP

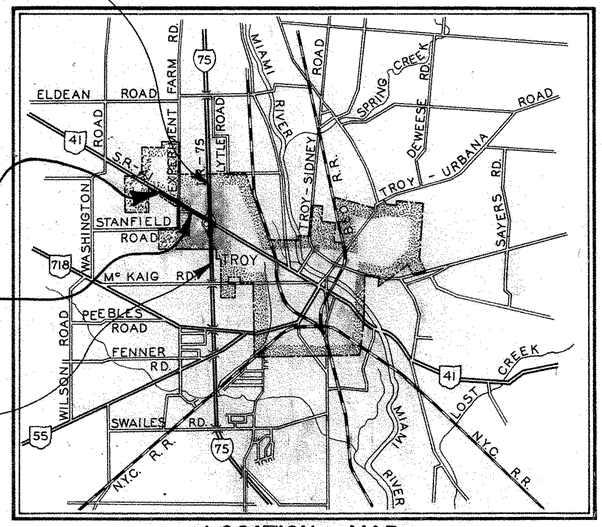
I 75 4(26) 74
END PROJECT
STA. 538+00

M-4 G00(I)
BEGIN PROJECT
STA. 408+88.80

M-4 G00(I)
END PROJECT
STA. 419+50

I-75-4 (26) 74
BEGIN PROJECT
STA. 484 + 00

S.L.M. 9.17



LOCATION MAP

SCALE IN MILES
0 1 2 3 4

Portion to be improved
State & Federal Routes
Other Roads

DETOUR MAP PAGE 9

CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (existing) (proposed)
Center Line 352 353
Trees, Stumps, (to be removed)
Utility Poles: Telephone, Power, Light

Limited Access (only) LA
Right of Way (only) RW
Limited Access & Right of Way LA & RW
Existing Right of Way
Property Line (in existing fence)
Railroad or
Guardrail (existing) (proposed)

INDEX OF SHEETS

Sheet Nos 126, 127, 128, 130, 131, 129, 137
132, 133, 134 and 136 REV. 12-8-76 MRG

LINE DATA

I.R. 75 I-75-4(26)74		S.R. 41 M-4 G00(I)		
BEGIN WORK	STA. 483+00	BEGIN WORK	STA. 399+50	
BEGIN PROJECT	STA. 484+00	BEGIN PROJECT	STA. 408+88.80	
END PROJECT	STA. 538+00	ADD FOR STANFIELD ROAD		
END WORK	STA. 538+25	BEGIN WORK	STA. 10+00	& 23+00
BEGIN WORK (S.R.-41)	STA. 419+50	END WORK	STA. 20+97.29	& 24+64.91
END WORK (S.R.-41)	STA. 446+00	END PROJECT	STA. 419+50	
		END WORK	STA. 419+50	
GROSS LENGTH OF WORK	8175.00 LIN. FT. OR 1.548 MILES	GROSS LENGTH OF WORK	3262.20 LIN. FT. OR 0.618 MILES	
GROSS LENGTH OF PROJECT	5400.00 LIN. FT. OR 1.022 MILES	GROSS LENGTH OF PROJECT	1061.20 LIN. FT. OR 0.201 MILES	

NET LENGTH OF WORK 8175.00 + 3262.20 = 11437.20 LIN.FT. or 2.166 MILES
NET LENGTH OF PROJECT 5400.00 + 1061.20 = 6461.20 LIN.FT. or 1.223 MILES

THESE PLANS PREPARED BY DISTRICT "7" UNDER THE SUPERVISION OF SENIOR DESIGN ENGINEER:

DATE 5-4-76

STATE OF OHIO · CARL E. KEYSOR · 14630 · REGISTERED PROFESSIONAL ENGINEER
SEAL

SCALES

Plan 0 25 50 75 100
Profile: Horizontal 0 25 50 75 100, Vertical 0 1 2 3 4 5 10
Cross Section: Horizontal 0 25 50 75 100, Vertical 0 1 2 3 4 5 10

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 require the closing to traffic of the highway and that detours will be provided as indicated on the plans.

Approved
Date 5-4-76 District Deputy Director of Transportation

Approved
Date 7-21-76 Engineer, Bureau of Bridges

Approved
Date 8-6-76 Engineer, Bureau of Roadway Design

Approved
Date 8-6-76 Assistant Deputy Director for Highway Design

Approved
Date 8/6/76 Assistant Deputy Director for Real Estate

Approved
Date 8-6-76 Assist. Dep. Director for Program Development

Approved
Date 8-9-76 Chief Engineer, Design

Approved
Date Chief Engineer, Construction

Approved
Date Chief Engineer, Operations

Approved
Date 8-9-76 Assist. Director, Department of Transportation

Approved
Date 8-9-76 Director, Department of Transportation

SUPPLEMENTAL SPECIFICATIONS			
844	11-8-74	803	1-22-76
941	11-28-73	808	1-1-71
1001	4-19-76	836	3-12-75
		933	7-6-73
843	10-23-75		
842	8-29-74		
SG25	1-11-74		
S713	1-11-74		
839	11-25-70		

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS									
BP-5	8-11-75	F-2	5-1-76	MC-1	6-13-69	HL-1	9-6-73	TC-7.65	10-1-74
BP-6	6-1-65	F-5	5-1-76	MC-3	6-1-73	HL-2	7-27-73	TC-12.30	10-1-74
BP-2	12-1-68	F-6	5-1-76	MC-4	6-13-69	HL-4	1-21-76	TC-21.10	10-1-74
BP-3	1-1-71	GR-2B	11-9-71	MC-6	6-1-65	HL-5	9-6-73	TC-22.10	10-1-74
BP-4	1-1-71			MC-10	5-1-76	HL-7	1-21-76	TC-18.26	10-1-74
CB-2.2-A & B	6-1-65	GR-4	11-9-71	MC-9	1-1-74	HL-9	1-21-76	TC-51.11	6-2-75
CB-3-A	1-1-76	GR-5	1-1-71	MH-3	6-12-75	HL-10	1-21-76	TC-61.10	12-1-75
CB-4	9-1-69	GR-6	1-1-71	MC-7	10-1-68	HL-11	4-6-73	TC-71.10	12-1-75
CB-5	9-1-69	HW-4	1-1-70	MH-1	6-12-75	HL-12	4-6-73	TC-51.10	6-2-75
CB-8	9-1-69	BR-1-67	10-15-71	MH-5	6-12-75	HL-15	1-21-76	TC-82.10	9-5-75
F-1	5-1-76	RB-1-55	2-2-59	L-1	6-1-73	HL-16	4-6-73	TC-83.10	9-5-75
F-3	5-1-76	SD-1-69, 4 Shts.	6-12-69	SP-53	6-30-61			TC-84.20	9-5-75
								TC-85.20	9-5-75

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR — DATE

Project: MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)
Date of Letting 19 , Contract No.

LD0300 Rev. 11-21-73

DETAILED	BY	DATE
DETAILS CHECKED	EAC	1-29-71
DETAILS REVISED	WM	2-75
	JS	4-75

SCHEMATIC PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

2/174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

SCALE 1" = 200'
0 100 200 400 600

N

SEC. 18
SEC. 17
SEC. 20
SEC. 19

Exist Experimental Farm Rd.

COMMISSIONERS OF MIAMI COUNTY

FRIENDLY ICE CREAM CORP.

RUTH H. VON BARGEN

HAROLD H. SINGER - CHARLES D. LITTLETON, FEE

DONALD E. STOUT, INC.

SHELL OIL CO.

RAY ROUDA AKA RAYMOND H. ROUDA

TROY TOWN CO.

BRADFORD ROAD

SURRY ROAD

NORTH ROAD

FLEET ROAD

WESTON ROAD

CONVENT ROAD

Section Line

Corporation Line

Sta. 538+25 END WORK
Sta. 538+00 END PROJECT

Sta. 231+00 Begin Work
Sta. 241+64.91 End Work
P.I. Sta. 409+52.32
Δ = 0°-05' RT.

Prop. R/W'1
Ex. R/W'1
Corr. Line
L/A
Ex. L/A

Sta. 399+50 Begin Work
Sta. 408+88.80 BEGIN PROJECT
Sta. 201+97.29 End Work
E. Prop. Stanfield Road
Vacate Ex. Stanfield Road
End Work Sta. 441+50

Begin Project M-4 G00(1)
End Project M-4 G00(1)
Begin Work I-75(24)74

Sta. 101+00 Begin Work

Sta. 531+49.97 I.R. 79°
Sta. 536+46.76 S.R. 41
Existing Ramp 'A'
Existing Ramp 'B'
Proposed Ramp 'C'
Proposed Ramp 'D'
Existing Ramp 'E'
Existing Ramp 'F'
Existing Ramp 'G'
Existing Ramp 'H'
Existing Ramp 'I'
Existing Ramp 'J'
Existing Ramp 'K'
Existing Ramp 'L'
Existing Ramp 'M'
Existing Ramp 'N'
Existing Ramp 'O'
Existing Ramp 'P'
Existing Ramp 'Q'
Existing Ramp 'R'
Existing Ramp 'S'
Existing Ramp 'T'
Existing Ramp 'U'
Existing Ramp 'V'
Existing Ramp 'W'
Existing Ramp 'X'
Existing Ramp 'Y'
Existing Ramp 'Z'
Existing Ramp 'AA'
Existing Ramp 'BB'
Existing Ramp 'CC'
Existing Ramp 'DD'
Existing Ramp 'EE'
Existing Ramp 'FF'
Existing Ramp 'GG'
Existing Ramp 'HH'
Existing Ramp 'II'
Existing Ramp 'JJ'
Existing Ramp 'KK'
Existing Ramp 'LL'
Existing Ramp 'MM'
Existing Ramp 'NN'
Existing Ramp 'OO'
Existing Ramp 'PP'
Existing Ramp 'QQ'
Existing Ramp 'RR'
Existing Ramp 'SS'
Existing Ramp 'TT'
Existing Ramp 'UU'
Existing Ramp 'VV'
Existing Ramp 'WW'
Existing Ramp 'XX'
Existing Ramp 'YY'
Existing Ramp 'ZZ'

Pl. Sta. 441+11.19
Δ = 0°-30'-14"
Sta. 442+12 END PROJECT

End Work I-75-(24)74
Sta. 446+00 END WORK

Sta. 484+00 BEGIN PROJECT
Sta. 483+00 BEGIN WORK

SCHEMATIC PLAN

	BY	DATE
DETAILED	LLH	5-71
DETAILS CHECKED	D.T.	5-71
DETAILS REVISED	JH	5-75

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

3/174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

TYPICAL SECTIONS S.R. 41

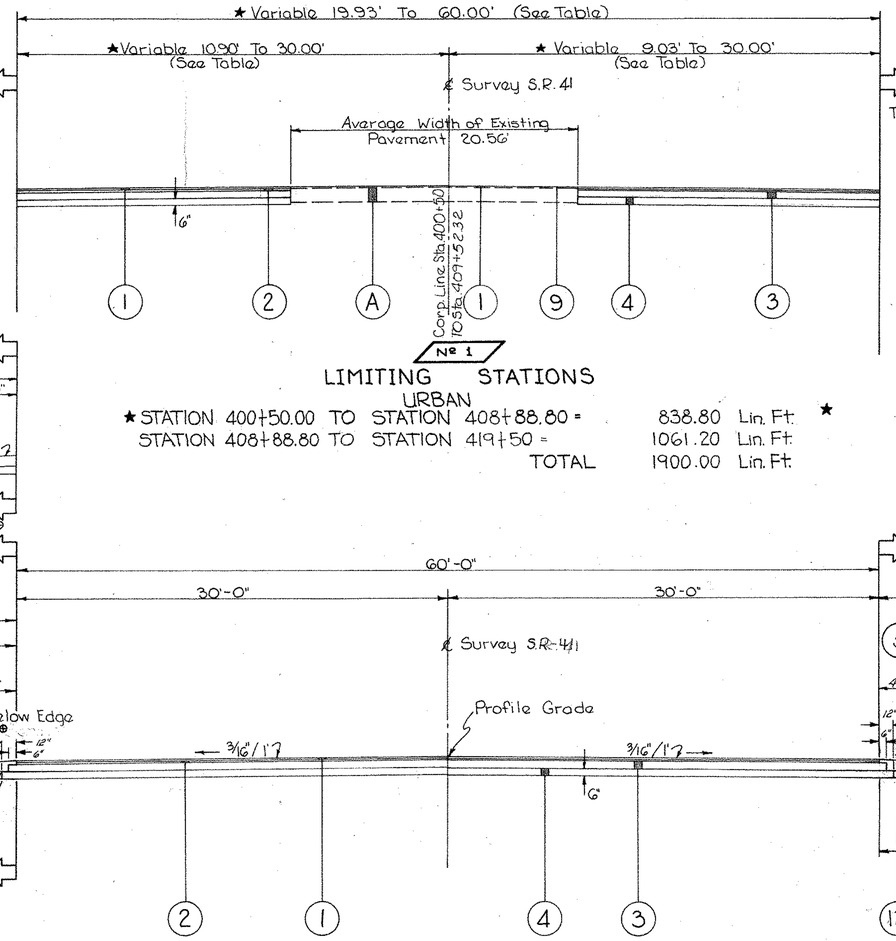
TYPE 404

- SCALE -

0 1 2 3 4 5 10

- CODE -

(1) ITEM 404, 1¼" Asphalt Concrete AC-20
(2) ITEM 402, 1¼" Asphalt Concrete AC-20
(3) ITEM 301, 6" Bituminous Aggregate Base, 702.01 AC-20; or 702.09, RT-11 or RT-12
(4) ITEM 310, 6" Subbase
(5) ITEM 409, Seal Coat using 0.30 gals. 702.09, RT-9 or RT-10; or 702.02, MC-800 or MC-3000; 702.04, RS-1, RS-2 or CRS-1, CRS-2; or 702.03, CBAE-800 per sq. yd.
(6) ITEM 409, Seal Coat using 0.008 Cu. Yd. Nº 8 Cover Aggregate per sq. yd.
(7) ITEM 408, Bituminous Prime Coat: 702.09, RT-2 or RT-3; or 702.02 MC-30 or MC-70 or; 702.03 Primer 20 applied at the rate of 0.40 gallon per square yard.
(8) ITEM 304, 8" Aggregate Base
(9) ITEM 407, Tack Coat: 702.04, SS-1, SS-1h, MS-2 or RS-1; or 702.02 RC-250 at the rate of 0.10 gal. per sq. yd.
(10) ITEM 659, Seeding and Mulching
(11) ITEM 605, Aggregate Drains
(13) ITEM 310, Subbase; as per plan
(A) Existing pavement and subbase



Nº 1

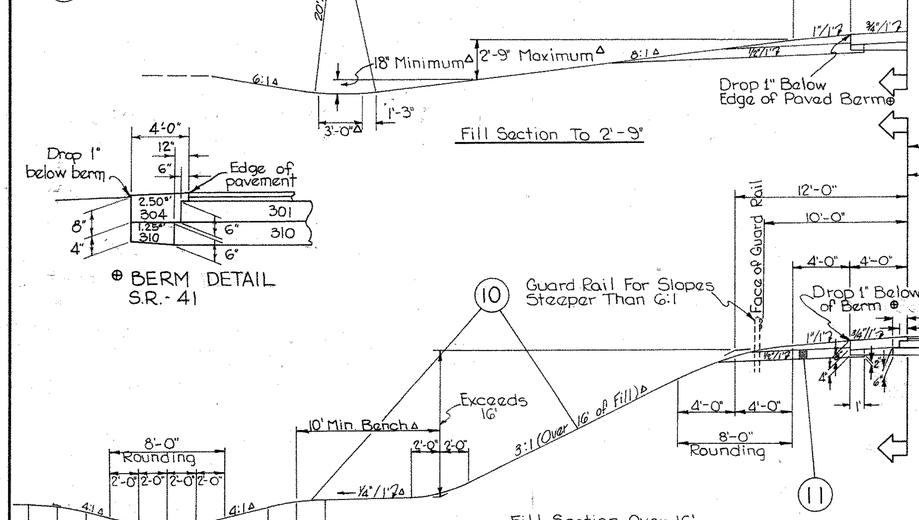
LIMITING STATIONS

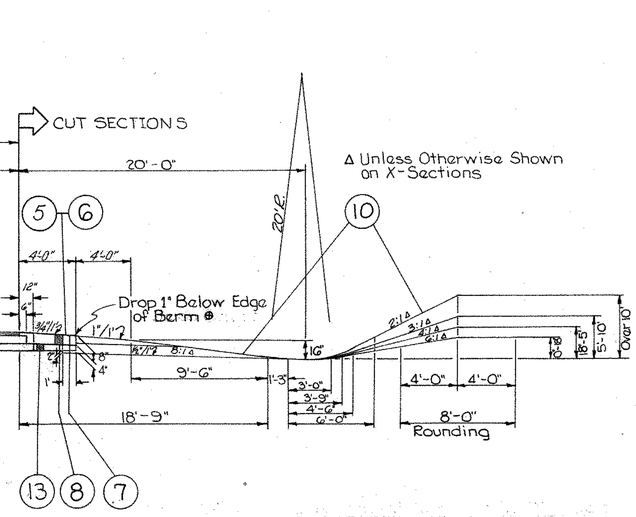
URBAN

★ STATION 400+50.00	TO	STATION 408+88.80 =	838.80	Lin. Ft. ★
STATION 408+88.80	TO	STATION 419+50 =	1061.20	Lin. Ft.
		TOTAL	1900.00	Lin. Ft.

★ Proposed Pavement Variable Width Table

Station	Width Left	Width Right	Total Width
400+50	10.90'	9.03'	19.93'
401+00	12.15'	10.28'	22.43'
401+47	13.33'	11.46'	24.79'
402+00	14.66'	12.79'	27.45'
402+50	15.91'	14.04'	29.95'
403+00	17.16'	15.29'	32.45'
403+50	18.41'	16.54'	34.95'
404+00	19.66'	17.79'	37.45'
404+50	20.91'	19.04'	39.95'
405+00	22.16'	20.29'	42.45'
405+50	23.41'	21.54'	44.95'
406+00	24.66'	22.79'	47.45'
406+50	25.91'	24.04'	47.95'
407+00	27.16'	25.29'	52.45'
407+50	28.41'	26.54'	54.95'
408+00	29.66'	27.79'	57.45'
408+14	30.00'	28.14'	58.14'
408+50	30.00'	29.04'	59.04'
408+88.80	30.00'	30.00'	60.00'





△ Unless Otherwise Shown on X-Sections

Nº 2

LIMITING STATIONS

INTERSTATE

STATION 419+50	TO	STATION 434+75.31 =	1525.31	Lin. Ft.
STATION 434+75.31	TO	STATION 438+05.61 =	Bridge Limits & Approach Slabs	
STATION 438+05.61	TO	STATION 439+00.00 =	94.39	Lin. Ft.
		TOTAL	1619.70	Lin. Ft.

FHWA REGION	STATE	PROJECT	
5	OHIO		

4 / 174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

TYPICAL SECTION S.R.-41

TYPE 404

~ CODE ~

(1) ITEM 404 1¼" Asphalt Concrete AC-20

(2) ITEM 402 1¼" Asphalt Concrete AC-20

(3) ITEM 301 6" Bituminous Aggregate Base; 702.01 AC-20; or 702.09 RT-11 or RT-12

(4) ITEM 310 6" Subbase

(5) ITEM 409 Seal Coat; Using 0.30 gal. 702.09 RT-9 or RT-10 or 702.02 MC-800 or MC-3000; 702.04 RS-1, RS-2 or CRS-1, CRS-2; 702.03, CBAE-800 per square yard

(6) ITEM 409 Seal Coat; Using 0.008 cu. yd No. 8 Cover Aggregate per square yard

(7) ITEM 408 Bituminous Prime Coat 702.09 RT-2 or RT-3; or 702.02 MC-30 or MC-70; or 702.03, Primer 20 applied at the rate of 0.40 gal. per square yard.

(8) ITEM 304 8" Aggregate Base

(9) ITEM 407 Tack Coat; 702.04 SS-1, SS-1h, or RS-1; MS-2; 702.02, RC-250 at the rate of 0.10 gal per square yard

(10) ITEM 659 Seeding and Mulching

(13) ITEM 310 Subbase; as per plan

(14) ITEM 304 6" Aggregate Base

(15) ITEM 301 3" Bituminous Aggregate Base; 702.01 AC-20; or 702.09 RT-11 or RT-12

(16) ITEM 605 6" Pipe Underdrains

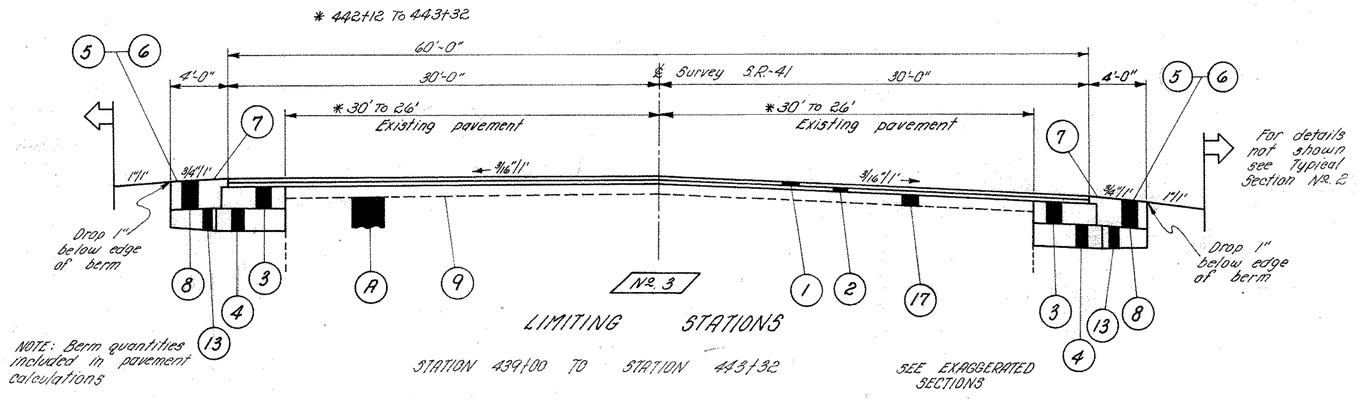
(17) ITEM 301 2" min. to 6" max. Bituminous Aggregate Base; 702.01 AC-20; or 702.09 RT-11 or RT-12; and ITEM 403, 0" to 2" Asphalt Concrete Leveling Course AC-20

(A) Existing PCC pavement and subbase

(B) Existing aggregate berm

(C) Existing aggregate drains

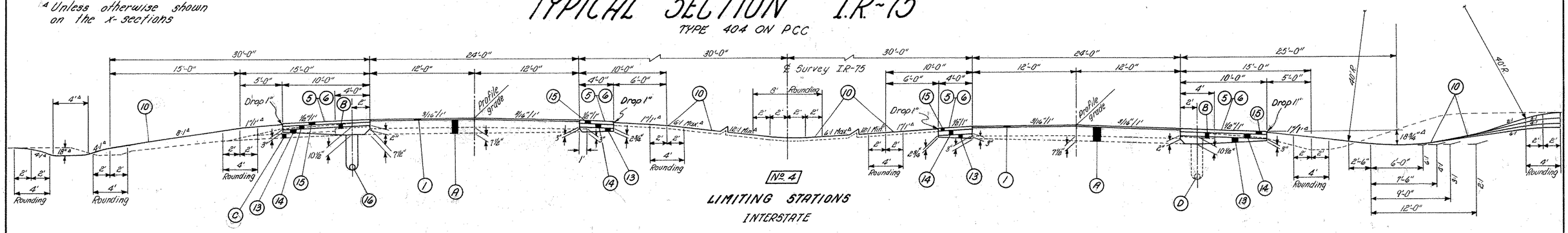
(D) Existing pipe underdrains



TYPICAL SECTION I.R.-75

TYPE 404 ON PCC

△ Unless otherwise shown on the x-sections



	BY	DATE
DETAILED	LLH	5-71
DETAILS CHECKED	DT	5-71
DETAILS REVISED	JS	5-75

TYPICAL SECTIONS FOR RAMPS

FHWA REGION	STATE	PROJECT	
5	OHIO		

5/174

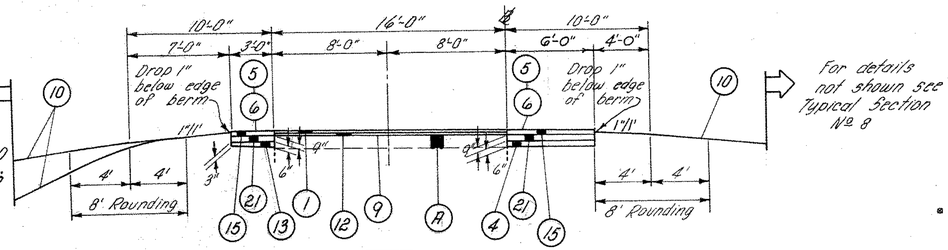
MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

~ CODE ~

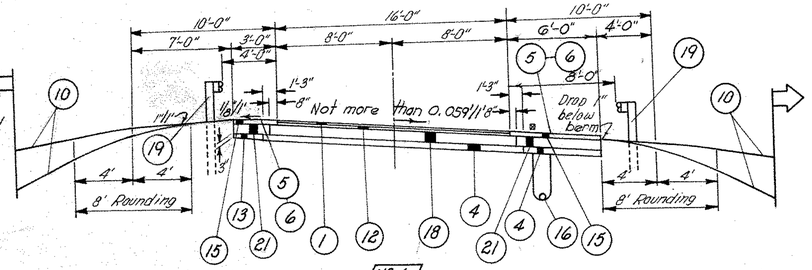
(1) ITEM 404 1¼" Asphalt Concrete AC-20
(12) ITEM 402 1¼" Asphalt Concrete AC-20

(4) ITEM 310 6" Subbase
(5) ITEM 409 Seal Coat; Using 0.30 gal. 702.09 RT-9 or RT-10; or 702.02 MC-800 or MC-3000 or 702.04 RS-1, RS-2 or CRS-1, CRS-2; 702.03 CBAE-800 per square yard
(6) ITEM 409 Seal Coat; Using 0.008 cu. yd. №8 Cover Aggregate per sq. yd.
(9) ITEM 407 Tack Coat; 702.04 SS-1, SS-1h, MS-2, RS-1; or 702.02 RC-250 @ 0.10 gal. per sq. yd.
(10) ITEM 659 Seeding and Mulching
(13) ITEM 310 Subbase; as per plan
(14) ITEM 304 6" Aggregate Base
(15) ITEM 301 2½" Bituminous Aggregate Base 702.01 AC-20; or 702.09 RT-11 or RT-12
(16) ITEM 605 6" Pipe Underdrains
(18) ITEM 301 6" Bituminous Aggregate Base 702.01 AC-20; or 702.09 RT-11 or RT-12
(19) ITEM 606 Guardrail; Type "5"
(21) ITEM 304 6" Aggregate Base
(A) Existing pavement

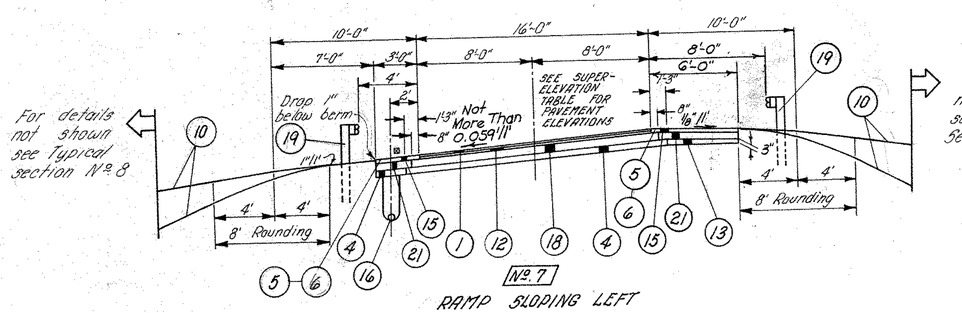
TYPE 404 ON 301



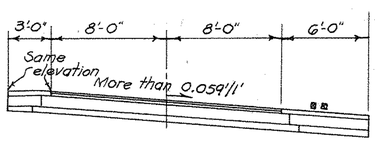
№5
EXISTING RAMP RESURFACING



№6
RAMP SLOPING RIGHT

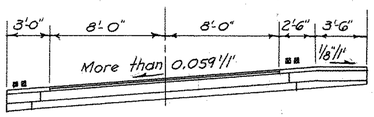


№7
RAMP SLOPING LEFT
Applies to Ramp E Curve 1



Applies to Ramp C Curve 1, Ramp E, Curve 1 and Ramp F Curve 1

RAMP SLOPING RIGHT
For Details not shown See Typical Section №8

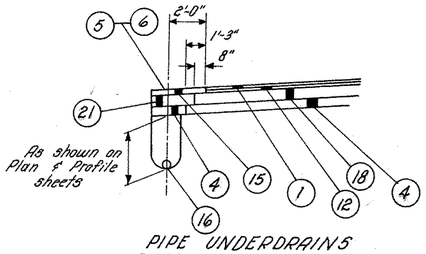


Applies to Ramp C Curve 2

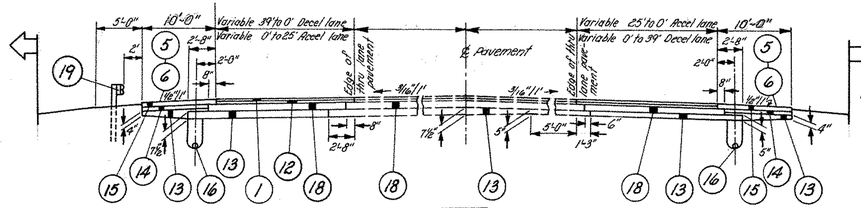
RAMP SLOPING LEFT
For Details not shown See Typical Section №8

	BY	DATE
DETAILED	LLH	5-71
DETAILS CHECKED	DT	5-71
DETAILS REVISED	JS	5-75

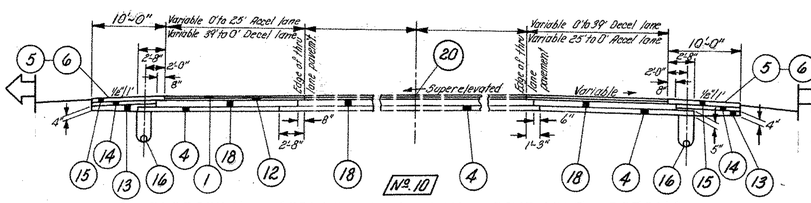
* ⅛"/1' or same slope as pavement whichever is greater
** Same slope as pavement
△ Unless otherwise shown on x-sections



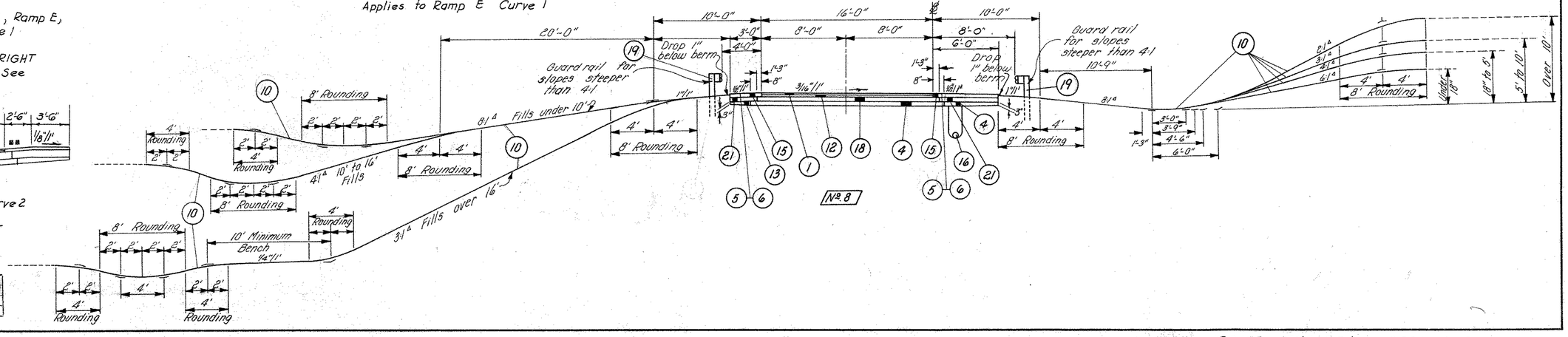
PIPE UNDERDRAINS DETAIL FOR RAMPS



№9



№10
ACCELERATION & DECELERATION LANE PAVEMENT DETAILS



№8

RAMP TYPICAL SECTIONS

	BY	DATE
DETAILED	L.L.H.	6-71
DETAILS CHECKED	DJT	4-74
DETAILS REVISED	JS	5-75

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

6/174

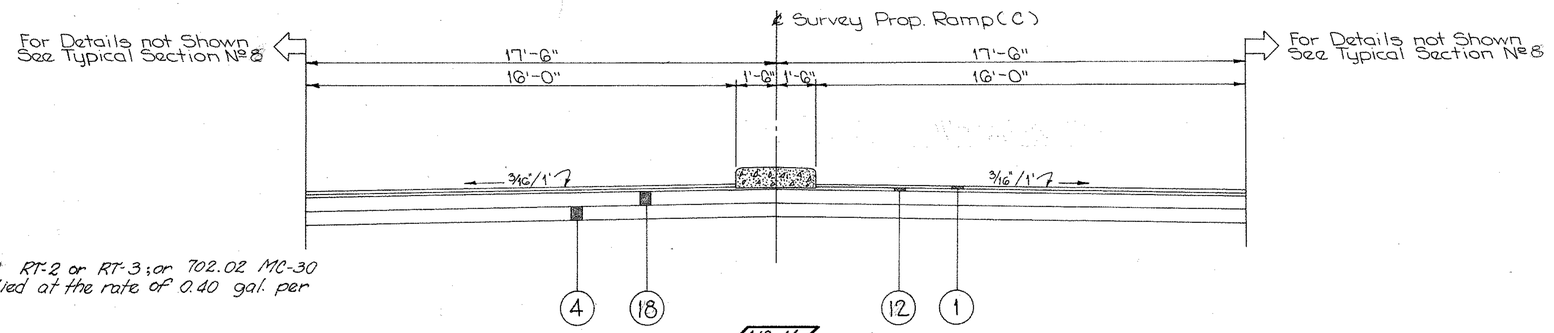
MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

TYPICAL SECTIONS FOR RAMP (C) & STANFIELD ROAD

TYPE 404
~SCALE~
0 1 2 3 4 5 10

CODE

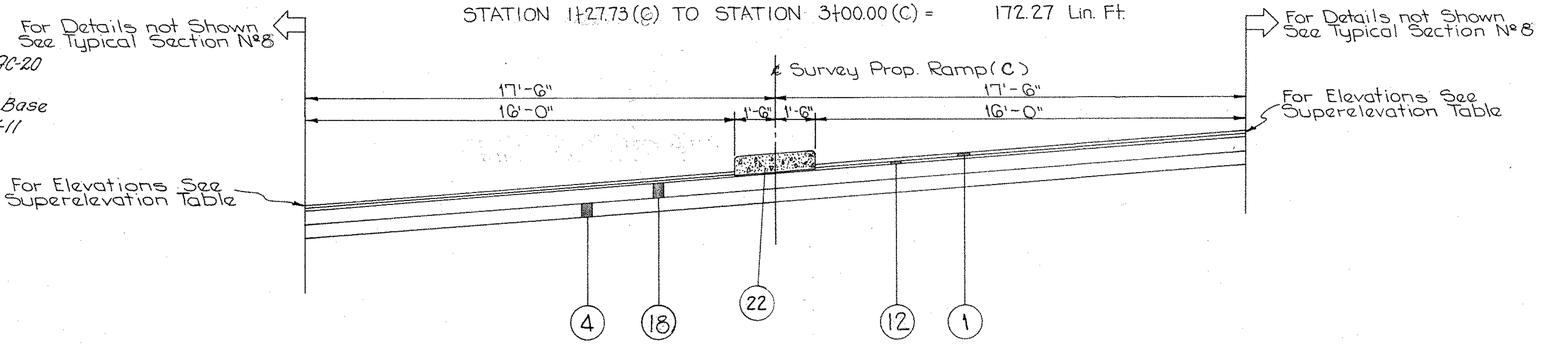
(1) ITEM 404 1¼" Asphalt Concrete AC-20
(2) ITEM 402 1¼" Asphalt Concrete AC-20
(22) ITEM 612 Concrete Median
(4) ITEM 310 6" Subbase
(7) ITEM 408 Bituminous Prime Coat; 702.09 RT-2 or RT-3; or 702.02 MC-30 or MC-70; or 702.03, Primer 20 applied at the rate of 0.40 gal. per sq. yd.
(14) ITEM 304 6" Aggregate Base
(10) ITEM 659 Seeding and Mulching
(11) ITEM 605 Aggregate Drains
(12) ITEM 402 1¼" Asphalt Concrete AC-20
(18) ITEM 301 6" Bituminous Aggregate Base 702.01 AC-20; or 702.09 RT-11 or RT-12



No 11

LIMITING STATIONS

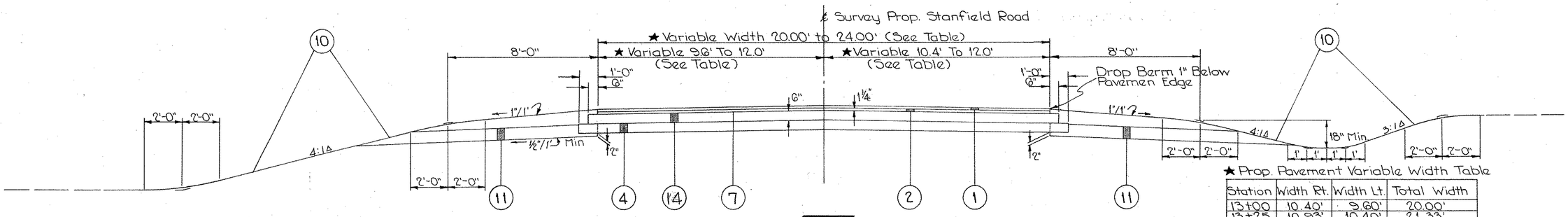
STATION 1+27.73 (C) TO STATION 3+00.00 (C) = 172.27 Lin. Ft.



No 12

LIMITING STATIONS

STATION 3+00.00 (C) TO STATION 7+81.68 (C) = 481.68 Lin. Ft.



No 13

LIMITING STATIONS
STANFIELD RD.

★ STATION 13+00.00 TO STATION 13+75.00 = 75.00 Lin. Ft. ★
STATION 13+75.00 TO STATION 20+01.14 = 626.14 Lin. Ft.

TOTAL 701.14 Lin. Ft.

★ Prop. Pavement Variable Width Table

Station	Width Rt.	Width Lt.	Total Width
13+00	10.40'	9.60'	20.00'
13+25	10.93'	10.40'	21.33'
13+50	11.47'	11.20'	22.67'
13+75	12.00'	12.00'	24.00'

ΔUnless Otherwise Shown on X-Sections

WM 12-75
JH 2-76

FHWA REGION	STATE	PROJECT	
5	OHIO		

7
174

MIAMI COUNTY
MIA.-75-(9.17-9.35)
MIA.-41-(11.16-11.38)

GENERAL NOTES

PUBLIC SAFETY

No hazard shall be left unprotected except for the actual time necessary to remove, grade and reinstall guard rail in a continous operation. the removal of all guard rail shall at all times be as directed by the Engineer. No guard shall be removed untel the replacement material is on the site, ready for installation. Failure to comply with this requirment shall be deemed sufficient to order work suspended on this project untel such time that the Engineer is assured of said compliance.

GUARDRAIL AND BARRIER RAIL REMOVED

Guardrail and Barrier rail designated for removal on this project shall be carefully dismantled and the rail elements stored for either re-use elsewhere on the project or removal by state forces. All posts, blocks, and bolts, and miscellaneous hardware shall be disposed of by the Contractor. All post holes shall be carefully filled and tamped and the site cleaned and restored.

The restoration will include grading of the shoulder in the area of the guardrail removal to provide proper drainage and traversable shoulder slopes where traffic or weather may have built a ridge of earth and debris under the guardrail. The graded or disturbed area shall be reseeded, except where new guardrail 3' wide, measured from one foot in front of the rail (or centered under guardrail, Barrier Design) shall not be seeded.

Payment for all of the above shall be at the unit price bid for 202 Guard-Rail Removed For Re-Use Or Storage or 202 Barrier Rail Removed For Re-Use Or Storage, measured by the Linear foot center to center or terminal posts or center of bridge connection splices.

GUARDRAIL, TYPE 5, AS PER PLAN

Rail elements salvaged under 202 GuardRail Removed For Re-Use Or Storage on this project may be used in lieu furnishing new rail elements for 606 Guard Rail, Type 5, As Per Plan or 606 Guard Rail, Type 5, Barrier Design, As Per Plan. If salvaged rail is used, it must be renovated prior to installation and new splice bolts furnished.

Painted rail elements shall be dismantled and all paint, rust, dirt, and other foreign material detrimental to galvanizing shall be removed from rails before galvanizing. Slotted holes for intermediate post bolts shall be punched where required for Type 5, installations. The rail shall then be galvanized in accordance with 710.06. Prior to the award of the contract, the successful bidder will be required to submit an outline of the plant operations for performing the galvanizing, which shall include information on the plant capacity and storage facilities for the articles as delivered for galvanizing and storage facilities for the articles after the work is completed. This outline, when approved by the Department, will become a part of the contract.

The Contractor shall notify the Engineer at least 72 hours in advance of galvanizing any lot of articles in order that arrangements may be made to have the department inspector at the plant when the work is in progress. The inspector shall have free entry, at all times while work on the contract is being performed, to all parts of the plant that concern the cleaning and galvanizing of the articles. The Contractor shall afford the inspector all reasonable facilities without charge. To satisfy him that the work is being performed in accordance with these specifications.

Existing galvanized rail elements shall be cleaned of rust, dirt, or other foreign materials. Intermediate post bolt slots (¾"x2½") shall be field punched or drilled. Areas on which the shelter coating has been damaged and intermediate holes shall be regalvanized in accordance with AASHO M36-73I Section 23 or they may be repaired under the direction of the Engineer with stick-form galvanizing repair compound meeting the requirements of FS50-G-93.

Payment for all of the above shall be included in the unit price bid for 606 Guard Rail, Type 5, As Per Plan or 606 Guard Rail, Type 5, Barrier Design, As Per Plan.

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.

GUARD RAIL OVER CULVERTS

When sufficient post depth is not available due to a culvert, the guardrail posts directly over the culvert shall not be driven but set in holes. If the distance between the ground line and the top of the culvert is less than 3 ft., the post shall be encased in a minimum of 4" thickness of Class "C" concrete for the full depth of the post. Payment for the above shall be included in the unit price bid for Item 606, Guard Rail Type 5.

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, 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.

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.

FIELD OFFICE

The Contractor shall provide a suitable field office having a minimum of 400 sq. ft. of floor space and in addition to the requirements of Item 619, he shall provide and maintain sanitory 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 THE CROSS SECTIONS

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

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.

MAINTRAINING TRAFFIC

The following quantities have been provided for the maintenance of traffic as directed by the Engineer:

		URBAN	INTERSTATE	
Item 410	Traffic Compacted Surface Type "A" or "B"	816	3490	~Cu.Yd.
Item 616	Calcium Chloride	17	70	~Tons
Item 404	Asphalt Concrete or an Approved Bituminous Premixed Surface Course For Maintaining Traffic.	10	40	~Cu.Yd.
Item 616	Water	17	70	M Gal.

PROFILE

The profile of the proposed Asphalt Concrete course shall be approximately 1¼ inches above that of the existing pavement.

SEEDING

Along the mainline S.R-41, I.R-75 & Interchange ramps, quantities for seeding are calculated for the soil areas between lines ten (10) feet outside the work limits, as shown on the cross-sections, or to the right-of-way line if such line is less than ten (10) feet from the work limits.

Along the intersecting approach roads and streets, quantities for seeding are calculated for the soil areas between the work limits, as shown on the cross-sections.

EROSION CONTROL

Item 601 and 660 are provided in these plans for erosion control. Rock or turf of a stable nature will not be removed in order to place any of these items. The Engineer may check and non-perform any quantities or adjust locations and quantities for these Items where indicated by field conditions during construction.

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.

I-75-4(26)74

SIZES	NO. TREES	NO. STUMPS
18"	17	1
30"	3	–
48"	1	–
60"	–	–

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.

REMOVAL OF EXISTING PIPE

The removal of existing pipe drains which would normally be removed in various excavation items shall be included for payment in the unit price bid for the respective excavation items, unless otherwise itemized in the plans.

CONNECTIONS TO EXISTING PIPE

Where the plans provide for proposed conduit to be connected to, or to cross either over or under an existing sewer, it shall be the responsibility of the Contractor to locate the existing pipe both as to line and grade before he starts to lay the proposed conduit.

Payment for all operations described above shall be included in the unit price bid for the pertinent 603 Conduit Items.

WATER POLLUTION, SOIL EROSION, AND SILTATION CONTROL

Where erosion is likely to be a problem, the Engineer will limit the area of excavation and embankment operations in progress commensurate with Contractors capability and progress in keeping the finish grading, mulching, seeding, and others such permanent control measures current in accordance with the accepted schedule-- should seasonal limitations make such coordination unrealistic temporary erosion control measures shall be taken immediately as directed by the Engineer to the extent feasible and justified. Cost of all the above shall be included in the unit price bid for 203 Excavation Not Including Embankment Construction.

The following estimated quantities are to be used as directed by the Engineer for erosion and siltation control measures:

		URBAN	INTERSTATE
207	Temporary Seeding and Mulching	6795 ~ Sq.Yd.	37052 ~ Sq.Yd.
207	Water	15 ~ M.Gal.	80 ~ M.Gal.
207	Temporary Slope Drains	100 ~ Lin. Ft.	100 ~ Lin. Ft.
207	Temporary Benches, Dams, and Sediment Basins	32 ~ Cu.Yd.	134 ~ Cu.Yd.
207	Mowing	76 ~ M.Sq.Ft.	417 ~ M.Sq.Ft.
659	Commercial Fertilizer (12-12-12)	145 ~ Ton.	792 ~ Ton
659	Repair Seeding and Mulching	1699 ~ Sq.Yd.	9263 ~ Sq.Yd.

605 AGGREGATE DRAINS

Aggregate drains shall be placed at fifty (50) foot intervals on each side of normal crowned sections and at twenty-five (25) foot intervals on the low side only of superelevated sections, except where Item 605 Pipe Underdrains have been provided.

Aggregate drains adjacent to reinforced Portland Cement concrete pavement shall be placed at each transverse joint on the outside edge of normal sections and on the low side of superelevated sections.

An aggregate drain shall be placed at the low point of each sag vertical curve.

WM 12-75

FHWA REGION	STATE	PROJECT	
5	OHIO		

8
174

MIAMI COUNTY
MIA.-75-(9.17-9.35)
MIA.-41-(11.16-11.38)

GENERAL NOTES

PIPE CONNECTIONS TO CORRUGATED STEEL STRUCTURES

Connections of proposed longitudinal drainage to corrugated steel structures shall be by means of a shop fabricated or field welded stub on the structure. The stub shall meet the requirements of 707 and have a minimum length of two feet and a minimum thickness of 0.064 inches.

Location and elevation of the stub are to be considered approximate and may be adjusted by the Engineer to avoid cutting through joints in the structure.

The field welded joint, if used, shall be painted on the inside and outside with two coats of red lead paint, 708.06 and two coats of graphite paint, 708.13. Welding shall meet the requirements of 513.17.

A concrete collar as per Standard Drawing MC-4 will be required to connect the longitudinal drainage to the stub when pipe other than corrugated steel is provided for the longitudinal drainage.

Payment for cutting into the structure and providing the connection described shall be included in the unit price bid for Item 603.

MAINTENANCE OF SEWER FLOWS

The Contractor shall conduct his operations as to maintain at all times sewer flows through existing facilities to remain in place and through existing facilities to be replaced untill new facilities are completed and placed in use.

Payment for any additional costs involved in maintaining these flows by pumping or by any other means approved by the Engineer shall be included in the unit price bid for the respective items of 603 conduit.

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 ramp pavement, and for paved shoulders.

ANIMAL GUARD FOR PIPE OUTLETS

Animal guards shall be provided at the outlet end of all pipe underdrains and farm drains except when they outlet into a drainage structure. The animal guard shall comply with the detail shown on Sheet No. 22 .

Payment for all material, labor and installation shall be included in the unit price bid per each for Item 604 Animal Guard for Pipe Outlet.

MATERIAL AND EQUIPMENT STORAGE

No materials, equipment or private vehicles shall be stored or parked within the median or within thirty feet (30') of the outside edge of the existing pavement of I.R.-75. The field offices and the Contractors main storage areas shall not be located within the Limited Access (4A) Fence.

UNDERDRAIN OUTLET

An estimated quanity of Item 603-6" Conduit Type "F" has been included in these plans to be used if and as directed by the Engineer, to outlet pipe underdrain which might not have been in plan details. 6" Conduit Type "F" 100 -Lin. Ft. Interstate

The existing 6" underdrain outlets shall be connected to the proposed 6" Conduit, Type "F", with corrugated metal connecting bands. The cost of these bands shall be included in the unit price bid for the new conduit.

BERM CONSTRUCTION

The Contractor shall provide a shield to prevent the spraying or drifting of liquid bituminous material onto the edge of the pavement or edgelines. The attention of the Contractor is directed to 107.12 of the specifications.

PRESERVATION OF SIGNS

The Contractor shall be responsible for all damage to signs, delineators, or mileage markers within the construction area.

The Contractor shall restore at his own expense such property to a condition similar or equal to that existing before such damage.

MONUMENTS

Monuments shall be constructed in accordance with details shown on Standard Drawing MC-1 for locations, See Sheet Nº 22 .

REVIEW OF DRAINAGE FACILITIES

Before any work is started on the project, and again before final acceptance by representatives of the State and the Contractor along with local representatives shall make an inspection of the existing sewers within the work limits which are to remain in service and which may be affected by the work. The condition of the existing conduits and their appurtenances shall be determined from field observations. Records of the inspections shall be kept in writing by the State.

All new conduits, inlets, catch basins, and manholes constructed as a part of the project shall be free of all foreign matter and in a clean condition before the project will be accepted by the State.

All existing sewers inspected initially by the above-mentioned parties shall be maintained and left in a condition reasonably comparable to that determined by the original inspection. Any change in the condition resulting from the Contractors operations shall be corrected by the Contractor to the satisfaction of the Engineer.

Payment for all operations described above shall be included in the unit price bid for the pertinent 603 conduit items of the contract.

ITEM 403 LEVELING MATERIAL

Item 403 Asphalt Concrete is provided for use as directed by the Engineer, at the rate of 75 Cu.Yds. per mile of 24 foot wide pavement, including berms, to correct minor depressions and correction of pavement crown. A total of 300 Cu.Yds. of Item 403 carried to the General Summary. 250-Cu.Yd. Interstate; 50-Cu.Yd. Urban

ITEM 617 COMPACTED AGGREGATE; AS PER PLAN

The aggregate shall be crushed limestone and shall meet the requirements of 617.03. It shall also meet the following grading requirements:

SIEVE SIZE	TOTAL PERCENT PASSING
1"	100%
No. 4	25-60%
No. 40	7-30%
No. 200	0-15%

ITEM SPECIAL: BRIDGE DECK SURFACE REPAIR

This item shall consist of repairing deteriorated concrete bridge deck surfaces prior to application of Bridge Deck Waterproofing in accordance with the proposal note. The following estimated quantities have been included in these plans to be used if and as directed by the Engineer.

Item Special: Concrete Bridge Deck Repair 3 Sq. Yd. Quan. to page 136

ITEM SPECIAL: BRIDGE DECK WATERPROOFING

All bridges within the limits of resurfacing shall be waterproofed prior to resurfacing in accordance with the proposal note.

ROCK CHANNEL PROTECTION

It is not necessary to remove any existing Rock Ditch Protection to place proposed Rock Channel Protection. Place the proposed Rock Channel Protection over any existing Rock Ditch Protection or in proposed ditches so that a total minimum depth of 18" is obtained by the Engineer.

EXCAVATION

Item 203 Excavation should be constructed to be Excavation Not Including Embankment Construction throughout this set of plans unless specifically noted otherwise.

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 least one foot below the proposed finished grade outside proposed pavement areas or at least one foot below the proposed sub-grade elevation inside proposed pavement areas. The well shall be filled from bottom to top with clean puddled clay or concrete.

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

RESTRICTED SPEED ZONES

The State may at its discretion journalize speed zones where construction operations have changed road conditions, such as, reduced number of lanes, reduced lane width, open trenches, temporary roadways, etc. Where journalized speed zones are used, all existing Prima Facie Speed Limit Signs within the the zone shall be covered. The prima facie speed limit should not be altered unless the changed road conditions are expected to exist for extended periods of time. During short periods of hazard adequate warning signs with advisory speed signs, and flagman shall be utilized in accordance with the latest edition of the "Ohio Manual Of Uniform Traffic Control Devices" as directed by the engineer.

Prior to using such traffic control devices a traffic control plan shall be approved by the District Traffic Engineer in writing. The minimum length for either journalized or advisory speed zones shall be ½ mile. All signs used within the construction area shall be furnished and placed by the Contractor.

Any signing required beyond the contract limits shall be furnished and placed by The Department Of Transportation. The cost of all the above shall be included in the lump sum bid for Item 614, Maintaining Traffic.

MEDIAN CONSTRUCTION EQUIPMENT CROSSING

Construction equipment shall cross the median only at the existing and proposed U-Turn Crossovers and at other additional designated locations as directed by the Engineer. The total number of Equipment Crossings shall be limited to one (1) per mile.

The Contractor shall be responsible for the restoration of the additional Equipment Crossings to a condition at least equal to that existing prior to work operations. All restoration work shall be done in accordance to the Pertinent Specification Items and as directed by the Engineer.

When Median Crossovers are used by construction equipment, these crossovers shall be treated as a work area on both northbound and southbound lanes at each location, and traffic control shall be provided in accordance with the drawing on Sheet No. 9A .

When the Median Crossovers are being used in the area of one lane traffic operation, the Contractor shall provide the services of a special duty Highway Patrolman to control traffic flow. The cost of all of the above shall be included under Item 614.

FARM DRAINS

All farm drains which are encountered during construction shall be provided with unobstructed outlets under the direction of the Engineer. Existing collectors which are located below the roadway ditch elevations and which cross the roadway shall be replaced within the construction limited by Item 603 Conduit, Type "B" one commercial size larger than the existing conduit.

Existing collectors and isolated farm drains which are encountered above the elevation of the roadway ditches shall be outletted into the roadway ditch by 603 Type "F" Conduit. The optimum outlet elevation shall be, if possible, one foot above the flowline elevation of the ditch. Lateral tile fields which cross the roadway shall be intercepted by 603 Type "E" Conduit and carried in a longitudinal direction to an adequate outlet or roadway crossing.

The location, type, size, and grade of required replacements shall be determined by the Engineer during construction and payment shall be made on final measurements.

The following estimated quantities have been included in the General Summary for the work noted above:

	URBAN	INTERSTATE
Item 603 8" Conduit; Type "B"	25 -Lin. Ft.	75 -Lin. Ft.
Item 603 6" Conduit; Type "E"	25 -Lin. Ft.	75 -Lin. Ft.
Item 603 6" Conduit; Type "F"	25 -Lin. Ft.	75 -Lin. Ft.
Item 601 Rock Channel Protection Type "B" 18" thick Bed	15 -Cu. Yd.	15 -Cu. Yd.

Necessary bends or branches shall be included for payment in the pertinent conduit item. None of the above materials shall be ordered by the Contractor until requested by the Engineer.

GENERAL NOTES Contd. on Sht. Nº 9

GENERAL NOTES

W.M. 12-75

TRAFFIC MAINTENANCE NOTES

FHWA REGION	STATE	PROJECT	
5	OHIO		

9
174

MIAMI COUNTY
MIA.-75-(9.17 - 9.35)
MIA.-41-(11.16-11.38)

I R 75

In addition to the requirements for maintaining Traffic as indicated in the "Ohio Manual of Uniform Traffic Control for Streets and Highways", current edition, latest revision, and pertinent items of the specifications, the following requirements shall apply:

One lane of directional traffic will only be permitted for the following operations: Pavement Removal, Base Replacement, placement of overhead structural steel on S.R.-41 and actual resurfacing operations between the hours of sunrise and sunset. Traffic shall not be crossed over the median at any time.
*- See below. See Sheet 9-A for detail of "Closing One Lane"

The Contractor shall submit in writing a schedule of operations to the Director of Highways and receive approval before work is started on the project.

No work on I.R.-75 pavement, ramps, or berms shall be performed by the Contractor from 2:00 P.M. Friday, to 6:00 A.M. Monday. No work on I.R.-75 pavements or ramps shall be performed by the Contractor 24 Hrs. preceding or succeeding and including a National Holiday. No work on I.R.-75 pavements, ramps, or berms shall be performed between the hours of sunset and sunrise. During the above "No Work Period" uninterrupted two-lane traffic in each direction shall be maintained.

The Contractor shall furnish and place reflectorized drums, barricades or cones 50' % on center-line pavements in work areas where and only during the time one-lane traffic is being maintained, unless otherwise shown in the plans or as directed by the Engineer. The Contractor shall require a workman to patrol and maintain the reflectorized cones at all times, during periods when traffic is being maintained along said cones, as directed by the Engineer.

Temporary pavement marking shall consist of a 6"x18" rectangle of reflective white paint or white reflective pressure sensitive pavement marking tape and shall not be less than 9 mils or more than 16 mils and shall be readily visible when viewed with automobile headlights at night. These rectangles shall be placed longitudinally on the pavement at a maximum of 30-foot intervals 5 inches left of centerline of pavement and on the right edge of the main-line pavement. This temporary marking shall be placed before the end of each working day. Cost of the above to be included in the Item 614 Maintaining Traffic.

All work on ramps, including resurfacing, shall be completed during the detour period of S.R.-41.

If the Contractor so elects, he may submit alternate methods for the maintenance of traffic provided the intent of the above provisions is followed and no additional inconvenience to the traveling public results therefrom. No alternate plan shall be placed into effect until approval has been granted, in writing by the Director.

During the placing of structural steel for the S.R.-41
*- bridge and the overhead sign support at Sta. 526+50, traffic on I.R.-75 may be halted momentarily to swing one beam member into place and to install the minimun number of splice bolts to support the member. After the placing of one beam, all halted traffic shall be allowed to proceed, before again closing the lanes to traffic for beam placement.

At the close of one calendar week of production of the final pavement resurfacing, permanent pavement marking shall be initiated and completed. This shall include, but is not limited to, lane lines, edge lines and the entrance and exit terminals of the accelleration and deceleration lanes of the interchanges.

In lieu of the provisions of the second paragraph of sub-paragraph (C) Item 614.03 the following provisions shall apply to the project.

1. Existing speed limit signs shall be covered when the signs face a single directional lane of traffic, or within work limits.

2. All barricades, cones, markers, signs, etc., required for the maintenance of traffic throughout the project shall be furnished, erected, and maintained in a clear legible and good working condition, at all times and subsequently removed by the Contractor.

Payment for providing, erecting, covering, maintaining, and removing barricades, cones, markers, and other traffic control devices, furnishing State Highway Patrolmen as specified, as well as other requirements listed above shall be included in the Lump Sum Bid for Item 614 Maintaining Traffic.

S.R.-41: Two-way traffic shall be maintained at all times on existing and/or proposed S.R.-41, except that for a period not to exceed 120 consecutive calendar days, traffic may be detoured as shown. One-way traffic will be permitted for minimum periods of time consistent with the requirements of the specifications for protection of completed Asphalt Concrete Courses.

The Contractor shall, in addition to the general requirements of Item 614, provide erect and maintain standard 48"x 36" size, (ROAD CLOSED) signs, sign supports and lights at the following locations.

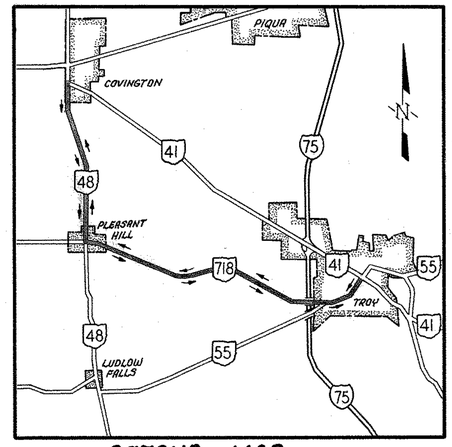
1. Experiment Farm Road at Eldean Road

2. Stanfield Road at Washington Road

Sign supports and lights for (ROAD CLOSED) signs shall be as detailed in the "Ohio Manual of Uniform Traffic Control Devices of Streets and Highways", current addition, latest revision.

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

If the Contractor so elects he may submit alternate methods for the maintenance of traffic provided the intent of the above provisions are followed and no additional inconvenience to the traveling public results there from. No alternate plan shall be placed into effect until approval has been granted in writing by the Director.



DETOUR MAP

ITEM SPECIAL -PAVEMENT PATCHING

This Item of work shall consist of removing all loose and unsound pavement concrete as directed by the Engineer and replacement with Item 402 material in the following:

1. At the intersection of Transverse and Longitudinal Joints.
2. At both edges of the concrete pavement.
3. Along Longitudinal Joints.

The estimated average depth of concrete to be removed is 3 inches. It is not intended to remove sound concrete except where necessary to even up irregular areas adjacent to unsound concrete areas.

Unless otherwise permitted by the Engineer, this work shall be accomplished during the same period of time a lane closure is in effect for other contract work, such as full depth joint repairs and bridge deck repairs. Unless a lane must remain closed overnight for other contract work, the "D" crack repairs shall be scheduled so as to avoid overnight lane closures.

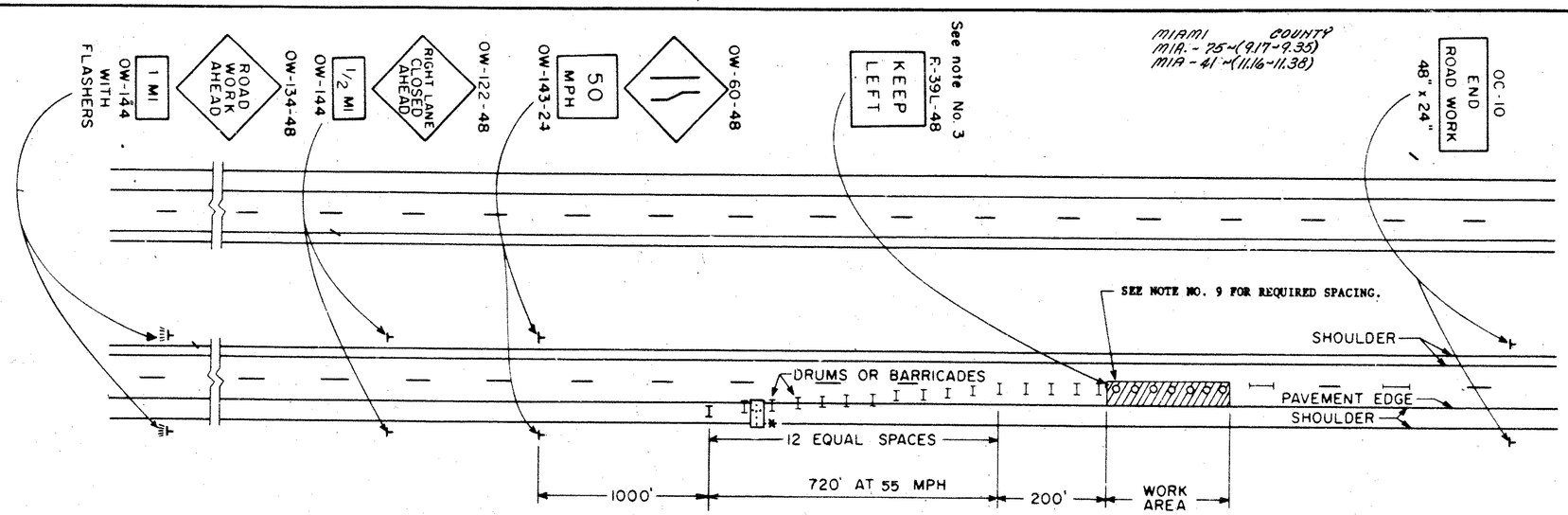
After the unsound concrete is removed, the exposed areas of concrete shall be thoroughly cleaned using compressed air or water under pressure as directed by the Engineer. With the exposed concrete in a clean and dry condition, a tack coat, using any one of the materials specified elsewhere in the plans for Item 407 Tack Coat, shall be applied at the rate of approximately 0.10 gallon per square yard. Item 402 material shall then be placed in the removed area and throughly compacted as directed by the Engineer. The units to be paid for shall be the actual number of square feet patched, as measured at the pavement surface. An estimated quantity of 528 sq. ft. has been provided in the plans. Payment for Item Special-Pavement Patching shall include all labor, equipment and materials necessary to complete the work and including the 407 Tack Coat and 402 Asphalt Concrete.

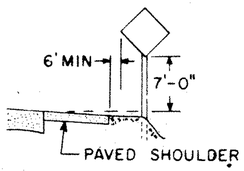
PROTECTION OF GENERAL PUBLIC

If the Contractor, at any time, fails to comply with the provisions set forth in the plans, Proposal, Specifications and the Ohio Revised Code that refer to the protection of the General Public within the limits of the Project, the Engineer upon such notification shall immediately inform the Contractor of noncompliance and upon failure of the Contractor to initiate corrective action, the Contractor shall be required to cease all construction operations and the Director may take actions as deemed necessary for compliance and the cost of such services will be deducted from any money which may be due or becomes due the Contractor.

TRAFFIC MAINTENANCE NOTES

MIAMI COUNTY
MIA.-75-(9.17-9.35)
MIA-41-(11.16-11.38)



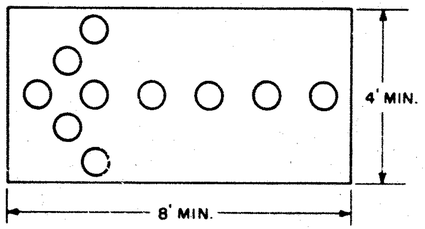


* (A) A PORTABLE ELECTRIC FLASHING ARROW AS SPECIFIED HEREIN SHALL BE PLACED AT THIS LOCATION WHEN THE WORK AREA IS:

1. ON ANY FREEWAY OR EXPRESSWAY OR
2. ON ANY ROADWAY HAVING A SPEED LIMIT 55 MPH

(B) A SIGN, OW-138-36 MAY BE USED IN LIEU OF THE ELECTRIC ARROW ON ALL ROADWAYS NOT COVERED IN PART A.

PORTABLE ELECTRIC ARROW



ERECT WITH BOTTOM OF PANEL 8' MINIMUM ABOVE PAVEMENT. LIGHTS SHALL BE 12 VOLT, TYPE 4434-A PAR 36 AMBER LENS OR EQUIVALENT WITH FLAT BLACK STEEL VISORS. LIGHTS SHALL FLASH AT A RATE OF 25 TO 35 CYCLES PER MINUTE WITH A 50 PERCENT DWELL TIME. LIGHTS SHALL FLASH SIMULTANEOUSLY OR SEQUENTIALLY TO INDICATE DIRECTION OF VEHICLE MOVEMENT REQUIRED. AN AUTOMATIC DIMMER SHALL BE USED TO DIM LIGHTS AT NIGHT. THE PANEL SHALL BE PAINTED FLAT BLACK.

GENERAL NOTES

1. TRAFFIC CONTROL SHALL BE AS REQUIRED IN THE PROPOSAL AND AS DESCRIBED BELOW.
2. ONE LANE TRAFFIC AREAS SHALL BE CONTROLLED WITH TEMPORARY TRAFFIC CONTROL DEVICES ARRANGED AS INDICATED.
3. PLACE SIGN R-39L AT BEGINNING OF WORK AREA AND AT ONE HALF MILE INTERVALS.
4. ALL SIGNS THAT ARE TO CONVEY THEIR MESSAGES DURING HOURS OF DARKNESS SHALL BE REFLECTORIZED OR ILLUMINATED.
5. THE CONTRACTOR SHALL ARRANGE TRAFFIC CONTROL DEVICES SO THAT ALL INTERCHANGE RAMPS ARE OPEN TO TRAFFIC AT ALL TIMES AS DIRECTED BY THE ENGINEER.
6. LANE TAPER-TYPE I OR TYPE II BARRICADES OR 55 GALLON STEEL DRUMS SHALL BE USED FOR LANE TAPER.
7. CENTER LINE - THE CONTRACTOR SHALL USE 55 GALLON STEEL DRUMS. THE PREDOMINANT COLOR ON DRUMS SHALL BE ORANGE WITH AT LEAST TWO HORIZONTAL, CIRCUMFERENTIAL WHITE REFLECTORIZED STRIPES 4 TO 6 INCHES WIDE.
8. CONES MAY BE SUBSTITUTED FOR BARRICADES OR STEEL DRUMS ON THE TAPER OR FOR THE DRUMS ON THE CENTERLINE DURING DAYLIGHT OPERATIONS.
9. CONES, DRUMS, OR BARRICADES SHALL BE SPACED AT 50' CENTERS
10. WHEN WORK IS BEING PERFORMED IN THE LANE ADJACENT TO THE MEDIAN ON A DIVIDED HIGHWAY, LEFT LANE CLOSED SIGNS SHALL BE SUBSTITUTED FOR RIGHT LANE CLOSED SIGNS. ALSO KEEP RIGHT SIGNS SHALL BE SUBSTITUTED FOR KEEP LEFT SIGNS.
11. ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN PROPER POSITION, CLEAN, LEGIBLE AND IN GOOD WORKING CONDITION AT ALL TIMES.
12. ALL VEHICLES, EQUIPMENT, MEN AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.
13. THE CONTRACTOR SHALL PROVIDE THE SERVICES OF ONE (1) SPECIAL DUTY STATE HIGHWAY PATROLMAN FOR THE EXCLUSIVE PURPOSE OF CONTROLLING ONE LANE THROUGH TRAFFIC FOR EACH ONE WAY TRAFFIC ZONE, EXCEPT THAT A PATROLMAN WILL NOT BE REQUIRED IN AREA OF PAVEMENT REMOVAL AND REPLACEMENT WHEN THE CONTRACTOR IS NOT PERFORMING WORK AND OR TRAFFIC CONTROL ITEMS. THE PATROLMAN SHALL BE UTILIZED AS DIRECTED BY THE ENGINEER. INFORMATION REGARDING ARRANGEMENTS AND PAYMENTS BY THE CONTRACTOR FOR SPECIAL DUTY PATROL SERVICES MAY BE OBTAINED BY CONTACTING OHIO HIGHWAY PATROL, 660 EAST MAIN STREET, COLUMBUS, OHIO TELEPHONE 466-2660.
14. PAYMENT FOR PROVIDING, ERECTING, MAINTAINING AND REMOVING SIGNS, BARRICADES, CONES, MARKERS, ETC., SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.

BUREAU OF TRAFFIC CONTROL
OHIO DEPARTMENT OF TRANSPORTATION

CLOSING ONE LANE ON A 4-LANE DIVIDED HIGHWAY	APP. ROM	DATE 12-27-79
DR. C.R.	AS-7P-10	

	BY	DATE
DETAILED	JH	6-75
DETAILS CHECKED	MH	7-75
DETAILS REVISED	JH	8-75

S.R. 41 CALCULATIONS

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

FHWA REGION	STATE	PROJECT	
5	OHIO		

404 ASPHALT CONCRETE AC-20

URBAN

From Typical Section Nº1 — 1900.00 Lin.Ft.
Sta 400+50.00 to 408+14 (764.00)(19.93+58.14½)(.1042) ÷ 27 = 115.09 Cu.Yds.
Sta 408+14 to 408+88.80 = (74.80)(58.14+60½)(.1042) ÷ 27 = 17.05 Cu.Yds.
Sta. 408+88.80 to 419+50 (1061.20)(60)(.1042) ÷ 27 = 245.73 Cu.Yds.

TOTAL TO SUMMARY (URBAN) 377.87 Cu.YDS.

INTERSTATE

From Typical Sections Nº. 2 — 1619.70 Lin.Ft.
(1619.70)(60)(.1042) ÷ 27 = 375.05 Cu.YDS

TOTAL TO SUMMARY (INTERSTATE) 375.05 CU.YDS.

402 ASPHALT CONCRETE AC-20

URBAN

From Typical Section Nº1 — 1900.00 Lin.Ft.
Sta. 400+50 to 408+14 (764.00)(0+37.58/2)(.1042) ÷ 27 = 55.40 Cu.Yds.
Sta. 408+14 to 408+88.80 (74.80)(37.58+39.44½)(.1042) ÷ 27 = 11.12 Cu.Yds.
Sta. 408+88.80 to 419+50 (1061.20)(39.44)(.1042) ÷ 27 = 161.52 Cu.Yds.

TOTAL TO SUMMARY (URBAN) 228.04 CU.YDS.

INTERSTATE

From Typical Section Nº2 — 1619.70 Lin.Ft.
(1619.70)(60)(.1042) ÷ 27 = 375.05 Cu.Yds.

TOTAL TO SUMMARY (INTERSTATE) 375.05 CU.YDS.

301 BITUMINOUS AGGREGATE BASE

URBAN

From Typical Section Nº1 — 1900.00 Lin.Ft.
Sta. 400+50 to 408+14 (764.00)(1+38.58/2)(.50) ÷ 27 = 280.00 Cu.Yds.
Sta. 408+14 to 408+88.80 (74.80)(38.58+40.44½)(.50) ÷ 27 = 54.73 Cu.Yds.
Sta. 408+88.80 to 419+50 (1061.20)(40.44)(.50) ÷ 27 = 794.72 Cu.Yds.

TOTAL TO SUMMARY (URBAN) 1129.45 CU.YDS.

INTERSTATE

From Typical Section Nº2 — 1619.70 Lin.Ft.
(1619.70)(61)(.50) ÷ 27 = 1829.66 Cu.Yds.

TOTAL TO SUMMARY (INTERSTATE) 1829.66 CU.YDS.

605 AGGREGATE DRAINS

URBAN

From Typical Section Nº1 — 1900.00 Lin.Ft.
38 @ 12 = 456 Lin.Ft.

TOTAL TO SUMMARY (URBAN) 456 LIN.FT.

INTERSTATE

From Typical Section Nº2 — 1619.70 Lin.Ft.
32 @ 12 = 384 Lin.Ft.

TOTAL TO SUMMARY (INTERSTATE) 384 LIN.FT.

304 AGGREGATE BASE

URBAN

From Typical Section Nº1 — 1900.00 Lin.Ft.
(1900.00)[(2.50")(2)] ÷ 27 = 351.85 Cu.Yds.
Deduct for Approaches (255)(2.50") ÷ 27 = − 23.61 Cu.Yds.
TOTAL TO SUMMARY (URBAN) 328.24 CU.Yds.

INTERSTATE

From Typical Section Nº. 2 — 1619.70 Lin.Ft.
(1619.70)[(2.50")(2)] ÷ 27 = 299.94 Cu.Yds.

From Typical Section Nº 3 — 432.00 Lin.Ft.
Lt. (312.00)(2.50") ÷ 27 = 28.89 Cu.Yds.
Rt. (432.00)(2.50") ÷ 27 = 40.00 Cu.Yds.

Deduct for Approaches (580)(2.50") ÷ 27 = − 53.70 Cu.Yds.

TOTAL TO SUMMARY (INTERSTATE) 315.13 CU.YDS.

310 SUBBASE

URBAN

From Typical Section Nº.1 — 1900.00 Lin.Ft.
Sta. 400+50 to 408+14 = (764.00)(2+39.58/2)(.50) ÷ 27 = 294.14 Cu.Yds.
Sta. 408+14 to 408+88.80 (74.80)(39.58+41.44½)(.50) ÷ 27 = 56.11 Cu.Yds.
Sta. 408+88.80 to 419+50 (1061.20)(41.44)(.50) ÷ 27 = 814.37 Cu.Yds.

Berms (1900.00)[(1.25")(2)] ÷ 27 = 175.93 Cu.Yds.
Deduct for Approaches (255)(1.25") ÷ 27 = − 11.81 Cu.Yds.

TOTAL TO SUMMARY (URBAN) 1328.74 CU.YDS.

INTERSTATE

From Typical Section Nº2 — 1619.70 Lin.Ft.
(1619.70)(62)(.50) ÷ 27 = 1859.66 Cu.Yds.
Berms (1619.70)[(1.25")(2)] ÷ 27 = 149.97 Cu.Yds.

From Typical Section Nº.3 — 432.00 Lin.Ft.
Lt. (312.00)(1.25") ÷ 27 = 14.44 Cu.Yds.
Rt. (432.00)(1.25") ÷ 27 = 20.00 Cu.Yds.

Deduct for Approaches (580)(1.25") ÷ 27 = − 26.85 Cu.Yds.

TOTAL TO SUMMARY (INTERSTATE) 2017.22 CU.YDS.

408 BITUMINOUS PRIME COAT

URBAN

From Typical Section Nº1 — 1900.00 Lin.Ft.
(1900.00)(8) ÷ 9 = 1689 Sq.Yds. @ 0.40 = 676 Gals.
Deduct for Approaches (255)(4) ÷ 9 = 113 Sq.Yds @ 0.40 − 45 Gals.

TOTAL TO SUMMARY (URBAN) 631 GALS.

INTERSTATE

From Typical Section Nº2 — 1619.70 Lin.Ft.
(1619.70)(8) ÷ 9 = 1440 Sq.Yds. @ 0.40 576 Gals.

From Typical Section Nº3 — 432.00 Lin.Ft.
(744)(4) ÷ 9 = 331 Sq.Yds. @ 0.40 = 132 Gals.

Deduct for Approaches (580)(4) ÷ 9 = 258 Sq.Yds. @ 0.40 − 103 Gals.

TOTAL TO SUMMARY (INTERSTATE) 605 GALS.

409 SEAL COAT

URBAN

From Typical Section Nº.1 — 1900.00 Lin.Ft.
(1900)(8) ÷ 9 = 1689 Sq.Yds. @ 0.30 = 507 Gals.
Deduct for Approaches (255)(4) ÷ 9 = 113 Sq.Yds. @ 0.30 = − 34 Gals.

TOTAL TO SUMMARY (URBAN) 473 GALS.

INTERSTATE

From Typical Section Nº2 — 1619.70 Lin.Ft.
(1619.70)(8) ÷ 9 = 1440 Sq.Yds. @ 0.30 432 Gals.

From Typical Section Nº. 3 — 432.00 Lin.Ft.
(744)(4) ÷ 9 = 331 Sq.Yds. @ 0.30 99 Gals.

Deduct for Approach (580)(4) ÷ 9 = 258 Sq.Yds. @ 0.30 − 77 Gals.

TOTAL TO SUMMARY (INTERSTATE) 22 GALS.

409 SEAL COAT COVER AGGREGATE

URBAN

From Typical Section Nº.1 — 1900.00 Lin.Ft.
(1900)(8) ÷ 9 = 1689 Sq.Yds. @ 0.008 = 13.51 Cu.Yds.
Deduct for Approaches (255)(4) ÷ 9 = 113 Sq.Yds @ 0.008 − .91 Cu.Yds.

TOTAL TO SUMMARY (URBAN) 12.60 CU.YDS.

INTERSTATE

From Typical Section Nº2 — 1619.70 Lin.Ft.
(1619.70)(8) ÷ 9 = 1440 Sq.Yds @ 0.008 11.52 Cu.Yds.

From Typical Section Nº.3 — 432.00 Lin.Ft.
(744)(4) ÷ 9 = 331 Sq.Yds. @ 0.008 = 2.65 Cu.Yds.

Deduct for Approaches (580)(4) ÷ 9 = 258 Sq.Yds. @ 0.008 −2.06 Cu.Yds.

TOTAL TO SUMMARY (INTERSTATE) 12.11 CU.YDS.

203 SUBGRADE COMPACTION

URBAN

From Typical Section Nº1 = — 1900.00 Lin.Ft.
Sta. 400+50 to 408+14 (764)(19.93+58.14½) ÷ 9 = 3314 Sq.Yds.
Sta. 408+14 to 408+88.80 (74.80)(58.14+60½) ÷ 9 = 491 Sq.Yds.
Sta. 408+88.80 to 419+50 (1061.20)(60) ÷ 9 = 7075 Sq.Yds.
Berms [(1900)(8)-(255)(4)] ÷ 9 = 1576 Sq.Yds.

TOTAL TO SUMMARY (URBAN) 12456 SQ.YDS.

INTERSTATE

From Typical Section Nº2 — 1619.70 Lin.Ft.
(1619.70)(60) ÷ 9 = 10798 Sq.Yds.
Berms (1619.70)(8) ÷ 9 = 1440 Sq.Yds.

TOTAL TO SUMMARY (INTERSTATE) 12238 SQ.YDS.

407 TACK COAT

URBAN

From Typical Section Nº.1 — 1900 Lin.Ft.
(1900)(20.56) ÷ 9 4340 Sq.Yds @ 0.10 434 Gals.

TOTAL TO SUMMARY 434 GALS.
407 Cover Aggregate @ 7 lbs./Sq.yd. = 13.8 Cu.Yd.

	BY	DATE
DETAILED	JH	6-75
DETAILS CHECKED	MH	7-75
DETAILS REVISED	JH	8-75

STANFIELD ROAD CALCULATIONS

FHWA REGION	STATE	PROJECT	
5	OHIO		

11/174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

404 ASPHALT CONCRETE AC-20

URBAN

From Typical Section Nº 13 — 701.14 Lin. Ft.
(75.00)(20+24/2)(.1042) ÷ 27 = 6.37 Cu. YDS.
(626.14)(24)(.1042) ÷ 27 = 57.99 Cu. YDS.

TOTAL TO SUMMARY (URBAN) 64.36 CU. YDS.

402 ASPHALT CONCRETE AC-20

URBAN

From Typical Section Nº 13 — 701.14 Lin. Ft.
(75.00)(20+24/2)(.1042) ÷ 27 = 6.37 Cu. Yds.
(626.14)(24)(.1042) ÷ 27 = 57.99 Cu. Yds.

TOTAL TO SUMMARY (URBAN) 64.36 CU. YDS.

304 AGGREGATE BASE

URBAN

From Typical Section Nº. 13 = 701.14 Lin. Ft.
(75.00)(21+25/2)(.50) ÷ 27 = 31.94 Cu. Yds.
(626.14)(25)(.50) ÷ 27 = 289.88 Cu. Yds.

TOTAL TO SUMMARY (URBAN) 321.82 CU. YDS.

310 SUBBASE

URBAN

From Typical Section Nº. 13 — 701.14 Lin. Ft.
(75.00)(22+26/2)(.50) ÷ 27 = 33.33 Cu. Yds.
(626.14)(26)(.50) ÷ 27 = 301.47 Cu. Yds.

TOTAL TO SUMMARY (URBAN) 334.80 CU. YDS.

408 BITUMINOUS PRIME COAT

URBAN

From Typical Section Nº 13 — 701.14 Lin. Ft.
(75.00)(20+24/2) ÷ 9 = 183 Sq. Yds. @ 0.4 = 73.33 Gals.
(626.14)(24) ÷ 9 = 1670 Sq. Yds. @ 0.4 = 667.88 Gals.

TOTAL TO SUMMARY (URBAN) 741.21 GALS.

203 SUBGRADE COMPACTION

URBAN

From Typical Section Nº 13 = 701.14 Lin. Ft.
(75.00)(20+24/2) ÷ 9 = 183.33 Sq. Yds.
(626.14)(24) ÷ 9 = 1669.71 Sq. Yds.

TOTAL TO SUMMARY (URBAN) 1853.04 Sq. Yds.

605 AGGREGATE DRAINS

URBAN

From Typical Section Nº 13 = 701.14 Lin. Ft.
30 @ 12 ft = 360 Lin. Ft.

TOTAL TO SUMMARY 360 LIN. FT.

659 COMMERCIAL FERTILIZER 12-12-12

URBAN

659 Seeding & Mulching Total From General Summary = 33973 Sq. Yd.
660 Sodding Total From General Summary = 2103 Sq. Yd.
[(36076)(9) ÷ 1000](20) ÷ 2000 = 3.247 Ton
TOTAL TO SUMMARY 3.247 TON

INTERSTATE

659 Seeding & Mulching Total From General Summary = 185261 Sq. Yd.
660 Sodding Total From General Summary = 1938 Sq. Yd.
[(187199)(9) ÷ 1000](20) ÷ 2000 = 16.848 Ton
TOTAL TO SUMMARY 16.848 TON

203 PROOF ROLLING

URBAN

203 Subgrade Compaction Total From General Summary = 15359 Sq. Yd.
[15359 ÷ 3000](1) = 5 Hr.
TOTAL TO SUMMARY 5 HR

INTERSTATE

203 Subgrade Compaction Total From General Summary = 42572 Sq. Yd.
[42572 ÷ 3000](1) = 14 Hr.
TOTAL TO SUMMARY 14 HR.

STANFIELD ROAD CALCULATIONS

	BY	DATE
DETAILED	JH	6-75
DETAILS CHECKED	MH	7-75
DETAILS REVISED	JH	8-75

I. R. 75 PAVEMENT CALCULATIONS

FHWA REGION	STATE	PROJECT	
5	OHIO		

12
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

404 ASPHALT CONCRETE AC-20

From Typical Section Nº 4
(5400)(.1042)(48) ÷ 27 = — 5400 Lin. Ft. — 1000.32 Cu. Yds.

TOTAL TO SUMMARY — 1000 CU. YDS.

409 SEAL COAT COVER AGGREGATE #8

From Typical Section Nº. 4
(5400)(28) ÷ 9 = 16800 Sq. Yds. @ 0.008 Cu. Yds./Sq. Yds. — 5400 Lin. Ft. — 134.40 Cu. Yds.

* Deduct for Ramps =
(5750.33)(10) ÷ 9 = 6389 Sq. Yd. @ 0.008 Cu. Yds/Sq. Yds. — 5750.33 Lin. Ft. — 51.11 Cu. Yds.

TOTAL TO SUMMARY — 83 CU. YDS.

301 BITUMINOUS AGGREGATE BASE

From Typical Section Nº4
(5400)(28)(.25) ÷ 27 = — 5400 Lin. Ft. — 1400.00 Cu. Yds.

* Deduct for Ramps
(5750.33)(10)(.25) ÷ 27 — 5750.33 Lin. Ft. — 532.43 Cu. Yds.

TOTAL TO SUMMARY — 868 CU. YDS.

203 SUBGRADE COMPACTION

From Typical Section Nº4
(5400)(20) ÷ 9 = — 5400 Lin. Ft. — 12000 Sq. Yds.

* Deduct for Ramps
(5750.33)(10) ÷ 9 = — 5750.33 Lin. Ft. — 6389 Sq. Yds.

TOTAL TO SUMMARY — 5610 SQ. YDS.

304 AGGREGATE BASE

From Typical Section Nº. 4 =
(5400)(28)(.50) ÷ 27 = — 5400 Lin. Ft. — 2800.00 Cu. Yds.

* Deduct for Ramps
(5750.33)(10)(.50) ÷ 27 — 5750.33 Lin. Ft. — 1064.87 Cu. Yds.

TOTAL TO SUMMARY — 1735 CU. YDS.

409 SEAL COAT BITUMINOUS MATERIAL

From Typical Section Nº 4
(5400)(2.8) ÷ 9 = 16800 Sq. Yds. @ 0.30 Gal/Sq. Yd. — 5400 Lin. Ft. — 5040 Gals.

* Deduct for Ramps
(5750.33)(10) ÷ 9 = 6389 Sq. Yds. @ 0.30 Gal/Sq. Yd. — 5750.33 Lin. Ft. — 1917 Gals.

TOTAL TO SUMMARY — 3123 GALS.

310 SUBBASE

From Typical Section Nº4 =
(5400)(2)(6.263" + 1.427") ÷ 27 = — 5400 Lin. Ft. — 3076.00 Cu. Yds.

* Deduct for Ramps =
(5750.33)(6.263")÷ 27 = — 5750.33 Lin. Ft. — 1333.86 Cu. Yds.

TOTAL TO SUMMARY — 1742 CU. YDS.

* Ramp Deductions

Ramp C,	Sta 485+70.03	to 502+68.50	1698.47 Lin. Ft.
Ramp D,	Sta 498+44	to 506+44	800.00 Lin. Ft.
Ramp A,	Sta. 510+44	to 518+44	800.00 Lin. Ft.
Ramp E,	Sta. 521+00	to 537+51.86	1651.86 Lin. Ft.
Ramp F,	Sta. 524+25.16	to 532+25.16	800.00 Lin. Ft.

TOTAL = 5750.33 Lin. Ft.

	BY	DATE
DETAILED	JH	6-75
DETAILS CHECKED	MH	7-75
DETAILS REVISED	JH	8-75

RAMP CALCULATIONS

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

FHWA REGION	STATE	PROJECT	
5	OHIO		

13/174

404 ASPHALT CONCRETE AC-20

RAMP C

Sta. 1+27.73 to 7+81.68 (653.95)(32)(1042) ÷ 27 =	80.76 Cu.Yds.
Sta. 7+81.68 to 17+72.18 (990.50)(16)(.1042) ÷ 27 =	61.16 Cu.Yds.
Sta. 17+72.18 to 18+72.18 (100.00)(16)(.1042) ÷ 27 =	6.17 Cu.Yds.
Sta. 18+72.18 to 21+72.18 (300.00)(16)(.1042) ÷ 27 =	18.52 Cu.Yds.
Sta. 497+70.03 to 485+70.03 (1200)(25+0/2)(.1042) ÷ 27 =	57.89 Cu.Yds.
Return (*5735')(.1042) ÷ 27 =	22.13 Cu.Yds.

RAMP D

Sta. 498+44 to 499+44 (100)(0+12/2)(.1042) ÷ 27 =	2.32 Cu.Yds.
Sta. 499+44 to 501+09.97 (165.97)(12)(.1042) ÷ 27	7.69 Cu.Yds.
Sta. 0+00 to 2+50 (250)(12)(.1042) ÷ 27 =	11.58 Cu.Yds.
Sta. 2+50 to 5+34 (*5837') (.1042) ÷ 27 =	22.52 Cu.Yds.
Sta. 5+34 to 6+34 (100)(16)(.1042) ÷ 27 =	6.17 Cu.Yds.
Return (*2500')(.1042) ÷ 27 =	9.65 Cu.Yds.
Sta. 6+34 to 8+75 (241)((16+24)/2)(.1042) ÷ 27 =	18.60 Cu.Yds.
Sta. 8+75 to 9+75 (100)(24)(.1042) ÷ 27 =	9.26 Cu.Yds.

RAMP A

Sta. 9+85.00 to 16+43.10 (658)(16)(.1042) ÷ 27 =	40.63 Cu.Yds.
Sta. 16+43.10 to 18.6481 (*4660') (.1042) ÷ 27 =	17.98 Cu.Yds.
Sta. 18+64.81 to 21+65.05 (300.24)(12)(.1042) ÷ 27 =	13.90 Cu.Yds.
Sta. 515+66.59 to 517+50 (183.41)(12)(.1042) ÷ 27 =	8.50 Cu.Yds.
Sta. 517+50 to 518+50 (100)(12+9/2)(.1042) ÷ 27 =	2.32 Cu.Yds.

RAMP E

Return (*2480')(.1042) ÷ 27	9.57 Cu.Yds.
Sta. 1+20.50 to 11+30.14 (1009.64)(16)(.1042) ÷ 27 =	62.34 Cu.Yds.
Sta. 11+30.14 to 12+30.14 (100)(16)(.1042) ÷ 27 =	6.17 Cu.Yds.
Sta. 12+30.14 to 15+30.14 (300)(16)(.1042) ÷ 27 =	18.52 Cu.Yds.
Sta. 15+30.14 to 27+30.14 (1200)(25+0/2)(.1042) ÷ 27 =	57.89 Cu.Yds.

RAMP F

Return (*1788')(.1042) ÷ 27	6.90 Cu.Yds.
Sta. 0+83.09 to 9+15.41 (832.32)(16)(.1042) ÷ 27 =	51.39 Cu.Yds.
Sta. 9+15.41 to 13+68.74 (*10032')(.1042) ÷ 27 =	38.71 Cu.Yds.
Sta. 13+68.74 to 16+14.43 (245.69)(12)(.1042) ÷ 27 =	11.38 Cu.Yds.
Sta. 16+14.43 to 17+15.15 (100.72)(12+0/2)(.1042) ÷ 27 =	2.33 Cu.Yds.

TOTAL TO SUMMARY — 683± CU.YDS.

402 ASPHALT CONCRETE AC-20

RAMP C

Sta. 1+27.73 to 7+81.68 (653.95)(32)(.1042) ÷ 27 =	80.76 Cu.Yds.
Sta. 7+81.68 to 17+72.18 (990.50)(16)(.1042) ÷ 27 =	61.16 Cu.Yds.
Sta. 17+72.18 to 18+72.18 (100)(16)(.1042) ÷ 27 =	6.17 Cu.Yds.
Sta. 18+72.18 to 21+72.18 (300)(16)(.1042) ÷ 27 =	18.52 Cu.Yds.
Sta. 497+70.03 to 485+70.03 (1200)(25+0/2)(.1042) ÷ 27 =	57.89 Cu.Yds.
Return (*5735')(.1042) ÷ 27 =	22.13 Cu.Yds.

RAMP D

Sta. 498+44 to 499+44 (100)(0+12/2)(.1042) ÷ 27 =	2.32 Cu.Yds.
Sta. 499+44 to 501+09.97 (165.97)(12)(.1042) ÷ 27 =	7.69 Cu.Yds.
Sta. 0+00 to 2+50 (250)(12+9/2)(.1042) ÷ 27 =	5.79 Cu.Yds.
Sta. 4+76 to 5+34 (*741')(.1042) ÷ 27 =	2.86 Cu.Yds.
Sta. 5+34 to 6+34 (100)(16)(.1042) ÷ 27 =	6.17 Cu.Yds.
Return (*2500')(.1042) ÷ 27 =	9.65 Cu.Yds.
Sta. 6+34 to 8+75 (241)((16+24)/2)(.1042) ÷ 27 =	18.60 Cu.Yds.
Sta. 8+75 to 9+75 (100)(24)(.1042) ÷ 27 =	9.26 Cu.Yds.

RAMP A

Sta. 9+85.00 to 16+43.10 = (658)(16)(.1042) ÷ 27 =	40.63 Cu.Yds.
Sta. 16+43 to 16+83 (480') (.1042) ÷ 27 =	1.85 Cu.Yds.
Sta. 18+64.81 to 21+65.05 (300.24)(12+9/2)(.1042) ÷ 27 =	6.95 Cu.Yds.
Sta. 515+66.59 to 517+50 (183.41)(12)(.1042) ÷ 27 =	8.49 Cu.Yds.
Sta. 517+50 to 518+50 (100)(12+0/2)(.1042) ÷ 27 =	2.32 Cu.Yds.

RAMP E

Return (*2480')(.1042) ÷ 27 =	9.57 Cu.Yds.
Sta. 1+20.50 to 11+30.14 (1009.64)(16)(.1042) ÷ 27 =	62.34 Cu.Yds.
Sta. 11+30.14 to 12+30.14 (100)(16)(.1042) ÷ 27 =	6.17 Cu.Yds.
Sta. 12+30.14 to 15+30.14 (300)(16)(.1042) ÷ 27 =	18.52 Cu.Yds.
Sta. 15+30.14 to 27+30.14 (1200)(25+0/2)(.1042) ÷ 27 =	57.89 Cu.Yds.

RAMP F

Return (*1788')(.1042) ÷ 27 =	6.90 Cu.Yds.
Sta. 0+83.09 to 9+15.41 (832.32)(16)(.1042) ÷ 27 =	51.39 Cu.Yds.
Sta. 9+15.41 to 13+68.74 (*10032')(.1042) ÷ 27 =	38.72 Cu.Yds.
Sta. 13+68.74 to 16+14.43 (245.69)(12)(.1042) ÷ 27 =	11.38 Cu.Yds.
Sta. 16+14.43 to 17+15.15 (100.72)(12+0/2)(.1042) ÷ 27 =	2.33 Cu.Yds.

TOTAL TO SUMMARY — 635± CU.YDS.

301 BITUMINOUS AGGREGATE BASE

RAMP C

Sta. 1+27.73 to 7+81.68 (653.95)(36.33)(.50) ÷ 27 =	439.96 Cu.Yds.
Berm (653.95)(12)(.2083) ÷ 27 =	60.54 Cu.Yds.
Sta. 7+81.68 to 17+72.18 (990.50)(17.33)(.50) ÷ 27 =	317.88 Cu.Yds.
Sta. 17+72.18 to 18+72.18 (100)(17.33)(.50) ÷ 27 =	32.09 Cu.Yds.
Lt. Berm [(768)(3)(.2083) ÷ 27 =	17.77 Cu.Yds.
Rt Berm [(940.50)(6)+(150)(6+10/2)](.2083) ÷ 27 =	52.79 Cu.Yds.
Deduct for Reinf. Conc. Base Sta 16+70 to 17+25 (55)(17.33)(.50) ÷ 27 =	-17.65 CU.Yds.
Sta. 18+72.18 to 21+72.18 (300)(17.33)(.50) ÷ 27 =	96.28 Cu.Yds.
Berm (300)(10)(.2083) ÷ 27 =	23.14 Cu.Yds.
Sta. 497+70.03 to 485+70.03 (1200)(25.67+.67/2)(.50) ÷ 27 =	892.67 Cu.Yds.
Berm (1200)(10)(.2083) ÷ 27 =	92.58 Cu.Yds.
Berm Sta. 502+68.5 to 497+70.03 (7300)(.2083) ÷ 27 =	56.32 Cu.Yds.
Return [(*5735')+(.67×324)](.50) ÷ 27 =	111.15 Cu.Yds.
Berm (234)(16)(.2083) ÷ 27 =	10.83 Cu.Yds.
(40+50)(6+4/2)(.2083) ÷ 27 = RAMP D	3.47 Cu.Yds.
Sta. 498+44 to 499+44 (100)(.67+12.67/2)(.50) ÷ 27 =	12.35 Cu.Yds.
Berm (100)(10)(.2083) ÷ 27 =	7.72 Cu.Yds.
Sta. 499+44 to 501+09.97 (165.97)(12.67)(.50) ÷ 27 =	38.94 Cu.Yds.
Berm (165.97)(10)(.2083) ÷ 27 =	12.80 Cu.Yds.
Sta. 0+00 to 2+50 (250)(12.67+.67/2)(.50) ÷ 27 =	30.88 Cu.Yds.
Berm (250)(10)(.2083) ÷ 27 =	19.29 Cu.Yds.
Sta. 2+50 to 5+34 (284)(10)(.2083) ÷ 27 =	21.91 Cu.Yds.
Lt. (*741')(.50) ÷ 27 =	13.72 Cu.Yds.
Sta. 5+34 to 6+34 (100)(13+9/2)(.2083) ÷ 27 =	8.49 Cu.Yds.
Sta. 6+34 to 9+75 (341)(9)(.2083) ÷ 27 =	23.68 Cu.Yds.
Return [(2500')+(.67×181)](.50) ÷ 27 =	48.54 Cu.Yds.
Berm [(.71)(6)+(56)(3)](.2083) ÷ 27 =	4.58 Cu.Yds.
(50)(6+4/2)(.2083) ÷ 27 =	1.93 Cu.Yds.

RAMP A

Sta. 9+85 to 11+23 (138)(6)(.2083) ÷ 27 =	6.39 Cu.Yds.
Sta. 11+23 to 15+43.10 (420)(9)(.2083) ÷ 27 =	29.16 Cu.Yds.
Sta. 15+43.1 to 16+43.1 (100)(9+3/4)(.2083) ÷ 27 =	8.49 Cu.Yds.
Sta. 16+43. to 16+83 Rt. (480')(.50) ÷ 27 =	8.89 Cu.Yds.
Sta. 16+43 to 21+65.05 (522.05)(10)(.2083) ÷ 27 =	40.28 Cu.Yds.
Sta. 515+66.59 to 517+50 (183.41)(10)(.2083) ÷ 27 =	14.15 Cu.Yds.
Sta. 517+50 to 518+50 (100)(10)(.2083) ÷ 27 =	7.71 Cu.Yds.
Sta. 512+66.59 to 515+66.59 (300)(.67+12.67/2)(.50) ÷ 27 =	37.06 Cu.Yds.
Sta. 515+66.59 to 517+50 (183.41)(12.67)(.50) ÷ 27 =	43.03 Cu.Yds.
Sta. 517+50 to 518+50 (100)(12.67+.67/2)(.50) ÷ 27 =	12.35 Cu.Yds.
Return & Berm included in Ramp C	21.58 Cu.Yds.
Sta. 6+34 to 8+75 (241)((16+24)/2)(.50) ÷ 27 =	16.06 Cu.Yds.
Sta. 8+75 to 9+75 (100)(24)(.50) ÷ 27 =	

RAMP E

Return [(*2480')+(.67)(221)](.50) ÷ 27 =	48.68 Cu.Yds.
Berm [(80)(3)+(101)(4)+(40)(6+4/2)](.2083) ÷ 27 =	8.06 Cu.Yds.
Sta. 1+20.5 to 11+30.14 (1009.64)(17.33)(.50) ÷ 27 =	324.02 Cu.Yds.
Berm Lt. & Rt. Sta. 1+20.5 to 10+80.14 (959.5)(9)(.2083) ÷ 27 =	66.62 CU.Yds.
Berm Rt. Sta. 10+80.14 to 12+30.14 (150)(6+10/2)(.2083) ÷ 27 =	9.26 Cu.Yds.
Sta. 11+30.14 to 12+30.14 (100)(17.33)(.50) ÷ 27 =	32.09 Cu.Yds.
Sta. 12+30.14 to 15+30.14 (300)(17.33)(.50) ÷ 27 =	96.28 Cu.Yds.
Sta. 525+51.86 to 537+51.86 (1200)(25.67+.67/2)(.50) ÷ 27 =	892.67 Cu.Yds.
Berm (1200)(10)(.2083) ÷ 27 =	92.58 Cu.Yds.
Berm 521+00 to 537+51.86 ~ (6500')(.2083) ÷ 27 =	50.15 Cu.Yds.

RAMP F

Return [(*1788')+(1.33×172)](.50) ÷ 27 =	37.35 Cu.Yds.
Berm [(69)(6)+(50)(6+4/2)+(51)(3)](.2083) ÷ 27 =	6.30 Cu.Yds.
Sta. 0+83.09 to 9+15.41 (832.32)(17.33)(.50) ÷ 27 =	267.11 Cu.Yds.
Berm Lt. [(732.32)(6)+(100)(6+10/2)](.2083) ÷ 27 =	40.07 Cu.Yds.
Berm Rt. (832.32)(3)(.2083) ÷ 27 =	19.26 Cu.Yds.
Sta. 9+15.41 to 13+68.74 (*10032')(.50) ÷ 27 =	185.78 Cu.Yds.
Sta. 13+68.74 to 16+14.43 (245.69)(12.67)(.50) ÷ 27 =	57.65 Cu.Yds.
Berm Lt. (699.02)(10)(.2083) ÷ 27 =	53.93 Cu.Yds.
Sta. 16+14.43 to 17+14.43 (100)(12.67+.67/2)(.50) ÷ 27 =	12.35 Cu.Yds.
Berm Lt. (100)(10)(.2083) ÷ 27 =	7.71 Cu.Yds.

TOTAL TO SUMMARY — 3784 CU.YDS.

203 SUBGRADE COMPACTION

RAMP C INCLUDING RAMP A

Return/Berm ((324)(6)+5735')÷9 =	853 Sq.Yds.
Sta. 1+27.73 to 7+81.68 (653.95)(44) ÷ 9 =	3197. Sq.Yds.
Sta. 7+81.68 to 17+72.18 (990.50)(25) ÷ 9 =	2751 Sq.Yds.
Sta. 17+22.18 to 18+72.18 (150)(22+26/6) ÷ 9 =	400 Sq.Yds.
Sta. 18+72.18 to 21+72.18 (300)(26) ÷ 9 =	867 Sq.Yds.
Sta. 497+70.03 to 485+70.03 (1200)(25/2) ÷ 9 =	1667 Sq.Yds.
Sta. 497+70.03 to 486+66.03 (1104)(10) ÷ 9 =	1227 Sq.Yds.
Sta. 486+66.03 to 485+70.03 (96)(10) ÷ 9 ≈	107 Sq.Yds.
Sta. 502+68.5 to 497+70.03 *6771' ÷ 9 =	752 Sq.Yds.

RAMP D

Sta. 498+44 to 499+44 (100)(0+12/2) ÷ 9 =	67 Sq.Yds.
Sta. 499+44 to 501+09.97 (165.97)(12) ÷ 9 =	221 Sq.Yds.
Sta. 0+00 to 2+50 (250)(12+0/2) ÷ 9 =	167 Sq.Yds.
Sta. 498+44 to 499+44 (100)(10) ÷ 9 =	111 Sq.Yds.
Sta. 499+44 to 5+34 (700)(10) ÷ 9 =	778 Sq.Yds.
Sta. 5+34 to 6+34 (100)((12+6)/2) ÷ 9 ≈	89 Sq.Yds.
Return 2500' ÷ 9 ≈	278 Sq.Yds.
Berm [(121)(6)+(56)(3)] ÷ 9 ≈	99 Sq.Yds.
Sta. 7+00 to 8+75 (175)((6+10)/2) ÷ 9 =	165 Sq.Yds.
Sta. 8+75 to 9+75 (100)(12) ÷ 9 =	122 Sq.Yds.
Sta. 6+34 to 9+25 = (341)(6) ÷ 9 ≈	227 Sq.Yds.

*= By Planimeter

RAMP E

Return *2480' ÷ 9	276 Sq.Yds.
Sta. 1+20.50 to 11+30.14 (1009.64)(16) ÷ 9 =	1795 Sq.Yds.
Sta. 11+30.14 to 12+30.14 (100)(16) ÷ 9 =	178 Sq.Yds.
Sta. 12+30.14 to 15+30.14 (300)(16) ÷ 9 =	533 Sq.Yds.
Sta. 15+30.14 to 27+30.14 (1200)(25/2) ÷ 9 =	1667 Sq.Yds.
From 409 Calculations	2167 Sq.Yds.

RAMP F

Return *1788' ÷ 9	199 Sq.Yds.
Sta. 0+83.09 to 9+15.41 (832.32)(16) ÷ 9 =	1480 Sq.Yds.
Sta. 9+15.41 to 13+68.74 *10032' ÷ 9	1115 Sq.Yds.
Sta. 13+68.74 to 16+14.43 (245.69)(12) ÷ 9	328 Sq.Yds.
Sta. 16+14.43 to 17+15.15 (100.72)(12/2) ÷ 9	67 Sq.Yds.
From 409 Calculations	1361 Sq.Yds.

TOTAL TO SUMMARY — 2531 SQ.YDS.

	BY	DATE
DETAILED	JH	6-75
DETAILS CHECKED	MH	7-75
DETAILS REVISED	JH	8-75

RAMP CALCULATIONS

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

FHWA REGION	STATE	PROJECT	
5	OHIO		

310 SUBBASE

RAMP C

Sta 1+27.73 to 7+81.68 (653.95)(37.50)(.50) ÷ 27 =	454.13 Cu.Yds.
Lt. Berm (653.95)(4.75)(.50) ÷ 27 =	57.52 Cu.Yds.
Rt Berm (653.95)(4.75)(.50) ÷ 27 =	57.52 Cu.Yds.
Sta. 7+81.68 to 17+72.18 (990.50)(18.5)(.50) ÷ 27 =	339.33 Cu.Yds.
Sta. 17+72.18 to 18+72.18 (100)(18.5)(.50)÷27=	34.26 Cu.Yds.
Lt. Berm (768)(1.75)(.50)÷27=	24.89 Cu.Yds.
Rt. Berm [(940.50)(4.75)+(150)(4.75+8.75)](.50) ÷ 27 =	180.22 Cu.Yds.
Deduct for Reinf. Conc. Base Sta. 16+70 to 17+25 (55)(18.5)(.50) ÷ 27=	-18.84 Cu.Yds.
Sta. 18+72.18 to 21+72.18 (300)(18.5)(.50) ÷ 27 =	102.78 Cu.Yds.
Berm (300)(8.75)(.50) ÷ 27 =	48.61 Cu.Yds.
Berm Sta. 502+68.5 to 497+70.03 (*7300□')(.50) ÷ 27 =	135.18 Cu.Yds.
Sta 497+70.03 to 485+70.03 (1200)(26.25 + 1.25/2)(.50) ÷ 27 =	305.55 Cu.Yds.
Berm [(1200)(8.75)(.50)÷27=	194.44 Cu.Yds.
Return [(*5735□')+(1.25x324)](.50) ÷ 27 =	113.70 Cu.Yds.
Berm (234)(4.75)(.50) ÷ 27 =	20.58 Cu.Yds.
(40+50)(4.75+2.75/2)(.50)÷27=	6.25 Cu.Yds.

RAMP D

Sta. 498+44 to 499+44 (100)(1.25+14.50/2)(.50) ÷ 27 =	14.58 Cu.Yds.
Berm (100)(8.75)(.50)÷27=	16.20 Cu.Yds.
Sta. 499+44 to 501+09.97 (165.97)(13.25)(.50) ÷ 27 =	40.72 Cu.Yds.
Berm (165.97)(8.75)(.50) ÷ 27 =	26.89 Cu.Yds.
Sta. 0+00 to 2+50 (250)(13.25 + 1.25/2)(.50) ÷ 27 =	33.56 Cu.Yds.
Berm (250)(8.75)(.50) ÷ 27 =	40.51 Cu.Yds.
Sta. 2+50 to 5+34 (284)(8.75)(.50) ÷ 27 =	46.02 Cu.Yds.
Left (*741□')(.50) ÷ 27 =	13.72 Cu.Yds.
Sta. 5+34 to 6+34 (100)(10.50+6.50/2)(.50) ÷ 27 =	15.74 Cu.Yds.
Sta. 6+34 to 9+75 (341)(6.50)(.50) ÷ 27 =	41.04 Cu.Yds.
Return [(*2500□')+(1.25 x 181)](.50) ÷ 27 =	50.49 Cu.Yds.
Berm [(71)(4.75)+(50)(4.75+2.75/2)+(56)(1.75)](.50)÷27=	11.53 Cu.Yds.

RAMP A

Sta. 9+85 to 11+23 (138)(4.75)(.50) ÷ 27 =	12.14 Cu.Yds.
Sta. 11+23 to 15+43.10 (430)(6.50)(.50) ÷ 27 =	51.76 Cu.Yds.
Sta. 15+43.1 to 16+43.1 (100)(6.50+11.50/2)(.50) ÷ 27 =	16.67 Cu.Yds.
Sta. 16+43 to 16+83 (480□')(.50) ÷ 27 =	8.89 Cu.Yds.
Sta. 16+43 to 21+65.05 (522.05)(8.75)(.50) ÷ 27 =	84.59 Cu.Yds.
Sta. 515+66.59 to 517+50 (183.41)(8.75)(.50) ÷ 27=	29.72 Cu.Yds.
Sta. 517+50 to 518+50 (100)(8.75)(.50) ÷ 27=	16.21 Cu.Yds.
Sta. 512+66.59 to 515+66.59 (300)(1.25 + 13.25/2)(.50) ÷ 27 =	40.27 Cu.Yds.
Sta. 515+66.59 to 517+50 (183.41)(13.25)(.50) ÷ 27 =	45.00 Cu.Yds.
Sta. 517+50 to 518+50 (100)(13.25+1.25/2)(.50) ÷ 27 =	13.42 Cu.Yds.

Return & Berms included in Ramp C

Ramp D (Sta. 6+34 to 8+75 (241)((1.58+9.25)/2)(.50)÷27= 24.17 Cu.Yds.
Sta 8+75 to 9+75 (100)(9.25)(.50)÷27= 17.13 Cu.Yds.

RAMP E

Return [*2480□'+(1.25)(221)](.50) ÷ 27 =	51.04 Cu.Yds.
Berm [(80)(1.75)+(101)(4.75)+(40)(4.75+2.75/2)](.50)÷27=	14.25 Cu.Yds.
Sta. 1+20.5 to 11+30.14 (1009.64)(18.50)(.50) ÷ 27 =	345.90 Cu.Yds.
Berm LER Sta. 1+20.5 to 10+80.14 (959.5)(6.50)(.50) ÷ 27 =	115.50 Cu.Yds.
Berm Right Sta. 10+80.14 to 12+30.14 (150)(4.75+8.75/2)(.50) ÷ 27 =	18.75 Cu.Yds.
Sta. 11+30.14 to 12+30.14 (100)(18.50)(.50)÷27=	34.26 Cu.Yds.
Sta. 12+30.14 to 15+30.14 (300)(18.50)(.50)÷27=	102.78 Cu.Yds.
Sta. 525+51.86 to 537+51.86 (1200)(26.25+1.25/2)(.50) ÷ 27 =	305.55 Cu.Yds.
Berm (1200)(8.75)(.50) ÷ 27=	194.44 Cu.Yds.
Berm 521+00 to 537+51.86 -(6500□')(.50)÷27=	120.37 Cu.Yds.

RAMP F

Return [(*1788□')+(1.25)(172)](.50) ÷ 27 =	37.09 Cu.Yds.
Berm [(69)(4.75)+(50)(4.75+2.75/2)+(51)(1.75)](.50)÷27=	11.19 Cu.Yds.
Sta 0+83.09 to 9+15.41 (832.32)(18.50)(.50) ÷ 27 =	285.15 Cu.Yds.
Berm Lt. [(732.69)(4.75)+(100)(4.75+8.75/2)](.50) ÷ 27 =	76.95 Cu.Yds.
Berm Rt. (832.69)(1.75)(.50) ÷ 27 =	26.98 Cu.Yds.
Sta. 9+15.41 to 13+68.74 (*10032□')(.50) ÷ 27 =	185.78 Cu.Yds.
Sta. 13+68.74 to 16+14.43 (245.69)(13.25)(.50) ÷ 27 =	60.29 Cu.Yds.
Berm Lt. (699.02)(8.75)(.50) ÷ 27 =	113.27 Cu.Yds.
Sta. 16+14.43 to 17+15.15 (100.72)(13.25+1.25/2)(.50) ÷ 27 =	13.52 Cu.Yds.
Berm Lt. (100)(8.75)(.50)÷27=	16.20 Cu.Yds.

TOTAL TO SUMMARY 5117 Cu.Yds.

* By Planimeter

304 AGGREGATE BASE

RAMP C

Sta. 1+27.73 to 7+81.68 (653.95)(10.67)(.50) ÷ 27 =	129.22 Cu.Yds.
Sta 9+31 to 17+22.18 Lt. (768)(2.33)(.50) ÷ 27 =	33.14 Cu.Yds.
Sta. 7+81.68 to 17+22.18 Rt. (940.50)(5.33)(.50) ÷ 27 =	92.83 Cu.Yds.
Sta. 17+22.18 to 18+72.18 Rt. (150)(5.33+9.33/2)(.50) ÷ 27 =	20.36 Cu.Yds.
Sta. 18+72.18 to 21+72.18 (300)(9.33)(.50) ÷ 27 =	51.83 Cu.Yds.
Sta. 497+70.03 to 485+70.03 (1200)(9.33)(.50)÷27=	207.33 Cu.Yds.
Berm Sta. 502+68.5 to 497+70.03 (*7300□')(.50) ÷ 27 =	135.18 Cu.Yds.
Return (5.33)(234)(.50) ÷ 27 =	23.10 Cu.Yds.
(40+50)(5.33+3.33/2)(.50)÷27=	7.82 Cu.Yds.

RAMP D

Sta. 498+44 to 499+44 (100)(9.33)(.50)÷27=	17.28 Cu.Yds.
Sta. 499+44 to 501+09.97 (165.97)(9.33)(.50) ÷ 27 =	28.68 Cu.Yds.
Sta. 0+00 to 5+34 (534)(9.33)(.50) ÷ 27 =	92.26 Cu.Yds.
Sta. 5+34 to 6+34 (100)(8.67+7.67/2)(.50) ÷ 27 =	15.13 Cu.Yds.
Sta. 6+34 to 9+75 (341)(7.67)(.50) ÷ 27 =	48.43 Cu.Yds.
Return Berm [(71)(5.33)+(50)(5.33+3.33/2)+(56)(2.33)](.50÷27=	13.43 Cu.Yds.

RAMP A

Sta. 9+85 to 11+23 (138)(5.33)(.50) ÷ 27 =	13.62 Cu.Yds.
Sta. 11+23 to 15+43.1 (430)(7.67)(.50) ÷ 27 =	61.08 Cu.Yds.
Sta. 15+43.1 to 16+43.1 (100)(7.67+11.67/2)(.50) ÷ 27 =	17.91 Cu.Yds.
Sta. 16+43.1 to 21+65.05 (522.05)(9.33)(.50) ÷ 27 =	90.20 Cu.Yds.
Sta. 515+66.59 to 517+50 (183.41)(9.33)(.50) ÷ 27 =	31.69 Cu.Yds.
Sta. 517+50 to 518+30 (100)(9.33)(.50) ÷ 27=	17.28 Cu.Yds.

Return Berm included in Ramp C

RAMP E

Return Berm [(80)(2.33)+(101)(5.33)+(40)(5.33+3.33/2)](.50)÷27=	16.63 Cu.Yds.
Sta. 1+20.5 to 10+80.14 (959.5)(7.67)(.50) ÷ 27 =	136.28 Cu.Yds
Sta. 10+80.14 to 12+30.14 (150)(5.33+9.33/2)(.50) ÷ 27 =	20.36 Cu.Yds.
Sta. 12+30.14 to 15+30.14 (300)(9.33)(.50) ÷ 27 =	51.83 Cu.Yds.
Sta. 525+51.86 to 536+51.86 (1100)(9.33)(.50) ÷ 27 =	190.06 Cu.Yds.
Sta. 536+51.86 to 537+51.86 (100)(9.33)(.50)÷27=	17.28 Cu.Yds
Berm 521+00 to 537+51.86 -(6500□')(.50)÷27=	120.37 Cu.Yds.

RAMP F

Return Berm [(69)(5.33)+(50)(5.33+3.33/2)+(51)(2.33)](.50)÷27=	13.02 Cu.Yds.
Sta. 0+83.09 to 8+15.41 (732.32)(7.67)(.50) ÷ 27 =	104.02 Cu.Yds.
Sta. 8+15.41 to 9+15.41 (100)(7.67+11.67/2)(.50) ÷ 27 =	17.91 Cu.Yds.
Sta. 9+15.41 to 16+14.43 (699.02)(9.33)(.50) ÷ 27 =	120.78 Cu.Yds.
Sta. 16+14.43 to 17+15.15 (100.72)(9.33)(.50) ÷ 27=	17.40 Cu.Yds.

TOTAL TO SUMMARY 1827 CU.YDS.

407 TACK COAT

RAMP A

Sta. 9+85 to 16+43 (658)(16) ÷ 9 =	1170 Sq.Yds @ 0.10	117.0 Gals.

RAMP D

Sta. 5+34 to 9+75 (441)(16) ÷ 9 =	784 Sq Yds. @ 0.10	78.4 Gals.

TOTAL TO SUMMARY 195.4 GALS.

407 Cover Aggregate @ 7 lbs./sq.yd. = 6.3 Cu.Yds.

409 SEAL COAT #8 COVER AGGREGATE

RAMP C

Sta. 1+27.73 to 7+81.68 (653.95)(12) ÷ 9	872 Sq Yds. @ 0.008 =	6.98 Cu.Yds.
Sta 9+31 to 17+22.18 Lt (768)(3) ÷ 9	256 Sq Yds @ 0.008 =	2.05 Cu.Yds.
Sta. 7+81.68 to 17+22.18 Rt. (940.50)(6) ÷ 9 = 627	Sq.Yds. @ 0.008 =	5.02 Cu.Yds.
Sta. 17+22.18 to 18+72.18 Rt. (150)(6+10/2) ÷ 9	133 Sq Yds. @ 0.008 =	1.06 Cu.Yds.
Sta. 18+72.18 to 21+72.18 (300)(10) ÷ 9	333 Sq Yds @ 0.008 =	2.67 Cu.Yds.
Sta. 497+70.03 to 485+70.03 (1200)(10) ÷ 9 =	1333 Sq Yds @ 0.008 =	10.67 Cu.Yds.
Berm Sta. 502+68.5 to 497+70.03 (*7300□') ÷ 9 =	811 Sq Yds @ 0.008 =	6.49 Cu.Yds.
Return Berm (6)(234) ÷ 9 =	156 Sq Yds @ 0.008 =	1.25 Cu.Yds.
90 X (6+4/2) ÷ 9 =	50 Sq.Yds @ 0.008 =	0.40 Cu.Yds.

** TOTAL 4571 Sq.Yd.

RAMP D

Sta. 498+44 to 499+44 (100)(10) ÷ 9 =	111 Sq Yds @ 0.008 =	.89 Cu.Yds.
Sta. 499+44 to 501+09.97 (165.97)(10) ÷ 9 =	184 Sq Yds @ 0.008 =	1.47 Cu.Yds.
Sta. 0+00 to 5+34 (534)(10) ÷ 9 =	593 Sq.Yds. @ 0.008 =	4.74 Cu.Yds.
Sta. 5+34 to 6+34 (100)(13+9/2) ÷ 9 =	122 Sq Yds @ 0.008 =	.98 Cu.Yds.
Sta. 6+34 to 9+75 (341)(9) ÷ 9 =	341 Sq.Yds. @ 0.008 =	2.73 Cu.Yds.
Return Berm [(71)(6)+(50)(6+4/2)+(56)(3)] ÷ 9=	94 Sq.Yds. @ 0.008 =	.75 Cu.Yds.

** TOTAL 1445 Sq.Yds.

RAMP A

Sta. 9+85 to 11+23 (138)(6) ÷ 9 =	92 Sq Yds. @ 0.008 =	.74 Cu.Yds.
Sta. 11+23 to 15+43.1 (430)(9) ÷ 9 =	430 Sq.Yds. @ 0.008 =	3.44 Cu.Yds.
Sta. 15+43.1 to 16+43.1 (100)(9+13/2) ÷ 9 =	122 Sq.Yds. @ 0.008 =	0.98 Cu.Yds.
Sta 16+43.1 to 21+65.05 (522.05)(10) ÷ 9 =	580 Sq.Yds. @ 0.008 =	4.64 Cu.Yds.
Sta. 515+66.59 to 517+30 (183.41)(10) ÷ 9 =	204 Sq.Yds. @ 0.008 =	1.63 Cu.Yds.
Sta. 517+50 to 518+50 (100)(10) ÷ 9 =	111 Sq Yds. @ 0.008 =	.89 Cu.Yds.

Return Berm included in Ramp C

** TOTAL 1539 Sq.Yds.

RAMP E

Return Berm [(80)(3)+(101)(6)+(40)(6+4/2)] ÷ 9 =	116 Sq.Yds. @ 0.008	.93 Cu.Yds.
Sta. 1+20.5 to 10+80.14 (959.5)(9) ÷ 9 =	960 Sq.Yds. @ 0.008	7.68 Cu.Yds.
Sta. 10+80.14 to 12+30.14 (150)(6+10/2) ÷ 9 =	133 Sq Yds @ 0.008	1.07 Cu.Yds.
Sta. 12+30.14 to 15+30.14 (300)(10) ÷ 9 =	333 Sq Yds @ 0.008	2.67 Cu.Yds.
Sta. 525+51.86 to 536+51.86 (1100)(10) ÷ 9 =	1222 Sq Yds @ 0.008	9.78 Cu.Yds.
Sta. 536+51.86 to 537+51.86 (100)(10) ÷ 9 =	111 Sq Yds. @ 0.008	.89 Cu.Yds.
Berm 521+00 to 537+51.86 ~ 6500□' ÷ 9 =	722	5.78 Cu.Yds.

** TOTAL 3597 Sq Yds.

RAMP F

Return Berm [(69)(6)+(50)(6+4/2)+(51)(3)] ÷ 9 =	91 Sq.Yds. @ 0.008	.73 Cu.Yds.
Sta. 0+83.09 to 8+15.41 (732.32)(9) ÷ 9 =	732 Sq Yds. @ 0.008	5.86 Cu.Yds.
Sta. 8+15.14 to 9+15.41 (100)(9+13/2) ÷ 9 =	122 Sq.Yds. @ 0.008	.98 Cu.Yds.
Sta. 9+15.41 to 16+14.43 (699.02)(10) ÷ 9 =	777 Sq Yds. @ 0.008	6.22 Cu.Yds.
Sta. 16+14.43 to 17+15.15 (100.72)(10) ÷ 9 =	112 Sq.Yds. @ 0.008	.90 Cu.Yds.

** TOTAL 1834 Sq.Yds.

TOTAL TO SUMMARY 98 CU.YDS.

409 SEAL COAT BITUMINOUS MATERIAL

RAMP C		
Total Sq.Yds. from above	(**4571) @ 0.30 =	1371 Gals.
RAMP D		
Total Sq.Yds. from above	(**1445) @ 0.30 =	434 Gals.
RAMP A		
Total Sq.Yds. from above	(**1539) @ 0.30 =	462 Gals.
RAMP E		
Total Sq.Yds. from above	(**3597) @ 0.30 =	1079 Gals.
RAMP F		
Total Sq.Yds. from above	(**1834) @ 0.30 =	550 Gals.

TOTAL TO SUMMARY 3896 GALS.

W.M-3-76
JH-3-76

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

15
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

GENERAL SUMMARY

TYPE CODE 6706 Unless otherwise shown

ITEM	URBAN 7	8	10	11	22		39	40			70	79		
201	Lump													
202														
202														
202														
202							2.16	1046			46	6		
202														
202														
202														
202														
202														
202														
202														
202														
202								Lump						
404	10													
Special														
410	816													
203				5										
203					12321									
203					3204									
203			12456	1853							513	477		
604					12									
606														
606														
606														
606														
606														
607														
607														
Special														
611														
612														
616	17													
616	17													
207	6795													
207	15													
207	100													
207	32													
207	76													
659	1699													
660														
601														
601		15							7			9		
651												28		
659					33973									
659	1.45			3.247										
660							155	1948						
667														

SHEET NUMBER INTERSTATE 7	8	10	11	12	13	14	9	21	22		41	42	43	69	90	102		114	
Lump																			
								641			164		233		3820	2286			
								Lump											
								20											
								4											
								96			1136	142	174						
											52								
													164			306			
								6											
											2								
																1		1	
								300				1075							
											4								
												55	107						
													2						
40																1		1	
3490																			
				14					52076										
									133556										
		12238			5610	26311													
									4										
								1050				500							
								2											
								6				4							
								2											
												4							
									10903										
									1970										
							528												
												334							
															310				
70																			
70																			
37052																			
80																			
100																			
134																			
417																			
9263																			
												223							
								23											
	15							78			120								
									186190										
7.92				16.848															
								80			1138	720							
												1028							

TOTAL URBAN	TOTAL INTERSTATE	ITEM	QUANT.	UNIT	DESCRIPTION
					ROADWAY
Lump	Lump	201	Lump	Lump	Clearing & Grubbing
	7144	202	7144	Sq.Yd.	Pavement Removed
	Lump	202	Lump	Lump	Portions of Structures Removed
	20	202	20	Each	Precast Traffic Dividers Removed
	4	202	4	Each	Catch Basin Abandoned
1314	1548	202	2862	Lin.Ft.	Pipe Removed 24" & Under
	52	202	52	Lin.Ft.	Pipe Removed Over 24"
	470	202	470	Lin.Ft.	Curb Removed
	6	202	6	Lin.Ft.	Gutter Removed
	2	202	2	Each	Underground Storage Tank Removed
	2	202	2	Each	Septic Tank Removed
	1375	202	1375	Lin.Ft.	Guard Rail Removed for Re-use or Storage
	4	202	4	Each	Catch Basin Removed
	162	202	162	Sq.Yd.	Concrete Median Removed
	2	202	2	Each	Inlet Removed
Lump		202	Lump	Lump	Concrete Wall Removed
10	40	404	50	Cu.Yd.	Asphalt Concrete or an approved Bituminous premix surface Course
					Maintaining Traffic
	2	Special	2	Each	Drilled Well Abandoned
816	3490	410	4306	Cu.Yd.	Traffic Compacted Surface Type A or B
5	14	203	19	Hr.	Proof Rolling
12321	52076	203	64397	Cu.Yd.	Excavation not Including Embankment Construction
3204	133556	203	136760	Cu.Yd.	Embankment
15359	43159	203	58518	Sq.Yd.	Subgrade Compaction
12	4	604	16	Each	Reference Monuments
	1550	606	1550	Lin.Ft.	Guard Rail, Type 5 as per plan
	2	606	2	Each	Special Guard Rail Connection to Concrete Barrier
	10	606	10	Each	Anchor Assembly
	2	606	2	Each	Anchor Assembly, Barrier Design
	4	606	4	Each	Bridge Terminal Assembly, Type 'F'
	10903	607	10903	Lin.Ft.	Fence, Type CL
	1970	607	1970	Lin.Ft.	Fence, Type 47
	528	Special	528	Sq.Ft.	Pavement Patching
	334	611	334	Sq.Yd.	Reinforced Concrete Approach Slabs (T=15")
	310	612	310	Sq.Yd.	Concrete Median
17	70	616	87	M Gal	Water
17	70	616	87	Ton	Calcium Chloride
					EROSION CONTROL Code Y005
6795	37052	207	43847	Sq.Yd.	Temporary Seeding and Mulching
15	80	207	95	M.Gal.	Water
100	100	207	200	Lin.Ft.	Temporary Slope Drains
32	134	207	166	Cu.Yd.	Temporary Benches, Dikes, Dams and Sediment Basins
76	417	207	493	M.Sq.Ft.	Mowing
1699	9263	659	10962	Sq.Yd.	Repair Seeding & Mulching
	223	660	223	Sq.Yd.	Sodding for Special Berm & Slope Protection
	23	601	23	Cu.Yd.	Rock Channel Protection, Type 'A' with Bedding
31	213	601	244	Cu.Yd.	Rock Channel Protection, Type 'B' with Bedding
28		601	28	Sq.Yd.	Riprap, 6" Reinforced Concrete Slab
33973	186190	659	220163	Sq.Yd.	Seeding & Mulching
4.70	24.77	659	29.47	Ton	Commercial Fertilizer, (12-12-12)
2103	1938	660	4041	Sq.Yd.	Sodding
	1028	667	1028	Sq.Yd.	Seeding and Jute Matting

	BY	DATE
DETAILED		
DETAILS CHECKED		
DETAILS REVISED		

GENERAL SUMMARY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

16
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

* Farm Drains TYPE CODE 6706

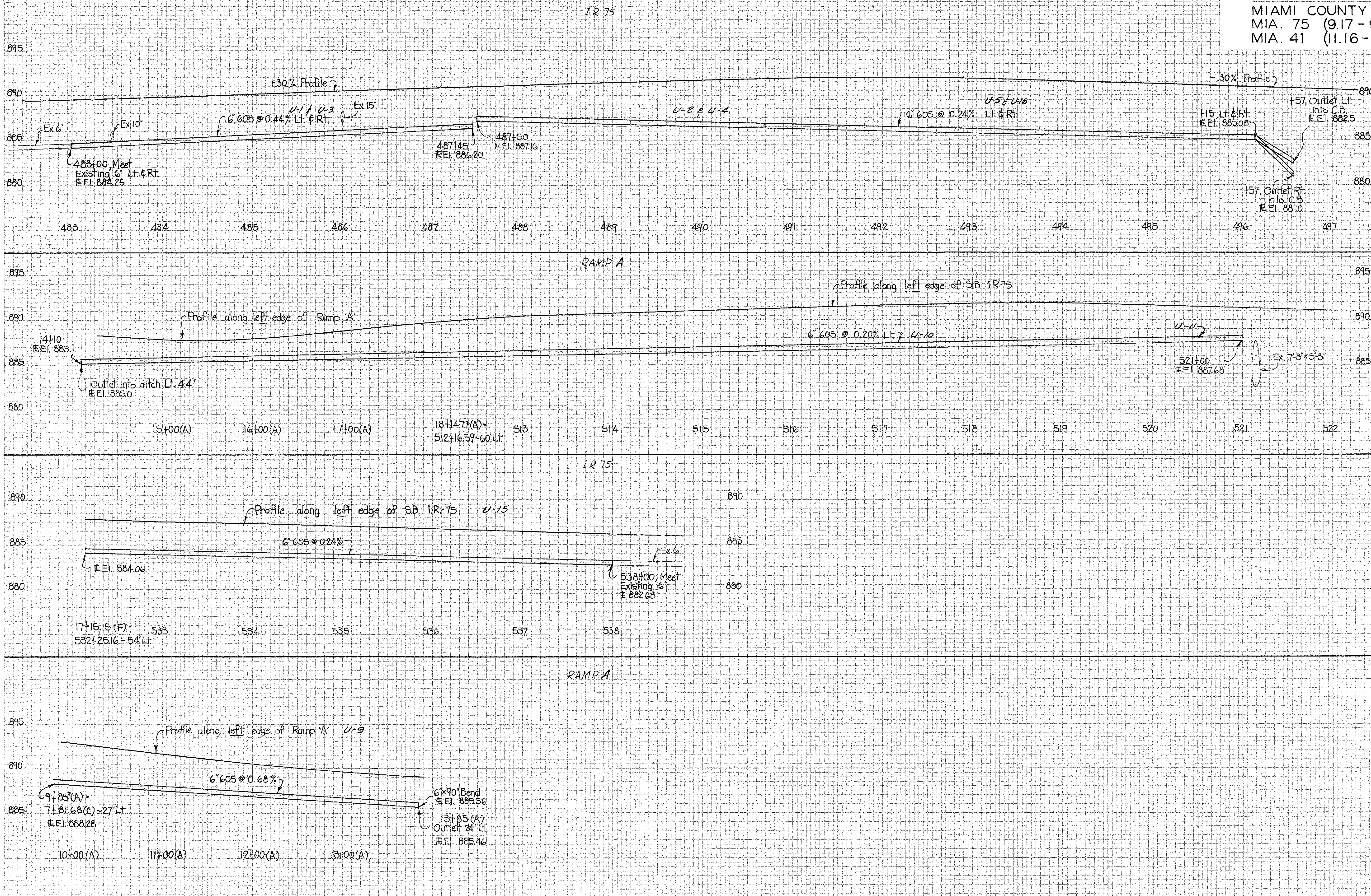
ITEM	SHEET NUMBER URBAN 7	8	10	11	22		39	40			70	79		SHEET NUMBER INTERSTATE 7	8	10	11	12	13	14		21	22		41	42	43	69	90	102		114	URBAN	INTERSTATE	ITEM	QUANT.	UNIT	DESCRIPTION
																																				DRAINAGE
509																					2549											2549	509	2549	lbs.	Reinforcing Steel
503																					23											23	503	23	Cu.Yd.	Unclassified Excavation
602											1.0	3.3									16.46							1.2			4.3	17.7	602	22.0	Cu.Yd.	Concrete Masonry
511																					22.6											22.6	511	22.6	Cu.Yd.	Class C Concrete
603																					48											48	603	48	Lin.Ft.	15" Conduit, Type A, 707.05
603																					12											12	603	12	Lin.Ft.	15" Conduit, Type A, 706.02
603																					38											38	603	38	Lin.Ft.	18" Conduit, Type A, 706.02
603											102																				102		603	102	Lin.Ft.	38"x24" Conduit, Type A, 706.04 Class HE II
603																												32				32	603	32	Lin.Ft.	43"x27" Conduit, Type A, 707.05
603												120																			120		603	120	Lin.Ft.	53"x34" Conduit, Type A, 706.04 Class HE II
603																					52											52	603	52	Lin.Ft.	58"x36" Conduit, Type A, 707.05
603																					76											76	603	76	Lin.Ft.	72"x44" Conduit, Type A, 707.05
603																					14											14	603	14	Lin.Ft.	18" Conduit, Type A, 707.05
603																					198											198	603	198	Lin.Ft.	7'-3"x5'-3" Conduit, Type A, 707.03 (0.109 - 0.138)
603		25													75																25	75	603	100	Lin.Ft.	8" Conduit Type B *
603																						20										20	603	20	Lin.Ft.	6" Conduit, Type B
603							66														68							18			66	86	603	152	Lin.Ft.	12" Conduit, Type B 706.02
603							148	250																								398	603	398	Lin.Ft.	15" Conduit, Type B
603								750																338							750	338	603	1088	Lin.Ft.	18" Conduit, Type B
603																								820	580							1400	603	1400	Lin.Ft.	24" Conduit, Type B
603																								20								20	603	20	Lin.Ft.	24" Conduit, Type B, 707.13
608																					38											38	603	38	Lin.Ft.	8" Conduit, Type "C",
603																					28											28	603	28	Lin.Ft.	36"x22" Conduit, Type A, 707.05
603								48																48							48	48	603	96	Lin.Ft.	18" Conduit, Type D
603		25					50																									50	603	50	Lin.Ft.	18" Conduit, Type D, 707.01
603		25						20							75																25	75	603	100	Lin.Ft.	6" Conduit, Type E
603															175							190									45	365	603	410	Lin.Ft.	6" Conduit, Type F
603												10									54										10	54	603	64	Lin.Ft.	10" Conduit, Type F
603																					36											36	603	36	Lin.Ft.	18" Conduit, Type F
603																						11										11	603	11	Each	Animal Guard for Pipe Outlet
604																					5											5	604	5	Each	Catch Basin, Std. N° 2-2-B
604																					2											2	604	2	Each	Catch Basin, Std. N° 4 Modified as per plan
604							1	2													1			3							3	4	604	7	Each	Catch Basin, Std. N° 5
604																												2				2	604	2	Each	Catch Basin, Std. N° 3-A Reconstructed to Grade
604																					3											3	604	3	Each	Catch Basin, Reconstructed as Std N° 8
604																									2							2	604	2	Each	Manhole N°3 Std.
605			456	360												384																816	384	605	1200	Lin.Ft.	Aggregate Drains
605																						12409											12409	605	12409	Lin.Ft.	6" Unclassified Pipe Underdrains
																																				PAVEMENT
622																						200											200	622	200	Lin.Ft.	Concrete Barrier
404			378	64			6				21	17				375		1000	683		4				1		99				486	2162	404	2648	Cu.Yd.	Asphalt Concrete AC-20
402			228	64							20	17				375			635								90				329	1100	402	1429	Cu.Yd.	Asphalt Concrete AC-20
301			1130								99	83				1830		868	3784								218				1312	6700	301	8012	Cu.Yd.	Bituminous Aggregate Base, 702.01 AC-20 or 702.09, RT-11 or RT-12
304			328	322			35	16.0								315		1735		1827				16							701	3893	304	4594	Cu.Yd.	Aggregate Base
407			434.4				3.3				3.0	3.3								1955	26.8						8.7	254.0			444	48.5	407	929	Gal.	Tack Coat, 702.04, MS-2 or RS-1, SS-1 SS-1H; 702.02; RC-250
408			631	741			37									605															1409	605	408	2014	Gal.	Bituminous Prime Coat, 702.09, RT-2 or RT-3 or 702.02 MC-30 or MC-70, or 702.03 Prime 20
409			473													22		3123		3896											473	7041	409	7514	Gal.	Seal Coat Bit. Mat. 702.09, RT-9 or RT-10, or 702.02, MC-800 or MC-3000; 702.04, RS-1, RS-2, CRS-1, CRS-2; 702.03, CBAE-800
409			13													12		83		98											13	193	409	206	Cu.Yd.	Seal Coat N°8 Cover Aggregate
407			14.2				0.1				0.1	0.1								63	0.8						0.3	8.1			14.5	15.5	407	30	Ton	Cover Aggregate
310			1329	335							102	84				2017		1742		5117	9				56		64				1850	9005	310	10855	Cu.Yd.	Subbase
403		50													250													11			50	261	403	311	Cu.Yd.	Asphalt Concrete AC-20
451																					98											98	451	98	Sq.Yd.	9" Reinforced Portland Cement Concrete Pavement
																																				BUILDINGS REMOVED
202																																Lump	202	Lump	202	PARCEL 1WL, 1 Sty Brick Residence Frame Conc Blk Barn,
202																															Lump		202	Lump	202	PARCEL 4 1½ Sty Frame Residence
202																																Lump	202	Lump	202	PARCEL 7WL, 1 Sty Brick Residence Frame Garage,
																																				Lighting and Signals See Sheet No. 158
																																				Signing and Pavement Markings See Sheet No. 139
																																				BRIDGE QUANITITIES See Sheet No. 136
614																															Lump	Lump	614	Lump	Lump	Maintaining Traffic
619	Lump																														Lump	Lump	619	Lump	Lump	Field Office
623																															Lump	Lump	623	Lump	Lump	Construction Layout Stakes

Detailed ...... MRH
Details Checked .... JH
Details Revised ....

UNDERDRAINS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

MIAMI COUNTY
MIA. 75 (9.17 - 9.35)
MIA. 41 (11.16 - 11.38)



I.R. 75
+.30% Profile
-.30% Profile
U-1 & U-3
Ex.15"
6" 605 @ 0.44% Lt. & Rt.
Ex.6"
Ex.10"
483+00, Meet Existing 6" Lt. & Rt. F.E.l. 884.25
487+45 F.E.l. 886.20
487+50 F.E.l. 887.16
U-2 & U-4
U-5 & U-16
6" 605 @ 0.24% Lt. & Rt.
+15, Lt. & Rt. F.E.l. 885.08
+57, Outlet Lt. into C.B. F.E.l. 882.5
+57, Outlet Rt. into C.B. F.E.l. 881.0
RAMP A
Profile along left edge of Ramp 'A'
Profile along left edge of S.B. I.R.-75
14+10 F.E.l. 885.1
Outlet into ditch Lt. 44' F.E.l. 885.0
6" 605 @ 0.20% Lt. U-10
U-11
521+00 F.E.l. 887.68
Ex. 7'-3"x5'-3"
18+14.77(A) = 512+16.59~60' Lt.
I.R. 75
Profile along left edge of S.B. I.R.-75 U-15
6" 605 @ 0.24%
F.E.l. 884.06
Ex.6"
538+00, Meet Existing 6" F. 882.68
17+16.15 (F) = 532+25.16 ~ 54' Lt.
RAMP A
Profile along left edge of Ramp 'A' U-9
6" 605 @ 0.68%
9+85(A) = 7+81.68(C) ~ 27' Lt. F.E.l. 888.28
6"x90° Bend F.E.l. 885.56
13+85 (A) Outlet 24' Lt. F.E.l. 885.46

PROP. UNDERDRAINS STA. 483+00 TO STA. 538+00

SEE BMP

END AREA		VOLUME	
CUT	FILL	CUT	FILL

Detailed . . . . . MRH
Details Checked . . . JH
Details Revised . . .

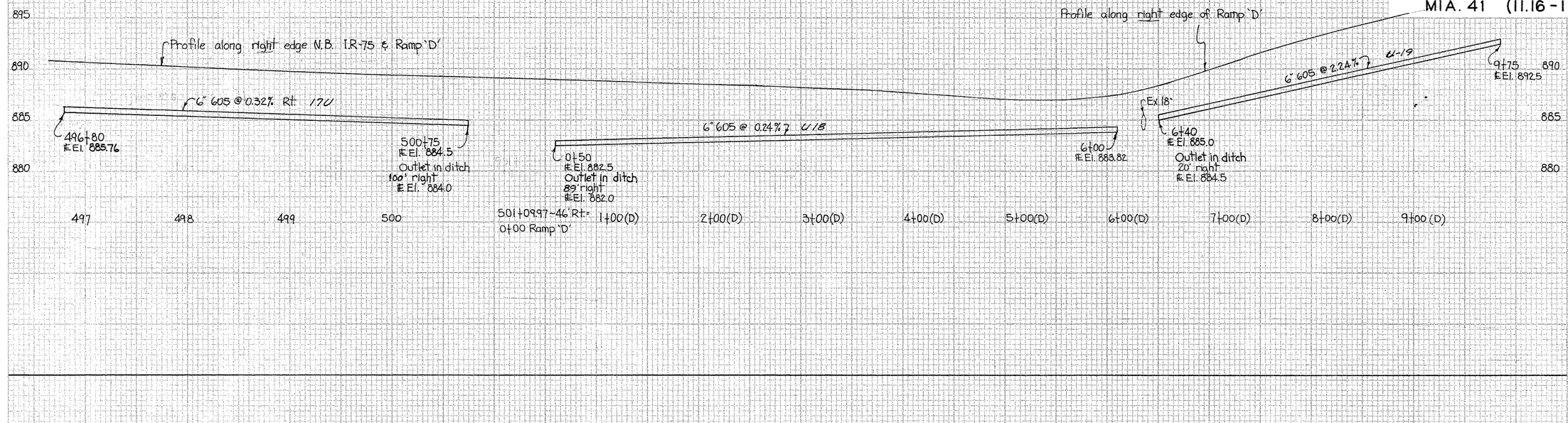
UNDERDRAINS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

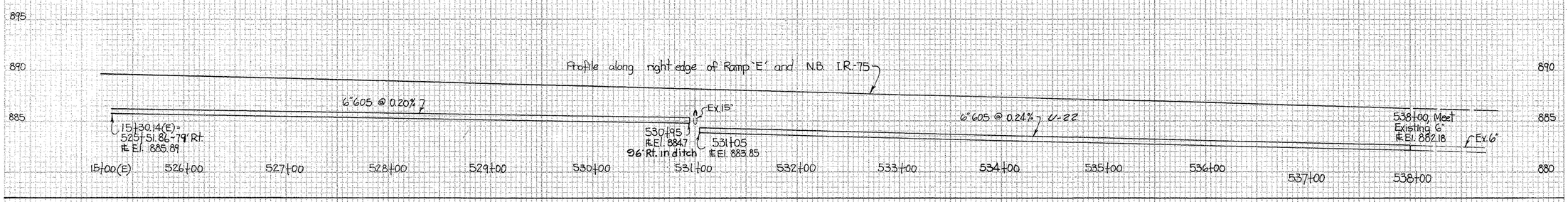
18
174

MIAMI COUNTY
MIA. 75 (9.17 - 9.35)
MIA. 41 (11.16 - 11.38)

I.R. 75 and RAMP D

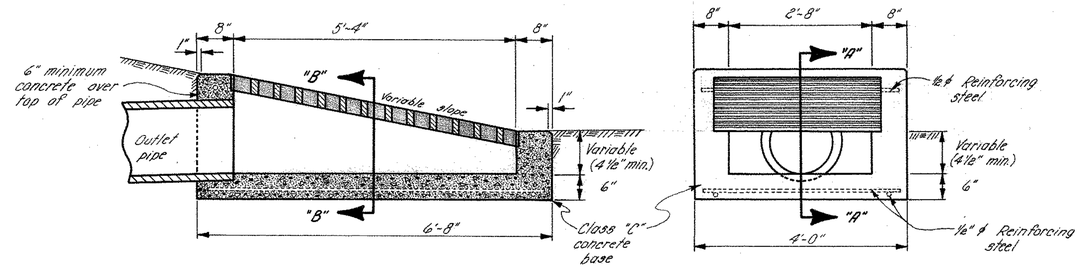


I.R. 75



PROP. UNDERDRAINS STA. 483+00 TO STA. 538+00

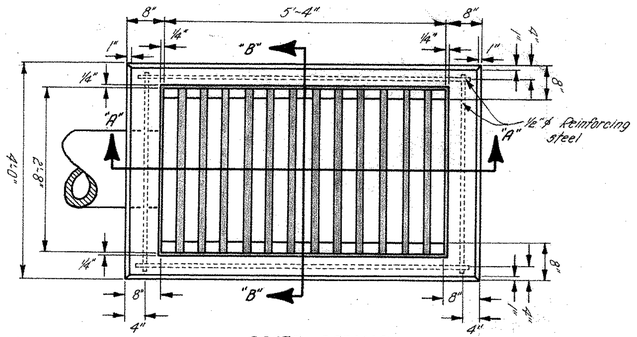
Nº 4 CATCH BASIN; MODIFIED AS PER PLAN



SECTION "A-A"

SECTION "B-B"

NOTE: FOR DETAILS NOT SHOWN SEE STANDARD DRAWING CB-4



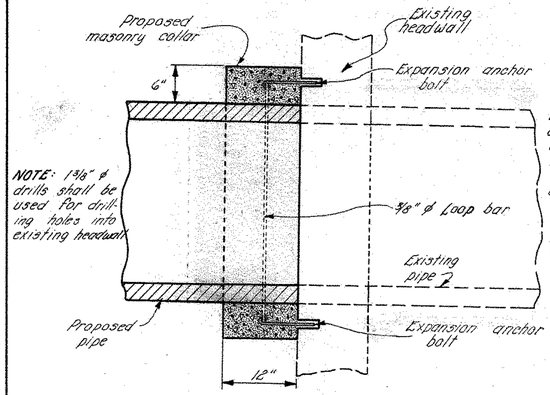
GRATE DETAILS

TYPICAL CONCRETE COLLAR DETAIL

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

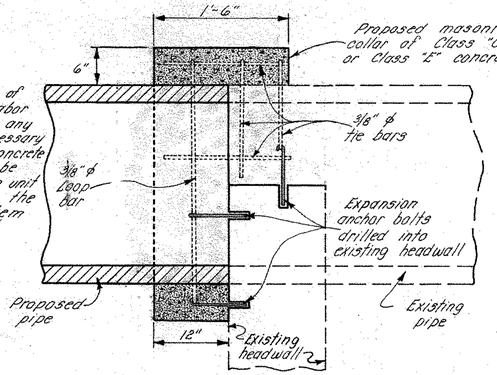
FHWA REGION	STATE	PROJECT	
5	OHIO		

19
174

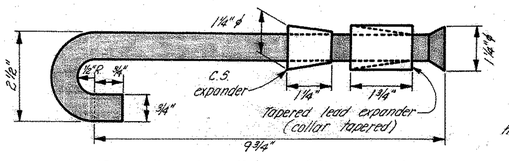


CONCRETE COLLAR FOR FULL HEADWALL

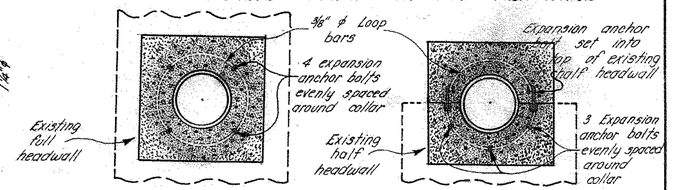
NOTE: The cost of all materials, labor equipment and any incidentals necessary to construct concrete collars shall be included in the unit price bid for the respective Item 603; Conduit.



CONCRETE COLLAR FOR HALF HEADWALL

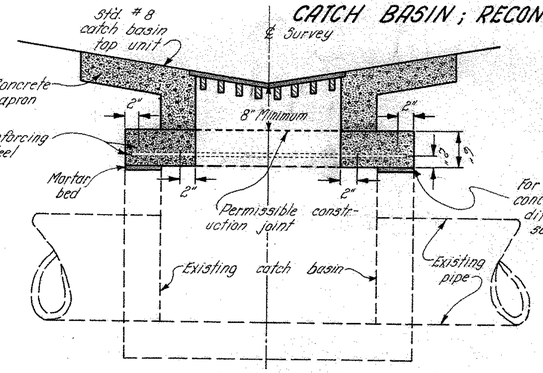


EXPANSION ANCHOR BOLT DETAILS

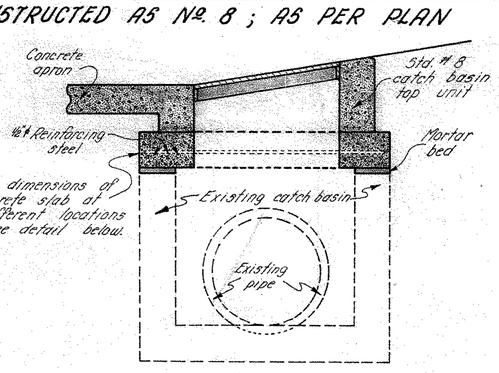


ANCHOR BOLT AND REINFORCING STEEL DETAIL
FULL HEADWALL HALF HEADWALL

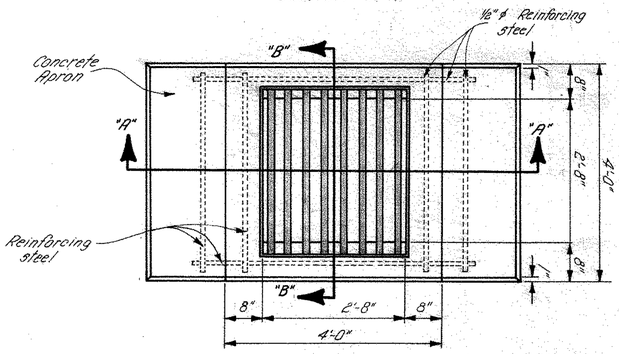
CATCH BASIN; RECONSTRUCTED AS Nº 8; AS PER PLAN

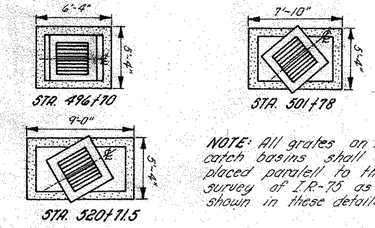


SECTION "A-A"



SECTION "B-B"



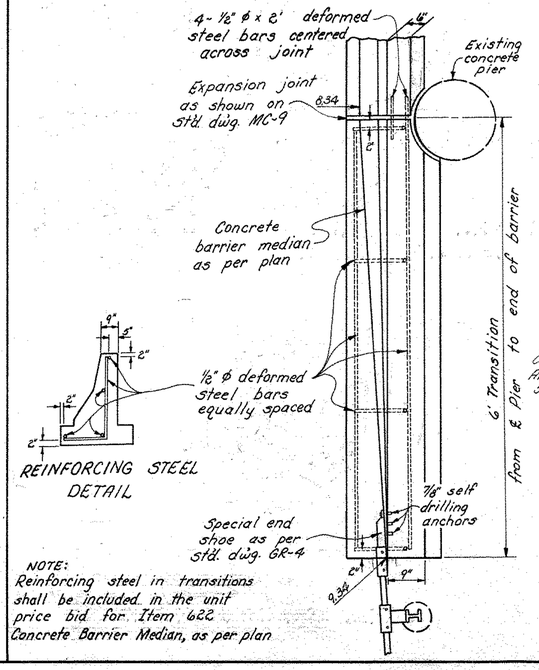


NOTE: FOR DETAILS NOT SHOWN SEE STANDARD DRAWING CB-8

NOTE: All grates on these catch basins shall be placed parallel to the ℄ survey of I.R.-75 as shown in these details.

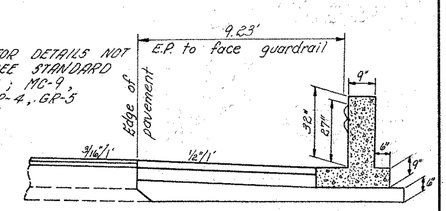
CONCRETE SLAB DETAILS

ITEM 606; SPECIAL GUARDRAIL CONNECTION TO CONCRETE BARRIER



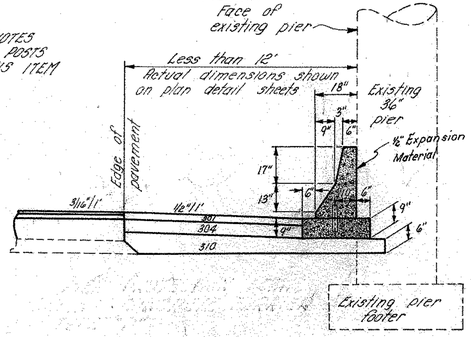
REINFORCING STEEL DETAIL

NOTE:
Reinforcing steel in transitions shall be included in the unit price bid for Item 622 Concrete Barrier Median, as per plan



SECTION ACROSS END OF CONCRETE BARRIER MEDIAN

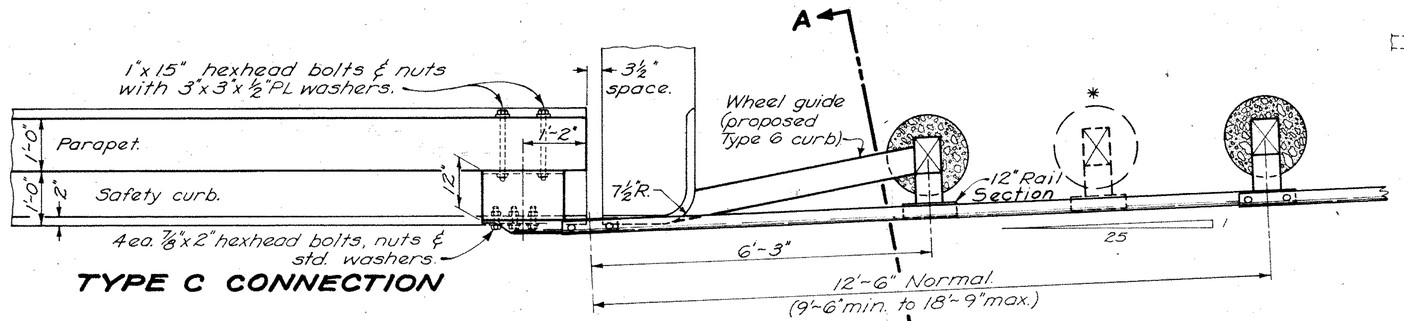
NOTE: FOR REMAINING NOTES CONCERNING ANCHORS, POSTS AND PAYMENT FOR THIS ITEM SEE SHEET Nº 20



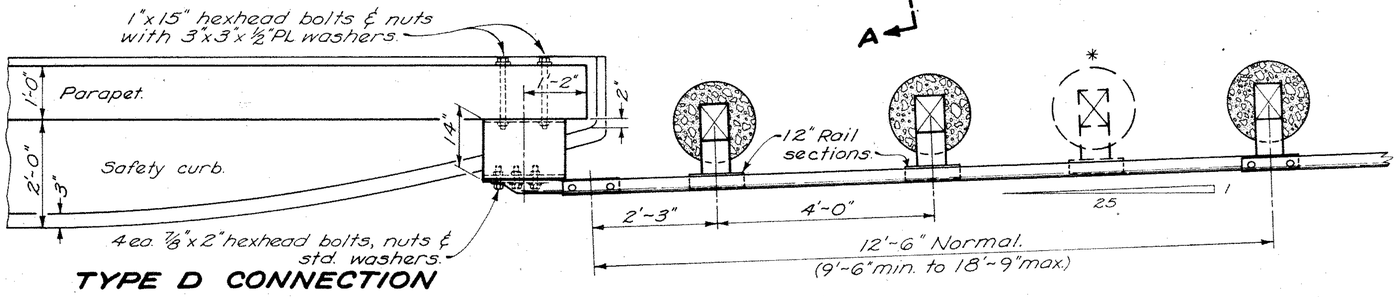
SPECIAL CONSTRUCTION DETAILS

FHWA REGION	STATE	PROJECT	
5	OHIO		

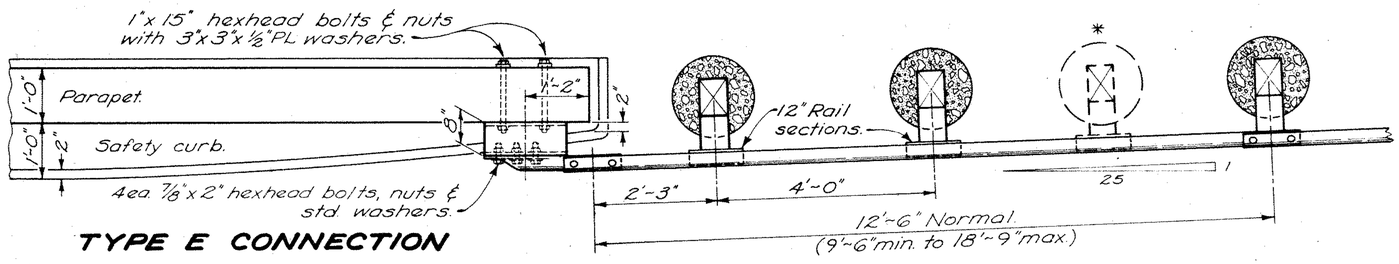
20
174



TYPE C CONNECTION

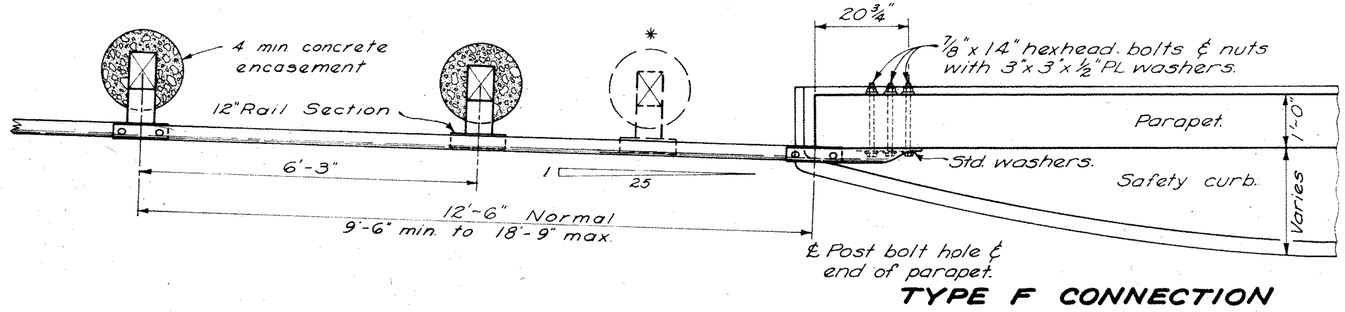


TYPE D CONNECTION



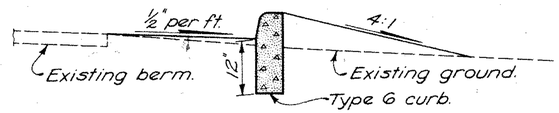
TYPE E CONNECTION

APPROACH ENDS

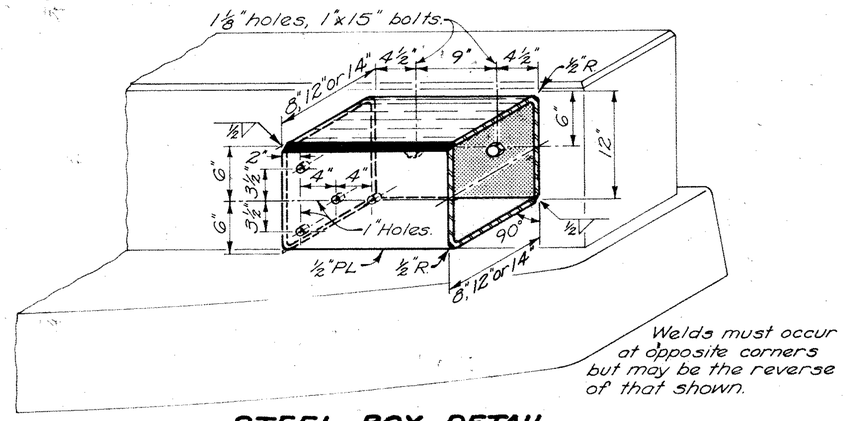


TYPE F CONNECTION

TRAILING END

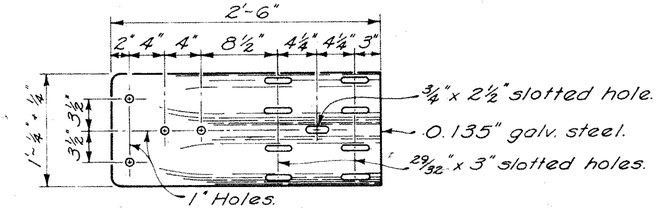


SECTION A-A



STEEL BOX DETAIL

A galv. steel box of the appropriate size (see connection type) shall be used on all approaches.



SPECIAL END SHOE

NOTES

GENERAL: This drawing shall govern where a conflict arises. For details not shown, see Standard Drawings GR-2B & GR-4.

All steel parts shall be galvanized in accordance with 710.06 or 710.10, whichever may apply.

ANCHORS: Self-drilling anchors (of the appropriate size) may be substituted for the 1" and ⅞" hexhead bolts shown in the parapets. Anchors may be of the snap-off chuck-end type or of the flush-end type conforming to Federal Specification No. FF-S-325, Group III, Type 1(a) or (c), or Type 2.

Bolts for use with the self-drilling anchors shall be ⅞"x1½" or 1"x2" as required.

***POSTS:** Place one additional encased post halfway between adjacent posts, or post and parapet, when panel length exceeds 12'-6".

All posts shall be 6"x8" wood or W6x15.5 steel.

GUARDRAIL TERMINATION, as directed by the Engineer. To avoid locating new posts of the adjacent run of guardrail in or near old backfilled post holes or to close existing gaps between rail and parapet, the 12'-6" normal rail section may vary as dimensioned. The horizontal dimensions (1'-2" or 20¾") of the end shoe location may be increased to avoid existing parapet steel.

PAYMENT: Price bid for bridge terminal assemblies shall include the additional cost, in excess of normal guardrail cost, for steel posts, concrete encasement, steel boxes, special end shoes, self-drilling anchors, curbing and embankment.

Connections shall be paid for as 606 Bridge terminal assembly, Type ——.

DATE
6-8-70
1-1-71
12-15-71
7-24-72

GUARDRAIL CONNECTIONS TO EXISTING BRIDGES

ESTIMATED QUANTITIES

I.R. 75

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

21
174

REF. NO.	STATION	SIDE	407 Cover Aggr. Cu.Yd.	601 Rock Channel Protection Type A Cu.Yd.	404 Asphalt Concrete AC-20 Cu.Yd.	407 Tack Coat Gal.	202 Pavement Removed Sq.Yd.	601 Rock Channel Protection Type B Cu.Yd.	602 Concrete Masonry Cu.Yd.	202 Catch Basin Abandon Each	604 Catch Basin 2-2-B Each	604 Catch Basin W#4 Mod. as per plan Each	604 Catch Basin Recenst as N°8 Each	606 Special G.R. Connection to Conc. Barrier Each	606 Guard Rail Type 5 Lin.Ft.	606 Anchor Assembly Each	606 Anchor Assembly Barrier Design Each	603 15" Conduit Type A 706.02 Lin.Ft.	603 15" Conduit Type A 707.05 Lin.Ft.	603 18" Conduit Type A 706.02 Lin.Ft.	310 Subbase Cu.Yd.	451 9" Reinf. Portland Cem. Conc. Pavt. Sq.Yd.	603 18" Conduit Type "A" 707.05 Lin.Ft.	603 73"x5'-3" Conduit Type "A" 707.03 (0.138) Lin.Ft.	603 36"x22" Conduit Type "A" 707.05 Lin.Ft.	603 58"x36" Conduit Type A 707.05 Lin.Ft.	603 72"x44" Conduit Type A 707.05 Lin.Ft.	202 Portions of Structures Removed Lump	603 12" Conduit Type B Lin.Ft.	604 Catch Basin N°5 Each	509 Reinf. Steel lbs.	603 8" Conduit Type C Lin.Ft.	503 Unclass. Excavation Cu.Yd.	603 10" Conduit Type F Lin.Ft.	603 18" Conduit Type F Lin.Ft.	511 Cl. C Concrete Cu.Yd.	660 Sodding Sq.Yd.	202 Precast Traffic Dividers Removed Each	202 Guard Rail Removed for re-use or Storage Lin.Ft.	202 Gutter Removed Sq.Yd.	622 Concrete Barrier Mod. as per plan Lin.Ft.	202 Pipe Removed 24"ϕ under Lin.Ft.	Bends & Branches	SEE SHEET NO.
1-P	483+75 to 484+00	Lt.&Rt.	0.4		1.76	13.4																																			23
1-R	485+50	Lt.&Rt.					641																																			23
1-D	486+00	Rt.							0.27			1							24																							23
2-R	503+92 to 504+42	Lt.																																		7						24
3-R	511+62.5 to 513+12.5	Rt.																																			150						24
4-R	513+12.5 to 514+62.5	Lt.																																			150						24
5-R	514+60	Lt.																																					6				24
6-R	517+59 to 518+96	Rt.																																		13						24
2-D	496+70	Lt.&Rt.						14.2	3.75	2	2		1												52			24		38												24
3-D	501+78	Lt.&Rt.		23					6.88	2	2		1								8.66	98				76							54								24-123
4-D	505+00	Rt.							0.25				1					12																							24
5-D	507+00 to 507+70	Rt.							0.31											38																	80					1-18"x45°	24
6-D	511+00	Rt.							0.27			1							24																							24
7-D	520+71.5	Rt.						52	2.10															60					1386		10			8.84							24-124
1-GR	510+76 to 513+26	Rt												1	125	1																								100			24
2-GR	511+76 to 514+94	℄													600		2																										24
3-GR	513+14 to 515+64	Lt.												1	125	1																								100			24
4-GR	526+25 to 527+75	Lt.													100	2																											25
5-GR	526+25 to 527+75	Rt.													100	2																											25
8-D	520+71.5	Lt.									1													138				Lump	44	1	1163		13		36	13.8					96		25-125
2-P	538+00 to 538+25	Lt.&Rt.	0.4		1.76	13.4																																					25
1-D	6+25 Ramp "D"	Rt.						2.2	0.33														14																			100-B
1-D	14+00 Ramp "A"	Lt.&Rt.						9.7	2.30																28																		68-A
S-TOTAL																																											S-TOTAL
TOTAL	TO SUMMARY (INTERSTATE)		0.8	23	3.52	26.8	641	78	16.46	4	5	2	3	2	1050	6	2	12	48	38	8.66	98	14	198	28	52	76	Lump	68	1	2549	38	23	54	36	22.64	80	20	300	6	200	96		TOTAL

C.E.R. - 11-76
J.T.S. - 12-76

ESTIMATED QUANTITY TABLES

MIAMI COUNTY
MIA-75 - (9.17 - 9.35)
MIA-41 - (11.16 - 11.38)

FHWA REGION	STATE	PROJECT	
5	OHIO		

R/W FENCE TABLE

POST LOCATION TABLE

STATION	SIDE	DISTANCE FROM ℄	CODE *
	Rt. or Lt.	FEET	#
I.R.-75			
484+00	Lt.	108'	3
487+75	Lt.	108'	3
492+75	Lt.	125'	3
498+75	Lt.	145'	3
502+75	Lt.	158'	3
504+76	Lt.	234'	3
506+21	Lt.	344'	3
508+61	Lt.	718'	3
484+00	Rt.	108'	3
490+60	Rt.	108'	3
497+20	Rt.	109'	3
500+75	Rt.	109'	3
501+25	Rt.	109'	3
506+50	Rt.	146'	3
519+60	Lt.	324'	3
523+00	Lt.	184'	3
529+00	Lt.	160.5'	3
534+42	Lt.	139'	2
534+42	Lt.	109'	2
538+00	Lt.	109'	3
516+45	Rt.	372'	3
518+44	Rt.	246.5'	3
520+32	Rt.	239'	2
520+31	Rt.	184'	2
522+02	Rt.	132.7'	3
528+06	Rt.	109'	3
533+00	Rt.	109'	3
538+00	Rt.	109'	3
500+90	Rt.	101'	4
501+10	Rt.	101'	4

STATION	SIDE	DISTANCE FROM ℄	CODE *
	Rt. or Lt.	FEET	#
SR-41			
423+60	Lt.	74'	1
426+00	Lt.	94'	3
428+51	Lt.	94'	3
429+40	Lt.	124'	3
430+02	Lt.	191'	2
423+60	Rt.	99'	1
426+90.5	Rt.	99	3
429+62	Rt.	134'	2
429+62	Rt.	338'	3
430+11	Rt.	329'	3
431+10	Rt.	668'	3
439+91	Lt.	329'	2
440+21	Lt.	347'	2
441+93	Lt.	58'	2
442+55	Lt.	39'	3
443+57	Lt.	39'	1
441+18	Rt.	79'	2
442+50	Rt.	59'	3
443+83	Rt.	59'	1

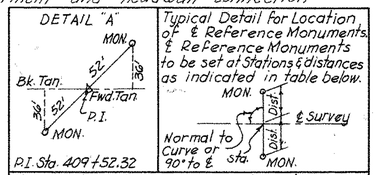
FENCE TABLE

STATION FROM	STATION TO	SIDE	607 TYPE CL FENCE Lin. Ft.
493+85-I.R-75	423+60 - SR-41	Lt&Rt.	3122
423+60- SR-41	538+00 - I.R-75	Lt.	2784
493+85-I.R-75	500+85 - I.R-75	Rt.	705
501+10 - I.R-75	443+83 - SR-41	Rt.	1231
443+57 - SR-41	538+00 - I.R-75	Lt&Rt.	3061
484+00 I.R.75	493+85 I.R.75	L&R	1970
TOTALS TO GENERAL SUMMARY			10903

607 TYPE 47 FENCE
Lin. Ft.
1970
1970

*POST LOCATION CODE

1. End post assembly (E.P.A.)
2. Corner post assembly (C.P.A.)
3. Intermediate anchor post assembly (I.A.P.A.)
4. Abutment and headwall connection



Typical Detail for Location of ℄ & Reference Monuments to be set at Stations & distances as indicated in table below.

S.R.41 CENTERLINE REFERENCE MONUMENTS

STATION	LT.	RT.	STATION	LT.	RT.
405+00	28'	28'	EXPERIMENT FARM RD.		
P.I. 409+52.32	See Detail A		23+25	11'	14'
414+75	36'	36'			
421+85.20	36'	36'	STANFIELD RD.		
429+00	36'	36'	14+60.40	18'	18'
			19+50	18'	18'

UNDERDRAIN TABLE

ESTIMATED QUANTITIES FOR UNDERDRAINS

SHEET NUMBER #	REFERENCE NUMBER #	LOCATION STATION FROM	LOCATION STATION TO	SIDE	605 6" UNDERDRAINS UNCLASSIFIED LIN. FT.	603 6" CONDUIT TYPE "B" LIN. FT.	603 6" CONDUIT TYPE "F" LIN. FT.	603 ANIMAL GUARD FOR PIPE OUTLET EACH	BENDS AND BRANCHES EACH	Profile on Sht. No.
23	1-U	483+00	487+45	Lt.	430		15			17
23	2-U	487+50	490+00	Lt.	250					17
23	3-U	483+00	487+45	Rt.	410		35			17
23	4-U	487+50	490+00	Rt.	250					17
24	5-U	490+00	496+50	Lt.	650		10		1-6"x30° Bend	17
24	6-U	496+80	17+20(C)	Lt.	590		10	1	1-6"x45° Bend	91
91	7-U	12+70(C)	16+25(C)	Rt.	385		10		1-6"x90° Bend	91
91	8-U	10+50(C)	12+40(C)	Rt.	214		10	1	1-6"x90° Bend	91
90-91	9-U	1+00(C)	13+85(A)	Lt.	1070		10	1	1-6"x90° Bend	91 & 17
24	10-U	14+10 (A)	520+00	Lt.	1190		10	1	1-6"x90° Bend	17
25	11-U	520+00	521+00	Lt.	100					17
114	12-U	1+00 (F)	6+80(F)	Lt.	590		10	1	1-6"x90° Bend	114
114	13-U	7+10 (F)	10+00(F)	Lt.	290					114
115	14-U	10+00 (F)	535+00	Lt.	990					115
25	15-U	535+00	538+00	Lt.	300					17
24	16-U	490+00	496+50	Rt.	662		10		1-6"x45° Bend	17
24	17-U	496+80	500+75	Rt.	416		10	1		18
24	18-U	0+50 (D)	6+00(D)	Rt.	576		10	1	1-6"x45° Bend	18
24	19-U	6+40 (D)	9+75(D)	Rt.	346		10	1	1-6"x90° Bend	18
102	20-U	1+00 (E)	9+20(E)	Rt.	844	20	10	1	3-6"x90° Bends	102
102-103-104	21-U	9+90 (E)	530+95	Rt.	1160		20	2	2-6"x90° Bends	103 & 18
25	22-U	531+05	538+00	Rt.	696					103 & 18
TOTALS TO GENERAL SUMMARY					12,409	20	190	11		

EARTHWORK TABLE

ESTIMATED QUANTITIES FOR EARTHWORK

QUANTITY FROM SHEET NUMBER #	LOCATION STATION FROM	LOCATION STATION TO	203 EXCAVATION CU. YD.	203 EMBANKMENT CU. YD.	659 SEEDING & MULCHING SQ. YD.
	INTERSTATE				
26	484+00 I.R.75	490+00 I.R.75	2233	1430	9390
28	490+00 "	505+00 "	2774	5051	17867
31	505+00 "	520+00 "	13461	3432	31224
34	520+00 "	535+00 "	9485	2161	22092
36	535+00 "	538+00 "	1604	815	5612
41	420+00 S.R.41	430+00 S.R.41	1576	33484	13273
42	430+00 "	440+00 "	1169	33519	11279
43	440+00 "	450+00 "	196	409	1399
90	0+00 Ramp 'C'	9+00 Ramp 'C'	2116	18249	15909
91	9+00 Ramp 'C'	21+72.18 Ramp 'C'	1897	4540	12766
102	0+00 Ramp 'E'	10+00 Ramp 'E'	10036	7588	19160
114	0+00 Ramp 'F'	10+00 Ramp 'F'	2135	19908	14420
88 B	12+00 Ramp 'A'	16+97 Ramp 'A'	1324	837	4989
100 B	6+00 Ramp 'D'	10+36.36 Ramp 'D'	861	1255	3103
103	10+00 Ramp 'E'	20+00 Ramp 'E'	1209	878	3707
TOTALS TO GENERAL SUMMARY			52076	133556	186190
	URBAN				
39	400+00 S.R.41	410+00 S.R.41	3180	713	8600
40	410+00 "	420+00 "	3443	1371	10505
70	15+00 Experiment Farm Rd.	25+00 Experiment Farm Rd.	363	98	1113
74	15+00 Stanfield Rd.	25+00 Stanfield Rd.	492	645	5409
79	12+00 "	21+32.35 "	4749	377	7908
80	10+00 "	12+00 "	94	0	438
TOTALS TO GENERAL SUMMARY			12321	3204	33973

SYMBOLS

404, 1¼" Asphalt Concrete AC-20 on 402, 1¼" Asphalt Concrete AC-20 on 301, 6" Bituminous Aggregate Base, 702.01 AC-20 or 702.09, RT-11 or RT-12 on 310, 6" Subbase

304, 6" Aggregate Base

404, 1¼" Asphalt Concrete AC-20 on 402, 1¼" Asphalt Concrete AC-20 on 301, 6" Bituminous Aggregate Base, 702.01 AC-20 or 702.09 RT-11 or RT-12 on 310, 6" Subbase

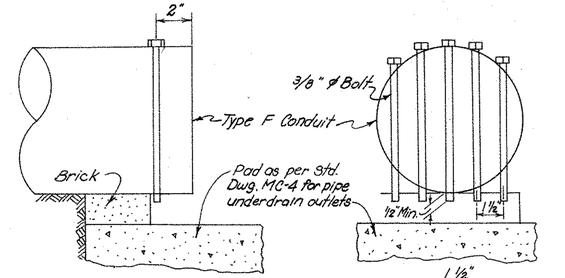
Pavement Removal

409, Seal Coat; Using 0.008 cubic yard Cover Aggregate per square yard on 409 Seal Coat; Using 0.30 gallon 702.09 RT-9 or RT-10; or 702.02 MC-800 or MC-3000; or 702.04, RS-1, RS-2, CRS-1, CRS-2; 702.03, CBAE-800 per square yard on 301, 2½" Bituminous Aggregate Base, 702.01 AC-20; or 702.09 RT-11 or RT-12 on 304, 6" Aggregate Base on 310 Subbase

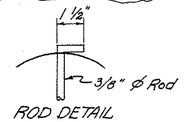
Feather, 404, 0" to 1½" Asphalt Concrete on 407 Tack Coat; 702.04, SS-1, SS-1h, MS-2, or RS-1; 702.02 RC-250 at the rate of 0.1 gal./sq. yd.

404, 2" Asphalt Concrete AC-20 on 408 Prime Coat 702.09 RT-2 or RT-3; or 702.02 MC-30 or MC-70; or 702.03, Primer 20 applied at the rate of 0.4 gal./sq. yd. on 8" 304 Aggregate Base.

ANIMAL GUARD FOR PIPE OUTLET



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



ROD DETAIL

The steel bolts or rods shall be galvanized in accordance with ASTM A 153. 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. Dwg. 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.

ESTIMATED QUANTITY TABLES, SYMBOLS & DETAILS

	BY	DATE
DETAILED	WM	6-75
DETAILS CHECKED	JH	6-75
DETAILS REVISED		

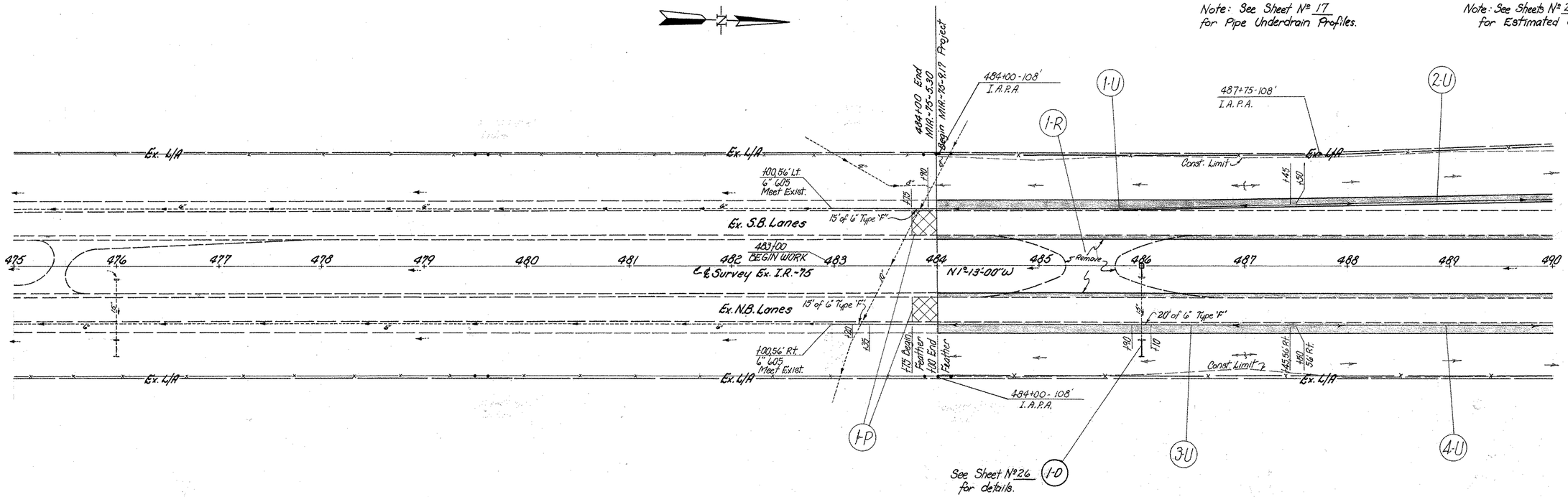
FHWA REGION	STATE	PROJECT	
5	OHIO		

23
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

Note: See Sheet No 17 for Pipe Underdrain Profiles.

Note: See Sheets No 21 & 22 for Estimated Quantities.



PLAN - STA 475+00 TO STA 490+00

	BY	DATE
DETAILED	LS	2-75
DETAILS CHECKED	JH	3-75
DETAILS REVISED	MH	7-75

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

24 / 174

Note: See Sheets Nº 17 & 18 for Pipe Underdrain Profiles.

Note: See Sheets Nº 21 & 22 for Estimated Quantities.

EXIST. STRUCTURE ~ MIA 75~0971 DATA
TYPE: Continuous steel beam with concrete deck and concrete substructure.
SPANS: 54'-90'-77'-54' c/c brgs.
ROWY: 56' f/f of curbs including 3' raised median plus 2'-0" safety curbs
LOAD FREQUENCY: CF-130(S')
SKEW: 31°-57'-RF.
WEARING SURFACE: Bituminous
APPROACH SLABS: AS-1-54 (25' long)
ALIGNMENT: Tangent

RAMP A DETAILS Sht. 88

RAMP D DETAIL Sht. 100A

RAMP E DETAIL Sht. 102

RAMP "C" See Sheet 91

PLAN ~ STA. 490+00 TO STA. 520+00

	BY	DATE
DETAILED	LS	2-75
DETAILS CHECKED	JH	3-75
DETAILS REVISED	MH	7-75

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

25
174

RAMP F DETAIL Sht. 114

RAMP E DETAIL Sht. 102

Z

523+00-184' I.A.P.A.

529+00-160.5' I.A.P.A.

Exist. L.A. R/W

Const. Limit

10"x6"-60° Tape 'F'

Ex. 18"?

+80 6"x90°

+10

C.S. Sta. 7+15.41(F) = Sta. 522+30.32 ~ 127.27' Lt.

S.C. Sta. 9+15.41(F) = Sta. 524+27.12 ~ 92.87' Lt.

P.T. Sta. 13+68.74(F) = Sta. 528+79.74 ~ 66' Lt.

Sta. 531+25.16 ~ 66' Lt. = Sta. 16+14.43(F)

Sta. 532+25.16 ~ 54' Lt. = Sta. 17+15.15(F)

534+42-139' C.P.A.

534+42'-109' C.P.A.

R/W ?

11-U

See Detail Sheet N°128 8-D

4-GR

Overhead sign

5-GR

Ex. S.B. Lanes

Ex. N.B. Lanes

Sta. 526+02.59 ~ 66' Lt. = P.I. Sta. 10+92.56(F) ~ Δ = 8°-18' Lt.

& Survey Exist. I.R. 75 ~ N. 1°-13'-00" W.

18" San.

Sta. 520+71.3-MIA-75-0986
7'-3" x 5'-3" Arch w/median C.B.

C.S. Sta. 10+30.14(E)

12" Gas

520+31-184' C.P.A.

520+32-239' C.P.A.

522+02-132.7 I.A.P.A.

S.T. Sta. 12+30.14(E)

Sta. 15+30.14(E) = Sta. 525+51.86 ~ 79° Rt

528+06-109 I.A.P.A.

21U

See Detail Sheet N°35 9-D

531+05

533+00-109 I.A.P.A.

Sign. H.P. Gas Line

Underground Tel. Cable Terminal

Gas line Stile

22-U

Tel. Marker

M.H.

Z

15-U

538+00-109' I.A.P.A.

Const. Limit

Exist. L.A. R/W ?

100 Meet Ex. 6"~60°

538+25 END WORK

Ex. S.B. Lanes

& Survey Exist. I.R. 75 ~ N. 1°-18'-00" W.

2-P

Ex. N.B. Lanes

151.86

100 Ahead Panther

122 End Panther

Plugged

Exist. L.A. R/W

538+00-109' I.A.P.A.

Sta. 27+30.14(E) = Sta. 537+51.86 ~ 54' Rt

538+00 End MIA-75 (9.17-9.35) Project MIA-41 (11.16-11.38) Resume MIA-75 (5.30) (10.19-10.58) (13.41)±

TROY CORP. LINE

Plugged

PLAN - STA. 520+00 TO STA. 550+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

26/174

MIAMI COUNTY
MIA-75- (9.17 - 9.35)
MIA-41- (11.16 -11.38)

	BY	DATE	CHK.	DATE	REV.	DATE	REV.	DATE
EXISTING	Machine Plotted							
TEMPLATE								
DITCHES	JH	4-75	CK	5-75				
AREAS	MRH	7-75	JH	8-75				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

STRUCTURE № 0920
WORK REQUIRED

Extend 15" Conduit Rt. and construct new headwall as shown. Extend 15" Conduit Lt. and construct proposed №4 C.B. Mod., as per plan, as shown. Connect existing and proposed conduits with concrete collars as shown.

~ESTIMATED QUANTITIES~

Item	604	Catch Basin, №4 Modified, as per plan	1	Each
Item	603	15" Conduit, Type 'A', 707.05	24	Lin. Ft.
Item	602	Concrete Masonry	0.27	Cu. Yd.

Excavation 2233 Cu. Yd.
Embankment 1430 Cu. Yd.
Seeding 9390 Sq. Yd.

SEEDING END WIDTH	SEEDING SQ. YDS.
152	
	1689
152	
	1689
152	
	845
0	

STATION	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
487+00	60	24		
			289	244
486+00	96	108		
			399	348
485+00	120	80		
			458	333
484+00	128	100		
			213	167
483+00 +10	0	0		

X-SECTIONS STA. 483+00 TO STA. 487+00

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	Machine Plotted							
TEMPLATE								
DITCHES	JH	4-75	CK	5-75				
AREAS	MRH	7-75	JH	8-75				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

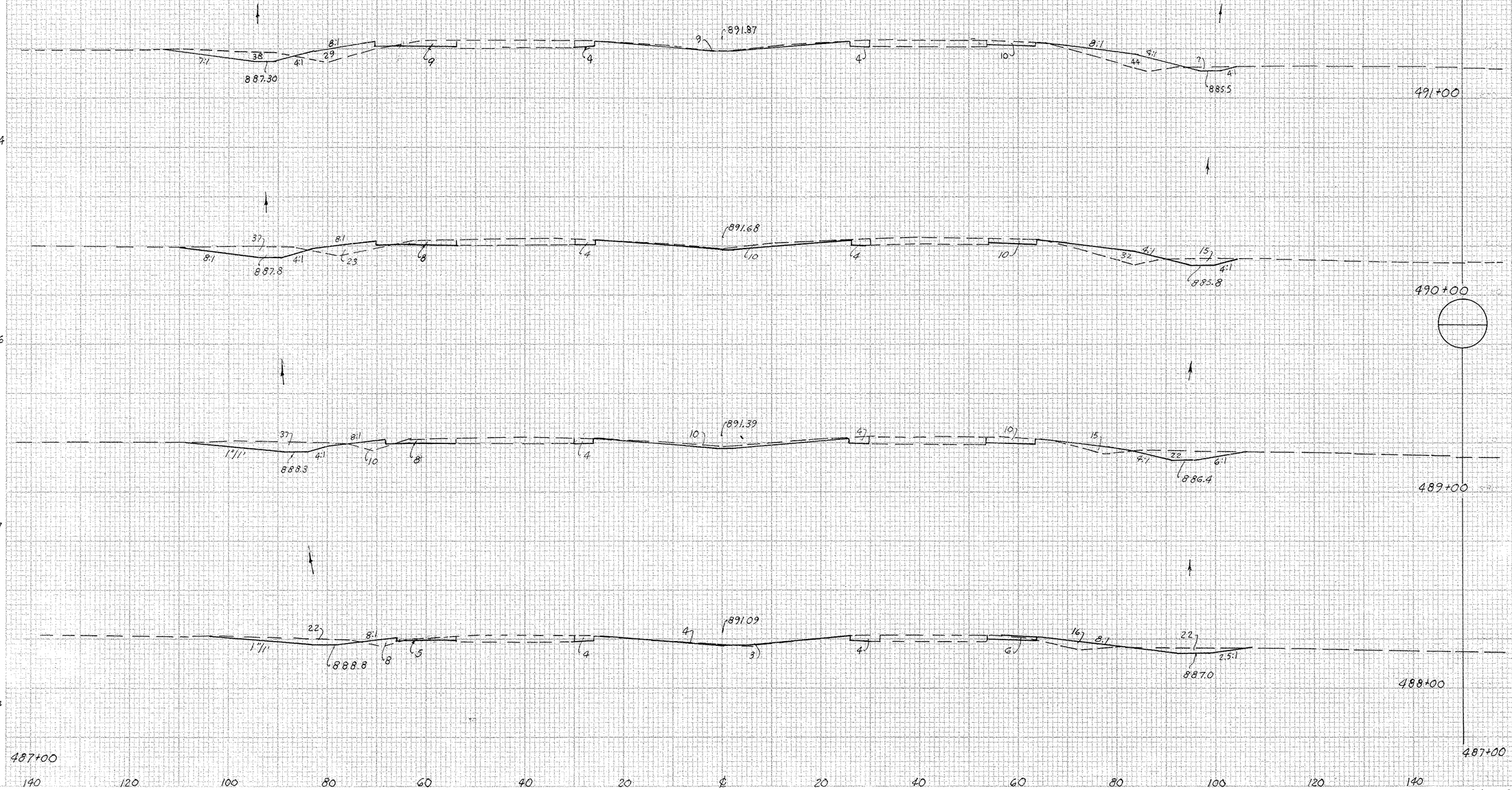
27
174

MIAMI COUNTY
MIA-75 (9.17-9.35)
MIA-41 (11.16-11.38)

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

REMARKS	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
163 1794	81	73	313	237
160 1756	88	55	339	148
156 1717	95	25	300	96
153 1694	67	27	235	94
152	60	24		

491+00
490+00
489+00
488+00
487+00



X-SECTIONS STA. 488+00 TO STA. 491+00

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

	BY	DATE	CHK.	DATE	REV.	DATE	REV.	DATE
EXISTING	Machine Plotted							
TEMPLATE								
DITCHES	JH	4-75	CK?	5-75				
AREAS	MRH	7-75	JH	8-75				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

Station	End Area Cut	End Area Fill	Volume Cut	Volume Fill
498+00 Ahead	19	50		
498+00 Back	49	92		
			235	417
497+00	78	133		
			326	513
496+00	98	144		
			343	493
495+00	87	122		
			304	459
494+00	77	126		
			293	369
491+00	81	73		

X-SECTIONS STA. 494+00 TO STA. 498+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

MIAMI COUNTY
MIA-75 (9.17 - 9.35)
MIA-41 (11.16 - 11.38)

	BY	DATE	CKD.	DATE	REV.	DATE	REV.	DATE
EXISTING	Machine Plotted							
TEMPLATE								
DITCHES	JH	4-75	CK	5-75				
AREAS	MRH	7-75	JH	8-75				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

Station	End Area Cut	End Area Fill	Volume Cut	Volume Fill
504+00	57	63		
			187	270
503+00	44	83		
			144	352
502+00	34	107		
			93	489
501+00	16	157		
			67	548
500+00	20	139		
			67	415
499+00	16	85		
			65	250
498+00	19	50		

X-SECTIONS STA. 499+00 TO STA. 504+00

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

	BY	DATE	CHK.	DATE	REV.	DATE	REV.	DATE
EXISTING	Machine		Plotted					
TEMPLATE								
DITCHES	JH	4-75	CK	5-75				
AREAS	MRH	7-75	JH	7-75				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

Station	End Area Cut	End Area Fill	Volume Cut	Volume Fill
510+53	312	86		
			567	174
510+00	266	91		
			833	307
509+00	184	75		
			570	287
508+00	124	80		
			252	215
507+00 Ahead	32	36		
507+00 Back	95	43		
			363	231
506+00	100	82		
			418	274
505+00	125	66		
			337	239
504+00	57	63		

~ESTIMATED QUANTITIES~

Item 603	18" Conduit, Type 'A', 706.02	38	Lin.Ft.	507+35± 92' Rt.	
Item 602	Concrete Masonry	0.31	Cu.Yd.	18" ℄ El. 885.3	
Item 660	Sodding	80	Sq.Yd.		
	Bends and Branches	18"x45°	Bend		

STRUCTURE Nº 0956
WORK REQUIRED

Extend 15" Conduit Rt. and construct new headwall as shown. Construct Catch Basin Reconstructed as Nº 8, as per plan, on Lt. as shown. Connect existing and proposed conduits with concrete collar as shown.

~ESTIMATED QUANTITIES~

Item 604	Catch Basin Reconstructed as Nº 8, as per plan	1	Each
Item 603	15" Conduit, Type 'A', 706.02	12	Lin. Ft.
Item 602	Concrete Masonry	0.25	Cu.Yd.

X-SECTIONS STA. 505+00 TO STA. 510+00


FED. RD. DIVISION | STATE | PROJECT
2 | OHIO
31
174
MIAMI COUNTY
MIA-75 (9.17-9.35)
MIA-41 (11.16-11.38)
BY | DATE | CHK. | DATE | REV. | DATE | REV. | DATE
EXISTING | Machine Plotted
TEMPLATE
DITCHES | JH | 4-75 | CK | 5-75
AREAS | MRH | 7-75 | JH | 8-75
VOLUMES | " | " | " | "
SEEDING | " | " | " | "
SEEDING
END AREA | CUT | FILL
VOLUME | CUT | FILL
Included in S.R. 41
Included in Ramp E
513+35
889.3
889.3
888.32
889.7
266 81
301 91
902.7±
890.63
887.8
889.2
889.2
888.24
513+00
198 59
691 215
512+00
890.33
887.1
888.8
888.8
888.0
175 57
757 174
STRUCTURE Nº 0968
WORK REQUIRED
Extend 15" Conduit Rt. and construct new headwall as shown. Extend 15" Conduit Lt. and construct proposed Nº 4 C.B. Mod., as per plan. Connect existing and proposed conduits with concrete collars as shown.
Excavation 13461 Cu.Yd.
Embankment 3432 Cu.Yd.
Seeding 31224 Sq.Yd.
Included in S.R. 41
Prop. 897.5
892.0
Ahead only, Back included in Ramp A
Nº 4 C.B. Mod., as per plan
887.70
F.E.l. 886.73
886.4
Exist. Headwall
Concrete Collar
Ex. 15" Conduit -0.3%
Std. HW-4 Headwall
886.5
889.0
511+00
Ahead 234 37
Back 178 25
426 97
193
677
155
1722
155
2039
212 Ahead
167 Back
1107
257
510+53
510+53 312 86
~ESTIMATED QUANTITIES~
Item 604 Catch Basin Nº 4 Mod., as per plan 1 Each
Item 603 15" Conduit, Type 'A', 707.05 24 Lin.Ft.
Item 602 Concrete Masonry 0.27 Cu.Yd.
X-SECTIONS STA. 511+00 TO STA. 513+35

	BY	DATE	CHK	DATE	REV	DATE	REV	DATE
EXISTING TEMPLATE	Machine Plotted							
DITCHES	JH	4-75	CK	5-75				
AREAS	MRH	7-75	JH	8-75				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

REG. RD. DIVISION	STATE	PROJECT	
2	OHIO		

32
174

MIAMI COUNTY
MIA-75 (9.17 - 9.35)
MIA-41 (11.16 - 11.38)

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
517+00	268	34	1511	93
516+00	548	16	2017	198
515+00	541	91	1633	276
514+00	341	58	731	167
513+35	266	81		

X-SECTIONS STA 514+00 TO STA 517+00

	BY	DATE	CHK.	DATE	REV.	DATE	REV.	DATE
EXISTING								
TEMPLATE	Machine		Plotted					
DITCHES	JH	4-75	CK	5-75				
AREAS	MRH	7-75	JH	8-75				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

33/174

MIAMI COUNTY
MIA-75 (9.17 - 9.35)
MIA-41 (11.16 - 11.38)

Station	End Area Cut	End Area Fill	Volume Cut	Volume Fill
522+00	18	50		
			74	209
521+00	22	63		
			302	219
520+00	141	55		
			567	159
519+00	165	31		
			648	115
518+00	185	31		
			839	120
517+00	268	34		

X-SECTIONS STA. 518+00 TO STA. 522+00

34/174
FED. RD. DIVISION 2 STATE OHIO PROJECT
MIAMI COUNTY
MIA-75 (9.17-9.35)
MIA-41 (11.16-11.38)
EXISTING Machine Plotted
TEMPLATE
DITCHES JH 4-75 CK 5-75
AREAS MRH 7-75 JH 8-75
VOLUMES
SEEDING
END AREA CUT FILL
VOLUME CUT FILL
527+00
233 41
1116 98
Ahead Only. Back Included in Ramp E
Ahead 374 12
Back 305 9
526+00
Excavation 9485 Cu.Yd.
Embankment 2161 Cu.Yd.
Seeding 23,098 Sq.Yd.
1337 22
417 3
525+00
1430 63
Ahead Only Back Included in Ramp
Ahead 355 31
Back 17 17
524+00
57 93
Included in Ramp
Included in Ramp E
523+00
14 34
59 156
522+00 18 50
889.73
887.45
887.26
890.09
887.8
887.56
890.33
887.5
889.55
890.93
887.2
888.0
889.15
890.93
888.24
X-SECTIONS STA. 522+00 TO STA. 527+00

	BY	DATE	CHK	DATE	REV.	DATE	REV	DATE
EXISTING	Machine Plotted							
TEMPLATE								
DITCHES	JH	4-75	CK	5-75				
AREAS	MRH	7-75	JH	8-75				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

35
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

STRUCTURE Nº 1006

~WORK REQUIRED~

Remove 4' of existing damaged conduit and existing headwalls Lt and Rt. Extend Conduit Rt and construct new headwall as shown. Extend Conduit Lt and construct proposed Nº4 Catch Basin Mod. as per plan. Connect existing and proposed conduits with coupling bands.

~ESTIMATED QUANTITIES~

Item 202	Portions of Structure Removed	Lump	Lump
Item 604	Catch Basin Nº 4 Mod, as per plan	1	Each
Item 602	Concrete Masonry	0.27	Cu. Yd.
Item 603	15" Conduit, Type 'A', 707.05	42	Lin. Ft.

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
532+00	172	26		
			611	187
531+00	158	75		
			556	256
530+00	142	63		
			604	200
529+00	184	45		
			724	154
528+00	207	38		
			815	146
527+00	233	41		

X-SECTIONS STA. 528+00 TO STA. 532+00

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

36
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	Machine Plotted							
TEMPLATE								
DITCHES	JH	4-75	CK	5-75				
AREAS	MRH	7-75	JH	8-75				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

SEEDING

SEM SHNTS	SQ. YDS.
144	
1589	
142	
1644	
154	
1767	
164	
1806	
161	

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

887.03
4.4:1 12 8 884.8 8 4 2 2 4 15 8:1 8 25 6:1 883.5

887.33
4:1 92 10 885.1 7 4 12 4 16 17 23 5:1 883.74

887.63
6:1 103 12 885.4 5 4 2 6 4 15 16 29 4:1 883.98

887.93
8:1 110 8 885.7 5 3 2 2 4 15 17 8:1 28 3:1 884.22

532+00 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
536+00	130	18		
			511	106
535+00	146	39		
			570	135
534+00	162	34		
			606	119
533+00	165	30		
			624	104
532+00	172	26		

	Cu. Yd.	Cu. Yd.	Sq. Yd.
Excavation	1634	875	5612
Embankment			
Seeding			

X-SECTIONS STA 533+00 TO STA 536+00

SECTIONS

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	Machine Plotted							
TEMPLATE								
DITCHES	JH	4-75	CK	5-75				
AREAS	MRH	7-75	JH	8-75				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

FED. AID DIVISION	STATE	PROJECT	
2	OHIO		

37
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
541+00				
540+00				
539+00	0	0		
			213	164
538+00	115	88		
			426	338
537+00	115	94		
			454	207
536+00	130	18		

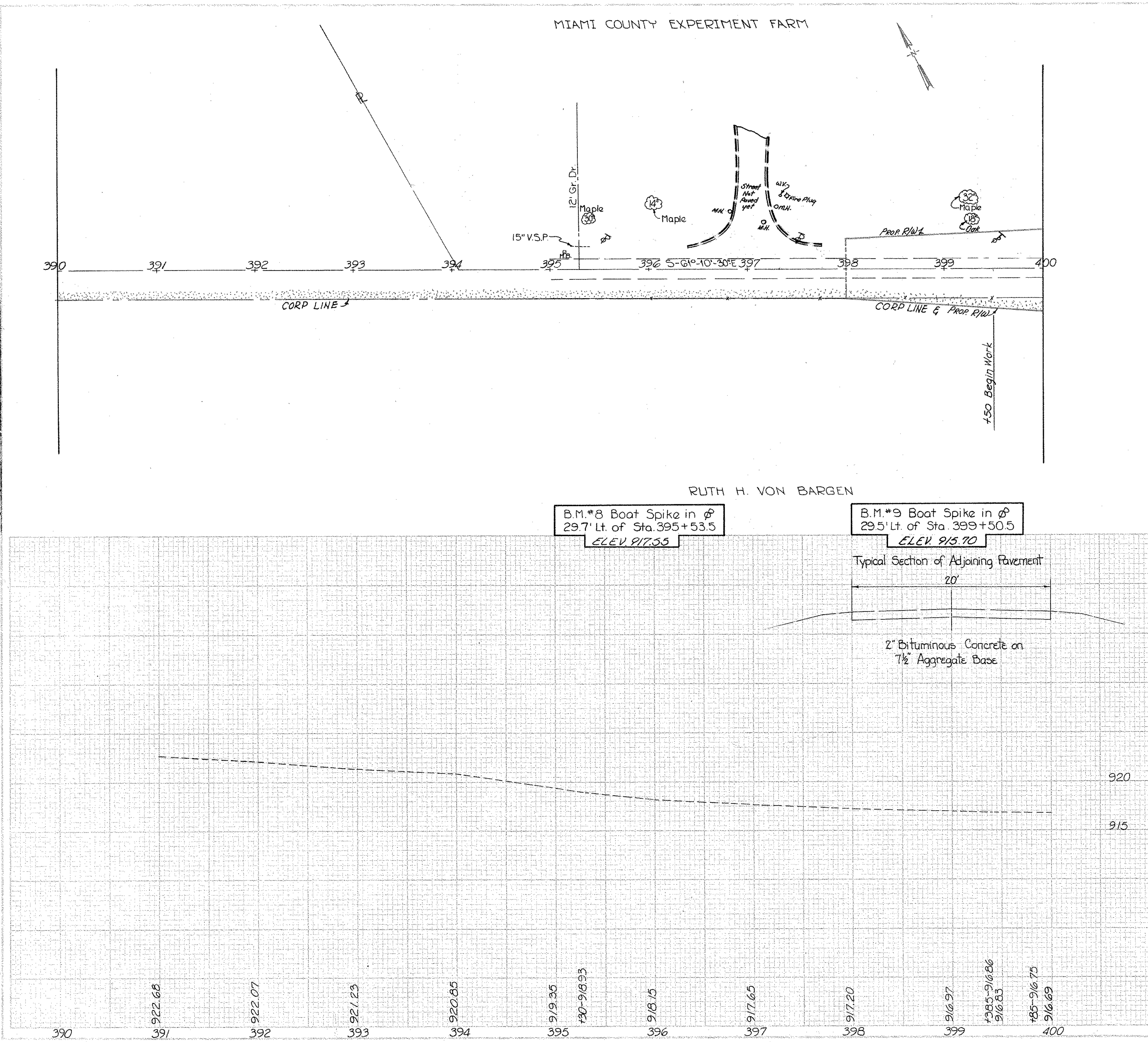
120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120

0
806
145
1611
145
1606
144

4.5:1 884.2 886.43 5:1 882.9
4.8:1 884.5 886.73 6:1 883.2

X-SECTIONS STA. 537+00 TO STA. 541+00

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)



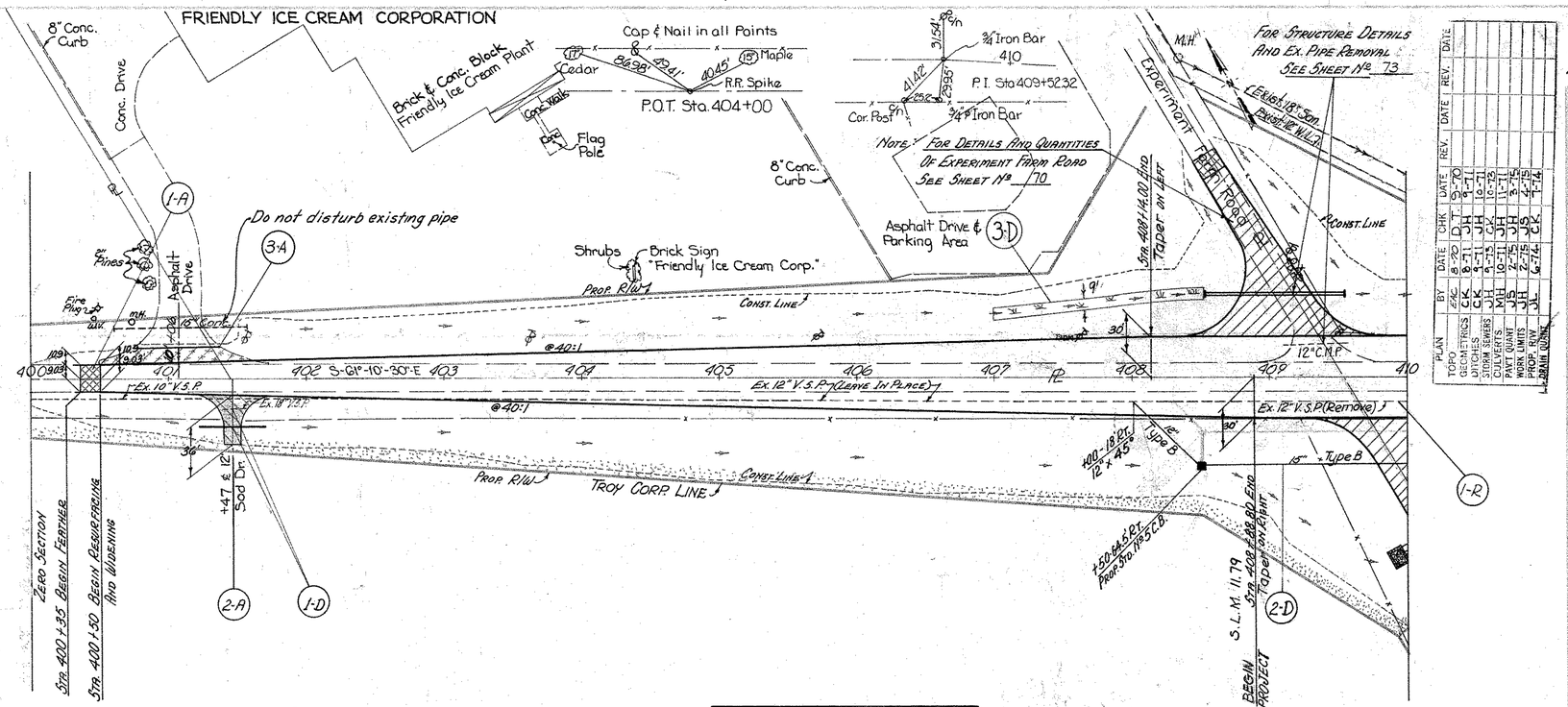
PLAN	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
TOPO								
GEOMETRICS	E.C.	8-70	D.T.	9-70				
DITCHES								
STORM SEWERS								
CULVERTS								
PAV'T QUANT.								
WORK LIMITS								
PROP. R/W	J.L.	6-74						
GRAN QUANT.								

PROFILE	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	E.C.	8-70	D.T.	9-70				
GRADE								
B.M.'s	D.T.	8-70	E.C.	9-70				

ESTIMATED QUANTITIES

REF NO.	STATION TO STATION	SIDE	SEE SHEET NO.	TOTALS

PLAN & PROFILE STA. 390+00 TO STA. 400+00 & S.R. 41



PLAN	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
TOPO	EAC	8-70	D.T.	9-70				
GEOMETRICS	CK	8-71	JH	9-71				
DITCHES	CK	9-71	JH	10-71				
STORM SEWERS	JH	9-73	CK	10-73				
CULVERTS	MH	10-71	JH	11-71				
PAV'T QUANT	JS	2-75	JH	3-75				
WORK LIMITS	JH	2-75	JS	4-75				
PROP. R/W	JL	6-74	CK	7-74				
DRAIN QUANT								

B.M.#10 R.R. Spike in ℘
No 1826 - 29.6' Lt. of Sta 405+70.9
Elev. 913.56

UTILITIES

Dayton Power And Light, 25 North Main Street, Dayton, Ohio 45401
General Telephone, 301 Sycamore Street, Brookville, Ohio
Pioneer Rural Electric Coop. Inc. P.O. Box 604, 344 U.S. Rt. 36, Piqua, Ohio 45356
Columbia Gas, 99 North Front Street, Columbus, Ohio

Excavation	3180	Cu.Yd.
Embankment	713	Cu.Yd.
Seeding	8600	Sq.Yd.

Quantities Carried to Earthwork Table

NOTE: The Profile of the proposed Asphalt Concrete Course shall be Approximately 1¼ inches above that of the existing pavement. For widening courses, see Typical Section No 1

PROFILE	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	EAC	8-70	D.T.	9-70				
GRADE								
B.M.'S	DT	8-70	EC	9-70				

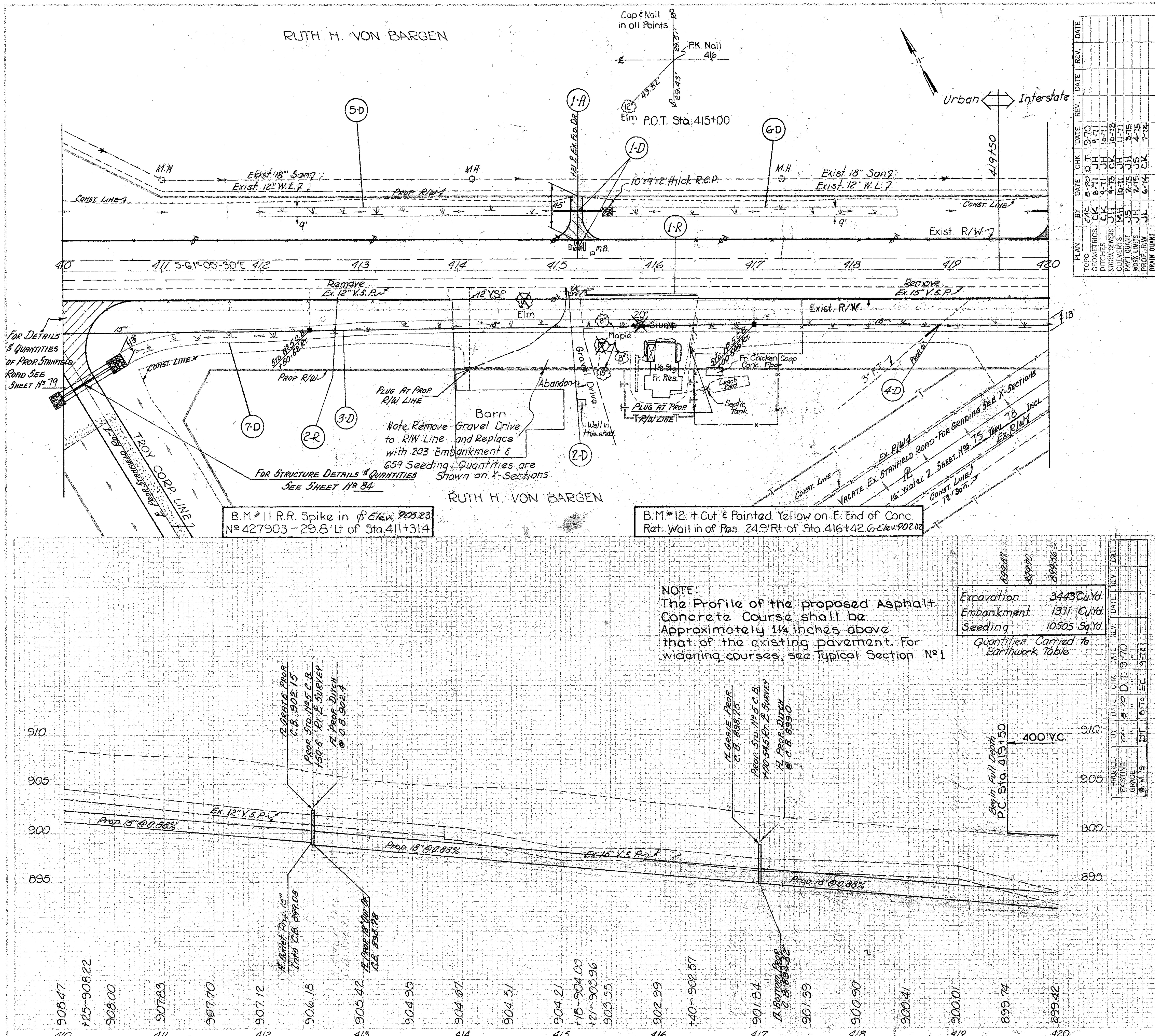
ESTIMATED QUANTITIES URBAN

REF. NO.	STATION TO STATION	SIDE	404 Asphalt Concrete AC-20 Cu.Yd.	304 Aggregate Base Cu.Yd.	407 Tack Coat Gal.	604 Catch Basin Std No5 Each	408 Prime Coat Gal.	660 Sodding Sq.Yd.	202 Pipe Removed 24" & Under Lin.Ft.	603 18" Type 'D' (707.01) Lin.Ft.	603 15" Type 'B' Lin.Ft.	603 12" Type 'B' Lin.Ft.	407 Cover Aggr. Cu.Yd.
1-A	400+35 400+50	Lt & Rt	0.58		3.33								0.1
2-A	401+47	Rt		13.89									
3-A	401+06	Lt	5.20	20.80			37						
1-R	408+00 to 410+00	Rt							200				
1-D	401+47	Rt							16	50			
2-D	408+00 410+00	Rt				1					148	66	
3-D	407+00 408+55	Lt						155					
	TO SUMMARY		5.78	34.69	3.33	1	37	155	216	50	148	66	0.1

PLAN & PROFILE STA 400+00 TO STA 410+00 ℄ S.R. 41

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		40/174



RUTH H. VON BARGEN
Cap & Nail in all Points
P.K. Nail 416
P.O.T. Sta. 415+00
Urban ⟷ Interstate
Exist. 18" San.
Exist. 12" W.L.
Prop. R/W
10'x4'x12" thick R.C.P.
Const. Line
Exist. R/W
411 S-61°-05'-30"E 412
Remove Ex. 12" V.S.P.
Remove Ex. 15" V.S.P.
12" V.S.P.
Elm
Stump
Maple
1½ Sty. Fr. Res.
Fr. Chicken Coop Conc. Floor
Leach Bed
Septic Tank
Plug at Prop. R/W Line
Abandon
Gravel Drive
Well in this shed
Barn
Note: Remove Gravel Drive to R/W Line and Replace with 203 Embankment & 659 Seeding. Quantities are Shown on X-Sections
For Details & Quantities of Prop. Stanfield Road See Sheet No 79
For Structure Details & Quantities See Sheet No 84
Troy Corp Line
Vacate Ex. Stanfield Road - For Grading See X-Sections
16" Water 2 Sheet Nos 75 thru 78 Incl.
12" San.
RUTH H. VON BARGEN
B.M. # 11 R.R. Spike in ℄ Elev. 905.23 No 427903 - 29.8' Lt of Sta. 411+31.4
B.M. # 12 + Cut & Painted Yellow on E. End of Conc. Ret. Wall in of Res. 24.9' Rt. of Sta. 416+42.6 Elev. 902.02
NOTE: The Profile of the proposed Asphalt Concrete Course shall be Approximately 1¼ inches above that of the existing pavement. For widening courses, see Typical Section No 1
Excavation 3443 Cu.Yd.
Embankment 1371 Cu.Yd.
Seeding 10505 Sq.Yd.
Quantities Carried to Earthwork Table
Begin Full Depth P.C. Sta. 419+50
400' V.C.
Ex. 12" V.S.P.
Prop. 15" @ 0.88%
Prop. 18" @ 0.88%
Ex. 15" V.S.P.
Prop. 18" @ 0.88%
Fl. Grate Prop. C.B. 902.15
Prop. Std. No 5 C.B. 150-6' Rt. ℄ Survey
Fl. Prop. Ditch @ C.B. 902.4
Fl. Grate Prop. C.B. 899.75
Prop. Std. No 5 C.B. 400-54.5 Rt. ℄ Survey
Fl. Prop. Ditch @ C.B. 899.0
Fl. Outlet Prop. 15" Into C.B. 899.03
Fl. Prop. 18" Out of C.B. 898.78
Fl. Bottom Prop. C.B. 894.82
910
905
900
895
908.47
+25-908.22
908.00
907.83
907.70
907.12
906.18
905.42
904.95
904.67
904.51
904.21
+18-904.00
+21-903.96
903.55
902.99
+40-902.57
901.84
901.39
900.90
900.41
900.01
899.74
899.42
410 411 412 413 414 415 416 417 418 419 420

PLAN	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE	REV.	DATE
TOPO	EAC	8-70	D.T.	9-70						
GEOMETRICS	CK	8-71	JH	9-71						
DITCHES	JK	9-73	JH	10-73						
STORM SEWERS	JK	9-73	CK	10-73						
CULVERTS	MH	10-71	JH	11-71						
PAV'T QUANT.	JS	2-75	JH	3-75						
WORK LIMITS	JH	2-75	JS	4-75						
PROP. R/W	JL	6-74	CK	7-74						
DRAIN QUANT.										

PROFILE	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE	REV.	DATE
EXISTING	EAC	8-70	D.T.	9-70						
GRADE	"	"	"	"						
B.M.'S	DT	8-70	EC	9-70						

ESTIMATED QUANTITIES : URBAN

REF. NO.	STATION TO STATION	SIDE	202 Pipe Removed 24" & Under Lin.Ft.	304 Aggregate Base Cu.Yds.	660 Sodding Sq.Yd.	601 Rock Channel Prot. Type B Cu.Yds.	202 Concrete Wall Removed Lump	604 Catch Basin Std. No 5 Each	603 18" Type "D" Lin.Ft.	603 15" Type "B" Lin.Ft.	603 18" Type "B" Lin.Ft.	603 6" Type "F" Lin.Ft.
1-A	415+21	Lt.		15.85								
1-D	415+21 415+30±	Lt.	18						48			
2-D	415+03± 420+00	Rt.	28									
3-D	410+00 418+90	Rt.						2		250	750	
4-D	418+75 415+00	Rt.										20
5-D	412+00 415+50	Lt.			300							
6-D	415+50 418+50	Lt.			290	6.7						
7-D	410+60 420+00	Rt.			1358							
1-R	415+29 416+43	Rt.					Lump					
2-R	410+00 to 420+00	Rt.	1000									
TO SUMMARY			1046	16	1948	6.7	Lump	2	48	250	750	20

PLAN & PROFILE STA. 410+00 TO STA. 420+00 ℄ PROP. S.R. 41

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

B.M. #13 + Cut & Painted on E. Endwall Under Stanfield Rd. 22.7' Rt. of Sta. 421+52.0 ELEV. 897.90

B.M. #14 R.R. Spike in ℘ No 427893 40.4' Lt. of Sta. 426+19.2

B.M. #15 Top of R/W Mon. 65' Rt. of Sta. 429+90

Excavation	1576	Cu. Yd.
Embankment	33484	Cu. Yd.
Seeding	13273	Sq. Yd.

Quantities Carried to Earthwork Table

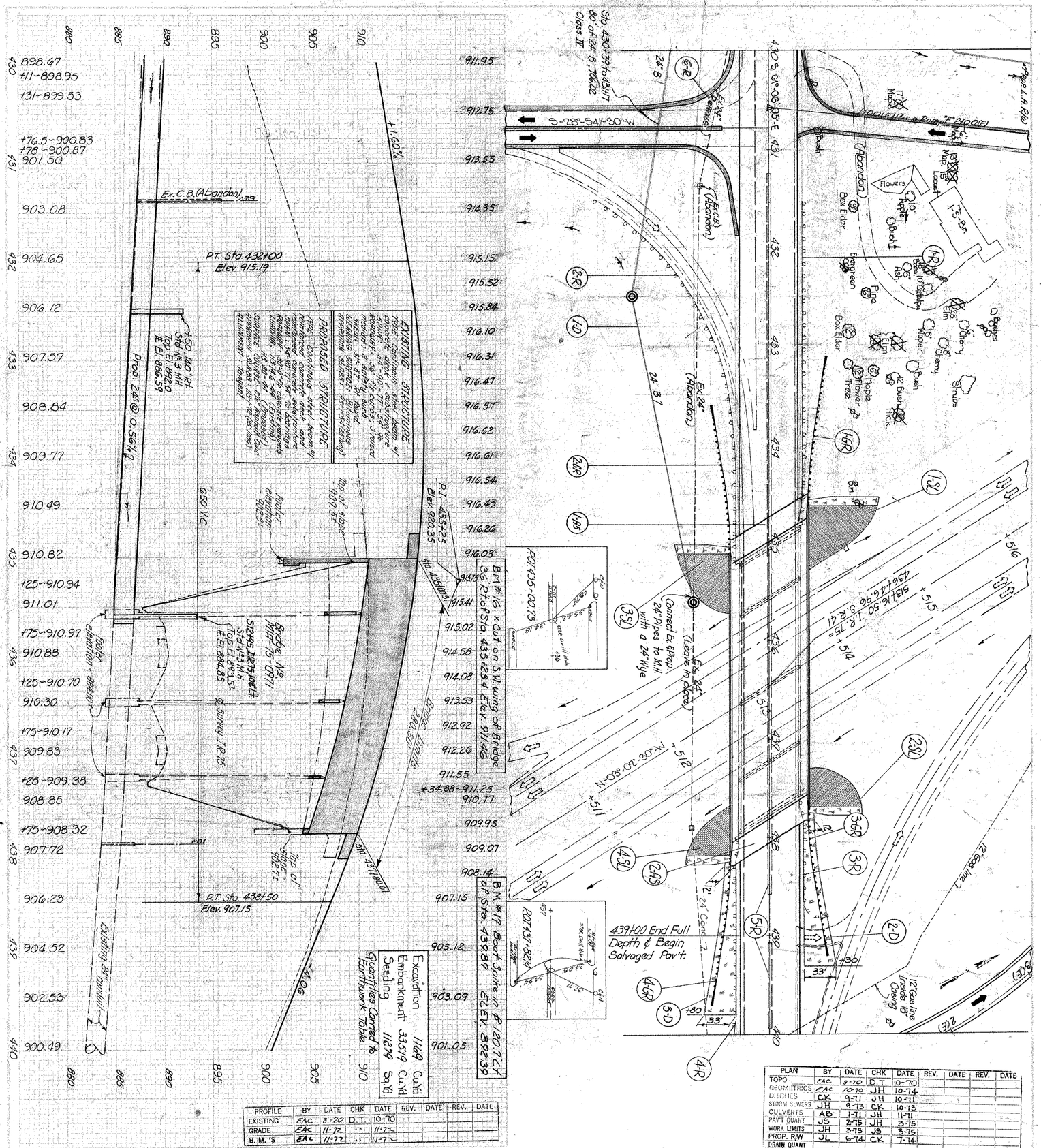
PLAN	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
TOPO	EAC	8-70	D.T.	9-70				
GEOMETRICS	CK	8-71	JH	9-71				
DITCHES	CK	9-71	JH	10-71				
STORM SEWERS	JH	9-73	CK	10-73				
CULVERTS	MH	10-71	JH	11-71				
PAV'T QUANT	JS	2-75	JH	3-75				
WORK LIMITS	JH	3-75	JS	3-75				
PROP. R/W	JL	6-74	CK	7-74				
DRAIN QUANT								

PROFILE	BY	DATE	CHK.	DATE	REV.	DATE	REV.	DATE
EXISTING	EAC	8-70	D.T.	9-70				
GRADE	DT	8-70	EC	9-70				
B.M.'S								

ESTIMATED QUANTITIES INTERSTATE

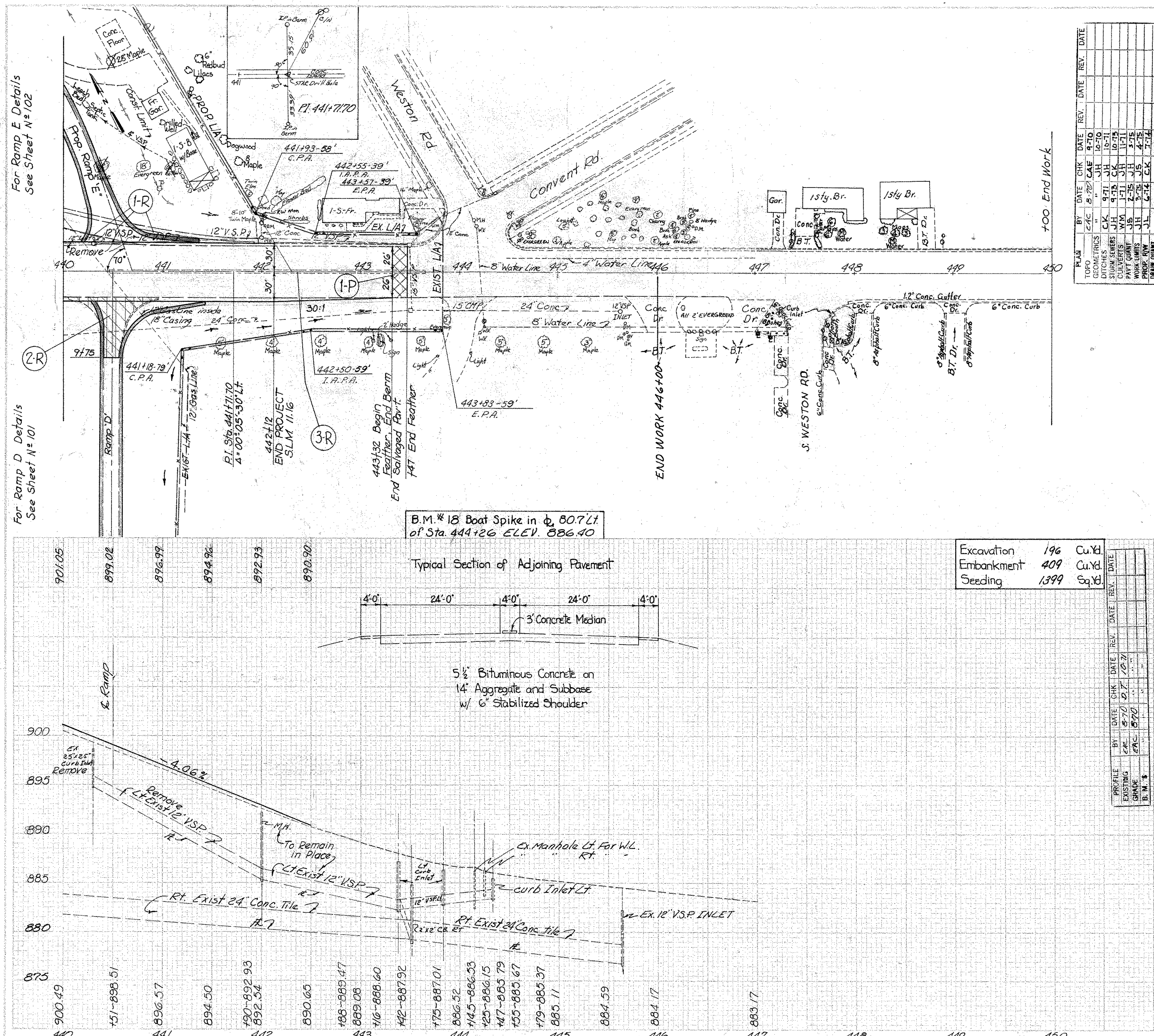
REF. NO.	STATION TO STATION	SIDE	202 Pipe Removed 24" & Under Lin. Ft.	202 Pipe Removed Over 24" Lin. Ft.	304 Aggre. Base Cu. Yds.	202 Ex. C.B. Removed Each	660 Sodding SQ. Yds.	604 Catch Basin Std. No 5 Each	603 18" Type "D" Lin. Ft.	603 18" Type "B" Lin. Ft.	603 24" Type "B" 707.13 Lin. Ft.	603 24" Type "B" Lin. Ft.	Type B 601 Rock Channel Protect. Cu. Yds.	202 Underground Storage Tank Removed Each	202 Pavement Removed Sq. Yd.	SEE SHEET NO.
1-A	20+09	LT.			15.63											
1-D	20+09	LT.	18						48							
2-D	421+00± 421+52±			52												
3-D	420+00 430+00		60			1		3		338	20	820				
4-D	420+00 421+75	Rt.					253									
5-D	421+75 423+00	Rt.											120.37			
6-D	423+00 to 2+00(C)	Rt.					885									
1-R	420+00 to 430+00	Rt.	1000			3										
2-R	427+95 to 428+27	Lt.													56	
3-R	428+80 to 429+07	Lt.													108	
4-R	427+95± to 428+27±	Lt.												2		
5-R	428+27 to 428+85	Lt.	58													
	TO SUMMARY		1136	52	16	4	1138	3	48	338	20	820	120.37	2	164	

PLAN & PROFILE STA. 420+00 TO STA. 430+00 ℄ PROP. S.R. 41



STATION TO STATION	SIDE	202 G.R. Removed for Re-Use or Storage Lin.Ft.	660 Sodding Sq.Yd.	603 24" Type B 706.02 Cl. IV Lin.Ft.	606 Guard Rail Lin.Ft.	606 Bridge Terminal Type 5 Each	606 Anchor Assemblies Each	604 Manhole Std N°3 Each	603 24" Type B Lin.Ft.
1-D 430+00 to 512+95 I-275 Ahead				80			2	500	
2-D 437+74 to 439+30	Lt.		360						
3-D 438+25 to 439+80	Rt.		360						
1-R 431+55± to 437+78±	Lt.	325							
2-R 431+53± to 435+16±	Rt.	425							
3-R 437+62± to 438+80±	Lt.	125							
4-R 438+00± to 440+00±	Rt.	200							
5-R 437+80.61 to 440+00	℄								
6-R 430+00 to 431+38	Rt.								
1-GR 433+09± to 434+59±	Lt.				125	1	1		
2-GR 433+60± to 435+10±	Rt.				125	1	1		
3-GR 437+69± to 439+19±	Lt.				125	1	1		
4-GR 438+20± to 439+70±	Rt.				125	1	1		
1-AS 434+75.31 to 435+00.31	℄								
2-AS 437+80.61 to 438+05.61	℄								
1-SL 434+52 to 435+28	Lt.								
2-SL 437+30 to 437+77	Lt.								
3-SL 435+02 to 435+72	Rt.								
4-SL 437+70 to 438+28	Rt.								
TO SUMMARY		1075	720	80	500	4	4	2	500

STATION TO STATION	SIDE	202 Pipe Removed 24" & Under Lin.Ft.	611 Reinforced Conc. Approx. SLABS Sq.Yds. T=13"	202 Removal Concrete Median Sq.Yds.	310 Subbase Cu.Yd.	667 Seeding and Jute Matting Sq.Yd.	660 Sod for Spl. Berm and Slope Protection Sq.Yd.
1-D 430+00 to 512+95 I-275 Ahead							
2-D 437+74 to 439+30	Lt.						
3-D 438+25 to 439+80	Rt.						
1-R 431+55± to 437+78±	Lt.						
2-R 431+53± to 435+16±	Rt.						
3-R 437+62± to 438+80±	Lt.						
4-R 438+00± to 440+00±	Rt.						
5-R 437+80.61 to 440+00	℄			55			
6-R 430+00 to 431+38	Rt.		142				
1-GR 433+09± to 434+59±	Lt.						
2-GR 433+60± to 435+10±	Rt.						
3-GR 437+69± to 439+19±	Lt.						
4-GR 438+20± to 439+70±	Rt.						
1-AS 434+75.31 to 435+00.31	℄		167	28			
2-AS 437+80.61 to 438+05.61	℄		167	28			
1-SL 434+52 to 435+28	Lt.					354	71
2-SL 437+30 to 437+77	Lt.					191	54
3-SL 435+02 to 435+72	Rt.					292	54
4-SL 437+70 to 438+28	Rt.					191	44
TO SUMMARY		142	334	55	56	1028	223


For Ramp E Details See Sheet No 102
For Ramp D Details See Sheet No 101
Convent Rd.
Weston Rd
S. WESTON RD.
P.I. 441+71.70
441+93-58' C.P.A.
442+55-39' I.A.P.A.
443+57-39' E.P.A.
441+18-79' C.P.A.
442+50-59' I.A.P.A.
443+83-59' E.P.A.
P.I. Sta. 441+71.70 Δ 00°05'30" Lt.
442+12 END PROJECT SLM 11.16
443+32 Begin Feather End Berm
End Salvaged Pav't
447 End Feather
END WORK 446+00
+00 End Work
8" Water Line
4" Water Line
B.M. No 18 Boat Spike in ¢ 80.7' Lt. of Sta. 444+26 ELEV. 886.40
Excavation 196 Cu.Yd.
Embankment 409 Cu.Yd.
Seeding 1399 Sq.Yd.
Typical Section of Adjoining Pavement
3' Concrete Median
5½" Bituminous Concrete on 14" Aggregate and Subbase w/ 6" Stabilized Shoulder
-4.06%
Remove Lt. Exist 12" V.S.P.
To Remain in Place Lt. Exist 12" V.S.P.
Rt. Exist 24" Conc. Tile
Ex. Manhole Lt. For W.L.
curb Inlet Lt.
Ex. 12" V.S.P. INLET
PLAN: TOPO CAC 8-70 CAE 9-70; GEOMETRICS " " JH 10-70; DITCHES CK 9-71 JH 10-71; STORM SEWERS JH 9-73 CK 10-73; CULVERTS WM 1-71 JH 11-71; PAV'T QUANT JS 2-75 JH 3-75; WORK LIMITS JH 3-75 JS 4-75; PROP. R/W JL 6-74 CK 7-74; DRAIN QUANT
PROFILE: EXISTING CK 8-70 BJ 10-71; GRADE ERC 8-70

ESTIMATED QUANTITIES INTERSTATE

Ref. No.	Station to Station	Side	202 Inlets Removed (Each)	202 Pipe Removed 24" & under (Lin.Ft.)	202 Conc. Median Removal (Sq.Yd.)	404 Asphalt Concrete AC-20 (Cu.Yd.)	407 Tack Coat (Gal)	202 Pavement Removed (Sq.Yd.)	202 Curb Removed (Lin.Ft.)	407 Cover Aggr. (Cu.Yd.)
1-R	440+30 to 441+00	Lt.	2	174						
2-R	9+75(D) to 10+38.36(D)	Lt.&Rt.						233	164	
3-R	440+37 440+36	¢			107					
1-P	443+32 to 443+47	Lt.&Rt.				1.50	8.7			0.3
TOTALS	TO SUMMARY		2	174	107	1.50	8.7	233	164	0.3

PLAN & PROFILE STA 440+00 TO STA 450+00 & S.R. 41

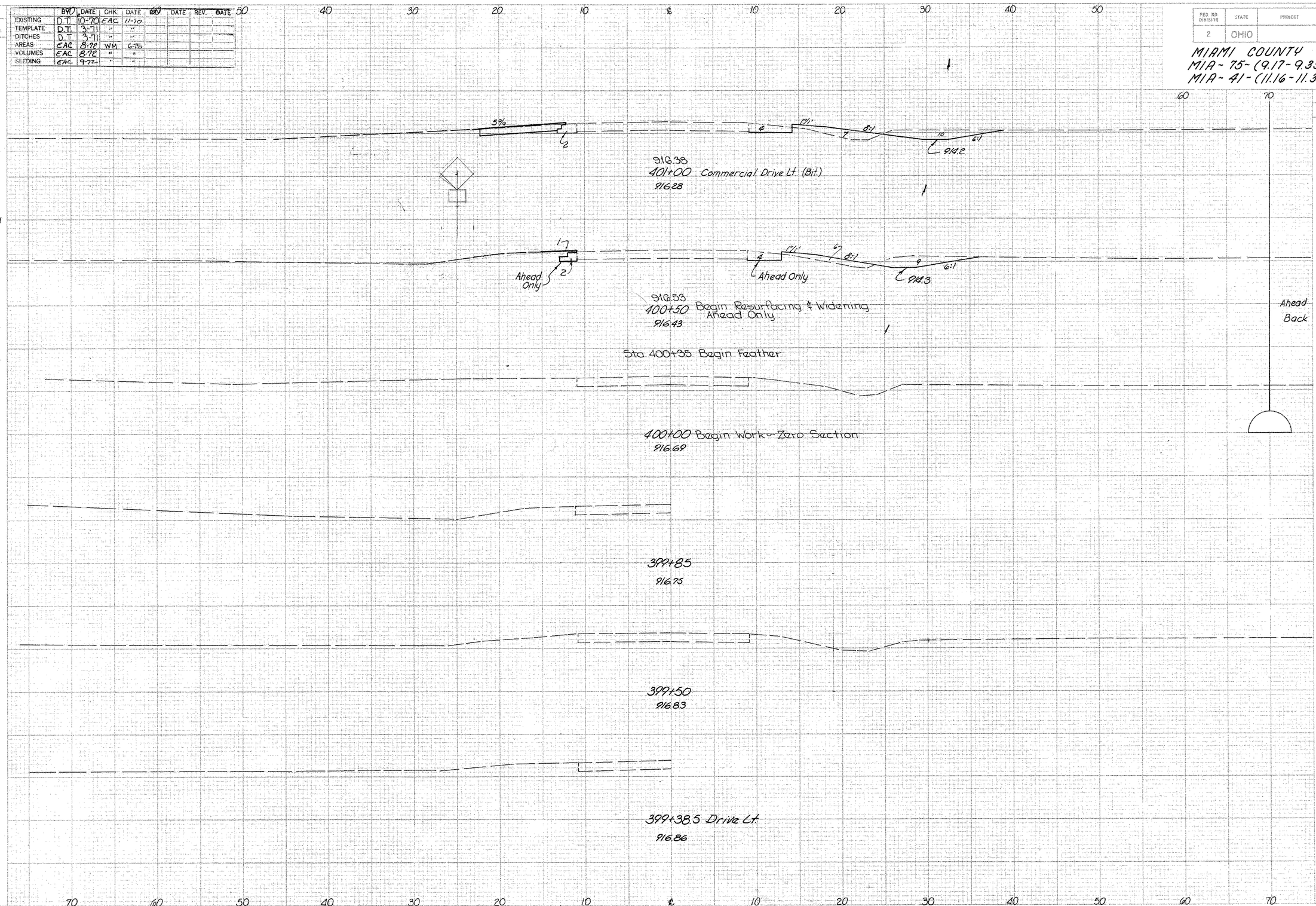
	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T.	10-70	EAC	11-70				
TEMPLATE	D.T.	3-71	"	"				
DITCHES	D.T.	3-71	"	"				
AREAS	EAC	8-72	WM	6-75				
VOLUMES	EAC	8-72	"	"				
SEEDING	EAC	9-72	"	"				

SEEDING END WIDTH	SEEDING SQ. YDS
49	268
47	131
0	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

44
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)



	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	16	7		
			30	13
Ahead	15	7		
Back	9	7		
			8	7
	0	0		

X-SECTIONS STA.399+38.5 TO STA.401+00 S.R.41

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	EAC	12-70	D.T.	10-70				
TEMPLATE	D.T.	3-71	EAC	8-72				
DITCHES	D.T.	3-71	EAC	8-72				
AREAS	EAC	8-72	WM	6-75				
VOLUMES	EAC	8-72	"	"				
SEEDING	EAC	9-72	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

45
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS	CUT	FILL	CUT	FILL
88	464	78	19	117	35
79	431	48	19	80	41
76	428	38	25	74	43
78	445	42	21	93	30
73	339	53	10	63	16
49		16	7		

Excavation 3180 Cu.Yd.
Embankment 713 Cu.Yd.
Seeding 8600 Sq.Yd.

Add for Dr. Rt.

915.41
403+50
915.31

916.71
403+00
915.61

915.97
402+50
915.87

916.17
402+00
916.07

916.26
401+47 Field Drive Rt
916.16

Prop. Drive Grade @ 0.0%

Prop. 18" Type 'D' Conduit

Sta. 401+00

Sta. 401+00

X-SECTIONS STA. 401+47 TO STA. 403+50 S.R. 41

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

MIAMI COUNTY
MIA- 75 - (9.17 - 9.35)
MIA- 41 - (11.16 - 11.38)

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T.	8-70	EAC	11-70				
TEMPLATE	D.T.	3-71	"	"				
DITCHES	D.T.	3-71	"	"				
AREAS	EAC	8-72	WM	6-75				
VOLUMES	EAC	8-72	"	"				
SEEDING	EAC	9-72	"	"				

SEEDING
END WIDTH
SQ. YDS.
END AREA
CUT FILL
VOLUME
CUT FILL
912.88
406+50
912.78
133 22
99
221 40
536
913.37
406+00
913.27
105 21
94
217 37
528
913.75
405+50
913.65
129 19
96
227 38
525
914.23
405+00
914.13
116 22
93
212 38
511
914.58
404+50
914.48
113 19
91
181 34
492
915.04
404+00
914.94
82 17
86
148 34
483
Sta. 403+50
78 19
88
Ex. 12" V.S.P.
6:1
8:1
4:1
910.4
909.2
910.8
909.8
911.3
910.2
911.8
910.9
912.2
911.3
912.6
911.9

X - SECTIONS STA. 404+00 TO STA. 406+50 S.R. 41

SEEDING		BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
END WIDTH	SQ. YDS.								
EXISTING		D.T.	8-70	EAC	11-70				
TEMPLATE		D.T.	3-71	"	"				
DITCHES		D.T.	3-71	"	"				
AREAS		EAC	8-72	WM	6-75				
VOLUMES		EAC	8-72	"	"				
SEEDING		EAC	9-72	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

47
174

MIAMI COUNTY
MIA-75-(9.17-9.38)
MIA-41-(11.16-11.38)

Included in App. Quantities

Included in App. Quantities

Sta 408+31.47 Back Only Ahead Included in App. Quantities

Ahead
Back +31.47

Note: Sta. 408+88.80 Begin Project

909.58
409+00
909.43

909.87
408+75
909.77

910.25
408+50
910.15

911.04
408+00
910.99

911.77
407+50
911.67

912.35
407+00
912.25

Ex. 12" V.S.P.

Prop. 15"

Ft. Ditch 905.6
Ft. Grate 905.35
Prop. Std. 711.3 C.B.
Ft. Bottom Prop 15" 902.55

Sta 406+50

Sta. 406+50

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	142	24		
	127	22		
	133	23		
			201	37
Ahead	116	23		
Back	174	24		
			202	29
	172	25		
			293	49
	144	28		
			260	47
	137	23		
			250	42
	133	22		

X-SECTIONS STA. 407+00 TO STA. 409+00 S.R. 41

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T.	9-70	"	"				
TEMPLATE	D.T.	3-71	"	"				
DITCHES	D.T.	3-71	"	"				
AREAS	EAC	8-72	W.M.	6-75				
VOLUMES	EAC	8-72	"	"				
SEEDING	EAC	9-72	"	"				

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

48/174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

SEEDING
END WIDTH
SQ. YDS.
END AREA
CUT
FILL
VOLUME
CUT
FILL
Included in App. Quantities
904.6
908.32
410+25
908.22
Ex. 12" V.S.P.
21 38
22 36
904.7
908.57
410+00
908.47
26 39
20 25
Sta. 409+81.92 Ahead Only
Back Included in
App. Quantities
Ahead
Back
+81.92
904.8
908.83
409+75
908.73
34 36
13 16
12 15
Included in App. Quantities
909.10
409+50
909.00
7 10
Included in Approach
908.98
409+52.32 ℄ of Rd. on Skew
908.88
904.6
7 9
Sta. 409+22.61 Back Only
Ahead Included in
App. Quantities
909.29
409+25
909.19
+22.61
Prop. 15"
6 7
172 13
131 16
142 24
Sta. 409+00
44
127
47
98
51
0
0
0
123
81
197
76

X-SECTIONS STA. 409+25 TO STA. 410+25 S.R. 41

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T.	9-70	EAC	11-70				
TEMPLATE	D.T.	4-71	"	"				
DITCHES	D.T.	4-71	"	"				
AREAS	EAC	8-72	WM	6-75				
VOLUMES	EAC	8-72	"	"				
SEEDING	EAC	9-72	"	"				

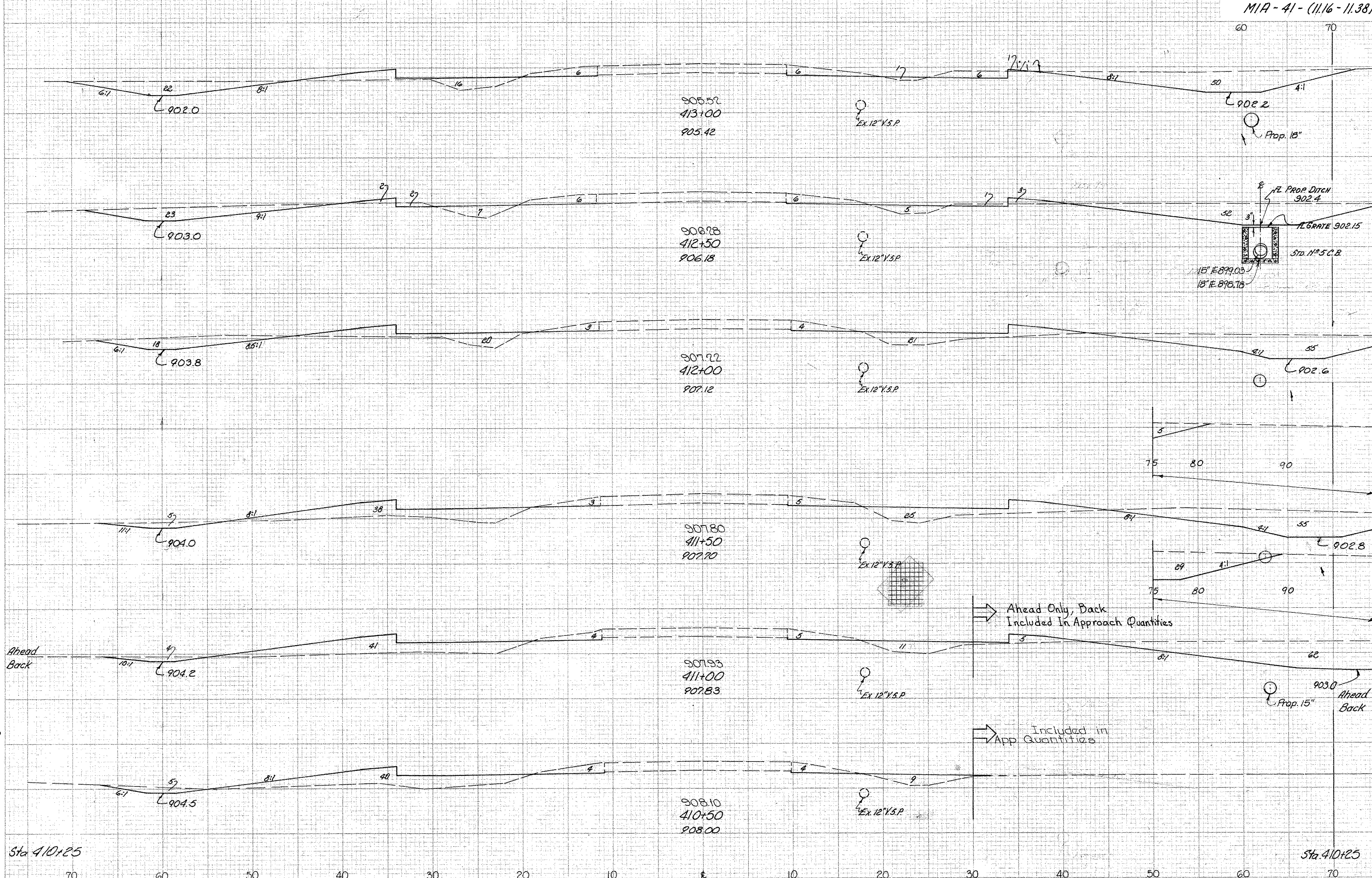
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

49/174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

SEEDING

END WIDTH	SQ. YDS.
96	
	536
97	
	547
100	
	558
101	
	583
109 / 43	
	239
43	
	121
44	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
90	18		
		167	33
90	17		
		158	54
80	41		
		142	97
73	63		
		164	111
104 / 13	57 / 52		
		24	94
13	49		
		16	40
21	38		

X-SECTIONS STA. 410+50 TO STA. 413+00 S.R. 41

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T.	9-70	EAC	11-70				
TEMPLATE	D.T.	4-71	"	"				
DITCHES	D.T.	4-71	"	"				
AREAS	EAC	8-72	WM	6-75				
VOLUMES	EAC	8-72	"	"				
SEEDING	EAC	9-72	"	"				

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

50 / 174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

SEEDING
END WIDTH
SQ. YDS
END AREA CUT FILL
VOLUME CUT FILL
Add for Dr. Lt.
Excavation 3443 Cu.Yd.
Embankment 1371 Cu.Yd.
Seeding 10505 Sq.Yd.
12% 5%
5.0%
18" D
899.5
904.06
415+21 Drive Left
903.96
Add Seeding For Gravel Drive Removal Rt.
904.10
415+18 Drive Right, Abandon
904.00
Ex. 15" V.S.P.
Add for Gravel Drive Removal Rt.
901.1
Prop. 18"
900.0
904.31
415+00
904.21
901.3
900.5
904.61
414+50
904.51
901.6
901.1
904.77
414+00
904.67
901.8
901.3
905.05
413+50
904.95
Ex. 12" V.S.P.
902.0
Sta. 413+00
310
101
569
104
561
98
539
96
533
96
2 25
80 80
135 31
236 64
120 38
197 66
92 33
167 52
88 23
165 38
90 18

X-SECTIONS STA. 413+50 TO STA. 415+21 S.R. 41

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T.	5-70	EAC	11-70				
TEMPLATE	D.T.	4-71	"	"				
DITCHES	D.T.	4-71	"	"				
AREAS	EAC	8-72	WM	6-75				
VOLUMES	EAC	8-72	"	"				
SEEDING	EAC	9-72	"	"				

FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

51
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

SEEDING		END AREA		VOLUME	
END WIDTH	SQ YDS	CUT	FILL	CUT	FILL
93	511	66	34	123	67
91	514	67	38	140	65
94	640	84	32	254	73
98	442	145	34	228	51
101	575	162	35	298	58
106	585	160	27	273	54
101		135	31		

901.00
418+00
900.90
Ex. 15" V.S.P.
898
Prop. 18"-

901.49
417+50
901.39
Ex. 15" V.S.P.
898.6
FL. Prop. Ditch 899.0
FL. Prop. Grate 898.75
Prop. Std. No. 5 C.B.
18" E. 894.82

901.94
417+00
901.84
Ex. 15" V.S.P.
898.4

902.67
416+40
902.57
Ex. 15" V.S.P.
Exist. Conc. Wall (Remove)
898.8

903.09
416+00
902.99
Ex. 15" V.S.P.
Exist. Conc. Wall (Remove)
900.2

903.65
415+50
903.55
Ex. 15" V.S.P.
Exist. Conc. Wall (Remove)
900.8
Prop. 18"

Sta. 415+00

Sta. 415+00

X-SECTIONS STA. 415+50 TO STA. 418+00 S.R. 41

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T.	9-70	EAC	10-70				
TEMPLATE	D.T.	4-71	"	"				
DITCHES	D.T.	4-71	"	"				
AREAS	EAC	8-72	WM	6-75				
VOLUMES	EAC	8-72	"	"				
SEEDING	EAC	9-72	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

52/174

MIAMI COUNTY
MIA - 75 - (9.17 - 9.35)
MIA - 41 - (11.16 - 11.38)

SEEDING
END WIDTH
SQ. YDS
END AREA
CUT
FILL
VOLUME
CUT
FILL
Included in Stanfield Rd. X-Sec.
895.6
899.41
420+50
899.18
Ex.15" V.S.P.
895.7
Prop.18"
129 30
Add For Drive Lt
2 25
Drive Grade @ 1.6%
895.75
899.52
420+10 Drive Left
899.37
268 44
Included in Stanfield Rd. X-Sec.
895.8
899.56
420+00
899.42
Ex.15" V.S.P.
896.1
160 17
Included in Stanfield Rd. X-Sec.
156 39
Full Depth Ahead Only
896.3
899.87
419+50
899.74
Ex.15" V.S.P.
Ahead 108 25
Back 86 25
144 54
896.6
900.12
419+00
900.01
Ex.15" V.S.P.
896.9
69 33
145 68
896.9
900.51
418+50
900.41
Ex.15" V.S.P.
897.5
Prop.18"
87 31
142 60
Sta. 418+00
Sta. 418+00
66 34

X-SECTIONS STA.418+50 TO STA.420+50 S.R.41

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

MIAMI COUNTY
MIA - 75 - (9.17 - 9.35)
MIA - 41 - (11.16 - 11.38)

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T.	9-70	EAC	10-70				
TEMPLATE	D.T.	4-71	"	"				
DITCHES	D.T.	4-71	"	"				
AREAS	EAC	8-72	WM	6-75				
VOLUMES	EAC	8-72	"	"				
SEEDING	EAC	9-72	"	"				


SEEDING
END WIDTH
SQ. YDS.
END AREA
VOLUME
CUT
FILL
CUT
FILL
899.65
421+75
898.11
Ex. 20" V.S.P.
Prop. 24"
895.1
41 136
105
37 106
286
899.53
421+50
898.23
Ex. 20" V.S.P.
Prop. 18"
895.2
895.3
38 93
101
33 62
265
899.44
421+25
898.42
Ex. 20" V.S.P.
895.3
895.4
88 42
90
95 45
252
899.39
421+00
898.72
Ex. 20" V.S.P.
895.4
895.5
117 56
91
111 52
252
Included in
Stanfield Rd. X-Sec.
899.38
420+75
899.00
Ex. 20" V.S.P.
Prop. 18"
895.5
895.6
122 57
90
116 40
239
82
129 30
Sta. 420+50
Sta. 420+50

X - SECTIONS STA. 420+75 TO STA. 421+75 S.R. 41

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

MIAMI COUNTY
MIA - 75 - (9.17 - 9.35)
MIA - 41 - (11.16 - 11.38)

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T.	9-70	EAC	10-70				
TEMPLATE	D.T.	4-71	"	"				
DITCHES	D.T.	4-71	"	"				
AREAS	EAC	8-72	WM	6-75				
VOLUMES	EAC	8-72	"	"				
SEEDING	EAC	9-72	"	"				

SEEDING END WIDTH	SEEDING SQ. YDS.
112	
	637
107	
	589
105	
	592
108	
	583
102	
	567
102	
	288
105	

Station	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
424+50	20	783		
			46	1330
424+00	29	653		
			68	1074
423+50	44	507		
			85	810
423+00	47	367		
			75	608
422+50	32	289		
			70	372
422+00	43	172		
			39	143
421+75	41	136		

Excavation	1516	Cu.Yd.
Embankment	33484	Cu.Yd.
Seeding	13273	Sq.Yd.

X - SECTIONS STA. 422+00 TO STA. 424+50 S.R. 41

SEEDING	
END WIDTH	CU. YDS.

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T.	9-70	EAC	10-70				
TEMPLATE	D.T.	4-71	"	"				
DITCHES	D.T.	4-71	"	"				
AREAS	EAC	8-72	WM	6-75				
VOLUMES	EAC	8-72	"	"				
SEEDING	EAC	9-72	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

55
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
36			2760	
30			2545	
28			2372	
30			2142	
34			1852	
38			1490	
20			783	

X-SECTIONS STA. 425+00 TO STA. 427+50 S.R. 41

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T.	9-70	EAC	10-70				
TEMPLATE	D.T.	4-71	"	"				
DITCHES	D.T.	4-71	"	"				
AREAS	EAC	8-72	MH	6-75				
VOLUMES	EAC	8-72	"	"				
SEEDING	EAC	9-72	"	"				

SEEDING
END WIDTH
SQ. YDS.
FED. RD. DIVISION
STATE
PROJECT
2
OHIO
56
174
MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)
END AREA
VOLUME
CUT
FILL
Back Only
Ahead Included
in Ramp
Included in
Ramp "C" Quantities
Back Only
Ahead Included in
Ramp "C" Quantities
529
725
1205
637
1827
1706
1570
Ahead 0 725
Back 7 1403
5 1097
Ahead Only 6 1290
Back Only 58 1967
80 2371
72 1912
66 2119
47 1901
139 6621
28 1674
45 3003
20 1569
93
230
95
183
677
186
600
174
1761
143
770
134
Ahead
Back
911.71
429+85
898.33
911.31
429+60
897.78
910.83
429+30
897.27
910.35
429+00
896.86
909.69
428+59
896.41
Blk. Top
Drive Left
908.75
428+00
896.10
Blk. Top
Prop. 24"
Ex. 24" Conc.
Ex. 12" Conc.
Ex. Conc.
890.3
894.5
895.0
897.0
896.5
890.5
890.6
896.2
890.9
STA. 427+50
STA. 427+50

X-SECTIONS STA. 428+00 TO STA. 429+85 S.R. 41

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

57
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T.	9-70	EAC	10-70				
TEMPLATE	D.T.	4-71	"	"				
DITCHES	"	"	"	"				
AREAS	EAC	8-72	"	"				
VOLUMES	~~EAC~~	8-72	"	"				
SEEDING	EAC	9-72	"	"				

SEEDING

END WIDTH	SQ. YDS
37	
0	
0	
0	
0	
78	
93	

8:1

909.24

909.97

Ahead Only

Include in Ramp

983

Ahead

Back

648

913.55
431+00
901.50

913.20
430+78
900.89

913.17
430+76.5
900.83

642

911.45
430+31
899.53

719

911.95
430+00
898.67

Sta. 429+85

Included in Ramp "F"

Included in Ramp "C" Quantities

Included in Ramp "C" Quantities

Ex. 24" Conc.

Ex. 24" Conc.

Ex. 24" Conc.

Ex. 24" Conc.

Ex. 24" Conc.

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
Ahead	0	1631		
Back	0	648		
			0	1648
	0	642		
	0	782		
	0	719		
	0	401		
Sta. 429+85	0	725		

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

X-SECTIONS STA 430+00 TO STA 431+00 S.R 41

SEEDING	
END WIDTH	SQ. YDS.

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T.	9-70	EAC	10-70				
TEMPLATE	D.T.	4-71	"	"				
DITCHES	"	"	"	"				
AREAS	EAC	8-72	MH	6-73				
VOLUMES	EAC	8-72	"	"				
SEEDING	EAC	9-72	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

58
174

MIAMI COUNTY
MIA - 75 - (9.17 - 9.35)
MIA - 41 - (11.16 - 11.38)

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

8:1
4:1
1461
916.31
433+00
908.14
Blk. Top
1454
915.84
432+50
906.70
Ahead Only
Back Included in Ramp "C" Quantities
1204
396
Ex. 24" Conc.
915.15
432+00
905.22
Included in Ramp "C" Quantities
1237
Ex. 24" Conc.
914.35
431+50
903.65
Sta. 431+00
Ex. 24" Conc.
Sta. 431+00
For X-Section Extensions See Sheet No. 59
For X-Section Extensions See Sheet No. 60

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
269	0	2617		
1500			11	4439
271	12	2178		
1511			92	3942
273	Ahead	87	2080	
1000	Back	0	1626	
87			0	2997
344			0	1610
37			0	3001
	Sta. 431+00	0	1631	

X-SECTIONS STA 431+50 TO STA 433+00 SR 41

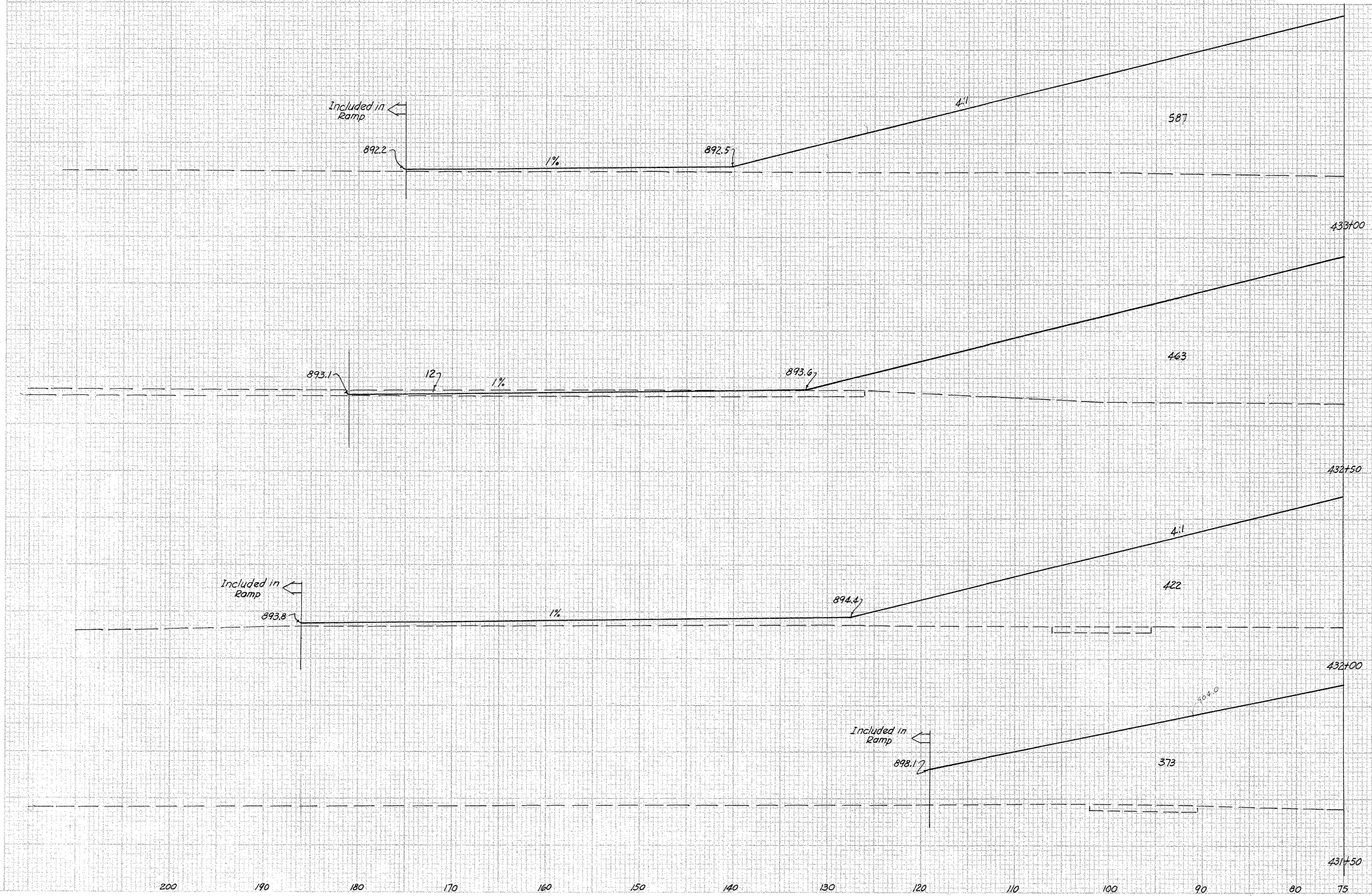
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

59
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

SECTIONS	
END AREA	VOLUME

END AREA		VOLUME	
CUT	FILL	CUT	FILL



X-SECTION EXTENSIONS LT. STA 431+50 TO STA 433+00 PROP. S.R. 41

SEEDING	
END WIDTH	SQ. YDS.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

60
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

END AREA		VOLUME	
CUT	FILL	CUT	FILL

70 80 90 100 110 120 130 140 150 160 170 180 190 200

433+00
900.2

4:1

569

Ex. 24"

Prop. 24"

432+50
904.8

4:1

261

432+50, 140' Rt.
Prop. #3 M.H.
Lid Elev. 892.0
Rt. Elev. 886.59

Ex. 24"

58

Prop. 24"

432+00
903.9

87

Included in Ramp 'C'

Prop. 24"

Excavation	1169 Cu.Yd.
Embankment	33519 Cu.Yd.
Seeding	11279 Sq.Yd.

70 80 90 100 110 120 130 140 150 160 170 180 190 200

X-SECTION EXTENSIONS PT STA 432+00 TO STA 433+00 PROP. S.R. 41

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T.	9-70	EAC	10-70				
TEMPLATE	"	"	"	"				
DITCHES	"	"	"	"				
AREAS	EAC	8-72	WM	6-75				
VOLUMES	EAC	8-72	"	"				
SEEDING	EAC	9-72	"	"				

FED. RD. DIVISION	STATE	PROJECT	
5	OHIO		

61
174

MIAMI COUNTY
MIA-75- (9.17-9.35)
MIA-41- (11.16-11.38)

SEEDING

END WIDTH	SQ. YDS.
151	
897	
172	
1206	
262	
1475	
269	

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

1079

3:1

916.43
434+50
911.08

3:1

1317

3.5:1

916.61
434+00
910.35

3.3:1

1372

4:1

916.57
433+50
909.39

3.6:1

For X-Section Extensions See Sheet No. 62

For X-Section Extensions See Sheet No. 63

Sta. 433+00

Sta. 433+00

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
6	1483		
		45	3289
48	2069		
		82	4150
40	2413		
		37	4658
0	2617		

X-SECTIONS STA 433+50 TO STA 434+50 S.R 41

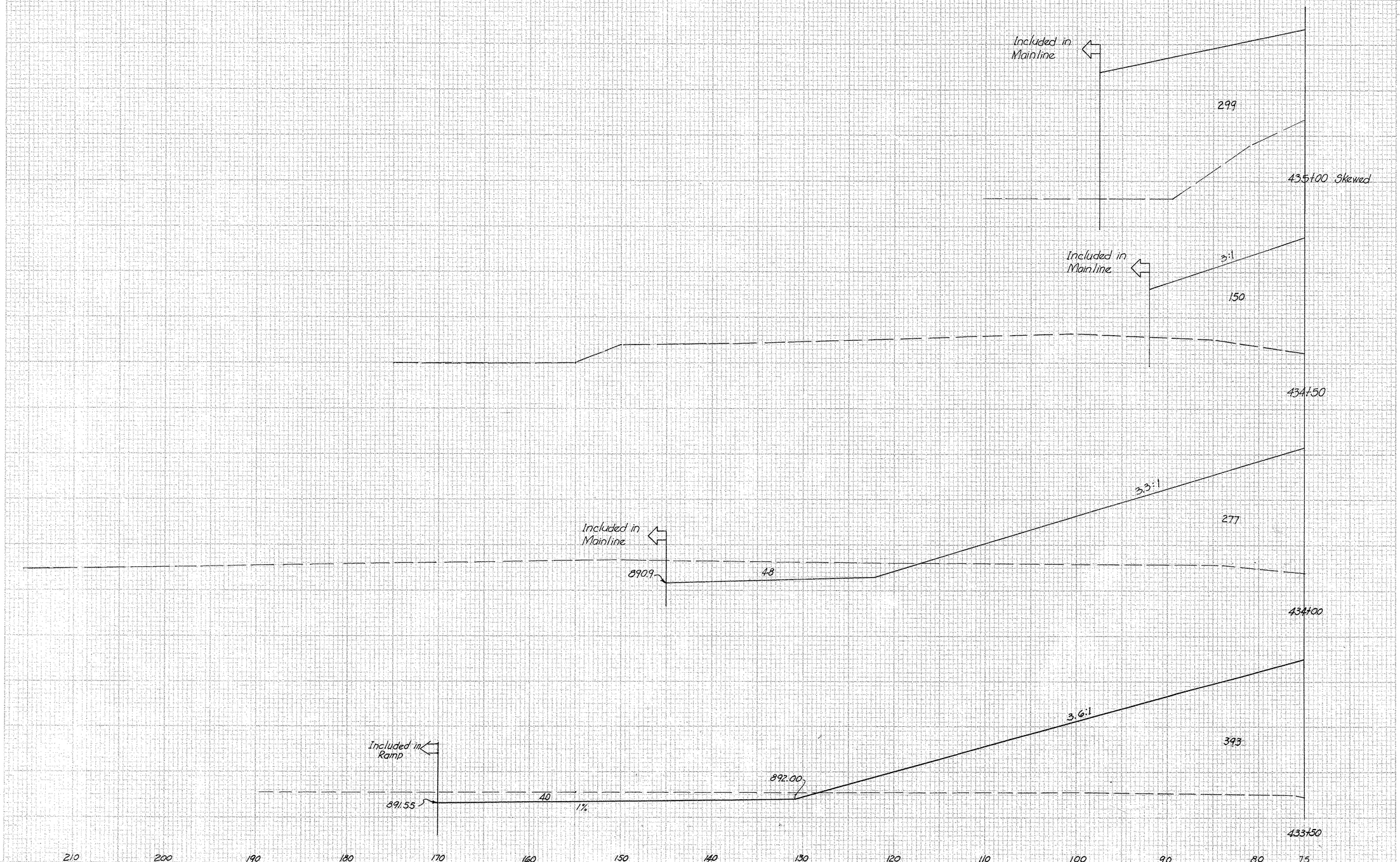
SCRIBING

END AREA	VOLUME
CUT	FILL

FED. HWY DIVISION	STATE	PROJECT	
2	OHIO		

62
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)



X-SECTIONS LT STA 433+50 TO STA 435+00 SR 41

SEEDING

SEED WIDTH	SQ. YDS.

70 80 90 100 110 120 130 140 150 160 170

FED. AID DIVISION	STATE	PROJECT	
2	OHIO		

63
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

END AREA		VOLUME	
CUT	FILL	CUT	FILL

435+00 Skewed

114

Drop 24"

254

3:1

434+50
893.6

Ex. 24"

3.5:1

475

434+00
894.0

Ex. 24"

4:1

648

433+50
896.2

Ex. 24"

Prop. 24"

70 80 90 100 110 120 130 140 150 160 170

X-SECTIONS EXTENSIONS STA. 433+50 TO STA. 435+00 PROP. S.R. 41

SEEDING	
END WIDTH	SQ. YDS

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T.	5-70	"	"				
TEMPLATE	"	"	"	"				
DITCHES	"	"	"	"				
AREAS	EAC.	8-72	WM.	6-15				
VOLUMES	EAC.	8-72	"	"				
SEEDING	"	"	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

64
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

Included in Ramp E

Included in I-75

Included with Sta. 437+81

Included in Main Line

Ahead Only

Back Only

907.15
438+50
906.79

909.07
438+00
908.22

909.73
437+81 Along Back Wall of
908.26 Bridge (Skewed)
Ahead Only

910.03
435+00 Along Back Wall of
910.83 Bridge (Skewed)
Back Only

See Sheet No. 62

See Sheet No. 63

Sta. 434+50

Sta. 434+50

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
Ahead Only	199	317		
			217	602
	35	333		
Ahead Only	22	239		
	28	347		
Back Only	0	1061		
			0	2356
	0	1483		

X-SECTIONS STA 435+00 TO STA 438+50 S.R. 41

SEEDING	
END WIDTH	SQ. YDS.
60	135
30	
	269
34	
64	
57	306
53	697
120	
131	811
161	

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T.	9-70	EAC	10-70				
TEMPLATE	"	"	"	"				
DITCHES	"	"	"	"				
AREAS	EAC	8-72	MH	6-75				
VOLUMES	EAC	8-72	"	"				
SEEDING	"	"	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

65
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

Ahead Only, Back Included in Ramp

Ahead
Back
889.37

7
8:1
5 Fill

896.99
441+00
897.17

52
60
70
25
Included in Ramp D

Add Lump Sum for Berm Excavation Ramp D

27
8 Fill

899.00
440+51
899.07

Ahead 440+62
Back 440+40

Meets Existing Ramp
4
70
80
90

1 Cut
1 Fill

901.05
440+00
900.48

47
8:1
4.8:1
188

Back Only, Ahead Included in Ramp

Ahead
Back

37
27
1 Cut
1 Fill

903.09
439+50
902.59

45
7:1

Included in Ramp
86
892.8
180
90
80
75

4.8:1
66
892.0
Included in 1-75
70
80
90

3
8:1
3.7:1
185

3.7:1
44
Included in 1-75
70
80
90

Ahead & Back
12 Fill

Back Only
23 Fill

905.12
439+00
904.52
End Full Depth
Begin Salvaged Pavement

42
4:1

Included in Ramp
141
891.0
Sta. 438+50

27
8:1
3.3:1
182

3.3:1
41
Included in 1-75
70
80
90

Sta. 438+50

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
Ahead	12	30		
Back	5	25		
			11	30
			106	
	7	8		
			11	248
	5	255		
			9	449
Ahead	4	230		
Back	137	233		
			298	434
Ahead	185	235		
Back	185	258		
			356	533
Sta. 438+50	199	317		

X-SECTIONS STA. 439+00 TO STA. 441+00 S.R. 41

SEEDING		BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
END WIDTH	SQ. YDS.								
EXISTING		D.T.	9-70	EAC	10-70				
TEMPLATE		"	"	"	"				
DITCHES		"	"	"	"				
AREAS		EAC	8-72	MH	6-75				
VOLUMES		EAC	8-72	"	"				
SEEDING		"	"	"	"				

FED RD. DIVISION	STATE	PROJECT	
2	OHIO		

66
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

END AREA		VOLUME	
CUT	FILL	CUT	FILL
7	11		
		19	33
13	24		
		19	40
7	19		
		18	46
12	30		45

Excavation 196 Cu.Yd.
Embankment 409 Cu.Yd.
Seeding 1399 Sq.Yd.

Porch

442+88
890.09
Walk Left

890.90
442+50
891.23

892.93
442+00
893.13

441+90
893.48

894.96
441+50
895.10

Sta. 441+00

X-SECTIONS STA. 441+50 TO STA. 442+88 S.R. 41

SEEDING	
END WIDTH	SQ. YDS

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T.	9-70	EAC	10-70				
TEMPLATE	"	"	"	"				
DITCHES	"	"	"	"				
AREAS	EAC	8-72	MH	6-75				
VOLUMES	EAC	8-72	"	"				
SEEDING	"	"	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

67
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

END AREA		VOLUME	
CUT	FILL	CUT	FILL

444+14.5
886.53
Walk Left (Skewed)

444+00
886.52
Drive Right

443+75
887.01

443+32
888.48
Zero Section

443+16
889.19
Walk Left

443+00
889.68

Porch
Walk
House
Walk

0		0	0
45		2	1
16		4	1
133		10	11
32	Sta. 442+50	7	11

X-SECTIONS STA 443+00 TO STA 444+14.5 S.R. 41

SEEDING

END WIDTH	SQ. YDS.

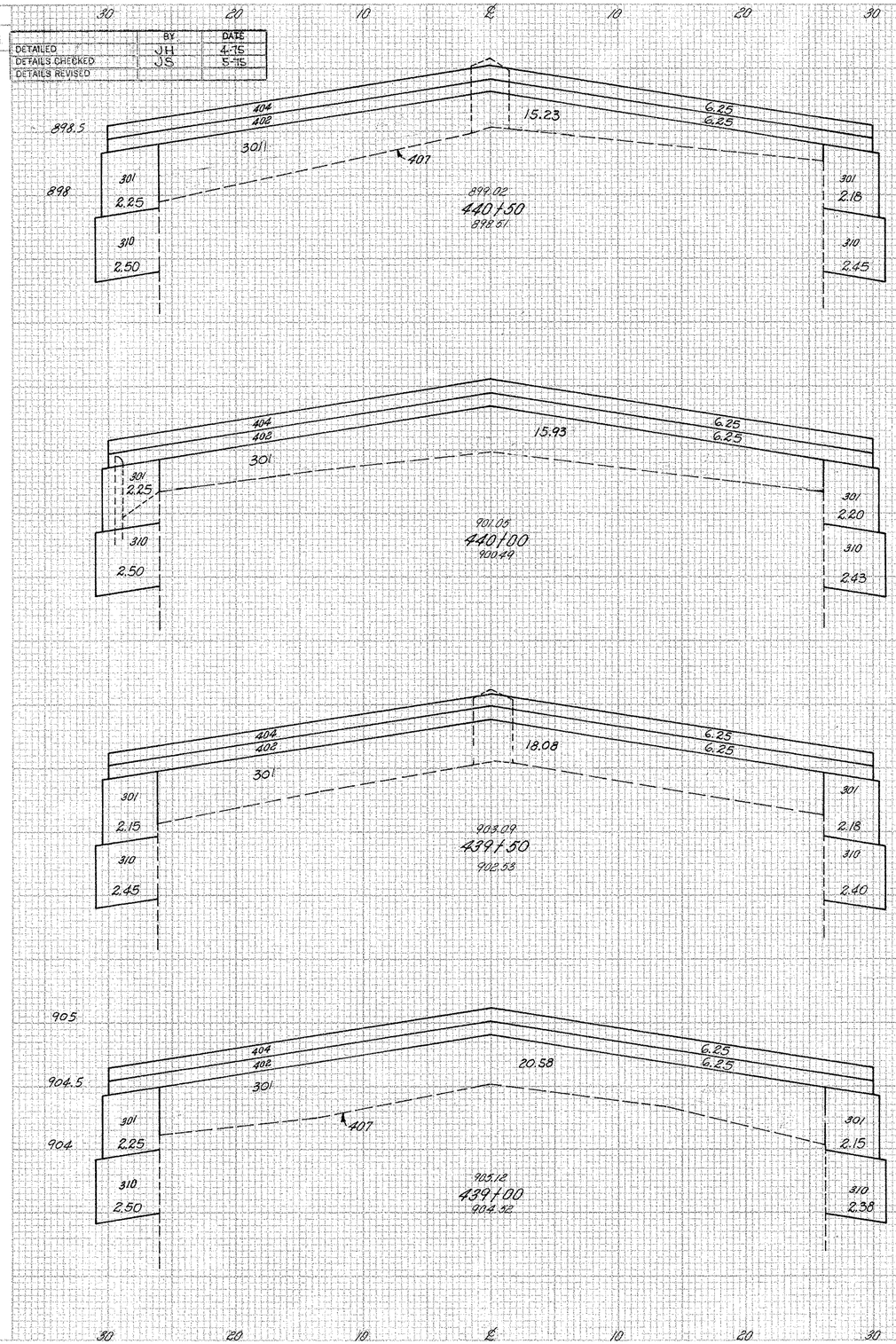
	BY	DATE
DETAILED	JH	4-15
DETAILS CHECKED	JS	5-15
DETAILS REVISED		

FED. RD. DIV.|SION	STATE	PROJECT	
2	OHIO		

GB
174

MIAMI COUNTY
MIA - 75 - (9.17 - 9.35)
MIA - 41 - (11.16 - 11.38)

END AREA		VOLUME	
CUT	FILL	CUT	FILL



EXAGGERATED X-SECTIONS STA. 439+00 TO 442+50 - S.R.-41

SEEMING

	BY	DATE
DETAILED	JH	4-75
DETAILS CHECKED	JS	5-75
DETAILS REVISED		

FED. AID DIVISION	STATE	PROJECT	
2	OHIO		

69
174

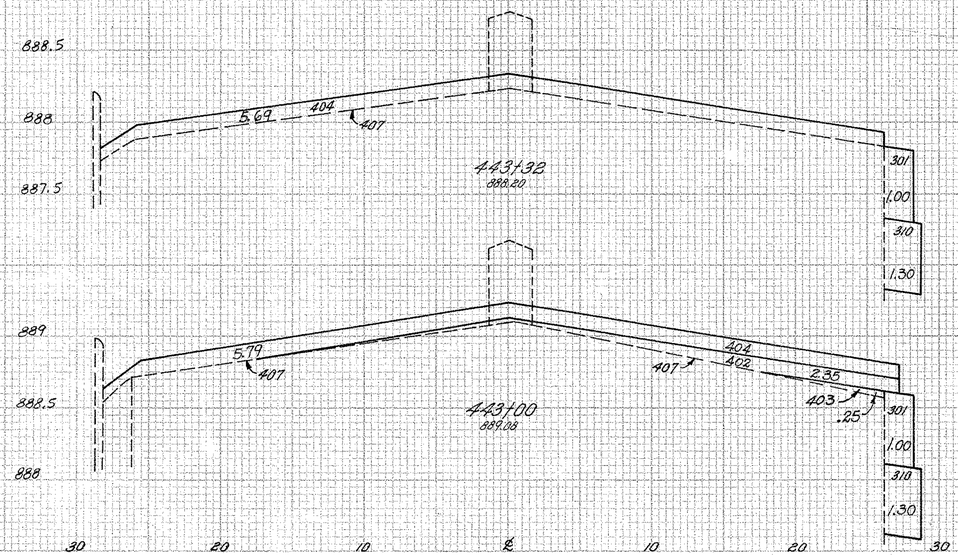
MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

STATION	404 Asphalt Concrete AC-20		402 Asphalt Concrete AC-20		301 Bituminous Aggregate Base		407 Bituminous Tack Coat		301 Bituminous Aggregate Base		310 Subbase		403 Leveling Course	
	Sq.Ft.	Cu.Yd.	Sq.Ft.	Cu.Yd.	Sq.Ft.	Cu.Yd.	Lin.Ft.	Gal.	Sq.Ft.	Cu.Yd.	Sq.Ft.	Cu.Yd.	Sq.Ft.	Cu.Yd.
439+00	6.25		6.25		20.58		52.5		4.40		4.88			
		11.57		11.57		35.80		29		8.08		9.01		
439+50	6.25		6.25		18.08		52.5		4.33		4.85			
		11.57		11.57		31.49		29		8.13		9.06		
440+00	6.25		6.25		15.93		52.4		4.45		4.93			
		11.57		11.57		28.85		29		8.22		9.15		
440+50	6.25		6.25		15.25		52.4		4.43		4.95			
		11.57		11.57		23.76		29		8.26		9.20		
441+00	6.25		6.25		10.43		52.3		4.49		4.99			
		11.57		11.57		20.66		29		8.17		9.11		
441+50	6.25		6.25		11.88		52.6		4.33		4.85			
		11.57		11.57		20.01		29		8.14		9.04		
442+00	6.25		6.25		9.73		52.3		4.46		4.91		9.73	
		2.77		2.77				7		1.75		1.96		3.52
442+12 Back	6.25		6.25				54.4		3.43		3.93		6.10	
442+12 Ahead	6.25		6.25				54.4		2.18		2.40		6.10	
		8.67		8.69				23		2.73		3.07		5.65
442+50	6.07		6.10				55.4		1.70		1.96		1.95	
		10.98		7.82				31		2.50		3.02		2.04
443+00	5.79		2.35				54.6		1.00		1.30		0.25	
		6.80		1.39				19		1.19		1.54		0.15
443+32	5.69		0				54.8		1.00		1.30		0	
					160.5				57.77					
TOTALS	98.64		90.09		218.3		2.54				64.16		11.36	

Totals carried to General Summary

407 Cover Aggregate 7 lbs/s.y. = 8.1 cu. yds.

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL



EXAGGERATED X-SECTIONS STA. 443+00 TO 443+32 ~ S.R.-41

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

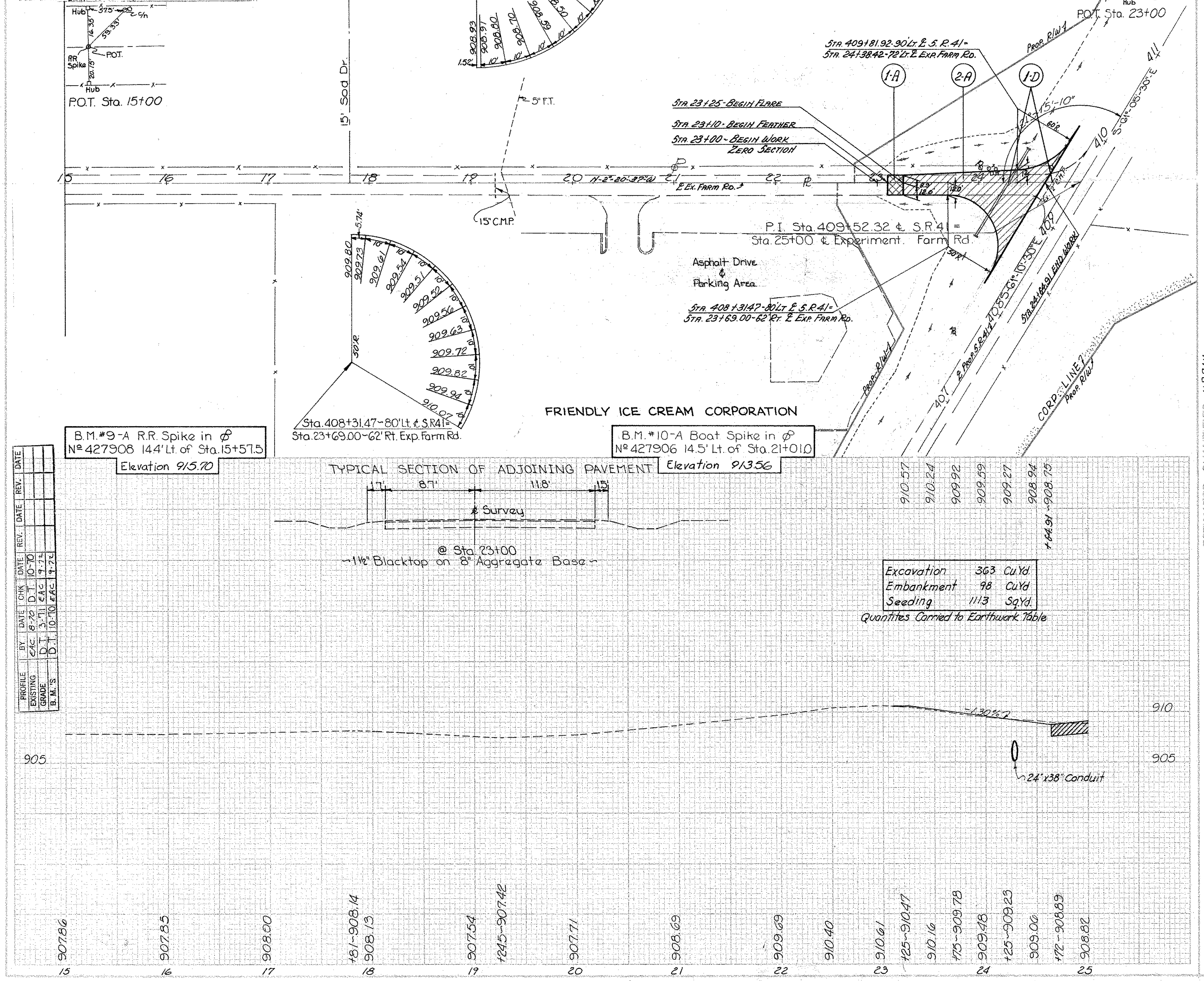
MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

EXPERIMENT FARM ROAD APPROACH

RUTH H. VON BARGEN

PLAN	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
TOPO	EAC	8-70	D.T.	10-70				
GEOMETRICS	DT	" "	EAC	9-72				
DITCHES	DT	" "	"	"				
STORM SEWERS	LLH	10-70	"	"				
CULVERTS	LLH	10-70	"	"				
PAV'T QUANT	LLH.	10-70	EAC	9-72				
WORK LIMITS	D.T.	10-70	EAC	" "				
PROP. R/W	RAA	10-70	EAC	" "				
DRAIN QUANT	LLH.	10-70	EAC	" "				

PROFILE	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	EAC	8-70	D.T.	10-70				
GRADE	D.T.	3-71	EAC	9-72				
B.M.'S	D.T.	10-70	EAC	9-72				



Sta. 409+81.92-90' Lt. ¢ S.R. 41=
Sta. 24+38.42-72' Lt. ¢ Exp. Farm Rd.
Hub
RR Spike
P.O.T.
P.O.T. Sta. 15+00
P.O.T. Sta. 23+00
15' Sod Dr.
5" F.T.
15" C.M.P.
Sta. 23+25 - Begin Flare
Sta. 23+10 - Begin Feather
Sta. 23+00 - Begin Work Zero Section
Sta. 409+81.92-90' Lt. ¢ S.R. 41=
Sta. 24+38.42-72' Lt. ¢ Exp. Farm Rd.
1-A
2-A
1-D
Prop. R/W
P.I. Sta. 409+52.32 ¢ S.R. 41 =
Sta. 25+00 ¢ Experiment. Farm Rd.
Asphalt Drive & Parking Area
Sta. 408+31.47-80' Lt. ¢ S.R. 41=
Sta. 23+69.00-62' Rt. ¢ Exp. Farm Rd.
Sta. 408+31.47-80' Lt. ¢ S.R. 41=
Sta. 23+69.00-62' Rt. Exp. Farm Rd.
Sta. 24+64.91 End Work
¢ Prop. S.R. 41
Corp. Line
Prop. R/W
FRIENDLY ICE CREAM CORPORATION
B.M. #9-A R.R. Spike in ¢
Nº 427908 144' Lt. of Sta. 15+57.5
Elevation 915.70
B.M. #10-A Boat Spike in ¢
Nº 427906 14.5' Lt. of Sta. 21+01.0
Elevation 913.56
TYPICAL SECTION OF ADJOINING PAVEMENT
¢ Survey
@ Sta. 23+00
1½" Blacktop on 8" Aggregate Base
Excavation 363 Cu. Yd.
Embankment 98 Cu. Yd.
Seeding 1113 Sq. Yd.
Quantities Carried to Earthwork Table
-1.30%
24"x38" Conduit
910
905
907.86
907.85
908.00
908.14
908.13
907.54
907.42
907.71
908.69
909.69
910.40
910.61
910.47
910.16
909.78
909.48
909.23
909.06
908.89
908.82
15
16
17
18
19
20
21
22
23
24
25

ESTIMATED QUANTITIES URBAN

REF. NO.	STATION TO STATION	SIDE	203 Sub-Grade Comp. Sq. Yds.	301 Bituminous Base Cu. Yds.	310 Sub-Base Cu. Yds.	402 Asphalt Concrete AC-20 Cu. Yds.	404 Asphalt Concrete AC-20 Cu. Yds.	407 Tack Coat Gals.	602 Concrete Masonry Cu. Yds.	603 38"x24" Type A 706.04 Cl. III Lin. Ft.	407 Cover Aggr. Cu. Yd.	202 Pipe Removed 24" & Under Lin. Ft.	SEE SHEET NO.
1-A	23+10 - 23+25	Lt. & Rt.					.60	3.47			0.1		
2-A	23+25 - 24+64.91	Lt. & Rt.	573.20	98.54	101.55	19.91	19.91						
1-D	24+29 ¢ 24+72±	Lt. & Rt.							1.00	102		46	73
TOTALS TO SUMMARY			573	99	102	20	21	3	1.00	102	0.1	46	

PLAN & PROFILE STA. 15+00 TO STA. 25 ¢ EXPERIMENT FARM ROAD APPROACH

SEEDING

END WIDTH	SQ. YDS
0	

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	EAC	9-70	D.T.	9-70				
TEMPLATE								
DITCHES								
AREAS								
VOLUMES								
SEEDING								

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

71
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		

23+00 Begin Work
910.61 Zero Section

22+50
910.40

22+00
909.69

21+00
908.69

20+00
907.71

19+24.5
907.42 Skewed on 15" C.M.P.

X-SECTIONS STA. 19+24.5 TO STA. 23+00 EXPERIMENTAL ROAD APPROACH

SEEDING	
END WIDTH	SQ. YDS.
52	135
45	206
103	278
97	218
60	158
54	75
0	

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	EAC	8-70	D.T.	9-70				
TEMPLATE	D.T.	3-71	EAC	" 72				
DITCHES	D.T.	3-71	EAC	" 72				
AREAS	EAC	9-72	WM	4-75				
VOLUMES	EAC	9-72	"	"				
SEEDING	EAC	9-72	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

72
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

Included In Mainline X-Sections

Included In Mainline X-Sections

Included In Mainline X-Sec

Included In Mainline X-Sections

2:1 Norm (8:1 Norm)
Headwall
905.5
908.94
24+50
909.06

906.0
909.27
24+25
909.23

906.5
909.39
24+00
909.48

907.1
908.92
23+75
909.78

907.2
910.24
23+50
910.16

908.3
Ahead Only
910.37
23+25 Begin Full Depth
910.47 End Feather
Sta. 23+10 Begin Feather

906.1
908.5
909.4
909.3

Sta. 23+00

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	56	19		
			56	17
	65	17		
			94	15
	137	16		
			89	15
	54	17		
			41	16
	35	17		
			28	16
Ahead	26	17		
Back	3	17		
			2	8
Sta. 23+00	0	0		

Excavation- 363 Cu. Yds.
Embankment- 98 Cu. Yds.
Seeding- 1113 Sq. Yds.

X-SECTIONS STA. 23+25 TO STA. 24+50 EXPERIMENTAL ROAD APPROACH

SEEDING

END WIDTH	SQ YDS

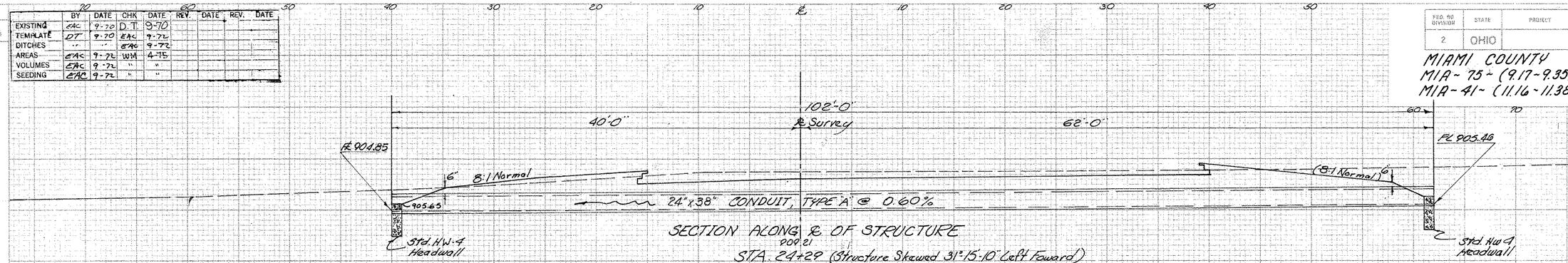
	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	EAC	9-70	D.T.	9-70				
TEMPLATE	DT	9-70	EAC	9-72				
DITCHES	"	"	EAC	9-72				
AREAS	EAC	9-72	WM	4-75				
VOLUMES	EAC	9-72	"	"				
SEEDING	EAC	9-72	"	"				

FED. HWY DIVISION	STATE	PROJECT	
2	OHIO		

73
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

END AREA		VOLUME	
CUT	FILL	CUT	FILL

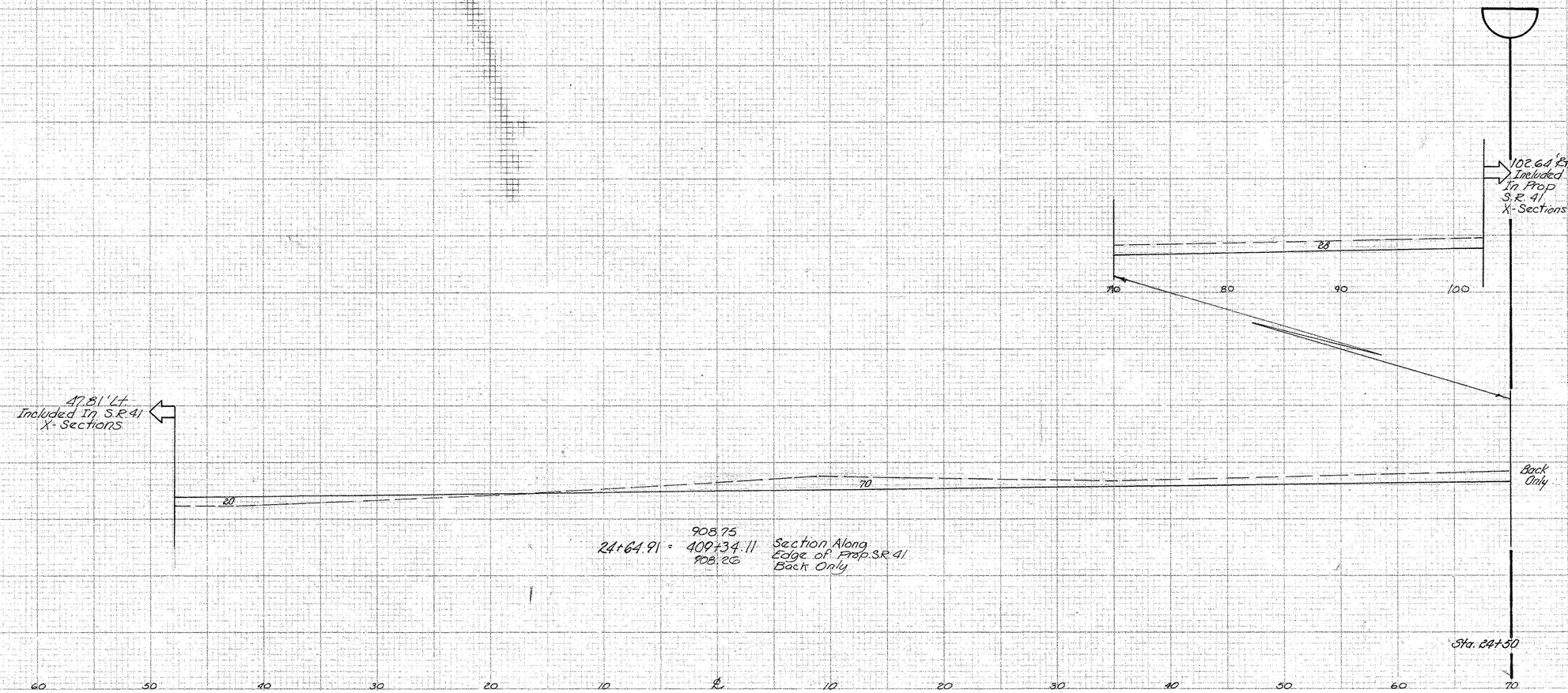


SECTION ALONG ℄ OF STRUCTURE
909.21
STA. 24+29 (Structure Skewed 31°15'10" Left Forward)
908.81

Drainage Area	30.6 Acres
Q10	37.5 cfs

ESTIMATED QUANTITIES

ITEM 602 Concrete Masonry 1.00 Cu Yds.
ITEM 603 24"x38" Conduit Type "A", 706.04, CL IIE II, 102 Lin. Ft



24+64.91 = 908.75 / 409+34.11 / 908.26 Section Along Edge of Prop. S.R. 41 Back Only

X-SECTIONS STA 24+64.91 TO EXPERIMENTAL ROAD APPROACH

MIAMI COUNTY
MIA - 75 - (9.17 - 9.35)
MIA - 41 - (11.16 - 11.38)

FED. DIV.	STATE	PROJECT	
5	OHIO		

74
174

Barn

RUTH H. VON BARGEN

We Stu
Fr. Ras

3" F.T.

30 Maple

Prop. R/W

For Detail & Quantity of Pipe Outlet See Sheet No. 40

Const. Line

15 16 17 18 S 61-21-41 E 19 Abandon? 20 21 22 LINE X-SECTIONS 23 24

BACK ONLY - AHEAD INCLUDED IN MAIN

Do Not Disturb

Ex 12" San ?

MH

Const. Line

Ex 12" San

Do Not Disturb

16" Water Line

Do Not Disturb ? MH

Ex. 12" San

STR. 15+25 AHEAD ONLY - BACK INCLUDED IN PROP. STANFIELD ROAD X-SECTIONS

TROY TOWN CO.

P.O.T. Sta. 23+00

P.K.

23.25'

25.78'

66.11'

55.6'

RUB RUB

S 61°-05'-30" E 419

420 ℄ SR 41

421

422

33°-32'-05"

30° CURVE

℄ SR 41

RUTH H. VON BARGEN

Prop. R/W

P.O.T. Sta 421+6735 ℄ S.R. 41 = Sta. 25+00 ℄ Stanfield Rd.

B.M. #20-A Boat Spike in ℗ 24.5' Lt. of Sta. 21+09.5

Excavation = 492 Cu Yd
Embankment = 645 Cu Yd
Seeding = 5409 Sq Yd

QUANTITIES CARRIED TO EARTHWORK TABLE

910
905
900
895

Ex. 3" FT

Ex. 12" San on Rt

15	16	17	18	19	20	21	22	23	24	25
908.75	908.75	908.39	908.25	908.18	908.05	907.86	907.73	907.61	907.44	906.81
	908.75		908.25							

906.04	904.95	903.72	902.77	901.83	900.90	900.18	899.49	898.87	898.75	898.76	898.57	898.30	898.16
									898.75		898.78	898.30	

PLAN & PROFILE STA. 15+00 TO STA. 25+00 EXISTING STANFIELD ROAD

ESTIMATED QUANTITIES

PLAN	BY	DATE	CHK	DATE
TOPO	EC	8-76	DT	9-76
GEOMETRICS	CJK	12-21	JJH	12-21
DITCHES	MH	1-25	CJK	5-24
STORM SEWERS	CJK	5-26	MH	4-15
CULVERTS	JJH	4-15	CJK	5-15
PAVT QUANT.	JJS	5-15	JJH	5-15
WORK LIMITS	JJL	6-24	JJS	6-24
ROW			CJK	7-24
DRAIN QUANT.				

PROFILE	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	EC	8-76	DT	9-76				
GRADE	EC	9-76	DT	10-76				

REF. SHEET NO.	STATION TO STATION	SIDE

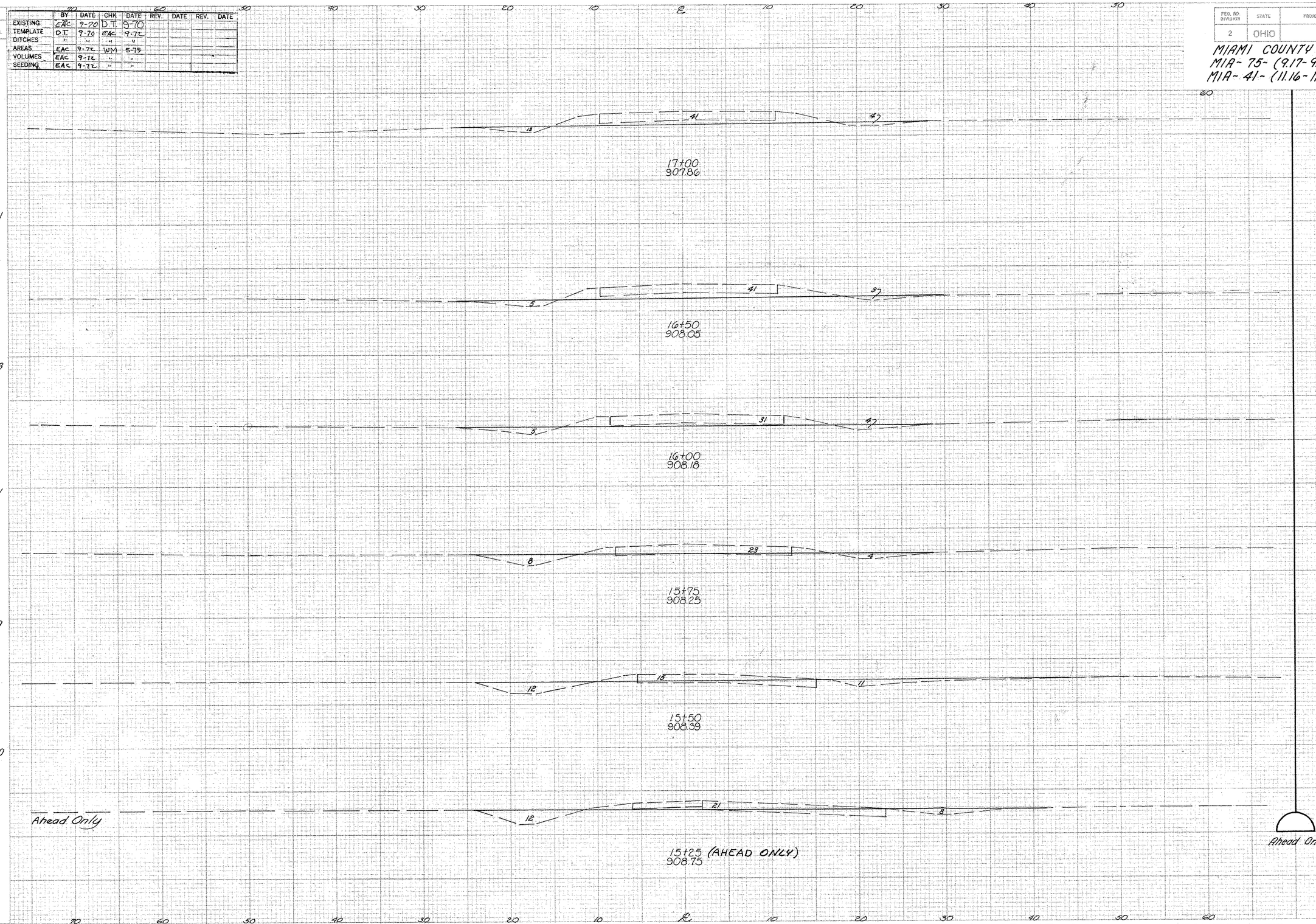
SEEDING	
END WIDTH	SQ. YDS.
58	331
61	333
59	161
57	179
72	190
65	

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	EAC	9-70	DT	9-70				
TEMPLATE	DT	9-70	EAC	9-72				
DITCHES	"	"	"	"				
AREAS	EAC	9-72	WM	5-73				
VOLUMES	EAC	9-72	"	"				
SEEDING	EAC	9-72	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

75
174

MIAMI COUNTY
MIA- 75- (9.17- 9.35)
MIA- 41- (11.16- 11.38)



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
17+00	41	7		
			76	14
16+50	41	8		
			67	16
16+00	31	9		
			25	10
15+75	23	12		
			18	16
15+50	15	22		
			17	20
15+25 (AHEAD ONLY)	21	20		

X - SECTIONS STA. 15+25 TO STA. 17+00 EXIST STANFIELD RD.

SEEDING			BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
END WIDTH	SQ. YDS.	EXISTING	EAC	9-70	DT	9-70				
		TEMPLATE	DT	9-70	EAC	9-72				
		DITCHES	"	"	"	"				
		AREAS	EAC	9-72	WM	5-75				
		VOLUMES	EAC	"	"	"				
		SEEDING	EAC	"	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

76
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

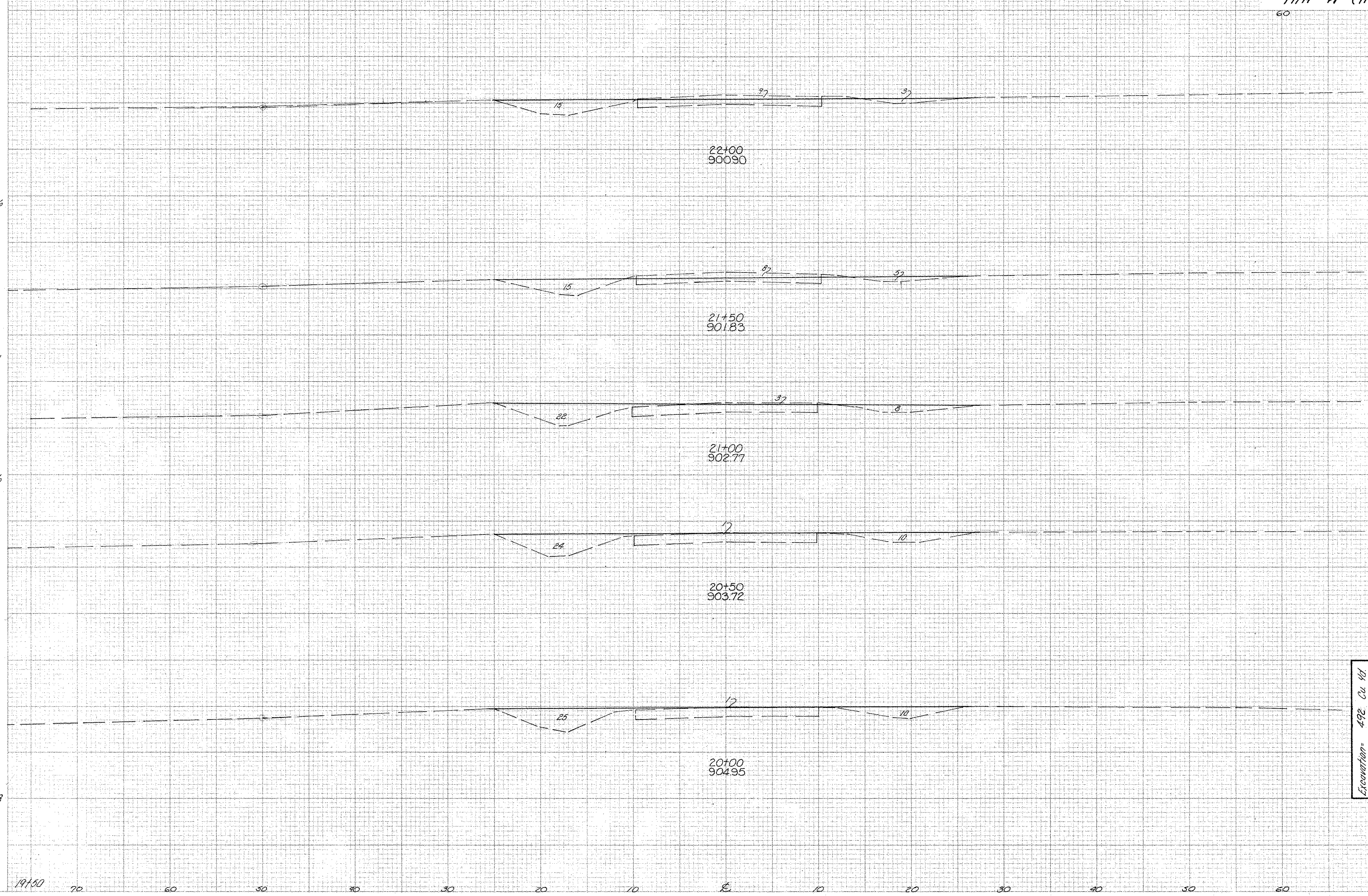
		19+50	18+50	18+00	17+50	17+00
END AREA	CUT	0	9	18	25	30	41
	FILL	46	29	21	15	13	7
VOLUME	CUT		9	40	51	66	
	FILL		70	34	26	19	

X-SECTIONS STA. 17+50 TO STA. 19+50 EXIST. STANFIELD RD.

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	EAC	9-70	D.T.	9-70				
TEMPLATE	D.T.	9-70	EAC	9-72				
DITCHES	"	"	"	"				
AREAS	EAC	9-72	WM	5-75				
VOLUMES	EAC	"	"	"				
SEEDING	EAC	"	"	"				

FED. RD. DIVISION	STATE	PROJECT		SHEET
2	OHIO			77/174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)



Station	SEEDING End Width	SEEDING Sq. Yds.	END AREA Cut	END AREA Fill	VOLUME Cut	VOLUME Fill
22+00	55		9	18		
		306			16	35
21+50	55		8	20		
		311			10	47
21+00	57		3	30		
		316			4	60
20+50	57		1	34		
		311			2	64
20+00	55		1	35		
		308			1	75
19+50	56		0	46		

Excavation = 492 Cu. Yd.
Embankment = 645 Cu. Yd.
Seeding = 5409 Sq. Yd.

QUANTITIES CARRIED TO SHEET No 74

X-SECTIONS STA 20+00 TO STA 22+00 EXIST STANFIELD RD.

SEEDING	
END WIDTH	SQ. YDS
0	
29	
21	
83	
39	
308	
72	
353	
55	
306	
55	

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	EAC	9-70	D.T.	9-70				
TEMPLATE	D.T.	9-70	EAC	9-72				
DITCHES	"	"	"	"				
AREAS	EAC	9-72	WM	5-75				
VOLUMES	EAC	9-72	"	"				
SEEDING	EAC	9-72	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

78
174

MIAMI COUNTY
MIA - 75 - (9.17 - 9.35)
MIA - 41 - (11.16 - 11.38)

24+00 ZERO SECTION
898.76

Included in Main Line X-Sections

23+75
898.75

Included in Main Line X-Sections

23+50
898.87

Included In Mainline X-Sections

23+00
899.49

22+50
900.18

Back Only

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
22+00	9	18		
			11	34
	3	18		
			13	34
	11	18		
			27	19
	18	2		
			11	3
	6	4		
			3	2
24+00	0	0		

X-SECTIONS STA. 22+50 TO STA. 24+00 EXIST. STANFIELD RD.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		79/174

PLAN	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
TOPO								
GEOMETRICS								
DITCHES								
STORM SEWERS								
CULVERTS								
PAV'T QUANT								
WORK LIMITS								
PROP. R/W								
DRAIN QUANT								

PROFILE		DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	JTS	1-71	CEK	2-71				
GRADE	JH	1-71	CEK	2-71				
B.M.'S	CEK	1-71	JH	2-71				

PLAN	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
TOPO	EAC	9-70	D.T.	10-70				
GEOMETRICS	EC	10-71	JH	5-75				
DITCHES	"	"	"	"				
STORM SEWERS	JH	3-71	JS	4-71				
CULVERTS								
PAV'T QUANT	JS	5-75	JH	6-75				
WORK LIMITS	JH	4-75	JS	4-75				
PROP. R/W	JL	6-74	CK	7-74				
DRAIN QUANT								

PROFILE	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	EAC	2-70	D.T.	10-70				
GRADE	"	"	"	"				
B.M.'S	"	"	"	"				

ESTIMATED QUANTITIES URBAN

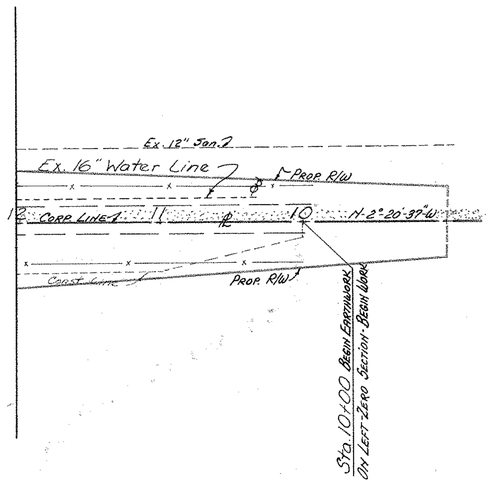
REF NO	STATION TO STATION	SIDE	402 Asphalt Conc. AC-20 Cu. Yds.	407 Tack Coat Gals	404 Asphalt Conc. AC-20 Cu. Yds.	602 Concrete Masonry Cu. Yds.	601 Rock Chann. Type "B" Cu Yds	601 Riprap 6" Reinf. Conc. Slab Sq Yds	202 Pipe Removed 24"& Under Lin Ft.	603 Type F 10" Lin. Ft.	603 Type A, 706.04 Class HE II 53"x34" Lin. Ft.	407 Cover Aggr. cu yd	301 Bituminous Base Cu. Yds.	310 Subbase Cu. Yds.	203 Subgrade Compaction Sq. Yds.	SEE SHEET NO.
1-A	12+85 - 13+00	Lt & Rt.		3.33	0.58							0.1				
2-A	20+01.14 - 20+97.29	" "	16.57		16.57								83.30	83.90	477.37	
2-D	20+00	Lt & Rt.				3.32	9.01	28			120					84
1-D	14+13 - 14+20	Lt.							6	10						
	TOTALS TO SUMMARY		16.5	3.3	17.2	3.32	9	28	6	10	120	0.1	83.3	84.0	477	

PLAN & PROFILE STA. 12+00 TO STA. 21+32.35 ℄ PROP. STANFIELD ROAD APPROACH

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

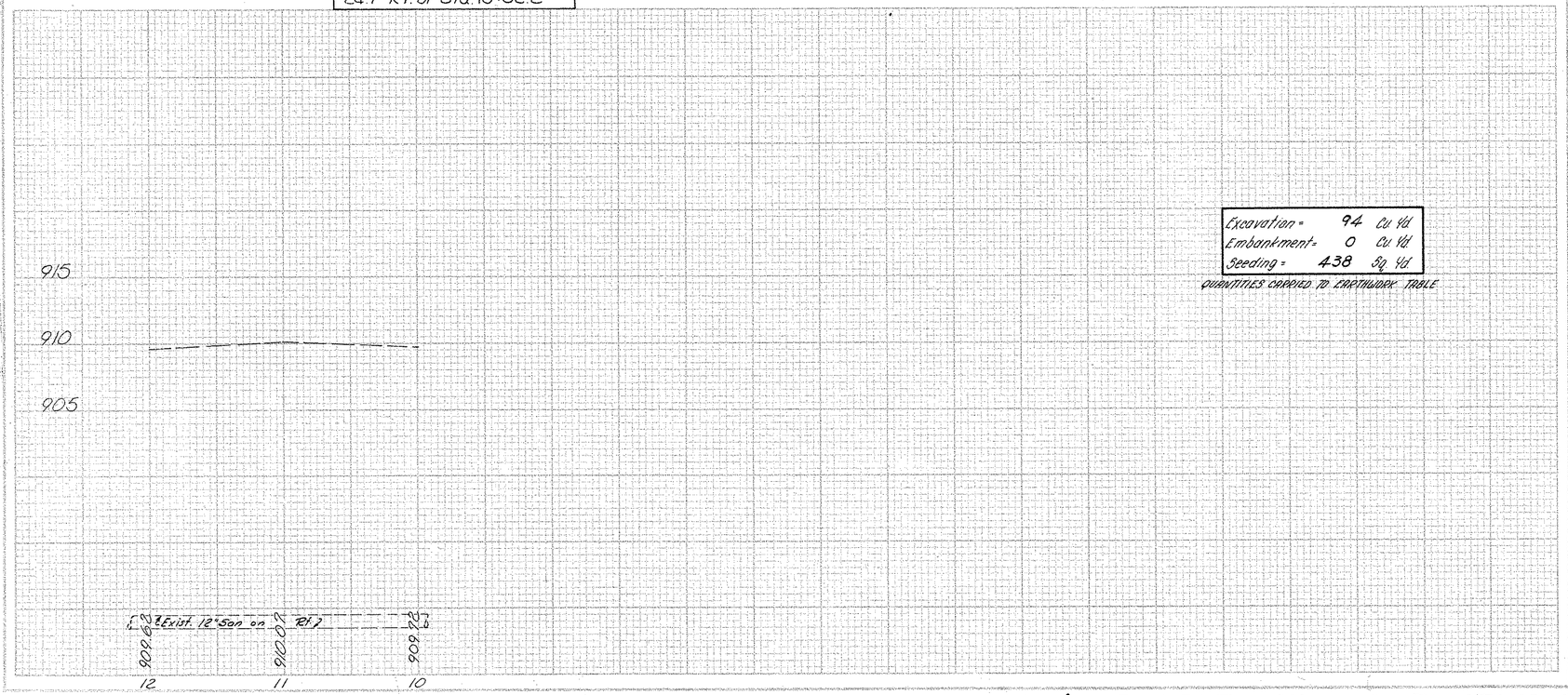
FED. RD. DIVISION	STATE	PROJECT		80 / 174
5	OHIO			

TROY TOWN CO.



RUTH H. VON BARGEN

B.M.#18-A Boat Spike in ℘
24.7' Rt. of Sta. 10+32.2



Excavation =	94	Cu Yd
Embankment =	0	Cu Yd
Seeding =	438	Sq Yd

QUANTITIES CARRIED TO EARTHWORK TABLE

ESTIMATED QUANTITIES

REF NO	STATION TO STATION	SHT

TOTALS

PLAN	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
TOPO	E.C.	8-19	D.T.	10-19				
GEOMETRICS								
DITCHES								
STORM SEWERS								
CULVERTS								
PVMT QUANT								
MISC. ITMS	J.H.	5-75	J.S.	5-75				
MISC. ITMS	J.L.	6-74	C.L.	10-74				
REMK QUANT								

PROFILE	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING GRADE	E.C.	9-10	D.T.	10-19				
EL. ☒								

PLAN & PROFILE STA. 10+00 TO STA. 12+00 & STANFIELD ROAD APPROACH

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	EAC	9-70	D.T.	9-70				
TEMPLATE	D.T.	4-71	EAC	10-72				
DITCHES	D.T.	4-71	EAC	10-72				
AREAS	EAC	10-72	WM	5-75				
VOLUMES	EAC	10-72	"	"				
SEEDING	EAC	10-72	"	"				

FED RD DIVISION	STATE	PROJECT	
2	OHIO		

81/174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

SEEDING
END WIDTH
SQ. YDS
END AREA
VOLUME
CUT
FILL
61
164
57
242
30
158
27
294
26
144
0
4:1
40
4:1
9
1'11'7
25
1'11'7
8
4:1
32
6:1
909.63
13+25
909.60
906.1
907.2
68 17
62 14
Ahead Only
4:1
38
4:1
8
1'11'7
25
1'11'7
5
4:1
27
6:1
909.67
13+00 End Feather-Begin Full Depth
909.57 Pavement Ahead - Begin Flare
906.2
907.3
Ahead 65 13
Back 40 13
Sta. 12+85 Begin Feather
62 16
3.5:1
27
4.6:1
4
906.3
12+50 Begin Work on Right
909.56
27 4
37 4
3:1
13
4:1
906.4
12+00
909.62
13 0
59 0
3:1
19
3.4:1
906.5
11+00
910.07
19 0
35 0
906.6
10+00 Begin Work (Left Only)
909.72 Zero Section
0 0
Excavation = 94 Cu. Yd.
Embankment = 0 Cu. Yd.
Seeding = 438 Sq. Yd.
QUANTITIES CARRIED TO SHEET NO.

X-SECTIONS STA. 10+00 TO STA. 13+25 PROP. STANFIELD RD. APPROACH

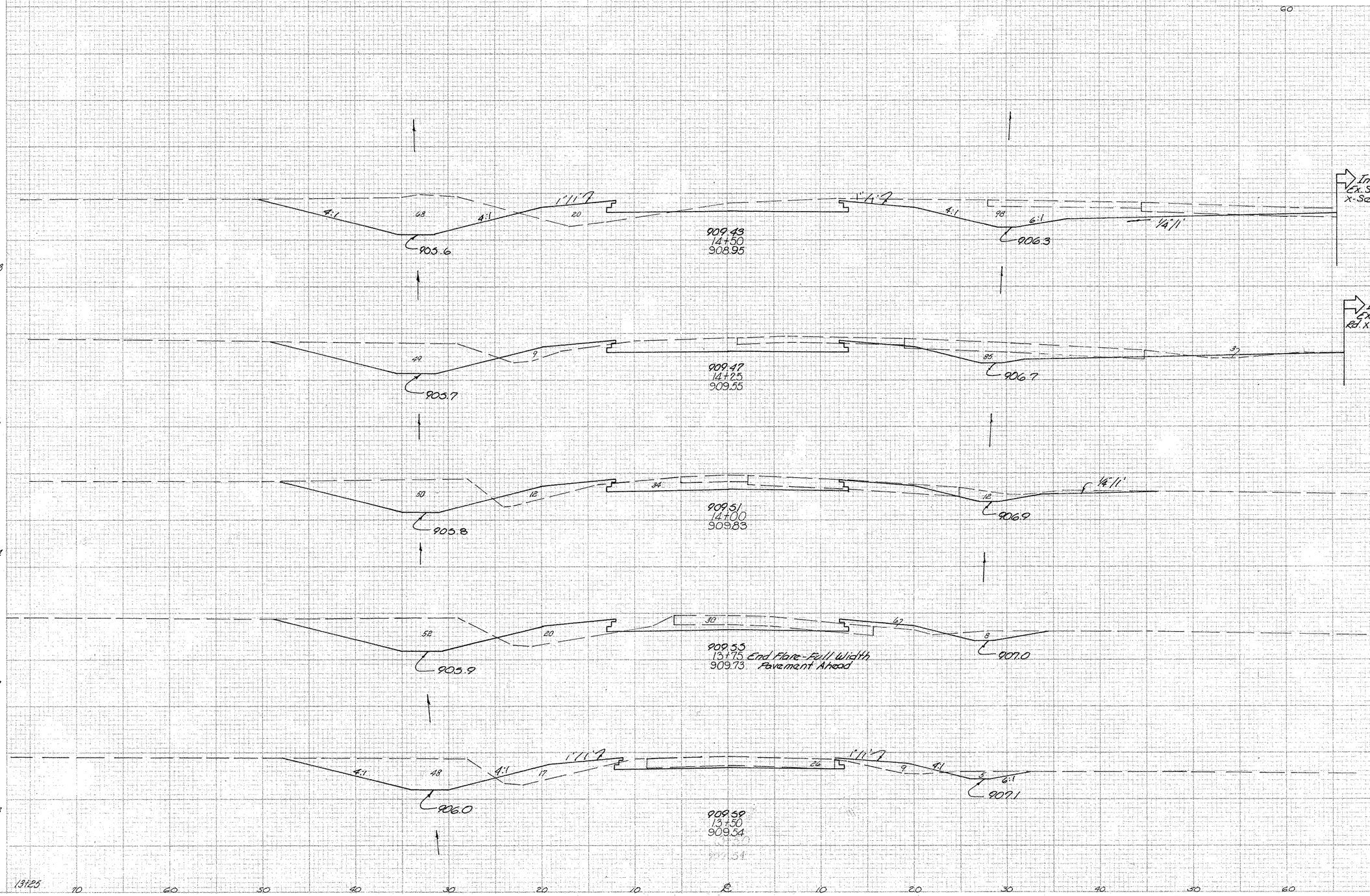
SEEDING	
END WIDTH	SQ. YDS
95	263
95	236
76	194
64	178
64	173
61	

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	EAC	9-70	D.T.	9-70				
TEMPLATE	D.T.	4-71	EAC	10-72				
DITCHES	D.T.	4-71	EAC	10-72				
AREAS	EAC	10-72	WM	5-73				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

82
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)



END AREA		VOLUME	
CUT	FILL	CUT	FILL
166	20		
		139	15
135	12		
		107	11
96	12		
		86	18
90	26		
		83	24
79	26		
		68	20
68	17		

X-SECTIONS STA. 13+50 TO STA. 14+50 PROP. STANFIELD RD. APPROACH

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T.	10-70	EAC	10-90				
TEMPLATE	D.T.	4-71	"	10-72				
DITCHES	D.T.	4-71	"	10-72				
AREAS	EAC	10-72	WM	6-75				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

83/174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-75-(11.16-11.38)

SEEDING

END WIDTH	SQ. YDS
85	469
84	467
84	458
81	497
98	217
97	320
95	

905.0 — 4:1 — 1H:1V — 205 — 1H:1V — 4:1 — 905.0
909.04
17+00
909.09

905.1 — 202 — 905.2
909.12
16+50
909.19

905.2 — 150 — 46 — 905.5
909.20
16+00
909.19

905.3 — 132 — 38 4:1 — 905.7
909.27
15+50
908.79

905.4 — 84 — 25 — 27 — 41 6:1 — 1V:7H — 905.9
909.35
15+00
908.89

905.5 — 4:1 — 75 — 4:1 — 1H:1V — 32 — 1H:1V — 11 — 4:1 — 6:1 — 1V:4H — 26 — 906.0
909.38
14+80
909.39

Included In Ex. Stanfield Road X-Sections

Included In Ex. Stanfield Rd. X-Sections

Excavation = 4749 Cu Yd
Embankment = 377 Cu Yd
Seeding = 7908 Sq Yd
QUANTITIES CARRIED TO SHEET No. 19

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
205	0		
		377	0
202	0		
		369	0
196	0		
		339	1
170	1		
		297	4
150	3		
		96	15
110	37		
		153	32
166	20		
166	20		

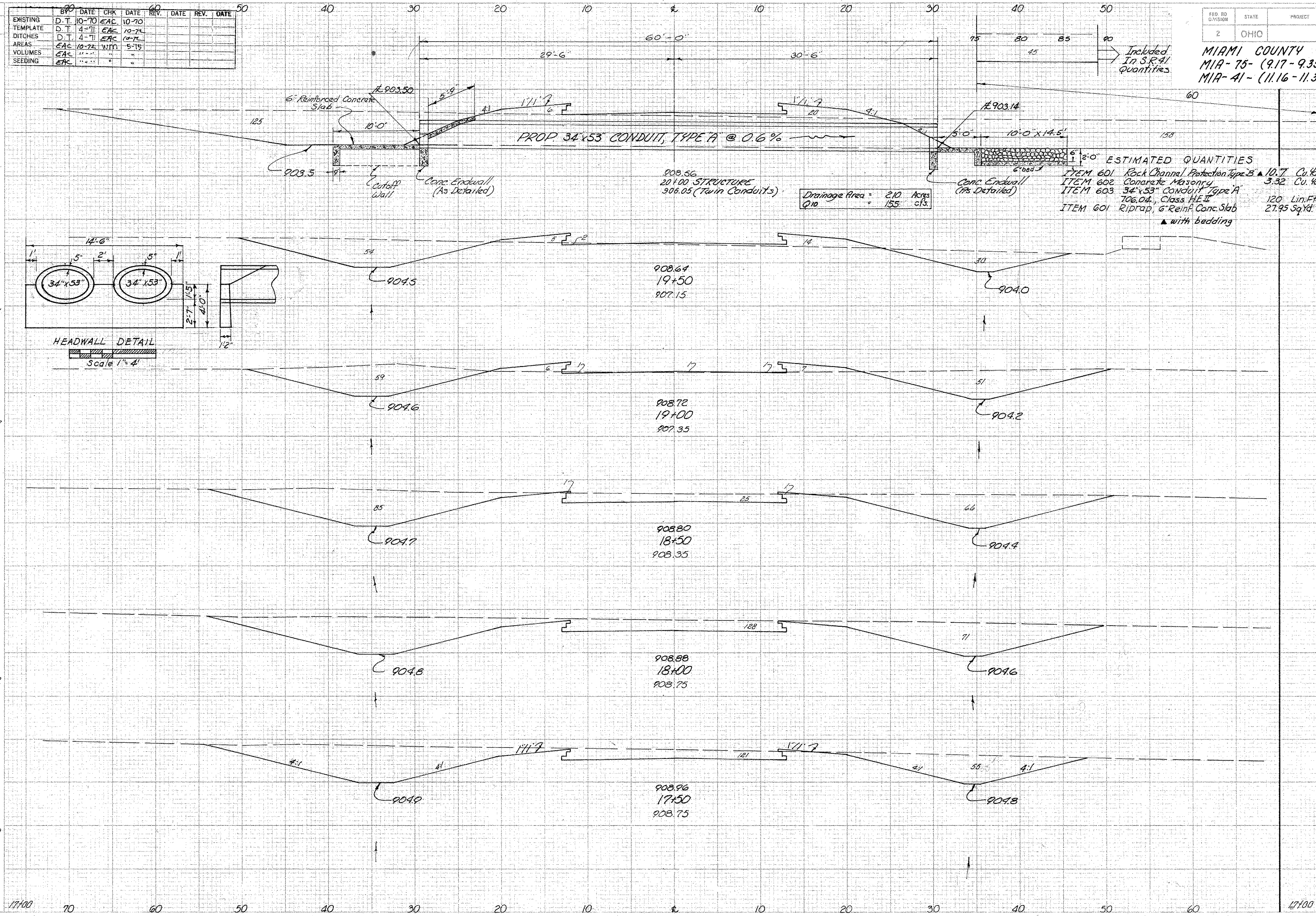
X-SECTIONS STA 14+80 TO STA 17+00 ℄ PROP. STANFIELD ROAD APPROACH

	FED. RD. DIVISION	STATE	PROJECT	
	2	OHIO		84/174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T.	10-70	EAC	10-70				
TEMPLATE	D.T.	4-71	EAC	10-72				
DITCHES	D.T.	4-71	EAC	10-72				
AREAS	EAC	10-72	WM	5-75				
VOLUMES	EAC	"	"	"				
SEEDING	EAC	"	"	"				

SEEDING END WIDTH	SEEDING SQ. YDS.
140	
	606
78	
	444
82	
	467
86	
	478
86	
	472
84	
	469
84	



ESTIMATED QUANTITIES

ITEM	DESCRIPTION	QUANTITY
ITEM 601	Rock Channel Protection Type "B" ▲	10.7 Cu. Yds.
ITEM 602	Concrete Masonry	3.32 Cu. Yds.
ITEM 603	34"x53" Conduit Type "A" 706.04, Class HE II	120 Lin. Ft.
ITEM 601	Riprap, 6" Reinf. Conc. Slab	27.95 Sq. Yd.

▲ with bedding

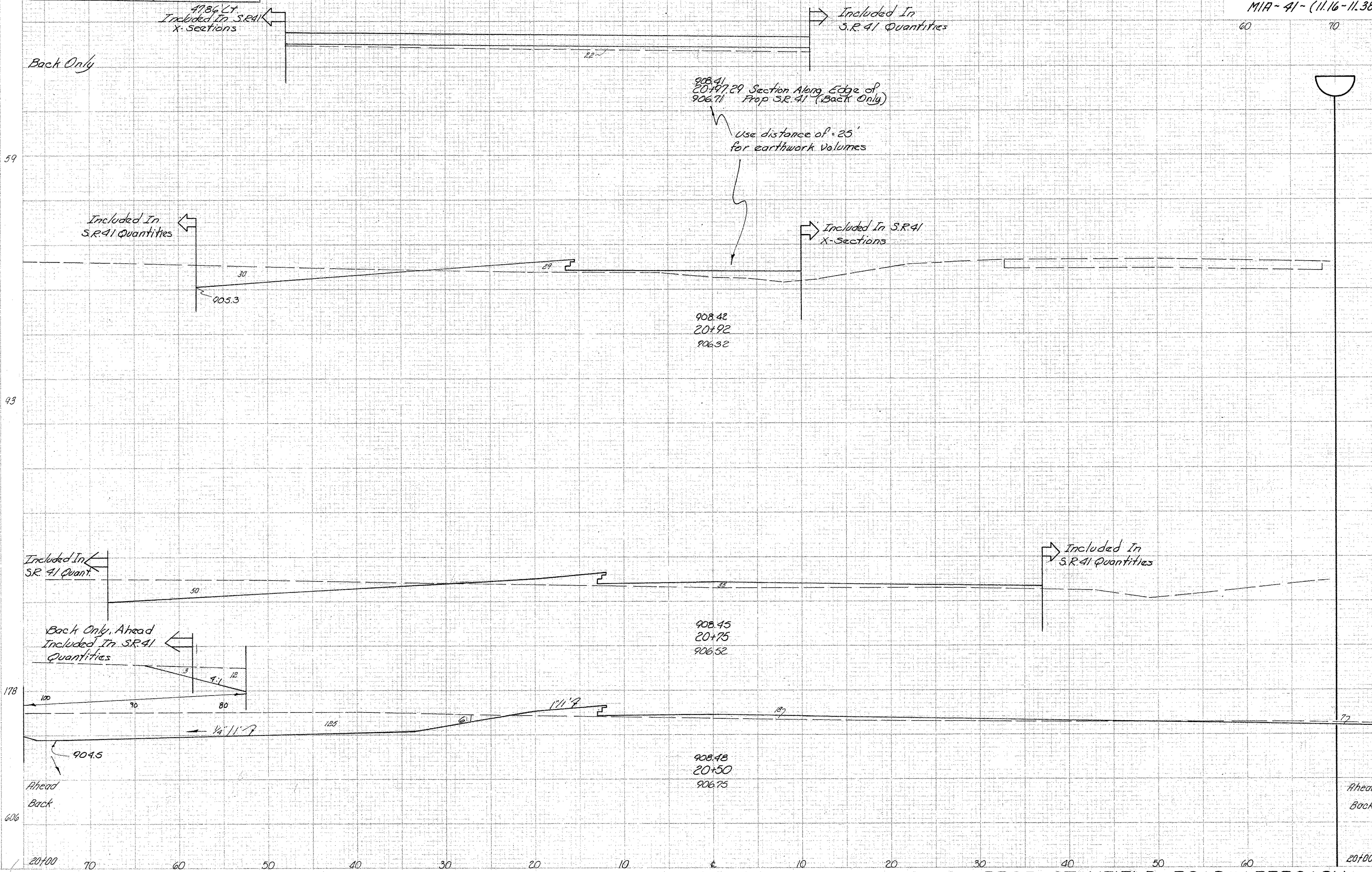
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
328	26		
		384	42
86	19		
		184	31
112	14		
		267	15
176	2		
		347	2
199	0		
		347	1
176	1		
		353	1
205	0		

X-SECTIONS STA 17+50 TO STA 20+00 ℄ PROP. STANFIELD ROAD APPROACH

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	D.T	10-70	EAC	10-70				
TEMPLATE	D.T.	10-70	EAC	10-72				
DITCHES	"	"	"	"				
AREAS	EAC	10-72	WM	5-75				
VOLUMES	"	10-72	"	"				
SEEDING	"	10-72	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		85/174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)



Seeding (End Width / Sq. Yds.)	Station	End Area Cut	End Area Fill	Volume Cut	Volume Fill
0	20+97.29	0	22		
59				14	24
43	20+92	30	29		
93				25	21
56	20+75	50	35		
178				90	25
72	20+50 Ahead	144	18		
78	20+50 Back	147	18		
606				440	41
140	20+00	328	26		

X-SECTIONS STA 20+50 TO STA 20+92 ℄ PROP. STANFIELD ROAD APPROACH

INTERCHANGE EXISTING S.R. 41 & EXIST. I.R. 75

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

86/174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

	BY	DATE
DETAILED	JS	4-71
DETAILS CHECKED	JH	4-75
DETAILS REVISED	JH	4-75

CURVE DATA
P.I. = 5+88.40 (F)
Δ = 29°-28'-42" Lt.
D = 6°20'
R = 904.67'
Ls = 200'
Θs = 6°20'
p = 1.84'
k = 99.96
Xc = 199.76
Yc = 7.36'
Δc = 16°48'42"
Lc = 265.45'
Ts = 338.44'
Es = 32.68'

CURVE DATA
P.I. Sta. 3+21.93(E)
Δ = 42°-59'-15" Lt.
D = 11°
R = 520.87'
Ls = 150'
Θs = 8.25°
p = 1.80'
k = 74.95'
Xc = 149.69'
Yc = 7.19'
Δc = 34°-44'-15"
T1 = 207.75'
T2 = 278.13'
Lc = 315.80'

CURVE DATA
P.I. Sta. 9+48.46 (E)
Δ = 29°-51'
R = 716.20'
Ls = 200'
D = 8°
Θs = 8°
p = 2.33'
k = 99.93'
Xc = 199.61'
Yc = 9.30'
Δc = 13°-51'
Ts = 291.45'
Es = 27.42'
Lc = 173.13'

CURVE DATA
P.I. Sta. 6+89.32 (C)
Δc = 73°-23'-51.77"
Rc = 345.31'
Lc = 442.35'
Xc = 198.33'
Dc = 16°-35'-33.23"
Ta = 444.97'
Ls = 200'
Yc = 19.19'
Tb = 350.06'
k = 99.72'
p = 4.81'

CURVE DATA
P.I. Sta. 14+40.29 (C)
Δc = 34°-21'-23.44"
Rc = 636.62'
Lc = 381.74'
T = 196.80'
Dc = 9°
Lsb = 200'
Ycb = 199.51'
Ycb = 10.45'
Pb = 2.62'
Kb = 99.92'
Lsa = 300'
Yca = 298.33'
Ya = 23.47'
Pa = 5.88'
Ka = 149.75'

EXIST. I.R. 75 & EXIST. S.R. 41 INTERCHANGE

EXISTING I.R.-75 & S.R.-41 INTERCHANGE GRADING LAYOUT

FHWA REGION	STATE	PROJECT		
5	OHIO			

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

	BY	DATE
DETAILED	JS	5-75
DETAILS CHECKED	MH	7-75
DETAILS REVISED	JH	7-75

EXISTING I.R.-75 & S.R.-41 INTERCHANGE GRADING LAYOUT

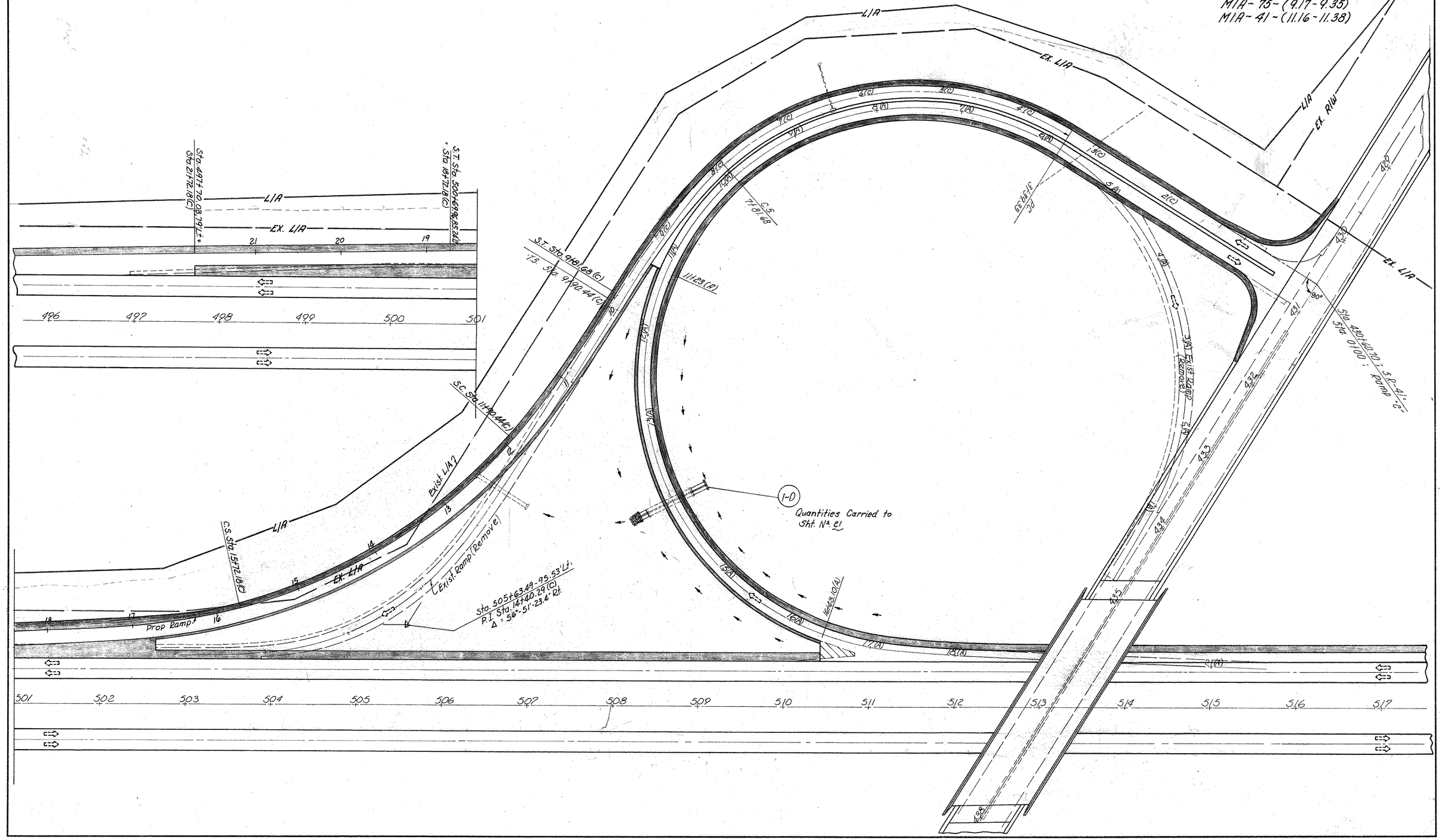
	BY	DATE
DETAILED	DT	9-70
DETAILS CHECKED	JS	10-71
DETAILS REVISED	JS	2-75

RAMP "A" · I.R.-75 & S.R.-41 INTERCHANGE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

88
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)



RAMP "A" · I.R.-75 & S.R.-41 INTERCHANGE

SEEDING

SEED WIDTH	SEED YDS.
121	59
645	111
561	91
483	83
411	65

Earthwork W.M. 18-75
Seeding W.M. 18-75
Volumes W.M. 18-75

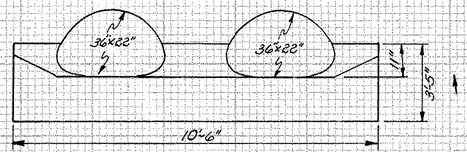
FED. AID DIVISION 2 | STATE OHIO | PROJECT

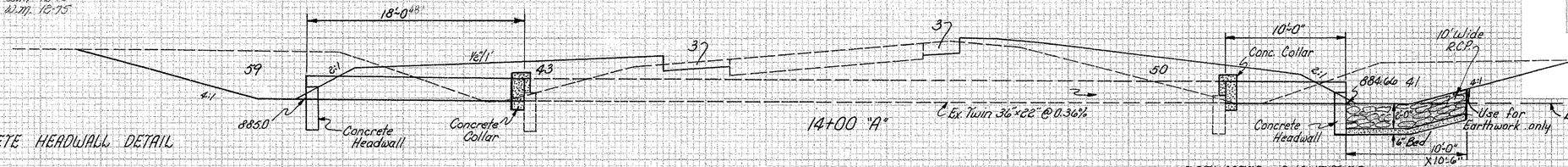
88-A
174

MIAMI COUNTY
MIA.-75-(9.17-9.35)
MIA.-41-(11.16-11.38)

W.M.-18-75

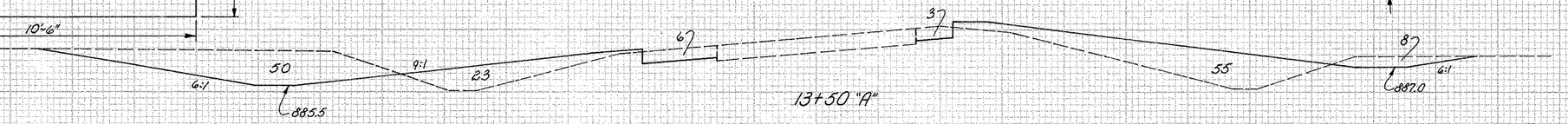
CONCRETE HEADWALL DETAIL

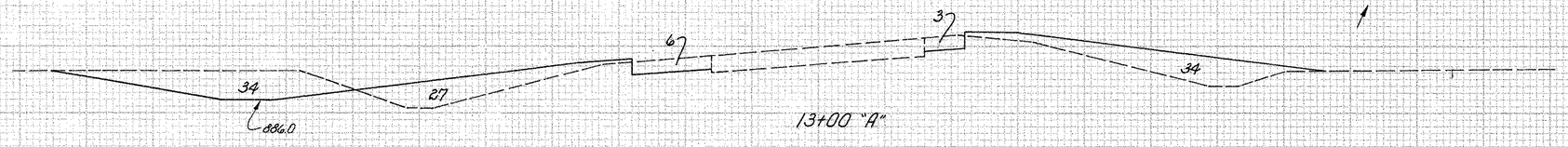


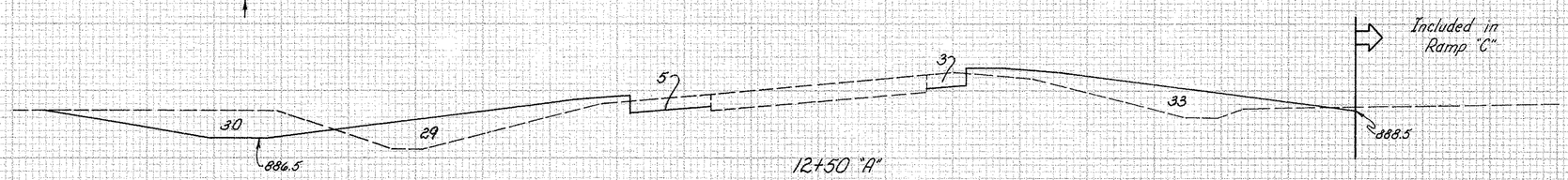


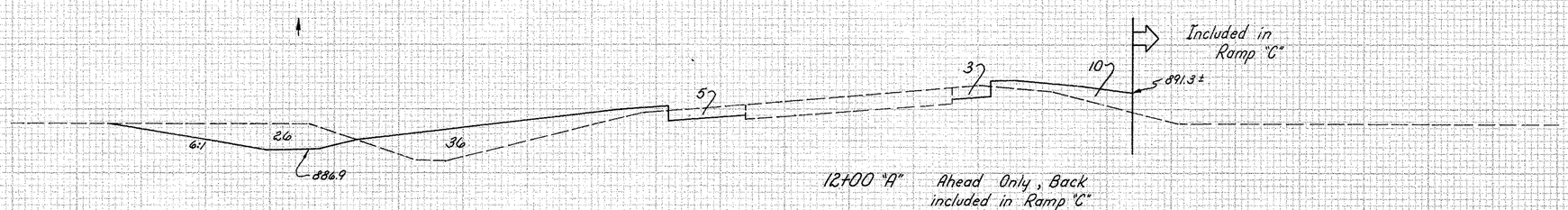
ESTIMATED QUANTITIES

601	Rock Channel Protection Type "B", with Bedding	9.7 Cu. Yd.
602	Concrete Masonry	2.30 Cu. Yd.
603	Twin 36"x 22" Conduit Type "A", 707.05	28 Lin. Ft.









END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
106	93		
		160	159
67	78		
		102	129
43	61		
		75	114
38	62		
		67	100
34	46		

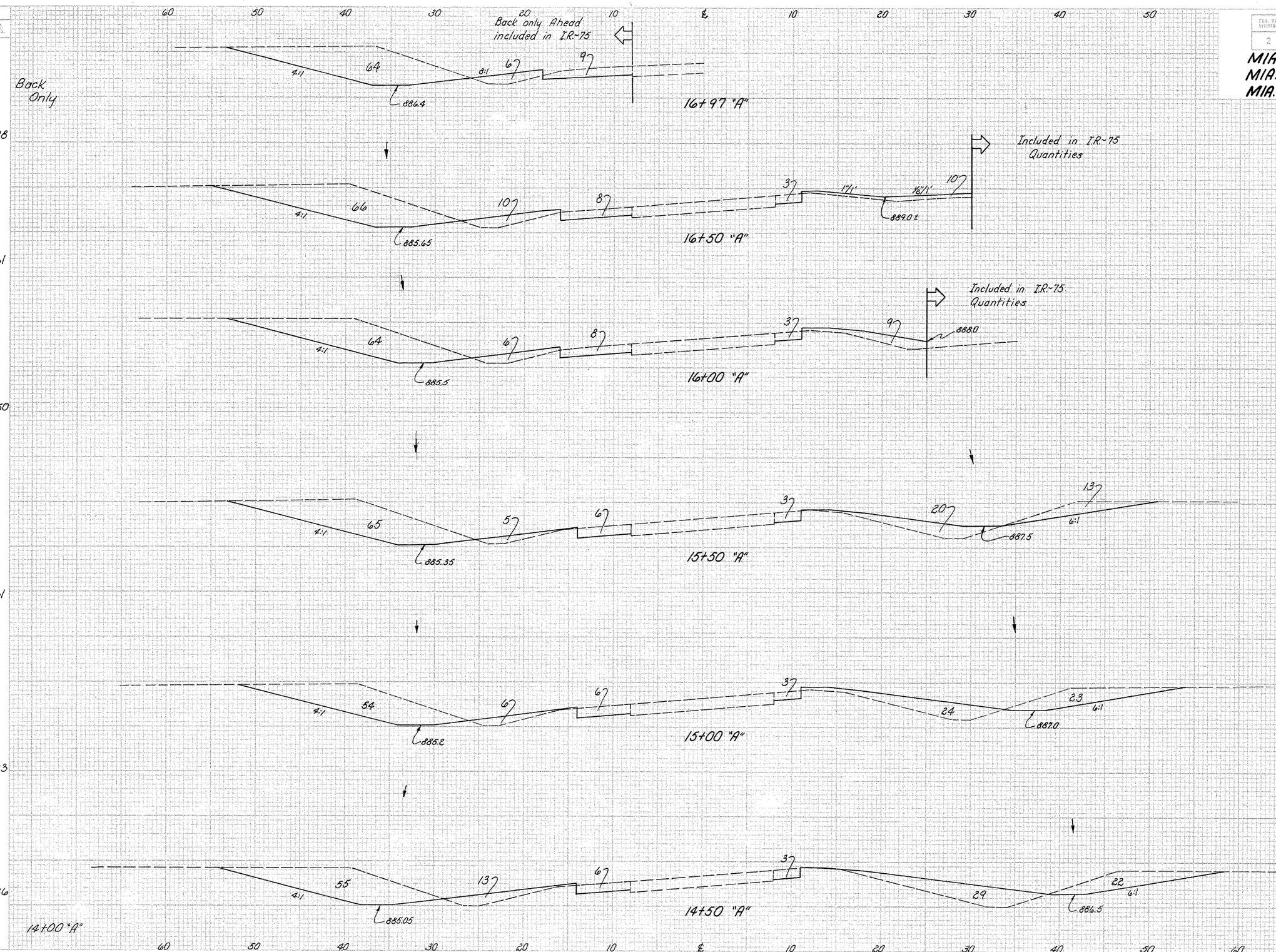
Ahead Only

60 50 40 30 20 10 ℄ 10 20 30 40 50 60

X-SECTIONS STA. 12+00 "A" TO STA. 14+00 "A" - RAMP "A" - I.R.-75 & S.R.-41 INTERCHANGE

W.77.18-75

SEEDING	
END WIDTH	SQ. YDS.
46	298
68	361
62	450
100	561
102	583
108	636
12.1	



FED. NO. DIVISION	STATE	PROJECT	
2	OHIO		

88-8
174

MIAMI COUNTY
MIA.-75-(9.17-9.35)
MIA.-41-(11.16-11.38)

Back Only

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	73	6		
			131	23
	77	20		
			141	32
	75	15		
			150	37
	87	25		
			160	51
	86	30		
			160	67
	86	42		
			178	125
14+00 "A"	106	93		

Quantities Carried to Sht. No. 22

Seeding	4989 Sq. Yd.
Excavation	1324 Cu. Yd.
Embankment	837 Cu. Yd.

X-SECTIONS STA. 14+50 "A" TO STA. 16+97 "A" ÷ RAMP "A" ÷ I.R.-75 & S.R.-41 INTERCHANGE

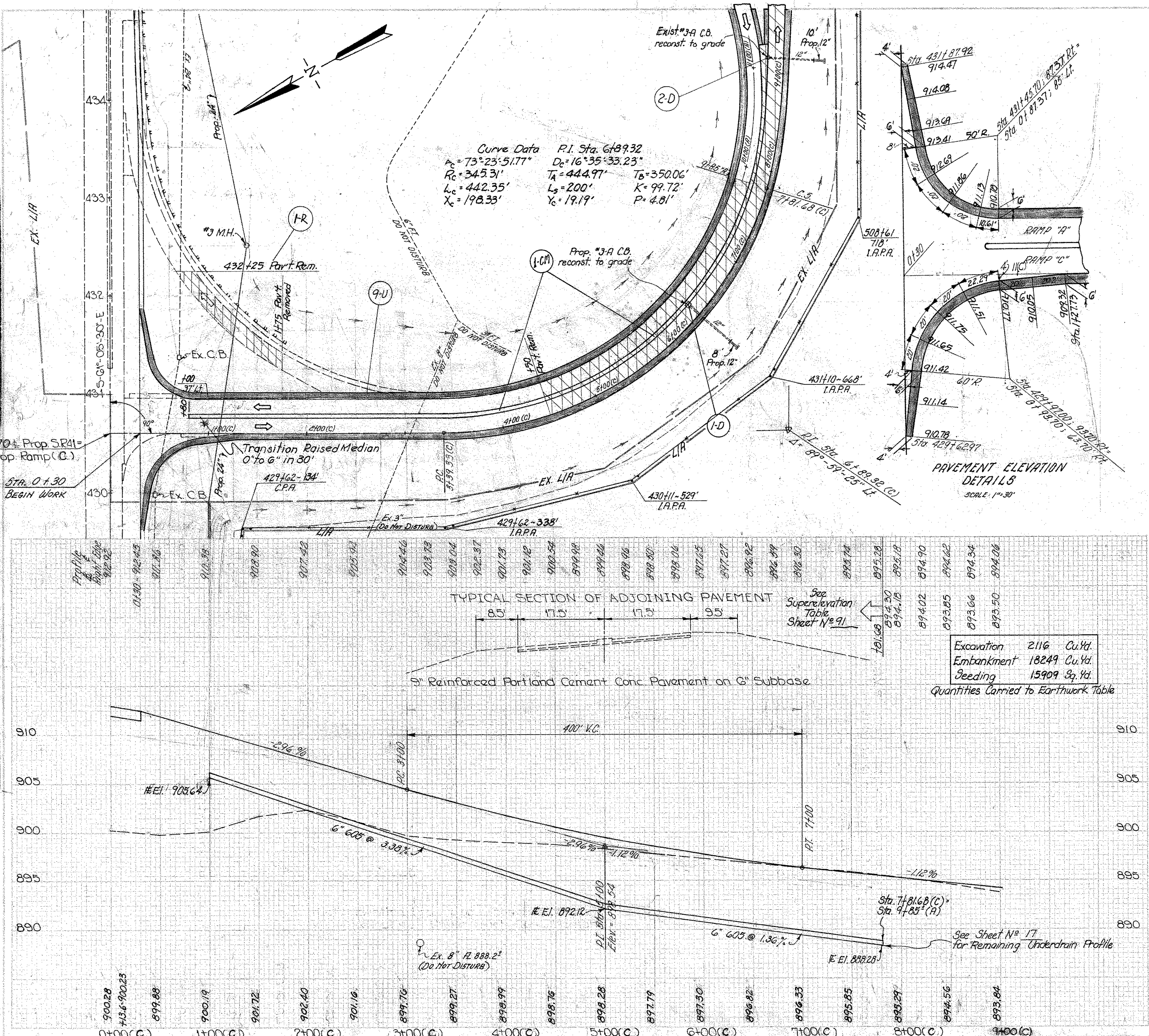
RAMP "A" DECELERATION LANE PAVEMENT DETAILS

FHWA REGION	STATE	PROJECT	
5	OHIO		

89 / 174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

0 5 10 15 20 30 40 50 60 70 80
SCALE IN FEET
100' Berm Transition
+43.10
℄ Existing Ramp "A"
16(A)
17(A)
18(A)
19(A)
20(A)
21(A)
C.S. Sta. 16+64.77
ST. 18+14.77 = Sta. 512+16.59; 60' Lt.
Sta. 18+64.81 = Sta. 512+66.59; 66' Lt. 890.15
+75; 66' Lt. 890.19
+00; 66' Lt. 890.26
+25; 66' Lt. 890.34
+50; 66' Lt. 890.41
+75; 66' Lt. 890.49
+00; 66' Lt. 890.56
+25; 66' Lt. 890.64
+50; 66' Lt. 890.71
+75; 66' Lt. 890.79
+00; 66' Lt. 890.86
+64 End 8.30' G.R.
25:1
Prop. Concrete Barrier Mod. as per plan
460 □'
Proposed berm
℄ Existing Southbound lanes
+44
435
436
509
510
511
512
513
514
515
℄ Survey I.R.-75
Sta. 513+16.50 I.R.-75 = Sta. 436+46.76 S.R.-41
+76
+94
℄ Existing Northbound Lanes
25:1
8.30'
Post #0
See Sheet 19
+26
Sta. 21+63.05 Ramp "A" = Sta. 515+66.59; 46' Lt. I.R.-75
+00; 66' Lt. 890.86
+25; 66' Lt. 890.94
+50; 66' Lt. 891.01
+75; 66' Lt. 891.09
+00; 66' Lt. 891.16
+25; 66' Lt. 891.24
+50; 66' Lt. 891.31
+75; 66' Lt. 891.37
+00; 66' Lt. 891.44
+25; 66' Lt. 891.50
517+50 66' Lt.
+50; 66' Lt. 891.53
+75; 63' Lt. 891.60
+00; 60' Lt. 891.68
+25; 57' Lt. 891.75
518+50 54' Lt.
+50; 54' Lt. 891.79
Proposed berm
℄ Existing Southbound lanes
516
517
518
519
℄ Survey I.R.-75

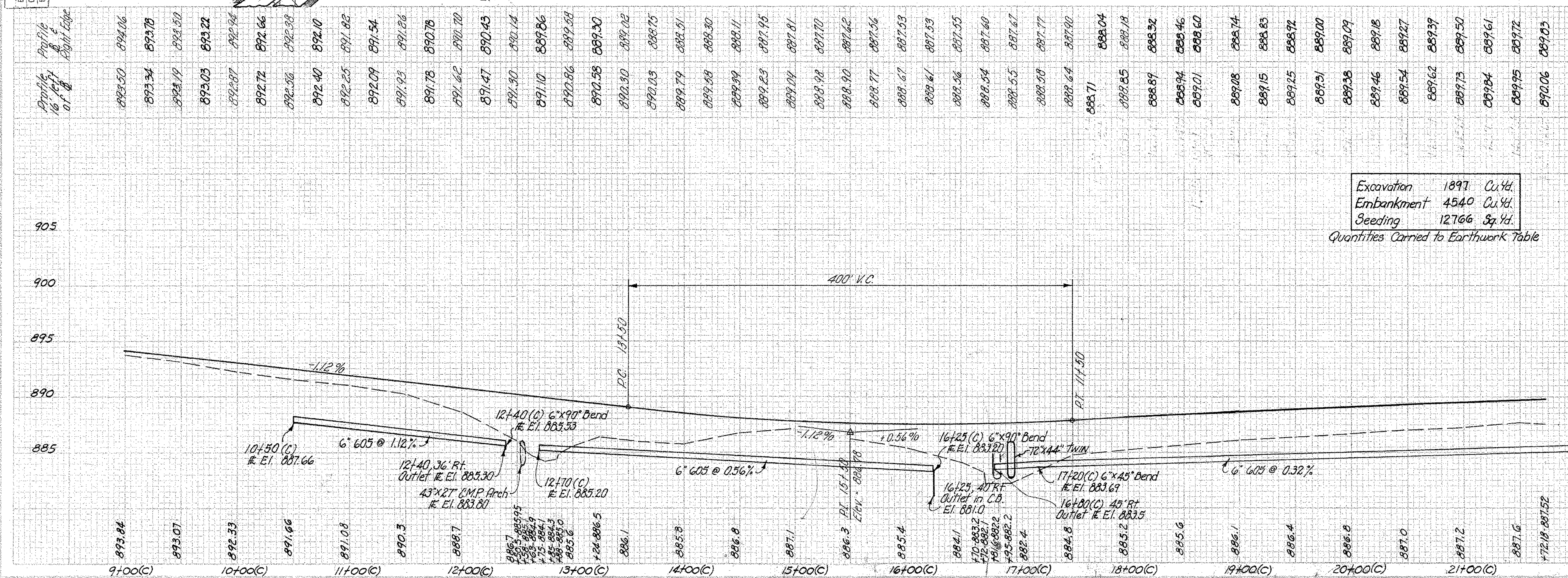


ESTIMATED QUANTITIES Interstate

Ref. No.	Station to Station	Side	202 Pavement Removed Sq.Yd.	612 Concrete Median Sq.Yd.	604 Catch Basin Reconst. to grade Each	602 Concrete Masonry Cu.Yd.	603 2" Conduit Type A Lin.Ft.	603 4.5" Conduit Type A 707.05 Lin.Ft.	See Sheet No.
1-CM	0+80(C) to 9+30(C)	Lt		310					
1-R	432+25 to 1+75(C)		238						
2-R	4+50(C) to 447+00 I.R.75		3582						
1-D	6+37	Rt			1	0.20	8		95
2-D	9+18.3	Rt			1	0.20	10		96
3-D	12+50.5	Rt				0.74		32	97
1-C	15+72.18(C) to 21+72.18(C)	Lt							
To Summary			3820	310	2	1.14	18	32	

PLAN & PROFILE STA. 0+00 TO STA. 9+00 RAMP (C)

MIAMI COUNTY
MIA - 75 - (9.17 - 9.35)
MIA - 41 - (11.16 - 11.38)



Excavation	1897	Cu.Yd.
Embankment	4540	Cu.Yd.
Seeding	12766	Sq.Yd.

Quantities Carried to Earthwork Table

SUPERELEVATION TABLES
RAMP "C"

Station	Baseline	16' Lt.	19' Lt.	35' Lt.
0+30	912.45			
0+50	911.86			
0+75	911.12			
1+00	910.38	910.37	910.37	910.36
+25	909.64	909.54	909.53	909.43
+50	908.90	908.70	908.67	908.47
+75	908.16	907.87	907.81	907.52
2+00	907.42	907.04	906.97	906.59
+25	906.68	906.20	906.12	905.64
+50	905.94	905.37	905.27	904.70
+75	905.20	904.54	904.42	903.76
3+00	904.46	903.71	903.56	902.81
+25	903.73	902.88	902.71	901.86
+39.33	903.33	902.42	902.24	901.33
+50	903.04	902.09	901.90	900.95
+75	902.37	901.36	901.17	900.16
4+00	901.73	900.69	900.50	899.46
+25	901.12	900.05	899.85	898.78
+50	900.54	899.42	899.21	898.09
+75	899.98	898.82	898.59	897.43
5+00	899.46	898.24	898.02	896.80
+25	898.96	897.70	897.46	896.20
+50	898.50	897.19	896.94	895.63
+75	898.06	896.73	896.48	895.15
6+00	897.65	896.32	896.07	894.74
+25	897.27	895.94	895.69	894.36
+50	896.92	895.59	895.34	894.01
+75	896.59	895.26	895.01	893.68
7+00	896.30	894.97	894.72	893.39
+25	896.02	894.69	894.44	893.11
+50	895.74	894.46	894.22	892.94
+75	895.46	894.26	894.04	892.84
+81.68	895.28	894.30		892.84

PLAN & PROFILE STA. 9+00 TO STA. 21+72.18 RAMP (C)

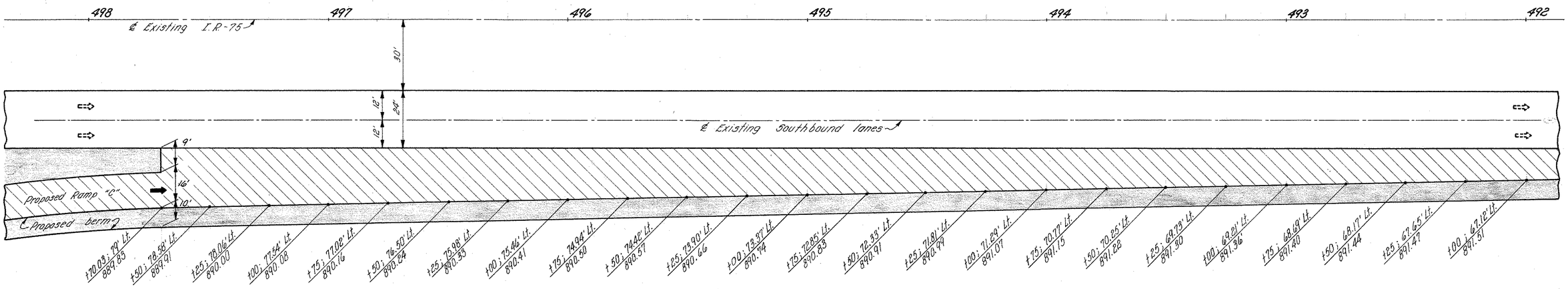
RAMP "C" ACCELERATION LANE & PAVEMENT DETAILS

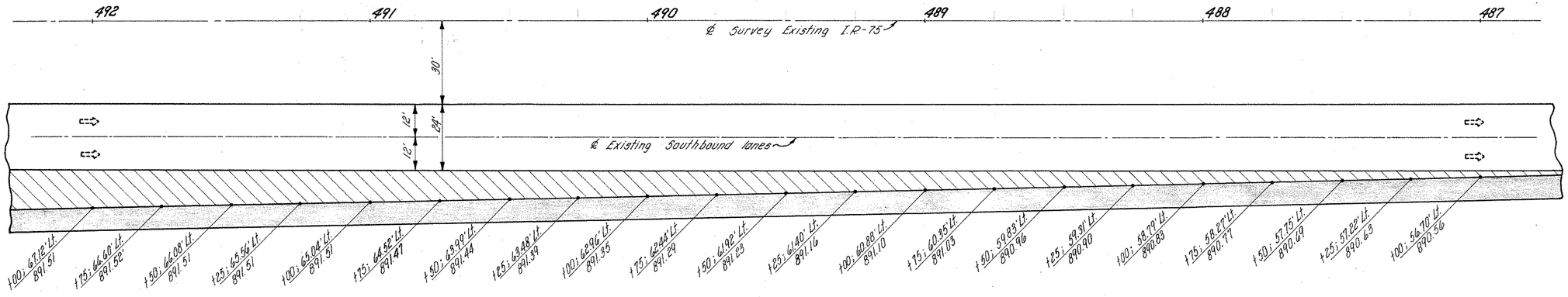
MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

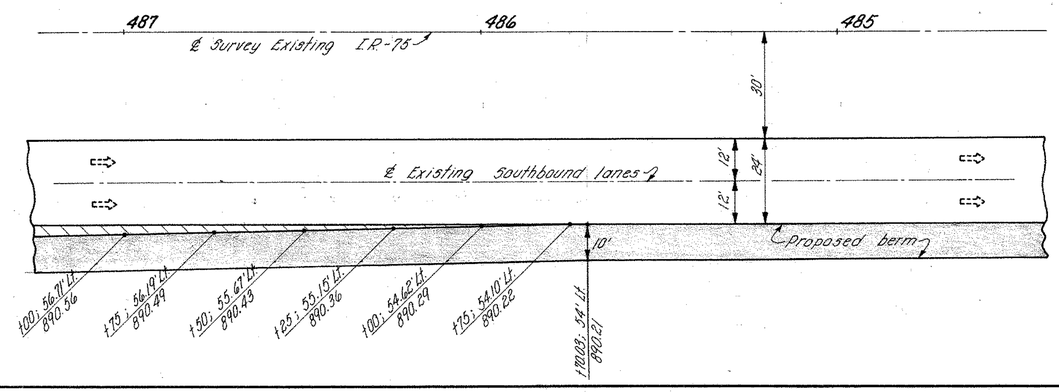
FHWA REGION	STATE	PROJECT	
5	OHIO		

92
174

SCALE IN FEET
0 5 10 15 20 30 40 50 60 70 80







	BY	DATE
DETAILED	JS	6-75
DETAILS CHECKED	JH	6-75
DETAILS REVISED		

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	WM	2-75	JH	3-75				
TEMPLATE	"	"	"	"				
DITCHES	"	"	"	"				
AREAS	"	"	DL	8-75				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

93
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

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

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
30	845		
		67	1488
43	762		
		163	1516
133	876		
		168	2206
49	1507		
		45	4126
0	2950		
		0	2148
0	2850		

196 — 8:1 / 4:1 — 13 — 6:1 — 889.15 — 2+50 90+16 — 8.45 — 3:1 — 17 — 4:1 — 889.75

1120

207 — 4:1 — 7 — 6:1 — 889.3 — 2+00 90+24 — 7.62 — 3:1 — 30 — 4:1 — 888.9

1195

223 — 6:1 — 8.5 — 1+50 90+73 — 8.76 — 3:1 — 48 — 4:1 — 890.05

Note: Page 96 shows deductions made for the difference in paved shoulder of 3' shown on these X-Sections and the 6' shown on typical section and detail.

1183

203 — Included in SR-41 — 2 — 2 — 2 (Fill) — 1+00 90+19 — 15.05 — Included in S.R. 41 — 45

1019

164 — Included in SR-41 — 2950 — 0+50 89+88 — Included in S.R. 41

182

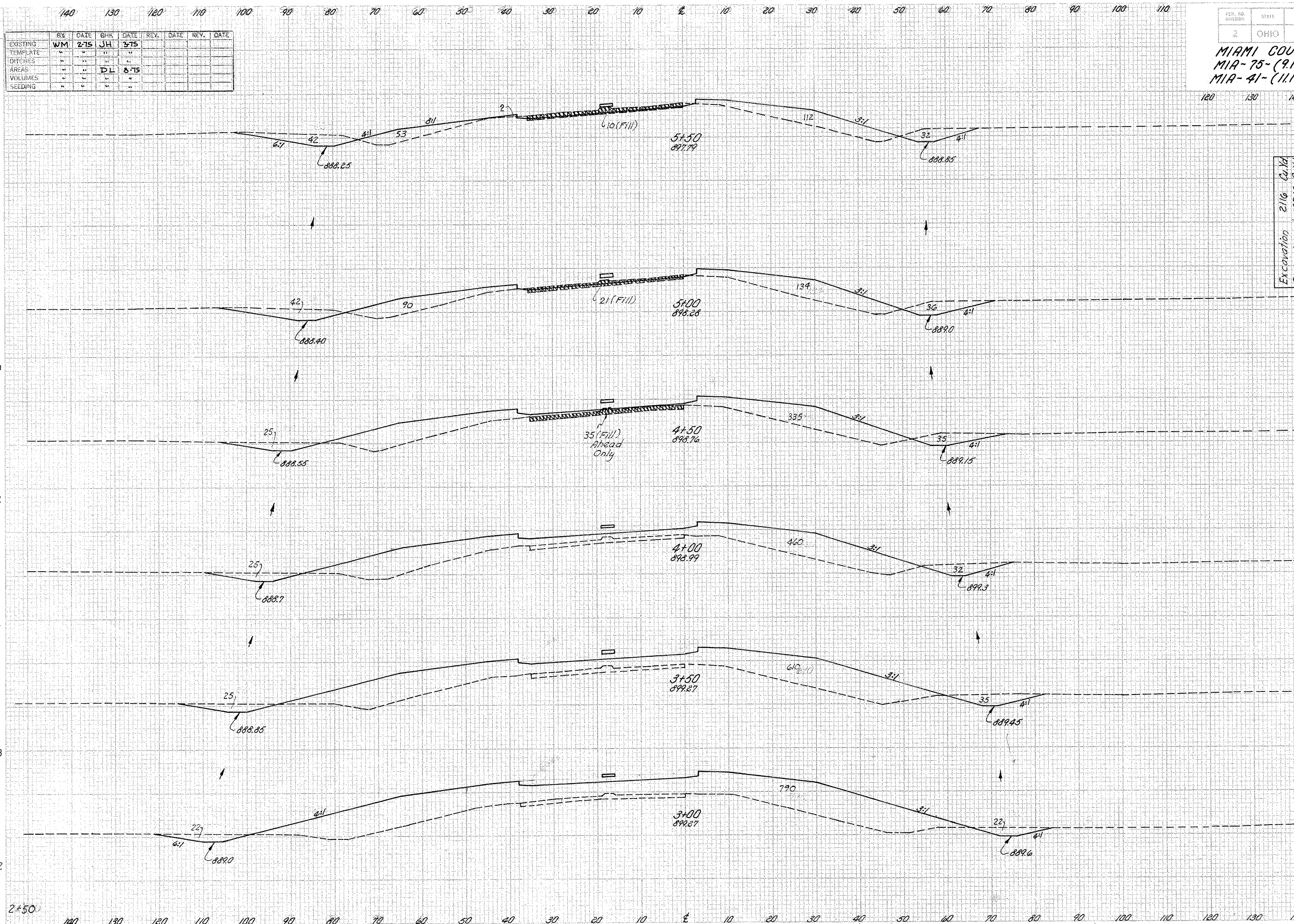
0 — Included in SR-41 — 2850 — 0+30 Ahead Only — Included in S.R. 41

X-SECTIONS STA. 0+30 TO STA. 2+50 RAMP "C"

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	WM	2-75	JH	3-75				
TEMPLATE	"	"	"	"				
DITCHES	"	"	"	"				
AREAS	"	"	DL	8-75				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				



SEEDING END WIDTH	SQ. YDS.
154	
	875
161	
	900
163	
	922
169	
	975
182	
	1033
190	
	1072
196	

Sta.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
5+50	74	177		
			140	391
5+00	78	245		
			128	569
4+50 Ahead	60	370		
4+50 Back	60	335		
			108	736
4+00	57	460		
			108	991
3+50	60	610		
			96	1296
3+00	44	790		
			68	1514
2+50	30	845		

Excavation 2116 Cu.Yd.
Embankment 18249 Cu.Yd.
Seeding 15909 Sq.Yd.
Quantities Carried to Sheet 90

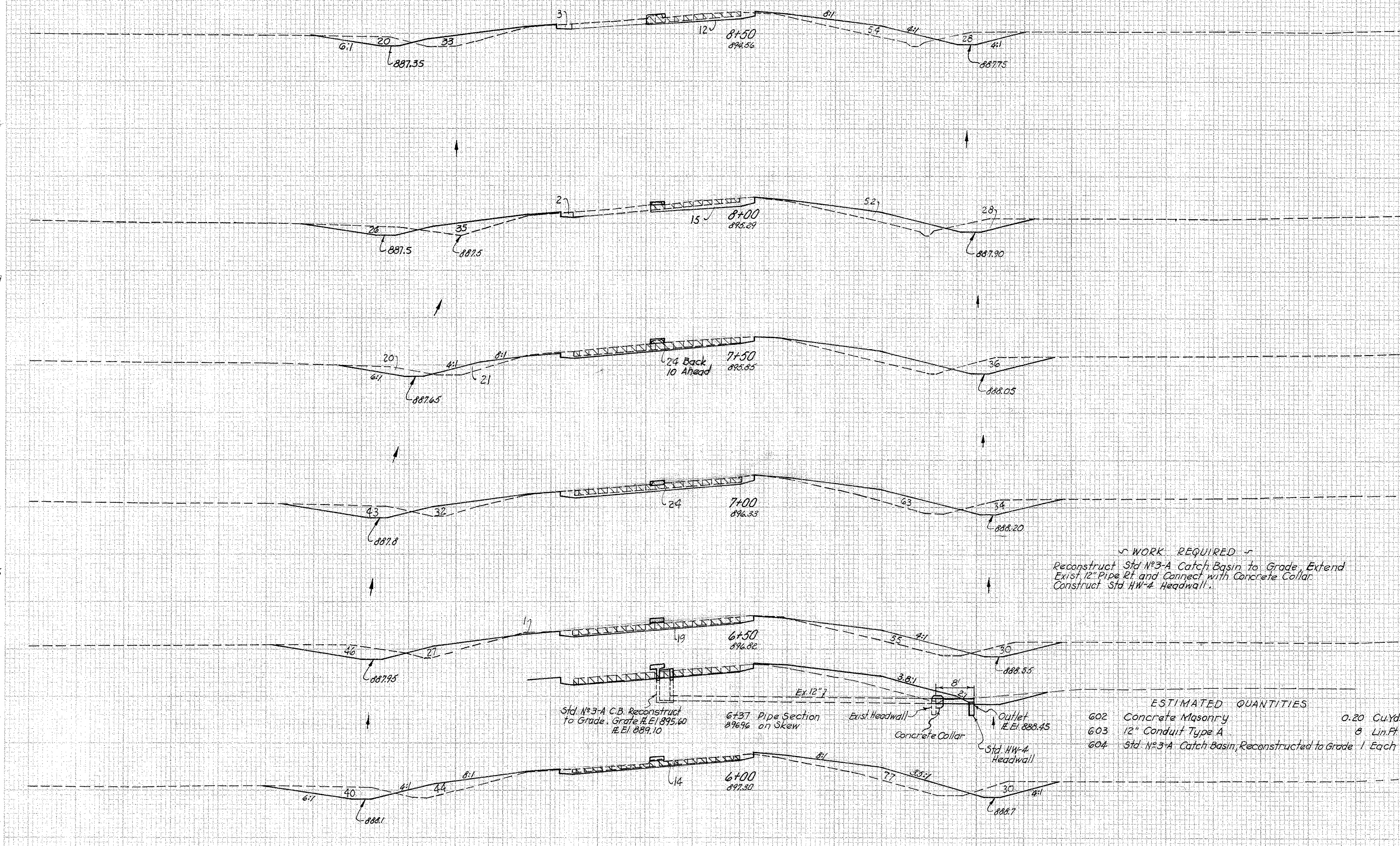
X-SECTIONS STA. 3+00 TO STA. 5+50 RAMP "C"

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	WM	2-75	JH	3-75				
TEMPLATE	"	"	"	"				
DITCHES	"	"	"	"				
AREAS	"	"	DL	8-75				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

95/174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)



~ WORK REQUIRED ~

Reconstruct Std Nº3-A Catch Basin to Grade, Extend Exist 12" Pipe Rt and Connect with Concrete Collar. Construct Std HW-4 Headwall.

ESTIMATED QUANTITIES

602	Concrete Masonry	0.20	Cu.Yd.
603	12" Conduit Type A	8	Lin.Ft.
604	Std. Nº3-A Catch Basin, Reconstructed to Grade	1	Each

SEEDING

END WIDTH	SQ. YDS.
128	
	722
132	
	739
134	
	781
147	
	825
150	
	836
151	
	847
154	

Station	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
8+50	63	87		
			124	161
8+00	71	87		
			127	153
7+50 Ahead	66	78		
7+50 Back	80	78		
			168	160
7+00	101	95		
			182	164
6+50	96	82		
			166	188
6+00	84	121		
			146	276
5+50	74	177		

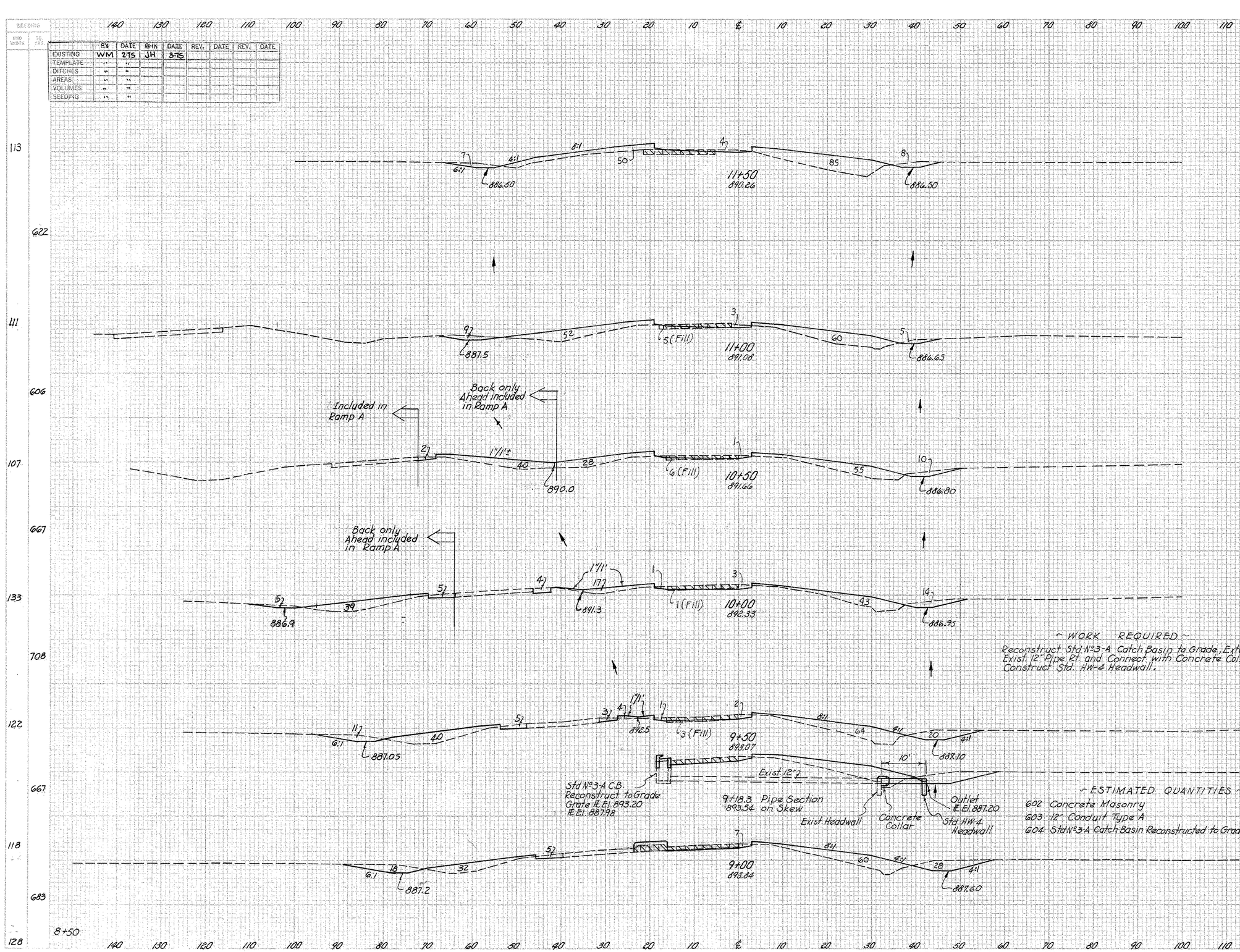
X-SECTIONS STA. 6+00 TO STA. 8+50 RAMP "C"

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	WM	2-75	JH	3-75				
TEMPLATE	"	"						
DITCHES	"	"						
AREAS	"	"						
VOLUMES	"	"						
SEEDING	"	"						

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

96
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)



~ WORK REQUIRED ~

Reconstruct Std N°3-A Catch Basin to Grade, Extend Exist. 12" Pipe Ft. and Connect with Concrete Collar. Construct Std. HW-4 Headwall.

Deduct Embankment for berm that changed from 3' to 6' wide

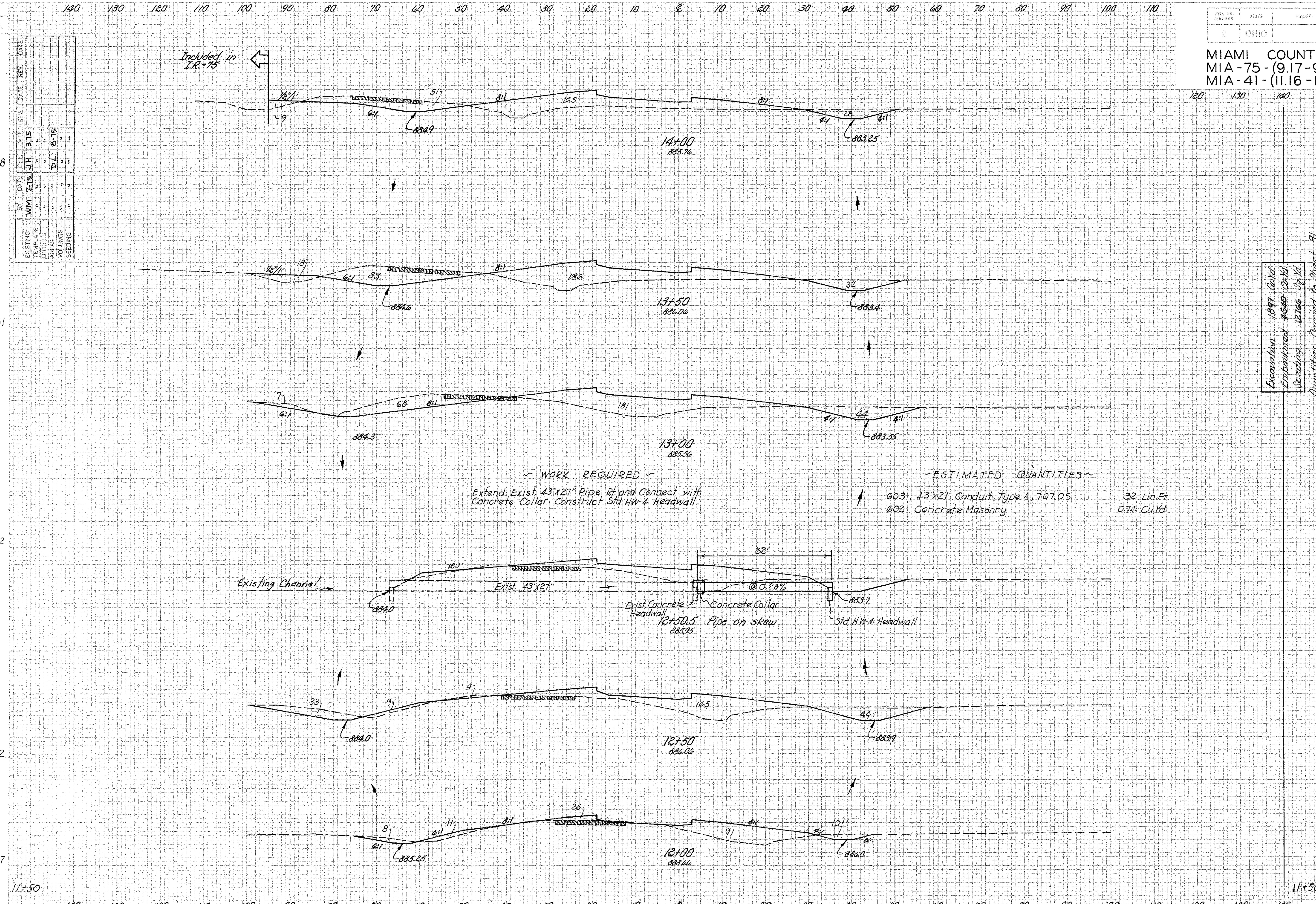
~ ESTIMATED QUANTITIES ~

602	Concrete Masonry	0.20 Cu.Yd.
603	12" Conduit Type A	10 Lin.Ft.
604	Std N°3-A Catch Basin Reconstructed to Grade	1 Each

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	19	135		
			33	233
	17	117		
			26	191
Ahead	11	89		
Back	13	129		
			32	176
Ahead	22	61		
Back	32	100		
			69	195
	42	111		
				-240
			93	188
	58	92		
			112	166
	63	87		

X-SECTIONS STA. 9+00 TO STA. 11+50 RAMP "C"

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)



	BY	DATE	CHK.	DATE
EXISTING	WM	2-75	JH	3-75
TEMPLATE	"	"	"	"
DITCHES	"	"	"	"
AREAS	"	"	DL	8-75
VOLUMES	"	"	"	"
SEEDING				

~ WORK REQUIRED ~

Extend Exist. 43"x27" Pipe Rt and Connect with Concrete Collar. Construct Std HW-4 Headwall.

~ ESTIMATED QUANTITIES ~

603, 43"x27" Conduit, Type A, 707.05	32 Lin.Ft.
602 Concrete Masonry	0.74 Cu.Yd.

Excavation 1897 Cu.Yd.
Embankment 4540 Cu.Yd.
Seeding 12766 Sq.Yd.
Quantities Carried to Sheet 91

Station	Seeding	End Area Cut	End Area Fill	Volume Cut	Volume Fill
14+00	137	79	174		
	808			179	350
13+50	154	115	204		
	861			217	357
13+00	156	119	181		
	872			194	329
12+50	158	81	174		
	772			92	279
12+00	120	18	128		
	647			35	244
11+50	113	19	135		

SEEDING

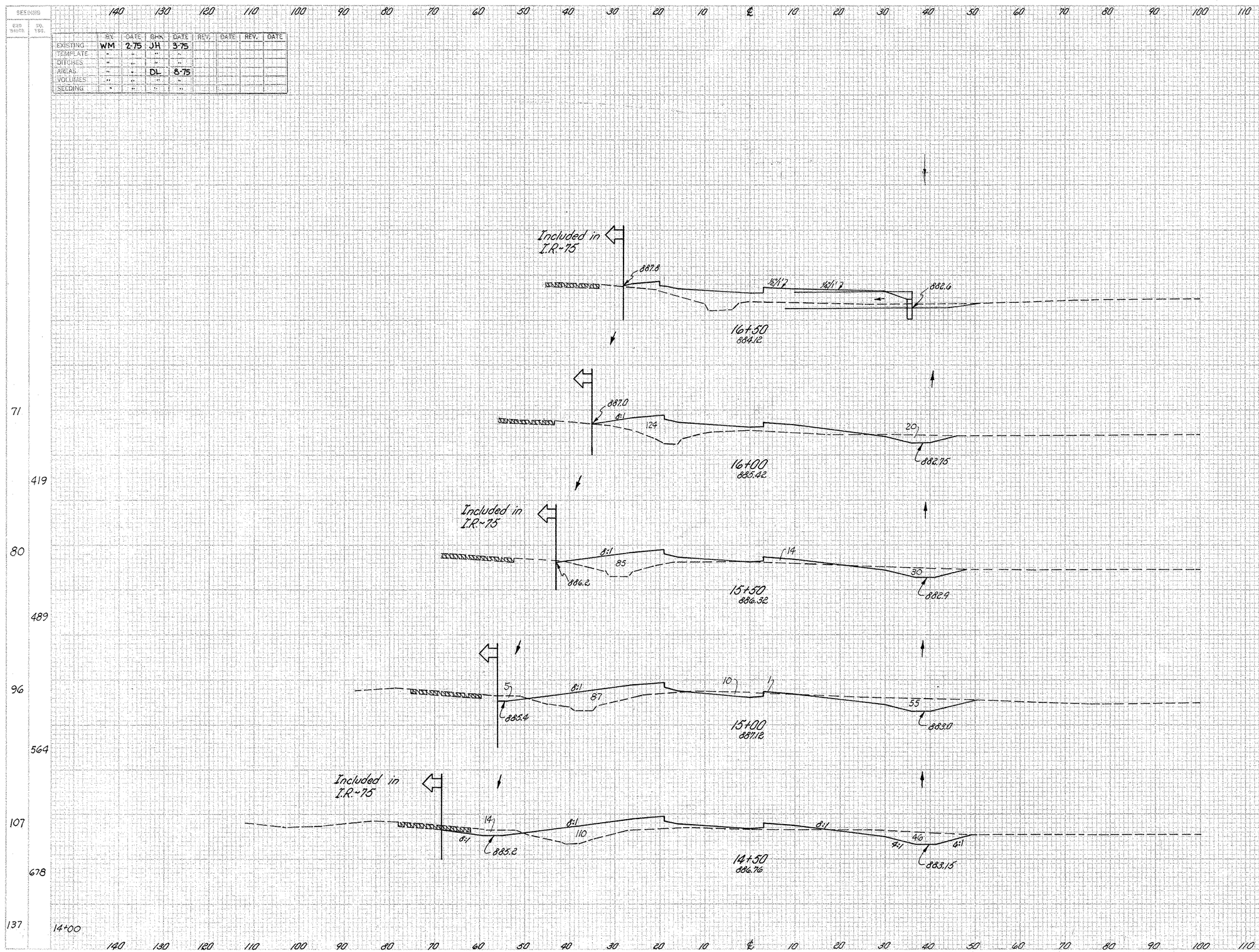
CUT YARDS	FILL YDS.
71	419
80	489
96	564
107	678
137	

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	WM	2-75	JH	3-75				
TEMPLATE	"	"	"	"				
DITCHES	"	"	"	"				
AREAS	"	"	DL	8-75				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

DIST. NO. DIVISION	STATE	PROJECT	
2	OHIO		

98
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
20	124		
		47	207
30	99		
		88	173
66	88		
		116	184
60	110		
		129	263
14+00	79	174	

	RDW	DATE	RDH	DATE	REV.	DATE	REV.	DATE
EXISTING	WM	2-75	JH	3-75				
TEMPLATE	"	"	"	"				
DITCHES	"	"	"	"				
AREAS	"	"	DL	8-75				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

99
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

SEEDING

X-S WIDTH	SQ. YDS.
55	306
55	308
56	303
53	297
54	694
71	16+00

Included in I.R.-75

19+00
886.11

13 | 65 | 16 | 884.25

18+50
885.61

14 | 64 | 15 | 884.0

Included in I.R.-75

18+00
885.21

19 | 70 | 15 | 883.75

17+50
884.81

14 | 68 | 12 | 883.50

Included in I.R.-75

17+00
882.41

11 | 80 | 20 | 883.25

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
19+00	29	65		
			54	120
18+50	29	64		
			59	124
18+00	34	70		
			56	128
17+50	26	68		
			53	137
17+00	31	80		
			94	378
16+00	20	124		

X-SECTIONS STA. 17+00 TO STA. 19+00 RAMP "C"

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	WM	2-75	JH	3-75				
TEMPLATE	"	"	"	"				
DITCHES	"	"	"	"				
AREAS	"	"	DL	8-75				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

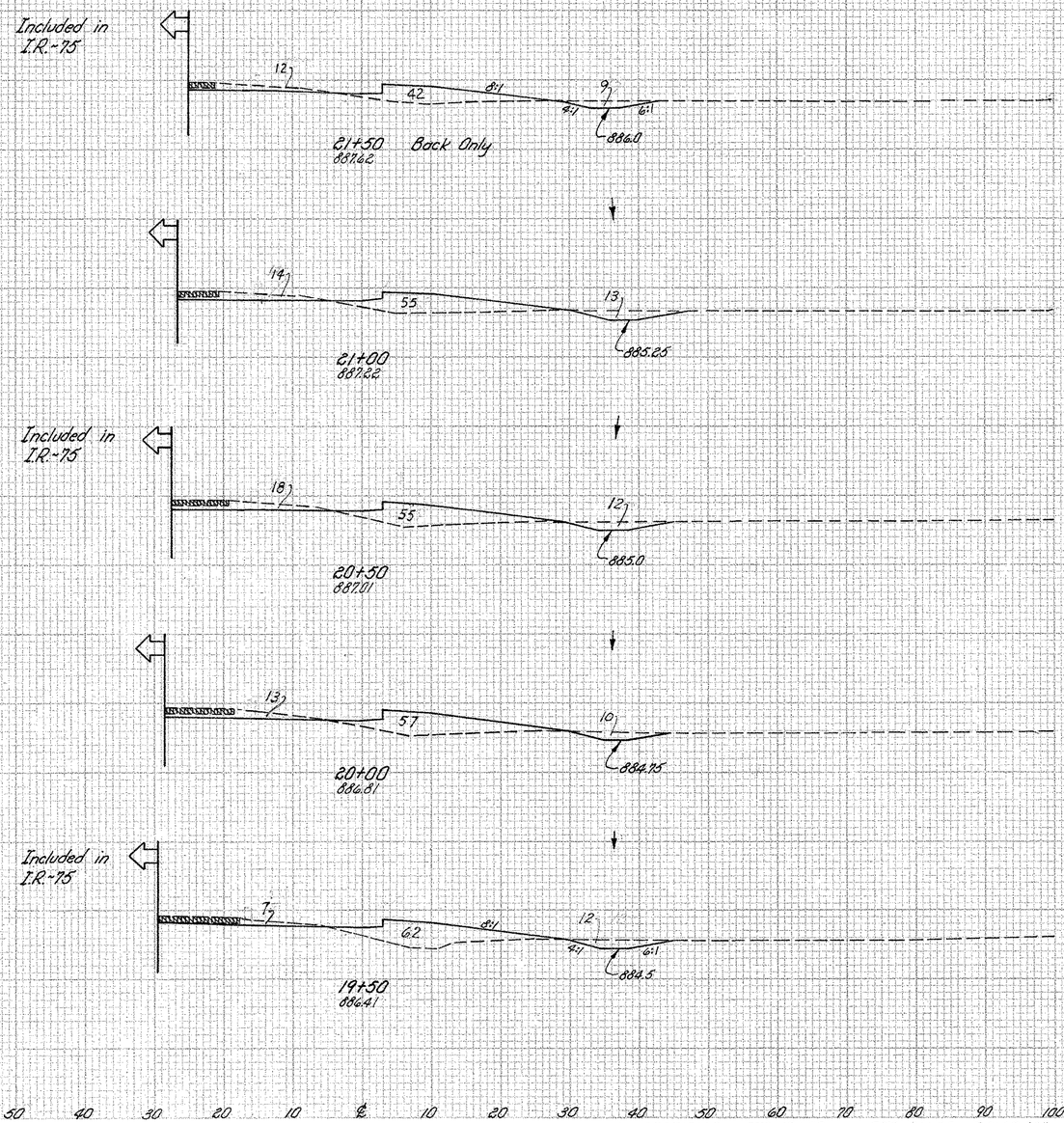
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

100
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

SEEDING

END WIDTH	TO STA.
51	294
55	300
53	292
52	292
53	300
55	19+00



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
140				
130				
120				
110				
100				
90				
80				
70				
60				
50				
40				
30				
20				
10				
℄				
10				
20				
30				
40	21	42	45	90
50				
60				
70				
80				
90				
100	27	55	53	102
110				
120	30	55	49	104
130	23	57	39	110
140	19	62	45	118
19+00	29	65		

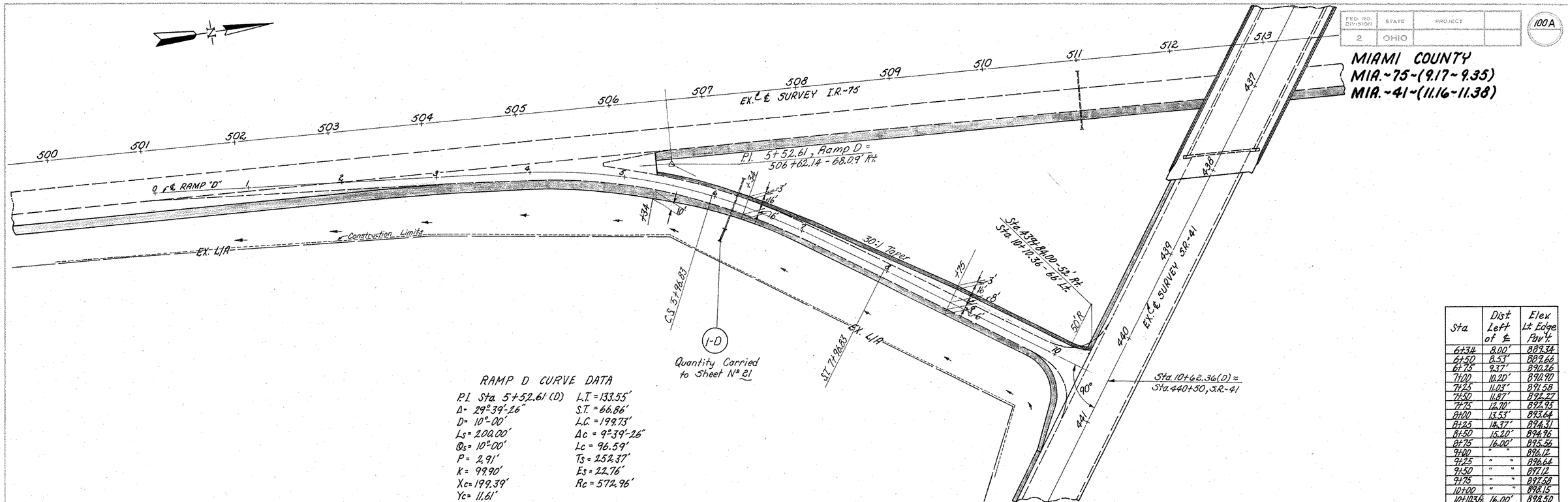
X-SECTIONS STA. 19+50 TO STA. 21+50 RAMP "C"

W.M. 12-75

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

100 A

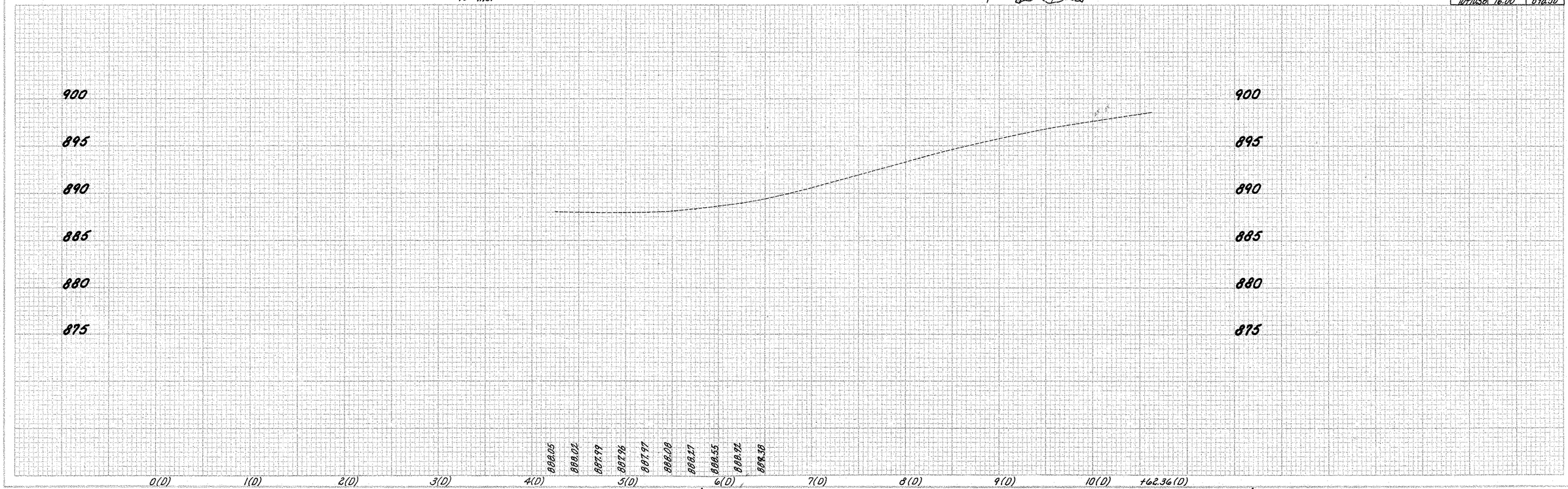
MIAMI COUNTY
MIA.-75-(9.17-9.35)
MIA.-41-(11.16-11.38)



RAMP D CURVE DATA

P.I. Sta 5+52.61 (D)	L.T. = 133.55'
Δ = 29°-39'-26"	S.T. = 66.86'
D = 10°-00'	L.C. = 199.73'
L_S = 200.00'	Δc = 9°-39'-26"
Θ_S = 10°-00'	Lc = 96.59'
P = 2.91'	T_S = 252.37'
K = 99.90'	E_S = 22.76'
Xc = 199.39'	R_C = 572.96'
Yc = 11.61'	

Sta.	Dist Left of ℄	Elev Lt Edge Pav't.
6+34	8.00'	889.34
6+50	8.53'	889.66
6+75	9.37'	890.26
7+00	10.20'	890.90
7+25	11.03'	891.58
7+50	11.87'	892.27
7+75	12.70'	892.95
8+00	13.53'	893.64
8+25	14.37'	894.31
8+50	15.20'	894.96
8+75	16.00'	895.56
9+00	"	896.12
9+25	"	896.64
9+50	"	897.12
9+75	"	897.58
10+00	"	898.15
10+10.36	16.00'	898.50

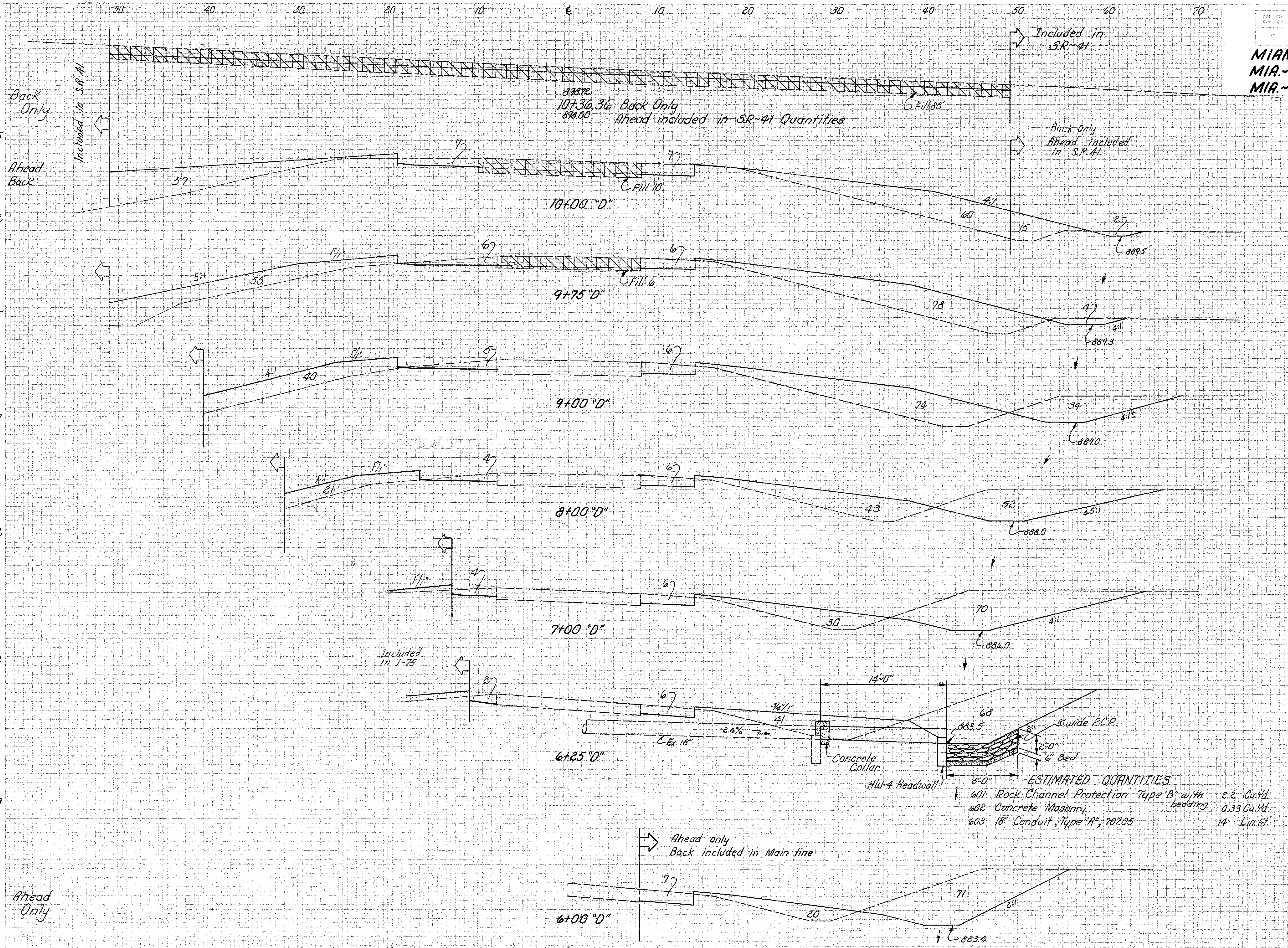


PLAN & PROFILE STA. 0+00 (D) TO STA. 10+62.36 (D) ~ RAMP (D) ~ I.R.-75 & S.R.-41 INTERCHANGE

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

100 B / 174

MIAMI COUNTY
MIA.-75-(9.17-9.35)
MIA.-41-(11.16-11.38)



ESTIMATED QUANTITIES

Item	Description	Quantity
601	Rock Channel Protection Type "B" with bedding	2.2 Cu.Yd.
602	Concrete Masonry	0.33 Cu.Yd.
603	18" Conduit, Type "A", 707.05	14 Lin.Ft.

Quantities Carried to Sht. No 32

Seeding	3103	Sq.Yd.
Excavation	861	Cu.Yd.
Embankment	1255	Cu.Yd.

Station	Seeding End Width	Seeding Sq. Yd.	End Area Cut	End Area Fill	Volume Cut	Volume Fill
10+36.36 Back Only	0		0	85		
		135			9	143
10+00 Ahead	67		14	127		
10+00 Back	84		16	142		
		232			15	130
9+75	83		16	139		
		675			86	352
9+00	79		46	114		
		817			200	330
8+00	68		62	64		
		672			263	174
7+00	53		80	30		
		434			217	98
6+25	51		76	41		
		138			71	28
6+00 Ahead Only	48		78	20		

X-SECTIONS STA. 6+00 "D" TO STA. 10+36.36 "D" ~ RAMP "D" ~ I.R.-75 & S.R.-41 INTERCHANGE

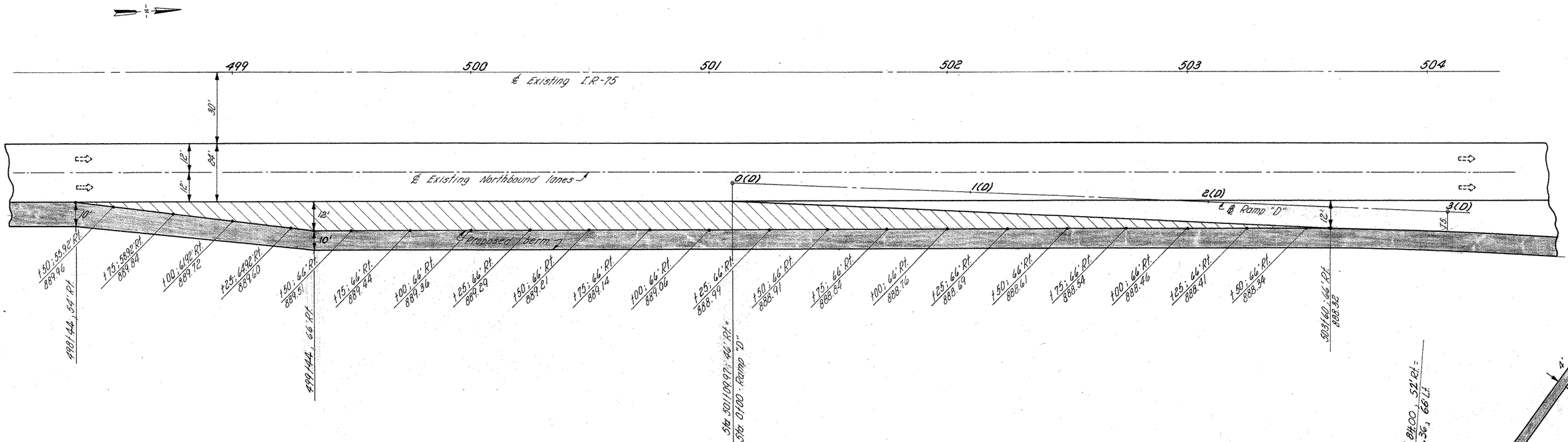
RAMP "D" DECELERATION LANE & PAVEMENT DETAILS

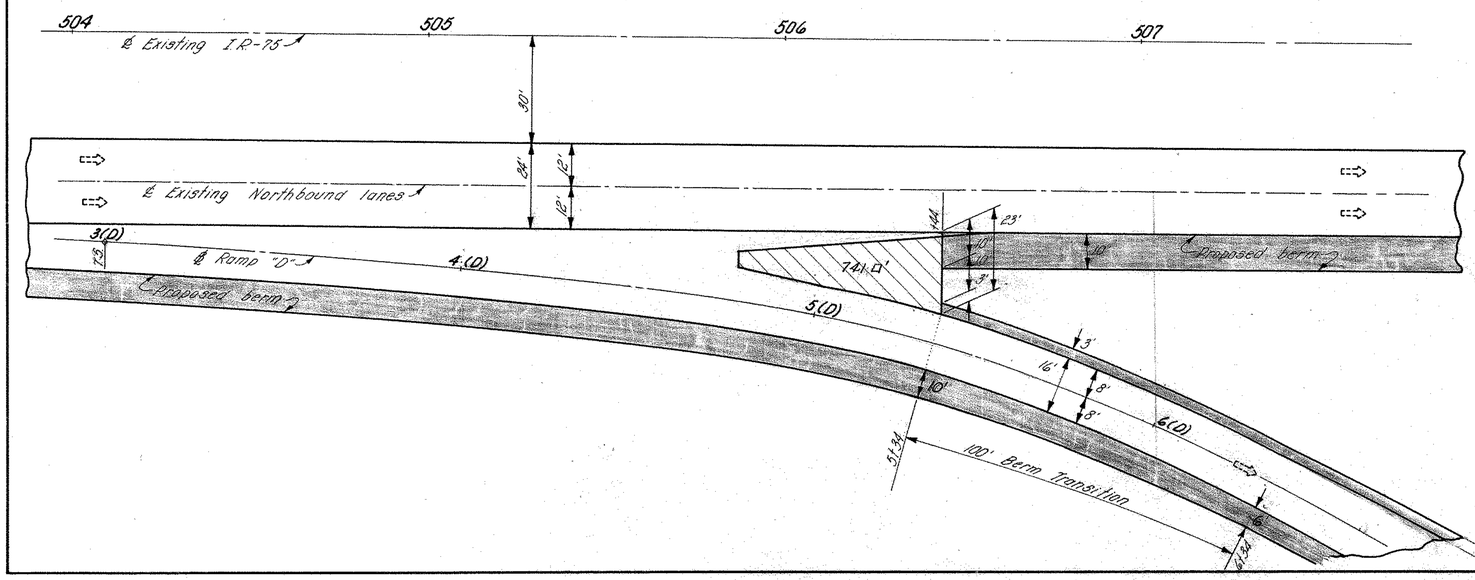
MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

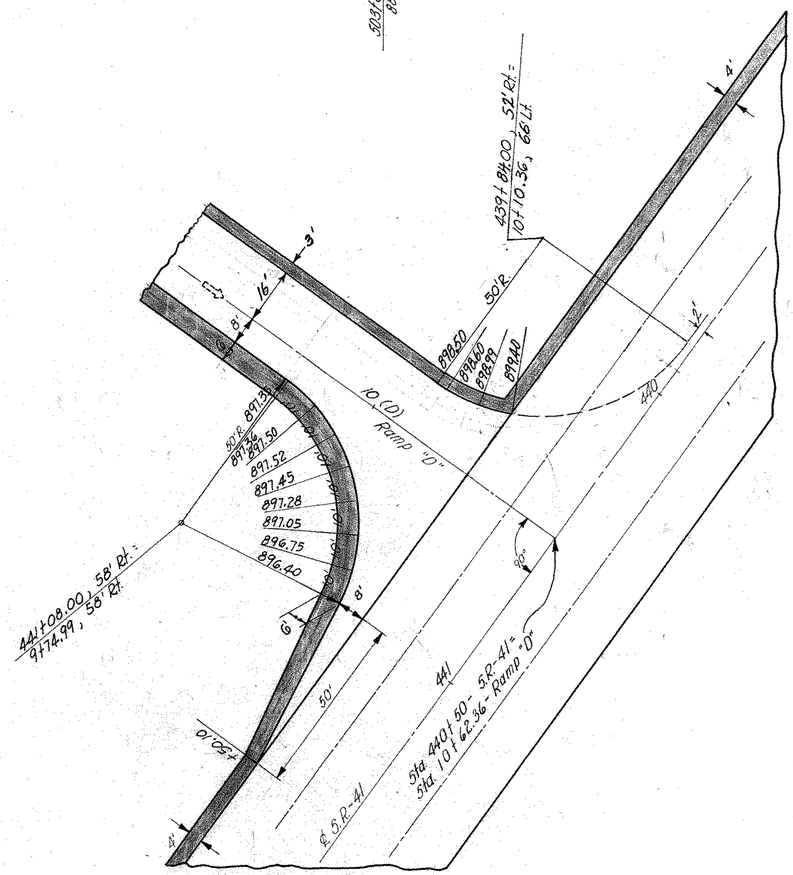
FHWA REGION	STATE	PROJECT	
5	OHIO		

101

SCALE IN FEET
0 5 10 15 20 30 40 50 60 70 80







DETAILED	BY	DATE
DETAILS CHECKED	JS	6-75
DETAILS REVISED	JH	6-75

RAMP "D" DECELERATION LANE & PAVEMENT DETAILS

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

FED. RD. DIVISION	STATE	PROJECT	
3	OHIO		

PLAN	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
TOPO	DT	8-70	EC	4-70				
GEOMETRICS	JH	4-71	CK	4-71				
DITCHES	CK	6-73	JY	6-73				
STORM SEWERS	JH	5-74	WH	6-74				
CULVERTS	JS	5-74	JH	6-74				
PAV'T QUANT	JS	5-75	JH	5-75				
WORK LIMITS	JH	6-75	JS	6-75				
PROP. R/W	JL	6-74	CK	7-14				
DRAIN QUANT.								

PROFILE	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	DT	8-70	EC	9-70				
GRADE	JS	4-71	JH	5-71				
B.M.'S	DT	8-70	EC	9-70				

CURVE DATA
P.I. = STA 3+21.93(E)
Δ = 42°-59'-15" Lt.
D = 11°
R = 520.87
Ls = 150'
θs = 8.25°
P = 1.80'
K = 74.95'
Xc = 149.69'
Yc = 7.19'
Δc = 34°-44'-15"
T1 = 207.75'
T2 = 278.13'
Lc = 315.80'

CURVE DATA
P.I. = STA. 9+48.46(E)
Δ = 29°-51'
R = 716.20'
Ls = 200'
D = 8°
θs = 8°
P = 2.33'
K = 99.93'
Xc = 199.61'
Yc = 9.30'
Δc = 13°-51'
Ts = 291.45'
Es = 27.42'
Lc = 173.13'

Excavation	10036 Cu. Yd.
Embankment	7588 Cu. Yd.
Seeding	19160 Sq. Yd.

Quantities Carried to Earthwork Table

ESTIMATED QUANTITIES INTERSTATE

REF. NO.	STATION TO STATION	SIDE	202 Pavement Removal	202 Curb Removed	202 Septic Tank Removed	Special Drilled Well Abandoned
			Sq. Yd.	Lin. Ft.	Each	Each
1-R	442+12 S.R. 41 to 523+65 I-75		2286			
2-R	439+08 to 440+39	Lt.		306		
3-R	1+75± Ramp 'E'	Rt.			1	
1-DW	1+06± Ramp 'E'	Rt.				1
TOTALS TO SUMMARY			2286	306	1	1

PLAN & PROFILE STA. 0+00(E) TO STA. 10+00(E) EX. S.R. 41 TO EX. I.R. 75 NB RAMP "E"

MIAMI COUNTY
MIA - 75 - (9.17 - 9.35)
MIA - 41 - (11.16 - 11.38)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

103
174

PROFILE	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	DT	8-70	EC	9-70				
GRADE	JS	4-71	JH	5-71				
E.N.'S	DT	8-70	EC	9-70				

PLAN	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
TOPO	DT	8-70	EC	9-70				
GEOMETRICS	JH	4-71	CK	4-71				
DITCHES	CK	6-73	JH	6-73				
STORM SEWERS	JH	5-74	WM	6-74				
CULVERTS	JS	5-74	JH	6-74				
PAV'T QUANT	JS	5-75	JH	5-75				
WORK LIMITS	JH	6-75	JS	6-75				
PROP. R/W	JL	6-74	CK	7-74				
DRAIN QUANT								

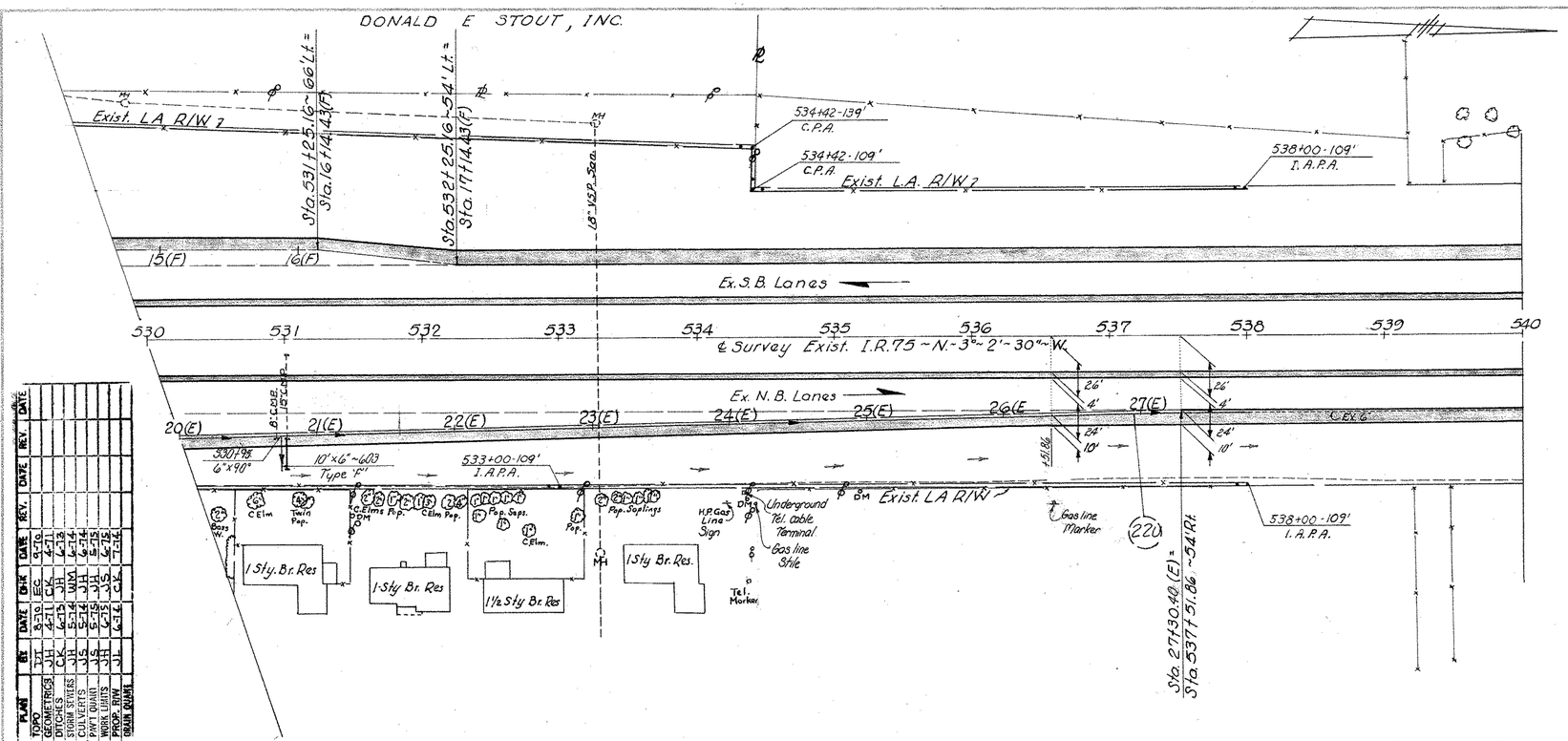
Excavation	1209	Cu. Yd.
Embankment	878	Cu. Yd.
Seeding	3707	Sq. Yd.

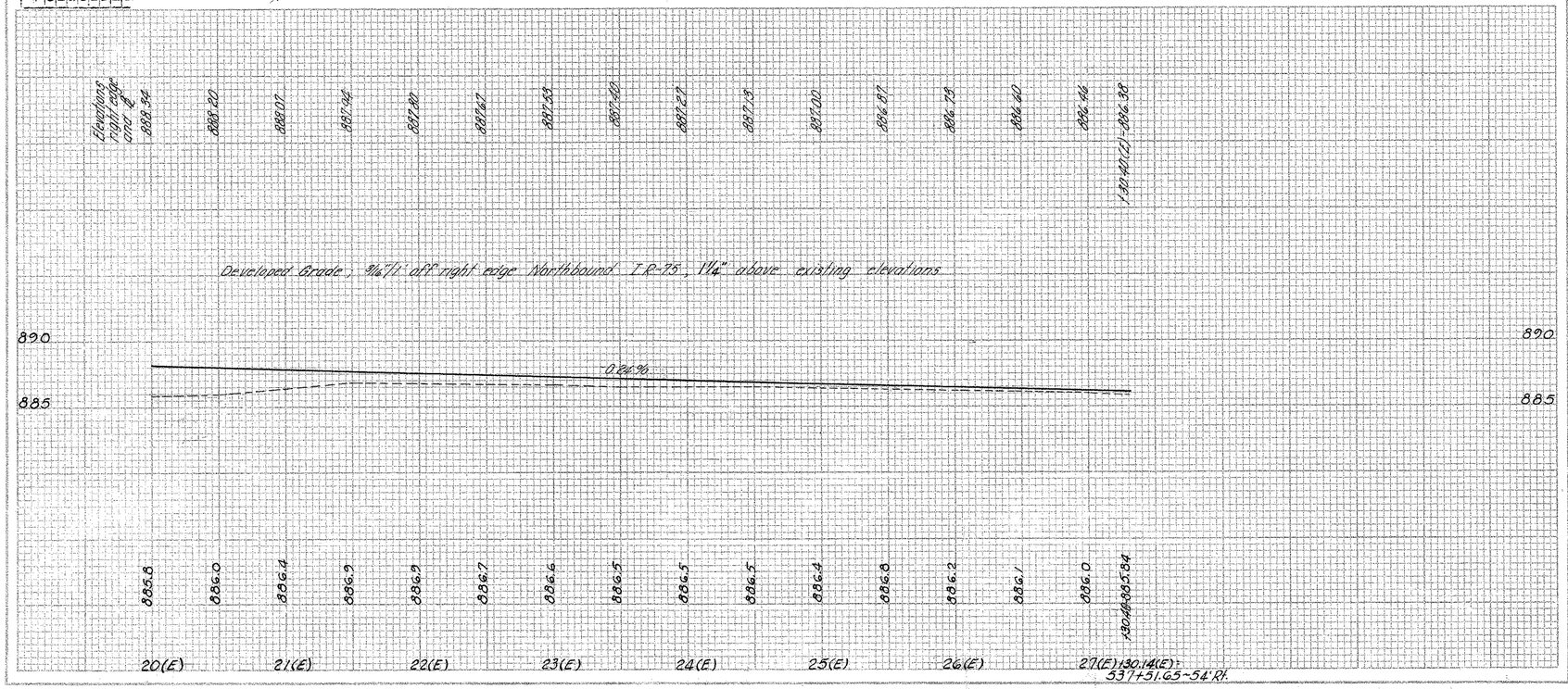
ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	SEE SHEET NO.

TOTALS

PLAN & PROFILE ~ STA. 10+00(E) TO STA. 20+00(E) EX. S.R. 41 TO N.B. I.R. 75 RAMP "E"





MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

PLAN	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
TOPO	DT	8-70	EC	9-70				
GEOMETRICS	JH	4-71	CK	4-71				
DITCHES	CK	6-73	JH	6-73				
STORM SEWERS	JH	5-74	WM	6-74				
CULVERTS	JS	5-74	JH	6-74				
PAV'T QUANT	JS	5-75	JH	5-75				
WORK LIMITS	JH	6-75	JS	6-75				
PROP. R/W	JL	6-74	CK	7-74				
DRAIN QUANT								

PROFILE	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	DT	8-70	EC	9-70				
GRADE	JS	4-71	JH	5-71				
B. M. 'S	DT	8-70	EC	9-70				

ESTIMATED QUANTITIES

SEE SHEET NO.

REF. NO. | STATION TO STATION | SIDE | TOTALS

PLAN & PROFILE ~STA. 20+00(E) TO STA. 27+30.18(E) EX.41 TO EX. I R 75 NB RAMP "E"

RAMP "E" ACCELERATION LANE & PAVEMENT DETAILS

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

FHWA REGION	STATE	PROJECT	
5	OHIO		

105
174

	BY	DATE
DETAILED	JS	6.75
DETAILS CHECKED	JH	6.75
DETAILS REVISED		

RAMP "E" ACCELERATION LANE & PAVEMENT DETAILS

	BY	DATE	CHK.	DATE	REV.	DATE	REV.	DATE
EXISTING	EMH	4-25	WM	5-15				
TEMPLATE	"	"	"	"				
DITCHES	"	"	"	"				
AREAS	EMH	5-15	MEH	6/15				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

SEEDING

END AREA		VOLUME	
CUT	FILL	CUT	FILL
16	328		
		27	169
42	37		
		42	12
85	0		

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

106
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

149
242
93
93
0

Included in S.R.-41
900+6
120
Existing curb & gutter
Existing curb
6
81
208
41
10
61
889.6
0+75 (E)
894.59
HOUSE
Top of foundation = 891.9
Basement floor = 886.85
120
900+8
2
42
81
35
41
Existing curb & gutter
Existing curb
0+50 (E)
897.80
889.9
Included in S.R.-41
85
898.22
0+31.93(E) 897.70
Section along edge of S.R.-41 pavement Ahead Only
Included in S.R.-41

NOTE: Page 108 shows deductions made for the defference in paved shoulder of 3' shown on these X-sections and the 6' shown on the typical sections, and detail.

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

X-SECTIONS STA. 0+31.93 TO STA. 0+75 · RAMP "E" · I.R.-75 & S.R.-41 INTERCHANGE

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	FMH	4-75	WM	5-75				
TEMPLATE	"	"	"	"				
DITCHES	"	"	"	"				
AREAS	FMH	5-75	MRH	6/75				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

SEEDING
END AREA
SQ. YDS.
Included in I.R.-75
Included in S.R.-41
704
1.5%
595
1.6%
235
200
55
315
305
356
365
378
340
3+00 (E) 891.1
2+50 (E) 889.9
2+00 (E) 891.5
1+50 (E) 891.5
1+14 (E) 891.1
1+00 (E) 889.7
0+75 (E)
892.0
892.7
893.6
894.5
895.1
895.4
888.8
889.0
889.7
890.5
890.3
890.2
GARAGE
HOUSE
HOUSE
Top of foundation = 891.91
Basement floor = 884.85
Add Lump Sum Seeding around buildings to be removed on Rt.
Existing curb
Existing curb
Add for basement backfill
END AREA
VOLUME
CUT
FILL
CUT
FILL
807 315
1379 578
682 309
1041 616
442 356
414 668
5 365
58 495
82 378
48 186
232
102 340
55 309
16 328
282
1575
285
1403
220
939
118
496
130
212
200
142
404
149

X-SECTIONS STA. 1+00 TO STA. 3+00 : RAMP "E" : I.R.-75 & S.R.-41 INTERCHANGE

SEEDING

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	FMH	4-75	VTJ	5-75				
TEMPLATE	"	"	"	"				
DITCHES	"	"	"	"				
AREAS	FMH	5-75	MRH	6/75				
VOLUMES	FMH	5-75	"	"				
SEEDING	FMH	5-75	"	"				

FED. AID DIVISION	STATE	PROJECT	
2	OHIO		

108
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

Excavation = 10036 Cu. Yd.
Embankment = 7588 Cu. Yd.
Seeding = 19160 Sq. Yd.
QUANTITIES CORRECTED ON SHEET No 102

Deduct Embankment for berm that changed from 3' to 6' wide

STA	ERS AREA CUT	ERS AREA FILL	VOLUME CUT	VOLUME FILL
2+10				
	235	157		
			624	298
2+46				
	439	165		
			837	389
2+56				
	465	250		
			388	185
2+70				
	582	250		
			686	271
2+71				−122
	653	237		
			1247	468
2+82				
	694	270		
			1390	542
3+00(E)	807	315		

X-SECTIONS STA. 3+50 TO STA. 5+50 · RAMP "E" · I.R-75 & S.R-41 INTERCHANGE

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

109
174

MIAMI COUNTY
MIA - 75 - (9.17 - 9.35)
MIA - 41 - (11.16 - 11.38)

	CK'D	DATE	CHK	DATE
EXISTING	FMH	4-75	WM	5-75
TEMPLATE	"	"	"	"
DITCHES	"	"	"	"
AREAS	FMH	5-75	NRH	6/75
VOLUMES	FMH	5-75	"	"
SEEDING	FMH	5-75	"	"

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
85	113		
		204	116
135	12		
		271	20
157	10		
		215	20
113	15		
		251	125
125	103		
		107	80
164	113		
		222	150
235	157		

X-SECTIONS STA 5+80(E) TO 8+00(E); RAMP "E" ; I.R.-75 & S.R.-41 INTERCHANGE

SEEDING	
END AREA	VOL. CUM.
97	
179	
64	
242	
81	
194	
94	
252	
103	
321	
111	
393	
125	

	CUT		FILL		REV.	DATE	REV.	DATE
EXISTING	EMH	6-75	WM	5-75				
TEMPLATE	"	"	"	"				
DITCHES	"	"	"	"				
AREAS	EMH	5-75	MEH	6/75				
VOLUMES	"	"	"	"				
SEEDING	"	"	"	"				

ENG. DIV. DIVISION	STATE	PROJECT	
2	OHIO		

110
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

Included in I.R-75

9+50 (E)
883.44

34
373
886.5

9+30 (E)
889.34

891.0
410
Included in channel excavation

9+00 (E)
886.94

891.0
243
65
886.0

8+80 (E)
890.72

890.2
891.0
226
100
886.9

8+57.01 (E)
891.12

890.2
891.0
183
128
887.0

Included in I.R-75

8+30 (E)
891.12

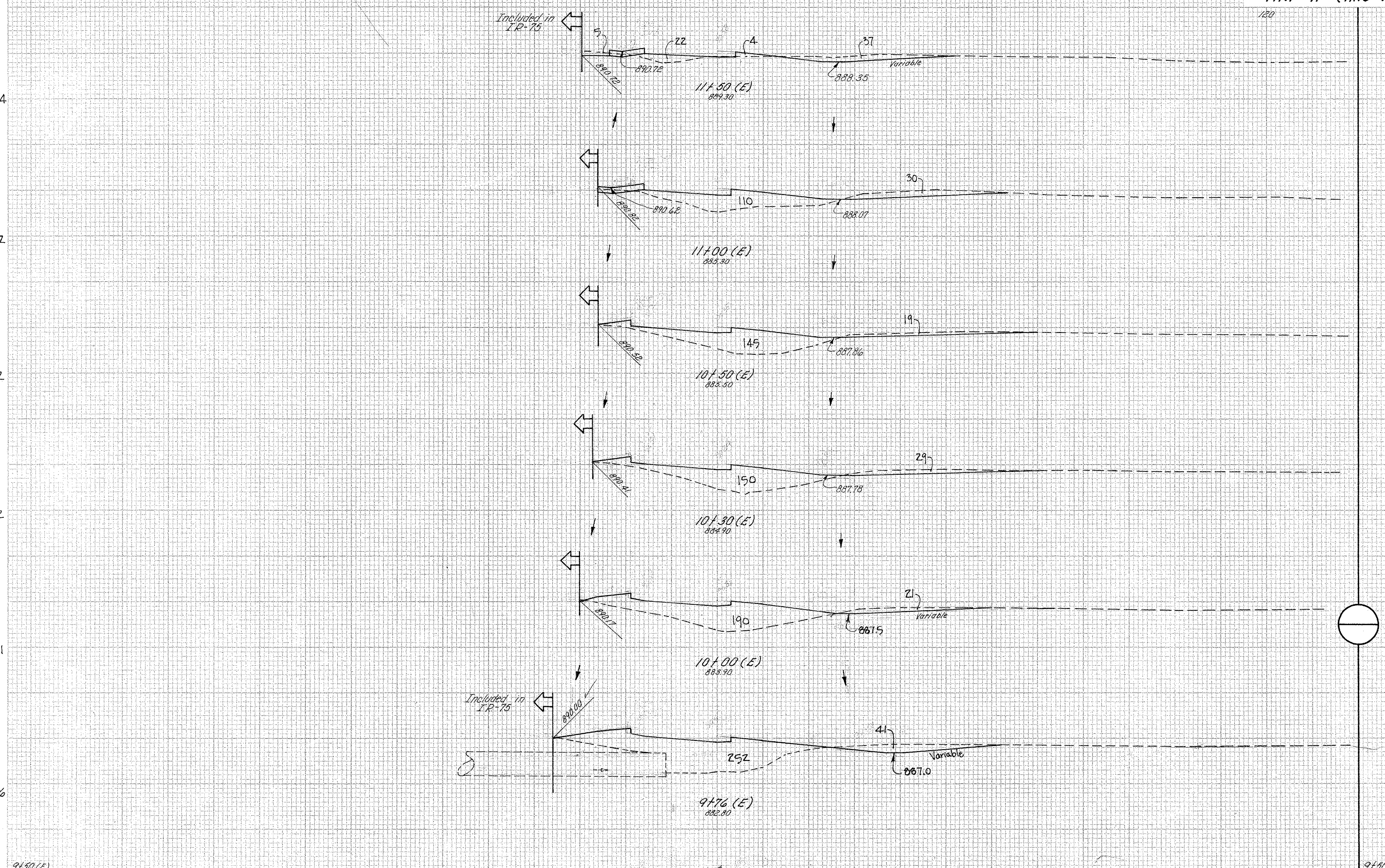
890.2
891.0
121
140
887.1

X-SECTIONS STA. 8+30 (E) TO STA. 9+50 (E) RAMP "E" I.R-75 & S.R-41 INTERCHANGE

END AREA		VOLUME	
CUT	FILL	CUT	FILL
34	373		
		12	290
0	410		
		36	363
65	243		
		61	174
100	226		
		97	174
128	183		
		134	152
140	121		
		126	130
8+00 (E)	85	113	

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

	BY	DATE	CHK.	DATE	REV.	DATE	REV.	DATE
EXISTING	FMH	4-75	WM	5-75				
TEMPLATE	"	"	"	"				
DITCHES	"	"	"	"				
AREAS	FMH	5-75	NEH	6/75				
VOLUMES	FMH	5-75	"	"				
SEEDING	FMH	5-75	"	"				



SEEDING
58
444
72
422
80
182
84
272
79
221
87
266
97

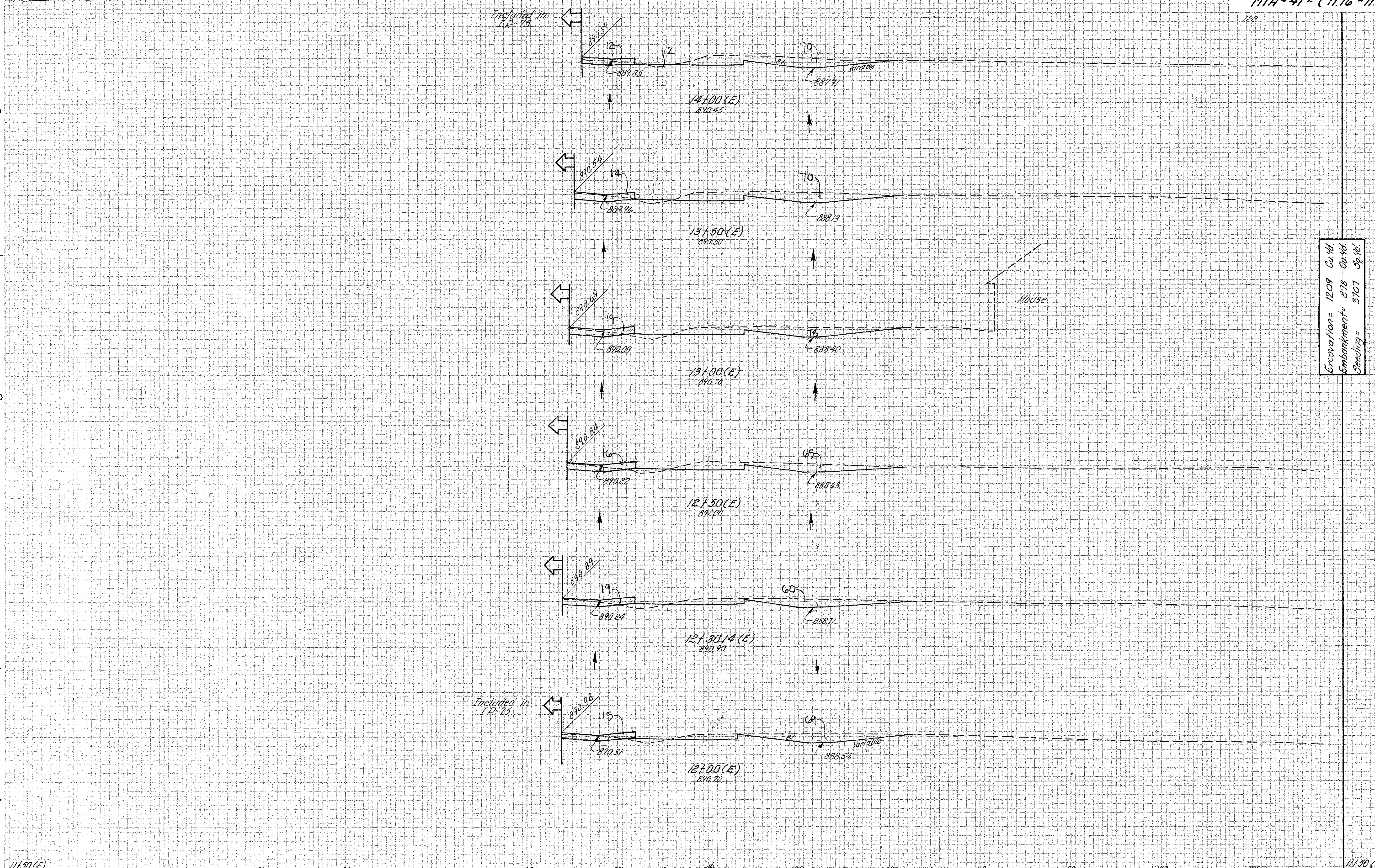
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
42	26		
		67	126
30	110		
		45	236
19	145		
		18	109
29	150		
		28	189
21	190		
		28	196
41	252		
		36	301
9+50 (E) 34	373		

X-SECTIONS STA. 9+76 (E) TO 11+50 (E); RAMP "E"; I.R.-75 & S.R.-41 INTERCHANGE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

	BY	DATE	CHK.	DATE	REV.	DATE	REV.	DATE
EXISTING	FMH	4-75	WM	5-75				
TEMPLATE	"		"					
DITCHES	"		"					
AREAS	FMH	5-75	MRH	6/75				
VOLUMES	FMH	5-75	"	"				
SEEDING	FMH	5-75	"	"				



Excavation = 1209 Cu.Yd.
Embankment = 878 Cu.Yd.
Seeding = 3707 Sq.Yd.

Station	Seeding (Cur. Sq. Yd.)	End Area Cut	End Area Fill	Volume Cut	Volume Fill
14+00(E)	50	70	14		
	283			129	26
13+50(E)	52	70	14		
	294			137	30
13+00(E)	54	78	19		
	300			132	33
12+50(E)	54	65	16		
	123			46	13
12+30.14(E)	57	60	19		
	192			72	19
12+00(E)	58	69	15		
	322			103	38
11+50(E)	58	42	26		

X-SECTIONS STA. 12+00(E) TO 14+00(E) · RAMP "E" · I.R.-75 & S.R.-41 INTERCHANGE

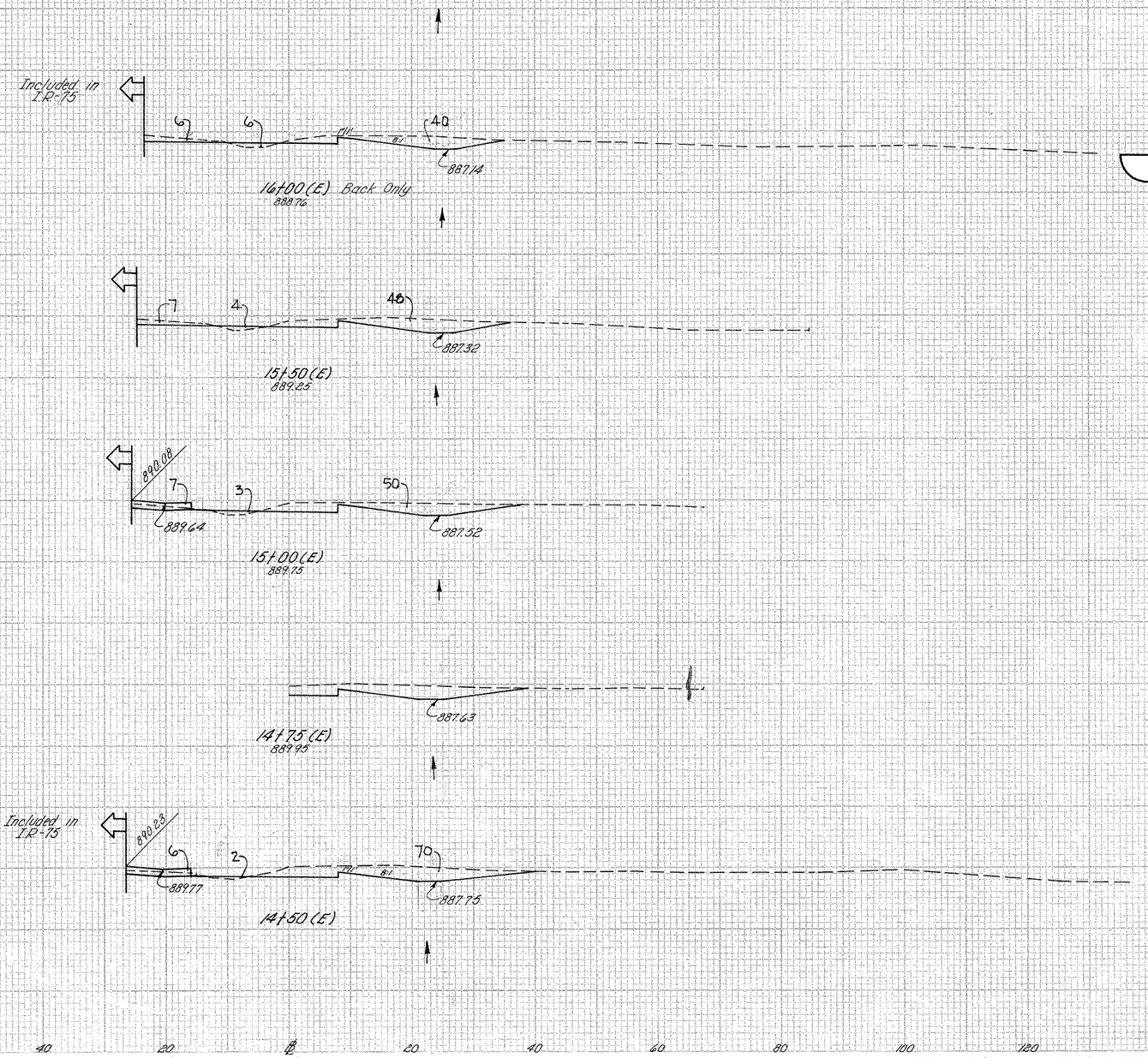
SEEDING

	BY	DATE	CHK	DATE	REV	DATE	REV	DATE
EXISTING	FMH	4-75	WM	5-75				
TEMPLATE	"	"	"	"				
DITCHES	"	"	"	"				
AREAS	FMH	5-75	MEH	6/75				
VOLUMES	FMH	6-75	"	"				
SEEDING	FMH	5-75	"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

113
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
16+00(E)	46	6		
			94	10
	55	4		
			97	13
	50	10		
			111	16
	70	8		
			130	20
14+00(E)	70	14		

X-SECTIONS STA. 14+50(E) TO 16+00(E) · RAMP "E" · I.R-75 & S.R-41 INTERCHANGE

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

114/174

Note: Underdrain Quantities Carried to Sheet № 22

PLAN	BY	DATE	BK'd	DATE	REV.
TOPO	DT	8-70	TC	9-71	
GEOMETRICS	JH	9-71	JC	9-71	
DITCHES	CK	9-71		10-71	
STORM SEWERS	WM	10-71	JH	11-71	
CULVERTS	JH	10-15	JS	6-15	
WPRT. OUTS	CK	9-72	JH	10-74	
PROP. R/W	JS	4-74	EC	4-74	
DRAIN. QUANT.	JS	6-74	CK	7-74	

PROFILE	BY	DATE	CHK	DATE	REV.
EXISTING	JO	12-70	EC	12-71	
GRADE	JS	5-71	JH	6-71	
B. M. №	EC	5-71	DT	5-71	

CURVE DATA	
P.I. = 5+88.40	K = 99.96'
Δ = 29°-28'-42" Lt.	Xc = 199.76'
D = 6°-20'	Yc = 7.36'
R = 904.67'	Δc = 16°-48'-42"
Ls = 200	Lc = 265.45'
θs = 6°-20'	Ts = 338.44'
P = 1.84'	Es = 32.68'

Construction Limits 430+02-191' L.P.A.

Sta 430+57.29 Ex. SR 41
Sta 0+70.0(F) Prop. Ramp F

Sta 429+73.64 30' Lt.

Sta 430+45.74-87.37' Lt.
Sta 0+82.72(F)-50' Lt.

429+40~184' I.A.P.A.

519+60~324' I.A.P.A.

523+00~184' I.A.P.A.

Sta 521+88.73-52' Lt.
Sta 0+59.02(F)-66' Rt.

Sta 522+30.32~127.27' Lt.
Ex. 18°

Sta 524+72.21~92.87' Lt.

Sta 521+15.41(F)=
Sta 522+30.32~127.27' Lt.

Sta 524+72.21~92.87' Lt.

Sta 522+30.78' Lt.

Sta 519+86.92~230.78' Lt.

Sta 0+44.96(F)

Sta 0+59.02(F)-66' Rt.

Sta 0+82.72(F)-50' Lt.

Sta 0+70.0(F) Prop. Ramp F

Sta 521+88.40
Δ=29°-28'-42" Lt.

Sta 521+15.41(F)=
Sta 522+30.32~127.27' Lt.

Sta 524+72.21~92.87' Lt.

Sta 522+30.78' Lt.

Sta 519+86.92~230.78' Lt.

Sta 0+44.96(F)

Sta 0+59.02(F)-66' Rt.

Sta 521+88.73-52' Lt.

Sta 430+57.29 Ex. SR 41

Sta 0+70.0(F) Prop. Ramp F

Sta 429+73.64 30' Lt.

Sta 430+45.74-87.37' Lt.

Sta 0+82.72(F)-50' Lt.

429+40~184' I.A.P.A.

519+60~324' I.A.P.A.

523+00~184' I.A.P.A

DONALD E. STOUT, INC.

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

115/174

PLAN	BY	DATE	CHK	DATE	REV.	DATE
CPD	DT	8-70	TC	9-71		
GEOMETRICS	CK	8-71	JK	9-71		
DITCHES	CK	9-71	JK	9-71		
SIGNAL SEVERS	MM	10-71	JH	11-71		
CULVERTS	JH	10-72	JS	6-75		
PAVT. QUAN.	JS	9-74	JH	10-74		
MISC. ITEMS	DK	9-74	JH	10-74		
WORK SHEETS	DK	4-74	CK	7-74		
FINAL QUAN.						

PROFILE	BY	DATE	CHK	DATE	REV.	DATE
EXISTING GRADE	JS	12-70	EC	12-71		
B.M.'S	EC	5-71	DT	5-71		

P.T. Sta. 137+68.74(F) = Sta. 528+79.47~66' Lt.

529+00~160.5' L.A.P.A.

14-U

P.T. Sta. 161+44.43(F) = Sta. 531+25.16~66' Lt.

Sta. 171+15.15(F) = Sta. 532+25.16~34' Lt.

534+42~139' C.P.A.

534+42~109' C.P.A.

Const. Line

Exist. L.A. R/W

Sta. 526+02.32~66' Lt. = P.I. Sta. 10+79.56(F) Δ = 8°~18' Lt.

Ex. S.B. Lanes

525 526 527 528 529 530 531 532 533 534 535

℄ Survey Exist. I R 75 ~ N.~3°~2'~30"~W.

Ex. N.B. Lanes

533+00~109' L.A.P.A.

528+06~109' L.A.P.A.

Exist. L.A. R/W

12"Gas

HP Gas Line

Tel. Marker

1 Sty. Br. Res. (×6)

1½ Sty Res.

1½ Sty Br. Res.

CURVE DATA
P.I. = Sta. 10+92.56(F)
Δ = 8°~18'~Lt.
D = 1°~30'
R = 3819.72'
T = 277.15'
E = 10.04'
L = 553.33'

THE TROY LAND IMPROVEMENT CO.

Baseline 889.64 889.56 889.47 889.37 889.26 889.14 889.01 +64.74 888.87 888.83 888.71 888.56 +14.43 888.41 888.26 888.11 888.07 888.03 +15.15 887.98 887.96

Developed 3/16"/1' off Ex. E.P. S.B. Lanes +1.14'

895 890 885

6" 605 @ 0.24%

IE 885.78

IE 884.06

See Sheet N° 17 for continued underdrain profile.

10(F) 11(F) 12(F) 13(F) 14(F) 15(F) 16(F) 17(F)

+50 +50 +50 +50 +68.74 +50 +14.43 +50 +15.15 532+25.16~34' Lt.

890.9 888.8 887.4 887.1 887.4 887.7 887.7 887.8 887.7 887.6 887.6 887.6 887.4 887.2 887.1 887.2 887.5 887.62

ESTIMATED QUANTITIES

SHOE	STATION TO STATION	USE

SEE SHEET NO.

TOTALS

RAMP "F" DECELERATION LANE & PAVEMENT DETAILS

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

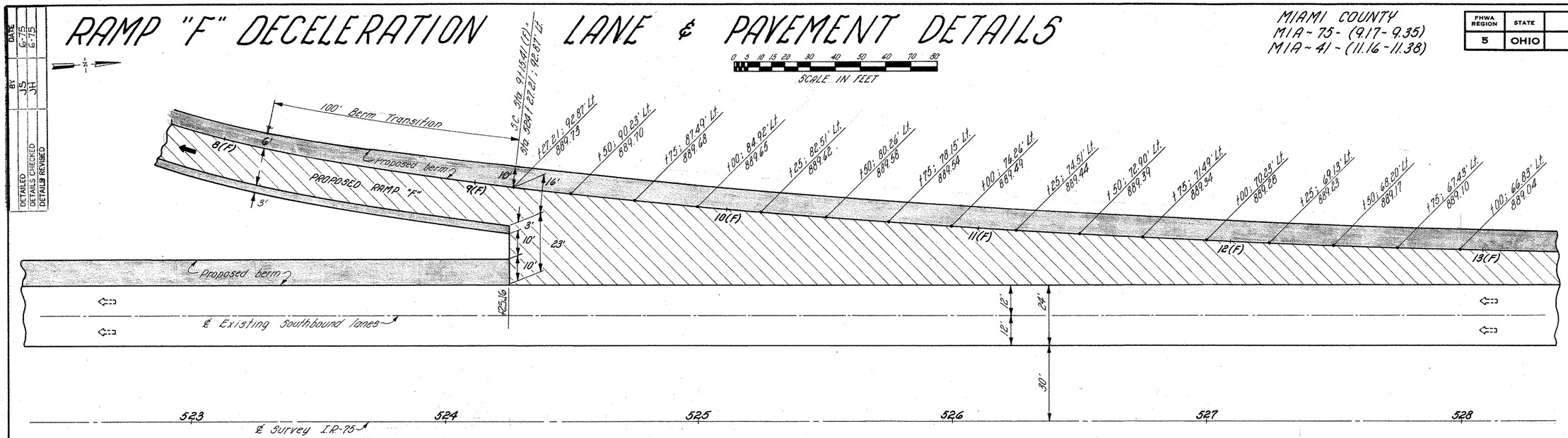
FHWA REGION	STATE	PROJECT	
5	OHIO		

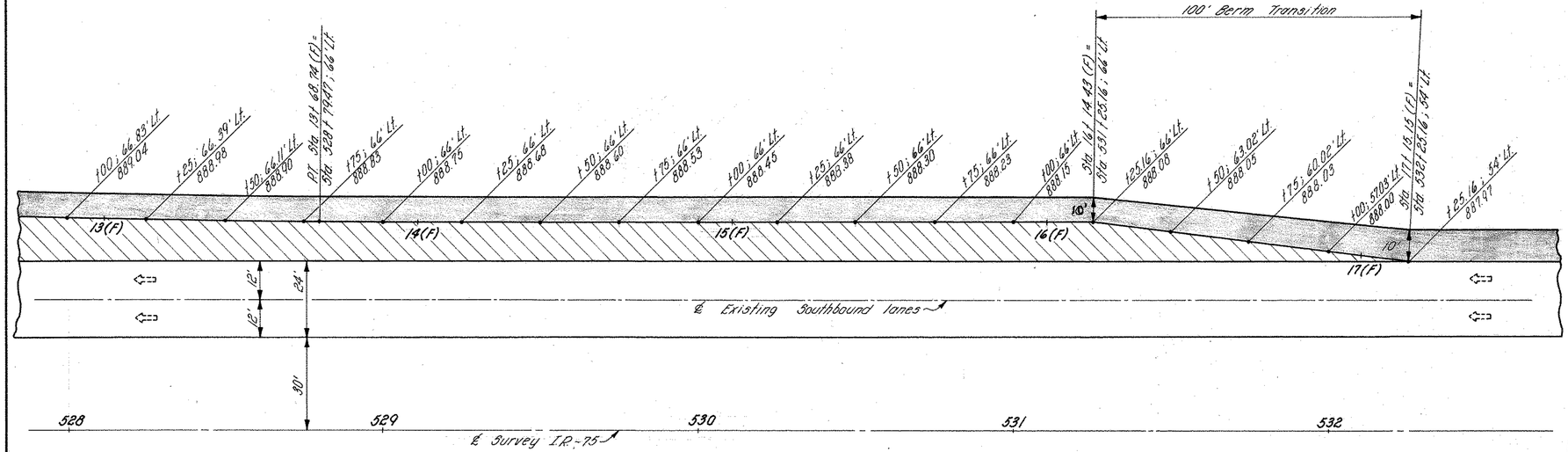
116
174

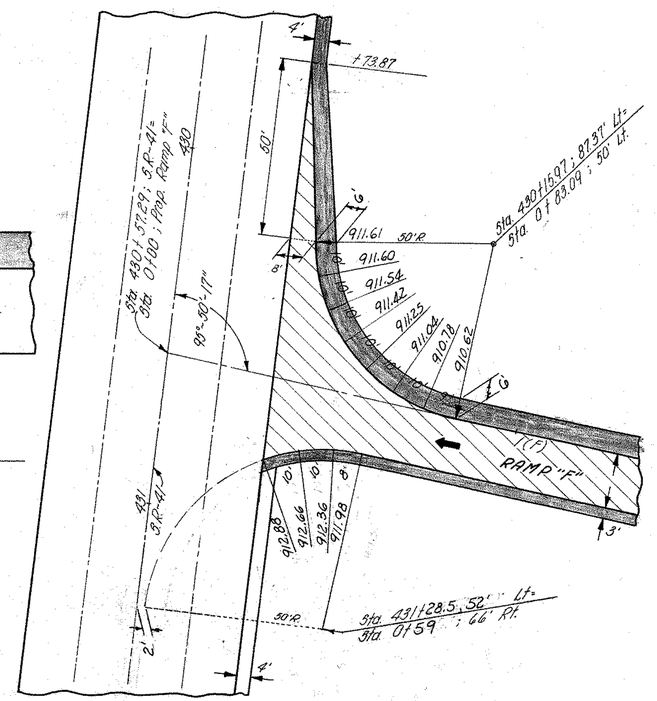
DATE	BY	
6-75	JS	DETAILED
6-75	JH	DETAILS CHECKED
		DETAILS REVISED

1/4

SCALE IN FEET 0 5 10 15 20 30 40 50 60 70 80





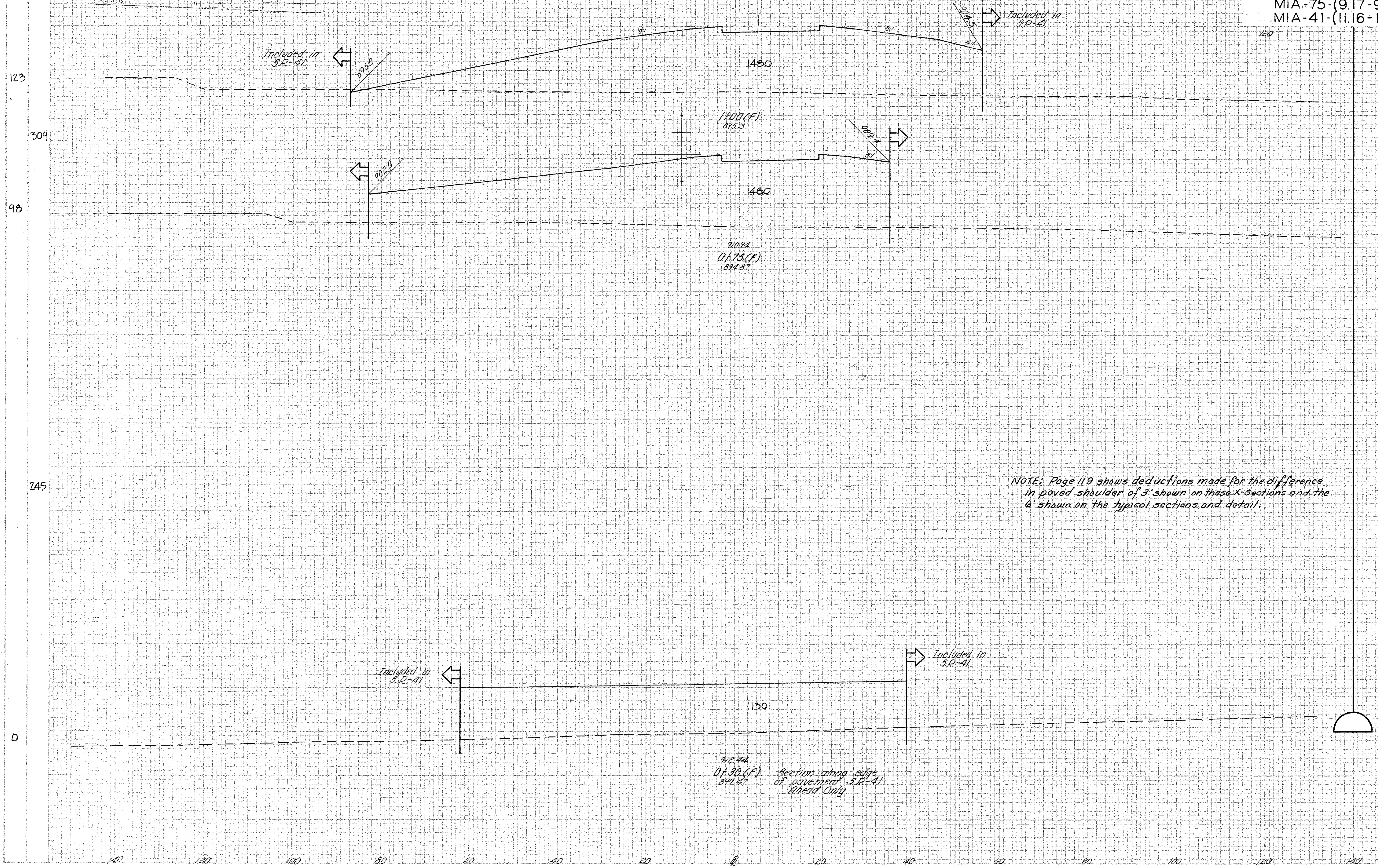


RAMP "F" DECELERATION LANE & PAVEMENT DETAILS

	BY	DATE	CHK.	DATE	REV.	DATE	REV.	DATE
EXISTING	FMH	4-75	WM	5-75				
TEMPLATE	"	"	"	"				
DITCHES	"	"	"	"				
AREAS	FMH	5-75	MRH	6/79				
VOLUMES	"	"	"	"				
SEEDING			"	"				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	1480		
		0	1370
0	1480		
		0	2175
0	1130		

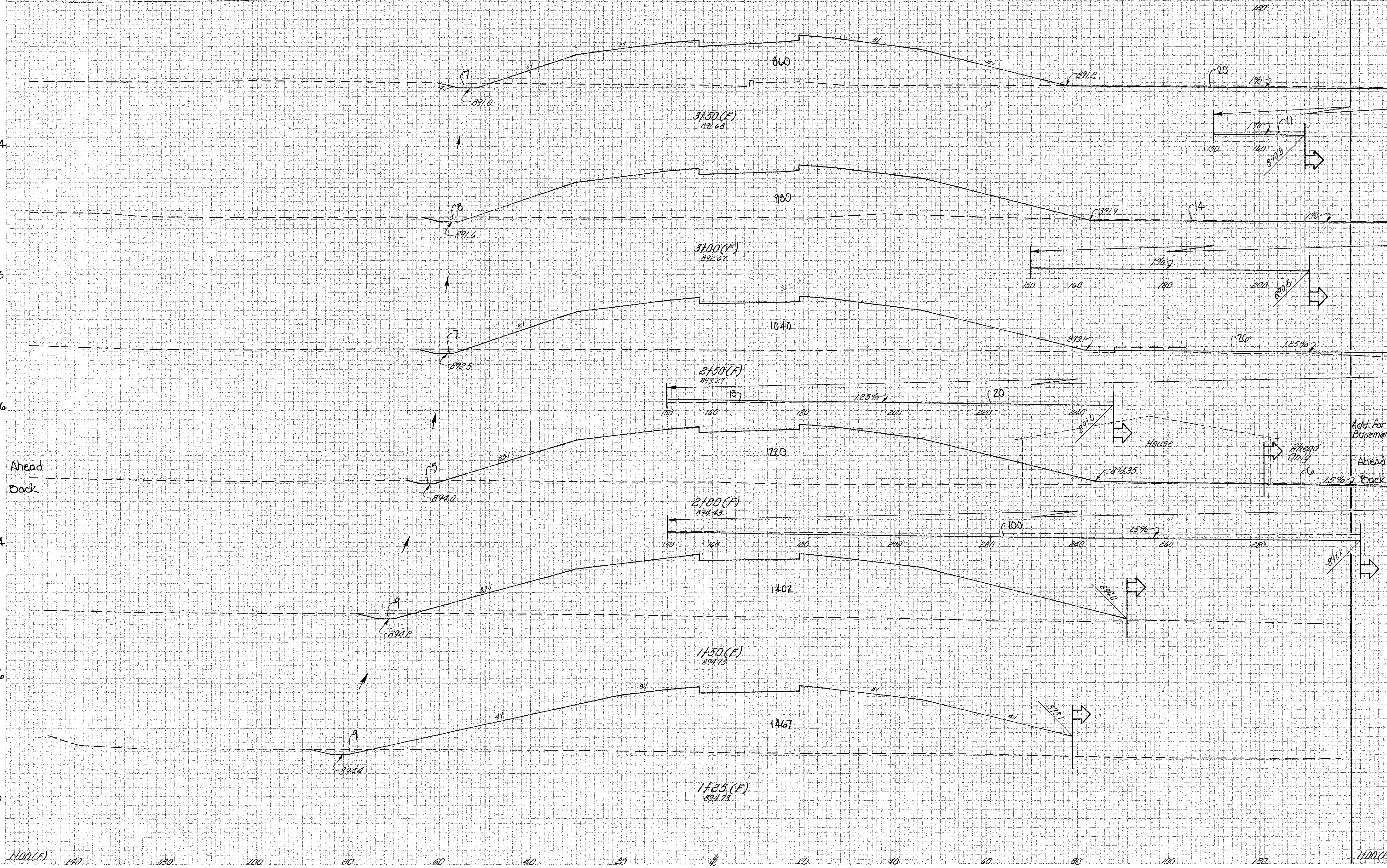
NOTE: Page 119 shows deductions made for the difference in paved shoulder of 3' shown on these X-sections and the 6' shown on the typical sections and detail.

X-SECTIONS STA. 0+30(F) TO 1+00(F): RAMP "F" : I.R.-75 & S.R.-41 INTERCHANGE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		118/174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	FMH	4-75	WM	5-75				
TEMPLATE	"	"	"	"				
DITCHES								
AREAS	FMH	5-75	MRH	6/75				
VOLUMES	"	"	"	"				
SEEDING								



SEEDING END WIDTH	AV. WIDTH	Station	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
211		3+50(F)	38	860		
	1294				55	1704
255		3+00(F)	22	980		
	1553				45	1906
294		2+50(F)	27	1079		
	1806				128	2129
						100
356		Ahead	111	1220		
179		Back	5	1220		
	944				13	2428
161		1+50(F)	9	1402		
	446				8	1328
160		1+25(F)	9	1467		
	393				4	1364
123		1+00(F)	0	1480		

X-SECTIONS STA. 1+25(F) TO 3+50(F) : RAMP "F" : I.R.-75 & S.R.-41 INTERCHANGE

SEEDING

	BY	DATE	CHK.	DATE	REV.	DATE	REV.	DATE
EXISTING	FMH	4-75	MEH	5-75				
TEMPLATE	"	"	"	"				
DITCHES	"	"	"	"				
AREAS	FMH	5-75	MEH	6/75				
VOLUMES	"	"	"	"				
SEEDING								

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

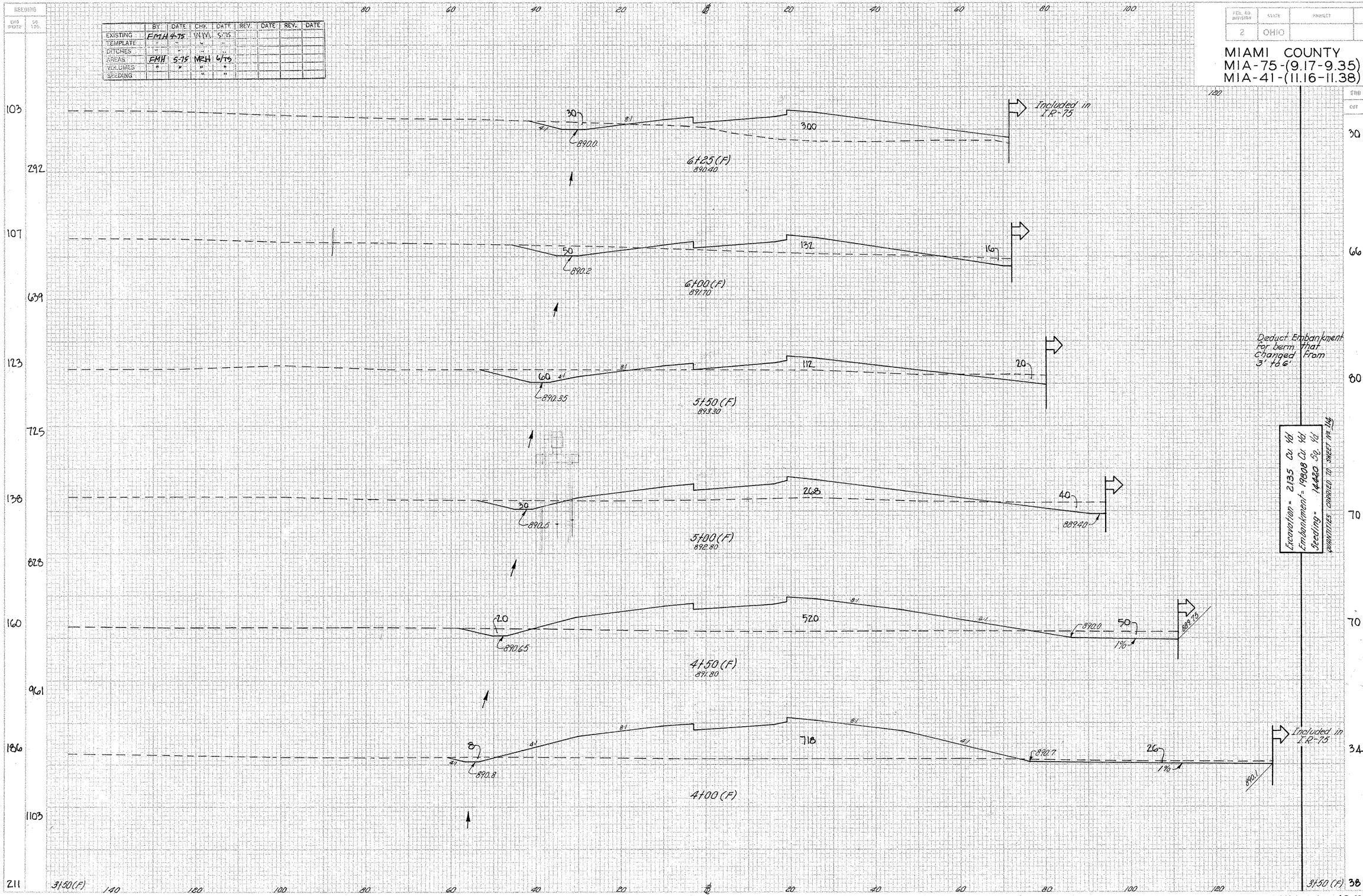
119
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

END AREA		VOLUME	
CUT	FILL	CUT	FILL
30	300		
		44	200
66	132		
		135	226
			-100
80	112		
		139	352
70	268		
		130	730
70	520		
		96	1146
34	718		
		67	1461
38	860		

Deduct Embankment for berm that Changed From 3' to 6'

Excavation = 2135 Cu Yd.
Embankment = 19808 Cu Yd.
Seeding = 14420 Sq. Yd.
QUANTITIES CARRIED TO SHEET No. 156



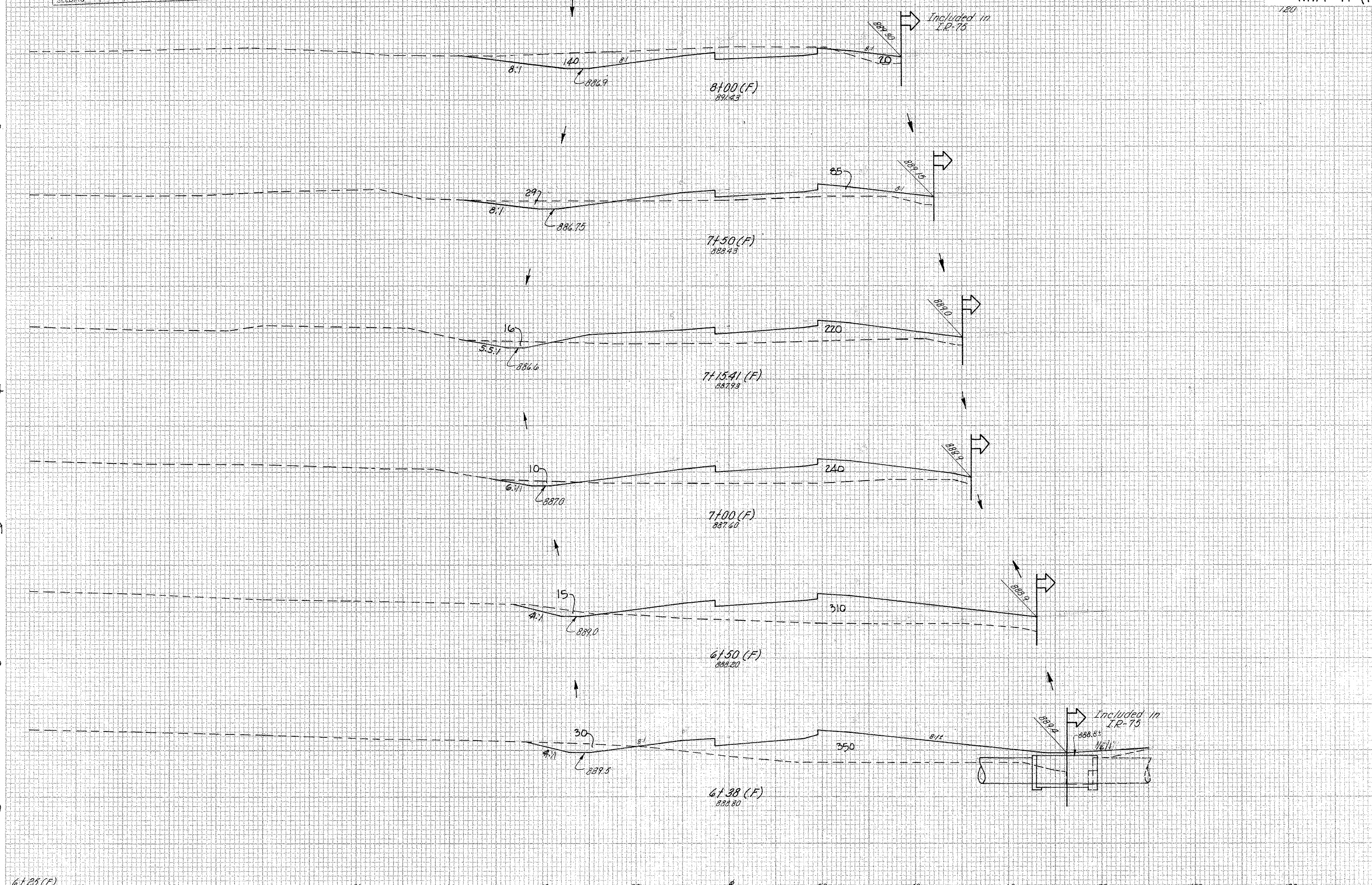
X-SECTIONS STA 4+00 (F) TO 6+25 (F) · RAMP "F" · I.R-75 & S.R-41 INTERCHANGE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

120/174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

	BY	DATE	CHK	DATE	REV	DATE	REV	DATE
EXISTING	EMH	4-75	WM	5-75				
TEMPLATE	"	"						
DITCHES								
AREAS	EMH	5-75	MRH	6/75				
VOLUMES	"	"	"	"				
SEEDING								



SEEDING END WIDTH	SEEDING SQ. YDS.
83	
	480
90	
	380
99	
	164
92	
	539
102	
	138
105	
	150
103	

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
140	20		
		156	97
29	85		
		29	195
16	220		
		7	132
10	240		
		23	509
15	310		
		10	147
30	350		
		14	157
6+25 (F) 30	300		

X-SECTIONS STA. 6+38 (F) TO 8+00 (F): RAMP "F": I.R.-75 & S.R.-41 INTERCHANGE

SECTIONS

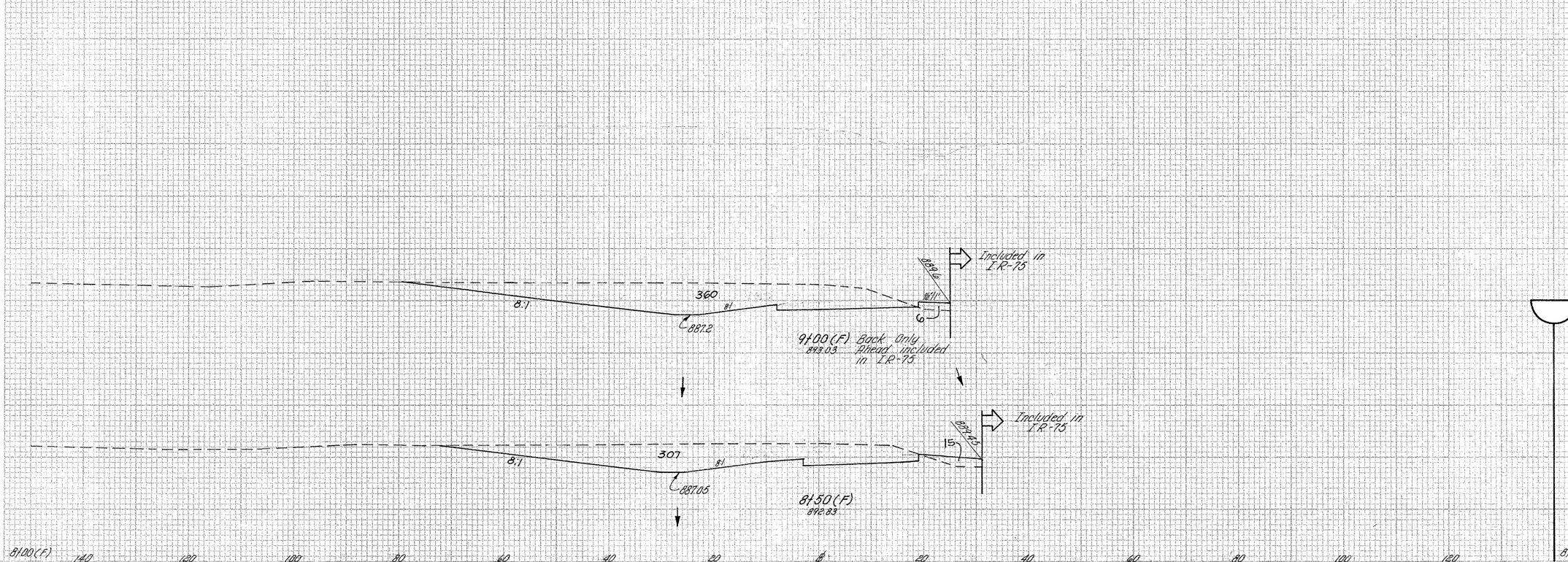
	BY	DATE	CHK	DATE	REV.	DATE	REV.	DATE
EXISTING	FMH	4-75	WM	5-75				
TEMPLATE	"	"	"	"				
DITCHES	"	"	"	"				
AREAS	FMH	5-75	MEH	6/75				
VOLUMES	"	"	"	"				
SEEDING								

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

121
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

END AREA		VOLUME	
CUT	FILL	CUT	FILL
547		618	20
91		414	32
484			
83			



X-SECTIONS STA. 8+50(F) TO 9+00(F) - RAMP "F" - I.R.-75 & S.R.-41 INTERCHANGE

	BY	DATE
DETAILED	MH	4-75
DETAILS CHECKED	WR	5-75
DETAILS REVISED	CK	8-75

STRUCTURE STA. 496+70.00

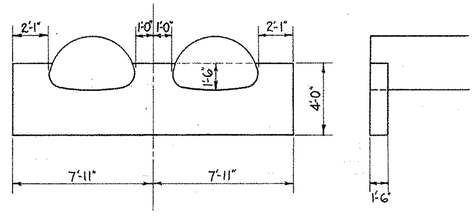
STRUCTURE Nº 0941

FHWA REGION	STATE	PROJECT	
5	OHIO		

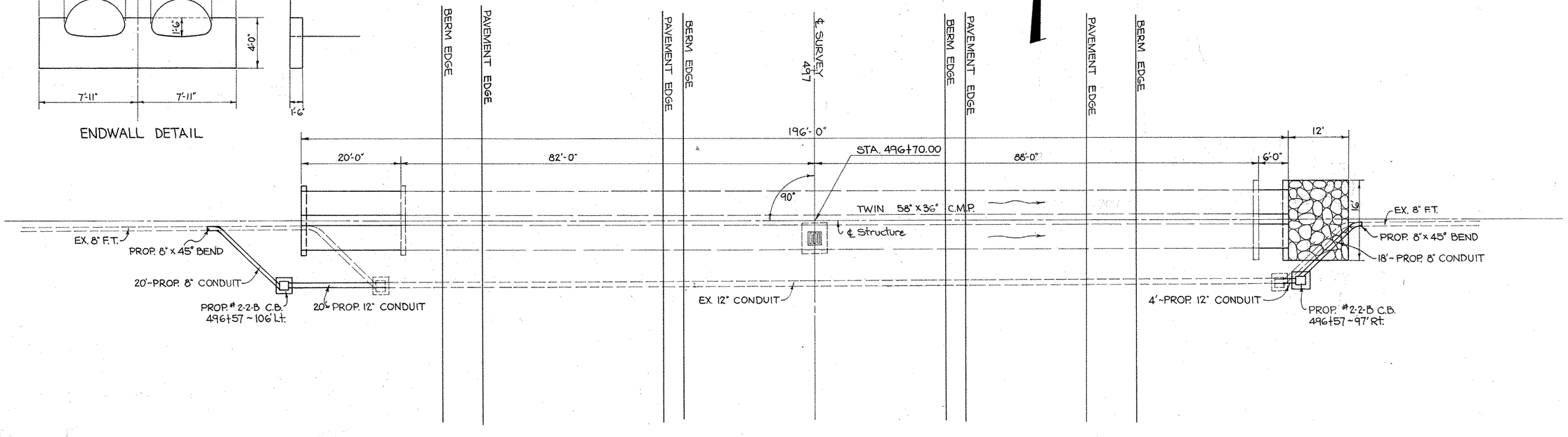
122/174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

0 10 20
SCALE IN FEET



ENDWALL DETAIL



~ PLAN ~

ESTIMATED QUANTITIES

ITEM 603	58"x36" CONDUIT, TYPE 'A', 707.05	52	LIN. FT.
ITEM 603	12" CONDUIT, TYPE 'B',	24	LIN. FT.
ITEM 603	8" CONDUIT, TYPE 'C'	38	LIN. FT.
ITEM 604	CATCH BASIN, RECONSTRUCTED AS #8	1	EACH
ITEM 602	CONCRETE MASONRY	3.75	CU.YDS.
ITEM 604	STANDARD #2-2-B CATCH BASIN	2	EACH
ITEM 601	ROCK CHANNEL PROTECTION, TYPE 'B'▲	14.22	CU.YDS.
ITEM 202	CATCH BASIN ABANDONED	2	EACH

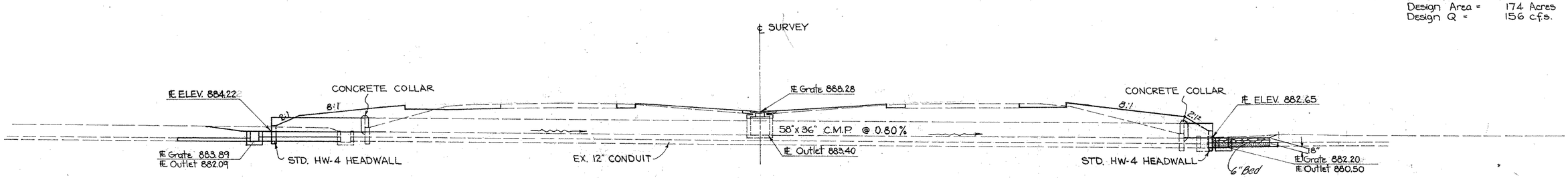
▲ *with bedding*

WORK REQUIRED: Extend culvert left and right as shown. In median, reconstruct existing 1-4 catch basin as a Nº 8, as per plan. Join ends of existing conduit thru existing 2-2-B catch basins and abandon. A concrete collar shall be used to join existing and proposed 58"x36" conduit.

For collar detail, see sheet 19.

DATUM ELEV. 920.00

DESIGN DATA
Design Area = 174 Acres
Design Q = 156 c.f.s.



~ SECTION ON ℄ STRUCTURE ~

STRUCTURE STA. 496+70.00

Detailed . . . . . MRH
Details Checked . . . . JH
Details Revised . . . .

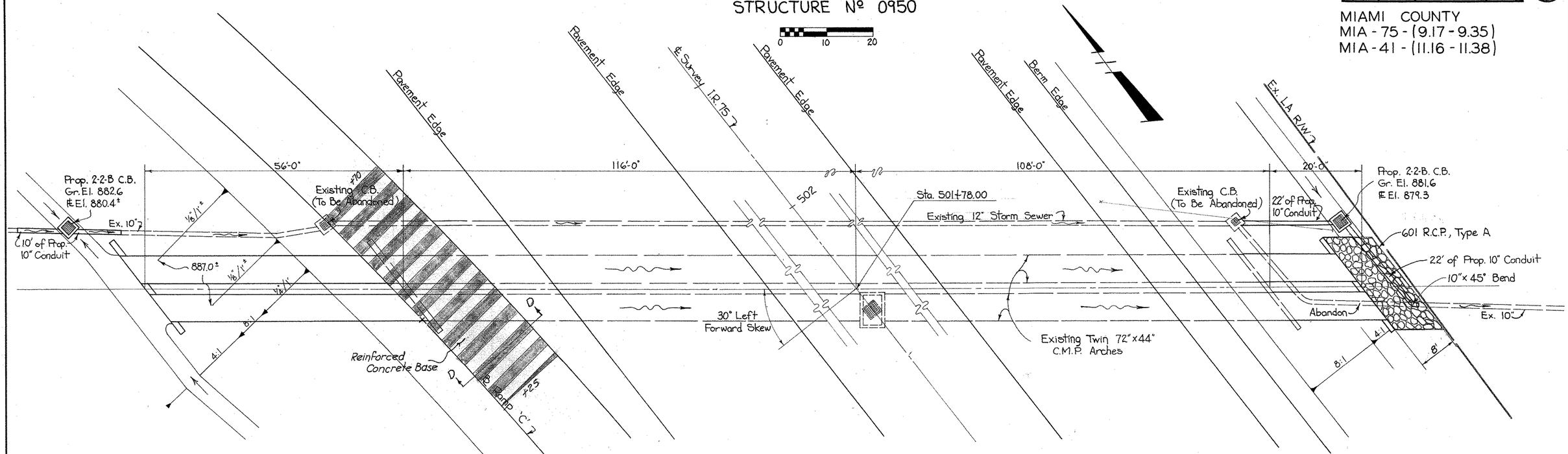
STRUCTURE STA. 501+78.00

STRUCTURE Nº 0950

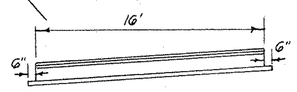
FHWA REGION	STATE	PROJECT	
5	OHIO		

123/174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

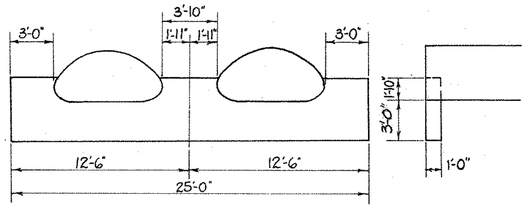


~PLAN~



SECTION D-D
1½" 404 on 1¼" 402 on
9" 451 on 3" 310

Note: 404 and 402 are included in Ramp Pavt. Quantities.



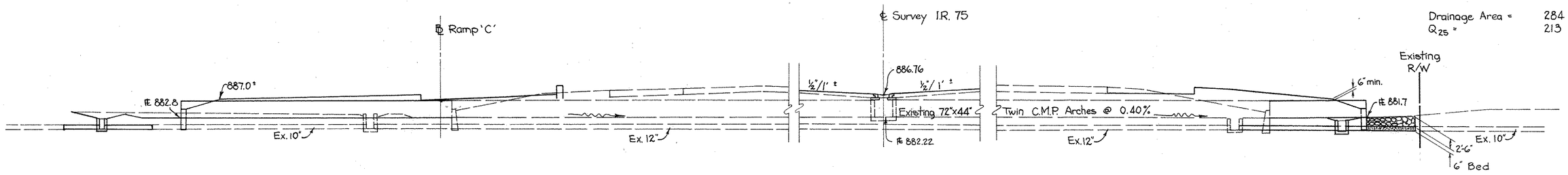
Detail of Headwall Scale 1"=5'-0"

Work Required: Extend 72"x44" C.M.P. Arches left and right, and construct proposed headwalls. Construct 2-2-B Catch Basins in ditches as shown, and abandon both existing catch basins. Construct connections to existing 10" pipes. Reconstruct median catch basin to a Catch Basin Reconstructed as Nº 8, as per plan. Connect existing and proposed conduit with a concrete collar, left and right.

ESTIMATED QUANTITIES:

Item	604	Nº 8 Catch Basin, Reconstructed as per plan	1 Each
Item	604	Nº 2-2-B Catch Basin	2 Each
Item	605	72"x44" Conduit, Type 'A', 707.05	76 Lin.Ft.
Item	605	10" Conduit, Type 'F'	54 Lin.Ft.
Item	602	Concrete Masonry	6.88 Cu.Yd.
Item	601	Rock Channel Protection, Type 'A' with Bedding	23 Cu.Yd.
Item	451	Reinforced Portland Cement Concrete Pavement	98 Sq.Yd.
Item	202	Catch Basin Abandoned	2 Each
Item	310	Subbase	8.66 Cu.Yd

DATUM ELEV. 910.00



SECTION ALONG ℄ OF STRUCTURE

STRUCTURE STA. 501+78.00

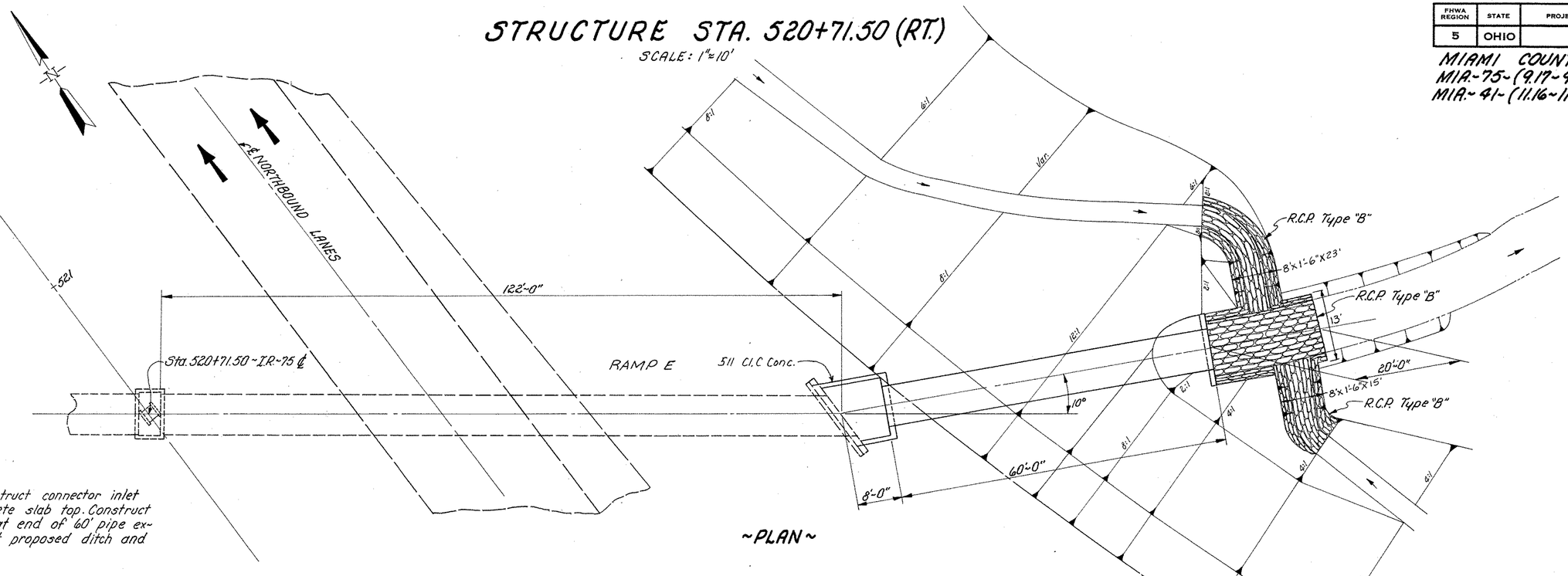
FHWA REGION	STATE	PROJECT	
5	OHIO		

124
174

MIAMI COUNTY
MIA.-75-(9.17-9.35)
MIA.-41-(11.16-11.38)

STRUCTURE STA. 520+71.50 (RT.)

SCALE: 1"=10'



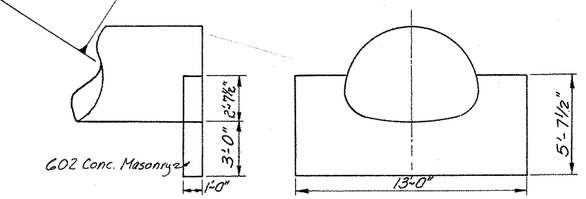
~PLAN~

WORK REQUIRED: Construct connector inlet as shown with concrete slab top. Construct headwall (Std. HW-4) at end of 60' pipe extension right to meet proposed ditch and existing draw.

NOTE: The cost of all materials for Expansion Anchor Bolts are included in the unit price bid for Item 511; Concrete Class C. See Sht. 19 for detail.

ESTIMATED QUANTITIES

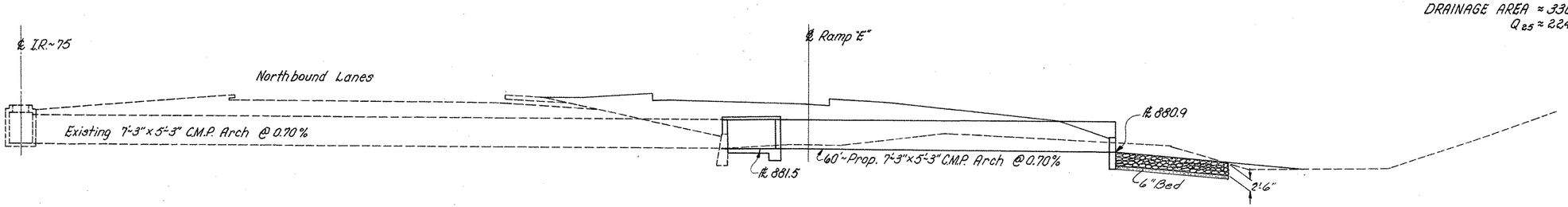
Item 603	7'-3"x5'-3" Conduit, Type "A", 107.03(0.109-0.138)60	~Lin.Ft.
Item 602	Concrete Masonry	2.10 ~Cu.Yds.
Item 509	Reinforcing Steel	1386.33 ~Lbs.
Item 601	Rock Channel Protection Type "B" W/bedding	52 ~Cu.Yds.
Item 511	Class C Concrete	8.84 ~Cu.Yd.
Item 503	Unclassified Excavation	10 Cu. Yd.



ENDWALL DETAIL
SCALE: 1"=4'-0"

Datum Elev. 910.00

DRAINAGE AREA ≈ 330 Ac.
Q_{25} ≈ 224 cfs



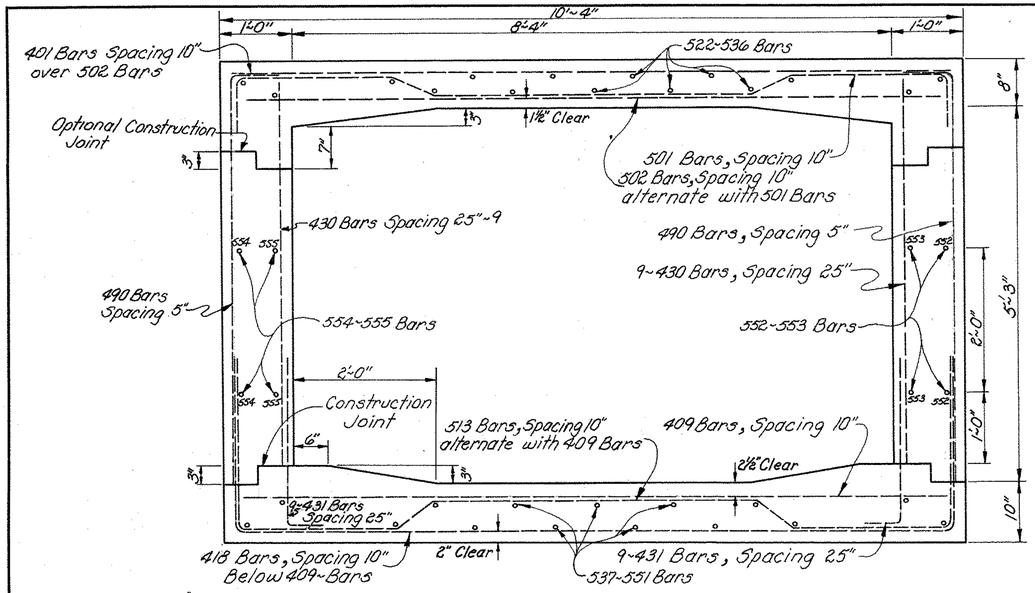
~SECTION ALONG ℄ OF STRUCTURE~

STRUCTURE STA. 520+71.50 I.R.-75 (RIGHT)

FHWA REGION	STATE	PROJECT	
5	OHIO		

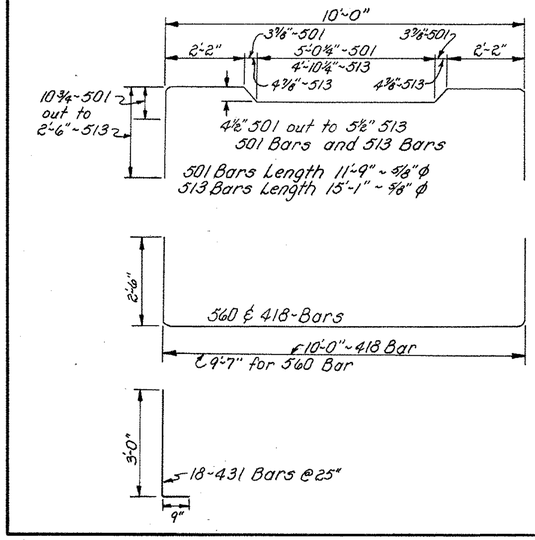
124-A
174

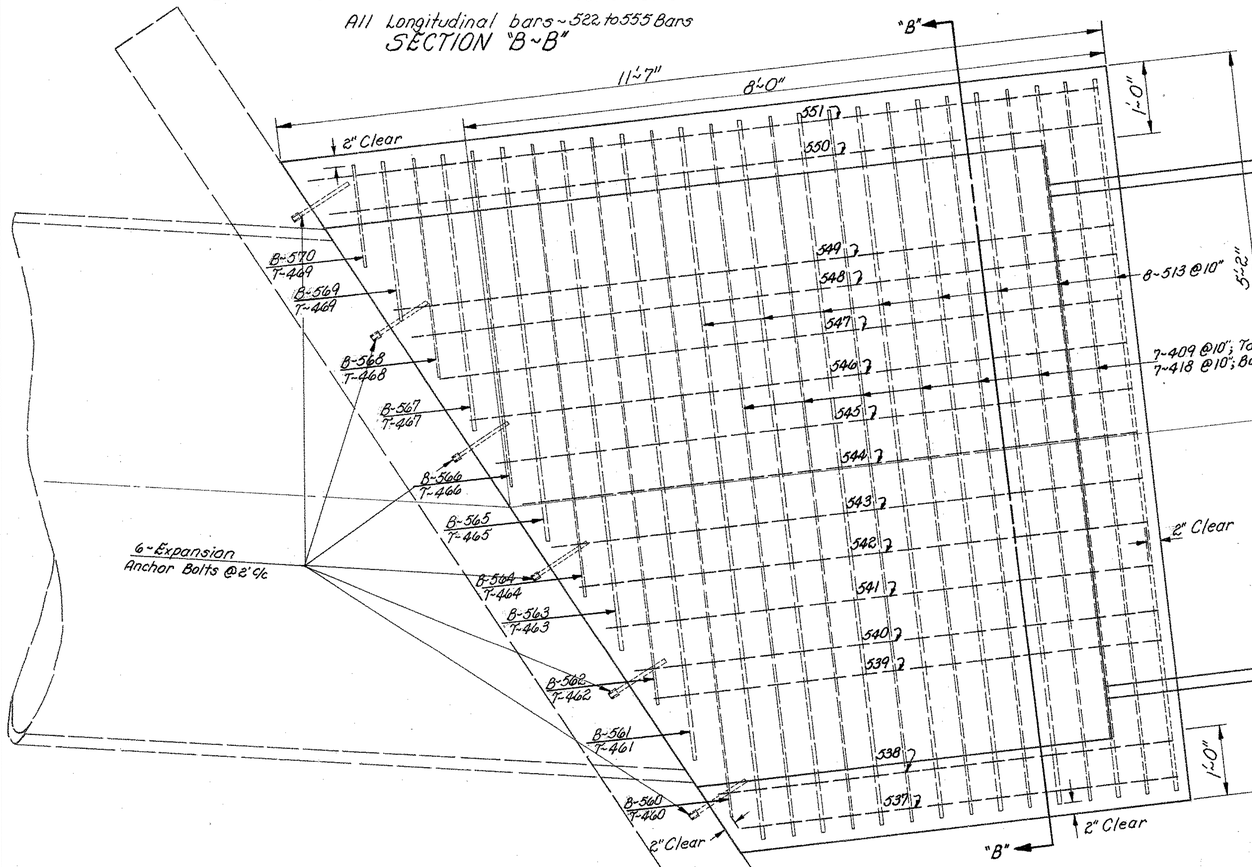
MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)



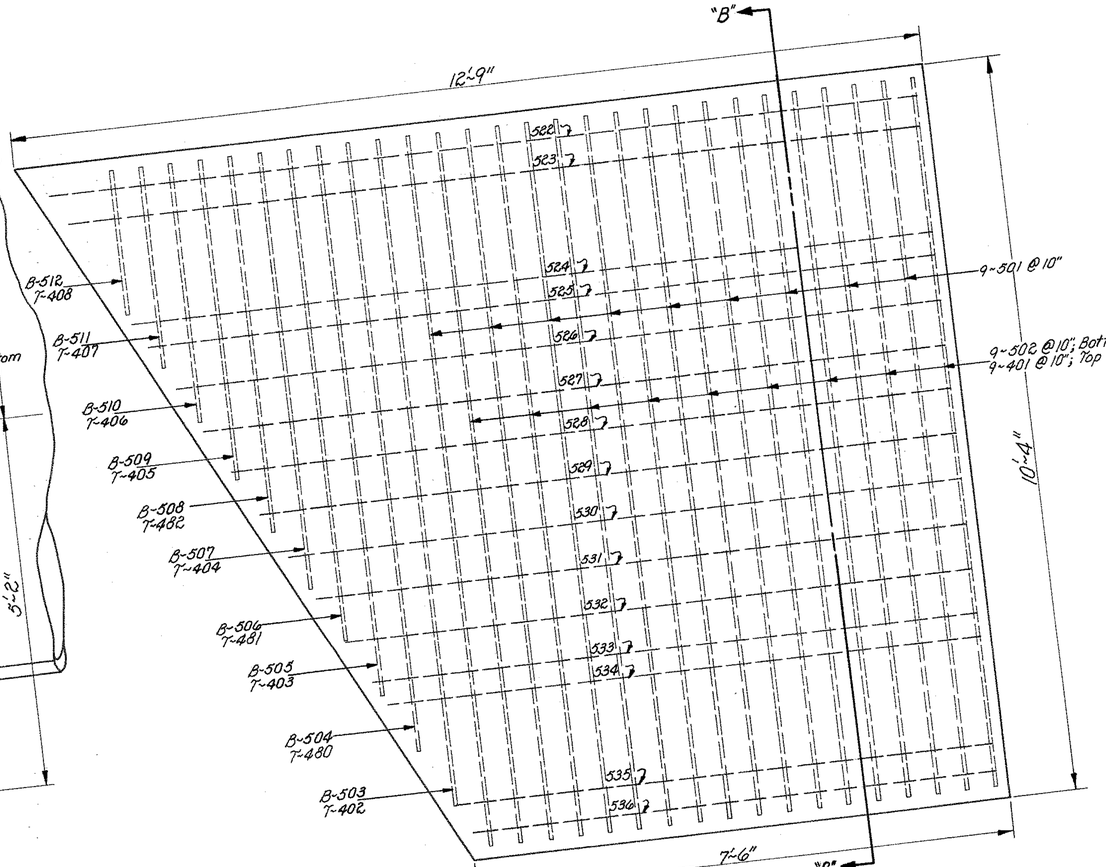
All Longitudinal bars - 522 to 555 Bars

SECTION "B-B"





FLOOR



TOP

CONNECTOR STA. 520+71.50 IR. 75 (RIGHT)

ESTIMATED QUANTITIES

MIAMI COUNTY
MIA.-75-(9.17~9.35)
MIA.-41-(11.16~11.38)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

(124-B 174)

STRUCTURE STA. 520+71.50 (RT.)

REF. NO.	DIAMETER	NO. REQUIRED	SHAPE	LENGTH EACH	TOTAL LENGTH	WEIGHT
	INCHES			LIN.FT.	LIN.FT.	LBS.
501	5/8"	9	Bent	11'-9"	105'-9"	110.30
502	5/8"	9	Straight	10'-0"	90'-0"	93.87
401	1/2"	9	"	10'-0"	90'-0"	60.12
503	5/8"	1	"	9'-4"	9'-4"	9.73
402	1/2"	1	"	9'-4"	9'-4"	6.23
504	5/8"	1	"	8'-6"	8'-6"	8.87
480	1/2"	1	"	8'-6"	8'-6"	5.68
505	5/8"	1	"	7'-9"	7'-9"	8.08
403	1/2"	1	"	7'-9"	7'-9"	5.18
506	5/8"	1	"	6'-11"	6'-11"	7.21
481	1/2"	1	"	6'-11"	6'-11"	4.62
507	5/8"	1	"	6'-2"	6'-2"	6.43
404	1/2"	1	"	6'-2"	6'-2"	4.12
508	3/8"	1	"	5'-3"	5'-3"	5.48
482	1/2"	1	"	5'-3"	5'-3"	3.51
509	5/8"	1	"	4'-6"	4'-6"	4.69
405	1/2"	1	"	4'-6"	4'-6"	3.01
510	3/8"	1	"	3'-8"	3'-8"	3.82
406	1/2"	1	"	3'-8"	3'-8"	2.45
511	5/8"	1	"	2'-10"	2'-10"	2.96
407	1/2"	1	"	2'-10"	2'-10"	1.89
512	3/8"	1	"	2'-0"	2'-0"	2.09
408	1/2"	1	"	2'-0"	2'-0"	1.34
522	5/8"	1	"	12'-2"	12'-2"	12.69
523	3/8"	1	"	11'-11"	11'-11"	12.43
524	3/8"	1	"	11'-3"	11'-3"	11.73
525	3/8"	1	"	11'-0"	11'-0"	11.47
526	3/8"	1	"	10'-8"	10'-8"	11.13
527	3/8"	1	"	10'-5"	10'-5"	10.86
528	3/8"	1	"	10'-1"	10'-1"	10.52
529	3/8"	1	"	9'-9"	9'-9"	10.17
530	3/8"	1	"	9'-5"	9'-5"	9.82
531	3/8"	1	"	9'-1"	9'-1"	9.47
532	3/8"	1	"	8'-9"	8'-9"	9.13
533	3/8"	1	"	8'-6"	8'-6"	8.87
534	5/8"	1	"	8'-3"	8'-3"	8.60
535	3/8"	1	"	7'-6"	7'-6"	7.82
536	3/8"	1	"	7'-4"	7'-4"	7.65
537	3/8"	1	"	6'-2"	6'-2"	6.43
538	3/8"	1	"	6'-5"	6'-5"	6.69
539	3/8"	1	"	7'-1"	7'-1"	7.39
540	3/8"	1	"	7'-4"	7'-4"	7.65
541	5/8"	1	"	7'-8"	7'-8"	8.00
542	3/8"	1	"	8'-0"	8'-0"	8.34
543	3/8"	1	"	8'-3"	8'-3"	8.60
544	3/8"	1	"	8'-7"	8'-7"	8.95
545	3/8"	1	"	8'-11"	8'-11"	9.30
546	3/8"	1	"	9'-3"	9'-3"	9.65
547	3/8"	1	"	9'-7"	9'-7"	10.00
548	3/8"	1	"	9'-11"	9'-11"	10.34
549	3/8"	1	"	10'-1"	10'-1"	10.52
550	3/8"	1	"	10'-10"	10'-10"	11.30
551	5/8"	1	Straight	11'-1"	11'-1"	11.56
513	5/8"	8	Bent	15'-1"	120'-8"	125.86
409	1/2"	7	Straight	10'-0"	70'-0"	46.76
418	1/2"	7	Bent	15'-0"	105'-0"	70.14
460	1/2"	1	Straight	9'-7"	9'-7"	6.40
461	1/2"	1	"	8'-9"	8'-9"	5.85
462	1/2"	1	"	8'-0"	8'-0"	5.34
463	1/2"	1	"	7'-2"	7'-2"	4.79
464	1/2"	1	"	6'-4"	6'-4"	4.23
465	1/2"	1	"	5'-6"	5'-6"	3.67
466	1/2"	1	"	4'-8"	4'-8"	3.12
467	1/2"	1	"	3'-10"	3'-10"	2.56
468	1/2"	1	"	3'-1"	3'-1"	2.06
469	1/2"	1	"	2'-3"	2'-3"	1.50
470	1/2"	1	Straight	1'-5"	1'-5"	.95

REF. NO.	DIAMETER	NO. REQUIRED	SHAPE	LENGTH EACH	TOTAL LENGTH	WEIGHT
	INCHES			LIN.FT.	LIN.FT.	LBS.
560	5/8"	1	Bent	14'-7"	14'-7"	15.21
561	5/8"	1	"	11'-3"	11'-3"	11.73
562	5/8"	1	"	10'-6"	10'-6"	10.95
563	5/8	1	"	9'-8"	9'-8"	10.08
564	5/8"	1	"	8'-10"	8'-10"	9.21
565	5/8"	1	"	8'-0"	8'-0"	8.34
566	5/8"	1	"	7'-2"	7'-2"	7.47
567	5/8"	1	"	6'-4"	6'-4"	6.61
568	5/8"	1	"	5'-7"	5'-7"	5.82
569	5/8"	1	"	4'-9"	4'-9"	4.95
570	5/8"	1	Bent	3'-11"	3'-11"	4.09
430	1/2"	18	Straight	5'-5"	97'-6"	65.13
431	1/2"	18	Bent	3'-9"	67'-6"	45.09
552	3/8"	2	Straight	11'-1"	22'-2"	23.12
553	5/8"	2	"	10'-10"	21'-8"	22.60
554	5/8"	2	"	6'-2"	12'-4"	12.86
555	5/8"	2	Straight	6'-5"	12'-10"	13.39
490	1/2"	42	Bent	6'-4"	266'-0"	177.69
				Carried to Sht. 124.		TOTAL LBS. 1386.33
		6	Expansion Anchor Bolts			

STRUCTURE STA. 520+71.50 (LT.)

REF. NO.	DIAMETER	NO. REQUIRED	SHAPE	LENGTH EACH	TOTAL LENGTH	WEIGHT
	INCHES			LIN.FT.	LIN.FT.	LBS.
5001	5/8"	8	Bent	11'-0"	88'-0"	91.78
5002	5/8"	7	Straight	8'-8"	60'-8"	63.28
4001	1/2"	7	"	8'-10"	61'-10"	41.30
5003	5/8"	1	"	8'-1"	8'-1"	8.43
4002	1/2"	1	"	8'-3"	8'-3"	5.51
5004	5/8"	1	"	7'-7"	7'-7"	7.91
4101	1/2"	1	"	7'-9"	7'-9"	5.18
5005	5/8"	1	"	7'-0"	7'-0"	7.30
4003	1/2"	1	"	7'-2"	7'-2"	4.79
5006	5/8"	1	"	6'-6"	6'-6"	6.78
4100	1/2"	1	"	6'-8"	6'-8"	4.45
5007	5/8"	1	"	5'-10"	5'-10"	6.08
4004	1/2"	1	"	6'-0"	6'-0"	4.01
5008	5/8"	1	"	5'-4"	5'-4"	5.56
4005	1/2"	1	"	5'-6"	5'-6"	3.67
5009	5/8"	1	"	4'-9"	4'-9"	4.95
4006	1/2"	1	"	4'-11"	4'-11"	3.28
5010	5/8"	1	"	4'-3"	4'-3"	4.43
4007	1/2"	1	"	4'-5"	4'-5"	2.95
5011	5/8"	1	"	3'-9"	3'-9"	3.91
4008	1/2"	1	"	3'-11"	3'-11"	2.62
5012	5/8"	1	"	3'-1"	3'-1"	3.22
4009	1/2"	1	"	3'-3"	3'-3"	2.17
5013	5/8"	1	"	2'-6"	2'-6"	2.61
4010	1/2"	1	"	2'-8"	2'-8"	1.78
5014	5/8"	1	"	1'-11"	1'-11"	2.00
4011	1/2"	1	"	2'-1"	2'-1"	1.39
5015	5/8"	1	"	1'-5"	1'-5"	1.48
4012	1/2"	1	"	1'-7"	1'-7"	1.06
5016	5/8"	1	"	8'-3"	8'-3"	8.60
4013	1/2"	1	"	8'-5"	8'-5"	5.62
5017	5/8"	1	"	6'-11"	6'-11"	7.21
4102	1/2"	1	"	7'-1"	7'-1"	4.73
5018	5/8"	1	"	5'-7"	5'-7"	5.82
4014	1/2"	1	"	5'-9"	5'-9"	3.84
5019	5/8"	1	"	4'-4"	4'-4"	4.52
4015	1/2"	1	"	4'-6"	4'-6"	3.01
5020	5/8"	1	"	3'-1"	3'-1"	3.22
4016	1/2"	1	"	3'-3"	3'-3"	2.17
5021	5/8"	1	"	1'-9"	1'-9"	1.83
4017	1/2"	1	Straight	1'-11"	1'-11"	1.28
5022	5/8"	5	Bent	14'-1"	70'-5"	73.44
4018	1/2"	4	Straight	8'-10"	35'-4"	23.60
4019	1/2"	4	Bent	13'-10"	55'-4"	36.96
4061	1/2"	1	"	10'-9"	10'-9"	7.18
4103	1/2"	1	"	9'-6"	9'-6"	6.35
4021	1/2"	1	"	8'-2"	8'-2"	5.46
4023	1/2"	1	"	6'-11"	6'-11"	4.62
4025	1/2"	1	"	5'-6"	5'-6"	3.67
4027	1/2"	1	Bent	4'-4"	4'-4"	2.89
4060	1/2"	1	Straight	8'-3"	8'-3"	5.51
5023	5/8"	1	"	7'-0"	7'-0"	7.30
4022	1/2"	1	"	5'-8"	5'-8"	3.79
4022	1/2"	1	"	4'-5"	4'-5"	2.95
4024	1/2"	1	"	3'-0"	3'-0"	2.00
4026	1/2"	1	Straight	1'-10"	1'-10"	1.22
4029	1/2"	1	Bent	10'-10"	10'-10"	7.24
4062	1/2"	1	"	10'-3"	10'-3"	6.85
4031	1/2"	1	"	9'-8"	9'-8"	6.46
4063	1/2"	1	"	9'-2"	9'-2"	6.12
4033	1/2"	1	"	8'-7"	8'-7"	5.73
4064	1/2"	1	"	8'-0"	8'-0"	5.34
4035	1/2"	1	"	7'-6"	7'-6"	5.01
4037	1/2"	1	"	6'-11"	6'-11"	4.62
4039	1/2"	1	"	6'-5"	6'-5"	4.29
4041	1/2"	1	"	5'-10"	5'-10"	3.90
4043	1/2"	1	"	5'-3"	5'-3"	3.51
4045	1/2"	1	"	4'-8"	4'-8"	3.12
4047	1/2"	1	Bent	4'-2"	4'-2"	2.78

REF. NO.	DIAMETER	NO. REQUIRED	SHAPE	LENGTH EACH	TOTAL LENGTH	WEIGHT
	INCHES			LIN.FT.	LIN.FT.	LBS.
4049	1/2"	1	Bent	3'-8"	3'-8"	2.45
4028	1/2"	1	Straight	8'-4"	8'-4"	5.57
5024	3/8"	1	"	7'-9"	7'-9"	8.08
4030	1/8"	1	"	7'-2"	7'-2"	4.79
5025	5/8"	1	"	6'-8"	6'-8"	6.95
4032	1/2"	1	"	6'-1"	6'-1"	4.06
5026	5/8"	1	"	5'-6"	5'-6"	5.74
4034	1/2"	1	"	5'-0"	5'-0"	3.34
4036	1/2"	1	"	4'-5"	4'-5"	2.95
4038	1/2"	1	"	3'-11"	3'-11"	2.62
4040	1/2"	1	"	3'-4"	3'-4"	2.23
4042	1/2"	1	"	2'-9"	2'-9"	1.84
4044	1/2"	1	"	2'-2"	2'-2"	1.45
4046	1/2"	1	"	1'-8"	1'-8"	1.11
4048	1/2"	1	"	1'-2"	1'-2"	.78
5027	5/8"	1	"	6'-2"	6'-2"	6.43
5028	3/8"	1	"	6'-5"	6'-5"	6.69
5029	5/8"	1	"	8'-5"	8'-5"	8.78
5030	5/8"	1	"	8'-9"	8'-9"	9.13
5031	5/8"	1	"	9'-4"	9'-4"	9.73
5032	3/8"	1	"	9'-8"	9'-8"	10.08
5033	3/8"	1	"	10'-4"	10'-4"	10.78
5034	5/8"	1	"	10'-11"	10'-11"	11.39
5035	3/8"	1	"	11'-5"	11'-5"	11.91
5036	3/8"	1	"	12'-0"	12'-0"	12.52
5037	3/8"	1	"	12'-6"	12'-6"	13.04
5038	3/8"	1	"	13'-1"	13'-1"	13.65
5039	3/8"	1	"	13'-5"	13'-5"	13.99
5040	3/8"	1	"	15'-5"	15'-5"	16.08
5041	5/8"	1	"	15'-7"	15'-7"	16.25
5042	3/8"	1	"	3'-9"	3'-9"	3.91
5043	5/8"	1	"	4'-0"	4'-0"	4.17
5044	3/8"	1	"	5'-10"	5'-10"	6.08
5045	5/8"	1	"	6'-4"	6'-4"	6.61
5046	5/8"	1	"	6'-10"	6'-10"	7.13
5047	5/8"	1	"	7'-5"	7'-5"	7.74
5048	5/8"	1	"	7'-11"	7'-11"	8.26
5049	5/8"	1	"	8'-5"	8'-5"	8.78
5050	5/8"	1	"	8'-11"	8'-11"	9.30
5051	3/8"	1	"	9'-6"	9'-6"	9.91
5052	5/8"	1	"	10'-0"	10'-0"	10.43
5053	5/8"	1	"	10'-8"	10'-8"	11.13
5054	5/8"	1	"	11'-0"	11'-0"	11.47
5055	5/8"	1	"	12'-11"	12'-11"	13.47
5056	5/8"	1	"	13'-1"	13'-1"	13.65
5057	5/8"	2	"	13'-5"	26'-10"	27.99
5058	3/8"	2	"	15'-10"	31'-8"	33.03
5059	5/8"	2	"	3'-6"	7'-0"	7.30
5060	3/8"	2	Straight	6'-0"	12'-0"	12.52
						TOTAL LBS.
				Carried to Sheet 125.		1044.93 + 118.52 = 1163.45

DROP INLET STEEL

401	1/2"	5	Straight	8'-3"	41'-3"	27.56
402	1/2"	3	"	8'-3"	24'-9"	16.53
403	1/2"	9	"	4'-11"	44'-3"	29.56
404	1/2"	4	"	4'-11"	19'-8"	13.14
405	1/2"	19	Straight	2'-6"	47'-6"	31.73
				Carried to Sht. above		TOTAL LBS. 118.52
		6	Expansion Anchor Bolts			

ESTIMATED QUANTITIES FOR STEEL BARS

STRUCTURE STA. 520+71.50 (LT.)

SCALE: 1"=10'

WORK REQUIRED:

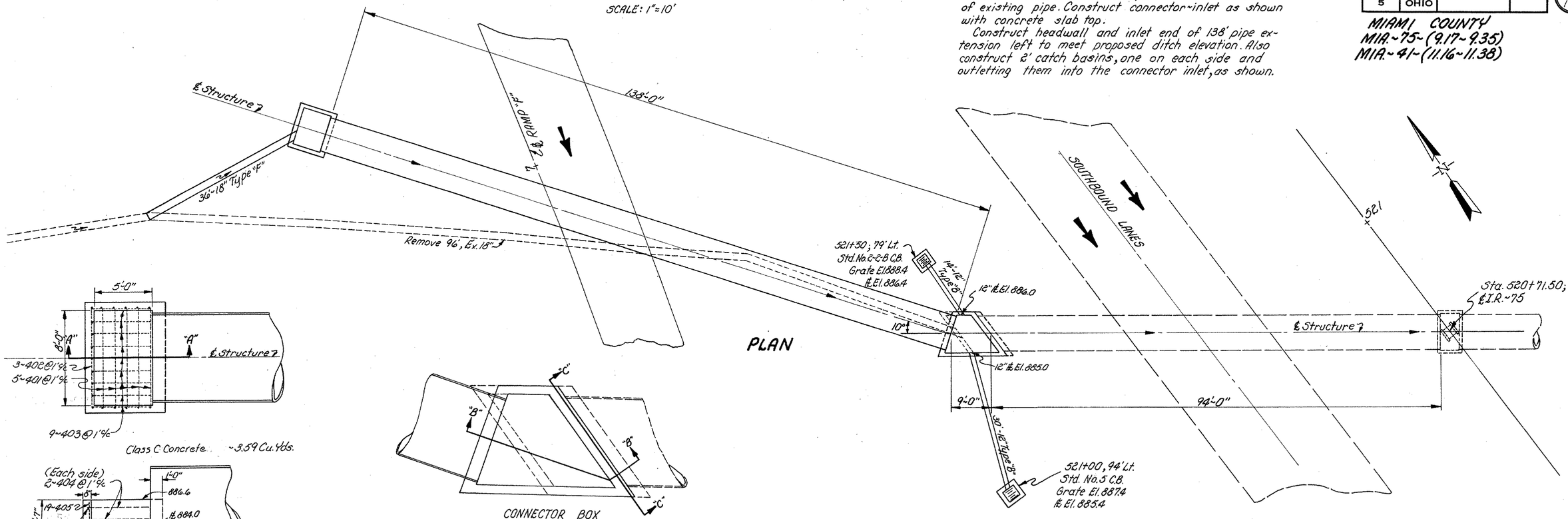
Remove concrete inlet left, within (1) foot of end of existing pipe. Construct connector-inlet as shown with concrete slab top.

Construct headwall and inlet end of 138' pipe extension left to meet proposed ditch elevation. Also construct 2' catch basins, one on each side and outletting them into the connector inlet, as shown.

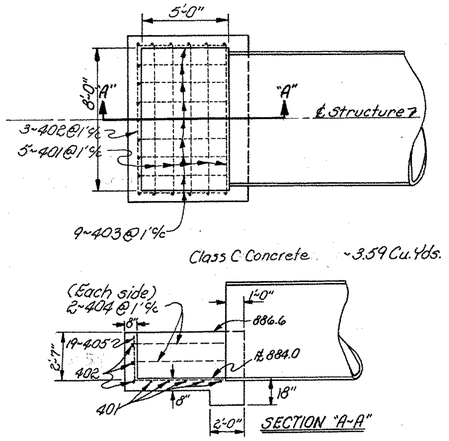
FHWA REGION	STATE	PROJECT	
5	OHIO		

125/174

MIAMI COUNTY
MIA.-75-(9.17-9.35)
MIA.-41-(11.16-11.38)

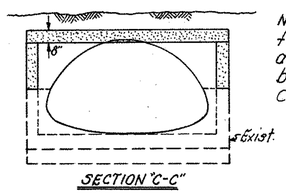


PLAN



DETAIL OF DROP INLET

SCALE: 1"=4'-0"

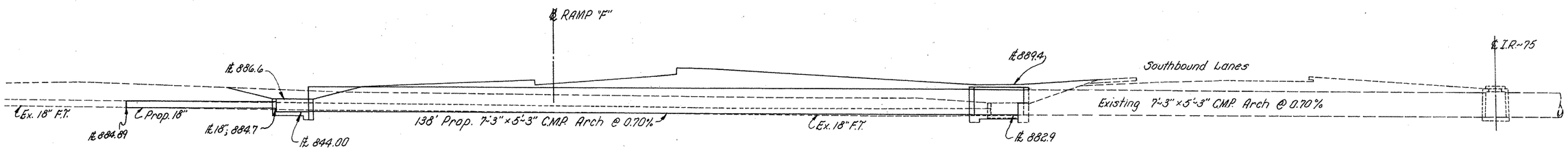


NOTE: The cost of all materials for Expansion Anchor Bolts are included in the unit price bid for Item 511; Concrete Class C. See Sht. 19 for detail.

ESTIMATED QUANTITIES

Item	603	7'-3" x 5'-3" Conduit, Type "A", 707.03(0.109-0.138)	138	~Lin. Ft.
Item	603	18" Conduit, Type "F"	36	~Lin. Ft.
Item	202	18" Pipe Removed	96	~Lin. Ft.
Item	202	Portions of Structures Removed	Lump	~Lump
Item	511	Class C Concrete	12.78	~Cu. Yds.
Item	604	Catch Basin, No. 2-B-B	1	~Each
Item	604	Catch Basin, No. 5	1	~Each
Item	603	12" Conduit, Type "B"	44	~Lin. Ft.
Item	509	Reinforcing Steel	16345	~Lbs.
Item	503	Unclassified Excavation	13	Cu. Yd.

DATUM ELEV. 910.00



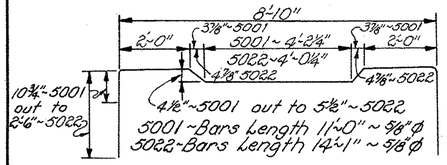
~SECTION ALONG ℄ OF STRUCTURE~

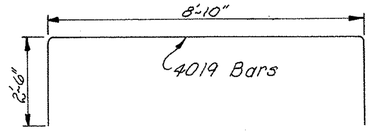
STRUCTURE STA 520+71.50 (LT.) IR-75

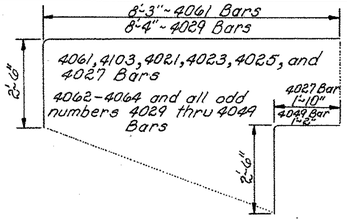
FHWA REGION	STATE	PROJECT	
5	OHIO		

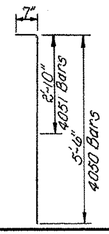
125-A
174

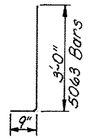
MIAMI COUNTY
MIA.-75-(9.17-9.35)
MIA.-41-(11.16-11.38)

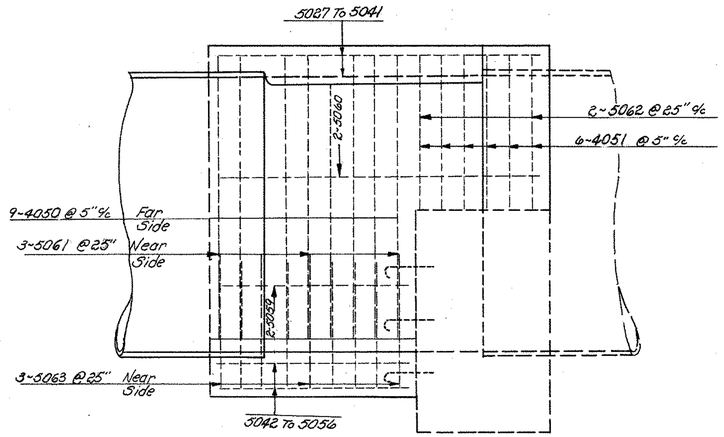


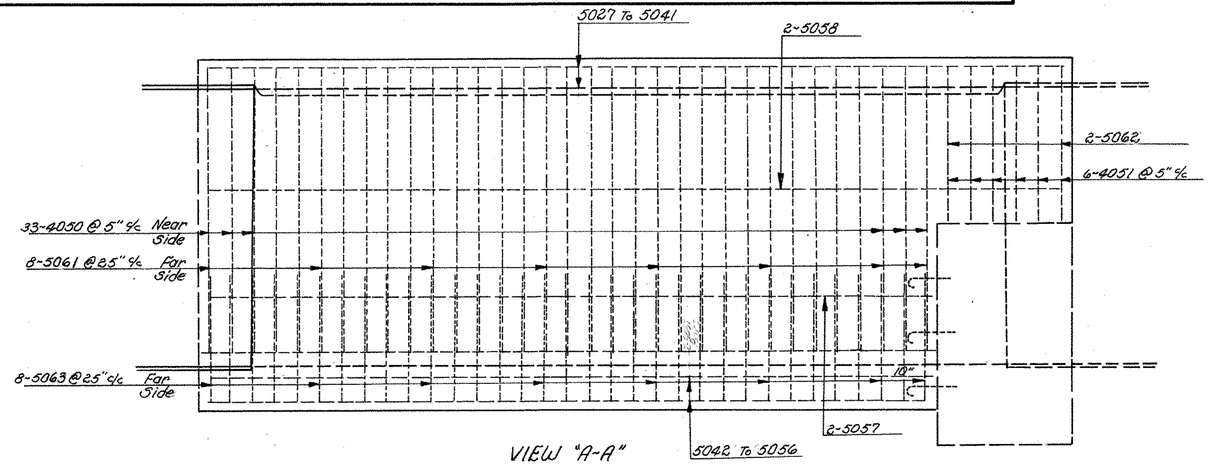




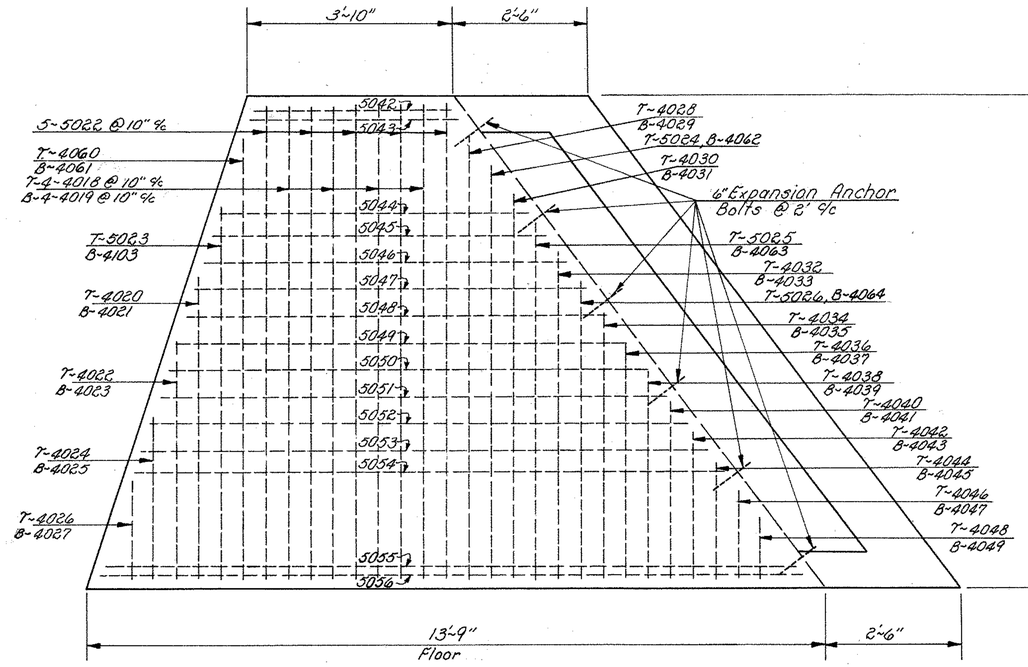


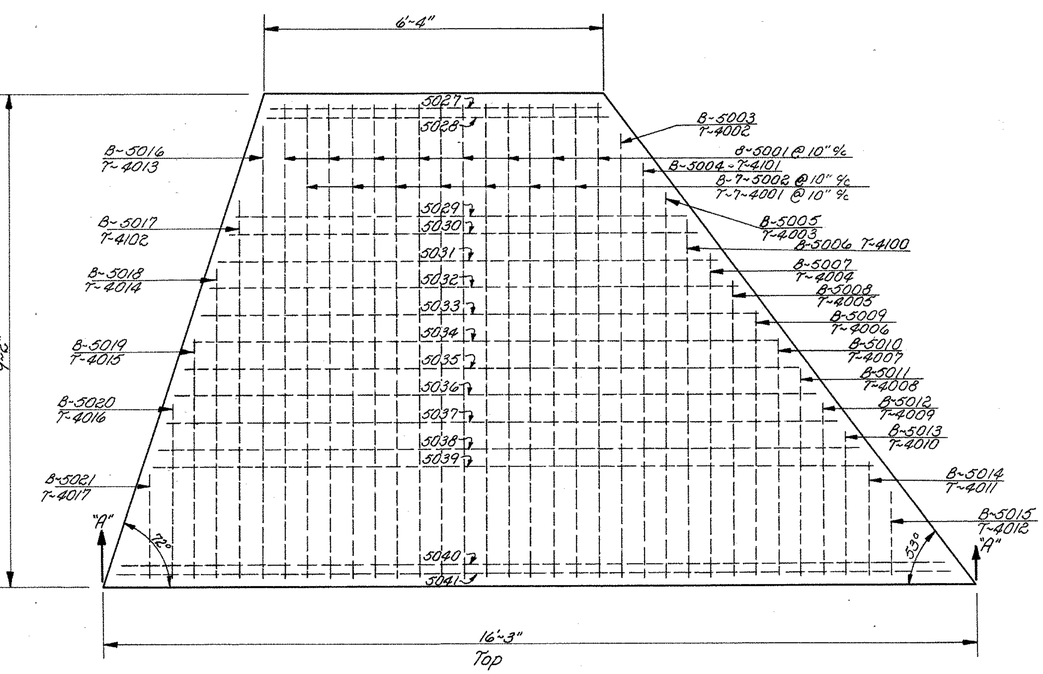






NOTE:
T~Top
B~Bottom





SCALE: 3/4"=1'

CONNECTOR INLET STA.520+71.50 IR75(LEFT)

FHWA REGION	STATE	PROJECT	
5	OHIO	S SU	

126/174

MIAMI COUNTY

MIA-41- (11.16 - 11.38)

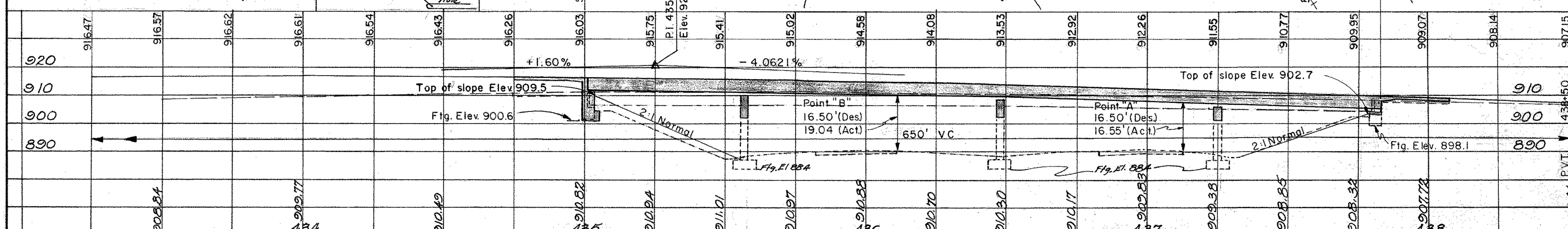
IN TROY MIA - 75 - (9.17 - 9.35)

B.M. #17 Boat Spike in ℄ 120.7' Lt. of Sta. 439+89 ELEV. 892.39

EXISTING STRUCTURE

TYPE: Continuous Steel beam Conc. deck and Conc. Substructure.
SPAN: ~~54'~~ 53 - 90' - 77' - 54' c/c bearing
ROADWAY: 56' f/f Curbs, 3' raised median 2' safety Curb
SKEW: 31°-57' R.F.
WEARING SURFACE: Bituminous
APPROACH SLAB: AS-1-54 (25' long)

C/N — Hole — 48.79' — 35.62' — Conc. Island — P.O.T. 435+00.73 — 34.18' — Hole



PROPOSED STRUCTURE
(Widen existing structure)

TYPE: Continuous steel beams with reinforced concrete deck and reinforced concrete substructure
SPANS: ~~54'~~ 53' - 90' - 77' - ~~54'~~ 53.90' c/c brgs. (±)
ROADWAY: 80'-0" f/f concrete parpapets
LOADING: HS 14.6 - 44 (Exist.), HS 20 - 44 (Widening)
SKEW: 31° - 56' - 25" R.F.
SURFACE COURSE: $2\frac{1}{2}$" Asphalt Concrete.
APPROACH SLABS: AS-1-72 (25' long)
ALIGNMENT: Tangent

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

SITE PLAN

1/12

BRIDGE NO MIA-75-0971
Under S. R. 41
MIAMI COUNTY
STA 513 + 16.50
SCALE 1" = 20'

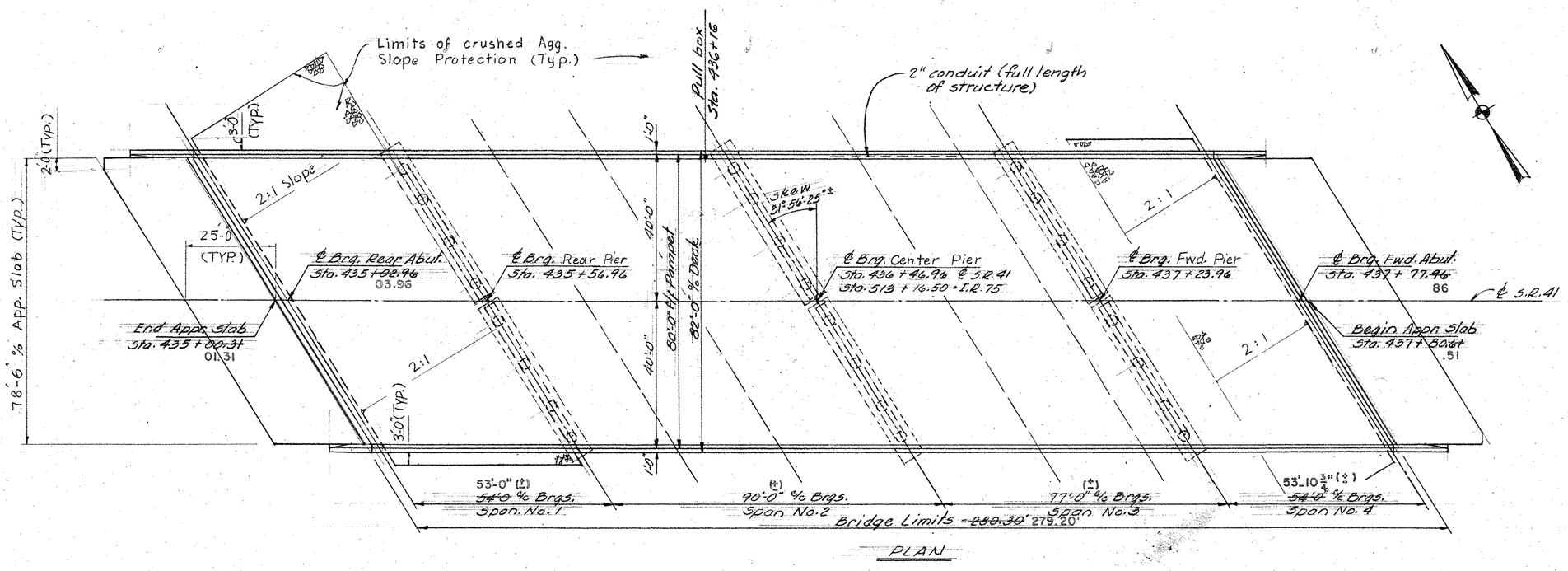
PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
AERIAL SURVEY	AERIAL SURVEY	NJB	NJB	FPK	DHS.

REV. 12-8-76
BFG 1-28-76

FHWA REGION	STATE	PROJECT	
5	OHIO		

127/174

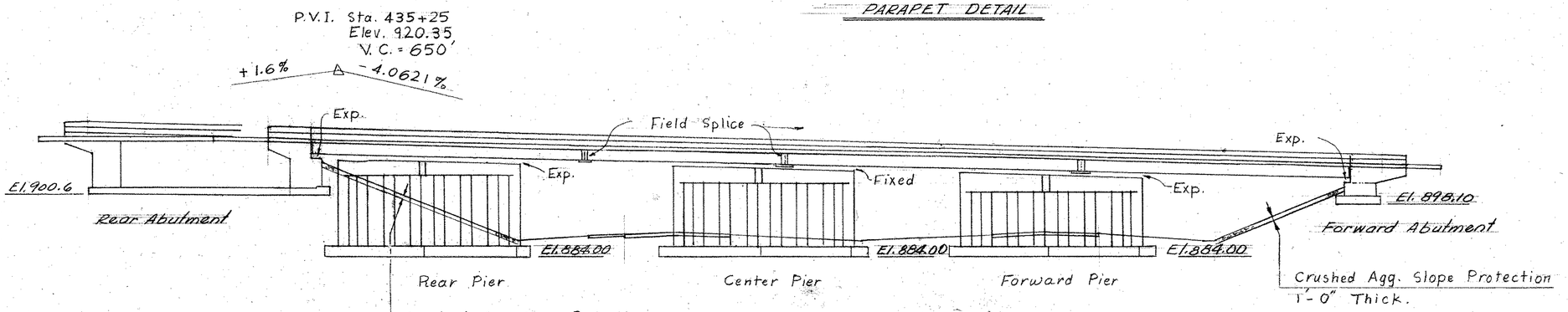
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)



PLAN

275'-6 3/4" ±
276'-8"

PARAPET DETAIL



ELEVATION

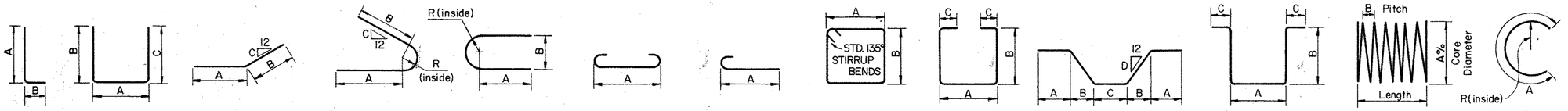
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BUREAU OF BRIDGES

2/12

GENERAL PLAN & ELEVATION
BRIDGE NO. MIA-75-0971
UNDER S.R. 41.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
MRG	BRB	—	JNNES	BFG	1-28-76	

REV. 12-8-75



FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

128/174

MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

ABUTMENT

MARK	TOTAL NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	R
0801	104	6'-6"	1805	10	0	1'-1"	3'-8"	12	
A701	1	5'-0"	10	7	4'-3"				
A702	1	5'-0"	10	14	3'-7"	11½"	7½"	2"	
A703	1	5'-4"	11	14	3'-11"	11½"	7½"	4"	
A704	1	5'-10"	12	14	4'-4"	11½"	7½"	6"	
A705	1	6'-4"	13	14	4'-8"	11½"	7½"	9"	
A706	1	5'-0"	10	7	4'-3"				
A707	1	5'-0"	10	14	3'-7"	11½"	7½"	2"	
A708	1	5'-3"	11	14	3'-10"	11½"	7½"	4"	
A709	1	5'-8"	12	14	4'-2"	11½"	7½"	6"	
A710	1	6'-1"	12	14	4'-5"	11½"	7½"	9"	
A711	1	5'-0"	10	7	4'-3"				
A712	1	5'-1"	10	14	3'-8"	11½"	7½"	2"	
A713	1	5'-5"	11	14	4'-0"	11½"	7½"	4"	
A714	1	5'-11"	12	14	4'-5"	11½"	7½"	6"	
A715	1	6'-5"	13	14	4'-9"	11½"	7½"	9"	
A716	1	5'-0"	10	7	4'-3"				
A717	1	4'-9"	10	14	3'-4"	11½"	7½"	2"	
A718	1	4'-11"	10	14	3'-6"	11½"	7½"	4"	
A719	1	5'-1"	10	14	3'-7"	11½"	7½"	6"	
A720	1	5'-5"	11	14	3'-9"	11½"	7½"	9"	
A601	63	14'-11"	1412	1	9'-8"	5'-5"			
A602	93	12'-9"	1781	2	1'-5"	5'-10"	5'-10"		
A603	114	4'-11"	842	2	1'-5"	1'-11"	1'-11"		
A604	188	6'-11"	1953	2	11"	3'-2"	3'-2"		
A605	148	4'-2"	926	St.					
A606	21	11'-1"	350	2	1'-5"	5'-0"	5'-0"		
A607	21	9'-7"	302	1	5'-4"	4'-5"			
A608	12	34'-0"	613	St.					
A609	74	7'-9"	861	2	1'-5"	3'-4"	3'-4"		
A610	13	25'-4"	495	2	1'-2"	12'-3"	12'-3"		
A611	2	21'-0"	63	2	1'-2"	9'-7"	10'-7"		
A612	1	20'-10"	31	2	1'-2"	10'-0"	10'-0"		
A613	6	20'-2"	182	2	1'-2"	9'-8"	9'-8"		
A614	2	14'-8"	44	2	1'-2"	6'-11"	6'-11"		
A615	6	16'-8"	150	2	1'-2"	7'-11"	7'-11"		
A616	1	11'-6"	17	2	1'-2"	5'-4"	5'-4"		
A617	24	6'-1"	219	14	4'-5"	11½"	7½"	9"	
A501	63	9'-11"	652	1	9'-5"	7½"			
A502	63	8'-2"	537	2	3'-5"	2'-6"	2'-6"		
A503	132	25'-3"	3476	St.					
A504	6	6'-8"	42	6	5'-6"				
A505	10	8'-8"	90	6	7'-6"				
A506	16	8'-11"	149	2	2'-8"	3'-3"	3'-3"		
A507	10	5'-1"	53	St.					
A508	8	7'-0"	58	St.					
A509	4	12'-0"	50	St.					
A510	3	15'-0"	47	St.					
A511	4	11'-2"	47	St.					
A512	6	10'-8"	67	St.					
A513	3	14'-9"	46	St.					
A514	4	11'-0"	46	St.					
A515	21	5'-10"	128	1	5'-4"	7½"			
A516	21	9'-6"	208	2	3'-5"	3'-2"	3'-2"		
A517	40	3'-0"	125	St.					
A518	Not used								
A519	44	2'-3"	103	2	1'-3"	7½"	7½"		
A520	24	6'-8"	167	15	3'-3"	2'-9"	2⅛"	7½"	2¼"
A521	1	4'-3"	4	St.					
A522	1	4'-7"	5	St.					
A523	1	4'-11"	5	St.					
A524	1	5'-4"	6	St.					
A525	1	5'-8"	6	St.					
A526	1	4'-3"	4	St.					

ABUTMENT CON'T

MARK	TOTAL NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	R
A527	1	4'-7"	5	St.					
A528	1	4'-10"	5	St.					
A529	1	5'-2"	5	St.					
A530	1	5'-5"	6	St.					
A531	1	4'-3"	4	St.					
A532	1	4'-8"	5	St.					
A533	1	5'-0"	5	St.					
A534	1	5'-5"	6	St.					
A535	1	5'-9"	6	St.					
A536	1	4'-3"	4	St.					
A537	1	4'-4"	5	St.					
A538	1	4'-6"	5	St.					
A539	1	4'-7"	5	St.					
A540	1	4'-9"	5	St.					
A541	24	5'-5"	136	St.					
A542	14	11'-5"	167	St.					
A543	4	7'-7"	32	St.					
A544	1	11'-6"	12	St.					
A545	1	8'-8"	9	St.					
A546	2	7'-7"	16	3	6'-0"	1'-7"	3"		
A547	12	8'-2"	102	St.					
A548	2	11'-2"	23	St.					
A549	14	16'-11"	247	St.					
A550	4	8'-7"	36	3	7'-0"	1'-7"	3"		
A551	2	12'-6"	26	St.					
A552	12	11'-4"	142	St.					
A553	2	14'-0"	29	St.					
A554	14	13'-11"	203	St.					
A555	2	11'-6"	24	St.					
A556	2	11'-4"	24	St.					
A557	6	9'-8"	60	St.					
A558	2	11'-8"	24	St.					
A559	14	14'-5"	211	St.					
A560	2	7'-5"	15	St.					
A561	6	8'-10"	55	St.					
A562	2	10'-4"	22	St.					
A563	2	8'-7"	18	St.					
A564	8	5'-10"	49	2	3'-3"	2'-2"	7½"		
A565	8	5'-8"	47	2	3'-3"	2'-0"	7½"		
A566	16	6'-0"	100	2	3'-3"	2'-4"	7½"		

PIER

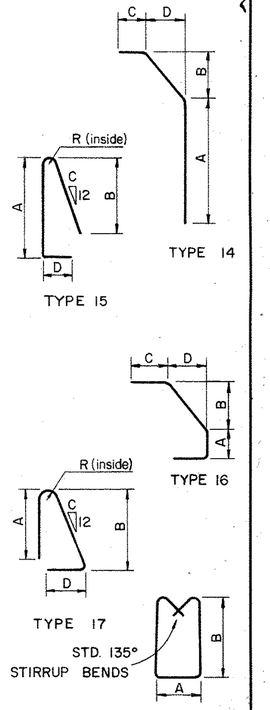
MARK	TOTAL NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	R
P1101	84	26'-7"	11,864	1	23'-9"	3'-2"			
P1001	8	22'-9"	783	St.					
P1002	24	7'-10"	809	St.					
P1003	24	7'-1"	732	St.					
P1004	8	22'-1"	760	St.					
P1005	8	21'-2"	729	St.					
P1006	24	6'-11"	714	St.					
P1007	24	5'-10"	602	St.					
P1008	8	20'-1"	691	St.					
P1009	8	19'-3"	663	St.					
P1010	24	6'-3"	645	St.					
P1011	24	4'-11"	508	St.					
P1012	8	18'-0"	620	St.					
P1013	48	7'-0"	1446	1	5'-11"	7½"			
P901	60	5'-0"	1020	St.					
P902	60	12'-6"	2550	St.					
P903	36	26'-3"	3213	St.					
P904	36	20'-3"	2479	St.					
P801	60	4'-6"	721	St.					
P802	60	12'-6"	2003	St.					
P601	18	7'-7"	205	5	1'-11"	2'-5½"			1'-2"

PIER CON'T

MARK	TOTAL NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	R
P501	156	10'-1"	1641	2	5'-8"	2'-4"	2'-4"		
P502	210	12'-1"	2647	8	2'-8"	3'-2"			
P503	24	22'-1"	553	St.					
SP401	1	19'-5"	364	12	2'-8"	4½"			
SP402	3	4'-6"	291	12	2'-8"	4½"			
SP403	3	3'-9"	251	12	2'-8"	4½"			
SP404	1	18'-9"	352	12	2'-8"	4½"			
SP405	1	17'-10"	336	12	2'-8"	4½"			
SP406	3	3'-7"	242	12	2'-8"	4½"			
SP407	3	2'-7"	188	12	2'-8"	4½"			
SP408	1	16'-9"	316	12	2'-8"	4½"			
SP409	1	16'-0"	303	12	2'-8"	4½"			
SP410	3	2'-11"	206	12	2'-8"	4½"			
SP411	3	1'-7"	135	12	2'-8"	4½"			
SP412	1	14'-8"	279	12	2'-8"	4½"			

SUPERSTRUCTURE

MARK	TOTAL NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	R
S601	1848	~~1852~~	12'-0"	~~33380~~ 33308	St.				
S602	950	~~954~~	5'-0"	~~7165~~ 7135	St.				
S603	60	30'-0"	2704	St.					
S604	36	11'-0"	595	St.					
S605	4 Series of 8	2'-11" to 9'-6"	298	St.	Varies by 11½" increments				
S606	540	30'-0"	24,332	St.					
S607	60	23'-8"	2,133	St.					
S501	370	2'-4"	900	2	1'-4"	7½"	7½"		
S502	370	6'-0"	2,315	17	2'-6"	2'-9"	2⅞"	7½"	2¼"
S503	370	2'-5"	933	1	1'-11"	7½"			
S504	370	3'-4"	1,286	16	11"	11½"	9"	9"	
S505	104	~~14'-8"~~ 14'-7"	~~1,591~~ 1,581	St.					
S506	88	7'-1"	650	St.					



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, indicates the bar size number. For example E601 is a No. 6 size bar and E1101 is a No. 11 size bar.

* SPIRAL DETAILS shall be in accordance with CRSI Standard Practice, except as otherwise shown.

BAR DIMENSIONS shown are out, to out, unless otherwise indicated.

"STD" written in place of a dimension indicates a standard bend at the end of the bar.

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 structure by the additional steel, splice in accordance with 509.08.

FORMAT 2

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

4/12

REINFORCING STEEL LIST

BRIDGE NO. MIA-75-0971
Under S.R. 41

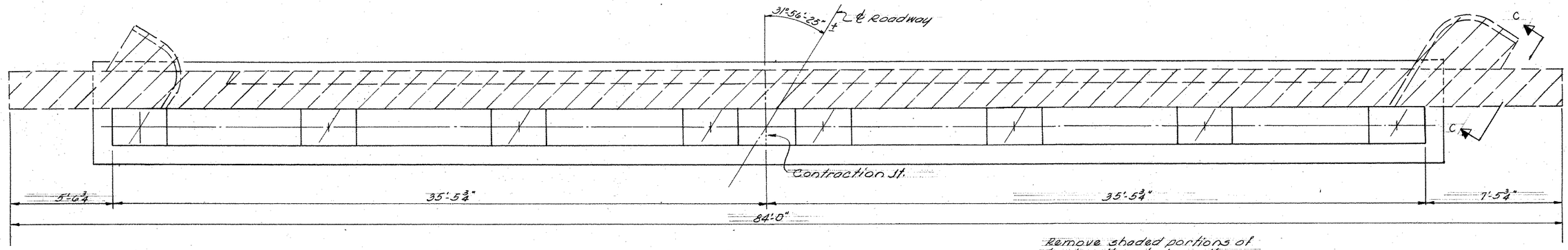
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
MRG	—	TGC	INNES	BFG	1-28-76	

REV. 12-6-76

FHWA REGION	STATE	PROJECT	
5	OHIO		

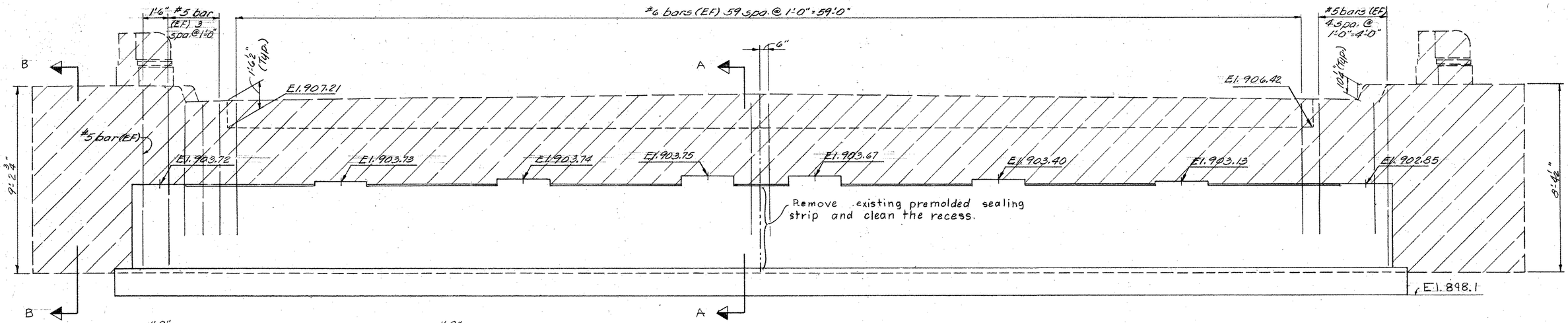
129/174

MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

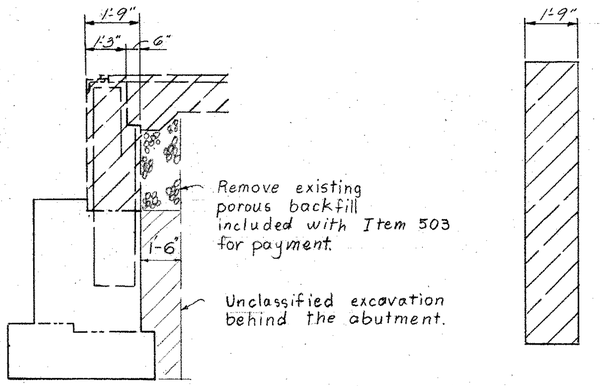


PLAN

Remove shaded portions of backwall and wingwalls pre-, serving vertical steel, min 1-11

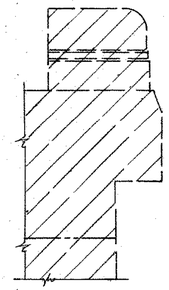


ELEVATION



SECTION A-A

SECTION B-B



VIEW C-C

PORTIONS OF STRUCTURES REMOVED, ITEM 202:
All items of removal shown on this sheet shall be included under the above item for payment.

BACKWALL END DAM Materials for Rear and Forward Abutments shall be salvaged for re-use in this structure.

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BUREAU OF BRIDGES

5/12

EXISTING FWD. ABUTMENT
BRIDGE NO. MIA-75-0971
UNDER SR 41

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
MRG	BAB	—	INNES	BFG	1-28-76	

Revised 12-8-76

FHWA REGION	STATE	PROJECT	
5	OHIO		

130/174

MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

N
45'-7 1/2"
46'-10 1/2"
WINGWALL "A"
16'-6 7/8"
WINGWALL "B"
20'-4 3/4"
1'-11" Wall (TYP)
3'-6" Footing (TYP)
℄ S.R. 41
31°-56'-25"
D801, 24 Spa @ 1'-9 1/4" = 42'-6"
D801, 26 Spa @ 1'-9 1/4" = 46'-0 1/2"
6" Helical Perforated CSP, 84'-0" Long
6" Non-Perforated, helical CSP at each end.
3-A504 Above bridge seat
6-A505 under bridge seat
Premolded Sealing Strip.
End App. Slab
Sta 435+01.31
Limits of Porous Backfill
℄ Abut. Brgs.
℄ Beams
1'-6 1'-6 (TYP.)
4'-4 1/4"
4-Beam Spacings @ 10'-3 3/4" = 41'-3"
3'-0 1/2" 3'-0 1/2"
3'-1 1/4"
2'-5 3/8"
48'-7 3/4"
47'-4 3/4"
51'-0 7/8"
47'-4"
98'-4 7/8"
Elevation shown are computed at this point
3'-9"
Optional const. jt.
2 1/2 Asphalt conc.
D801
App. Slab
A604
A603
A602
℄ Abut. Brgs.
Const. Jt.
3/4 Slope between bridge seat
A502
Min. 1'-8"
Crushed Agg. Slope Protection (Thickness Varies min. 1'-0")
Slope 2:1
1'-6" Porous Backfill
A501
A601
Existing earth slope
2'-0"
3" Cl.
A608
6'-3"
All longitudinal bars above footing are A503
6" Helical Perforated CSP
30-Spa @ 1'-6" = 45'-0", A501, A502 & A601
45-Spa @ 1'-0" = 45'-0", A602, A603 & A604
31-Spa @ 1'-6" = 46'-6", A501, A502 & A601
46-Spa @ 1'-0" = 46'-0", A602, A603 & A604
El. 915.11*
El. 916.00*
El. 915.62*
Optional Const. joint
Approach Slab Seat
2" ∅ Conduit
A503
3-A503
2-A503
5-A503
2-A503 @ 1'-5"
El. 910.56
El. 910.77
El. 910.97
El. 911.17
El. 911.36
911.40
El. 911.31
El. 911.23
El. 911.14
El. 911.05
Optional const. jt.
Contraction Joint
4-A608
El. 900.6
SECTION A-A
Premolded sealing strip in 13 X 3/4 recess (top of footing to bottom of approach slab)
Contraction Joint Detail (TYP.)
SECTION B-B
ELEVATION

The footing for the new rear abutment shall be placed at the same elevation as the existing footing. Any soft or disturbed soils within the new footing area shall be removed and replaced with concrete. Also, any depressions within the new footing area shall be filled with concrete.

ELEVATION

BACKWALL CONCRETE: In addition to the provision of 511.08, backwall concrete or backwall concrete above the optional construction joint at the approach slab seat shall not be placed until after the deck concrete in the span adjacent to the abutment has been placed.

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BUREAU OF BRIDGES

6/12

REAR ABUTMENT DETAILS
BRIDGE NO. MIA-75-0971
UNDER S.R. 41

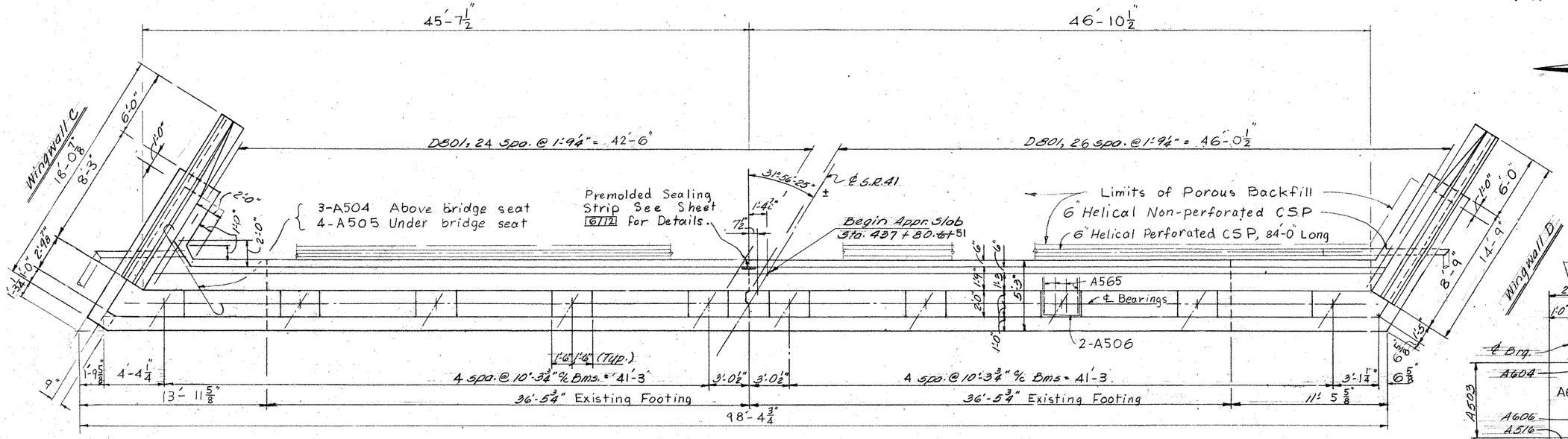
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
MRG	MRG	—	INNES	BFG	1-28-76	

REV. 12-8-76

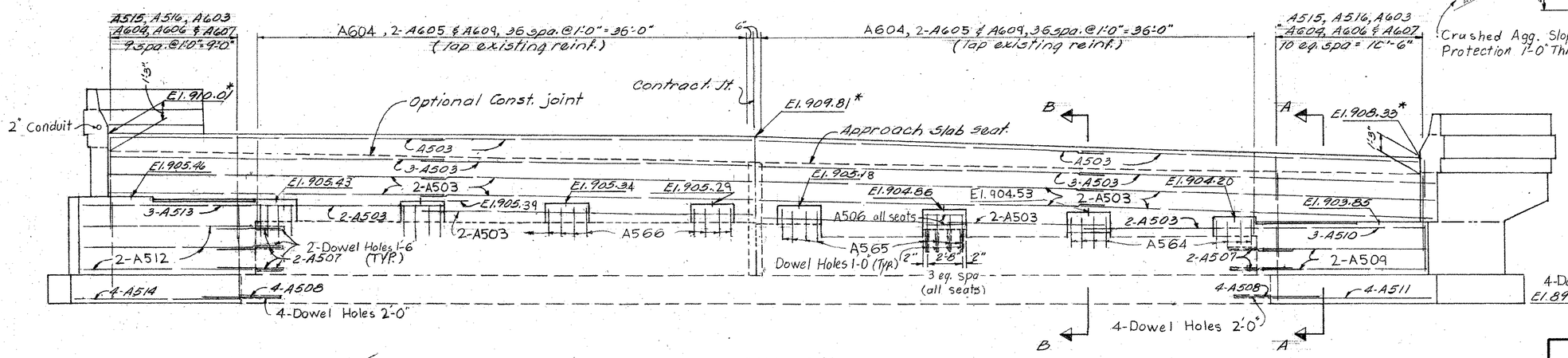
FHWA REGION	STATE	PROJECT	
5	OHIO		

131/174

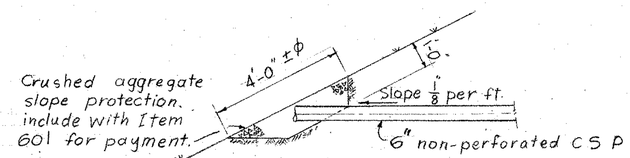
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)



PLAN

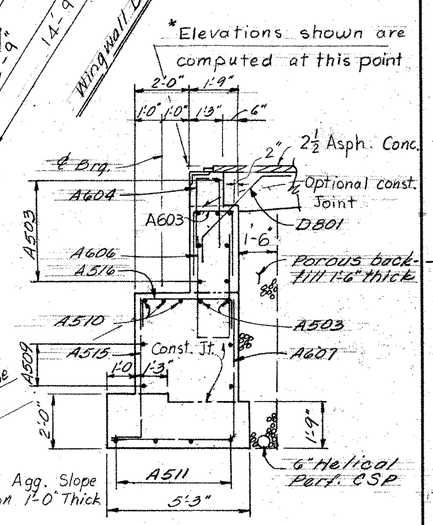


ELEVATION

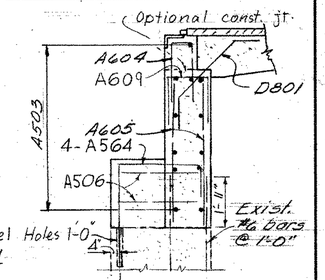


METHOD OF TERMINATING 6" CSP (TYP.)

*Elevations shown are computed at this point



SECTION A-A



SECTION B-B

BACKWALL CONCRETE: In addition to the provisions of 511.08, backwall concrete or backwall concrete above the optional construction joint at the approach slab seat shall not be placed until after the deck concrete in the span adjacent to the abutment has been placed.

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BUREAU OF BRIDGES

7/12

FORWARD ABUTMENT DETAILS
BRIDGE NO. MIA-75-0971 UNDER S.R. 41

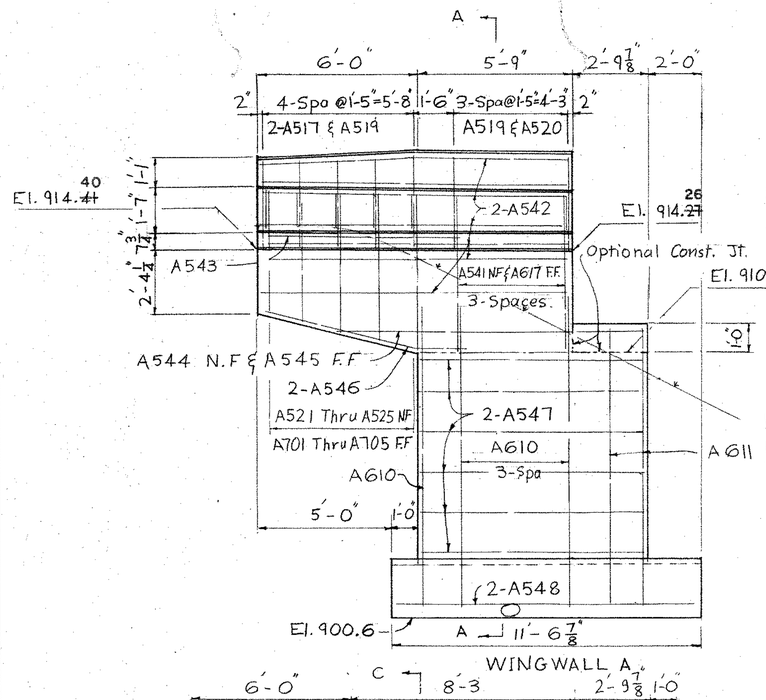
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
MRG	MRG	—	INNES	BFG	1-28-76	

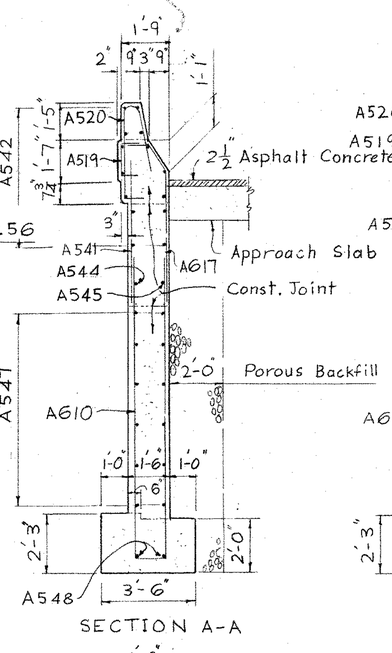
REV. 12-8-76

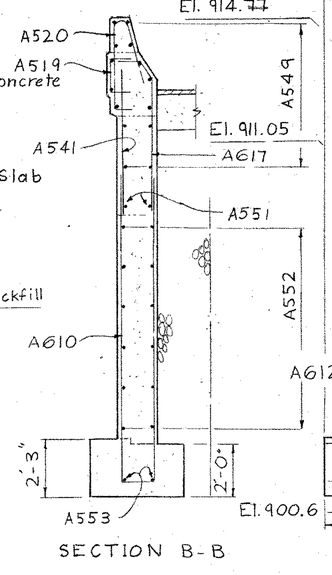
FHWA REGION	STATE	PROJECT	
5	OHIO		

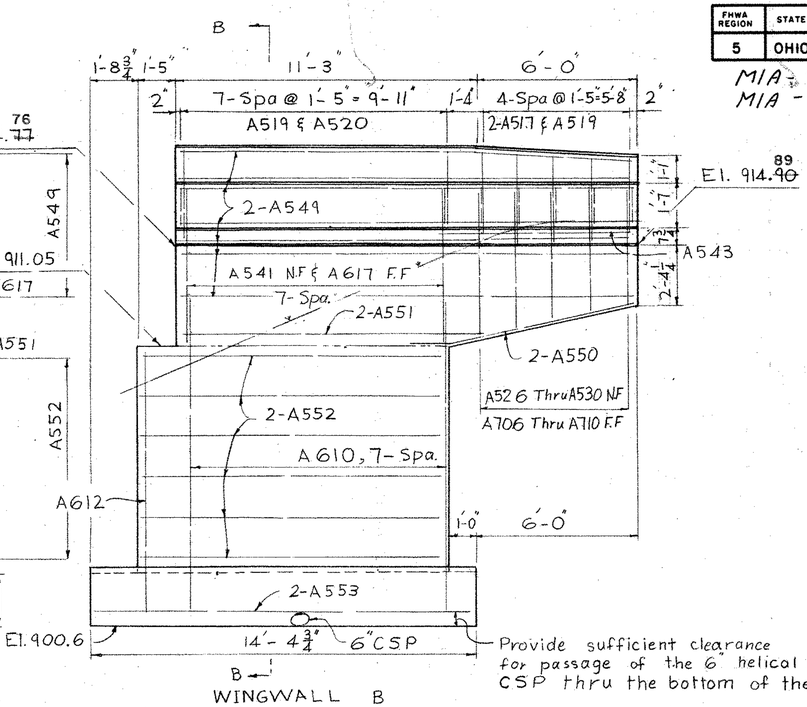
132/174

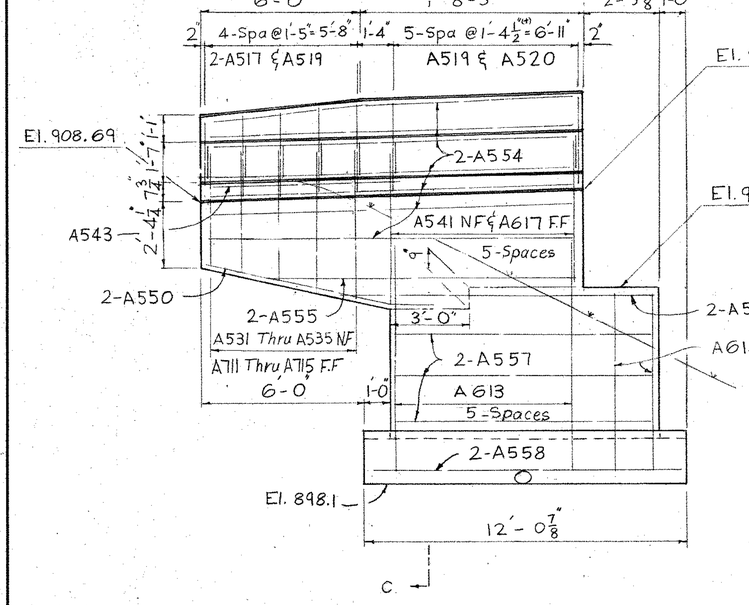
MIA - 75-(9.17-9.35)
MIA - 41-(11.16-11.38)

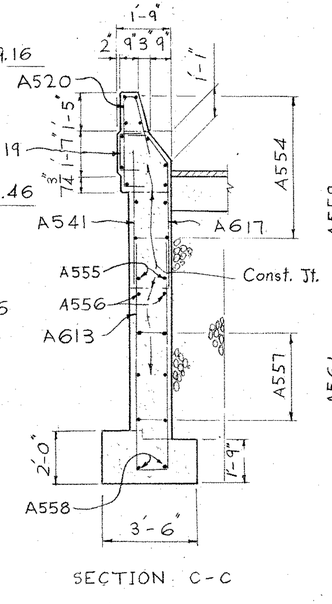


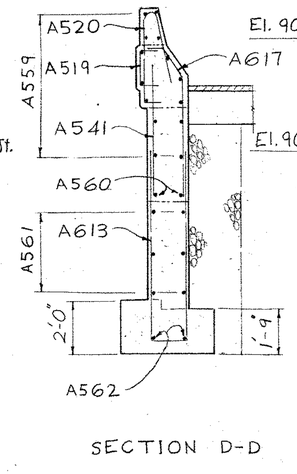


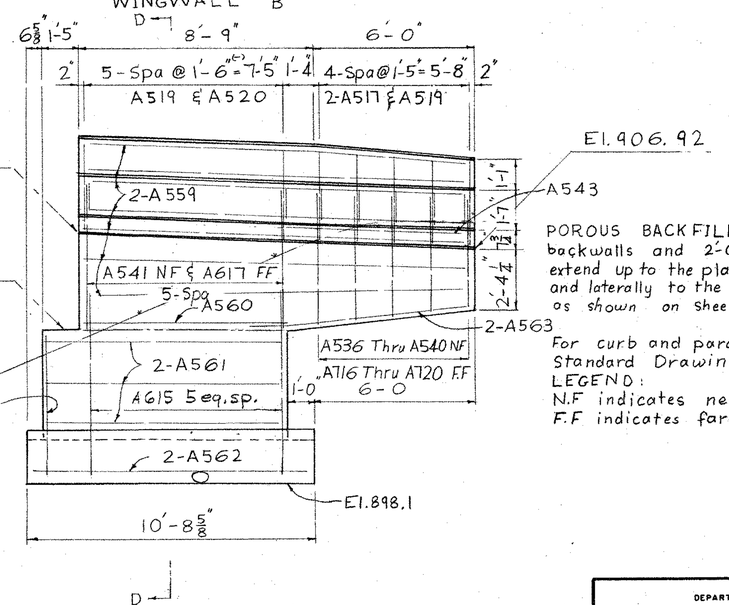












POROUS BACKFILL, 1'-6" thick, for the backwalls and 2'-0" for wingwalls shall extend up to the plane of the approach slab and laterally to the ends of the wingwalls as shown on sheet 6/12 & 7/12

For curb and parapet details see Standard Drawing No. BR-1-67

LEGEND:
N.F indicates near face
F.F indicates far face

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BUREAU OF BRIDGES

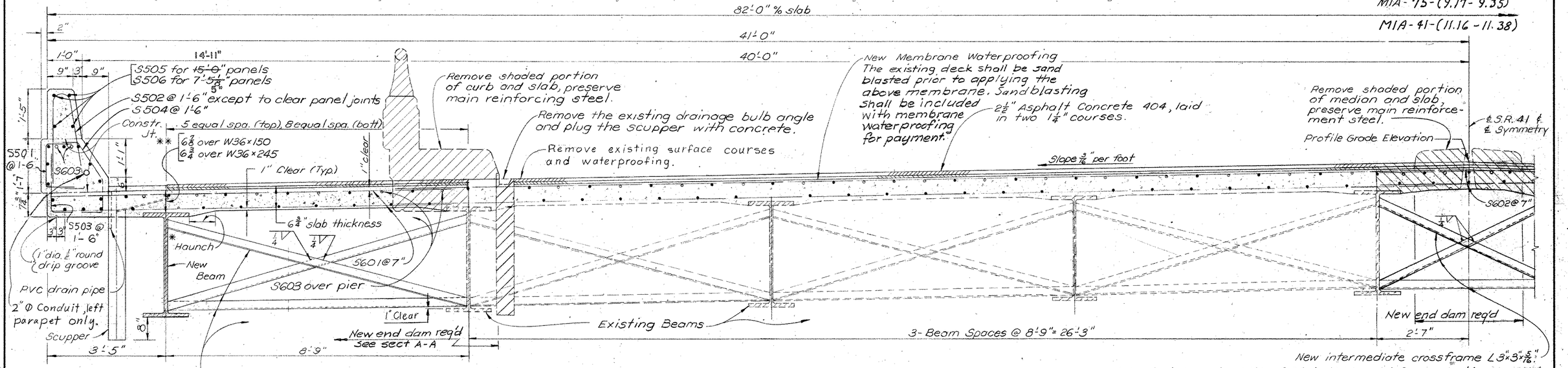
8/12

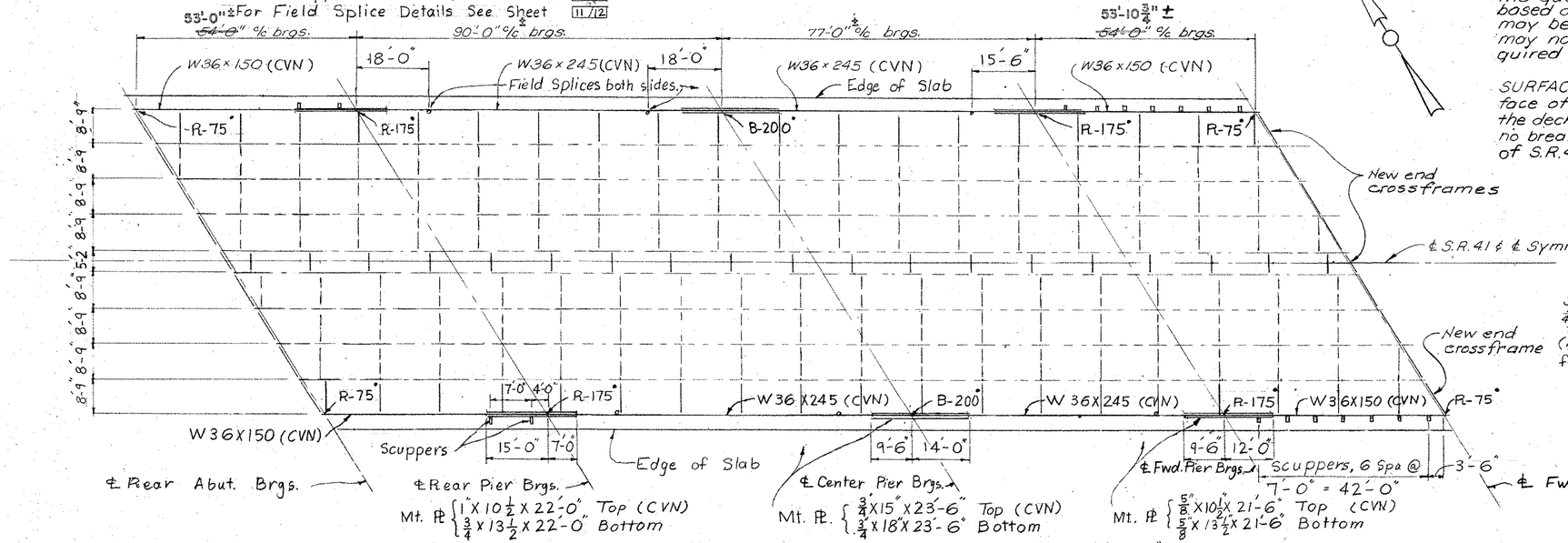
WINGWALLS DETAILS

BRIDGE NO. M1A-75-0971
UNDER S.R. 41

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
MRG	MRG	—	INNES	BFG	1-28-76	

REV. 12-8-76





FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

HALF TRANSVERSE SECTION THRU DECK

All longitudinal bars in slab and curb are 9-S606 and 1-S607 lapped 1'-11".

* A typical haunch width of 9" shall be used for computing 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.

** DECK SLAB DEPTH: The distance shown from top of deck slab to top of steel beam is the design dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

SURFACE ELEVATIONS: The surface elevations of the deck at the face of curb shall be obtained by continuing the slope of the deck of the existing structure. The final surface shall present no breaks in grade in a direction normal to the centerline of S.R. 41.

For Subdrainage of superstructure see sheet 12/12
For Scupper Details See Sheet 11/12
For Field Splice Details See Sheet 11/12

STEEL FRAMING PLAN

See Standard Drawing No. SD-1-69 sheets 1,2,3,4 for End cross frame, End dam, Curb plates and Moment plates.
* Keeper plates shall not be provided for the upper bearing blocks on the rockers and bolsters under the new beams.

STEEL ERECTION: During the erection of end dams and crossframes care shall be taken to insure that stringers, bearing parts and bridge seats remain in bearing contact.

Where "(CVN)" follows a shape or plate size designation, the material 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.

SECTION A-A
SHOWING ROADWAY END DAM
FOR ASPHALT CONCRETE SURFACE COURSE
(Refer to Standard Drawing SD-1-69, Sheet 1 of 4.)

10/12

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

SUPERSTRUCTURE DETAILS
BRIDGE NO. MIA-75-0971
UNDER S.R. 41

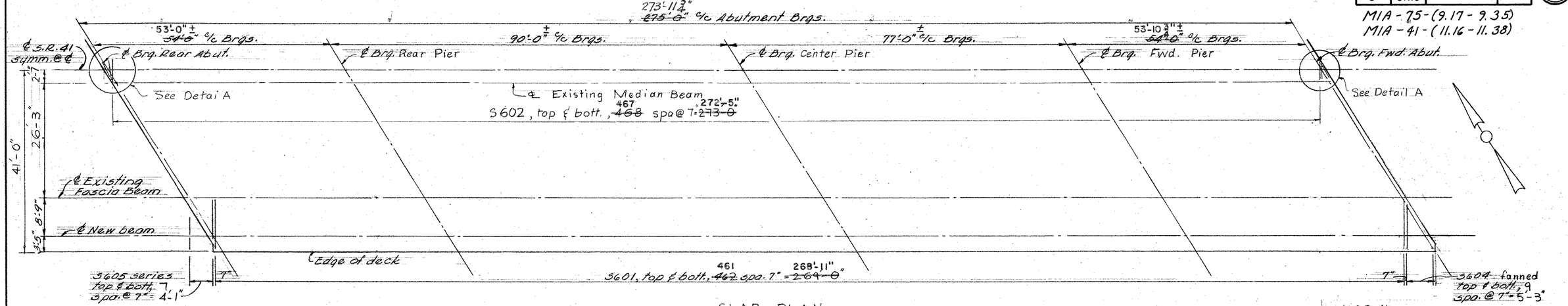
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
MRG	TGC	—	INNES	BFG	1-28-76	

REV-12-8-76

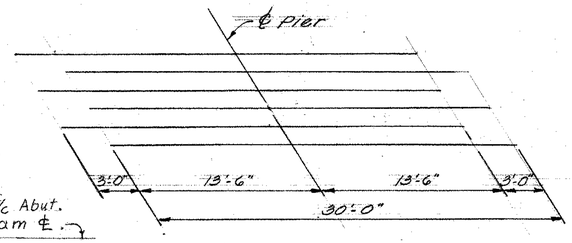
FHWA REGION	STATE	PROJECT	
5	OHIO		

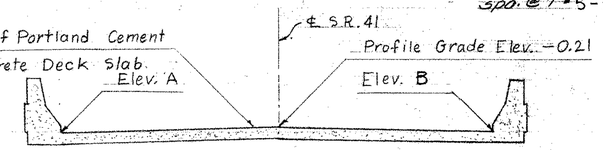
134/174

MIA-75-(9.17 - 9.35)
MIA-41-(11.16 - 11.38)



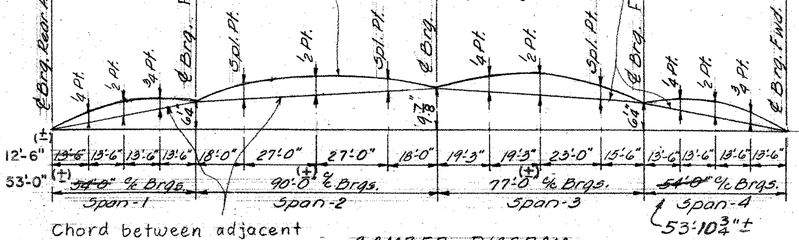
SLAB PLAN
TRANSVERSE REINFORCING LAYOUT





SCREED ELEVATIONS*			
POINT A		POINT B	
STATION	ELEVATION	STATION	ELEVATION
434+78.49	915.62	435+27.43	915.11
434+91.99	915.51	435+40.93	914.94
435+05.49	915.37	435+54.43	914.75
435+18.99	915.21	435+67.93	914.53
435+32.49	915.04	435+81.43	914.30
435+54.99	914.77	436+03.93	913.93
435+77.49	914.43	436+26.43	913.50
435+99.99	914.00	436+48.93	912.98
436+22.49	913.52	436+71.43	912.40
436+41.74	913.11	436+90.68	911.91
436+60.99	912.67	437+09.93	911.39
436+80.24	912.19	437+29.18	910.82
436+99.49	911.66	437+48.43	910.21
437+12.99	911.29	437+61.93	909.79
437+26.49	910.91	437+75.43	909.34
437+39.99	910.49	437+88.93	908.87
437+53.49	910.05	438+02.43	908.37

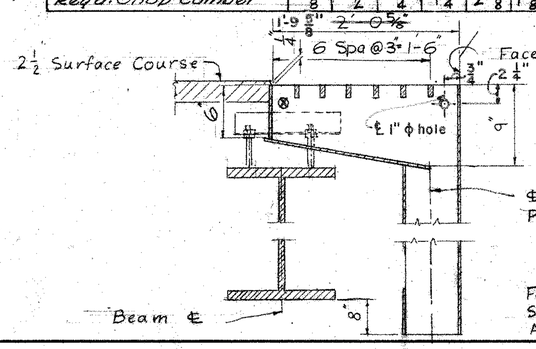
*Includes an allowance for deflection due to weight of concrete slab.



CAMBER DIAGRAM

DEFLECTION AND CAMBER

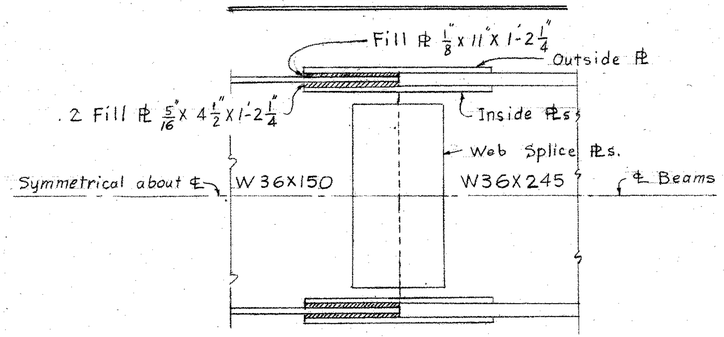
	Span-1			Span-2			Span-3			Span-4		
	¼ Pt.	½ Pt.	¾ Pt.	Spl. Pt.	½ Pt.	Spl. Pt.	¼ Pt.	½ Pt.	Spl. Pt.	¼ Pt.	½ Pt.	¾ Pt.
Defl. due to wt. of steel	0	0	0	1/8	3/16	1/16	0	1/16	0	0	1/16	1/16
Defl. due to remain. DL	1/8	1/8	0	7/16	7/8	3/8	1/16	1/4	1/8	1/8	1/4	3/16
Adjust. for vert. curve	1/4	3/8	1/4	11/16	1 1/16	11/16	9/16	3/4	1/2	1/4	3/8	1/4
Req'd. shop camber	3/8	1/2	1/4	1 1/4	2 1/8	1 1/8	5/8	1 1/16	5/8	3/8	11/16	1/2



SCUPPER DETAILS

For More Scupper Details See Standard Drawing No. SD-1-69 And Sheet 12/12 Deck Drainage Details

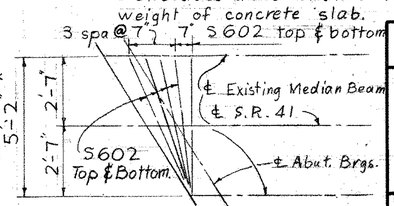
DIAGRAM SHOWING STAGGER OF S603 BARS OVER PIERS



BEAM SPLICE DETAIL

For Bolted Beam Splice Details See Standard Drawing No. SD-1-69

END DAMS AND SCUPPERS: Steel bar stock utilized for end dams and scuppers may be any weldable grade of low or mild carbon steel available commercially. This material is to be excluded from the requirements of 501.07 for test reports.



DETAIL A

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BUREAU OF BRIDGES

11/12

SUPERSTRUCTURE DETAILS

BRIDGE NO. MIA-75-0971
UNDER S.R. 41

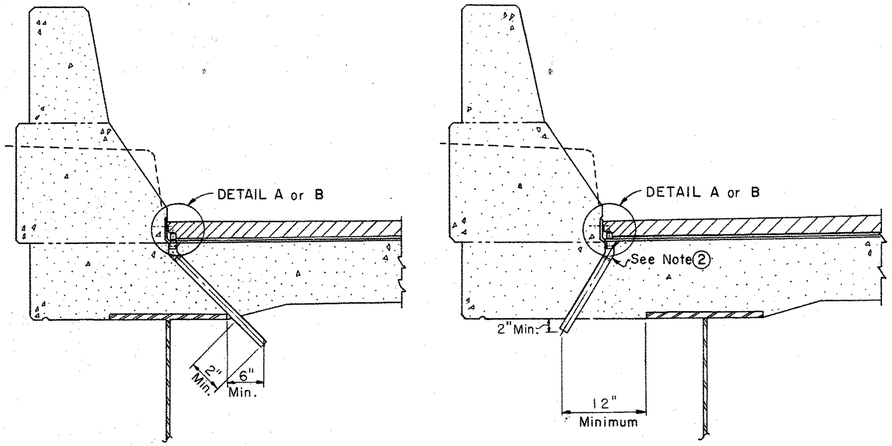
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
MRG	MRG	—	INNES	BFG	1-28-76	

REV. 12-8-76

FHWA REGION	STATE	PROJECT	
5	OHIO		

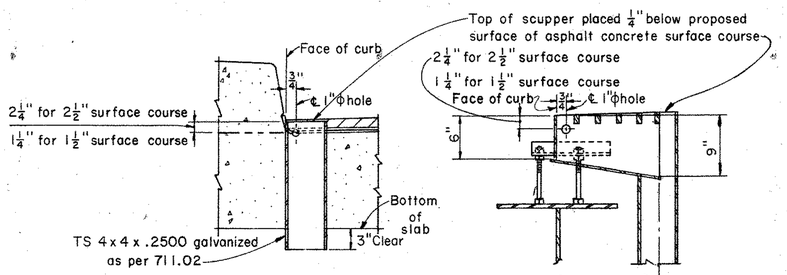
135/174

MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

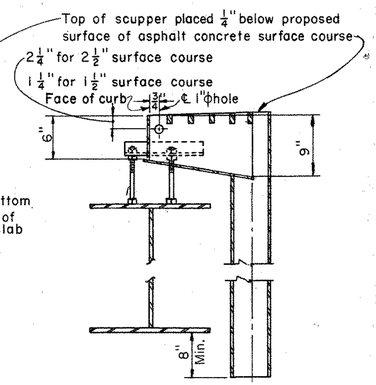


STRUCTURAL STEEL BELOW CURB LINE NO STRUCTURAL STEEL BELOW CURB LINE

DRAINAGE TUBE ARRANGEMENT



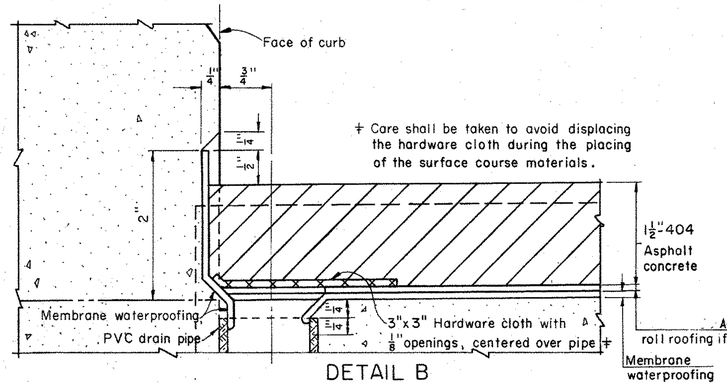
FOR SLAB BRIDGE



FOR GIRDER OR BEAM BRIDGE

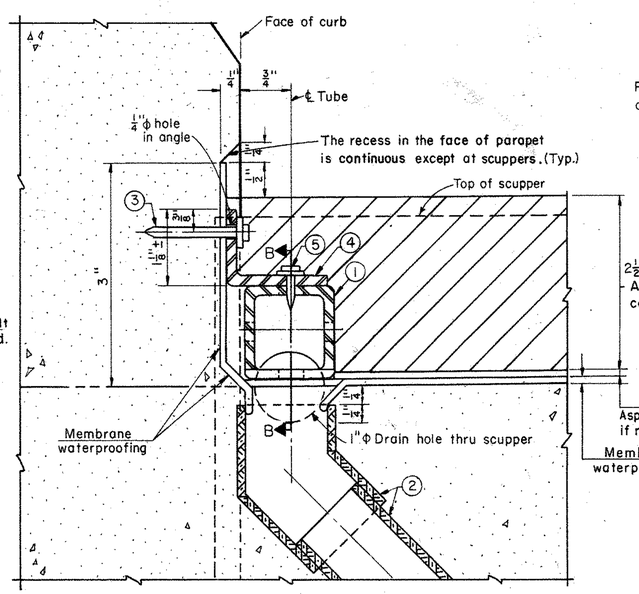
SCUPPER DETAILS

(Scupper details conform to SD-1-69 except as noted)



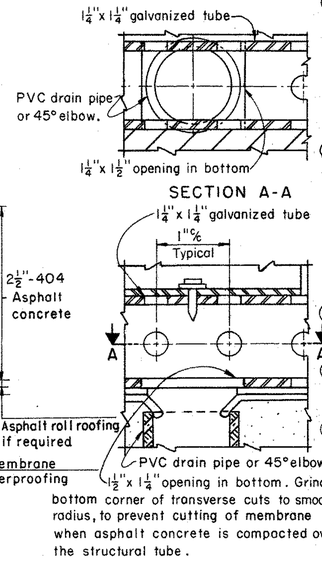
DETAIL B

SUBDRAINAGE FOR 1½" SURFACE COURSE



DETAIL A

SUBDRAINAGE FOR 2½" SURFACE COURSE



SUBDRAINAGE FOR ASPHALT CONCRETE SURFACE COURSE

The subdrainage system shall consist of PVC pipes and fittings and structural tubes as specified on this sheet. The pipes shall be spaced at approximately six foot intervals with a pipe placed within one foot of each expansion joint, except that they shall be relocated or extended as necessary for any discharge to clear bridge seats, structural members such as beams, diaphragms and crossbracing by at least six (6) inches. Pipes shall not be placed over or within four (4) feet of a pavement or sidewalk, within ten (10) feet of the centerline of a railroad track or along curb lines where the deck configuration does not permit water to accumulate.

Where the plans specify a two and one half (2½) inch surface course, the subdrainage shall be as shown on Detail A. The structural tube may be placed in any convenient lengths using butt joints. The price bid per linear foot for this drainage system shall include all PVC pipe and fittings, structural tubes, and all labor necessary to complete the item. The quantity will be the actual length of structural tube required. Payment will be made at the contract price for: Item 518, Lin. Ft., Subdrainage for wearing course, as per plan.

Where the plans specify a one and one half (1½) inch surface course, the subdrainage shall be as shown in Detail B. The price bid for each drain shall include the PVC pipe and fitting, the hardware cloth and all necessary labor to complete the item. Payment will be made at the contract price for: Item 518, Ea., Subdrainage for wearing course, as per plan.

The 404 shall be either 2½" placed in two 1¼" courses or 1½" placed in one course.

① - 1¼"x1¼" galvanized, perforated, structural tube with 1⅛"±Φ holes 1" on centers on all four sides as shown. Cut 1½"± x 1¼" opening in bottom, centered over each PVC drain pipe. The steel for the structural tube shall conform to the following:
PREGALVANIZED, ASTM A446, Grade A Steel, Galvanizing as per ASTM A525.
POSTGALVANIZED, ASTM A569 or A366, Galvanizing as per 711.02.
The minimum steel thickness shall be 0.105".
Any damaged galvanizing shall be repaired as per AASHO M36.
Install tubes with ⅛" expansion opening between pieces.

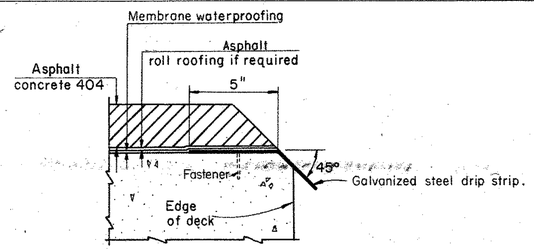
② - 1¼" PVC DRAIN PIPE AND 45° ELBOW. Position accurately to match 1½"x1¼" openings in perforated tube. Place membrane carefully at the pipe openings, making sure to completely seal around the lip of the pipe but taking care not to plug or constrict the opening. The drain pipe and elbow shall comply with ASTM D2661 or ASTM D2665.
The elbow shall be used only as required when structural steel is not below curb line.
Where the elbow is not adequate to provide clearance between the PVC pipe and the structural steel, the elbow shall be canted as required and cut on a line ¼" below and parallel with the deck surface. The solvent cement for the pipe and fittings shall conform to ASTM D2235 or ASTM D2564.

③ - 1¼" x 5/32" x ¼" flat head drive pin and washer.
Fastening of the structural tube by methods other than shown shall be subject to approval by the Engineer. (Driving pins into bridge deck is prohibited.)

④ - L 1½"x1½"x⅛", 3" long, clipped and galvanized, or bent galvanized steel plate 2½"x3"x0.105" thick. Attach to curb at approximately 5'-0" ℄ except near joints, where the angle shall be placed within 6" of the end of each tube section.

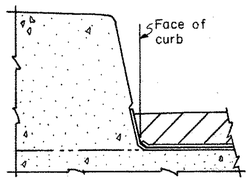
⑤ - ½"x⅛"x¼" flat head drive pin and washer driven thru angle and tube.

Note: Wherever "PVC" appears it shall be considered to read "PVC or ABS".



DRIP STRIP
BRIDGES WITHOUT CURBS

Galvanized Steel Drip Strip: Prior to applying deck membrane waterproofing, a bent galvanized steel drip strip, 8"x0.105" shall be installed along the edges of the deck as shown. The strips shall be fastened at 3'-0" ℄ maximum with power driven pins or #10 galvanized expansion screws, subject to the approval of the Engineer. The strips shall be placed the full length of the deck. Where splices are required a 3"(min.) lap shall be used, with a fastener through the lap. Steel shall meet the requirements of ASTM A568 and galvanizing shall be in accordance with 711.02. Payment shall be at the contract price bid for Item Special, Sq. Ft., Galvanized steel drip strip, which shall include all materials, labor, tools and incidentals necessary to complete the item.



SHAPE OF SIDEWALK CURB

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BUREAU OF BRIDGES

12/12

DECK DRAINAGE DETAILS FOR BRIDGES WITH ASPHALT CONCRETE SURFACE COURSE

BRIDGE NO. MIA-75-0971 UNDER S.R. 41

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DLM	GF J	——	CPD	WJJ	12-3-75	

FHWA REGION	STATE	PROJECT	
5	OHIO		

136/174

MIA-75 - (9.17-9.35)
MIA-41 - (11.16 - 11.38)

REFERENCE shall be made to Standard Drawings:
BR-1-67 sheet 1 of 3 revised 10-15-71
RB-1-55 revised 2-2-59
SD-1-69 shts. 1, 2, 3 & 4 of 4 dated 6-12-69
HL-4, HL-5 and AL-7, revised 9-6-73
and to Supplemental Specifications:
808 dated 1-1-71
836 dated 3-12-75

DESIGN SPECIFICATIONS: The additions to the existing structure conform to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1973, including the Ohio "Supplement to these specifications.

DESIGN DATA
Design Loading: HS 20-44
Concrete Class C: unit stress 1200 psi for superstructure.
unit stress 1333 psi for substructure.
Structural Steel: ASTM A36 unit stress 20,000 psi
Reinforcing Steel: ASTM A615, A616 or A617 - unit stress 20,000 psi. 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.

FOUNDATION BEARING PRESSURE: Rear abutment and all pier footings are designed for a maximum bearing pressure of 2.5 tons per sq. ft. forward abutment footing is designed for a maximum bearing pressure of 2.8 tons per sq. ft.

PLANS OF EXISTING BRIDGE may be examined in the District Office of Sidney, Ohio or in the Bureau of Bridges in Columbus, Ohio.

PROPOSED WORK
1. Remove the existing asphalt concrete from deck.
2. Jack the existing superstructure to an elevation high enough to permit the new work to be performed on the new rear abutment and the existing forward abutment and piers.
3. Remove approach slabs, the entire rear abutment, the entire backwall above bridge seats and wingwalls of the forward abutment.
4. Remove the cap of each pier.
5. Place and compact the new embankment.
6. Excavate behind and beyond the existing forward abutment.
7. Complete embankment at rear abutment and excavate for new rear abutment.
8. Make modifications at piers and forward abutment. Build a new rear abutment.
9. Jack superstructure down to final position.
10. Modify the superstructure by removing the safety curbs, and widen to 80'-0" f/f concrete parapet. Remove raised median and replace with continuous concrete deck.
11. Complete building the abutments above the construction joint at the bridge seat elevation or the optional construction joint at the approach slab seat.
12. Waterproof the deck and place the new wearing surface.

MAINTENANCE OF TRAFFIC: Two lanes of traffic each way on I-75 with a min. horiz. width of 32 feet & a min. vert. clearance of 14 feet 6 inches shall be maintained at all times, except during the erection of the new beams over I-75 traveled lanes. (See Traffic Maintenance Notes, sheet 9) The Contractor shall safeguard the traveling public by providing platforms, nets or other suitable protection above the traveled lanes.

JACKING: Jacking at piers may be done from falsework adjacent to the piers with supports in direct contact with existing concrete footings. The jacking shall be done in such a way as to maintain axial loading of the footings. Jacks shall not be located on the toe of the abutment footing. During jacking the differential of any pier or abutment shall not exceed 3" to prevent cracking of the concrete deck.
No construction equipment will be allowed on the superstructure while there is any such differential.
Approximate loads are:

Rear Abutment	125 tons
Rear Pier	590 tons
Center Pier	650 tons
Forward Pier	500 tons
Forward Abutment	140 tons.

Details of the jacking procedure (3 sets) shall be submitted to the Director 15 days prior to jacking operations, and work shall not commence before the Director's approval is given.

EXISTING STRUCTURE DIMENSIONS affecting new work shall be verified by field measurement.

PRESERVATION OF REINFORCING BARS: Special care shall be taken in removing existing concrete to avoid damage to reinforcing bars which are to be incorporated into new work. Any such bars which are made unusable by removal operations shall be replaced by dowel bars of the same size set 1'-0" into the existing concrete according to Sec. 510.02 at the Contractor's expense.
PLACING OF NEW CONCRETE IN CONTACT WITH EXISTING CONCRETE shall be done in accordance with the applicable parts of Sec. 519.04.

APPROACH SLABS: On Standard Dwg. AS-1-72 the cover of the top reinforcing steel shall be increased to 3" from 2" and pavement jacking holes shall not be provided.

ESTIMATED QUANTITIES — I-75-4(26)74

Item	Total	Unit	Description	Abut.	Piers	Supers.	Gen'l.
202	Lump	Sum	Portions of structure removed				Lump
404	167	Cu. Yd.	Asphalt concrete, AC-20			167	
503	Lump	Sum	Cofferdams, Cribs, and Sheeting				Lump
503	548	Cu. Yd.	Unclassified excavation	436	112	78,171	
140,317 509	~~140,428~~	Lb.	Reinforcing steel	20,285	41,861	~~98,282~~	
510	303	Lin. Ft.	Dowel holes	63	240		
	258					258	
511	~~259~~	Cu. Yd.	Class C concrete, superstructure (see Proposal Note)			~~259~~	
511	153	Cu. Yd.	Class C concrete, pier caps & columns		153		
511	219	Cu. Yd.	Class C concrete, abutments above footings	219			
511	115	Cu. Yd.	Class C concrete, footings	64	51		
512	20	Lin. Ft.	Pre molded sealing strip	20			
513	Lump	Sum	Raising, Supporting and Lowering existing Structure			139,300	Lump
139,300 513	~~139,600~~	Lb.	Structural steel			~~139,600~~	
139,300 513	~~139,600~~	Lb.	Field painting of new structural steel			139,600	
514	454,400	Lb.	Cleaning & painting existing structural steel, (one prime spot coat & two complete field coats 100% State			139,300	
						454,400	
518	125	Cu. Yd.	Porous backfill	125			
518	168	Lin. Ft.	6" Perforated, helical corrugated steel pipe, 707.01	168			
518	102	Lin. Ft.	6" Non-Perforated, helical corrugated steel pipe, incl. specials, 707.01	102			
518	18	Each	Scuppers, including supports			18	
518	553	Lin. Ft.	Subdrainage for wearing course			553	
601	907	Sq. Yd.	Crushed aggregate slope protection				907
625			See sheet 158 for Lighting Summary				
808	258 ~~259~~	Units	Chemical admixture for concrete, Type A, B or D			258 ~~259~~	
Special	2423	Sq. Yd.	Membrane waterproofing (See Note in Proposal)			2423	
Special	3	Sq. Yd.	Patching concrete bridge deck, Type A or B (see Proposal Note)				3

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BUREAU OF BRIDGES

3/12

GENERAL NOTES AND ESTIMATED QUANTITIES

BRIDGE NO. MIA-75-0971
UNDER SR 41

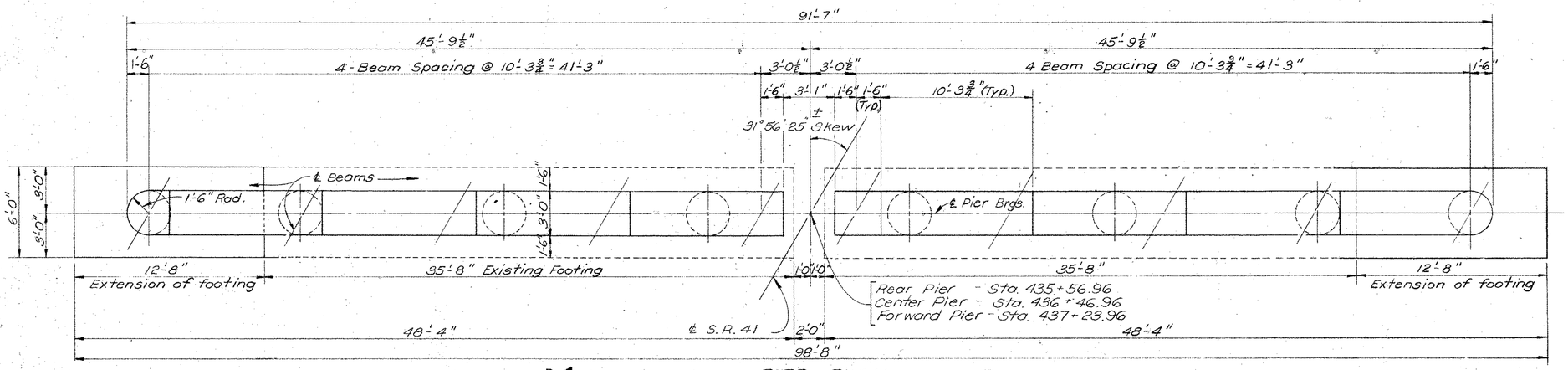
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
MRG	BBB	—	INNES 12-24-75	BFG 1-28-76		

REV. 12-8-76

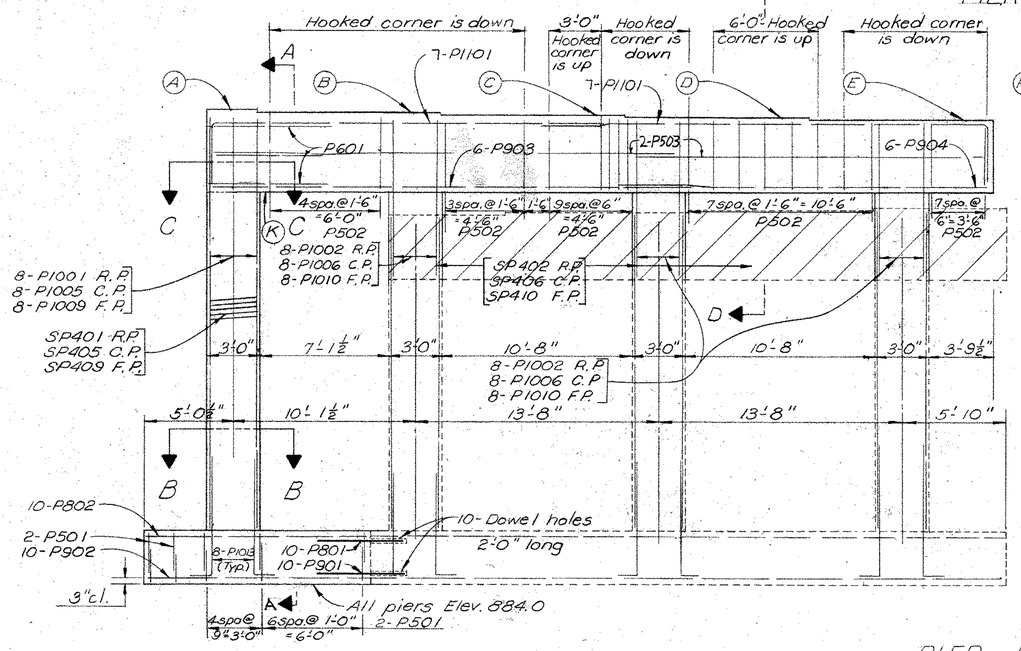
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

137/174

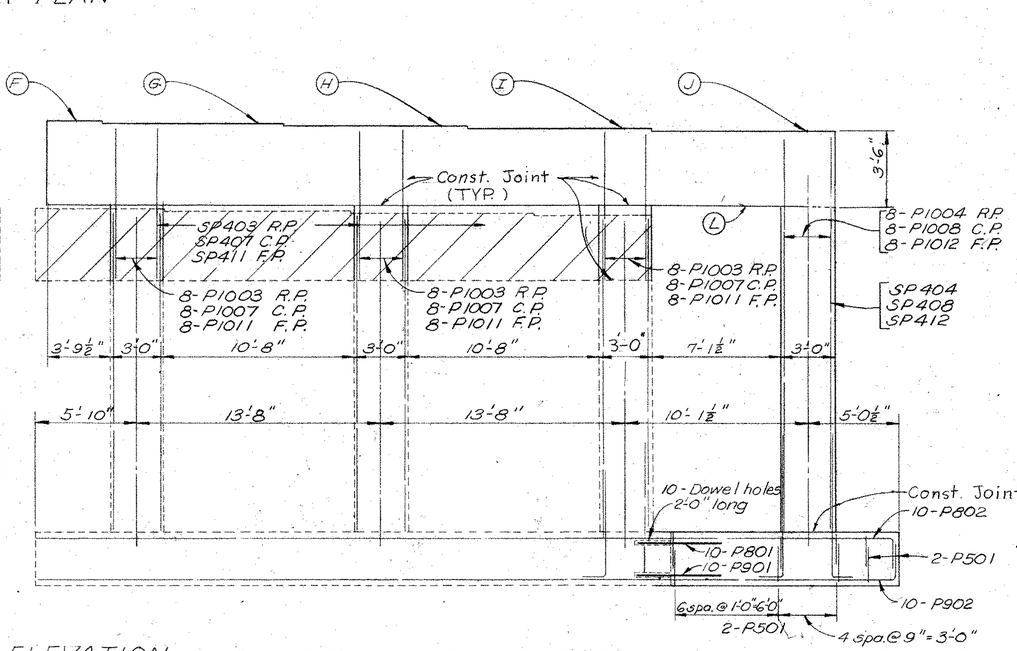
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

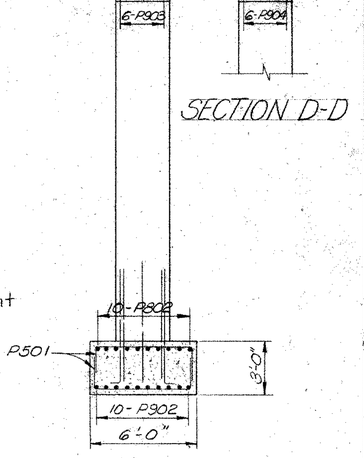


PIER PLAN



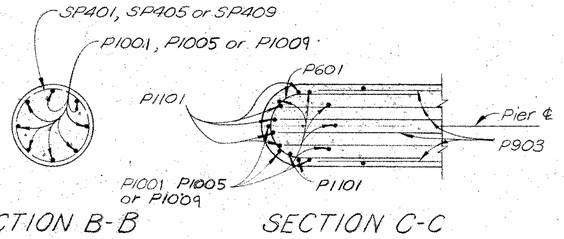
PIER ELEVATION (Forward pier shown, other piers similar.)





SECTION D-D

SECTION A-A



SECTION B-B SECTION C-C

NOTES

To avoid interference of the footing reinforcement with the footing dowel holes, remove 3" from the existing footing and drill the holes over the bottom reinforcement and under the top reinforcement.

BRIDGE SEAT REINFORCING: Reinforcing steel in the vicinity of the bridge seat for center pier shall be accurately placed to avoid interference with the drilling of bearing anchor holes or the pre-setting of bearing anchors.

Remove existing pier caps, preserve column reinforcement and extend columns to the required elevations.

Cap reinforcement for the right frame is similar to the left frame.

Grounding shall be provided for 2"ϕ electric conduit and structural steel of the center pier in accordance with HL-7.

PIER ELEVATIONS

	A	B	C	D	E	F	G	H	I	J
Rear Pier	909.96	910.03	910.09	910.15	910.20	910.16	909.93	909.71	909.48	909.26
Center Pier	908.31	908.32	908.34	908.35	908.36	908.29	908.03	907.76	907.49	907.24
Forward Pier	906.57	906.54	906.52	906.50	906.47	906.38	906.08	905.78	905.47	905.18

	K	L
Rear Pier	906.46	905.76
Center Pier	904.81	903.74
Forward Pier	902.97	901.68

LEGEND:
R.P. = Rear Pier
C.P. = Center Pier
F.P. = Forward Pier

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

9/12

PIER DETAILS

BRIDGE NO. MIA-75-0971
UNDER S.R. 41

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
MRG	TGC	—	JHNES	BFG	1-28-76	

Revised 12-8-76

LD 3-76
CEK 4-76

FHWA REGION	STATE	PROJECT	
5	OHIO		

138
174

MIAMI COUNTY
MIA-75- (9.17-9.35)
MIA-41- (11.16-11.38)

SIGNING GENERAL NOTES

202 REMOVAL OF GROUND MOUNTED SIGNS FOR STORAGE:
This work shall consist of the removal of ground mounted signs as shown on the plans.
All signs removed shall be stored within the limits of the project 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 signs will include all necessary labor and equipment required to perform the required work as indicated above.

(1) Basis of payment will be as follows for signs forty (40) square feet or greater:
202 Removal of Ground Mounted Major Signs For Storage, at the contract bid price per each.
(2) Basis of payment will be as follows for all other signs:
202 Removal of Ground Mounted Signs For Storage, at the contract bid price per each.

202 REMOVAL OF GROUND MOUNTED SIGN SUPPORTS FOR STORAGE:
This item of work shall consist of the removal of delineators, ground mounted sign supports and foundations as indicated in the plans.
All ground mounted sign supports and delineator post to be removed under this item shall remain the property of the State and shall be stored within the project for removal by State Forces.
The work shall include the removal of supports in such a manner as to avoid bending, twisting or other deformation damage. The foundations shall be removed to a minimum of one foot below the ground surface. Backfilling, restoration and disposal of surplus material will also be included in this work.
Basis of payment will be as follows which price will include all labor and equipment necessary to perform the required item of work:

(1) 202 Removal of Ground Mounted Sign Supports, № 8 Posts and Smaller at the Contract Bid Price Per Each.
(2) 202 Removal of Ground Mounted Sign Supports, Beams Larger than № 8 Posts, at the Contract Bid Price Per Each.
(3) An estimated quantity of 200 delineator posts have been included in these plans.

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 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 the opening of bids. The bidder will be notified as to acceptance or rejection of alternate design 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 GROUND MOUNTED SUPPORTS, № G POST, AS PER PLAN:
This work shall consist of the furnishing, assembly and installation of two (2) № 3 Drive Posts (№ G Post) in combination with a square welded or seamless galvanized tubular post extension spliced to the top of the № G Post. Details are shown on Sheet № 154.
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, № G Post, As Per Plan, per linear foot measured by the total overall length of combination post.

DELINEATORS, BY TYPE:
The Contractor shall have the option of driving or concrete embedding delineator posts in accordance with details shown in these plans.
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.

844 PADLOCKS AND KEYS:
Padlocks furnished shall be either brass or bronze padlocks equal to Master № 4 BKA or Wilson Bohannan 660 and shall be keyed in accordance with 844.10.
Payment will be included in the bid for items being locked.

BALLASTS:
In addition to the requirements of 844.10, ballasts for mecury vapor luminaires shall be located within the luminaire housing or contained in a weatherproof housing contiguous to the luminaire.

844 DISCONNECT SWITCH ENCLOSURE MOUNTING BRACKETS:
This work shall include the fabricating, furnishing and installation of disconnect switch enclosure mounting brackets when enclosures are mounted on existing overhead sign supports or attached to concrete bridge columns or abutments.
Work shall consist of field drilling, attachment and hardware as detailed in the plans.
Basis of payment will be at the contract bid price per each, 844 Disconnect 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 DRIVE POSTS:
Drive posts shall be steel in accordance with 712.20.

REMOVAL OF OVERLAY PANELS:
The Engineer shall notify the District Traffic Engineer seven days prior to the completion of this contract for the removal of sign panel overlays, by State forces, erected on the Mia-75-(5.30) (10.19-10.58)(13.41) contract.

844 REMOVE AND REERECT GROUND MOUNTED SIGNS:
This work shall include the removal of each sign and the reerection on the ground mounted supports at the location shown on the plans.
Basis of payment will be as follows and will include all labor, materials, equipment and incidentals necessary to perform the required work:

844 Remove and reerect ground mounted signs, at the contract price bid per each

Temporary Covering of Signs

A quantity of 600 square feet of temporary covering has been provided for use in covering the advance guide signs on Interstate 75 for the State Route 41 Interchange.

LD 4-76
CEK 4-76

SIGNING & PAVEMENT MARKING

GENERAL SUMMARY

TRAFFIC CONTROL

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

139
174

MIAMI COUNTY
MIA-75 - (9.17-9.35)
MIA-41 - (11.16-11.38)

TYPE CODE 6706

ITEM	SHEET NUMBER 138	140	141	142	143	144	145A	146	147	148	149	I-75-4(26)174	M-4-6000	ITEM	QUANT.	UNIT	DESCRIPTION
844							46	124	41	49		26.0		844	26.0	Cu.Yd.	Concrete for anchor base foundations
844		23										2.3		844	2.3	Cu.Yd.	Concrete for embedded foundations
844			3									3		844	3	Each	Sign backing assembly
844		34										34		844	34	Lin.Ft.	Ground mounted supports, No 6 Post, as per plan, Driven
844		159	361									412	108	844	520	Lin.Ft.	Ground mounted supports, No 6 Post, Driven
			22									22		844	22	Lin.Ft.	Ground mounted supports, No. 2 Post, Driven
		86	114									158	42	844	200	Lin.Ft.	Ground mounted Supports, No 3 Post, Driven
844		37										37		844	37	Lin.Ft.	Ground mounted Supports, 8 WF 17
844		2										2		844	2	Each	Breakaway beam connection
							1					1		844	1	Each	Overhead sign support, Type TC-12.30, Design 10, Arm 30'
844								1				1		844	1	Each	Overhead Sign Support, Type TC-7.65, Design 8, Span 51'
844									1			1		844	1	Each	Overhead sign support, Type TC-12.30, Design 8, Arm 28'
844																	
844		76	253									276	53	844	329	Sq.Ft.	Signs erected, Plat sheet
844		280	184				183	297	120	120		1154	30	844	1184	Sq.Ft.	Signs erected, extru sheet
844						1	1	1	1	1		5		844	5	Each	Sign service
844							1	2	2	2		7		844	7	Each	Signs wired
844						1	1	1	1	1		5		844	5	Each	Disconnect switch with enclosure, Type X
844																	
844		1										1		844	1	Each	Overpass Structure Mounted Sign Support, Type 18.26, Design 10
844																	
844						2		4	2	2		10		844	10	Each	Ballast, Type CMRI-175
844							2					2		844	2	Each	Ballast, Type CMRI-250
844						2						2		844	2	Each	Disconnect Switch Enclosure Mounting Brackets
844						2		4	2	2		10		844	10	Each	Mercury vapor luminaire with Type H39-22KB lamp
844							2					2		844	2	Each	Mercury vapor luminaire with Type H37-5KB lamp
			2									2		844	2	Each	Remove and reerect ground mounted signs
202				39								39		202	39	Each	Removal of ground mounted sign supports, No 8 Posts & smaller
202				20								20		202	20	Each	Removal of ground mounted sign supports, Beams larger than No 8
202				4								4		202	4	Each	Removal of ground mounted major signs for Storage
202				61								61		202	61	Each	Removal of ground mounted signs for Storage
										8.30		7.25	1.05	621	8.30	Miles	Edge Lines
621										1.84		1.53	0.31	621	1.84	Miles	4" Lane Lines
621										2.05		2.05		621	2.05	Miles	6" Lane Lines
621										1.21		0.50	0.71	621	1.21	Miles	Centerlines
621										0.52		0.39	0.13	621	0.52	Miles	Channelizing Lines
621										328		216	112	621	328	Lin.Ft.	24" Stop Lines
621										2532		1602	930	621	2532	Lin.Ft.	24" Broad Transverse Lines
621										1700		1700		621	1700	Lin.Ft.	Curb Marking
621										18		10	8	621	18	Each	Lane Arrows
621										16		8	8	621	16	Each	Word on pavement, as per plan
620					22							22		620	22	Each	Delineators, Type A, post mounted
620					189							189		620	189	Each	Delineators, Type D, post mounted
							1	1	1	1		4		5625	4	Each	Ground Rod
										1		1		844	1	Each	Combination Overhead Sign Support and Signal Strain Pole, Type TC-12.30, Design 8 Modified, Arm 28'
						1						1		844	1	Each	Sign wired, overpass structure mounted
	600											600		844	600	Sq.Ft.	Temporary covering of signs

LD 4-76
CEC 4-76

SIGN SUMMARY

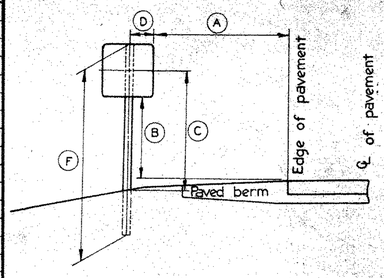
DETAILS GROUND MOUNTED SIGNS

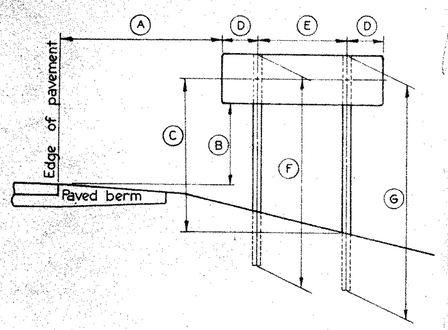
* These quantities are included under Federal Number M-4-600(1) for participation.

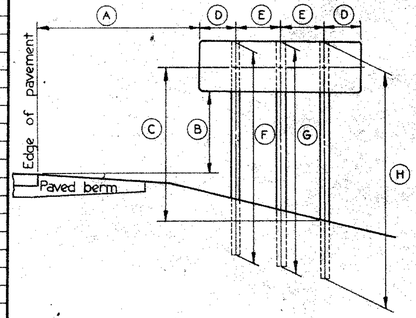
SHEET NO.	REF. NO.	STATION	SIDE	SIGN	SIGN SIZE	DIMENSIONS A	B	C	D	E	F	G	H	Structure Mounted Sign Support TC-18.26 #10
	1	493+86	Rt.	GN	7'-3'-6"	30'-0"	5'-0"	10'-8"	1'-6"	4'-0"	16'-9"	17'-9"		
	2	498+25	Rt.	I GEP-84	13'x12' 7'x2'	Overhead mounted See Sht. No. 145A								
	3	514+00	Lt.	I GEP-96	14'x7' 8'x2'	Mounted on bridge								1
	4	526+50	Lt.	I GEP-96 I GEP-96	13'-9'6" 8'x2' 10'x7' 8'x2'	Overhead mounted See Sht. No. 146								
	5	Deleted												
	6	DELETED												
*	7	402+00	Rt.	D-11	10'x1'6"	30'-0"	5'-0"	8'-0"	2'-2"	5'-8"	14'-0"	12'-6"		
	8	419+00	Rt.	M-5-24-2 1M-17-21	2'x2' 1'-9'x13	12'-0"	5'-0"	7'-9"	1'-0"		14'-6"			
	9	422+00	Rt.	M-5-28-120	10'x4'	30'-0"	5'-0"	9'-0"	2'-2"	5'-8"	16'-0"	15'-0"		
	10	426+00	Rt.	D-45	9'x4'	30'-0"	5'-0"	12'-0"	2'-0"	5'-0"	18'-1"	18'-11"		
	11	430+00	Rt.	III III	8'x6'6" 8'x6'6"	Overhead mounted See Sht. No. 147								
	12	435+00	Rt.	M-45-42	36"x5'	12'-0"	5'-0"	9'-0"	1'-8"		16'-6"			
	13	440+00	Rt.	R-43R-36 R-43L-36 R-41B-36	3'x1' 3'x1' 3'x3'	12'-0"	5'-0"	8'-0"	1'-6"		17'-0"			
	14	447+50	Rt.	M-2-24-2 M-39-24	2'x2' 2'x1'	12'-0"	5'-0"	8'-6"	1'-0"		15'-0"			
	15	Deleted												
	16	Deleted												
	17	Deleted												
*	18	23+75	Rt.	R-1-36	3'x3'	10'-0"	5'-0"	8'-0"	1'-6"		15'-0"			
*	18A	20+10	Rt.	R-1-36	3'x3'	10'-0"	5'-0"	8'-9"	1'-6"		16'-0"			
*	19	417+00	Lt.	D-11	10'x1'6"	34'-0"	6'-0"	9'-3"	2'-2"	5'-8"	15'-0"	14'-6"		
	20	Deleted												
	21	422+00	Lt.	W-60D-36	3'x3'	12'-0"	5'-0"	8'-6"	2'-1"		15'-9"			
	22	Deleted												
	23	428+50	Lt.	M-2-24-2 M-40-24	2'x2' 2'x1'	12'-0"	5'-0"	7'-9"	1'-0"		14'-3"			
	24	431+00	Lt.	R-43L-36 R-43R-36 R-41B-36	3'x1' 3'x1' 3'x3'	12'-0"	5'-0"	7'-6"	1'-6"		16'-6"			
	25	434+60	Lt.	M-45-42	36"x5'	12'-0"	5'-0"	7'-6"	1'-8"		15'-0"			
														1

ESTIMATED QUANTITIES

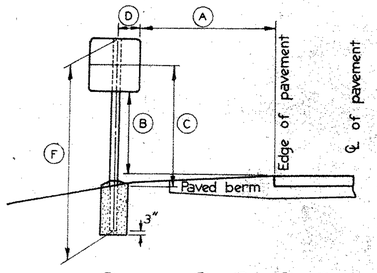
SIGNS ERECTED EXTRU SQ. FT.	SIGNS ERECTED FLAT SQ. FT.	CONCRETE FOR EMBEDDED FOUNDATIONS DIA.	DEPTH	CU.YD.	#2 POST L.F.	#3 POST L.F.	#6 POST L.F.	#6 POST AS PER PLAN L.F.	8 WF 17 L.F.	10 WF 21 L.F.	12 WF 31 L.F.	BAND ON 4 POLE EACH	SIGN BACKING ASSEMBLY	BREAKAWAY CONNECTION EACH
24.5							34'-6"							
98.0		See Sheet Number 144 for additional quantities												
16.0														
15.0*						26'-6"*								
	4.0					14'-6"								
	2.19													
40.0							34'-0"							
36.0		2'-6"	5'-8"	2.3					37.0					2
17.5							16'-6"							
	3.0							17'-0"						
	3.0													
	9.0													
	4.0						15'-0"							
	2.0													
	9.0 *					15'-0" *								
	9.0 *						16'-0" *							
15.0*							29'-6" *							
	9.0						15'-9"							
	4.0					14'-3"								
	2.0													
	3.0							16'-6"						
	3.0													
	9.0													
17.5							15'-0"							
279.5	75.19		2.3	—	85'-3"	158'-3"	33'-6"	37.0"	—					2

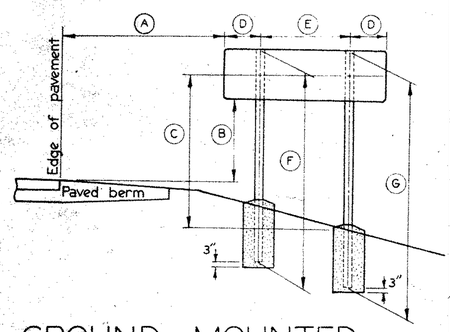


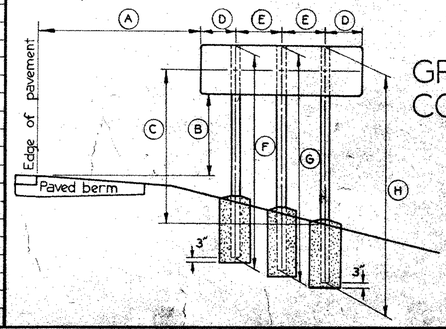




GROUND MOUNTED DRIVE POST







GROUND MOUNTED CONCRETE FOUNDATION

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

140
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

SIGN SUMMARY

LD 4-76
OEK 4-76

SIGN SUMMARY

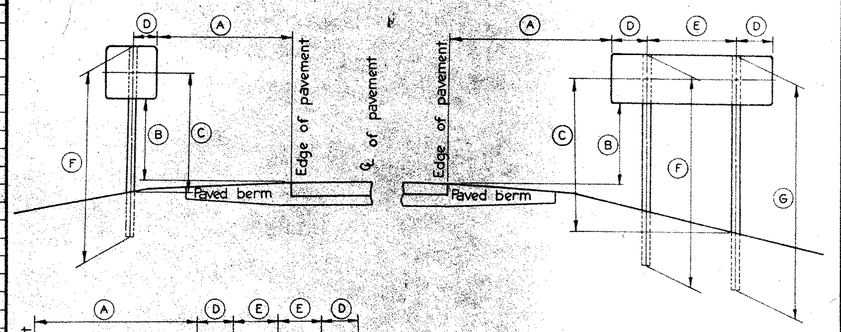
DETAILS GROUND MOUNTED SIGNS

* These quantities are included under Federal Number M-4-600(1) for participation.

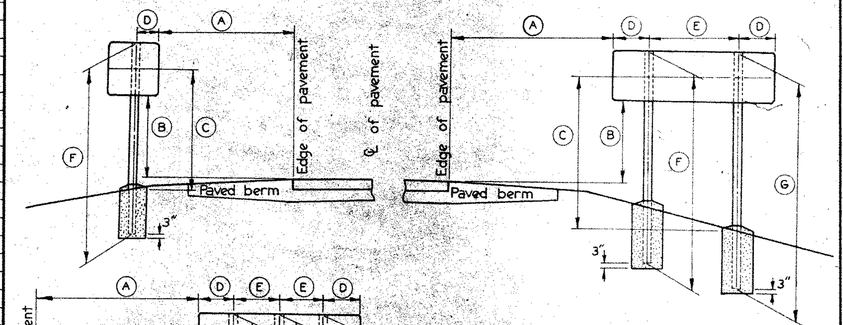
SHEET NO.	REF. NO.	STATION	SIDE	SIGN	SIGN SIZE	DIMENSIONS A	B	C	D	E	F	G	H	REM. & RE-ERECT GROUND MOUNTED SIGNS EACH
	26	440+06	Lt.	III	8'×6'-6	Overhead	Mounted	See	Sht.	No	148			
				III	8'×6'-6									
	27	442+50	Lt.	M-5-24-2	10'×4'	12'	7'-0"	9'-0"	2'-2"	5'-8"	16'-0"	16'-0"		
	28	446+00	Lt.	M-5-24-2	2'×2'	12'	7'-0"	8'-6"	1'-0"		15'-3"			
				M-M7-21	1'9"×1'5"									
	29	0+75 C	Lt.	R-1-48	4'×4'	10'-0"	5'-0"	8'-0"	2'-0"		15'-0"			
				R-41B-36	3'×3'									
	30	3+00A	Lt.	D-4A	7'×2'	30'-0"	5'-0"	11'-0"	1'-6"	4'-0"	15'-6"	16'-9"		
				M-24-24	2'×1'-6"									
				M-2-30-2	2'6"×26"									
				M-39-30	2'6"×1'3"									
				R-41A-36	3'×2'									
	31	12+50A	Lt.	R-41A-36	3'×2'	10'-0"	5'-0"	6'-6"	1'-6"		12'-6"			
	32	12+50A	Rt.	R-41A-36	3'×2'	6'-0"	5'-0"	6'-0"	1'-6"		12'-6"			
	33	510+34	Lt.	GF-96	8'×5'	12'-0"	5'-0"	8'-0"	1'-9"	4'-6"	16'-0"	16'-0"		
	34	1+00 C	M.	R-3TR-36	3'×4'	℄	7'-0"	8'-6"	1'-6"		15'-6"			
	35	1+50C	Rt.	R-150-30	2'6"×2'6"	30'-0"	5'-0"	9'-9"	1'-3"		16'-0"			
	36	502+70	Lt.	W-49R48	4'×4'	12'-0"	7'-0"	9'-0"	2'-10"		16'-0"			
	37	506+54	Rt.	GF-72	6'×5'	12'-0"	5'-0"	9'-0"	1'-4"	3'-4"	16'-0"	16'-0"		
	38	7+00D	Rt.	D-4B	10'×4'	24'-0"	5'-0"	10'-6"	2'-2"	5'-8"	16'-6"	21'-0"		
				M-25-24	2'×1'-6"									
				M-2-30-2	2'6"×26"									
				R-41A-36	3'×2'									
	39	Deleted												
	40	7+00D	Rt.	R-41A-36	3'×2'	10'-0"	5'-0"	7'-0"	1'-6"		13'-0"			
	41	10+00D	Rt.	R-41B-36	3'×3'	10'-0"	5'-0"	8'-0"	2'-0"		15'-0"			
	42	1+00E	Rt.	R-150-30	2'6"×2'6"	30'-0"	5'-0"	10'-0"	1'-3"		16'-0"			
	43	521+00	Rt.	W-49R48	4'×4'	12'-0"	7'-0"	9'-0"	2'-10"		17'-0"			
	44	0+75F	Lt.	R-1-48	4'×4'	10'-0"	5'-0"	8'-0"	2'-0"		15'-0"			
				R-41B-36	3'×3'									
	45	Deleted												
	46	4+00F	Rt.	R-41A-36	3'×2'	6'-0"	5'-0"	7'-0"	1'-6"		13'-0"			
	47	4+00F	Lt.	D-4A	10'×2'	30'-0"	5'-0"	14'-2"	2'-2"	5'-8"	15'-6"	22'-0"		
				M-24-24	2'×1'-6"									
				M-2-30-2	2'6"×26"									
				M-40-30	2'6"×1'3"									
				R-41A-36	3'×2'									
	48	514+00	Lt.	W-9T-48	4'×5'	12'-0"	7'-0"	9'-6"	2'-0"		17'-0"			
		509+90	Rt.	N-41-12	1'×3'									1
		509+90	Lt.	N-41-12	1'×3'									1
*	49	404+50	Rt.	R-81A-36	3'×2'-6"	12'-0"	7'-0"	9'-3"	1'-6"		15'-6"			
*	50	408+70	Rt.	R-81A-36	3'×2'-6"	12'-0"	7'-0"	9'-3"	1'-6"		15'-6"			
*	51	410+40	Lt.	R-81 Spec 48	4'×2'-6"	12'-0"	7'-0"	9'-3"	2'-0"		15'-6"			
*	52	414+50	Lt.	R-81 Spec 48	4'×2'-6"	12'-0"	7'-0"	9'-3"	2'-0"		15'-6"			
														2

ESTIMATED QUANTITIES

SIGNS ERECTED EXTRU SQ. FT.	SIGNS ERECTED FLAT SQ. FT.	CONCRETE FOR EMBEDDED FOUNDATIONS DIA.	DEPTH	CU.YD.	#2 POST L.F.	#3 POST L.F.	#6 POST L.F.	#6 POST AS PER PLAN L.F.	8 WF 17 L.F.	10 WF 21 L.F.	12 WF 31 L.F.	BAND ON ℄ POLE EACH	SIGN BACKING ASSEMBLY EACH	BREAKAWAY CONNECTION EACH
40.0							32'0"							
	4.0					15'3"								
	2.19													
	16.0						15'-0"							
	9.0													
14.0							32'3"						1	
	3.0													
	0.25													
	3.18													
	6.0													
	6.0					12'-6"								
	6.0					12'-6"								
40.0							32'0"							
	12.0						15'-6"							
	0.25					16'-0"								
	16.0						16'-0"							
30.0							32'0"							
40.0							37'-6"						1	
	3.0													
	0.25													
	6.0													
	6.0					13'-0"								
	9.0					15'-0"								
	0.25					16'-0"								
	16.0						17'-0"							
	16.0						15'-0"							
	9.0													
	6.0					13'-0								
20.0							37'-6"						1	
	3.00													
	6.25													
	3.12													
	6.0													
	20.0						17'0"							
					11'0"									
					11'0"									
	7.5 *						15'6" *							
	7.5 *						15'6" *							
	10.0 *						15'6" *							
	10.0 *						15'6" *							
184.0	252.69				22'0"	113'3"	360'9						3	



GROUND MOUNTED DRIVE POST



GROUND MOUNTED CONCRETE FOUNDATION

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

141
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

SIGN SUMMARY

Mylar made 1-2-18

LD 12-75

FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

142
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

202 REMOVAL OF SIGNS & SUPPORTS

Station	Side	Sign Reference Or Code No	Size	REMOVAL OF GROUND MOUNTED SIGN SUPPORTS 8" Beams or Smaller Each	REMOVAL OF GROUND MOUNTED SIGN SUPPORTS Beams Larger than 8" Each	REMOVAL OF GROUND MOUNTED MAJOR SIGNS FOR STORAGE Each	REMOVAL OF GROUND MOUNTED SIGNS FOR STORAGE Each
487+00	Rt.		9'×5'-6"		2	1	
		N-12C-108	9'×2'				1
493+855	Rt.	GK	6'×3'		2		1
504+72	Lt.	R-2-48	4'×4'×4'	1			1
506+64	Rt.	N-12A-72	6'×5'	2			1
		M-2-36	3'×3'				1
507+90	Lt.	W-49-48	4'×4'	1			1
		WP 49-24	2'×1'				1
508+18	Lt.	R-41A-36	3'×2'	1			1
508+56	Lt.	R-41A-36	3'×2'	1			1
507+76	Rt.	D-4-2	10'×4'		2	1	
		M-25-20	1'-7"×1'-3"				1
		M-2-24	2'×2'				1
509+10	Rt.	M-5A-36-2	3'×3'	1			1
508+98	Rt.	R-41A-36	3'×2'	1			1
509+195	Rt.	R-41A-36	3'×2'	1			1
510+75	Lt.	N-12A-72	6'×5'		2		1
		M-2-36	3'×3'				1
512+83	Lt.	W-97-48	4'×5'	1			1
513+33	Rt.	R-15A-36	3'×3'	1			1
514+55	Rt.	W-49-48	4'×4'	1			1
		WP-49-24	2'×1'				1
517+48	Rt.	R-2-48	4'×4'×4'	1			1
523+19	Rt.	M-5A-36-2	3'×3'	1			1
		M-37-36	3'×1'-6"				1
530+22	Lt.	GB	9'×7'-6"		2	1	
		M-2-36	3'×3'				1
423+76	Rt.	D-3-24	8'×2'-6"		2		1
425+39	Lt.	W-49-30	2'-6"×2'-6"	1			1
427+75	Rt.	D-4-2	9'×4'	2			1
428+02	Lt.	M-2-36	3'×3'	1			1
		M37-40-36	3'×1'-6"				1
430+42	Rt.	R-15A-36	3'×3'	1			1
				- 19	12	3	30

Station	Side	Sign Reference Or Code No	Size'	REMOVAL OF GROUND MOUNTED SIGN SUPPORTS 8" Beams or Smaller Each	REMOVAL OF GROUND MOUNTED SIGN SUPPORTS Beams Larger than 8" Each	REMOVAL OF GROUND MOUNTED MAJOR SIGNS FOR STORAGE Each	REMOVAL OF GROUND MOUNTED SIGNS FOR STORAGE Each
430+63	Lt.	D-4-1	9'×2'		2		1
		IM-24-20	1'-7"×1'-3"				1
		M-5A-24-2	2'×2'				1
		IM-38-24	2'×1'				1
430+78	Rt.	R-9TR-24	2'×2'-6"	1			1
430+89	Lt.	W-30-48	4'×2'	1			1
431+08	Rt.	R-1-48	4'×4'	1			1
		R-41B-36	3'×3'				1
431+45	℄	R-9TR-24	2'×2'-6"	1			1
431+29	Rt.	D-3-24	8'×2'-6"		2		1
431+07	Rt.	D-4-2	10'×4'		2	1	
		M-25-20	1'-7"×1'-3"				1
		M-2-24	2'×2'				1
433+67	Rt.	R-2-48	4'×4'×4'	1			1
434+94	Rt.	R-9-24	2'×2'-6"	1			1
437+67	Lt.	R-36-30	2'-6"×3'	1			1
438+33	Lt.	R-15A-36	3'×3'	1			1
439+08	Rt.	D-4-1	10'×2'	2			1
439+14	Lt.	R-2-48	4'×4'×4'	1			1
439+83	℄	R-38-24	2'×2'6"	1			1
440+02	Lt.	D-3-24	8'×2'-6"		2		1
440+22	Rt.	R-43L-72	6'×2'	1			1
		R-43R-72	6'×2'				1
440+24	Rt.	R-41-36	3'×3'	1			1
440+79	Rt.	R-1-48	4'×4'	1			1
		R-41-36	3'×3'				1
442+06	Lt.	D-4-2	9'×4'	2			1
442+61	Lt.	R-55-12	1'×1'-6"	1			1
443+14	Rt.	Special	2'×2'-6"	1			1
		Special	0'-6"×2'				1
443+58	℄	R-38-24	2'×2'-6"	1			1
		RP-38-24	2'×1'-6"				1
				20	8	1	31

LINE	REMOVAL OF GROUND MOUNTED SIGN SUPPORTS 8" Beams or Smaller Each	REMOVAL OF GROUND MOUNTED SIGN SUPPORTS Beams Larger than 8" Each	REMOVAL OF GROUND MOUNTED MAJOR SIGNS FOR STORAGE Each	REMOVAL OF GROUND MOUNTED SIGNS FOR STORAGE Each
	19	12	3	30
	20	8	1	31
	39	20	4	61

LD-12-75

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

143
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

620 DELINEATOR TABLE

I										II										III										IV									
					A		D								A		D								A		D								A		D		
CODE	STATION TO STATION		SIDE	INTERVAL	POST	BRACKET	POST	BRACKET	POST	BRACKET	CODE	STATION TO STATION		SIDE	INTERVAL	POST	BRACKET	POST	BRACKET	POST	BRACKET	CODE	STATION TO STATION		SIDE	INTERVAL	POST	BRACKET	POST	BRACKET	POST	BRACKET	CODE	STATION TO STATION		SIDE	INTERVAL	POST	BRACKET	POST	BRACKET	POST	BRACKET
I R'75	504+65	508+65	Lt.	200'	3						"F"	0+55	2+55	Lt.	100'			3																							
	520+50	522+50	Lt.	200'	2							2+55	8+55	Rt.	60'			11																							
	532+25	533+25	Lt.	100'	1							8+55	9+15	Lt.	60'			2																							
	533+25	537+25	Lt.	200'	2							9+15	10+15	Lt.	100'			1																							
												10+15	17+15	Lt.	100'			7																							
	485+94	497+94	Rt.	200'	6																																			
	497+94	498+94	Rt.	100'	1																																			
	508+40	520+40	Rt.	200'	7																																			
"A"	1+08	3+08	Lt.	100'			3																																	
	3+08	3+68	Lt.	60'			1																																	
	3+68	7+28	Lt.	30'			11																																	
	9+84	11+34	Lt.	30'			6																																	
	11+34	16+44	Rt.	30'			18																																	
	510+50	518+50	Rt.	100'			9																																	
"C"	1+25	3+25	Rt.	100'			3																																	
	3+25	3+65	Rt.	40'			1																																	
	3+65	9+65	Rt.	40'			16																																	
	9+65	10+15	Rt.	50'			1																																	
	10+15	11+65	Rt.	50'			3																																	
	11+65	16+65	Lt.	50'			11																																	
	16+65	18+65	Rt.	50'			5																																	
	18+65	19+45	Rt.	80'			1																																	
	19+45	20+45	Rt.	100'			1																																	
	20+45	485+97	Rt.	100'			13																																	
"D"	498+94	503+94	Rt.	100'			6																																	
	2+84	3+34	Rt.	50'			1																																	
	3+34	5+84	Rt.	50'			5																																	
	5+84	7+84	Lt.	50'			5																																	
	7+84	9+64	Rt.	100'			3																																	
"E"	1+14	5+54	Rt.	40'			12																																	
	5+54	6+04	Rt.	50'			1																																	
	6+04	6+54	Rt.	50'			1																																	
	6+54	10+54	Lt.	50'			9																																	
	10+54	12+04	Rt.	50'			4																																	
	12+04	12+84	Rt.	80'			1																																	
	12+84	13+84	Rt.	100'			1																																	
	13+84	26+84	Rt.	100'			13																																	
SUB-TOTAL I					22		165				SUB-TOTAL II					24					SUB-TOTAL III										SUB-TOTAL IV									

620 DELINEATORS

SUB-TOTALS	TOTALS A-COLORLESS POST	TOTALS A-COLORLESS BRACKET	TOTALS D-YELLOW POST	TOTALS D-YELLOW BRACKET	TOTALS POST	TOTALS BRACKET
I	22		165			
II			24			
III						
IV						
TOTALS	22		189			

DETAILED BY DATE
DETAIL CHECKED
DEPT. REVISED

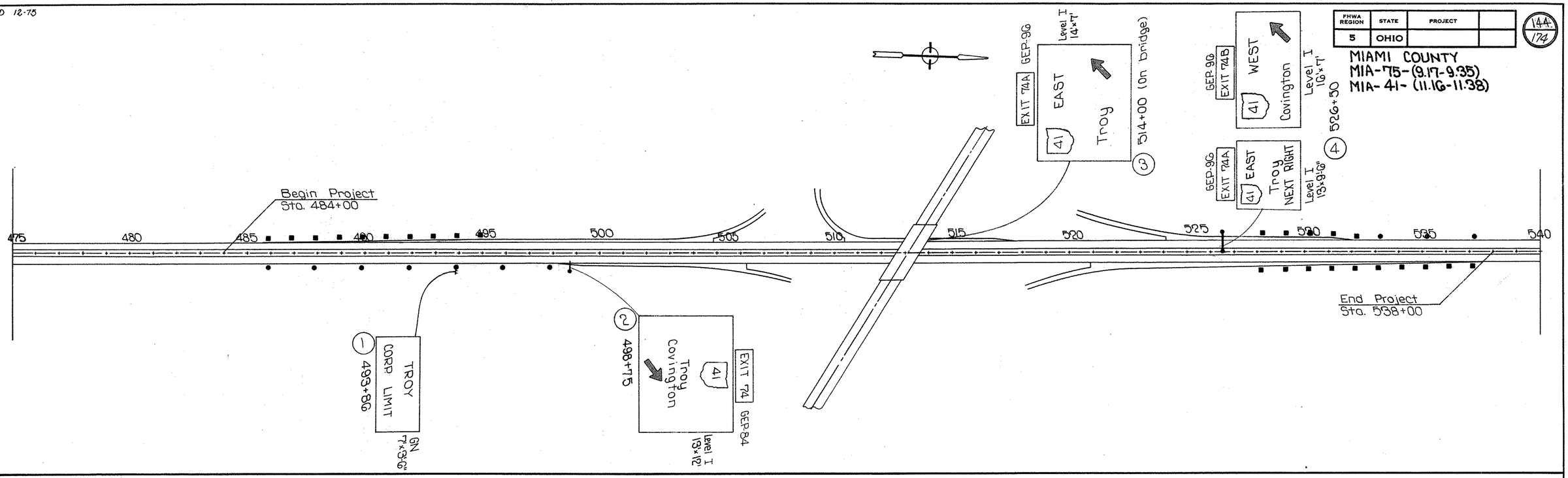
620 DELINEATOR TABLE

LD 12-75

FHWA REGION	STATE	PROJECT	
5	OHIO		

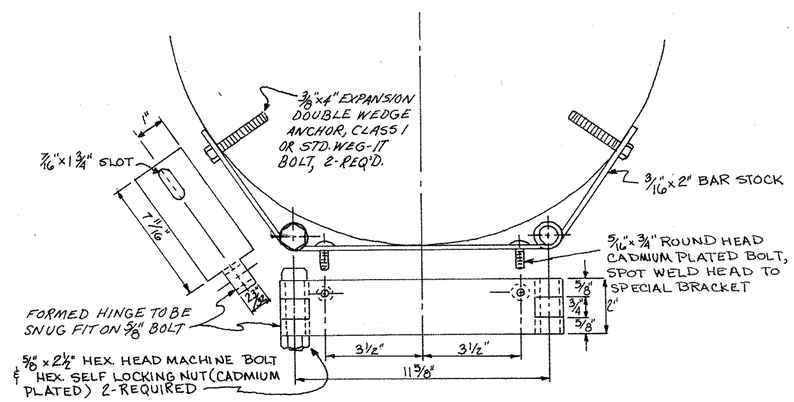
144
174

MIAMI COUNTY
MIA-175-(9.17-9.35)
MIA-41-(11.16-11.38)



Quantities for Sign Number 3

ITEM 844	Sign Service	1 Each
ITEM 844	Signs wired, overpass structure mounted	1 Each
ITEM 844	Disconnect Switch Enclosure Mounting Brackets	2 Each
ITEM 844	Ballast, Type CMRI-175	2 Each
ITEM 844	Mercury Vapor Luminaire with Type H39-22KB Lamp	2 Each
ITEM 844	Disconnect Switch with Enclosure, Type X	1 Each



DISCONNECT SWITCH ENCLOSURE MOUNTING BRACKET

SIGN LAYOUT STA. 484+00 TO STA. 538+00


LD 12-75
I.R.-75 & S.R.-41 INTERCHANGE
0 25 50 75 100 150 200 300 400
SCALE 1" = 100'
FHWA REGION
STATE
PROJECT
5
OHIO
145
174
MIAMI COUNTY
MIA-75- (9.17-9.35)
MIA-41- (11.16-11.38)
EXPERIMENTAL FARM RD.
D-11
Toledo 127
Dayton 21
SOUTH 75 Dayton
NORTH 75 Toledo
2 Signs B/B
Level III
EXIT 74A
EXIT 74
EXIT 30 MPH
PROHIBITED PEDESTRIANS BICYCLES MOTORCYCLES (LESS THAN 5)
KEEP RIGHT
WRONG WAY
DO NOT ENTER
ONE WAY
STOP
Troy 3
Covington 8
WEST 41
EAST 41
JCT 75
PROP. RAMP "E"
PROP. RAMP "F"
℄ SURVEY I.R.-75
℄ SURVEY S.R.-41

WM 4-76
CEK 4-76

FHWA REGION	STATE	PROJECT	
5	OHIO		

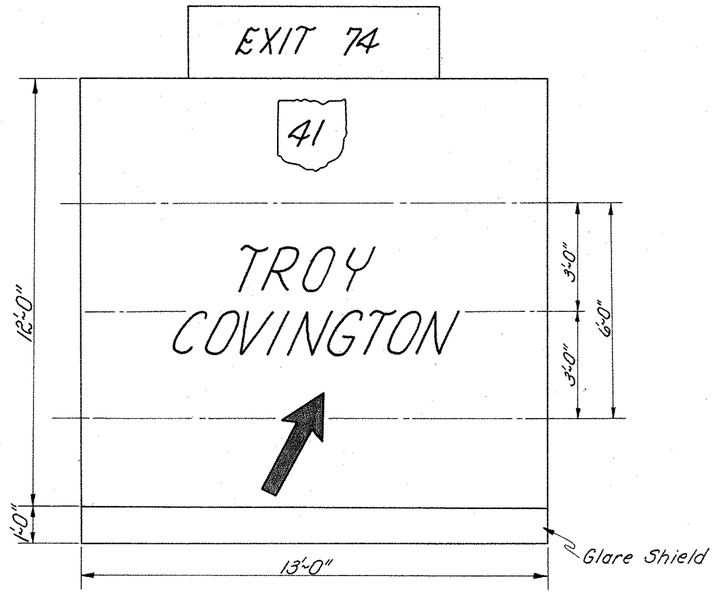
145A
174

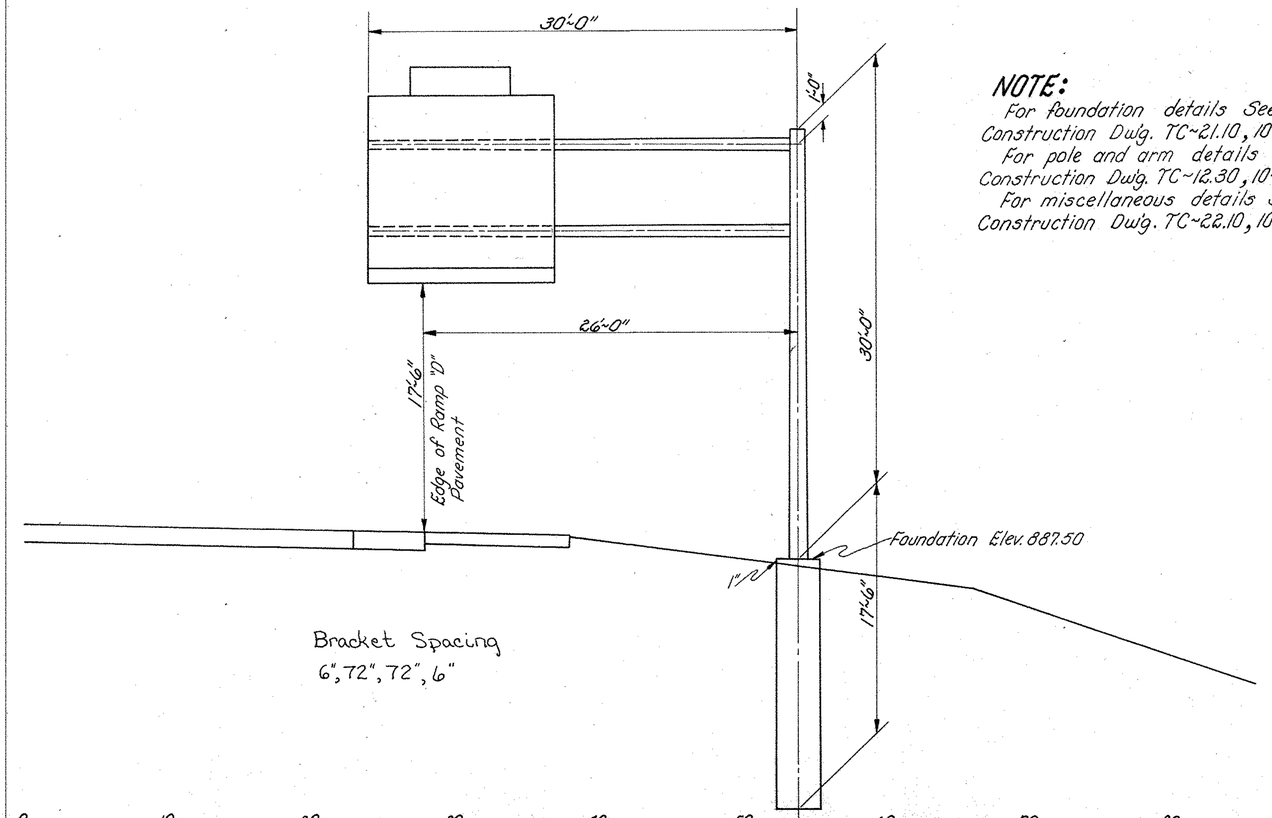
MIAMI COUNTY
MIA.~75~(9.17~9.35)
MIA.~41~(11.16~11.38)

ESTIMATED QUANTITIES

SIGN Nº 2

ITEM	844	Overhead Sign Support, Type TC~12.30 Design Nº10, Arm 30'	1~Each
ITEM	844	Signs Erected, Extru Sheet	183~Sq.Ft.
ITEM	844	Concrete for anchor base foundation	4.6~Cu.Yd.
ITEM	844	Sign Service	1~Each
ITEM	844	Signs Wired	1~Each
ITEM	844	Disconnect Switch w/enclosure, Type"X"	1~Each
ITEM	844	Mercury Vapor Luminaire w/H37~5KB Lamp	2~Each
ITEM	844	Ballast, Type CMRI~250	2~Each
ITEM	S625	Ground Rod	1 Each





NOTE:
For foundation details See Standard Construction Dwg. TC~21.10, 10~1~74.
For pole and arm details See Standard Construction Dwg. TC~12.30, 10~1~74.
For miscellaneous details See Standard Construction Dwg. TC~22.10, 10~1~74.

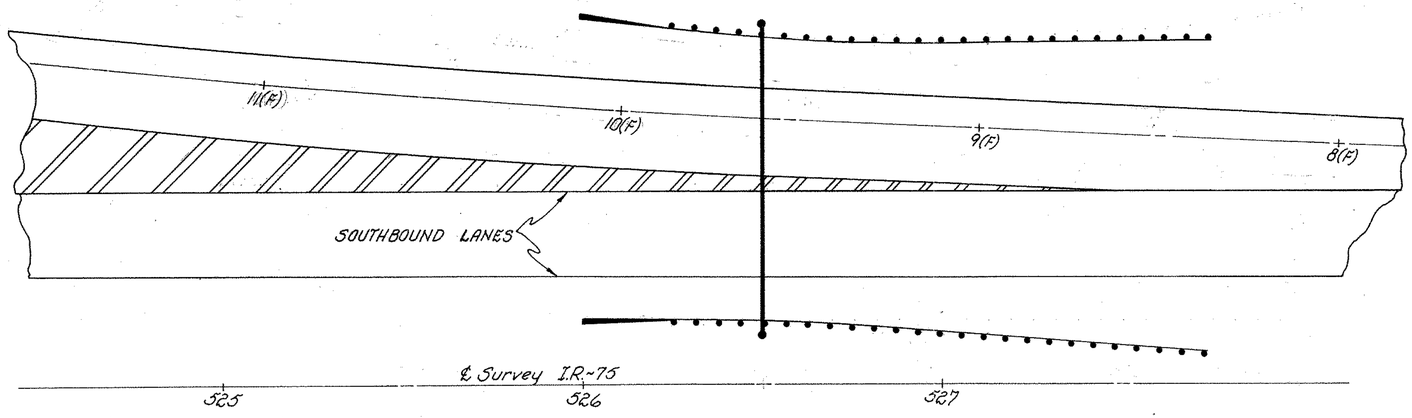
OVERHEAD SIGN DETAIL STA. 498+75

W.M 3-76
OEL 4-76

FHWA REGION	STATE	PROJECT	
5	OHIO		

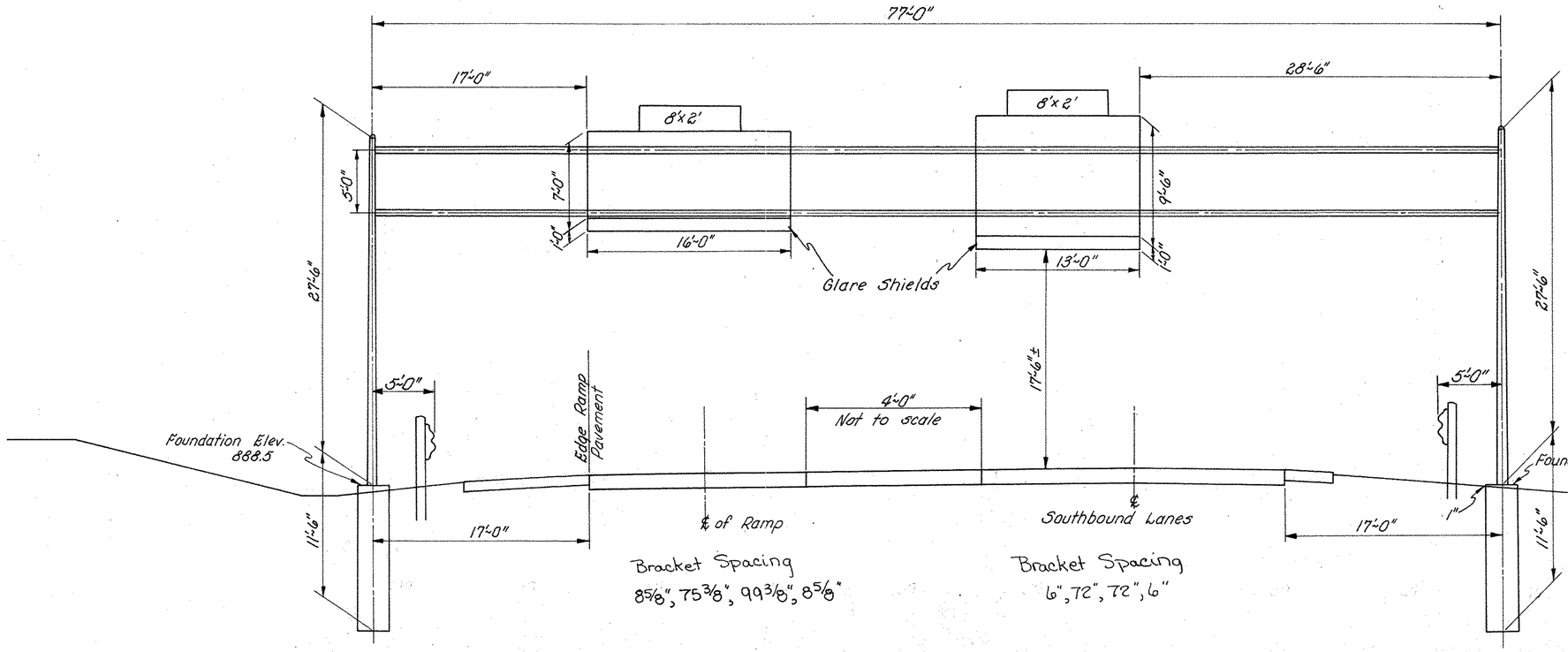
146
174

MIAMI COUNTY
MIA.-75-(9.17-9.35)
MIA.-41-(11.16-11.38)



ESTIMATED QUANTITIES
Sign Nº 4

ITEM	844	Signs erected, Extru Sheet	296.5-Sq. Ft.
ITEM	844	Overhead Sign Support, Type TC-7.65 Design 8, Span 77'0"	1-Each
ITEM	844	Concrete for anchor base foundation	124-Cu.Yd.
ITEM	844	Sign Service	1-Each
ITEM	844	Signs Wired	2-Each
ITEM	844	Disconnect Switch w/enclosure, Type X	1-Each
ITEM	844	Ballast Type CMR1-175	4-Each
ITEM	844	Mercury Vapor Luminaire w/Type H39-22KB Lamp	4-Each
ITEM	5625	Ground Rod	1 Each



NOTE:
See Standard Drawings
TC-7.65 10-1-74
TC-21.10 10-1-74
TC-22.10 10-1-74

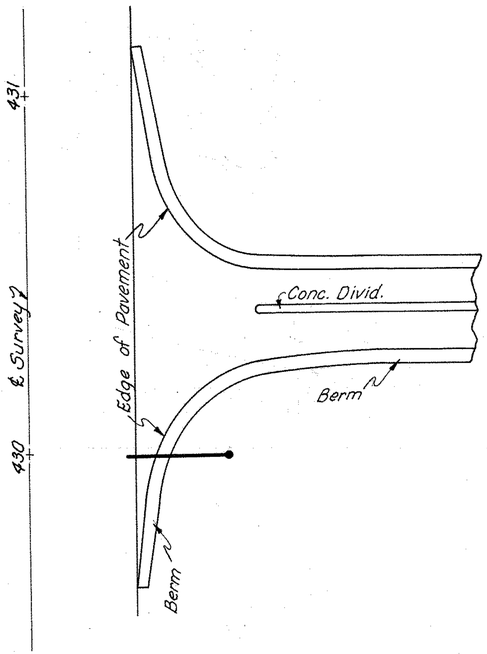
OVERHEAD SIGN DETAIL STA. 526+50

WM 3-76
CEK 4-76

FHWA REGION	STATE	PROJECT	
5	OHIO		

147
174

MIAMI COUNTY
MIA.~75~(9.17~9.35)
MIA.~41~(11.16~11.38)

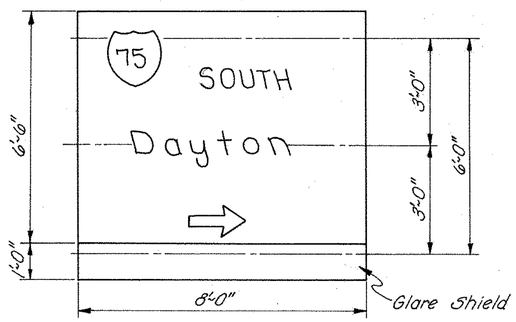


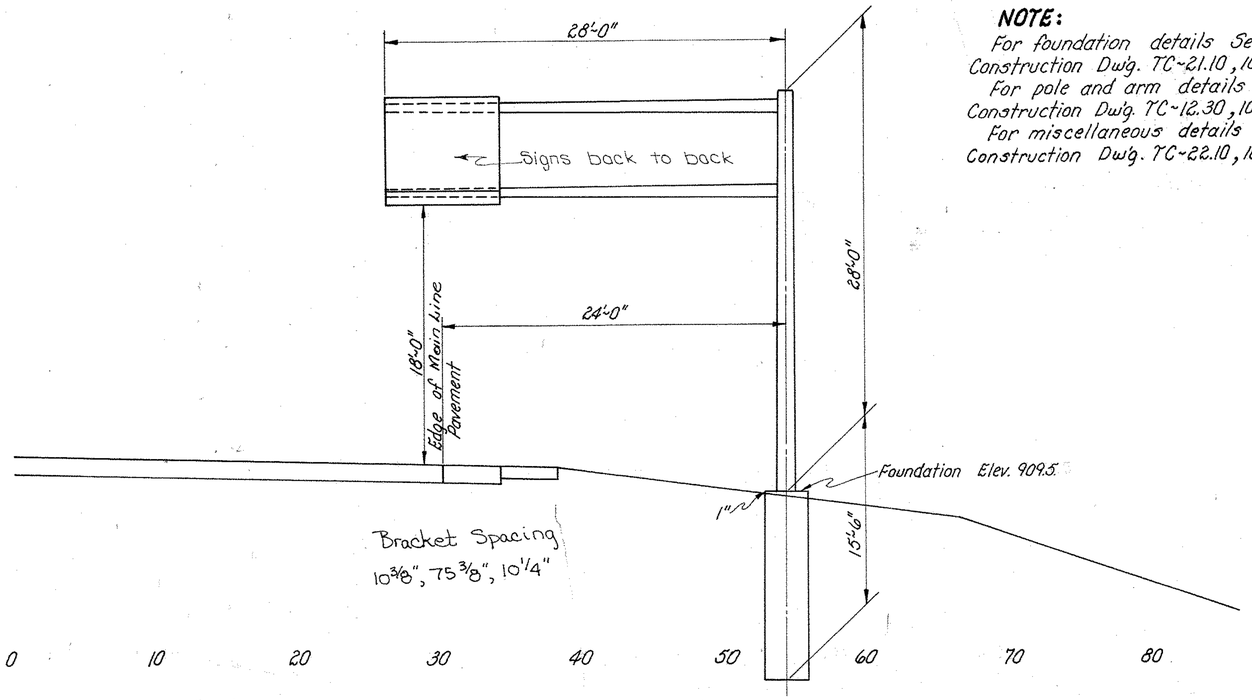
ESTIMATED QUANTITIES

Sign Nº 11

ITEM	844	Overhead Sign Support, Type TC~12.30 Design Nº 8, Arm 28'	1~Each
ITEM	844	Signs Erected, Extru Sheet	120~Sq.FT.
ITEM	844	Concrete for anchor base foundation	4.1~Cu.Yd.
ITEM	844	Sign Service	1~Each
ITEM	844	Signs Wired	2~Each
ITEM	844	Disconnect Switch w/ enclosure, Type "X"	1~Each
ITEM	844	Ballast, Type CMRI~175	2~Each
ITEM	844	Mercury Vapor Luminaire w/ H39~22KB	2~Each
ITEM	9625	Ground Rod	1 Each

NOTE:
For foundation details See Standard Construction Dwg. TC~21.10, 10~1~74.
For pole and arm details See Standard Construction Dwg. TC~12.30, 10~1~74.
For miscellaneous details See Standard Construction Dwg. TC~22.10, 10~1~74.





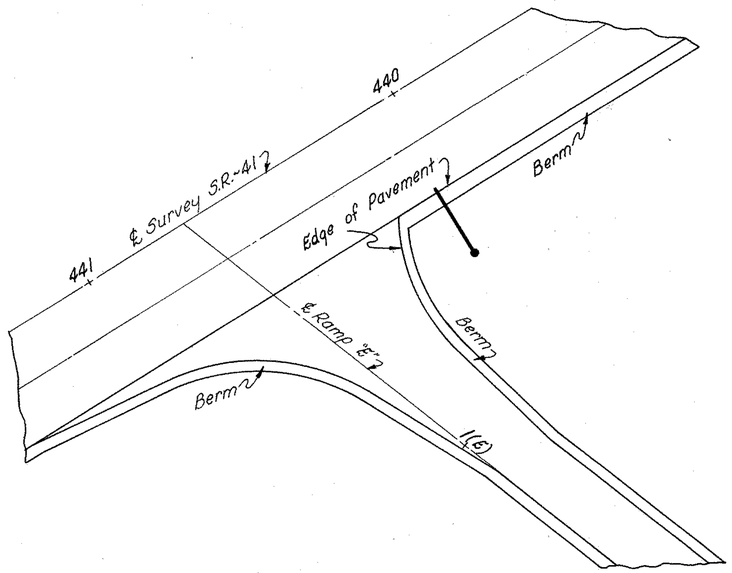
OVERHEAD SIGN DETAIL STA. 430+00

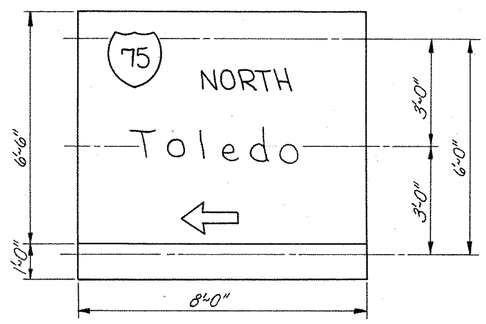
W M 12-75
CEK 4-76

FHWA REGION	STATE	PROJECT	
5	OHIO		

148
174

MIAMI COUNTY
MIA.-75-(9.17-9.35)
MIA.-41-(11.16-11.38)



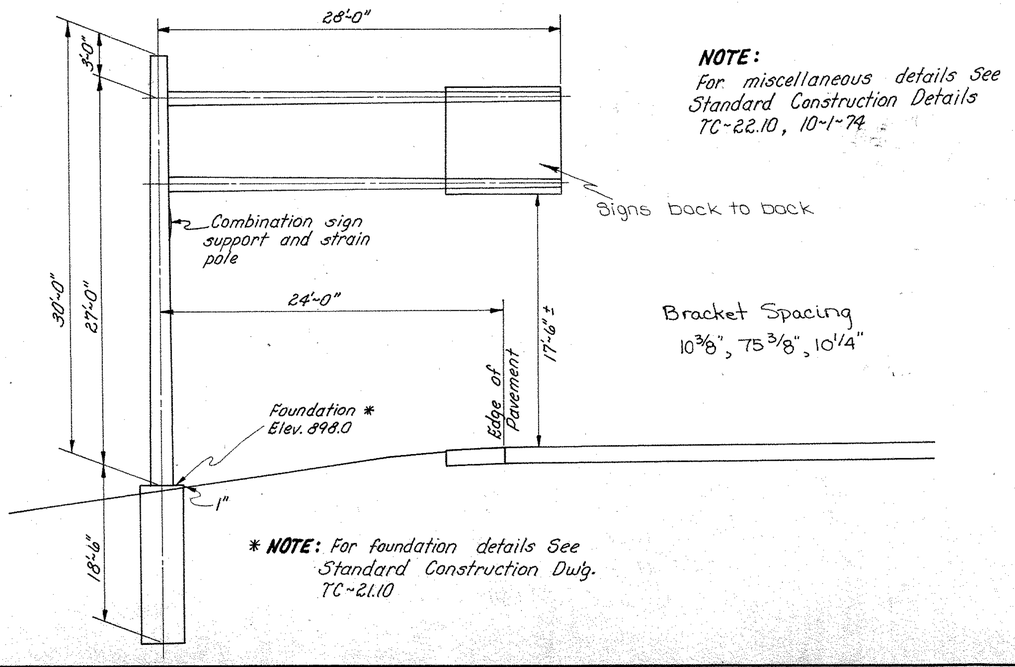


ESTIMATED QUANTITIES

Sign Nº 26

ITEM	844	Combination Overhead Sign Support and Signal Strain Pole, Type TC-12.30, Design 8 Modified, 28' Arm	1-Each
ITEM	844	Signs Erected Extru Sheet	120-Sq.Ft.
ITEM	844	Concrete for Anchor Base Foundations	4.9-Cu.Yd.
ITEM	844	Sign Service	1-Each
ITEM	844	Signs Wired	2-Each
ITEM	844	Disconnect Switch w/enclosure, Type "X"	1-Each
ITEM	844	Ballast, Type CMR1-175	2-Each
ITEM	844	Mercury Vapor fixture w/Type H39-22KB Lamp	2-Each
ITEM	SG25	Ground Rod	1 Each

NOTE: For details not shown See Standard Construction Drawing TC-12.30, 10-1-74



NOTE: For miscellaneous details See Standard Construction Details TC-22.10, 10-1-74

* **NOTE:** For foundation details See Standard Construction Dwg. TC-21.10

OVERHEAD SIGN DETAIL STA. 440+06

Mylar made 1-30-76

LD 12-75
CEK 4-76

621 PAVEMENT MARKING

* These quantities are included under Federal Number M-4-600(1) for participation.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

149 / 174

PAVEMENT	SIDE	STATION FROM	STATION TO	4" Edge Line (White) LIN. FT.	4" Edge Line (Yellow) LIN. FT.	6" Lane Line LIN. FT.	4" Dotted Lane Line LIN. FT.	Center Line Solid Double LIN. FT.	4" Lane Line LIN. FT.
I.R.-75									
N.B.	Lt.	484+00	538+00		5400.0				
	℄	484+00	538+00			5400.0			
	Rt.	494+00	498+44	1444.0					
	Rt.	498+44	501+54				310.0		
	Rt.	501+54	504+64						310.0
	Rt.	504+64	506+44						
	Rt.	506+44	531+76	2532.0					
	Rt.	531+92	538+00	48.0					
S.B.	Rt.	484+00	538+00		5400.0				
	℄	484+00	538+00			5400.0			
	Lt.	494+00	495+70	170.0					
	Lt.	493+50	510+44	1694.0					
	Lt.	510+44	511+87						
	Lt.	511+87	515+19				331.0		332.0
	Lt.	515+19	518+50	515.0					
	Lt.	518+50	524+25						2715.0
	Lt.	524+25	527+00						
	Lt.	527+00	529+75						
	Lt.	529+75	532+25				250.0		
	Lt.	532+25	538+00	575.0					
RAMPS "A"	Lt.	431+88	518+50	2284.0					
	Rt.	0+80	11+23						
	℄	0+40							
	℄	0+90							
	Rt.	11+23	16+43		520.0				
	Rt.	16+43	171+85						
"C"	Rt.	429+63	495+70	9440.0					
	Lt.	0+80	9+30						
	Lt.	9+30	21+72		1242.0				
	Lt.	491+70	496+25						
	Lt.	496+25	499+50						275.0
"D"	℄	10+00							
"D"	℄	3+51	5+34						
	Lt.	5+34	439+92		499.0				
	Rt.	496+44	441+50	1362.0					
	℄	10+22							
	℄	8+75	9+82						
"E"	Rt.	441+37	537+62	2705.0					
	Lt.	440+71	15+30		1495.0				
	Lt.	525+92	527+00						
	Lt.	527+00	531+76						479.0
"F"	Lt.	429+74	592+25	1749.00					
	Rt.	430+84	9+15		884.0				
	Rt.	524+25	527+00						
	℄	0+41							
	℄	0+81							
"D"	℄	8+80							
S.R. 41									
	Rt.	400+35	409+23	888.0*					
	Lt.	400+05	408+82	1970.0*					
	℄	400+30	408+10					820.0*	
	℄	401+50	406+00					450.0*	
	Rt.	406+50							
	Rt.	405+50							
	Lt.	409+82	411+50	968.0*					
	Rt.	410+74	419+50	876.0*					
	Lt.	419+50	429+74	1024.0					
	Rt.	419+50	429+63	1013.0					
	℄	410+40	412+50						
	℄	412+50	419+50						700.0*
	℄	410+40	412+50						910.0*
	℄	419+50	430+30						
	℄	419+00	419+50						1080.0
	℄	419+50	430+30						50.0*
	℄	419+50	430+30						1080.0
	℄	410+40	419+50					910.0*	
	℄	419+00	419+00					600.0*	
	Lt.	430+84	440+77	993.0					
	Rt.	431+88	440+37	849.0					
	℄	419+50	430+30						1080.0
	℄	431+20	440+00						880.0
	℄	431+20	434+00						
	Lt.	440+00						1080.0	
	℄	431+50						780.0	
	℄	433+00						400.0	
	℄	419+50	430+30						
	℄	430+20	440+00						
	℄	434+50	438+50						880.0
	℄	438+00	440+00						
	℄	431+20	440+00						
	℄	438+70							
	℄	441+00	443+50						250.0
	℄	441+00	445+50						
	℄	441+00	442+72					255.0	
	Rt.	441+50	443+50					112.0	
	Lt.	441+40	443+50	200.0					
	Lt.	442+30		210.0					
	℄	442+20							
	℄	442+50	443+50						250.0
	℄	441+00	443+50						
	℄	440+00							
	℄	444+00							
EXPERIMENT FARM RD.									
	Rt.	23+10	408+32	165.0*					
	Lt.	23+10	124+05					155.0*	
	Lt.	23+10	409+82	190.0*					
	℄	24+55							
	Lt.	12+85	409+23	848.0*					
	℄	12+85	20+97					812.0*	
	Rt.	12+85	410+74	822.0*					
	℄	20+13							
Totals carried to the General Summary →				28421 / 538	15430 / 2.92	10800 / 2.05	891 / 0.17	6374 / 1.21	8828 / 1.671

621 PAVEMENT MARKING

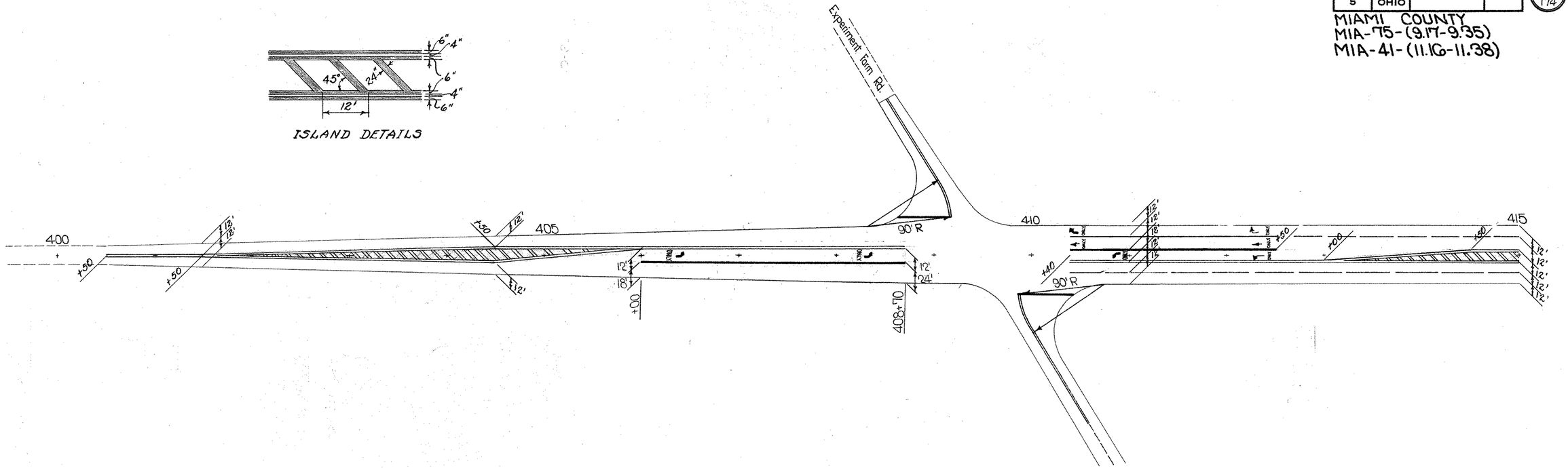
LD 12-75
CER 1-76

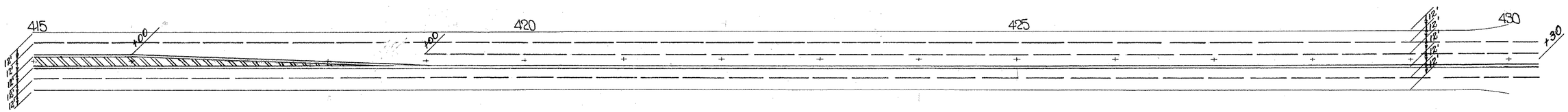
FHWA REGION	STATE	PROJECT	
5	OHIO		

150
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

ISLAND DETAILS





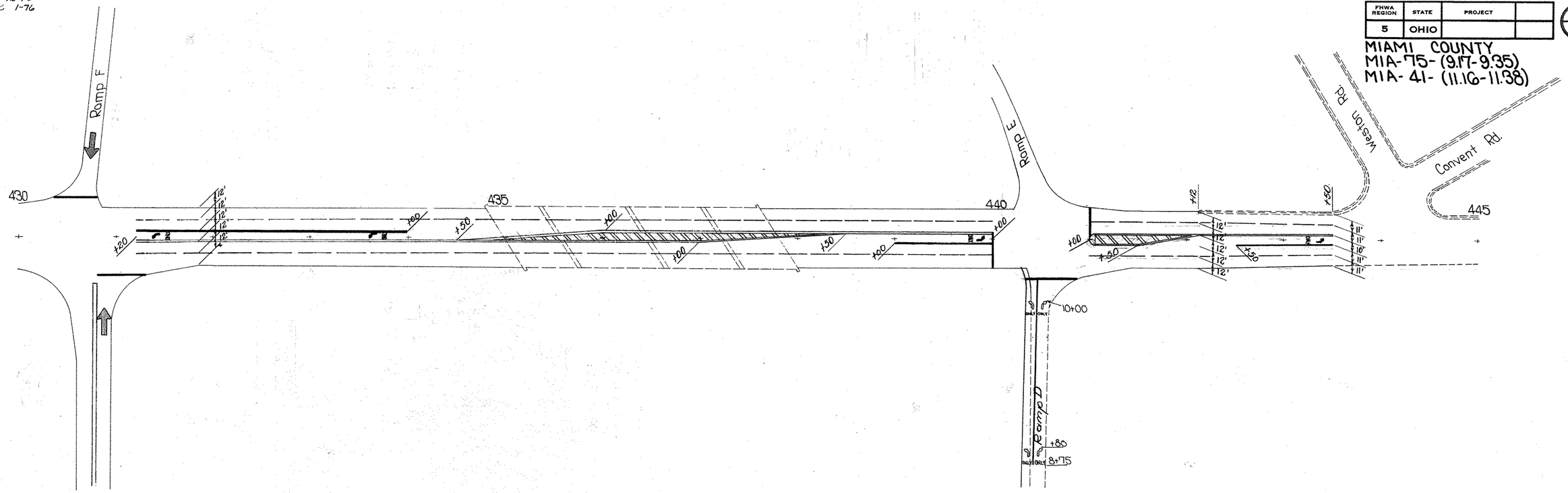
PAVEMENT MARKING S.R. 41

LD 12-75
CEK 1-76

FHWA REGION	STATE	PROJECT	
5	OHIO		

151
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)



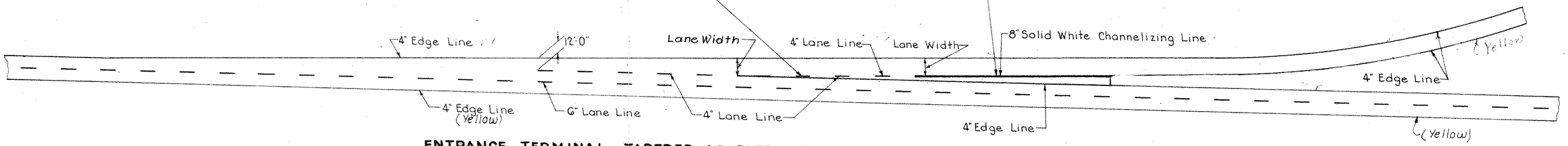
PAVEMENT MARKING SR 41

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

152
174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

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'-0" 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.



ENTRANCE TERMINAL - TAPERED ACCELERATION LANE

÷NOTES÷

EDGE LINES: Shall be placed in the locations as shown to conform to Item Nº 621 and defined in section 621.06.

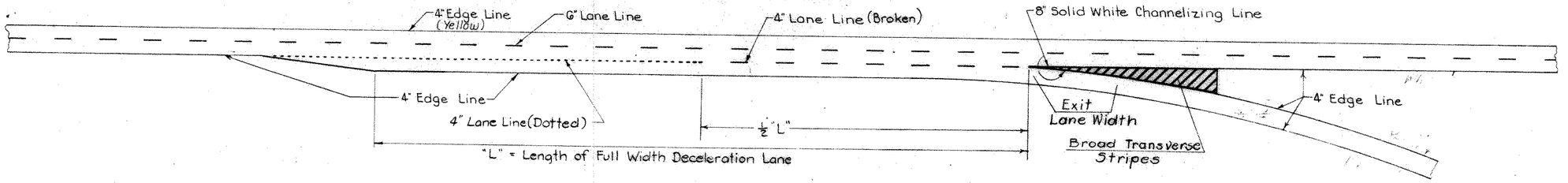
LANE LINES: Shall be placed in the locations as shown to conform to Item Nº 621 and defined in section 621.07.

CHANNELIZING LINES: Shall be continuous white beaded stripes 8" in width placed in the locations as shown to conform to Item Nº 621 and defined in section 621.09.

BROAD TRAVERSE STRIPES WITHIN EXIT RAMP MARKINGS

Shall be 2' wide white beaded stripes set at a 45° angle to the center line of the through pavement and slanted in the direction of the flow of traffic on said pavement. Space between the 2' diagonal stripes shall be 6' as measured parallel to the center line of the through pavement.
Paint on the diagonal stripes shall be applied at the rate of one gallon to each 100 square feet and glass beads shall be applied at the rate of six pounds per gallon of paint. Diagonal white stripes shall be placed between the two 8" white channelizing lines at exit ramps as shown to conform to Item Nº 621 and defined in section 621.11.

EXIT TERMINAL - PARALLEL DECELERATION LANE

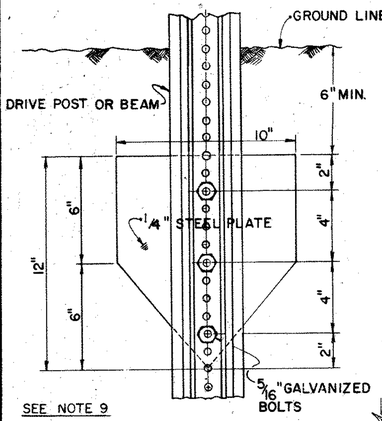


PAVEMENT MARKING DETAILS

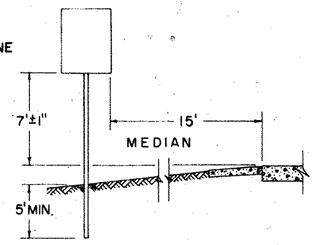
FED. RD. DIVISION	STATE	PROJ.	
2	OHIO		

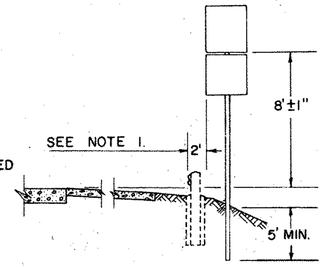
153
174

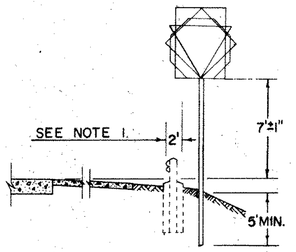
MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

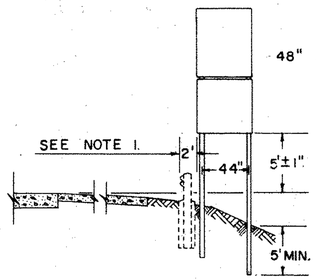


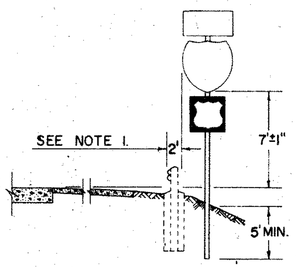
SOIL PLATE DETAIL

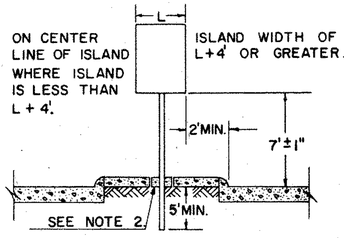


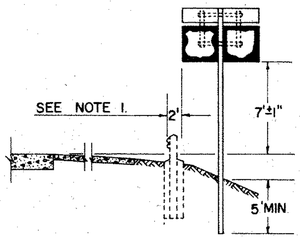


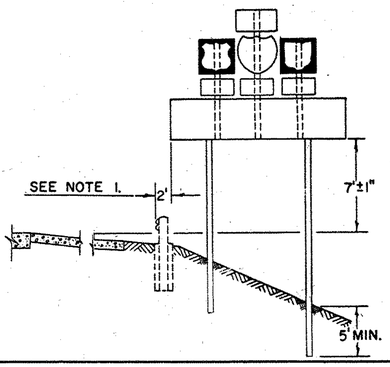


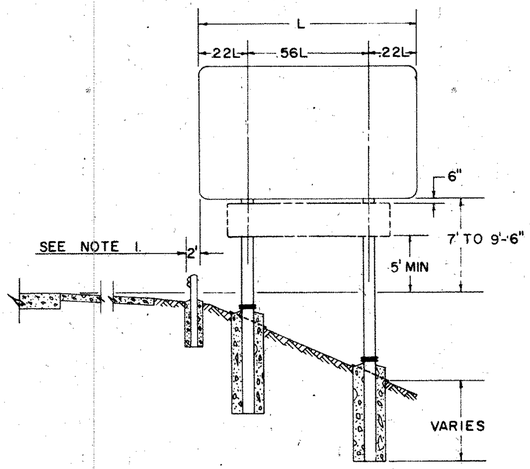


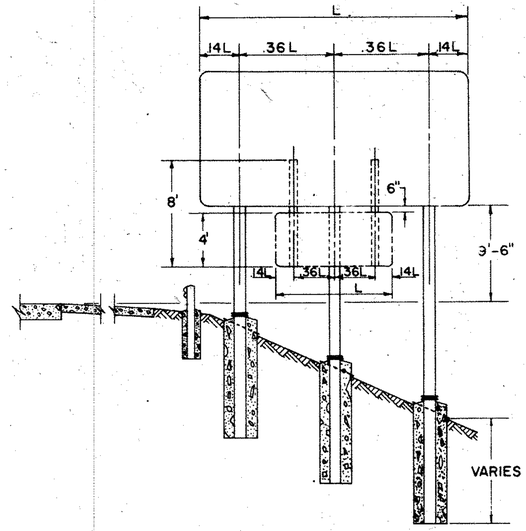


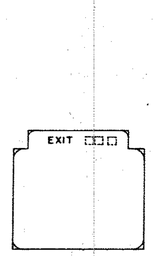


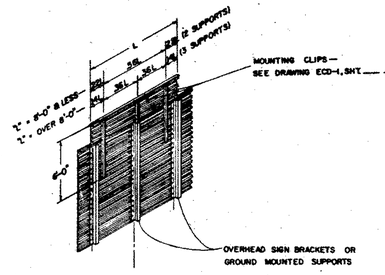




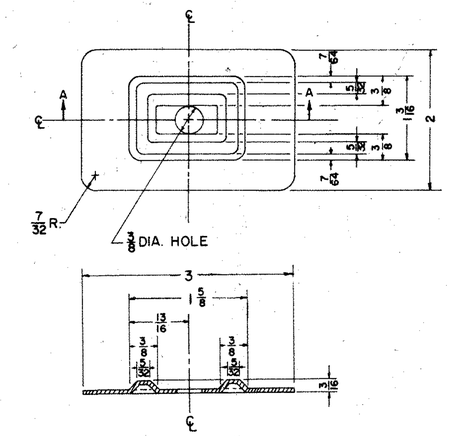








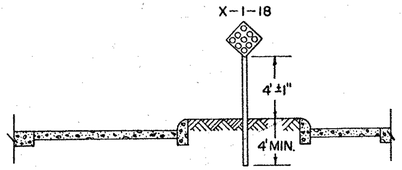
"EXIT" SIGN ATTACHMENT DETAIL



SECTION AA

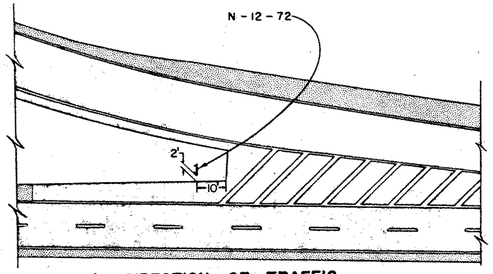
NOTE:
THE PLATE IS SYMMETRICAL ABOUT EITHER CENTERLINE.
METAL SHALL BE 16 GAUGE STEEL.
ALL DIMENSIONS ARE IN INCHES.

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.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

TYPICAL PLACEMENT OF SIGNS

TPS-1

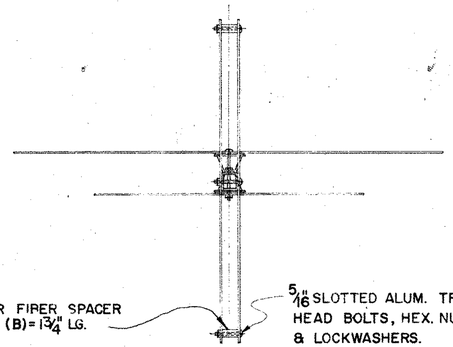
DATE
9-27-67
7-12-68
5-13-69
3-5-71
12-21-71
3-7-72

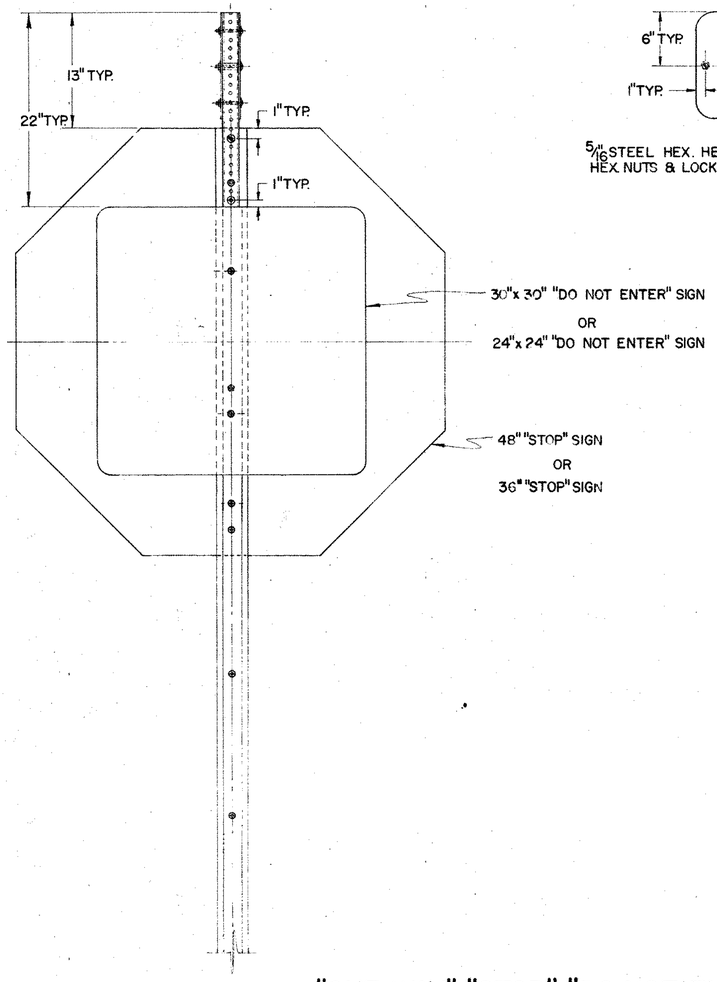
APPROVED _____
ENGINEER OF TRAFFIC

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

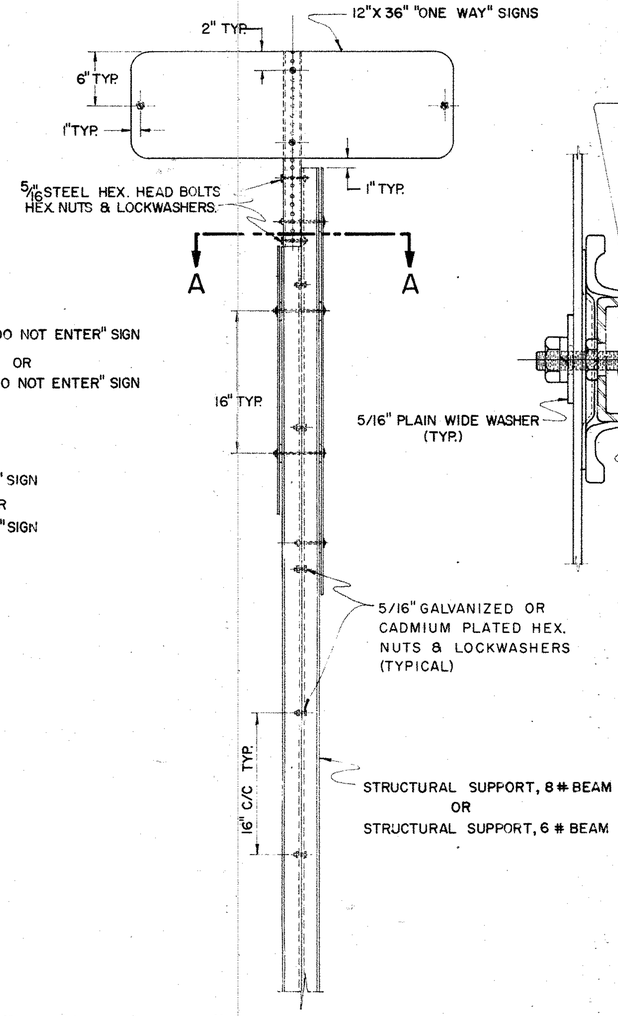
154
174

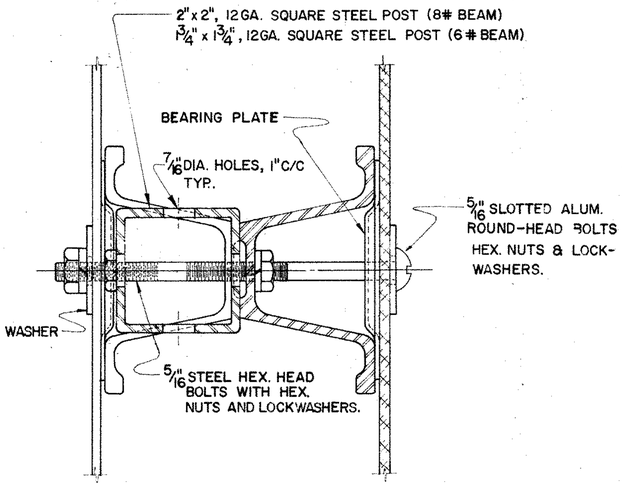
MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.98)



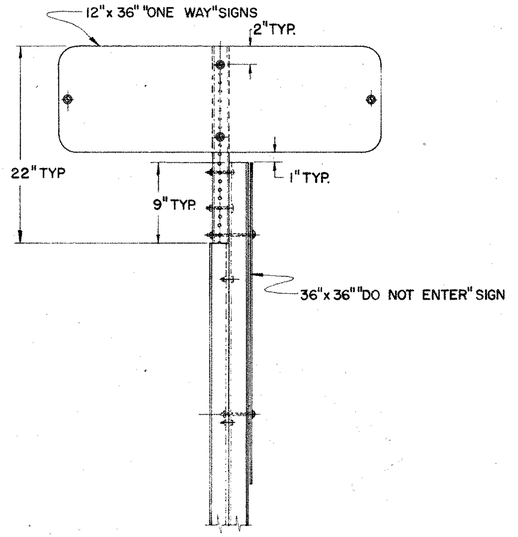


"ONE WAY", "STOP", "DO NOT ENTER", SIGN INSTALLATION.





SECTION A-A



"ONE WAY", "DO NOT ENTER" SIGN INSTALLATION

MATERIALS

ALL SIGN MATERIALS SHALL BE IN ACCORDANCE WITH SUPPLEMENT SPECIFICATION 815.

ALL STRUCTURAL MATERIALS SHALL BE IN ACCORDANCE WITH SUPPLEMENT SPECIFICATION 816.

FOR SPECIFICATIONS FOR THE 2" & 1 3/4" SQUARE STEEL POST SEE GENERAL NOTES, SHEET NO.____.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

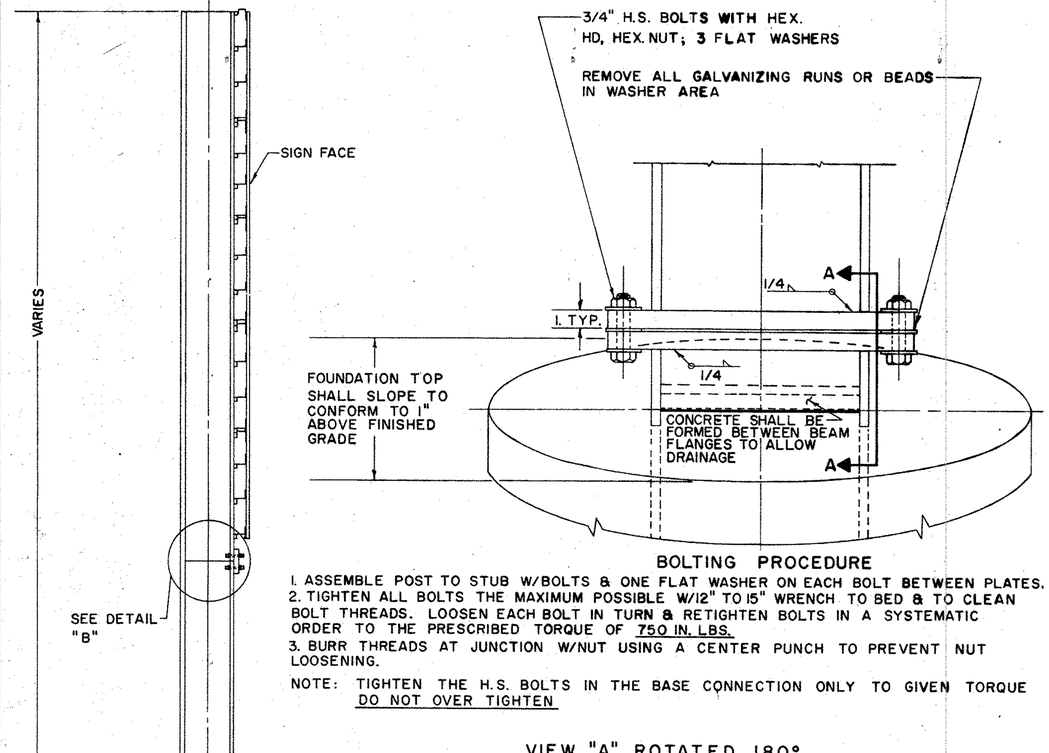
SPECIAL "ONE WAY" SIGN SUPPORT DETAILS	SOW	DATE 2-7-66 4-18-67
APPROVED_____ ENGINEER OF TRAFFIC		

SPECIAL "ONE WAY" SIGN SUPPORT DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

155/174

MIAMI COUNTY
MIA-775- (9.17-9.35)
MIA-41- (11.16-11.38)

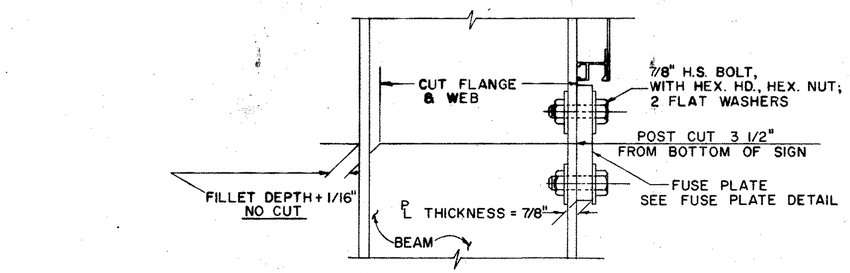


BOLTING PROCEDURE

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

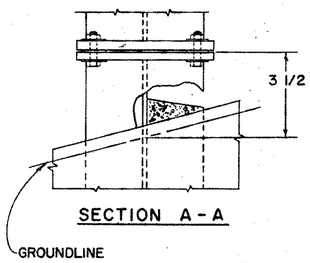
VIEW "A" ROTATED 180°



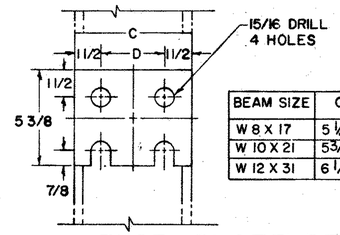
FABRICATOR NOTE: ALL FRICTION FUSE BOLTS SHALL BE TIGHTENED IN THE SHOP FOLLOWING A METHOD APPROVED BY THE ENGINEER. TIGHTENING SHALL BE TO SUCH A DEGREE AS TO OBTAIN MINIMUM RESIDUAL TENSION IN EACH BOLT OF 36,050 LBS.

NOTE: INSTALL FUSE PLATE WITH NOTCHES TOWARD BASE

DETAIL "B"

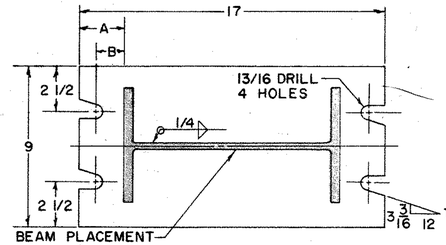


SECTION A-A



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"

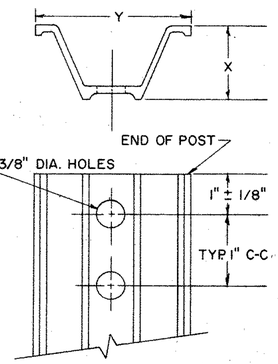
FUSE PLATE DETAIL



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

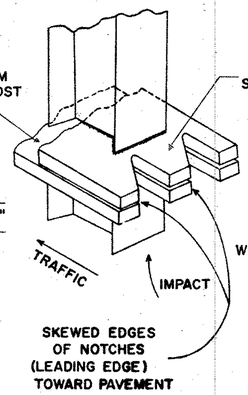
(TOP VIEW)

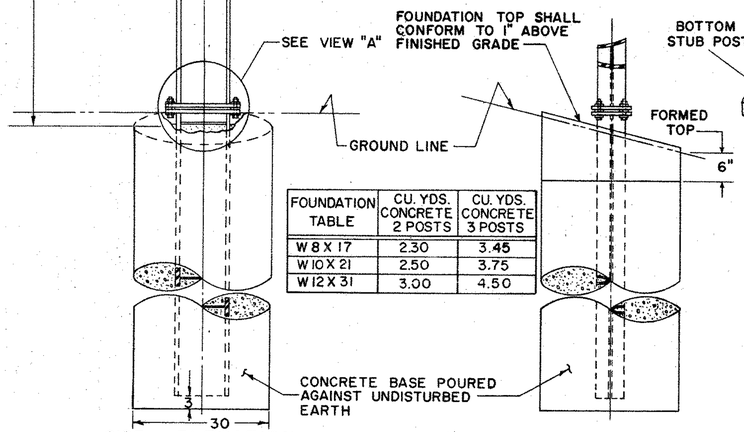


WEIGHT PER FOOT	X ± 3/32"	Y ± 1/8"
2.00 #	1 15/32"	3 1/16"
3.00 #	1 7/8"	3 1/2"
4.00 #	2"	3 5/8"

DRIVE POST DETAIL

BREAKAWAY SIGN SUPPORT BASE PLATE ORIENTATION



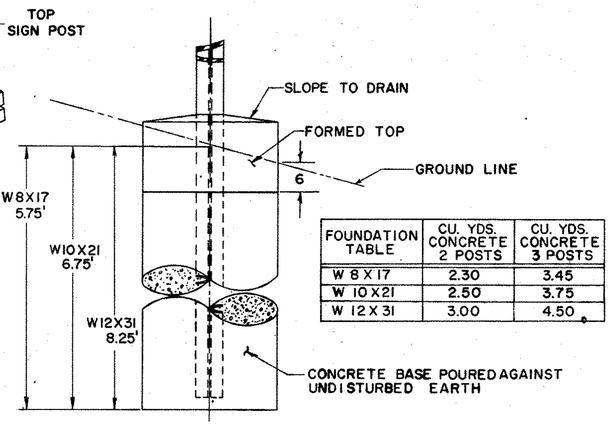


FOUNDATION TABLE	CU. YDS. CONCRETE 2 POSTS	CU. YDS. CONCRETE 3 POSTS
W 8 X 17	2.30	3.45
W 10 X 21	2.50	3.75
W 12 X 31	3.00	4.50

SIDE ELEVATION

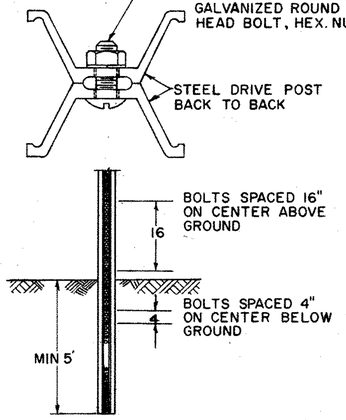
FRONT ELEVATION

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

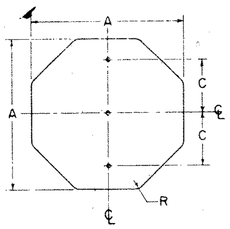
APPROVED _____
ENGINEER OF TRAFFIC

DATE
5-10-68
7-12-68
5-23-69
9-16-69
12-20-71

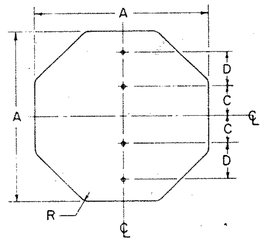
CO. RTE. DIVISION	STATE	PROJECT	
2	OHIO		

156/174

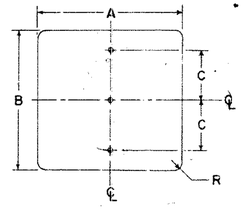
MIAMI COUNTY
MIA-41-(11.16-11.38)
MIA-75-(9.17-9.35)



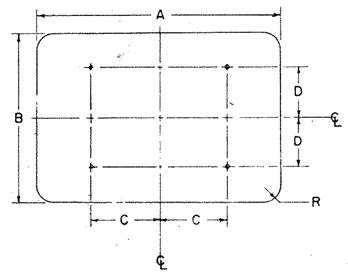
A	C	R	GAUGE
30	8	1 1/2	.080
36	8	1 1/2	.080



A	C	D	R	GAUGE
48	8	10	1 1/2	.100

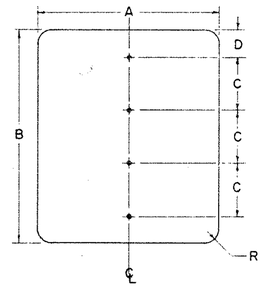


A	B	C	R	GAUGE
24	30	8	1 1/2	.063
24	48	15	1 1/2	.100
30	36	11	1 1/2	.080
30	42	12	1 1/2	.080
36	36	11	1 1/2	.080
36	42	15	1 1/2	.080
36	48	15	1 1/2	.080
48	24	10	3	.100
48	36	13	3	.100

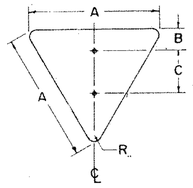


A	B	C	D	R	GAUGE
48	48	22	16	3	.100
48	60	22	22	3	.100

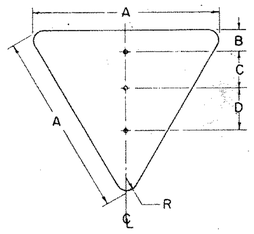
SPEED LIMIT SIGNS ON TWO SUPPORTS



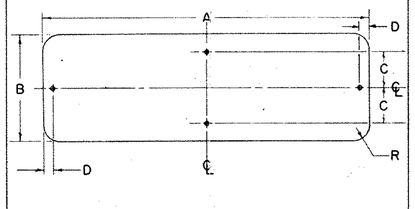
A	B	C	D	R	GAUGE
48	48	12	6	3	.100
48	60	15	7 1/2	3	.100



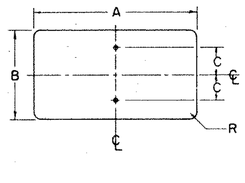
A	B	C	R	GAUGE
36	3	16	2 1/2	.080



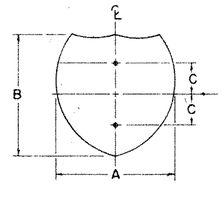
A	B	C	D	R	GAUGE
48	4	10	15	3	.100
60	5	10	15	4	.100



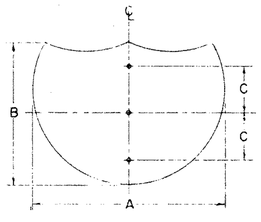
A	B	C	D	R	GAUGE
36	12	4	1	1 1/2	.080
72	12	—	16	1 1/2	.100
60	**12**	**—**	**13**	**1 1/2**	**.100**



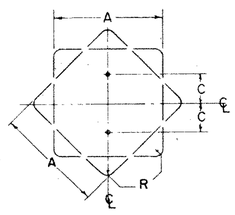
A	B	C	R	GAUGE
12	6	1 1/2	1 1/2	.063
20	15	6	1 1/2	.063
24	12	4 1/2	1 1/2	.063
24	18	7 1/2	1 1/2	.063
8	26	8	1	.063
36	18	7 1/2	1 1/2	.080



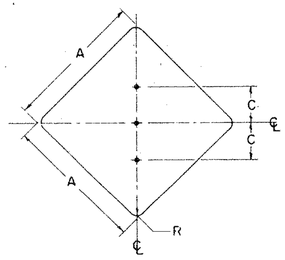
A	B	C	GAUGE
24	24	8	.063
30	24	8	.080



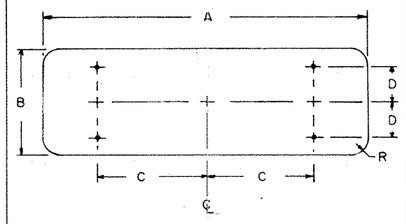
A	B	C	GAUGE
36	36	11	.080
48	36	11	.100



A	C	R	GAUGE
18	7 1/2	1 1/2	.063
24	8	1 1/2	.063
30	8	1 1/2	.080

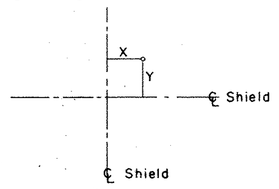


A	C	R	GAUGE
36	12	1 1/2	.080
48	14	3	.100



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, GS11A-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

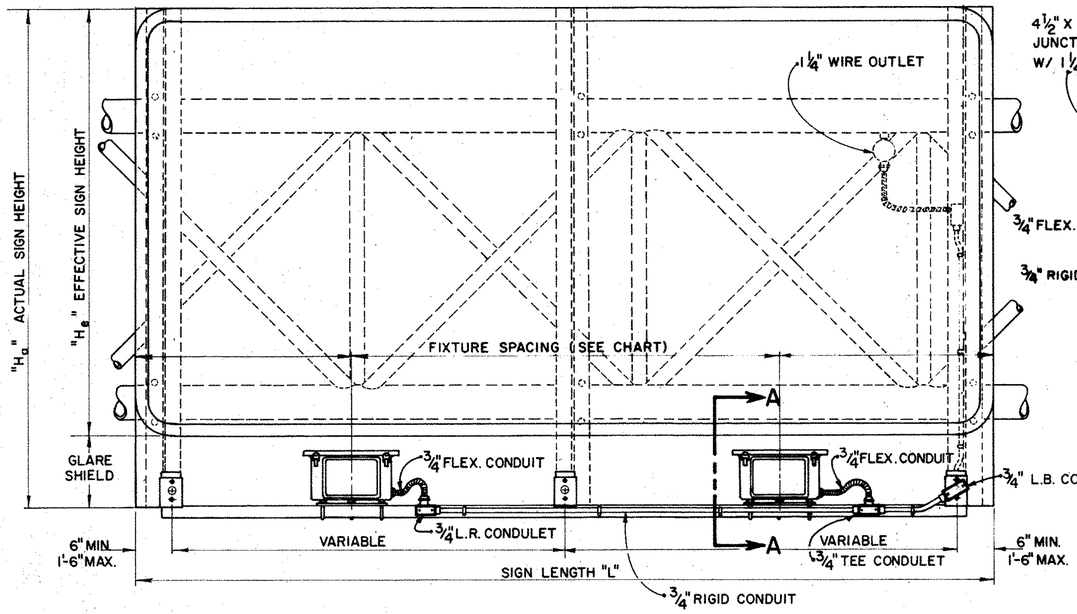
DATE
4-14-67
5-10-68
10-1-68
5-27-69
6-18-69

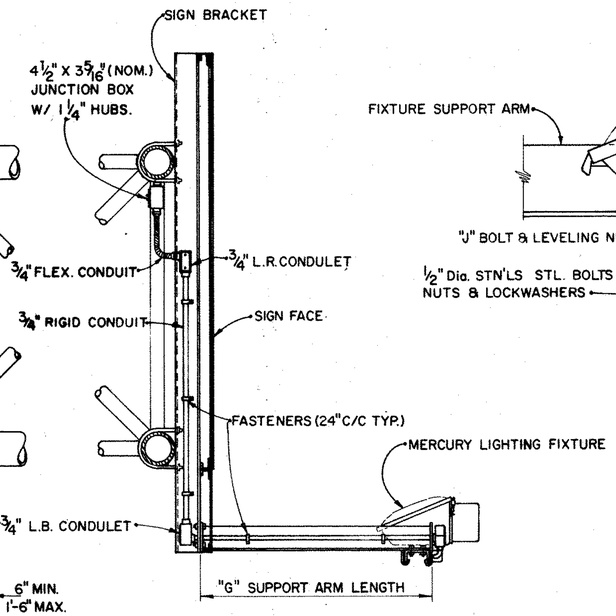
APPROVED _____
ENGINEER OF TRAFFIC

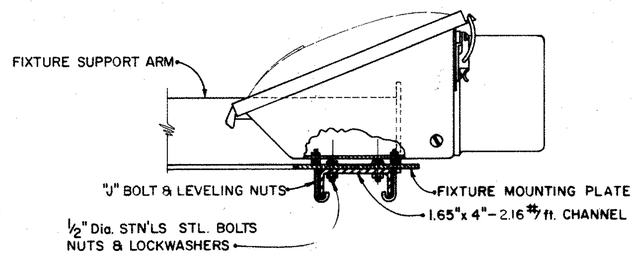
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

156A/74

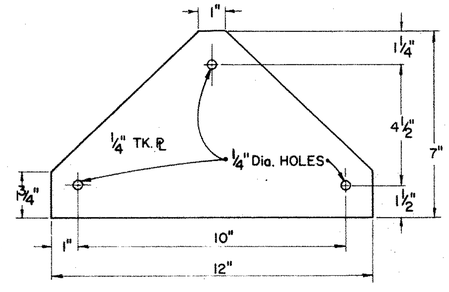
MIAMI COUNTY
MIA-75 - (9.17-9.35)
MIA-41 - (11.16-11.38)







SECTION A-A



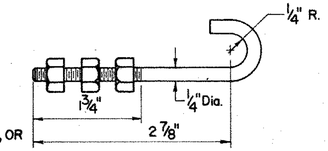
SIGN LENGTH "L"	NO. OF FIXTURES	LIGHT FIXTURE SPACING						SUPPORT ARM SPACING					NO. OF SIGN BRACKETS
4'-0"	1	2"-0"	2'-0"					6"	36"	6"			2
5'-0"	1	2'-6"	2"-6"					6"	48"	6"			2
6'-0"	1	3'-0"	3'-0"					6"	60"	6"			2
7'-0"	1	3'-6"	3'-6"					6"	72"	6"			2
8'-0"	1	4'-0"	4'-0"					10 3/8"	75 3/8"	10 1/4"			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

BRUNING 44-560 10943

WM 4-76

FHWA REGION	STATE	PROJECT	
5	OHIO		

MIAMI COUNTY
MIA.~75~(9.17~9.35)
MIA.~41~(11.16~11.38)

LIGHTING & TRAFFIC CONTROL GENERAL NOTES

SPECIFICATIONS

These notes are supplemental to Items 5625 and 5713 of the State of Ohio Department of Transportation Construction and Material Specifications.

5625.03 GENERAL

The power supplying agency for this project is; Dayton Power & Light Company 23 N. Main Street Dayton, Ohio. The voltage supplied shall be 480 volts 2~wire grounded system. Voltage for traffic signals shall be 120 volts.

CONDUIT ON STRUCTURES

Expansion fittings for conduit on structures shall be OZ Type AX, Crouse~Hinds Type XJ~4, Appleton Type XJ~4, or an equal approved by the Engineer, for Bridge No. Mia.~75~0971.

ELECTRICAL SERVICE FOR ILLUMINATED SIGNS

The pay items in the Lighting General Summary include the pull box adjacent to each lighted sign and the electrical service connections leading into the box, including connector kits in the pull box. Quantities for electrical service from the connector kits in the pull box to the sign are included under supplemental specification 844 Items.

HIGH VOLTAGE DIRECT CURRENT TEST

A high voltage direct current test, as described in Supplemental Specification 839, shall be performed on all distribution cable, and duct cable systems to be installed on this project. The test shall not be performed until all new construction, such as guard rail, fence, delineator posts, sign posts, etc., in the immediate vicinity of the location of the cable run being tested, has been completed.

The testing requirements of 5625.22(b) are hereby waved for those circuits on which the high voltage test is to be performed.

5625~CONDUIT JACKED UNDER PAVEMENT

This item shall consist of furnishing and installing conduit of the size 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 disturbance 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 5625.01.

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 5625 "Conduit Jacked Under Pavement" 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.

CONTROL CENTER

The control center shall consist of one 30 ampere combination lighting contactor and safety switch enclosure having interior dimensions per HL~15. Size of fuse for each lighting branch circuit shall be as indicated on Sheet 162.

Payment for Item 5625 "Service Pole and Control Center" will be under a lump sum price, included are all necessary wiring, conduit ells, ground rods and photo~electric cell.

5625.13~PLASTIC CAUTION TAPE

The location of underground duct cable installed for high mast lighting circuits shall be marked by the use of a continuous identifying tape buried in the trench above the duct cable. The identifying tape shall be an inert material approximately 6" wide polyethylene plastic, highly resistant to alkalis, acids, or other chemical compounds likely to be encountered in soils. The tape shall be brightly colored for contrast with the soils. The color shall be in accordance with established standard utility practice for identifying electrical cable, water line, etc. The tape shall have identifying printing "Electric" or other appropriate message. The identifying lettering shall be repeated continuously the full length of the tape. Tapes shall be supplied in continuous rolls. Identifying tapes shall be buried in the cable trench. Tapes shall be located approximately 8" below the finished grade. The tape shall be placed in the trench with the printed side up and shall be essentially parallel with the finished surface. The Contractor shall take necessary precautions to insure that the tape is not pulled, distorted, or otherwise misplaced in completing the trench backfill. The caution tape shall be one of the following types: Allen Systems, Terra Tape, or an equal approved by the Engineer. The caution tape shall be paid for per linear foot of Item 5625 "Plastic Caution Tape" complete and in place.

CONNECTOR KITS

At the option of the Contractor, Type IV cable connections may be substituted 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 the 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 connector shall be sealed and waterproofed with a high~dielectric compound such as "Aqua Seal" as manufactured by Kearney or an equal approved by the Engineer. The sealing material shall be applied in accordance with the manufacturer's directions to make a watertight connection. Connections not accomplished in~line or in~tee form shall be additionally protected by use of a high~dieletric PVC, or other approved material, boot with an approved fastening device.
2. A preassembled Kit, as manufactured by Joy or Bussman, or an approved equal, with a waterproof or watertight rating acceptable to the Engineer.

605 UNDERDRAINS

An estimated quantity of "300 Linear feet of 605, 4~inch shallow pipe underdrains" is provided in the lighting general summary for use as directed by the Engineer in providing positive drainage for pull boxes in fill areas. It is intended that all pull boxes in these areas be provided with such drainage, provided the length of underdrain necessary to obtain a satisfactory outlet does not exceed 20 feet approximately. A perforated PVC pipe or conduit material approved by the Engineer may be used in the construction of this item.

843~2 PHASE, SEMI~ACTUATED CONTROLLER WITH CABINET

The Contractor shall furnish and install a two~phase semi~actuated traffic signal controller at the location shown on the plans. The controller shall be capable of providing the basic signal sequence in accordance with the signal operation plans.

The controller shall exhibit a manual sequence capability and the cabinet shall have a separately lockable police door. The controller and cabinet shall have all required features and auxiliary equipment in accordance with supplemental specification 843 and the signal operation plans.

Cost of the above item shall be payable at the unit price bid for Item 843 "2~Phase Semi~Actuated Controller with Cabinet" and shall include all labor, materials, equipment and necessary incidentals required to perform the above item.

EH 12-75
CEV 4-76

LIGHTING SUB-SUMMARY

Reference	Side	Stationing From	Stationing To	5713.21 100' Light Tower Ea.	5713.21 110' Light Tower Ea.		Luminaires, 1000 w Asymetric, 5713.21 Ea.	Lamps, 1000 w Metal Halide Ea.	Light Tower Foundation as per plan 20' deep Ea.	Light Tower Foundation as per plan 22' deep Ea.	Ground Rods Ea.	Pull Boxes, 5713.09 24" Circular Ea.	Pull Boxes, 5713.09 18" Circular Ea.	Trench, 24" deep L.F.	2" Conduit 5713.04 L.F.	3" Conduit 5713.04 L.F.	3" Conduit Jacked Under Pavement, 5713.04 L.F.	No. 4 AWG, 600v Distribution Cable L.F.	1½" Duct-Cable w/2 No. 4 AWG Cables L.F.	Connector Kit, Type I Ea.	Connector Kit, Type VII B Ea.	Service Pole & Control Center Lump Sum	Structure Grounding System Ea.	Portable Power Unit Ea.	Plastic Caution Tape L.F.	Connector Kit Type VIII FUSED Ea.	Connector Kit Type VIII UNFUSED Ea.
CC	Lt.	441+80	439+85											200		200		1320				Lump Sum					
	Lt.	439+85	7+50(E)									1		700					710	2							
	Rt.	7+50(E)	526+00									1		869		34			879								
	Rt.	526+00	529+30											344					354								
A-2	Rt.	529+30			1		2	2	1		1													1		1	1
		526+00	526+00									1		28			165		203		2						
	Lt.	526+00	526+00									1		20					30		2						
A-1	Lt.	526+00			1		2	2	1		1													1		1	1
	Lt.	526+00	526+40										1	40					50								
	Lt.	439+85	437+80											205					215	2							
	Lt.	437+80	434+50										1	20	330			680		2			1				
	Lt.	434+50	1+00(E)											350				360									
B-2	Rt.	1+00(E)			1		2	2		1	1													1		1	1
		434+50	434+50									1		90		90			100		2						
	Rt.	434+50	510+90									1		310					320		2				310		
B-1	Lt.	510+90			1		2	2		1	1													1		1	1
	Rt.	434+50	430+10										1	440		110			450	2							
		439+85	439+85											86		86		392		2							
	Rt.	439+85	439+85									1		29					39		2						
C-1	Rt.	439+85			1		2	2	1		1													1		1	1
	Rt.	439+85	7+00(D)											350					360								
	Rt.	7+00(D)	508+20									1		50					60		2						
C-2	Rt.	508+20			1		2	2	1		1													1		1	1
	Rt.	7+00(D)	500+00											845		34			855								
		500+00	500+00											51			136		188								
	Lt.	500+00	494+75									1		343					353	2							
C-3	Lt.	494+75			1		2	2	1		1													1		1	1
	Rt.	500+00	498+85										1	115					125								
(FOR SHEET 159)																											
TOTALS TO GENERAL SUMMARY				5	2		14	14	5	2	7	9	4	5685	330	554	301	2752	5491	12	12	Lump Sum	1	1	310	7	7

LIGHTING & TRAFFIC SIGNALS GENERAL SUMMARY

FHWA REGION	STATE	PROJECT	
5	OHIO		

158 / 192

MIAMI COUNTY
MIA.-75-(9.17-9.35)
MIA.-41-(11.16-11.38)

TYPE CODE 6706

ITEM	SHEET NUMBER 159	SHEET NUMBER 160	ITEM	Interstate TOTAL	UNIT	DESCRIPTION
						LIGHTING
605	300		605	300	Lin.Ft.	4" Shallow Pipe Underdrains
5625	5		5625	5	Each	100' Light Tower, 5713.21
5625	2		5625	2	Each	110' Light Tower, 5713.21
5625	14		5625	14	Each	Luminaire, 1000 w Asymetric 5713.21
5625	14		5625	14	Each	Lamp, 1000 w Metal Halide
5625	5		5625	5	Each	Light Tower Foundation, as per plan, 20' Deep
5625	2		5625	2	Each	Light Tower Foundation, as per plan, 22' Deep
5625	7	4	5625	11	Each	Ground Rods
5625	4	1	5625	5	Each	Pull Boxes, 18" Circular 5713.09
5625	9		5625	9	Each	Pull Boxes, 24" Circular 5713.09
5625	5685	96	5625	5,781	Lin.Ft.	Trench, 24" Deep
5625	330	40	5625	370	Lin.Ft.	2" Conduit, 5713.04
5625	554		5625	554	Lin.Ft.	3" Conduit, 5713.04
5625	301		5625	301	Lin.Ft.	3" Conduit Jacked under Pavement, 5713.04
5625	2752		5625	2,752	Lin.Ft.	No. 4 AWG 600 Volt Distribution Cable
5625	5491		5625	5,491	Lin.Ft.	1½" Duct-Cable with 2 No. 4 AWG Cables
5625	7		5625	7	Each	Connector Kit, Type VIII FUSED
5625	12		5625	12	Each	Connector Kit, Type I
5625	12		5625	12	Each	Connector Kit, Type VII B
5625	1		5625	1	Each	Structure Grounding System
5625	1		5625	1	Each	Portable Power Unit
5625	7		5625	7	Each	Connector Kit, Type VIII UNFUSED
5625	Lump Sum		5625	Lump Sum	Lump Sum	Service Pole and Control Center
5625	310		5625	310	Lin.Ft.	Plastic Caution Tape as per plan
			839	Lump	Lump	High Voltage Test
						TRAFFIC SIGNALS
842		6	842	6	Each	Vehicular Signal Head, 3-Section, 12-inch lens, one way
842		6	842	6	Each	Covering of Traffic Signals
842		1	842	1	Each	Loop Detector Amplifier
842		88	842	88	Lin.Ft.	Loop Detector Pavement Cutting
842		390	842	390	Lin.Ft.	Messenger Wire, 7-Strand (7/16"-Dia.) with accessories
842		400	842	400	Lin.Ft.	Signal Cable, 5-Conductor No. 14 AWG
842		200	842	200	Lin.Ft.	Loop Detector Wire
842		220	842	220	Lin.Ft.	Loop Detector Lead-in Cable
842		70	842	70	Lin.Ft.	Service Cable, 2-conductor No. 6 AWG
842		30	842	30	Lin.Ft.	Power Cable, 3-conductor No. 8 AWG
842		1	842	1	Each	Weatherhead and Conduit Riser, 1½"-Dia.
842		5	842	5	Each	Cable Support Assembly
842		9.3	842	9.3	Cu.Yds.	Concrete for Anchor Base Foundations
842		1	842	1	Each	Power Service
842		1	842	1	Each	Signal Strain Pole, 0.299 inches x 14 inches x 28 feet
842		2	842	2	Each	Signal Strain Pole, 0.299 inches x 14 inches x 30 feet
843		1	843	1	Each	Controller, 2-phase, semi-actuated, with cabinet

EXISTING I.R.~75 & S.R.~41 INTERCHANGE LIGHTING LAYOUT

FHWA REGION	STATE	PROJECT		
5	OHIO			159/174

MIAMI COUNTY
MIA.~75~(9.17~9.35)
MIA.~41~(11.16~11.38)

R.H. 12-75
GEE 4-76
0 50 100 150 200 300 400
SCALE IN FEET
N
WESTON ROAD
CONVENT ROAD
+80~80' Lt. Service Pole and Control Center
℄ Survey I.R.~75
℄ Survey S.R.~41
Overhead Sign
Sta. 529+30~107' Rt. A-2 100' Tower
Sta. 526+00~120' Lt. A-1 100' Tower
Sta. 524+30~120' Rt. 100' Tower (Future)
Circuit 'A'
7+50(E) 34'~3" Conduit
RAMP "E"
Sta. 4+30~58' Lt. 100' Tower (Future)
Sta. 517+50~96' Rt. 100' Tower (Future)
Sta. 520+90~105' Lt. 100' Tower (Future)
6+00, 34'~3" Conduit
RAMP "F"
Sta. 1+00(F)~58' Rt. B-2 110' Tower
Sta. 434+60~72' Lt. 110' Tower (Future)
330'~2" Conduit
90'~3" Conduit
Circuit 'B'
Sign 350W.
86'~3" Conduit
24" pull box
Sta. 439+85 72' Rt., C-1 110' Tower
7+00 (D) 34'~3" Conduit
RAMP "D"
Circuit 'C'
Sta. 506+20~100' Rt. C-2 100' Tower
Sta. 494+75~115' Lt. C-3 100' Tower
Plastic Caution Tape
Sta. 510+90~125' Lt. B-1 100' Tower
Sta. 512+20~64.5' Lt. 110' Tower (Future)
Sta. 509+00~425' Lt. 110' Tower (Future)
Sta. 505+40~100' Lt. 100' Tower (Future)
RAMP "B"
RAMP "C"
Sta. 500+00~107' Rt. 110' Tower (Future)
60'~3" Conduit Jacked under Pavt.
76'~3" Conduit Jacked under Pavt.
Sign No. 2
Sta. 500+00~130' Lt. 110' Tower (Future)
LEGEND
Tower, Asymmetric (Two-1000 Watt)
Tower, Asymmetric, Future (Two-1000 Watt)
Tower, Symmetric, Future (Four-1000 Watt)
Pull Box
1½" Duct Cable
3" Conduit
2" Conduit
Future circuitry
A-1 Circut & Tower No.
NOTE: For details of the U.S.R.~41 and Ramps "D" & "E" Intersection. See Sheets 160

EXISTING I.R.~75 & S.R.~41 INTERCHANGE LIGHTING LAYOUT

R.H 1-76

FHWA REGION	STATE	PROJECT	
5	OHIO		

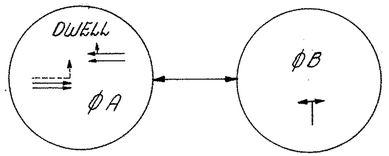
160
174

MIAMI COUNTY
MIA.-75-(9.17-9.35)
MIA.-41-(11.16-11.38)

MATERIALS REQUIRED

ITEM	DESCRIPTION	QUANT.	UNIT
843	Controller, 2 phase, semi-actuated, with cabinet	1	Each
842	Vehicular Signal Head, 3-Section, 12 inch lens, one-way	6	Each
842	Covering of Traffic Signals	6	Each
842	Loop Detector Amplifier	1	Each
842	Loop Detector Pavement Cutting	88	Lin. Ft.
842	Messenger Wire, 7-Strand (7/16" Dia.) with accessories	390	Lin. Ft.
842	Signal Cable, 5-Conductor No. 14 AWG.	400	Lin. Ft.
842	Loop Detector Wire	200	Lin. Ft.
842	Loop Detector Lead-in cable	220	Lin. Ft.
842	Service Cable, 2-conductor No. 6 AWG	70	Lin. Ft.
842	Power Cable, 3-Conductor No. 8 AWG.	30	Lin. Ft.
842	Power Service	1	Each
842	Weatherhead and Conduit Riser, 1½" Dia.	1	Each
842	Cable Support Assembly	5	Each
842	Concrete for Anchor Base Foundations	9.3	Cu. Yds.
842	Signal Strain Pole, 0.2990 inches x 14 inches X 28 feet (D)	1	Each
842	Signal Strain Pole, 0.2990 inches x 14 inches x 30 feet (B&C)	2	Each
S625	Conduit 2", S713.04	40	Lin. Ft.
S625	Ground Rods	4	Each
S625	Pull Boxes 18" Circular, S713.09	1	Each
S625	Trench	96	Lin. Ft.

NOTE: For quantities of the pole and sign, Sta. 440+06, See Sheet No. 148.



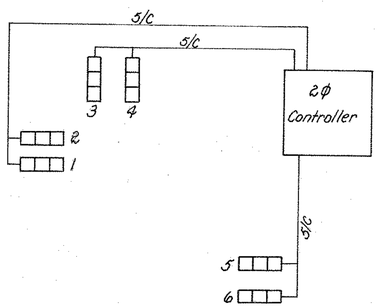
Controller Timing 60 Second Cycle

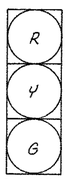
ØA
Min. Green = 33 Seconds
Clearance = 4 Seconds

ØB
Max. Green = 19 Seconds
Vehicle Extension = 4 Seconds
Initial Interval = 12 Seconds
Clearance = 4 Seconds

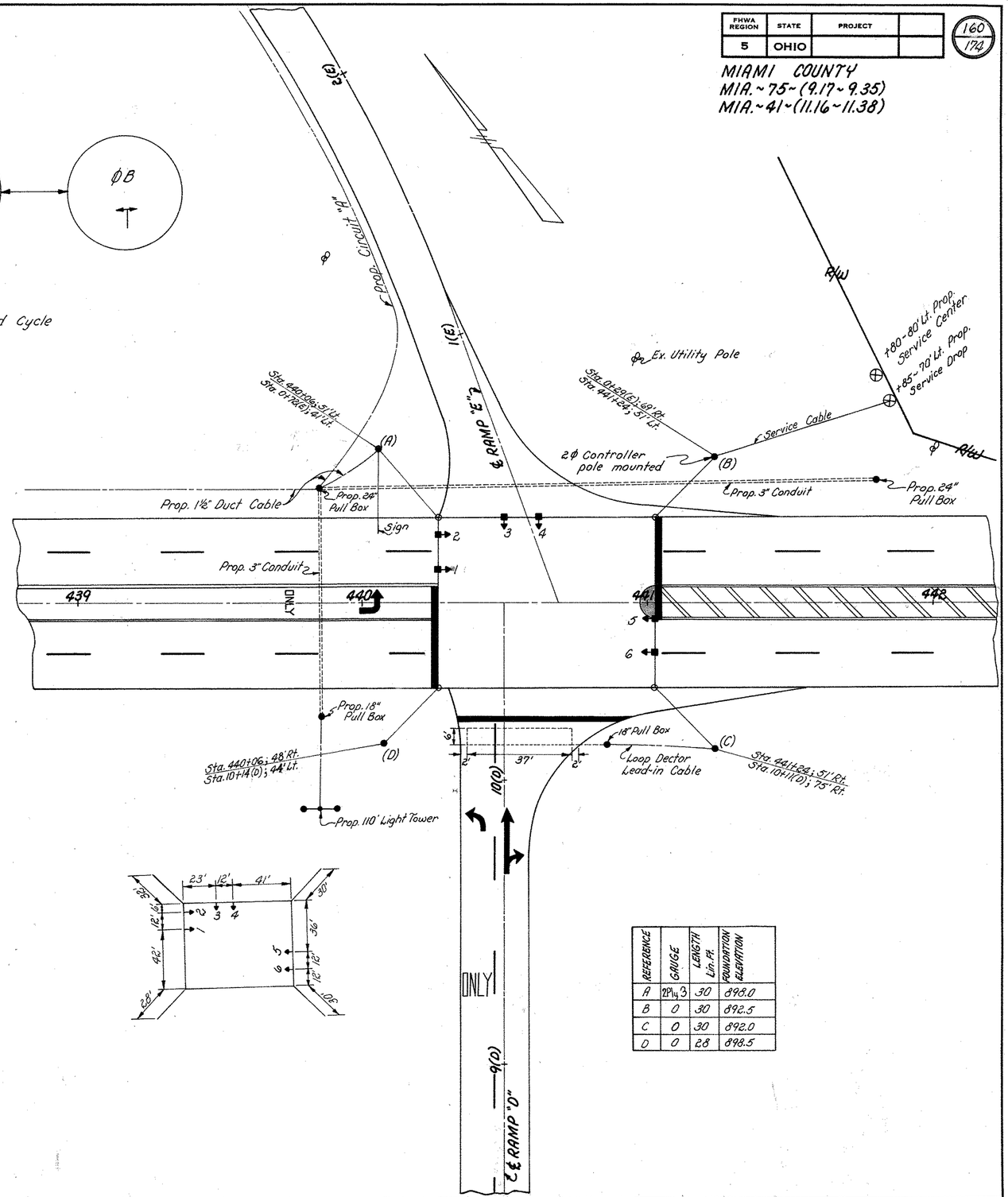
SIGNAL HEAD DISPLAY CHART

Heads	ØA	ØA Clear	ØB	ØB Clear	Flash
1,2,5,6	G	Y	R	R	Y
3,4	R	R	G	Y	R





All HEADS
12" Lens



REFERENCE	GAUGE	LENGTH Lin. Ft.	FOUNDATION ELEVATION
A	2Ø1/4 3	30	898.0
B	0	30	892.5
C	0	30	892.0
D	0	28	898.5

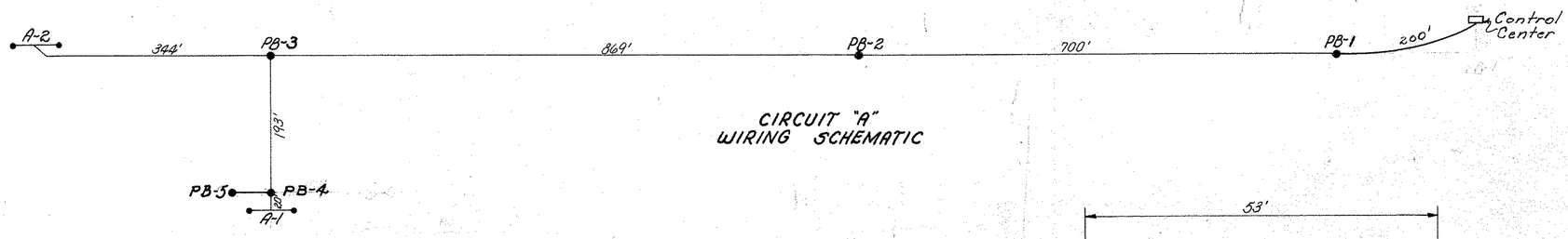
RAMPS "D" & "E" S.R.-41 & I.R.-75 INTERCHANGE

RH 3-76

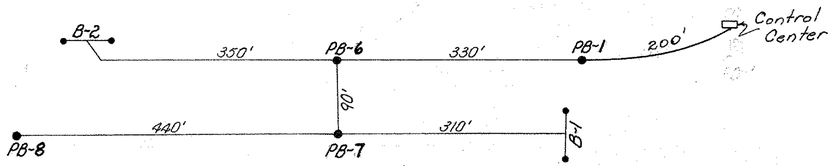
FHWA REGION	STATE	PROJECT	
5	OHIO		

161
174

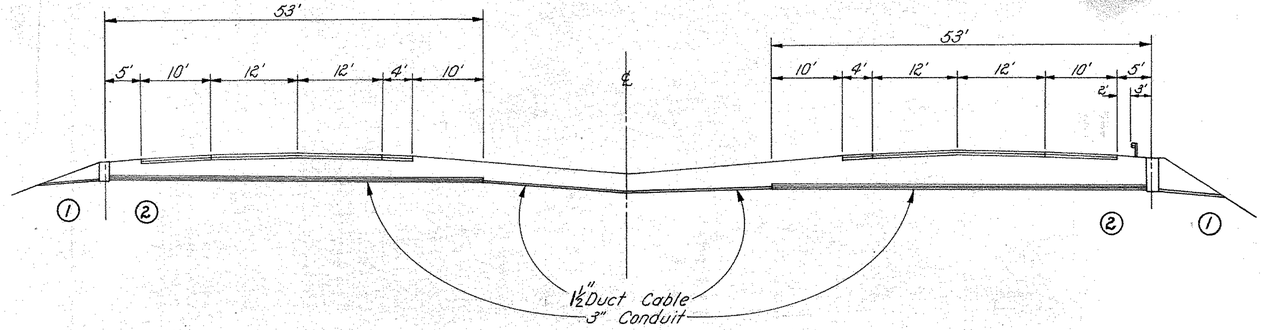
MIAMI COUNTY
MIA.-75-(9.17-9.35)
MIA.-41-(11.16-11.38)



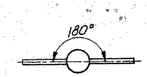
CIRCUIT "A"
WIRING SCHEMATIC



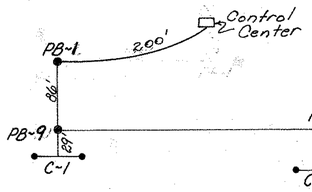
CIRCUIT "B"
WIRING SCHEMATIC



TYPICAL CONTINUOUS DUCT-CABLE CROSS-OVER DETAIL



Bracket Arm
Arrangement



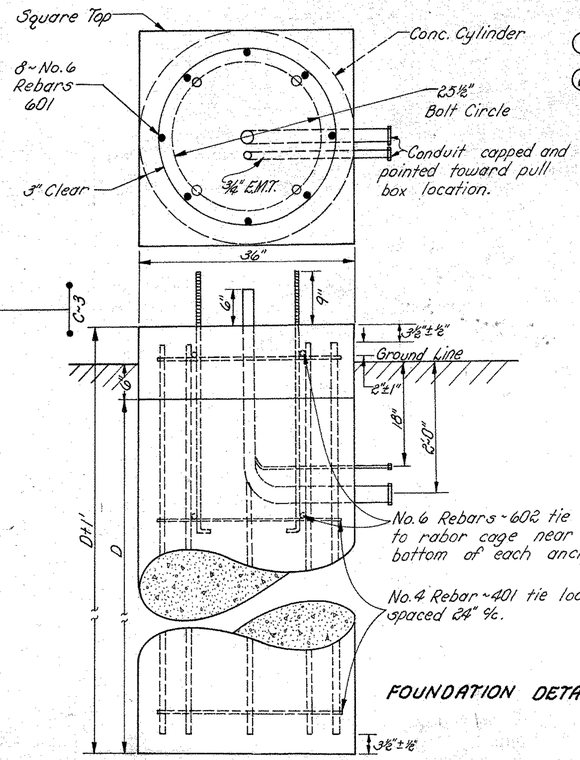
CIRCUIT "C"
WIRING SCHEMATIC

CONTROL CENTER DATA

Connecting Load KVA	Enclousure Rating Amps	Service Entrance Conductor Size AWG	Circuit Conductor Size AWG	Circuit	Circuit Load Amps	Circuit Fuse Amps
15.5	30	4	4	A	9.2	30
			4	B	9.2	30
			4	C	13.8	30

FOUNDATION DATA

Ref.	Location	Top of Foundation Elevation	D	Cu.Yds.
A-1	526+00-120'Lt.	890.1±	20'	5.3'
A-2	529+30-107'Rt.	887.2±	20'	5.3'
B-1	510+90-125'Lt.	890.5±	20'	5.3'
B-2	1+00(F)-58'Rt.	905.0±	22'	5.8'
C-1	499+85-72'Rt.	895.1±	22'	5.8'
C-2	508+20-100'Rt.	897.1±	20'	5.3'
C-3	494+75-115'Lt.	886.5±	20'	5.3'



FOUNDATION DETAIL

1. ITEM 605, 4" Shallow Underdrain, Pull Box must drain.
2. Duct-cable entering pull box must be sealed in an approved manner so that water can not drain into the low point in the duct-cable and freeze. Cap duct-cable per capping detail, Std. Construction Drawing HL-1 or an approved heat-shrinkable material.

Materials shall conform to the requirements of 3625 and 3713 of the State of Ohio, Department of Transportation Construction and Material Specification, in effect.

In lieu of the provisions of 3625.06 modifying the depth of light tower foundations in rock excavation areas, tower foundations in rock shall be enlarged or redesigned as directed by the Engineer, Payment shall be made by supplemental agreement.

REINFORCEMENT SCHEDULE

MARK	NO.	LENGTH	TYPE
401	24" c.	9'-2"	401
601	8	17'-8"	Str.
602	4	2'-5"	Str.

2'-6"
401

SPECIAL DETAILS

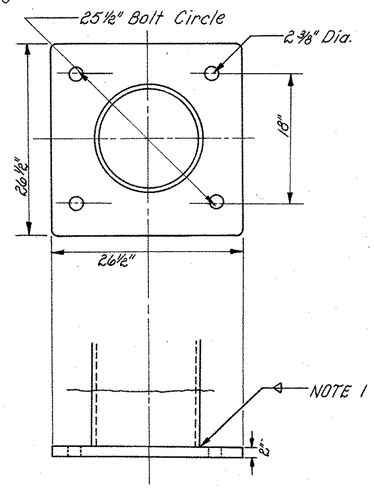
RH 3-76

FHWA REGION	STATE	PROJECT	
5	OHIO		

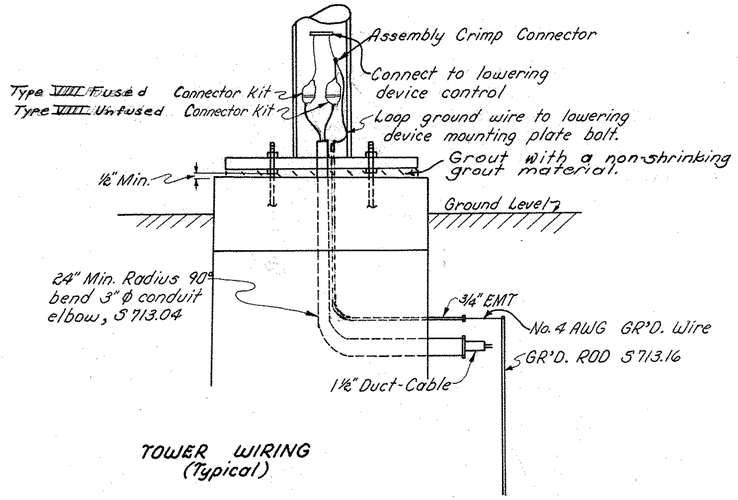
162
174

MIAMI COUNTY
MIA.-75-(9.17-9.35)
MIA.-41-(11.16-11.38)

NOTE 1: Pole base plate to be welded inside and outside with fillet welds. Each fillet weld shall be equal to the wall thickness of the respective tubing.



TOWER BASE PLATE DETAIL



TOWER WIRING
(Typical)

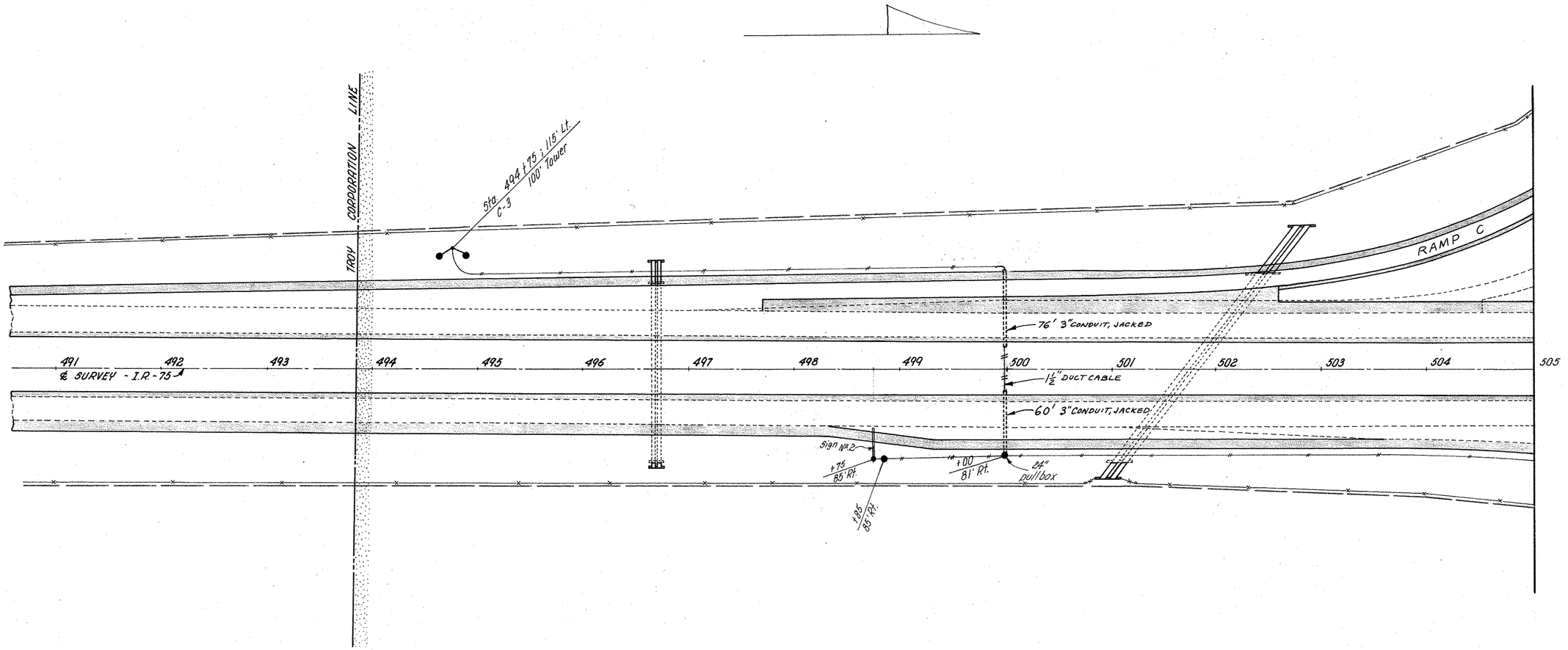
SPECIAL DETAILS

TS 4-76
CEL 4-76

FHWA REGION	STATE	PROJECT	
5	OHIO		

163
174

MIAMI COUNTY
MIA - 75 - (9.17 - 9.35)
MIA - 41 - (11.16 - 11.38)



EXISTING I.R-75 & S.R.-41 INTERCHANGE LIGHTING PLAN

TS 4-76
OEL 4-76

FHWA REGION	STATE	PROJECT	
5	OHIO		

164
174

MIAMI COUNTY
MIA-75 - (9.17 - 9.35)
MIA-41 - (11.16 - 11.38)

EX. L/A

14(C) 13(C) 12(C) 11(C) 10(C) 9(C) 8(C) 7(C) 6(C) 5(C) 4(C) 3(C) 2(C) 1(C)

Existing ramp to be removed

505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520

℄ SURVEY I.R-75

Circuit "C"

Sta. 510+90 - 125' Lt.
100' Tower
B-1

Circuit "B"

Plastic caution tape

24" pull box

150
47' Rt.

90' of 3" conduit

150
43' Lt.

24" pull box

Sta. 1+00 (f) - 58' Rt.
110' Tower
B-2

Sign (11)
350 sf

110
33' Rt.

110' of 3" conduit

430 431 432 433 434 435 436 437 438 439 440 441 442 443 444

1(F) 2(F) 3(F) 4(F)

24" pull box

Sta. 508+80 - 100' Rt.
100' Tower
C-2

100 (D)
15' Lt.

34' of 3" conduit

Sta. 439+85 - 72' Rt.
110' Tower
C-1

185
43' Rt.

86' of 3" conduit

180
43' Lt.

330' of 2" conduit

185
43' Lt.

24" pull box

Sign (26)
350 sf

600' of 3" conduit

Sta. 441+80 - 80' Lt.
Service pole and control center

1(D) 2(D) 3(D) 4(D) 5(D) 6(D) 7(D) 8(D) 9(D) 10(D)

Circuit "D"

Circuit "A"

1(E) 2(E) 3(E) 4(E) 5(E) 6(E) 7(E) 8(E) 9(E)

24" pull box

150 (E)

34' of 3" conduit

EX. L/A

EX. L/A

EX. L/A

LEGEND

- Tower; Asymmetric (Two - 1000 watt)
- Pull box
- 1½" Duct Cable
- 2" Conduit
- 3" Conduit
- A-1 Circuit & tower number

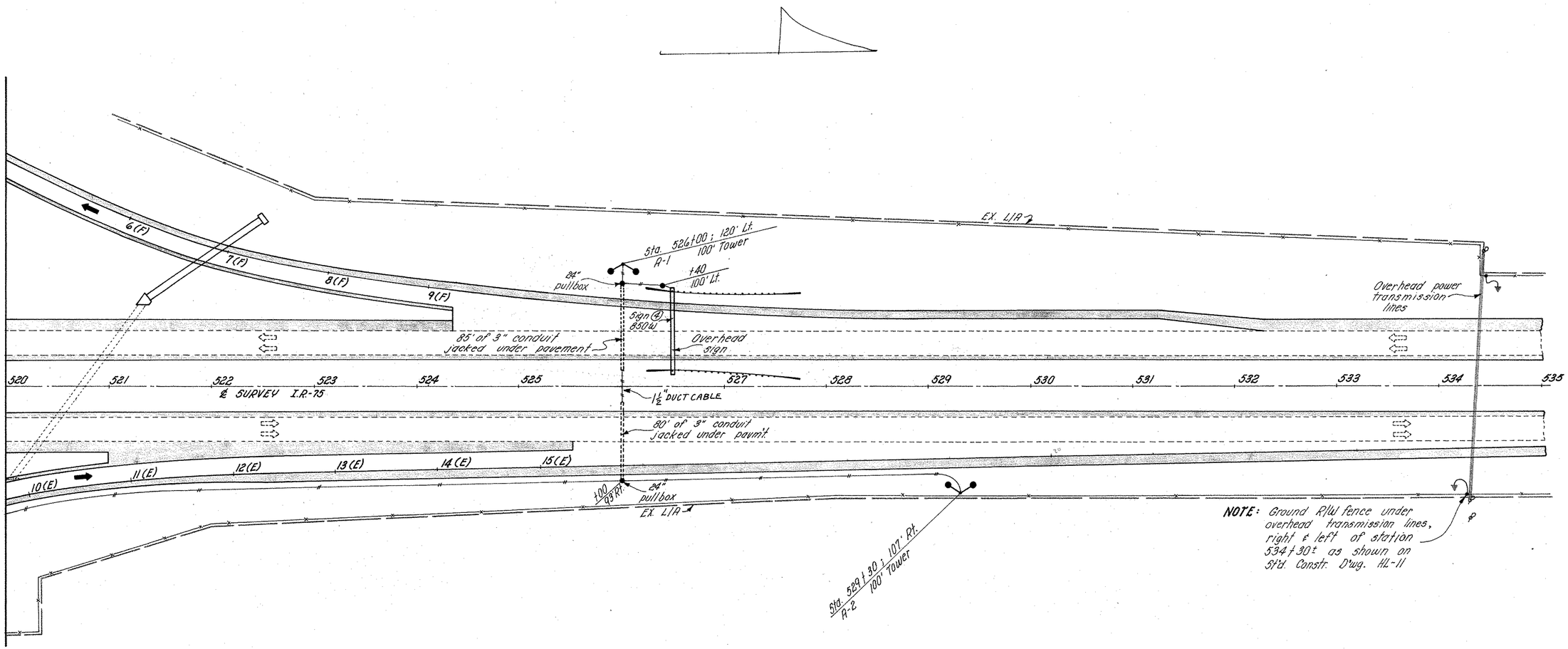
EXISTING I.R-75 & S.R-41 INTERCHANGE LIGHTING PLAN

TS 4-76
OEK 4-76

FHWA REGION	STATE	PROJECT	
5	OHIO		

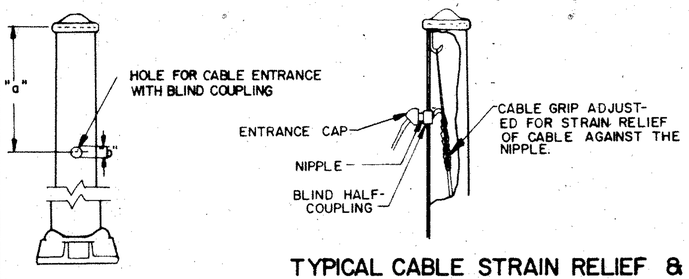
165/174

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38)

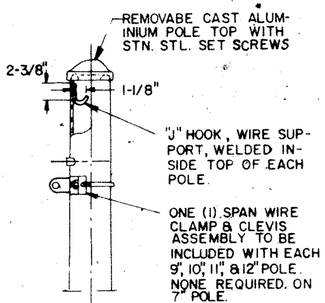


EXISTING I.R.-75 & S.R.-41 INTERCHANGE LIGHTING PLAN

MIAMI COUNTY
MIA-75-(9.17-9.35)
MIA-41-(11.16-11.38



TYPICAL CABLE STRAIN RELIEF & ENTRANCE CAP DETAILS



POLE TOP DETAILS

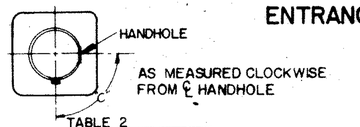
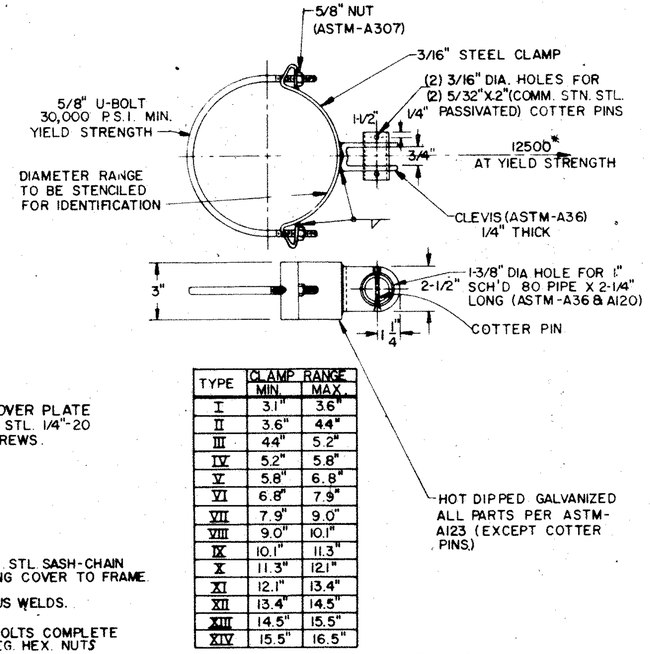


TABLE 2

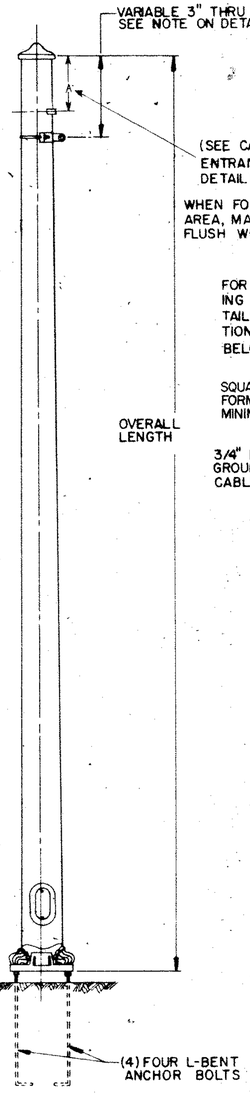
CONFIG.	"a"	"b"	"c"
A	30"	2"	90°
B	30"	2"	180°
C	30"	2"	270°
D	48"	2"	90°
E	48"	2"	180°
F	48"	2"	270°
G	NO HOLE REQUIRED		

CABLE ENTRANCE LOCATION DETAIL

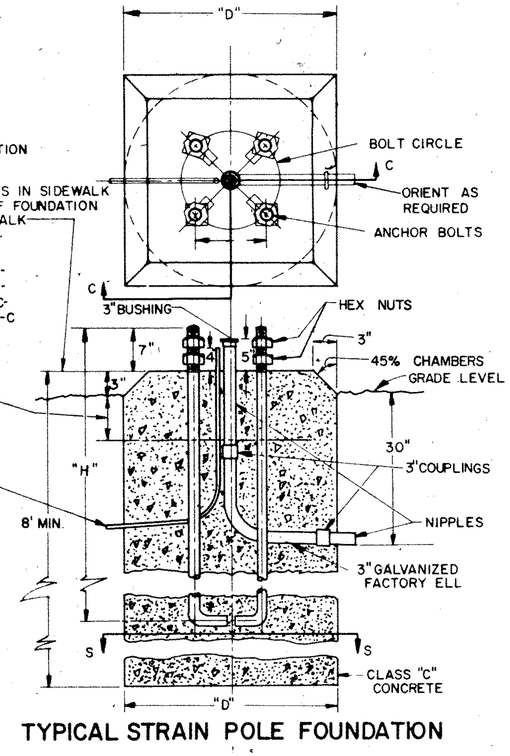


TYPE	CLAMP RANGE MIN.	MAX.
I	3.1"	3.6"
II	3.6"	4.4"
III	4.4"	5.2"
IV	5.2"	5.8"
V	5.8"	6.8"
VI	6.8"	7.9"
VII	7.9"	9.0"
VIII	9.0"	10.1"
IX	10.1"	11.3"
X	11.3"	12.1"
XI	12.1"	13.4"
XII	13.4"	14.5"
XIII	14.5"	15.5"
XIV	15.5"	16.5"

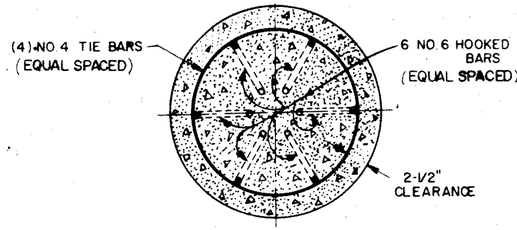
SPAN WIRE CLAMP DETAILS



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 - 11GA. 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

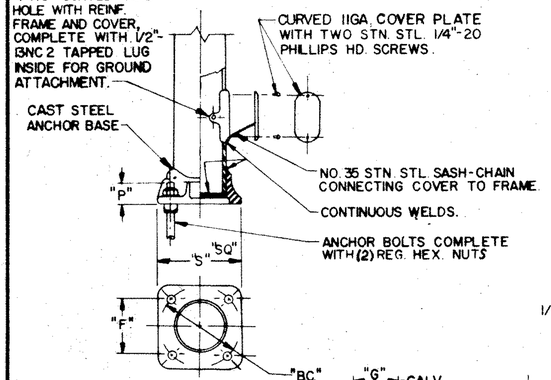
THE CONTRACTOR SHALL STAKE THE LONGITUDINAL AND LATERAL LOCATION, AND THE ELEVATION OF THE TOP OF EACH FOUNDATION SUBJECT TO THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER ELEVATION, OFFSET, AND LEVEL OF EACH FOUNDATION. THE FOUNDATION LOCATIONS MAY BE CHANGED AS DIRECTED 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 QUANTITIES.
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.

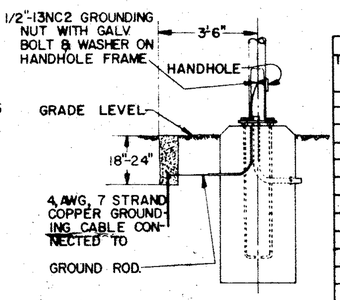
GROUND ROD

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"

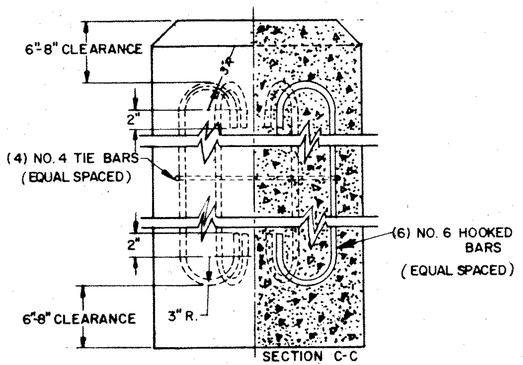
TYPICAL HANDHOLE, ANCHOR BASE & ANCHOR BOLT DETAILS



TYPICAL GROUND ROD DETAIL

STRAIN POLE TYPES

TYPE	BASE DIA.	TOP DIA.	OVERALL LENGTH	WALL THICKNESS	DESIGN DATA FOR TRANSVERSE LOAD AT 18" DOWN FROM TOP ELAST. DEFL. RATE	LD. AT YIELD STRENGTH	"H"	"D"
1	7.0"	4.20"	20.0'	(3 GA.) .250"	.59"/100#	2135#	42"	24"
2	9.0"	6.36"	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"



SECTION C-C

TYPICAL REINFORCING STEEL SECTIONS

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

STEEL STRAIN POLE & FOUNDATION DETAILS

APPROVED _____
ENGINEER OF TRAFFIC