SCI-335-1.24	OHIO
	FHWA REGION 5
BRF - 3N15(2)	FEDERAL PROJECT

1 / 22

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

SCI-335-1.24 BRF-3N15(2)

CITY OF PORTSMOUTH
SCIOTO COUNTY

ALL REFERENCES TO FEDERAL NUMBER BHM-3N15(2) APPEARING IN THESE PLANS SHALL BE CONSIDERED TO READ BRF-3N15(2).

CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (existing) (proposed)
Center Line
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

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Typical Section 3
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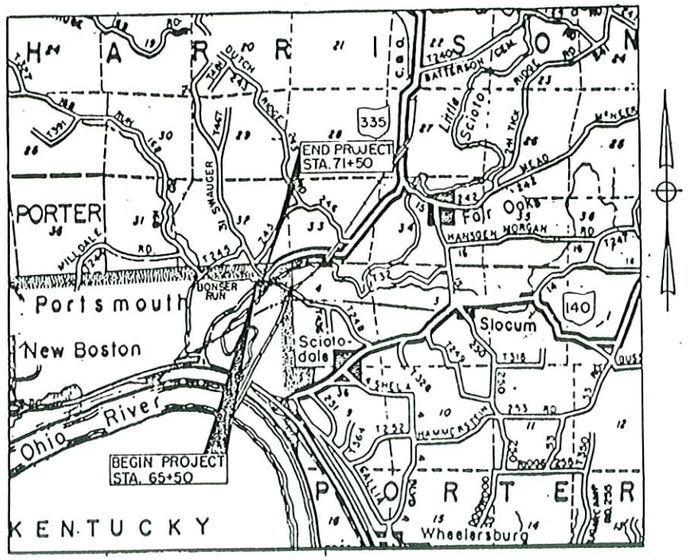
Conduit 15
Channel Sections 16,17
Traffic Control Plan 18
Right Of Way Plan 19-22

LINE DATA

Begin Project Sta. 65+50
End Project Sta. 71+50
Net Length of Project = 600.00 Lin. Ft. or 0.114 Mi.
Add for Approaches
Sta. 64+50 to Sta. 65+50 = 100.00 Lin. Ft.
Sta. 71+50 to Sta. 71+75 = 25.00 Lin. Ft.
Net Length of Work = 725.00 Lin. Ft. or 0.137 Mi.



LOCATION MAP

SCALE IN MILES

Portion to be improved
State and Federal Routes
County and Township Roads

SCALES

PLAN 0 20' 40'
PROFILE Horizontal 0 20' Vertical 0 5'
CROSS SECTIONS Horizontal 0 10' Vertical 0 10'

1991 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.

UNDERGROUND UTILITIES
TWO WORK DAYS
BEFORE YOU DIG
Call 800-362-2764 (Toll Free)
OHIO UTILITIES PROTECTION SERVICE
NON MEMBERS
MUST BE CALLED DIRECTLY

I hereby approve these plans and declare the making of this improvement will require the part time closing of the highway to traffic, as noted on Sheet 5, during which time detours will be provided as shown hereon. Provisions for the maintenance and safety of traffic will be as set forth on the plans and estimates.

APPROVED
DATE 10-7-91 DISTRICT DEPUTY DIRECTOR OF TRANSPORTATION

B8N
APPROVED
DATE 1/9/92 ENGINEER, BUREAU OF BRIDGES and STRUCTURAL DESIGN

APPROVED
DATE 2/18/92 CHIEF ENGINEER, PLANNING AND DESIGN

APPROVED
DATE 3-18-92 DIRECTOR, DEPARTMENT OF TRANSPORTATION

B & N Reviewed

SUPPLEMENTAL SPECIFICATIONS		
802	4-13-90	

C.A.P.

REVISED 1-20-93

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Approved:
DIVISION ADMINISTRATOR DATE

Plans Prepared By: BARRETT, CARGO, WITHERS & ASSOCIATES, LTD.
Consulting Engineers Chillicothe, Ohio
Date

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS

BP-3.1	2-21-92	HW-4A	4-1-80	TC-41.10	8-29-84
BP-4.1	2-21-92	HW-4B	4-1-80	TC-41.20	3-26-79
BP-1.1	2-21-92	LA-1	6-1-79	TC-52.10	4-3-79
		MC-1	6-13-69	TC-52.20	4-3-79
GR-1.1	5-6-91	MC-4	7-26-76		
GR-1.2	10-30-92	MC-5	6-12-75		
GR-2.1	5-6-91	MC-11	8-1-78		
GR-4.1	5-6-91				
GR-4.2	5-6-91	MT-99.10	11-14-86		

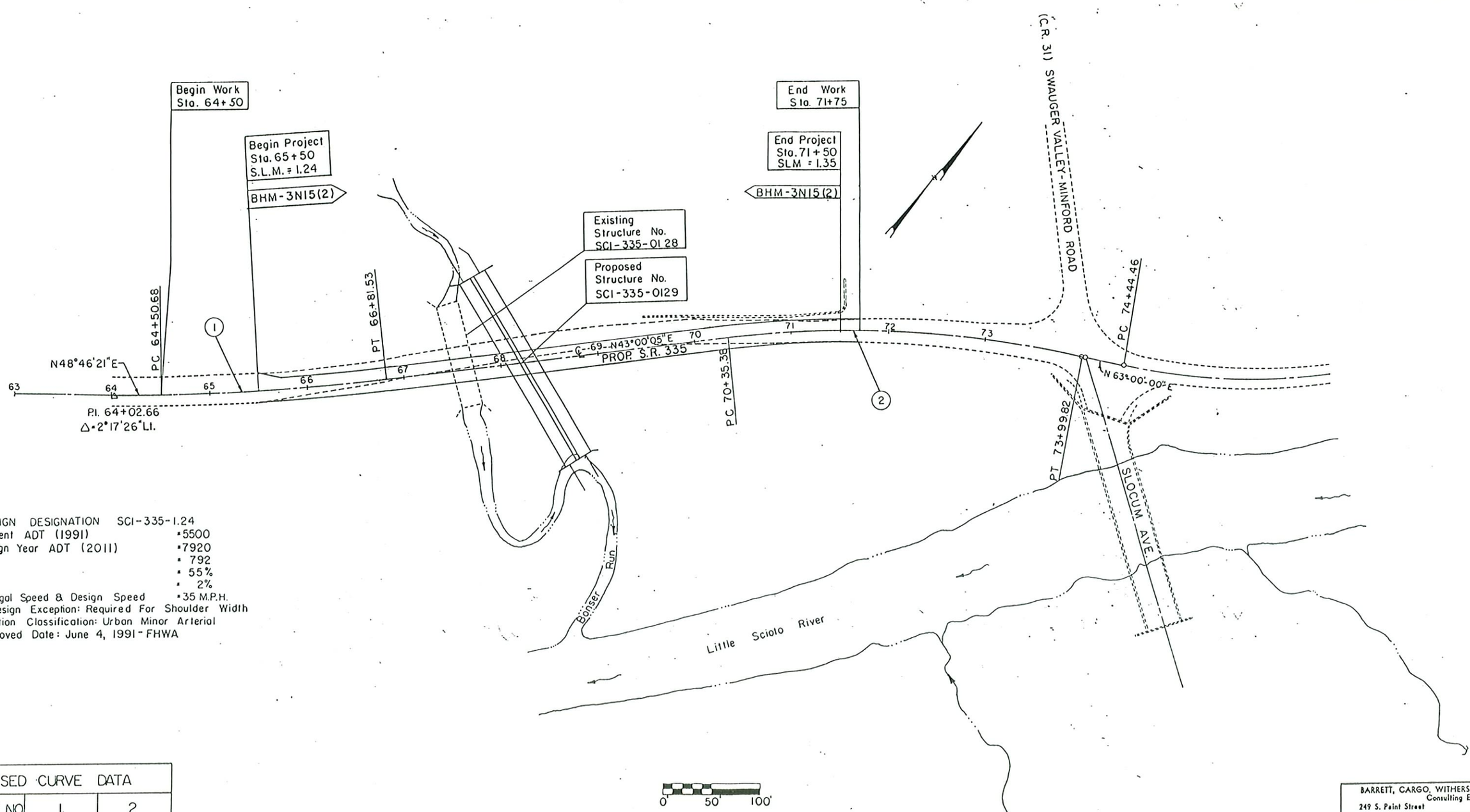
Project: SCIOTO COUNTY SCI-335-1.24
Date of Letting 19 Contract No.

FHWA REGION	STATE	PROJECT	
5	OHIO		

2/22

SCI-335-1.24

SCHEMATIC PLAN



DESIGN DESIGNATION SCI-335-1.24
Current ADT (1991) =5500
Design Year ADT (2011) =7920
DHV = 792
D = 55%
T = 2%
V-Legal Speed & Design Speed =35 M.P.H.
✱ Design Exception: Required For Shoulder Width
Function Classification: Urban Minor Arterial
Approved Date: June 4, 1991 - FHWA

PROPOSED CURVE DATA		
CURVE NO	1	2
P.I. STA	65+66.20	72+19.48
P.C. STA	64+50.68	70+35.38
P.T. STA	66+81.53	73+99.82
Δ	5°-46'-16.5 Lt	20°-02'-40"
D	2°-30'	5°-30'
R	2291.83'	1041.74'
T	115.52'	184.10'
L	230.85'	364.44'
E	2.91'	16.13'

BARRETT, CARGO, WITHERS AND ASSOCIATES, LTD.
Consulting Engineers
249 S. Paint Street Chillicothe, Ohio

SCHEMATIC PLAN

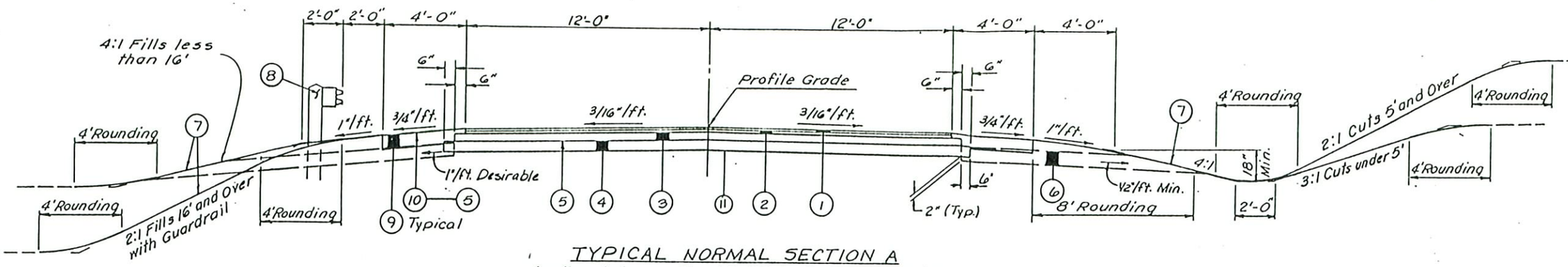
SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WIC	AJB	AJB				

TYPICAL SECTIONS
TYPE 404 ON 301

NOTE: The pavement buildup shown on Typ. Sect. A shall also apply to pavement transition areas:
Sta. 65+50 (w=29.89') to Sta. 65+75 (w=24') &
Sta. 71+50 (w=24') to Sta. 71+75 (w=23.85')

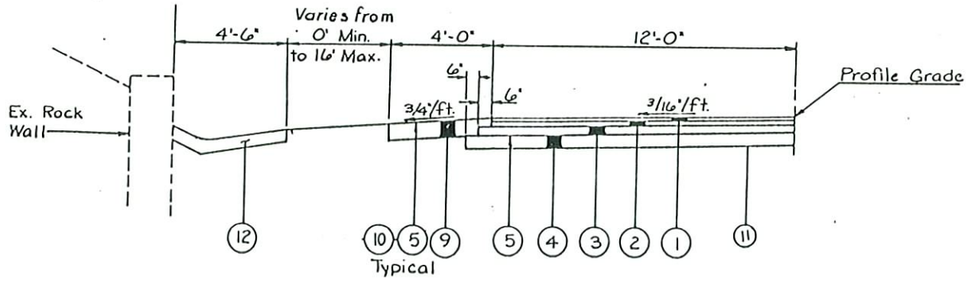
CALC. BY		SCI-335-1.24	OHIO	3
DATE			FHWA REGION 5	22
CHKD. BY				
DATE				



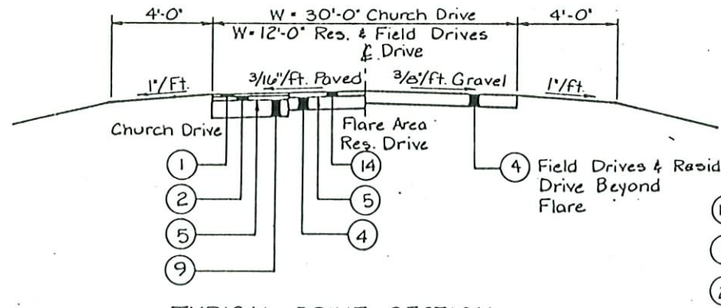
TYPICAL NORMAL SECTION A
Applies between Sta. 65+75 to Sta. 71+50 = 575 L.F.

STATION	LEFT SIDE ELEV.	LEFT SIDE RATE	LEFT SIDE OFFSET	℄ ELEV.	RIGHT SIDE OFFSET	RIGHT SIDE RATE	RIGHT SIDE ELEV.
65+50	*529.72	.022	17.74'	*530.11	12.15'	.030	*529.74
65+75	529.83	.022	12'	530.09	12'	.024	529.80
65+83	529.82	.022	12'	530.08	12'	.022	529.82
66+00	529.85	.018	12'	530.07	12'	.018	529.85
66+10	529.87	.0156	12'	530.06	12'	.0156	529.87
70+90				538.24	12'	.0156	538.05
71+00				538.19	12'	.018	537.97
71+25				537.95	12'	.024	537.66
71+50	537.40	.0156	12'	537.59	12'	.030	537.23
71+75	*536.99	.009	12'	*537.10	11.85'	.036	*536.67

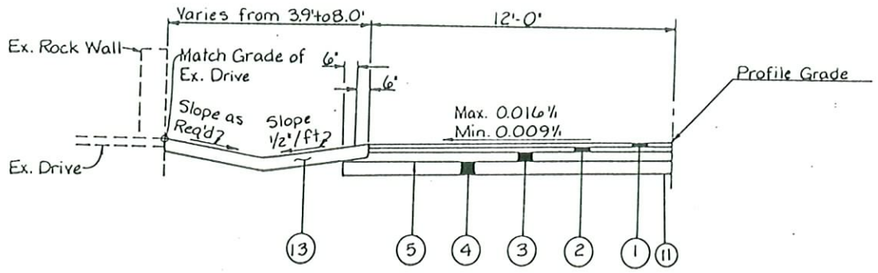
*Existing



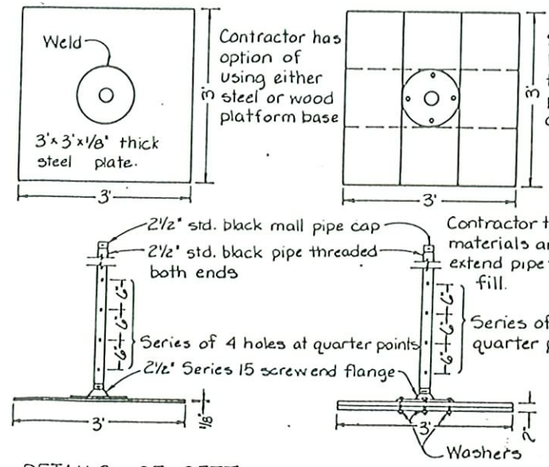
TYPICAL PART SECTION WITH TYPE 4 PAVED GUTTER
Applies between Sta. 69+45 to Sta. 70+77 = 132 L.F.



TYPICAL DRIVE SECTION



TYPICAL PART SECTION WITH TYPE 4 PAVED GUTTER, AS PER PLAN
Applies between Sta. 70+77 to Sta. 71+75 = 98 L.F.



Settlement Platforms shall be anchored by stakes driven at each corner to prevent overturning.

DETAILS OF SETTLEMENT PLATFORMS
Settlement Platforms shall be placed as indicated in the plans or as indicated by the Engineer to measure embankment settlement. 3 Platforms Required. See General Notes.

LEGEND

14	2"	404	Asphalt Concrete, AC-20 (Driveways)
1	1¼"	404	Asphalt Concrete, AC-20
2	1¾"	402	Asphalt Concrete, AC-20
3	5"	301	Bituminous Aggregate Base, AC-20
4	6"	304	Aggregate Base, As Per Plan
5		408	Bituminous Prime Coat @ 0.40 Gal./Sq. Yd.
6		605	Aggregate Drains
7		659	Seeding and Mulching (See General Note)
8		606	Guardrail, Type 5
9	8"	304	Aggregate Base, As Per Plan
10		409	Seal Coat, Using 0.008 Cu. Yd. of no.8 Cover aggregate per Sq. Yd. and 0.30 Gal. of Bituminous materials.
11		203	Subgrade Compaction.
12		601	Type 4 Paved Gutter
13		601	Type 4 Paved Gutter, As per plan.

BARRETT, CARGO, WITHERS AND ASSOCIATES, LTD.
Consulting Engineers
249 S. Paint Street — Chillicothe, Ohio

TYPICAL SECTIONS

SCALE — DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WIC						

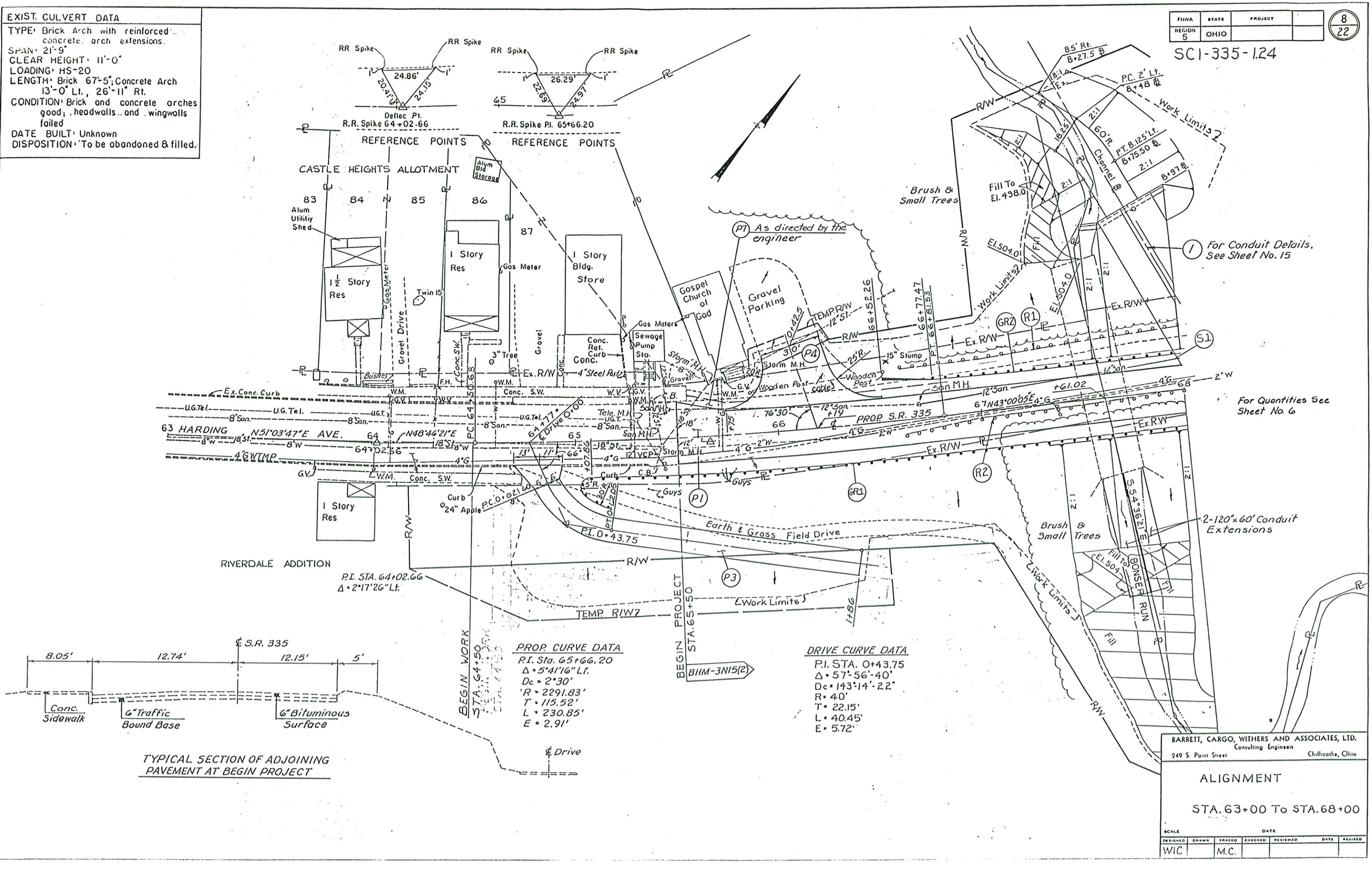
FHWA	STATE	PROJECT	
REGION 5	OHIO		

8/22

SCI-335-1.24

EXIST. CULVERT DATA

TYPE: Brick Arch with reinforced concrete arch extensions.
SPAN: 21'-9"
CLEAR HEIGHT: 11'-0"
LOADING: HS-20
LENGTH: Brick 67'-5"; Concrete Arch 13'-0" Lt., 26'-11" Rt.
CONDITION: Brick and concrete arches good; headwalls and wingwalls failed
DATE BUILT: Unknown
DISPOSITION: To be abandoned & filled.



BARRETT, CARGO, WITHERS AND ASSOCIATES, LTD.
Consulting Engineers
249 S. Point Street — Chillicothe, Ohio

ALIGNMENT

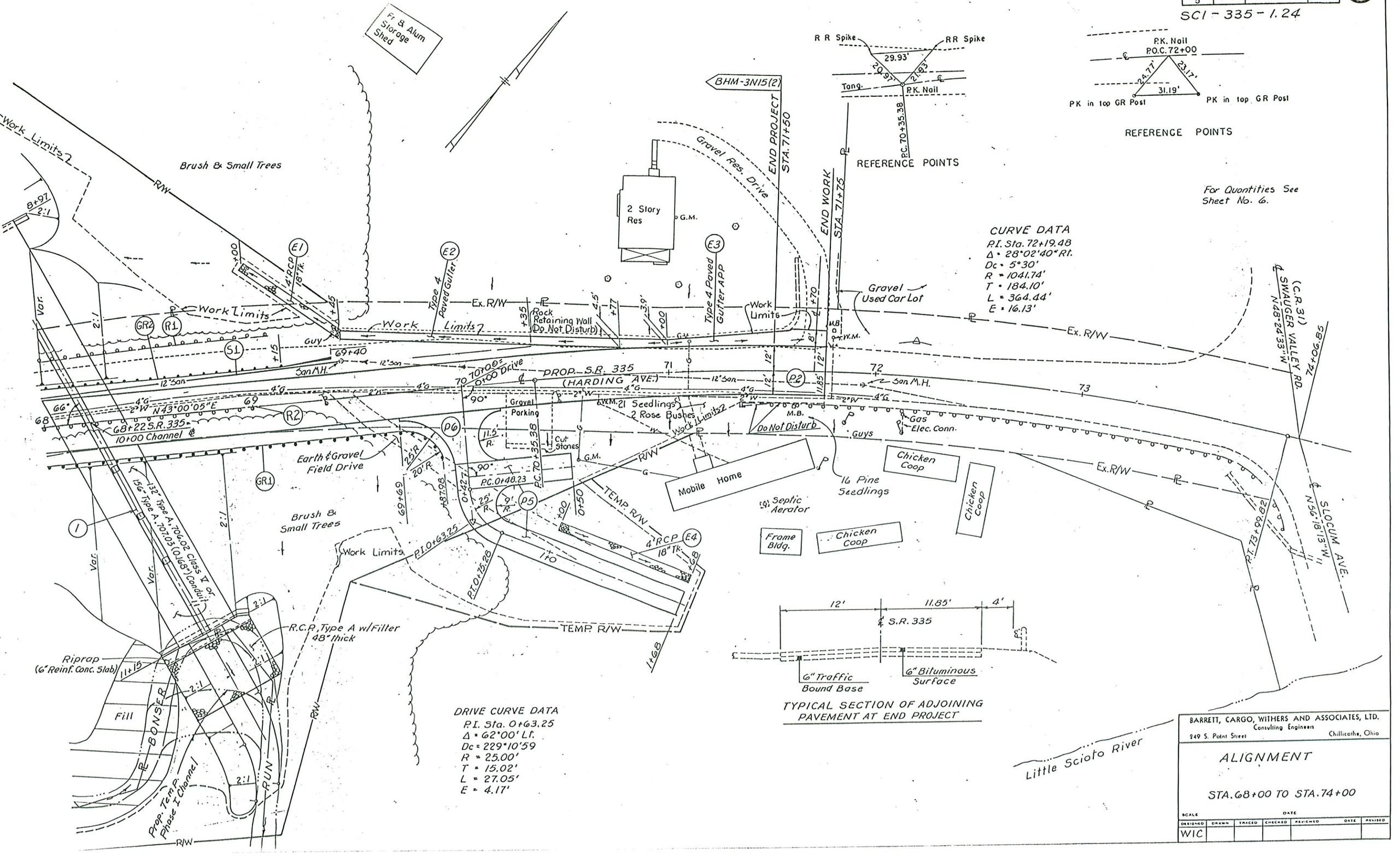
STA. 63+00 To STA. 68+00

SCALE		DATE				
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WIC		M.C.				

FHWA	STATE	PROJECT	
REGION 5	OHIO		

9/22

SCI - 335 - 1.24



BARRETT, CARGO, WITHERS AND ASSOCIATES, LTD.
Consulting Engineers
249 S. Paint Street — Chillicothe, Ohio

ALIGNMENT

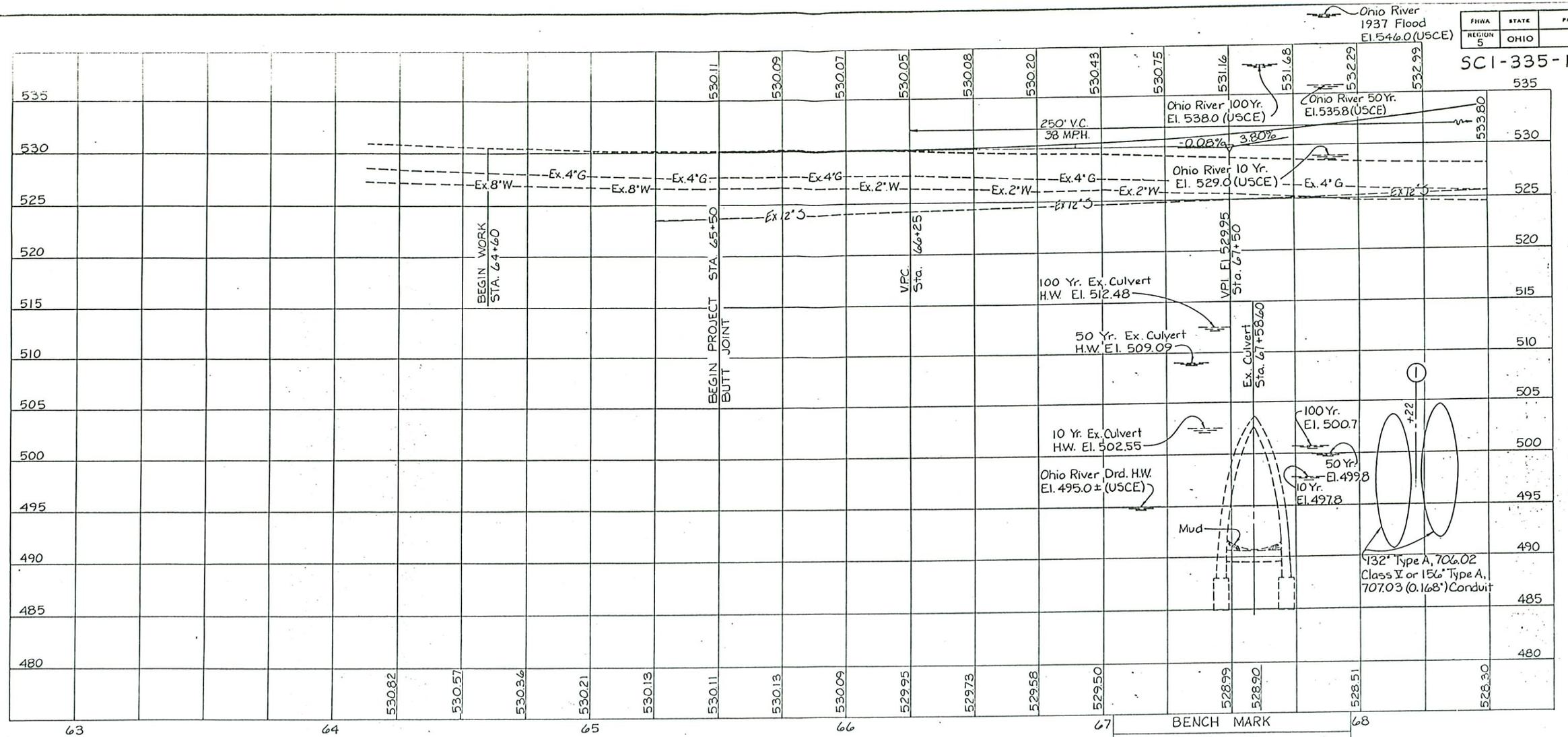
STA. 68+00 TO STA. 74+00

SCALE	DATE					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WIC						

FHWA	STATE	PROJECT	
REGION 5	OHIO		

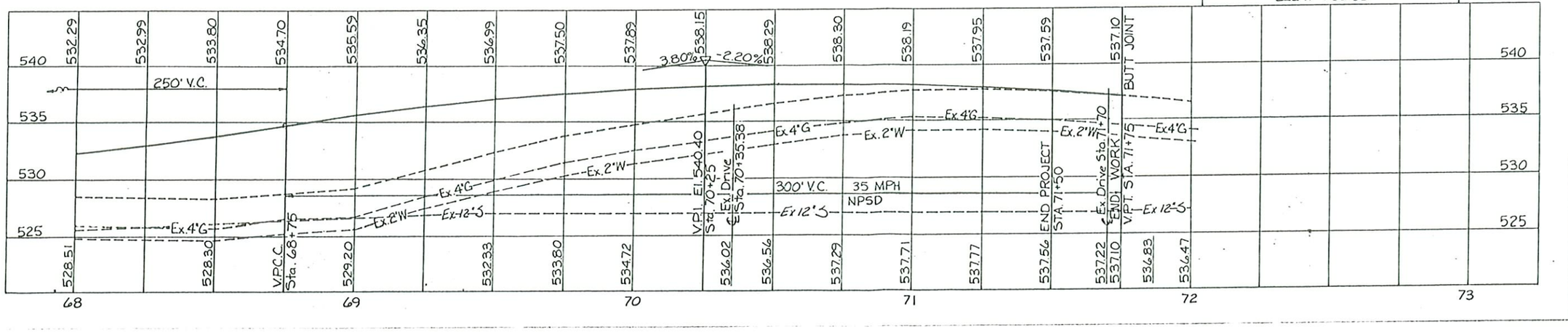
10
22

SCI-335-1.24



BENCH MARK

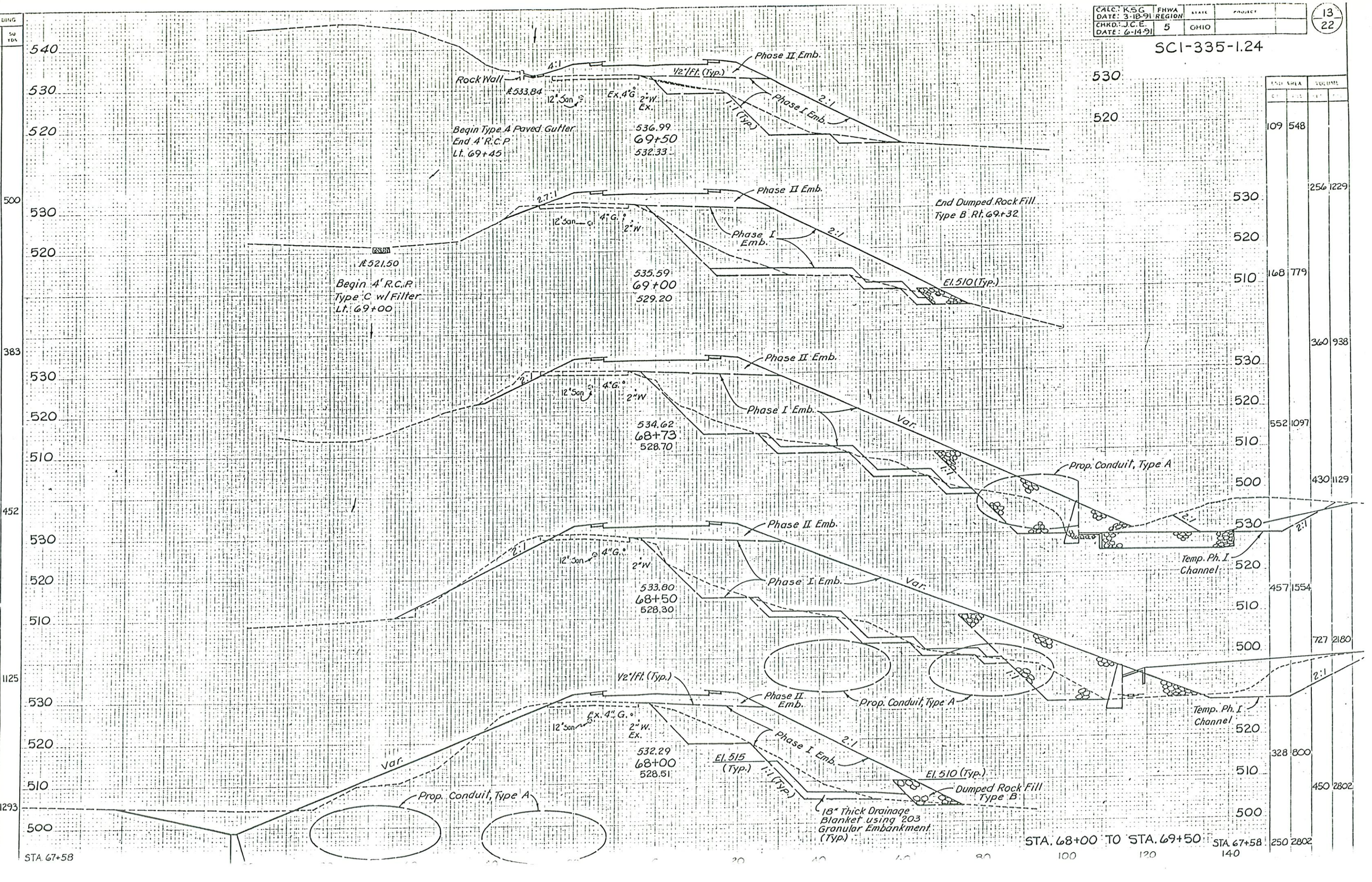
Painted chiseled □ on top corner of conc. porch of the Gospel Church of God. 31.5' ± Lt. Sta. 65+73 ± ELEV. 532.58



BARRETT, CARGO, WITHERS AND ASSOCIATES, LTD.
Consulting Engineers
949 S. Paint Street Chillicothe, Ohio

PROFILE

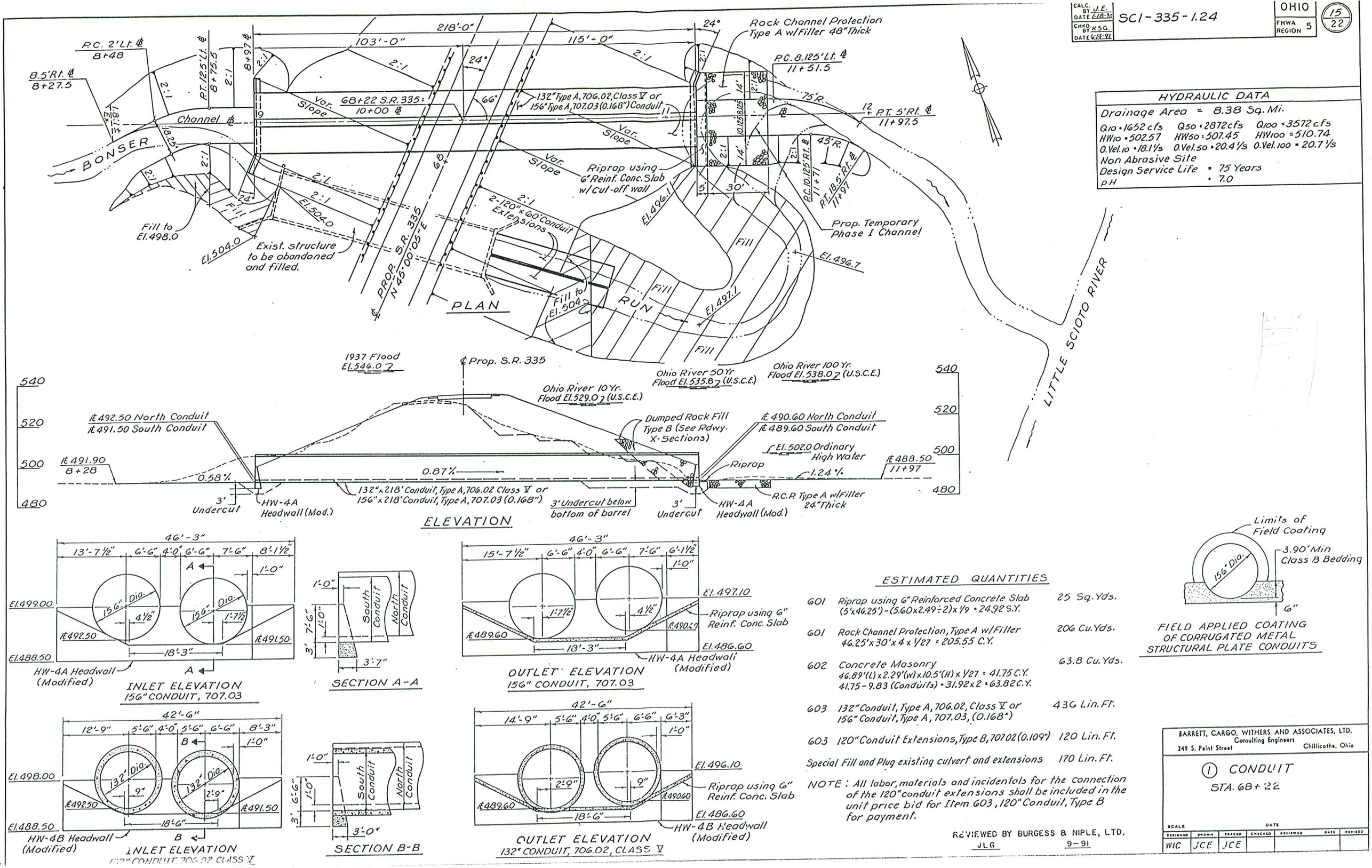
SCALE		DATE				
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WIC	KSG					



CALC.: K.S.G. DATE: 3-18-91
CHKD.: J.C.E. DATE: 6-14-91
FHWA REGION 5
STATE OHIO
PROJECT
13/22
SCI-335-1.24
Rock Wall
℄ 533.84
12" San
Ex. 4" G.
2" W. Ex.
Phase II Emb.
1/2"/ft. (Typ.)
Phase I Emb.
2:1
1:1 (Typ.)
Begin Type A Paved Gutter
End 4' R.C.P.
Lt. 69+45
536.99
69+50
532.33
2.7:1
4" G.
2" W
End Dumped Rock Fill
Type B Rt. 69+32
℄ 521.50
Begin 4' R.C.P.
Type C w/Filter
Lt. 69+00
535.59
69+00
529.20
El. 510 (Typ.)
534.62
68+73
528.70
Var.
Prop. Conduit, Type A
Temp. Ph. I Channel
533.80
68+50
528.30
532.29
68+00
528.51
El. 515 (Typ.)
El. 510 (Typ.)
Dumped Rock Fill Type B
18" Thick Drainage Blanket using 203 Granular Embankment (Typ.)
STA. 68+00 TO STA. 69+50
STA. 67+58
STA. 67+58
END AREA
VOLUME
109 548
256 1229
168 779
360 938
552 1097
430 1129
457 1554
727 2180
328 800
450 2802
250 2802

CALC. BY J.E. DATE 6-18-91	SCI-335-1.24	OHIO
CHKD. BY K.S.G. DATE 6-14-91		FHWA REGION 5

15/22



HYDRAULIC DATA

Drainage Area = 8.38 Sq. Mi.

Q10 = 1652 cfs Q50 = 2872 cfs Q100 = 3572 cfs
HW10 = 502.57 HW50 = 507.45 HW100 = 510.74
0.Vel.10 = 18.1 f/s 0.Vel.50 = 20.4 f/s 0.Vel.100 = 20.7 f/s
Non Abrasive Site
Design Service Life = 75 Years
pH = 7.0

ESTIMATED QUANTITIES

601	Riprap using 6" Reinforced Concrete Slab (5'x46.25') - (5.60x2.49÷2)x 1/9 = 24.92 S.Y.	25 Sq. Yds.
601	Rock Channel Protection, Type A w/Filter 46.25'x 30'x 4 x 1/27 = 205.55 C.Y.	206 Cu. Yds.
602	Concrete Masonry 46.89'(L) x 2.29'(W) x 10.5'(H) x 1/27 = 41.75 C.Y. 41.75 - 9.83 (Conduits) = 31.92 x 2 = 63.82 C.Y.	63.8 Cu. Yds.
603	132" Conduit, Type A, 706.02, Class V or 156" Conduit, Type A, 707.03, (0.168")	436 Lin. Ft.
603	120" Conduit Extensions, Type B, 707.02 (0.109")	120 Lin. Ft.
	Special Fill and Plug existing culvert and extensions	170 Lin. Ft.

NOTE: All labor, materials and incidentals for the connection of the 120" conduit extensions shall be included in the unit price bid for Item 603, 120" Conduit, Type B for payment.

REVIEWED BY BURGESS & NIPLE, LTD.
JLG 9-91

FIELD APPLIED COATING OF CORRUGATED METAL STRUCTURAL PLATE CONDUITS

BARRETT, CARGO, WITHERS AND ASSOCIATES, LTD.
Consulting Engineers
249 S. Paint Street Chillicothe, Ohio

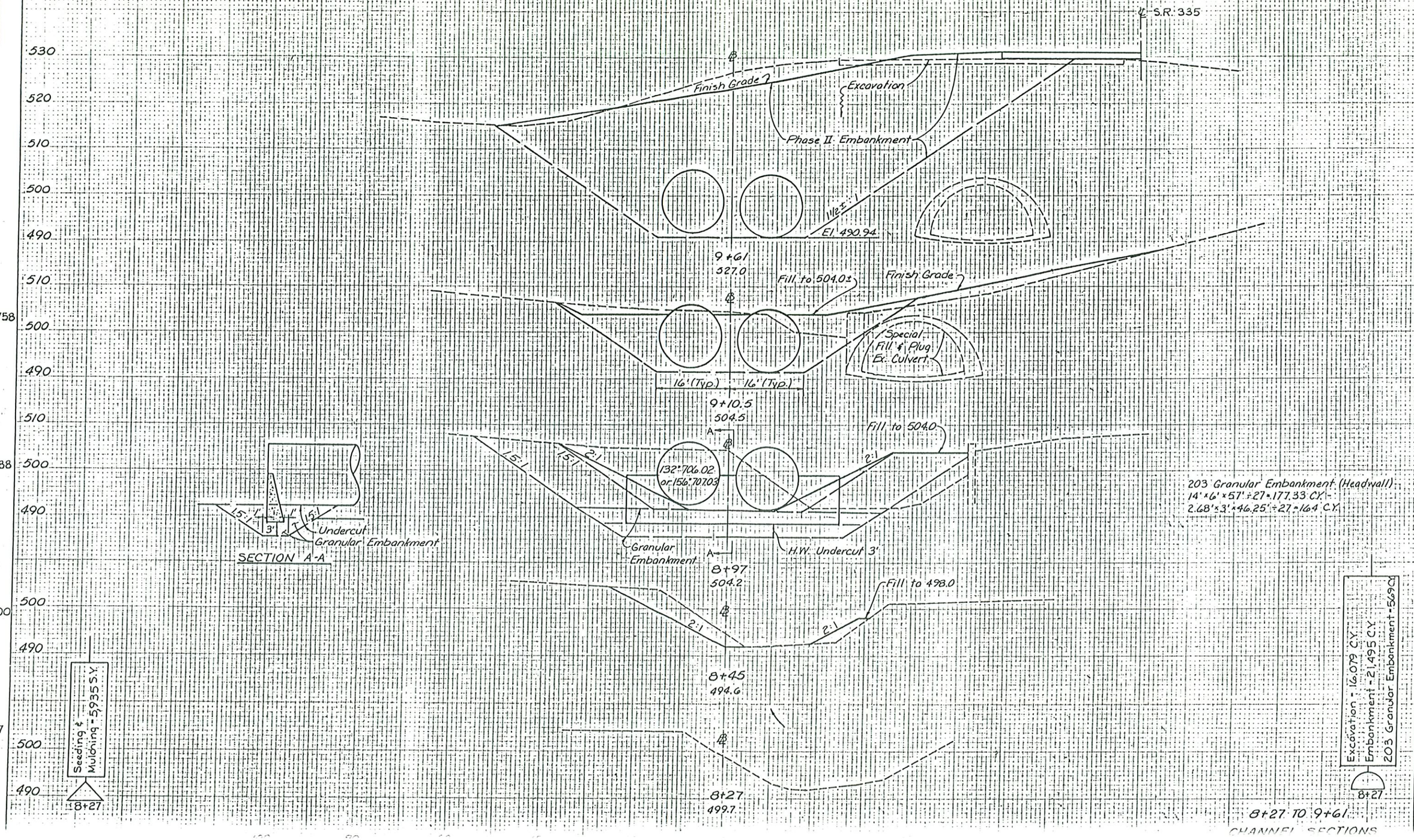
(1) CONDUIT
STA. 68+22

SCALE			DATE				
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED	
WIC	JCE	JCE					

CALC.: KSG DATE: 3-19-91	FHWA REGION	STATE	PROJECT	
CHKD.: J.C.E. DATE: 6-14-91	5	OHIO		

16/22

SCI-335-1.24



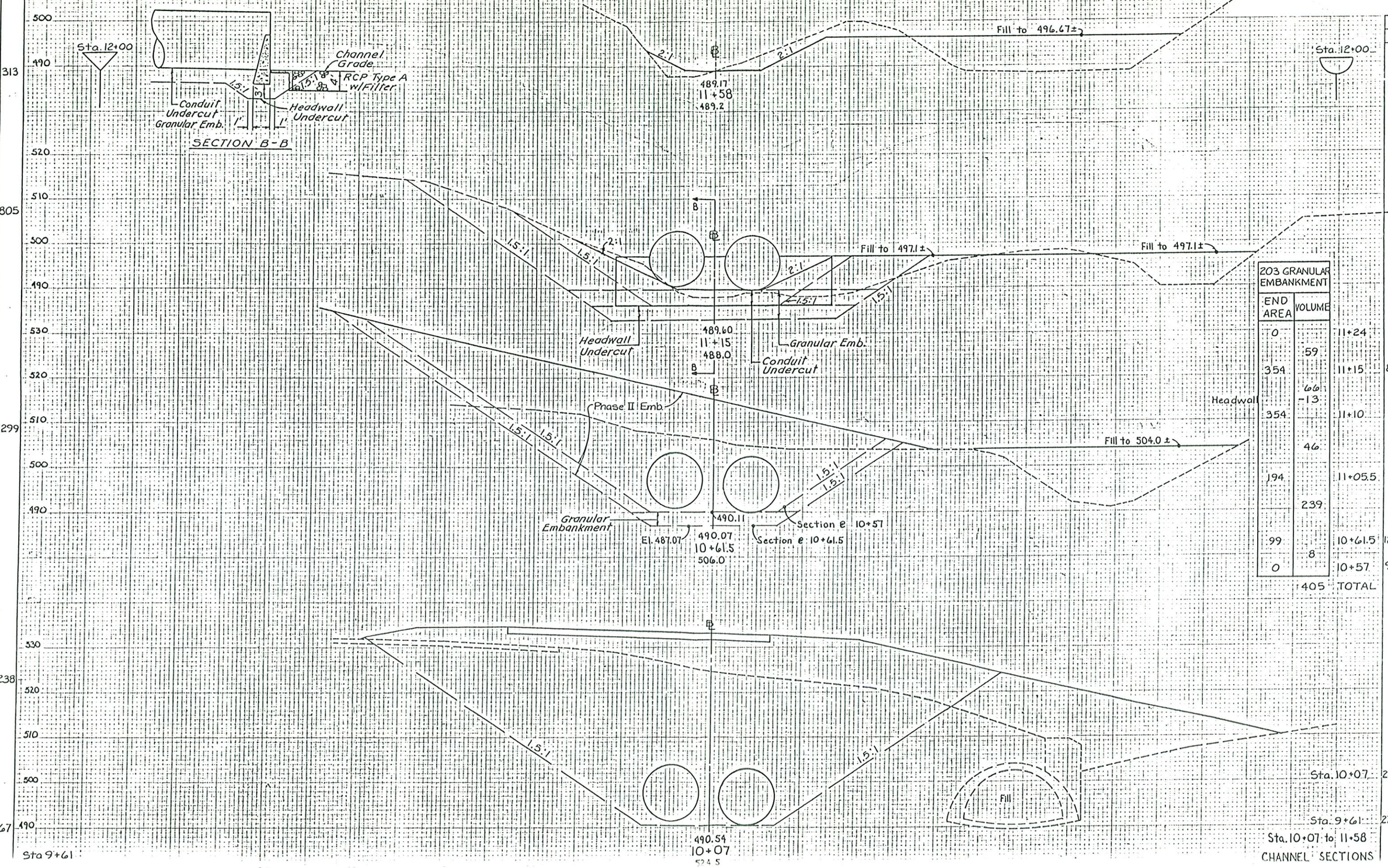
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
2767	2689		
		3182	3206
635	739		
		426	336
1070	605		
		1120	601
93	19		
		31	6
0	0		

CALC.: KSG DATE: 3-19-91	FHWA REGION	STATE	PROJECT	
CHKD.: JCE DATE: 6-14-91	5	OHIO		

17/22

SCI-335-1.24

0:0 SECTION STA. 12+00



203 GRANULAR EMBANKMENT		
END AREA	VOLUME	
0		11+24
	59	
354		11+15
	66	
Headwall	-13	
354		11+10
	46	
194		11+05.5
	239	
99		10+61.5
	8	
0		10+57
	405	TOTAL

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	0		
		79	318
101	409		
		725	944
809	776		
		2003	3365
1213	2620		
		178	413
925	2332		
		3524	6251
2881	4419		
		4811	6055
2767	2689		

SCI-335-1.24

CITY OF PORTSMOUTH SCIOTO COUNTY, OHIO

SEC. 5, T2N, R20W

SCI-335-1.24	OHIO FHWA REGION 5	21/22

3/4

0' 20' 40' 80'

SCALE IN FEET

N

CURVE DATA

P.I. STA. 65+66.20
Δ = 5°46'16.5" Lt.
Dc = 2°30'00"
R = 2291.83'
T = 115.52'
L = 230.85'
E = 2.91'

DRIVE CURVE DATA

P.I. STA. 0+43.75
Δ = 57°56'40"
Dc = 143°14'22"
R = 40.00'
T = 22.15'
L = 40.45'
E = 5.72'

FRANK ALLEN & JOYCE ALLEN

DAVID J. HERDMAN, DELLA MAE HERDMAN, & RANDALL E. HERDMAN AS TRUSTEES OF GOSPEL CHURCH OF GOD

HARMON BLEVINS, a.k.a. HARMON R. BLEVINS

LARRY HOWARD & DEANNA HOWARD

Δ = 7°11'42"
R = 1175.92'
A = 147.67'
C = 147.57'
Ch. Brg. = N43°06'17"E

Δ = 10°21'25"
R = 1115.92'
A = 201.72'
C = 201.44'
Ch. Brg. = N44°41'09"E

PROP. SR 335 (HARDING AVE)

℄ STA. 68+22 = ⊥ STA. 10+00

℄ SURVEY N43°00'05"E

MATCH LINE STA. 69+50

BONSER RUN

BEGIN ACQUISITION STA. 64+18

BEGIN WORK STA. 64+60

BEGIN PROJECT STA. 65+50

Work Limits

TEMP. R/W

Earth & Grass Field Drive

Wood Area & Brush

Do Not Disturb

Gospel Church of God

Gravel Parking

Sewage Pump Sta.

Storm M.H.

Gas Meters

Alum. Bldg. Storage

Alum. Utility Shed

1½ Story Res.

1 Story Res.

1 Story Bldg.

Twin 15'

Gas Meter

Gravel Drive

Conc. Ret. Curb

4' Steel Post

Wooden Post

Guy Pole

Brush

Channel

Ex. R/W

R/W

12" San.

12" VCP

4" G WTMP

Conc. S.W.

Conc. Curb

Post Cable

24" Apple

8" Locust

3" Tree

15" Stump

Pl. 64+02.66

PC Q+21.00

PT Q+62.05

Drive Q+00

Pl. 64+02.66

ASTLE HEIGHTS ALLOTMENT PLAT BOOK 2 PAGE 135

VERDALE ADDITION PLAT BOOK 3 PAGE 178

REV.	DATE	DESCRIPTION
		Date of Completion: April 19, 1991
1	8-27-91	Added Posts, Cable + Woods + Brush
RDG	11/4/91	Added San. Sewer

SCI-335-1.24

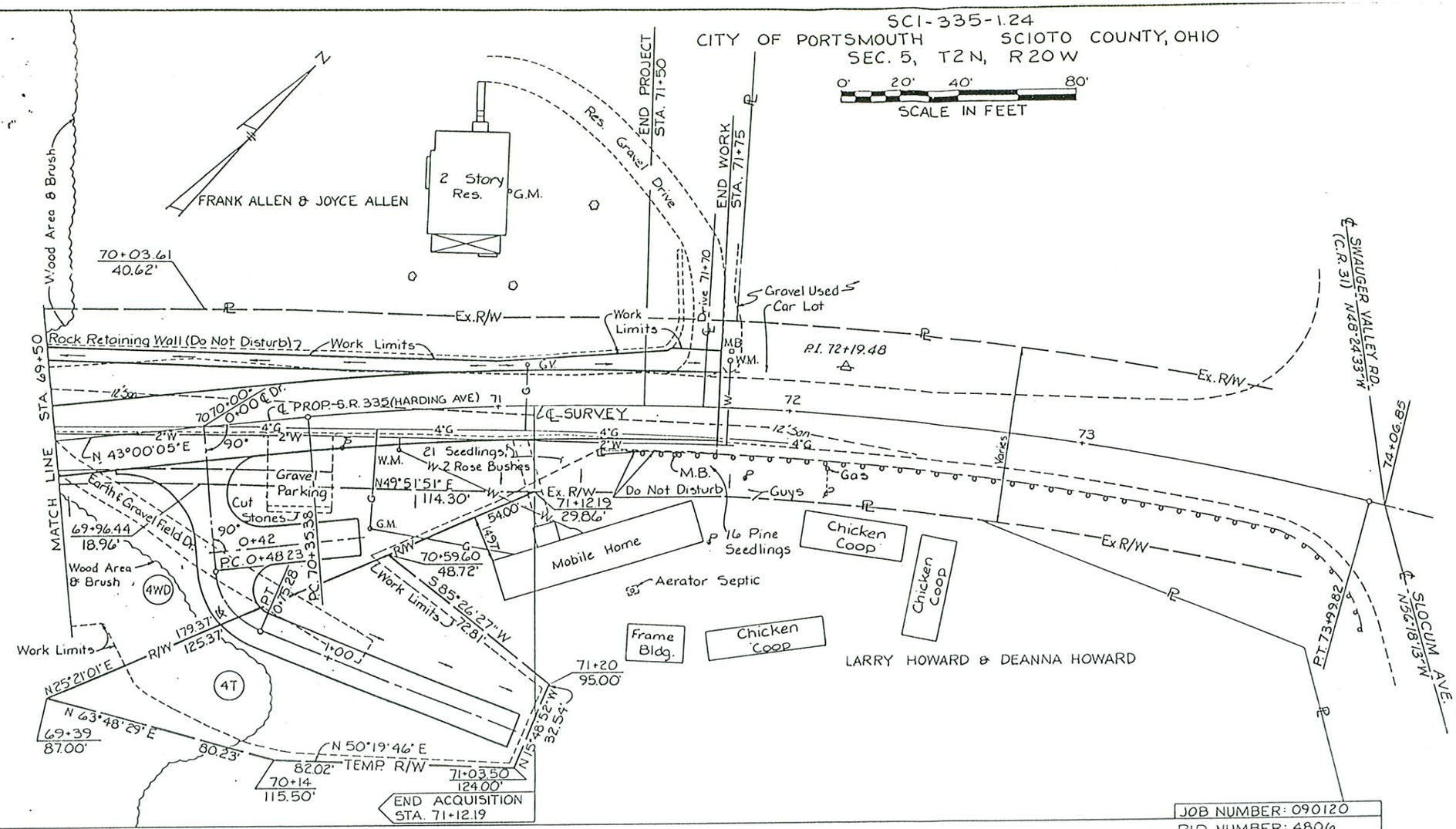
OHIO FHWA REGION 5

22/22

4/4

SCI-335-1.24
CITY OF PORTSMOUTH SCIOTO COUNTY, OHIO
SEC. 5, T2N, R20W

0' 20' 40' 80'
SCALE IN FEET



CURVE DATA
P.I. STA. 72+19.48
Δ = 20°02'40"
Dc = 5°30'00"
R = 1041.74'
T = 184.10'
L = 364.44'
E = 16.13'

DRIVE CURVE DATA
P.I. STA. 0+63.25
Δ = 62°00'00" Lt.
Dc = 229°10'59"
R = 25.00'
T = 15.02'
L = 27.05'
E = 4.17'

JOB NUMBER: 090120
P.I.D. NUMBER: 4806

TAL NUMBER OF:
4 OWNERSHIPS
0 TOTAL TAKES
0 OWNERSHIPS WITH STRUCTURES INVOLVED
0 OWNERSHIPS WITH 'P' ITEMS

SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

RCEL	OWNER	SHEET NO	OWNER'S RECORD BOOK	OWNER'S RECORD PAGE	RECORD AREA Acs.	TOTAL P.R.O. Acs.	GROSS TAKE Acs.	PRO. IN TAKE Acs.	NET TAKE Acs.	STRUCTURE	NET RESIDUE LEFT Acs.	NET RESIDUE RIGHT Acs.	TYPE FUNDS	REMARKS & PERSONALTY	AS ACQUIRED BOOK	AS ACQUIRED PAGE	AUDITOR'S PARCEL NUMBER
WD	Harmon Blevins, a.k.a. Harmon R. Blevins		761	800	2.75	0	0.615	0	0.615	No		2.135	State				34-1491.000
T			727	326		0	0.133	0	0.133				State	Construct driveway and slopes (see note 1)			
WD	David J. Herdman, Della Mae Herdman,		777	61	0.800*	0	0.173	0	0.173	No	0.627		State				34-0448.000
2T	& Randall E. Herdman as Trustees of					0	0.011	0	0.011				State	Construct driveway (see note 1)			
	Gospel Church of God																
WD	Frank Allen & Joyce Allen		794	809	4.77	0	0.308	0	0.308	No	4.462		State	See Note 2			34-0639.000
WD	Larry Howard & Deanna Howard		831	309	1.586	0	0.668	0	0.668	No		0.918	State				34-1384.000
				311													
				313													
				315													
				317													
				319													
				321													
4T						0	0.166	0	0.166				State	Construct driveway and slopes (see note 1)			

NOTE 1: 18 month time span on temporaries

NOTE 2: Lillian M. Herdman and Diana F. Herdman, Land Contract Holders, Mtg. V. 662, P. 862

* Approximate acreage of occupation

REV	DATE	DESCRIPTION

Date of Completion: April 19, 1991

REV	DATE	DESCRIPTION
1	8-27-91	Added Wood Area + Brush