FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	ER 1563 (3)	

PIKE COUNTY
PIK-335-19.96

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
PIK-335-19.96

ER 1563 (3)

JACKSON TOWNSHIP
PIKE COUNTY

DESIGN DESIGNATION

Current A.D.T. (1968)	330
Design Year A.D.T. (1991)	605
D.H.V.	91
D. (directional distribution)	60-40
T. (percent B&C Trucks)	12.1%
V. (design speed)	40M.P.H.

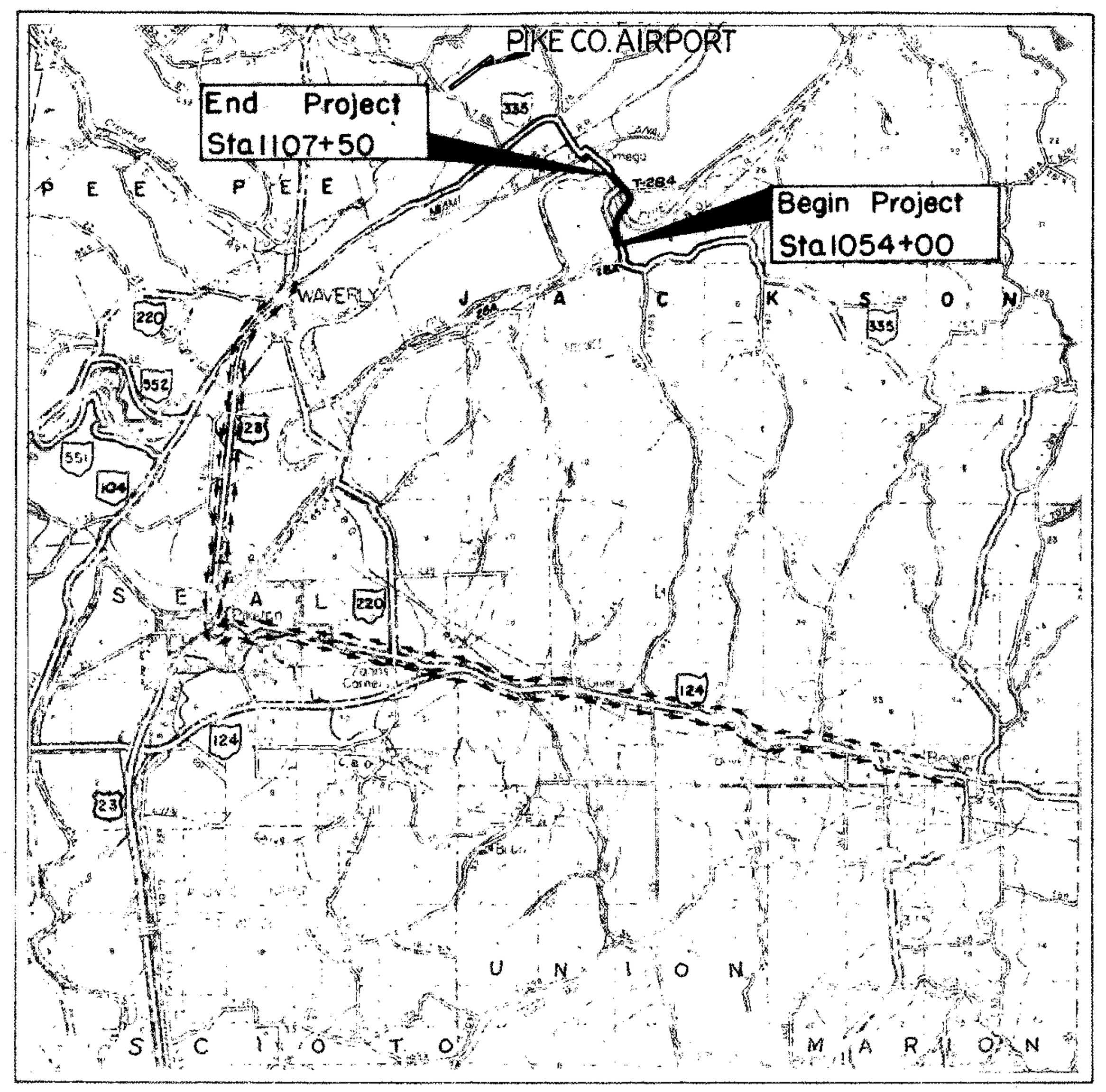
CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line ... or ...
Fence Line (existing) — (proposed)
Center Line 352 353
Trees, Stumps
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
Guardrail (existing) (proposed)

INDEX OF SHEETS

LINE DATA

Begin Project	Sta 1054+00	
End Project	Sta. 1107+50	
Net Length of Project		5,350 Lin.Ft. or 1.013 Mile
Add for Approaches:		
Sta.1053+50 to Sta.1054+00	=	50 Lin.Ft.
Sta.1107+50 to Sta.1108+00	=	50 Lin.Ft.
Twp. Rd. 824 Rt. ℄ Sta.1099+54.5		
Sta.10+10.64 to Sta.15+00	=	489.36 Lin.Ft.
Net Length of Work		5,939.36 Lin.Ft. or 1.124 Mile



LOCATION MAP

SCALE OF MILES
2 1 0 2 4 6

Portion to be improved
State Roads
Other Roads
Detour

SCALES

Plan — 50' 0 50'
Profile: Horizontal — 50' 0 50'
Profile: Vertical — 10' 0 10'

1971 SPECIFICATIONS

The standard specifications of the State of Ohio, Department of Highways, 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 *DeForest R. Rouse*
Date *11-17-69* Division Deputy Director

Approved *C. H. Altvater*
Date *4-24-70* Engineer of Bridges

Approved *R.E. Catlin*
Date *5-26-70* Engineer of Location & Design

Approved *George J. Thormyer*
Date *5-27-70* Deputy Director of Design & Construction

Approved *T.H. Bovard*
Date *6-9-70* Deputy Director of Right of Way

Approved *Thomas M. Major*
Date *6-3-70* Deputy Director of Planning & Programming

Approved *E. W. Wilson*
Date *6-10-70* First Assistant Director

Approved *P. E. Masheter*
Date *6-10-70* Director of Highways

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS					
AS-1-67	6-12-69	MC-4	6-13-69		
BP-5	1-1-71	BR-1-67 (Sh 1)	1-1-71		
BP-6	6-1-65	RB-1-55	2-2-59		
BP-3	1-1-71	SD-1-69 Sh.1,2,3	6-12-69		
FACI-1	9-15-67	GR-5	1-1-71		
FACI-2	6-1-65	GR-2A	1-1-71		
GR-2B	1-1-71				
GR-3	1-1-71				
GR-4	1-1-71				
HW-E	6-1-65				
L-1	6-1-65				
MC-1	6-13-69				
MC-3	6-20-69				

SUPPLEMENTAL SPECIFICATIONS	
1001	1-1-69
808	11-14-69
836	1-1-71
838	3-18-70

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
APPROVED:

DIVISION ENGINEER — DATE

Project: Pike County — PIK-335-19.96
Date of Letting ______ 19___, Contract No. ______
LD 0300
12-29-67

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

2/82

PIK-335-19.96

SCHEMATIC PLAN

0 200' 400'

ER-1563(3)

BEGIN WORK STA. 1053+50

BEGIN PROJECT STA. 1054+00 S.L.M. = 19.96

Ex. S.R. 335 (Outside Normal Construction Limits)
(Existing pavement to be removed)
For Note and Quantities, See Sheet No. 5

3200' x 20' x 1'

Prop. Res Dr. +10
14

Ex. Trav. S.R. 335

PIK-335-19.89

C+0. E.P.

Prop. FACT Sign

ST. 1056+94.96

SC. 1059+94.96

CS. 1064+91.63

ST. 1067+91.63

PIK-335-20.28

Sand Bar Area

RIVER

SCIOTO

JACKSON TWP.

ST. 1080+38.24

SC. 1083+89.24

CS. 1089+00.46

ST. 1091+50.46

Begin Work 10+10.64

PROP. S.R. 335

Ex. Twp. Rd. #824

PROP. CONN. Sta. 1099+54.5 = 10+00

PIK-335-20.68

15+10 End Work

ER-1563(2)

PROJECT END Sta. 110+00 S.L.M. = 20.99

FACT Sign

Br. No. PIK-335-2110

END WORK Sta. 110+00

PROP CURVE DATA

P.I. Sta. 1062+80.30
Δ = 55°46' Rt.
Dc = 7°00'
Ls = 300.00'
Ts = 585.34'
Es = 112.69'
Xc = 298.99'
Yc = 18.28'
Θs = 10.5

Δ = 34°46'
Dc = 7°
Lc = 496.67'
R = 818.51'

PROP BRIDGE DATA

PIK-335-2028
TYPE: Continuous welded girders with reinf. conc. deck & substructure.
SPANS: 112'-3 @ 140' = 112' ℄ brgs.
ROADWAY: 36'-0" ℄ ft conc. Parapets
LOADING: HS-20-44
SKEW: 20° L.F.
WEARING SURFACE: 1" Mono. Conc.
APPR. SLABS: AS-1-67 (25' long).
ALIGNMENT: Tangent.

PROP. CURVE DATA

P.I. Sta. 1087+31.10
Δ = 77°36' Lt.
Dc = 9°00'
Ls = 350.00'
Ts = 692.86'
Es = 190.58'
Xc = 347.36'
Yc = 31.90'
Θs = 15.75'

Δ = 46°06'
Dc = 9°00'
Lc = 512.22'
R = 636.62'

PROP. BRIDGE DATA

PIK-335-2068
TYPE: Composite prestressed box beam deck with capped pile abutments and piers.
SPANS: 13 @ 50' ℄ substructure units
ROADWAY: 36' ft guard rails.
LOADING: HS 20-44
SKEW: 45° L.F.
WEARING SURFACE: 1" Mono. Conc.
APPR. SLABS: AS-1-67 (25' long)
ALIGNMENT: Spiral to Tangent
SUPERELEVATION: Varies

TRAFFIC

Through traffic is detoured as shown on Sheet 1.
Local traffic shall be maintained as per the Specifications and paid for as Item 614, Maintaining Traffic.

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SCHEMATIC PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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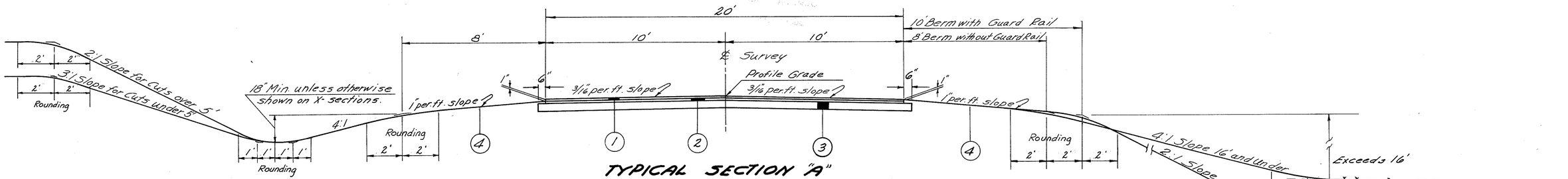
PIK-335-19.96

TYPICAL SECTIONS

TYPE 404 on 301

0 1 2 3 4

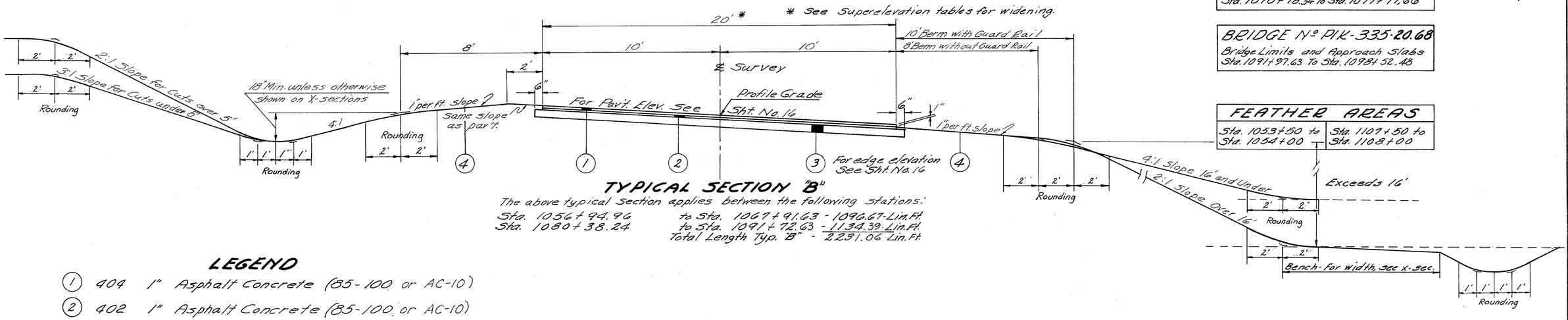


TYPICAL SECTION "A"

The above typical section applies between the following stations:

Sta. 1054+00	to Sta. 1056+94.96	- 294.96	Lin. Ft.
Sta. 1067+91.63	to Sta. 1070+78.34	- 286.71	Lin. Ft.
Sta. 1077+77.66	to Sta. 1080+38.24	- 260.58	Lin. Ft.
Sta. 1098+77.48	to Sta. 1107+50.00	- 872.52	Lin. Ft.
	Total Length Typ. "A"	- 1714.77	Lin. Ft.

* See Superelevation tables for widening.



TYPICAL SECTION "B"

The above typical section applies between the following stations:

Sta. 1056+94.96	to Sta. 1067+91.63	- 1096.67	Lin. Ft.
Sta. 1080+38.24	to Sta. 1091+72.63	- 1134.39	Lin. Ft.
	Total Length Typ. "B"	- 2231.06	Lin. Ft.

BRIDGE Nº PIK-335-20.28
Bridge Limits and Approach Slabs
Sta. 1070+78.34 To Sta. 1077+77.66

BRIDGE Nº PIK-335-20.68
Bridge Limits and Approach Slabs
Sta. 1091+97.63 To Sta. 1098+52.48

FEATHER AREAS

Sta. 1053+50 to Sta. 1054+00	Sta. 1107+50 to Sta. 1108+00

LEGEND

(1)	404	1"	Asphalt Concrete (85-100 or AC-10)
(2)	402	1"	Asphalt Concrete (85-100 or AC-10)
(3)	301	5"	Bituminous Aggregate Base- 702.01 (85-100 or AC-10) or 702.09 RT-11 or RT-12
(4)	659		Seeding and Mulching
(5)	404	2"	Asphalt Concrete (85-100 or AC-10) Place in 2-1" Courses.
(6)	304	5"	Aggregate Base
(7)	304	6"	Aggregate Base
(8)	304	8"	Aggregate Base
(9)	408		Bituminous Prime Coat 702.09 RT-2 or RT-3 applied @ 0.4 gal/SY
(10)	407		Tack Coat - 702.04 MS-2 or RS-1 or 702.02 RC-70 or RC-250.

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TYPICAL SECTIONS

TYPICAL DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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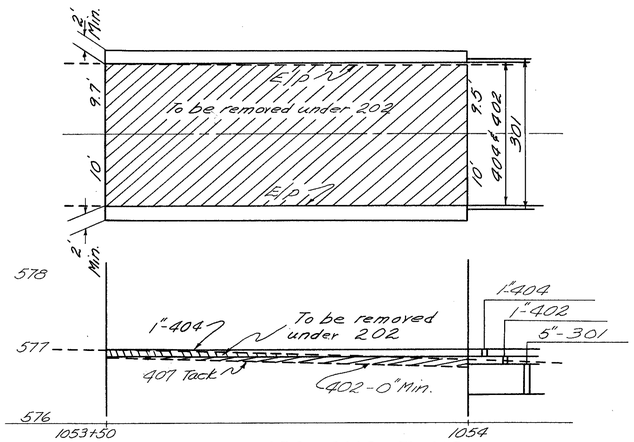
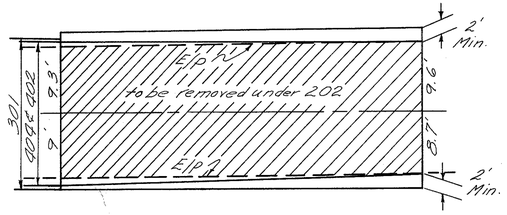
PIK-335-19.96

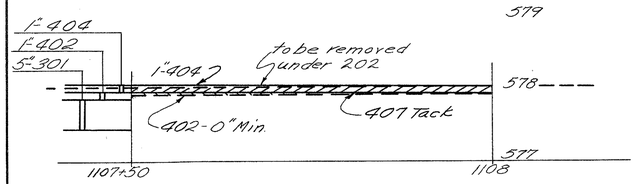


ESTIMATED QUANTITIES

404 & 402 Av. Width (19.7+20') ÷ 2 = 19.85'
202 Av. Width (19.7+19.5) ÷ 2 = 19.6'

404 - 19.85' x 50' x 1/9 = 110.27-S.Y.
402 - 19.85' x 50' x 1/9 x .70 Av. x 1/36 = 2.14-C.Y.
202 - 19.6' x 50' x 1/9 = 108.89-S.Y.
301 - 2' x 50' x 2 x 1/9 = 22.22-S.Y.
407 - 19.6' x 50' x 1/9 = 108.89-S.Y.





ESTIMATED QUANTITIES

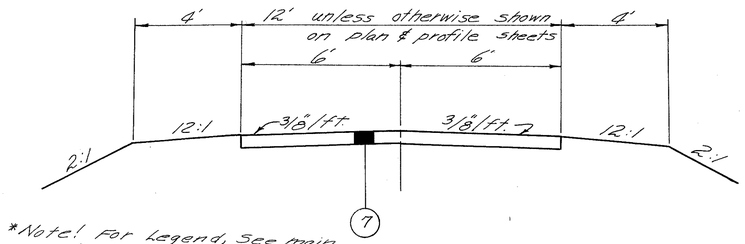
404 & 402 Av. Width (20'+18.3) ÷ 2 = 19.15'
202 Av. Width (18.3+18.3) ÷ 2 = 18.3'

404 - 19.15' x 50' x 1/9 = 106.39-S.Y.
402 - 19.15' x 50' x 1/9 x .105 Av. x 1/36 = .31-C.Y.
202 - 18.3 x 50' x 1/9 = 101.67-S.Y.
301 - 2' x 50' x 2 x 1/9 = 22.22-S.Y.
407 - 18.3' x 50' x 1/9 = 101.67-S.Y.

PROP. FEATHER AND TRANSITION AREA

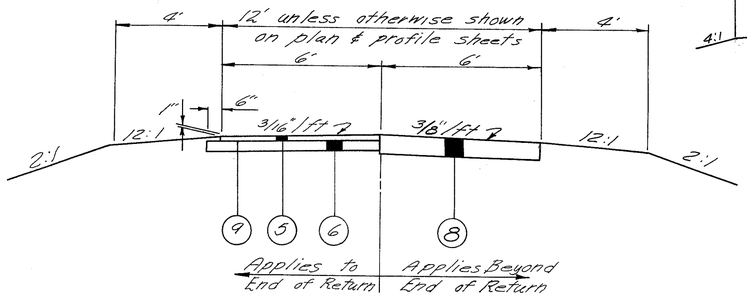
Hort. 0' 10' 20'
Vert. 0' 1' 2'

Calc. by JHS 3-24-69 Checked by JN 10-28-69



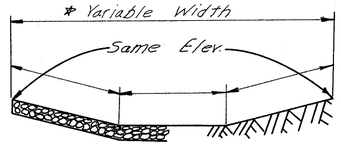
*Note! For Legend, See main typical on Sht. No. 3

TYPICAL SECTION FOR FIELD DRIVE



TYPICAL SECTION FOR RESIDENCE DRIVE

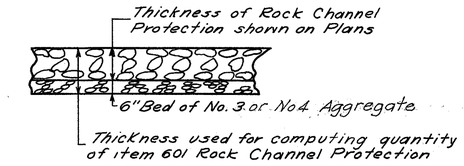
0 1 2 3 4



* The variable width marked throughout this plan shall be measured along the slope section of the ditch.

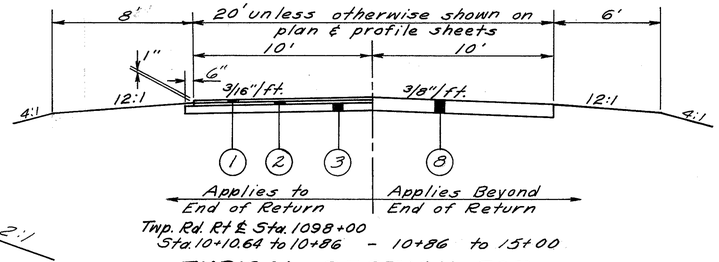
EROSION PROTECTION

Not to Scale



DETAIL OF ROCK CHANNEL PROTECTION

Not to Scale



Twp. Rd. Rt & Sta. 1098+00
Sta. 10+10.64 to 10+86 - 10+86 to 15+00

TYPICAL SECTION FOR TWP. RD.

0 1 2 3 4

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Rev. 7-16-70

TYPICAL DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

5/82

PIK-335-19.96

NOTES

FIELD OFFICE

The Contractor shall provide a minimum of 400 Sq. Ft. of floor space for the field office and, in addition to the requirements of Item 619, shall provide and maintain sanitary provisions as per 107.06. All the above is included in the lump sum price bid for Item 619, Field Office.

ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS

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

UNDERGROUND UTILITIES

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

ESTIMATED QUANTITIES

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

CONTRACTORS MAINTENANCE RESPONSIBILITY

On this project, the Contractor's responsibility for maintenance of the existing pavement per Item 614 shall be limited to those portions of the existing pavement lying within the proposed work limits.

FEDERAL AID CONSTRUCTION IDENTIFICATION SIGNS

The contractor shall furnish, erect, maintain and subsequently remove Federal Aid construction identification signs at each of the following approximate locations:

1. 1053+50
2. 1108+00

Sign details shall be as specified on Standard Drawing FACI-1, "Code N-54(1)-96(2) modified by deleting reference to "Your Highway Taxes At Work" and "Highway Trust Funds" and inserting in their respective positions "Your Highway Funds At Work and "Federal Emergency Relief Funds."

The signs shall be erected in accordance with Standard Drawing FACI-2. Additional requirements shall be in accordance with notes in the proposal.

REMOVAL OF TREES AND STUMPS

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

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

SIZES	No. TREES	No. STUMPS
18"	311	7
30"	26	9
48"		2
60"	2	

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.

MONUMENTS

Monuments shall be constructed in accordance with details shown on Standard Drawing MC-1. For Locations, see Sheet No. 76

AGRICULTURAL LIMING, AS PER PLAN

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

SEEDING

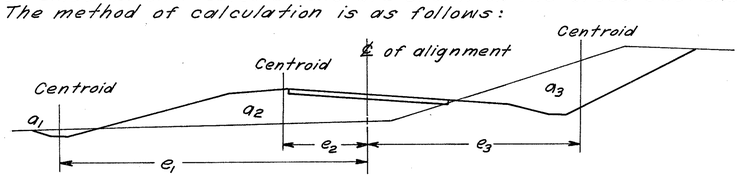
Quantities for seeding are calculated for the soil areas between the work limits, as shown on the cross sections.

CONSTRUCTION LAYOUT STAKES

See note in proposal describing the work included in this lump sum pay item.

COMPUTATION FOR EARTHWORK, CURVED ALIGNMENT

A correction to the earthwork quantities has been introduced in areas of curved alignment for excavation and/or embankment. Calculations are shown on the cross sections. The method of calculation is as follows:



A = total planimetered area of either excavation or embankment.
$a_1 \ldots a_n$ = planimetered area of a discrete area of excavation or embankment.
$e_1 \ldots e_n$ = distance of the centroid of a discrete area of excavation or embankment from the centerline of alignment (determined by inspection).
R = radius of alignment curve at the cross section.

$$\text{Corrected Area} = A + \frac{(\pm e_1)(a_1) + \ldots (\pm e_n)(a_n)}{R}$$

Separate calculations are made for the corrections to the excavation and embankment areas at each cross section. The algebraic sign of each 'e' is determined by the location of the centroid of its applicable area in relation to the centerline of alignment. Locations away from the center of curvature are positive, toward the center of curvature are negative.

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 TERMINAL SECTION

Where indicated on the plan, guard rail shall be terminated by using a terminal section. This shall consist of bolting a Standard Terminal as detailed on Standard Drawing GR-2A to the rail element at the last post. Also, the three end posts of each Terminal section shall be encased in a minimum 4-inch thickness of Class C concrete for the full depth of the post below the ground line. Payment for the Terminal section shall be included in the unit price bid for Item 606, Guard Rail Type 5.

PAVEMENT REMOVAL OUTSIDE NORMAL CONSTRUCTION LIMITS

After the existing pavement as indicated on the plans has been removed, the old roadway shall be graded to drain and the disturbed area shall be left in a neat condition ready for seeding. The existing ditches shall be left in place to existing culvert Sta. 1068+60±. Existing pipe culvert (twin 54"x33") to remain in place. The remaining roadway ditches to be filled and graded to drain. Seeding shall be measured and paid for in accordance with 659 Seeding and Mulching. Payment for all other work required shall be included in the unit price bid for 203 Excavation.

Quantities for this work have been estimated and carried to the General Summary as follows:

203 Excavation = 3200' x 20' x 1' x 1/27 =	2371 C.Y.
659 Seeding & Mulching = 3200' x 26' Av. x 1/9 =	9245 S.Y.

For Detail of above work, See Schematic Plan, Sheet No. 2.

CHANNEL EMBANKMENT

Portions of the existing channel shall be filled and sloped to drain as called for on the plans and included for payment in the price bid for Item 203 Embankment. The contractor shall use either suitable or unsuitable material to the extent available for channel embankments.

Areas where channel embankments are to be placed shall be cleared of weeds and brush but need not be scalped. The requirements for moisture, density control, benching and suitable materials shall be waived. The depth of layers in which the embankments are placed and their compaction shall, in lieu of the requirements of Item 203, conform with acceptable construction practices as determined by the Engineer.

No provisions of the specifications shall be waived for embankments which support any portion of the new pavement, berms, or structural members.

An estimated quantity of cubic yards has been provided in the plans for channel embankment.

SUPERELEVATION

Superelevated curves shall be built without crown. The crown shall be worked out of the pavement in the portion between the beginning of the transition and the point where the superelevation equals twice the crown.

TEMPORARY WATER POLLUTION, SOIL EROSION AND SILTATION CONTROL

The following estimated quantities are to be used as directed by the Engineer for temporary control measures. For details see the note in the Proposal.

Special, Temporary Seeding and Mulching	43,500 Sq. Yds
Special, Commercial Fertilizer (12-12-12)	1.96 Tons
Special, Water	21 M.Gals
Special, Temporary Slope Drains	500 Lin. Ft.
Special, Temporary Benches, dikes, dams & sediment basins	1150 Cu. Yds.

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PAVEMENT CALCULATIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

PIK-335-19.96

(6/82)

See Shf. No.	Location and Description	Side	404 Asphalt Concrete (85-100 or AC-10) 1" Sq. Yd.	404 2" Sq. Yd.	404 Var Cu. Yd.	402 Asphalt Concrete (85-100 or AC-10) 1" Sq. Yd.	402 Var. Cu. Yd.	301 Bituminous Aggregate Base 5" Sq. Yd.	304 Aggregate Base 5" Sq. Yd.	304 6" Sq. Yd.	304 8" Sq. Yd.	407 Bituminous Tack Coat applied @0.1 gal Sq. Yd.	408 Bituminous Prime Coat applied @ 0.4 gal/S.Y. Sq. Yd.	203 Subgrade Compaction Sq. Yd.	202 Wearing Course Removed Sq. Yd.	611 Reinforced Concrete Approach Slabs T=13" Sq. Yd.
3	Typical Section "A"															
	1714.77 x 20 x 1/9		3811.80			3811.80								3811.80		
	1714.77 x 21 x 1/9							4002.24								
3	Typical Section "B"															
	2231.06 x 20 x 1/9		4957.91			4957.91								4957.91		
	2231.06 x 21 x 1/9							5205.81								
16	Extra Widening															
	1056+92.96 - 1059+94.96	Rt.														
	300' x 1' Av. x 1/9		33.33			33.33		33.33						33.33		
	1059+94.96 - 1064+91.63	Rt.														
	496.67 x 2' x 1/9		110.37			110.37		110.37						110.37		
	1064+91.63 - 1067+91.63	Rt.														
	300' x 1' Av. x 1/9		33.33			33.33		33.33						33.33		
	1080+38.24 - 1083+88.24	Lt.														
	350' x 2' Av. x 1/9		77.78			77.78		77.78						77.78		
	1083+88.24 - 1089+00.46	Lt.														
	512.22 x 4' x 1/9		227.65			227.65		227.65						227.65		
	1089+00.46 - 1092+50.46	Lt.														
	350' x 2' Av. x 1/9		77.78			77.78		77.78						77.78		
	Feather Areas															
	1053+50 to 1054+00	℄	110.27				2.14	22.22				108.89			108.89	
	1107+50 to 1108+00	℄	106.39				.31	22.22				101.67			101.67	
	Drives & Approaches															
10				173.8					186.9	140.7			186.9			
14				100.8					109.5	88.6	13.6		109.5			
42			324.44			324.44		335.44			907.14			324.44		
	Approach Slabs															
	1070+78.31 - 1071+03.31	℄												55.55		55.55
	1077+52.66 - 1077+77.66	℄												55.55		55.55
	1091+72.63 - 1091+97.63	℄												57.64		57.64
	1098+52.48 - 1098+77.48	℄												55.55		55.55
	Sub-Totals		9871.05	274.6		9654.39	2.45	10148.17	296.4	229.30	925.74	210.56	296.4	9878.68	210.56	224.29
	Conv. to C.Y. Gal. Etc.		274.20	15.26		268.18	2.45	1409.47	41.17	38.22	205.72	21.06	118.56			
	Totals			289.46		270.63		1409.47		285.11				9878.68	210.56	224.29
	Use			290.		271.		1410.		286.		22.	119.	9879	211.	225.

Calc. by JH 3-26-69

Checked by JN 10-29-69

Rev. 12-16-70

GENERAL QUANTITIES CALCULATIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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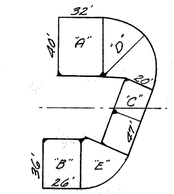
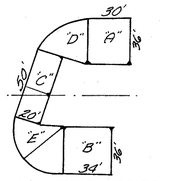
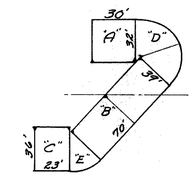
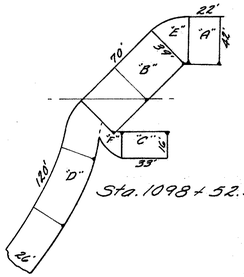
PIK-335-19.96

Sht. No.	Ref. No.	Item	Thickness	Calculations
10	DR-1	304	6"	70.0 + 70.7 = 140.7 - S.Y. (Chart)
	DR-2	404	2"	70.0 + 103.8 = 173.8 - S.Y. (Chart)
		304	5"	74.5 + 112.4 = 186.9 - S.Y. "
		408		186.9 - S.Y. "
42	C-1	404	1"	730 x 4 x 1/9 = 324.44 - S.Y. (Planimeter)
		402	1"	730 x 4 x 1/9 = 324.44 - S.Y. "
		301	5"	198' x 1' x 1/9 = 22.00 - S.Y. ÷ 2 = 11.00 - S.Y. 324.44 - S.Y. Total - 335.44 - S.Y.
		304	8"	375.43 x 20' x 1/9 = 834.29 - S.Y. 38.57 x 17' Av. x 1/9 = 72.85 - S.Y. Total = 907.14 - S.Y.
14	DR-1	304	6"	70.0 + 18.6 = 88.6 - S.Y. (Chart)
	DR-2	404	2"	70.0 70.0 - S.Y. "
		304	5"	74.5 74.5 - S.Y. "
		304	8"	14' x 12' x 1/9 = 18.6 - S.Y. "
		408		74.5 - S.Y. "
	DR-3	404	2"	30.8 = 30.8 - S.Y. "
		304	5"	35.0 = 35.0 - S.Y. "
		408		35.0 = 35.0 - S.Y. "

Sht. No.	Ref. No.	Item	Thickness	Calculations
11	D-1	601	3'	 Sta. 1071+03.61 "A" 32'x40'x3.5'x 1/27 = 165.93-C.Y. "B" 26'x36'x3.5'x 1/27 = 121.33-C.Y. "C" 20'x47'x3.5'x 1/27 = 121.85-C.Y. "D" πr²=40' = 5026.5÷4 = 1256.62 x 3.5'x 1/27 = 162.90-C.Y. "E" πr²=36' = 4071.5÷4 = 1017.878 x 3.5'x 1/27 = 131.95-C.Y. Total = 703.96-C.Y.
11	D-2	601	3'	 Sta. 1077+52.39 "A" 30'x36'x3.5'x 1/27 = 140.00-C.Y. "B" 34'x36'x3.5'x 1/27 = 158.67-C.Y. "C" 20'x50'x3.5'x 1/27 = 129.63-C.Y. "D" πr²=36' =4071.5÷4 1017.878 x 3.5'x 1/27 = 131.95-C.Y. "E" πr²=36' = 4071.5÷4 1017.878x 3.5 x 1/27 = 131.95-C.Y. Total = 692.20-C.Y.
13	D-1	601	3'	 Sta. 1091+97.41 "A" 30'x32'x3.5'x 1/27 = 124.44-C.Y. "B" 39'x70'x3.5'x 1/27 = 353.89-C.Y. "C" 36'x23'x3.5'x 1/27 = 107.33-C.Y. "D" πr²=39' = 4778.4÷8 x3x3.5'x 1/27 = 232.28-C.Y. "E" πr²=36' = 4071.5÷8 x3.5'x 1/27 = 65.97-C.Y. Total = 883.91-C.Y. Use - 884.
13	D-2	601	3'	 Sta. 1098+52.59 "A" 22'x42'x3.5'x 1/27 = 119.78-C.Y. "B" 70'x39'x3.5'x 1/27 = 353.89-C.Y. "C" 33'x16'x3.5'x 1/27 = 68.44-C.Y. "D" 26'x120'x3.5'x 1/27 = 404.44-C.Y. "E" πr²=42' 5541.8÷8 692.73 x 3.5'x 1/27 = 89.80-C.Y. "F" πr²=16' 804.25÷4 201.06 x 3.5'x 1/27 = 26.06-C.Y. Total = 1062.41-C.Y. Use - 1063.

Calc. by JHS 7-18-69
Checked by [illegible] 11-10-69

Approach Slabs
20' x 25' x 1/9 = 55.55 - S.Y.
20' x 25' x 1/9 = 55.55 - S.Y.

20.75' Av. x 25' x 1/9 = 57.64 - S.Y. (in curve widening)
20' x 25' x 1/9 = 55.55 - S.Y.

COMMERCIAL FERTILIZER
Rd'wy - (83363) x 9 x 20/1000 x 1/2000 = 7.50 - Ton.
Channel - (3752) x 9 x 20/1000 x 1/2000 = .38 Ton

AGRICULTURAL LIMING
Rd'wy. - (83363) x 9 x 100/1000 x 1/2000 = 37.50 - Ton
Channel - (3752) x 9 x 100/1000 x 1/2000 = 1.90 - Ton

Totals Carried to General Summary:
Commercial Fertilizer Item 659 7.88 Ton
Agricultural Liming " 659 39.40 Ton

Calc. by JHS 7-15-69
Checked by JAN 10-29-69
Rev 12-16-70

GENERAL SUMMARY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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PIK-335-19.96

Construction Type Code - 6203 except as noted.

ITEM	SHEET NUMBER 4or5	6	7	9	10	11	12	13	14			45	46		66		R/W				
201	Lump																				
202															28						
202		211																			
202															Lump						
203	2371			1029	9838	3198	3308	3705	939				51		263981						
203				335	17468	21146	41529	20316	5711												
203		9879																			
604																	16				
606						944.5	2020.5	603.30	197												
606						4															
606								4													
606					1	1			1												
601												3	5								
601						1396		1947							10238						
659	9245			3661	19245	10709	15899	19350	5254						3752						
659			7.88																		
659			39.40																		
Special	43,500																				
Special	1.96																				
Special	21																				
Special	500																				
Special	150																				
602												.85	.85								
603					102																
603												102	98								
603																					
301		1410																			
304		286																			
402		271																			
404		290																			
407		22																			
408		119																			
611		225																			
	Lump																				
619	Lump																				
614	Lump																				

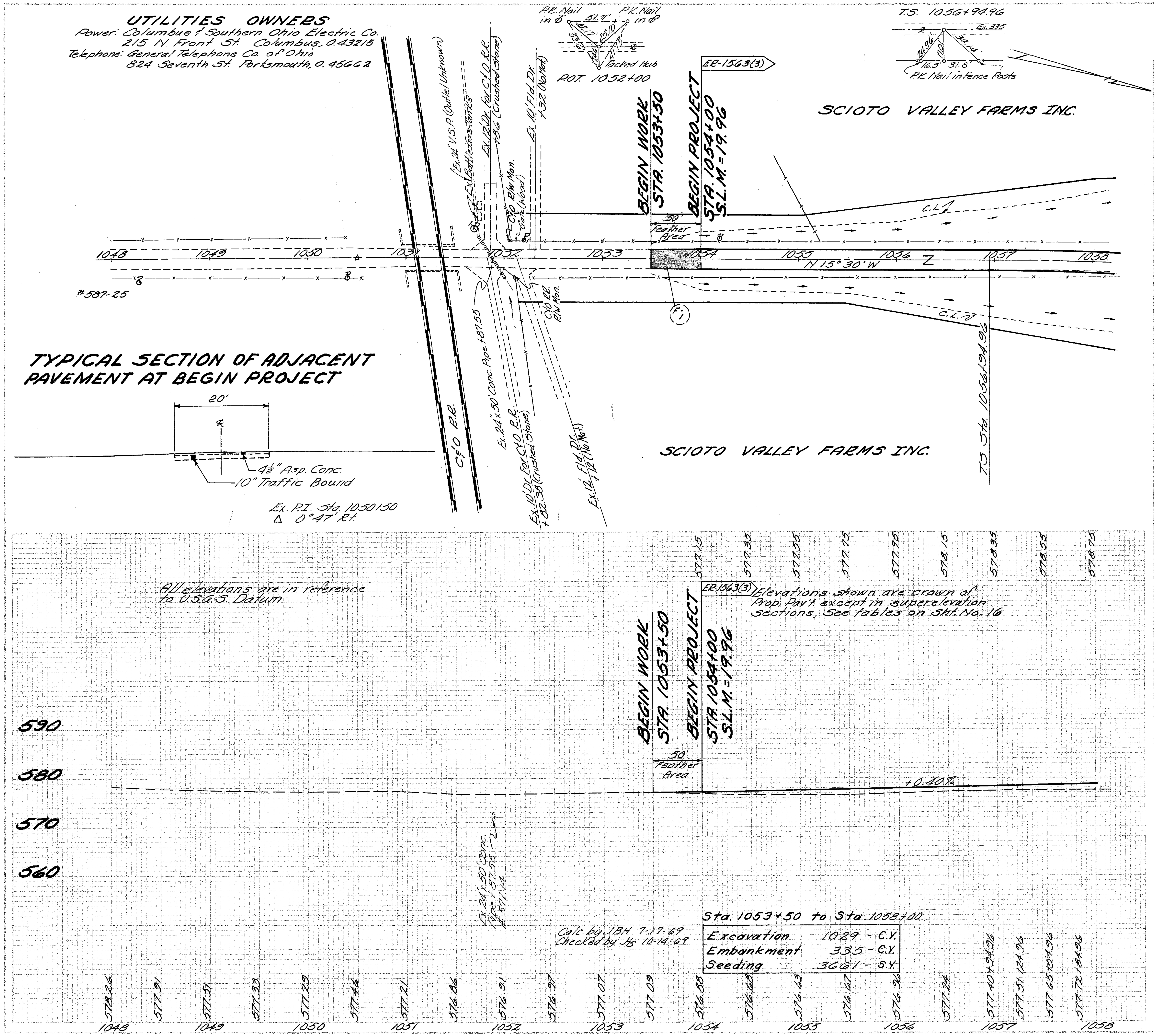
ITEM	QUANT.	UNIT	DESCRIPTION
			ROADWAY
201	Lump	Lump	Clearing & Grubbing
202	28	Sq.Yd.	Pavement Removed
202	211	Sq.Yd.	Wearing Course Removed
202	Lump	Lump	Structures Removed.
203	288,420	Cu.Yd.	Excavation not Including Embankment Construction.
203	106,505	Cu.Yd.	Embankment
203	9879	Sq.Yd.	Subgrade Compaction
604	16	Each	Centerline Reference Monument
606	3765.30	Lin.Ft.	Guard Rail, Type 5
606	4	Each	Bridge Terminal Assembly, Type A
606	4	Each	Bridge Terminal Assembly, Type B
606	3	Each	Anchor Assembly
			EROSION CONTROL **TYPE CODE - Y005**
601	8	Cu.Yd.	Rock Channel Protection, Type B
601	13,581	Cu.Yd.	Rock Channel Protection, Type A
659	87115	Sq.Yd.	Seeding & Mulching
659	7.88	Ton	Commerical Fertilizer (12-12-12)
659	39.40	Ton	Agricultural Liming
Special	43,500	Sq.Yd.	Temporary Seeding and Mulching
Special	1.96	Ton	Commercial Fertilizer (12-12-12)
Special	21	M.Gal.	Water
Special	500	Lin.Ft.	Temporary Slope Drains
Special	150	Cu.Yds	Temporary Benches, Dikes, Dams and Sediment Basins.
			DRAINAGE
602	1.7	Cu.Yd.	Concrete Masonry
603	102	Lin.Ft.	12" Conduit Type - D
603	200	Lin.Ft.	24" Conduit Type - A 706.02 or 706.08
			PAVEMENT
301	1410	Cu.Yd.	Bituminous Aggregate Base 702.01 (85-100, or AC-10) or 702.09 RT-11 or RT-12)
304	286	Cu.Yd.	Aggregate Base
402	271	Cu.Yd.	Asphalt Concrete (85-100 or AC-10)
404	290	Cu.Yd.	Asphalt Concrete (85-100 or AC-10)
407	22	Gal.	Tack Coat 702.04 MS-2 or ES-1 or 702.02 RC-70 or RC-250
408	119	Gal.	Bituminous Prime Coat 702.09 RT-2 or RT-3.
611	225	Sq.Yd.	Reinforced Concrete Approach Slabs (7-13")
			STRUCTURES OVER 20' SPAN
			Quant. for Br. Nº PIK-335-2028, See Sheet No. 48
			Quant. for Br. Nº PIK-335-2064, See Sheet No. 57
	Lump	Lump	Construction Layout Stakes.
619	Lump	Lump	Field Office
614	Lump	Lump	Maintaining Traffic.

Rev. 12-16-70
Rev. 7-16-70

UTILITIES OWNERS

Power: Columbus & Southern Ohio Electric Co.
215 N. Front St. Columbus, O. 43215

Telephone: General Telephone Co. of Ohio
824 Seventh St. Portsmouth, O. 45662


P.K. Nail in ℄
P.K. Nail in ℄
Tacked Hub
P.O.T. 1052+00
T.S. 1056+94.96
P.K. Nail in Fence Posts
ER-1563(3)
BEGIN WORK STA. 1053+50
BEGIN PROJECT STA. 1054+00 SL.M.=19.96
30' Feather Area
SCIOTO VALLEY FARMS INC.
C.L.
N 15° 30' W
#587-25
Ex. 24" V.S.P. (Outlet Unknown)
Ex. Buttress Farms
Ex. 12' Dr. For C & O R.R. +86 (Crushed Stone)
Ex. 10' Fld. Dr. +32 (No Mat.)
C & O R/W Mon.
C & O R/W Mon.
Ex. 24" x 50' Conc. Pipe +87.55
C & O R.R.
Ex. 10' Dr. For C & O R.R. +82.38 (Crushed Stone)
Ex. 12' Fld. Dr. +12 (No Mat.)
T.S. Sta. 1056+94.96
F-1
TYPICAL SECTION OF ADJACENT PAVEMENT AT BEGIN PROJECT
20'
4½" Asp. Conc.
10" Traffic Bound
Ex. P.I. Sta. 1050+50 Δ 0°47' Rt.
All elevations are in reference to U.S.G.S. Datum.
Elevations shown are crown of Prop. Pav't. except in superelevation sections, See tables on Sht. No. 16
50' Feather Area
+0.40%
590
580
570
560
Ex. 24" x 50' Conc. Pipe +87.55 FL 571.14
Calc. by JBH 7-17-69
Checked by JS 10-14-69
1048
1049
1050
1051
1052
1053
1054
1055
1056
1057
1058

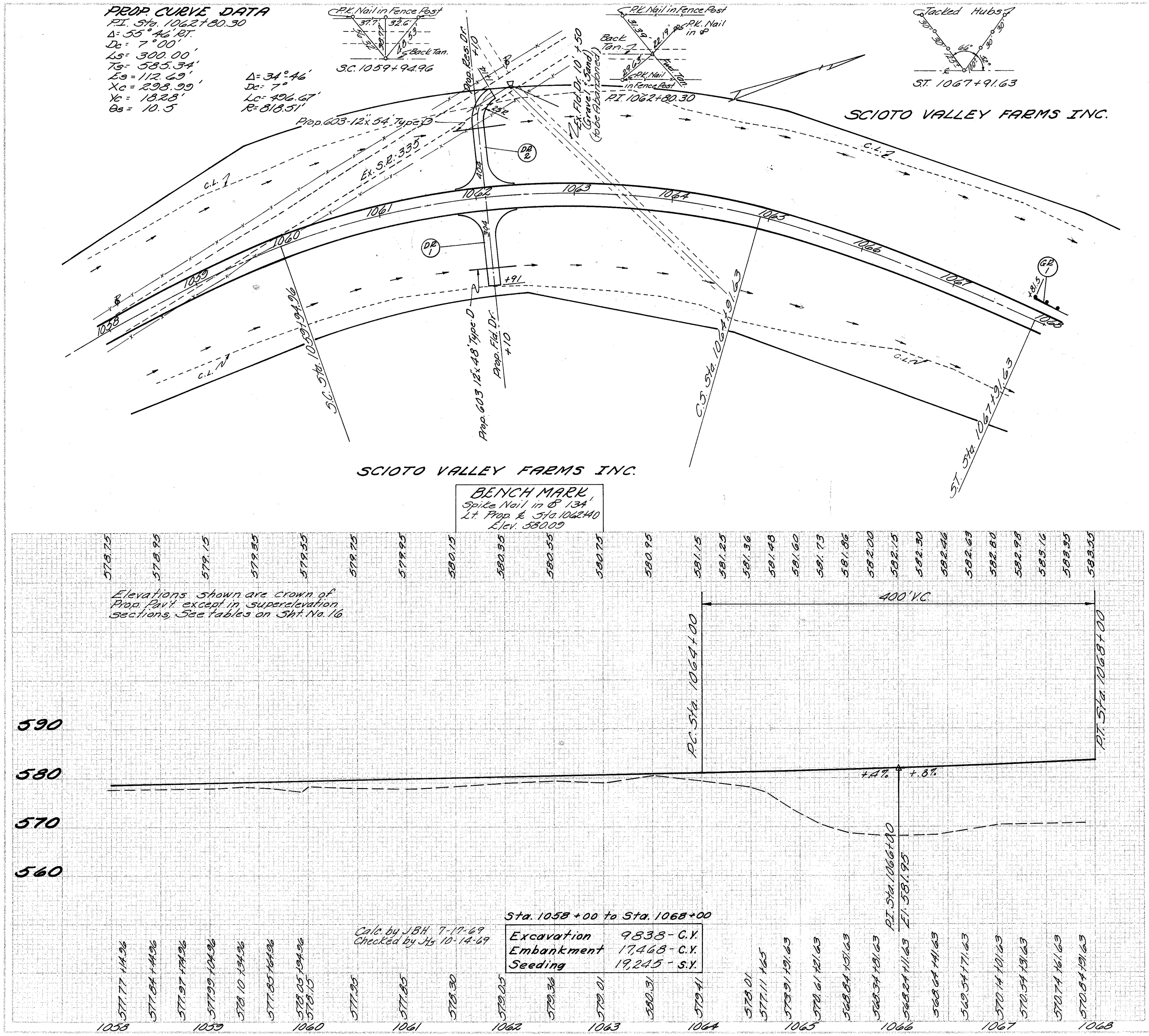
Sta. 1053+50 to Sta. 1058+00

Excavation	1029	C.Y.
Embankment	335	C.Y.
Seeding	3661	S.Y.

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	See Sht. No.	
F-1	1053+50-1054+00	℄	4	For Details and Estimated Quantities

Fed. Rd. Division	State	Project	
2	OHIO		10 / 82


PROP. CURVE DATA
P.I. Sta. 1062+80.30
Δ= 55°46' RT.
Dc= 7°00'
Ls= 300.00'
Ts= 585.34'
Ls= 112.69'
Xc= 298.99'
Yc= 18.28'
θs= 10.5
Δ= 34°46'
Dc= 7°
Lc= 496.67'
R= 818.51'
P.K. Nail in Fence Post
Back Tan.
S.C. 1059+94.96
P.K. Nail in ℄
P.I. 1062+80.30
Tacked Hubs
S.T. 1067+91.63
SCIOTO VALLEY FARMS INC.
Prop. Res. Dr. +10
Ex. Fld. Dr. 10+50 (Gravel & Sand) (to be Abandoned)
Prop. 603-12"x54' Type D
Ex. S.R. 335
C.L. Z
C.L. N
S.C. Sta. 1059+94.96
C.S. Sta. 1064+91.63
S.T. Sta. 1067+91.63
Prop. 603 12"x48' Type D
Prop. Fld. Dr. +10
SCIOTO VALLEY FARMS INC.
BENCH MARK
Spike Nail in ℄ 13A' Lt. Prop. ℄ Sta. 1062+40
Elev. 580.09
Elevations shown are crown of Prop. Pav't. except in superelevation sections, See tables on Sht. No. 16
400' V.C.
P.C. Sta. 1064+00
P.T. Sta. 1068+00
P.I. Sta. 1066+00
El. 581.95
+.4% +.8%
590
580
570
560
Calc. by JBH 7-17-69
Checked by HS 10-14-69
Sta. 1058+00 to Sta. 1068+00
Excavation 9838 - C.Y.
Embankment 17,468 - C.Y.
Seeding 19,245 - S.Y.
1058 1059 1060 1061 1062 1063 1064 1065 1066 1067 1068

ESTIMATED QUANTITIES

Ref. No.	Station to Station	Side	See Sht. No.	404 Asph. Conc. 2" (Sq. Yd.)	408 Bit. Prime Coat (Sq. Yd.)	606 Anchor Assembly (Each)	304 Aggregate Base 5" 6" (Sq. Yd.)	603 Conduit Type D 12" (Lin. Ft.)
DR.1	1062+10 Fld. Dr.	Rt.						48
DR.2	1062+10 Res. Dr.	Lt.						54
GR.1	1067+81.5-1068+00	Lt.				1		
				*173.8	*186.9	1	*186.9 140.7	102

*Quantities carried to Pav't. Calc. Sht. See Sht. No. 8

Calc. by HS 3-20-69
Checked by JN 10-29-69

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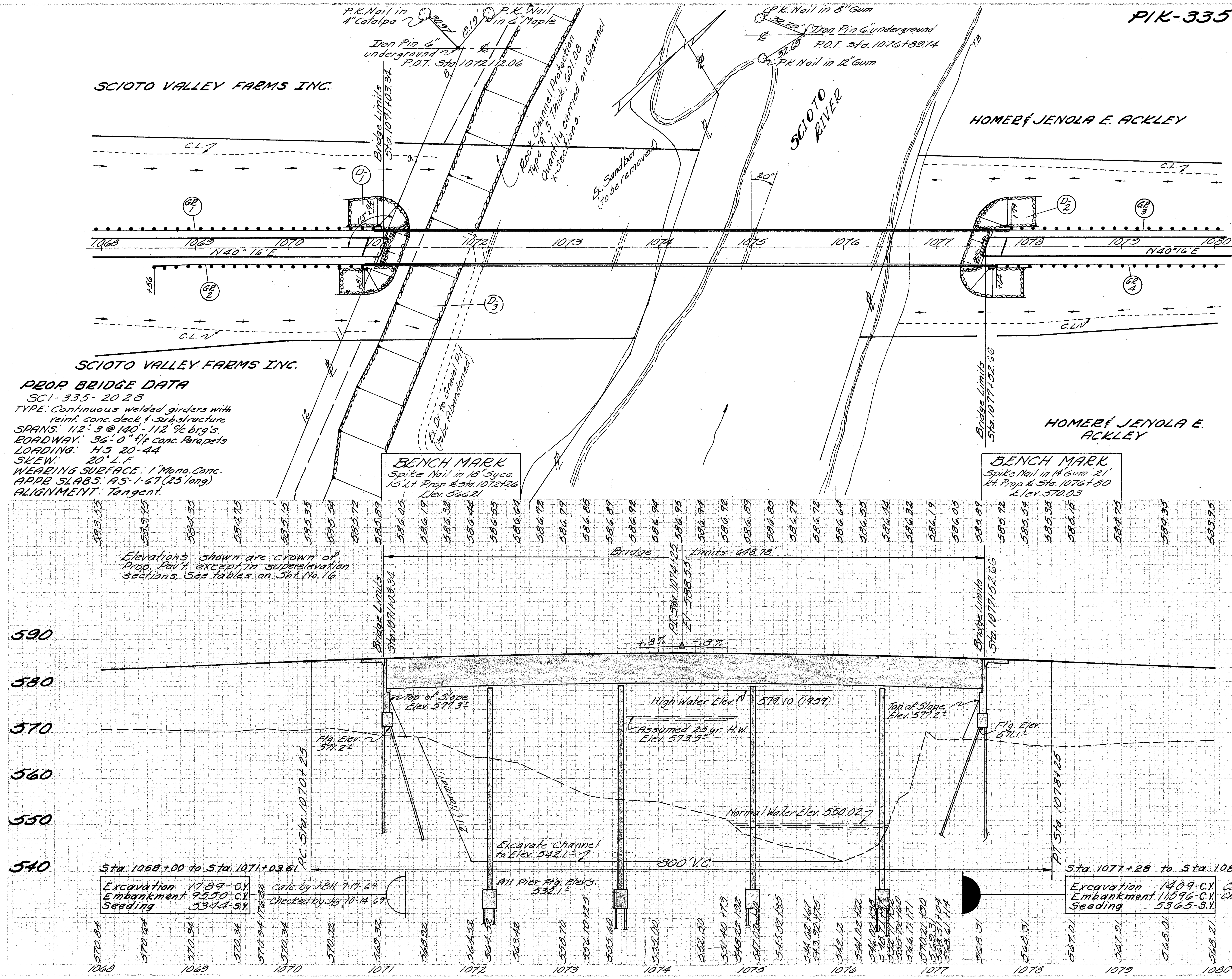
PIK-335-19.96

11
82



P.K. Nail in 4" Catalpa
P.K. Nail in 6" Maple
Iron Pin 6" underground P.O.T. Sta. 1072+12.06
P.K. Nail in 8" Gum
Iron Pin 6" underground P.O.T. Sta. 1076+89.74
P.K. Nail in 12" Gum
SCIOTO VALLEY FARMS INC.
Bridge Limits Sta. 1071+03.34
Rock Channel Protection Type "A" 3' thick, 601.08 Quantity carried on Channel X-Sections.
Ex. Sandbar (to be removed)
SCIOTO RIVER
20°
HOMER & JENOLA E. ACKLEY
C.L.
N40°16'E
Ex. Dr. to Gravel Pit (to be Abandoned)
Bridge Limits Sta. 1077+52.66
PROP. BRIDGE DATA
SCI-335-2028
TYPE: Continuous welded girders with reinf. conc. deck & substructure
SPANS: 112'-3 @ 140'-112 c/c brg's.
ROADWAY: 36'-0" f/f conc. Parapets
LOADING: HS 20-44
SKEW: 20° L.F.
WEARING SURFACE: 1" Mono. Conc.
APPR. SLABS: AS-1-67 (25' long)
ALIGNMENT: Tangent.
BENCH MARK
Spike Nail in 18" Syca. 15' Lt. Prop. & Sta. 1072+26 Elev. 566.21
BENCH MARK
Spike Nail in 14" Gum 21' Rt. Prop. & Sta. 1076+80 Elev. 570.03
Elevations shown are crown of Prop. Pav't. except in superelevation sections. See tables on Sht. No. 16
Bridge Limits - 648.78'
P.I. Sta. 1074+25 El. 588.55
+.8% -.8%
Top of Slope Elev. 571.3±
Ftg. Elev. 571.2±
High Water Elev. 579.10 (1959)
Assumed 25 yr. H.W. Elev. 573.5±
Top of Slope Elev. 571.2±
Ftg. Elev. 571.1±
2:1 (Normal)
Normal Water Elev. 550.02
Excavate Channel to Elev. 542.1±
800' V.C.
P.C. Sta. 1070+25
P.T. Sta. 1078+25
All Pier Ftg. Elev's. 532.1±
Sta. 1068+00 to Sta. 1071+03.61
Excavation 1789-C.Y.
Embankment 9550-C.Y.
Seeding 5344-S.Y.
Calc. by JBH 7-17-69
Checked by JG 10-14-69
Sta. 1077+28 to Sta. 1080+00
Excavation 1409-C.Y.
Embankment 11,596-C.Y.
Seeding 5365-S.Y.
Calc. by JBH 7-17-69
Checked by JG 10-14-69
590
580
570
560
550
540
1068
1069
1070
1071
1072
1073
1074
1075
1076
1077
1078
1079
1080

ESTIMATED QUANTITIES

Ref. No.	Station to Station	Side	See Sht. No.	606 Guard Rail Type 5 Lin. Ft.	606 Anchor Assembly Each	606 Bridge Term. Assem. Type A Each	601 Rock Channel Protection Type A Cu. Yd.				
GR-1	1068+00 - 1070+94	Lt.		287.5		1					
GR-2	1068+56 - 1070+81	Rt.		200	1	1					
GR-3	1077+79 - 1080+00	Lt.		221		1					
GR-4	1077+64 - 1080+00	Rt.		236		1					
D-1	1071+03.34	Rt. & Lt.					703.96				
D-2	1077+52.66	Rt. & Lt.					692.20				
D-3	Main Channel			For Quantities See Channel X-Section							
							1396.16				
	Totals		.	944.5	1	4	1396.				

Calc. by JG 3-20-69
Checked by JW 10-29-69

Rev. 12-16-70

STA. 1068+00 TO STA. 1080+00

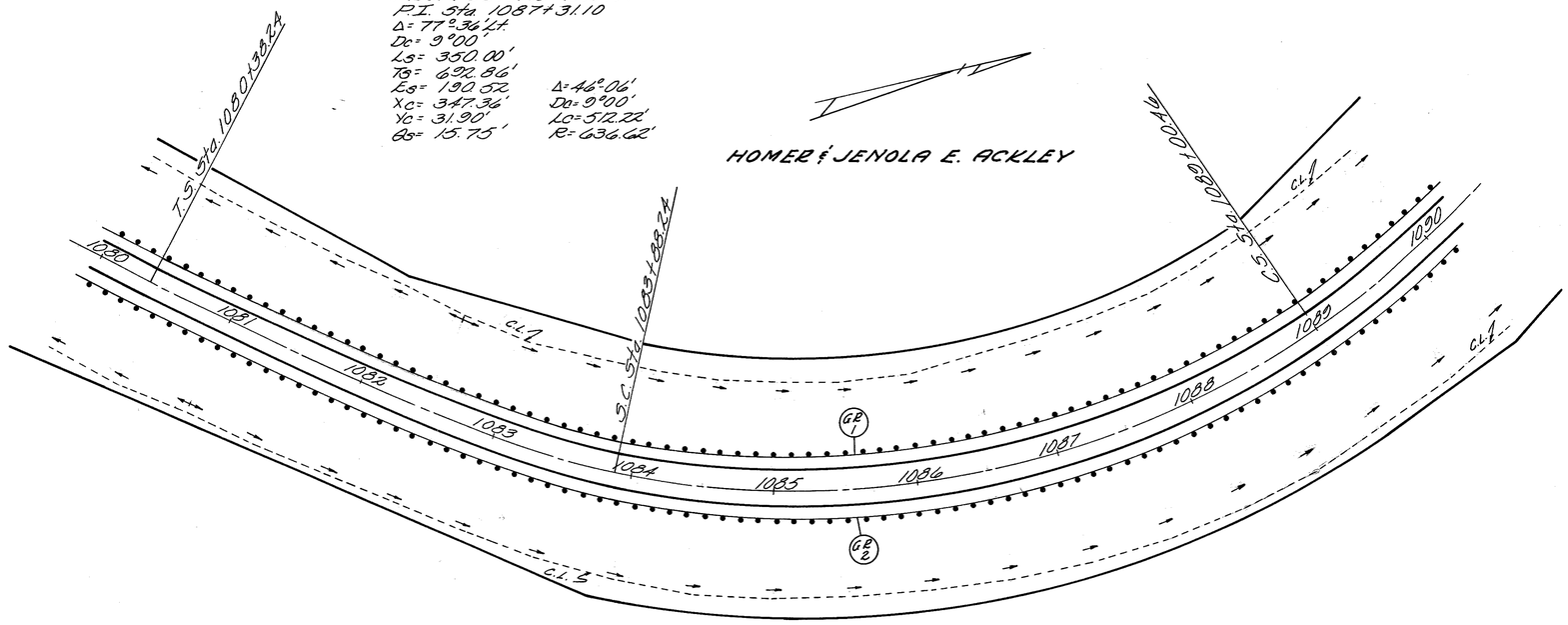
PIK-335-19.96

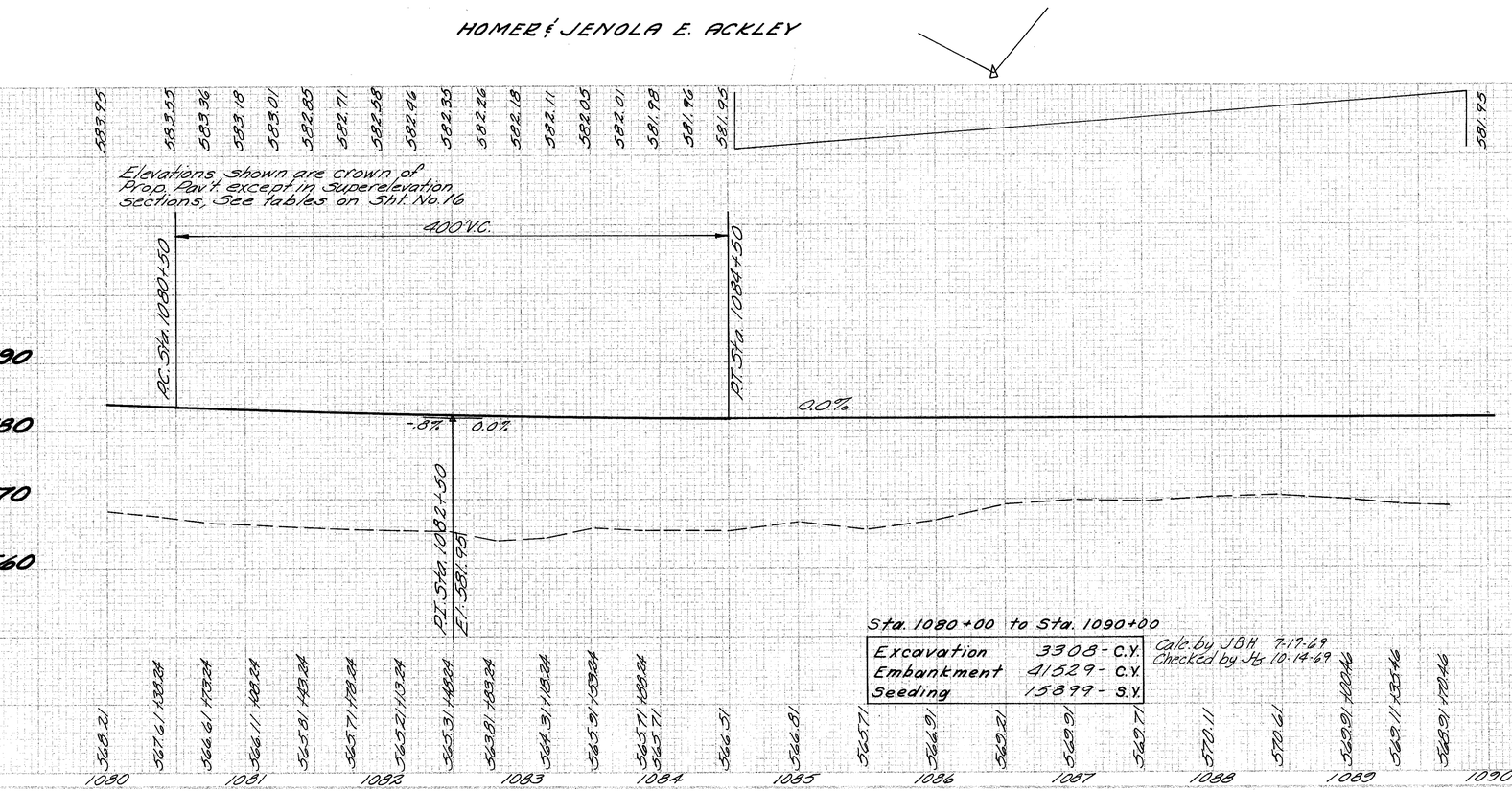
FED. RD. DIVISION	STATE	PROJECT		12 82
2	OHIO			

PROP. CURVE DATA

P.I. Sta 1087+31.10
Δ = 77°-36' Lt.
Dc = 9°00'
Ls = 350.00'
Ts = 692.86'
Es = 190.52'
Xc = 347.36'
Yc = 31.90'
Bs = 15.75'

Δ = 46°-06'
Dc = 9°00'
Lc = 512.22'
R = 636.62'





Sta. 1080+00 to Sta. 1090+00

Excavation	3308 - C.Y.
Embankment	41529 - C.Y.
Seeding	15899 - S.Y.

Calc. by JBH 7-17-69
Checked by HS 10-14-69

Calc. by HS 3-10-69
Checked by MW 10-28-69

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	See Sht. No.	606 Guard Rail Type 5 Lin. Ft.
GR1	1080+00 - 1090+00	Lt.		980
GR2	1080+00 - 1090+00	Rt.		1040.5

2020.5

STA. 1080+00 TO STA. 1090+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

PROP. BRIDGE DATA

SCI-335-20.68
TYPE: Composite prestressed box beam deck with capped pile abutments and piers.
SPANS: 13 @ 50' c/c substructure units
ROADWAY: 36' f/f guard rails
LOADING: HS-20-44
SKEW: 45° L.F.
WEARING SURFACE: 1" Mono. Conc.
APPR. SLABS: AS-1-67 (25' long)
ALIGNMENT: Spiral to Tangent
SUPERELEVATION: Varies

Elevations shown are crown of Prop. Pav't. except in superelevation sections, See tables on Sht. No. 16

Sta. 1090+00 to Sta. 1100+00

Excavation	3705 - C.Y.
Embankment	20316 - C.Y.
Seeding	19,350 - S.Y.

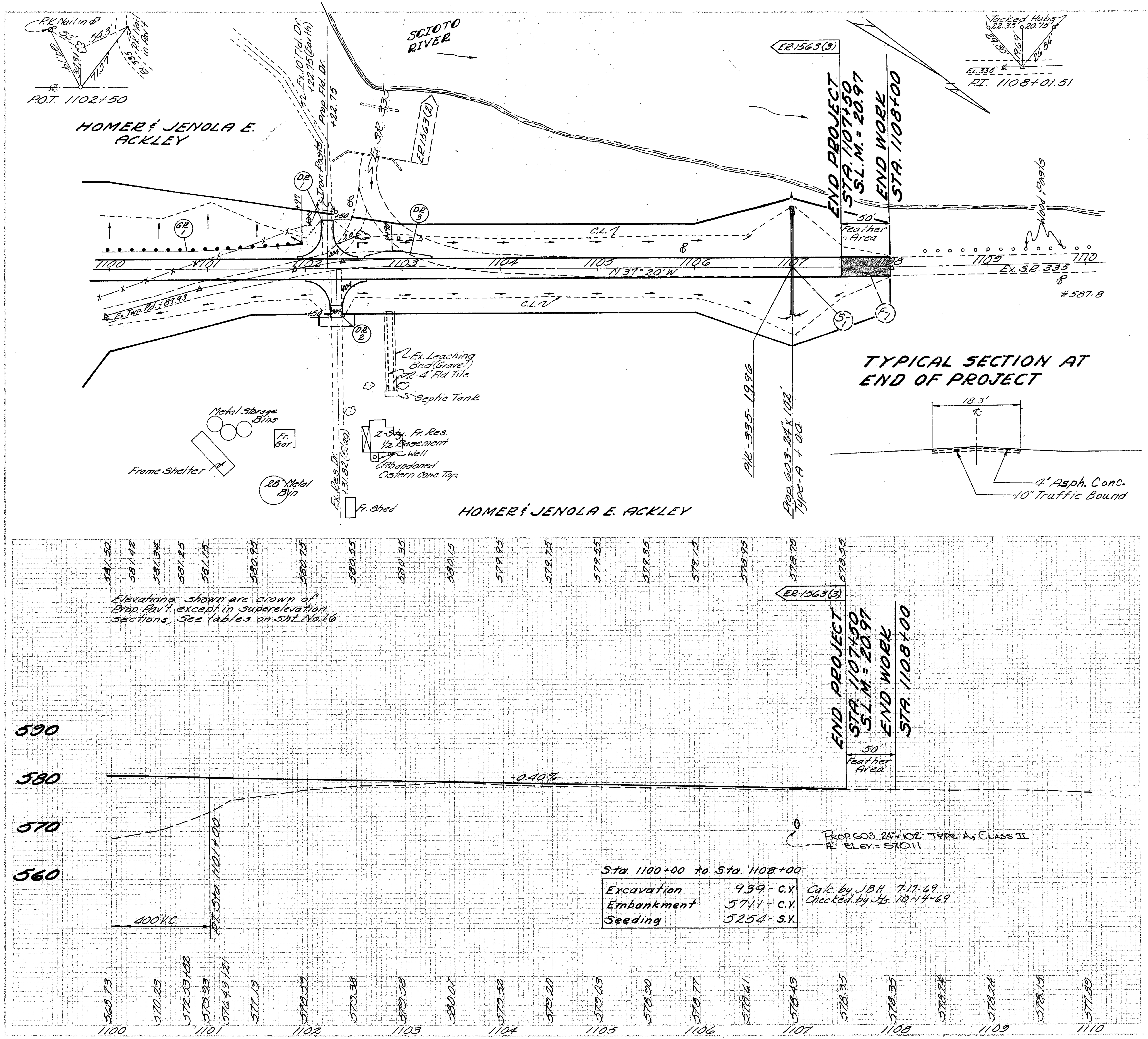
Calc. by J.B.H. 7-17-69
Checked by Jb 10-14-69

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	See Sht. No.	606 Guard Rail Type 5 Lin. Ft.	601 Rock Channel Protection Type A-3 Cu. Yd.	606 Bridge Term. Assem. Type B Each
GR-1	1090+00-1100+00	Lt.		1000.		2
GR-2	1090+00-1098+38	Rt.		838.		1
GR-3	1098+38-10+56 Conn.	Rt.		75.0		1
	Deduct for Bridge	R&L		-1309.70		
C-1	1099+54.5 Twp. Rd.	Rt.	42	For Details and Estimated Quantities		
S-2	1099+54.5-Conn.	Rt.	46	For Details and Estimated Quantities		
D-1	1091+97.41	L&R	7		884.	
D-2	1098+52.59	L&R	7		1063.	
				603.30	1947.	4

Calc. by Jb 3-20-69
Checked by AN 10-29-69

STA. 1090+00 TO STA. 1100+00 Rev. 12-16-70



Calc. by HS 3-20-69
Checked by JW 10-27-69

ESTIMATED QUANTITIES

Ref. No.	Station to Station	Side	See Sht. No.	606 Guard Rail Type 5 (Lin. Ft.)	606 Anchor Assembly (Each)	404 Asph. Conc. 2" (Sq. Yd.)	408 Bit. Prime Coat (Sq. Yd.)	304 Aggregate Base 5" (Sq. Yd.)	304 Aggregate Base 6" (Sq. Yd.)	304 Aggregate Base 8" (Sq. Yd.)
GR-1	1100+00-1101+97	Lt.		172	1					
DR-1	1102+22.75 Fld. Dr.	Lt.							88.6	
DR-2	1102+31.82 Res. Dr.	Rt.				70.0	74.5	74.5		18.6
DR-3	1102+90 MB Turnout	Lt.				30.8	35.0	35.0		
S-1	1107+00	℄	45	For Estimated Quantities						
F-1	1107+50-1108+00	℄	4	For Estimated Quantities						
				172.	1	+100.8	+109.5	+109.5	+88.6	+18.6

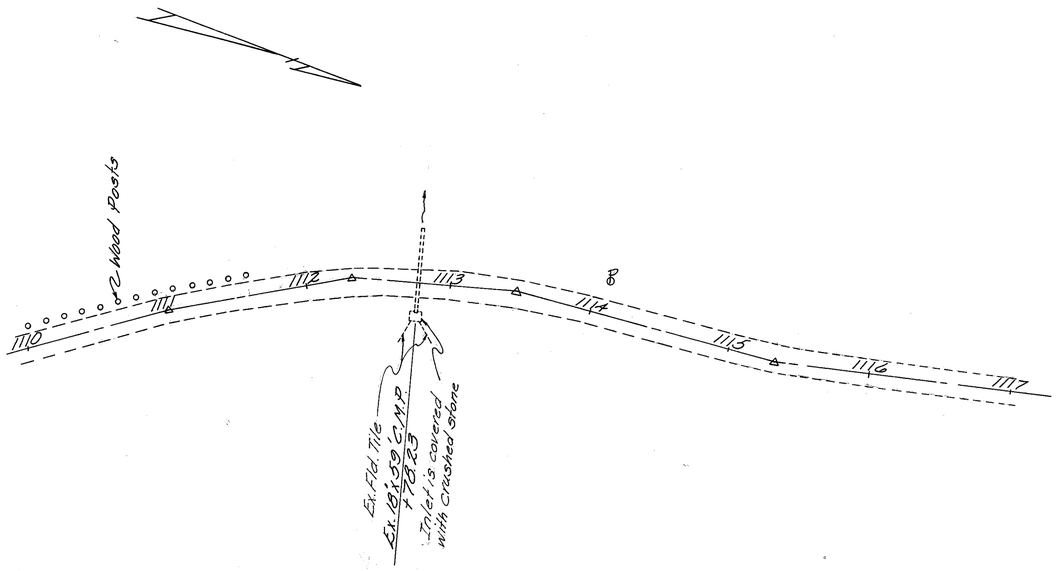
+Quantities carried to Pav't. Calc. Sht. See Sht. No. 6

Rev. 12-16-70

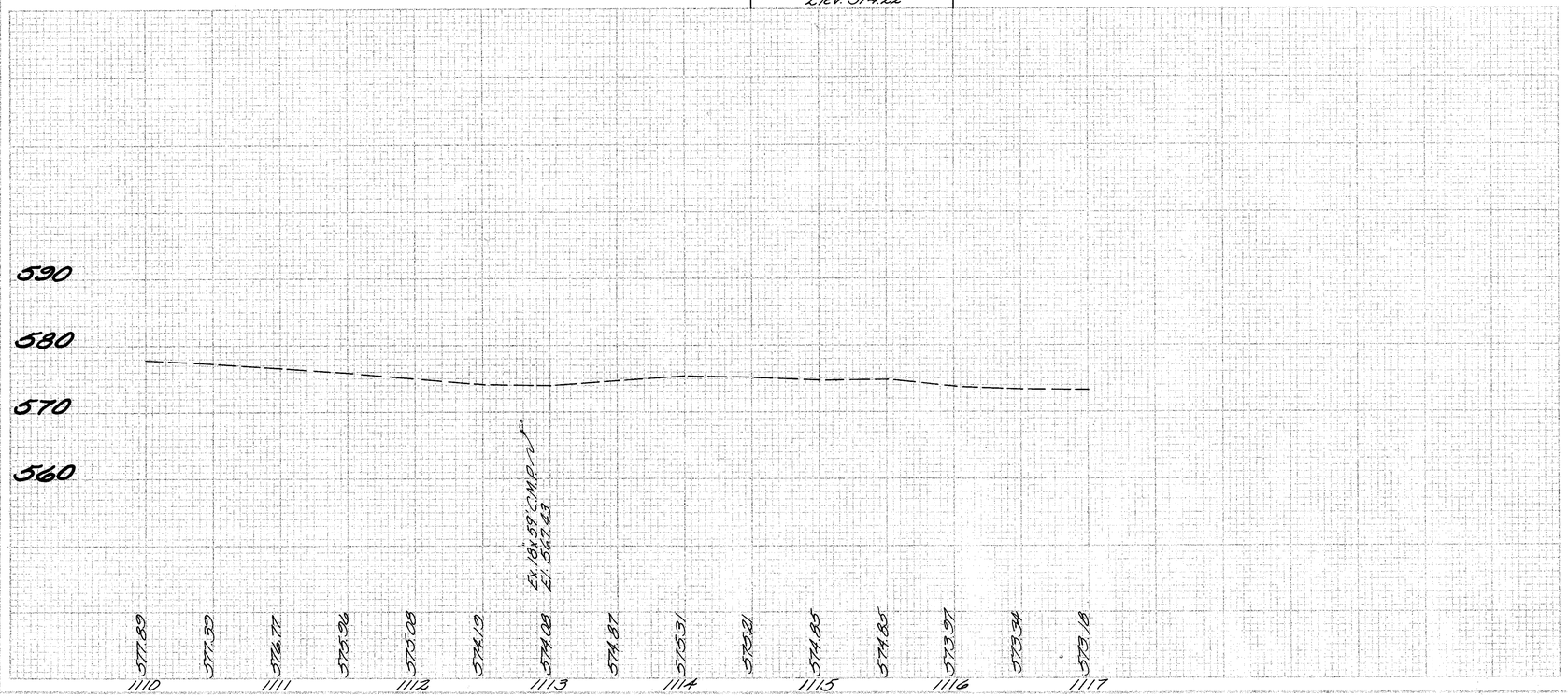
PIK-335-19.96

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

15
82



BENCH MARK
Cut on top Steel H-Beam Lt. rear Cor. Bridge No. PIK-335-2110-13.52 Lt. Sta. 1115+72.5
Elev. 574.22



ESTIMATED QUANTITIES

SHEET NO.	STATION TO STATION	SIDE

STA. 1110+00 TO STA. 1117+00

Rev. 12-16-70

SUPERELEVATION TABLES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

16/82

PIK-335-19.96

Curve 1

T.S.-1056+94.96 P.I.-1062+80.30
S.C.-1059+94.96 Δ - 55°96' Rt.
C.S.-1064+91.63 Dc. - 7°00'
S.T.-1067+91.63

ELEVATION LEFT EDGE	WIDTH	STATION	CENTER ELEVATION	WIDTH	ELEVATION RIGHT EDGE
577.79	10'	1056+00	577.95		577.79
577.91		+29.96	578.07		577.91
578.04		+50	578.15		577.99
578.33		T.S. +94.96	578.33	10'	578.17
578.37		1057+00	578.35	10.03	578.19
578.58		+29.96	578.45	10.20	578.29
578.79		+50		10.37	578.38
578.83		+59.96		10.40	578.40
579.09		+89.96		10.60	578.51
579.21		1058+00		10.70	578.57
579.39		+14.96		10.80	578.62
579.59		+44.96		11.00	578.73
579.63		+50		11.03	578.75
579.84		+74.96		11.20	578.83
580.05		1059+00		11.37	578.92
580.09		+04.96		11.40	578.94
580.35		+34.96		11.60	579.03
580.47		+50		11.70	579.08
580.60		+64.96		11.80	579.13
580.85		S.C. +94.96		12'	579.22
580.87		1060+00			579.24
581.07		+50			579.44
581.27		1061+00			579.64
581.47		+50			579.84
581.67		1062+00			580.04
581.87		+50			580.24
582.07		1063+00			580.44
582.27		+50			580.64
582.47		1064+00			580.84
582.68		+50			581.05
582.88		C.S.+91.63		12'	581.25
582.88		1065+00		11.94	581.30
582.90		+21.63		11.80	581.43
582.92		+50		11.61	581.60
582.94		+51.63		11.60	581.62
582.97		+81.63		11.40	581.81
582.99		1066+00		11.28	581.93
583.01		+11.63		11.20	582.01
583.07		+41.63		11.00	582.21
583.08		+50		10.94	582.26
583.13		+71.63		10.80	582.41
583.20		1067+00		10.61	582.62
583.20		+01.63		10.60	582.63
583.28		+31.63		10.40	582.85
583.34		+50		10.28	582.99
583.38		+61.63	583.25	10.20	583.09
583.48		S.T.+91.63	583.48	10'	583.32
583.53		1068+00	583.55		583.39
583.81		+50	583.95		583.79
583.84		+56.63	584.00		583.84
584.19	10'	1069+00	584.35		584.19
584.59		+50	584.75		584.59

Curve 2

T.S.-1080+38.24 P.I.-1087+31.10
S.C.-1083+88.24 Δ - 77°36 Lt.
C.S.-1089+00.46 Dc. 9°
S.T.-1092+50.46

ELEVATION LEFT EDGE	WIDTH	STATION	CENTER ELEVATION	WIDTH	ELEVATION RIGHT EDGE
584.59		1079+00	584.75	10'	584.59
584.19		+50	584.35		584.19
584.00		+73.24	584.16		584.00
583.79		1080+00	583.95		583.86
583.48	10'	T.S. +38.24	583.64		583.64
583.39	10.01	+50	583.55		583.60
583.20	10.09	+73.24	583.37		583.52
583.00	10.07	1081+00			583.45
582.93	10.08	+09.24			583.41
582.69	11.20	+43.24			583.35
582.65	11.28	+50			583.34
582.37	11.60	+78.24			583.25
582.24	11.85	1082+00			583.26
582.21	12.00	+13.24			583.26
582.06	12.40	+48.24			583.26
582.06	12.42	+50			583.26
581.90	12.80	+83.24			583.28
581.83	12.99	1083+00			583.31
581.74	13.20	+18.24			583.32
581.62	13.56	+50			583.39
581.61	13.60	+53.24			583.39
581.50	14'	S.C.+88.24			583.49
581.49		1084+00			583.47
581.46		+50			583.45
		1085+00			
		+50			
		1086+00			
		+50			
		1087+00			
		+50			
		1088+00			
		+50			
		1089+00			
581.96	14'	C.S.+00.46			583.45
581.52	13.60	+35.96			583.30
581.39	13.43	+50			583.23
581.57	13.20	+70.96			583.15
581.61	12.86	1090+00			583.02
581.62	12.80	+05.96			583.00
581.66	12.40	+40.46			582.85
581.67	12.29	+50			582.81
581.70	12.00	+75.96			582.70
581.72	11.72	1091+00			582.60
581.73	11.60	+10.46			582.55
581.75	11.20	+45.96			582.40
581.76	11.15	+50			582.38
581.77	10.80	+80.46			582.25
581.78	10.58	1092+00			582.17
581.78	10.40	+15.96	581.95		582.10
581.79	10.01	+50			581.95
581.79	10'	+50.46			581.85
581.79		1093+00			581.83
581.79		+15.96			581.79
		+50	581.95	10'	

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659 Seeding & Mulching = 28,250 - S.Y.
Sta. 1053+50 to 1071+03.61
Calc. By: JBH 1-30-69
Checked By: RAH 2-5-69
Calc. by JBH 7-17-69
Checked by JB 10-14-69
Prop. R/W
℄ 574.24
577.55
1055+00
576.63
℄ 574.43
℄ 574.53
577.35
1054+50
576.68
℄ 574.63
℄ 574.83
577.15
1054+00
576.88
℄ 574.83
BEGIN PROJECT
STA. 1054+00
1053+50
577.09
Begin Prop feather
Area Sta. 1053+50
BEGIN WORK
STA. 1053+50
1053+00
577.07
1052+50
576.97
Sta. 1053+50 to Sta. 1071+03.61
Excavation: 12,656 - C.Y.
Embankment: 27,353 - C.Y.
Calc. by JBH 7-17-69
Checked by JB 10-14-69
Calc. By: RLG 1-20-69
Checked By: JBH 1-27-69
+50
Ahead 30 3
Back 24 3
Ahead 4 0
Back 0 0
19 14
37 22
21 9
47 11
26 3
51
275
48
256
44
122
0
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

PIK-335-19.96


On all curve stations, centroid cut and fill negligible.
Prop. R/W
579.98
578.83
℄ 573.41
1058+74.96
577.97
4° 12'
R = 1369.19
℄ 572.93
579.34
578.62
℄ 573.53
1058+14.96
577.71
2° 48'
R = 2046.28
℄ 573.17
578.83
578.90
8:1
℄ 573.75
1057+54.96
577.65
1° 24'
R = 4092.56
℄ 573.41
578.33
578.17
7:1
578.33
℄ 573.77
1056+94.96
577.40
℄ 573.65
6:1
578.15
℄ 573.88
1056+50
577.24
℄ 573.83
5:1
577.95
℄ 574.00
1056+00
576.96
℄ 574.03
Prop. R/W
577.75
℄ 574.12
1055+50
576.67
℄ 574.23
STA. 1055+00
STA. 1055+00
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140
Calc. by: JBH 1-30-69
Checked by: RAH 2-5-69
Calc. by: RLG 1-20-69
Checked by: JBH 1-27-69
135
883
130
807
112
694
96
452
85
422
67
339
55
294
51
181 47
407 101
185 44
344 91
125 38
236 69
88 24
132 39
70 23
109 35
47 15
62 33
20 20
36 32
19 14

STA. 1055+50 TO STA. 1058+74.96

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SECTIONS

FED. ROAD OR FED. AID NO.	STATE	PROJECT	
2	OHIO		

19
82

PIK-335-19.96

Prop. Res. Dr. Lt. & Sta. 1062+10 -7.44 % Gr.

Prop. Fld. Dr. Rt. & Sta. 1062+10 -2.11 % Gr.

Prop. Rdwy. Elv.

581.67 580.04

℄ 572.64 — Prop. 603-12"x54' Type-D

1062+00 579.05

℄ 571.63 — Prop. 603-12"x48' Type-D

Cut = 352+ Negligible
Fill = 63+ Negligible

Prop. Fld. Dr. Rt. 352 63
Prop. Res. Dr. Lt. 256 367

170 931

581.41 579.84

℄ 572.76

1061+50 578.30

℄ 571.83

Cut = 340+ Negligible
Fill = 90+ Negligible

641 142 — 340 90

165 897

581.27 579.64

℄ 572.88

1061+00 577.85

℄ 572.03

Cut = 309+ Negligible
Fill = 114+ Negligible

601 189 — 309 114

158 869

581.09 578.94

℄ 573.00

1060+50 577.55

℄ 572.23

Cut = 248+ Negligible
Fill = 87+ Negligible

517 186 — 248 87

155 839

580.87 579.24

℄ 573.12

1060+00 578.15
7°-00'
R: 818.51

℄ 572.43

Cut = 217+ Negligible
Fill = 54+ Negligible

431 131 — 217 54

147 1059

580.35 579.03

Prop. Rdwy. Elv.

℄ 573.29

1059+34.96 578.10
5°-36'
R: 1023.14

℄ 572.69

Cut = 223+ Negligible
Fill = 69+ Negligible

530 148 — 223 69

146 937

449 129

135 STA. 1058+74.96 — STA. 1058+74.96 181 47

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

Calc. by: RLG 1-20-69
Checked by: JBH 1-27-69

Calc. by: JBH 1-30-69
Checked by: RHH 2-5-69

STA. 1059+34.96 TO STA. 1062+00

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PIK-335-19.96


Prop. R/W
582.68
581.05
Centroid
1064+50
578.01
℄ 566.00
℄ 570.63
8:1
3:1
3:1
Cut = 304 + 12(84) + 292(-72) / 818.51 -24
Fill = 394 + 394(32) / 818.51 +15
280 409
178
992
582.47
580.84
6:1
1064+00
579.41
℄ 567.37
℄ 570.83
Cut = 388 + 286(-67) + 102(78) / 818.51 -14
Fill = 82 + Negligible
606 455
179
374 82
Calc. by: JBH 1-3-69
Checked by: RAH 4-22-69
1028
582.27
580.64
1063+50
580.31
℄ 568.73
℄ 571.03
Cut = 534 + 234(-70) + 300(79) / 818.51 +9
Fill = 46 + Negligible
Calc. by: JBH 3-18-69
Checked by: RAH 4-24-69
849 119
191
543 46
1047
582.07
580.44
8:1
1063+00
579.01
℄ 570.10
℄ 571.23
Cut = 543 + 303(75) + 240(-67) / 818.51 +8
Fill = 59 + Negligible
1013 97
186
551 59
1014
581.87
580.24
Prop. R/W
8:1
3:1
3:1
1062+50
579.36
℄ 571.46
℄ 571.43
Cut = 452 + Negligible
Fill = 48 + Negligible
929 99
179
452 48
969
744 104
170
352 63
STA-1062+00
STA-1062+00
140
120
100
80
60
40
20
℄
20
40
60
80
100
120
140

STA. 1062+50 TO STA. 1064+50

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2 OHIO

21
82

PIK-335-19.96

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STA. 1064+91.63 TO STA. 1066+71.63

PIK-335-19.96

Prop. ℄w

℄ 564.96

584.75
1069+50
570.34

℄ 567.32

Prop. ℄w

182

179 870

1000

2:1

3:1

315 1699

℄ 565.08

584.35
1069+00
570.34

℄ 567.72

178

161 965

983

5339.1

5383.9

3:1

4:1

258 1866

℄ 565.20

583.95
1068+50
570.64

℄ 568.12

176

117 1050

Begin Prop. Guard Rail
Lt. & Sta. 1068+56

Calc. By: TBH 3-13-69
Checked By: RAH 4-23-69

1128

583.48

583.32

4:1

221 2330

122

℄ 565.32

583.48
1067+91.63
570.84

℄ 568.59

Begin Prop. Guard Rail
Lt. & Sta. 1067+81.5

Calc. By: TBH 3-18-69
Checked By: RAH 4-23-69

1122

583.28

582.62

Prop. ℄w

4:1

4:1

200 2419

165

℄ 565.44

1067+31.63
570.54
1°-24'
R=4092.56

℄ 569.0

Cut = 84 + $\frac{82(87)+2(-71)}{818.51}$ +9

Fill = 1072 + Negligible

1089

93 1072

186 2430

162

STA. 1066+71.63

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

STA. 1066+71.63

75 1115

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STA. 1067+31.63 TO STA. 1069+50

SHEET NO.	STATE	PROJECT	
2	OHIO		

23
82

PIK-335-19.96

Prop. ℄W

1071+50
568.92

Channel Slope Excavated to El. 562. ± See Channel Sections Sht. Nos. 65-75

+25

PROP BRIDGE LIMITS
STA. 1071+03.34

Sta. 1071+03.61 Back

Sta. 1071+03.34 Back

Calc. by: JBH 3-13-69
Checked by: RAH 4-23-69

℄ 564.35

End Prop. Guard Rail
Lt. ℄ Sta. 1070+94

585.39
1071+00
569.32

End Prop. Guard Rail
Rt. ℄ Sta. 1070+81

℄ 566.12

Calc. by: JBH 3-18-69
Checked by: RAH 4-23-69

585.34
1070+50
570.92

℄ 564.72

℄ 566.52

585.15
1070+00
570.34

℄ 564.84

℄ 566.92

STA. 1069+50

STA. 1069+50

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

STA. 1070+00 TO STA. 1071+50

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PIK-335-19.96

PROP. BRIDGE LIMITS
STA. 1077+52.66

Begin Prop. Guard Rail
Lt. ℄ Sta. 1077+79

Begin Prop. Guard Rail
Rt. ℄ Sta. 1077+64

Prop. ℄ W

167
1040
67 1076+70

℄ 562.52

585.89
1077+50
567.9

℄ 563.76

146 1240
505
+28 0 433
1076+70 146

Prop. ditches Lt & Rt. to be outleted at the exist. river bank, Sta. 1076+70±

SCIOTO RIVER

Calc. by: JBH 3-13-69
Checked by: PAH 4-23-69

1072+50
563.42

Prop Channel to be excavated to 542.1±
For Detail See Channel Sections* Sht Nos. 65-75

1072+00
564.52

Excavate to El. 542.1±

STA. 1071+50 — 140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140 — STA. 1071+50

STA. 1072+00 TO STA. 1077+50

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25
82

PIK-335-19.96

Prop. ℄ W

℄ 563.00

594.35
1079+50
567.5

℄ 564.24

Prop. ℄ W

148 87 1135

831 155 2150

℄ 562.88

594.75
1079+00
567.7

℄ 564.12

151 80 1187

Calc. By: JBH 3-18-69
Checked By: RPH 4-24-69

659 Seeding & Mulching = 45,868 S.Y.
Sta. 1079+70 to Sta. 1108+00

867 172 2310

℄ 562.76

595.15
1078+50
566.7

℄ 564.00

161 106 1307

Sta. 1079+28 to 1108+00
Excavation 9361 - C.Y.
Embankment 19152 - C.Y.

900 231 2326

Prop. ℄ W

℄ 562.64

595.54
1078+00
567.9

℄ 563.38

Prop. ℄ W

163 143 1205

916 269 2265

167 STA. 1077+50 146 1240

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

STA. 1077+50

Calc. By: JBH 3-18-69
Checked By: RPH 4-24-69

STA. 1078+00 TO STA. 1079+50

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26
82

FED. RD. DIVISION 2 | STATE OHIO | PROJECT

PIK-335-19.96

Fill = 1272± Negligible
Cut = 23± Negligible
582.65
583.34
Prop. R/W
Prop. R/W
133
℄ 563.76
℄ 564.48
1081+50
565.2
3°12'
R=1836.40
23 1272
744
583.00
583.45
Fill = 1232± Negligible
Cut = 28 ± Negligible
48 2319
Summit +00
135
℄ 563.64
℄ 564.60
1081+00
565.9
1°46'
R=3924.36
28 1232
Calc. By: JBH 3-13-69
Checked By: RAH 4-24-69
Calc. By: JBH 3-18-69
Checked By: RAH 4-24-69
761
583.33
583.60
67 2224
Fill = 1170 ± Negligible
Cut = 44 ± Negligible
139
℄ 563.52
583.55
1080+50
567.1
0°02'
R=28647.90
℄ 564.48
44 1170
786
110 2073
Prop. R/W
Prop. R/W
144
℄ 563.12
583.95
1080+00
567.9
℄ 564.36
74 1068
811
149 2040
148
STA- 1079+50
STA- 1079+50
87 1135
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 1080+00 TO STA. 1081+50

Rev. 12-16-70

SEEDING

CAP SURFACE	AG TOP

DIST. NO.	STATE	PROJECT	
2	OHIO		

27
82

PIK-335-19.96

CAD AREA		VOLUMES	
CUT	FILL	CUT	FILL

Fill = 1248 ± Negligible
Cut = 23 ± Negligible

381.62 383.39

Prop. ℄W

℄ 563.76

1083+50
565.7
8°54'
R=670.91

℄ 563.94

15 1248

130

725

381.83 383.31

Fill = 1393 ± Negligible
Cut = 17 ± Negligible

℄ 563.88

1083+00
563.2
7°29'
R=785.93'

℄ 564.12

13 1393

131

Calc. By: JBH 3-18-69
Checked By: RPH 4-24-69

719

382.06 383.26

Fill = 1309 ± Negligible
Cut = 13 ± Negligible

Summit +50

℄ 564.00

1082+50
565.0
6°03'
R=950.17'

℄ 564.24

17 2502

5 1309

128

719

382.34 383.26

Fill = 1257 ± Negligible
Cut = 16 ± Negligible

Prop. ℄W

℄ 563.88

1082+00
563.1
4°37'
R=1311.11'

℄ 564.36

20 2376

16 1257

131

733

36 2342

133

STA. 1081+50

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

STA. 1081+50

23 1272

STA. 1082+00 TO STA. 1083+50

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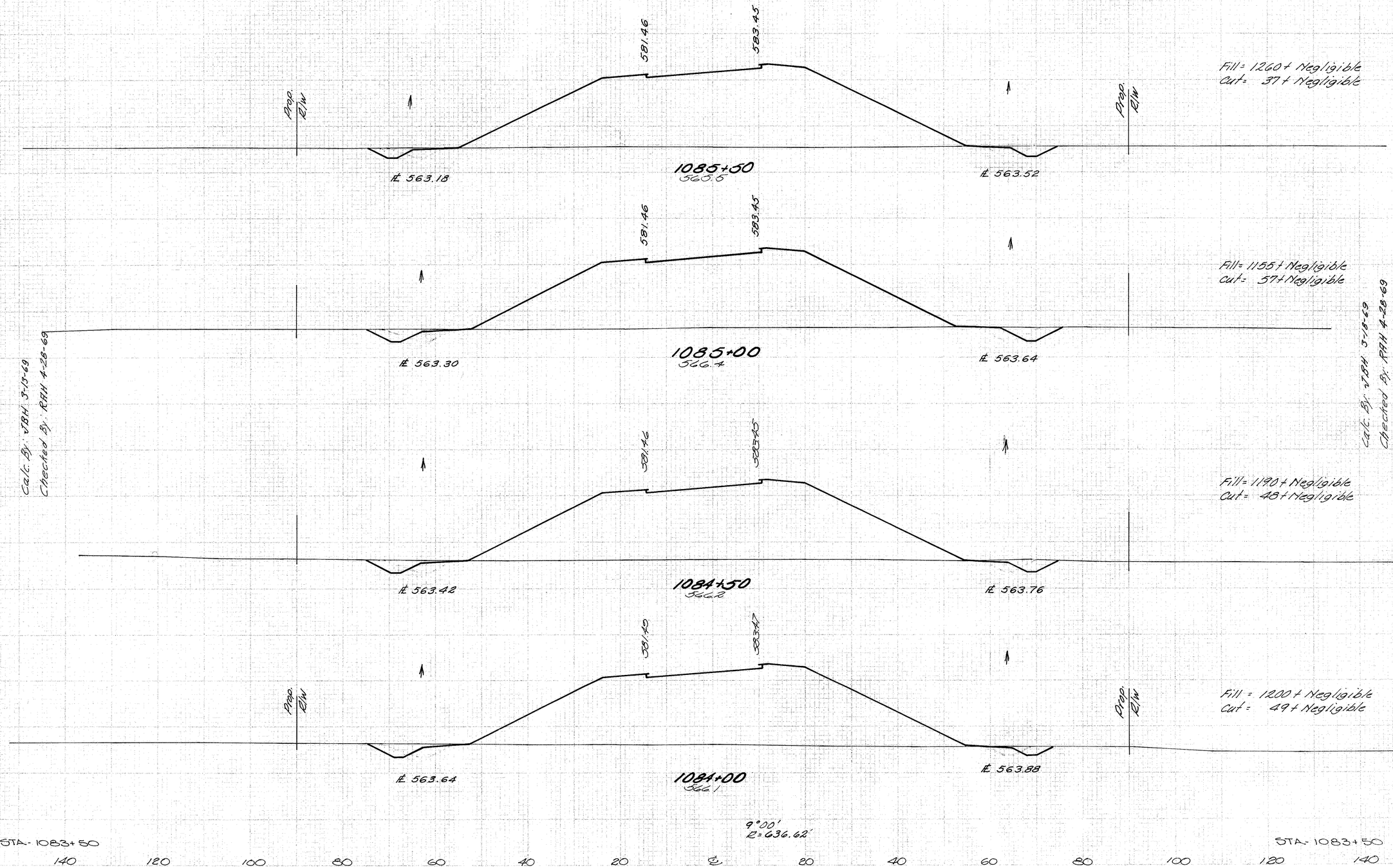
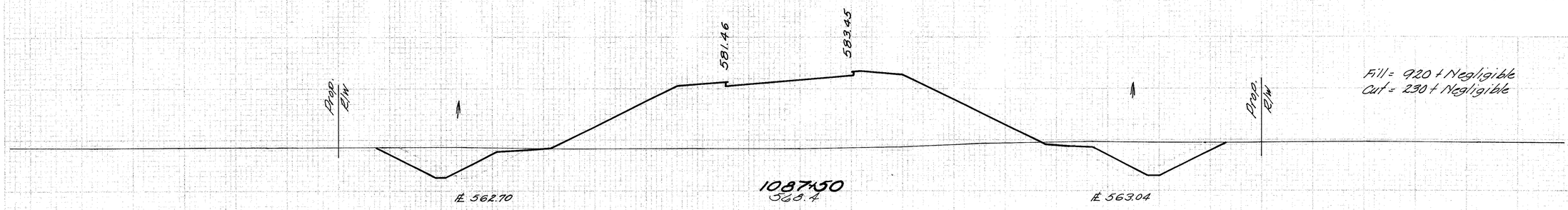
PIK-335-19.96



Rev. 12-16-70

STA. 1084+00 TO STA. 1085+50

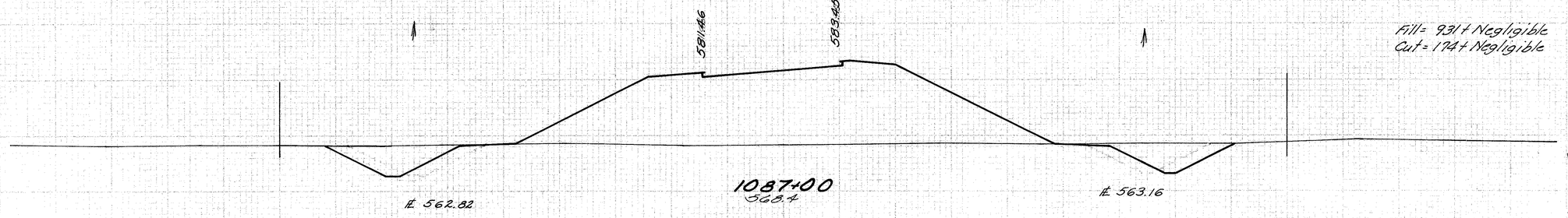
PIK-335-19.96



1087+50
568.4

Fill = 920 + Negligible
Cut = 230 + Negligible

162 230 920



1087+00
568.4

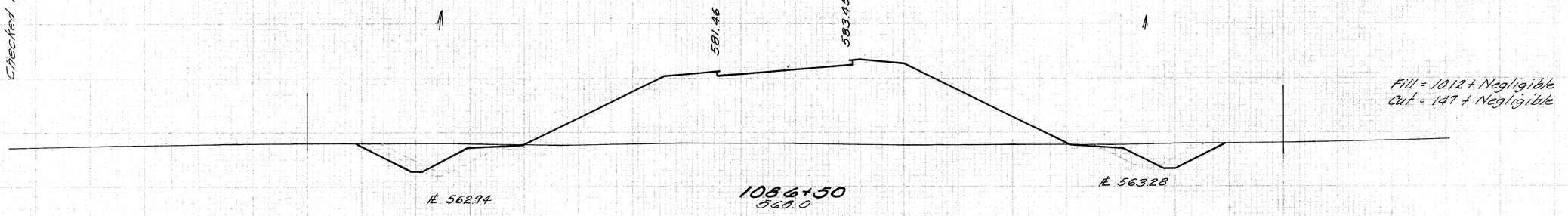
Fill = 931 + Negligible
Cut = 174 + Negligible

878 374 1714

154 174 931

Calc. By: TBH 3-13-69
Checked By: PAH 4-28-69

Calc. By: TBH 3-18-69
Checked By: PAH 4-28-69

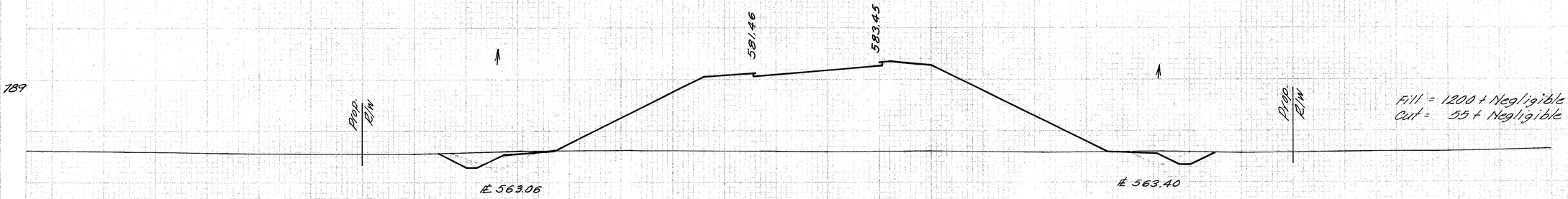


1086+50
568.0

Fill = 1012 + Negligible
Cut = 147 + Negligible

844 298 1799

150 147 1012



1086+00
566.0

Fill = 1200 + Negligible
Cut = 55 + Negligible

789 187 2049

134 55 1200

744 77 2278

134 28 1260

STA. 1085+50 STA. 1085+50

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

STA. 1086+00 TO STA. 1087+50

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SEEDING

END STATION | TO

FED. PROJECT | STATE | PROJECT

2 | OHIO

30
82

PIK-335-19.96

SND AREA | VOLUME

CUT | FILL | CUT | FILL

581.54 | 583.23 | Prop. ℄ | Prop. ℄

Fill = 935 + Negligible
Cut = 168 + Negligible

168 985

159

℄ 562.22

1089+50
567.6

8°35'
R = 686.17'

℄ 562.56

302 1790

872

581.46 | 583.45 | Prop. ℄ | Prop. ℄

Fill = 948 + Negligible
Cut = 158 + Negligible

158 948

155

℄ 562.34

1089+00
568.7

℄ 562.68

343 1724

Calc. By: JBH 3-19-69
Checked By: RAH 4-28-69

Calc. By: R.L.G. 1-22-69
Checked By: JBH 1-29-69

883

581.46 | 583.45 | Prop. ℄ | Prop. ℄

Fill = 914 + Negligible
Cut = 212 + Negligible

212 914

163

℄ 562.46

1088+50
568.7

℄ 562.80

387 1660

922

581.46 | 583.45 | Prop. ℄ | Prop. ℄

Fill = 879 + Negligible
Cut = 206 + Negligible

206 879

159

919

℄ 562.58

1088+00
568.8

℄ 562.92

404 1661

162

STA- 1087+50

STA- 1087+50 230 915

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

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STA- 1088+00 TO STA- 1089+50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

31/82

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2	OHIO	

PIK-335-19.96


Prop. R/W
Prop. R/W
148 0
164
℄ 561.26
1093+50
566.2
℄ 561.60
222 0
903
91 0
161
1093+00
565.7
℄ 561.38
℄ 561.72
Calc. By: JBH 4-28-69
Checked By: RAH 4-30-69
Calc. By: JBH 4-28-69
Checked By: RAH 4-30-69
167 0
897
Note:
Area between the prop. ditches to be seeded.
89 0
162
1092+50
564.9
℄ 561.50
℄ 561.84
179 772
914
581.78
℄ Prop. Bridge Deck
Prop. R/W
Prop. R/W
167
104 835
897
581.95
1092+00
563.9
1°27'
R=4511.48'
PROP. BRIDGE LIMITS
STA. 1091+97.63
℄ 561.62
℄ 561.96
227 1722
156
STA. 1091+50
STA. 1091+50
141 1024
140
120
100
80
60
40
20
℄
20
40
60
80
100
120
140

STA. 1092+00 TO STA. 1093+50

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SHEETING

LAG DATA	SQ. TOR.
164	919
167	925
166	919
167	925
164	

SHEET NO.	STATE	PROJECT	
2	OHIO		

33
82

PIK-335-19.96

CUT AREA		FILL AREA	
OUT	PAY	OUT	PAY

Prop. Rw 293'

Prop. Rw

℄ 560.78

1095+50
566.5

℄ 561.12

109 0

223 0

℄ 560.90

1095+00
566.5

℄ 561.24

132 0

Calc. By: JBH 4-28-69
Checked By: RAH 4-30-69

Calc. By: JBH 4-28-69
Checked By: RAH 4-30-69

246 0

℄ 561.02

1094+50
567.1

℄ 561.36

134 0

235 0

Prop. Rw

Prop. Rw

120 0

℄ 561.14

1094+00
566.6

℄ 561.48

248 0

148 0

STA - 1093+50

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

STA - 1093+50

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STA. 1094+00 TO STA. 1095+50

SEEDING

EXIST. AREA		PROP. AREA	
DIST.	ACS.	DIST.	ACS.

FED. AID PROJECT	STATE	PROJECT	
2	OHIO		

34
82

PIK-335-19.96

Prop. R/W

Outlet prop. roadway ditch into ex. natural channel.

142 794

℄ 560.30

1097+50
561.4

Prop. R/W 249'

50 0

144

℄ 560.42

1097+00
563.6

Prop. R/W 260'

70 0

Calc. By: JBH 4-29-69
Checked By: JS 7-16-69

797

134 0

143

℄ 560.54

1096+50
563.0

Prop. R/W 271'

75 0

836

171 0

Prop. R/W

158 894

℄ 560.66

1096+00
566.4

Prop. R/W 282'

110 0 203 0

164

℄ 561.0

109 0

STA. 1095+50

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

STA. 1095+50

STA. 1096+00 TO STA. 1097+50

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SEEDING
AREA | QTY.

SEC. NO. DESIGNER	STATE	PROJECT	
2	OHIO		

35
82

PIK-335-19.96

END AREA | VOLUME
CUT | FILL | CUT | FILL

Limits of Roadway Quantities

Prop. Twp. Rd. Conn. Ctr. Line Sta. 1099+54.5

Prop. R/W

572.76

Ex. Twp. Rd. #824
Ex. Grade varies, See detail

Prop. R/W 150'

67

581.64
1099+50
563.4

0 1258

5006 Prop. Twp. Rd. Conn.

Twp. Rd. Conn. 323 7238

Limits of Roadway Quantities

Prop. Twp. Rd. Conn. Ctr. Line Sta. 1099+54.5
-1.134 %

For Details, See Sht. No. 42

256

0 2370

572.51

Prop. 603-24"x 98' Type A

Prop. R/W 215'

25

581.75
1099+00
562.5

0 1301

Calc. By JBH 4-28-99
Checked By JB 7-16-99

PROP. BRIDGE LIMITS
STA. 1098+52.48

Prop. Bridge Deck

Limits of Roadway Quantities

Fill and Slope to drain

Quantity Carried with Conn.

Prop. R/W 227'

48

0 2208

Prop. Rock Channel Protection Type "A"

581.84
1098+50
561.3

10

0 1084

Calc. By JBH 4-28-99
Checked By JB 7-16-99

Fill and Slope to drain

Quantity Carried with Conn.

Prop. R/W 237'

0

0 1004

Prop R/W

0 0

344

1098+00
561.4

46 0

124 STA. 1097+50

50 0

STA. 1097+50

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

STA. 1098+00 TO STA. 1099+50

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Prop. R/W

E 577.5

580.95
1101+50
577.13

Prop. R/W

E 576.0

581.13
1101+00
574.5

Calc. By: JBH 1-31-69
Checked By: BL.H 3-20-69

Calc. By: R.L.G 1-23-69
Checked By: JBH 1-29-69

E 574.0

581.34
1100+50
570.9

Prop. R/W

E 572.0

581.50
1100+00
568.2

Prop. R/W

STA. 1099+50

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

STA. 1099+50

66 A53 97 528 93 550 105 478 67

AREA

6	188	
15	676	
10	542	
20	1115	
11	662	
33	1406	
24	856	
22	1957	
0	1258	

STA. 1100+00 TO STA. 1101+50

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Prop. R/W

Prop. R/W

℄ 577.50

580.15
1103+50
580.07

℄ 577.50

℄ 577.75

580.35
1103+00
579.58

℄ 577.75

Edge of Leaching Bed

℄ 578.00

580.53
1102+50
579.32

℄ 578.0

Summit at Fl'd. Dr.

Prop. R/W

Exist. R/W

Prop. Fl'd Dr. +22.75

Prop. Res. Dr. +31.82
-3.2% Grade

Ex. Res. Dr. +31.82

Ex. Fl'd. Dr. +22.75

-14.6%

0%

40' V.C.

Summit at Dr.

Prop. Res. Dr. Rt.
Prop. Fld. Dr. Lt.

Prop. R/W

℄ 578.00

580.75
1102+00
579.53

℄ 578.00

End Prop. Guard Rail
Lt. & Sta 1101+97

STA. 1101+50

STA. 1101+50

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

Calc. By: JBH 2-3-69
Checked By: BLH 3-2-69

Calc. By: R.L.G 1-24-69
Checked By: JBH 1-29-69

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	15	16		
			51	25
	40	10		
	50	22		
	14	13		
	25	57		
	12	28		
	13	48		
	19	219		
	6	188		

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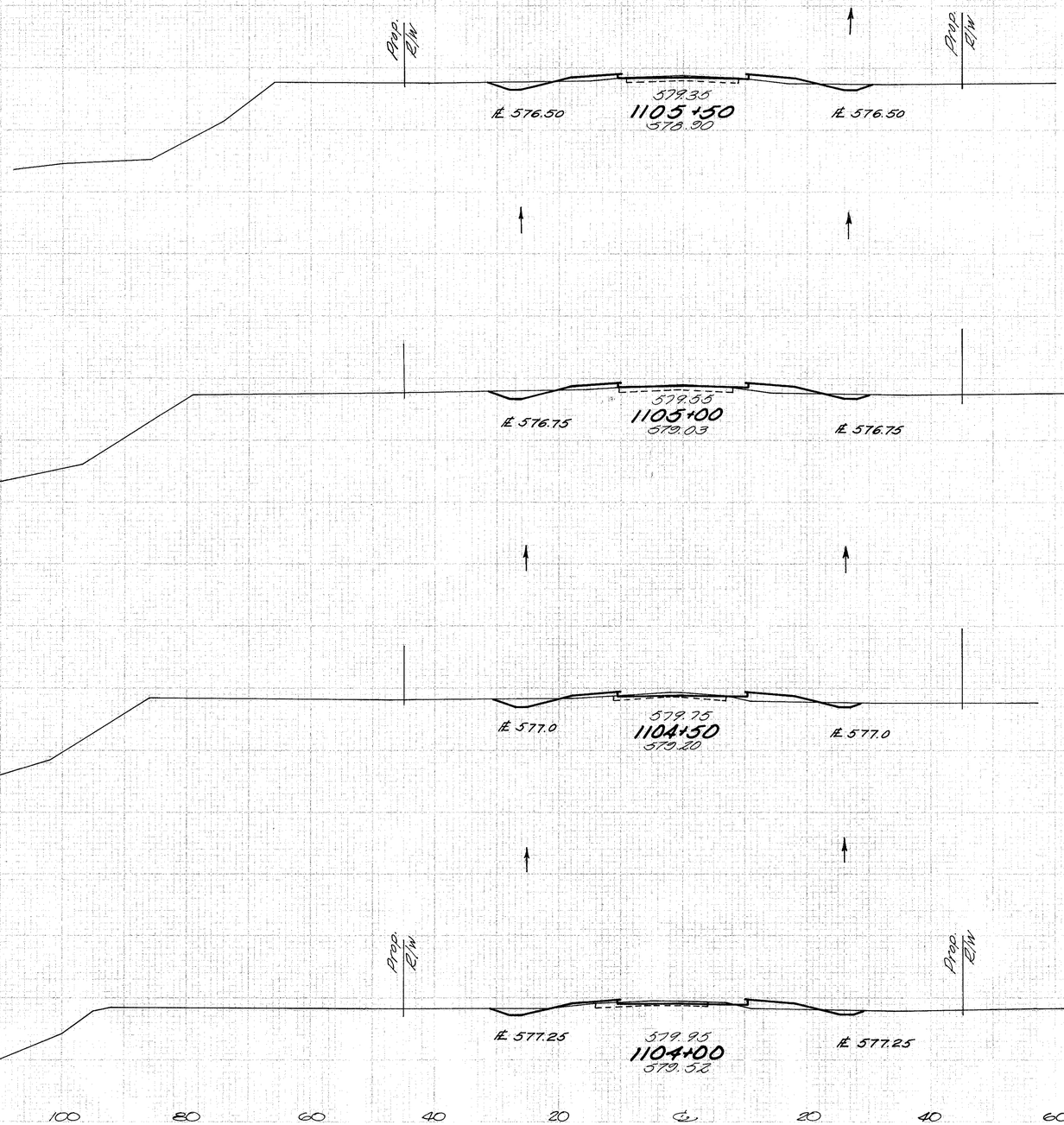
STA. 1102+00 TO STA. 1103+50



FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

38
82

PIK-335-19.96

Calc. by: JBH 2-3-69
Checked by: BLH 3-20-69

Calc. by: RLG 1-24-69
Checked by: JBH 1-29-69

Rev. 12-16-70

STA-1104+00 TO STA-1105+50

RESIDNE

SHT. NO.	NO. SHTS.

REVISIONS	DATE	PROJECT	
2	OHIO		

39
82

PIK-335-19.96

	END AREA		PRISMOIDAL	
	CUT	FILL	CUT	FILL
Ahead	8	6		
Back	16	6		

233 14

241 9

275 18

36 10

65 23

14 15

25 25

13 12

35

425

118

508

65

317

49

264

46

Calc. By: JBH 2-3-69
Checked By: BLH 3-20-69

Calc. By: RLG 1-24-69
Checked By: JBH 1-29-69

END PROJECT
STA. 1107+50

Prop. RW

℄ 576.00

578.55
1107+50
578.35

4:1

3:1

3:1

578.75
1107+00
578.43

℄ 572.0

1 PROP. 603 24" x 102' TYPE A
For Detail, See Sht. No. 45

℄ 575.7

579.95
1106+50
578.61

℄ 574.0

Prop. RW

℄ 576.25

℄ 576.25

579.15
1106+00
578.77

Sta. 1105+50

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

Sta. 1105+50

STA. 1106+00 TO STA. 1107+50

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SELDHIS

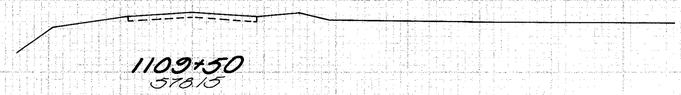
LANE WIDTH	SHOULDER WIDTH
12	10

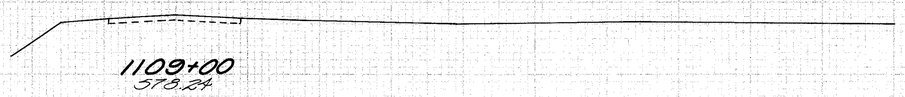
LANE OR RAMP DESIGN	STAFF	PROFILE	
A	OHIO		

40
82

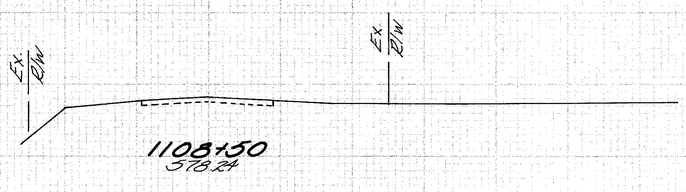
PIK-335-19.96

PAVEMENT		SHOULDER	
LT.	RT.	LT.	RT.



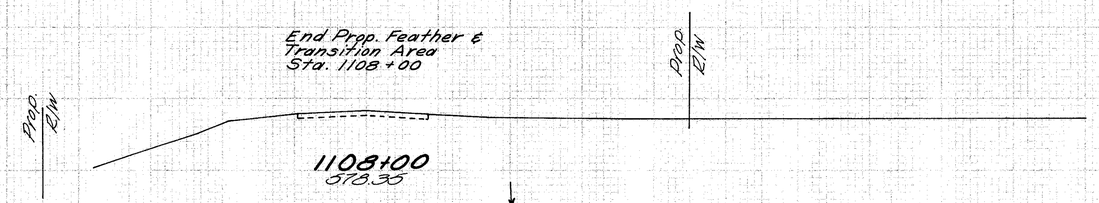


Calc. JBH 2-3-69
Ck. BLH 3-20-69



Calc. RLG 1-24-69
Ck. JBH 1-29-69

END WORK
STA. 1108+00



	Ahead	Back
	0	0
	4	0
	8	6

1.1 6

0
97
35

Sta. 1107+50

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

Sta. 1107+50

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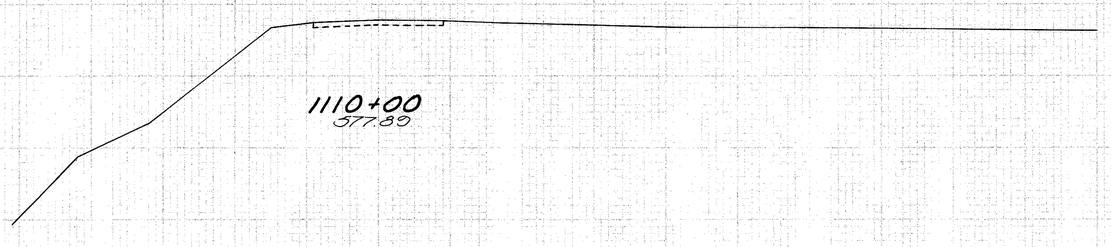
STA- 1108+00. TO STA- 1109+50

PIK-335-19.96



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

STA. 1110 +00

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

42 / 82

PIK-335-19.96

1097
+50
1099
1100
1101
Berm
Sta. 1099+54.5 = Sta. 10+00 Conn.
70°
+10.64
PROP. S.R. 335
P.I. Sta. 14+09.48
Δ= 24°15' Lt.
Dc= 23°
Lc= 105.43
Ts= 53.48
Prop. Rock Channel Protection 3' Thick
Const. Limits
Fill to El. 574.2± Slope to drain.
Ex. Twp. Rd. #824
Ex. Trav. Line
END CONN. & WORK STA. 15+00
8" 304
R/W
Const. Limits
Berm
12+0
13+0
14+0
15+0
+50
+67.82
+61.43
+36
20'
14'
250' R.
175' R.
TYPICAL SECTION OF EX. TWP. RD. #824
7'
6" Gravel
P.I. Sta. 11+86.25
Δ= 60° Rt.
Dc= 33°
Lc= 181.82
Ts= 100.25
Same build up as main Pav't.
Prop. 603-24"x98' Type "A"
Metal Storage Bins
Frame Shelter Shed
Frame Garage

ESTIMATED QUANTITIES

404	1" Asphalt Concrete (85-100 or AC-10)	324.44 Sq.Yd.
402	1" Asphalt Concrete (85-100 or AC-10)	324.44 Sq.Yd.
301	5" Bituminous Aggregate Base	335.44 Sq.Yd.
304	8" Aggregate Base	907.14 Sq.Yd.
203	Subgrade Compaction	324.44 Sq.Yd.

Quantities carried to Pav't. Calc. Sht. See Sht. No. 6

Calc. by JJS 7-15-69
Checked by JN 10-29-69

PROP. TWP. RD. CONN. RT. ℄ STA. 1099+54.5

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PIK-335-19.96

Prop. C/W

℄ 574.0

579.77
12+50
574.23

3/16 per ft. slope

124 728

℄ 573.8

579.33
12+00
573.93

For Rock Channel Protection Quantities
See Sht. No. 13

138 789

℄ 573.6

579.90
11+50
574.03

140 831

℄ 573.4

580.47
11+00
574.13

Quantity Line

Prop. outlet ditch earthwork quantity carried on the structure detail.
See Sht. No. 46

153 239

Prop. C/W

℄ 573.34

580.52
10+86
574.23

3/16 per ft. slope

Quantity Line

154 430

Limits of Roadway Quantities

PROP. 603-24"x 98' TYPE-A
For Details, See Sheet No. 46

℄ 573.20

581.03
10+50
570.93

Sta. 10+50

64

Sta. 10+50

581.63
10+00
564.33

659 Seeding & Mulching = 5006 S.Y.
Quantity Carried to Rdwy. X-Sec.
See Sht. No. 35

Calc. by JB 7-16-69
Checked by ℄ 11-8-69

Excavation 323 C.Y.
Embankment 7288 C.Y.
Quantities Carried to Rdwy. X-Sec.
See Sht. No. 35

Calc. by JB 7-16-69
Checked by ℄ 11-8-69

END AREA			
CUT		FILL	
34	395		
		47	948
17	629		
		29	1259
14	731		
		16	1783
3	1195		
		2	621
3	1199		
		4	1269
8	705		

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

STA. 10+00 TO STA. 12+50

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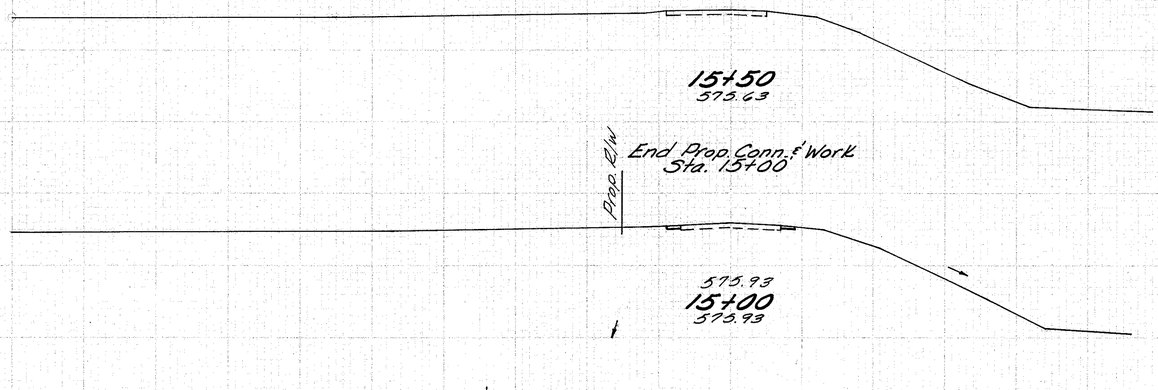

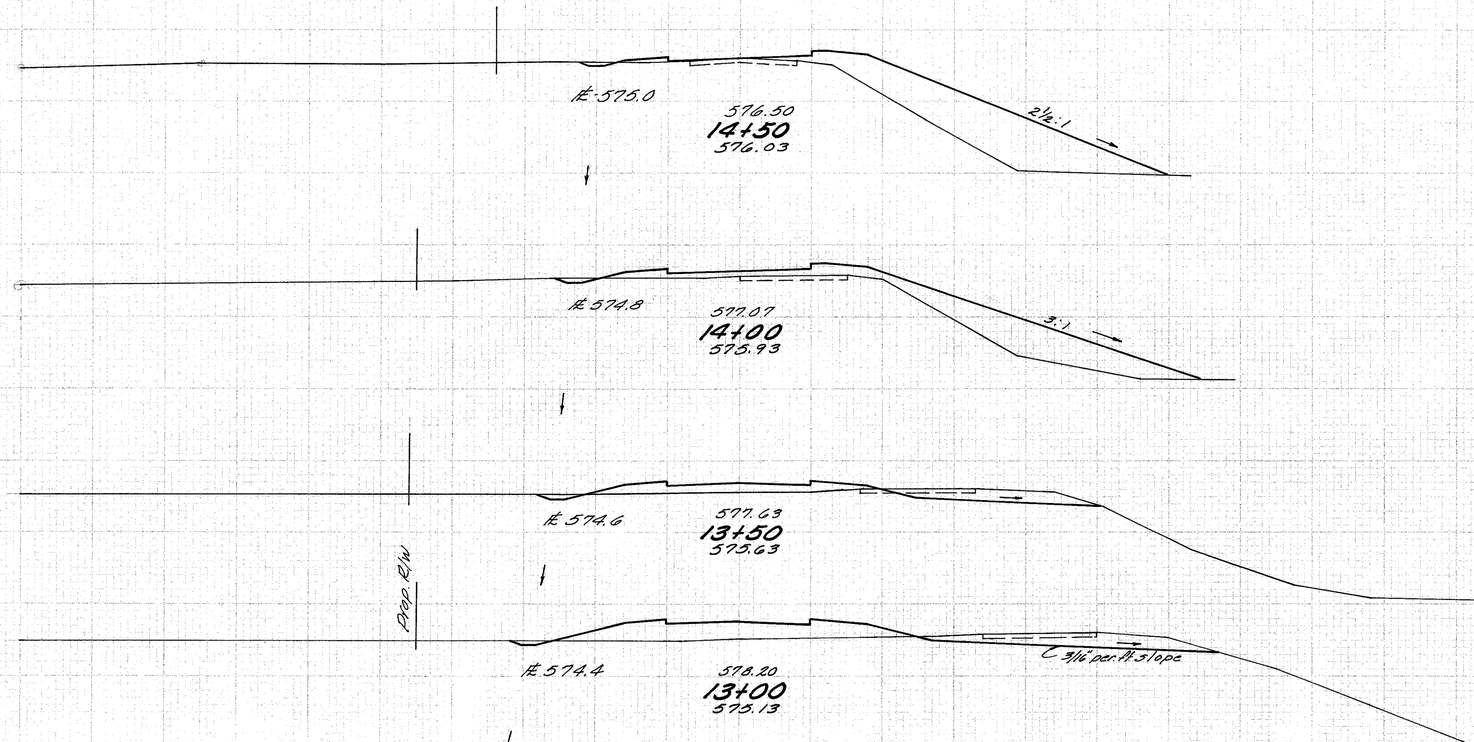

FED. RD. DIVISION	STATE	PROJECT
5	OHIO	

44
82

PIK-335-19.96

Calc. by HS 7-16-69
Checked by RE 11-8-69

Calc. by HS 7/16/69
Checked by RE 11-8-69

0	
	194
70	
	408
77	
	392
64	
	411
84	
	578
124	

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
Ahead	0	0		
Back	4	0		
			7	220
	3	238		
			6	384
	3	177		
			41	206
	41	45		
			89	137
	55	103		
			82	461
	34	395		

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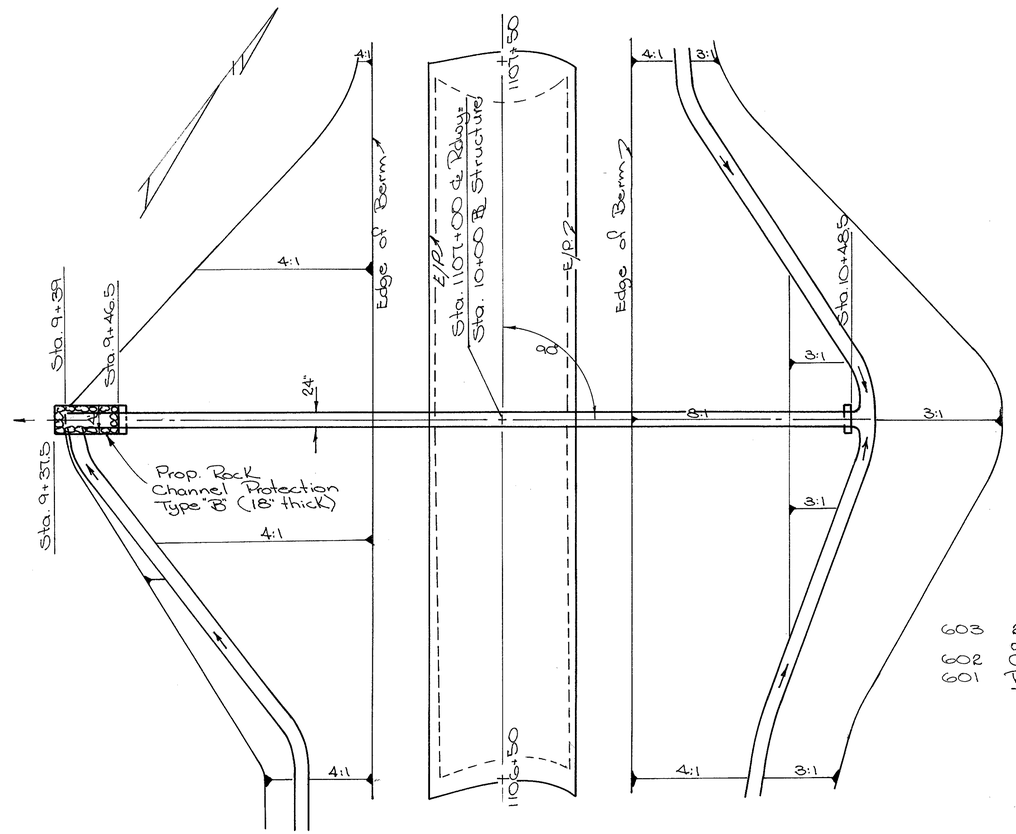
STA. 13+00 TO STA. 15+50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

45/82

PIK-335-19.96

DRAINAGE AREA = 13 Ac.
Q10 = 23 C.F.S.

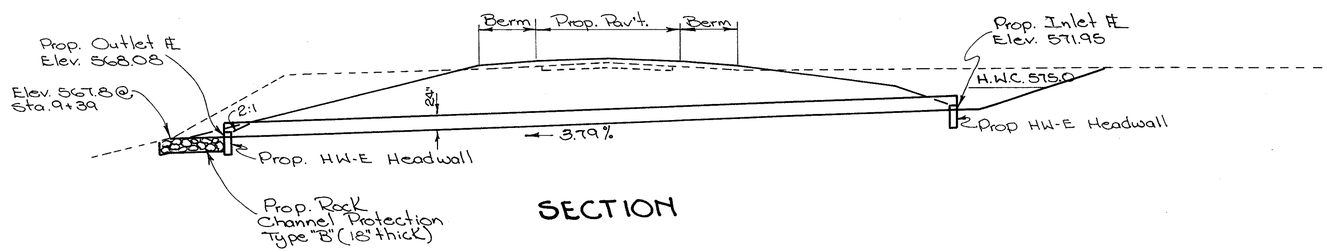


PLAN

ESTIMATED QUANTITIES

603	24" Conduit Type A, 706.02 or 706.08	102 L.F.
602	Concrete Masonry	0.82 C.Y. use .85
601	Rock Channel Protection Type B	3 C.Y.

CALCULATIONS				
ITEM	LENGTH	WIDTH	DEPTH	UNIT
601 RCP	$\frac{9.0' \times 4.0 \times 2.0'}{27}$ =			2.7 C.Y.



SECTION

0' 10' 20'
SCALE

Datum Line Elev. 540.00?

DRAWN	TRACED	CHECKED
L.L.F. 1-3-69	R.L.G 1-14-69	D.B.B 1-15-69

PIK - 335 - 19.96 STA. 1107+00
PROPOSED 603 CONDUIT TYPE A

1

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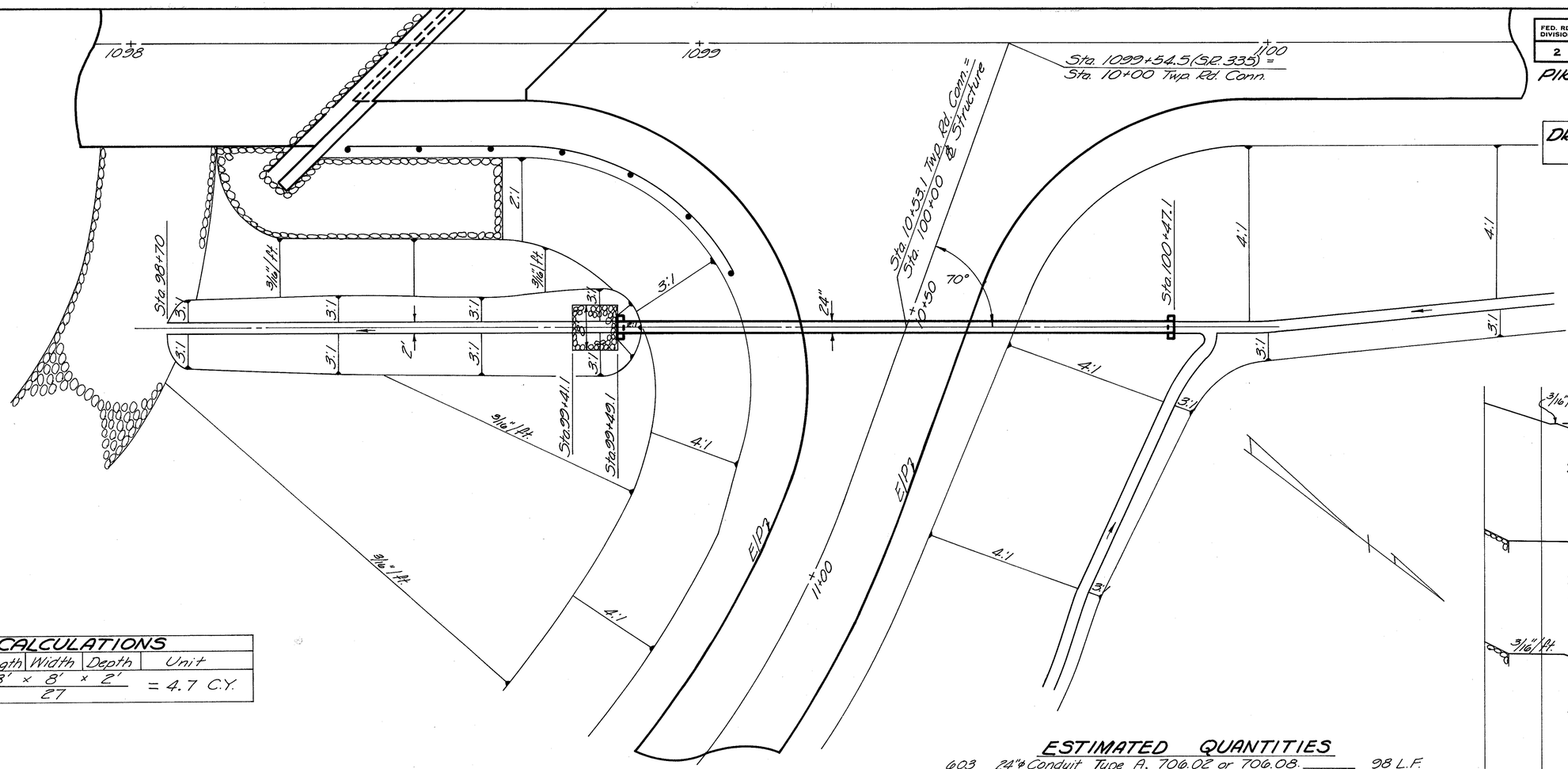
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

46
82

PIK-335-19.96

DRAINAGE AREA = 13 Ac.
Q25 = 26 c.f.s.



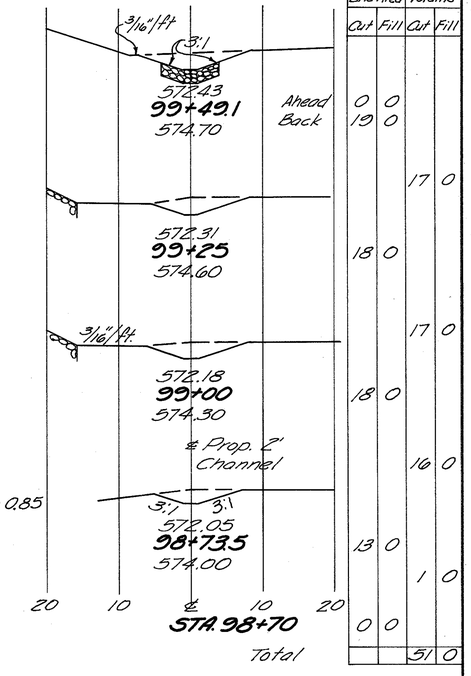
PLAN

CALCULATIONS

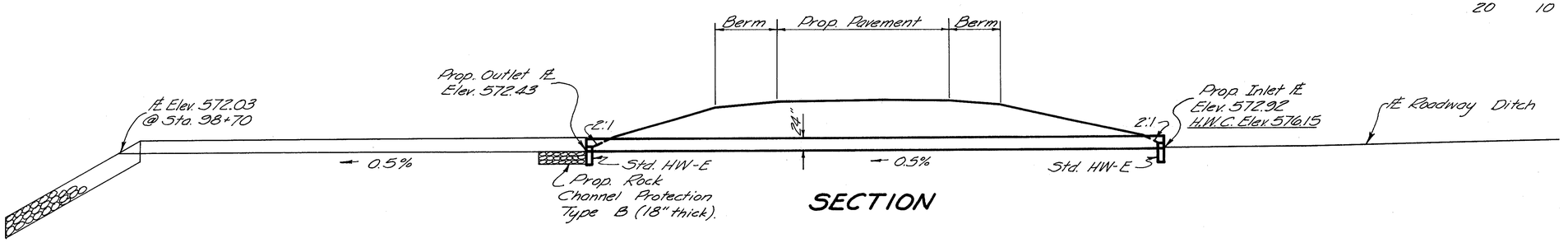
Item	Length	Width	Depth	Unit
601 R.C.P.	8' × 8' × 2' / 27			= 4.7 C.Y.

ESTIMATED QUANTITIES

603	24"ϕ Conduit Type A, 706.02 or 706.08.	98 L.F.
602	Concrete, Masonry.	0.82 C.Y. use 0.85
601	Rock Channel Protection Type B.	5 C.Y.
203	Excavation	51 C.Y.



End Area		Volume	
Cut	Fill	Cut	Fill
0	0		
19	0		
		17	0
18	0		
		18	0
		16	0
		13	0
		1	0
0	0		
		51	0



SECTION

Datum Line Elev. 550.00

0 10' 20'
Scale:

DRAWN	TRACED	CHECKED
LLF 8-1-69	11-6-69	D.B.B. 11-6-69

PIK-335-19.96 STA. 10+53.1 ℄ CONN. (RT. of STA. 1099+54.5)
PROPOSED 603 CONDUIT TYPE A

2

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	70 ER1563(3)	

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PIKE COUNTY
PIK-335-19.96
4.3± Mi. E. of Waverly

P.K. Nail in 4" Catalpa
30.32'
19.19'
P.K. Nail in 6" Maple
Iron Pin 6" underground
℄
P.O.T. Sta. 1072+12.06

P.K. Nail in 8" Gum
32.79'
Iron Pin 6" underground
℄
P.O.T. Sta. 1076+89.74
37.60'
P.K. Nail in 12" Gum

RIVER

601.08 "Rock Channel Protection," Type A, 3' thick

End Appr. Slab
Sta. 1071+03.34

Begin Appr. Slab
Sta. 1077+52.66

Δ = 77°-36' Lt.
D = 9°-00'
Ts = 692.86'
Ls = 350'
T.S. 1080+38.24

N 40°-16' E

EARTHWORK LIMITS shown are schematic. Actual slopes shall conform to plan cross sections.

Elev. 542.1±

BRIDGE LIMITS = 649.32'

SCIOTO

Clears Assumed 25yr. H.W. 5.9'±

Sta. 1071+03.34

Sta. 1077+52.66

BENCH MARK
Spike Nail in 18" Syca.
45' Lt. Prop. ℄ Sta. 1072+26
Elev. 566.21

BENCH MARK
Spike Nail in 14" Gum 21' Rt. Prop. ℄ Sta. 1076+80
Elev. 570.03

Top of Slope Elev. 577.6±
2:1 (Normal)
Vertical Curve Data
g1 = +0.8% g2 = -0.8% Ftg. Elev. 571.50
P.I. Sta. 1074+25
Elev. 588.55
L = 800'
All piles 12" Cast-in-place reinforced concrete Est. Avg. pay length = 60'
Excavate Channel to Elev. 542.1±
All Pier Ftg Elev. 532.10
High Water Elev. 579.10 (1959)
Assumed 25yr. H.W. Elev. 573.5±
Normal Water Elev. 550.02±
Ftg. Elev. 571.50
Top of Slope Elev. 577.6±

3/4 of discharge flows thru main channel with 1/4 thru overflow.
Drainage Area = 57.17 sq. mi.
1988 DESIGN TRAFFIC = 665 ADT

NOTE:
Bridge Collapsed during a flood in May-1968. Now removed.
Q25 = 120,000 cfs.

PROPOSED STRUCTURE
TYPE: Continuous welded girders with reinforced conc. deck & substructure
SPANS: 112'-3 @ 140'-112'
ROADWAY: 36'-0" f/f conc. parapets.
LOADING: HS 20-44
SKEW: 20° L.F.
WEARING SURFACE: 1" Mono. Conc
APPR. SLABS: AS-1-67 (25' long)
ALIGNMENT: Tangent

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STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

SITE PLAN

BRIDGE NO. PIK-335-2028
OVER Scioto RIVER
PIKE CO. SR 335
SEC. 1"=20' VERT. STA. 1071+03.34 1077+52.66
SCALE 1"=40' HORZ.

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
AERIAL SURVEY	AERIAL SURVEY	B.D.H.	B.D.H.	D.H.S.	C.E.S.

BFG 5-13-70 Rev. 12-16-70

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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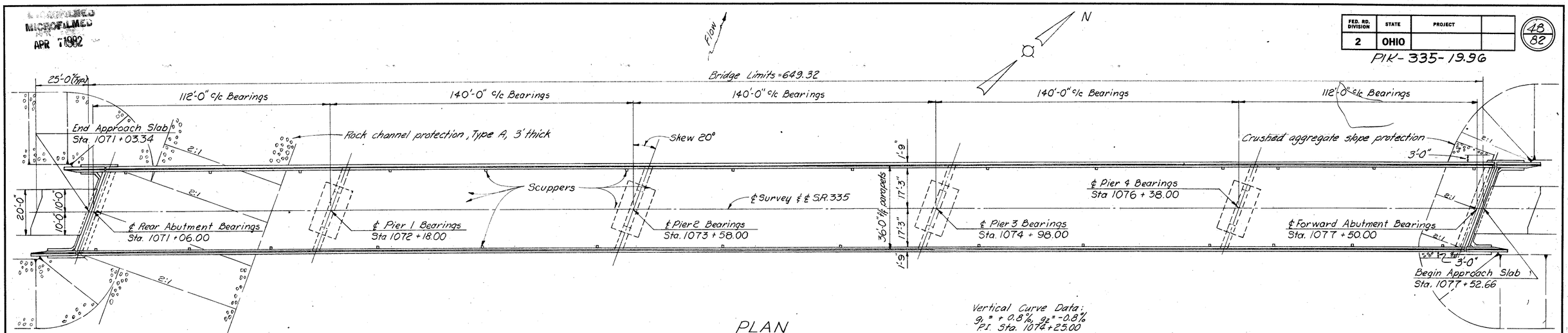
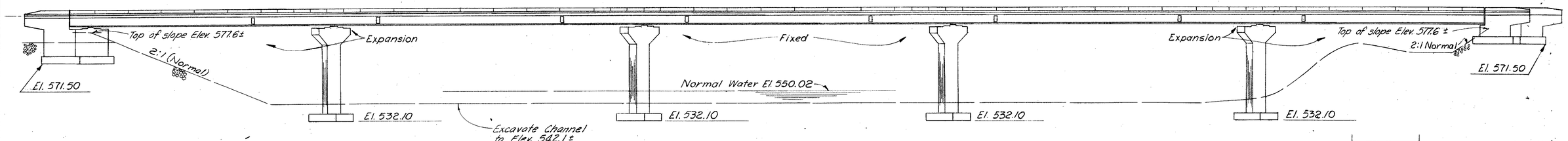
PIK-335-19.96

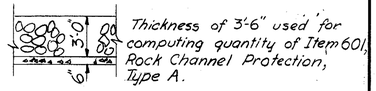


PLAN

Vertical Curve Data:
$g_1 = +0.8\%$, $g_2 = -0.8\%$
P.I. Sta. 1074+25.00
Elev. 588.55
L = 800'



ELEVATION
(Piles not shown)



Thickness of 3'-6" used for computing quantity of Item 601, Rock Channel Protection, Type A.

DETAIL OF ROCK CHANNEL PROTECTION

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Super.	Piers	Abuts	Gen'l	As-Built	
503	Lump	Sum	Cofferdams, cribs and sheeting				Lump		
503	822	Cu. yd.	Unclassified excavation		532	290			
505	Lump	Sum	Test pile				Lump		
506	Lump	Sum	First pile test load				Lump		
506	1	Each	Subsequent pile test load		1				
507	7,680	Lin. ft.	12" Cast-in-place reinforced concrete piles		5760	1920			
509	288,580	lb.	Reinforcing steel	209,924	63,411	15,245			
511	816	Cu. yd.	Class C concrete, superstructure	816					
511	127	Cu. yd.	Class C concrete, abutments above footings			127			
511	411	Cu. yd.	Class C concrete, piers above footings		411				
511	189	Cu. yd.	Class C concrete, footings		111	78			
513	999,600	Lb.	Structural steel	999,600					
514	999,600	Lb.	Field painting of structural steel	999,600					
518	39	Cu. yd.	Porous backfill			39			
518	66	Lin. ft.	6" perforated, helical corrugated metal pipe, including specials, 707.01			66			
518	98	Lin. ft.	6" non-perforated, helical corrugated metal pipe, including specials, 707.01			98			
518	28	Each	Scuppers, including supports, galvanized	28					
601		Cu. yd.	Rock channel protection, Type A						
601	108	Sq. yd.	Crushed aggregate slope protection				108		
808	816	Units	Chemical admixture for concrete, Type A, B or D	816					
838	3	Hour	Special pile tests				3		

GENERAL NOTES

REFERENCE shall be made to Standard Drawings BR-1-67 sheet 1, revised 1-1-71; RB-1-55, revised 2-2-59; and SD-1-69, sheets 1, 2 and 3 dated 6-12-69, and to Supplemental Specifications 808, dated 11-14-69; 836 dated 1-1-71, and 838 dated 3-18-70.

DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1969, including the Ohio "Supplement" to these specifications.

DESIGN DATA:
Design Loading - HS 20-44

Concrete Class C - unit stress 1200 p.s.i. for superstructure
unit stress 1333 p.s.i. for substructure

Structural Steel - ASTM A36 - unit stress 20,000 p.s.i.
Reinforcing Steel - ASTM A615, A616 or A617 - unit stress 20,000 p.s.i.

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.

PILES shall be driven to a minimum bearing capacity of 35 tons per pile for the abutments and 50 tons per pile for the piers.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

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GENERAL PLAN, ELEVATION, NOTES, & ESTIMATED QUANTITIES

BRIDGE NO. PIK-335-2028
OVER SCIOTO RIVER

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.L.D.	B.E.B.		INNES 5-7-70	BFG	5-13-70	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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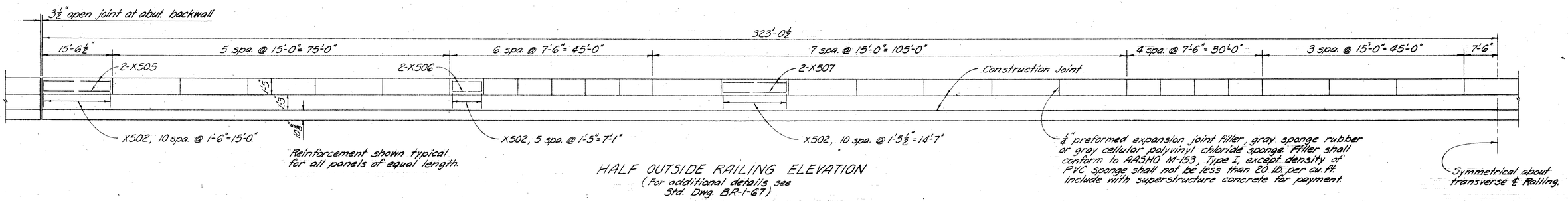
PIK-335-19.96

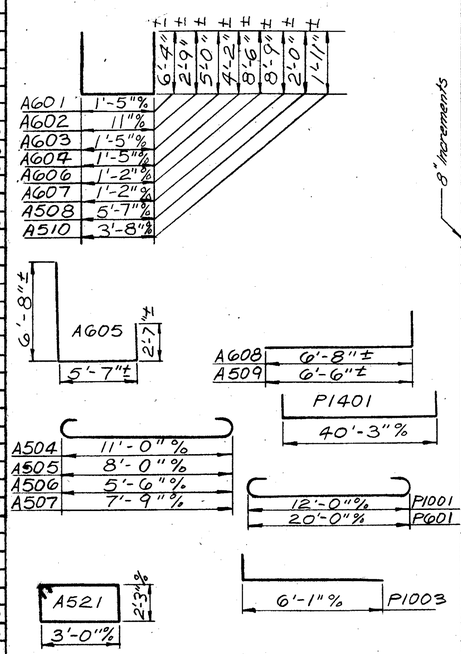


HALF OUTSIDE RAILING ELEVATION
(For additional details see Std. Dwg. BR-1-67)

REINFORCING STEEL LIST

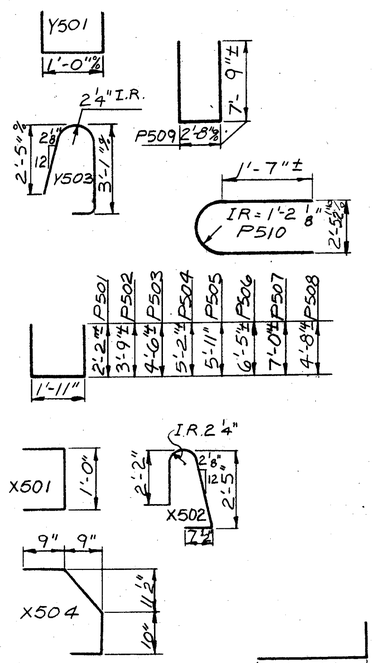
Mark	No.	Length	Weight	Stp
Abutments				
A801	28	22'-2	1657	S
A802	6	15'-7"	250	S
A803	6	10'-0"	160	S
A804	6	16'-3"	260	S
A805	6	12'-0"	192	S
A601	30	13'-9"	620	B
A602	42	6'-1"	384	B
A603	42	11'-1"	699	B
A604	72	9'-5"	1018	B
A605	68	14'-6"	1481	B
A606	18	17'-10"	482	B
A607	16	18'-4"	441	B
A608	8	7'-4"	88	B
A501	68	20'-7"	1460	S
A502	4	24'-6"	102	S
A503	4	9'-0"	38	S
A504	6	12'-2"	76	B
A505	8	9'-2"	76	B
A506	8	6'-8"	56	B
A507	6	8'-11"	56	B
A508	68	9'-4"	662	B
A509	68	7'-0"	496	B
A510	68	7'-3"	514	B
A511	12	13'-8"	171	S
A512	4	17'-10"	74	S
A513	4	15'-0"	63	S
A514	4	12'-3"	51	S
A515	8	8'-9"	73	S
A516	4	15'-10"	66	S
A517	4	13'-1"	55	S
A518	4	10'-3"	43	S
A519	6	12'-8"	79	S
A520	6	12'-3"	77	S
A521	42	11'-0"	482	B
Y701	4	4'-0"	33	S
Y702	4	5'-5"	44	B

Bending Diagrams



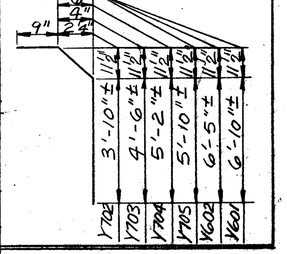
Mark	No.	Length	Weight	Stp
Abutment (Cont.)				
Y703	4	6'-2"	50	B
Y704	4	6'-11"	57	B
Y705	4	7'-8"	63	B
Y601	34	8'-8"	443	B
Y602	4	8'-3"	50	B
Y501	58	2'-0"	121	B
Y502	40	2'-10"	118	S
Y503	38	6'-3"	248	B
Y504	38	7'-10"	310	S
Y505	4 Series of 5	4'-0" to 6'-8"	111	S
Y506	28	19'-10"	579	S *
Y507	28	17'-8"	516	S *
Piers				
P1401	24	44'-5"	8155	B
P1402	24	40'-3"	7390	S
P1001	116	14'-10"	7404	B
P1002	152	22'-0"	14389	S
P1003	152	7'-2"	4688	B
P701	152	18'-3"	5670	S
P601	32	21'-4"	1025	B
P602	32	21'-1"	1013	S
P603	16	18'-11"	455	S
P604	8	27'-10"	334	S
P605	8	19'-6"	234	S
P606	16	11'-7"	278	S
P501	304	6'-0"	1902	B
P502	64	9'-2"	612	B
P503	64	10'-8"	712	B

Bending Diagrams



Mark	No.	Length	Weight	Stp
Piers Cont.				
P504	64	12'-0"	801	B
P505	32	13'-6"	451	B
P506	32	14'-6"	484	B
P507	48	15'-8"	784	B
P508	64	11'-0"	734	B
P509	64	18'-0"	1202	B
P510	200	6'-11"	1443	B
P511	200	15'-7"	3251	S
Superstructure				
S601	2170	37'-8"	122770	S
S602	4 Series of 20	35'-8" to 5'-24"	2454	S
S603	12	3'-7"	65	S
S501	1870	30'-0"	58512	S
S502	85	20'-8"	1832	S
S503	240	28'-10"	7217	S
X501	864	2'-0"	1802	B
X502	966	5'-4"	5373	B
X503	864	2'-0"	1802	B
X504	864	3'-2"	2854	B
X505	16	15'-2"	253	S
X506	160	7'-2"	1196	S
X507	248	14'-8"	3794	S
Replacement Bars				
RE1401	1	2'-6"	-	S
RE1001	2	8'-2"	-	S
RE801	1	7'-6"	-	S
RE701	1	7'-2"	-	S
RE601	7	6'-11"	-	S
RE501	6	6'-7"	-	S

Bending Diagrams



BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four are used, indicate the bar size number. For example, P701 is a No. 7 size bar and P1001 is a No. 10 size.

Splices in No. 14 size bars shall be made by an approved positive mechanical method designed to develope 125% of the yield strength of the bar.

* Bend in field when necessary
Cost of field bending included with reinforcing steel for payment.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

3/9

RAILING DETAILS
REINFORCING STEEL LIST
BRIDGE NO. PIK-335-2028
OVER
SCIOTO RIVER

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.L.D.	R.L.D.		INNES	BFG	5-13-70	

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APR 1982

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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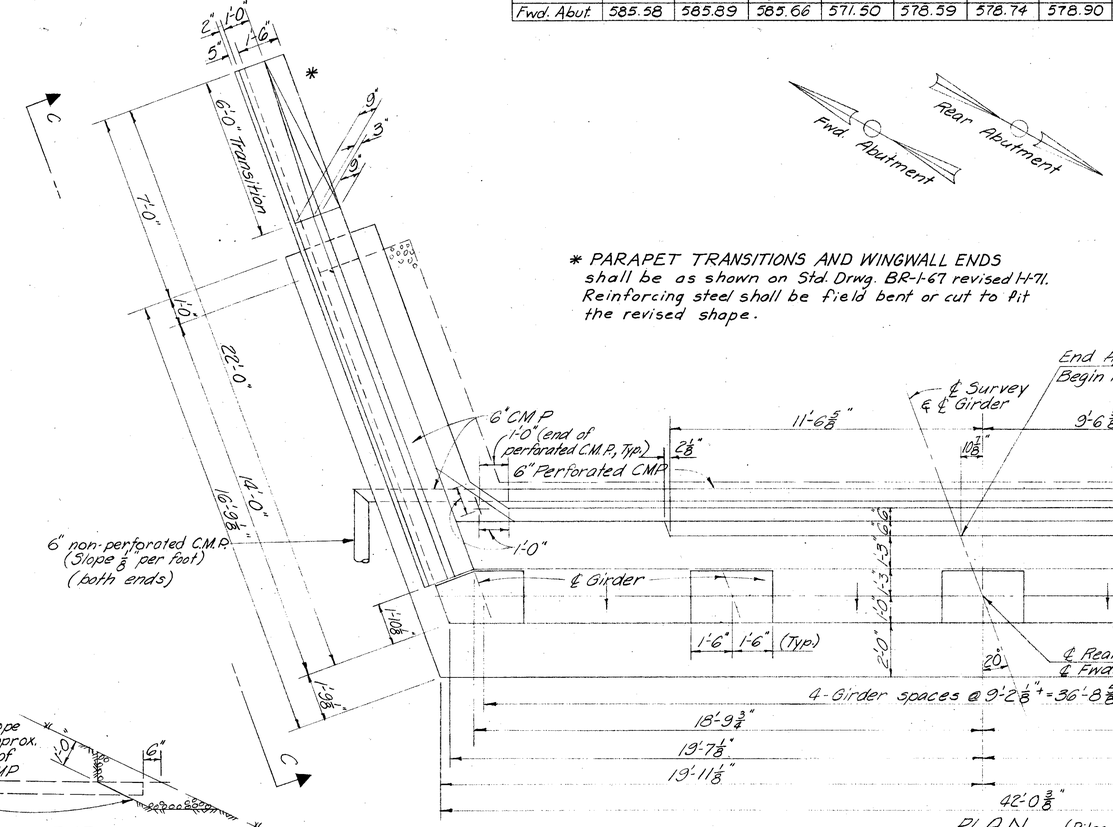
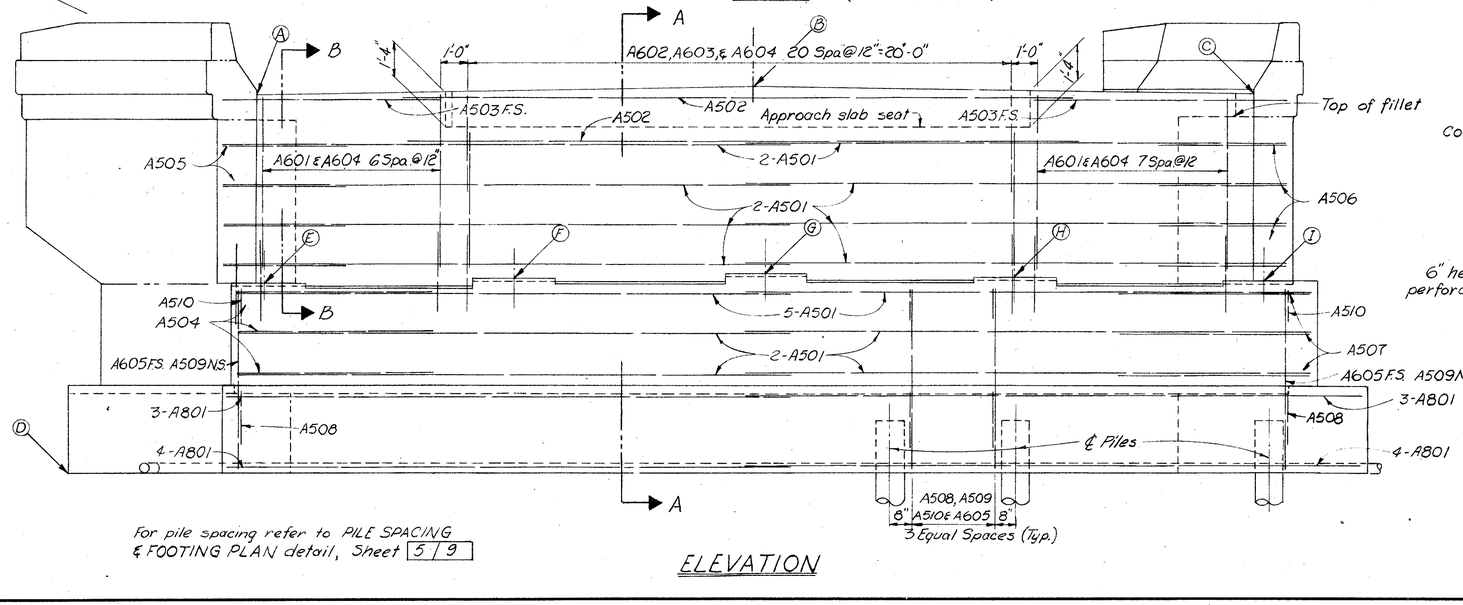
PIK-335-19.96

TABLE OF ELEVATIONS									
ELEVATION	A	B	C	D	E	F	G	H	I
Rear Abut.	585.61	585.92	585.69	571.50	578.63	578.78	578.94	578.82	578.71
Fwd. Abut.	585.58	585.89	585.66	571.50	578.59	578.74	578.90	578.78	578.67



DETAIL AT END OF PIPE

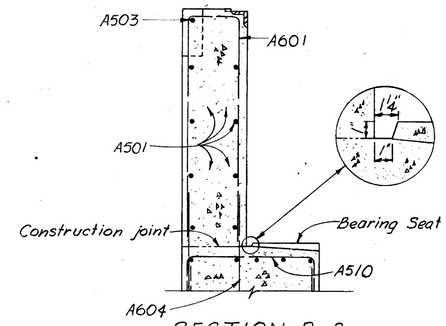
(Terminate as shown above in Rock channel protection at Rear Abut., and in detailed Crushed aggregate slope protection at right side of Fwd. Abut.)



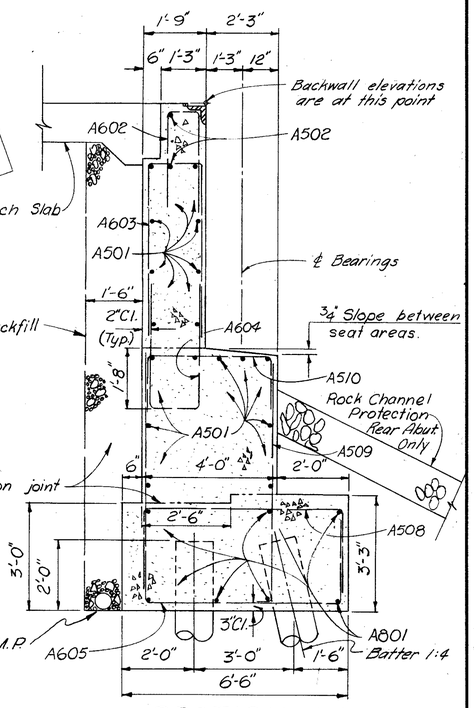
ELEVATION

For pile spacing refer to PILE SPACING & FOOTING PLAN detail, Sheet 5/9

N.S. ~ Near Side
F.S. ~ Far Side



SECTION B-B



SECTION A-A

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

4/9

ABUTMENT DETAILS

BRIDGE NO. PIK-335-2028
OVER SCIOTO RIVER

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.L.D.	R.L.D. B.E.B.		INNES	BFG	5-13-70	

Rev. 12-16-70

See PARAPET TRANSITION note, Sheet 4/9.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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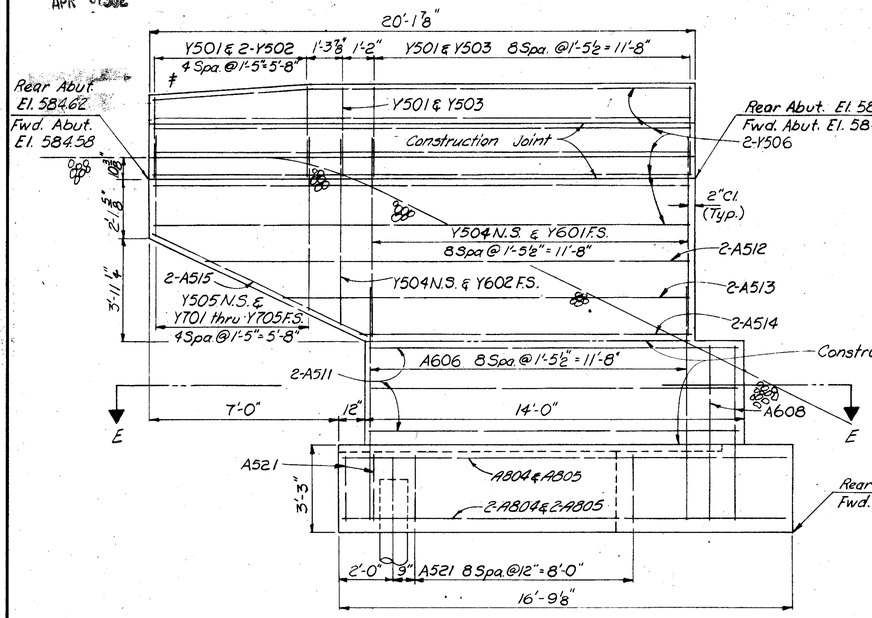
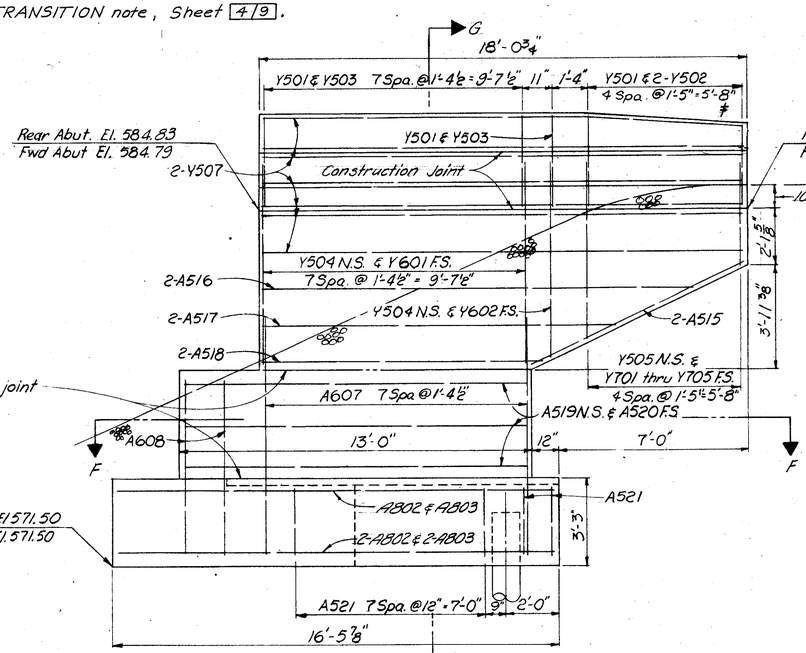
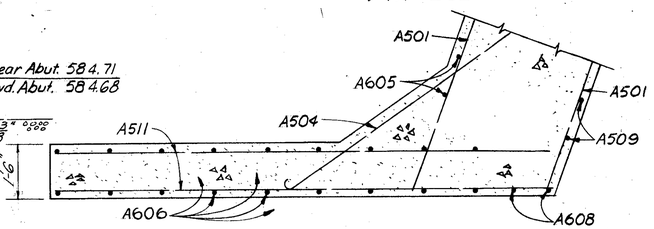


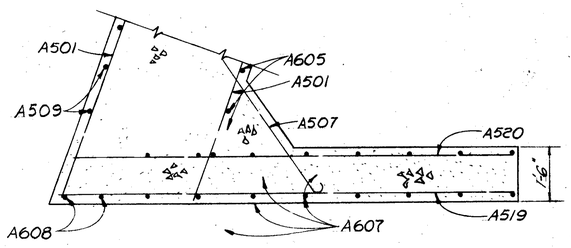
VIEW C-C



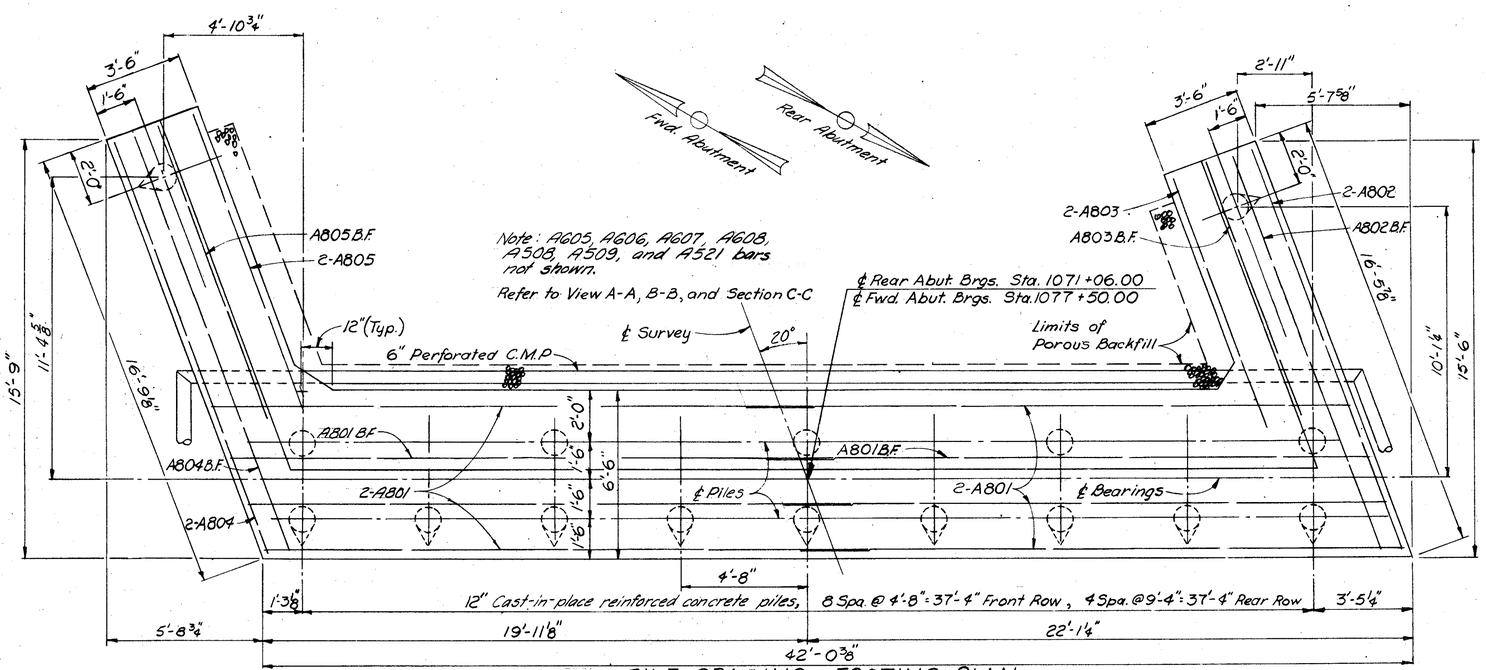
VIEW D-D



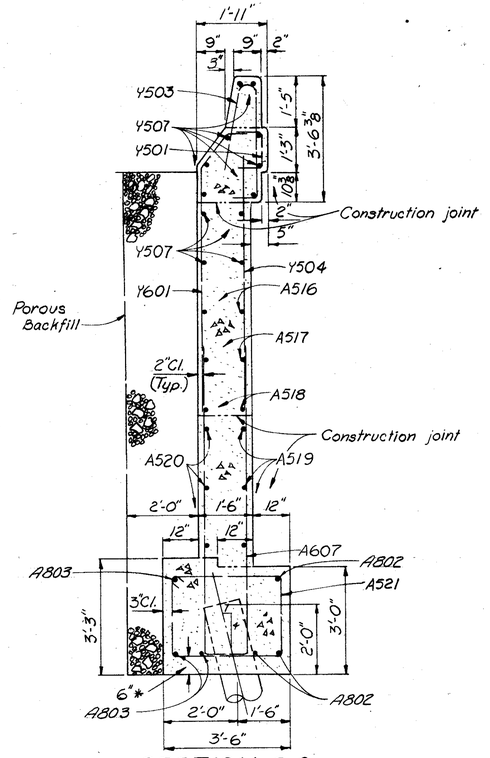
SECTION E-E



SECTION F-F



PILE SPACING & FOOTING PLAN



SECTION G-G

Porous backfill, 1'-6" thick full length of abutment, and 2'-0" thick behind wingwalls to the limits shown, shall extend up to the underside of the approach slab or to the finished ground surface.

For additional parapet notes and details see Std. Dwg. BR-1-67

( ) Indicates direction of 1:4 Pile Batter.

* Provide sufficient clearance for passage of the 6" helical C.M.P. thru the bottom of the footing.

B.F. – Bottom of Footing
F.S. – For Side
N.S. – Near Side

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

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ABUTMENT DETAILS

BRIDGE NO. PIK-335-2028
OVER SCIOTO RIVER

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.L.D.	B.L.B.		INNES	BFG	5-13-70	

Rev. 12-16-70

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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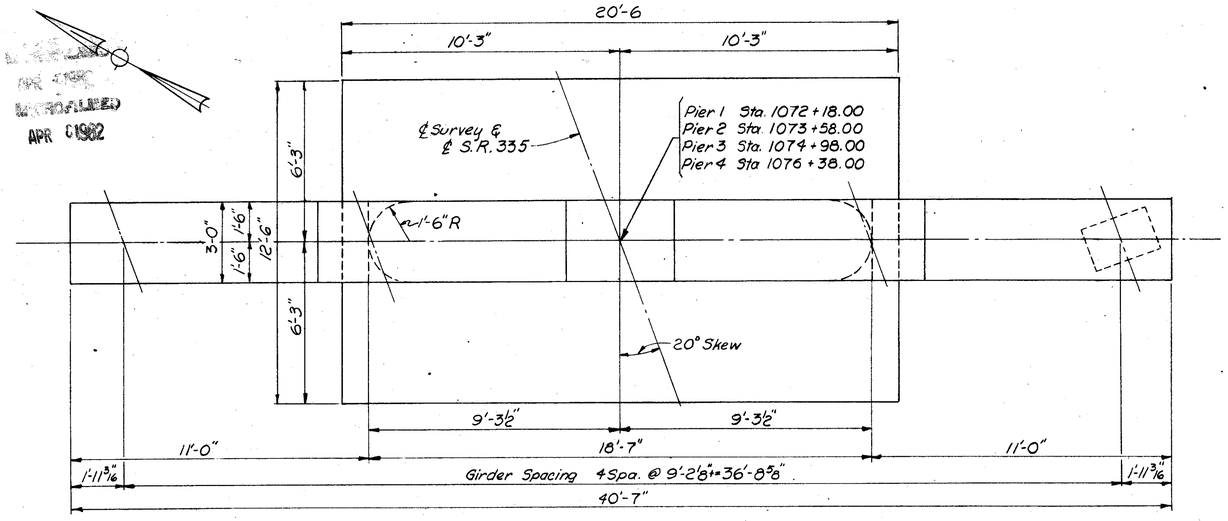
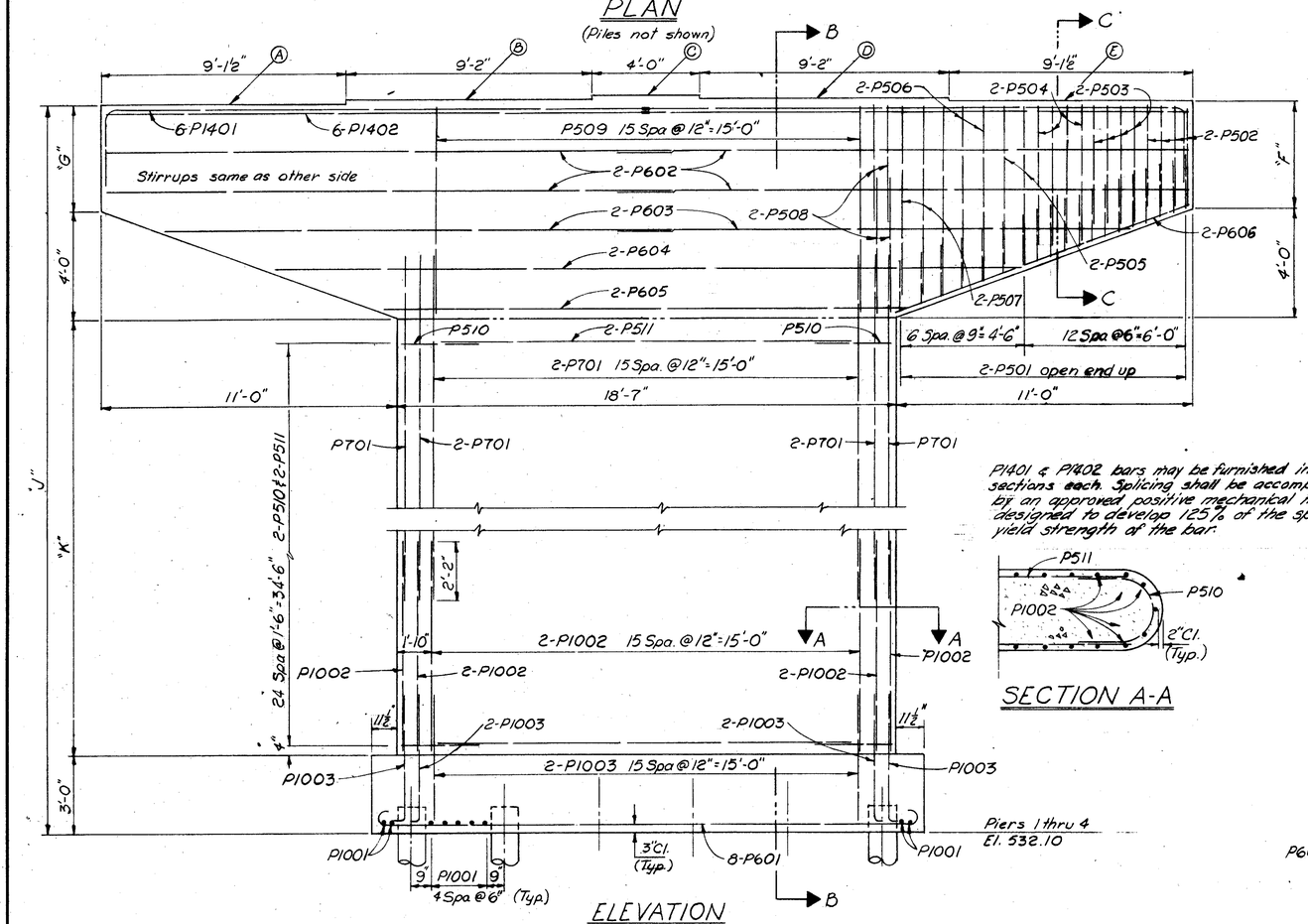
PIK-335-19,96

ELEVATION						DIMENSION			
Pier No.	A	B	C	D	E	"F"	"G"	"J"	"K"
1	578.56	578.68	578.80	578.65	578.51	4'-0"	4'-0 3/8"	46'-5 1/2"	35'-4 5/8"
2	578.91	579.05	579.18	579.04	578.90	4'-0"	4'-0 1/8"	46'-9 3/4"	35'-9 5/8"
3	578.89	579.03	579.17	579.04	578.91	4'-0 1/4"	4'-0"	46'-9 1/2"	35'-9 1/2"
4	578.48	578.63	578.78	578.66	578.53	4'-0 5/8"	4'-0"	46'-4 1/8"	35'-4 1/8"



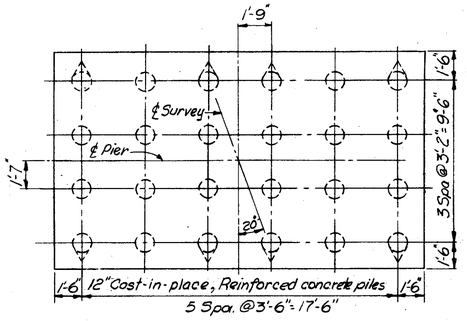
PLAN
(Piles not shown)



ELEVATION

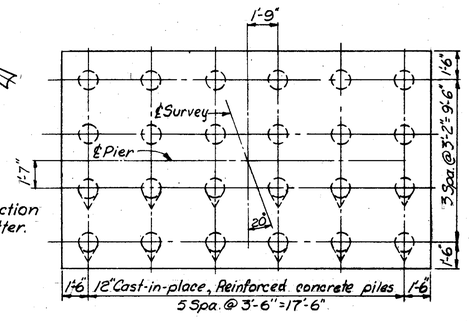
P1401 & P1402 bars may be furnished in two sections each. Splicing shall be accomplished by an approved positive mechanical method designed to develop 125% of the specified yield strength of the bar.

SECTION A-A



PIER 1, 2, & 3

Indicates direction of 1:4 Pile Batter.



PIER 4

PILE LAYOUT PLAN
(For ℄ Pier Sta., see Plan)

SECTION B-B (Pier 4)

SECTION C-C

PART SECTION B-B (Pier 1, 2, & 3)

BRIDGE SEAT REINFORCING: Special care shall be taken in placing the reinforcing steel in the vicinity of the bridge seat in Piers 2 & 3 to avoid interference with drilling of the anchor bolt holes.

ONE OPTIONAL HORIZONTAL CONSTRUCTION may be provided in the stem if desired.

WHERE PILES INTERFERE with placement of P1003 bars, shift P1003 to clear piles.

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PIER DETAILS

BRIDGE NO. PIK-335-2028
OVER SCIOTO RIVER

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.L.D.	B.E.B.		INNES	BFG	5-13-70	

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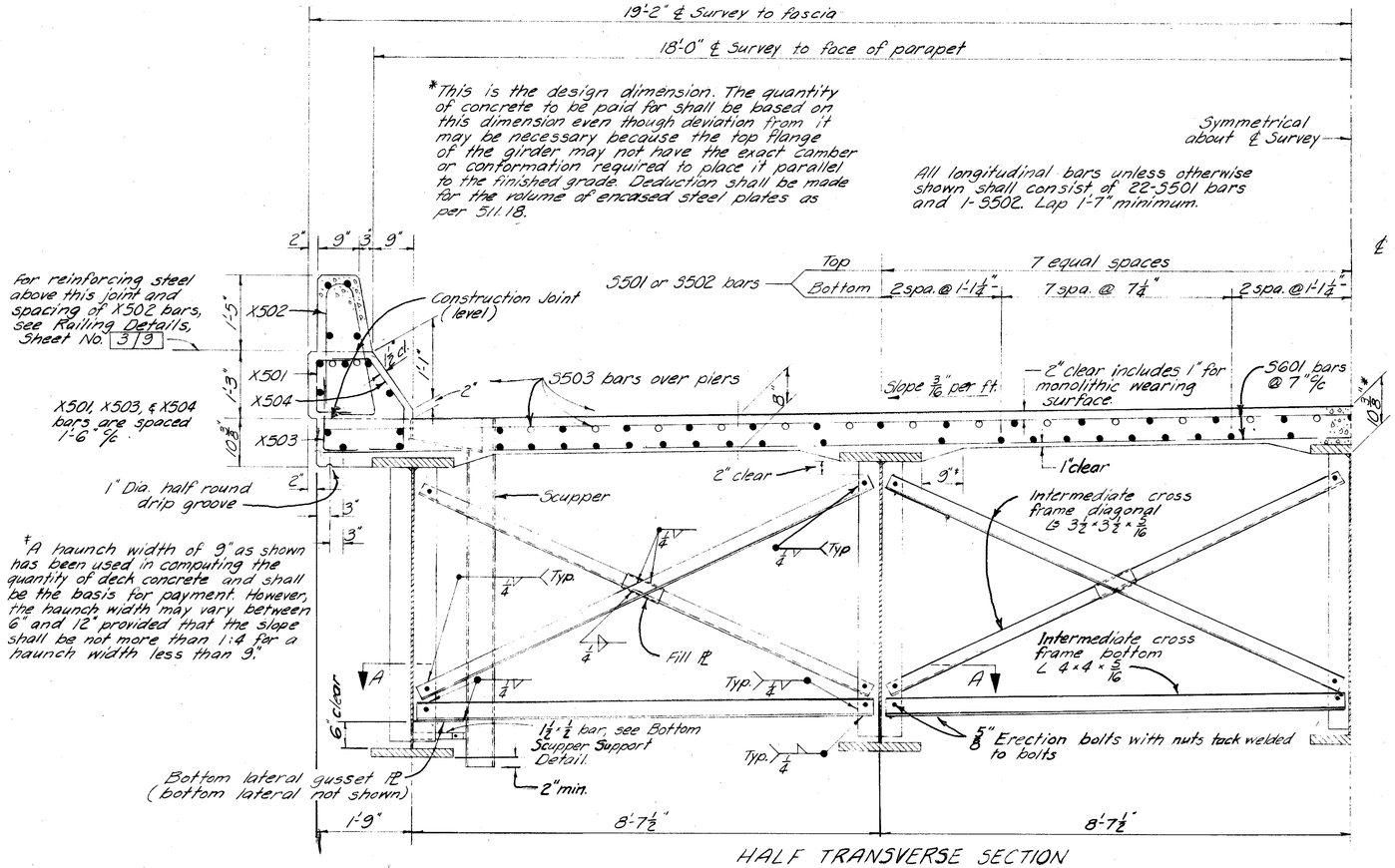
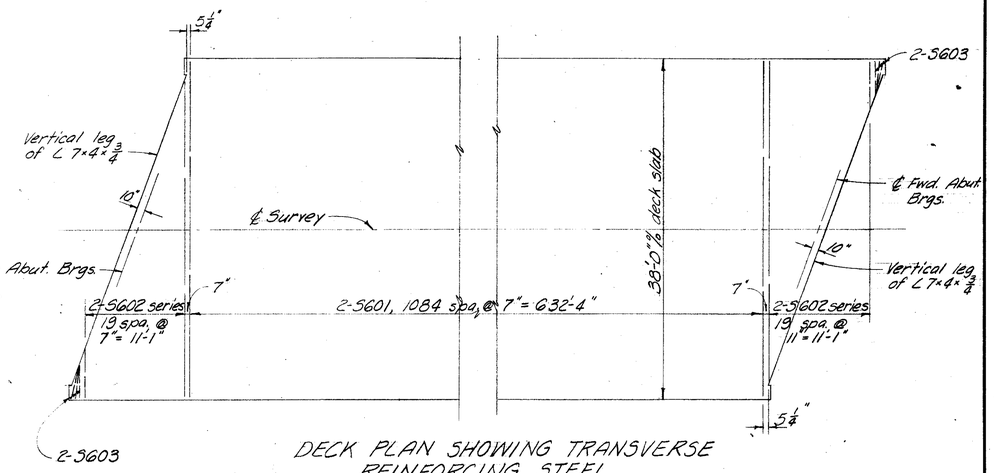


HALF TRANSVERSE SECTION

†A haunch width of 9" as shown has been used in computing the quantity of deck concrete and shall be the basis for payment. However, the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch width less than 9".



DECK PLAN SHOWING TRANSVERSE REINFORCING STEEL

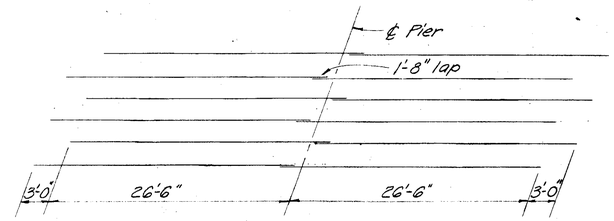
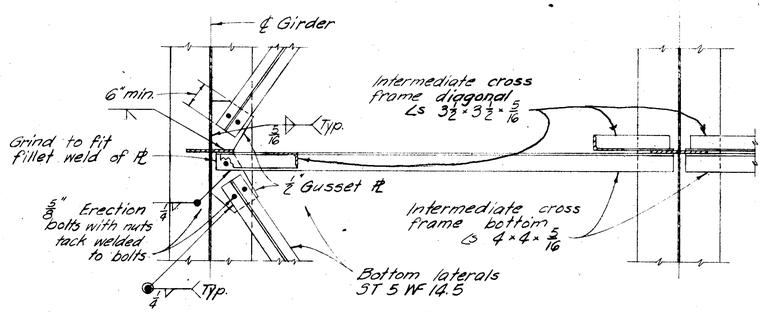
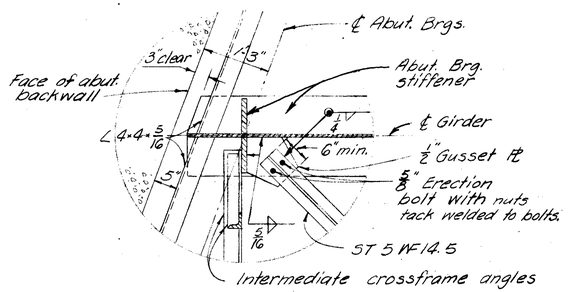


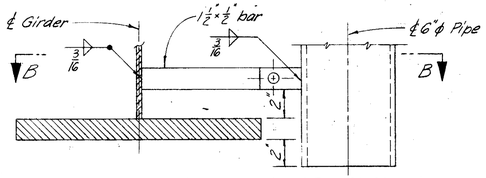
DIAGRAM SHOWING STAGGER OF 5503 BARS OVER PIERS



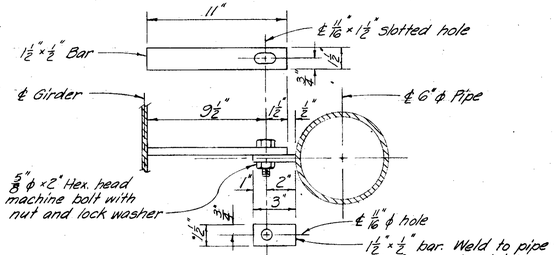
SECTION A-A
SHOWING DETAIL OF LATERAL BRACING



DETAIL A
See Sheet 8 9



BOTTOM SCUPPER SUPPORT DETAIL



SECTION B-B

REFER to the following standard drawings:

SD-1-69
1. Roadway end dam and curb plates.
2. End crossframes
3. Additional scupper and support detail.
4. Welded butt joint in superstructure end dam.

BR-1-67
Railing

RB-1-55
Bearing details modified as per plan

STATE OF OHIO
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SUPERSTRUCTURE DETAILS BRIDGE NO. PIK-335-2028 OVER SCIOTO RIVER

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.L.D.	R.L.D.		INNES	BFG	5-13-70	

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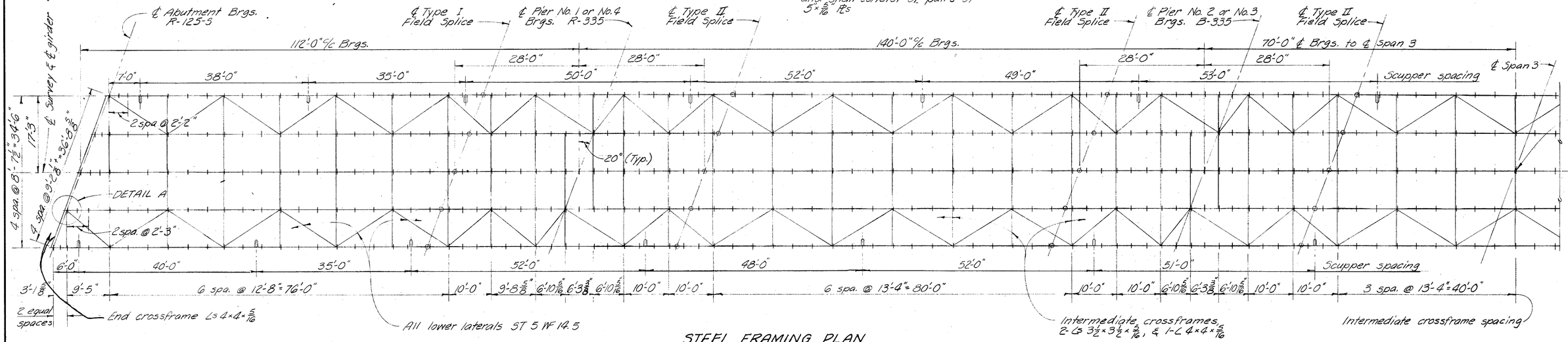
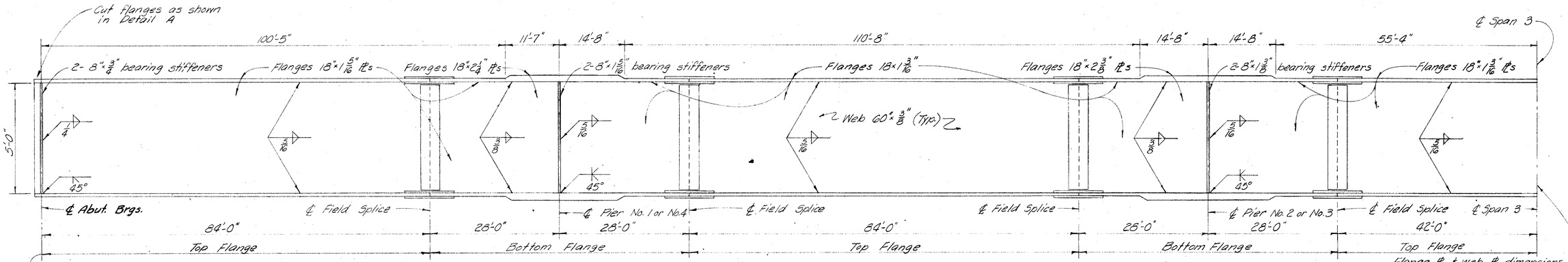
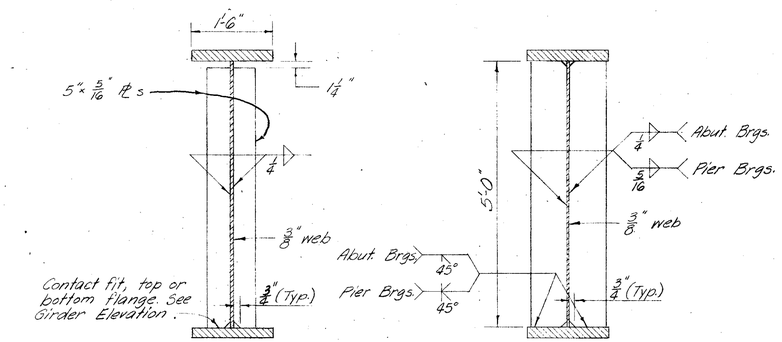
Intermediate stiffeners shall be approximately equally spaced between crossframes as shown and shall consist of pairs of 5"×5/16" flts



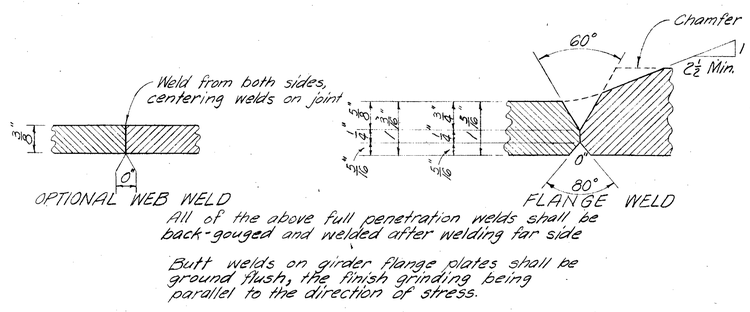
STEEL FRAMING PLAN



GIRDER ELEVATION
(Intermediate stiffeners not shown. See Steel Framing Plan)



GIRDER DETAILS



All of the above full penetration welds shall be back-gouged and welded after welding far side

Butt welds on girder flange plates shall be ground flush, the finish grinding being parallel to the direction of stress.

JOINT PREPARATION FOR SUBMERGED ARC WELDED SHOP SPLICES

Refer to Sht. 79 for DETAIL A

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STATE OF OHIO
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DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

SUPERSTRUCTURE DETAILS
BRIDGE NO. PIK-335-2028
OVER
SCIOTO RIVER

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.L.D.	R.L.D.		INNES	BFG	5-13-70	

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2	OHIO		

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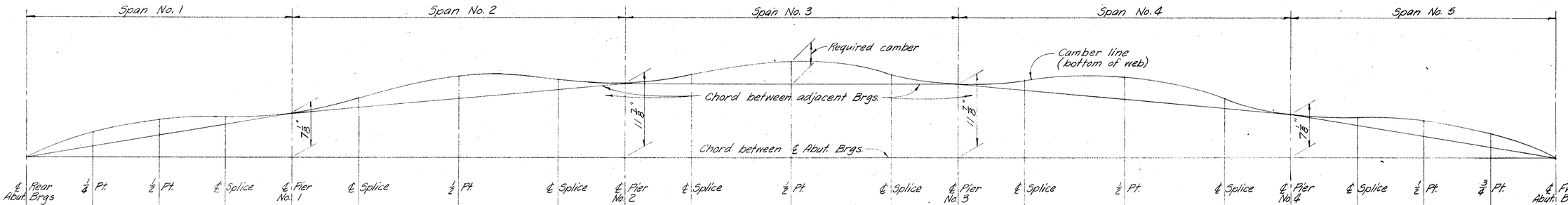
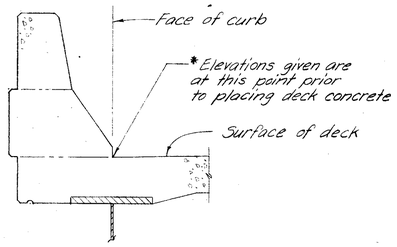


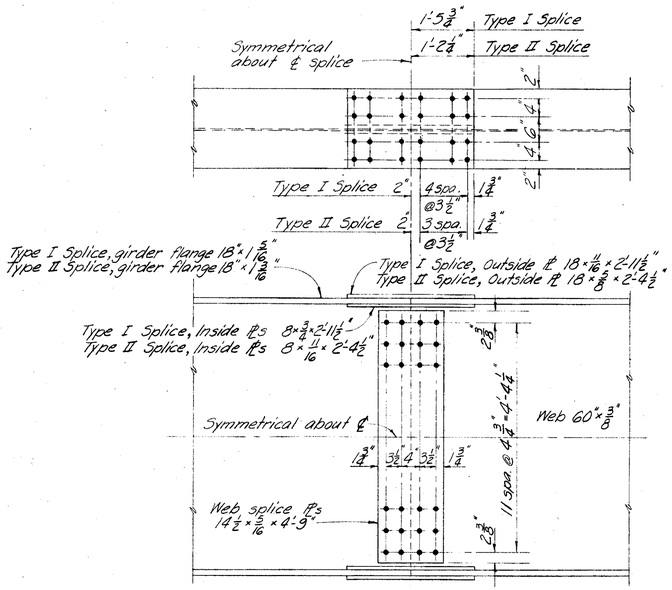
DEFLECTION AND CAMBER

Deflection due to weight of steel		3/16"		1/4"	1/8"		1/8"	1/4"	1/16"		1/16"	1/4"	1/16"		1/16"	1/4"	1/8"		1/8"	1/4"	3/16"			
Deflection due to remaing dead load		13/16"		7/8"	5/16"		5/16"	1"	3/8"		3/8"	1"	3/8"		3/8"	1"	5/16"		5/16"	7/8"	13/16"			
Convexity required for vertical curve		5/16"		8/8"	5/16"		8/8"	9/16"	3/8"		8/8"	9/16"	3/8"		8/8"	3/16"	3/8"		5/16"	3/8"	5/16"			
Sum of above equals required camber		1 5/16"		1 1/2"	3/4"		1 3/16"	1 3/16"	1 3/16"		1 3/16"	1 3/16"	1 3/16"		1 3/16"	1 3/16"	1 3/16"		3/4"	1 1/2"	1 5/16"			

ELEVATIONS

Left curb station	1071+12.28	1071+25.00	1071+50.00	1071+75.00	1072+00.00	**1072+24.28**	1072+50.00	1072+75.00	1073+00.00	1073+25.00	1073+50.00	1073+64.28	1073+75.00	1074+00.00	1074+25.00	1074+50.00	1074+75.00	1075+04.28	1075+25.00	1075+50.00	1075+75.00	1076+00.00	1076+25.00	1076+44.28	1076+75.00	1077+00.00	1077+25.00	1077+50.00	1077+56.28
*Left curb elevation	585.70	585.82	586.00	586.12	586.20	**586.28**	586.40	586.52	586.61	586.63	586.63	586.64	586.66	586.72	586.76	586.75	586.69	586.62	586.60	586.59	586.54	586.44	586.30	586.20	586.09	586.00	585.85	585.64	585.58
Right curb station	1070+99.72	1071+25.00	1071+50.00	1071+75.00	1072+00.00	**1072+11.72**	1072+25.00	1072+50.00	1072+75.00	1073+00.00	1073+25.00	1073+51.72	1073+75.00	1074+00.00	1074+25.00	1074+50.00	1074+75.00	1074+91.72	1075+00.00	1075+25.00	1075+50.00	1075+75.00	1076+00.00	1076+31.72	1076+50.00	1076+75.00	1077+00.00	1077+25.00	1077+43.72	
*Right curb elevation	585.62	585.84	586.00	586.11	586.18	**586.23**	586.29	586.42	586.53	586.60	586.61	586.63	586.67	586.74	586.76	586.73	586.67	586.64	586.62	586.62	586.59	586.52	586.41	586.25	586.18	586.11	585.99	585.83	585.66





GIRDER FIELD SPLICE
All bolts 1" ϕ High Strength

ROCKERS AND BOLSTERS

Bolster No.	Rocker No.	Dimensions (Refer to Std. Dwg. RB-1-55)												Weight each (lb)	
		A	B	C	D	F	G.	H	K	L	M	R	T	Y	Bolster	Rocker
B-335	R-335	3 1/2"	21"	3 1/2"	3 1/4"	3/4"	12"	19 3/8"	14"	29"	26"	13"	3 1/4"	1 1/16"	990	1145

R-125-S rockers shall be the same as R-125 rockers per Std. Dwg. RB-1-55 except:
1. Height of stiffener plates on web shall be 4 3/4" instead of 4 3/4".
2. Diameter of top of 1 1/2" ϕ dowels shall be reduced to 1"

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SUPERSTRUCTURE DETAILS
BRIDGE NO. PIK-335-2028
OVER
SCIOTO RIVER

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.L.D.	R.L.D.			BFG	5-13-70	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	70ER1563(3)	

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PIKE COUNTY
PIK-335-19.96
4.0± Mi. East of Waverly

Drive

End Appr. Slab
Sta. 1091+97.63

C.S. 1089+00.46

P.T. 1092+50.46

45° Skew

Curve Data
P.I. Sta. 1087+31.10
Δ = 77°-36' Lt. Dc = 9°-00'
Ls = 350' Θs = 15.75°
Lc = 512.22 R = 636.62'

Flow

601.08 Rock Channel Protection
Type A, 3' thick.

Begin Appr. Slab.
Sta. 1098+52.48

Fill to Elev. 574.0 ± and slope to drain

Q25 = 120,000 cfs
¾ of discharge flows thru main channel and ¼ thru overflow bridge.

Clears Assumed 25yr. H.W. 579±

Sta. 1091+97.63

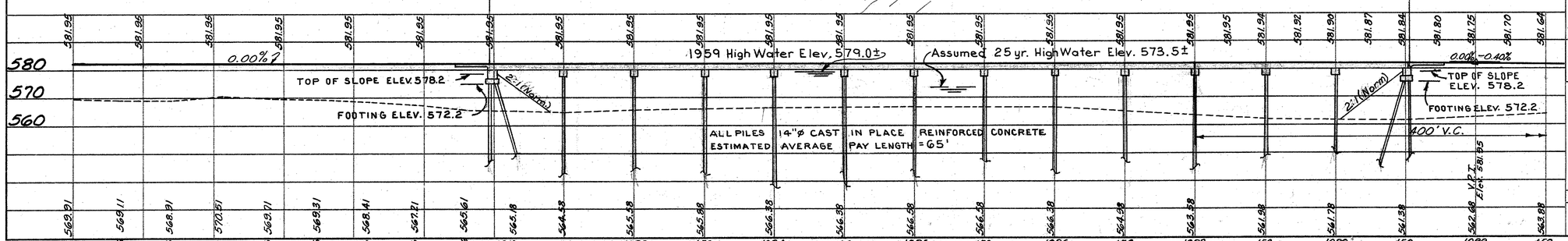
BRIDGE LIMITS = 654.85'

Sta. 1098+52.48

Ex. Twp. Rd. # T-824

Metal Storage Bins
Fr. Garage
Fr. Shelter
28' Metal Bin

1988 ADT = 665
DRAINAGE AREA = 5717 SQ. MI.



PROPOSED STRUCTURE

TYPE: Composite prestressed box beam deck with capped pile abutments & piers
SPANS: 13 @ 50'-0" substructure units.
ROADWAY: 36'-0" f/f guard rails.
LOADING: HS 20-44
SKEW: 45° L.F.
WEARING SURFACE: 1" Monolithic Concrete
APPROACH SLABS: AS-1-67 (25' long)
ALIGNMENT: Spiral to tangent
SUPERELEVATION: Varies

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STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

SITE PLAN

BRIDGE NO. PIK-335-2064
OVER SCIOTO RIVER OVERFLOW

PIKE CO
S.R. 335
STA. 1091+97.41
1098+52.59

SEC. 1" = 20' VERT.
SCALE 1" = 40' HORZ.

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
AERIAL SURVEY	AERIAL SURVEY	B.D.H.	B.D.H.	D.H.S.	P.E.S.

09692

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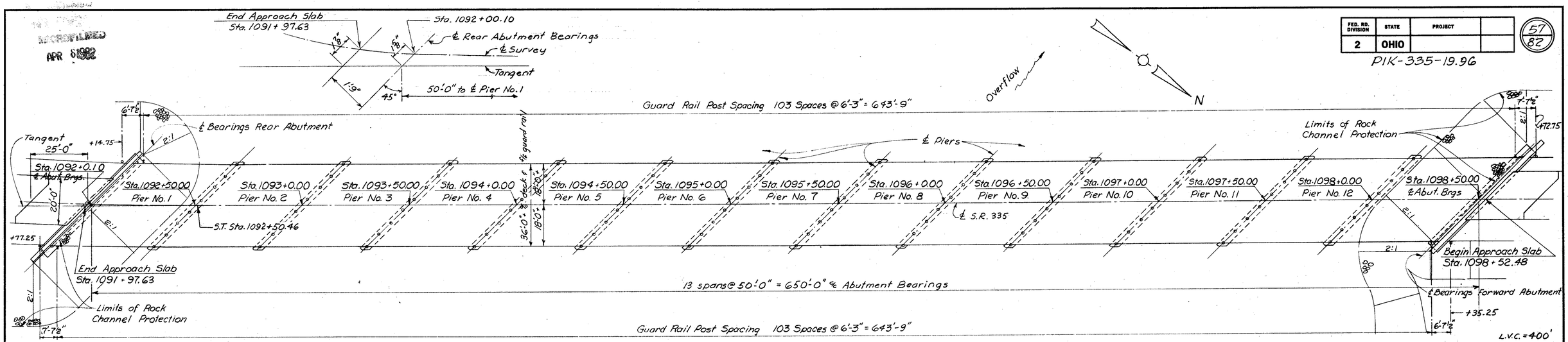
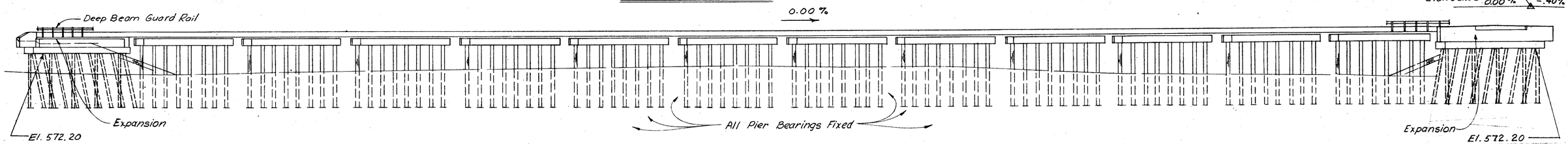


GENERAL PLAN



ELEVATION

All PILES are 14" cast-in-place reinforced concrete.

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Super.	Abuts.	Piers	Gen'l.
503	230	Cu. yd.	Unclassified excavation		230		
505	Lump	Sum	Test pile				Lump
506	Lump	Sum	First pile test load				Lump
506	1	Ea.	Subsequent pile test load				1
507	7800	Lin. ft.	14" cast-in-place reinforced concrete piles		1560	6240	
509	96.050	Lb.	Reinforcing steel	39.074	9.602	47.374	
510	144	Each	Dowel holes			144	
511	386	Cu. yd.	Class C concrete, superstructure	386			
515	117	Each	Prestressed concrete bridge members, CB21-48	117			
516	14,000	Lb.	Structural expansion and contraction joints	14,000			
516	165	Sq. ft.	½" thick elastomeric bearing pads, Grade 50, 60, or 70			165	
517	1309.70	Lin. ft.	Railing (two deep beam rails with steel posts and bolts)	1309.70			
518	60	Cu. yd.	Porous backfill		60		
518	131	Lin. ft.	6" perforated, helical corrugated metal pipe including specials, 707.01		131		
518	40	Lin. ft.	6" non-perforated helical corrugated metal pipe, 707.01		40		
601		cu.yds.	Rock channel protection, Type A, 3' thick				
808	386	Units	Chemical Admixture for concrete, Type A, B, or D	386			
838	3	Hour	Special pile tests				3
511	150	Cu.yd.	Class C concrete, abutments		150		
511	175	Cu.yd.	Class C concrete, pier caps			175	
516	20	Each	Abutment bearing devices		20		
516	14	Sq. ft.	¼" Thick elastomeric bearing pad shims Grade 50, 60 or 70		6	8	

REFERENCE shall be made to Supplemental Specifications 808 dated 11-14-69, 836 dated 1-1-71, and 838 dated 3-18-70.

DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials 1969, including the Ohio "Supplement" to these specifications.

DESIGN DATA:
Design Loading HS20-44

Concrete, Prestressed Concrete Beams - unit stress 2200 p.s.i. compression, 222 p.s.i. tension.

Concrete, Class C - unit stress 1200 p.s.i. for superstructure, 1333 p.s.i. for substructure

Prestressing Strands ASTM A416 f_s = 268,000 p.s.i.
Working load stress = 0.60 f_s

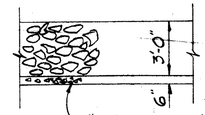
Reinforcing Steel ASTM A615, A616, A617
unit stress 20,000 p.s.i.

EMBANKMENT CONSTRUCTION: The embankments shall be constructed to the level of the subgrade for a minimum distance of 200 feet back of the abutments. Excavation shall then be made for the abutments and piles driven at the abutments and Piers 1 and 12.

PILES shall be driven to a minimum bearing capacity of 45 tons per pile for the abutments and 45 tons per pile for the piers.

BEAM ERECTION may begin with the beam at the ℄ roadway or with an exterior beam. If erection is begun with an exterior beam, that beam shall be placed with its fascia 18'-3" normal to the ℄ roadway (the 3" being an estimated allowance for fit-up) in order that the center beam may be centered as nearly as possible on the ℄ roadway. Final location of each bearing shall be with respect to the actual joint location.

¼" THICK ELASTOMERIC BEARING PAD SHIMS shall be placed on top of bearings at corners of beams at the rear abutment and Piers 1 and 2 where required for proper bearing, to accommodate difference in slope of bridge seats. The number required shall be determined as

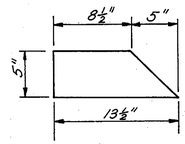


6" Bed of No. 3 or 4 Coarse Aggregate

Thickness of 3'-6" used for computing quantity of Item 601, Rock Channel Protection.

DETAIL OF ROCK CHANNEL PROTECTION

beams are placed, but not more than three layers at the rear abutment and Pier 1, and not more than one layer at Pier 2 shall be used.



¼" Thick Elastomeric Shim

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

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GENERAL PLAN, ELEVATION, NOTES, & ESTIMATED QUANTITIES

BRIDGE NO. PIK-335-2064
OVER SCIOTO RIVER OVERFLOW

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WJJ	B.E.B.		J.D.R.	BFG	5-5-70	1-28-71

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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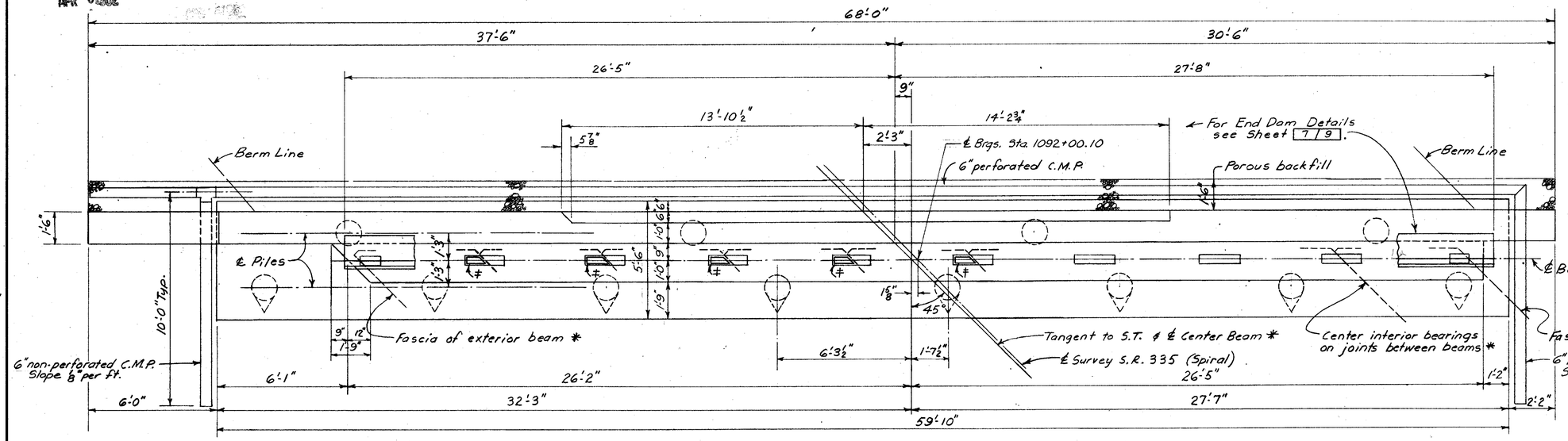
N

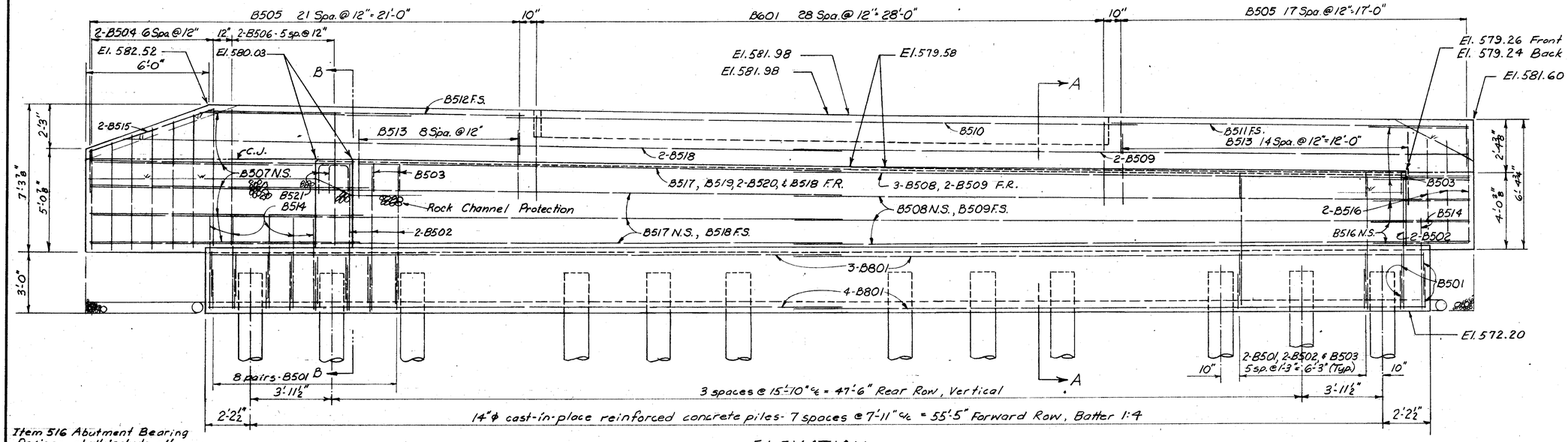
1/4" thick elastomeric shims as req'd. See note, Sheet 2/9.
* See BEAM ERECTION note, General Notes.

Indicates direction of 1:4 pile batter.

POROUS BACKFILL, 1'-6" thick full length of abutment and wings, shall extend up to the approach slab and to the finished ground surface.



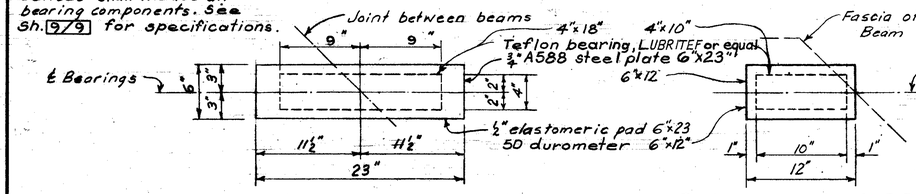
PLAN



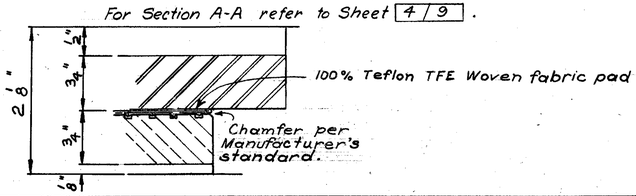
ELEVATION

C.J. - Construction Joint
F.R. - Front to Rear
N.S. - Near Side
F.S. - Far Side

Item 516 Abutment Bearing Devices shall include all bearing components. See Sh. 5/9 for specifications.



For Section A-A refer to Sheet 4/9.



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DEPARTMENT OF HIGHWAYS
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REAR ABUTMENT DETAILS

BRIDGE NO. PIK-335-2064 OVER SCIOTO RIVER OVERFLOW

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W	W B.E.B.		J.D.R.	BFG	5-5-70	

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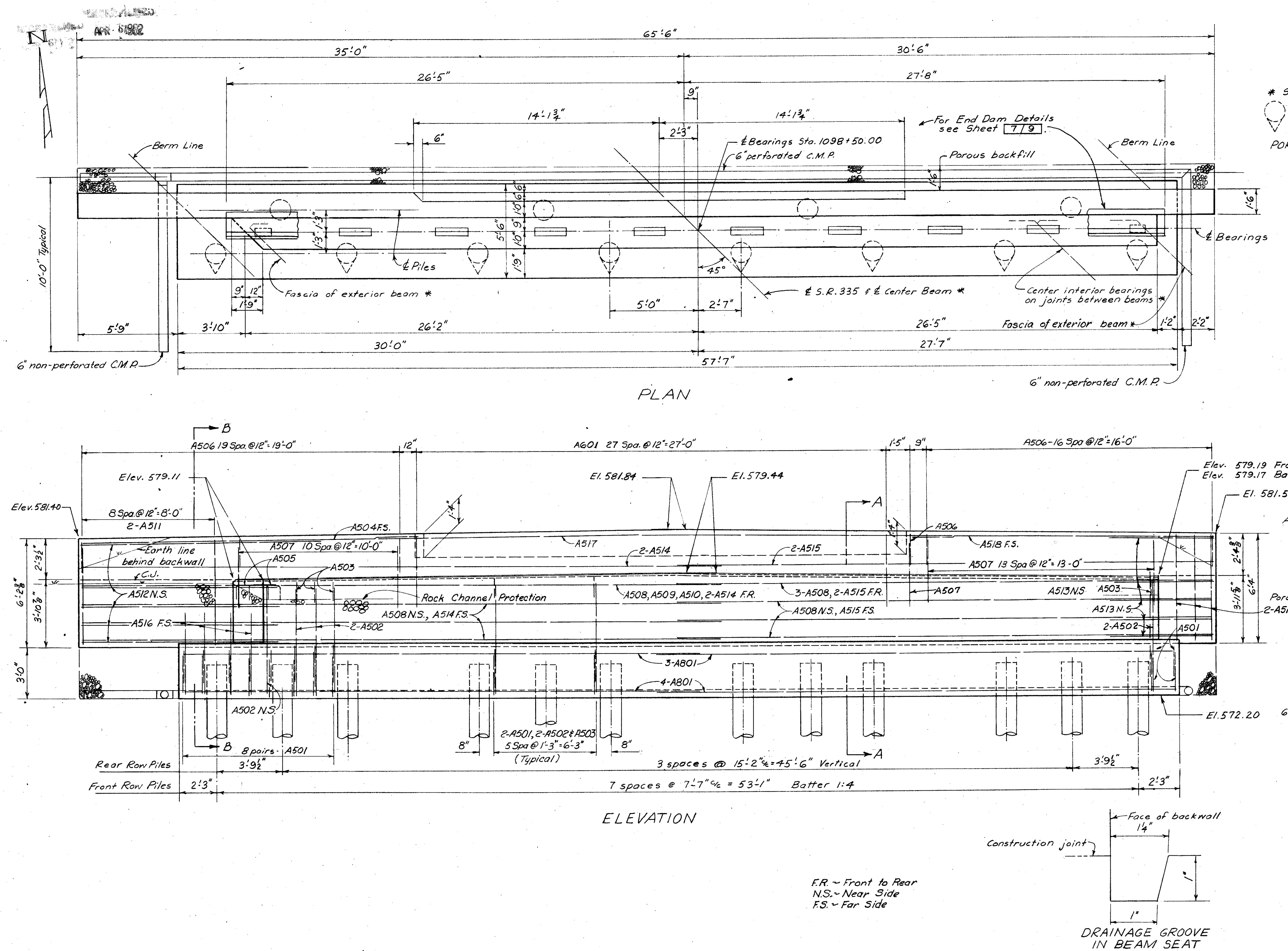
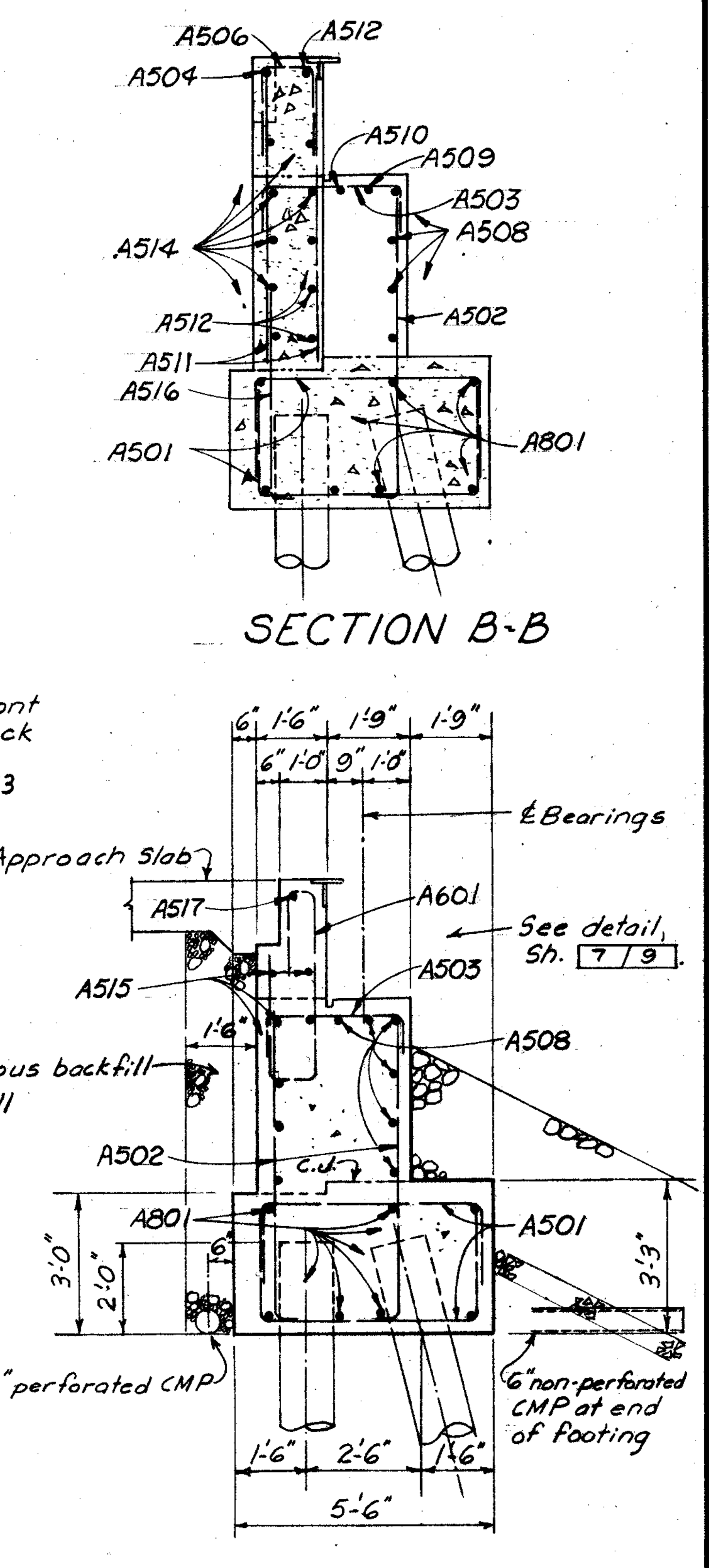
* See BEAM ERECTION note, General Notes.

(pile symbol) Indicates direction of 1:4 pile batter.

POROUS BACKFILL: See note, Sheet 3/9.





For bearing details see Sh. 3/9.

F.R. ~ Front to Rear
N.S. ~ Near Side
F.S. ~ Far Side

STATE OF OHIO
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FORWARD ABUTMENT DETAILS

BRIDGE NO. PIK-335-2064
OVER SCIOTO RIVER OVERFLOW

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WJJ	WJJ BEB		J.D.R.	BFG	5-5-70	

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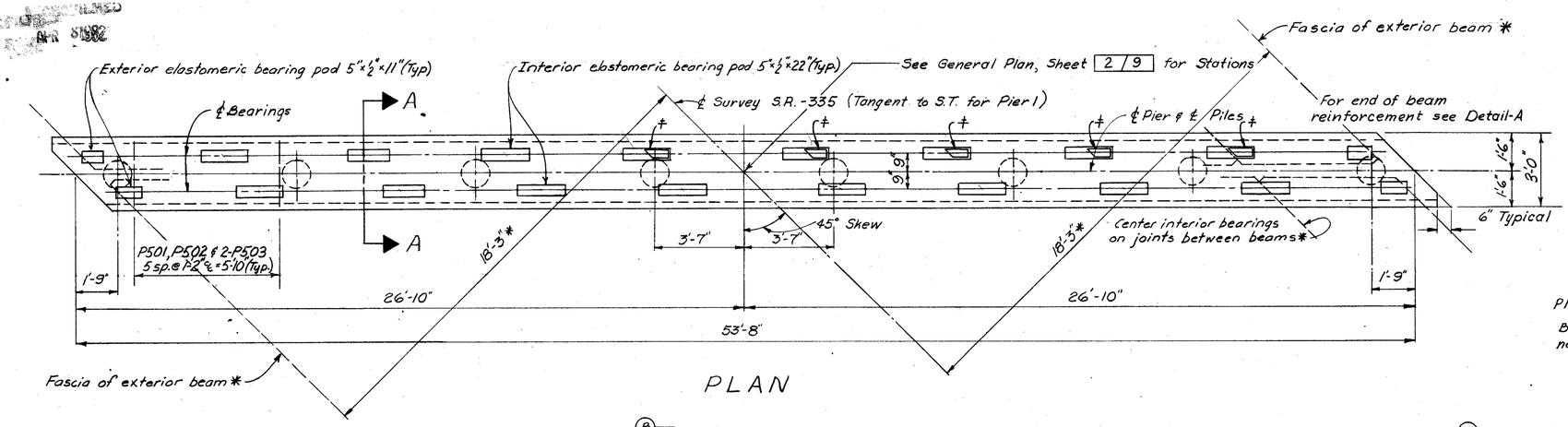
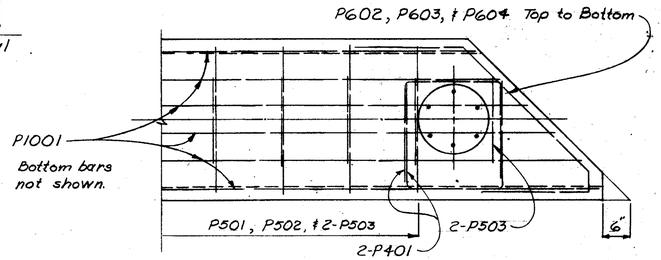


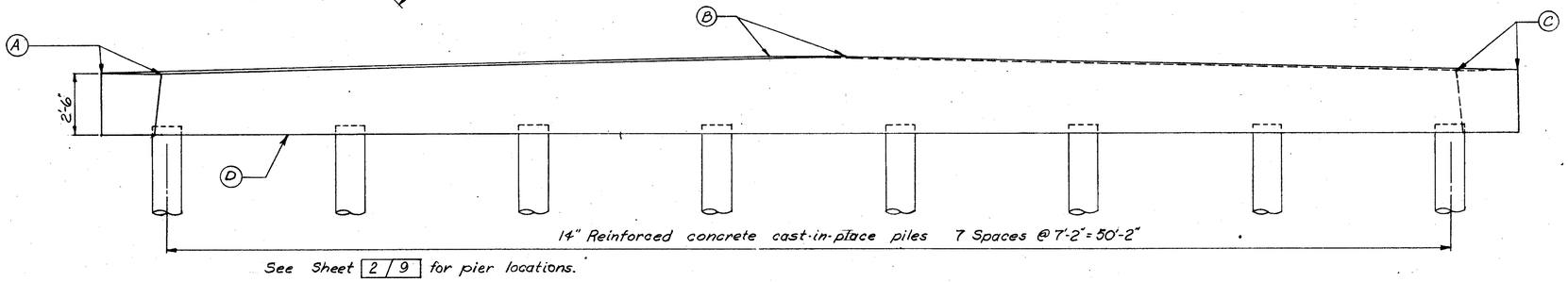
PLAN

* See BEAM ERECTION note, General Notes.

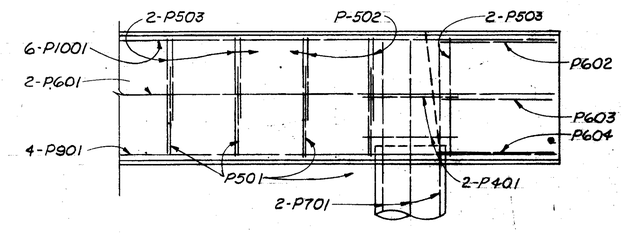
\# ¼" thick elastomeric shims as req'd. at Piers 1 and 2 only. See note, Sheet 2/9.



PLAN



ELEVATION



ELEVATION

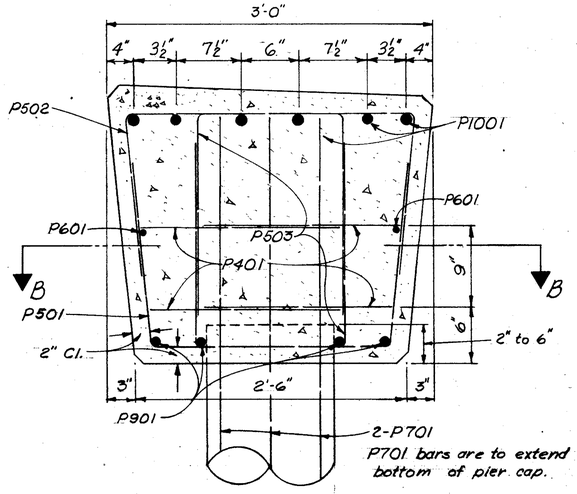
DETAIL-A

.179"

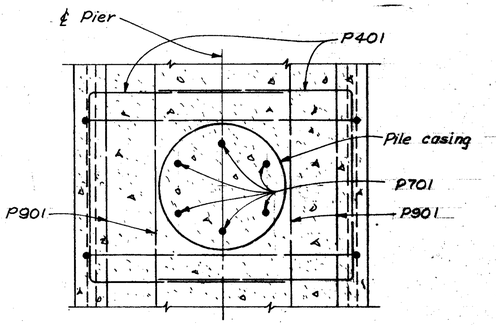
Pile Casings shall be of the type that is left in place and is designed to resist both direct compression and bending. The tapered portion, if any, of pier piles shall not extend above the proposed ground surface. Pile casings shall have a thickness of metal not less than 0.179 inches. Painting of the piles shall extend to at least one foot below the surface of the ground.

Payment For Piles: The elevation of cut-off, as per 507.13, shall be considered as 4" above the bottom of the concrete cap.

TABLE OF PIER ELEVATIONS					
Elevation	Pier 1	Pier 2	Piers 3 thru 10	Pier 11	Pier 12
A	579.39	579.39	579.39	579.38	579.33
B	579.69	579.69	579.69	579.68	579.64
C	579.83	579.54	579.39	579.40	579.37
D	576.89	576.89	576.89	576.88	576.83



SECTION A-A



SECTION B-B

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF ENGINEERING AND CONSTRUCTION
BUREAU OF BRIDGES

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PIER DETAILS

BRIDGE NO. PIK-335-2064
OVER SCIOTO RIVER OVERFLOW

DESIGNED	DRAWN	TRACED	CHECKED	REVISIONS	DATE	REVISIONS
W.H.	B.E.D.		J.D.R.	DFG	5-5-70	

C.F.J.

FILED
APR 5 1972

* This is the nominal dimension. The pay quantity of superstructure concrete shall be based on the average of this dimension and the depth at beam bearings even though deviation from this average may occur because the top of the beam may not have the camber anticipated in the design. The camber of beams shall be measured in the field before the deck is placed. The actual depth at mid-span shall be 5'8" minus the measured camber.

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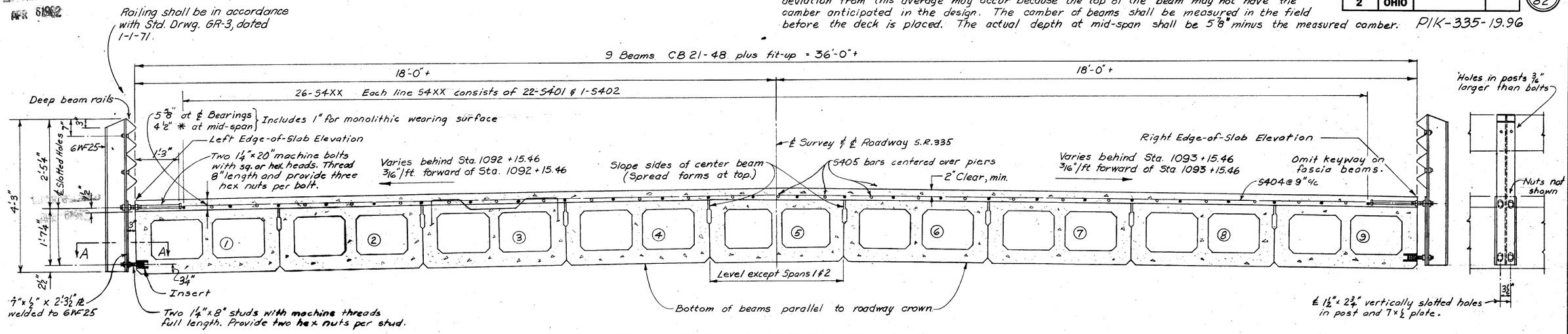
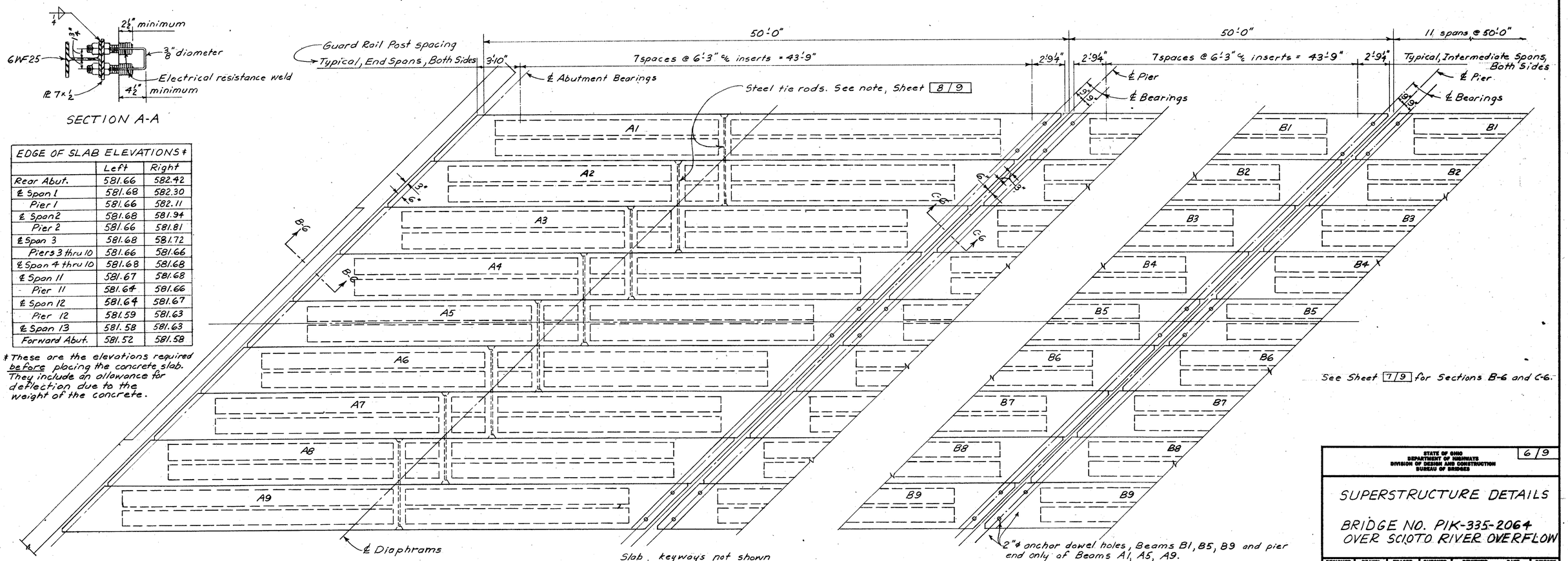


TRANSVERSE SECTION THRU SUPERSTRUCTURE

SECTION A-A

EDGE OF SLAB ELEVATIONS #	Left	Right
Rear Abut.	581.66	582.42
℄ Span 1	581.68	582.30
Pier 1	581.66	582.11
℄ Span 2	581.68	581.94
Pier 2	581.66	581.81
℄ Span 3	581.68	581.72
Piers 3 thru 10	581.66	581.66
℄ Span 4 thru 10	581.68	581.68
℄ Span 11	581.67	581.68
Pier 11	581.64	581.66
℄ Span 12	581.64	581.67
Pier 12	581.59	581.63
℄ Span 13	581.58	581.63
Forward Abut.	581.52	581.58

These are the elevations required before placing the concrete slab. They include an allowance for deflection due to the weight of the concrete.



PART PLAN OF SUPERSTRUCTURE

See Sheet 7/9 for Sections B-6 and C-6.

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DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

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SUPERSTRUCTURE DETAILS

BRIDGE NO. PIK-335-2064 OVER SCIOTO RIVER OVERFLOW

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
wjf	B.E.B wjf		J.D.R.	BFG	5-5-70	1-28-71

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① PL 13×1 ② Bar 4×1 ③ Bar 4×1 ④ Bar 5×1

⑤ Bar 7×1 ⑥ Bar 2×1

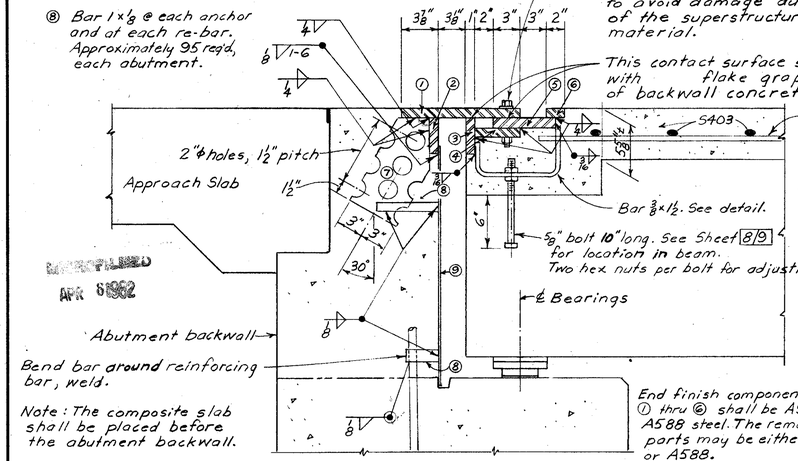
⑦ 6"×½"×12" anchor plates spaced at approximately 15" c/c. Holes may be burned in plate.

⑧ Bar 1×⅛ @ each anchor and at each re-bar. Approximately 95 req'd, each abutment.

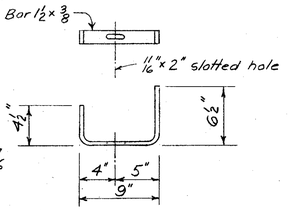
⅝" x 3½" bolts at not more than 2'-0" c/c with nuts tack welded to under side of bottom plate. 1⅛" holes in top plate. Center ⅝" bolts in 1⅛" holes. Apply flake graphite between washers and angle. Turn bolts and release one-half turn. Remove bolts as soon as concrete in backwall has set, preferably within two hours after placing, to avoid damage due to expansion and contraction of the superstructure. Fill holes with bituminous material.

This contact surface shall be cleaned and lubricated with flake graphite immediately prior to placing of backwall concrete.

⑨ ⅛" backwall form plate. Provide in lengths not to exceed 6'-0". Joints between lengths shall be tightly butted. Notch plates to fit around anchor plate. Include with abutment concrete for payment.



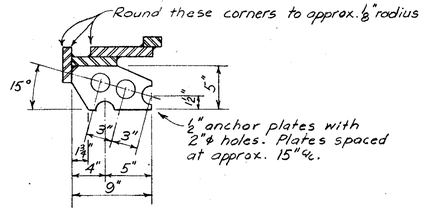
SECTION B-6 - AT ABUTMENT
(Anchors for superstructure end finish are not shown.)



End finish components ① thru ⑥ shall be ASTM A588 steel. The remaining parts may be either A36 or A588.

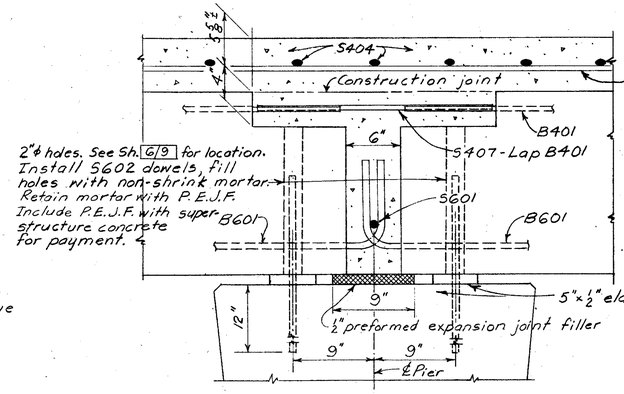
END DAM SUPPORT BAR
36 required

Portions of reinforcing bars which interfere with installation of end finish support bar or with end finish anchors may be removed.

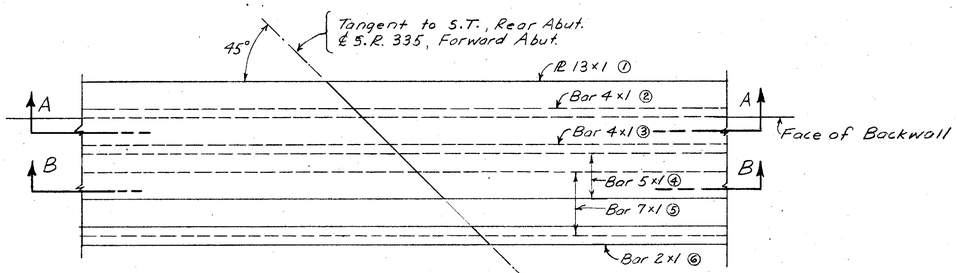


ANCHORS FOR SUPERSTRUCTURE PORTION OF END FINISH

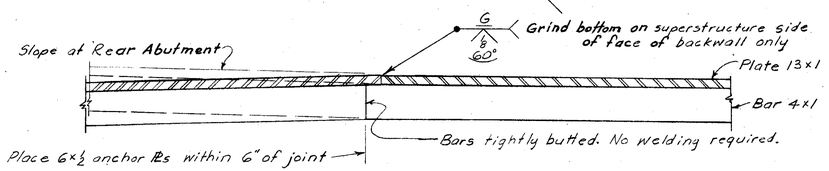
Note: Slope of beam seats due to skew is not shown.



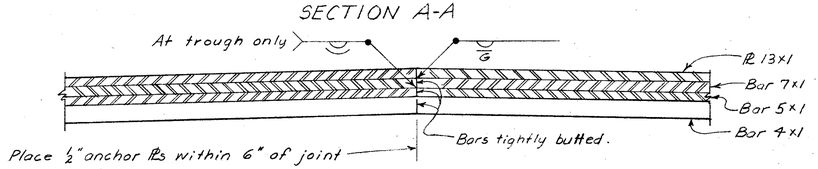
SECTION C-6 - AT PIERS
(TYPICAL - ALL PIERS)



PART PLAN OF END FINISH

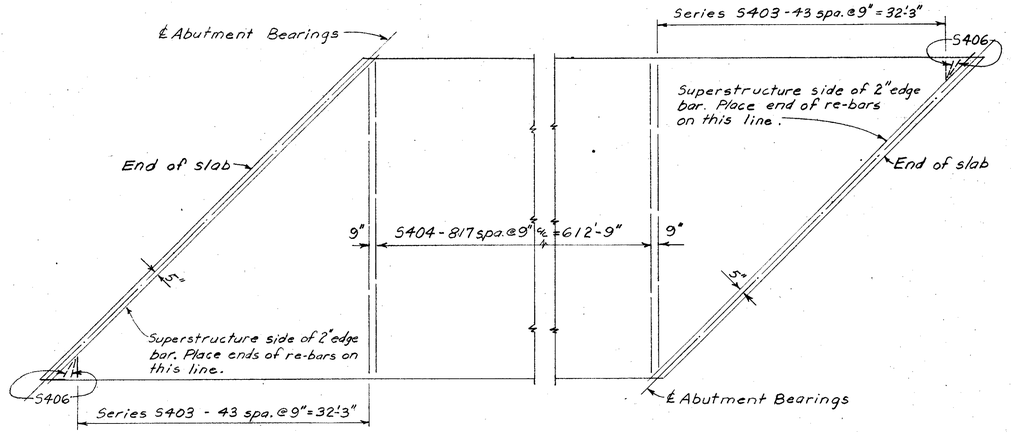


SECTION A-A



SECTION B-B

See Abutment Details, Sheets 3/9 & 4/9 for end finish lengths.



TRANSVERSE SLAB REINFORCING BARS

See Sheet 3/9 for Abutment Bearings.

STATE OF OHIO
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SUPERSTRUCTURE DETAILS
BRIDGE NO. PIK-335-2064
OVER SCIOTO RIVER OVERFLOW

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
wgg	wgg		J.D.R.	BFG	5-5-70	

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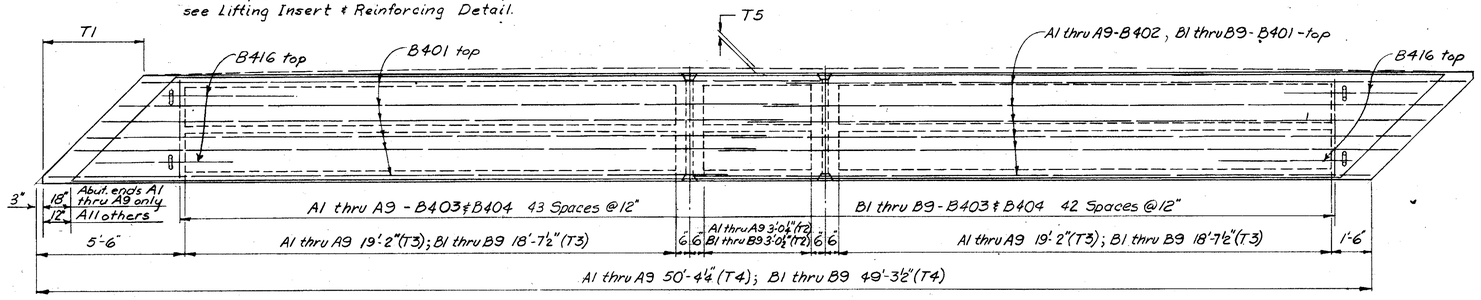
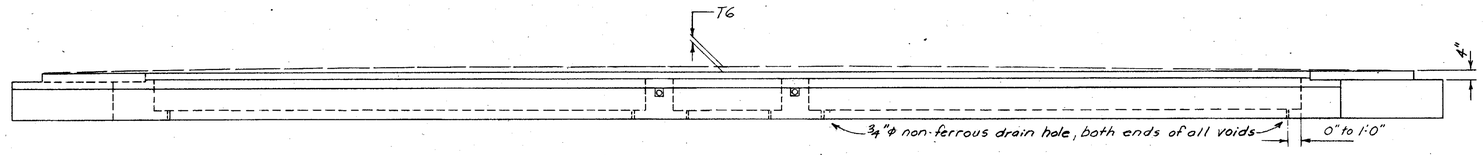
Note: Beams A1, A9, B1, and B9 require only one diaphragm. See Sheet 69. The diaphragm which is not required may be omitted.



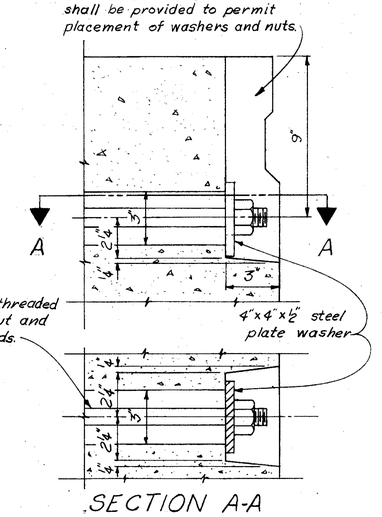
Beams A1 thru A9 are end span beams - 18 req'd. Beams B1 thru B9 are intermediate span beams - 99 req'd.

CB21-48 PLAN



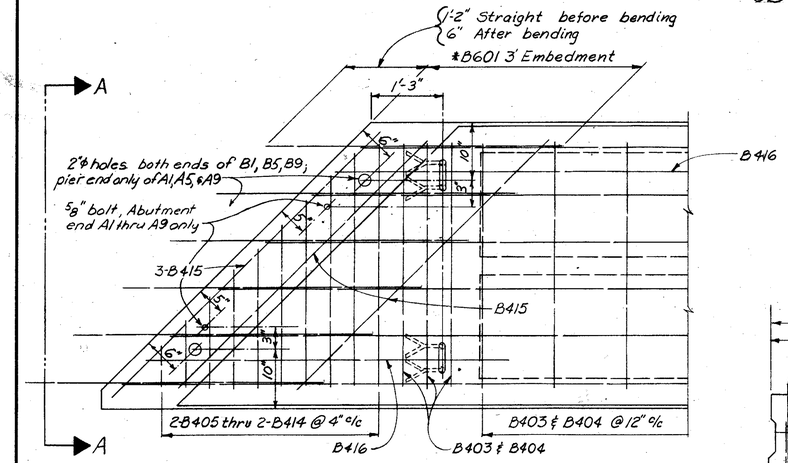
CB21-48 ELEVATION

Access holes the same shape as recesses shown in Section A-A shall be provided to permit placement of washers and nuts.

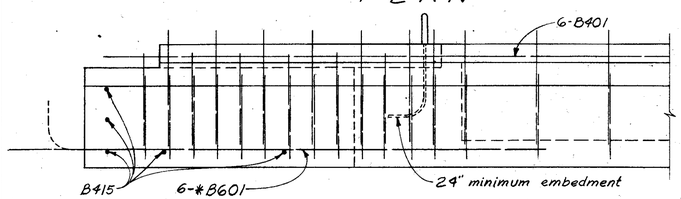


SECTION A-A

RECESS FOR TRANSVERSE TIE ROD ANCHOR



PLAN



ELEVATION

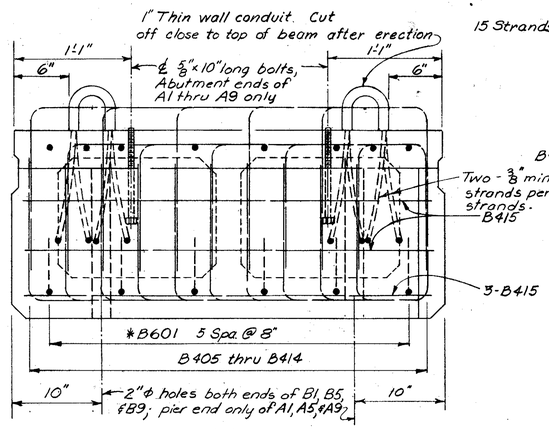
LIFTING INSERT & REINFORCING DETAIL

*B601 bars may be bent before or after casting of beam. Omit B601 bars at abutment ends of Beams A1 thru A9.

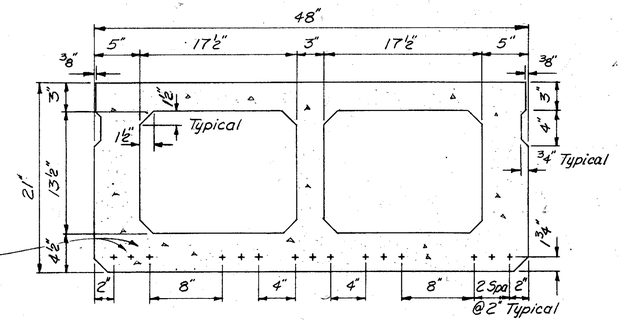
Lifting inserts of the Contractor's design may be used if approved by the Engineer.

All lifting inserts must be uniformly engaged during handling.

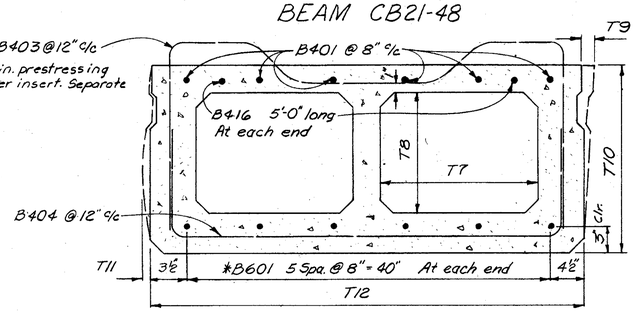
Shift lifting inserts slightly where necessary to clear reinforcement.



VIEW A-A



BEAM CB21-48



BEAM CB21-48

Prestressed Concrete Beams: Minimum concrete strength at 28 days = 5500 psi. Minimum concrete strength at release of prestress = 4000 psi. Prestressing strands shall be ½" uncoated seven wire stress-relieved strand, 270K, with an initial tension of 28,900 pounds per strand.

Shear Key Surfaces shall be roughened by application of an approved retarder to the forms prior to casting the beams or by sand blasting after removal of the forms.

Transverse Tie Rods shall be 1" diameter steel rods of A36 steel, threaded both ends and with nut and washer at both ends. Threads may be cut or rolled. If rolled threads are used, minimum diameter of rod at root of thread shall be 0.838". Tension may be applied by a torque of approximately 250 foot-pounds. After tie rods are tightened the recess in the outside beams shall be filled with non-shrinking mortar of the same color as the beams.

Mortaring Of Shear Keys: After the transverse tie rods have been tightened shear keys shall be filled with non-shrink mortar. Before mortaring, the roughened keyway surfaces shall be wetted, but no free water shall be allowed to remain in the keyways. Mortar shall then be tamped into the keyways in a manner that insures complete and solid filling.

Non-Shrinking Mortar shall be made with portland cement and an approved additive or with an approved proprietary product.

Cleaning Prior To Placement Of Composite Slab: Before placement of the slab concrete, the tops of all beams shall be thoroughly cleaned of all dirt, dust, or other foreign mater. The surface shall be flushed with clear water and shall be wet, without free water, when the concrete is placed.

Construction Joints perpendicular to the ℄ Roadway may be placed near the center of a span. However, composite slab pours shall be as long as practicable.

Galvanizing: All anchor bolts, studs, inserts, tie rods, nuts, and washers shall be galvanized per 711.02.

Table of Beam Dimensional Tolerances	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12
	±¾"	±½"	±0"-½"	±¾"	±½"	±½"	±½"	±½"	±⅛"	±⅛"	⅛" max.	±¼"

STATE OF OHIO
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SUPERSTRUCTURE DETAILS

BRIDGE NO. PIK-335-2064
OVER SCIOTO RIVER OVERFLOW

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WJ	B.E.B.		J.D.R.	BFG	5-5-70	

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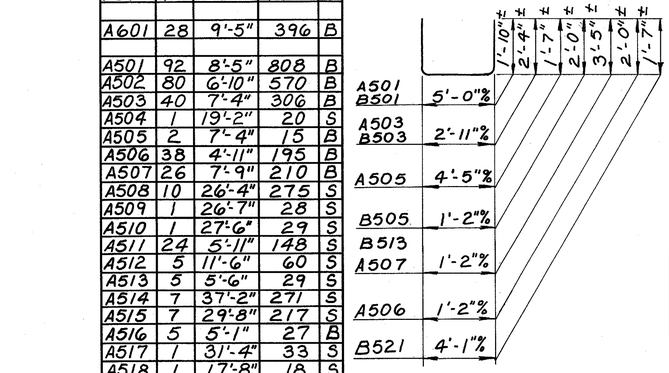
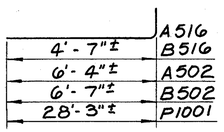
REINFORCING STEEL LIST

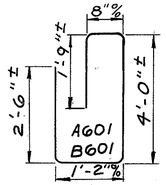
Mark	No.	Length	Weight	Shp
Forward Abutment				
A801	14	29'-10"	1115	S
A601	28	9'-5"	396	B
A501	92	8'-5"	808	B
A502	80	6'-10"	570	B
A503	40	7'-4"	306	B
A504	1	19'-2"	20	S
A505	2	7'-4"	15	B
A506	38	4'-11"	195	B
A507	26	7'-9"	210	B
A508	10	26'-4"	275	S
A509	1	26'-7"	28	S
A510	1	27'-6"	29	S
A511	24	5'-11"	148	S
A512	5	11'-6"	60	S
A513	5	5'-6"	29	S
A514	7	37'-2"	271	S
A515	7	29'-8"	217	S
A516	5	5'-1"	27	B
A517	1	31'-4"	33	S
A518	1	17'-8"	18	S
Rear Abutment				
B801	14	30'-11"	1156	S
B601	28	9'-5"	396	B
B501	92	8'-5"	808	B
B502	80	7'-1"	591	B
B503	39	7'-4"	298	B
B504	2 series of 1	4'-9" to 6'-9"	84	S
B505	40	4'-11"	205	B
B506	6	6'-6"	41	S
B507	5	13'-6"	70	S
B508	6	29'-8"	186	S
B509	7	34'-0"	248	S
B510	1	31'-2"	33	S
B511	1	17'-6"	18	S
B512	1	15'-6"	16	S
B513	24	7'-9"	194	B
B514	6	5'-1"	32	B
B515	2	6'-2"	13	S
B516	6	5'-6"	34	S
B517	4	23'-3"	97	S
B518	6	35'-3"	221	S
B519	1	23'-9"	25	S
B520	2	24'-6"	51	S
B521	2	7'-0"	15	B
Piers				
P1001	144	29'-4"	18,176	B
P901	96	28'-1"	9166	S
P701	576	4'-0"	4709	S

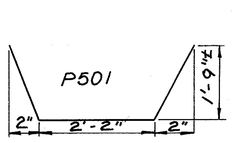
Varies by 4"

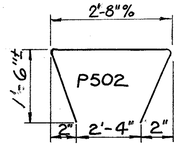
Bending Diagrams

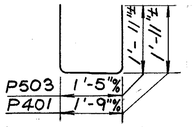


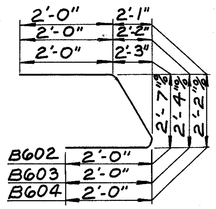




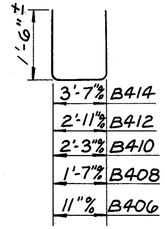


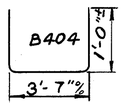


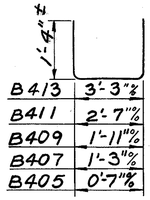


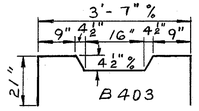


* Included with prestressed concrete bridge members for payment.









BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four digits are used, indicate the bar size number. For example, A700 is a No. 7 size bar and A1014 is a No. 10 size.

* May be bent before or after casting into beams.

Mark	No.	Length	Weight	Shp
Piers Cont.				
P601	48	27'-6"	1983	S
P602	24	7'-3"	261	B
P603	24	7'-2"	258	B
P604	24	7'-0"	252	B
P501	504	5'-5"	2847	B
P502	504	5'-5"	2847	B
P503	1056	5'-0"	5507	B
P401	384	5'-4"	1368	B
Superstructure				
S601	24	26'-3"	946	S
S602	144	2'-0"	433	S
S401	572	30'-0"	11,463	S
S402	26	18'-6"	321	S
S403	2 series of 44	2'-9" to 35'-0"	1110	S
S404	818	35'-8"	19489	S
S405	300	20'-0"	4008	S
S406	4	2'-0"	5	S
S407	648	3'-0"	1299	S
Beams				
* B601	1296	4'-2"	#	B
B401	1296	25'-3"	#	S
B402	108	26'-3"	#	S
B403	5751	7'-0"	#	B
B404	5751	5'-3"	#	B
B405	468	3'-0"	#	B
B406	468	3'-8"	#	B
B407	468	3'-8"	#	B
B408	468	4'-4"	#	B
B409	468	4'-4"	#	B
B410	468	5'-0"	#	B
B411	468	5'-0"	#	B
B412	468	5'-8"	#	B
B413	468	5'-8"	#	B
B414	468	6'-4"	#	B
B415	1170	4'-10"	#	S
B416	468	5'-0"	#	S
Replacement Bars				
RE1001	1	8'-2"	-	S
RE901	1	7'-10"	-	S
RE801	1	7'-6"	-	S
RE701	1	4'-0"	-	S
RE601	1	6'-11"	-	S
RE501	1	6'-7"	-	S
RE401	2	6'-3"	-	S

SPECIFICATIONS FOR ABUTMENT BEARING DEVICES

(A) MATERIALS

1. Teflon Bearing Surface: A fabricated sheet of 100% TFE (tetrafluorethylene) fiber in the form of a woven mat. The addition of any foreign material or fillers shall be prohibited.

2. Substrate: The bronze alloy employed in the manufacture of these bearings shall be in strict accordance with Alloy B of Standard Specification for Bronze Castings for Bridges and Turntables, ASTM Designation B22.

3. Sole Plate: Shall be of ASTM A588 steel, unpainted, with a mating surface ground or faced to a finish of USASI 125 or better.

4. Elastomeric pad, 50 durometer. CMS 711.23 The elastomeric pad shall be bonded to the steel plate by the bearing manufacturer.

5. Preformed bearing pad or sheet lead. CMS 711.21 or 711.19.

(B) MANUFACTURE OF TEFLON BEARINGS

Teflon bearings, LUBRITEF or equal, shall be a product approved by the Engineer and produced by a reputable manufacturer having a successful record in similar applications. The manufacturer shall have proven capabilities of producing the bearings to the exacting requirements of the drawings and specifications, while insuring close supervision over materials, quality, and workmanship.

(C) FASTENING

The TFE fiber mat shall be compressed into a recessed geometric grid to provide mechanical interlocking. This interlock shall be capable of preventing lateral movement due to the shear forces exerted.

(D) DIMENSIONS AND FINISHES

The bearing shall be furnished machined as required to the sizes specified on the drawings and shall not be further machined after assembly.

(E) FRICTION COEFFICIENT

The static coefficient of friction between the bearing surfaces shall not exceed .03 when subjected to unit loadings of 3500 p.s.i. and speeds of .001"/minute.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

9 / 9

REINFORCING STEEL LIST,
ABUTMENT BEARING SPECIFICATIONS
BRIDGE No. PIK-335-2064
OVER Scioto River Overflow

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WJJ		G.F.J.	J.O.R.	BFG	5-5-70	

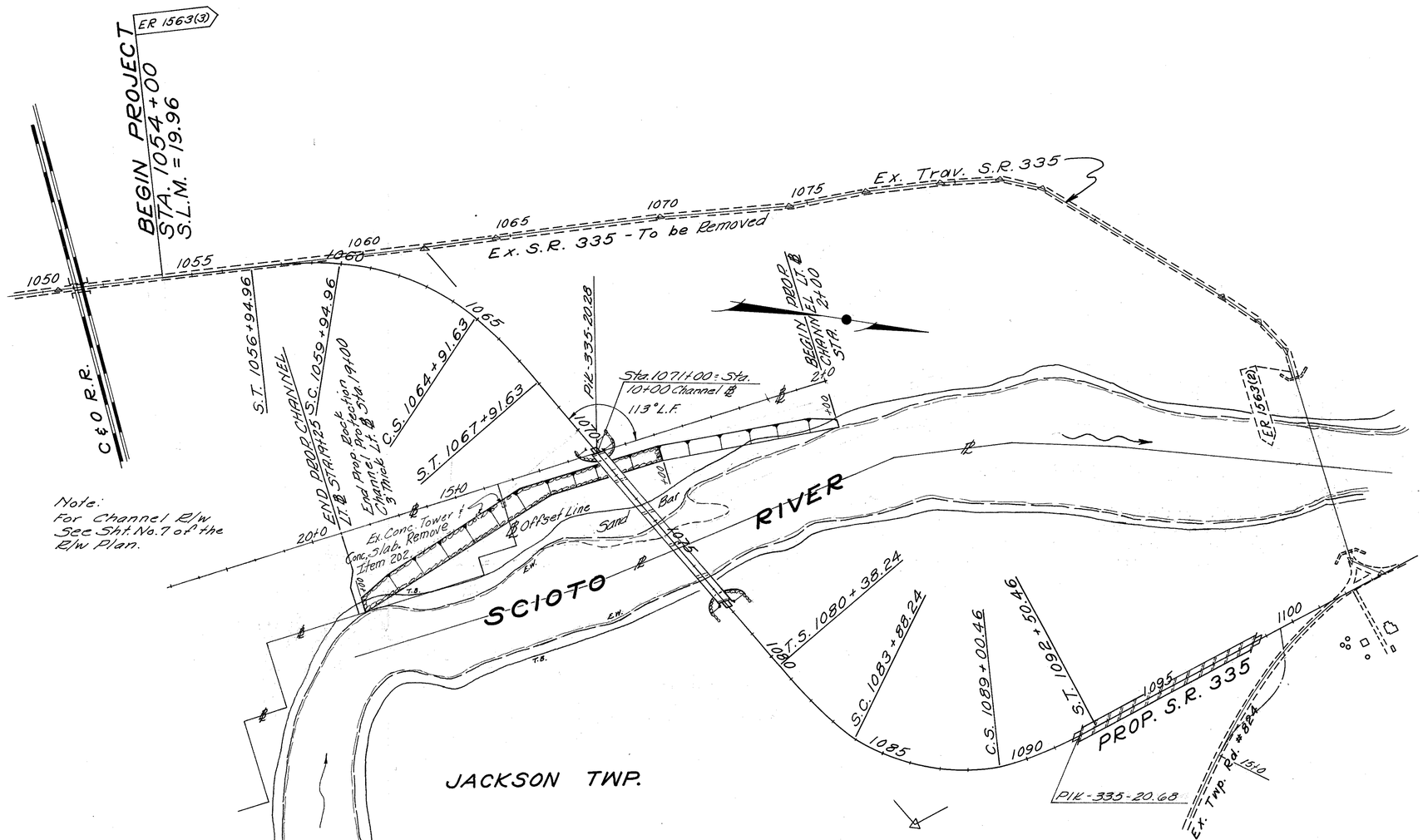
Rev. 12-16-70

CHANNEL SECTION PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

PIK-335-19.96

65/82



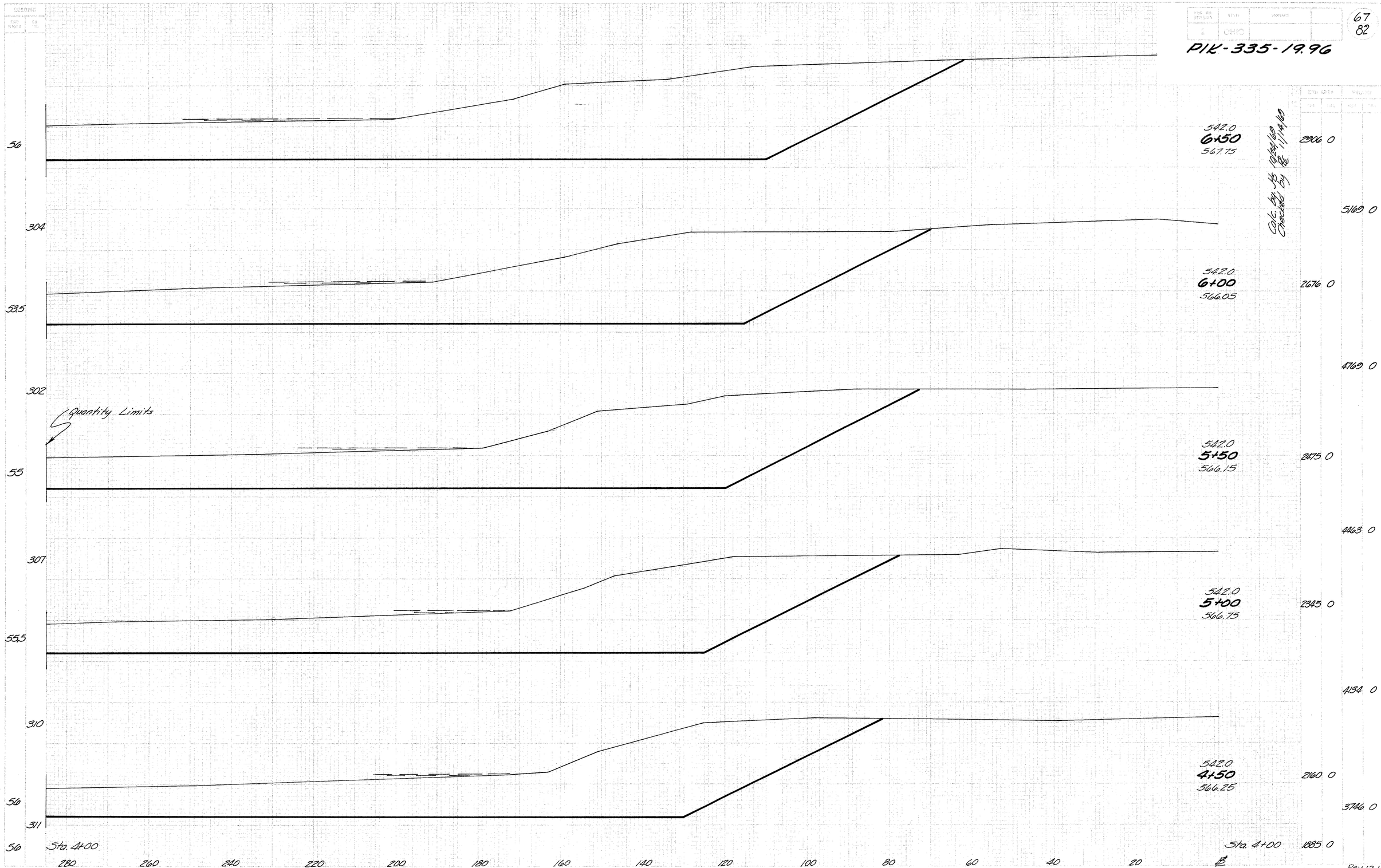
CHANNEL SECTION PLAN Rev. 12-16-70

PIK-335-19.96


56
316
57.5
319
57.5
279
43
181
22
0
Ahead
Back
Quantity Limits
Seeding & Mulching = 3752 S.Y.
Begin Prop. Channel Excavation
Lt. ℄ Sta. 2+00
542.0
4+00
565.35
542.0
3+50
566.95
542.0
3+00
566.75
542.0
2+50
567.45
2+00
568.15
Calc. by ... 10-24-69
Checked by ... 11/14/69
202 Removal of Ex. Structure - Lump
202 Pav't removed 28-S.Y.
Quantities carried to Gen. Summary Sht. No. 8
See Sht. No. 11
Excavation 263,981 C.Y.
Rock Channel Protection 10,238 C.Y.
Calc. by ... 10-27-69
Checked by ... 11/14/69
1885 0
3378 0
1763 0
3119 0
1604 0
2091 0
653 0
607 0
0 0
280
260
240
220
200
180
160
140
120
100
80
60
40
20
℄
Rev. 12-16-70

PROP. CHANNEL SECTIONS LT. ℄ STA. 1071+00 - STA. 2+00 TO STA. 4+00

PIK-335-19.96



STA. 4+50 TO STA. 6+50

Rev. 12-16-70

PIK-335-19.96

Match Line

Sandbar

R.C.P. E.A.	Vol.
201	
	370
198	
	356
186	

542.0
9+00
567.55

542.0
8+50
568.35

542.0
8+00
563.45

Begin Prop. Rock Channel Protection Sta. 8+00 Ahead

Calc. by JS 10/24/60
Checked by EE 11/4/60

				4714	0
				8675	0
				4653	0
				8417	0
				4436	0
0					
153	Ahead				
55	End Prop. Seeding = Sta. 8+00 Back			7784	0
317					
		542.0			
		7+50		3970	0
59		566.75			
				7108	0
331					
	Match Line		Note: See Extensions.		
		542.0			
		7+00		3705	0
60		567.65			
				6123	0
322					
50	Sta. 6+50		Sta. 6+50	2906	0

280 260 240 220 200 180 160 140 120 100 80 60 40 20 ℄

STA. 7+00 TO STA. 9+00

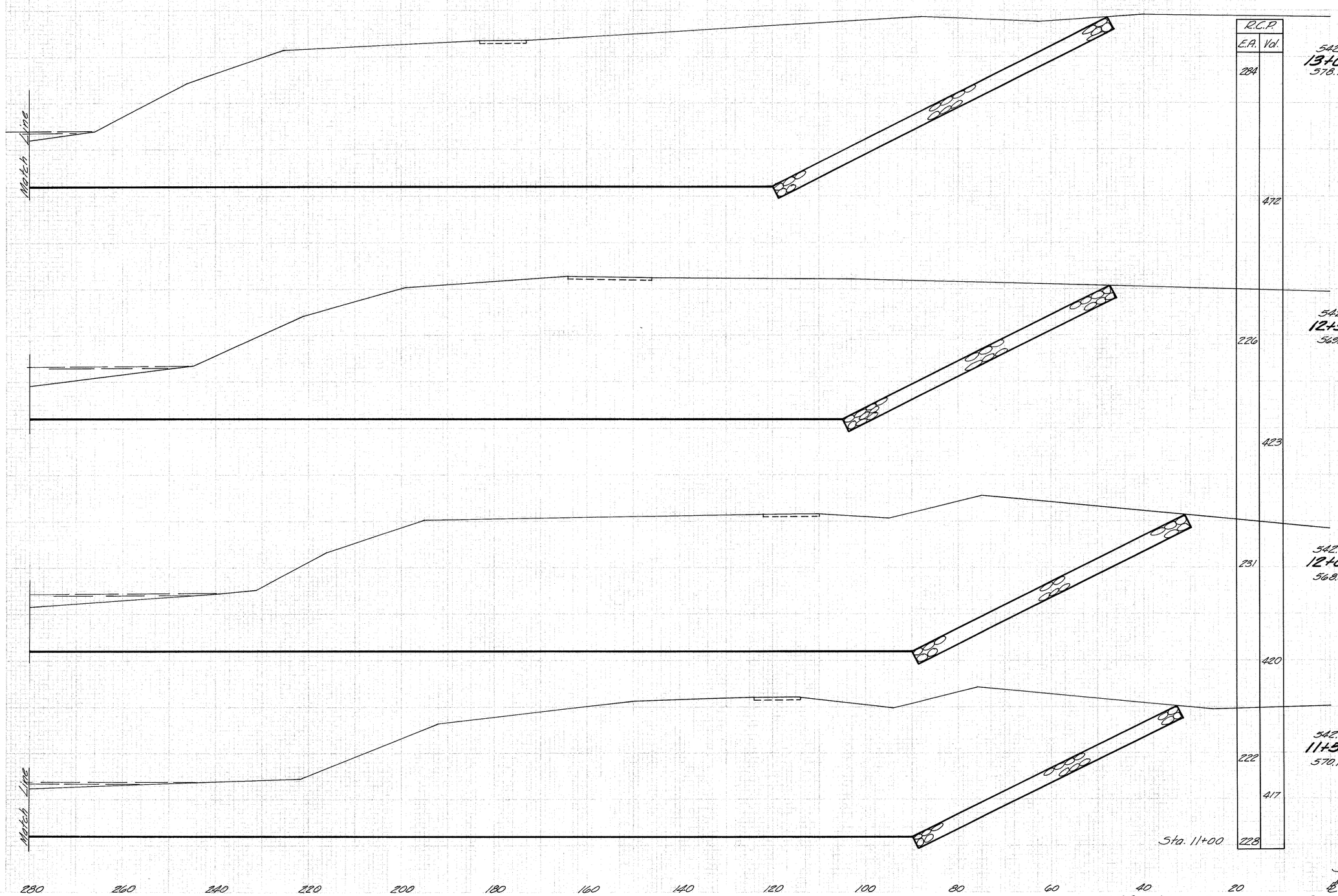
Rev. 12-16-70

PIK-335-19.96

STA. 9+50 TO STA. 11+00

Rev. 12-16-70

PIK-335-19.96



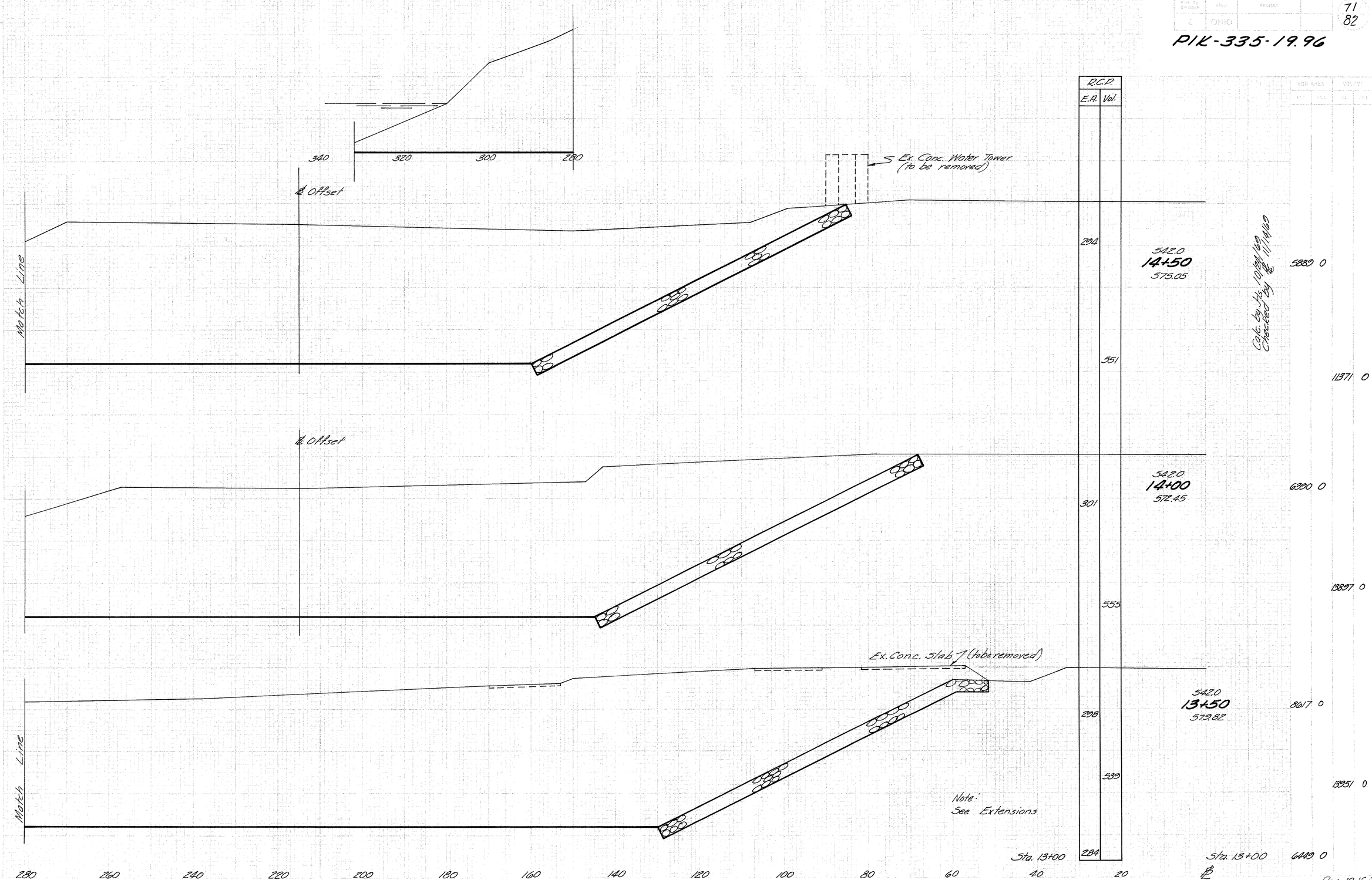
R.C.P.			
E.A.	Vol.		
284		542.0 13+00 578.72	6449.0
	472		11210.0
226		542.0 12+50 562.45	5656.0
	423		11036.0
231		542.0 12+00 568.65	6262.0
	420		11332.0
222		542.0 11+50 570.15	5975.0
	417		10897.0
228		Sta. 11+00	5782.0

Calc. by HS 10/24/69
Checked by KE 11/14/69

STA. 11+50 TO STA. 13+00

Rev. 12-16-70

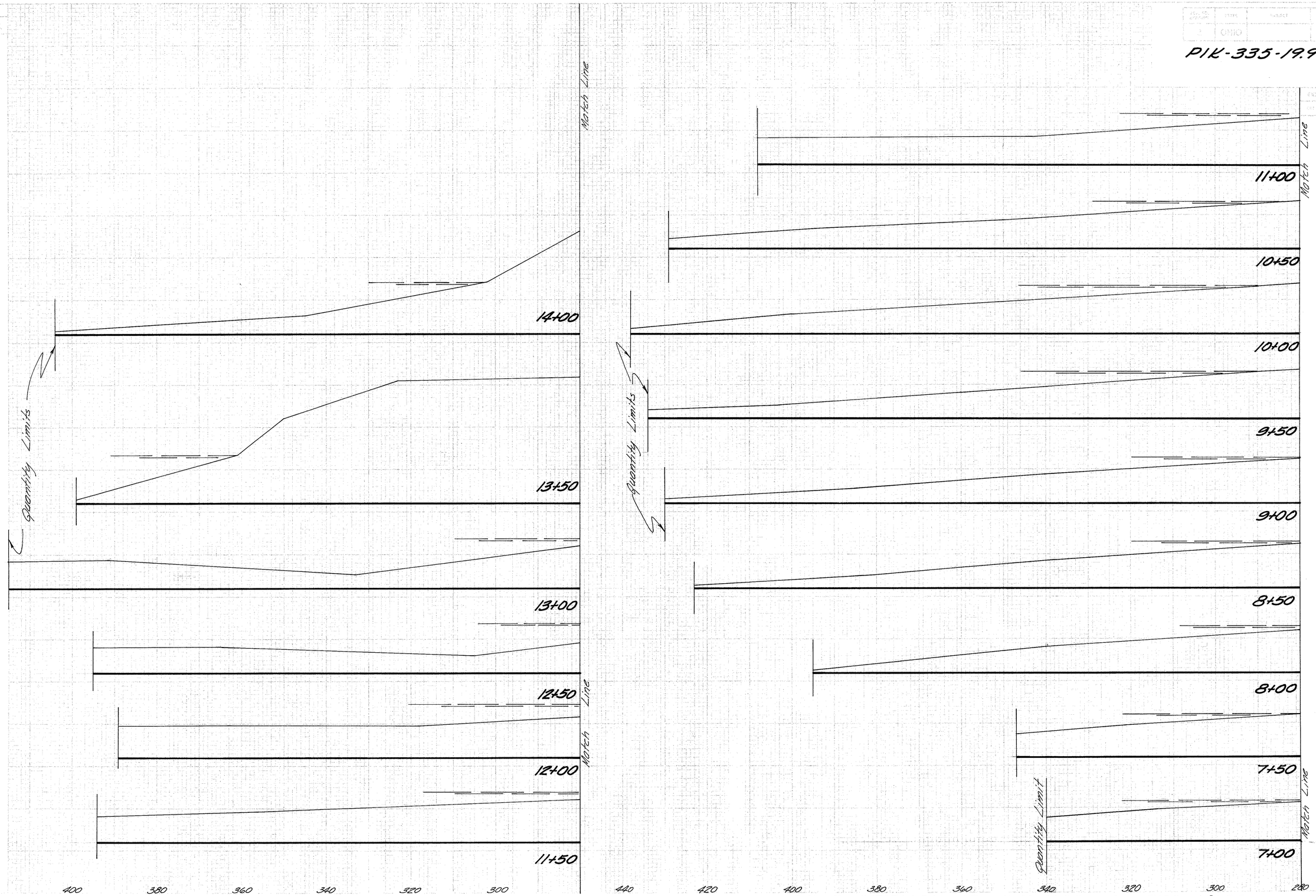
PIK-335-19.96



STA. 13+50 TO STA. 14+50

Rev. 12-16-70

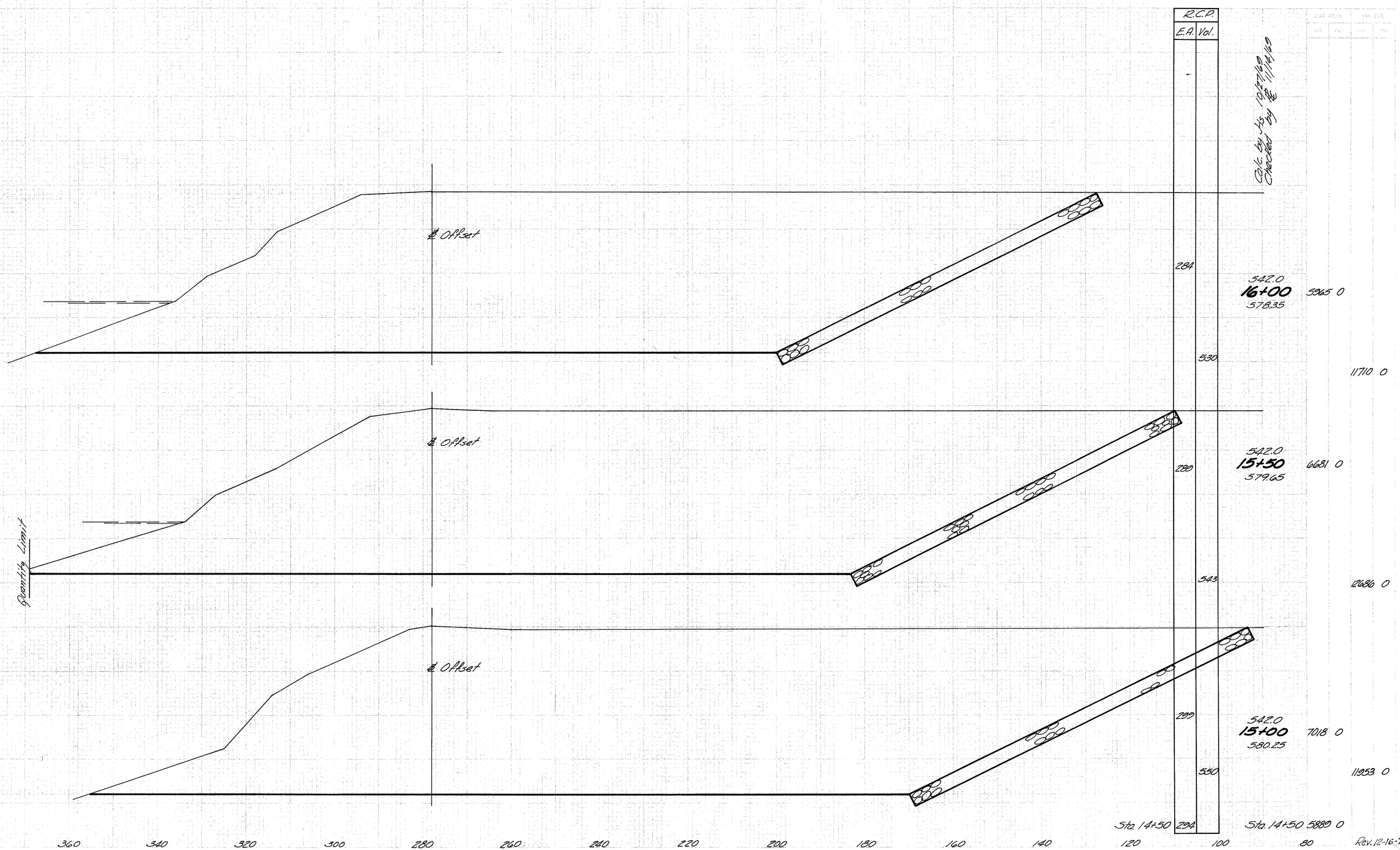
PIK-335-19.96



PROP. EXTENSIONS STA. 7+00 TO STA. 14+00

Rev. 12-16-70

PIK-335-19.96

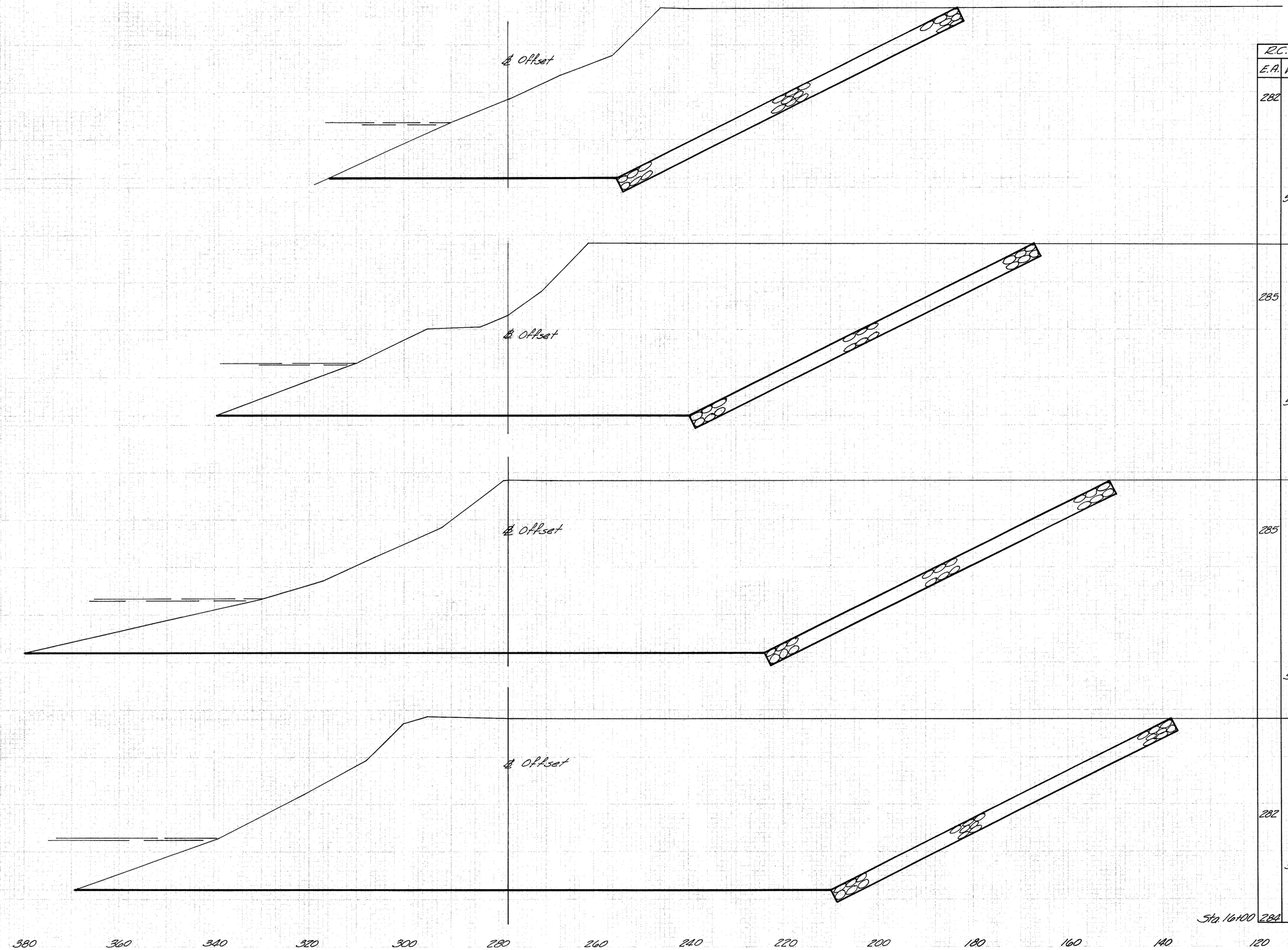


Rev. 12-16-70

STA. 15+00 TO STA. 16+00

74
82

PIK-335-19.96



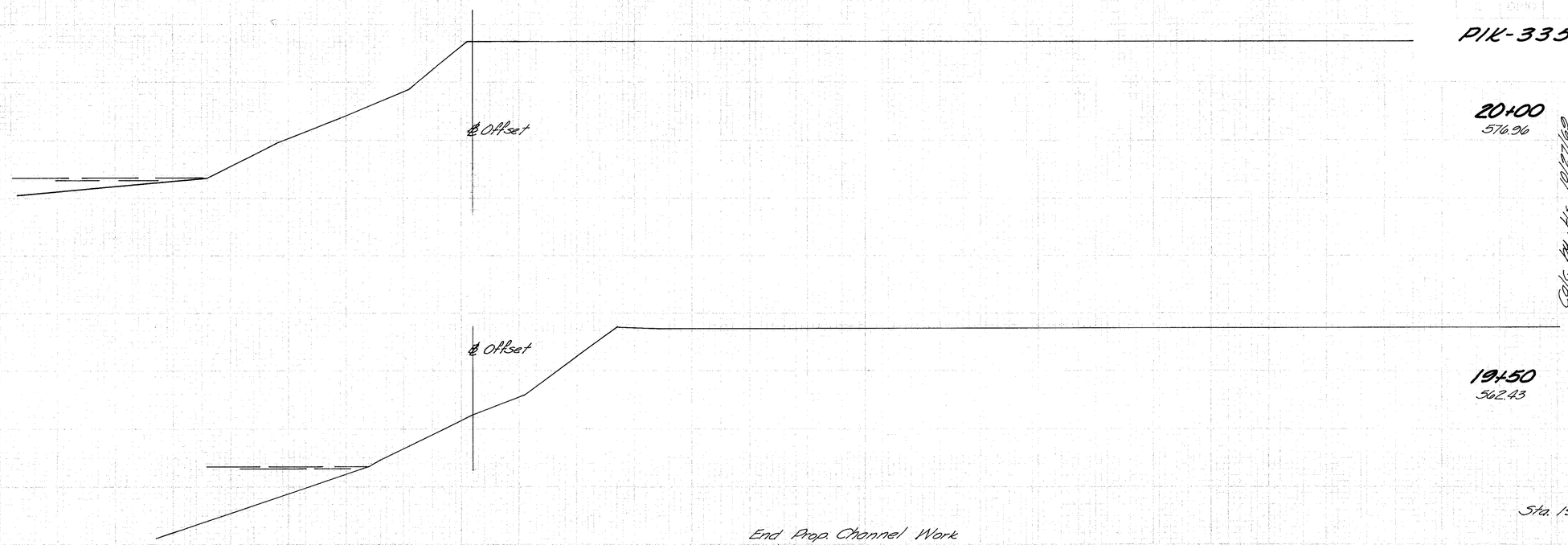
R.C.P. E.A.	Vol.		
		542.0 18+00 558.31	2060 0
282			
	526		4955 0
285		542.0 17+50 563.01	3070 0
	528		7423 0
285		542.0 17+00 578.35	4745 0
	525		9565 0
282		542.0 16+50 578.15	5585 0
	524		10605 0
Sta. 16+00	284	Sta. 16+00	5965 0

Calc. by JPS 10-27-69
Checked by [illegible] 11-14-69

STA. 16+50 TO STA. 18+00

Rev. 12-16-70

PIK-335-19.96



Rev. 12-16-70

STA. 18+50 TO STA. 20+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

1/7

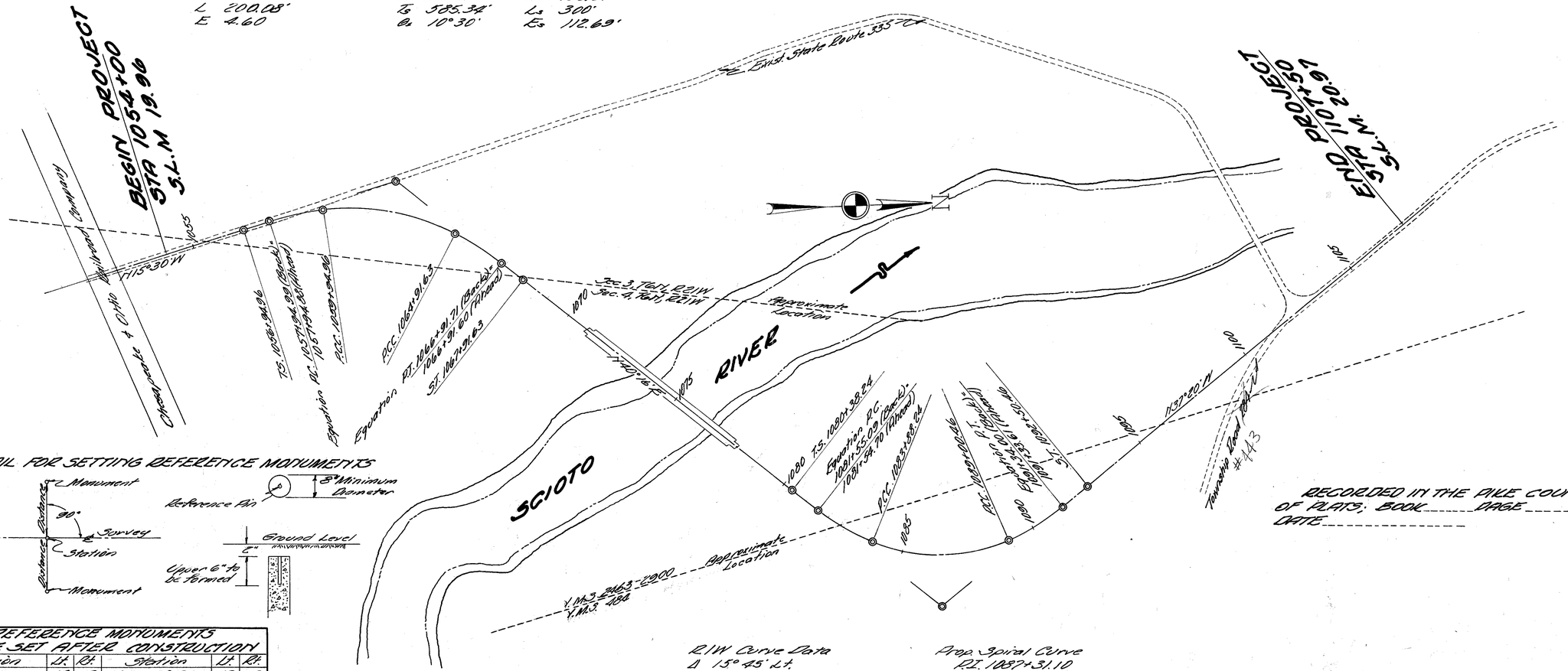
LOCATION PLAN

STATE OF OHIO DEPARTMENT OF HIGHWAYS
PIK 335-19.96
V.M.S. 2463-2900 & 484
SEC. 3 & 4, T6N, R21W
JACKSON TOWNSHIP
PIKE COUNTY

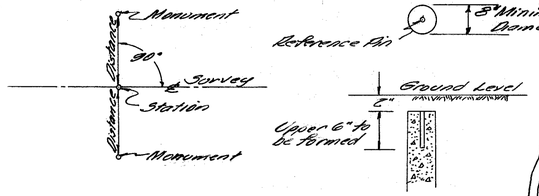
0 100 200 300 400 500
SCALE 1"=200'

R/W Curve Data
Δ 10°30'Rt.
D_a 5°47'04.37"
R 1001.78'
T 100.32'
L 200.08'
E 4.60

Prop. Spiral Curve
P.I. 1062+80.30
Δ 55°46'Rt. X_c 298.99'
D_a 7°00' Y_c 18.28'
R 818.51' L_c 496.67'
T_s 585.34' L_s 300'
θ_s 10°30' E_s 112.69'



DETAIL FOR SETTING REFERENCE MONUMENTS



REFERENCE MONUMENTS TO BE SET AFTER CONSTRUCTION					
Station	Lt.	Rt.	Station	Lt.	Rt.
1055+00	17	17	1080+38.24	19	19
1056+94.96	17	17	1100+00	19	17
1067+91.63	19	19	1105+00	17	17
1070+00	19	19	1107+50	17	17

R/W Curve Data
Δ 15°45'Lt.
D_a 6.7440478°
R 849.58'
T 117.51'
L 233.54'
E 8.09'

Prop. Spiral Curve
P.I. 1087+31.10
Δ 77°36'Lt. X_c 347.36'
D_a 9°00' Y_c 31.90'
R 636.62' L_c 512.22'
T_s 692.86' θ_s 15°45'
E_s 190.52' L_s 350'

RECORDED IN THE PIKE COUNTY RECORDS OF PLATS. BOOK_____ PAGE_____
DATE_____

I hereby certify that this plat is a true delineation of a Survey made by the Ohio Department of Highways.
Date Oct. 1, 1969

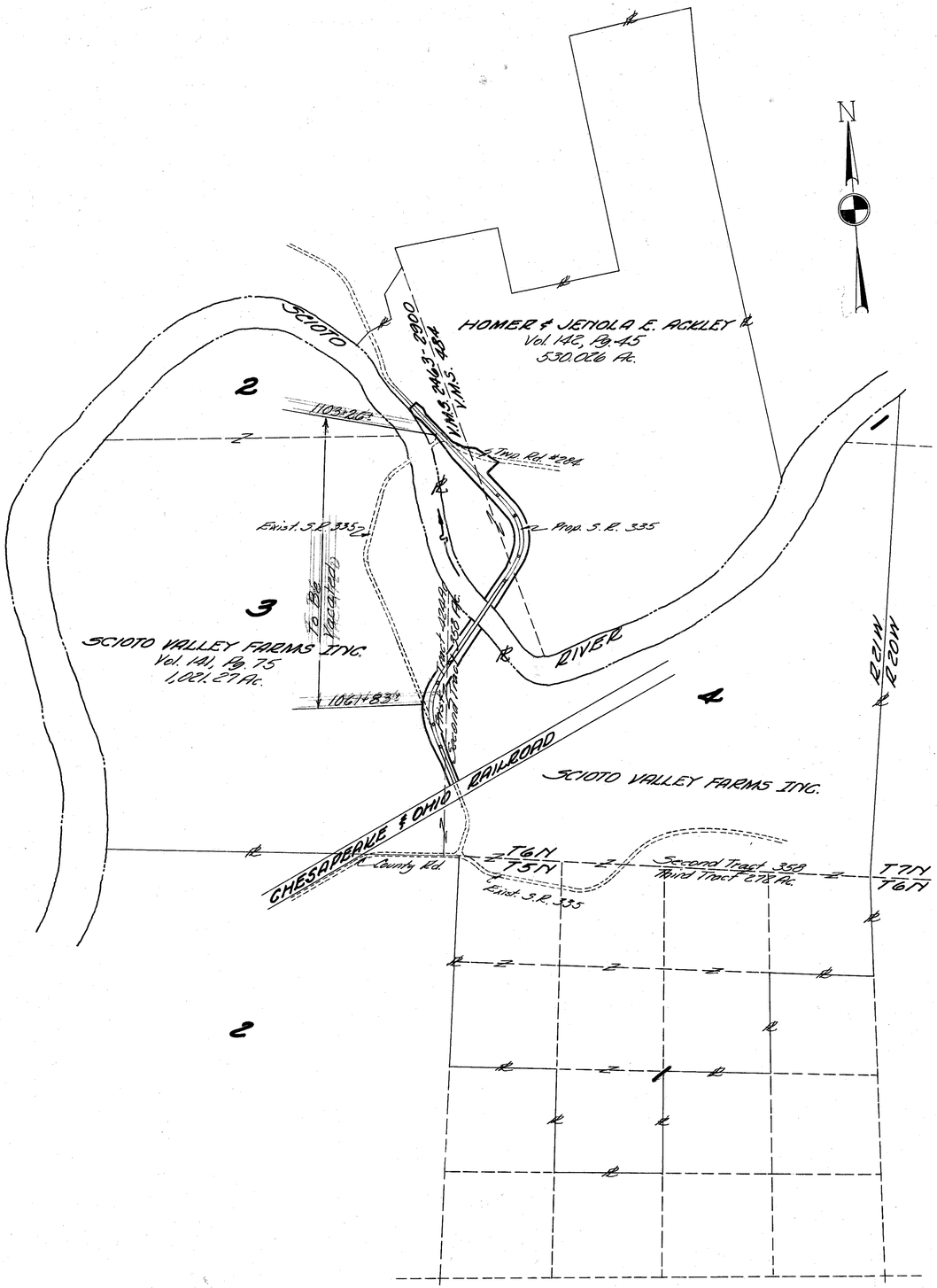
Thomas H. Murphy P.S. 2220

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

PROPERTY PLAN
PIK 335-19.96
SEC 3 & 4, T6N, R21W
V.M.S. 2463-2900 & 484
JACKSON TOWNSHIP
PIKE COUNTY
SCALE 1"=800'

2/7

Area Vacated Recorded in
Vol 196 Page 854, Pike County,
Ohio. 6/27/1979



Utilities
⊕ Power Line Owned By The Columbus & Southern Ohio Electric Co.
⊕ Telephone Line Owned By The General Telephone Co. of Ohio.

SEC. 3 & 4, T6N, R21W
JACKSON TOWNSHIP

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

R/W PLAN
PIK 335-19.96
PIKE COUNTY

3/7

SCIOTO VALLEY FARMS INC.
(1) (1-AX) (1-BX)

Vol. 141, Pg. 75	
Deed Area	1021.27 Ac.
T.B.A. (Gross)	9.45 Ac.
P.R.O.	1.22 Ac.
T.B.A. (Net)	8.23 Ac.
Residue Lt.	417.47 Ac.
Residue Rt.	594.35 Ac.
Total	1011.82 Ac.
Residue 1st Tract Rt.	0.97 Ac.

For the Area VACATED To the Owners; SEE SHEET Nº 2.

SCIOTO VALLEY FARMS INC.
(1) (1-AX) (1-BX)

R/W Curve Data

Δ	10°30' Rt.
Dc	5.2479437°
R	1091.78'
T	100.32'
L	200.08'
E	4.60'

Prop. Spiral Curve
P.I. 1062+80.30

Δ	55°46' Rt.	Xc	298.99'
Dc	7°00'	Yc	18.28'
R	818.51'	Lc	496.67'
Ts	585.34'	Ls	300'
θs	10°30'	Es	112.69'

Completion Date Oct. 8, 1969

Revised	Revision Description	By

SEC. 3 & 4, T6N, R21W
JACKSON TOWNSHIP

FOR DETAIL OF PARCEL 1-AX
SEE R/W SHEET Nº 7 OF 7

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

R/W PLAN
PIK 335-13.96
PIKE COUNTY

4/7

SCIOTO VALLEY FARMS INC.

1 | 1-AX | 1-BX

Vol. 141, Pg. 75

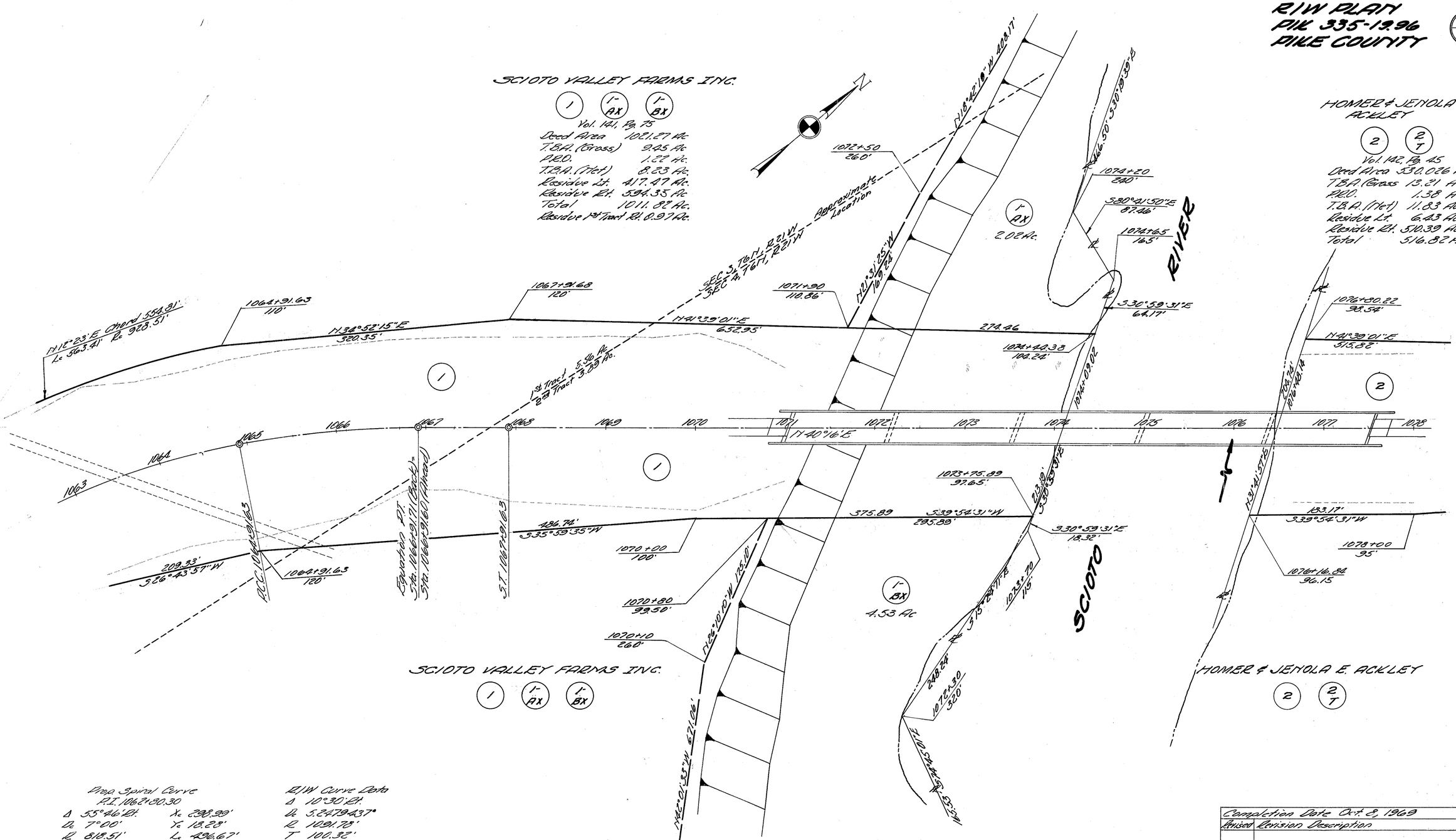
Deed Area	1021.27 Ac.
T.B.A. (Gross)	9.25 Ac.
R.R.O.	1.22 Ac.
T.B.A. (Net)	8.23 Ac.
Residue Lt.	417.47 Ac.
Residue Rt.	594.35 Ac.
Total	1011.82 Ac.
Residue 1st Tract Rt.	0.97 Ac.

HOMER & JENOLA E. ACKLEY

2 | 2/1

Vol. 142, Pg. 45

Deed Area	530.026 Ac.
T.B.A. (Gross	13.21 Ac.
R.R.O.	1.38 Ac.
T.B.A. (Net)	11.83 Ac.
Residue Lt.	6.43 Ac.
Residue Rt.	510.39 Ac.
Total	516.82 Ac.



SCIOTO VALLEY FARMS INC.

1 | 1-AX | 1-BX

HOMER & JENOLA E. ACKLEY

2 | 2/1

FOR DETAIL OF PARCEL Nº 1-BX
SEE R/W SHEET Nº 7 OF 7

Prop. Spiral Curve
P.I. 1062+30.30

Δ	55°46'16" Rt.	Xc	298.99'
Dc	7°00'	Yc	113.23'
Rc	818.51'	Lc	496.67'
Ts	535.34'	Ls	300'
θs	10°30'	Es	112.69'

R/W Curve Data

Δ	10°30' Rt.
Dc	5°24'29.37"
R	1091.78'
T	100.32'
L	200.08'
E	4.60'

Completion Date Oct. 8, 1969		
Revised	Revision Description	By

Y.M.S. 2463-2900 & 484
JACKSON TOWNSHIP

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

R/W PLAN
PIK 335-19.96
PIKE COUNTY

5/7

R/W Curve Data
Δ 15°45'
Dc 6.74404128°
R 849.58'
T 117.51'
L 233.54'
E 8.09'

Prop. Spiral Curve
P.I. 1087+31.10

Δ 77°36' Lt.	Xc 347.36
Dc 9°00'	Yc 31.90'
R 636.62'	Lc 512.22'
Ts 692.86	θs 15°45'
Es 190.52'	Ls 350'

R/W Curve Data
Δ 15°45'
Dc 6.74404128°
R 849.58'
T 117.51'
L 233.54'
E 8.09'

HOMER & JENOLA E. ACKLEY

② (2/T)

Vol. 142, Pg. 45

Deed Area	530.026 Ac.
T.B.A. (Gross)	13.21 Ac.
P.R.O.	1.38 Ac.
T.B.A. (Net)	11.83 Ac.
Residue Lt.	6.43 Ac.
Residue Rt.	510.39 Ac.
Total	516.82 Ac.

HOMER & JENOLA E. ACKLEY

② (2/T)

Completion Date Oct. 8, 1969

Revised	Revision Description	By

V.M.S. 2463-2900 & 484
JACKSON TOWNSHIP

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

R/W PLAN
PIK 335-19.96
PIKE COUNTY

6/7

HOMER & JENOLA E. ACKLEY
2
2 T
Vol. 142, Pg. 45
Deed Area 530.026 Ac.
T.B.A.(Gross) 13.21 Ac.
P.R.O. 1.38 Ac.
T.B.A.(Net) 11.83 Ac.
Residue Lt. 6.43 Ac.
Residue Rt. 510.39 Ac.
Total 516.82 Ac.
SCIOTO RIVER
END PROJECT STA 1107+50 SLM 20.97
END WORK STA 1108+00
N37°20'W 749.51'
1100+00 90'
N28°48'09"W 303.36'
1103+00 45'
N37°20'W 300'
1106+00 45'
N51°22'10"W 103.08'
1107+00 70'
N23°17'52"W 103.08'
1093
1094
1095
1096
1097
1098
1099
1100
1101
1102
1103
1104
1105
1106
1107
1108
N37°20'W
554.49' S36°09'16"E
1095+40 95'
S52°40'W 200'
155.24' S52°15'53"E
1101+50 45
1102+15 45'
1102+15 60'
1102+50 60'
1100+00 85
1102+50 45
450' S37°20'E
1106+00 45'
105.95' S18°02'36"E
105.95' S56°37'24"E
1108+00 45'
1107+00 80'
0.01 Ac.
Leaching Bed
2-4" Fld. Tile
Metal Storage Bins
Fr. Gar.
Fr. Shelter
28' Metal Bin
2 Sty Fr. Res.
Well
Abandoned Cistern
Fr. Shed
164.01' S89°45'53"E
V.M.S. 2463-2900
V.M.S. 484 Approximate Location
1099+00 215'
368.78' S49°51'44"E
1095+90 295
HOMER & JENOLA E. ACKLEY
2
2 T

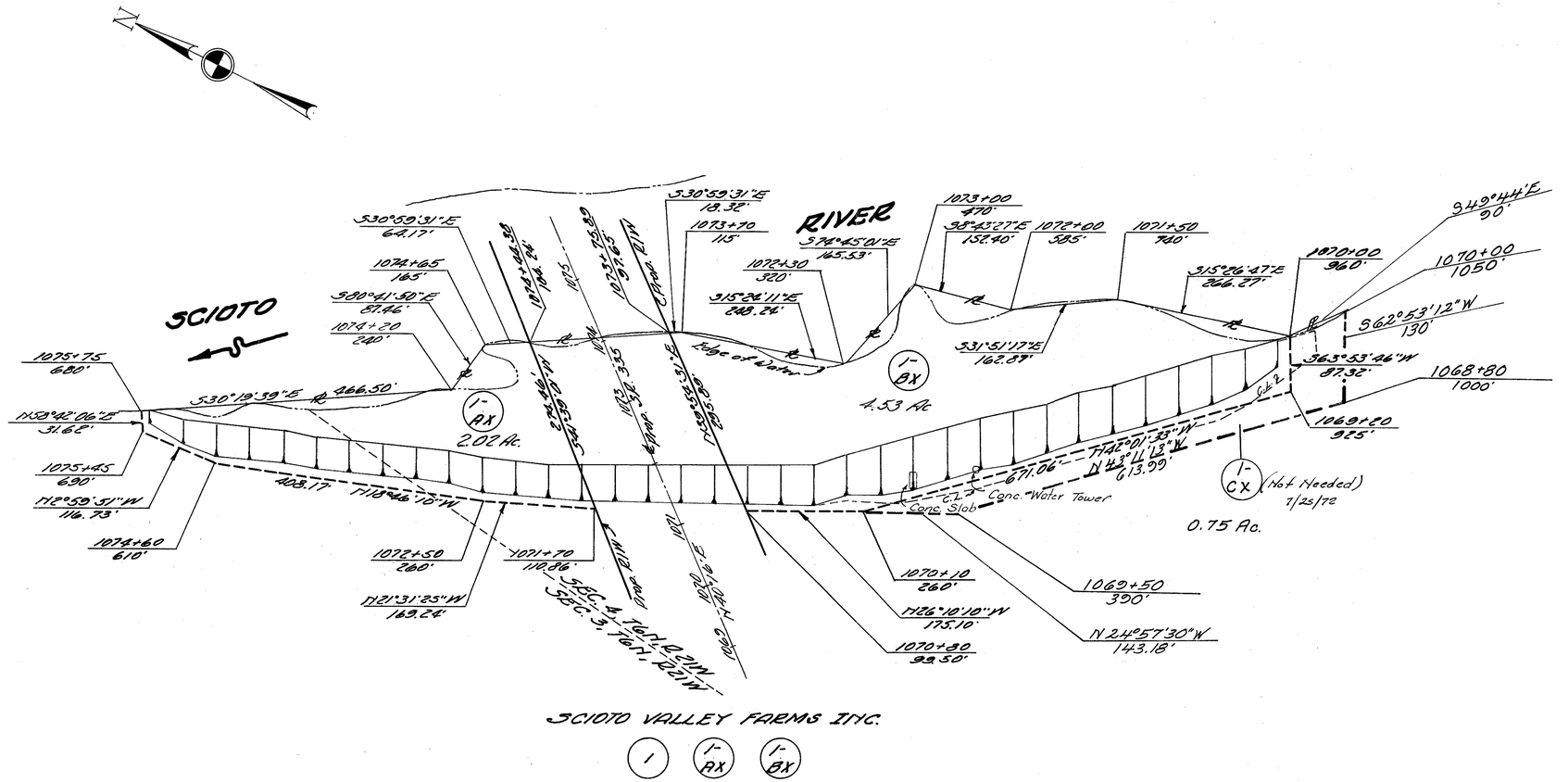
Completion Date Oct. 8, 1969		
Revised	Revision Description	By

SEC. 3 & 4, T6N, R21W
JACKSON TOWNSHIP

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

R/W PLAN
PIK 335-19.96
PIKE COUNTY

7/7



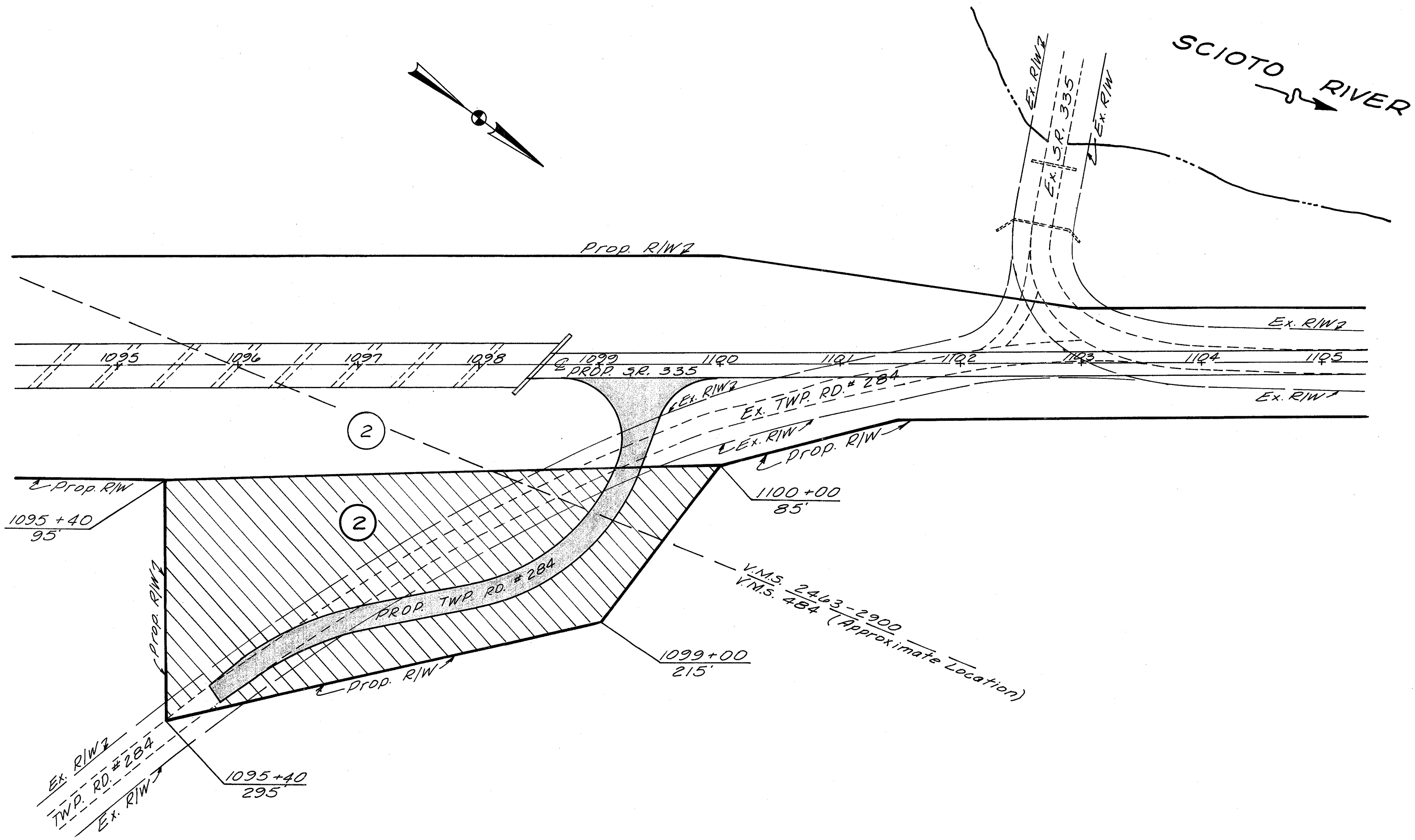
SCIOTO VALLEY FARMS INC.

1 1-AX 1-BX

Completion Date Oct. 8, 1969		
Revised	Revision Description	By
4/24/70	Added Structures to parcel 1-BX	GVB, RDB
6/28/72	" Par. 1-CX	GVB
7/25/72	Parcel 1-CX Void, not needed	GVB

FHWA REGION	STATE	PROJECT	
5	OHIO		

PIKE COUNTY
PIK -335-19.96



R/W approved & accepted by governing body

Pavement approved & accepted by governing body

LOCATION PLAN
TOWNSHIP RD. # 284
PIKE COUNTY
JACKSON TWP.
V.M.S. 2463-2900 & 484

10-17-90 Keith C. Swearingen

1-2-91

7th January

TE-95
500-7-68

GENERAL INFORMATION

INTRODUCTION

THE PROJECT CONSISTS OF THE RELOCATION OF 1.02 MILES OF SR 335, BEGINNING AT EXISTING SR 335, APPROXIMATELY 1.5 MILES SOUTH OF OMEGA, EXTENDING NORTHEASTWARD TO NORTHWARD AND TERMINATING AT EXISTING SR 335, APPROXIMATELY 0.5 MILE SOUTH OF OMEGA.

PROPOSED GRADE INDICATES MAXIMUM PROPOSED 27-FOOT EMBANKMENT.

GEOLOGY OF THE PROJECT

THE ALIGNMENT TRAVERSES THE FLOODPLAIN OF THE SCIOTO RIVER, IN AN AREA WHERE MODERATELY DEEP ALLUVIAL AND OUTWASH DEPOSITS OVERLIE SHALE BEDROCK, OF DEVONIAN AGE.

EXPLORATION

EXPLORATORY BORINGS WERE MADE BY MEANS OF TRUCK-MOUNTED MECHANICAL SOIL AUGER ON OCTOBER 28 AND NOVEMBER 1, 1968.

INVESTIGATIONAL FINDINGS

MATERIALS ENCOUNTERED ON THE PROJECT WERE COMPRISED OF GRAVEL (A-1-a), SANDY GRAVEL (A-1-b), SAND (A-3a), SANDY SILT (A-4a) AND SILT CLAY (A-6a), GENERALLY HAVING LOW MOISTURE CONTENTS AND MOISTURE CONTENTS IN THE LOWER PORTIONS OF THE PLASTIC RANGE.

LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS— 42 SAMPLES TESTED

DESCRIPTION	H.R.B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
GRAVEL	A-1-a(0)	A-1-a	72	14	8	3	3	NP	NP	7	4
GRAVEL WITH SAND	A-1-b(0)	A-1-b	37	31	19	7	6	NP	NP	8	8
FINE AND COARSE SAND	A-3(0)	A-3a	3	17	55	12	13	NP	NP	11	6
SANDY SILT	A-4(5)	A-4a	2	3	34	34	27	27	4	17	11
SILT	A-4(8)	A-4b	0	0	9	56	35	28	8	23	1
SILT AND CLAY	A-6(9)	A-6a	3	2	11	45	39	33	12	21	9
SILTY CLAY	A-6(10)	A-6b	2	0	5	52	41	37	16	24	2
CLAY	A-7-6(11)	A-7-6	0	0	8	44	48	42	16	26	1

AUGER BORING-PLAN VIEW.

AUGER BORING PLOTTED TO VERTICAL SCALE ONLY.

FREE WATER.

NOTE: FIGURES BESIDE BORINGS INDICATE WATER CONTENT IN PERCENT. E.G. 15

SOIL PROFILE
PIKE COUNTY
PIK-335-19.96

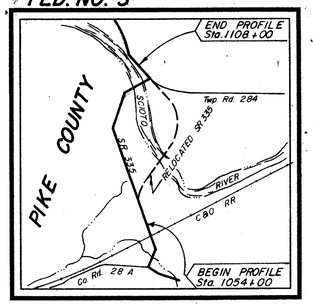
OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS, OHIO 43223

1/11

1/3

NOTE: INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS OBTAINED SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. THE STATE OF OHIO DOES NOT GUARANTEE THE ACCURACY OF THIS DATA AND IT IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT.

FED. NO. S-



LOCATION MAP

Recon- J.S.M. & S.L.S 10/25/68
Drilling-Auger- J.W.P. 10/28/68 to 11/1/68
Drafting- A.F. 11/21/68

SUMMARY OF SOIL TEST DATA

NOTE: NP SHOWN IN LIQUID LIMIT AND PLASTICITY INDEX COLUMNS INDICATES THAT THE MATERIAL IS NON-PLASTIC.
*DENOTES SAMPLE TAKEN AT OR NEAR GRADE.

STATION & OFFSET	DEPTH FROM	TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
1054+00 12'Rt	0.0-5.0	3	1	7	44	45	35	16	17	A-6b*	
	5.0-10.0	0	0	8	56	36	33	13	23	A-6a	
1060+00 3'Lt	0.0-5.0	0	1	5	41	53	37	13	20	A-6a*	
	5.0-8.0	0	1	7	51	41	33	12	21	A-6a	
	8.0-10.0	5	1	21	40	33	29	9	23	A-4a	
	10.0-15.0	64	19	10	4	3	NP	NP	5	A-1-a	
1064+00 CL	0.0-3.0	0	6	32	41	21	NP	NP	15	A-4a*	
	3.0-8.0	0	1	6	44	49	33	13	23	A-6a	
	8.0-13.0	0	0	48	31	21	NP	NP	18	A-4a	
	13.0-15.0	4	38	31	15	12	NP	NP	11	A-3a	
1070+00 CL	0.0-5.0	0	5	35	36	24	NP	NP	10	A-4a	
	5.0-10.0	0	0	9	56	35	30	12	22	A-6a	
	10.0-12.0	0	0	9	56	35	28	8	23	A-4b	
	12.0-17.0	57	19	6	10	8	23	6	6	A-1-b	
	17.0-20.0	47	22	9	12	10	NP	NP	6	A-1-b	
1074+00 CL	0.0-5.0	86	7	3	2	2	NP	NP	6	A-1-a	
	5.0-10.0	75	12	8	3	2	NP	NP	13	A-1-a	
1080+00 CL	0.0-1.0	45	40	8	4	3	NP	NP	3	A-1-b	
	1.0-3.0	0	2	17	45	36	32	10	23	A-4a	
	3.0-5.0	0	15	42	24	19	NP	NP	18	A-4a	
	5.0-6.0	0	4	20	39	37	32	13	25	A-6a	
	6.0-11.0	3	17	60	7	13	NP	NP	13	A-3a	
	11.0-15.0	28	37	30	3	2	NP	NP	6	A-1-b	

STATION & OFFSET	DEPTH FROM	TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
1085+50 CL	0.0-5.0	0	6	60	18	16	NP	NP	10	A-3a	
	5.0-9.0	8	24	57	6	5	NP	NP	5	A-3a	
	9.0-12.0	62	18	12	4	4	NP	NP	5	A-1-a	
1092+00 CL	0.0-2.0	17	11	8	31	33	37	14	16	A-6a	
	2.0-7.0	0	0	8	44	48	42	16	26	A-7-6	
	7.0-12.0	16	43	28	8	5	NP	NP	6	A-1-b	
	12.0-15.0	31	39	21	5	4	NP	NP	5	A-1-b	
1098+50 CL	0.0-5.0	0	0	3	59	38	39	16	30	A-6b	
	5.0-9.0	0	0	17	50	33	32	11	27	A-6a	
	9.0-14.0	51	17	12	12	8	NP	NP	14	A-1-b	
	14.0-20.0	22	31	37	5	5	NP	NP	16	A-1-b	
1104+00 15'Rt	0.0-2.0	9	2	21	33	35	29	11	16	A-6a*	
	2.0-4.0	0	2	48	23	27	22	8	17	A-4a*	
	4.0-8.0	0	1	52	29	18	NP	NP	16	A-4a	
	8.0-11.0	0	1	23	48	28	NP	NP	19	A-4a	
1108+00 15'Rt	0.0-4.0	13	4	21	32	30	28	10	16	A-4a*	
	4.0-5.0	0	0	36	29	35	25	10	17	A-4a	
	5.0-7.0	0	7	61	11	21	NP	NP	15	A-3a	
	7.0-10.0	3	8	64	12	13	NP	NP	9	A-3a	

Rev. 12-16-70

SOIL PROFILE

PIKE COUNTY

PIK-335-19.96

OHIO STATE HIGHWAY TESTING LABORATORY

1520 W. BROAD ST. COLUMBUS, OHIO 43223

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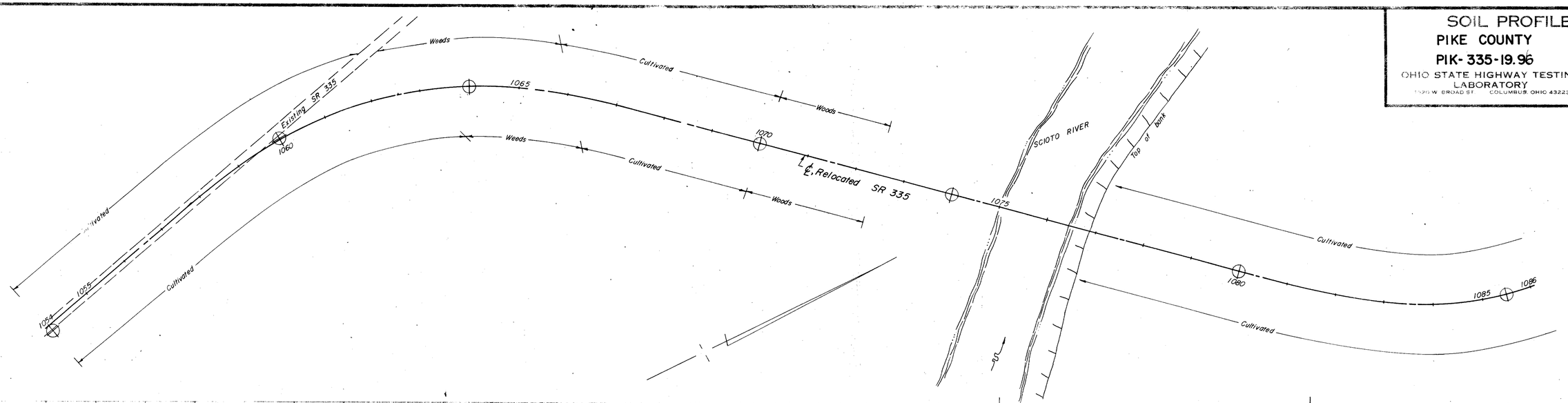
2/3



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SOIL PROFILE

PIKE COUNTY

PIK-335-19.96

OHIO STATE HIGHWAY TESTING LABORATORY

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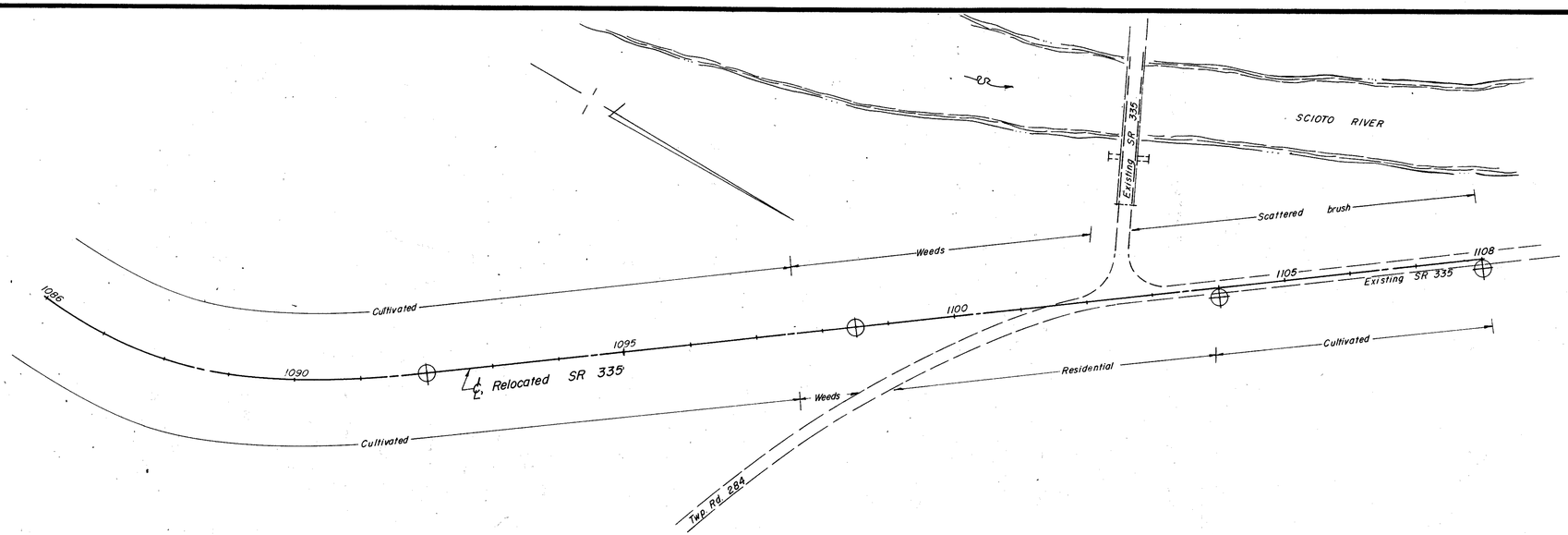

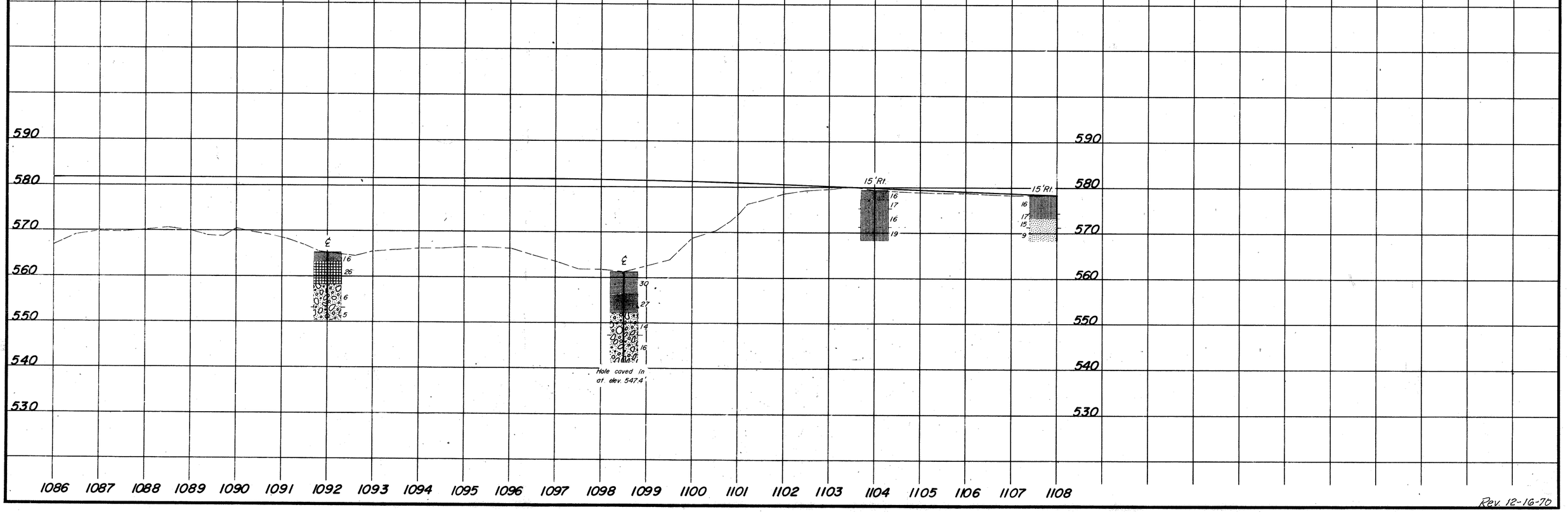

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TE - 118
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APR 81992

PIKE COUNTY
PIK-335-19.96

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GEOLOGY OF THE SITE

THE STRUCTURE SITE IS LOCATED IN A DEEPLY BURIED DEEP STAGE VALLEY, ON THE BROAD FLOODPLAIN AND OVER THE SCIOTO RIVER, IN AN AREA WHERE DEEP VALLEY FILL OVERLIES SHALE BEDROCK, OF DEVONIAN AGE.

EXPLORATION

THE EXPLORATION CONSISTED OF THREE DRIVE SAMPLE BORINGS AND SEVEN DRIVE ROD PENETRATION TESTS, MADE BETWEEN NOVEMBER 25 AND DECEMBER 10, 1968.

INVESTIGATIONAL FINDINGS

THE BORINGS ENCOUNTERED LOOSE TO MEDIUM-DENSE SILTS, SANDS, AND GRAVEL. THE BORINGS WERE DISCONTINUED AT 70 AND 71-FOOT DEPTHS, ELEVATIONS 501 AND 496 FEET, AFTER PENETRATING IN EXCESS OF 15 FEET OF RUNNING SAND.

ROD SOUNDINGS GENERALLY PENETRATED TO GREATER DEPTHS THAN THE DRIVE SAMPLE BORINGS, AND ENCOUNTERED GRADUAL INCREASE IN PENETRATION RESISTANCE WITH INCREASE IN DEPTH, AND WERE TERMINATED DUE TO HIGH RESISTANCE AND REFUSAL TO PENETRATION AT 60 TO 99-FOOT DEPTHS, ELEVATIONS 493 TO 469 FEET, CONSIDERED TO BE IN VERY DENSE SILTS, SANDS, AND GRAVELS, AS REVEALED BY THE BORINGS.

NO FREE WATER WAS ENCOUNTERED IN ANY OF THE ROD SOUNDING HOLES.

LEGEND

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.
- Capped Pile
- Footing
- Footing on Pile
- TR — Top of Rock
- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- X/Y — Figures Beside the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test.
  X = Number of Blows for First 6 inches.
  Y = Number of Blows for Second 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Casing
- Resistance "R" < 10,000 lbs.
- Resistance "R" > 10,000 lbs.
- Z — Indicates Final Measurement of Penetration, in Inches.
- W — Indicates Free Water Elevation.
- Indicates Static Water Elevation.

SYMBOLS OF ROCK TYPES

- Coal
- Weathered Indurated Clay
- Indurated Clay
- Weathered Shale
- Shale
- Weathered Sandstone
- Sandstone
- Leached Dolomite
- Dolomite
- Leached Limestone
- Limestone

GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be readily compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and / or 5-foot depth intervals, driven by means of a 140 - pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 12 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sampler is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in two 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system - and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Particle Size Definitions

Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
12"	3"	2.0mm (No. 10 sieve)	0.42mm (No. 40 sieve)	0.074mm (No. 200 sieve)		0.005mm

NOTE: Information shown by this subsurface investigation was obtained solely for the use in establishing design controls for the project. The State of Ohio does not guarantee the accuracy of this data and it is not to be construed as a part of the plans governing construction of the project.

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. PIK-335-2025
OVER SCIOTO RIVER
SEC. PIK-335-19.96

CHECKED BY	REVIEWED BY	DATE
L.N.L.	R.D.R.	12/30/68

Rev. 12-16-70

TE - 119
1000 - 4 - 66

5/11

PIK-335-19.96

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1068 1069 1070 1071 ℄, Proposed SR 335 1072 1073 1074

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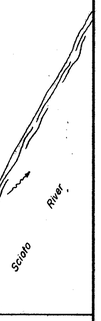
B-3



590 580 570 560 550 540 530 520 510 500 490 480 470 460

B-3 4

5/8
2/2
24/27
11/12 W.S.
7/8 W.S.
16/20
11/14
W.S.
W.S.
22/29
24/32
W.S.
W.S.
W.S.

W.S.= Wash Sample

1 0 5 0 8 1/16

1068 1069 1070 1071 1072 1073 1074

SCALE: 1" = 20'

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. PIK-335-2028
OVER SCIOTO RIVER
SEC. PIK-335-19.96

PLAN AND PROFILE

DRAWN BY	CHECKED BY	REVIEWED BY	DATE
K.J.S.	L.N.L.	R.D.R.	12/30/68

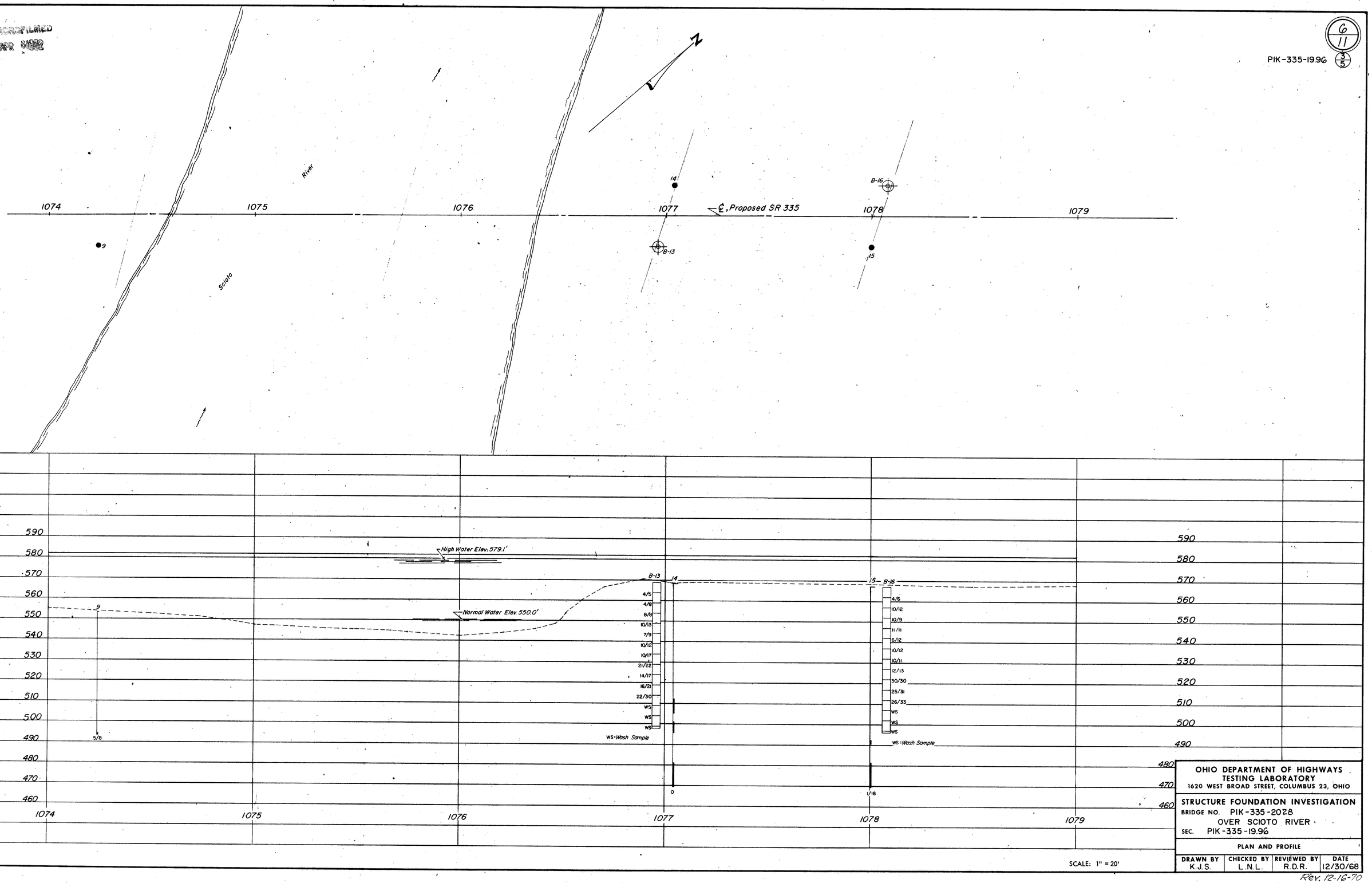
Rev. 12-16-70

TE - 119
1000 - 4 - 66

PIK-335-19.96

6/11

3/5



SCALE: 1" = 20'

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. PIK-335-2028
OVER SCIOTO RIVER
SEC. PIK-335-19.96

PLAN AND PROFILE

DRAWN BY	CHECKED BY	REVIEWED BY	DATE
K.J.S.	L.N.L.	R.D.R.	12/30/68

Rev. 12-16-70

TE - 122
600 - 4 - 66

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APR 61969

PIK-335-19.96

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LOG OF BORING

Date Started 12-9-68 | Sampler Type SS | Dia 1 3/8" | Water Elev. —
Date Completed 12-10-68 | Casing: Length 70' | Dia 3 1/2"
Boring No. B-3 | Station & Offset 1070+50, 25' Rt. (First Pier) | Surface Elev. 570.8'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
570.8	0														
	2														
565.8	4														
	6	5/6			Brown Silt and Clay	1	0	0	9	50	41	39	13	25	A-6a
560.8	8														
	10	2/2			Brown Sandy Silt	2	0	0	34	43	23	NP	NP	23	A-4a
555.8	12														
	14														
	16	24/27			Brown Silty Sandy Gravel	3	56	18	11	-15	-	NP	NP	10	A-1-a
550.8	18														
	20	11/12			Brown Gravelly Silt	4	41	47	8	- 4	-	NP	NP	21	A-1-b
545.8	22														
	24														
	26	7/8			Brown Sandy Gravel	5	62	27	6	- 5	-	NP	NP	16	A-1-a
540.8	28														
	30														
	32	16/20			Brown Sandy Gravel	6	49	13	28	-10	-	NP	NP	11	A-1-b
535.8	34														
	36	11/14			Gray Gravelly Sand	7	24	42	27	- 7	-	NP	NP	17	A-1-b
530.8	38														
	40														
	42				Gray Sand (Wash Sample) (Heaved 2.5' in Casing)	8	0	35	62	- 3	-	NP	NP	29	A-3
525.8	44														
	46				Gray Sand (Wash Sample) (Heaved 3.0' in Casing)	9	0	66	32	- 2	-	NP	NP	20	A-1-b
520.8	48														
	50														
	52	22/29			Gray Sand	10	11	51	33	- 5	-	NP	NP	19	A-1-b
515.8	54														
	56	24/32			Gray Sand	11	7	42	48	- 3	-	NP	NP	23	A-3
510.8	58														
	60														
	62				Gray Sand (Wash Sample) (Heaved 4.0' in Casing)	12	10	51	36	- 3	-	NP	NP	20	A-1-b
505.8	64														
	66				Gray Sand (Wash Sample) (Heaved 5.0' in Casing)	13	4	48	45	- 3	-	NP	NP	24	A-1-b
	68														
500.8	70				Gray Sand (Wash Sample) (Heaved 5.0' in Casing) BOTTOM OF BORING	14	5	44	46	- 5	-	NP	NP	26	A-3

LOG OF BORING

Date Started 12-4-68 | Sampler Type SS | Dia 1 3/8" | Water Elev. —
Date Completed 12-5-68 | Casing: Length 70' | Dia 3 1/2"
Boring No. B-13 | Station & Offset 1076+96, 15' Rt. (Sixth Pier) | Surface Elev. 568.9'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
568.9	0														
	2														
	4														
563.9	6	4/5			Brown Silty Sand	1	8	5	62	7	18	-	-	20	-
	8														
558.9	10														
	12	4/6			Brown Silty Gravelly Sand	2	21	5	50	-24	-	NP	NP	23	A-3a
	14														
553.9	16	8/8			Brown Silty Sandy Gravel	3	45	20	19	-16	-	NP	NP	11	A-1-b
	18														
548.9	20	10/13			Brown Silty Sandy Gravel	4	45	32	11	-12	-	NP	NP	21	A-1-b
	22														
	24														
543.9	26	7/9			Brown Silty Sandy Gravel	5	43	21	17	-19	-	NP	NP	19	A-1-b
	28														
538.9	30														
	32	10/12			Brown Gravelly Sand	6	41	38	15	- 6	-	NP	NP	22	A-1-b
	34														
533.9	36	10/17			Gray Silty Gravelly Sand	7	33	33	22	-12	-	NP	NP	13	A-1-b
	38														
528.9	40														
	42	21/22			Gray Sandy Gravel	8	47	24	19	-10	-	NP	NP	11	A-1-b
	44														
523.9	46	14/17			Gray Silty Gravelly Sand	9	19	1	66	-14	-	NP	NP	16	A-3a
	48														
518.9	50														
	52	16/21			Gray Sand	10	0	2	96	- 2	-	NP	NP	26	A-3
	54														
513.9	56	22/30			Gray Sand	11	1	6	87	- 6	-	NP	NP	24	A-3
	58														
508.9	60														
	62				Gray Sand (Wash Sample)	12	0	55	44	- 1	-	NP	NP	25	A-1-b
	64														
503.9	66				Gray Sand (Wash Sample)	13	1	61	34	- 4	-	NP	NP	24	A-1-b
	68														
498.9	70				Gray Sand (Wash Sample) BOTTOM OF BORING	14	0	83	16	- 1	-	NP	NP	23	A-1-b
497.9															

LOG OF BORING

Date Started 11-25-68 | Sampler Type SS | Dia 1 3/8" | Water Elev. —
Date Completed 11-25-68 | Casing: Length 70' | Dia 3 1/2"
Boring No. B-16 | Station & Offset 1078+08, 15' Lt. (Forward Abutment) | Surface Elev. 567.1'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
567.1	0														
	2														
	4														
562.1	6	4/6			Brown Silty Sand	1	0	4	83	-13	-	NP	NP	18	A-3a
	8														
557.1	10														
	12	10/12			Brown Sandy Gravel	2	60	23	9	- 8	-	NP	NP	11	A-1-a
	14														
552.1	16	10/9			Brown Sandy Gravel	3	60	23	9	- 8	-	NP	NP	11	A-1-a
	18														
547.1	20	11/11			Brown Sandy Gravel	4	65	21	6	- 8	-	NP	NP	9	A-1-a
	22														
	24														
542.1	26	6/12			Brown Silty Sandy Gravel	5	44	21	23	-12	-	NP	NP	14	A-1-b
	28														
537.1	30														
	32	10/12			Brown Gravelly Sand	6	43	43	11	- 3	-	NP	NP	19	A-1-b
	34														
532.1	36	10/11			Gray Sand	7	8	82	10	- 0	-	NP	NP	23	A-1-b
	38														
527.1	40														
	42	12/13			Gray Gravelly Sand	8	15	39	37	- 9	-	NP	NP	15	A-1-b
	44														
522.1	46	30/30			Gray Gravelly Sand	9	20	42	30	- 8	-	NP	NP	17	A-1-b
	48														
517.1	50														
	52	25/31			Gray Silty Sandy Gravel	10	47	4	14	-35	-	NP	NP	13	A-2-4
	54														
512.1	56	26/33			Gray Silty Sand	11	0	3	85	-12	-	NP	NP	31	A-3a
	58														
507.1	60														
	62				Gray Sand-Wash Sample (Heaved 5.0' in Casing)	12	0	65	34	- 1	-	NP	NP	26	A-1-b
	64														
502.1	66				Gray Sand-Wash Sample (Heaved 5.0' in Casing)	13	0	14	84	- 2	-	NP	NP	25	A-3
	68														
497.1	70				Gray Sand-Wash Sample (Heaved 5.0' in Casing) BOTTOM OF BORING	14	0	66	34	- 0	-	NP	NP	25	A-1-b
496.1															

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. PIK-335-2028
OVER SCIOTO RIVER
SEC. PIK-335-19.96

BORING DATA

TYPED BY	CHECKED BY	REVIEWED BY	DATE
S.A.J.	L.N.L.	R.D.R.	12/30/68

Rev. 12-16-70

TE-114
1000-9-67

Test Location No. 1
Station & Offset 1069+46, 15' RT.
REAR ABUTMENT
Surface Elev. 570.0 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition GOOD

Test Location No. 4
Station & Offset 1070+58, 15' LT
FIRST PIER
Surface Elev. 569.1 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition GOOD

Test Location No. 5
Station & Offset 1071+80, 15' RT.
SECOND PIER
Surface Elev. 567.6 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition GOOD

Test Location No. 8
Station & Offset 1073+16, 15' LT
THIRD PIER
Surface Elev. 557.9 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition GOOD

Test Location No. 9
Station & Offset 1074+24, 15' RT.
FOURTH PIER
Surface Elev. 553.2 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition GOOD

Test Location No. 14
Station & Offset 1077+04, 15' LT
SIXTH PIER
Surface Elev. 568.3 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition GOOD

Test Location No. 15
Station & Offset 1078+00, 15' RT.
FORWARD ABUTMENT
Surface Elev. 567.4 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition GOOD

Test Location No.
Station & Offset
Surface Elev. Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition

8
11
5
5

PIK-335-19.96

569 565 561 557 553 549 545 541 537 533 529 525 521 517 513 509 505 501 497 493 489 485 481 477 473 469

TEST ROD

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

OHIO STATE HIGHWAY TESTING LABORATORY
1620 WEST BROAD ST, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
"BRIDGE NO. PIK-335-2028
OVER SCIOTO RIVER
SEC. PIK-335-19.96

DRIVE ROD PENETRATION RESISTANCE DATA

PLOTTED BY	CHECKED BY	REVIEWED BY	DATE
R.C.	L.N.L.	R.D.R.	12/30/68

Rev. 12-16-70

H. COLE CO.-80M-10-67-1000

TE-118
600-12-68

RECEIVED
APR 8 1969

PIKE COUNTY
PIK-335-19.96

9 / 11 / 1 / 3

GEOLOGY OF THE SITE

THE STRUCTURE SITE IS LOCATED ON THE BROAD FLOODPLAIN OF THE SCIOTO RIVER, IN AN AREA WHERE DEEP ALLUVIUM AND GLACIAL OUTWASH OVERLIE SHALE BEDROCK, OF DEVONIAN AGE.

EXPLORATION

THE EXPLORATION CONSISTED OF TWO DRIVE SAMPLE BORINGS AND EIGHT DRIVE ROD PENETRATION TESTS, MADE BETWEEN MARCH 6 AND APRIL 3, 1969.

INVESTIGATIONAL FINDINGS

BORINGS ENCOUNTERED LOOSE TO DENSE SANDS, SILTS AND GRAVELS. THE BORINGS WERE TERMINATED AT 51-FOOT DEPTH, ELEVATIONS 518 AND 516 FEET, AFTER PENETRATING IN EXCESS OF 30 FEET OF MATERIAL REQUIRING IN EXCESS OF 30 BLOWS PER FOOT IN THE STANDARD PENETRATION TEST.

ROD SOUNDINGS, WHICH PENETRATED TO GREATER DEPTHS THAN THE DRIVE SAMPLE BORINGS, ENCOUNTERED VERY GRADUAL INCREASE IN PENETRATION RESISTANCE WITH INCREASE IN DEPTH, AND WERE TERMINATED UPON ENCOUNTER WITH HIGH RESISTANCE AND REFUSAL TO PENETRATION AT 65 TO 87-FOOT DEPTHS, ELEVATIONS 499 TO 482 FEET, CONSIDERED TO BE IN DENSE AND VERY DENSE MATERIALS, SIMILAR TO THOSE REVEALED BY THE BORINGS AT HIGHER ELEVATIONS AND THE GEOLOGY OF THE SITE.

NO FREE WATER WAS OBSERVED IN ANY OF THE ROD SOUNDING HOLES.

NO TEST PENETRATED TO BEDROCK SURFACE.

LEGEND

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.
- Capped Pile
- Footing
- Footing on Pile
- TR — Top of Rock
- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- X/Y — Figures Beside the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test. X = Number of Blows for First 6 inches. Y = Number of Blows for Second 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Casing
- Resistance "R" < 10,000 lbs.
- Resistance "R" > 10,000 lbs.
- Z — Indicates Final Measurement of Penetration, in Inches.
- W — Indicates Free Water Elevation.
- Indicates Static Water Elevation.

SYMBOLS OF ROCK TYPES

- Coal
- Weathered Siltstone, Mudstone, or Claystone
- Siltstone, Mudstone, or Claystone
- Weathered Shale
- Shale
- Boulders or Cobbles
- Weathered Sandstone
- Sandstone
- Leached Dolomite

GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be readily compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and / or 5-foot depth intervals, driven by means of a 140 - pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 12 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sample is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in two 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system - and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Particle Size Definitions

Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
12"	3"	2.0mm (No. 10 sieve)	0.42mm (No. 40 sieve)	0.074mm (No. 200 sieve)		0.005mm

LOG OF BORING

Date Started 4-3-69 — Sampler Type SS — Dia 1 3/8" — Water Elev ——
Date Completed 4-3-69 — Casing: Length 50' — Dia 3 1/2"
Boring No. B-4 — Station & Offset 1090+64, 15' Lt. (First Pier) — Surface Elev 569.1'

Elev.	Depth	Std. Pen. (in)	Rec. ft.	Loss ft.	Description	Sample No.	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
569.1	0														
566.6	2														
	4	2/3			Brown Gravelly Sandy Silt	1	17	2	26	23	32	26	10	21	A-4a
564.1	6	3/4			Brown Silty Sand	2	0	8	66	11	15	NP	NP	15	A-3a
561.6	8	11/13			Brown Silty Gravelly Sand	3	32	27	29	-12	-	NP	NP	14	A-1-b
559.1	10	17/18			Brown Silty Gravelly Sand	4	32	25	32	-11	-	NP	NP	19	A-1-b
	12														
554.1	14														
	16	15/15			Brown Silty Sandy Gravel	5	45	29	15	-11	-	NP	NP	13	A-1-b
549.1	18														
	20	17/19			Brown Sandy Gravel	6	58	24	9	- 9	-	NP	NP	14	A-1-a
544.1	22														
	24														
	26	14/16			Brown Silty Gravelly Sand	7	34	21	26	-19	-	NP	NP	13	A-1-b
539.1	28														
	30	20/18			Brown Silty Gravelly Sand	8	16	22	44	-18	-	NP	NP	17	A-3a
534.1	32														
	34														
	36	21/24			Brown Silty Gravelly Sand	9	28	32	24	-16	-	NP	NP	14	A-1-b
529.1	38														
	40	15/18			Brown Silty Sand	10	6	36	47	-11	-	NP	NP	21	A-3a
	42														
524.1	44														
	46	17/25			Brown Silty Sand	11	9	31	48	-12	-	NP	NP	18	A-3a
519.1	48														
518.1	50	18/24			Brown Silty Sand	12	5	38	47	-10	-	NP	NP	19	A-3

BOTTOM OF BORING

LOG OF BORING

Date Started 4-1-69 — Sampler Type SS — Dia 1 3/8" — Water Elev ——
Date Completed 4-3-69 — Casing: Length 50' — Dia 3 1/2"
Boring No. B-24 — Station & Offset 1095+64, 15' Lt. (11th Pier) — Surface Elev 566.5'

Elev.	Depth	Std. Pen. (in)	Rec. ft.	Loss ft.	Description	Sample No.	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
566.5	0														
	2														
561.5	4														
	6	4/4			Brown Silty Sand	1	0	0	75	7	18	NP	NP	15	A-3a
	8														
556.5	10	4/7			Brown Sand	2	0	17	73	-10	-	NP	NP	17	A-3
	12														
551.5	14														
	16	19/21			Brown Silty Gravelly Sand	3	31	16	36	-17	-	NP	NP	16	A-3a
	18														
546.5	20	18/20			Brown Gravelly Sand	4	41	27	23	- 9	-	NP	NP	14	A-1-b
	22														
541.5	24														
	26	15/16			Brown Silty Sandy Gravel	5	51	23	13	-13	-	NP	NP	16	A-1-a
	28														
536.5	30	18/21			Brown Silty Gravelly Sand	6	36	29	19	-16	-	NP	NP	12	A-1-b
	32														
531.5	34														
	36	13/22			Brown Gravelly Sand	7	24	39	28	- 9	-	NP	NP	16	A-1-b
	38														
526.5	40														
	42	15/25			Brown Silty Gravelly Sand	8	36	27	25	-12	-	NP	NP	12	A-1-b
	44														
521.5	46	15/31			Brown Silty Gravelly Sand	9	26	28	32	-14	-	NP	NP	13	A-1-b
	48														
516.5	50	50/*			Brown Silty Sand	10	13	54	19	-14	-	NP	NP	16	A-1-b
516.0															

*Refusal

BOTTOM OF BORING

NOTE: Information shown by this subsurface investigation was obtained solely for the use in establishing design controls for the project. The State of Ohio does not guarantee the accuracy of this data and it is not to be construed as a part of the plans governing construction of the project.

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS, OHIO 43223

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. PIK-335-2064
OVER SCIOTO RIVER OVERFLOW
SEC. PIK-335-19.96

CHECKED BY	REVIEWED BY	DATE
L. N. L.	R. D. R.	4/16/69

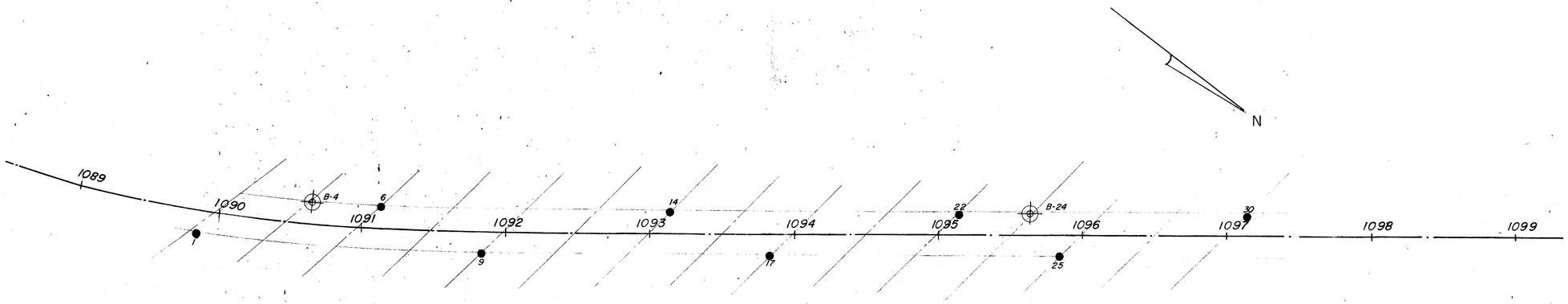
Rev. 12-16-70

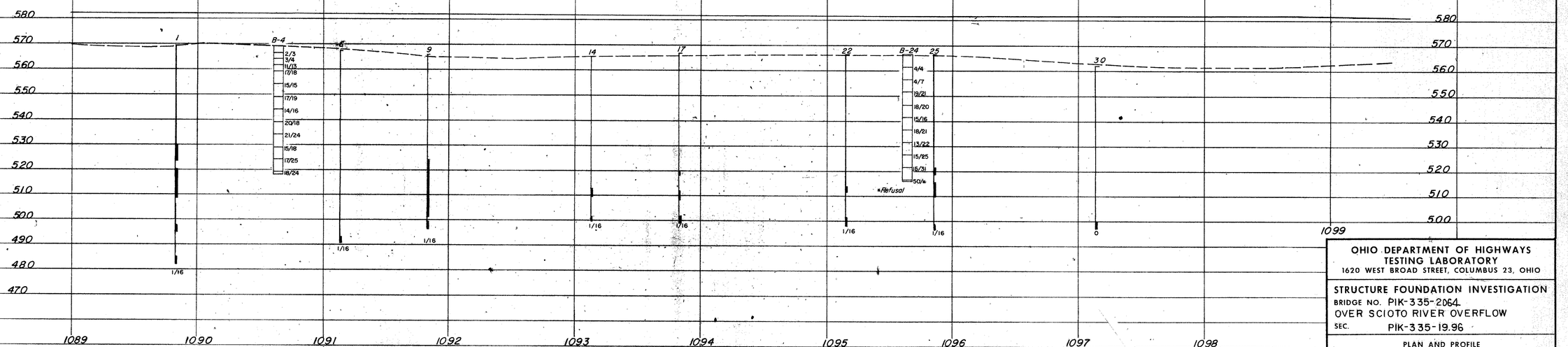
TE - 119
000 - 4 - 66

PIK- 335-19.96

10/11

2/3





SCALE: 1" = 40'

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. PIK-335-2064
OVER SCIOTO RIVER OVERFLOW
SEC. PIK-335-19.96

PLAN AND PROFILE

DRAWN BY	CHECKED BY	REVIEWED BY	DATE
S.G.B.	L.N.L.	R.D.R.	4/16/69

Rev. 12-16-70

Test Location No. 1
Station & Offset 1089+84, 15' RT
REAR ABUTMENT
Surface Elev. 569.5 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition

Test Location No. 6
Station & Offset 1091+14, 15' LT
SECOND PIER
Surface Elev. 567.5 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition

Test Location No. 9
Station & Offset 1091+84, 15' RT
FOURTH PIER
Surface Elev. 566.1 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition

Test Location No. 14
Station & Offset 1093+14, 15' LT
SIXTH PIER
Surface Elev. 565.5 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition

Test Location No. 17
Station & Offset 1093+84, 15' RT
EIGHTH PIER
Surface Elev. 566.9 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition

Test Location No. 22
Station & Offset 1095+14, 15' LT
TENTH PIER
Surface Elev. 566.5 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition GOOD

Test Location No. 25
Station & Offset 1095+84, 15' RT
TWELFTH PIER
Surface Elev. 566.5 Water Elev.
Piling
Hammer
Formula
Reference
Rod Condition

Test Location No. 30
Station & Offset 1097+14, 14' LT
FORWARD ABUTMENT
Surface Elev. 562.1 Water Elev.
PIK-335-19.96
Piling
Hammer
Formula
Reference
Rod Condition GOOD

574 570 566 562 558 554 550 546 542 538 534 530 526 522 518 514 510 506 502 498 494 490 486 482

TEST ROD

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

11/11
3/3

OHIO STATE HIGHWAY TESTING LABORATORY
1620 WEST BROAD ST. COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. PIK-335-2064
OVER SCIOTO RIVER OVERFLOW
SEC. PIK-335-19.96

DRIVE ROD PENETRATION RESISTANCE DATA

PLOTTED BY	CHECKED BY	REVIEWED BY	DATE
R.C.	L.N.L.	R.D.R.	4/16/69

Rev. 12-16-70