

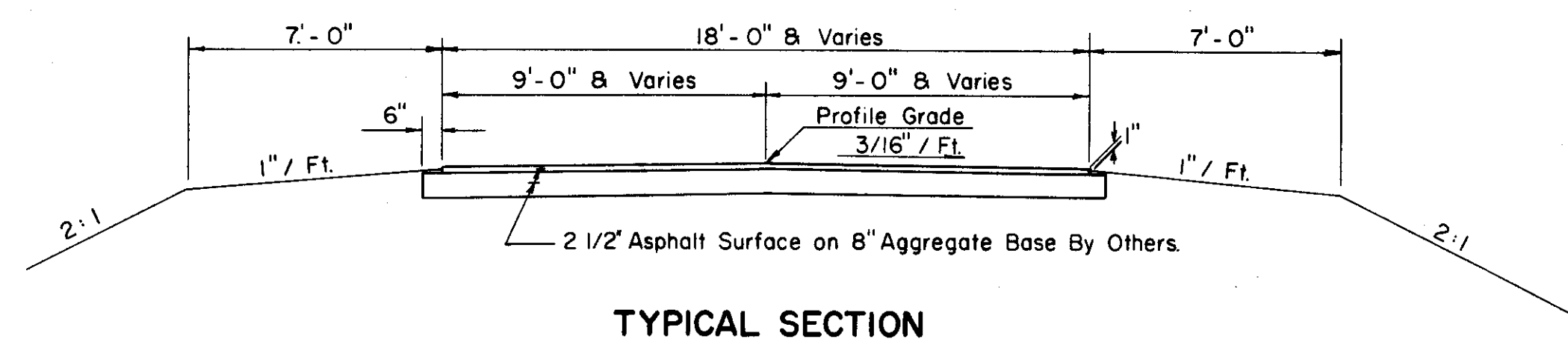
STATE OF OHIO

UNION COUNTY

ALLEN & UNION TOWNSHIPS

COLLINS ROAD C.H. 78-A

BRIDGE OVER BIG DARBY CREEK



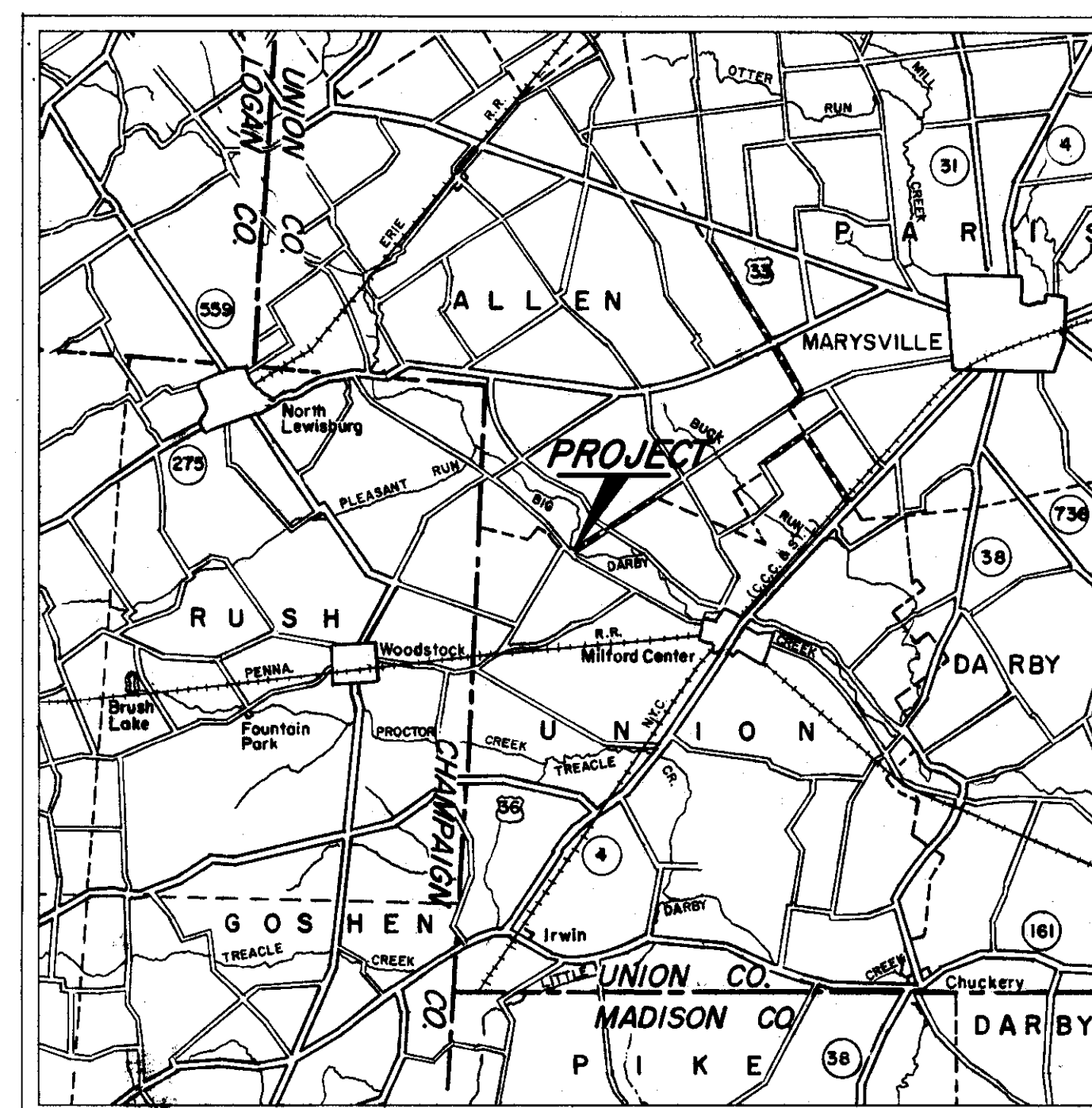
TYPICAL SECTION

DRAWING	DATED	FOR
AS-1-72, Sh. 1 of 2	6-30-72	Approach slabs.
DBR-2-73	4-10-73	Type B & C anchors, Special Washer.
PSBD-1-71 Sh. 1, 2 & 3	9-1-71	Beam Lifting Inserts, Anchor Dowels, Transverse Tie Rods, Dimensional Tolerances, Box Beam Details, etc.

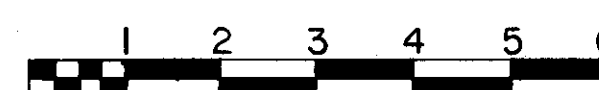
General Summary

Ref. No.	Item No.	Quantity	Unit	Description
	201	Lump Sum	L.S.	Clearing and grubbing.
	202	Lump Sum	L.S.	Portions of Structures removed.
	203	1762	C.Y.	Excavation not including embankment construction.
	203	911	C.Y.	Embankment.
	403	34	C.Y.	Asphalt concrete (AC-20).
	404	22	C.Y.	Asphalt concrete (AC-20).
	503	Lump Sum	L.S.	Cofferdams, cribs and sheeting.
	503	186	C.Y.	Unclassified excavation.
	505	Lump Sum	L.S.	Test pile.
	507	244	L.F.	Steel piles, HP 10 X 42.
	509	12,201	Pound	Reinforcing steel.
	510	52	Each	Dowel holes.
	511	40	C.Y.	Class C concrete, abutment.
	511	50	C.Y.	Class C concrete, pier above footing.
	511	27	C.Y.	Class C concrete, pier footing.
	512	535	S.Y.	Type B Waterproofing.
	513	692	Pound	Structural steel.
	515	21	Each	Prestressed concrete bridge members, 55'-2" long. (B21 X 48)
	516	61	S.F.	Preformed expansion joint filler.
	516	84	Each	1/2" X 5" X 6" elastomeric bearing pads.
	517	325	L.F.	Railing (deep beam rail with steel post & bolts.)
	518	23	C.Y.	Porous backfill.
	Special	222	S.F.	Steel drip strip.
	601	164	C.Y.	Dumped rock fill, Type B.
	611	99	S.Y.	Reinforced concrete approach slab.

On bridge and approach slab.



LOCATION



SHEET INDEX

Title	1
Site Plan	2
Abutment & Pier	3
Superstructure	4
Cross Sections	5
Channel Layout & Sections	6
Test Borings	7

We the Commissioners of Union County in formal session hereby approve these plans and certify that the necessary Right of Way is available. Done under authority of Section 5555.02 et Seg and 5535.01 Seg of the Revised Code of Ohio Board of Commissioners, Union County.

Date

Max E. Robinson

Ernest Bumgarner

Glenn W. Erwin

The current edition of the State of Ohio, Dept. of Highways "Construction and Materials Specifications", shall govern the construction and materials for this project, unless otherwise noted, for the "State of Ohio," read "Union County, Ohio," and for the "Director of Highways," read "Union County Engineer."

I hereby approve these plans and declare that the making of these improvements will require that sections of County Highway C.H. 78-A remain closed, to traffic, and that no detours or temporary bridge will be required.

Approved: J. Donald Hart
J. Donald Hart, Union County Engr.
Registered Engr. No. 14875

Date: 3-12-80

Design: Warren Jones
Warren Jones, Jones-Stuckey, Ltd
Registered Engr. No. 18210

Date: 2-11-80

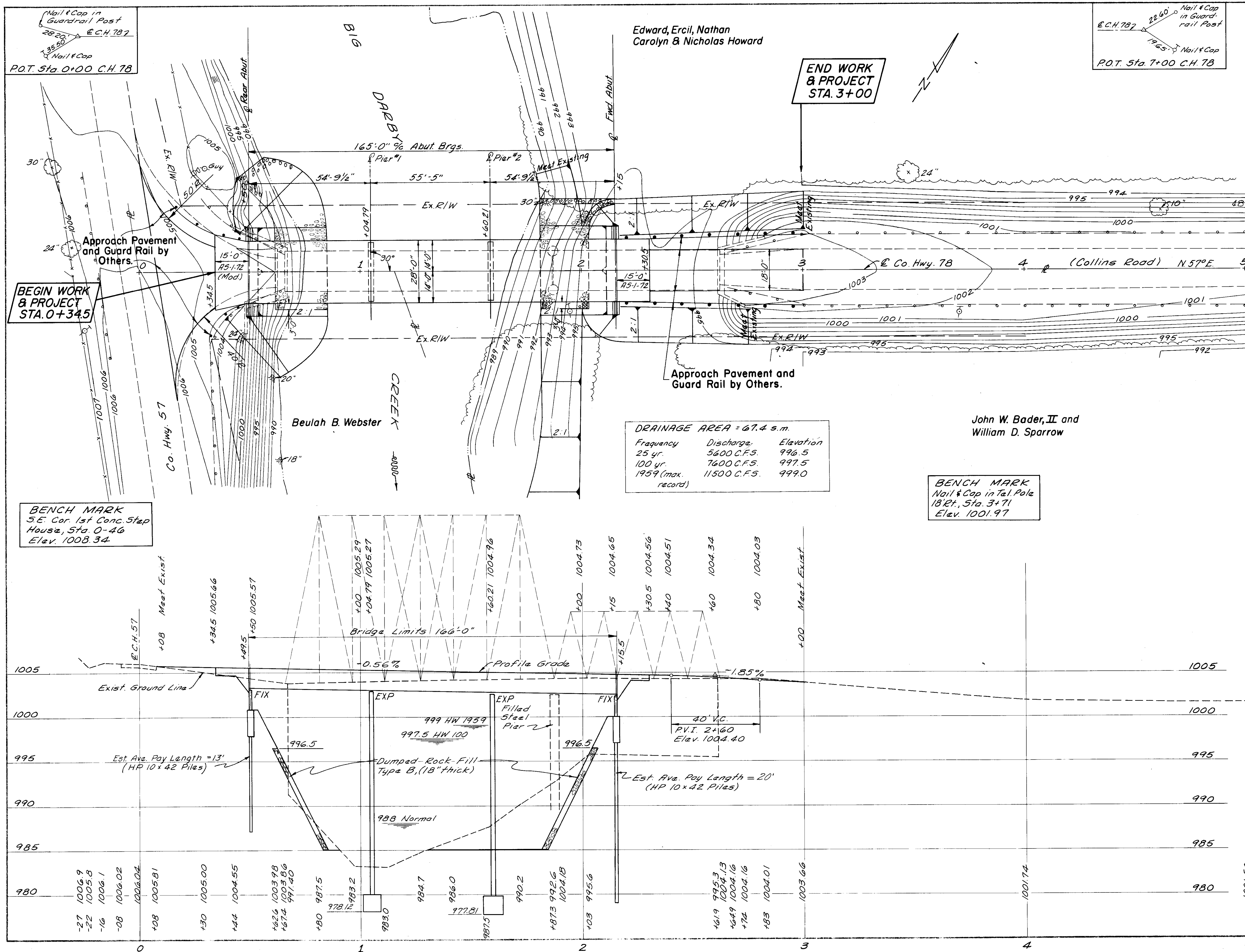
Recommended
For Approval: Robert B. Ruff

Date: 5-2-1980

APPROVED: David R. Van
Director, Ohio Department of Transportation

Date: 5-5-1980

1-m-504



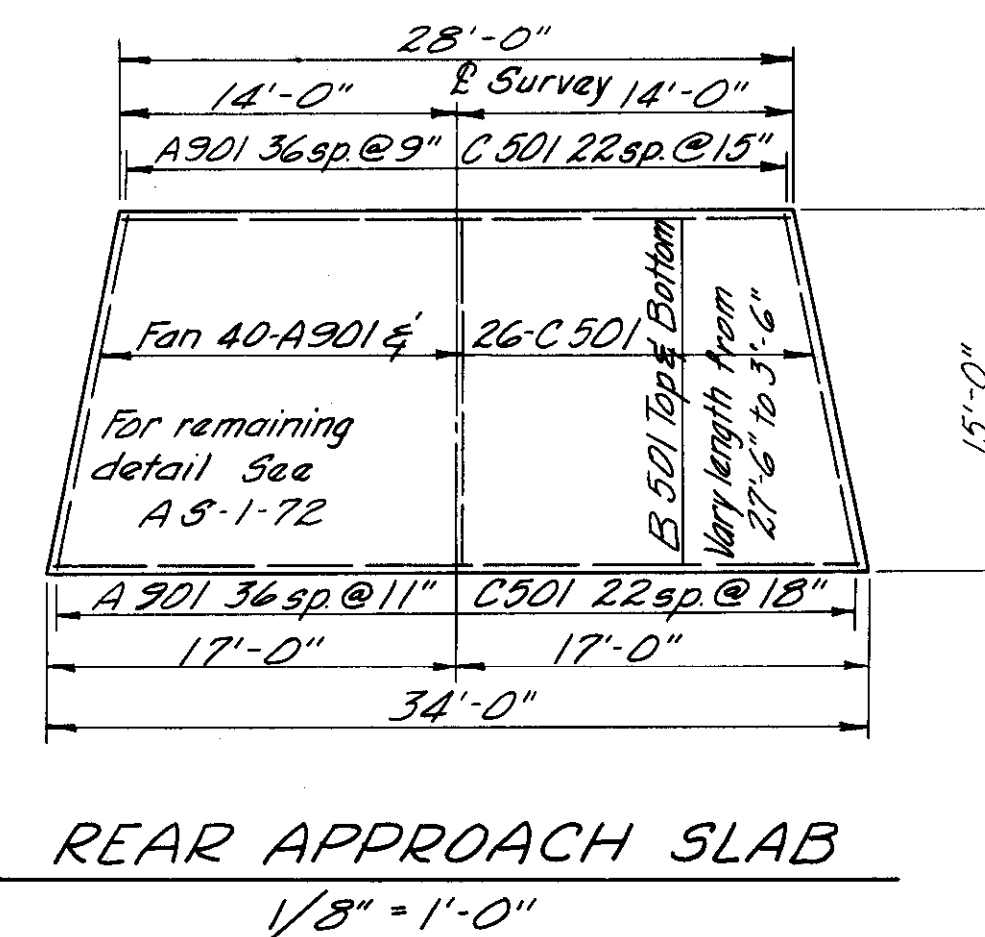
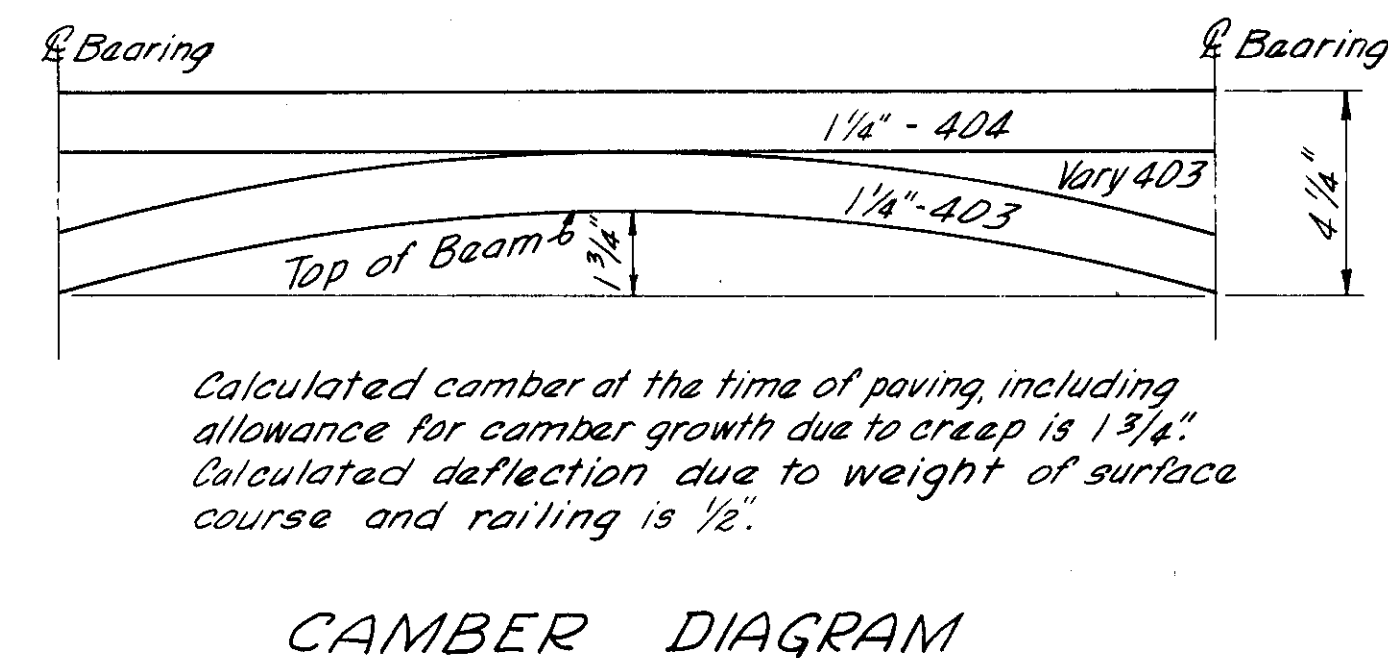
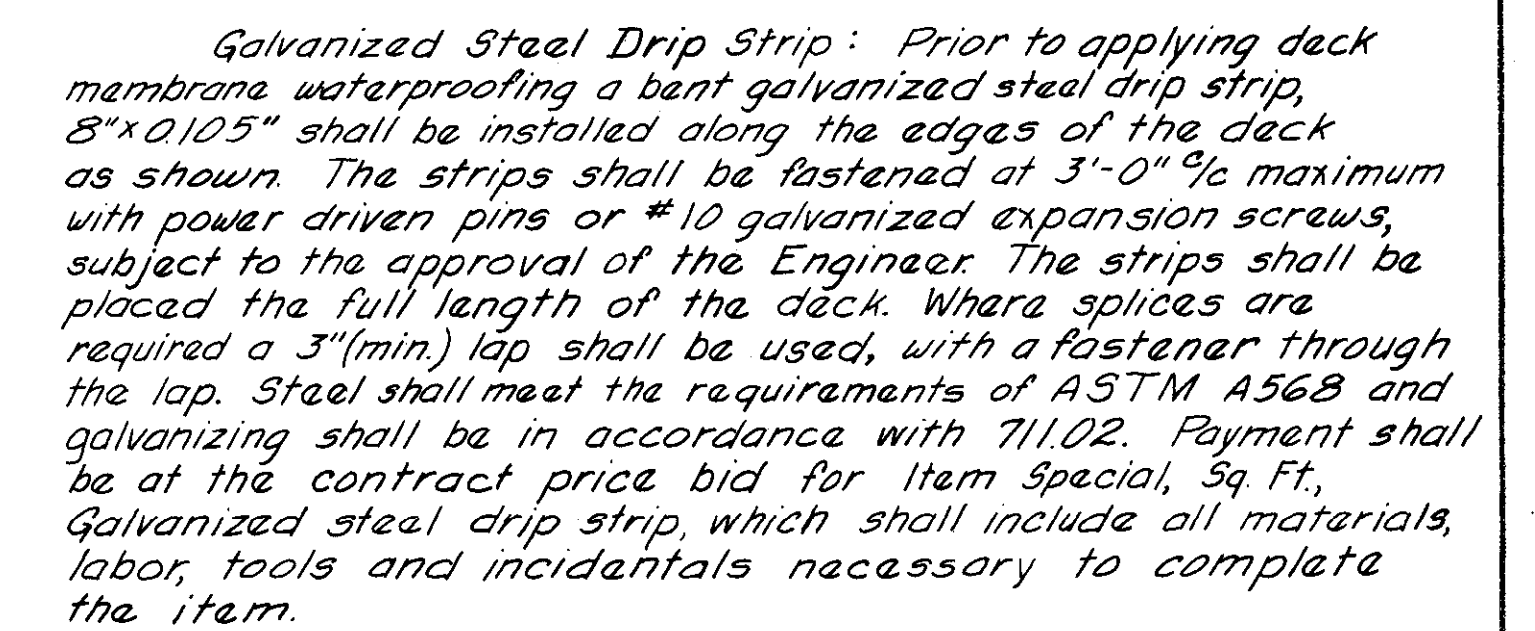
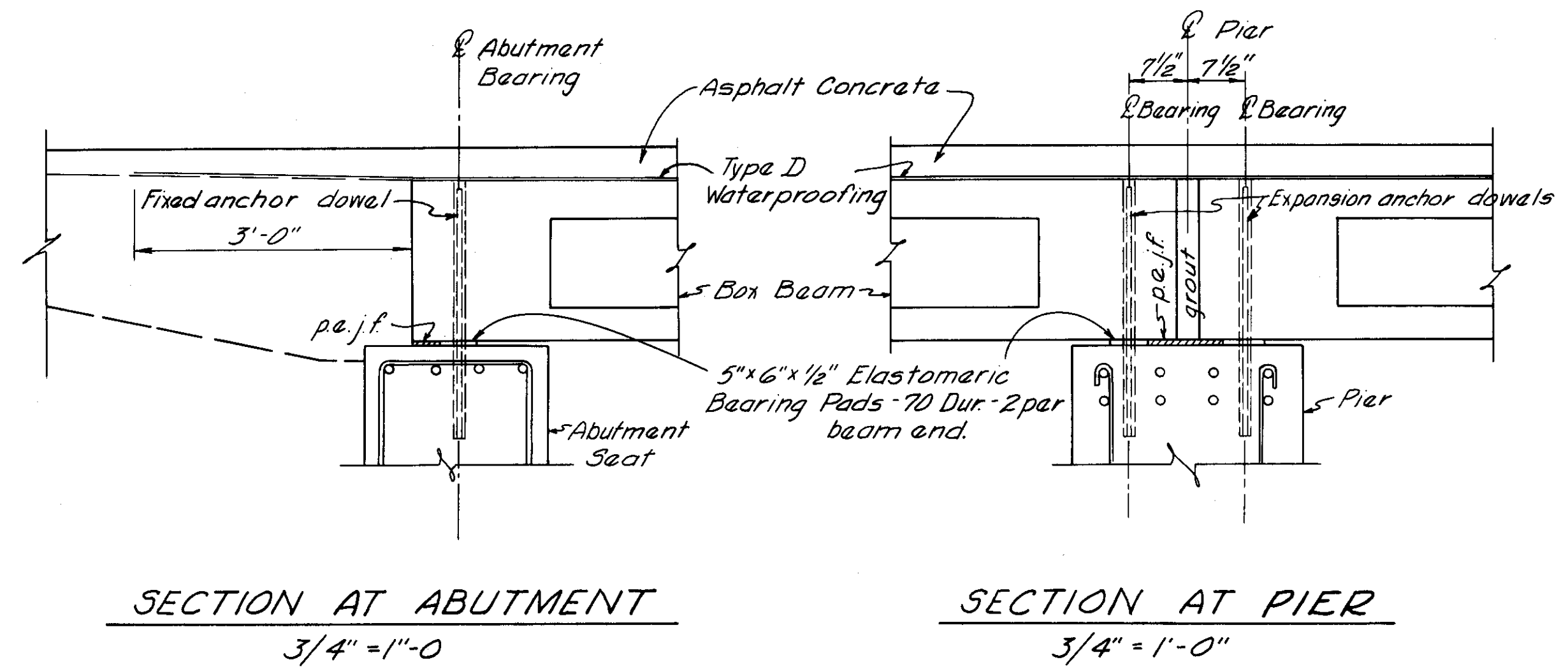
DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1977, including the 1978 Interim Specifications and the Ohio "Supplement" to these specifications.

DESIGN DATA:

Design Loading - HS20-44
Concrete Class C - unit stress 1333 p.s.i. for substructure.
Reinforcing Steel - ASTM A615, A616 or A617 - unit stress 20,000 p.s.i.
Concrete for prestressed concrete beams - unit stress 2200 p.s.i. compression 444 p.s.i. tension.
Prestressing strand ASTM A416
f's = 270,000 p.s.i.
Initial stress = 0.70 f's.

REMOVAL OF EXISTING STRUCTURE: The existing structure shall be removed. The rear abutment shall be removed to lines 2' below finish grade, and where abutment piles are to be driven, removed completely. The forward abutment shall be removed to lines 2' below finish grade. The pier shall be removed to Elev. 985.

JONES-STUCKEY, LTD. 1500 W. 1st Ave. Columbus, Ohio				
ABUTMENT PLAN PIER PLAN COLLINS ROAD - C.H. 78 OVER BIG DARBY CREEK				
Designed	Drawn	Checked	Reviewed	



JONES-STUCKEY, LTD.		Columbus, Ohio	
1500 W. 1st. Ave.			
SUPERSTRUCTURE COLLINS ROAD-C.H. 78 OVER BIG DARBY CREEK			
Designed	Drawn	Checked	Reviewed



CROSS SECTIONS

UNION C.H. 78
COLLINS ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL

0	0	0	0
0	0	619	0
334	0	818	0
205	0	160	0
156	0	55	0
0	0	0	0

995
990
985
995
990
985
995
990
985
995
990
985
980

2+25

1+25

0+43

0+19

2+25 Meet Existing

Varies

2:1

Elevation 985

0+50 @ 2+15 C.H. 78

2+00

C.H. 78 1+50

2:1

0+00 Meet Existing

CHANNEL LAYOUT

Big Darby Creek

Sta. 0+00

BORING NO. 1
Station 0+50, E

DEPTH in feet	PERCENT RECOVERY in inches	WATER OBSERVATIONS:	DESCRIPTION	
0		Water seepage at: 13.5'	Elev. 1004.15'	
1.0	4	Damp to Moist	CLAY, SILT SAND & GRAVEL	Brown
5.0	3	Moist	Sandy CLAY SILT to CLAYEY SILT with Gravel sizes	Brown
10.0	16	Moist	Slightly Clayey to Very Silty SAND & FINE GRAVEL Some Coarse Gravel Size	Brownish Gray
11.3	18	Moist	Fine Sandy SILT Silty Fine Sand seam at 11.9'	Brown
14.2	12	Damp	Silty FINE SAND CLAYEY SANDY SILT to Sandy CLAYEY SILT with some Gravel sizes	Brown Gray
16.5	16	Saturated	Clayey Sandy SILT Fine Sandy SILT & Silty Fine Sand	Gray
20.0	12	Saturated	Silty SAND & FINE GRAVEL Some Coarse Gravel sizes	Light Gray
24.0	4	Saturated	Silty SAND & FINE to Coarse Gravel Possibly larger sizes	Light Gray
25.0	5	Damp	Sandy, SILT CLAY - SILTY CLAY Trace of Gravel sizes	Brownish Gray
30.0	5	Damp	Clayey SANDY SILT Some Gravel size	Gray
35.0	4	Damp	Sandy CLAYEY SILT, Clayey SANDY SILT, Gray Silty FINE SAND, Fine Sandy SILT Some Gravel sizes	Gray
40.0	5	Damp	LIKE SAMPLE 11	Gray
45.0	4	Damp	Sandy CLAYEY SILT to Clayey SANDY SILT with Gravel sizes	Gray
49.0	5	Damp	LIKE SAMPLE 13 Bottom of Boring ~ 49.0'	Gray

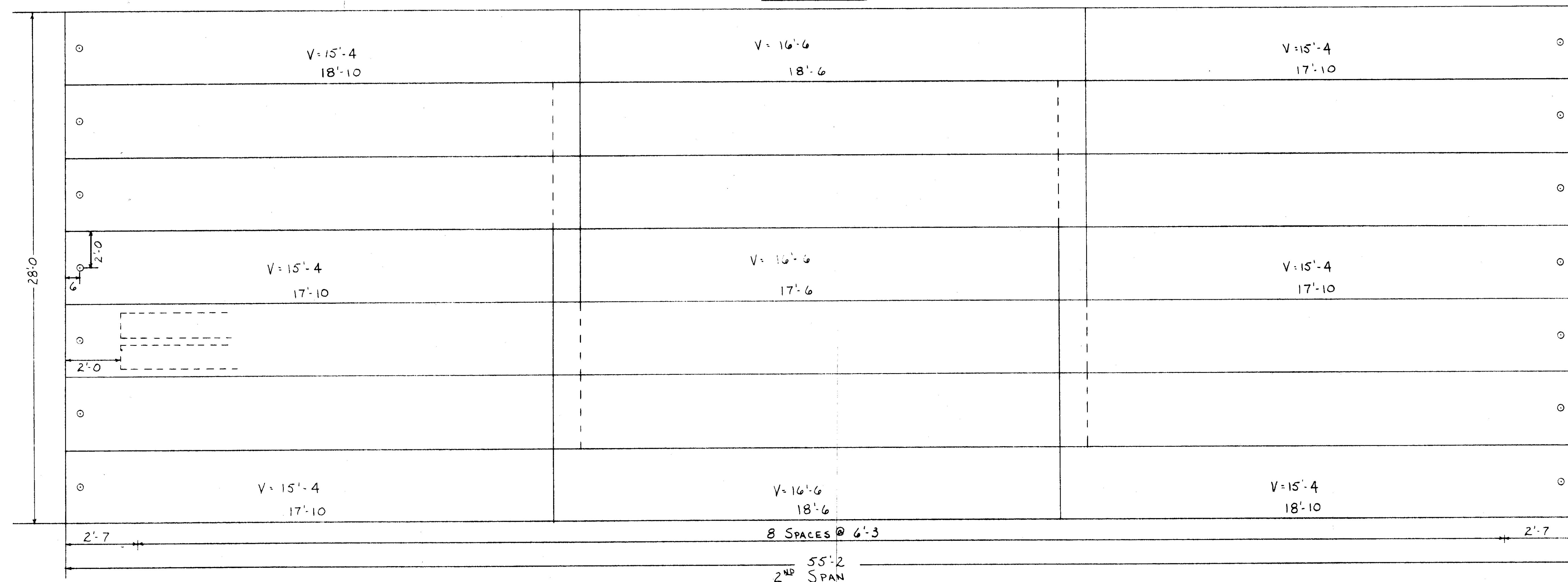
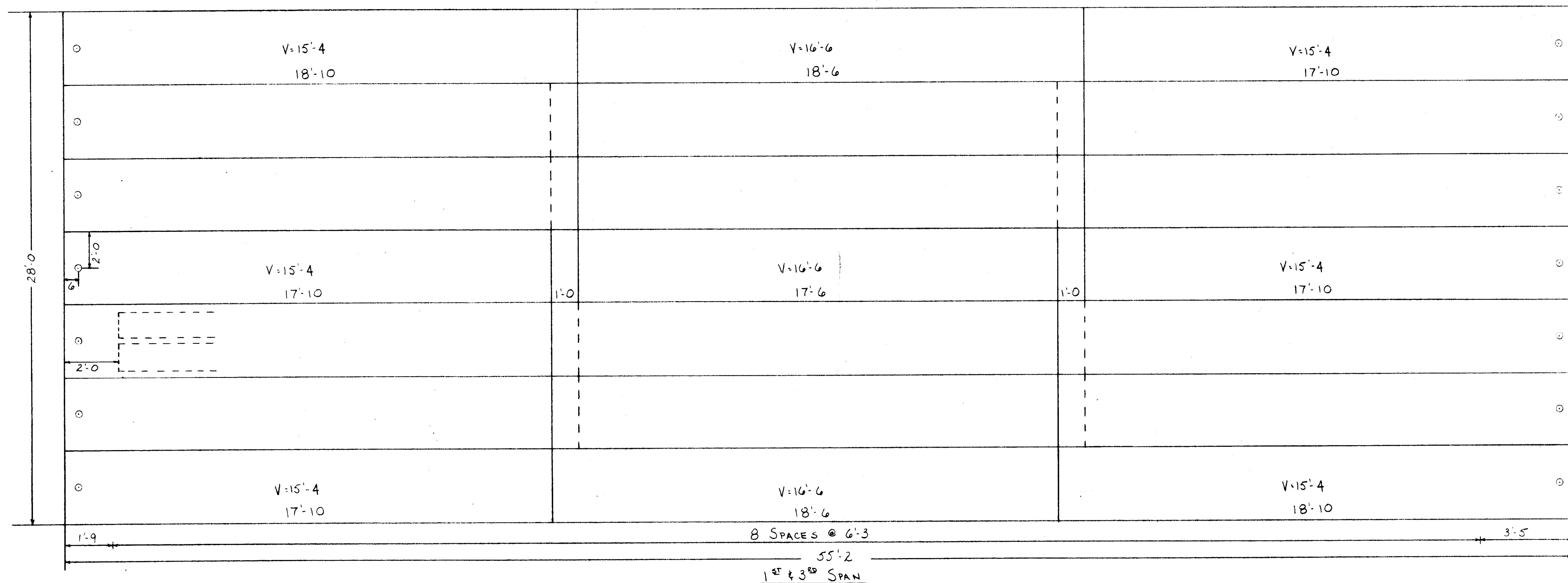
BORING NO. 2
Station 1+09, E

DEPTH in feet	PERCENT RECOVERY in inches	WATER OBSERVATIONS:	DESCRIPTION	
0		Water seepage at: 16.0', 20.0'	Channel Bottom Elev. 981.15'	
1.0	13	Moist	LARGE GRAVEL & COBBLES SILT CLAY - CLAY SILT with Gravel & Cobble sizes	Brownish Gray
5.0	18	Damp	SILT CLAY - CLAY SILT Some Gravel sizes & Shale fragments	Brownish Gray
10.0	16	Damp	SILT CLAY - CLAY SILT Some Gravel sizes & Shale fragments	Brownish Gray
12.5	3	Saturated	Clayey to Silty SAND with Large Gravel sizes	Gray
15.0	15	Damp to Moist	Clayey SANDY SILT with Fine to Medium Gravel sizes	Gray
20.0	18	Saturated	Silty FINE SAND Silty SAND & FINE GRAVEL	Gray
23.0	18	Saturated	Like Sample 6 Silty FINE SAND Sandy CLAYEY SILT	Gray
25.0	18	Moist	Silty FINE SAND to Fine Sandy SILT CLAYEY SILT with Gravel sizes	Gray
30.0	17	Moist to Saturated	Silty FINE SAND, Fine Sandy SILT, & Clayey SANDY SILT Trace - some Gravel sizes	Gray
35.0	11	Saturated	Clayey FINE SANDY SILT to Sandy CLAYEY SILT Some Gravel sizes	Gray
40.0	12	Damp to Moist	Silty SAND & FINE GRAVEL Some Coarse Gravel sizes	Gray
42.0	12	Damp to Moist	Silty SAND & FINE GRAVEL Some Coarse Gravel sizes	Gray
49.0	12	Damp to Moist	LIKE SAMPLE 11 Sandy CLAYEY SILT Some Gravel sizes Bottom of Boring ~ 42.0'	Gray

BORING NO. 3
Station 2+15, E

DEPTH in feet	PERCENT RECOVERY in inches	WATER OBSERVATIONS:	DESCRIPTION	
0		Water seepage at: 7.5'	Elev. 995.31'	
4.0	4	Moist	Sandy CLAYEY SILT	Blackish Brown
5.0	6	Moist	Sandy CLAY - SILT - SILT CLAY	Brown
7.5	7	Saturated	Silty SAND & FINE - COARSE GRAVEL	Brown to Gray
10.0	10	Saturated	Silty FINE SAND	Gray
13.0	12	Saturated to Very Moist	Fine Sandy SILT CLAYEY SILT	Gray
16.0	10	Damp	Silty Trace of Organic staining	Gray
20.0	5	Damp	Sandy CLAY SILT to CLAYEY SILT Some Gravel sizes	Gray
25.0	4	Dry	Sandy SILT Some Gravel sizes	Gray
30.0	5	Damp to Dry	Sandy CLAY SILT - CLAYEY SILT Some Gravel sizes	Gray
35.0	4	Damp	Fine Sandy SILT with Fine Sand streaks Some Gravel sizes	Gray
40.0	5	Damp	Fine Sandy CLAY SILT to CLAYEY SILT Some Gravel sizes	Gray
49.0	5	Damp/Moist	LIKE SAMPLE 11 with Fine Gravel Streak or Seam Bottom of Boring ~ 39.0'	Gray

JONES-STUCKEY, LTD.				
1500 W. 1st Ave.		Columbus, Ohio		
TEST BORING LOGS				
COLLINS ROAD-C.H. 78				
OVER				
BIG DARBY CREEK				
Designed	Drawn	Checked	Reviewed	

[illegible]

UNION COUNTY - COLLINS ROAD
Co. HWY 78-A BIG DARBY Ck.
21-B21" x 48" x 55'-2

RELIANCE UNIVERSAL INC.
CONSTRUCTION MATERIALS DIVISION

DRAWN <i>MB</i>	DATE 7-21-81	CHECKED	DATE	APPROVED	DATE	1 of 1
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