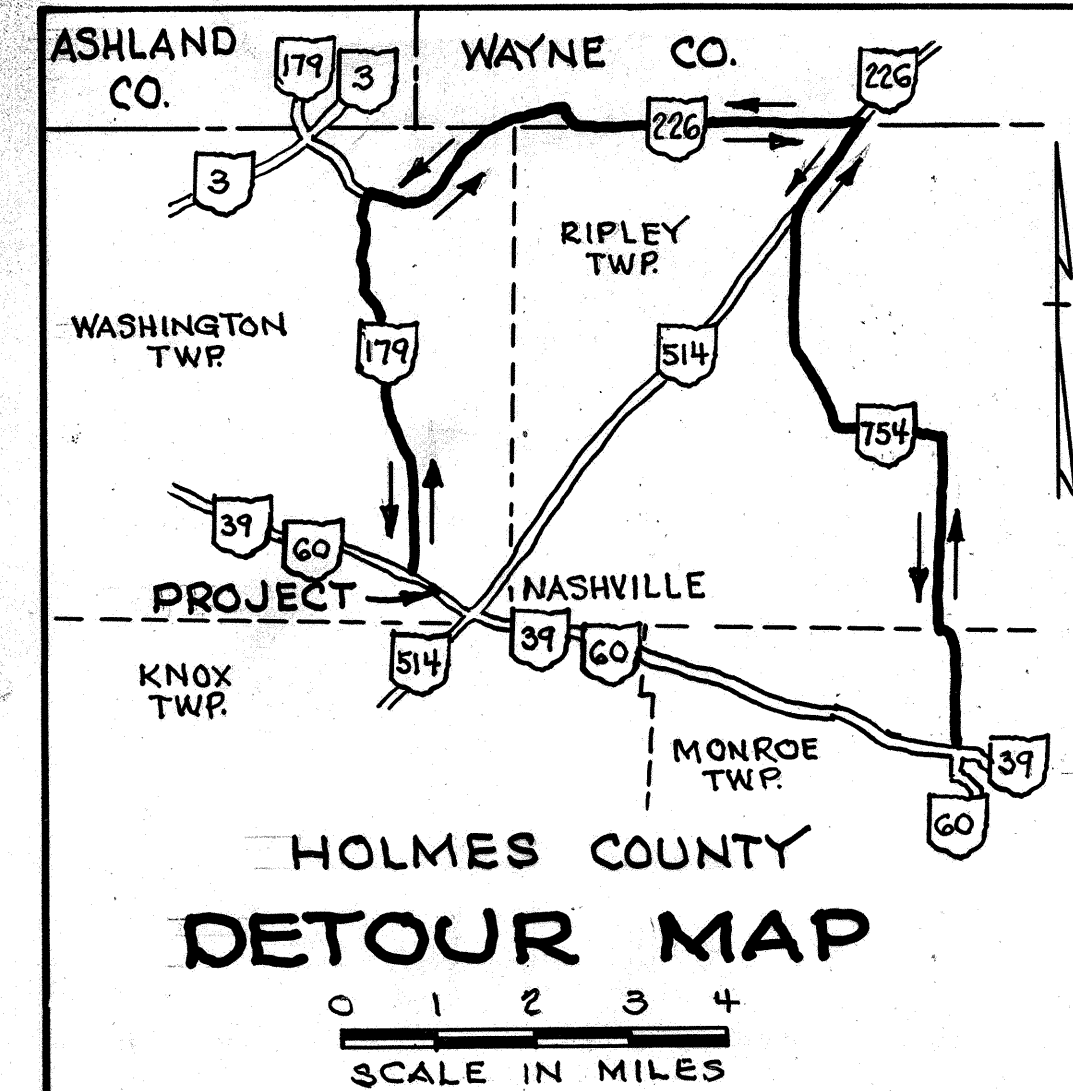




ADT = 1760

MICROFILMED
JUL 19 1982

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
HOL-39-(5.94)
HOLMES COUNTY
BRIDGE NO. HOL-39-0594
WASHINGTON TOWNSHIP

MICROFILMED
JAN 6 1988

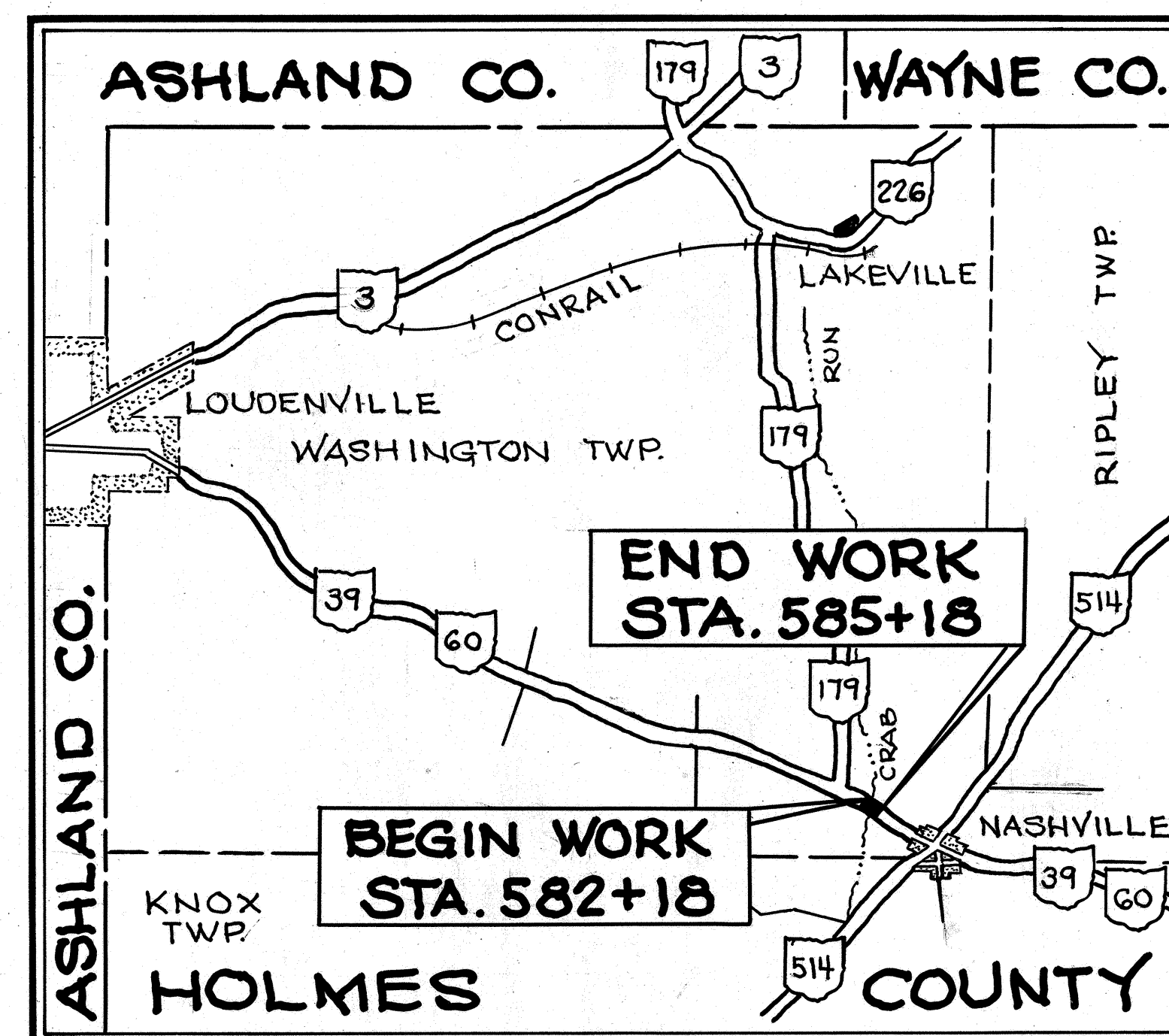
OHIO FHWA REGION 5 FEDERAL PROJECT	1 11
F-39(14)	
HOL-39-(5.94)	
PLAN NO. BR-33-81	

CONVENTIONAL SIGNS	
County Line	-----
Township Line	-----
Section Line	-----
Corporation Line	----- or -----
Fence Line (existing)	-x-x- (proposed) -x-x-
Center Line	352 353
Trees	⊙, Stumps ⊙, (to be removed) ⊗ ⊗
Utility Poles	Telephone ⊕, Power ⊕, Light ⊕
Limited Access (only)	----- LA
Right of Way (only)	----- RW
Limited Access & Right of Way	----- LA & RW
Existing Right of Way	-----
Property Line	⊕ (in existing fence) -x-x-
Railroad	----- or -----
Guardrail (existing)	⊕-⊕-⊕ (proposed) ⊕-⊕-⊕

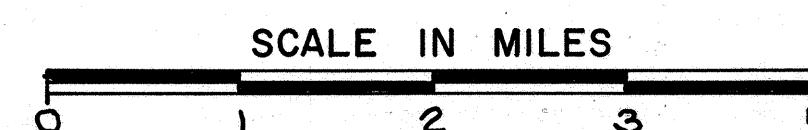
INDEX OF SHEETS

TITLE SHEET
GENERAL NOTES, TYPICAL SECTION & PAVEMENT ELEVATIONS
SITE PLAN
CROSS SECTIONS
GENERAL PLAN AND ELEVATION & SUMMARY OF QUANTITIES
ABUTMENT DETAILS
PIER DETAILS AND REINFORCING STEEL LIST
SUPERSTRUCTURE DETAILS
FOUNDATION INVESTIGATION

1
2
3
4
5
6
7
8
9-11



LOCATION MAP



Portion to be improved. _____
State & Federal Routes _____
Other Roads _____

SCALES

Plan _____
Profile: _____ Horizontal _____, Vertical _____
Cross Section: Horizontal _____, Vertical _____

SUPPLEMENTAL SPECIFICATIONS	
1001	1-3-77
836	3-12-75

LINE DATA

BEGIN WORK 582+18
END WORK 585+18
NET LENGTH OF WORK = 300 LIN. FT. OR
PROJECT LENGTH = 64.31 LIN. FT. OR

0.06 MILE

0.01 MILE

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS					
BP-5	4-16-79	AS-1-72	G-30-72		
GR-1	12-6-76	CPA-2-73	4-10-73		
GR-2 B	12-6-76	CPP-2-73	4-10-73		
GR-3	12-6-76	CS-2-73	4-10-73		
GR-4	12-6-76	DBR-2-73	4-10-73		
MC-3	G-1-73				

Plan Prepared By:

SEAL

1979 SPECIFICATIONS
The standard specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal shall govern this improvement.
The right of way for this improvement will be provided by the State of Ohio.

I hereby approve these plans and declare that the making of this improvement will require the closing to traffic of the highway and provisions for the maintenance and safety of traffic will be as set forth in these plans.

Approved _____
Date 2-13-81 District Deputy Director of Transportation

Approved _____
Date 3-25-81 Engineer, Bureau of Bridges

Approved _____
Date 3-31-81 Chief Engineer, Operations

Approved _____
Date 3-31-81 Director, Department of Transportation

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

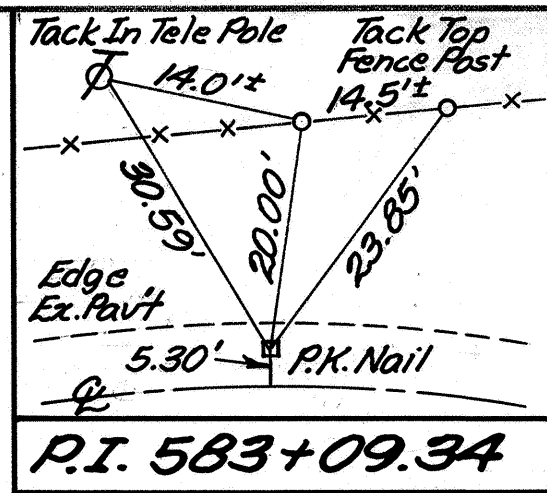
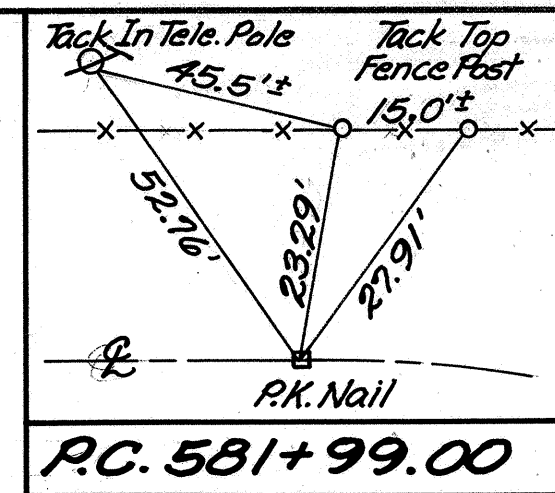
DIVISION ADMINISTRATOR DATE

BRUNING 44-560 25724

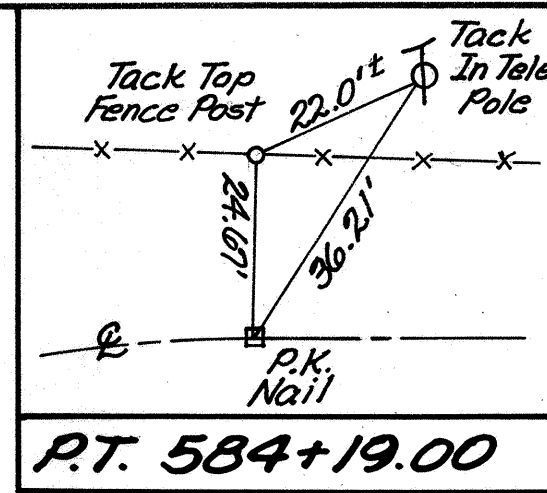
Project: HOL-39-(5.94)
Date of Letting 19 Contract No.
LD0300 Rev. 9-3-75

- | | | | | | |
|--------------------|-------------------|--------------------|-------------------|---------------|---------|
| Design
Dist. II | Drawn
Dist. II | Traced
Dist. II | Chkd.
Dist. II | Reviewed Date | Revised |
| TLO | TLO | J.C | SLH | | |

REPRODUCTION
JUL 19 1982



B.M. ELEV. 1074.43
C. & G.S. Disk K-261
11.5' LT. @ STA. 583+58

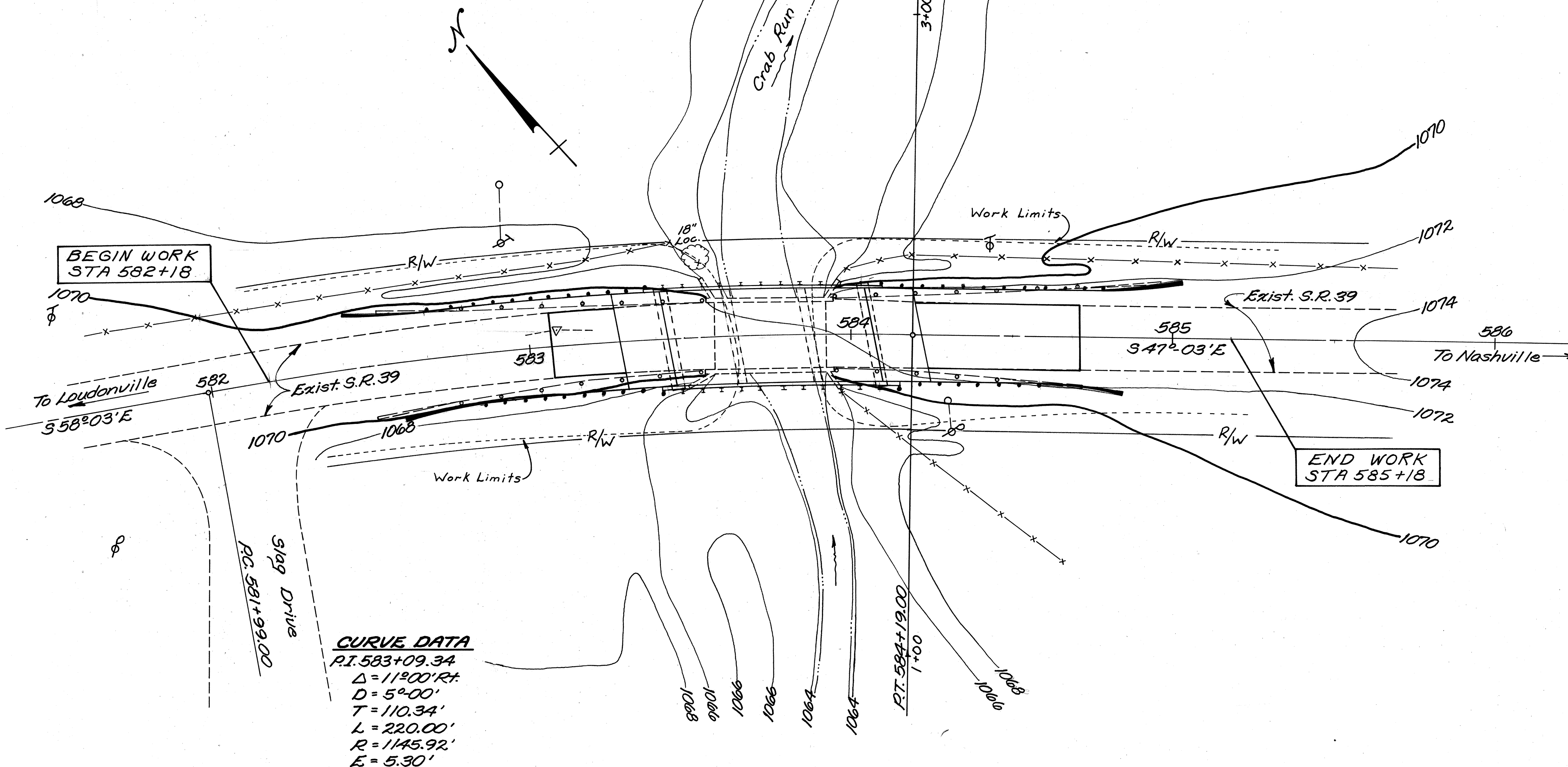


FHWA REGION	STATE	PROJECT
5	OHIO	

HOL-39-(5.94)

BR-33-81

GUARDRAIL					
STATION		SIDE	ITEM 202 GUARDRAIL REMOVED FOR REUSE LIN. FT.	ITEM 606 GUARDRAIL REBUILT TYPE 5 LIN. FT.	ITEM 606 BRIDGE TERMINAL ASSEMBLY TYPE B EACH
FROM	TO				
582+59	584+84	Rt.	175	225.0	2
582+41	585+03	Lt.	200	262.5	2
			(Bridge - 128.6)		
TOTALS			375	358.9	4



CURVE DATA
P.I. 583+09.34
 $\Delta = 112^{\circ}00'$ Rt.
 $D = 5^{\circ}00'$
 $T = 110.34'$
 $L = 220.00'$
 $R = 1145.92'$
 $E = 5.30'$

EXISTING STRUCTURE
TYPE: Conc. Girder
LENGTH: 1 Span, clear span 35'-0"
ROADWAY: 19'-0" between curbs
LOADING: H-13
SKEW: 0°
S.F.N.: 3800210
General Appraisal & Operational Status 2A
Sufficiency Rate 72.50

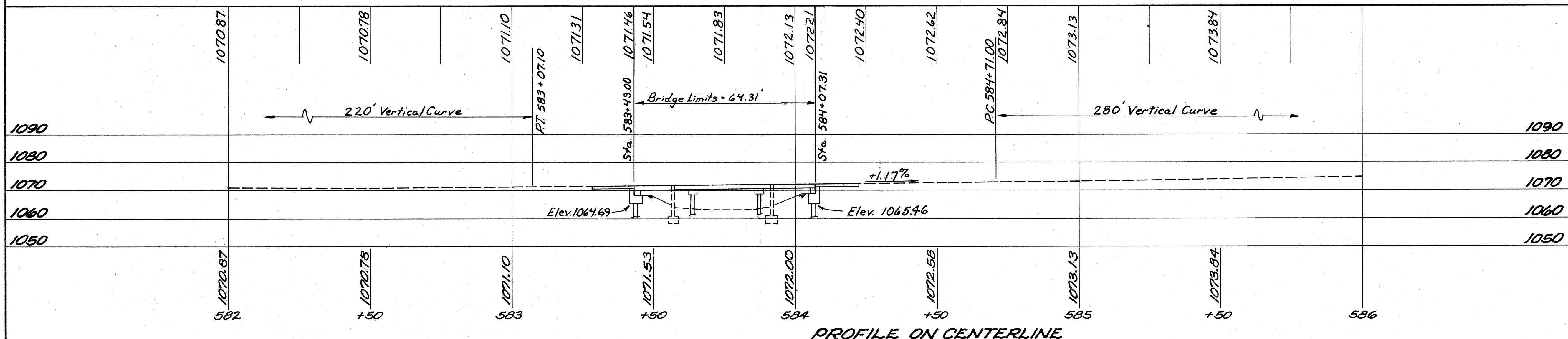
DRAINAGE AREA = 3.38 SQ. MILES
 $Q_{25} = 1350$ C.F.S.
 $Q_{50} = 1742$ C.F.S.

PROPOSED STRUCTURE
TYPE: Continuous Concrete Slab
LENGTH: 3 Spans, 19'-23.75'-19'
ROADWAY: 28'-0" f/f rail
ABUTMENTS: Capped Pile
PIERS: Capped Pile
LOADING: HS 20-44
WEARING SURFACE: Monolithic concrete
APPROACH SLAB: AS-1-72 (15' long)
ALIGNMENT: 5° R.C.
SKEW: 11°-0' R.F.

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
BUREAU OF BRIDGES

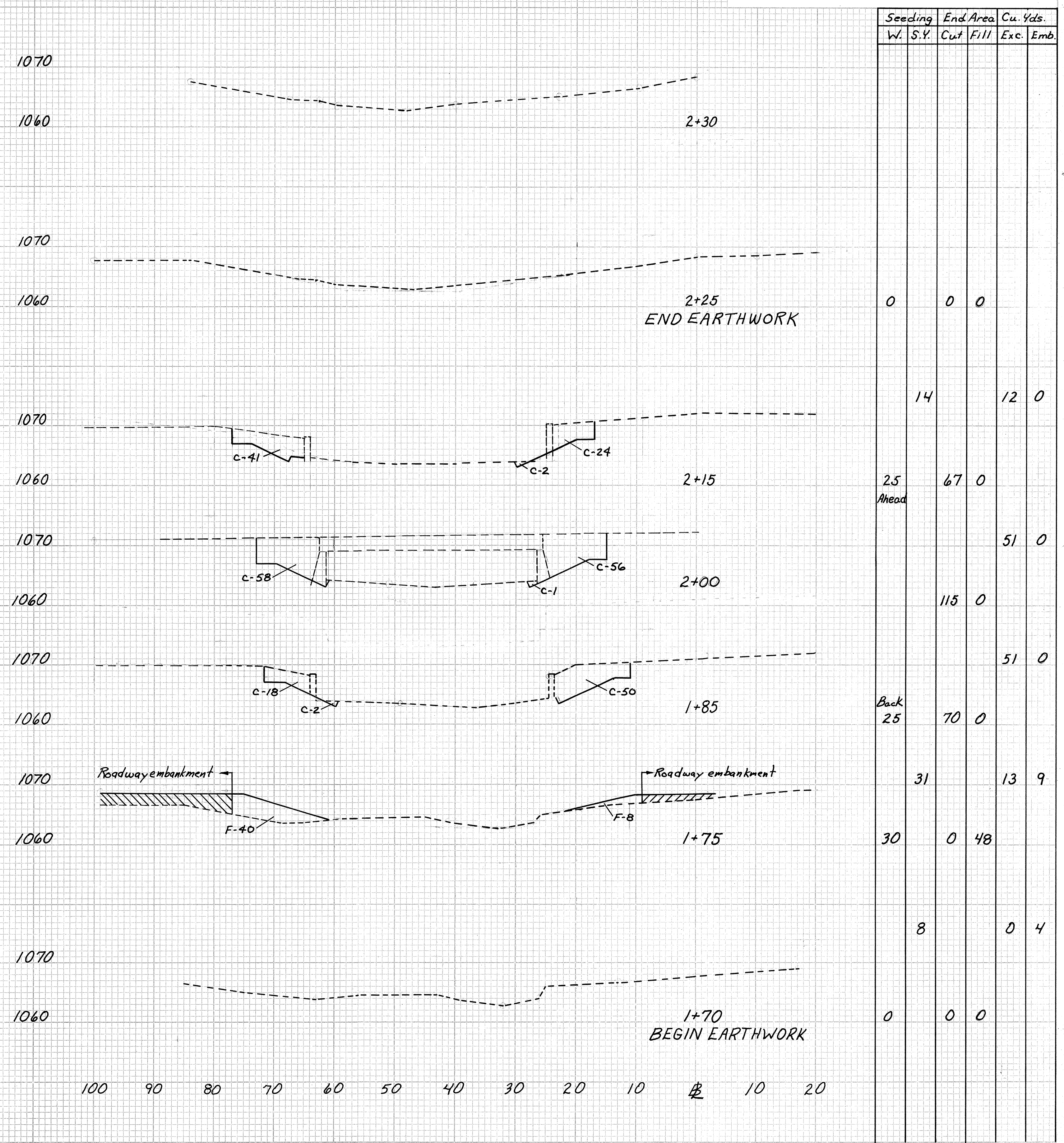
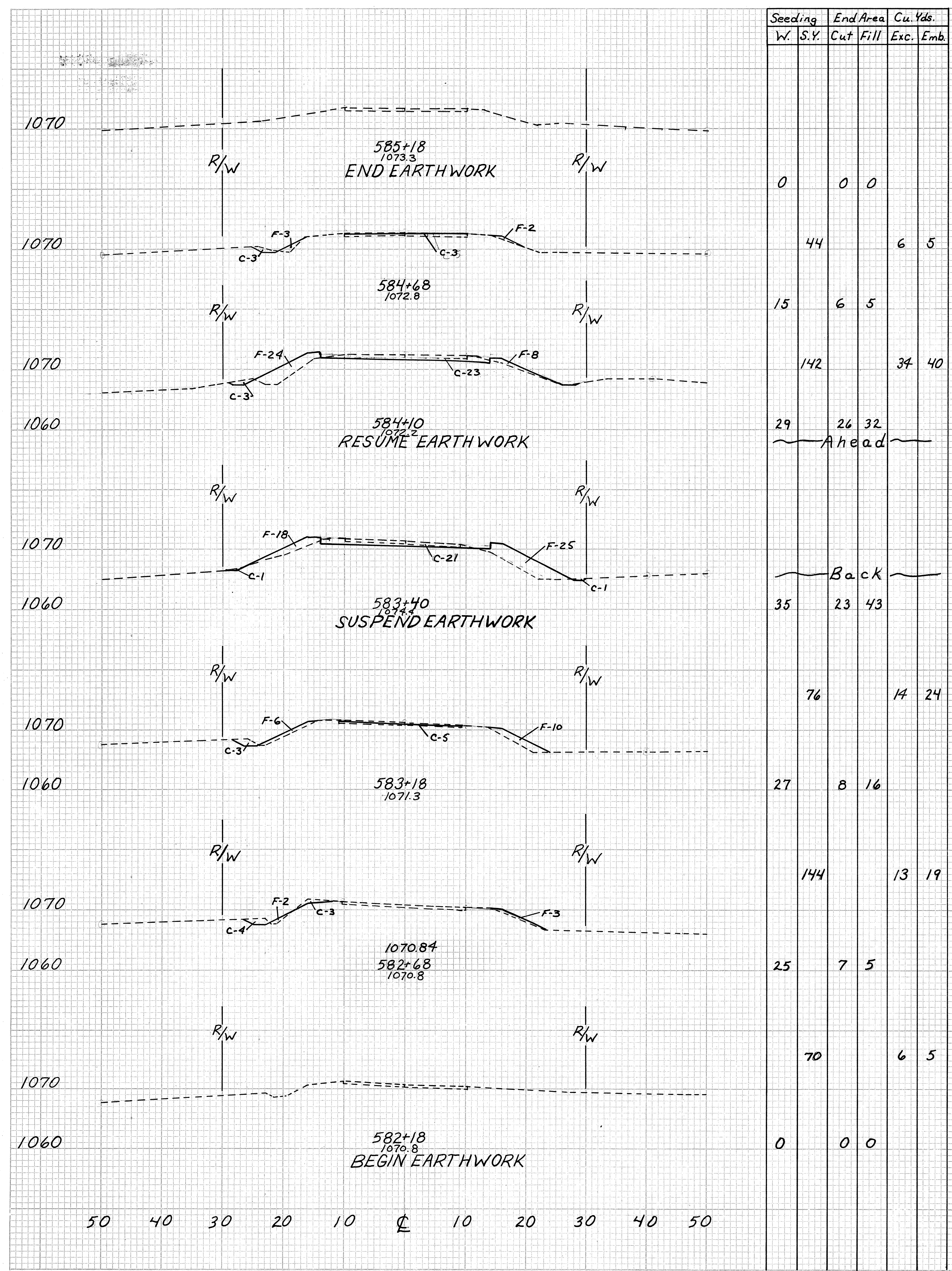
SITE PLAN
BRIDGE NO. HOL-39-0594
OVER
CRAB RUN
HOLMES COUNTY-S.R. 39

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED DIST. 11	DRAWN DIST. 11	DESIGNED JLO	DRAWN SLU	CHECKED JJN	REVIEWED



PROFILE ON CENTERLINE

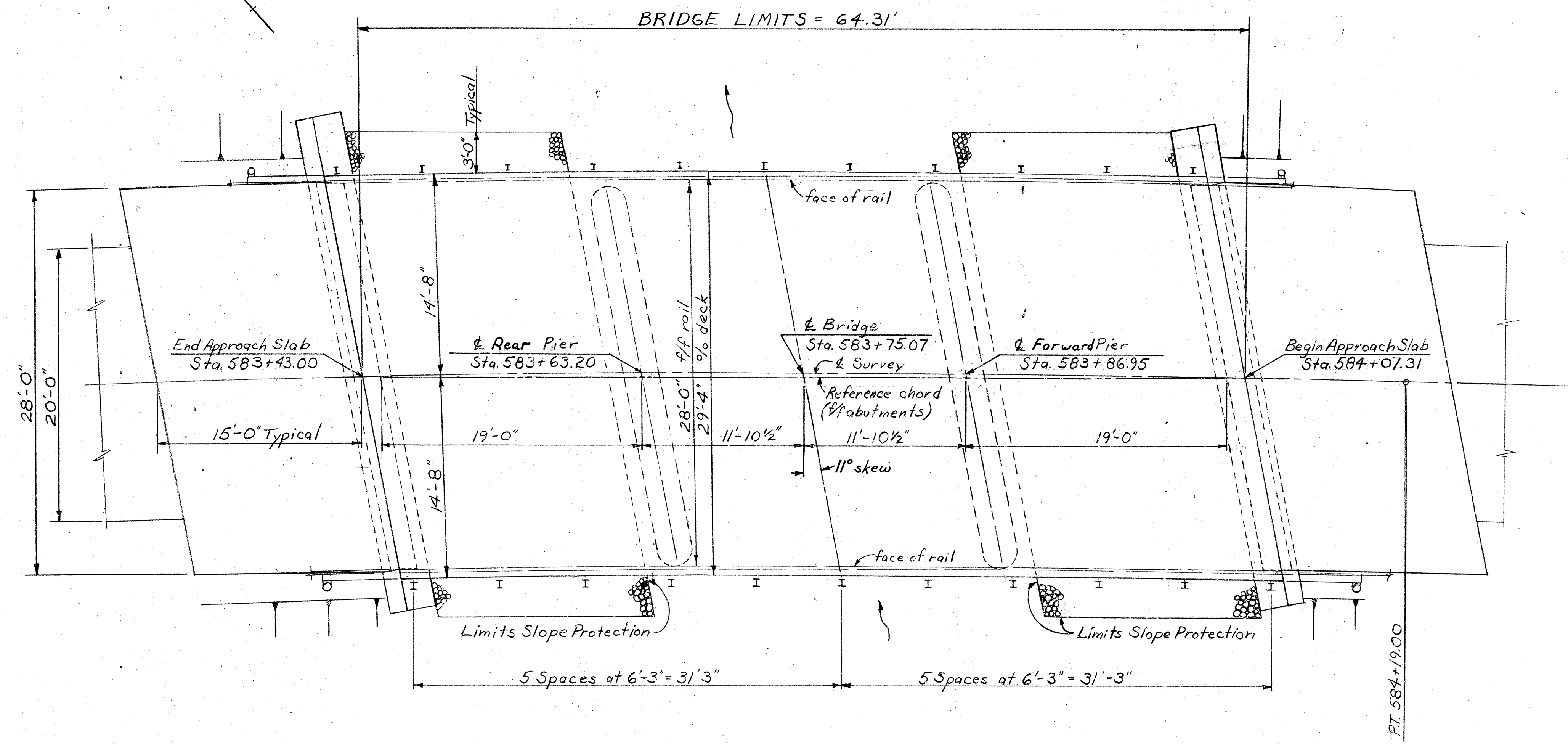
HOL-39-(5.94)
BR-33-B1



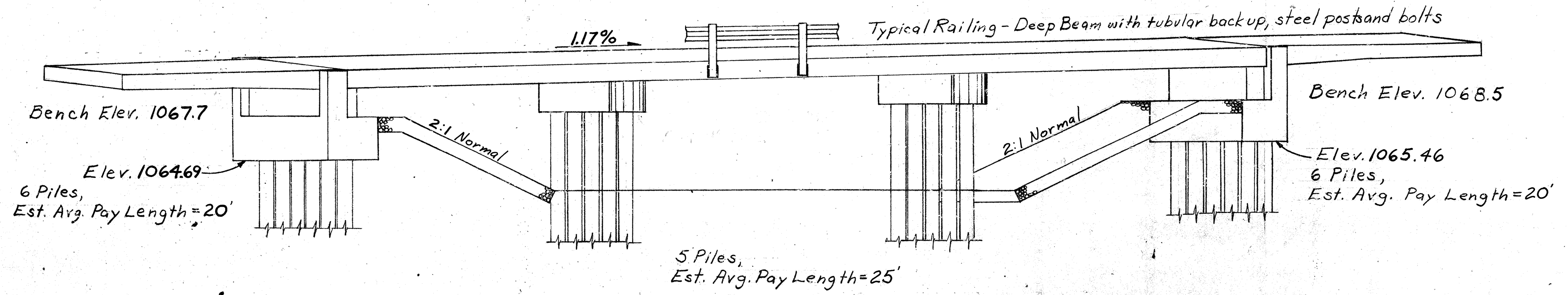
Pavement and Channel X-Sections

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JUL 19 1982

HOL-39-(5.94)
BR-33-81



PLAN



ELEVATION

SUMMARY OF QUANTITIES

Item	Total	Unit	Description	Type Code X020 unless otherwise noted.
202	Lump	Sum	Structure removed	
202	375	Lin.ft.	Guardrail removed for re-use or storage	
203	200	Cu.yds.	Excavation not including embankment construction	
203	106	Cu.yds.	Embankment	
402	9	Cu.yds.	Asphalt concrete, AC-20	
404	4	Cu.yds.	Asphalt concrete, AC-20	
408	62	Gals.	Bituminous prime coat, (RT-2 or RT-3) (MC-30 or MC-70) (Primer 20)	
411	10	Cu.yds.	Stabilized crushed aggregate	
503	79	Cu.yds.	Unclassified excavation	
505	Lump	Sum	Test pile	
507	270	Lin.ft.	12" cast-in-place reinforced concrete piles (abutments)	
509	16,544	Lbs.	Reinforcing steel	
511	41	Cu.yds.	Class C concrete, abutments	
511	11	Cu.yds.	Class C concrete, piers	
511	84	Cu.yds.	Class S concrete, superstructure	
517	128.6	Lin.ft.	Railing (Deep beam with tubular backup, steel posts and bolts)	
518	11	Cu.yds.	Porous backfill	
601	133	Sq.yds.	Crushed aggregate slope protection	
606	358.9	Lin.ft.	Guardrail rebuilt, Type 5	
606	4	Each	Anchor assembly, rebuilt, Type A	
606	4	Each	Bridge terminal assembly, Type B	
611	93	Sq.yds.	Reinforced concrete approach slab, t=12"	
614	Lump	Sum	Maintaining traffic	
619	Lump	Sum	Field office	
623	Lump	Sum	Construction layout stakes	
624	Lump	Sum	Mobilization	
659	529	Sq.yds.	Seeding and mulching	4 005
659	0.24	Tons	Agricultural liming	4 005
659	0.05	Tons	Commercial fertilizer	4 005
Special	9,045	Lbs.	Epoxy coated reinforcing steel (See Proposal Note 112)	
Special	31	Sq.ft.	Steel drip strip	
507	250	Lin.ft.	14" cast-in-place reinforced concrete piles (piers)	

Calculated by:	Date	Checked by:	Date
J. Olsavsky	2-10-81	S. Ujicich	2-10-81

STATE OF OHIO DEPARTMENT OF TRANSPORTATION BUREAU OF BRIDGES AND STRUCTURAL DESIGN			
GENERAL PLAN & ELEVATION SUMMARY OF QUANTITIES BRIDGE NO. HOL-39-0594 OVER CRAB RUN			
DESIGNED Dist. II JLO	DRAWN Dist. II JLO	TRACED Dist. II SLU	CHECKED Dist. II SLU
REVIEWED	DATE	REVIS	

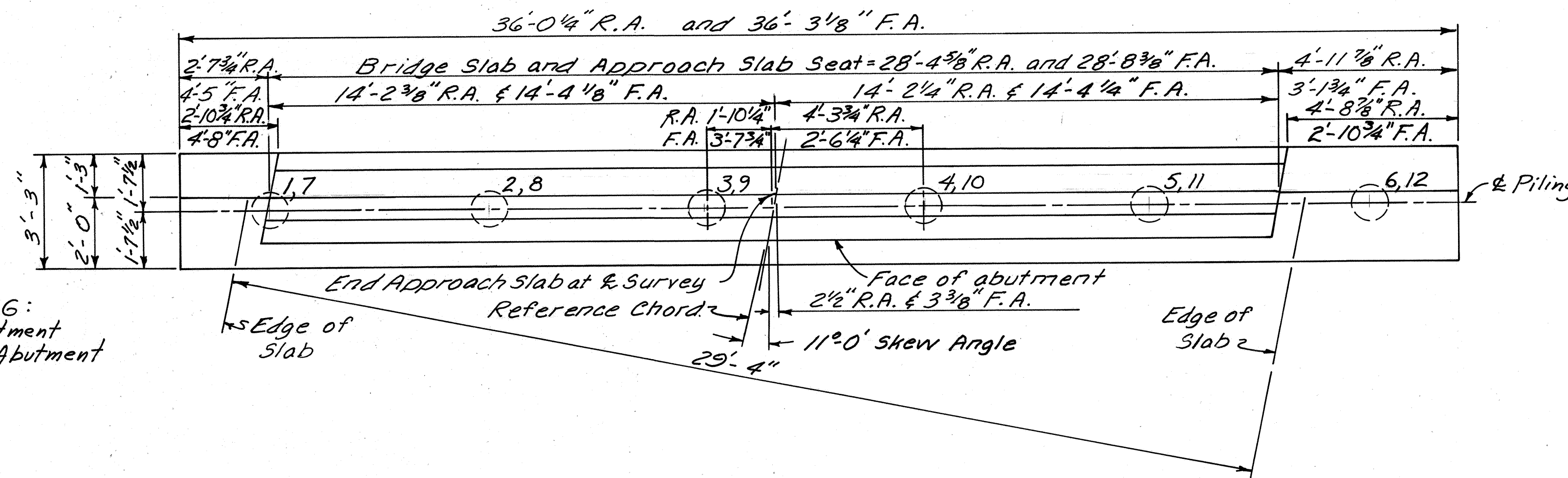
MICROFILMED
JUL 1962

N Forward Abutment
Rear Abutment N

FHWA REGION	STATE	PROJECT
5	OHIO	

HOL-39-(5.94)

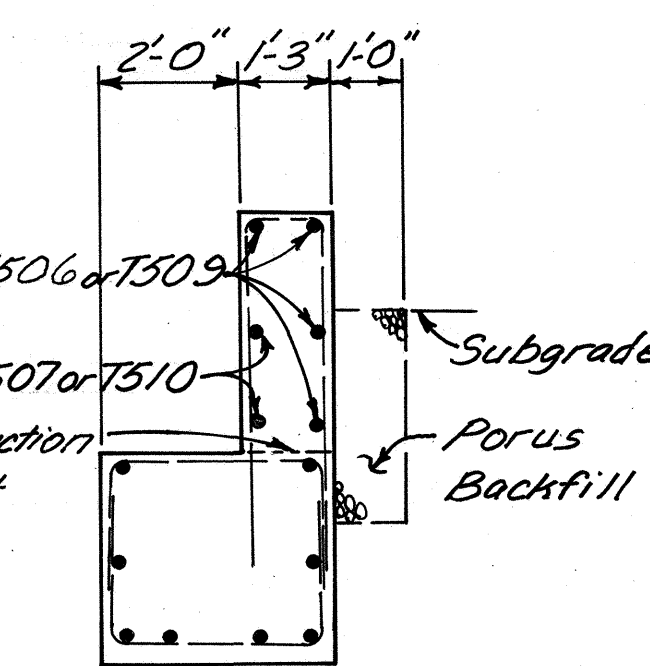
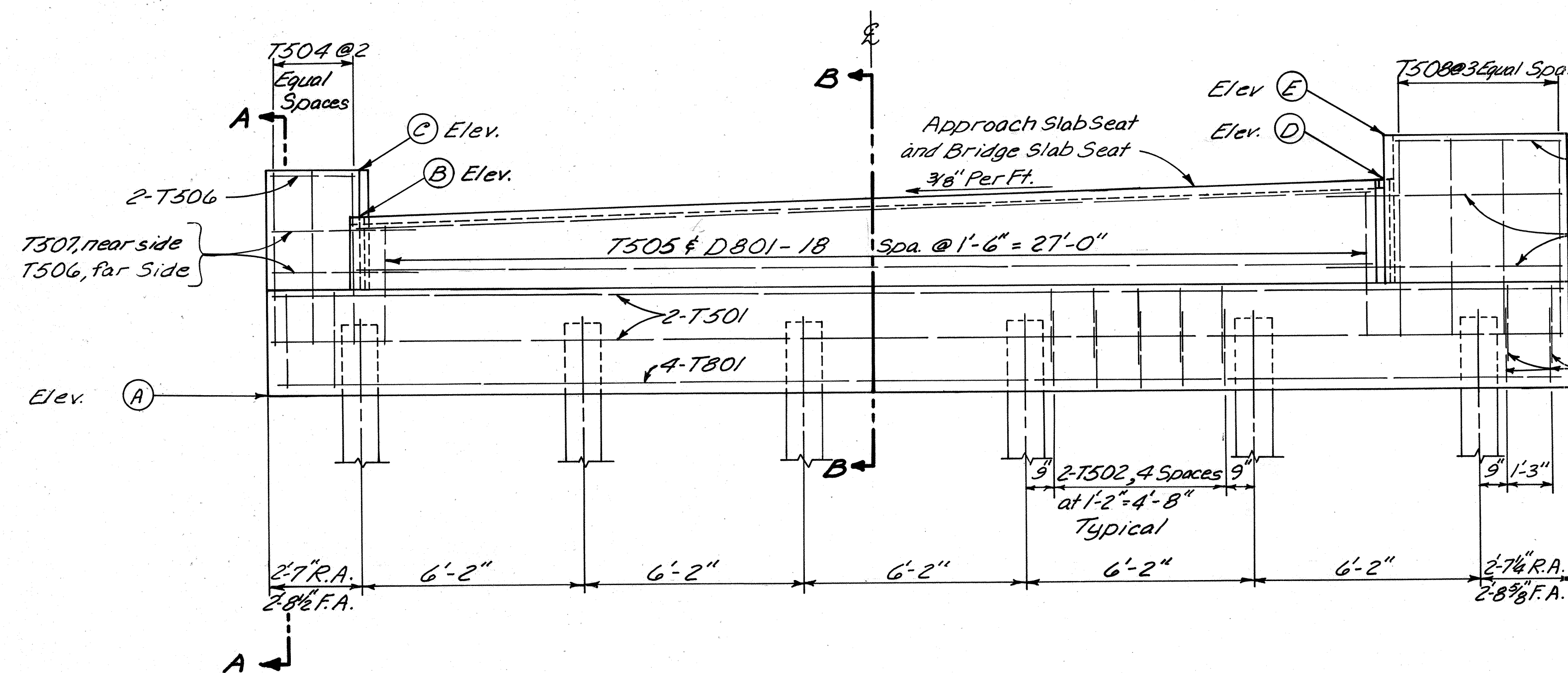
BR-33-81



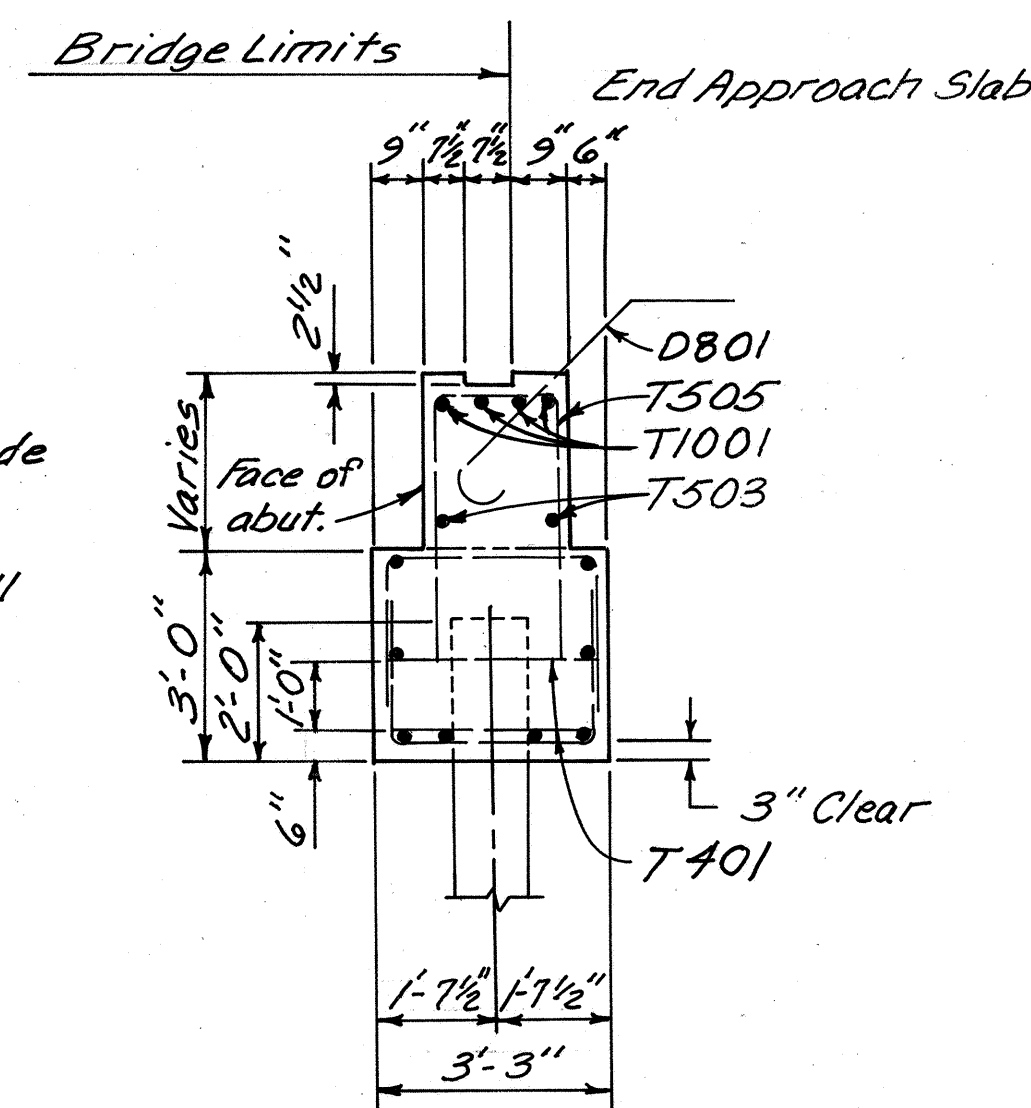
PILE NUMBERING:
Piles 1-6 Rear Abutment
Piles 7-12 Forward Abutment

ABUTMENT ELEVATIONS					
LOCATION	A	B	C	D	E
REAR	1064.20	1069.19	1070.52	1070.04	1071.37
FORWARD	1064.93	1071.73	1072.06	1069.91	1071.24

NOTE: Elevations corrected at end approach slab.



NOTE: For details not shown see Standard Drawing CPA-2-73.



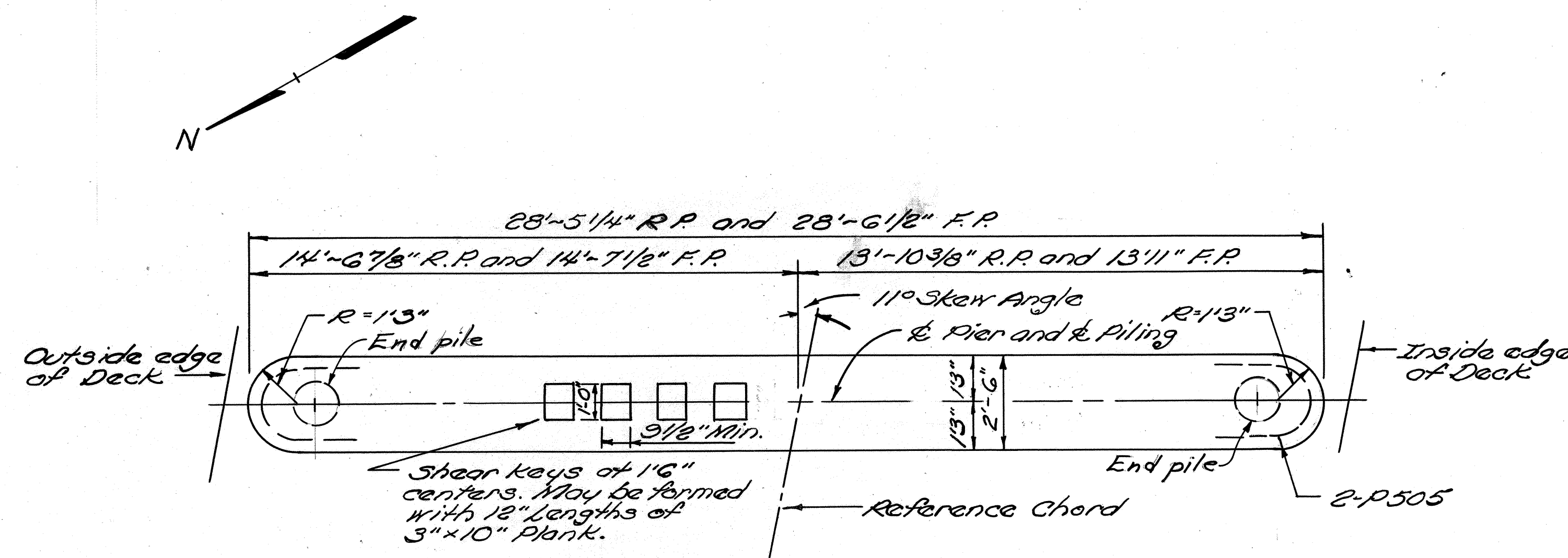
Piles are 12" cast-in-place reinforced concrete or alternate.

R.A. Indicates Rear Abutment Dimension.
F.A. Indicates Forward Abutment Dimension.

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS BUREAU OF MAINTENANCE					
ABUTMENT DETAIL					
BRIDGE NO. HOL-39-0594 OVER CRAB RUN					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
JLO	JLO	JN	JN		

HOL-39-(5.94)

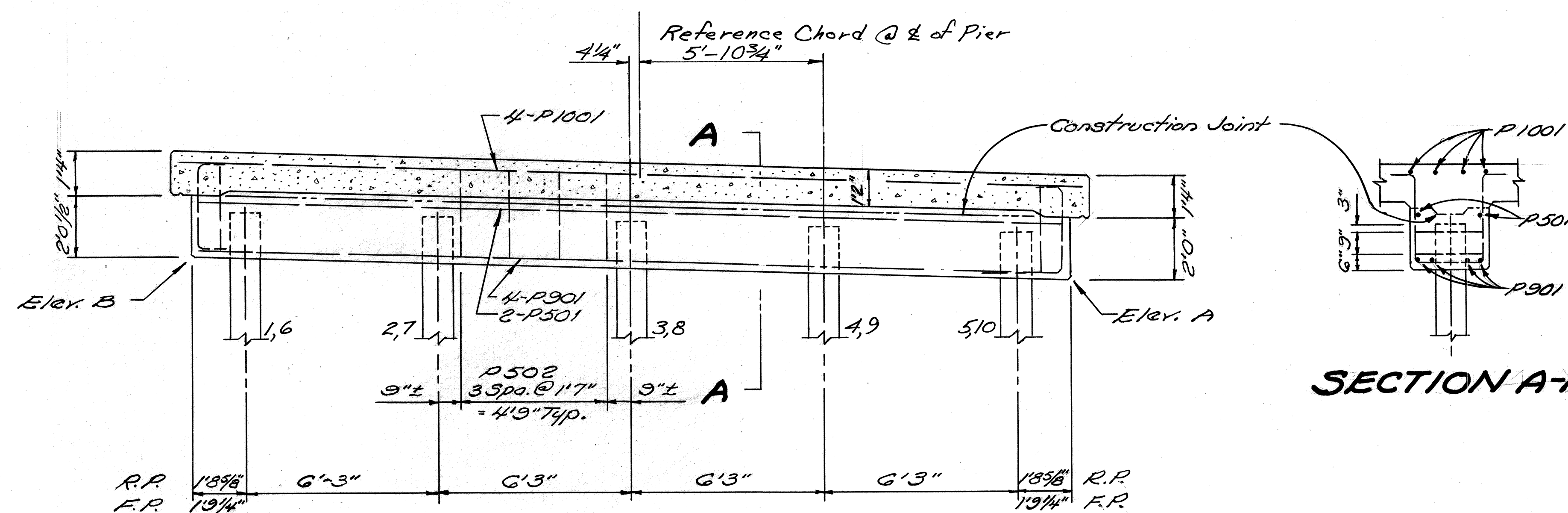
BR-33-81



PLAN

NOTE: R.P. indicates Rear Pier.
F.P. indicates Forward Pier.

PIER ELEVATION		
Location	A	B
Rear	1 1067.51 3	1068.75
Forward	1 1067.79 2	1068.52



SECTION A-A

FILE NUMBERING
Piles 1-5 Rear Pier
Piles 6-10 Forward Pier

ELEVATION

Piles are 14" cast-in-place reinforced concrete.
Refer to Standard Drawing CDD-2-73 for details not shown.

REINFORCING STEEL LIST

Mark	Number			Length	Weight	Type	Dimensions				
	Rear	Fwd.	Total				A	B	C	D	E
ABUTMENTS											
D 801	19	19	38	6'0"	609	20	3'7"	1'6"	12		
T 1001	4	4	8	28'0"	964	34r					
T 801	4	4	8	35'6"	758	34r					
T 501	4	4	8	35' 6"	296	34r					
T 502	58	58	116	6'10"	827	34r					
T 503	2	2	4	28'0"	117	34r					
T 504	3	3	6	10'4"	65	2	11"	4'10"	4'10"		
T 505	19	19	38	Varies 7'11"-9'5"	343	2	1'8"	Varies 3'3"-4'0"			
T 506	4	4	8	2'4"	19	34r					
T 507	2	2	4	4'2"	17	34r					
T 508	4	4	8	12'0"	100	2	11"	5'8"	5'8"		
T 509	4	4	8	4' 1"	34	34r					
T 510	2	2	4	5'11"	25	34r					
T 401	12	12	24	9'2"	147	34r					

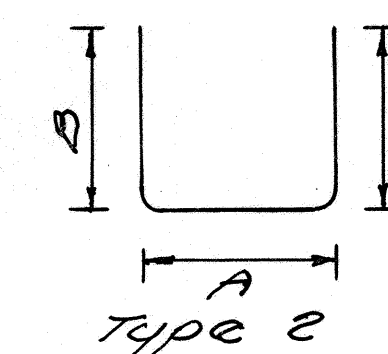
PIERS

P100	4	4	8	Epoxy-coated (see below)						
P901	4	4	8	26'0"	707	54%				
P901	2	2	4	26'0"	108	54%				
P502	16	16	32	8'7"	286	11	2'2"	2'8½"	10½"	
P503	2	2	4	8'5"	35	11	2'0"	2'8½"	10½"	
P504	2	2	4	4'3"	18	2	2'9"	10½"	10½"	
P505	4	4	8	6'4"	53	5	1'7"±	2'0¼"		11
P401	10	10	20	8'0"	107	8				

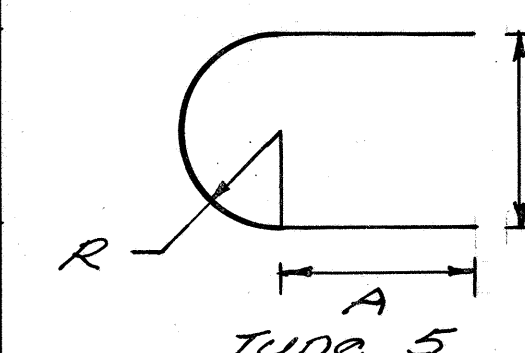
Mark	Number	Length	Weight	Type	Dimensions			
					A	B	C	D
<u>STRUCTURE</u>								
A 8/19	87	23'0"	5,343	54r				
B 8/19	24	17'4"	1,111	7	16'3"			
C 8/19	24	16'0"	1,025	7	14'11"			
D 8/19	12	15'6"	487	54r				
E 8/19	12	13'2"	422	54r				
M 601	57	29'4"	2,511	54r				
<u>EPOXY COATED REINFORCING STEEL, TOP MAT ONLY</u>								
F 8/19	20	16'1"	2,577	54r				
G 8/19	26	9'0"	625	54r				
H 8/19	26	6'6"	451	54r				
J 8/19	20	13'9"	2,203	54r				
K 8/19	30	11'6"	921	54r				
N 401	65	29'4"	1,274	54r				
M 401	98	4'0"	262	19	10 1/2"	1'1"	2'0"	7
P 001	8	21'3"	732	54r				

Calc. by: Date	Ch'kd. by: Date
JLO 2-4-81	SLU 2-4-81

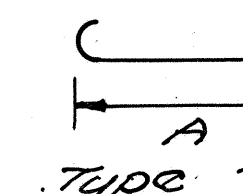
REINFORCING STEEL SAMPLES
Refer to CMS 106.03, 700, 709.01 thru 709.05. Sufficient additional reinforcing steel shall be provided for sampling. Random samples shall be replaced in the structure by the additional steel, spliced in accordance with 509.08.



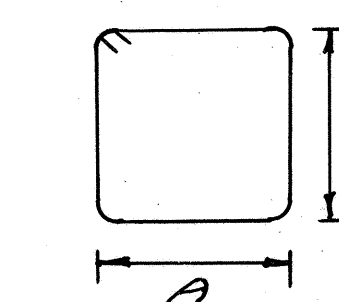
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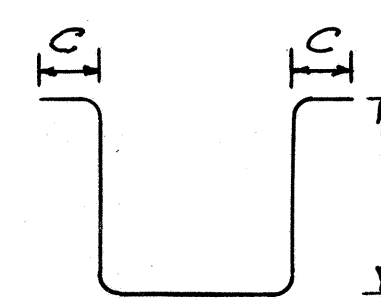
Type 1



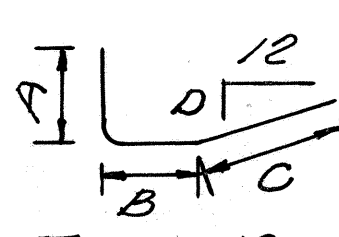
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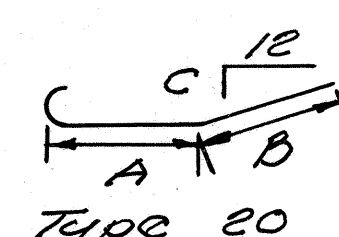
Type



Type .



Type 1



Type 2

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BUREAU OF MAINTENANCE

PIER DETAILS
 & REINFORCING STEEL LIST
 BRIDGE NO. HOL-39-0594
 OVER CRAB RUN

Design	Drawn	Traced	Ch'kd.	Reviewed	Date	Revis
Dist. II	Dist. II	Dist. II	Dist. II			
11.0	11.0	11.0	11.11			

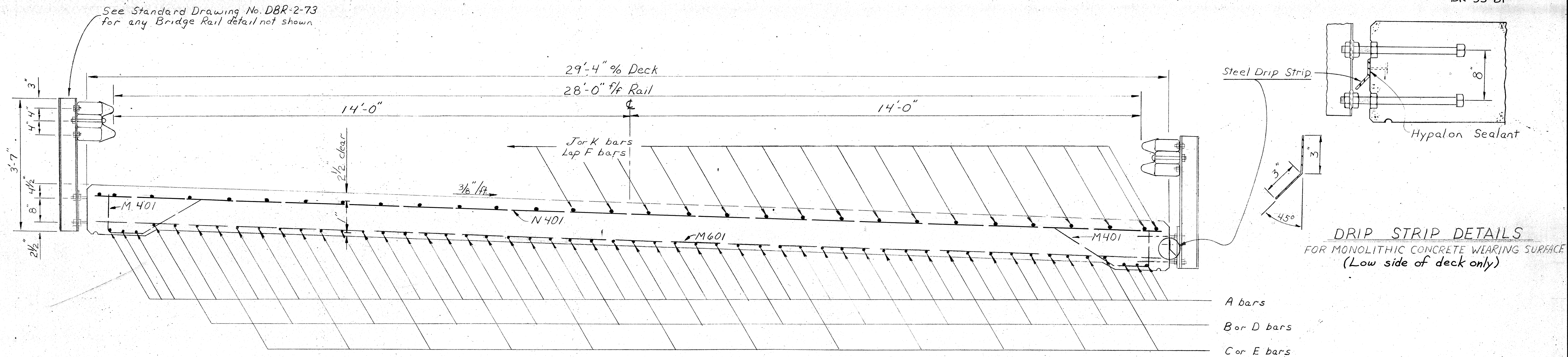
RECEIVED
JUL 19 1982

FHWA REGION	STATE	PROJECT	
5	OHIO		

HOL-39-(5.94)

BR-33-81

8
11



Note: Top mat of deck shall be epoxy coated reinforcing steel.

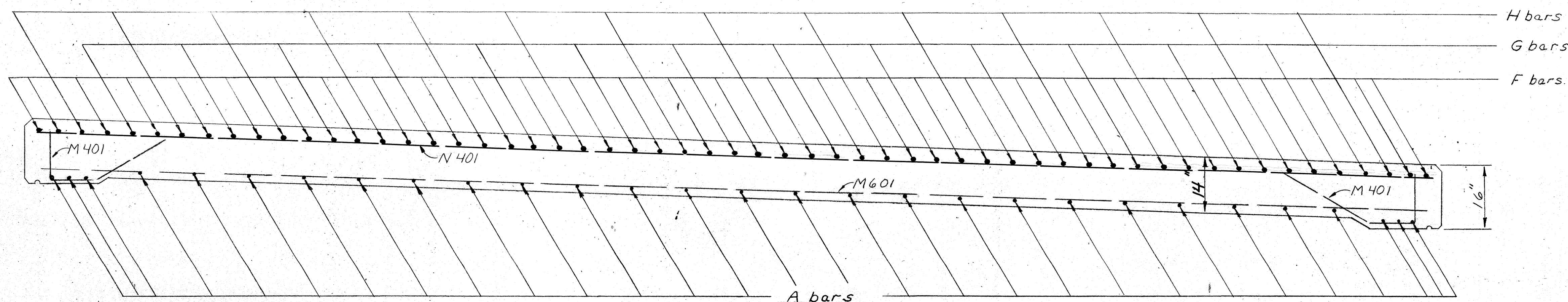
SECTION AT ABUTMENT AND CENTER OF SPANS

See Standard Drawing No. CS-2-73 for any details not shown.

DRIP STRIP

A bent drip strip shall be installed along the right edge of the deck as shown. The drip strips shall be embedded in a 1/8"x3" layer of hypalon sealant. The strips shall be fastened at 1'-6" c/c maximum with 1/4"x5/8"x1/4" flat head drive pin and washer (length x shank x head) or #10 galvanized screws and expansion anchors subject to the approval of the engineer. The strips shall be placed the full length of the deck, ending at the face of the abutment wingwall. Where splices are required the individual pieces shall be butted together, not lapped. Steel for galvanized strips shall be 6"x0.105" and shall meet the requirements of ASTM A568. Galvanizing shall be in accordance with 711.02. Stainless steel alternate shall be 20 gauge ASTM A167, Type 304, mill finish. Payment shall be at the contract price bid for item Special Sq.Ft. steel drip strip, which shall include all materials, labor, tools, and incidentals necessary to complete item.

Sealant shall meet Government Specification TT-S-0023C, Type II.



SECTION AT PIER (Reinforcing steel detail only)

STATE OF OHIO DEPARTMENT OF TRANSPORTATION BUREAU OF BRIDGES AND STRUCTURAL DESIGN						
SUPERSTRUCTURE DETAILS BRIDGE NO. HOL-39-0594 Over CRAB RUN						
DESIGNED SLU	DRAWN SLU	TRACED —	CHECKED JLO	REVIEWED	DATE	REVISED

MADECELMED
JUL 19 1982

HOLMES COUNTY
HOL-39-5.94
BR-33-81

9
11
1
3

GEOLOGY OF THE SITE

THE STRUCTURE SITE IS LOCATED IN THE DISSECTED GLACIATED PORTION OF THE ALLEGHENY PLATEAU REGION, ON THE NARROW FLOODPLAIN OF AND OVER CRAB RUN, IN AN AREA WHERE EXTREMELY DEEP GLACIAL-DERIVED MATERIAL OVERLIES BEDROCK, OF MISSISSIPPIAN AGE.

EXPLORATION

THE EXPLORATION CONSISTED OF TWO DRIVE SAMPLE BORINGS MADE BY MEANS OF A MECHANICALLY-POWERED HOLLOW STEM AUGER MOUNTED ON A MOBILE PLATFORM, PERFORMED BETWEEN FEBRUARY 26 AND MARCH 3, 1981.

INVESTIGATIONAL FINDINGS AND OBSERVATIONS

THE BORINGS ENCOUNTERED INTERVALS OF EXTREMELY LOOSE TO EXTREMELY DENSE STRATIFIED CLAYS AND GRAVEL MODIFIED WITH SILTS AND SAND THAT GRADUALLY INCREASE (ERRATICALLY FLUCTUATING) IN DENSITY WITH INCREASE IN DEPTH. A BOULDER ZONE WAS ENCOUNTERED IN BORING B-1 AT 22 TO 24-FOOT DEPTH, ELEVATION 1046 TO 1044 FEET. THE BORINGS WERE TERMINATED AT 52 TO 61-FOOT DEPTH, ELEVATION 1016 TO 1008 FEET, AFTER PENETRATING IN EXCESS OF 41 FEET OF MATERIAL REQUIRING IN EXCESS OF 14 BLOWS PER FOOT IN THE STANDARD PENETRATION TEST.

BEDROCK SURFACE WAS NOT ENCOUNTERED IN EITHER OF THE TEST BORINGS PERFORMED.

NO FREE WATER OBSERVATIONS WERE MADE DURING OR AT THE CONCLUSION OF DRILLING OPERATIONS, HOWEVER WET ZONES WERE NOTED IN BOTH BORINGS. BORING B-1 ENCOUNTERED A WET ZONE AT 3 TO 9-FOOT DEPTH, ELEVATION 1065 TO 1059 FEET. BORING B-2 ENCOUNTERED A WET ZONE AT 6 TO 9-FOOT DEPTH, ELEVATION 1063 TO 1060 FEET.

- 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

- Coal
- Weathered Mudstone or Claystone
- Mudstone or Claystone
- Weathered Shale
- Shale
- Weathered Siltstone
- Siltstone

LEGEND

- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- 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.
 - Z = Number of Blows for Third 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

- Weathered Sandstone
- Sandstone
- Leached Dolomite
- Dolomite
- Leached Limestone
- Limestone
- Boulders or Cobbles

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.

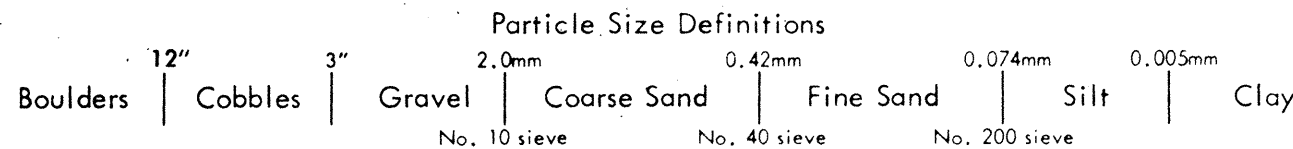
Drive Sample Borings - Drive-Press Sample Borings

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 18 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 three 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.



NOTE - ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN ON THE STRUCTURE FOUNDATION INVESTIGATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL SUBSURFACE INVESTIGATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE, THE BUREAU OF TESTS AT 1600 WEST BROAD STREET, THE PAVEMENT AND SOILS SECTION OF THE BUREAU OF LOCATION AND DESIGN OR IN THE BRIDGE BUREAU AT 25 SOUTH FRONT STREET.

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 TRANSPORTATION
DIVISION OF HIGHWAYS — TESTING LABORATORY
1600 WEST BROAD STREET, COLUMBUS, OHIO 43223

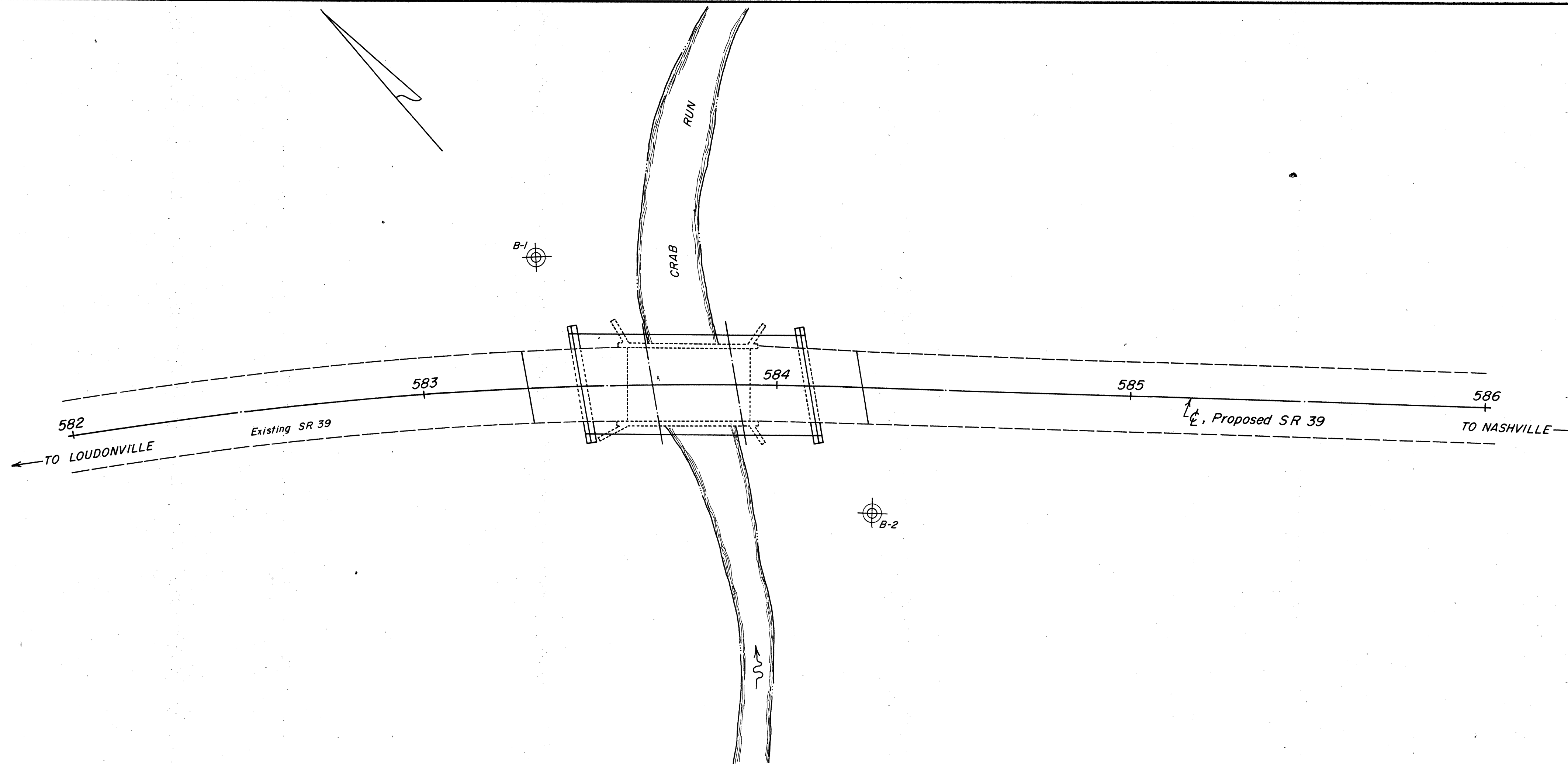
STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HOL-39-0594
OVER CRAB RUN
SEC. HOL-39-5.94

CHECKED BY L. N. L.	REVIEWED BY R. D. R.	DATE 3/16/81
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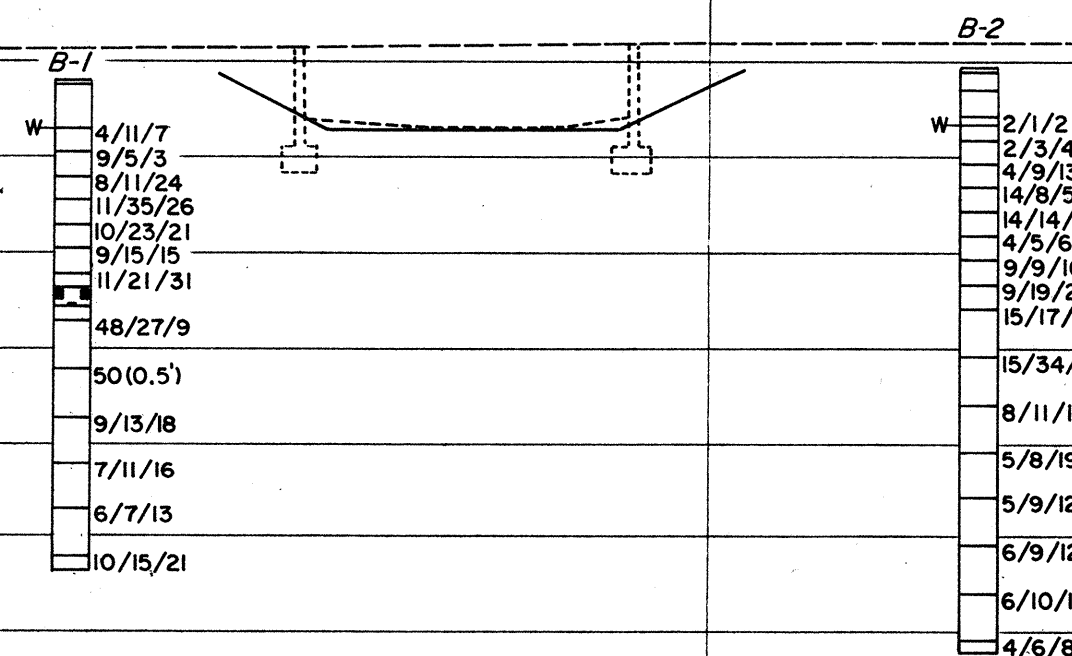
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JUL 19 1982

HOL-39-5.94
BR-33-81

10
11
2
3



1090
1080
1070
1060
1050
1040
1030
1020
1010
1000



1090
1080
1070
1060
1050
1040
1030
1020
1010
1000

582

583

584

585

586

SCALE: 1" = 20'

OHIO DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS-TESTING LABORATORY 1600 WEST BROAD STREET, COLUMBUS, OHIO 43223			
STRUCTURE FOUNDATION INVESTIGATION			
BRIDGE NO. HOL-39-0594		OVER CRAB RUN	
SEC. HOL-39-5.94			
PLAN AND PROFILE			
DRAWN BY L. N. L.	CHECKED BY L. N. L.	REVIEWED BY R. D. R.	DATE 3/16/81

MICROFILMED
JUL 19 1982

HOL-39-5.94
BR-33-81

LOG OF BORING														(WET ZONE)		
Date Started <u>2/26/81</u>		Sampler Type <u>SS</u>		Dia <u>1 3/8"</u>		Water Elev <u>1065.4'</u> to <u>1058.9'</u>										
Date Completed <u>3/2/81</u>		Casing Length _____		Dia _____												
Boring No. <u>B-1</u>		Station & Offset <u>583+33 - 37' LT. (REAR ABUTMENT)</u>		Surface Elev <u>1067.9</u>												
Elev.	Depth	Std. Pen. (N)	Rec. Loss ft.	Description	Sample No.	Physical Characteristics										SHTL Class.
						% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.			
1067.9	0			SOD AND TOPSOIL												VISUAL
1067.6	2	AUGERED		BROWN SANDY SILT (DRILLER'S DESCRIPTION)	-	-	-	-	-	-	-	-	-	-	-	VISUAL
1065.4	4	AUGERED		BROWN SILTY SAND AND GRAVEL (DRILLER'S DESCRIPTION)	-	-	-	-	-	-	-	-	-	-	-	VISUAL
1062.9	6															
1060.4	8	4/11/7		BROWN SILTY SANDY GRAVEL	1	51	10	16	14	9	NP	NP	14	A-1-b		
1057.9	10	9/6/3		BROWN SILTY SANDY GRAVEL	2	53	10	15	14	8	NP	NP	13	A-1-b		
1055.4	12	8/11/24		BROWN SILTY SANDY GRAVEL	3	47	17	14	14	8	NP	NP	13	A-1-b		
1052.9	14	11/35/26		BROWN SILTY SANDY GRAVEL	4	48	12	16	15	9	NP	NP	8	A-1-b		
1050.4	16	10/23/22		BROWN SILTY SANDY GRAVEL	5	54	11	15	12	8	NP	NP	13	A-1-b		
1047.9	18	9/16/16		BROWN SILTY SANDY GRAVEL	6	58	20	10	7	5	NP	NP	12	A-1-a		
1045.4	20	11/21/31		BROWN-GRAY SILTY GRAVELLY SAND	7	38	21	19	15	7	NP	NP	16	A-1-b		
1042.9	22			BOULDER ZONE	-	-	-	-	-	-	-	-	-	-	-	VISUAL
1040.4	24	4/27/7		GRAY-BROWN SILTY SANDY GRAVEL	8	50	29	8	6	7	NP	NP	8	A-1-a		
1037.9	26	10/6/17		GRAY-BROWN SILTY SANDY GRAVEL	9	65	11	11	6	7	NP	NP	7	A-1-a		
1035.4	28	10/20/16		GRAY SILT	10	1	2	3	71	2	NP	NP	19	A-4b		
1032.9	30	7/7/16		GRAY SILT AND CLAY	11	0	0	0	16	84	41	15	16	A-7-c		
1030.4	32	4/7/13		GRAY SILT AND CLAY	12	0	0	0	27	73	40	12	26	A-6a		
1027.9	34	10/12/21		GRAY SILT AND CLAY	13	0	0	0	28	72	34	11	23	A-6a		
1025.4	36															
BOTTOM OF BORING																

LOG OF BORING										(WET ZONE)							
Date Started <u>3/3/81</u>		Sampler Type <u>SS</u>		Dia <u>1 3/8"</u>		Water Elev <u>1063.2'</u> to <u>1060.2'</u>											
Date Completed <u>3/3/81</u>		Casing Length _____		Dia _____													
Boring No. <u>B-2</u>		Station & Offset <u>584+28-35' RT (FORWARD ABUTMENT)</u>		Surface Elev <u>1069.2'</u>													
Elev.	Depth	Std. Pen. (N)	Rec. Loss ft.	Description	Sample No.	Physical Characteristics										SHTL Class.	
						% Agg.	% C.S.	% F.S.	% Silt	% Clay	LL	PI	W.C.				
1069.2	0			SOD AND TOPSOIL													VISUAL
1068.9	2	AUGERED		BROWN SANDY SILT													VISUAL
1066.7	4	AUGERED		GRAY-BROWN SILTY SAND AND GRAVEL													VISUAL
1064.2	6																
	2 1/2			BROWN-GRAY GRAVELLY SANDY SILT	14	17	11	23	33	16	NP	NP	24	A-4a			
1061.7	8																
	2 3/4			BROWN SILTY SANDY GRAVEL	15	49	16	16	11	8	NP	NP	19	A-1-b			
1059.2	10																
	4 9/13			BROWN SILTY SANDY GRAVEL	16	45	20	17	10	8	NP	NP	15	A-1-b			
1056.7	12																
	14 8/5			BROWN SILTY GRAVELLY SAND	17	33	19	22	17	9	NP	NP	14	A-2-4			
1054.2	14																
	14 14/14			BROWN SILTY SANDY GRAVEL	18	48	17	14	13	8	NP	NP	15	A-1-b			
1051.7	16																
	4 5/6			BROWN SILTY SANDY GRAVEL	19	46	25	14	8	7	NP	NP	15	A-1-b			
1049.2	18																
	9 9/16			BROWN GRAVELLY SANDY SILT	2	22	15	14	26	13	NP	NP	14	A-4a			
1046.7	20																
	9 19/28			BROWN SILTY SANDY GRAVEL	21	52	16	12	11	7	NP	NP	13	A-1-b			
1044.2	22																
	15 17/15			BROWN-GRAY SILTY SANDY GRAVEL	22	41	24	11	15	9	NP	NP	11	A-1-b			
1039.2	24																
	15 34/41			BROWN-GRAY SANDY GRAVELLY SILT	23	18	7	10	81	14	NP	NP	21	A-4b			
1034.2	26																
	8 11/13			GRAY-BROWN SILT	24	5	1	3	87	24	83	2	24	A-4b			
1029.2	28																
	5 8/19			GRAY SILT	25	0	1	1	98	1	24	4	13	A-4b			
1024.2	30																
	5 5/12			GRAY SILT	26	4	1	1	95	45	27	2	27	A-4a			
1019.2	32																
	6 9/12			GRAY - BROWN SILTY CLAY	27	0	0	0	1	99	11	76	A-7-c				
1014.2	34																
	6 10/14			GRAY SILT AND CLAY	28	0	1	0	19	80	40	15	25	A-6a			
1009.2	36																
1007.7	38																
	4 6/8			GRAY SILT AND CLAY	29	3	0	0	88	68	37	13	28	A-6a			
BOTTOM OF BORING																	

OHIO DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS - TESTING LABORATORY 1600 WEST BROAD STREET COLUMBUS, OHIO 43223			
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BORING DATA			
TYPED BY J. M. L.	CHECKED BY L. N. L.	REVIEWED BY R. D. R.	DATE 3/16/81