

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

159

WAS-7-54.09-55.93
MOE-7-0.00
0.5± Miles N.E. of New Matamoras

MAY 2 1965

FOUNDATION SOUNDINGS: Foundation design and foundation quantities are based on a study of rock soundings and soil sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division office, but the State does not guarantee the accuracy thereof.

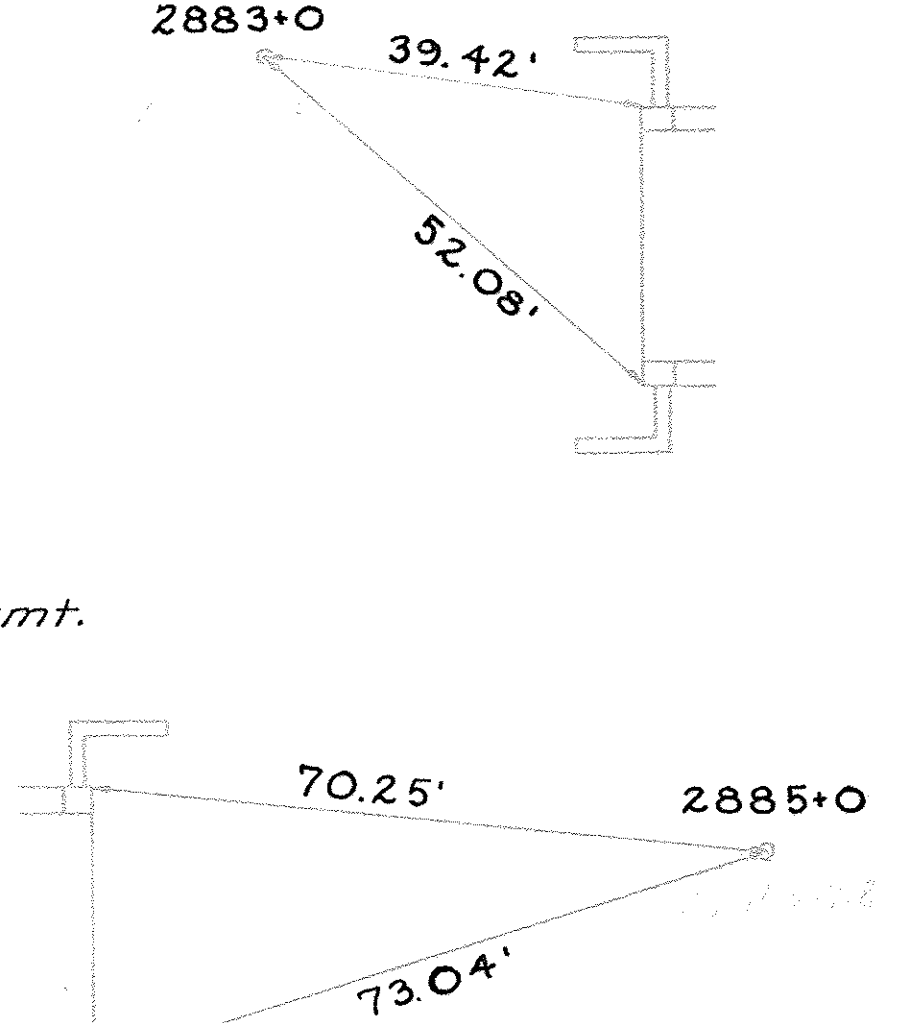
TOWNSHIP ROAD # 66

MILL CREEK

I-10.07 dumped rock channel protection 3' thick Elev. 590 to Elev. 596.4

Approximate location of relocated Twp. road #66

Temporary Run-around (grade same as existing pvmt.)



EXISTING BRIDGE DATA
BRIDGE NO. WAS-7-5460
Type: Through Concrete Girder.
Spans: 1 @ 60'-0"
Roadway Width: 23'-0"
Condition: Good.
Loading: H 15.0
Suff. Rating: 89

DRAINAGE AREA = 9.7 Sq. Mi.

PROPOSED STRUCTURE
TYPE: Cont. steel beams with reinf. conc. deck and reinf. conc. substr.
SPANS: 60'-75'-60' 1/2 brgs.
ROADWAY: 44'-0" f/r. of guard rails.
LOAD FREQUENCY: CF-130 (57)
SKEW: None
WEARING SURF: 3/4" Monolithic conc.
APPROACH SLABS: AS-1-54 (25' long)
ALIGNMENT: on 1°00' curve right.
SUPERELEVATION: .024 ft.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

SITE PLAN
BRIDGE NO. WAS-7-54 60
WASHINGTON CO. S.R.-7
SEC. WAS-7-5409 STA. 2882+97.25
SCALE: 1"=20' STA. 2884+96.75

PRESENT TOPOGRAPHY	PROPOSED WORK
SURVEYED	DRAWN
E.H.	G.F.O.
	DESIGNED
	DRAWN
	CHECKED
	REVIEWED
	J.N.B.
	D.H.S.
	P.C.L.

PI = 2883+03.4
Δ = 5°25' Rt.
D = 1°00'
R = 5729.58
L = 541.67
T = 271.0
Ex = 6.4
Superelevation = .024 ft.

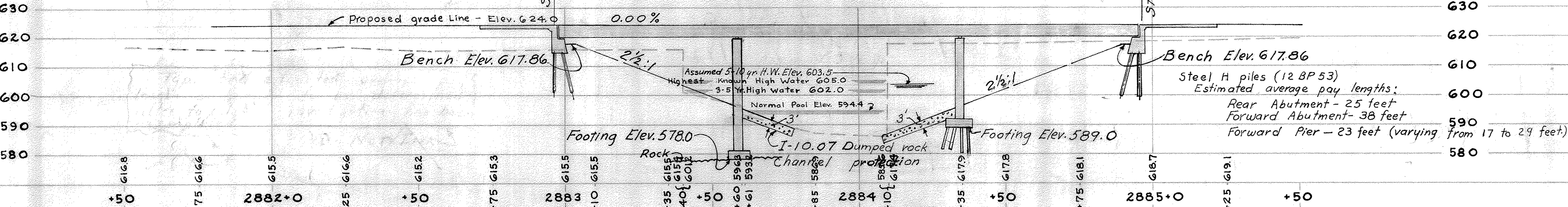
End approach slab sta. 2882+97.25

Begin approach slab sta. 2884+96.75

Clears assumed 5-10 yr. H.W. 16.5±

OHIO RIVER

B.M. x on S.E. Corner of Abut. of Mill Creek Bridge WAS-7-54.01 Elev. 616.35



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MOE-7-0.00

GENERAL NOTES

REFERENCE shall be made to Standard Drawing CSB-1-55, sheets 1, 2, and 8, revised 2-2-59, and to Supplemental Specification S-101 dated 12-2-59.

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57 together with current revisions thereof.

TEMPORARY RUN-AROUND BRIDGE AND APPROACHES: Load frequency for bridge, $CF=30$, with unit stresses increased 25% as per the provisions for temporary bridges in the Design Specifications for Highway Structures. Bridge width, 22'. Approach width, out-to-out of shoulders, 28'. Approach pavement shall be Class "B", 22' wide.

REMOVAL OF EXISTING STRUCTURE: When no longer needed to maintain traffic the existing structure shall be removed.

EXCAVATION QUANTITY includes the removal of fill material between the top of the earth bench and the bottom of the abutment crossbeam.

PILES shall be driven to firm contact with rock. If the length of penetration is approximately equal to the depth to rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. S-18.05 is not less than the following value for a pile hammer of the indicated energy rating:

For the rear abutment piles,
37 tons per pile using a 7000 ft. lb. hammer
28 tons per pile using an 11000 ft. lb. hammer
26 tons per pile using a 15000 ft. lb. or greater hammer
For the forward abutment piles,
34 tons per pile using a 7000 ft. lb. hammer
25 tons per pile using an 11000 ft. lb. hammer
25 tons per pile using a 15000 ft. lb. or greater hammer
For the forward pier piles,
36 tons per pile using a 7000 ft. lb. hammer
28 tons per pile using an 11000 ft. lb. hammer
25 tons per pile using a 15000 ft. lb. or greater hammer

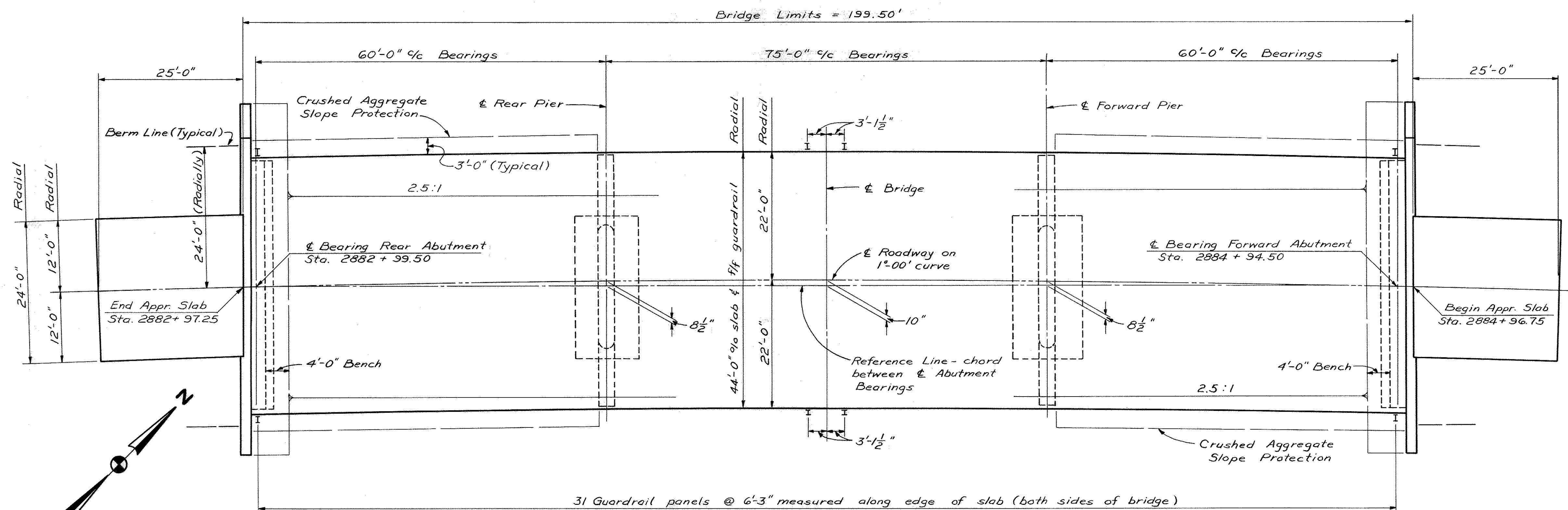
If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 25 tons per pile.

REAR PIER FOOTING shall extend a minimum of 3" into solid rock or to the elevation shown, whichever is lower.

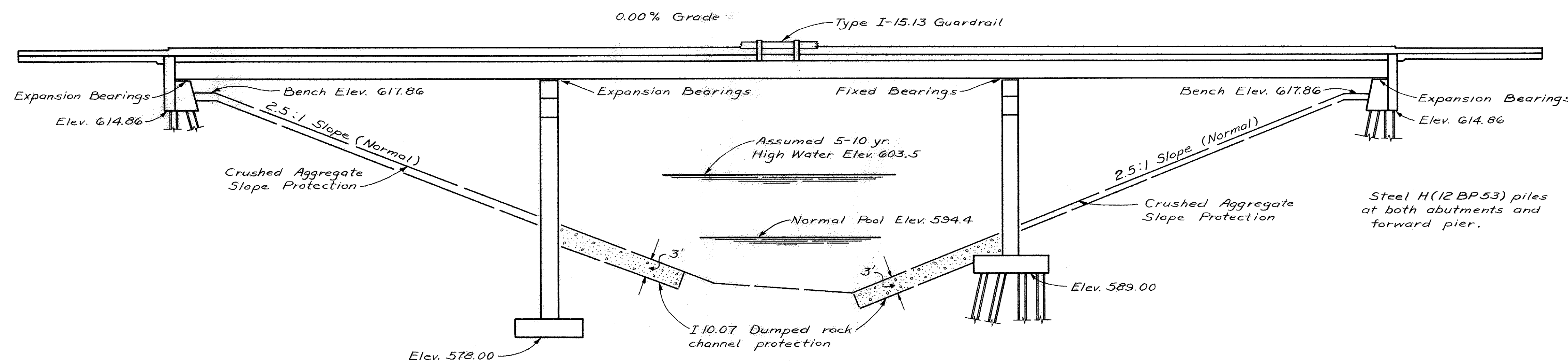
FOUNDATION BEARING PRESSURE: Rear pier footing is designed for a maximum bearing pressure of .5 tons per sq. ft.

UTILITY LINES: All labor and expense involved in relocating the affected utility lines shall be borne by the owner. The Contractor and Owner are requested to cooperate by arranging their work in such a manner that inconvenience to either will be held to a minimum.

MACHINE FINISH: At the Contractor's option, the top of the bridge deck slab shall be machine finished. Machine finishing, if used, shall be in accordance with the Proposal Note, "Machine Finishing of Bridge Deck Slabs."



GENERAL PLAN



ELEVATION

STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES						
GENERAL PLAN & ELEVATION & GENERAL NOTES.						
BRIDGE No. WAS-7-5460						
OVER MILL CREEK.						
WASHINGTON COUNTY STA. 2882+97.25						
STA. 2884+96.75						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
✓ G B	✓ G B	ADH	Rap	BFG	8-26-60	

REINFORCING BARS A 506 & A 509:
Thread through plates where
necessary.

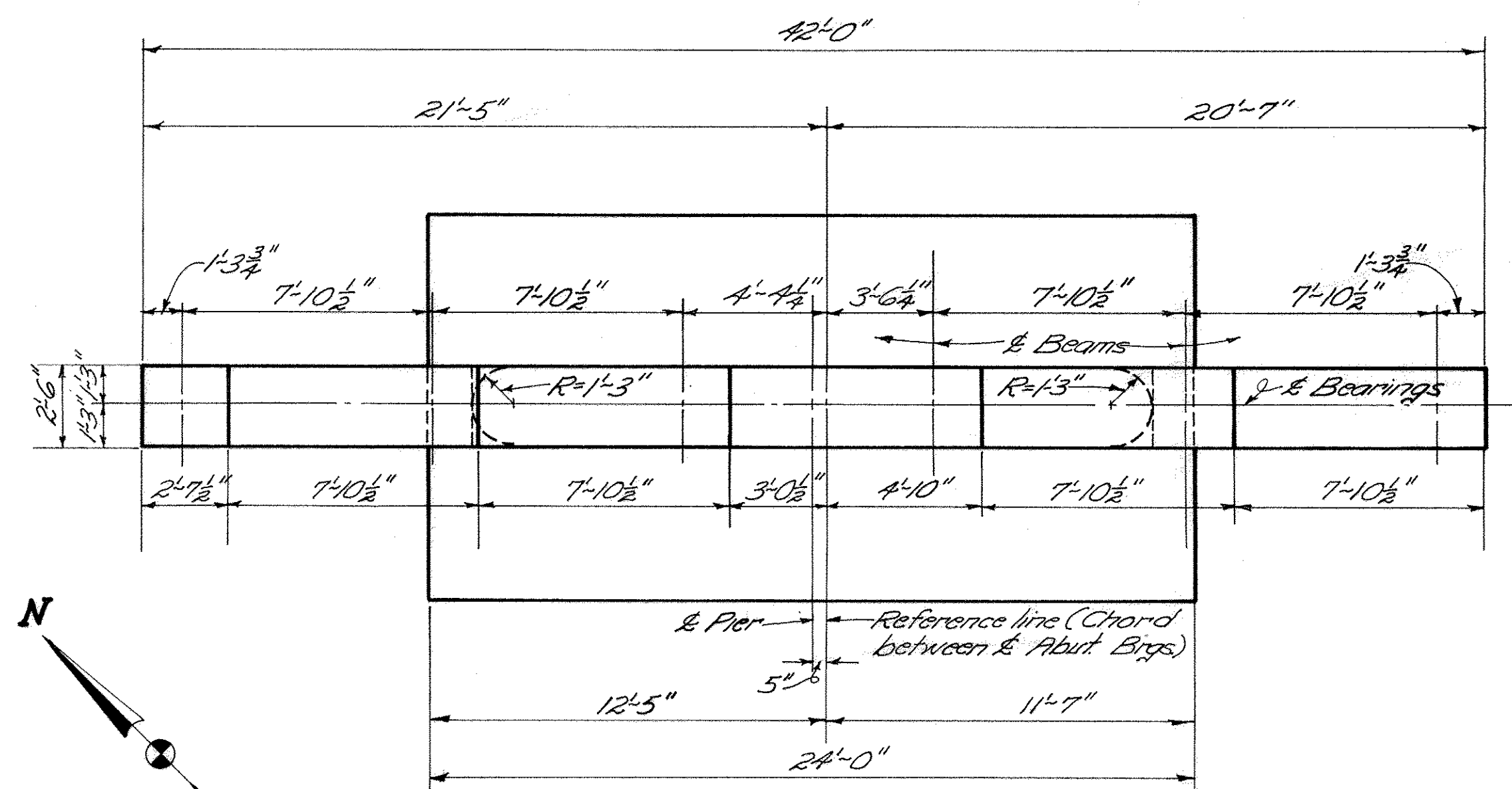
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~ NOTES ~

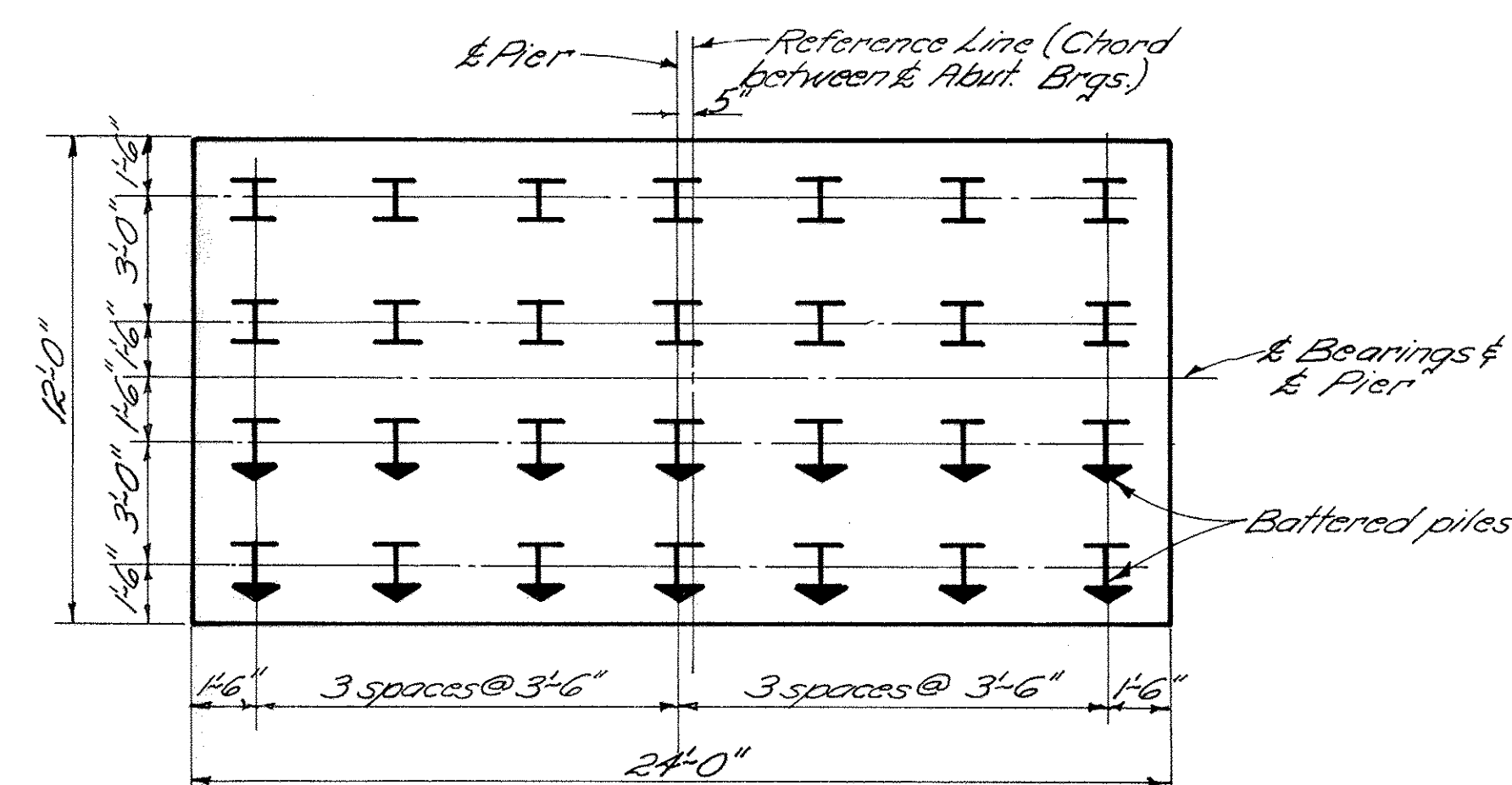
SPECIAL CARE shall be taken in placing reinforcing steel in the bridge seat so as to avoid interference with the drilling of anchor bar holes.

REAR PIER FOOTING shall extend a minimum of 3' into solid rock or to the elevation shown, whichever is lower.

CONCRETE above the footings shall be class "C". Footing concrete shall be class "E" and payment will be made on this basis, but class "C" concrete may be used for any or all parts of the footings.

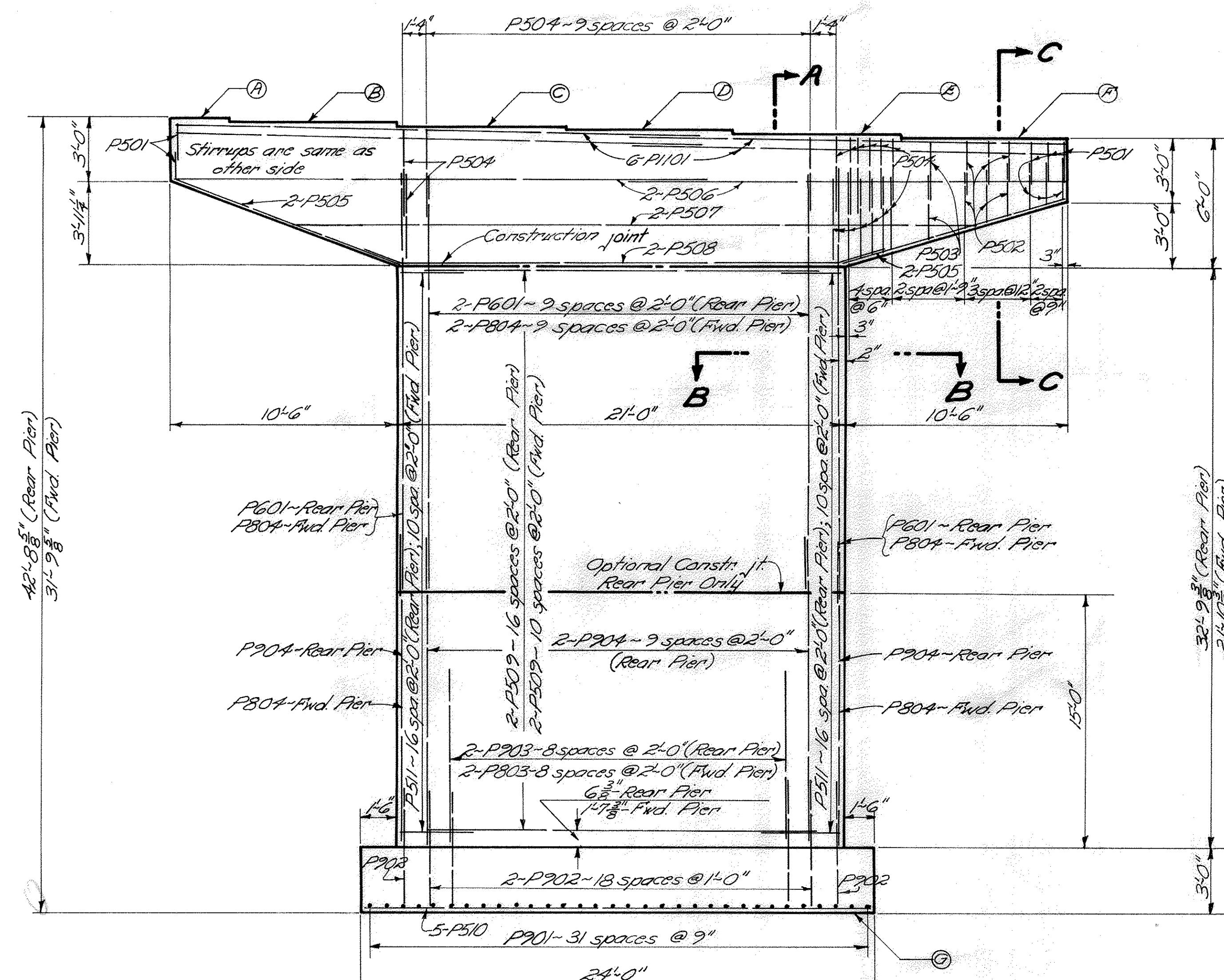


~ PIER PLAN ~



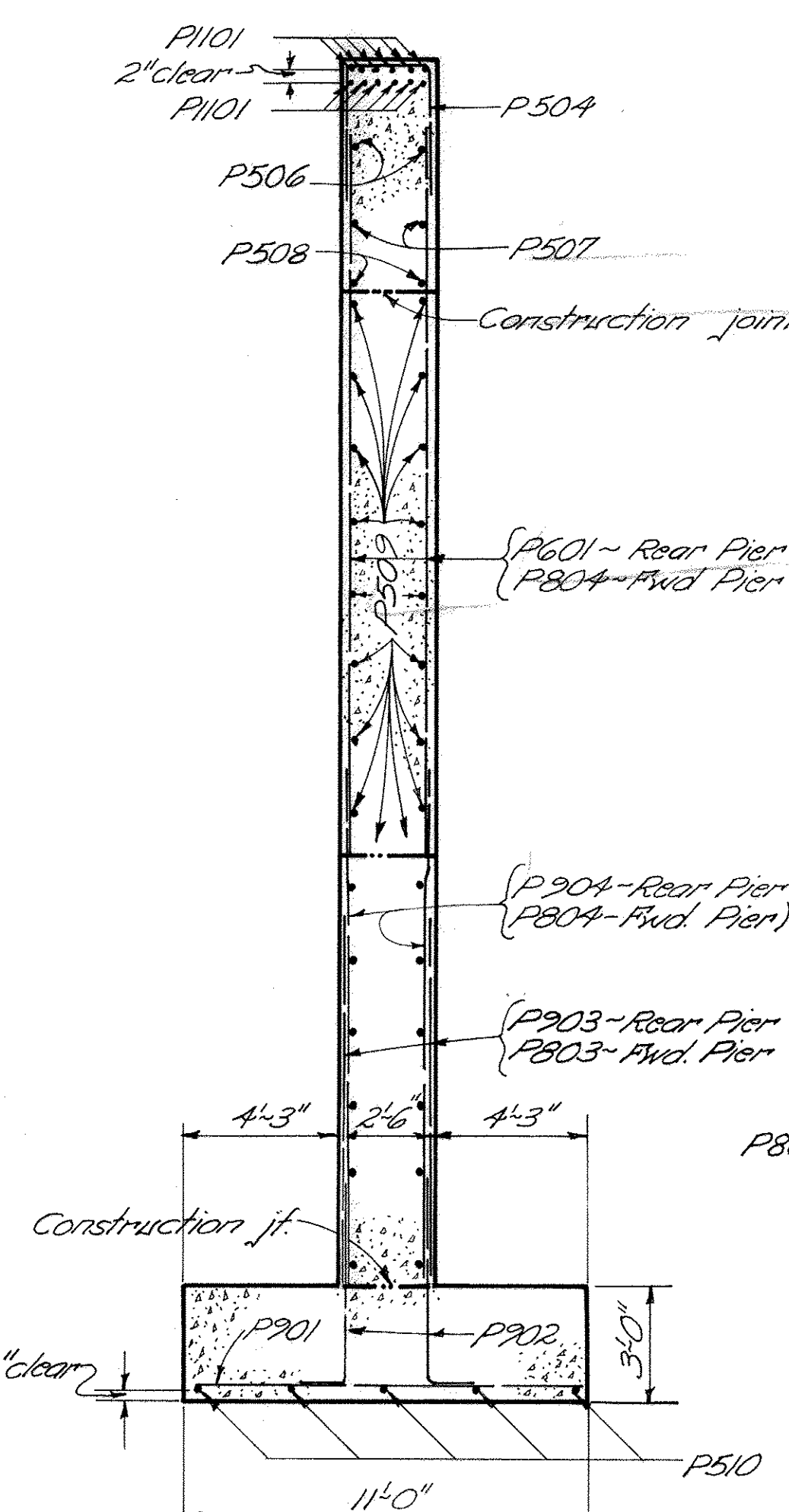
~ FORWARD PIER PILING PLAN ~

~ ELEVATIONS ~							
LOCATION	A	B	C	D	E	F	G
Rear Pier	620.72	620.53	620.34	620.16	619.97	619.78	578.00
Forward Pier	620.80	620.62	620.43	620.24	620.05	619.86	589.00

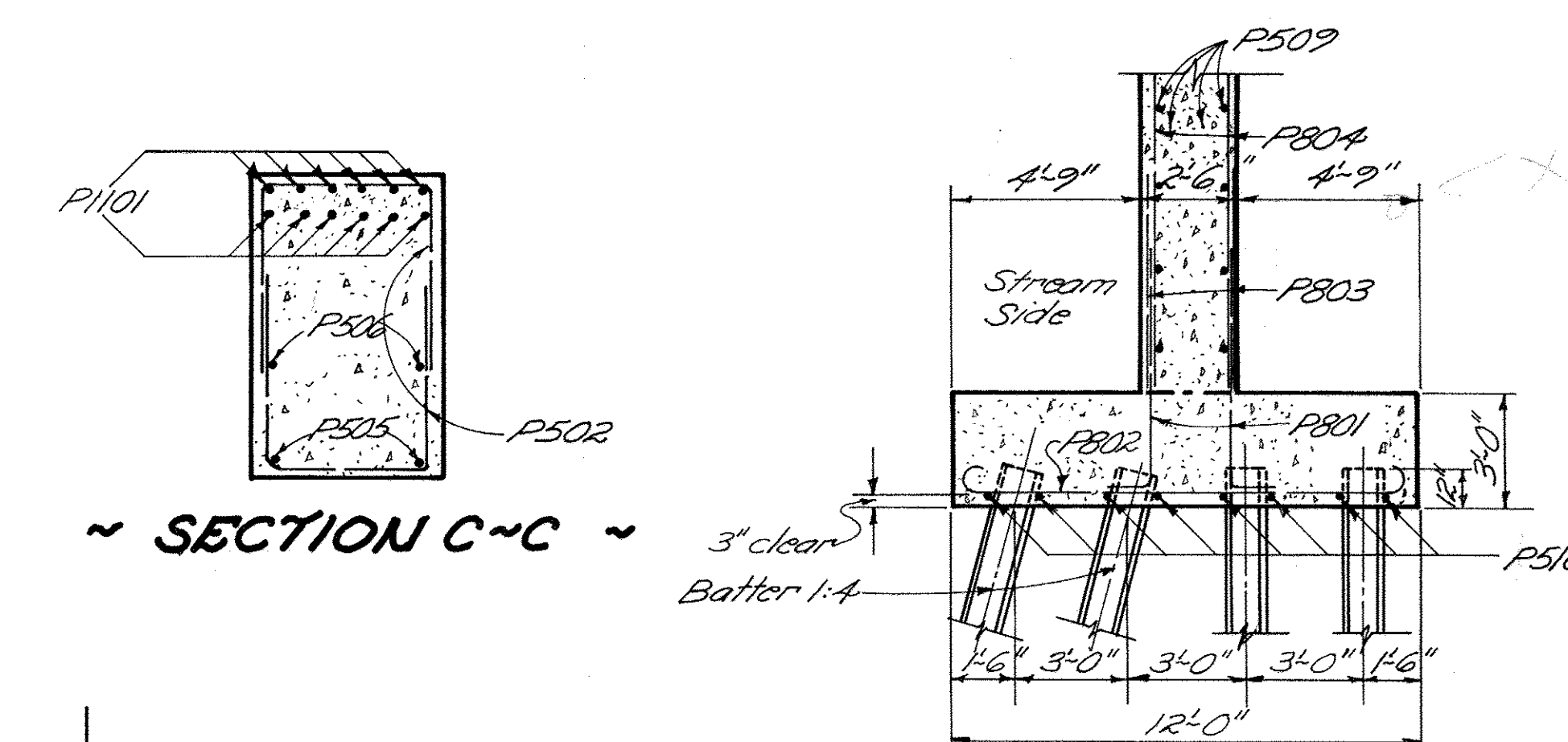


~ ELEVATION ~

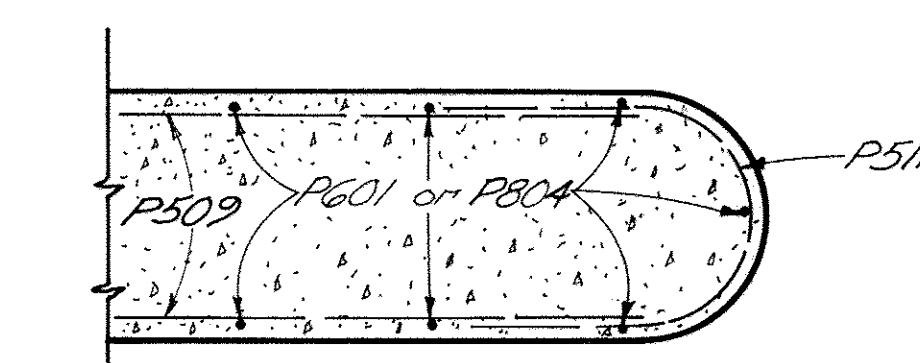
(Rear Pier Footing Shown)



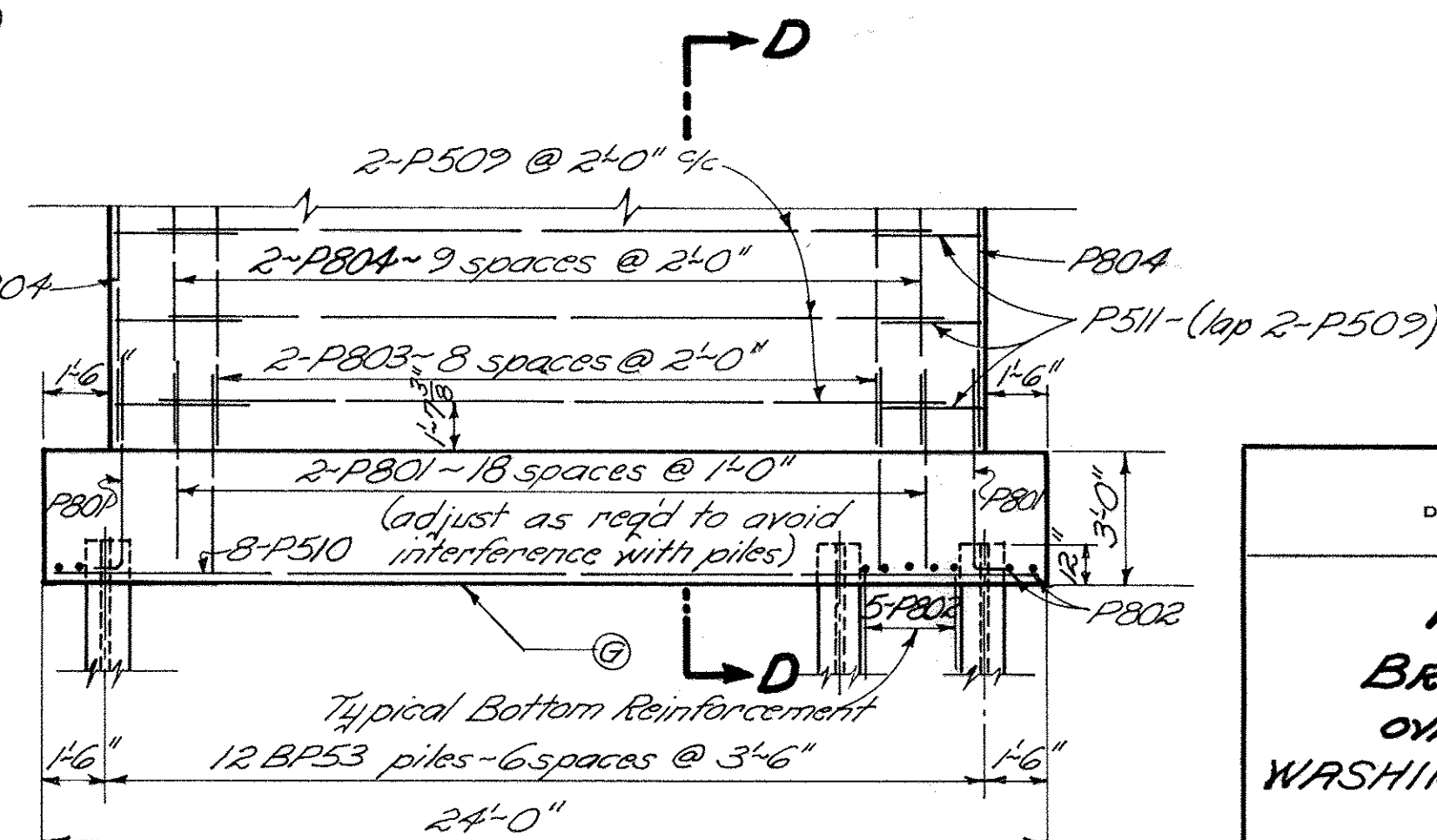
~ SECTION A-A ~



~ SECTION C-C ~



~ SECTION B-B ~



~ PART ELEVATION OF FORWARD PIER ~

STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES							
PIER DETAILS							
BRIDGE No. WAS-7-5460							
OVER MILL CREEK							
WASHINGTON COUNTY STA. 2882+91.25							
STA. 2883+26.75							
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED	
J. G. B.	J. G. B.	C. M.	R. A.	B. F. G.	8-26-60		

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MOE-7-0.00

NOTES

FOR DETAILS not shown see Standard Drawing CSB-1-55, revised 2-2-59.

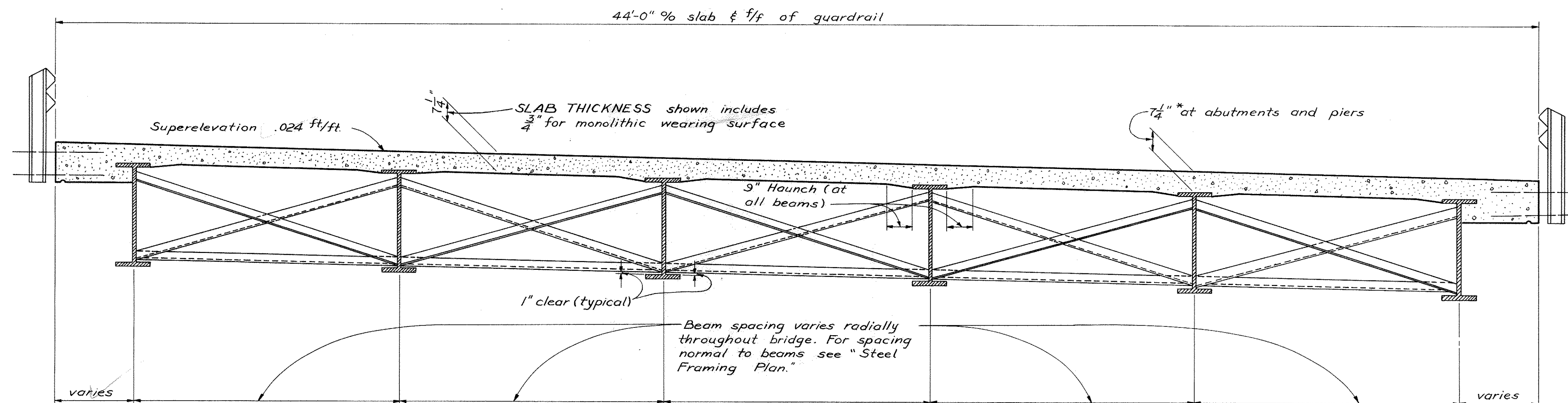
FASCIA of slab shall be placed on curve.

REINFORCING STEEL shall be of the same size and spacing as that shown in Standard Drawing CSB-1-55 except that the longitudinal bars shall be placed approx. parallel to the roadway and the transverse bars shall be placed parallel to the substructures.

BEAM SPLICE WELDING PROCEDURE

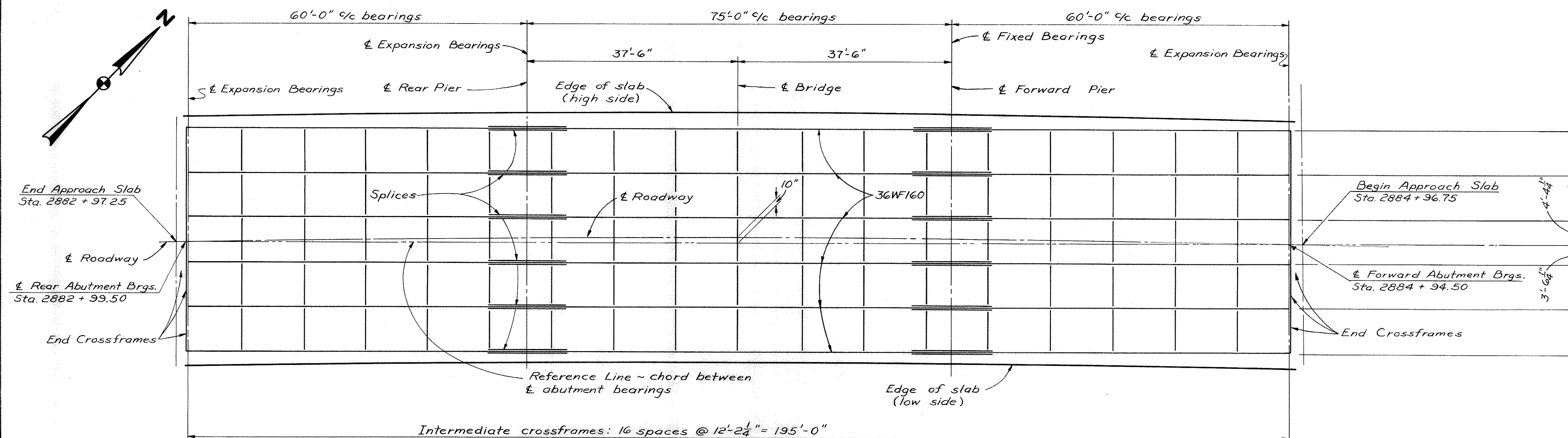
1. Raise the abutment ends of beams $\frac{1}{2}$ inches.
2. Butt-weld the beam flanges and web, using the following sequence: make two passes on each flange, then two on the web; repeat using one pass at each location, until welds are completed.
3. Weld the bottom and top moment plates.
4. Lower the beam ends to final position.

PAINTING: After erection and after the shop coat has been cleaned and, where necessary, repainted in accordance with Sec. 8.04, an additional coat of the same paint as used in the shop shall be applied over the outside face and all sides of the bottom flange of the outside steel beams.



RADIAL TRANSVERSE SECTION

*The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.



STEEL FRAMING PLAN

STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES						
SUPERSTRUCTURE DETAILS						
BRIDGE No. WAS-7-5460						
OVER MILL CREEK.						
WASHINGTON COUNTY STA. 2882+97.25						
STA. 2884+96.75						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JGB	JGB	ADH	Rat	BFG	8-26-60	

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REINFORCING STEEL LIST														
Mark	No.	Length	Weight	Shp						Mark	No.	Length	Weight	Shp
Abutments										Piers				
A801	44	22'-4"	2,624	S						P1101	48	22'-7"	5,759	S
A802	4	10'-8"	114	S						P902	32	10'-8"	1,161	S
A803	4	12'-0"	128	S						P902	40	5'-7"	759	B
A601	48	13'-5"	967	B						P903	18	8'-0"	490	S
A602	40	11'-11"	716	B						P904	22	17'-0"	1,272	S
A501	44	12'-5"	570	B						P802	40	6'-2"	659	B
A502	44	11'-0"	505	B						P802	34	13'-10"	1,256	B
A503	8	9'-4"	78	S						P803	18	6'-6"	312	S
A504	4	8'-4"	34	S						P804	22	26'-0"	1,527	S
A505	4	7'-3"	30	S						P601	22	21'-9"	719	S
A506	18	8'-6"	160	S						P501	24	6'-9"	169	B
A507	4	28'-2"	118	S						P502	24	7'-11"	198	B
A508	8	29'-5"	245	S						P503	8	8'-5"	70	B
A509	6	4'-8"	29	S						P504	68	9'-11"	703	B
A510	8	30'-8"	256	S						P505	8	11'-0"	92	S
A511	8	9'-9"	81	S						P506	8	21'-8"	181	S
A512	12	11'-1"	139	S						P507	4	32'-6"	136	S
A513	8	6'-4"	53	S						P508	4	24'-8"	103	B
A401	48	8'-2"	262	B						P509	56	18'-6"	1,081	S
										P510	13	23'-8"	321	S
										P511	56	6'-2"	360	B
Superstructure										Replacement Bars				
S701	248	43'-8"	22,136	S						RE101	1	7'-6"	-	S
S601	248	43'-8"	16,266	S										
S602	444	34'-3"	22,841	S										
S603	64	30'-0"	2,884	S										
										RE901	1	6'-10"	-	S
										RE801	1	6'-6"	-	S
										RE701	2	6'-2"	-	S
										RE601	3	5'-11"	-	S
										RE501	1	5'-7"	-	S
										RE401	1	8'-2"	-	B

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, A601 is a No. 6 size bar and P1101 is a No. 11 size bar.

REPLACEMENT BARS: If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Sec. 5-4.02 need not be furnished and replacement bars will not be required.

GENERAL INFORMATION

Exploratory borings were made by means of truck mounted mechanical earth auger and hand auger (in an area of difficult access), between January 21 and February 1, 1960; and rotary type drill rig, between February 2 and May 12, 1960. These borings were supplemented by two drive-sample-core borings made between January 2 and January 3, 1960, in conjunction with the foundation investigation for the structure over Mill Creek.

The project consists primarily of the relocation of 1.8 miles of SR 7, beginning at the north corporation limit of New Matamoras and extending in a northeasterly direction to Monroe County.

The plans indicate fill embankment as much as 12 feet in height; and cut, not exceeding 2 feet in depth along centerline, 30-foot maximum along the left ditchline.

Geologically, the area traversed by the alignment lies within the unglaciated, highly dissected portion of the Allegheny Plateau, adjacent to the toe of, and occasionally infringing upon, the northwest valley wall of the Ohio River. Approximately 0.6 mile of the project lies on the Ohio River flood plain. Soil cover is of two types - alluvial and residual. The alluvial material attains a maximum thickness of at least 30 feet in depth, while the residual mantle above the toe of the valley wall ranges generally from 3 to 11 feet (a maximum of 24 feet, however, was encountered near the base of a sandstone bluff in the vicinity of station 2893+00). Local bedrock consists of shale, sandstone, limestone and indurated clay bedrock, of Pennsylvanian and Permian ages.

Borings disclose the materials immediately beneath the proposed grade to consist of silty clay and clay, in the A-C and A-7-C classifications. In addition to residual soils, indurated clay and thin-bedded shale will be encountered in the excavation along the left ditchline and in the backslope, between approximately stations 2836+00 and 2897+00.

Embankment foundation materials consist predominantly of silts, silty clays, and clays, in the A-4, A-C and A-7-C classifications. Soils (silts, silty clays and clays), either wet or containing organic material or a combination of both, were encountered at depths ranging from 0 to 30 feet below ground between stations 2857+00 and 2871+50, stations 2876+50 to 2884+90, stations 2916+00 to 2929+00, station 2936+00, 2944+00, 2950+00, and 2954+00.

Attention is directed to an area of sagging in the existing pavement, between stations 2877+00 and 2879+75. The proposed section indicates sidehill cut-fill: cut to the left; and fill, on the order of 7 feet in height, over the existing pavement. Borings in this area indicate that bedrock surface drops off abruptly from elevation 640 feet, 80 feet left of centerline to approximately elevation 600 feet at 20 feet left; and slopes gradually to approximately elevation 560 feet, 45 feet right of centerline. Rock debris, up to 26 feet in depth, composed of limestone boulders, cobbles, and fragments intermingled with zones of weathered indurated clay overlies the firm rock surface, this overlain by 5 to 15 feet of soils. Zones of wet, low strength soils, are noted both uphill above bedrock surface in the cut portion, and downhill, in the proposed foundation area. It is considered questionable whether the pavement would be stable unless special treatment is employed in this area.

LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS- 185 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 with sand	A-1-b(0)	A-1-b	13	26	19	-12-	NP	NP		8	2
	Gravel or stone fragments with sand and silt	A-2-1(0)	A-2-1	53	8	9	10	14	27	8	16	5
	Stone fragments with sand, silt, and clay	A-2-6 (0)	A-2-6	42	14	16	13	15	29	13	23	1
	Sandy silt	A-1(5)	A-1a	13	6	21	35	25	26	5	19	38
	Silt	A-1(8)	A-1b	1	1	16	55	27	27	7	23	28
	Elastic silt and clay without organic material	A-5(8)	A-5	0	3	9	51	37	41	5	33	1
	Silt and clay	A-6(8)	A-6a	11	4	10	36	36	32	12	23	67
	Silty clay	A-6(10)	A-6b	11	5	11	32	41	37	17	23	20
	Elastic clay without organic material unless otherwise noted	A-7-5 (16)	A-7-5	0	1	5	51	43	54	22	40	2
	Clay	A-7-6 (12)	A-7-6	2	2	6	42	43	44	10	31	21
	Overburden			VISUAL CLASSIFICATION								
	Weathered indurated clay			VISUAL CLASSIFICATION								
	Indurated clay			VISUAL CLASSIFICATION								
	Shale			VISUAL CLASSIFICATION								
	Sandstone			VISUAL CLASSIFICATION								
	Limestone			VISUAL CLASSIFICATION								

Sod and /or Topsoil-X' - Approximate depth.

Berm material

Auger boring - plan view.

Drive sample and/or core boring - plan view.

Auger boring plotted to vertical scale only.

NOTE: Figures beside borings indicate water content in percent. e.g. 75

Drive sample and/or core boring plotted to vertical scale only.

Number of blows for "Standard Penetration" test.
X=number of blows for the first 6 inches.
Y=number of blows for the second 6 inches.

Water content nearly equal to or greater than liquid limit.

Indicates a non-plastic material with high water content.

Free water

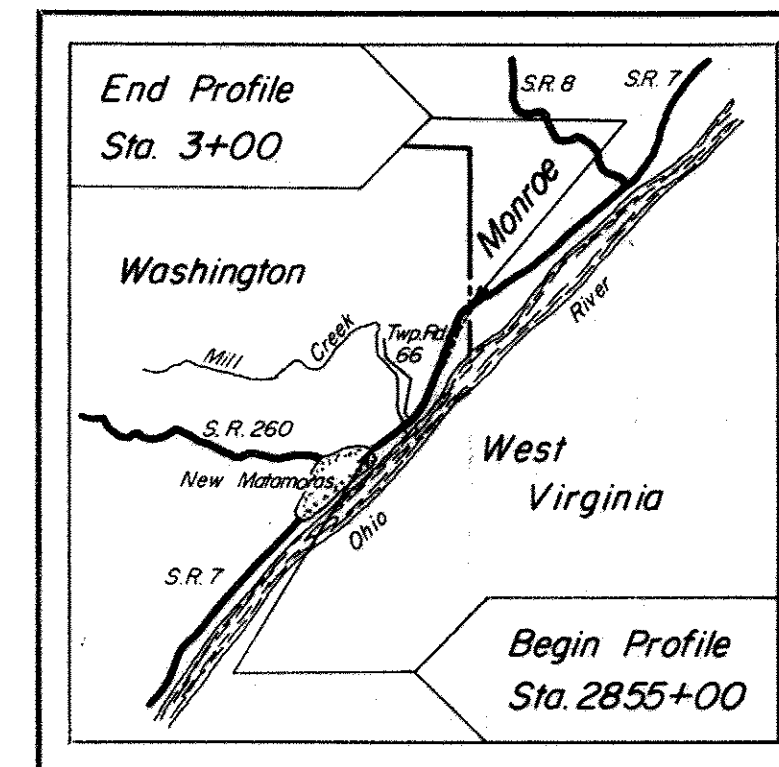
NOTE: Small vertical figures beside borings indicate loss on ignition. e.g. 15%

Samples Tested
Lab. Nos. Sc.
38805-38808 incl.
45058-45063 incl.
45670-45724 incl.
45788-45838 incl.
48751

SOIL PROFILE
WASHINGTON-MONROE COS.
WAS -7-(54.09-55.93)
MOE -7-0.00 PART I
OHIO STATE HIGHWAY
TESTING LABORATORY
O.S.U. CAMPUS, COLUMBUS, OHIO

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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.



LOCATION MAP

Recon - P.L.H., B.R.H. - 1/21/60

Drilling Auger - L.M.D., B.D.L. - 1/28/60 to 2/4/60
Core - K.D.E., R.L.S., O.G. - 2/2/60 to 5/12/60

Drafting - D.M. - 5/19/60

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	ACC.	C.S.	F.S.	SILT	CLAY	L.L.	P.I.	W.C.	SHTL	CLASS.
WASHINGTON COUNTY											
2656+50 20'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0	26 3 3 28	8 1 10 10	15 31 22 22	36 16 28 20	15 19 16 11	23 23 23 23	5 6 5 5	12 16 17 18	A-1a* A-1a A-1b A-1a	
2657+00 19'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0 30.0-35.0	30 4 0 0 0 0 0	21 1 6 2 2 0 0	18 32 35 9 55 23 5	12 12 24 37 28 25 51	12 10 24 10 28 25 21	21 NP NP NP NP NP NP	6 NP NP NP NP NP NP	12 12 15 23 17 26 26	A-2-1* A-1a A-1a A-6b A-1b A-7-5 A-1b	
2658+75 18'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	31 6 6 0 0 0	11 2 1 1 6 1	14 31 37 5 6 11	21 36 36 22 57 14	23 22 22 23 36 14	23 20 NP 23 23 24	7 NP NP 16 28 13	14 15 15 20 28 22	A-1a A-1a A-1a A-6b A-1b A-6a	
2659+80 18'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0	23 15 0 0	9 20 1 10	16 20 22 10	33 18 23 56	18 19 23 26	21 23 23 26	7 3 3 6	18 15 11 23	A-1a A-1a A-1b A-1b	
2660+50 5'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0	20 6 6 0	15 13 0 0	20 30 30 6	30 36 36 36	15 18 20 37	18 19 20 21	2 11 13 13	11 16 16 24	A-1a A-6a A-6a A-6a	
2667+50 CL	0.0-2.5 2.5-5.0 5.0-10.0	50 0 2	5 0 0	31 28 31	30 56 16	34 15 10	30 23 NP	16 19 NP	17 18 25	A-2-1* A-1b A-1a	
2671+50 15'Pt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0	0 0 0 2	5 1 1 0	31 21 12 32	30 34 28 54	30 30 28 12	16 16 13 24	17 16 21 5	17 18 21 21	A-6b* A-1b A-6a A-1b	
2675+50 10'Pt	0.0-5.0 5.0-10.0	30 16	1 5	10 11	30 18	26 18	36 28	12 23	20 23	A-6a A-6a	
2677+50 75'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	5 0 26 33 68	1 1 1 1 7	8 10 5 3 15	17 36 35 25 15	28 13 25 31 6	11 16 10 13 28	28 31 23 13 9	28 31 23 15	A-6a A-7-6 A-1a A-6a A-6a A-2-1	
2677+50 15'Pt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0	31 0 12 20	6 2 1 1	11 1 16 3	26 14 16 11	26 41 15 11	28 41 28 26	9 20 13 11	13 22 23 12	A-1a A-7-6 A-2-1 A-6a	
2677+50 12'Pt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	11 0 16 11 33 0	3 2 1 1 5 5	16 16 14 1 15	36 32 32 31 35	36 40 33 28 35	36 40 33 28 35	8 17 13 13 13	20 21 23 26 35	A-1a A-6b A-6a A-6a A-6a A-6a	
2677+50 15'Pt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0	21 0 0 0	5 2 0 0	12 1 1 1	31 14 16 11	31 26 15 31	33 28 28 26	11 9 13 12	17 22 23 17	A-6a A-7-6 A-2-1 A-6a	
2677+50 12'Pt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	11 0 16 11 33 0	3 2 1 1 5 5	16 16 14 1 15	36 32 32 31 35	36 40 33 28 35	36 40 33 28 35	8 17 13 13 13	20 21 23 26 35	A-1a A-6b A-6a A-6a A-6a A-6a	
2677+50 15'Pt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0	21 0 0 0	5 2 0 0	12 1 1 1	31 14 16 11	31 26 15 31	33 28 28 26	11 9 13 12	17 22 23 17	A-6a A-7-6 A-2-1 A-6a	
2678+00 75'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	20 0 0 58	5 0 0 5	10 0 0 6	36 36 36 18	36 33 33 23	33 33 33 23	12 11 12	21 16 17	A-6a A-7-6 A-1a A-1a	
2678+50 15'Pt	0.0-5.0 5.0-10.0 10.0-15.0	18 5 37	1 2 1	22 13 6	32 13 28	23 32 20	28 32 30	16 12 11	16 10 17	A-6a A-6a A-6a	
2678+50 15'Pt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0	0 5 8 10	5 14 9	14 23 19	14 51 32 28	18 28 28 27	33 28 27	10 26 27	17 22 23	A-6a A-1b A-1a A-1a	
2679+00 16'Pt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	6 9 1 0 10	1 6 3 0 3	17 31 9 17 5	10 21 10 38 36	36 10 17 14 36	36 10 17 14 36	11 17 20 11 15	33 27 28 35 35	A-6a A-6a A-7-6 A-6a A-6a A-6a	
2679+50 25'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0	12 0 0 0	8 2 2 2	23 7 3 3	31 38 22 33	25 56 37 30	23 37 30 30	1 15 9 10	17 20 11 10	A-1a A-6a A-6a A-2-1	
2679+50 8'Pt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0	26 19 0 0	6 2 2 2	7 20 3 3	28 30 53 33	33 30 24 25	35 23 23	15 1 1	20 21 10	A-6a A-1a A-1a A-1a	
2679+50 15'Pt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	11 10 0 7 1	8 3 2 2 2	0 35 21 13 2	31 31 36 13 26	10 21 35 16 26	10 NP NP NP NP NP	12 NP NP NP NP NP	19 18 37 31 31 31	A-6a A-1a A-1a A-6a A-6a A-6a	
2681+00 11'Pt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	0 1 0 0 0	0 1 0 0 0	29 13 11 6 5	36 36 36 36 36	36 36 36 36 36	36 36 36 36 36	11 NP NP NP NP NP	20 21 21 21 21 21	A-6a A-6a A-6a A-6a A-6a A-6a	
2682+00 10'Pt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	0 1 0 0 0	0 1 0 0 0	29 13 11 6 5	36 36 36 36 36	36 36 36 36 36	36 36 36 36 36	11 NP NP NP NP NP	20 21 21 21 21 21	A-6a A-6a A-6a A-6a A-6a A-6a	
2682+00 20'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	0 1 0 0 0	0 1 0 0 0	29 13 11 6 5	36 36 36 36 36	36 36 36 36 36	36 36 36 36 36	11 NP NP NP NP NP	20 21 21 21 21 21	A-6a A-6a A-6a A-6a A-6a A-6a	
2682+00 20'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	0 1 0 0 0	0 1 0 0 0	29 13 11 6 5	36 36 36 36 36	36 36 36 36 36	36 36 36 36 36	11 NP NP NP NP NP	20 21 21 21 21 21	A-6a A-6a A-6a A-6a A-6a A-6a	
2682+00 20'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	0 1 0 0 0	0 1 0 0 0	29 13 11 6 5	36 36 36 36 36	36 36 36 36 36	36 36 36 36 36	11 NP NP NP NP NP	20 21 21 21 21 21	A-6a A-6a A-6a A-6a A-6a A-6a	
2682+00 20'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	0 1 0 0 0	0 1 0 0 0	29 13 11 6 5	36 36 36 36 36	36 36 36 36 36	36 36 36 36 36	11 NP NP NP NP NP	20 21 21 21 21 21	A-6a A-6a A-6a A-6a A-6a A-6a	
2682+00 20'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	0 1 0 0 0	0 1 0 0 0	29 13 11 6 5	36 36 36 36 36	36 36 36 36 36	36 36 36 36 36	11 NP NP NP NP NP	20 21 21 21 21 21	A-6a A-6a A-6a A-6a A-6a A-6a	
2682+00 20'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	0 1 0 0 0	0 1 0 0 0	29 13 11 6 5	36 36 36 36 36	36 36 36 36 36	36 36 36 36 36	11 NP NP NP NP NP	20 21 21 21 21 21	A-6a A-6a A-6a A-6a A-6a A-6a	
2682+00 20'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	0 1 0 0 0	0 1 0 0 0	29 13 11 6 5	36 36 36 36 36	36 36 36 36 36	36 36 36 36 36	11 NP NP NP NP NP	20 21 21 21 21 21	A-6a A-6a A-6a A-6a A-6a A-6a	
2682+00 20'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	0 1 0 0 0	0 1 0 0 0	29 13 11 6 5	36 36 36 36 36	36 36 36 36 36	36 36 36 36 36	11 NP NP NP NP NP	20 21 21 21 21 21	A-6a A-6a A-6a A-6a A-6a A-6a	
2682+00 20'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	0 1 0 0 0	0 1 0 0 0	29 13 11 6 5	36 36 36 36 36	36 36 36 36 36	36 36 36 36 36	11 NP NP NP NP NP	20 21 21 21 21 21	A-6a A-6a A-6a A-6a A-6a A-6a	
2682+00 20'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	0 1 0 0 0	0 1 0 0 0	29 13 11 6 5	36 36 36 36 36	36 36 36 36 36	36 36 36 36 36	11 NP NP NP NP NP	20 21 21 21 21 21	A-6a A-6a A-6a A-6a A-6a A-6a	
2682+00 20'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	0 1 0 0 0	0 1 0 0 0	29 13 11 6 5	36 36 36 36 36	36 36 36 36 36	36 36 36 36 36	11 NP NP NP NP NP	20 21 21 21 21 21	A-6a A-6a A-6a A-6a A-6a A-6a	
2682+00 20'Lt	0.0-5.0 5.0-10.0 10.0-15.0 15.0-20.0 20.0-25.0 25.0-30.0	0 1 0 0 0	0 1 0 0 0	29 13 11 6 5	36 36 36 36 36	36 36 36 36 36	36 36 36 36 36	11 NP NP NP NP NP			

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