

BAR SCHEDULE - SIDEWALKS			
MARK NO	SIZE	LENGTH	SKETCH
S1 2970	1/2"	4'-7"	
S2 2970	1/2"	8'-5"	
S3 2970	1/2"	1'-11"	
S4 2970	1/2"	20'-0"	

BAR SCHEDULE - MEDIAN CURB			
MARK NO	SIZE	LENGTH	SKETCH
M1 2970	1/2"	9'-2"	1'-7" 2"
M2 320	1/2"	20'-0"	
M3 30	1/2"	5'-6 1/2"	2'-10" 1/2"

QUANTITIES	
CLASS A CONCRETE	
163	Curb, Sidewalk & Curb
99	Divisor
REINFORCEMENT BARS	
29,370	100, Sidewalk & Curb
12,400	100, Divisor

Commonwealth of Pennsylvania



Department of Highways

BRIDGE UNIT

**PENCOYD VIADUCT
ELEVEN SPAN CONTINUOUS GIRDER BRIDGE**

CARRYING
L.R. 769 OVER RDG & PENNA RR.

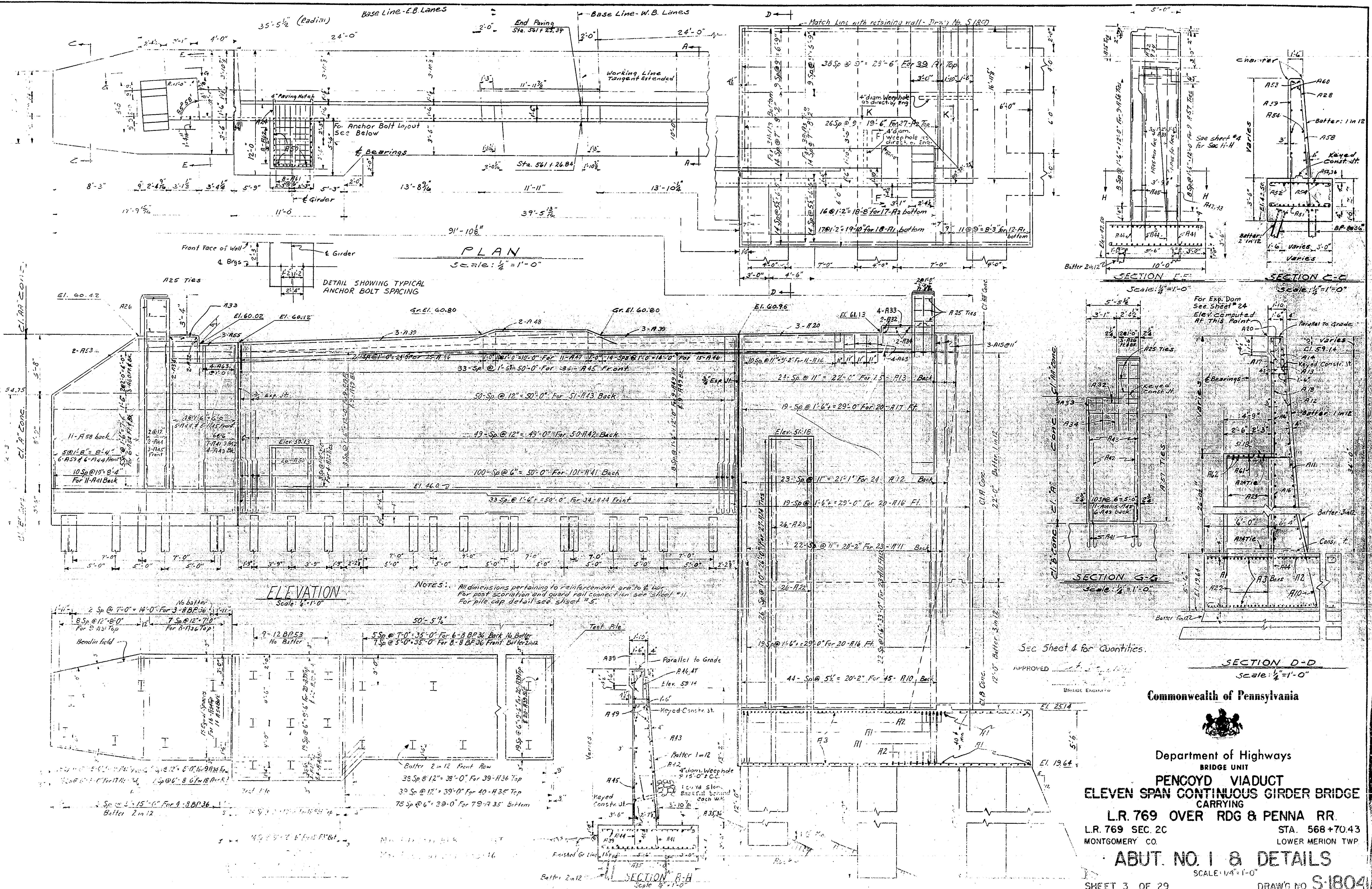
STA. 568+70.43
MONTGOMERY CO.

GEOMETRY PLAN

SCALE: 1'-0", 20'

DRAWN NO. S 1804

SHEET 2 OF 29



Commonwealth of Pennsylvania

Department of Highways
BRIDGE UNIT

PENCOYD VIADUCT IN CONTINUOUS GIRDER BRIDGE CARRYING

R. 769 OVER RDG & PENNA RR.

SEC. 2C **STA. 568 +70.4**

Y CO. LOWER MERION TW

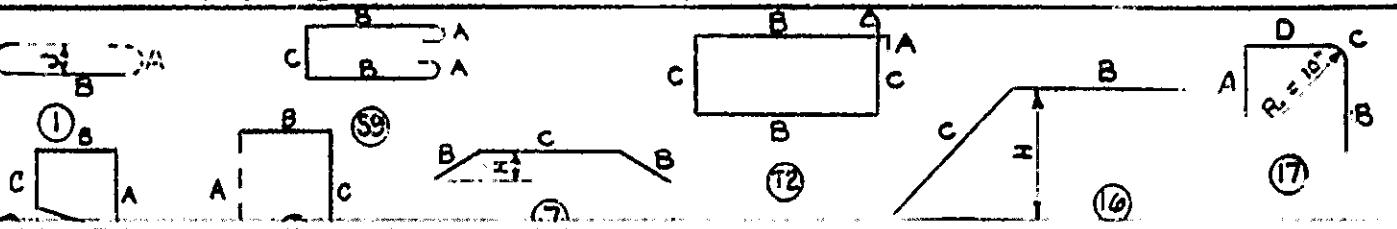
BUT NO 1 & DETAILS

SCALE: 1/4" = 1'-0" G-182

OF 29 DRAW'G NO. S-180

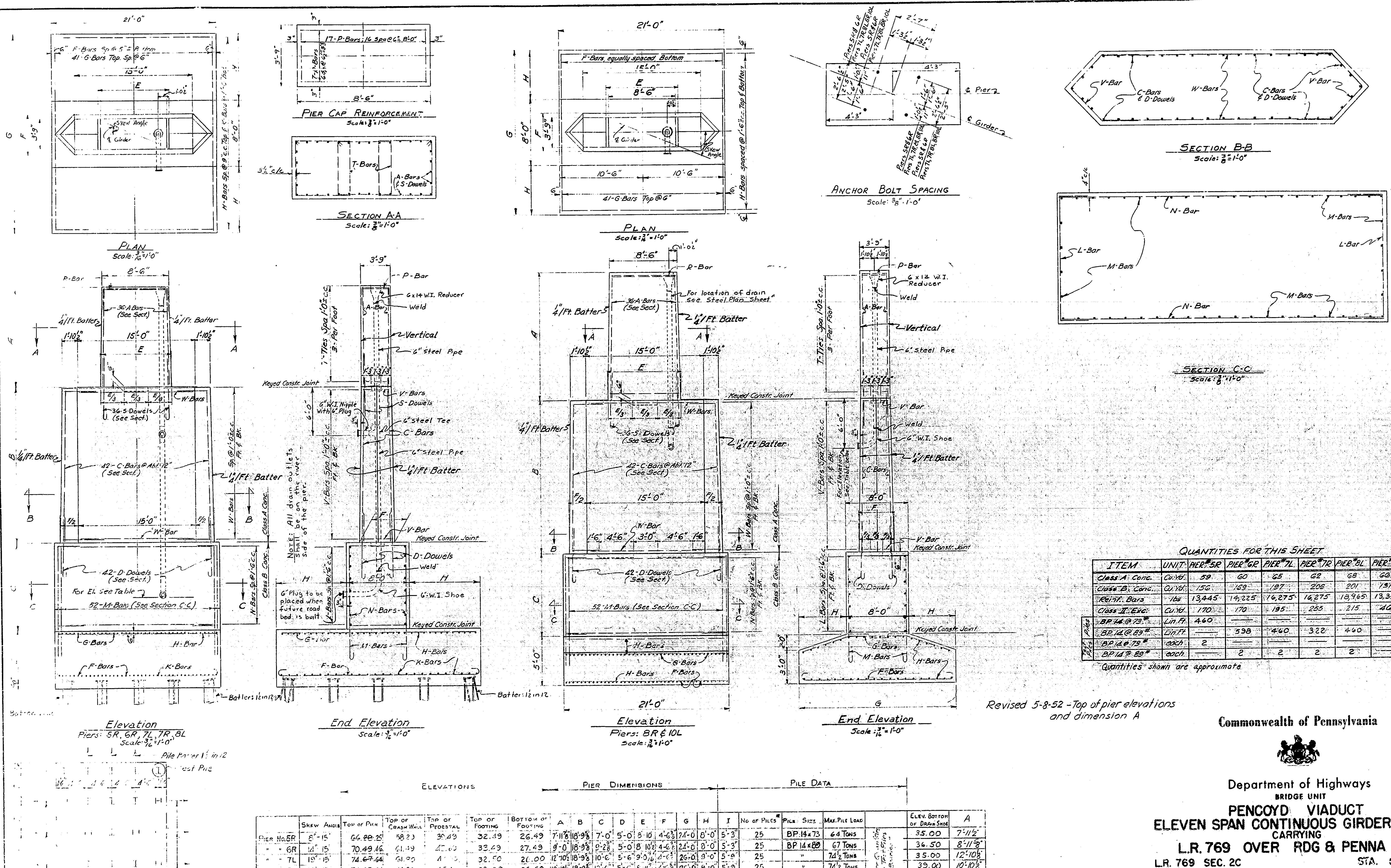
ABUTMENT NO. 1 REINFORCEMENT SCHEDULE

NOTE:- All Bar Laps To Be 40 Diameters Minimum.
All Dimensions Are Out To Out Of Bars.



STRAIGHT BARS

MARK	NO.	REQD.	SIZE	LENGTH	REMARKS	MARK	NO.	REQD.	SIZE	LENGTH	TYPE	SKETCH	A	B	C	D	H	J	REMARKS	
A 5	24	1	1"	22'-4" to 22'-11"	2 Each Vary by 5"	A 1	69	1"	23'-4"	1	C	1'-1"	22'-3"						10"	
A 6	56	1	1"	15'-6"		A 2	44	1"	15'-0"	1	C	1'-1"	3'-11"						10"	
A 7	68	1	1"	22'-4" to 29'-0"	4 Each Vary by 5"	A 3	76	1"	30'-0"	1	C	1'-1"	28'-11"						10"	
A 8	132	1	1"	21'-0"		A 4	92	1"	7'-4"	2	C	2'-0"	3'-4" to 2'-0"							
A 11	38	1	1"	12'-4"		A 9	34	1"	9'-4" to 22'-8"	2	C	3'-0"	3'-4" to 2'-0"						2 Each Vary by 5"	
A 12	40	1	1"	18'-4"		A 10	74	1"	21'-3"	1	C	1'-5"	19'-10"						10"	
A 13	42	1	1"	11'-6"		A 14	11	1"	5'-6"	1	C	1'-10"	1'-0" to 1'-6"						10"	
A 16	66	1	1"	16'-3"		A 15	15	1"	5'-0"	2	C	2'-0"	1'-0" to 2'-0"							
A 17	33	1	1"	9'-0"		A 24	31	1"	18'-0"	59	C	1'-6"	6'-6" to 1'-0"						4"	
A 18	46	1	1"	23'-0"		A 25	19	1"	14'-1"	72	C	4'-4"	4'-8" to 2'-0"							
A 19	46	1	1"	16'-6"		A 28	6	1"	5'-11"	16	C	2'-1"	3'-6" to 2'-0"							
A 20	3	1	1"	23'-0"		A 29	5	1"	6'-10"	16	C	2'-1"	4'-9"							
A 21	2	1	1"	16'-6"		A 30	1	1"	9'-9"	2	C	2'-1"	5'-1"							
A 22	26	1	1"	19'-9"		A 31	12	1"	11'-5"	2	C	3'-2"	5'-1" to 3'-2"							
A 23	26	1	1"	13'-9"		A 32	4	1	3'-3"	17	C	1'-2"	9'-2" to 2'-6"							
A 26	24	1	1"	6'-7"		A 33	8	1	7'-9"	2	C	3'-0"	4'-9"							
A 27	10	1	1"	12'-4"		A 34	4	1	6'-10"	2	C	3'-1"	3'-6" to 3'-5"							
A 39	86	3	1"	26'-3"		A 35	146	3	1"	10'-8"	1	C	8'	9'-4"						
A 42	58	3	1"	7'-0"		A 36	56	3	1"	6'-6"	1	C	7'	5'-11"						5"
A 43	61	3	1"	13'-0"		A 37	5	1	13'-6"	1	C	5'-1"	11'-4"						10"	
A 44	50	1	1"	5'-3"		A 38	15	1	12'-6"	1	C	7'	11'-4"						5"	
A 45	44	1	1"	13'-9"		A 40	8	1	15'-0"	16	C	10'-9"	4'-9" to 3'-0"							
A 49	36	1	1"	26'-0"		A 41	130	1	5'-3"	1	C	18'	4'-8"						6"	
A 50	26	1	1"	6'-6"		A 44	40	1	5'-11"	18	C	15'-3"	1'-0" to 1'-2"						20"	
A 54	44	1	1"	17'-3"		A 47	11	1	6'-11"	18	C	2'-9"	1'-0" to 1'-6"						10"	
A 55	5	1	1"	8'-5"		A 48	2	1	15'-5"	7	C	3'-0"	9'-5" to 1'-0"							
A 58	11	3	1"	8'-5" to 14'-3"	1 Each Vary by 7"	A 51	17	1	17'-8"	10	C	8'	6"-2"						10" Vary by 24"	
A 59	6	1	1"	8'-5" to 16'-3"	1 Each Vary by 1'-2"	A 52	9	1	7'-6"	10	C	6'-3"	5'-3"						10" Vary by 43"	
A 60	6	1	1"	11'-4" to 17'-1"	2 Each Vary by 3'-0"	A 53	2	1	10'-9"	16	C	10'-0"	2'-9"							
A 63	5	1	1"	10'-5"		A 54	9	1	7'-6"	2	C	3'-0"	2'-6" to 2'-6"							
A 67	8	1	1"	6'-4"		A 57	9	1	10'-5"	2	C	10'-0"	2'-6" to 3'-5"							
A 68	16	1	1"	8'-6"		A 60	16	1	6'-0"	2	C	10'-6"	1'-0"							
A 62	16	1	1"	6'-0"		A 61	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 64	16	1	1"	6'-0"		A 65	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 66	16	1	1"	6'-0"		A 67	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 68	16	1	1"	6'-0"		A 69	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 70	16	1	1"	6'-0"		A 71	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 72	16	1	1"	6'-0"		A 73	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 74	16	1	1"	6'-0"		A 75	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 76	16	1	1"	6'-0"		A 77	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 78	16	1	1"	6'-0"		A 79	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 80	16	1	1"	6'-0"		A 81	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 82	16	1	1"	6'-0"		A 83	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 84	16	1	1"	6'-0"		A 85	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 86	16	1	1"	6'-0"		A 87	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 88	16	1	1"	6'-0"		A 89	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 90	16	1	1"	6'-0"		A 91	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 92	16	1	1"	6'-0"		A 93	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 94	16	1	1"	6'-0"		A 95	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 96	16	1	1"	6'-0"		A 97	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 98	16	1	1"	6'-0"		A 99	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 100	16	1	1"	6'-0"		A 101	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 102	16	1	1"	6'-0"		A 103	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 104	16	1	1"	6'-0"		A 105	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 106	16	1	1"	6'-0"		A 107	16	1	7'-0"	2	C	10'-0"	1'-0"							
A 108	16	1	1"	6'-0"</																



Revised 5-8-52 - Top of pier elevations
and dimension A

Commonwealth of Pennsylvania



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BRIDGE UNIT

PENCOYD VIADUCT
ELEVEN SPAN CONTINUOUS GIRDER BRIDGE
CARRYING

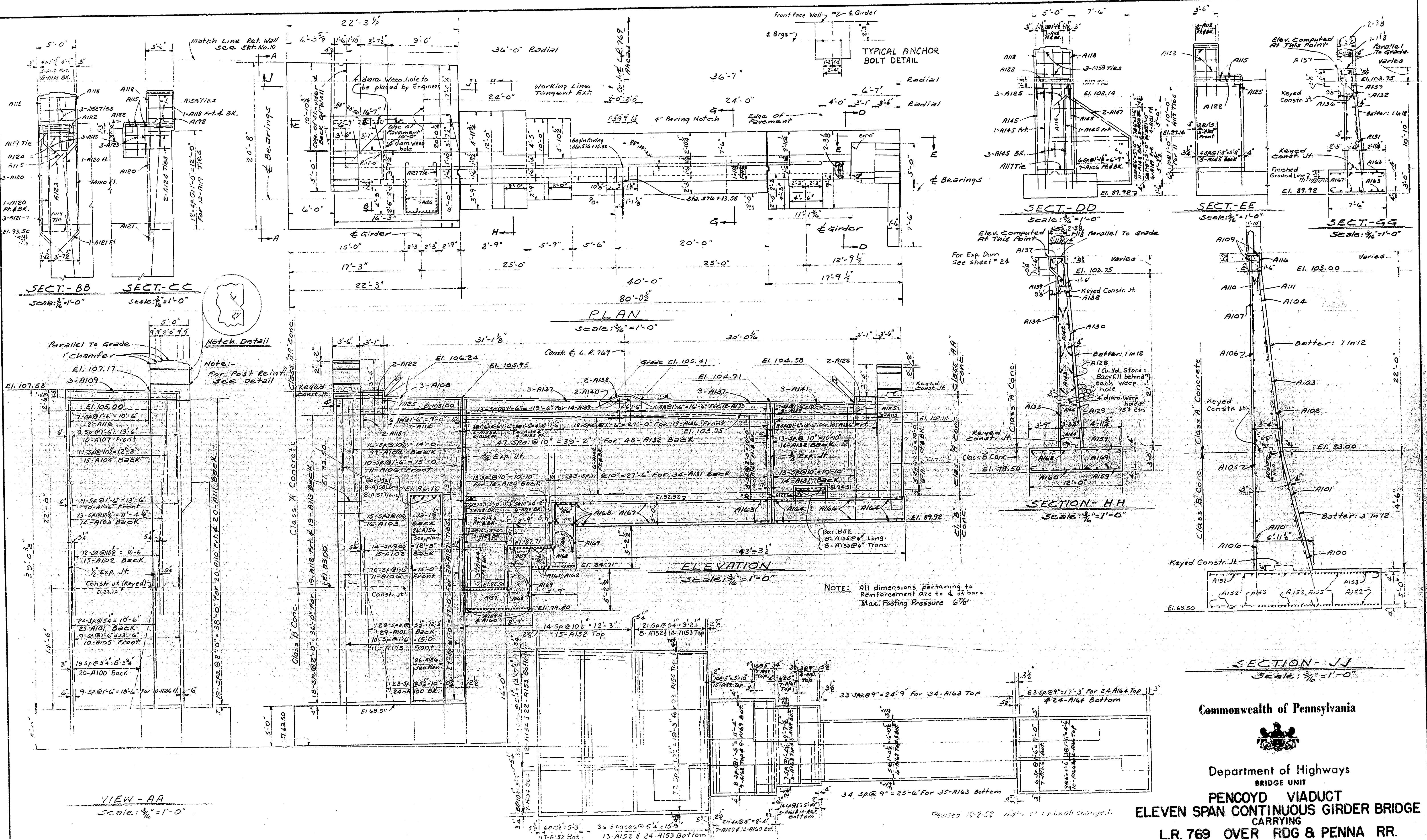
LR. 769 OVER RDG & PENNA RR.
STA. 568+70.43
MONTGOMERY CO.

PIERS

NO. 5R, 6R, 7L, 7R, BL, 8R, JOL
SCALE AS SHOWN
SHEET 6 OF 29

DRAWING NO. S-1804

PIER	No	SIZE	LENGTH	TYPE	SKETCH	A	B	C	H	J	REMARKS
PIER 1-1											
	54	16"	16'-0"	STR.							
	54	1"	17'-9"	STR.							
	54	18"	10'-0"	STR.							
	25	8"	13'-2"	STR.							
	54	3"	11'-6"	STR.							
	10		10'-0"								
	9	24"	17'-6"	STR.							
	20	32"	15'-6" to 19'-2"	STR.							
	71-L	17	8'-2"	STR.							
	21-L	8	12'-2"	STR.							
PIER 1-2											
	14-R	54	1"-0	10'-0"	STR.						
	DI-R	54	8"-7"	1	STR.	1'-3"	B-9"	C			
	24	8"	12'-5"	1	STR.	10"	11'-6"				
	61-R	12	24"	10'-9"	STR.						
	11-R	25	1"-0"	18'-2"	STR.						
	26	8"-8"	16'-0"	1	STR.	1'-1"	16'-0"				
	71-R	36	8"-6"	18'-8" to 16'-11"	STR.						
	PI-R	17	8"-6"	8'-2"	STR.						
	RI-R	9	32"	12'-2"	STR.						
PIER 1-3											
	22-L	54	16"	19'-6"	STR.						
	32-L	54	1"-0	17'-9"	STR.						
	22-L	54	18"	10'-0"	1	STR.	1'-3"	B-9"	C		
	F2-L	27	8"-8"	14'-2"	1	STR.	10"	12'-6"			
	GP-L	13	8"-8"	12'-6"	STR.						
	-2-L	26	1"-0"	19'-8"	1	STR.	1'-1"	17'-6"			
	"2-L	10	32"	17'-6"	STR.						
	102	12	8"-8"	15'-8" to 19'-8"	STR.						
	P2-L	17	8"-8"	8'-2"	STR.						
	22-L	9	32"	12'-2"	STR.						
PIER 2-1											
	A2-R	54	1"-0	17'-9"	STR.						
	D2-R	54	9"-7"	1	STR.	1'-1"	B-0"				
	E2-R	22	8"-8"	12'-8"	1	STR.	10"	11'-0"			
	G2-R	12	32"	11'-0"	STR.						
	H2-R	24	1"-0"	18'-2"	1	STR.	1'-1"	16'-0"			
	K2-R	9	4"-8"	16'-0"	STR.						
	T2-R	54	32"	15'-8" to 17'-9"	STR.						
	P2-R	17	8"-8"	8'-2"	STR.						
	R2-R	9	32"	12'-2"	STR.						
PIER 2-2											
	A2-R	54	16"	22'-3"	STR.						
	P3-L	34	1"-0	17'-0"	STR.						
	I2-L	54	18"	10'-0"	1	STR.	1'-3"	B-9"	C		
	36	15"-8"	15'-2"	1	STR.	10"	13'-6"				
	I2-L	72	32"	13'-6"	STR.						
	H2-L	13	32"	20'-6"	1	STR.	1'-1"	18'-6"			
	I2-L	11	32"	18'-6"	STR.						
	T3-L	111	32"	15'-8" to 19'-11"	STR.						
	P3-L	17	8"-8"	8'-2"	STR.						
	23-L	9	32"	12'-2"	STR.						
PIER 2-3											
	A3-R	54	16"	9"-9"	STR.						
	B3-R	54	17"-9"	17"-9"	STR.						
	D3-R	54	18"	10'-0"	1	STR.	1'-3"	B-9"	C		
	F3-R	34	8"-8"	13'-2"	1	STR.	10"	11'-6"			
	E3-R	12	32"	11'-6"	STR.						
	H3-R	26	1"-0"	18'-8"	1	STR.	1'-1"	16'-6"			
	I3-R	9	32"	16'-6"	STR.						
	T3-R	72	32"	15'-8" to 18'-6"	STR.						
	W3-R	17	32"	8'-2"	STR.						
	X3-R	9	32"	12'-2"	STR.						
PIER 2-4											
	A4-L	54	16"	23'-8"	STR.						
	B4-L	54	1"-0"	17'-9"	STR.						
	D4-L	54	18"	10'-0"	1	STR.	1'-3"	B-9"	C		
	F4-L	32	32"	14'-10"	1	STR.	8"	13'-6"			
	G4-L	14	32"	13'-6"	STR.						
	H4-L	32	72"	26'-2"	1	STR.	10"	18'-6"			
	I4-L	11	32"	18'-6"	STR.						
	J4-L	114	32"	15'-8" to 20'-2"	STR.						
	K4-L	11	32"	8'-2"	STR.						
	R4-L	9	32"	12'-2"	STR.						
PIER 2-5											
	A5-L	54	18"	17'-3"	STR.						
	B5-L	54	1"-0"	17'-9"	STR.						
	C5-L	54	10'-0"	1	STR.	1'-3"	B-9"	C			
	D5-L	32	32"	16'-10"	1	STR.	8"	11'-6"			
	E5-L	13	32"	11'-6"	STR.						
	F5-L	9	32"	10'-8"	STR.						
	G5-L	9	32"	17'-6"	STR.						
	H5-L	11	32"	15'-5" to 19'-5"	STR.						
	I5-L	7	32"	8'-2"	STR.						
	J5-L	7	32"	12'-2"	STR.						
PIER 2-6											
	A6-L	54	16"	23'-8"	STR.						
	B6-L	54	1"-0"	17'-9"	STR.						
	C6-L	54	18"	10'-0"	1	STR.	1'-3"	B-9"	C		
	D6-L	34	32"	14'-4"	1	STR.	8"	13'-0"			
	E6-L	24	32"	13'-0"	STR.						
	F6-L	28	1"-8"	21'-8"	1	STR.	1'-1"	19'-6"			
	KG-L	10	32"	19'-6"	STR.						
	TG-L	123	32"	15'-8" to 20'-6"	STR.						
	PG-L	17	32"	8'-2"	STR.						
	RG-L	9	32"	12'-2"	STR.						
PIER 6-1											
	A6-R	36	1"-0</td								



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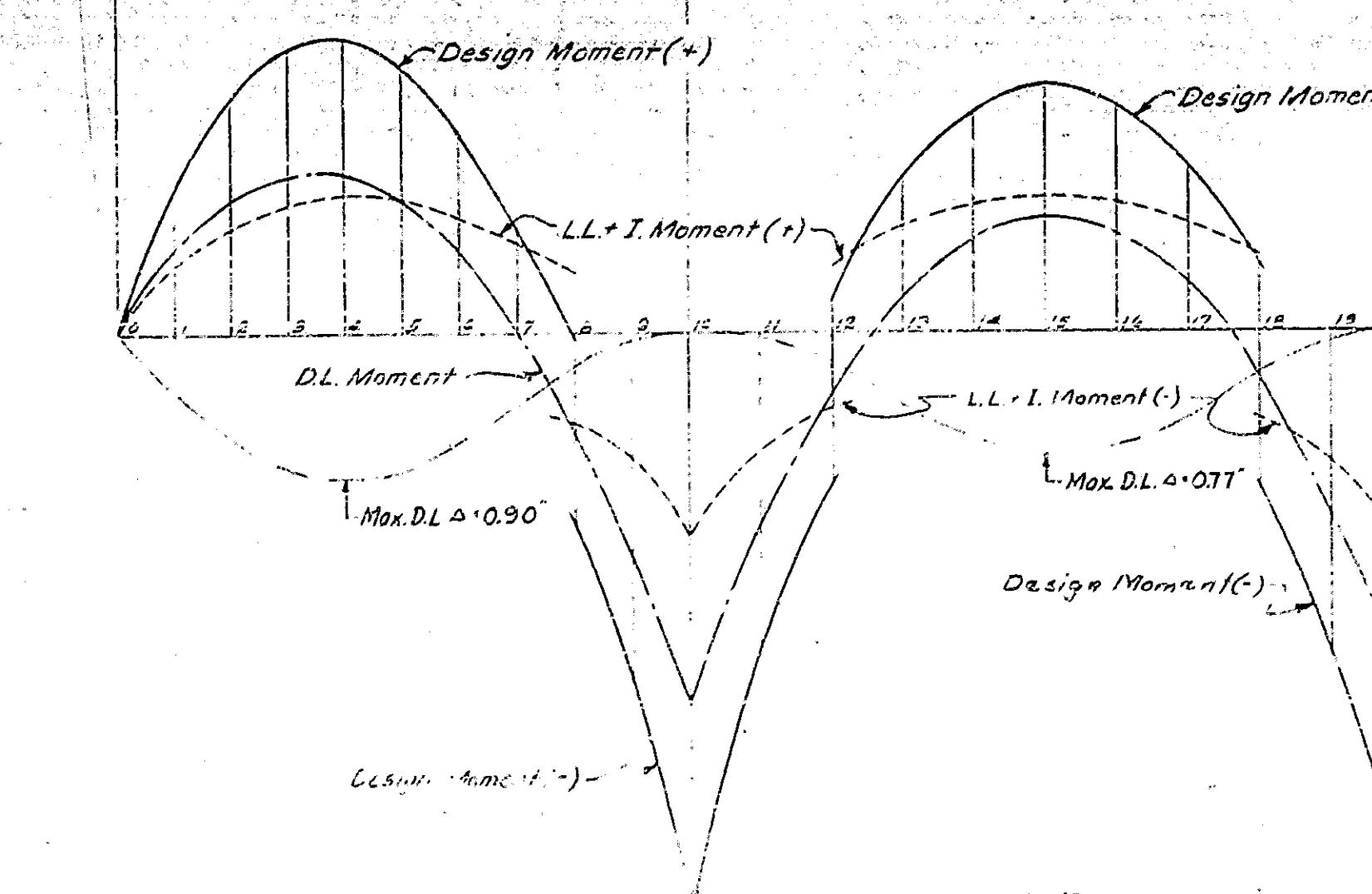
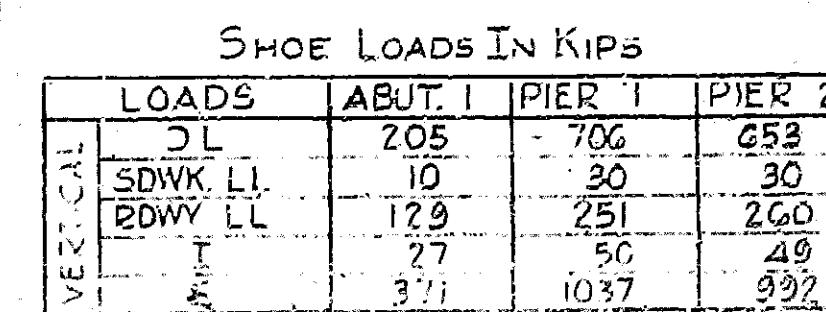
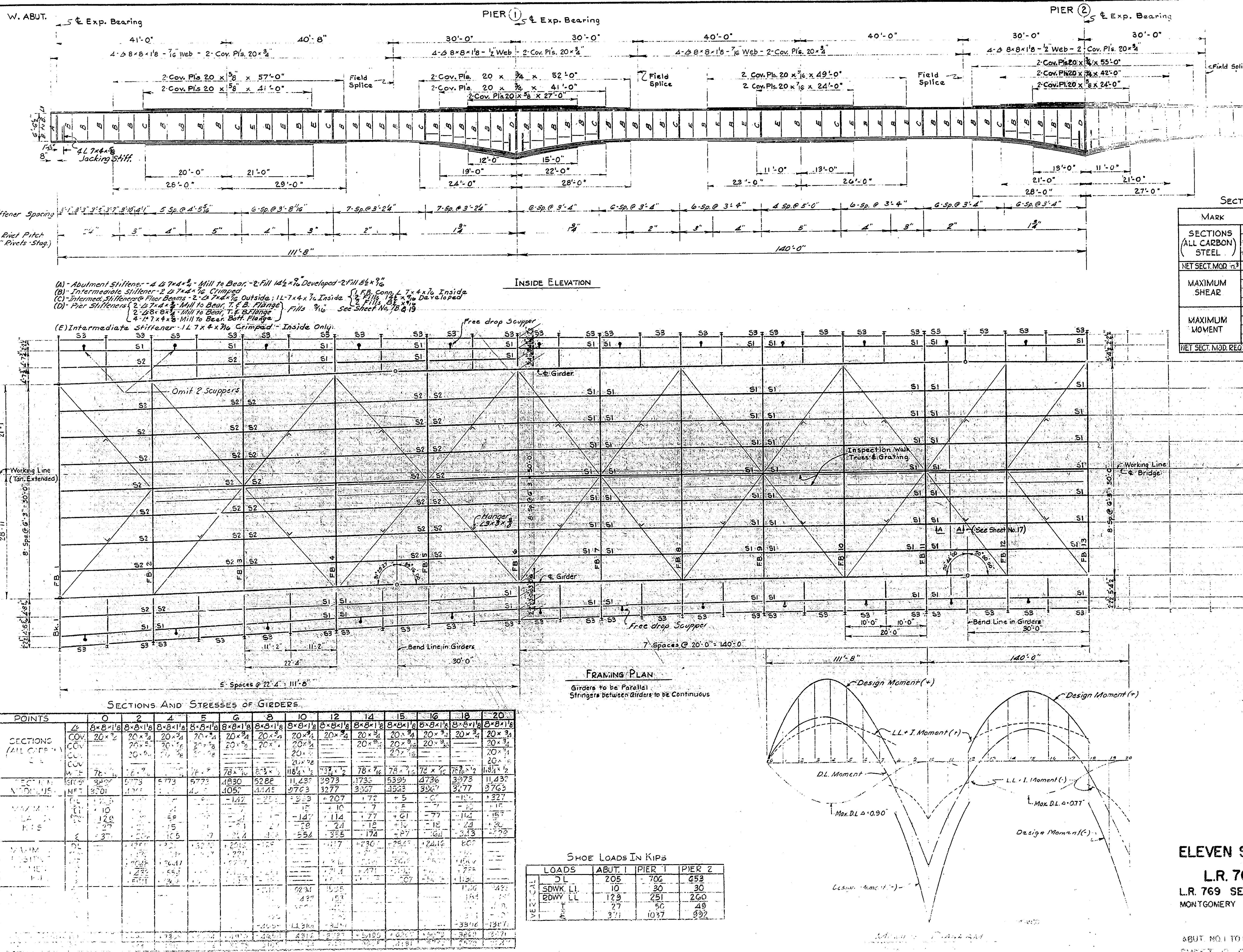
STA. 568+70.43
MONTGOMERY CO.
LOWER MERION TWP.

ABUT. NO. 2 & DETAILS

SCALE: $\frac{3}{16}$ " = 1'-0"

DRAW'G NO. S1804

SHEET 9 OF 29



NOTES:
Material: Structural Steel ASTM A7-46
except as noted.
Rivets: 7/8"

Commonwealth of Pennsylvania

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L.R. 769 OVER RDG & PENNA RR.
L.R. 769 SEC. 2C STA. 568 +70.43
MONTGOMERY CO. LOWER MERION TWP.

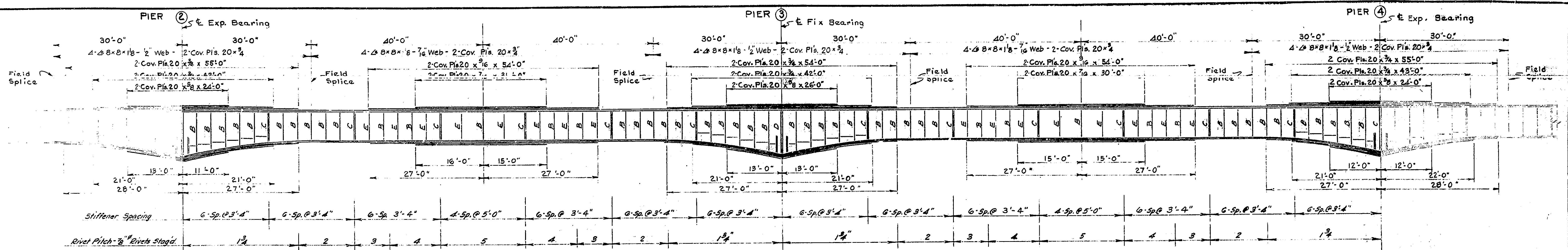
STEEL PLAN

ABUT. NO. 1 TO PIER NO. 2 SCALE 3/32" = 1'-0"

C. 1900

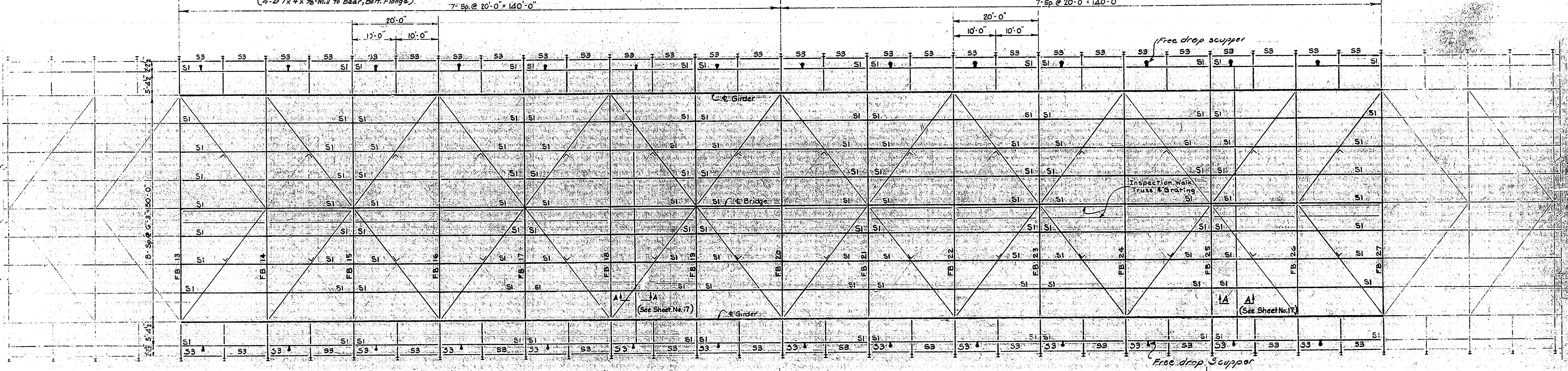
STEEL PLAN

Digitized by srujanika@gmail.com



(B) Intermediate Stiffeners - 2-6 7x4x $\frac{1}{2}$ Cimped
(C) Intermed. Stiffeners @ Floor Beams - 2-6 7x4x $\frac{1}{2}$ Outside - 1L-7x4x $\frac{1}{2}$ Inside, 1-F.B. Conn. L-7x4x $\frac{1}{2}$ Inside, 2-Fills 8 $\frac{1}{2}$ x $\frac{1}{2}$ Devolopad, 2-Fills 8 $\frac{1}{2}$ x $\frac{1}{2}$.
(D) Pier Stiffeners - 2-6 7x4x $\frac{1}{2}$ Mill to Bear, T.F.B. Flange Fills 9 $\frac{1}{2}$ " See Sheet No. 1B & 19
(2-6 8x8x $\frac{1}{2}$ -Mill to Bear, T.F.B. Flange)
(4-6 7x4x $\frac{1}{2}$ -Mill to Bear, T.F.B. Flange)
(4-6 7x4x $\frac{1}{2}$ -Mill to Bear, Batt. Flange)
7-Sp. @ 20'-0" = 140'-0"

INSIDE ELEVATION



FRAMING PLAN

Stringers between Girders to be Continuous

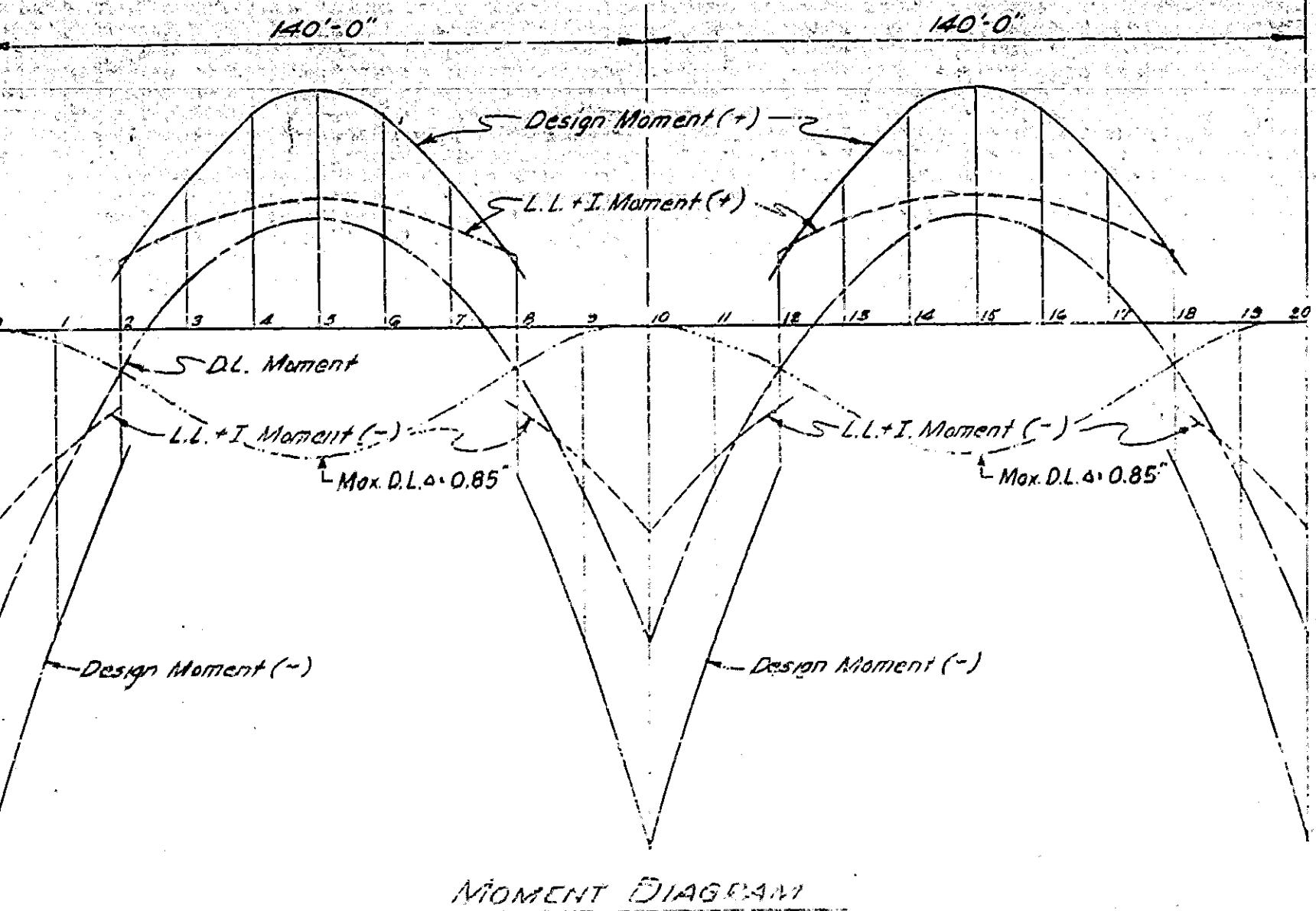
SECTIONS AND STRESSES OF GIRDERS

POINTS	0	2	4	5	6	8	10	12	14	15	16	18	20
ZS	8x8x1 $\frac{1}{2}$												
COV. A.1. CARBON STELL	20x $\frac{3}{4}$												
COV. 20x $\frac{3}{4}$													
COV. 20x $\frac{3}{4}$													
COV. 20x $\frac{3}{4}$													
WEB 116x $\frac{1}{2}$	76x $\frac{1}{2}$	76x $\frac{1}{2}$	76x $\frac{1}{2}$	76x $\frac{1}{2}$	76x $\frac{1}{2}$	76x $\frac{1}{2}$	76x $\frac{1}{2}$	76x $\frac{1}{2}$	76x $\frac{1}{2}$	76x $\frac{1}{2}$	76x $\frac{1}{2}$	76x $\frac{1}{2}$	76x $\frac{1}{2}$
SECTION MODULUS IN. ² NET	11,432	3973	5395	5395	3973	11,432	3973	5395	5395	3973	11,432	3973	5395
MAXIMUM SHEAR IN KIPS.	-327	+196	+65	-1	-66	-197	-328	+197	+66	+1	-65	-196	-327
RPM	+15	+11	+7	-5	-7	-11	+7	+11	+5	-7	-11	-16	
RPM	+157	+117	+80	+64	-80	-117	+157	+118	+81	+65	-81	-118	-158
T	+30	+25	+19	-16	-19	-25	+30	+25	+19	-17	-19	-25	-30
Z	+38	+349	+171	-84	-172	-350	+38	+351	+173	+89	-172	-350	-381
MAXIMUM POLY. IN. MOMEN. F.T. KIPS													
DLL	-785	+2526	+2973	+2204	-831	-834	+2493	+2922	+2512	-798	-846	-846	-846
DL	+13	+232	+271	+255	+139	+138	+256	+274	+256	+138	-163	-174	-174
DL	-1478	-2354	+2698	+2568	-1520	-1504	+2570	+2714	+2570	+1505	-1637	-1742	-1742
DL	-53	-490	-510	-495	-287	-284	+486	+513	+486	+284	-312	-86	-86
DL	-1073	-5800	+6152	+5812	-1115	-1092	+3807	+6463	+5824	+1129	-3207	-1409	-1409
MAXIMUM DISPLACEMENT IN. FT.	-8.136	-11.22	-	-	-1187	-8.137	-1192	-	-	-1140	-8461	-	-
MAXIMUM DISPLACEMENT IN. FT.	-4.22	173	-	-	-160	-4.72	-185	-	-	-163	-474	-	-
MAXIMUM DISPLACEMENT IN. FT.	-15.22	-	-	-	-1821	-14.22	-1667	-	-	-1657	-4216	-	-
MAXIMUM DISPLACEMENT IN. FT.	-3.22	-	-	-	-307	-4.22	-2667	-	-	-312	-86	-	-
MAXIMUM DISPLACEMENT IN. FT.	-27.3	-	-	-	-3204	-4.22	-3204	-	-	-3207	-1409	-	-

SHOE LOAD IN KIPS

LOADS	PIER 2	PIER 3	PIER 4
DL	G53	G56	G53
SDWK. LL	90	31	31

LOADS	PIER 2	PIER 3	PIER 4
KDWY. LL	260	263	264
T	49	50	50



See Sheet No. 12 for Notes

Commonwealth of Pennsylvania

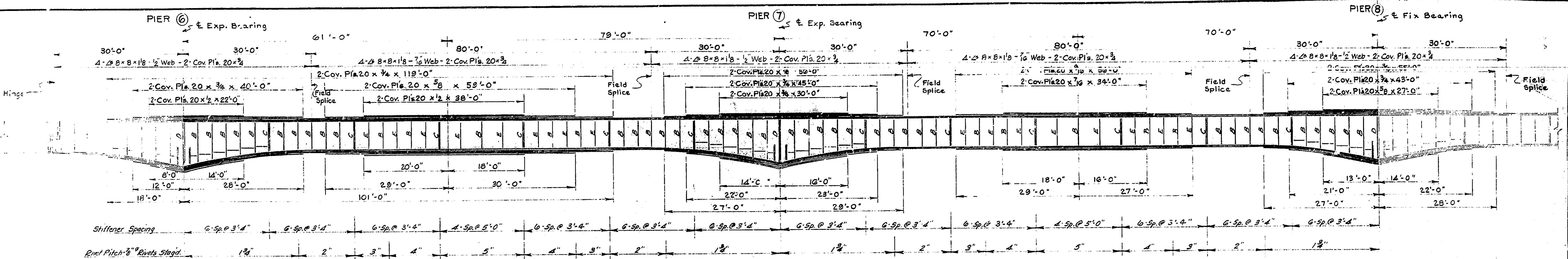


Department of Highways
BRIDGE UNIT
PENCOYD VIADUCT
ELEVEN SPAN CONTINUOUS GIRDER BRIDGE
CARRYING
L.R. 769 OVER RDG & PENNA RR.

L.R. 769 SEC. 20
STA. 568+70.43
MONTGOMERY CO.

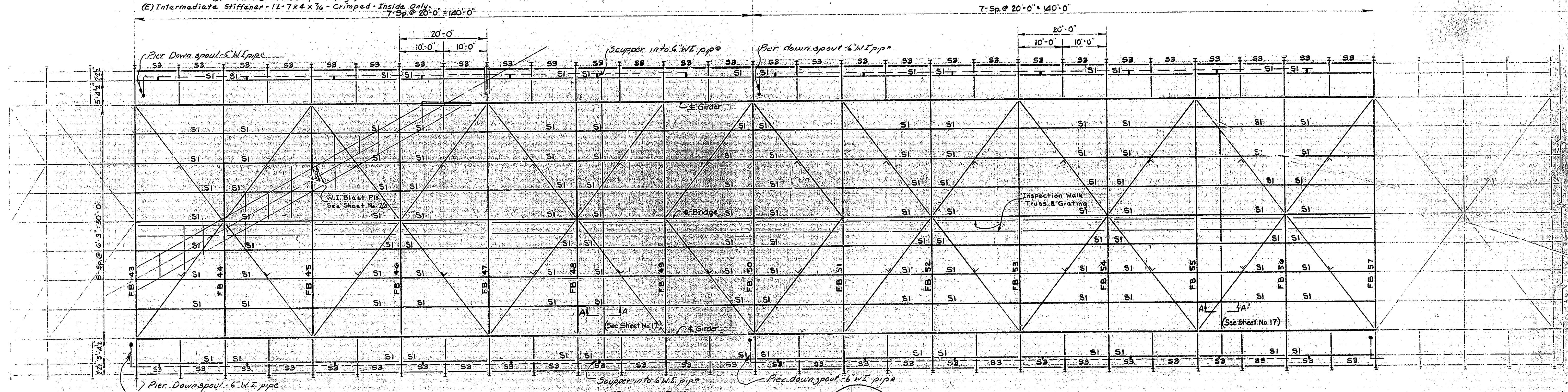
STEEL PLAN
PIER NO. 2 TO PIER NO. 4 SCALE 1/32'-0"

SHEET 3 OF 29 DRAWN NO. S1804

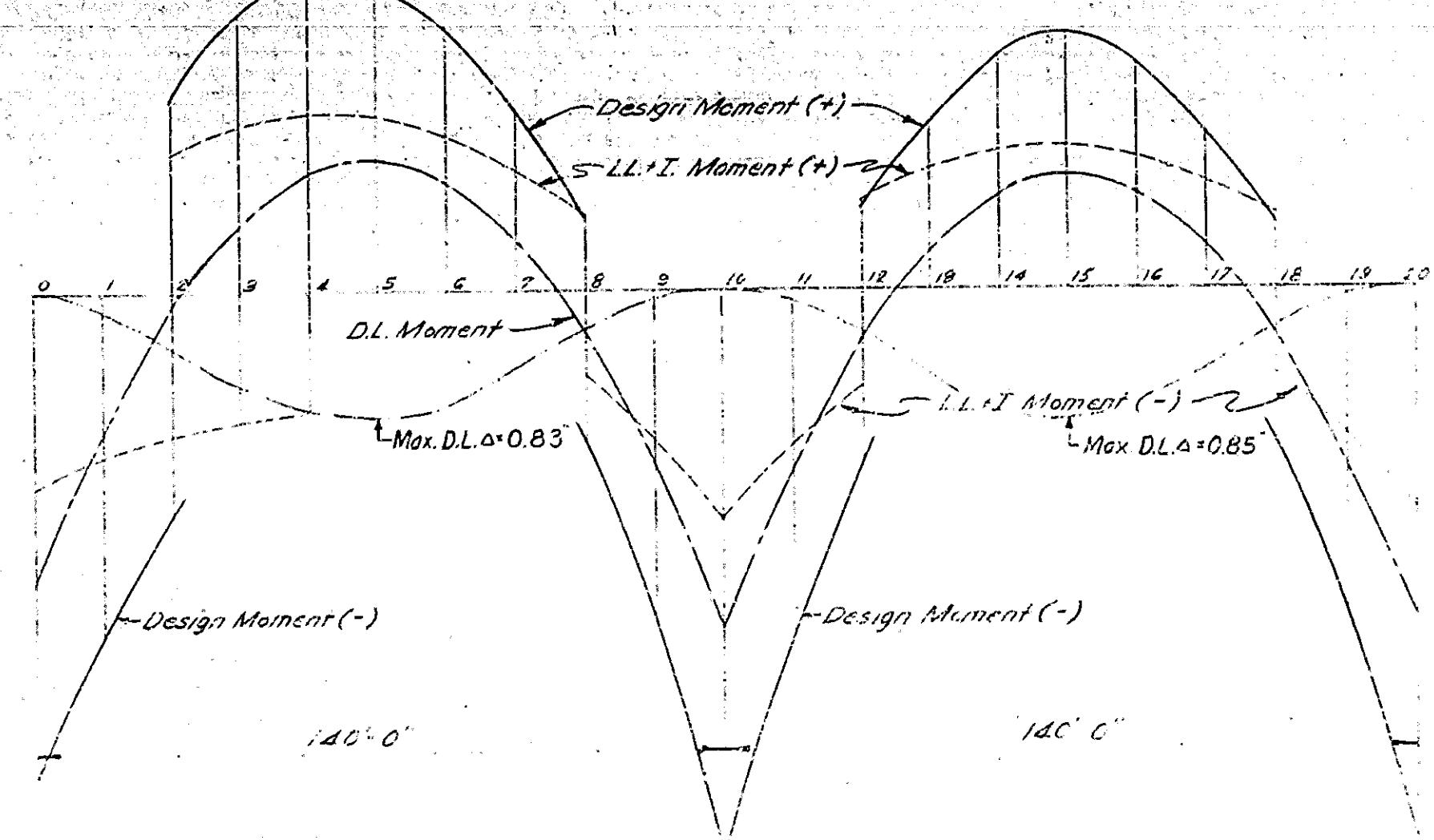
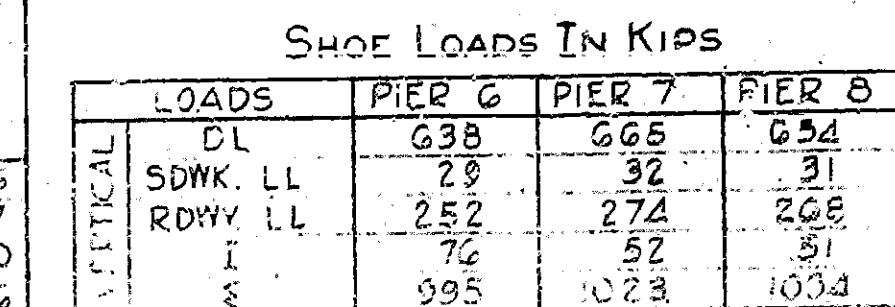


(B) - Intermediate Stiffeners - 2-L₇x4x⁷₁₆ Crimped.
 (C) - Intermediate Stiffeners @ F.I. Beams - 2-L₇x4x⁷₁₆ Outside; 1-L₇x4x⁷₁₆ Inside; 1-F.B. Conn. L₇x4x⁷₁₆ Inside
 (D) - Pier Stiffeners { 2-L₇x4x³₈ Mill to Bear, T. & B. Flange. } Fills 9¹₁₆" See Sheet No. 18 & 19
 { 2-L₈x2x³₄ Mill to Bear, T. & B. Flange. }
 { 4-L₇x4x³₈ Mill to Bear, Bott. Flange }
 (E) Intermediate Stiffeners - 1-L₇x4x⁷₁₆ - Crimped - Inside Only.

INSIDE ELEVATION



SECTIONS AND STRESSES OF GIRDERS



See Sheet No. 12 for Notes.

Commonwealth of Pennsylvania



**Department of Highways
BRIDGE UNIT**

PENCOYD VIADUCT
PHILADELPHIA, PENNSYLVANIA

**ELEVEN SPAN CONTINUOUS GIRDER BRIDGE
CARRYING
I.B. 769 OVER RDG & PENNA. RR**

L.R. 769 OVER RDG & PENNA RR.

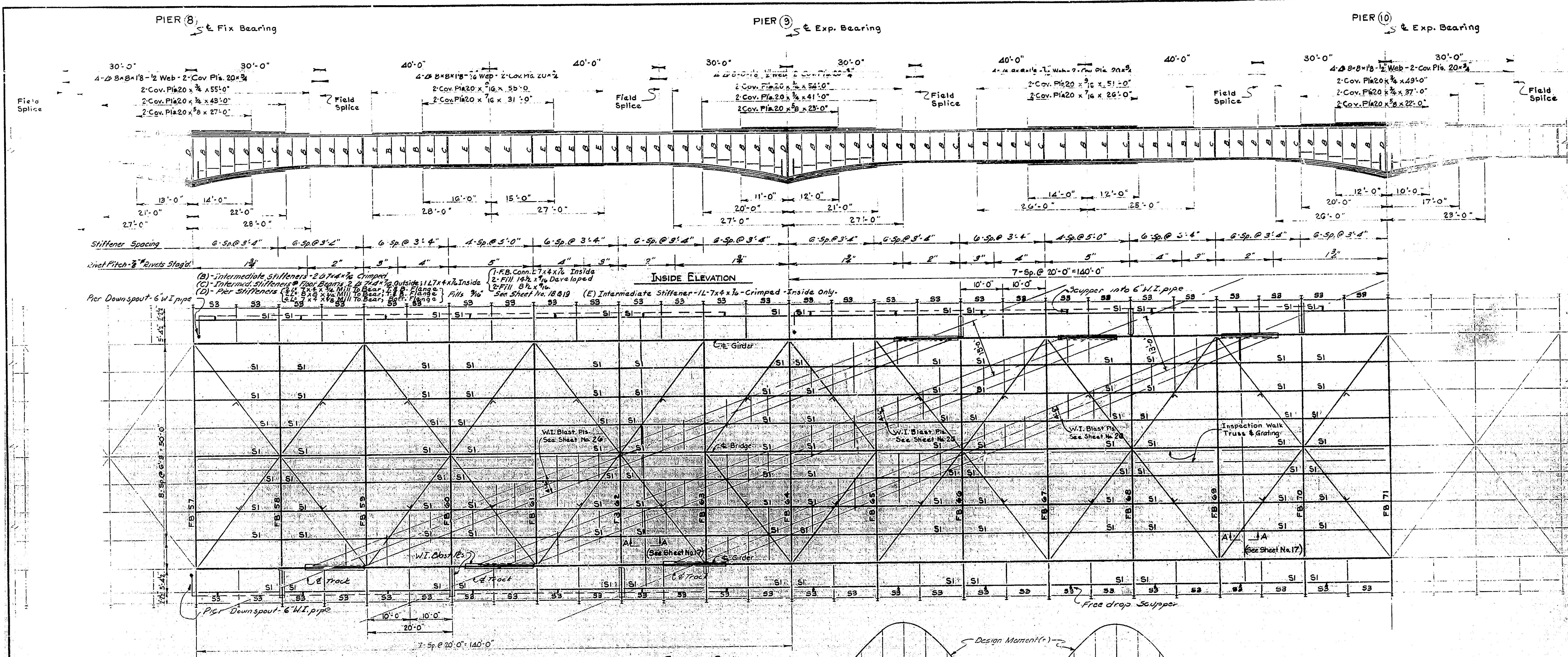
769 SEC. 2C STA. 566+70.43
MONTGOMERY CO. LOWER MERION TWP.

STEEL PLAN.

3 NO 6 10 MILE NO 3 0061 E 3/32° 1-0

STEEL PLAN

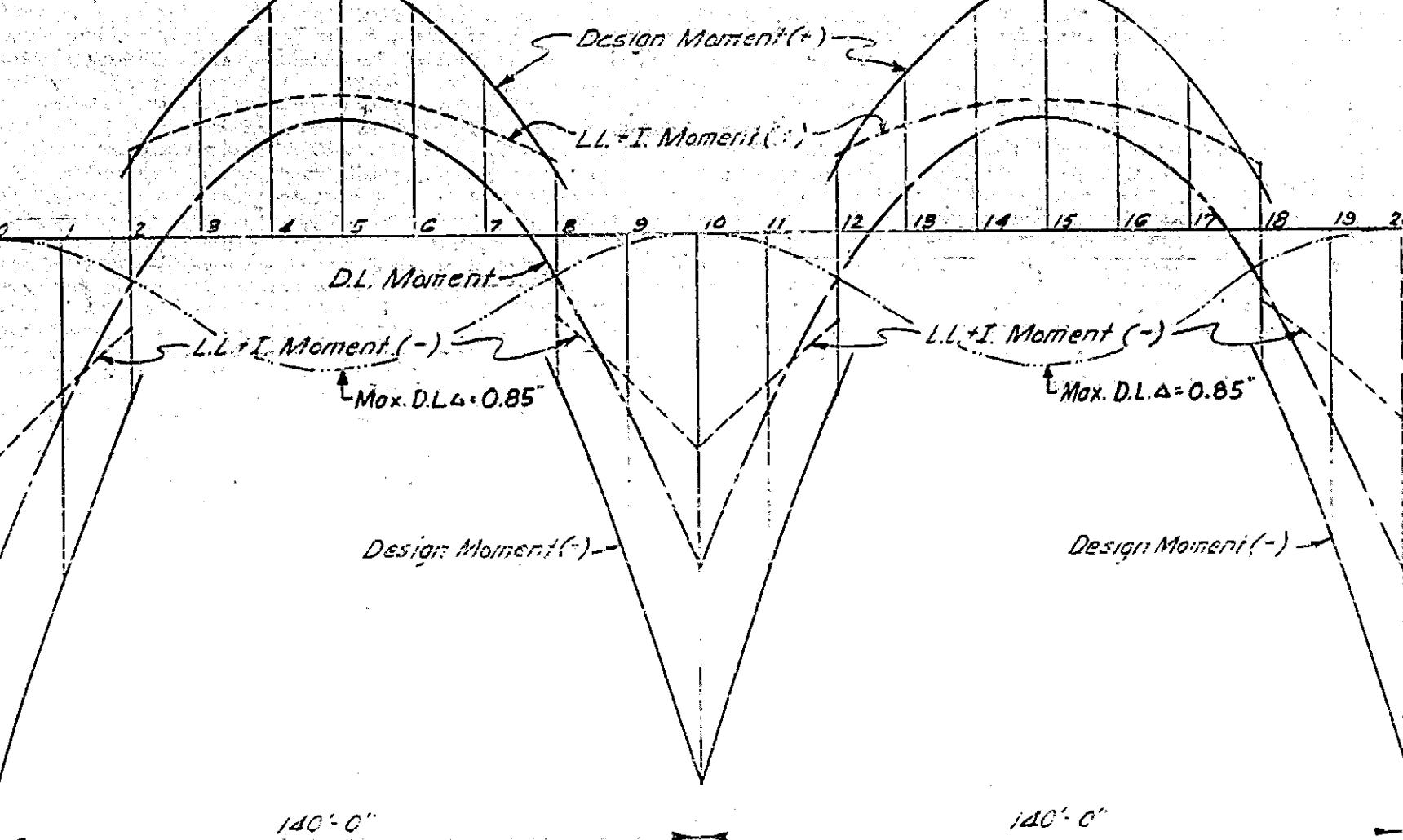
PER NO 6 TO DIFF NO 8 SCALE 3/32" = 1'-0" DRAWN BY G. BROS



POINTS	0	2	4	5	6	8	10	12	14	15	16	18	20
L	8x8x16	8x8x18	5x5x18	5x5x18	6x8x18	8x8x18	8x8x18	8x8x18	8x8x18	8x8x18	8x8x18	8x8x18	8x8x18
O.V.	20x3	20x3	20x3	20x3	20x3	20x3	20x3	20x3	20x3	20x3	20x3	20x3	20x3
O.V.	20x3	—	20x3	20x3	20x3	—	20x3	—	20x3	20x3	20x3	20x3	20x3
O.V.	20x3	—	20x3	20x3	20x3	—	20x3	—	20x3	20x3	20x3	20x3	20x3
O.V.	20x3	—	20x3	20x3	20x3	—	20x3	—	20x3	20x3	20x3	20x3	20x3
WEB	118x12	78x12	78x12	78x12	75x12	118x12	78x12	78x12	78x12	78x12	78x12	118x12	118x12
L.R. 769	11,432	3,973	5,995	5,935	3,973	11,432	3,973	4,737	5,395	4,737	3,973	3,973	11,432
L.E.T	9763	3,277	4,563	4,563	3,277	9,763	3,277	4,563	3,967	3,277	9,763	—	—
DL	-372	+196	+65	0	-66	-197	-328	+195	+64	-1	-67	-198	-329
D.P.	-16	+11	+7	-6	-7	-11	-16	+10	+7	-5	-7	-16	-15
P.D.	-160	+118	+81	-65	-81	-118	-158	+114	+77	-61	-77	-114	-152
F.	-30	+25	+19	-17	-19	-25	-30	+24	+18	-16	-18	-24	-31
X	-532	-350	+172	88	-173	-351	-532	-343	+166	-83	-169	-346	-529
D.L.	-791	+2538	+2536	-795	—	-823	-2458	+2899	+2422	-898	—	—	—
D.P.	-152	+262	+275	-253	+128	-142	+246	+255	+228	+89	—	—	—
P.D.	+1676	+2698	+2789	+2553	+1440	+1532	+2517	+2608	+2482	+1388	—	—	—
F.	-306	+197	+517	-483	+272	-290	+476	+492	+469	+253	—	—	—
X	+1287	+5925	+653	-6325	+1045	+1141	+5697	+6249	+5601	+782	—	—	—
P.A.G.C	-130	—	—	-136	-8476	-175	—	—	—	-1283	8658	—	—
D.P.	-195	—	—	-173	-405	-187	—	—	—	-138	-410	—	—
P.D.	173	173	—	-1593	-4216	-1705	—	—	—	-1379	-3663	—	—
F.	239	239	—	-301	-797	-372	—	—	—	-278	-729	—	—
X	4257	4257	—	-3238	-15,959	-3239	—	—	—	-3074	-13,404	—	—
D.L.	-130	—	—	-136	-8476	-175	—	—	—	-1283	8658	—	—
D.P.	-195	—	—	-173	-405	-187	—	—	—	-138	-410	—	—
P.D.	173	173	—	-1593	-4216	-1705	—	—	—	-1379	-3663	—	—
F.	239	239	—	-301	-797	-372	—	—	—	-278	-729	—	—
X	4257	4257	—	-3238	-15,959	-3239	—	—	—	-3074	-13,404	—	—

OAD'S	PIER 8	PIER 9	PIER 10
DL	654	684	669
SDWHL	31	31	29
SDWY LL	268	262	249
I	51	50	50
E	1004	397	324

MOMENT DIAGRAM
Scale: Horiz 1/30' C
Vert 1' 5000' X



See Sheet No. 12 for Notes

Commonwealth of Pennsylvania



Department of Highways

BRIDGE UNIT

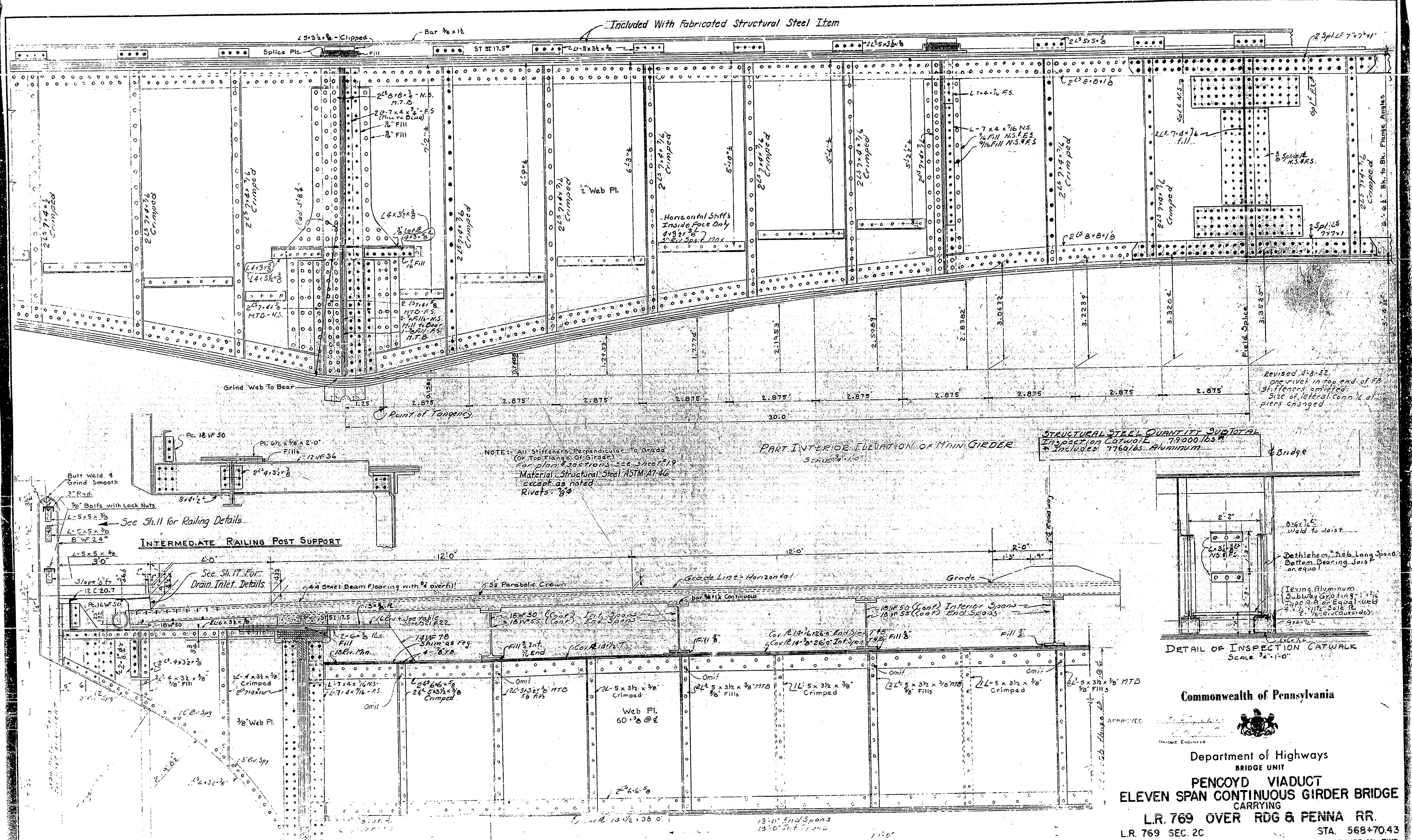
PENCOYD VIADUCT
ELEVEN SPAN CONTINUOUS GIRDER BRIDGE
CARRYING
L.R. 769 OVER RDG & PENNA RR.

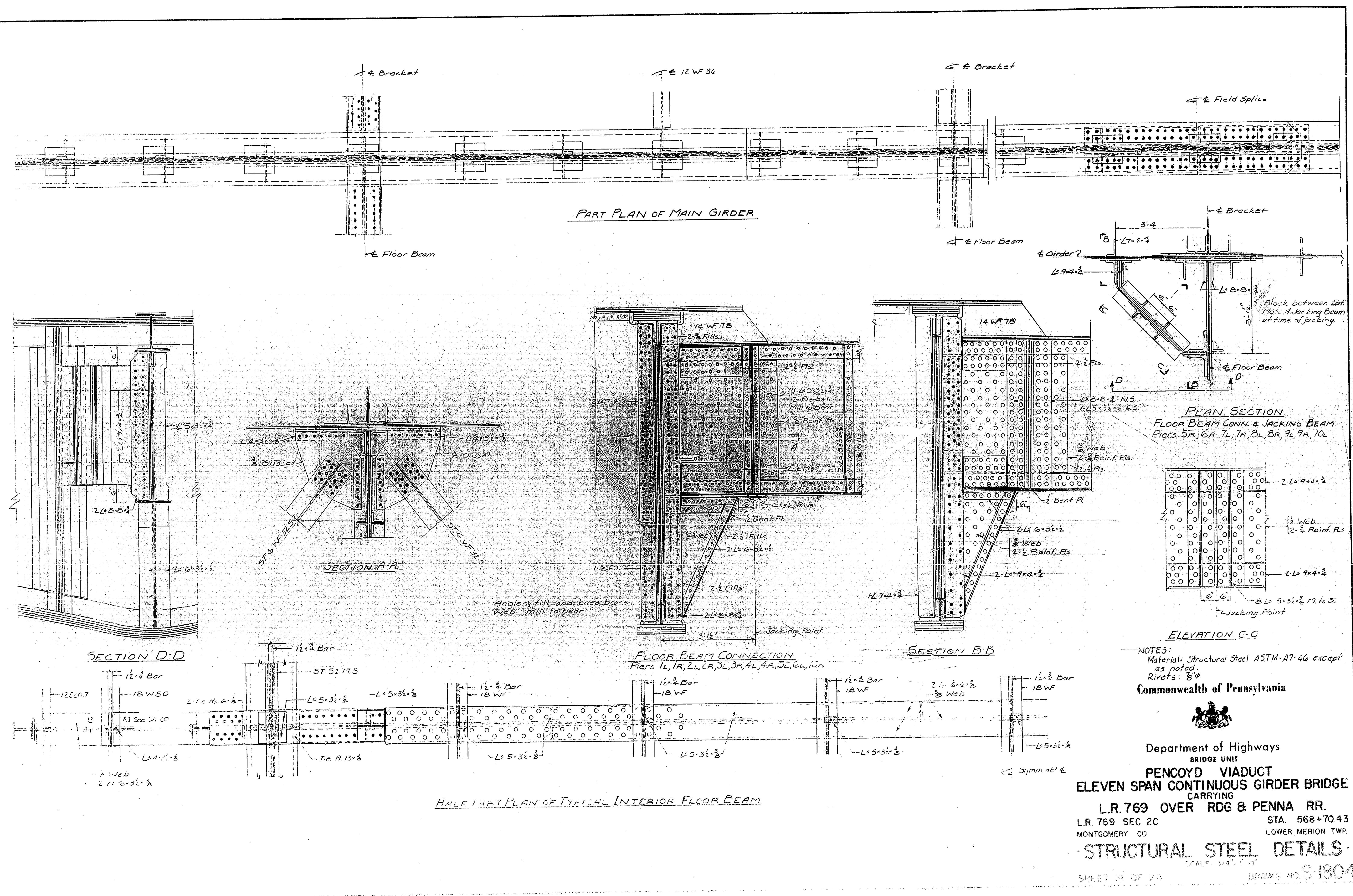
L.R. 769 SEC. 2C
STA. 568+70.43
MONTGOMERY CO.

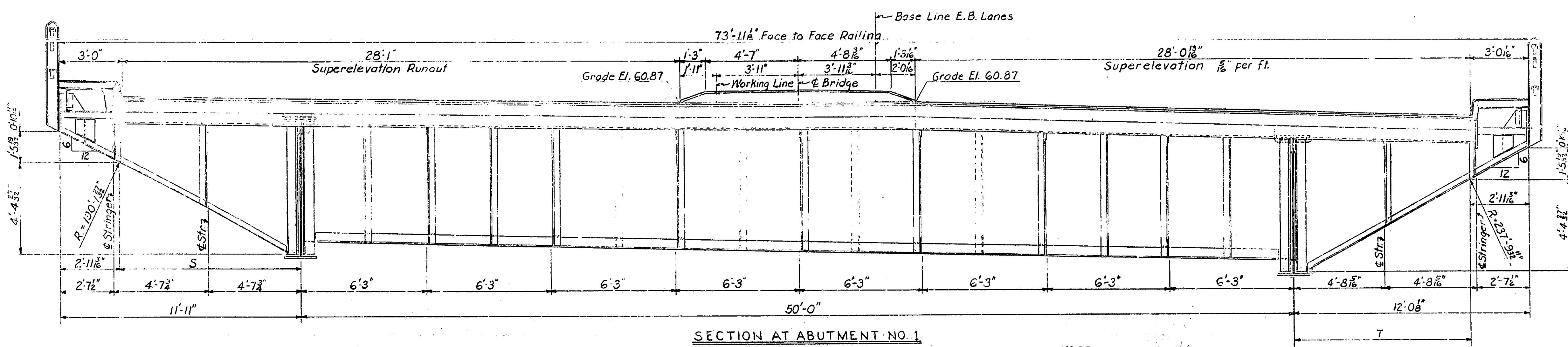
STRAIGHT
LOWER MERION TWP.

STEEL PLAN

FROM AND P. L. WILSON INC. SCALE 1/4" = 50'-0"
DRAWN NO. S-1804



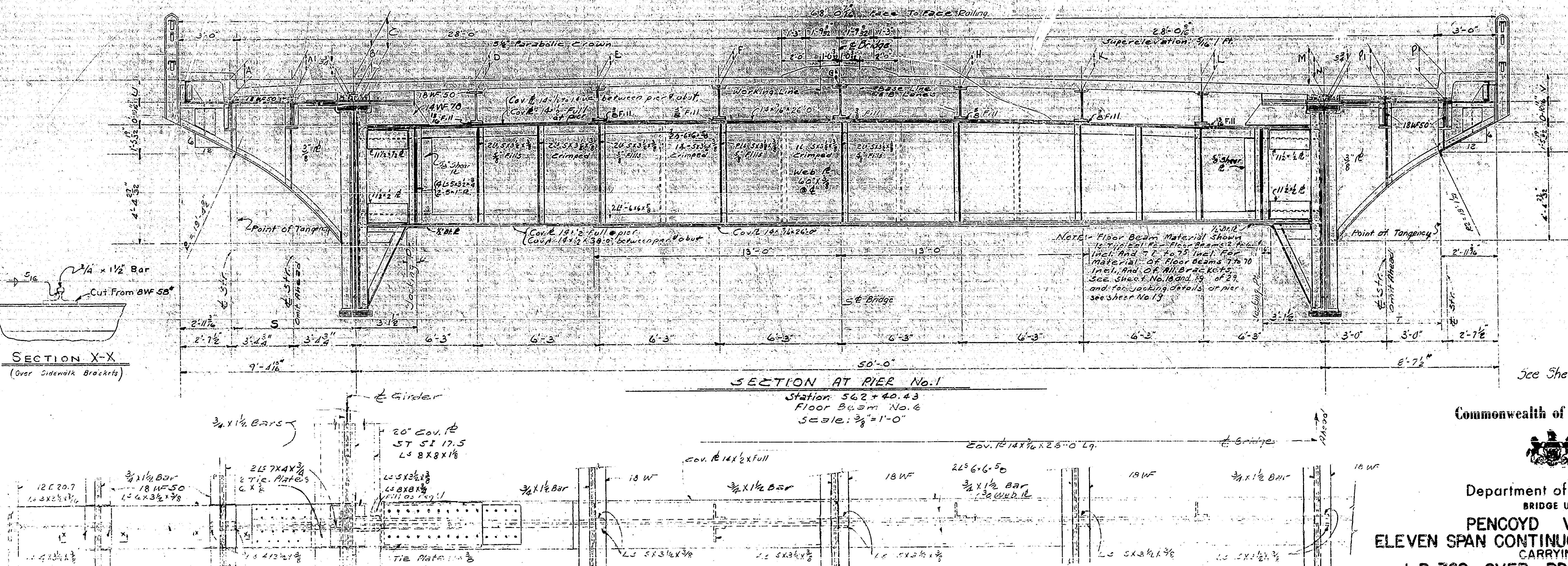




SECTION AT ABUTMENT NO. 1

Sta. 561 + 28.76
Floor Beam No. 1
Scale $\frac{3}{8}$ " = 1'0"

NOTE:
For Top Plan & End Dam Details
See Sheet No. 24
See Sheet 21 for table of dimensions.



See Sheet 19 for notes.

Commonwealth of Pennsylvania



**Department of Highways
BRIDGE UNIT**

**PENCOYD VIADUCT
SPAN CONTINUOUS GIRDER BRIDGE
CARRYING**

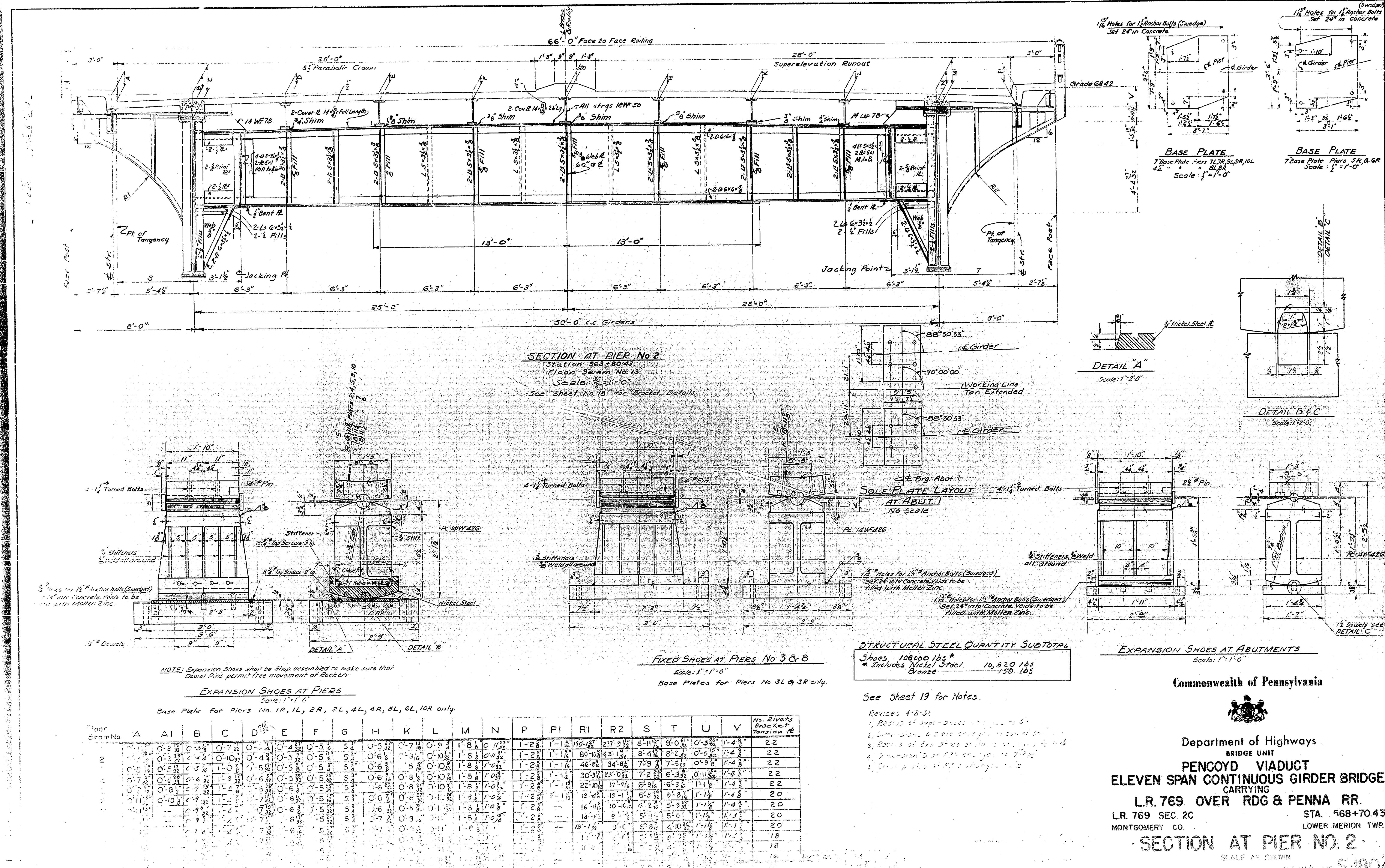
**CARRIAGE
L.R. 769 OVER RDG & PENNA RR.**

L.R. 769 SEC. 2C STA. 568+70.43
MONTGOMERY CO. LOWER MERION TWP.

SECT AT ABOUT 1 & DIED

SECT. AT ABUT. I 8 PIER

2014 RELEASE UNDER E.O. 14176



Commonwealth of Pennsylvania

Department of Highways

BRIDGE UNIT

RENOVATION VIADUCT

PENCOYD VIADUCT
EVEN SPAN CONTINUOUS GIRDERS BRIDGE

CONTINUOUS GIRDER BRIDGE CARRYING

R RDG & PENNA RR.

STA. 568+70.43

STA. 108700-43
LOWER MERION TWP.

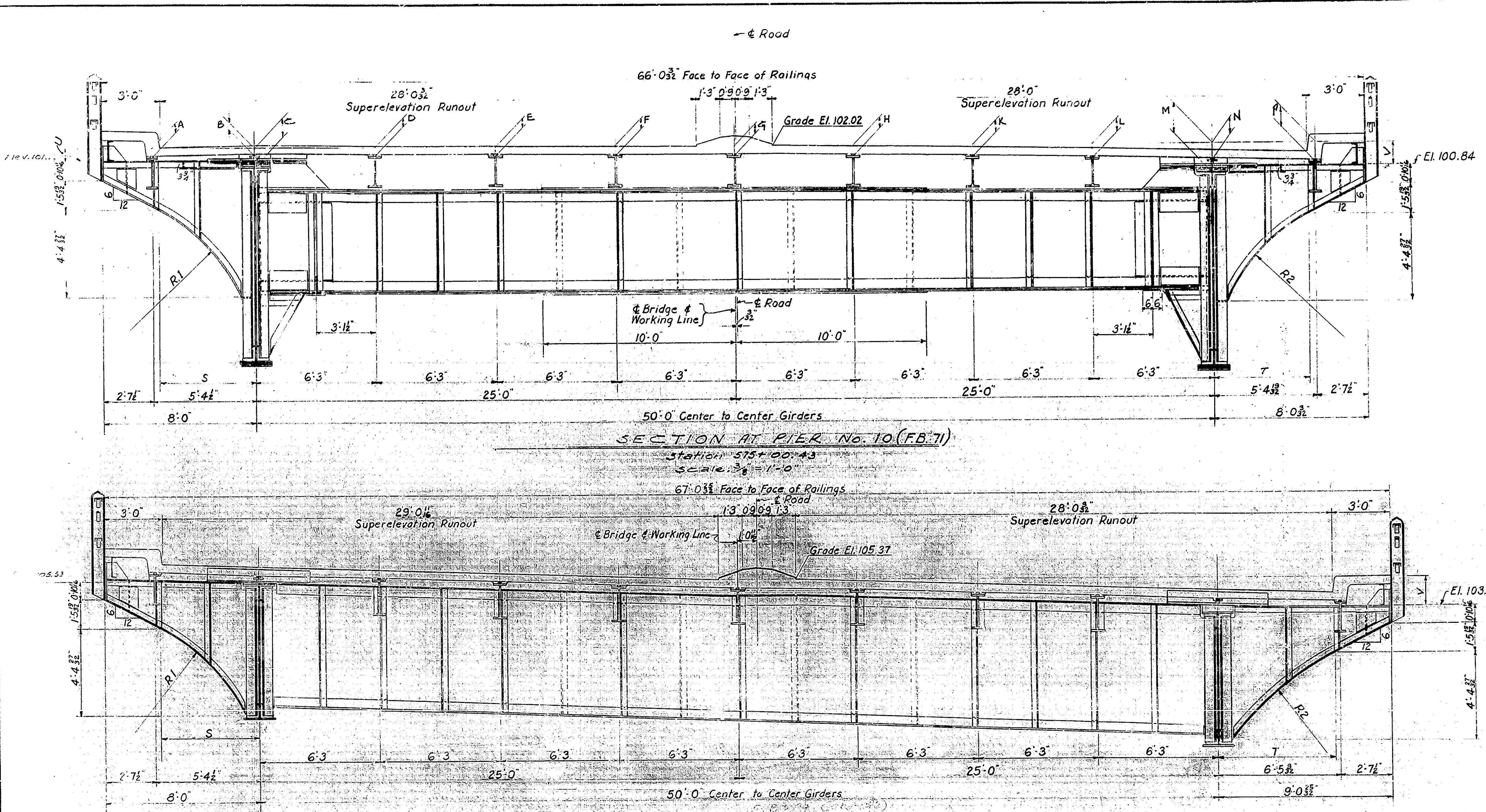
AT DED NO 3.

A PIER IN 2

SCALES AS SHOWN

COMPANY B C D

For more information about the National Institute of Child Health and Human Development, please visit the NICHD website at www.nichd.nih.gov.



See Sheet 19 for notes.

Commonwealth of Pennsylvania



Section	Floor Beam No	A	B	C	D	E	F	G	H	K	L	M	N	P	R1	R2	S	T	U	V	No. Rivet Bracket Tension.
13	68	0' 11 ¹³ / ₃₂	0' 9 ⁵ / ₃₂	1' 4 ⁷ / ₈	0' 7 ²³ / ₃₂	0' 6 ⁷ / ₃₂	0' 5 ³⁹ / ₃₂	0' 5 ³ / ₄	0' 5 ²⁹ / ₃₂	0' 6 ⁷ / ₃₂	0' 7 ²³ / ₃₂	1' 4 ⁷ / ₈	0' 9 ¹⁵ / ₃₂	0' 11 ³ / ₃₂	9' 8 ¹ / ₂	9' 8 ¹ / ₂	5' 0 ¹³ / ₁₆	5' 0 ¹³ / ₁₆	1' 1 ¹ / ₈	1' 1 ¹ / ₈	16
13	69	0' 9 ¹³ / ₃₂	0' 8 ⁵ / ₃₂	1' 4 ⁷ / ₈	0' 7 ¹ / ₃₂	0' 6 ⁴	0' 5 ³¹ / ₃₂	0' 5 ³ / ₄	0' 5 ²³ / ₃₂	0' 6 ¹⁷ / ₃₂	0' 7 ²³ / ₃₂	1' 5 ³ / ₈	0' 9 ¹⁵ / ₃₂	0' 11 ³ / ₃₂	9' 8 ¹ / ₂	9' 8 ¹ / ₂	5' 0 ¹³ / ₁₆	5' 0 ¹³ / ₁₆	1' 1 ¹ / ₈	1' 1 ¹ / ₈	16
13	70	0' 7 ³ / ₃₂	0' 6 ⁵ / ₃₂	1' 3 ³¹ / ₃₂	0' 6 ¹¹ / ₃₂	0' 6 ¹	0' 5 ²⁵ / ₃₂	0' 5 ³ / ₄	0' 5 ²⁹ / ₃₂	0' 6 ¹⁷ / ₃₂	0' 7 ²³ / ₃₂	1' 5 ³ / ₈	0' 9 ¹⁵ / ₃₂	0' 11 ³ / ₃₂	9' 8 ¹ / ₂	9' 8 ¹ / ₂	5' 0 ¹³ / ₁₆	5' 0 ¹³ / ₁₆	0' 11 ³¹ / ₃₂	1' 1 ¹ / ₈	16
13	71	0' 5 ⁴ / ₃₂	0' 5 ⁵ / ₃₂	1' 1 ³ / ₈	0' 5 ¹⁹ / ₃₂	0' 5 ³¹ / ₃₂	0' 5 ³³ / ₃₂	0' 5 ³ / ₈	0' 6 ⁹ / ₃₂	0' 6 ³¹ / ₃₂	0' 8 ¹⁵ / ₃₂	1' 5 ¹⁵ / ₃₂	0' 10 ⁵ / ₃₂	1' 0 ⁵	9' 8 ¹ / ₂	9' 9 ²⁵ / ₃₂	5' 0 ²³ / ₃₂	5' 0 ²³ / ₃₂	0' 9 ²¹ / ₃₂	1' 2 ³ / ₁₆	16
13	72	0' 3	0' 3 ¹³ / ₃₂	0' 3	0' 4 ⁷ / ₈	0' 4 ⁵	0' 5 ⁷ / ₃₂	0' 5 ³ / ₈	0' 6 ³ / ₃₂	0' 7 ⁵ / ₃₂	0' 8 ³ / ₃₂	1' 6 ⁵ / ₃₂	0' 10 ⁷ / ₃₂	1' 0 ³	9' 8	9' 11 ⁵ / ₃₂	5' 1 ³ / ₈	5' 1 ³ / ₈	0' 7 ³ / ₃₂	1' 2 ²³ / ₃₂	16
13	73	0' 1	0' 1	0' 1	0' 1	0' 1	0' 3 ⁵	0' 3 ¹ / ₂	0' 5 ⁵	0' 6 ¹	0' 8 ¹⁵	1' 1 ⁵	0' 13	1' 16	6' 11 ³⁵	1' 16	2' 22	10' 4 ⁶	0' 5 ¹	1' 1 ⁶	16

Department of Highways
BRIDGE UNIT

PENCOYD VIADUCT
ELEVEN SPAN CONTINUOUS GIRDER BRIDGE
CARRYING

L.R. 769 OVER RDG & PENNA RR

L R 769 SEC 2C

STA. 568 +70.43

OWER MERION TWP.

W. H. COOPER & CO.

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BIBLIOGRAPHY

ABU I.

THE HISTORICAL AND LITERARY WORKS OF J. A. FERD. W. ABRAHAM.

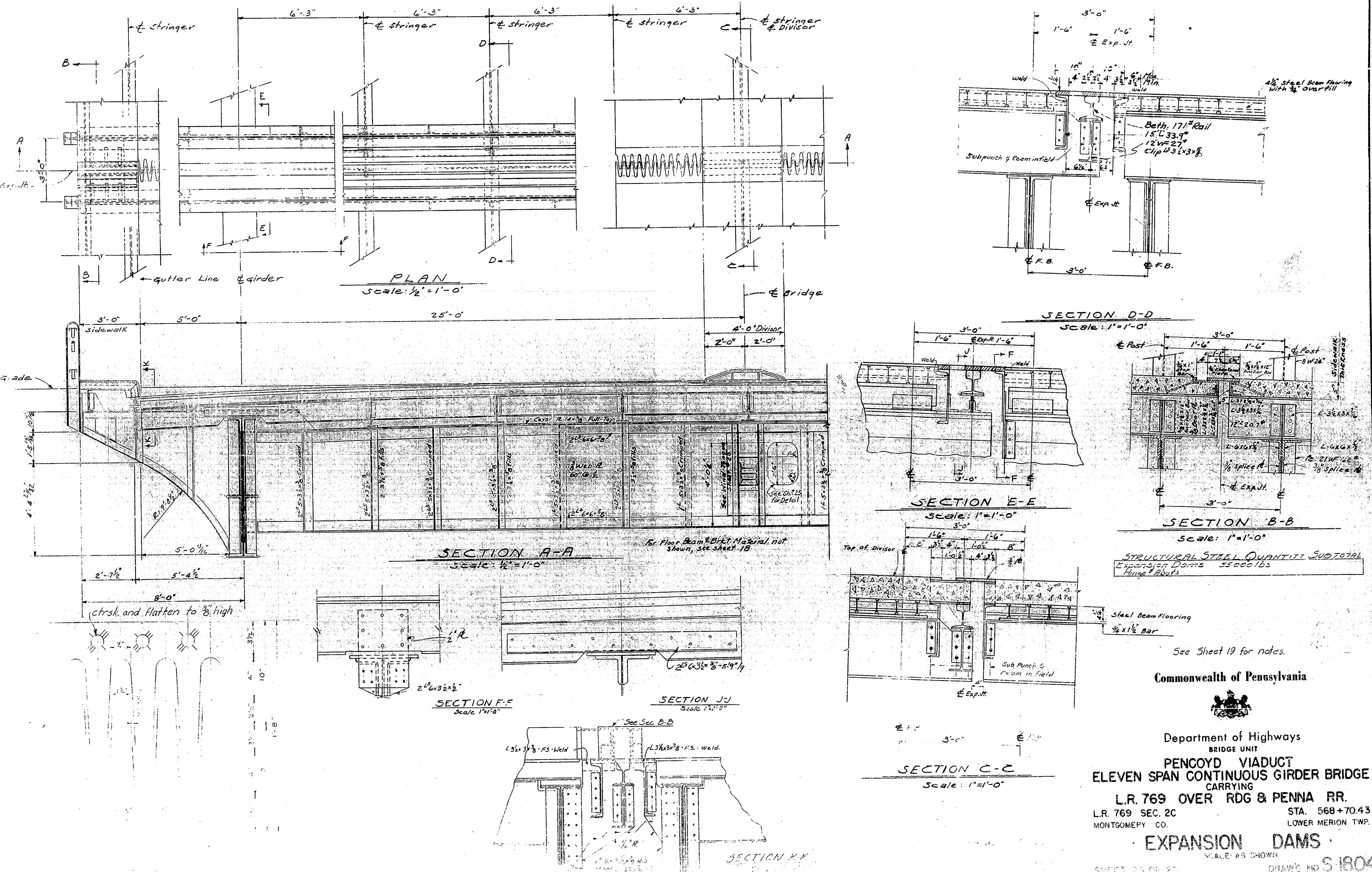
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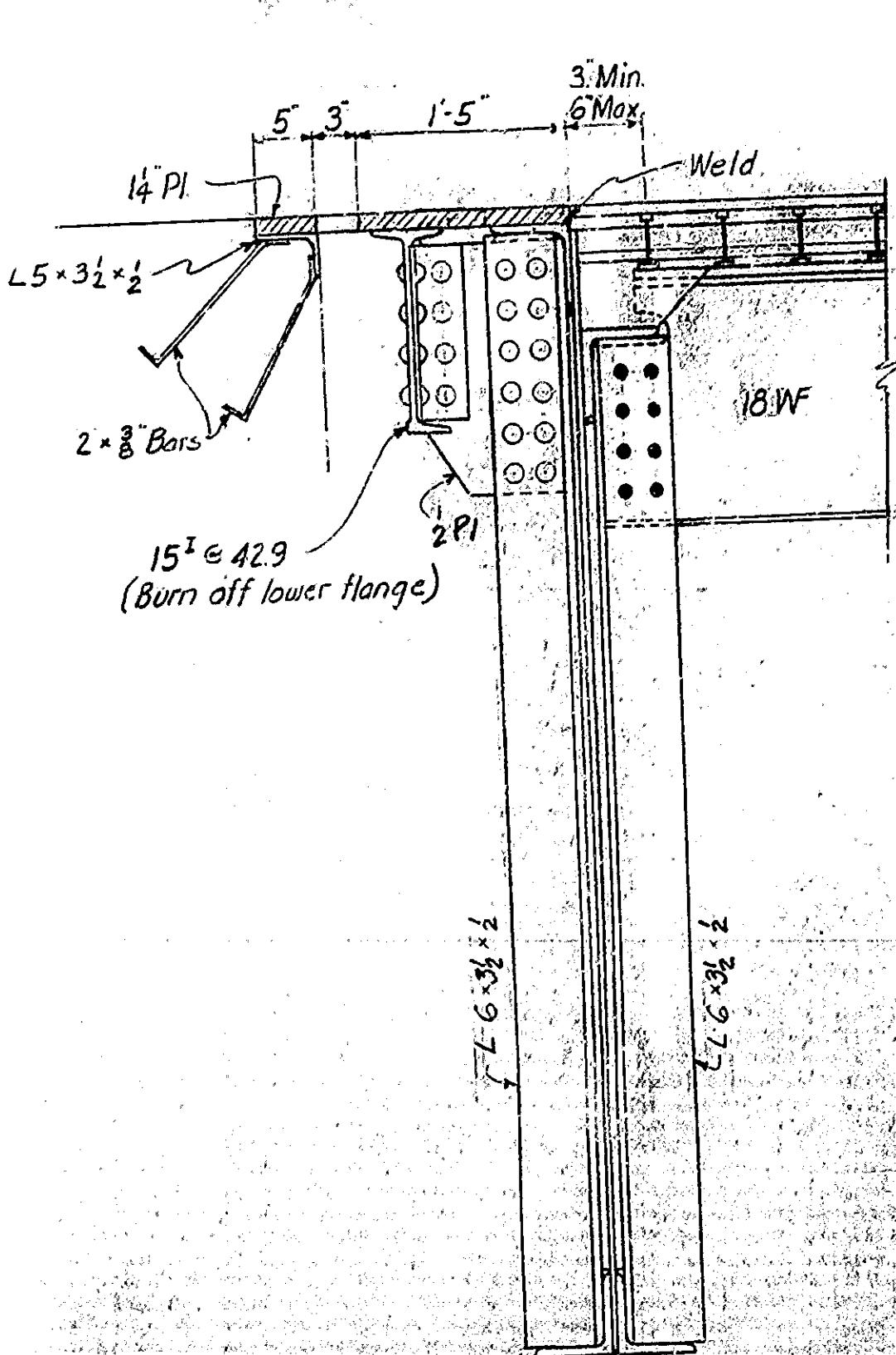
10. The following table shows the number of hours worked by each employee.

10. The following table gives the number of hours per week spent by students in various activities.

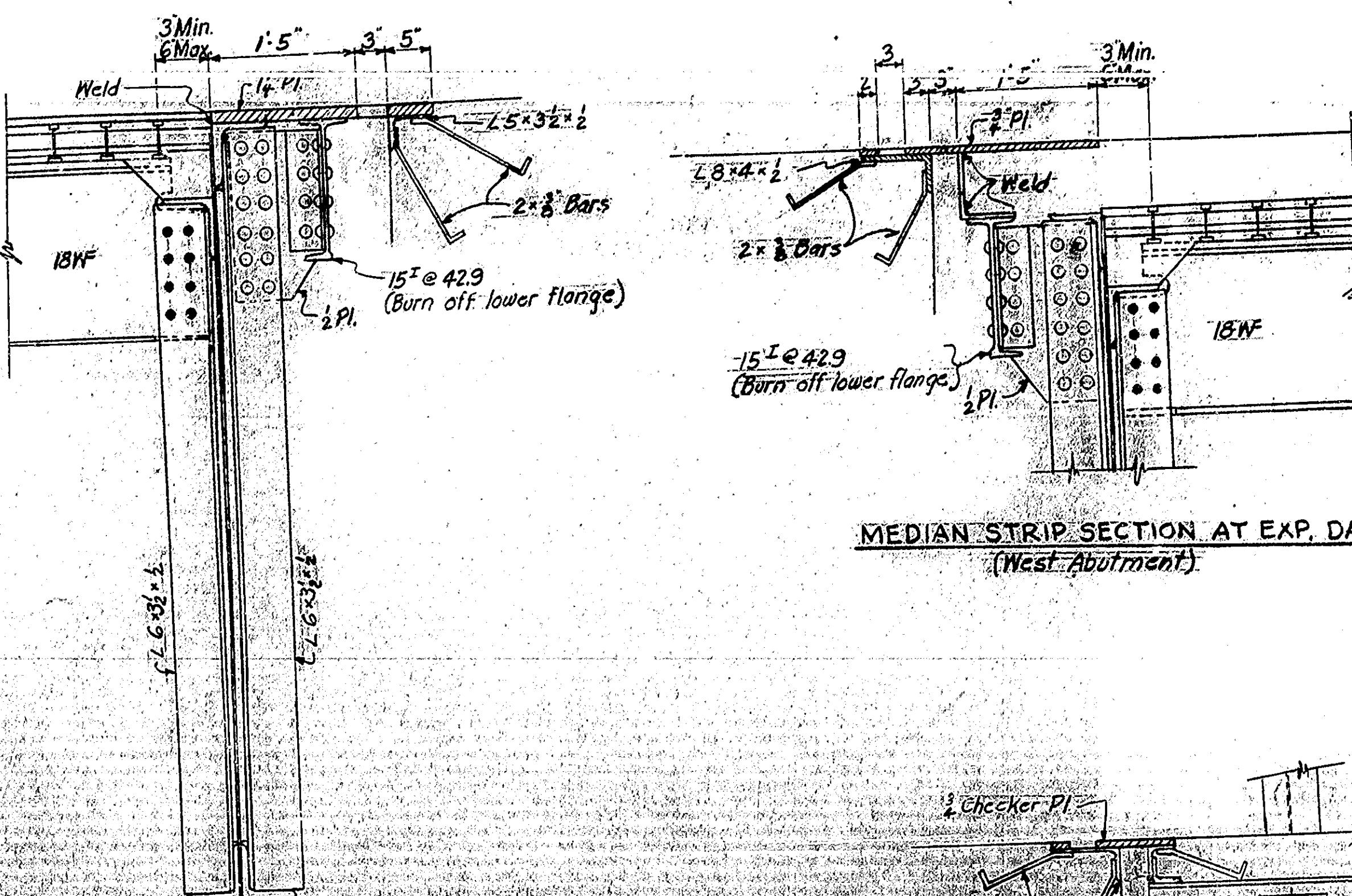
10. The following table gives the number of hours worked by each of the 100 workers.

10. The following table gives the number of cases of smallpox reported in each State during the year 1802.

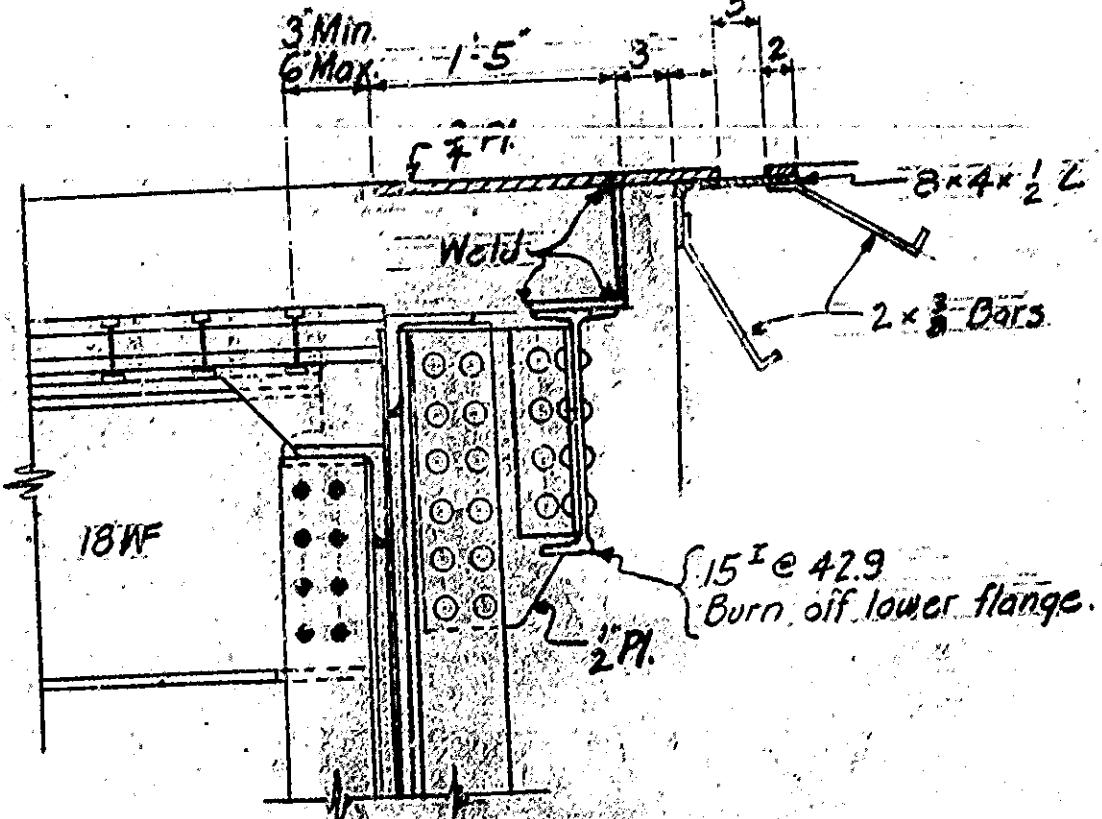




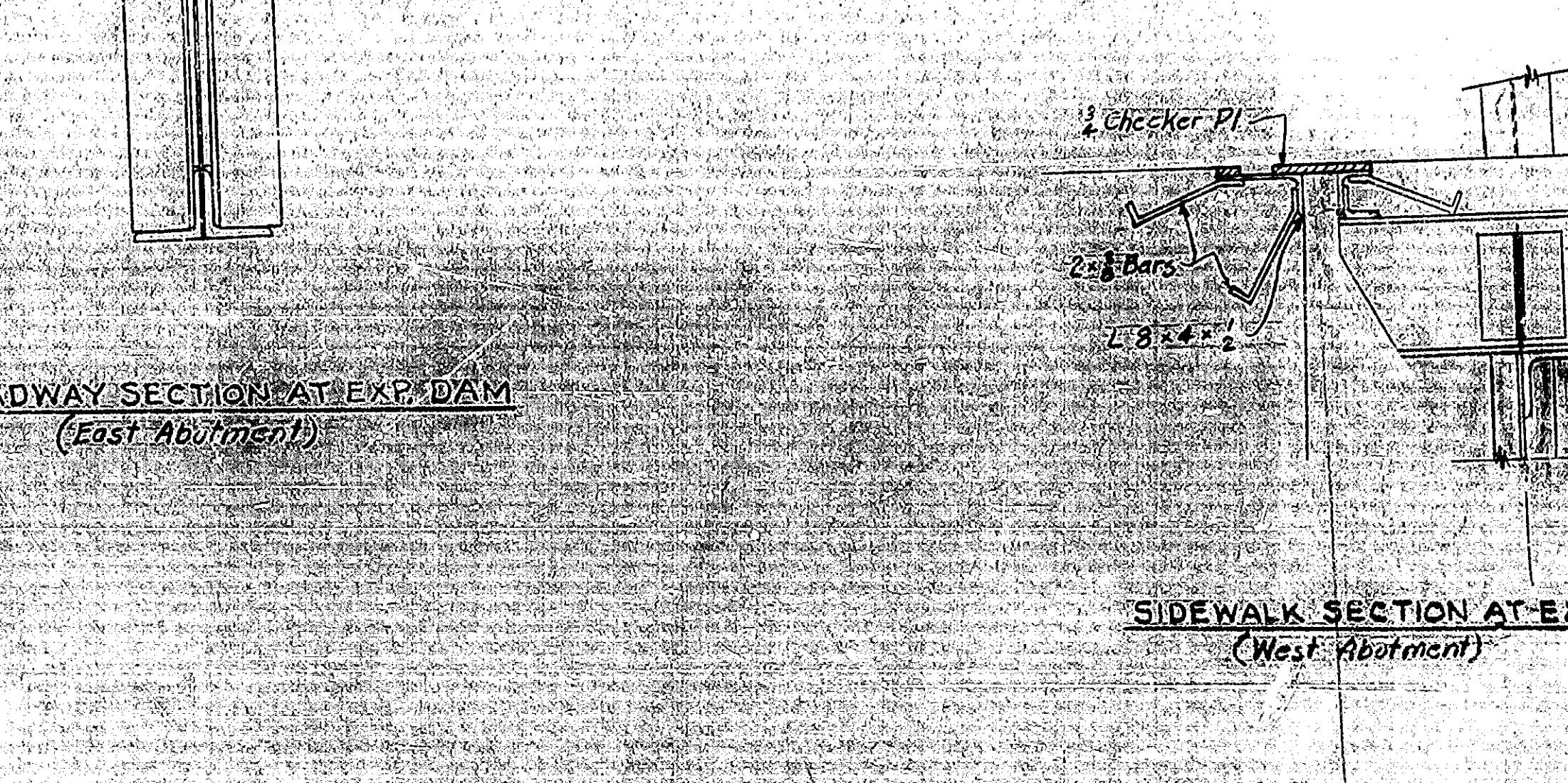
ROADWAY SECTION AT EXP-DAM
(West Abutment)



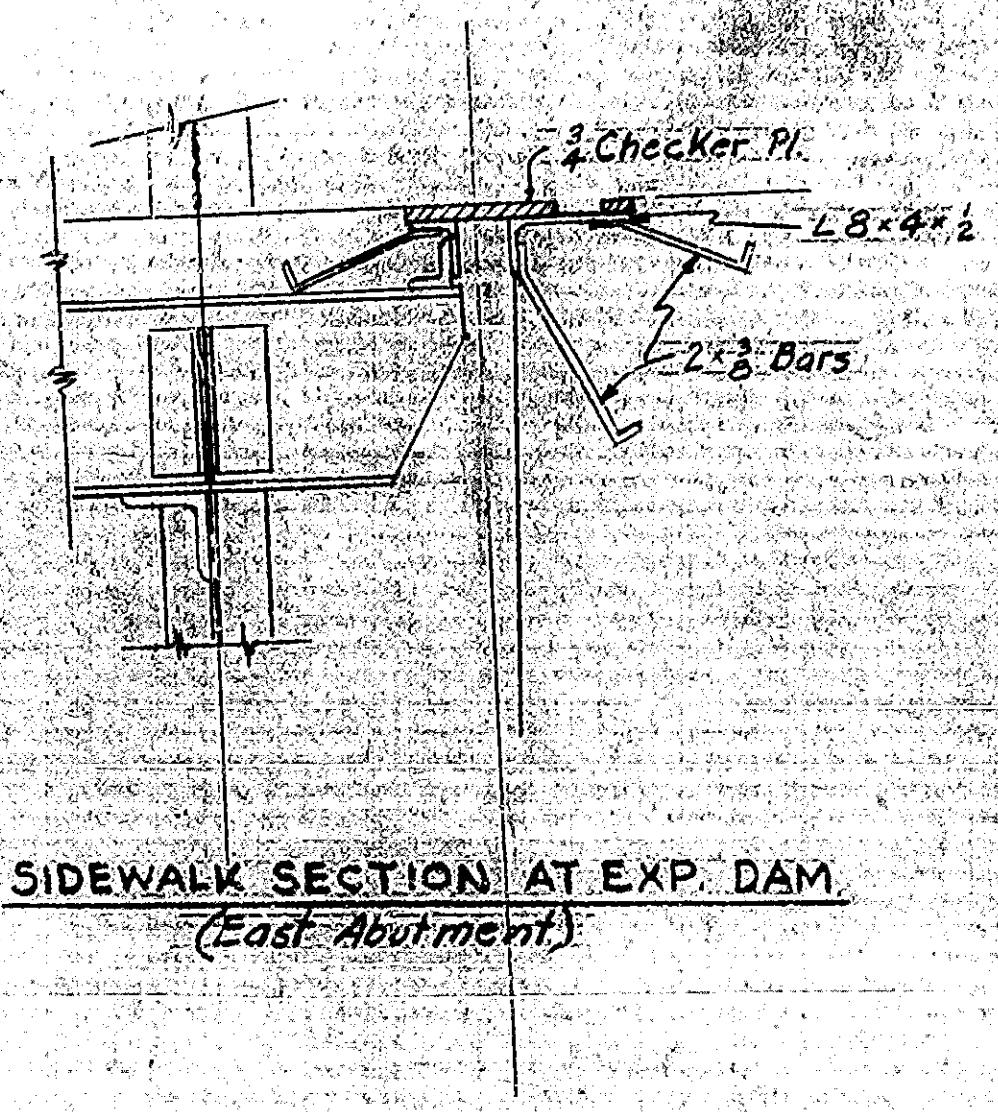
MEDIAN STRIP SECTION AT EXP. DAM
(West Abutment)



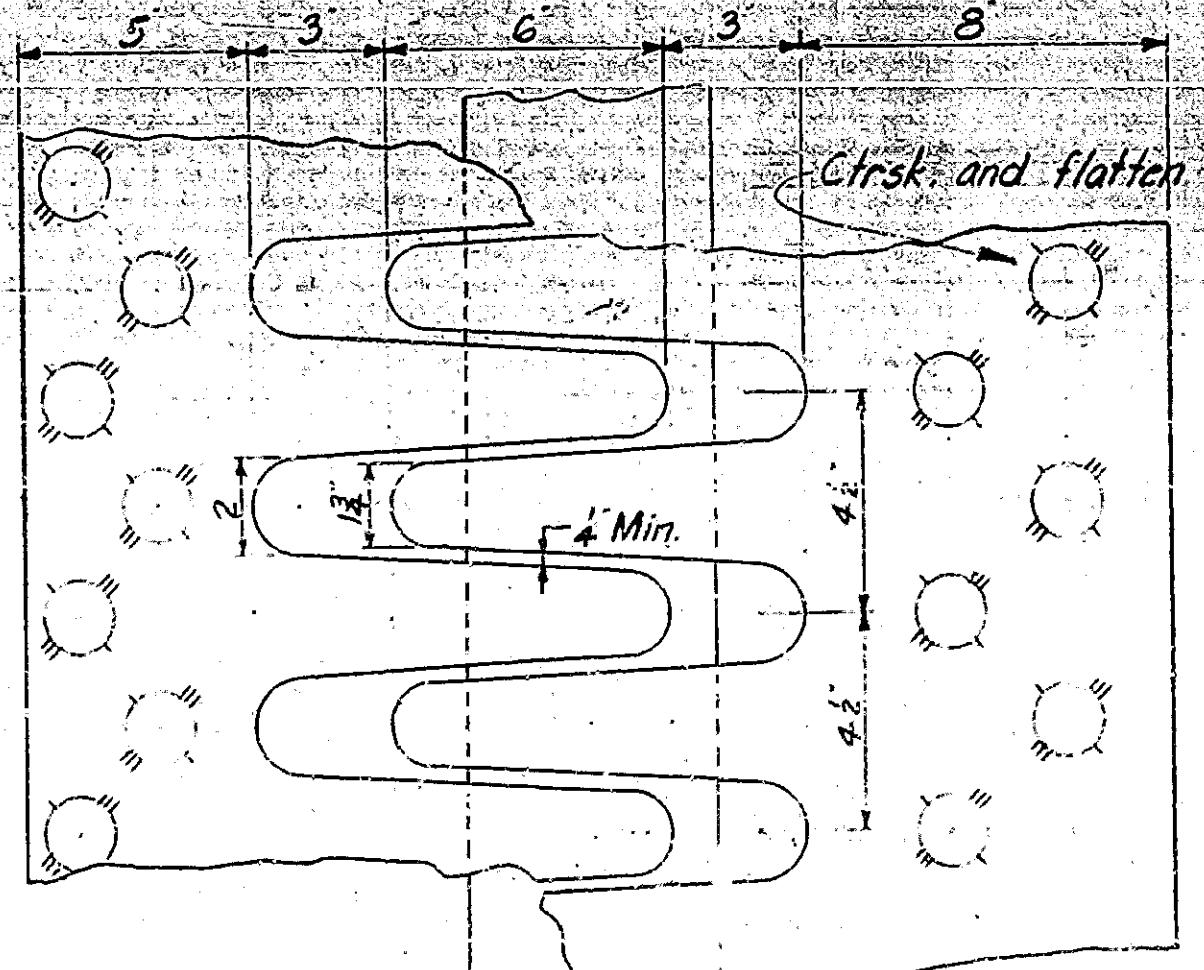
MEDIAN STRIP SECTION AT EXP. DAM
(East Abutment)



ROADWAY SECTION AT EXP. DAM
(East Abutment)



SIDEWALK SECTION AT EXP. DAM.
(East Abutment)



DETAIL OF TEETH
(Expansion Dam at Abutments)

See Sheet 19 for notes.

Commonwealth of Pennsylvania



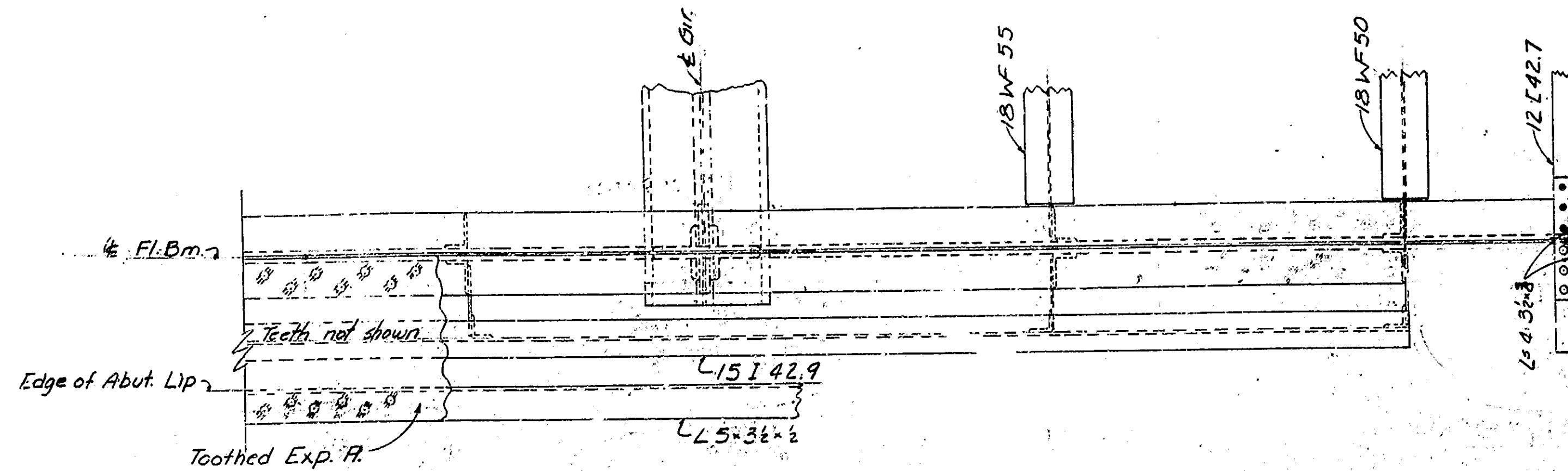
Department of Highways
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**PENCOYD VIADUCT
ELEVEN SPAN CONTINUOUS GIRDER BRIDGE
CARRYING**

CARRYING
L.R. 769 OVER RDG. & PENNA RR.
L.R. 769 SEC. 20 STA. 568+70
MONTGOMERY CO. LOWER MERION

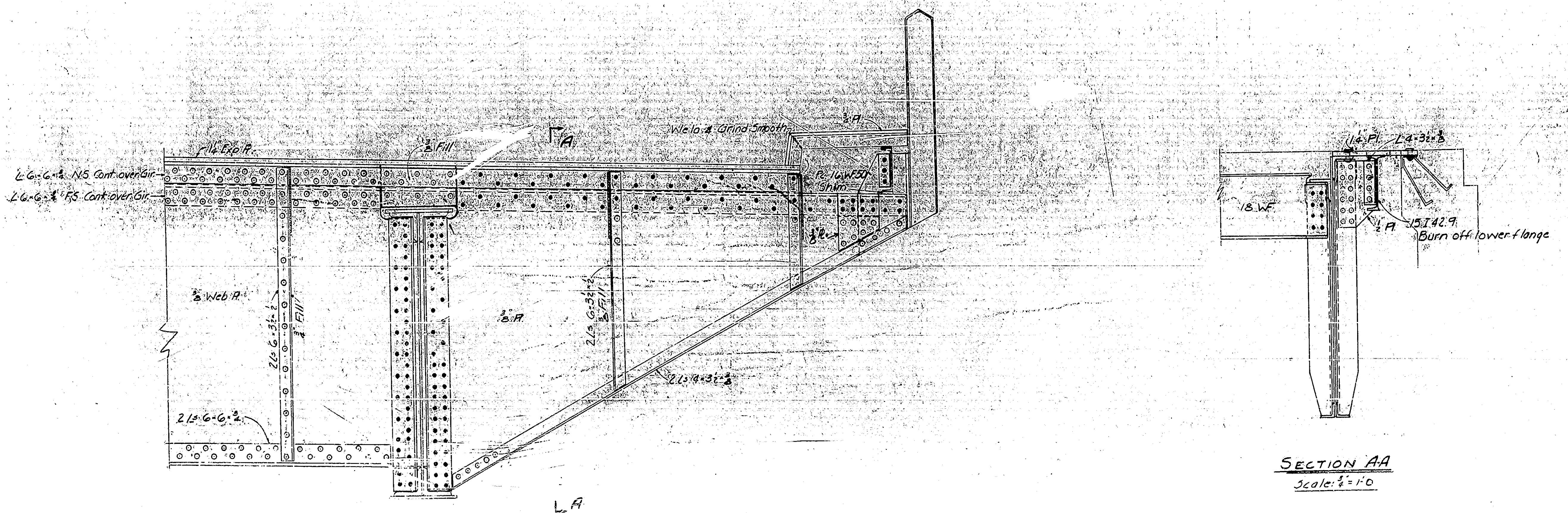
STA. 568+70.43

OWER MERION TWP.



PLAN VIEW

$$\frac{1}{\sqrt{2}} \cdot \frac{\sqrt{3}}{2} = 1/0$$



PART ELEVATION - FLOOR BEAM 1

Looking Ahead

$$\text{Scale: } \frac{3}{4}'' = 1'0$$

PENCOYD VIADUCT
ELEVEN SPAN CONTINUOUS GIRDER BRIDGE
CARRYING

CARRYING
L.R. 769 OVER RDG. & PENNA. RR.

L.R. 769 SEC. 20

L.R. 1000 020.20
MONTGOMERY 92

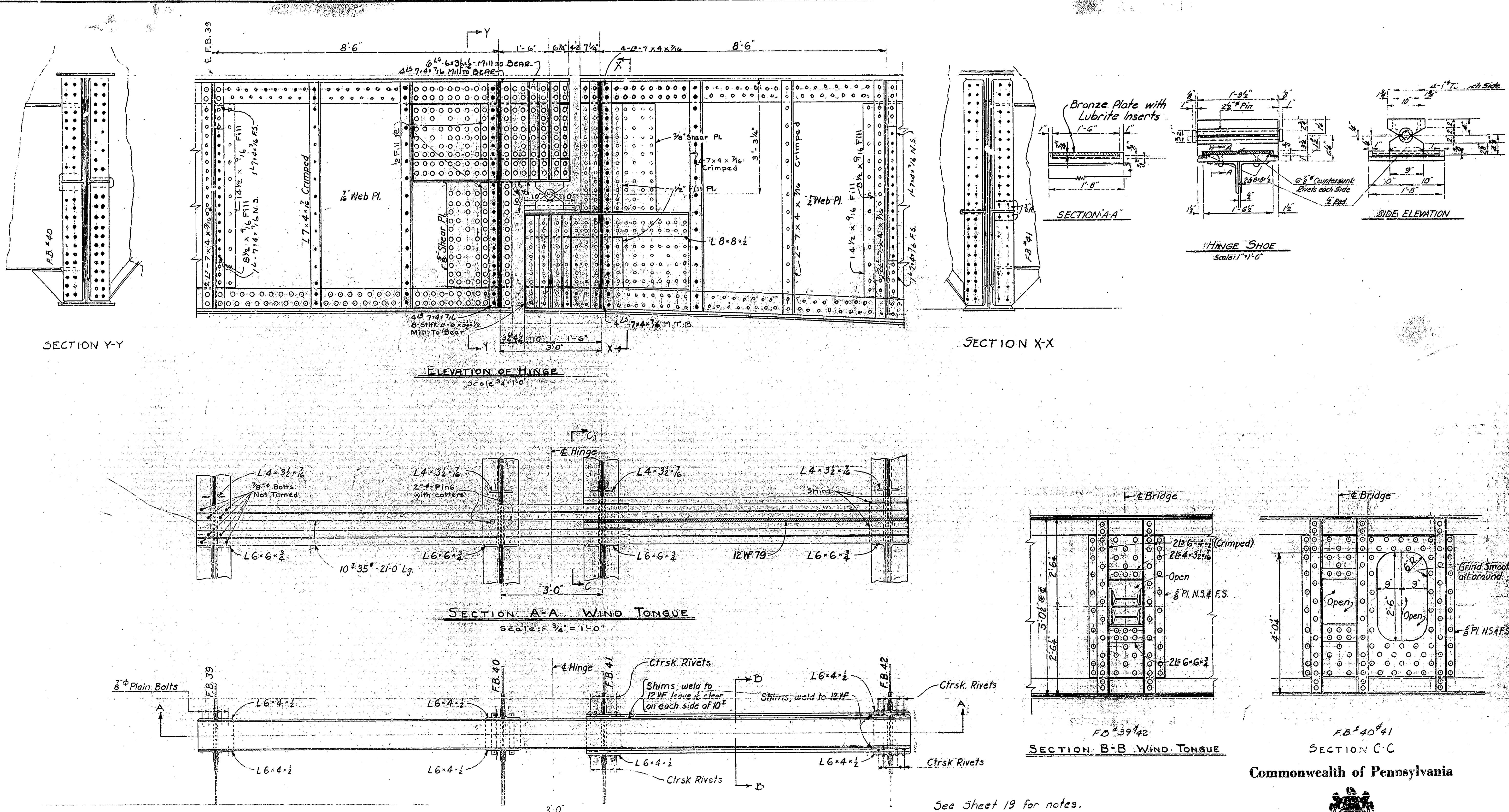
Digitized by srujanika@gmail.com

TA 558420 AIR

WATER VAPOR TEST

2000 B.C. 1000 B.C.

THE DAY OF GLORY



See Sheet 19 for notes.

PLAN VIEW OF WIND TONGUE

Scale: 3/4" = 1'-0"

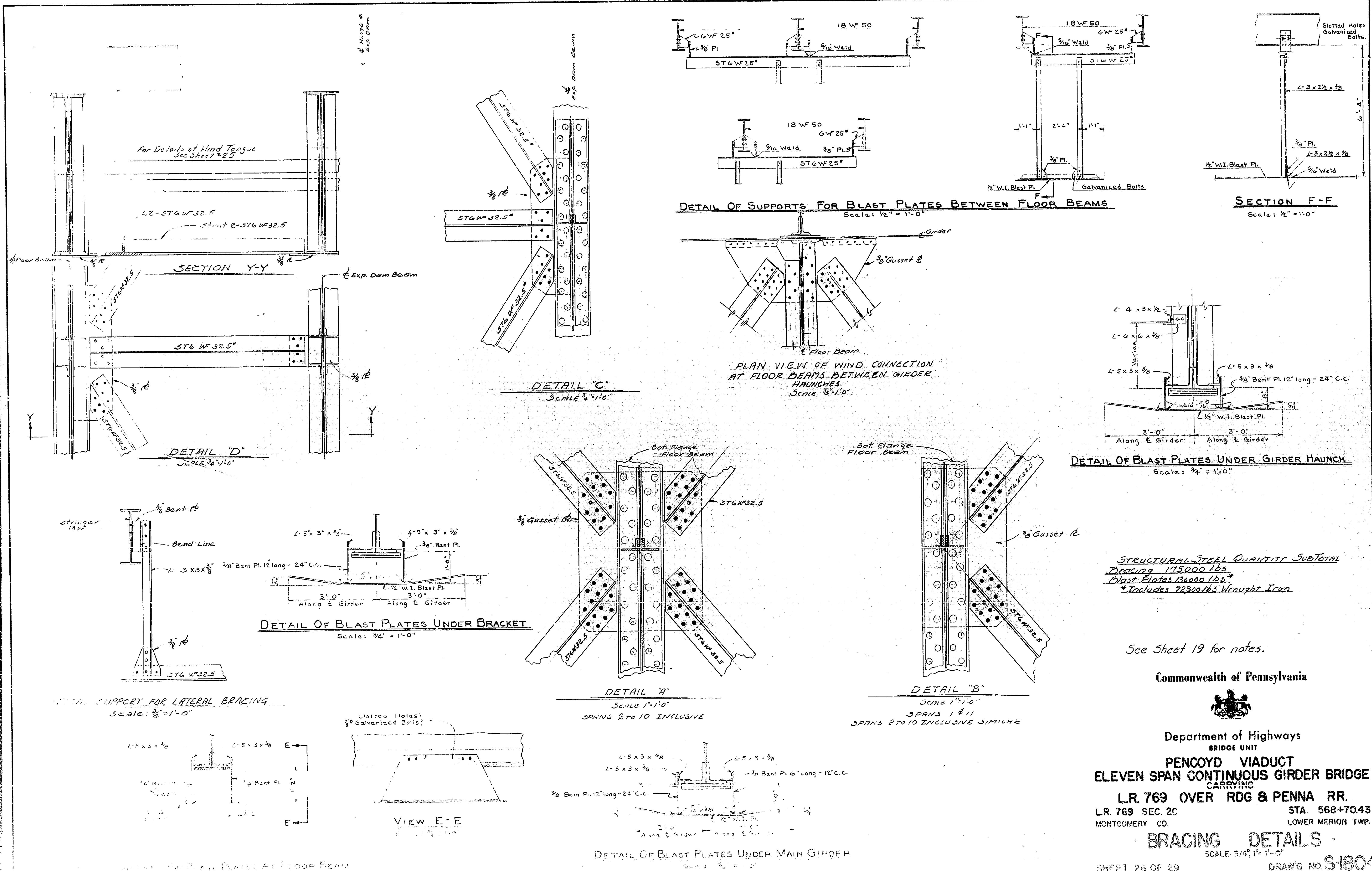
Department of Highways
BRIDGE UNIT

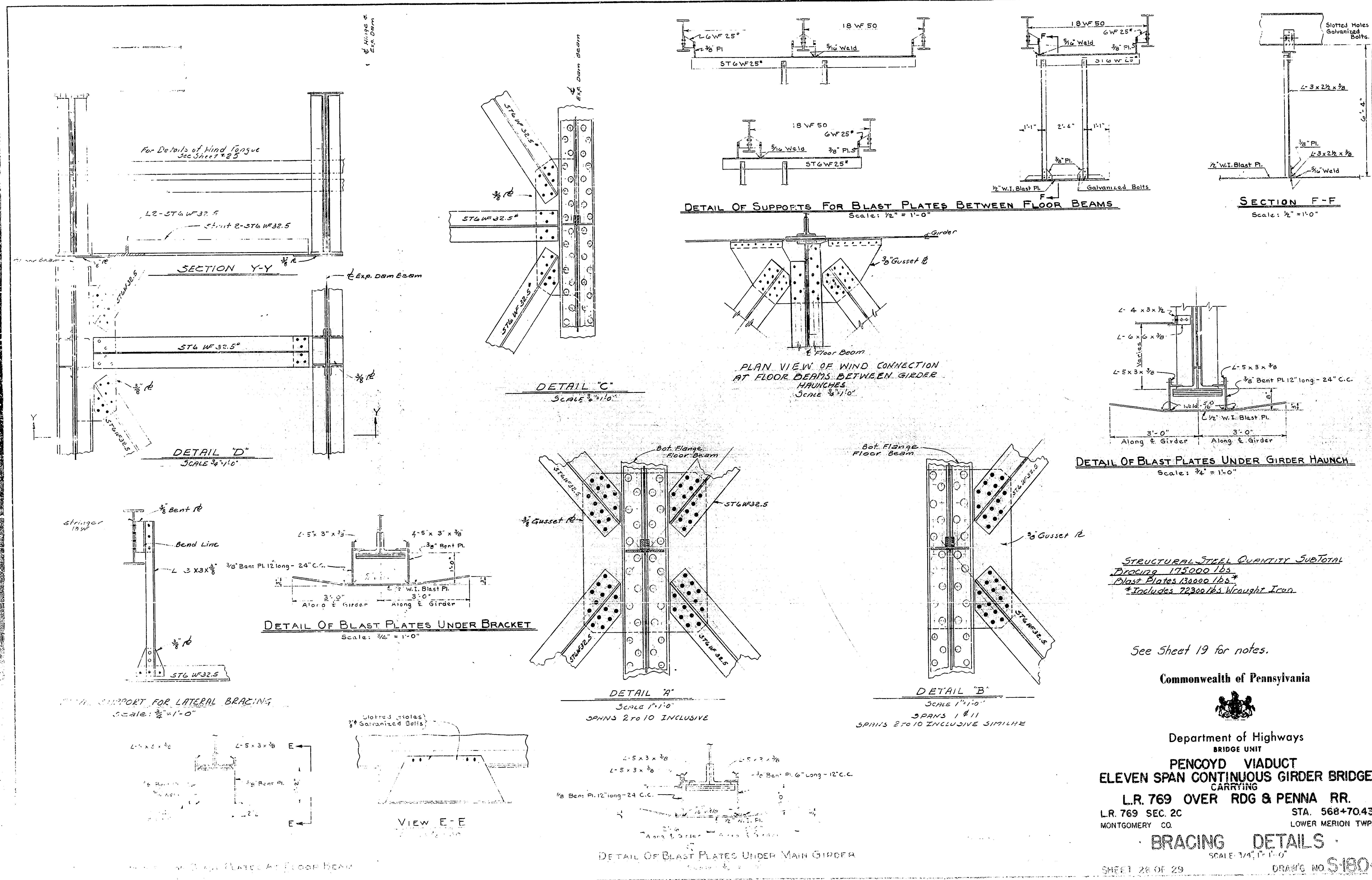
PENCOYD VIADUCT
ELEVEN SPAN CONTINUOUS GIRDER BRIDGE
CARRYING
L.R. 769 OVER RDG & PENNA RR.

L.R. 769 SEC. 2C
MONTGOMERY CO.

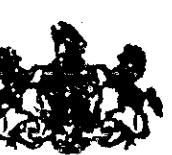
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LOWER MERION TWP.

HINGE & TONGUE DETAILS





Commonwealth of Pennsylvania



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ELEVEN SPAN CONTINUOUS GIRDER BRIDGE
CARRYING

L.R. 769 OVER RDG & PENNA RR.

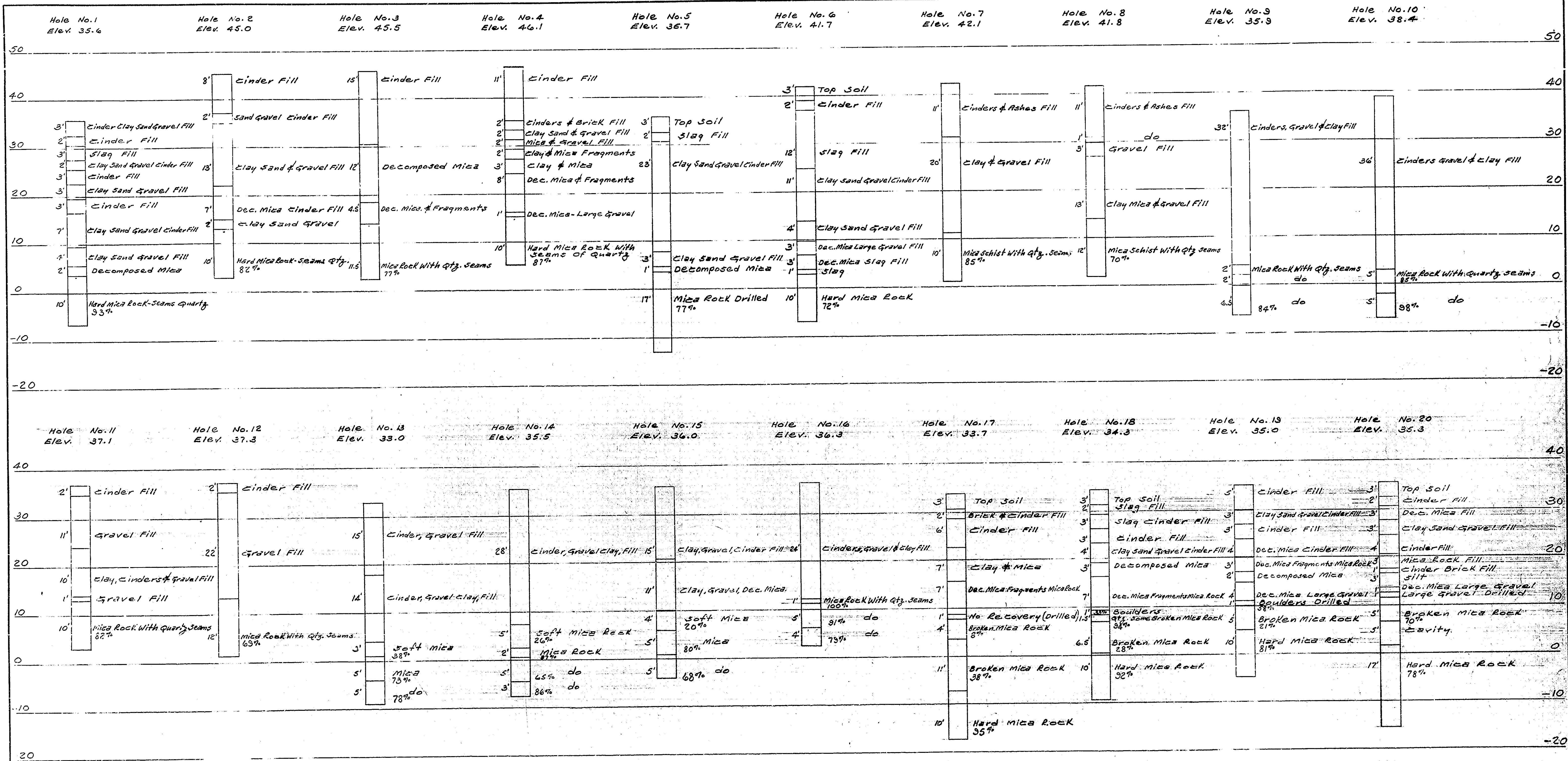
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BRACING DETAILS

SCALE $1/4'' = 1'-0''$

SHEET 28 OF 29

DRAWING NO. S-1807



Commonwealth of Pennsylvania



Department of Highways

BRIDGE UNIT

PENCOYD VIADUCT
ELEVEN SPAN CONTINUOUS GIRDER BRIDGE
CARRYING

L.R. 769 OVER RDG & PENNA RR.

L.R. 769 SEC. 2C STA. 568+70.43
MONTGOMERY CO. LOWER MERION TWP.

CORE BORINGS

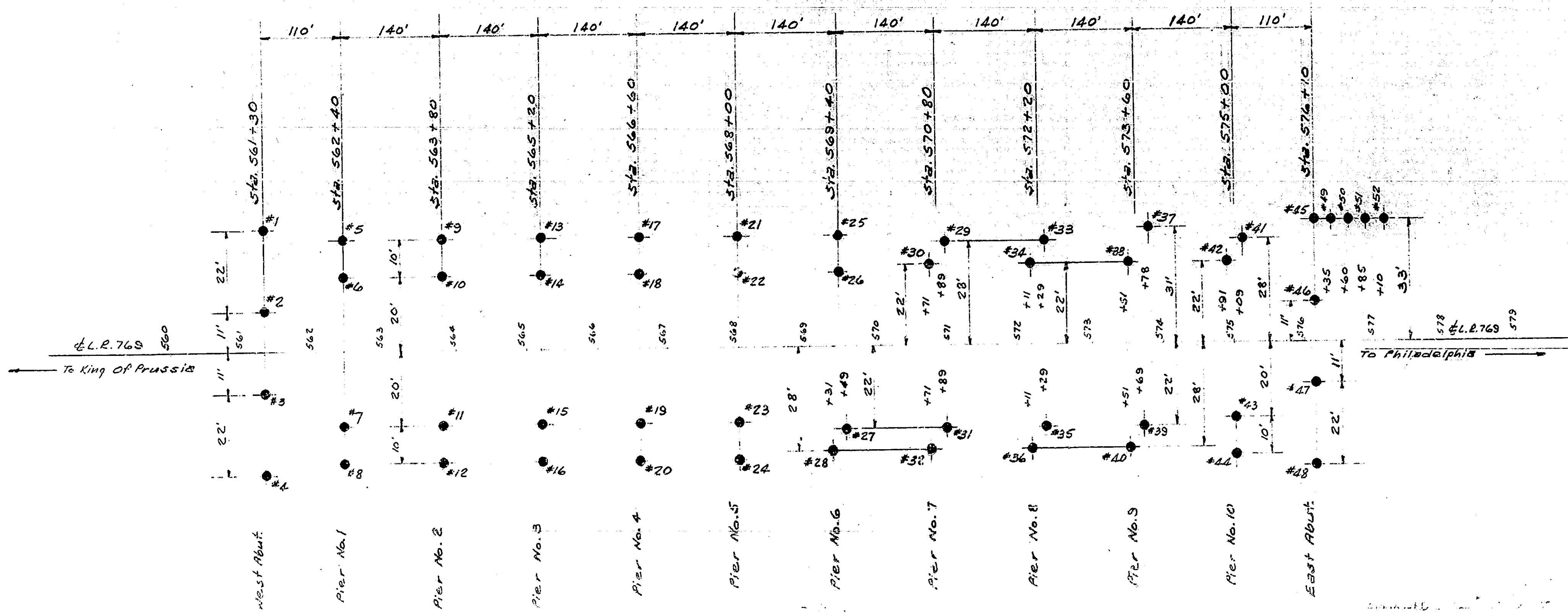
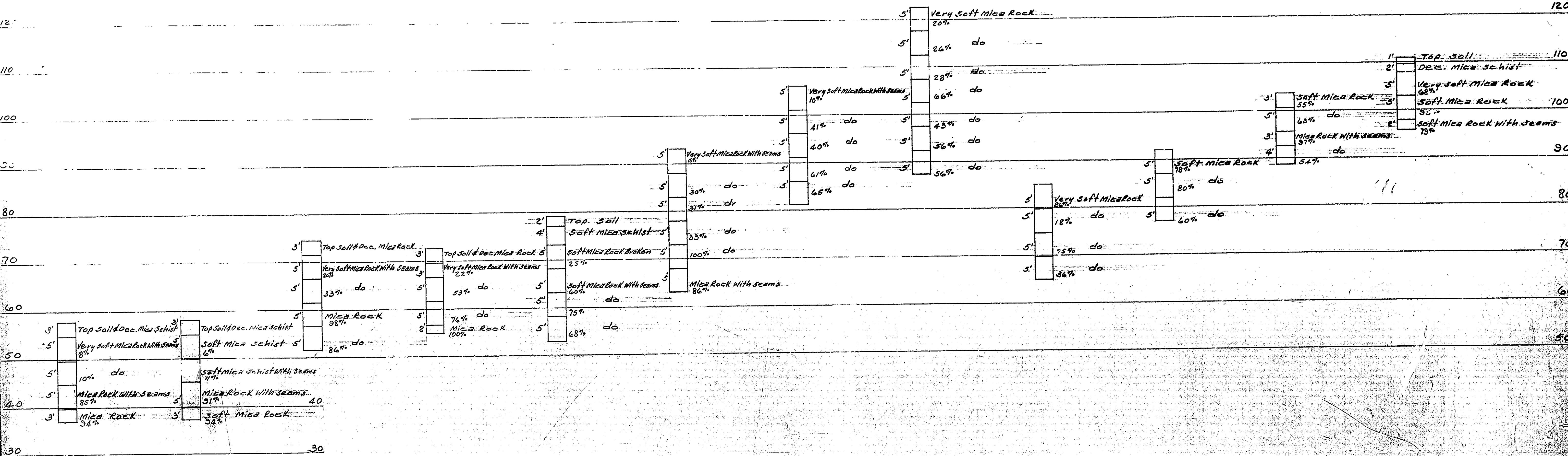
SCALE 1:600'

DRAWS NO. S-1804

SHEET 3 OF 20

Hole No. 41 Hole No. 42 Hole No. 43 Hole No. 44 Hole No. 45 Hole No. 46 Hole No. 47 Hole No. 48 Hole No. 49 Hole No. 50 Hole No. 51 Hole No. 52
Elev. 57.6 Elev. 58.0 Elev. 74.5 Elev. 72.6 Elev. 78.9 Elev. 93.1 Elev. 106.1 Elev. 122.9 Elev. 84.9 Elev. 91.8 Elev. 103.4 Elev. 110.5

130



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BRIDGE UNIT
PENCOYD VIADUCT
ELEVEN SPAN CONTINUOUS GIRDER BRIDGE
CARRYING

L.R. 769 OVER RDG & PENNA RR

STA. 566+7043
MONTGOMERY CO.

CORE BORINGS

SCALE 1/1000 20'-0" 180'-0"

DRAWING NO. 81804

PLOT PLAN

SHEET 29 OF 29