

ELEVATION

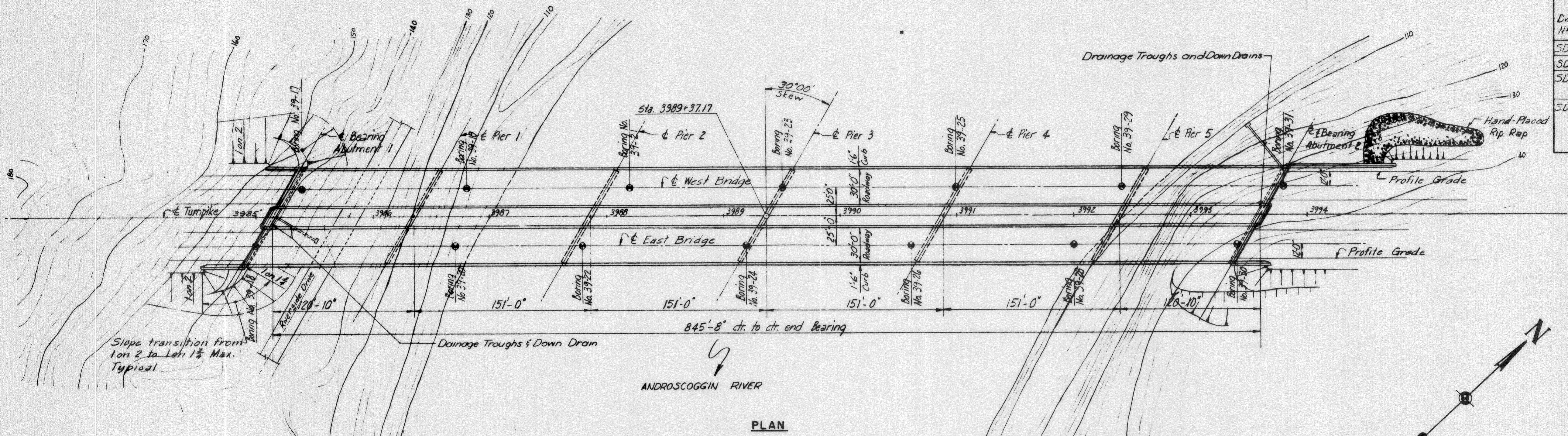
GENERAL NOTES

Design Specifications: AASHTO (1953) with minor modifications
 Design Live Load - H20 S16
 Maximum Base Pressure:
 Abutments 1 and 2 - 4.8 Tons/sq. ft.
 Pier 1 - 5.0 Tons/sq. ft.
 Pier 2 - 3.9 Tons/sq. ft.
 Pier 3 - 5.6 Tons/sq. ft.
 Pier 4 - 4.4 Tons/sq. ft.
 Pier 5 - 4.5 Tons/sq. ft.

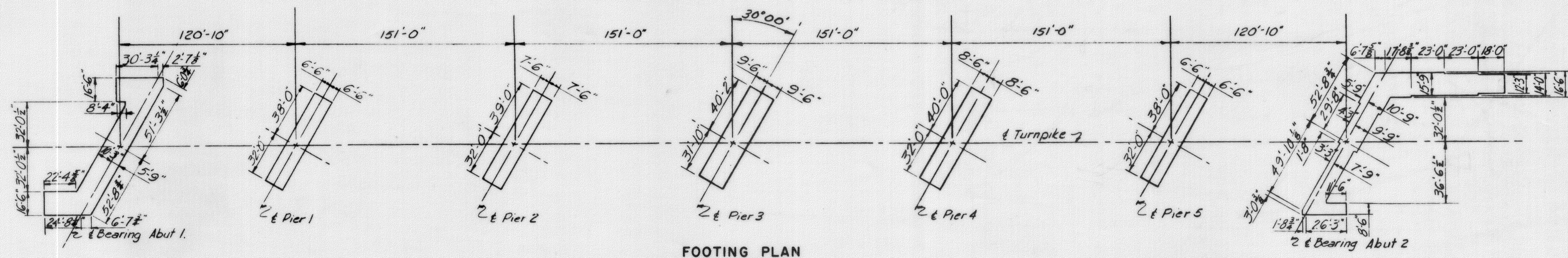
REFERENCES

Dwg No	Title	Substructure Contractor	Superstructure		
			Steel Fabricator	Steel Erector	Floor Contractor
SD1A	Standard Abutment Details	✓			
SD-3	Standard Abut. Drainage Details	✓			
SD-5	Standard Handrail, Bearing Devices and Misc. Details.				✓
SD20	Standard Bridge Floor Cross Section, Steel Curb, Handrail and Diaphragms. 30'-0" Roadway		✓	✓	

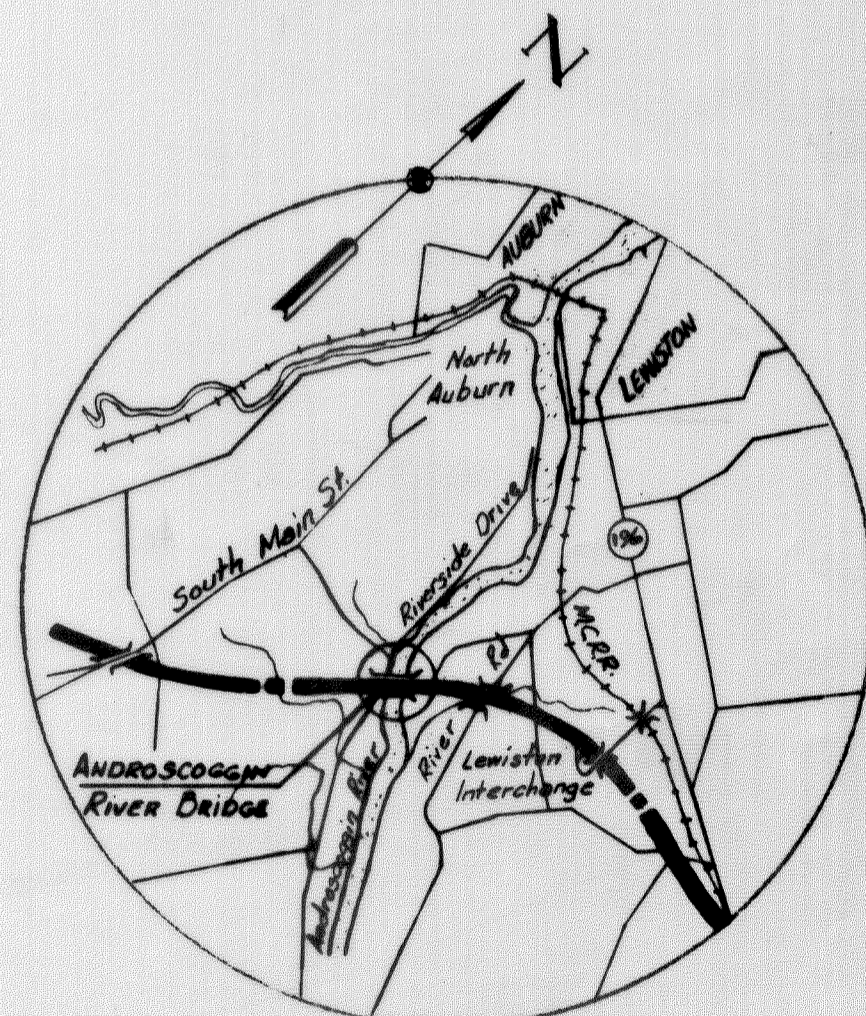
Note: Standard Drawings listed above are applicable only where specifically referred to in the plans.



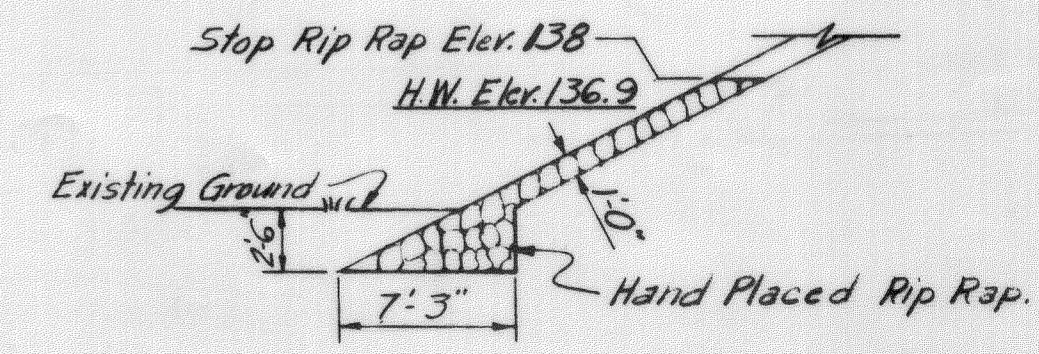
PLAN



FOOTING PLAN



VICINITY MAP
Scale: 1" = 1 Mi



SECTION THROUGH RIPRAP
NOT IN CONTRACT

DRAWING 55.01.15

MADE	BY	DATE	NO.	REVISION	BY	DATE
	T.K.C.	2-9-54	3	As-Built	MBH	1-20-54
TRACED	R.P.	3-17-54	2	Added Drainage Troughs & Down Drains	HBN	4-6-54
CHECKED	H.J.G.	3-18-54	1	Added Note to Riprap Detail	GPD	3-23-54

IN CHARGE OF I.D.S.K.

MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
 SECTION 2— PORTLAND TO AUGUSTA
 STRUCTURE NO. 55 TURNPIKE OVER
ANDROSCOGGIN RIVER
 STA 3989 + 37.17
GENERAL PLAN AND ELEVATION
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS
 NEW YORK KANSAS CITY
 SCALE: 1" = 50'-0"
 CONTRACT NO. _____
 SHEET NO. 236 OF 382

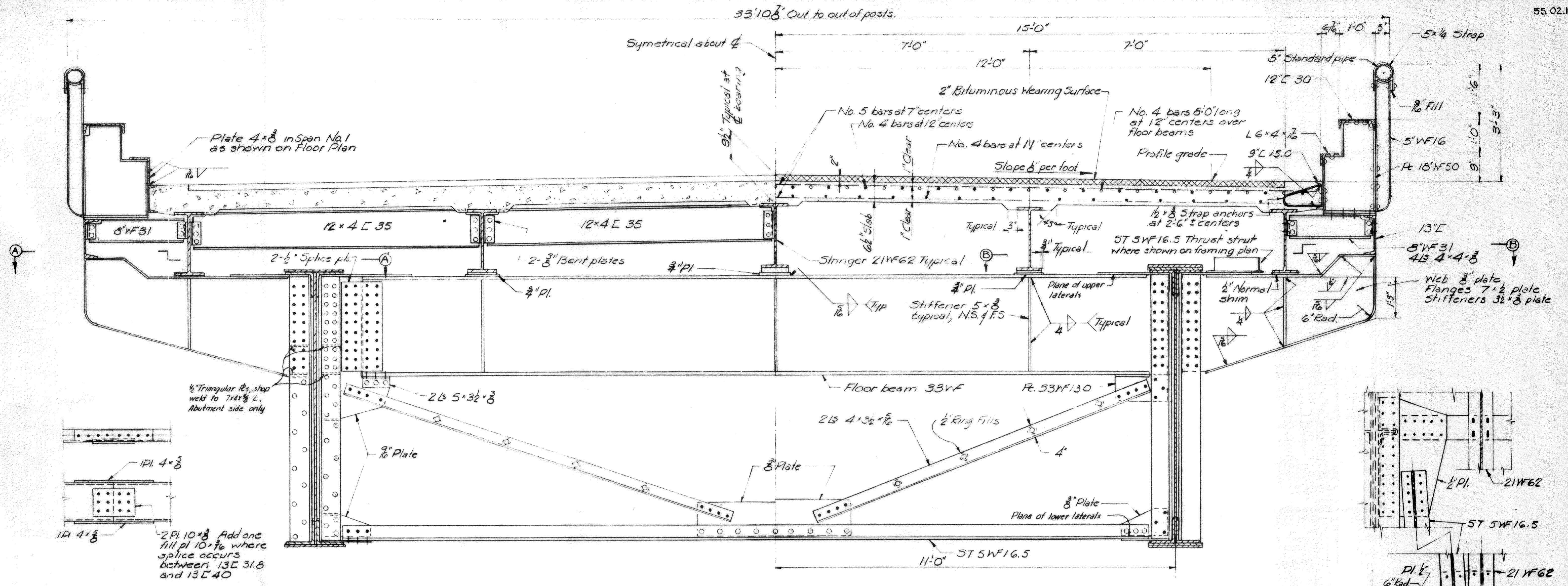


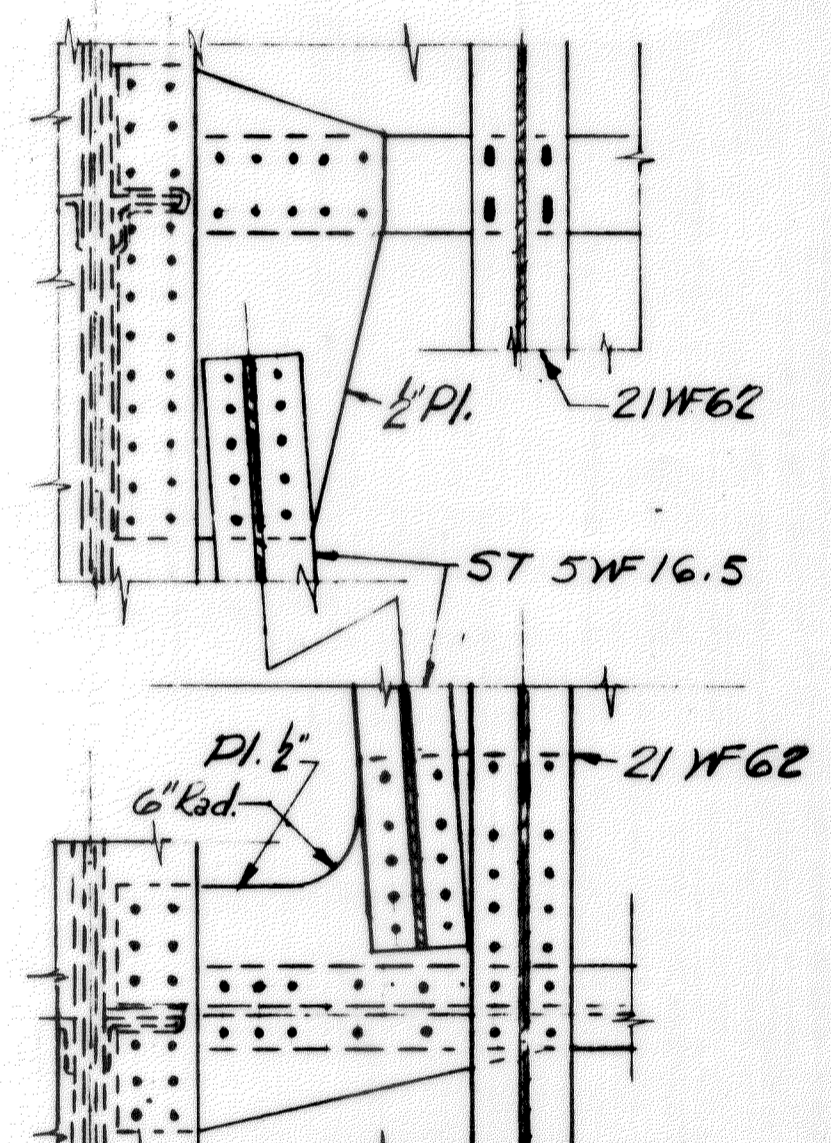
Plate 4x8 in Span No. 1 as shown on Floor Plan

1/2 Triangular R's, shop weld to 7x4x3/8 L, Abutment side only

2 Pl. 10x8 Add one fill of 10x7/8 where splice occurs between 13L 31.8 and 13L 40

HALF SECTION AT ABUTMENTS

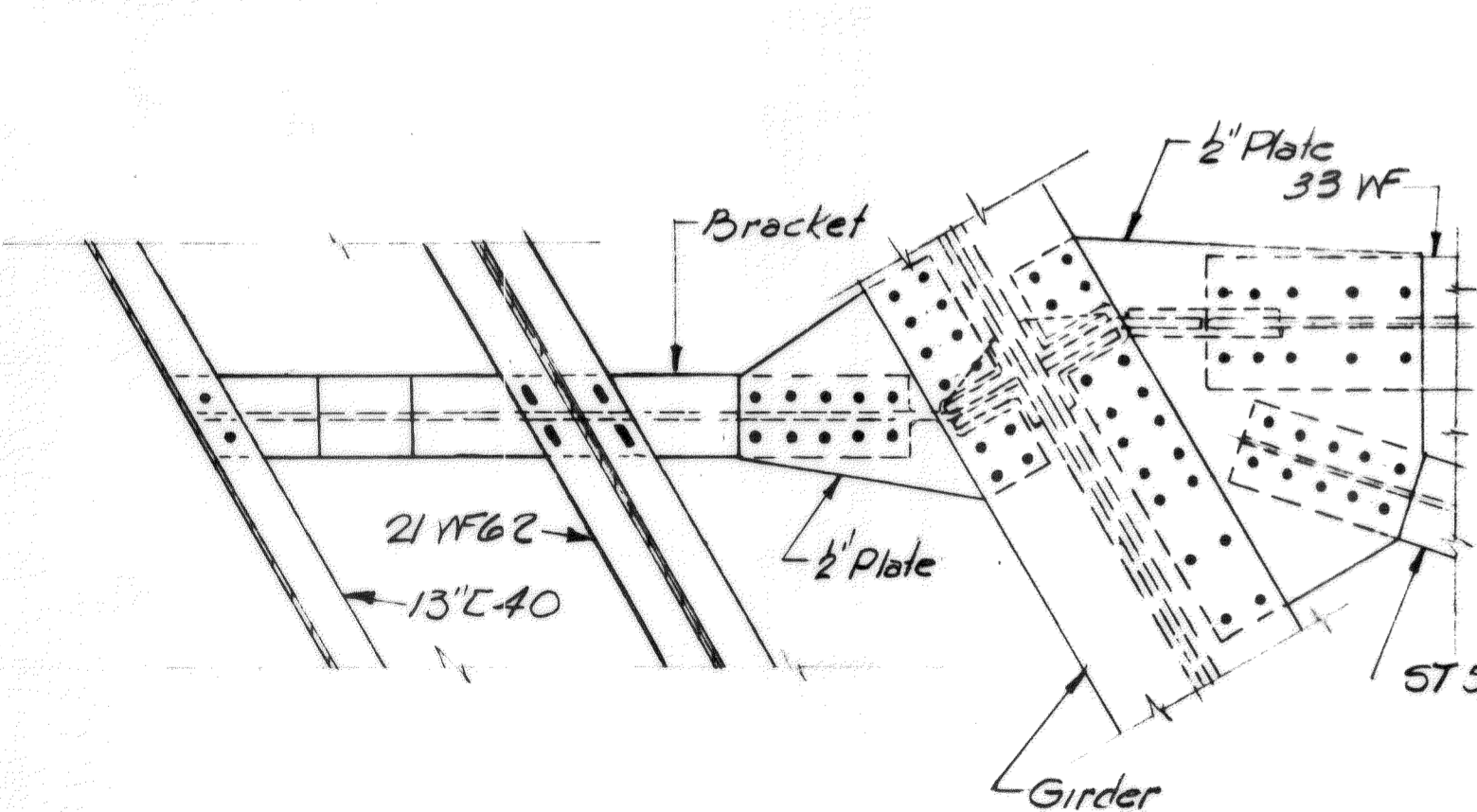
HALF SECTION AT INTERMEDIATE FLOORBEAM



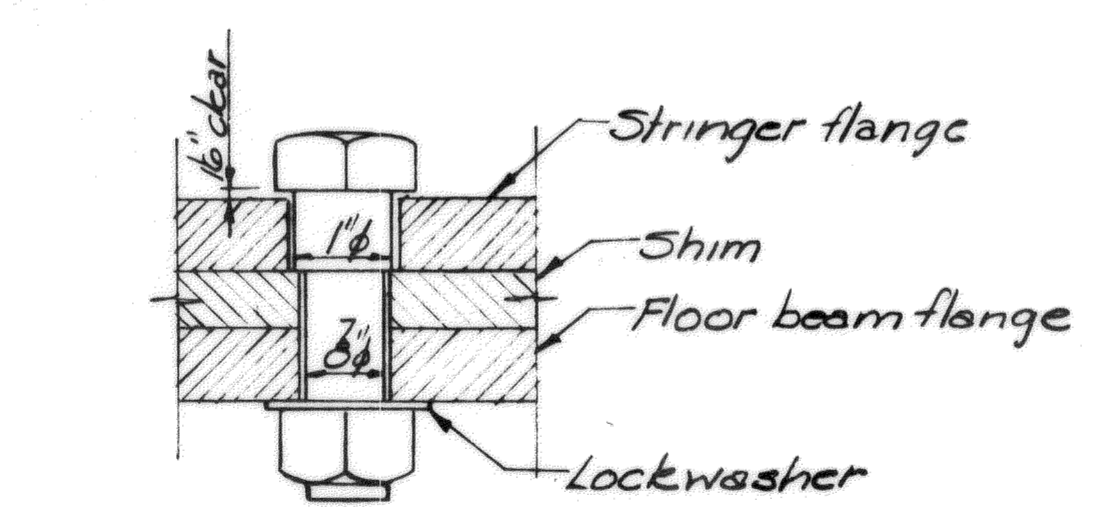
PART SECTION B B SHOWING THRUST STRUT

Notes: Depth of concrete over tops of stringers shall be varied as necessary to insure uniform floor thickness between haunches and conformity of final roadway surfaces with required elevation after deflection under full dead load. For details of curb and handrail see standard drawing number 20

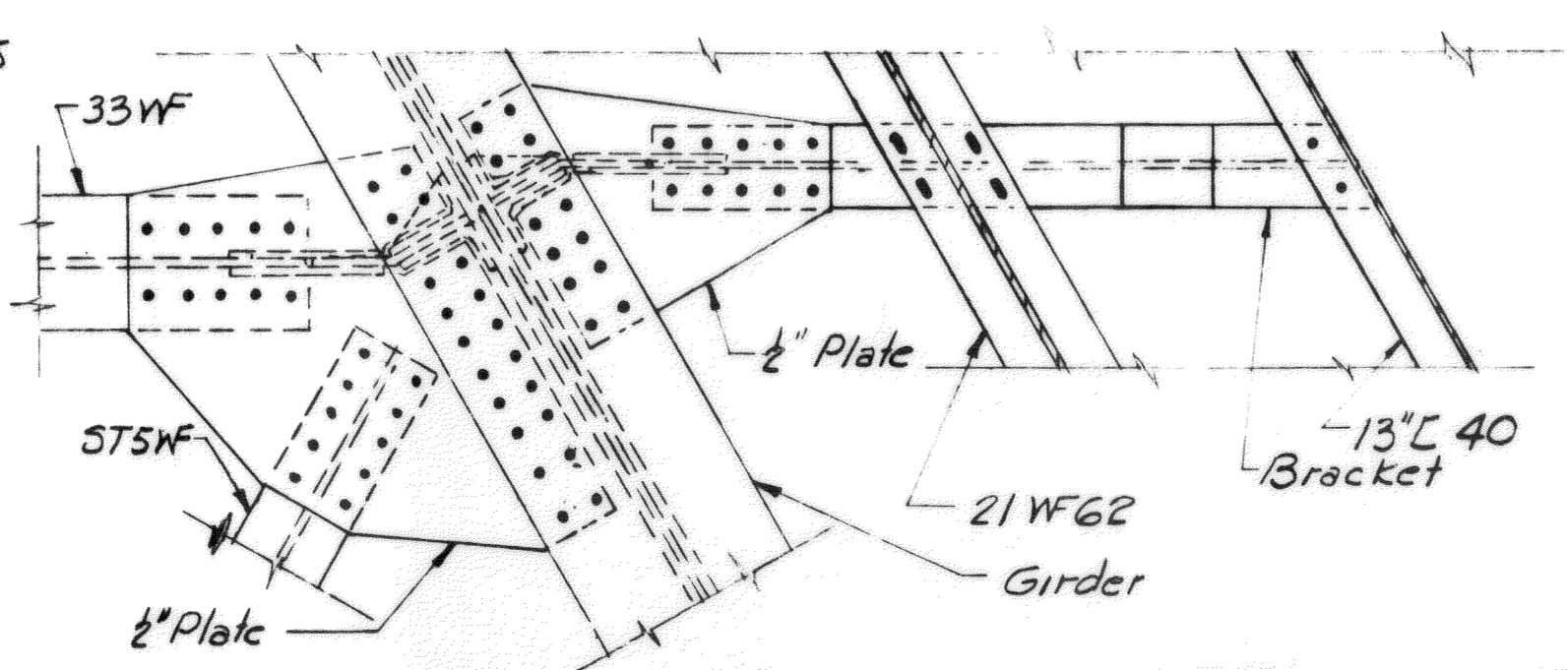
FASCIA CHANNEL SPLICE



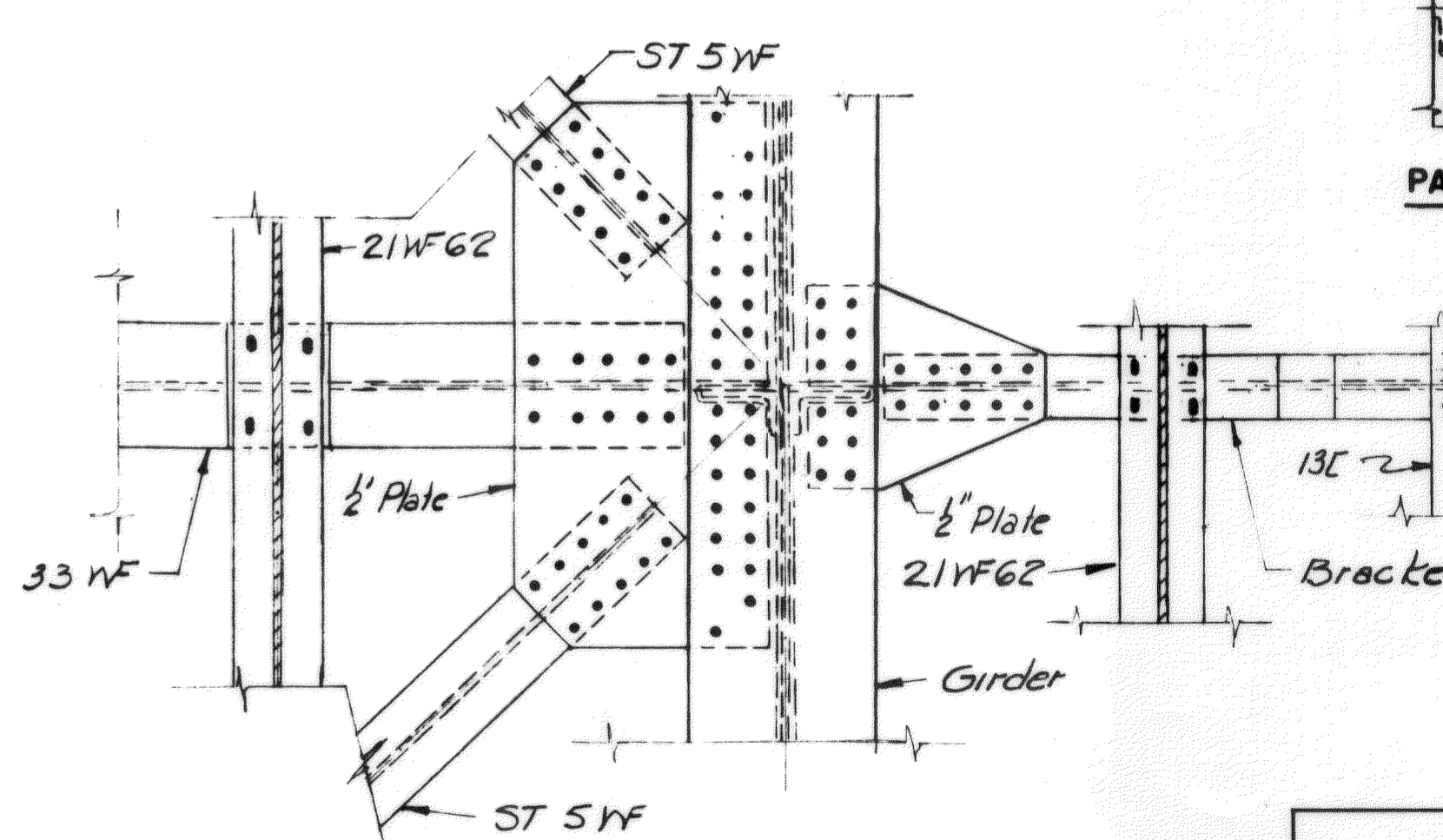
SECTION A-A AS SHOWN



TURNED BOLT DETAIL



SECTION A-A OPPOSITE CORNER



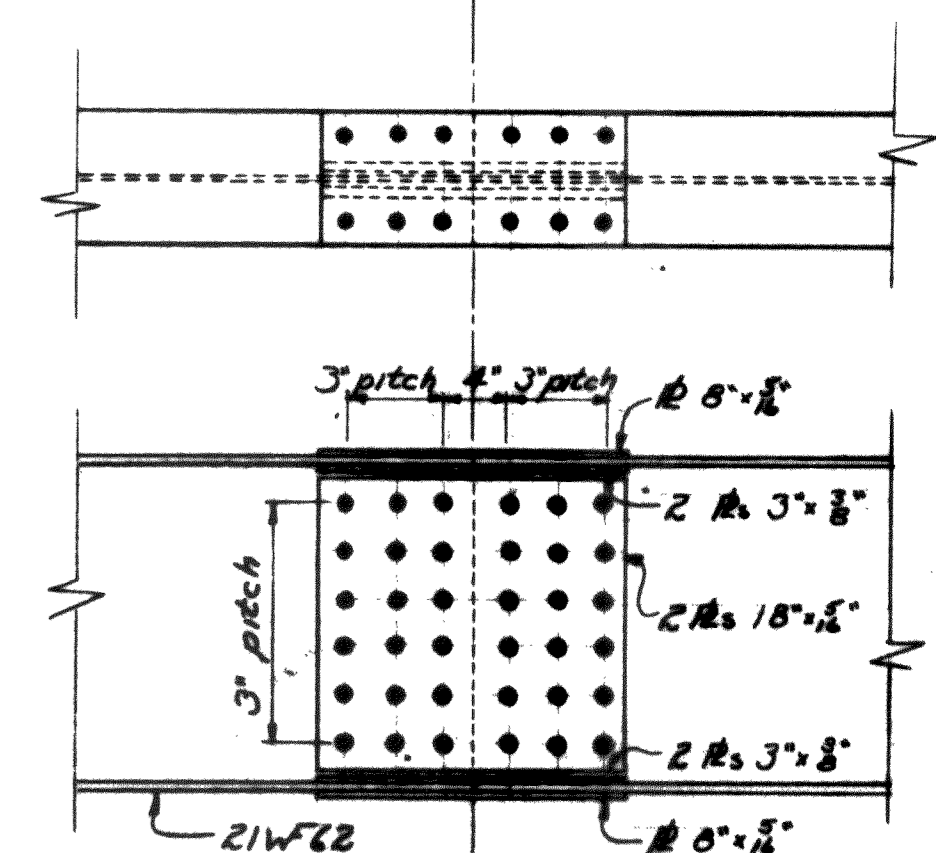
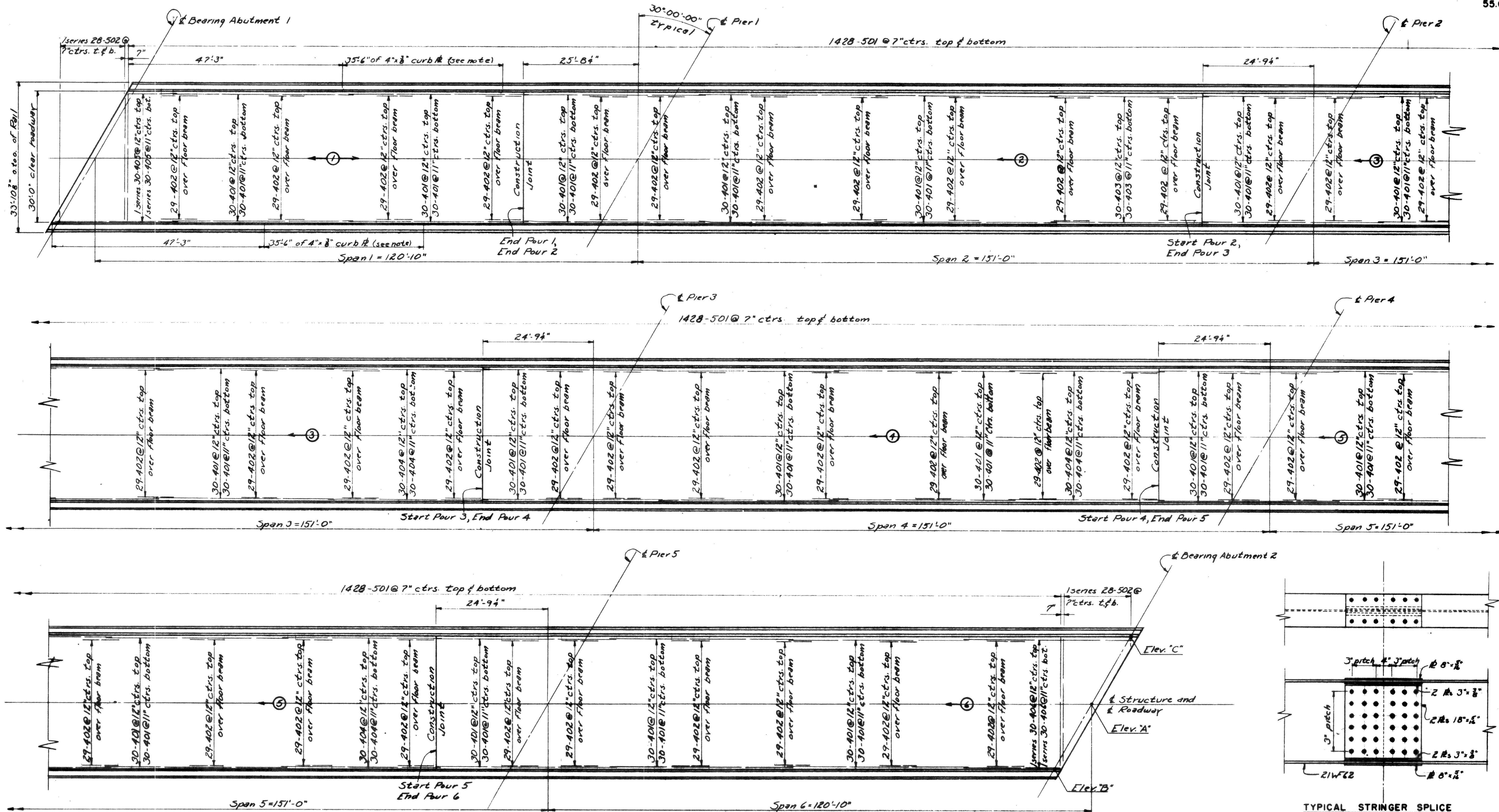
SECTION B B

See framing plan (note 3) for use of riveted or bolted connection of stringers to floor beams and brackets. Use 4-1/8x1/2 slotted holes in stringer flanges for bolted connection. See detail of turned bolt.

DRAWING 55.02.15

MADE	BY	DATE			
TRACED	CGP	1-26-54			
CHECKED	H.J.G.	2-4-54	1	As-Built	VBH/V20-56
IN CHARGE OF	I.D.S.K.	No.	REVISION	BY	DATE

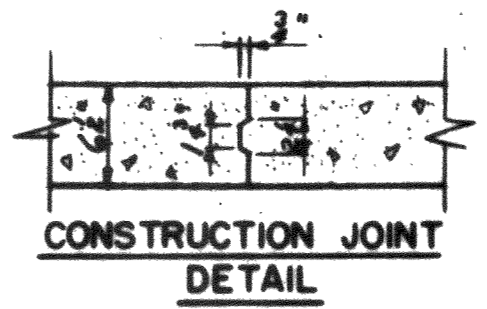
MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 2— PORTLAND TO AUGUSTA
 STRUCTURE 55 TURNPIKE OVER
 ANDROSCOGGIN RIVER
 STA 39.89 + 37.17
TYPICAL CROSS SECTION
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF SCALE: 3/4" = 1'-0"
 CONSULTING ENGINEERS CONTRACT NO. _____
 NEW YORK KANSAS CITY SHEET NO. 237 OF 322



FLOOR PLAN
Scale 1/2" = 1'-0"

ELEVATIONS

	EAST BRIDGE					WEST BRIDGE								
	Abut. 1	Pier 2	Pier 3	Pier 4	Pier 5	Abut. 2	Pier 1	Pier 2	Pier 3	Pier 4	Abut. 2			
Elev. A (S/R)	165.58	163.40	160.68	157.97	155.25	152.53	150.36	145.06	142.88	140.16	137.45	134.73	132.01	129.29
Elev. B (Top 9'15")	165.58	163.40	160.68	157.97	155.25	152.53	150.36	145.06	142.88	140.16	137.45	134.73	132.01	129.29
Elev. C (Top 7'18")	165.27	163.09	160.37	157.66	154.94	152.22	149.50	144.23	142.05	139.34	136.62	133.90	131.18	128.46



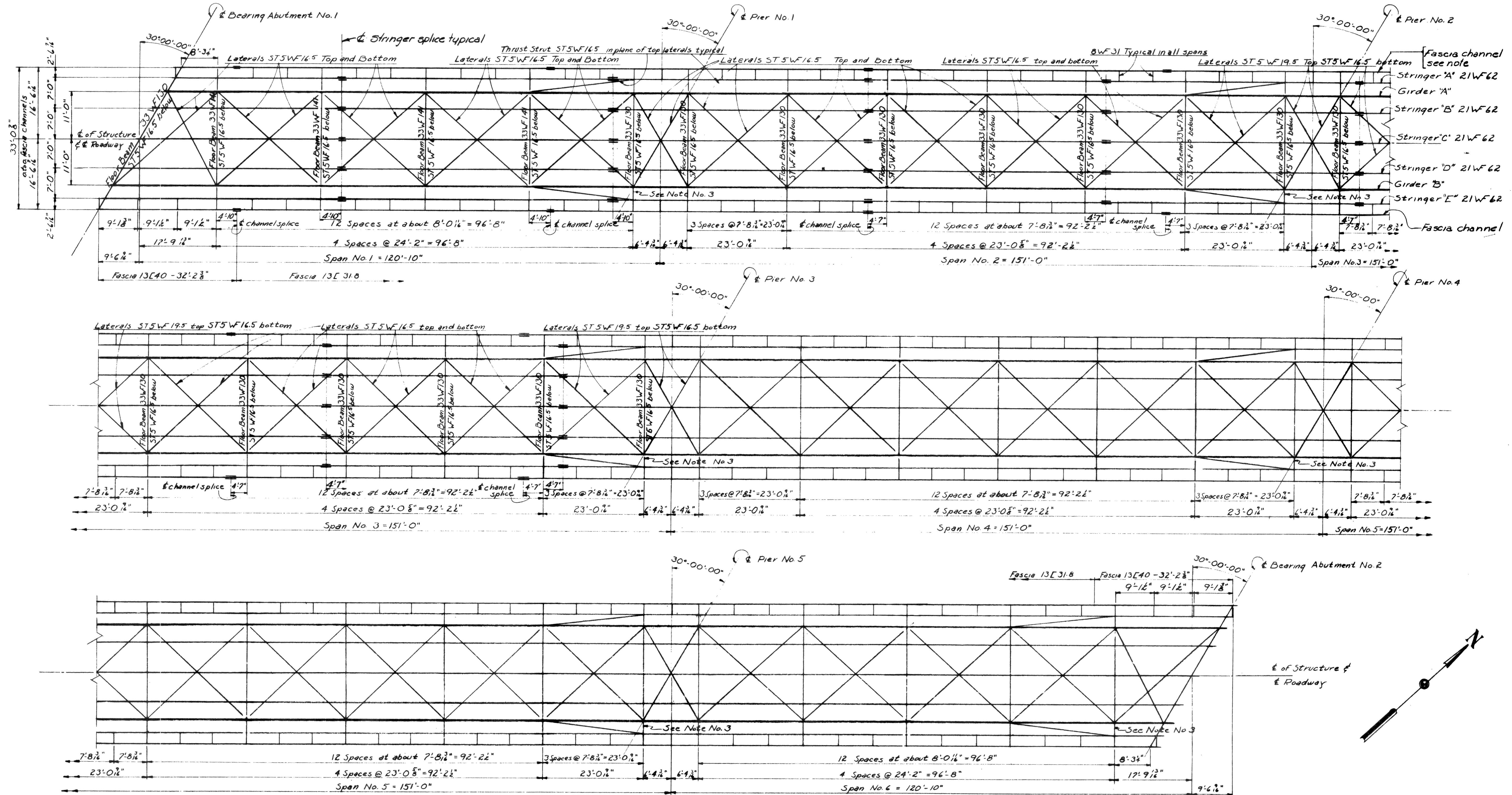
No Scale

Notes:
Elevations are given to top of finished roadway surface at Bearing. 4" x 8" Curb # on Span 1 only. See Sheet No. 55.02 for details. Concrete placing sequence and direction noted thus, (N) →

DRAWING 55.03.15

MADE	BY	DATE			
TRACED					
CHECKED	PLB	2-11-54	1	As-Built	HWH/VDS
IN CHARGE OF	I.D.S.K.	No.	REVISION	BY	DATE

MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
 SECTION 2— PORTLAND TO AUGUSTA
 STRUCTURE NO. 85 TURNPIKE OVER ANDROSCOGGIN RIVER
 STA. 3999+37.17
FLOOR PLAN
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS
 NEW YORK KANSAS CITY
 SCALE: AS SHOWN
 CONTRACT NO. _____
 SHEET NO. 222 of 222



ELEVATIONS													
EAST BRIDGE							WEST BRIDGE						
* Abt. 1	Pier 1	Pier 2	Pier 3	Pier 4	Pier 5	Abt. 2	Abt. 1	Pier 1	Pier 2	Pier 3	Pier 4	Pier 5	Abt. 2
SA	164.49	162.32	159.60	156.88	154.16	151.43	149.27	163.97	161.80	159.08	156.36	153.65	150.93
GA	162.84	160.66	157.94	155.22	152.51	149.79	147.61	162.32	160.14	157.42	154.71	152.00	149.27
SB	164.64	162.47	159.75	157.03	154.31	151.60	148.88	164.12	161.95	159.28	156.51	153.80	151.08
SC	164.79	162.61	159.89	157.17	154.46	151.74	149.02	164.26	162.09	159.37	156.65	153.94	151.22
SD	164.79	162.61	159.89	157.17	154.46	151.74	149.02	164.26	162.09	159.37	156.65	153.94	151.22
GD	163.07	160.89	158.17	155.45	152.74	150.02	147.29	162.55	160.37	157.65	154.94	152.22	149.50
SE	164.79	162.61	159.89	157.17	154.46	151.74	149.02	164.26	162.09	159.37	156.65	153.94	151.22

* S indicates stringer, G indicates girder

- Note:**
- Members are designated in Spans 1, 2, and 3.
 - Members in Spans 4, 5, and 6 are same by rotation except as noted.
 - At these panel points rivet stringers to floor beams with brackets. At all other panel points stringers are bolted. See Sheet No. 55.02.
 - Elevations for stringers are given to top of stringers. Elevations for girders are given to top of flange angles. All elevations are given at & of bearing.
 - Top and bottom laterals to be supported at their intersection as shown on sheet No. 55.06.
 - Fascia is 13E31.8 except as noted.
 - For Stringer Splice see sheet 55.03.

MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
 SECTION 2— PORTLAND TO AUGUSTA

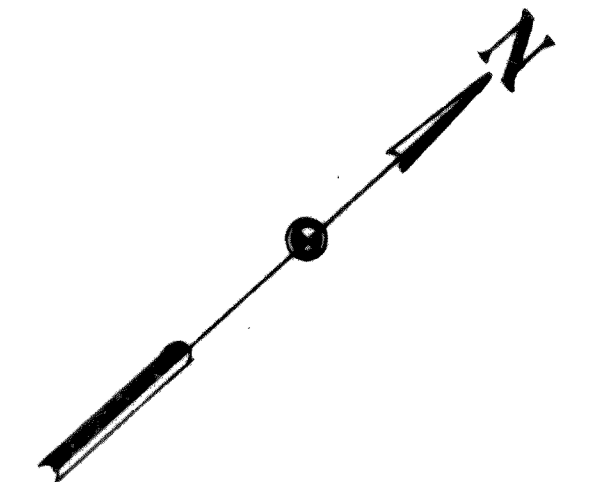
STRUCTURE NO. 85 TURNPIKE OVER
 ANDROSCOGGIN RIVER
 STA. 3989 + 37.17
FRAMING PLAN

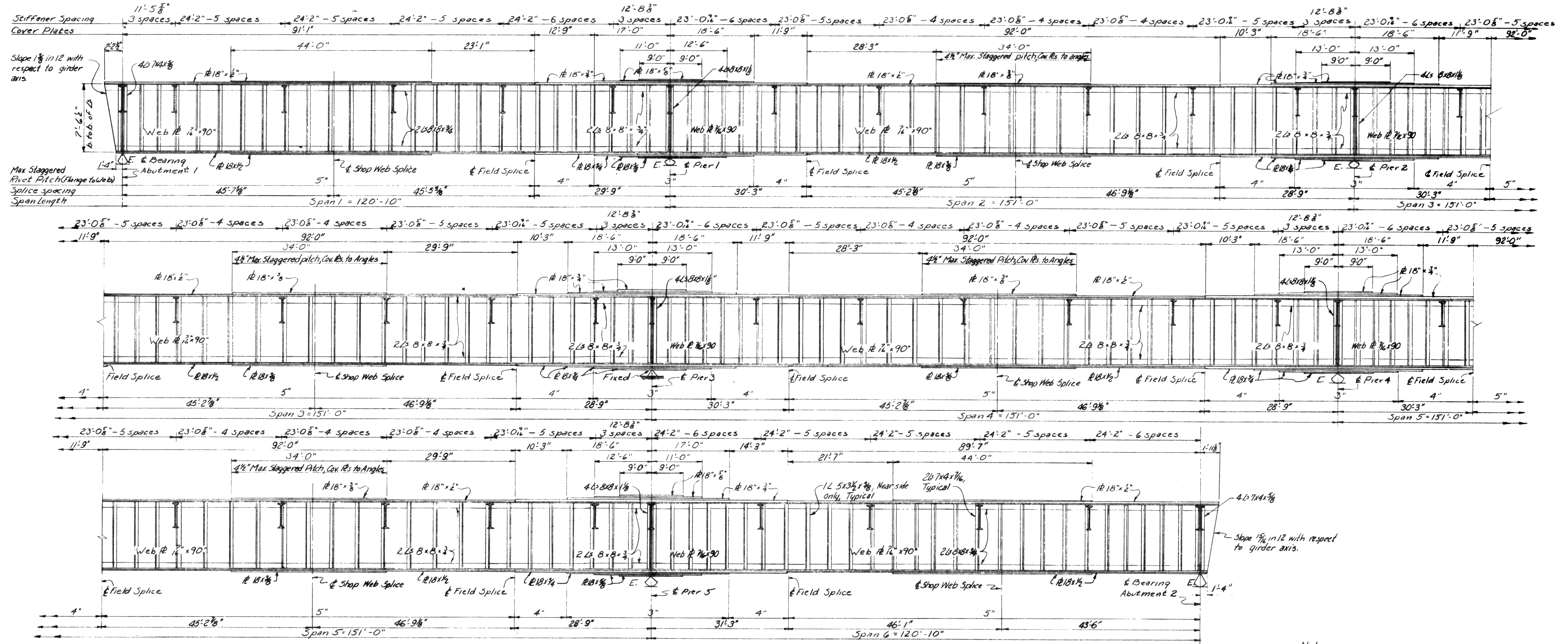
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 CONSULTING ENGINEERS
 NEW YORK KANSAS CITY

SCALE: 3/8" = 1'-0"
 CONTRACT NO. _____
 SHEET NO. 232 OF 342

DRAWING 55.04.15

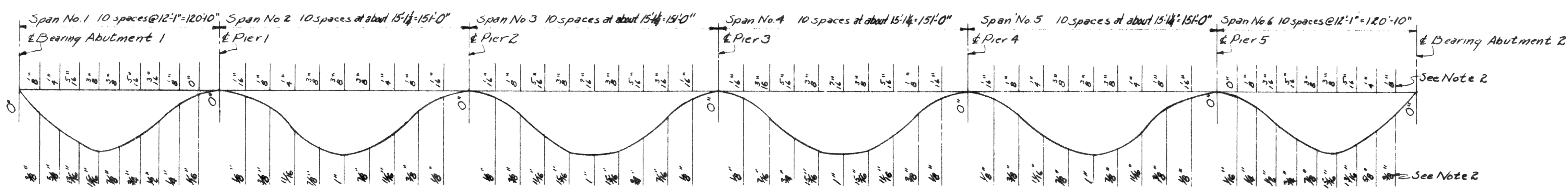
BY	DATE			
MADE	RSG	1-20-58		
TRACED				
CHECKED	H.M.	2-4-59	1	As-Built
IN CHARGE OF	IDSK	No.	REVISION	BY DATE





GIRDER ELEVATION
Scale: 3/8" = 1'-0" Horizontal
1/4" = 1'-0" Vertical

Notes:
 1. West Girder is shown. East Girder is similar by rotation except at ends where girder extends beyond & of bearing. Treatment beyond & of bearing is similar as shown.
 2. Dimensions above baseline are deflections to be expected when steel is in place. Dimensions below baseline are total deflections to be expected under full Dead Load.
 Deflections are shown to the nearest 1/8".
 3. Intermediate stiffeners are 1L 5x3 1/2 x 1/4 on inside only. Stiffeners at floorbeam connections are 2L 7x4 1/2 x 1/4.
 4. Make cover plate rivet pitch same as flange rivets except, as noted above, and at ends of cover plates. Cover plates to be fully developed by rivets at 3" pitch each end.

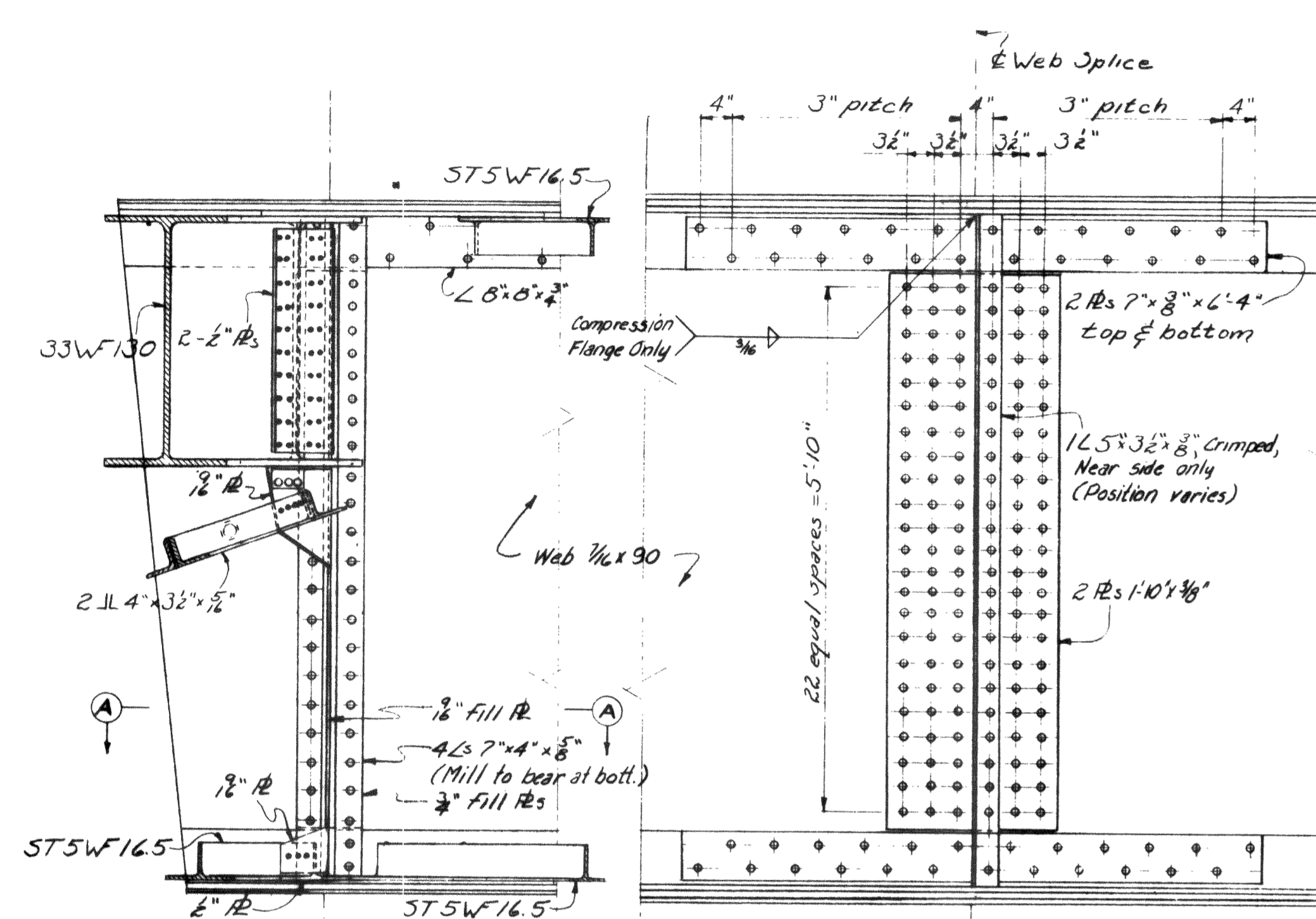


DEAD LOAD DEFLECTION DIAGRAM
No Scale

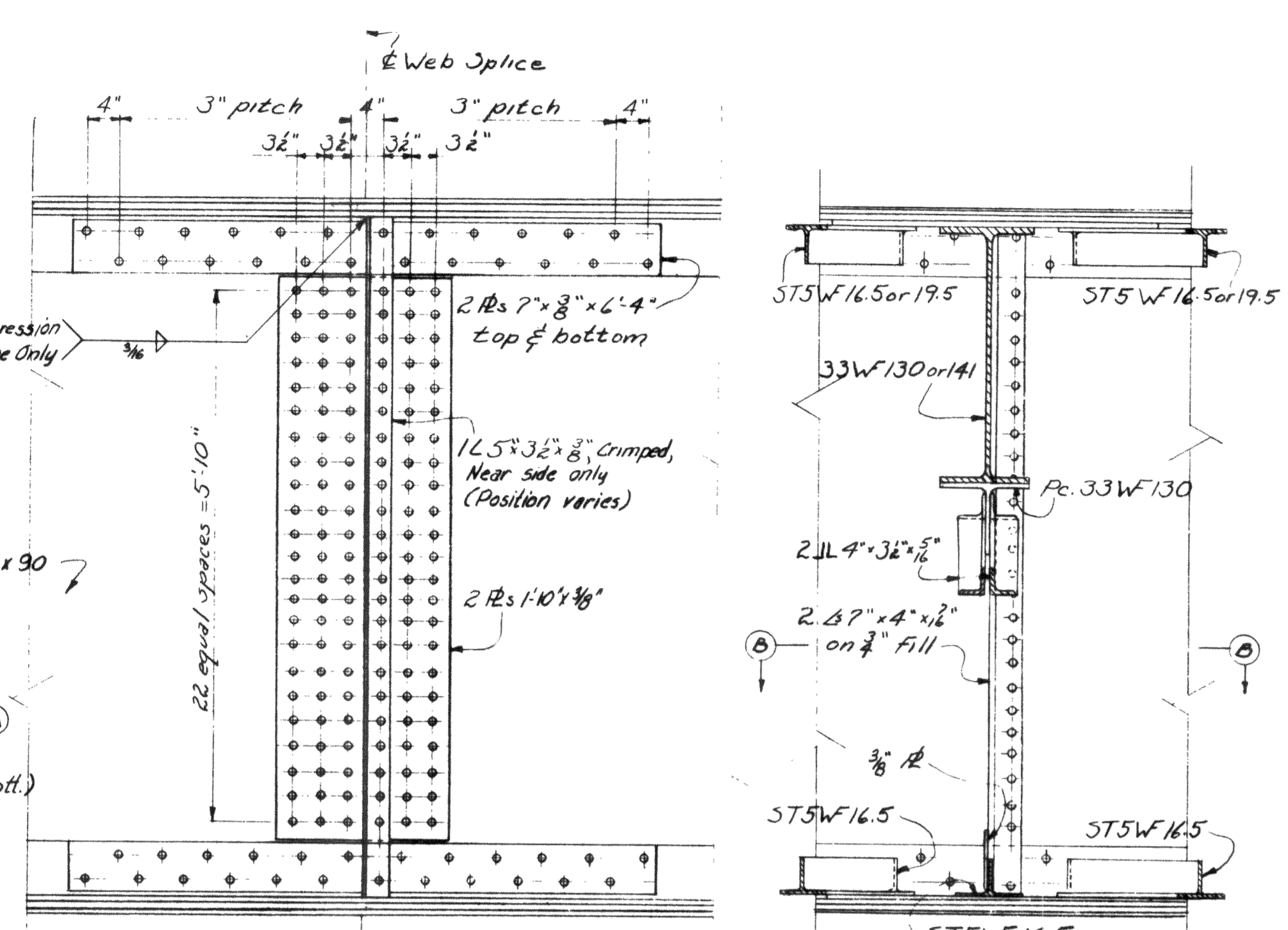
DRAWING NO. 55.05.15

BY	DATE			
MADE	RSG	1.26.54		
TRACED			2	As-Built
CHECKED	HJG	2.5.54	1	Removed Intermediate Stiffeners from Gir. Outside
IN CHARGE OF	IDSK			
			REVISION	BY DATE

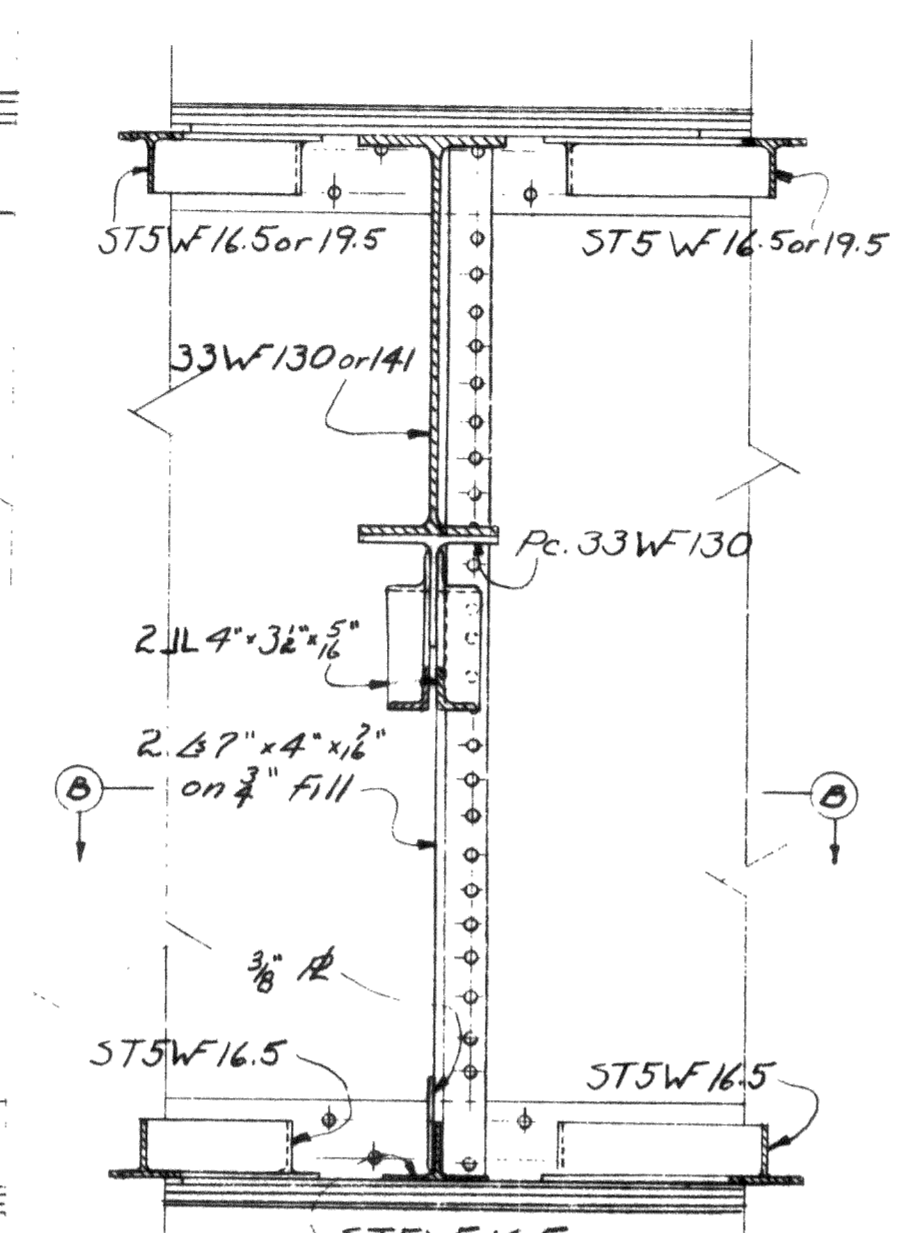
MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
 SECTION 2— PORTLAND TO AUGUSTA
 STRUCTURE NO. 55 TURNPIKE OVER
 ANDROSCOGGIN RIVER
 STA. 3989 + 37.17
GIRDER ELEVATION
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 CONSULTING ENGINEERS
 NEW YORK KANSAS CITY
 SCALE: As Noted
 CONTRACT NO. _____
 SHEET NO. 240 OF 382



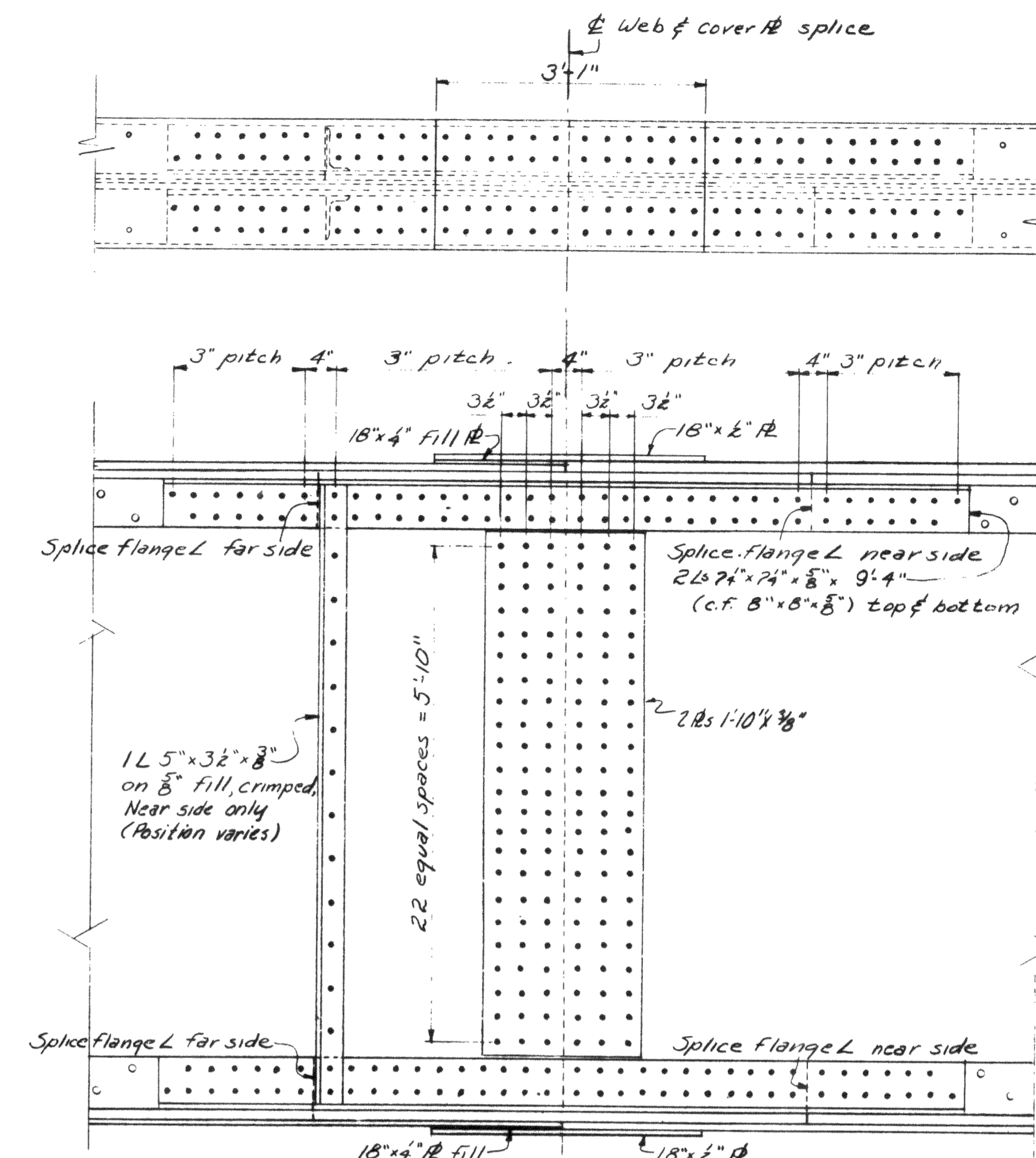
TYPICAL END BEARING STIFFENER



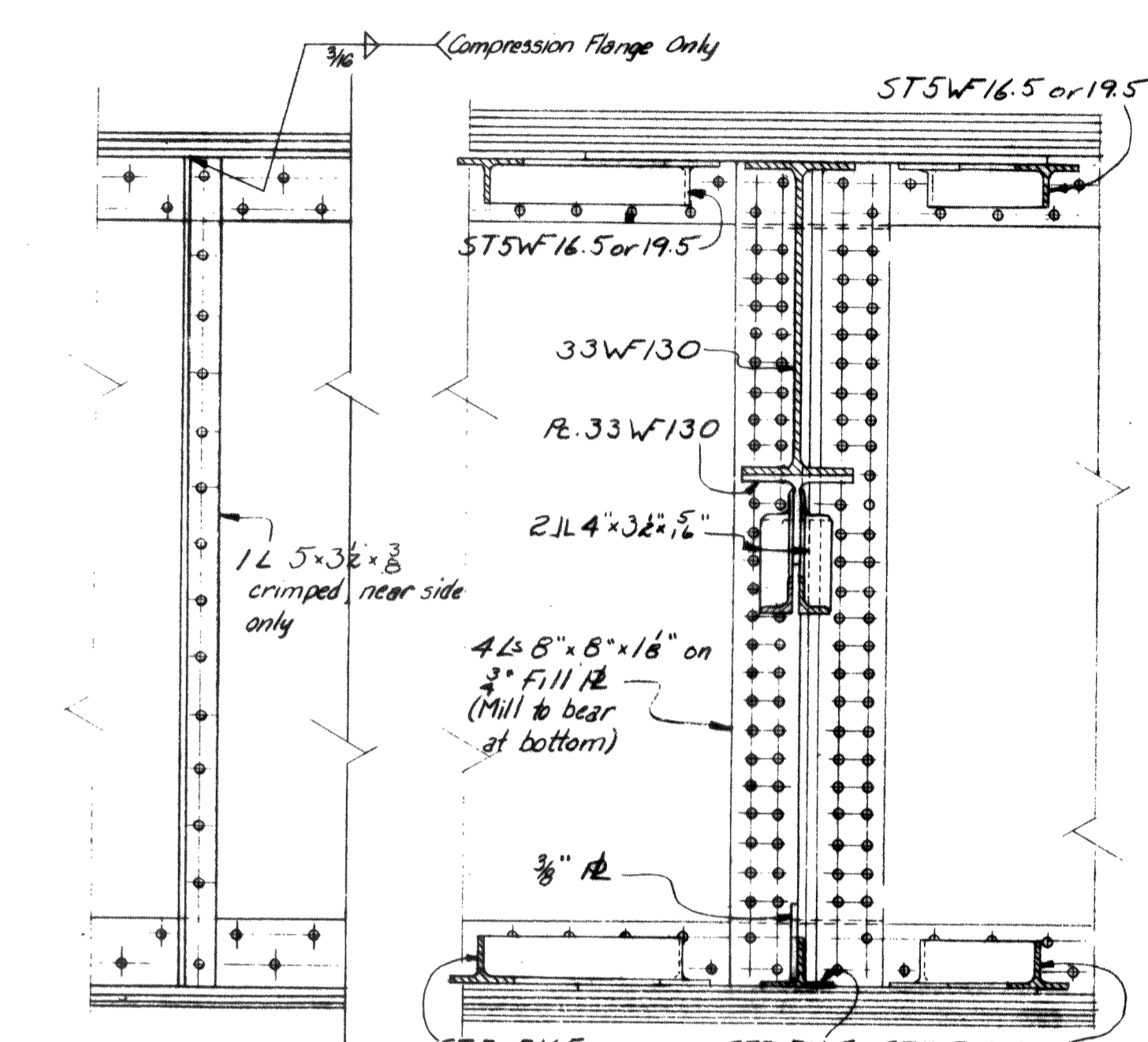
TYPICAL SHOP WEB SPLICE



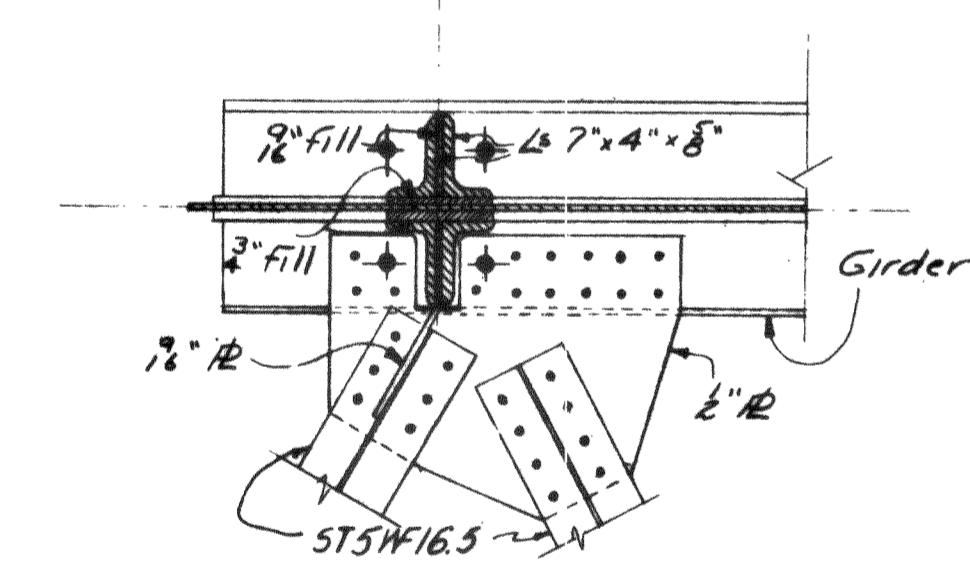
TYPICAL INTERMEDIATE FLOORBEAM CONNECTION



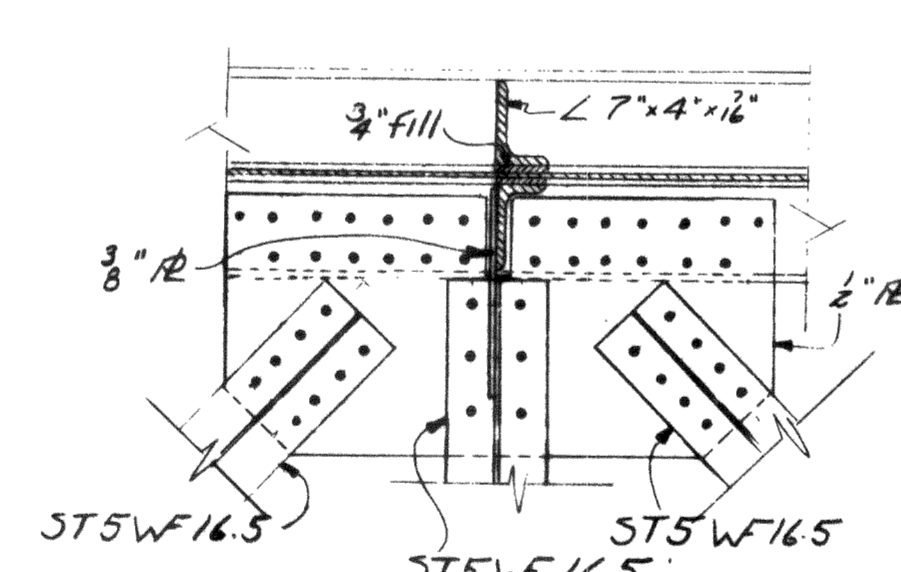
TYPICAL FIELD SPLICE



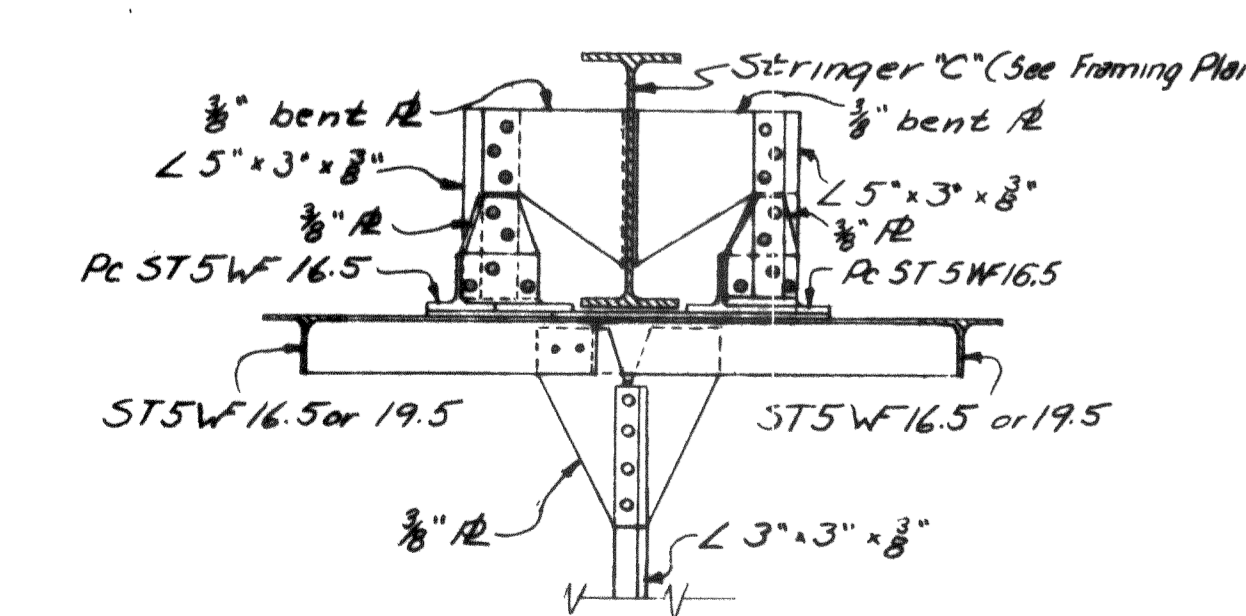
TYPICAL BEARING STIFFENER OVER PIER



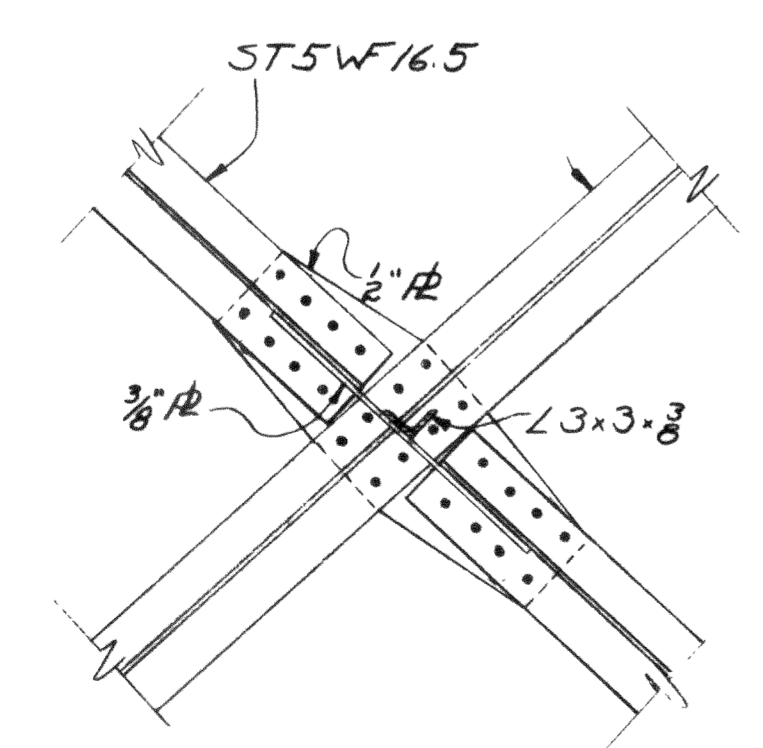
SECTION A-A



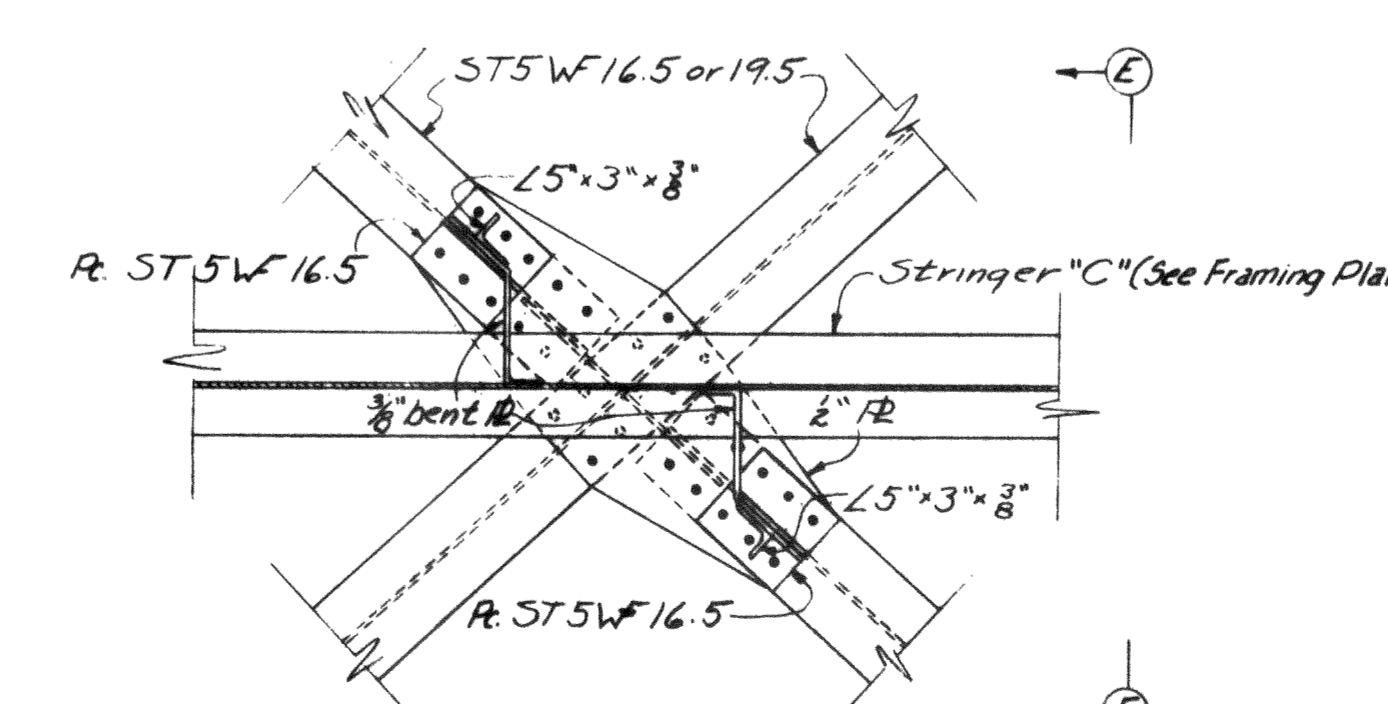
SECTION B-B



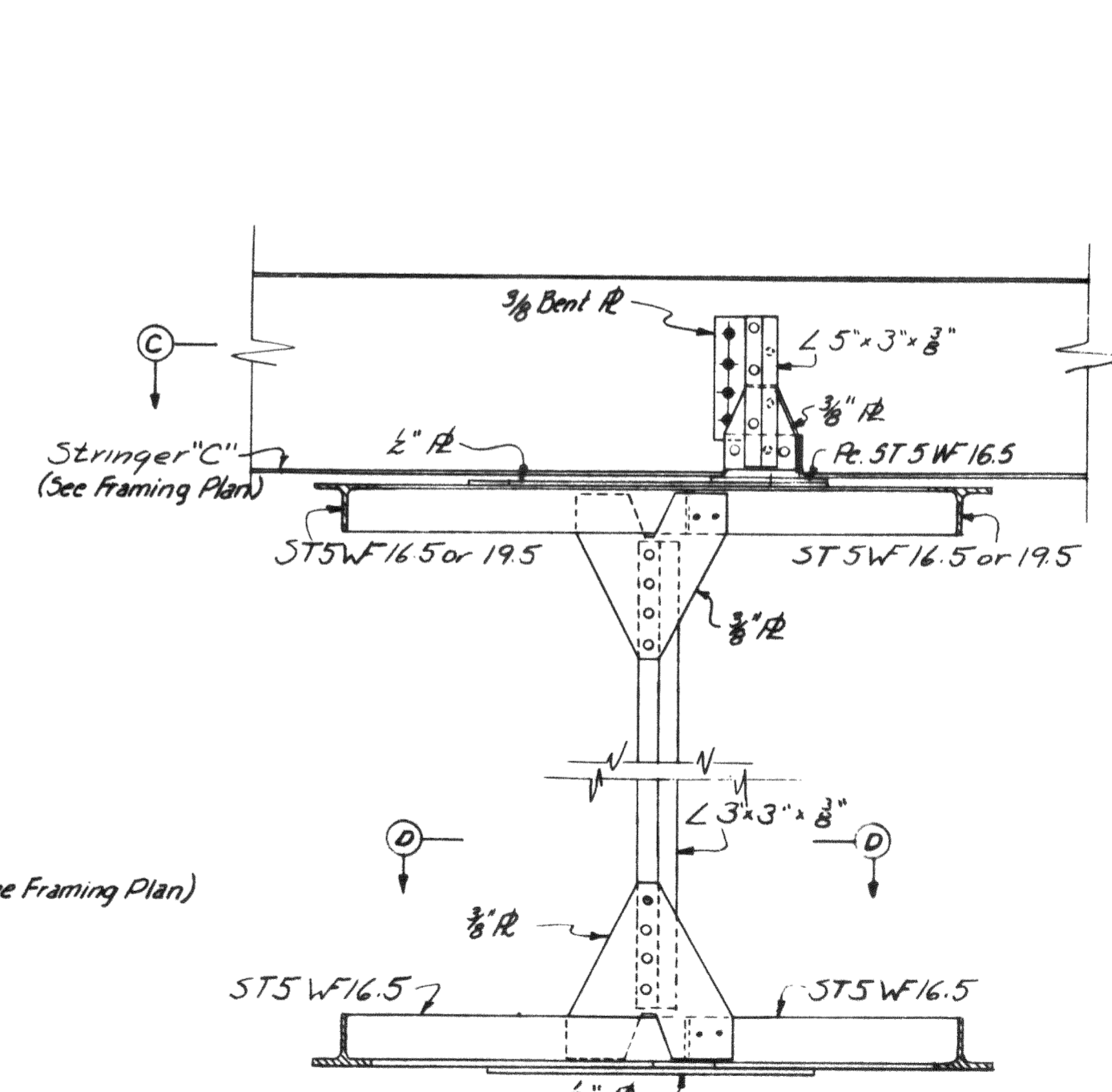
ELEVATION E-E



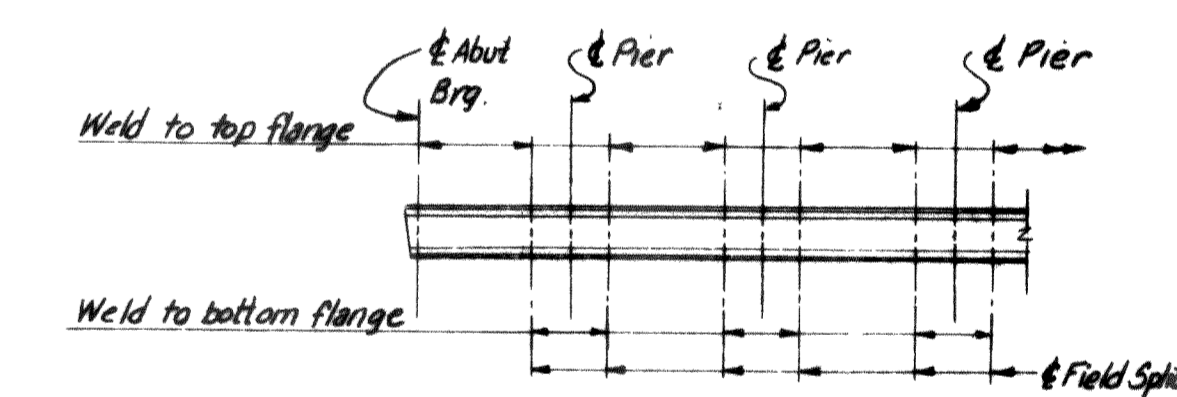
SECTION D-D



SECTION C-C



PART ELEVATION AT MID-PANELS (Showing lateral bracing support)



LOCATION OF INTERMEDIATE STIFFENER WELDS (No Scale)

Shop weld outstanding leg of intermediate stiffener angles (5x3x3/8 L) to compression flange of girder with 1/2 inch fillet welds. Where stiffener falls on splice angles of field splice, no welding is required.

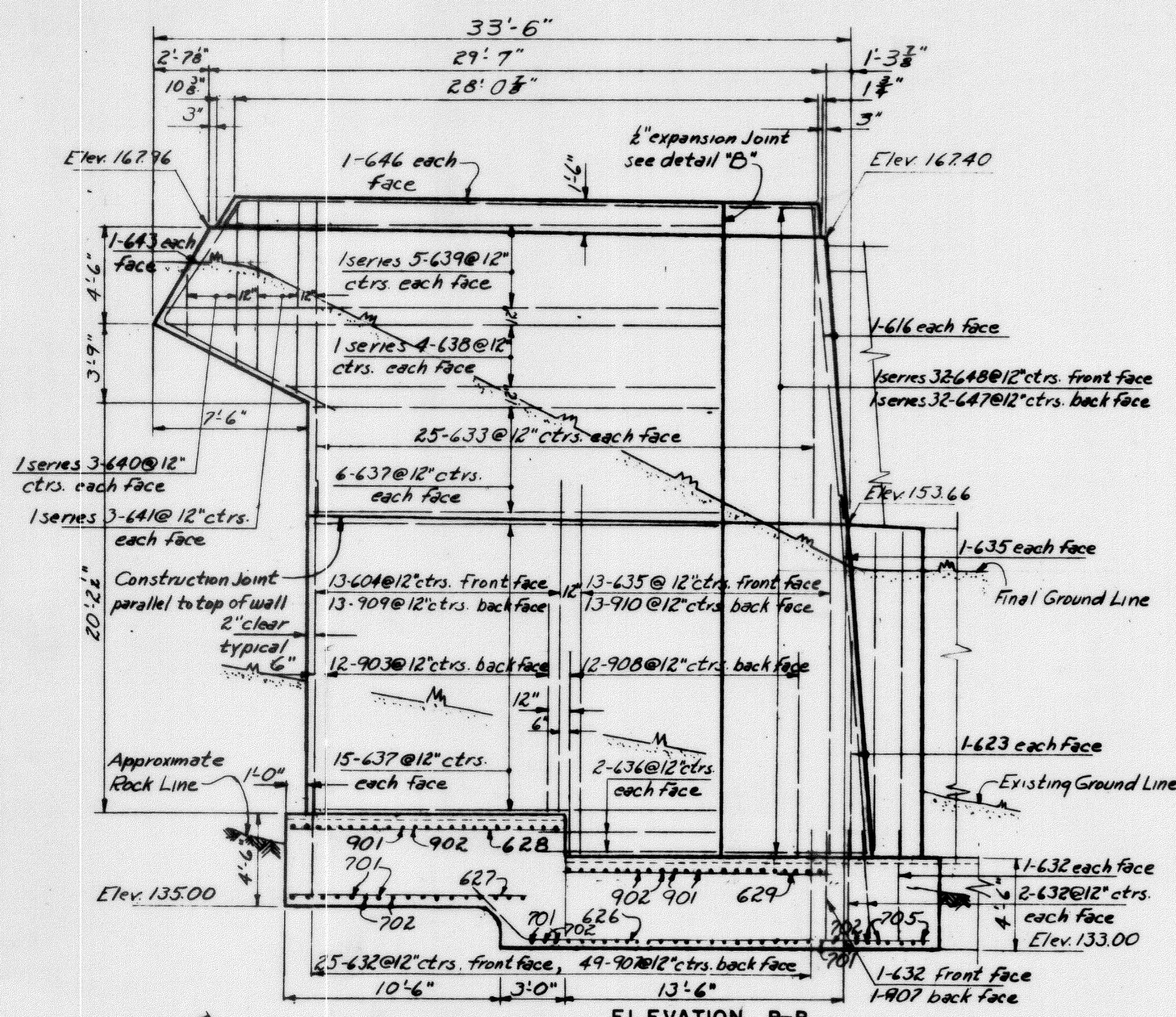
DRAWING 55.06.15

NO.	REVISION	BY	DATE
1	As-Built	ABW	12-08
2	Remove 1/2" gap between stiffener angles	HJG	3-18-54
3	Change stiffener angles	HJG	3-9-54
4	Remove Intermediate Stiffeners from Gir. Exterior	HJG	2-24-53

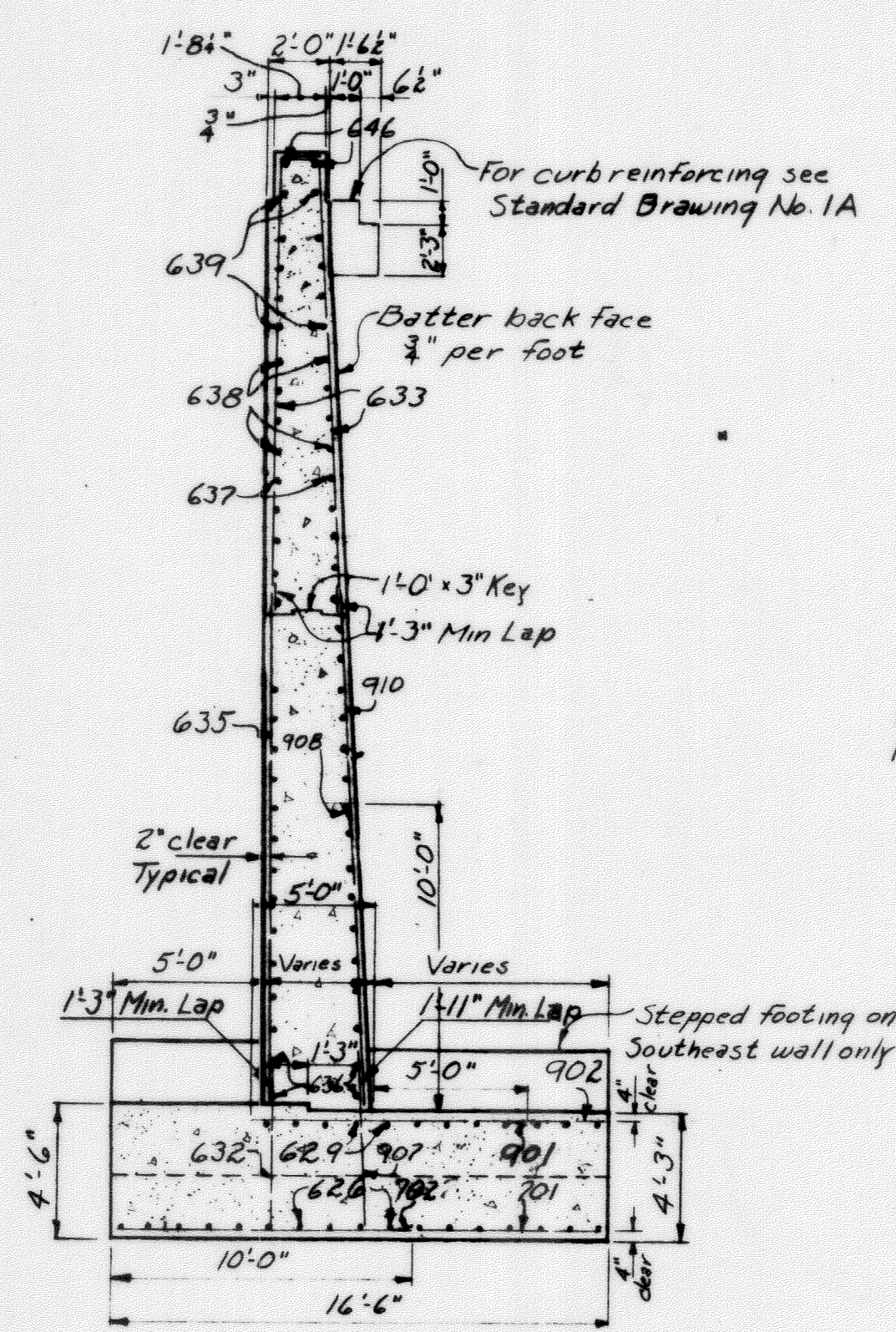
MADE BY PSG 1-28-54
 TRACED BY HJG
 CHECKED BY HJG 2-9-54
 IN CHARGE OF P.D.S.K.

Note: Lateral supports in end panels to be similar, except 1 support per lateral is required. Stiffeners between floor beams to be provided on interior sides of girders only.

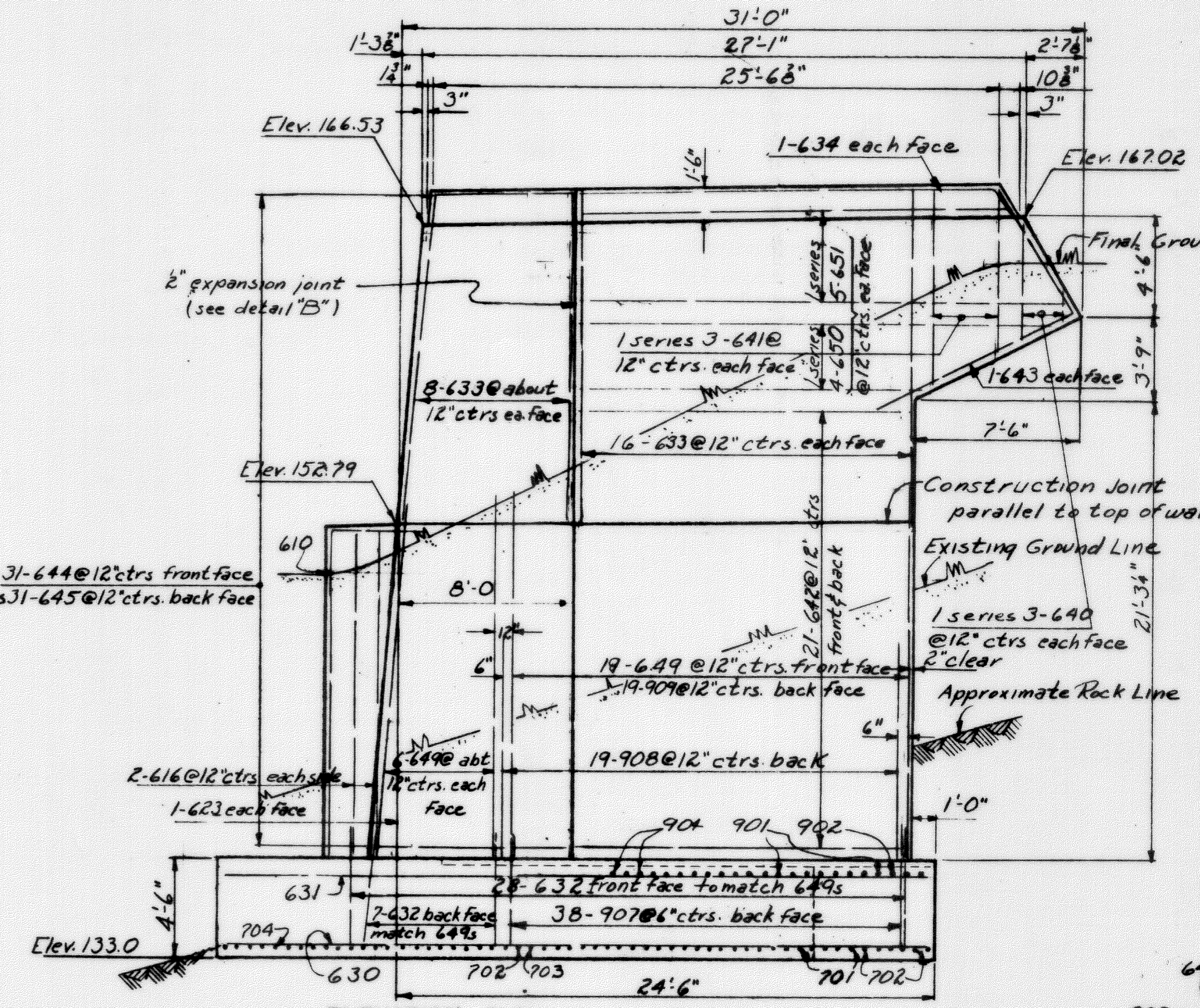
MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
 SECTION 2- PORTLAND TO AUGUSTA
 STRUCTURE NO. 55 TURNPIKE OVER
 ANDROSCOGGIN RIVER
 STA. 3989+37.17
 GIRDER AND BRACING DETAILS
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 CONSULTING ENGINEERS
 NEW YORK KANSAS CITY
 SCALE: 3/4" = 1'-0"
 CONTRACT NO. _____
 SHEET NO. 261 OF 322



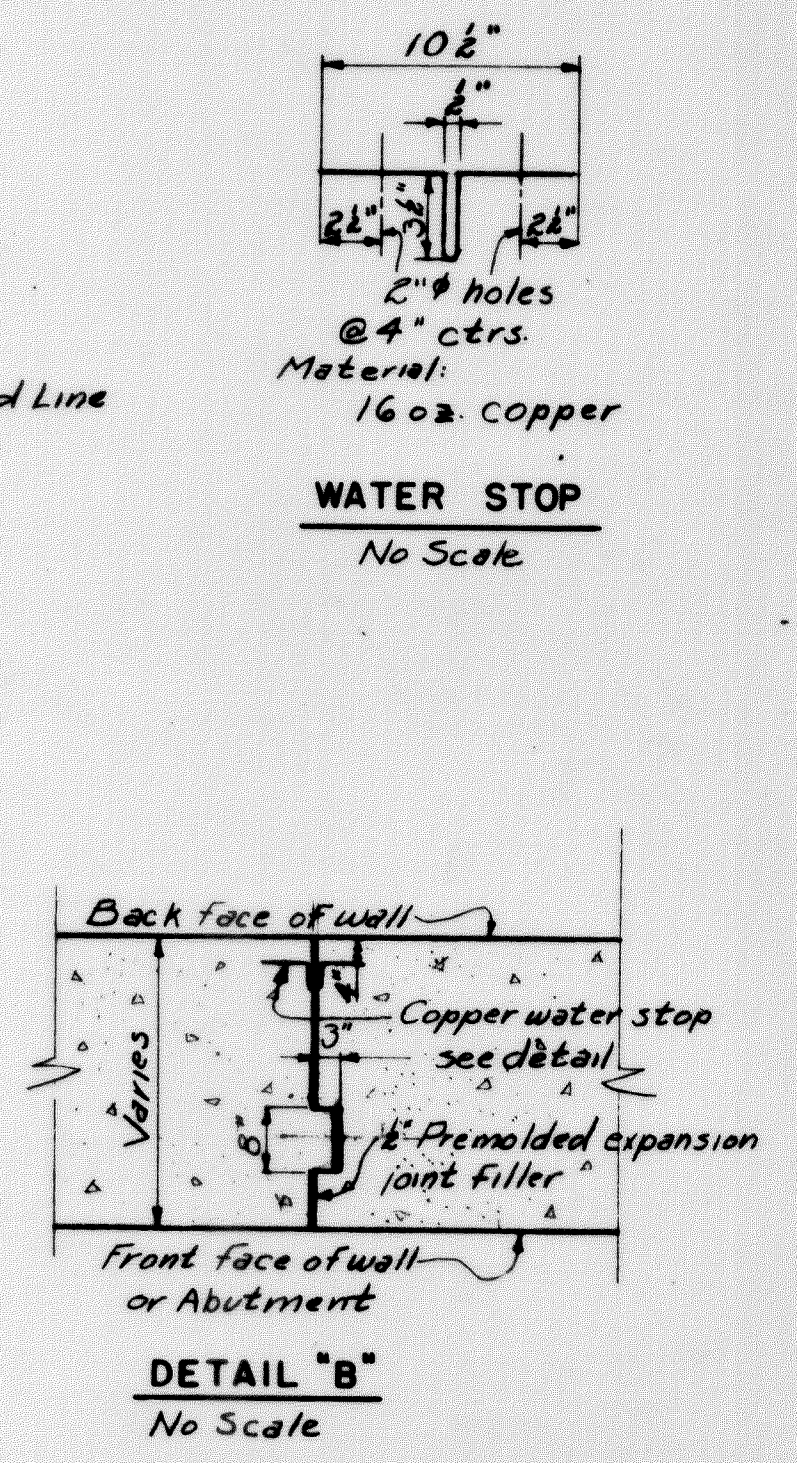
ELEVATION B-B
Scale: 3/8"=1'-0"



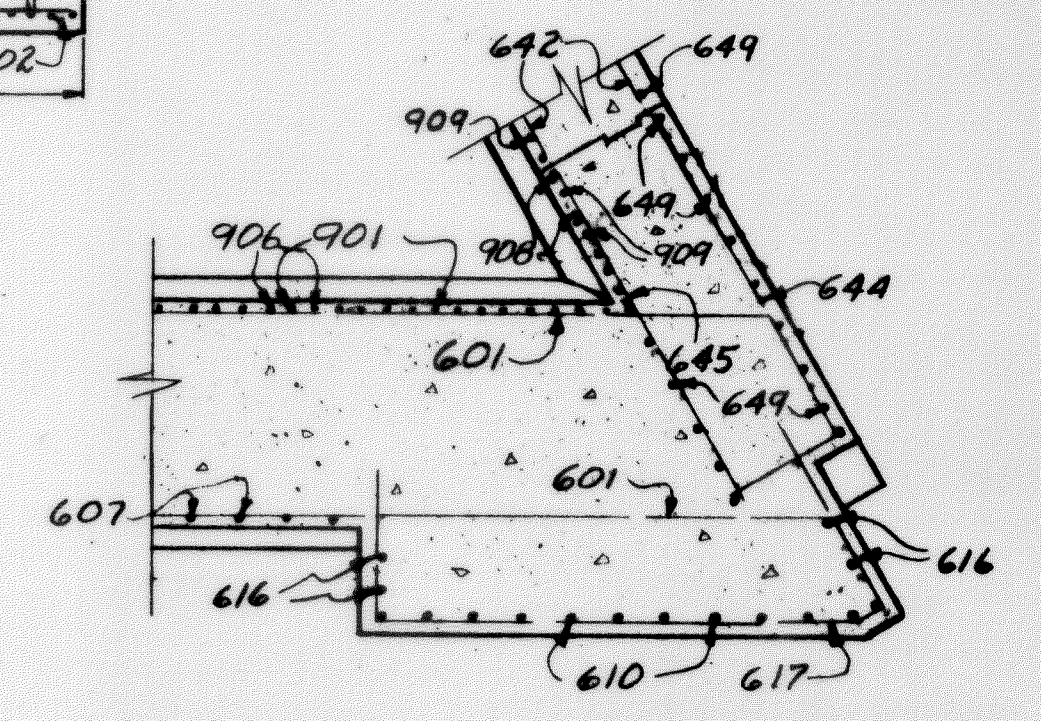
SECTION D-D
Scale: 3/8"=1'-0"



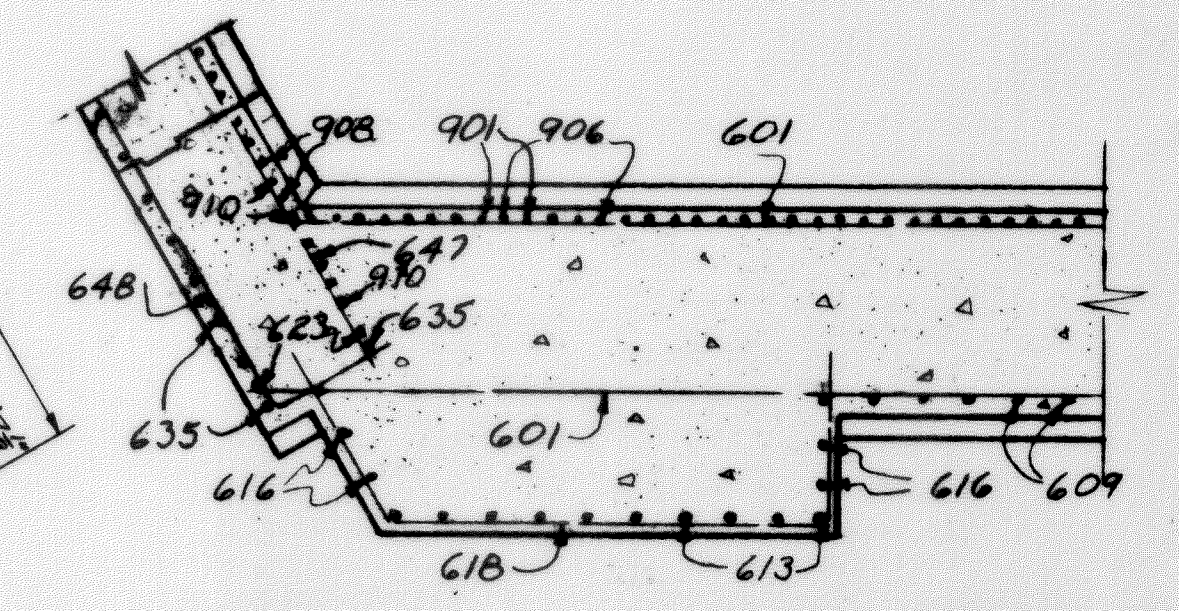
ELEVATION C-C
Scale: 3/8"=1'-0"



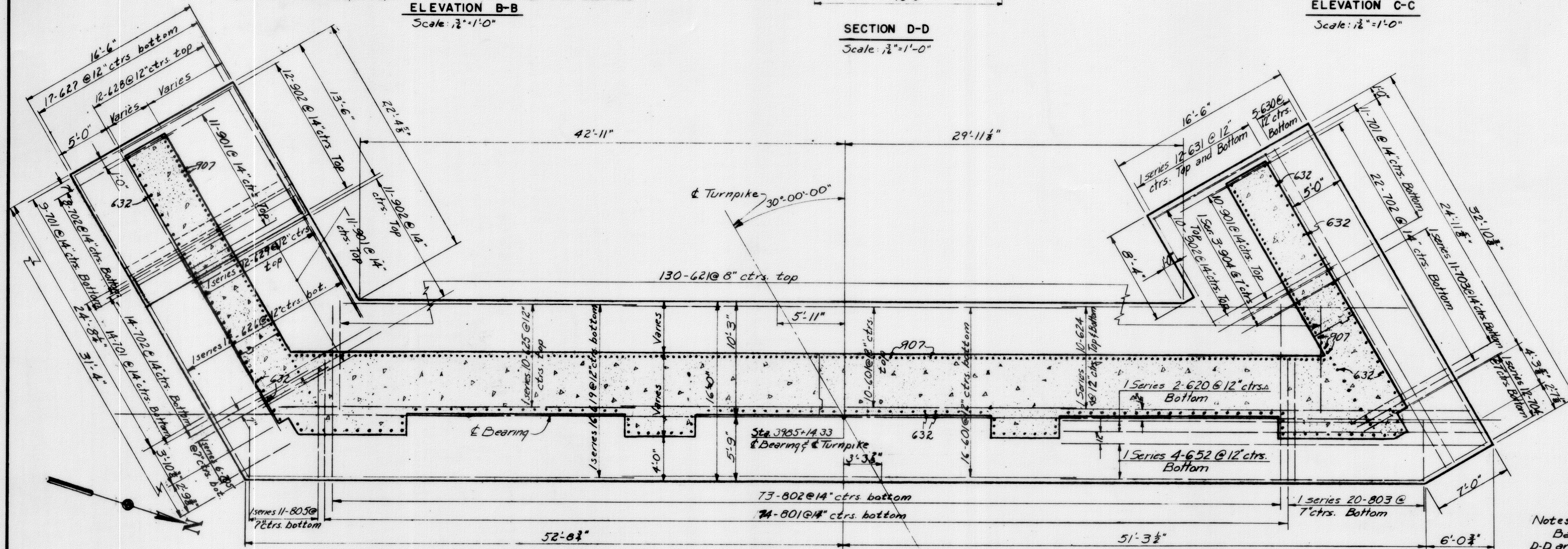
DETAIL 'B'
No Scale



SECTION F-F
Scale: 4"=1'-0"



SECTION G-G
Scale: 4"=1'-0"



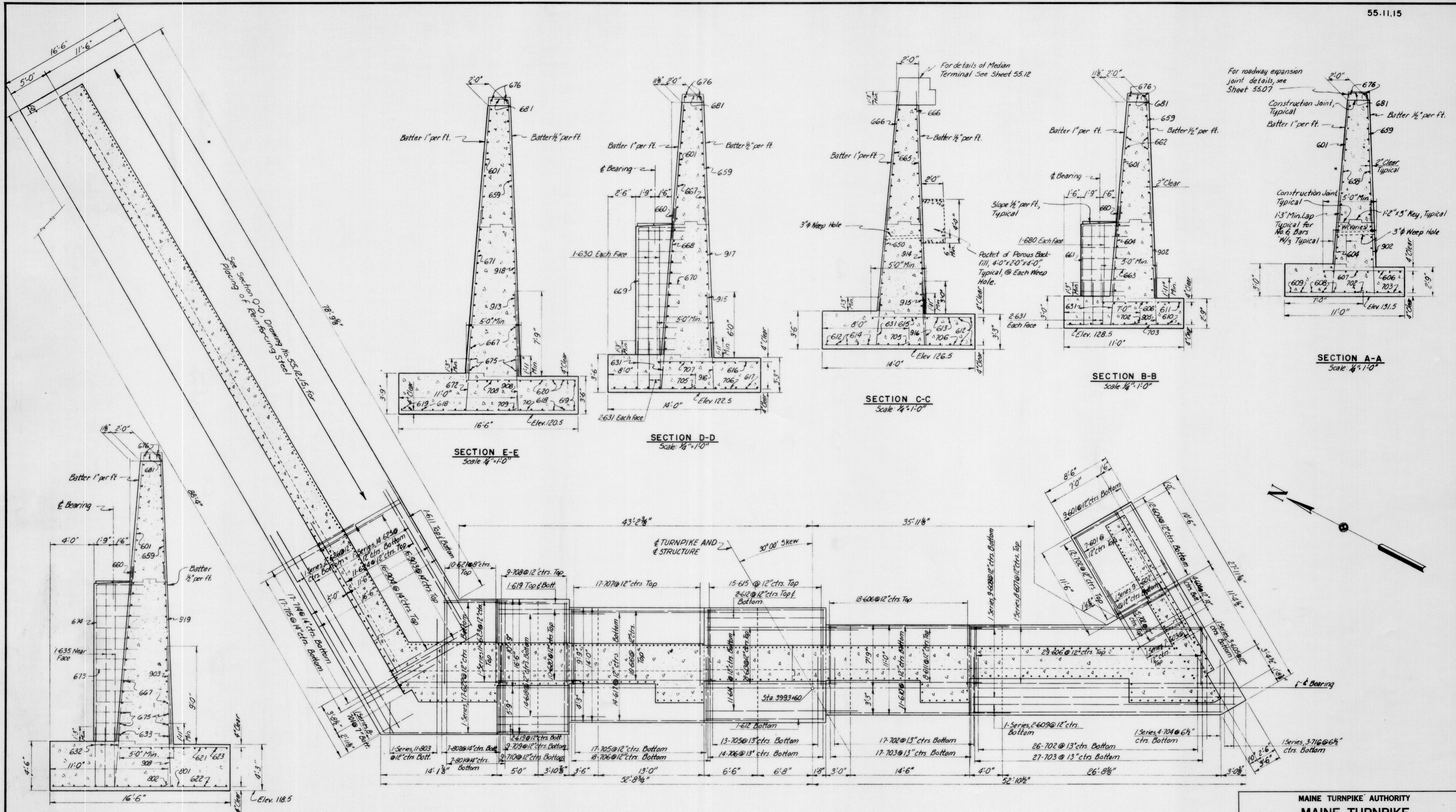
FOOTING PLAN
Scale: 3/8"=1'-0"

Notes:
 Bars numbered in section D-D are in East wingwall, bars in West wingwall are placed similar.
 For required form markings & curb reinforcing, see Standard Drawing No. 1A.

DRAWING 55.09.15

BY	DATE		
MADE	R.S.G.	2-18-54	
TRACED			
CHECKED	H.J.G.	3-16-54	As-Built HBH 12054
IN CHARGE OF	I.D.S.K.		

MAINE TURNPIKE AUTHORITY
SECTION 2— PORTLAND TO AUGUSTA
 STRUCTURE NO. 55 TURNPIKE OVER
 ANDROSCOGGIN RIVER
 STA. 3989+37.17
 ABUTMENT NO. 1
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS
 NEW YORK KANSAS CITY
 SCALE: As Shown
 CONTRACT NO. _____
 SHEET NO. 244 OF 252



For roadway expansion joint details, see Sheet 55.07

Construction Joint, Typical
Batter 1' per ft.

2" Clear Typical

1-3" Min. Lap Typical for No. 6 Bars
1/2" Typical

1-2" x 5" Key, Typical

3" Weep Hole

Elev. 131.5

SECTION A-A
Scale: 1/4" = 1'-0"

SECTION B-B
Scale: 1/4" = 1'-0"

SECTION C-C
Scale: 1/4" = 1'-0"

SECTION D-D
Scale: 1/4" = 1'-0"

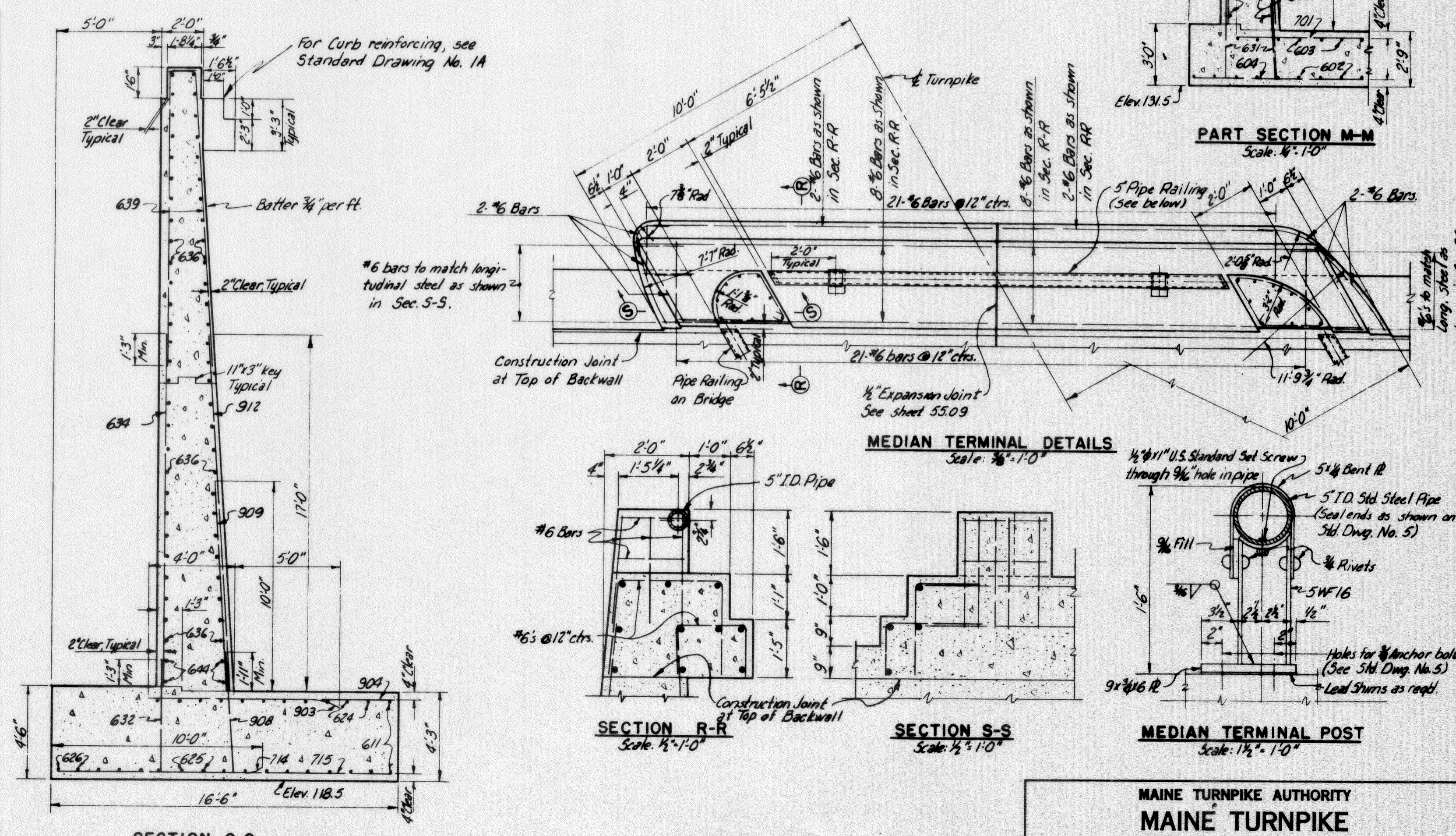
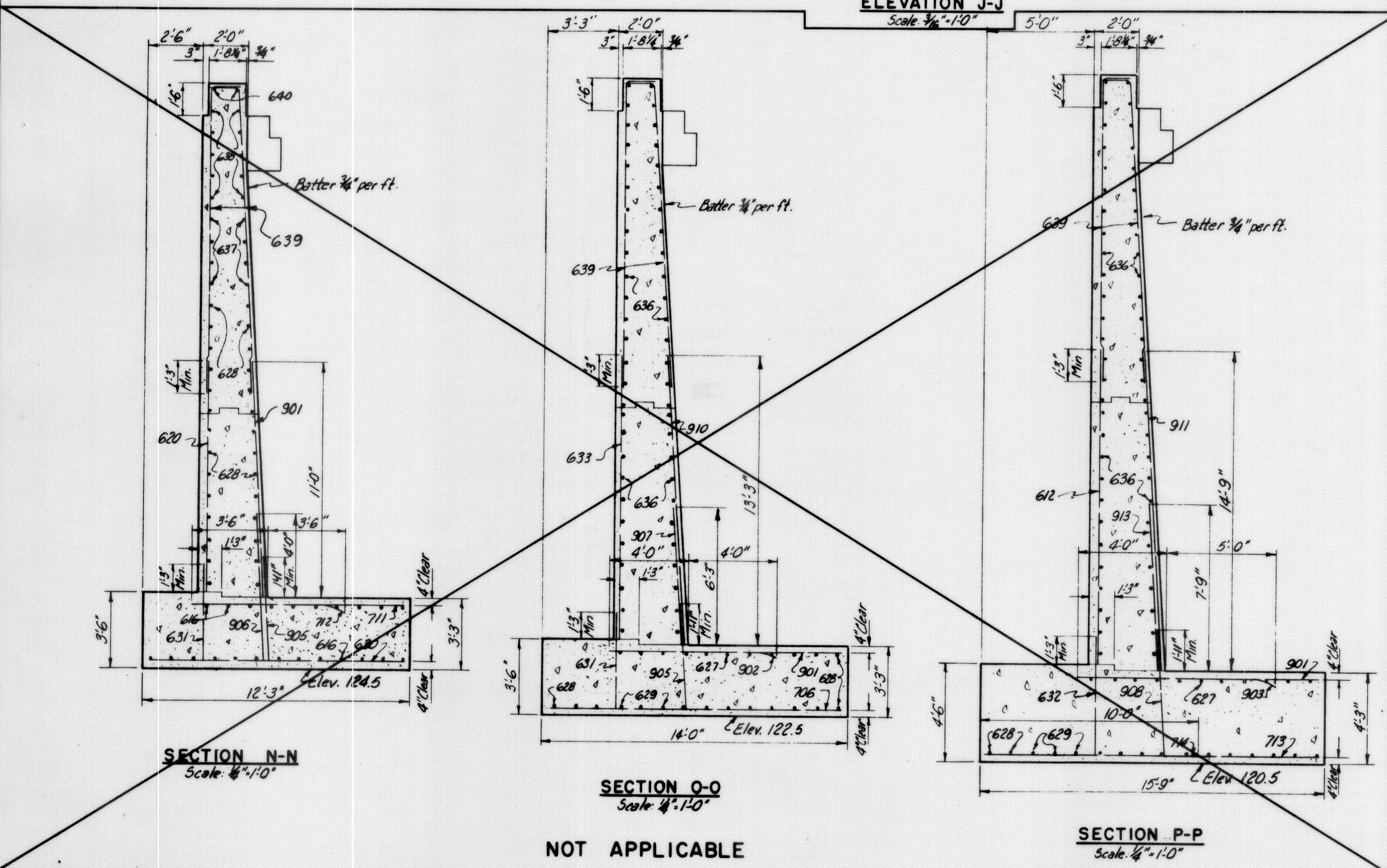
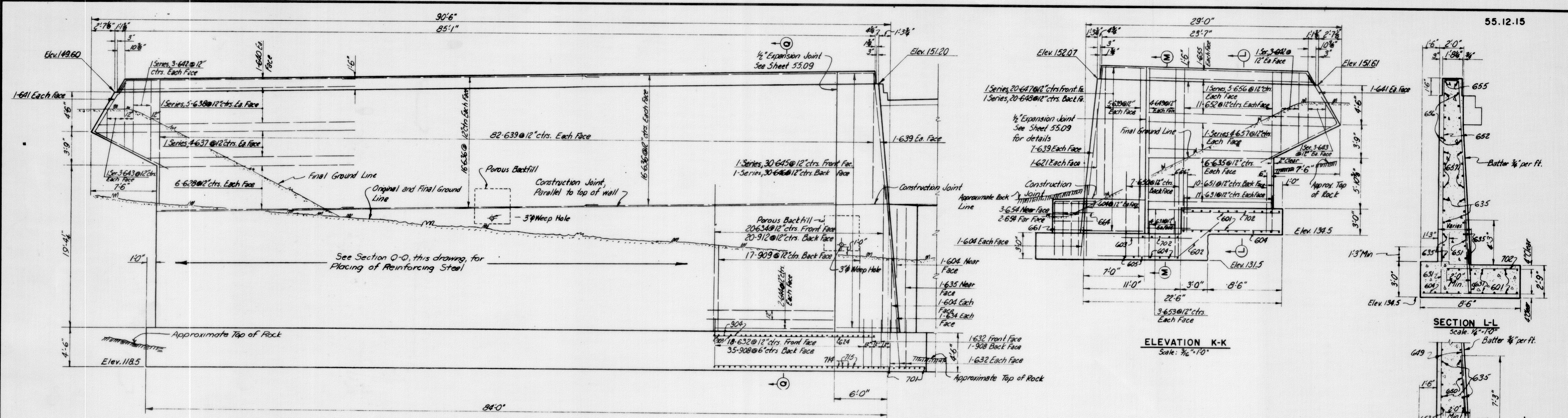
SECTION E-E
Scale: 1/4" = 1'-0"

SECTION F-F
Scale: 1/4" = 1'-0"

FOOTING PLAN
Scale: 3/8" = 1'-0"

MAINE TURNPIKE AUTHORITY	
MAINE TURNPIKE	
SECTION 2— PORTLAND TO AUGUSTA	
STRUCTURE NO. 55	TURNPIKE OVER
ANDROSCOGGIN RIVER	
STA. 39.89 + 37.17	
ABUTMENT NO. 2	
HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS	SCALE: As Noted CONTRACT NO.
NEW YORK KANSAS CITY	SHEET NO. 246 OF 382

DRAWING NO. 55.11.15			
BY	DATE		
MADE	H.J.G.	3-4-54	
TRACED			
CHECKED	R.S.G.	3-18-54	As Built
IN CHARGE OF	IDSX	No.	REVISION
			BY DATE



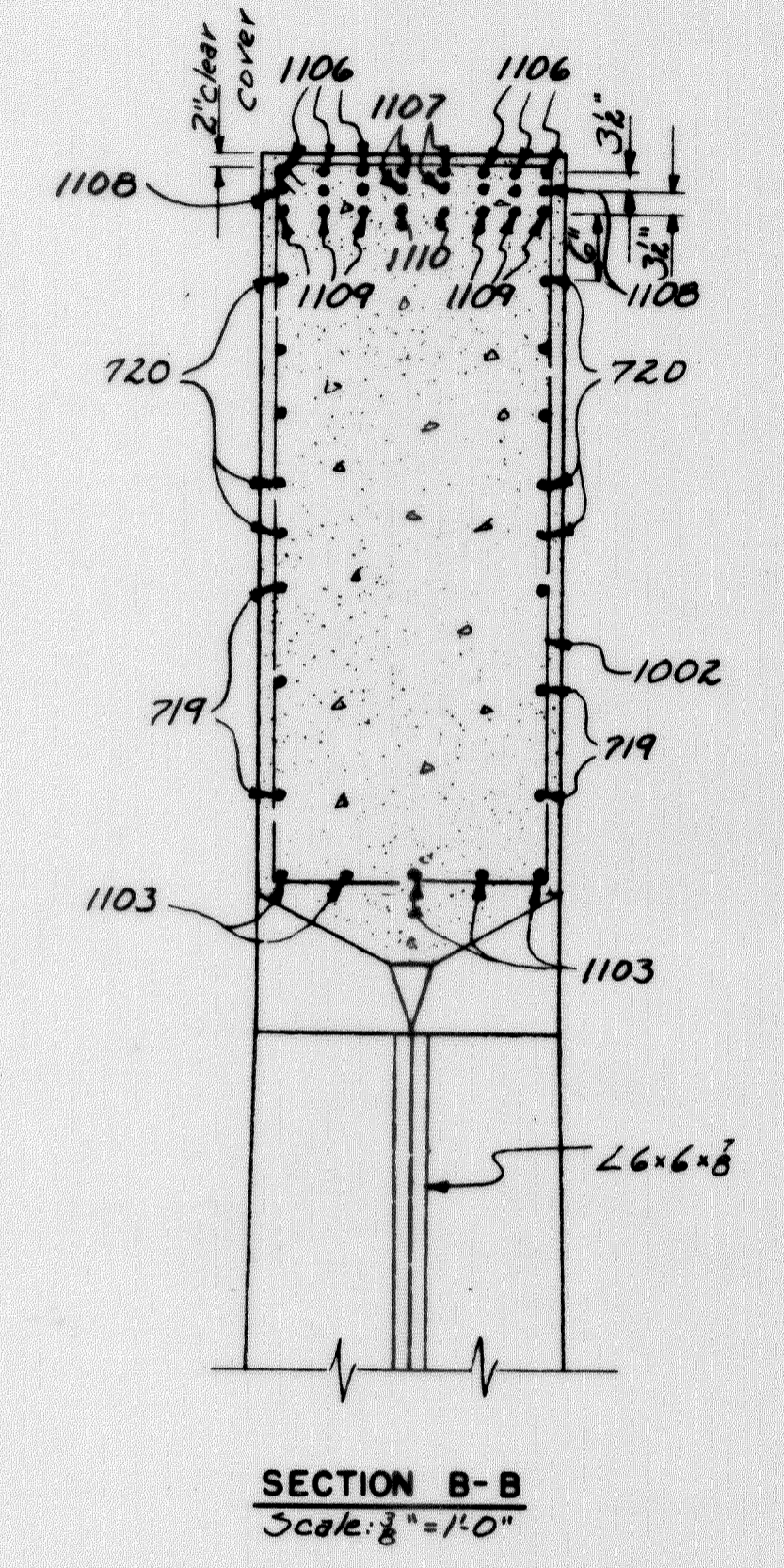
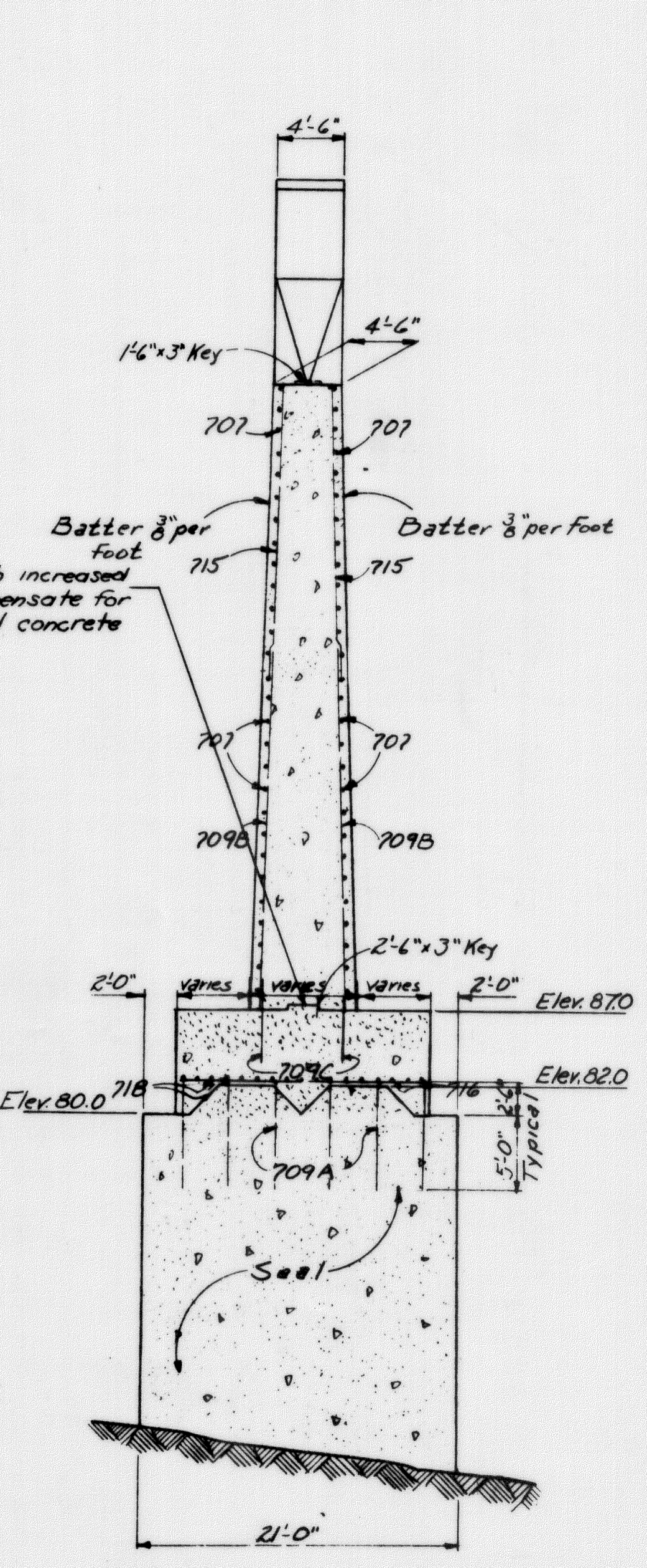
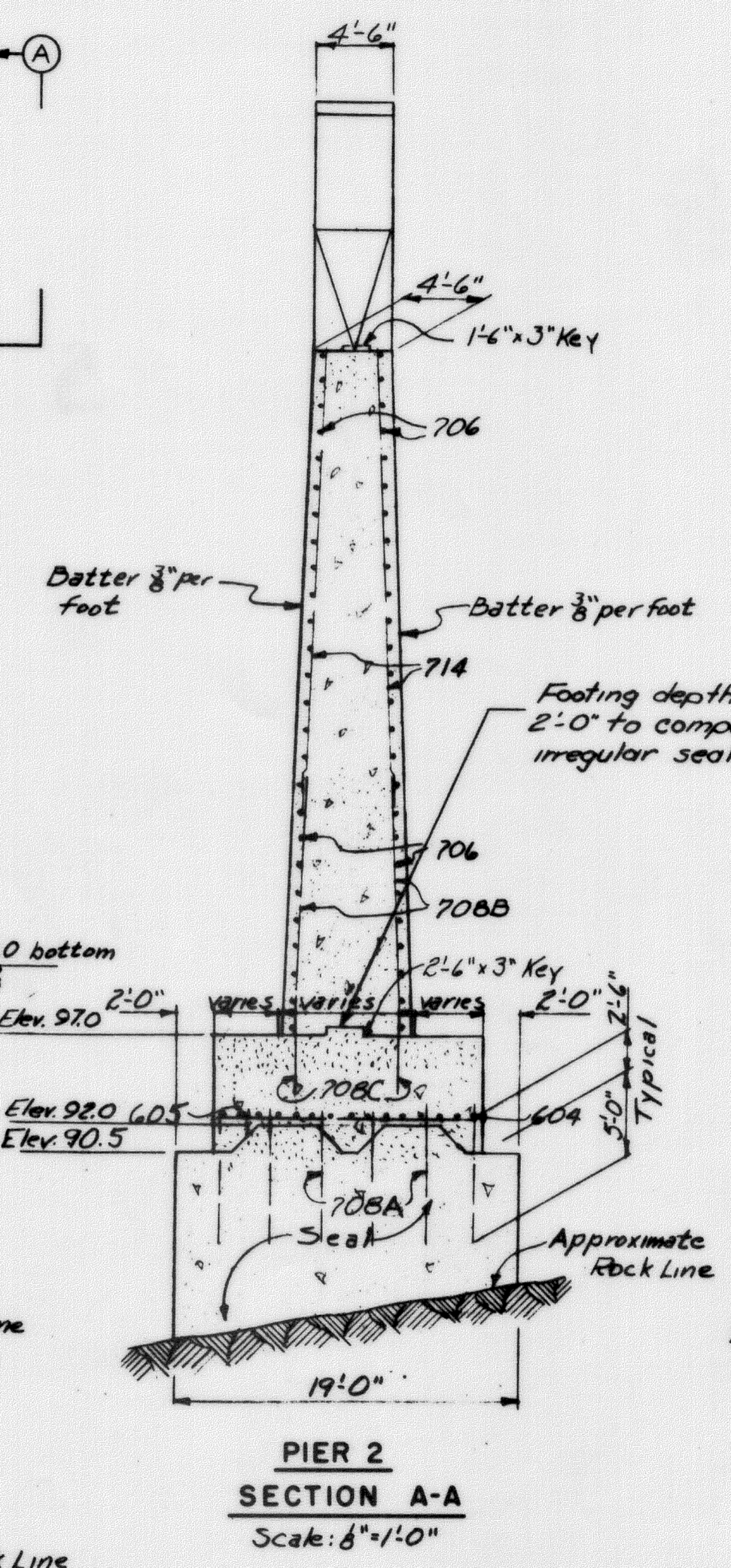
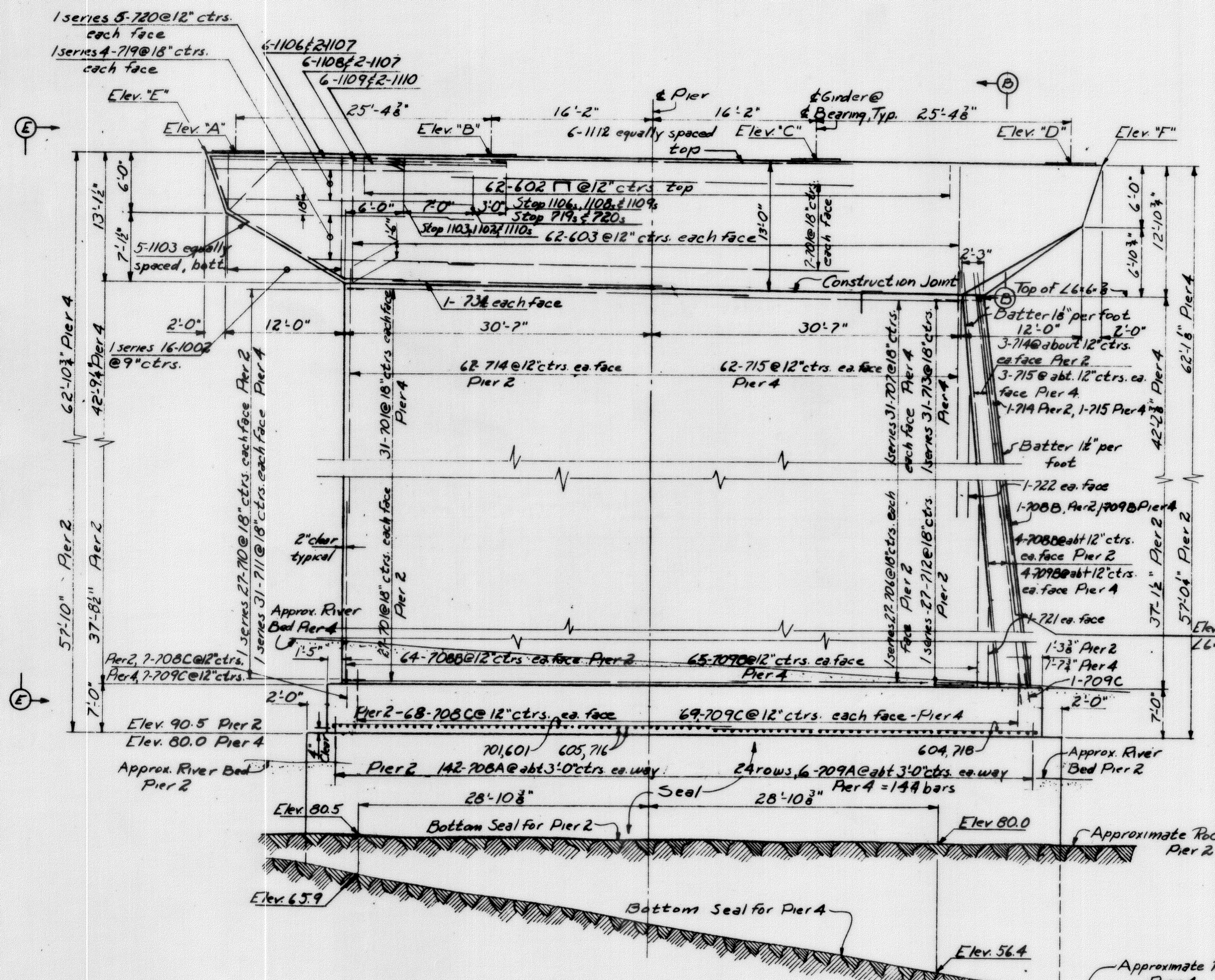
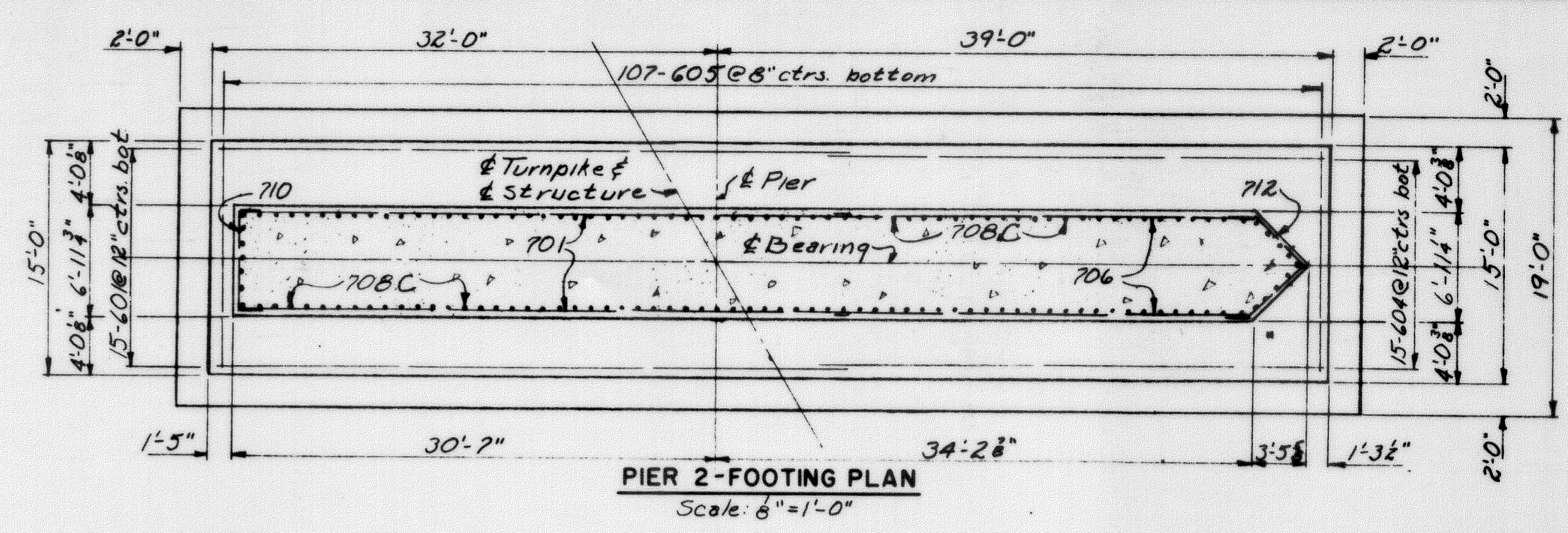
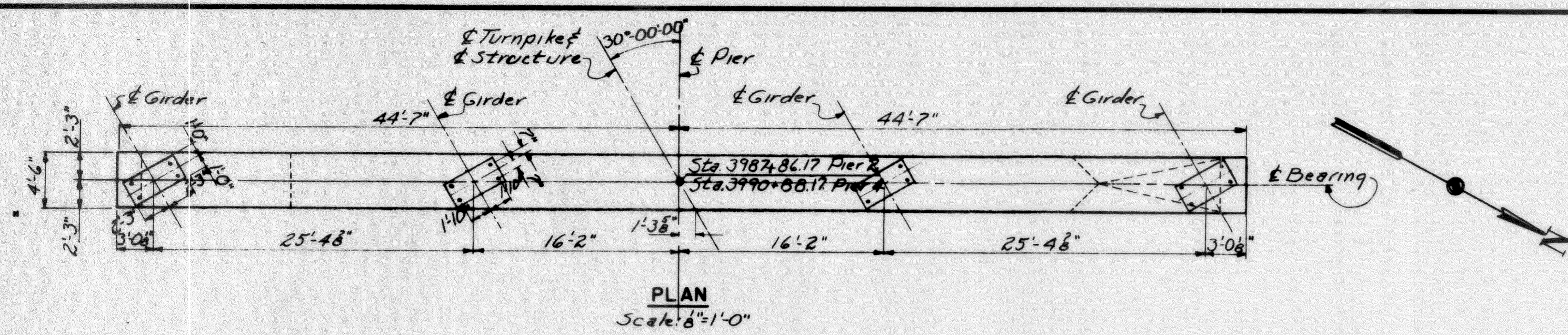
DRAWING NO. 55.12.15

MADE	DATE			
BY	DATE			
TRACED				
CHECKED				
IN CHARGE OF				

MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
 SECTION 2 - PORTLAND TO AUGUSTA
 STRUCTURE NO. 55 TURNPIKE OVER
 ANDROSCOGGIN RIVER
 STA. 39.89 + 37.17
 ABUTMENT NO. 2

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 CONSULTING ENGINEERS
 NEW YORK KANSAS CITY

SCALE: As Noted
 CONTRACT NO. _____
 SHEET NO. 242 OF 382



ELEVATIONS		
	PIER 2	PIER 4
A	148.35	142.91
B	148.12	142.69
C	147.83	142.40
D	147.60	142.17
E	148.33	142.89
F	147.52	142.09

ELEVATION PIERS 2 & 4 Scale: 1/8"=1'-0"

PIER 2 SECTION A-A Scale: 1/8"=1'-0"

PIER 4 SECTION A-A Scale: 1/8"=1'-0"

- Notes:
- For nose angle anchoring detail see sheet No. 55.13
 - For method of dowelling footing to seal see note on sheet 55.13. Where bars 1001A, B, and C are called out, substitute bars 708 A, B, and C, for Pier 2, and bars 709 A, B, and C for Pier 4 in desired lengths.
 - Reinforcing steel in pier caps is symmetrical about & of Pier.
 - For elevation E-E see sheet No. 55.15
 - Forms for piers shall be of surfaced lumber, plywood, or lined with plywood or other approved lining, or may be approved metal forms.
 - Angle to be galvanized after strap anchors are attached.

REINFORCING BAR LEGEND
(Typical for all reinforcing steel)

First Digit (1st two digits when four digits are used): Bar Size
Last Two Digits: Bar Number
Examples: 605 - #6 bar, fifth bar used
1106 - #11 bar, sixth bar used

DRAWING 55.14.15

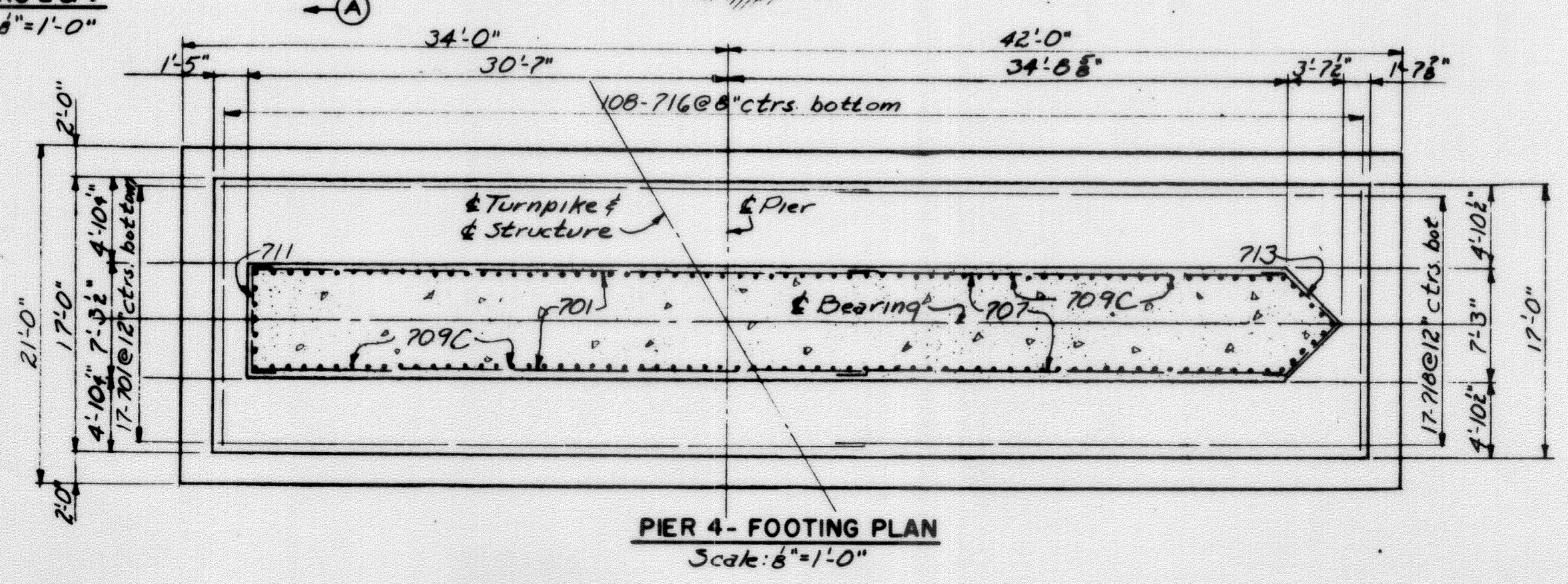
MADE	BY	DATE	REVISION	BY	DATE
TRACED	R.S.G.	3-5-54			
CHECKED	DDB	5-18-58	2 As-Built	HBM	12-20-58
IN CHARGE OF	L.D.S.K.		Revised vertical cap dimensions	R.S.G.	6-14-58

MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 2 - PORTLAND TO AUGUSTA

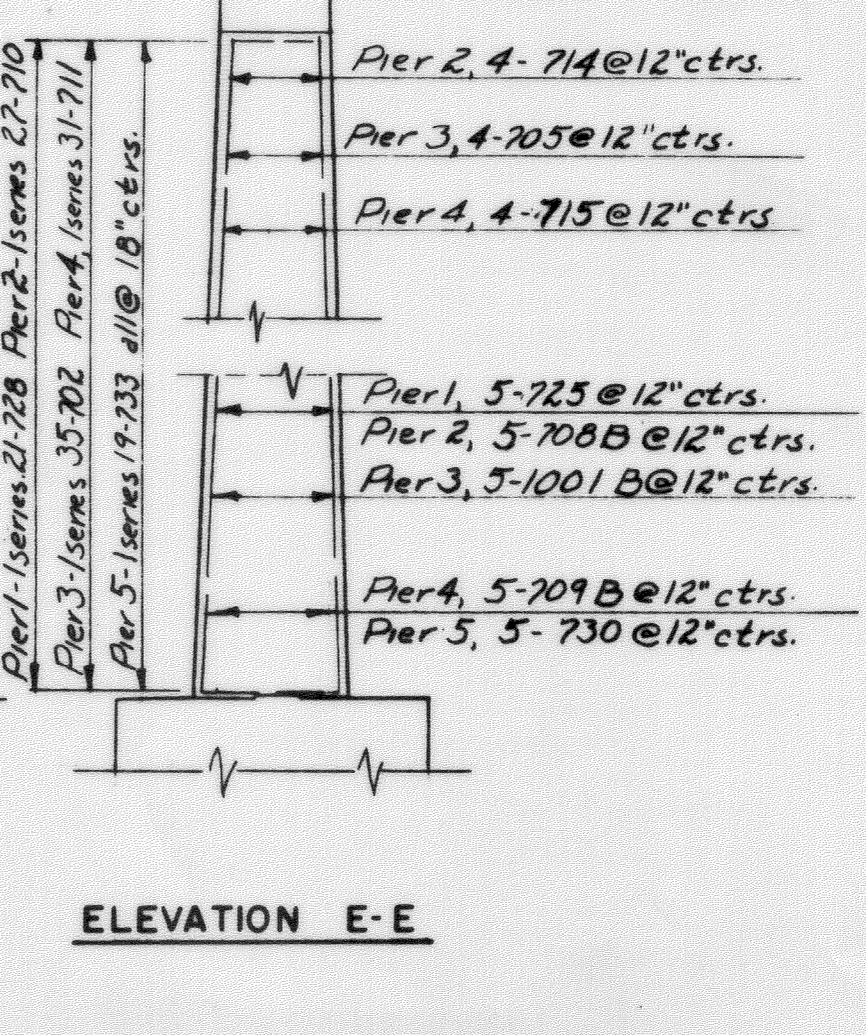
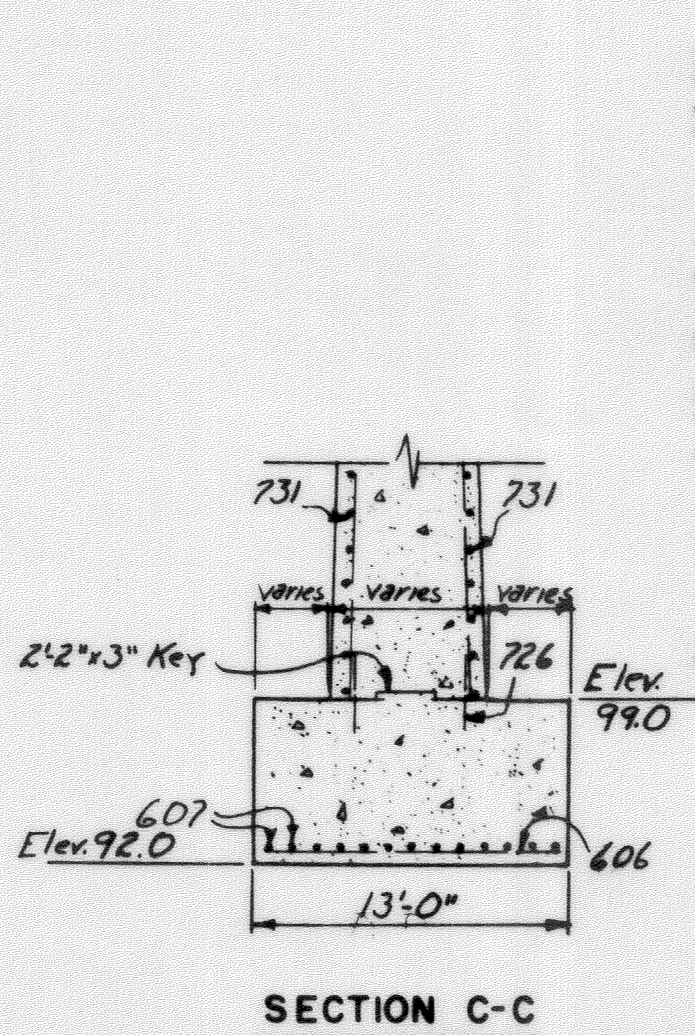
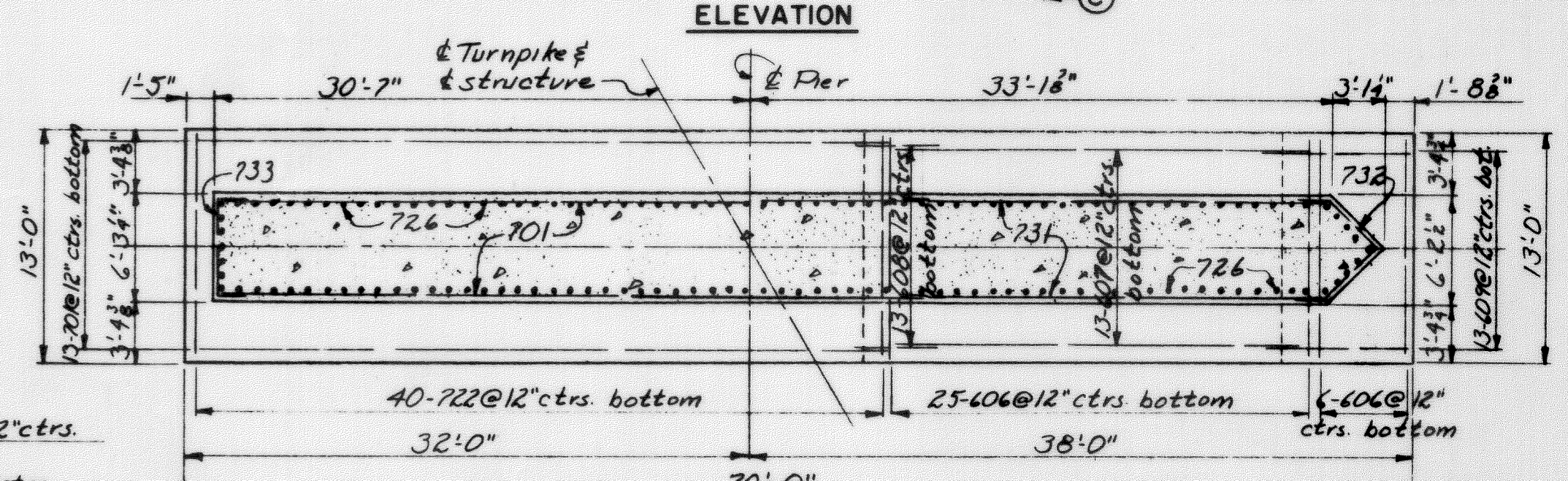
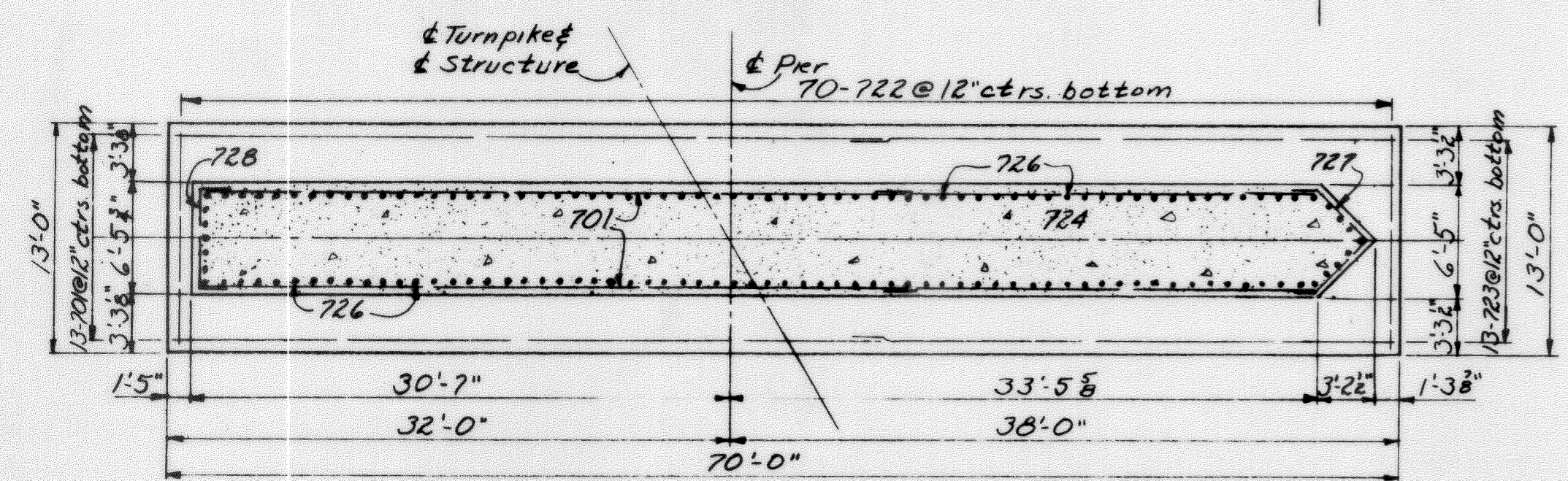
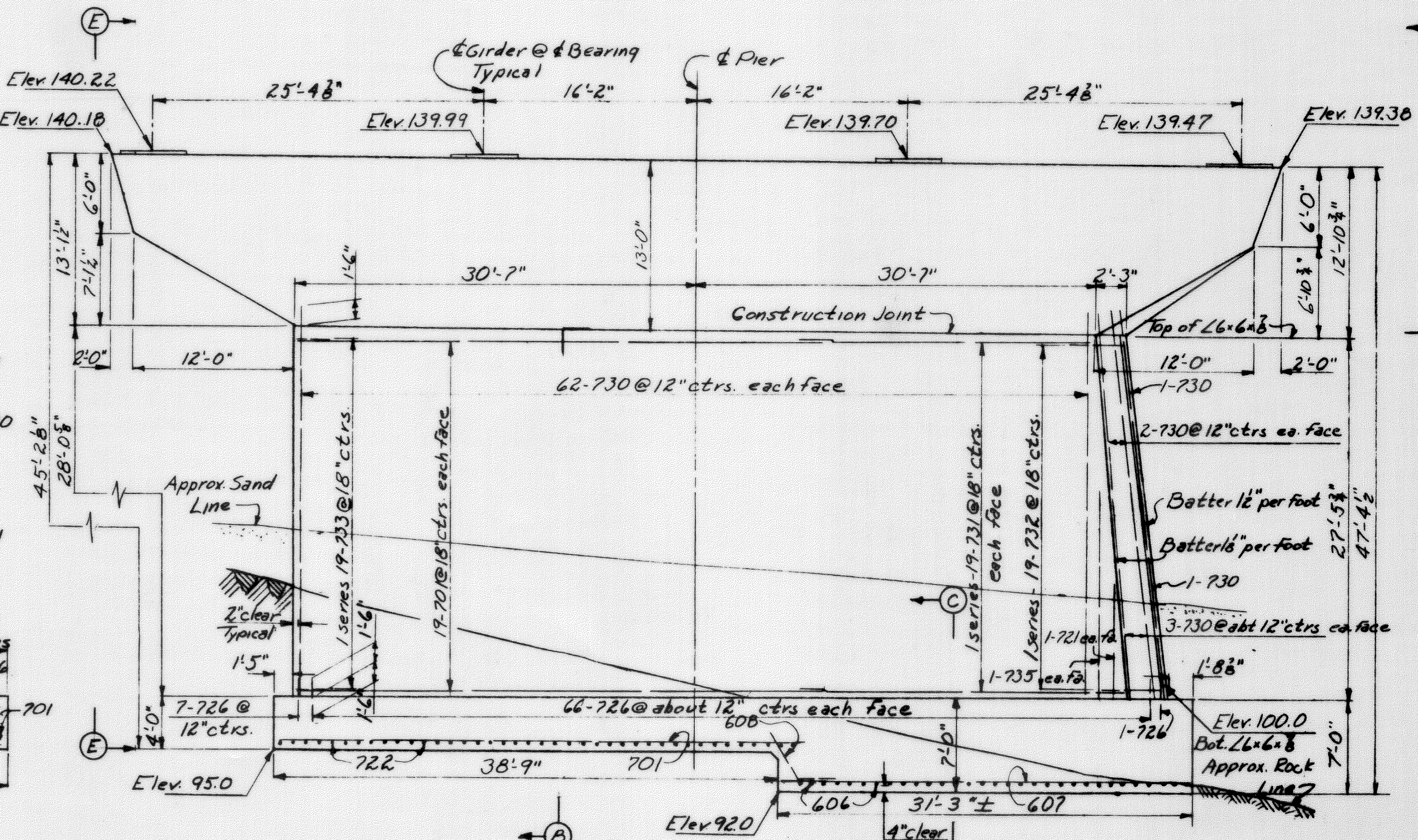
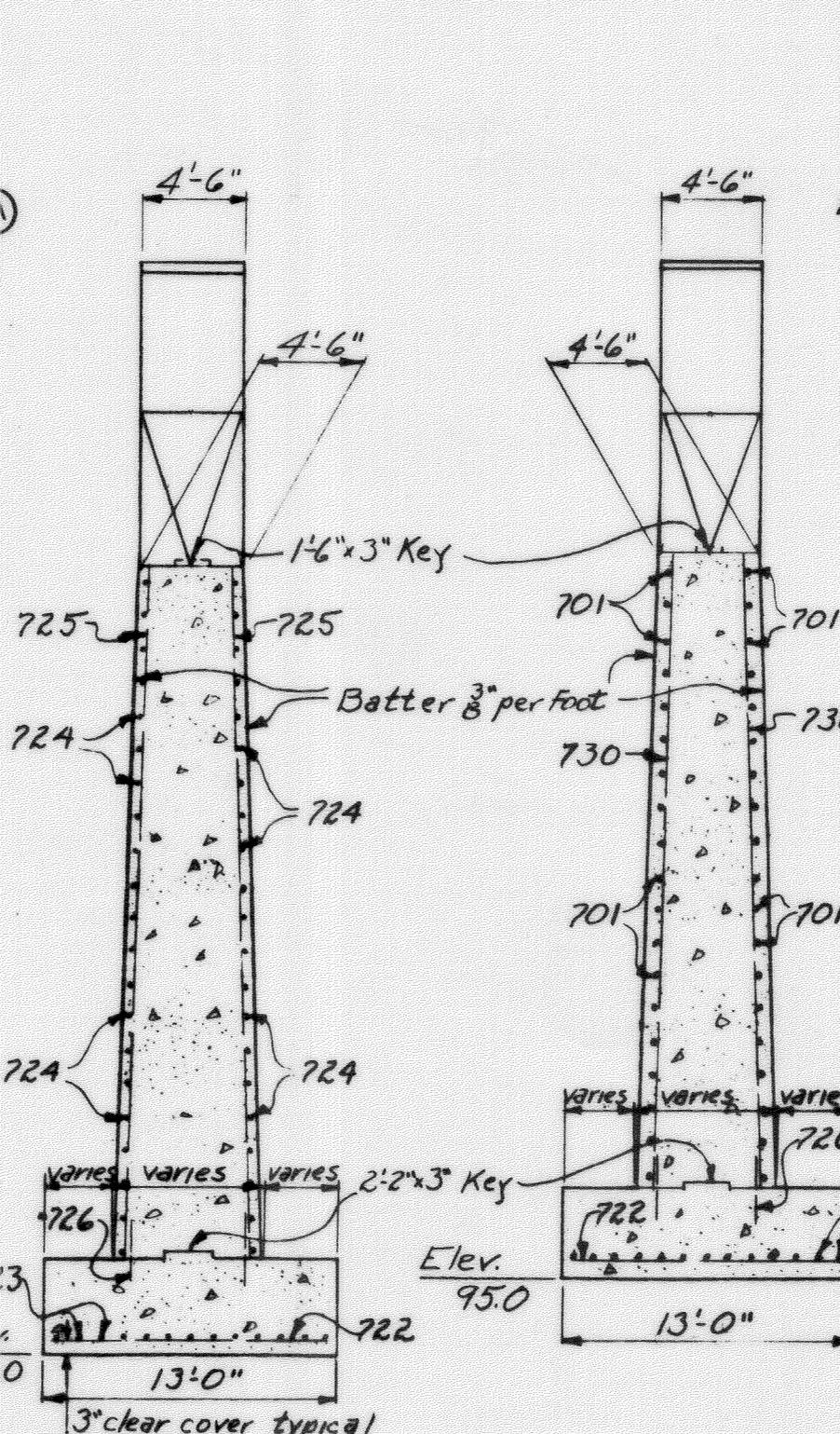
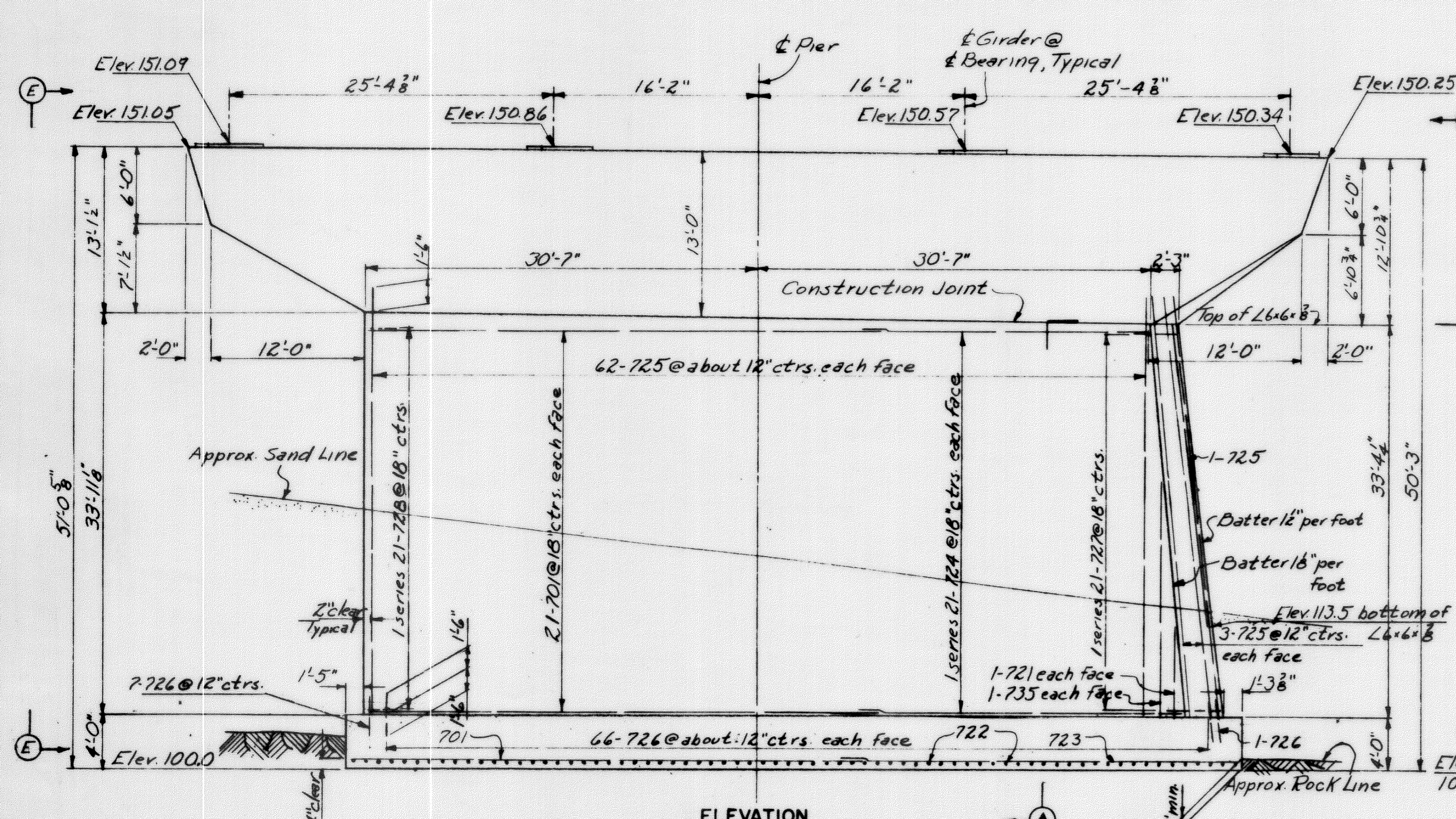
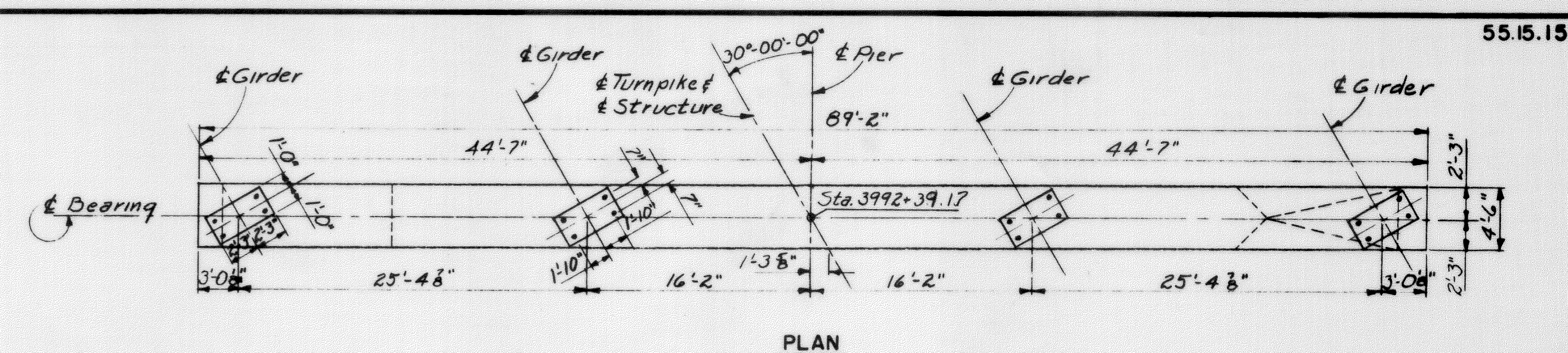
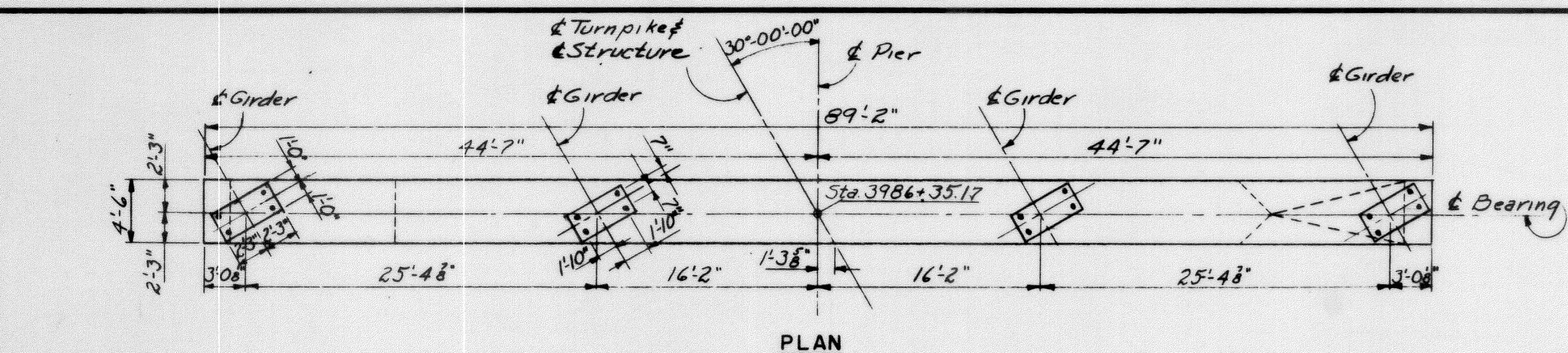
STRUCTURE NO. 88 TURNPIKE OVER
ANDROSCOGGIN RIVER
STA. 3989+ 37.17
PIERS 2 AND 4

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: As Shown
CONTRACT NO.
SHEET NO. 249 OF 382



PIER 4-FOOTING PLAN Scale: 1/8"=1'-0"



REINFORCING BAR LEGEND
(Typical for all reinforcing steel)

First Digit (1st two digits when four digits are used): Bar Size
Last Two Digits: Bar Number
Examples: 605 - #6 bar, fifth bar used
1106 - #11 bar, sixth bar used

- Notes:
- For reinforcing steel in pier caps see elevation of Piers 2&4 and section B-B on Sheet No. 55.14
 - For nose angle anchoring details see Sheet No. 55.13.
 - Forms for piers shall be of surfaced lumber, plywood, or lined with plywood or other approved lining, or may be approved metal forms.
 - Nose angles are to be galvanized after strap anchors are attached.

MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 2 - PORTLAND TO AUGUSTA

STRUCTURE NO. 55 TURNPIKE OVER
ANDROSCOGGIN RIVER
STA. 3989 + 37.17
PIERS 1&5

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1/4" = 1'-0"
CONTRACT NO. _____
SHEET NO. 250 OF 302

DRAWING 55.15.15

BY	DATE	REVISION	BY	DATE
MADE	R.S.G. 3-7-54	3 As-Built	HBH	12-0-56
TRACED		2 Revised vertical cap dimensions	R.S.G.	6-14-59
CHECKED	DDG 3-18-54	1 Revised Pier Elevs	R.S.G.	6-4-59
IN CHARGE OF	I.D.S.K.	No.	REVISION	BY DATE