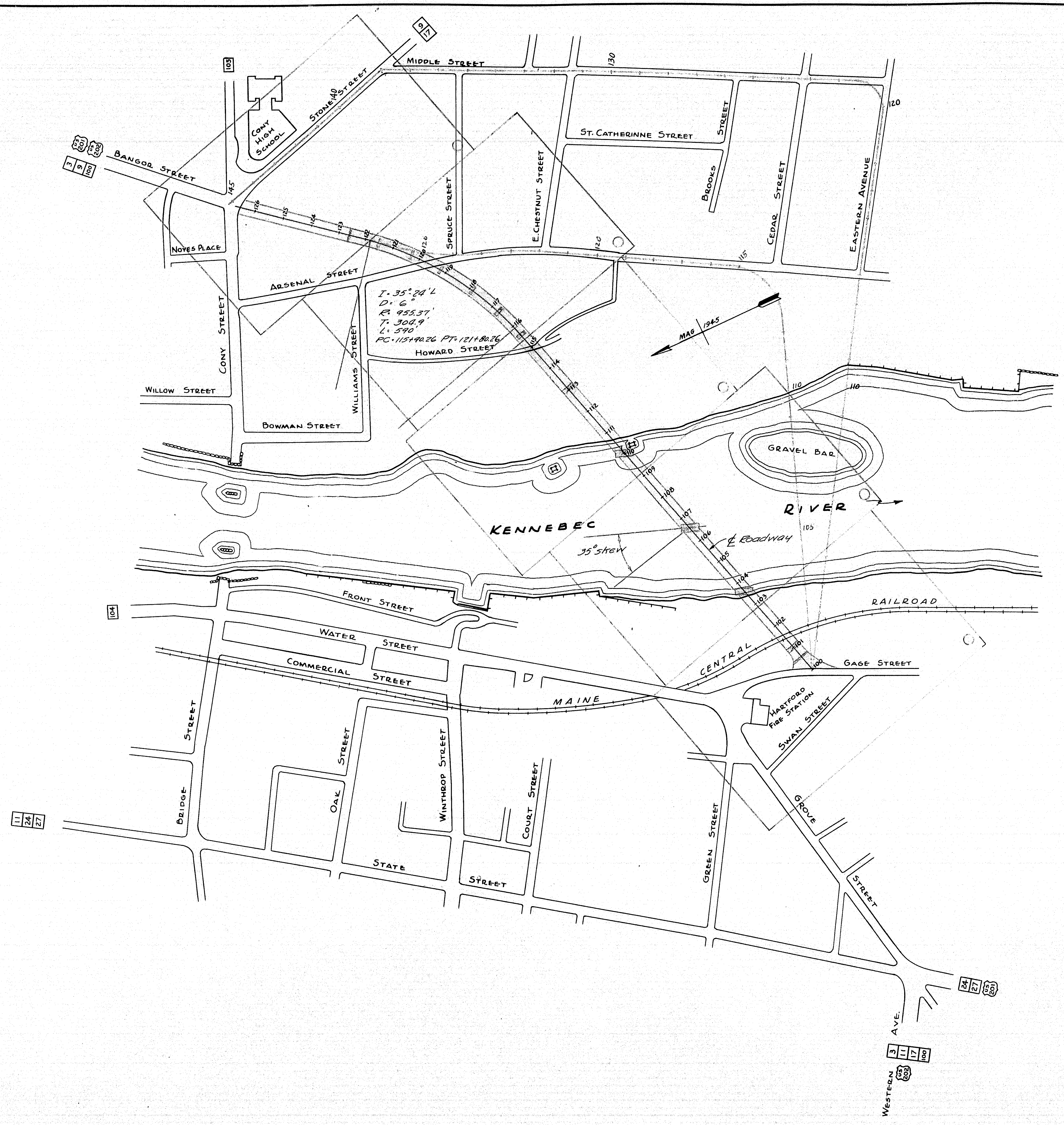


SCALE 1" = 200'

SURVEY - P. JOHNSON
PLAN - BOYD

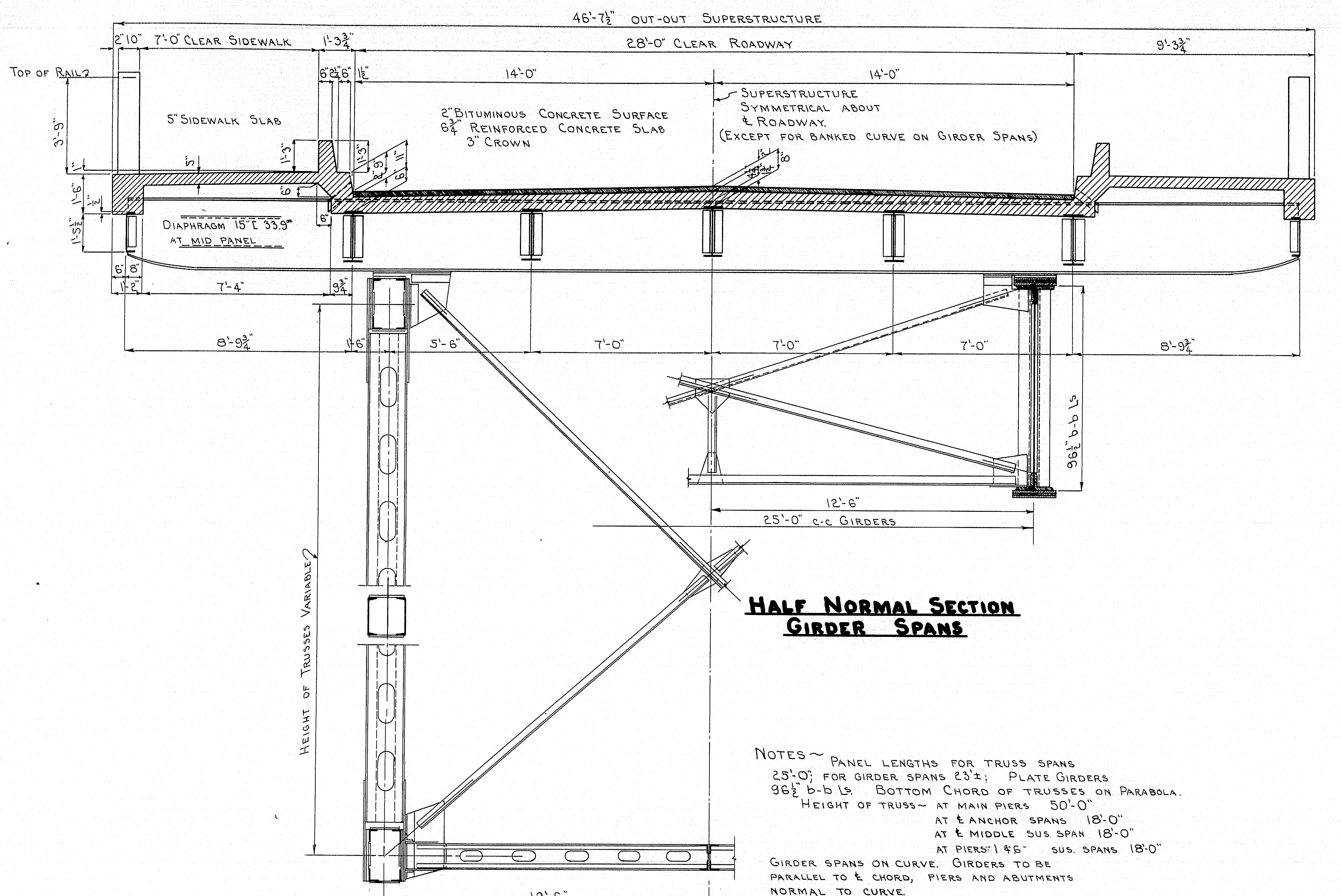
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY.
KEY PLAN

SHEET 1 OF 3 AUGUSTA MAINE DEC 1945

PRELIMINARY PLAN 51-200

0 1 2 3 4 5 INCHES



HALF NORMAL SECTION
GIRDER SPANS

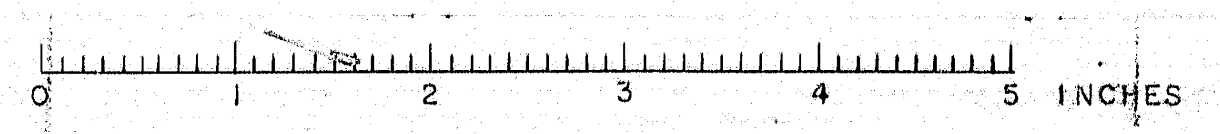
HALF SECTION
TRUSS SPANS

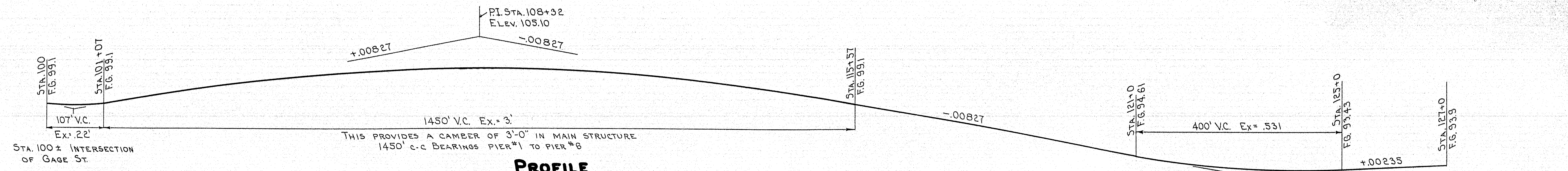
NOTES ~ PANEL LENGTHS FOR TRUSS SPANS
25'-0"; FOR GIRDER SPANS 23'±; PLATE GIRDERS
96½" b-b Ls. BOTTOM CHORD OF TRUSSES ON PARABOLA.
HEIGHT OF TRUSS ~ AT MAIN PIERS 50'-0"
AT ℄ ANCHOR SPANS 18'-0"
AT ℄ MIDDLE SUS. SPAN 18'-0"
AT PIERS 1 & 6 SUS. SPANS 18'-0"
GIRDER SPANS ON CURVE. GIRDERS TO BE
PARALLEL TO ℄ CHORD, PIERS AND ABUTMENTS
NORMAL TO CURVE.

PLAN: Everett
TRACED: COB

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
TYPICAL BRIDGE SECTIONS
SHEET 2 OF 3 AUGUSTA, ME. MAY 1946

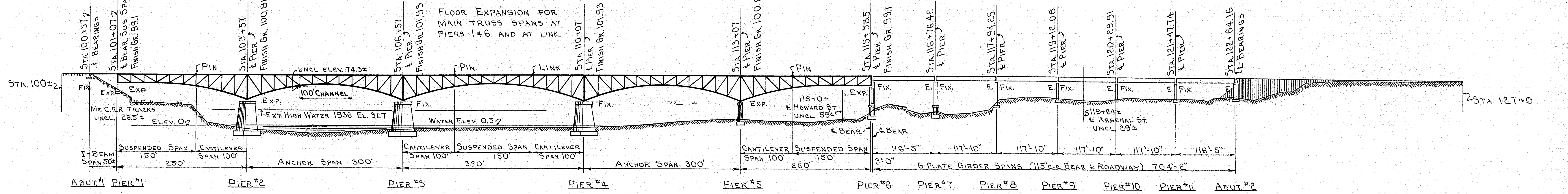
PRELIMINARY PLAN 51-201





PROFILE

Finish Grade



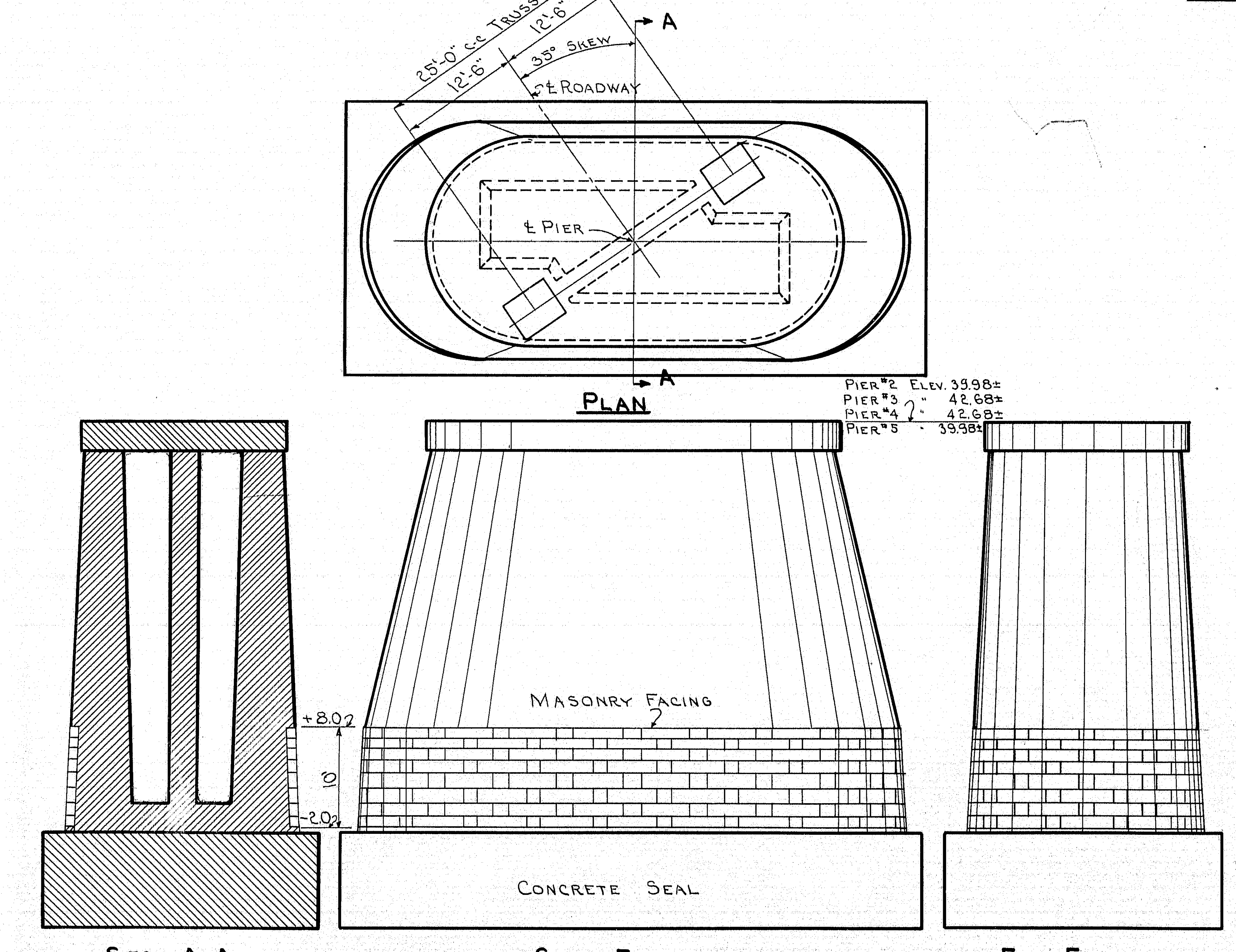
GENERAL ELEVATION

Scale 1" = 100' Ver. & Hor.

Notes ~
LOADING: H 20-S16-44
SPECIFICATIONS: Maine State Highway Commission, Specifications for Steel Highway Bridges, November 1945. All steel to be structural carbon. Rivets $\frac{7}{8}$"φ

Concrete: fs = 18000 #/□"
fc = 1000 #/□"
n = 10

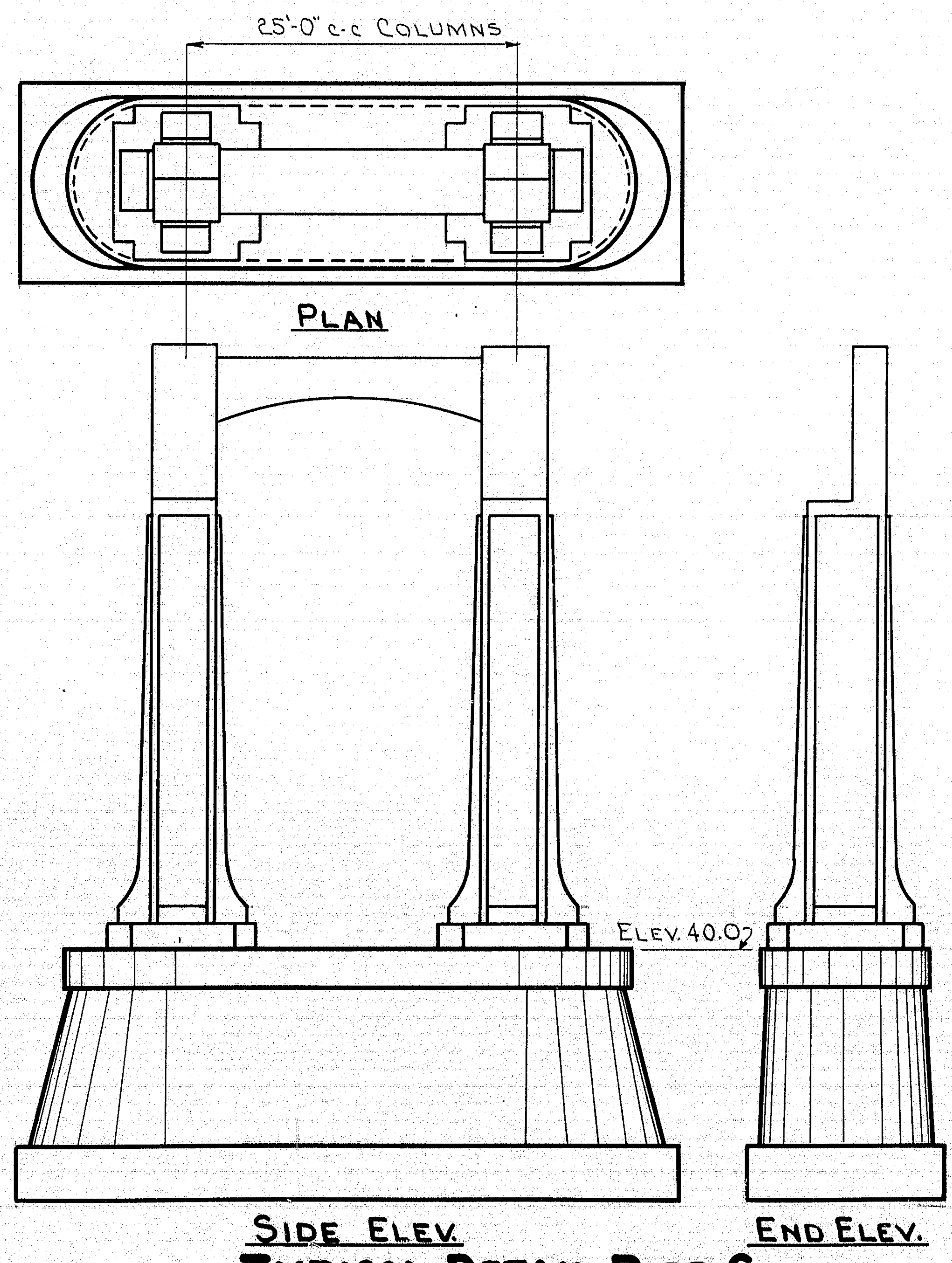
Foundation data not yet available. Should piling prove necessary, WF 12x12x74# bearing piles will be used. Maximum load per pile 65 tons.



TYPICAL DETAIL PIERS 2-3-4

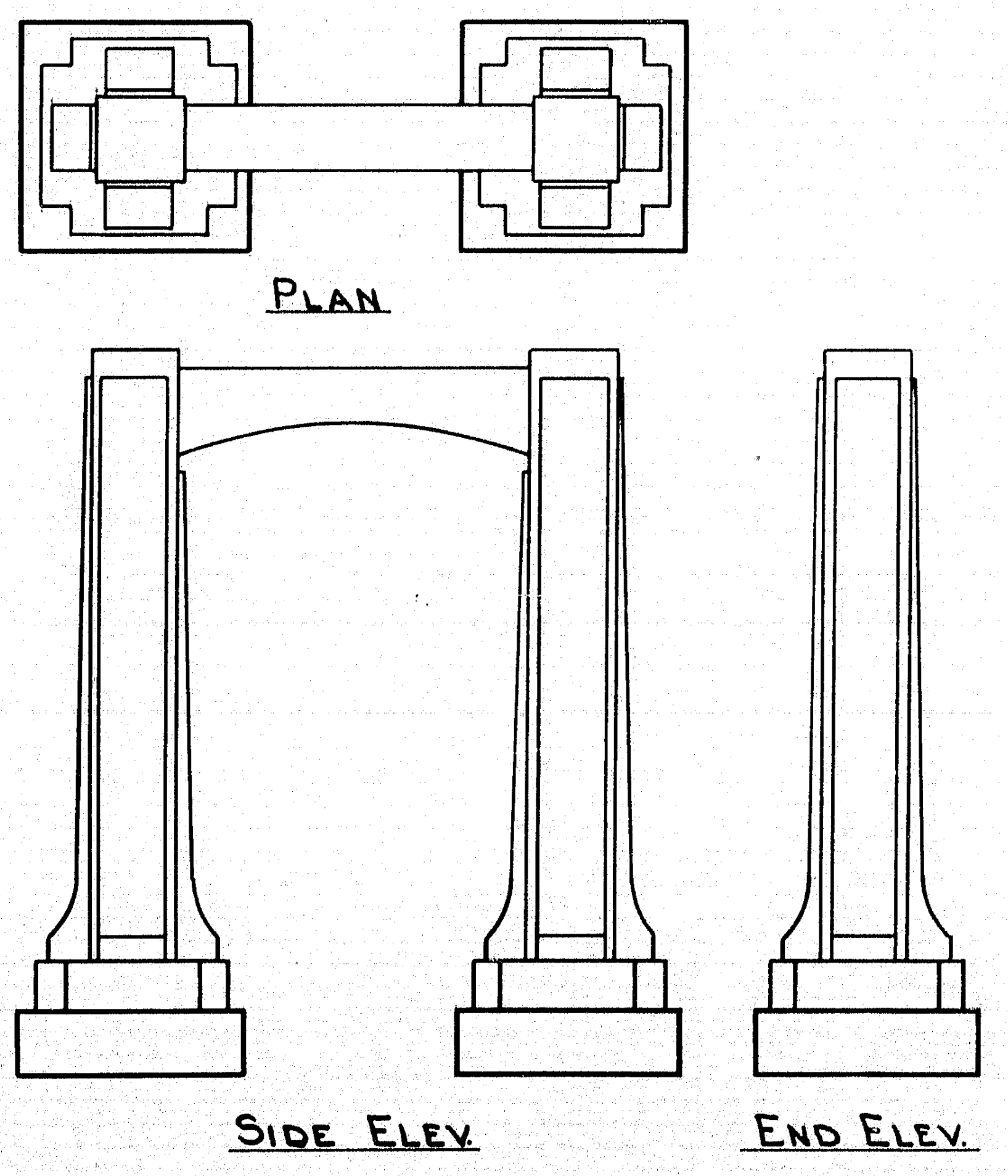
Skewed River Piers
Scale 1" = 10'

Note: Pier #5 will be similar to piers 2-3-4 except it will be mass concrete and not skewed.



TYPICAL DETAIL PIER 6

Scale 1" = 10'



TYPICAL DETAIL PIERS 8-9-10-11

Scale 1" = 10"

Plan: Emmet
Traced: CAB

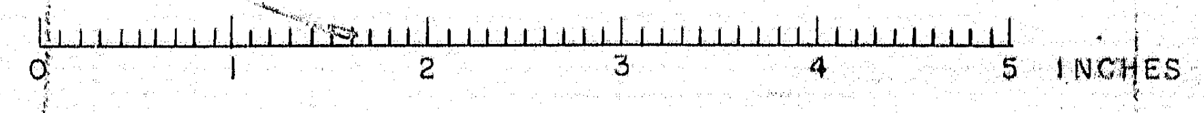
State Highway Commission
Bridge Division

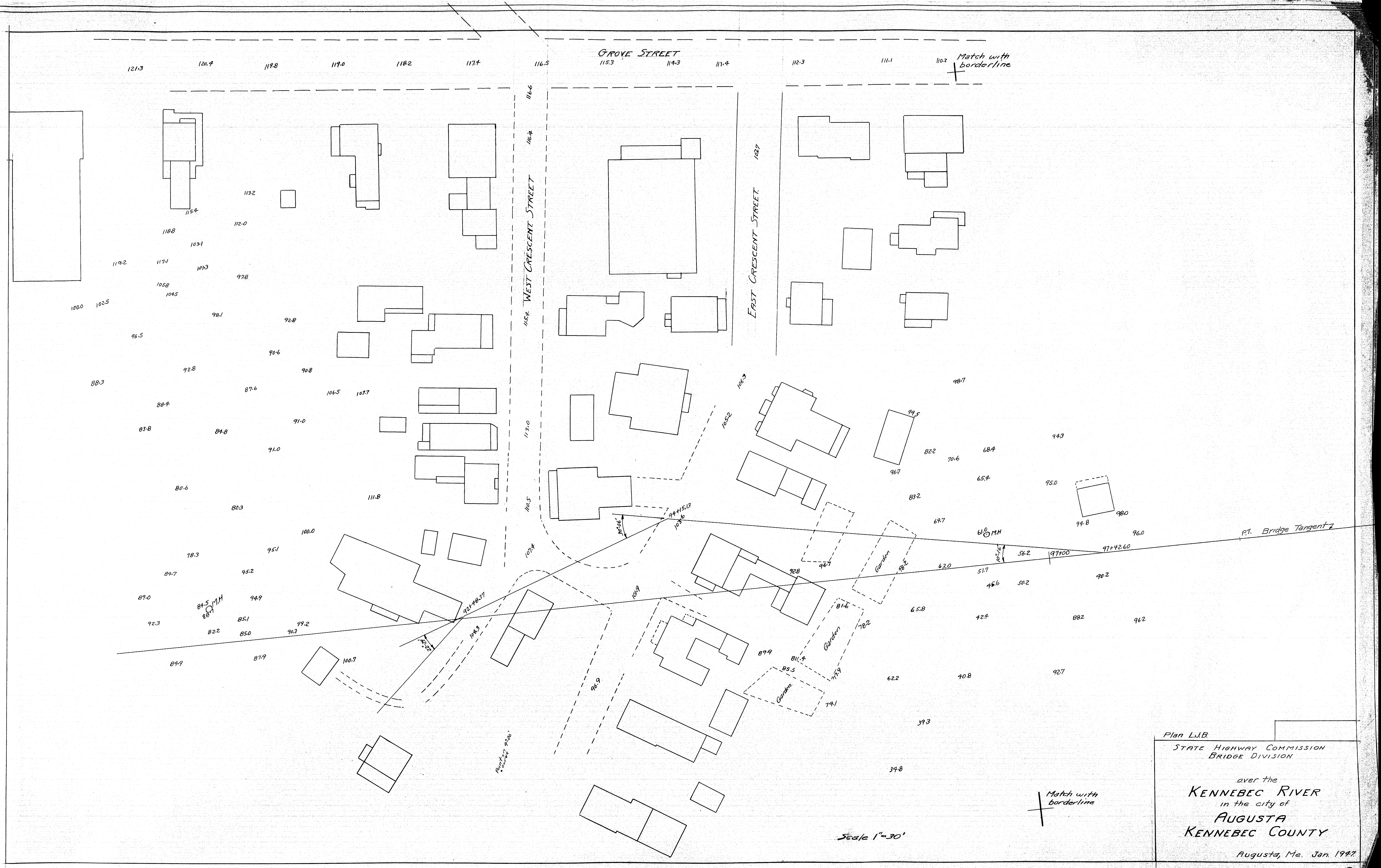
AUGUSTA BRIDGE
over the
KENNEBEC RIVER
in the city of
AUGUSTA
Kennebec County

BRIDGE ELEVATION ~ TYPICAL PIER DETAILS

Sheet 3 of 3 Augusta, Me. May 1946

Preliminary Plan 51-202





Plan L.J.B.

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

over the
KENNEBEC RIVER
in the city of
AUGUSTA
KENNEBEC COUNTY

Augusta, Me. Jan. 1947

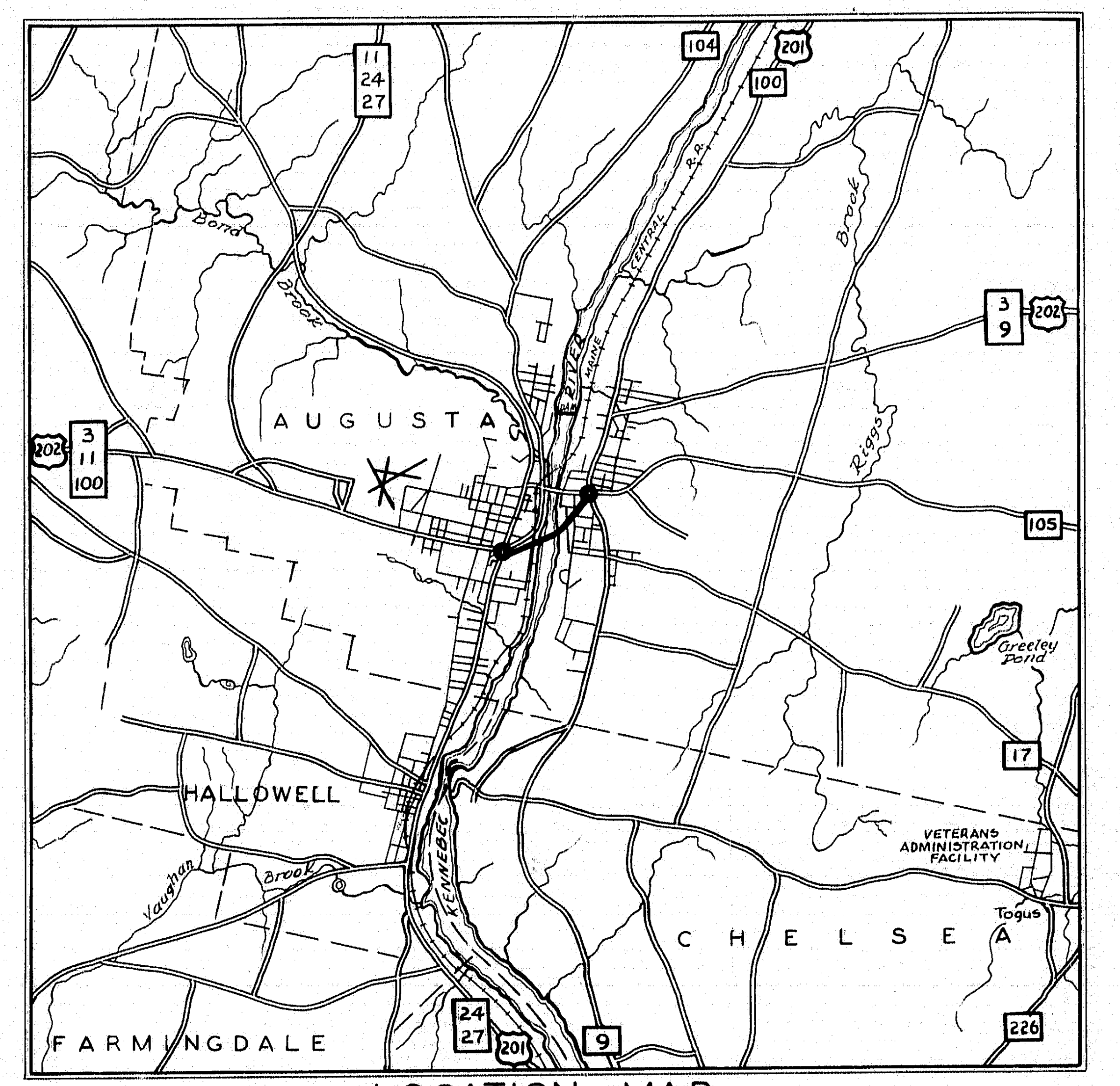
51 -203

STATE OF MAINE
STATE HIGHWAY COMMISSION

PLAN AND PROFILE

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
FEDERAL AID PROJECT
NO. F1, U1-389 (2)

TOTAL LENGTH 0.776 MILE



LOCATION MAP
TRACED FROM U.S.G.S.
SCALE $\frac{1}{62,500}$

P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	F1,U1-389(2)	1	19

GENERAL SPECIFICATION

Payment for any necessary unwatering of foundation pits shall be included in the contract unit price for excavation.

CONCRETE CLASSIFICATION

Class A- Bridge floor including sidewalk slabs and all curbs. Approach roadway base slabs, and approach sidewalk slabs and curbs.

Class B- Retaining Wall.

CONTRACT 5

BRIDGE FLOOR

INDEX OF SHEETS

NUMBER	TITLE
1	TITLE SHEET
2	GENERAL LAYOUT
3	NO. RETAINING WALL DETAILS - GAGE ST.
4	APPROACH SLAB - GAGE ST.
5	NO. SIDEWALK & CURB - GAGE ST.
6	SO. SIDEWALK & CURB - GAGE ST.
7	APPROACH SLAB - ABUT. NO. 2
8	EAST APPROACH SLABS
9	GENERAL FLOOR PLAN
10	FLOOR DETAILS - SPAN NO. 1
11	REINFORCING STEEL - SPAN NO. 1
12	FLOOR DETAILS - PANELS A & B
13	FLOOR DETAILS - PANELS C, D, E, F, G, H.
14	FLOOR DETAILS - PANEL NO. 1
15	FLOOR DETAILS - SPAN NO. 7 - PANELS J, K, L
16	FLOOR DETAILS - PANEL M
17	REINF. STEEL - SPANS 2 TO 11, PANELS A TO M
18	LIGHTING DETAILS
19	C.M.P. CO. MANHOLE DETAILS

APPROVED:
MAINE STATE HIGHWAY COMMISSION

Lloyd B. Morton
CHAIRMAN
C. J. Russell
Harley D. Welch
Lucius D. Barrows
CHIEF ENGINEER

RECOMMENDED FOR APPROVAL DATE
[redacted]
DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

APPROVED DATE
[redacted]
DIVISION ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	F1,U1-389(2)	1	45

GENERAL SPECIFICATION

Payment for any necessary unwatering of foundation pits shall be included in the contract unit price for excavation except piers 2-3-4 where cofferdams are covered under items 4A, 4B, 4C.

CONCRETE CLASSIFICATION

Abutment 1	Class B
Pier 1	Class B below and class A above Elev. 73.52
Piers 2,3,4	Seal concrete class A, all other class B
Pier 5	Class B
Pier 6	Class A above and class B below Elev. 40
Piers 7,8,9,10	Class A
Abutment 2	Class B

CONTRACTS 1 & 2

SUBSTRUCTURE AND STEEL SUPERSTRUCTURE

INDEX OF SHEETS

NUMBER	TITLE
1	TITLE SHEET
2-6	SURVEY PLAN
7-9	PROFILE
10	GENERAL PLAN AND ELEVATION
11	LAYOUT - SUBSTRUCTURE - EAST APPROACH
12	ABUTMENT NO. 1
13	PIER NO. 1
14	PIER NO. 2
15	PIER NO. 3
16	PIER NO. 4
17	PIER NO. 5
18	PIER NO. 6
19	PIER NO. 7
20	PIER NO. 8
21	PIER NO. 9
22	PIER NO. 10
23	ABUTMENT NO. 2
24	ARSENAL ST. RETAINING WALL
25	REINFORCING STEEL - PIERS 1 TO 6
26	REINF. STEEL - ABUTS. & PIERS 7 TO 10
27	SUPERSTRUCTURE AND RAIL DETAILS
28	STRESSES - TRUSS SPANS
29	MAKE-UP OF MEMBERS
30	STRUCTURAL STEEL DETAILS AT U4L4
31	DETAIL AT FIXED PIN
32	DETAIL - PIN AND LINK
33	STEEL & BEARING DETAILS - PIERS 1 & 6
34	EXP. & FIXED BEARINGS - PIERS 2 TO 5
35	FLOOR EXPANSION DETAILS
36-37	STEEL DETAILS - SPAN NO. 1
38	STRESSES & LAYOUT - PLATE GIRDER SPANS
39-40	PLATE GIRDER DETAILS
41	GAGE STREET RAIL
42-45	CROSS SECTIONS - EAST APPROACH

APPROVED:
MAINE STATE HIGHWAY COMMISSION

CHAIRMAN
Lloyd B. Morton
C. J. Russell
Lucius D. Barrows
CHIEF ENGINEER

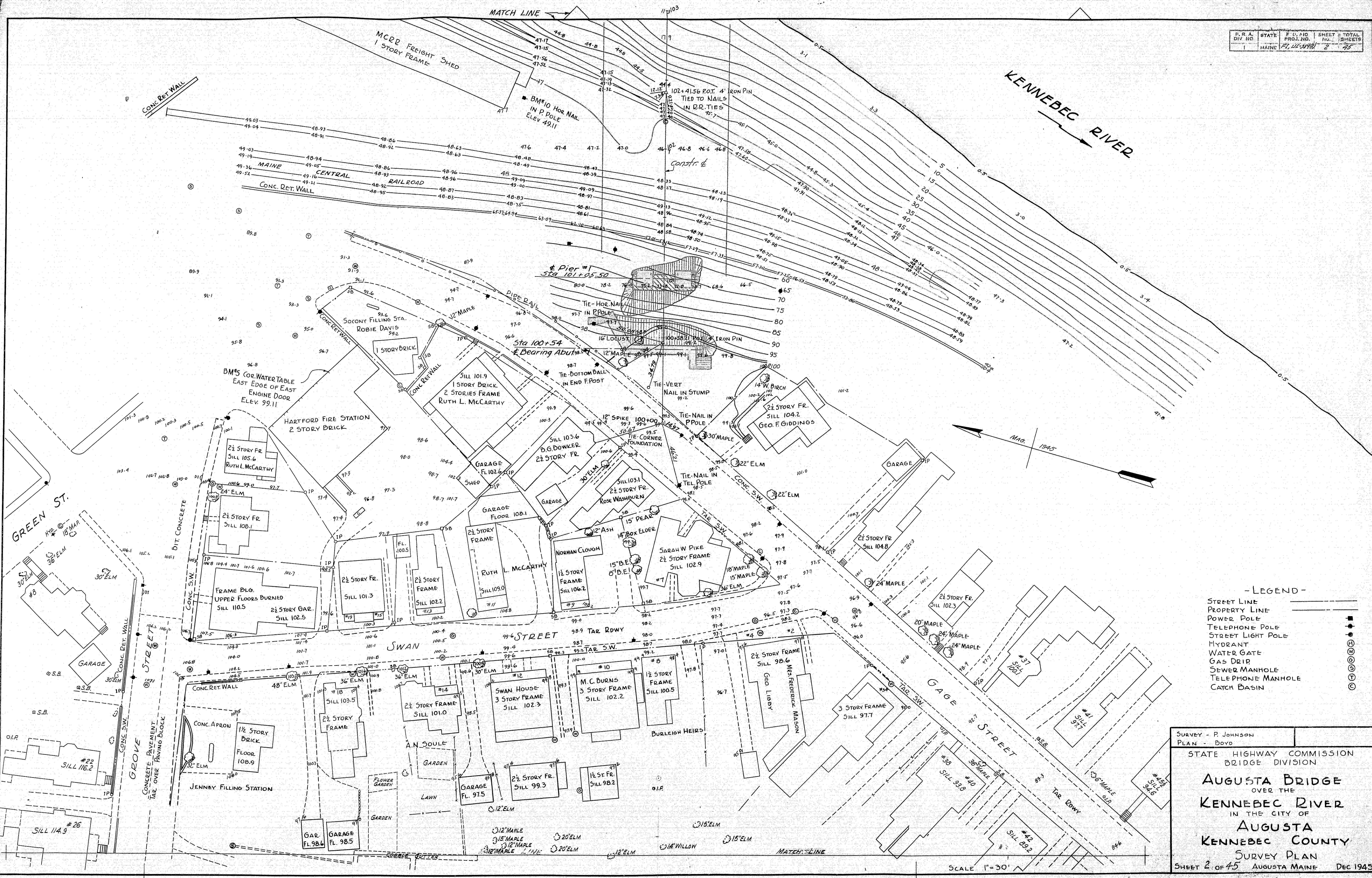
RECOMMENDED FOR APPROVAL DATE
[redacted]
DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

APPROVED DATE
[redacted]
DIVISION ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

52-1

0 1 2 3 4 5 INCHES

P. R. A. DIV NO.	STATE	F. D. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI, UI-389(2)	2	45



SURVEY - P. JOHNSON
PLAN - BOYD

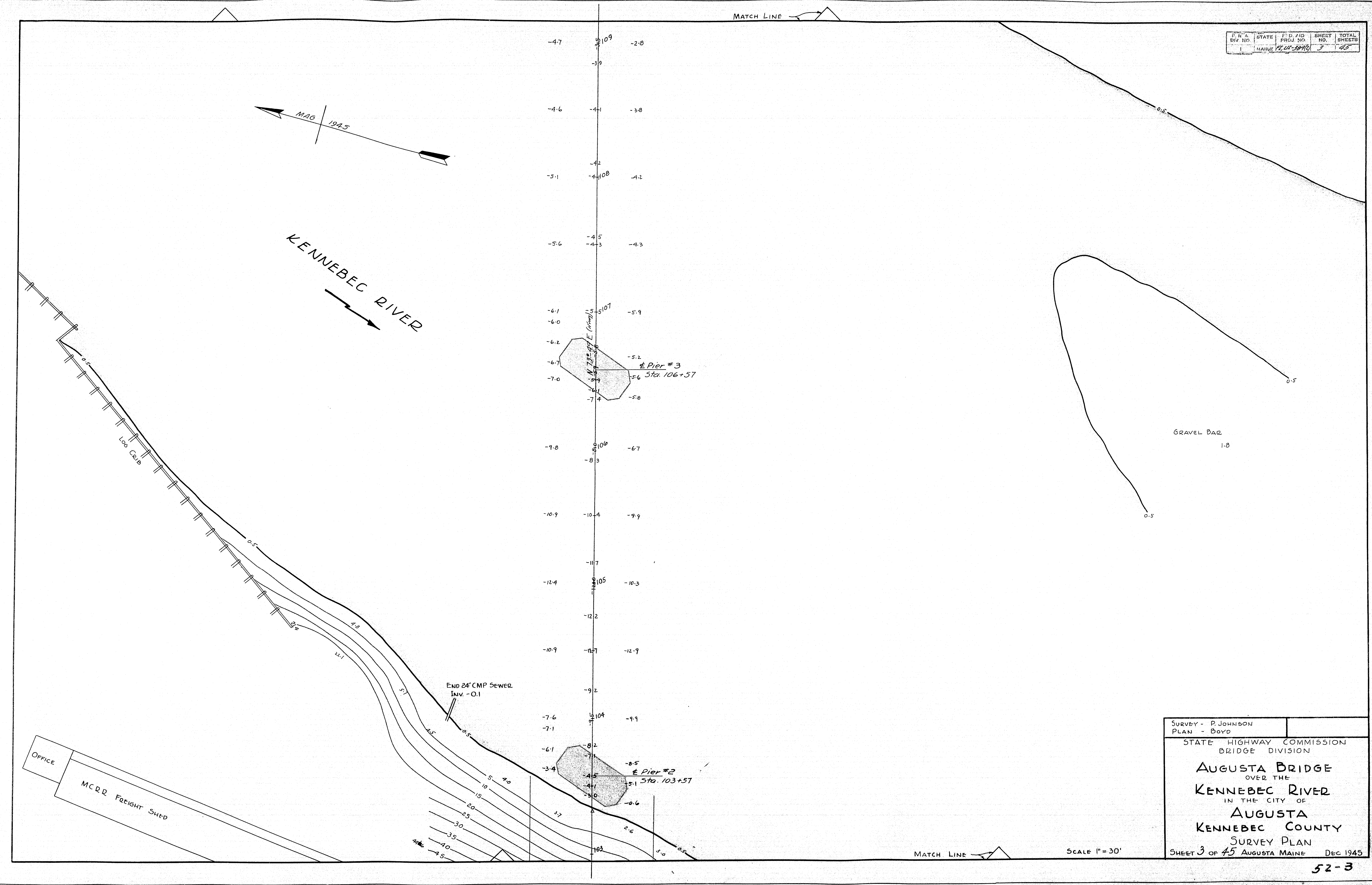
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
SURVEY PLAN

SHEET 2 OF 45 AUGUSTA MAINE DEC 1945

52-2

P. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI, UI-309(2)	3	45



Survey - P. Johnson
Plan - Boyd

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

SURVEY PLAN

Sheet 3 of 45 Augusta Maine Dec 1945

52-3

F.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI,UI-384(2)	4	45

Survey - P. Johnson
Plan - Boyd

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

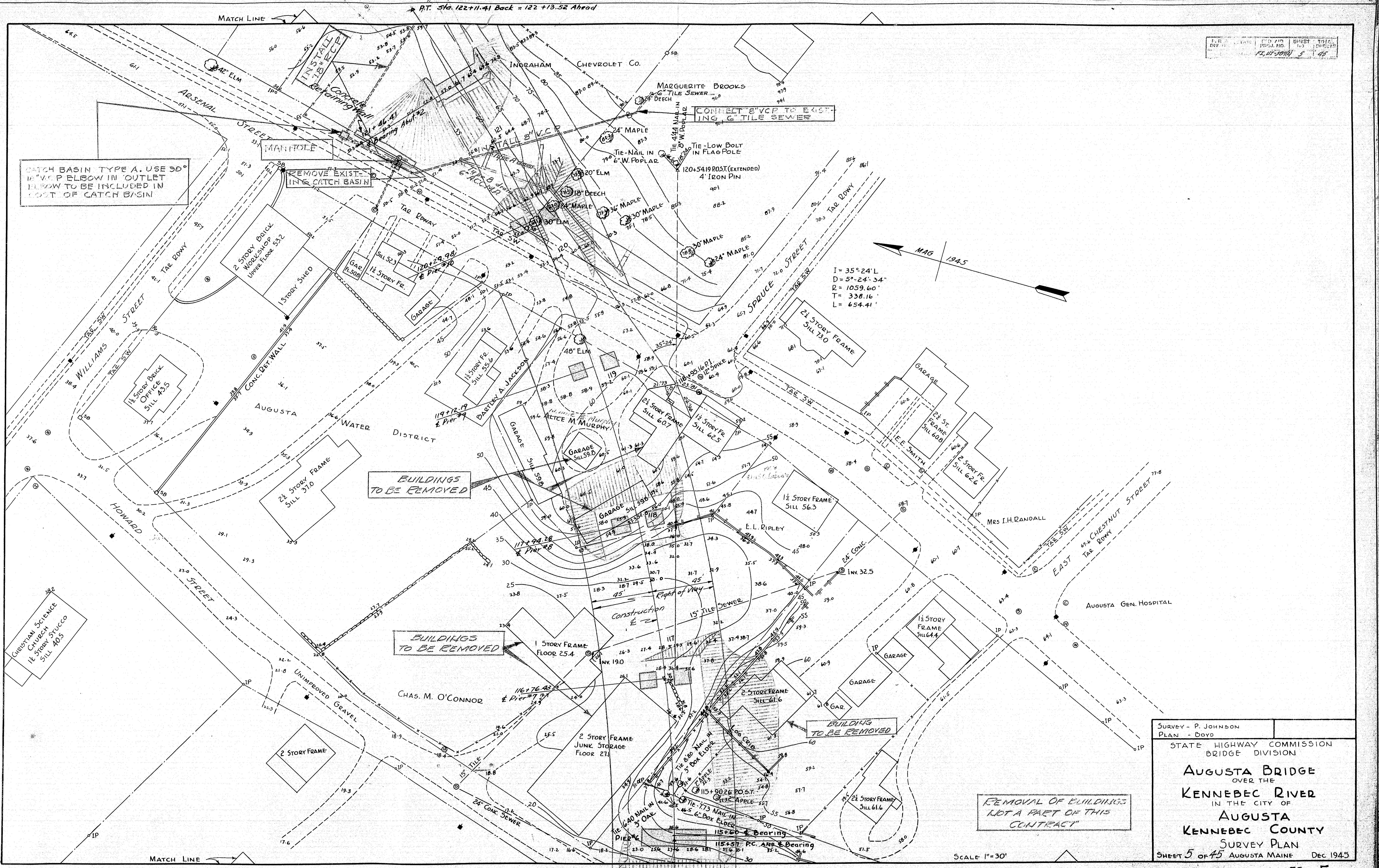
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
SURVEY PLAN

Sheet 4 of 45 Augusta Maine Dec 1945

52-4

0 1 2 3 4 5 INCHES

F.R. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
		FI, UI-389(2)	5	45



Survey - P. Johnson
Plan - Boyd

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
SURVEY PLAN

SHEET 5 OF 45 AUGUSTA MAINE DEC 1945

52-5

Warranty 31 Mar 1948 Book 857 Page

0 1 2 3 4 5 INCHES

DIV. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI, UI-389(2)	6	45

Survey - P. Johnson
Plan - Boyd

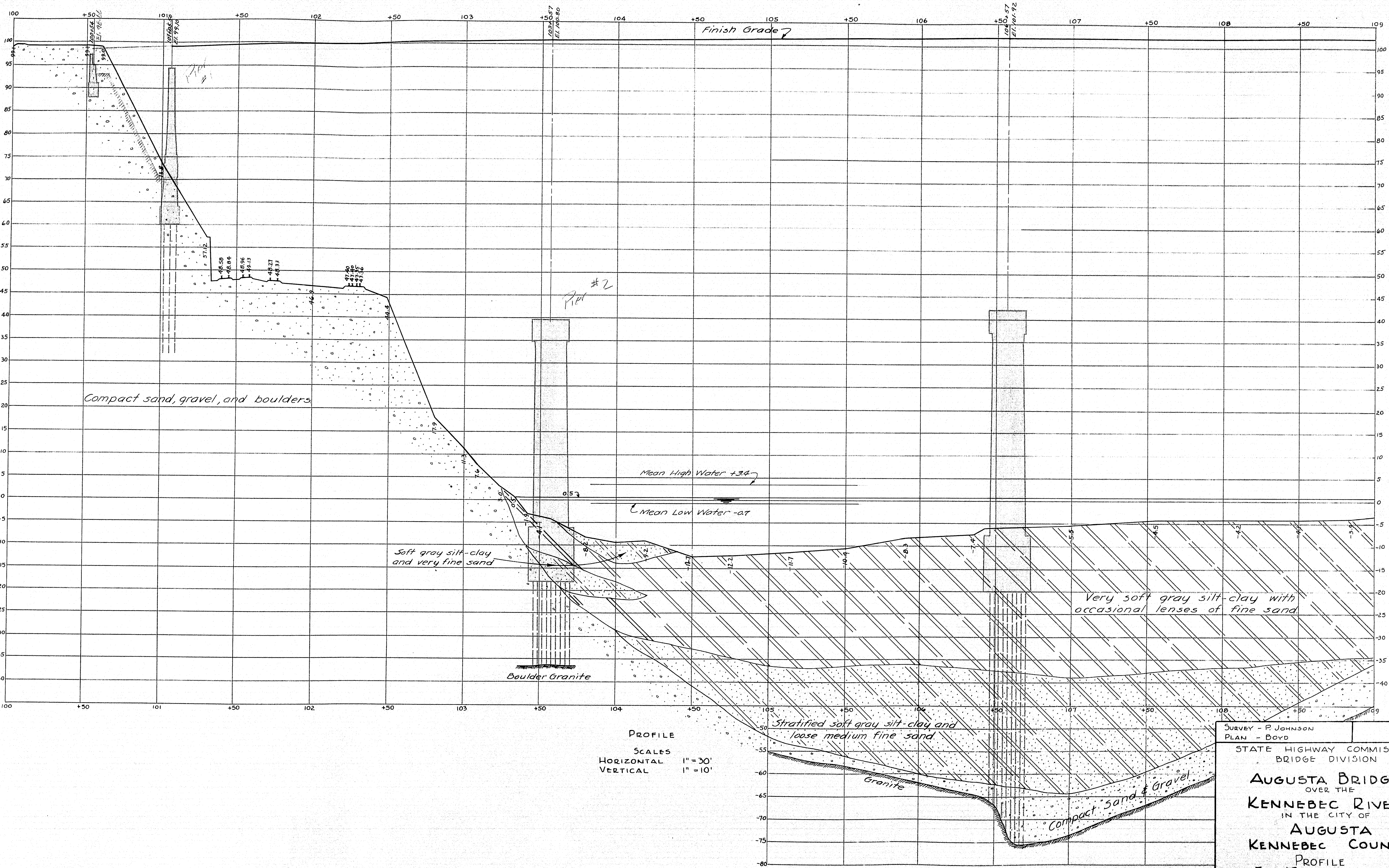
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
SURVEY PLAN
SHEET 6 OF 45 AUGUSTA MAINE DEC 1945

52-6

0 1 2 3 4 5 INCHES

F. R. A. [illegible]	STATE	[illegible]	SHEET NO.	TOTAL SHEETS
		FI, UI-389(2)	7	45



PROFILE

SCALES
HORIZONTAL 1" = 30'
VERTICAL 1" = 10'

SURVEY - P. JOHNSON
PLAN - BOYD

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

PROFILE

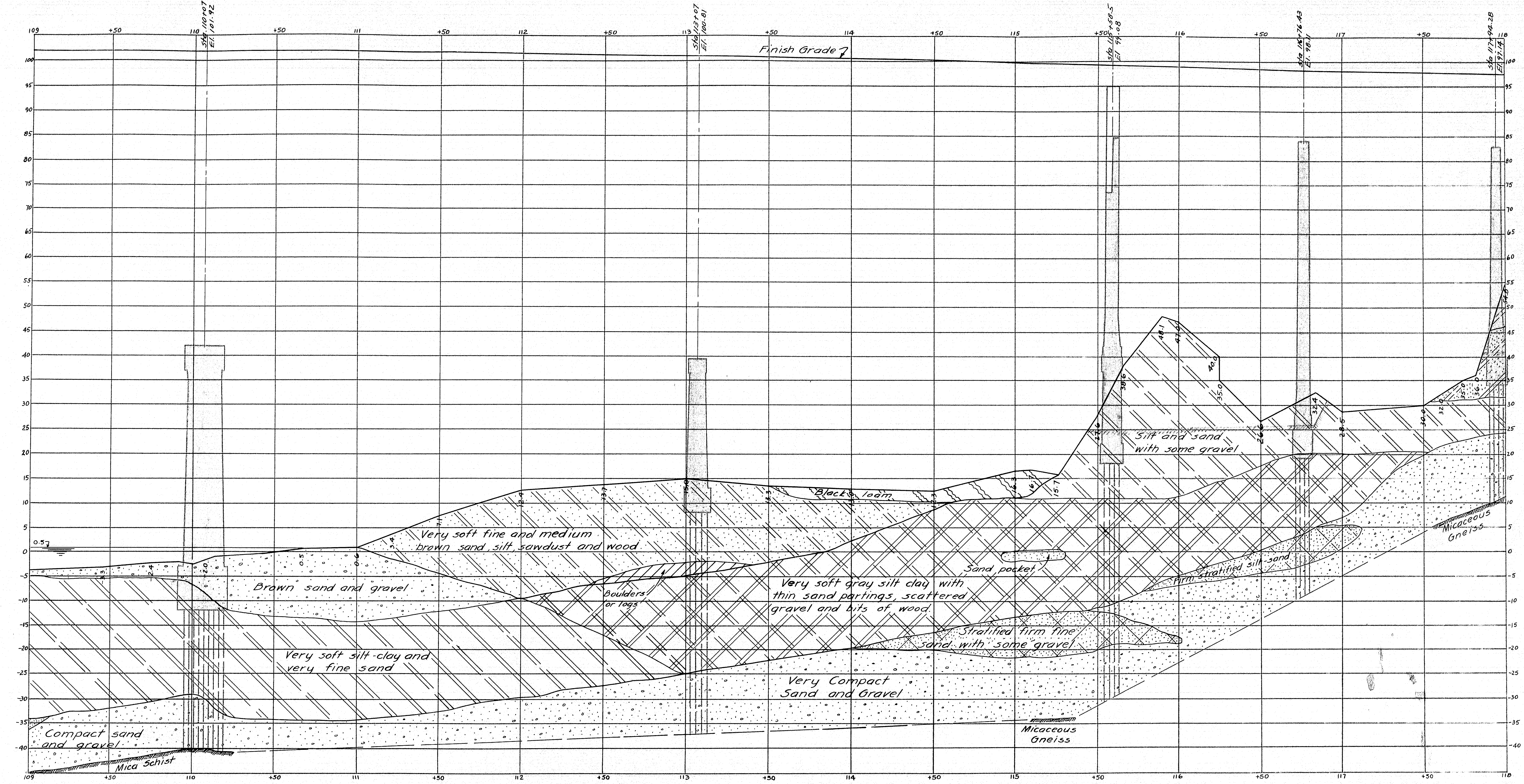
SHEET 7 OF 45 AUGUSTA MAINE DEC 1945

Revised 3-29-48 tide range. E.

52-7

0 1 2 3 4 5 INCHES

P.W.A. DIV NO	STATE	FED. AID PROJ. NO	SHEET NO	TOTAL SHEETS
1	MAINE	FI, UI-389(2)	8	45



PROFILE

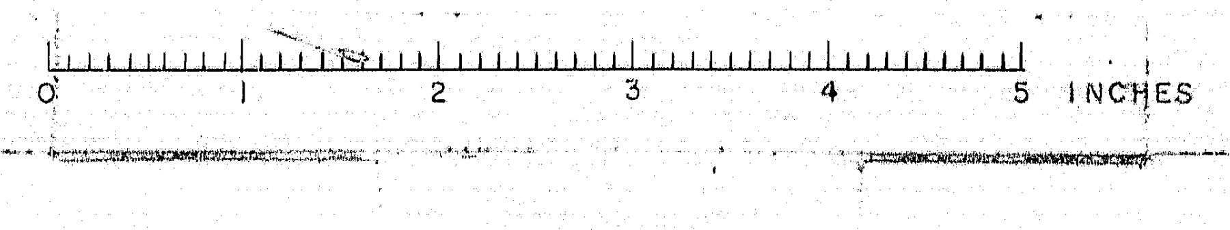
SCALES
HORIZONTAL 1" = 30'
VERTICAL 1" = 10'

SURVEY - P. JOHNSON
PLAN - BOYD

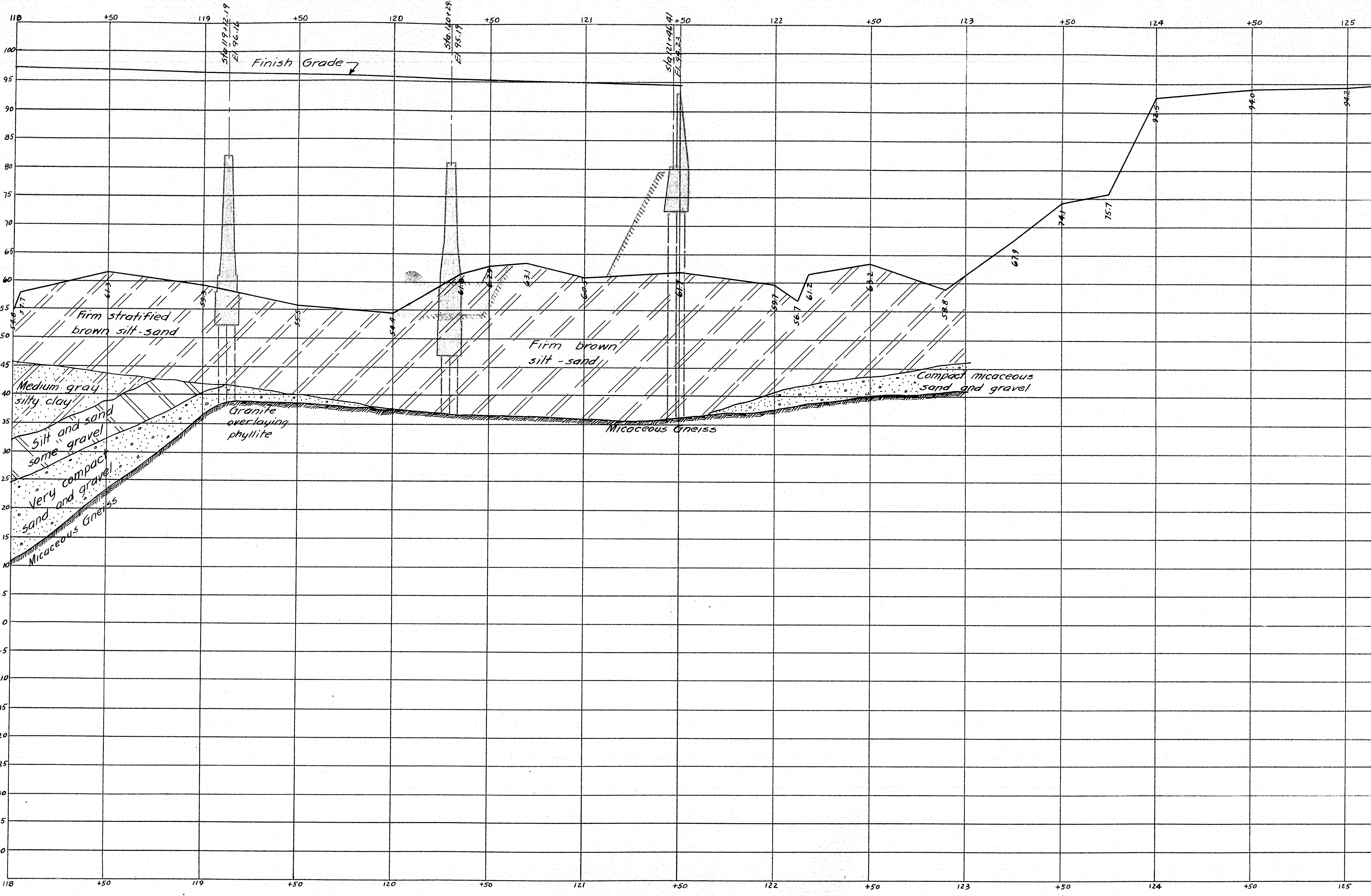
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
PROFILE
SHEET 8 OF 45 AUGUSTA MAINE DEC 1945

52-8



P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1		FI, UI-389(2)	9	45



Profile

Scales
Horizontal 1" = 30'
Vertical 1" = 10'

Survey - P. Johnson
Plan - Boyd

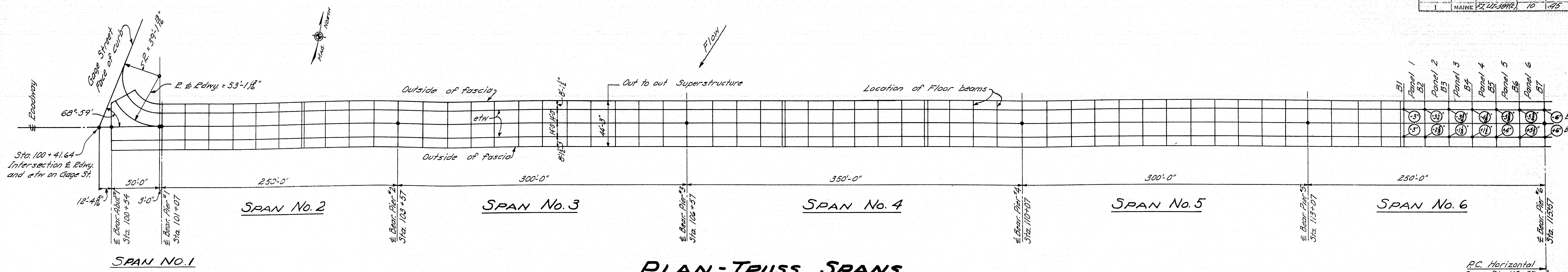
State Highway Commission
Bridge Division

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
PROFILE
SHEET 9 OF 45 AUGUSTA MAINE DEC 1945

52-9

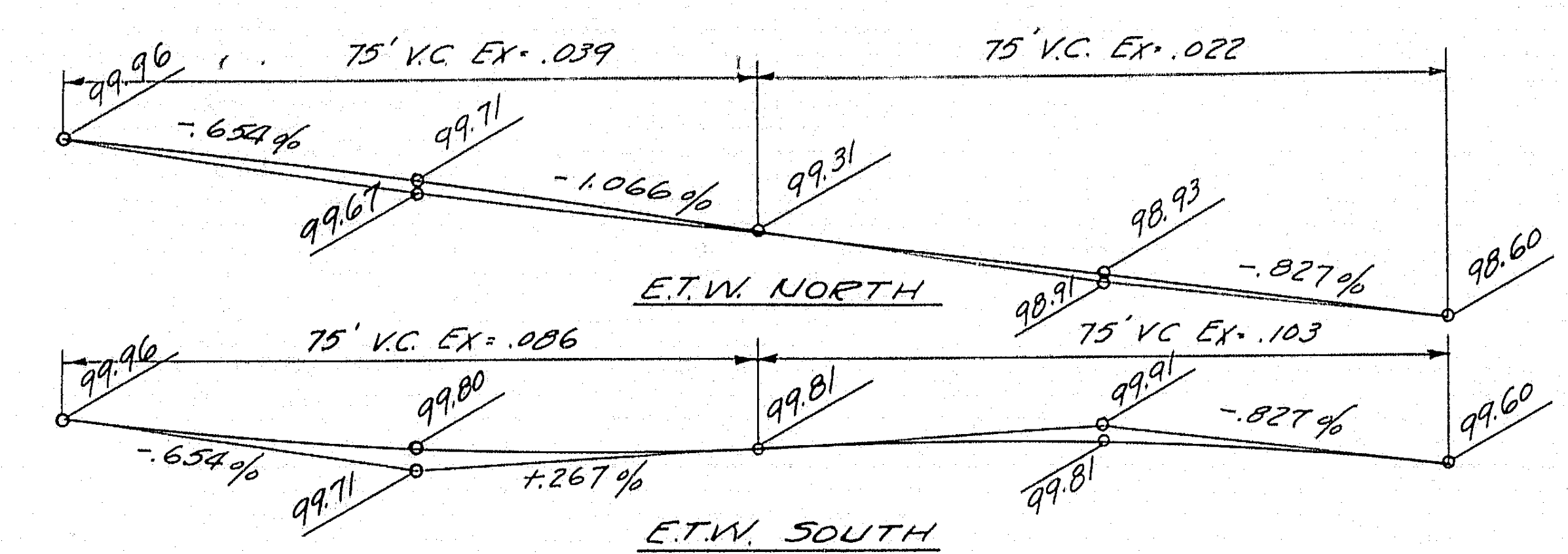
0 1 2 3 4 5 INCHES

P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
I	MAINE	FI, UI-389(2)	10	45



Mag. North
Flow
℄ Roadway
Gage Street Face of Curb
R. ℄ Rdwy. = 53'-1 1/8"
68°-59'
Sta. 100+41.64 Intersection ℄ Rdwy. and etw on Gage St.
Outside of fascia
etw
Out to out Superstructure
Location of Floor beams
Panel 1 Panel 2 Panel 3 Panel 4 Panel 5 Panel 6
B1 B2 B3 B4 B5 B6 B7
bank
50'-0"
250'-0"
300'-0"
350'-0"
300'-0"
250'-0"
12'-4 5/8"
3'-0"
℄ Bear. Abut. #1 Sta. 100+54
℄ Bear. Pier #1 Sta. 101+07
℄ Bear. Pier #2 Sta. 103+57
℄ Bear. Pier #3 Sta. 106+57
℄ Bear. Pier #4 Sta. 110+07
℄ Bear. Pier #5 Sta. 113+07
℄ Bear. Pier #6 Sta. 115+57
Span No. 1
Span No. 2
Span No. 3
Span No. 4
Span No. 5
Span No. 6

PLAN - TRUSS SPANS

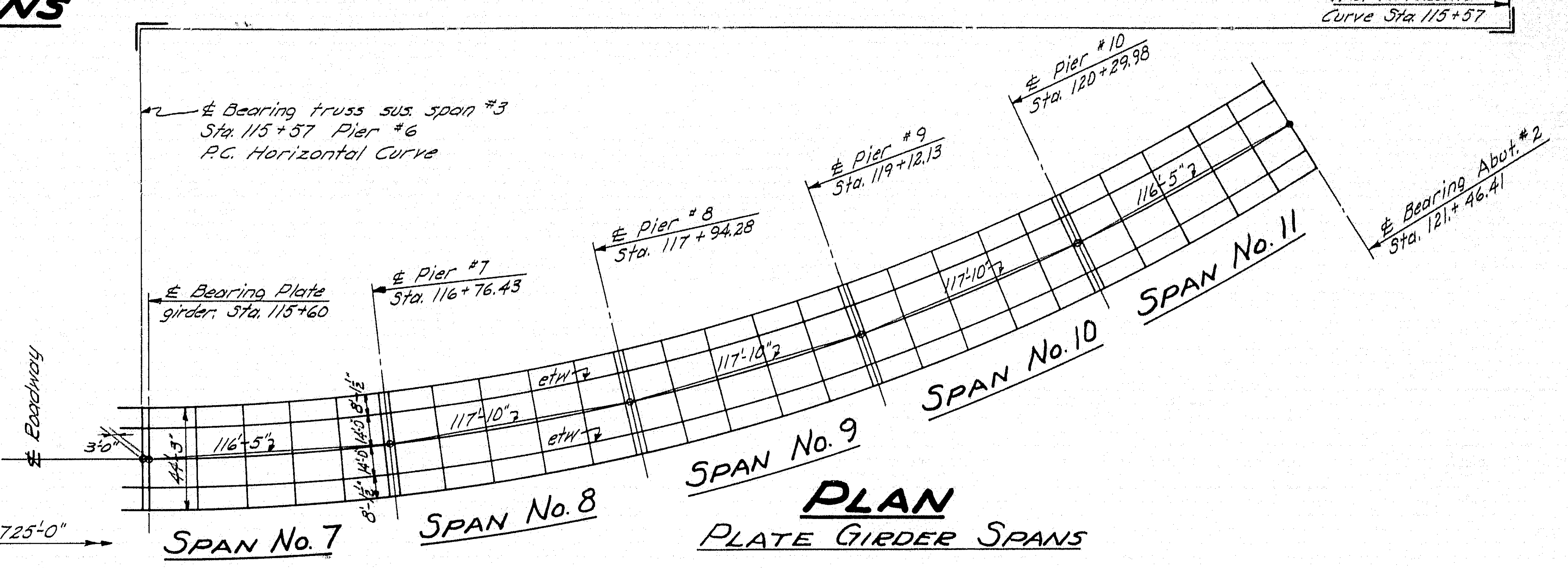


Control points for finish grades at E.T.W. or face of curb in suspended span #3. This data to be used for setting sidewalk grades for rail posts in this span.

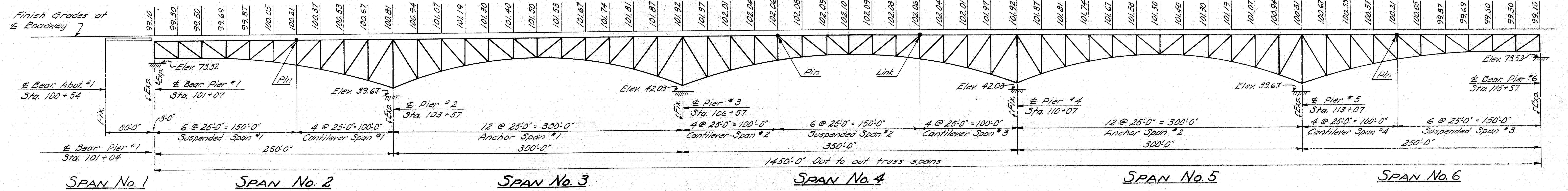
NOTE: Normal Crown of 3" (Sta. 101+07 to ℄ pin in Span #6) Crown at etw. for suspended span #3 shown on "PLAN-TRUSS SPANS." Crown for plate girder spans starting at Sta. 115+60 equals +6" outside of curve, -6" inside of curve. Crown is vertical distance from finish grade at ℄ Roadway to etw.

NOTE: Finish grades along center line of roadway are symmetrical about ℄ truss spans. Truss details symm. about this line except as follows:

1. Pin and link connections for suspended span #2 to cantilever spans #2 & #3.
2. Sidewalk stringers and connections to Floor beams in suspended span #3. See table sh. #27
3. Expansion dams.



PLAN
PLATE GIRDER SPANS

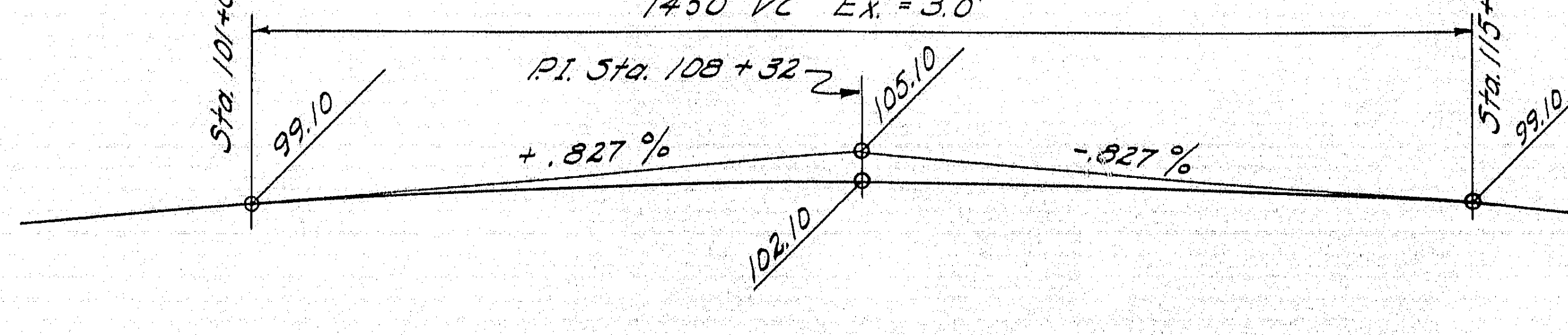


DOWN STREAM ELEV. - TRUSS SPANS

Scale: 1" = 50'-0"

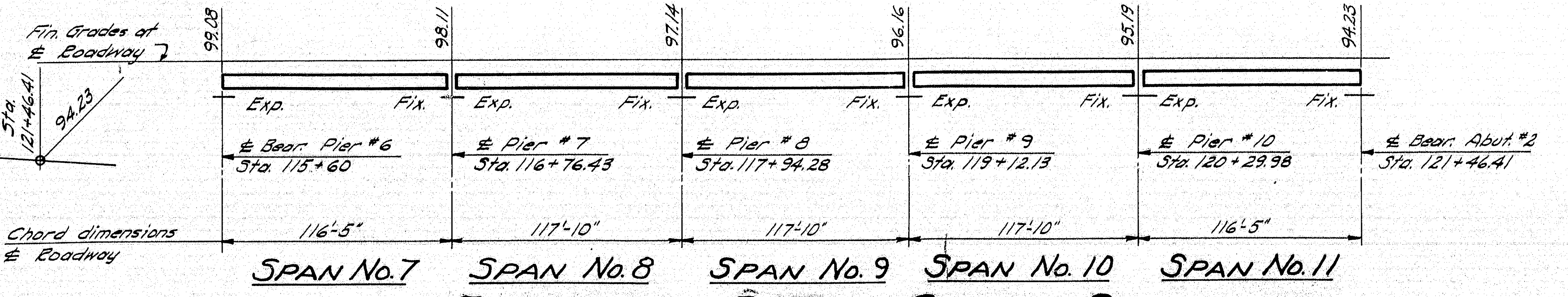
MINIMUM UNDERCLEARANCE

Sus. Span #1 above top of rail = 26'-6"
Span #10 over Arsenal Street = 27'-0"
Sus. Span #3 over Howard St. = 58'-6"



VERTICAL CURVE

Control points finish grades for structure



ELEVATION - PLATE GIRDER SPANS

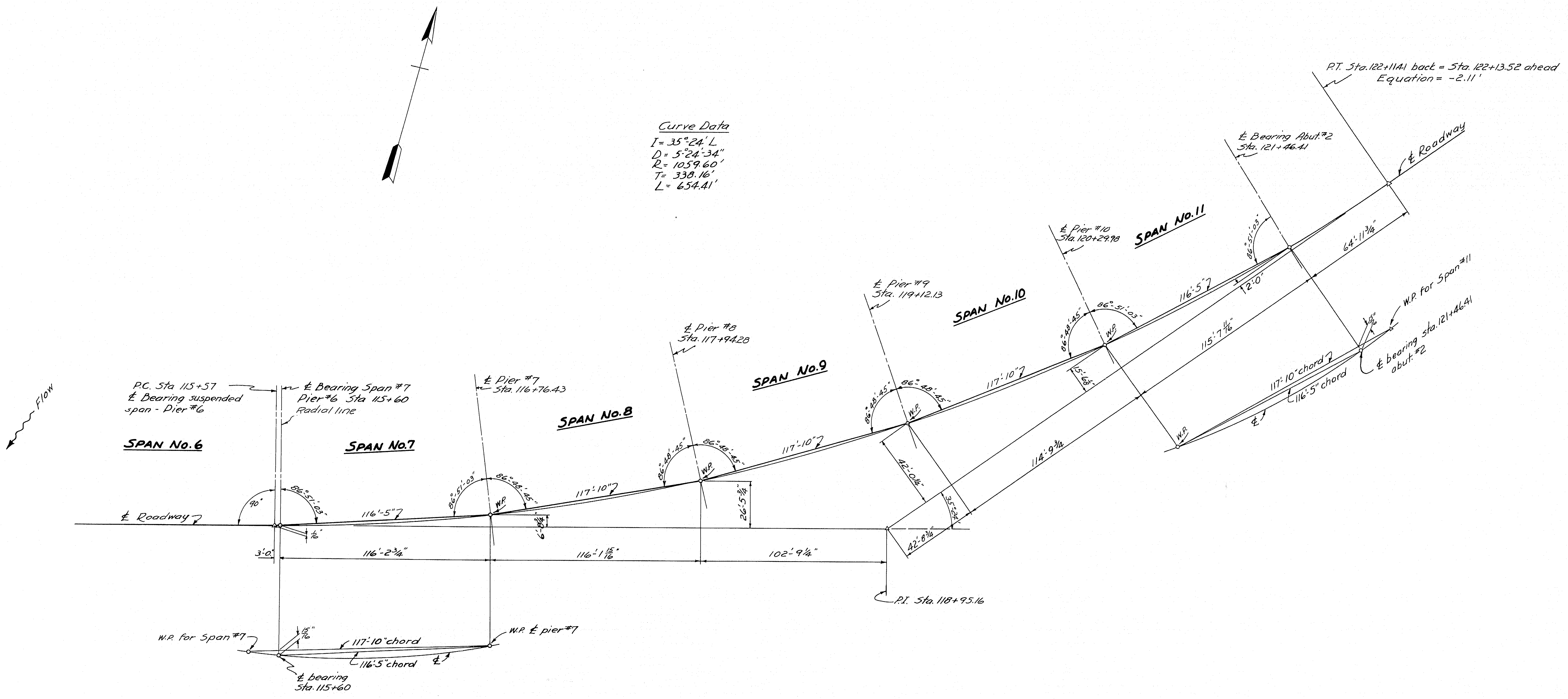
DESIGN - EVERETT TRACE - CLARK
DETAIL - " CHECK - Hamilton
BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
GENERAL PLAN & ELEV. OF STRUCTURE
SHEET 10 OF 45 AUGUSTA, MAINE FEB. 1948

52-10

0 1 2 3 4 5 INCHES

P.R.A. DIV NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI,UI-389(2)	11	45



SUBSTRUCTURE LAYOUT
SPANS 7 TO 11
EAST APPROACH

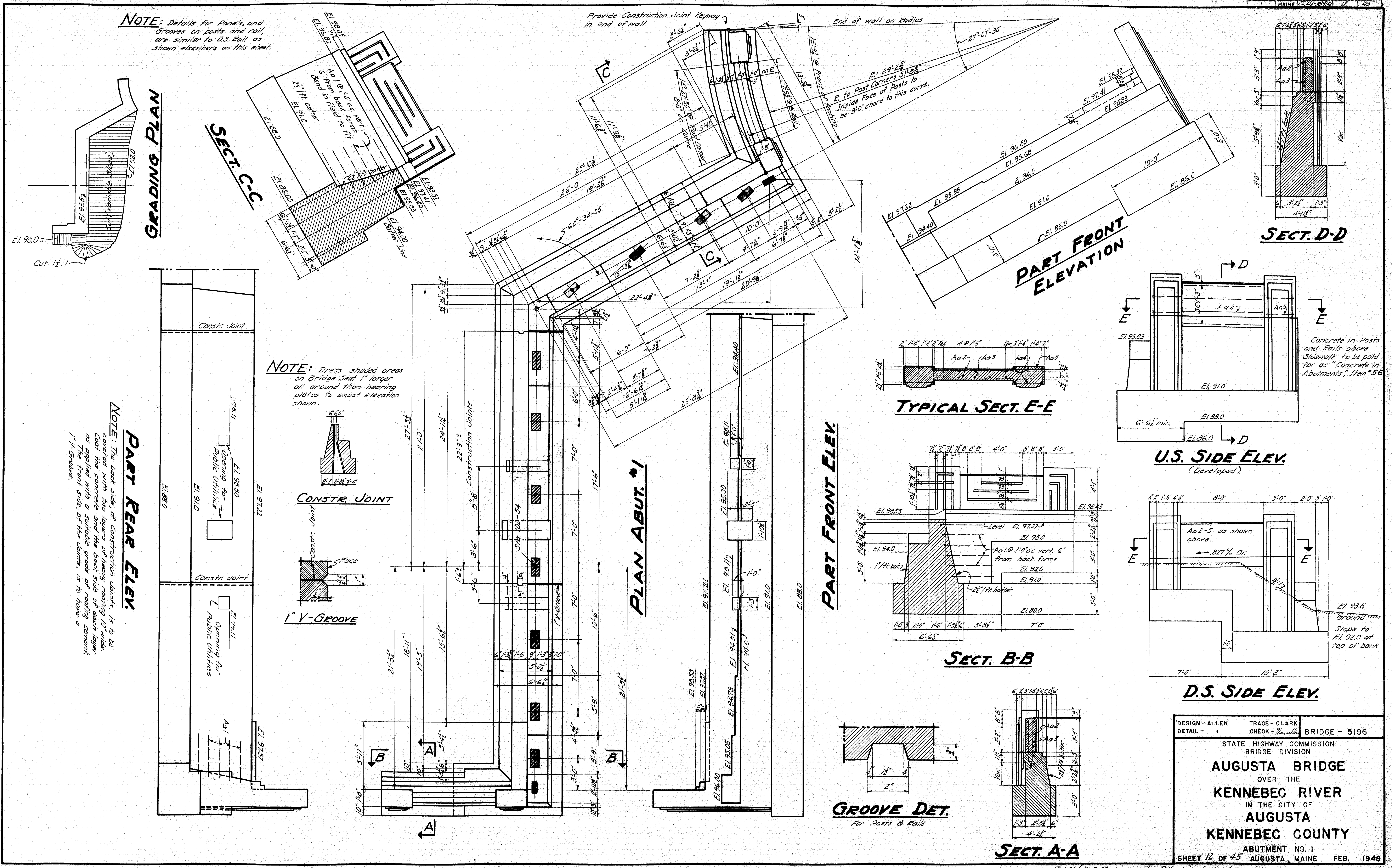
DESIGN - EVERETT TRACE - BOYD
DETAIL - " CHECK - Hamilton
BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
LAYOUT SUBSTRUCTURE - EAST APPROACH
SHEET 11 OF 45 AUGUSTA, MAINE FEB. 1948

52-11

F. H. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI, UI-399(2)	12	45



NOTE: Details for Panels, and Grooves on posts and rail, are similar to D.S. Rail as shown elsewhere on this sheet.

NOTE: Dress shaded areas on Bridge Seat 1" larger all around than bearing plates to exact elevation shown.

NOTE: The back side, of Construction Joints, is to be covered with two layers of heavy roofing 10" wide. Coat the concrete and the back side of each layer as applied with a suitable grade of roofing cement. The front side, of the Joints, is to have a 1" V-Groove.

Concrete in Posts and Rails above Sidewalk to be paid for as "Concrete in Abutments," Item #56

DESIGN - ALLEN DETAIL - "	TRACE - CLARK CHECK - Hamilton	BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

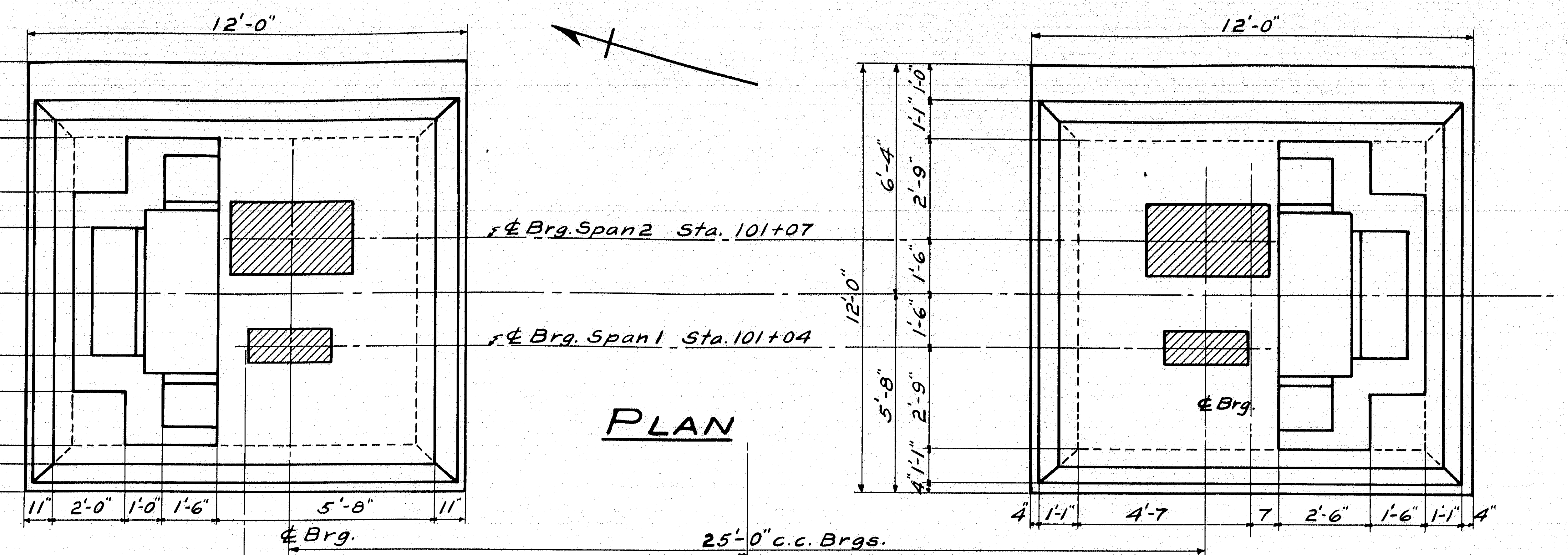
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

ABUTMENT NO. 1
SHEET 12 OF 45 AUGUSTA, MAINE FEB. 1948

Revised 8-19-48 opening for P.U. down stream side
" 9-30-48 " " " up " "

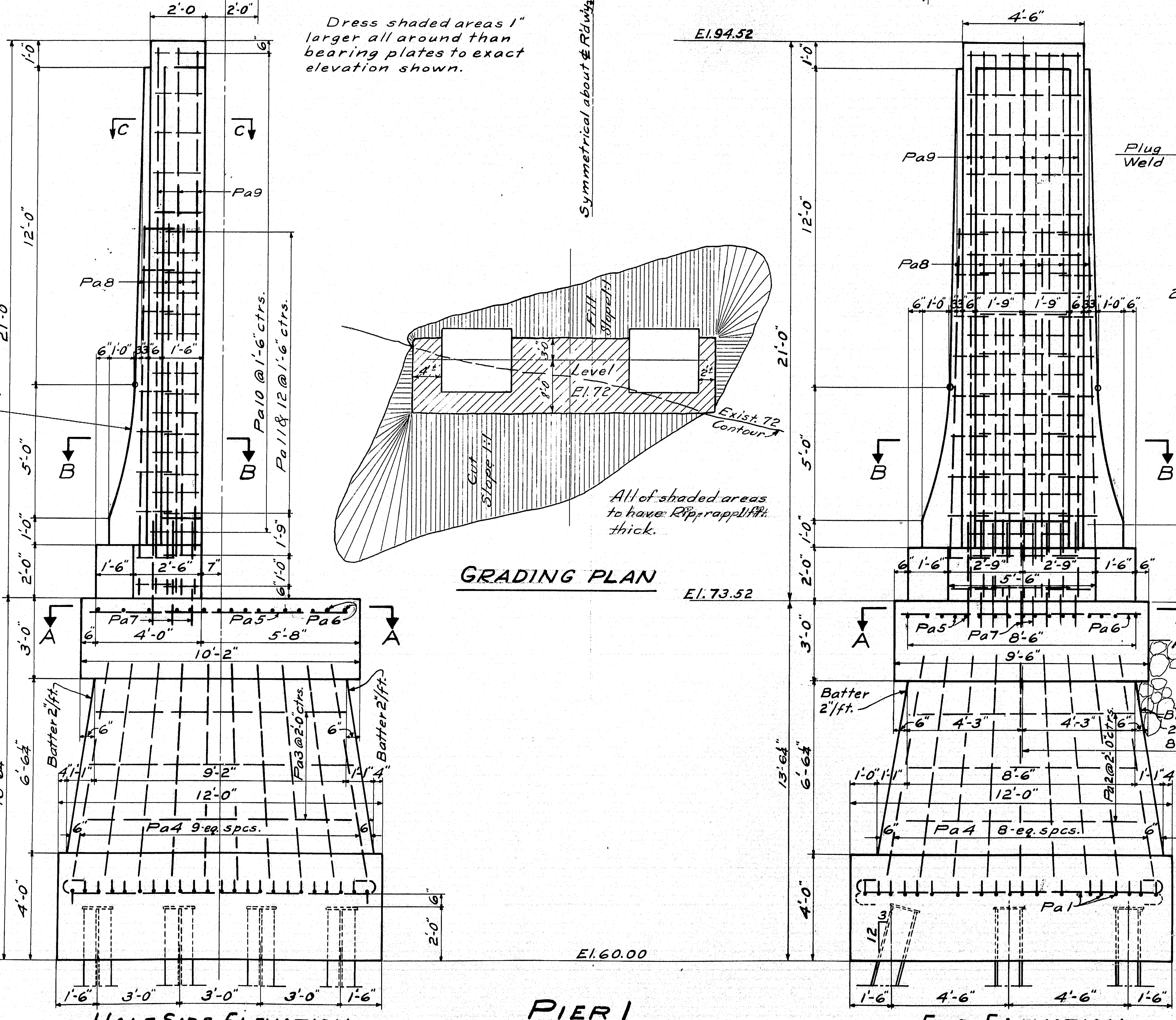
52-12

P. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	F.I. UI-389(2)	13	45



PLAN

Dress shaded areas 1" larger all around than bearing plates to exact elevation shown.



~~All of shaded areas to have Rip-rap 1 ft. thick.~~

GRADING PLAN

Note: Where the top of the grading comes above El. 70.5, place stone fill about 1 ft. wide and 2 ft. deep under the Bridge Seat Cap. This stone fill shall be paid for as Rip-rap.

HALF SIDE ELEVATION

PIER 1

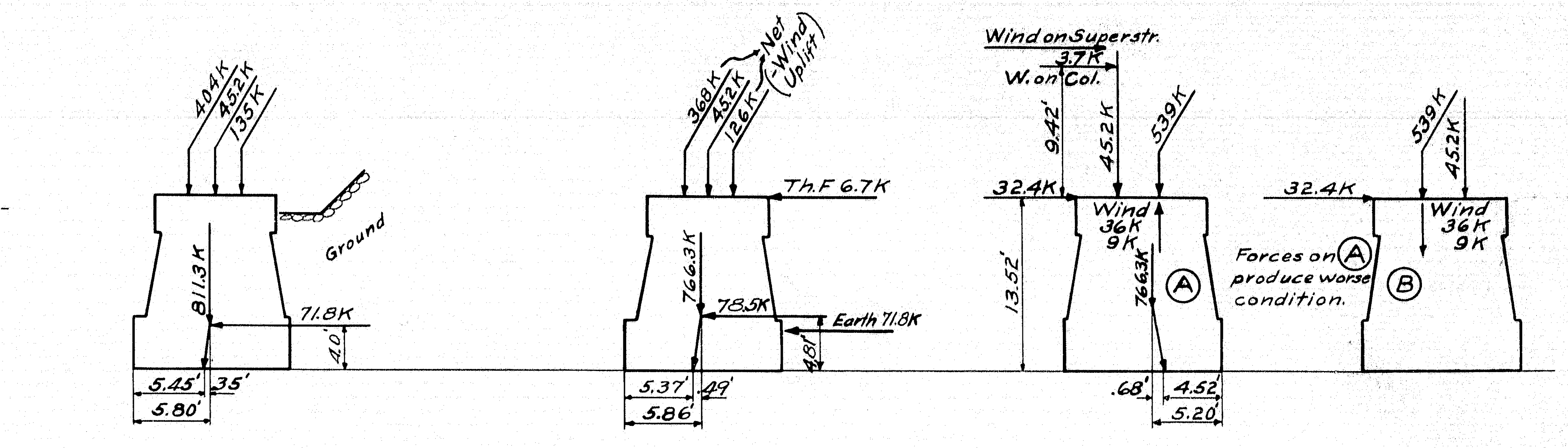
END ELEVATION

Conditions of Loading

① D.L., L.L., S.W. & Earth P.

② D.L., L.L., S.W., Earth P. Thermal F. & Wind

③ As for ② & work together.



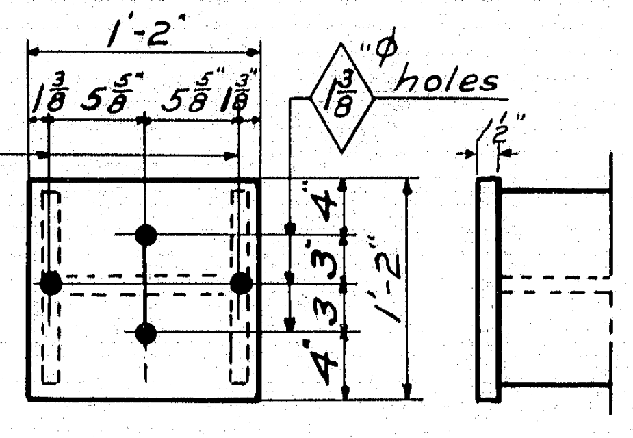
Direct load on piles 33.8 Tons/pile
Plus or minus for eccentricity 6.2 Tons
Load on front row 40.0 Tons
Load on center row 33.8 Tons
Load on back row 27.6 Tons

Allowable load 46.7 Tons

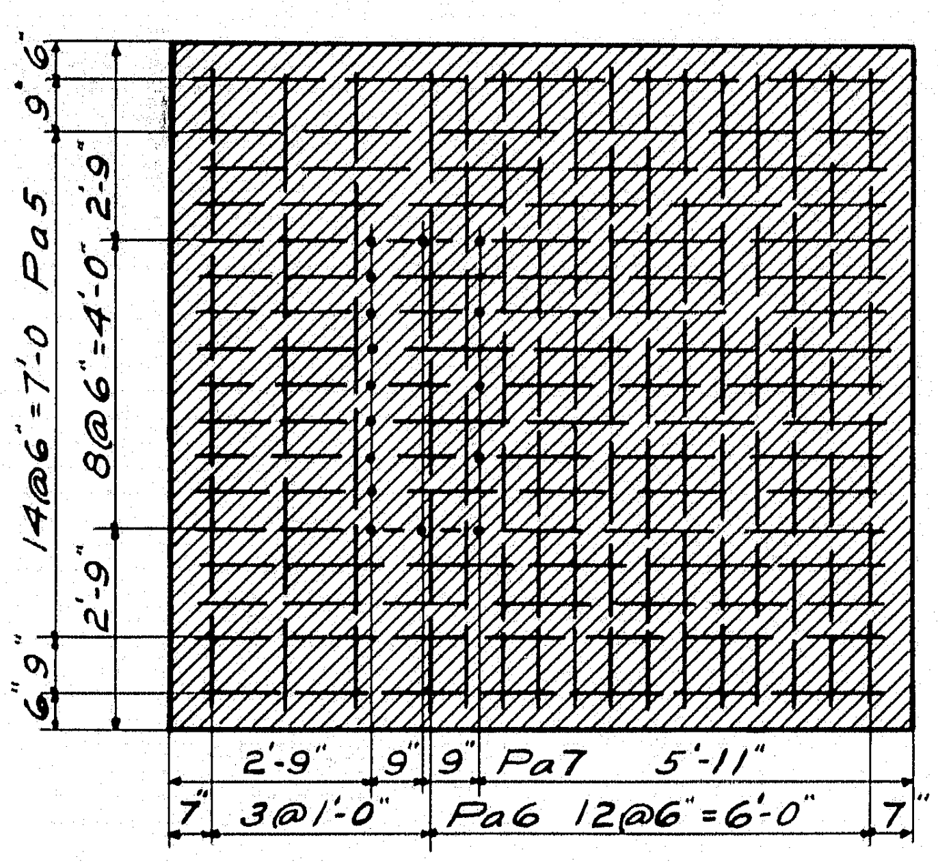
Direct load on piles 31.9 Tons/pile
Plus or minus for eccentricity 6.6 Tons
Load on front row 38.5 Tons
Load on center row 31.9 Tons
Load on back row 25.3 Tons

Load on front corner pile from condition ② 38.5 Tons
Plus for eccentricity 18.9 Tons
Max. load on corner pile 57.4 Tons

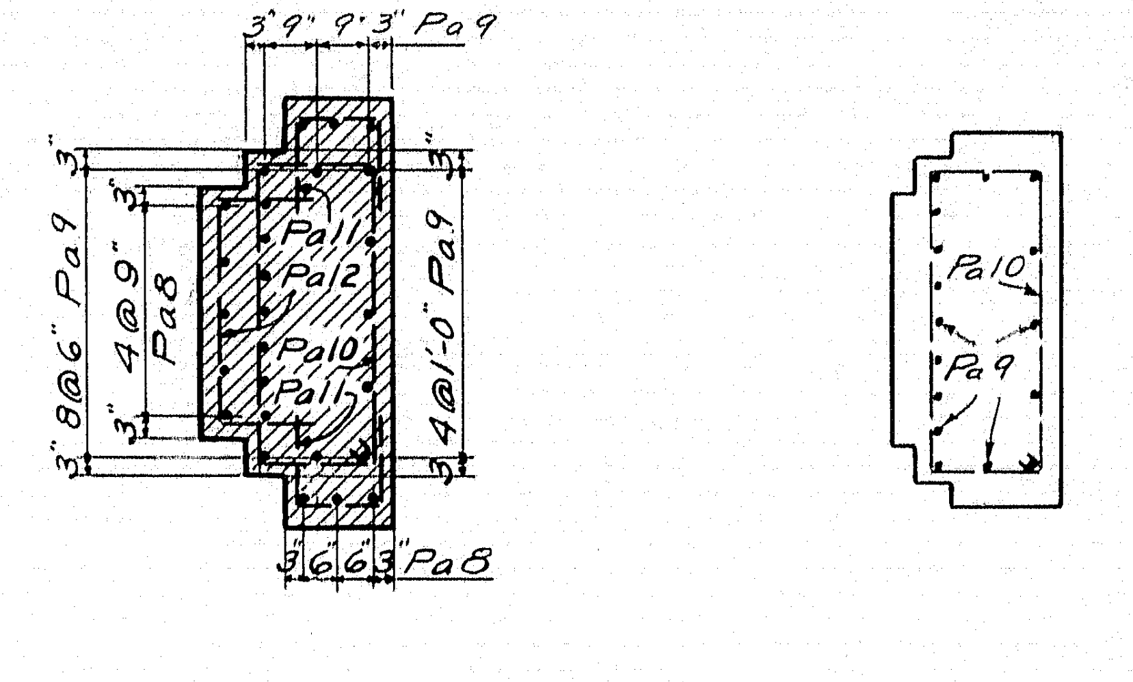
Allowable load 58.4 Tons



PILE CAP
24-Required 14"x½"x1'-2"

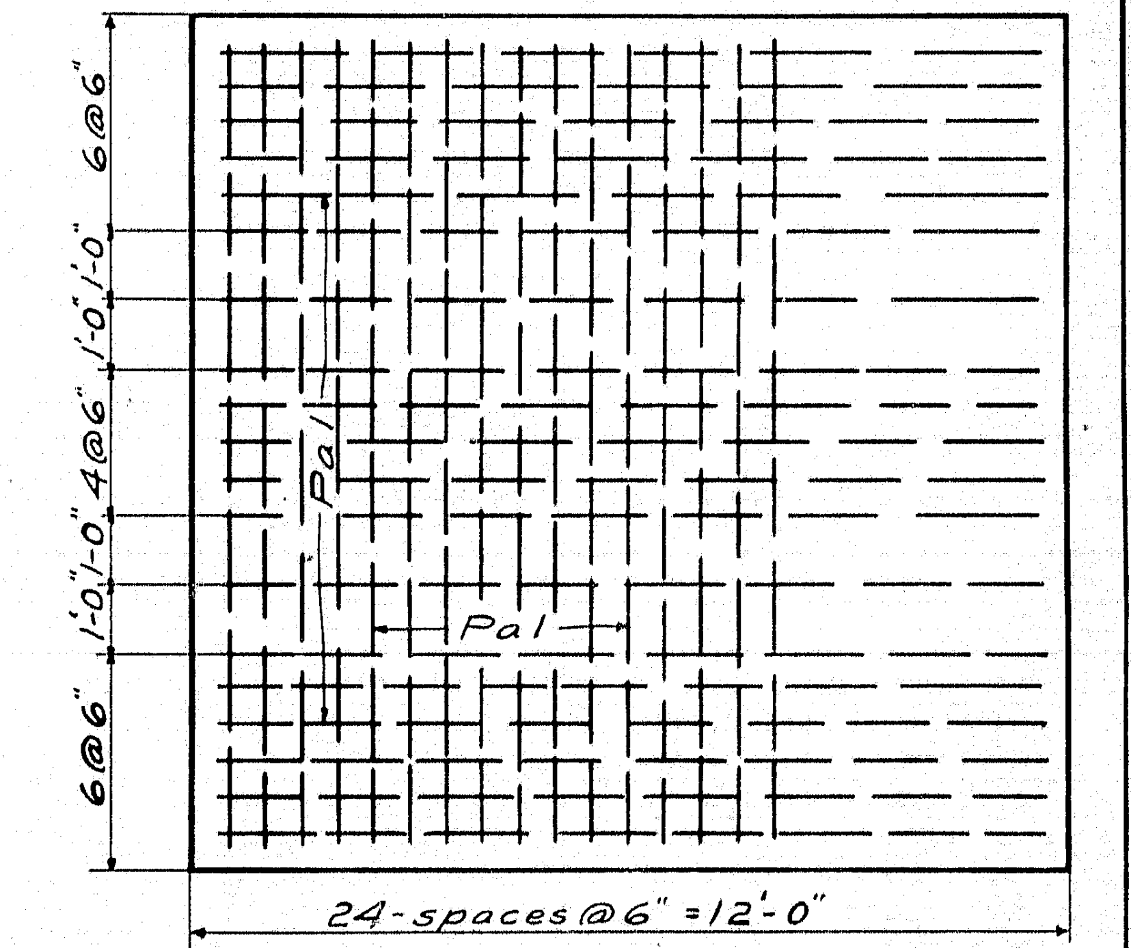


SECTION A-A

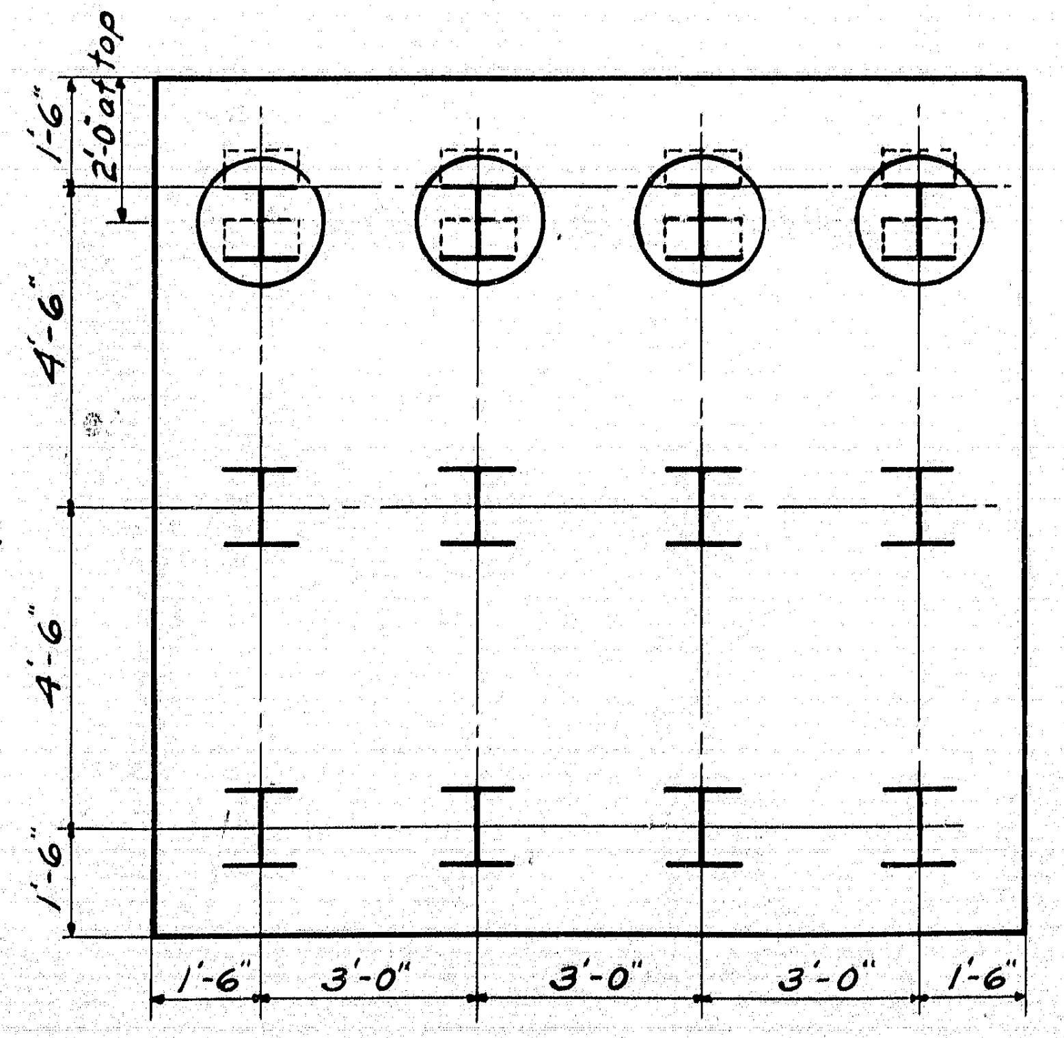


SECTION B-B

SECTION C-C



FOOTING STEEL



PILE PLAN

Piles in circles to be battered 3"/ft.
Piles to be 12 x 53#. Estimated length 30 ft.
24-Required.

DESIGN - ALLEN DETAIL - "	TRACE - WHITE CHECK - G.W.S.	BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
PIER NO. 1

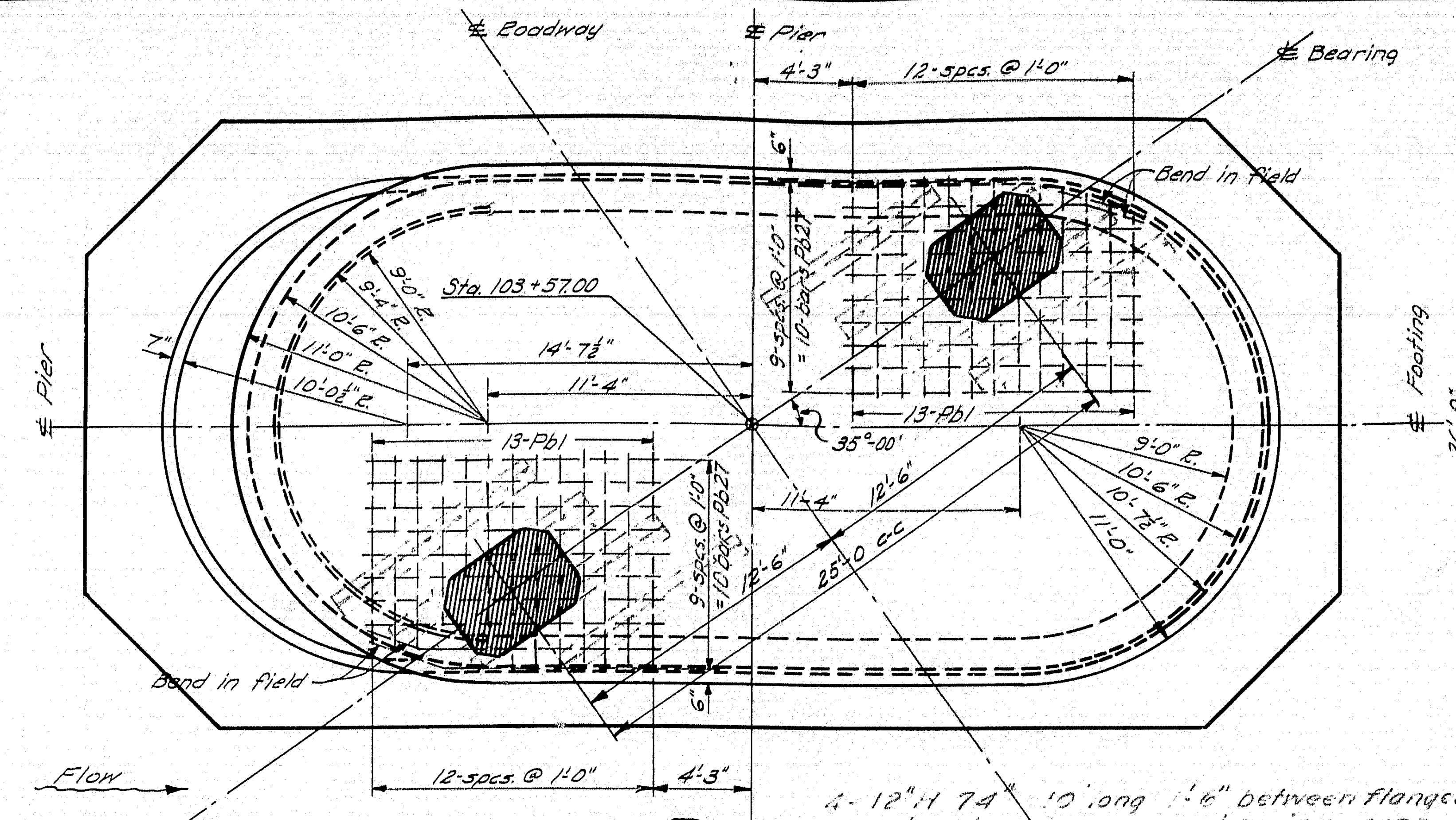
SHEET 13 OF 45 AUGUSTA, MAINE FEB. 1948

52-13

0 1 2 3 4 5 INCHES

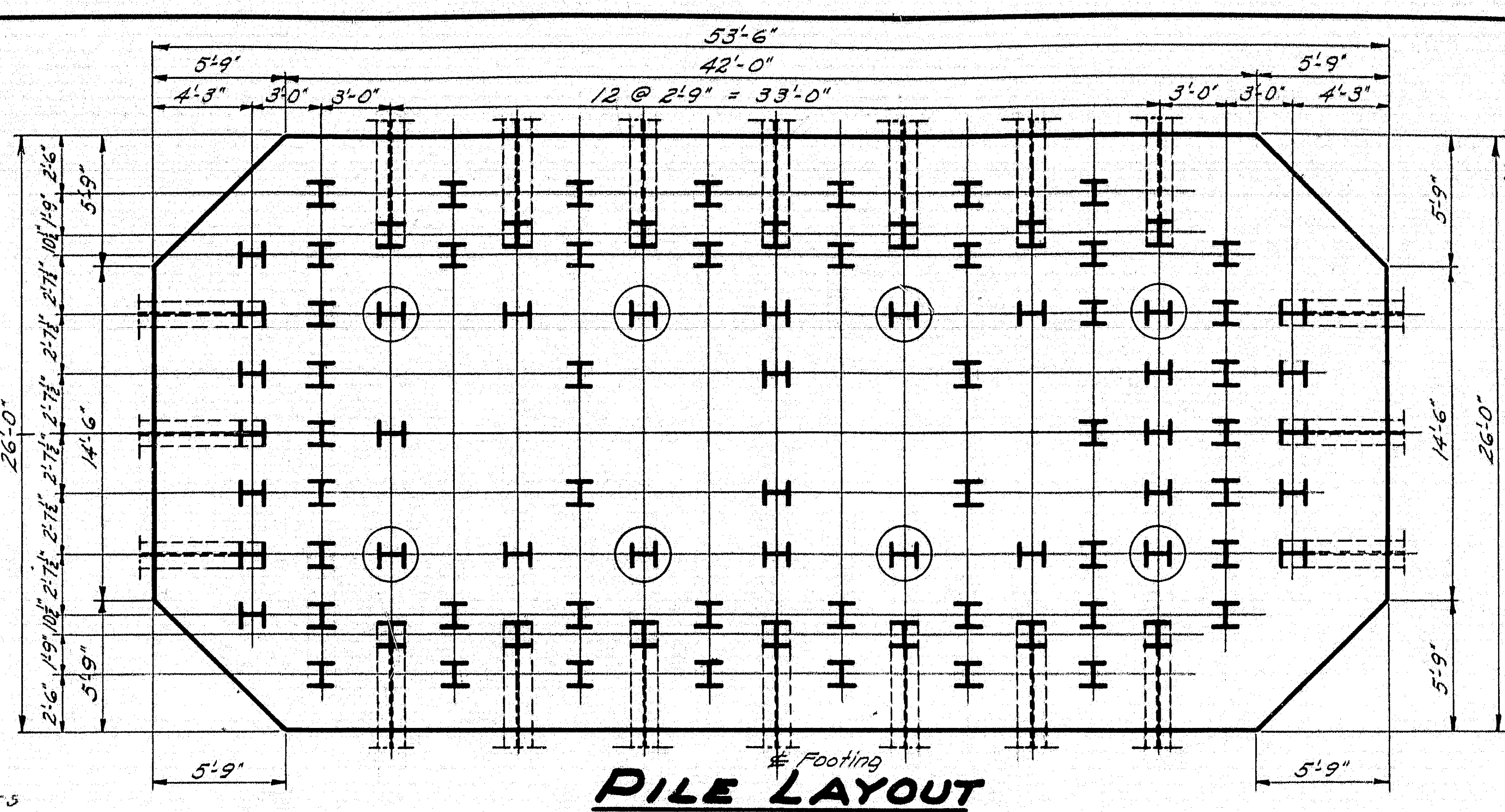
F. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI-UI 389(2)	14	45

NOTE: Dress shaded bearing areas 1" larger all around than masonry plates and to exact elevation.
Space reinforcing steel to clear anchor bolts.



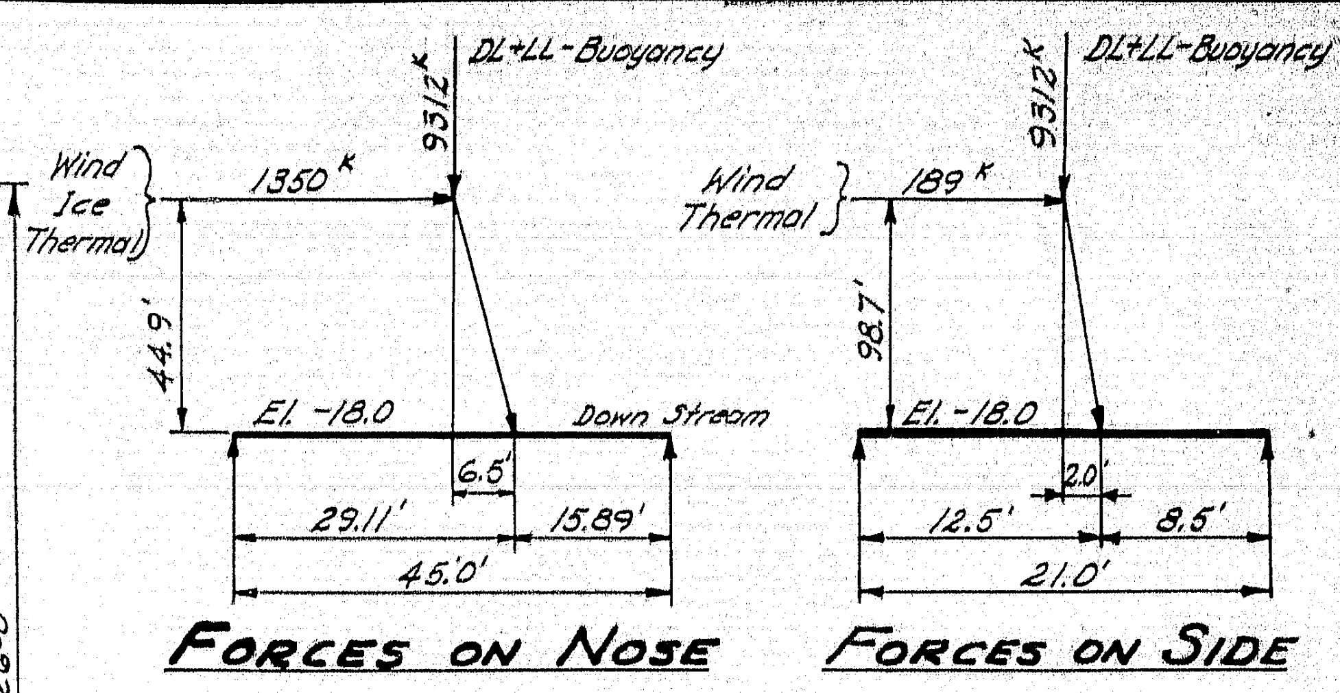
PLAN

4-12" H 74# 10' long 1'-6" between flanges placed under each bearing area. Top flange at El. 36.7



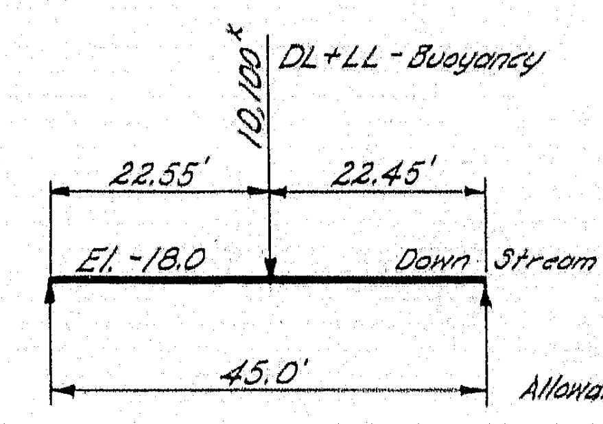
PILE LAYOUT

Required - 93 - piles 14" H 89#
Estimated length, 45 ft. for piles ending in footing & 56 ft. for piles extending into shaft. Battered piles 2-inches per foot. Circled piles extend into shaft of Pier 5 ft. (See Side Elevation)



FORCES ON NOSE FORCES ON SIDE

PILE LOAD

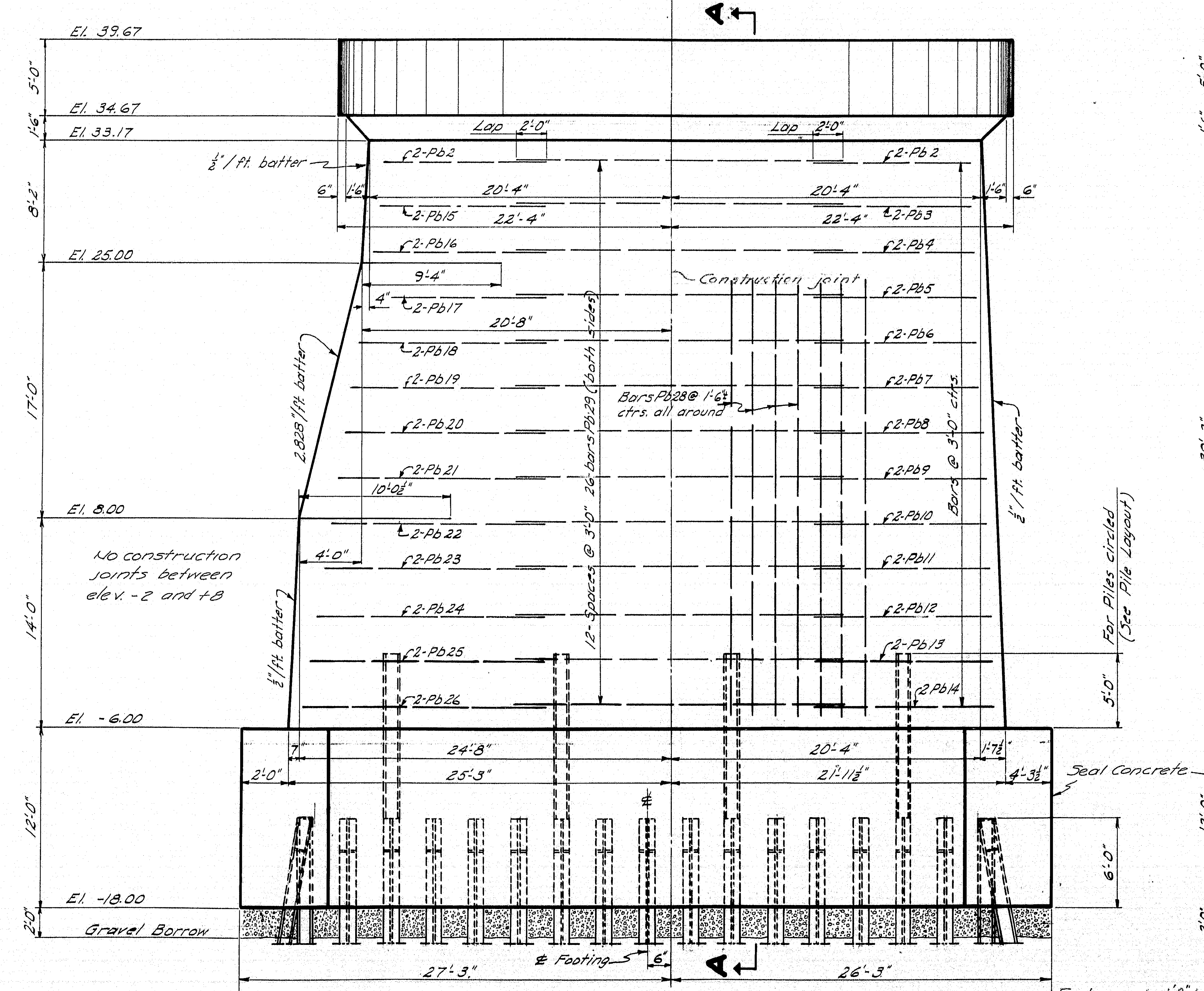


PILE SUMMARY

	Direct Load	Combination
	55 Tons	50.1 Tons Direct
		31.9 Forces on nose
		16.3 Forces on side
		98.3 Tons Total
Allowable Pile Load	78.6 Tons	98.3 Tons

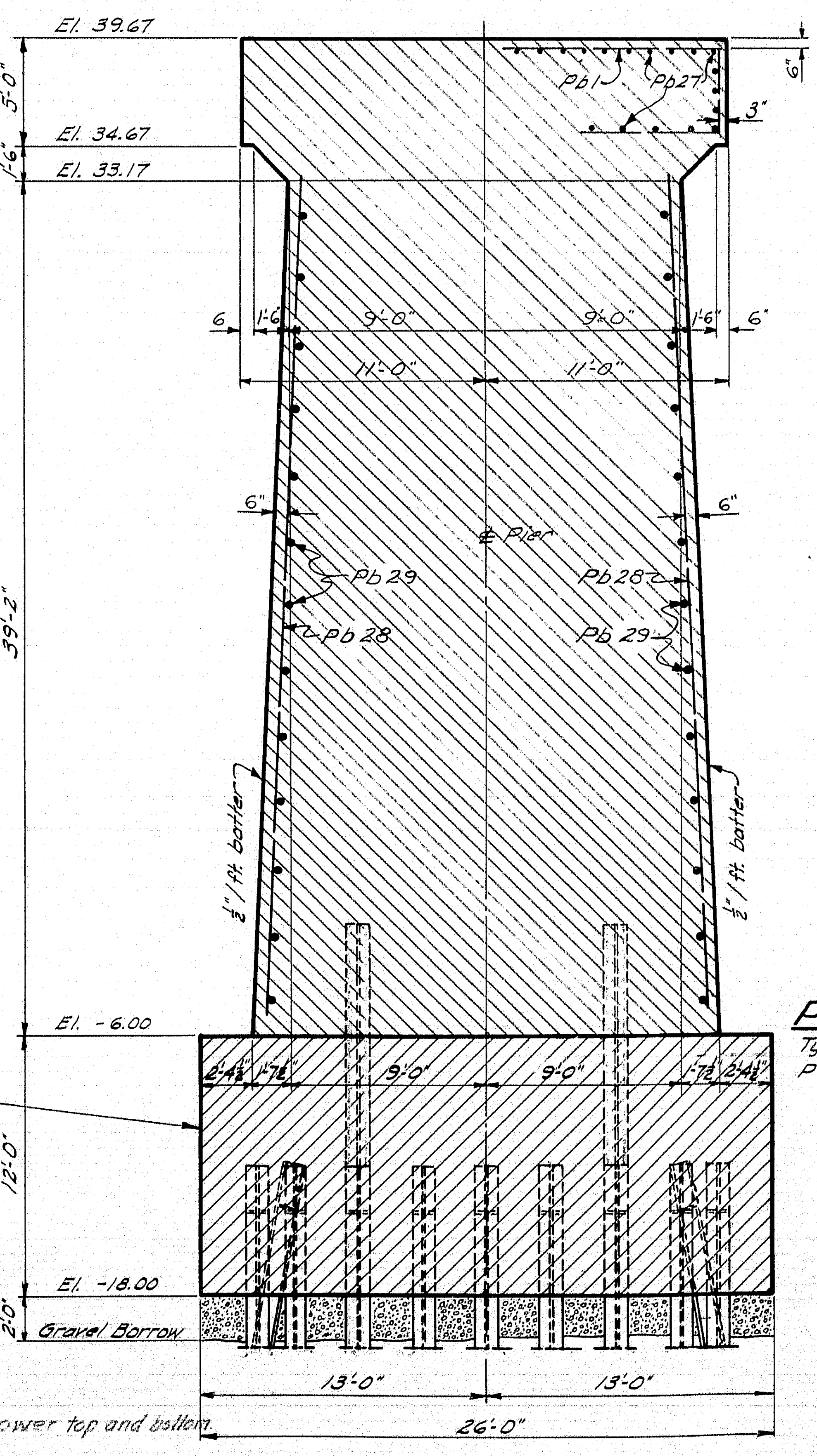
DIRECT PILE LOAD

PIER ANALYSIS

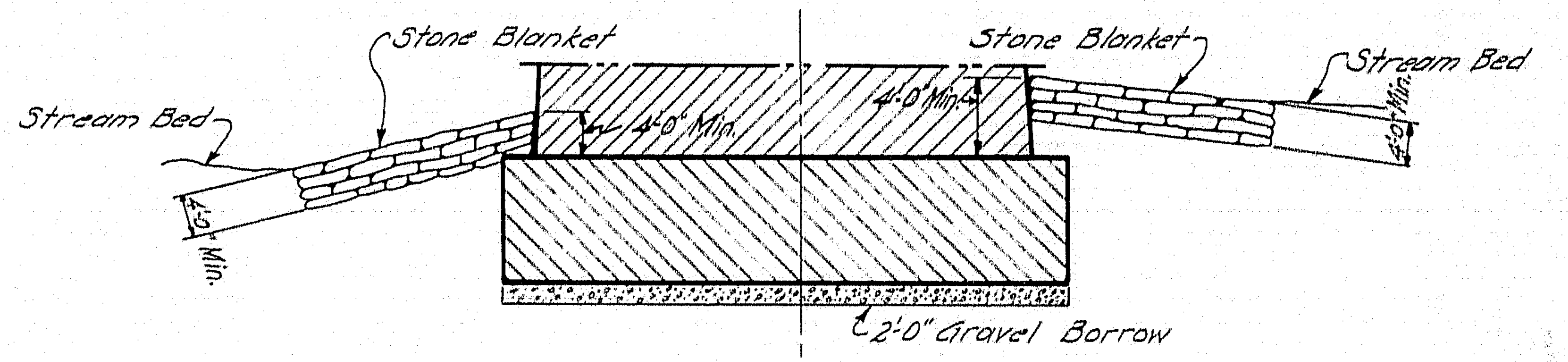


Seal concrete 1'-0" lower top and bottom

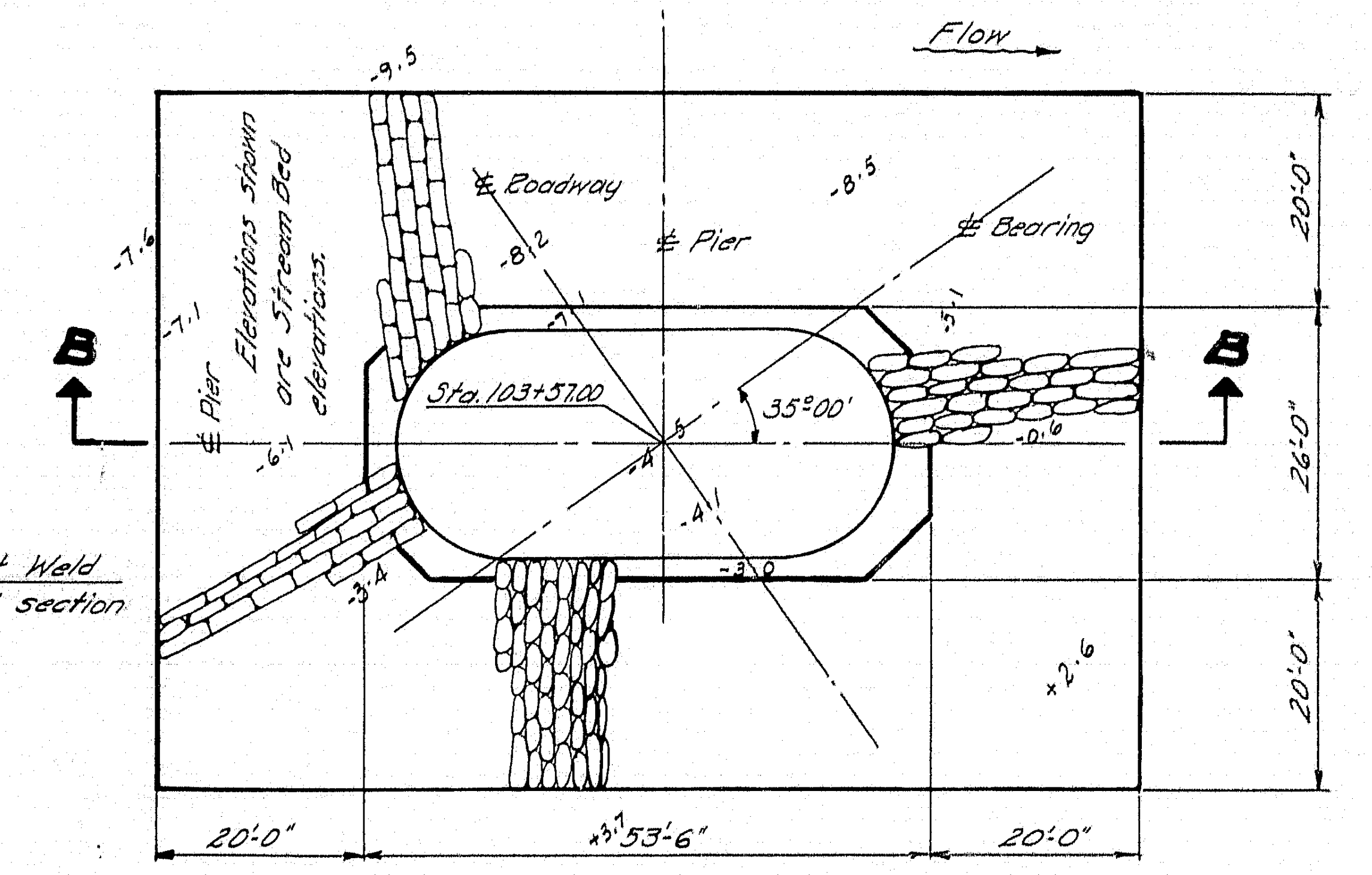
SIDE ELEVATION



SECTION A-A

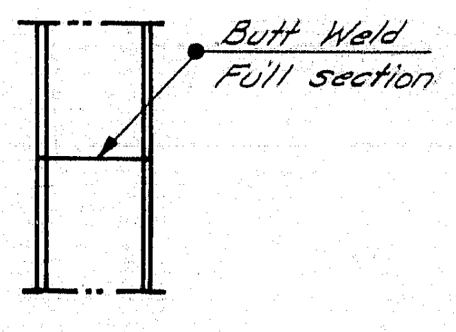


SECTION B-B

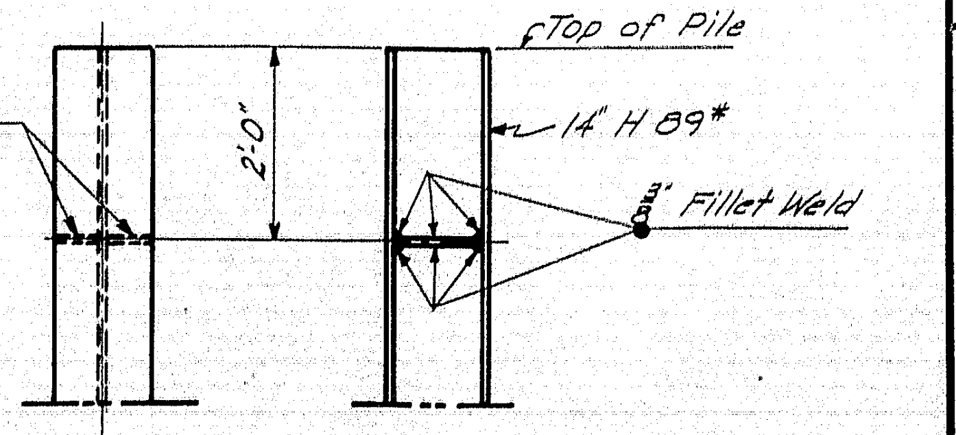


PLAN - STONE BLANKET

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



PILE SPLICE
Typical for all piles.



PILE CAPS

For Piles ending in footing.
Pile point cut square

DESIGN - EVERETT DETAIL - WHITE	TRACE - CLARK CHECK - Ca3
BRIDGE - 5196	

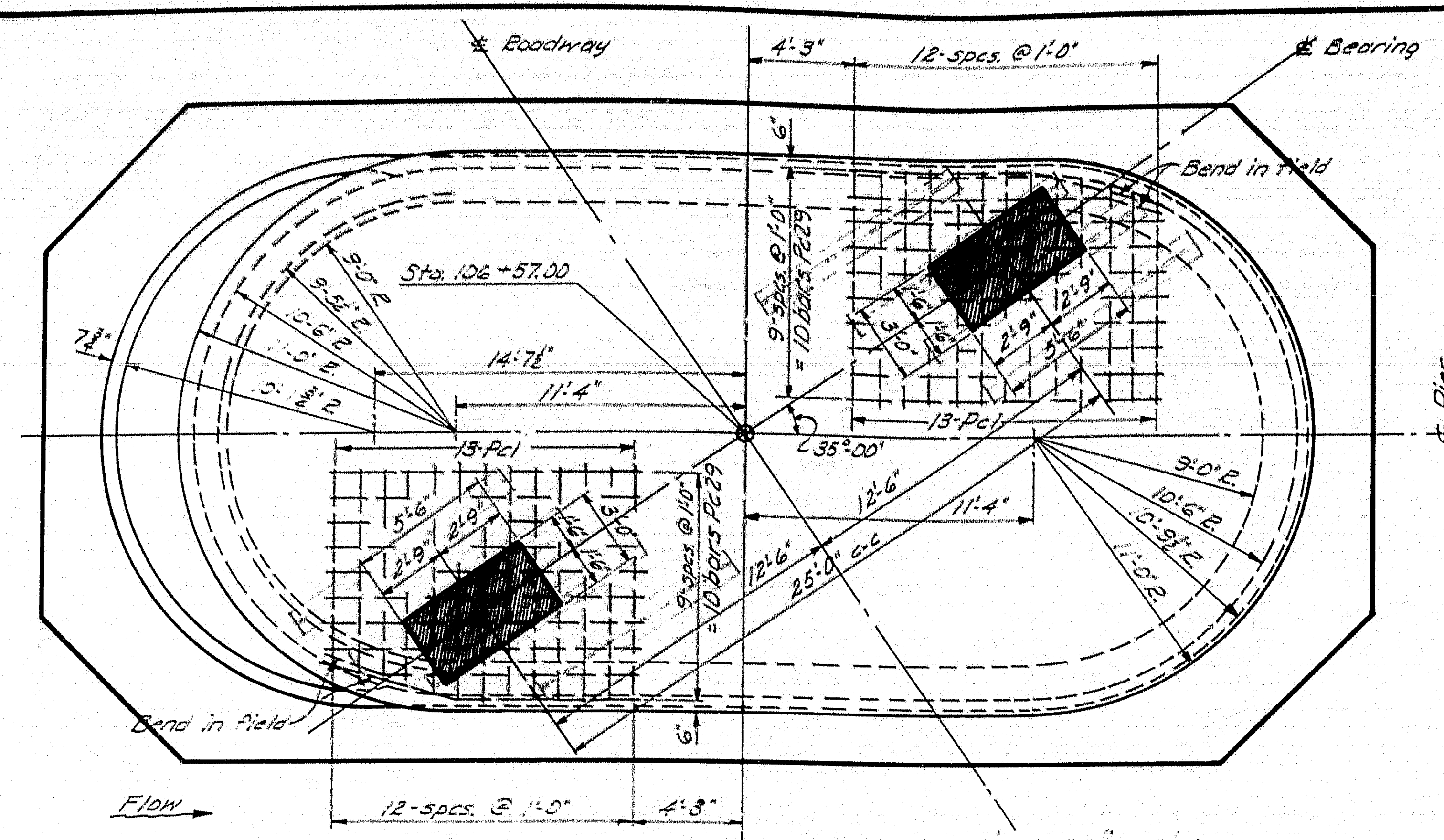
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
PIER NO. 2
SHEET 14 OF 45 AUGUSTA, MAINE FEB. 194

52-14

0 1 2 3 4 5 INCHES

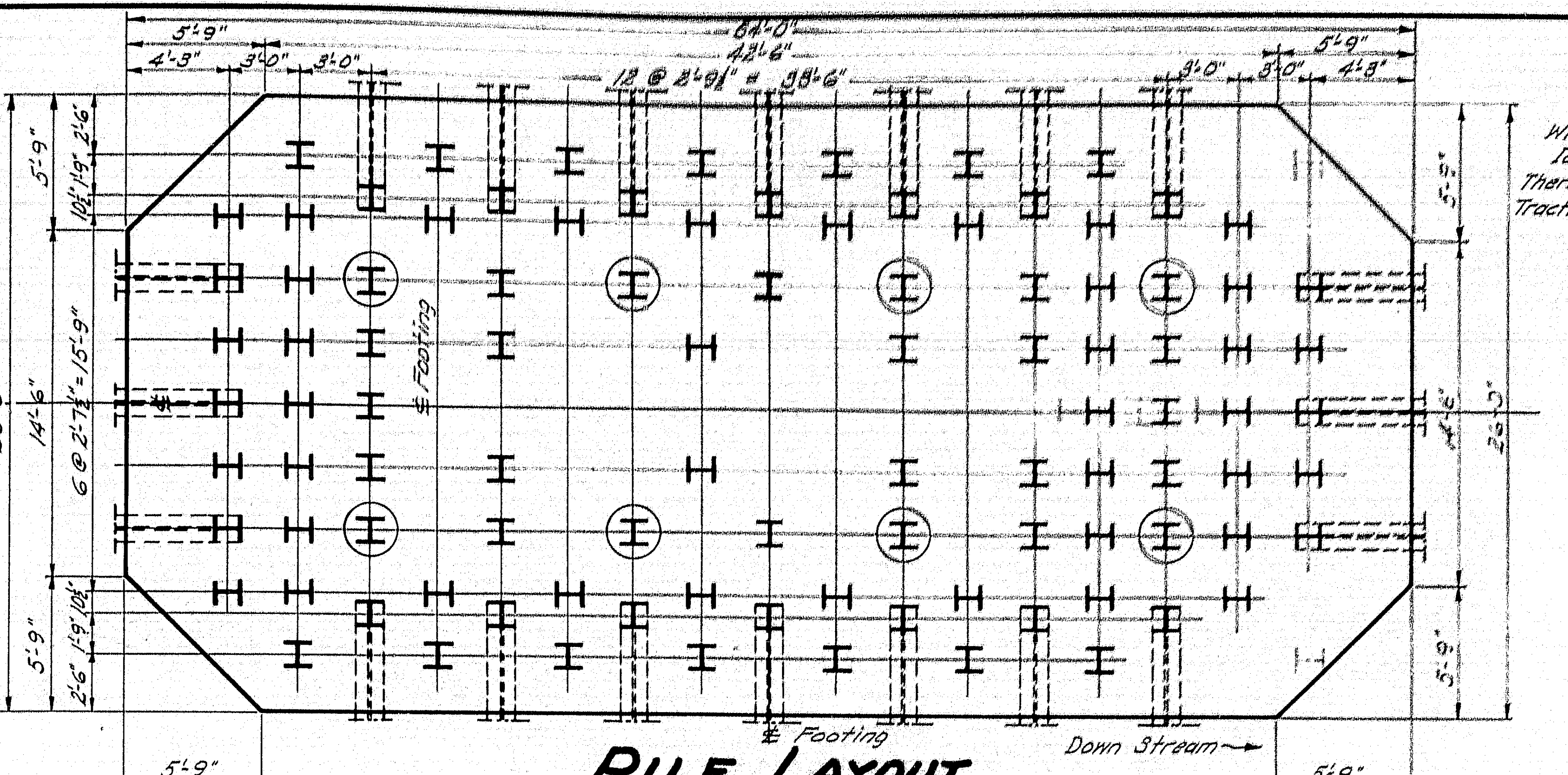
P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI, UI-389(2)	15	45

NOTE: Dress shaded bearing areas plus 1" all around to exact elev. Space reinforcing steel to clear anchor bolts.



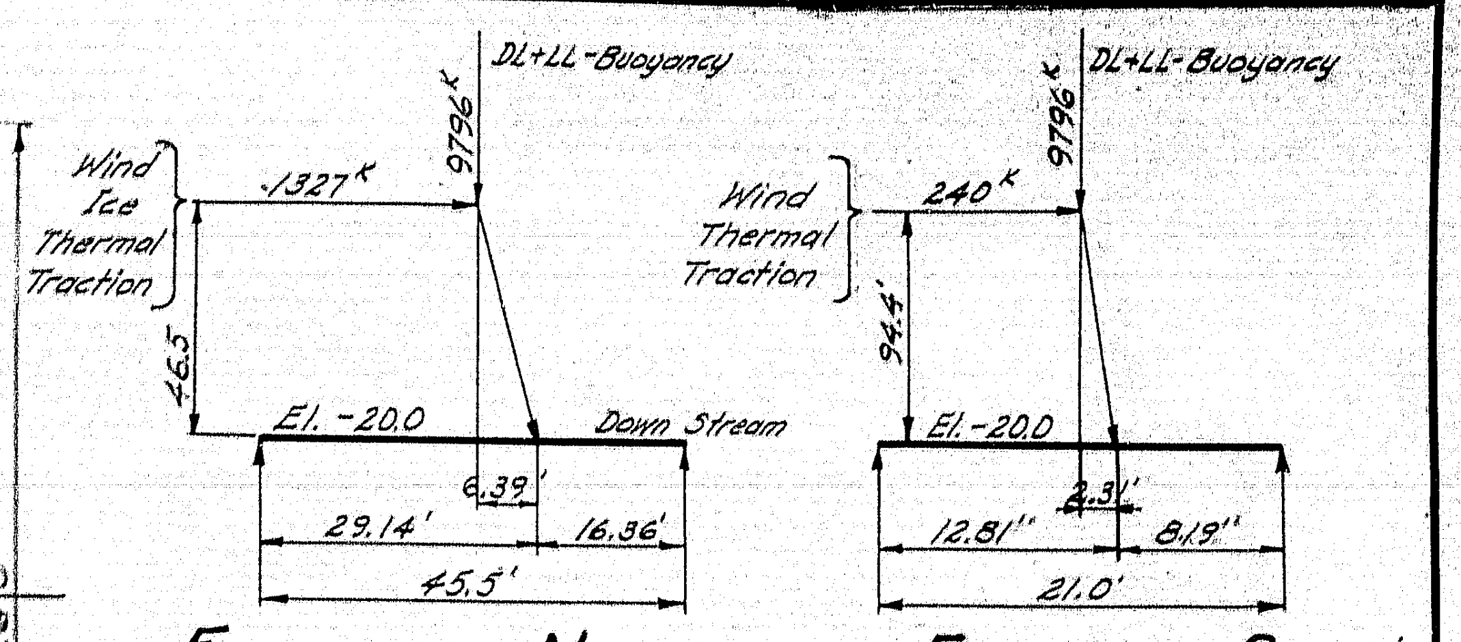
PLAN

4-16" [illegible] 10' long spaced [illegible] between flanges placed under each bearing area. Top flange at El. 37.0



PILE LAYOUT

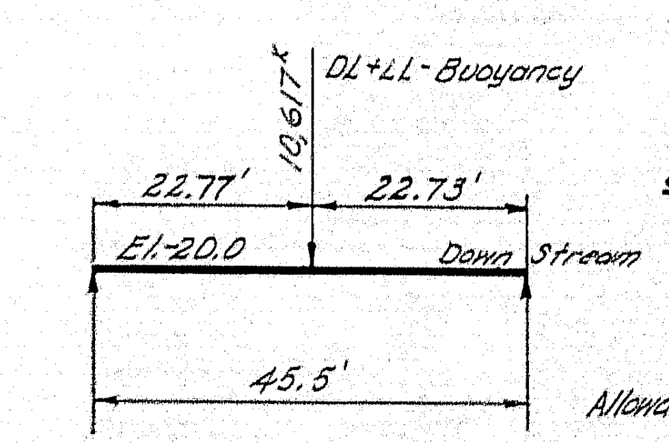
Required 99-Piles 14" H 89#
Estimated length, 60 ft. for piles ending in footing, and 72 ft. for piles extending into shaft. Battered piles 2-inches per foot.
Circled piles extend into shaft of Pier 5 ft. (See Side Elevation)



FORCES ON NOSE

FORCES ON SIDE

PILE LOAD

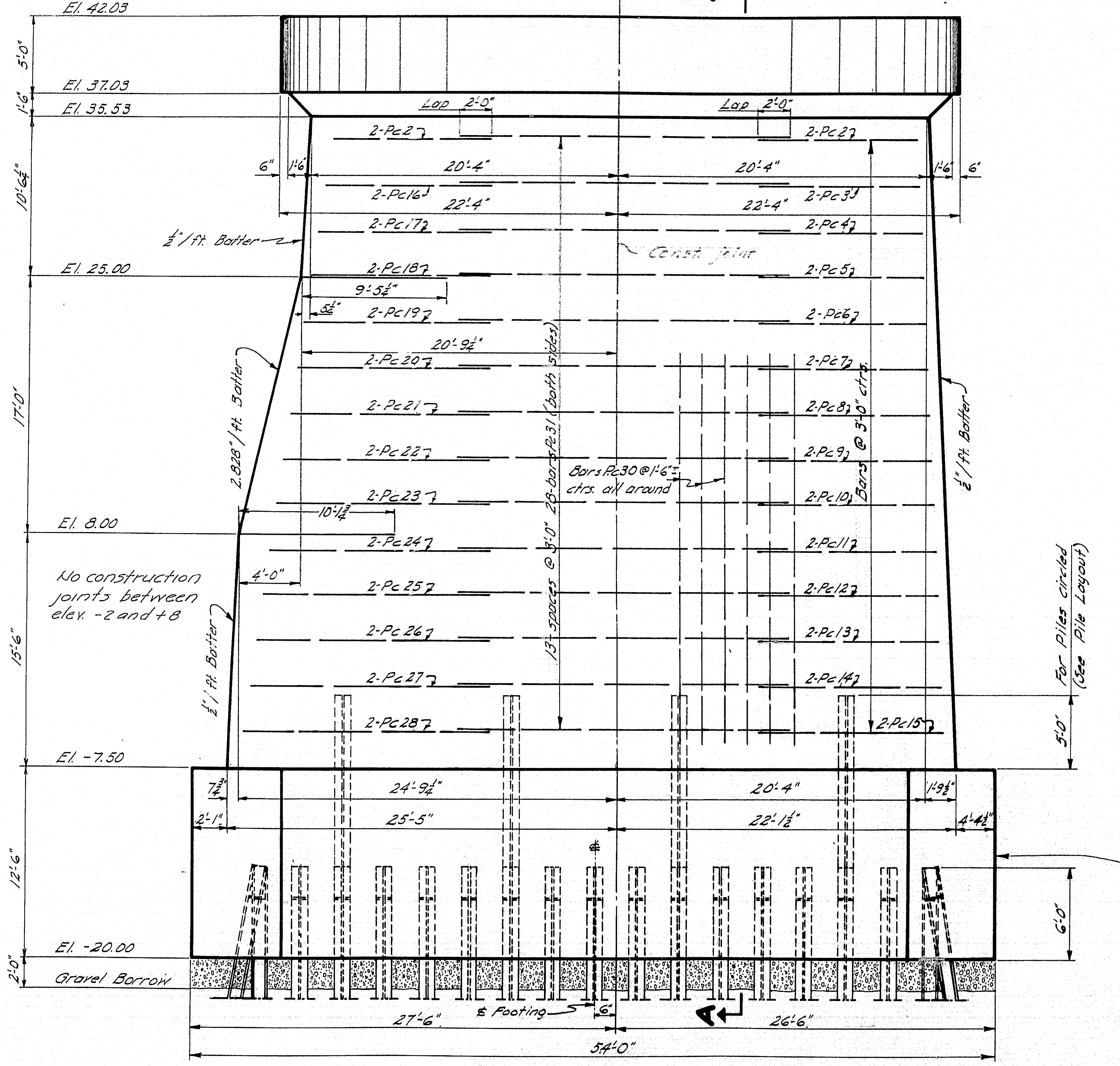


DIRECT PILE LOAD

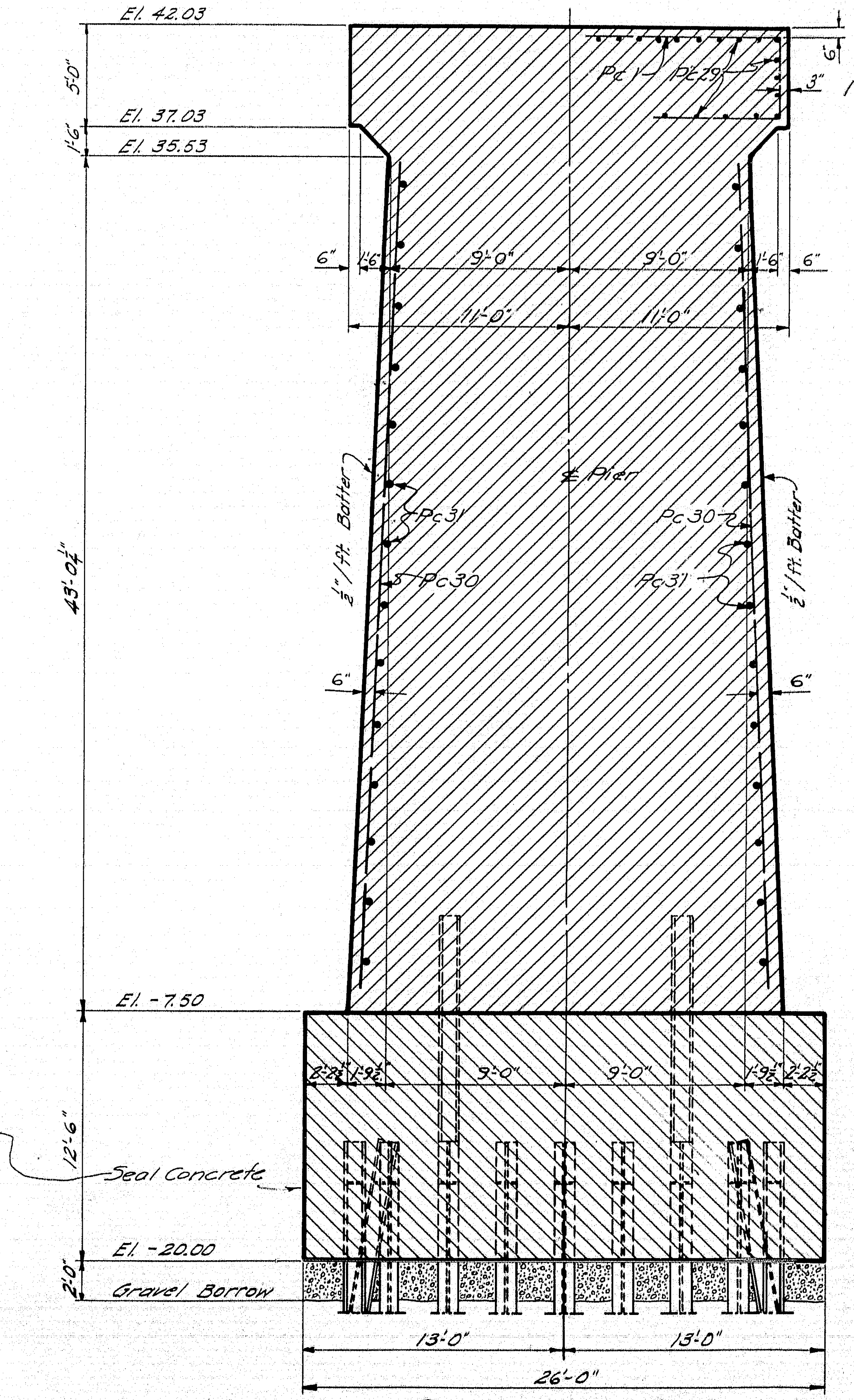
PILE SUMMARY

Direct Load	Combination
58.7 T.	49.5 T. Direct
	28.9 Forces on nose
	19.6 " on side
	98.0 Tons Total
Allowable Pile Load 78.6T.	98.3 Tons

PIER ANALYSIS

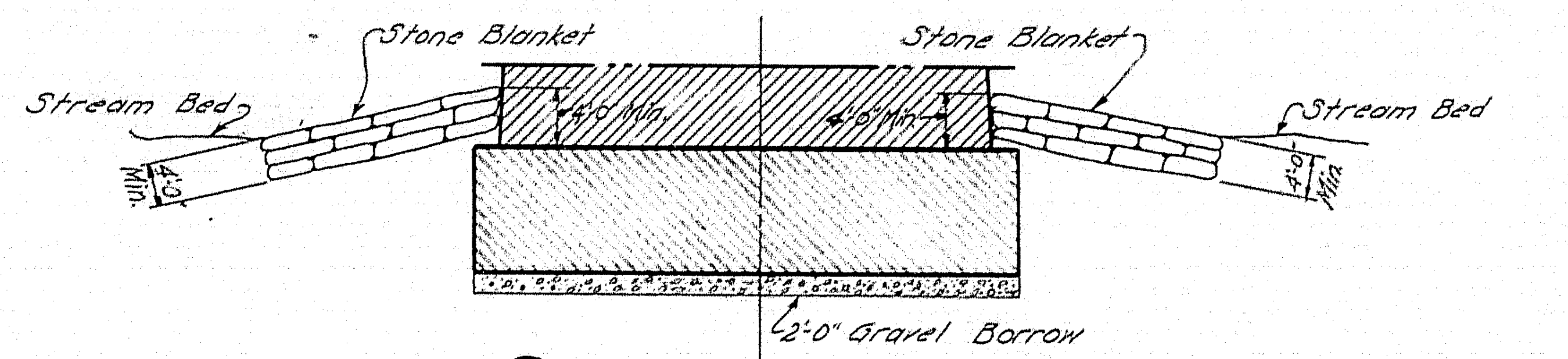


SIDE ELEVATION

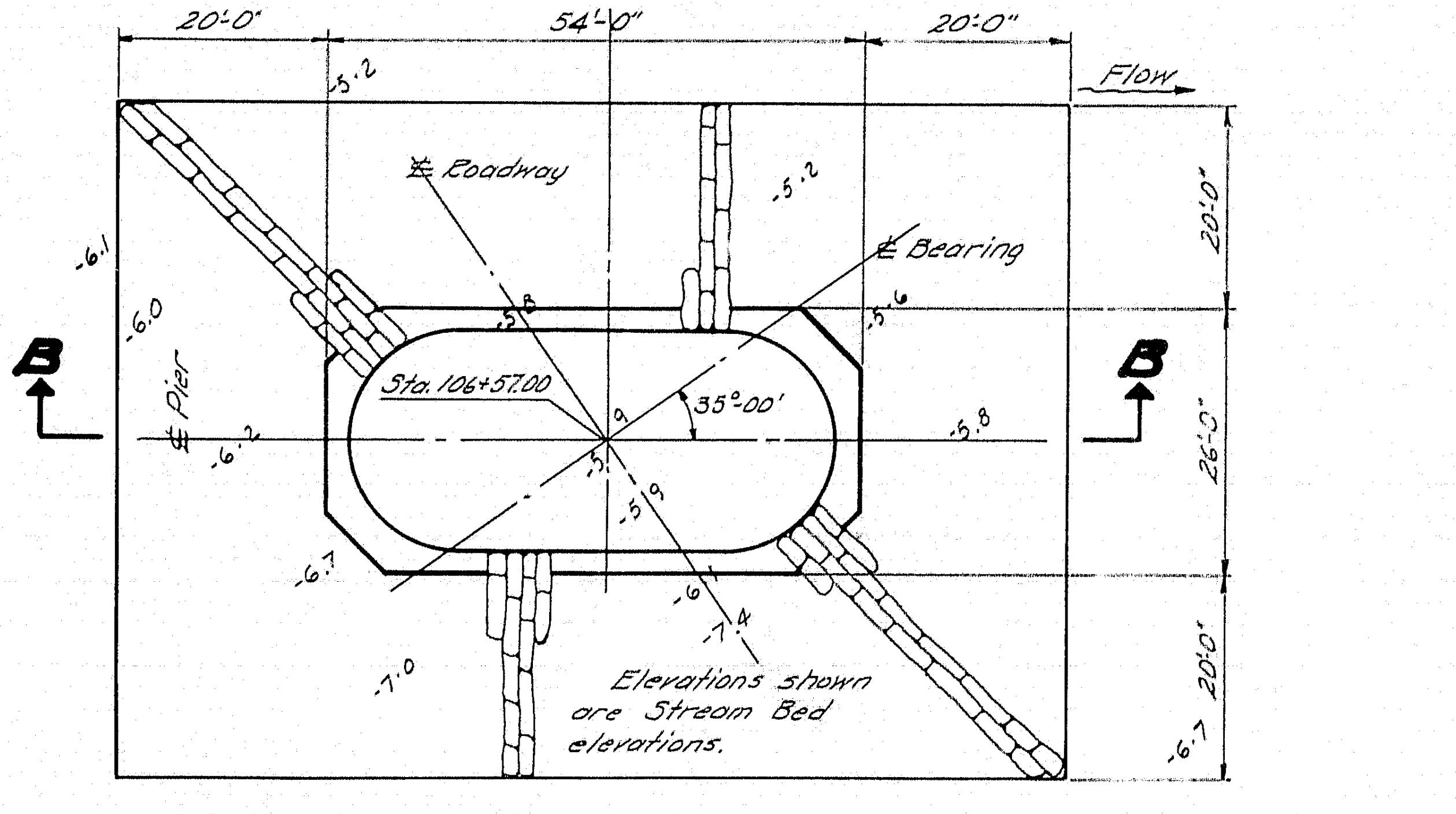


SECTION A-A

[illegible] Pile #50, 51 & 52 moved 1' [illegible]



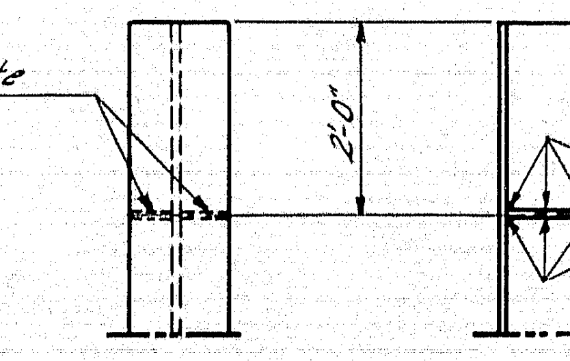
SECTION B-B



PLAN-STONE BLANKET

Scale: 1/16" = 1'-0"

NOTE: For typical pile splice see Pier #2



PILE CAPS

For Piles ending in footing.
Point of Pile cut square

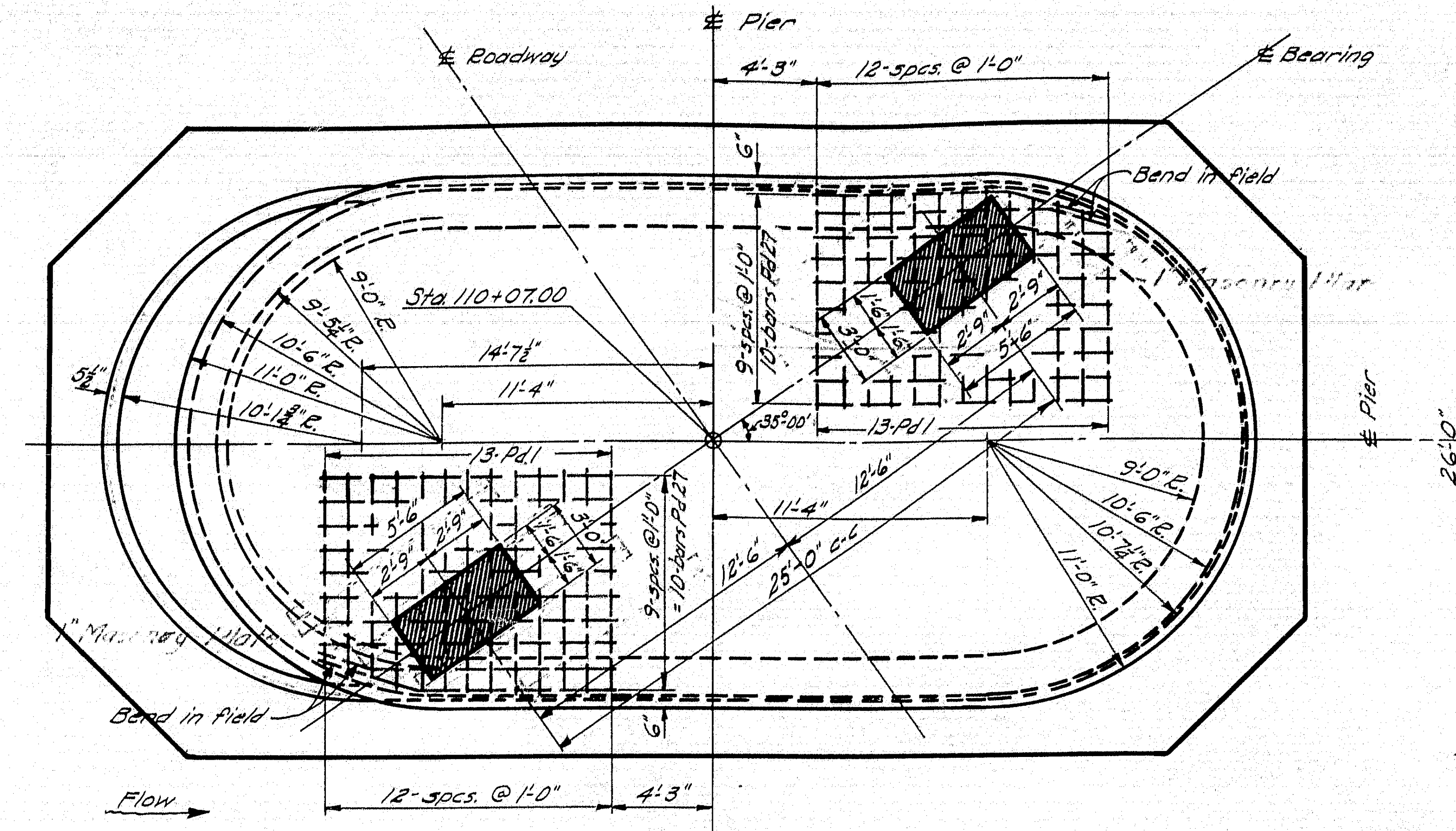
DESIGN - EVERETT TRACE - CLARK
DETAIL - WHITE CHECK - CAB
BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
PIER NO. 3
SHEET 15 OF 45 AUGUSTA, MAINE FEB. 1948

52-15

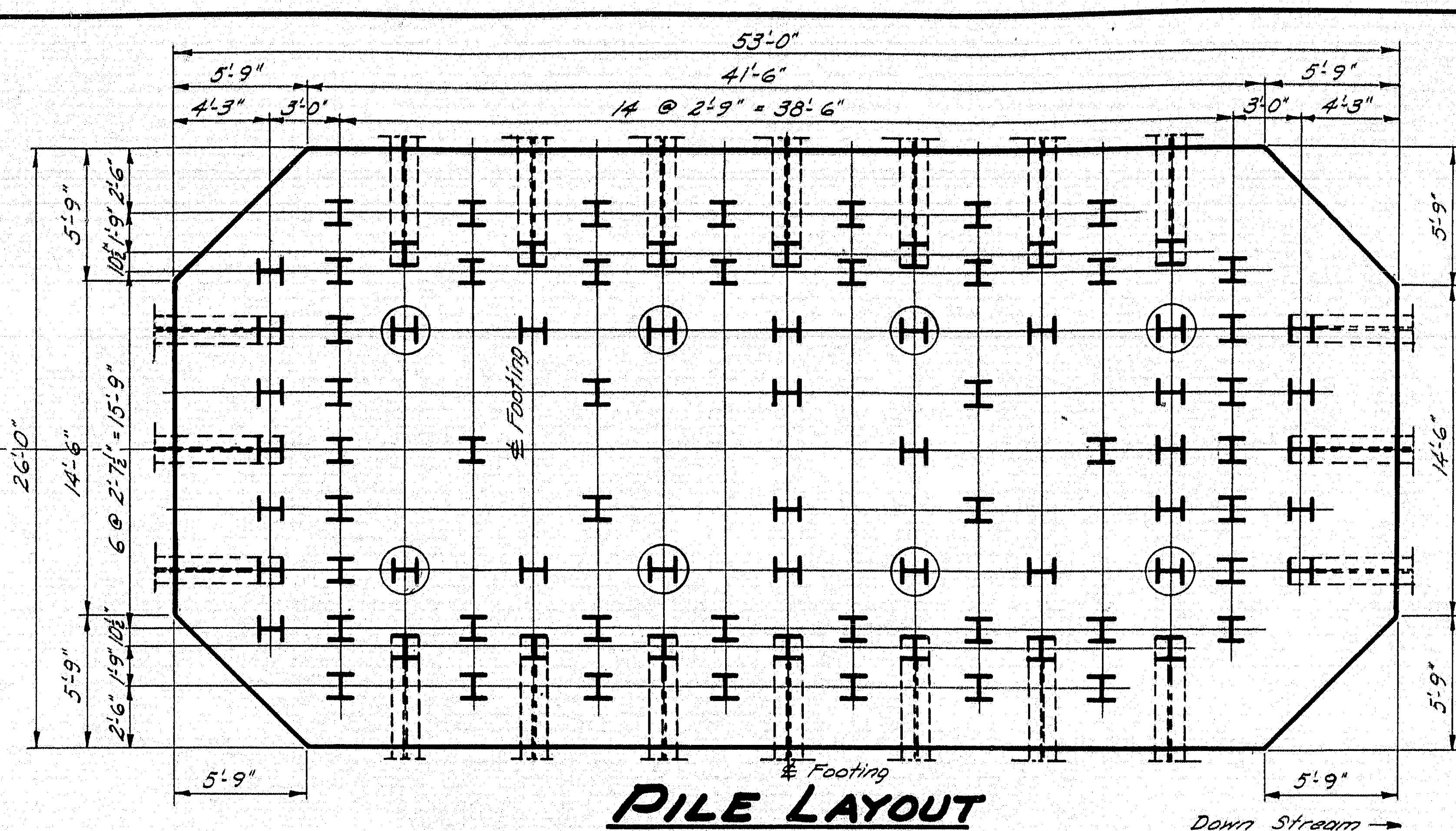
P. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
		F.I. UI-389(2)	16	45

NOTE: Dress shaded bearing areas plus 1" all around to exact elev. Space reinforcing steel to clear anchor bolts.



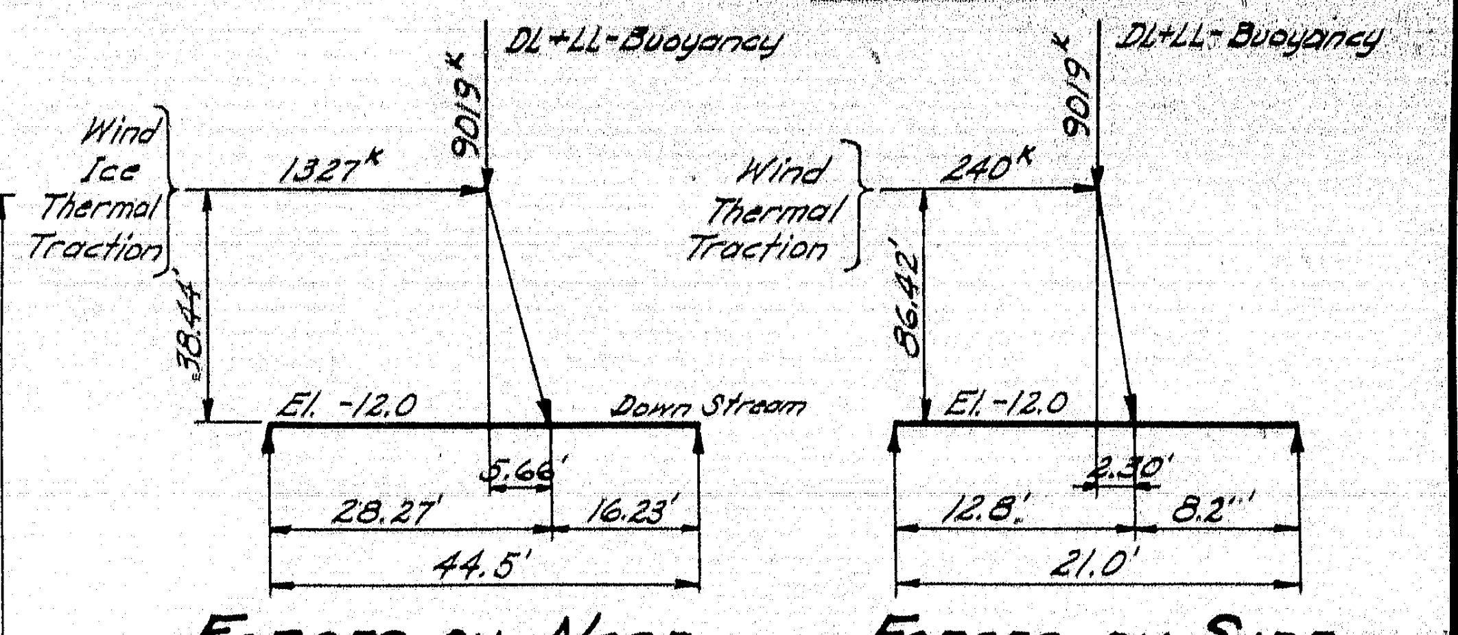
PLAN

4 - 12" H Beams 74# Spaced 1'-6" between flanges and 10' long placed under each bearing area. Top flange at El. 39.0



PILE LAYOUT

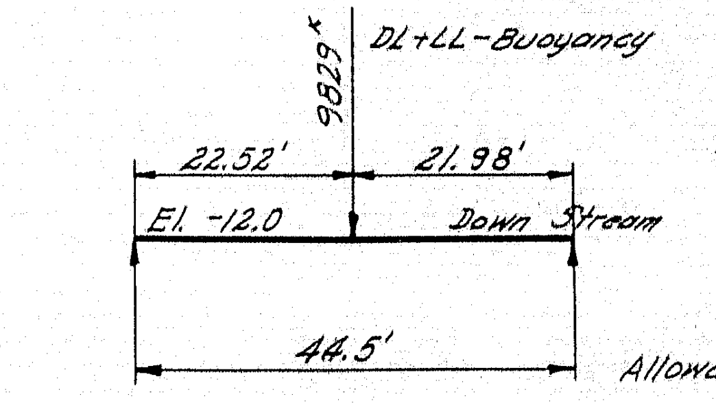
Required 92 piles 14" H89#
Estimated length, 35 ft. for piles ending in footing & 44 ft. for piles extending into shaft. Battered piles 2 inches per foot. Circled piles extend into shaft of pier 5 ft. (See side elevation)



FORCES ON NOSE

FORCES ON SIDE

PILE LOAD

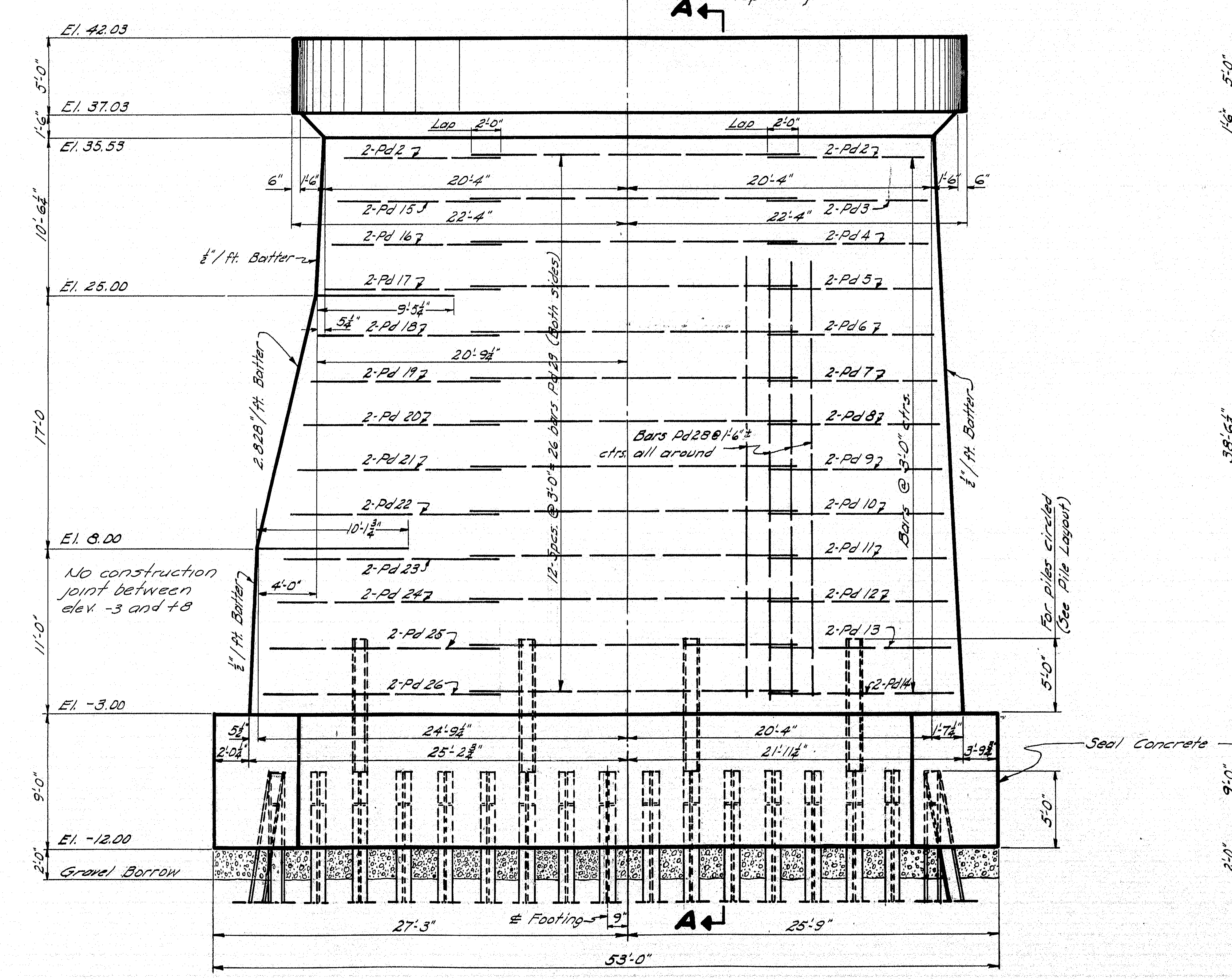


PILE SUMMARY

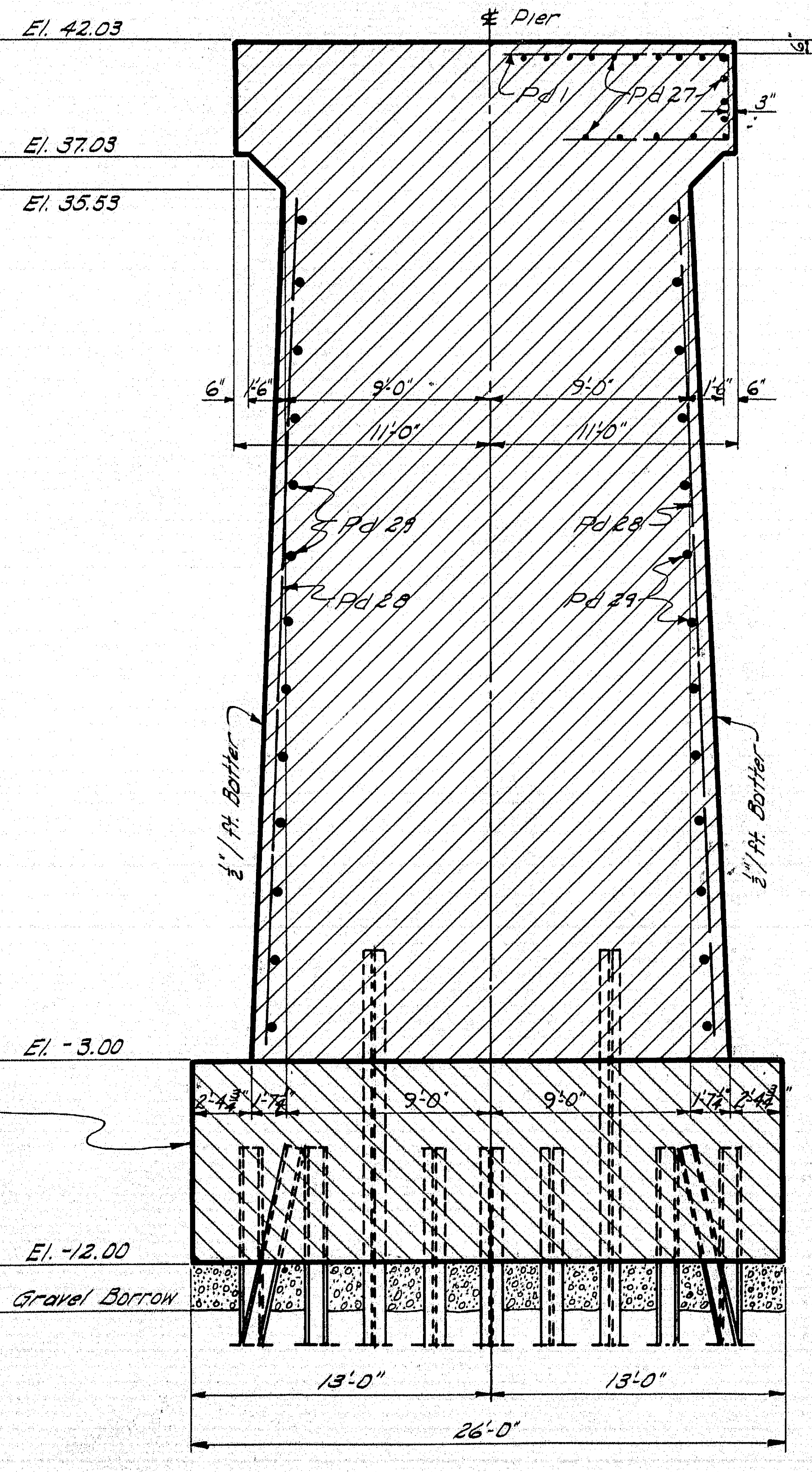
Direct Load	Combination
57.0 Tons	49.0 Tons Direct 30.7 Forces on nose 18.4 " on side 98.1 Tons Total
Allowable Pile Load 78.6 Tons	98.3 Tons

DIRECT PILE LOAD

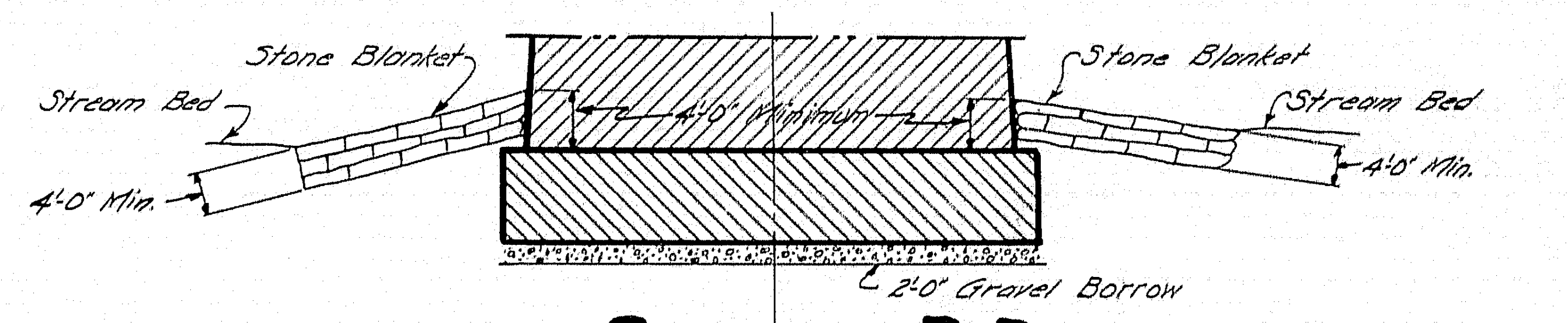
PIER ANALYSIS



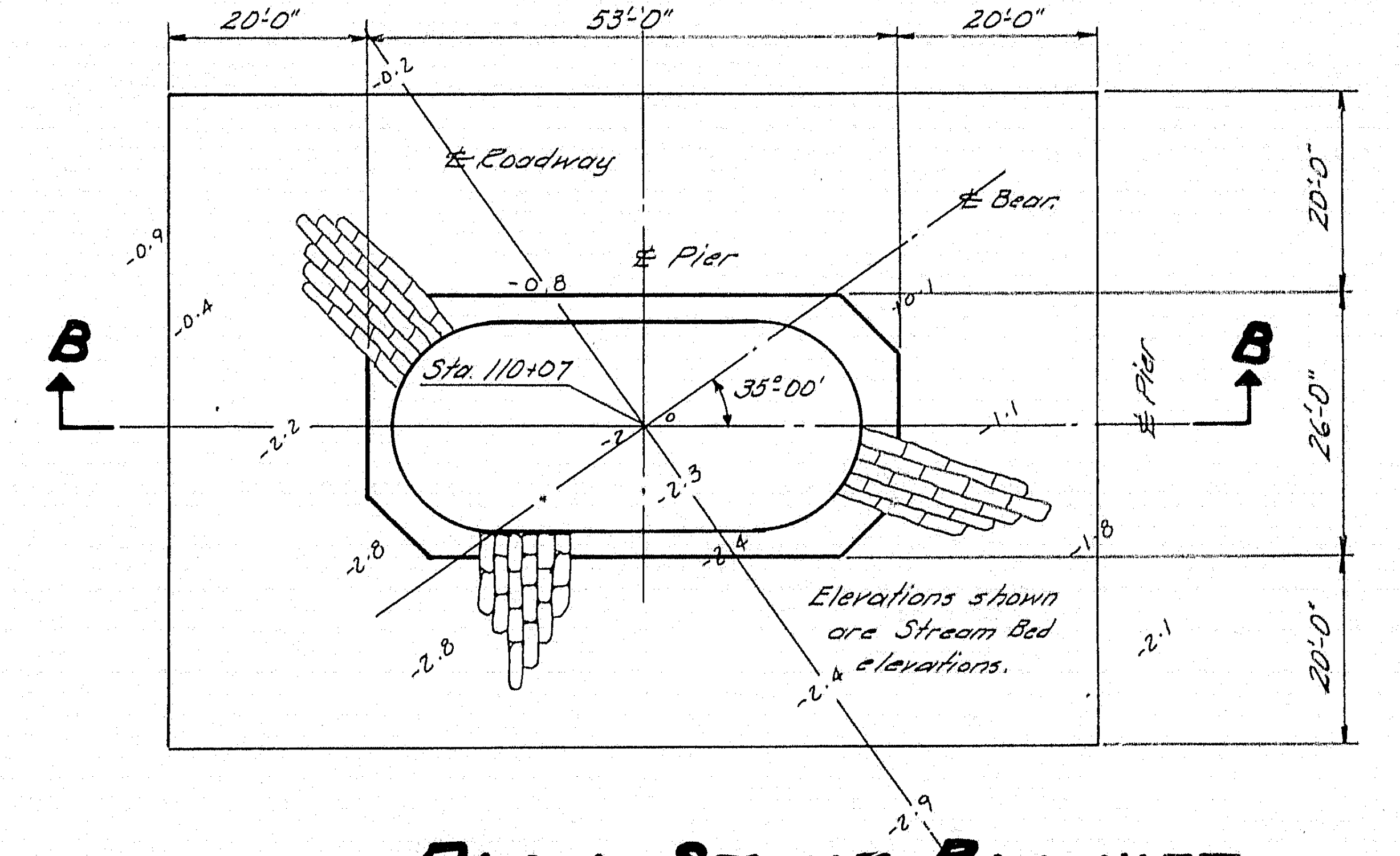
SIDE ELEVATION



SECTION A-A



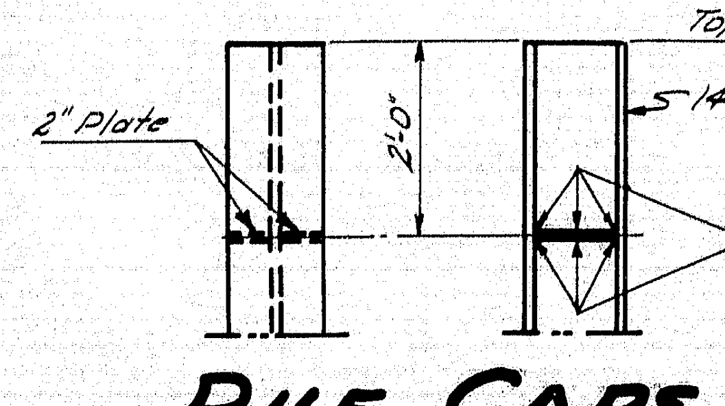
SECTION B-B



PLAN STONE BLANKET

Scale ⅛" = 1'-0"

NOTE: For typical pile splice see Pier #2



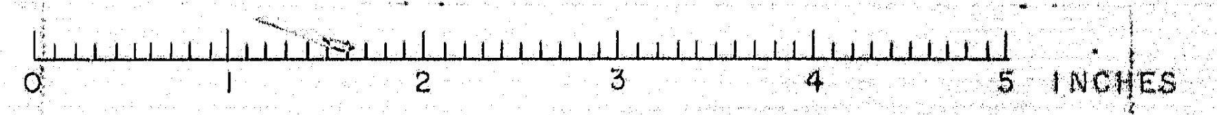
PILE CAPS

For piles ending in Footing.
Point of piles cut square

DESIGN - EVERETT DETAIL - WHITE	TRACE - CLARK CHECK - CAB	BRIDGE — 5196

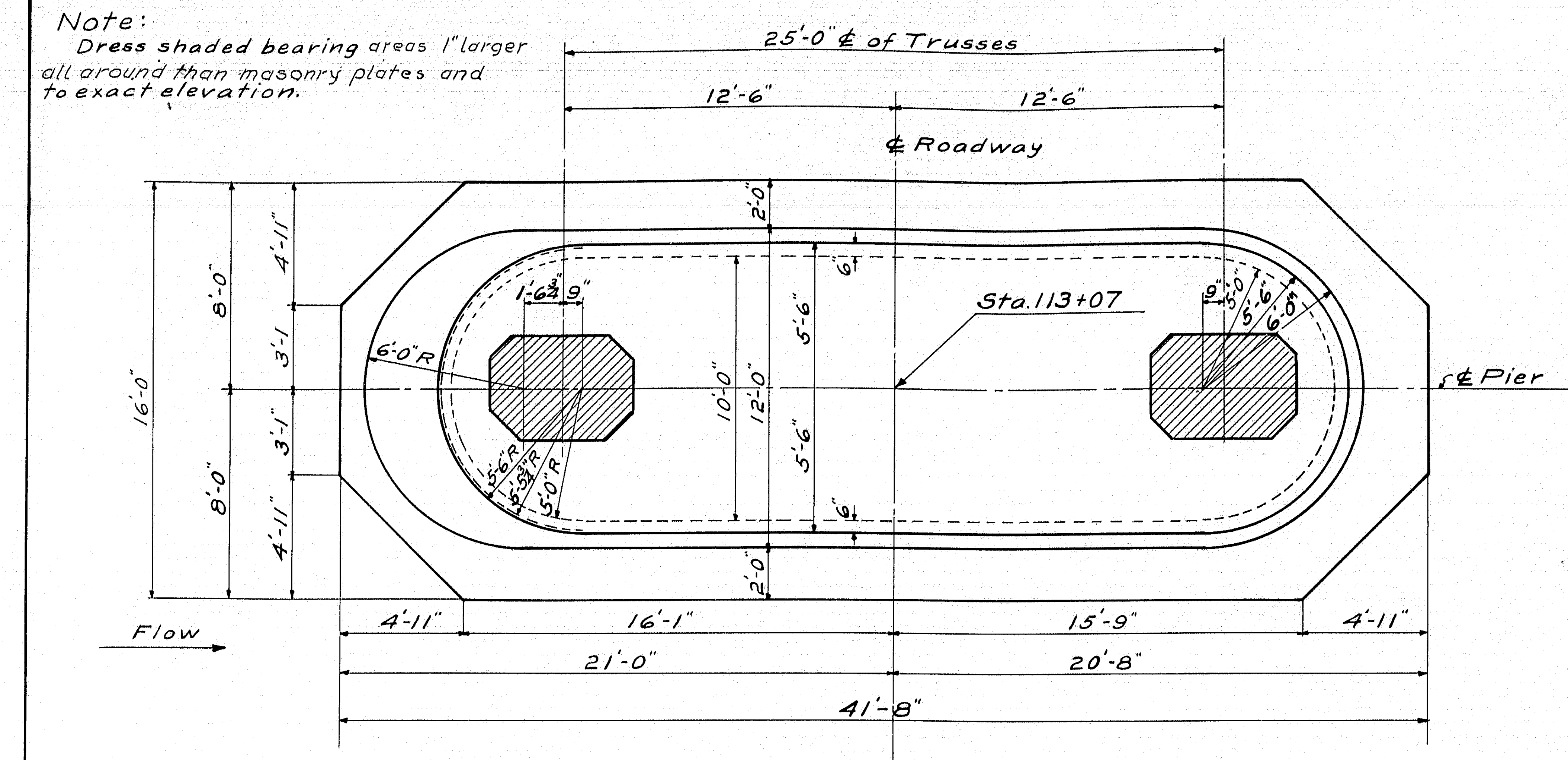
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
PIER NO. 4
SHEET 16 OF 45 AUGUSTA, MAINE FEB. 1948

52-16

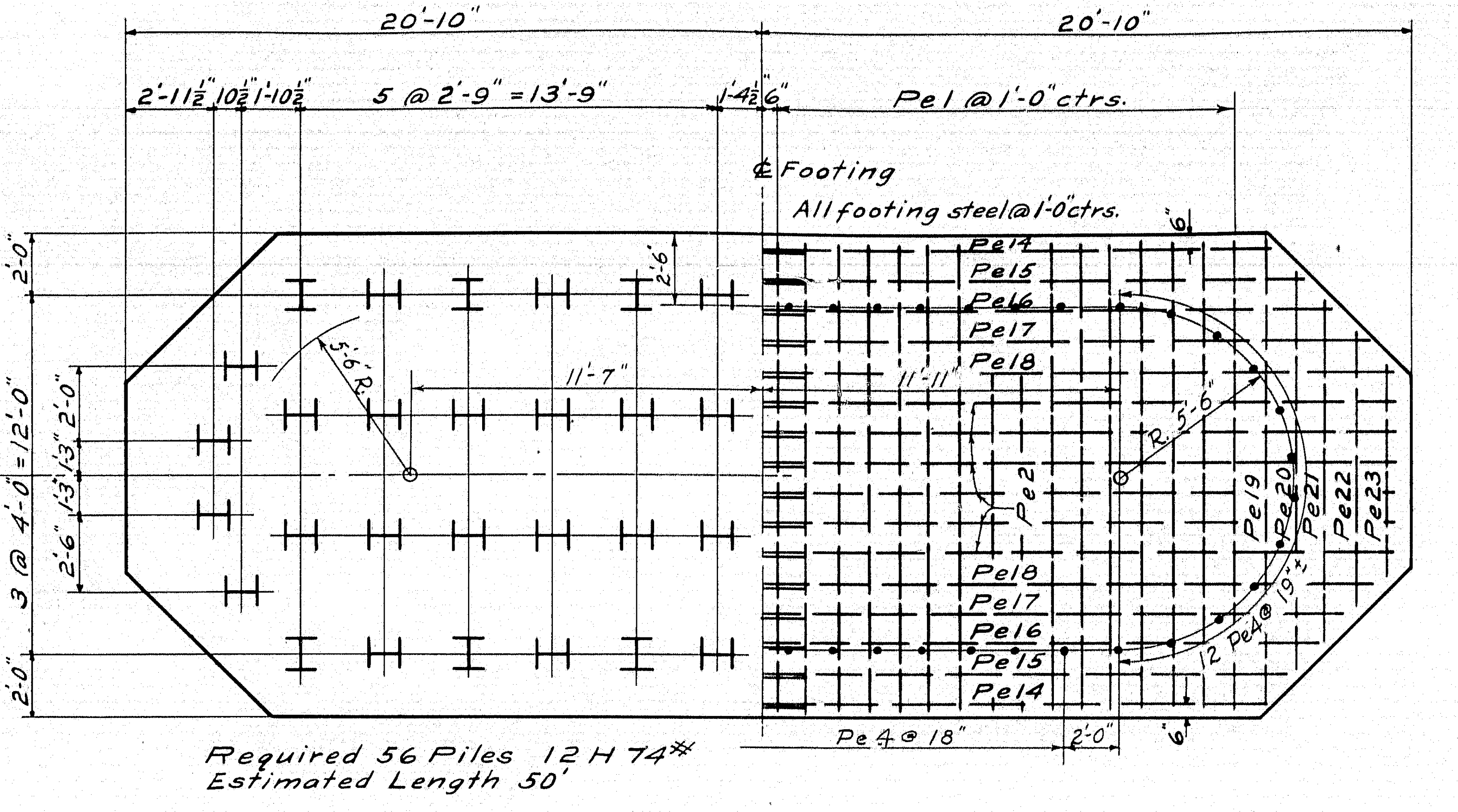


P. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI,UI-389(2)	17	45

Note:
Dress shaded bearing areas 1" larger all around than masonry plates and to exact elevation.



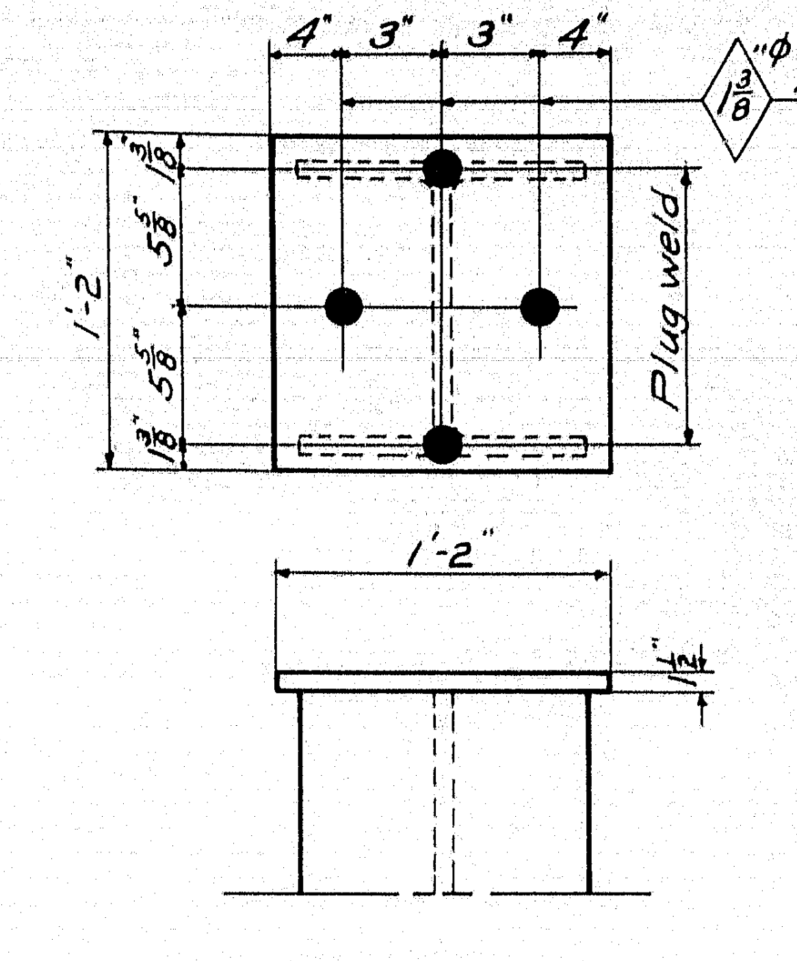
PLAN



Required 56 Piles 12 H 74#
Estimated Length 50'

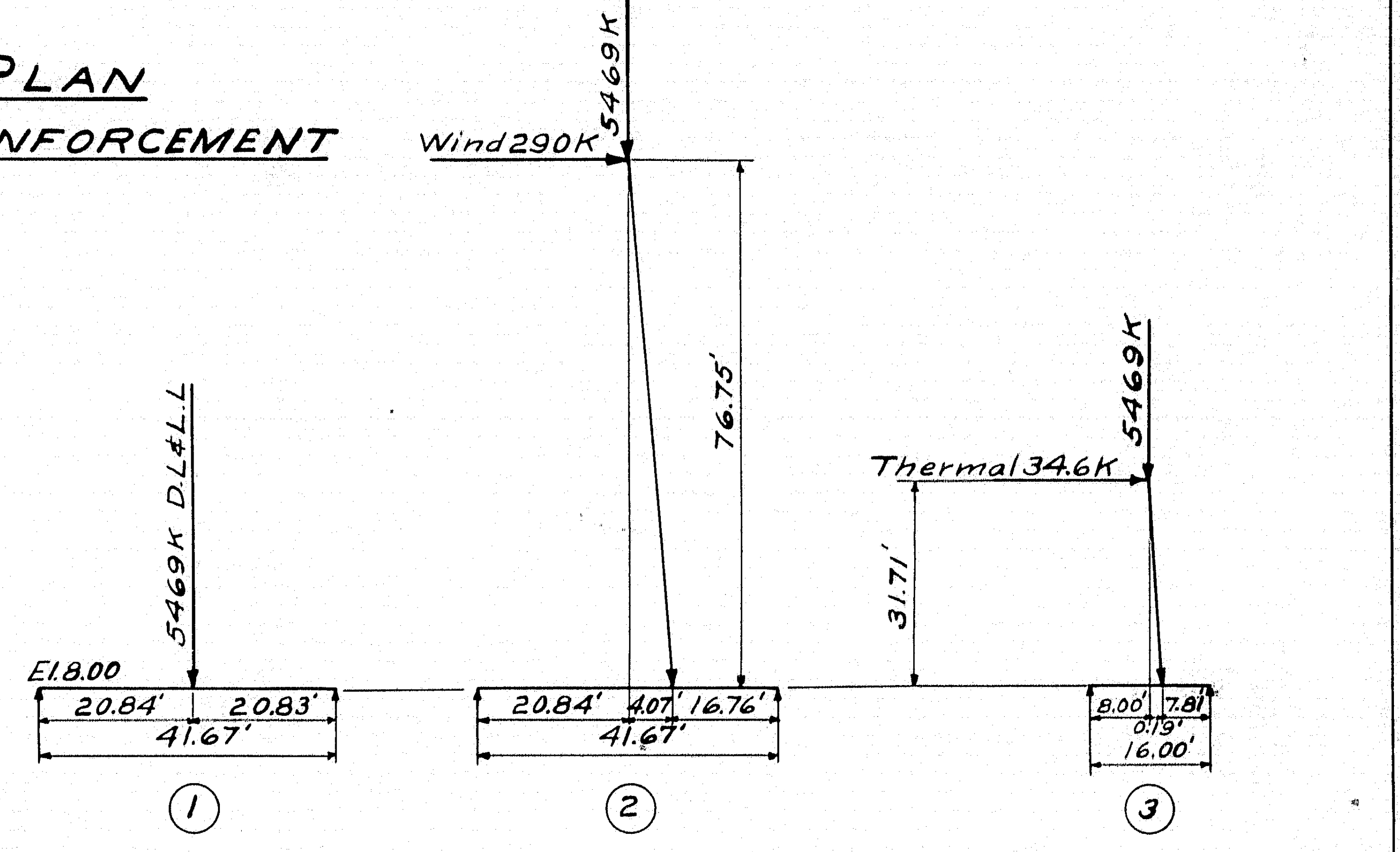
HALF PLAN PILE LAYOUT

HALF PLAN FOOTING REINFORCEMENT



PILE CAP

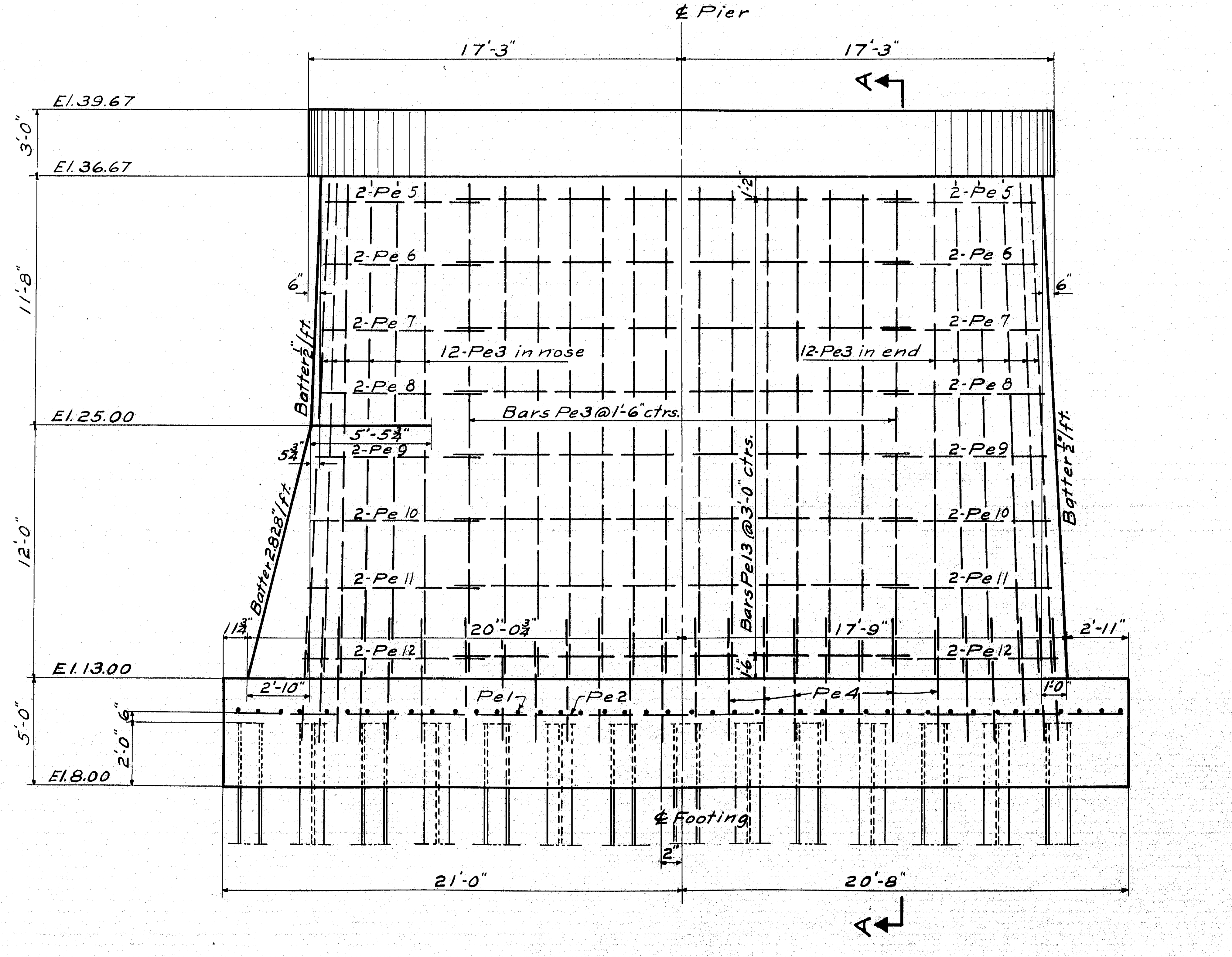
Required 56-Pls. 14×1½×1'-2"
Pile points cut square
See Pier #2 for Typical Pile Splice



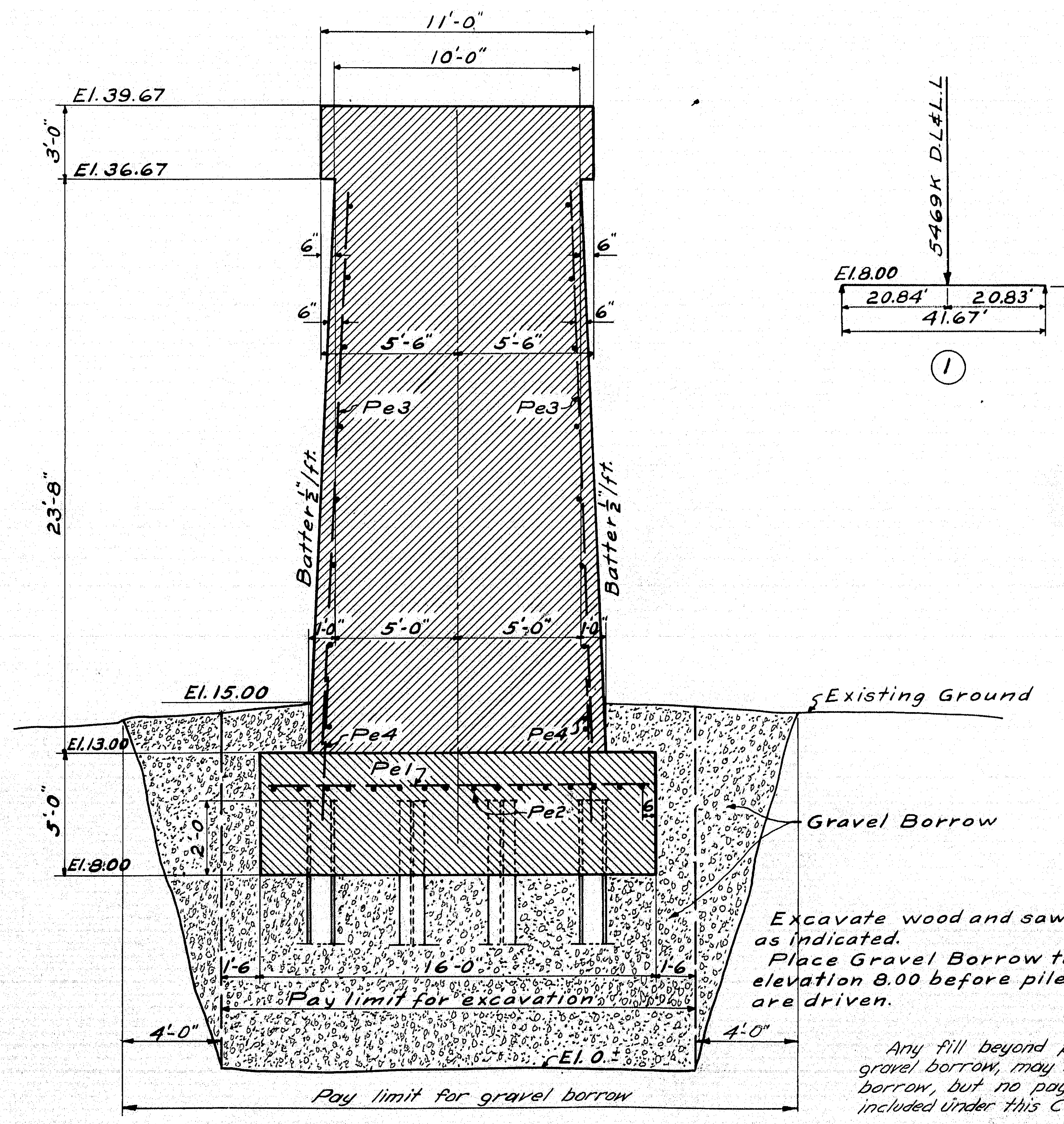
① Direct Load 48.8 Tons. Allowable 65.3T

② Direct Load 48.8 Tons
Wind 29.5 Tons
Total = 78.3 Tons. Allowable 81.6T

② and ③
Direct Load and Wind 78.3 Tons
Thermal 0.6 Tons
Total = 78.9 Tons. Allowable 81.6T



SIDE ELEVATION



Excavate wood and sawdust as indicated.
Place Gravel Borrow to elevation 8.00 before piles are driven.

Any fill beyond pay limit for gravel borrow, may be common borrow, but no payment for same is included under this Contract.

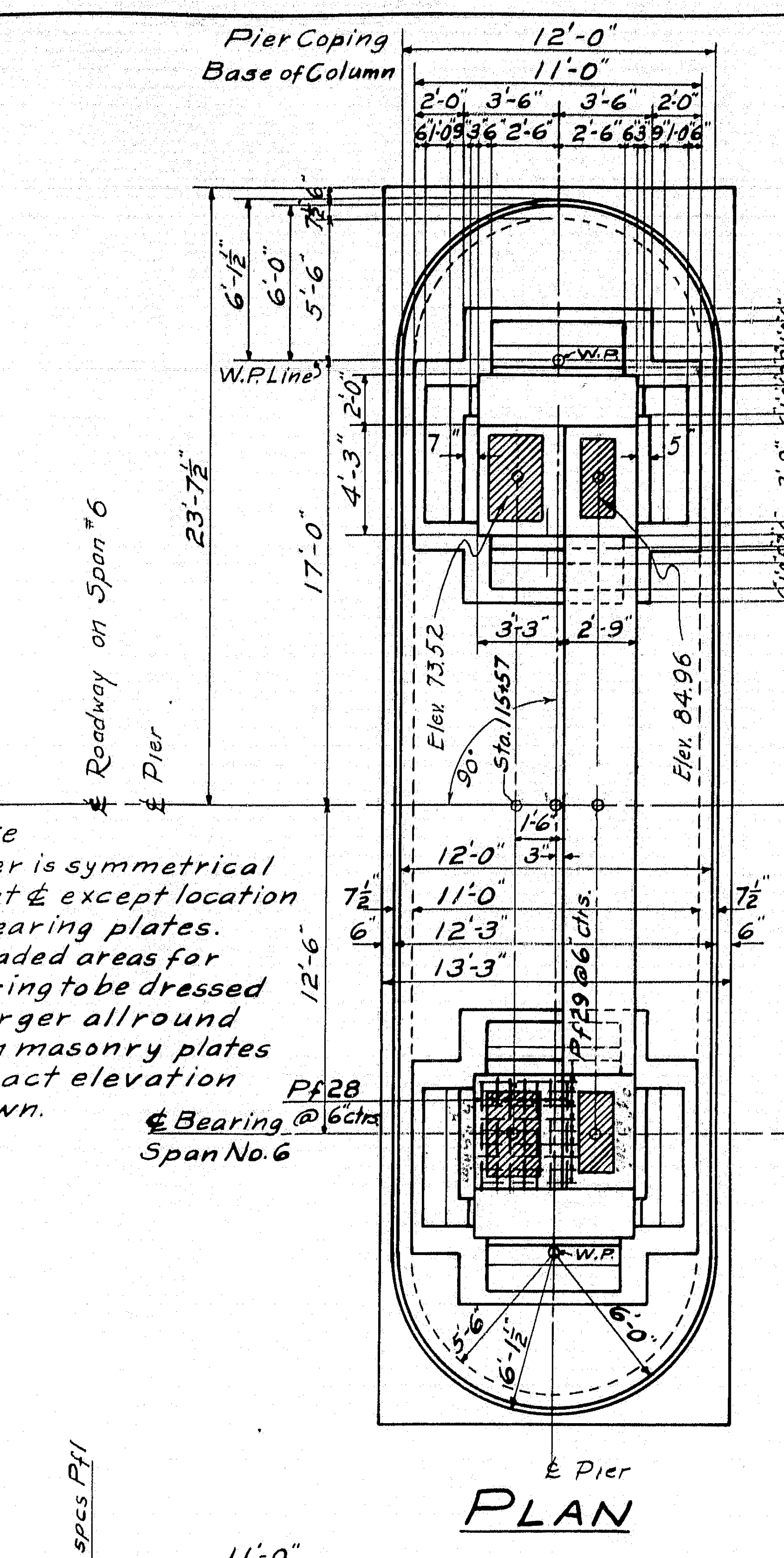
SECTION A-A

DESIGN - STANGEL	TRACE-WHITE	BRIDGE- 5196
DETAIL - "	CHECK - CAB	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
PIER NO. 5
SHEET 17 OF 45 AUGUSTA, MAINE FEB. 1948

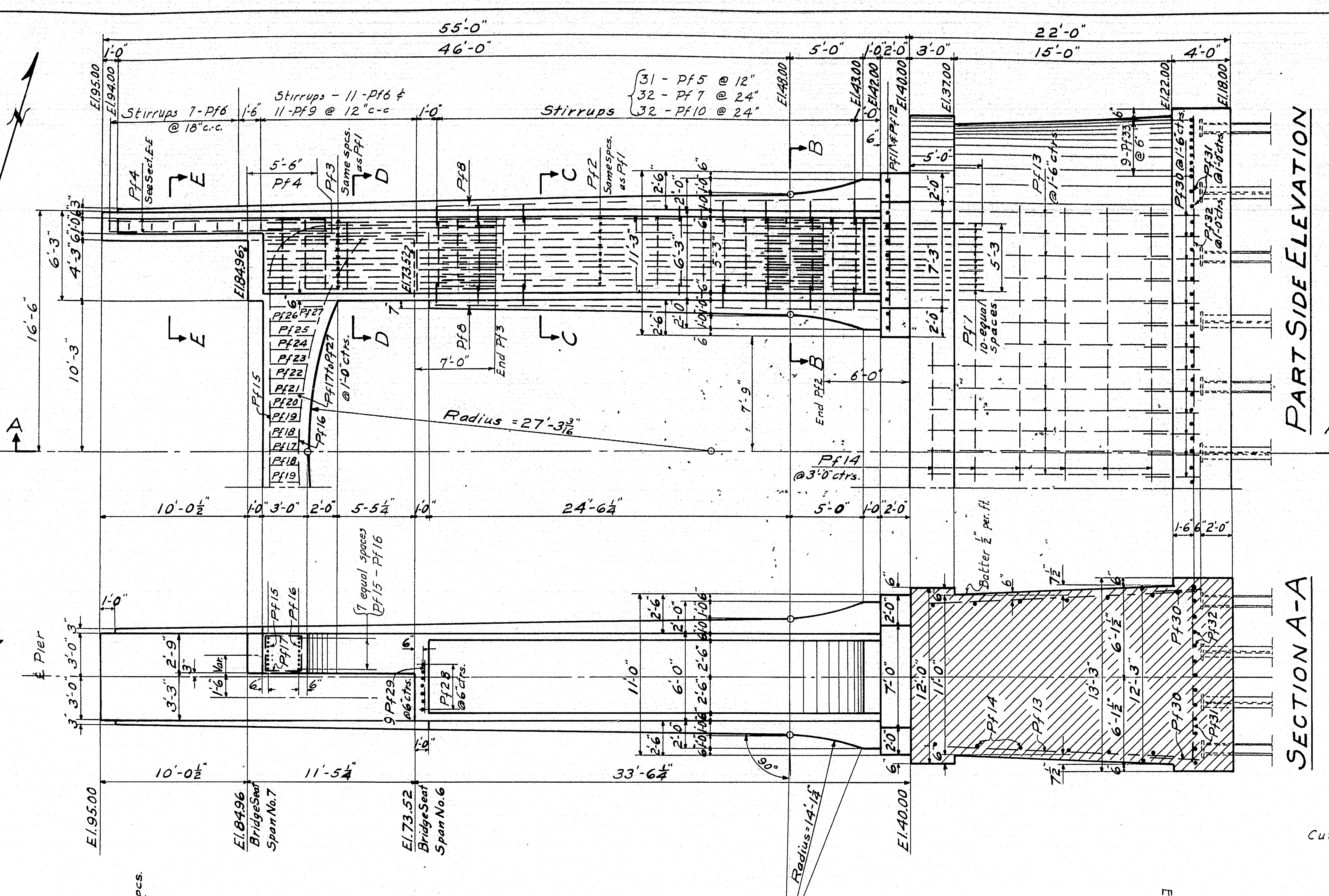
52-17

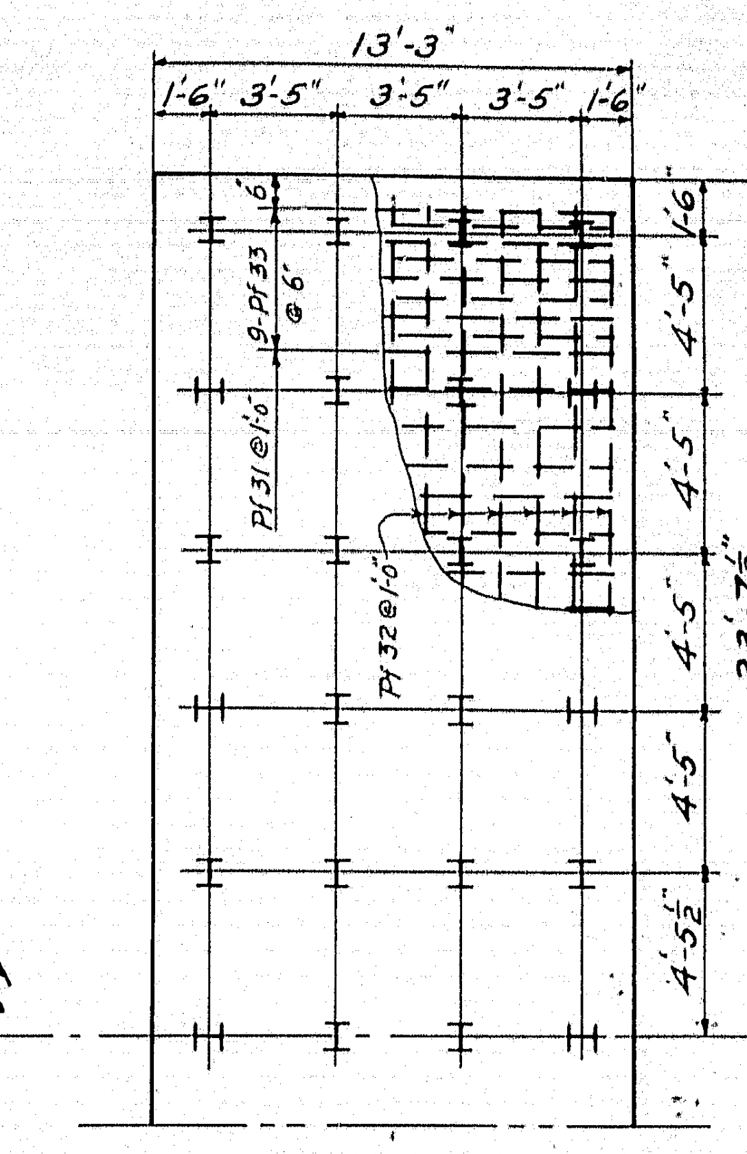
P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI-UI-389(2)	18	45



PLAN

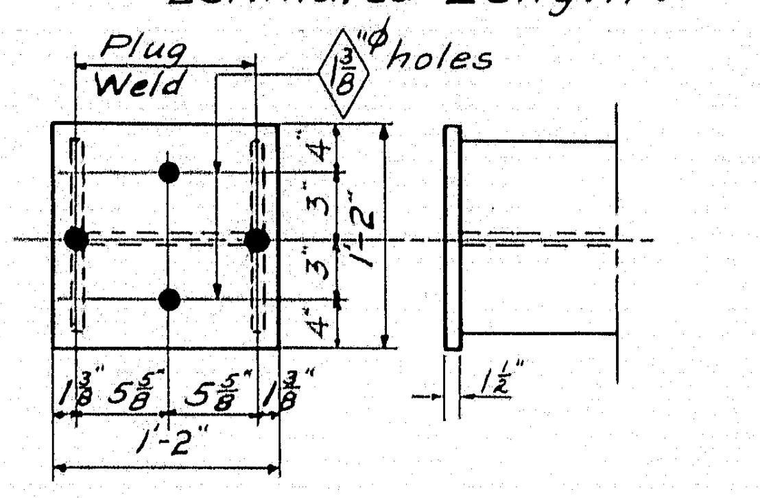
Note
Pier is symmetrical about ℄ except location of bearing plates.
Shaded areas for bearing to be dressed 1" larger all round than masonry plates to exact elevation shown.





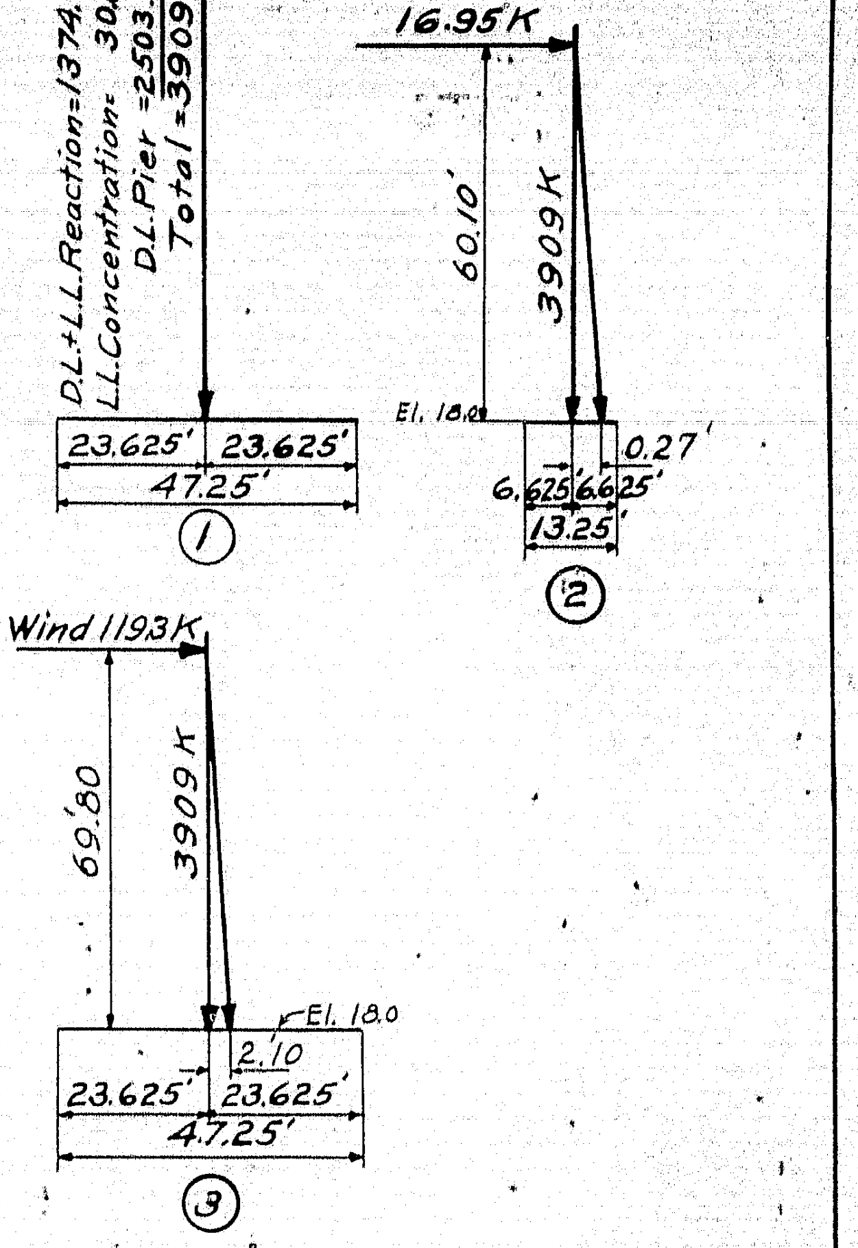
PART PILE PLAN

44 - 12 H 53# Req'd
Estimated Length 55'



PILE CAP

44 - Req'd 14 × 1½ × 1'-2"
Cut Pile Point Square. See Pier No. 2 for Typical Pile Splice.

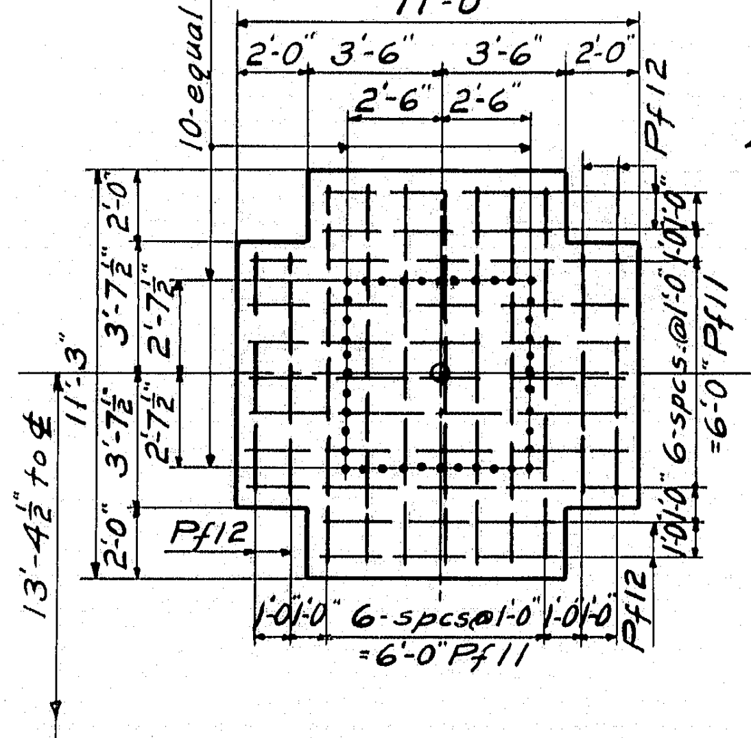


PIER ANALYSES

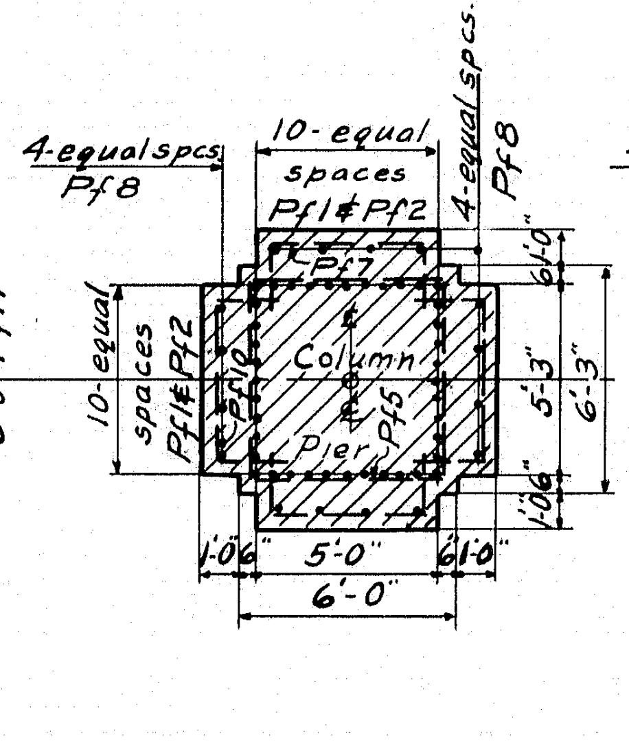
① Direct load per pile = 44.4 Tons
Allowable = 46.7 Tons

② Direct load per pile = 44.4 Tons
Tractive and Thermal = 4.0 "
Total = 48.4 Tons

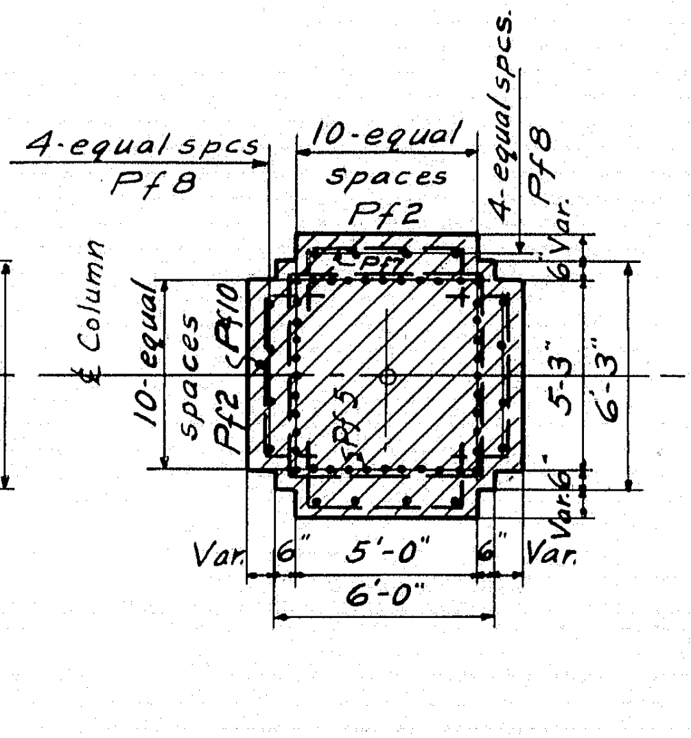
② and ③
Direct load per pile = 44.4 Tons
Tractive and Thermal = 4.0 "
Wind = 10.1 "
Total = 58.5 Tons
Allowable = 58.5 Tons



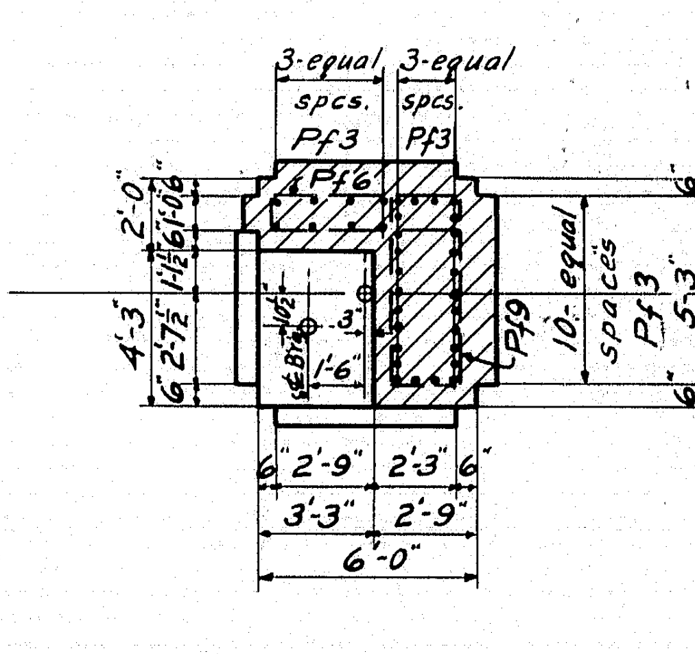
PLAN COLUMN BASE



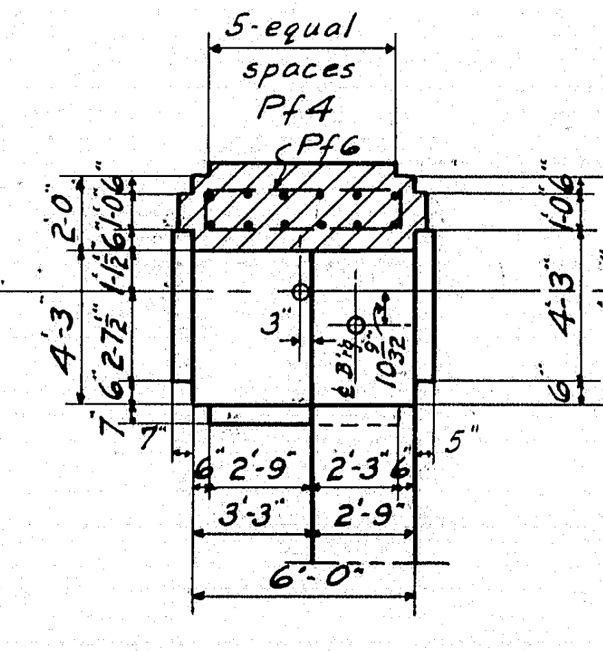
SECTION B-B



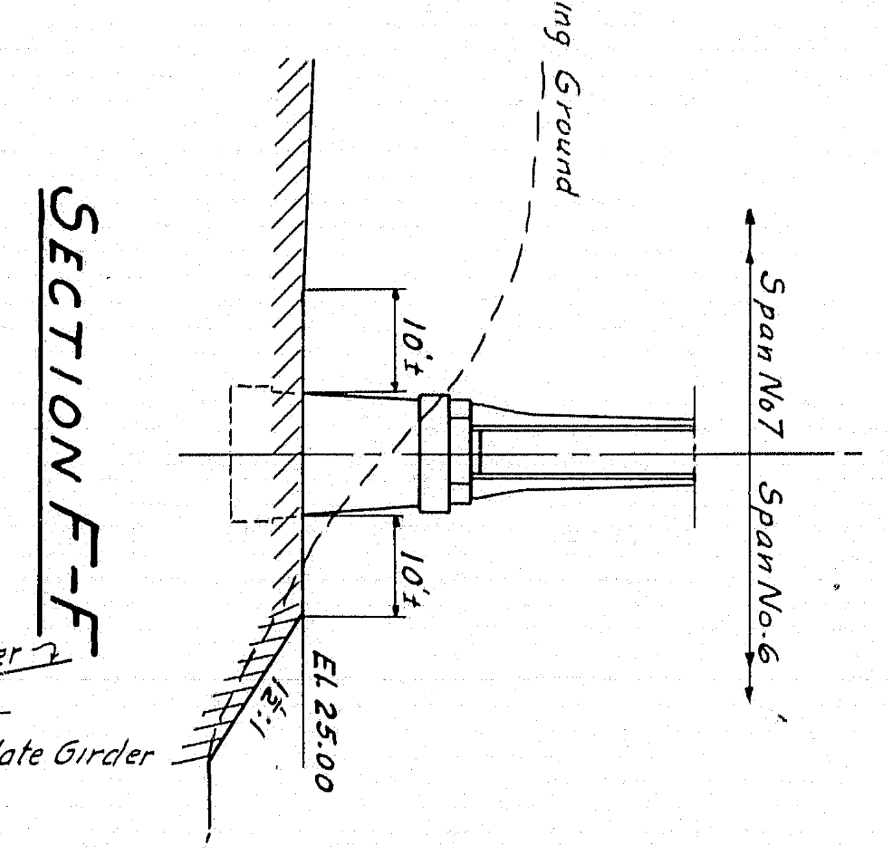
SECTION C-C



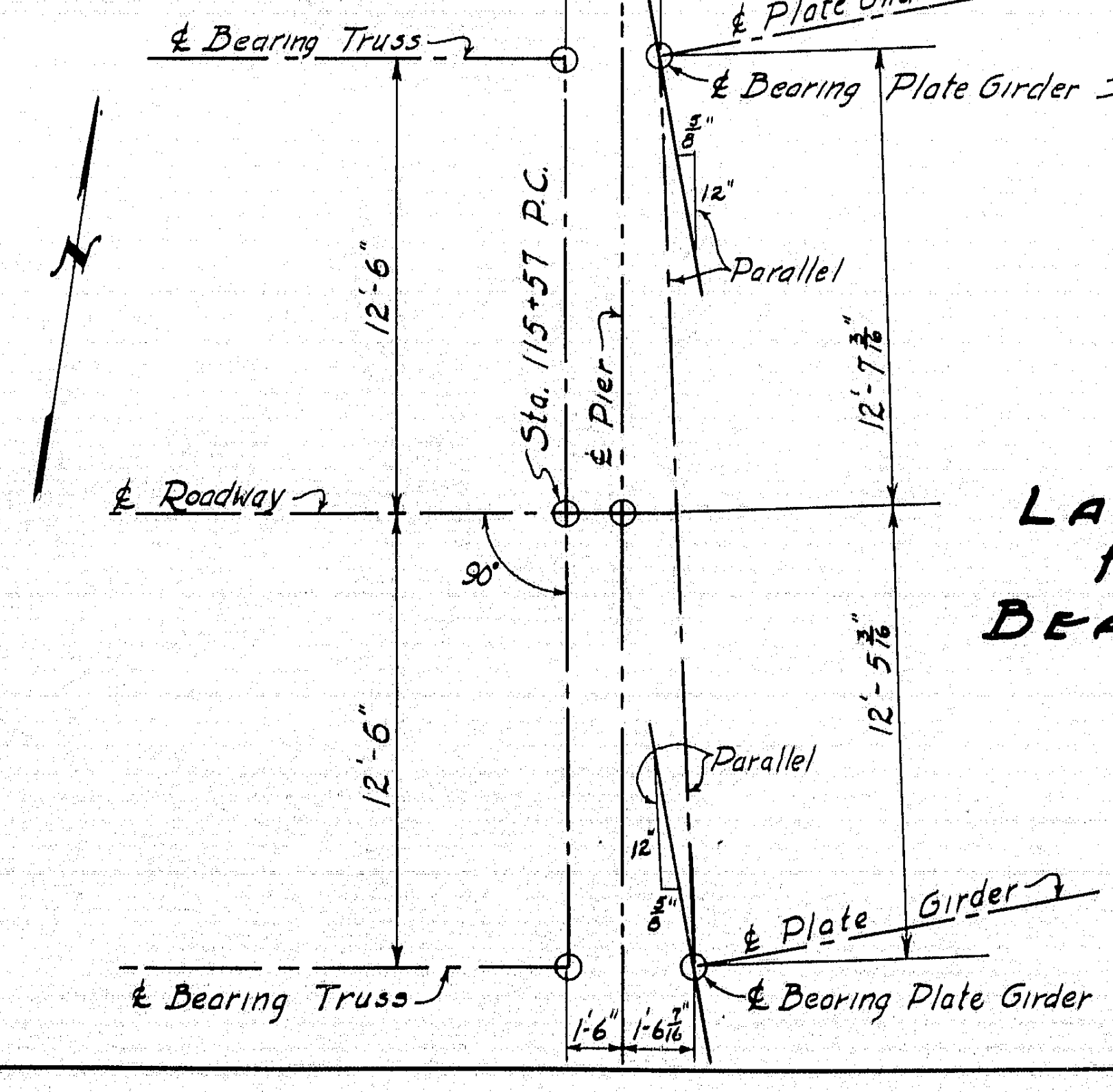
SECTION D-D



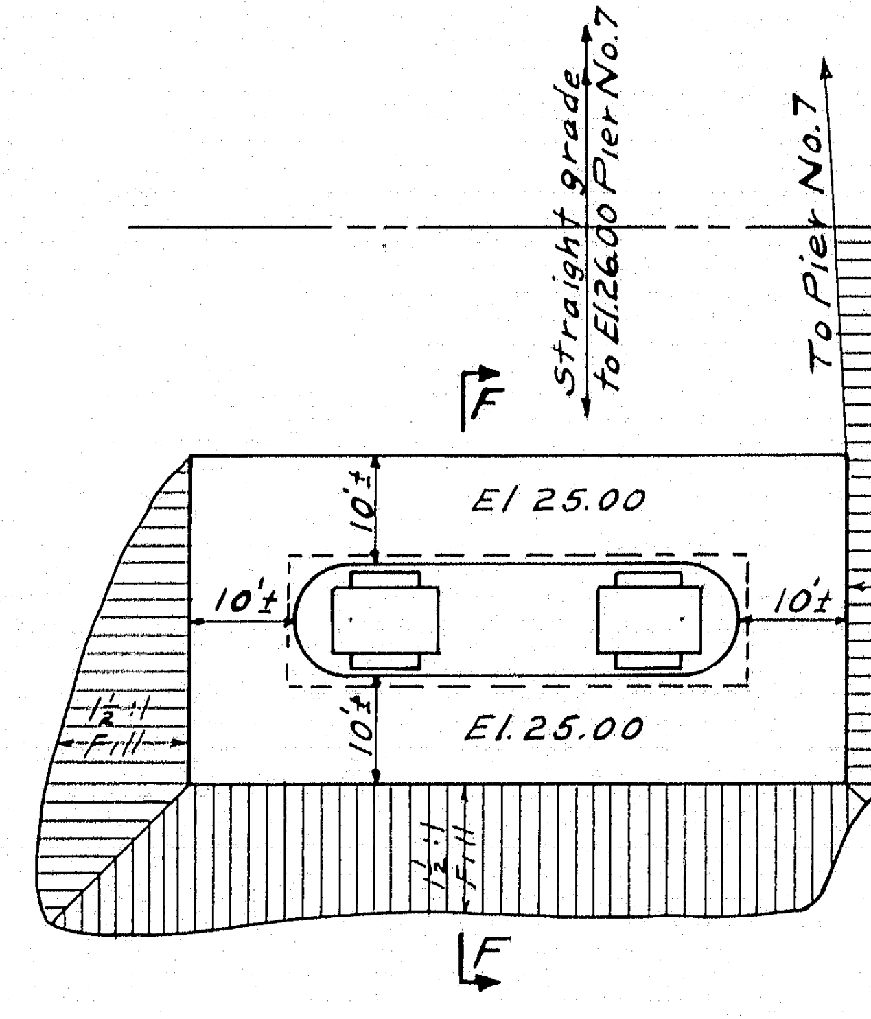
SECTION E-E



SECTION F-F

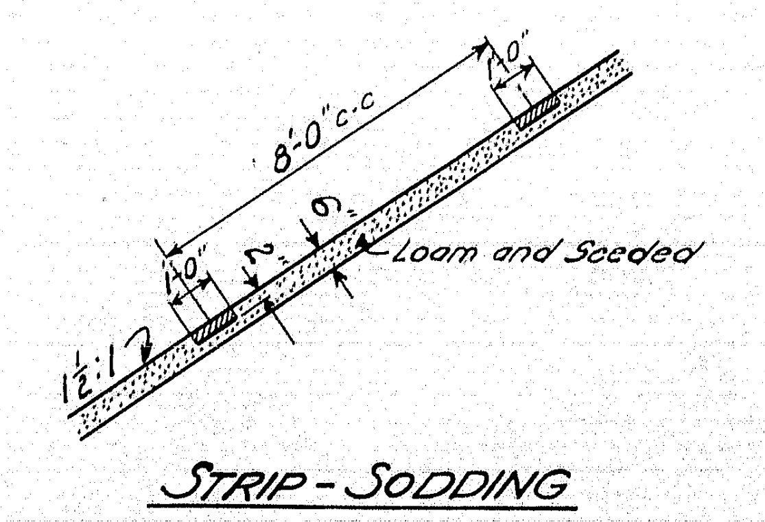


LAYOUT for BEARINGS



GRADING PLAN

All graded areas to have 6" loam and are to be seeded.



STRIP-SODDING

All 1½:1 slopes to be strip-sodded.

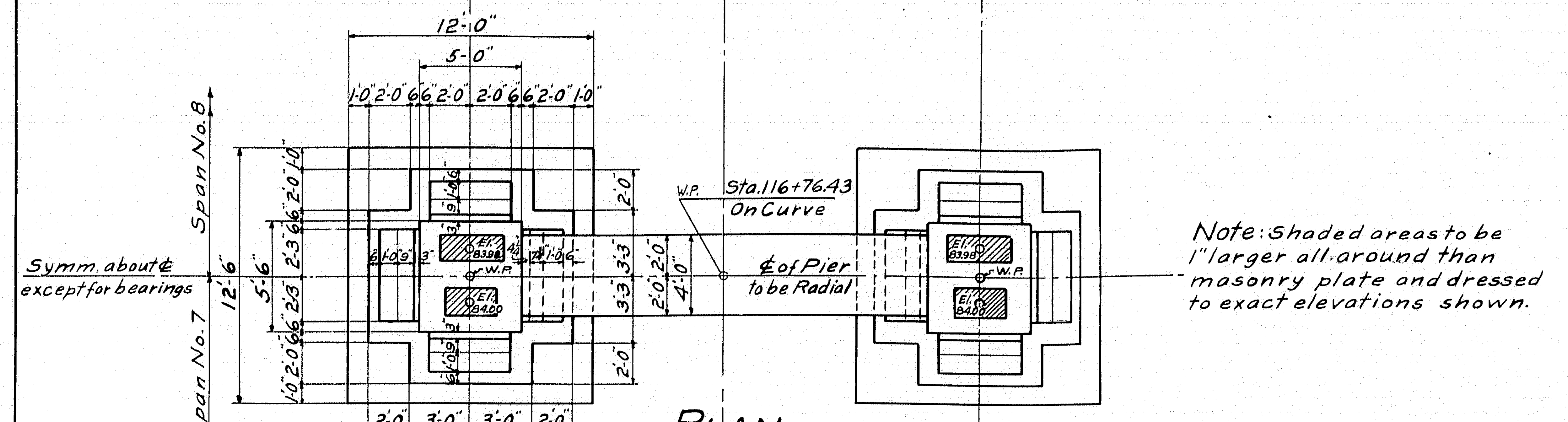
DESIGN - HAMILTON TRACE - WHITE
DETAIL - " CHECK - CAB
BRIDGE — 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
PIER NO. 6
SHEET 18 OF 45 AUGUSTA, MAINE FEB. 1948

52-18

0 1 2 3 4 5 INCHES

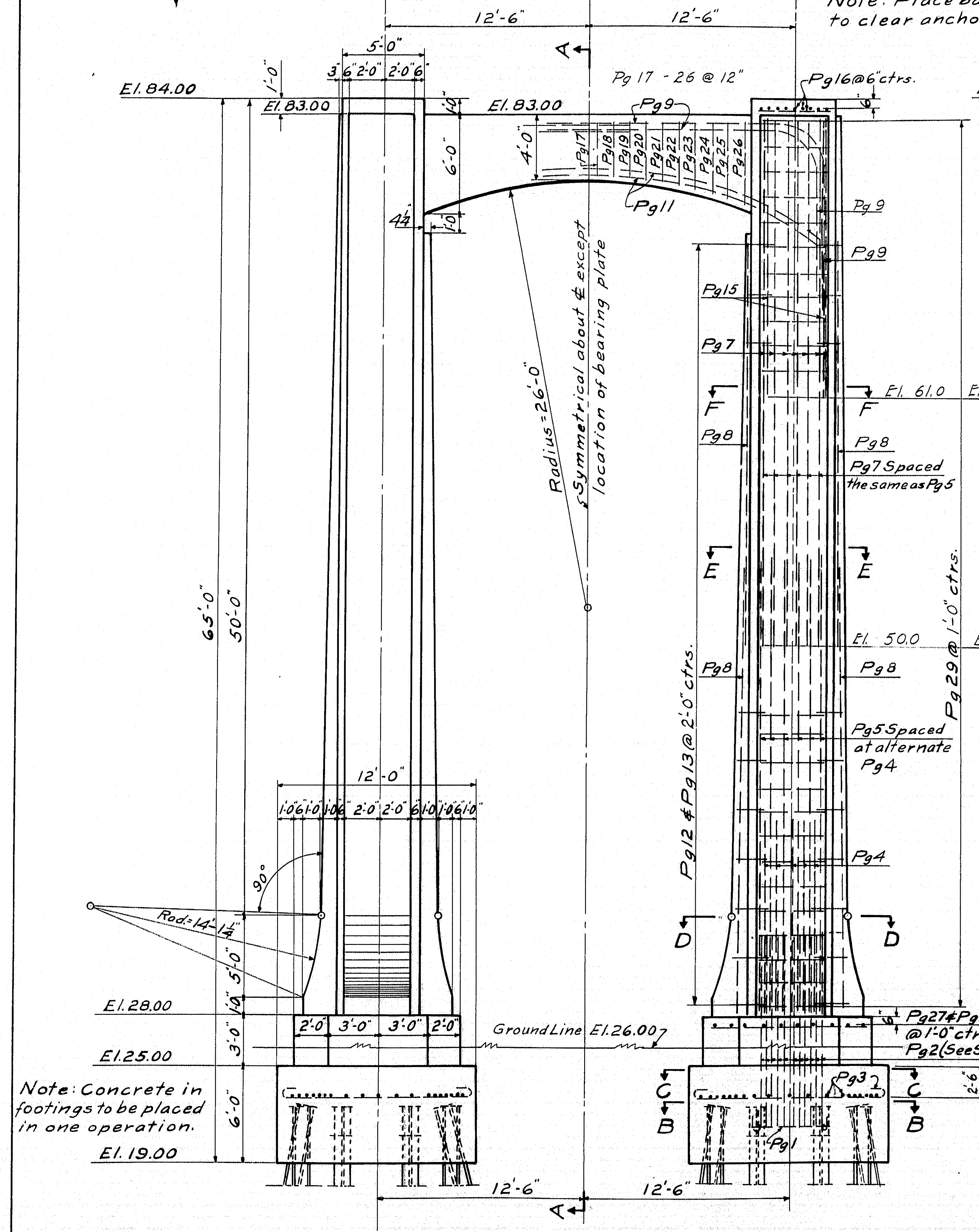
P. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI, UI-389(2)	19	45



PLAN

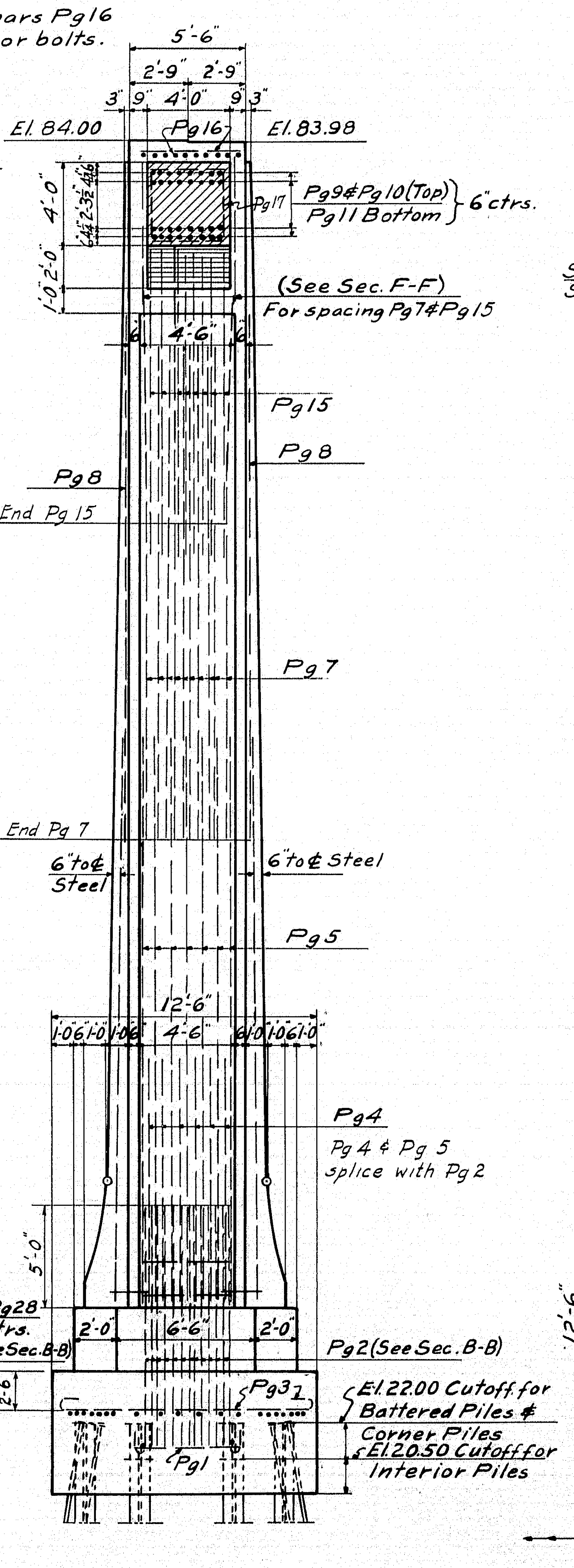
Note: Shaded areas to be 1" larger all-around than masonry plate and dressed to exact elevations shown.

Note: Place bars Pg16 to clear anchor bolts.

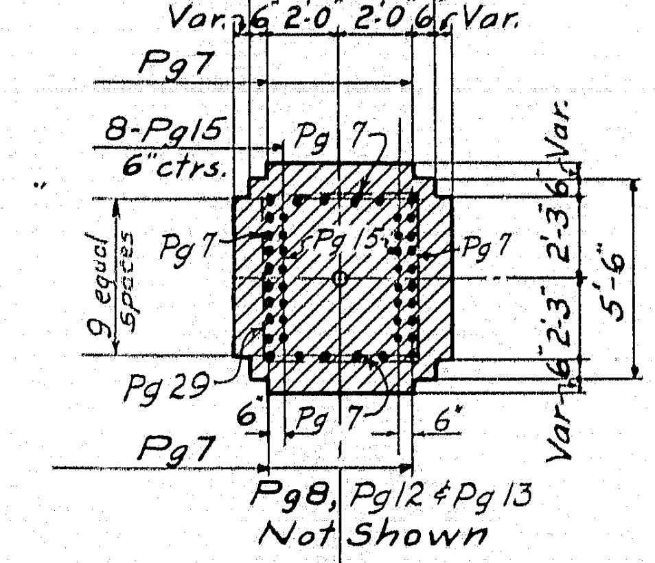


Note: Concrete in footings to be placed in one operation.

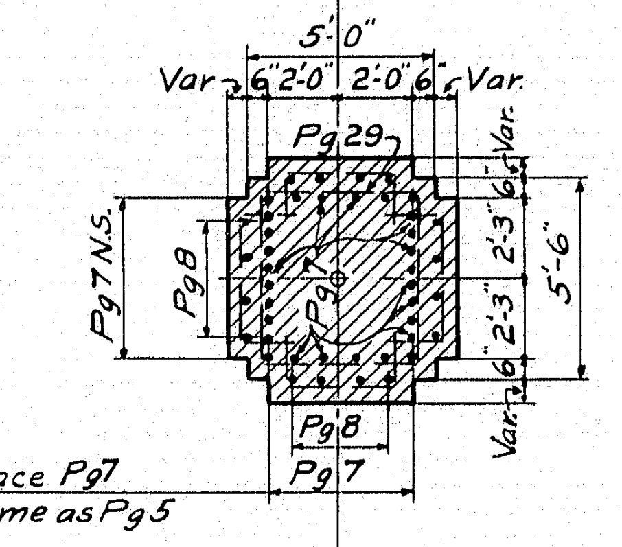
SIDE ELEVATION



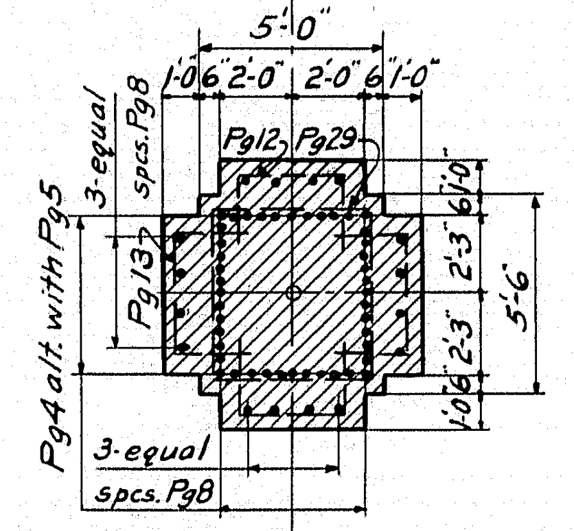
SECTION A-A



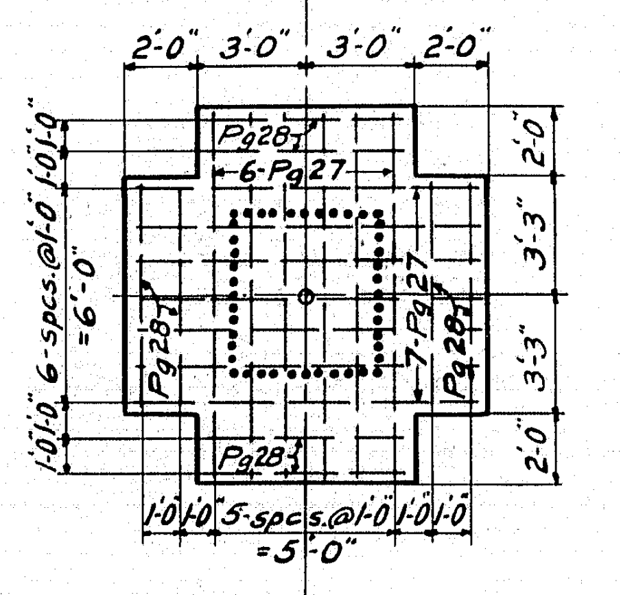
SECTION F-F



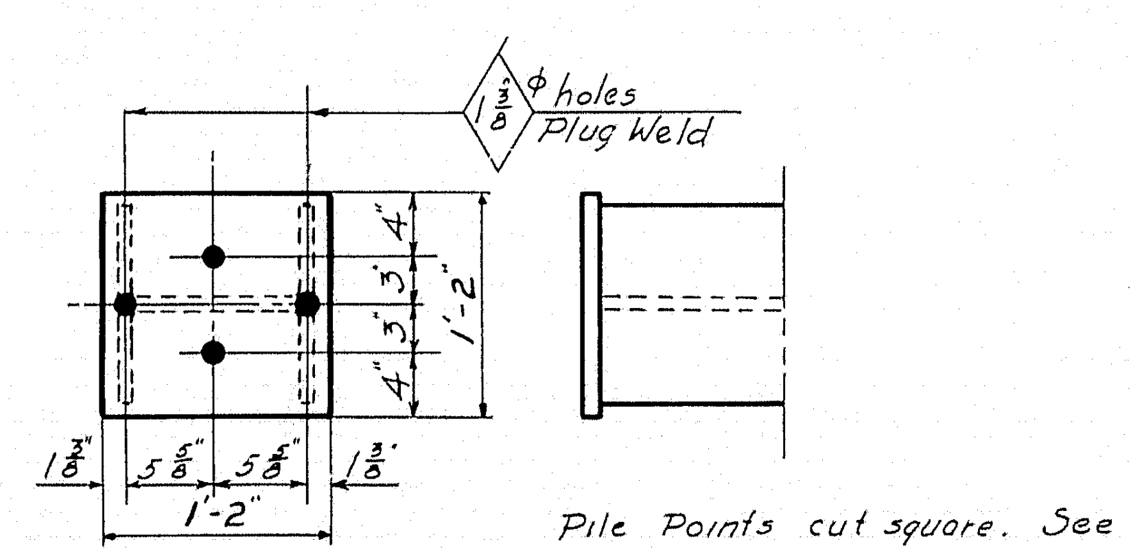
SECTION E-E



SECTION D-D



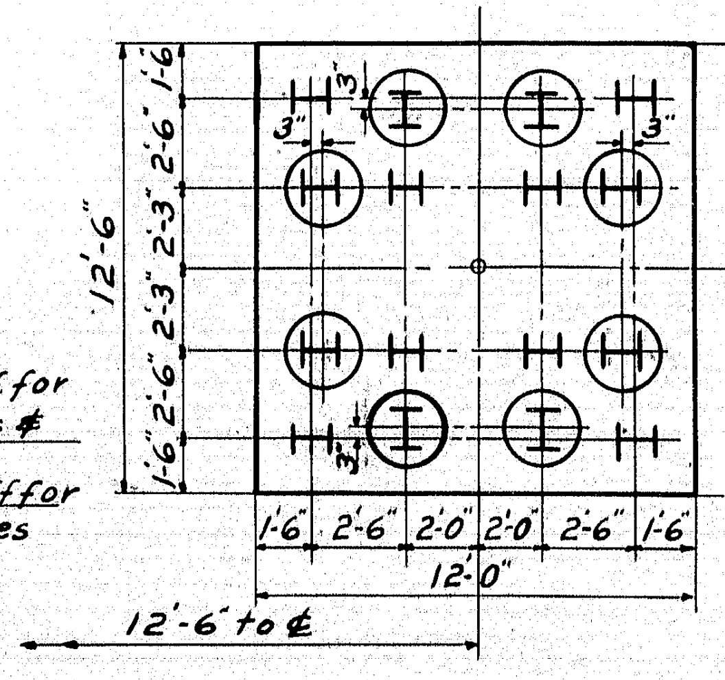
PLAN-COLUMN BASE



Pile Points cut square. See Pier #2 for typical pile splice.

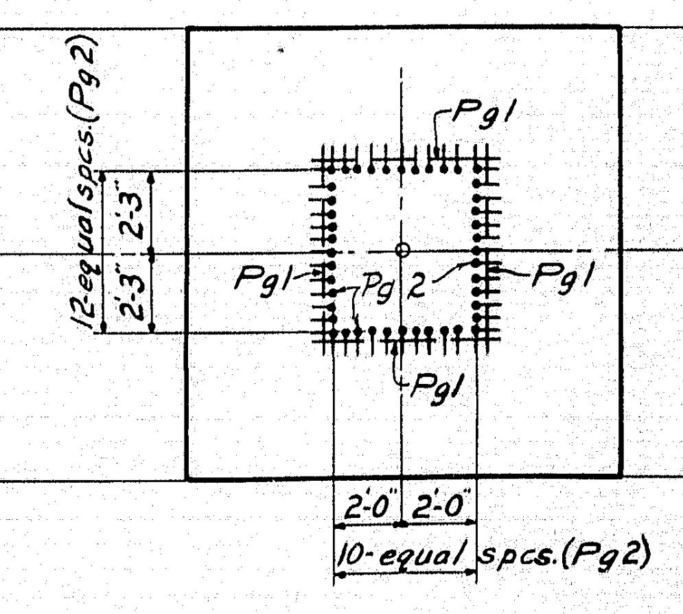
PILE CAP

32 Req'd. 14" × 1½" × 1'-2"

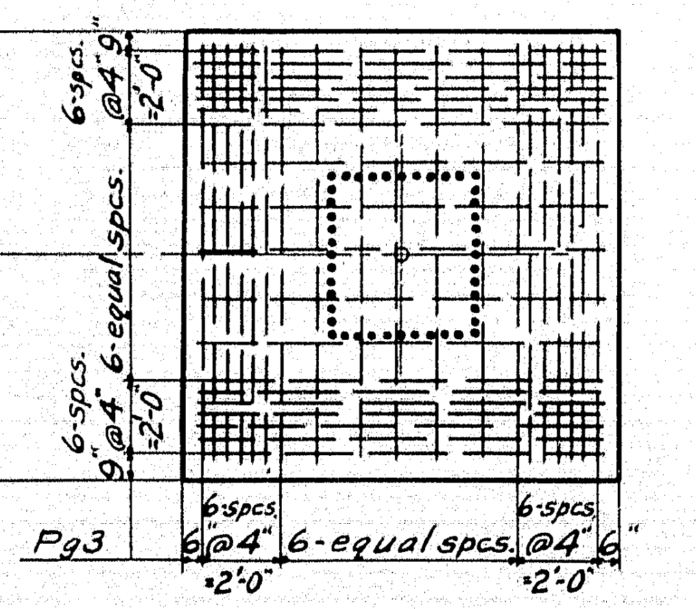


PILE PLAN

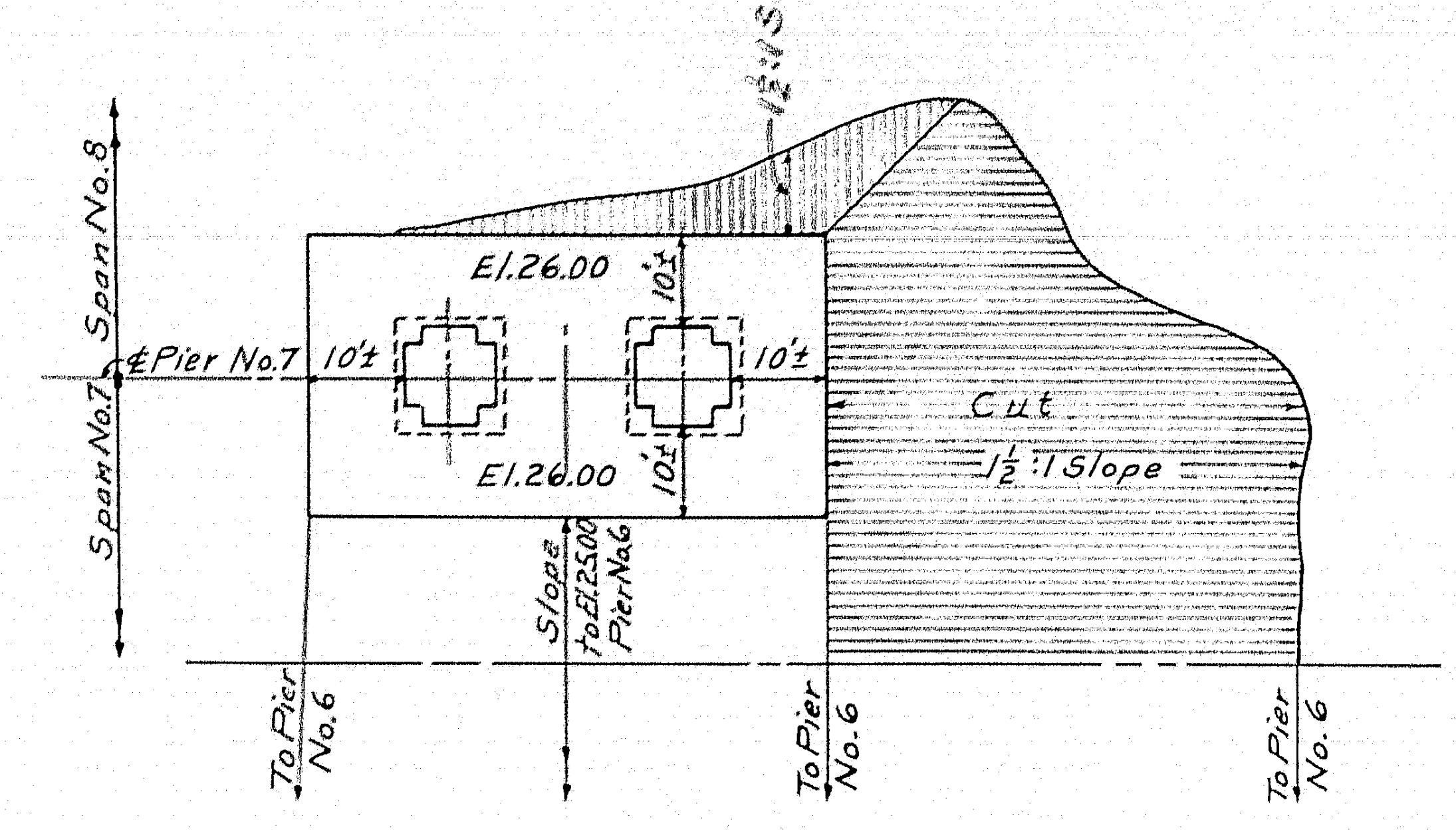
Piles shown in circles to be battered 2" per foot. Piles 12" H 74# 32-Required. Estimated length 45'



SECTION B-B

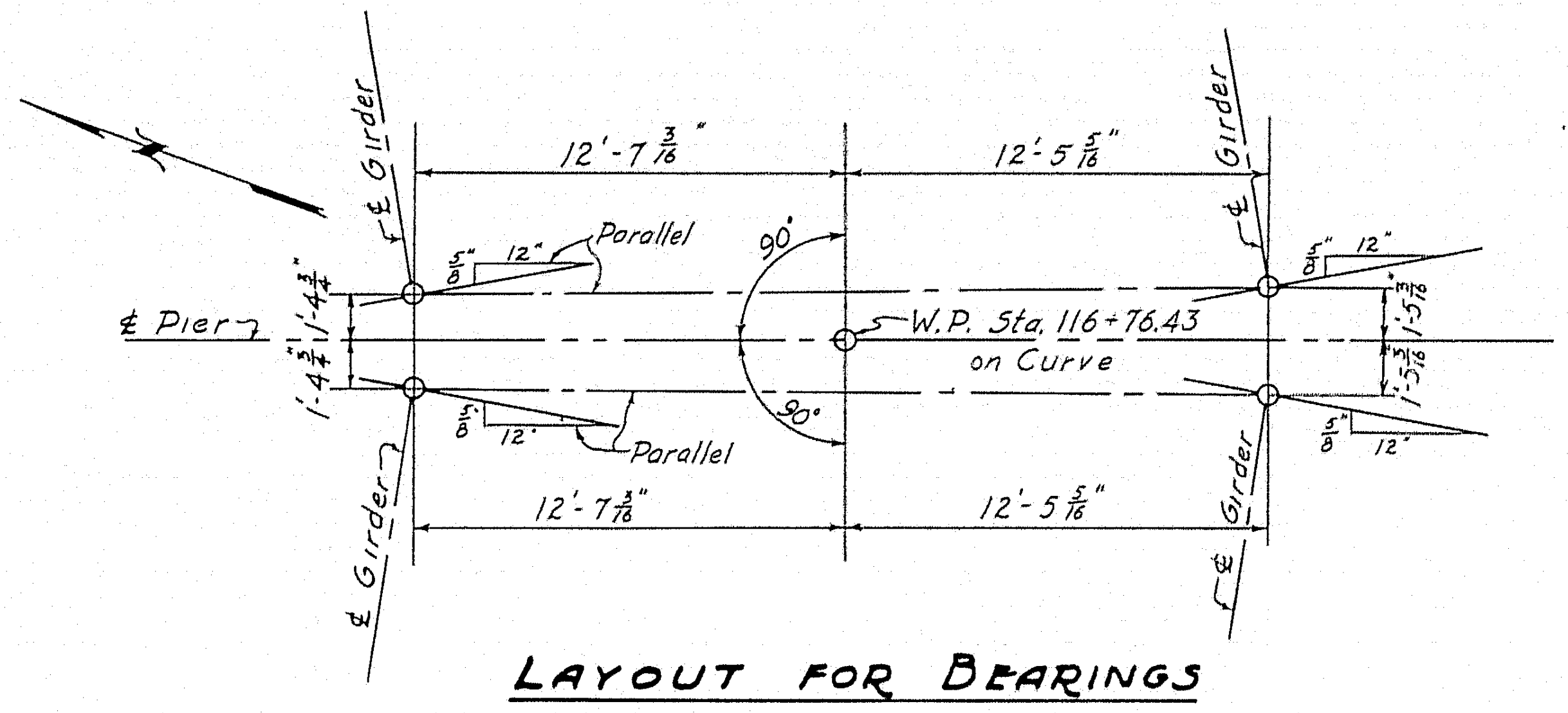


SECTION C-C



GRADING PLAN

All Graded Areas to have 6" loam and to be seeded.
All 1½ : 1 slopes to be strip-sodded. (See Sh. #18)



LAYOUT FOR BEARINGS

DESIGN - HAMILTON TRACE - WHITE
DETAIL - " CHECK - CAB
BRIDGE - 5196

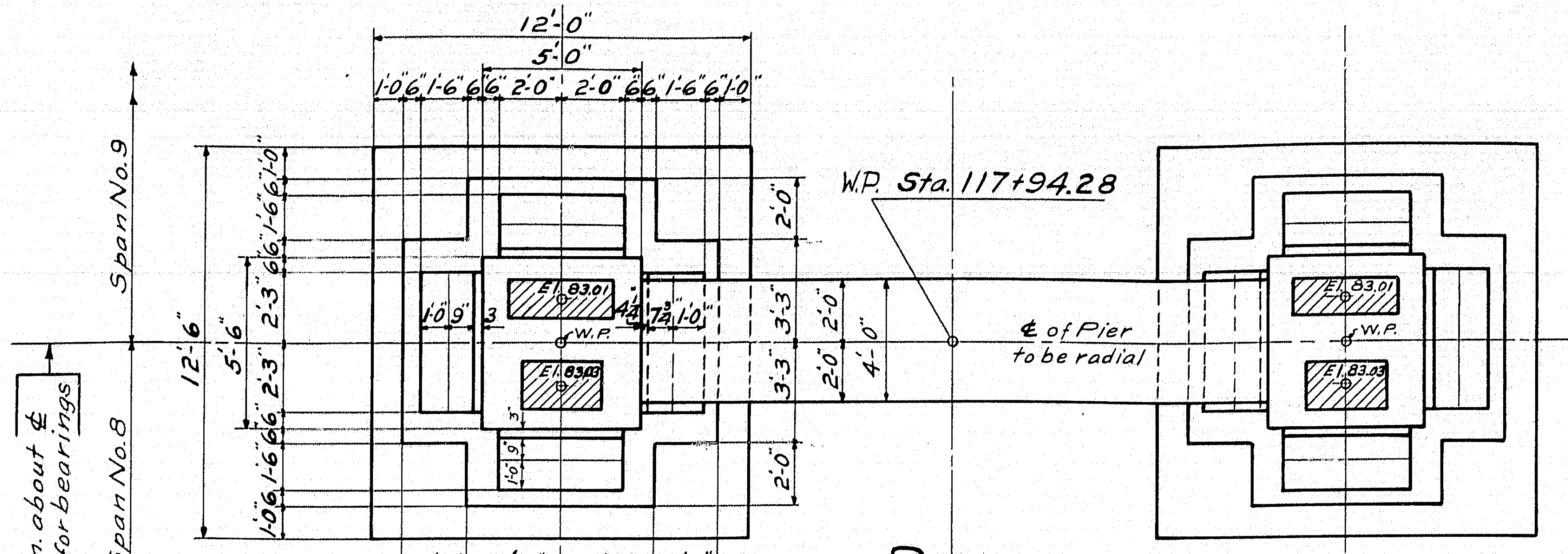
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
PIER NO. 7
SHEET 19 OF 45 AUGUSTA, MAINE FEB. 1948

52-19

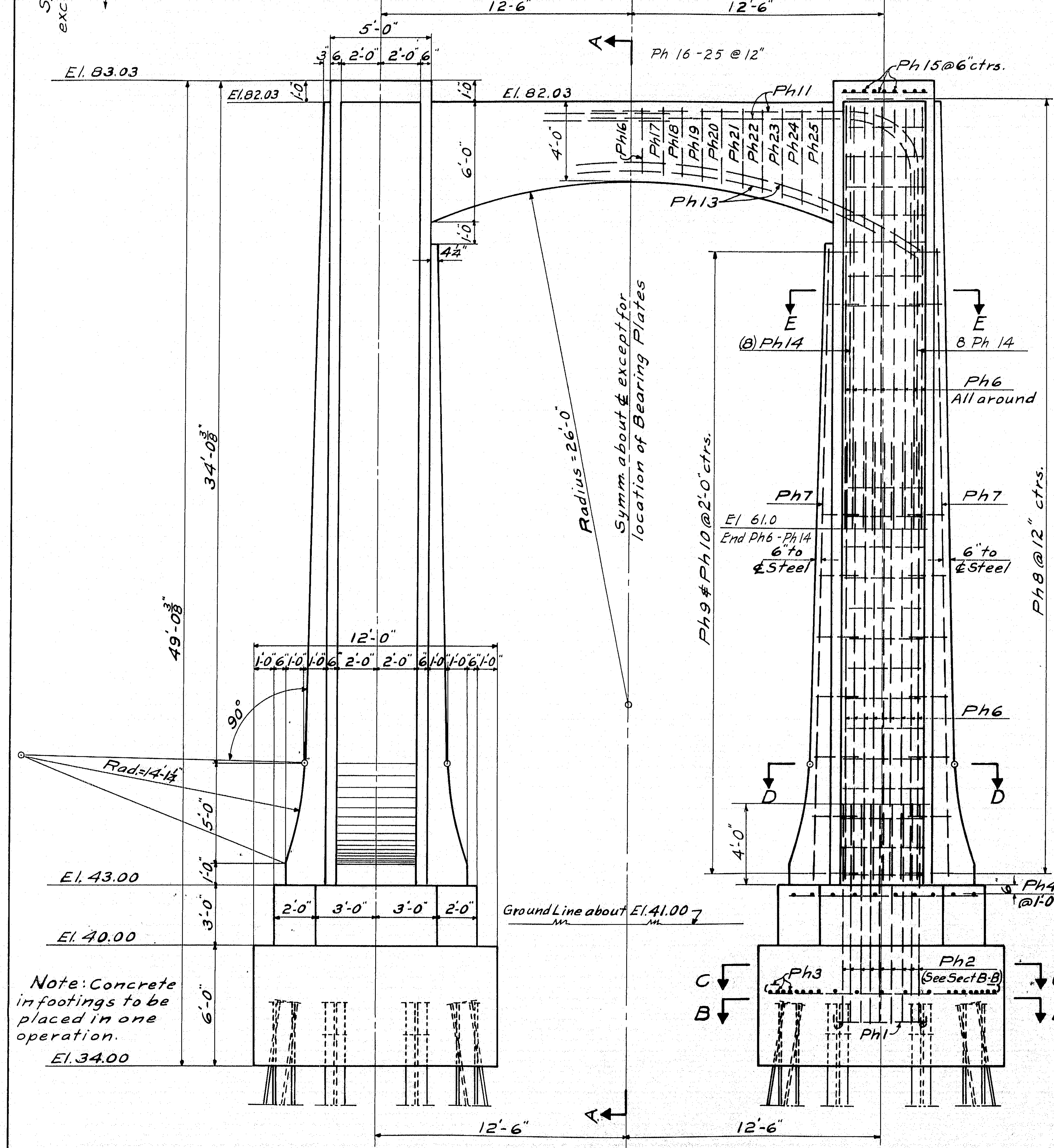
0 1 2 3 4 5 INCHES

P. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI, UI 389(2)	20	45



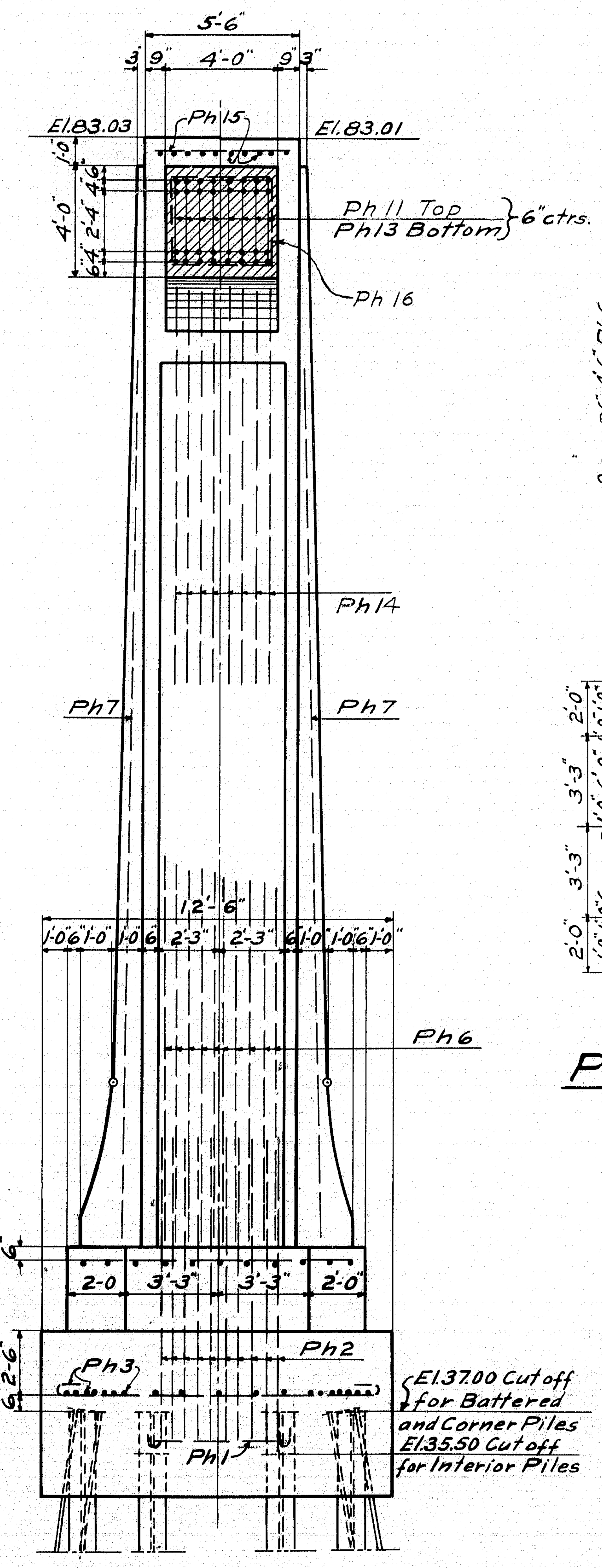
PLAN

Note: Shaded areas to be 1" larger all around than masonry plate and dressed to exact elevations shown.

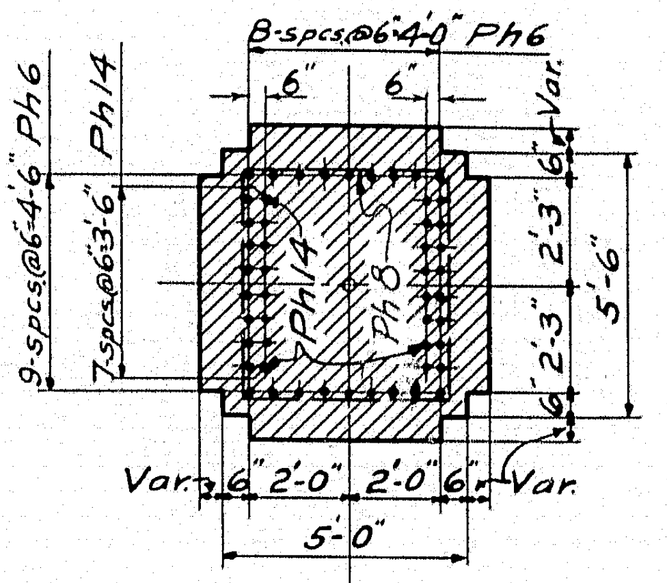


Note: Concrete in footings to be placed in one operation.

SIDE ELEVATION

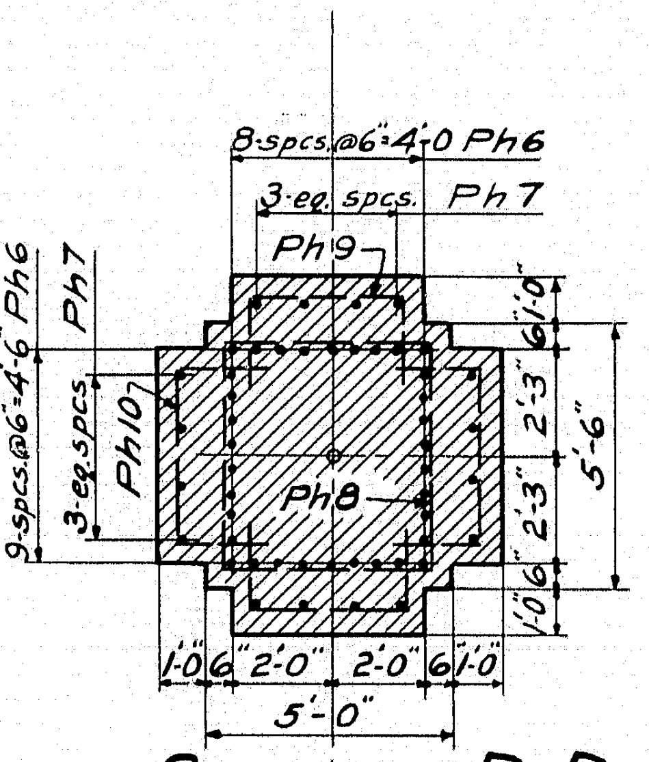


SECTION A-A

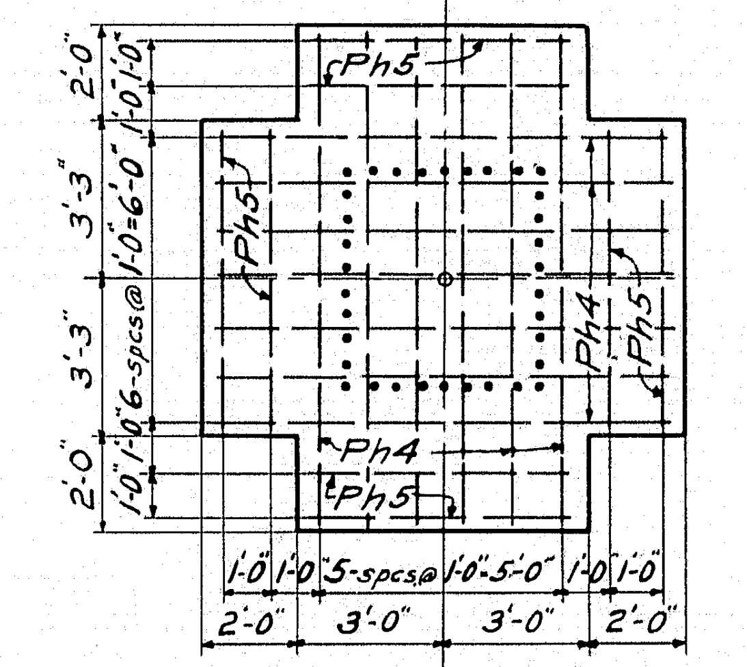


SECTION E-E

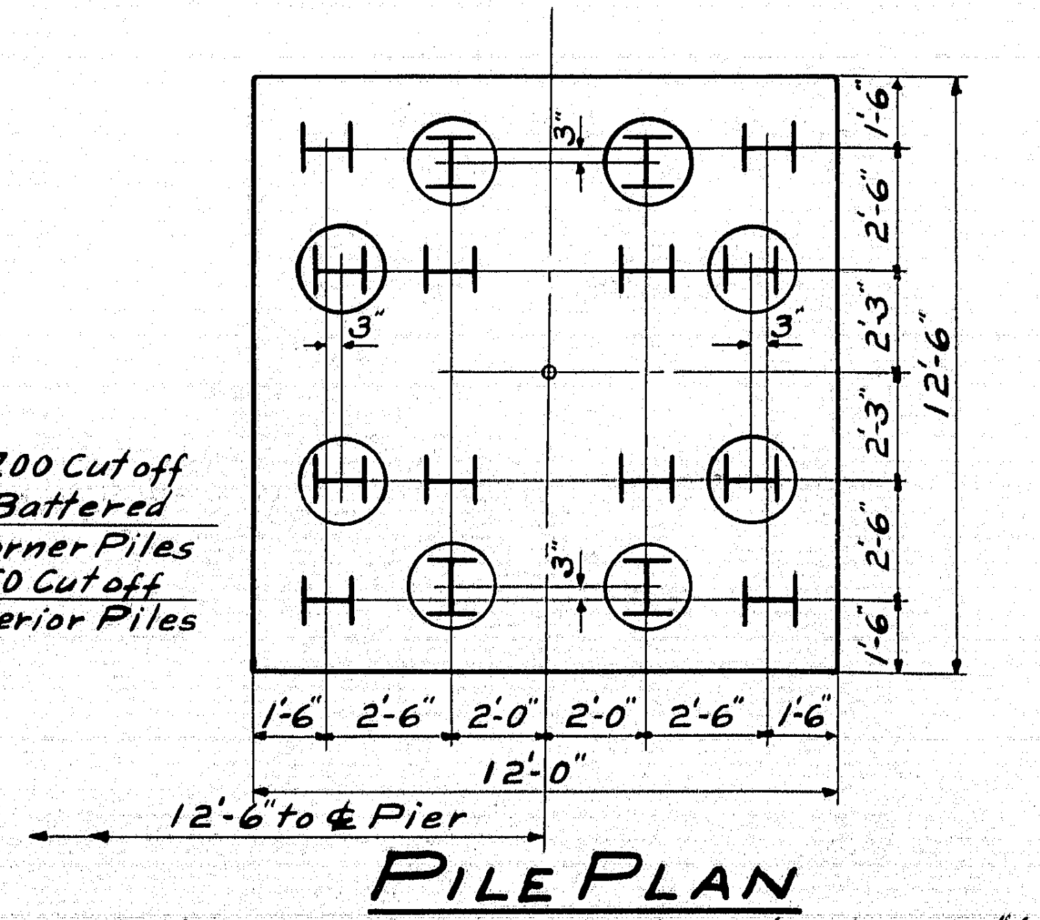
Ph 7, Ph 9, & Ph 10 not shown



SECTION D-D

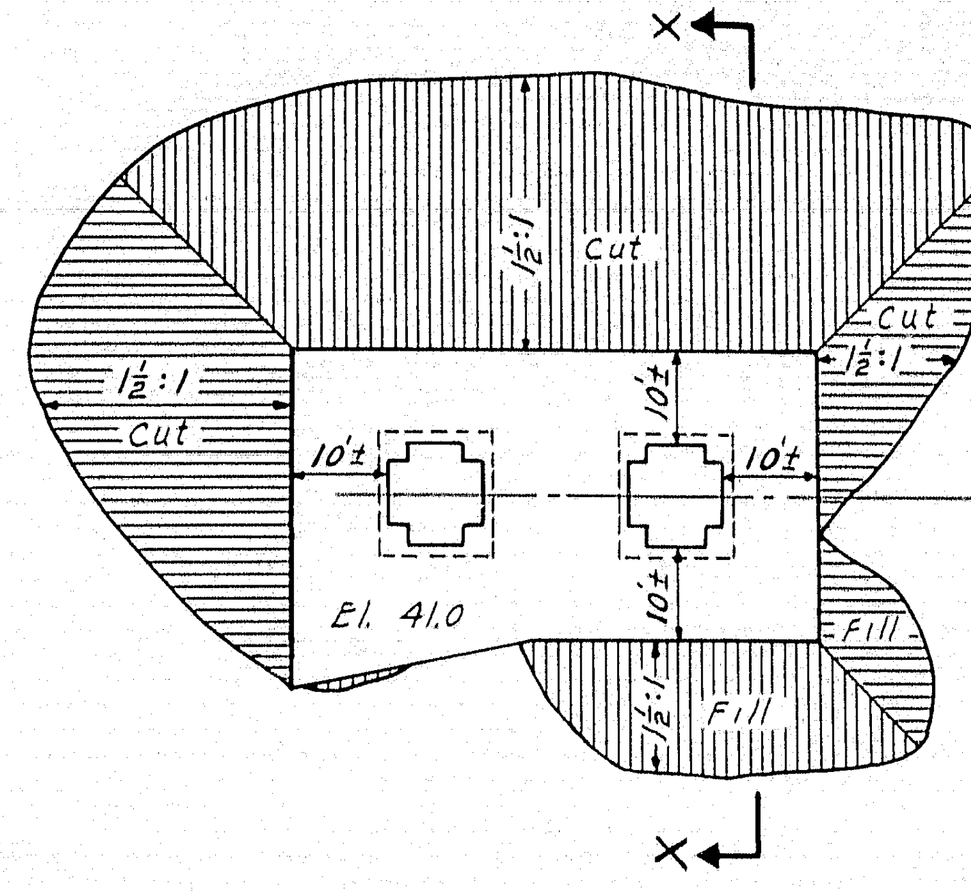


PLAN COLUMN BASE



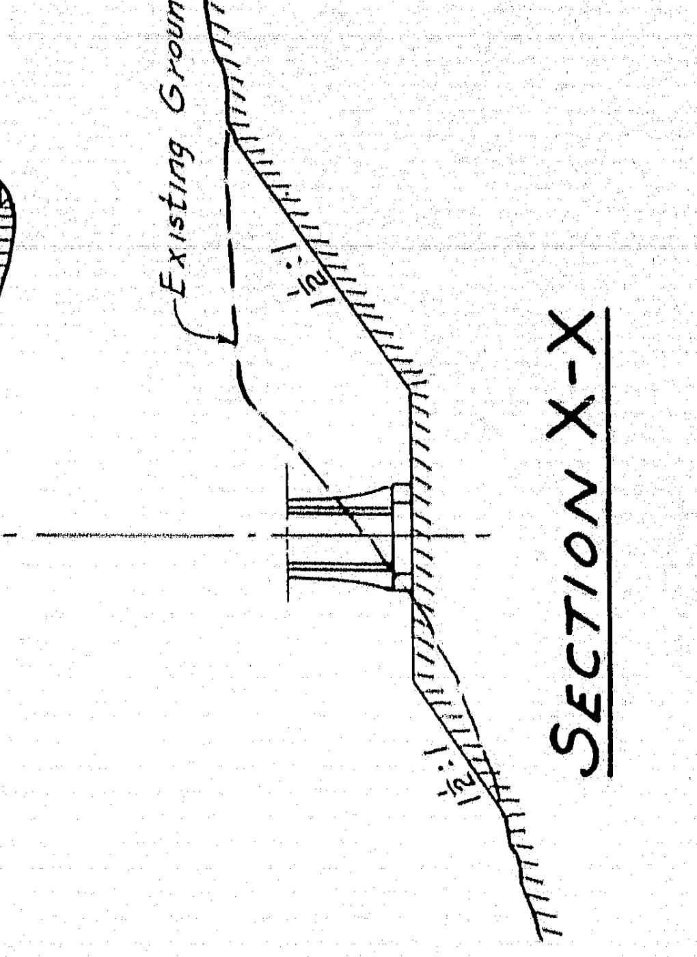
PILE PLAN

Piles shown in circles to be battered 2"/foot.
Piles - 12" H 53# 32 Required
Estimated Length 30'
For Pile Caps - Points see Pier No. 6
For Pile Splices see Pier No. 2

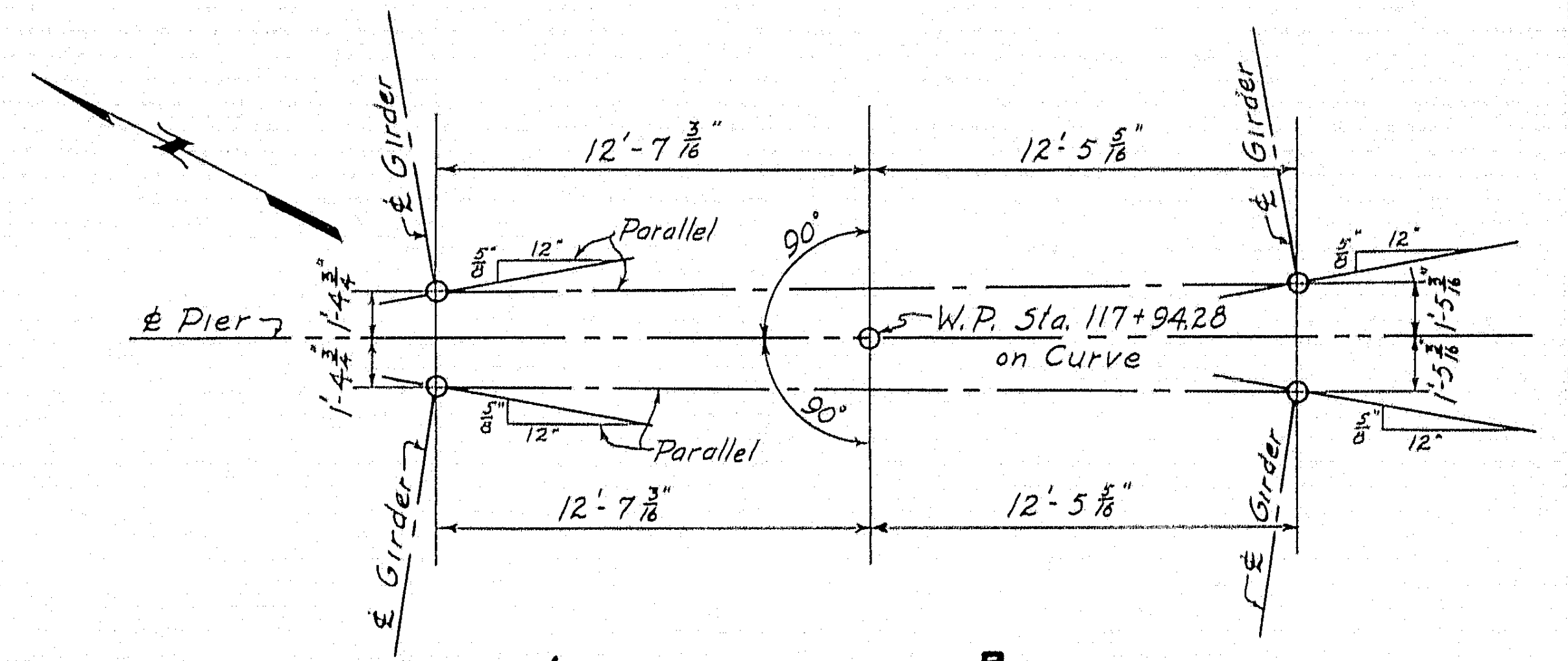


GRADING PLAN

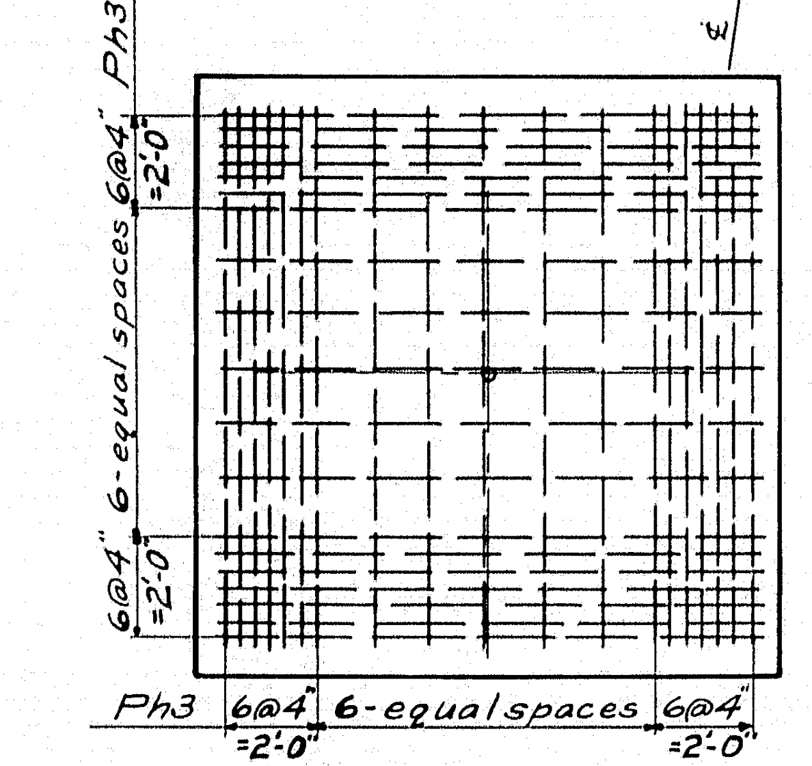
Graded Areas to have 6" loam and to be seeded.
All 1½:1 slopes to be strip-sodded. (See Sh. #18)



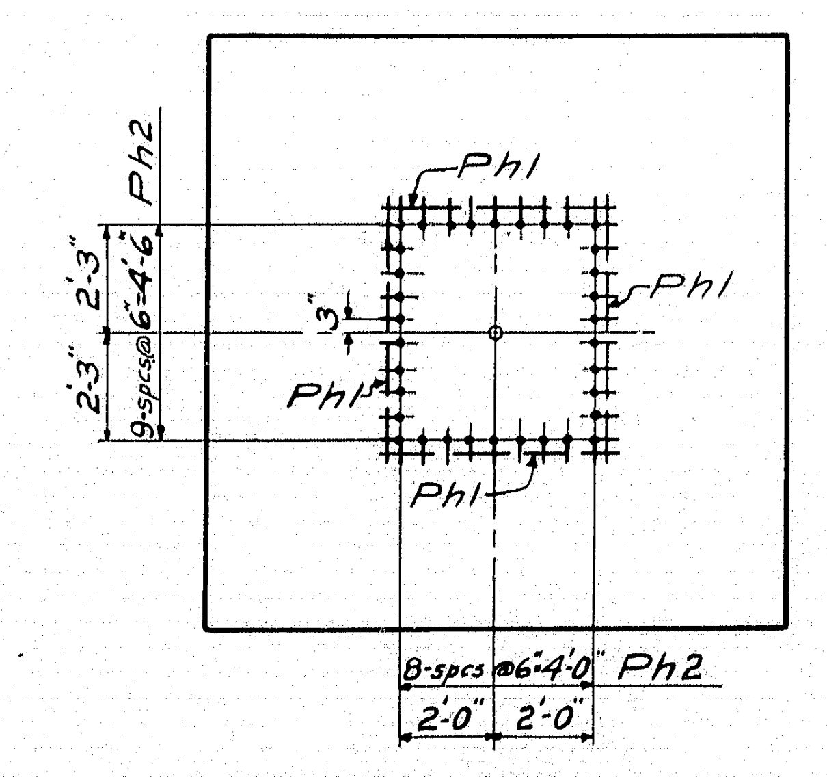
SECTION X-X



LAYOUT FOR BEARINGS



SECTION C-C



SECTION B-B

DESIGN - HAMILTON TRACE - WHITE
DETAIL - " CHECK - CAB
BRIDGE - 5196

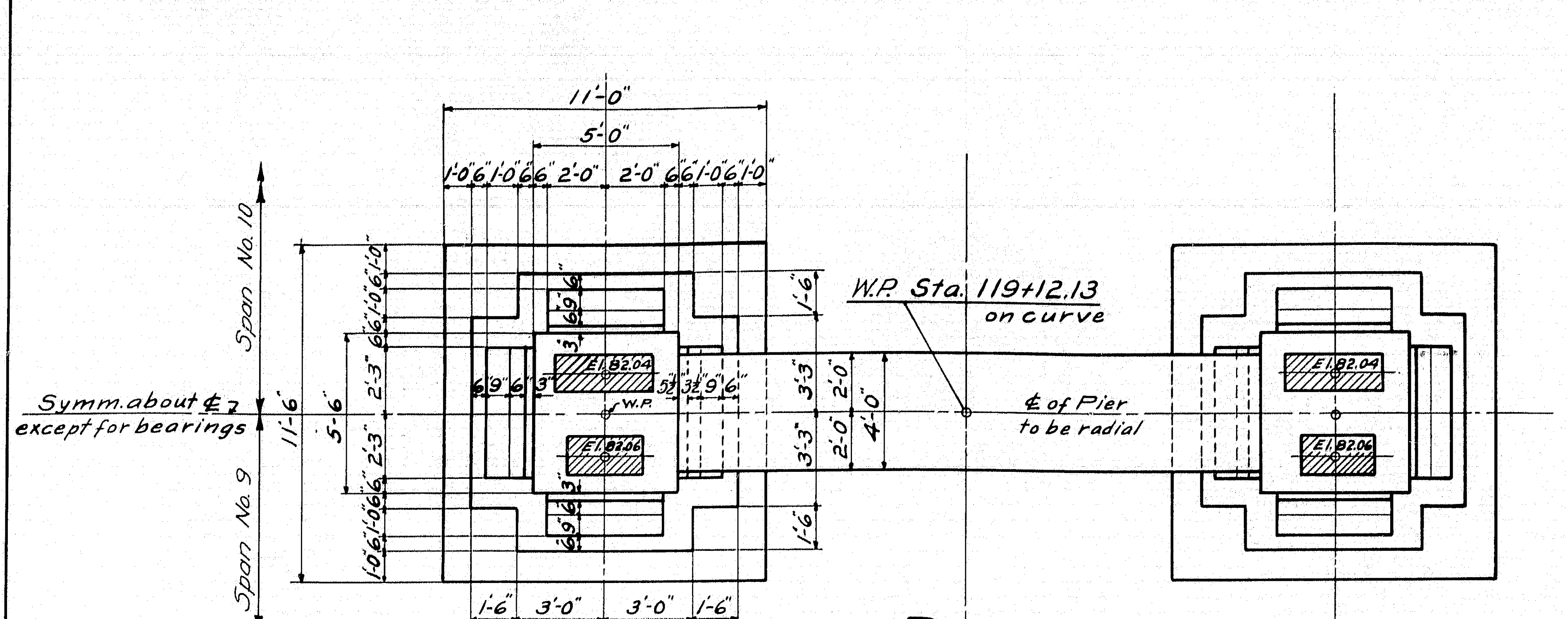
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
PIER NO. 8
SHEET 20 OF 45 AUGUSTA, MAINE FEB. 1948

52-20

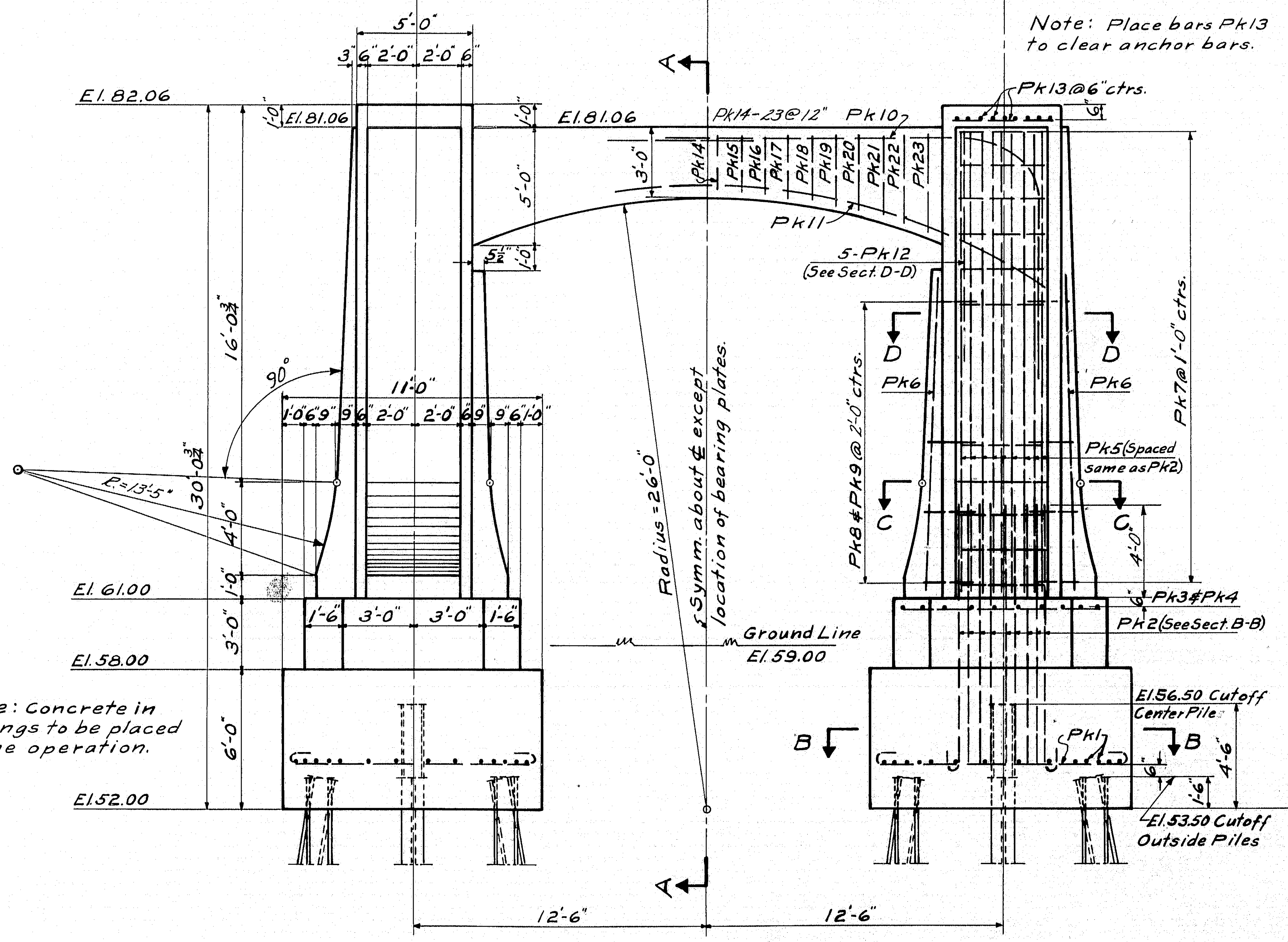
0 1 2 3 4 5 INCHES

P.R.A. DIV. NO.	STATE	F.D. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI,UI-389(2)	21	45



PLAN

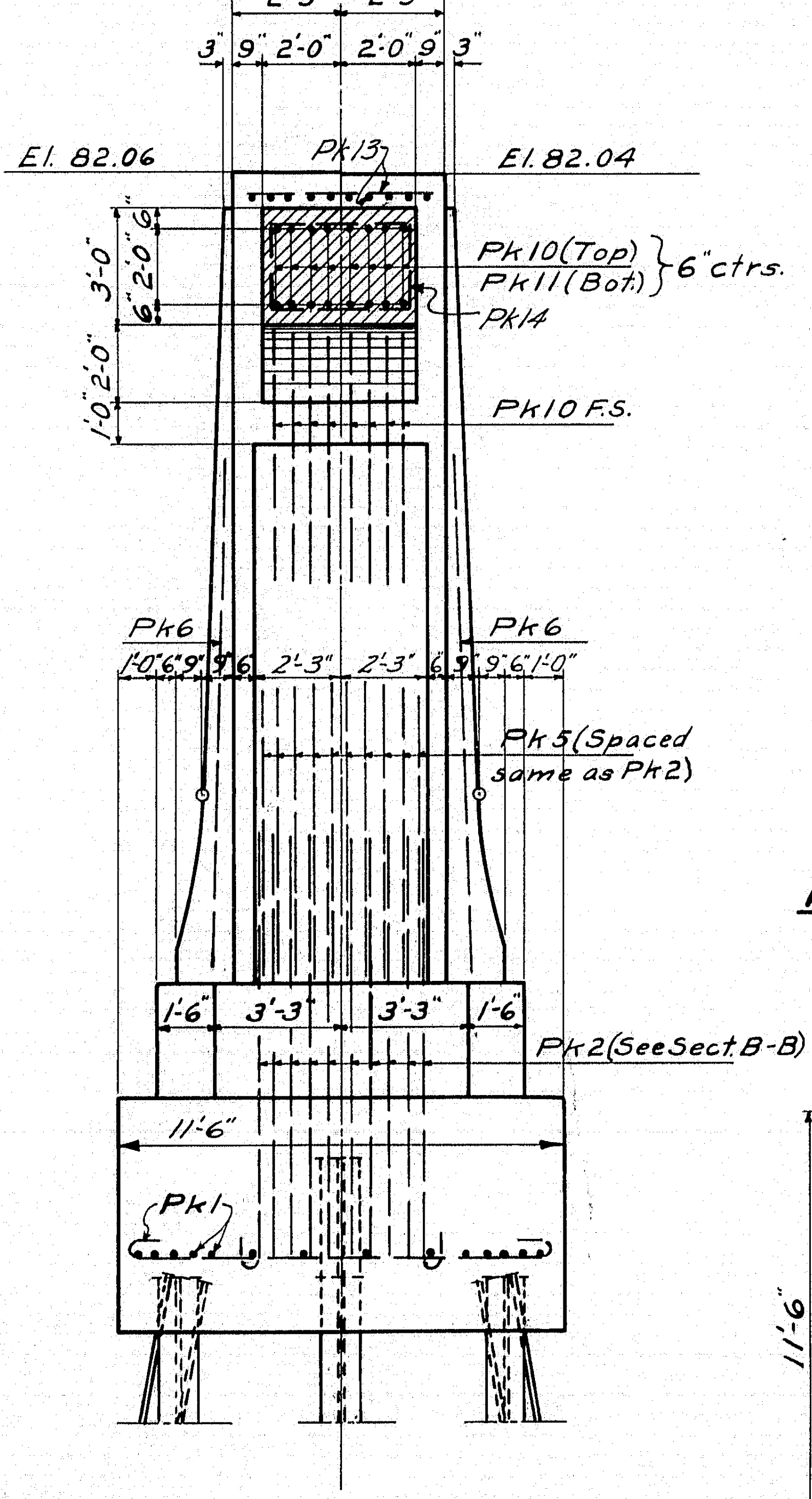
Note: Shaded areas to be 1" larger all around than masonry plate and dressed to exact elevations shown.



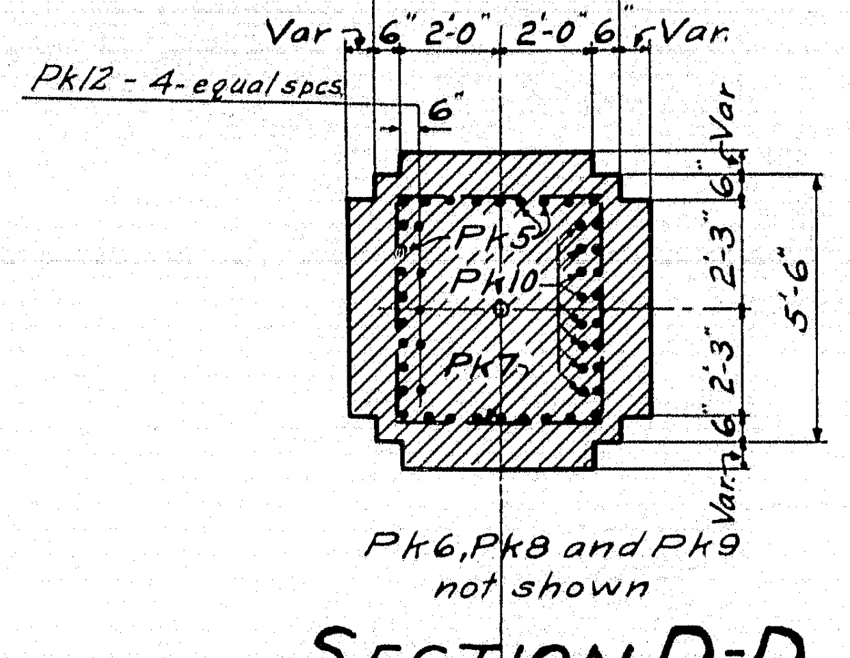
Note: Place bars Pk13 to clear anchor bars.

Note: Concrete in footings to be placed in one operation.

SIDE ELEVATION

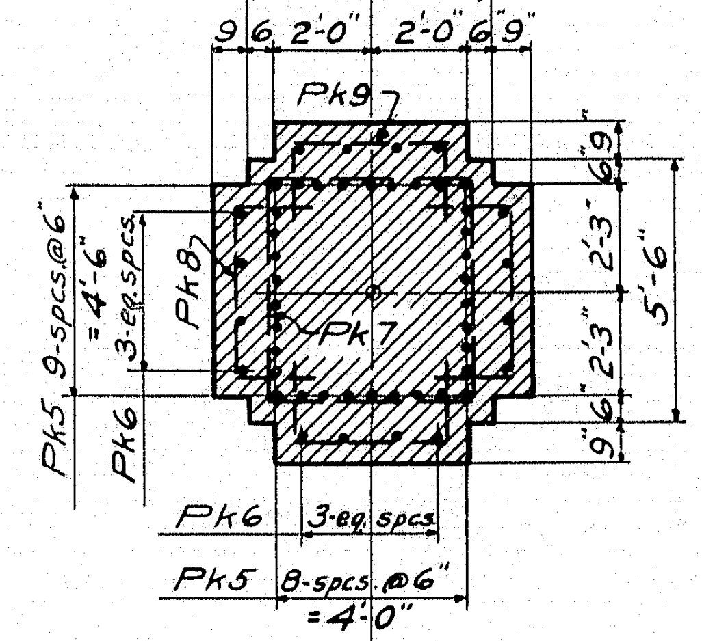


SECTION A-A

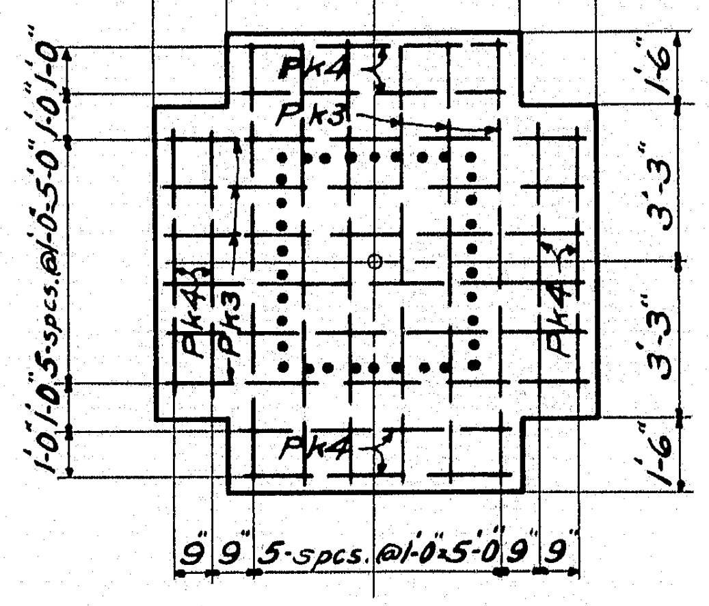


Pk6, Pk8 and Pk9 not shown

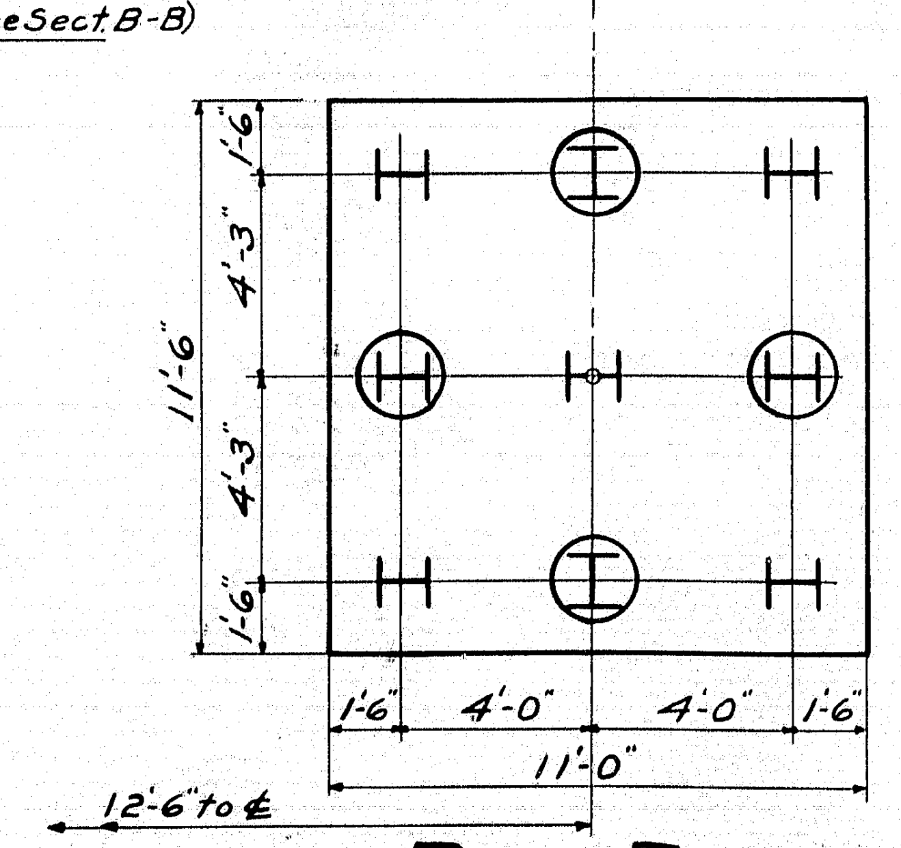
SECTION D-D



SECTION C-C

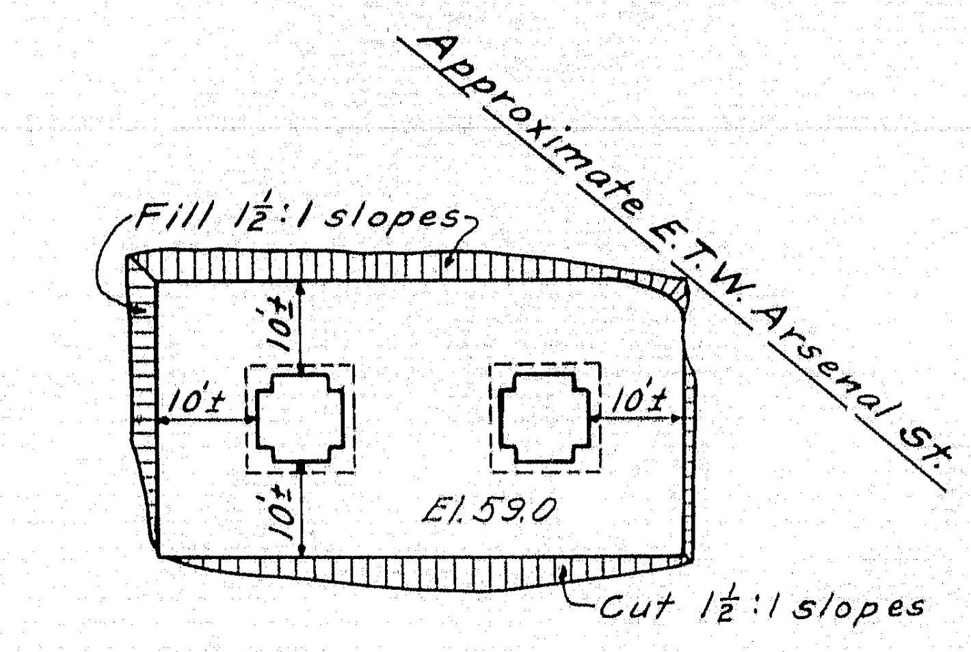


PLAN-COLUMN BASE



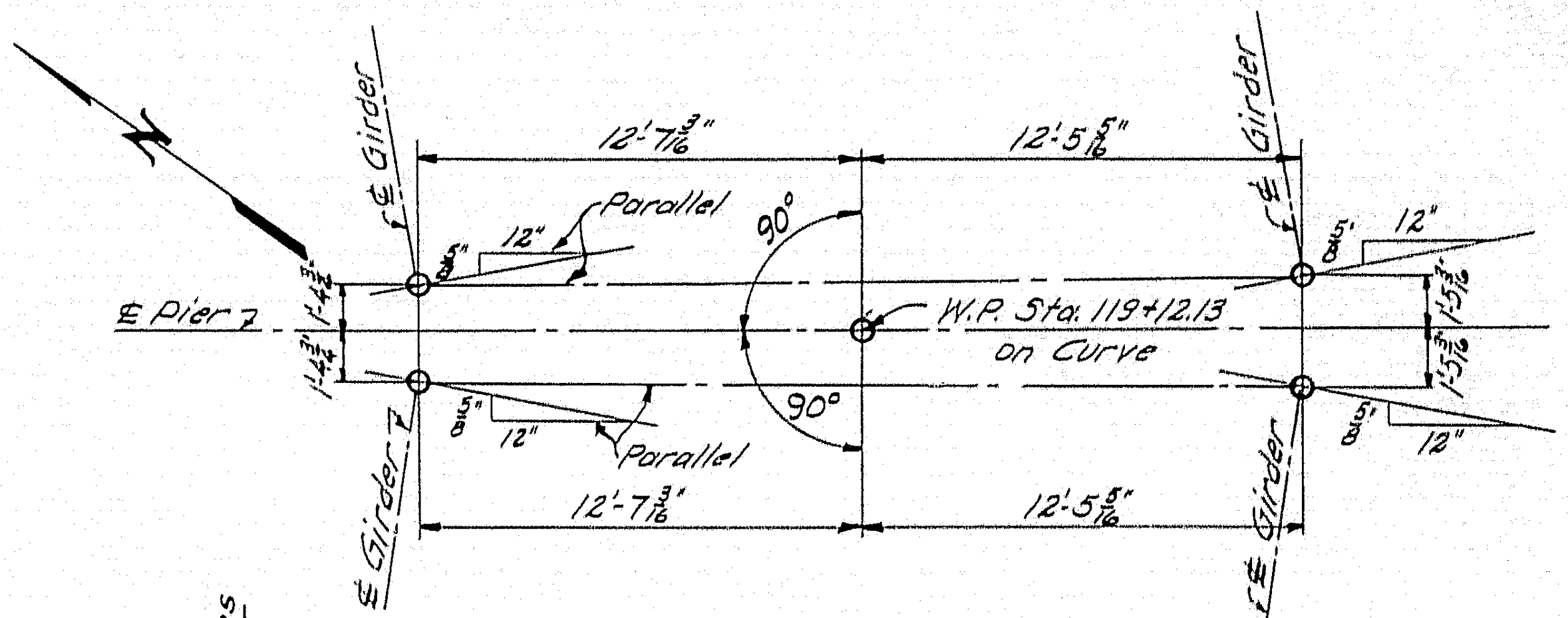
PILE PLAN

Piles shown in circles to be battered 2" per foot.
Piles - 12 H 74# 18-Required
Estimated Length 20'

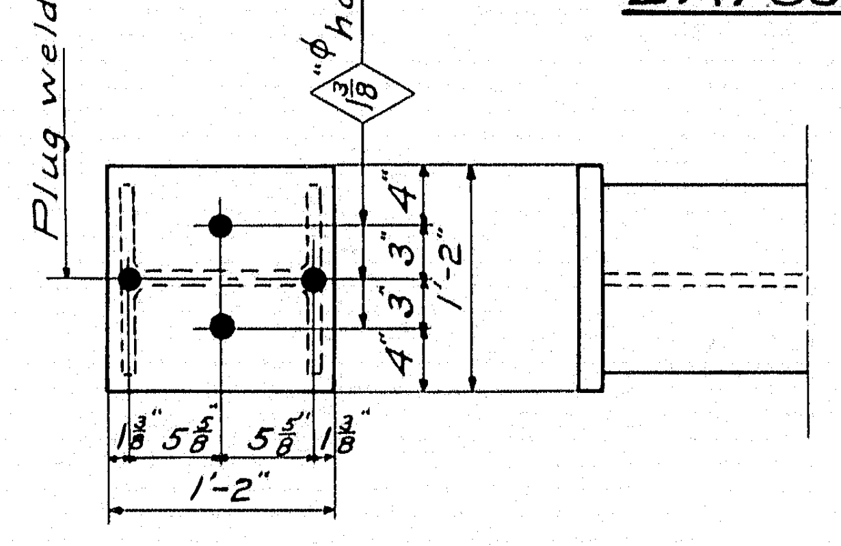


GRADING PLAN

All graded areas to have 6" loam and are to be seeded.

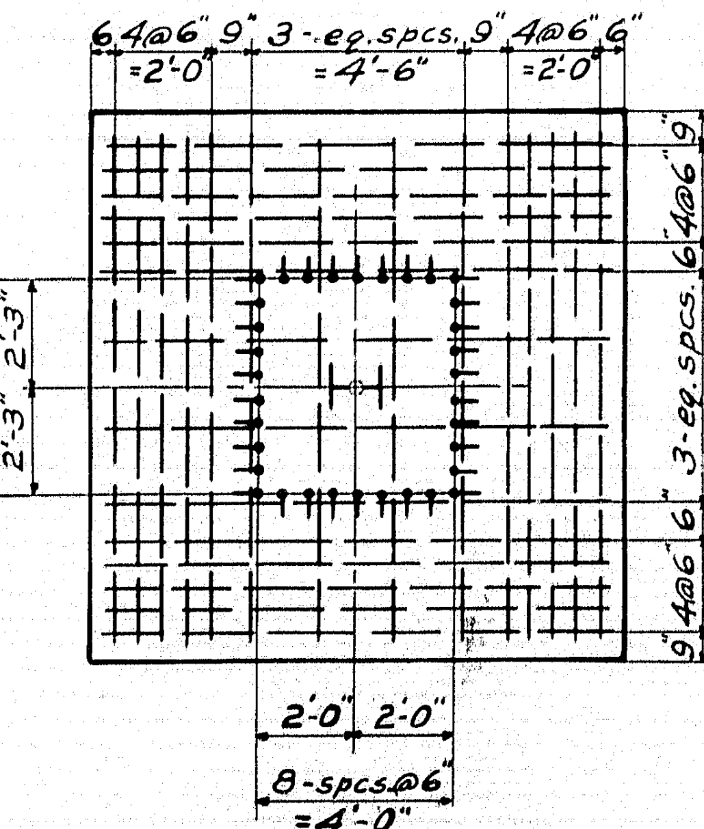


LAYOUT FOR BEARINGS



PILE CAP

18-Required 14"x1½"x1'-2"
Pile Points cut square.
See Pier No. 2 for Typical Pile Splice.



SECTION B-B

0 1 2 3 4 5 INCHES

DESIGN - HAMILTON TRACE - WHITE
DETAIL - " CHECK - CAB
BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

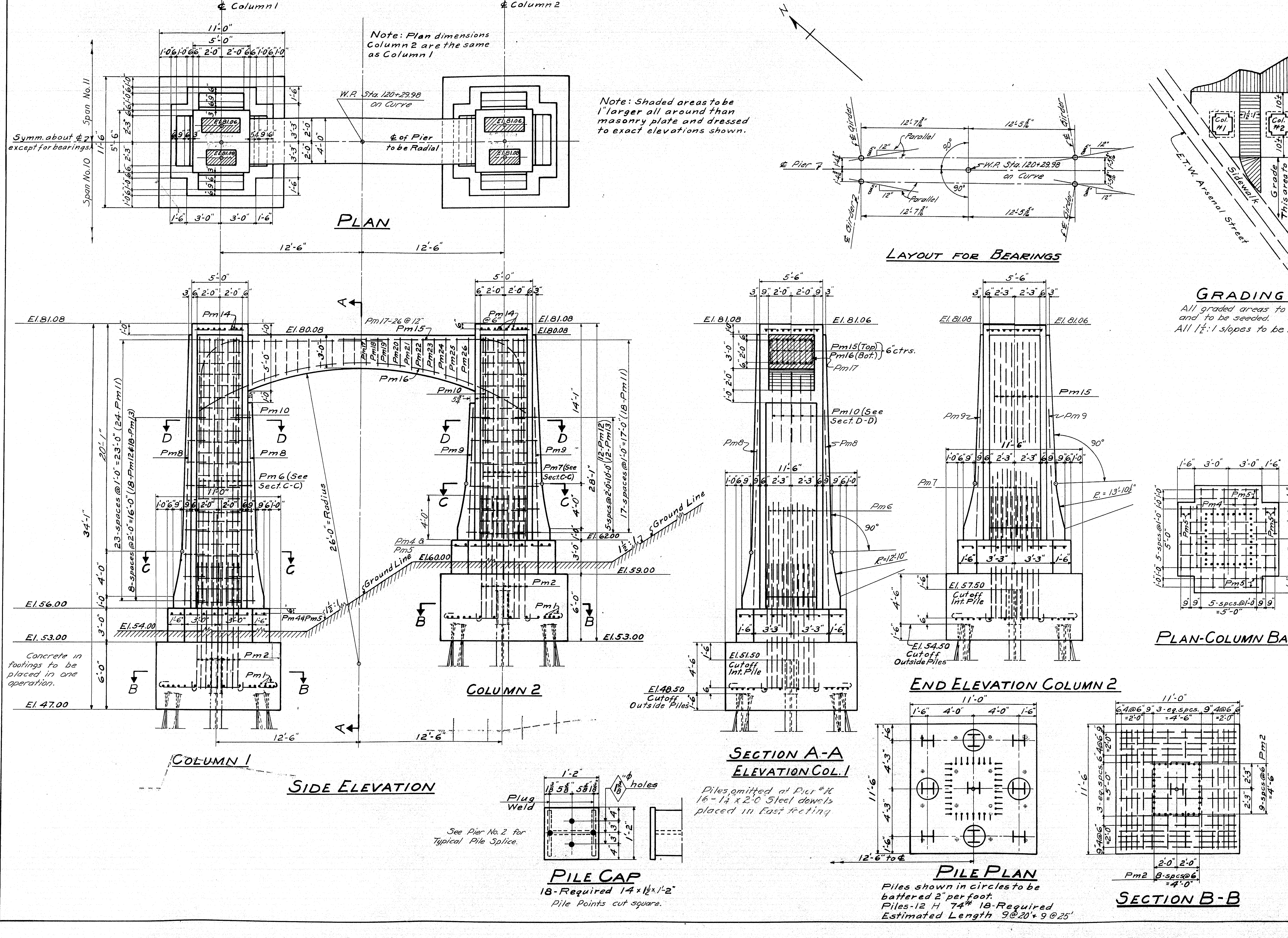
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

PIER NO. 9

SHEET 21 OF 45 AUGUSTA, MAINE FEB. 1948

52-21

P. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	F.I.,UI-389(2)	22	45



Note: Plan dimensions Column 2 are the same as Column 1

Note: Shaded areas to be 1" larger all around than masonry plate and dressed to exact elevations shown.

All graded areas to have 6" loam and to be seeded.
All 1½:1 slopes to be strip-sodded. (See Sh #18)

Pm8, 9, 12 & 13 not shown.

Concrete in footings to be placed in one operation.

Piles omitted at Pier #10
16 - 1¼ x 2'-0 Steel dowels placed in East footing

See Pier No. 2 for Typical Pile Splice.

18-Required 14 x 1½ x 1'-2"
Pile Points cut square.

Piles shown in circles to be battered 2" per foot.
Piles-12 H 74# 18-Required
Estimated Length 9 @ 20' + 9 @ 25'

DESIGN - HAMILTON
DETAIL - "
TRACE - WHITE
CHECK - CAB

BRIDGE - 5196

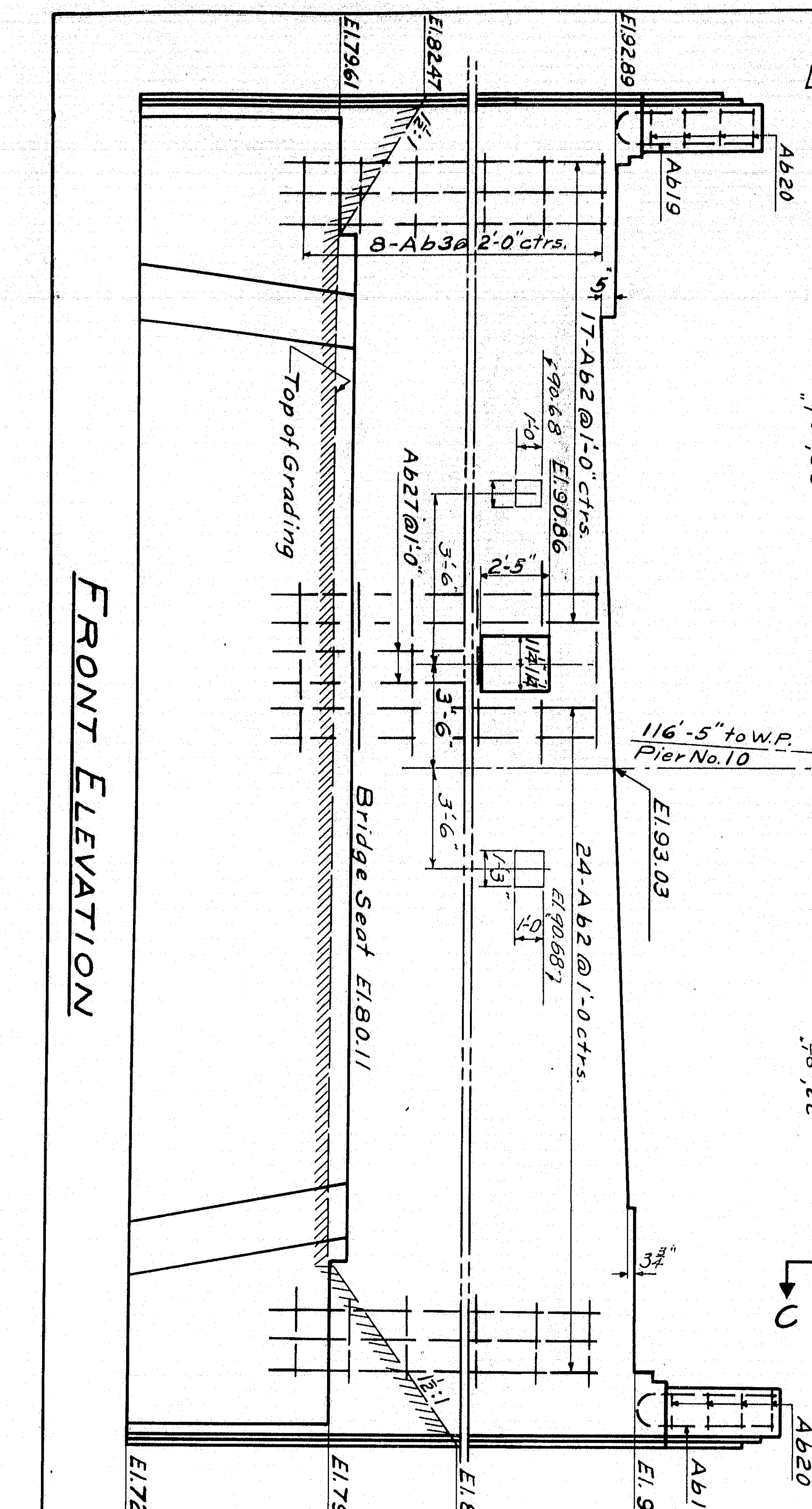
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
PIER NO. 10
SHEET 22 OF 45 AUGUSTA, MAINE FEB. 1948

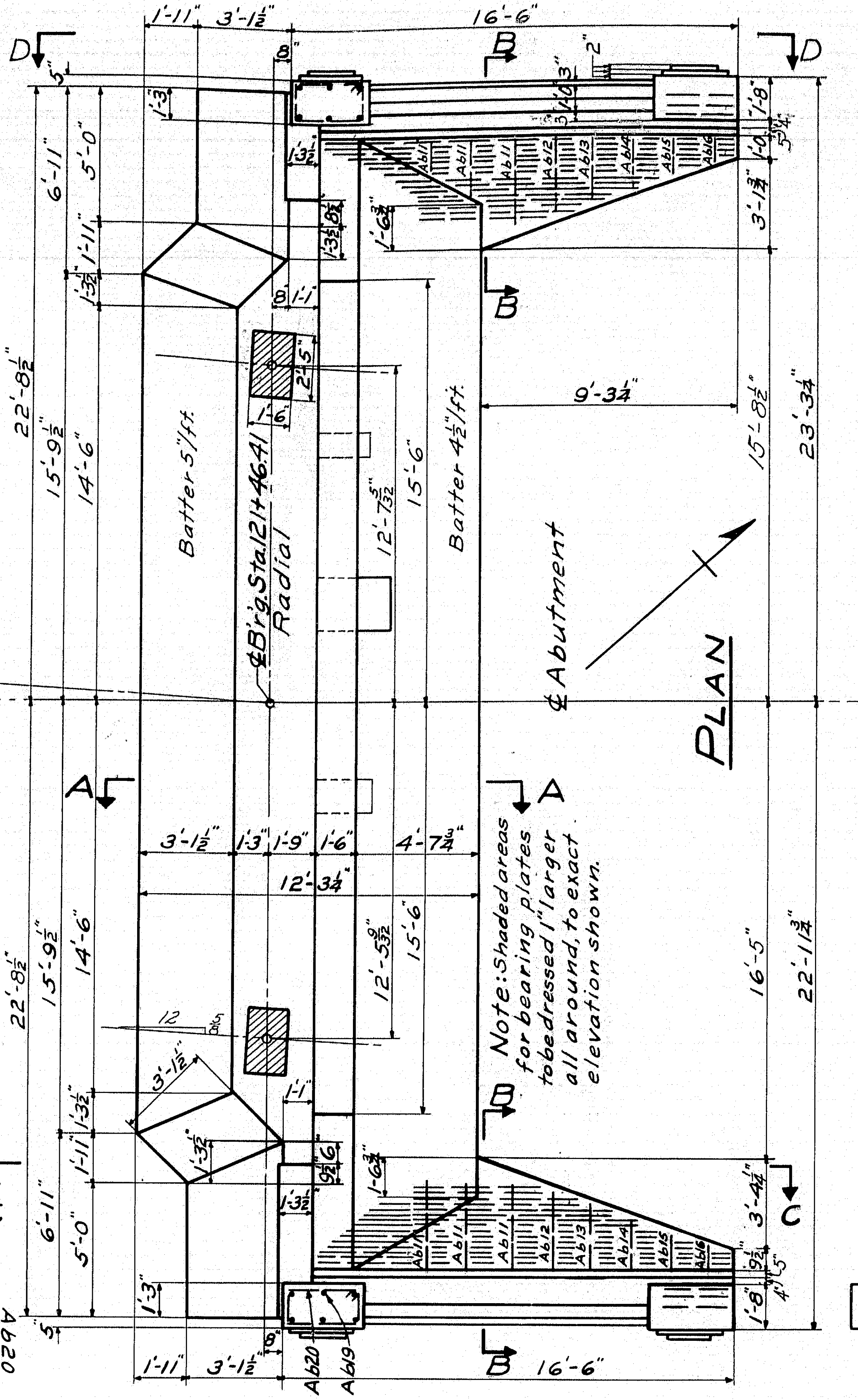
52-22

0 1 2 3 4 5 INCHES

P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI, UI-389(2)	23	45

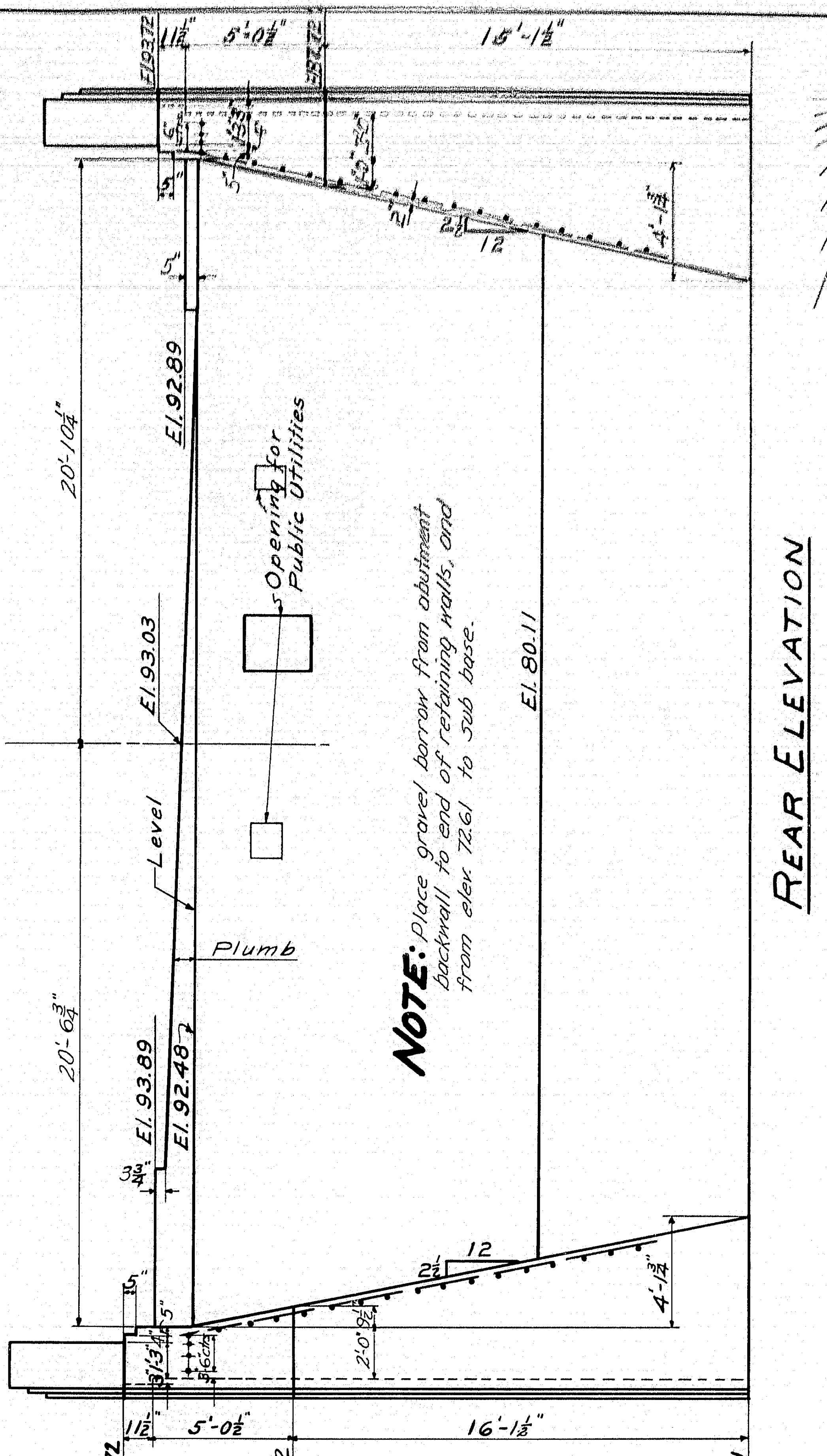


FRONT ELEVATION



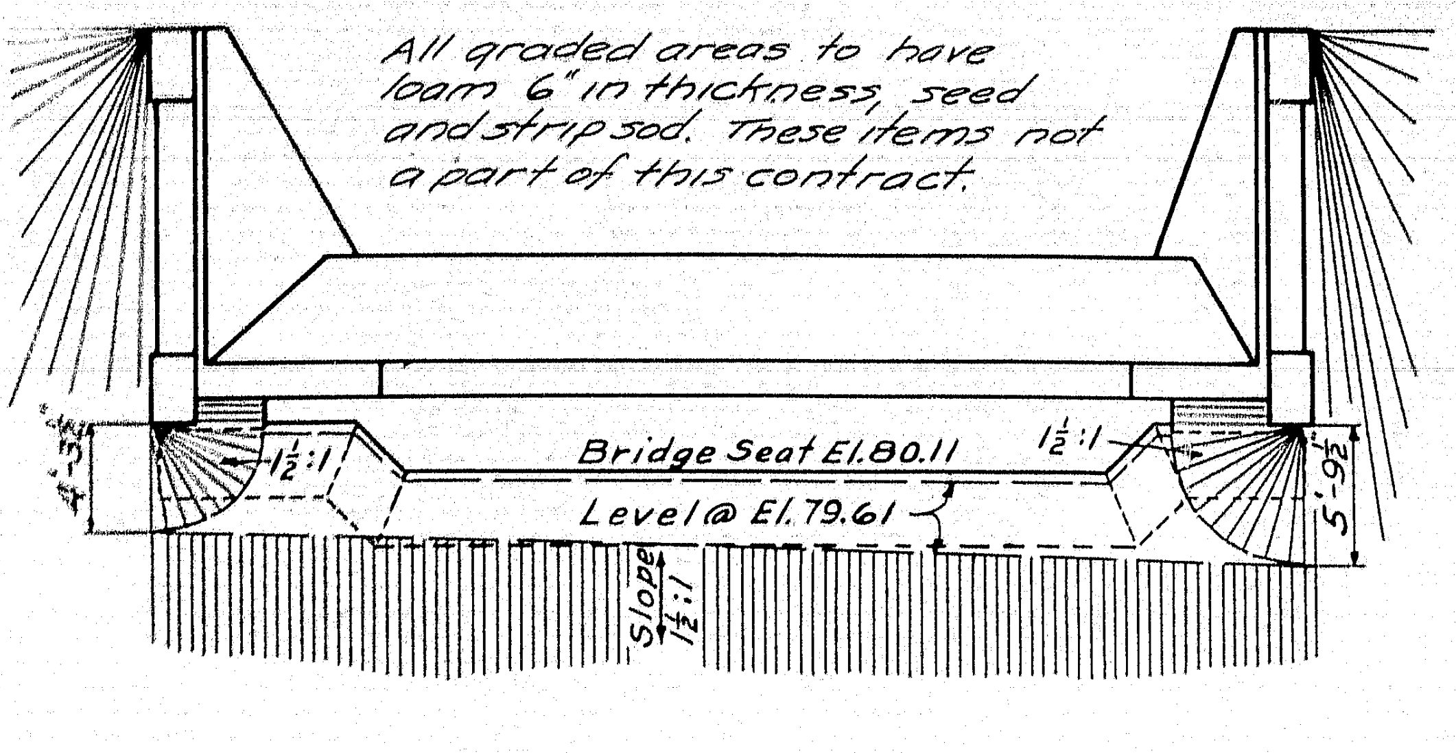
D
D
B
B
A
A
C
C
16'-6"
Batter 5"/ft.
℄ Br'g Sta. 121+46.41 Radial
Batter 4½"/ft.
℄ Abutment
9'-3¾"
12'-3¾"
Note: Shaded areas for bearing plates to be dressed 1" larger all around, to exact elevation shown.

PLAN



NOTE: Place gravel borrow from abutment backwall to end of retaining walls, and from elev. 72.61 to sub base.

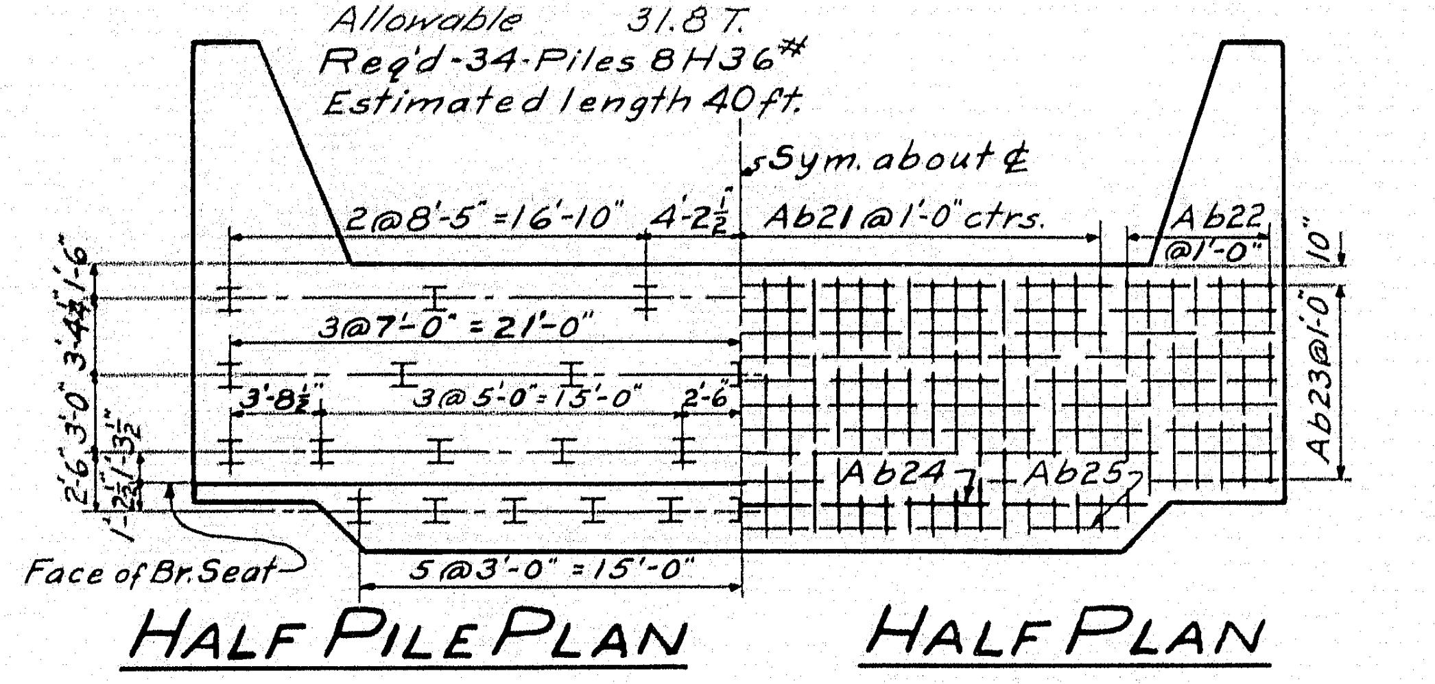
REAR ELEVATION



All graded areas to have loam 6" in thickness, seed and strip sod. These items not a part of this contract.

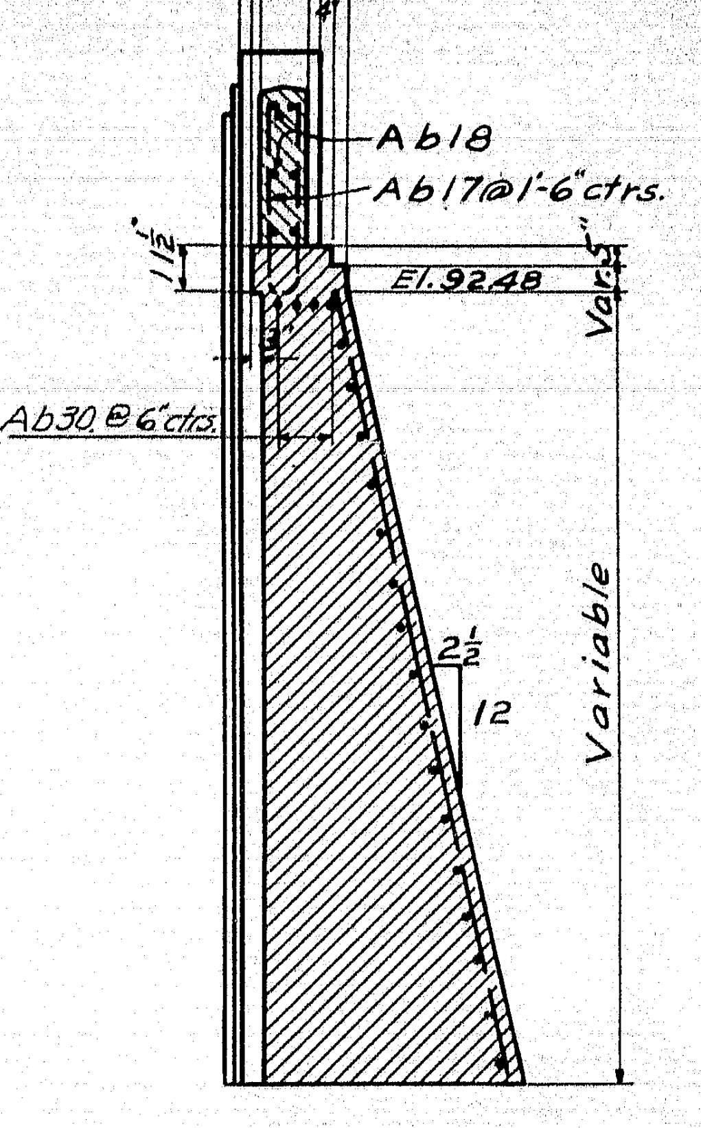
GRADING PLAN

Max. Pile load 30.3 T.
Allowable 31.8 T.
Req'd-34-Piles 8H36#
Estimated length 40 ft.

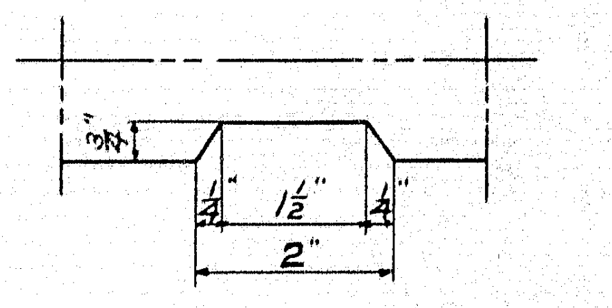


HALF PILE PLAN

HALF PLAN REIN. STEEL OVER PILES

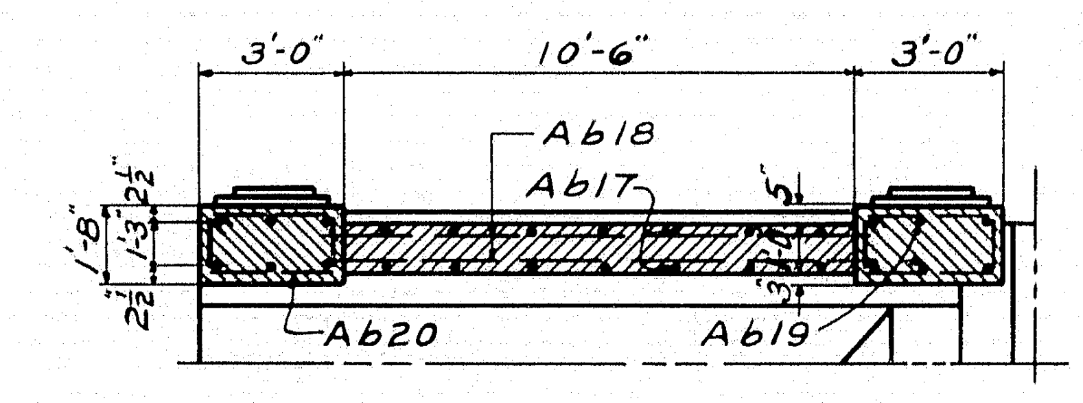


SECTION B-B



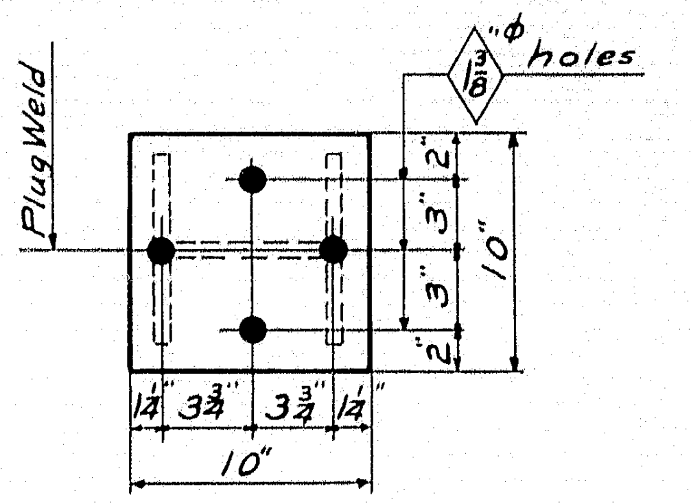
Inside face of Rail

GROOVE DETAIL



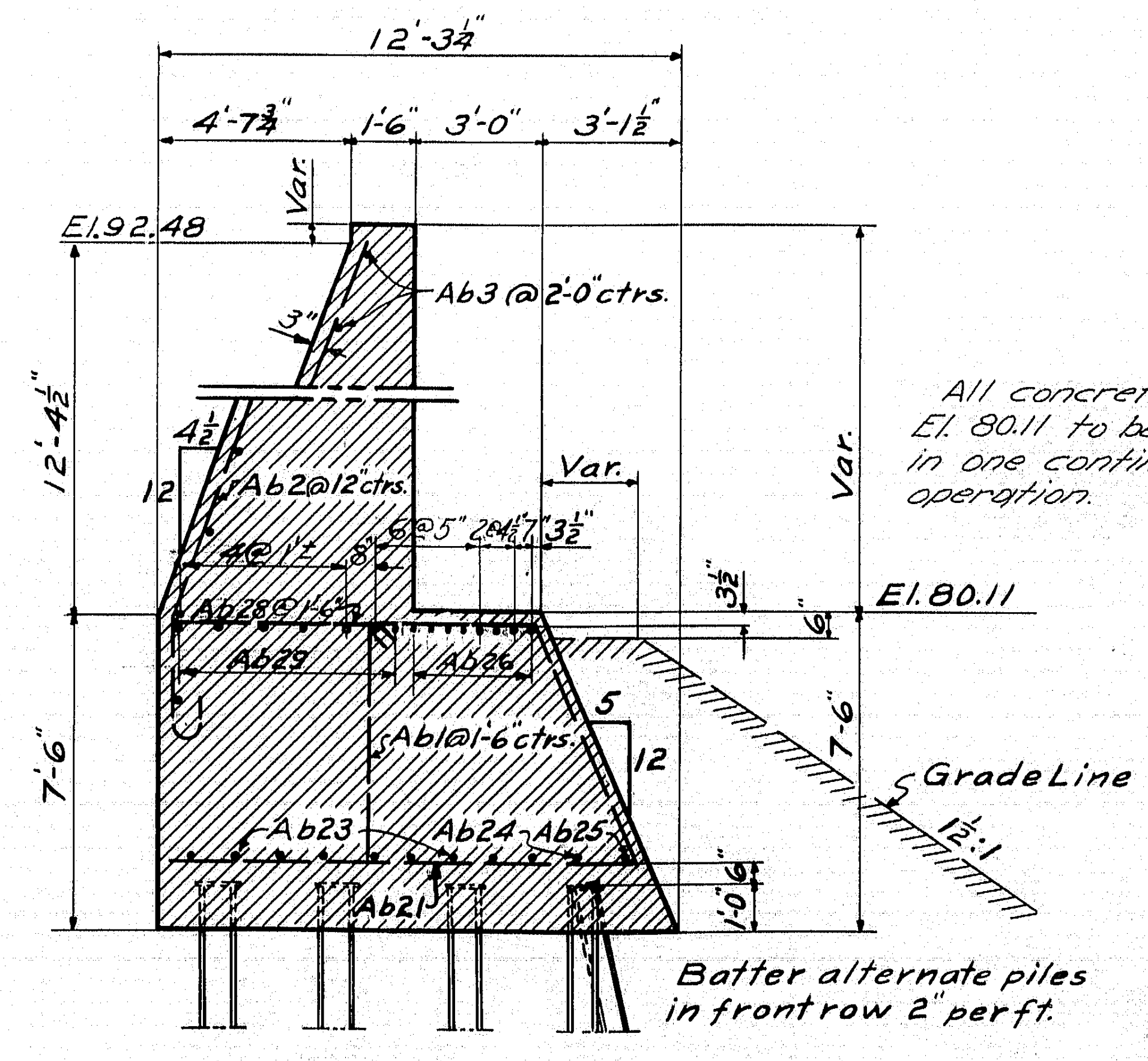
SECTION E-E

Note: Concrete in Posts & Rails above Sidewalk to be paid for as "Concrete in Abutments" Item #56



PILE CAP

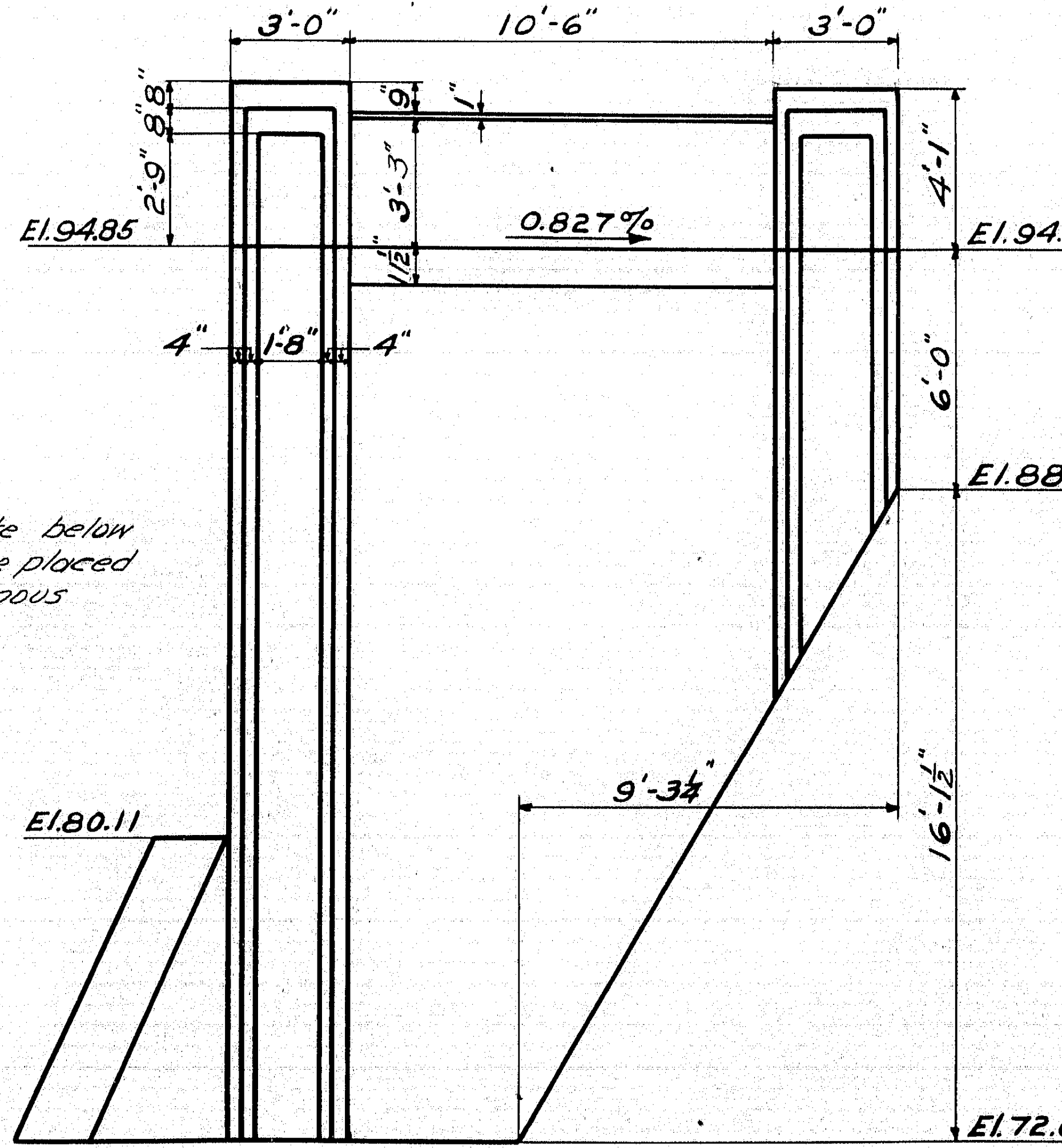
34-Req'd 10×¾×0'-10"



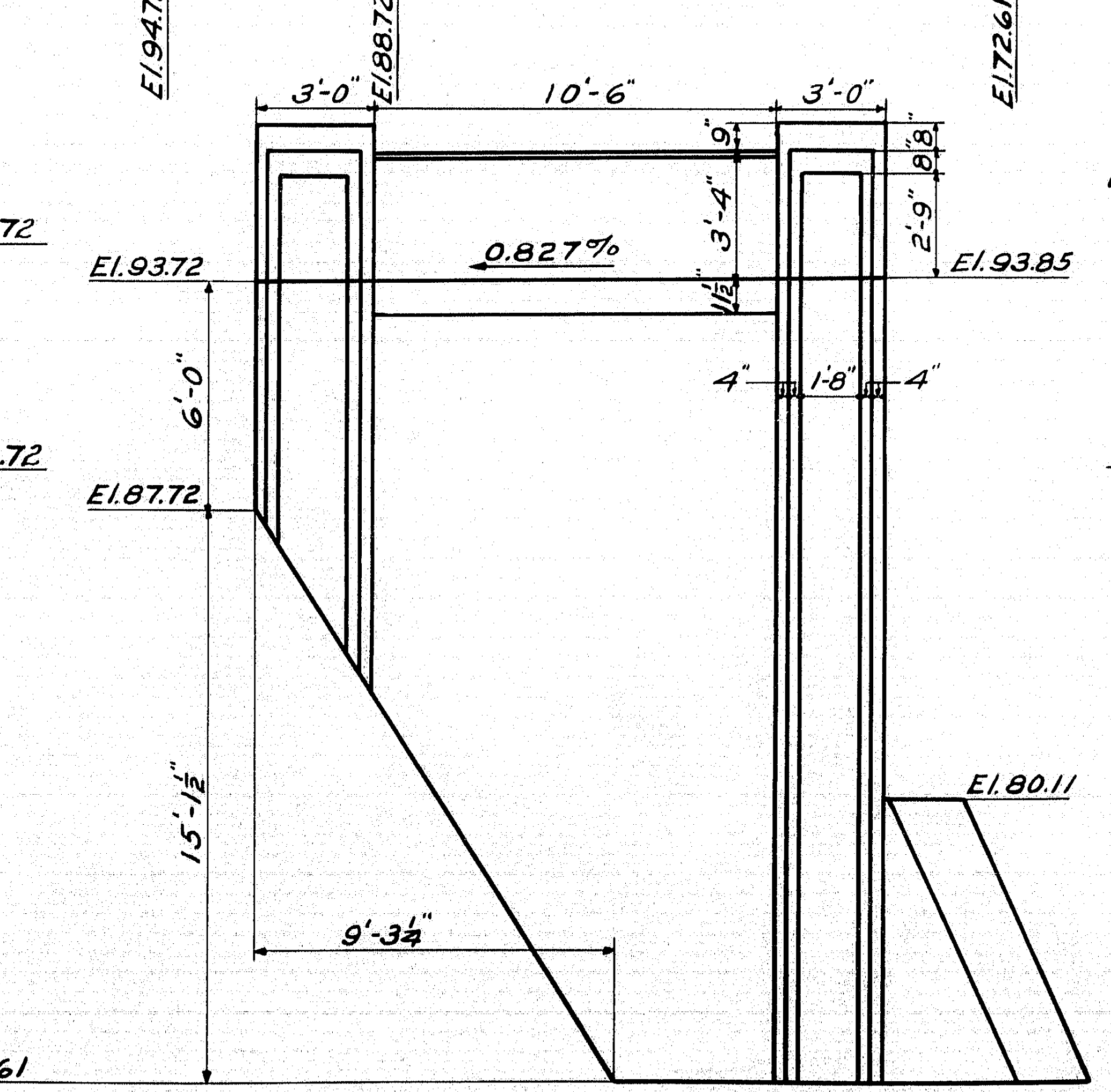
All concrete below El. 80.11 to be placed in one continuous operation.

Batter alternate piles in front row 2" per ft.

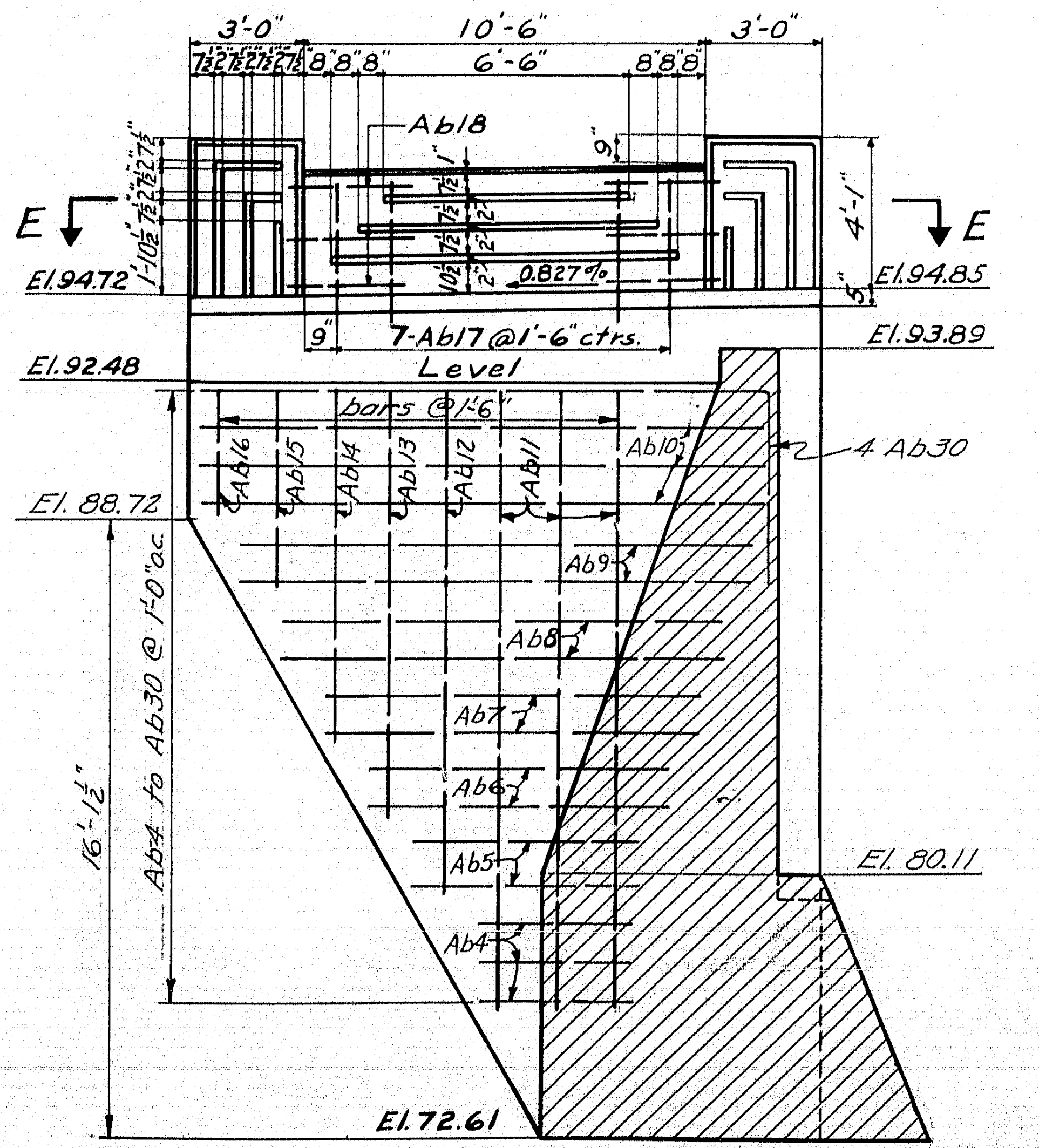
SECTION A-A



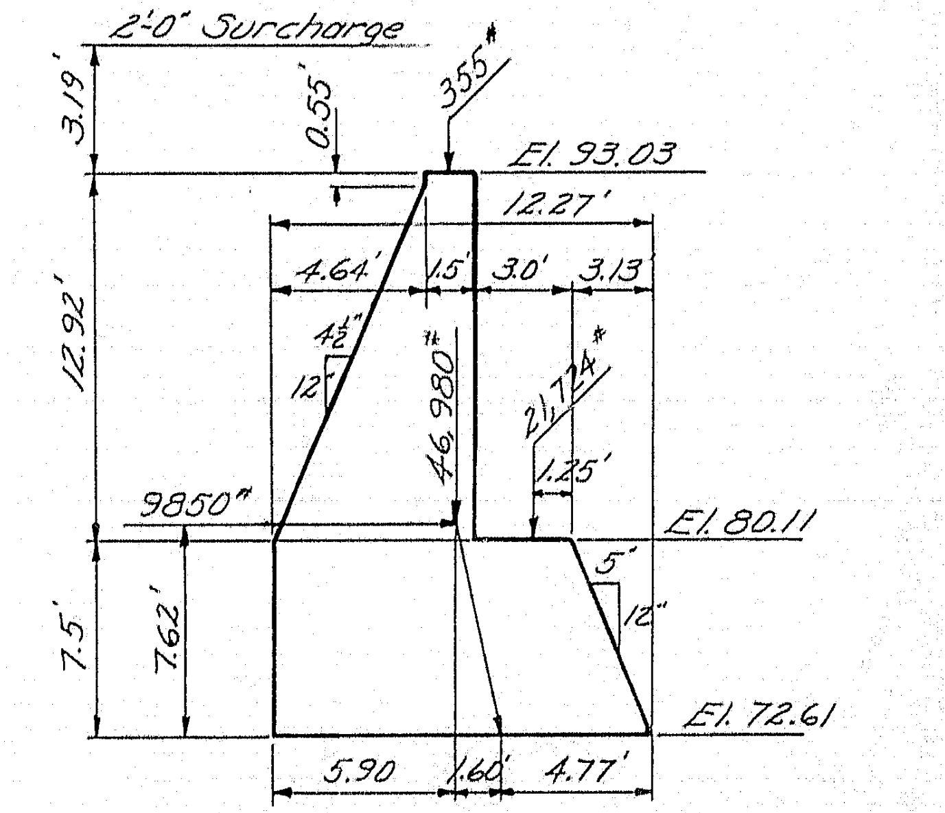
SIDE ELEVATION



SIDE ELEVATION D-D



SECTION C-C (OPP. RAIL SIMILAR)



ABUT. ANALYSIS

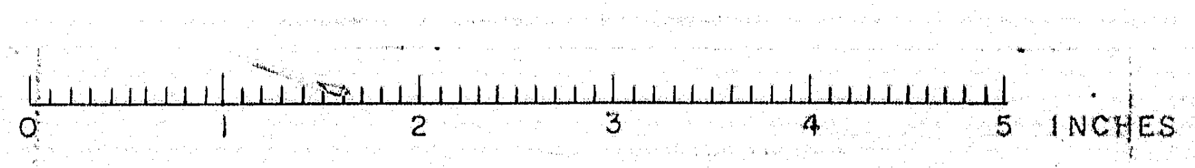
DESIGN - STANGEL TRACE - WHITE
DETAIL - " CHECK - GAA

BRIDGE - 5196

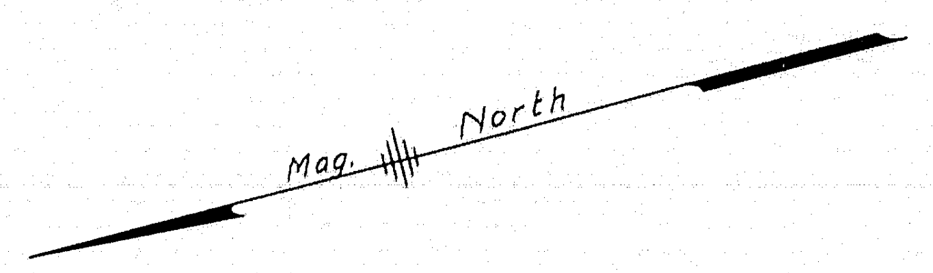
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
ABUTMENT NO. 2
SHEET 23 OF 45 AUGUSTA, MAINE FEB. 1948

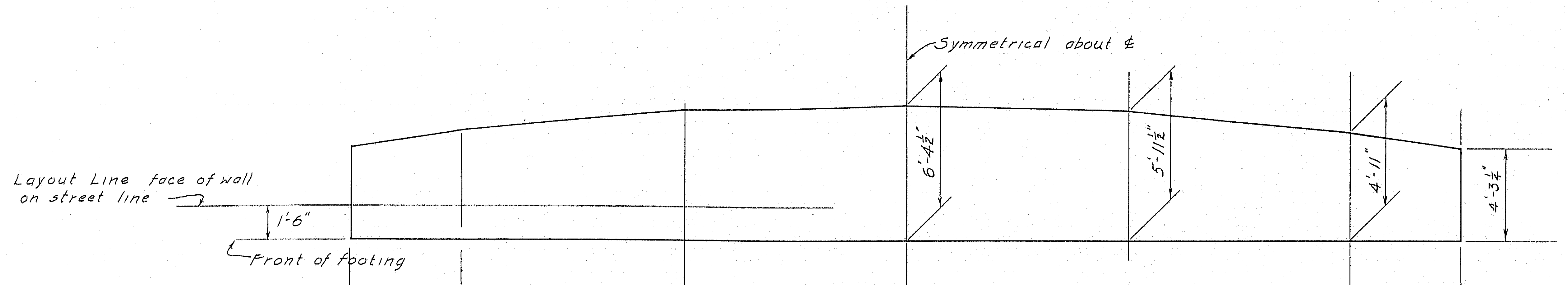
Revised 8-19-48 opening for P.U. down stream side.
" 9-30-48 " " " up " "

52-23

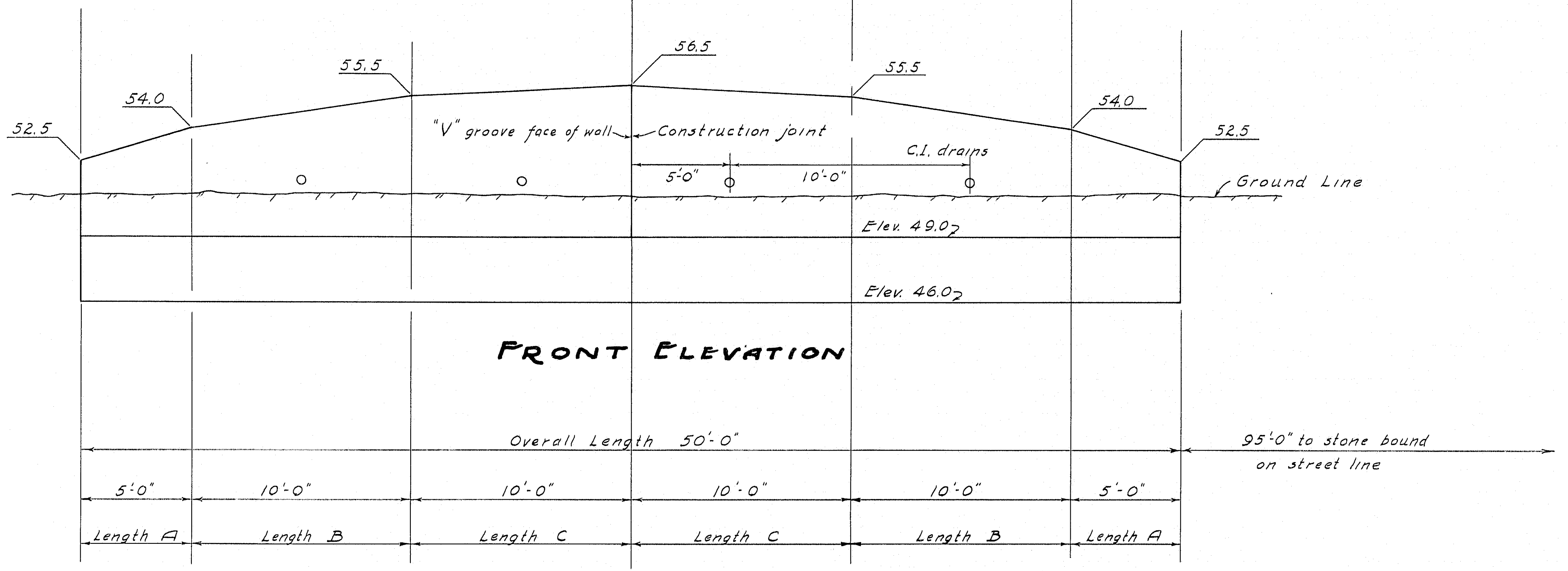


F. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI, UI-389(2)	24	45

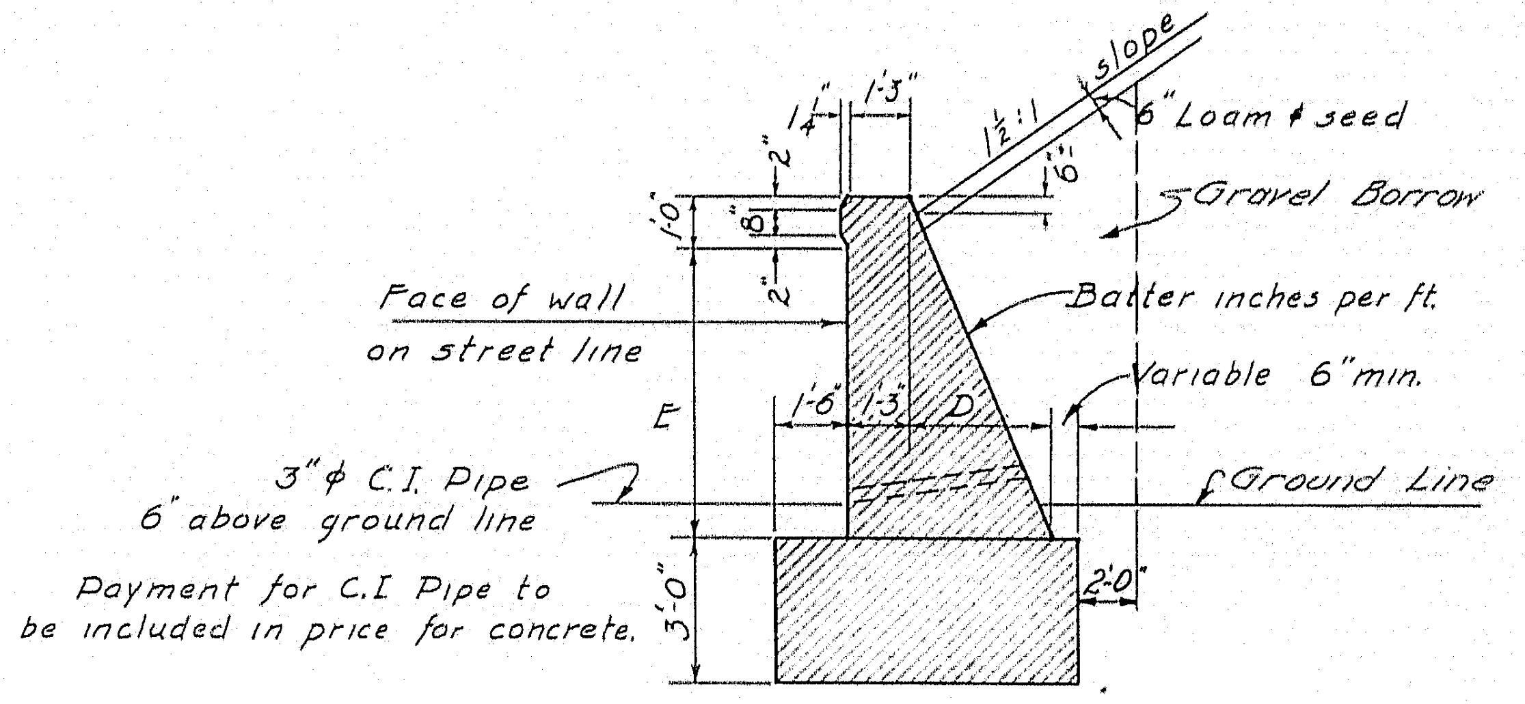




FOOTING PLAN

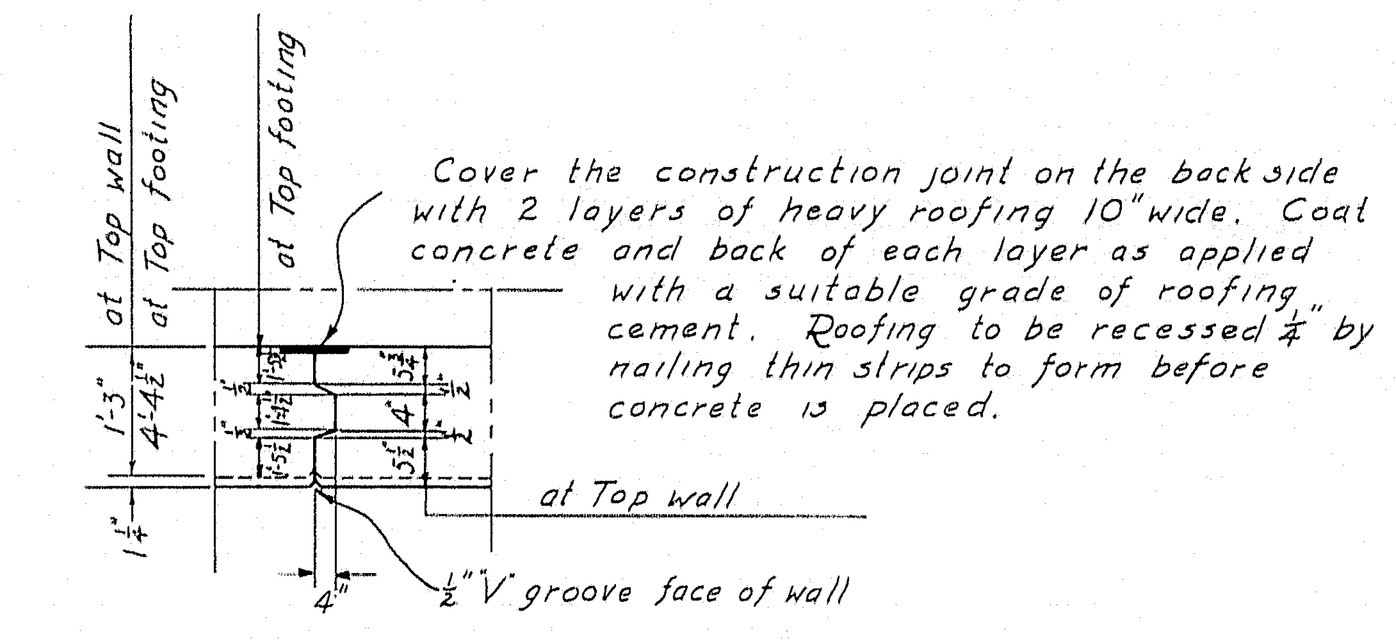


FRONT ELEVATION



Payment for C.I. Pipe to be included in price for concrete.

TYPICAL SECTION



Cover the construction joint on the back side with 2 layers of heavy roofing 10" wide. Coat concrete and back of each layer as applied with a suitable grade of roofing cement. Roofing to be recessed ¼" by nailing thin strips to form before concrete is placed.

DETAIL CONSTRUCTION JOINT

SCHEDULE of DIMENSIONS

Length	Batter	D	E
A	3½"	1'-0¼" to 1'-5½"	2'-6" to 4'-0"
B	4"	1'-8" to 2'-2"	4'-0" to 5'-6"
C	5"	2'-8½" to 3'-1½"	5'-6" to 6'-6"

DESIGN - EVERETT TRACE - FORTIER
DETAIL - " CHECK - G.W.S.
BRIDGE - 5196

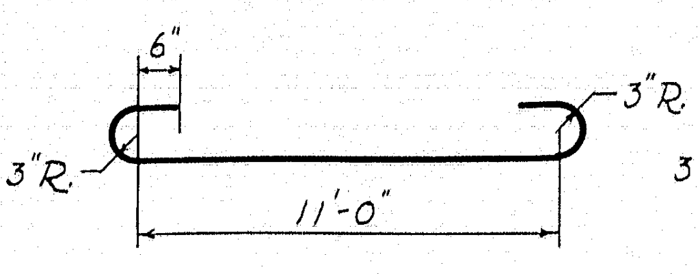
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
ARSENAL STREET RETAINING WALL
SHEET 24 OF 45 AUGUSTA, MAINE FEB. 1948

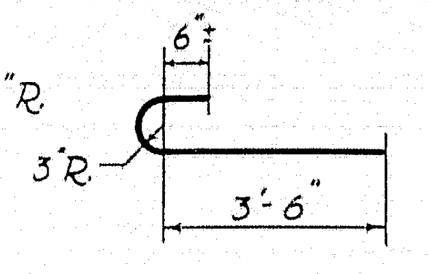
52-24

P.R.A DIV NO	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	[illegible]	25	45

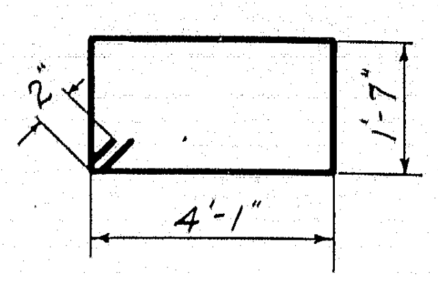
PIER No. 1



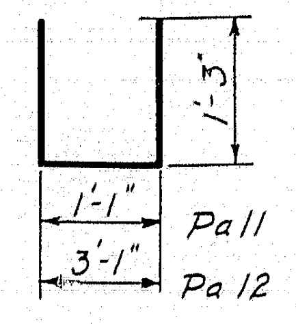
Pa 1



Pa 7



Pa 10



Pa 11
Pa 12

BENT BARS

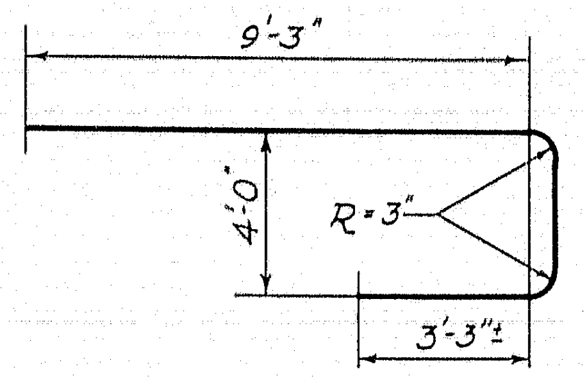
Mark	Size	No.	Length	Location
Pa 1	¾"φ	84	13'-7"	Footing
Pa 7	⅝"φ	32	4'-9"	Pier Cap
Pa 10	⅜"φ	26	11'-8"	" Column
Pa 11	⅜"φ	40	3'-7"	" "
Pa 12	⅜"φ	20	5'-7"	" "

STRAIGHT BARS

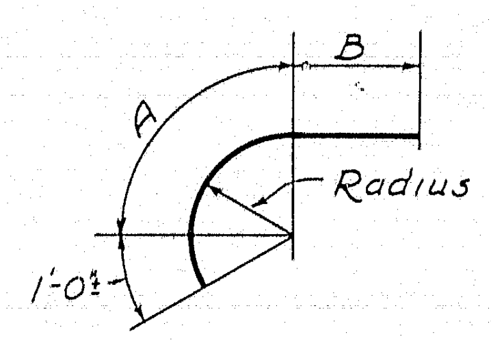
Mark	Size	No.	Length	Location
Pa 2	½"φ	12	8'-6"	Pier Shaft
Pa 3	½"φ	12	9'-2"	" "
Pa 4	½"φ	68	8'-6"	" "
Pa 5	¾"φ	34	9'-6"	" Cap
Pa 6	¾"φ	32	9'-0"	" "
Pa 8	½"φ	22	14'-0"	" Column
Pa 9	⅝"φ	32	20'-6"	" "

✓ G.W.S.

PIER No. 2



Pb 1



Pb 2 to Pb 26

BENT BARS

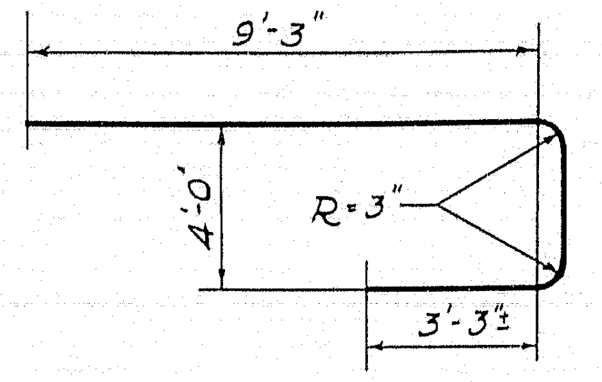
Mark	Size	No.	Radius	A	B	Length	Location	Mark	Size	No.	Radius	A	B	Length	Location
Pb 1	¾"φ	26	—	—	—	16'-9"	Under bearing areas	Pb 16	½"φ	2	8'-10"	13'-10½"	2'-8"	17'-6"	Pier Shaft (hor. bars)
Pb 2	½"φ	4	8'-7"	13'-6"	2'-0"	16'-6"	Pier Shaft (hor. bars)	Pb 17	"	2	8'-11½"	14'-1"	3'-0"	18'-1"	" " "
Pb 3	"	2	8'-8½"	13'-8¼"	"	16'-8"	" " "	Pb 18	"	2	9'-1"	14'-3"	3'-4"	18'-7"	" " "
Pb 4	"	2	8'-10"	13'-10½"	"	16'-10"	" " "	Pb 19	"	2	9'-2½"	14'-5½"	3'-8"	19'-1"	" " "
Pb 5	"	2	8'-11½"	14'-1"	"	17'-1"	" " "	Pb 20	"	2	9'-4"	14'-8"	4'-0"	19'-8"	" " "
Pb 6	"	2	9'-1"	14'-3"	"	17'-3"	" " "	Pb 21	"	2	9'-5½"	14'-10¼"	4'-4"	20'-2"	" " "
Pb 7	"	2	9'-2½"	14'-5½"	"	17'-5"	" " "	Pb 22	"	2	9'-7"	15'-0½"	4'-8"	20'-8"	" " "
Pb 8	"	2	9'-4"	14'-8"	"	17'-8"	" " "	Pb 23	"	2	9'-8½"	15'-3"	5'-0"	21'-3"	" " "
Pb 9	"	2	9'-5½"	14'-10¼"	"	17'-10"	" " "	Pb 24	"	2	9'-10"	15'-5¼"	5'-4"	21'-9"	" " "
Pb 10	"	2	9'-7"	15'-0½"	"	18'-0"	" " "	Pb 25	"	2	9'-11½"	15'-7¾"	5'-8"	22'-4"	" " "
Pb 11	"	2	9'-8½"	15'-3"	"	18'-3"	" " "	Pb 26	"	2	10'-1"	15'-10¼"	6'-0"	22'-10"	" " "
Pb 12	"	2	9'-10"	15'-5¼"	"	18'-5"	" " "								
Pb 13	"	2	9'-11½"	15'-7¾"	"	18'-8"	" " "								
Pb 14	"	2	10'-1"	15'-10¼"	2'-0"	18'-10"	" " "								
Pb 15	"	2	8'-8½"	13'-8¼"	2'-4"	17'-0"	" " "								

STRAIGHT BARS

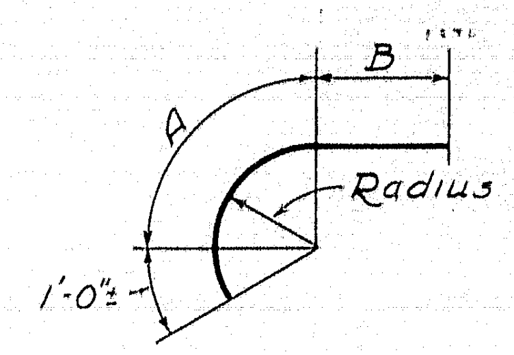
Mark	Size	No.	Length	Location
Pb 27	¾"φ	36	12'-6"	Under bearing areas
Pb 28	"	72	38'-0"	Pier Shaft (vert. bars)
Pb 29	½"φ	26	21'-11"	" " (hor. bars)

✓ CAB

PIER No. 3



Pc 1



Pc 2 to Pc 28

BENT BARS

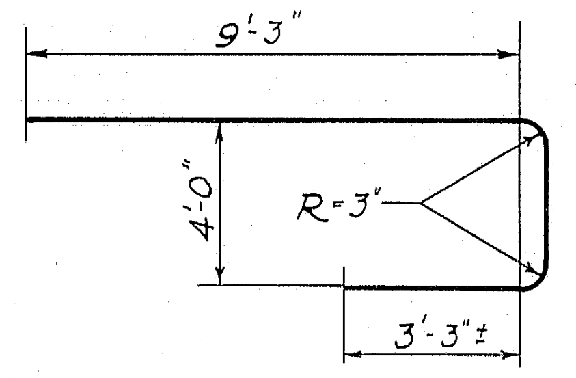
Mark	Size	No.	Radius	A	B	Length	Location	Mark	Size	No.	Radius	A	B	Length	Location
Pc 1	¾"φ	26	—	—	—	16'-9"	Under bearing areas	Pc 17	½"φ	2	8'-10"	13'-10½"	2'-8"	17'-6"	Pier Shaft (hor. bars)
Pc 2	½"φ	4	8'-7"	13'-6"	2'-0"	16'-6"	Pier Shaft (hor. bars)	Pc 18	"	2	8'-11½"	14'-1"	3'-0"	18'-1"	" " "
Pc 3	"	2	8'-8½"	13'-8¼"	"	16'-8"	" " "	Pc 19	"	2	9'-1"	14'-3"	3'-4"	18'-7"	" " "
Pc 4	"	2	8'-10"	13'-10½"	"	16-10"	" " "	Pc 20	"	2	9'-2½"	14'-5½"	3'-8"	19'-1"	" " "
Pc 5	"	2	8'-11½"	14'-1"	"	17'-1"	" " "	Pc 21	"	2	9'-4"	14'-8"	4'-0"	19'-8"	" " "
Pc 6	"	2	9'-1"	14'-3"	"	17'-3"	" " "	Pc 22	"	2	9'-5½"	14'-10¼"	4'-4"	20'-2"	" " "
Pc 7	"	2	9'-2½"	14'-5½"	"	17'-5"	" " "	Pc 23	"	2	9'-7"	15'-0½"	4'-8"	20'-8"	" " "
Pc 8	"	2	9'-4"	14'-8"	"	17'-8"	" " "	Pc 24	"	2	9'-8½"	15'-3"	5'-0"	21'-3"	" " "
Pc 9	"	2	9'-5½"	14'-10¼"	"	17'-10"	" " "	Pc 25	"	2	9'-10"	15'-5¼"	5'-4"	21'-9"	" " "
Pc 10	"	2	9'-7"	15'-0½"	"	18'-0"	" " "	Pc 26	"	2	9'-11½"	15'-7¾"	5'-8"	22'-4"	" " "
Pc 11	"	2	9'-8½"	15'-3"	"	18'-3"	" " "	Pc 27	"	2	10'-1"	15'-10¼"	6'-0"	22'-10"	" " "
Pc 12	"	2	9'-10"	15'-5¼"	"	18'-5"	" " "	Pc 28	"	2	10'-2½"	16'-0½"	6'-4"	23-4"	" " "
Pc 13	"	2	9'-11½"	15'-7¾"	"	18'-8"	" " "								
Pc 14	"	2	10'-1"	15'-10¼"	"	18'-10"	" " "								
Pc 15	"	2	10'-2½"	16'-0½"	2'-0"	19-0"	" " "								
Pc 16	"	2	8'-8½"	13'-8¼"	2-4"	17-0"	" " "								

STRAIGHT BARS

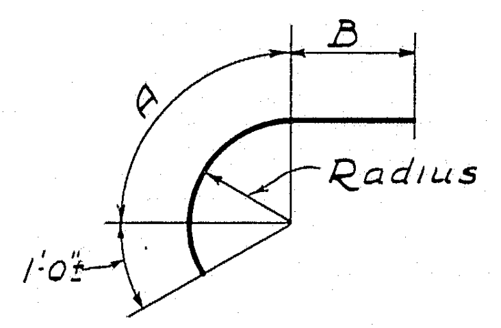
Mark	Size	No.	Length	Location
Pc 29	¾"φ	36	12'-6"	Under bearing areas
Pc 30	¾"φ	72	41'-0"	Pier Shaft (vert. bars)
Pc 31	½"φ	28	21'-11"	" " (hor. bars)

✓ CAB

PIER No. 4



Pd 1



Pd 2 to Pd 2

BENT BARS

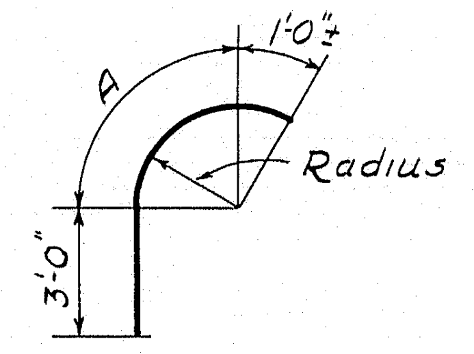
Mark	Size	No.	Radius	A	B	Length	Location	Mark	Size	No.	Radius	A	B	Length	Location
Pd 1	¾"φ	26	—	—	—	16'-9"	Under bearing areas	Pd 16	½"φ	2	8'-10"	13'-10½"	2'-8"	17'-6"	Pier Shaft (hor. bars)
Pd 2	½"φ	4	8'-7"	13'- "	2'-0"	16'-6"	Pier Shaft (hor. bars)	Pd 17	"	2	8'-11½"	14'-1"	3'-0"	18'-1"	" " "
Pd 3	"	2	8'-8½"	13'-8¼"	"	16'-8"	" " "	Pd 18	"	2	9'-1"	14'-3"	3'-4"	18'-7"	" " "
Pd 4	"	2	8'-10"	13'-10½"	"	16'-10"	" " "	Pd 19	"	2	9'-2½"	14'-5½"	3'-8"	19'-1"	" " "
Pd 5	"	2	8'-11½"	14'-1"	"	17'-1"	" " "	Pd 20	"	2	9'-4"	14'-8"	4'-0"	19'-8"	" " "
Pd 6	"	2	9'-1"	14'-3"	"	17'-3"	" " "	Pd 21	"	2	9'-5½"	14'-10¼"	4'-4"	20'-2"	" " "
Pd 7	"	2	9'-2½"	14'-5½"	"	17'-5½"	" " "	Pd 22	"	2	9'-7"	15'-0½"	4'-8"	20'-8"	" " "
Pd 8	"	2	9'-4"	14'-8"	"	17'-8"	" " "	Pd 23	"	2	9'-8½"	15'-3"	5'-0"	21'-3"	" " "
Pd 9	"	2	9'-5½"	14'-10¼"	"	17'-10"	" " "	Pd 24	"	2	9'-10"	15'-5¼"	5'-4"	21'-9"	" " "
Pd 10	"	2	9'-7"	15'-0½"	"	18'-0"	" " "	Pd 25	"	2	9'-11½"	15'-7¾"	5'-8"	22'-4"	" " "
Pd 11	"	2	9'-8½"	15'-3"	"	18'-3"	" " "	Pd 26	"	2	10'-1"	15'-10¼"	6'-0"	22'-10"	" " "
Pd 12	"	2	9'-10"	15'-5¼"	"	18'-5"	" " "								
Pd 13	"	2	9'-11½"	15'-7¾"	"	18'-8"	" " "								
Pd 14	"	2	10'-1"	15'-10¼"	2'-0"	18'-10"	" " "								
Pd 15	"	2	8'-8½"	13'-8¼"	2'-4"	17'-0"	" " "								

STRAIGHT BARS

Mark	Size	No.	Length	Location
Pd 27	¾"φ	36	12'-6"	Under bearing areas
Pd 28	"	72	38'-0"	Pier Shaft (vert. bars)
Pd 29	½"φ	26	21'-11"	" " (hor. bars)

✓ CAB

PIER No. 5



Pe 5 to Pe 12

BENT BARS

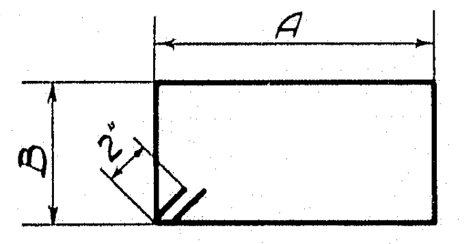
Mark	Size	No.	Radius	A	Length	Location
Pe 5	½"φ	4	4'-6½"	7'-1½"	11'-1"	Pier Shaft (hor. bars)
Pe 6	"	4	4'-8"	7'-4"	11'-4"	" " "
Pe 7	"	4	4'-9½"	7'-6¼"	11'-6"	" " "
Pe 8	"	4	4'-11"	7'-8½"	11'-8"	" " "
Pe 9	"	4	5'-0½"	7'-11"	11'-11"	" " "
Pe 10	"	4	5'-2"	8'-1¼"	12'-1"	" " "
Pe 11	"	4	5'-3½"	8'-3¾"	12'-4"	" " "
Pe 12	"	4	5'-5"	8'-9"	12'-9"	" " "

✓ CAB

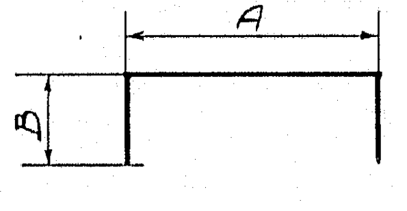
STRAIGHT BARS

Mark	Size	No.	Length	Location	Mark	Size	No.	Length	Location
Pe 1	¾"φ	32	15'-8"	Footing	Pe 18	¾"φ	4	21'-4"	Footing (splice)
Pe 2	"	12	21'-9"	" (Splice)	Pe 19	"	2	13'-6"	"
Pe 3	"	52	23'-7"	Pier Shaft (vert. bars)	Pe 20	"	2	11'-6"	"
Pe 4	"	52	6'-0"	Dowels in footing	Pe 21	"	2	9'-6"	"
Pe 13	½"φ	16	23'-6"	Pier Shaft (hor. bars)	Pe 22	"	2	7'-6"	"
Pe 14	¾"φ	4	17'-5"	Footing (splice)	Pe 23	"	2	5'-6"	"
Pe 15	"	4	18'-5"	" "					
Pe 16	"	4	19'-4"	" "					
Pe 17	"	4	20'-5"	" "					

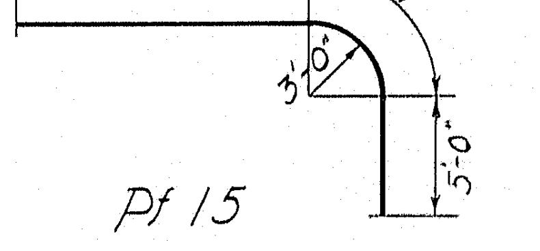
PIER No. 6



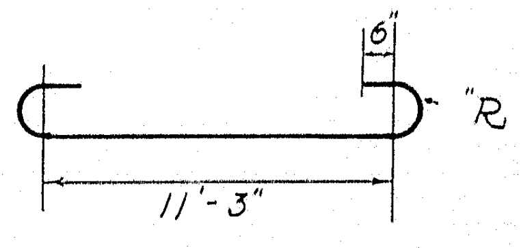
Pf 5, Pf 6, Pf 9
Pf 17 to Pf 27



Pf 7, Pf 10



Pf 15



Pf 33

BENT BARS

Mark	Size	No.	A	B	Length	Location	Mark	Size	No.	A	B	Length	Location
Pf 5	½"φ	62	5'-4½"	5'-1½"	21'-4"	Pier Columns	Pf 21	½"φ	2	2'-4⅞"	2'-5½"	10'-1"	Pier Strut
Pf 6	"	36	5'-1½"	1'-1½"	12'-10"	" "	Pf 22	"	2	2'-6⅞"	"	10'-5"	" "
Pf 9	"	22	5'-4½"	1'-10½"	14'-10"	" "	Pf 23	"	2	2'-9⅜"	"	10'-10"	" "
Pf 7	"	64	4'-1½"	1'-6"	7'-1"	" "	Pf 24	"	2	3'-0¼"	"	11'-3"	" "
Pf 10	"	64	4'-4½"	1'-6"	7'-4"	" "	Pf 25	"	2	3'-3⅝"	"	11'-10"	" "
Pf 15	1"■	16	—	—	24'-8"	" Strut	Pf 26	"	2	3'-7½"	"	12'-6"	" "
Pf 17	½"φ	1	2'-1½"	2'-5½"	9'-6"	" "	Pf 27	"	2	4'-0"	"	13'-3"	" "
Pf 18	"	2	2'-1⅜"	"	9'-6"	" "	Pf 33	1"■	18			15'-5"	Footing
Pf 19	"	2	2'-2¼"	"	9'-7"	" "							
Pf 20	"	2	2'-3⅜"	"	9'-10"	" "							

✓ CAB

STRAIGHT BARS

Mark	Size	No.	Length	Location
Pf 1	1"■	80	15'-0"	Pier Shaft to Column
Pf 2	1"φ	80	26'-6"	Pier Column
Pf 3	"	68	18'-0"	" "
Pf 4	"	24	15'-0"	" "
Pf 8	¾"φ	32	30'-0"	" "
Pf 11	"	28	10'-6"	Column Base
Pf 12	"	16	6'-6"	" "
Pf 13	"	46	17'-0"	Pier Shaft
Pf 14	½"φ	12	34'-0"	" "
Pf 16	1"■	8	34-0"	" Strut
Pf 28	¾"φ	14	4'-6"	Br. Seat
Pf 29	"	18	3'-6"	" "
Pf 30	1"■	46	4'-0"	Footing (Top)
Pf 31	¾"φ	37	13'-0"	"
Pf 32	"	26	25'-6"	"

NOTE: All dimensions to ℄ steel.

PLAN - WHITE
TRACE - FORTIER
CHECK - as noted.

BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

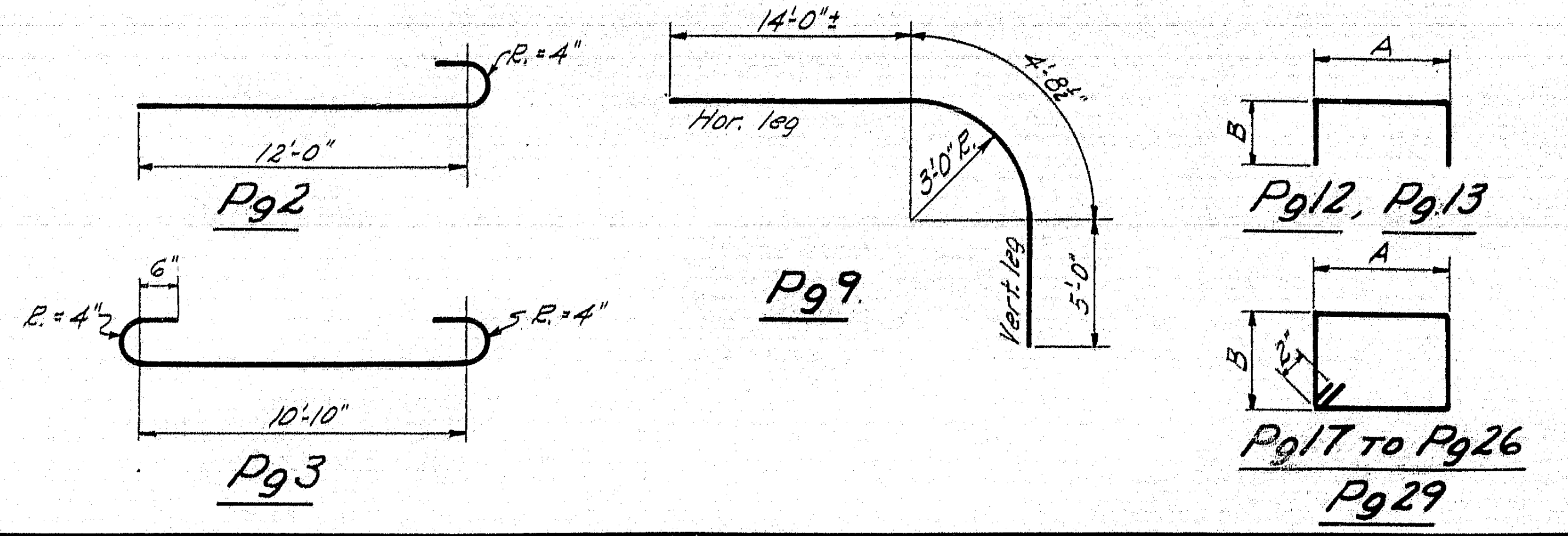
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
REINF. STEEL - PIERS 1 TO 6
SHEET 25 OF 45 AUGUSTA, MAINE FEB. 1948

52-25

0 1 2 3 4 5 INCHES

P. R. A. DIV NO	STATE	FED/AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI, UI-369(2)	26	45

PIER No. 7



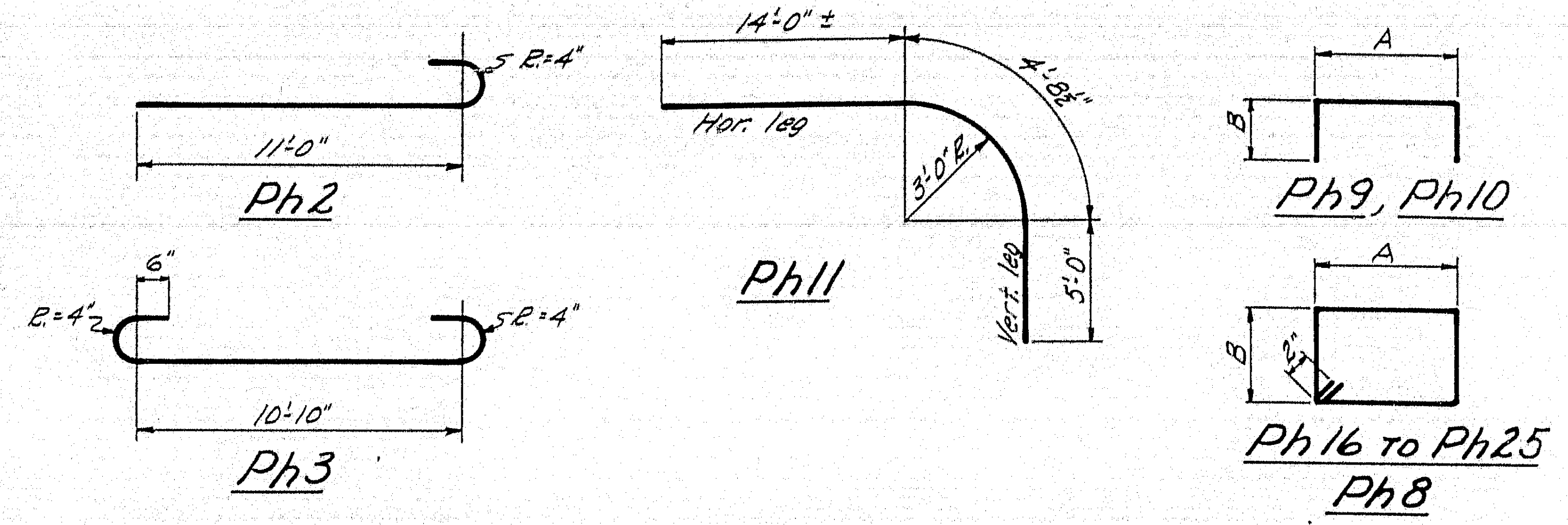
STRAIGHT BARS

MARK	SIZE	No.	LENGTH	LOCATION
Pg1	1"■	8	6'-0"	Footing
Pg4	1¼"■	44	12'-0"	Column
Pg5	1¼"■	44	27'-0"	"
Pg7	1¼"■	56	33'-0"	"
Pg8	¾"φ	64	25'-0"	"
Pg11	1¼"■	16	32'-0"	Strut to Column
Pg15	1¼"■	32	22'-0"	Column
Pg16	¾"φ	38	4'-6"	" (Top)
Pg27	¾"φ	26	9'-6"	" (Base)
Pg28	¾"φ	16	5'-6"	" "

BENT BARS

MARK	SIZE	No.	A	B	LENGTH	LOCATION
Pg2	1¼"■	88	—	—	13'-6"	Footing to Columns
Pg3	1"■	76	—	—	14'-0"	Footing
Pg9	1¼"■	32	—	—	23'-8"	Strut to Column
Pg12	½"φ	96	3'-2¼"	1'-6"	6'-2"	Columns
Pg13	"	96	3'-8¼"	1'-6"	6'-8"	"
Pg17	"	2	"	3'-2¼"	14'-1"	Strut
Pg18	"	2	"	3'-3"	14'-2"	"
Pg19	"	2	"	3'-4"	14'-4"	"
Pg20	"	2	"	3'-5¼"	14'-7"	"
Pg21	"	2	"	3'-7¼"	14'-11"	"
Pg22	"	2	"	3'-9½"	15'-3"	"
Pg23	"	2	"	4'-0¼"	15'-9"	"
Pg24	"	2	"	4'-3⅝"	16'-4"	"
Pg25	"	2	"	4'-7⅜"	16'-11"	"
Pg26	"	2	3'-8¼"	4'-11¾"	17'-8"	Strut
Pg29	½"φ	112	4'-8¼"	4'-2¼"	18'-1"	Columns

PIER No. 8



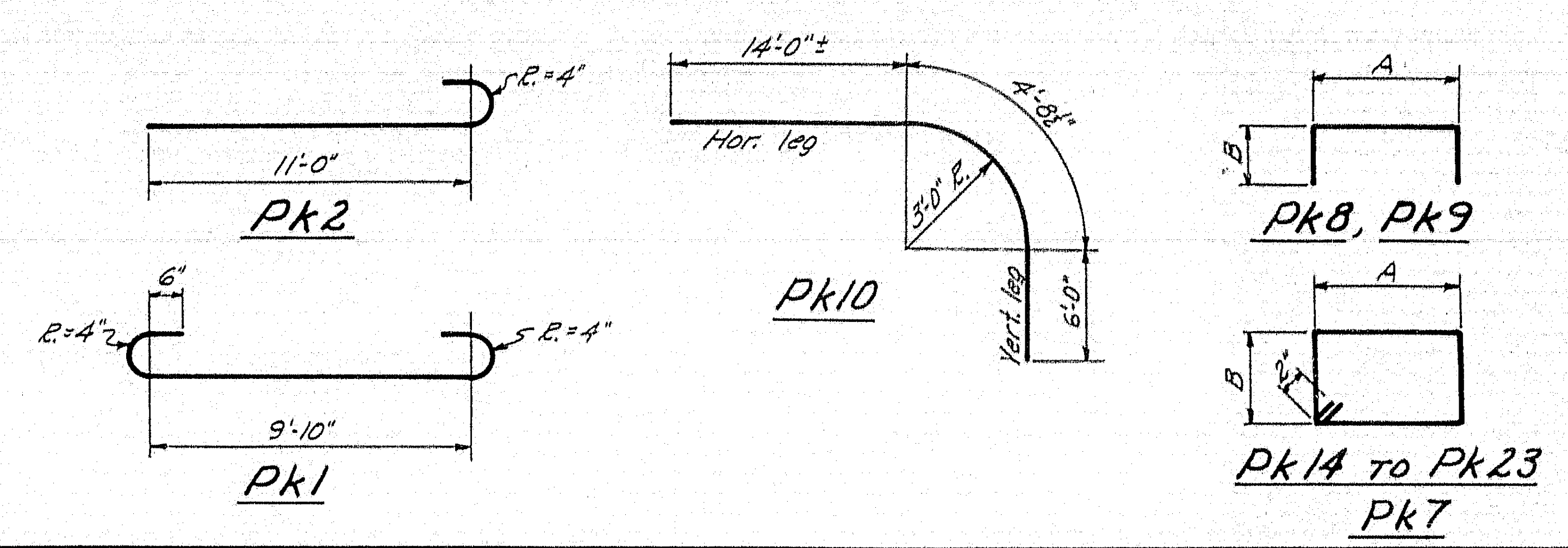
STRAIGHT BARS

MARK	SIZE	No.	LENGTH	LOCATION
Ph1	1"■	8	6'-0"	Footing
Ph4	¾"φ	26	9'-6"	Column Base
Ph5	¾"φ	16	5'-6"	" "
Ph6	1"■	136	22'-0"	Column
Ph7	¾"φ	32	31'-0"	"
Ph13	1⅛"■	16	32'-0"	Strut to Column
Ph14	1⅛"■	32	20'-0"	Column
Ph15	¾"φ	38	4'-6"	" (Top)

BENT BARS

MARK	SIZE	No.	A	B	LENGTH	LOCATION
Ph2	1"■	68	—	—	12'-6"	Footing to Column
Ph3	1"■	76	—	—	14'-0"	Footing
Ph8	½"φ	80	4'-8¼"	4'-2¼"	18'-1"	Columns
Ph9	½"φ	64	3'-2¼"	1'-6"	6'-2"	"
Ph10	½"φ	64	3'-8¼"	1'-6"	6'-8"	"
Ph11	1⅛"■	32	—	—	23'-8"	Strut to Column
Ph16	½"φ	2	3'-8¼"	3'-2¼"	14'-1"	Strut
Ph17	"	2	"	3'-3"	14'-2"	"
Ph18	"	2	"	3'-4"	14'-4"	"
Ph19	"	2	"	3'-5¼"	14'-7"	"
Ph20	"	2	"	3'-7¼"	14'-11"	"
Ph21	"	2	"	3'-9½"	15'-3"	"
Ph22	"	2	"	4'-0¼"	15'-9"	"
Ph23	"	2	"	4'-3⅝"	16'-4"	"
Ph24	"	2	"	4'-7⅜"	16'-11"	"
Ph25	½"φ	2	3'-8¼"	4'-11¾"	17'-8"	Strut

PIER No. 9



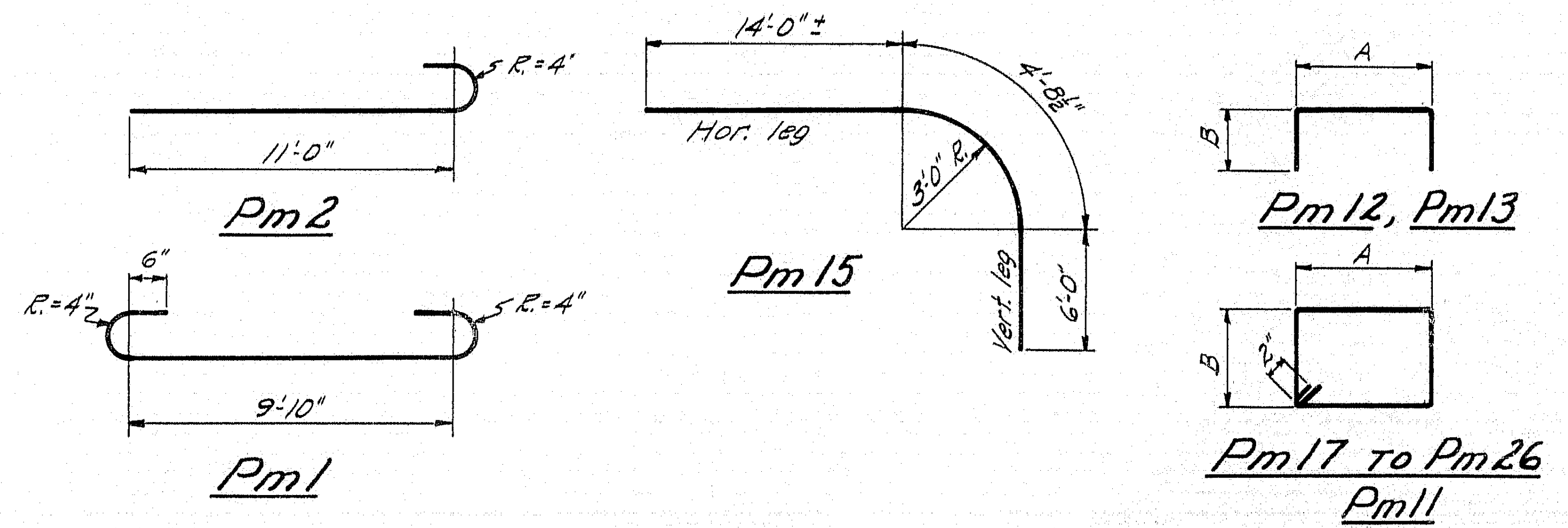
STRAIGHT BARS

MARK	SIZE	No.	LENGTH	LOCATION
Pk3	¾"φ	24	8'-6"	Column Base
Pk4	¾"φ	16	5'-6"	" "
Pk5	1"φ	68	20'-4"	Columns
Pk6	¾"φ	32	13'-6"	"
Pk11	1¼"■	8	32'-0"	Strut
Pk12	1¼"■	10	10'-0"	Columns
Pk13	¾"φ	38	4'-6"	Columns (Top)

BENT BARS

MARK	SIZE	No.	A	B	LENGTH	LOCATION
Pk1	1"■	56	—	—	13'-0"	Footing
Pk2	1"φ	68	—	—	12'-6"	Footing to Column
Pk7	½"φ	40	4'-8¼"	4'-2¼"	18'-1"	Columns
Pk8	"	28	3'-8¼"	1'-6"	6'-8"	"
Pk9	"	28	3'-2¼"	1'-6"	6'-2"	"
Pk10	1¼"■	16	—	—	24'-8"	Strut
Pk14	½"φ	2	3'-8¼"	2'-2¼"	12'-1"	"
Pk15	"	2	"	2'-3"	12'-2"	"
Pk16	"	2	"	2'-4"	12'-4"	"
Pk17	"	2	"	2'-5¼	12'-7"	"
Pk18	"	2	"	2'-7¼"	12'-11"	"
Pk19	"	2	"	2'-9½"	13'-3"	"
Pk20	"	2	"	3'-0¼"	13'-9"	"
Pk21	"	2	"	3'-3⅝"	14'-4"	"
Pk22	"	2	"	3'-7⅜"	14'-11"	"
Pk23	½"φ	2	3'-8¼"	3'-11¾"	15'-8"	Strut

PIER No. 10



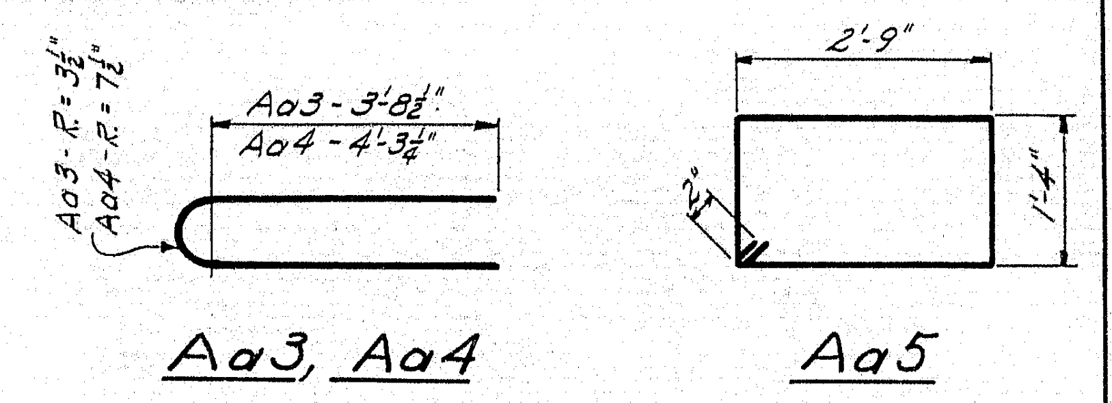
STRAIGHT BARS

MARK	SIZE	No.	LENGTH	LOCATION
Pm4	¾"φ	24	8'-6"	Column Base
Pm5	¾"φ	16	5'-6"	" "
Pm6	1"φ	34	24'-4"	Column #1
Pm7	1"φ	34	18'-4"	" #2
Pm8	¾"φ	16	17'-6"	" #1
Pm9	¾"φ	16	11'-6"	" #2
Pm10	1¼"■	10	10'-0"	" #1 & #2
Pm14	¾"φ	38	4'-6"	Columns (Top)
Pm16	1¼"■	8	32'-0"	Strut

BENT BARS

MARK	SIZE	No.	A	B	LENGTH	LOCATION
Pm1	1"■	56	—	—	13'-0"	Footing
Pm2	1"φ	68	—	—	12'-6"	Footing to Column
Pm11	½"φ	42	4'-8¼"	4'-2¼"	18'-1"	Columns
Pm12	"	30	3'-8¼"	1'-6"	6'-8"	"
Pm13	"	30	3'-2¼"	1'-6"	6'-2"	"
Pm15	1¼"■	16	—	—	24'-8"	Strut
Pm17	½"φ	2	3'-8¼"	2'-2¼"	12'-1"	"
Pm18	"	2	"	2'-3"	12'-2"	"
Pm19	"	2	"	2'-4"	12'-4"	"
Pm20	"	2	"	2'-5¼"	12'-7"	"
Pm21	"	2	"	2'-7¼"	12'-11"	"
Pm22	"	2	"	2'-9½"	13'-3"	"
Pm23	"	2	"	3'-0¼"	13'-9"	"
Pm24	"	2	"	3'-3⅝"	14'-4"	"
Pm25	"	2	"	3'-7⅜"	14'-11"	"
Pm26	½"φ	2	3'-8¼"	3'-11¾"	15'-8"	Strut

ABUTMENT No. 1



STRAIGHT BARS

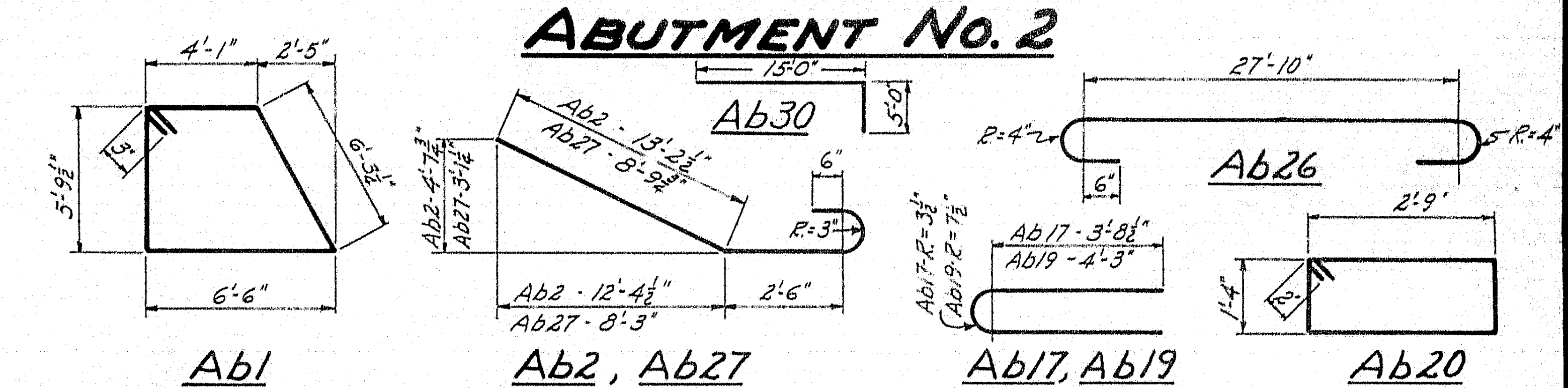
MARK	SIZE	No.	LENGTH	LOCATION
Aa1	¾"φ	12	8'-0"	Cor. Br. Wall
Aa2	½"φ	16	7'-6"	Ret. Wall Rail

BENT BARS

MARK	SIZE	No.	LENGTH	LOCATION
Aa3	⅝"φ	10	8'-4"	Ret. Wall Rail
Aa4	¾"φ	12	10'-6"	" " Post
Aa5	¼"φ	12	8'-6"	" " "

V. Hamilton

ABUTMENT No. 2



STRAIGHT BARS

MARK	SIZE	No.	LENGTH	LOCATION
Ab3	½"φ	16	24'-2"	Retaining Wall
Ab4.	¾"φ	6	4'-2"	" "
Ab5	"	4	6'-3"	" "
Ab6	"	4	8'-0"	" "
Ab7	"	4	9'-6"	" "
Ab8	"	4	11'-6"	" "
Ab9	"	4	13'-3"	" "
Ab10	"	6	15'-0"	" "
Ab11	½"φ	2	16'-6"	" "
Ab12	"	2	14'-6"	" "
Ab13	"	2	12'-6"	" "
Ab14	"	2	8'-6"	" "
Ab15	"	2	6'-6"	" "
Ab16	"	2	4'-6"	" "
Ab18	"	6	10'-3"	Rail
Ab21	¾"φ	31	11'-0"	Over Pile
Ab22	"	14	9'-0"	" " (Splice)
Ab23	"	18	24'-0"	" " "
Ab24	"	2	19'-0"	" " "
Ab25	"	2	17'-6"	" " "
Ab28	½"φ	31	5'-9"	Backwall Br. Seat

BENT BARS

MARK	SIZE	No.	LENGTH	LOCATION
Ab1	½"φ	19	23'-2"	Bridge Seat
Ab2	¾"φ	41	17'-0"	Backwall
Ab17	⅝"φ	14	8'-4"	Rail
Ab19	¾"φ	12	10'-6"	Rail Post
Ab20	½"φ	16	8'-6"	" "
Ab26	1¼"■	8	30'-11"	Bridge Seat
Ab27	¾"φ	2	12'-7"	Backwall
Ab30	¾"φ	8	20'-0"	Ret. Wall
		7-	[illegible]	[illegible]
Ab27	[illegible]	¾	[illegible]	[illegible]

Note: All dimensions to ℄ steel.

PLAN – WHITE
TRACE – CLARK
CHECK – As noted.

BRIDGE – 5196

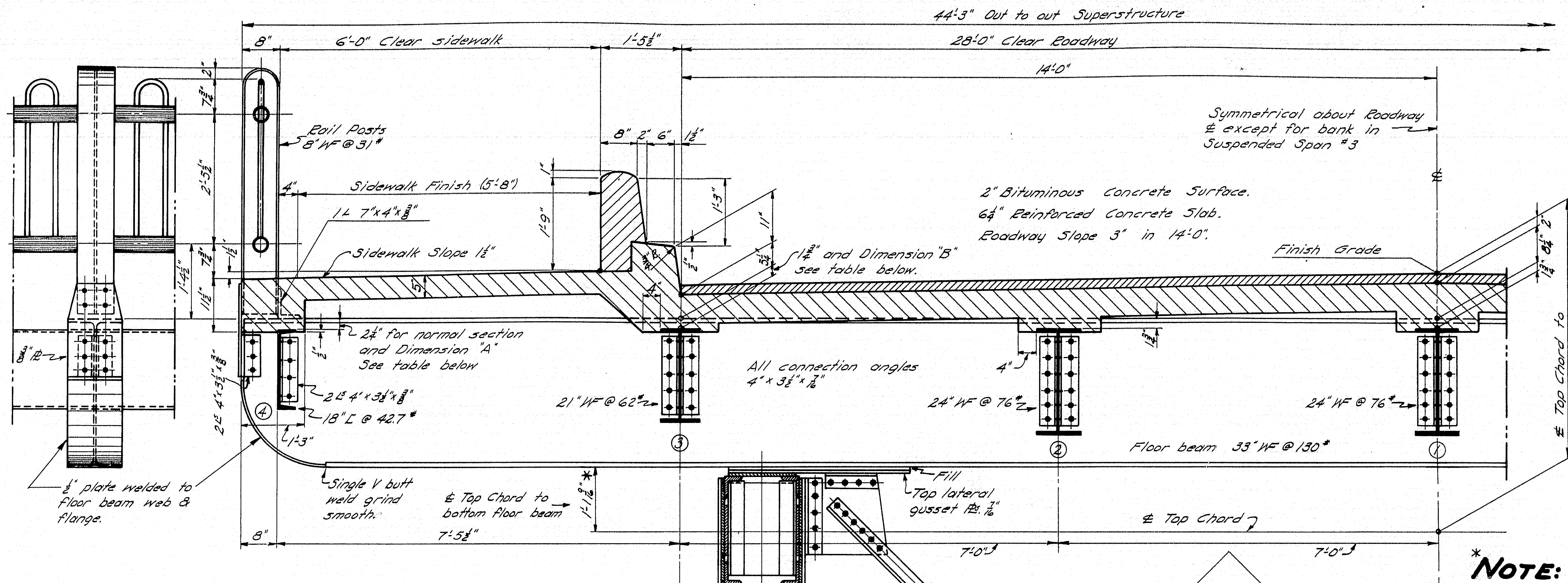
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
REINF. STEEL – ABUTS., & PIERS, 7-8-9-10
SHEET 26 OF 45 AUGUSTA, MAINE FEB. 1948

52-26

0 1 2 3 4 5 INCHES

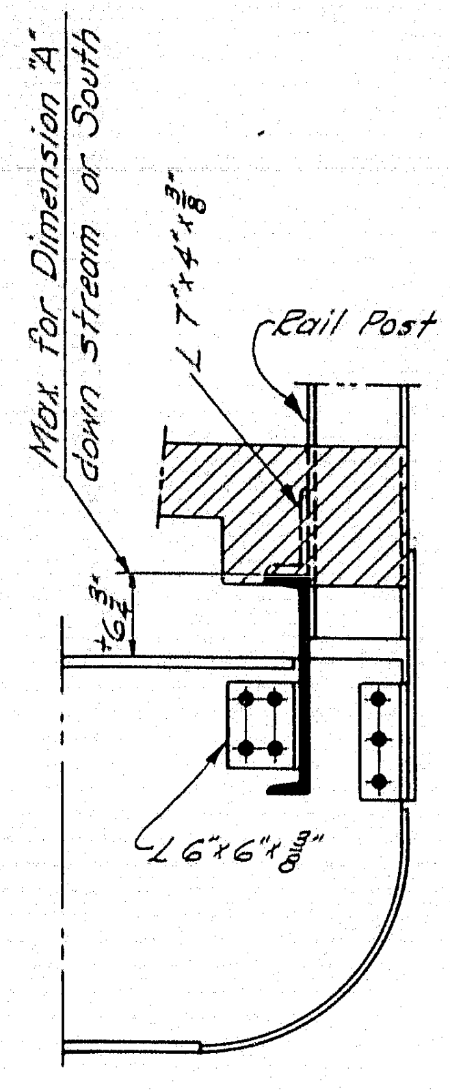
P.R.A. DIV. NO.	STATE	FEDERAL AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
		F.I. 111-389(2)	27	45



44'-3" Out to out Superstructure
8"
6'-0" Clear sidewalk
1'-5½"
28'-0" Clear Roadway
14'-0"
Rail Posts 8"WF @ 31#
Sidewalk Finish (5'-8")
4"
1L 7"x4"x⅜"
Sidewalk Slope 1½"
8" 2" 6" 1½"
Symmetrical about Roadway ℄ except for bank in Suspended Span #3
2" Bituminous Concrete Surface.
6¾" Reinforced Concrete Slab.
Roadway Slope 3" in 14'-0".
Finish Grade
1½" and Dimension "B" see table below.
2¼" for normal section and Dimension "A" See table below
2L 4"x3½"x⅜"
18"L @ 42.7#
All connection angles 4"x3½"x⅞"
21"WF @ 62#
24"WF @ 76#
24"WF @ 76#
Floor beam 33"WF @ 130#
① ② ③ ④
1'-3"
½" plate welded to floor beam web & flange.
Single V butt weld grind smooth.
℄ Top Chord to bottom Floor beam
7'-5½"
8"
Fill
Top lateral gusset
℄ Top Chord
7'-0"
7'-0"
C-C Trusses 25'-0"
1'-6"
℄ Top Chord to Finish Grade 4'-8⅝" *

HALF TYPICAL SECTION
TRUSS SPANS
NORMAL SECTION

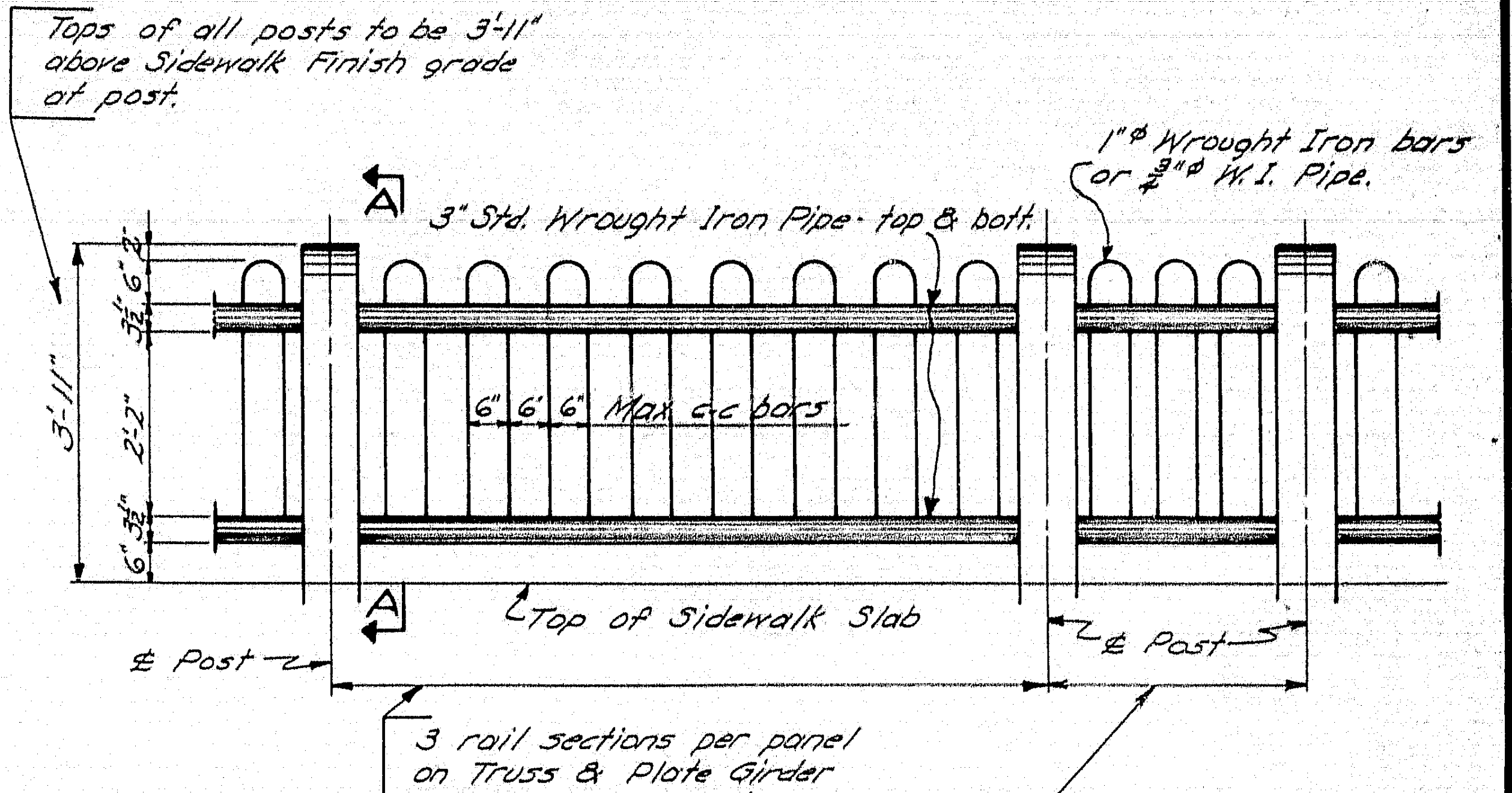
Normal Section is for all truss Spans except Suspended Span #3 (See Dimensions "A" & "B")



PART SECT.

Down stream side of FB7 Suspended Span #3

*NOTE: Dimensions marked * assume that top chord of truss will be broken at truss panel points.



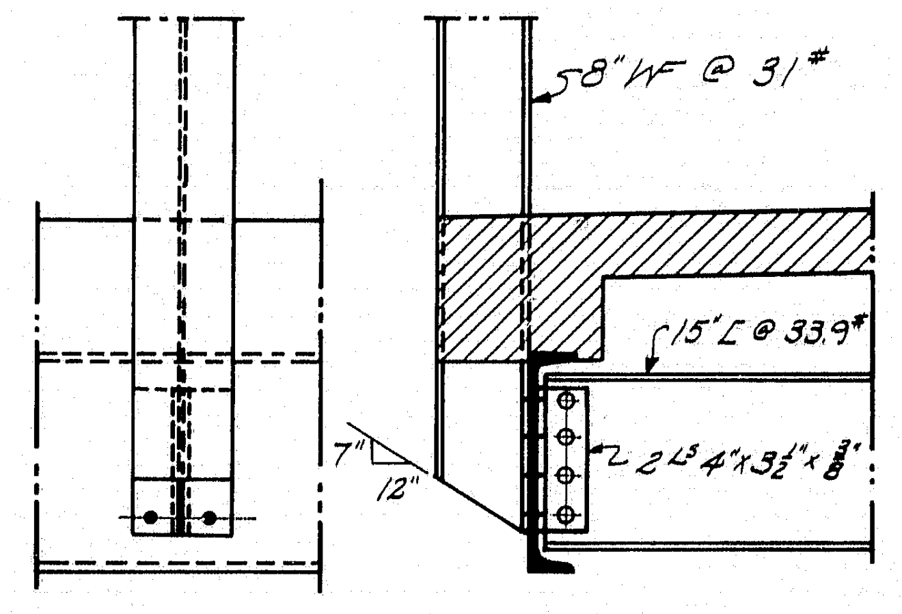
Tops of all posts to be 3'-11" above Sidewalk Finish grade at post.
A
3" Std. Wrought Iron Pipe - top & bott.
1"φ Wrought Iron bars or ¾"φ W.I. Pipe.
3'-11"
6" 3½" 2'-2" 3½" 6" 2"
6" 6" 6" Max c-c bars
Top of Sidewalk Slab
℄ Post
℄ Post

3 rail sections per panel on Truss & Plate Girder Spans. For spacing on I-beam Span see dimensions elsewhere.

All rail sections to be straight except up stream side of Span #1, and Gage Street Rail. All post & pales to be vertical. All rail posts to be set normal to ℄.

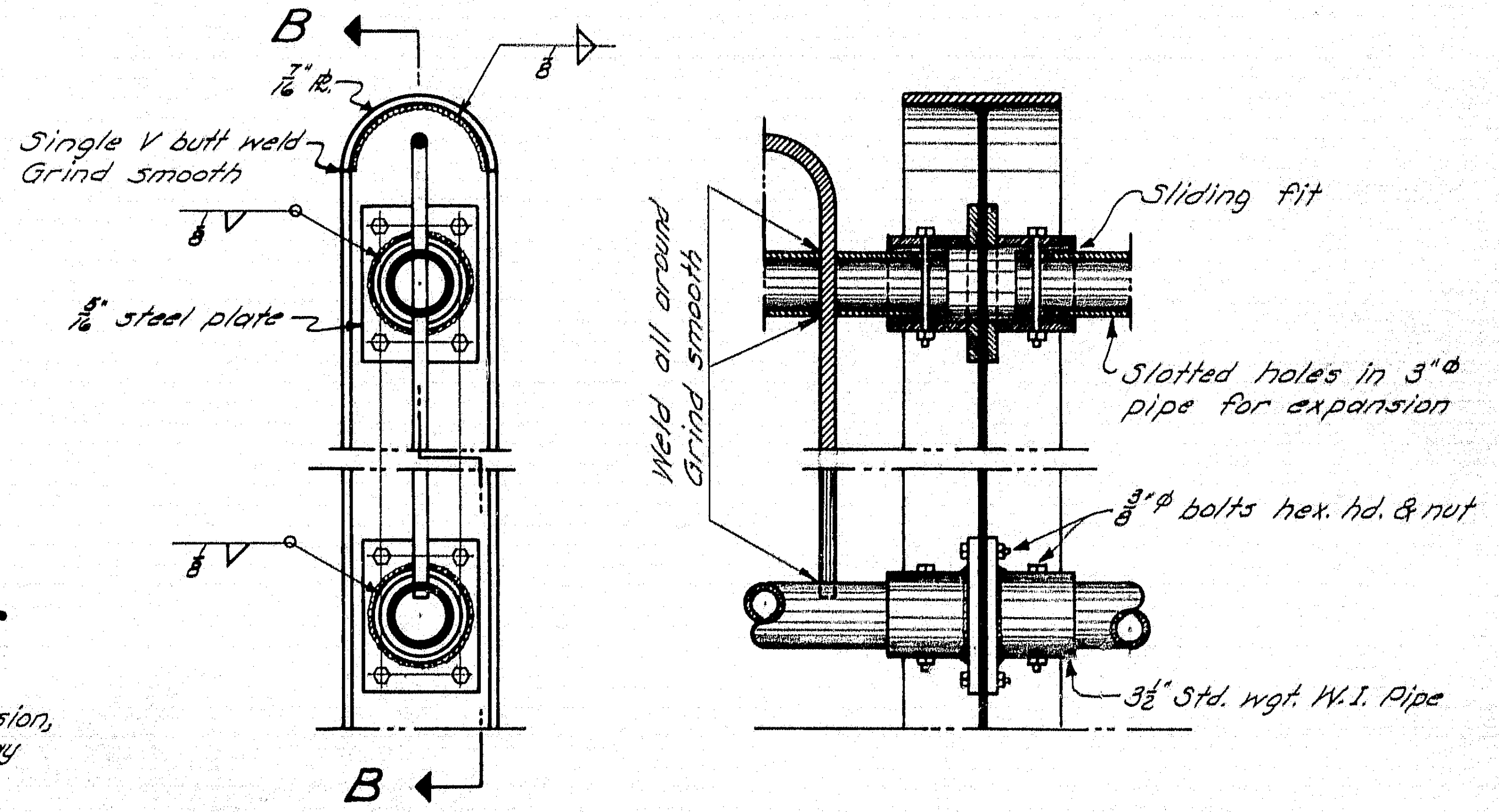
Typical detail where floor beams occur at ends of Plate Girder Spans, at pins and links on Truss Spans, and at ends of Truss & I-beam Spans. For treatment of abuts. & approach ret. wall at abut. #1, see details elsewhere.

PART RAIL ELEVATION



DETAIL AT INT. RAIL POSTS

2-Intermediate Rail Posts per panel



B
B
Single V butt weld Grind smooth
⅜" steel plate
Weld all around Grind smooth
Sliding fit
Slotted holes in 3"φ pipe for expansion
¾"φ bolts hex. hd. & nut
3½" Std. wgt. W.I. Pipe

SECT. A-A SECT. B-B

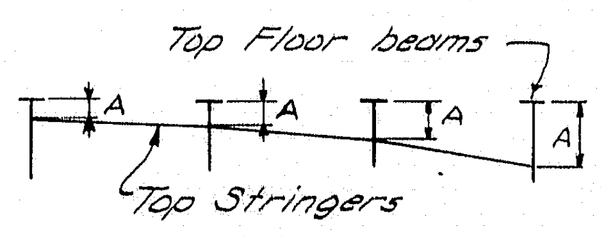
RAIL DETAILS

Complete rail details to be furnished by the Contractor for approval before fabrication is started.

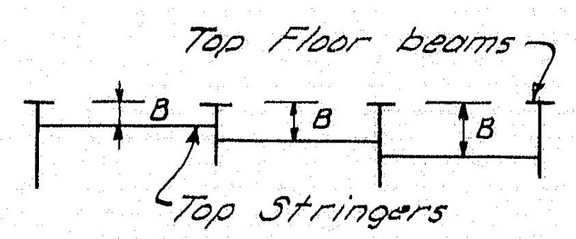
W.I. Pipe sleeves, steel plates and bolts for connecting rail sections to posts, shall be furnished with W.I. Rail.

Rail posts on Superstructure to be Structural Steel.

Up Stream North	Down Stream South	TABLE FOR DIMENSION "A"	For Up Stream Strs. ③ in Suspended Span #3	TABLE FOR DIMENSION "B"
Dimension "A"			"B"	
-2¼"	-2¼"	Normal Section	1½"	Normal Section
-2¼"	-2¼"	At B1 Suspended Span #3	1⅝"	Panel 1
-2½"	-1⅞"	At B2 "	2⅜"	" 2
-3"	-⅜"	At B3 "	3"	" 3
-3⅞"	+2¼"	At B4 "	3⅝"	" 4
-4⅝"	+4¾"	At B5 "	4⅛"	" 5
-5"	+6¼"	At B6 "	4¾"	" 6
-5¼"	+6¾"	At B7 "		



DET. FOR DIMENSION "A"



DET. FOR DIMENSION "B"

Table for Dimension "A" for location of sidewalk stringers, shows distance from top of floor beam to top of stringers. (+)= sidewalk stringer above floor beam, (-)= sidewalk stringer below floor beam. Top flange of floor beam to be coped whenever necessary. For floor beam designation see sheet "GENERAL PLAN & ELEVATION"

Dimension "B", for location of stringers ③ in Suspended Span #3, is the distance from top of floor beam to top of stringer. Dimension "B" for stringers ③ on up-stream or North side only.

SPECIFICATIONS

State of Maine, State Highway Commission, Bridge Division, Specifications Steel Highway Bridges Nov. 1945.

Structural carbon steel shall conform to A.A.S.H.O. Specifications for Highway Materials, designation M 94, and ASTM designation A 7.

Rivets ⅞"φ.

Open holes 15/16"φ unless noted.

Loading H20-S16-44

Holes for field connections and field splices of Main Members, shall be sub-punched and reamed to a steel template or reamed while assembled.

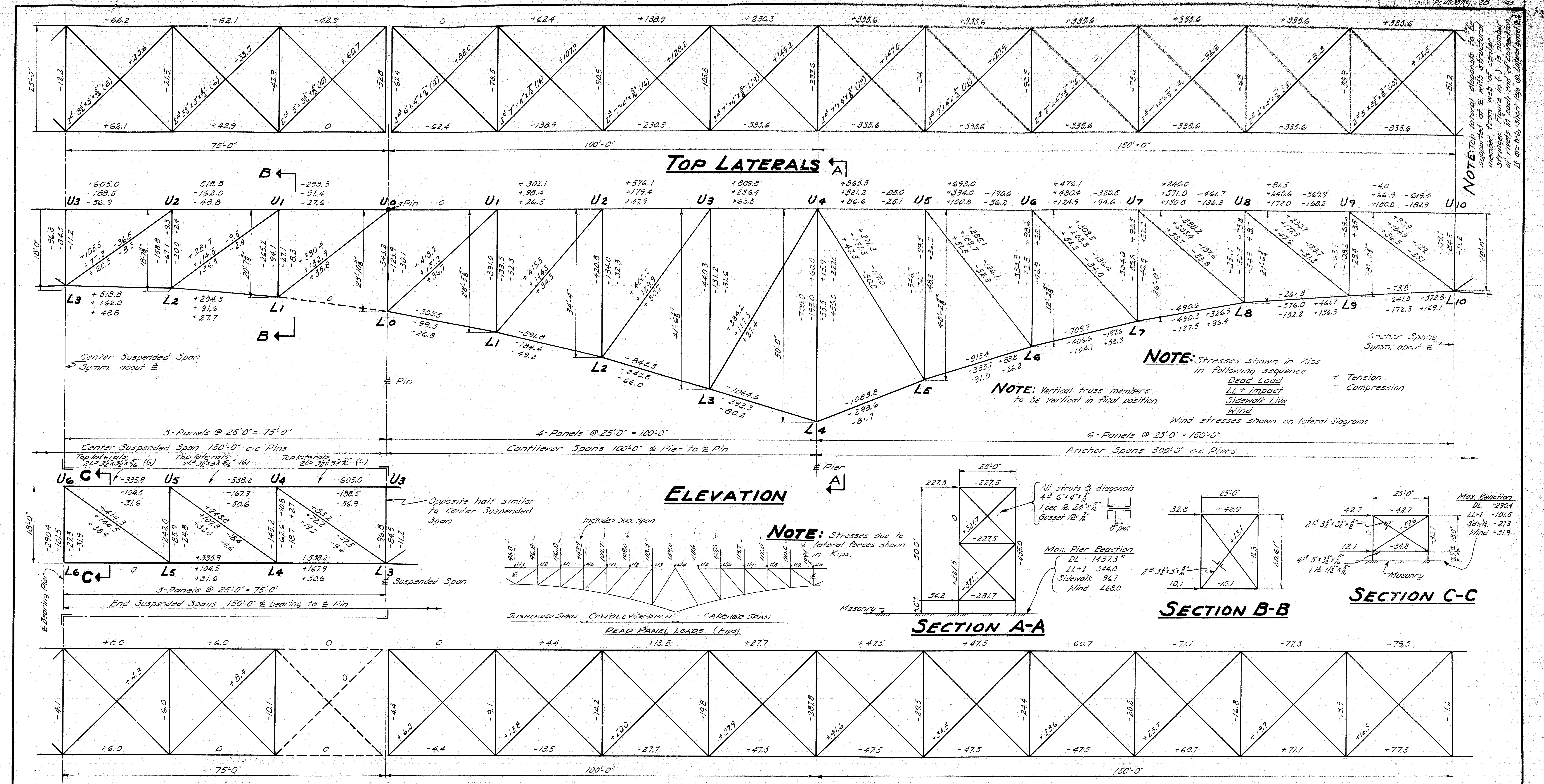
Revised, Specification Reference, March, 1948.

DESIGN - EVERETT	TRACE - CLARK	BRIDGE - 5196
DETAIL - "	CHECK - C.L.P.	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
SUPERSTRUCTURE & RAIL DETAILS
SHEET 27 OF 45 AUGUSTA, MAINE FEB. 1948

52-27

0 1 2 3 4 5 INCHES



NOTE: Top lateral diagonals to be supported at ℄ with structural member from web of center stringer. Figure in ( ) is number of rivets in each end of connection. Ls are b-b, short legs up. Lateral gussets 3/8"

NOTE: Stresses shown in Kips in following sequence
Dead Load
LL + Impact
Sidewalk Live
Wind
Wind stresses shown on lateral diagrams

+ Tension
- Compression

NOTE: Vertical truss members to be vertical in final position.

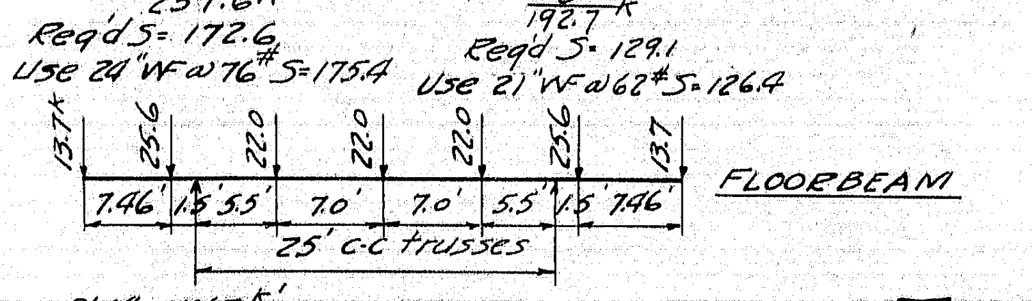
NOTE: Stresses due to lateral forces shown in Kips.

DESIGN DATA

INT. STRINGERS
DLM = 68.8k'
LLM = 145.2
I = 43.6
257.6k'
Req'd S = 172.6
Use 24" WF @ 76# S = 175.4

EXT. STRINGERS
DLM = 78.1k'
LLM = 74.1
I = 22.2
S.W. = 18.3
192.7k'
Req'd S = 129.1
Use 21" WF @ 62# S = 126.4

S.W. STRINGERS
M = 64.5k'
Req'd S = 43.2
Use 18" ⊏ @ 42.7# S = 61.0



FLOORBEAM

DLM = 101.7k'
LLM = 375.9
I = 112.8
590.4k'
Req'd S = 395.6
Use 33" WF @ 130# S = 404.8

U0L0	C	2Ls 3½"×3"×5/16"
U1L1	C	2Ls 4"×3"×5/16"
U2L2	C	2Ls 5"×3½"×5/16"
U3L3	C	2Ls 6"×4"×3/8"
U5L5	A	do
U6L6	A	2Ls 5×3½"×5/16"
U7L7	A	2Ls 3½"×3"×5/16"
U8L8	A	do
U9L9	A	2Ls 3"×3"×5/16"
U10L10	A	do
U1L1	S	2Ls 3½"×3"×5/16"
U2L2	S	2Ls 3"×3"×5/16"
U3L3	S	do

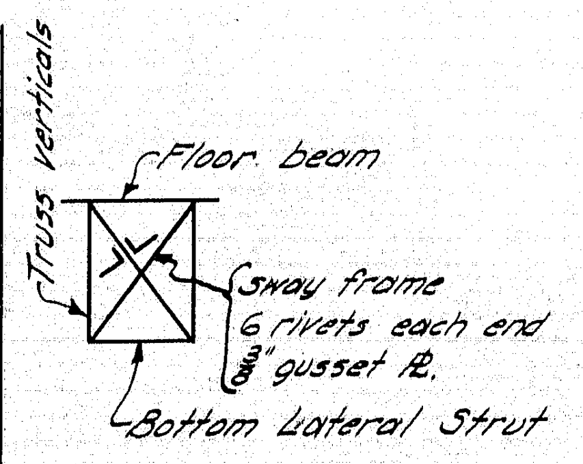
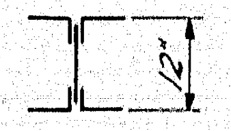


TABLE FOR SWAY FRAMES

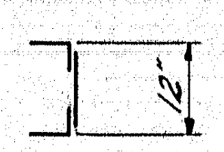
A = Anchor Span
C = Cantilever Span
S = Suspended Span

All Bottom lateral struts & diagonals except as noted.
Struts - 4Ls 5"×3½"×5/16"
1 Pl. 11½"×5/16"



Bottom lateral gusset Pls 3/8"

Diagonals - 2Ls 3"×3"×5/16"
1 Pl. 11½"×3/8"



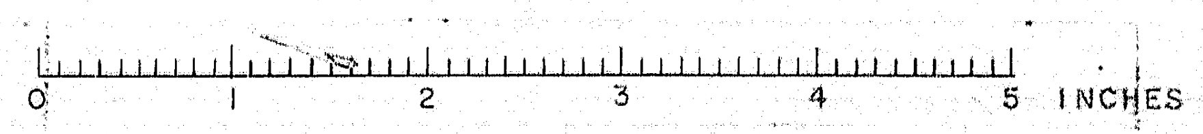
DESIGN - EVERETT
DETAIL - "
TRACE - CLARK
CHECK - C.L.P.
BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

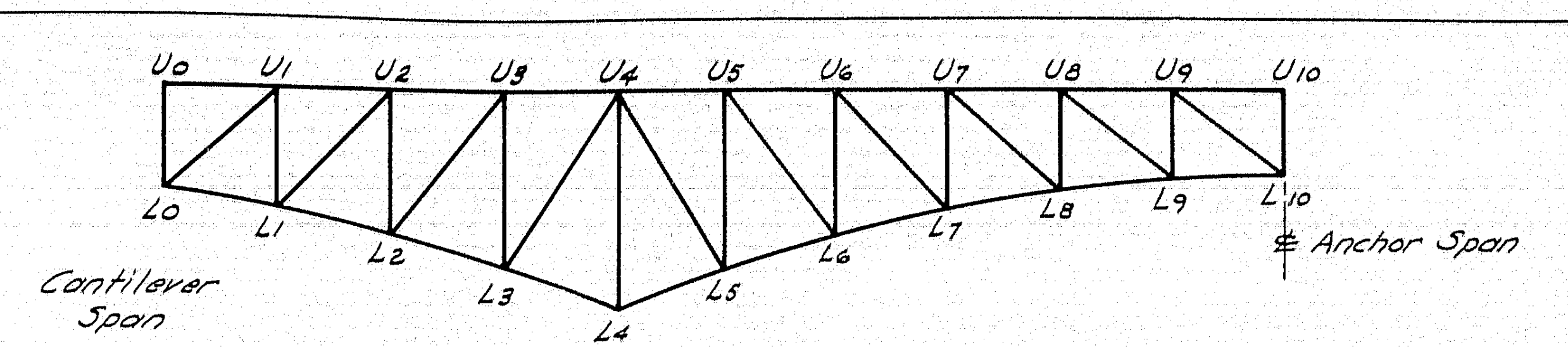
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
STRESSES - TRUSS SPANS

SHEET 28 OF 45 AUGUSTA, MAINE FEB. 1946

52 - 28



F.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
		FI, UI-389(2)	29	45



U_0 U_1 U_2 U_3 U_4 U_5 U_6 U_7 U_8 U_9 U_{10}
L_0 L_1 L_2 L_3 L_4 L_5 L_6 L_7 L_8 L_9 L_{10}
Cantilever Span
℄ Anchor Span

ANCHOR & CANTILEVER SPANS

Reference Sheet #10

U_0U_1
Use same section as U_1U_2

U_1U_2
Stress +427.0
Net A req'd. 23.72□"
Net A 26.61□"
Gross A 34.76□"
4 Ls 4"×4"×3/8"
2 Pls. 24"×3/8"
2 per. Pls. 15½"×5/16"

U_2U_3
Stress +803.4
Net A reqd. 44.63□"
Net A 45.75□"
Gross A 61.38□"
4 Ls 6"×4"×1/2"
2 Pls. 24"×3/4"
2 per. Pls 15½"×3/8"

U_3U_4
Stress +1109.7
Net A req'd. 61.65□"
Net A 63.35□"
Gross A 85.14□"
4 Ls 6"×4"×3/4"
2 Pls. 24"×7/8"
2 Pls 12"×3/8"
2 per. Pls. 15½"×3/8"

U_5U_6
Stress +1218.7
Net A reqd. 67.71□"
Net A 67.87□"
Gross A 91.14□"
4 Ls 6"×4"×3/4"
2 Pls. 24"×1"
2 Pls. 12"×3/8"
2 per. Pls. 15½"×3/8"

U_4U_5
Stress +1287.0
Net A reqd. 71.50□"
Net A 72.40□"
Gross A 97.14□"
4 Ls 6"×4"×3/4"
2 Pls 24"×1/2"
2 Pls. 24"×5/8"
2 Pls. 12"×3/8"
2 per. Pls. 15½"×3/8"

U_6U_7
Stress +1,300.6
- 500.9
Net A req'd 72.26□"
Net A 72.40□"
Gross A reqd. 34.10□"
Gross A 97.14□"
Use same section as U_4U_5

U_7U_8
Stress +1344.2
- 918.7
Net A req'd 74.68□"
Net A 74.66□"
Gross A reqd. 62.56□"
Gross A 100.14□"
4 Ls 6"×4"×3/4"
2 Pls. 24"×5/8"
2 Pls. 24"×9/16"
2 Pls 12"×3/8"
2 per. Pls. 15½"×3/8"

U_8U_9
Stress +1390.4
-1219.9
Net A reqd. 77.24□"
Net A 78.09□"
Gross A reqd. 83.09□"
Gross A 104.64
4 Ls 6"×4"×3/4"
4 Pls. 24"×5/8"
2 Pls. 12"×7/16"
2 per. Pls. 15½"×3/8"

U_9U_{10}
Stress +1397.0
-1370.2
Net A reqd. 77.61□"
Net A 78.09□"
Gross A reqd. 93.33□"
Gross A 104.64□"
Use same section as U_8U_9

L_0L_1
Stress -431.8
Reqd. A 29.35□"
Gross A 43.75□"
4 Ls 6"×4"×3/8"
2 Pls. 24"×1/2"
2 per. Pls. 16"×5/16"

L_1L_2
Stress -825.4
Reqd. A 56.21□"
Gross A 56.44□"
4 Ls 6"×4"×1/2"
2 Pls. 24"×5/8"
2 per. Pls. 16"×7/16"

L_2L_3
Stress -1154.1
Reqd. A 78.69□"
Gross A 79.14□"
4 Ls 6"×4"×3/4"
2 Pls. 24"×3/4"
2 Pls. 12"×3/8"
2 per. Pls. 16"×3/8"

L_3L_4
Stress -1438.1
Reqd. A 97.9□"
Gross A 99.26□"
4 Ls 6"×4"×3/4"
2 Pls. 24"×1"
2 Pls. 12"×5/8"
2 per. Pls. 16"×1/2"

L_4L_5
Stress -1464.1
Reqd. A 99.6□"
Gross A 99.26□"
Use same section as L_3L_4

L_5L_6
Stress -1338.1
Reqd A 91.30□"
Gross A 92.64□"
4 Ls 6"×4"×3/4"
2 Pls. 24"×15/16"
2 Pls. 12"×9/16"
2 per. Pls. 16"×3/8"

L_6L_7
Stress -1220.4
Reqd. A 83.2□"
Gross A 83.64□"
4 Ls 6"×4"×3/4"
2 Pls 24"×3/4"
2 Pls 12×9/16"
2 per. Pls 16"×3/8"

L_7L_8
Stress -1148.2
+119.3
Net A reqd. 6.63□"
Net A 58.82□"
Gross A reqd. 78.28□"
Gross A 79.14□"
Use same section as L_2L_3

L_8L_9
Stress -1197.1
+622.7
Net A reqd. 34.59□"
Net A 61.13□"
Gross A reqd. 81.49□"
Gross A 82.14□"
4 Ls 6"×4"×3/4"
2 Pls. 24"×3/4"
2 Pls. 12"×1/2"
2 per. Pls 16"×3/8"

L_9L_{10}
Stress -1232.5
+1035.3
Net A reqd. 57.52□"
Net A 63.44□"
Gross A reqd. 83.87□"
Gross A 85.14□"
4 Ls 6"×4"×3/4"
2 Pls. 24"×3/4"
2 Pls. 12"×5/8"
2 per. Pls 16"×3/8"

U_0L_0
Stress - 497.2k
Reqd. A 33.76□"
Gross A 42.96□"
2 [s 18"×58#
2 per. Pls. 17"×1/2"

U_1L_1
Stress -556.8
Reqd. A 38.19□"
Gross A 38.24□"
2 [s 18"×51.9#
2 per. Pls. 17"×7/16"

U_2L_2
Stress -587.1
Reqd. A 40.94□"
Gross A 41.84□"
2 [s 18"×58#
2 per. Pls. 17"×7/16"

U_3L_3
Stress -603.1
Reqd. A 43.11□"
Gross A 44.09□"
2 [s 18"×58#
2 per. Pls. 17"×9/16"

U_4L_4
Stress -1122.8
Reqd. A 80.29□"
Gross A 80.76□"
4 Ls 6"×4"×3/4"
2 Pls. 24"×3/4"
2 Pls. 12"×3/8"
2 per. Pls. 16"×1/2"

U_5L_5
Stress -569.6
Reqd. A 40.70□"
Gross A 40.71□"
2 [s 18"×58#
2 per. Pls. 17"×3/8"

U_6L_6
Stress -554.3
Reqd. A 38.57□"
Gross A 39.59□"
2 [s 18"×58#
2 per. Pls 17"×5/16"

U_7L_7
Stress -505.1
Reqd. A 34.51□"
Gross A 35.99□"
2 [s 18"×51.9#
2 per. Pls. 17"×5/16"

U_8L_8
Stress -416.3
Reqd. A 28.16□"
Gross A 30.59□"
2 [s 18"×42.7#
2 per. Pls. 17"×5/16"

U_9L_9
Stress -300.1
Reqd. A 20.29□"
Gross A 25.43□"
2 [s 15"×33.9#
2 per. Pls. 17"×5/16"

$U_{10}L_{10}$
Stress -204.8
Reqd. A 13.82□"
Gross A 25.43□"
Use same section as U_9L_9

L_3U_4
Stress +174.6
Net A reqd. 9.70□"
Net A 19.05□"
Gross A 25.43□"
Use same section as U_9L_{10} Anchor Span

L_0U_1
Stress +606.6
Net A reqd. 33.70□"
Net A 34.45□"
Gross A 44.09□"
Use same section as U_3L_3

L_1U_2
Stress +594.1
Net A reqd. 33.01□"
Net A 33.57□"
Gross A 42.96□"
2 [s 18"×58#
2 per. Pls. 17"×1/2"

L_2U_3
Stress +560.8
Net A reqd. 31.15□"
Net A 31.82□"
Gross A 40.71□"
2 [s 18"×58#
2 per. Pls. 17"×3/8"

L_3U_4
Stress +529.1
Net A reqd. 29.39□"
Net A 30.95□"
Gross A 39.59□"
2 [s 18"×58#
2 per. Pls. 17"×5/16"

U_4L_5
Stress +490.1
Net A reqd. 27.23□"
Net A 28.07□"
Gross A 35.99□"
2 [s 18"×51.9#
2 per. Pls. 17"×5/16"

U_5L_6
Stress +526.3
Net A reqd. 29.24□"
Net A 29.82□"
Gross A 38.24□"
2 [s 18"×51.9#
2 per. Pls. 17"×7/16"

U_6L_7
Stress +561.0
Net A reqd. 31.17□"
Net A 31.82□"
Gross A 40.71□"
Use same section as L_2U_3

U_7L_8
Stress +557.3
Net A reqd. 30.96□"
Net A 30.95□"
Gross A 39.59□"
2 [s 18"×58#
2 per. Pls. 17"×5/16"

U_8L_9
Stress +455.8
Net A reqd. 25.32□"
Net A 26.06□"
Gross A 33.51□"
2 [s 18"×45.8#
2 per. Pls. 17"×3/8"

U_9L_{10}
Stress +332.0
-150.9
Net A reqd. 18.44□"
Net A 19.05□"
Gross A reqd. 10.53□"
Gross A 25.43□"
2 [s 15"×33.9#
2 per. Pls. 17"×5/16"

L_4U_5
Stress +388.1
Net A reqd. 21.56□"
Net A 23.75□"
Gross A 30.59□"
2 [s 18"×42.7#
2 per. Pls. 17"×5/16"

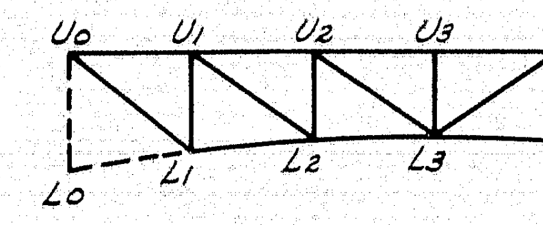
L_5U_6
Stress +597.7
Net A reqd. 33.21□"
Net A 33.57□"
Gross A 42.96□"
Use same section as L_1U_2 Cantilever Span

NOTE: All members are figured for allowable unit stresses as follows; Tension = 18,000 #/□"
Compression = $15{,}000-\frac{1}{4}\left(\frac{L^2}{r^2}\right)$

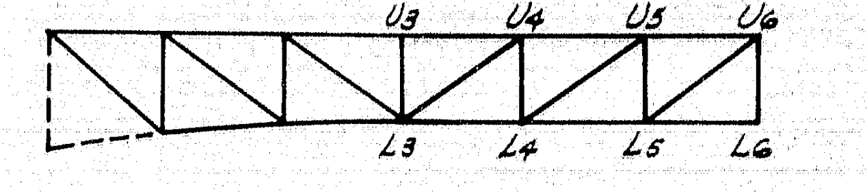
Gross areas shown include gross area of perforated plates less area of the perforation. (per. = perforation.)

Minimum stagger for net section = 1½ inches.

All stresses shown in Kips.



Suspended Span #2



Suspended Spans #1 & #3

SUSPENDED SPANS

Reference Sheet #10

U_0U_1
Stress -412.3
Reqd. A 28.03□"
Gross A 43.75□"
4 Ls 6"×4"×3/8"
2 Pls. 24"×1/2"
2 per. Pls. 15½"×5/16"

U_1U_2
Stress -729.6
Reqd. A 49.60□"
Gross A 49.75□"
4 Ls 6"×4"×3/8"
2 Pls. 24"×5/8"
2 per. Pls. 15½"×5/16"

U_2U_3
Stress -850.4
Reqd. A 57.83□"
Gross A 58.03□"
4 Ls 6"×4"×7/16"
2 Pls 24"×3/4"
2 per. Pls. 15½"×5/16"

L_0L_1
Stress 0
4 Ls 4"×4"×3/8"
2 Pls. 24"×5/16"
2 per. Pls. 15½"×5/16"

L_1L_2
Stress +413.6
Net A reqd. 22.98□"
Net A 24.29□"
Gross A 31.76□"
4 Ls 4"×4"×3/8"
2 Pls. 24"×5/16"
2 per. Pls. 15½"×5/16"

L_2L_3
Stress +729.6
Net A reqd. 40.53□"
Net A 40.41□"
Gross A 54.31□"
4 Ls 6"×4"×1/2"
2 Pls. 24"×5/8"
2 per. Pls. 15½"×5/16"

U_1L_1
Stress -386.4
Reqd. A 26.24□"
Gross A 29.03□"
2 [s 15"×40#
2 per. Pls. 17"×5/16"

U_2L_2
Stress -245.9
Reqd. A 16.71□"
Gross A 17.69□"
2 [s 12"×20.7#
2 per. Pls. 17"×5/16"

U_3L_3
Stress -192.5
Reqd. A 13.07□"
Gross A 17.69□"
Use same section as U_2L_2 Suspension Span #2

U_0L_1
Stress +549.1
Net A reqd. 30.51□"
Net A 30.95□"
Gross A 39.59□"
Use same section as L_3U_4 Cantilever Span.

U_1L_2
Stress +430.8
Net A reqd. 23.93□"
Net A 25.19□"
Gross A 32.39□"
2 [s 18"×45.8#
2 per. Pls. 17"×5/16"

U_2L_3
Stress +203.3
Net A reqd. 11.29□"
Net A 19.05□"
Gross A 25.43□"
Use same section as U_9L_{10} Anchor Span.

U_3U_4
Use same section as U_2U_3

U_4U_5
Stress -756.7
Reqd A 51.45□"
Gross A 52.03□"
4 Ls 6"×4"×7/16"
2 Pls. 24"×5/8"
2 per. Pls. 15½"×5/16"

U_5U_6
Stress -472.0
Reqd. A 32.09□"
Gross A 43.75□"
Use same section as U_0U_1 Suspension Span #2

L_3L_4
Stress +756.7
Net A reqd. 42.04□"
Net A 43.57□"
Gross A 58.75□"
4 Ls 6"×4"×5/8"
2 Pls. 24"×5/8"
2 per. Pls. 15½"×5/16"

L_4L_5
Stress +472.0
Net A reqd. 26.22□"
Net A 26.61□"
Gross A 34.75□"
4 Ls 4"×4"×3/8"
2 Pls. 24"×3/8"
2 per. Pls. 15½"×5/16"

L_5L_6
Use same section as L_0L_1 Suspension Span #2

U_4L_4
Stress -226.5
Reqd. A 15.37□"
Gross A 17.69□"
Use same section as U_2L_2 Suspension Span #2

U_5L_5
Stress -352.7
Reqd. A 23.82□"
Gross A 29.03□"
Use same section as U_1L_1 Suspension Span #2

U_6L_6
Stress -419.2
Reqd. A 28.31□"
Gross A 29.03□"
Use same section as U_1L_1 Suspension Span #2

DESIGN - EVERETT TRACE - CLARK
DETAIL - " CHECK - C.L.P.
BRIDGE - 5196

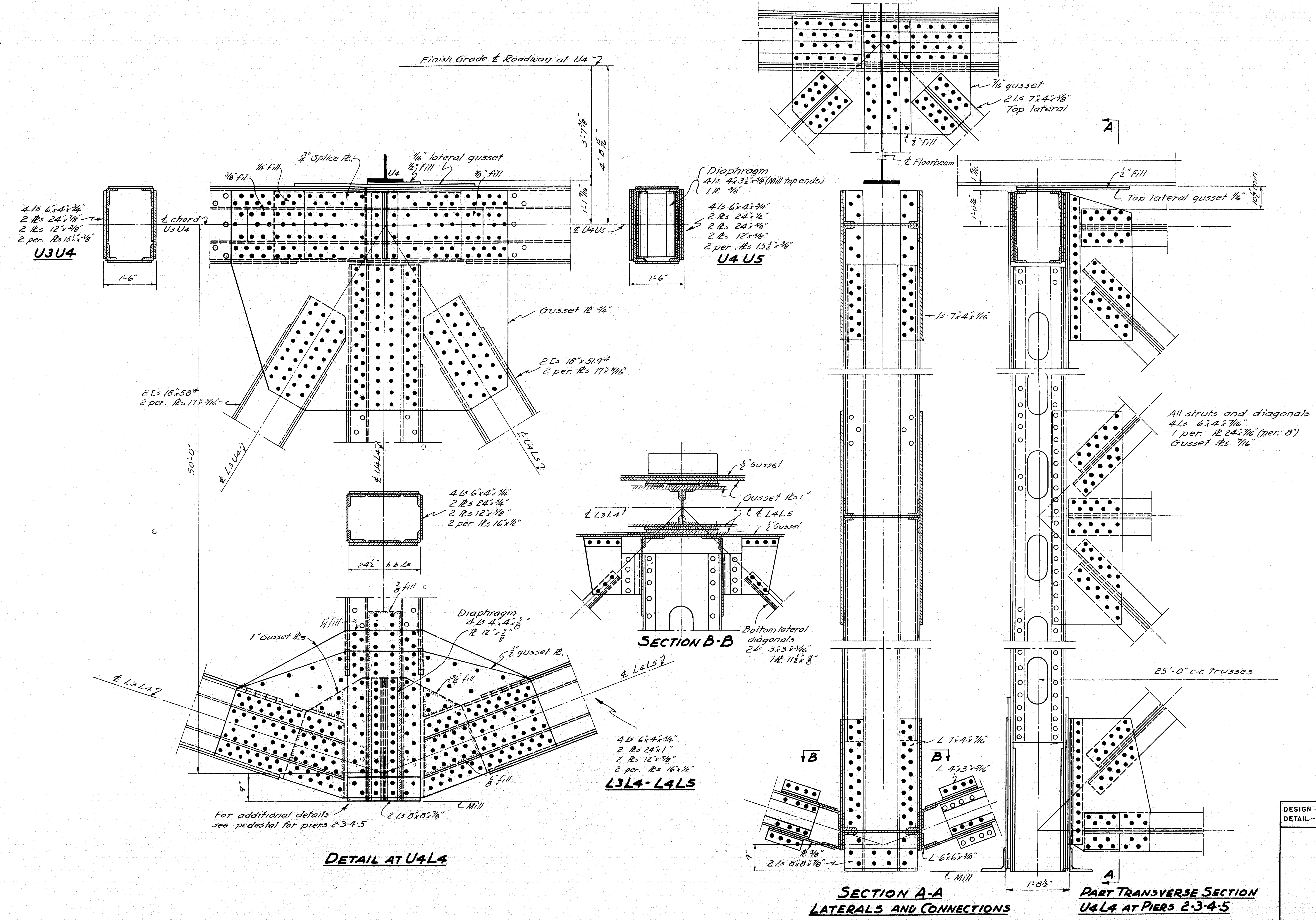
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
MAKE-UP OF MEMBERS
SHEET 29 OF 45 AUGUSTA, MAINE FEB. 1948

52-29

0 1 2 3 4 5 INCHES

P.R.A. DIV NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI,41,389(2)	30	45



DETAIL AT U4L4

SECTION B-B

SECTION A-A
LATERALS AND CONNECTIONS

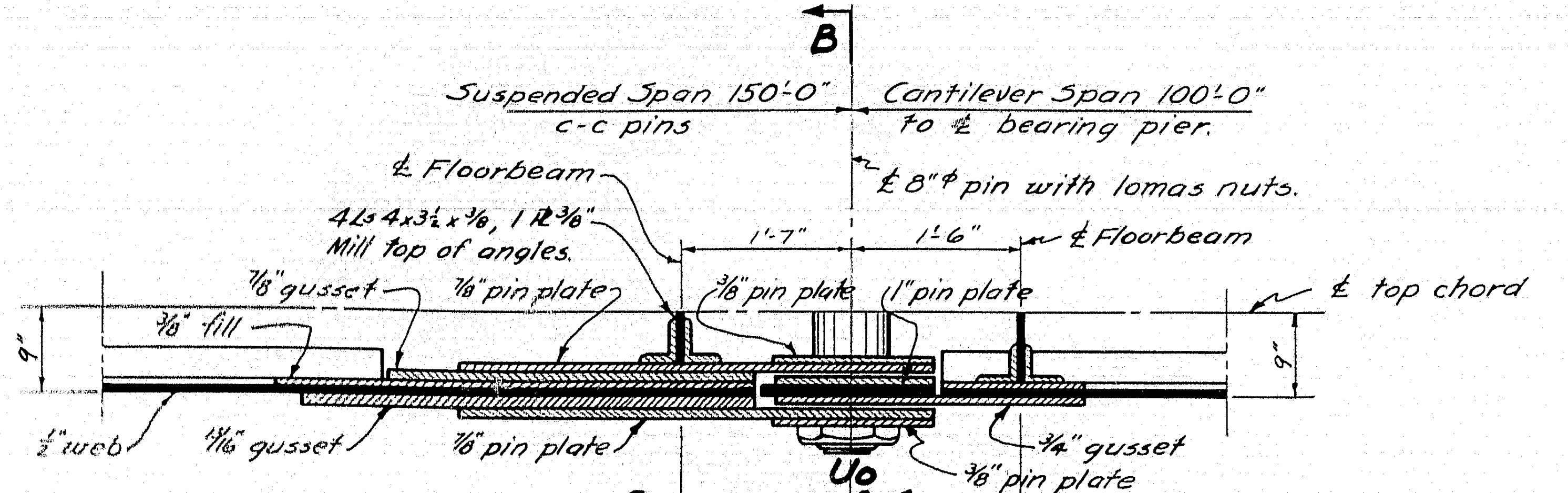
PART TRANSVERSE SECTION
U4L4 AT PIERS 2-3-4-5

DESIGN - EVERETT TRACE - BOYD
DETAIL - " CHECK - C.L.P.
BRIDGE - 5196

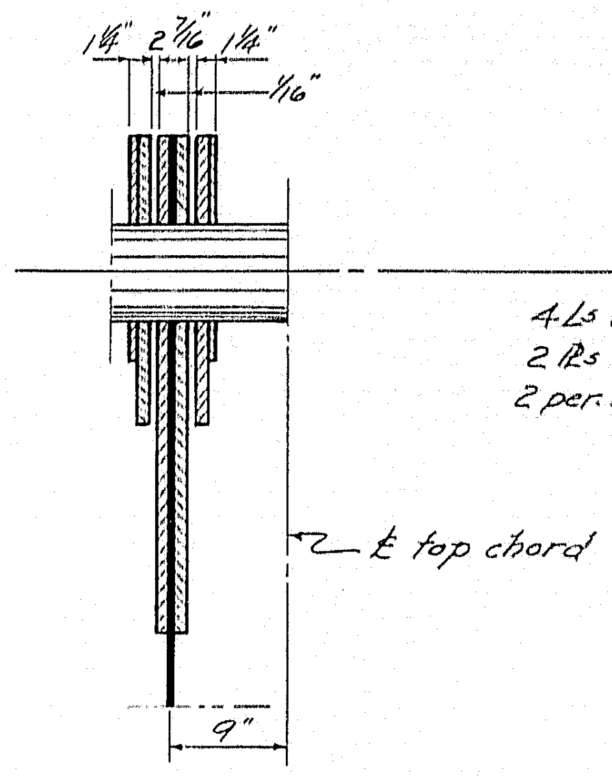
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
STRUCTURAL STEEL DETAILS AT U4L4
SHEET 30 OF 45 AUGUSTA, MAINE FEB. 1948

52-30

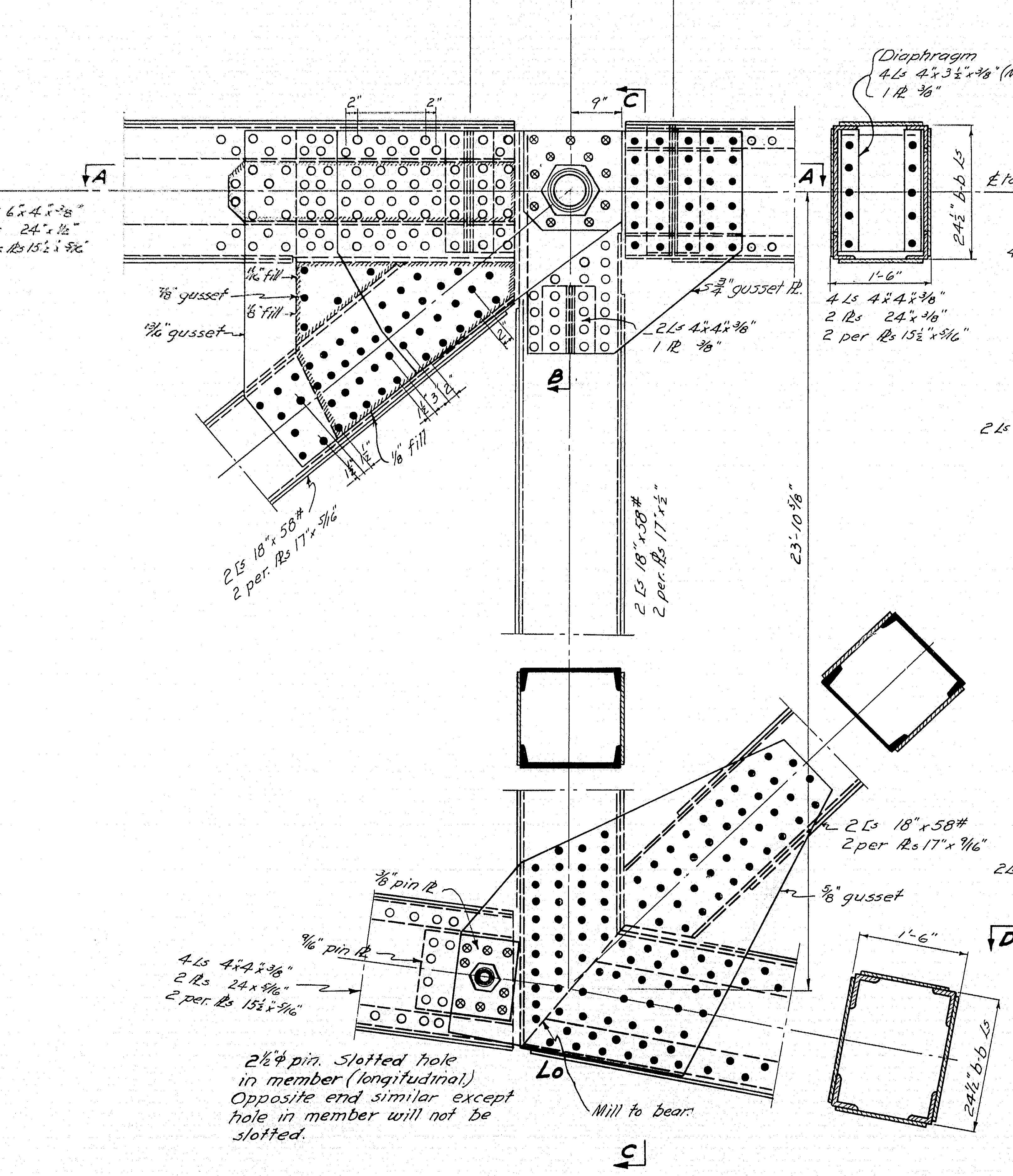
F. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI, UI, 389(2)	31	45



SECTION A-A



SECTION B-B



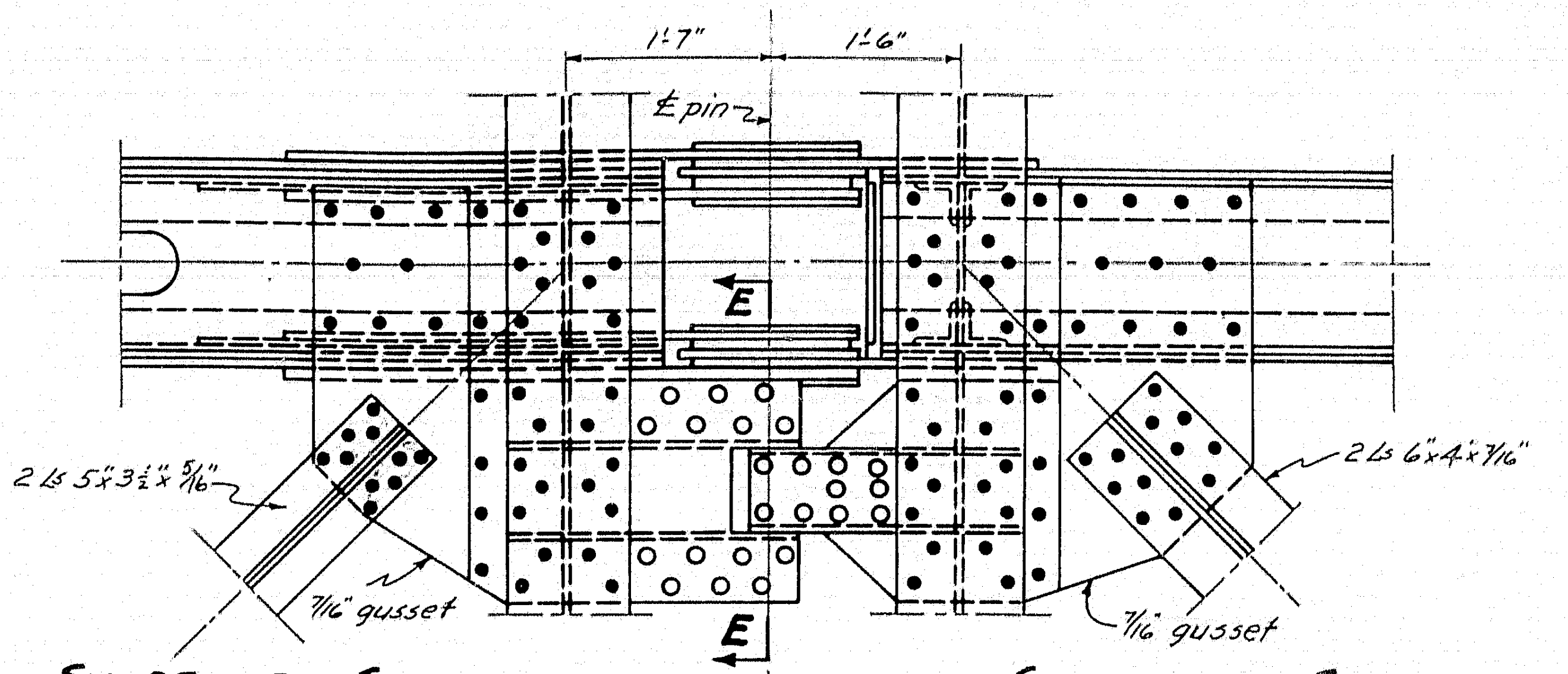
2½"φ pin. Slotted hole in member (longitudinal.) Opposite end similar except hole in member will not be slotted.

SUSPENDED SPANS

CANTILEVER SPANS 1-2-4

DETAIL AT FIXED PIN

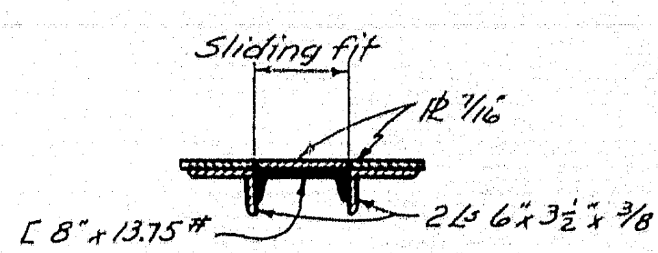
Laterals not shown.



SUSPENDED SPAN

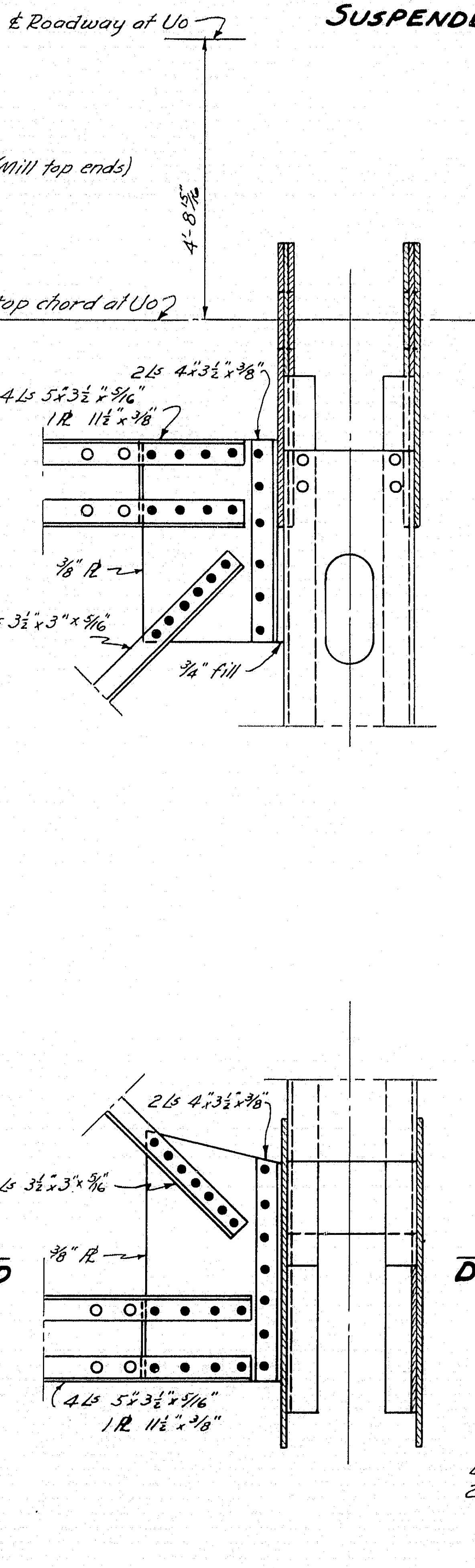
CANTILEVER SPAN

PLAN AT PIN



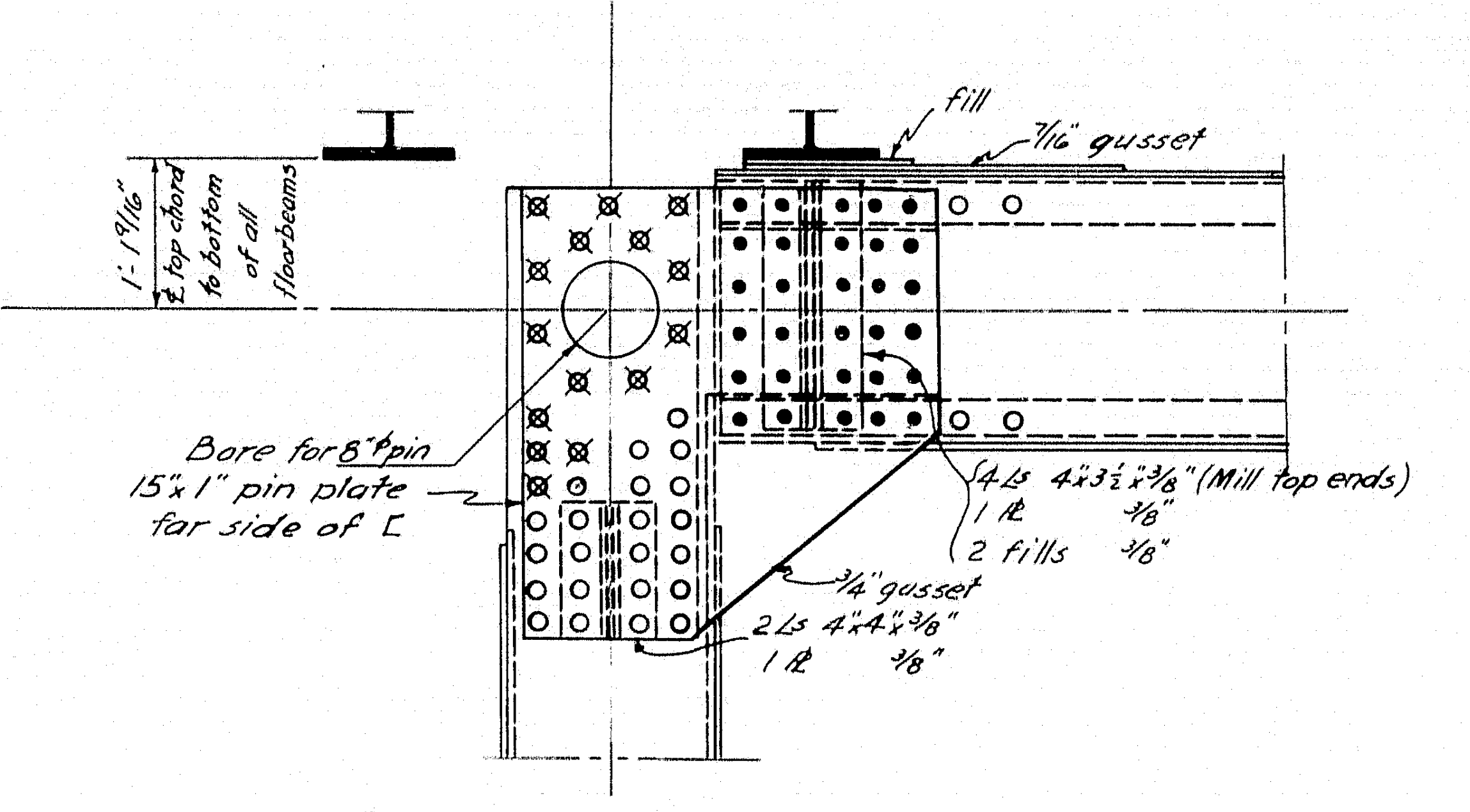
SECTION E-E

Through shear lock. One lock inside of each truss, at each point of pin or pin and link suspension.

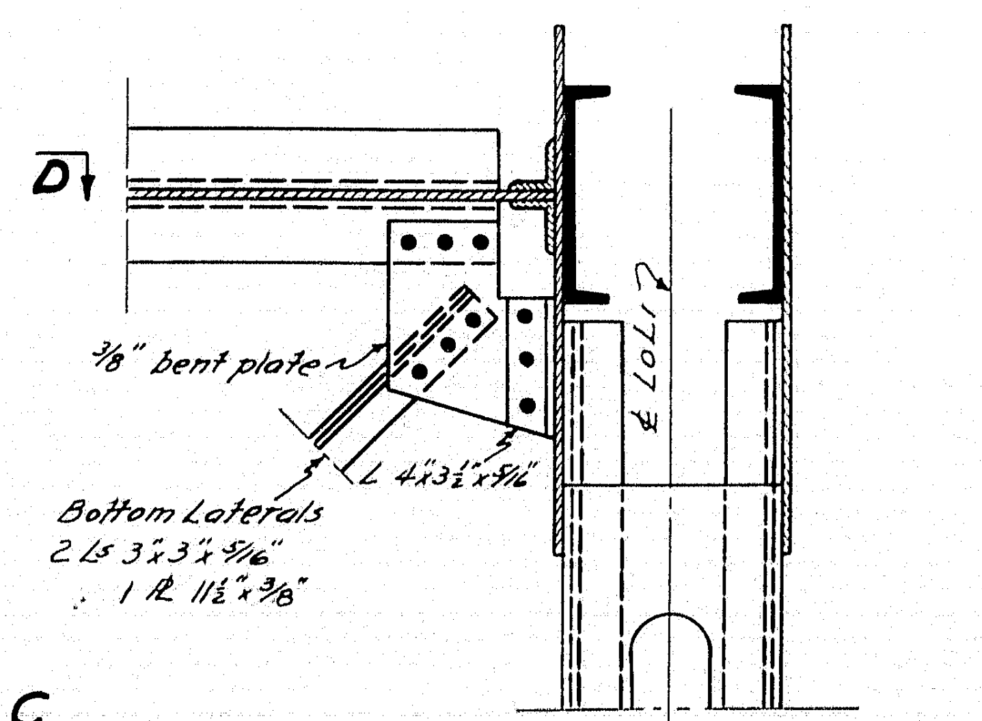


SECTION C-C

For U0L0 showing laterals and connections.


1'-1 9/16"
¢ top chord to bottom of all floorbeams
fill
7/16" gusset
Bore for 8"φ pin
15"x1" pin plate far side of [
4 Ls 4"x3½"x3/8" (Mill top ends)
1 PL 3/8"
2 fills 3/8"
3/4" gusset
2 Ls 4"x4"x3/8"
1 PL 3/8"

DETAIL AT FIXED PIN
AT U0 - CANTILEVER SPANS



SECTION D-D

Showing bottom laterals.

DESIGN - EVERETT	TRACE - BOYD	BRIDGE - 5196
DETAIL - "	CHECK - C.L.P.	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

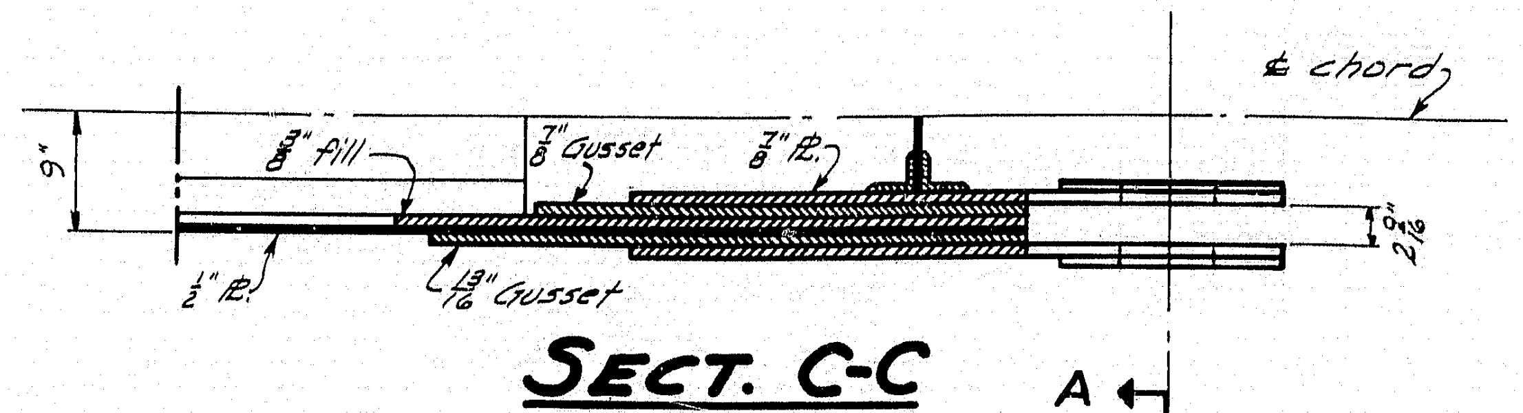
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

DETAIL AT FIXED PIN - CANT. & SUS. SPANS
SHEET 31 OF 45 AUGUSTA, MAINE FEB. 1948

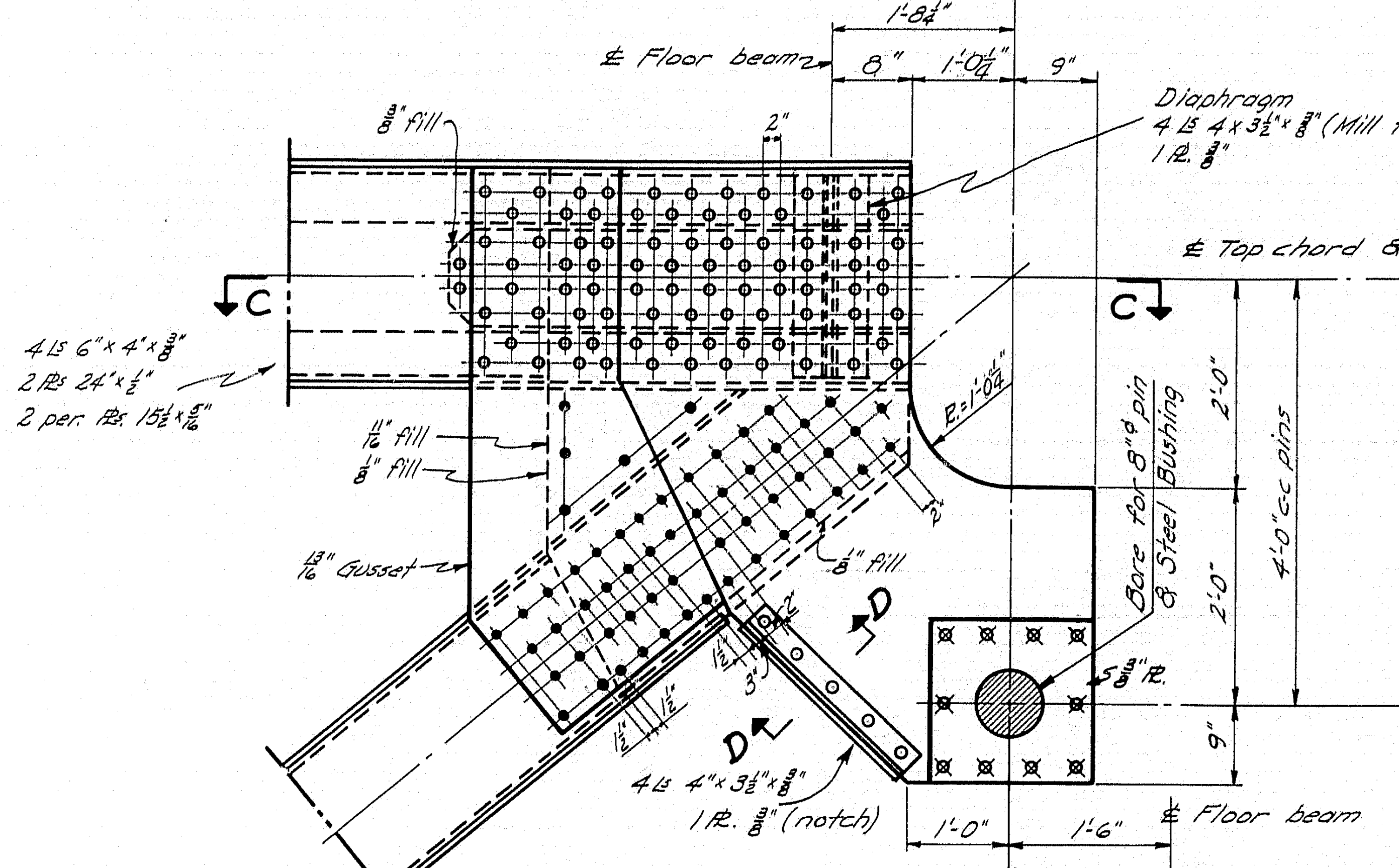
52-31

0 1 2 3 4 5 INCHES

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI,UI-344(2)	32	45

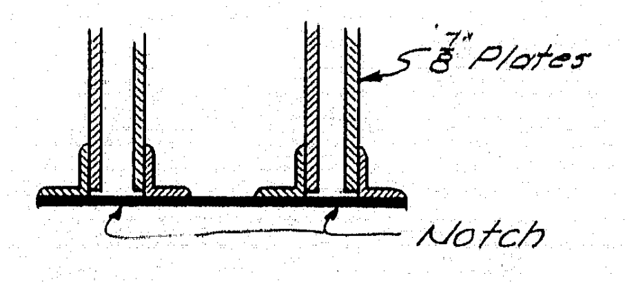


SECT. C-C

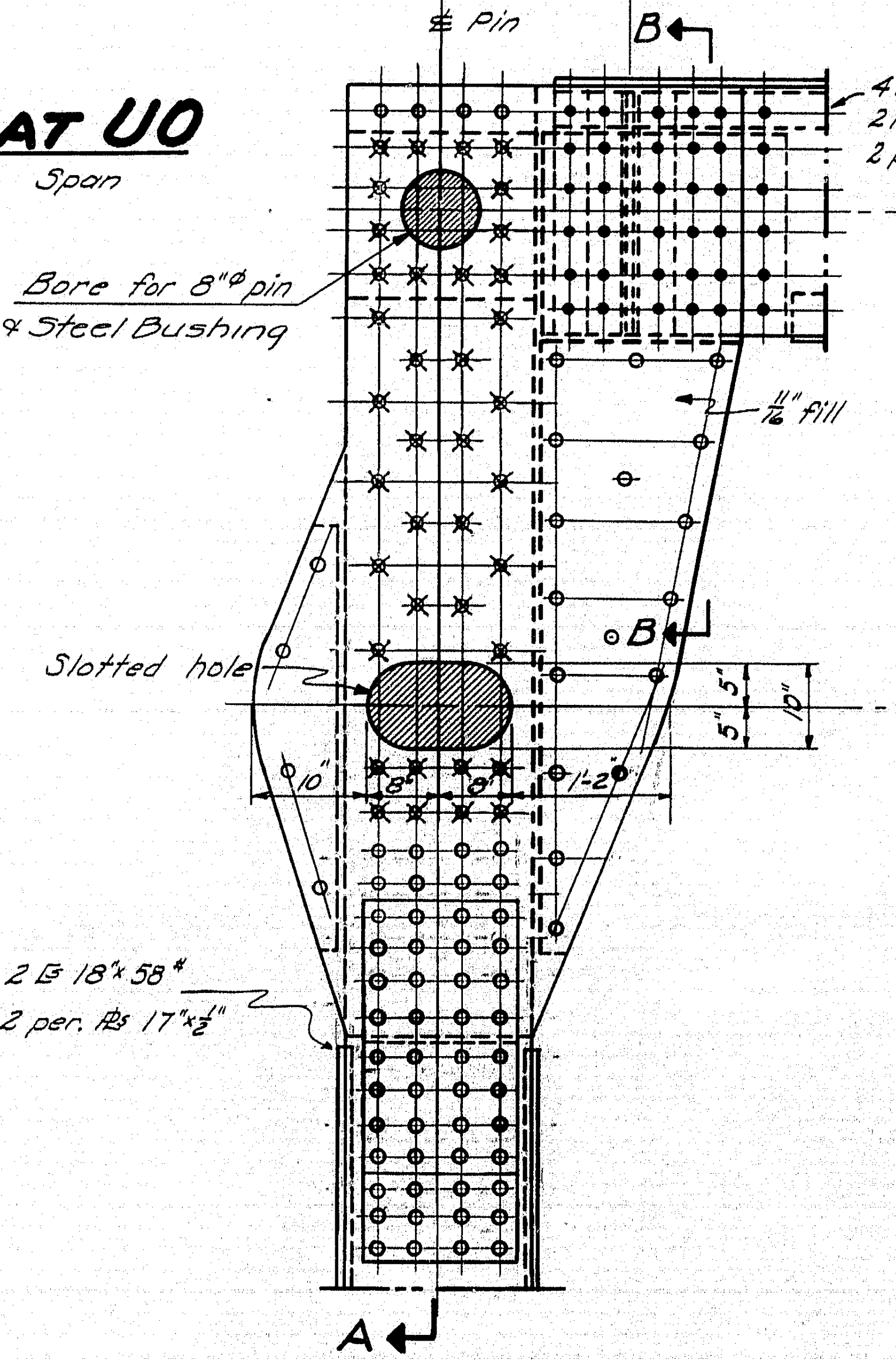


JOINT AT U0

Suspended Span

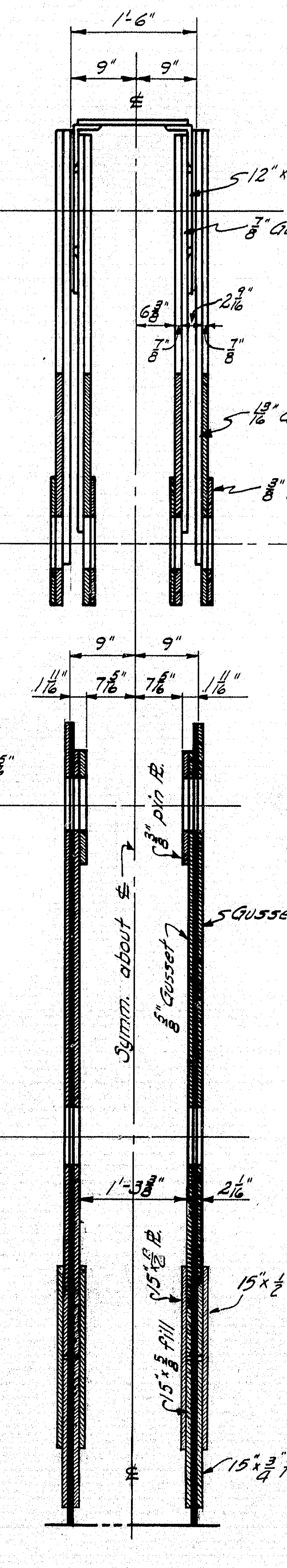


SECT. D-D

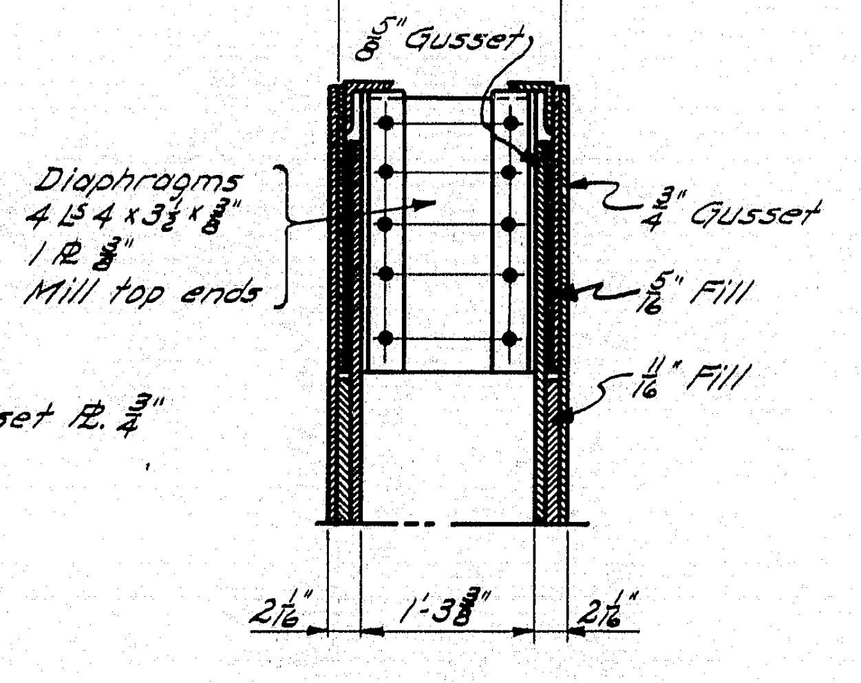


JOINT AT U0

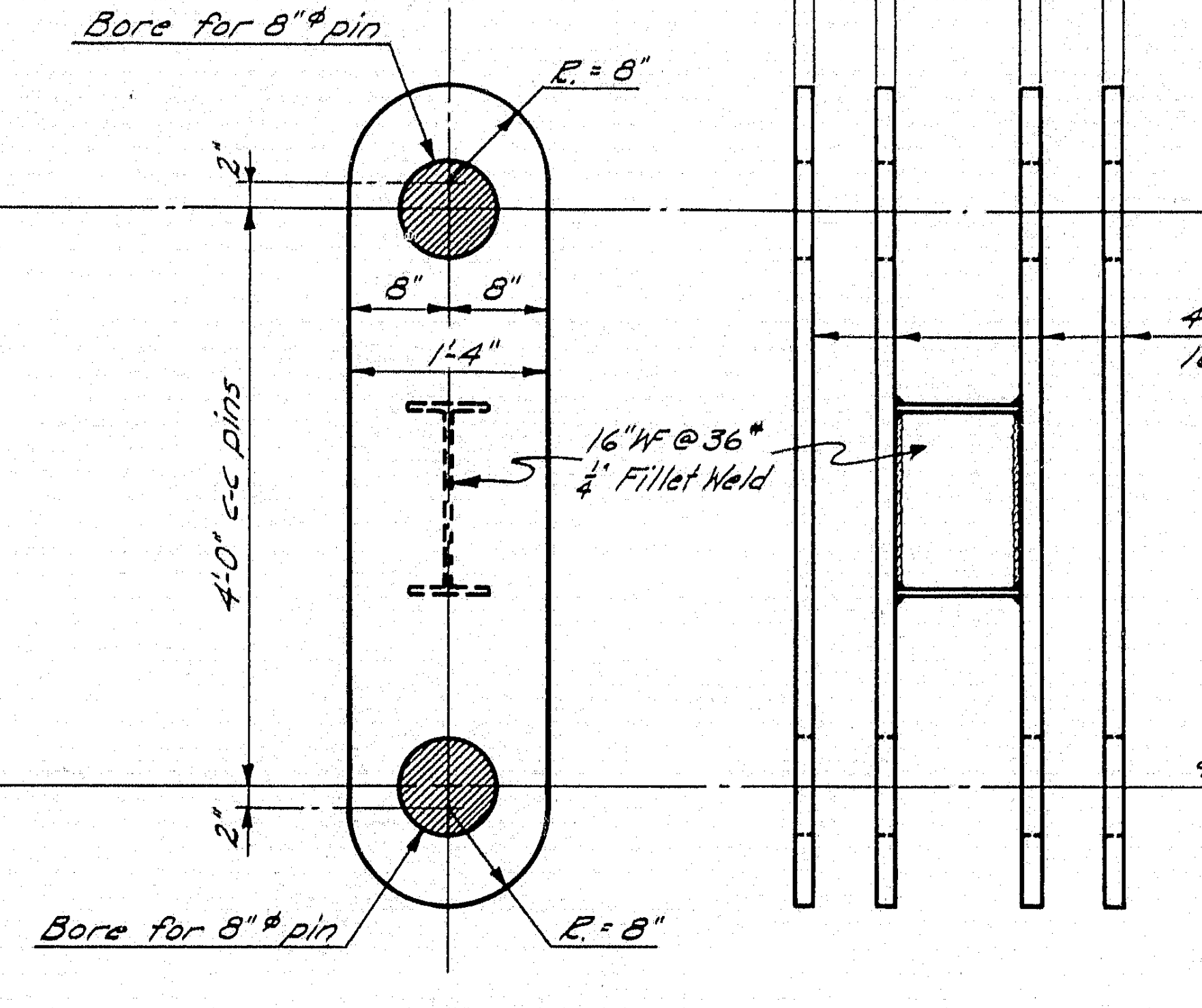
Cantilever Span



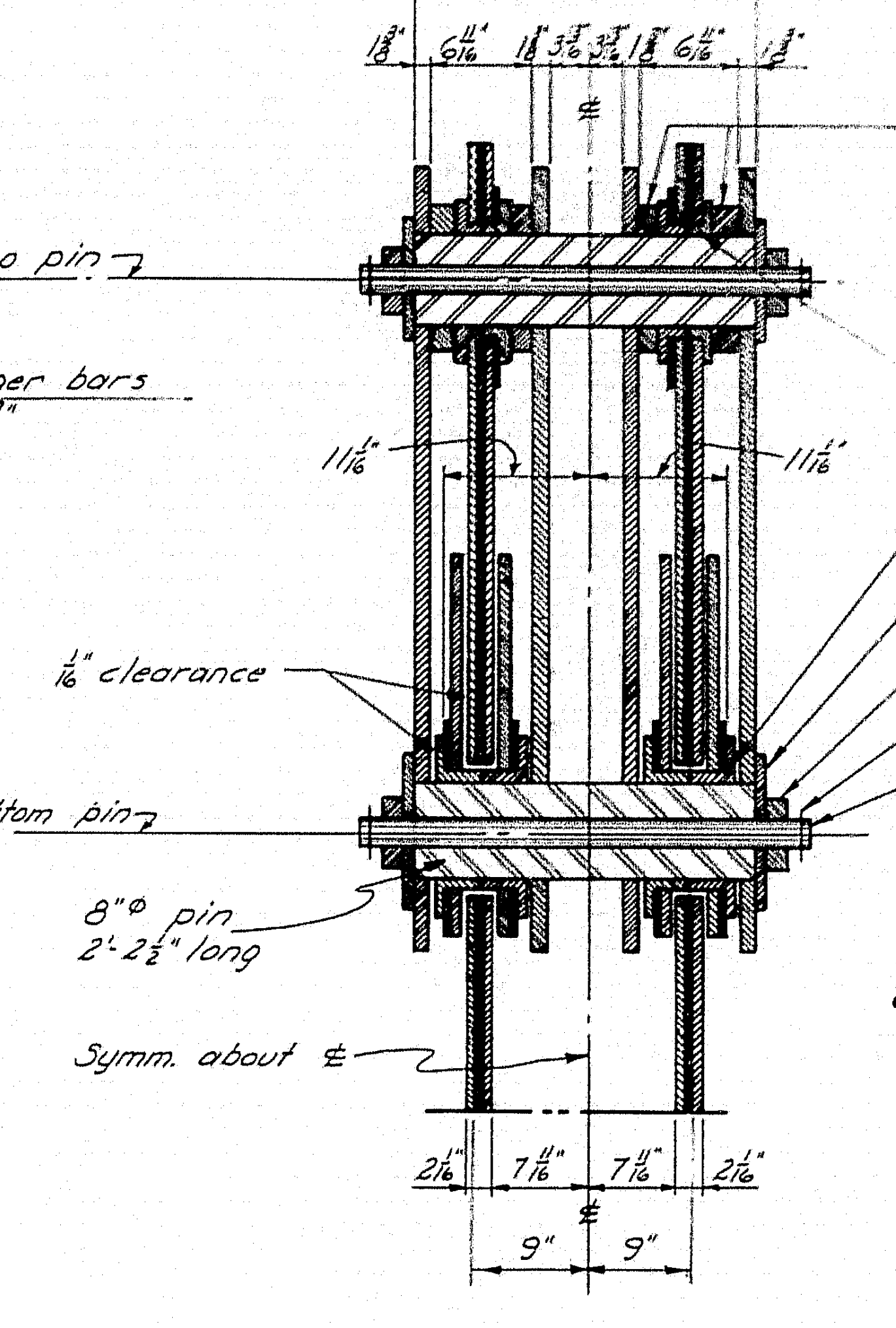
SECT. A-A



SECT. B-B



DETAIL OF LINK



NOTE: Each half of steel bushing to be held in position by 6 mach. screws 3/8"φ with c'sk, slotted heads.

LINK & PIN ASSEMBLY

Transverse Section at ℄ of Pins

DESIGN - EVERETT
DETAIL - "
TRACE - CLARK
CHECK - C.L.P.
BRIDGE - 5196

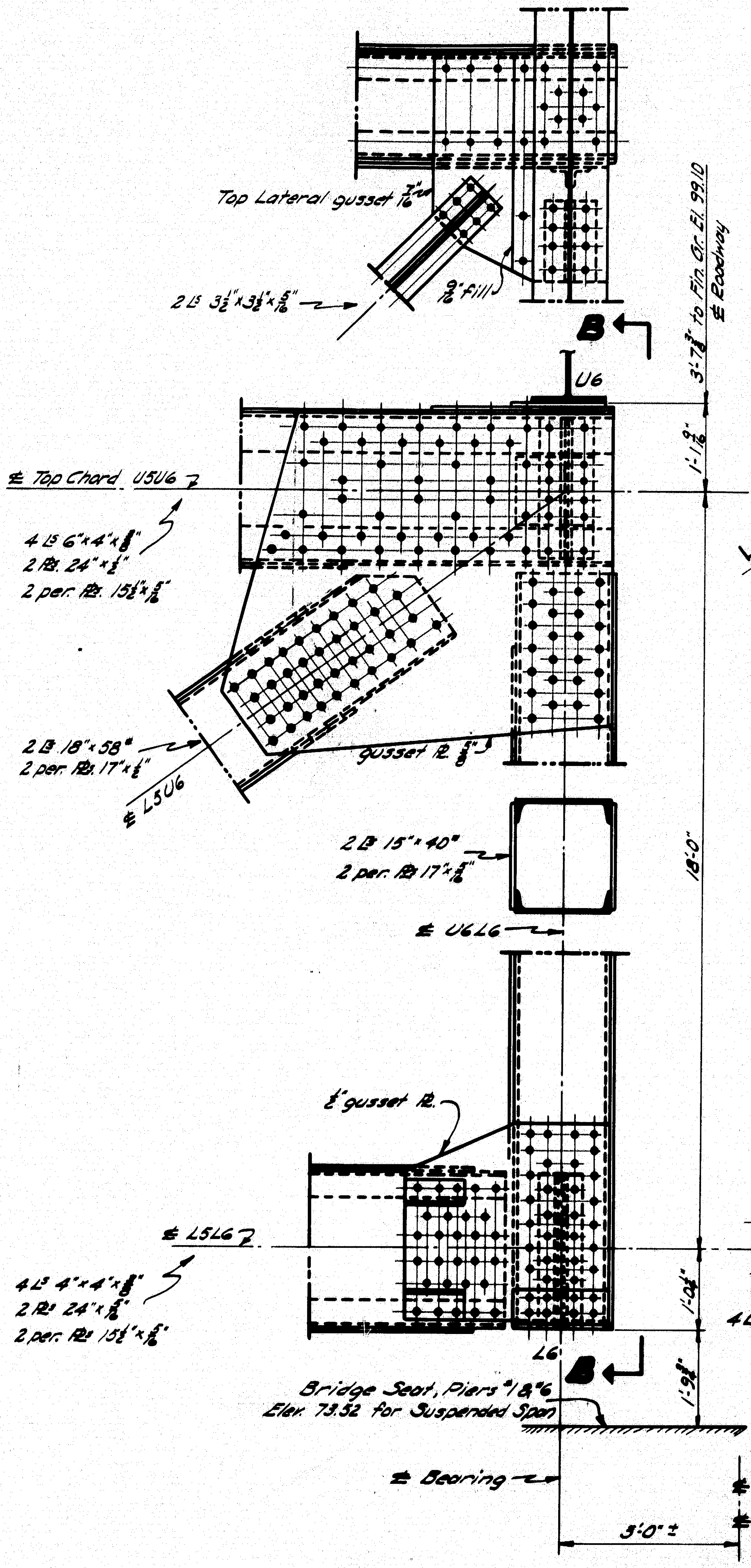
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
DETAIL - PIN & LINK
SHEET 32 OF 45 AUGUSTA, MAINE FEB. 1948

52-32

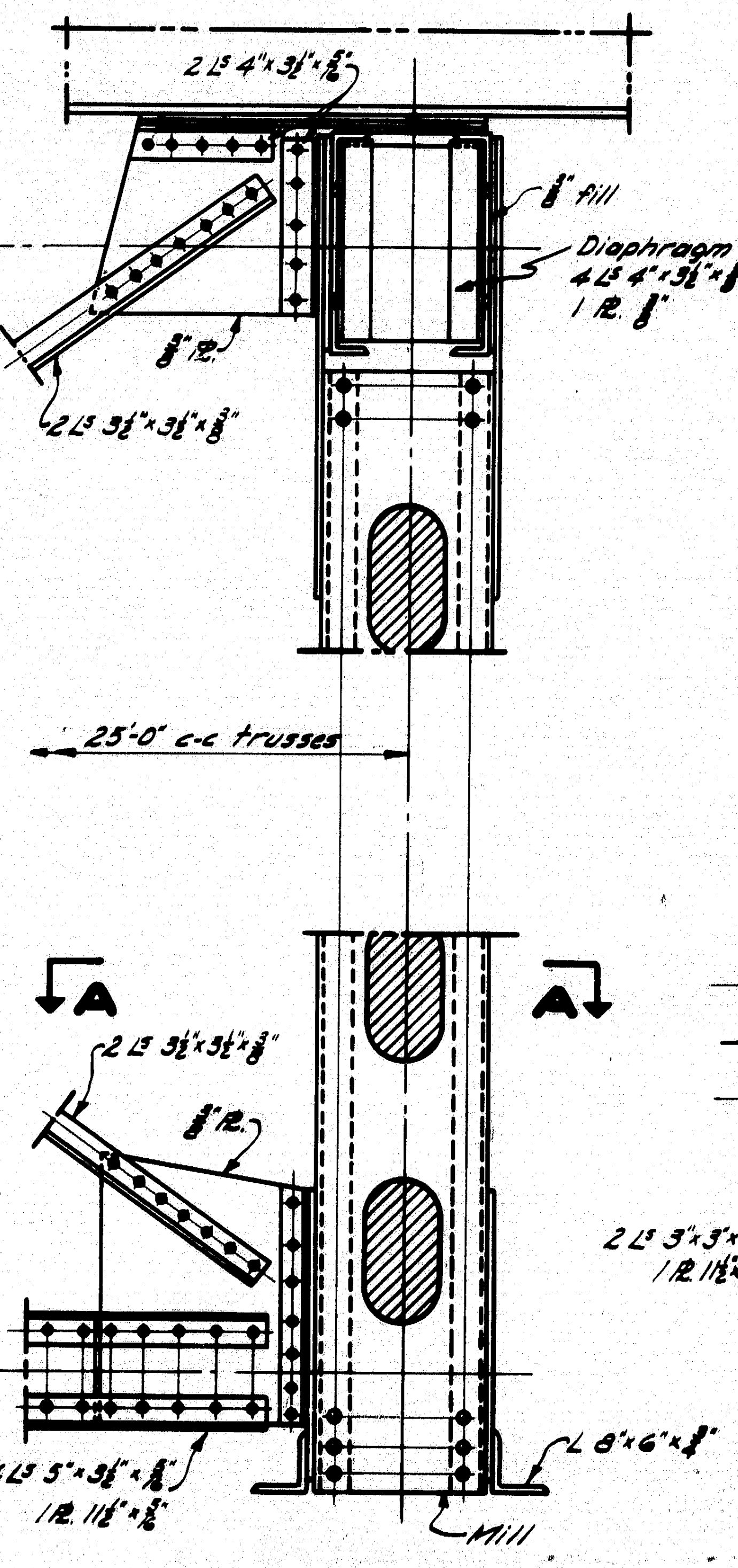
0 1 2 3 4 5 INCHES

P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI, UI-389(2)	33	45

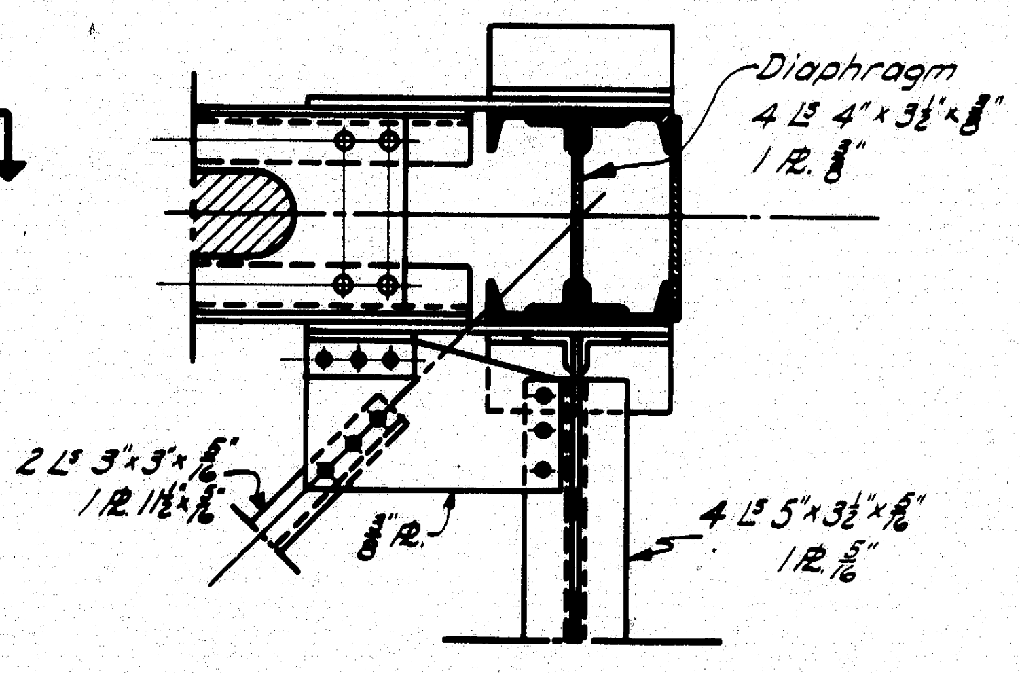


DETAIL AT U6L6

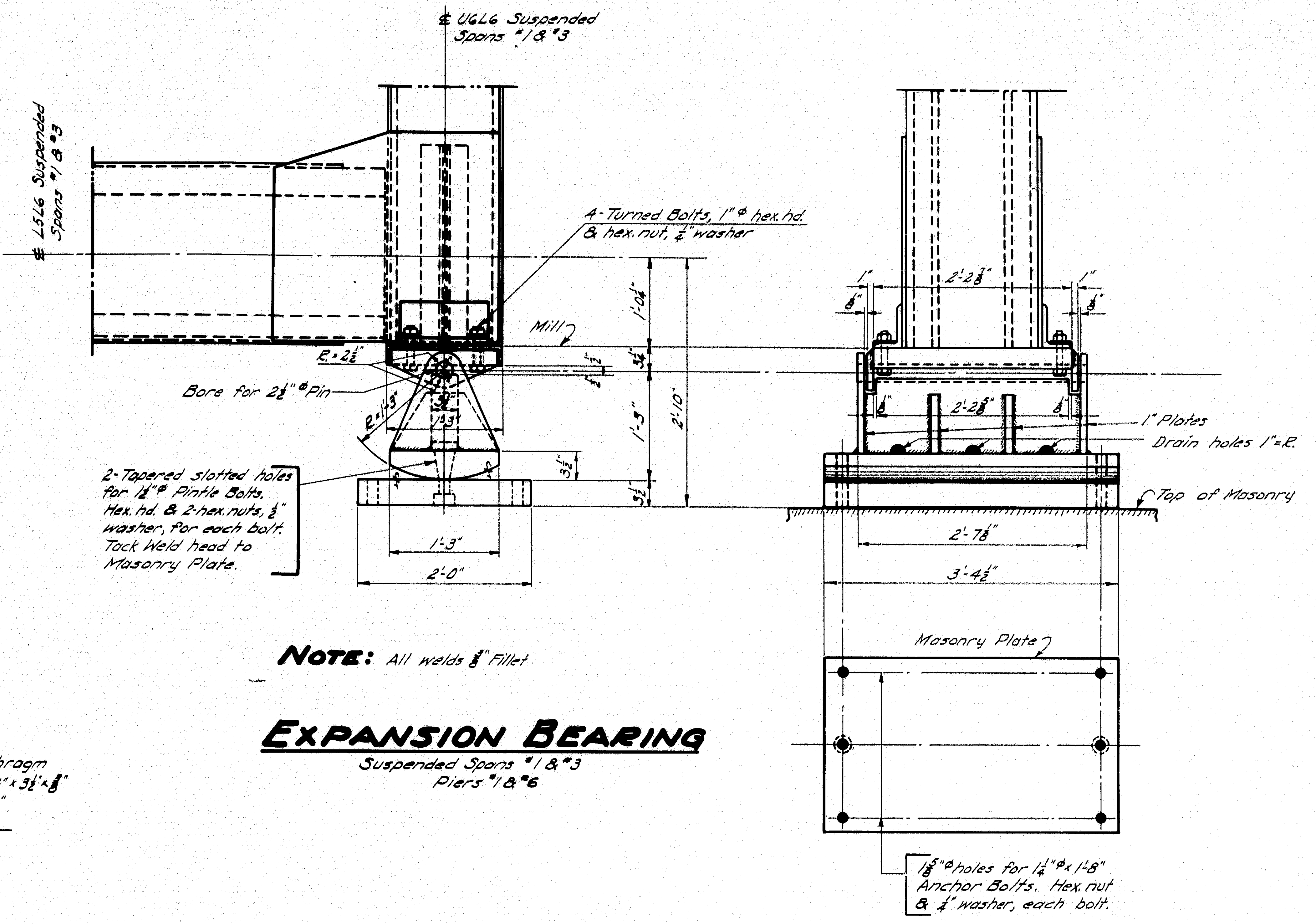
Suspended Spans #1 & #3



VIEW B-B



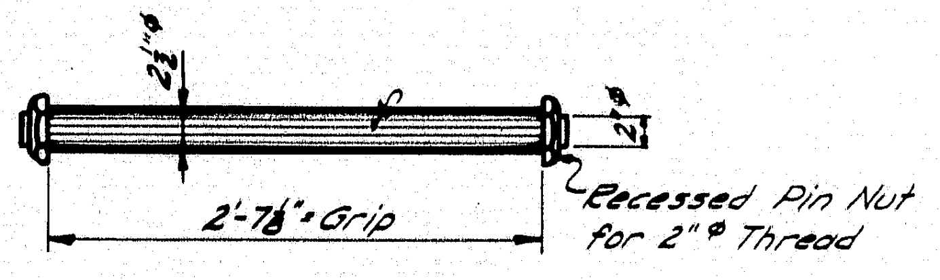
SECT. A-A


℄ U6L6 Suspended Spans #1 & #3
℄ L5L6 Suspended Spans #1 & #3
4-Turned Bolts, 1"φ hex. hd. & hex. nut, ¼" washer
Mill
R.=2½"
Bore for 2½"φ Pin
R.=1'-3"
3¼"
1'-3"
1'-0¼"
3¼"
1'-5"
2'-10"
3½"
3½"
1'-3"
2'-0"
2-Tapered slotted holes for 1½"φ Pintle Bolts. Hex. hd. & 2-hex. nuts, ½" washer, for each bolt. Tack Weld head to Masonry Plate.
1"
⅝"
2'-2⅞"
1"
⅝"
⅝"
2'-2⅝"
⅝"
1" Plates
Drain holes 1"=R.
Top of Masonry
2'-7⅛"
3'-4½"
Masonry Plate
1⅝"φ holes for 1¼"φ×1'-8" Anchor Bolts. Hex. nut & ¼" washer, each bolt.

NOTE: All welds ⅜" Fillet

EXPANSION BEARING

Suspended Spans #1 & #3
Piers #1 & #6



PIN

4-Req'd. (Piers #1 & #6)

DESIGN – EVERETT DETAIL – WHITE	TRACE – CLARK CHECK – CAB	BRIDGE – 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

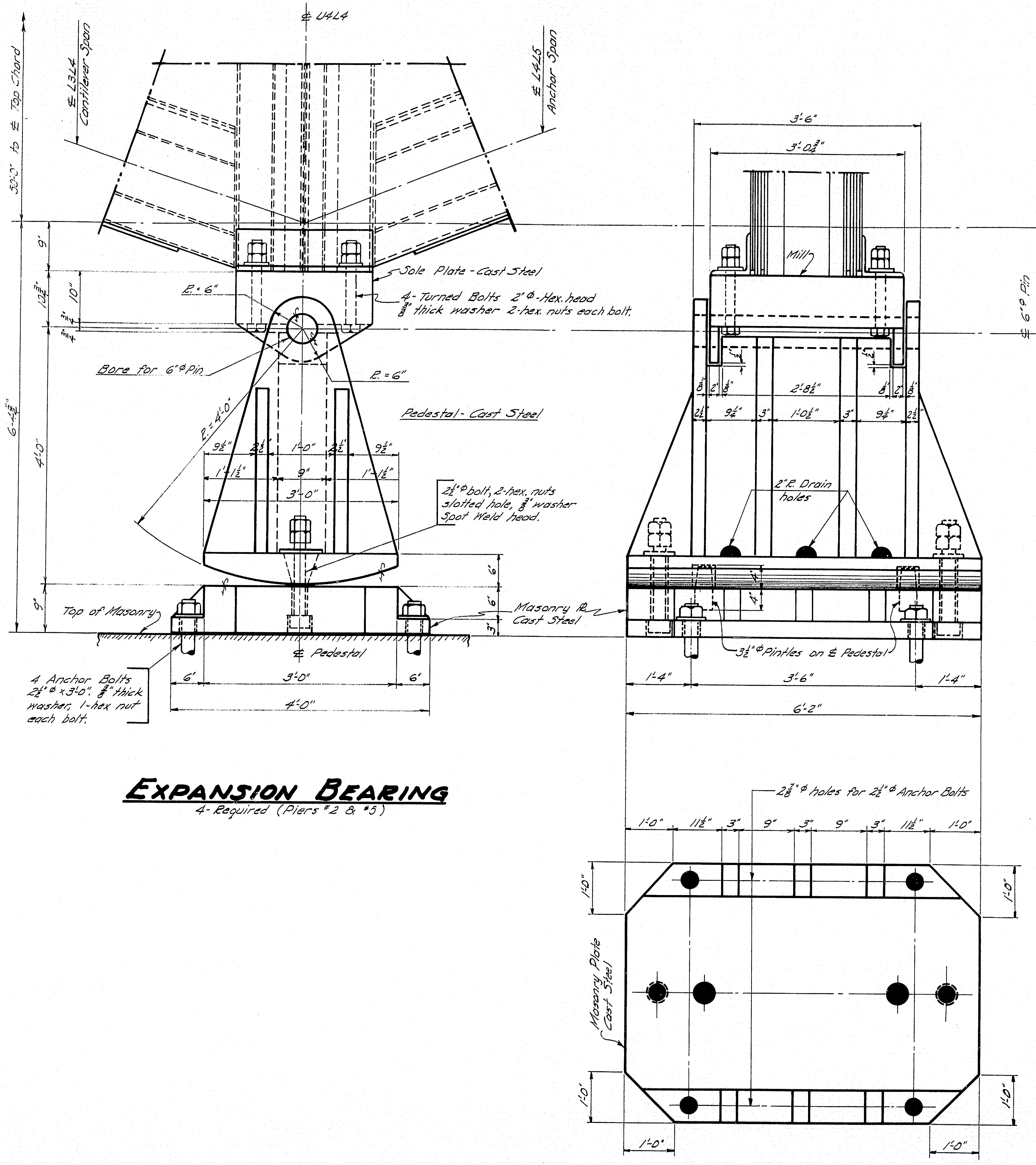
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

STEEL & BEARING DETAILS – PIERS 1 & 6
SHEET 33 OF 45 AUGUSTA, MAINE FEB. 1948

52 - 33

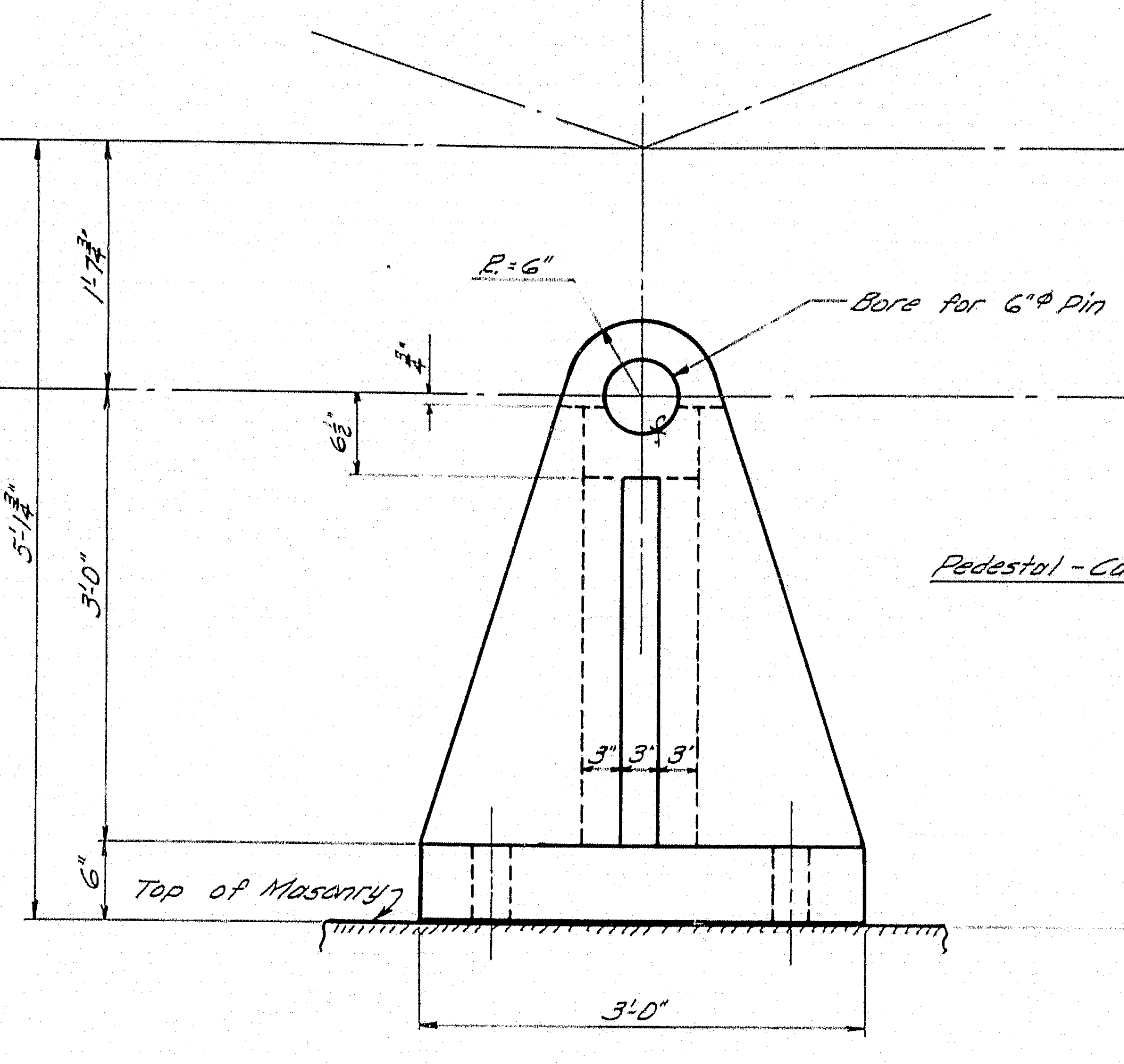
0 1 2 3 4 5 INCHES

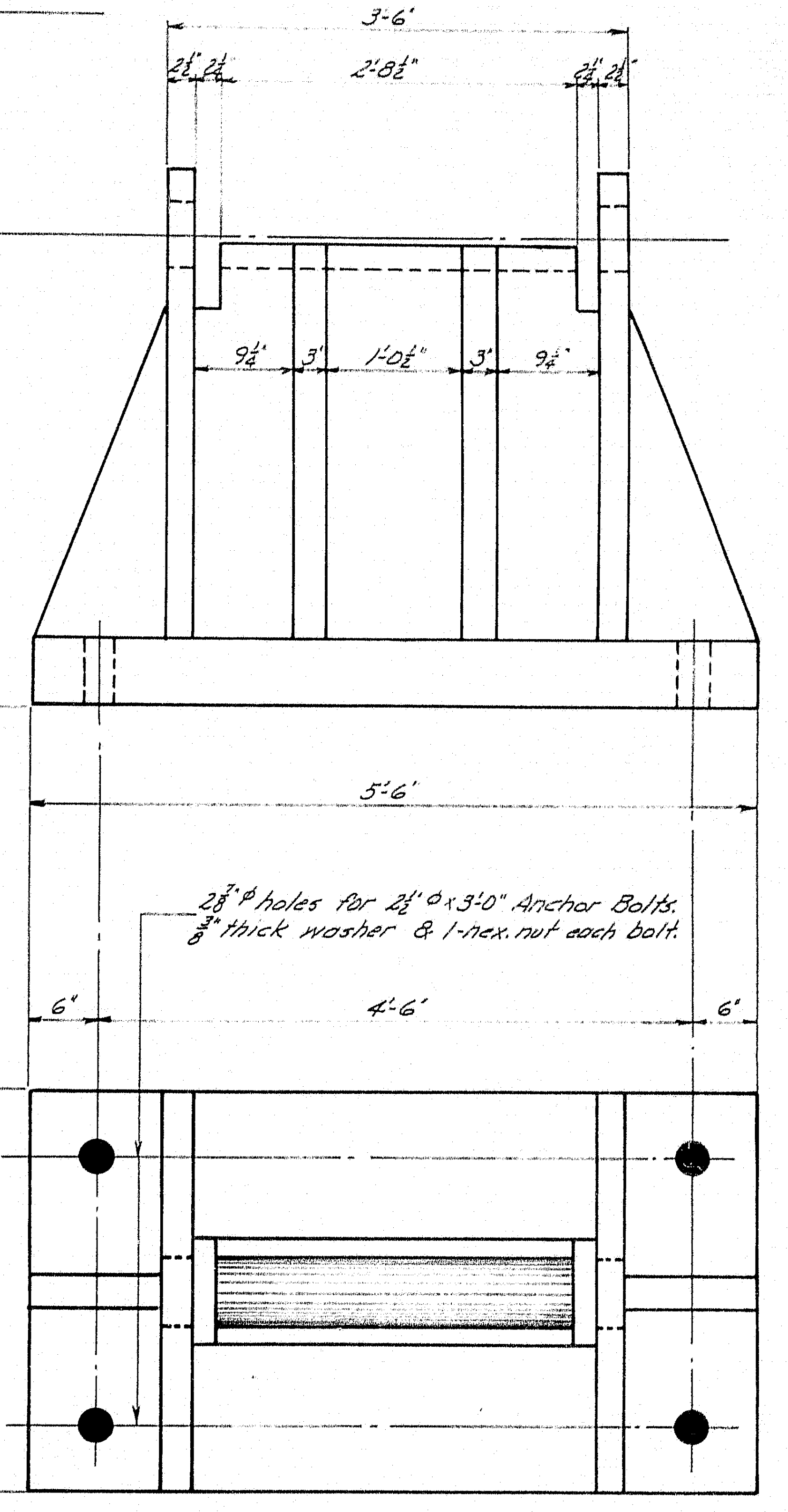
P. R. A. DIV. NO.	STATE	FED. AID PROJ. NO	SHEET NO.	TOTAL SHEETS
1	MAINE	F1,UI-389(2)	34	45



EXPANSION BEARING

4 - Required (Piers #2 & #5)

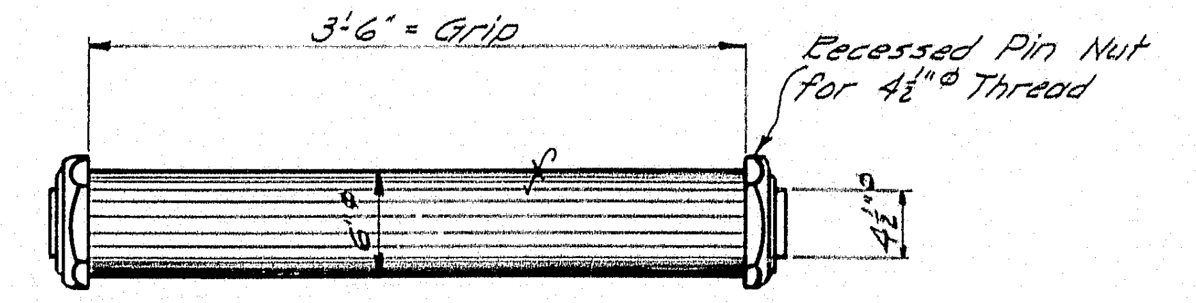




3'-6"
2½"
2¼"
2'-8½"
2¼"
2½"
9¼"
3"
1'-0½"
3"
9¼"
5'-6"
2⅞"⌀ holes for 2½"⌀ × 3'-0" Anchor Bolts. ⅜" thick washer & 1-hex. nut each bolt.
6"
4'-6"
6"
6"
2'-0"
6"

FIXED BEARING

4 - Required (Piers #3 & #4)



PIN

8 - Required (Piers #2, 3, 4, & 5)

DESIGN - EVERETT
DETAIL - WHITE
TRACE - CLARK
CHECK - CAB
BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

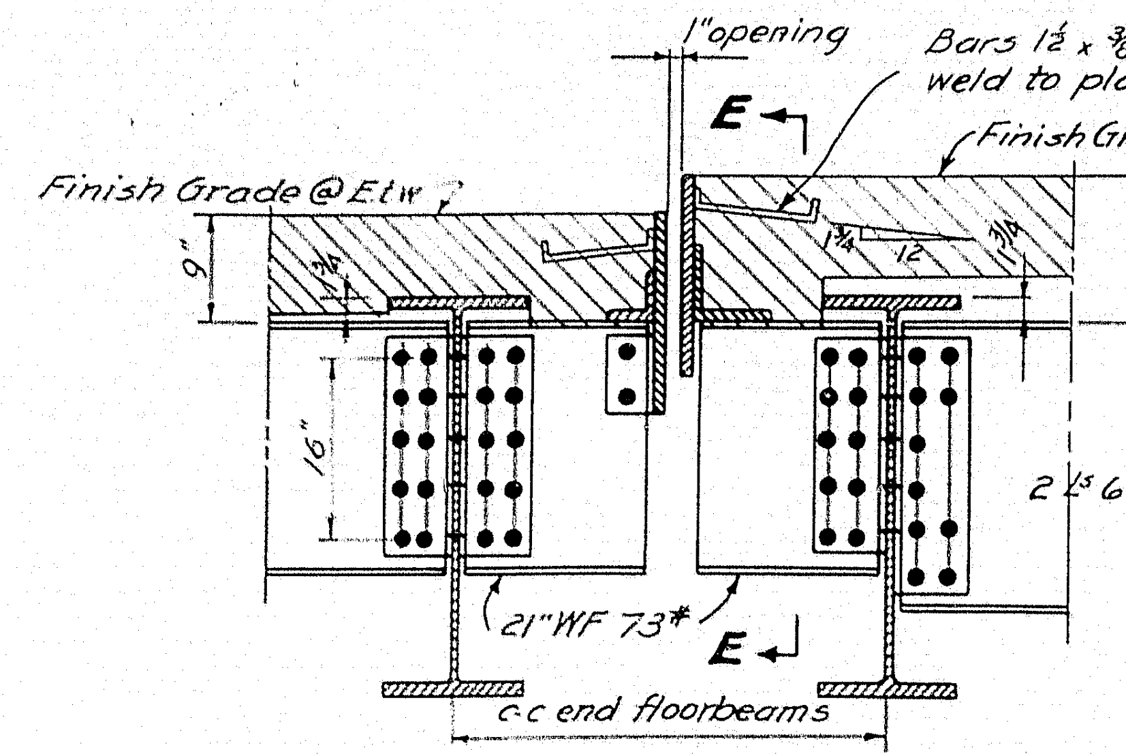
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

EXP. & FIX. BEARINGS-TRUSS SPANS-PIERS 2,3,4,5
SHEET 34 OF 45 AUGUSTA, MAINE FEB. 1948

52-34

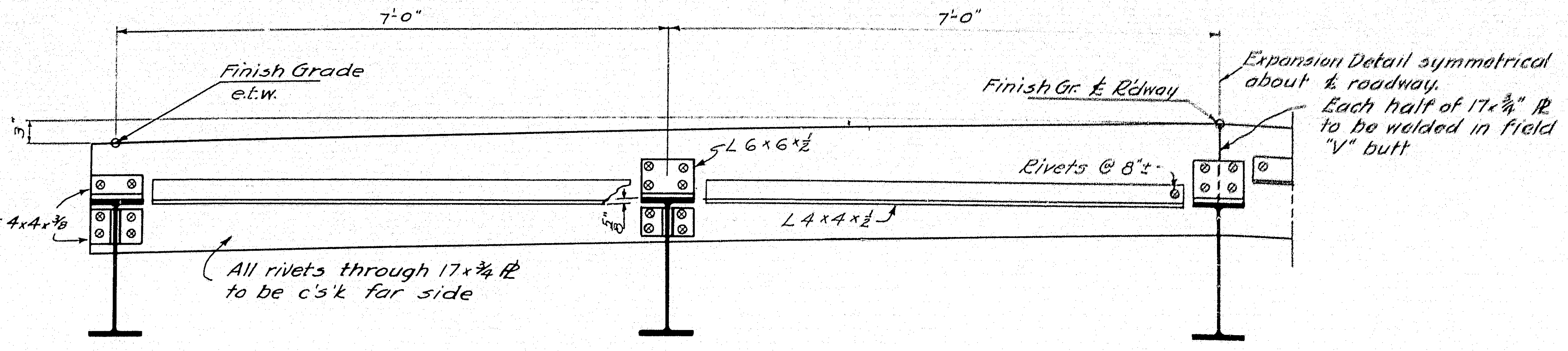
0 1 2 3 4 5 INCHES

P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI,U,389(2)	35	45

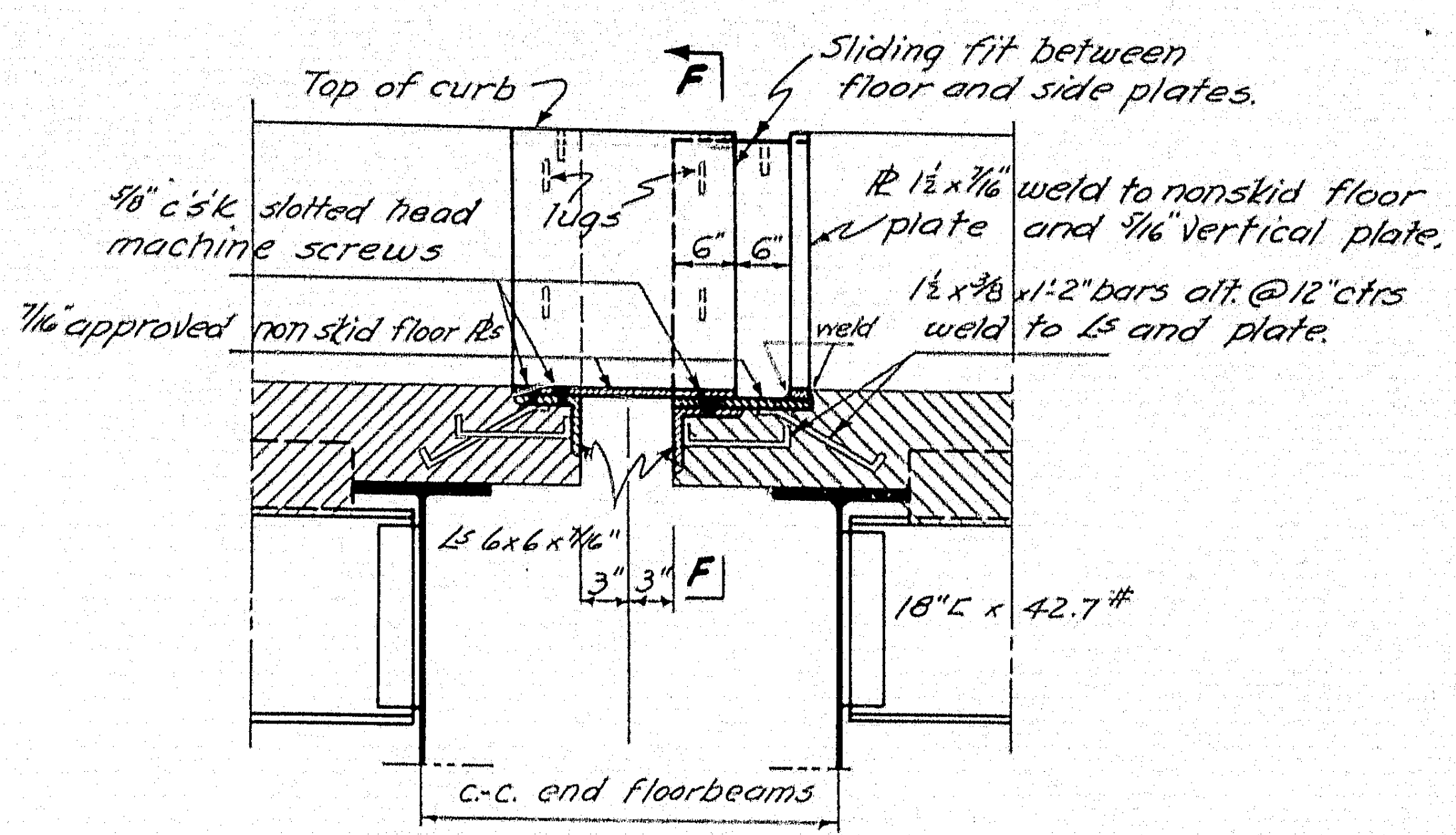


ROADWAY EXPANSION DETAIL

at fixed pins between (Cantilever span #1, Suspended span #1
" " 2 " " 2
" " 4 " " 3

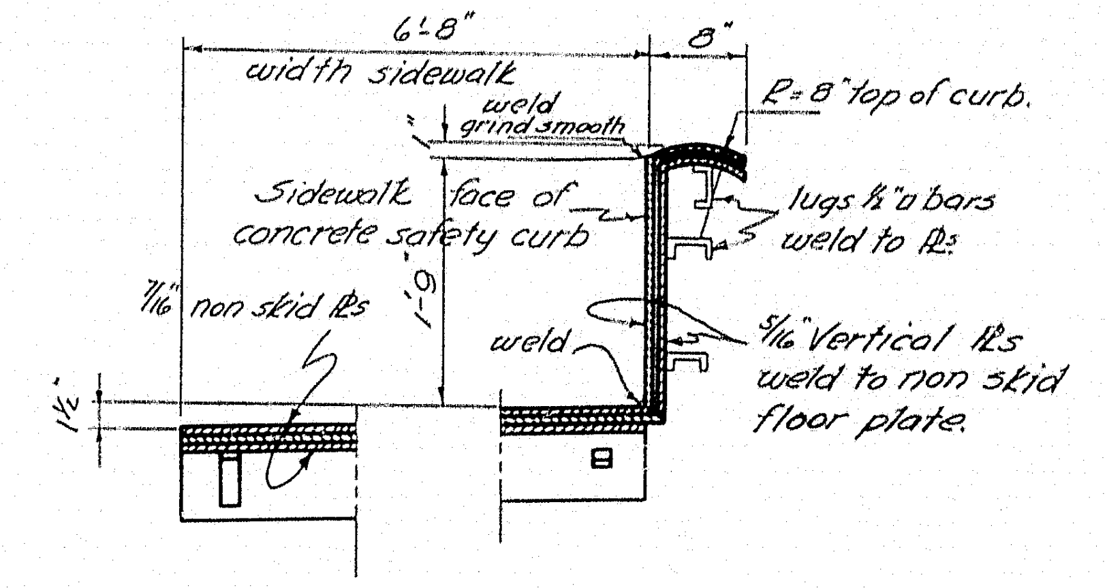

7'-0"
7'-0"
Finish Grade e.t.w.
3"
∠s 4x4x⅜
∠ 6x6x½
⅝"
Finish Gr. ℄ R'dway
Expansion Detail symmetrical about ℄ roadway.
Each half of 17x¾" ℘ to be welded in field "V" butt
Rivets @ 8"±
∠ 4x4x½
All rivets through 17x¾ ℘ to be c's'k far side

SECTION E-E


Top of curb
F
Sliding fit between floor and side plates.
⅝" c's'k slotted head machine screws
lugs
℘ 1½x7/16" weld to nonskid floor plate and 5/16" vertical plate.
6"
6"
1½ x ⅜ x 1'-2" bars alt. @ 12" ctrs weld to ∠s and plate.
7/16" approved non skid floor ℘s
weld
∠s 6x6x7/16"
3"
3"
F
18"[x 42.7#
c.-c. end floorbeams

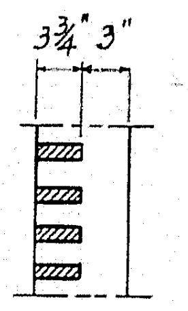
SIDEWALK EXPANSION DETAIL

Detail at link and between spans at pier #1 and pier #6.
Sidewalk expansion plates for all spans to be fabricated and delivered by the Structural Steel Contractor; and erected by the Superstructure Floor Contractor.

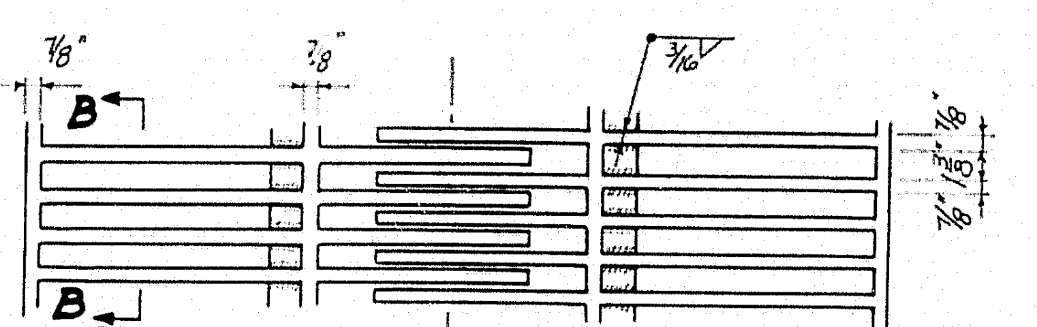


PART SECTION F-F

Note: For sidewalk expansion details between
Cantilever span #1 + suspended span #1
" " 2 " " 2
" " 4 " " 3
see details for sidewalk expansion dam sheet #40

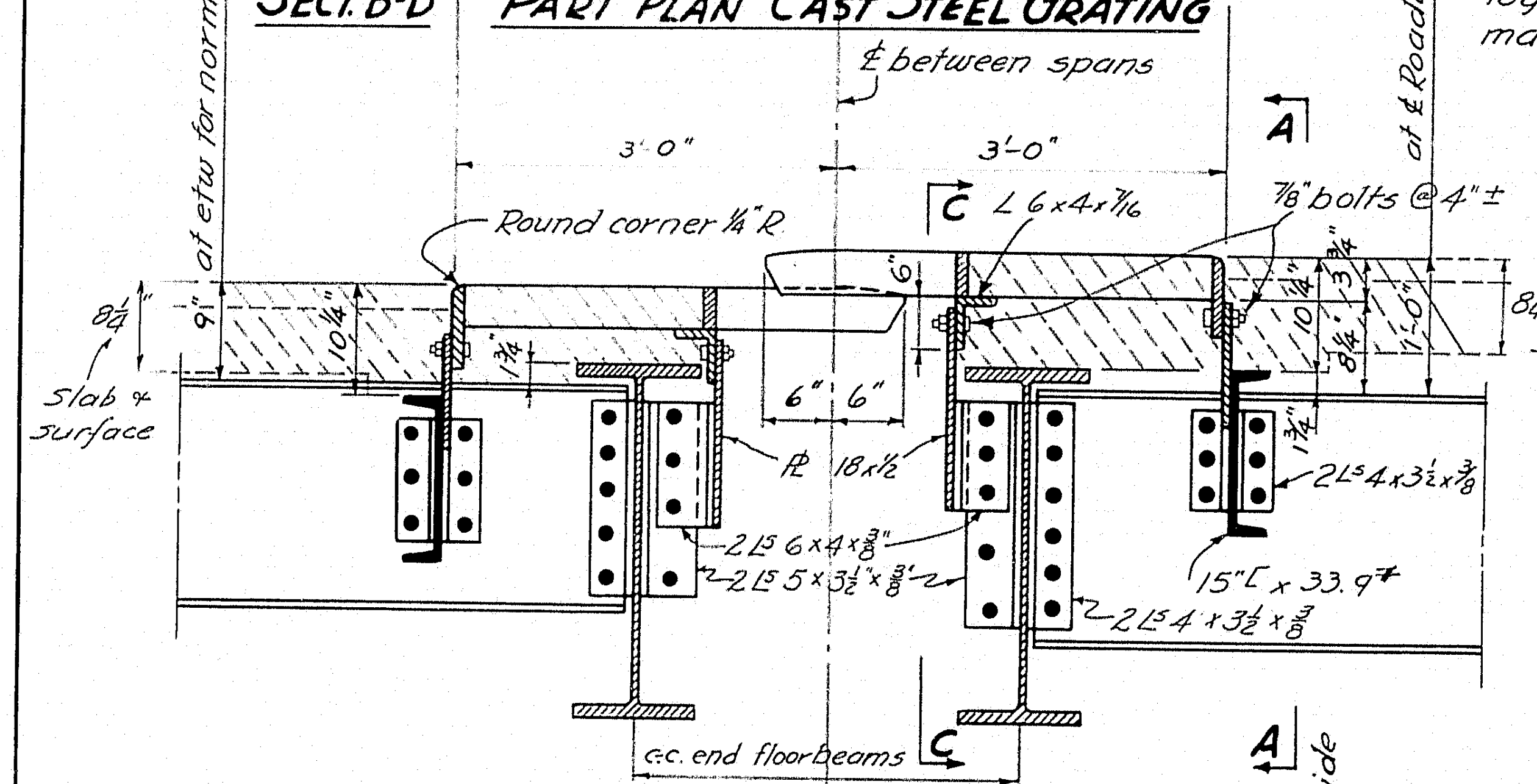


SECT. B-B



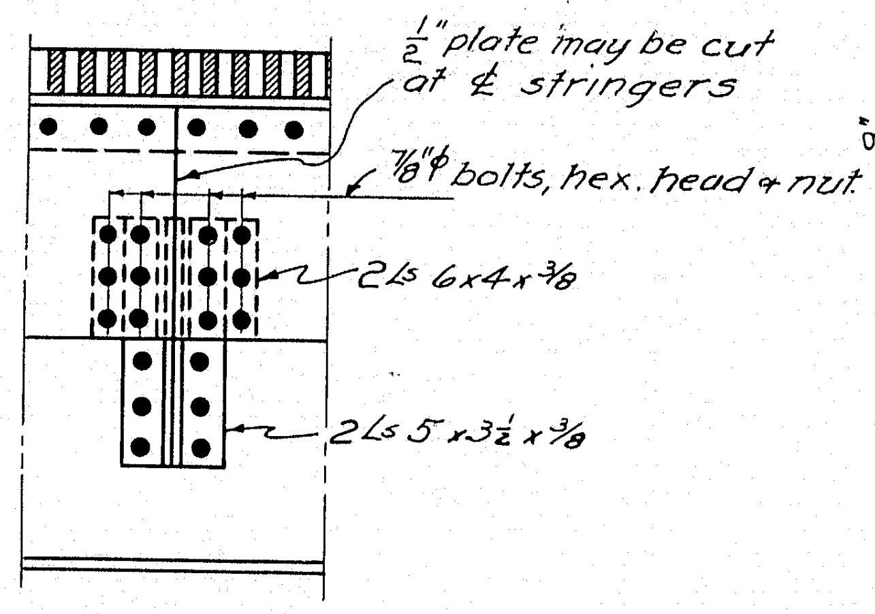
PART PLAN CAST STEEL GRATING

Note: Steel grating may be cast in sections. Min. widths to be c.-c. of grating supports. Ends of sections to engage at least three bolts in grating supports. Sections to be welded together after field erection. Make one rough machine cut over tops of all castings.

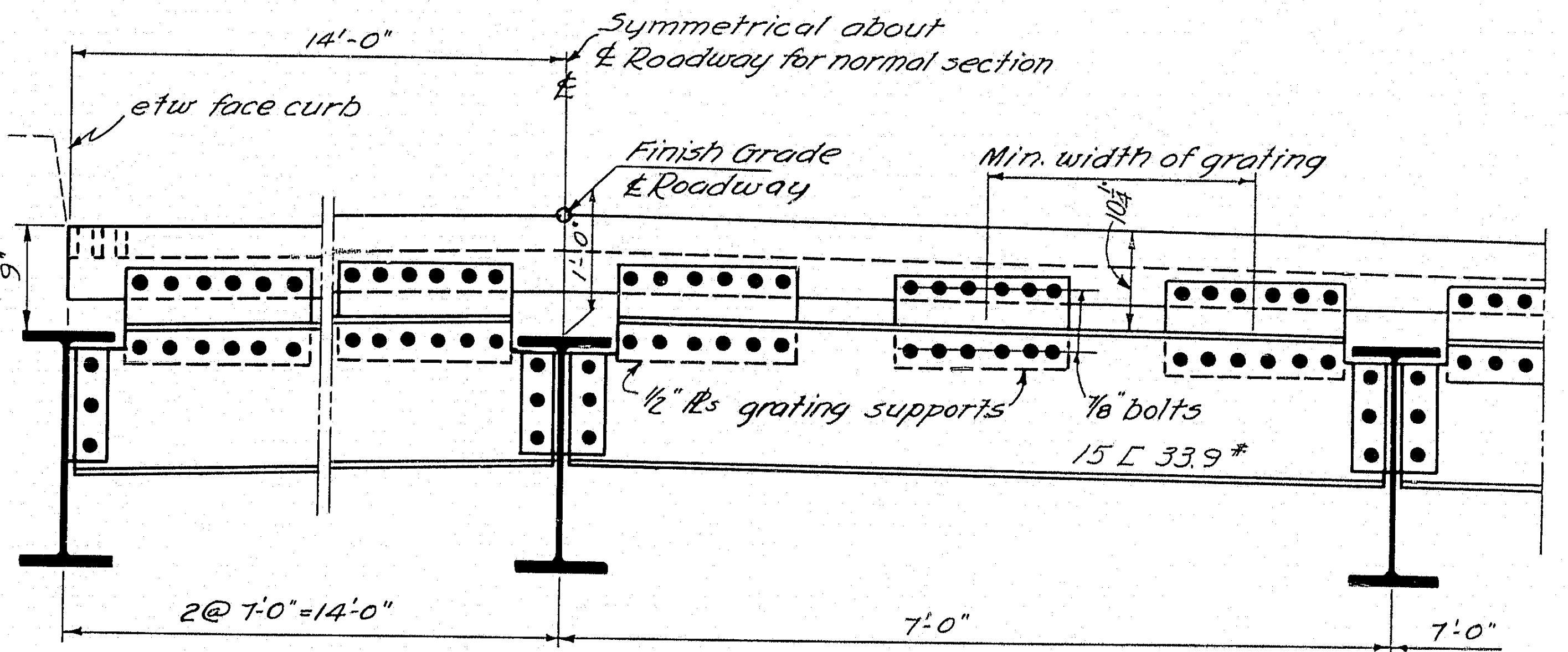


EXPANSION DETAIL

Normal section at link and at pier #1 for span #1 and suspended span #1

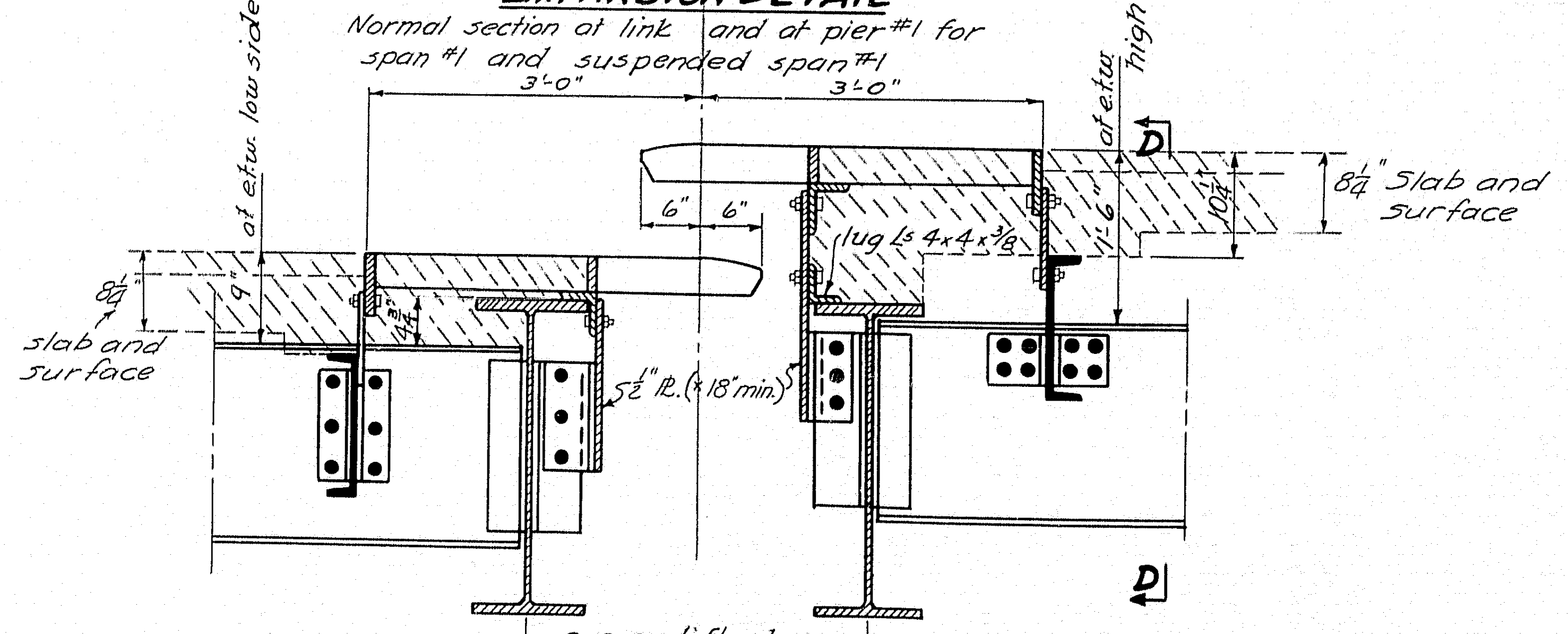

½" plate may be cut at ℄ stringers
⅞"φ bolts, hex. head + nut.
2 ∠s 6x4x⅜
2 ∠s 5x3½x⅜

VIEW C-C



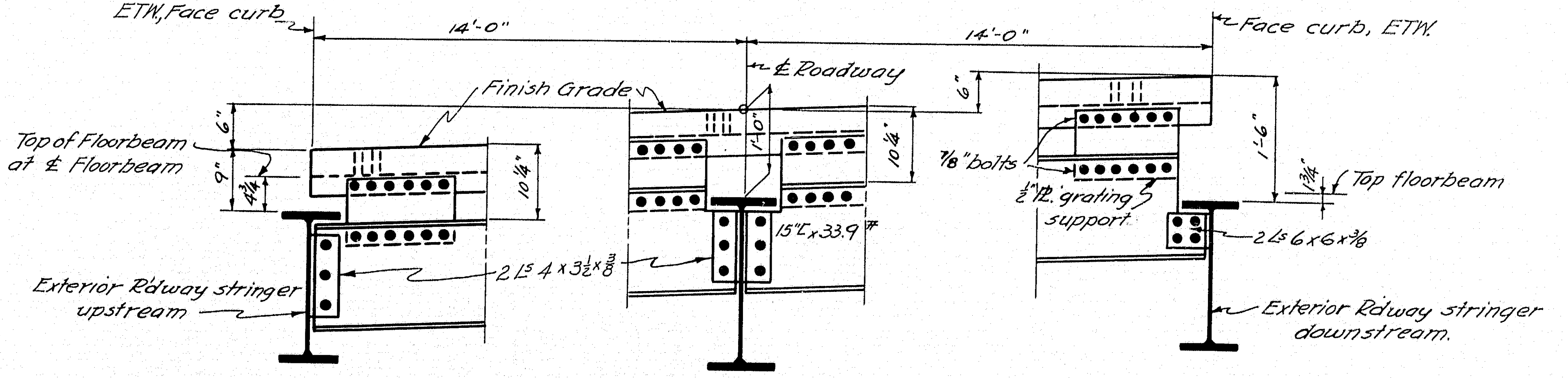
PART SECTION A-A

Normal section at link and at span #1 and suspended span #1



EXPANSION DETAIL

At pier #6 for suspended span #3 and plate girder span #7.



PART SECTION D-D

Bank section at pier end of suspended span #3 and plate girder span #7.

DESIGN – EVERETT	TRACE – BOYD	BRIDGE – 5196
DETAIL – "	CHECK – CAB	

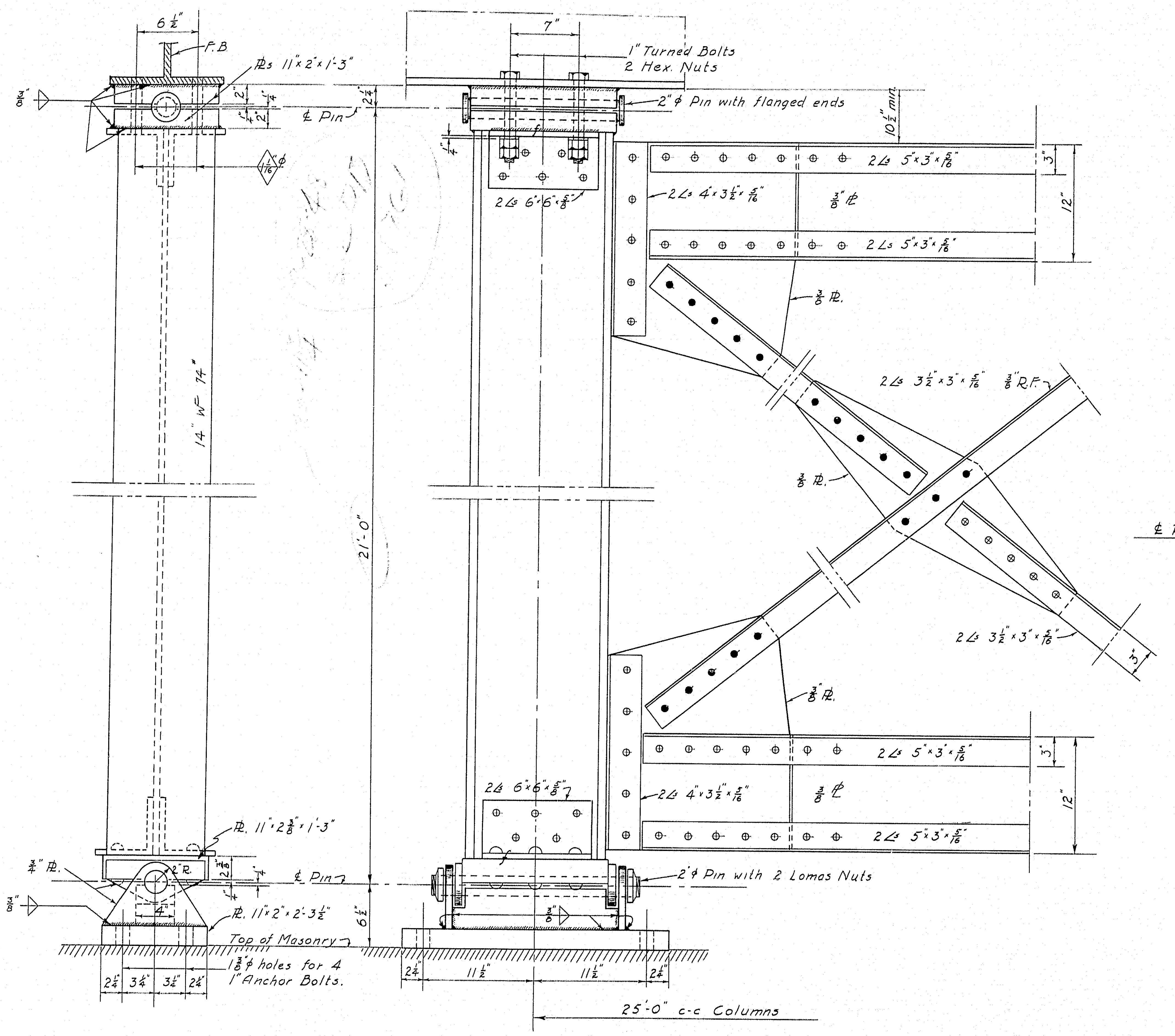
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

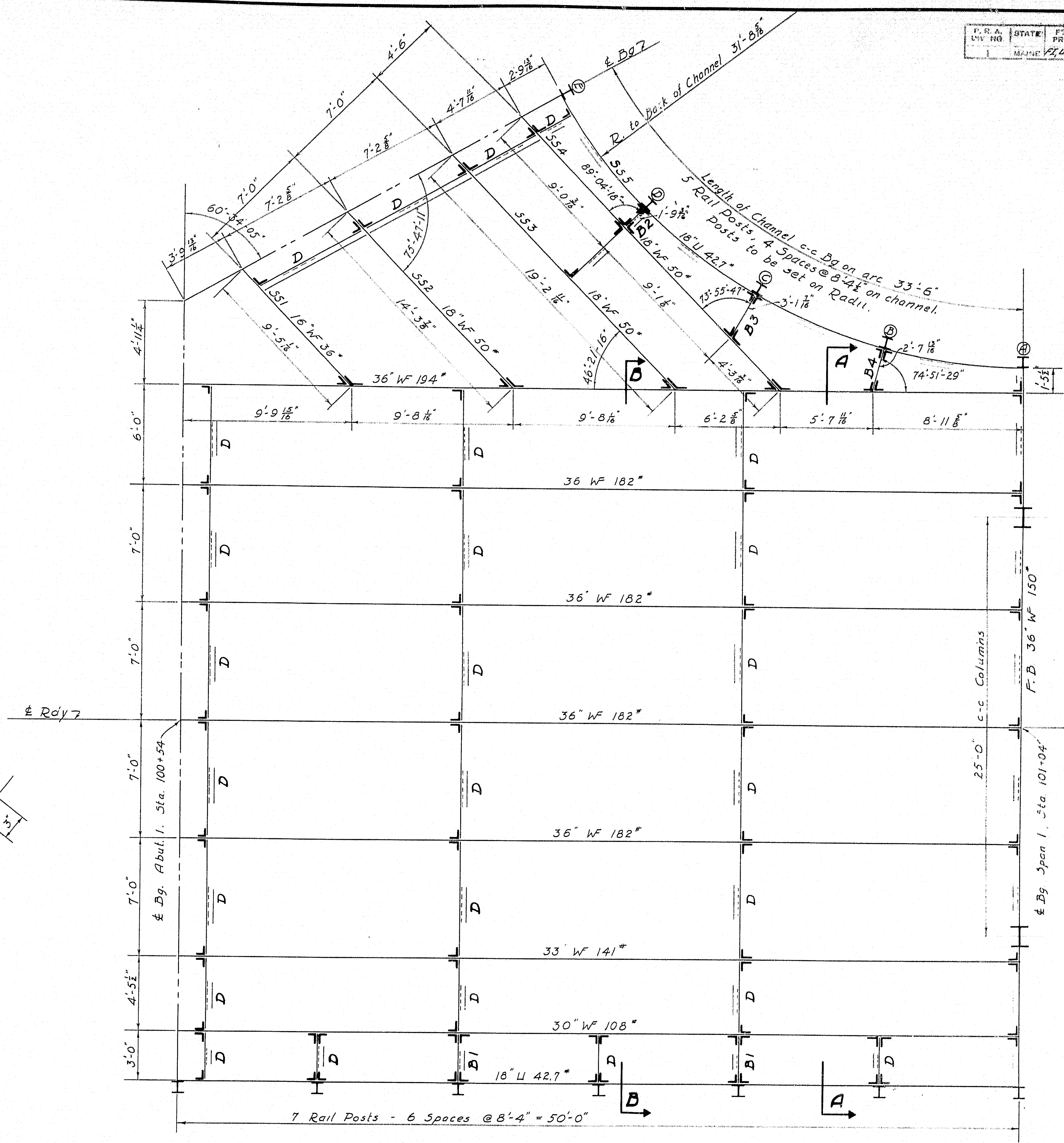
FLOOR EXPANSION DETAILS
SHEET 35 OF 45 AUGUSTA, MAINE FEB. 1948

52-35

P.R.A. DIV NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI, UI-389(2)	36	45



COLUMN DETAILS AT PIER 1 FOR SPAN 1



LAYOUT SPAN 1

B indicates Bracket
D indicates Diaphragm

Work this Sheet with Sheet #37

DESIGN - ALLEN TRACE - FORTIER
DETAIL - " CHECK - Hamilton

BRIDGE - 5196

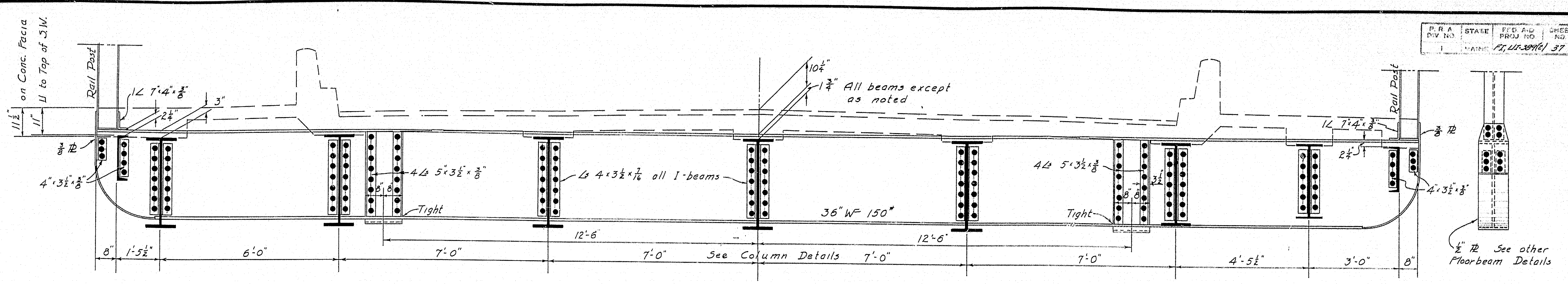
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
STEEL DETAILS - SPAN NO. 1
SHEET 36 OF 45 AUGUSTA, MAINE FEB. 1946

52-36

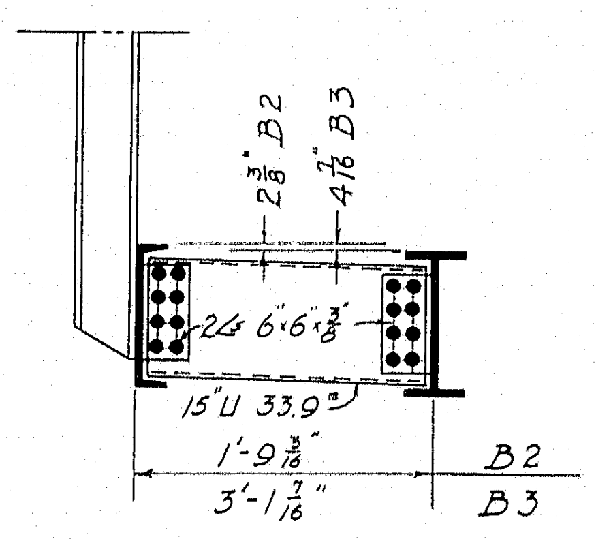
0 1 2 3 4 5 INCHES

P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI, UI-384(2)	37	45

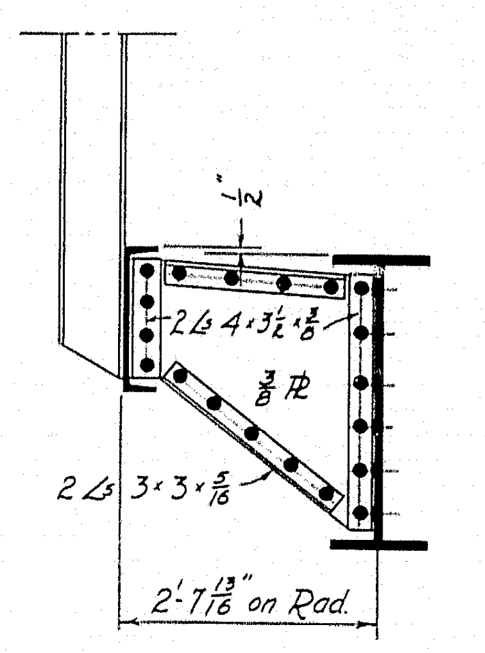


FLOORBEAM

See Detail on Sheet 35 for Diaphragms used with Expansion Detail

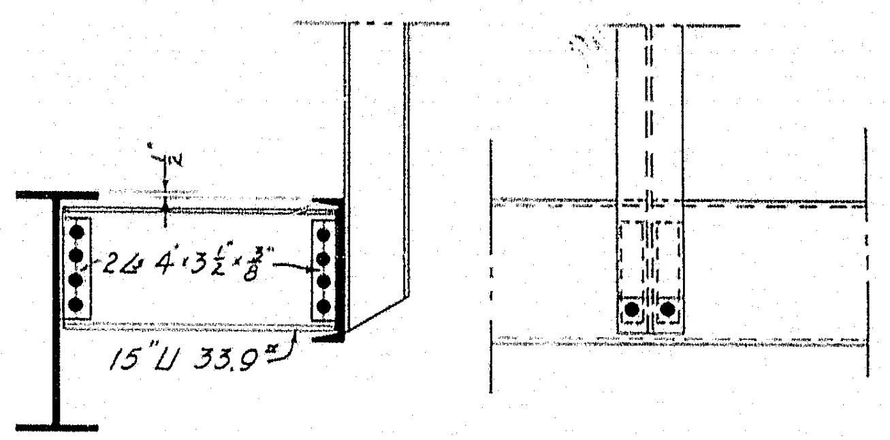


BRACKETS B2-B3

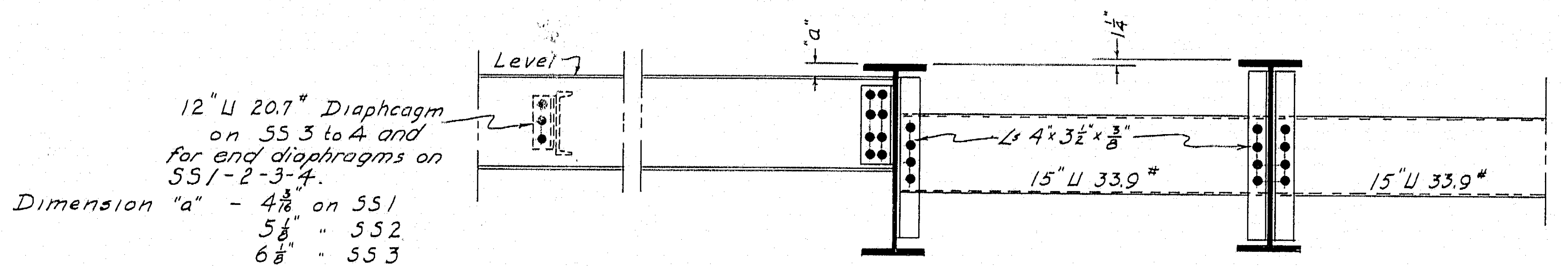


BRACKET B4

PART SECTION A-A

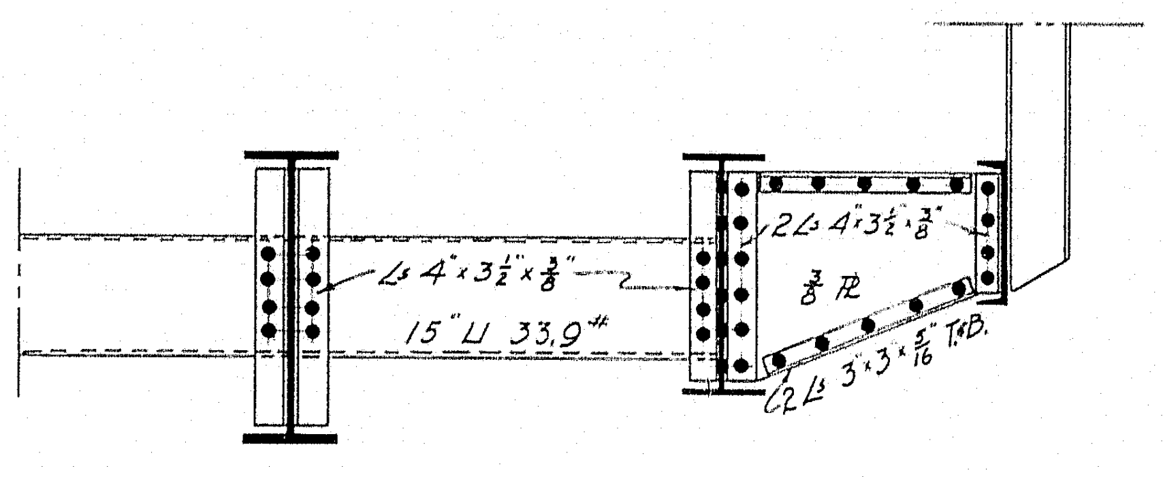


S W DIAPHRAGM

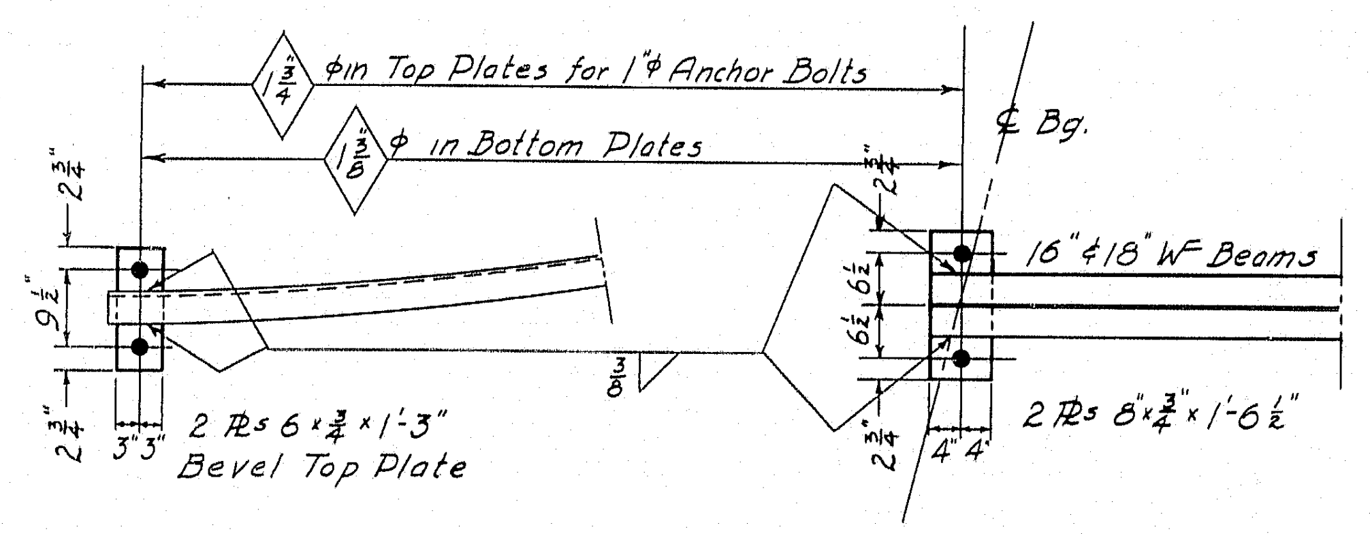

12" ⊔ 20.7# Diaphragm on SS 3 to 4 and for end diaphragms on SS 1-2-3-4.
Dimension "a" - 4⅞ on SS1
5⅜ - SS2
6⅝ - SS3
4 15/16 - SS4
Level
"a"
1⅛
∠ 4·3½·⅜
15" ⊔ 33.9#
15" ⊔ 33.9#

STRINGERS SS 1-2-3-4

PART SECTION B-B

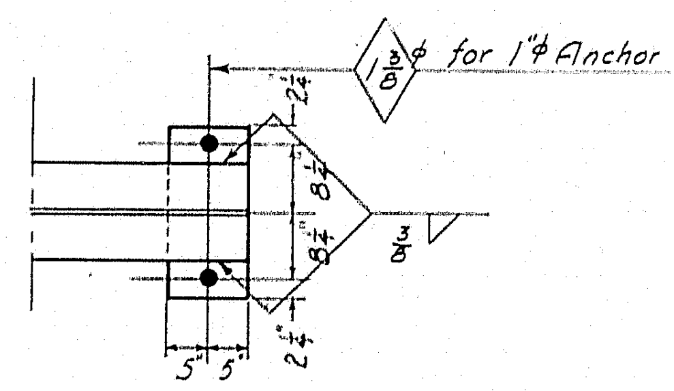


S W BRACKET B1

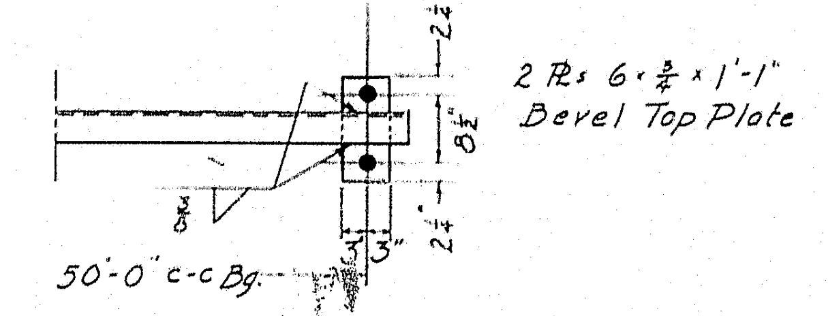


BEARING PLATES for SIDE SPAN CHANNEL

BEARING PLATES for SIDE SPAN I-BEAMS

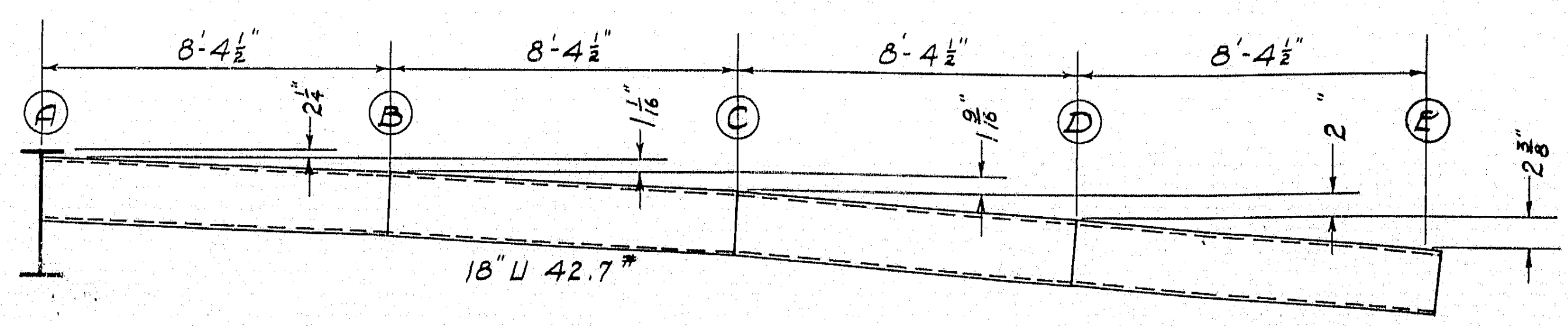


BEARING PLATES for MAIN SPAN I-BEAMS



BEARING PLATES for MAIN SPAN CHANNEL

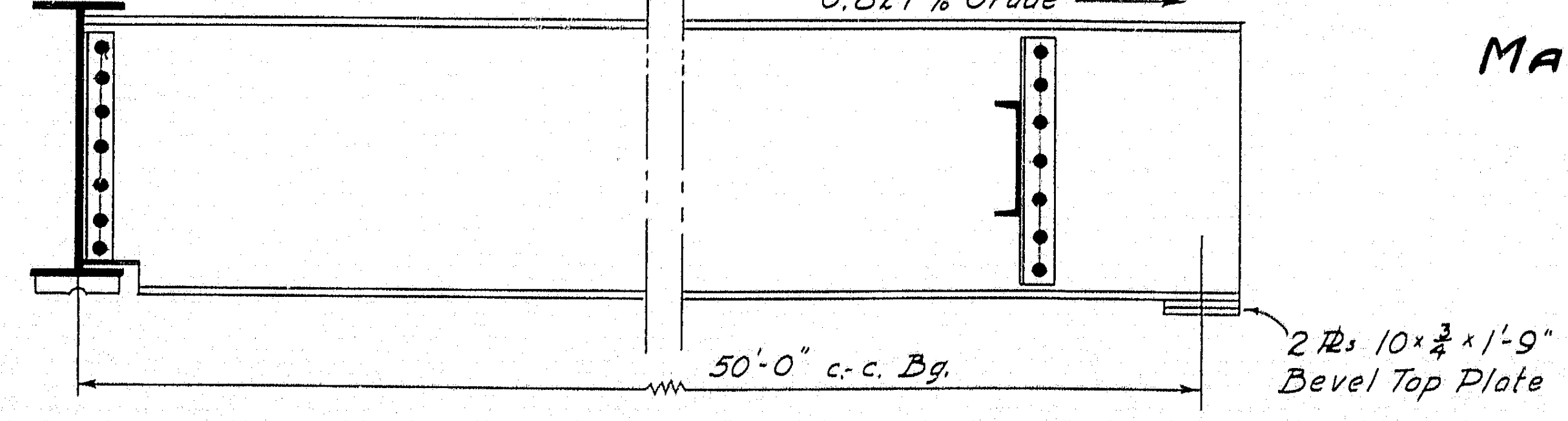
WORK THIS SHEET WITH SHEET No. 36



STRINGER SS5

Developed & connections not shown

Note: Rail Posts at Ⓐ Ⓑ Ⓒ Ⓓ & Ⓔ are to be set vertical and the top of the posts to be 4'-10" above the top of the channel at these points.



TYPICAL STRINGERS

DESIGN - ALLEN	TRACE - FORTIER	BRIDGE - 5196
DETAIL - "	CHECK - Hamilton	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

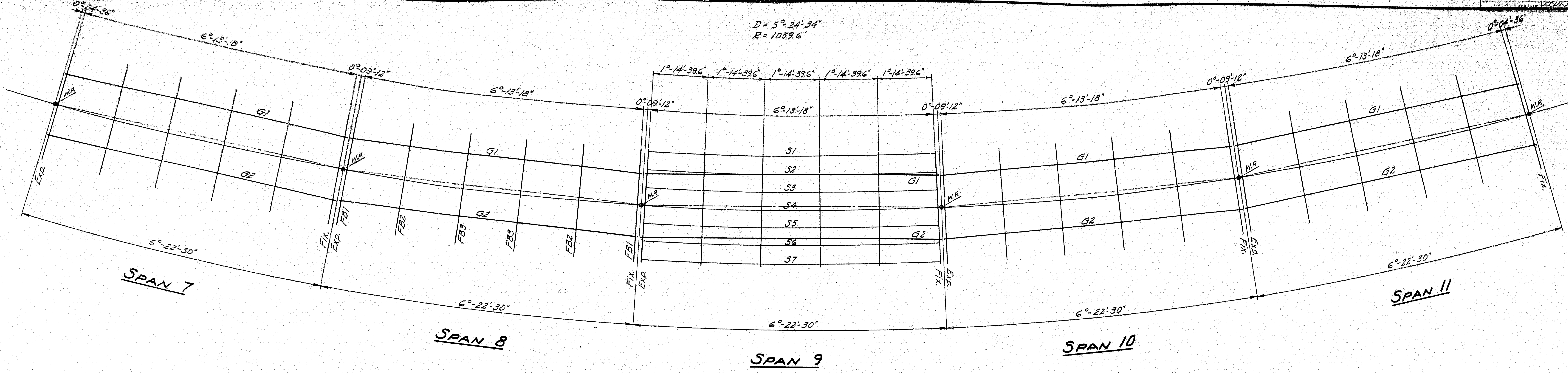
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

STEEL DETAILS - SPAN NO. 1
SHEET 37 OF 45 AUGUSTA, MAINE FEB. 1948

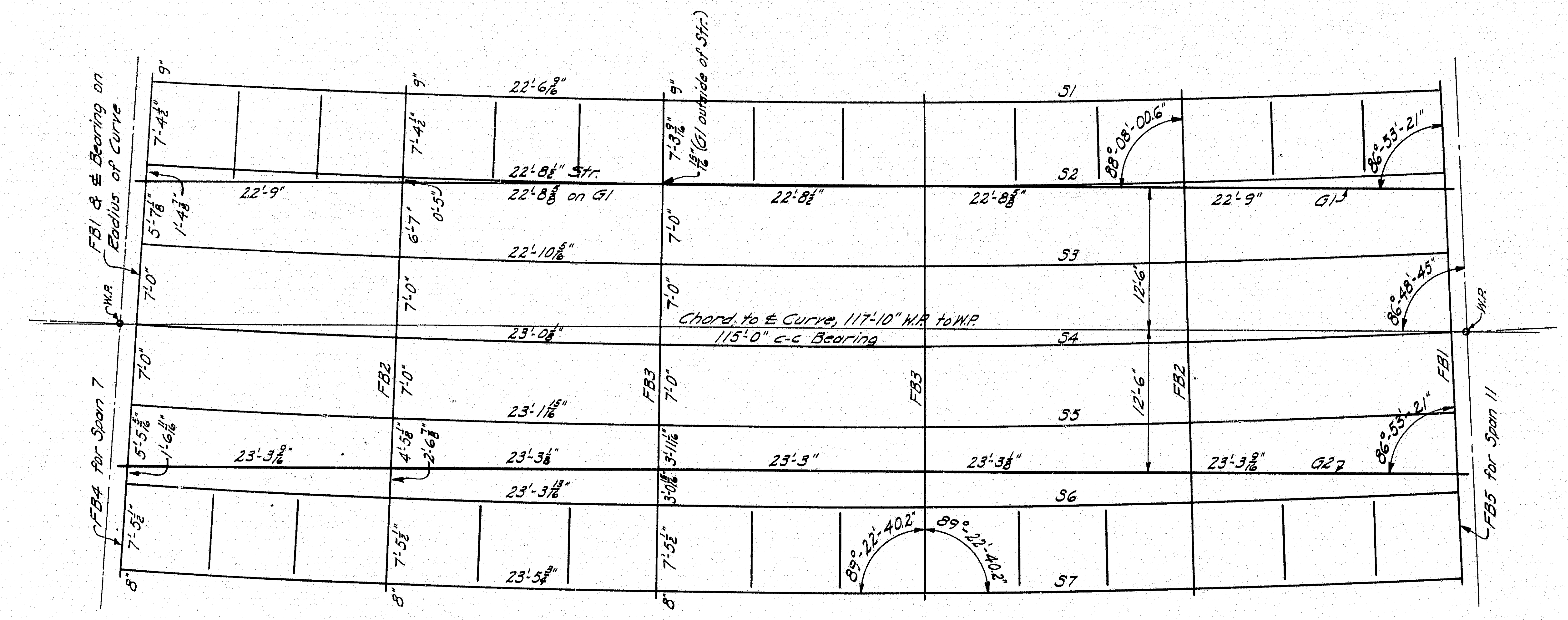
52-37

0 1 2 3 4 5 INCHES

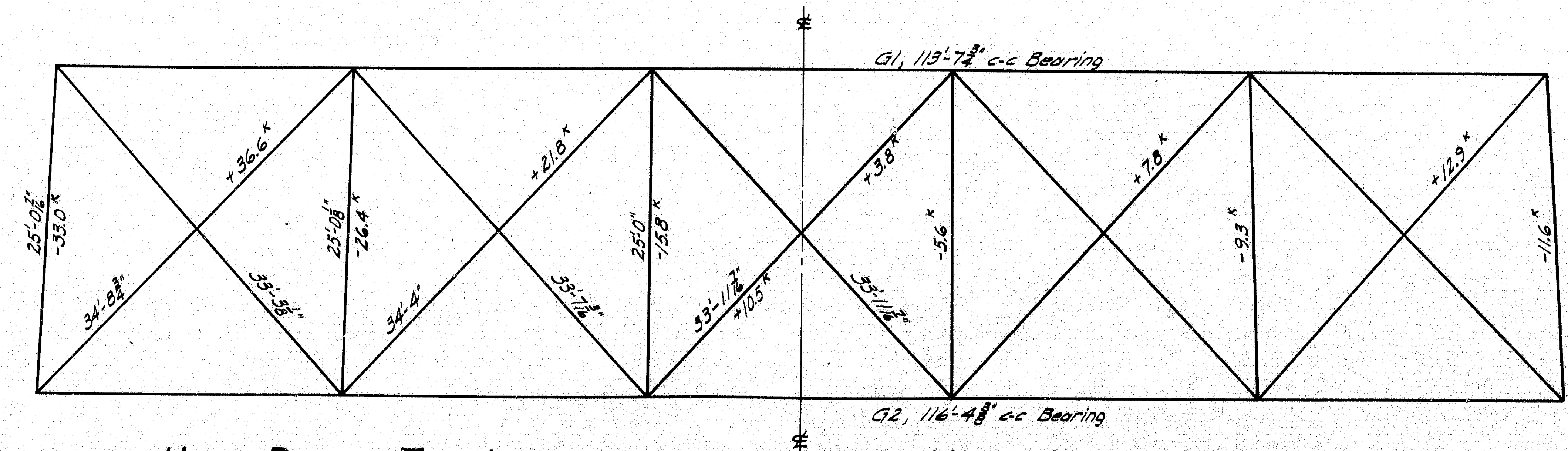
P. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	MAINE	F.I.,U.I.-384(2)	38	45



NOTE: All floor beams placed normal to Curve



SPANS 7 TO 11
(alike except for End FB spans 7 & 11)



HALF PLAN - TOP LATERALS **HALF PLAN - BOTTOM LATERALS**

DESIGN DATA

STRINGERS

S1-7

M = 653"ᴷ Req'd. s = 36.3
Use 18" ⊔ 42.7# s = 61

S2-6

DLM + SW = 1113"ᴷ
LLM = 800"ᴷ
I = 240"ᴷ
2153"ᴷ Req'd. s = 119.6
Use 21" WF 62# s = 126.4

S3

DLM = 639"ᴷ
LLM = 1537"ᴷ
I = 461"ᴷ
2637"ᴷ Req'd. s = 146.5
Use 21" WF 73# s = 150.7

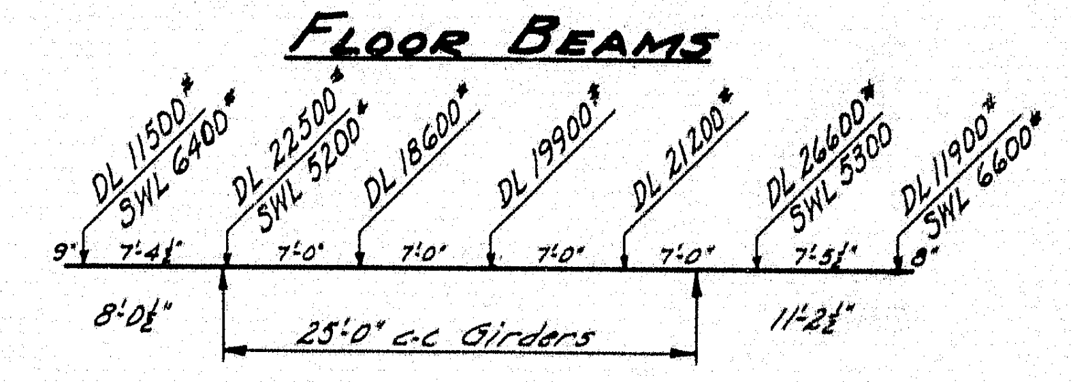
S4

DLM = 687"ᴷ
LLM = 1546"ᴷ
I = 464"ᴷ
2697"ᴷ Req'd. s = 149.8
Use 21" WF 73# s = 150.7

S5

DLM = 736"ᴷ
LLM = 1557"ᴷ
I = 467"ᴷ
2760"ᴷ Req'd. s = 153.3
Use 21" WF 73# s = 150.7

FLOOR BEAMS



FB3

− Cant. Mom.		+ Mom. ℄ F.B.	
DL Con. + SWL	293.1'ᴷ	DL Con.	74.1'ᴷ
DL Un.	8.2'ᴷ	DL Un.	4.0'ᴷ
LL + I	33.5'ᴷ	LL + I	470.0'ᴷ
	334.8'ᴷ		548.1'ᴷ

Req'd. s = 365.4
Use 33" WF 130# s = 404.8
Use the same for all F.B.

GIRDERS

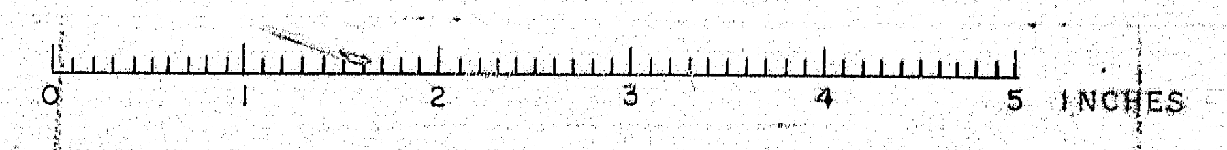
	G1	G2
Loads LL Un	665.6#/'	800#/'
S.W.L.L.	55#/'	55#/'
Con. Shear	27040#	32500#
Con. Mom.	18720#	22600#
DL Un., Girder	700#/'	750#/'
Max. Mom.	7550'ᴷ	9900'ᴷ
Use 4 Ls	8"×8"×⅞"	4 Ls 8"×8"×⅞"
Web 1 Pl.	102"×½"	1 Pl. 102"×½"
Cov. Pls.	2 Pls. 20"×¾"	2 Pls. 20×⅞"
	2 Pls. 20×1⅛"	4 Pls. 20×¾"
Net I	266400"⁴	356400"⁴

DESIGN - ALLEN TRACE - CLARK
DETAIL - " CHECK - Hamilton
BRIDGE - 5196

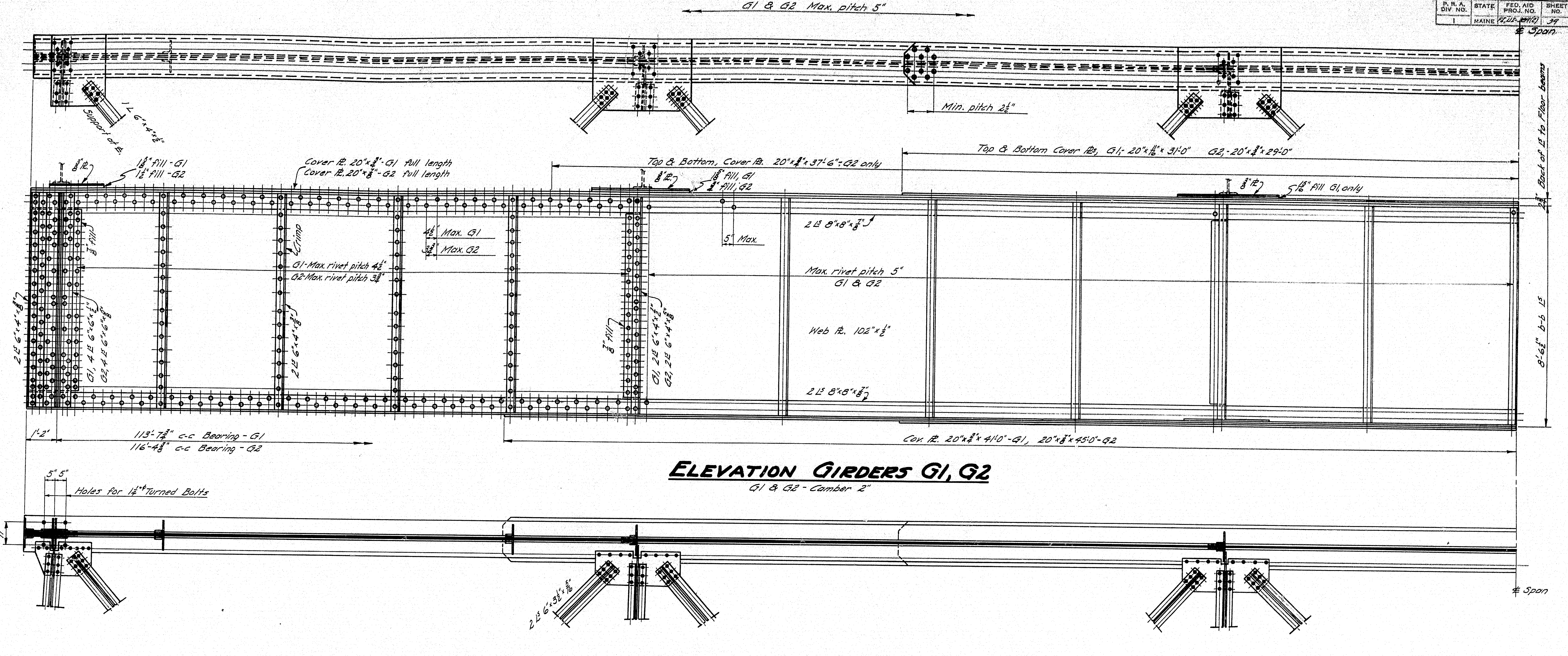
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
STRESSES & LAYOUT PLATE GIRDER SPANS
SHEET 38 OF 45 AUGUSTA, MAINE FEB. 1948

52-38

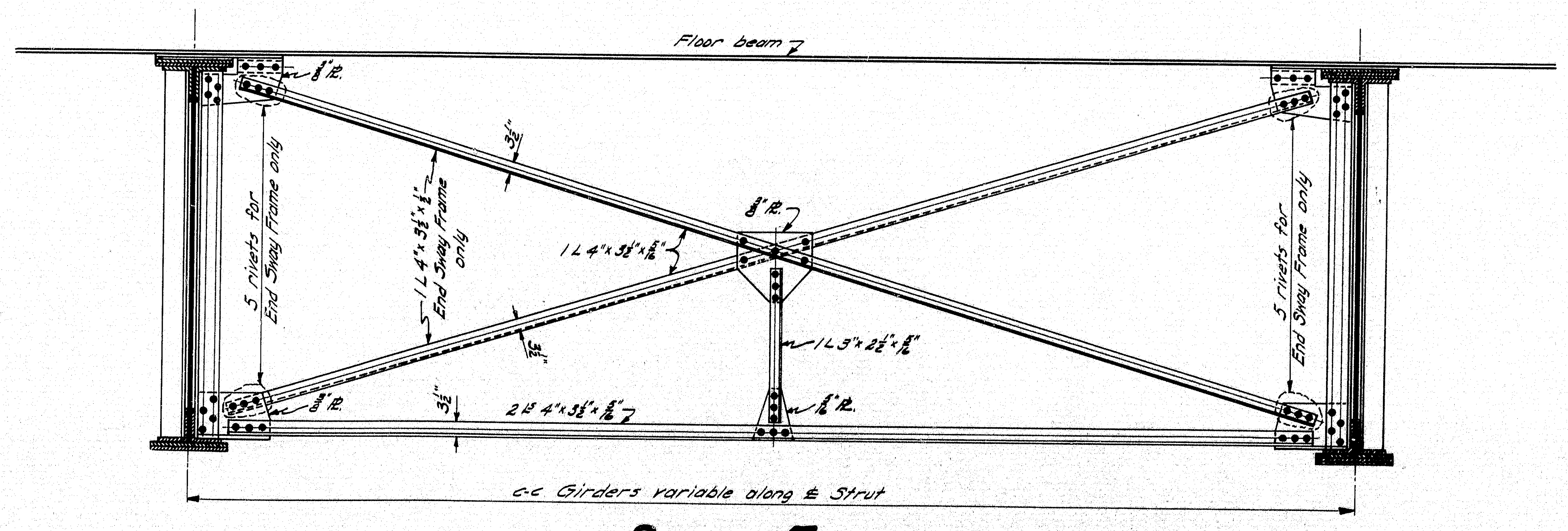


P. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	F.I. UF-[illegible](2)	39	45



ELEVATION GIRDERS G1, G2

G1 & G2 - Camber 2"



Floor beam
⅜" Pl.
3½"
1 L 4"x3½"x½" End Sway Frame only
1 L 4"x3½"x5/16"
5 rivets for End Sway Frame only
5 rivets for End Sway Frame only
1 L 3"x2½"x5/16"
2 Ls 4"x3½"x5/16"
5/16" Pl.
3½"
c-c Girders variable along ℄ Strut

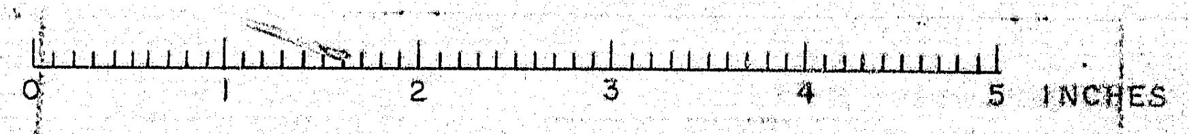
SWAY FRAME
LOWER STRUT

DESIGN - ALLEN
DETAIL - "
TRACE - CLARK
CHECK - Hamilton

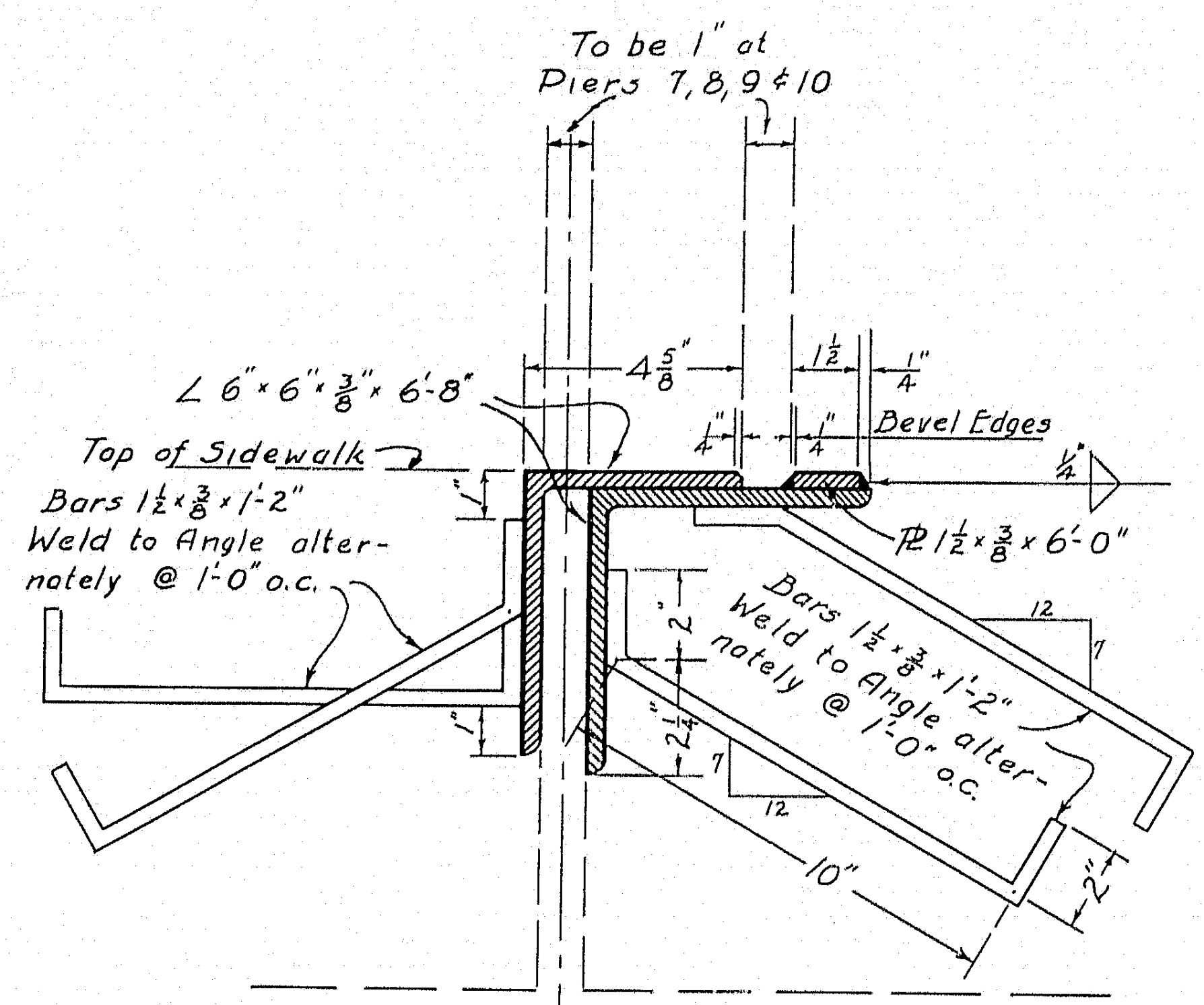
BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
PLATE GIRDER DETAILS
SHEET 39 OF 45 AUGUSTA, MAINE FEB. 1948

52-39

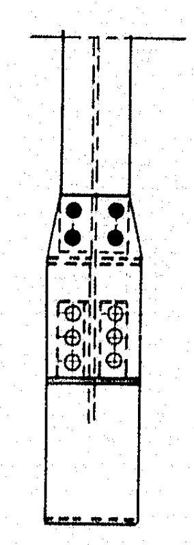


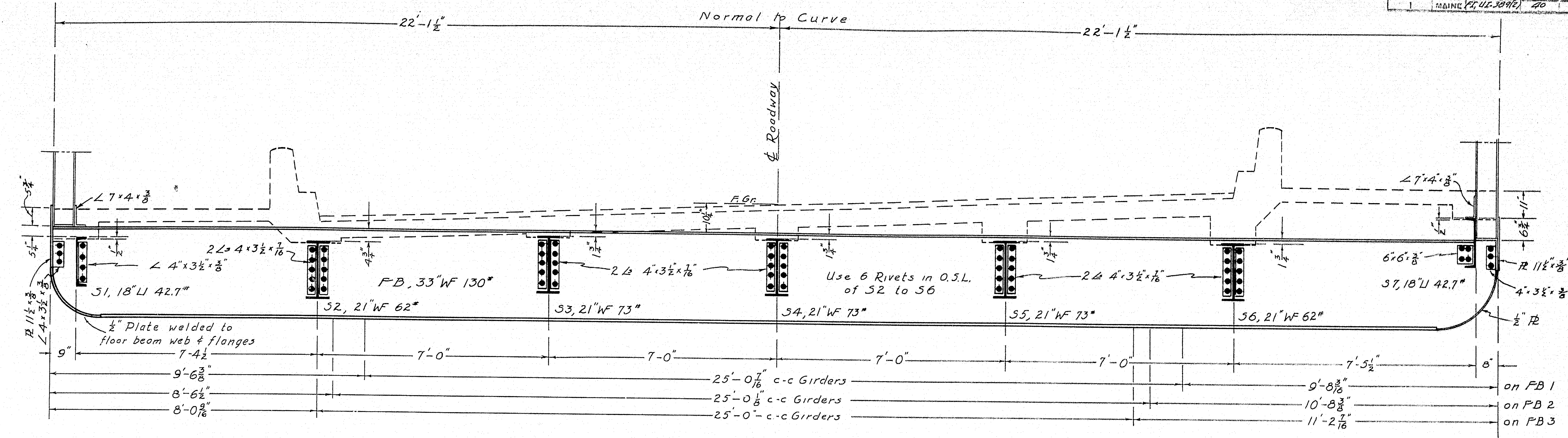
P. R. A. DIV. NO	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI, UI-389(2)	40	45


To be 1" at Piers 7, 8, 9 & 10
∠ 6"×6"×3/8"×6'-8"
Top of Sidewalk
Bars 1½×3/8×1'-2" Weld to Angle alternately @ 1'-0" o.c.
4 5/8"
1½
1/4"
Bevel Edges
PL 1½×3/8×6'-0"
Bars 1½×3/8×1'-2" Weld to Angle alternately @ 1'-0" o.c.
10"
2"
12
7

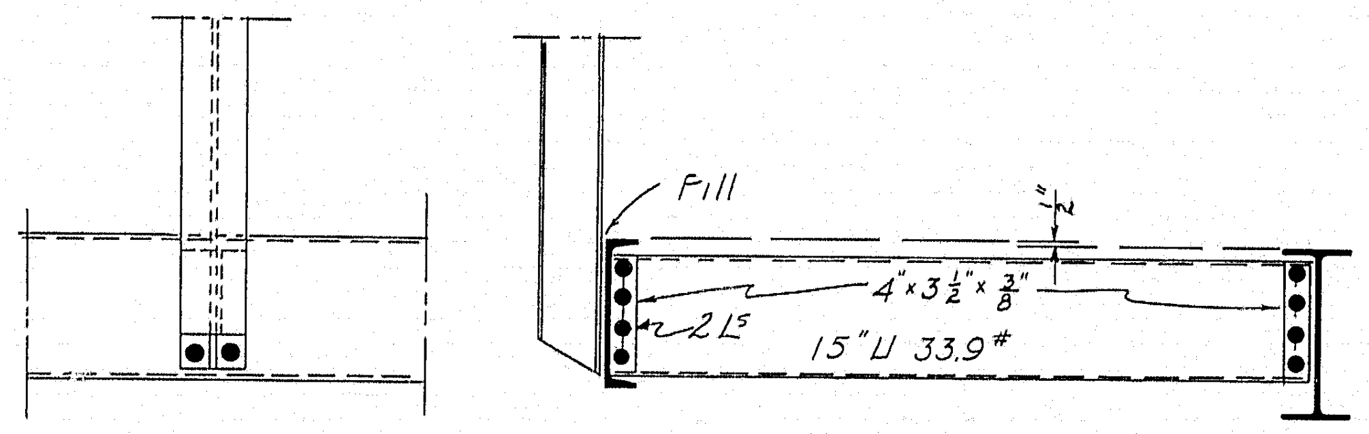
SIDEWALK EXPANSION DAM

Note: The top angle and the 1½" bar to have a non-skid surface by bead welding to an area, depth and pattern of an approved non-skid plate.



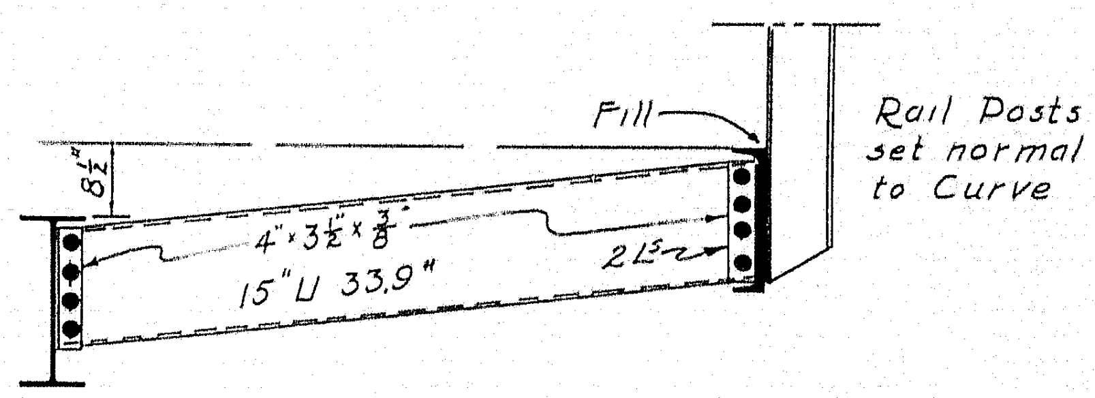


TYPICAL SECTION FLOOR BEAM

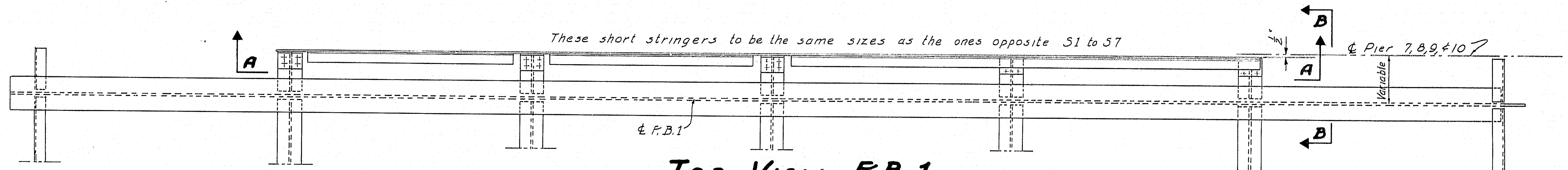


DIAPHRAGM AT INT. RAIL POSTS

Note:
Rail Posts to be set plumb.
Two Int. Rail Posts between Floor beams on both sides, set at three equal spaces.

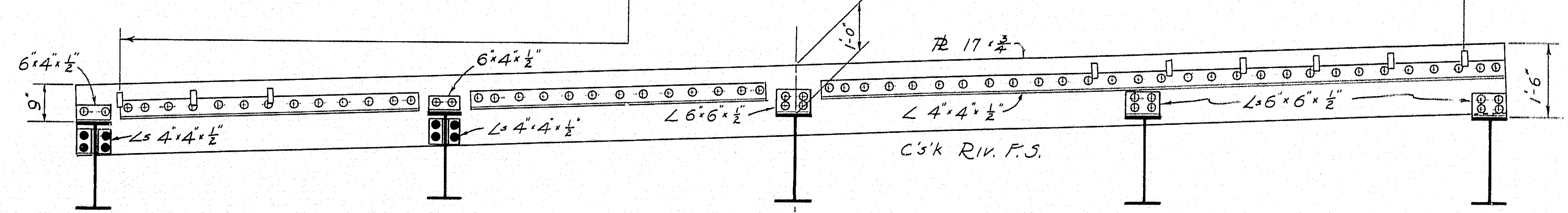


DIAPHRAGM AT INT. RAIL POSTS

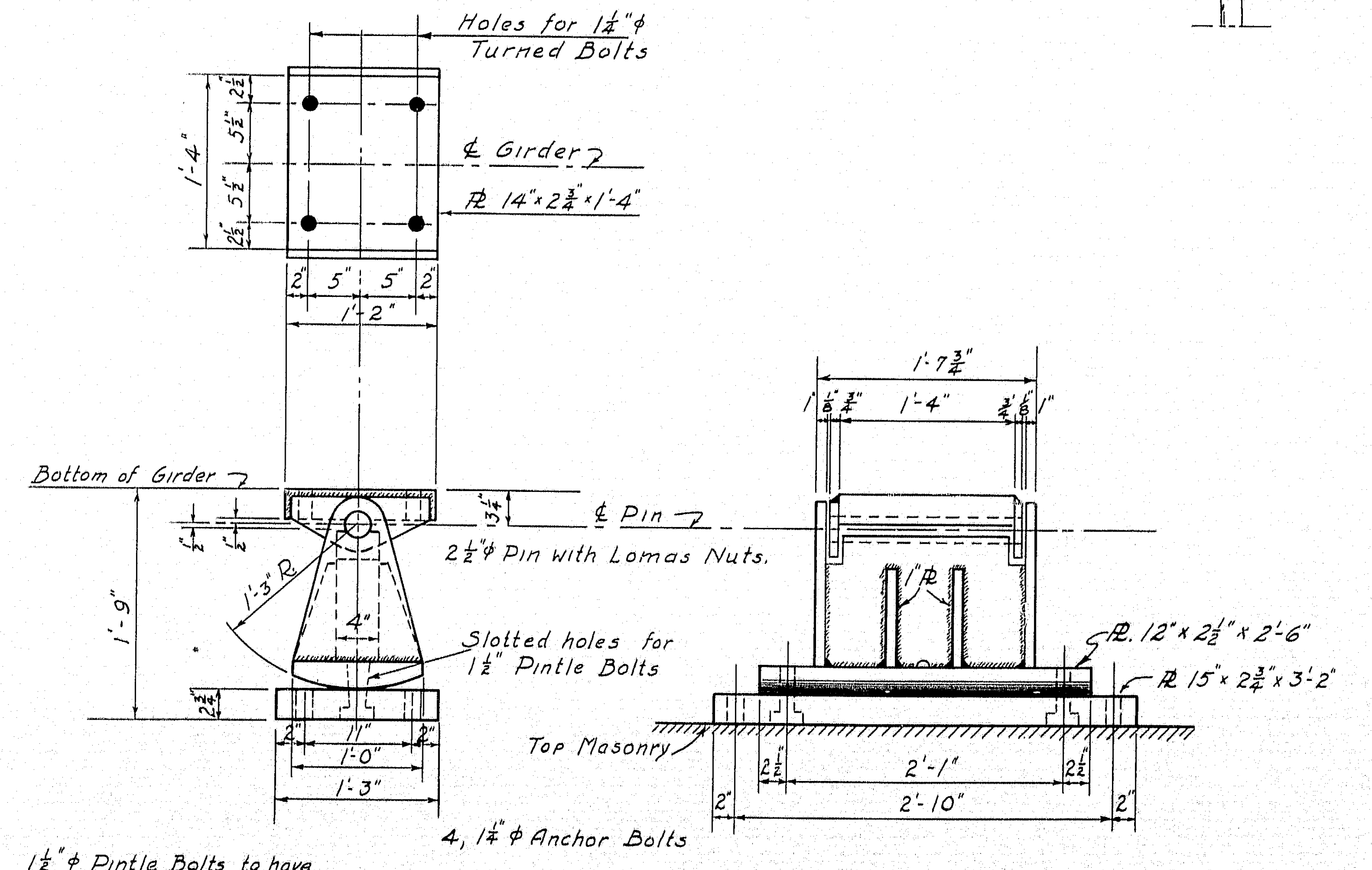

These short stringers to be the same sizes as the ones opposite S1 to S7
A
A
B
B
½"
℄ Pier 7, 8, 9 & 10
Variable
℄ F.B.1

TOP VIEW F.B.1

For F.B. 4 see sheet # 35 Expansion Details at Pier 6
F.B. 5 will be similar to F.B. 1 without short stringer brackets.

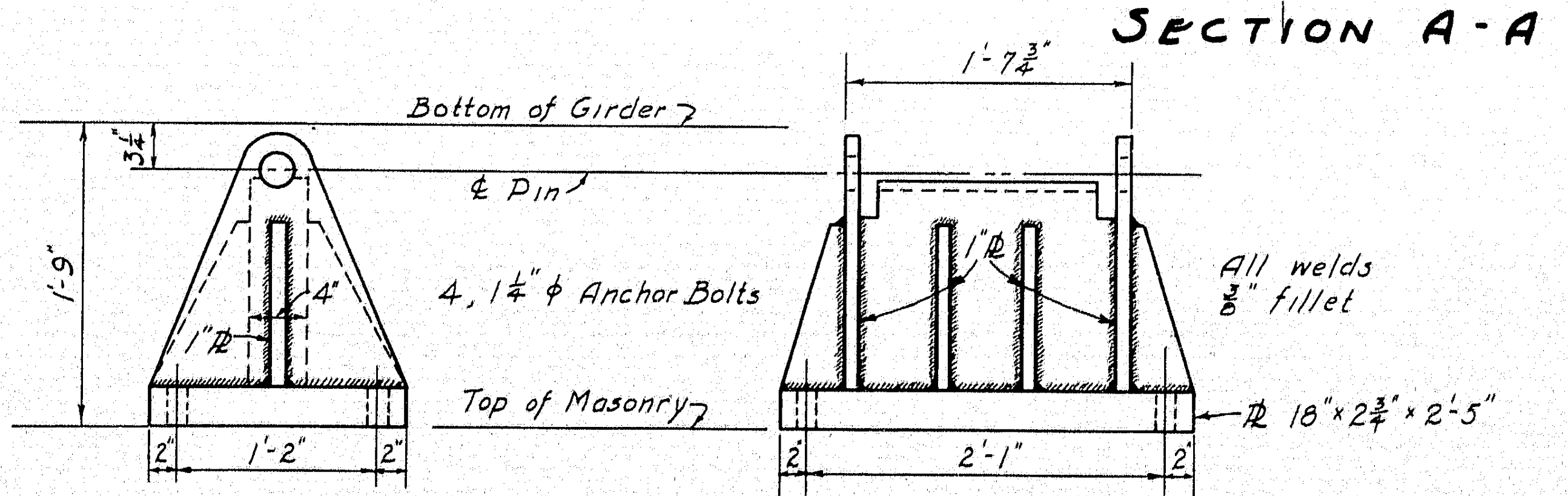


SECTION A-A



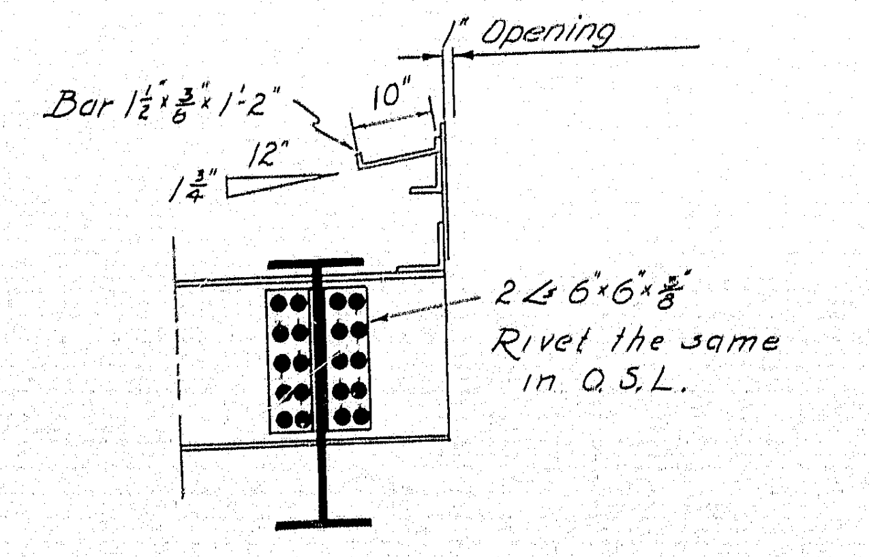
1½"φ Pintle Bolts to have
2 Hex. Nuts & Washers
All welds 3/8" fillet

EXPANSION



FIXED

PEDESTALS for PLATE GIRDER SPANS



SECTION B-B

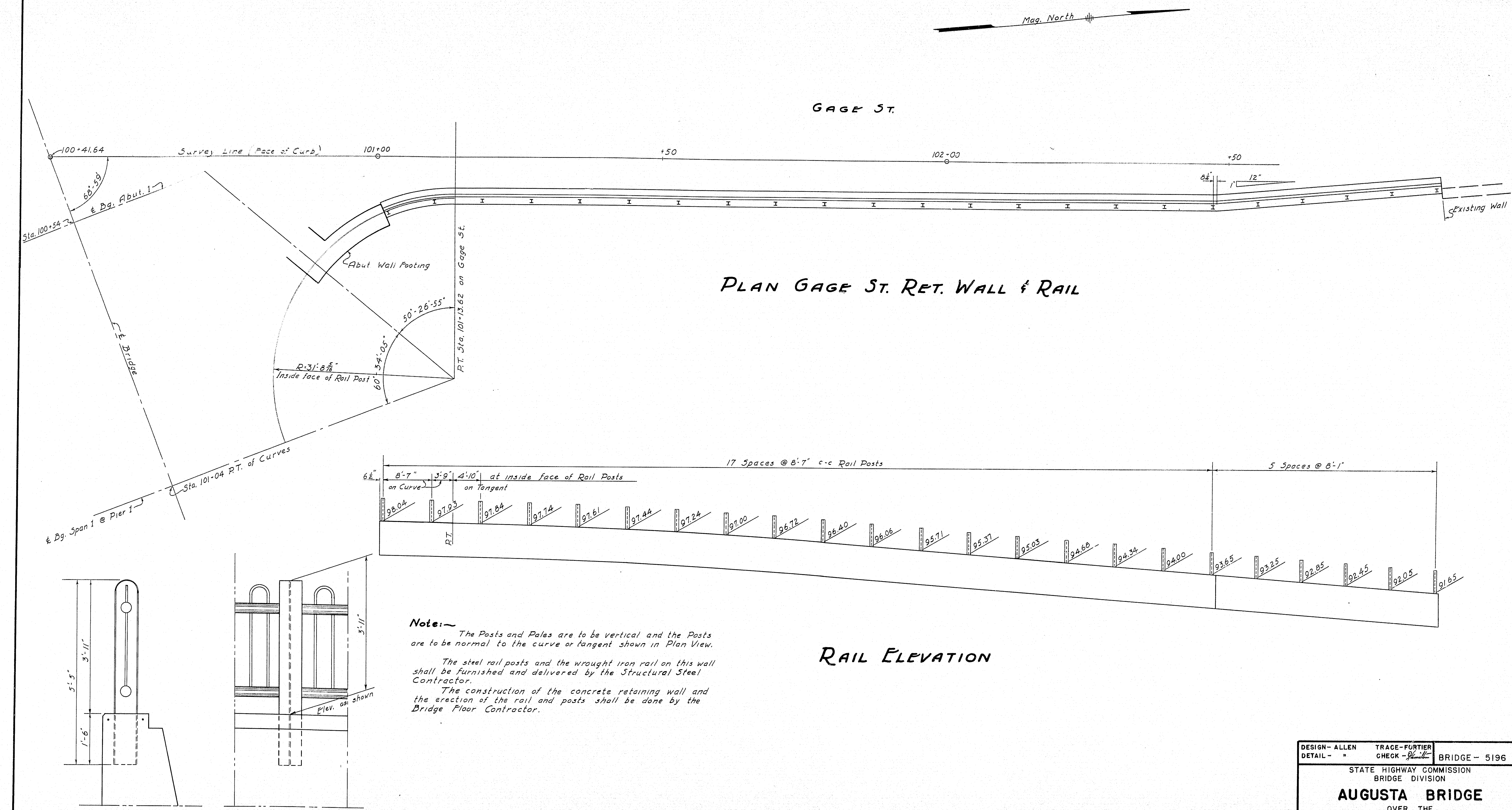
DESIGN - ALLEN
DETAIL - "
TRACE - FORTIER
CHECK - Hamilton
BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
PLATE GIRDER DETAILS
SHEET 40 OF 45 AUGUSTA, MAINE FEB. 1948

52-40

0 1 2 3 4 5 INCHES

P. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI, UI-389(2)	41	45



Plan Gage St. Ret. Wall & Rail

Rail Elevation

Typical Rail Post Detail

For all Details not shown see Sheet #27 of Bridge Rail

Note:~

The Posts and Pales are to be vertical and the Posts are to be normal to the curve or tangent shown in Plan View.

The steel rail posts and the wrought iron rail on this wall shall be furnished and delivered by the Structural Steel Contractor.

The construction of the concrete retaining wall and the erection of the rail and posts shall be done by the Bridge Floor Contractor.

DESIGN- ALLEN
DETAIL- "
TRACE-FORTIER
CHECK- Hamilton
BRIDGE- 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

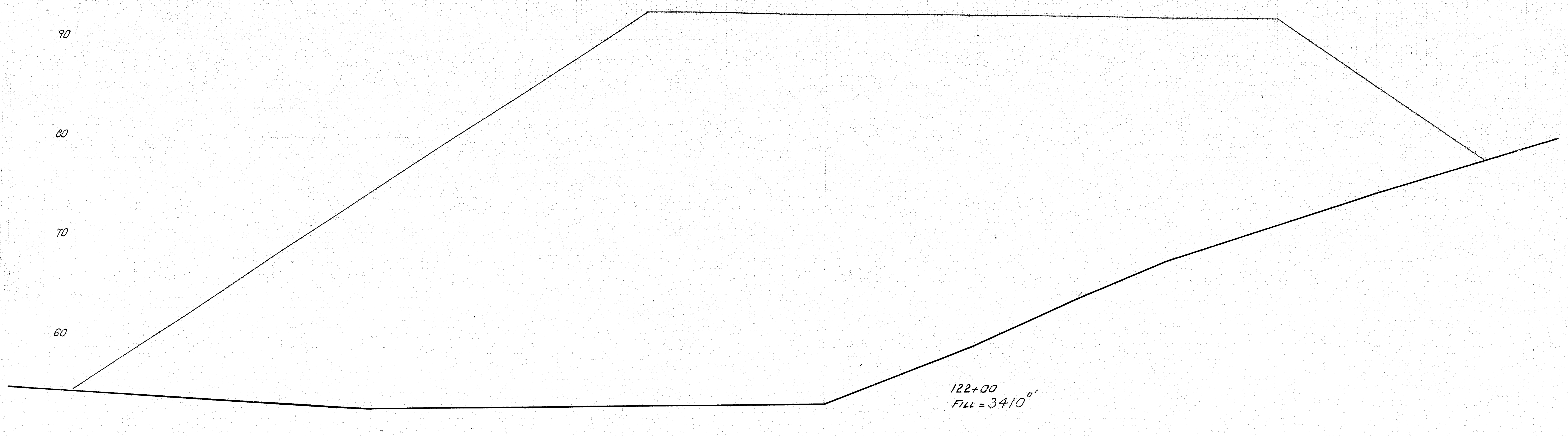
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
GAGE STREET RAIL
SHEET 41 OF 45 AUGUSTA, MAINE FEB. 1948

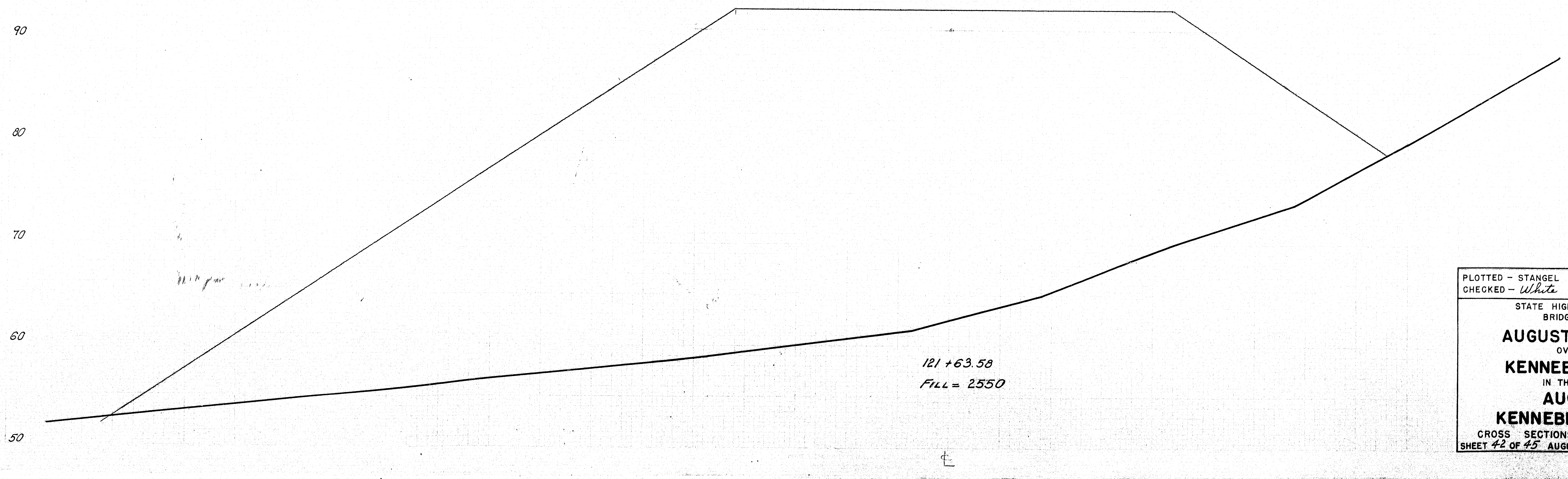
52-41

0 1 2 3 4 5 INCHES

P. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI,UI-384(2)	42	45

Equation= -2.11'





PLOTTED - STANGEL
CHECKED - White

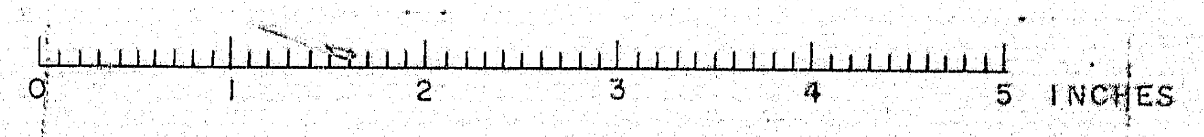
BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

CROSS SECTIONS - EAST APPROACH
SHEET 42 OF 45 AUGUSTA, MAINE FEB. 1948

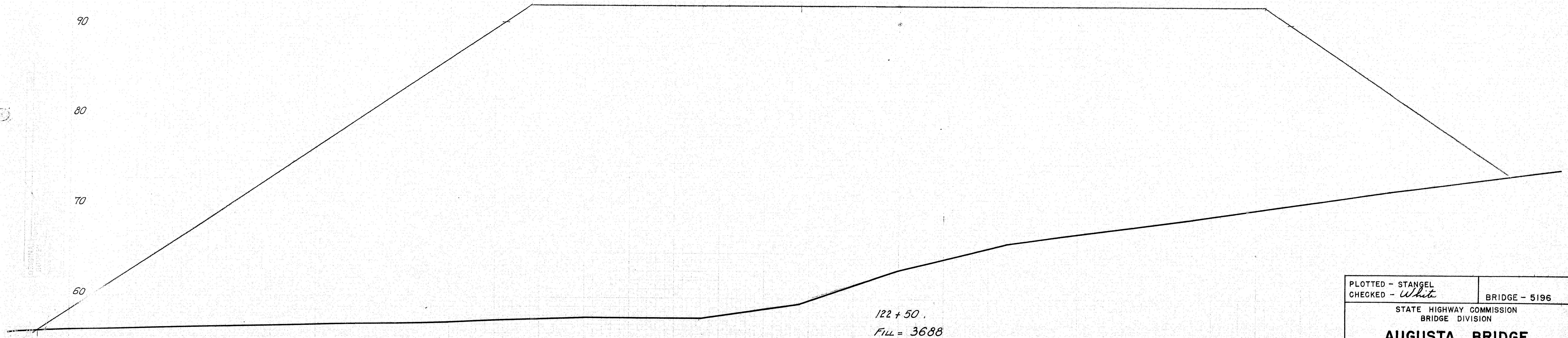
52 - 42



P.R.A. DIV NO.	STATE	F'D. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI,UI-389(2)	43	45

122+90

Fill = 4380



122+50.

Fill = 3688

Equation= -2.11

℄

PLOTTED - STANGEL
CHECKED - White

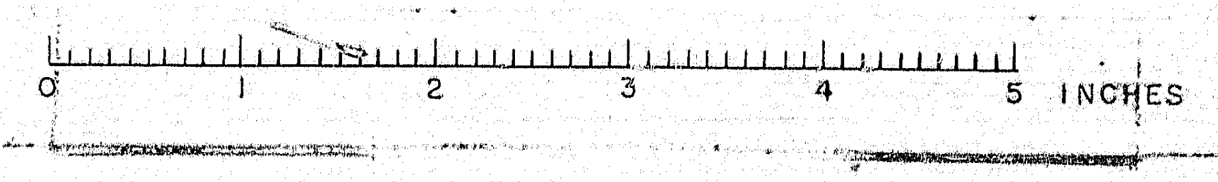
BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

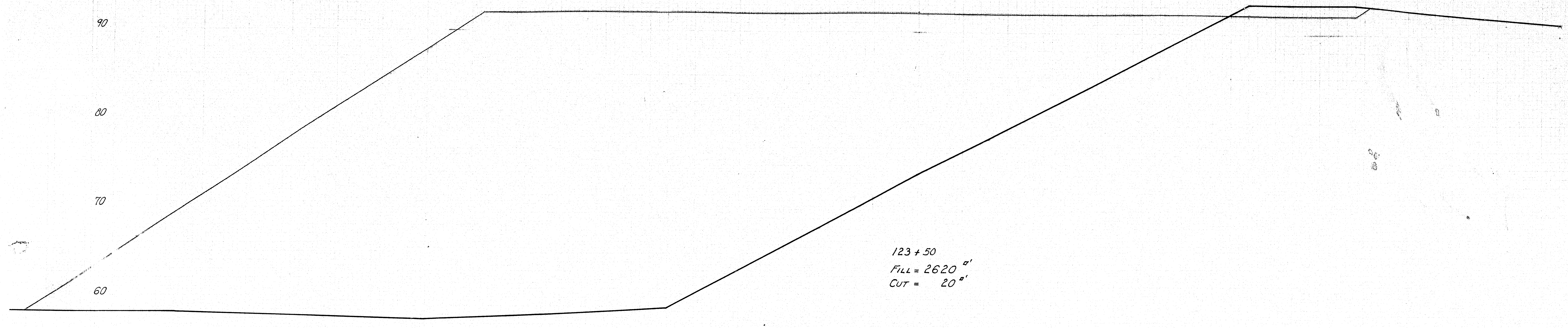
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

CROSS SECTIONS — EAST APPROACH
SHEET 43 OF 45 AUGUSTA, MAINE FEB. 1948

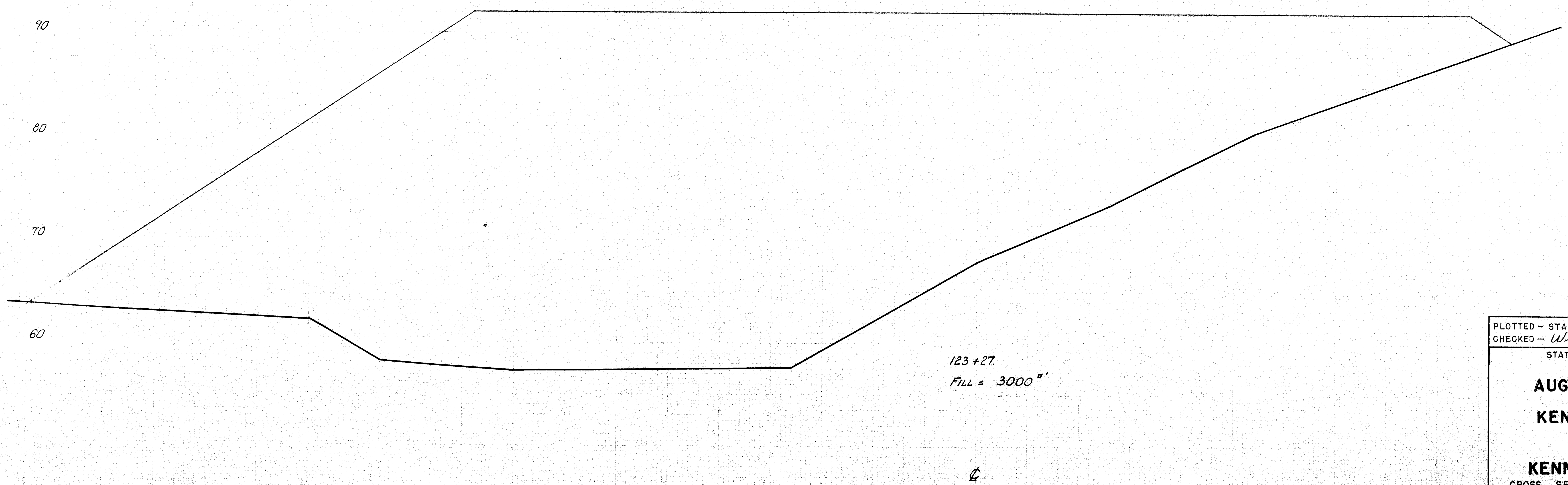
52-43



P. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI, UI-389(2)	44	45



123 + 50
FILL = 2620 □'
CUT = 20 □'



123 + 27.
FILL = 3000 □'

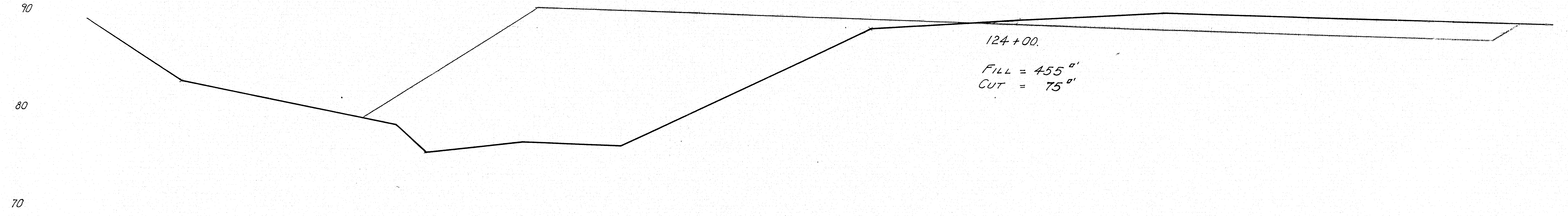
PLOTTED – STANGEL CHECKED – White	BRIDGE – 5196

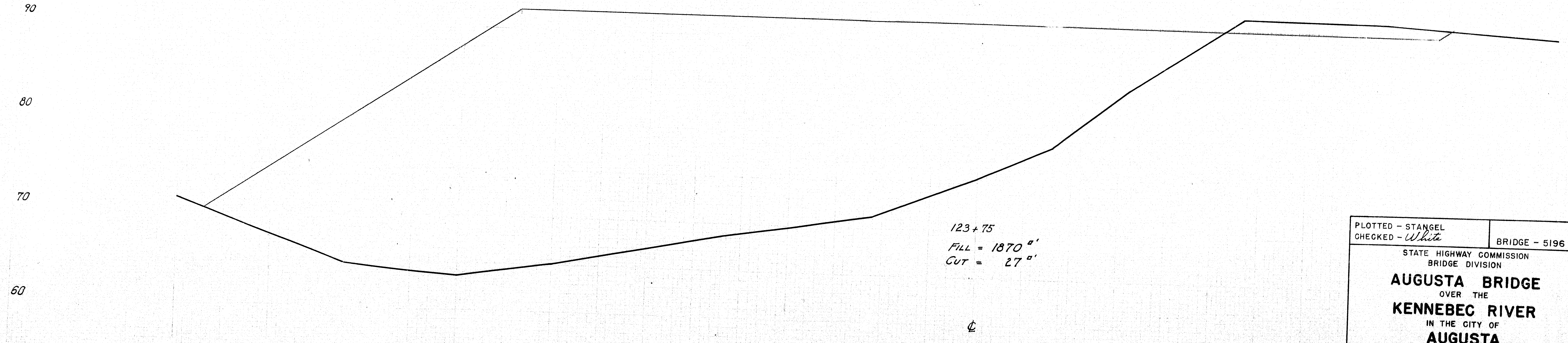
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
CROSS SECTIONS – EAST APPROACH
SHEET 44 OF 45 AUGUSTA, MAINE FEB. 1948

52-44

P.R.A. DIV NO.	STATE	FED. AID PROJ. NO.	[illegible]	[illegible]
1	MAINE	FI,UI-389(2)	45	45





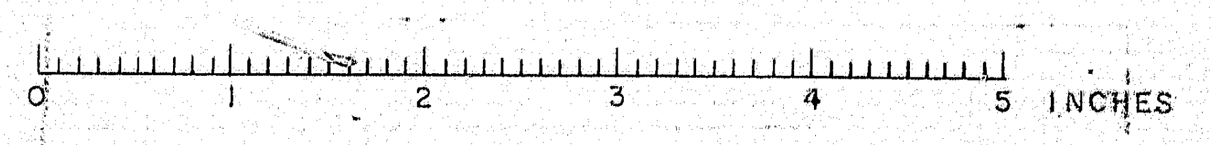
PLOTTED – STANGEL CHECKED – White	BRIDGE – 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

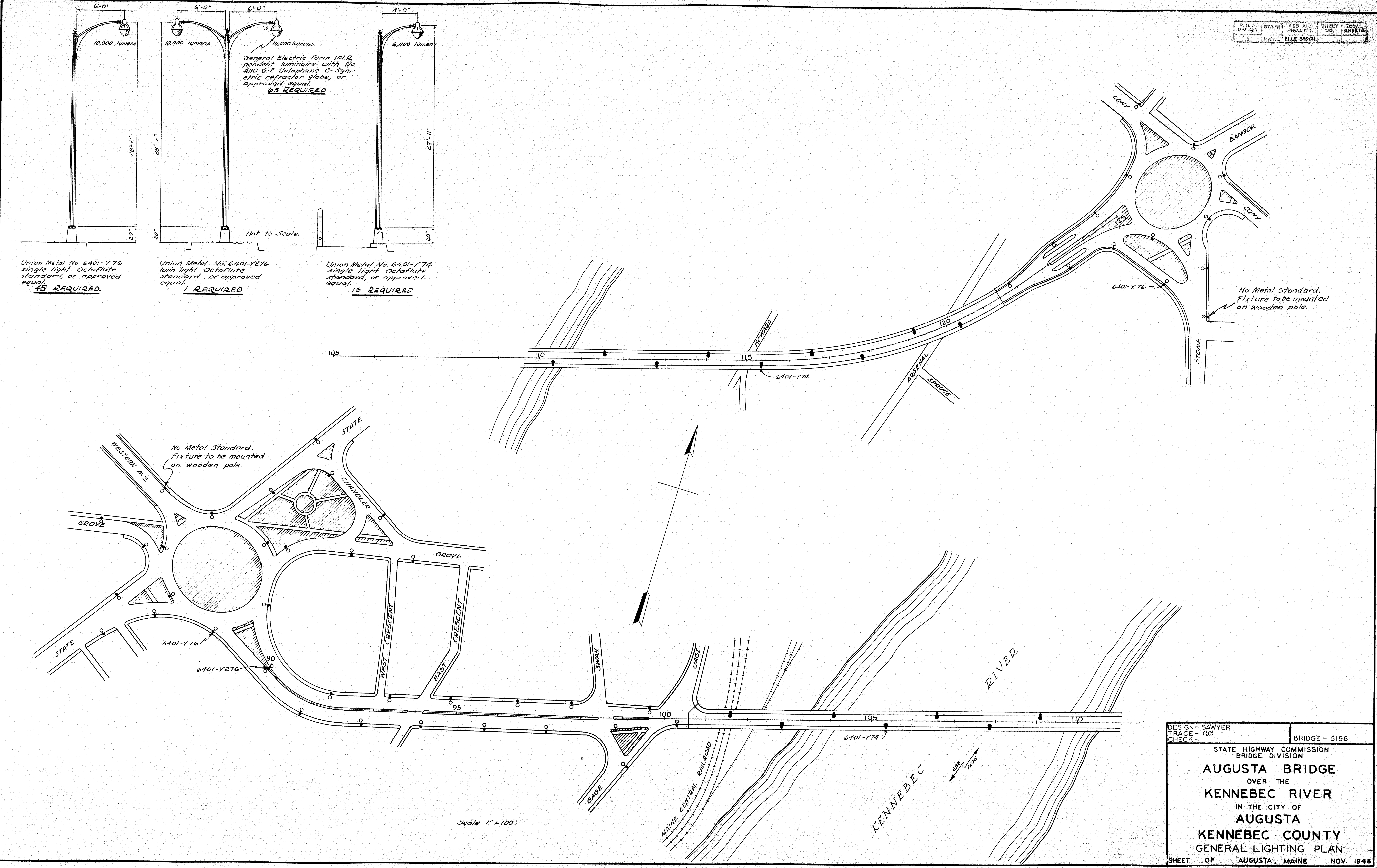
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

CROSS SECTIONS – EAST APPROACH
SHEET 45 OF 45 AUGUSTA, MAINE FEB. 1948

52-45



P.R.A. DIV NO	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI,UI-389(2)		



General Electric Form 101 R pendent luminaire with No. 4110 G-E Holophane C-Symmetric refractor globe, or approved equal.
65 REQUIRED

Union Metal No. 6401-Y76 single light Octaflute standard, or approved equal.
45 REQUIRED.

Union Metal No. 6401-Y276 twin light Octaflute standard, or approved equal.
1 REQUIRED

Union Metal No. 6401-Y74 single light Octaflute standard, or approved equal.
16 REQUIRED

No Metal Standard. Fixture to be mounted on wooden pole.

No Metal Standard. Fixture to be mounted on wooden pole.

DESIGN - SAWYER
TRACE - RB
CHECK -

BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

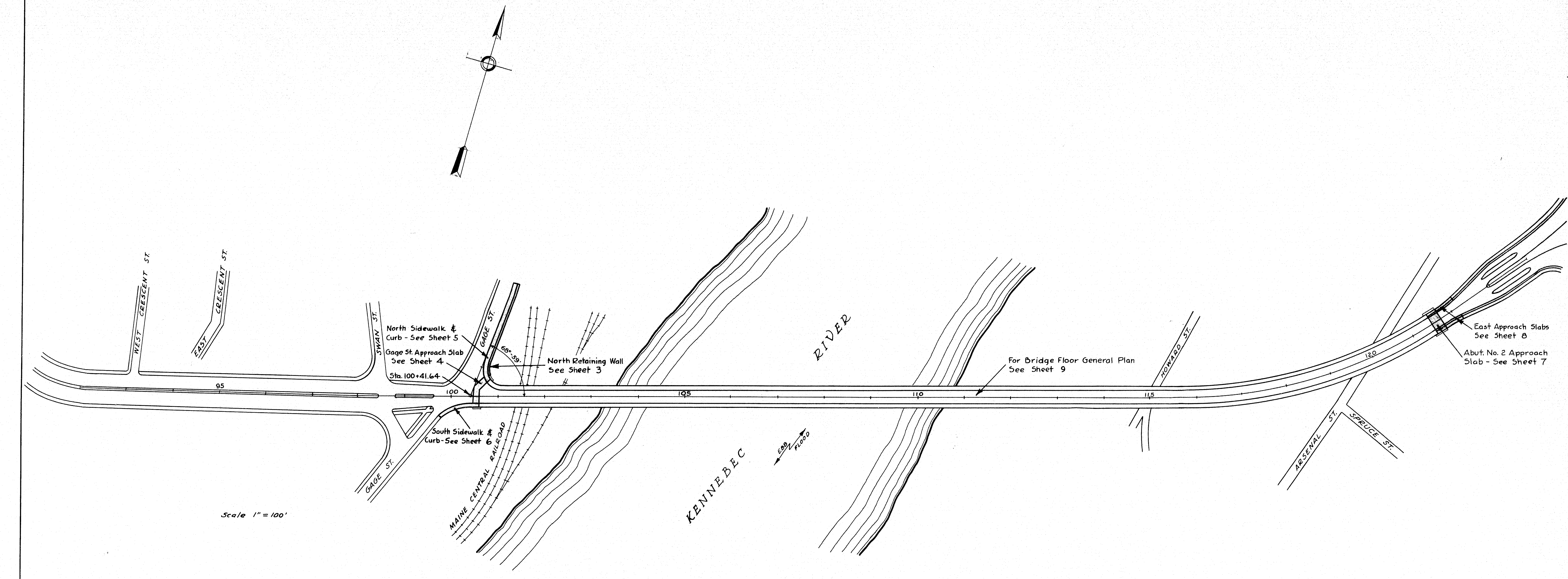
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
GENERAL LIGHTING PLAN

SHEET OF AUGUSTA, MAINE NOV. 1948

52-46

0 1 2 3 4 5 INCHES

P. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO	TOTAL SHEETS
1	MAINE	F1,U1-389(2)	2	19


WEST CRESCENT ST.
EAST CRESCENT ST.
SWAN ST.
GAGE ST.
North Sidewalk & Curb - See Sheet 5
Gage St. Approach Slab See Sheet 4
Sta. 100+41.64
68°-59'
North Retaining Wall See Sheet 3
95
100
105
110
115
120
South Sidewalk & Curb - See Sheet 6
GAGE ST.
MAINE CENTRAL RAILROAD
RIVER
KENNEBEC
EBB
FLOOD
For Bridge Floor General Plan See Sheet 9
HOWARD ST.
ARSENAL ST.
SPRUCE ST.
East Approach Slabs See Sheet 8
Abut. No. 2 Approach Slab - See Sheet 7

Scale 1" = 100'

PLAN - BOYD
CHECK - K.

BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

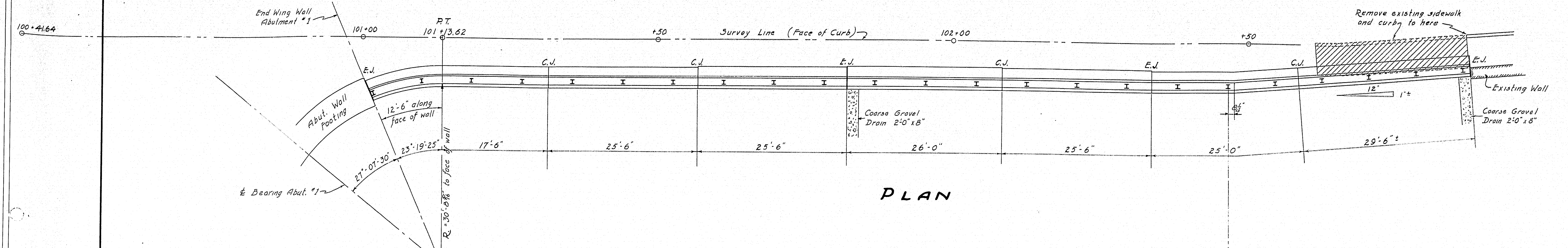
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
GENERAL LAYOUT

SHEET 2 OF 19 AUGUSTA, MAINE APRIL 1949

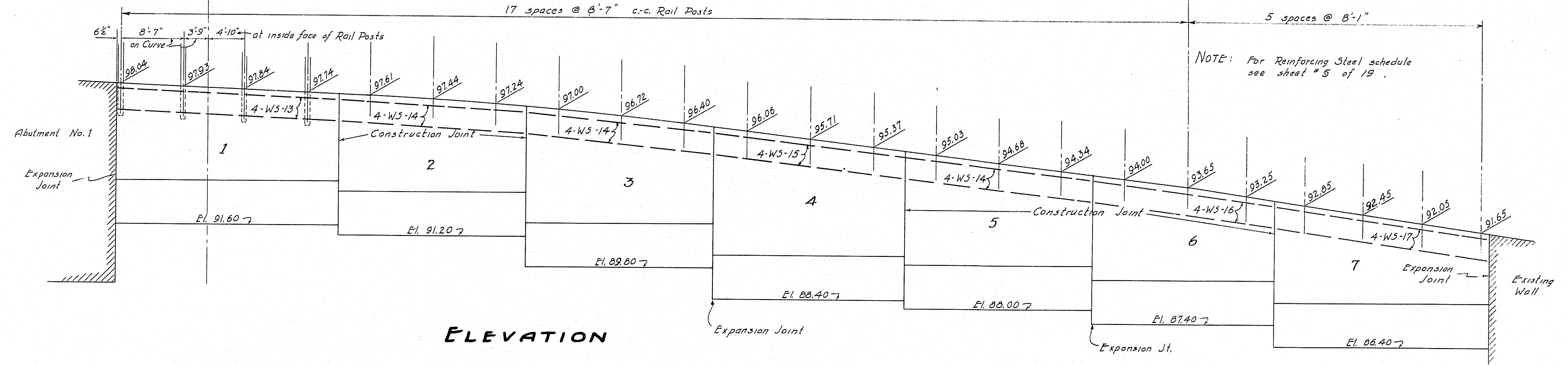
52-47

0 1 2 3 4 5 INCHES

P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI,UI-389 (2)	3	19

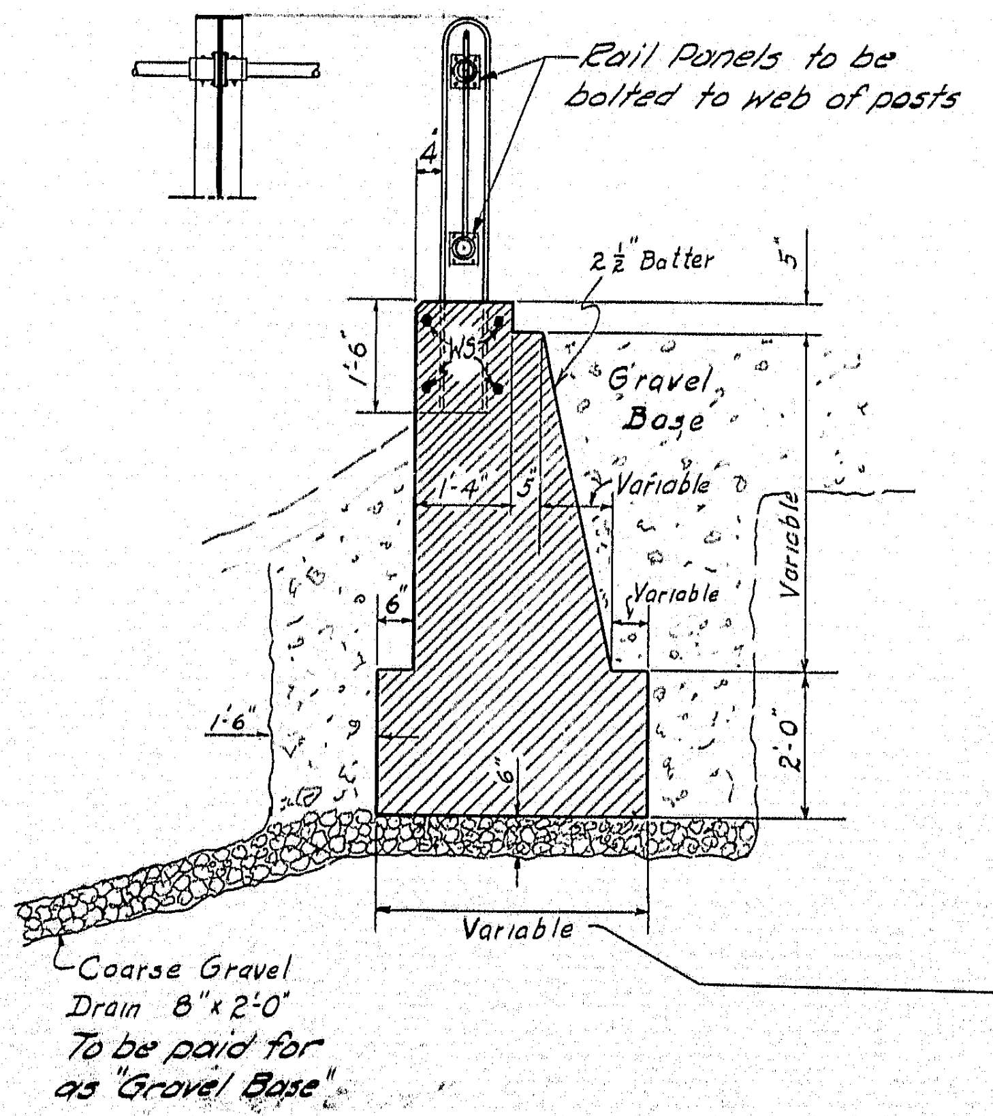


PLAN

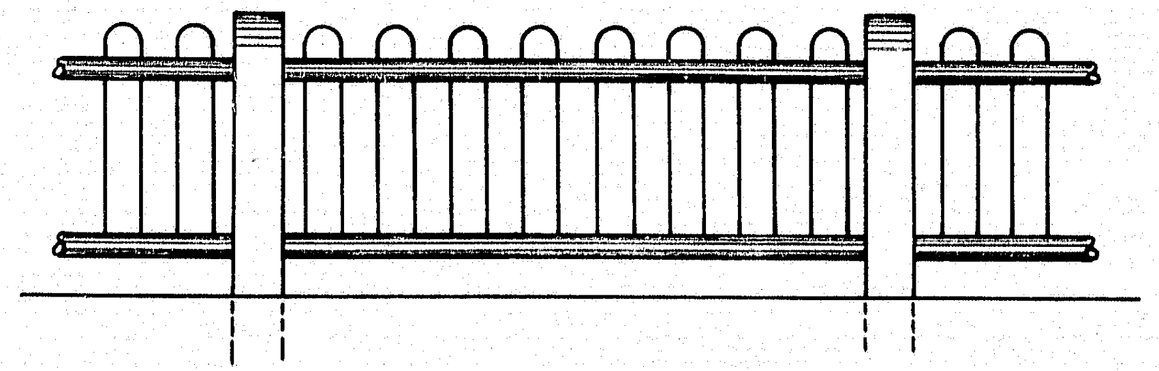


NOTE: For Reinforcing Steel schedule see sheet #5 of 19.

ELEVATION



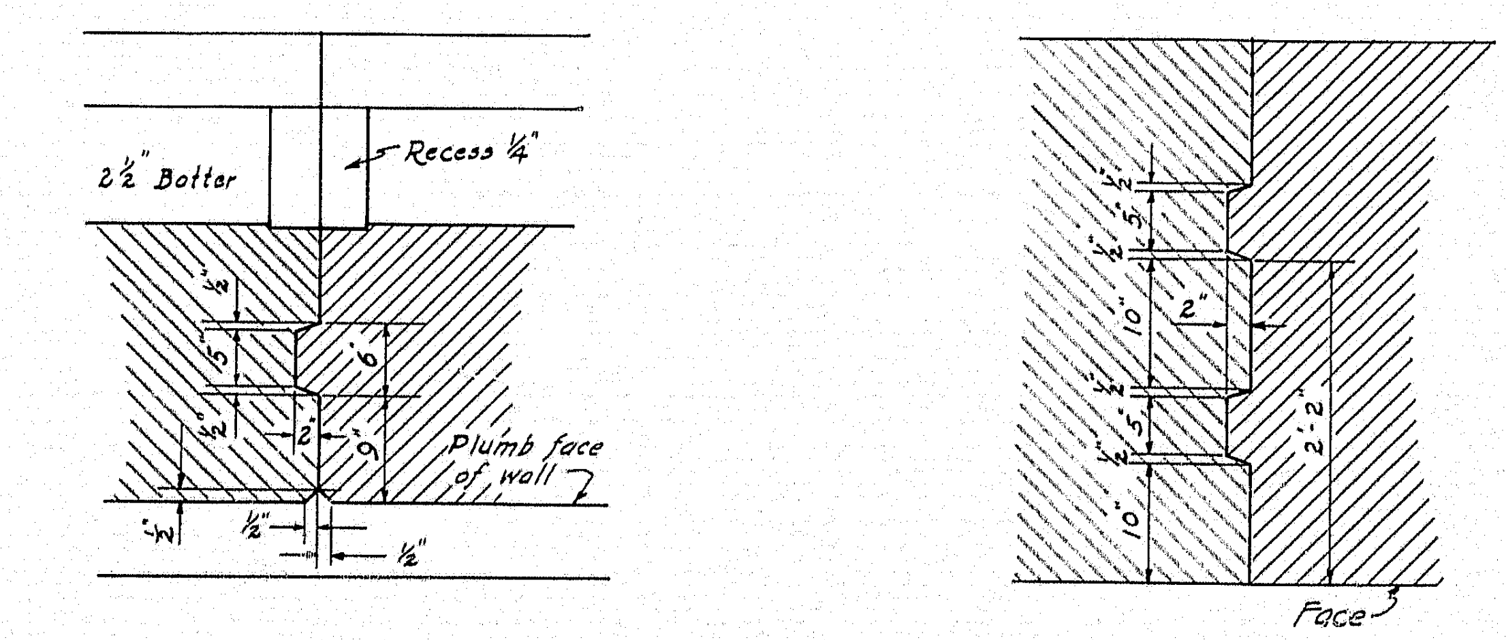
TYPICAL SECTION



PART RAIL ELEVATION

The rail along the wall consisting of Structural Steel Posts and Wrought Iron Rail Panels will be furnished and delivered by the Contractor for the steel superstructure. It will be erected as part of this contract.

Sect. # of Wall	Footing-Width
1	3'-7"
2	3'-7"
3	3'-9½"
4	3'-10½"
5	3'-9"
6	3'-7¾"
7	3'-7¾"



WALL DETAIL ↔ FOOTING DETAIL

Both Details at Const. Joints

NOTE: Expansion Joints same except for addition of ½" Expansion Joint Filler. Key to start 9" below top of wall.

NOTE: Construction Joints — The back side of Construction Joints is to be covered with two layers of heavy roofing 10" wide. Coat the concrete and the back side of each layer as applied with a suitable grade of roofing cement. The front side of the joint is to have a 1" V-groove. Break the bond with a coat of suitable grade roofing cement. Recess back of joint ¼" for roofing.
Expansion Joints — Use ½" Premoulded Expansion Joint Filler. Recess back of joint ¼" and treat same as for construction joint. Make 1" V-groove on front side.

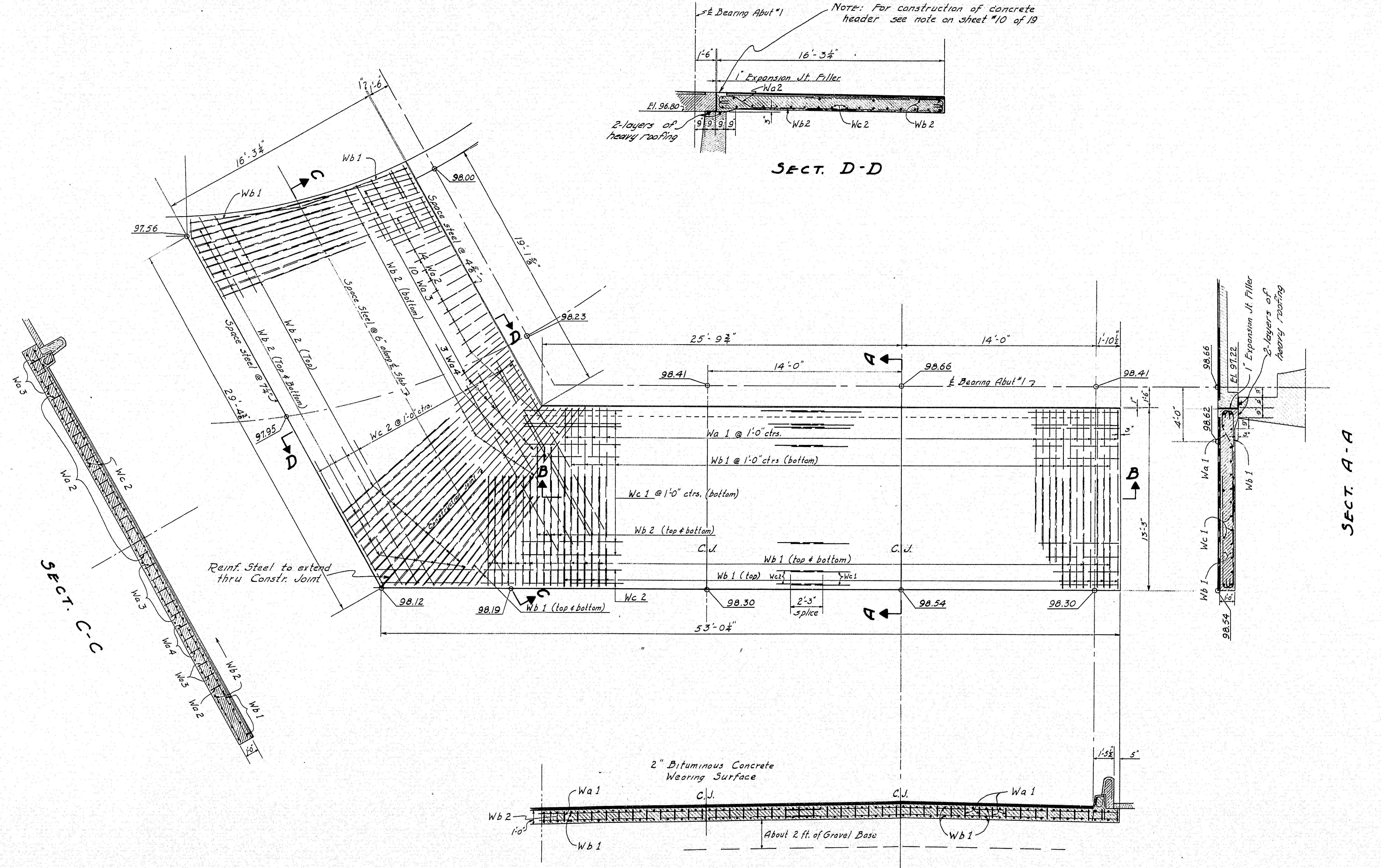
DESIGN-FORTIER TRACE-FORTIER
DETAIL- " CHECK-Cotton
BRIDGE – 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
NORTH RETAINING WALL DETAILS–GAGE ST.
SHEET 3 OF 19 AUGUSTA, MAINE JAN. 1949

52-48

0 1 2 3 4 5 INCHES

P.R.A. DIV NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI,UI-389(2)	4	19

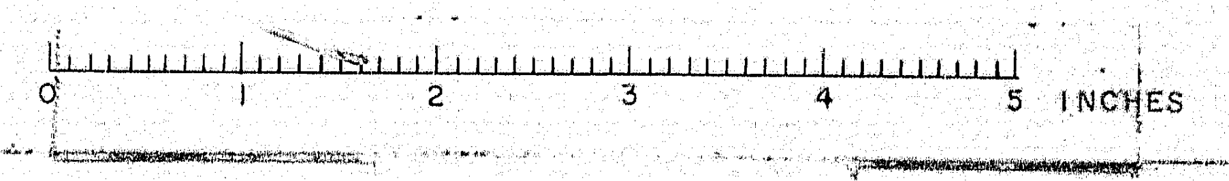


NOTE: For Reinf. Steel Schedule see sheet #5 of 19.

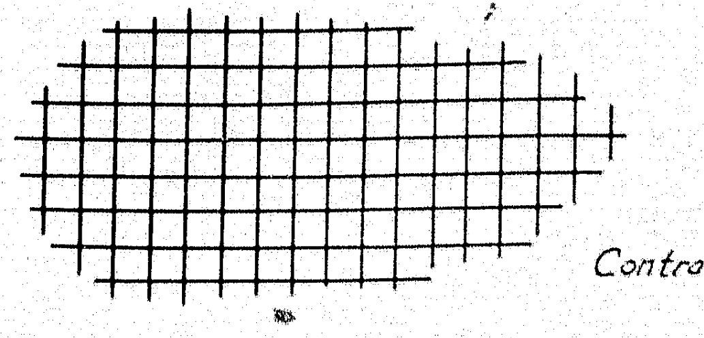
DESIGN- FORTIER TRACE-FORTIER DETAIL- " CHECK- Cotton	BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
APPROACH SLAB — GAGE ST.
SHEET 4 OF 19 AUGUSTA, MAINE FEB. 1949

52-49

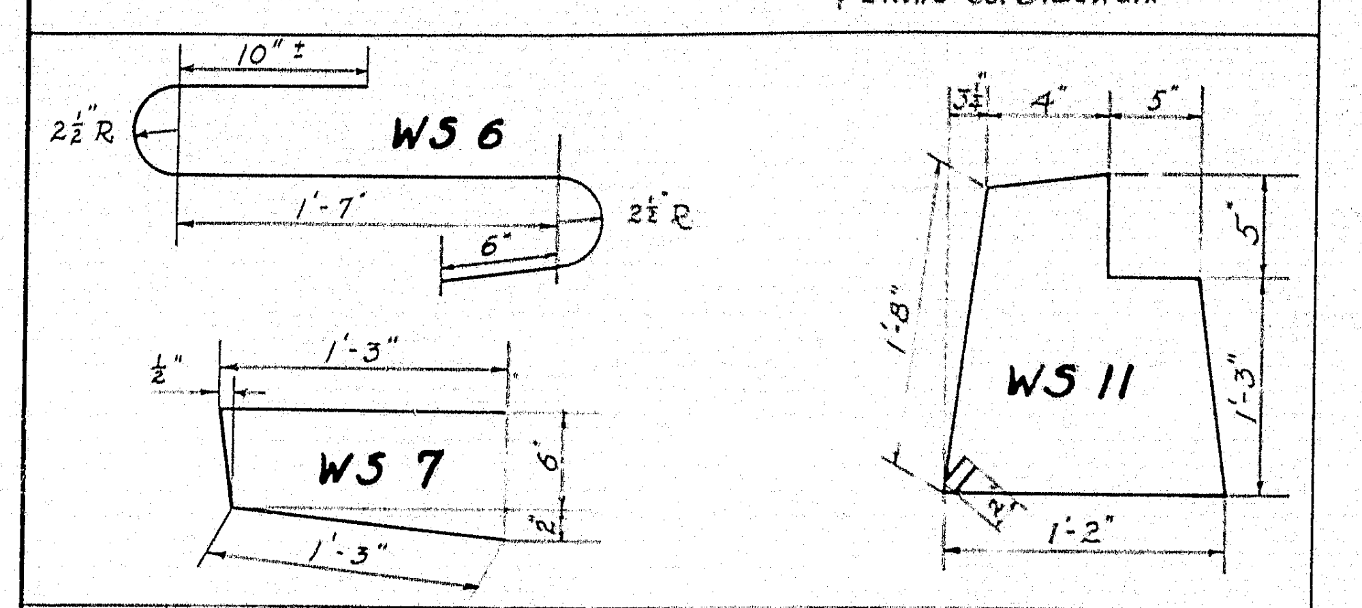


REINF. STEEL for WALL, SIDEWALK & CURB

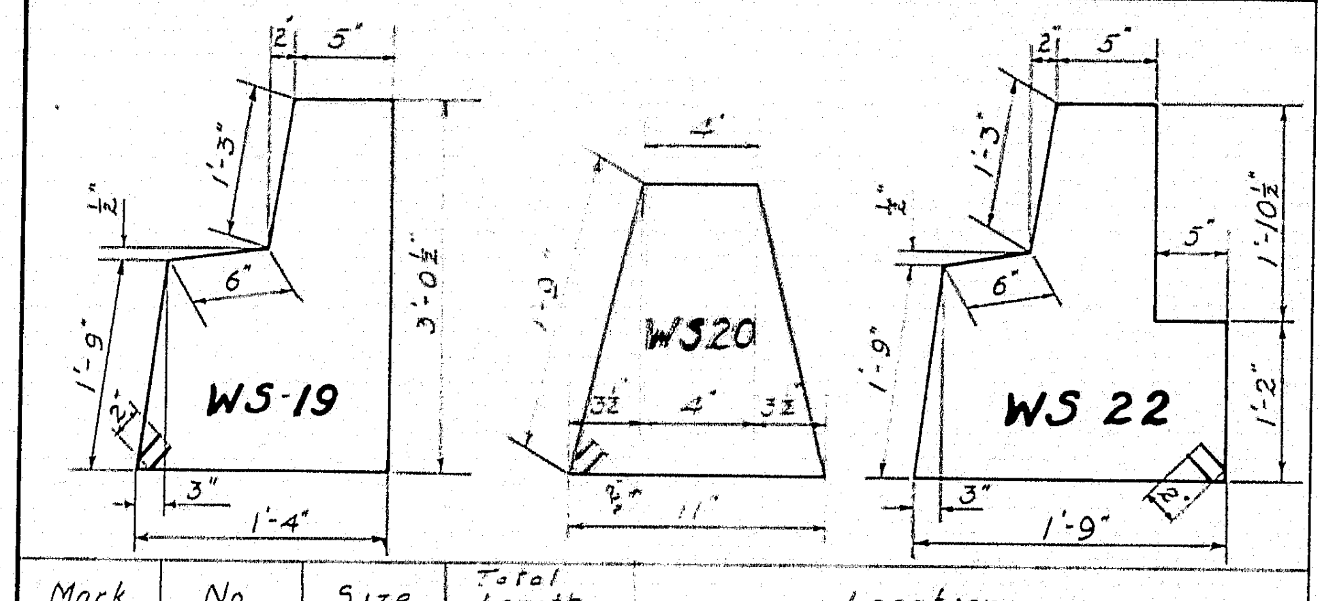


Contract Item #71

Mark	Quantity	Size	Location
WS - 1	1816 sq. ft.	6" x 6" x 6 gage Woven Wire Mesh	Sidewalk Panels #5 thru #25 N & Entire So. Sidewalk



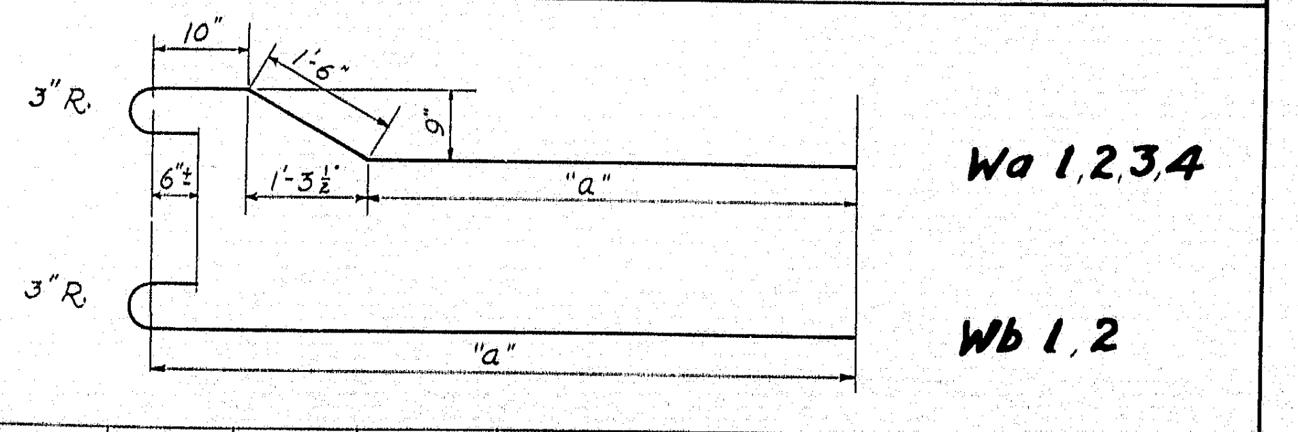
Mark	No.	Size	Total Length	Location	
WS-6	17	⅜"ϕ	4'-3"	Double Curbs	N & S
WS-7	20	"	3'-0"	Curbs	N & S
WS-11	121	"	5'-7"	Curbs Sect 5 thru 25	N



Mark	No.	Size	Total Length	Location	
WS-19	30	⅜"ϕ	8'-7½"	Curbs Sect. 2 & 3	S
WS-20	46	"	5'-1"	Curb Sect. 3, 4 & 5	S
WS-22	10	"	9'-5½"	Curb Sect. 3 & 4	N

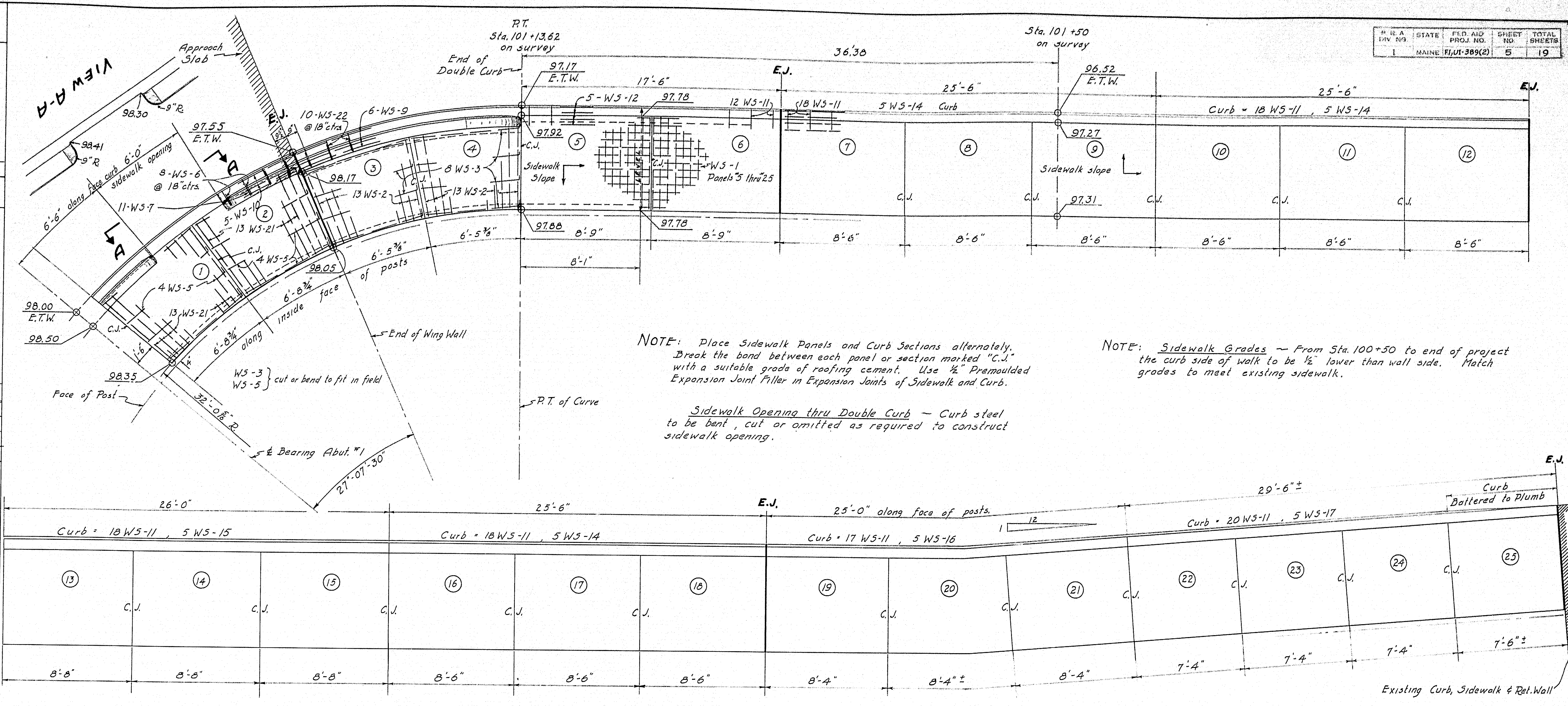
STRAIGHT STEEL

Mark	No.	Size	Length	Location	
WS-2	26	½"ϕ	5'-5"	Sidewalk Panels # 3 & 4 Transverse	N
WS-3	8	"	7'-5"	" " # 3 & 4 Longitudinal	N
WS-5	8	"	7'-9"	" " # 1 & 2 "	N
WS-9	6	"	15'-3"	Curbs at Sidewalk Panels # 3 & 4	N
WS-10	5	"	16'-4"	" " " # 1 & 2	N
WS-12	5	"	17'-3"	" " " # 5 & 6	N
WS-13	4	"	29'-8"	Retaining Wall - Section #1	N
WS-14	27	"	25'-3"	Ret. Wall and Curb at Wall Sects. # 2, 3, & 5	N
WS-15	9	"	25'-9"	" " " # 4	N
WS-16	9	"	24'-9"	" " " # 6	N
WS-17	9	"	29'-3"	" " " # 7	N
WS-18	15	"	28'-0"	Curb Sect. # 2, 3, 4 & 5	S
WS-21	26	"	6'-0"	S.W. Panels # 1 & 2 Trans.	N
WS-4	7	"	13'-0"	Curbs Sect. # 1	S
WS-8	5	½"ϕ	15'-6"	" " # 3	S
Wc 1	33	⅝"ϕ	23'-9"	Approach Slab - Abut. # 1 - Trans.	
Wc 2	24	"	30'-6"	" " " "	



Mark	No.	Size	"a"	Total Length	Location
Wa 1	41	¾"ϕ	10'-7"	14'-3"	Approach Slab - Abut. # 1 Longit.
Wa 2	15	"	13'-10½"	17'-6"	" " "
Wa 3	10	"	14'-1½"	17'-9"	" " "
Wa 4	3	"	14'-4½"	18'-0"	" " "
Wb 1	183	"	7'-9"	9'-0"	" " "
Wb 2	122	"	9'-9"	11'-0"	" " "

P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI,UI-389(2)	5	19



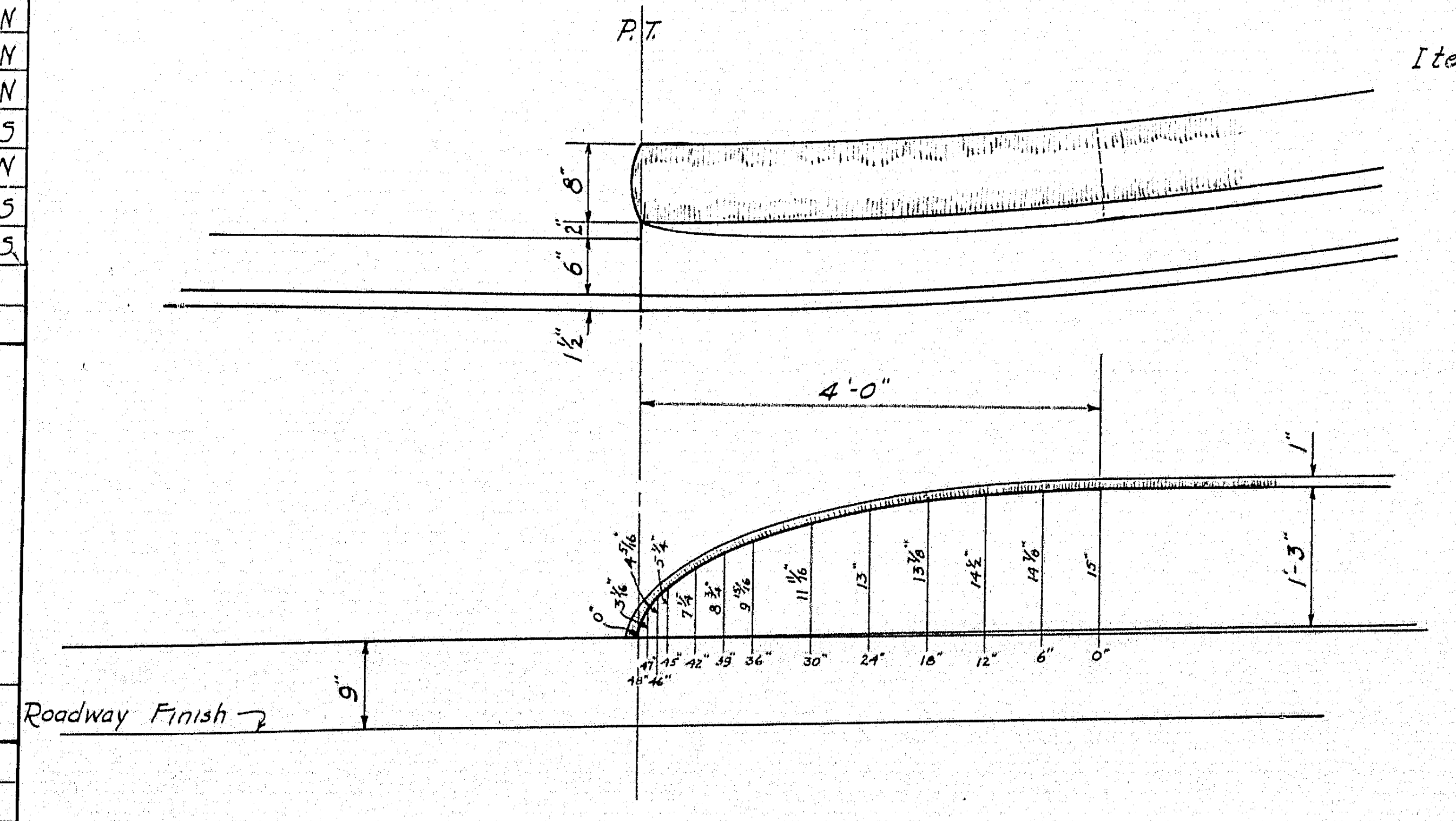
NOTE: Place Sidewalk Panels and Curb Sections alternately. Break the bond between each panel or section marked "C.J." with a suitable grade of roofing cement. Use ½" Premoulded Expansion Joint Filler in Expansion Joints of Sidewalk and Curb.

Sidewalk Opening thru Double Curb — Curb steel to be bent, cut or omitted as required to construct sidewalk opening.

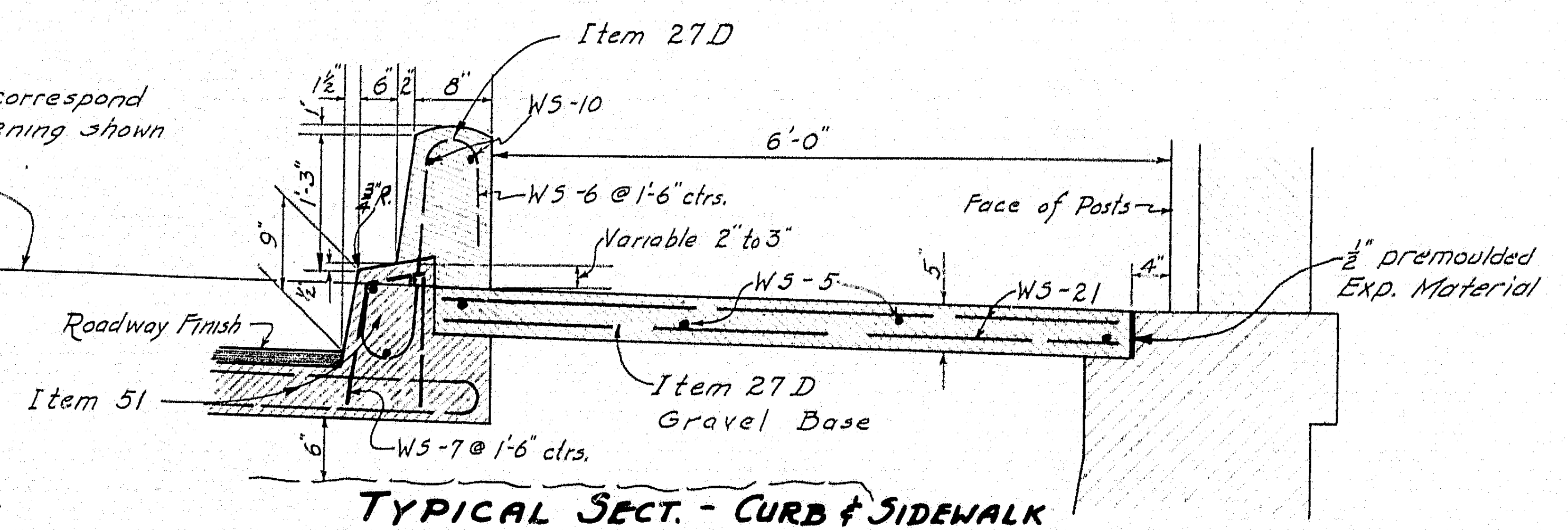
NOTE: Sidewalk Grades — From Sta. 100+50 to end of project the curb side of walk to be ½" lower than wall side. Match grades to meet existing sidewalk.

NOTE: Outside Curb opposite S.W. Panel #4 — Warp top of curb to fit sidewalk slope at P.T.

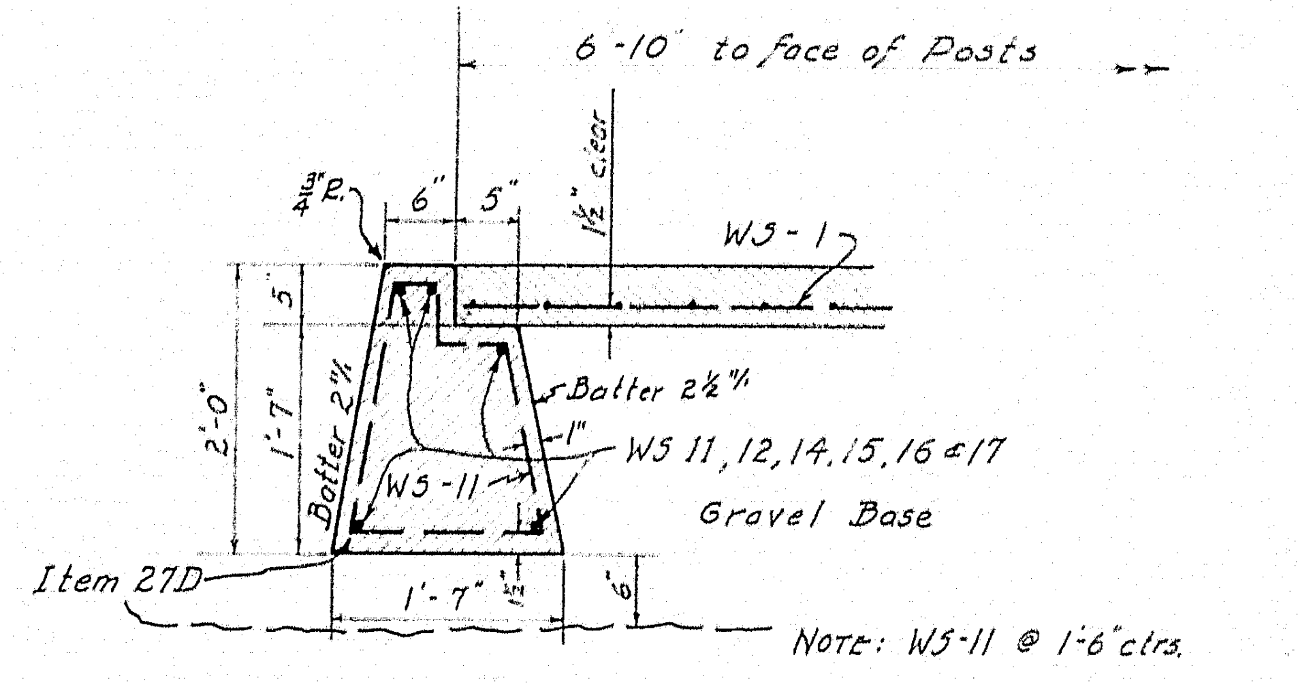
Build outer curb to correspond to Sidewalk grade at opening shown in view A-A



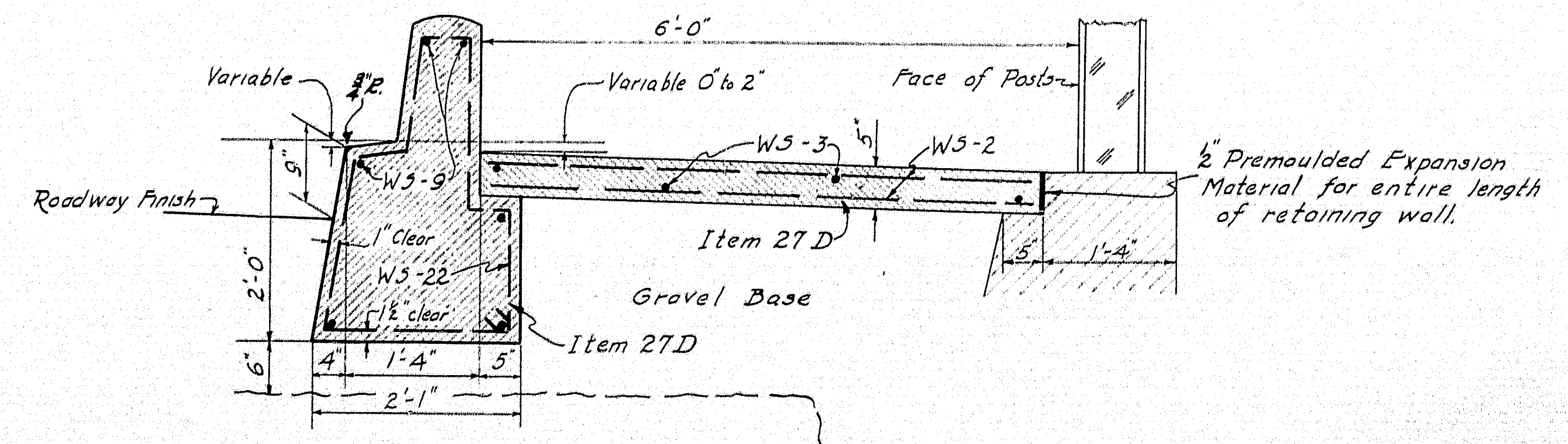
DETAIL — END OF DOUBLE CURB



TYPICAL SECT. - CURB & SIDEWALK BETWEEN ABUT. #1 & END WING WALL



TYPICAL SECT. ~ CURB & SIDEWALK BETWEEN P.T. & END OF PROJECT

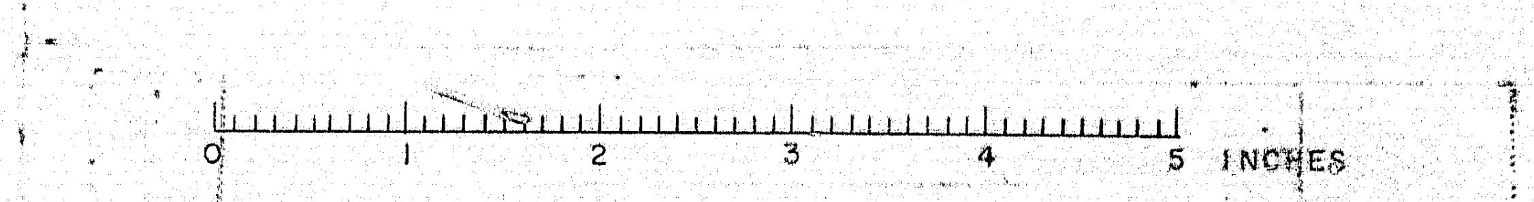


TYPICAL SECT. - CURB & SIDEWALK BETWEEN END WING WALL & P.T.

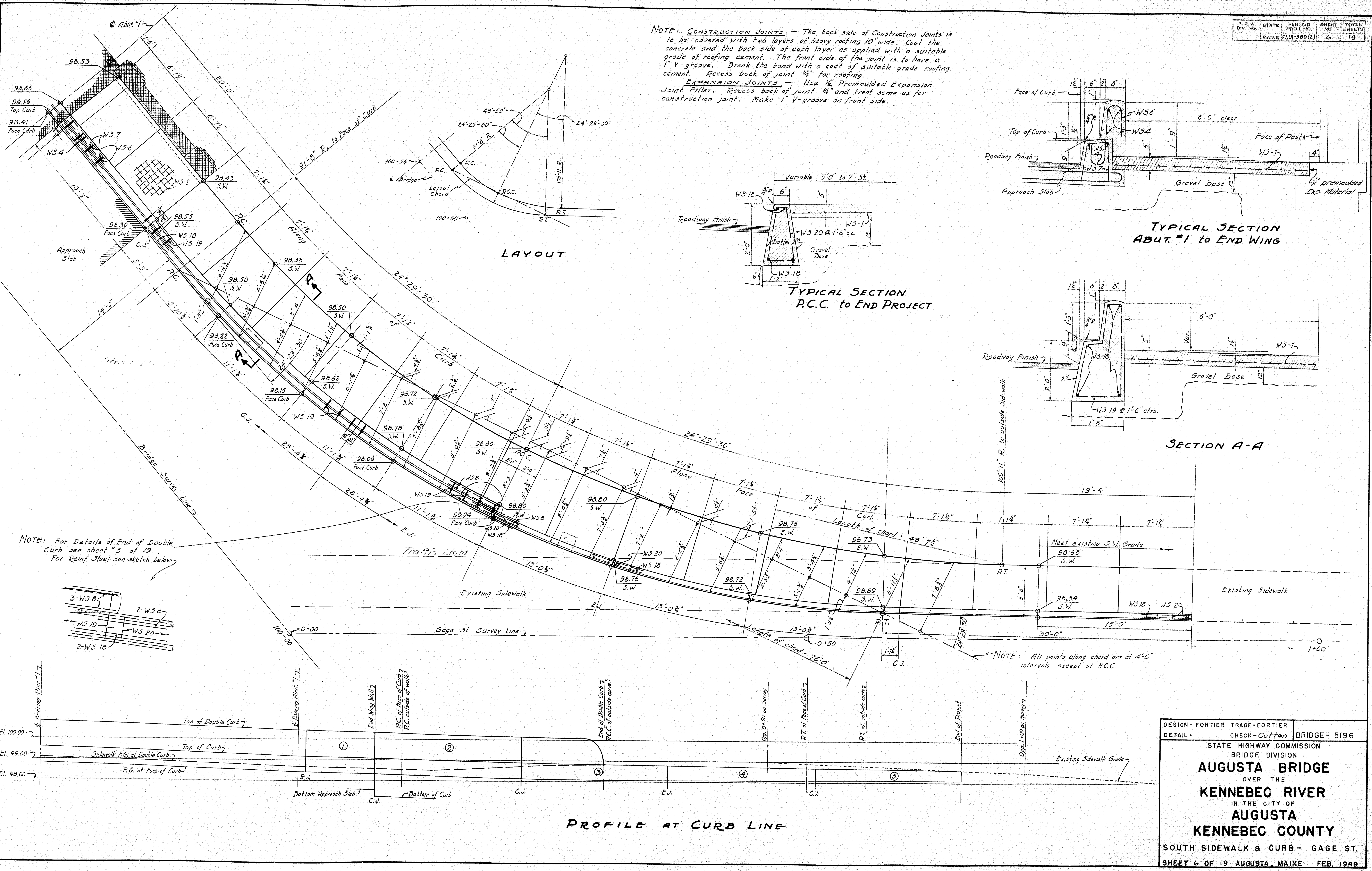
DESIGN - FORTIER	TRACE - FORTIER	BRIDGE - 5196
DETAIL - "	CHECK - Cotton	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
N. SIDEWALK & CURB DETAILS — GAGE ST.
SHEET 5 OF 19 AUGUSTA, MAINE JAN. 1949

52-50



P.R.A. DIV. NO.	STATE	FLD. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI,UI-389(2)	6	19



NOTE: CONSTRUCTION JOINTS — The back side of Construction Joints is to be covered with two layers of heavy roofing 10" wide. Coat the concrete and the back side of each layer as applied with a suitable grade of roofing cement. The front side of the joint is to have a 1" V-groove. Break the bond with a coat of suitable grade roofing cement. Recess back of joint ¼" for roofing.

EXPANSION JOINTS — Use ½" Premoulded Expansion Joint Filler. Recess back of joint ¼" and treat same as for construction joint. Make 1" V-groove on front side.

DESIGN - FORTIER TRACE - FORTIER
DETAIL - CHECK - Cotton
BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

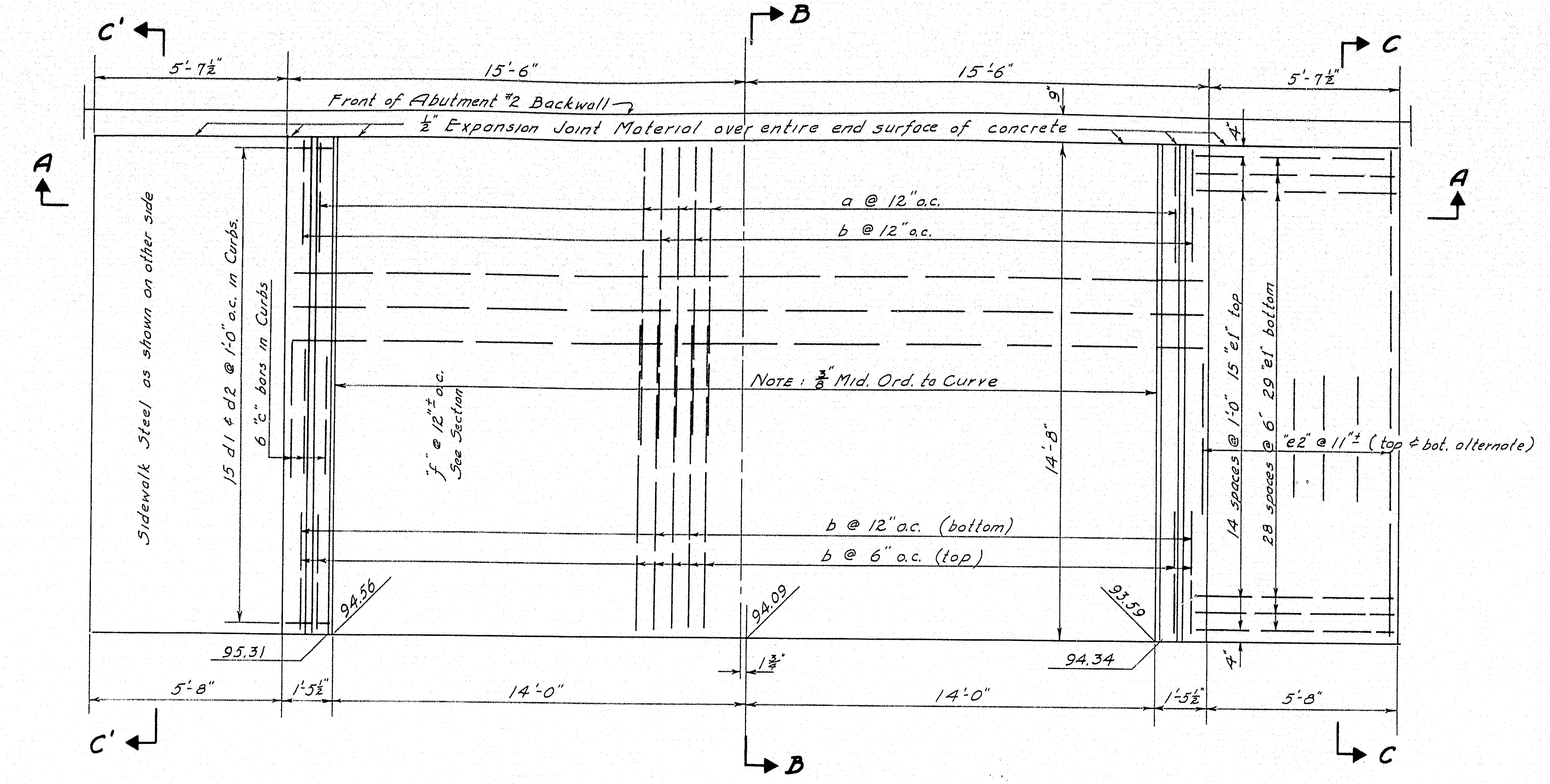
SOUTH SIDEWALK & CURB - GAGE ST.

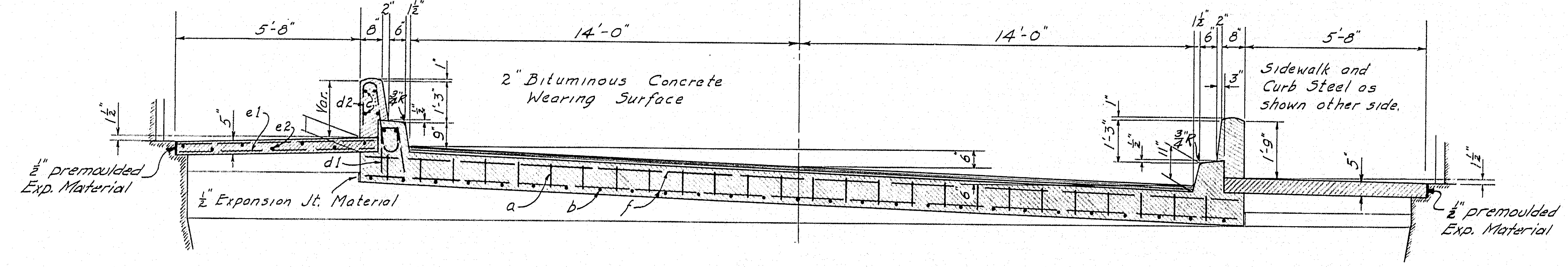
SHEET 6 OF 19 AUGUSTA, MAINE FEB. 1949

52-51

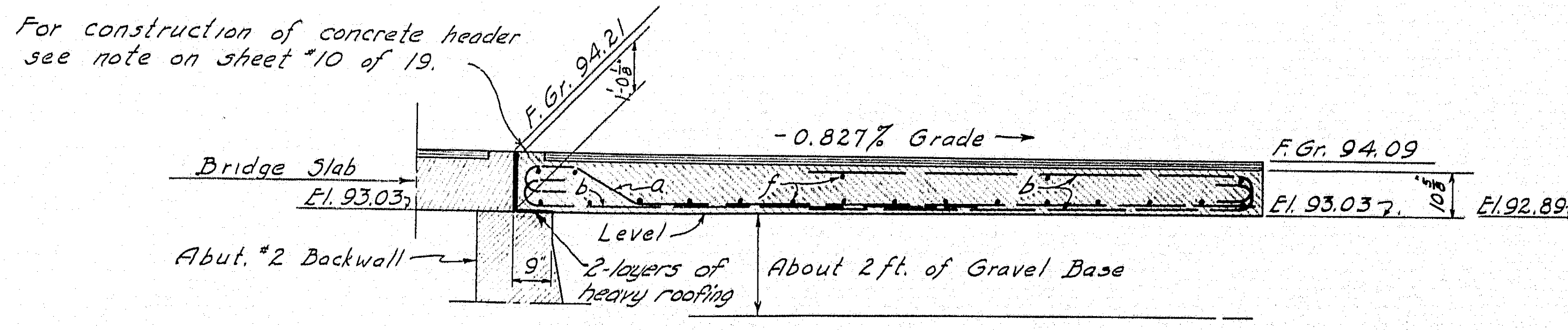
0 1 2 3 4 5 INCHES

P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI,UI-389(2)	7	19

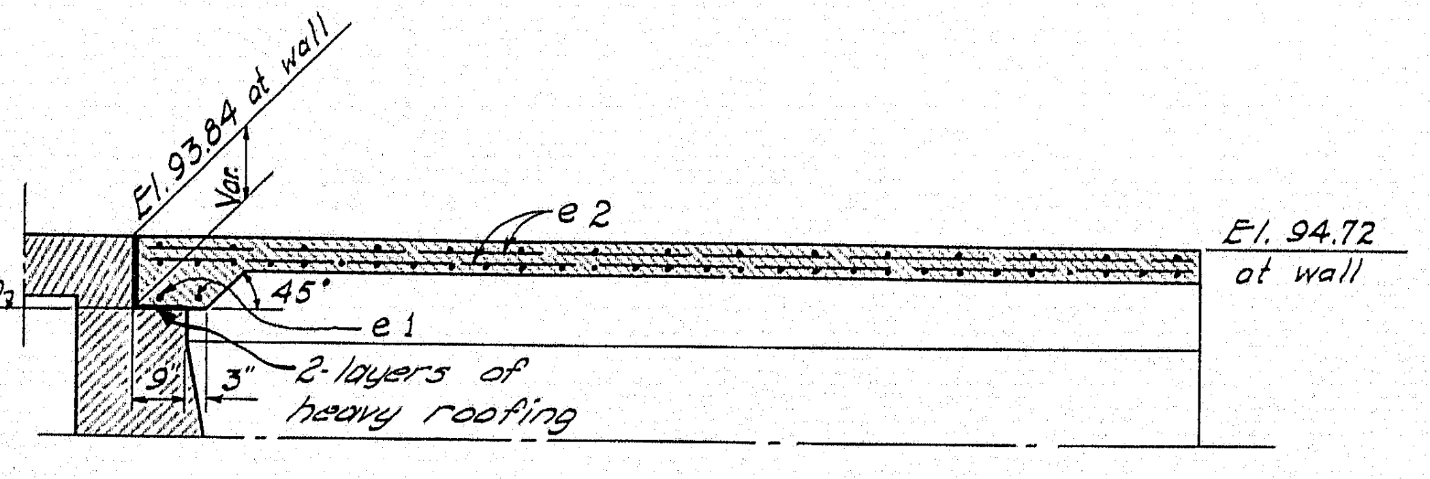

C'
B
C
5'-7½"
15'-6"
15'-6"
5'-7½"
9"
4"
Front of Abutment #2 Backwall
½" Expansion Joint Material over entire end surface of concrete
A
A
Sidewalk Steel as shown on other side
15 d1 & d2 @ 1'-0" o.c. in Curbs.
6 "c" bars in Curbs
"f" @ 12"± o.c. See Section
a @ 12" o.c.
b @ 12" o.c.
Note: 3/8" Mid. Ord. to Curve
14'-8"
14 spaces @ 1'-0" 15 "e1" top
28 spaces @ 6" 29 "e1" bottom
"e2" @ 11"± (top & bot. alternate)
b @ 12" o.c. (bottom)
b @ 6" o.c. (top)
94.56
95.31
94.09
93.59
94.34
1¾"
4"
5'-8"
1'-5½"
14'-0"
14'-0"
1'-5½"
5'-8"
C'
B
C


5'-8"
8"
2"
6"
1½"
14'-0"
14'-0"
1½"
6"
2"
8"
5'-8"
2" Bituminous Concrete Wearing Surface
Sidewalk and Curb Steel as shown other side.
1½"
5"
e1
e2
Var.
d2
c
¾"R
1"
1'-3"
9"
½"
d1
½" premoulded Exp. Material
½" Expansion Jt. Material
a
b
f
6"
1"
1'-3"
½"
11"
¾"R
3"
1'-9"
5"
1½"
½" premoulded Exp. Material

SECTION A-A


For construction of concrete header see note on sheet #10 of 19.
F. Gr. 94.21
1'-0⅛"
-0.827% Grade →
F. Gr. 94.09
Bridge Slab
El. 93.03
b
a
f
b
El. 93.03
10⅜"
Level
Abut. #2 Backwall
9"
2-layers of heavy roofing
About 2 ft. of Gravel Base

SECTION B-B

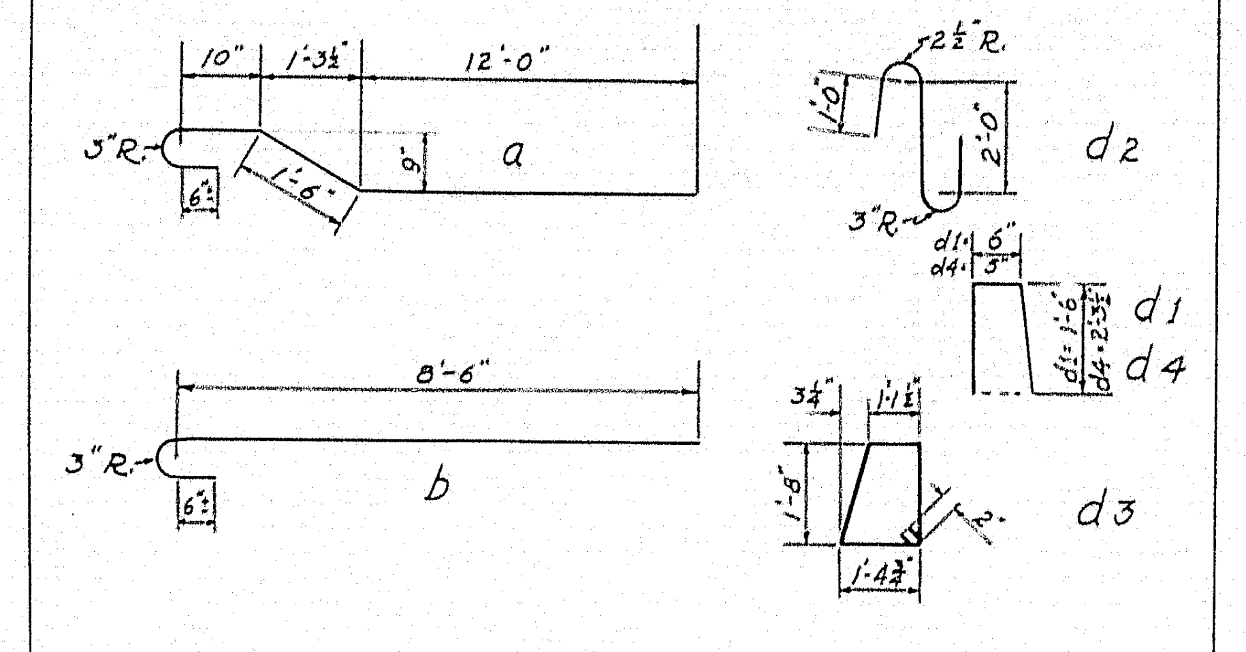


SECTION C-C

Section C'-C' the same except for Elevations

REINFORCING STEEL
EAST APPROACH SLAB, CURB & SIDEWALKS

BENT BARS



Mark	Size	No.	Length	Location
a	¾"ϕ	30	15'-7"	Rdy. Slab - Long.
b	¾"ϕ	122	9'-9"	" " "
d1	⅜"ϕ	30	3'-6"	Curbs
d2	⅜"ϕ	30	4'-11"	"
d3	⅜"ϕ	80	6'-3"	Approach Curbs
d4	⅜"ϕ	80	5'-0"	" "

STRAIGHT BARS

Mark	Size	No.	Length	Location
C	½"ϕ	12	14'-6"	Curbs
e1	"	92	5'-10"	S.W. Slab - Transverse
e2	"	14	14'-6"	" " - Longitudinal
f	⅝"ϕ	20	30'-8"	Rdy. Slab - Transverse
C2	½"ϕ	28	19'-6"	Approach Curbs
E1	"	58	5'-10"	" S.W. - Trans.
E2	"	58	6'-1"	" " "
E3	"	58	6'-4"	" " "
E4	"	58	6'-7"	" " "
E5	½"ϕ	56	9'-6"	" " Long.

DESIGN - ALLEN TRACE-FORTIER
DETAIL - " CHECK - Cotton
BRIDGE - 5196

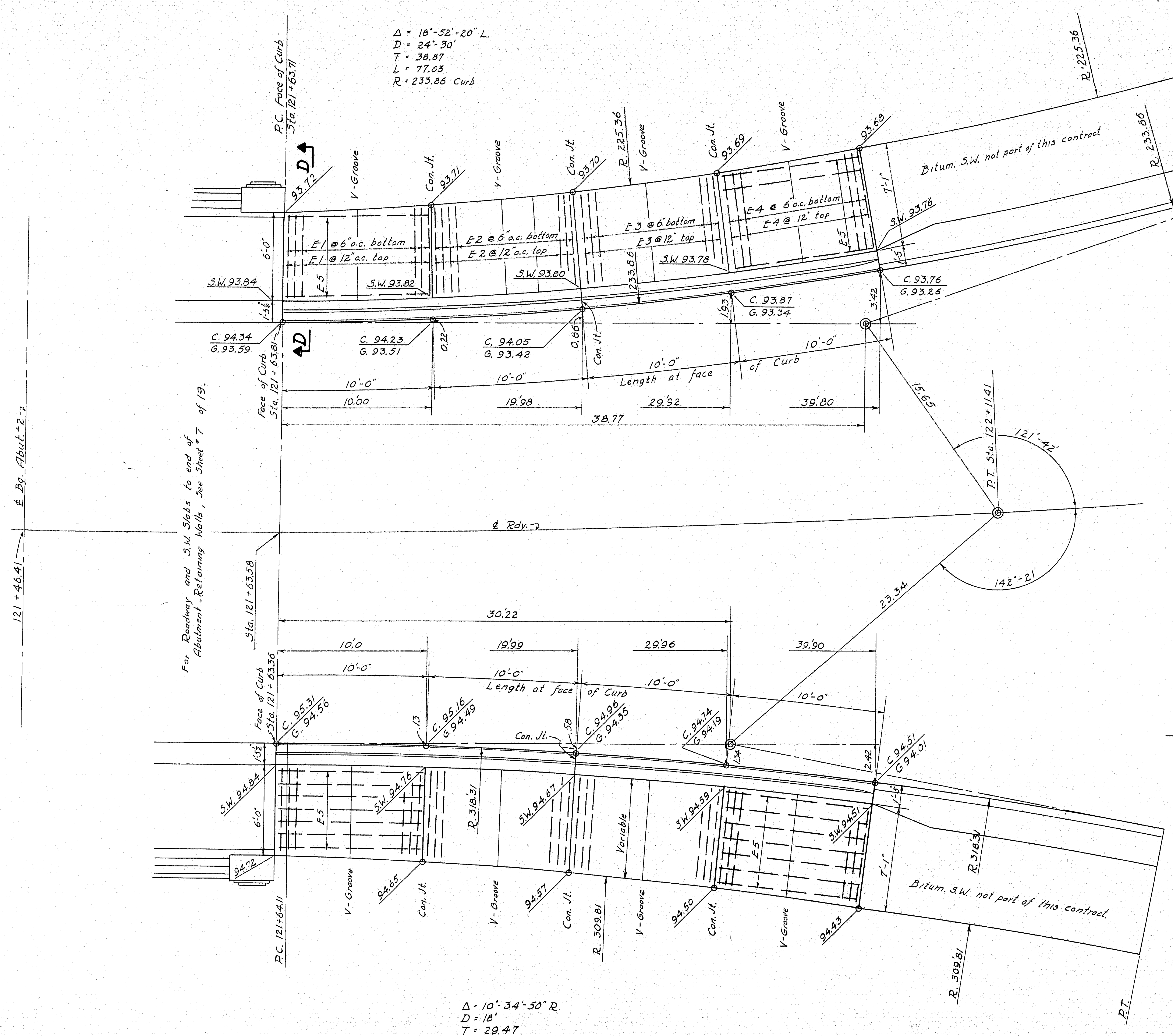
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

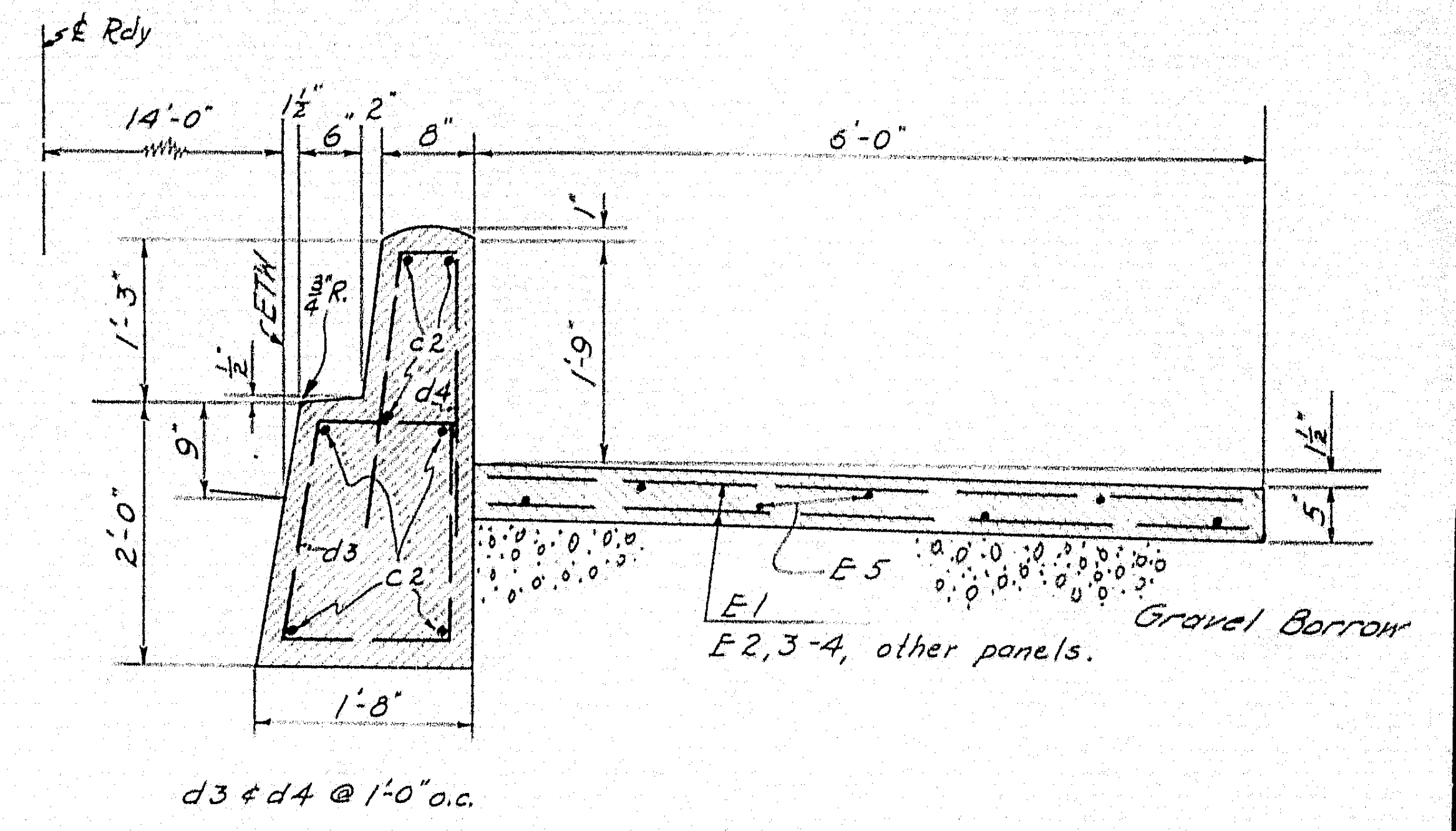
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
APPROACH SLAB – ABUT. 2.
SHEET 7 OF 19 AUGUSTA, MAINE FEB. 1949

52-52

0 1 2 3 4 5 INCHES

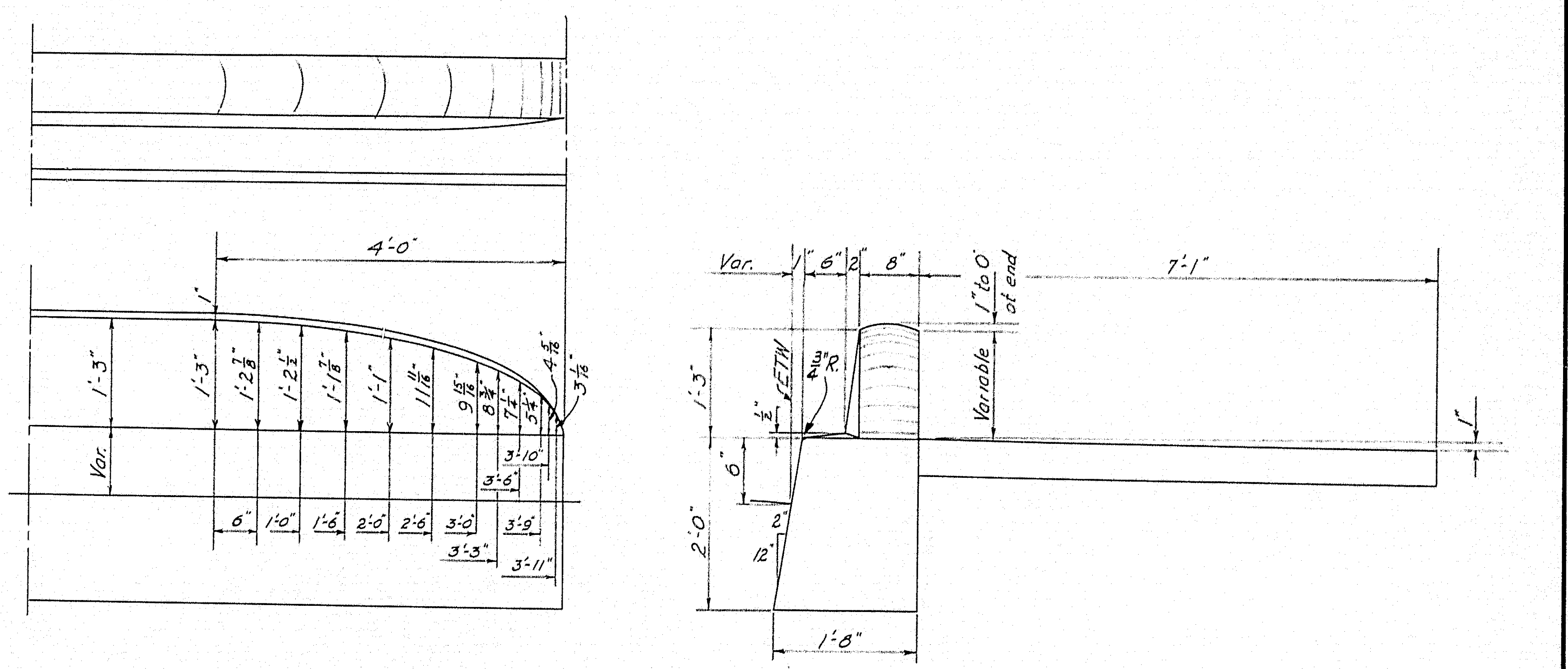
P. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI,UI-389(2)	8	19





d3 & d4 @ 1'-0" o.c.

SECTION D-D



SIDE ELEV.

END ELEV.

U. S. CURB

D. S. Curb similiar except for Elevations.

NOTE: For Reinf. Steel Schedule see sheet #7 of 19.

DESIGN - ALLEN	TRACE - FORTIER	BRIDGE - 5196
DETAIL - "	CHECK - Cotton	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
EAST APPROACH SLABS

SHEET 8 OF 19 AUGUSTA, MAINE FEB. 1949

52-53