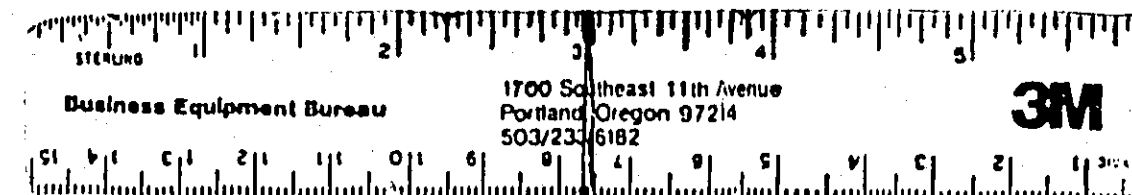


MULTNOMAH COUNTY, OREGON
PLANS
FOR
BURNSIDE BRIDGE
OVER THE WILLAMETTE RIVER
AT
PORTLAND, ORE.

DESIGN NO.2
CHANNEL SPAN
STRAUSS DOUBLE-LEAF TRUNNION BASCULE
SIDE SPANS
2 STEEL TRUSS SPANS

HEDRICK AND KREMERS
CONSULTING ENGINEERS
MADISON BUILDING
PORTLAND, OREGON.
1924

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IRA G. HEDRICK
MEM. A.S.C.E.

DRAWINGS BY THE PACIFIC BRIDGE COMPANY.

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BURNSIDE BRIDGE

BOARD OF COUNTY COMMISSIONERS OF MULTNOMAH COUNTY, ORE.

1924

Charles S. Rudeen, Chairman
Dow V. Walker, Commissioner
John H. Rankin, Commissioner

DRAWINGS BY GUSTAV LINDBERGH.

ROBERT E. KREMERS
MEM. A.A.E.

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CONSTRUCTION CHANGES SHOWN IN RED

WORKING STRESSES

	Concrete, 1-2-4 Mix	Steel
Floor Slabs, Cross Girders, Cantilevers, Girders, etc.	650#	16,000#
Beams continuous over Supports	815#	20,000#
Arch Rings Case 1: Not including Temperature & Wind	600#	16,000#
Arch Rings Case 2: Including	800#	20,000#
Bond for Steel in Concrete	100#	
Flexural Stress for all conditions not including Wind	650#	
Flexural Stress for all conditions including Wind	800#	
Columns Direct Compression	450#	
	Structural Steel	
Tension, net Section	16,000#	
Compression in Cols & other Compression Members	16,000 - $\frac{70L}{r}$	
	Fixed Ends	

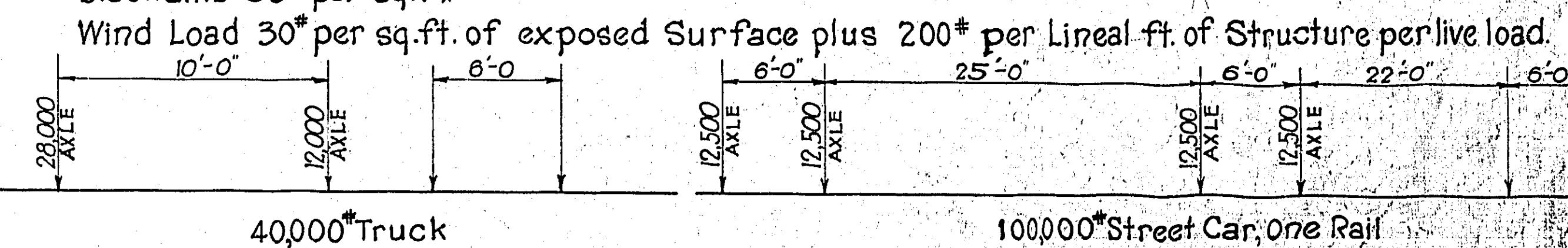
WILLIAM D. SMITH
PRINCIPAL ASST ENGINEER

CONSTANTS

Modulus of Elasticity, Steel,	30,000,000
" " " Concrete 1-2-4	2,000,000
" " " " 1-1-2	3,000,000
Variation in Temperature	± 30° F
Coefficient of Expansion	.0000055

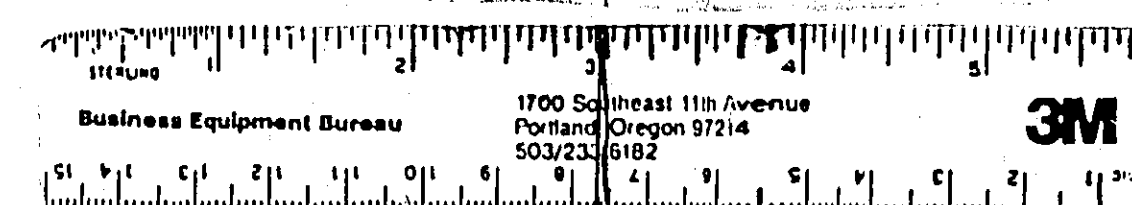
LOADINGS

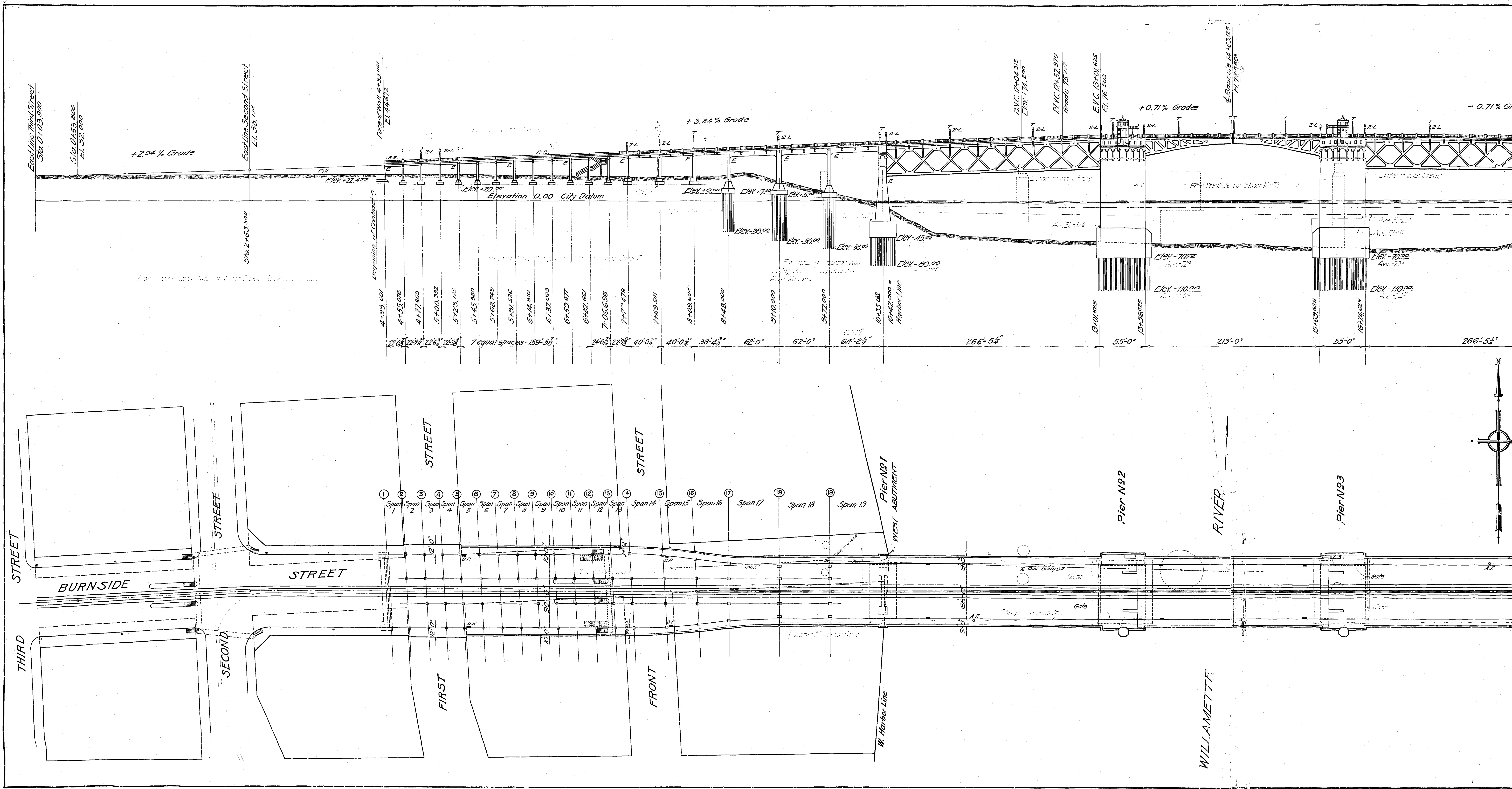
Main Girders and Columns Steel Approach Roadway 100# per sq.ft. outside of Space occupied by Street Cars. Sidewalk 50# per sq.ft.
 (1) For Arch Spans & Bascule Trusses (2) 268' Steel Spans & Bascule Trusses. 1900# per Lineal foot per track for Street Cars & 80# per sq.ft. in Roadway not occupied by Street Cars.
 Sidewalks 50# per sq.ft.



LLOYD G. FROST
CHIEF DRAFTSMAN

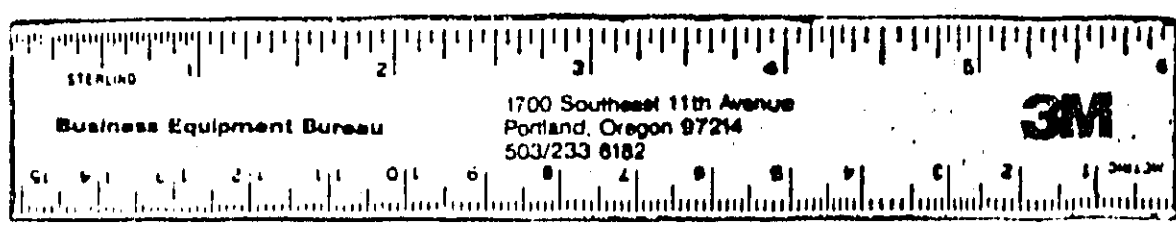
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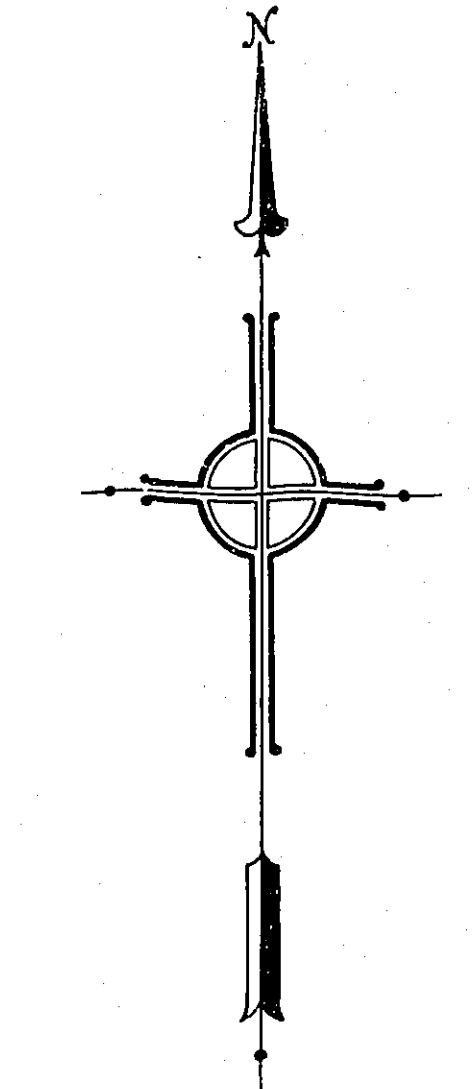
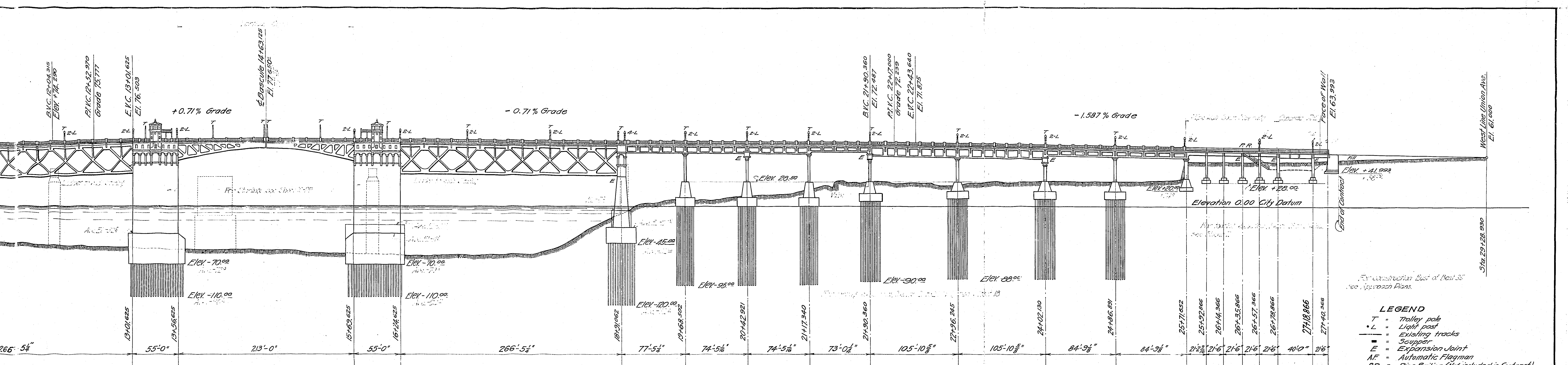




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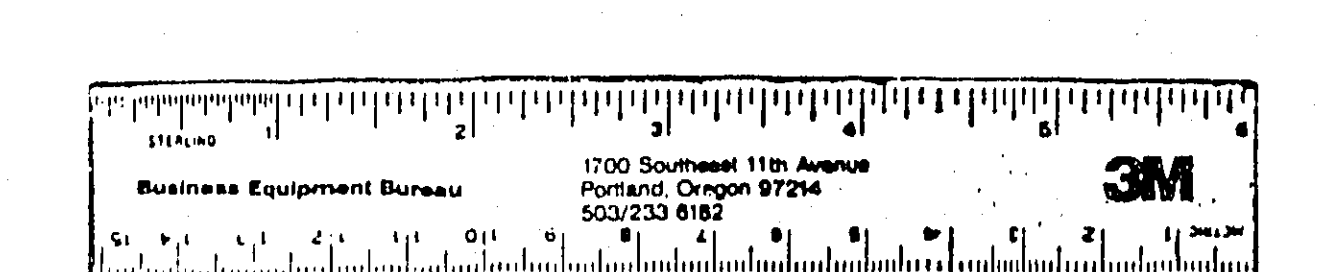


MULTNOMAH COUNTY OREGON
BURNSIDE BRIDGE
 PORTLAND OREGON
GENERAL ELEVATION & PLAN
 DESIGN NO. 2

MADE BY *John Joo*
 CHECKED BY *William Wright*
 TRACED BY *John Joo*
 CHECKED BY
 DRAWING NO.
 SHEETS

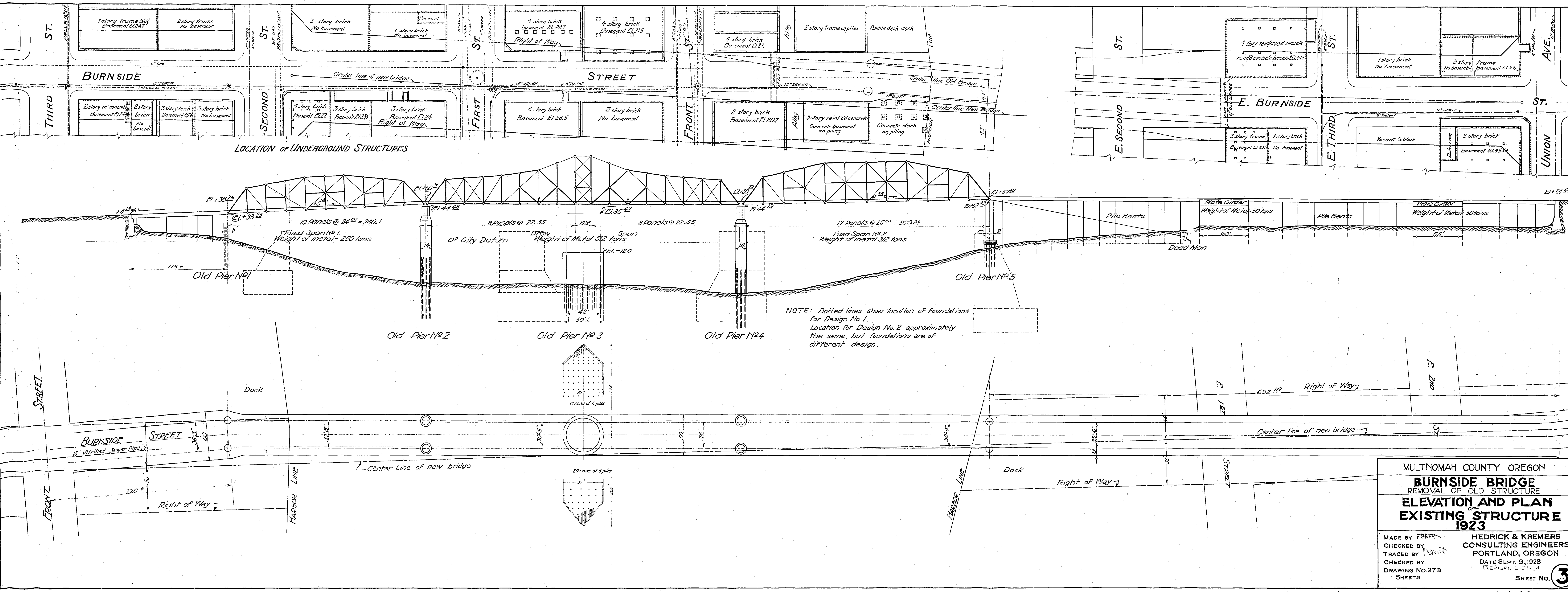
HEDRICK & KREMERS
 CONSULTING ENGINEERS
 PORTLAND, OREGON
 DATE FEB. 21-1924.

SCALE - 1" = 40'-0"
 SHEET NO. **(F2)**



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LOCATION OF UNDERGROUND STRUCTURES

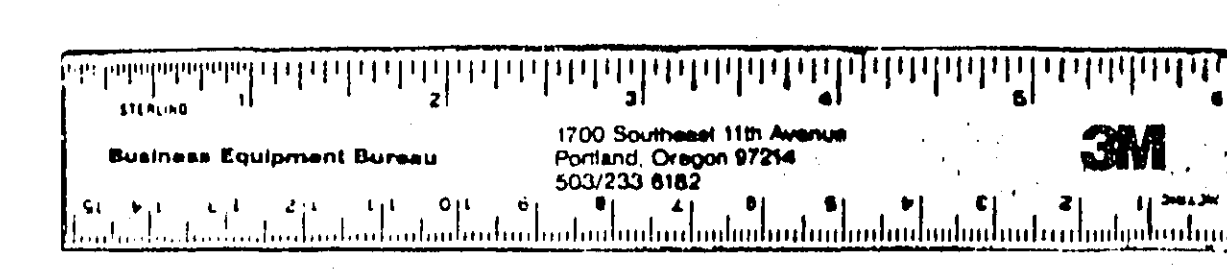
NOTE: Dotted lines show location of foundations for Design No. 1. Location for Design No. 2 approximately the same, but foundations are of different design.

MULTNOMAH COUNTY OREGON
BURNSIDE BRIDGE
 REMOVAL OF OLD STRUCTURE
ELEVATION AND PLAN
EXISTING STRUCTURE
 1923

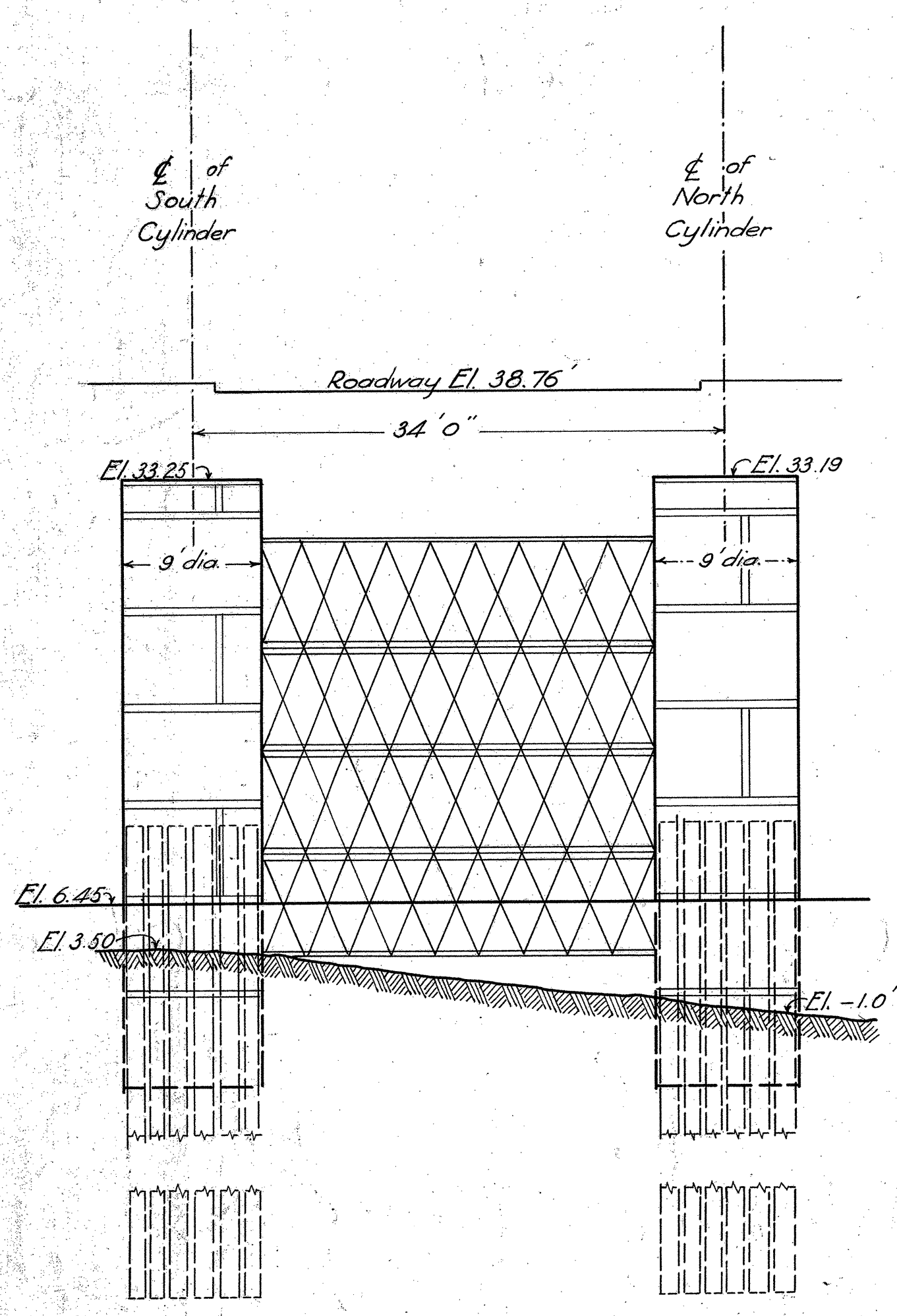
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HEDRICK & KREMERS
 CONSULTING ENGINEERS
 PORTLAND, OREGON
 DATE SEPT. 9, 1923
 REVISION 4-21-24

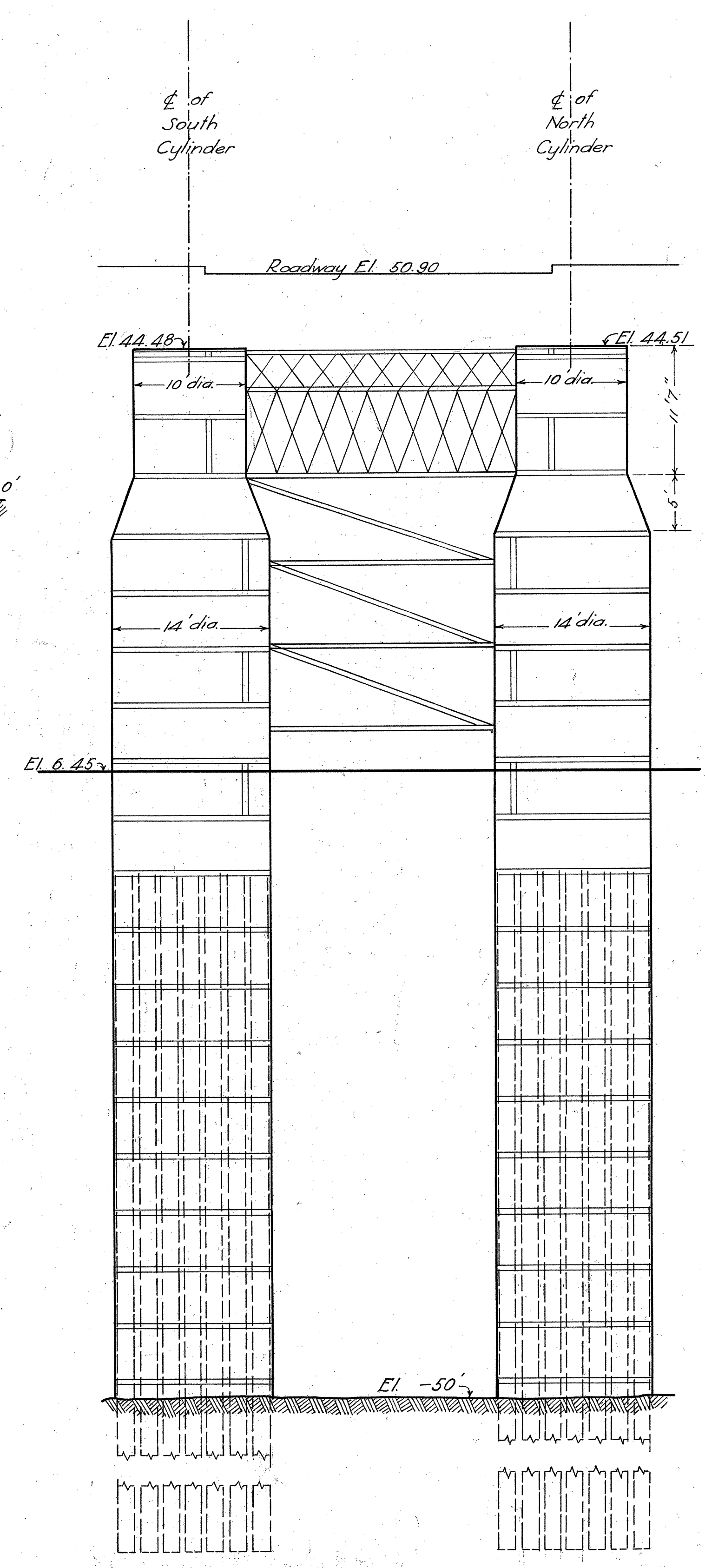
SHEET NO. **3**



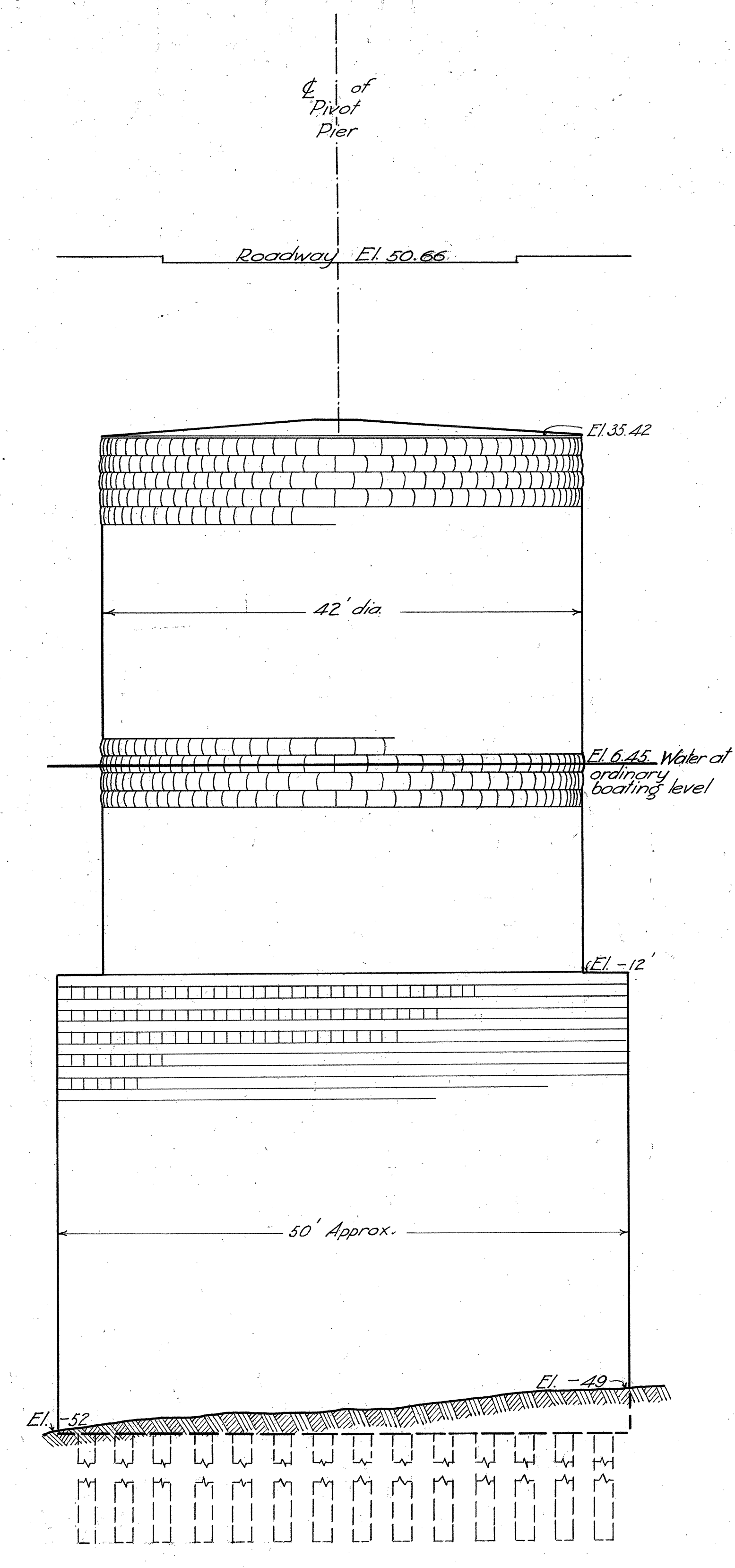
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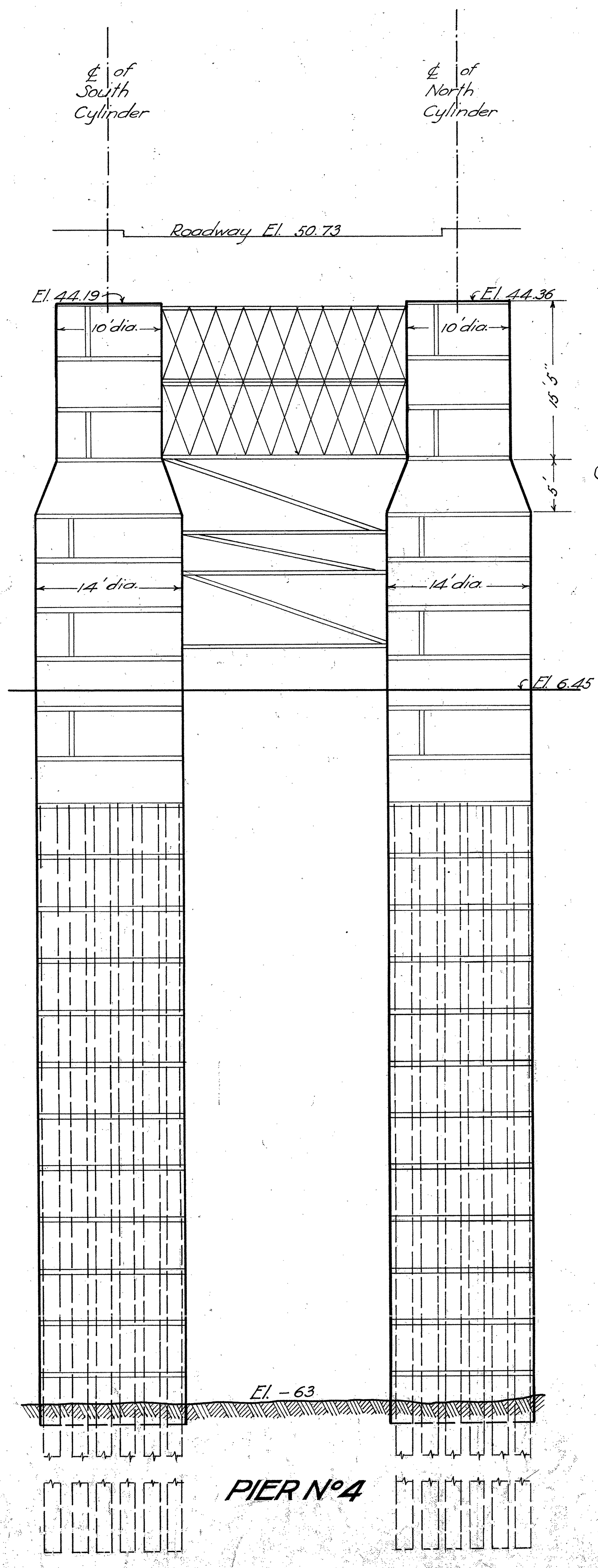
PIER N°1
EXTREME WESTERN PIER



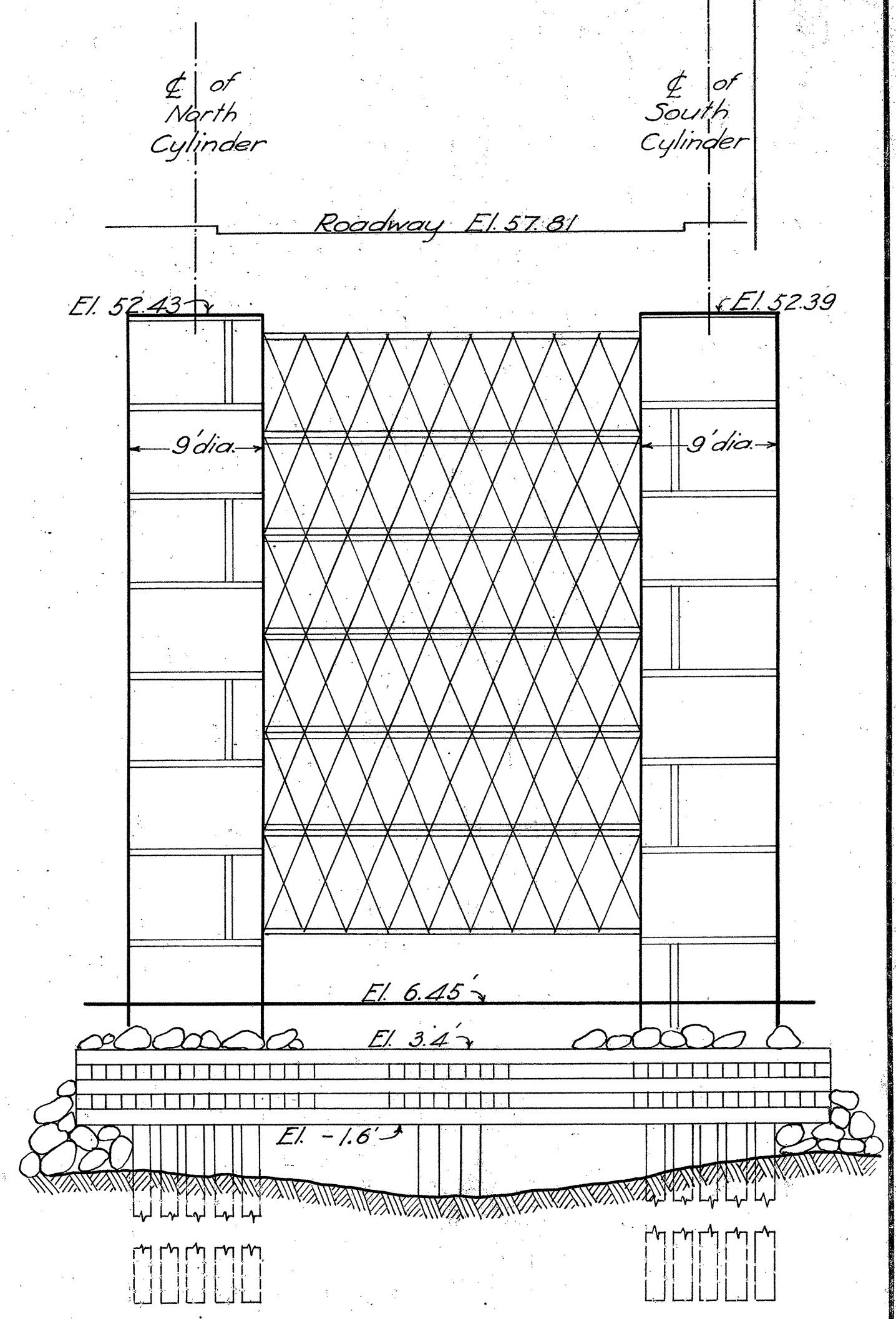
PIER N°2



PIER N°3



PIER N°4



PIER N°5
EXTREME EASTERN PIER

NOTE: All elevations are referred to the Datum Plane of the City of Portland

MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
DETAILS OF OLD PIERS

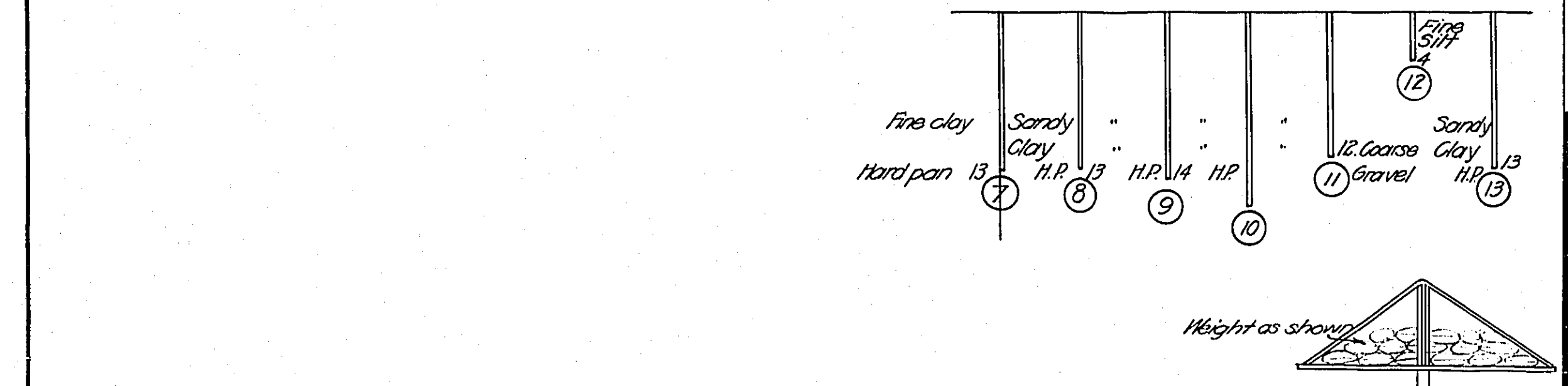
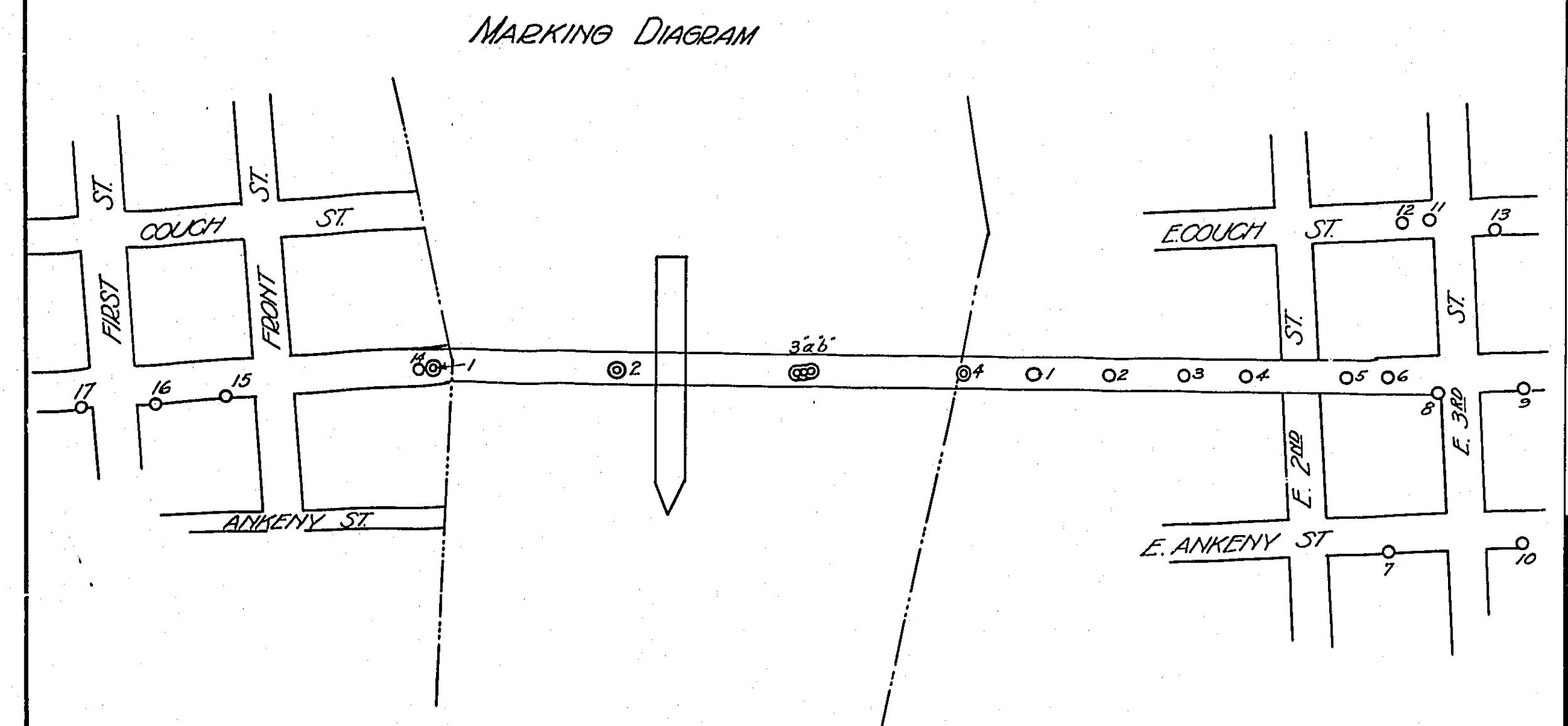
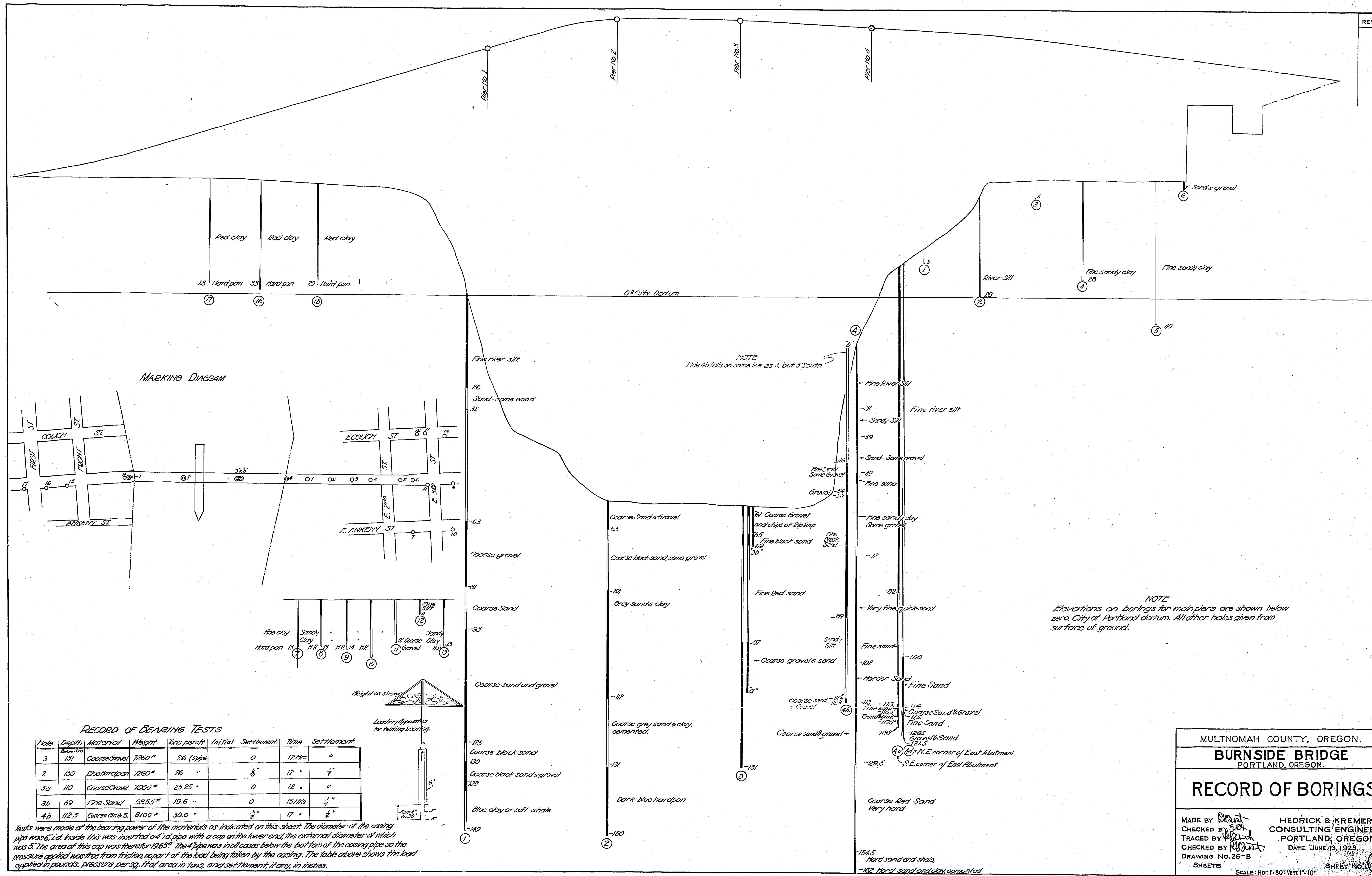
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 CHECKED BY *R. G. Smith*
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 SHEETS

HEDRICK & KREMERS
 CONSULTING ENGINEERS
 PORTLAND, OREGON
 DATE SEPT. 12, 1923

Scale 3/4" = 1'-0"

SHEET NO. **4**

REVISED



RECORD OF BEARING TESTS

Hole	Depth	Material	Weight	Area per sq. ft.	Initial Settlement	Time	Settlement
3	151	Coarse Gravel	7250 #	26 (3 pipes)	0	12 1/2	0
2	150	Blue Hardpan	7250 #	26 "	1/8"	12 "	1/4"
3a	110	Coarse Gravel	7000 #	25.25 "	0	12 "	0
3b	69	Fine Sand	5355 #	19.6 "	0	15 Mts	1/4"
4b	112.5	Coarse Gr. & S.	8100 #	30.0 "	3/8"	17 "	1/4"

Tests were made of the bearing power of the materials as indicated on this sheet. The diameter of the casing pipe was 6 1/4". Inside this was inserted a 4 1/2" pipe with a cap on the lower end, the external diameter of which was 5". The area of this cap was therefore 19.63". The 4 1/2" pipe was in all cases below the bottom of the casing pipe so the pressure applied was free from friction part of the load being taken by the casing. The table above shows the load applied in pounds, pressure per sq. ft. of area in tons, and settlement if any, in inches.

NOTE
1 tab 4b falls on same line as 4, but 3' South

NOTE
Elevations on borings for main piers are shown below zero, City of Portland datum. All other holes given from surface of ground.

NOTE
N.E. corner of East Abutment
S.E. corner of East Abutment

MULTNOMAH COUNTY, OREGON.
BURNSIDE BRIDGE
PORTLAND, OREGON.

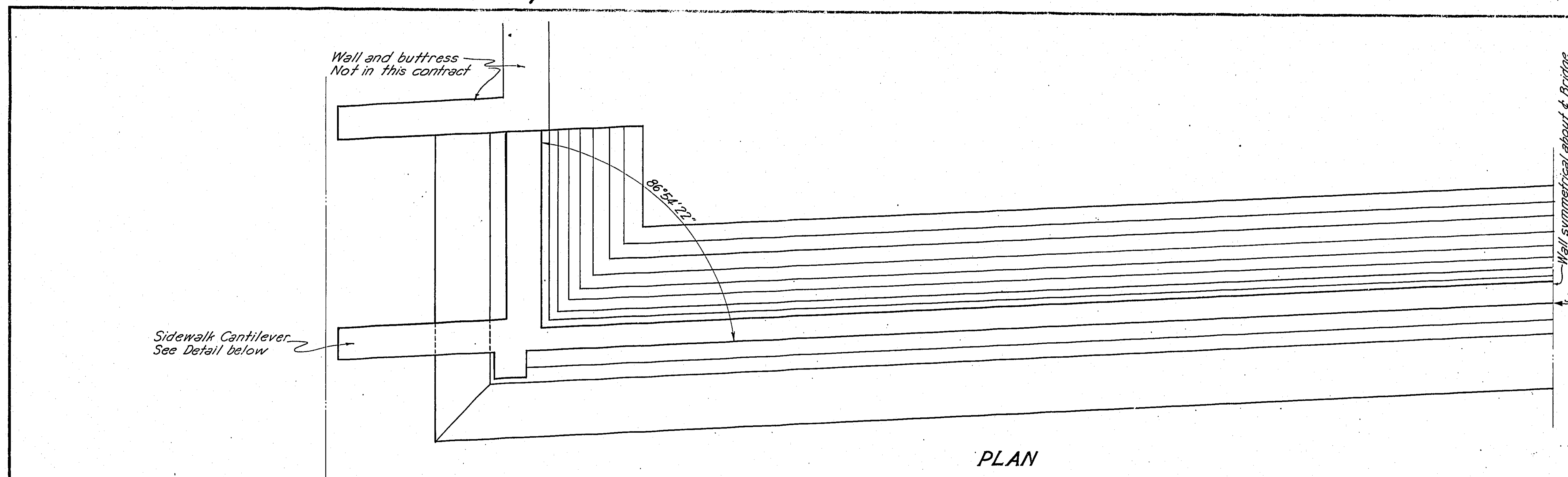
RECORD OF BORINGS

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SHEETS

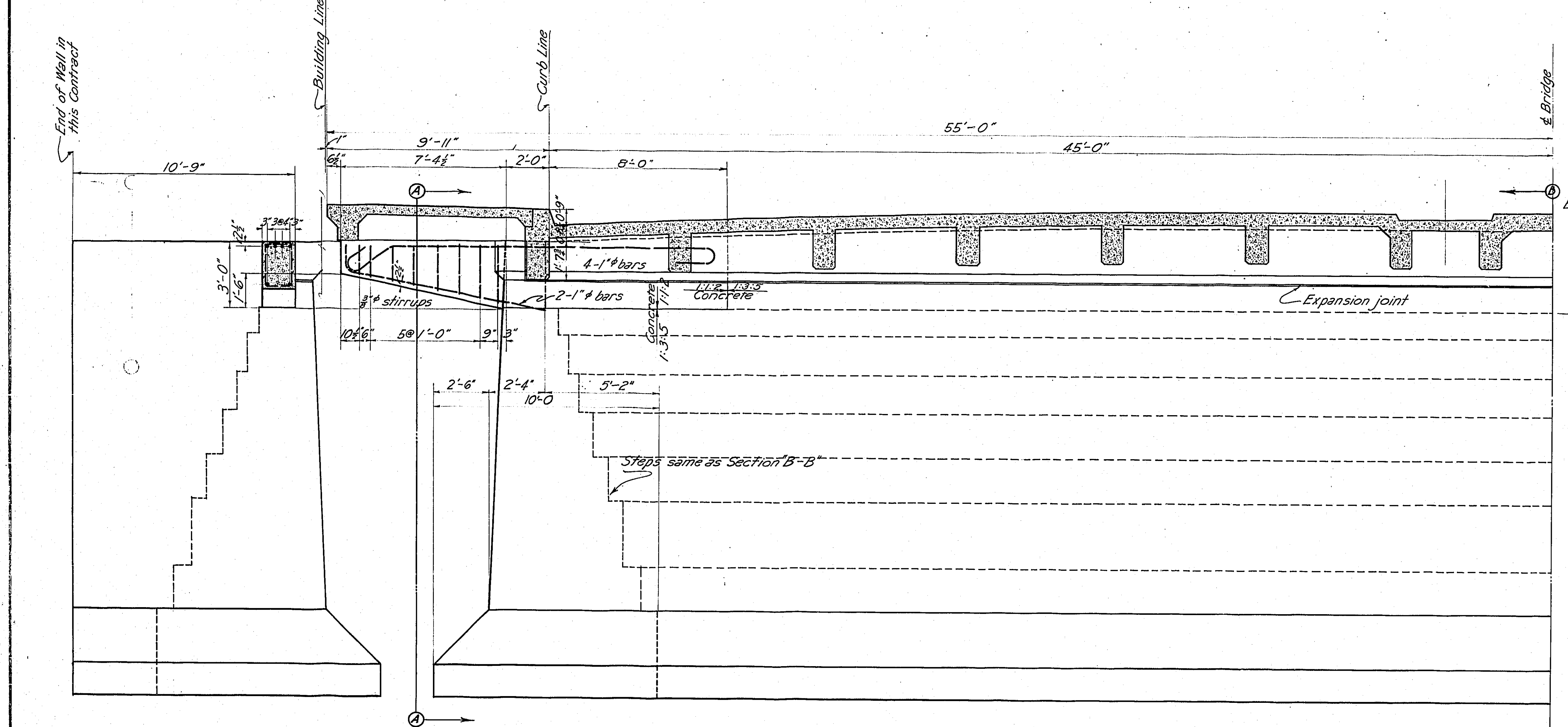
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON.
DATE JUNE 13, 1923.

SCALE: Hor. 1"=80'-Vert. 1"=10'

SHEET NO. **5**



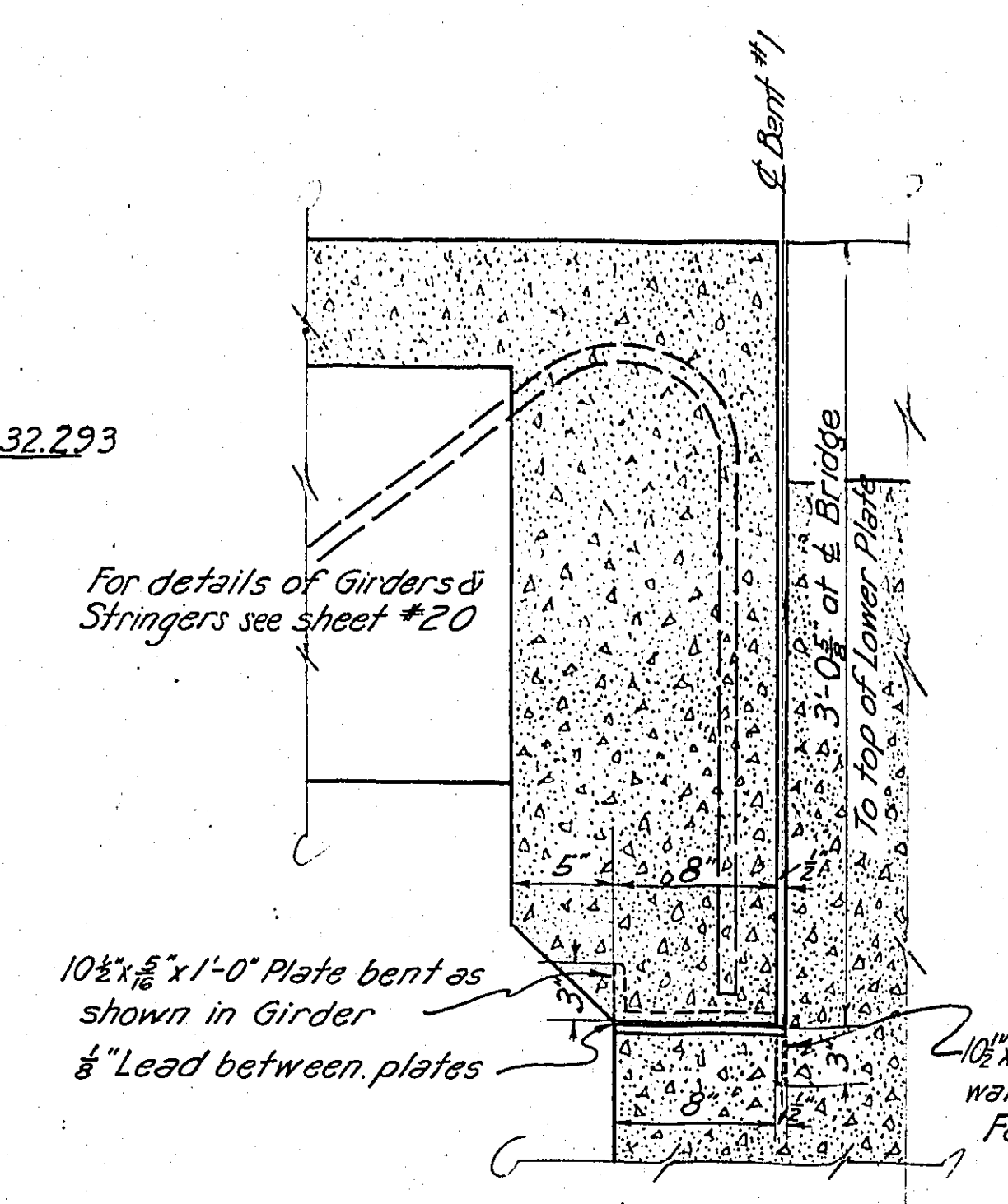
PLAN



SECTION A-A

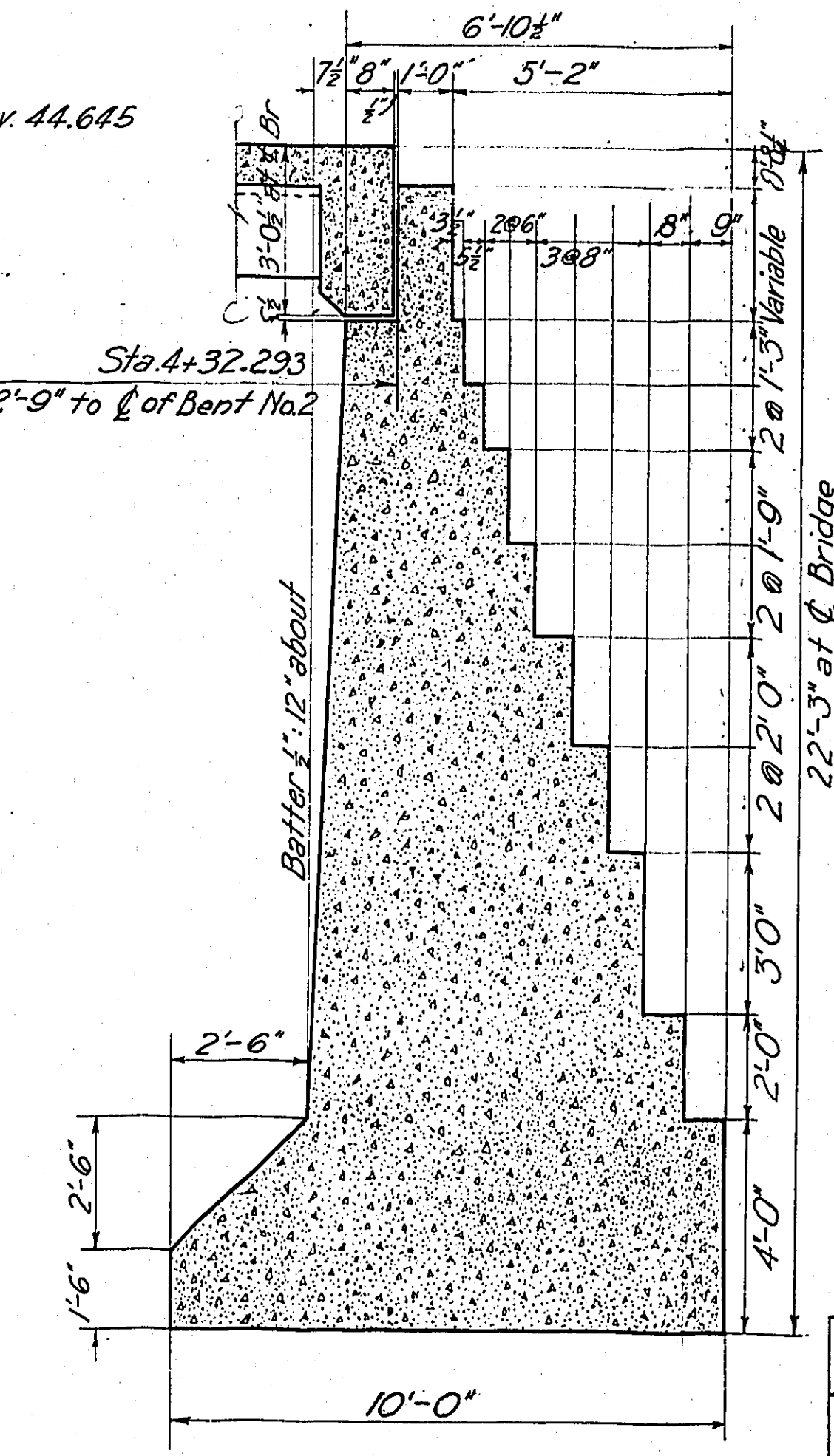
ELEVATION

Scale - 3/8" = 1'-0"
All dimensions at Right Angles to & Bridge



DETAIL OF EXPANSION JOINT

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



SECTION B-B

Concrete 1:3:5 Except Where Reinforced 1:1:2 as shown

VOID - SEE SHEET L-75

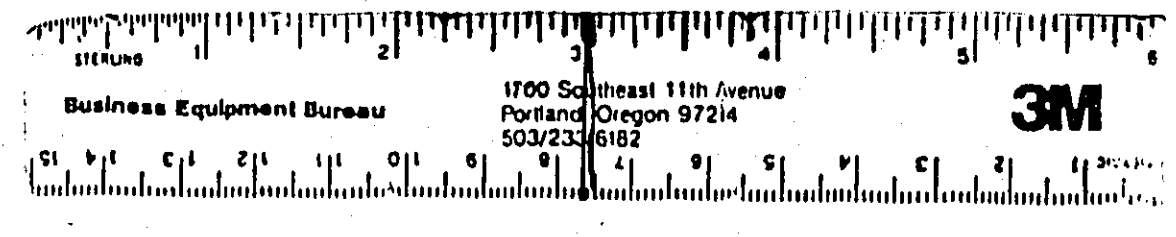
MULTNOMAH COUNTY - OREGON

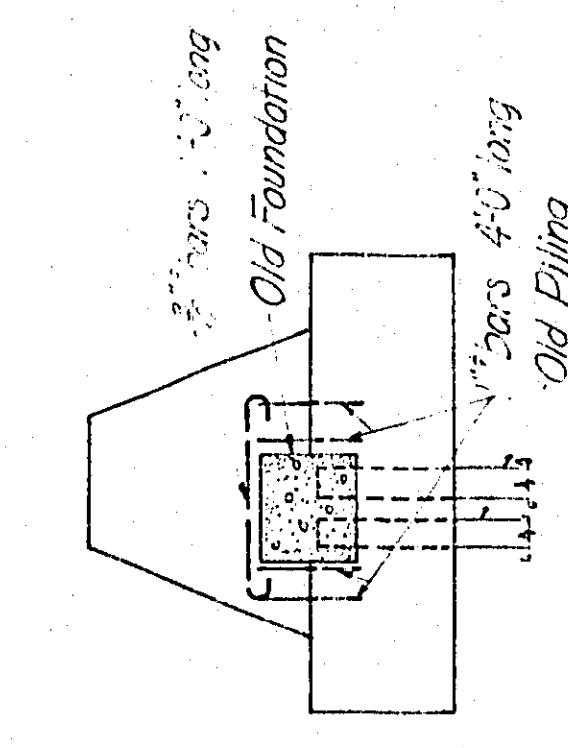
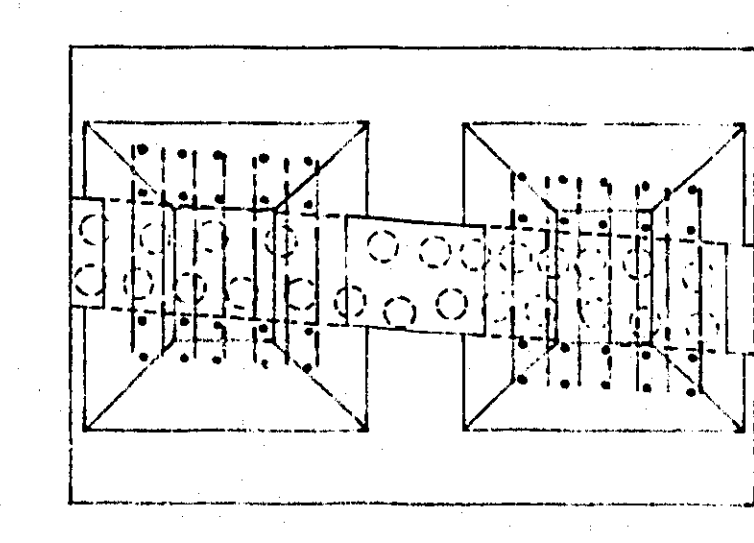
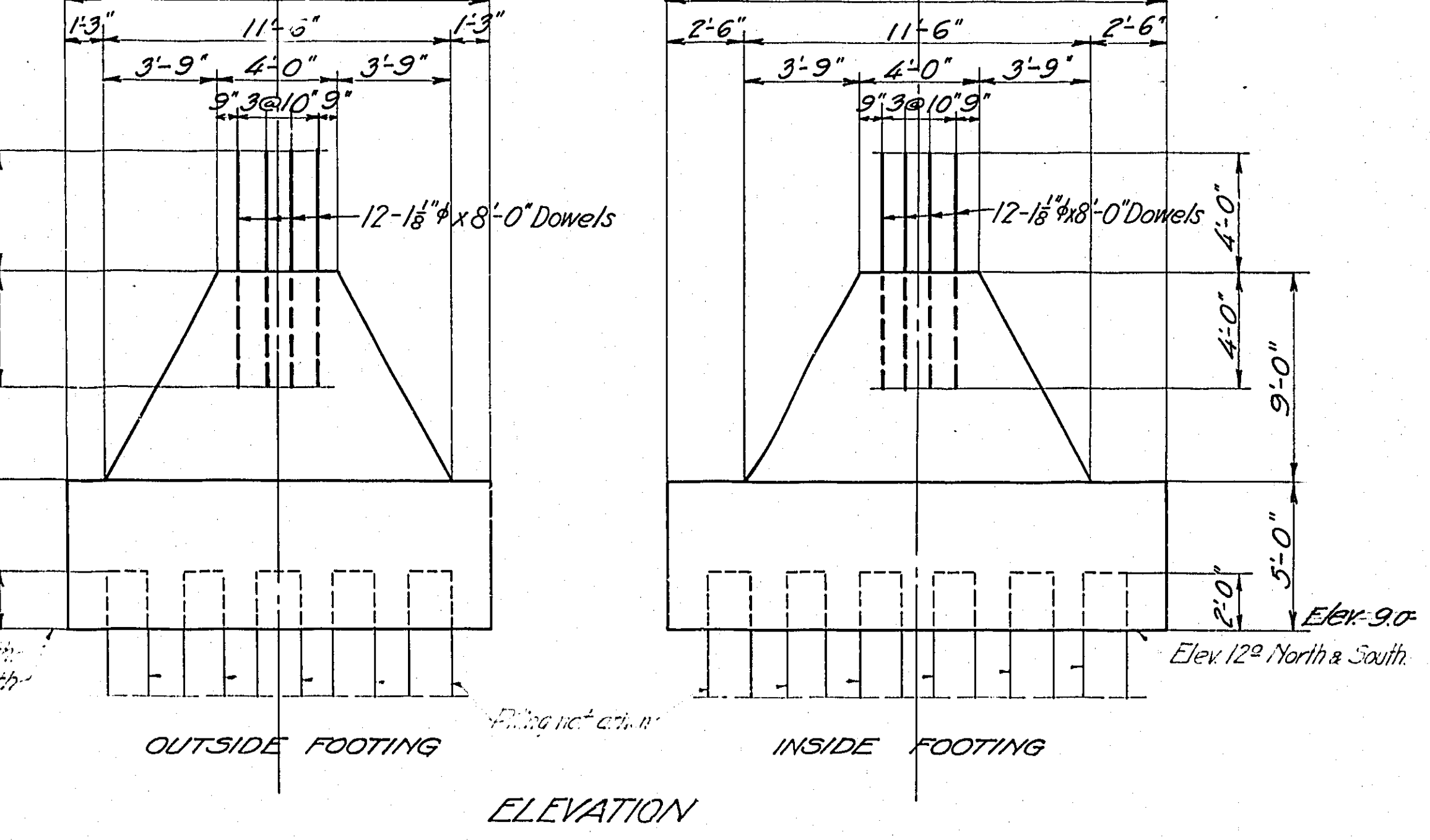
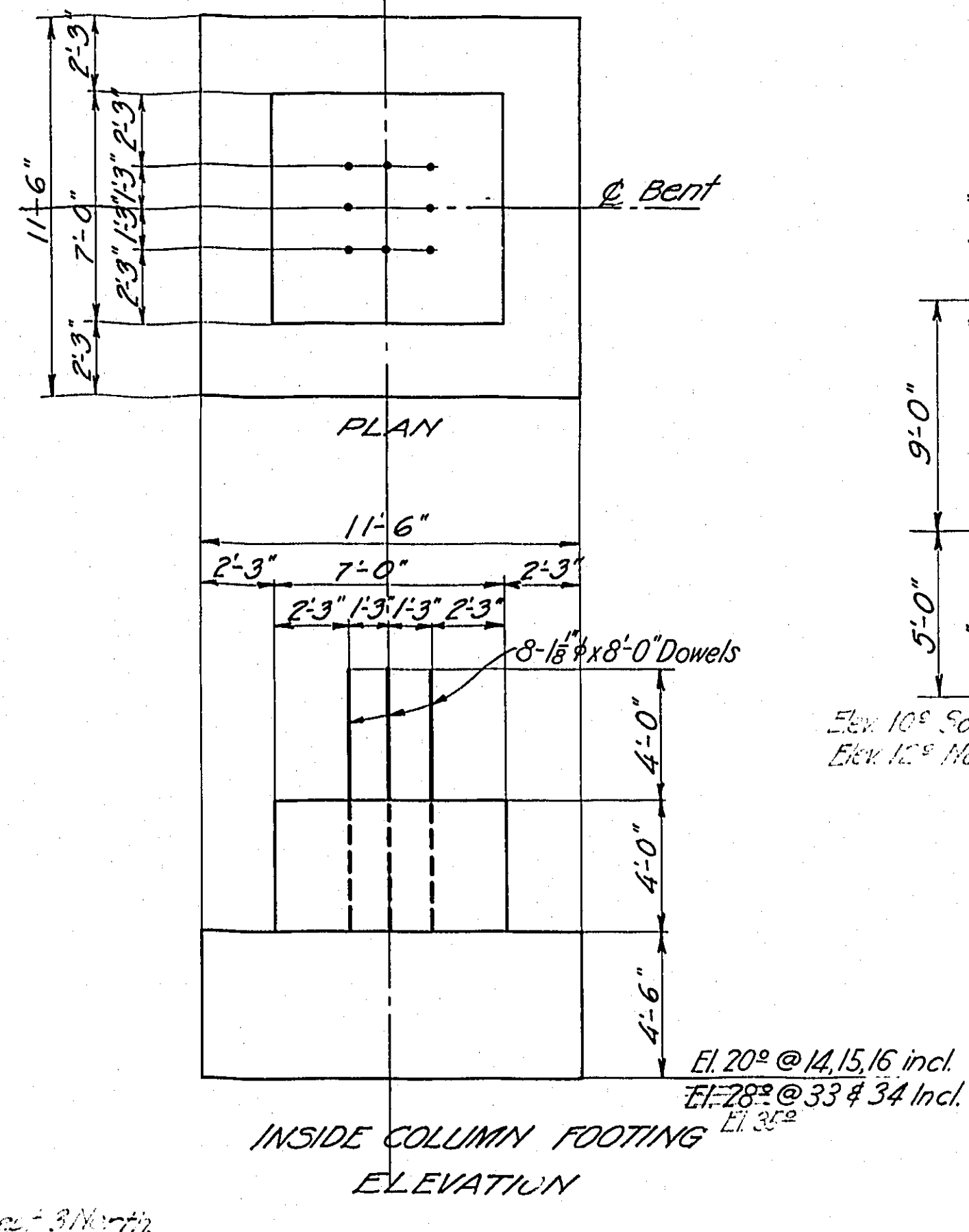
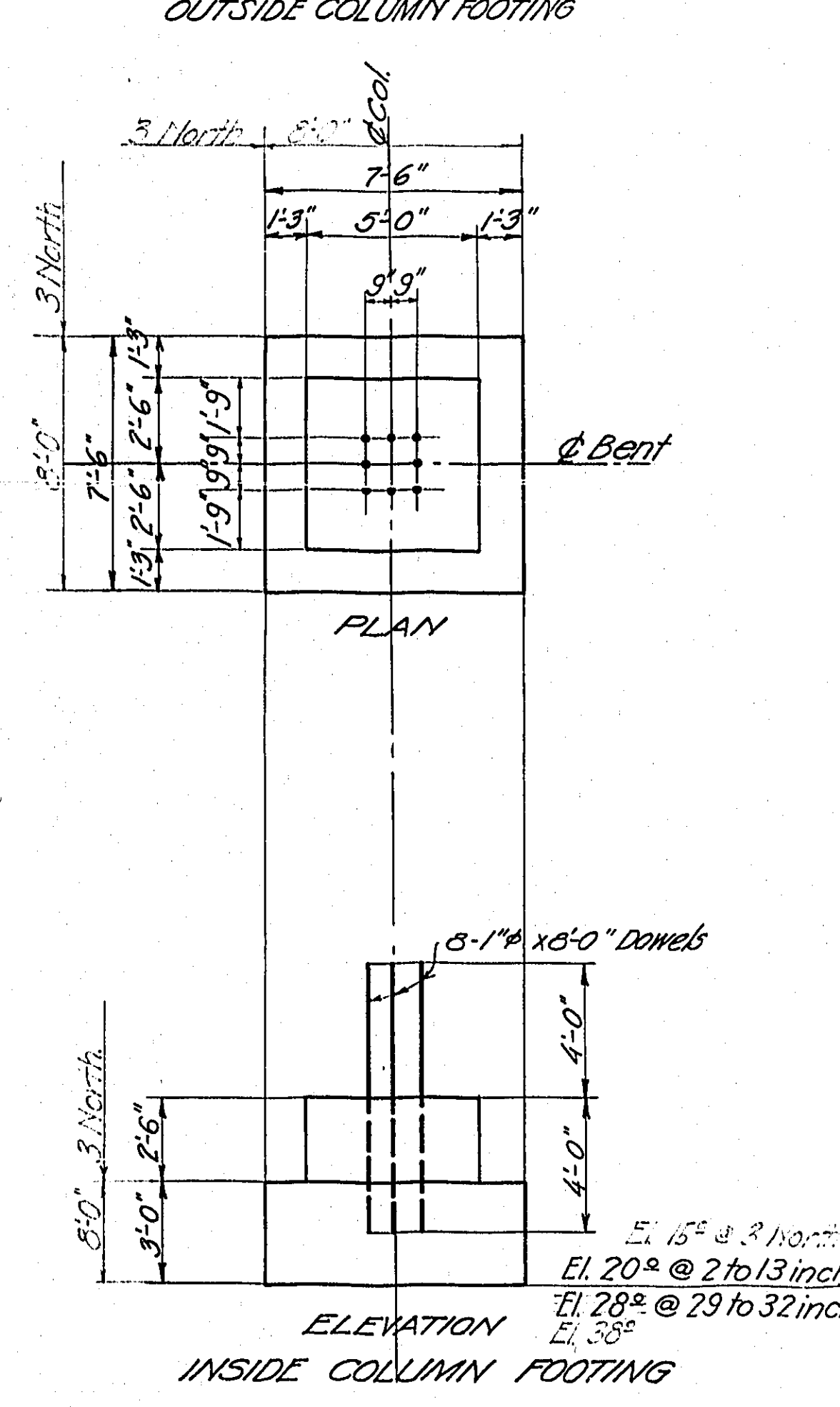
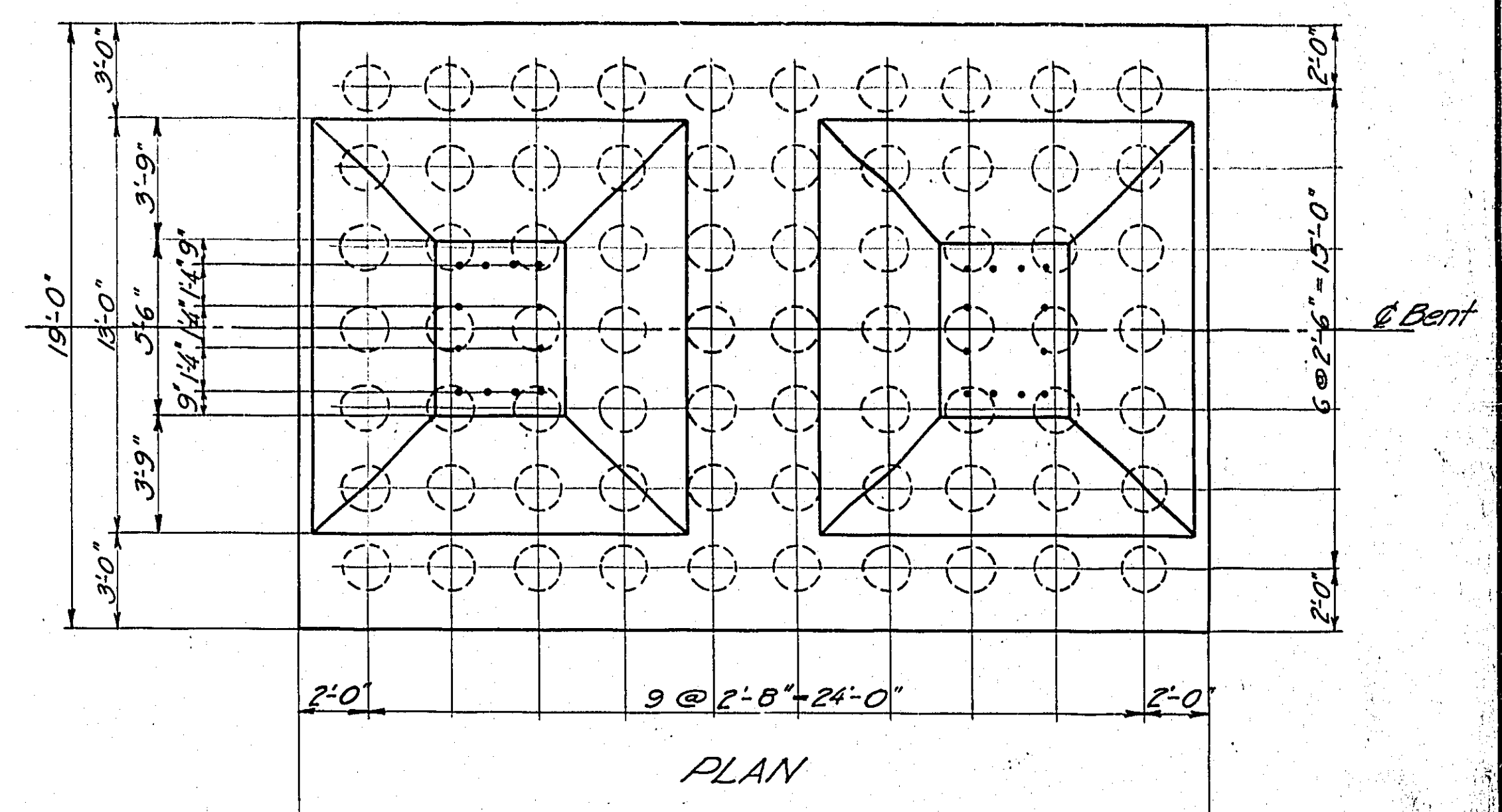
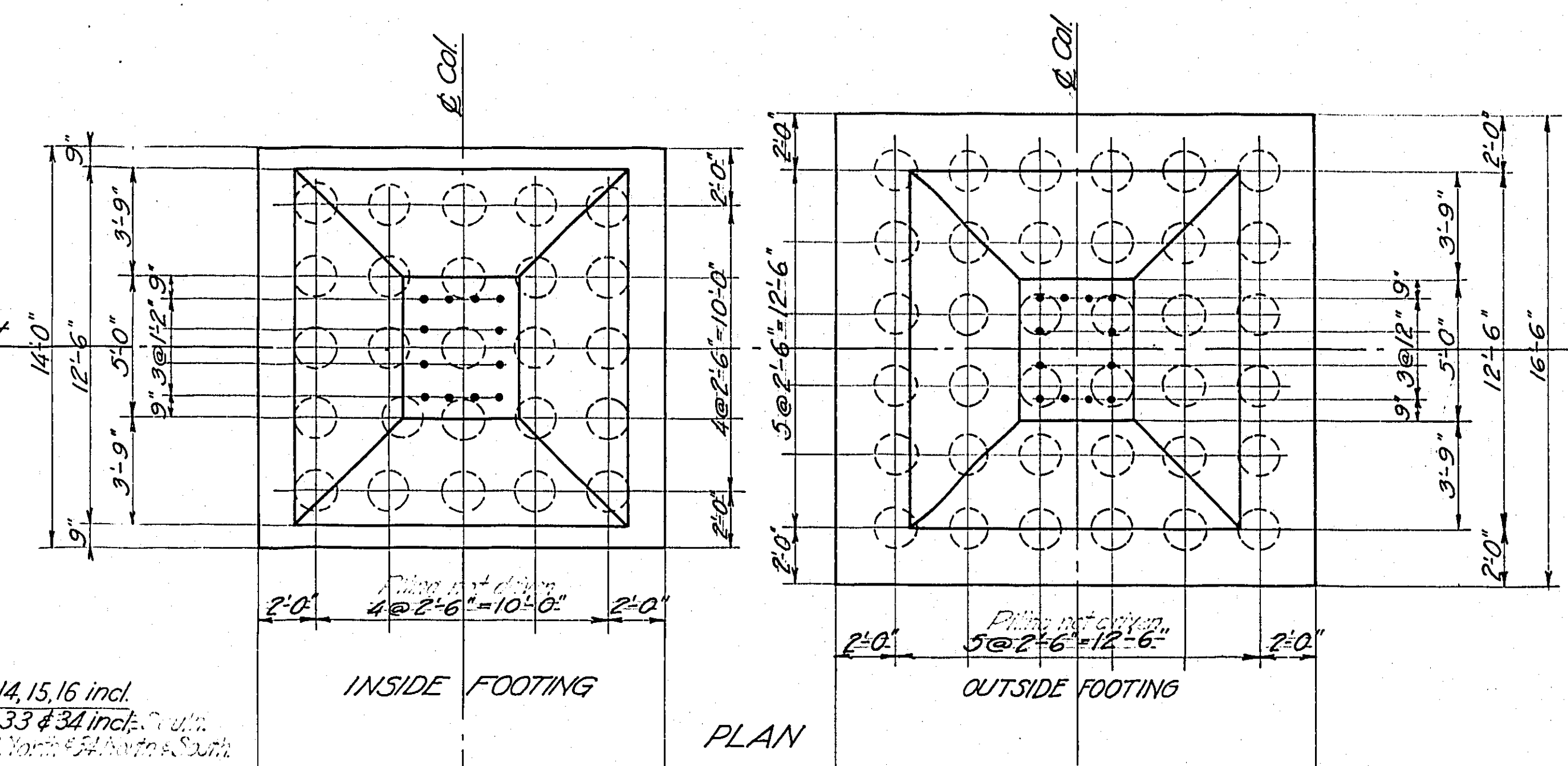
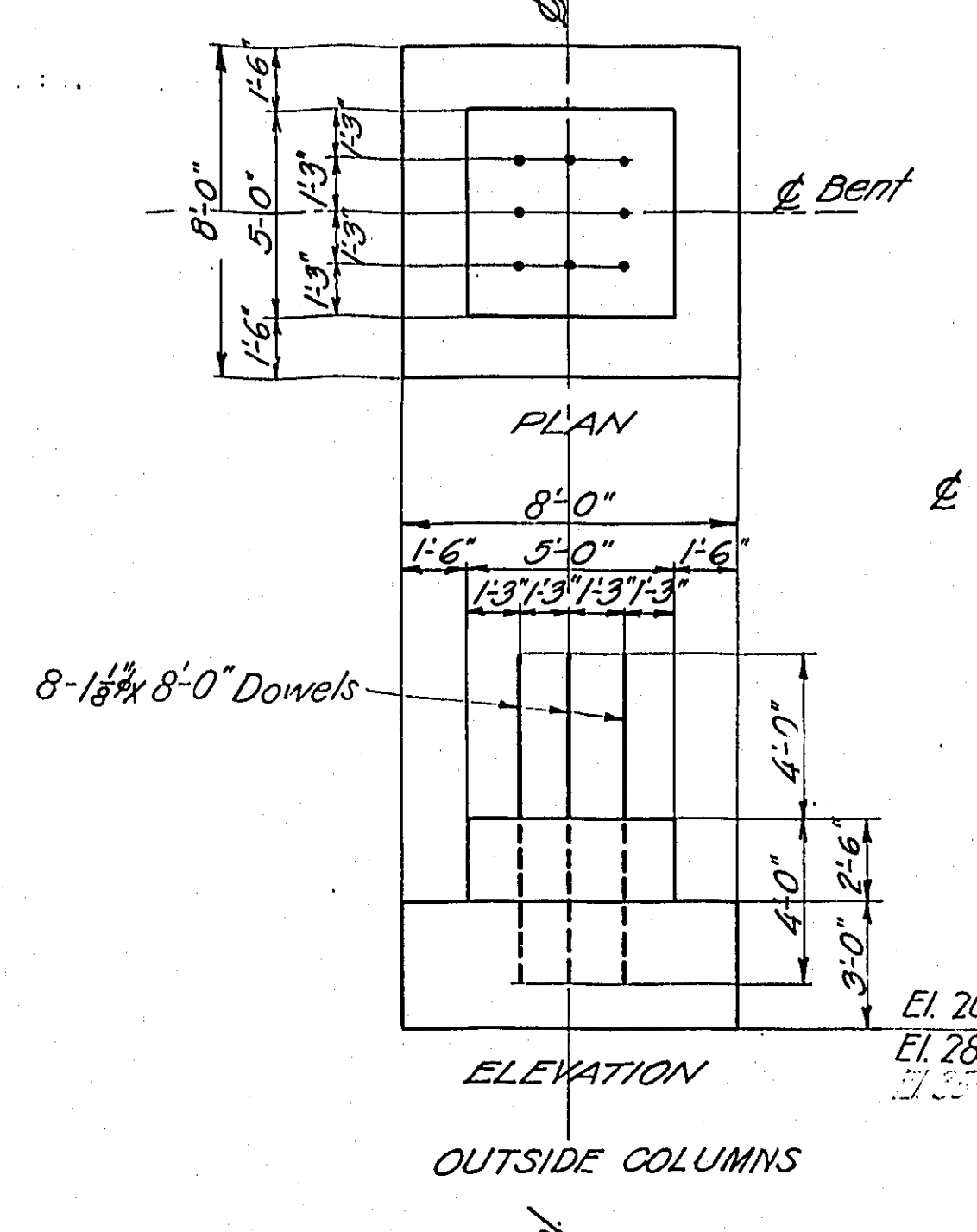
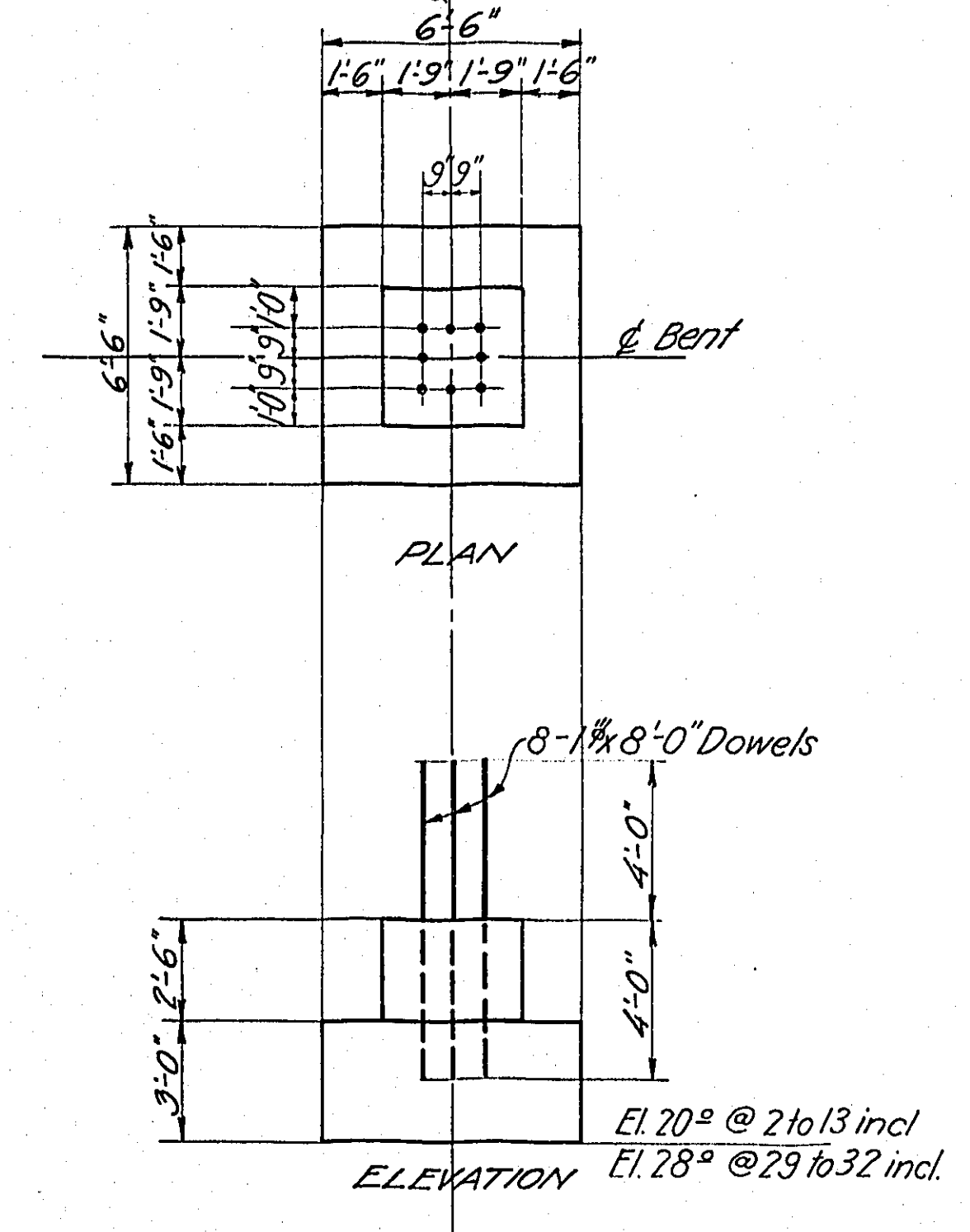
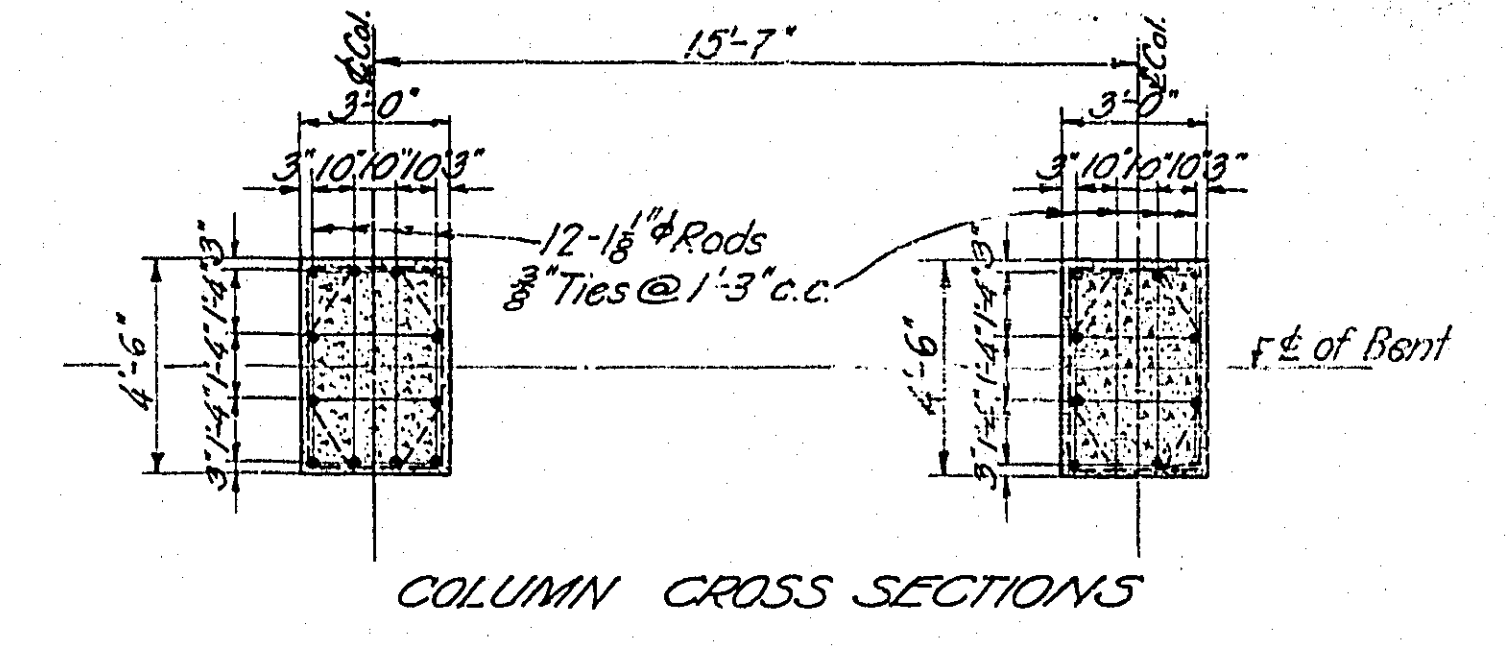
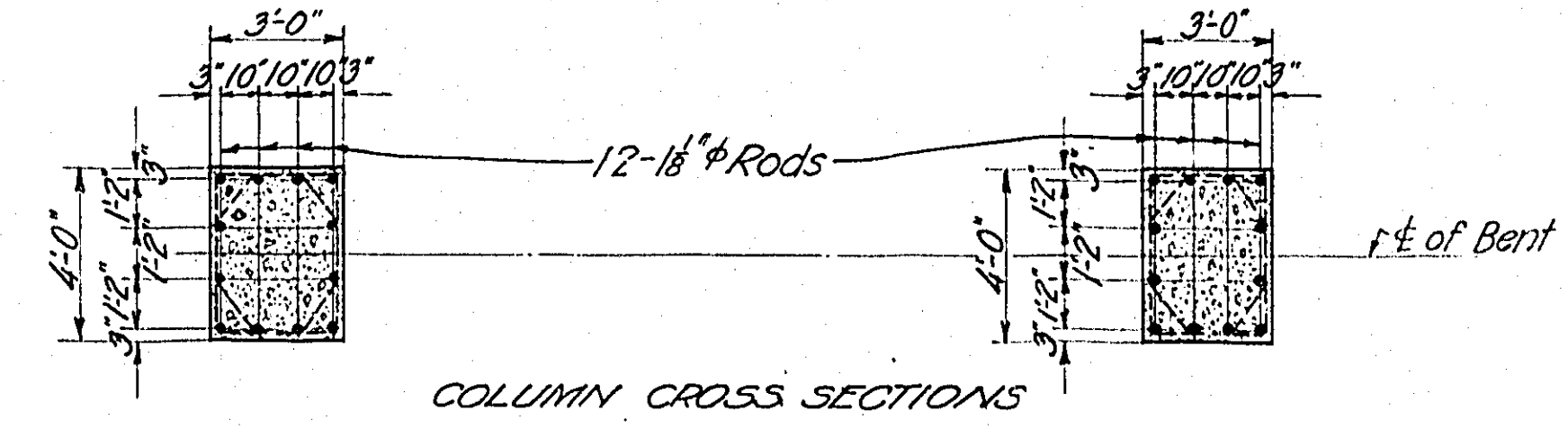
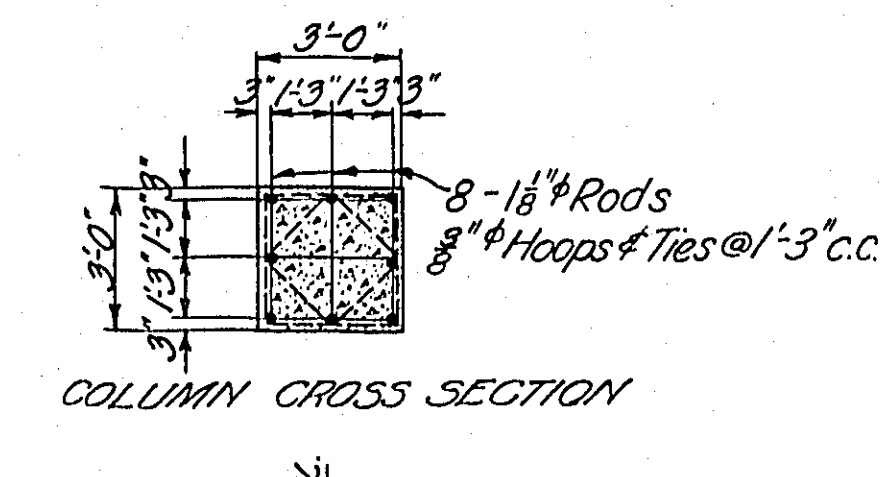
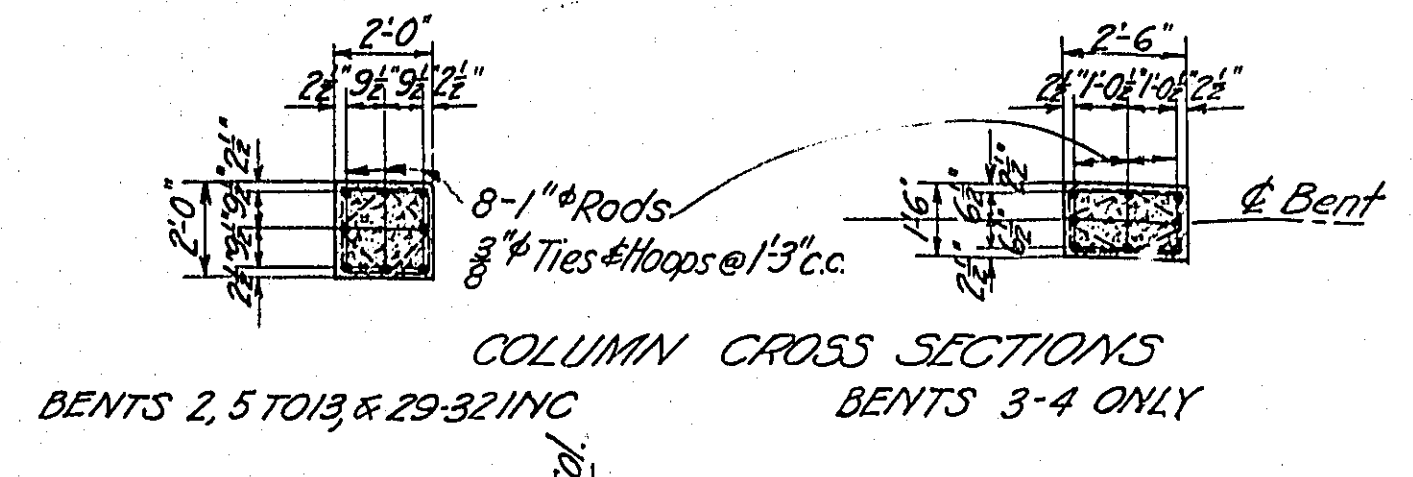
BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF
RETAINING WALL, WEST APPROACH

MADE BY *[Signature]* HEDRICK & KREMERS
 CHECKED BY *[Signature]* CONSULTING ENGINEERS
 TRACED BY *[Signature]* PORTLAND, OREGON
 CHECKED BY *[Signature]* DATE FEB. 12, 1924
 DRAWING NO. 61 SHEETS SCALE 3/8" = 1'-0" SHEET NO. 6

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BENTS 18-19
For Pile details see Pile Record

BENTS 2-13, 29-32 INC

NOTE: For arrangement of dowels, see column cross section.

BENTS 14, 15, 16, 33, 34

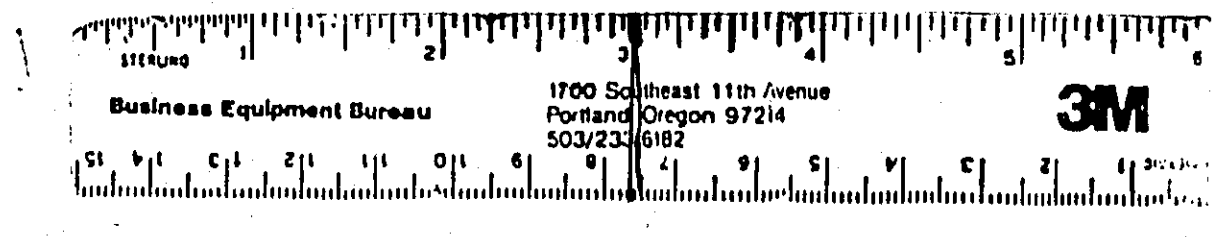
REINFORCING - SOUTH FOOTING BENT 19.

REVISED

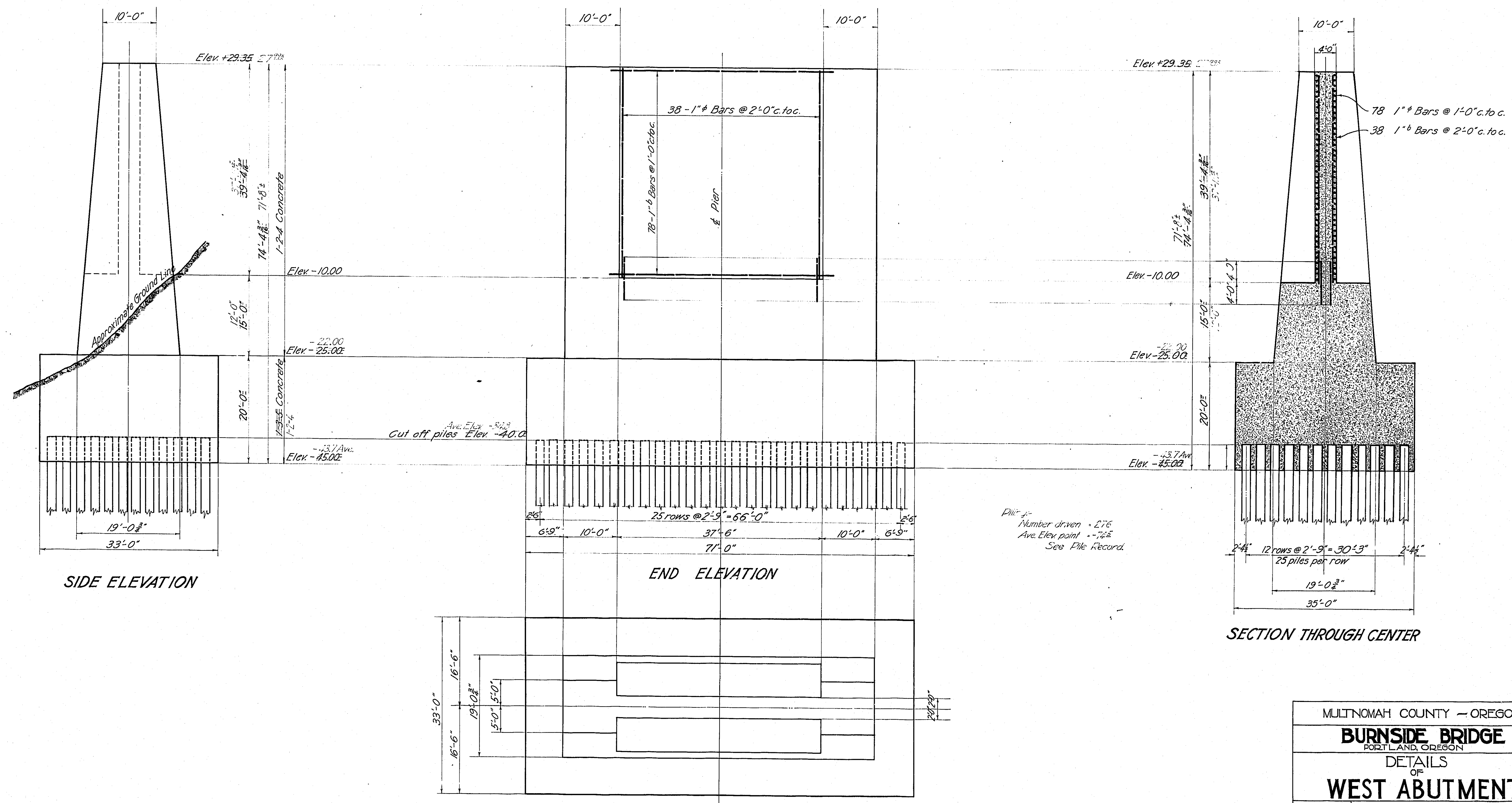
All Concrete 1-3-5
 MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
FOOTINGS & COLUMNS
 CONCRETE APPROACHES

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 HEDRICK & KREMERS
 CONSULTING ENGINEERS
 PORTLAND, OREGON
 DATE FEB. 20, 1924
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REVISED



SIDE ELEVATION

END ELEVATION

SECTION THROUGH CENTER

PLAN

MULTNOMAH COUNTY - OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

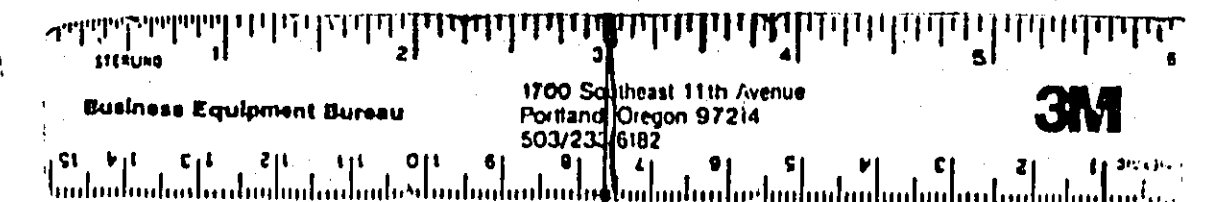
DETAILS
OF
WEST ABUTMENT

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CHECKED BY *[Signature]*
TRACED BY *[Signature]*
DRAWING NO. _____
SHEETS _____

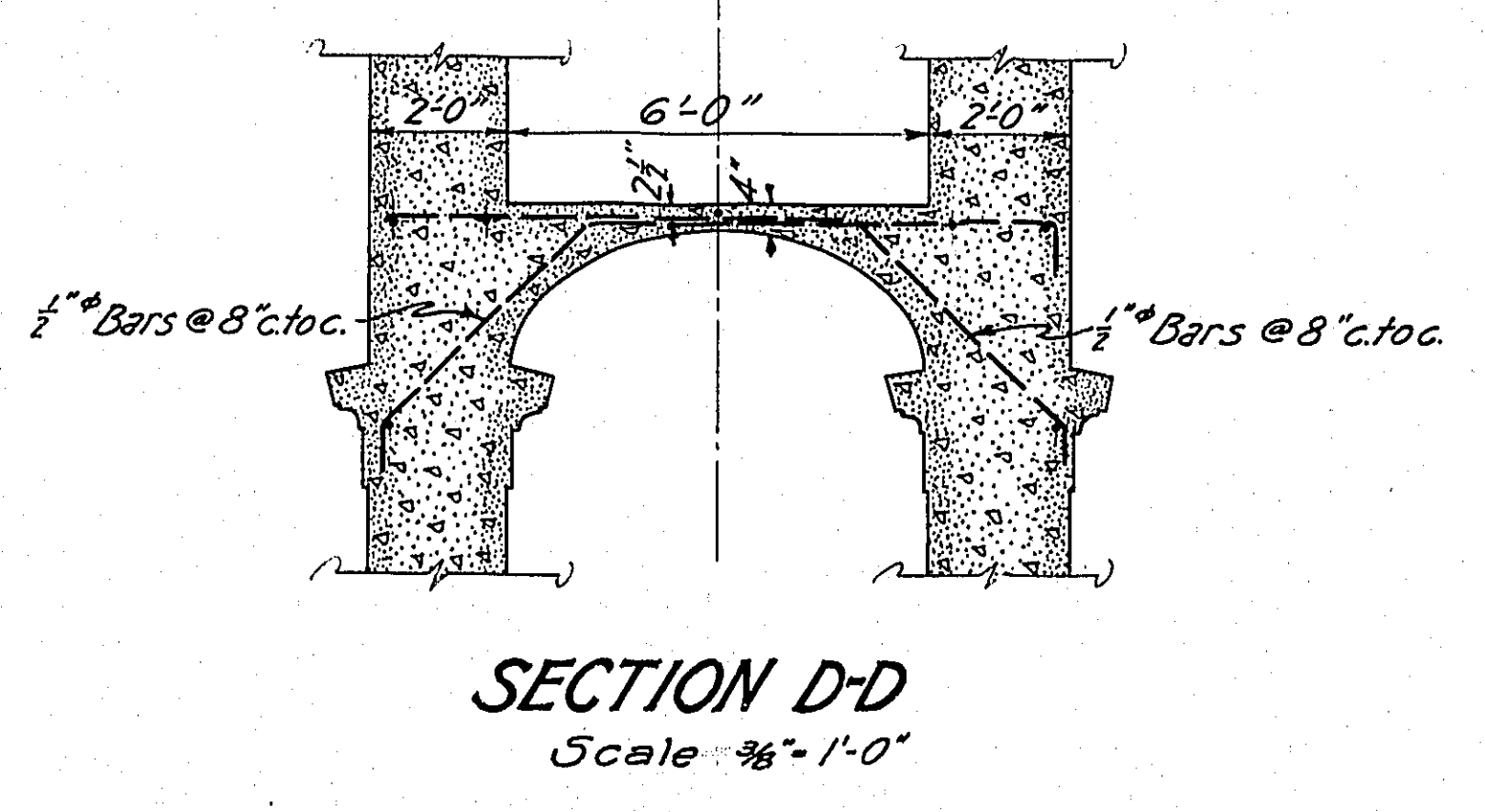
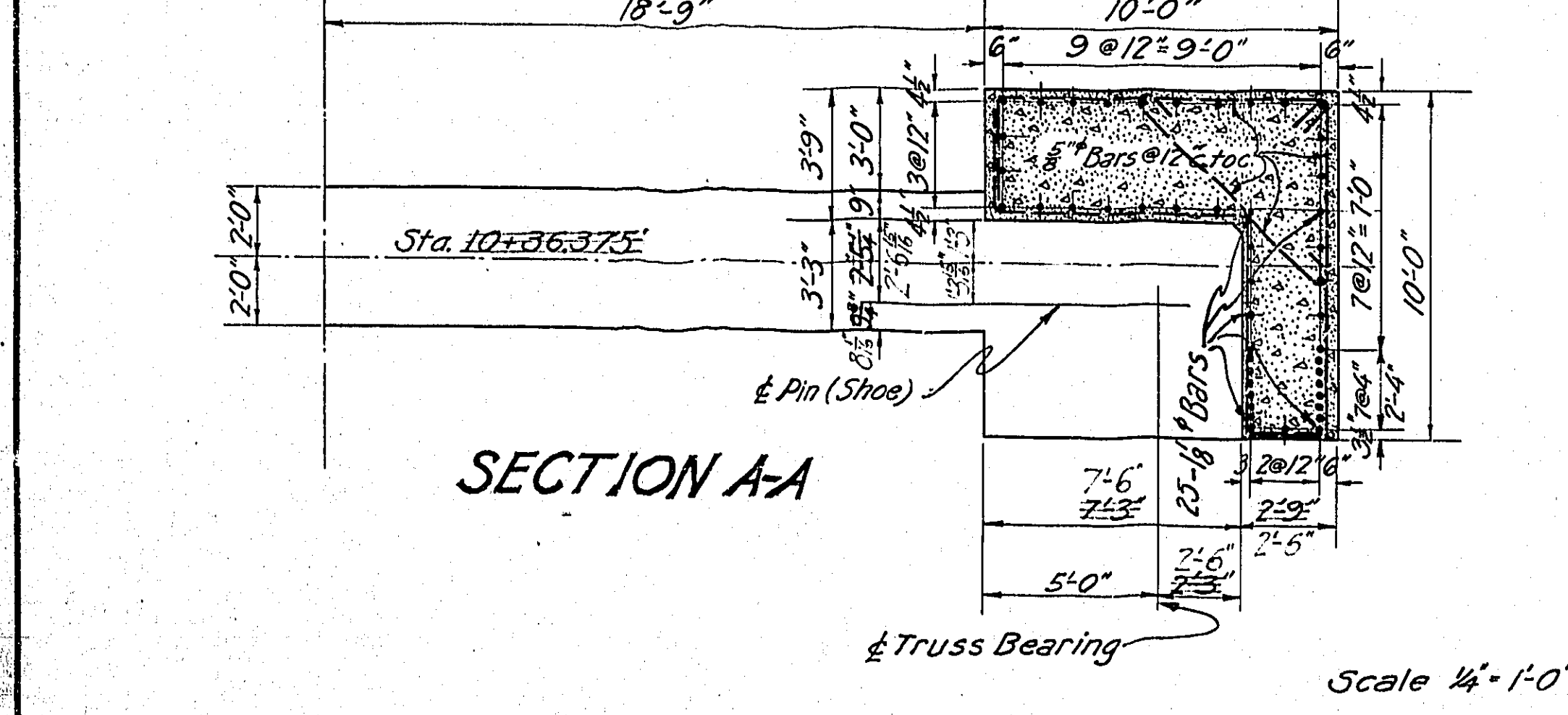
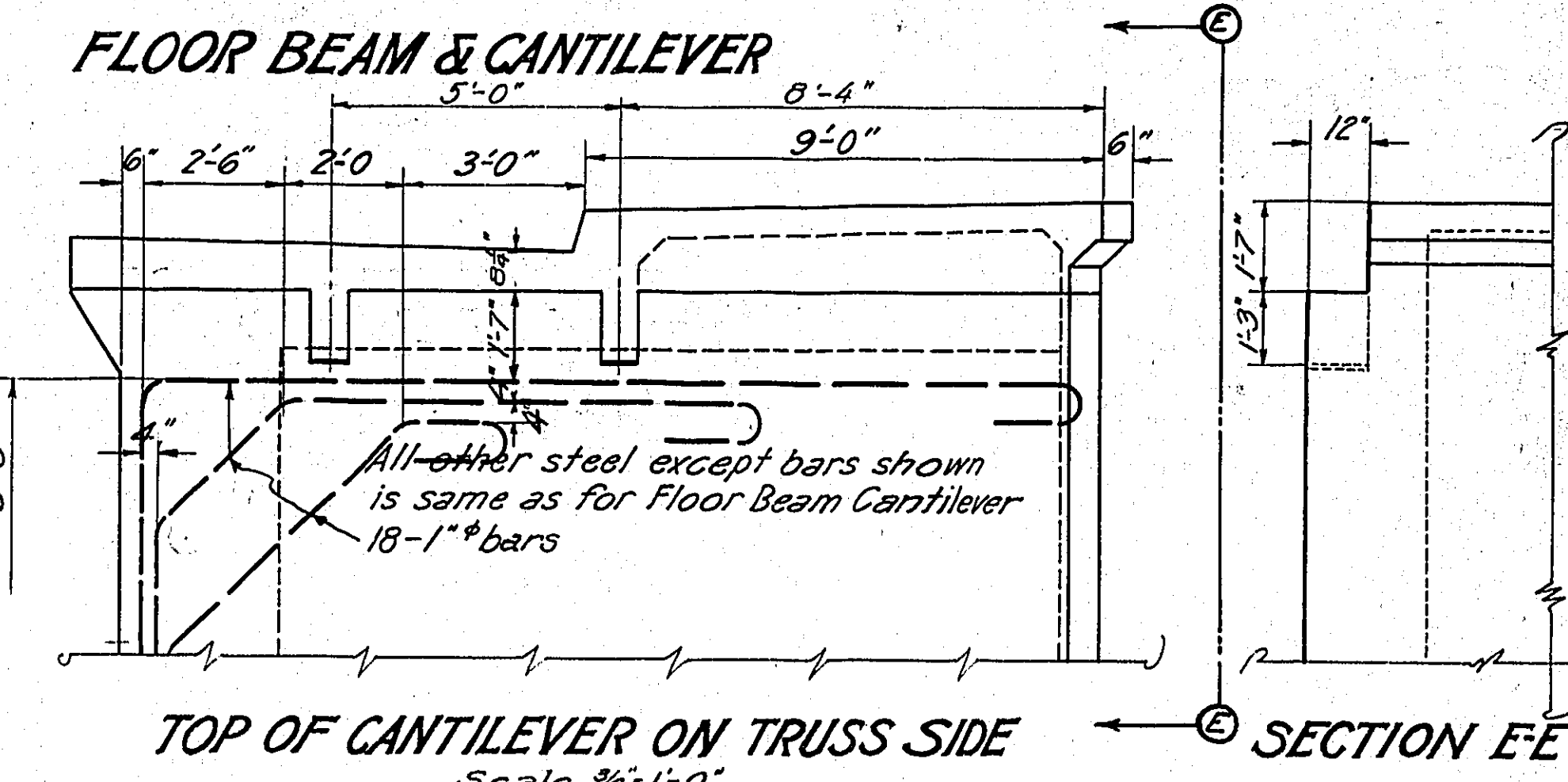
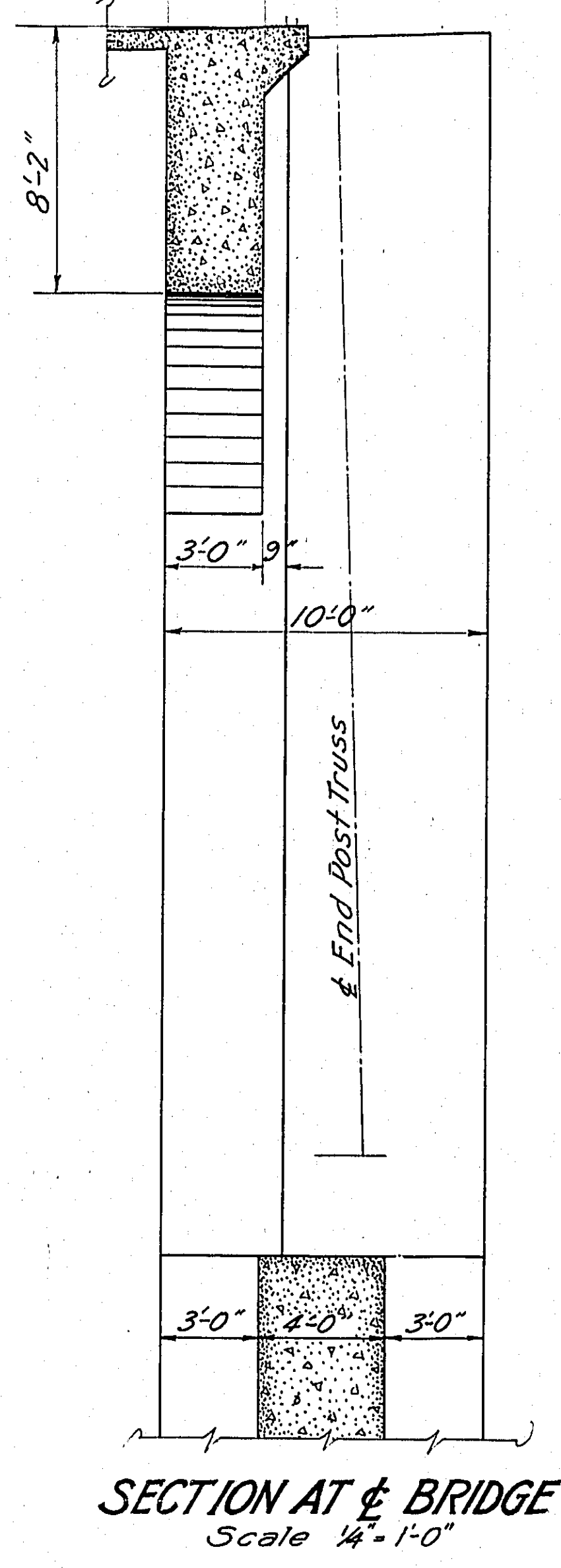
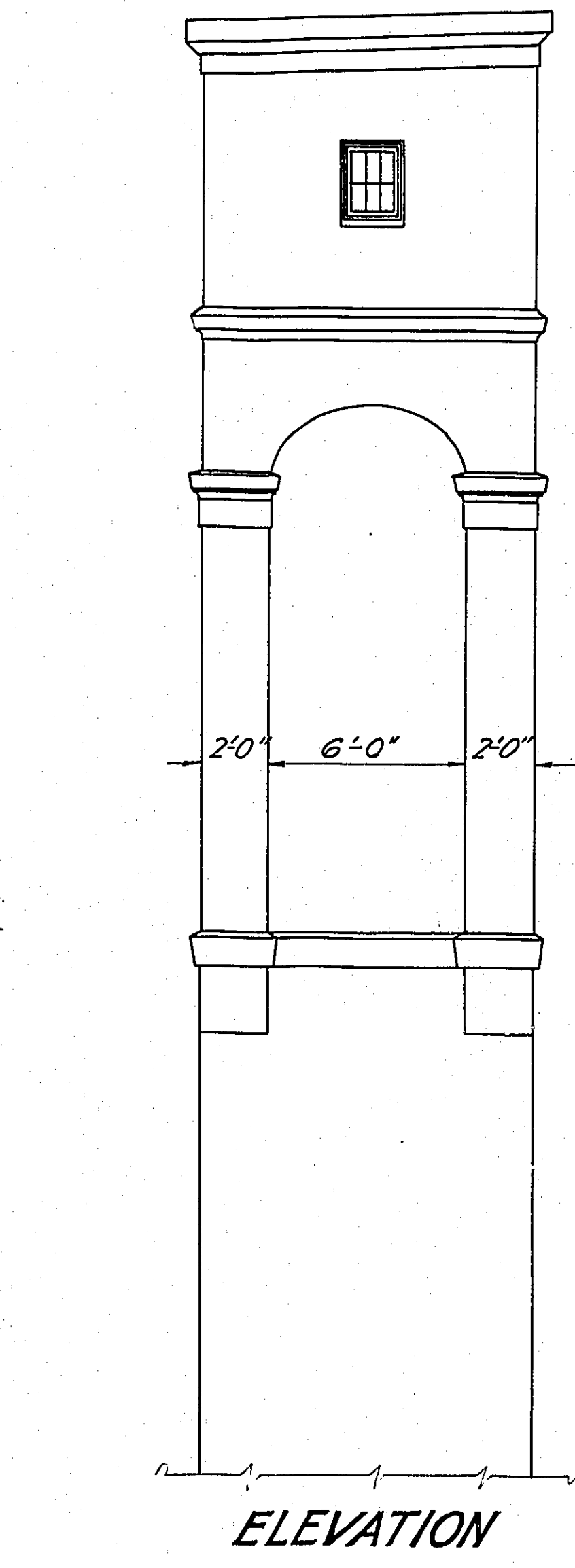
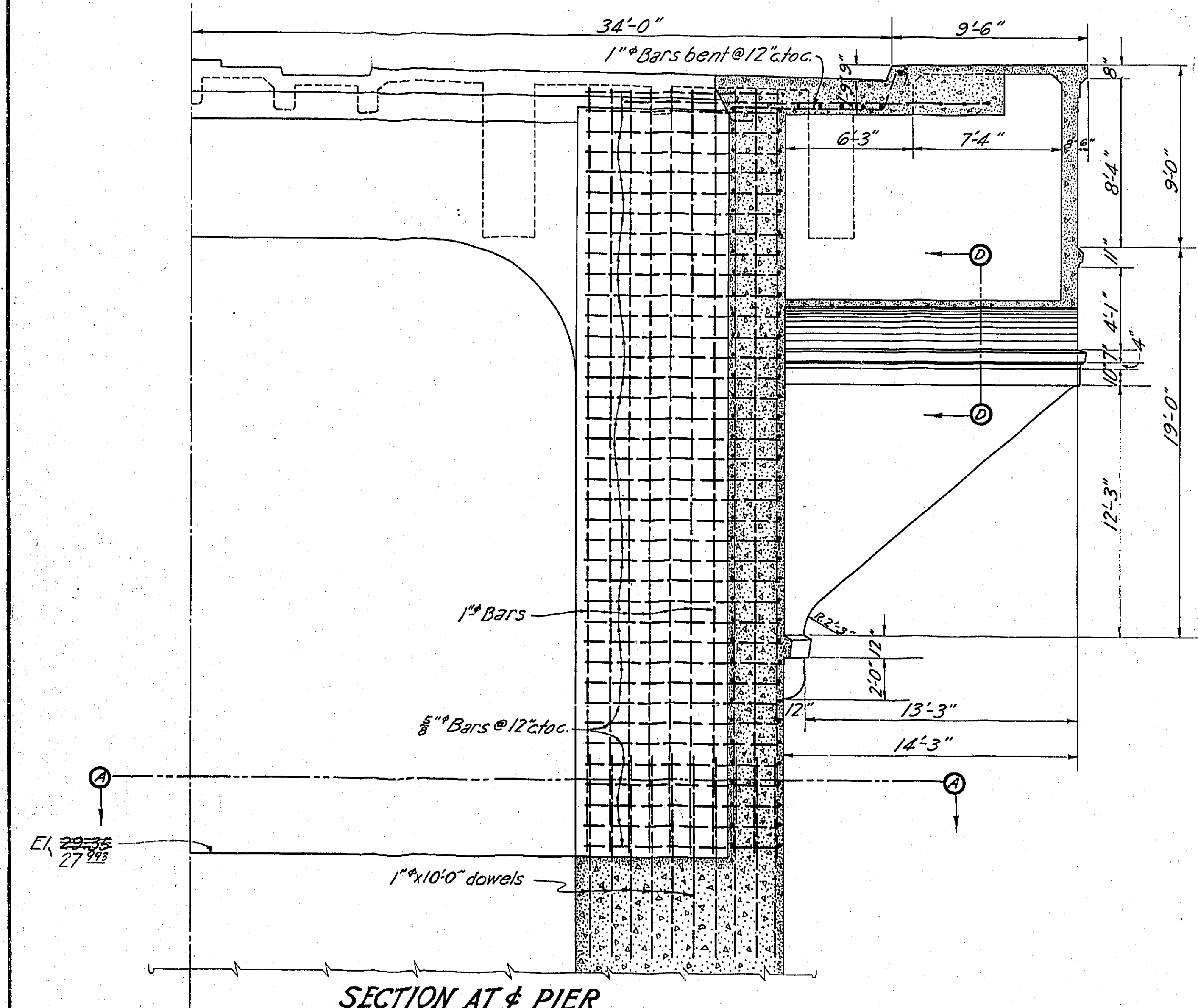
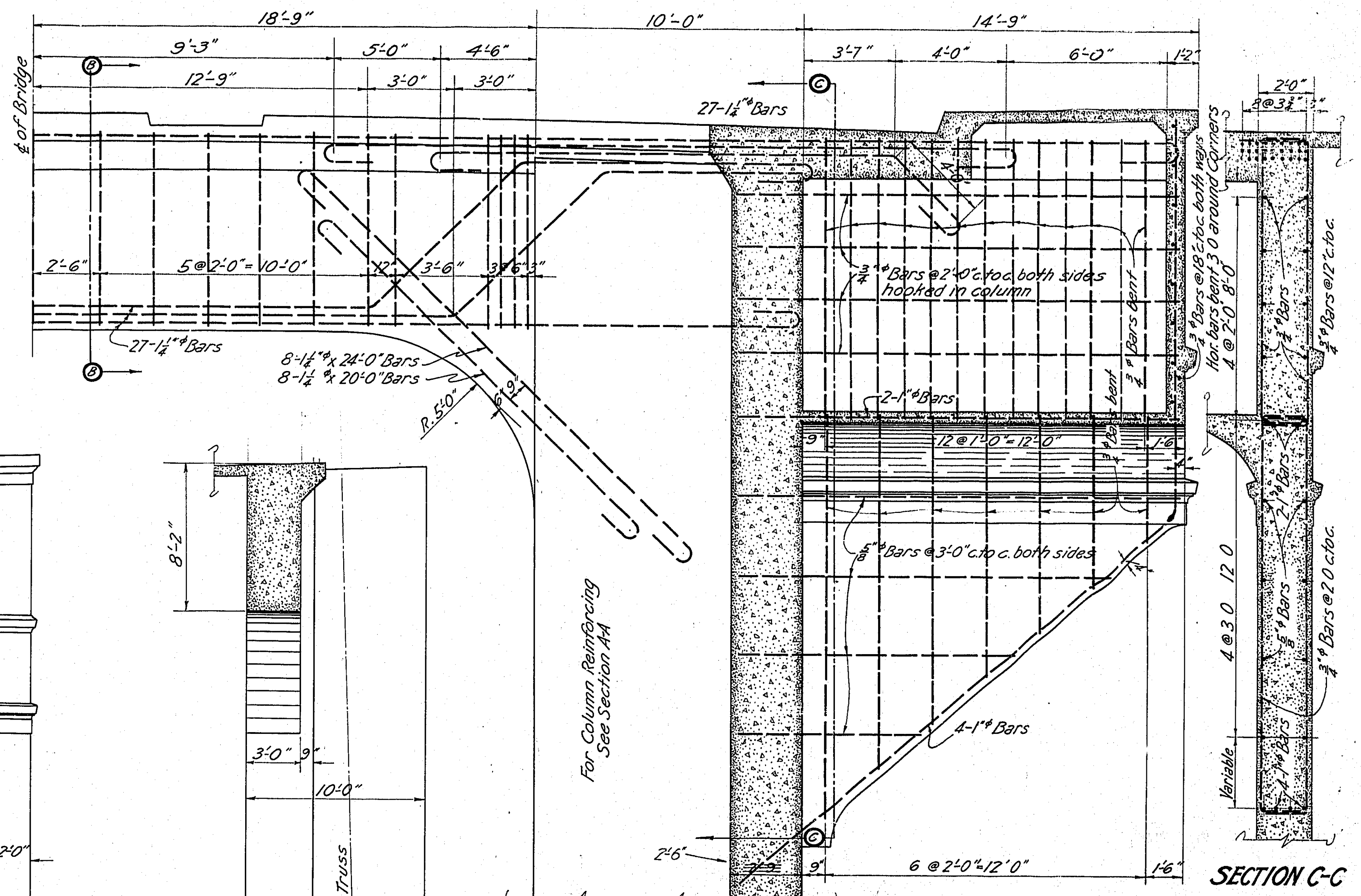
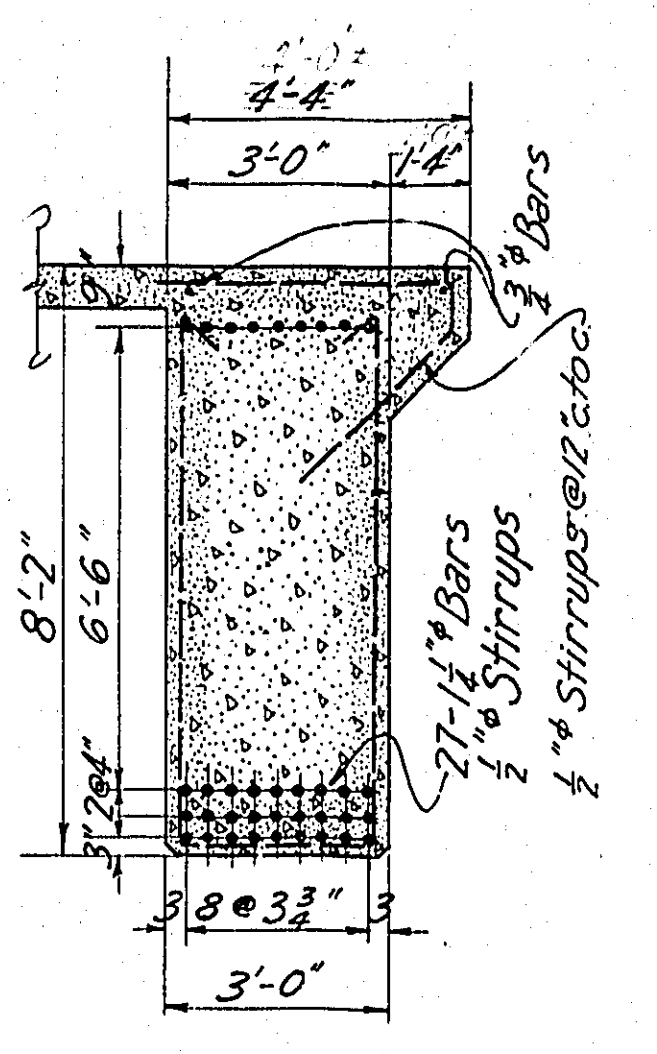
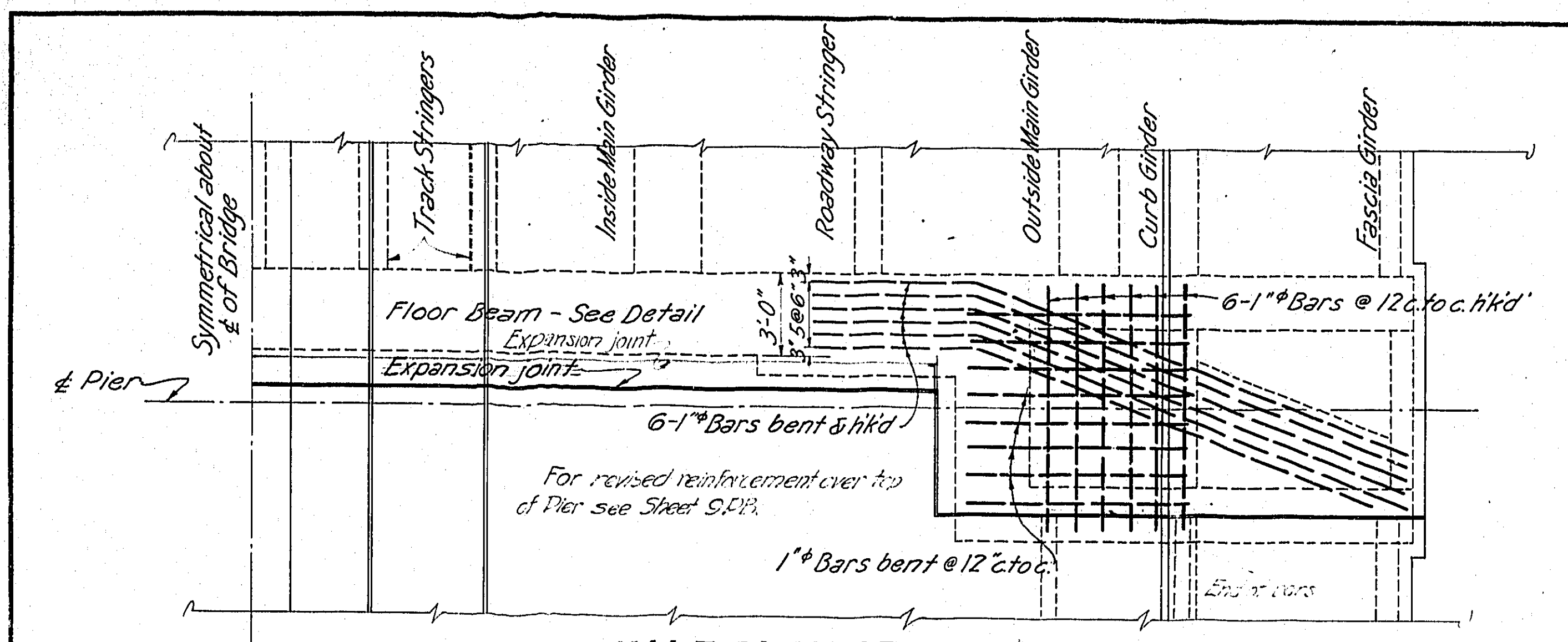
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON

DATE _____
SHEET NO. **T 8**

NOTICE: IF THIS DOCUMENT IS LESS
LEGIBLE THAN THIS NOTICE IT IS
DUE TO THE QUALITY OF THE ORIGINAL.



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Concrete in roadway slabs & beams 1-1/2
Other concrete 1-2-4

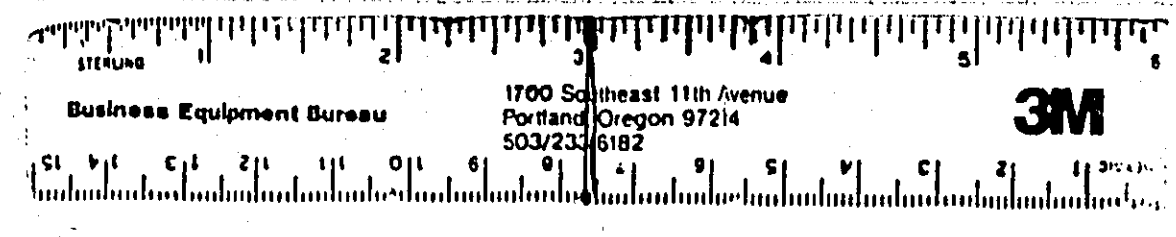
MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

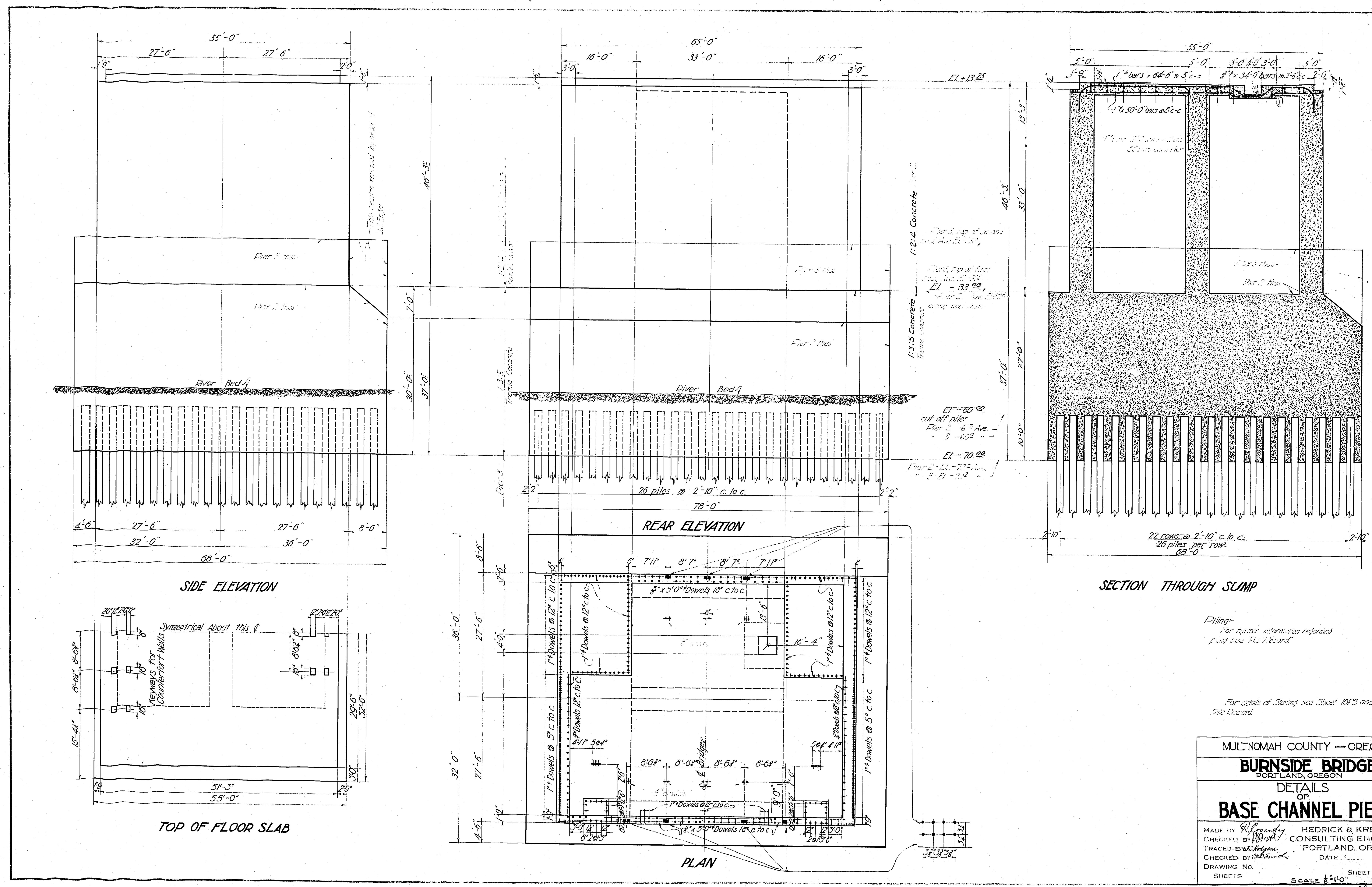
DETAILS
OF
WEST ABUTMENT-TOWER COLUMNS

MADE BY HEDRICK & KREMERS
CHECKED BY CONSULTING ENGINEERS
TRACED BY PORTLAND, OREGON
CHECKED BY DATE FEB. 16, 1924
DRAWING NO. 61 SHEETS Scale As Shown SHEET NO. 9

NOTICE: IF THIS DOCUMENT IS LESS
LEGIBLE THAN THIS NOTICE IT IS
DUE TO THE QUALITY OF THE ORIGINAL.



REVISED

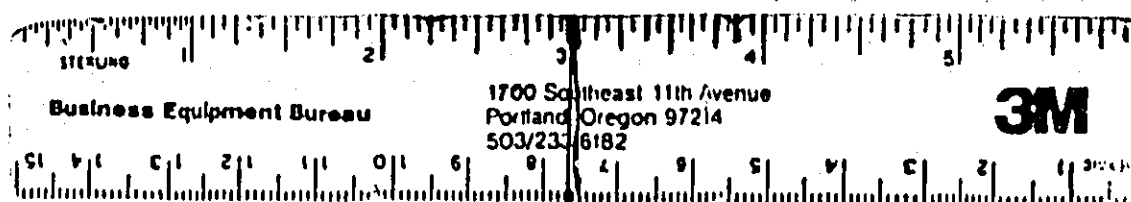


Piling - For further information regarding piling see "As Shown"

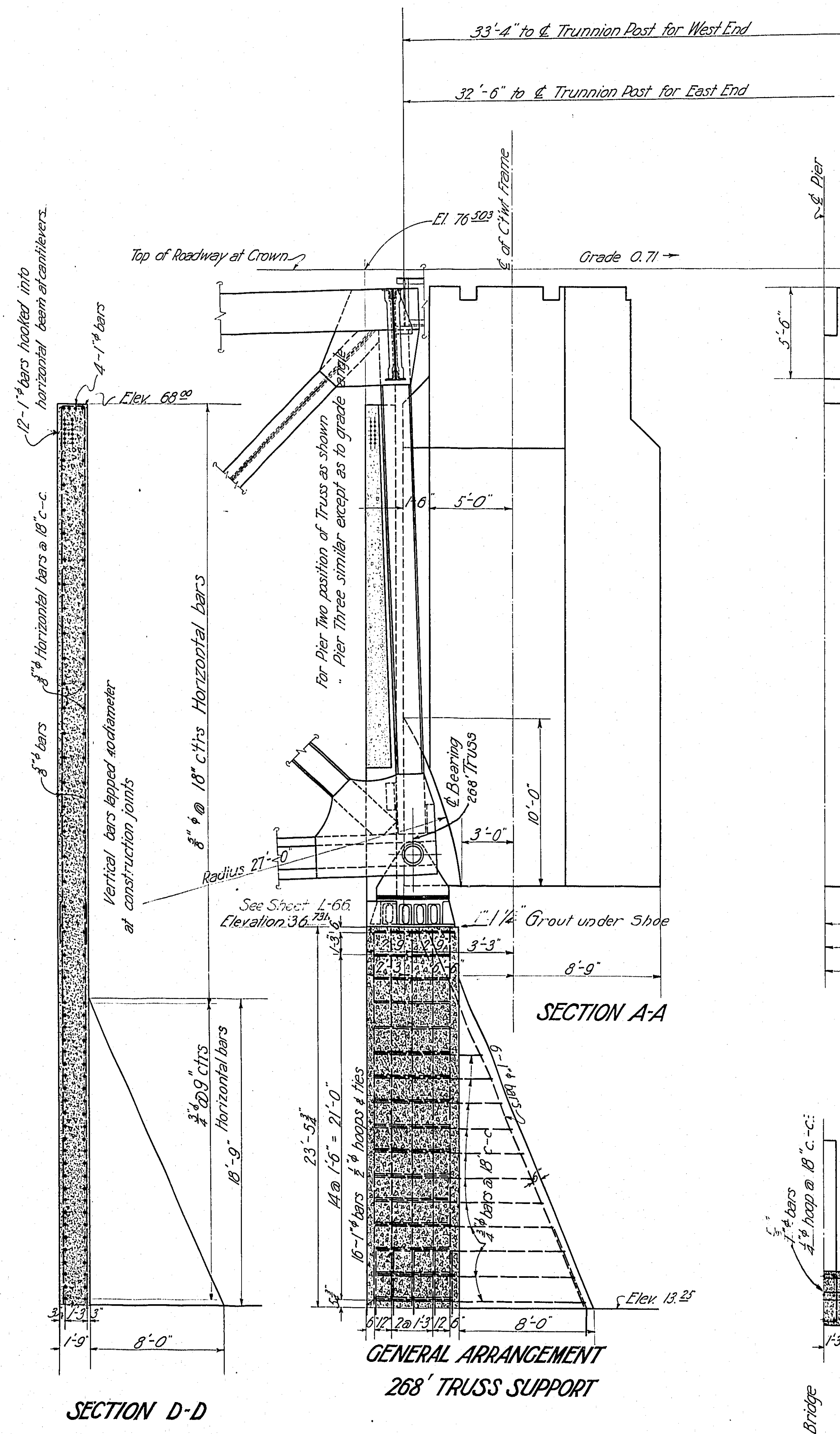
For details of Sump see Sheet 10F3 and 10F4 Record

MULTNOMAH COUNTY — OREGON	
BURNSIDE BRIDGE PORTLAND, OREGON	
DETAILS OF	
BASE CHANNEL PIERS	
MADE BY <i>R. J. Kennedy</i>	HEDRICK & KREMERS
CHECKED BY <i>R. J. Kennedy</i>	CONSULTING ENGINEERS
TRACED BY <i>R. J. Kennedy</i>	PORTLAND, OREGON
CHECKED BY <i>R. J. Kennedy</i>	DATE
DRAWING NO.	SHEET NO.
SHEETS	SCALE 1/4" = 1'-0"

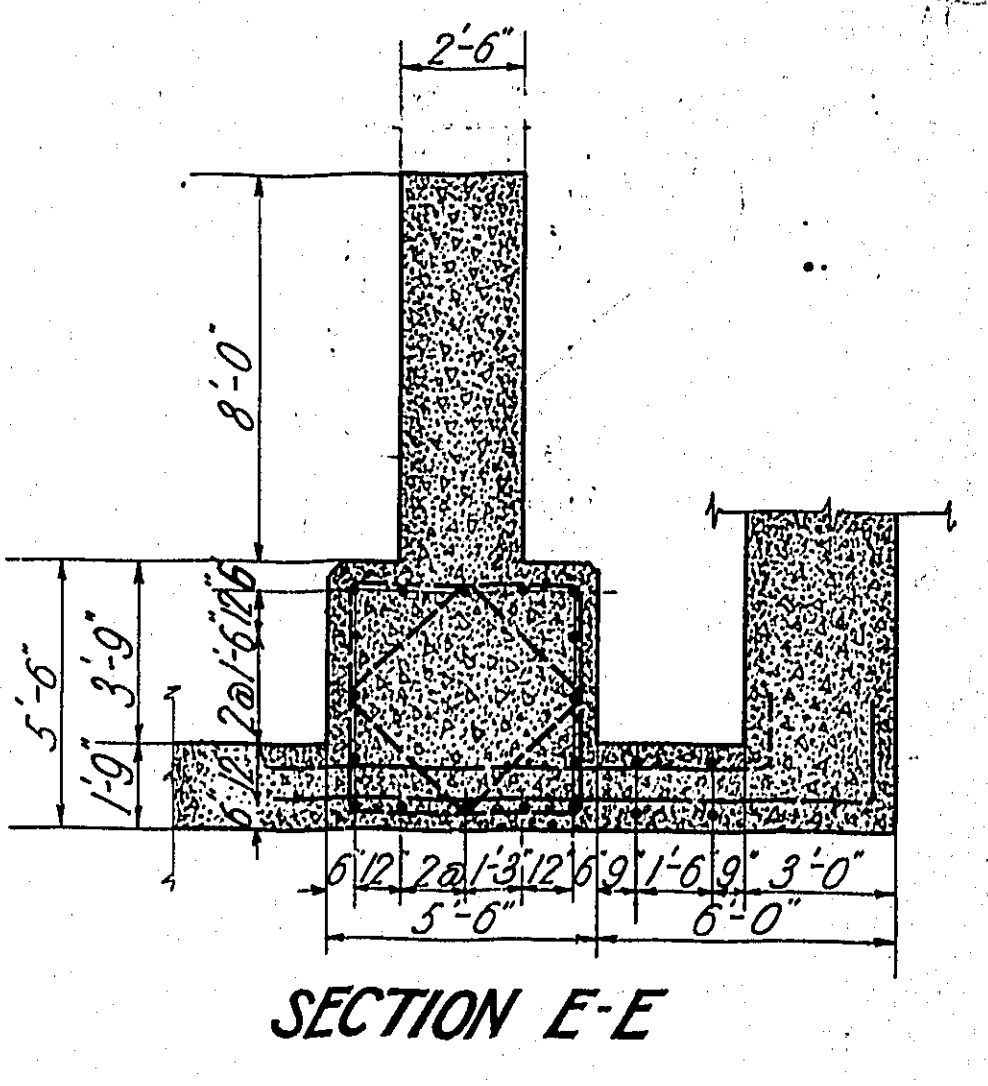
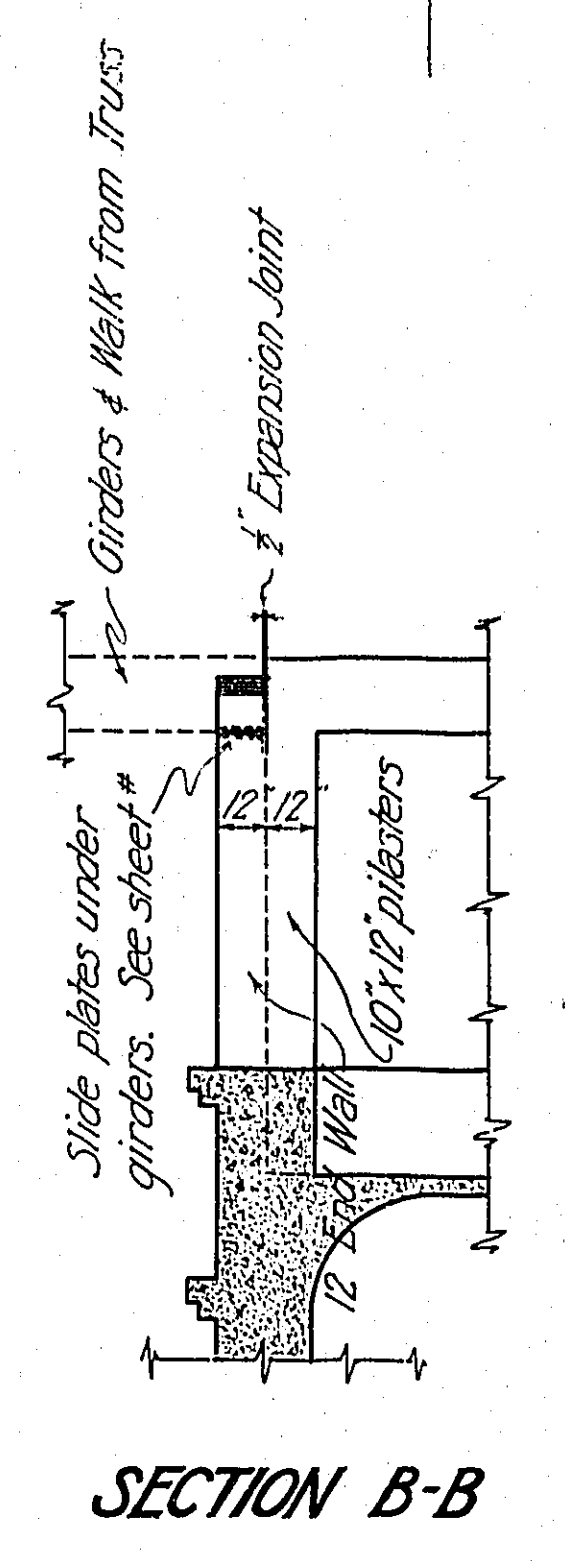
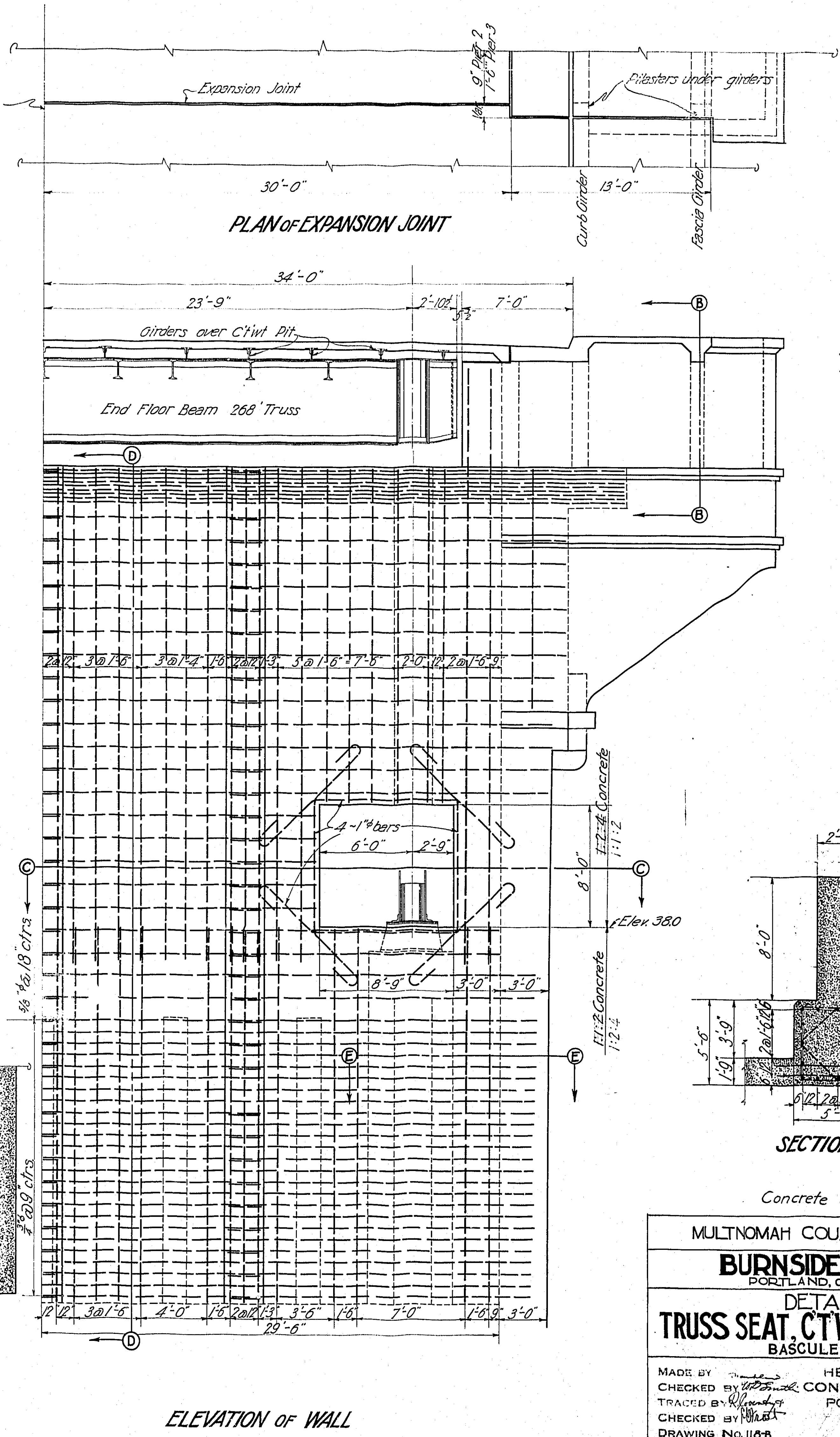
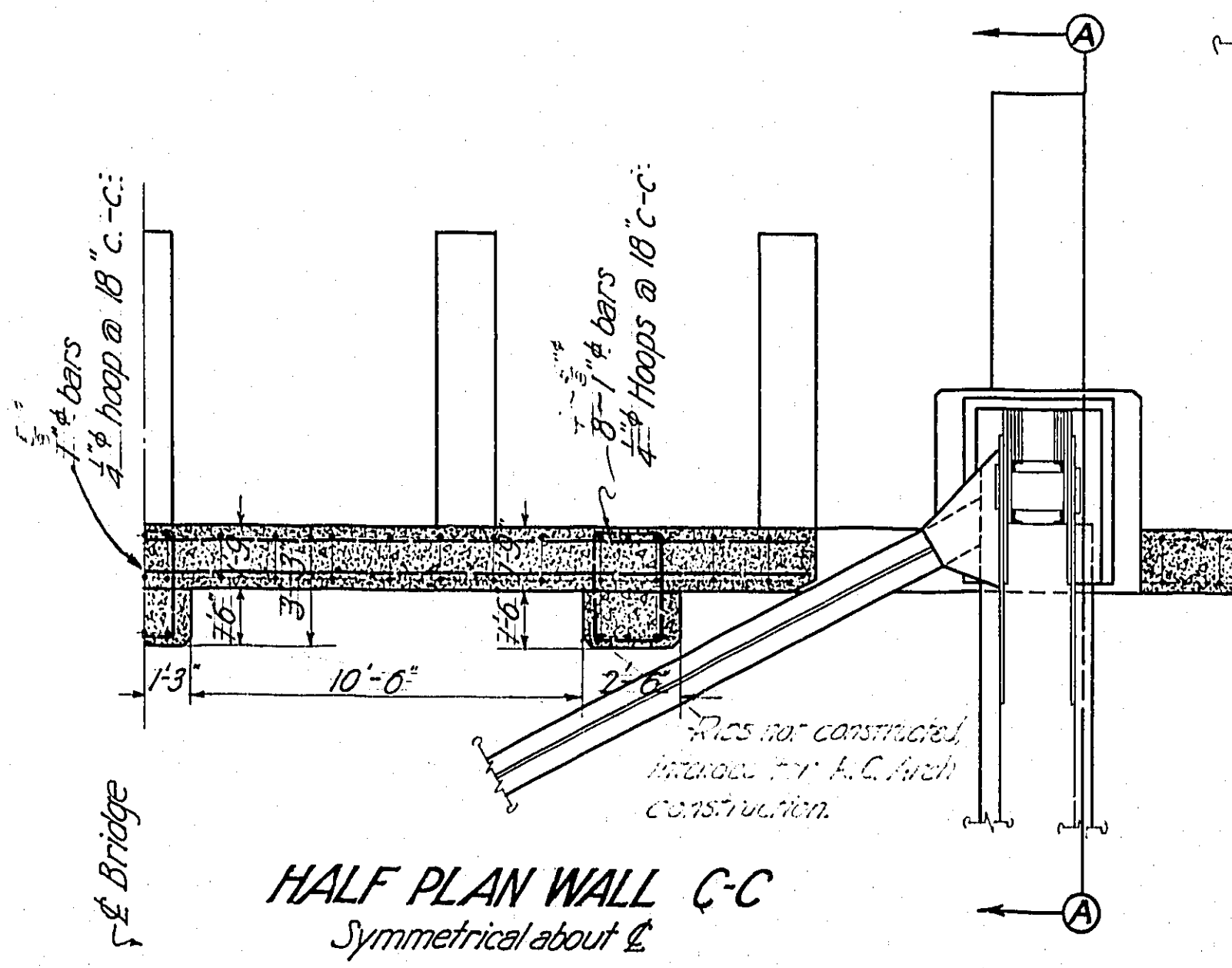
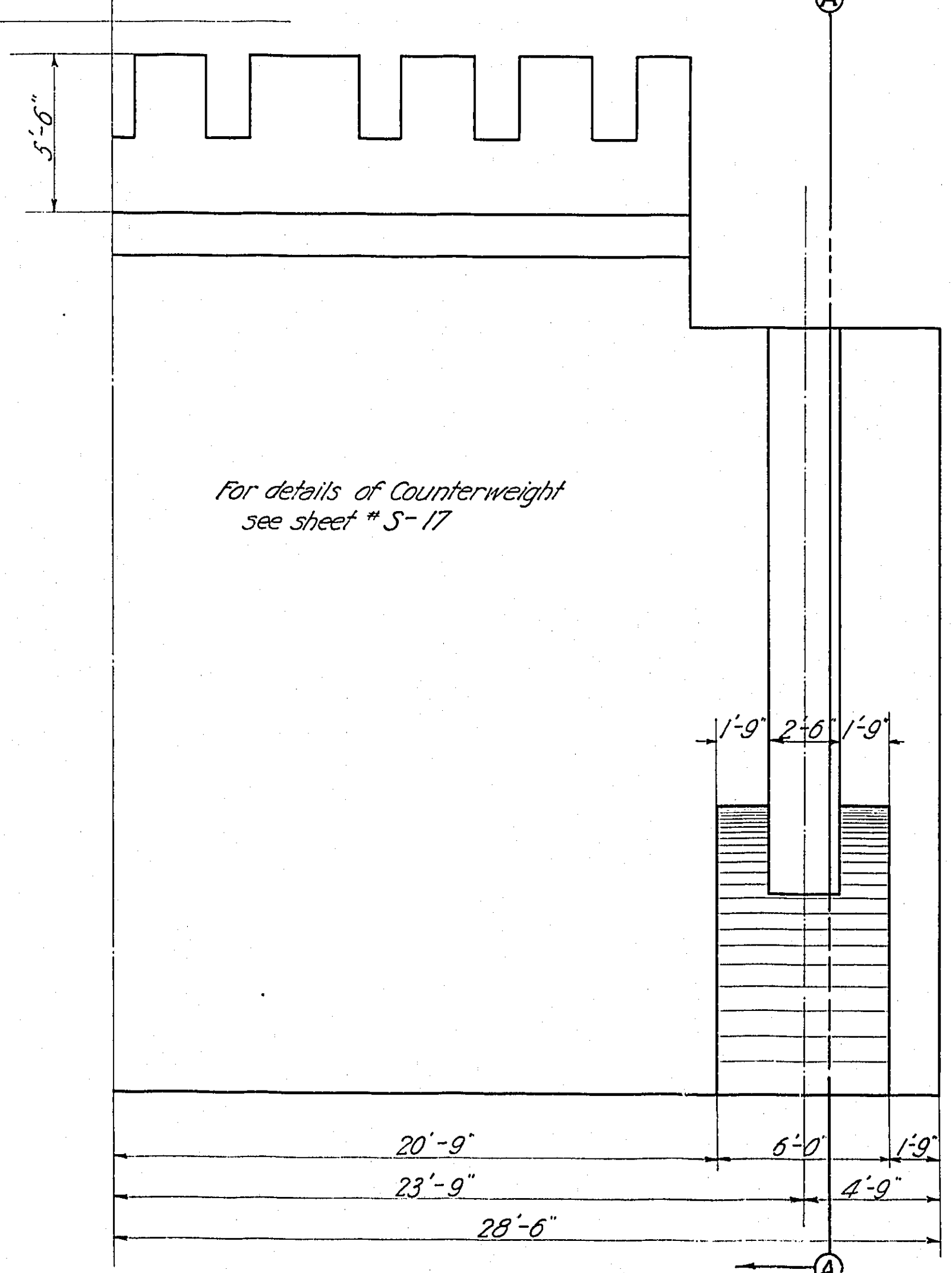
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.



REVISED



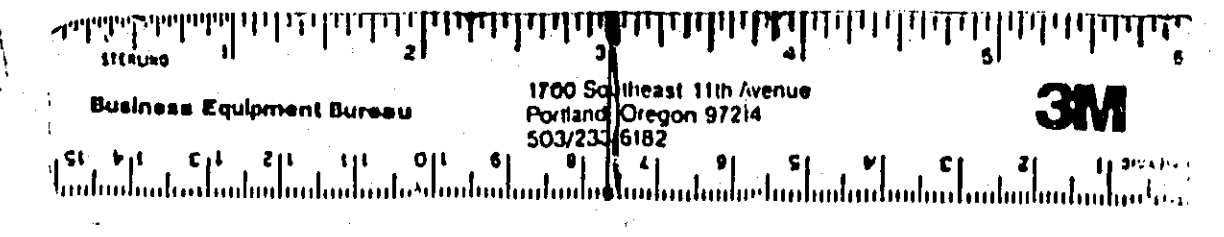
**GENERAL ARRANGEMENT
268' TRUSS SUPPORT**



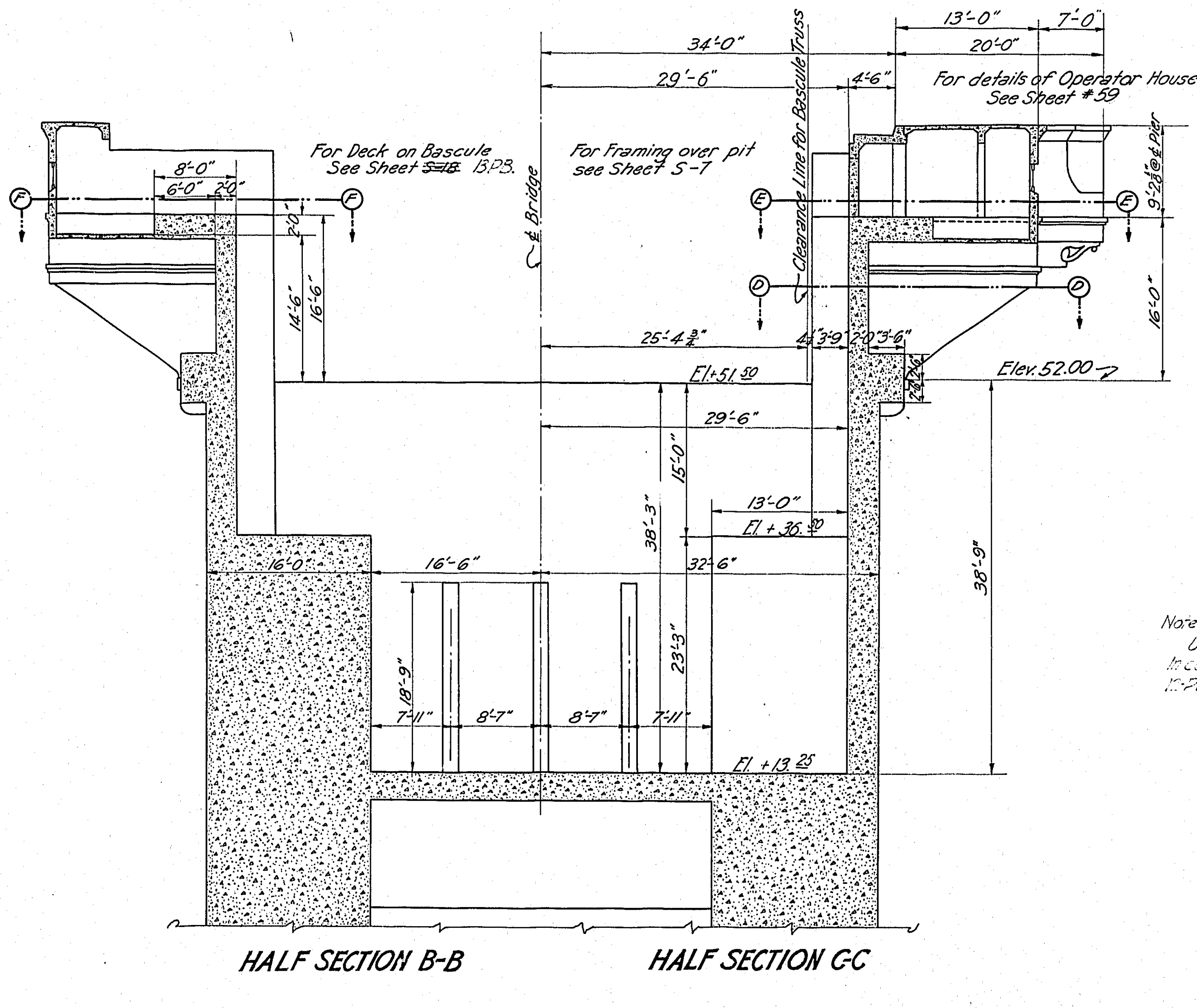
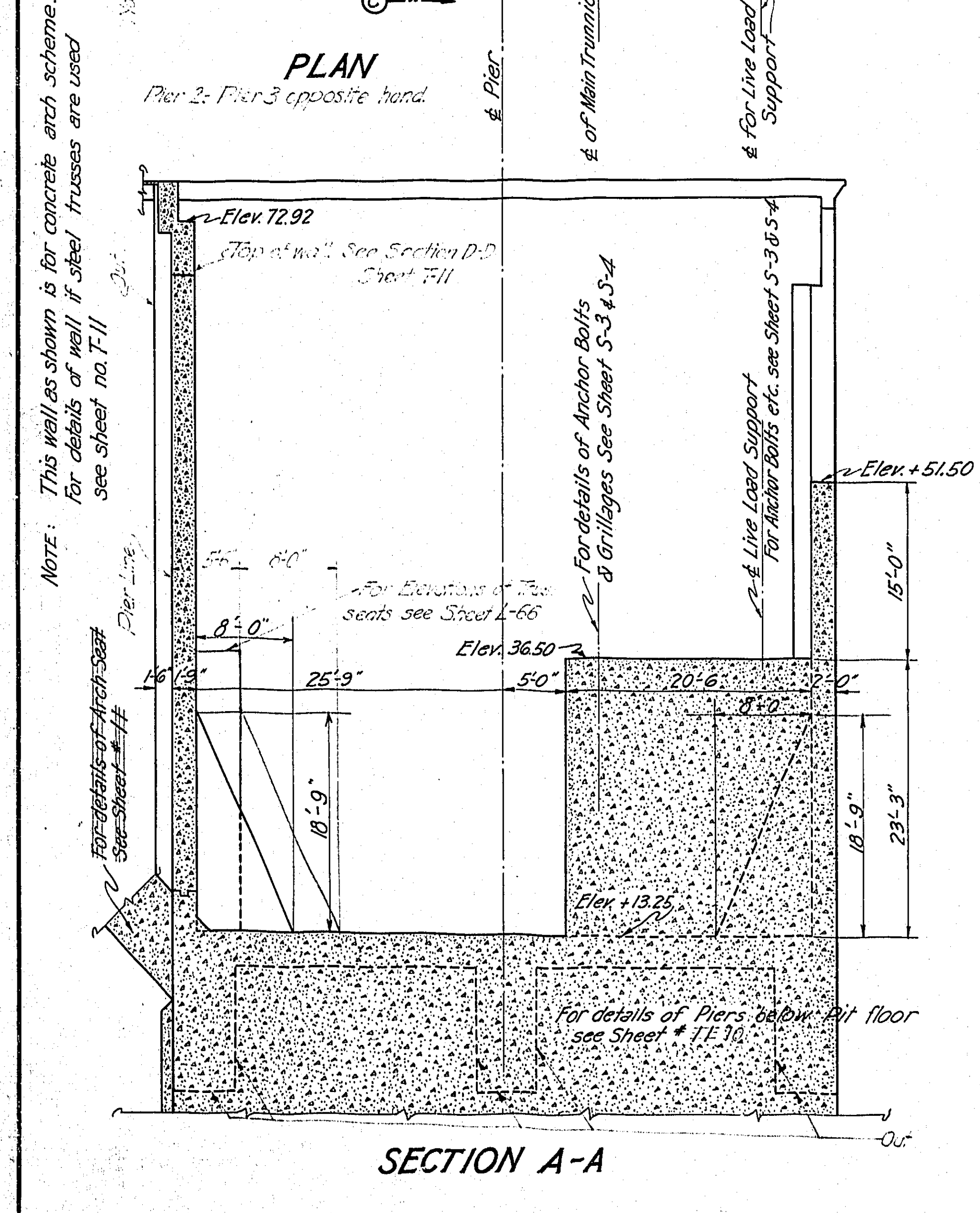
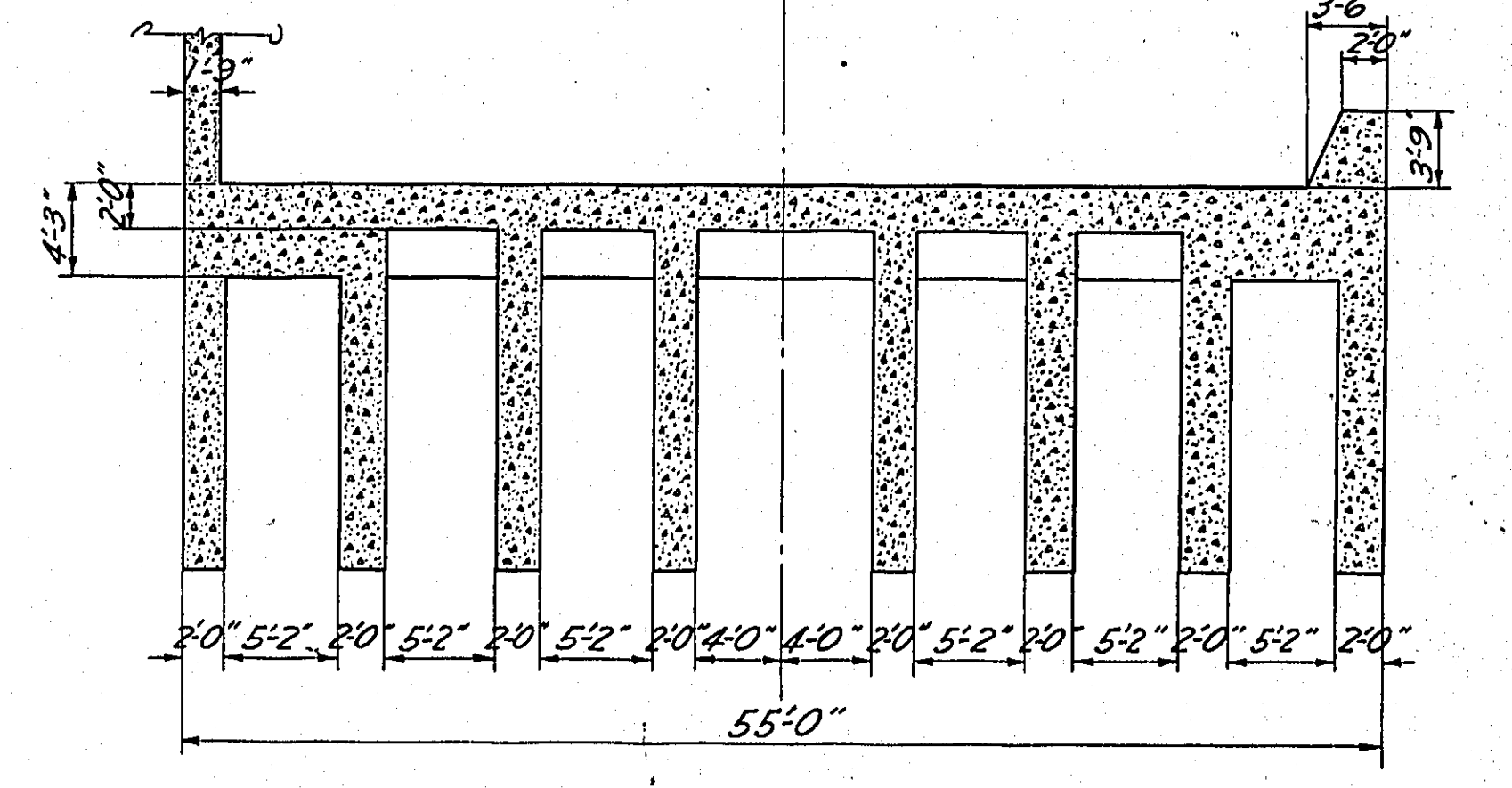
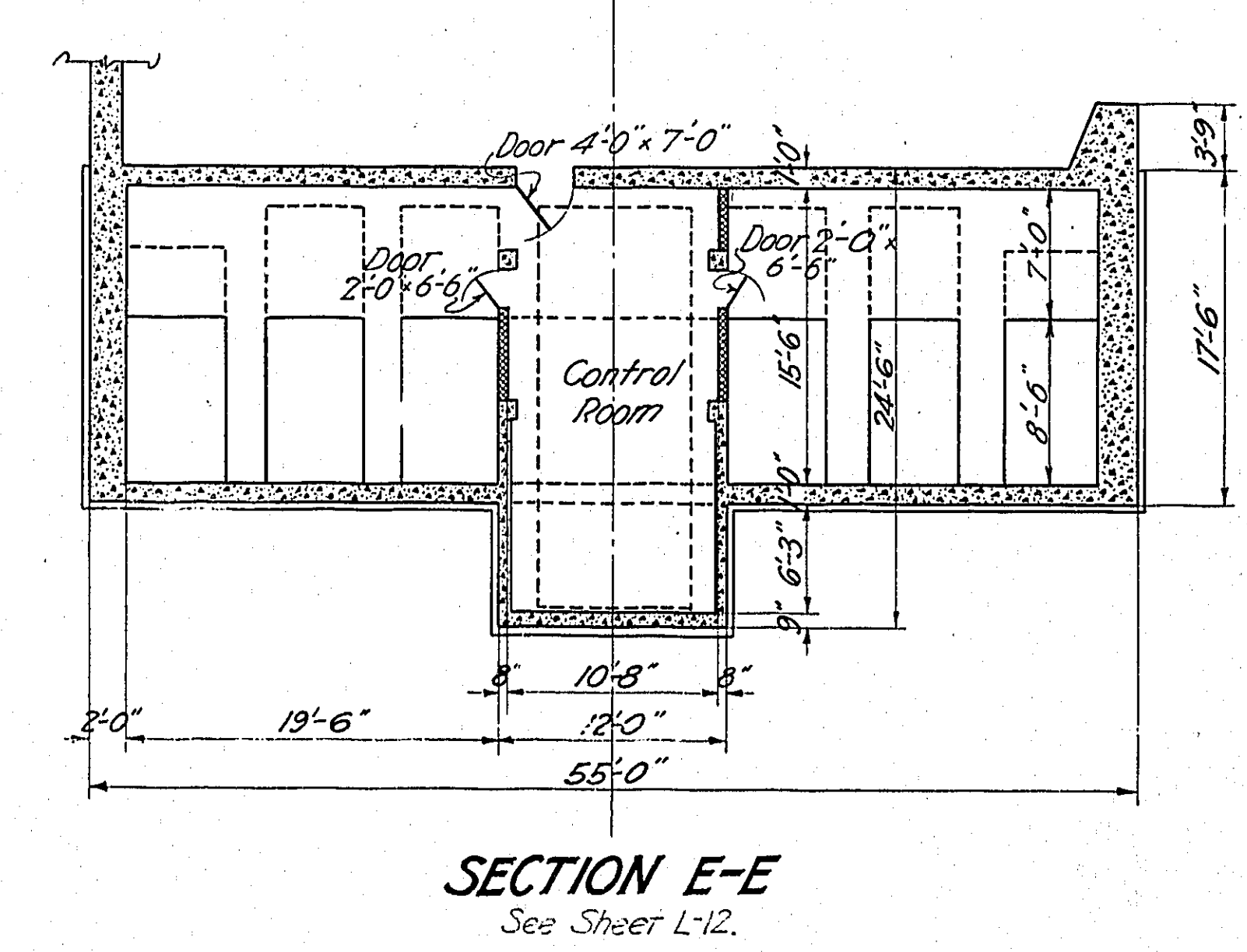
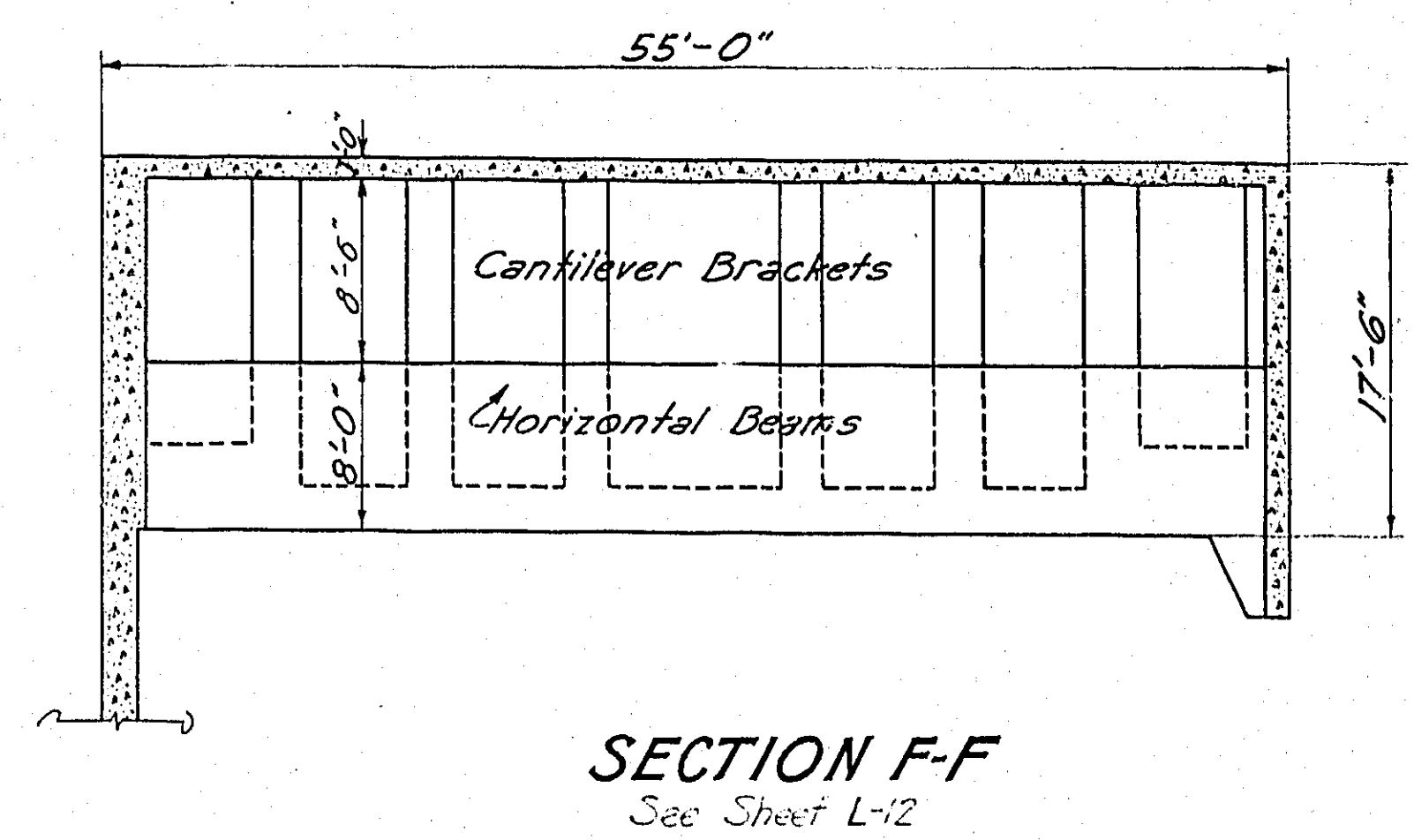
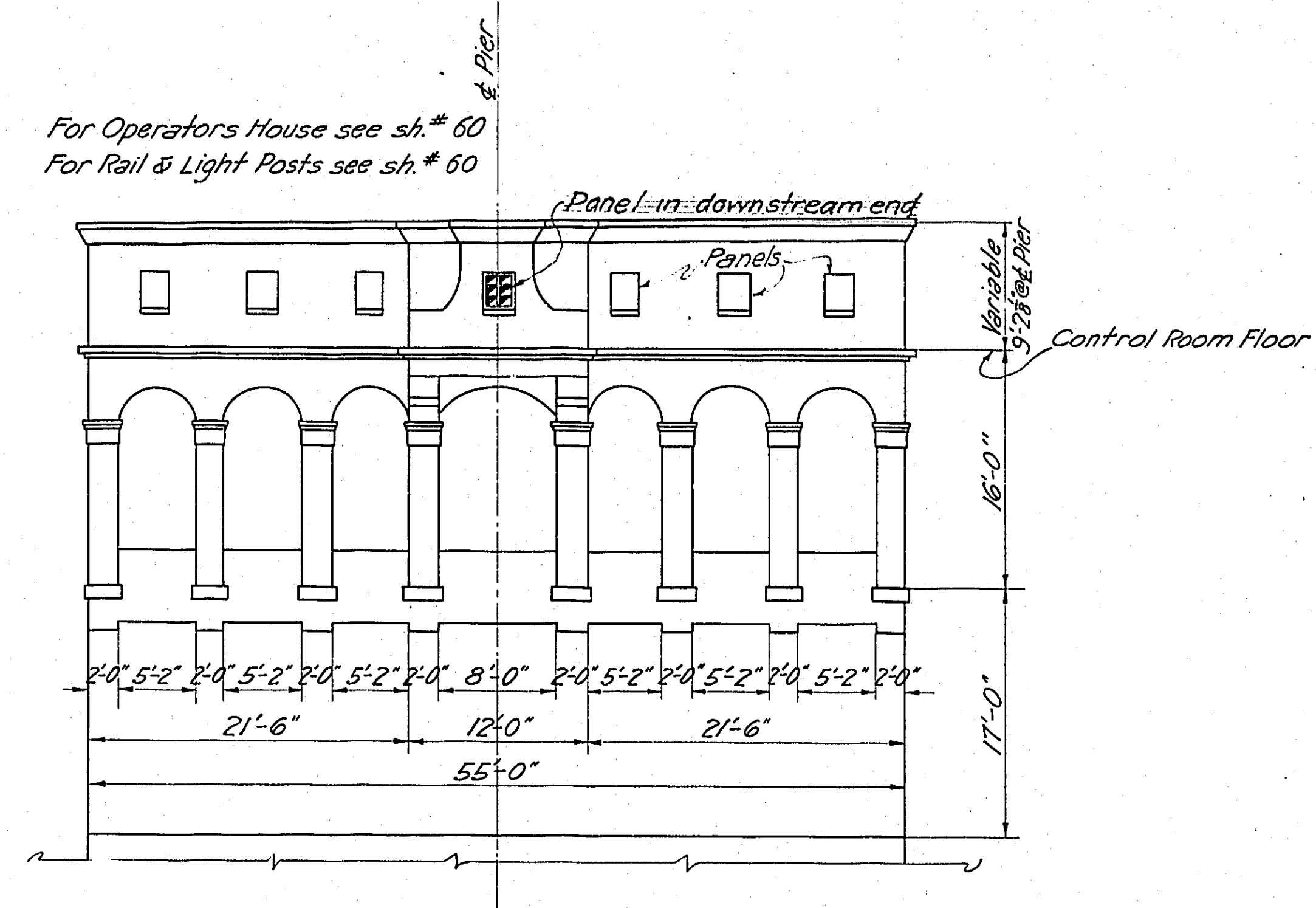
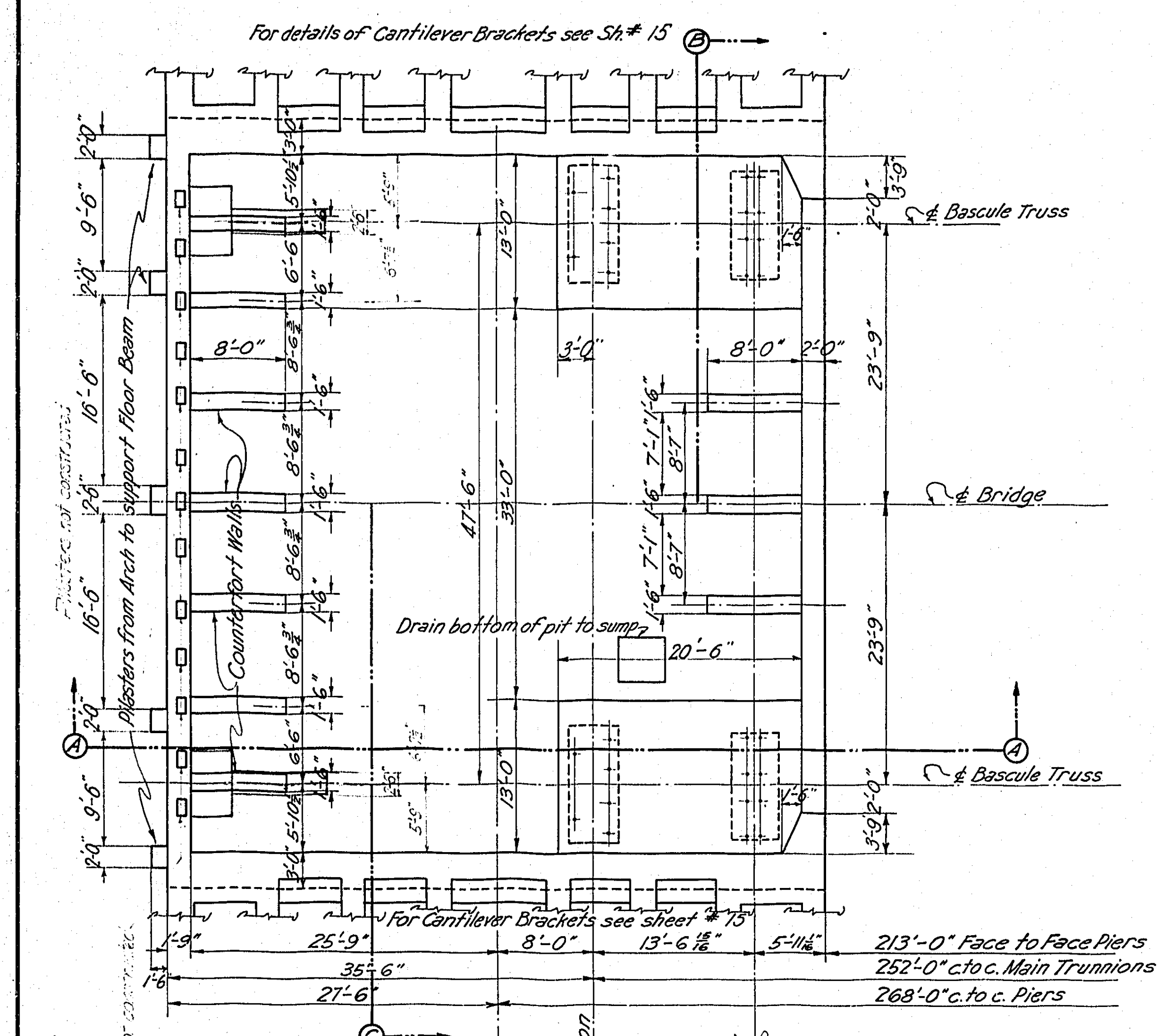
MULTNOMAH COUNTY - OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
 DETAILS
TRUSS SEAT, CTWT CLEARANCE
 BASCULE PIER

MADE BY: HEDRICK & KREMERS
 CHECKED BY: CONSULTING ENGINEERS
 TRACED BY: CONSULTING ENGINEERS
 PORTLAND, OREGON
 DATE: FEB. 16TH 1924
 DRAWING NO. 118-B
 61 SHEETS SCALE: 1" = 1'-0"
 SHEET NO. T

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.



REVISED

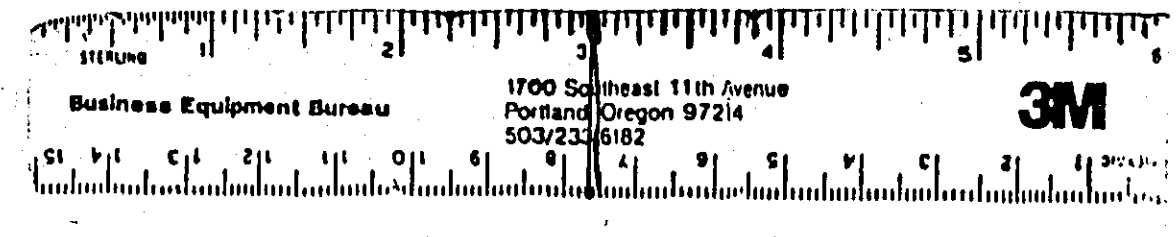


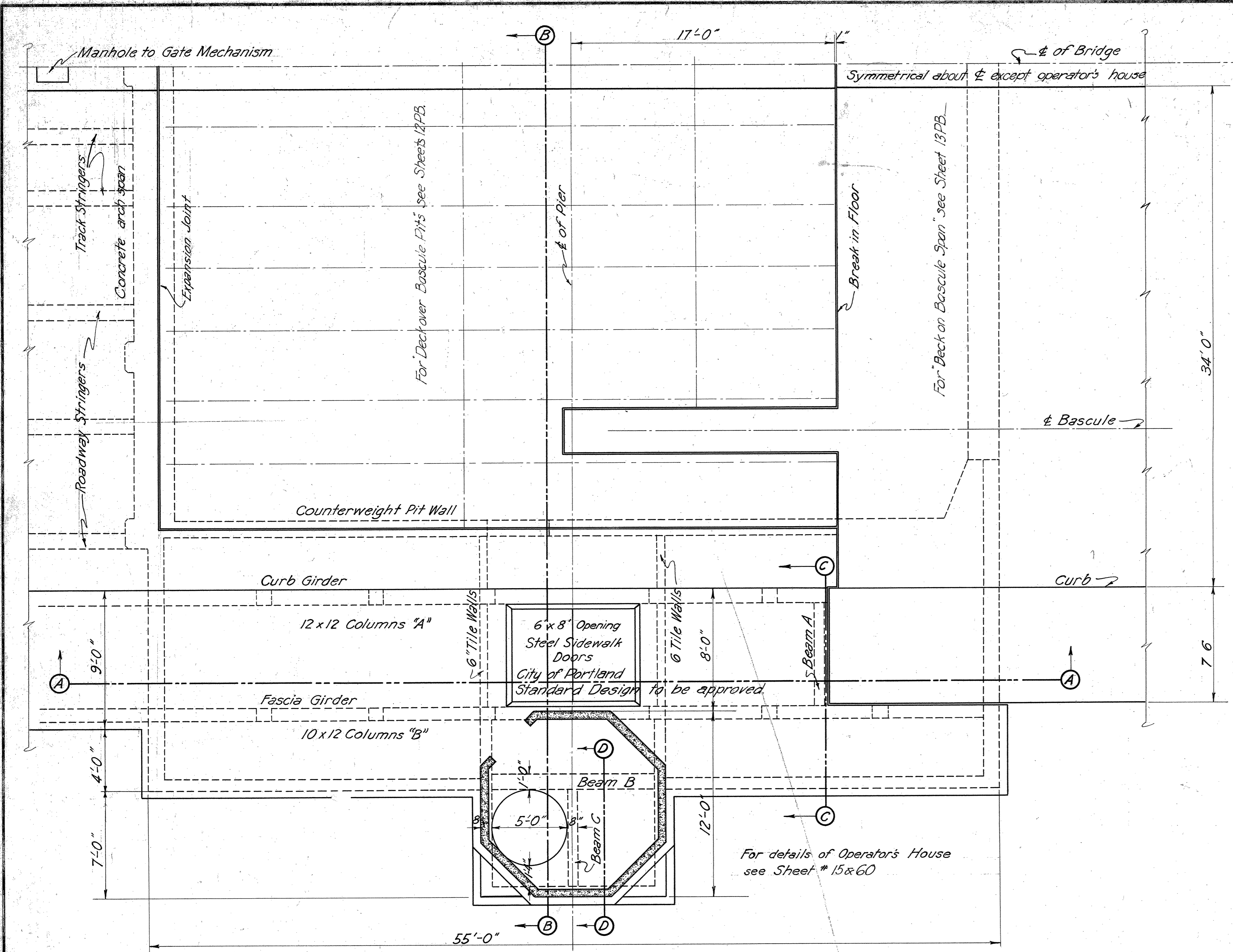
Note:
Use this sheet with sheet L-12 & L-25.
In case of conflicting details, sheet L-12
is to prevail.

DESIGN No. 1

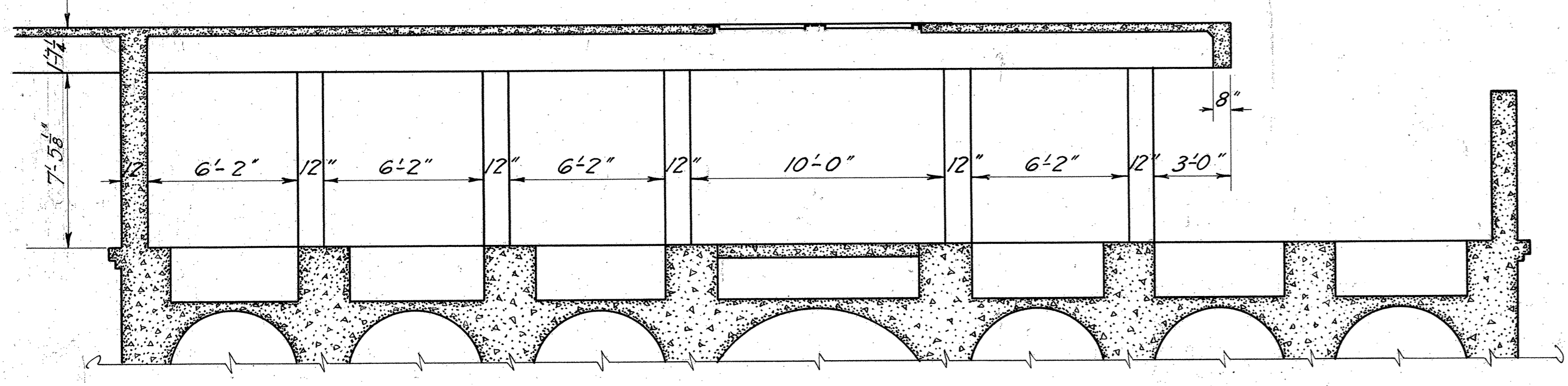
MULTNOMAH COUNTY - OREGON	
BURNSIDE BRIDGE	
PORTLAND, OREGON	
DETAILS OF	
BASCULE PIERS, GENERAL PLANS	
MADE BY <i>[Signature]</i>	HEDRICK & KREMERS
CHECKED BY <i>[Signature]</i>	CONSULTING ENGINEERS
TRACED BY <i>[Signature]</i>	PORTLAND, OREGON
CHECKED BY <i>[Signature]</i>	DATE FEB. 12, 1924
DRAWING NO.	SHEET NO. 12
SHEETS	SCALE: 1" = 1'-0"

NOTICE: IF THIS DOCUMENT IS LESS
LEGIBLE THAN THIS NOTICE IT IS
DUE TO THE QUALITY OF THE ORIGINAL.

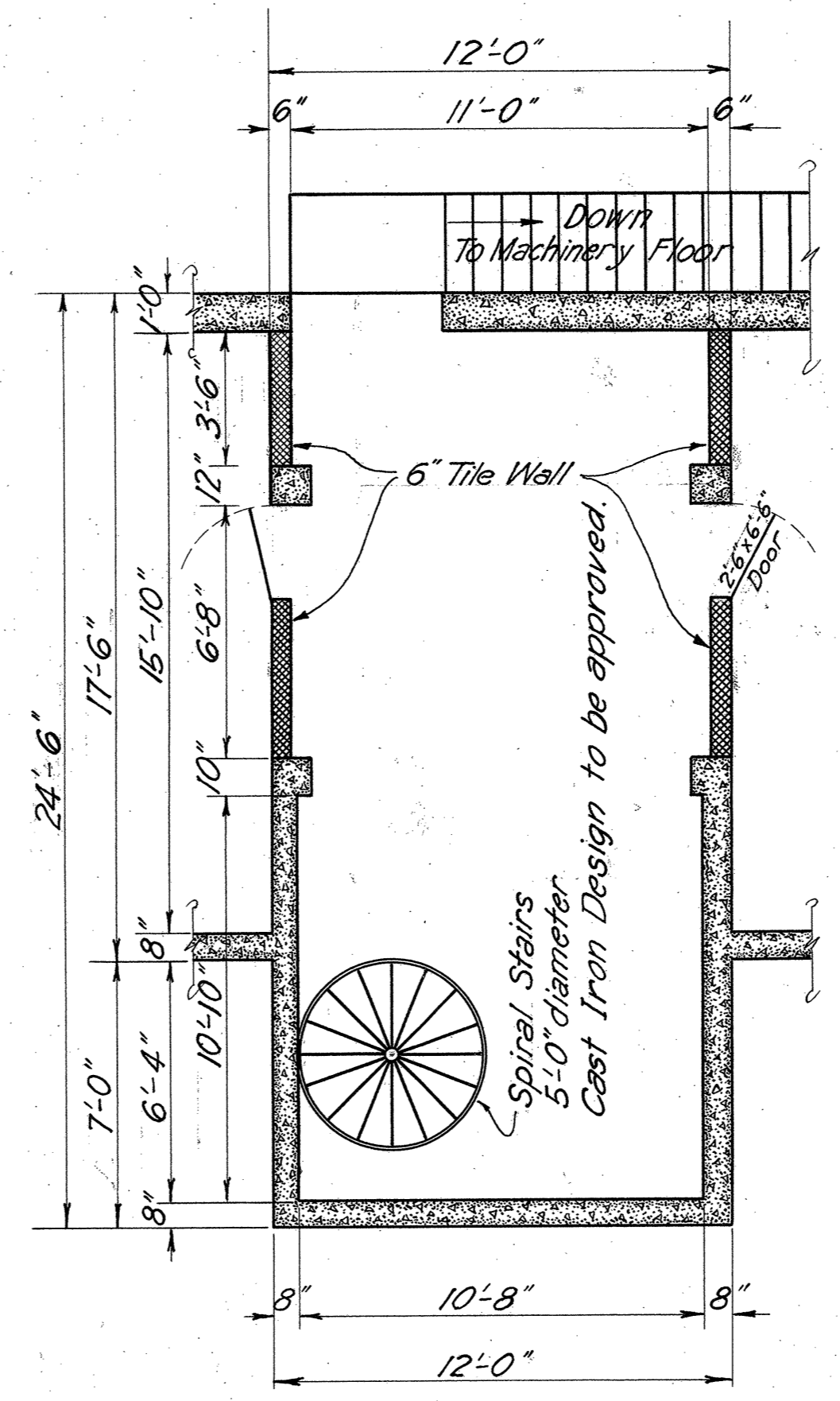




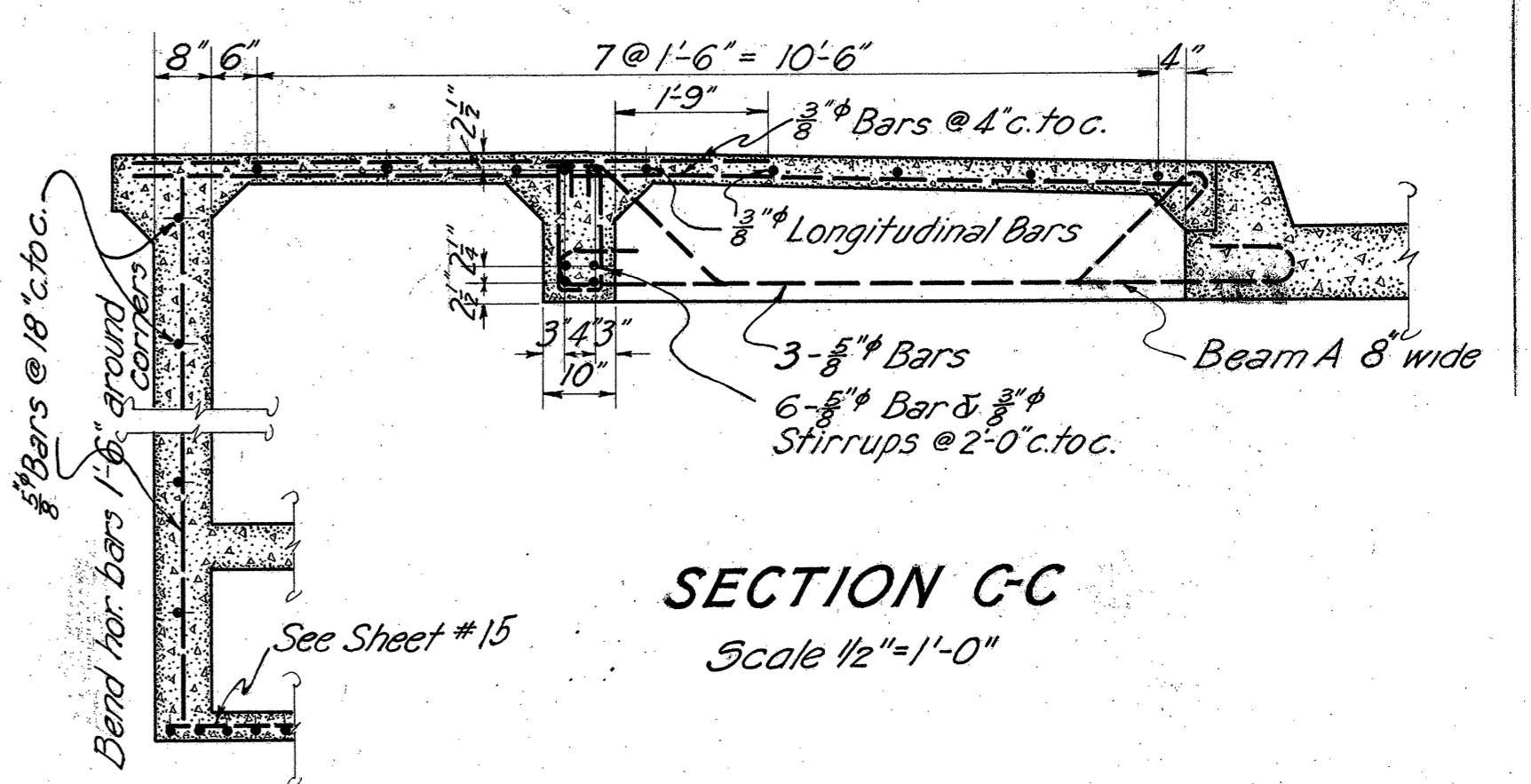
DECK FRAMING PLAN
Scale 1/4"=1'-0"



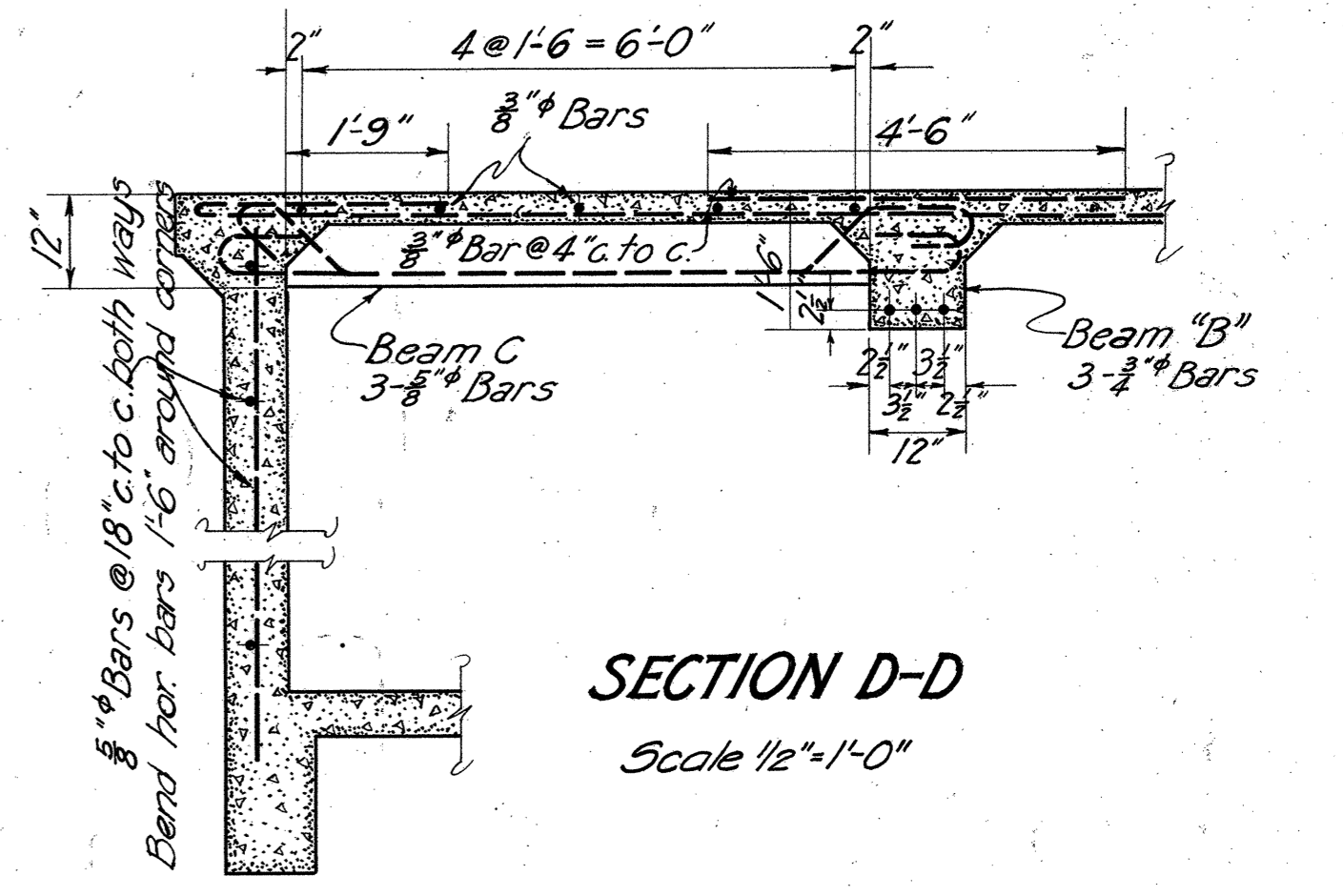
SECTION A-A
Scale 1/4"=1'-0"



CONTROL ROOM
Scale 1/4"=1'-0"

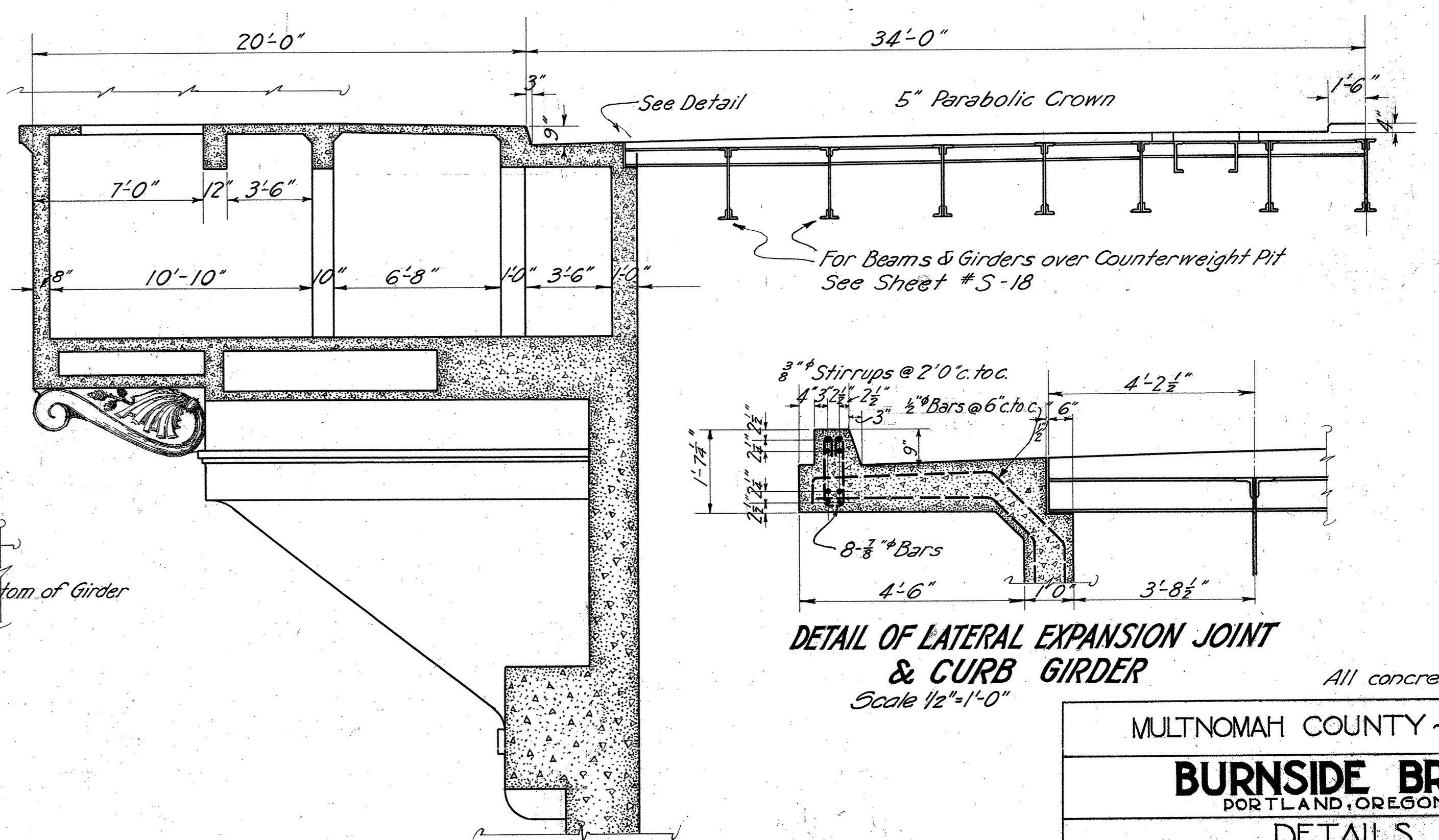


SECTION C-C
Scale 1/2"=1'-0"



SECTION D-D
Scale 1/2"=1'-0"

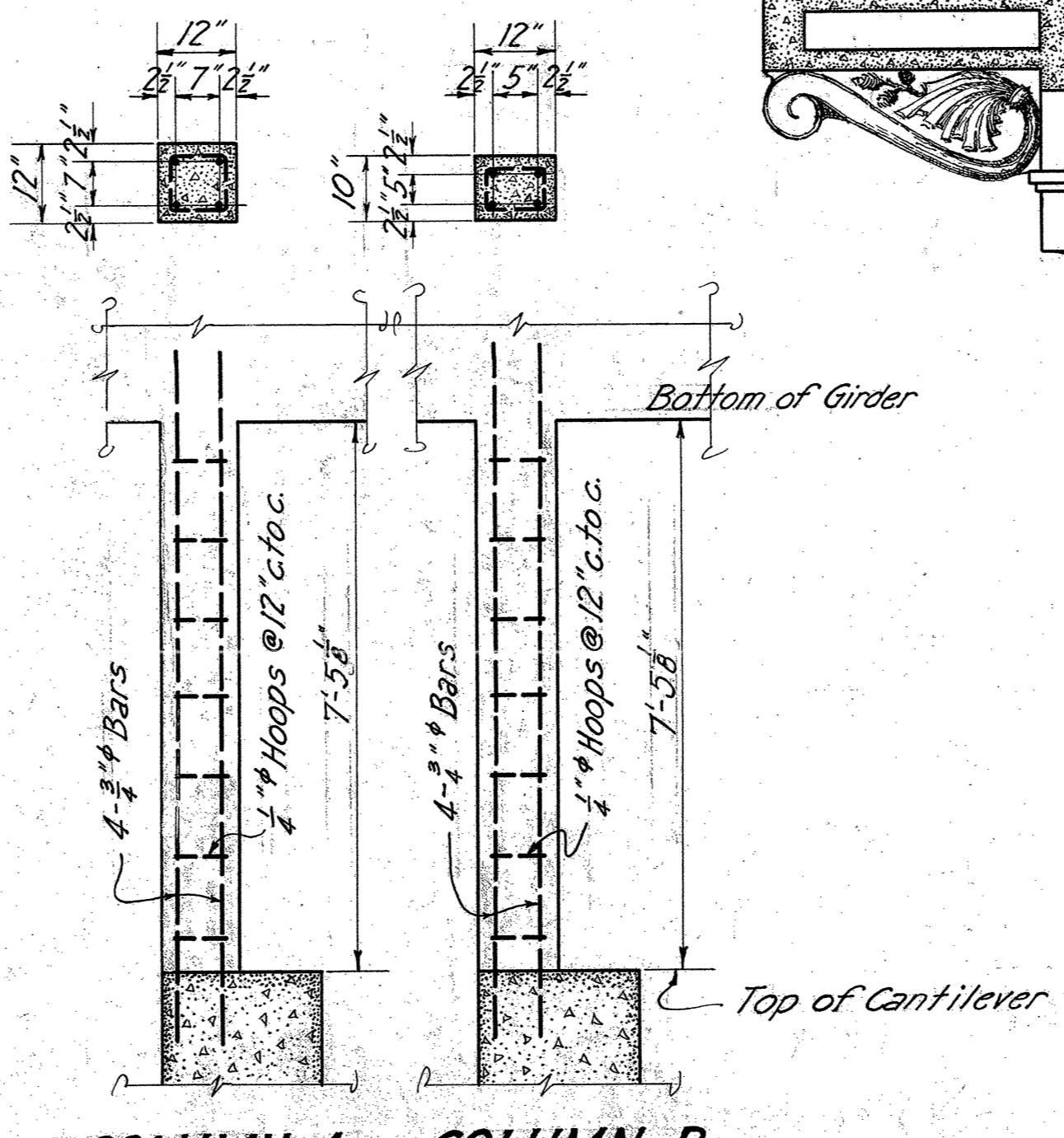
Use this sheet with sheets L-12 & L-76. In case of conflict sheets L-12 & L-76 govern.



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

DETAIL OF LATERAL EXPANSION JOINT & CURB GIRDER
Scale 1/2"=1'-0"

All concrete 1:1:2



COLUMN A COLUMN B
Scale 1/2"=1'-0"

Note: This sheet shows West Pier. Opposite hand for East Pier.

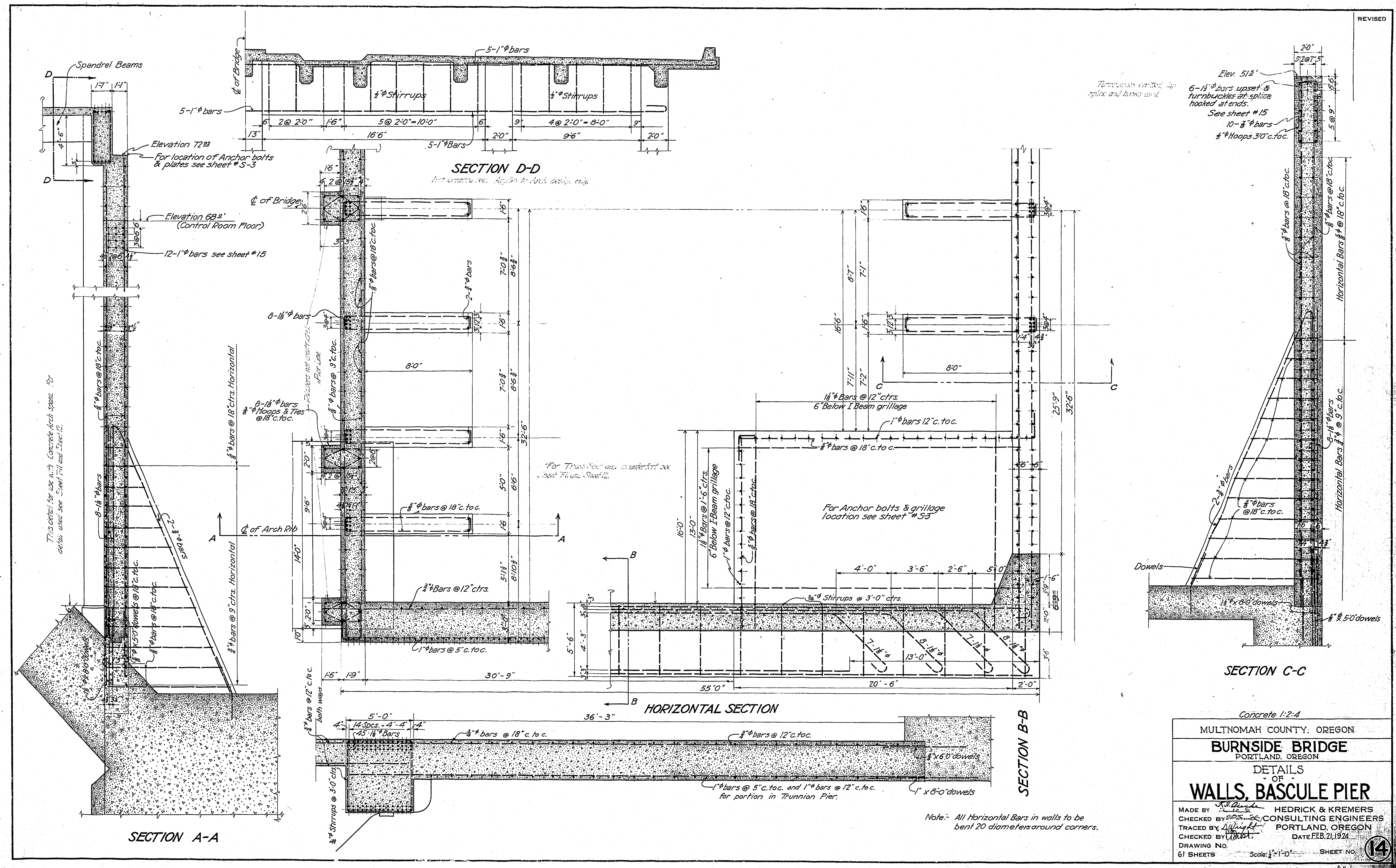
MULTNOMAH COUNTY ~ OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF
DECK, BASCULE PIERS

MADE BY *W. J. ...* HEDRICK & KREMERS
CHECKED BY *W. J. ...* CONSULTING ENGINEERS
TRACED BY *W. J. ...* PORTLAND, OREGON
CHECKED BY *W. J. ...* DATE FEB. 12, 1924
DRAWING NO. 61 SHEETS SHEET NO. **13**

REVISED



Concrete 1:2:4

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

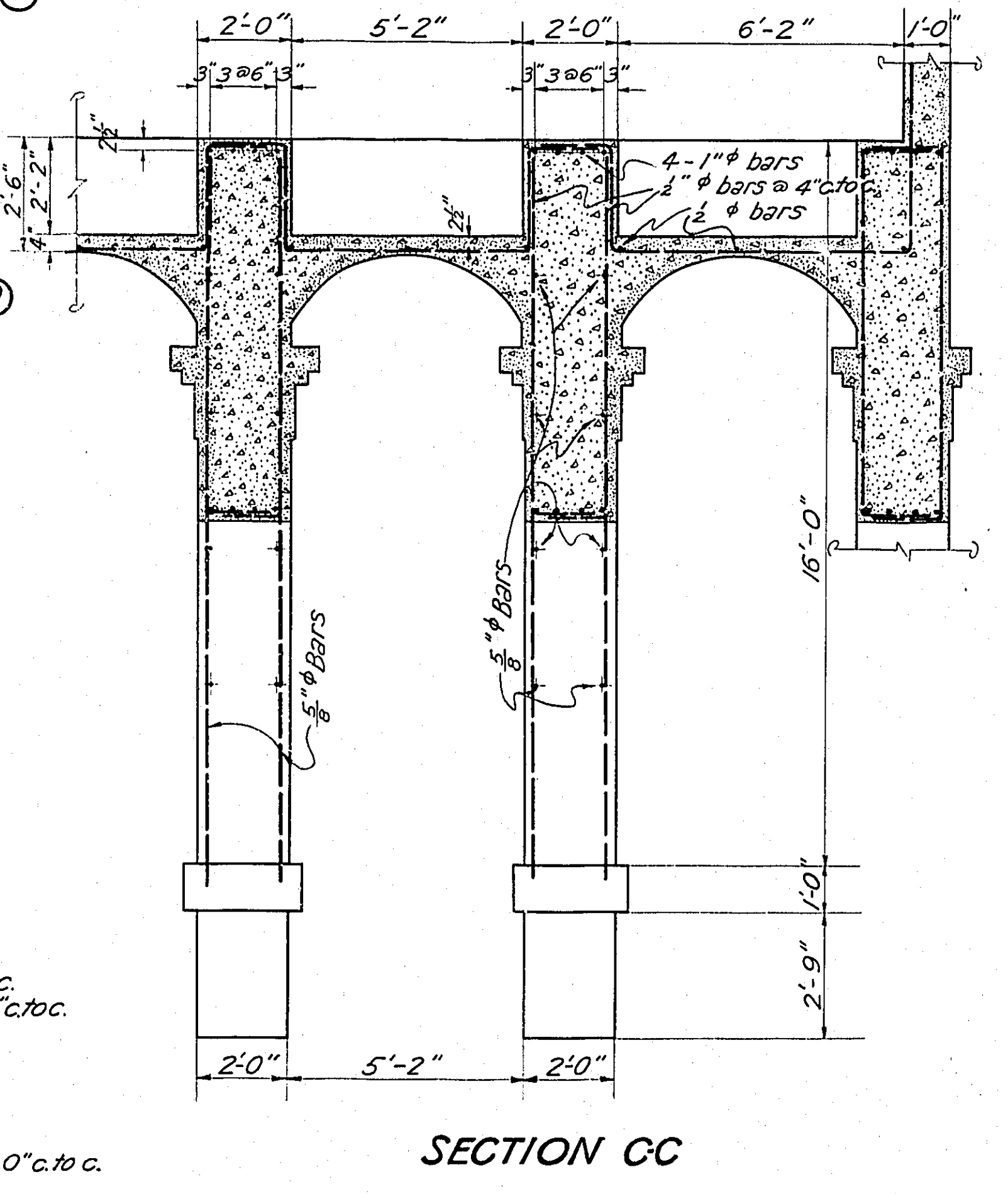
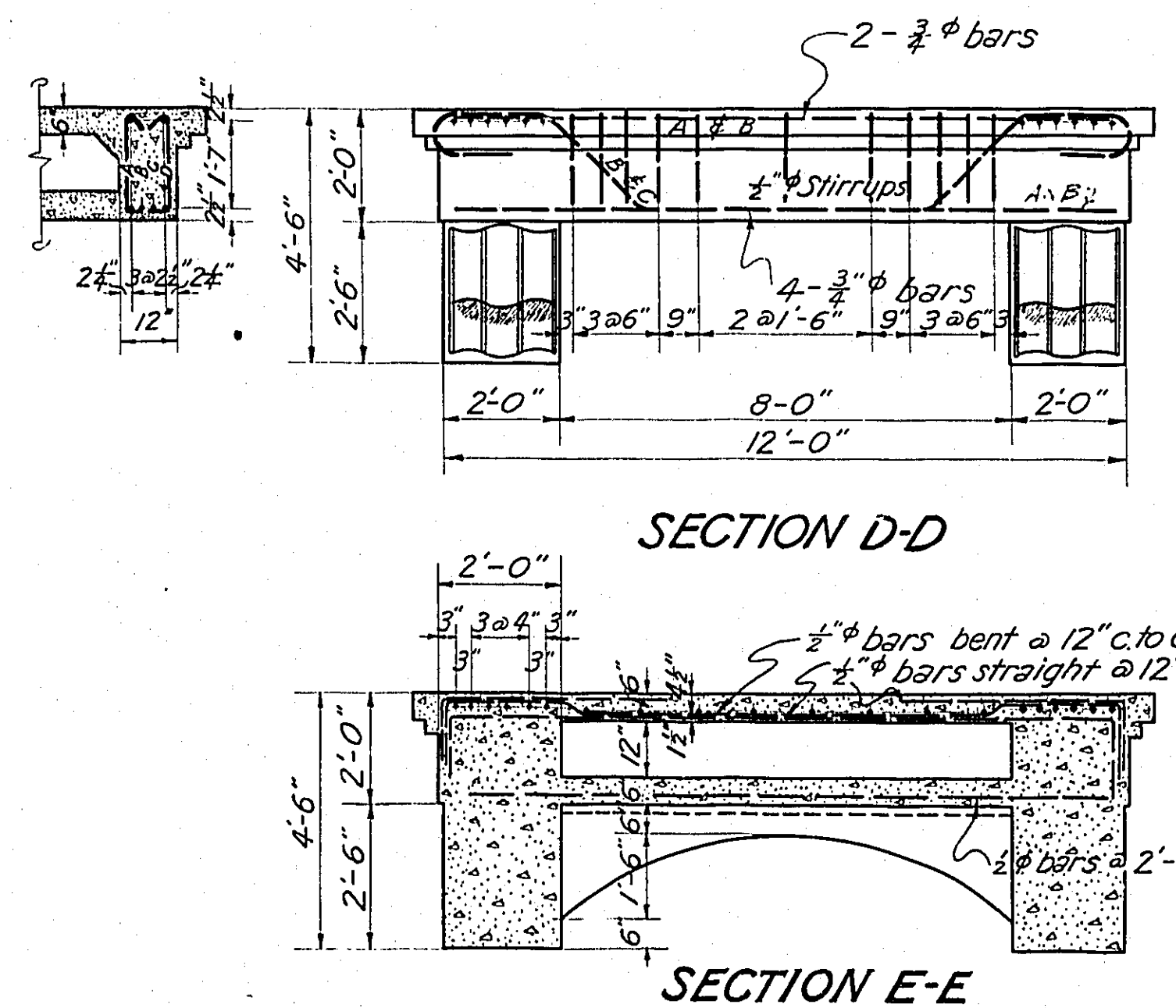
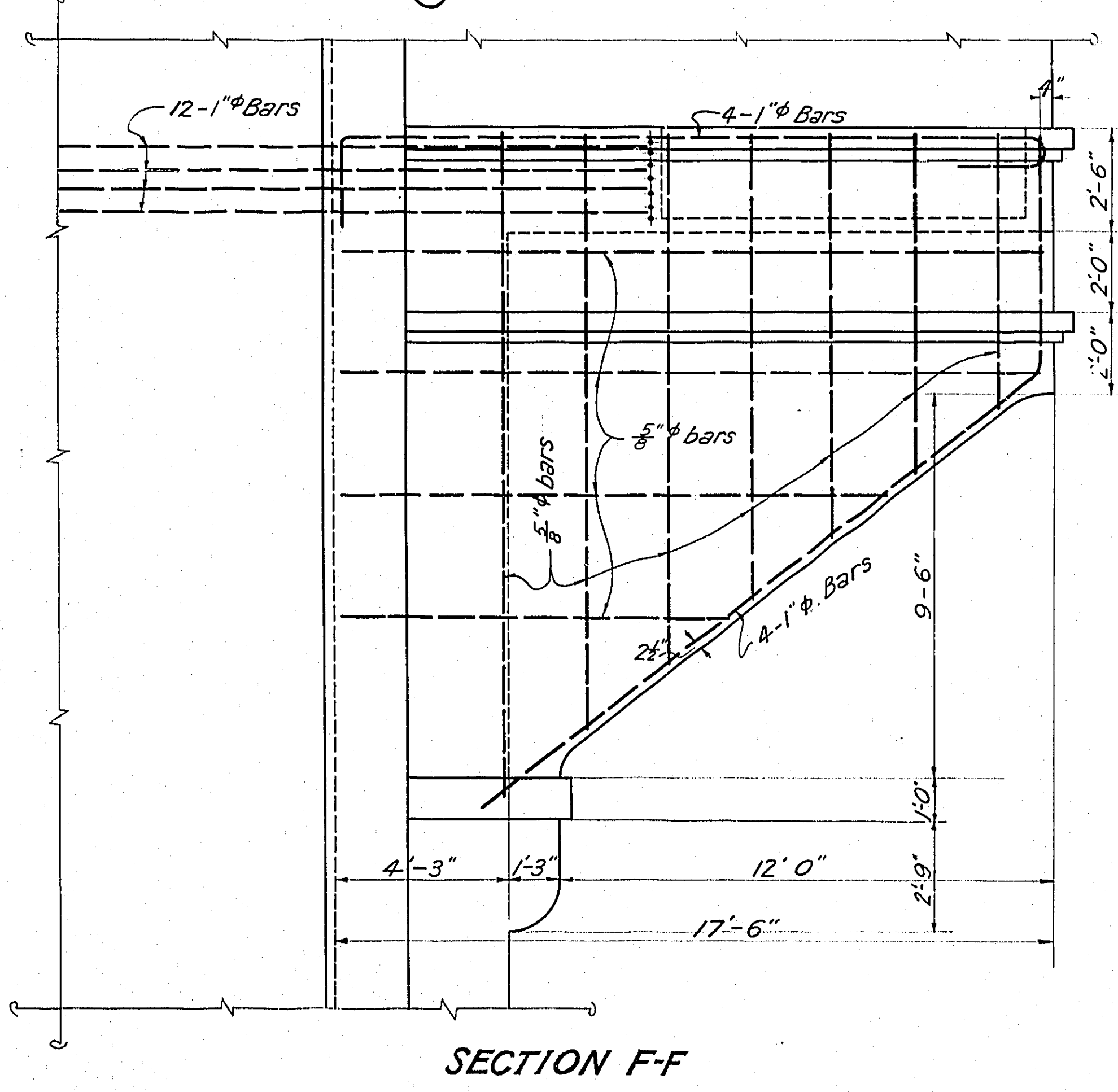
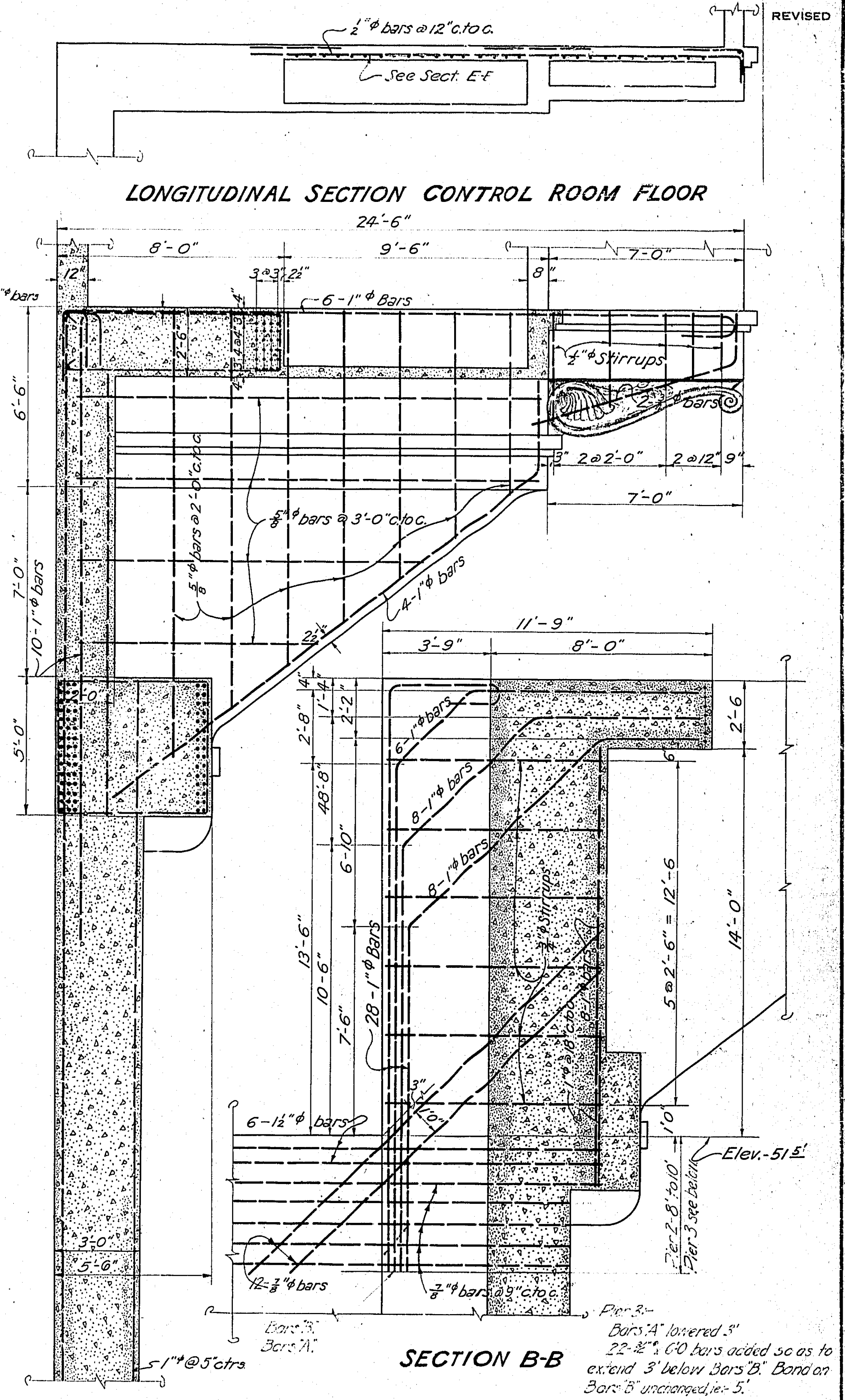
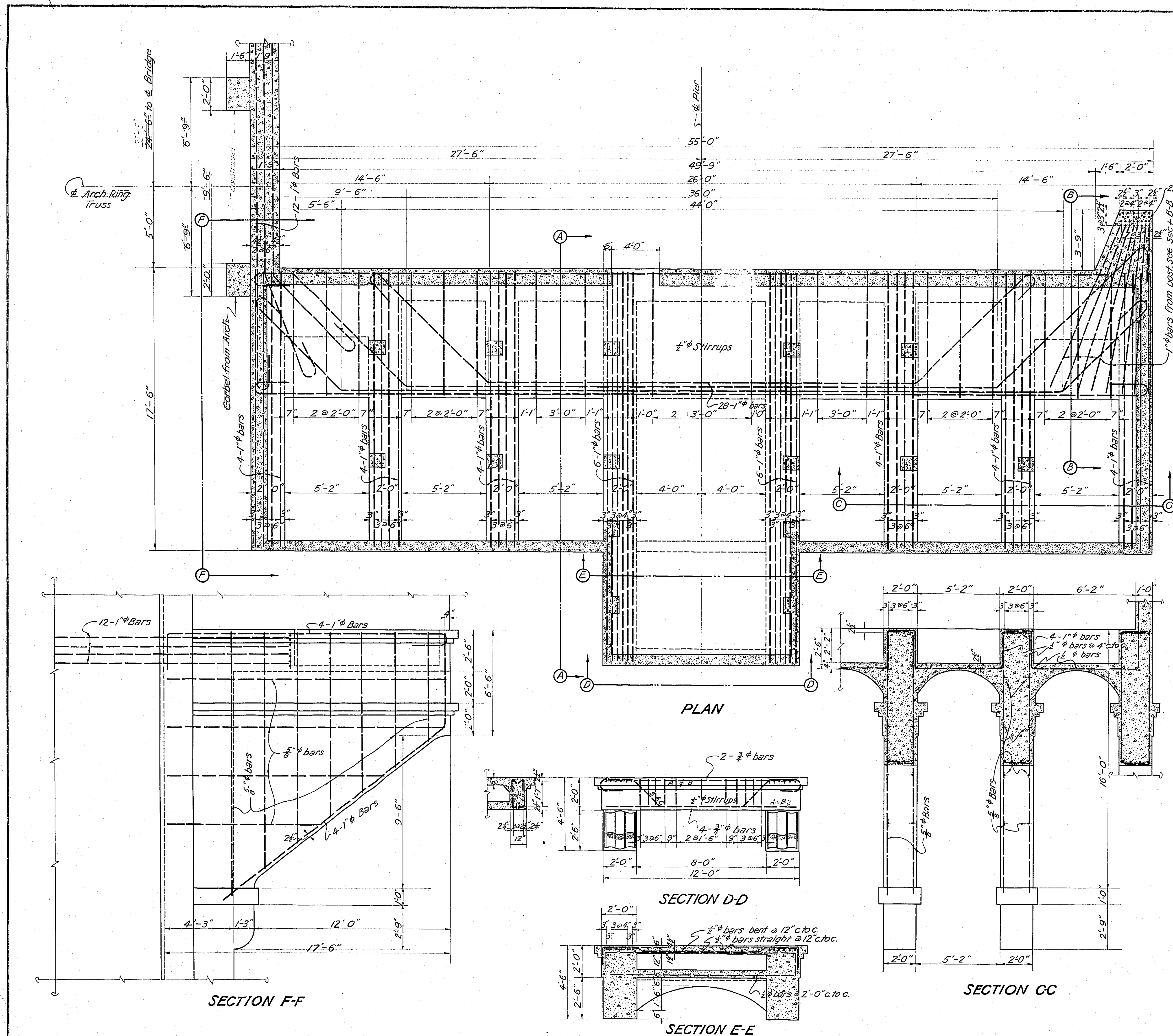
DETAILS
OF
WALLS, BASCULE PIER

MADE BY *J. B. Hedrick* HEDRICK & KREMERS
CHECKED BY *W. H. ...* CONSULTING ENGINEERS
TRACED BY *W. H. ...* PORTLAND, OREGON
CHECKED BY *W. H. ...* DATE FEB. 21, 1924

DRAWING NO. 61 SHEETS Scale: 1/4" = 1'-0" SHEET NO. **14**

NOTICE: IF THIS DOCUMENT IS LESS
LEGIBLE THAN THIS NOTICE IT IS
DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau 3M
1700 Second 110 Avenue
Portland Oregon 5724
503231012



SECTION A-A

SECTION B-B

Use this sheet with Sheet L-12. In case of conflict, Sheet L-12 governs.

1:2:4 Concrete except
1:1:2 in roadway slabs & beams

MULTNOMAH COUNTY - OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

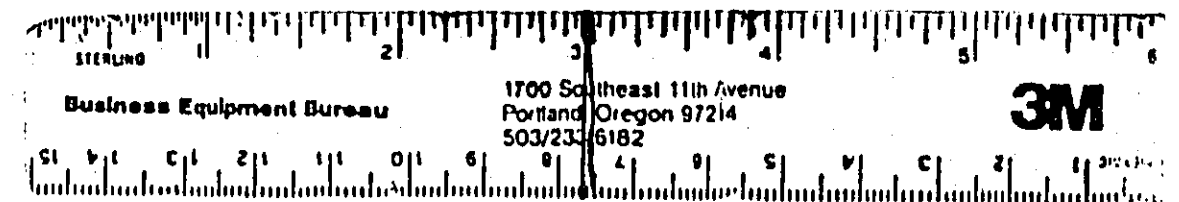
DETAILS OF
OPERATOR'S HOUSE SUPPORT

MADE BY *J.H. Kremer*
CHECKED BY *H. Kremer*
TRACED BY *H. Kremer*
CHECKED BY *H. Kremer*
DRAWING NO. *15*

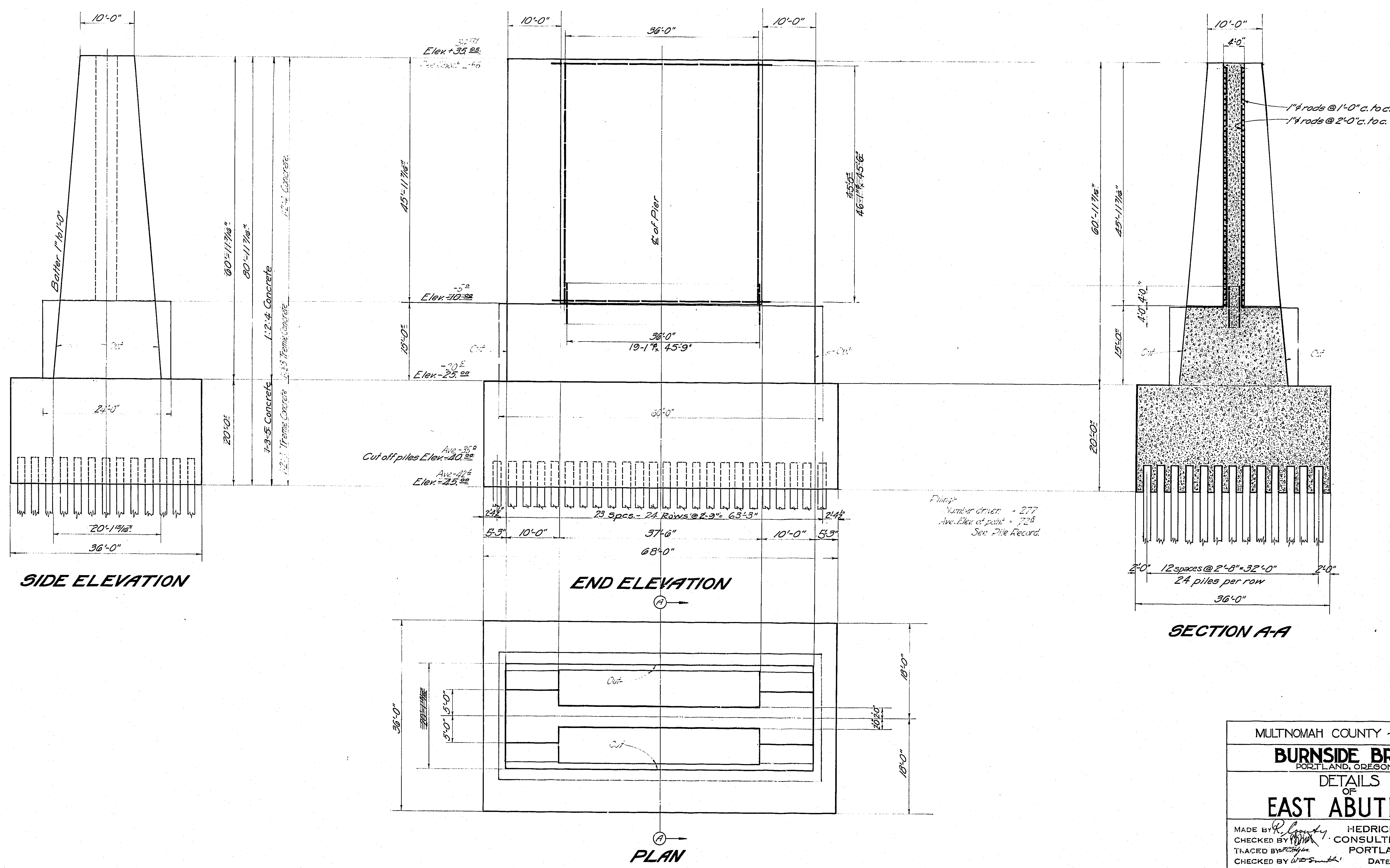
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 20, 1941

61 SHEETS
SCALE - 3/8" = 1'-0"
SHEET NO. **15**

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SIDE ELEVATION

END ELEVATION

SECTION A-A

PLAN

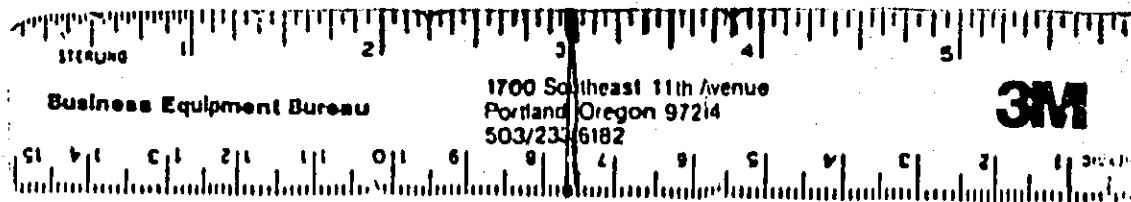
MULTNOMAH COUNTY - OREGON

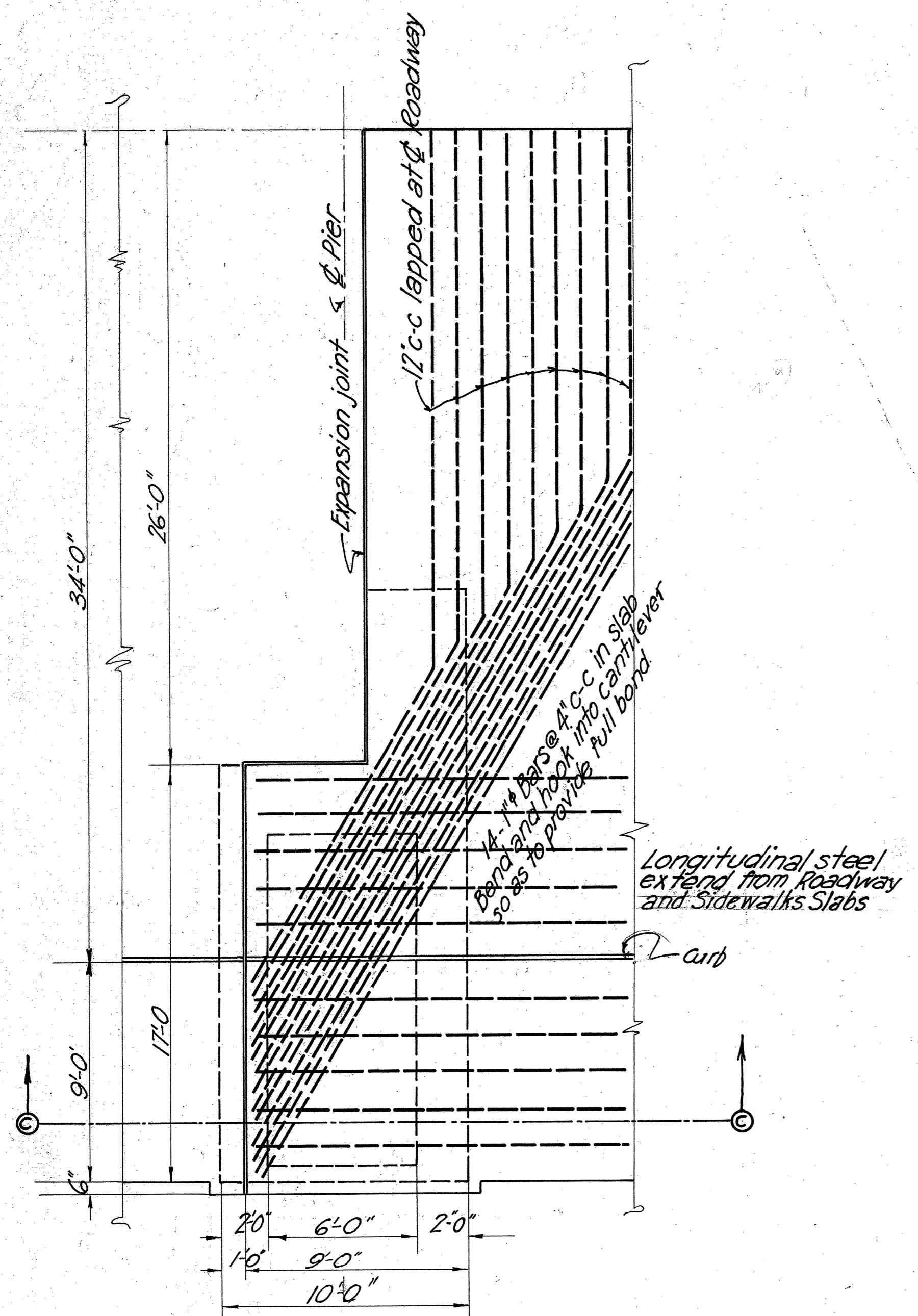
BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS
OF
EAST ABUTMENT

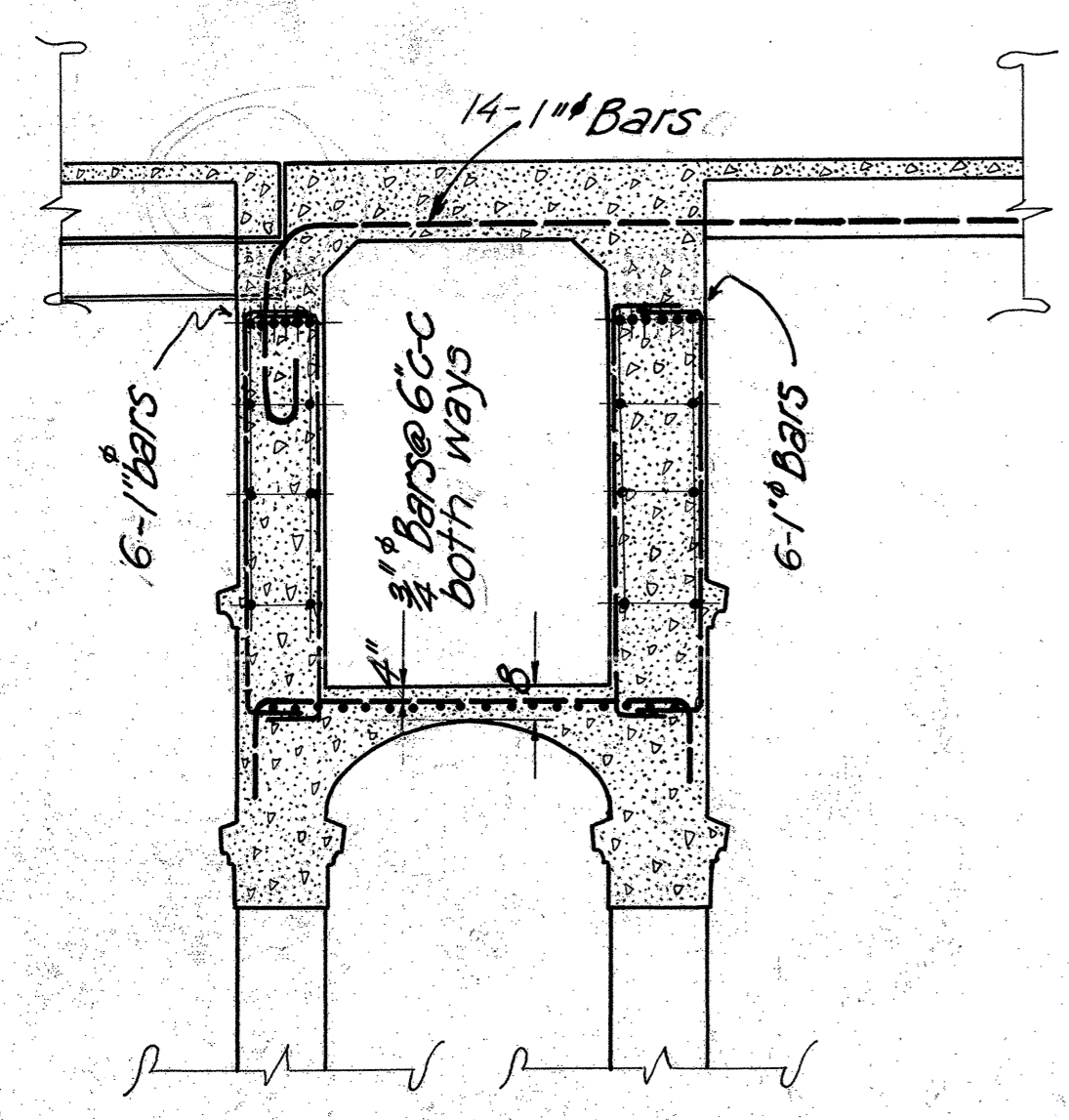
MADE BY *R. L. ...* HEDRICK & KREMERS
CHECKED BY *W. J. ...* CONSULTING ENGINEERS
TRACED BY *W. J. ...* PORTLAND, OREGON
CHECKED BY *W. J. ...* DATE FEB. 14, 1924
DRAWING NO. SHEETS SHEET NO. **T16**

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.



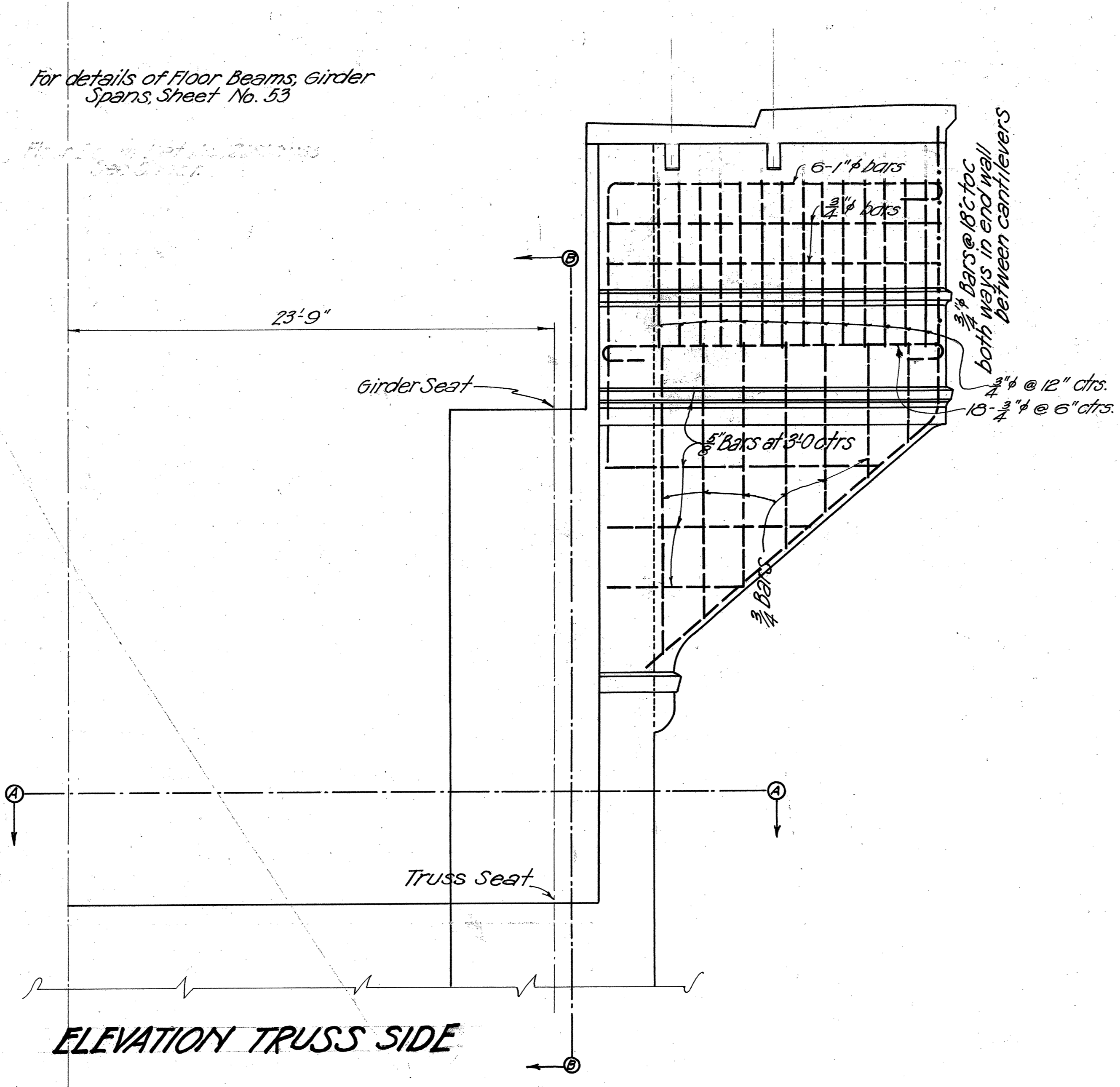


PLAN OF DECK

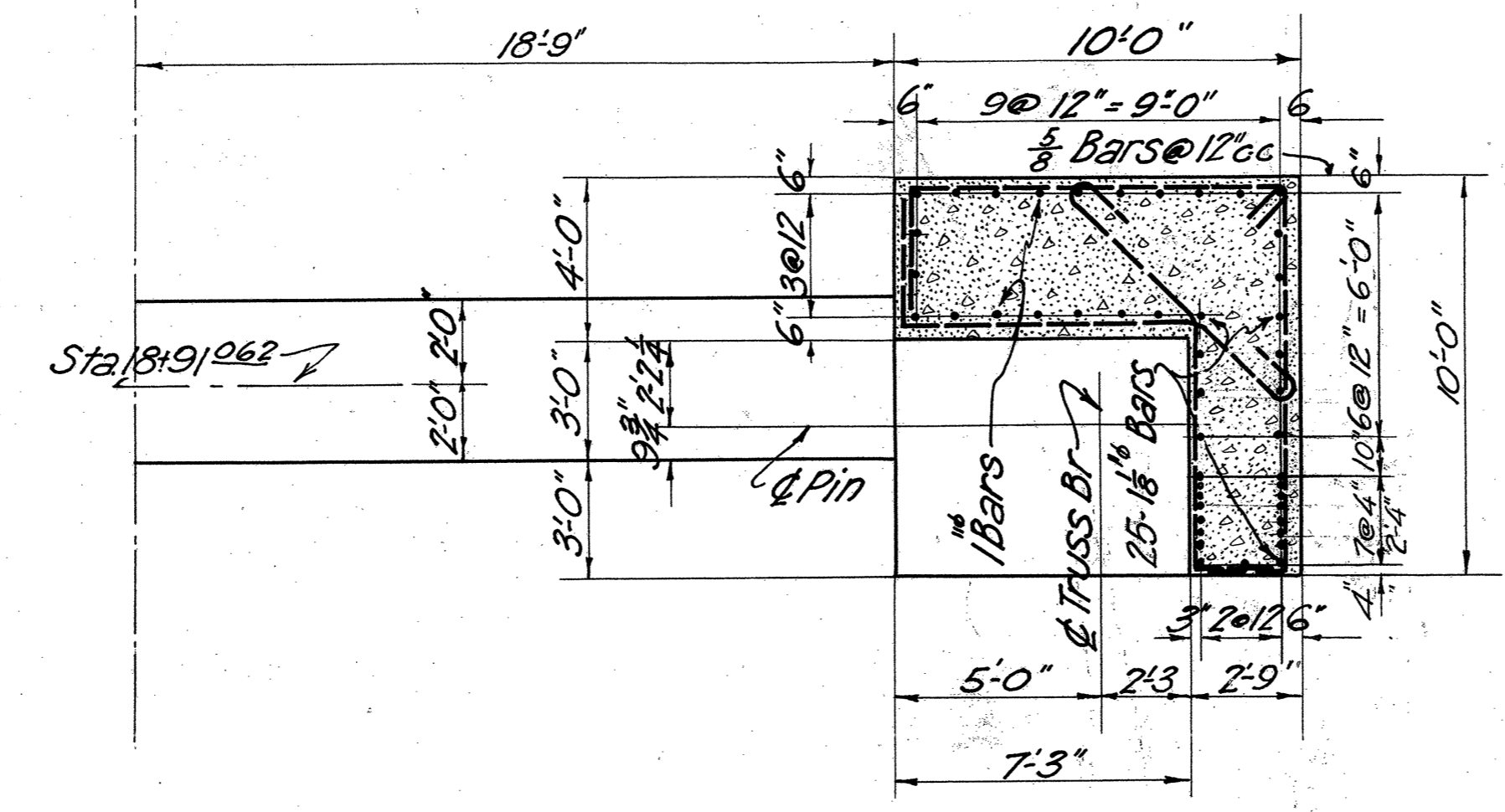


SECTION CC

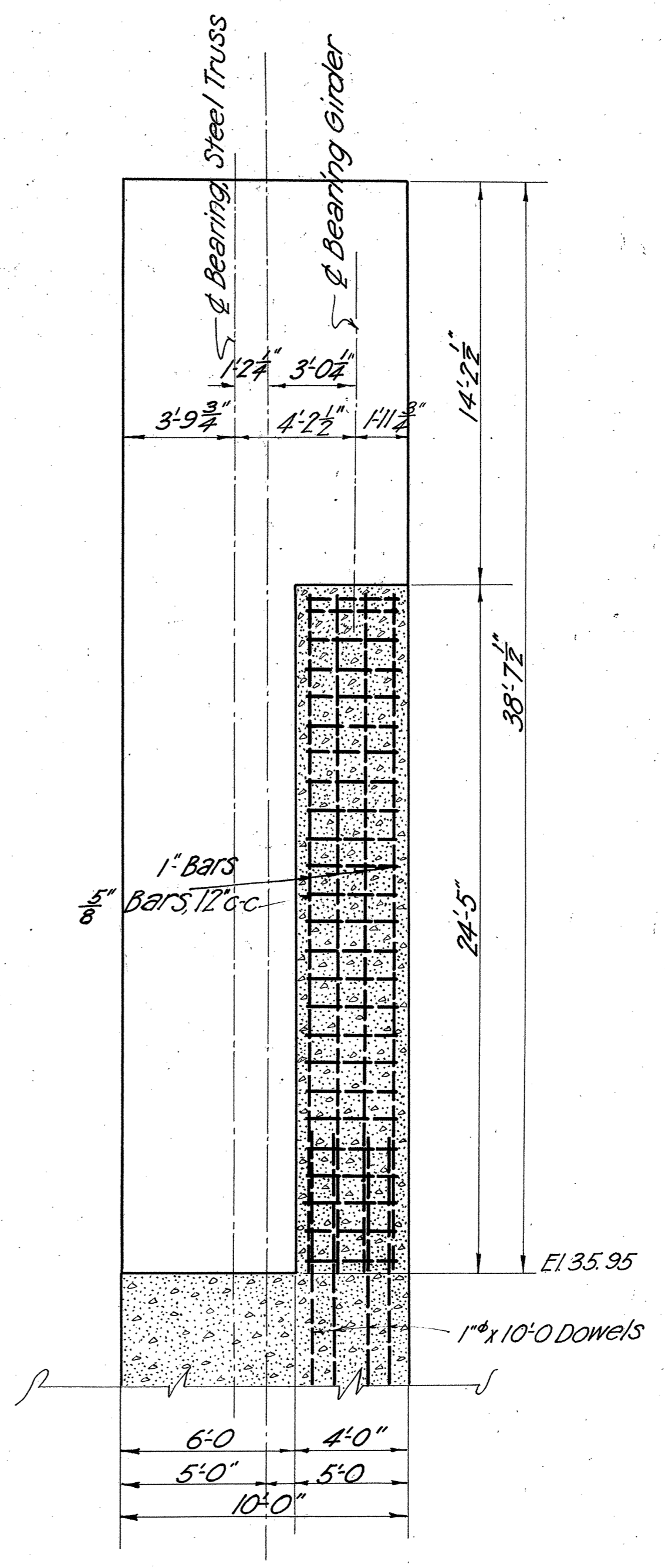
For details of Floor Beams, Girder Spans, Sheet No. 53



ELEVATION TRUSS SIDE



SECTION AA



SECTION B-B

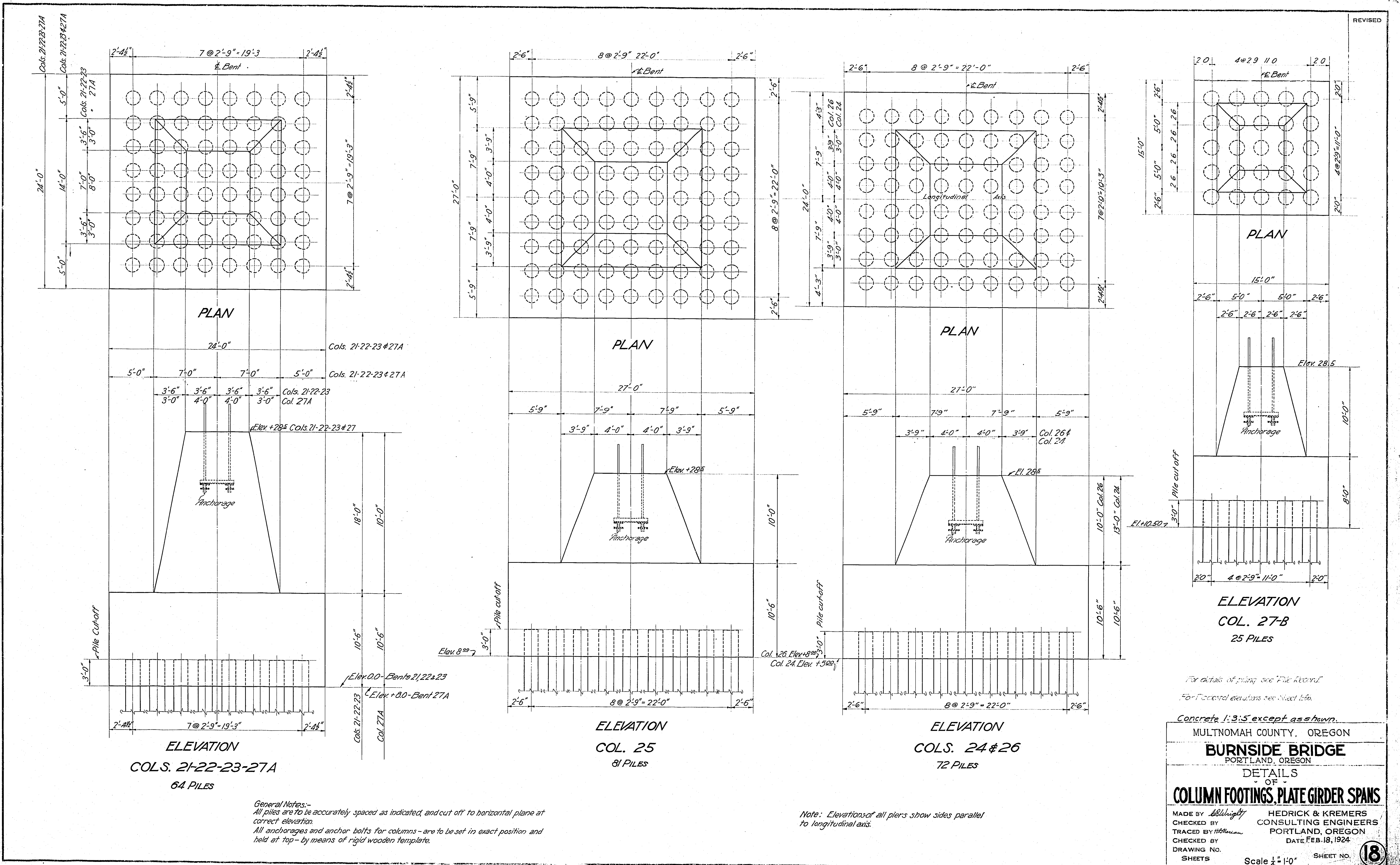
VOID-SEE SHEETS L-17 & L-6A.

All horizontal bars in walls to be bent around corners - 20 diameters.

All concrete 1:2:4 except roadway slabs & beams which are to be 1:1:2

MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
 DETAILS
 OF
EAST ABUT. TOWER-STEEL TRUSS

MADE BY *W.D. Smith* HEDRICK & KREMERS
 CHECKED BY *W.D. Smith* CONSULTING ENGINEERS
 TRACED BY *W.D. Smith* PORTLAND, OREGON
 CHECKED BY *W.D. Smith* DATE FEB. 21, 1924
 DRAWING NO. SHEETS SCALE-1/4"=1'-0" SHEET NO. **T17**



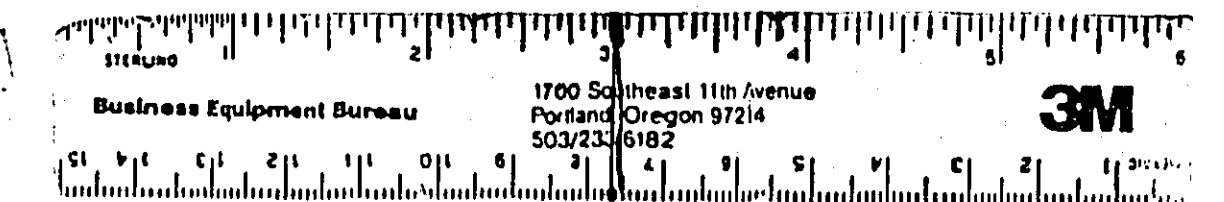
General Notes:
 All piles are to be accurately spaced as indicated, and cut off to horizontal plane at correct elevation.
 All anchorages and anchor bolts for columns - are to be set in exact position and held at top - by means of rigid wooden template.

Note: Elevations of all piers show sides parallel to longitudinal axis.

For details of piling see "File Record"
 For Elevation elevations see "Next Info"

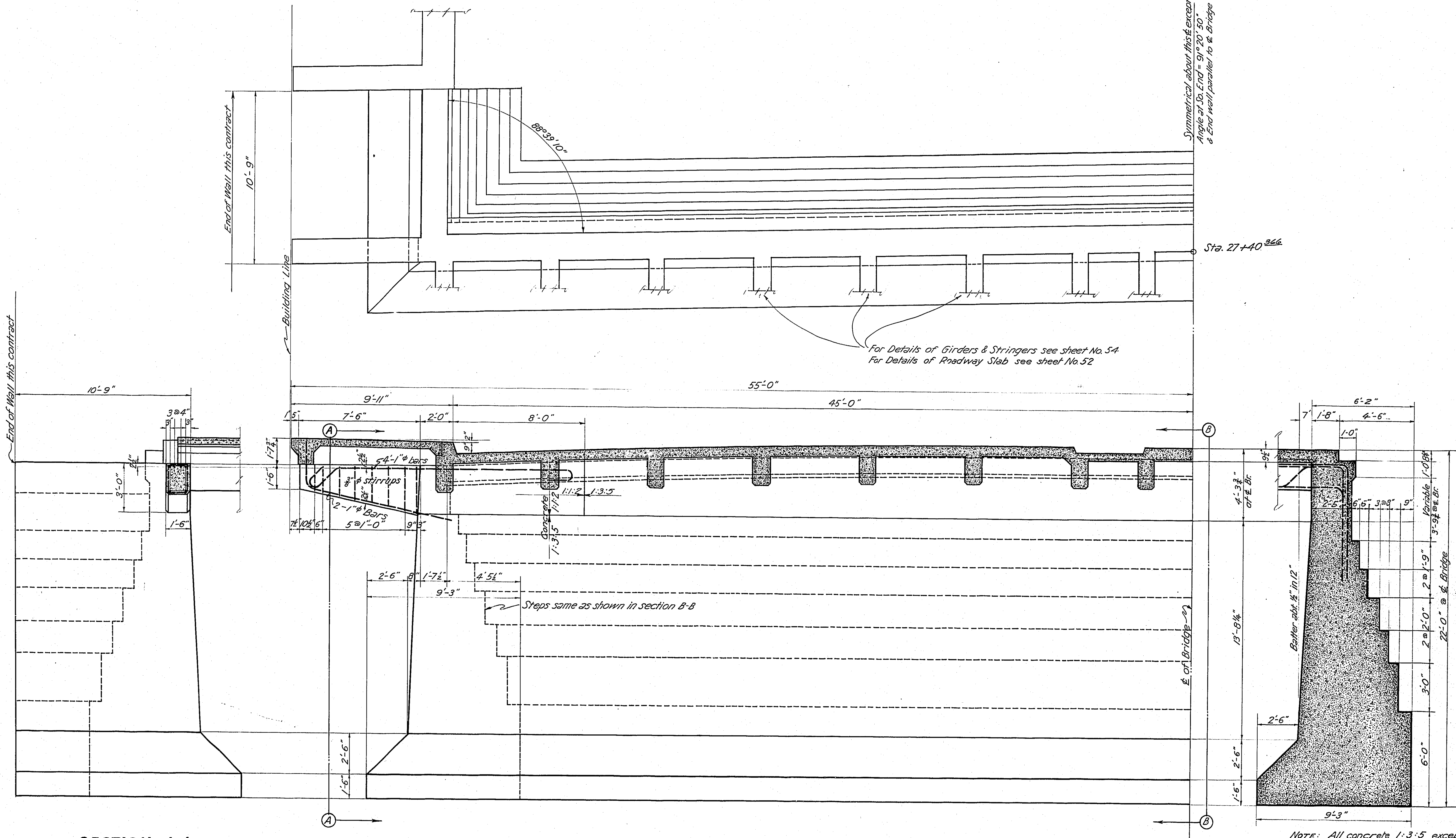
Concrete 1:3:5 except as shown.
 MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
 DETAILS
 OF
COLUMN FOOTINGS, PLATE GIRDER SPANS
 MADE BY *Blumly* HEDRICK & KREMERS
 CHECKED BY *W. H. ...* CONSULTING ENGINEERS
 TRACED BY *W. H. ...* PORTLAND, OREGON
 CHECKED BY *W. H. ...* DATE FEB. 18, 1924
 DRAWING NO. SHEETS Scale 1/4" = 1'-0" SHEET NO. **18**

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.



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SECTION A-A

SECTION B-B

ELEVATION
SCALE $\frac{3}{8}'' = 1'-0''$
All dimensions are at right angles to the Bridge

VOID - SEE SHEET L-75.

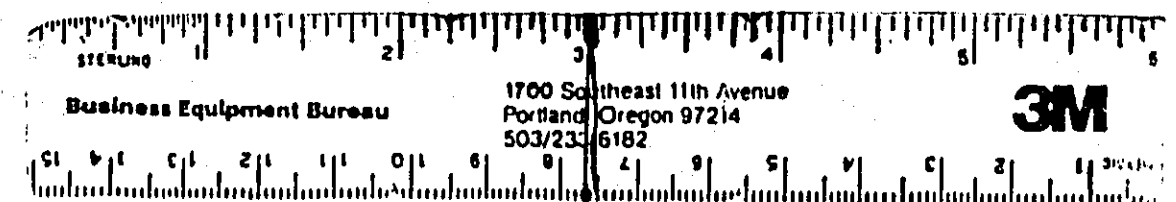
Note: All concrete 1:3:5 except as shown.

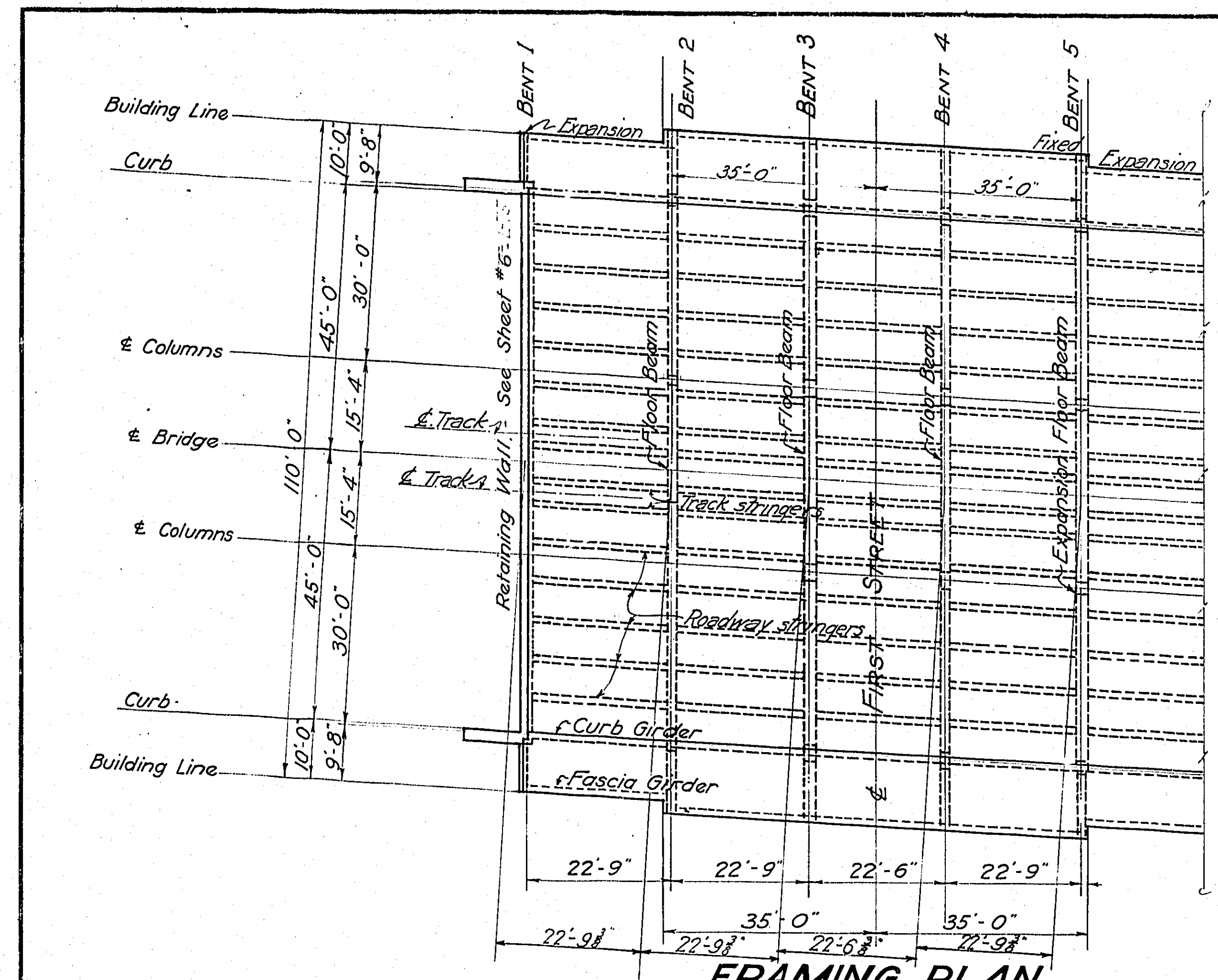
MULTNOMAH COUNTY - OREGON:
BURNSIDE BRIDGE
 PORTLAND OREGON

RETAINING WALL, EAST APPROACH

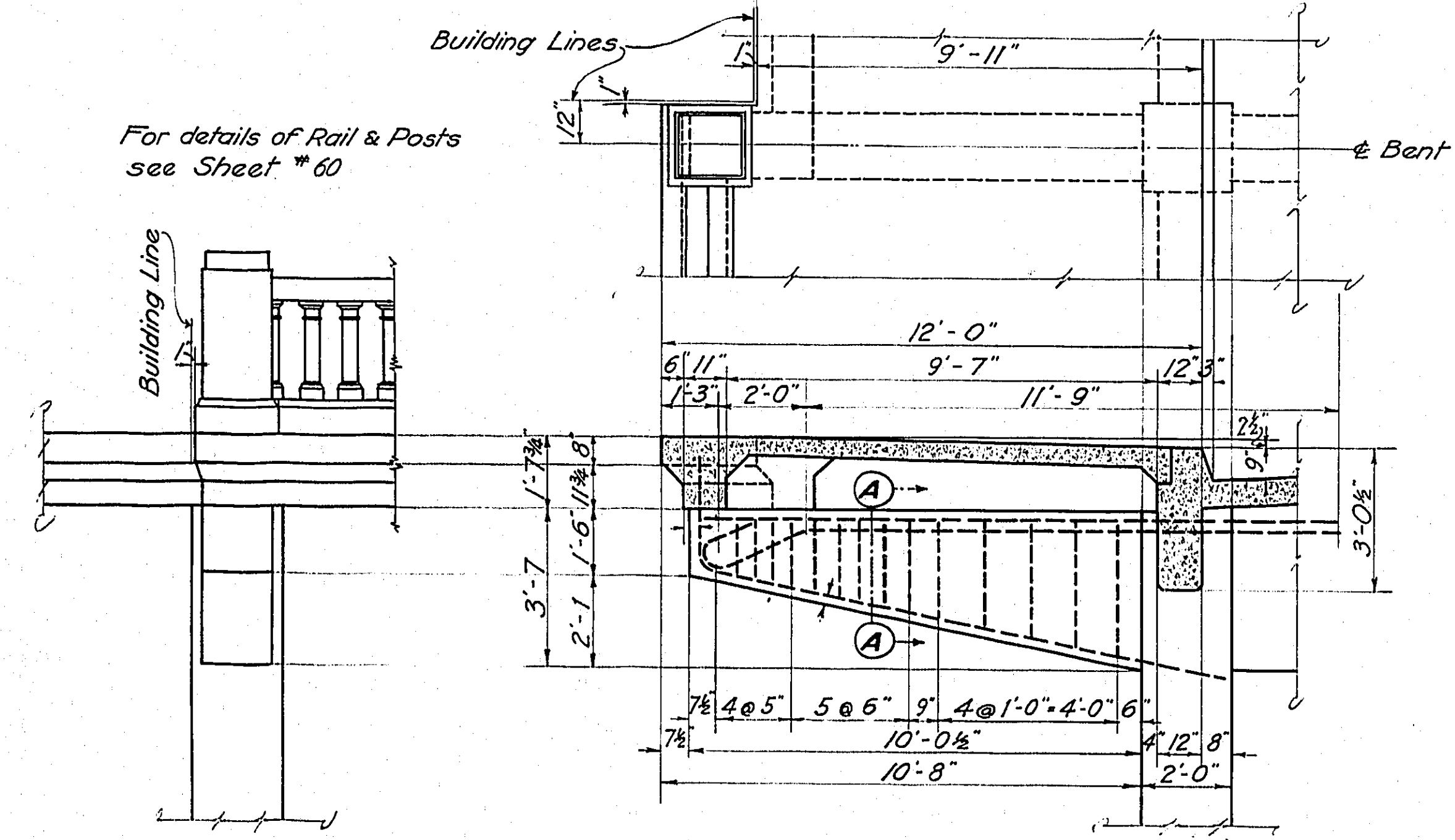
MADE BY *John J. ...* HEDRICK & KREMERS
 CHECKED BY *...* CONSULTING ENGINEERS
 TRACED BY *...* PORTLAND, OREGON
 CHECKED BY *...* DATE Feb. 16, 1924
 DRAWING NO. 61 SHEETS SCALE: $\frac{3}{8}'' = 1'-0''$ SHEET NO. **19**

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

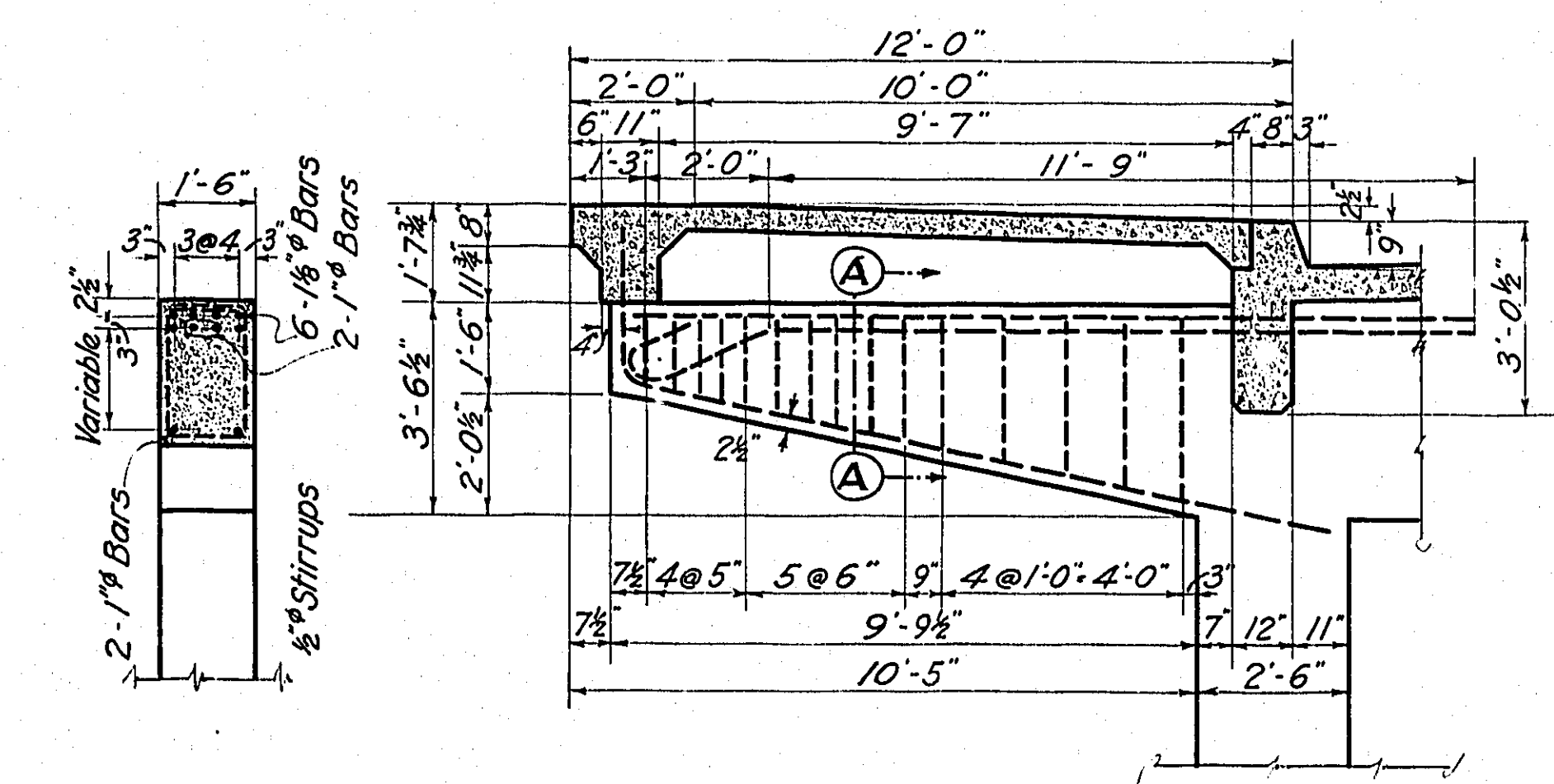




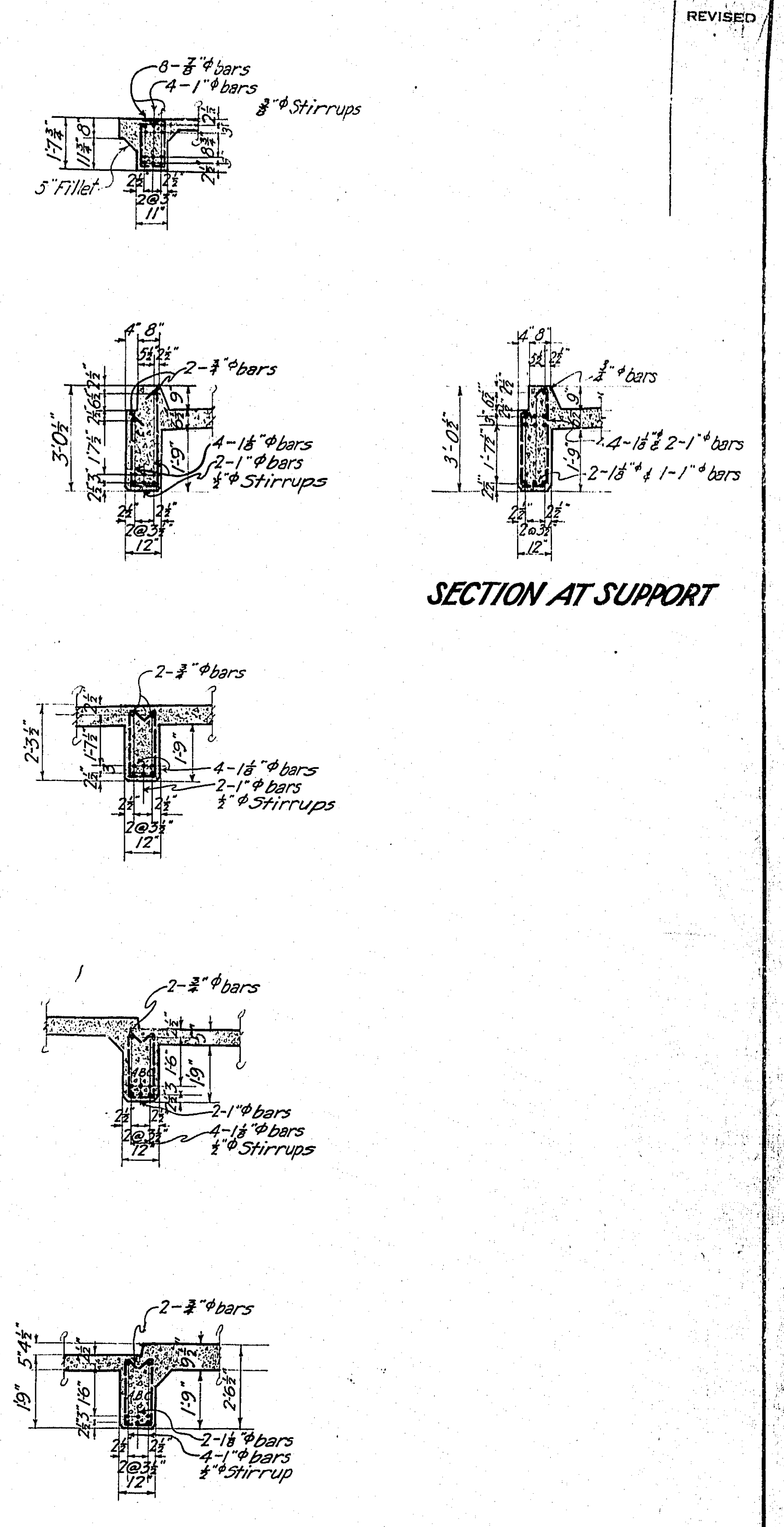
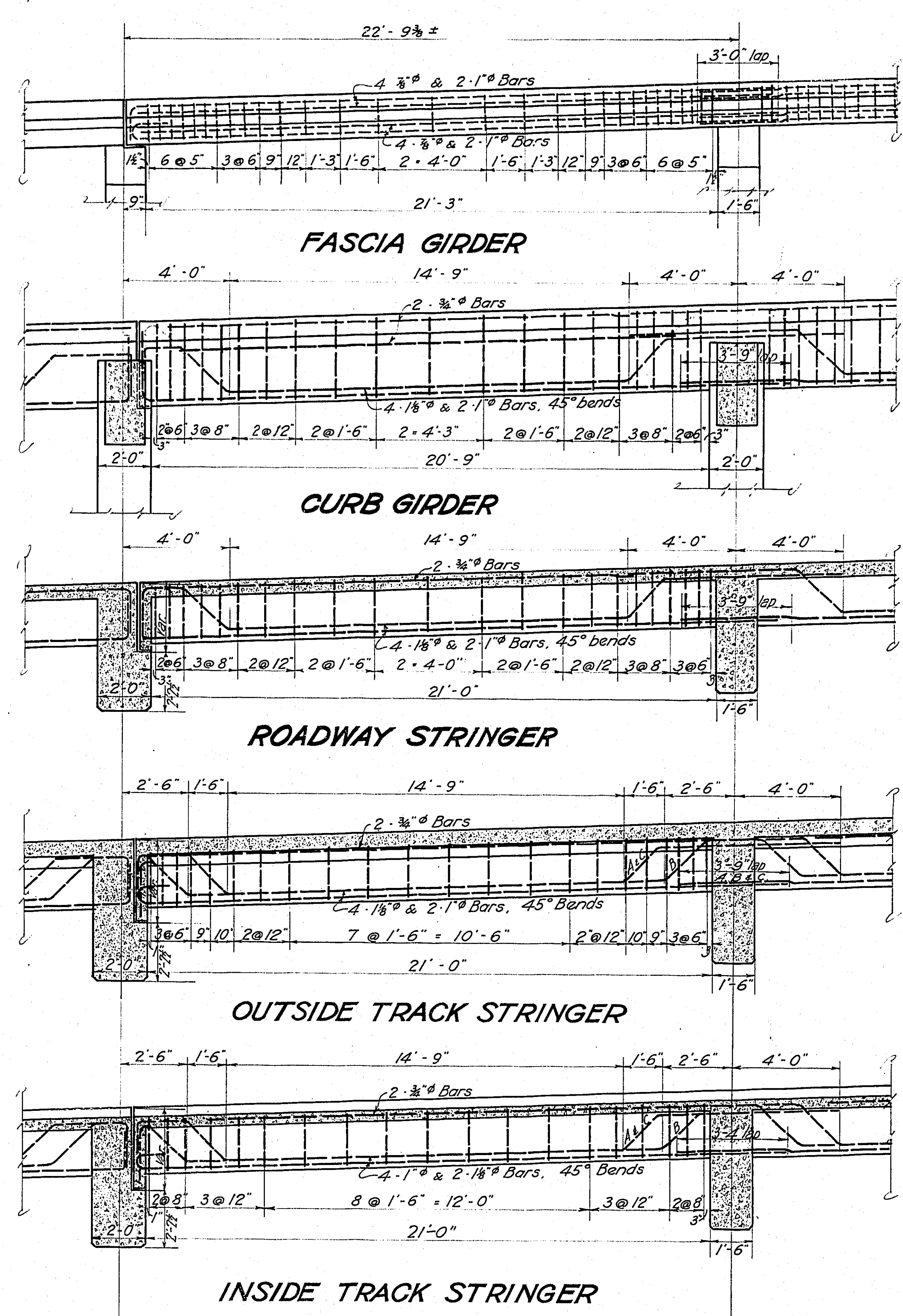
FRAMING PLAN



CANTILEVER BENTS 2 & 5



SECTION A-A CANTILEVER BENTS 3 & 4



SECTION AT SUPPORT

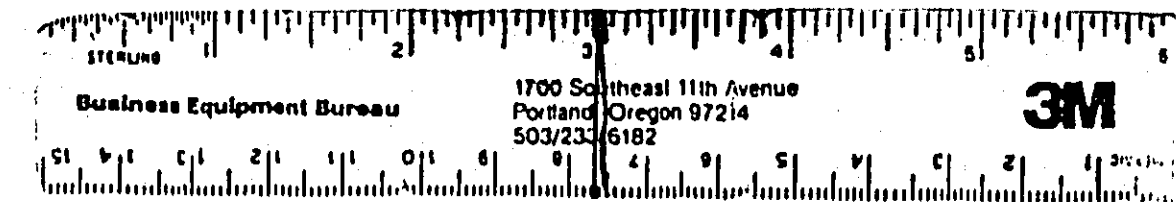
Note: The above details are typical for all spans from 1 to 11 and span 13. Actual length center to center of floor beams is shown on Framing Plan. Variations in length to be made at center of span.
 For Framing Plan - Bents 5 to 19 see Sheet #21 For Span 12 see Sheet #22
 For Floor Beams - Spans 1 to 13 see Sheet #21

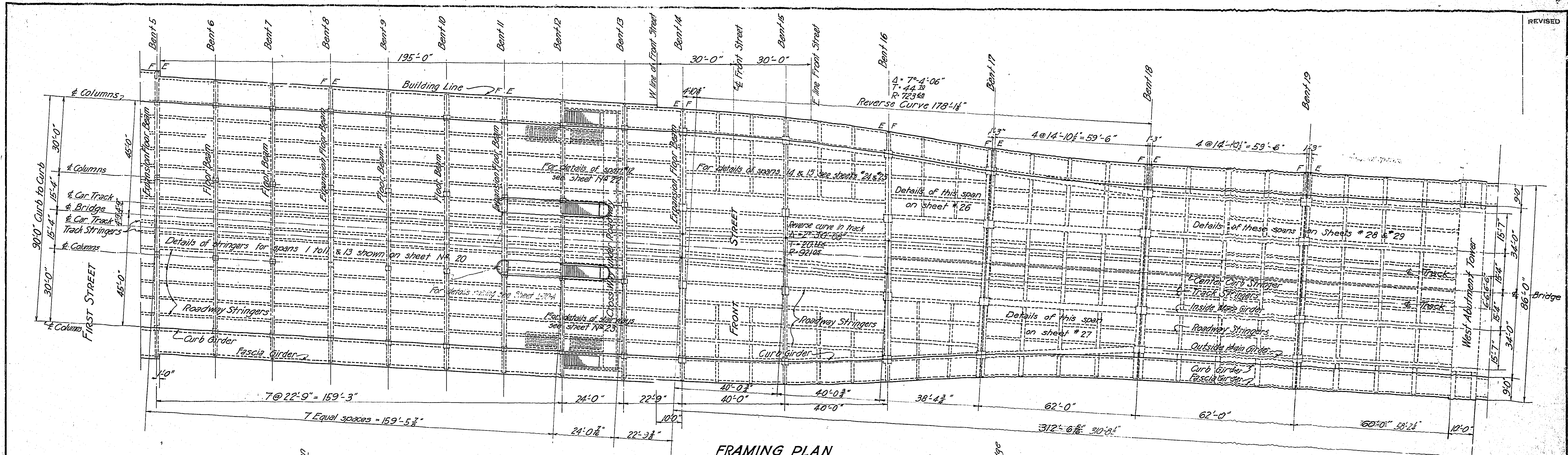
All concrete 1:1.2

MULTNOMAH COUNTY - OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
 DETAILS OF
SPANS 1-13, STRINGERS
FIRST ST. CROSSING

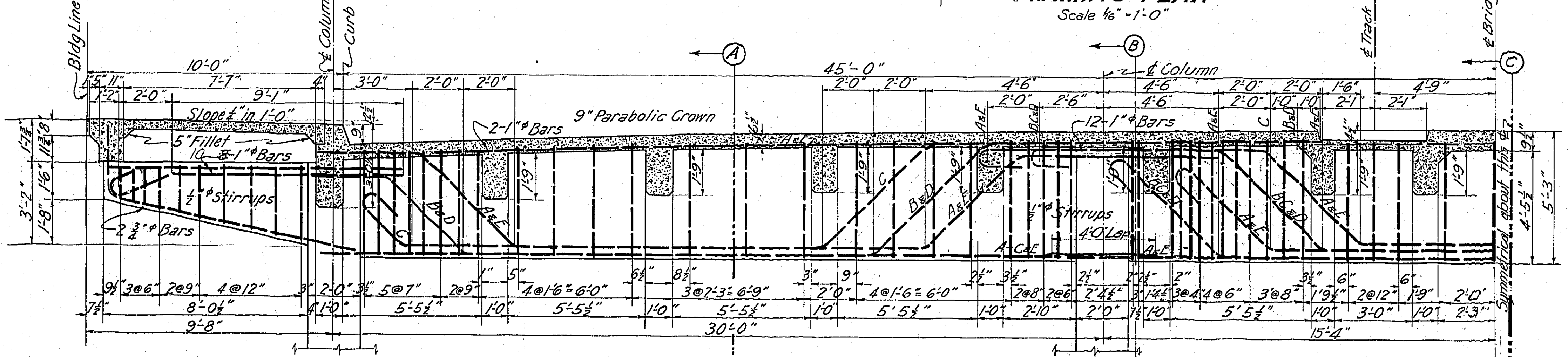
MADE BY: *[Signature]*
 CHECKED BY: *[Signature]*
 TRACED BY: *[Signature]*
 CHECKED BY: *[Signature]*
 DRAWING NO. _____
 61 SHEETS SCALE 3/8" = 1'-0" SHEET NO. **20**

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.





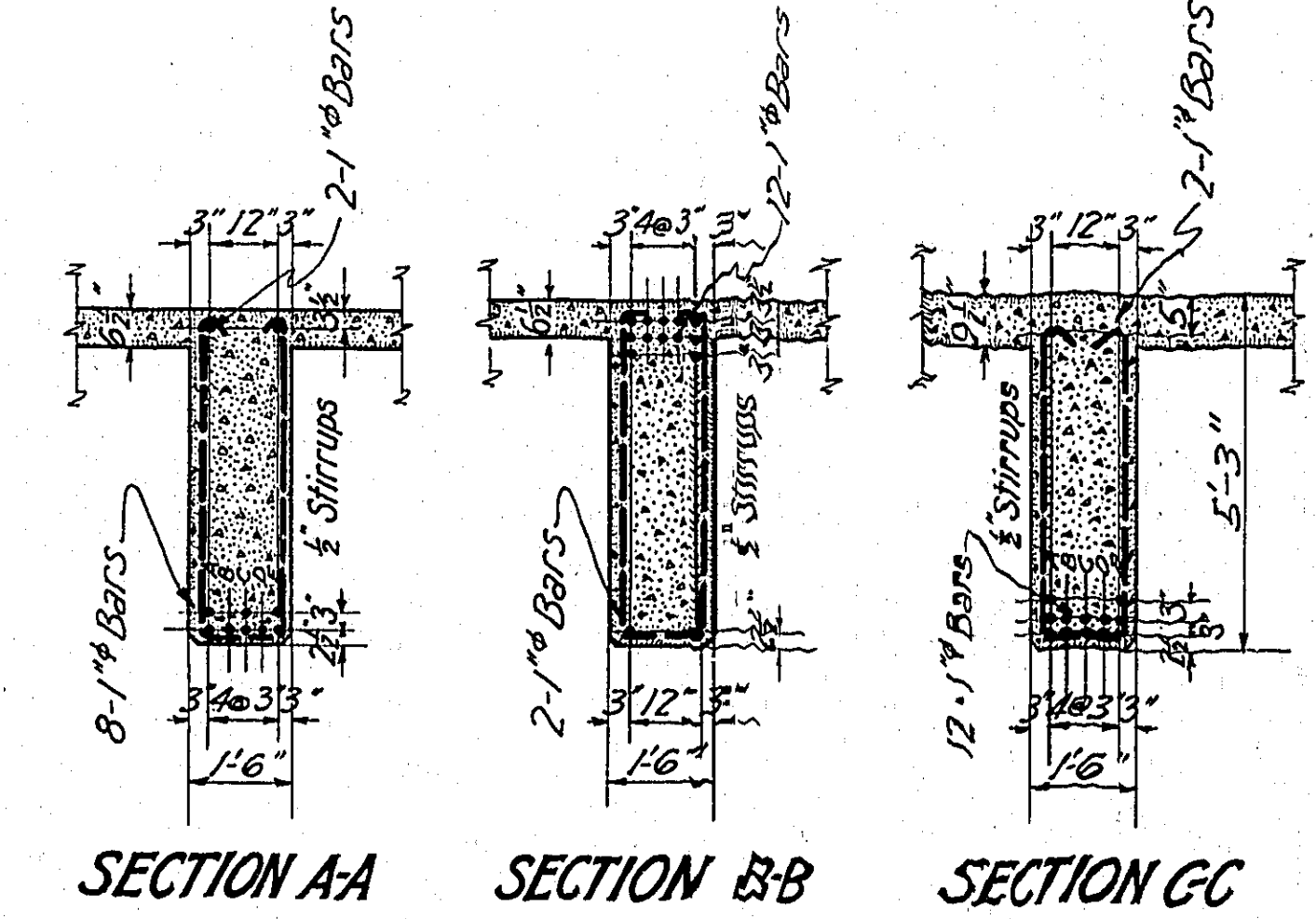
FRAMING PLAN
Scale 1/8" = 1'-0"



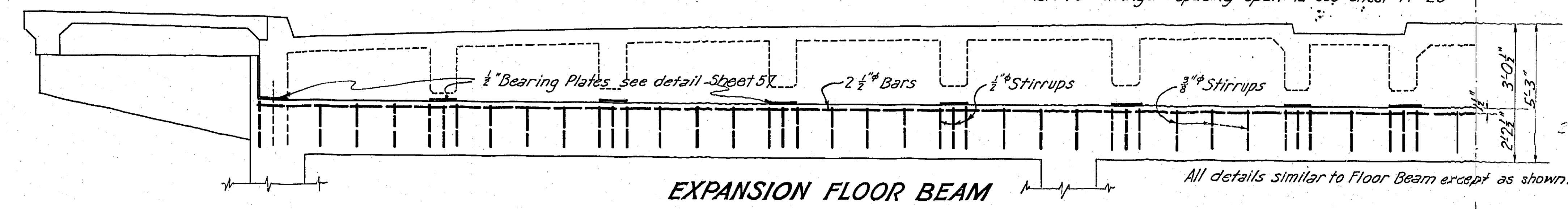
FLOOR BEAM
Scale 3/8" = 1'-0"

Note: For cantilevers at bents 2 to 5 see sheet No 20

Note: For stringer spacing span #12 see sheet No 23

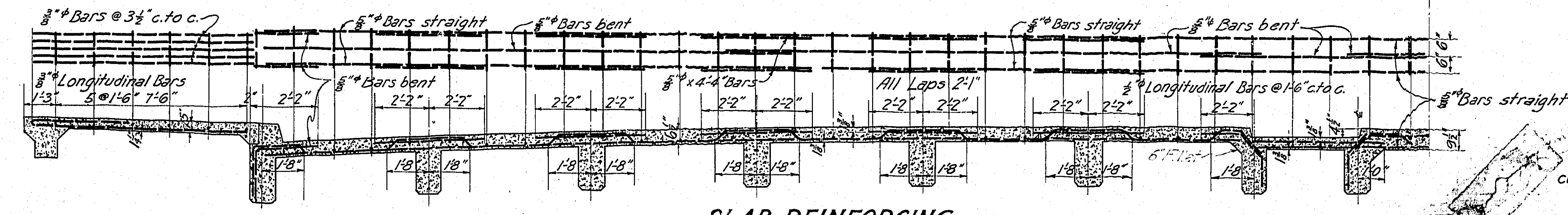


SECTION AA SECTION BB SECTION CC

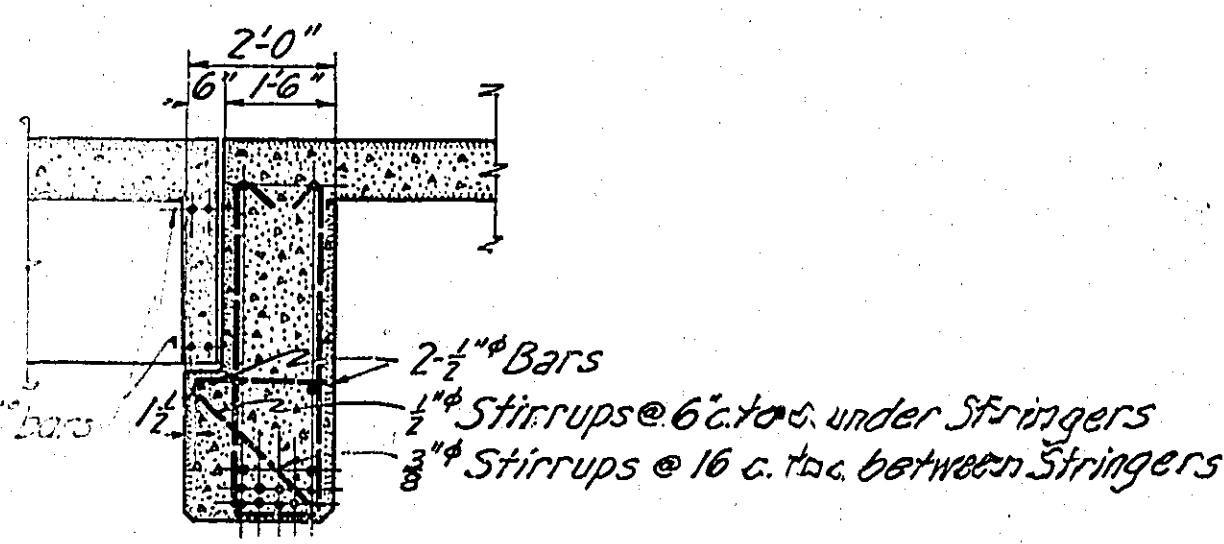


EXPANSION FLOOR BEAM

All details similar to Floor Beam except as shown.



SLAB REINFORCING



SECTION AT

For details of rail fastenings & center curb armor see sheet 57

Concrete 1:1:2

MULTNOMAH COUNTY - OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF
FRAMING PLAN BENTS 5-19
FLOOR BEAMS SPANS 1-B

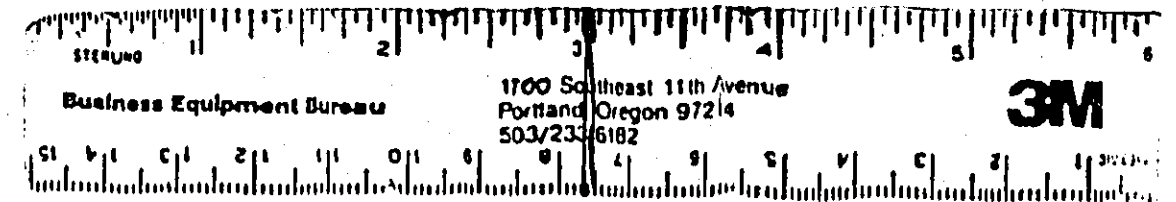
MADE BY HEDRICK & KREMERS
CHECKED BY CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 14, 1924

DRAWING NO. SHEETS

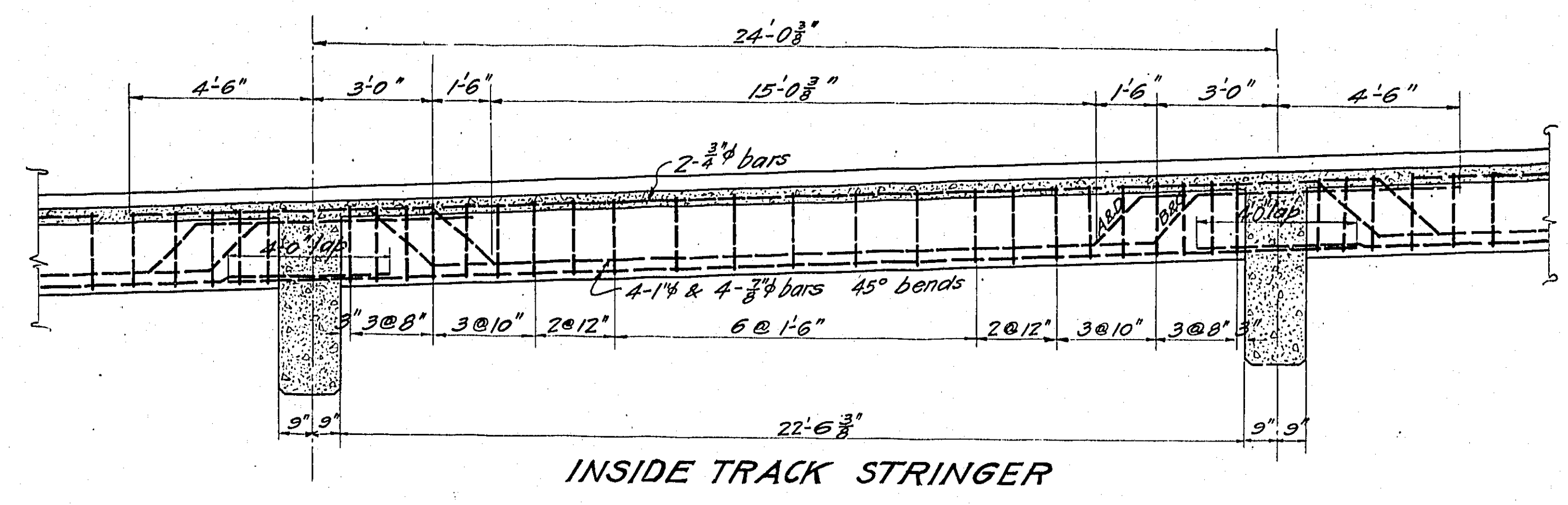
SCALE 3/8" = 1'-0"

REVISIONS

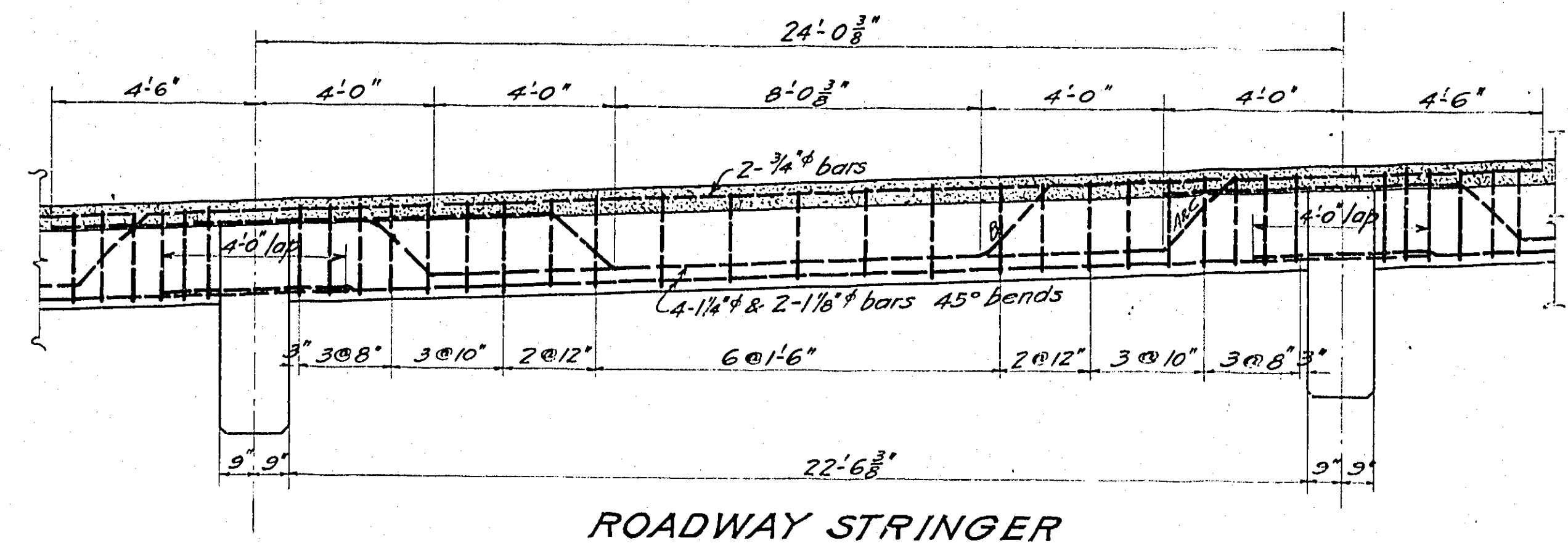
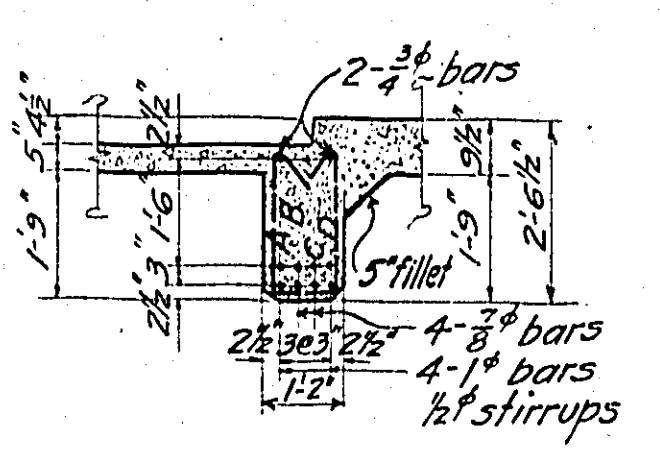
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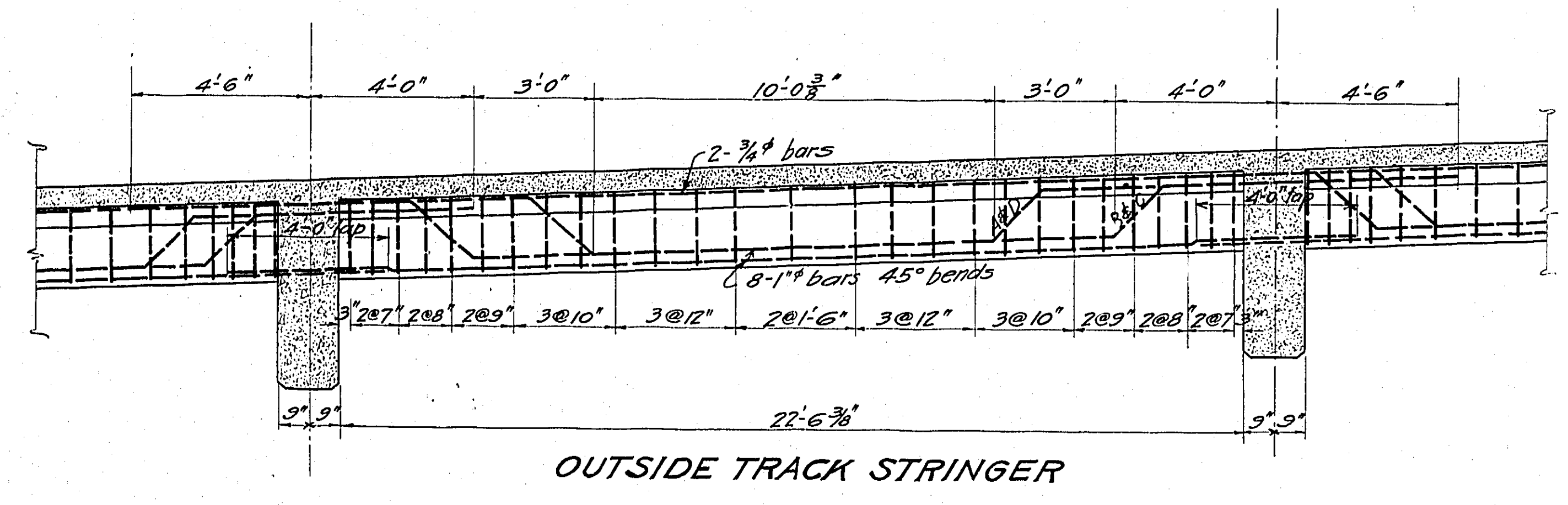
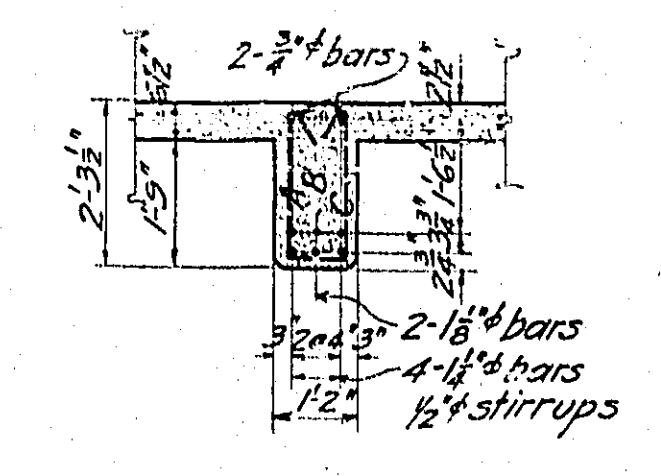
REVISED



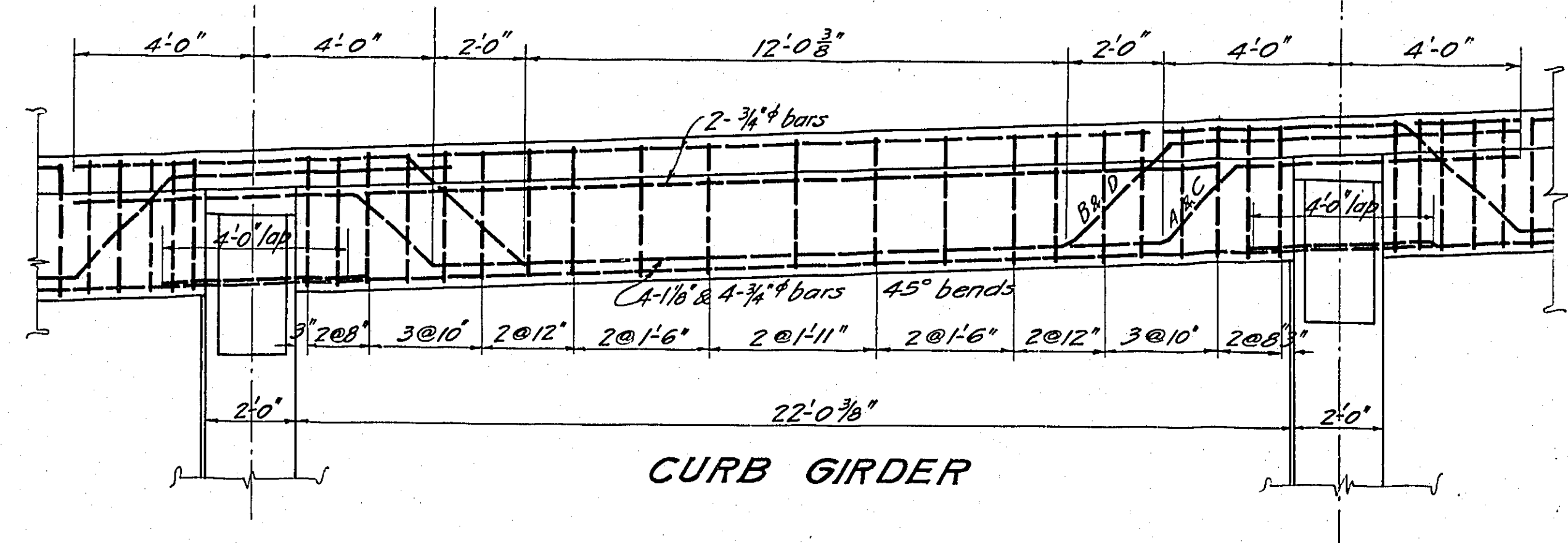
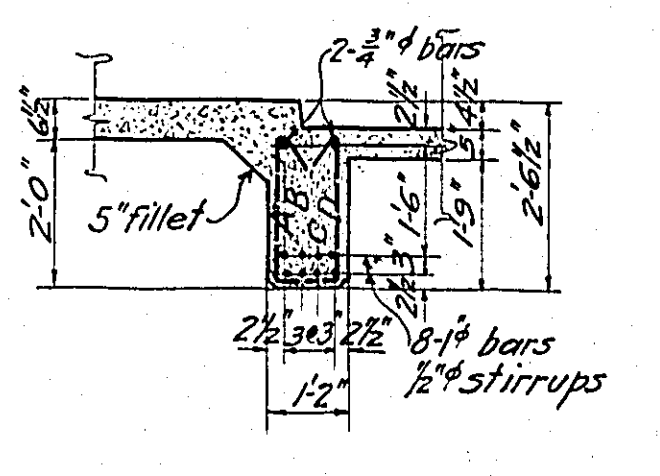
INSIDE TRACK STRINGER



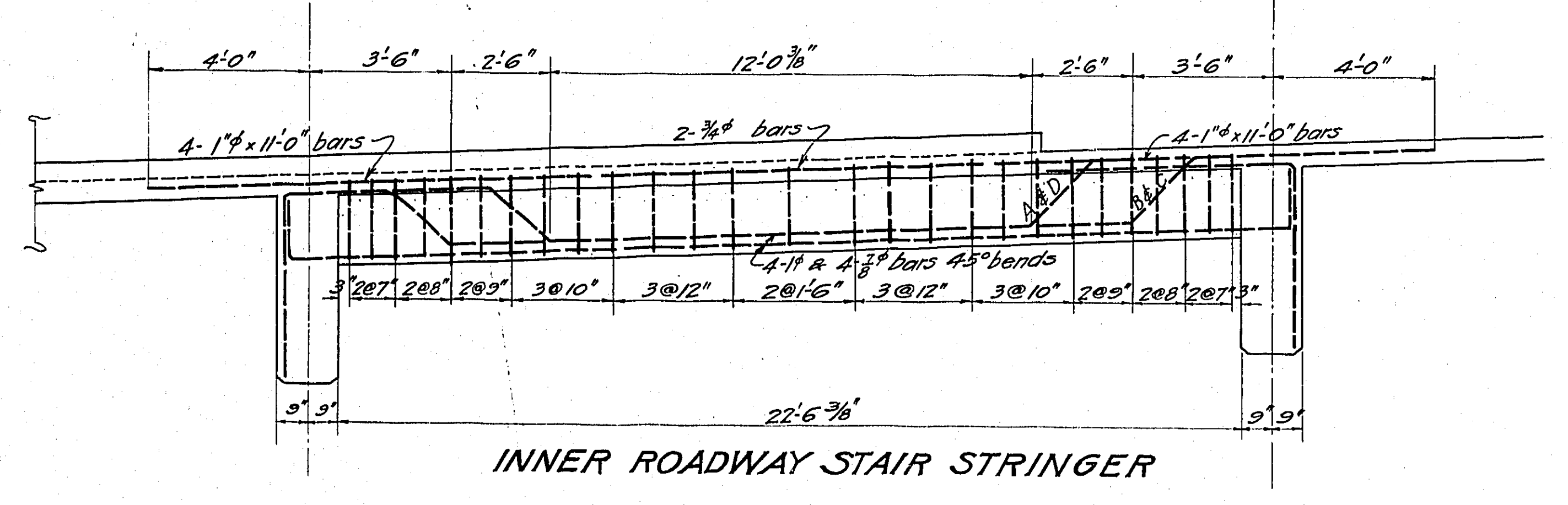
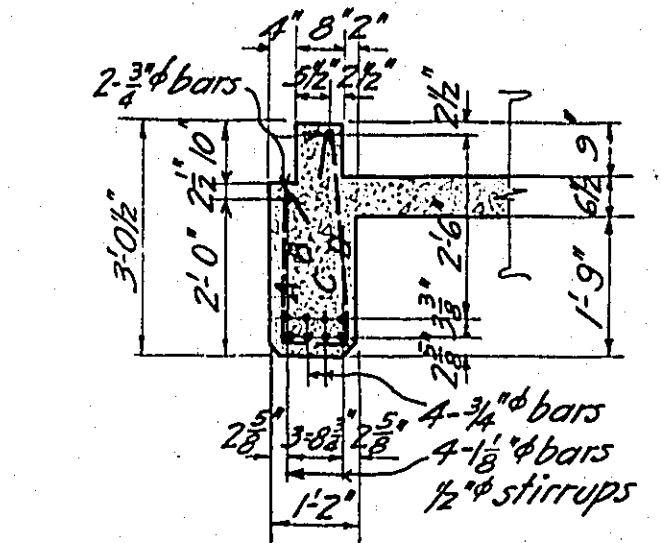
ROADWAY STRINGER



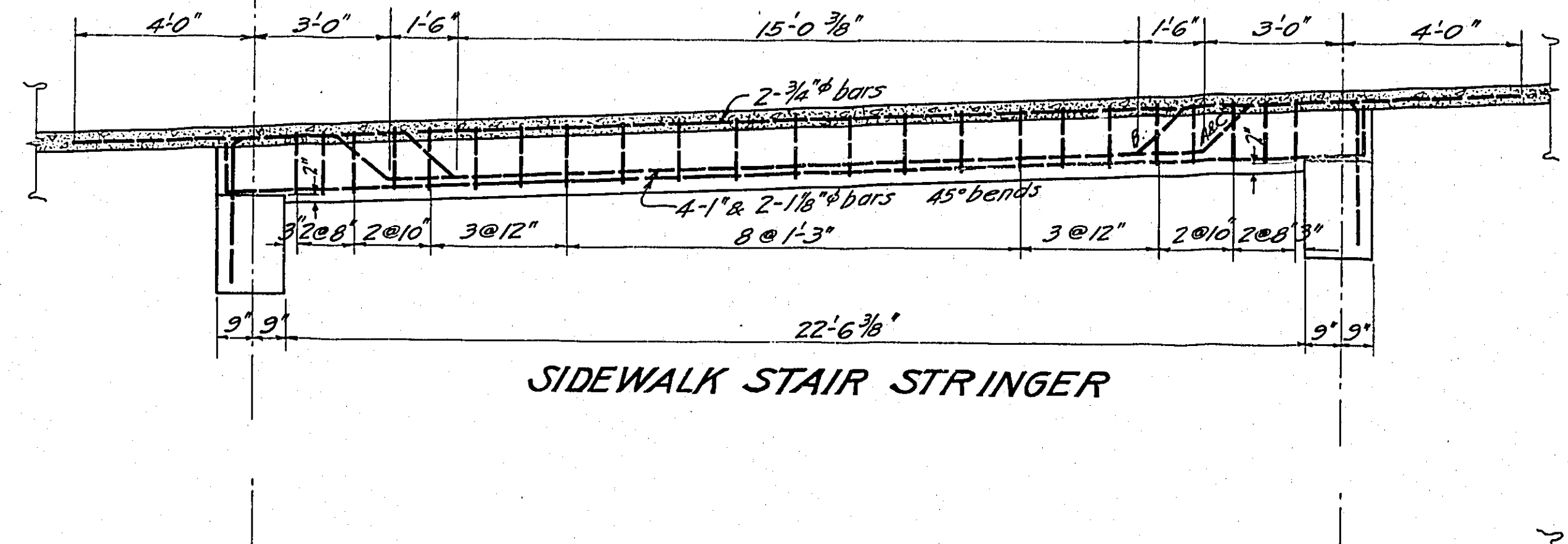
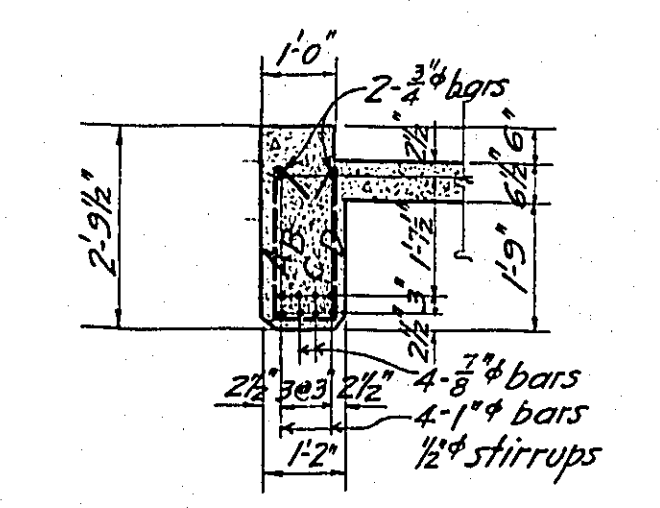
OUTSIDE TRACK STRINGER



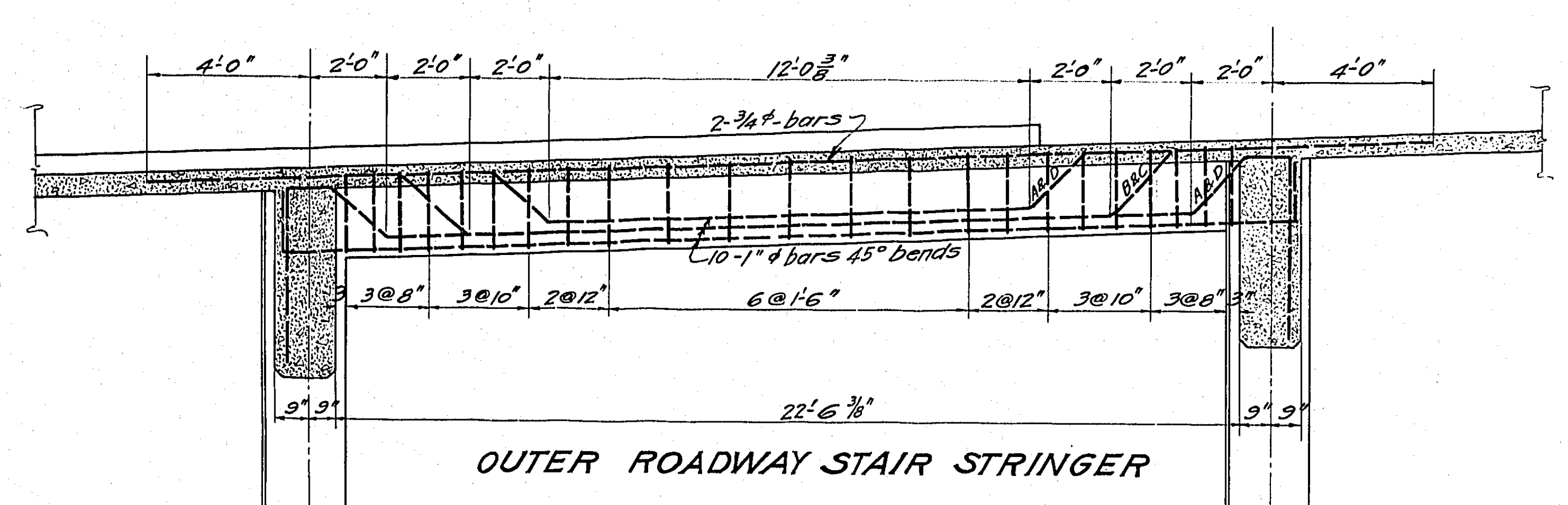
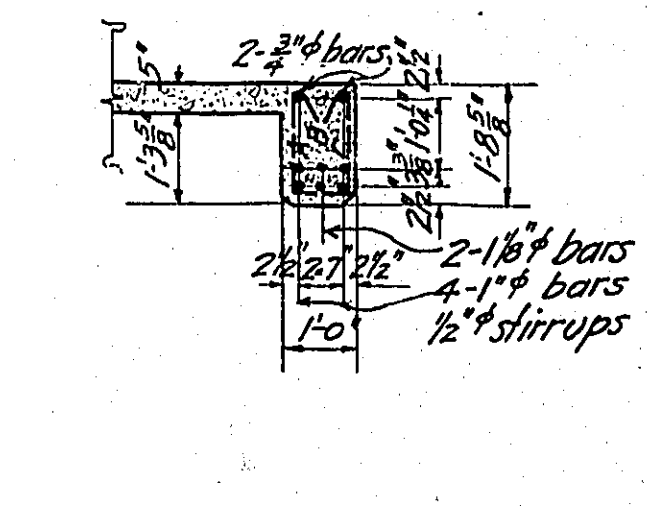
CURB GIRDER



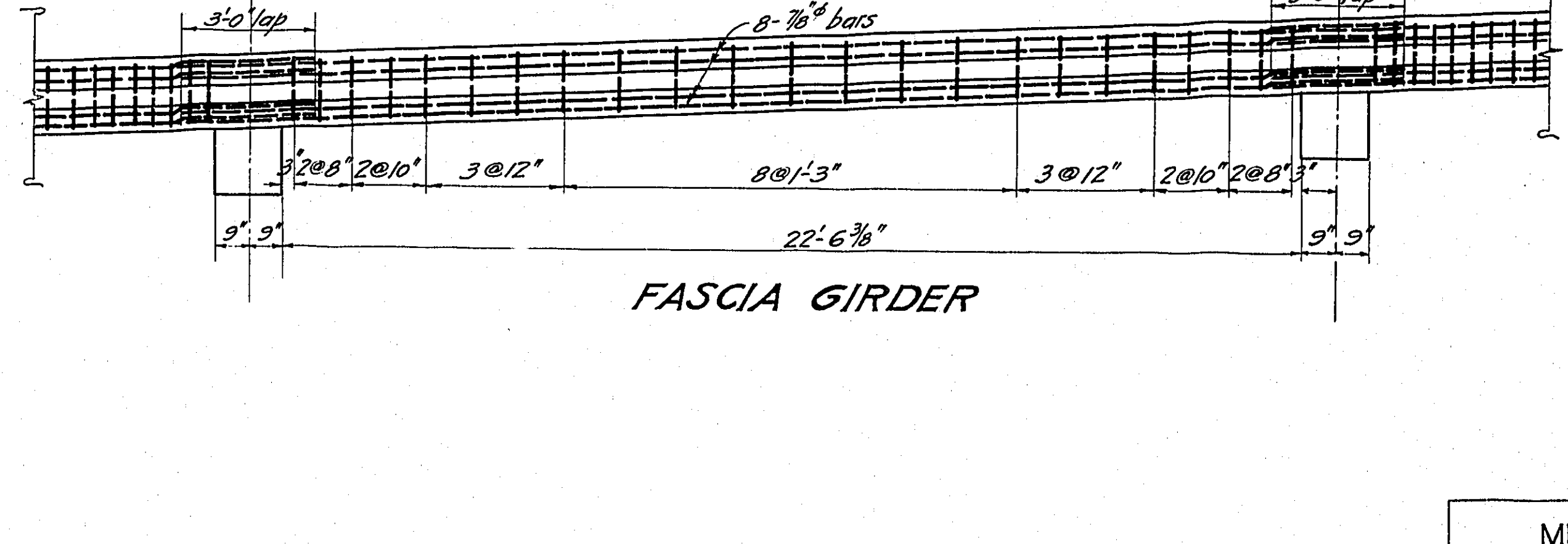
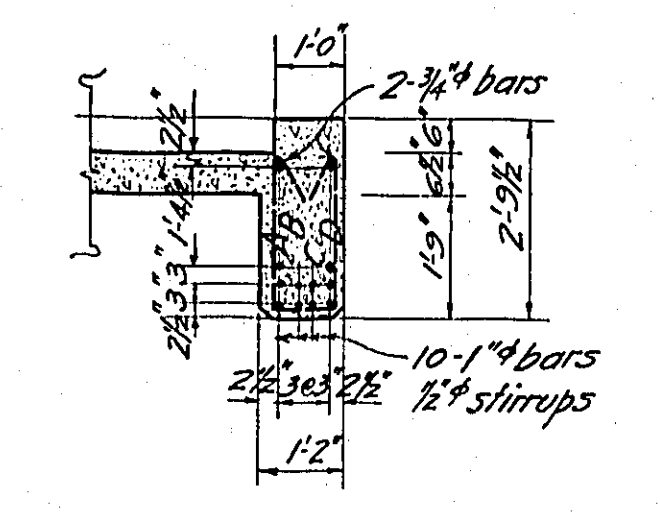
INNER ROADWAY STAIR STRINGER



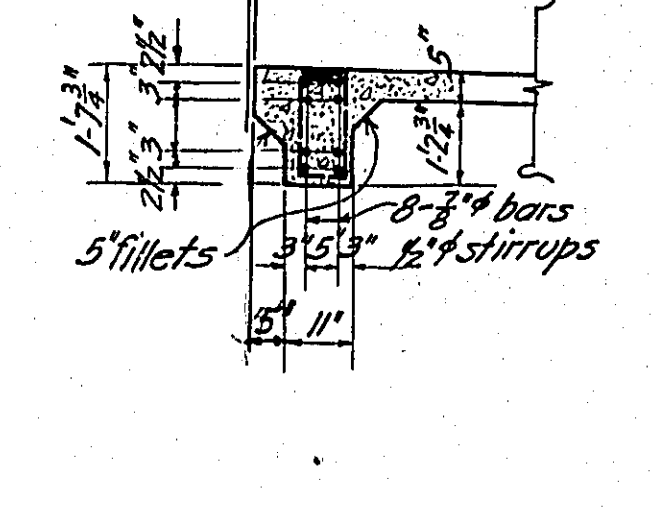
SIDEWALK STAIR STRINGER



OUTER ROADWAY STAIR STRINGER



FASCIA GIRDER

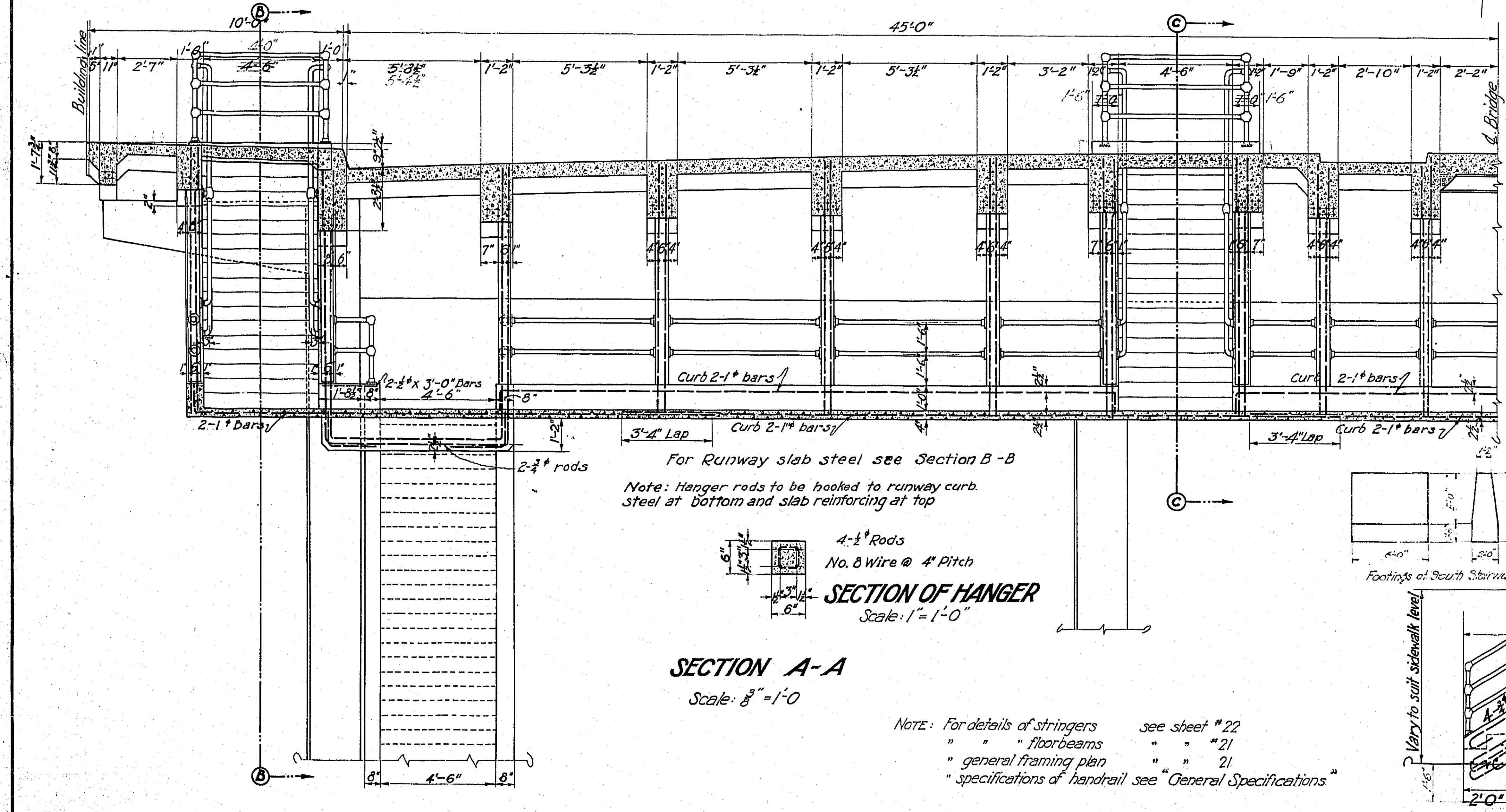
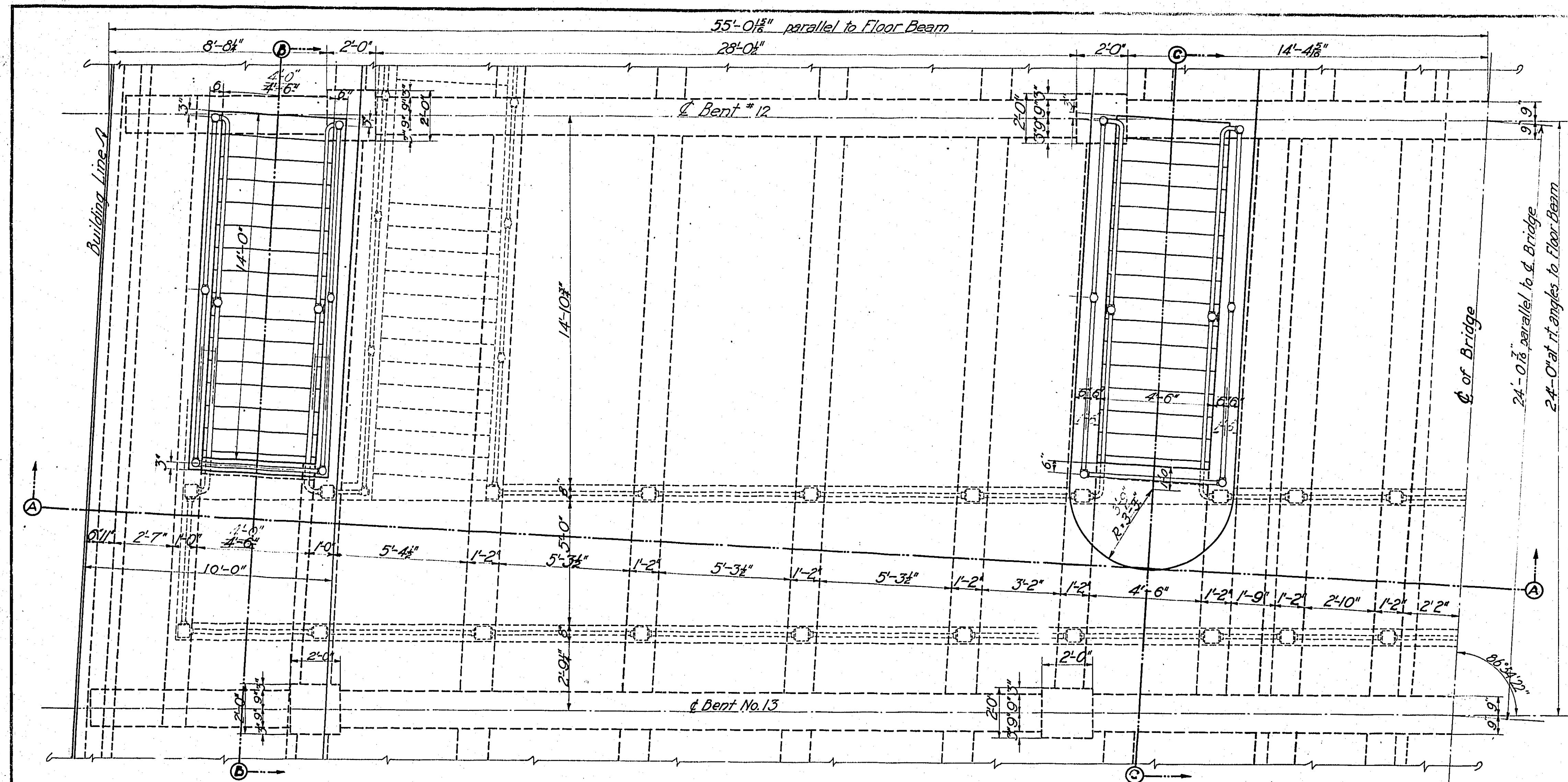


All Concrete 1-1-2
MULT NOMAH COUNTY, OREGON
BURNSIDE BRIDGE
PORTLAND, OREGON
DETAILS
OF
SPAN 12
MADE BY *AWL* HEDRICK & KREMERS
CHECKED BY *AWL* CONSULTING ENGINEERS
TRACED BY *AWL* PORTLAND, OREGON
CHECKED BY *AWL* DATE: Feb 7, 1924
DRAWING NO. SHEET No. 22
61 SHEETS Scale: 3/8"=1'-0" 23

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

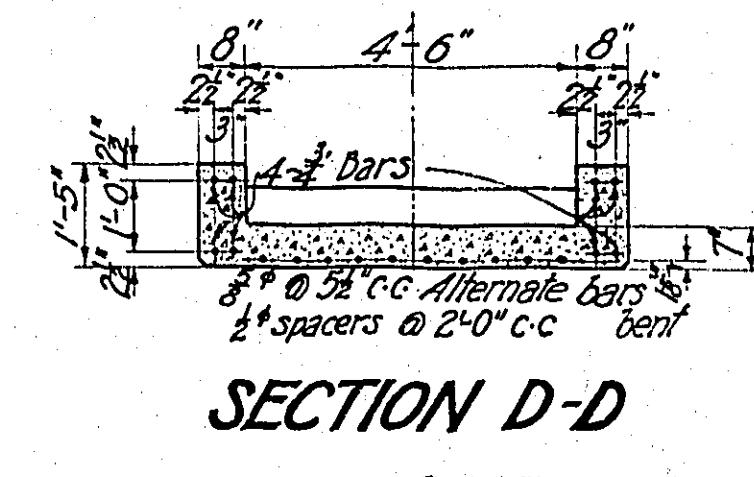
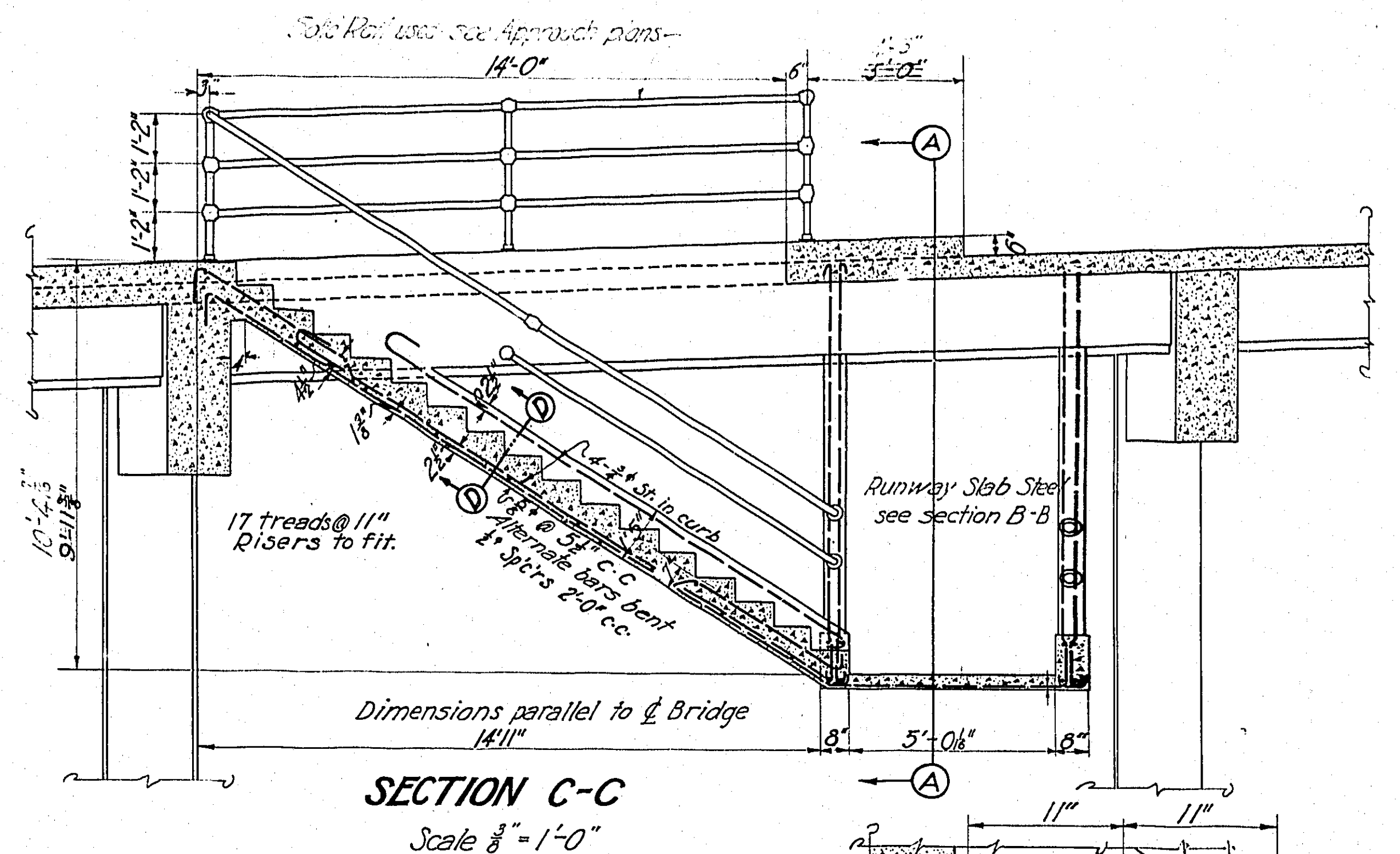


REVISED

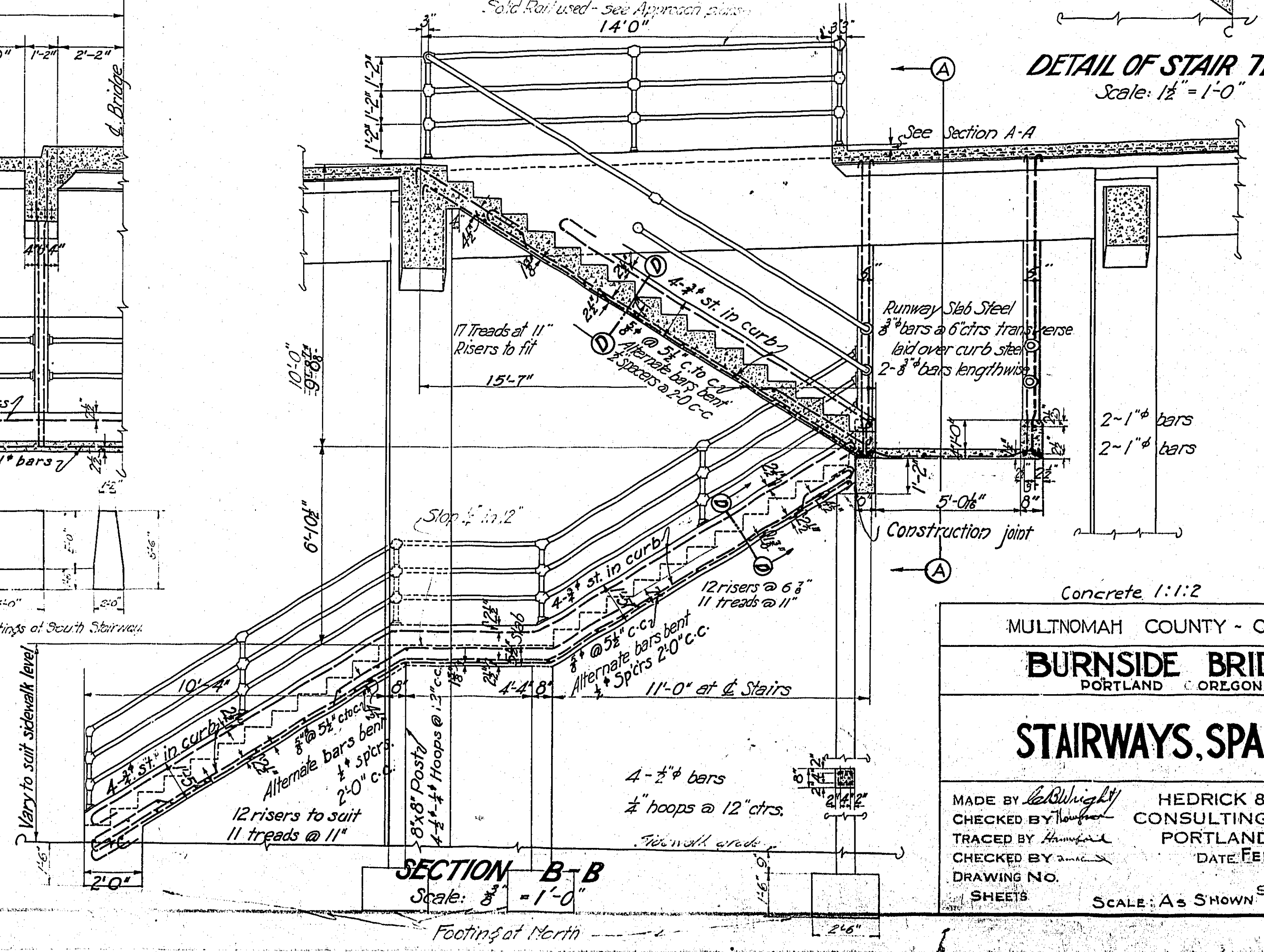
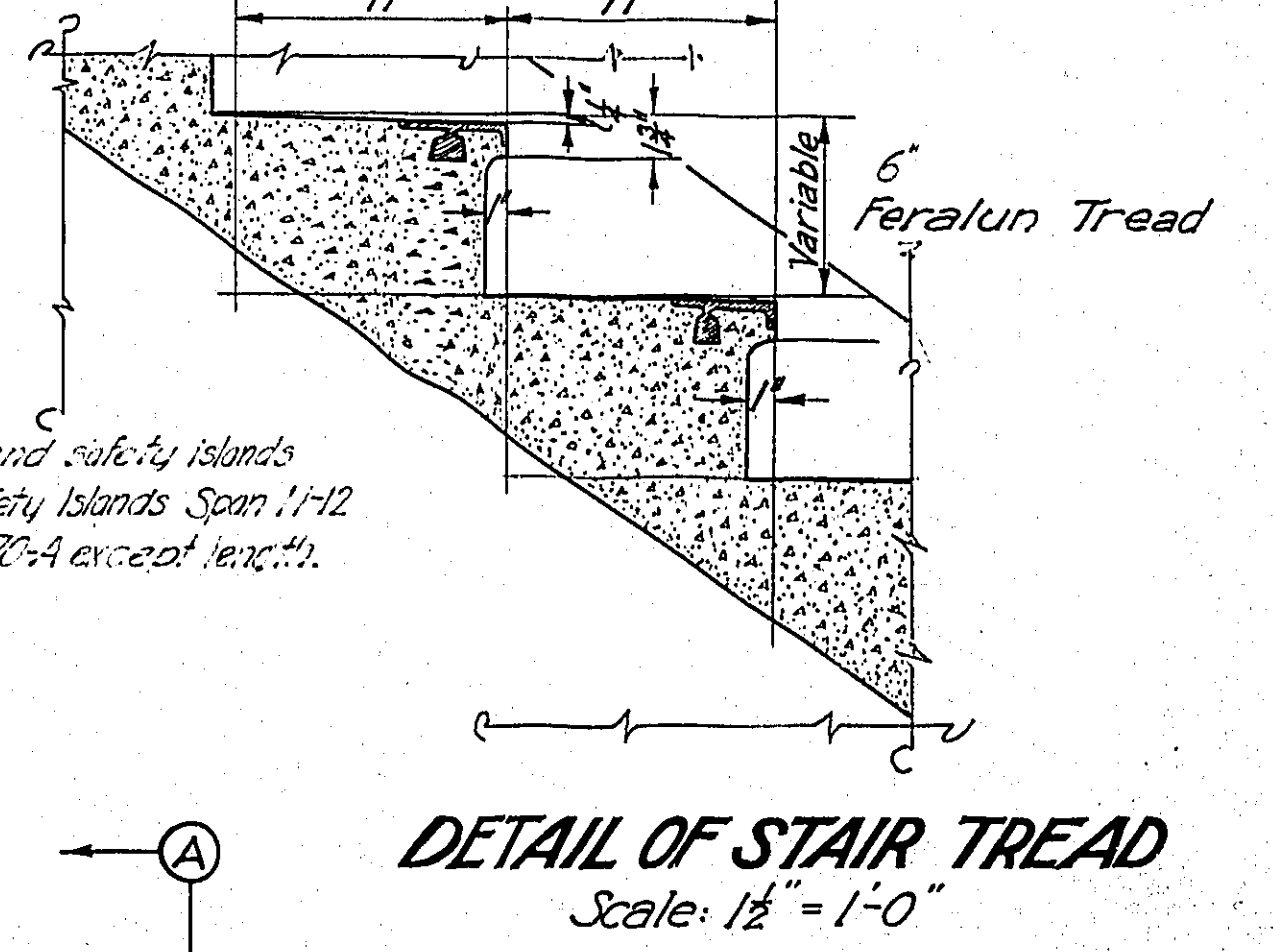


For Runway slab steel see Section B-B
Note: Hanger rods to be hooked to runway curb steel at bottom and slab reinforcing at top

Note: For details of stringers see sheet "22"
" floorbeams " " 21"
" general framing plan " " 21"
" specifications of handrail see "General Specifications"



For details of railings and safety islands see Sheets L-72A & L-74, Safety Islands, Span 11-12 similar to those on Sheet L-72-A except length.



MULTNOMAH COUNTY - OREGON
BURNSIDE BRIDGE
PORTLAND, OREGON

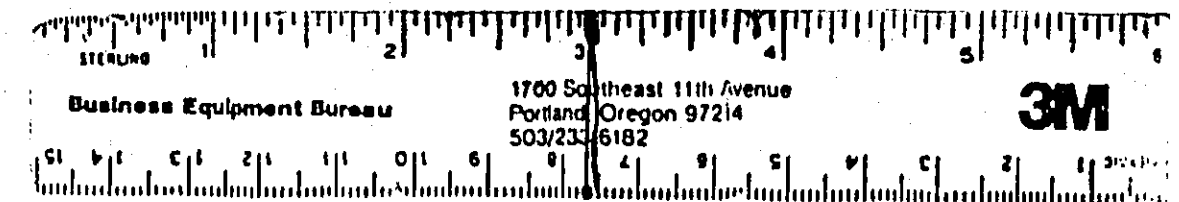
STAIRWAYS, SPAN 12

MADE BY *Edwin H. Hedrick*
CHECKED BY *Wm. H. Kreamer*
TRACED BY *Wm. H. Kreamer*
CHECKED BY *Wm. H. Kreamer*
DRAWING NO. _____
SHEETS _____ SHEET NO. **23**

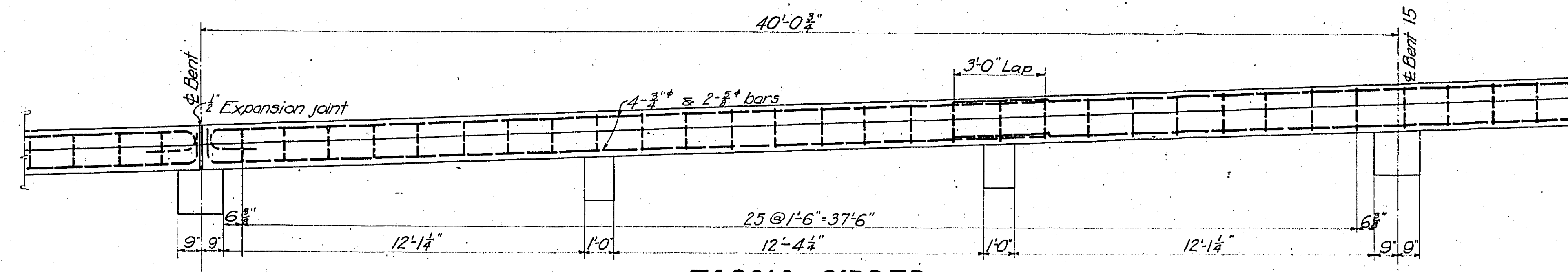
HEDRICK & KREAMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 18, 1924

SCALE: AS SHOWN

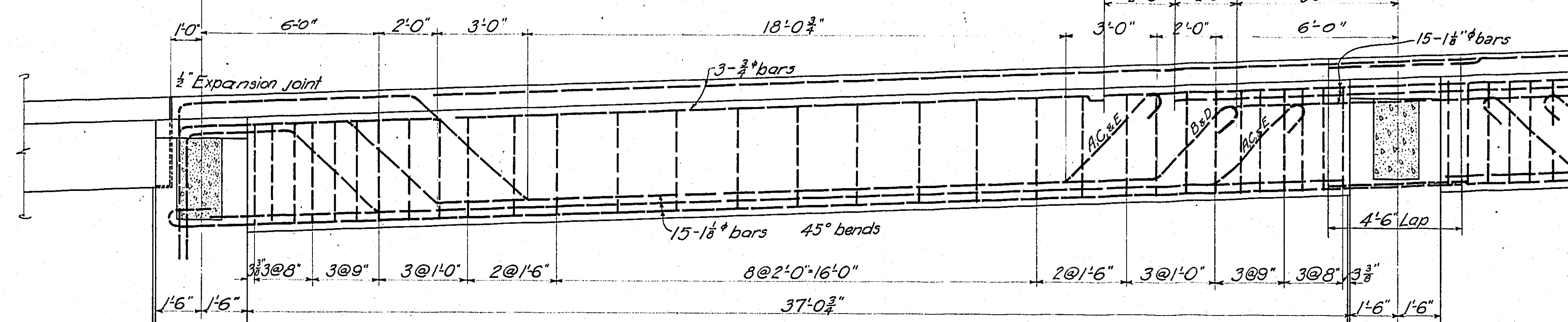
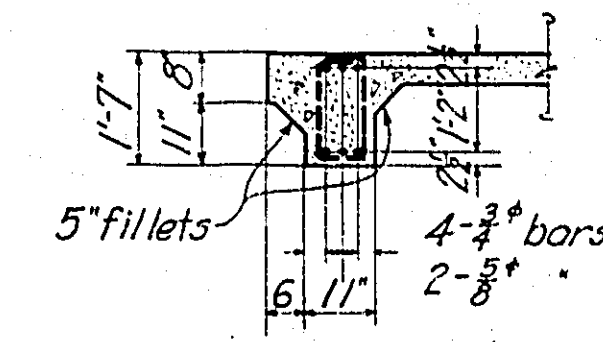
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.



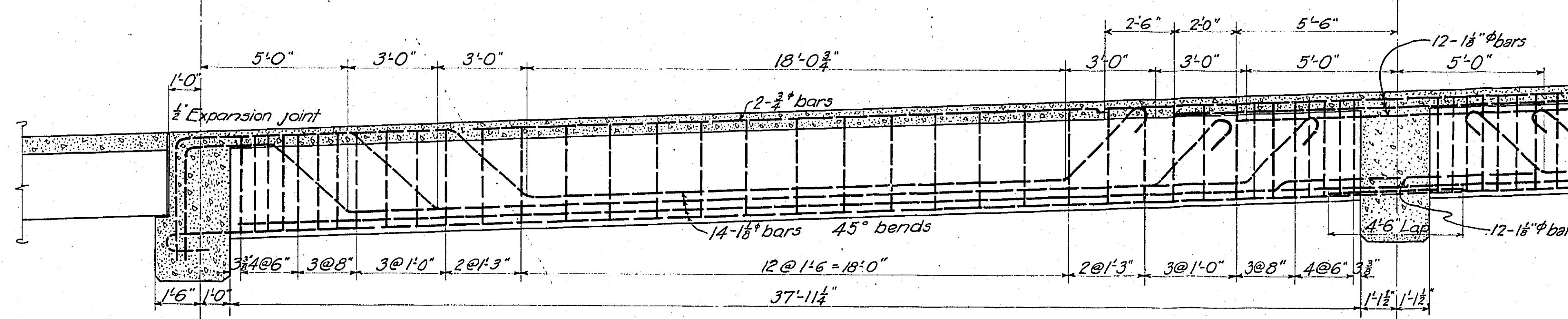
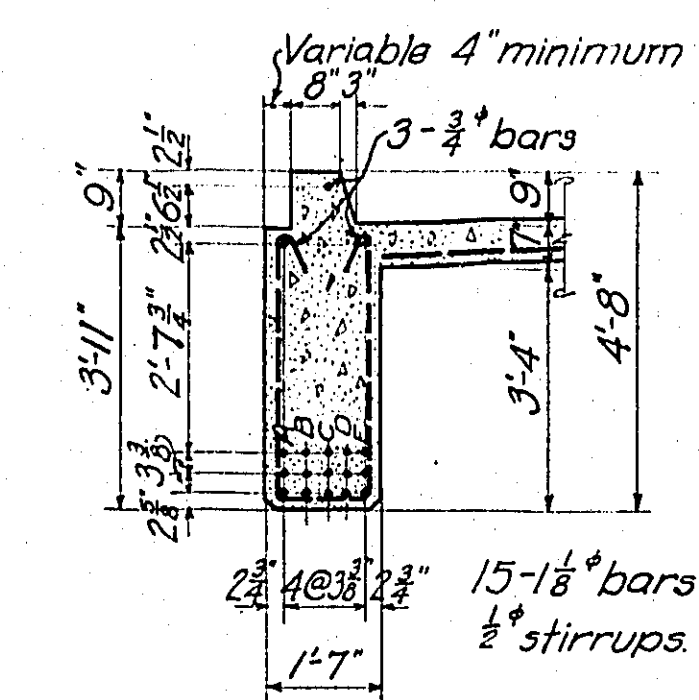
REVISED



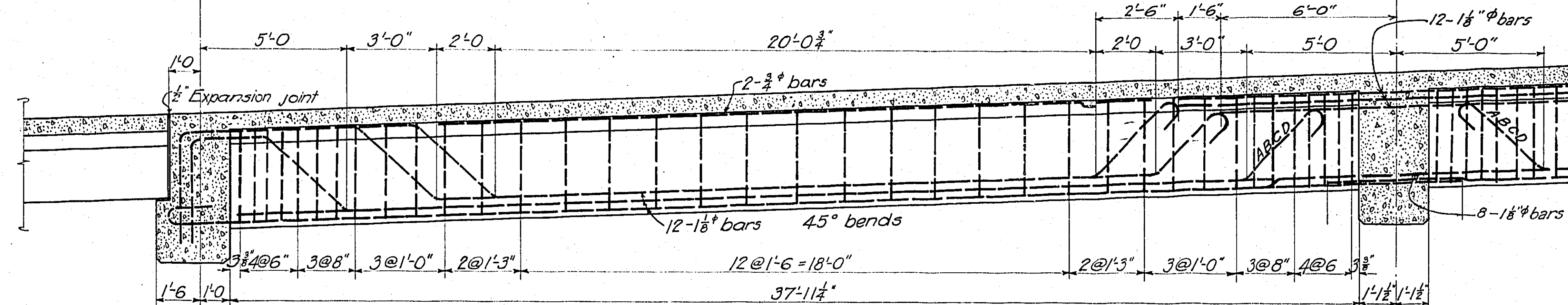
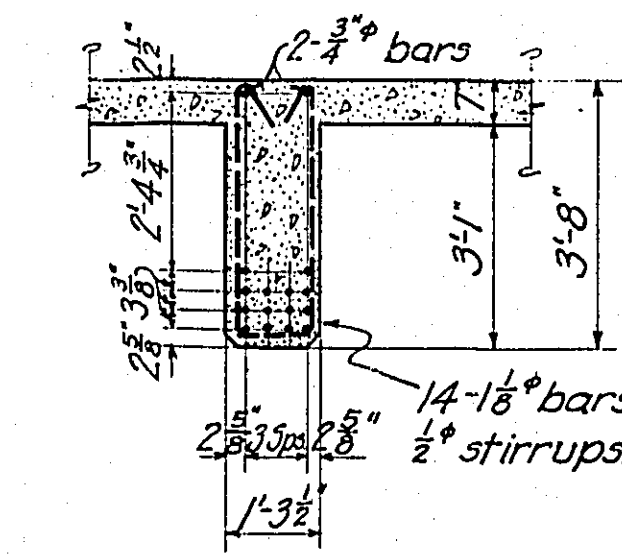
FASCIA GIRDER



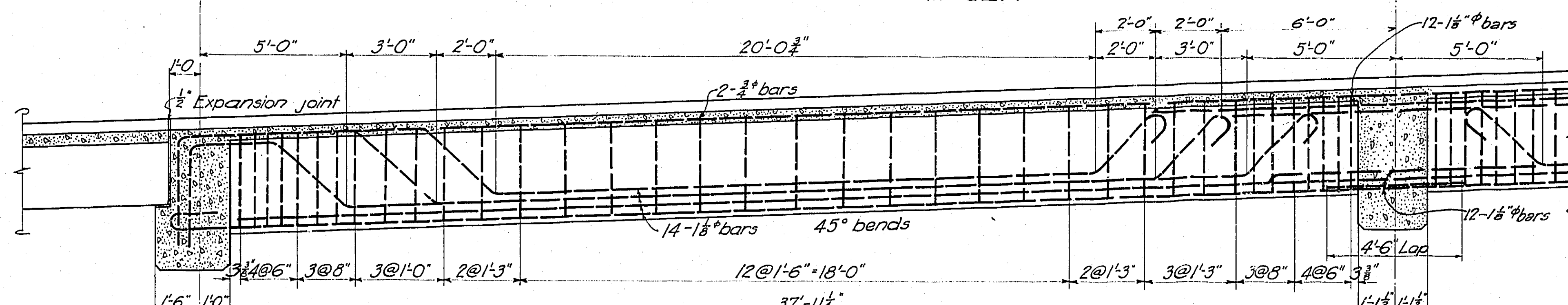
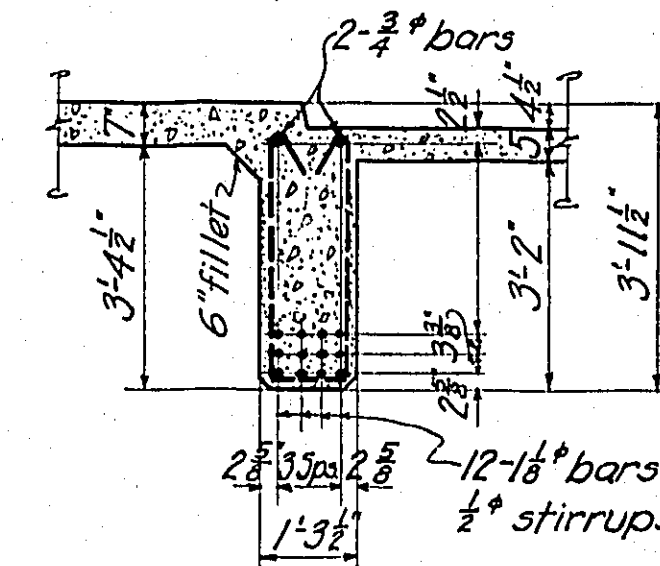
CURB GIRDER



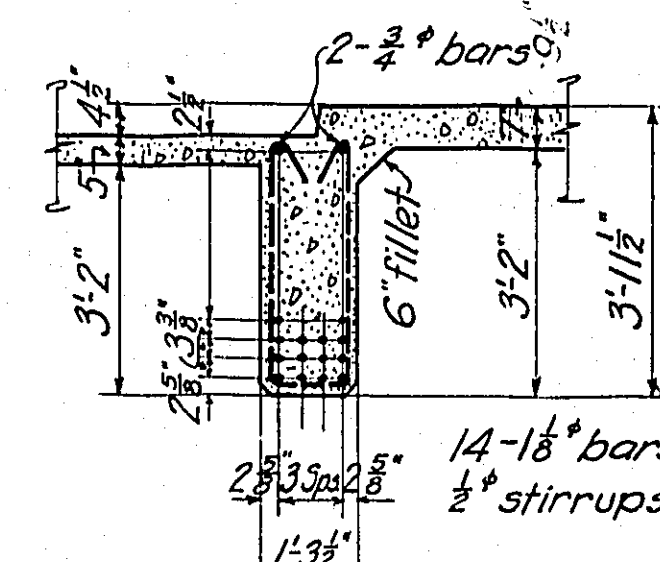
ROADWAY STRINGER



OUTSIDE TRACK STRINGER



INSIDE TRACK STRINGER



Stringers Symmetrical about C Bent 15

All dimensions parallel to C Bridge

For Floor Beams see Sheet #25
For General Framing Plan see Sheet #21
For details of rail fastenings and center curb armor see sheet 57.

Concrete 1:1:2

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS
OF
STRINGERS SPANS 14, 15

MADE BY *[Signature]*
CHECKED BY *[Signature]*
TRACED BY *[Signature]*
DRAWING NO. **24**

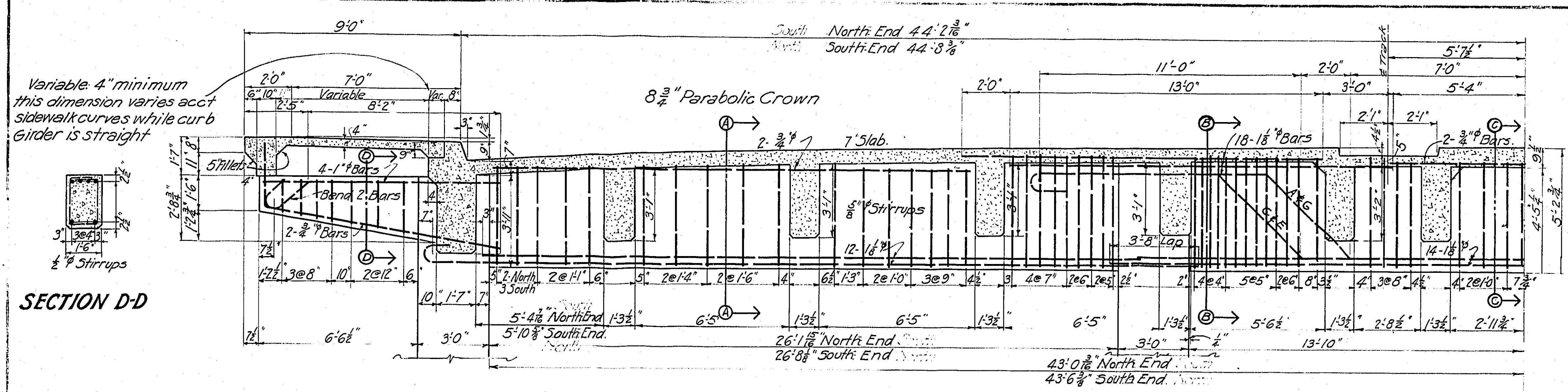
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE Feb. 18, 1924

SHEETS **SCALE 3/8" = 1'-0"** SHEET NO. **24**

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

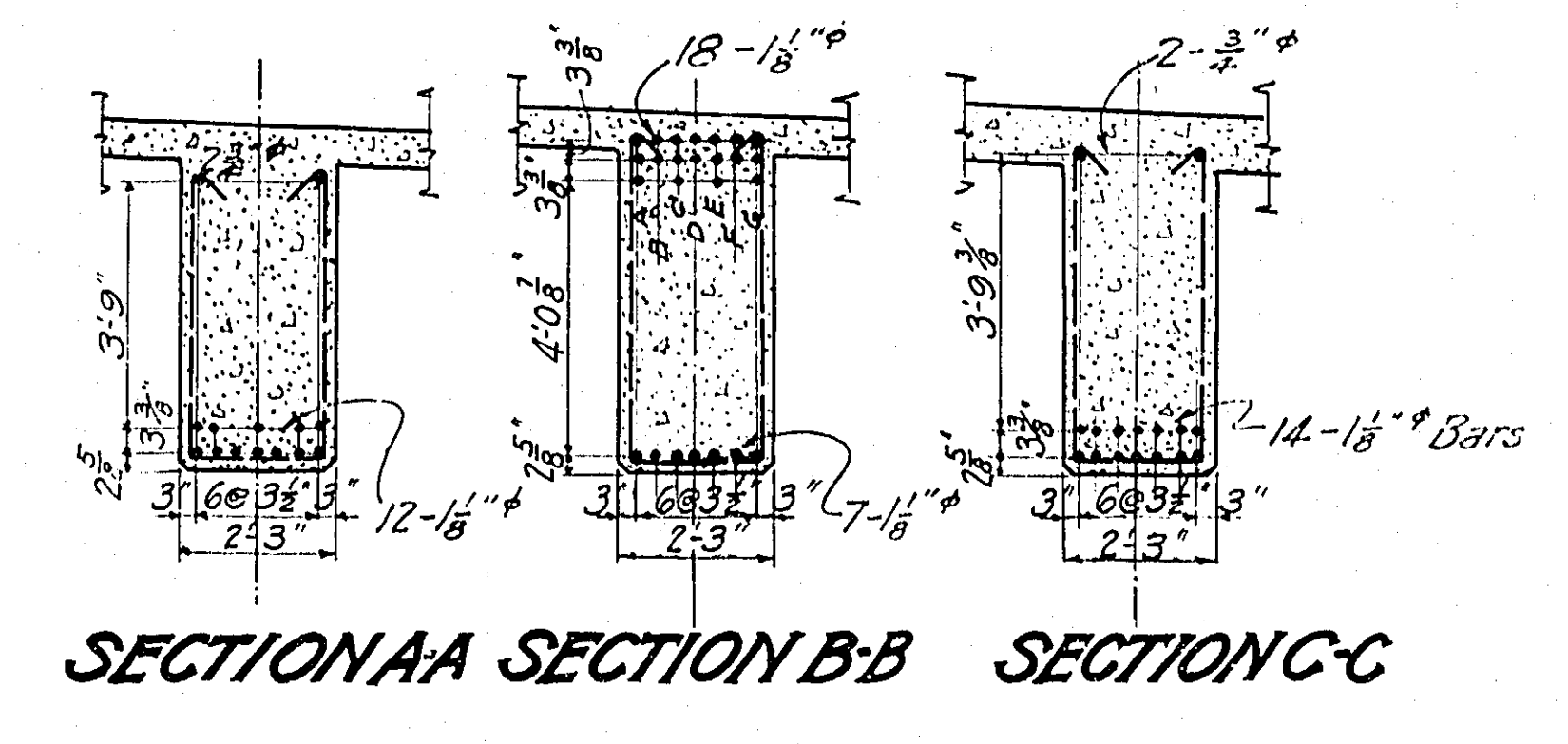


3M

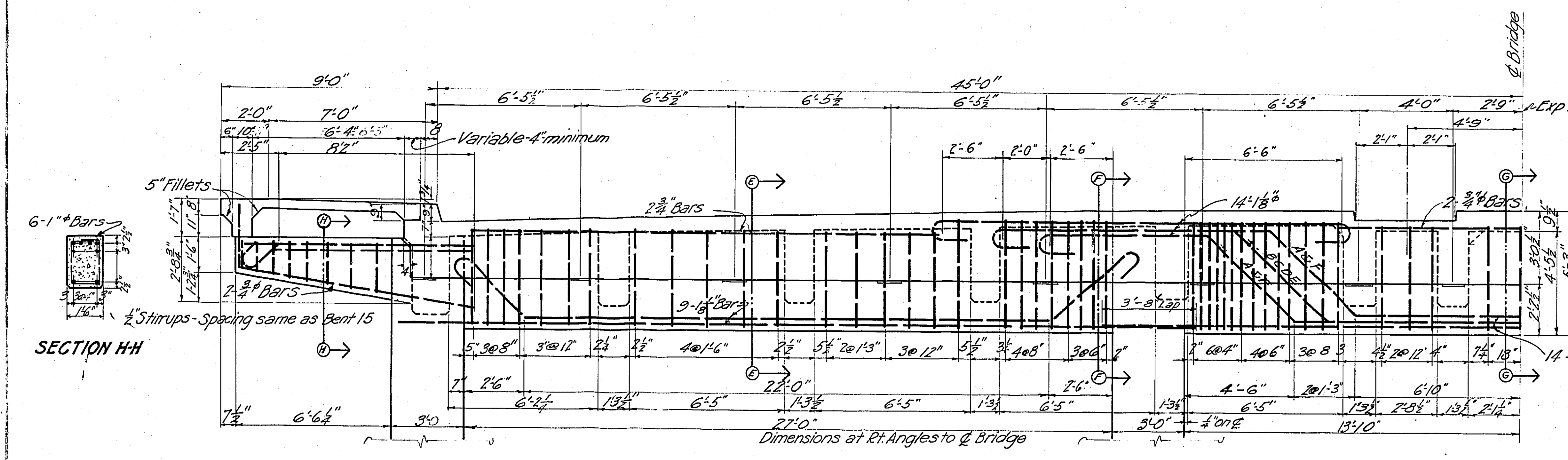


SECTION D-D

FLOOR BEAM BENT 15
Dimensions on $\frac{1}{2}$ of Floor Beam

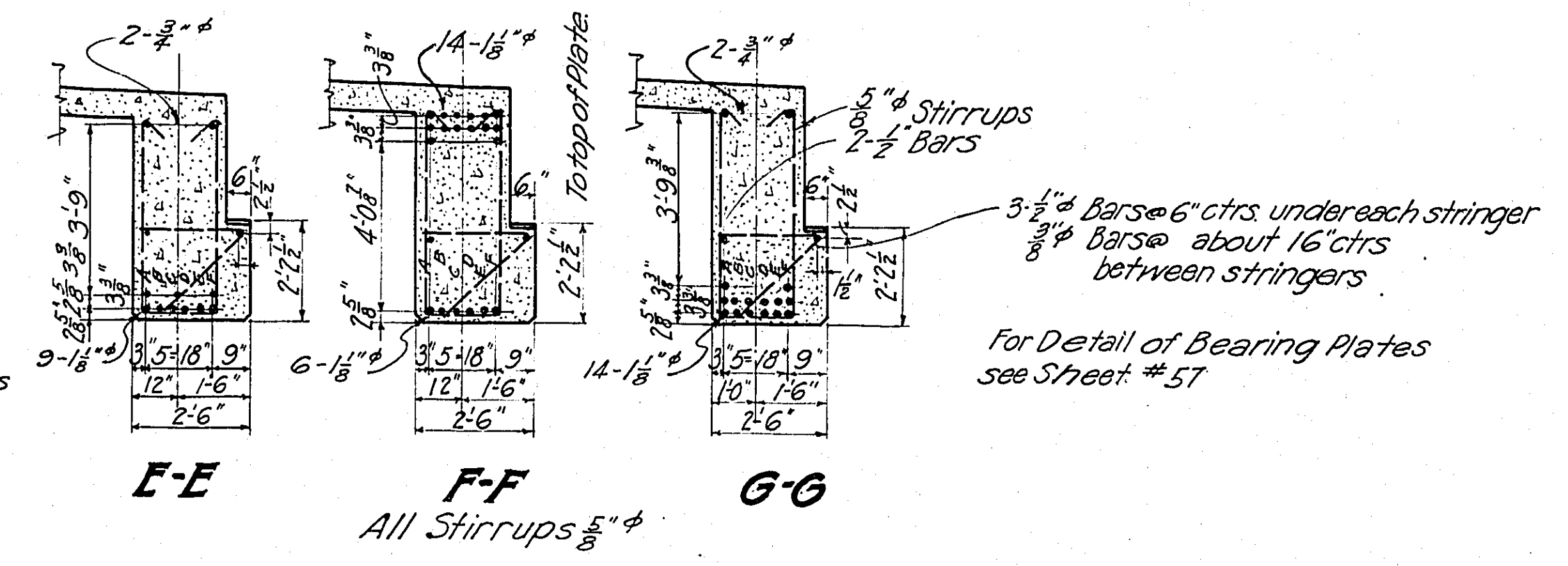


SECTION A-A SECTION B-B SECTION C-C

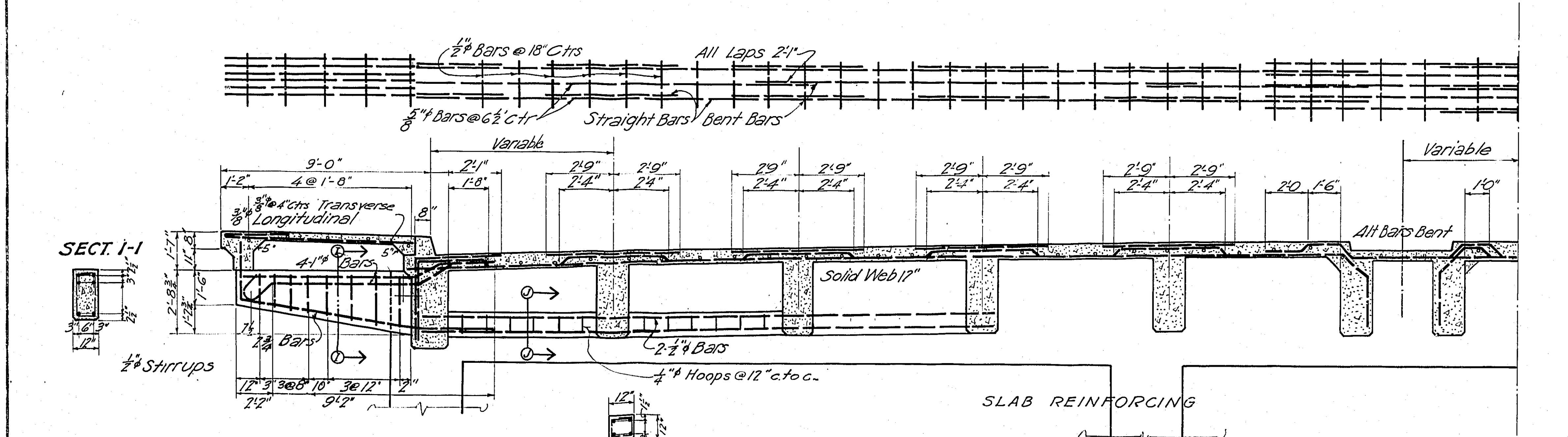


SECTION H-H

FLOOR BEAM BENT 14
Dimensions at Rt. Angles to $\frac{1}{2}$ Bridge



E-E F-F G-G
All Stirrups #4



SECT. I-I

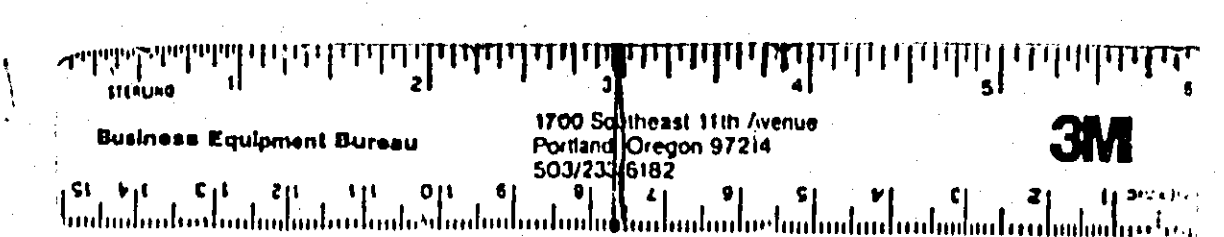
SECT. J-J

INTERMEDIATE CANTILEVER & STRUT

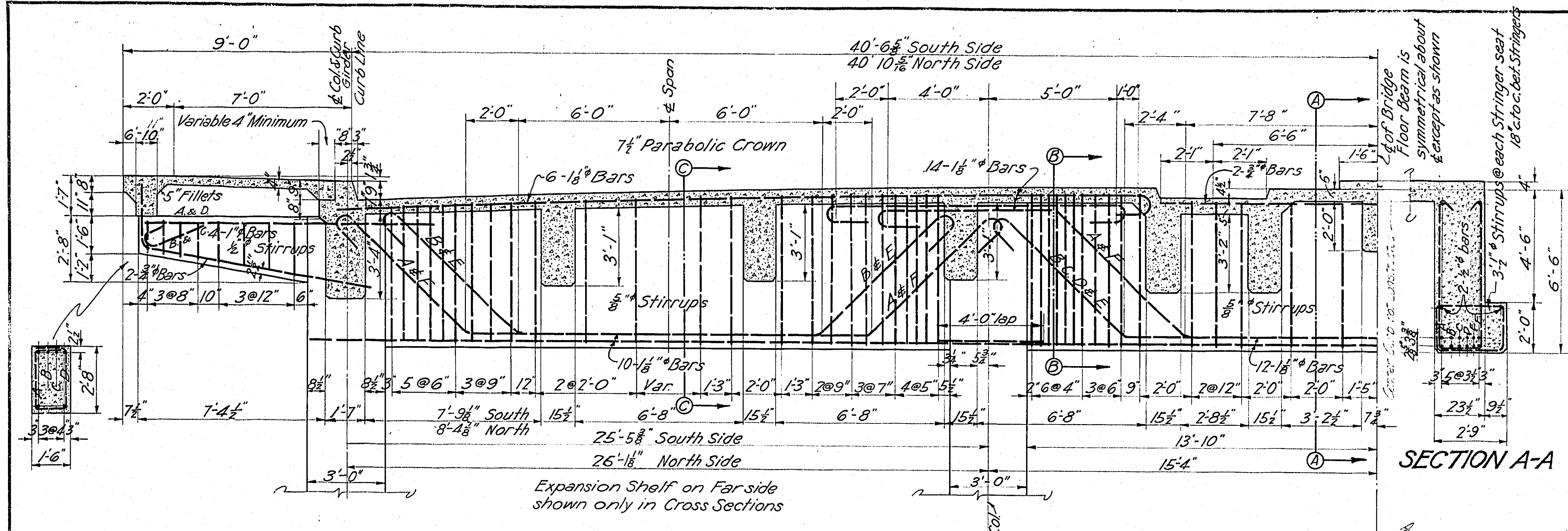
For details of stringers see sheet 24.
For details of rail fastenings and curb armor see sheet 57.

Concrete 1:1:2
MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
PORTLAND, OREGON
DETAILS
FLOOR BEAMS, SPANS 14, 15
MADE BY [Signature]
CHECKED BY [Signature]
TRACED BY [Signature]
CHECKED BY [Signature]
DATE FEB. 7, 1924
DRAWING NO. [Blank]
SHEETS [Blank] Scale $\frac{3}{8}$ "=1'-0" SHEET NO. **(25)**

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

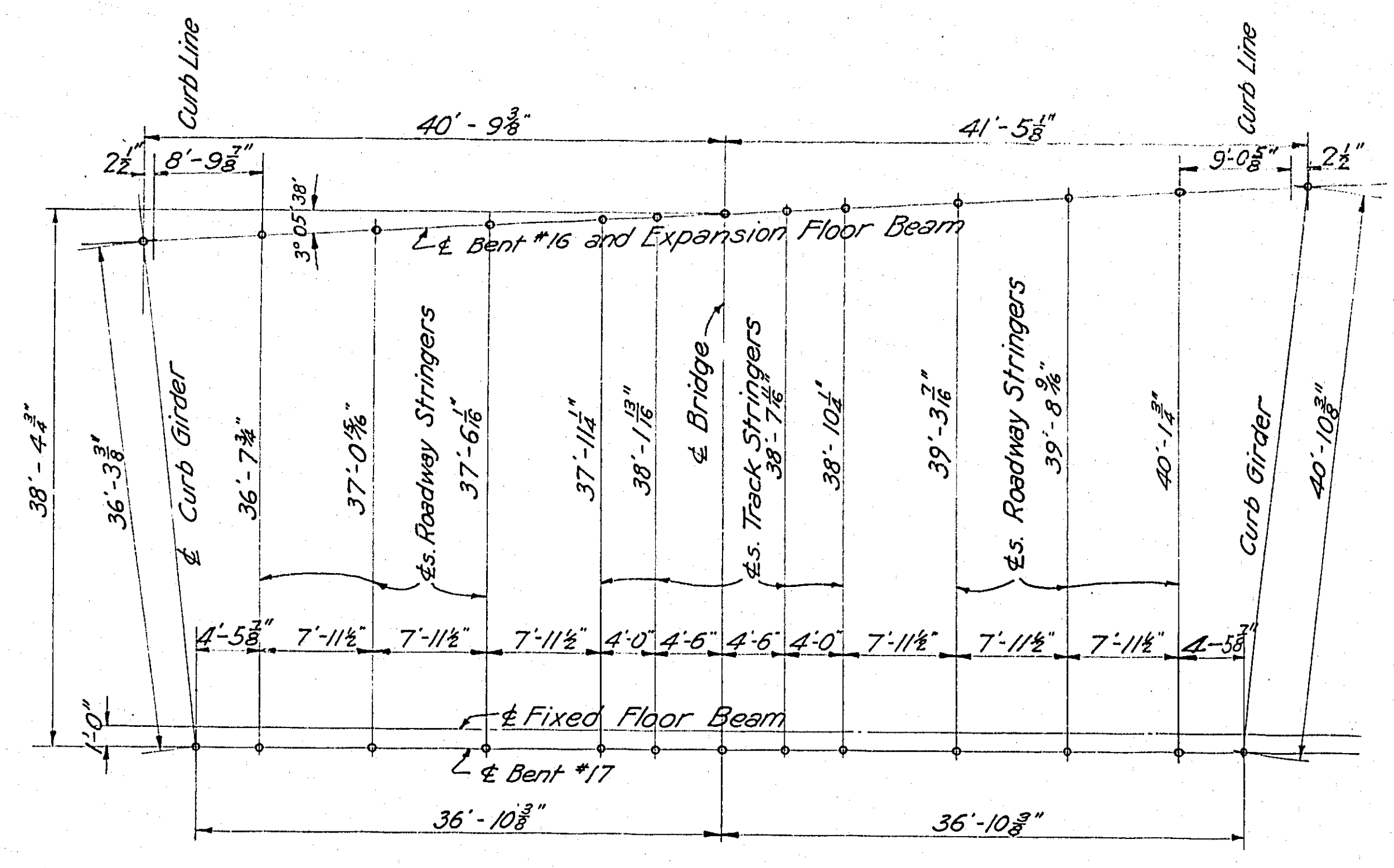


REVISED

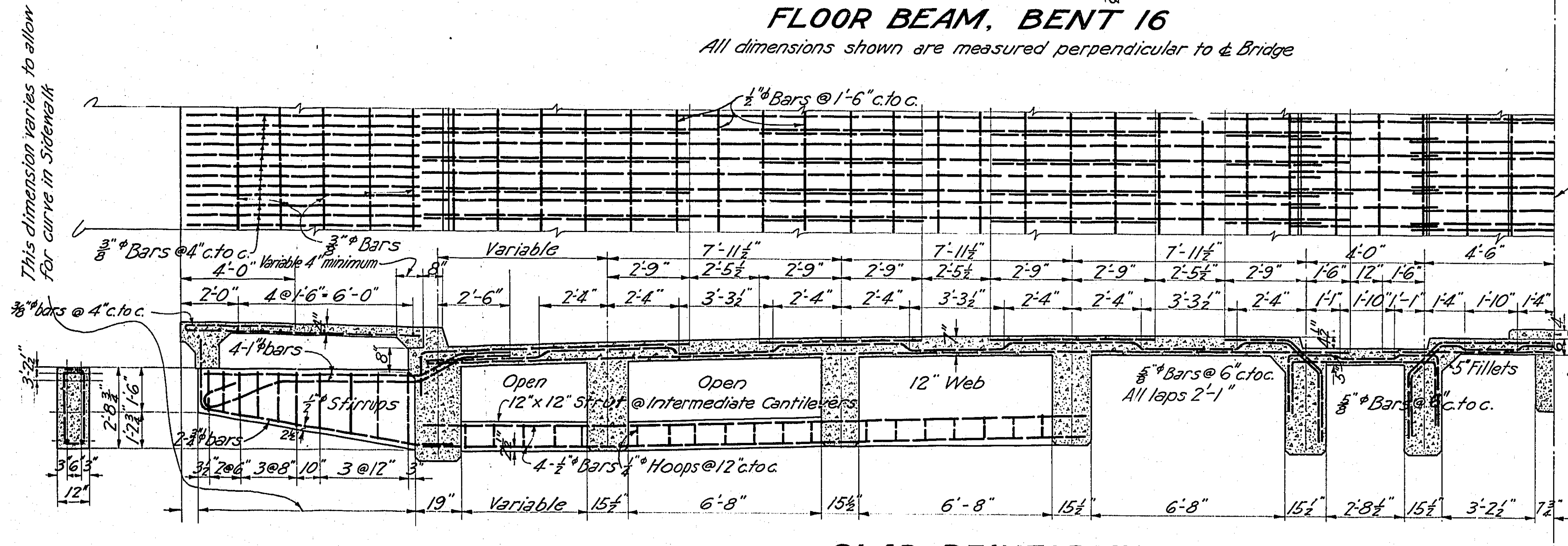


FLOOR BEAM, BENT 16

All dimensions shown are measured perpendicular to & Bridge



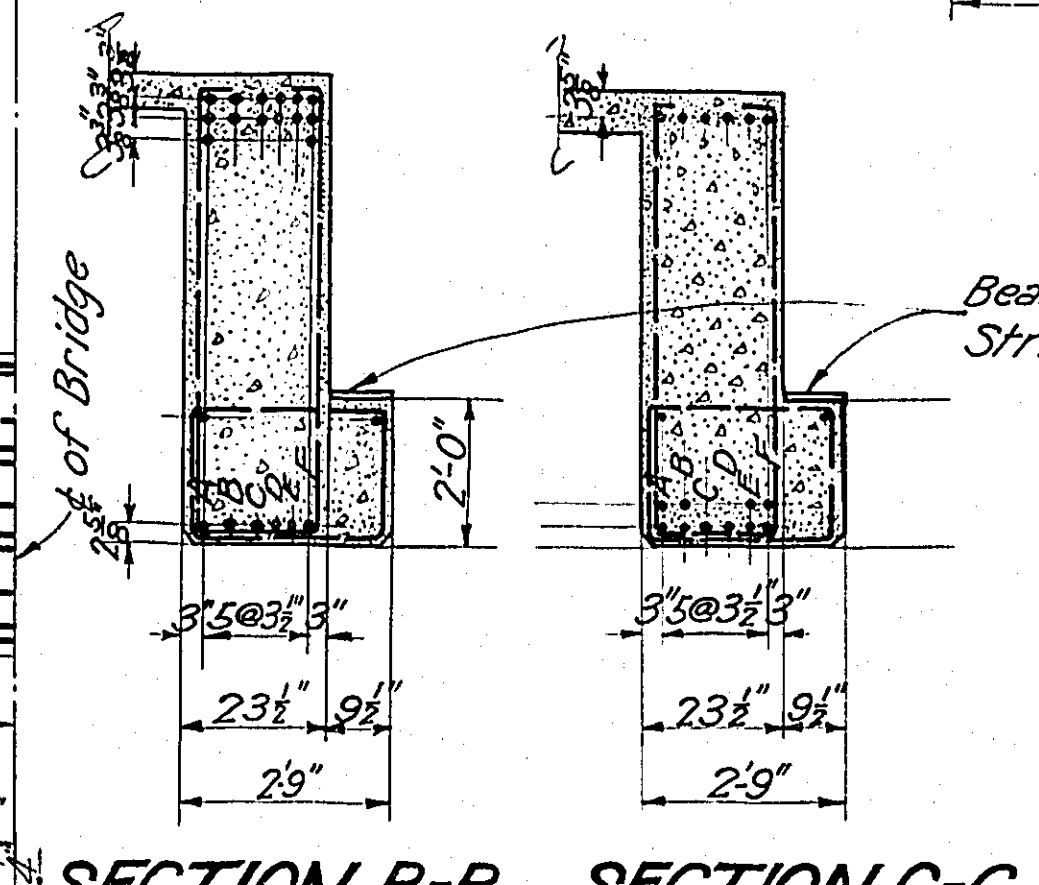
FRAMING DIAGRAM SPAN 16



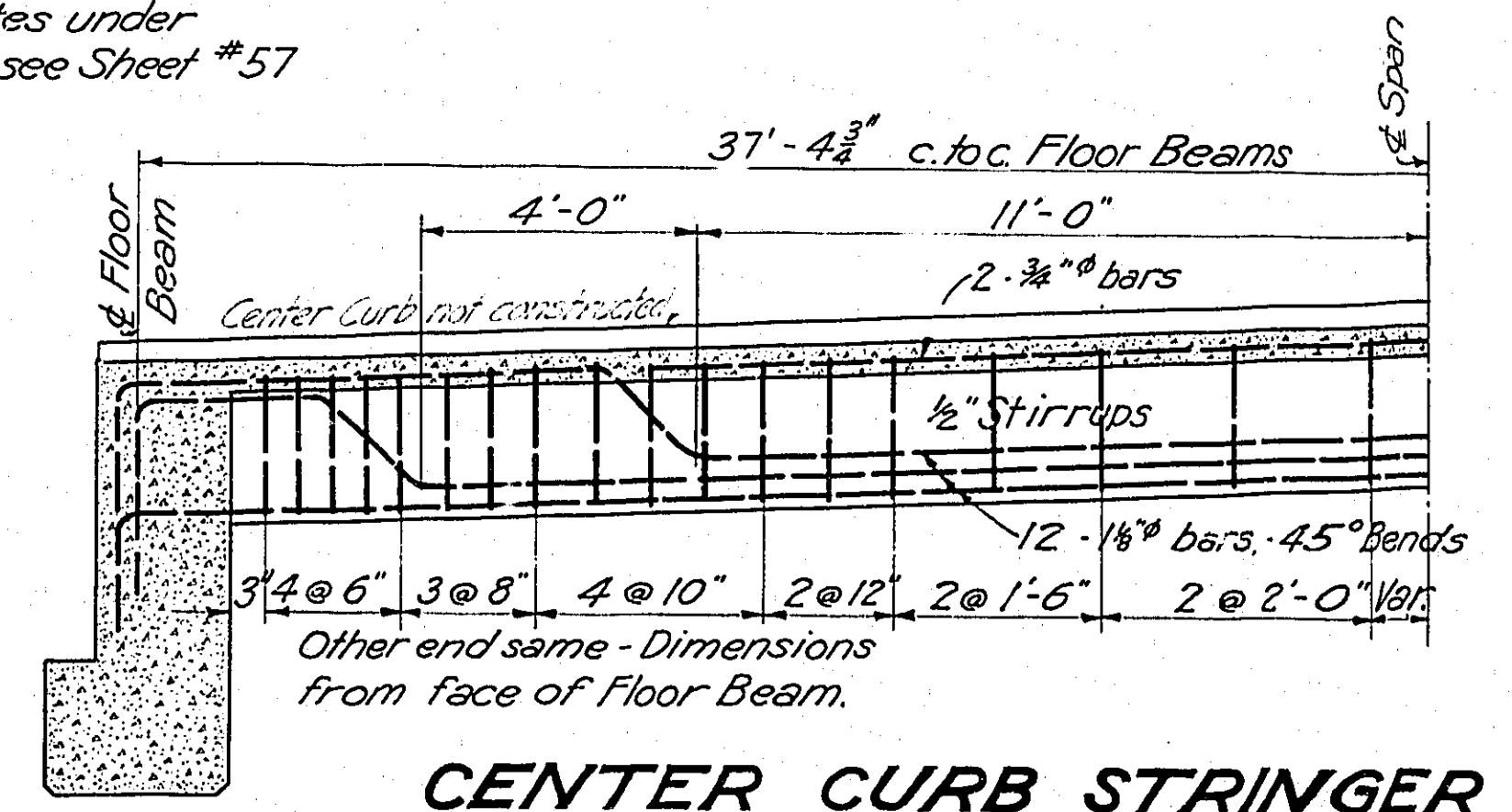
INTERMEDIATE CANTILEVER

Spacing on & Curb Girder - South side 2 @ 11'-9" & 1 of 11'-3 3/8" North side 2 @ 13'-3" & 1 @ 13'-1 3/8"

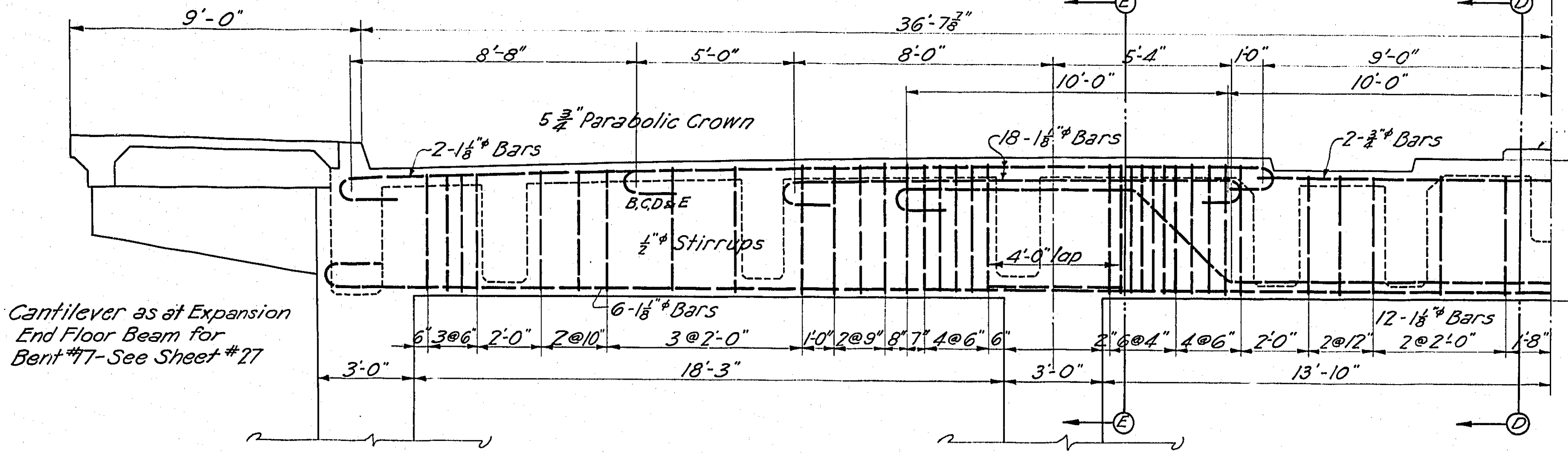
SLAB REINFORCING



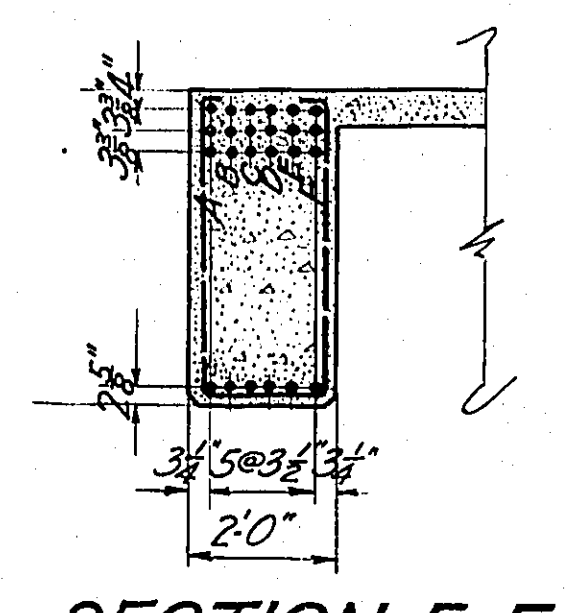
SECTION B-B SECTION C-C



CENTER CURB STRINGER

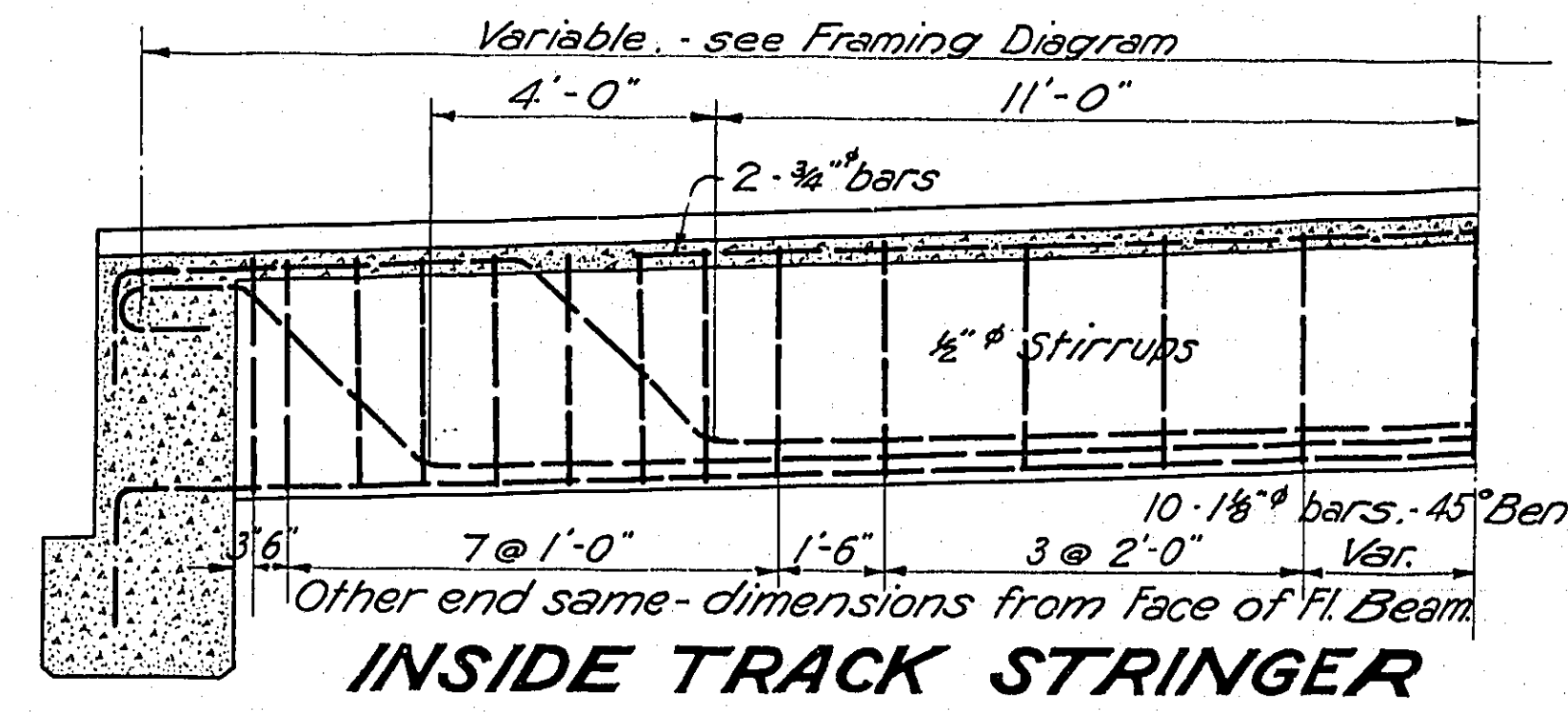


FIXED FLOOR BEAM, BENT 17



SECTION E-E

SECTION D-D



INSIDE TRACK STRINGER

For reinforcing of Typical Outside Track Stringers, Roadway Stringers and Curb see details for Span 33 - Sheet 21. Fascia Girder same as for Spans 15 & 16 except Girder here is curved to follow edge of sidewalk. Spans variable lengths given for Intermediate Cantilevers on this sheet. For General Framing Plan see Sheet #21.

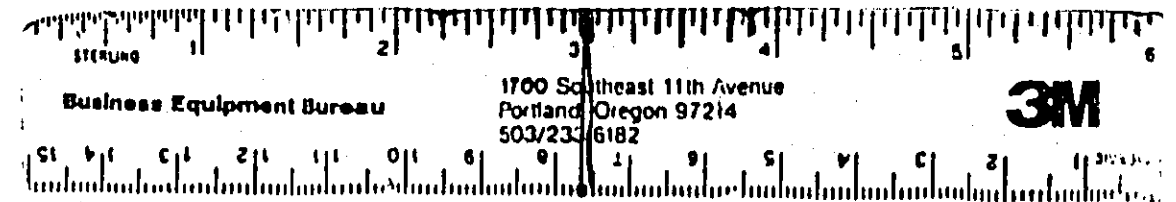
MULTNOMAH COUNTY, OREGON

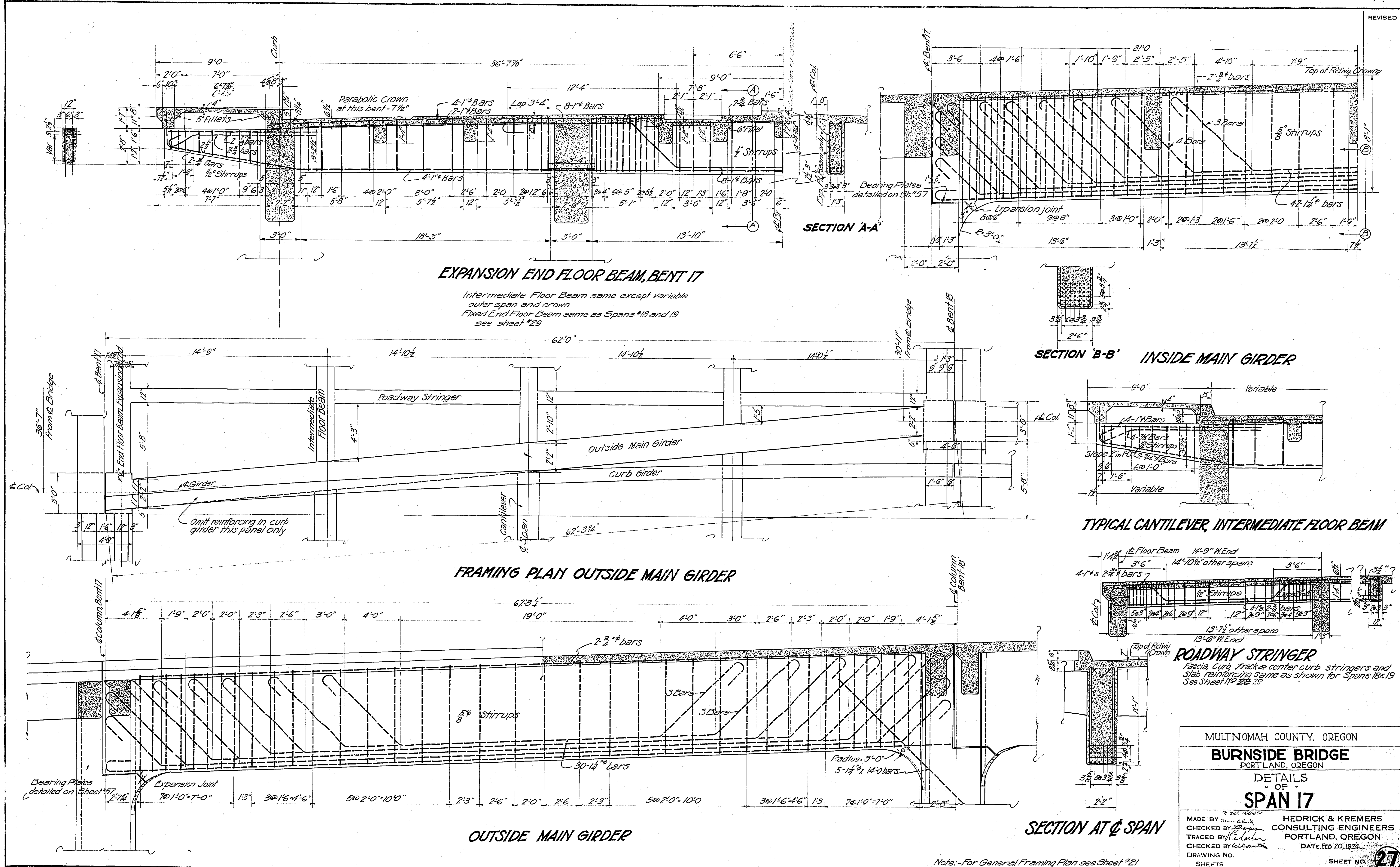
BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS
OF
SPAN 16

MADE BY *See Note* HEDRICK & KREMERS
CHECKED BY *See Note* CONSULTING ENGINEERS
TRACED BY *See Note* PORTLAND, OREGON
CHECKED BY DATE
DRAWING No. SHEETS SCALE: 1/4" = 1'-0" SHEET NO. **26**

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NOTICE: IF THIS DOCUMENT IS LESS
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DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Delaware 11th Avenue
Portland, Oregon 97214
525-2312

3M

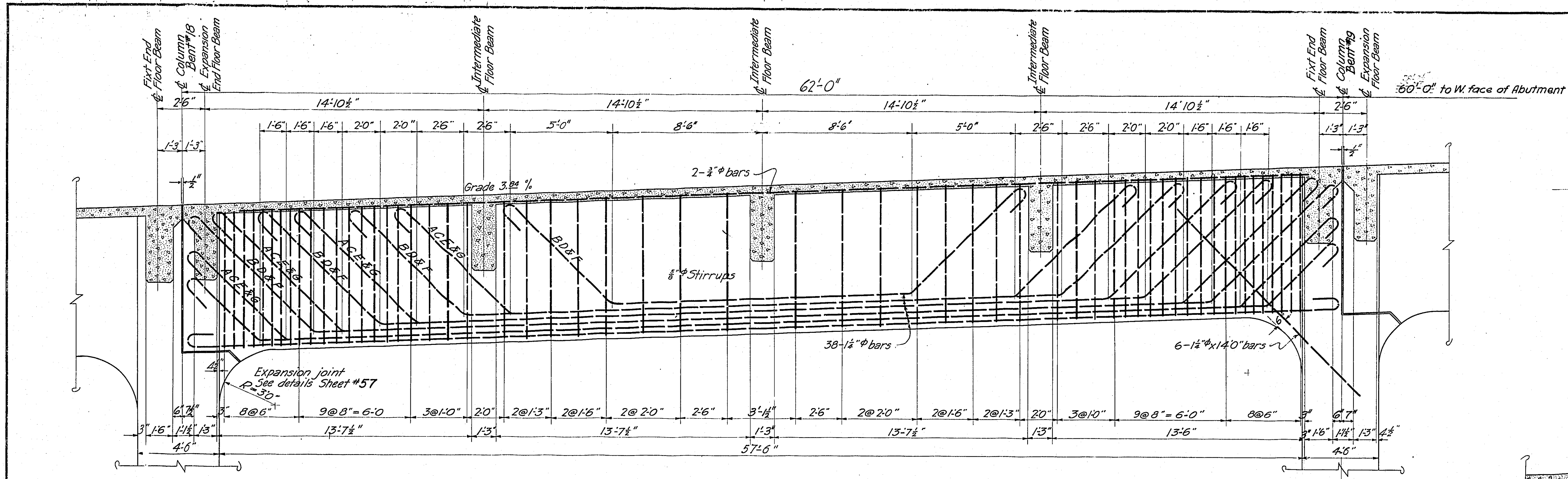
MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
PORTLAND, OREGON
DETAILS
OF
SPAN 17

MADE BY: [Signature]
CHECKED BY: [Signature]
TRACED BY: [Signature]
CHECKED BY: [Signature]
DRAWING NO. [Signature]
SHEETS

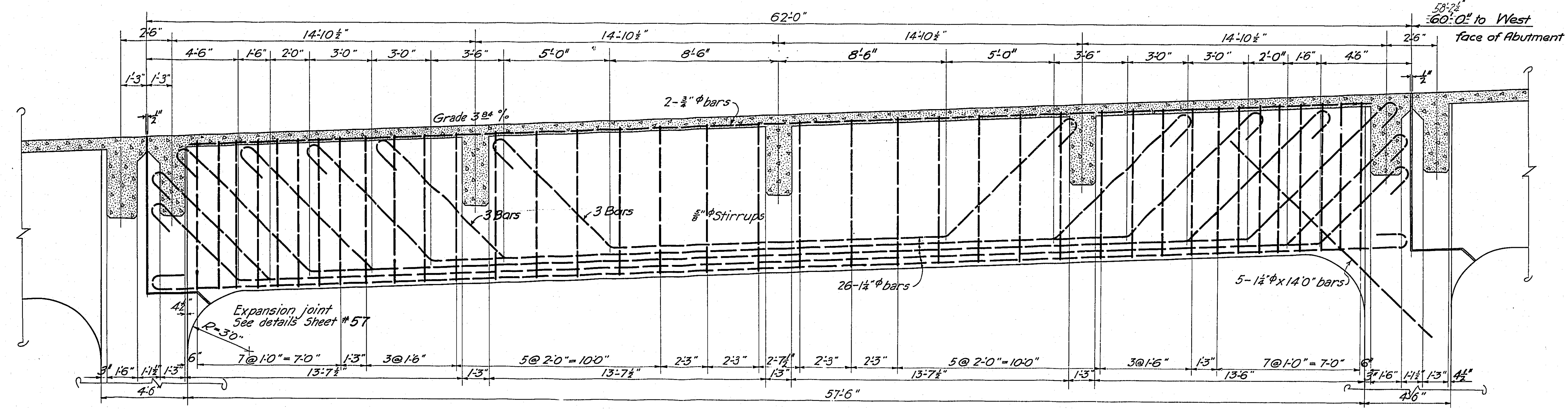
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB 20, 1974

SHEET NO. **27**

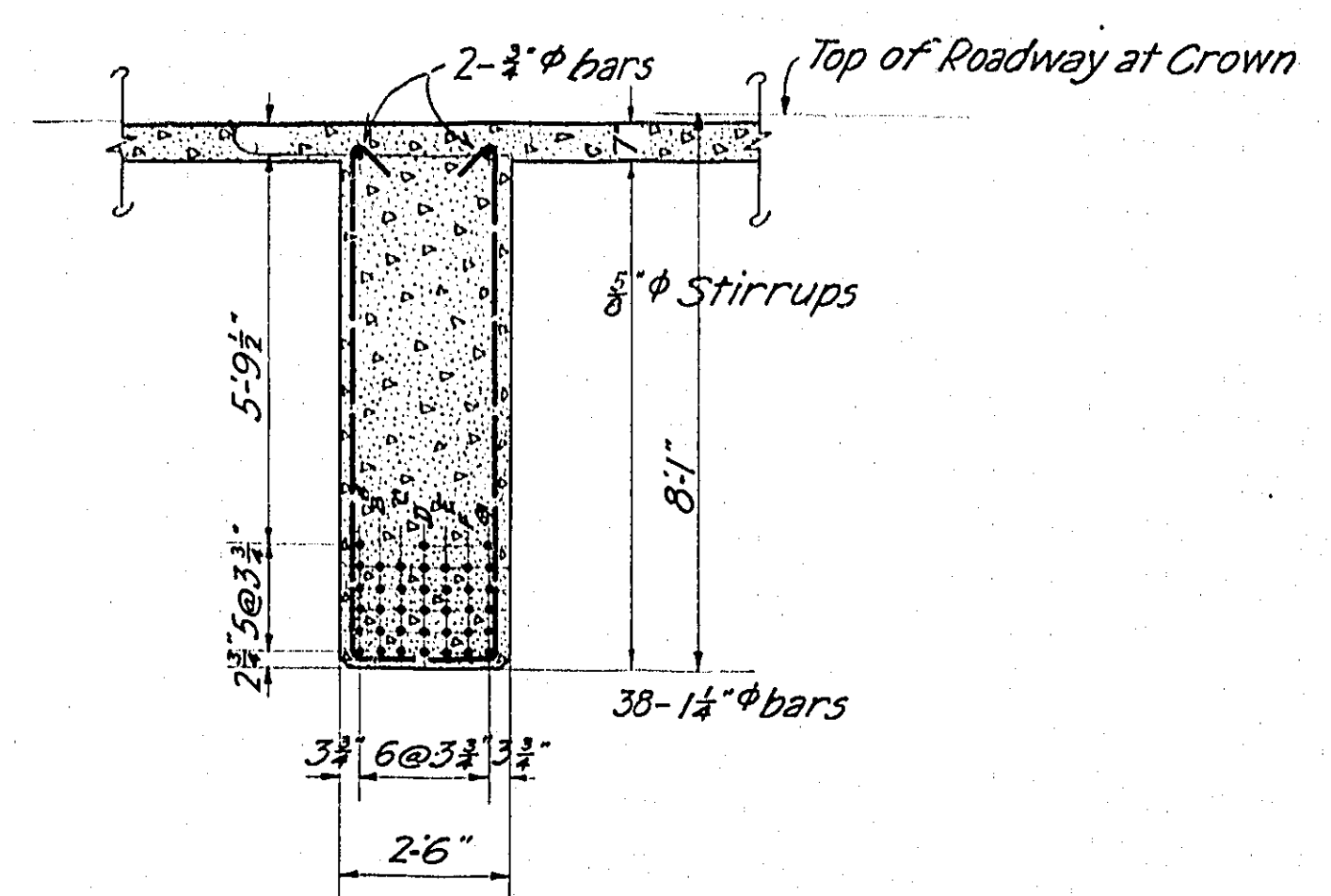
Note: -For General Framing Plan see Sheet #21



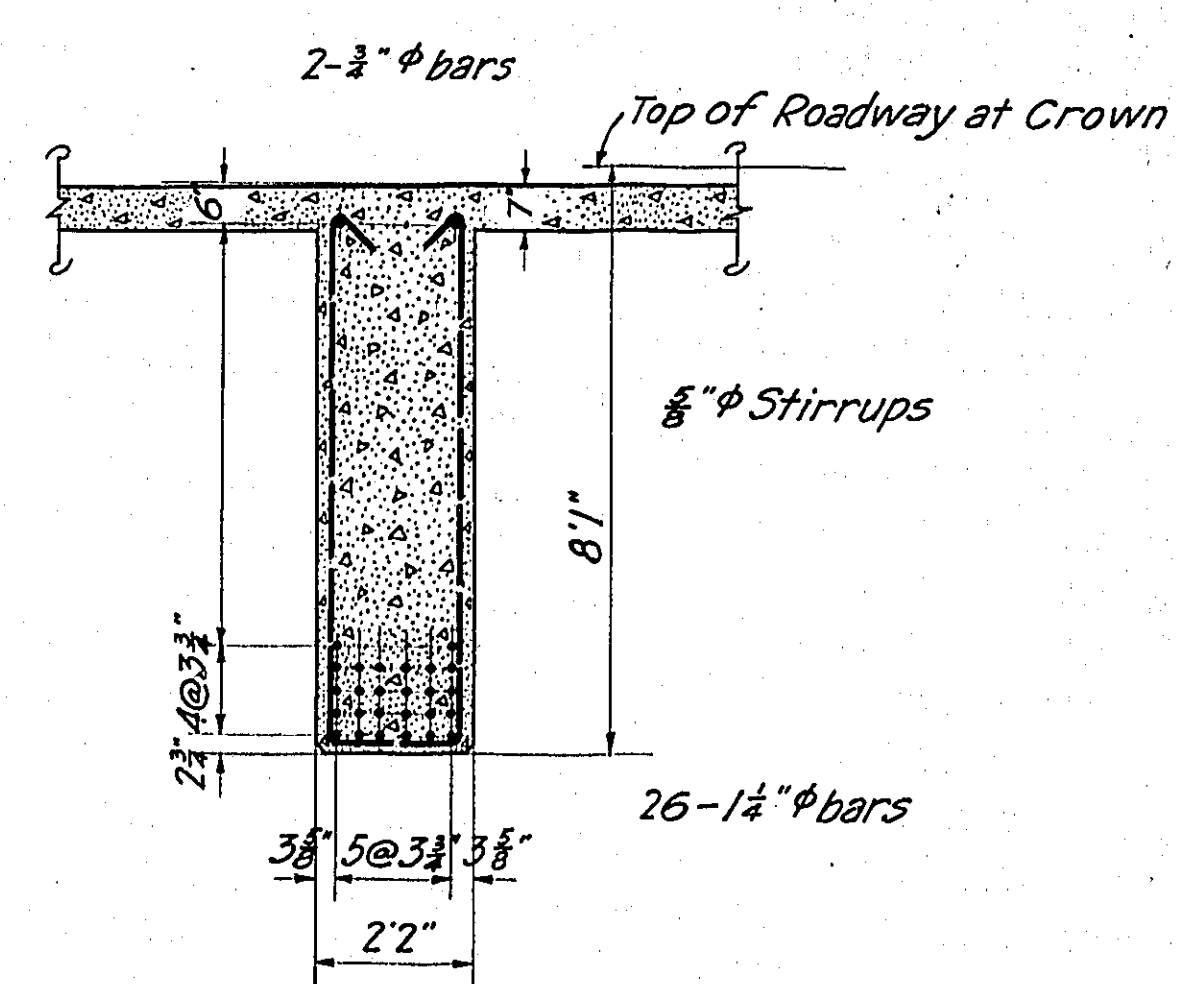
INSIDE MAIN GIRDER



OUTSIDE MAIN GIRDER



TYPICAL CONNECTION AT TOWER



Note - For Stringers and Floor Beams see sheet # 28.
For General Framing Plan see sheet # 21.

Concrete 1:1:2

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

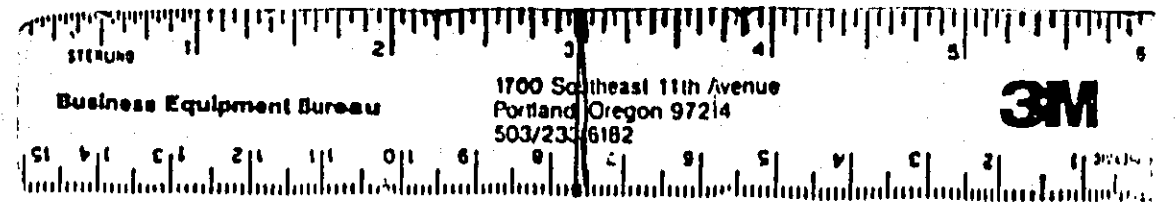
DETAILS
OF
GIRDERS SPANS 18 & 19

MADE BY *H. H. Hill*
CHECKED BY *H. H. Hill*
TRACED BY *H. H. Hill*
CHECKED BY *H. H. Hill*
DRAWING NO. _____
SHEETS _____

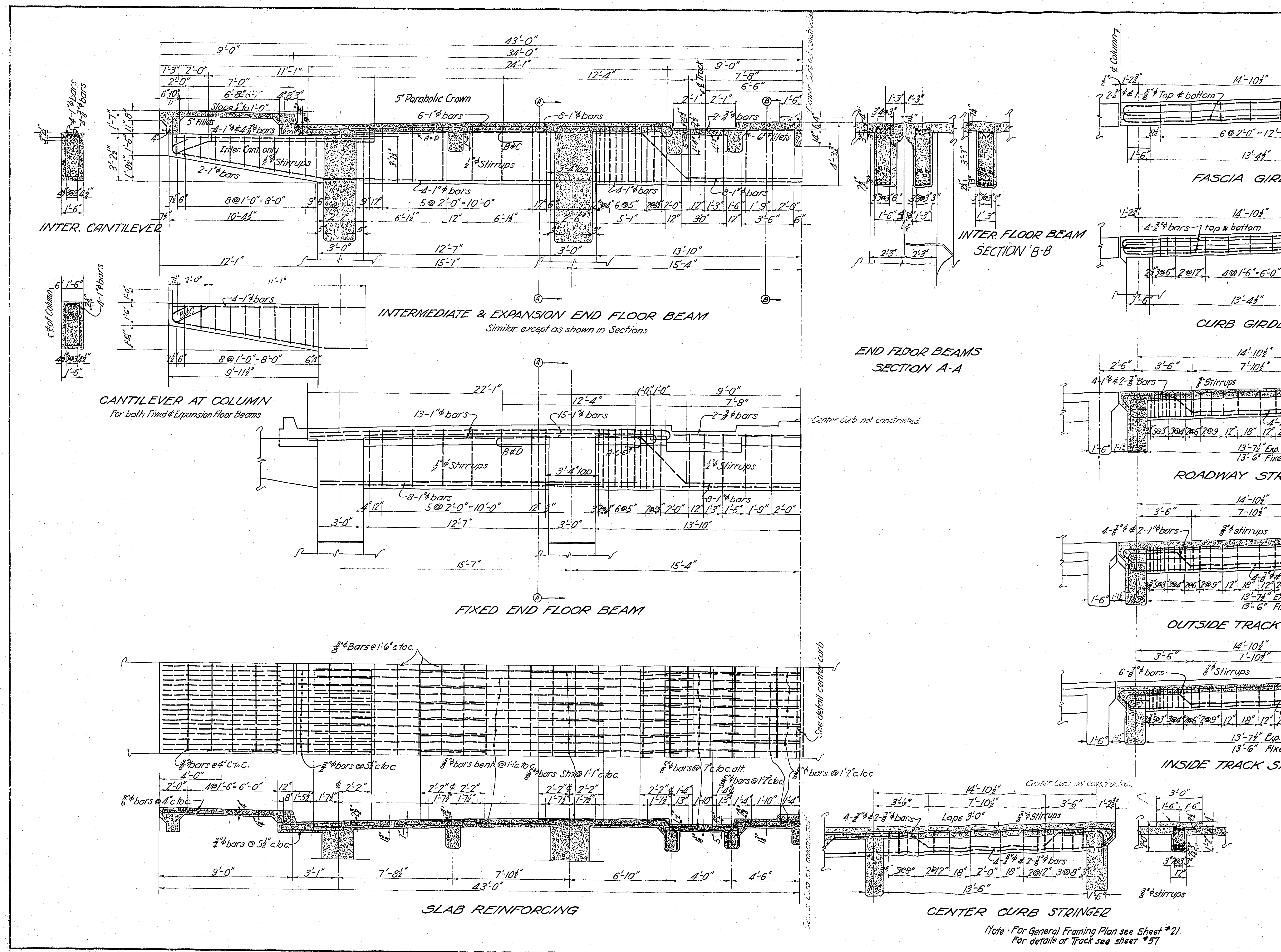
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE _____

SHEET NO. **20**

NOTICE: IF THIS DOCUMENT IS LESS
LEGIBLE THAN THIS NOTICE IT IS
DUE TO THE QUALITY OF THE ORIGINAL.

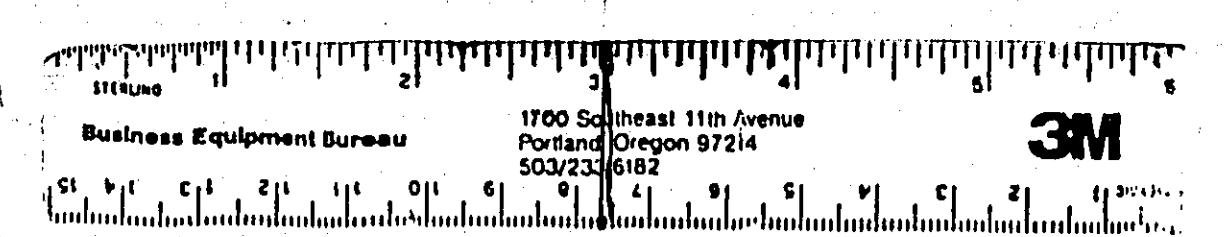


REVISED



MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
 DETAILS
OF SPANS 18 & 19
 MADE BY HEDRICK & KREMERS
 CHECKED BY CONSULTING ENGINEERS
 TRACED BY PORTLAND, OREGON
 DRAWING NO. DATE FEB. 20, 1924
 SHEETS SHEET NO. 29
 Scale 1" = 1'-0"

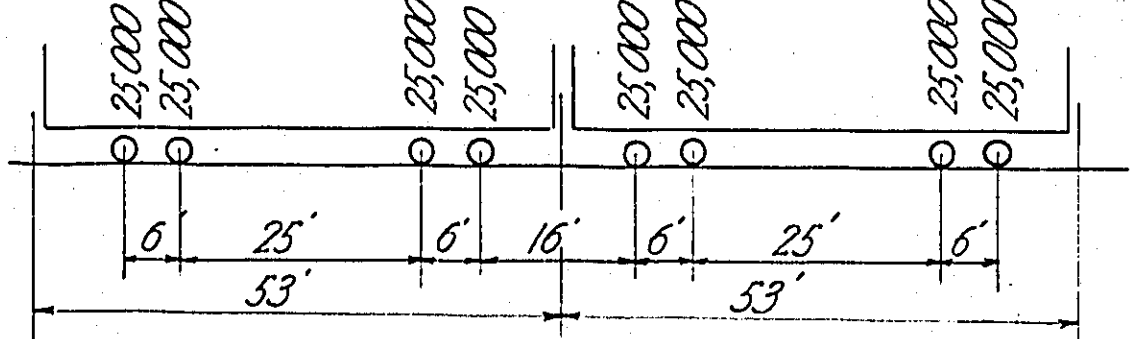
NOTICE: IF THIS DOCUMENT IS LESS
 LEGIBLE THAN THIS NOTICE IT IS
 DUE TO THE QUALITY OF THE ORIGINAL.



REVISED

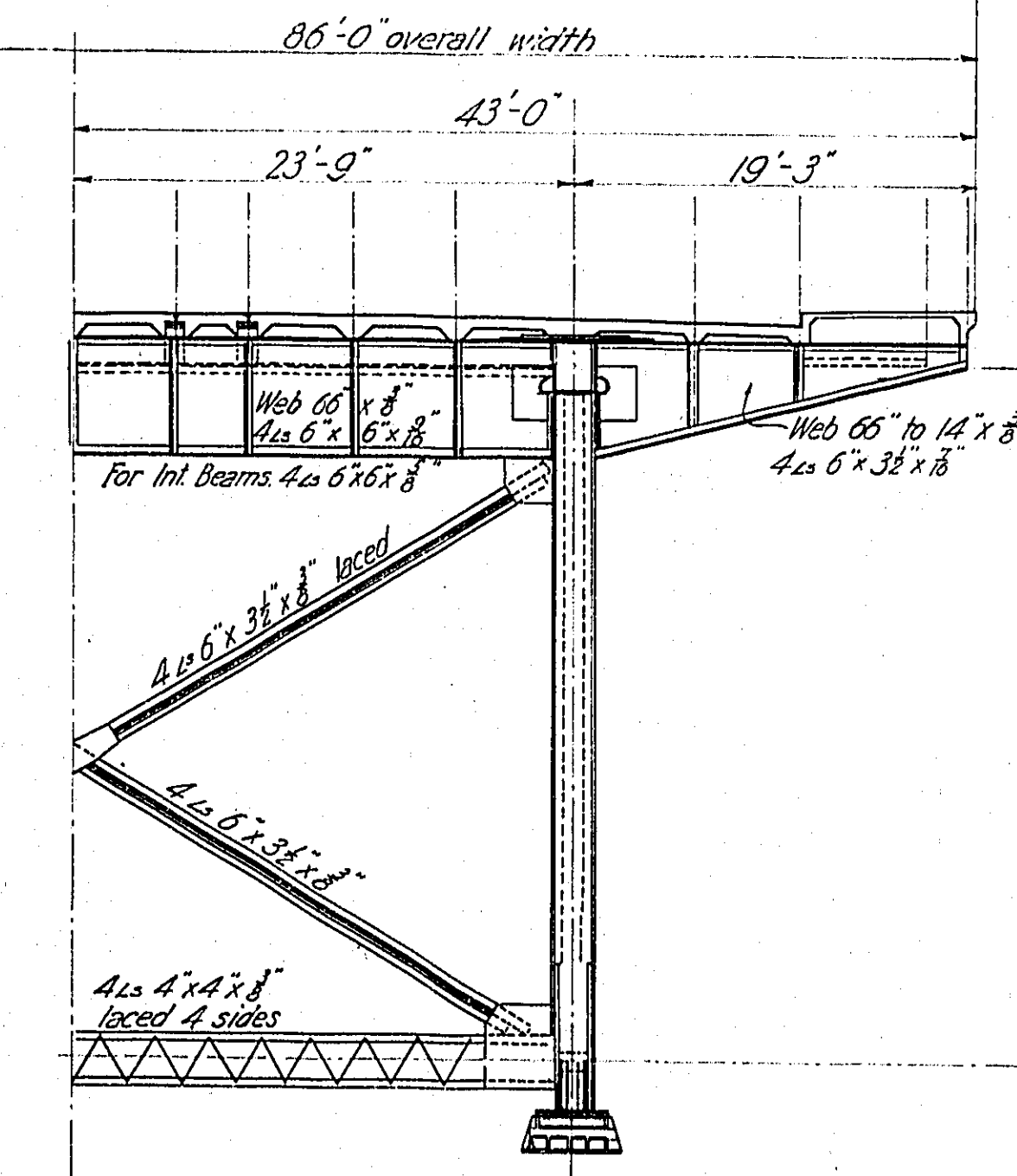
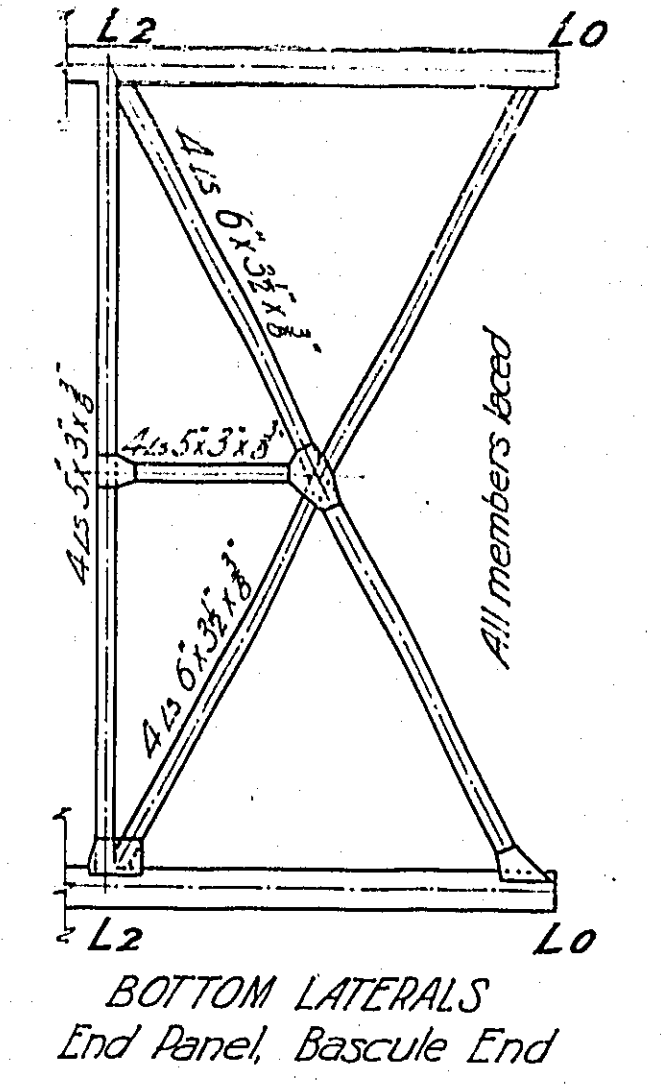
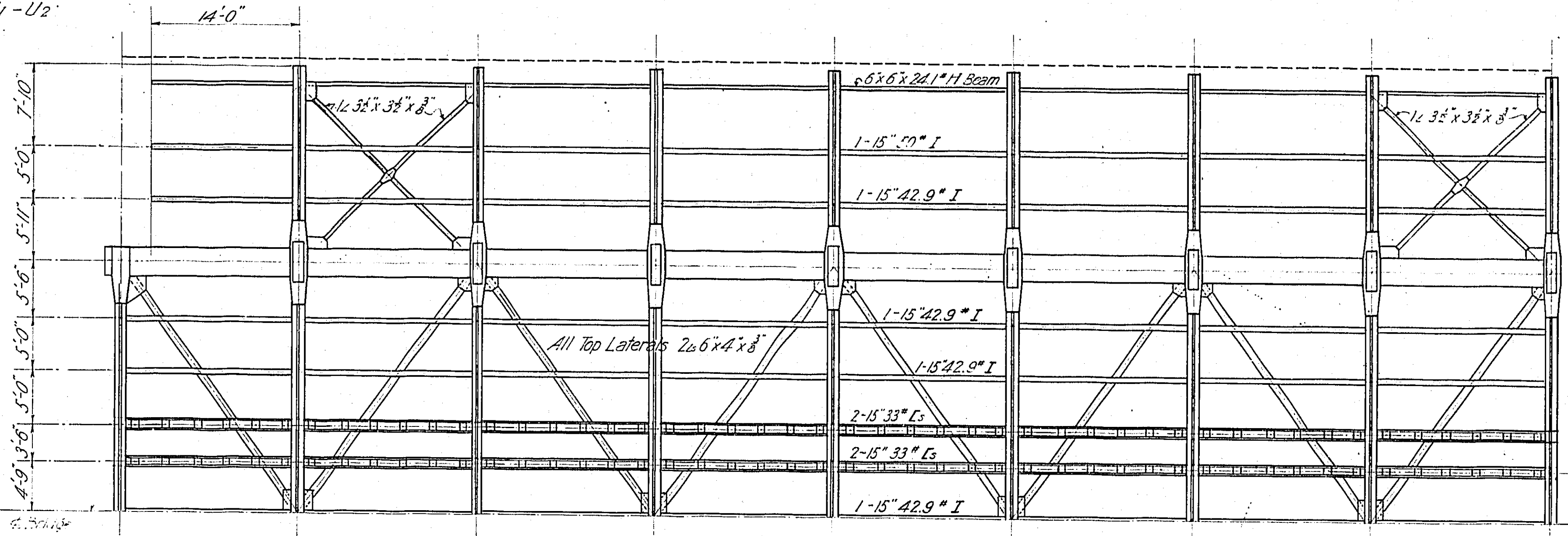
DEAD LOAD
Actual weight of materials -
For Trusses 15,000 per lin. ft. of span
LIVE LOADS

Floor system -
Sidewalks 80 per square foot of walk
Roadway 20 for trucks
Street Railway Solid line of cars as shown
below on both tracks

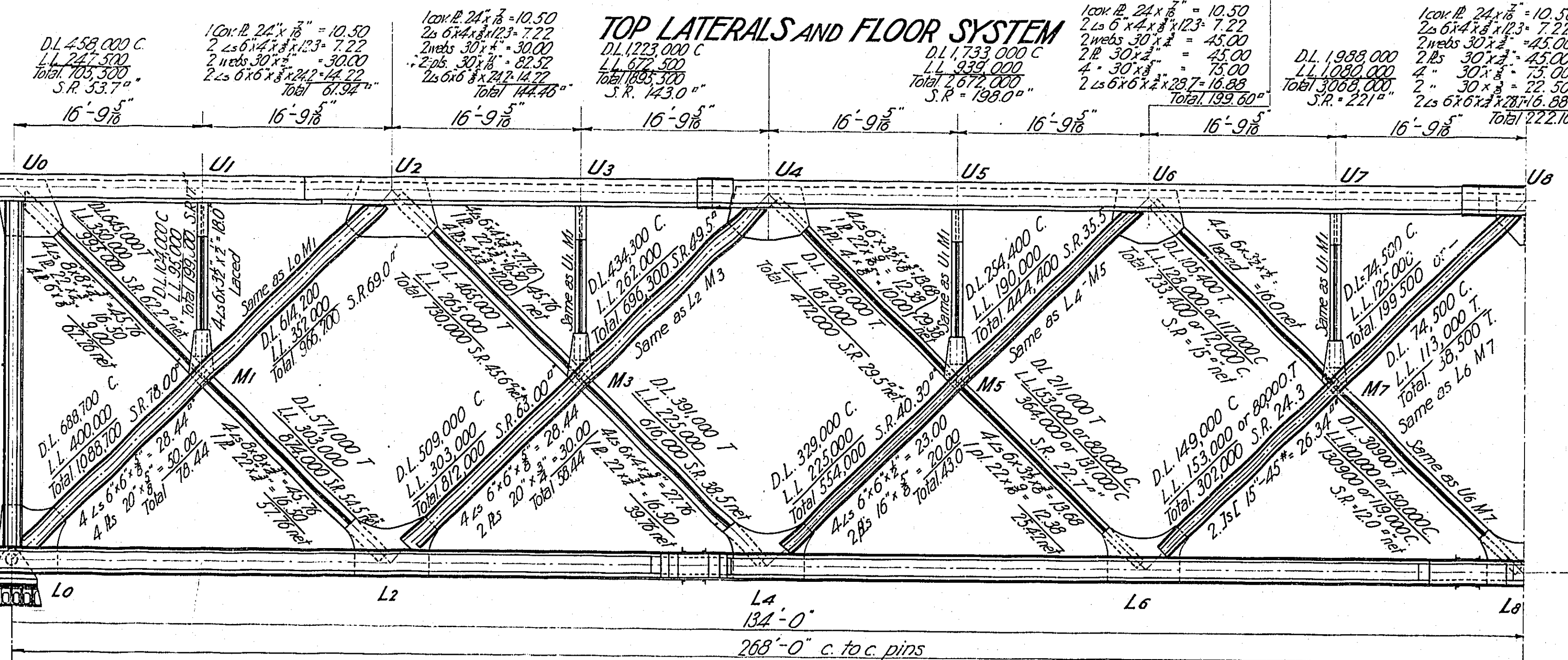


Trusses 1900 per lin ft per track or 3800 per
lin. ft. of span
80 per sq. foot of roadway outside of space
occupied by street cars
50 per sq. foot on sidewalks
Total 8320 per lin foot of span

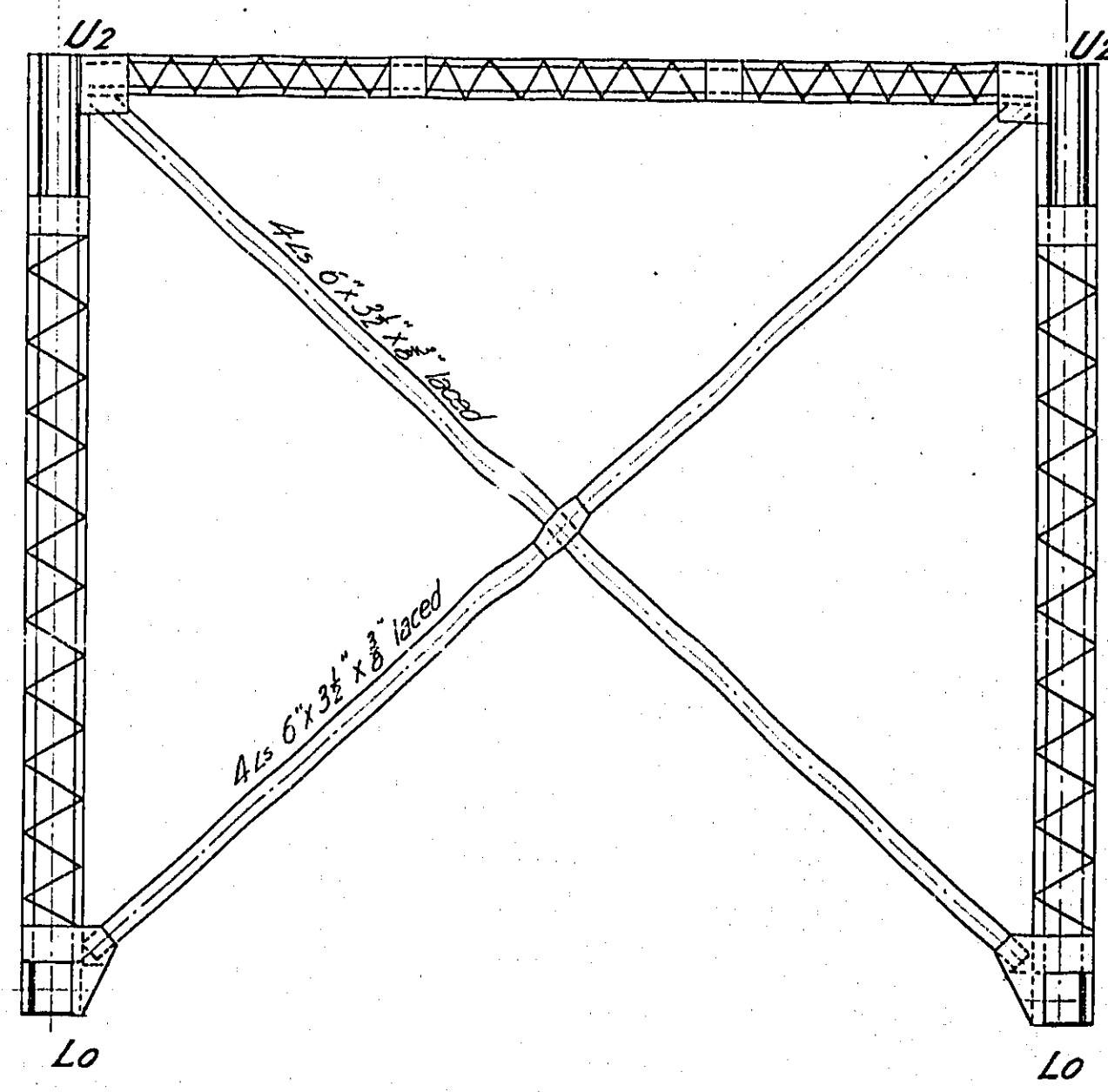
Can'tilever Bracing on Bascule
end in panel U₁-U₂



SWAY BRACING, SHORE END

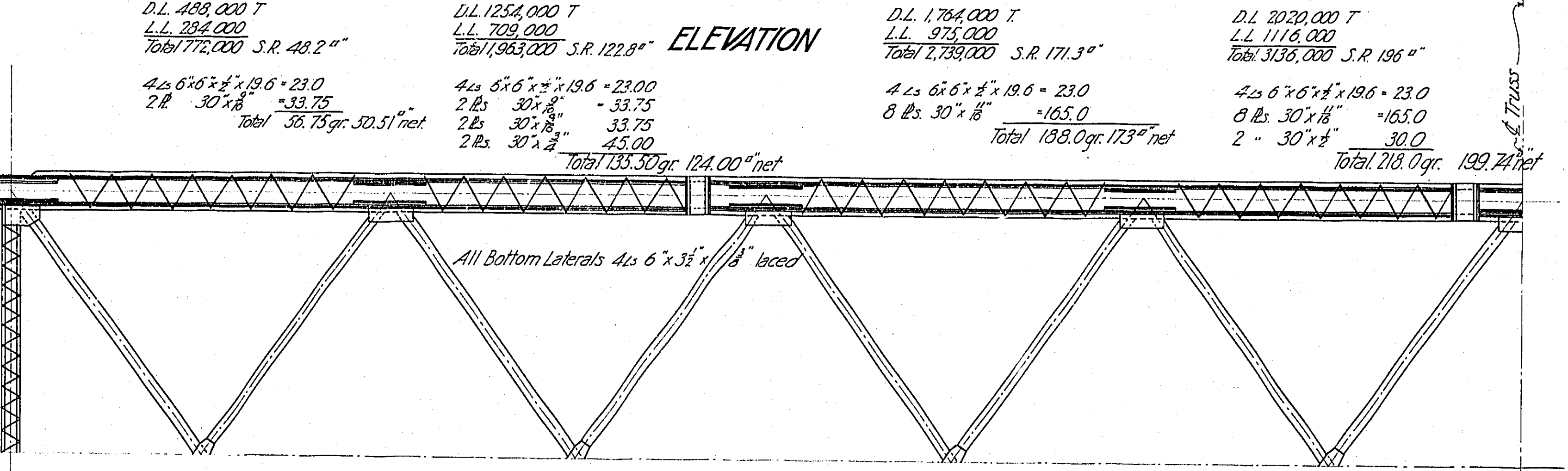


TOP LATERALS AND FLOOR SYSTEM



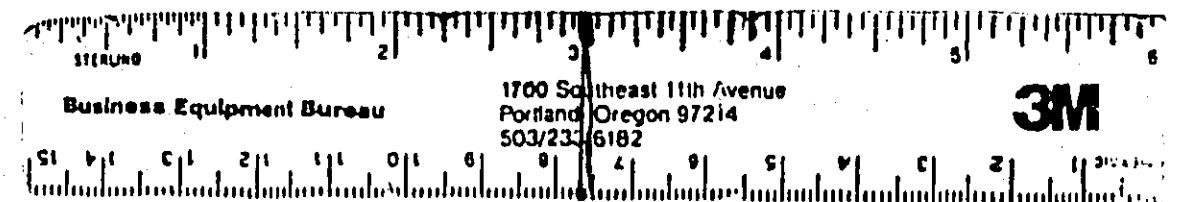
SWAY BRACING, BASCULE END
IN PLANE U₂-L₀

General Notes
All metal medium steel unless otherwise noted.
Anchor bolts of soft steel and fixed ends.
Rivets soft steel and 3/4 diam except when noted.
Rivet holes punched 3/16 smaller and reamed to 1/8 greater
diam than the rivet, except in 1 beam stringers and
stringer bracing where holes may be punched full size.
Ends of floor beams and cantilevers to be faced, and
reamed to cast iron template.
All abutting ends of compression members to be faced
to even bearing.
Sheared edges of all plates except stay plates, lateral
plates and lacing bars, to be faced.
Corners of outstanding legs of lacing bars are to be sheared
off.



BOTTOM LATERALS

NOTICE: IF THIS DOCUMENT IS LESS
LEGIBLE THAN THIS NOTICE IT IS
DUE TO THE QUALITY OF THE ORIGINAL.



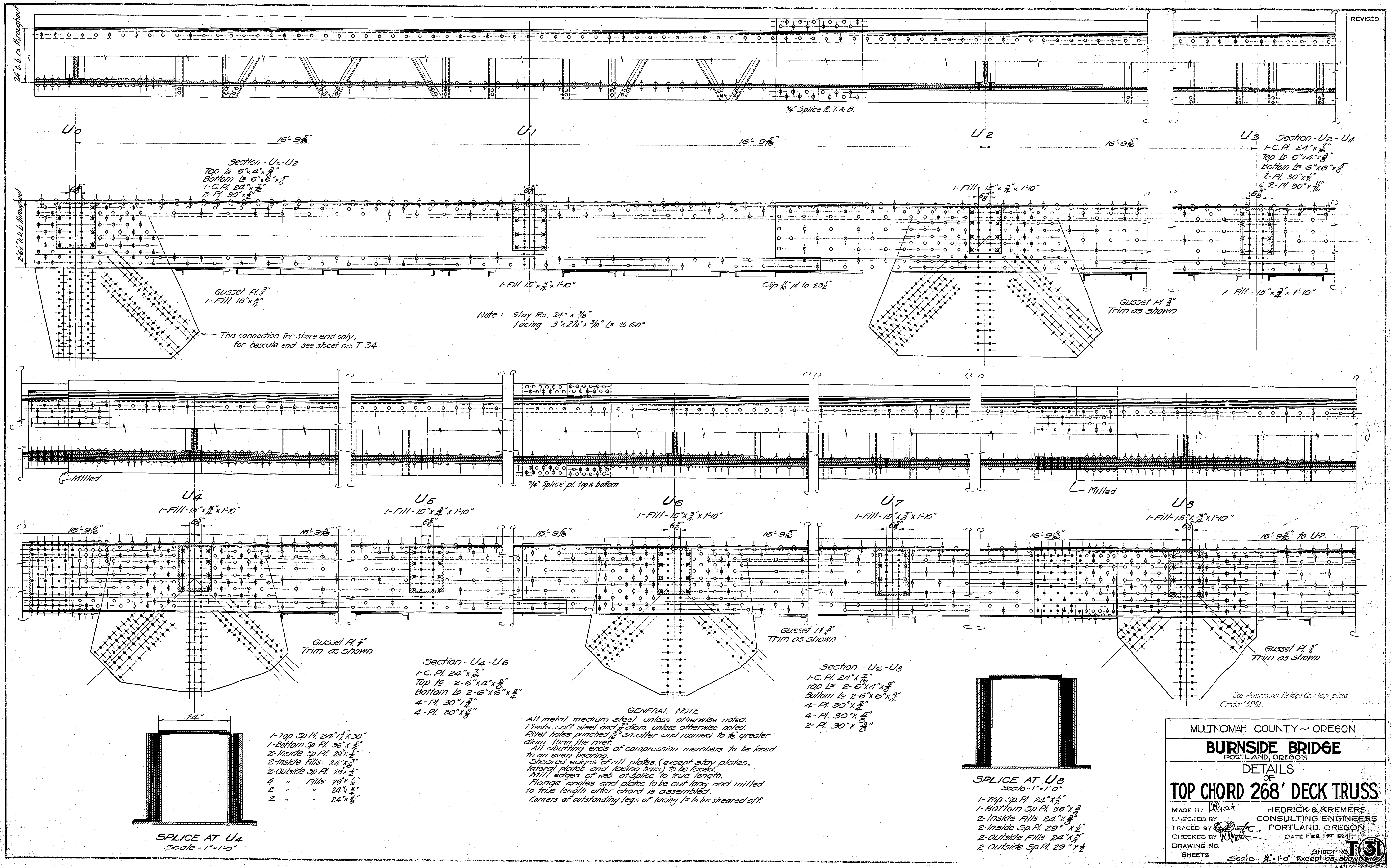
For Truss details see American Bridge Co. shop
plans, Order 4556.

MULTNOMAH COUNTY - OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

**STRESS DIAGRAM
& GENERAL DIMENSIONS
268' DECK TRUSS**

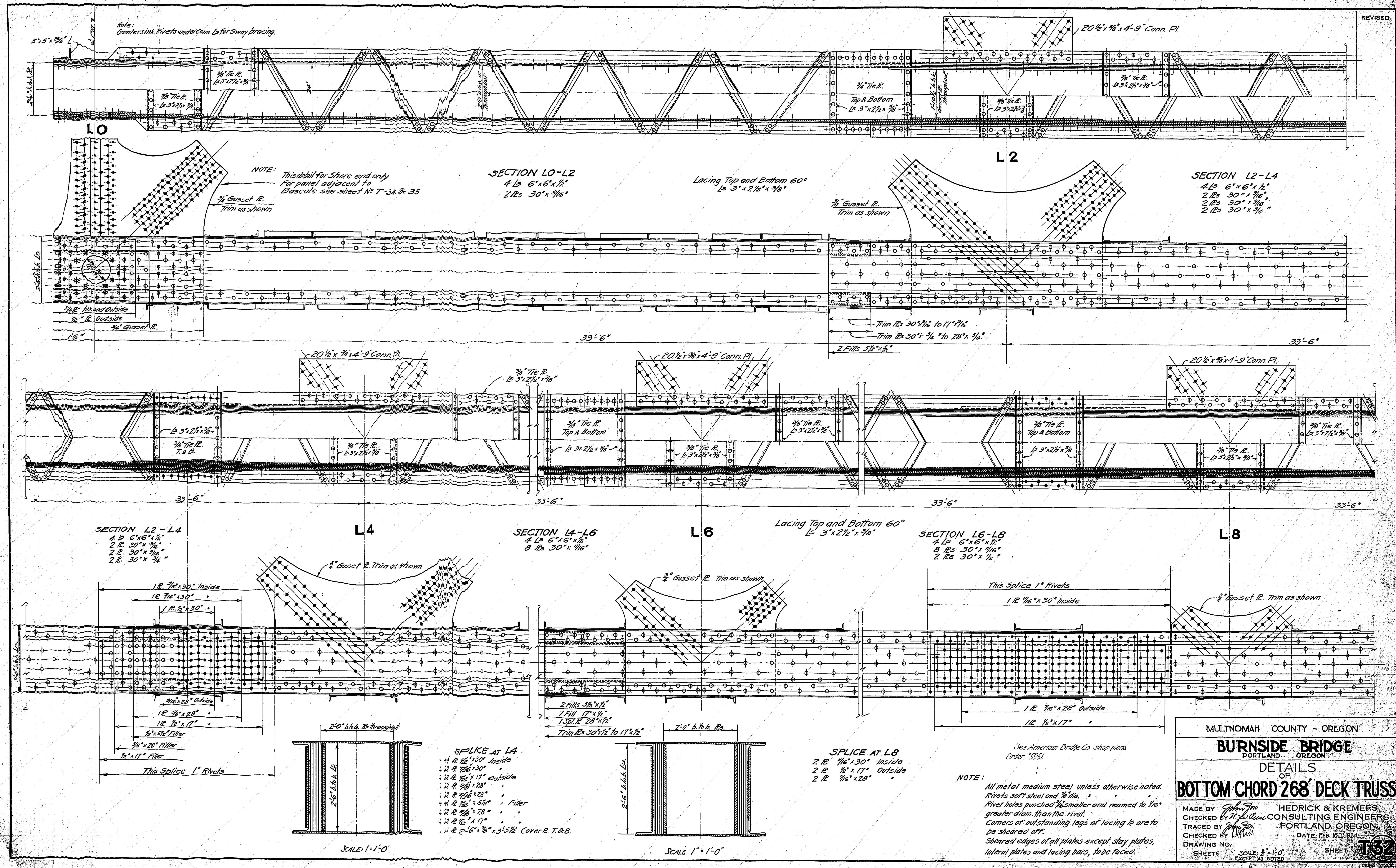
MADE BY: *R. J. ...* HEDRICK & KREMERS
CHECKED BY: *R. J. ...* CONSULTING ENGINEERS
TRACED BY: *R. J. ...* PORTLAND, OREGON
CHECKED BY: *R. J. ...* DATE FEB. 5th 1924
DRAWING NO. SHEETS SCALE 3/8" = 1'-0" SHEET NO. T-30



NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.



MULTNOMAH COUNTY - OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
 DETAILS
TOP CHORD 268' DECK TRUSS
 MADE BY: [Signature] HEDRICK & KREMERS
 CHECKED BY: [Signature] CONSULTING ENGINEERS
 TRACED BY: [Signature] PORTLAND, OREGON
 CHECKED BY: [Signature] DATE FEB. 1ST 1924
 DRAWING NO. [Signature]
 SHEETS [Signature] Scale - 1"=1'-0" SHEET NO. 31



REVISED

MULTNOMAH COUNTY - OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
 DETAILS
 OF
BOTTOM CHORD 268' DECK TRUSS

MADE BY *John J. ...*
 CHECKED BY *H. L. ...*
 TRACED BY *John J. ...*
 CHECKED BY *H. L. ...*
 DRAWING NO. ...
 SHEETS ...

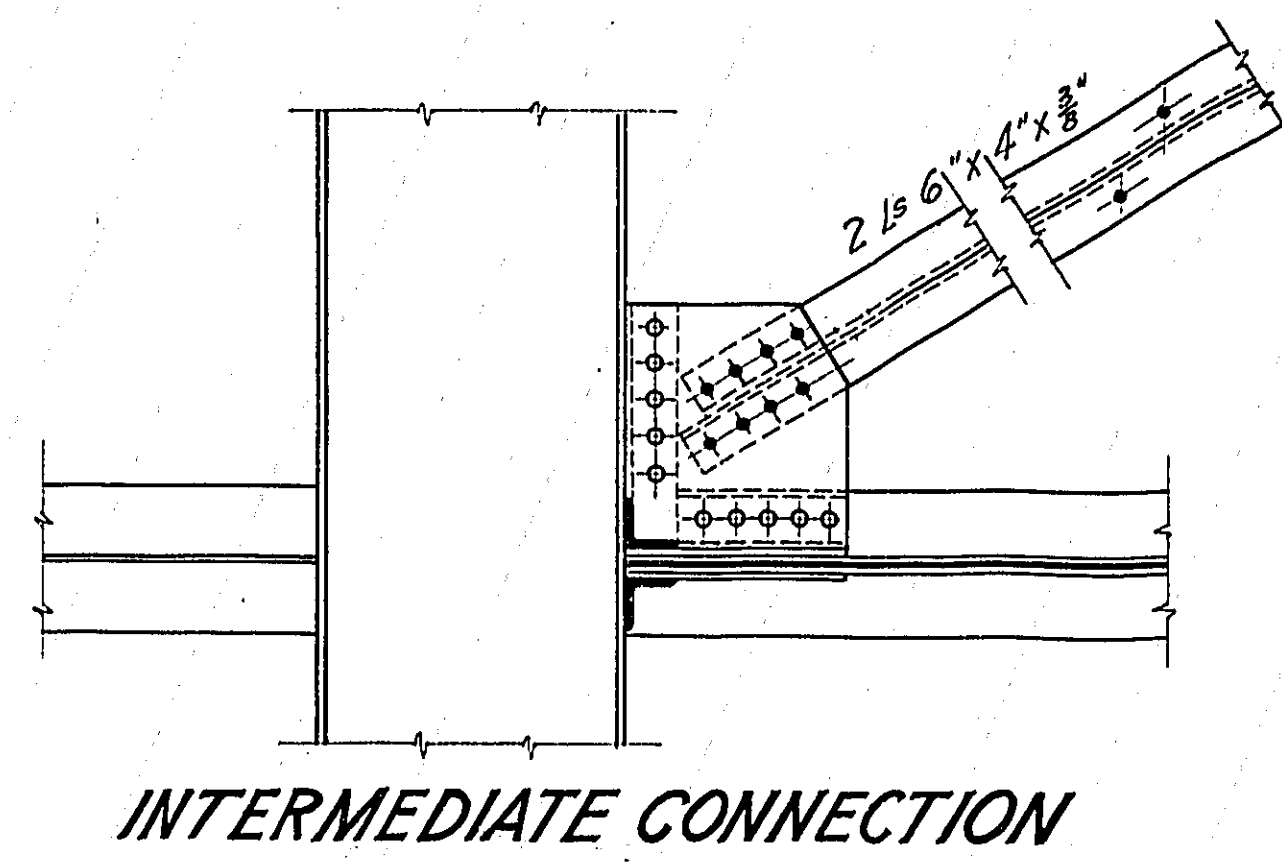
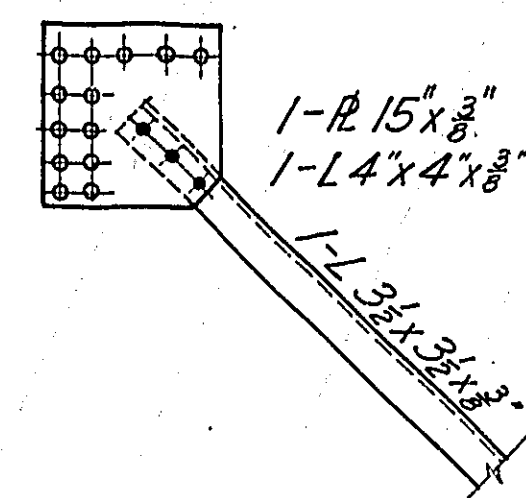
HEDRICK & KREMERS
 CONSULTING ENGINEERS
 PORTLAND, OREGON
 DATE, FEB. 16, 1924

SCALE: 1" = 1'-0"
 EXCEPT AS NOTED

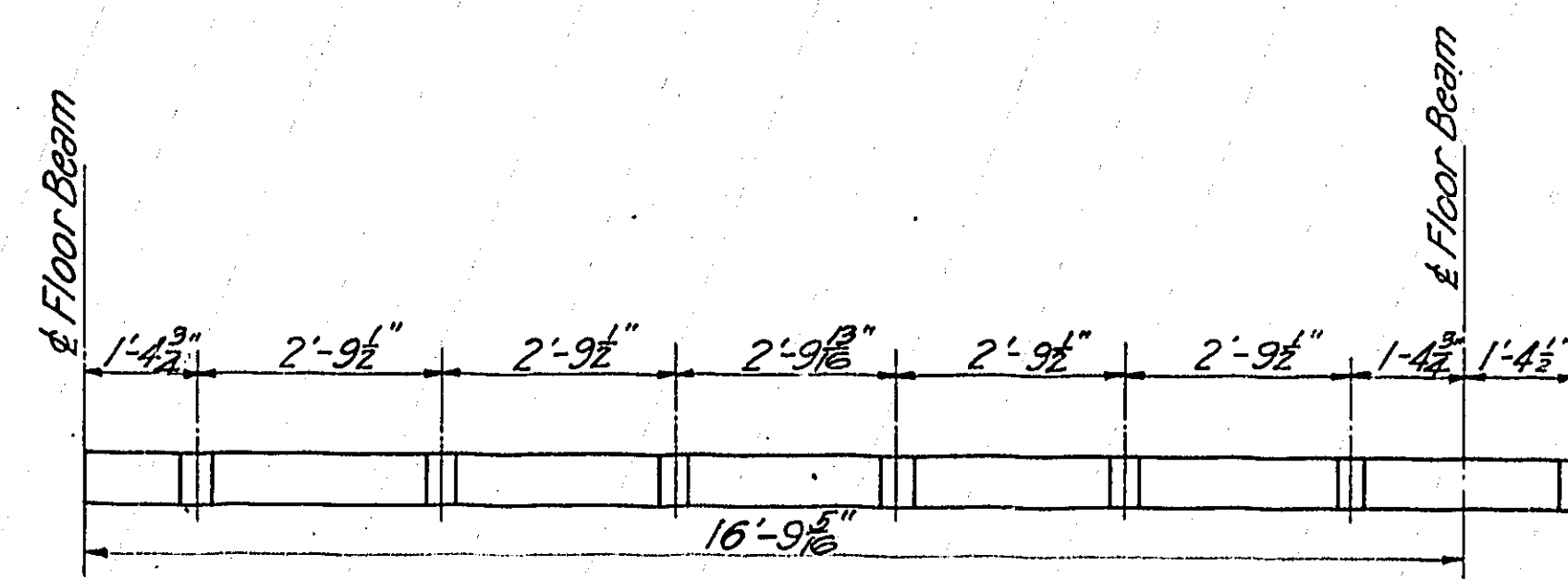
SHEET NO. **132**

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
 1705 SW 12th Ave
 Portland, Oregon 97201
 3M



INTERMEDIATE CONNECTION



MARKING DIAGRAM FOR RAIL CHAIRS

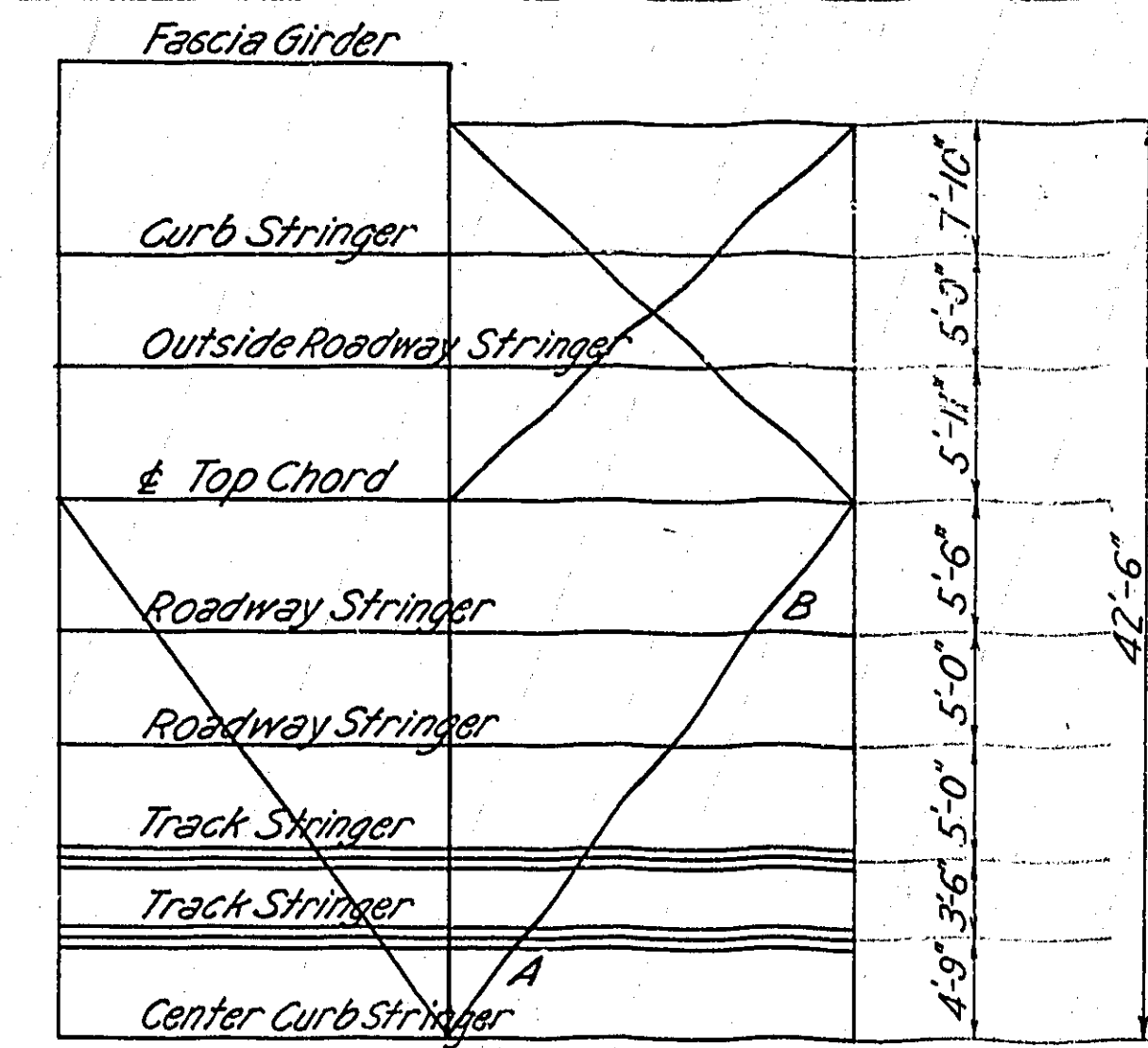
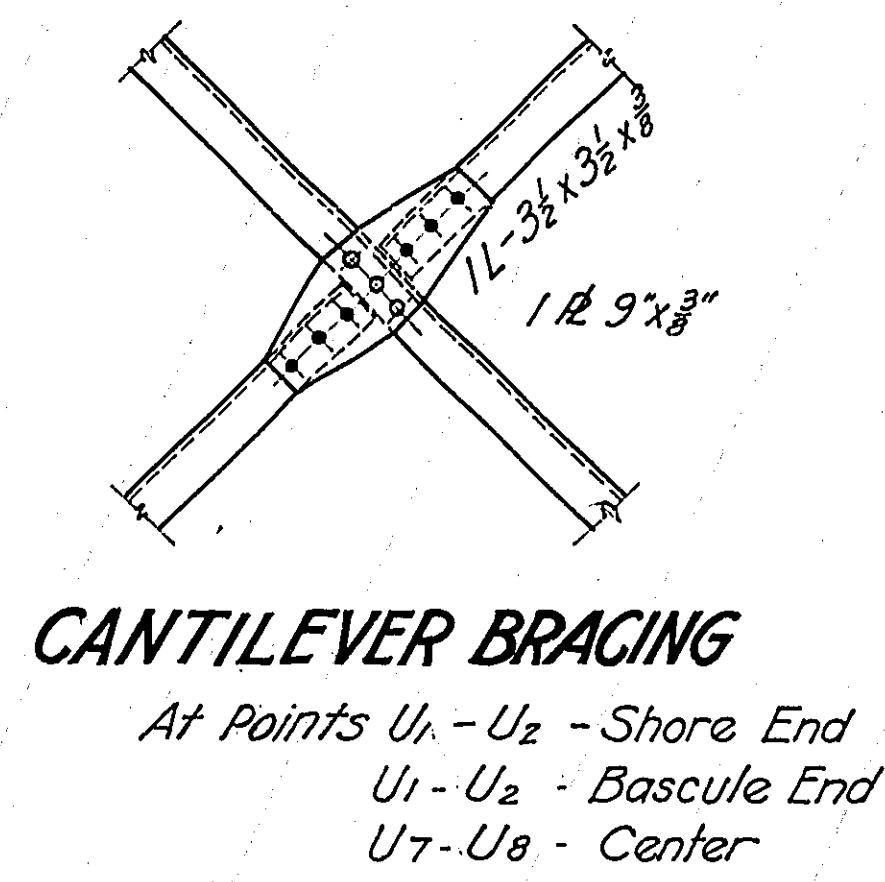
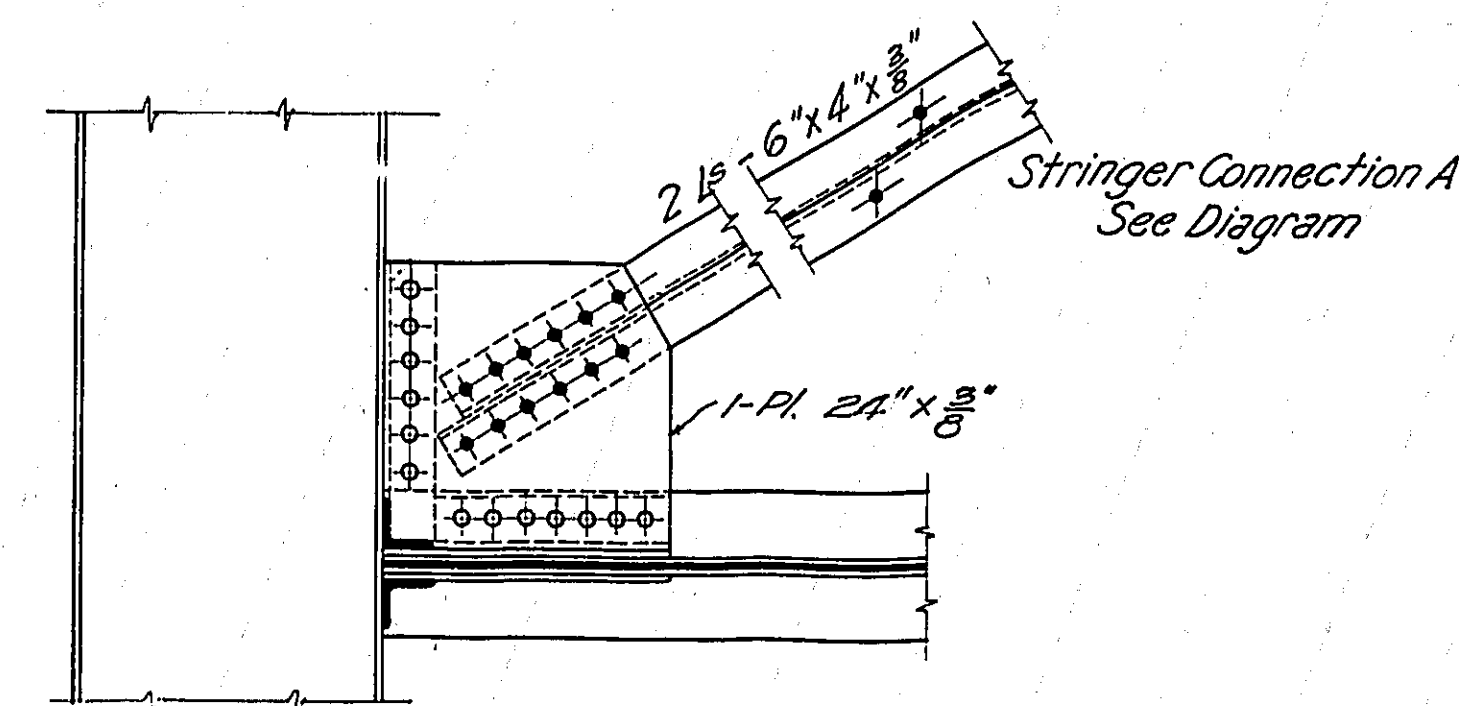


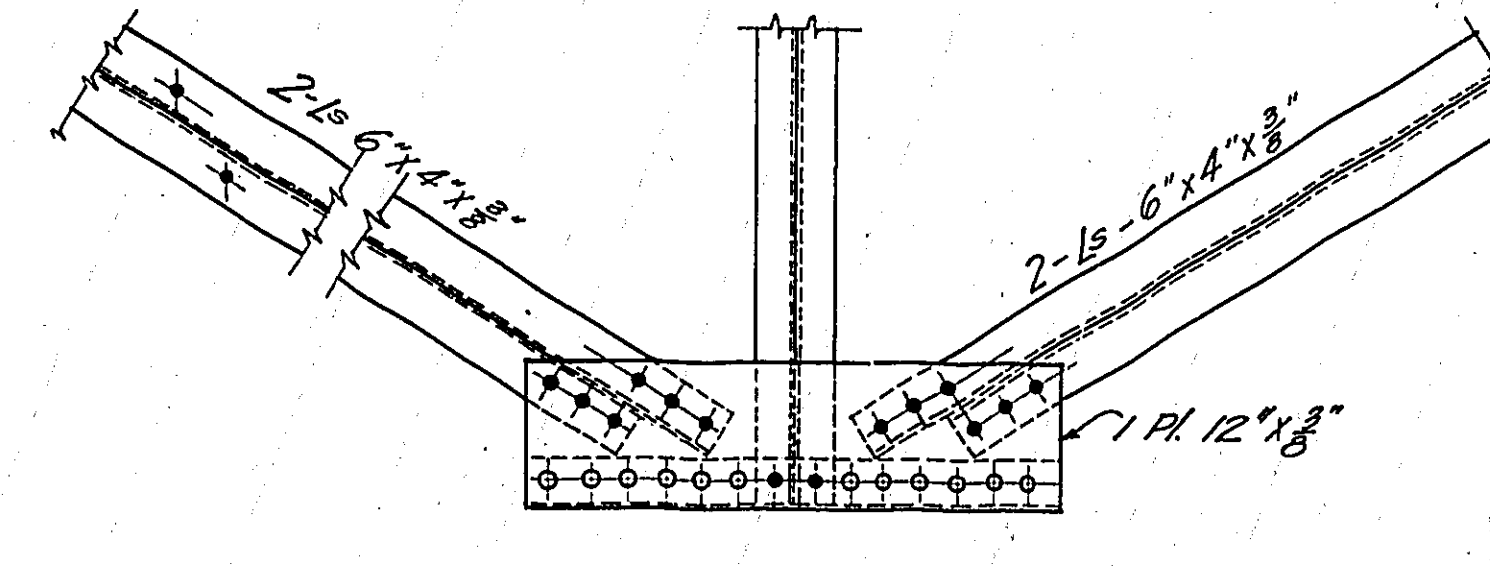
DIAGRAM OF STRINGER CONNECTION
To Top Laterals



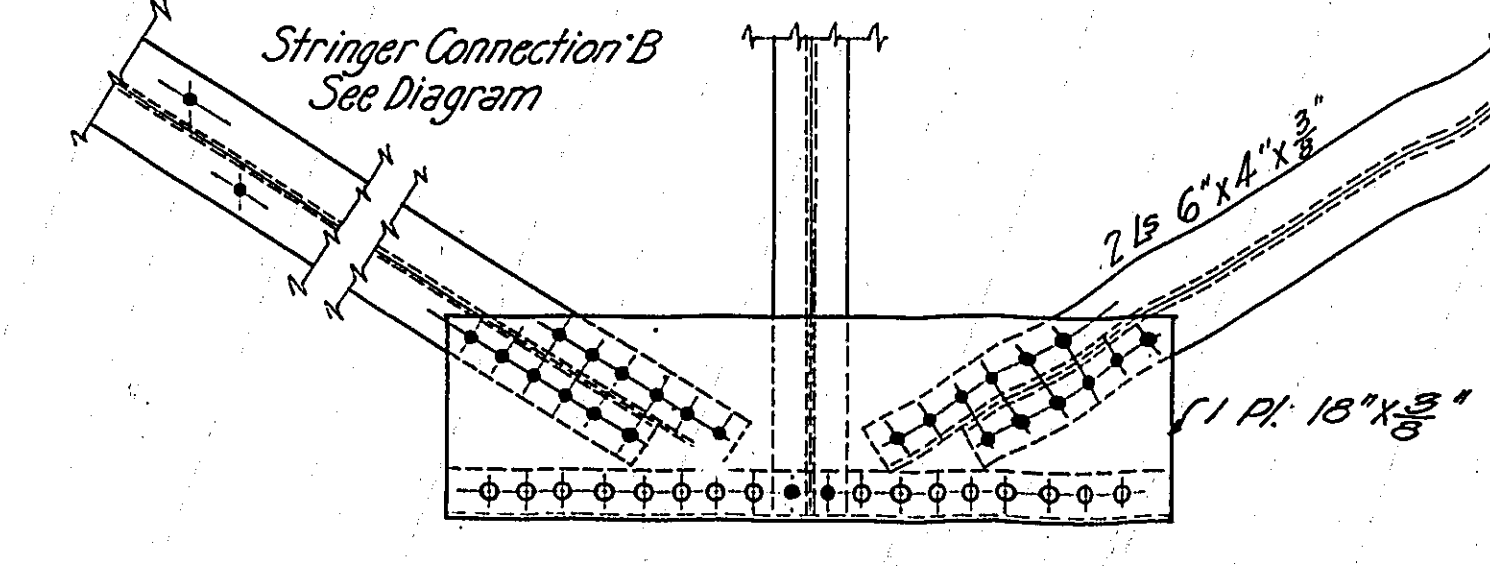
CANTILEVER BRACING
At Points U₁ - U₂ - Shore End
U₁ - U₂ - Bascule End
U₇ - U₈ - Center



END PANEL CONNECTION

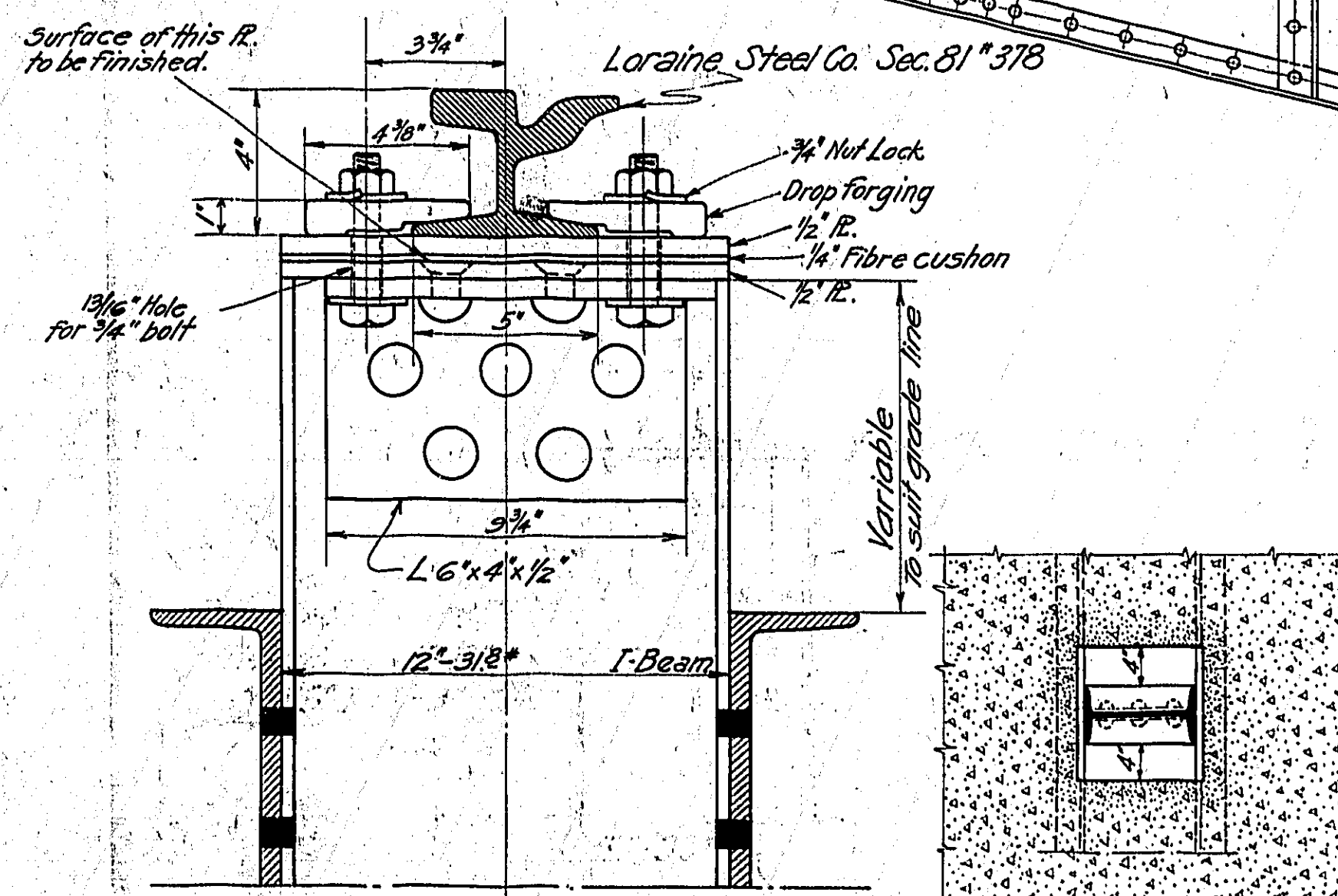
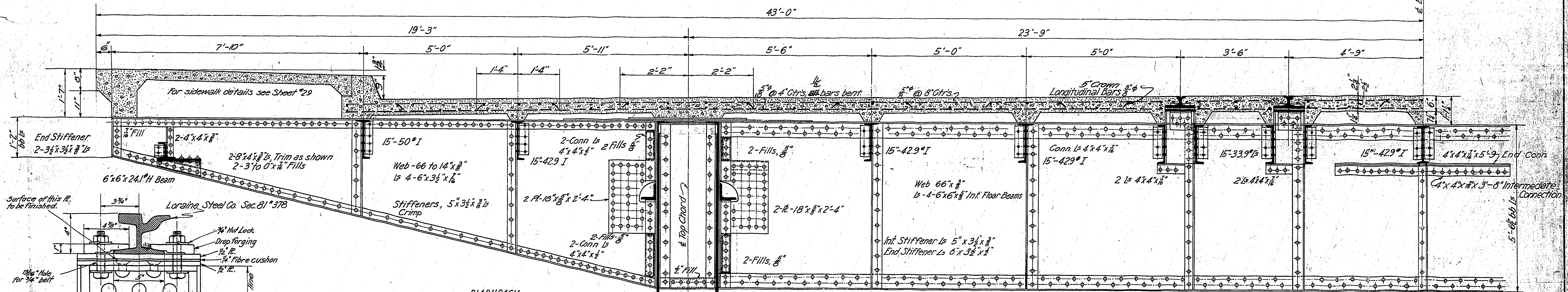


INTERMEDIATE CONNECTION



END PANEL CONNECTION

For Fascia Girder Reinf. see sheet #54



TYPICAL RAIL CHAIR
Scale 3" = 1'-0"

DIAPHRAGM
1-L - 3"
2-L 6x3x1/2"
4-L 6x3x1/2"

INTERMEDIATE FLOOR BEAM

End Floor Beam same, except flange angles 6"x6"x1/2" and omit cantilevers

CANTILEVER SPLICE

1-L4x4x3/8
1-L8x8x7/8

For Structural Steel details see American
Bridge Co. spec. plus, Order #1591

For detail of Concrete Deck see
Sheet #304-277

All rivets 3/4" dia. unless otherwise
noted.
NOTE: For length of stringers on cantilever panel
U₀-U₁ shore end, see sheet T-30.

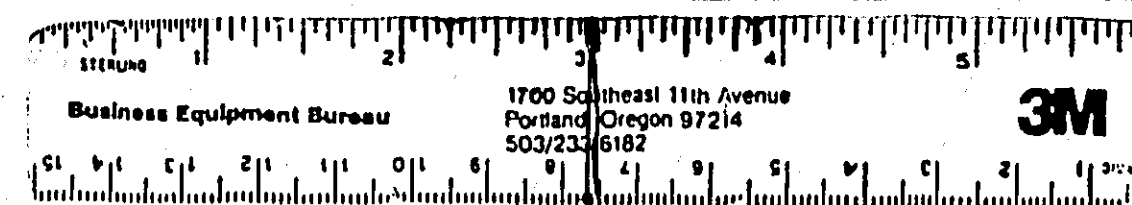
MULTNOMAH COUNTY OREGON
BURNSIDE BRIDGE
PORTLAND, OREGON
DETAILS
OF
FLOOR BEAMS & TOP LATERALS

MADE BY: *[Signature]*
CHECKED BY: *[Signature]*
TRACED BY: *[Signature]*
DRAWING NO.:
SHEETS: 1 of 1

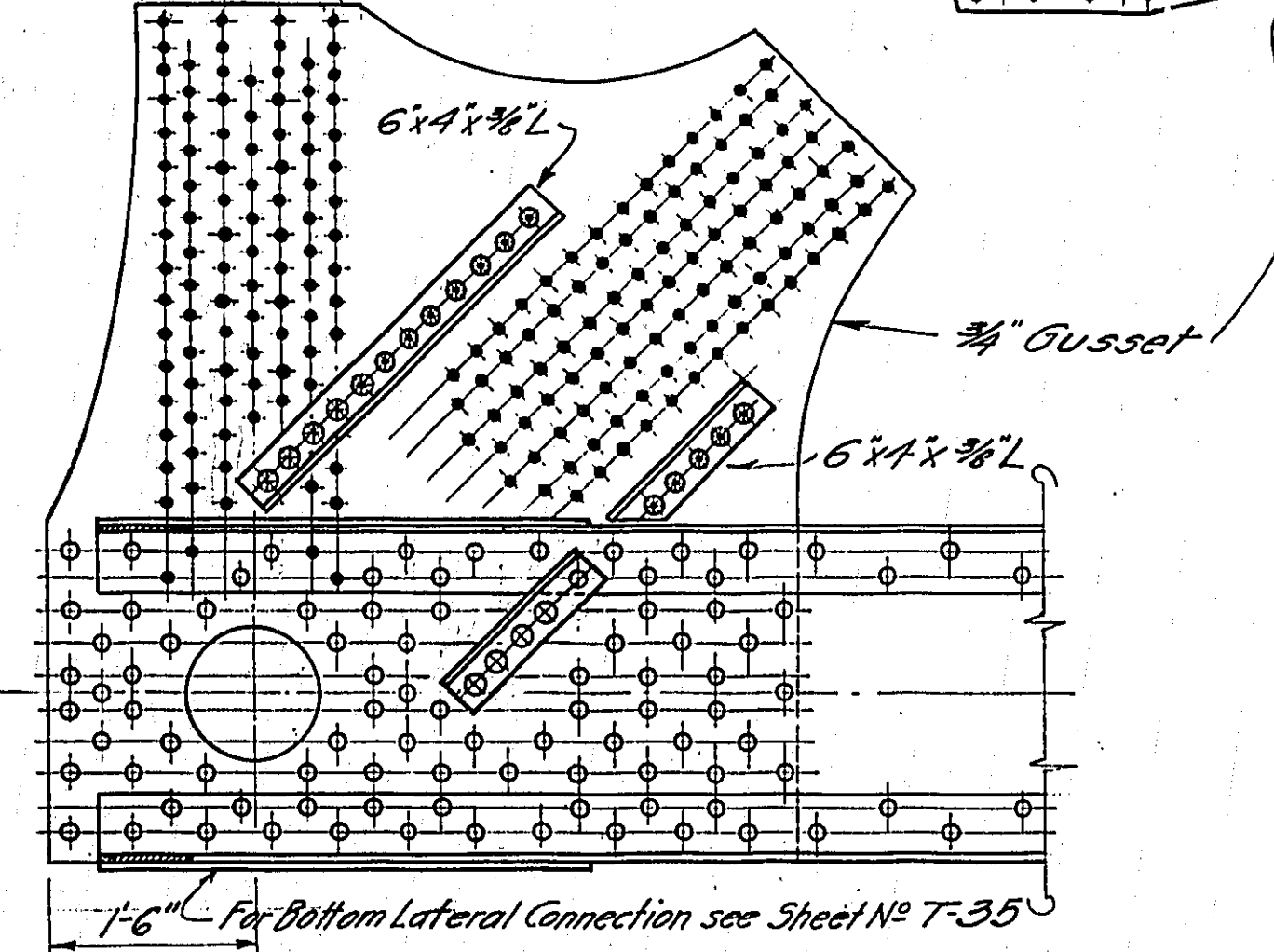
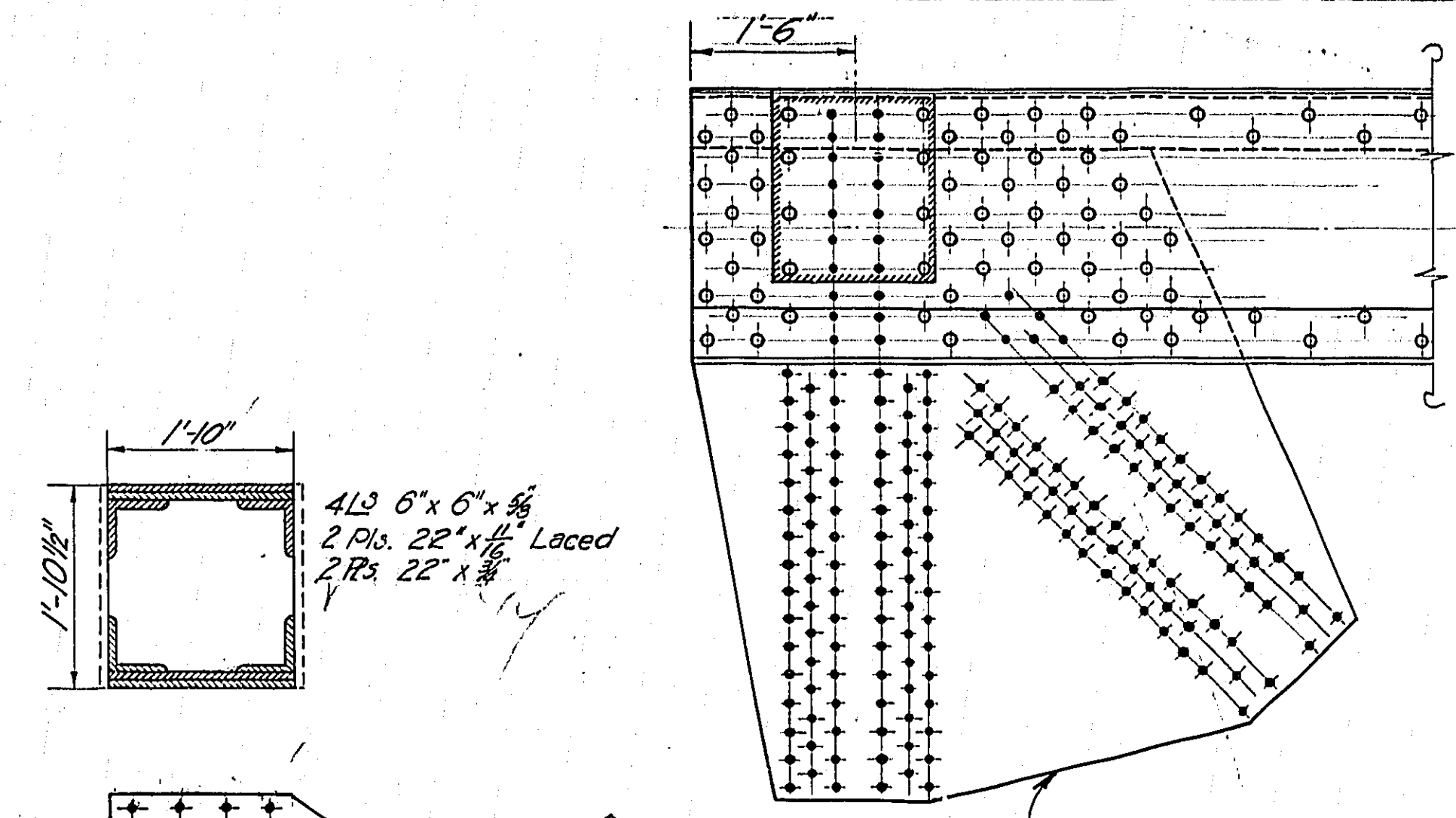
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE: 1-30-24

Scale 1" = 1'-0"

NOTICE: IF THIS DOCUMENT IS LESS
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DUE TO THE QUALITY OF THE ORIGINAL.



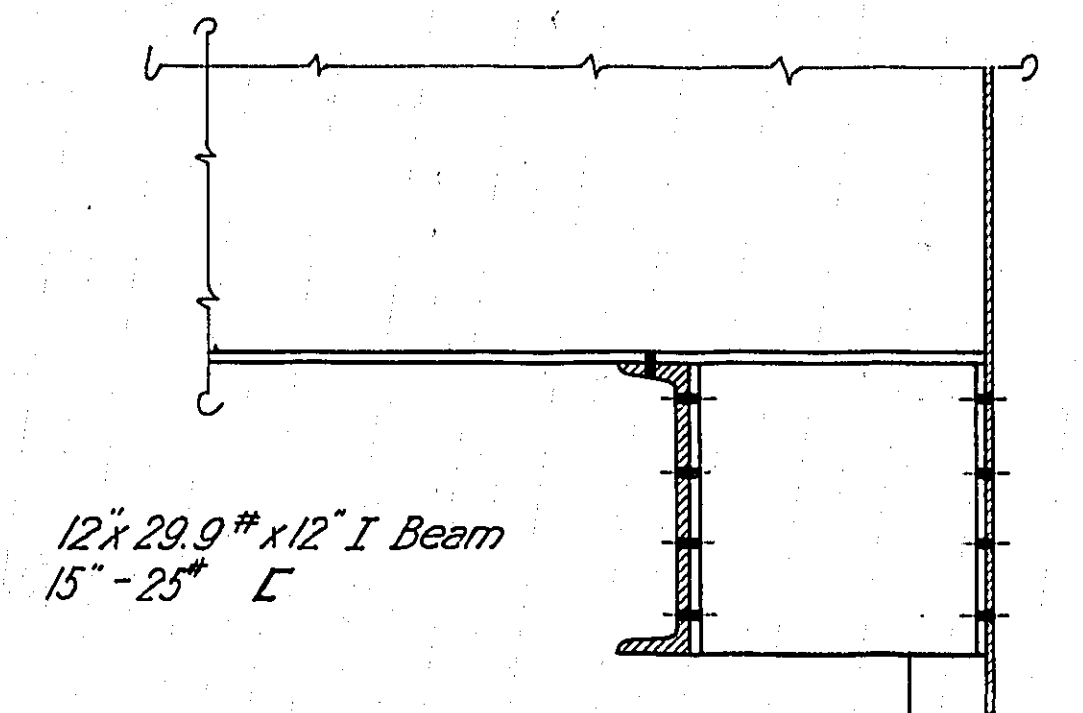
REVISED



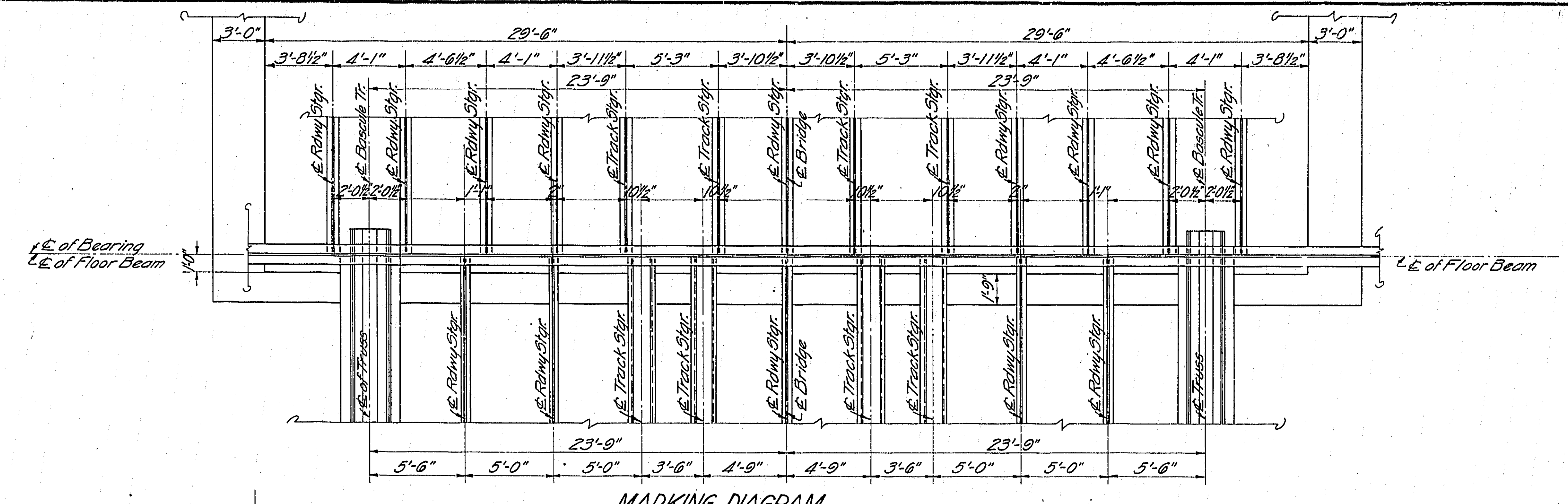
SPECIAL END POST
BASCULE END
 Scale 3/4" = 1'-0"

GENERAL NOTES:
 All metal medium steel unless otherwise noted.
 Rivets soft steel and 3/8" diam. except when noted.
 Rivet holes punched 1/8" smaller and reamed to 1/8" greater diam. than the rivet, except in I beam stringers and stringer bracing, where holes may be punched full size.
 Ends of floor beams and cantilevers to be faced and reamed to cast iron template.
 Mill ends of all stiffener Is for bearing on flange.
 Sheared edges of all plates except stay plates, lateral plates and lacing bars, to be faced.

Note: - Stringers from cantilever to carry through to concrete cantilever. For details of bearing see Sheet No. T.11
 Cantilever bracing on truss to be in next panel U1-U2

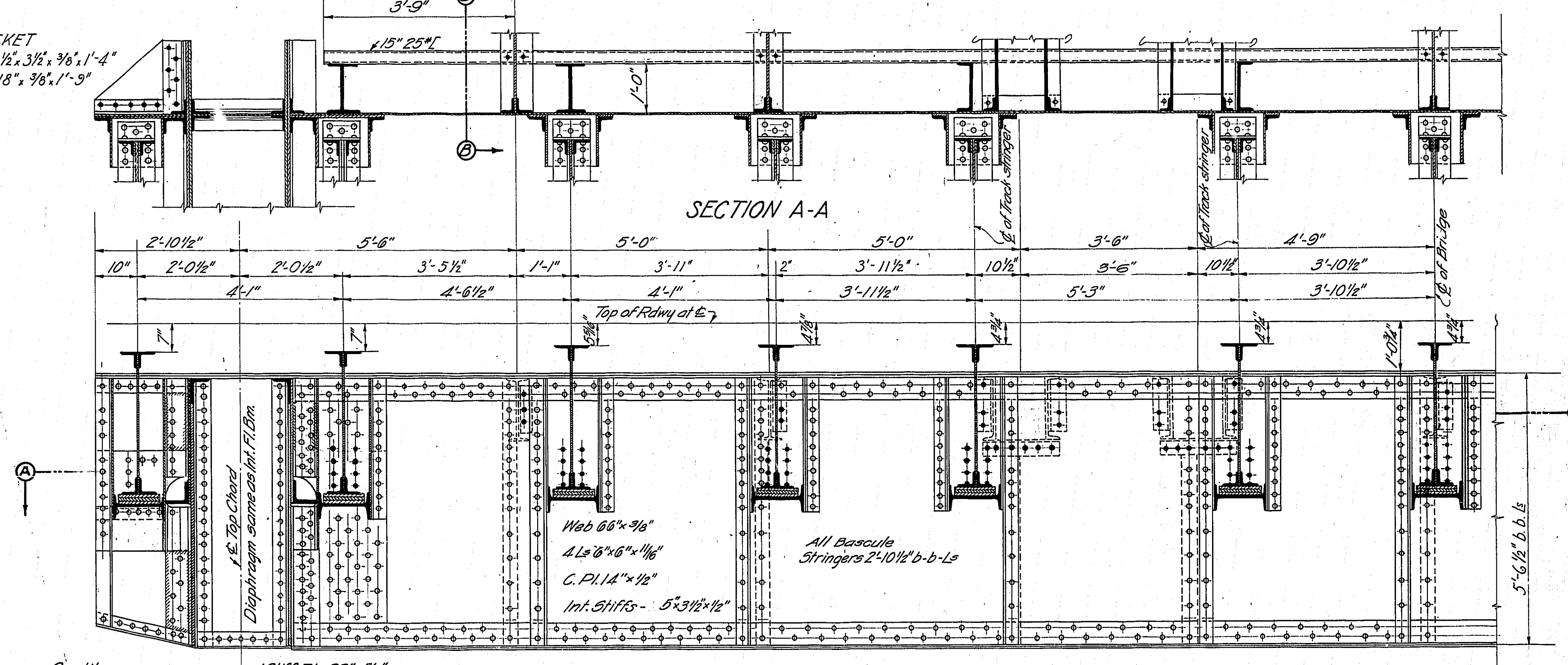


SECTION B-B
DIAPHRAGM ON WEB BEHIND STRINGERS



MARKING DIAGRAM

BRACKET
 1-L 3 1/2" x 3 1/2" x 3/8" x 1'-4"
 1-Pl. 18" x 3/8" x 1'-5"

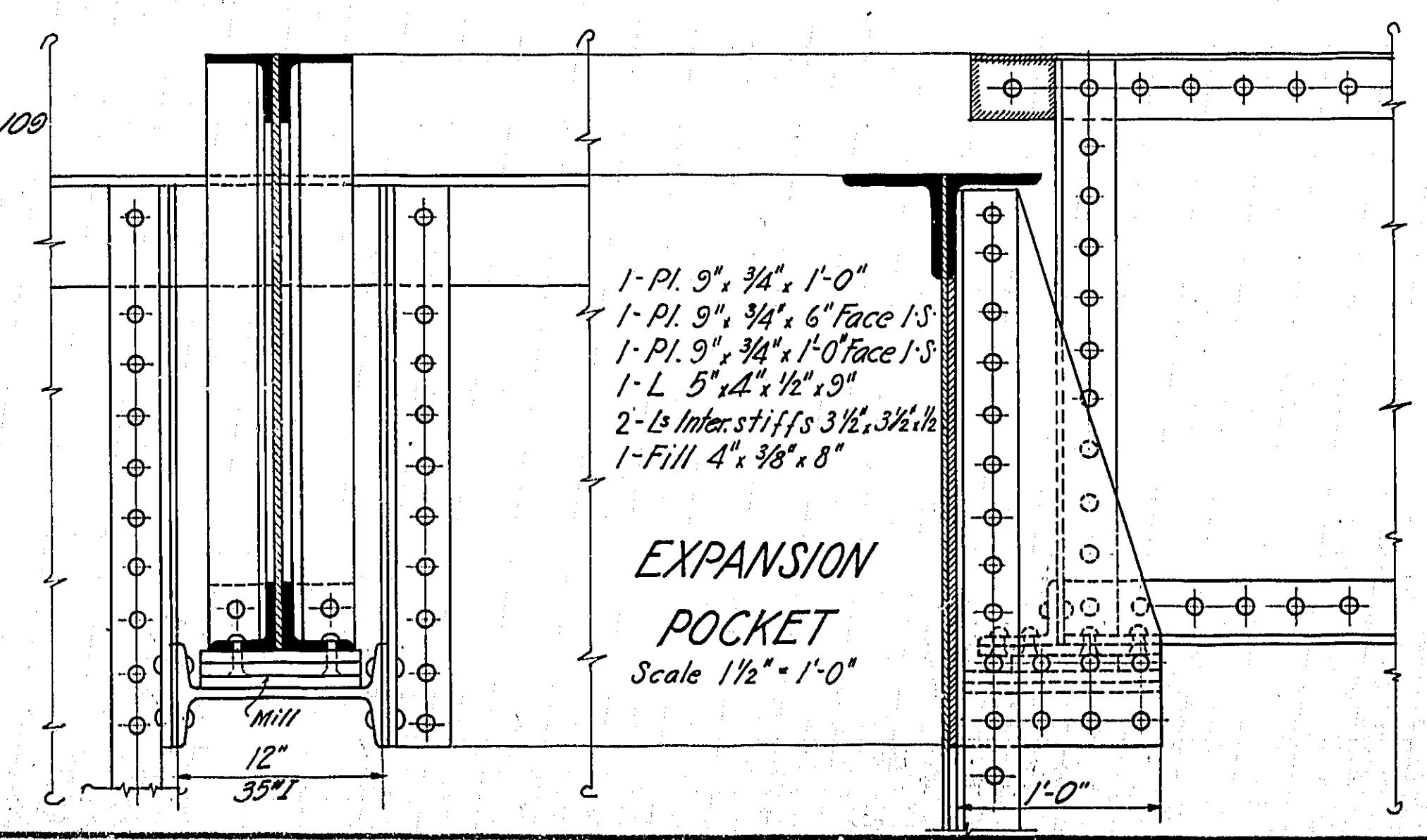


SECTION A-A

Conn. on Cantilever same

- 13 Int. Pl. - 22" x 3/8"
- 1L - 6" x 6" x 1/2" End Stiff
- 1 - 6" x 153" Ship Channel, C-109
- 2Ls - 6" x 6" x 1/2"
- 1L - 5" x 5" x 1/2"
- 1L - 3 1/2" x 3 1/2" x 1/2"
- 2Pls - 3 1/2" x 12" x 3/8"

Note: This detail typical for all expansion pockets except those adjacent to top chord. Stringer connections on far side of beam same as intermediate, except as shown.



EXPANSION POCKET
 Scale 1 1/2" = 1'-0"

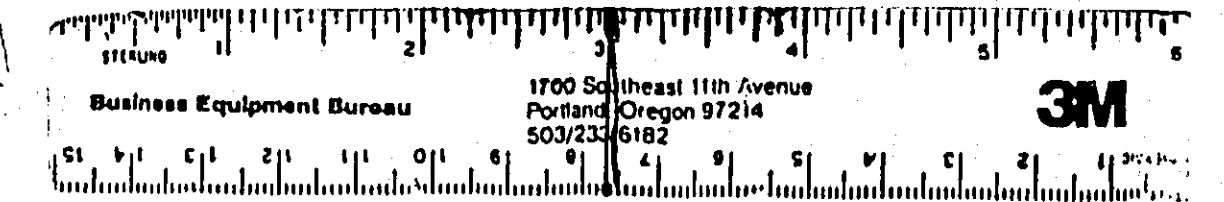
See Shop plans American Bridge Co. Order 1593

MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
 DETAILS
SPECIAL FLOOR BEAM BASCULE END
 268 DECK TRUSS.

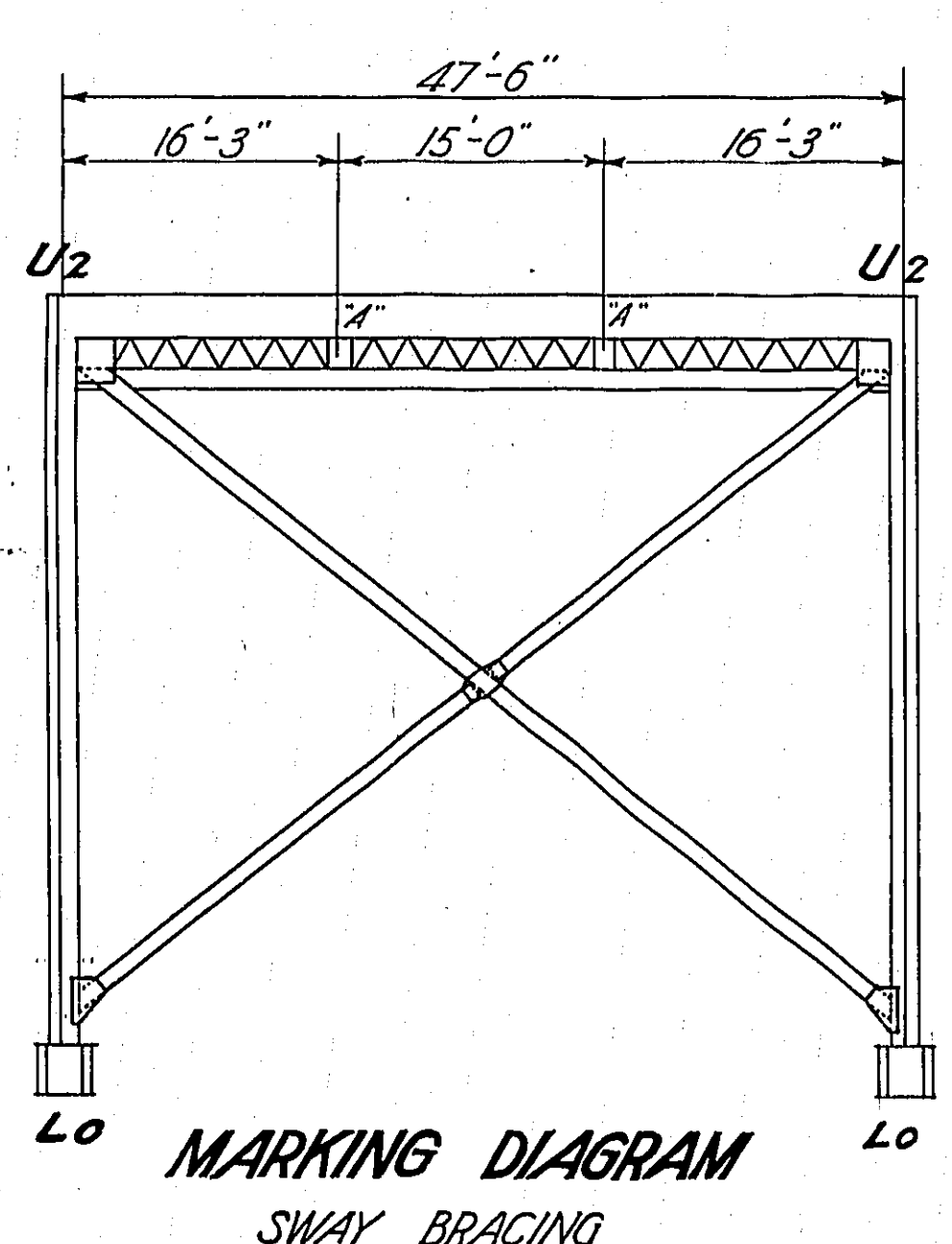
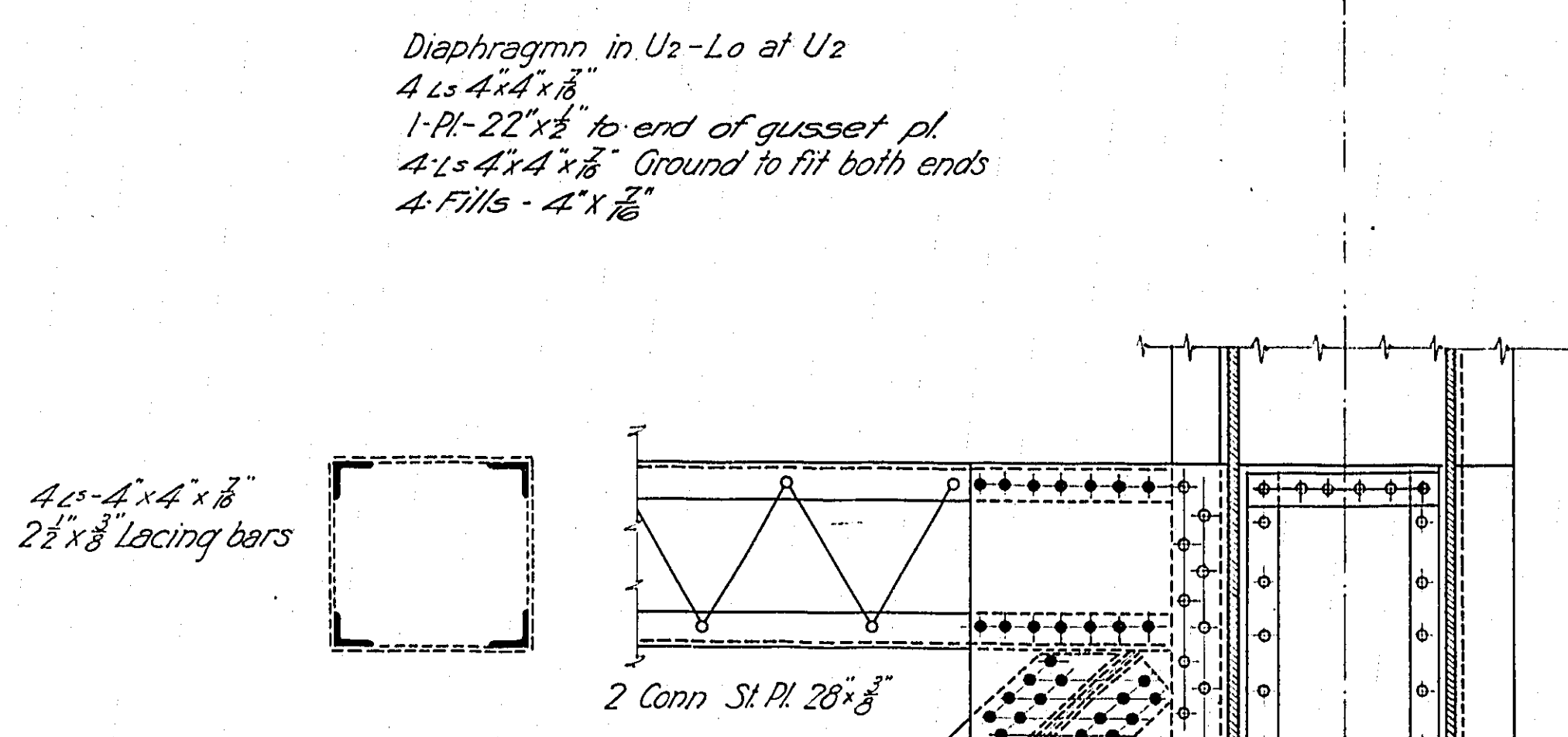
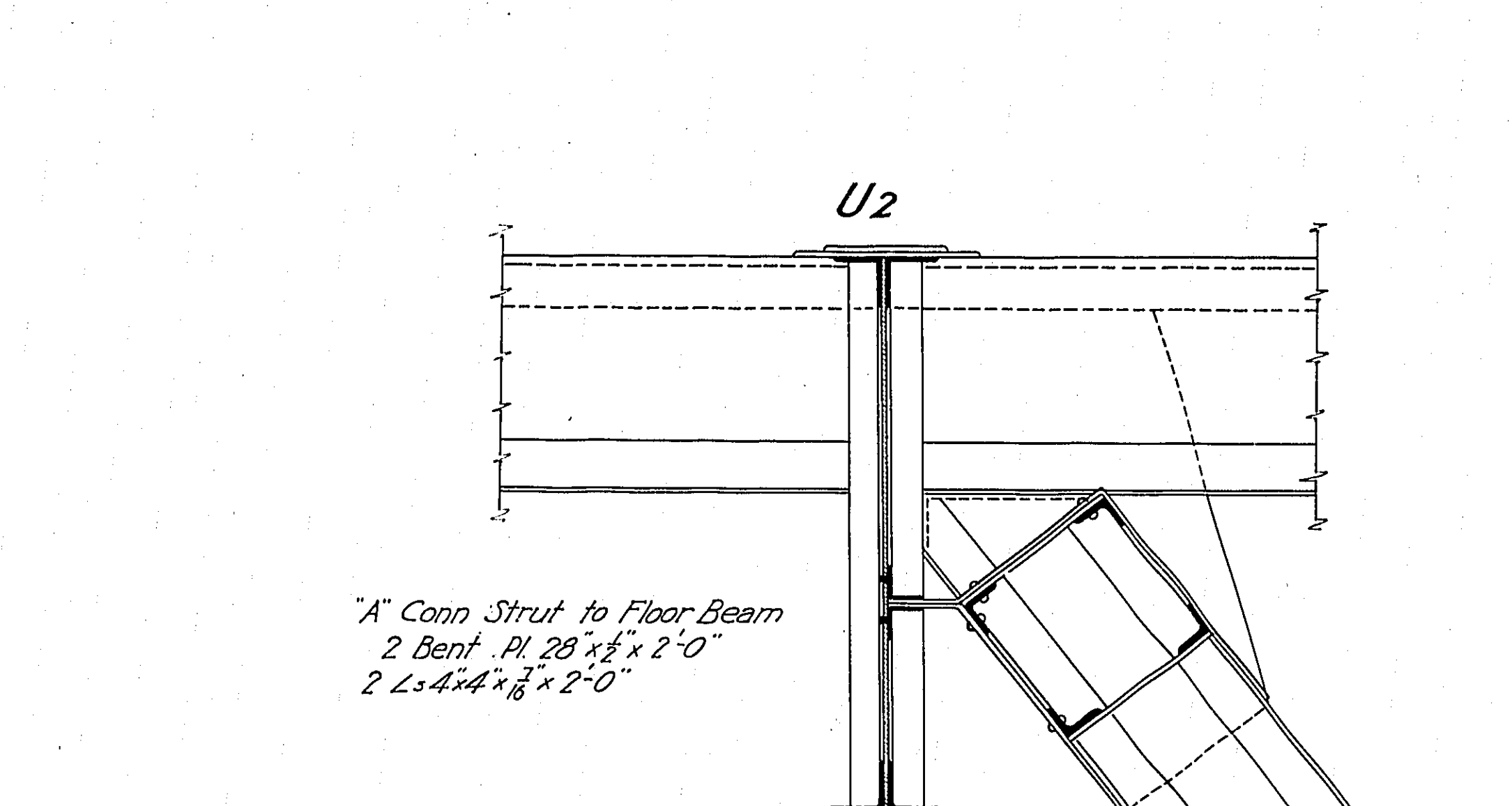
MADE BY [Signature]
 CHECKED BY [Signature]
 TRACED BY [Signature]
 CHECKED BY [Signature]
 DRAWING NO. [Signature]
 SHEETS 3 SCALE 1/2" = 1'-0" SHEET 10

HEDRICK & KREMERS
 CONSULTING ENGINEERS
 PORTLAND, OREGON
 DATE FEB 11 1924

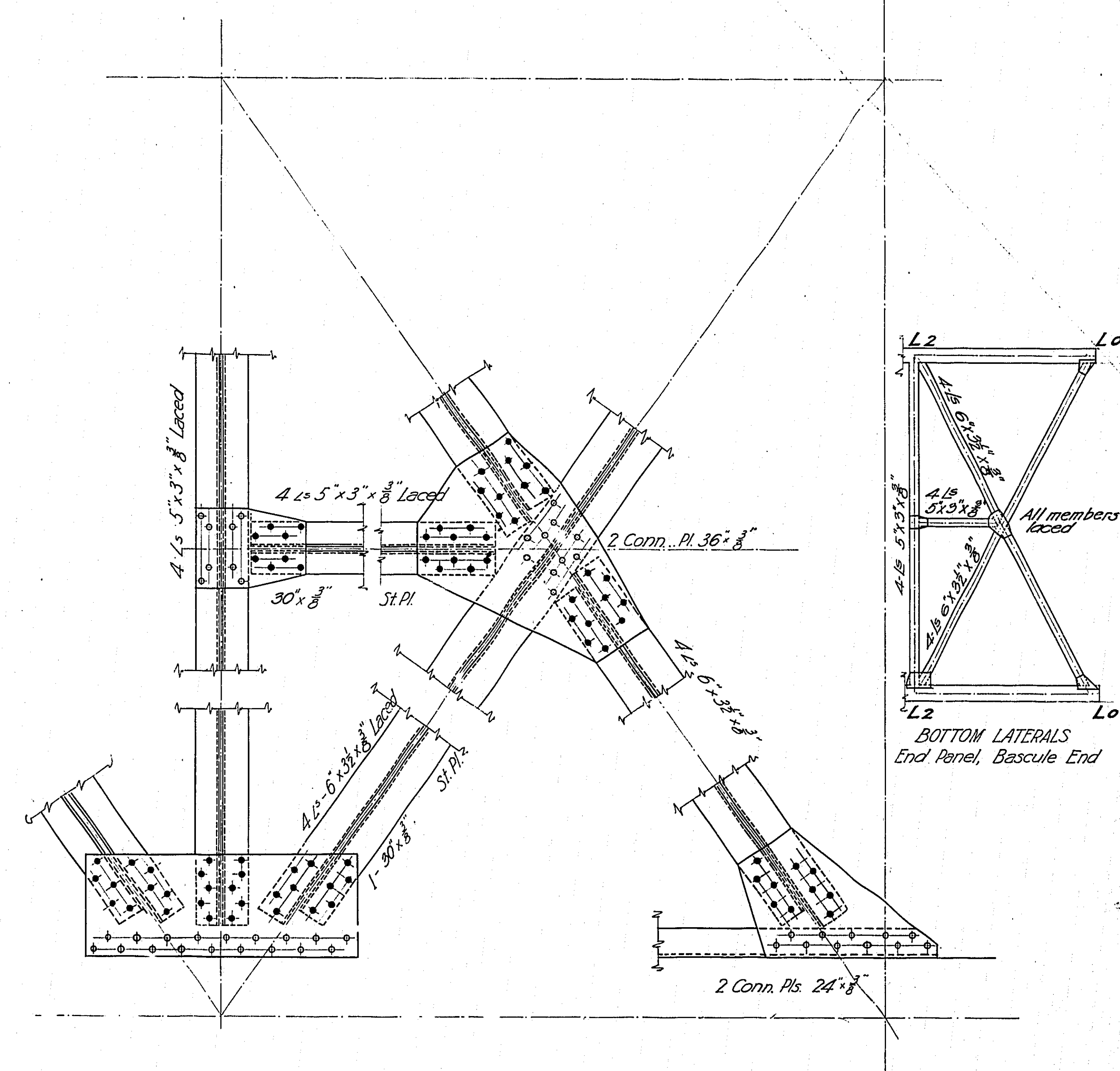
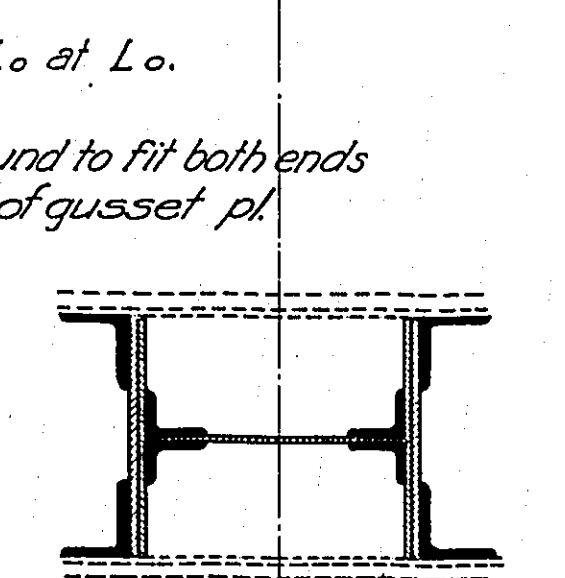
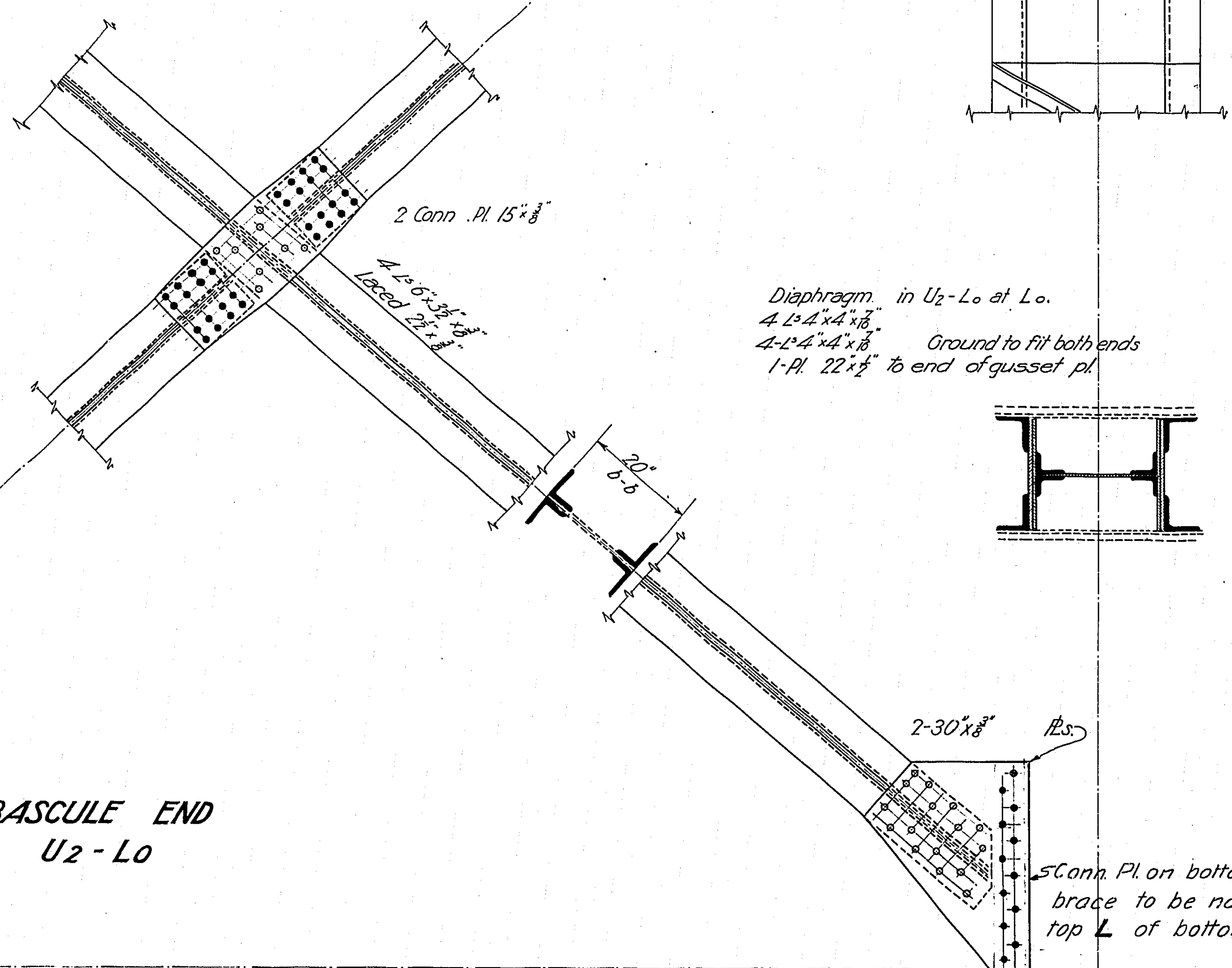
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.



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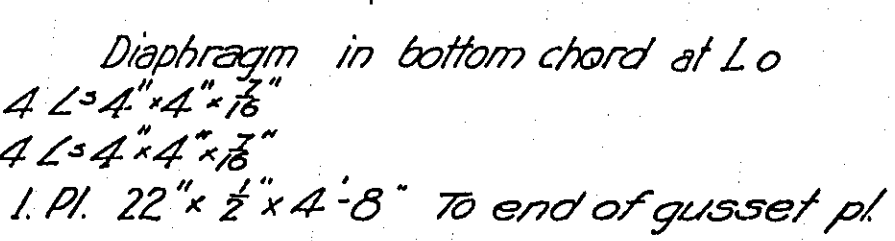


SWAY BRACING, BASCULE END
IN PLANE U2 - L0



BOTTOM LATERALS, END PANEL
BASCULE END

See Shop prints, American Bridge Co. Order 1531

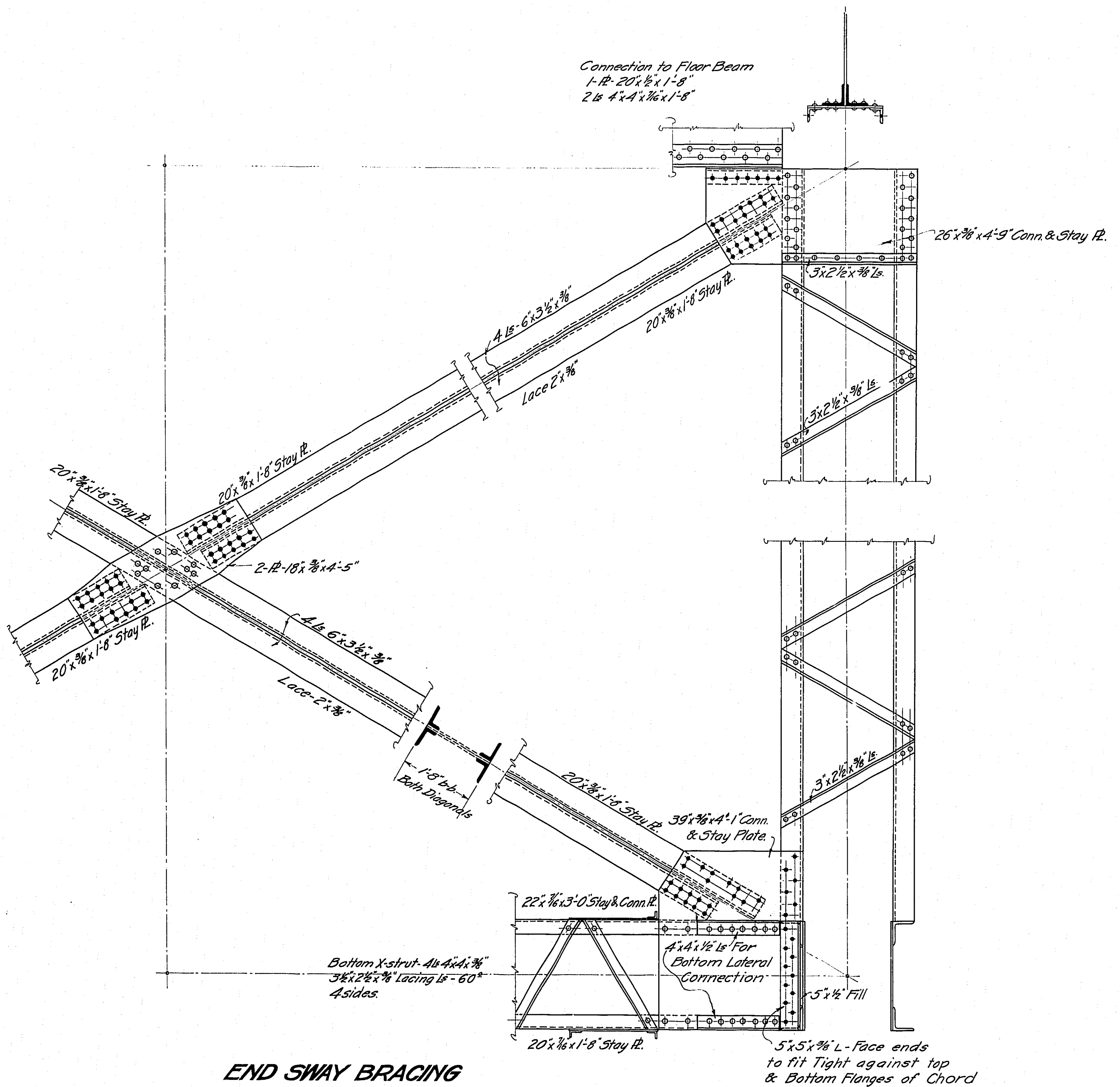


MULTNOMAH COUNTY - OREGON	
BURNSIDE BRIDGE	
PORTLAND, OREGON	
DETAILS	
BOTTOM LATERALS & SWAY BRACING	
BASCULE END	
MADE BY <i>R. Platt</i>	HEDRICK & KREMERS
CHECKED BY <i>R. Platt</i>	CONSULTING ENGINEERS
TRACED BY <i>R. Platt</i>	PORTLAND, OREGON
CHECKED BY <i>R. Platt</i>	DATE: JAN 29 th 1924
DRAWING NO.	SHEET NO. T35
SHEETS	SCALE: 3/4" = 1'-0"

NOTICE: IF THIS DOCUMENT IS LESS
LEGIBLE THAN THIS NOTICE IT IS
DUE TO THE QUALITY OF THE ORIGINAL.

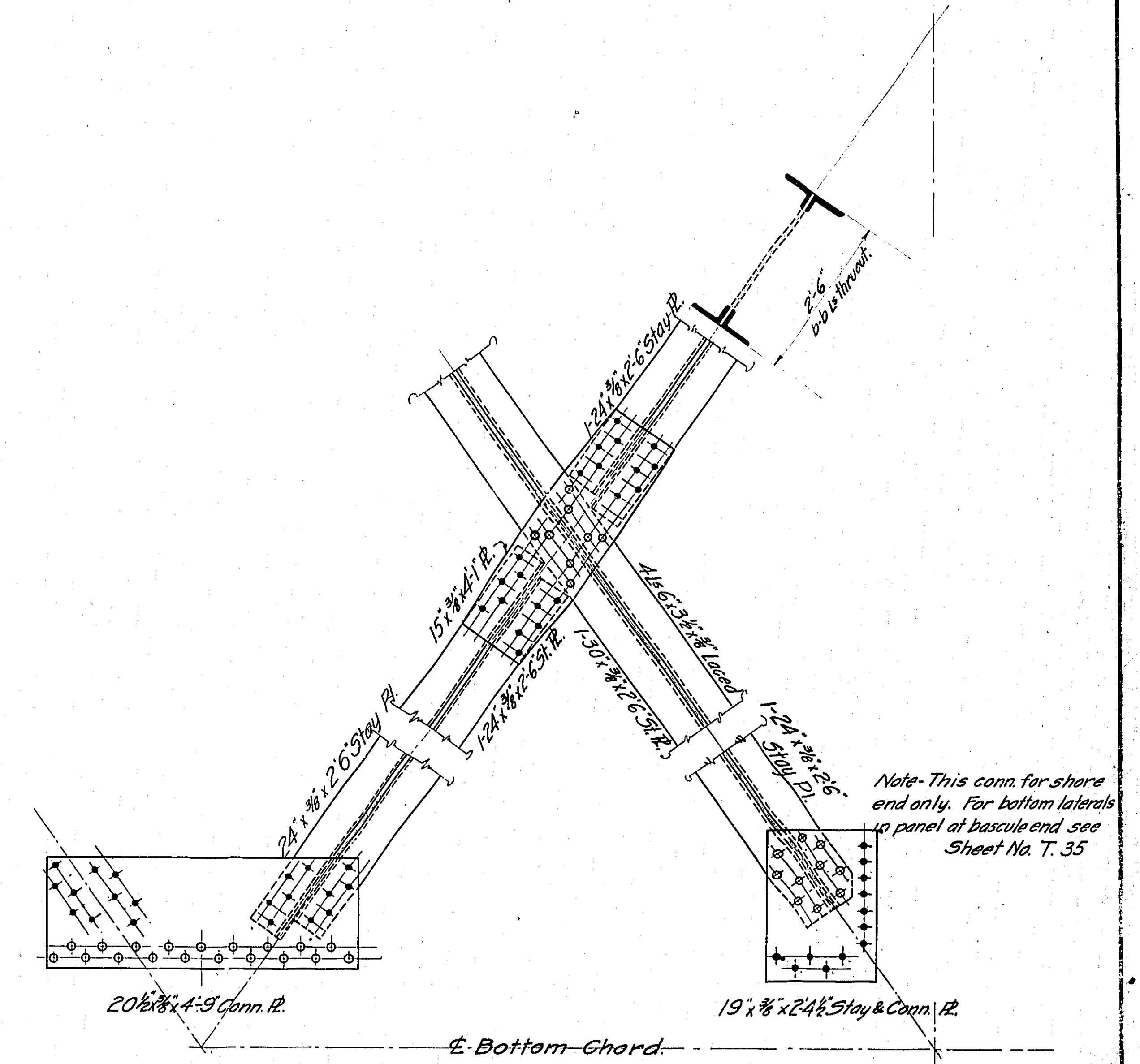
Business Equipment Bureau 1700 Southwest 110 Avenue
Portland Oregon 97214
3M
503231012

REVISED



END SWAY BRACING SHORE END.

Note: This detail for shore end only for sway bracing at bascule end see Sheet No. T. 35



BOTTOM LATERALS

All rivets 3/8 dia. unless otherwise noted.

MULTNOMAH COUNTY — OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS
SWAY BRACING & BOTTOM LATERALS
SHORE END

MADE BY *R. Wood* HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE JAN. 27 - 1924

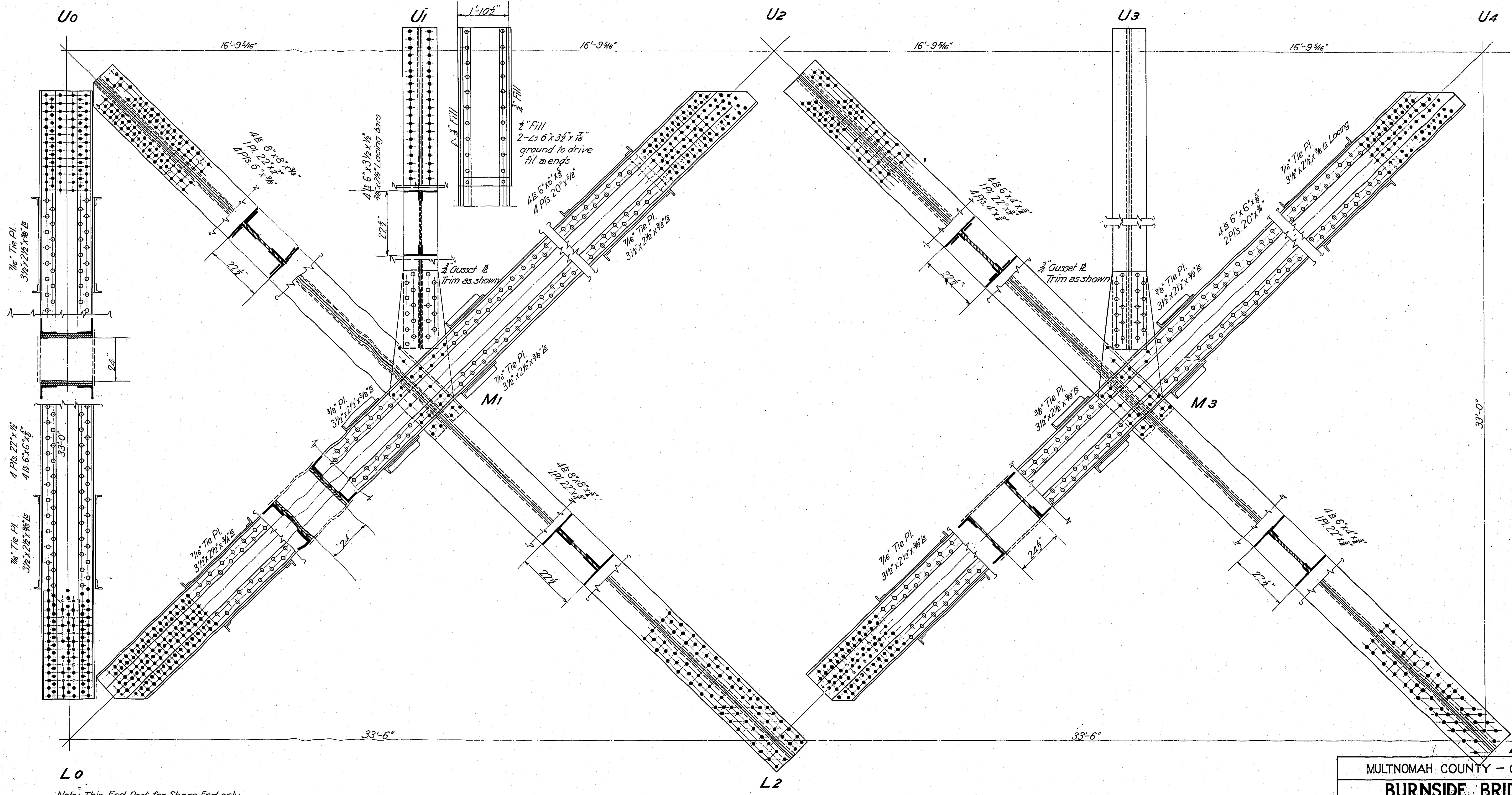
CHECKED BY *J. Mitchell*
DRAWING NO. *101*
SHEETS *3* Scale 3/4" = 1'-0" SHEET NO. **T-36**

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.



AB 37

REVISED



L0
 Note: This End Post for Shore End only.
 For special post, Bascule end, See Sheet No.

All Rivets 3/4" diam. unless otherwise denoted

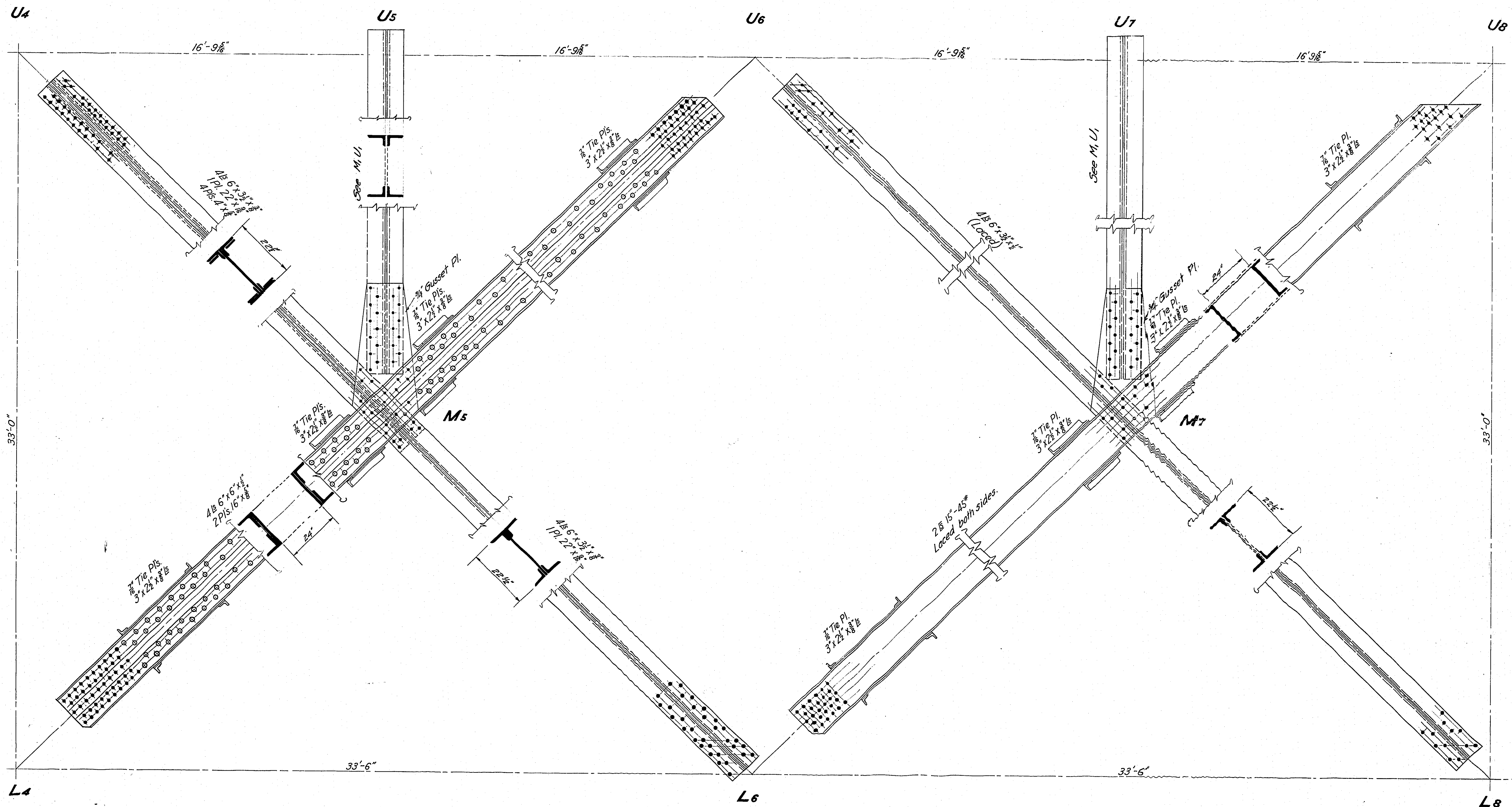
See shop plans, American Bridge Co. Order 2887

MULTNOMAH COUNTY - OREGON	
BURNSIDE BRIDGE	
PORTLAND, OREGON	
DETAILS	
MAIN WEB MEMBERS	
MADE BY <i>M.C. DeWitt</i>	HEDRICK & KREMERS
CHECKED BY <i>R. DeWitt</i>	CONSULTING ENGINEERS
TRACED BY <i>W. DeWitt</i>	PORTLAND, OREGON
CHECKED BY <i>W. DeWitt</i>	DATE JAN 28 1922
DRAWING NO.	SHEETS
	Scale 3/4" = 1'-0"

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Business Equipment Bureau
 1700 Southwest 11th Avenue
 Portland, Oregon 97216
 503.233.6182

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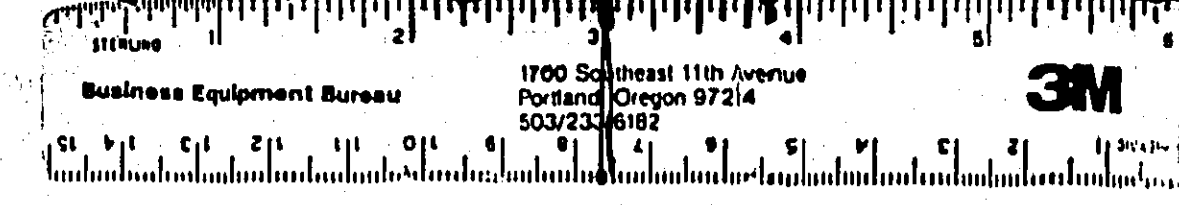


See shop plans, American Bridge Co. Order 43351

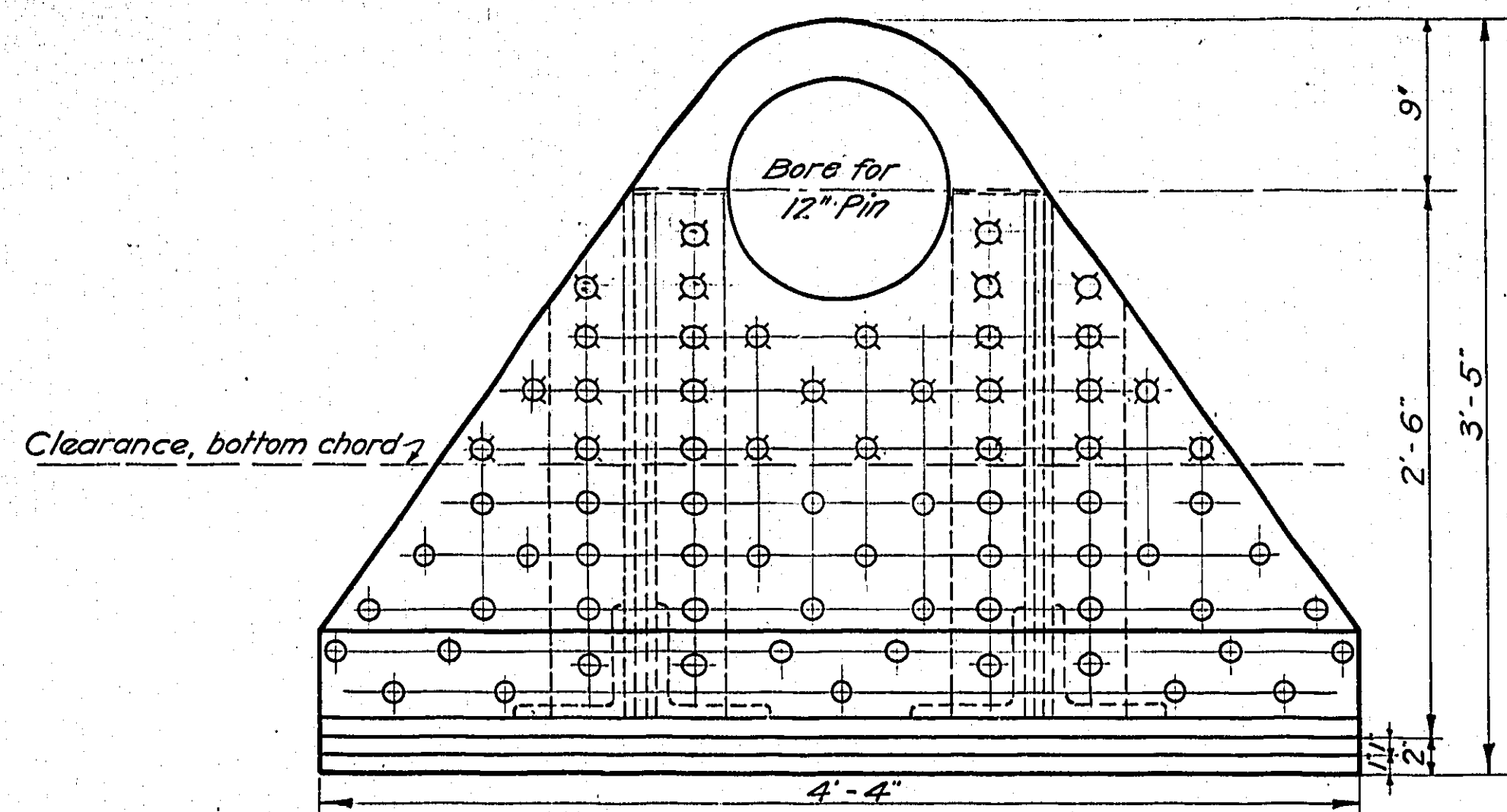
MULTNOMAH COUNTY - OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
 DETAILS
OF
MAIN WEB MEMBERS

MADE BY *[Signature]* HEDRICK & KREMERS
 CHECKED BY *[Signature]* CONSULTING ENGINEERS
 TRACED BY *[Signature]* PORTLAND, OREGON
 CHECKED BY *[Signature]* DATE FEB. 16TH 1924
 DRAWING NO. SHEETS SCALE: 3/4" = 1'-0" SHEET NO. 13

NOTICE: IF THIS DOCUMENT IS LESS
 LEGIBLE THAN THIS NOTICE IT IS
 DUE TO THE QUALITY OF THE ORIGINAL.

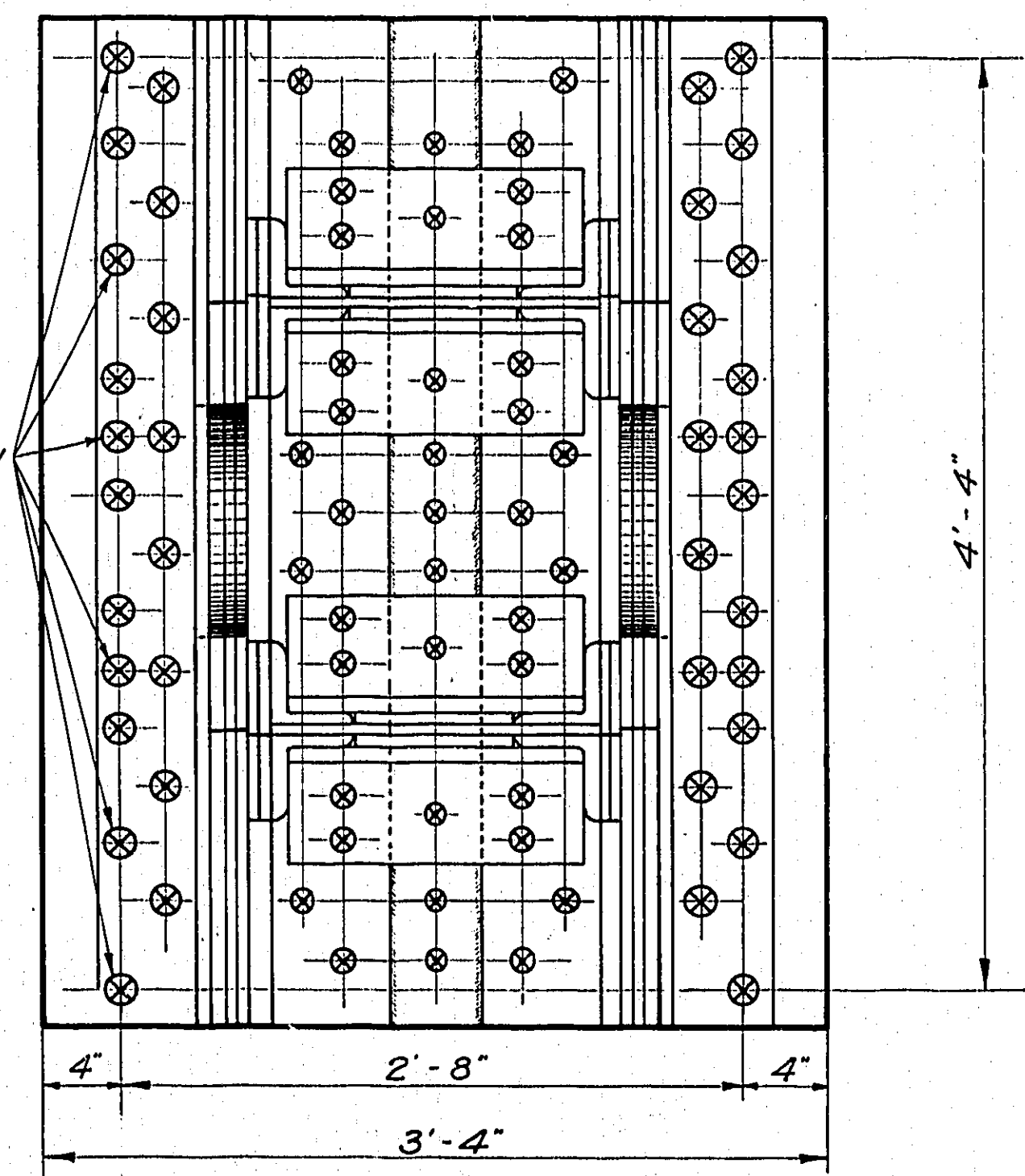


REVISED

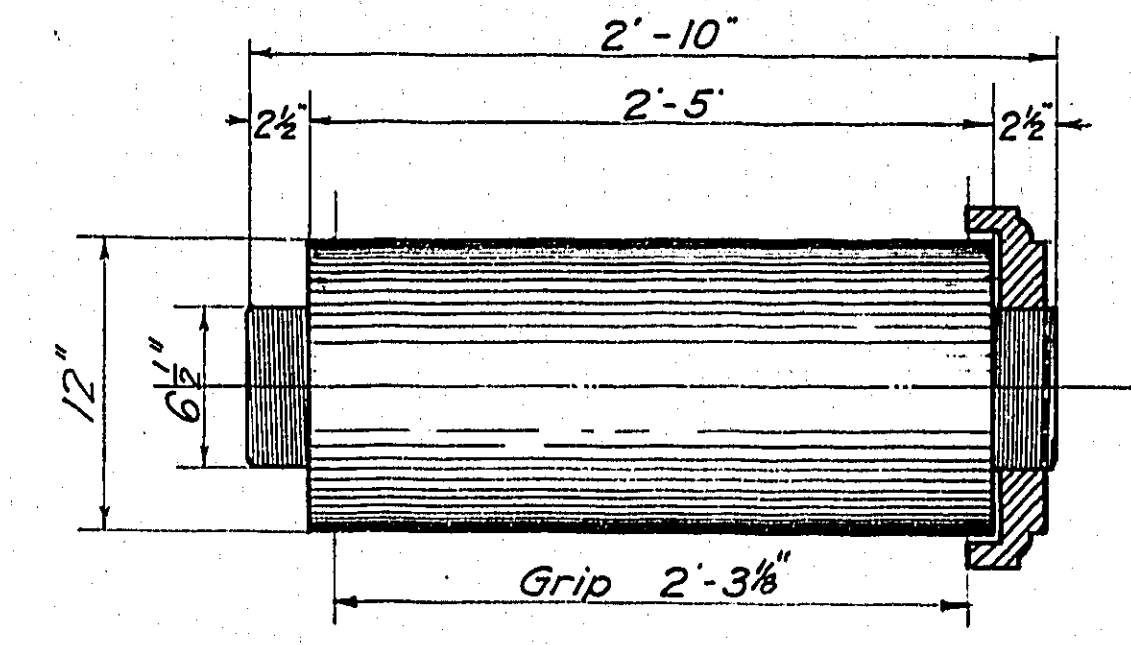


SIDE ELEVATION

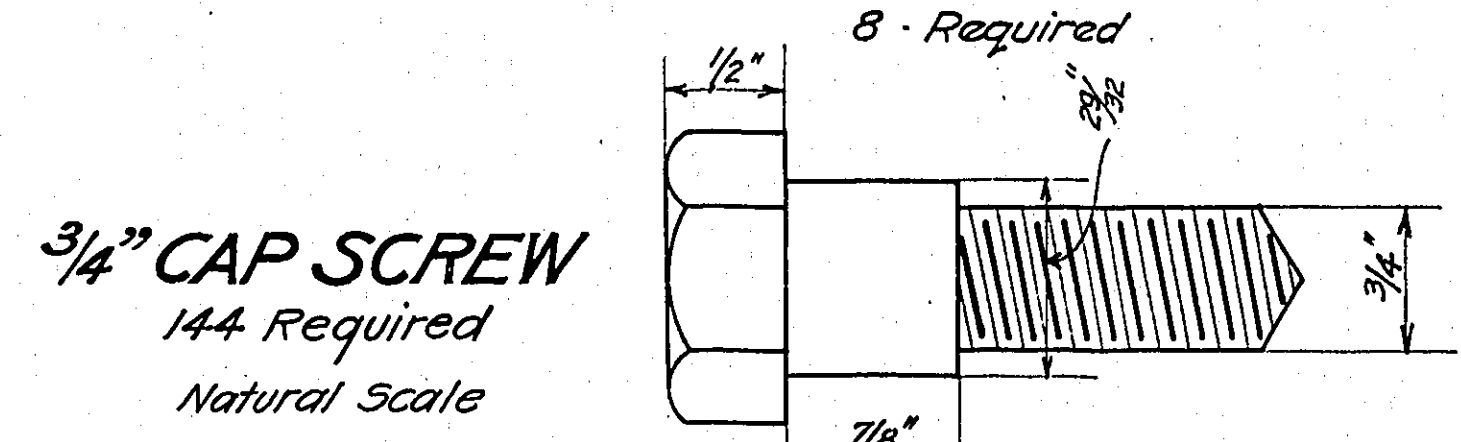
Note: Fixed shoe same, except these holes drilled for 3/8" Machine Bolts, (turned).



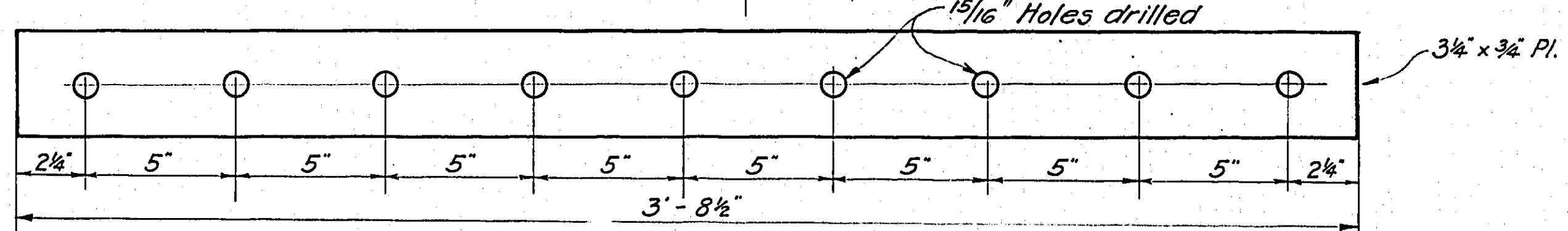
PLAN OF SHOE



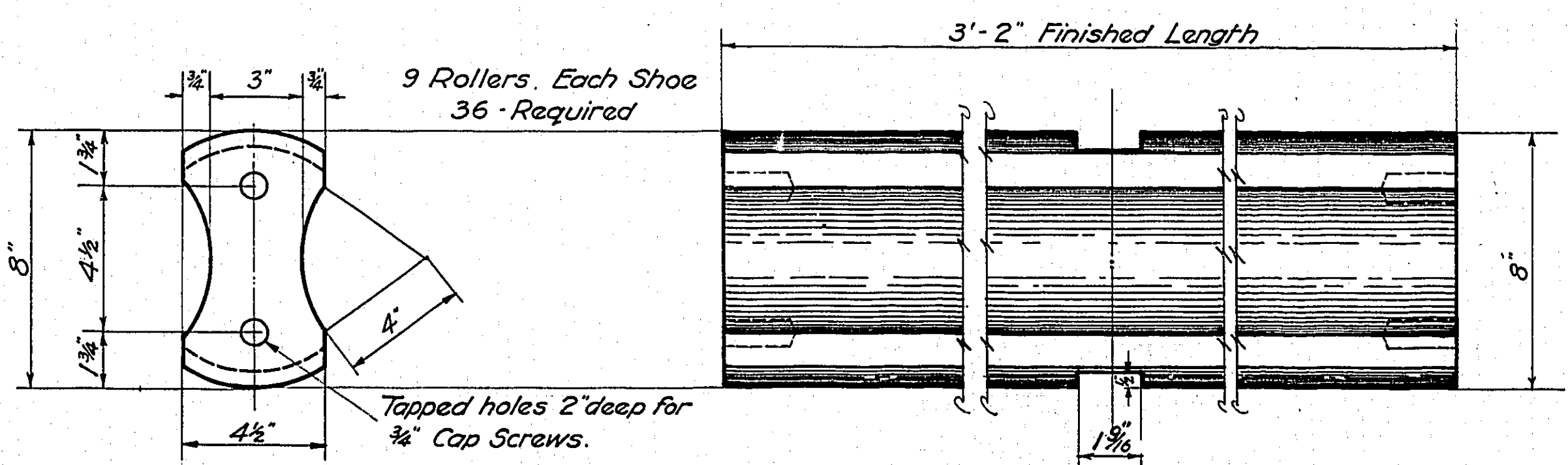
FORGED STEEL PIN



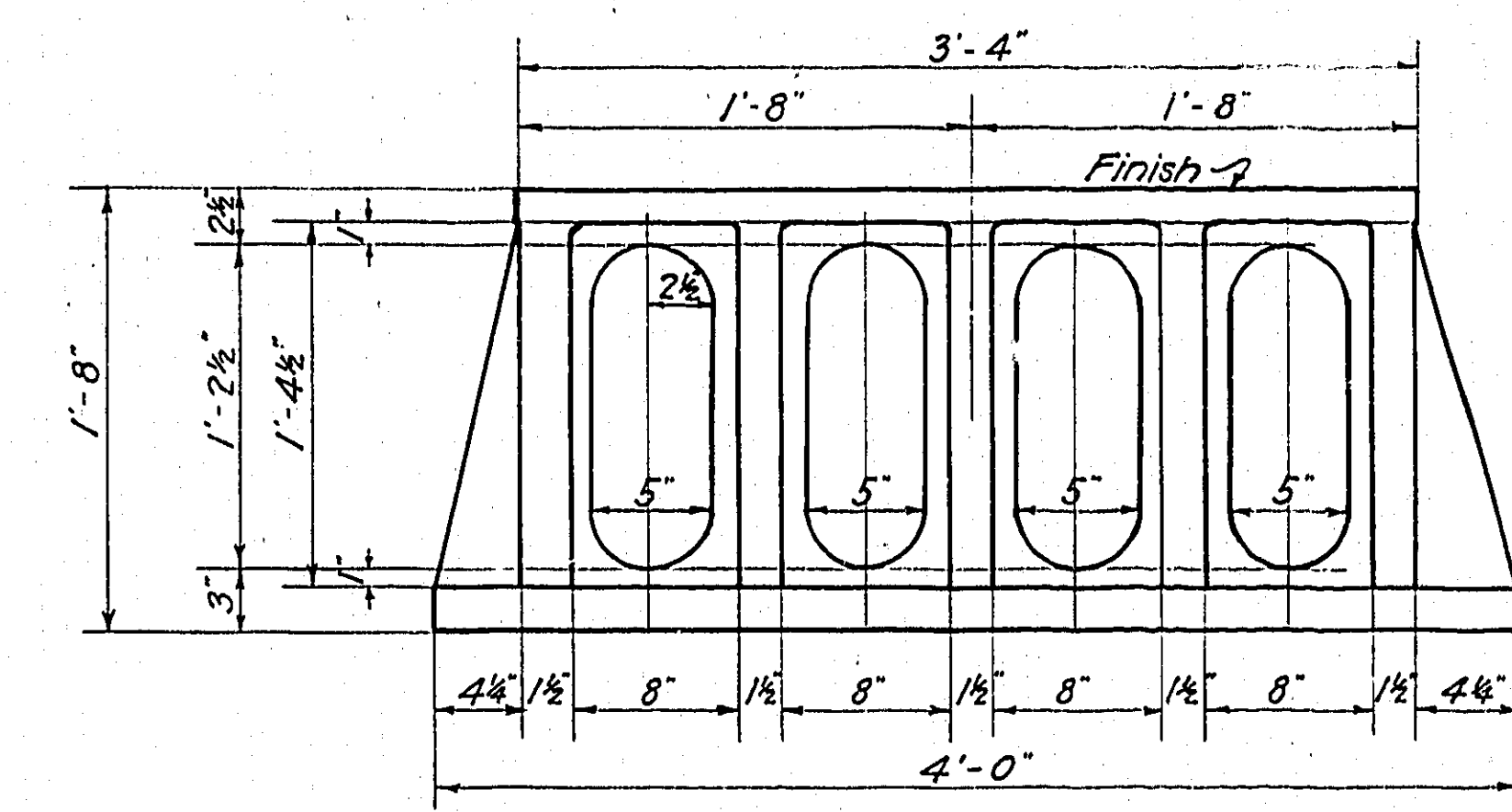
3/4" CAP SCREW
144 Required
Natural Scale



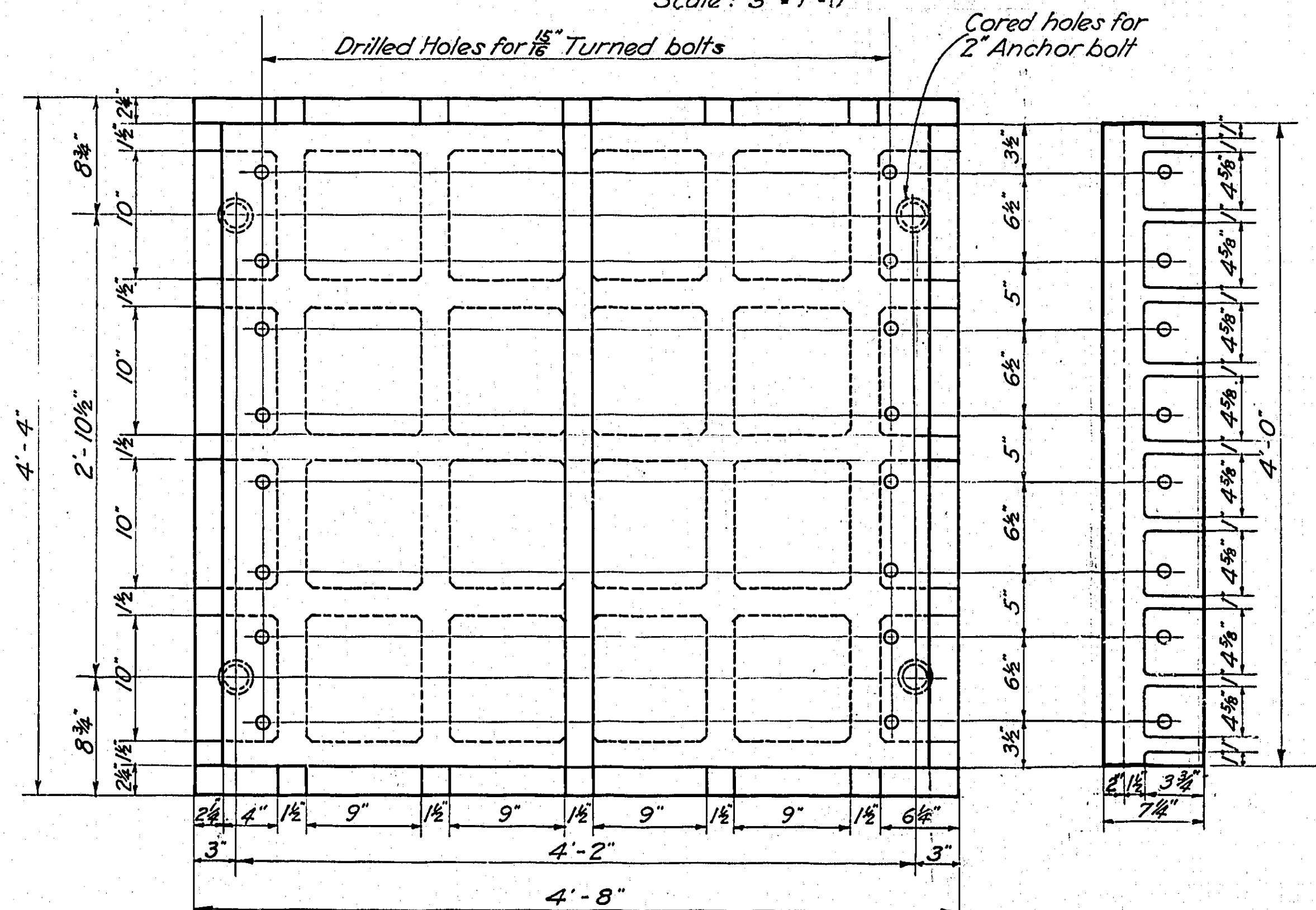
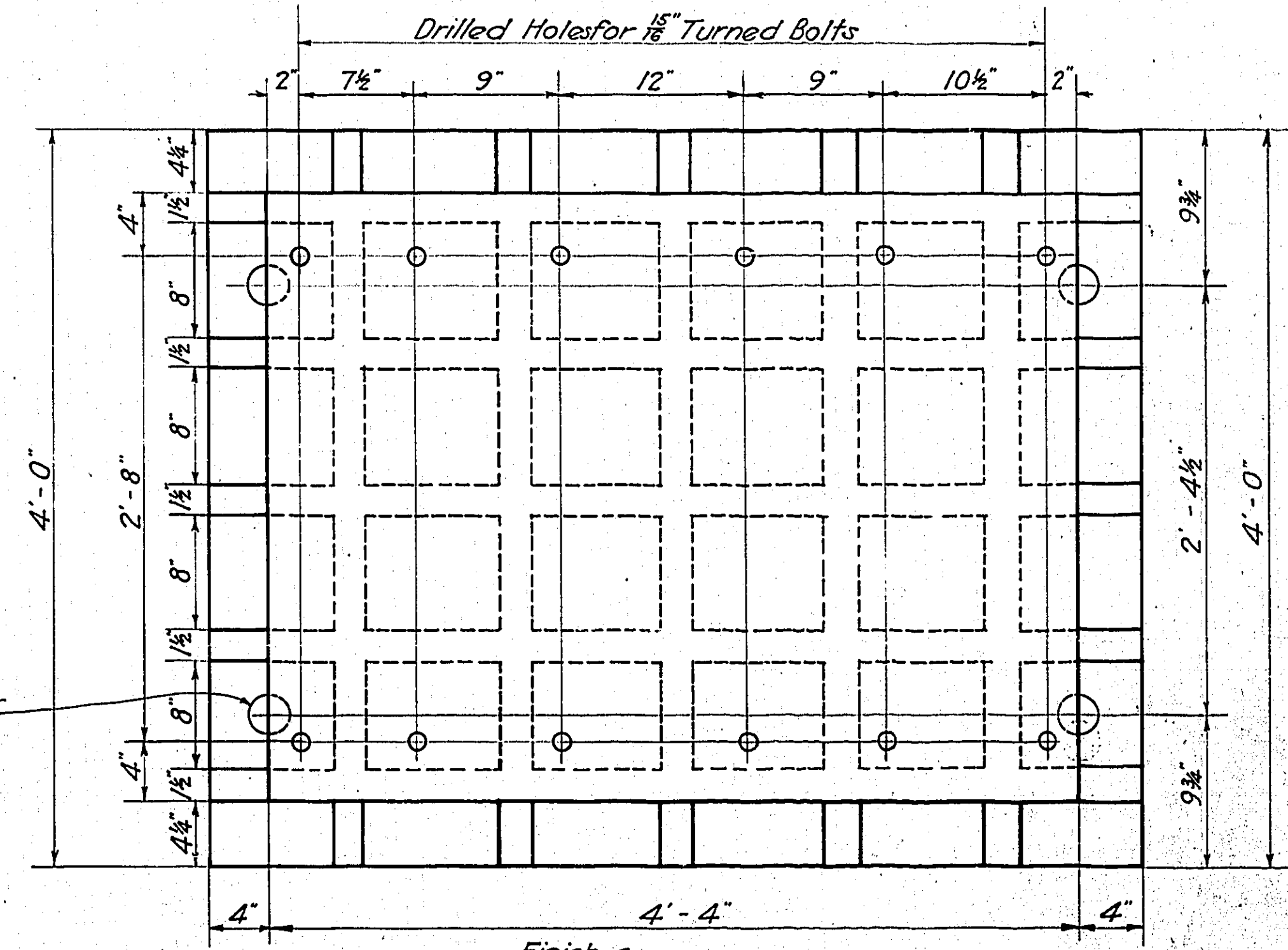
SEGMENTAL ROLLER & END PLATE
Scale: 3" = 1'-0"



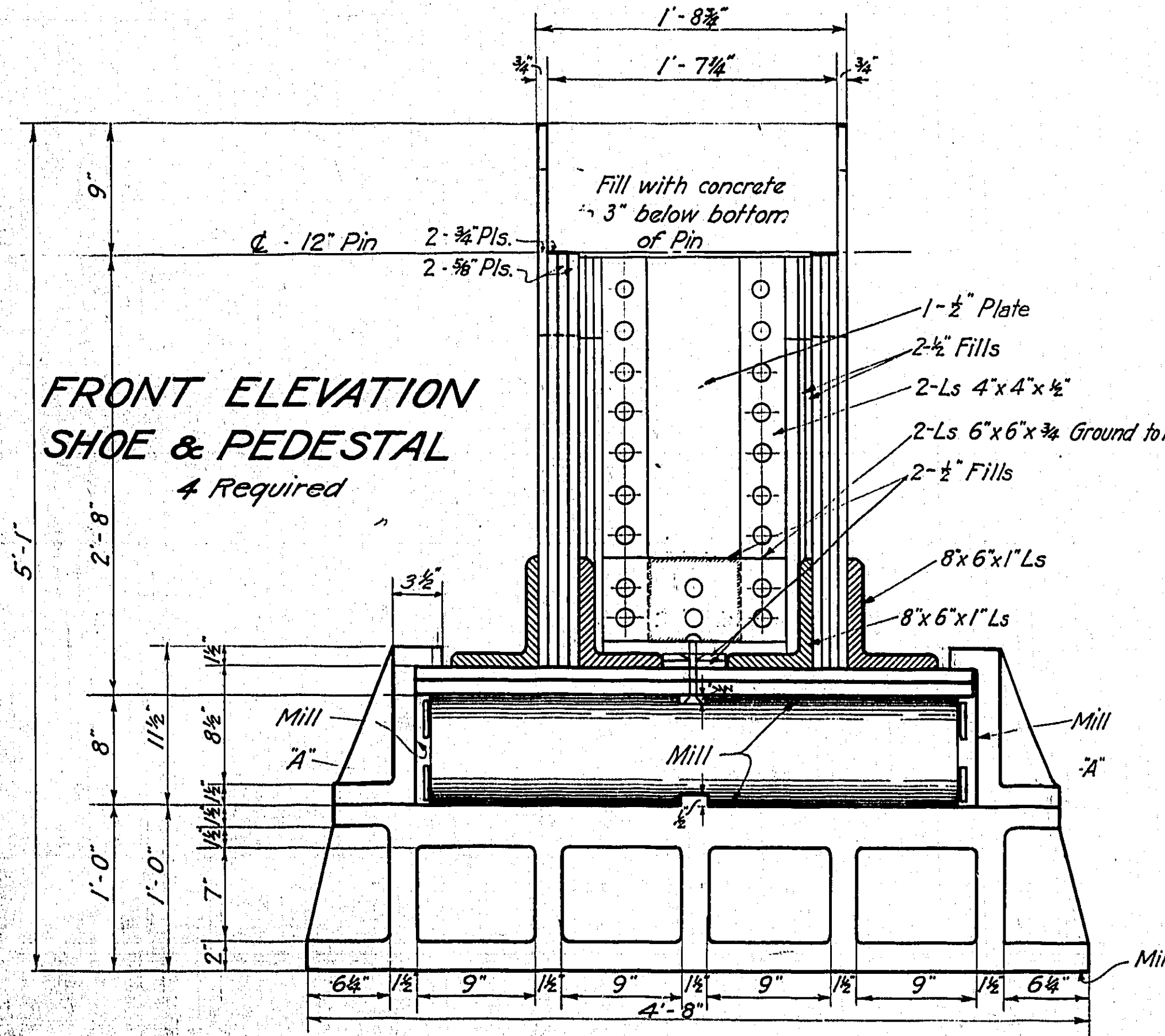
SEGMENTAL ROLLER & END PLATE
Scale: 3" = 1'-0"



CAST STEEL PEDESTAL, FIXED SHOE
4 Required



PLAN OF CAST STEEL PEDESTAL & SIDE PLATE 'A'
4 Required



FRONT ELEVATION
SHOE & PEDESTAL
4 Required

NOTE: All Rivets 3"

See shop plans, American Bridge Co. Order #592L

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS
OF
SHOES & PEDESTALS, 268' DECK TRUSS

MADE BY *W. H. HEDRICK*
CHECKED BY *J. J. KREMER*
TRACED BY *J. J. KREMER*
DATE 1-29-24

DRAWING NO. *100*
SHEETS *10*

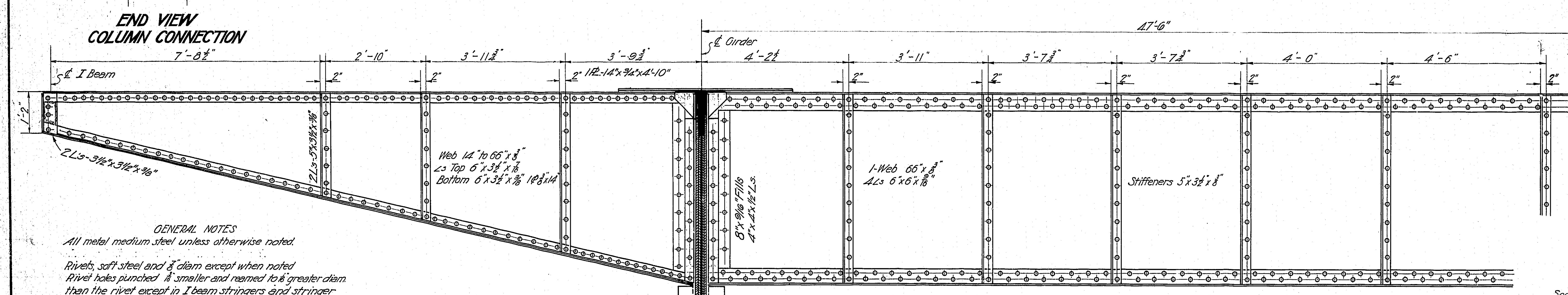
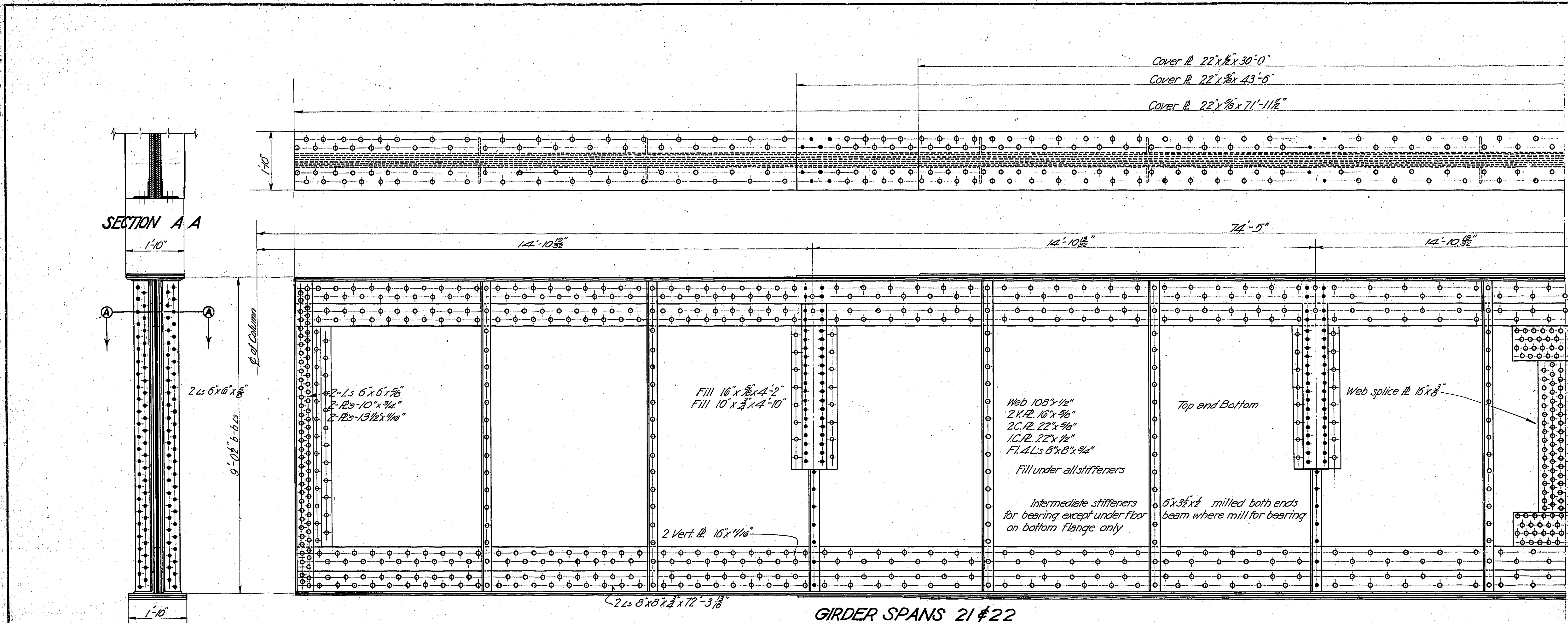
Scale: 1/4" = 1'-0" (except as shown)

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southwest 110 Avenue
Portland, Oregon 97214
503/231-5122

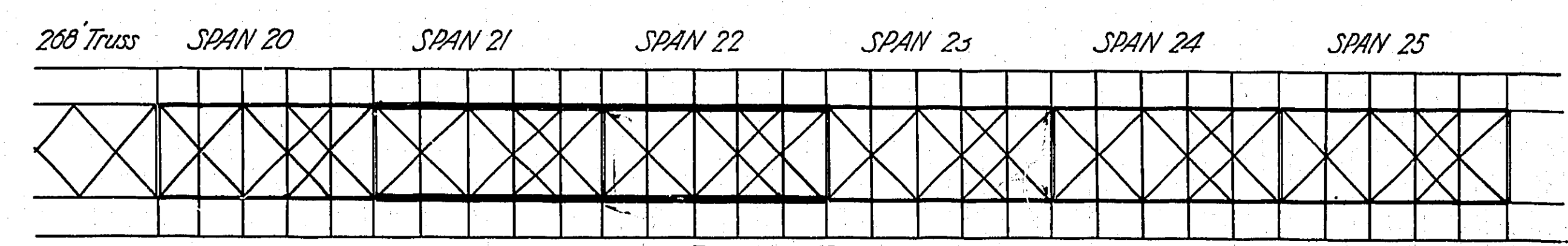
3M

REVISED



GENERAL NOTES
 All metal medium steel unless otherwise noted.
 Rivets, soft steel and 3/4" diam except when noted.
 Rivet holes punched 1/8" smaller and reamed to 1/8" greater diam than the rivet except in I beam stringers and stringer bracing where hole may be punched full size.
 Ends of Floor Beams and cantilevers to be faced and reamed to cast iron template.
 Sheared edges of all plates (except stay plates, lateral plates and lacing bars) to be faced.
 All stiffeners to be milled at both ends for bearing on flange.
 Fill under all stiffeners.
 Mill edges of web at splice to true length.
 Flange angles and plates to be cut long and milled to true length after girder is assembled.

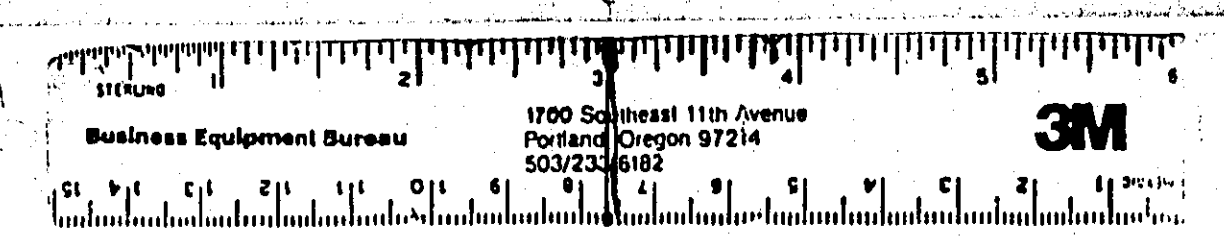
INTERMEDIATE FLOOR BEAM SPANS 20-25 INC
 For End Floor Beams see sheet no. 41



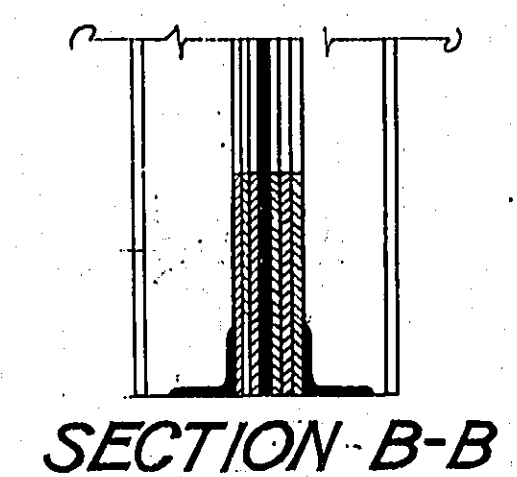
Note: For detail of clevis connection for lateral sway bracing during erection see Sheet No. 42

See shop plans, American Bridge Co. Order 5592.
 MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
 DETAILS
 OF
72'-2" GIRDER
 MADE BY *Morgan*
 CHECKED BY *R. Brandy*
 DRAWING NO. *72-2*
 SHEETS *1* SCALE 3/4" = 1'-0"
 HEDRICK & KREMERS
 CONSULTING ENGINEERS
 PORTLAND, OREGON
 DATE FEB. 10 1924
 SHEET NO. **41**

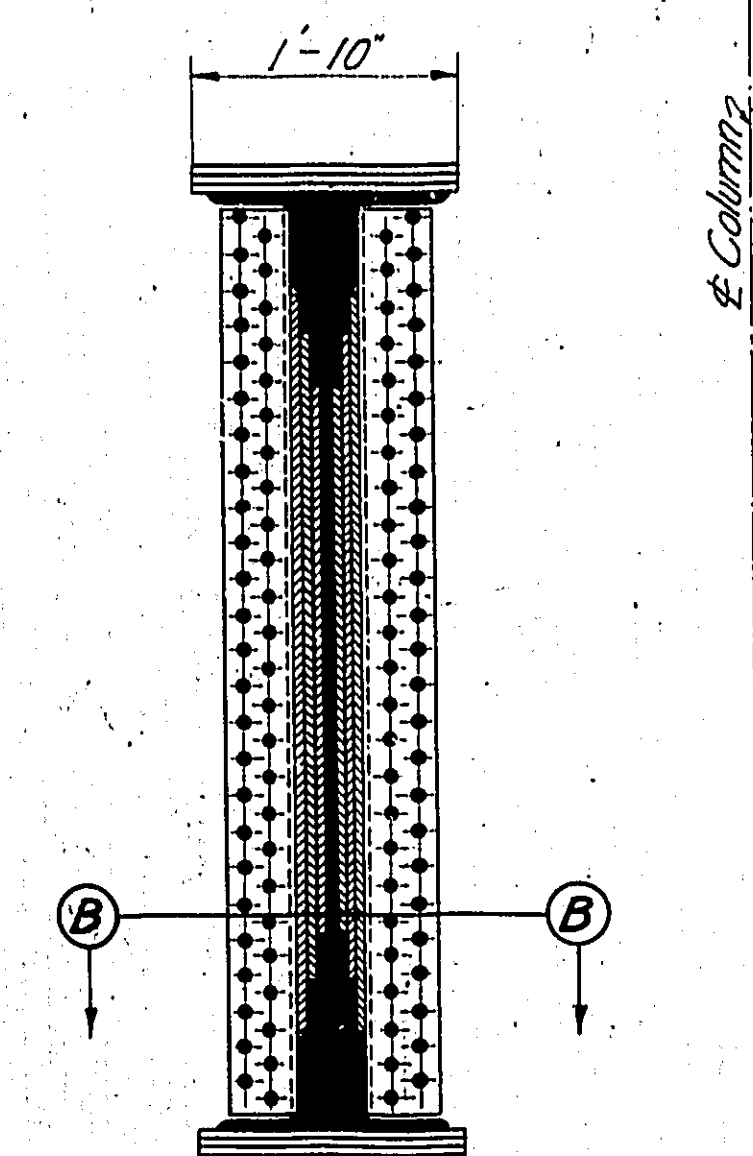
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.



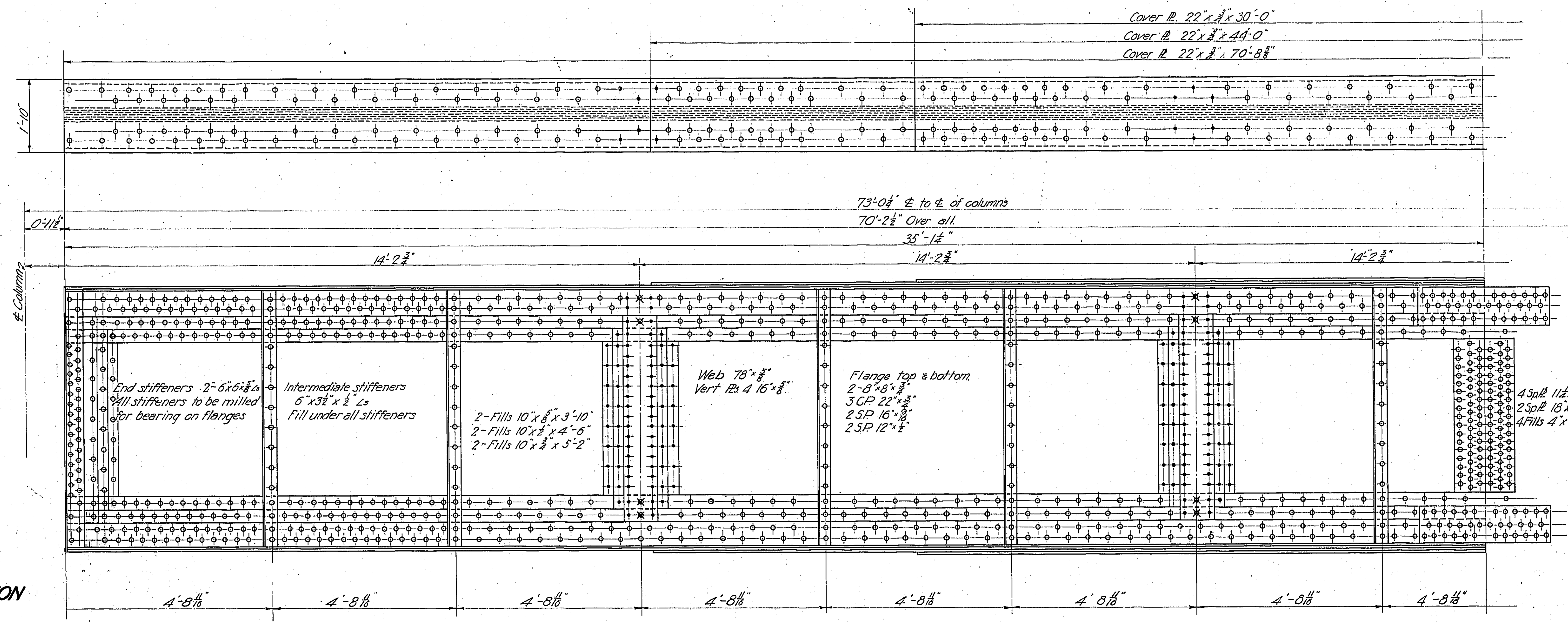
REVISED



SECTION B-B

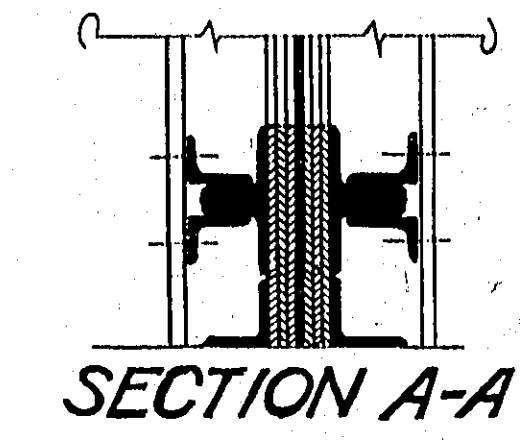


FIXED END COLUMN CONNECTION

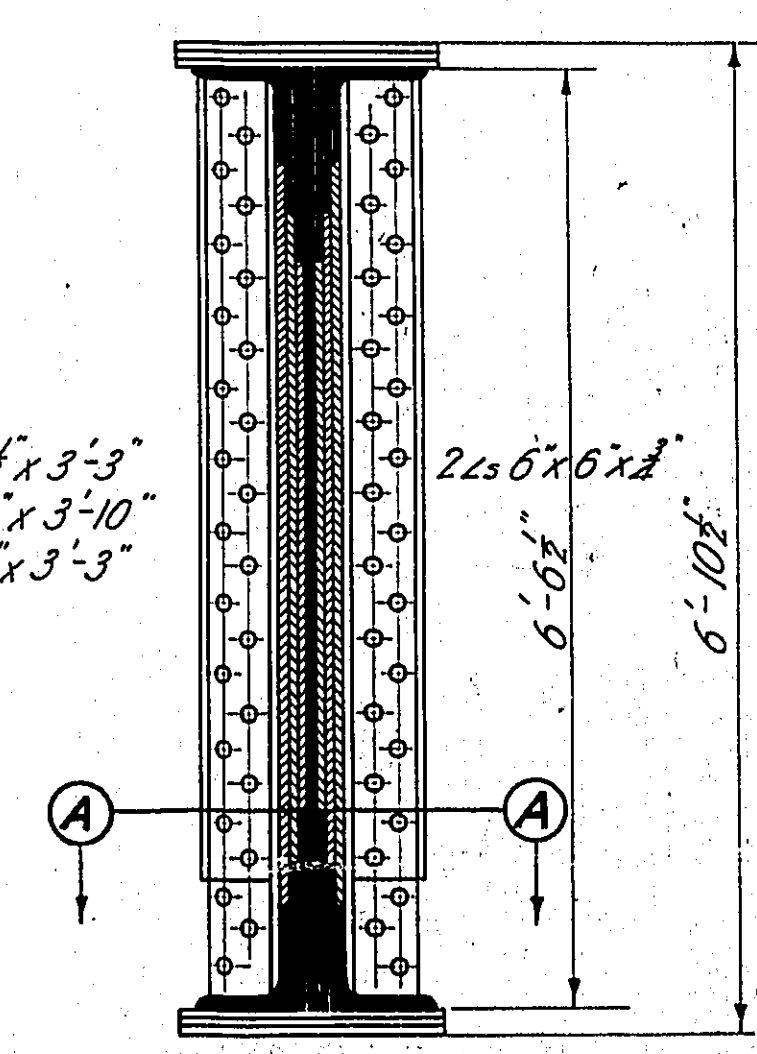


GIRDER, SPAN 23

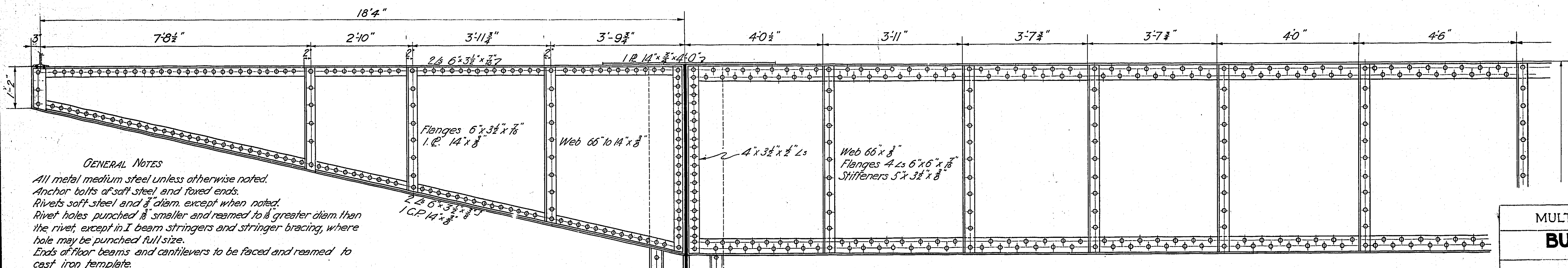
Note: Make 2 Girders Right, Mark G. 23 R. " " Left " G. 23 L.



SECTION A-A



EXPANSION END
For details of shoe & connection see sheet no. 49



END FLOOR BEAM SPANS 20 - 26 INC.
For intermediate floor beam, see sheet no. 40

GENERAL NOTES
All metal medium steel unless otherwise noted.
Anchor bolts of soft steel and fayed ends.
Rivets soft steel and 3/4" diam. except when noted.
Rivet holes punched 1/8" smaller and reamed to 1/8" greater diam than the rivet, except in I beam stringers and stringer bracing, where hole may be punched full size.
Ends of floor beams and cantilevers to be faced and reamed to cast iron template.
All abutting ends of compression members to be faced to an even bearing. Sheared edges of all plates (except stay plates, lateral plates andacing bars) to be faced.
All stiffeners milled both ends for bearing on flanges, except under floor beams where mill for bottom flange only.
Fill under all stiffeners.
Mill edges of web at splice to true length. Flange angles and plates to be cut long and milled to true length after girder is assembled.

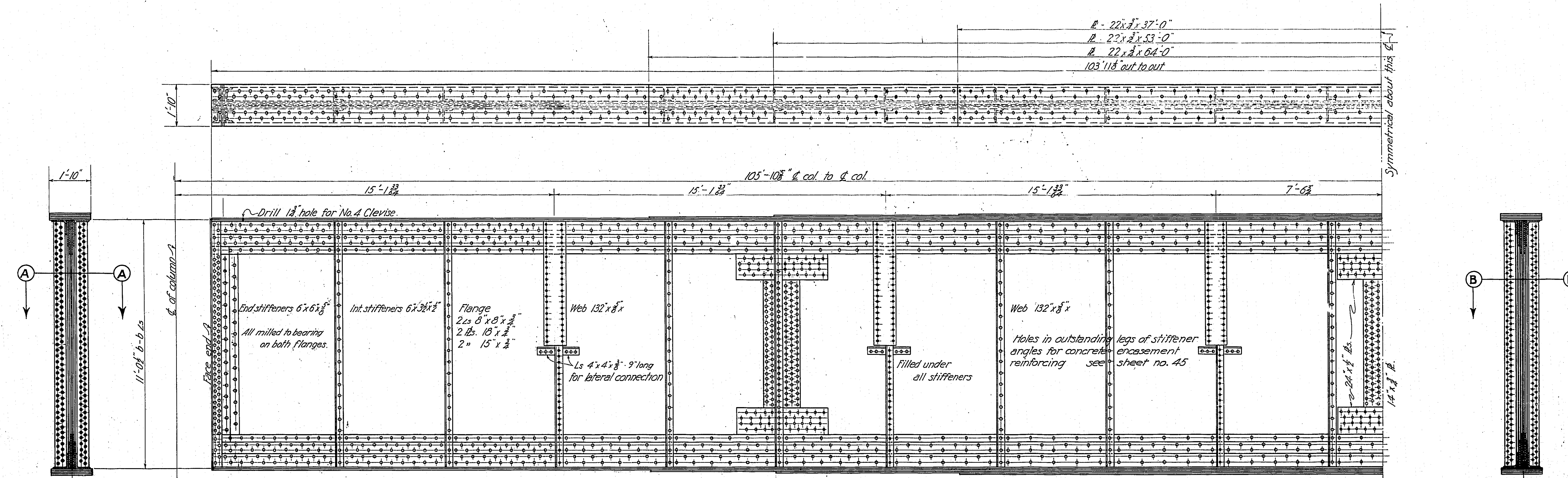
See shop plan, American Bridge Co. Order 45352

MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
 DETAILS
 OF
70-8" PLATE GIRDER
 MADE BY *W. B. Beck* HEDRICK & KREMERS
 CHECKED BY *W. B. Beck* CONSULTING ENGINEERS
 TRACED BY *W. B. Beck* PORTLAND, OREGON
 CHECKED BY *W. B. Beck* DATE FEB. 18th 1924
 DRAWING NO. _____ SHEETS _____ SCALE 3/4" = 1'-0" SHEET NO. 4

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Business Equipment Bureau 1100 Broadway 11th Avenue
 Portland Oregon 97214
 3M

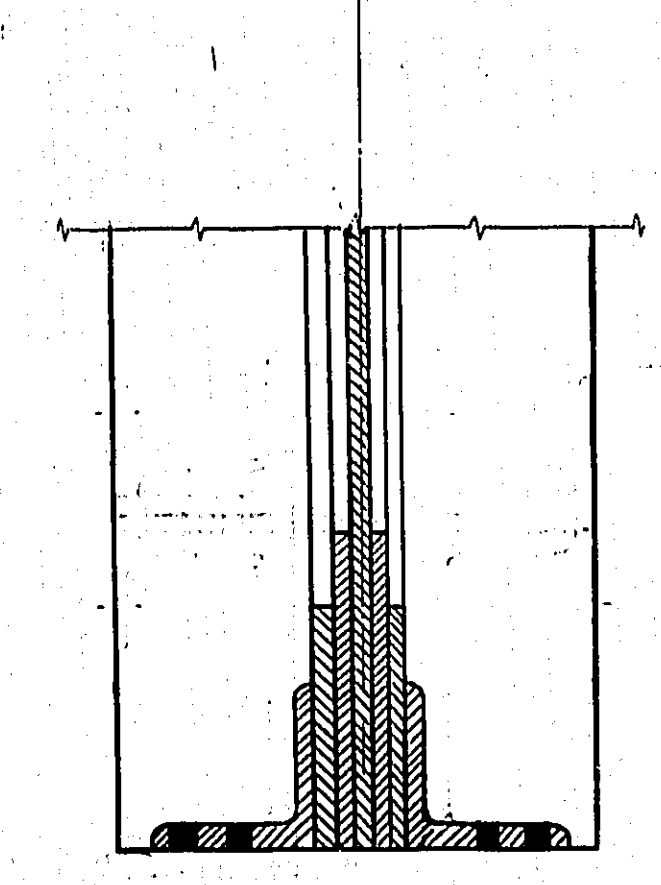
REVISED



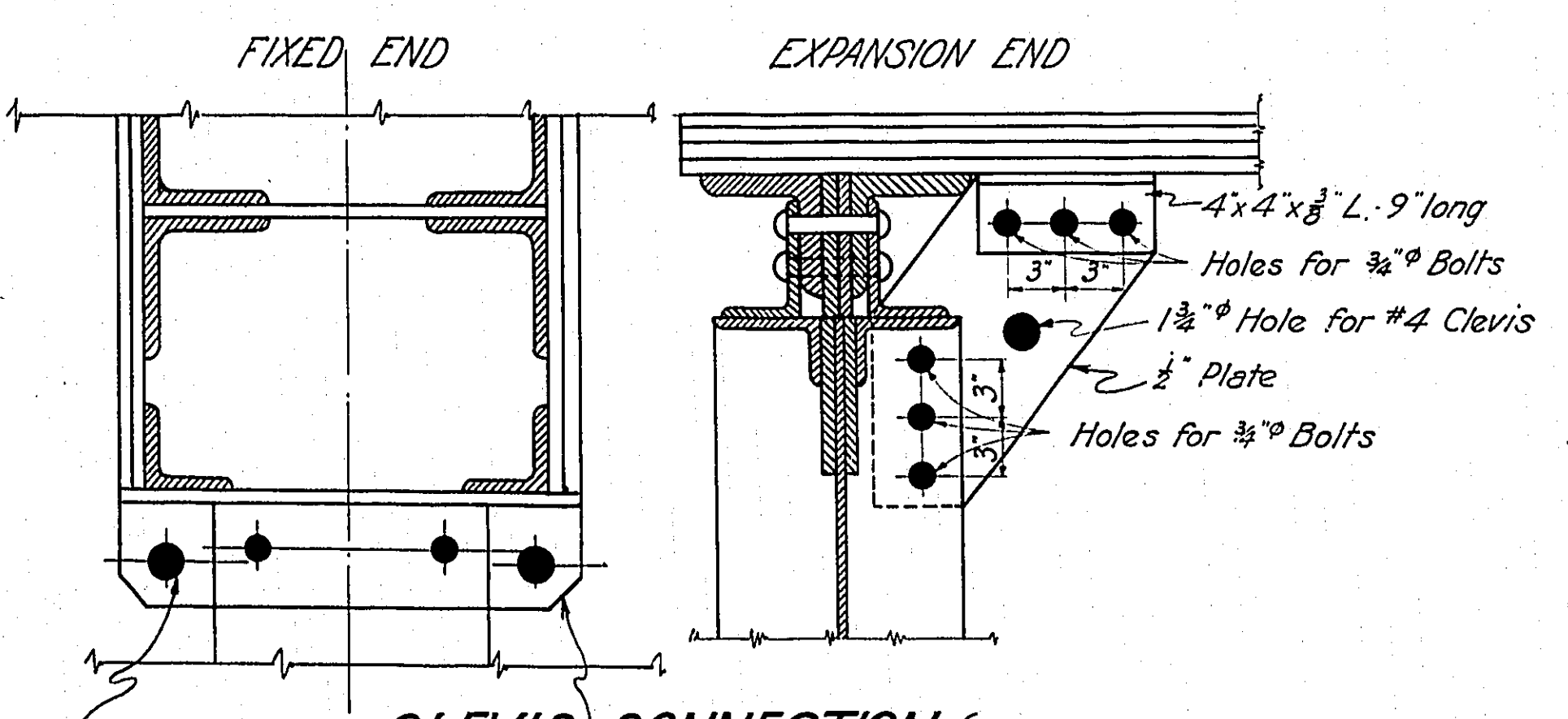
FIXED END

GIRDER SPANS 24 & 25

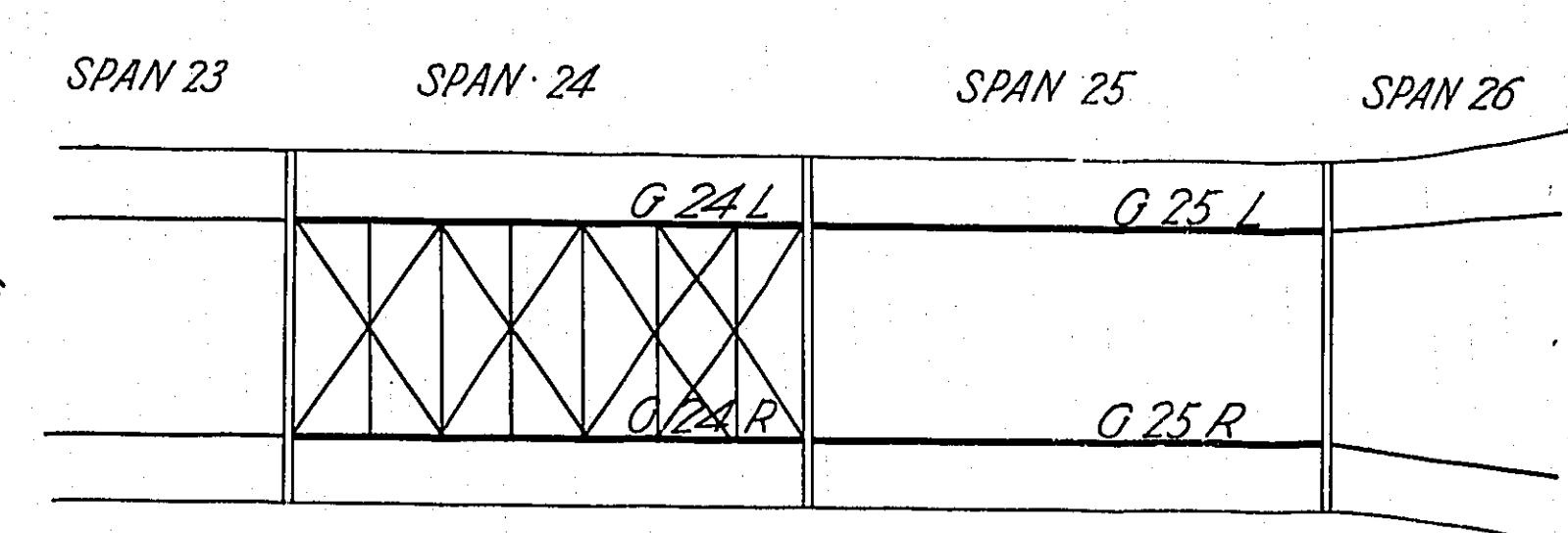
FIXED END



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



CLEVIS CONNECTION (For Lateral Bracing during erection)
Scale: 1/2" = 1'-0"



MARKING DIAGRAM

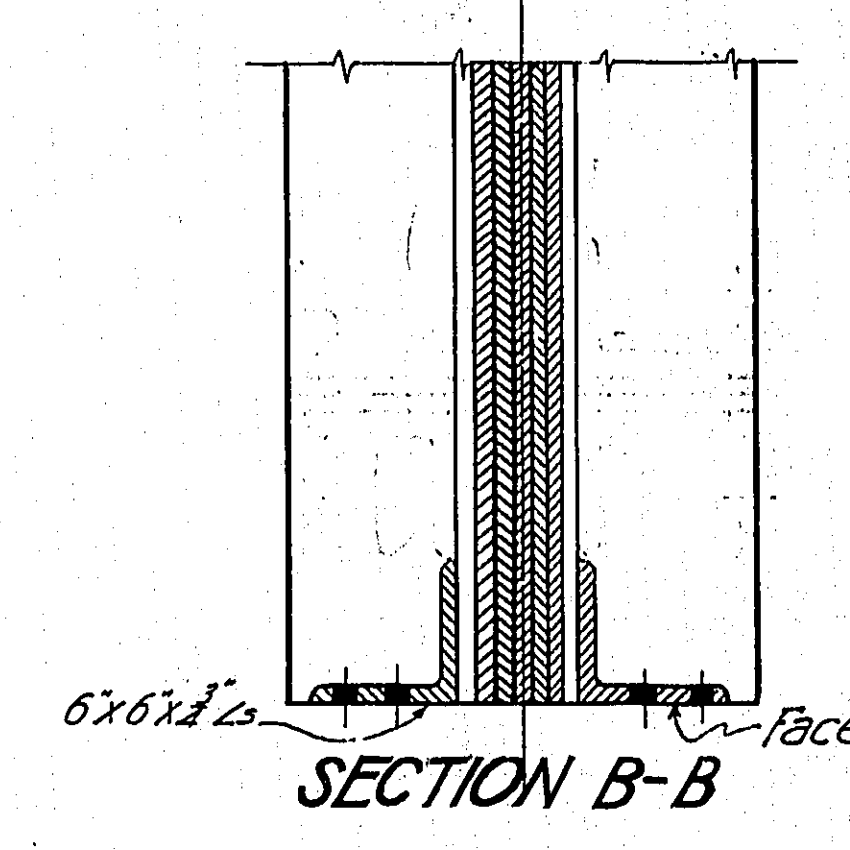
GENERAL NOTES

All metal medium steel unless otherwise noted
Anchor bolts of soft steel, and fixed ends
Rivets, soft steel and 3/8 diam, except when noted.
Rivet holes punched 3/8 smaller and reamed to its greater diam than the rivet, except in I beam stringers and stringer bracing, where hole may be punched full size
Ends of floor beams and cantilevers to be faced and reamed to cast iron template.

Sheared edges of all plates (except stay plates, lateral plates and locking bars) to be reaped
All stiffeners milled both ends for bearing on flanges, except under floor beams where mill for bottom flange only
Mill under all stiffeners
Mill edges of web at splice to true length
Flange angles and plates to be cut long and milled to true length after girder is assembled
Floor beam same as for spans 20-21-22 see sheet No 40

Make 2 Girders Right. Mark G.24.R - G.25.R.
" " " Left " G.24.L - G.25.L.

See shop plans, American Bridge Co. Order 5882.



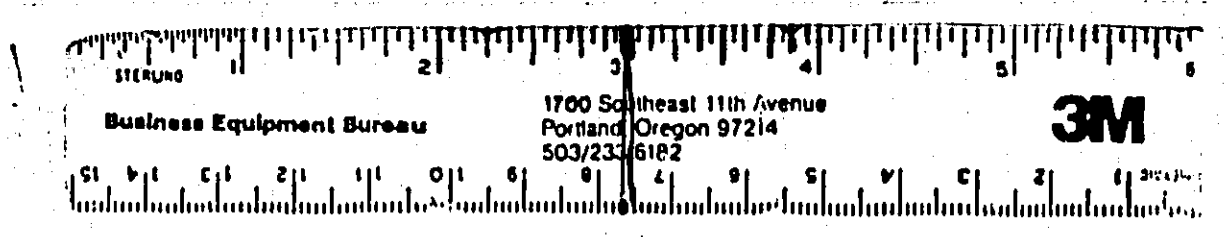
SECTION B-B

MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
PORTLAND, OREGON
DETAILS
OF
102' 7 1/2" PLATE GIRDER

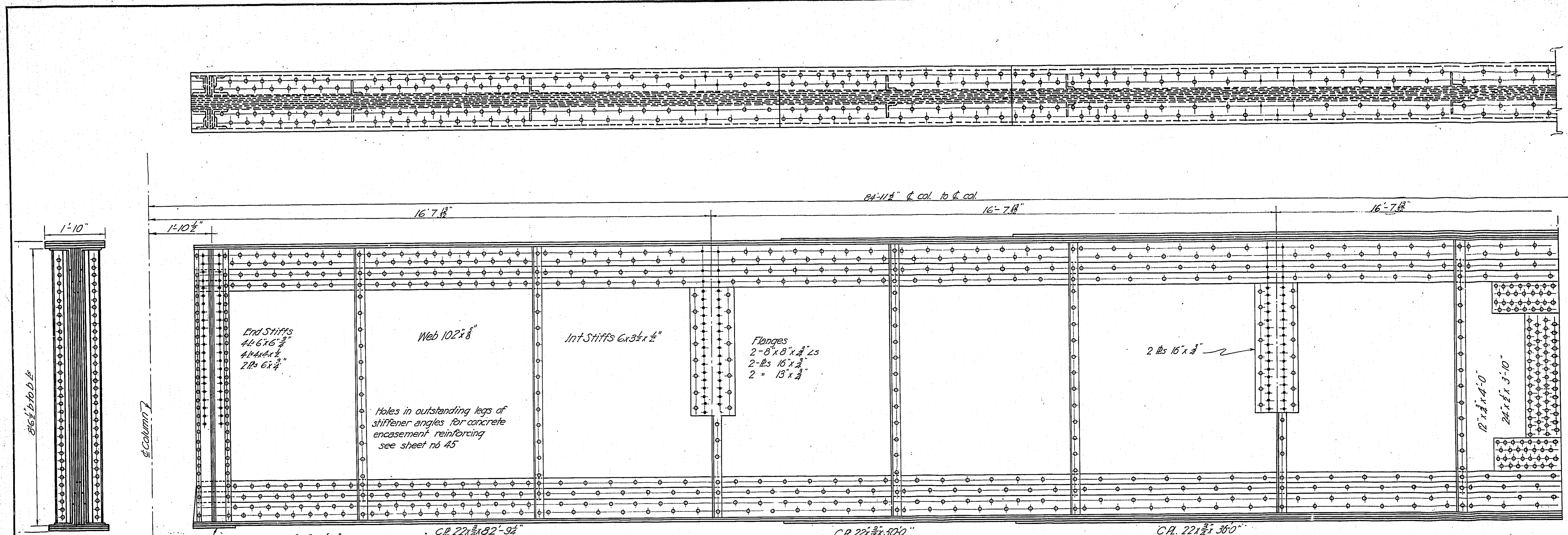
MADE BY *W. J. ...*
CHECKED BY *W. J. ...*
TRACED BY *W. J. ...*
CHECKED BY *W. J. ...*
DRAWING NO. *...*
SHEETS *...* SCALE 1/2" = 1'-0" SHEET NO. **42**

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 9TH 1924

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REVISED

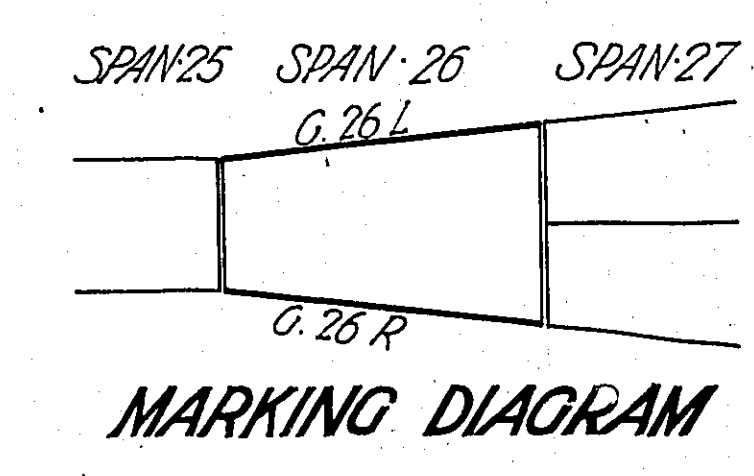


EXPANSION END - WEST END
For details of expansion bearing see sheet NR30

FIXED END - EAST END

Make one Rt. Mark G. 26.R
Make one Lt. Mark G. 26.Lt

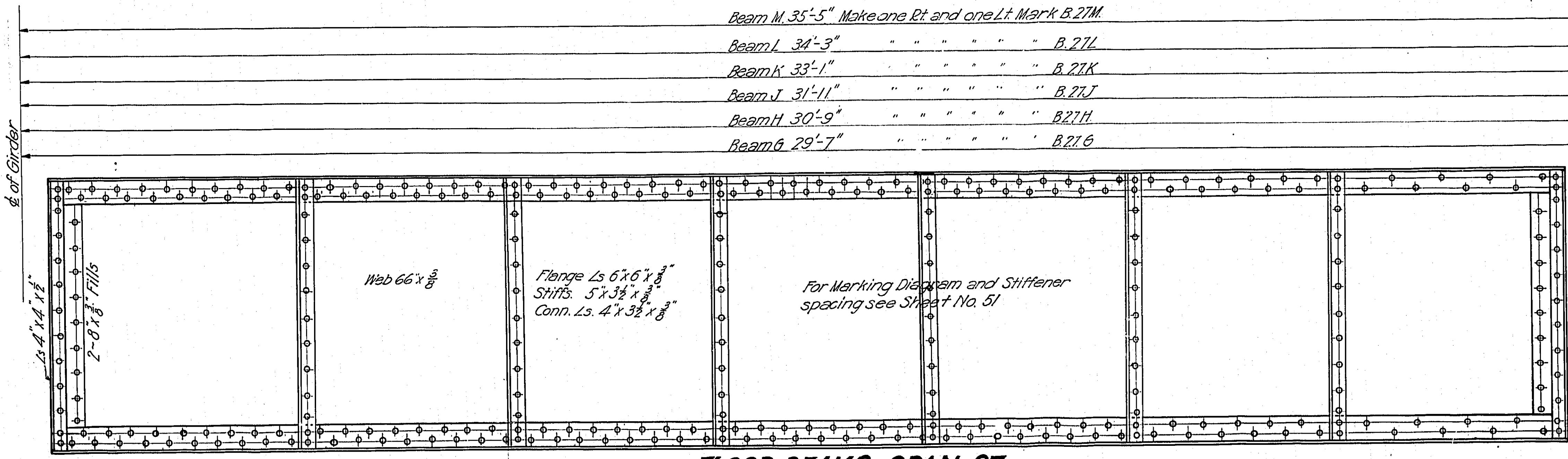
GIRDER SPAN 26



GENERAL NOTES
 All metal medium steel unless otherwise noted.
 Anchor bolts of soft steel and fixed ends
 Rivets, soft steel and 3/4 diam. except when noted
 Rivet holes punched 1/8 smaller and reamed to 1/8 greater diam. than the rivet, except in I beam stringers and stringer bracing, where holes may be punched full size
 Ends of floor beams and cantilevers to be faced and reamed to cast iron template
 Sheared edges of all plates (except stay plates, lateral plates and lacing bars) to be faced
 All stiffeners milled both ends for bearing on flanges except under floor beams, where mill for bottom flange only
 Fill under all stiffeners
 Mill edges of web at splice to true length
 Flange angles and plates to be cut long and milled to true length after girder is assembled
 Floor beams same as for spans 20-21-22 see sheet no. 40

- Beam M. 35'-5" Make one Rt. and one Lt. Mark B. 27M.
- Beam L. 34'-3" " " " " B. 27L
- Beam K. 33'-1" " " " " B. 27K
- Beam J. 31'-11" " " " " B. 27J
- Beam H. 30'-9" " " " " B. 27H
- Beam G. 29'-7" " " " " B. 27G

For Note: For detail of clevis connection for lateral sway bracing during erection see sheet no. 42



FLOOR BEAMS, SPAN 27

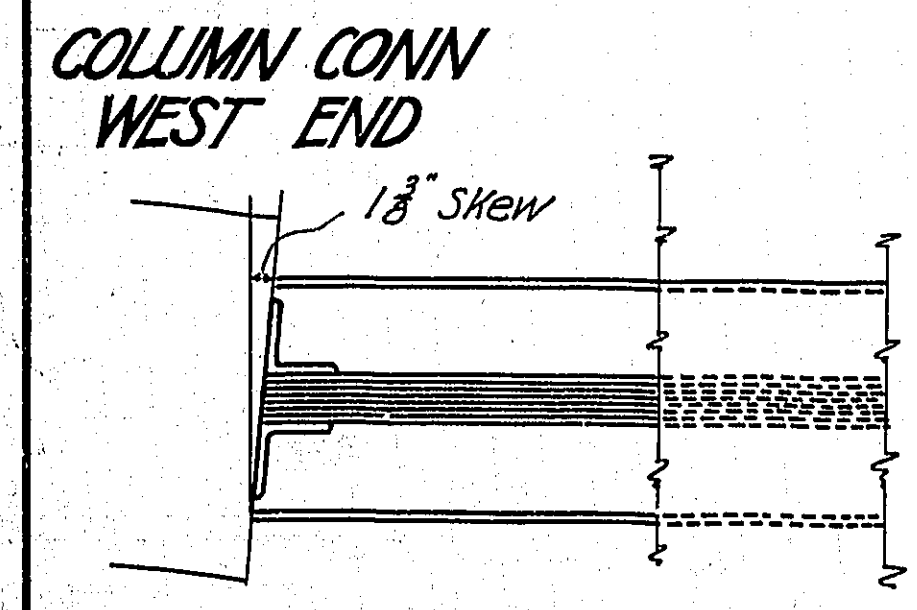
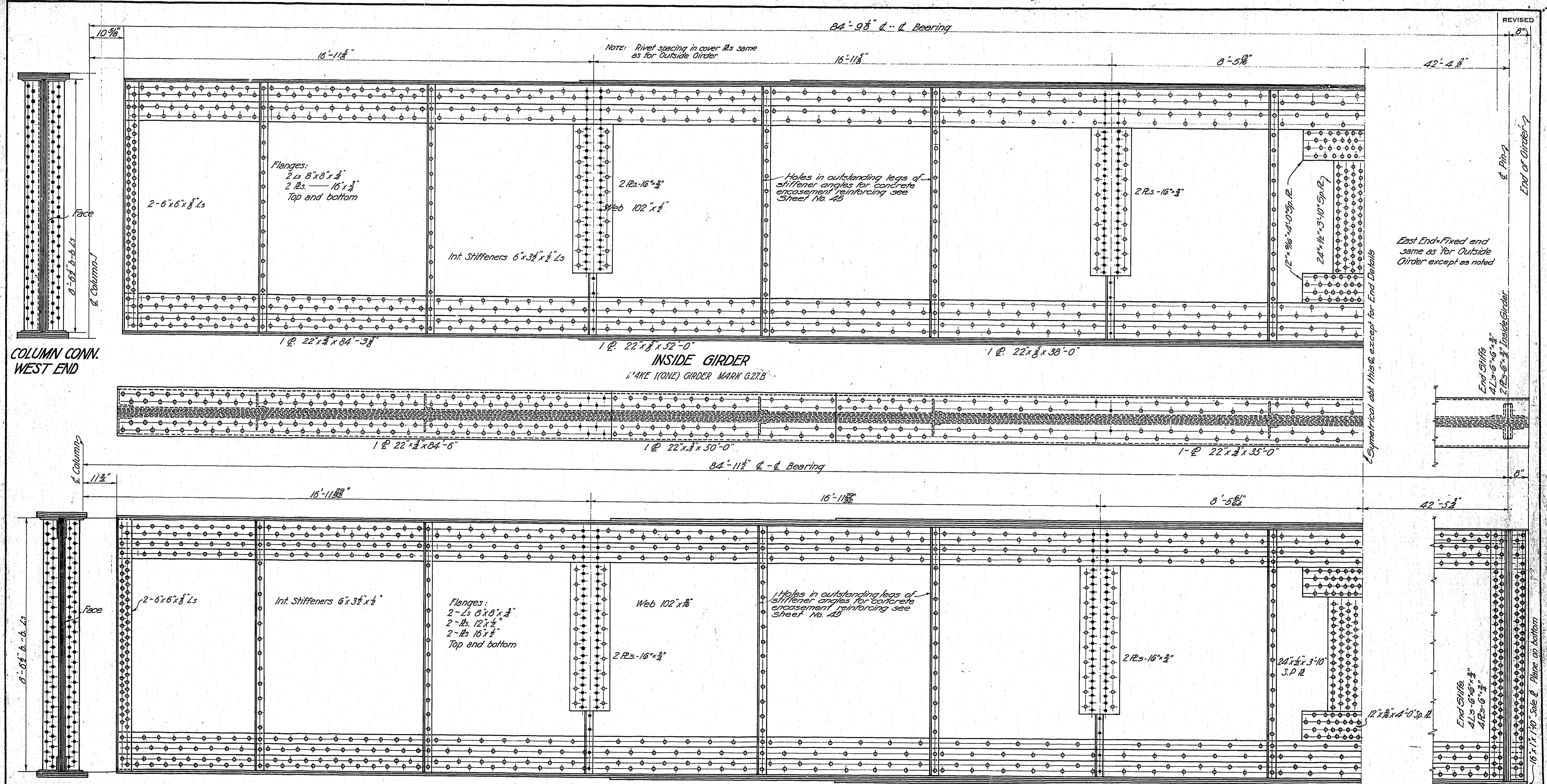
Cantilever same as for Span 26

See shop plans, American Bridge Co. Order 5922

MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
 DE-TAILS
836 PLATE GIRDER
 MADE BY *[Signature]*
 CHECKED BY *[Signature]*
 TRACED BY *[Signature]*
 CHECKED BY *[Signature]*
 DRAWING NO. _____
 SHEETS 3-10 SHEET NO. **45**

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 Portland, Oregon 97214
 503/238-6182
3M



GENERAL NOTES
 All metal medium steel, unless otherwise noted, rivets soft steel and 3/4\"/>

OUTSIDE GIRDER BENT 27
 MAKE 2 (TWO) GIRDERS L.R. 117
 MARK G. 27. A.

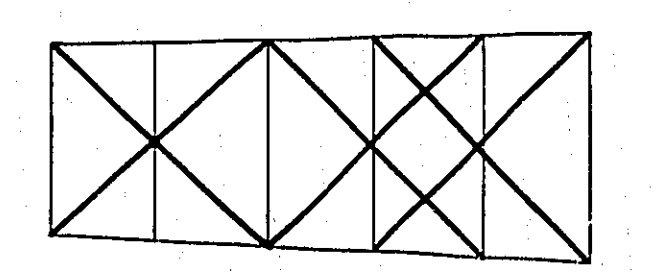
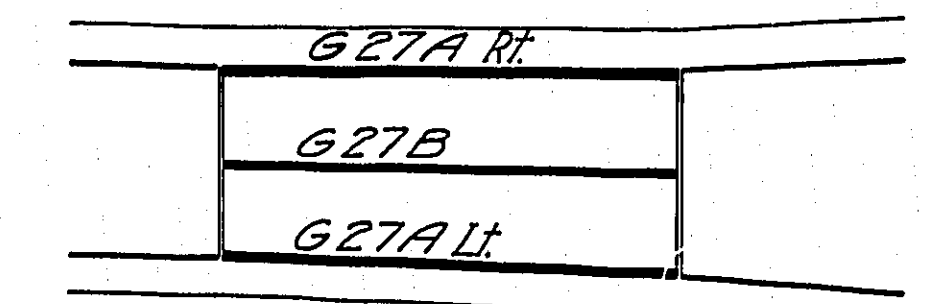


DIAGRAM SHOWING SWAY BRACING FOR ERECTION
 For details of connection see sheet No. 42



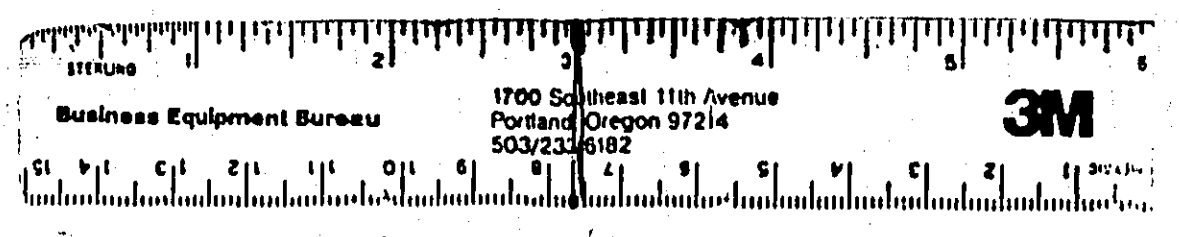
MARKING DIAGRAM
 SPAN 26 SPAN 27 SPAN 28

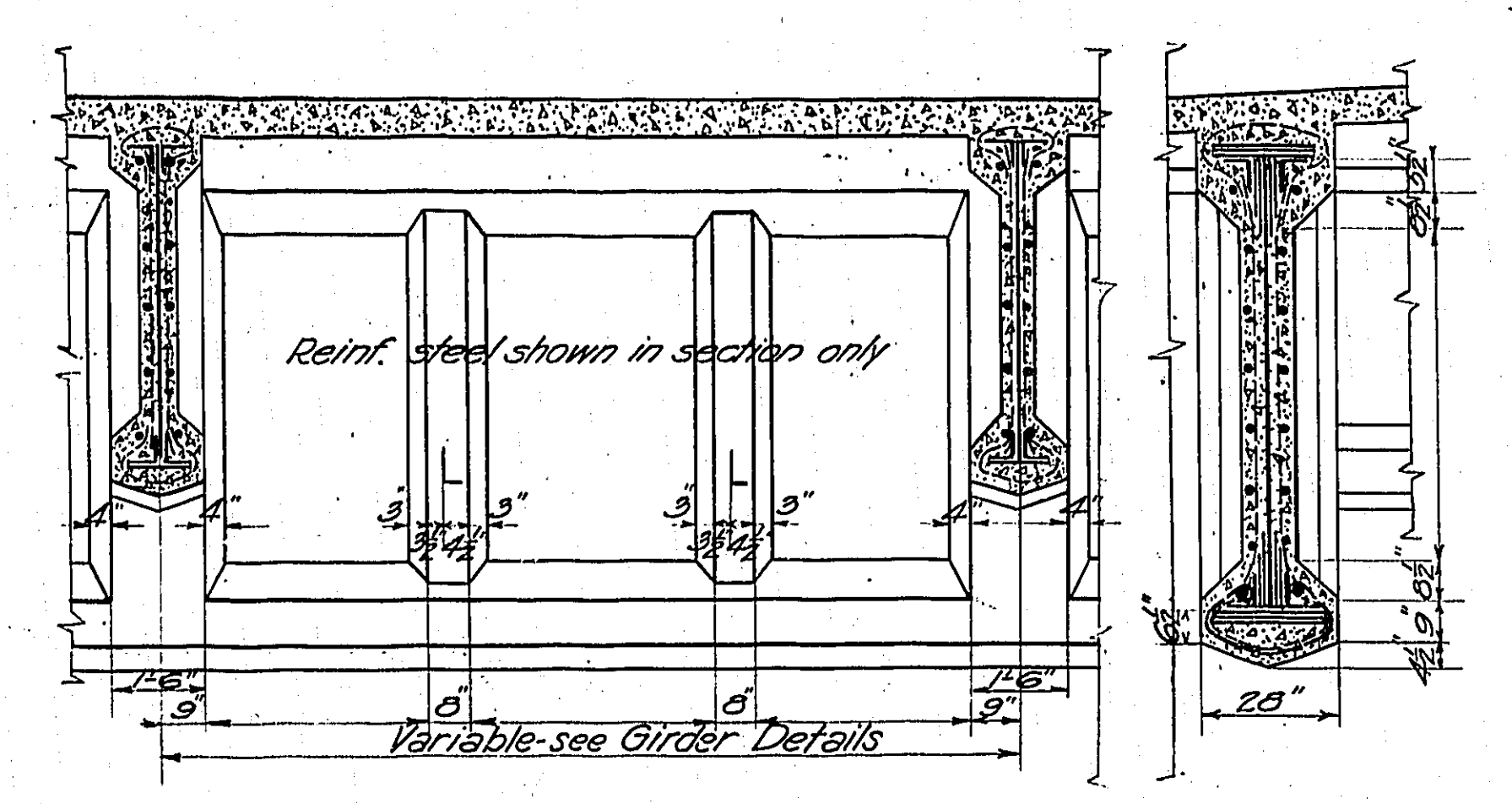
For detail of shoe and connection at East End, see sheet No. 43

See Specification American Bridge Co. Order 5832.

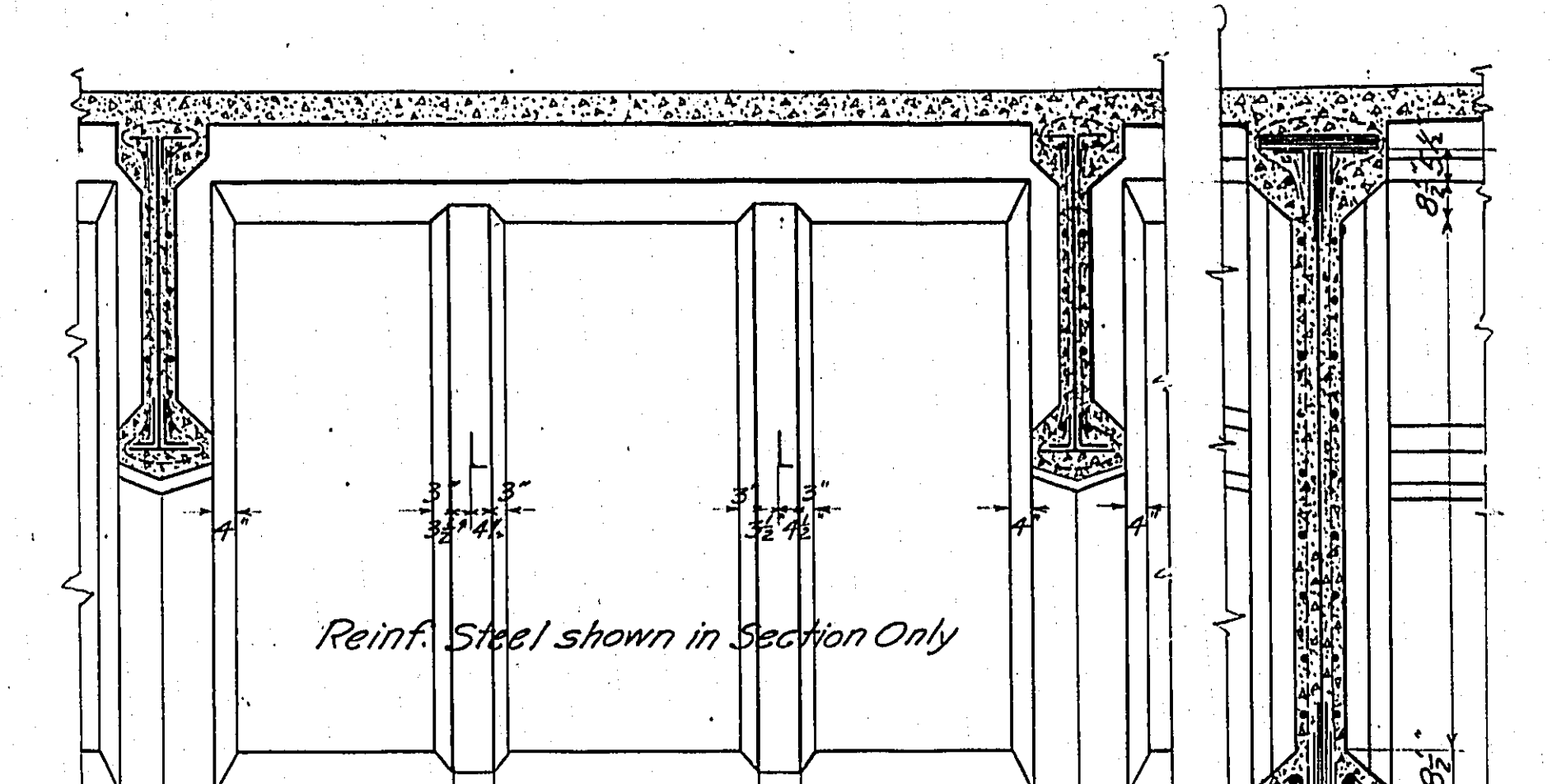
MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
 PORTLAND OREGON
 DETAILS
OF
PLATE GIRDERS SPAN 27
 MADE BY *[Signature]*
 CHECKED BY *[Signature]* HEDRICK & KREMER'S CONSULTING ENGINEERS
 TRACED BY *[Signature]* PORTLAND, OREGON
 CHECKED BY *[Signature]* DATE FEB. 23, 1922
 DRAWING NO. *[Signature]*
 SHEETS *[Signature]* SCALE 3/16\"/>

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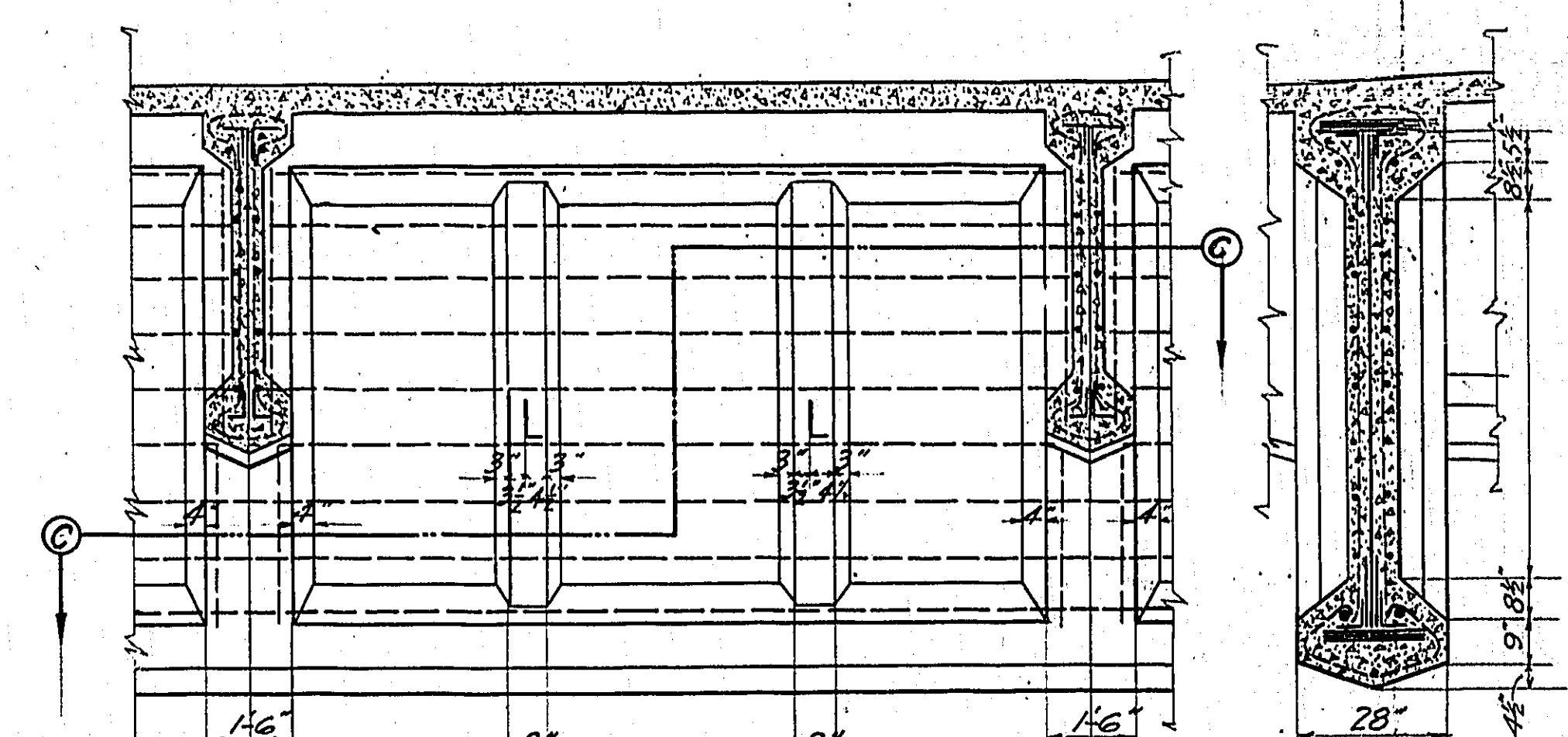




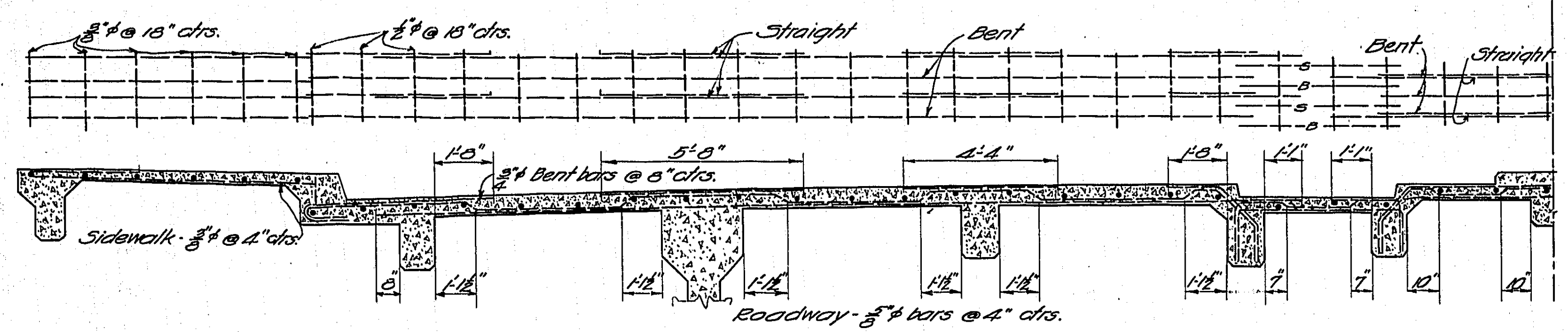
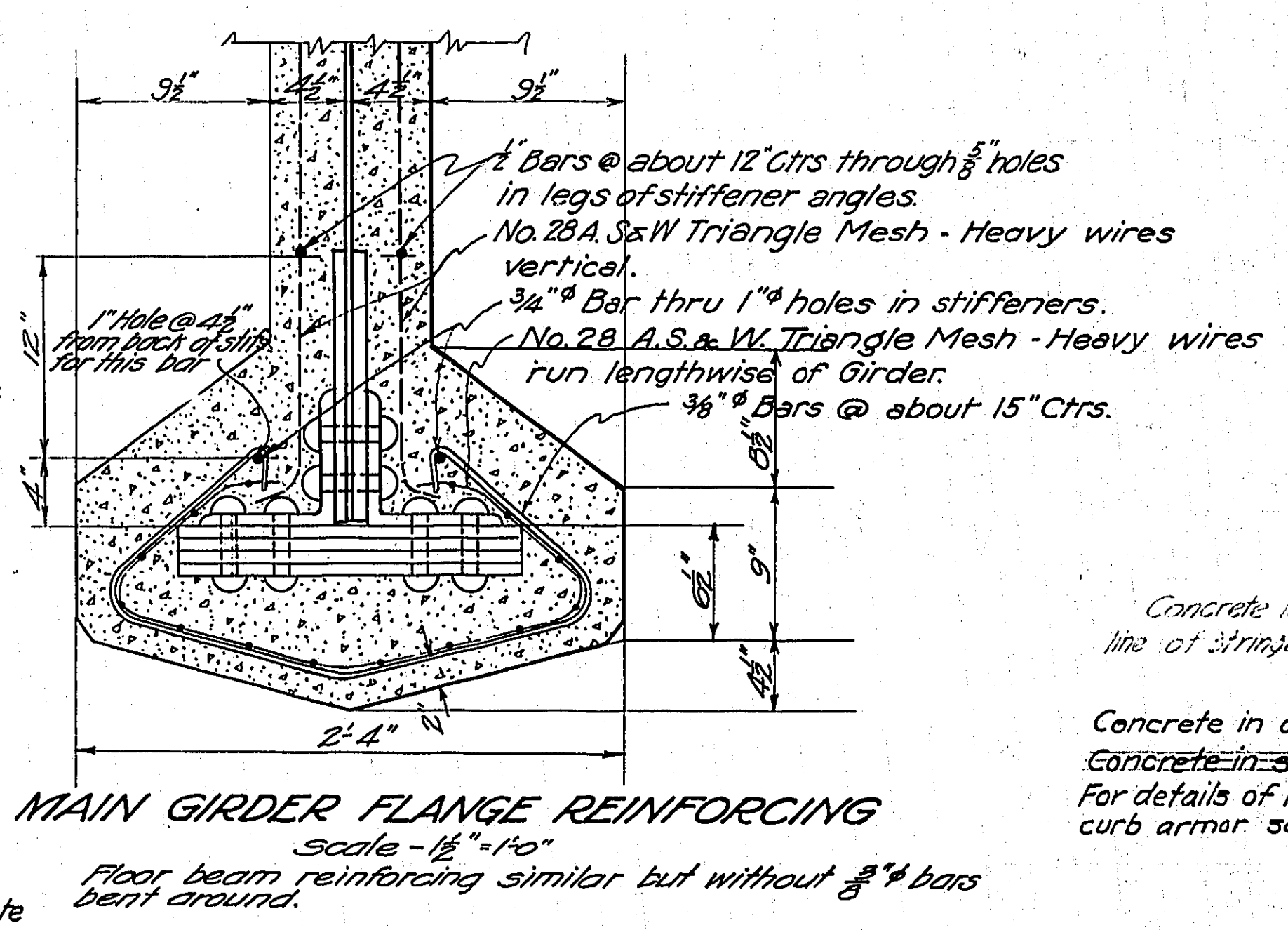
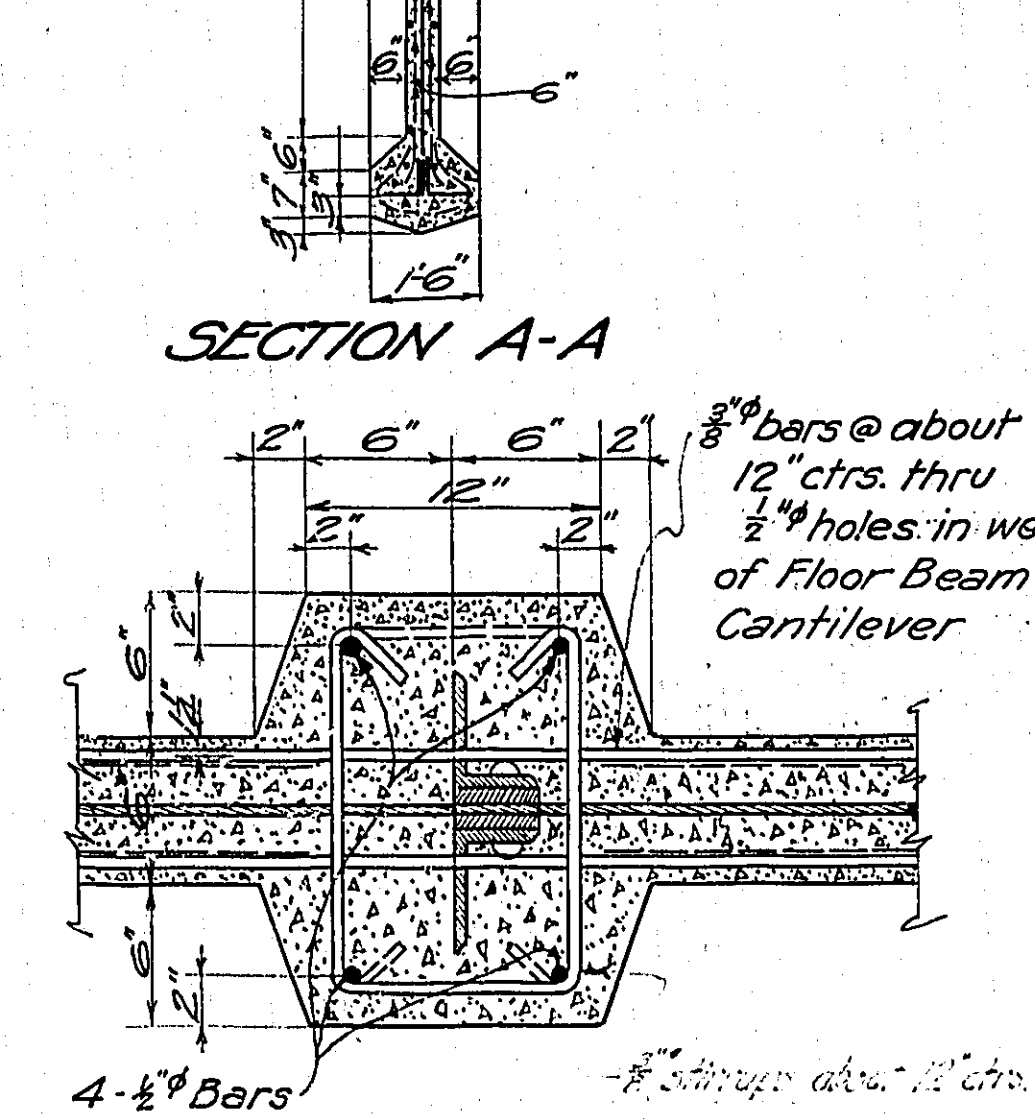
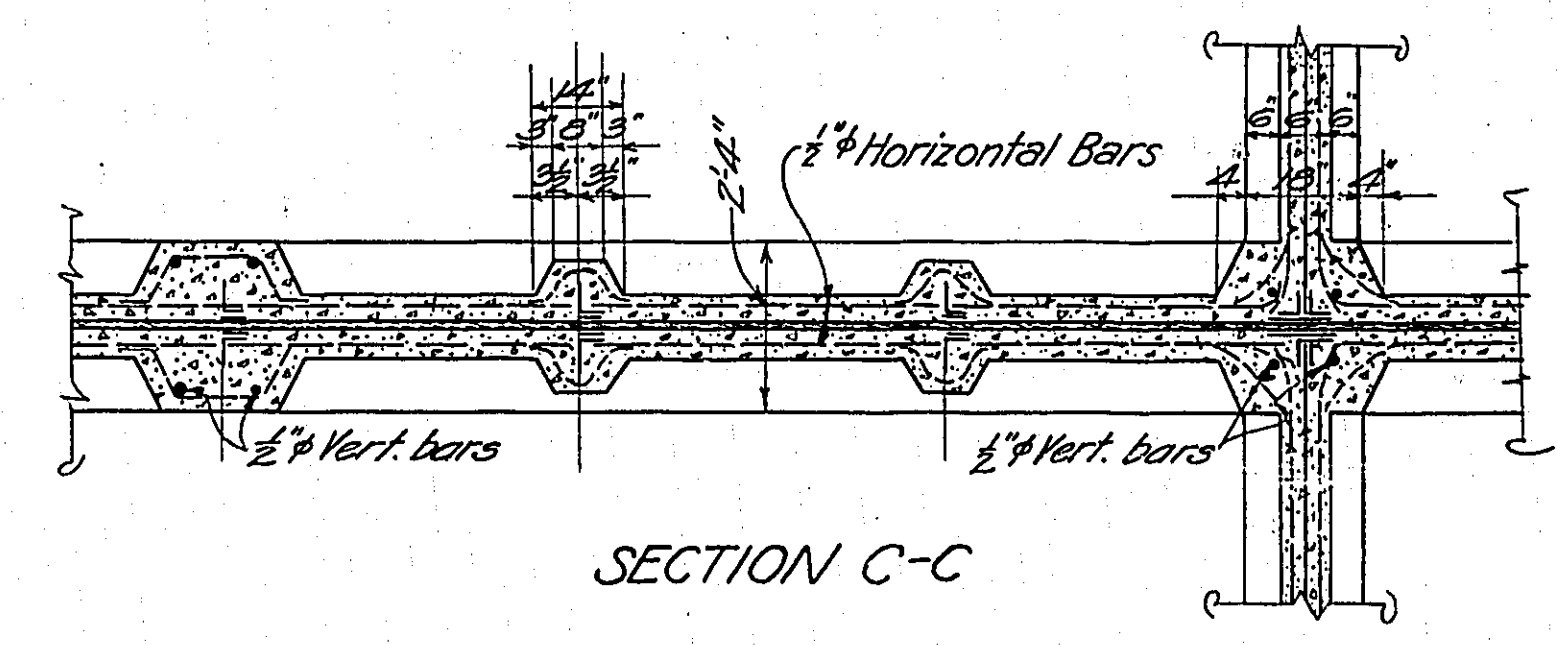
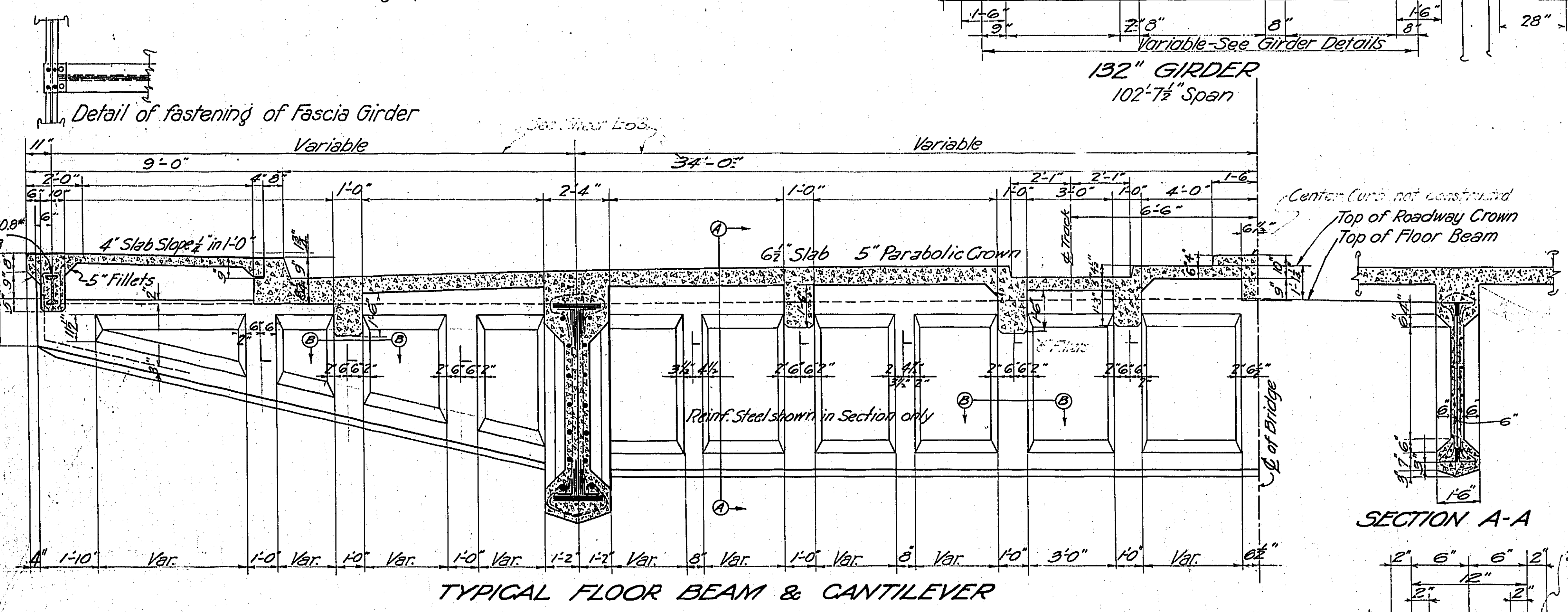
75" GIRDER
70" Span



132" GIRDER
102" Span



108" GIRDER
72'-3", 83'-6" & 89'-6" Spans



For Details of Stringers see Sheet No. 53
For Framing Plan of Stringers see Sheet No. 51 & 52

Concrete in encasement up to bottom line of stringers 1:1 1/2:2 1/2, remainder 1:1:2
Concrete in deck @ stringers 1:1:2
Concrete in steel encasement 1:1:2
For details of rail fastenings & center curb armor see sheet 57.

Expansion joint Encasement Sheet #53
Column and sway bracing encasement shown on Sheet #53
All reinforcing steel for steel encasement is plain round bars, not deformed bars.

MULTNOMAH COUNTY, OREGON

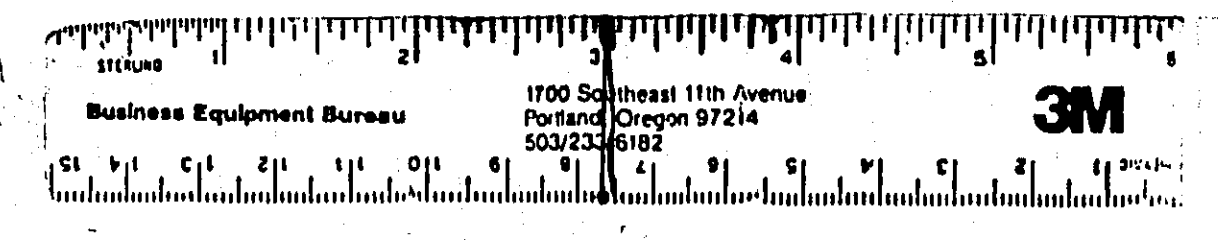
BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS
OF
CONCRETE ENCASEMENT

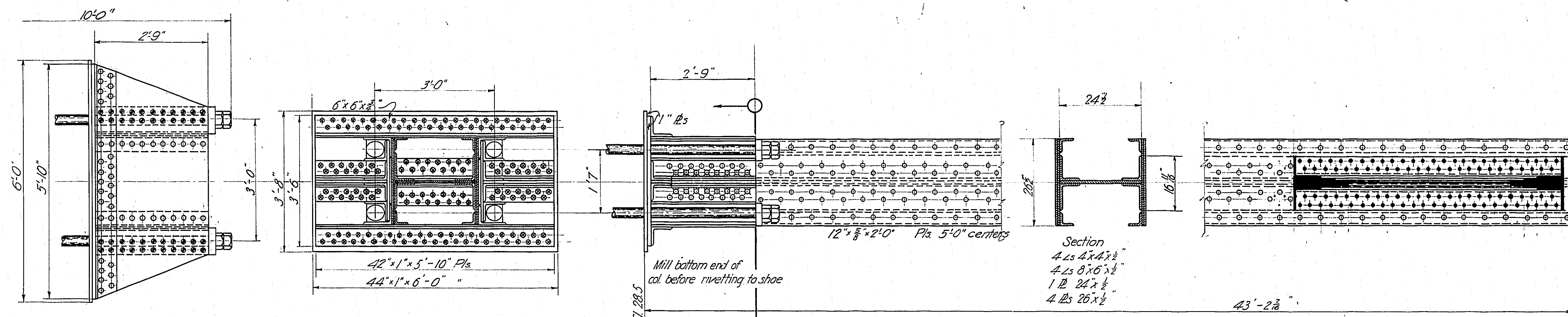
MADE BY: *[Signature]*
CHECKED BY: *[Signature]*
TRACED BY: *[Signature]*
DRAWING NO. *[Signature]*
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB 20, 1917

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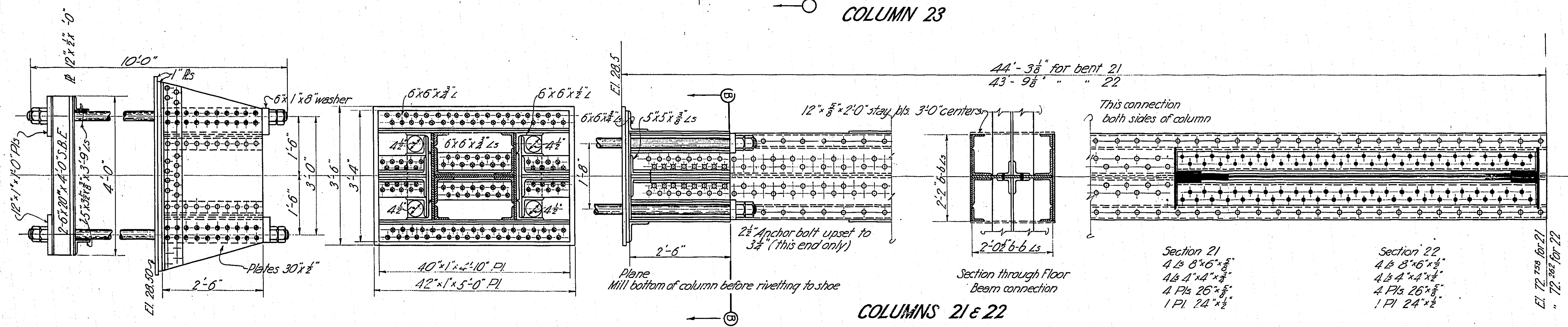


REVISED

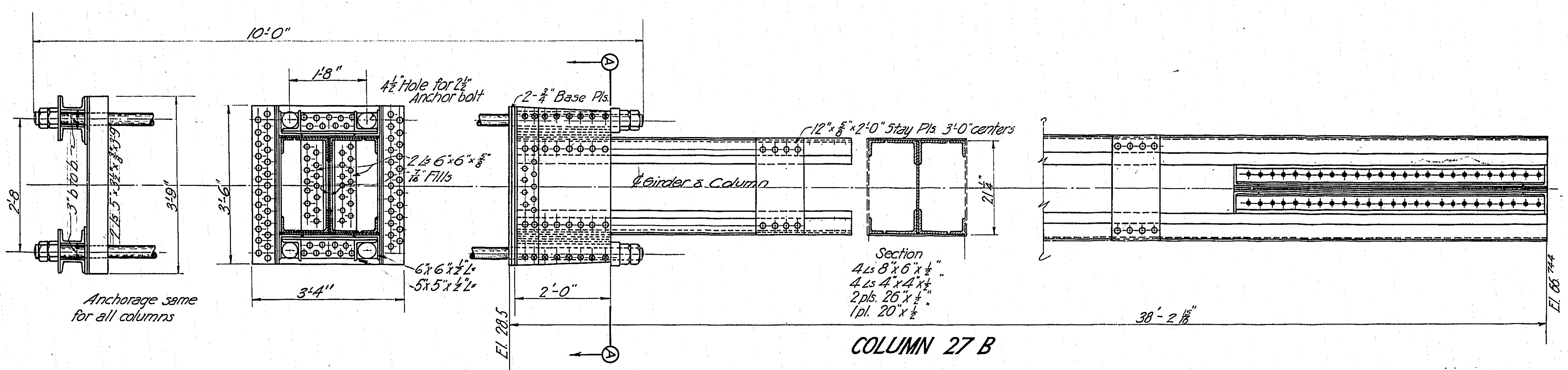


COLUMN 23

Note: This detail for connection to T0 girder
E side of column only. W side same as
for column 21, 22. Floor beam connection
same for all columns



COLUMNS 21 & 22



COLUMN 27 B

Anchorage same
for all columns

See Shop Plans, American Bridge Co. Order #5852.

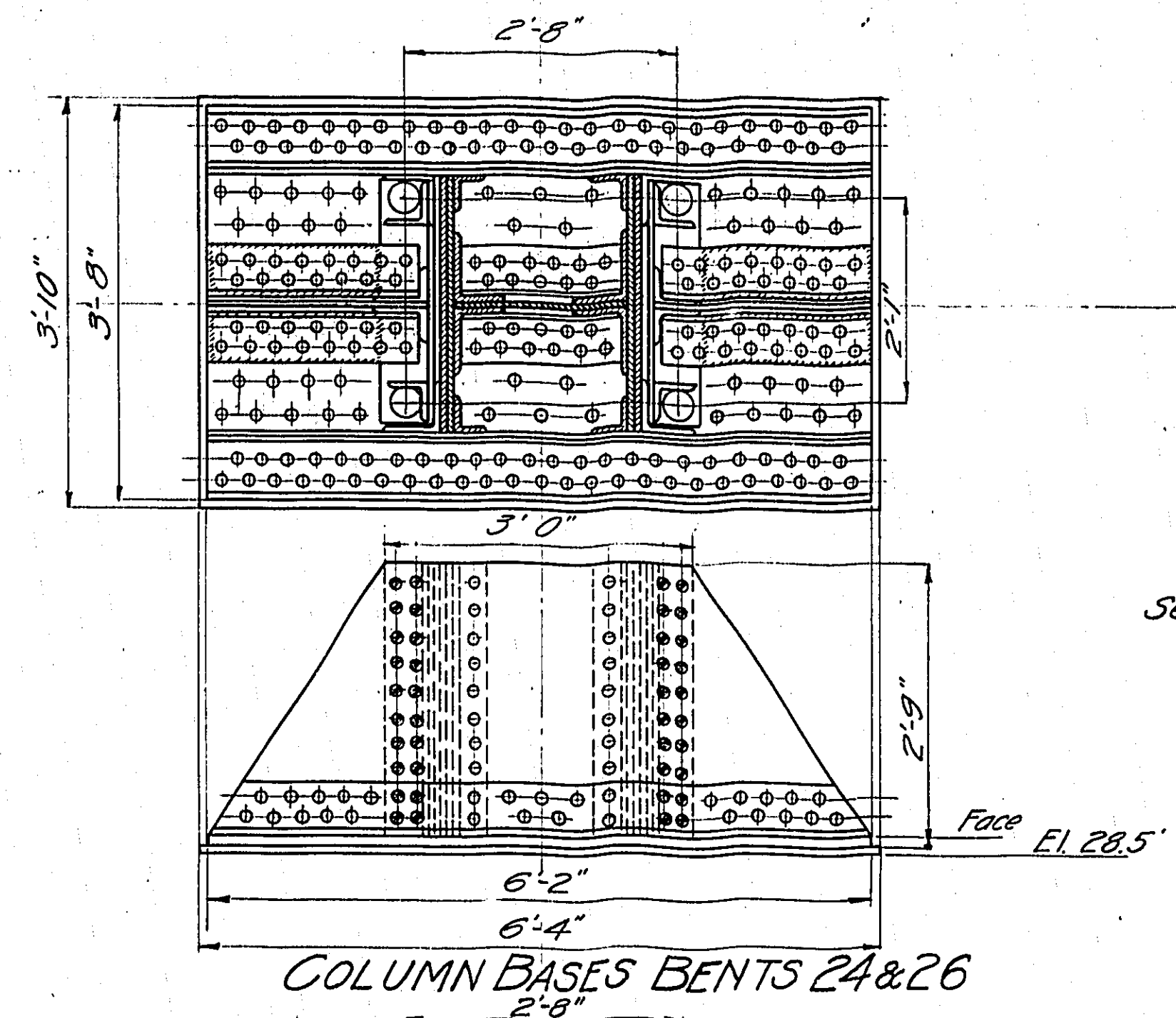
MULTNOMAH COUNTY OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
 DETAILS
 OF
COLUMNS 21 22 23 & 27 B

MADE BY: *Hedrick & Kremers*
 CHECKED BY: *W. H. Hillier*
 DRAWING NO.:
 SHEETS: SCALE: 3/4" = 1'-0" SHEET NO. 10

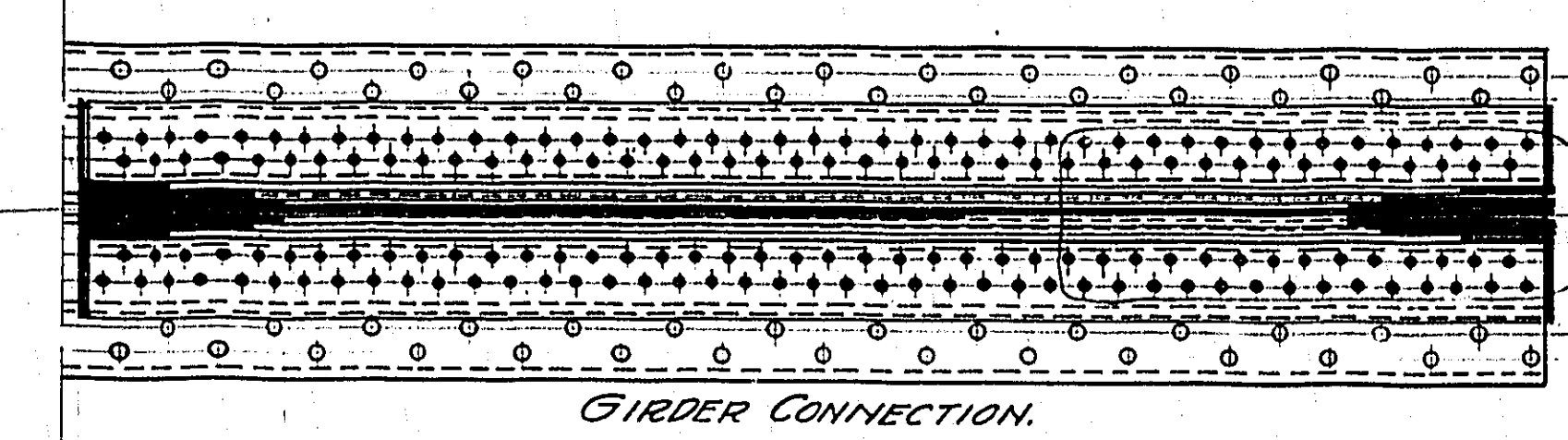
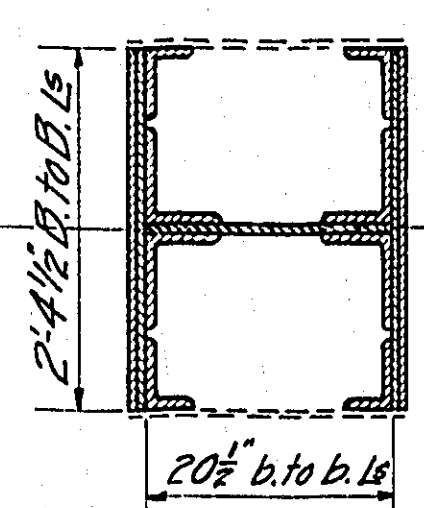
HEDRICK & KREMERS
 CONSULTING ENGINEERS
 PORTLAND, OREGON
 DATE: FEB. 20, 1922

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DUE TO THE QUALITY OF THE ORIGINAL.

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 1700 Commercial 11th Avenue
 Portland, Oregon 97214
 503-231-5151
3M

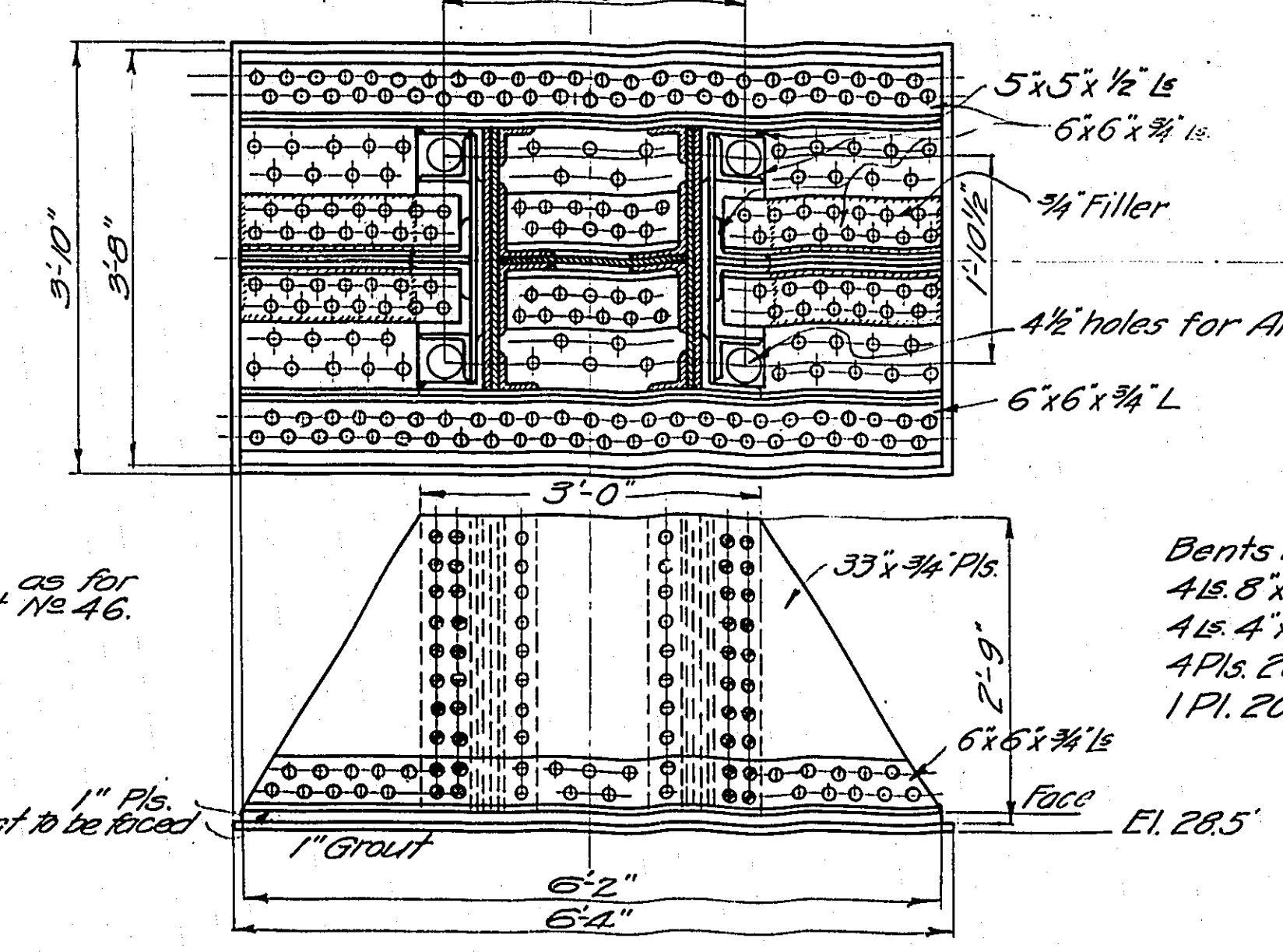


Section Bent 26 same as 24.



Holes for 1" turned bolts

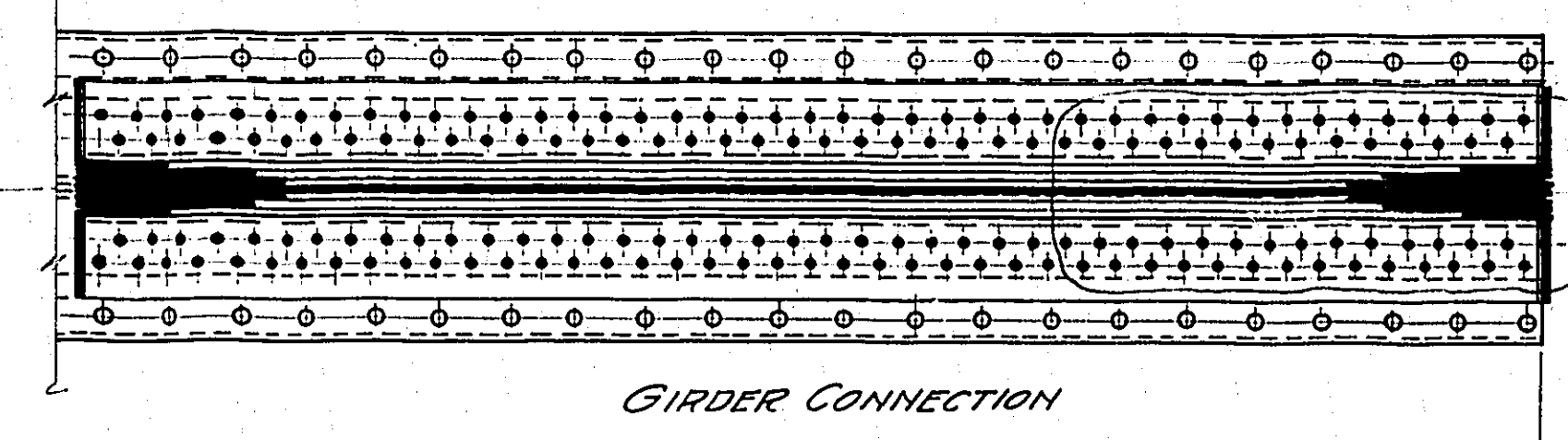
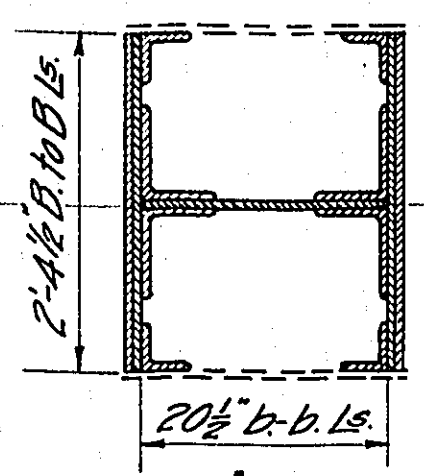
COLUMN 26



NOTE: Anchorage same as for Bents 20-23, See Sheet No. 46.

Sections

Bents 24 & 26	Bent 25
4 Ls. 8'x6'x3/4"	4 Ls. 8'x6'x3/4"
4 Ls. 4'x4'x3/4"	4 Ls. 4'x4'x3/4"
4 Pts. 28'x3/4"	4 Pts. 28'x3/4"
1 Pl. 20'x3/4"	1 Pl. 20'x3/4"



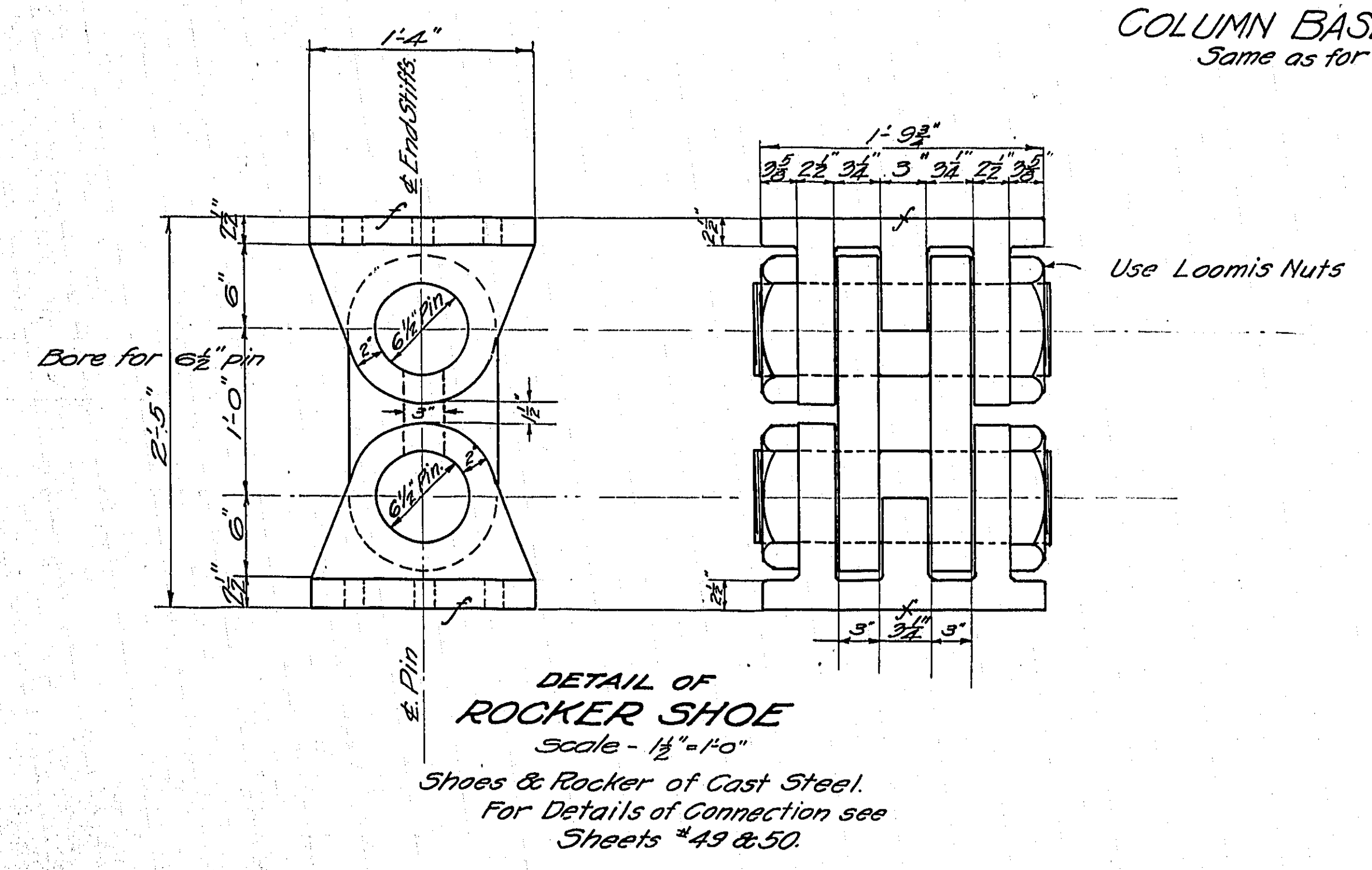
NOTE: Use 1" turned bolts for upper third of all end connections for main girders.

To bottom of Base Column 24 - 42'-8 1/4"
 To bottom of Base Column 25 - 41'-3 1/4"
 To bottom of Base Column 26 - 39'-1 1/4"

COLUMN 24 & 25

Bent 24 - Elev. 71.183'
 Bent 25 - Elev. 69.783'
 Bent 26 - Elev. 68.083'

NOTE: All Anchor bolts 2 1/2" & Upset to 2 Hexagonal Nuts each end.



GENERAL NOTES:-
 Use 1" turned bolts for upper third of all connections of main girders to columns.
 All rivets in base plates to be countersunk on bottom.
 The bases of all columns to be milled before riveting on base plates.
 All anchor bolts to be set in true position top to be rigidly held in wooden templates.

See Shop Plans, American Bridge Co. Order #5982.

MULTNOMAH COUNTY, OREGON

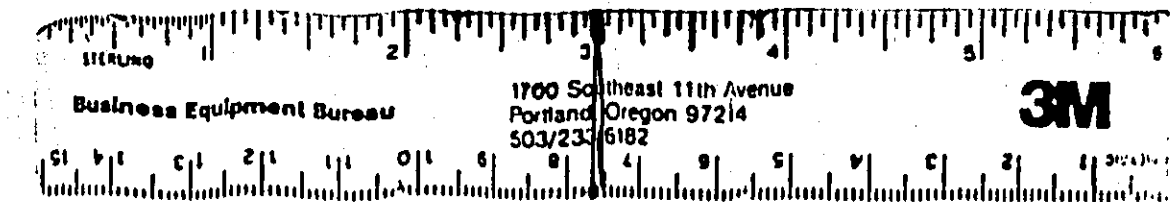
BURNSIDE BRIDGE
 PORTLAND, OREGON

DETAILS

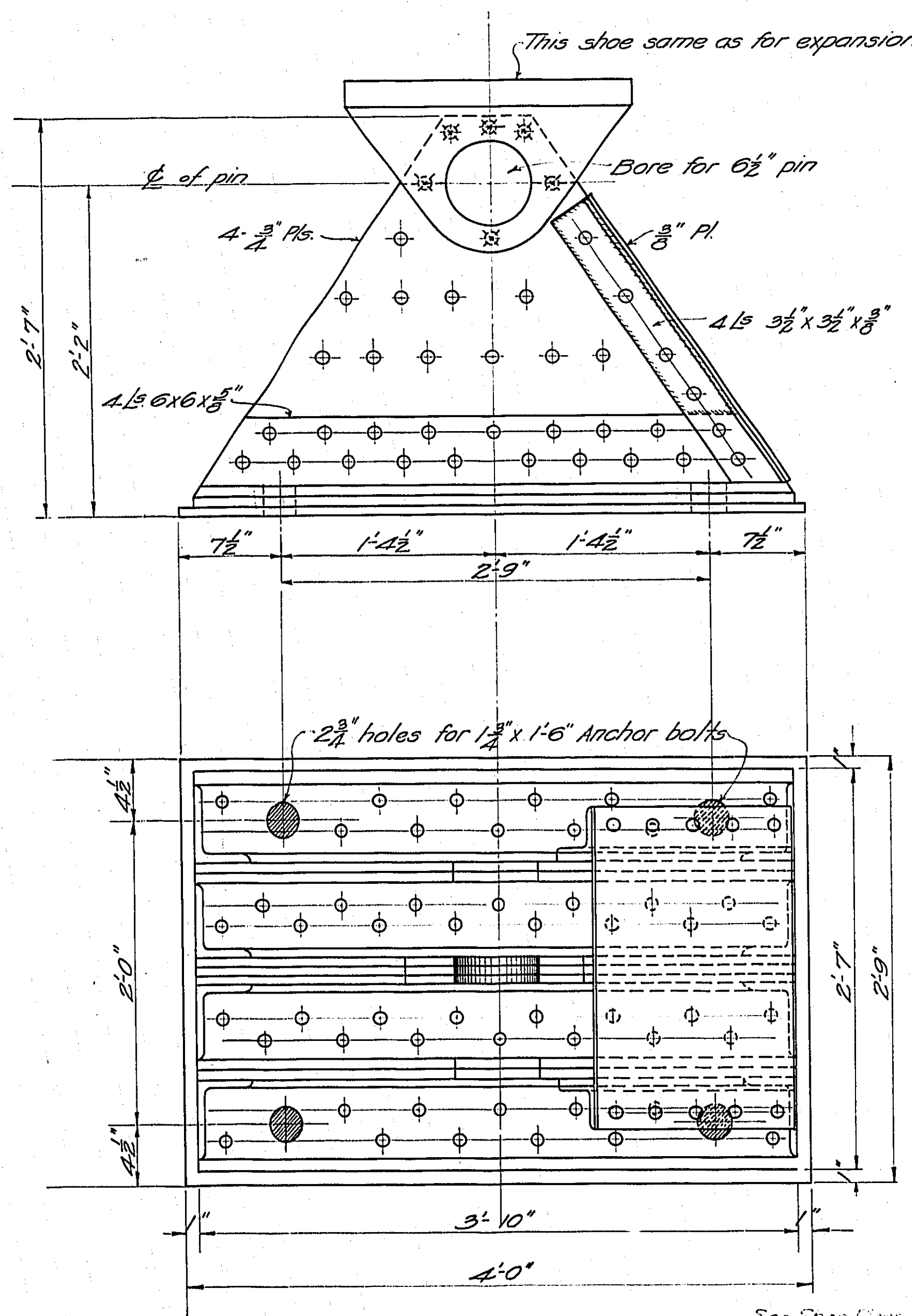
COLUMNS 24, 25 & 26

MADE BY *D. J. ...* HEDRICK & KREMERS
 CHECKED BY *D. J. ...* CONSULTING ENGINEERS
 TRACED BY *D. J. ...* PORTLAND, OREGON
 CHECKED BY *D. J. ...* DATE FEB. 19 1924
 DRAWING NO. SHEET NO. 47
 SHEETS

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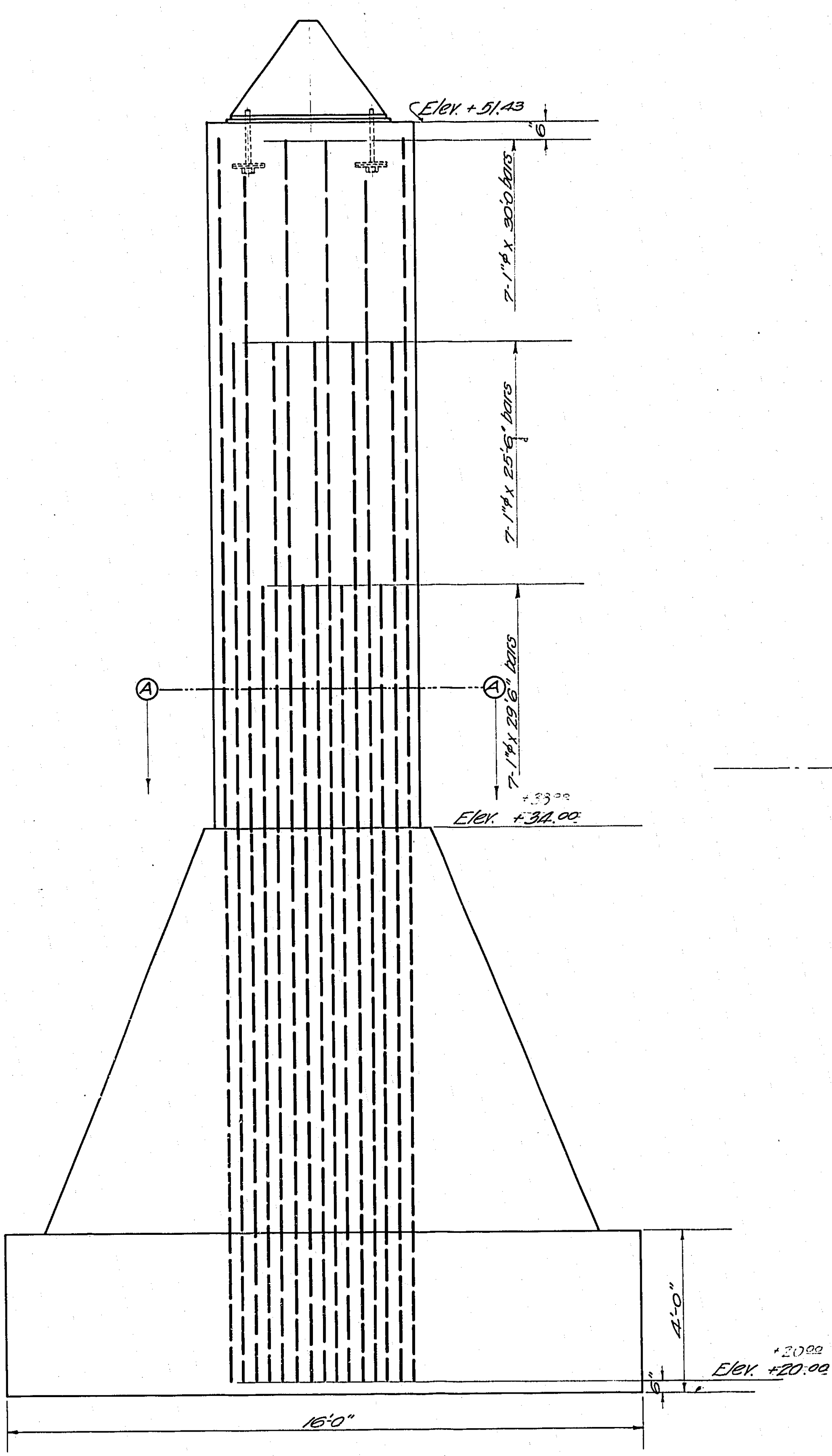
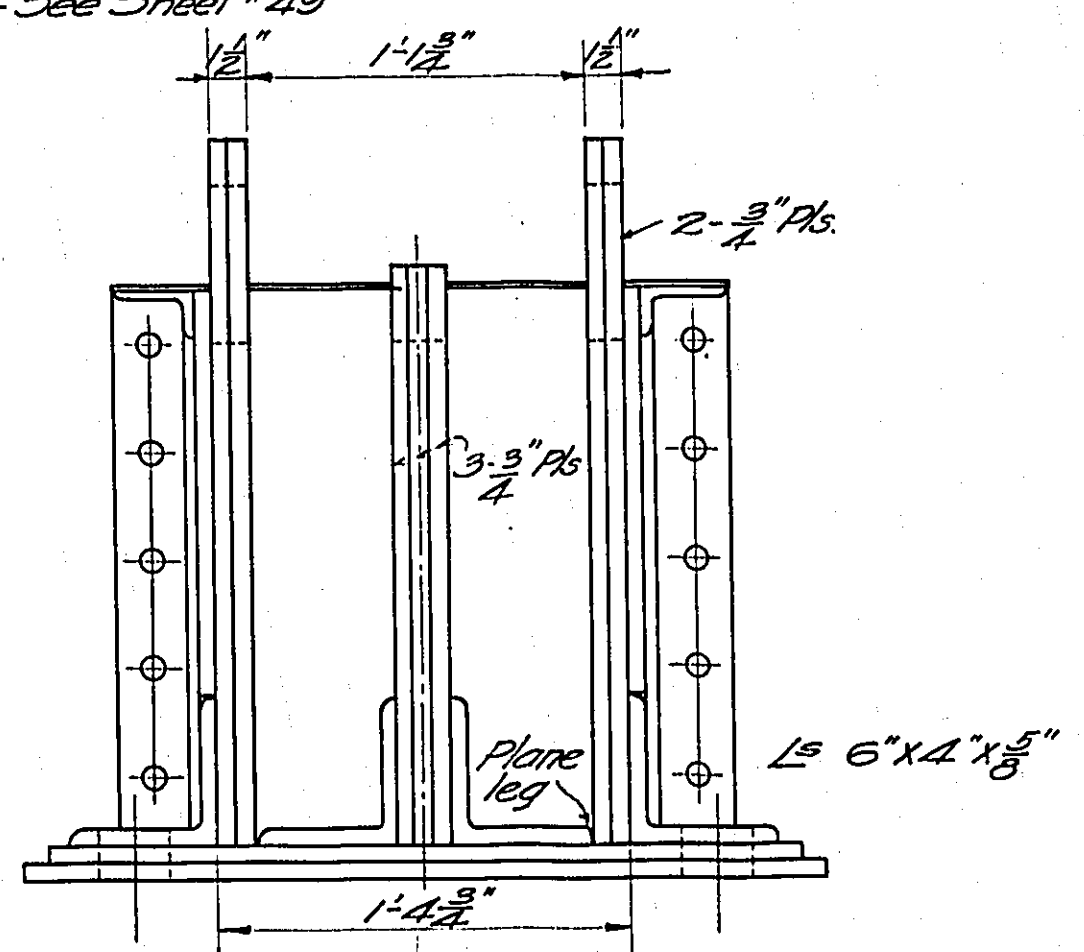
REVISED



See Shop Notes Attached to Project - Order 1982

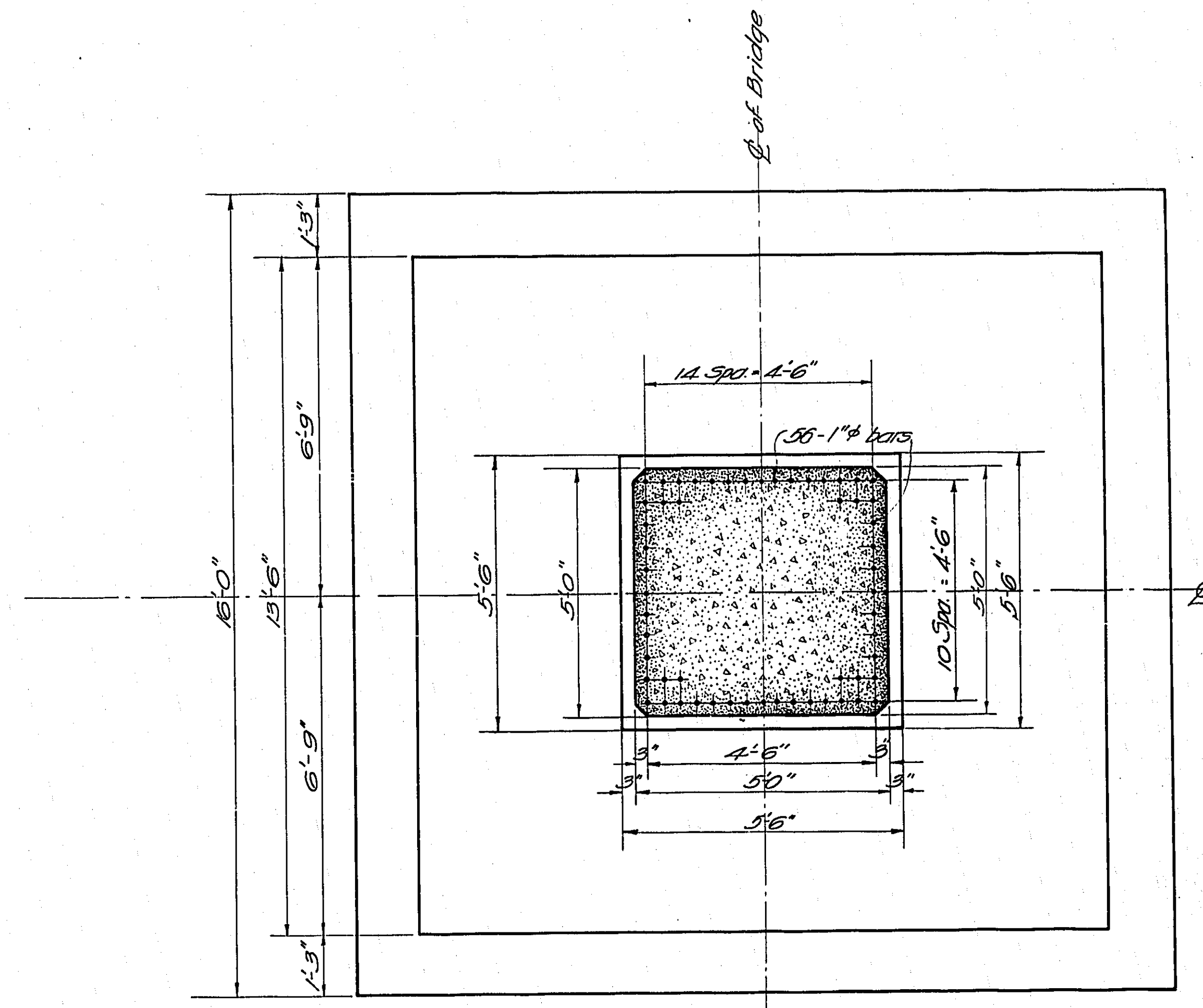
FIXED SHOE - COL. 28 3-Required

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



ELEVATION ON TRANSVERSE AXIS

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



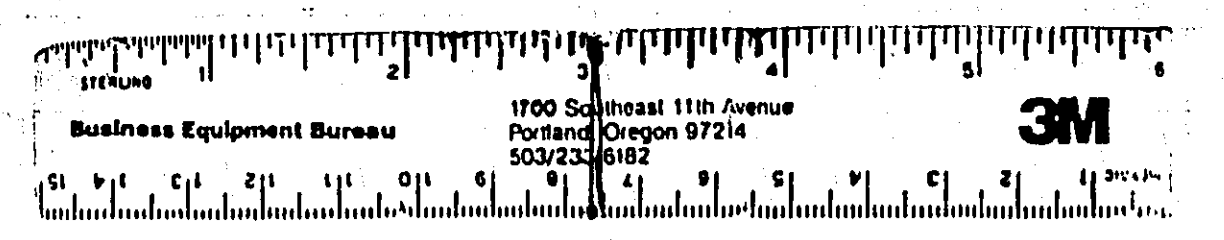
SECTION A-A

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

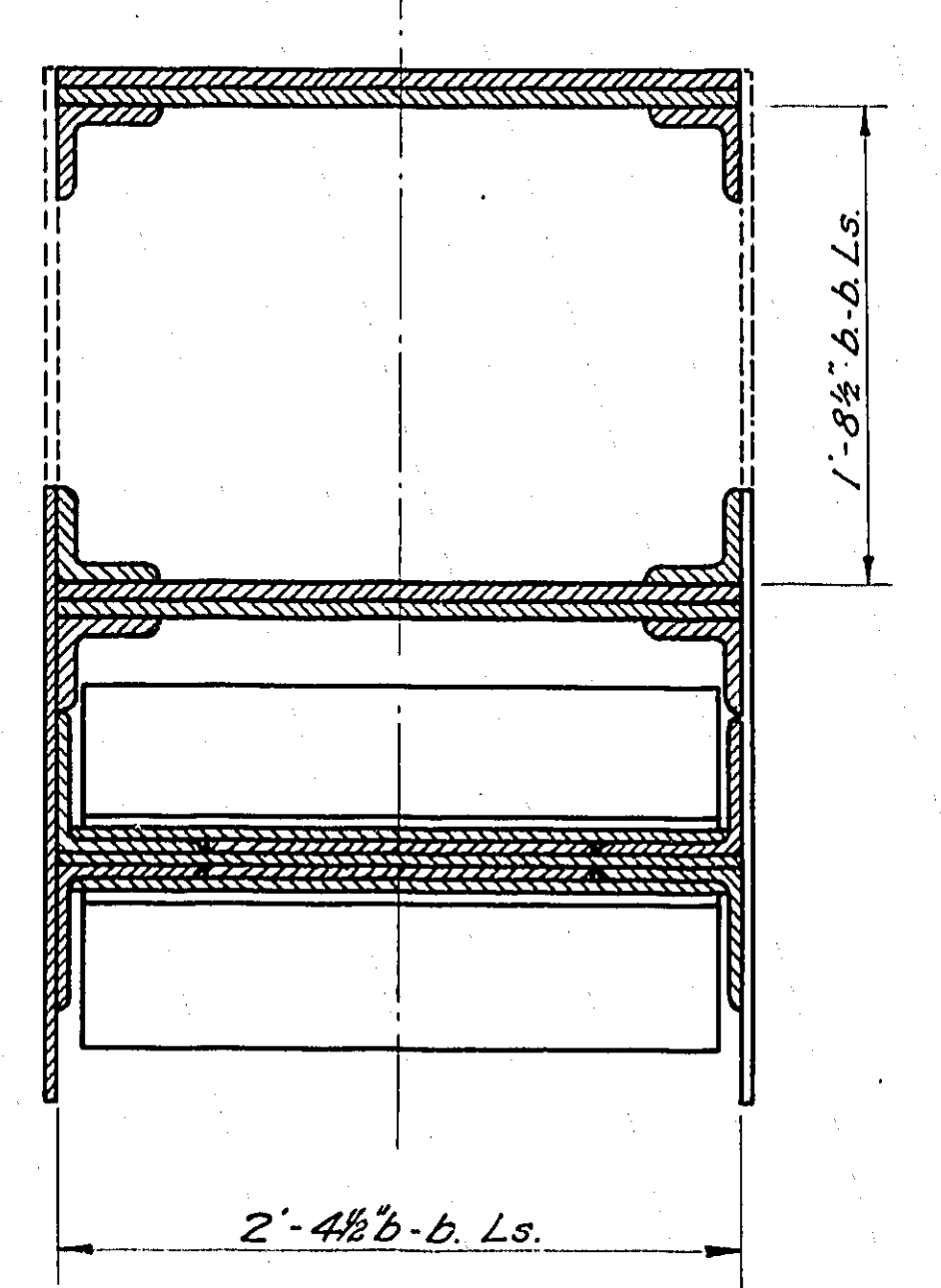
Concrete 1:2:4

MULTNOMAH COUNTY, OREGON	
BURNSIDE BRIDGE	
PORTLAND, OREGON	
DETAILS	
OF	
BENT NO. 28	
MADE BY <i>Went</i>	HEDRICK & KREMERS
CHECKED BY <i>Went</i>	CONSULTING ENGINEERS
TRACED BY <i>Went</i>	PORTLAND, OREGON
CHECKED BY <i>Went</i>	DATE FEB. 20-24
DRAWING NO.	SHEET NO.
SHEETS	SCALE AS SHOWN

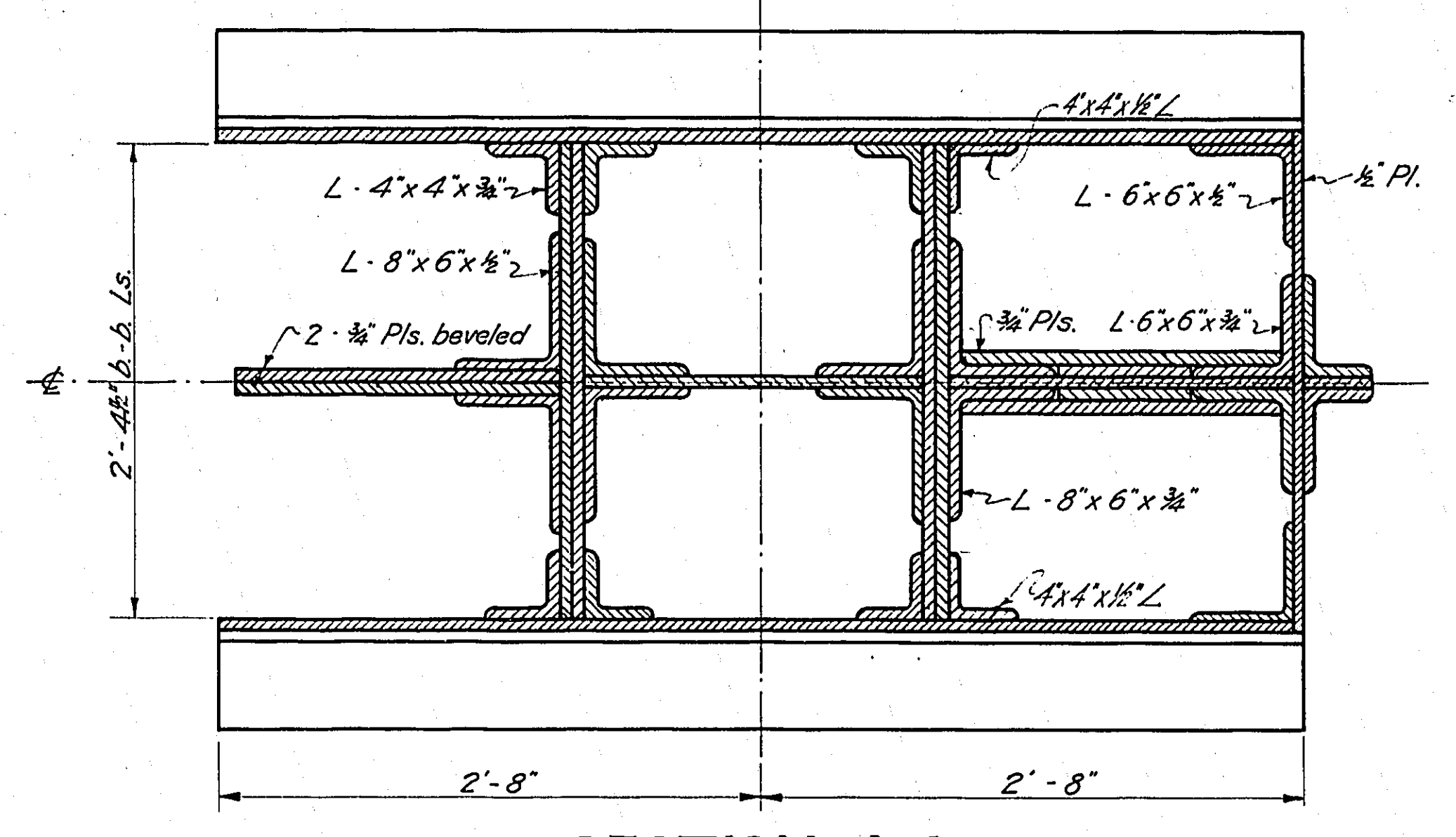
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.



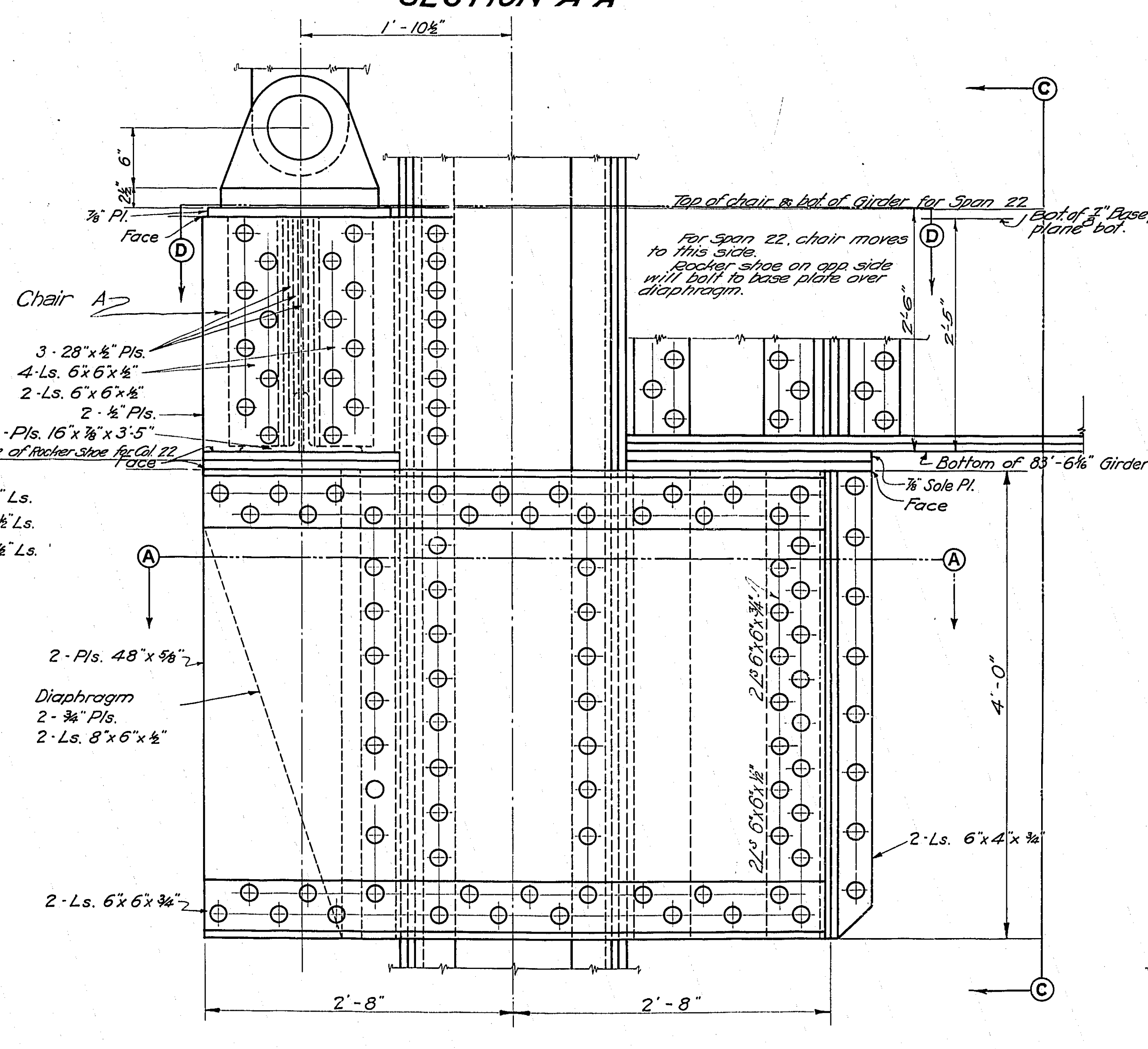
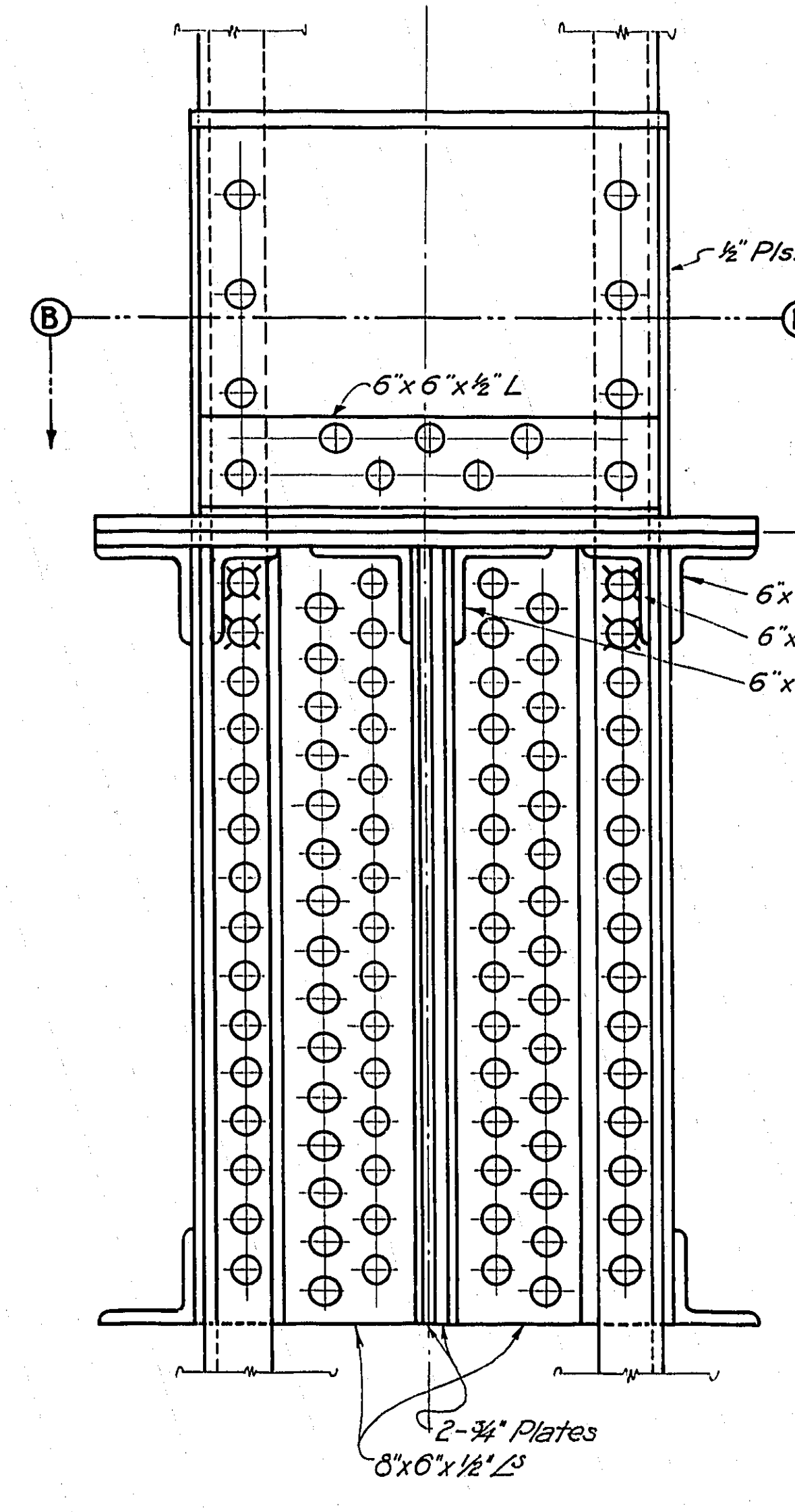
48



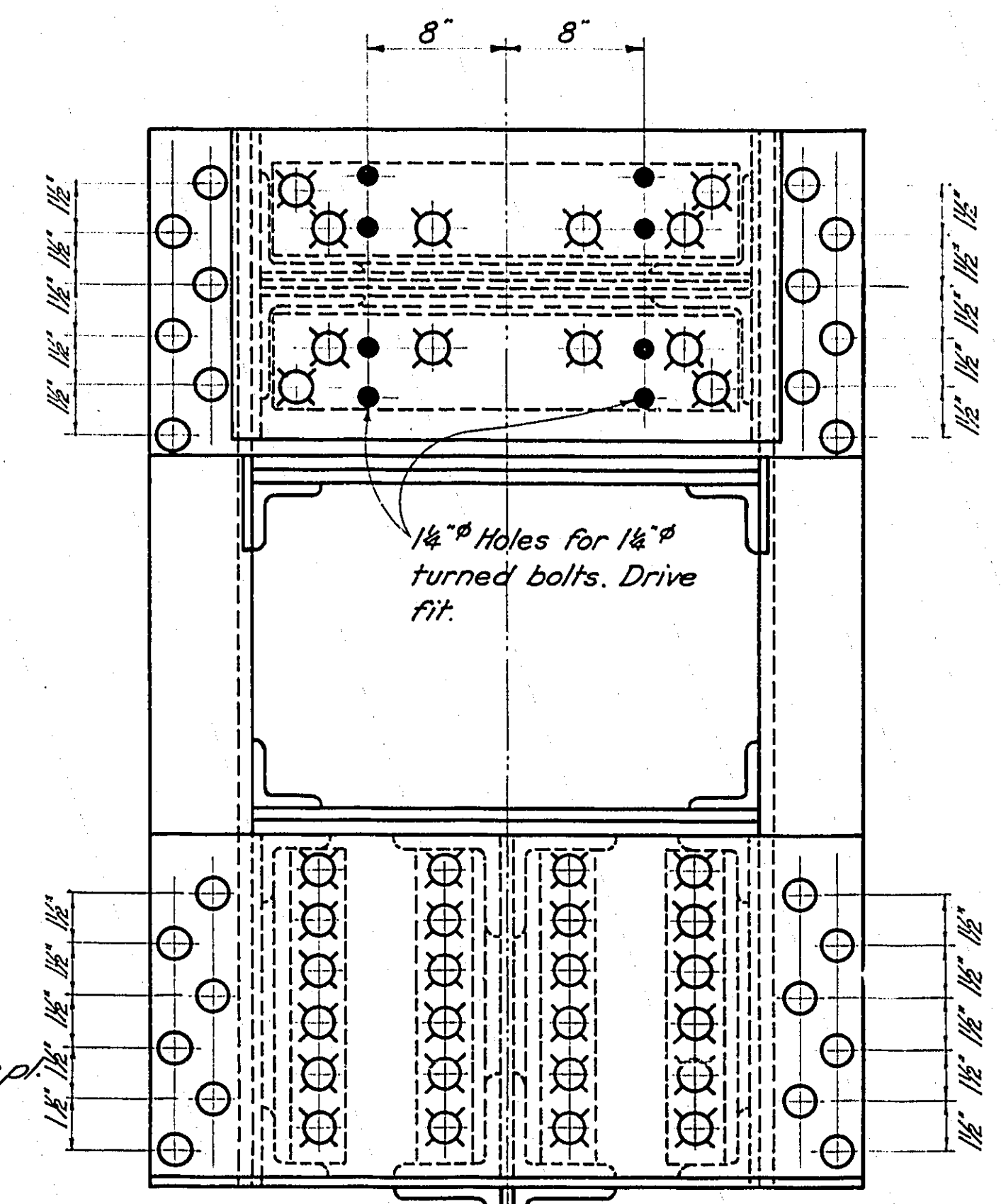
SECTION B-B



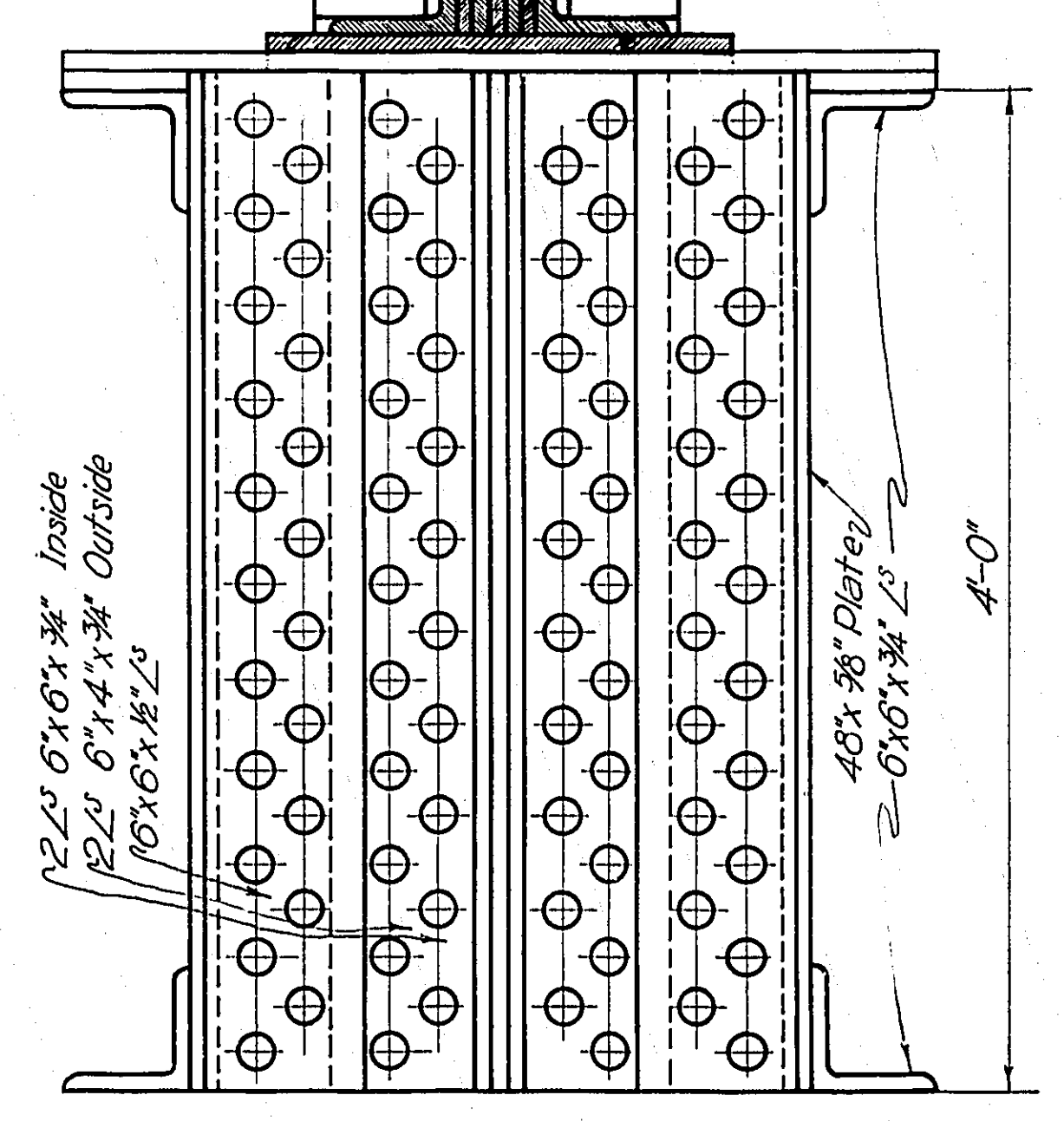
SECTION A-A



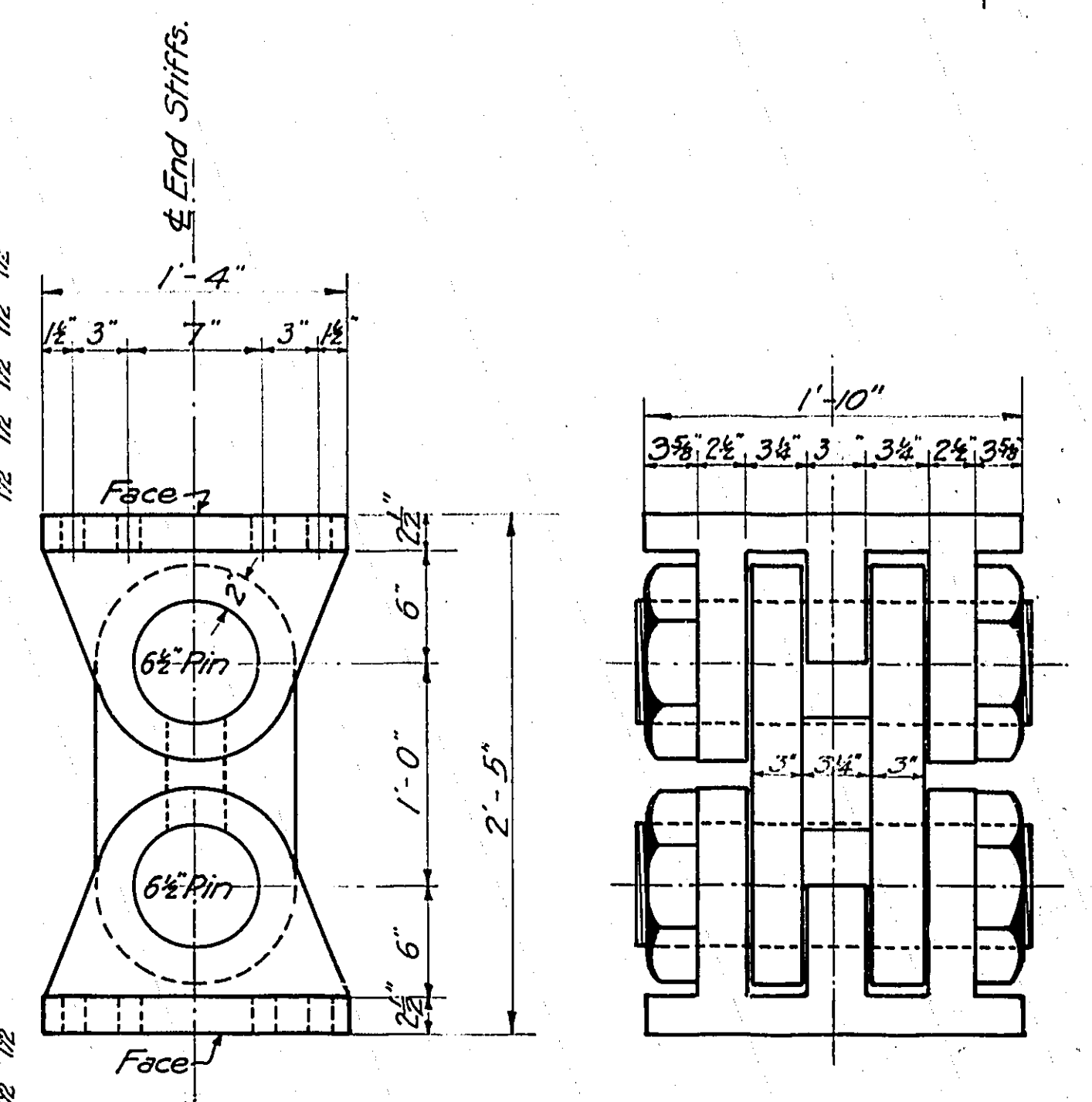
ELEVATIONS COL. 24
For Columns Bent 22 use same detail with chair 'A' on east side and expansion rocker on west side of columns.



PLAN ON D-D



SECTION C-C



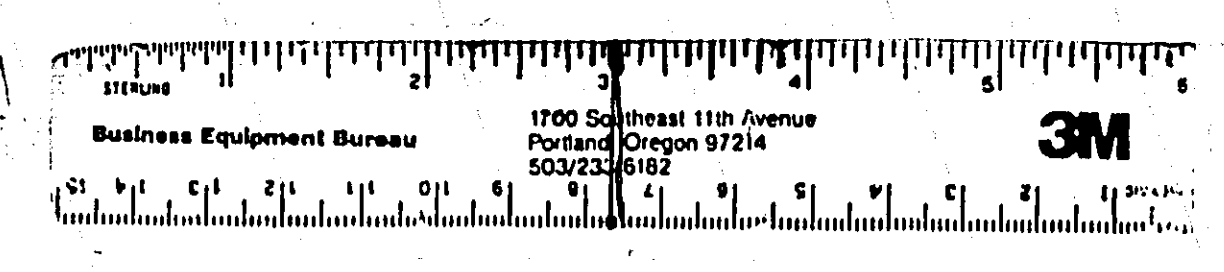
ROCKER SHOE
6 Required Complete
5 additional castings for top shoes

Note: All rivets 1\"/>

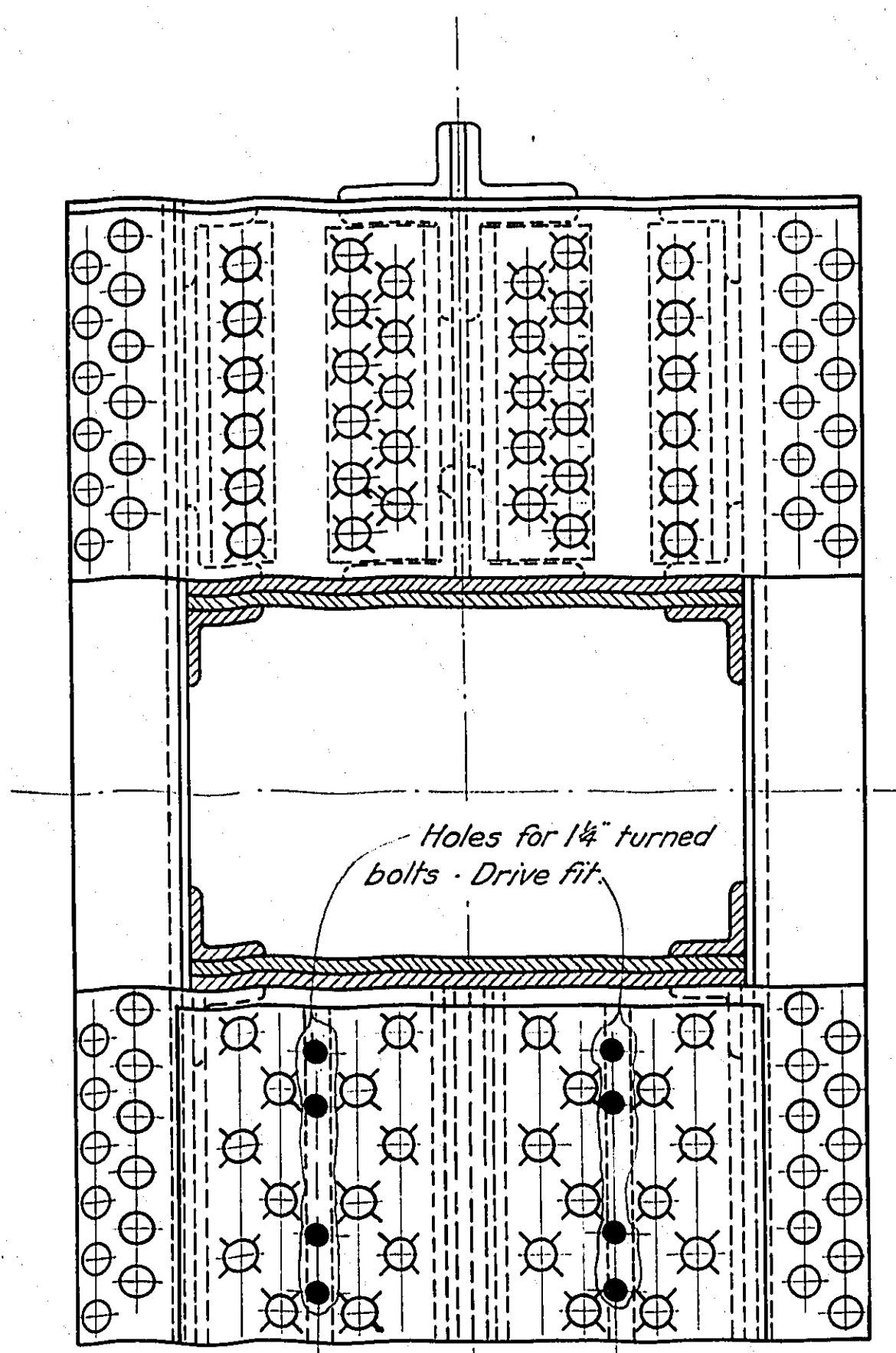
See Story Plans, American Bridge Co. Order 5982.

MULTNOMAH COUNTY, OREGON	
BURNSIDE BRIDGE	
PORTLAND, OREGON	
DETAILS	
EXPANSION JOINT, BENT 22-24	
MADE BY: <i>W.D. not</i>	HEDRICK & KREMERS
CHECKED BY: <i>W.D. not</i>	CONSULTING ENGINEERS
TRACED BY: <i>W.D. not</i>	PORTLAND, OREGON
CHECKED BY: <i>W.D. not</i>	DATE FEB. 20, 1924
DRAWING NO.	SHEETS
Scale 1 1/2"=10'	SHEET NO. 49

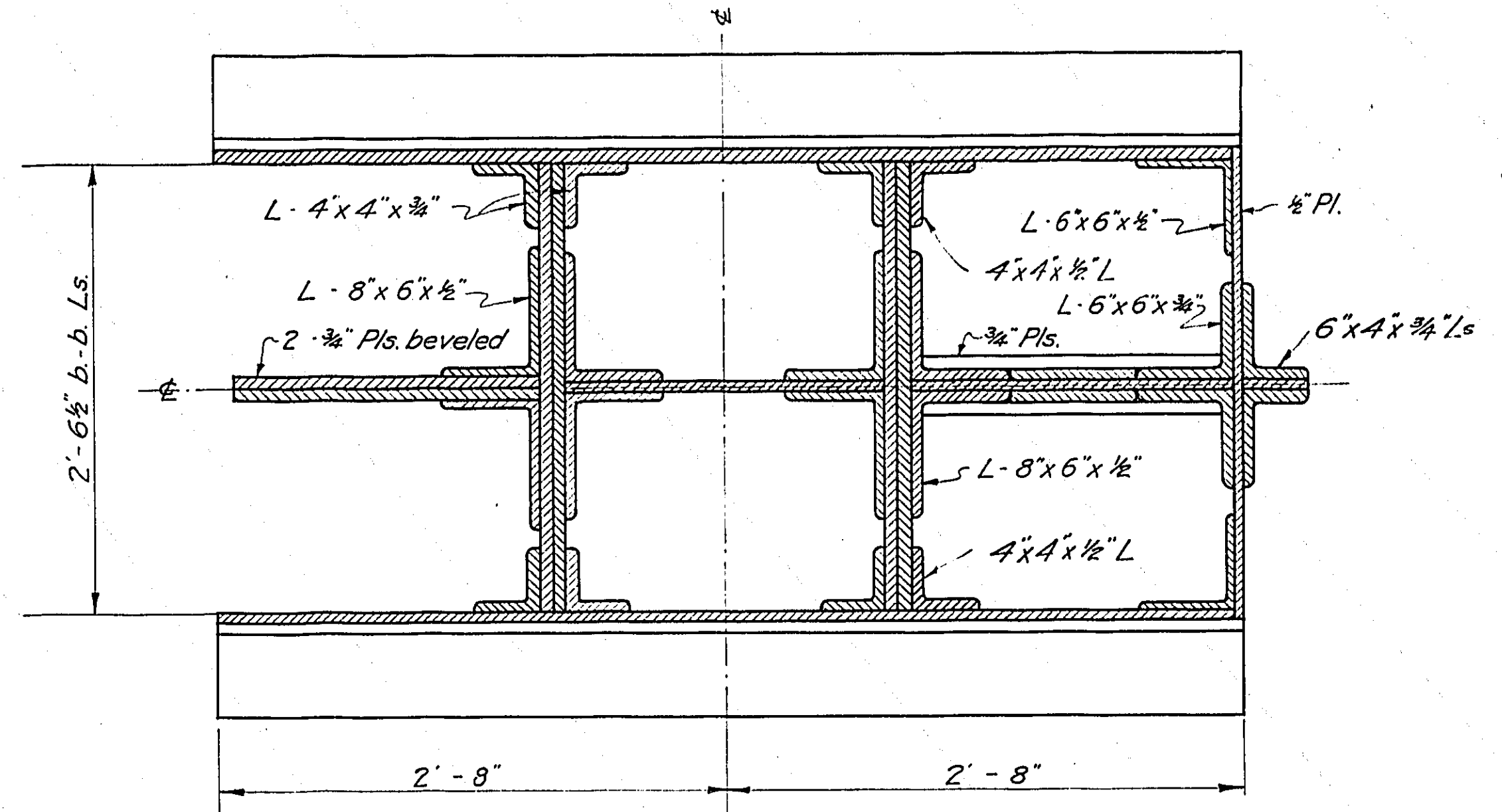
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.



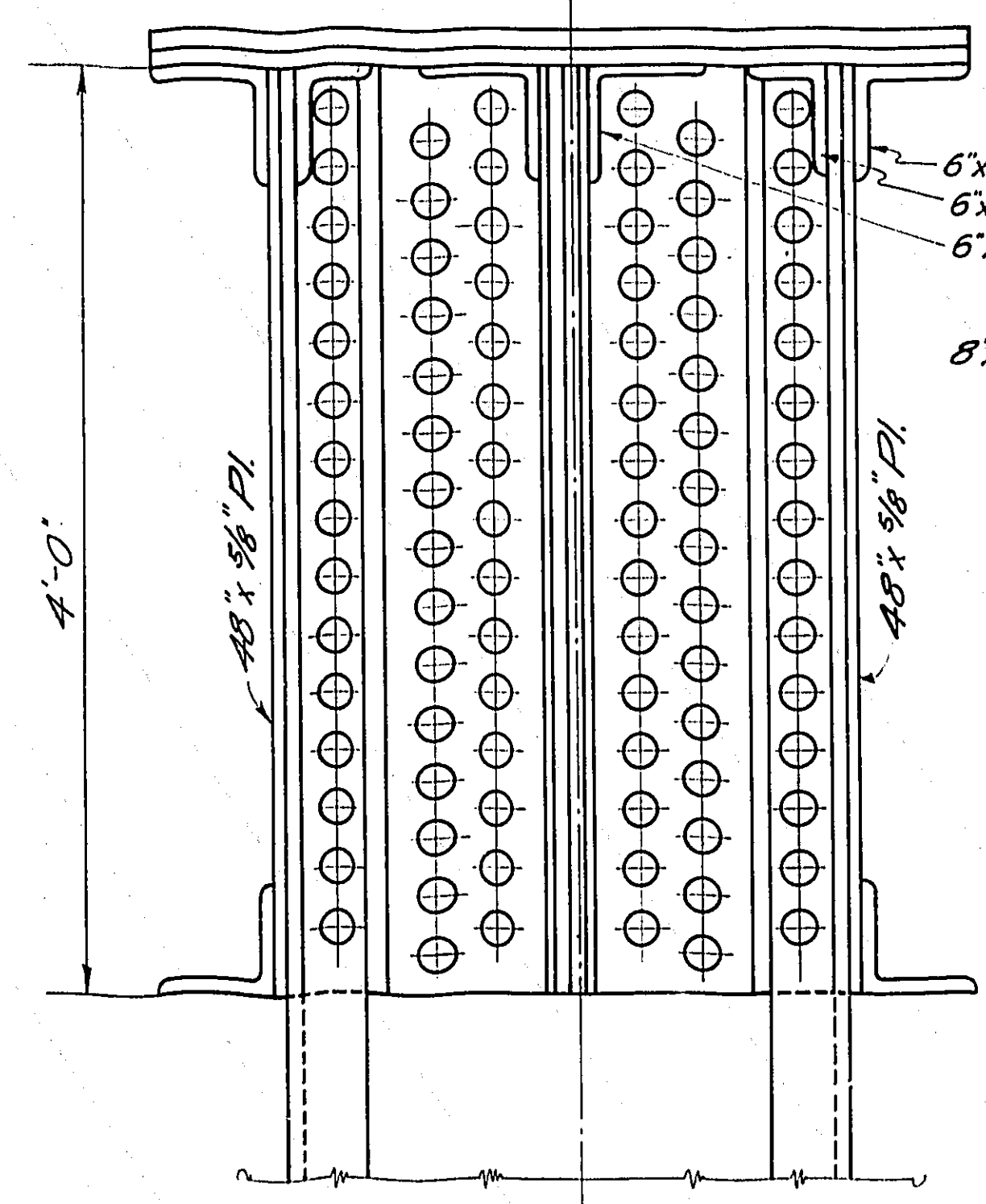
REVISED



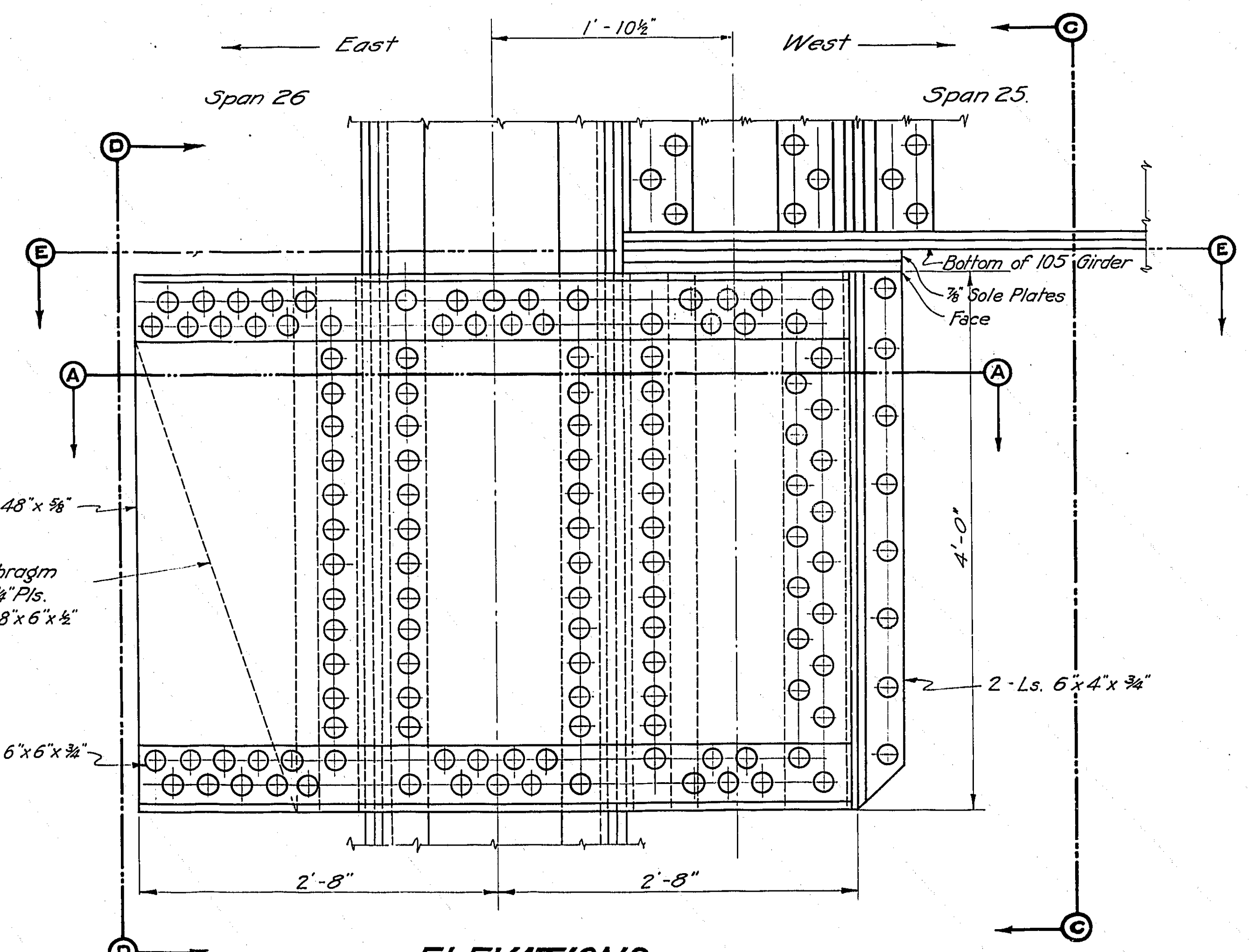
PLAN E-E



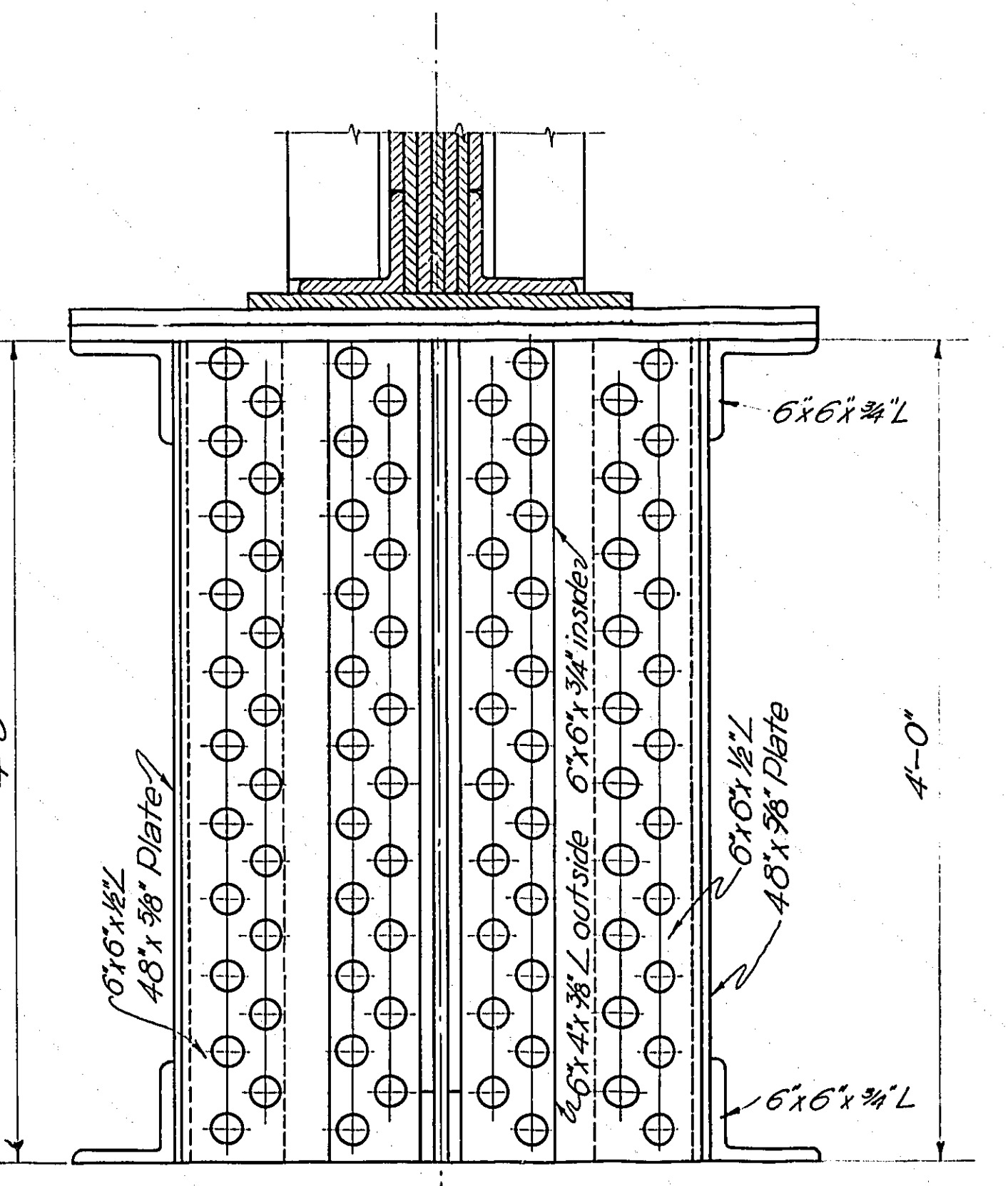
SECTION A-A
COLUMN BENT 26



ELEVATION D-D



ELEVATIONS
COLUMN BENT 26



SECTION C-C

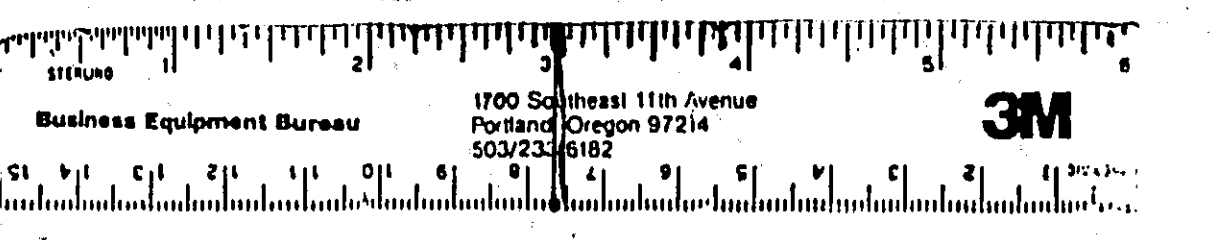
All rivets in expansion brackets
to be 1" diameter.
For detail of Rocker Shoe see Sheet #49

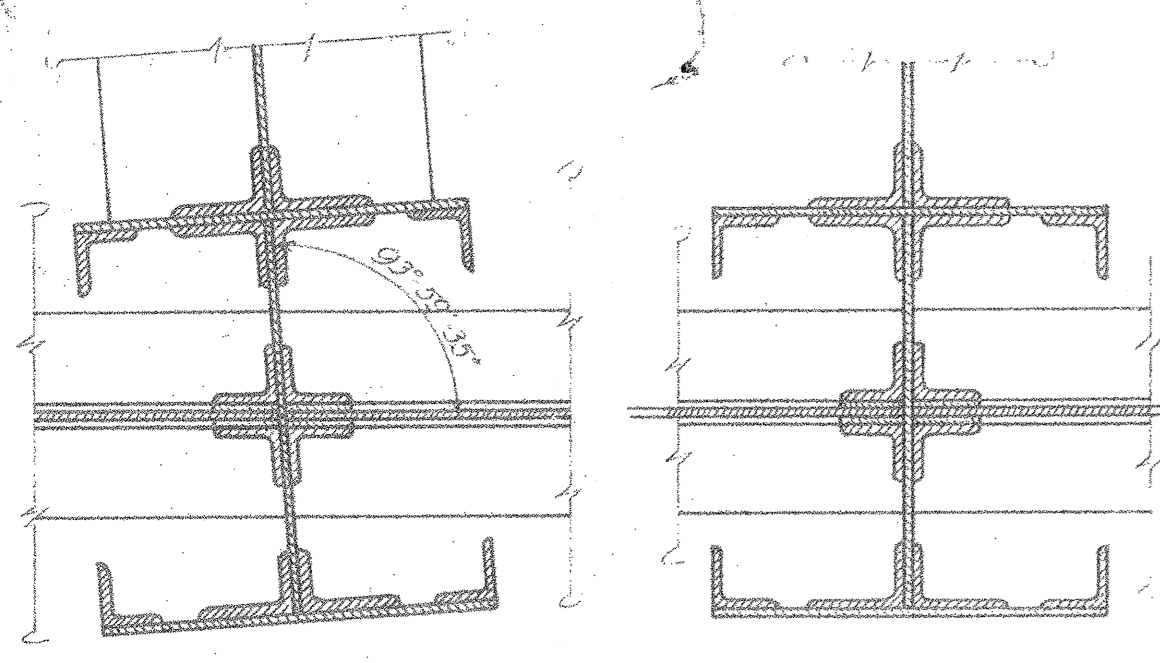
See Shop Plans, American Bridge Co. Order 12352

MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
PORTLAND, OREGON
DETAILS
OF
EXPANSION JOINT BENT 26

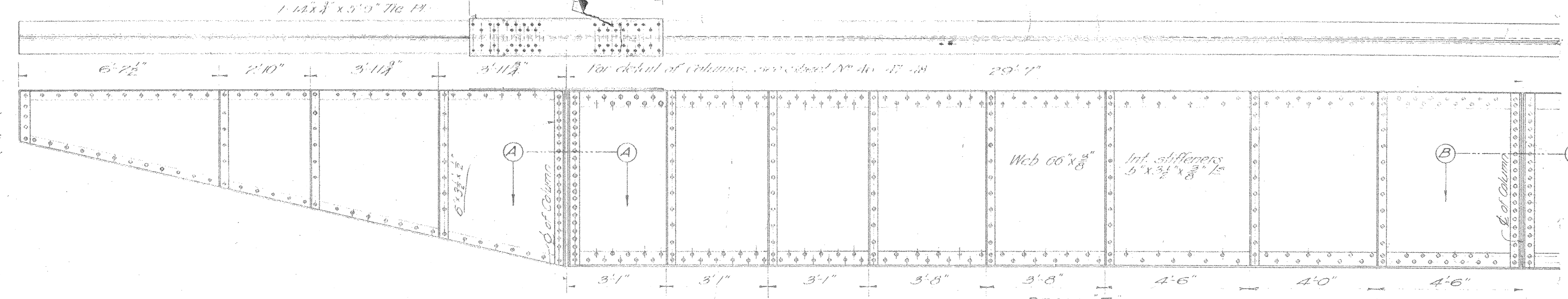
MADE BY *[Signature]* HEDRICK & KREMERS
CHECKED BY *[Signature]* CONSULTING ENGINEERS
TRACED BY *[Signature]* PORTLAND, OREGON
CHECKED BY *[Signature]* DATE FEB. 19, 1924
DRAWING NO. SHEETS
Scale 1/4"=1'-0" SHEET NO. **50**

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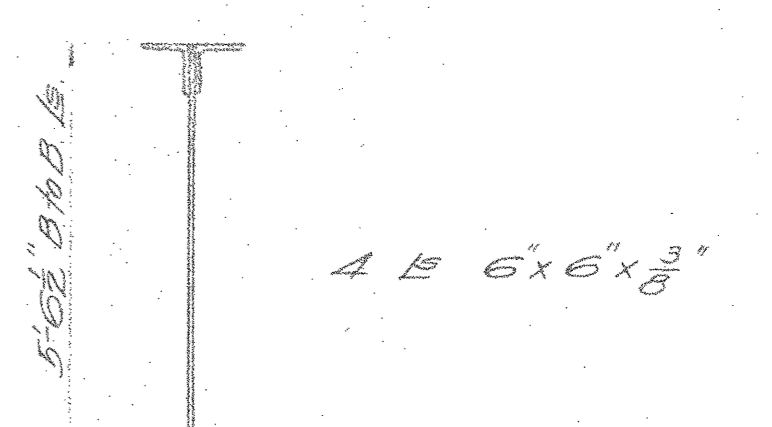




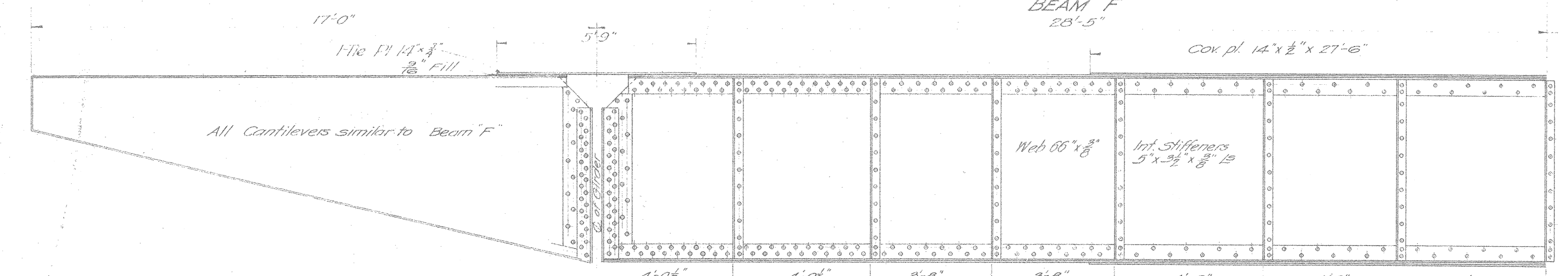
SECTION A-A SECTION B-B
CONNECTION OF FLOOR
BEAMS TO COLUMNS



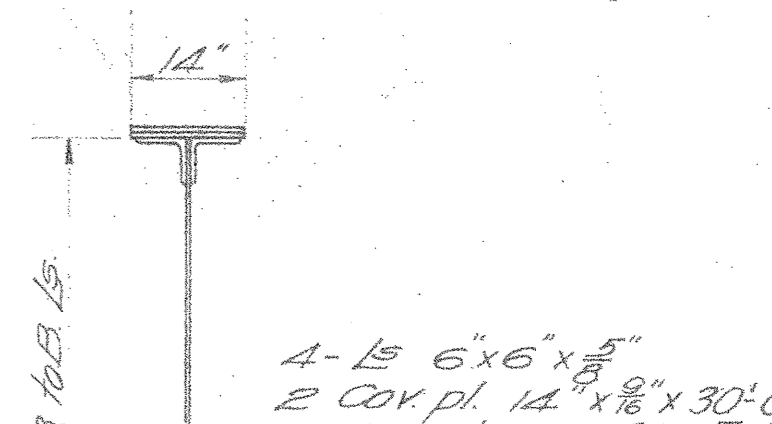
BEAM F
28'-5"



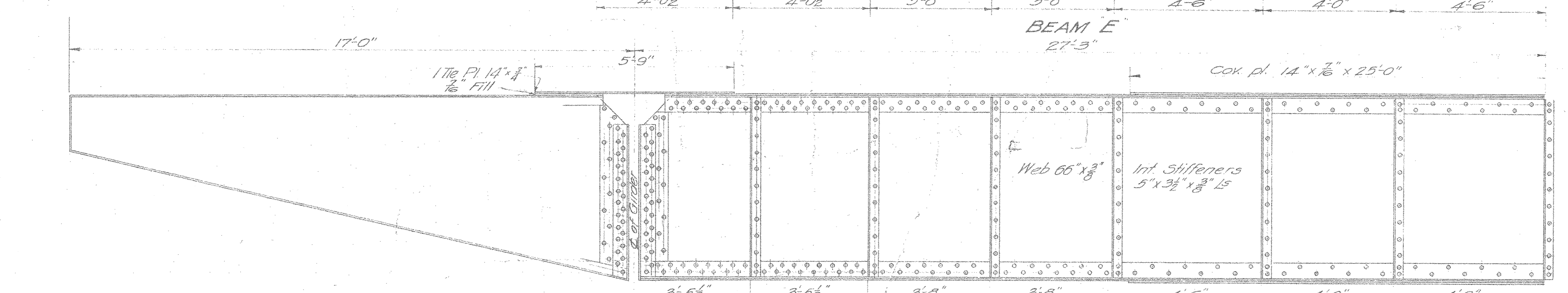
4 B 6"x6"x $\frac{3}{8}$ "



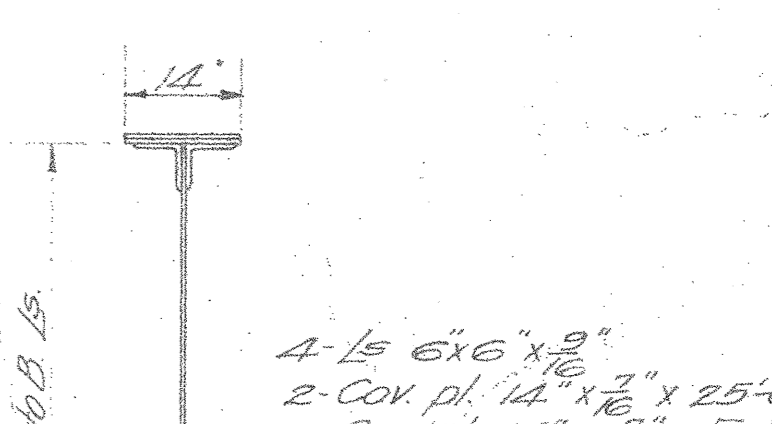
BEAM E
27'-3"



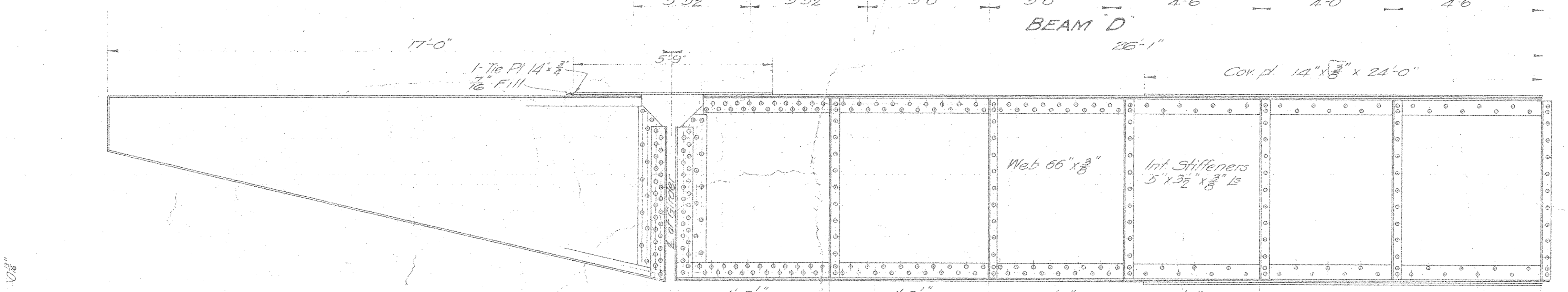
4-B 6"x6"x $\frac{3}{8}$ "
2 Cov. pl. 14"x $\frac{3}{8}$ "x30'-0"
2 Cov. pl. 14"x $\frac{3}{8}$ " Full length



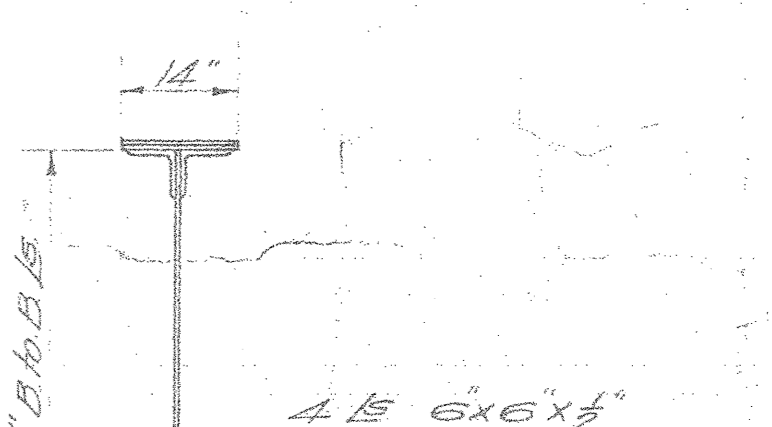
BEAM D
26'-1"



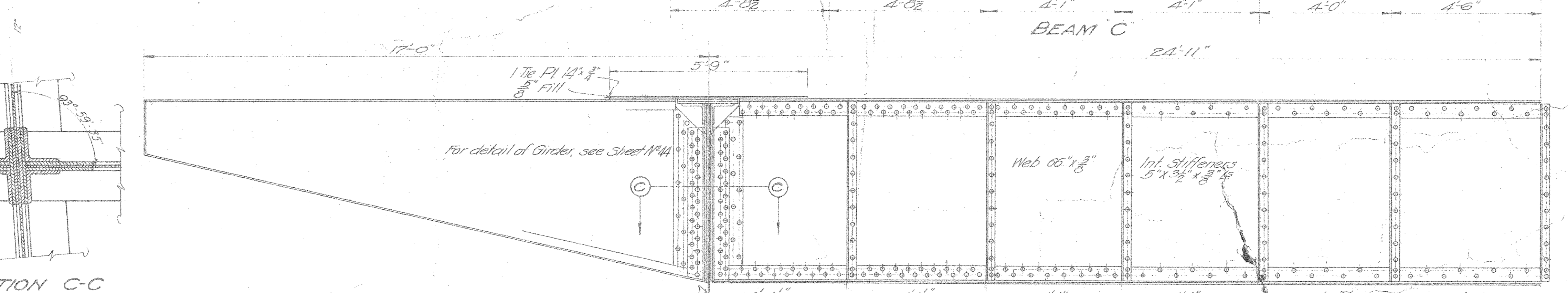
4-B 6"x6"x $\frac{3}{8}$ "
2 Cov. pl. 14"x $\frac{3}{8}$ "x25'-0"
2 Cov. pl. 14"x $\frac{3}{8}$ " Full length



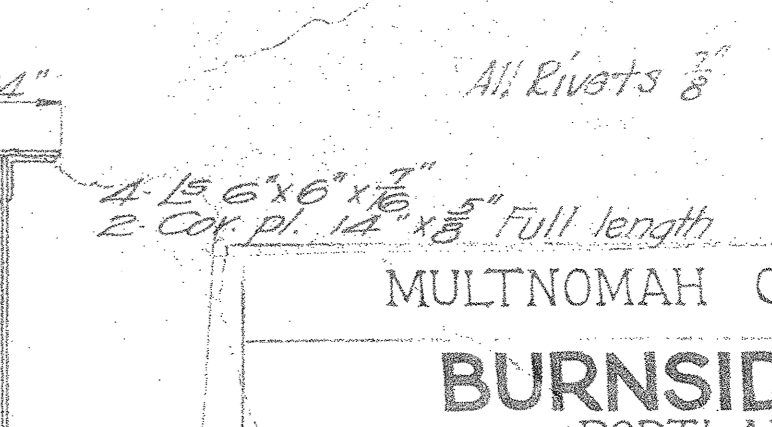
BEAM C
24'-11"



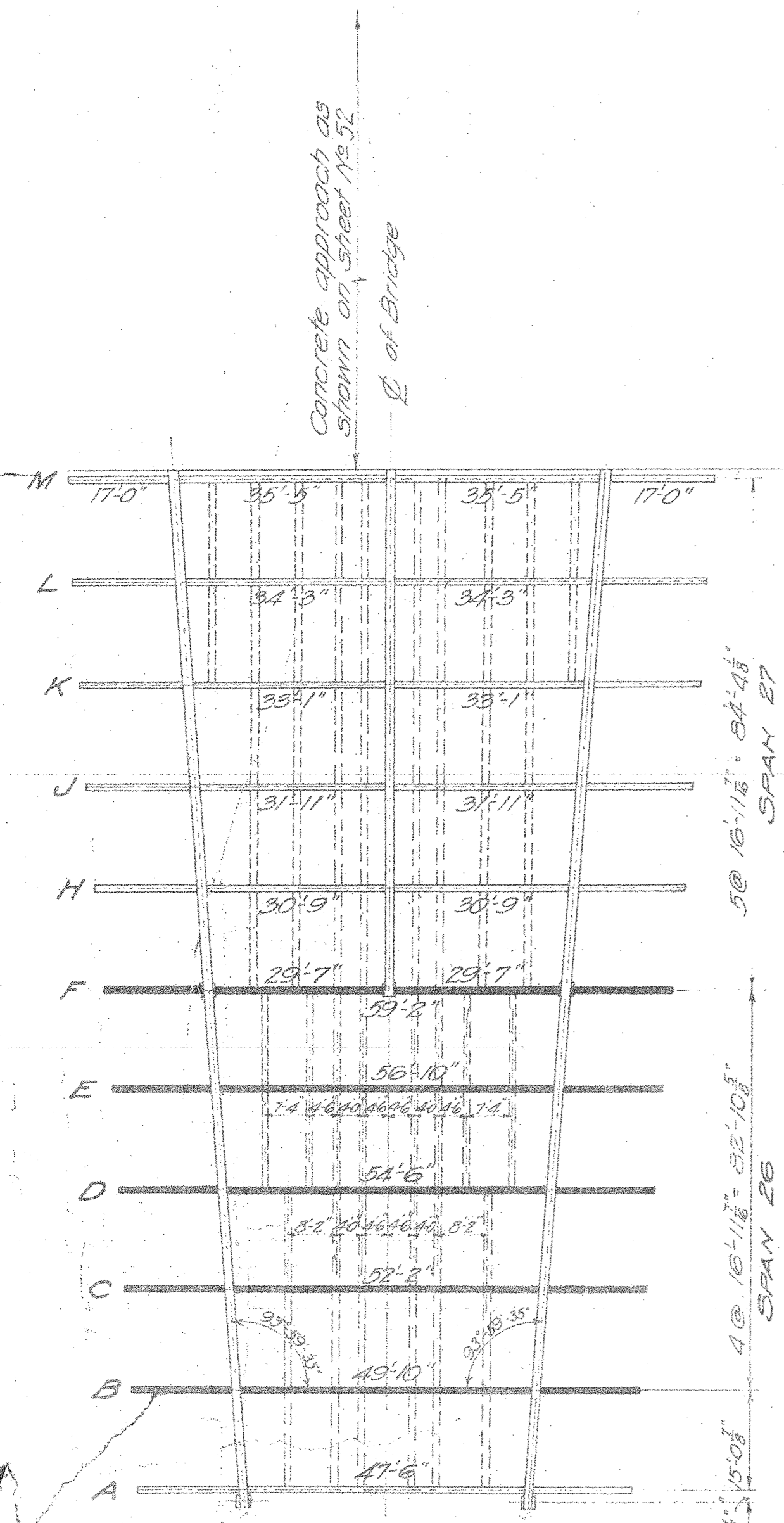
4 B 6"x6"x $\frac{3}{8}$ "
2 Cov. pl. 14"x $\frac{3}{8}$ "x24'-0"
2 Cov. pl. 14"x $\frac{3}{8}$ " Full length



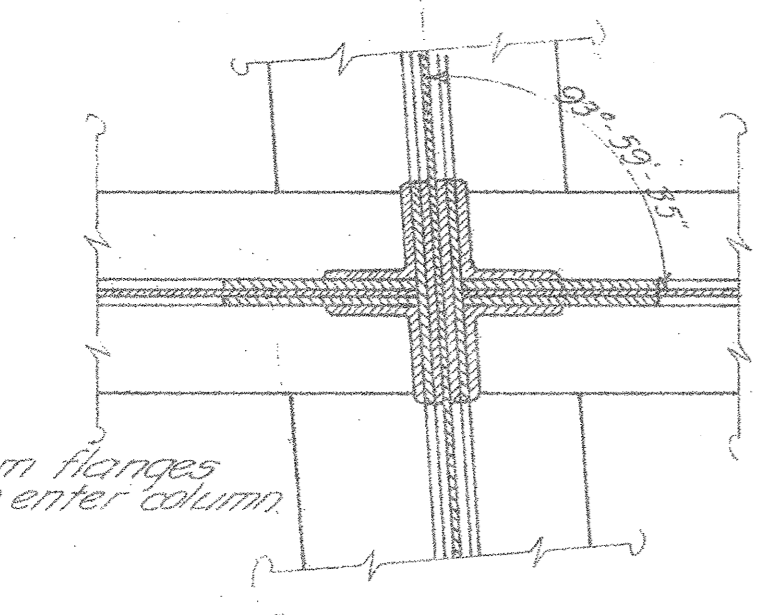
BEAM B
24'-11"



4-B 6"x6"x $\frac{3}{8}$ "
2 Cov. pl. 14"x $\frac{3}{8}$ " Full length



MARKING DIAGRAM
Scale 1" = 20'-0"



SECTION C-C
CONNECTION OF FLOOR BEAMS TO GIRDER

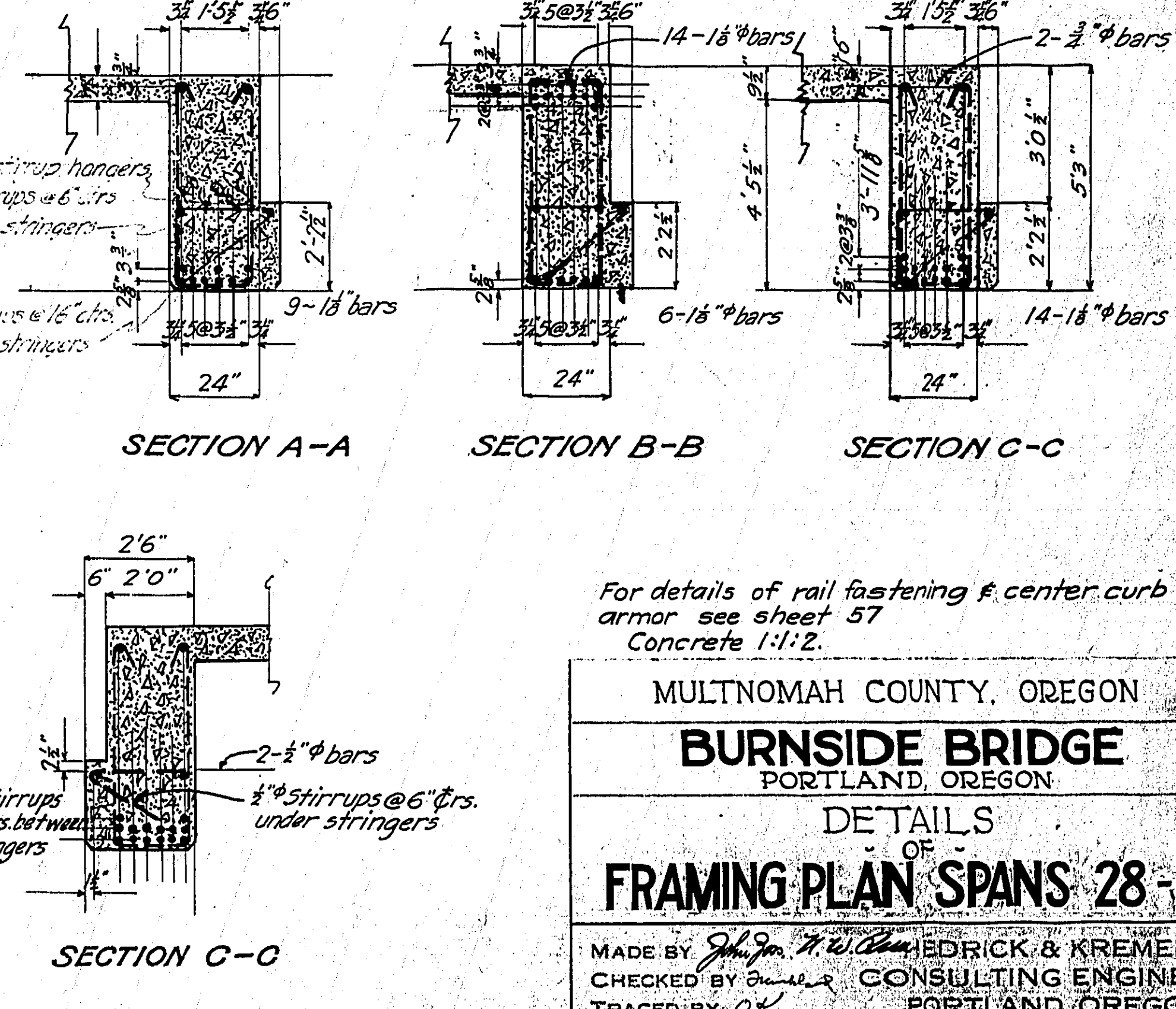
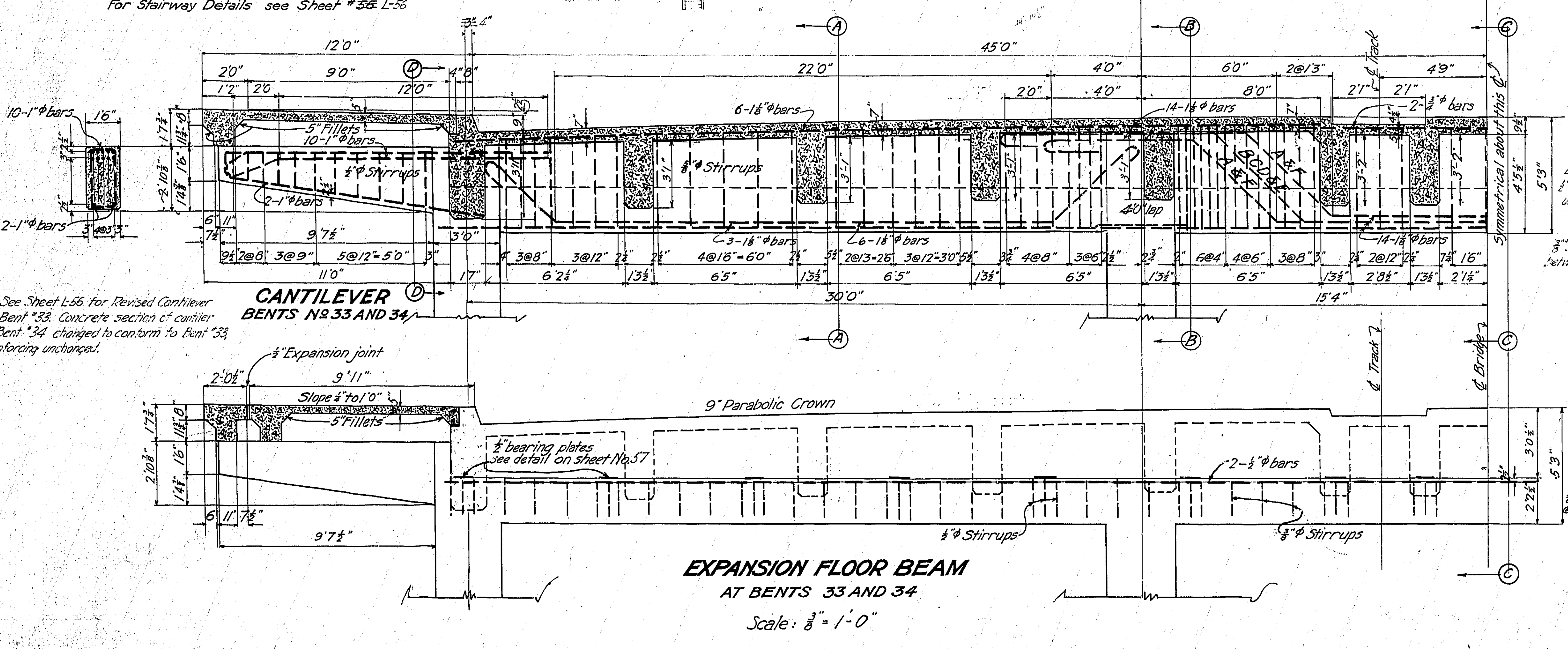
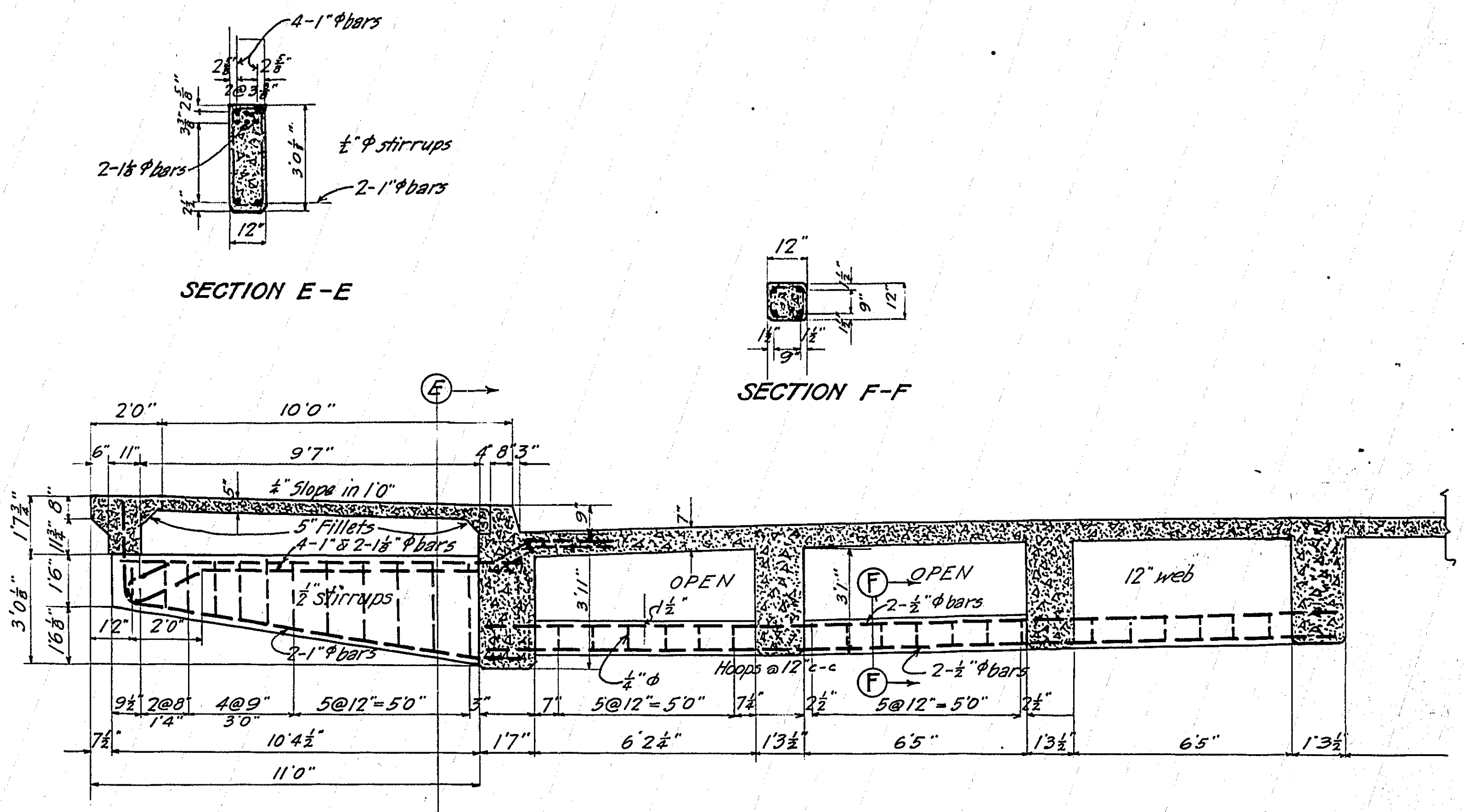
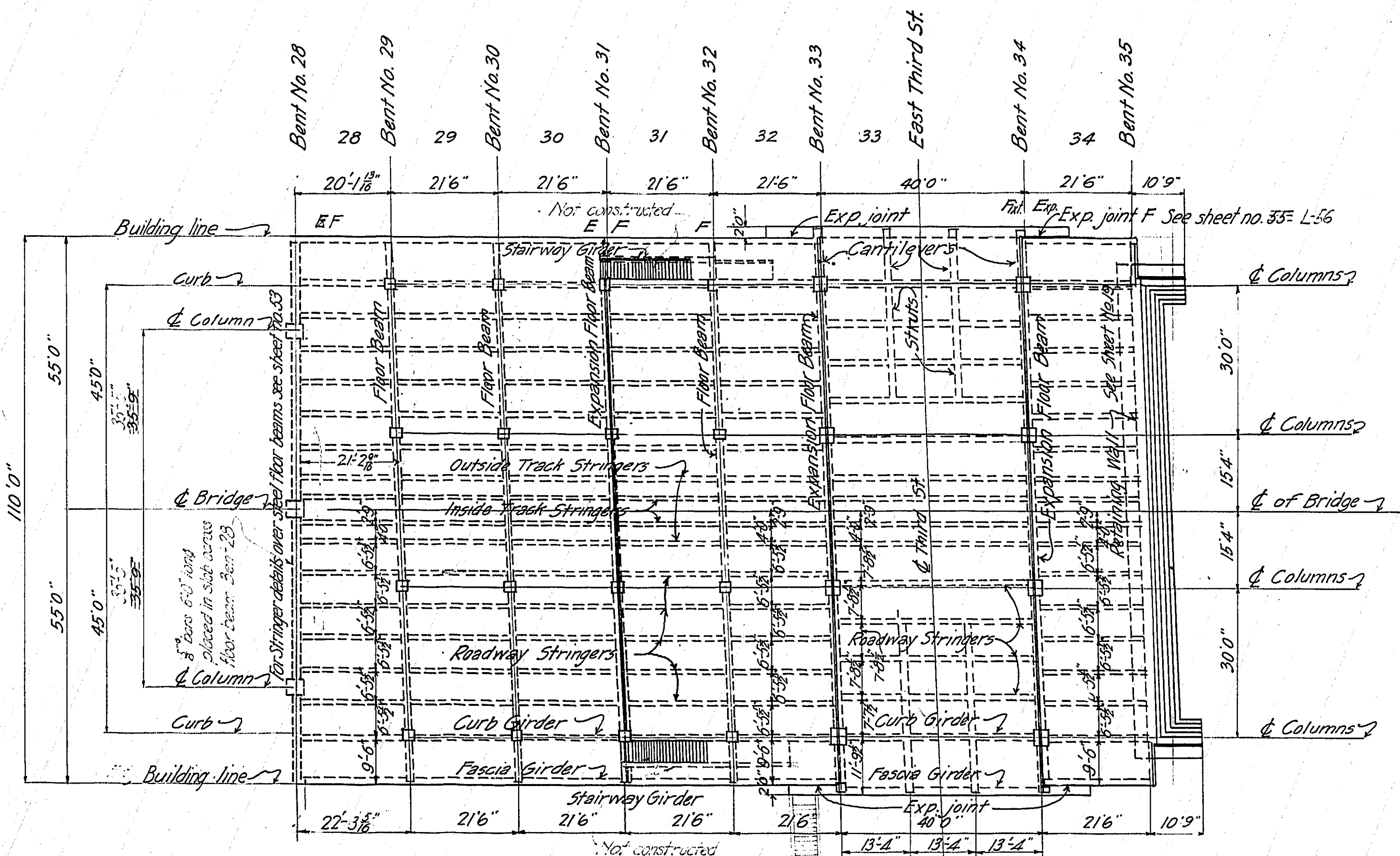
NOTE: Cape floor beam flanges at top & bottom to enter column

For detail of Girder, see Sheet 11-44

Note: for detail of clevis connection, & lateral sway bracing during erection see sheet 11-42

MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
 DETAILS
 OF
FLOOR BEAMS, SPAN 26
 MADE BY *John* HEDRICK & KREMERS
 CHECKED BY *V* CONSULTING ENGINEERS
 TRACED BY *W. H. H. H.* PORTLAND, OREGON
 CHECKED BY *W. H. H. H.* DATE FEB 20-24
 DRAWING NO. _____
 SHEETS _____ SCALE 1/2" = 1'-0" EXCEPT AS SHOWN.

ABI/52



For details of rail fastening & center curb armor see sheet 57
Concrete 1:1.2

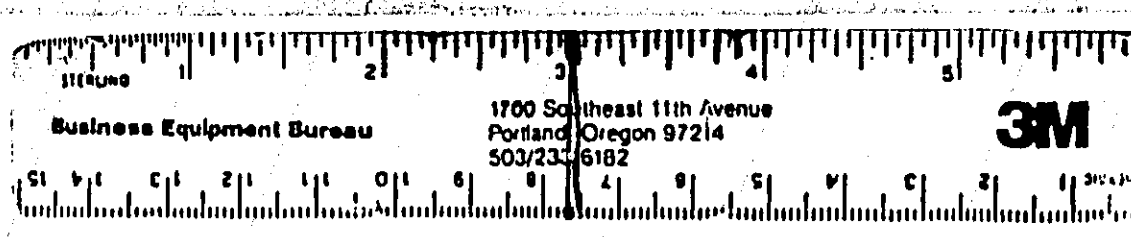
MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

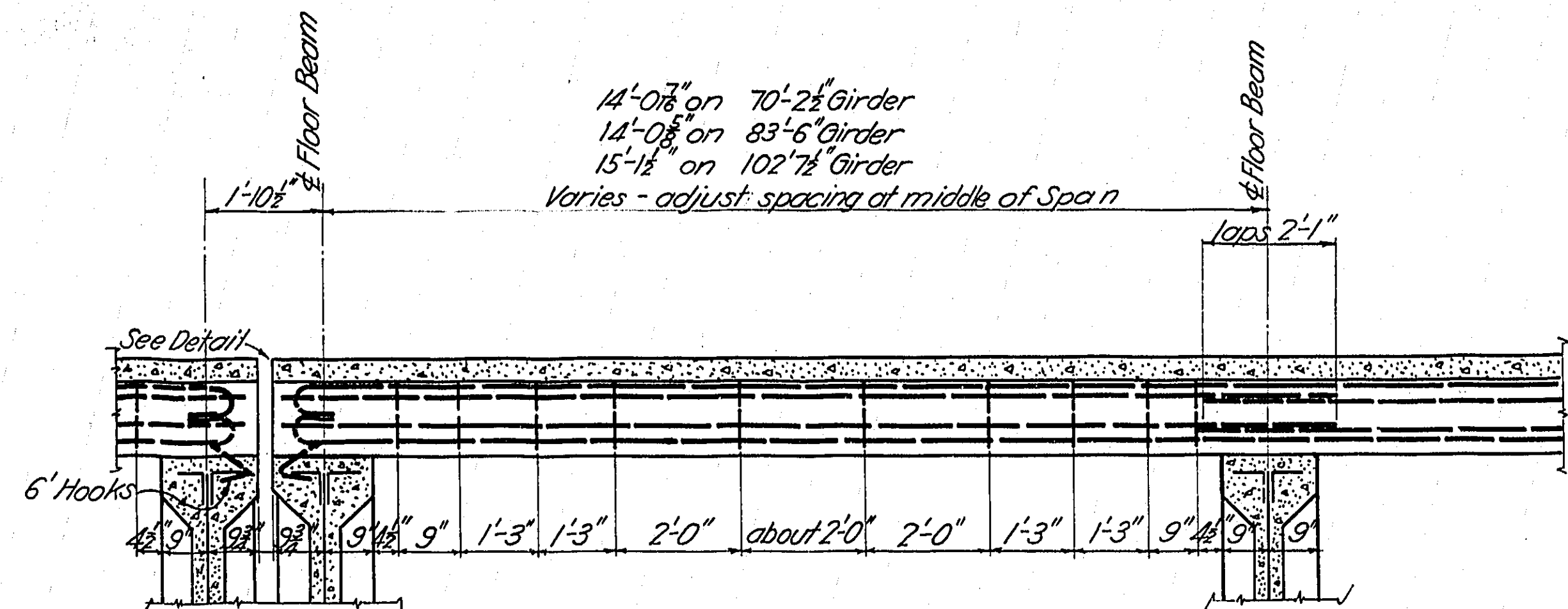
DETAILS OF
FRAMING PLAN SPANS 28-34

MADE BY *John W. Hedrick & Kremers*
CHECKED BY *James W. Hedrick* CONSULTING ENGINEERS
TRACED BY *John W. Hedrick* PORTLAND, OREGON
DRAWING NO. *101* DATE FEB. 15, 1912
SHEETS *57* SCALES AS SHOWN SHEET NO. *57*

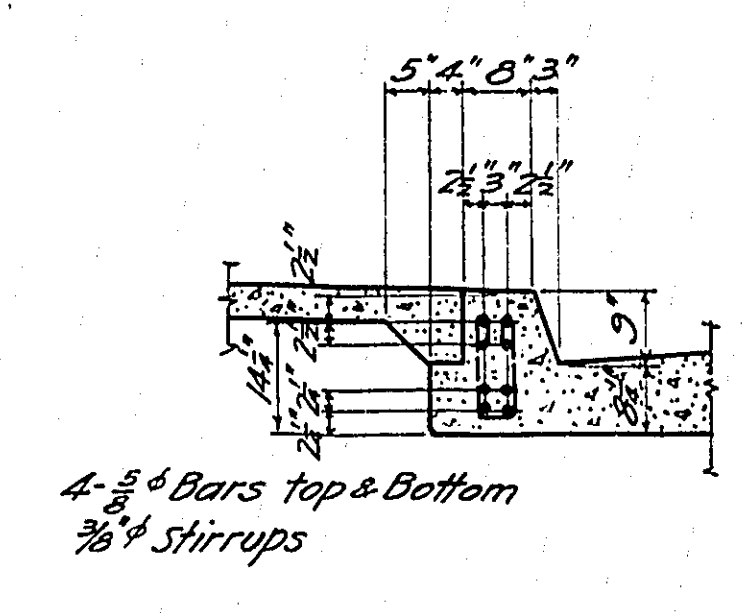
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.



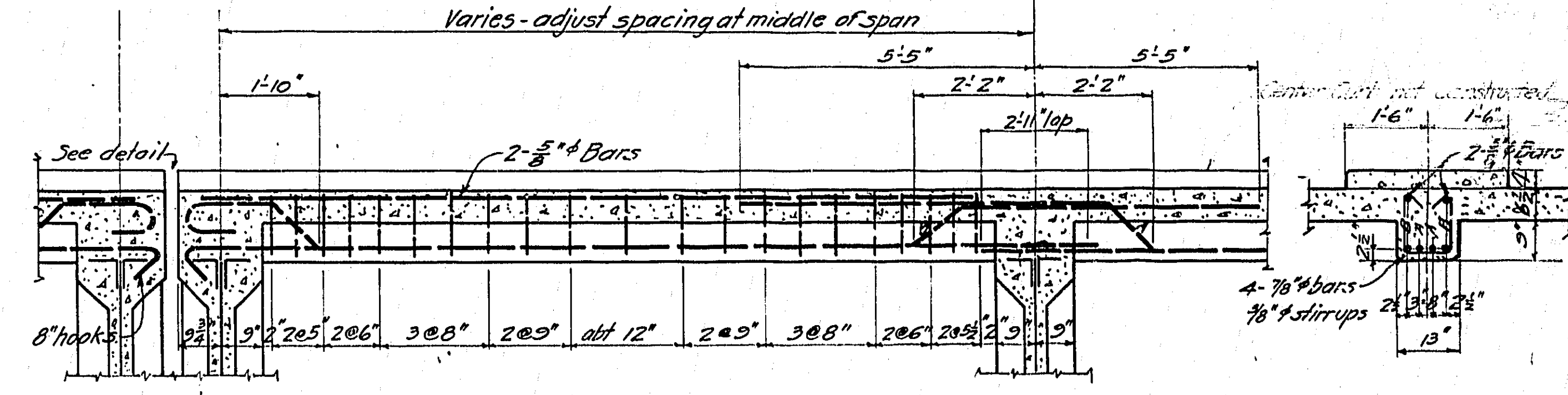
REVISED



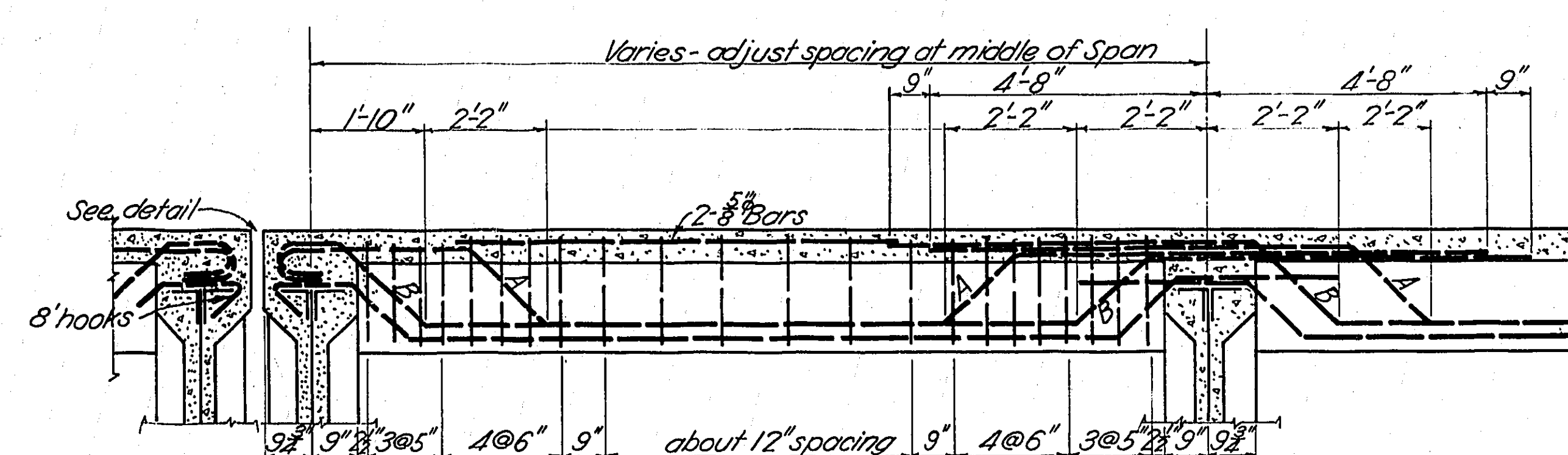
CURB GIRDER
Scale $\frac{1}{2}$ " = 1'-0"



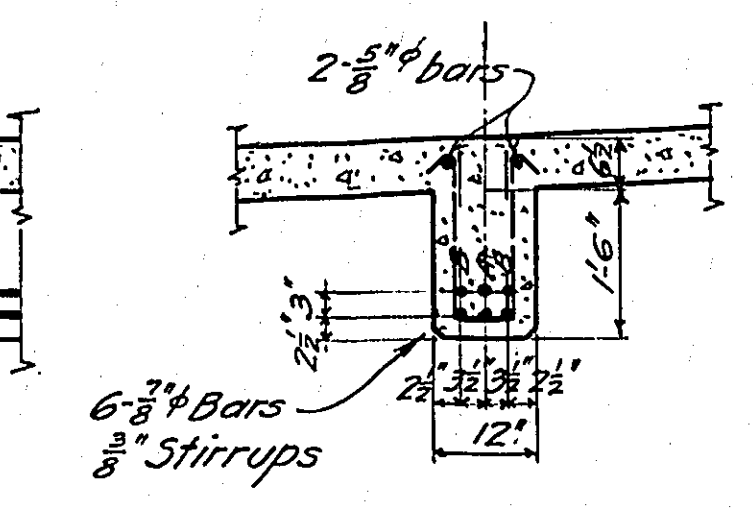
4 bars Top & Bottom
 $\frac{3}{8}$ " stirrups



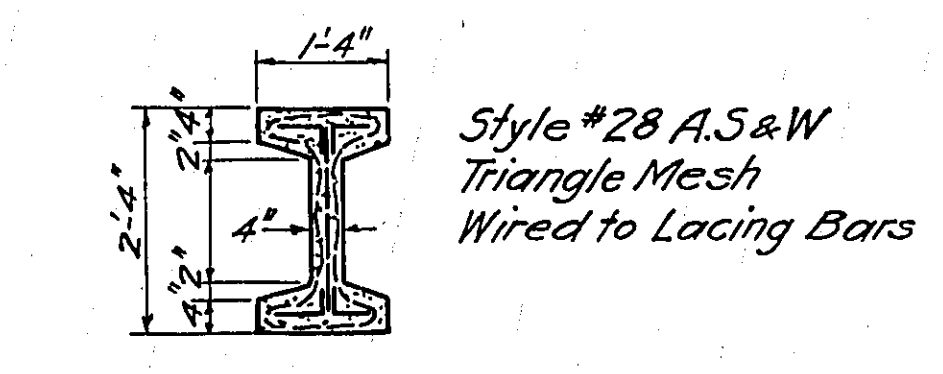
CENTER GIRDER
Scale $\frac{1}{2}$ " = 1'-0"



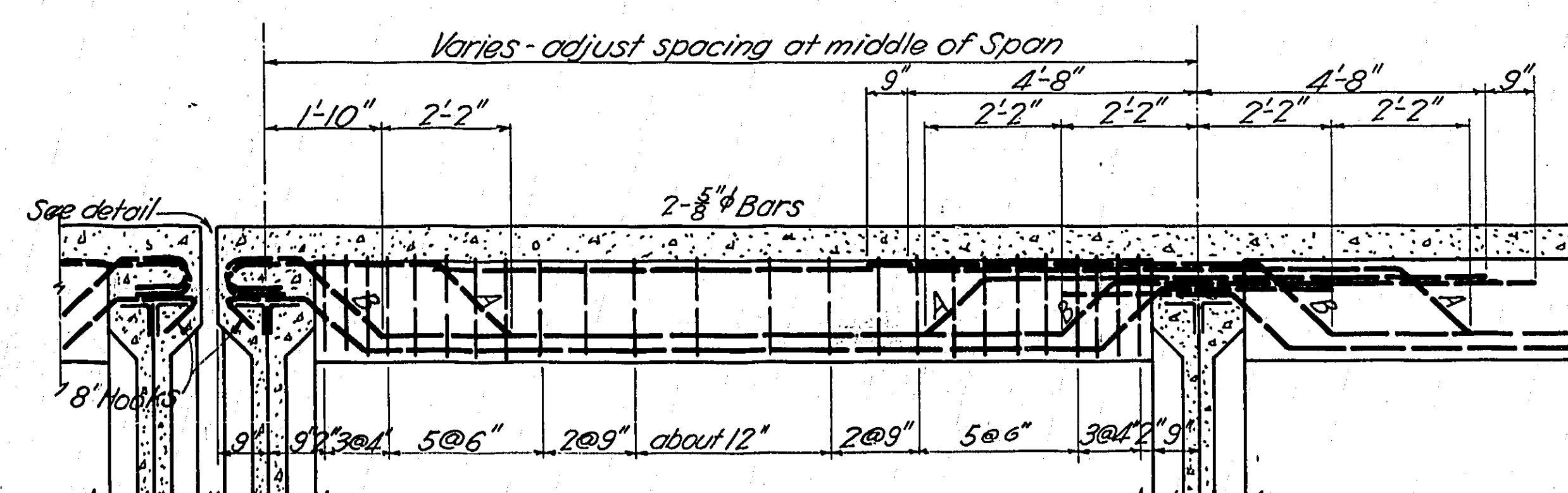
TYPICAL ROADWAY STRINGER
Scale $\frac{1}{2}$ " = 1'-0"



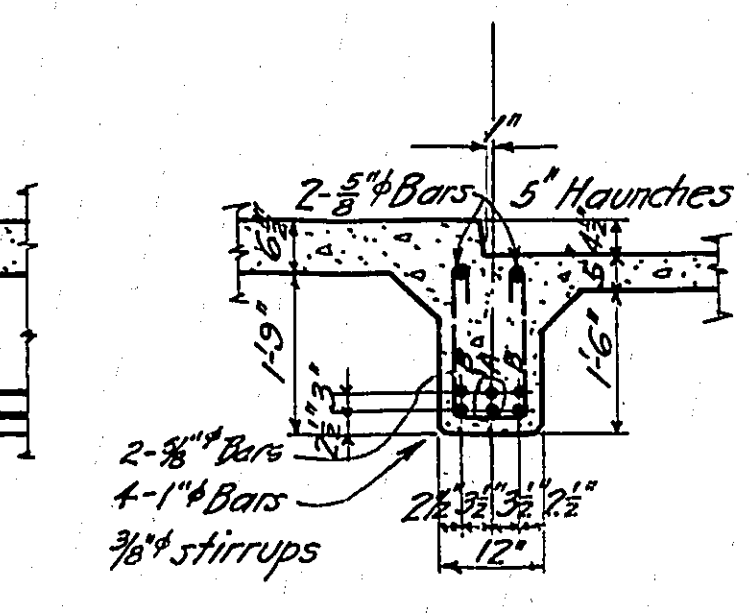
2 bars
6 bars
 $\frac{3}{8}$ " stirrups



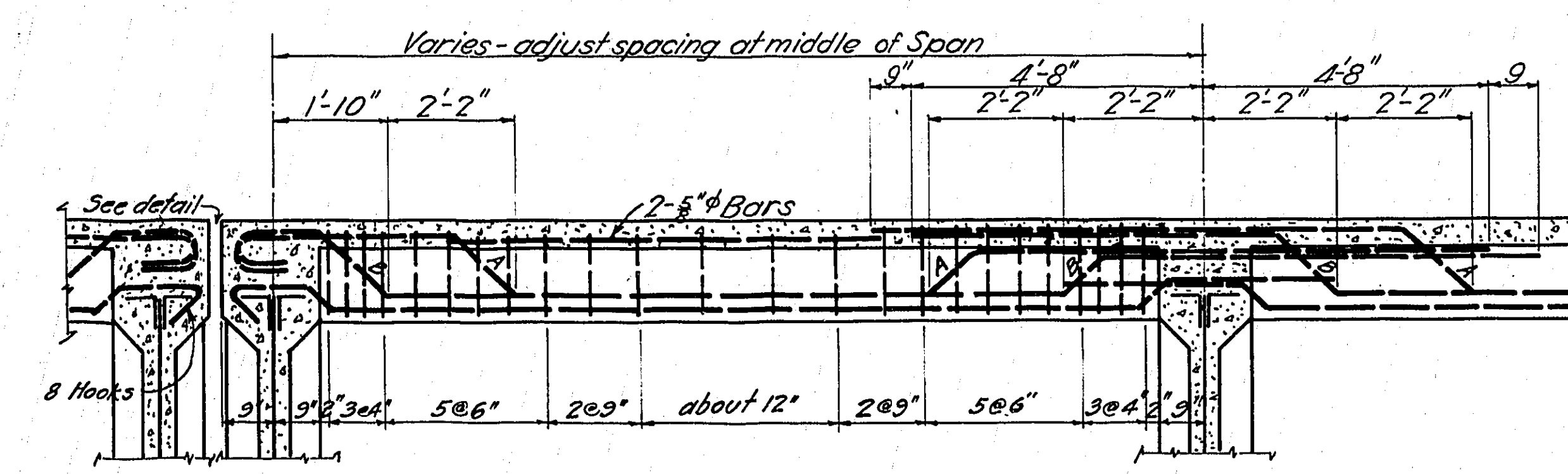
TYPICAL SWAY BRACING ENCASUREMENT
Scale $\frac{1}{2}$ " = 1'-0"



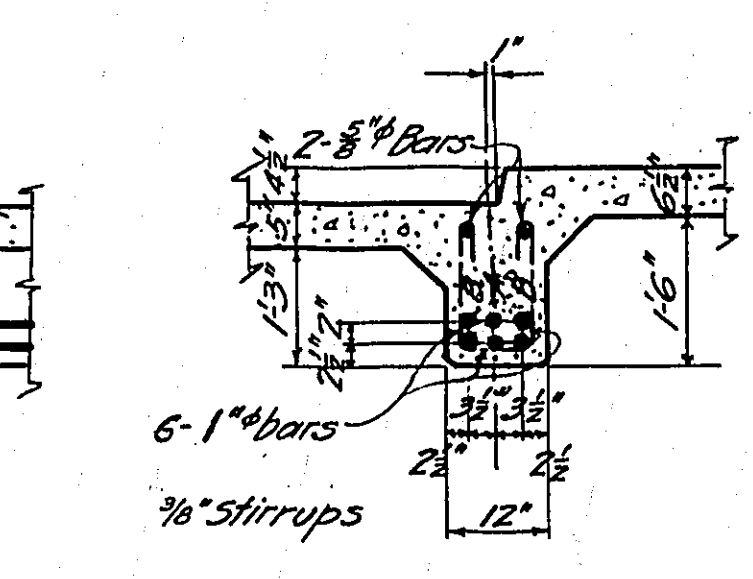
OUTSIDE TRACK STRINGER
Scale $\frac{1}{2}$ " = 1'-0"



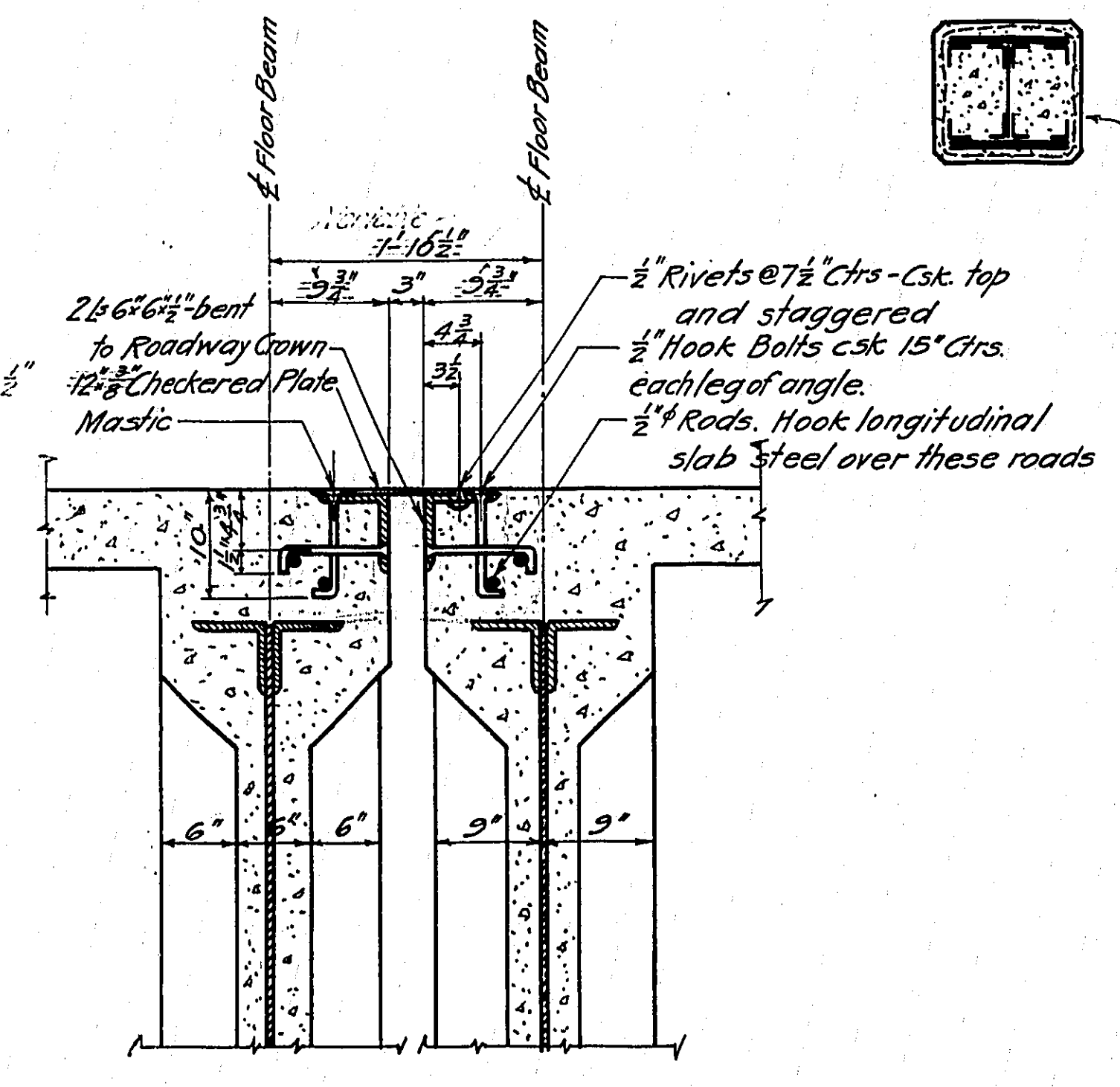
2 bars
4 bars
 $\frac{3}{8}$ " stirrups



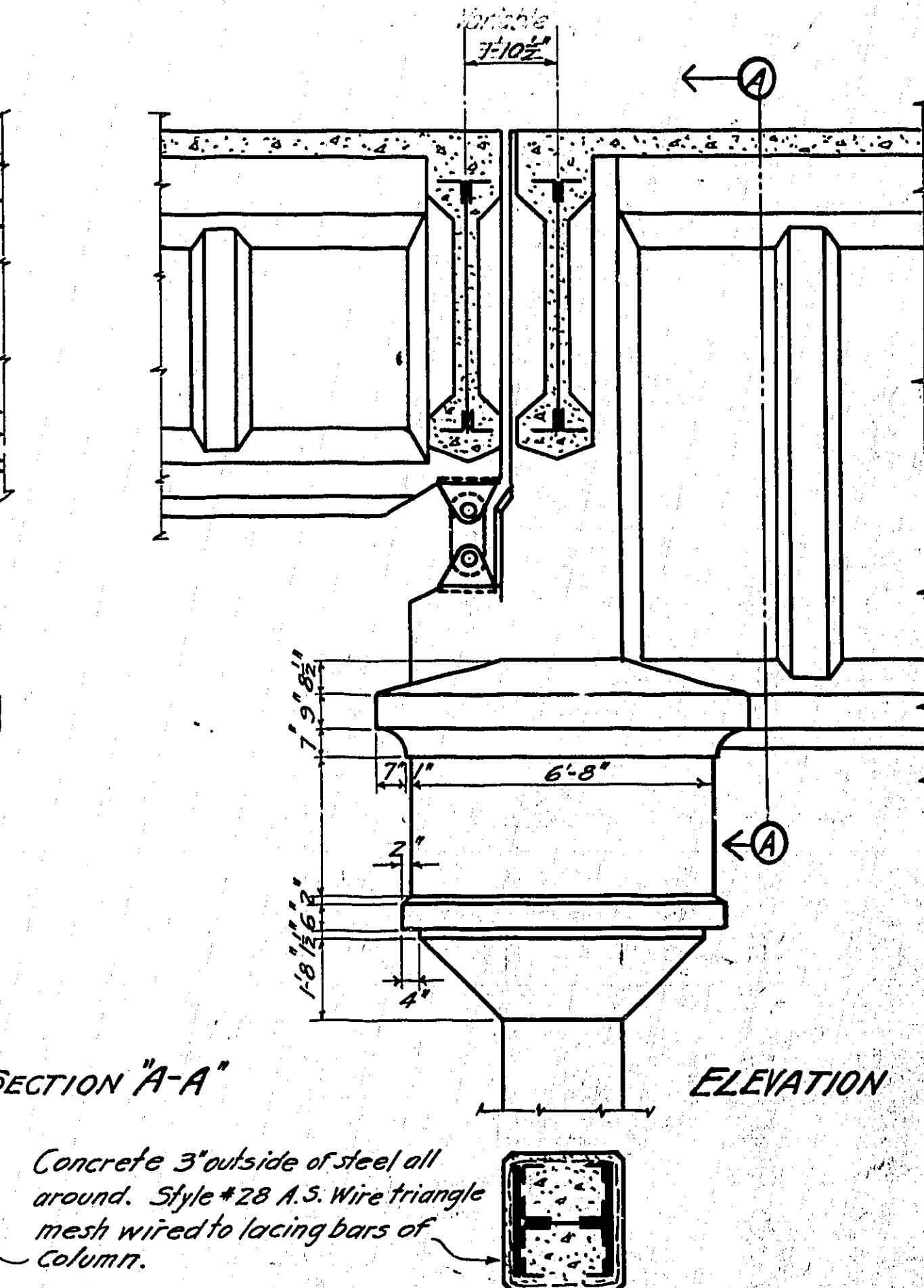
INSIDE TRACK STRINGER
Scale $\frac{1}{2}$ " = 1'-0"



2 bars
6 bars
 $\frac{3}{8}$ " stirrups



DETAIL OF EXPANSION JOINT
Scale 1" = 1'-0"



SECTION A-A
ELEVATION

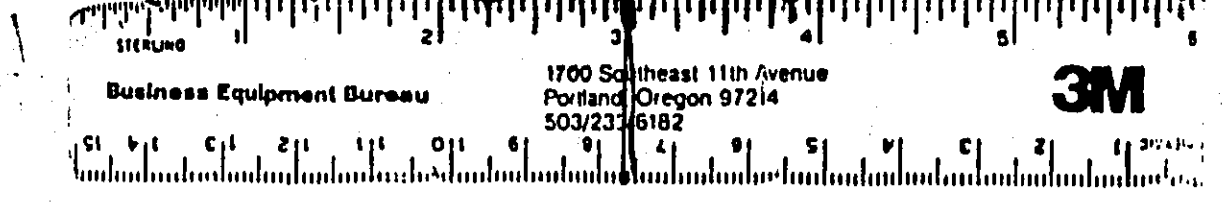
DETAIL OF EXPANSION JOINT ENCASUREMENT
Scale $\frac{3}{8}$ " = 1'-0"

Note: Details are typical for 70'-2 1/2" - 83'-6" - and 102'-7 1/2" girder spans.
Adjust spacing at middle of stringer spans.
For 16'-9" spans see sheet #31.

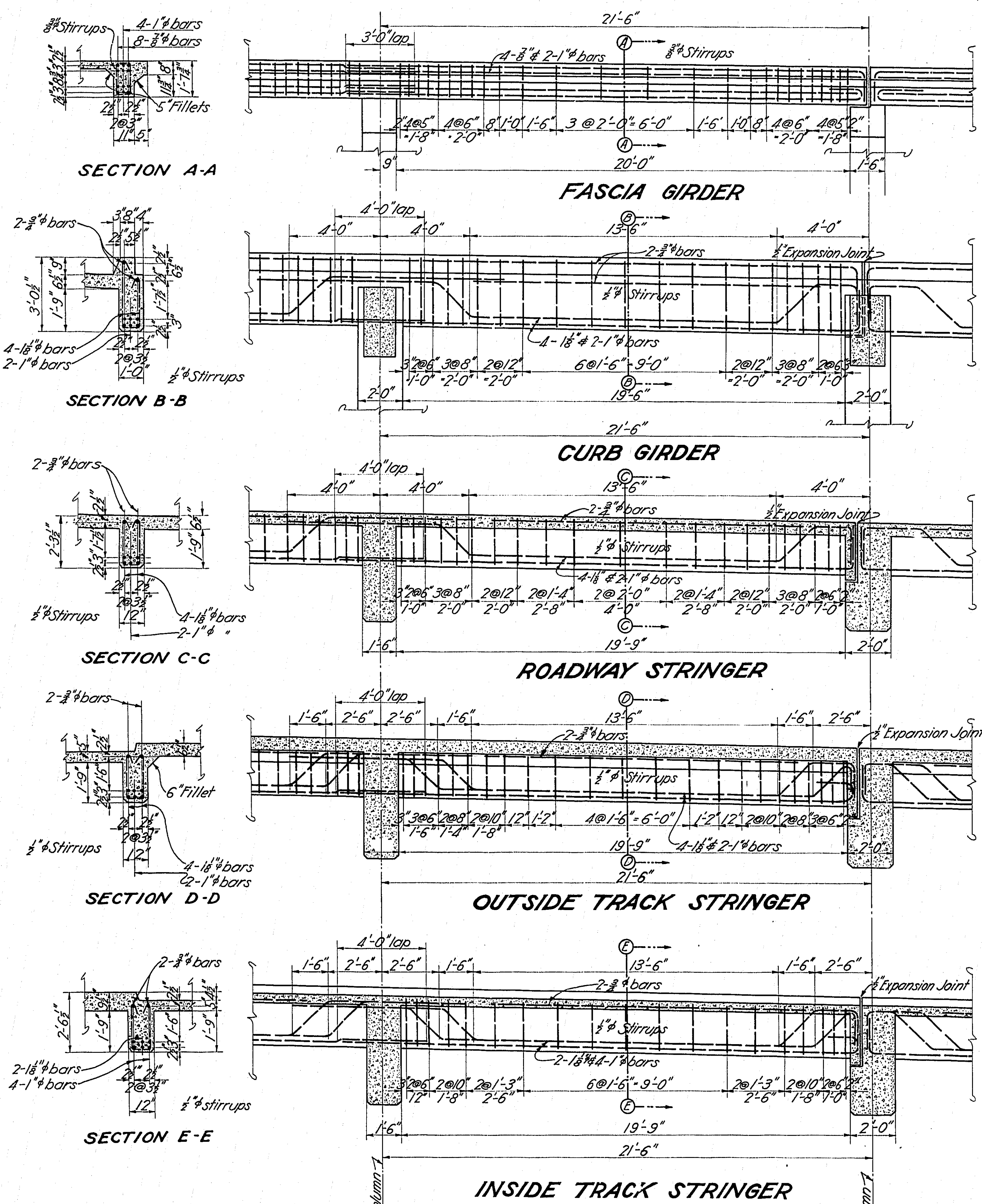
Concrete below stringer bottoms 1'-1 1/2" above stringer bottoms 1'-2".

MULTNOMAH COUNTY, OREGON	
BURNSIDE BRIDGE	
PORTLAND, OREGON	
DETAILS	
OF	
STRINGERS PLATE GIRDER SPANS	
MADE BY	HEDRICK & KREMERS
CHECKED BY	CONSULTING ENGINEERS
TRACED BY	PORTLAND, OREGON
CHECKED BY	DATE FEB. 20, 1924
DRAWING NO.	
SHEETS	SHEET NO. 53

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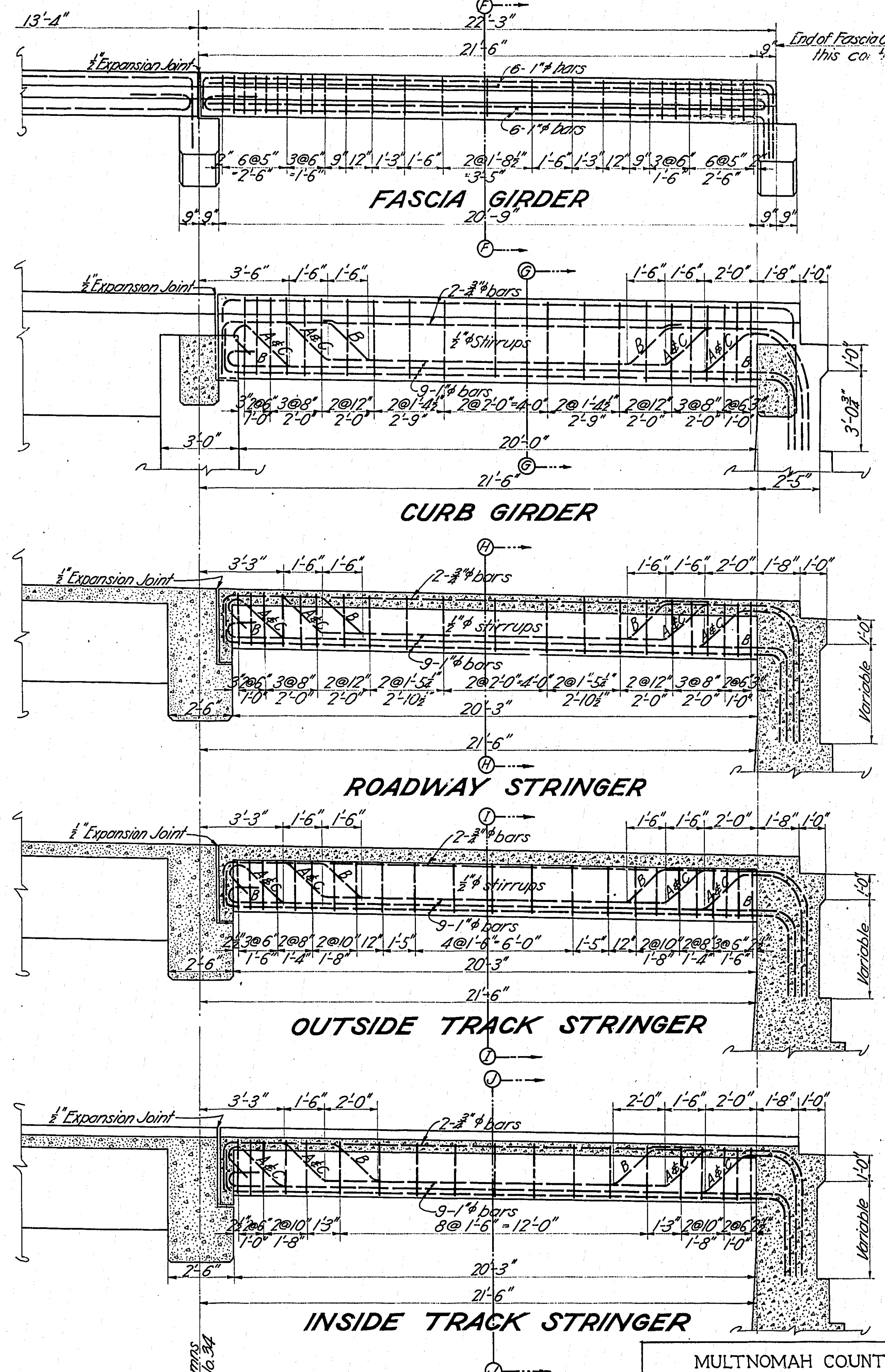


REVISED



All bends are 45°

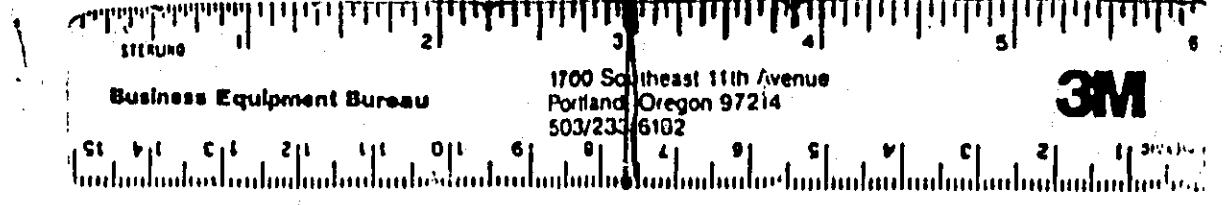
NOTE: The above details are typical for Spans No. 28-32. Actual lengths for Span No. 28, are as shown on framing plan, Sheet No. 52. For Span No. 34, the lengths of girders are variable. For exact lengths see Sheet No. 26. Use same general arrangement and size of steel as above. For Floor Beams see Sheet No. 21. For Framing Plan see Sheet No. 52.



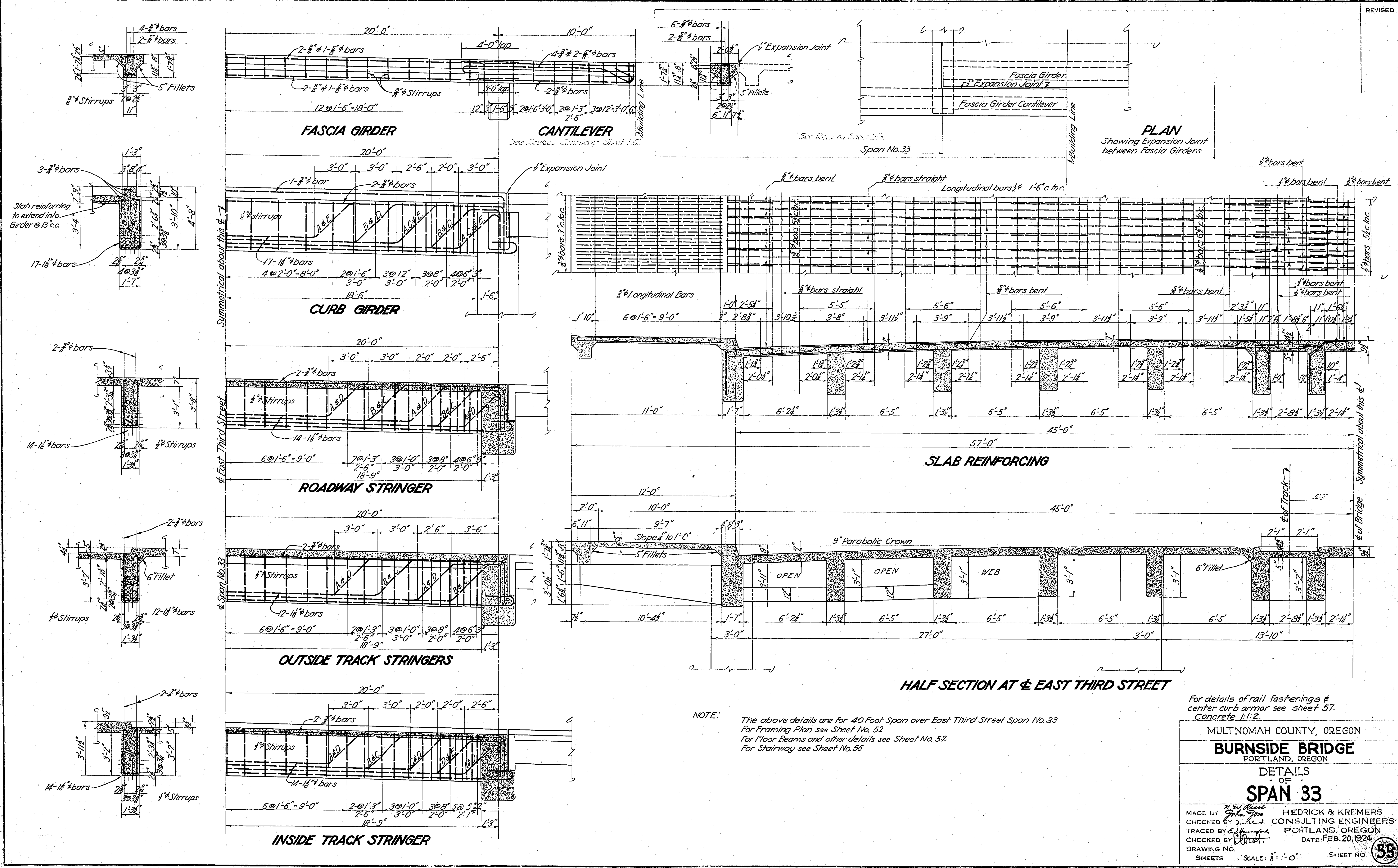
NOTE: The above details are for Span No. 34. For Floor Beams see Sheet No. 52. For Retaining Wall see Sheet No. 19. For Framing Plan see Sheet No. 52.

MULTNOMAH COUNTY OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
 DETAILS
OF
STRINGERS, SPANS 28-32, 34
 MADE BY *H. K. Remers*
 CHECKED BY *W. J. Remers* HEDRICK & KREMERS
 TRACED BY *W. J. Remers* CONSULTING ENGINEERS
 CHECKED BY *W. J. Remers* PORTLAND, OREGON
 DRAWING NO. DATE FEB. 19, 1924
 SHEETS Scale 1/8" = 1'-0" SHEET NO. 54

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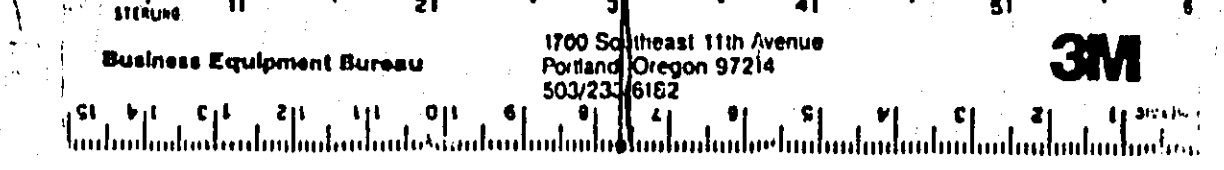


NOTE: The above details are for 40 Foot Span over East Third Street Span No. 33
 For Framing Plan see Sheet No. 52
 For Floor Beams and other details see Sheet No. 52
 For Stairway see Sheet No. 56

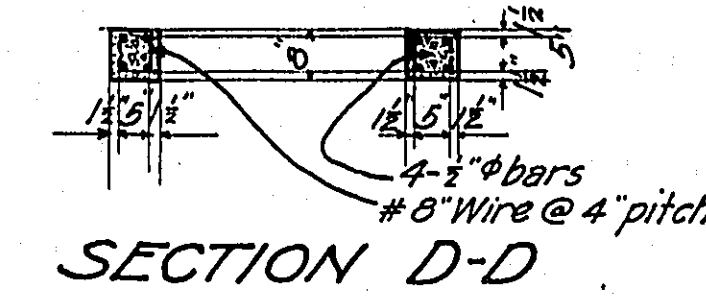
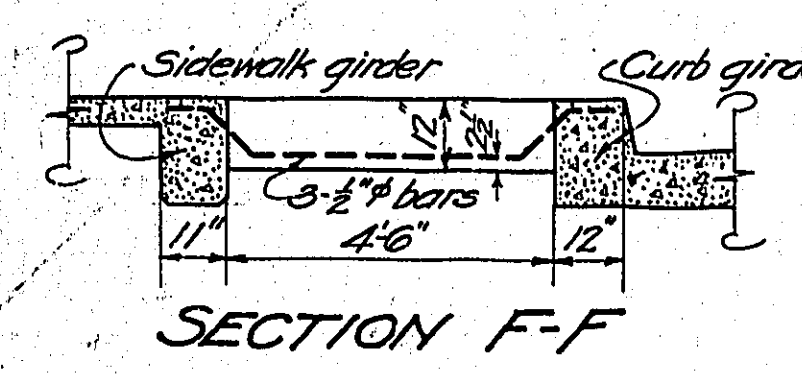
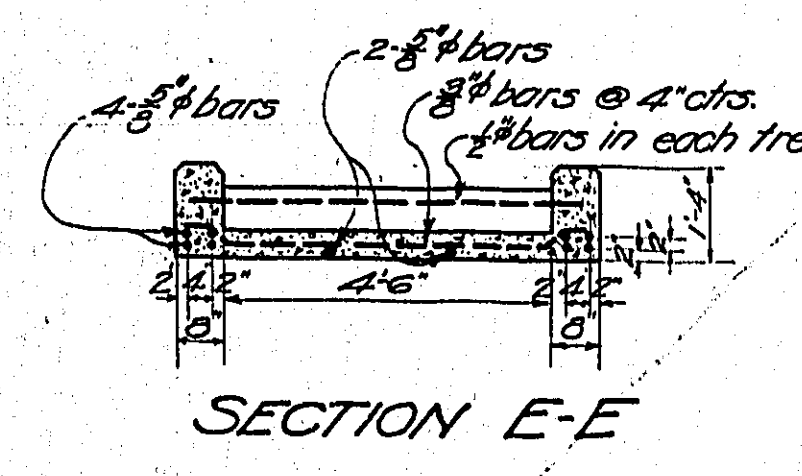
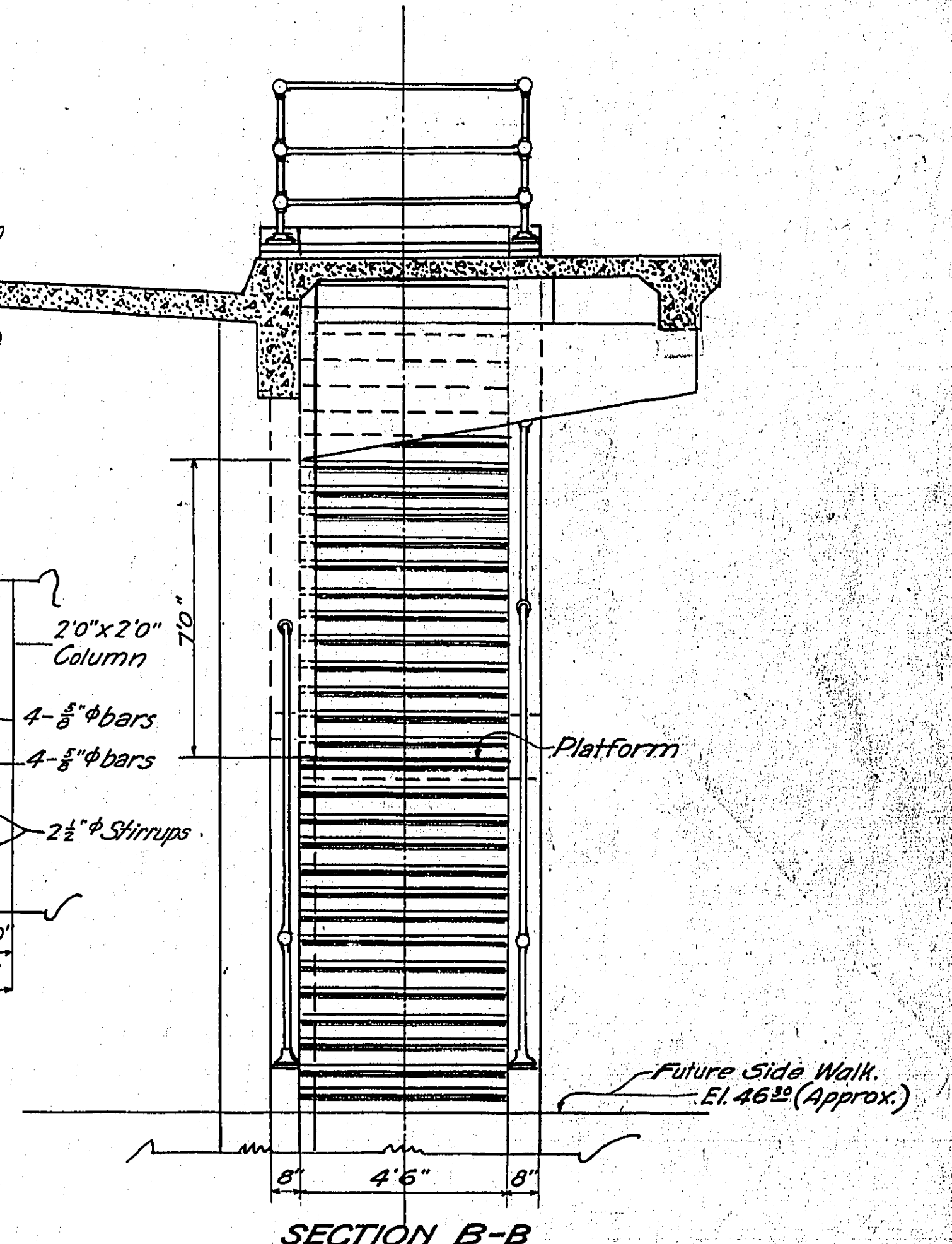
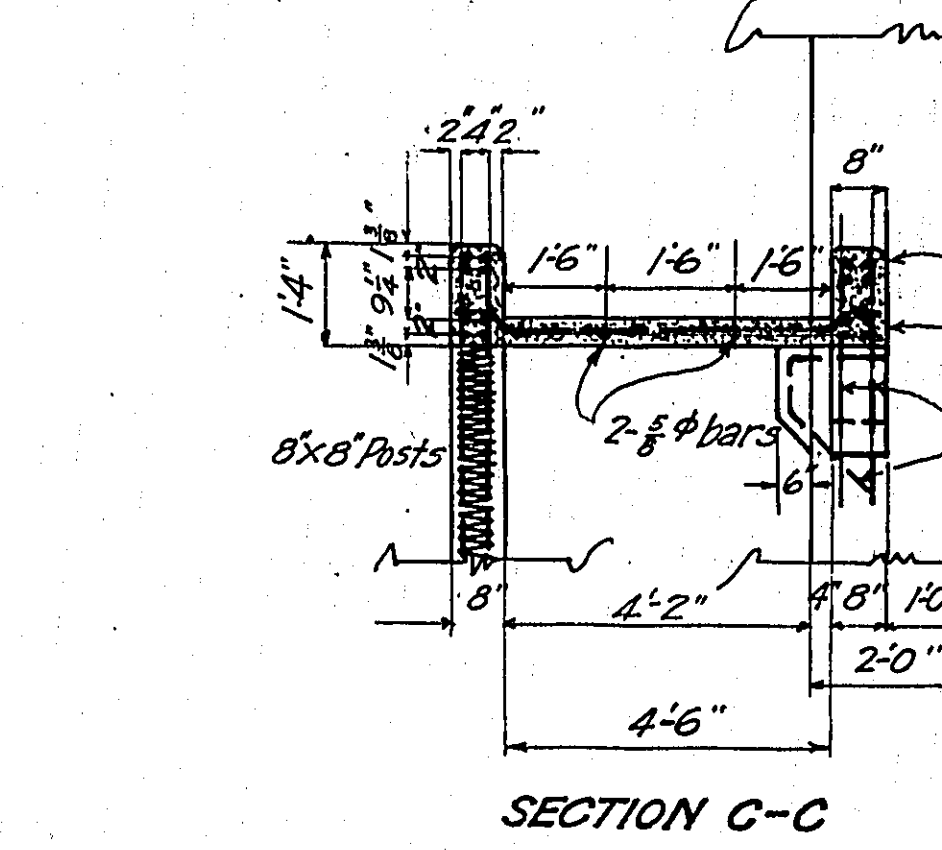
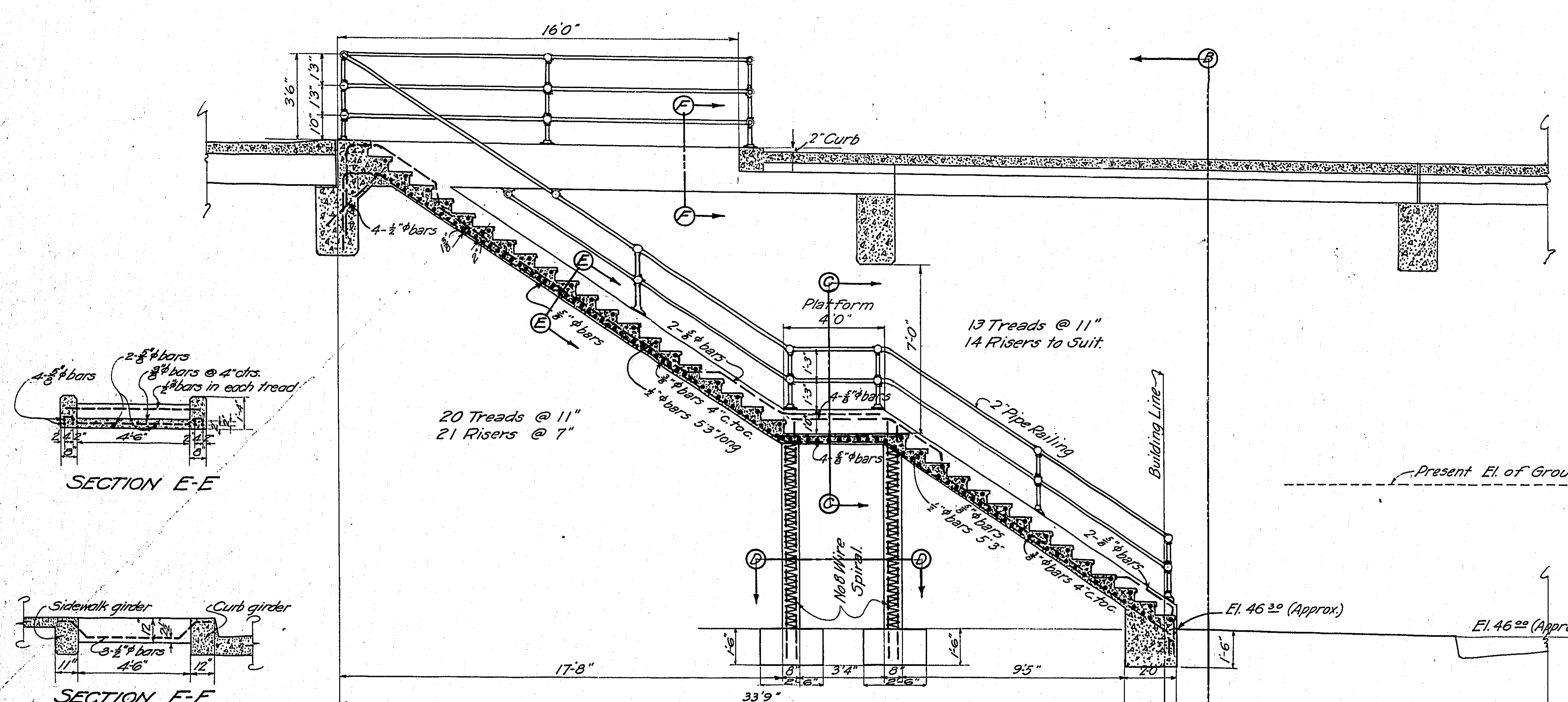
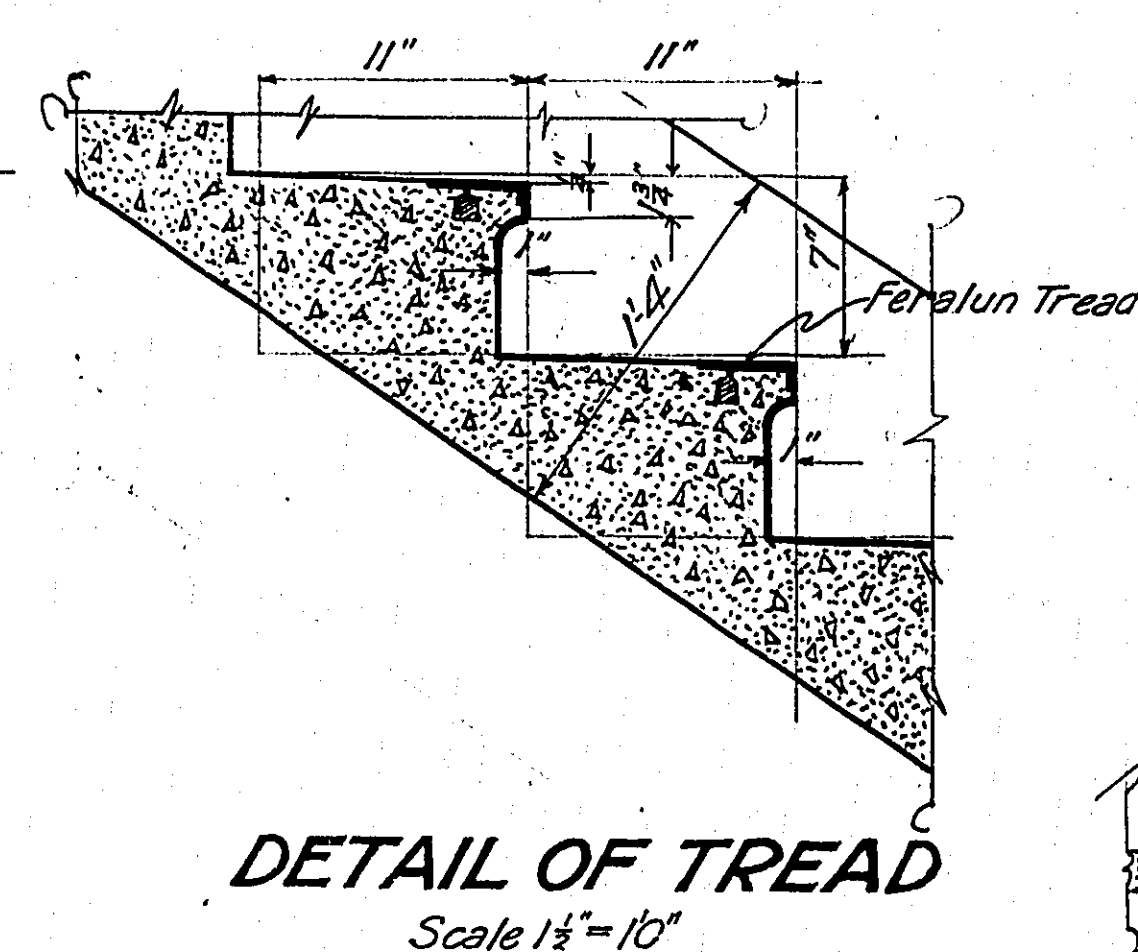
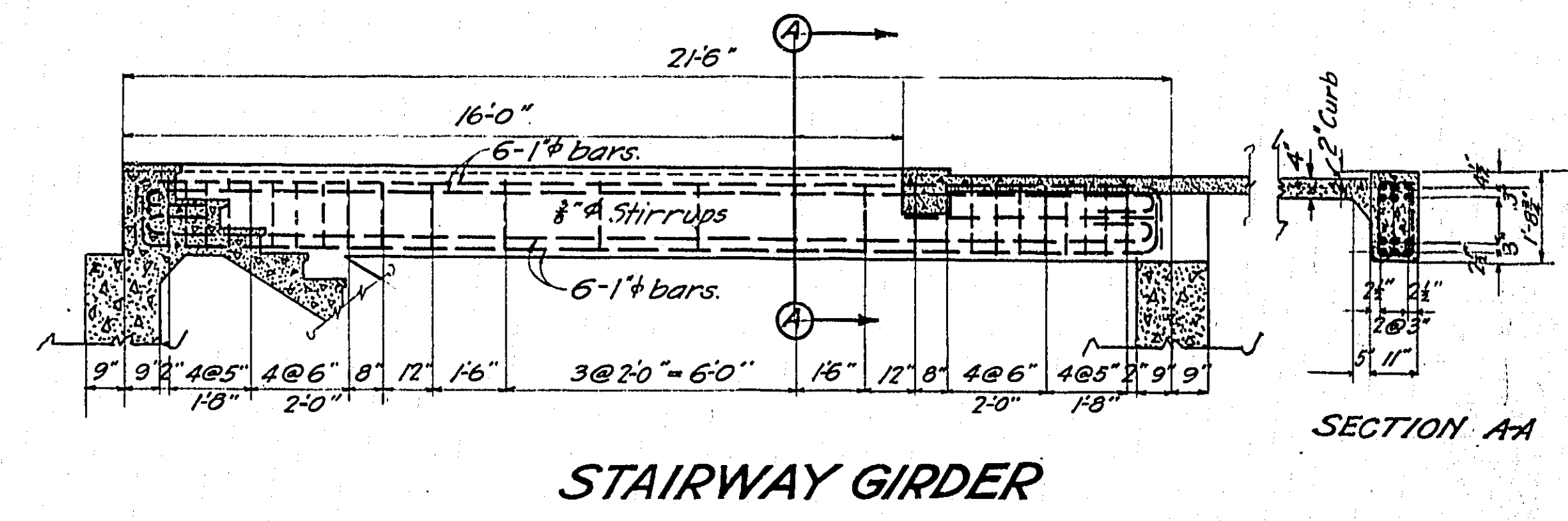
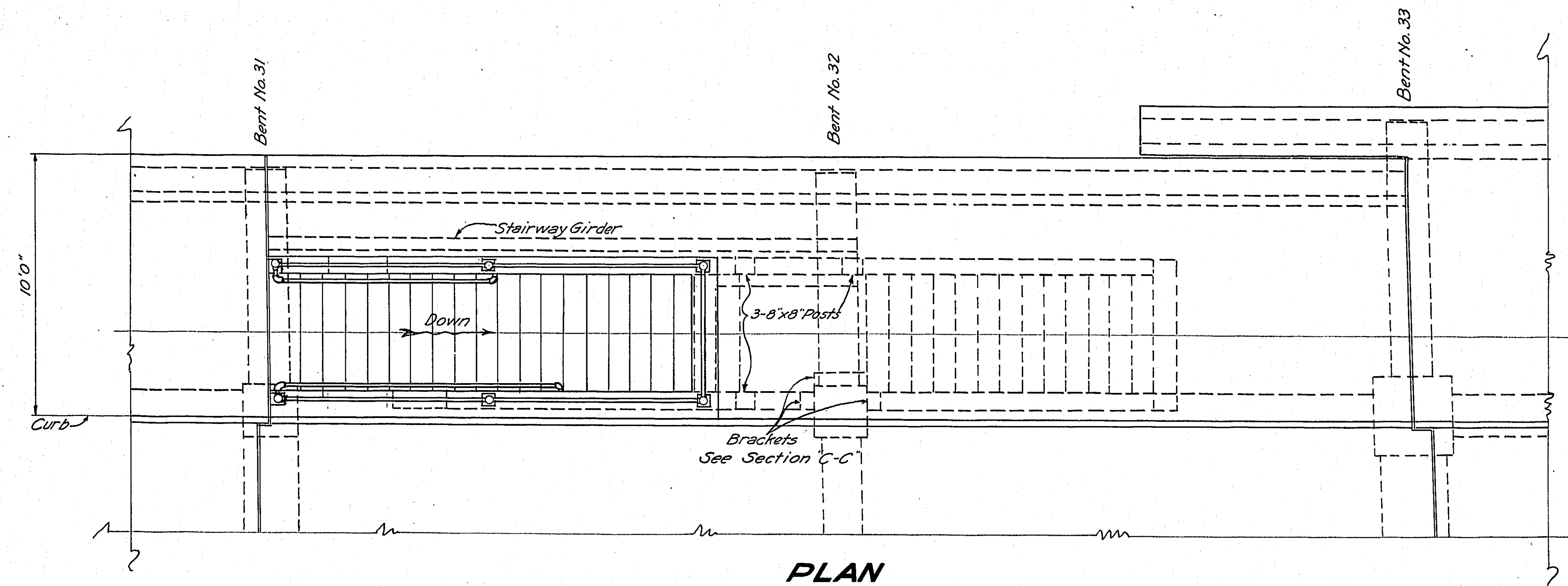
For details of rail fastenings & center curb armor see sheet 57.
 Concrete 1:1:2.

MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
 DETAILS OF
SPAN 33
 MADE BY HEDRICK & KREMERS
 CHECKED BY CONSULTING ENGINEERS
 TRACED BY PORTLAND, OREGON
 CHECKED BY DATE FEB. 20, 1924
 DRAWING NO. SHEETS SCALE: 8" = 1'-0" SHEET NO. **59**

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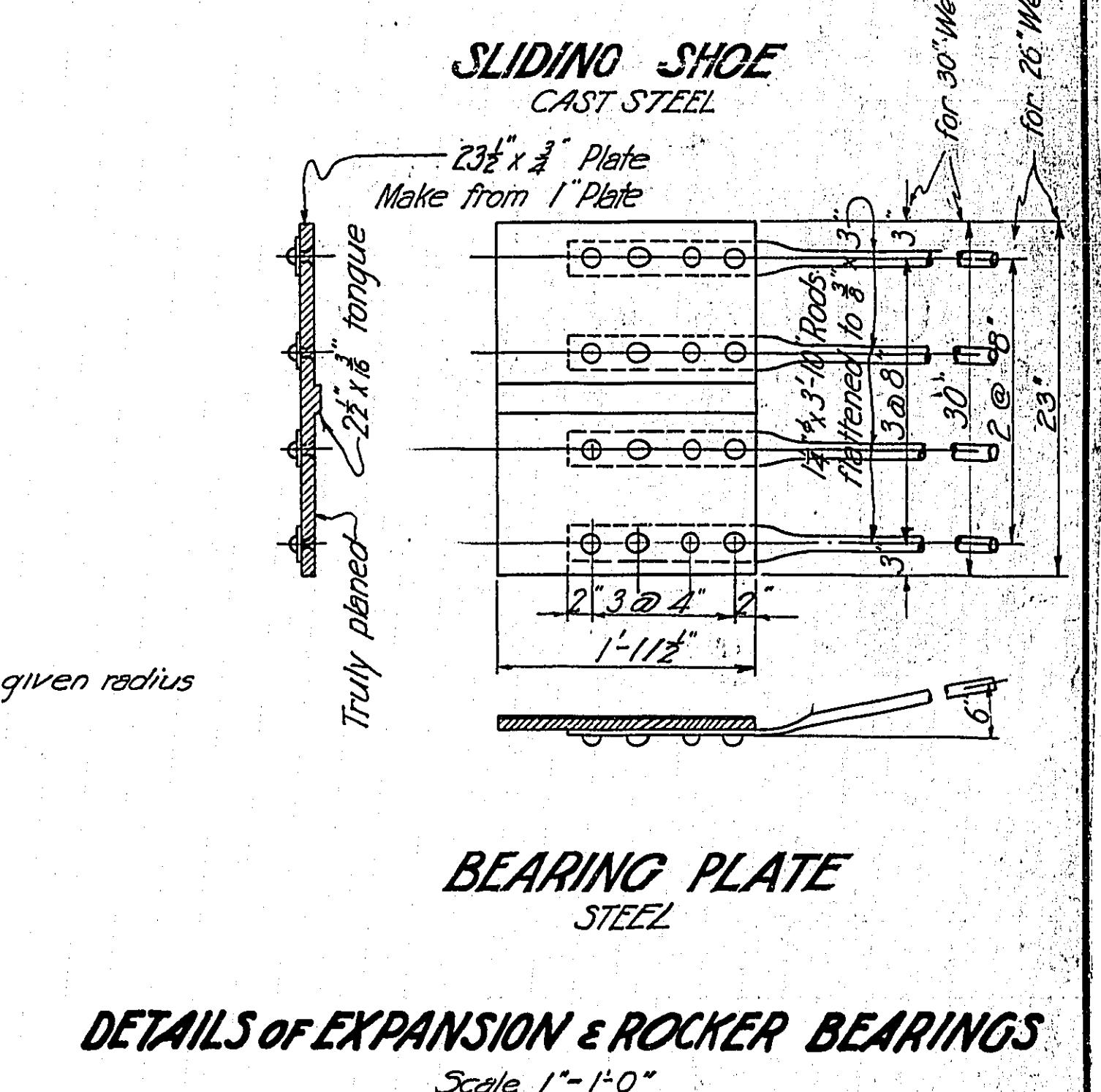
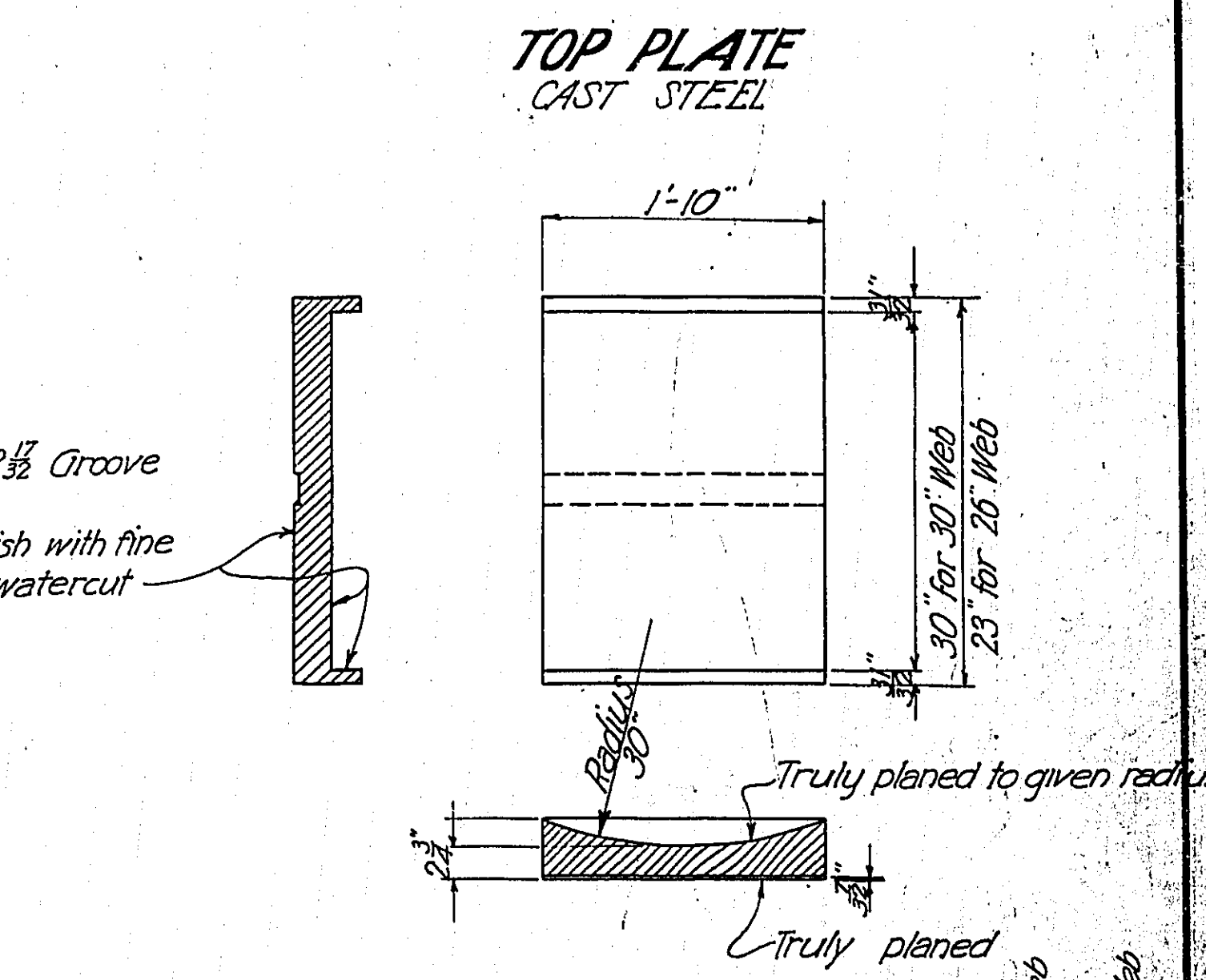
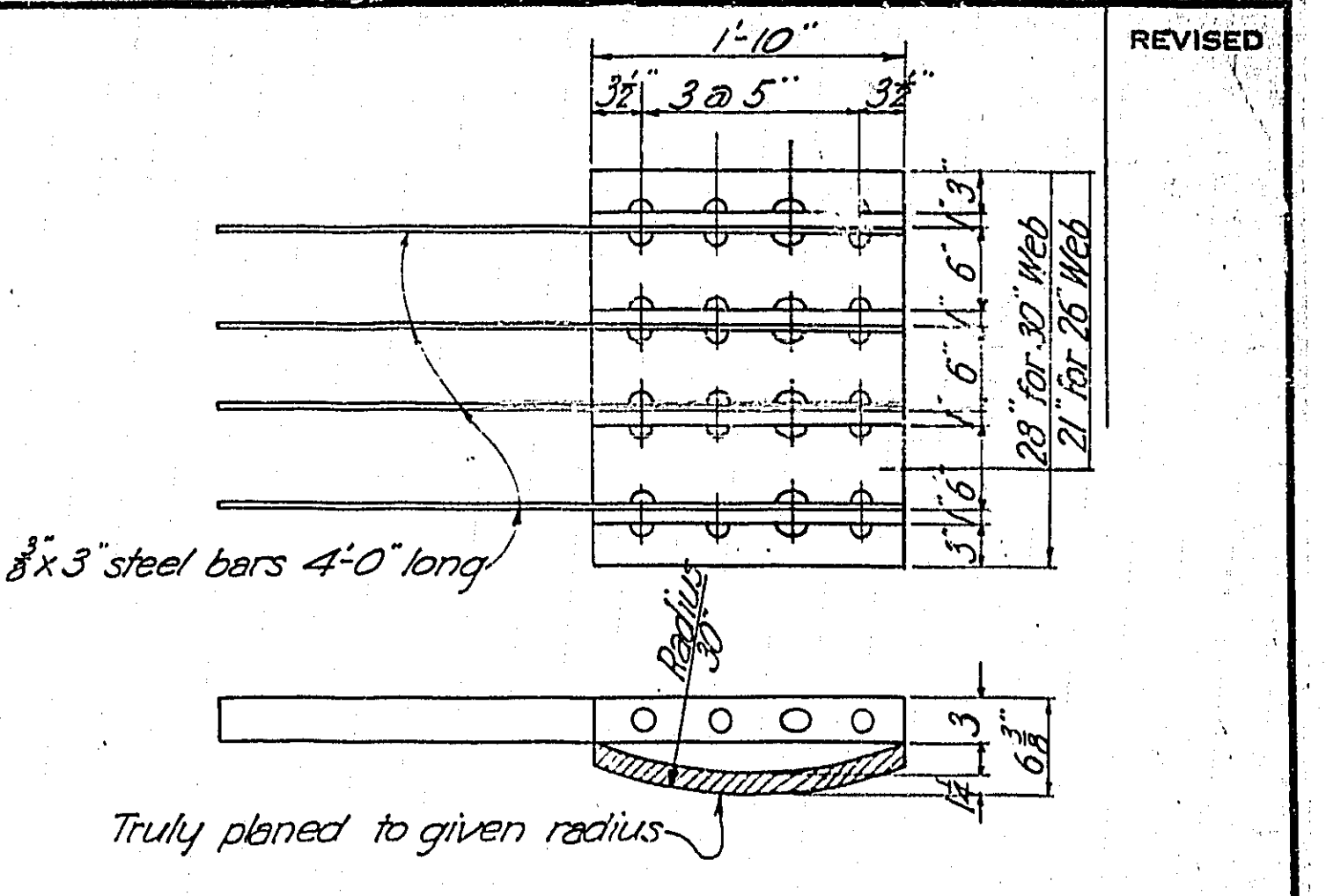
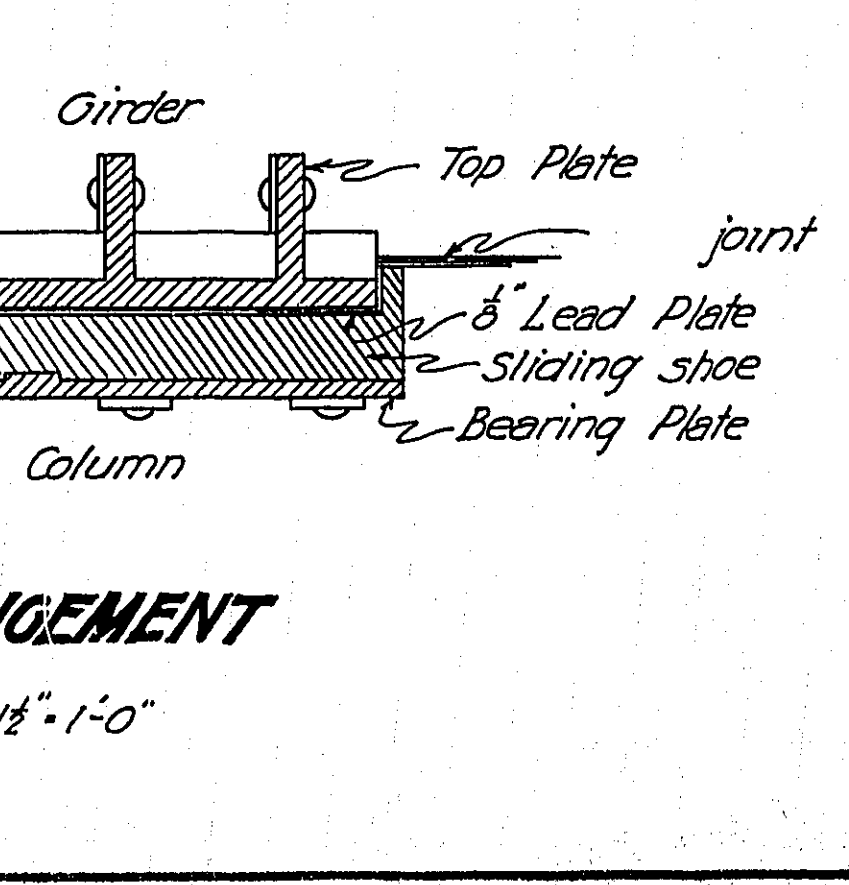
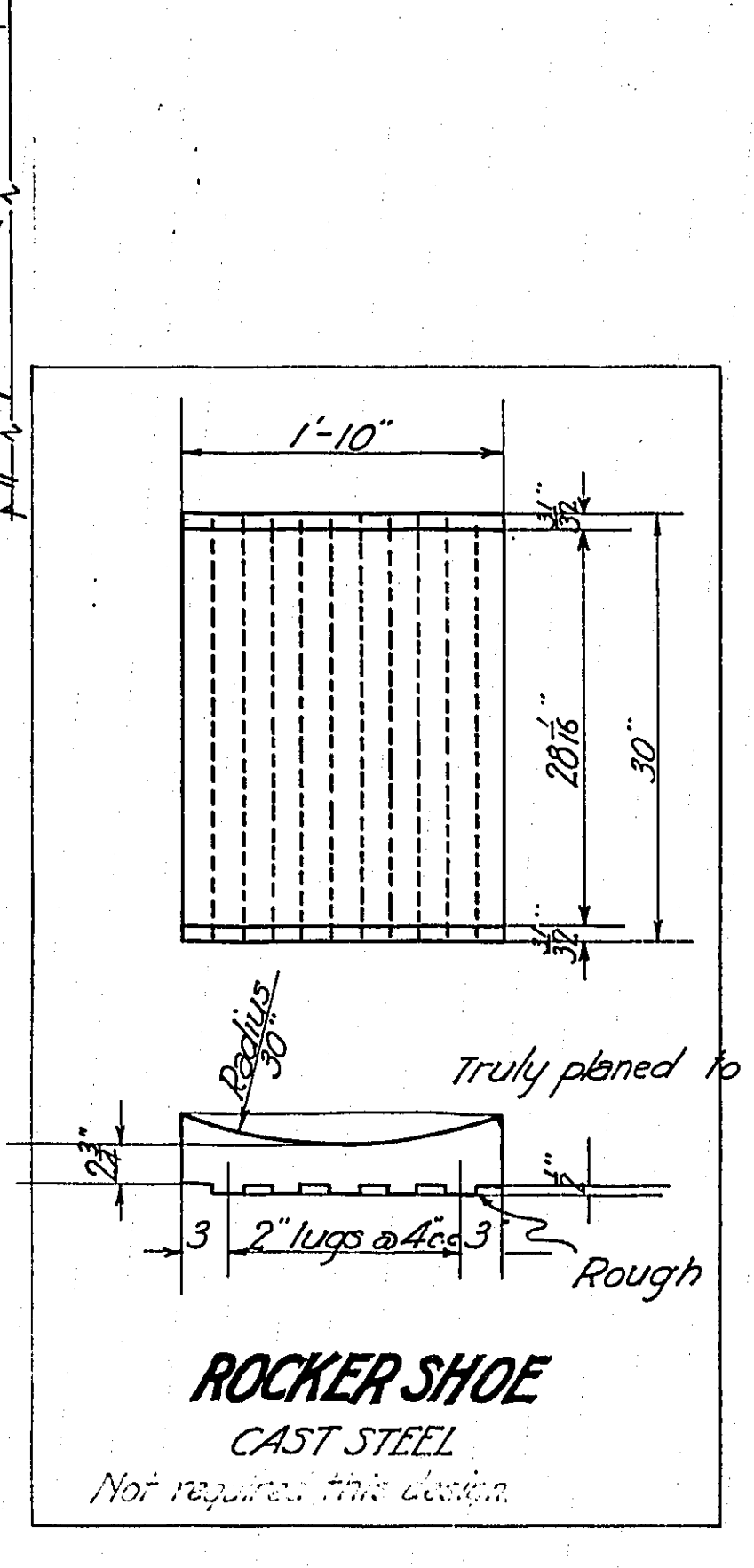
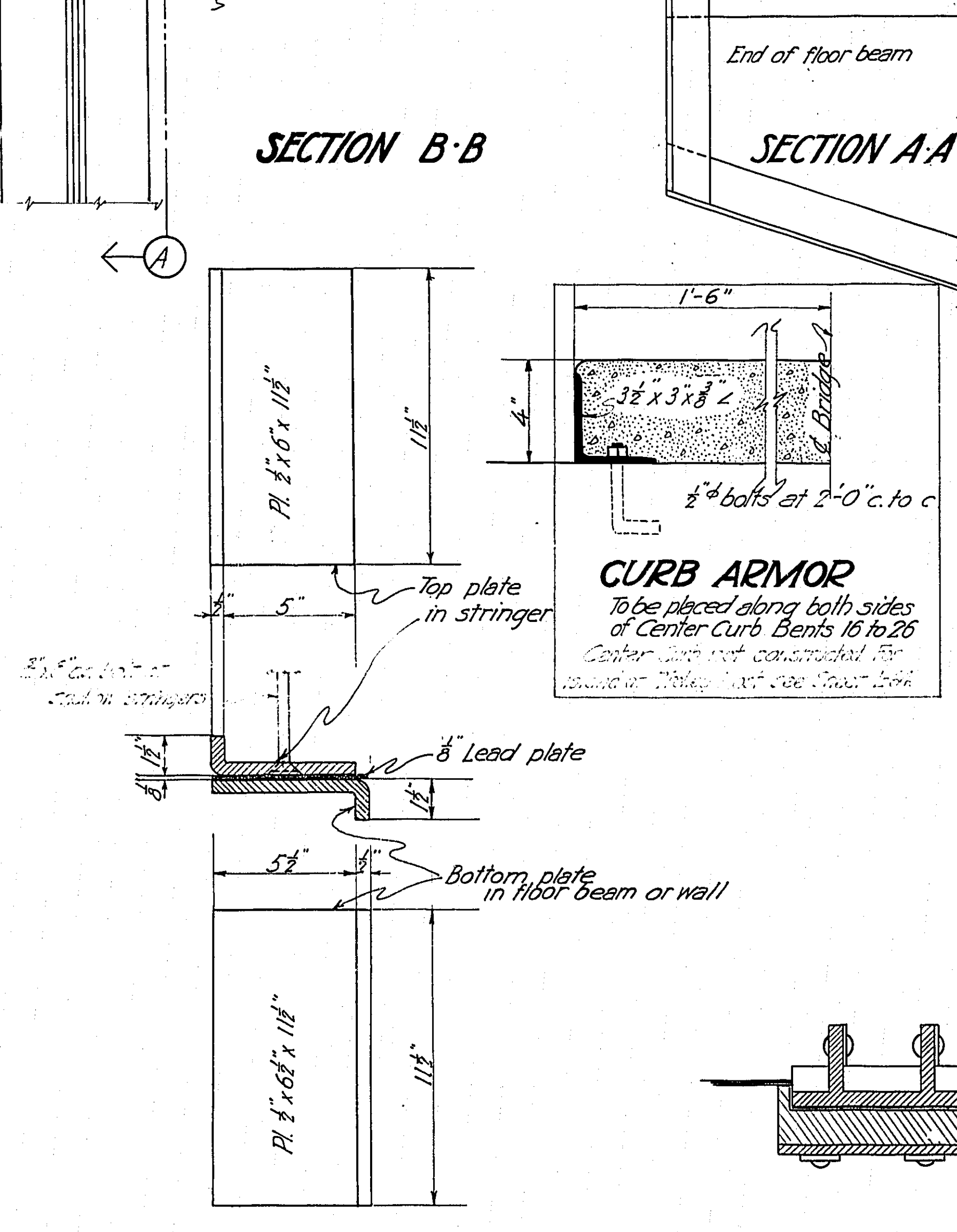
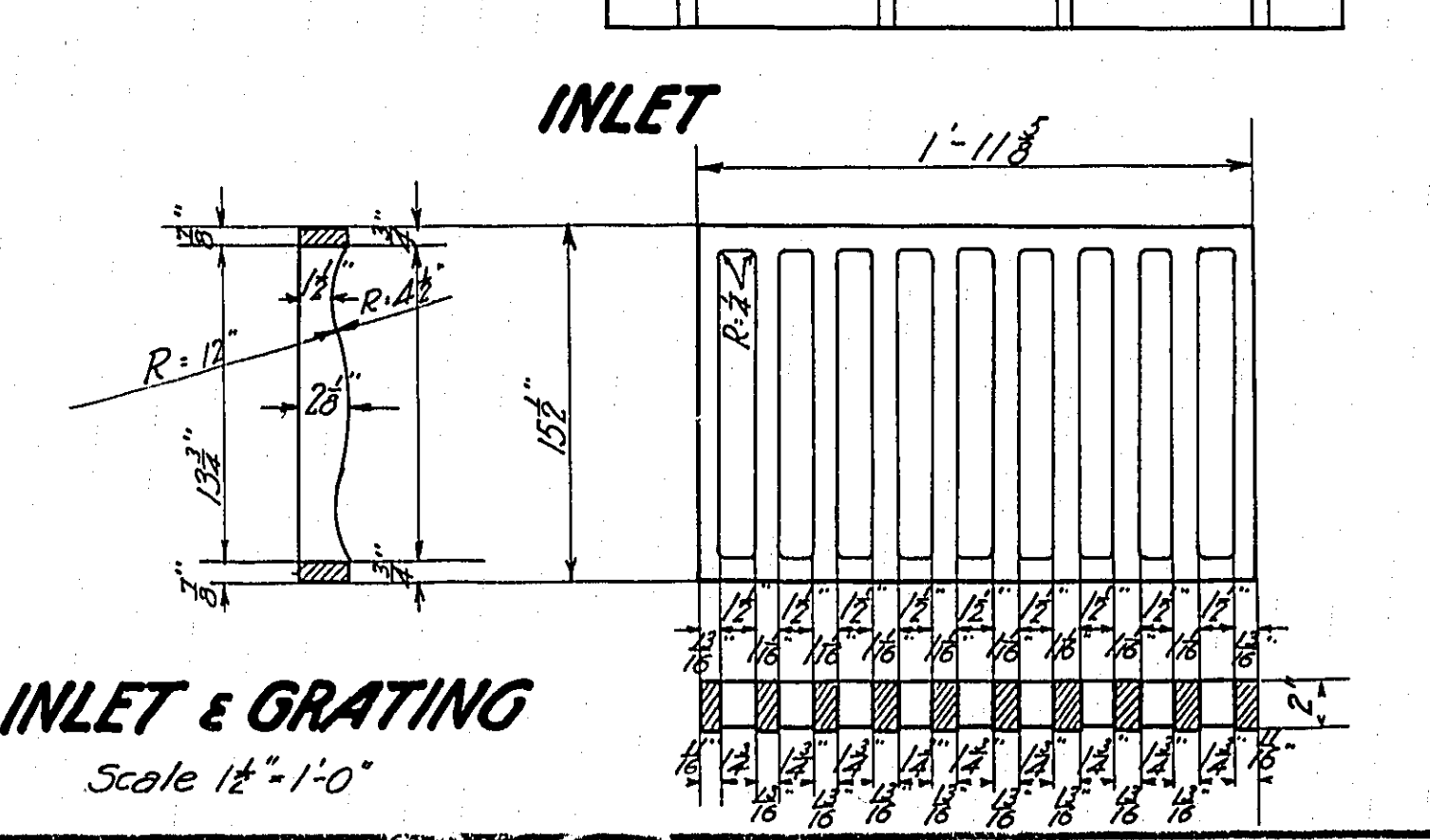
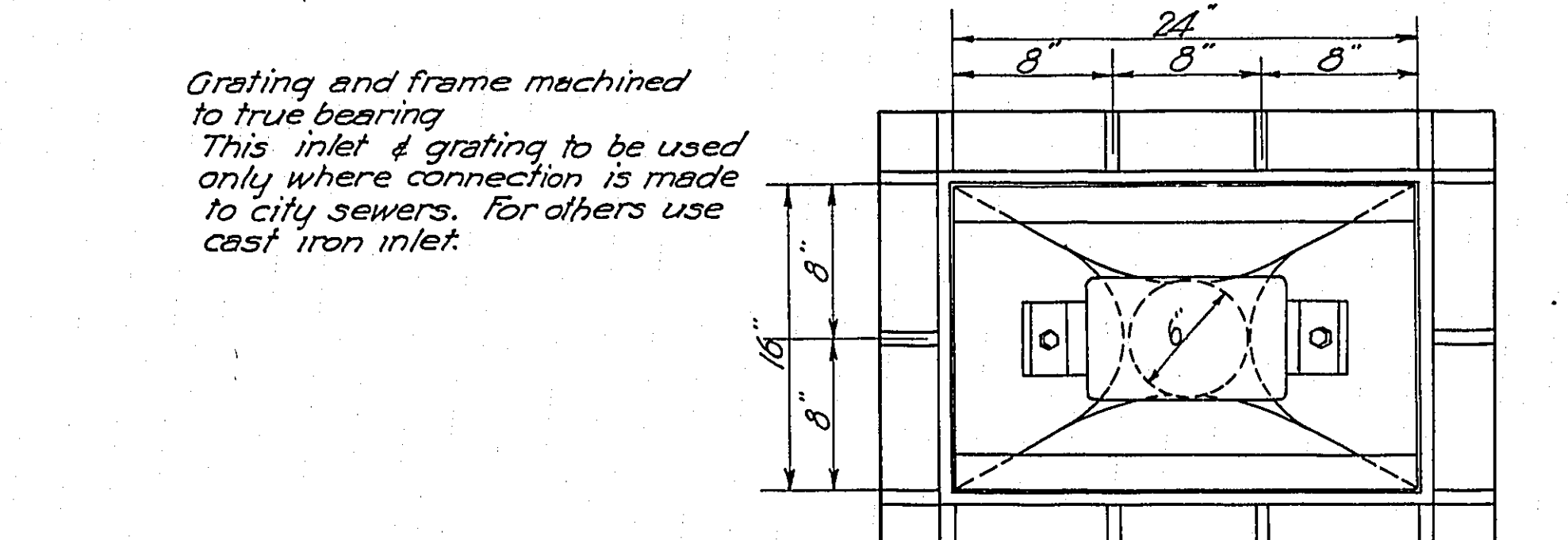
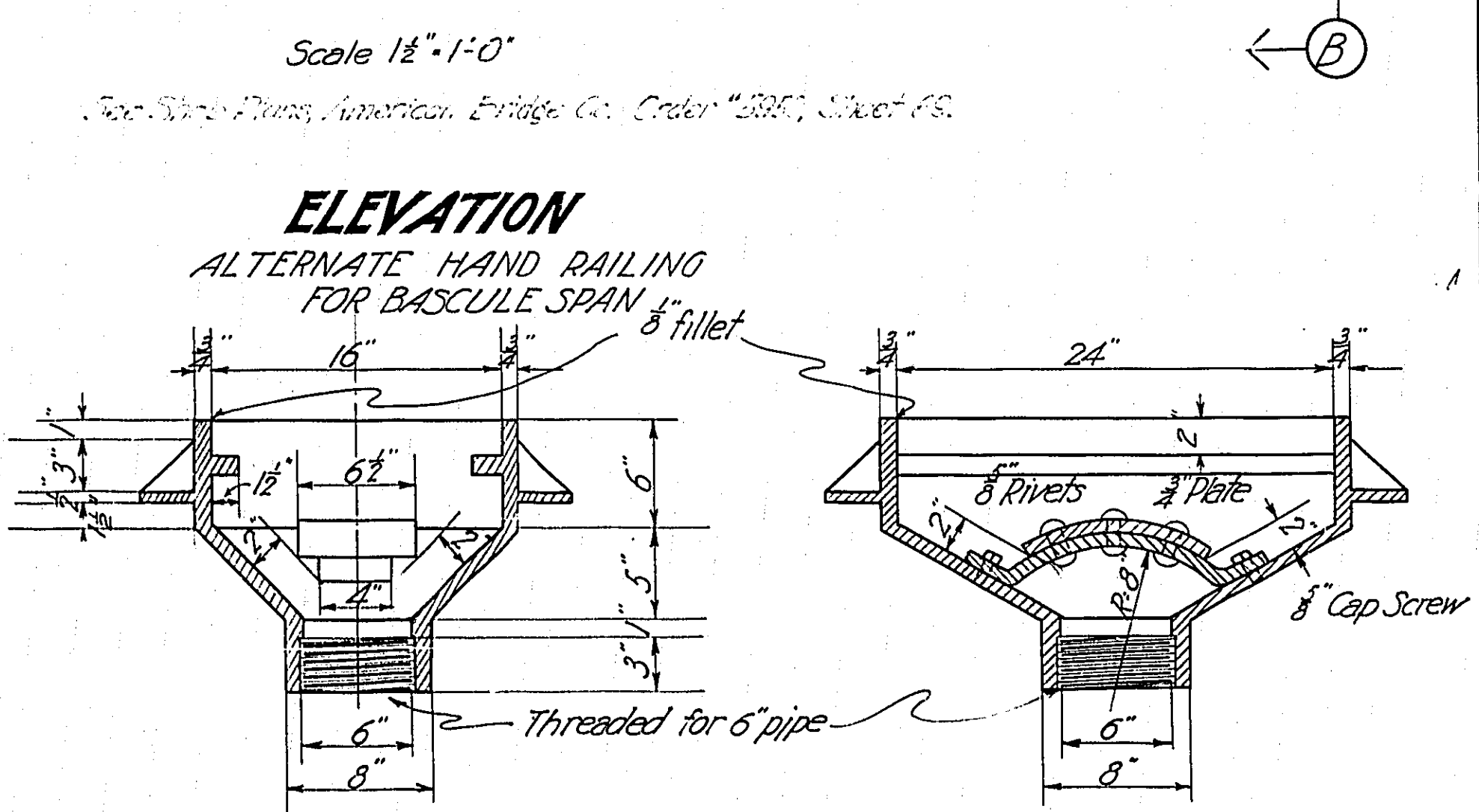
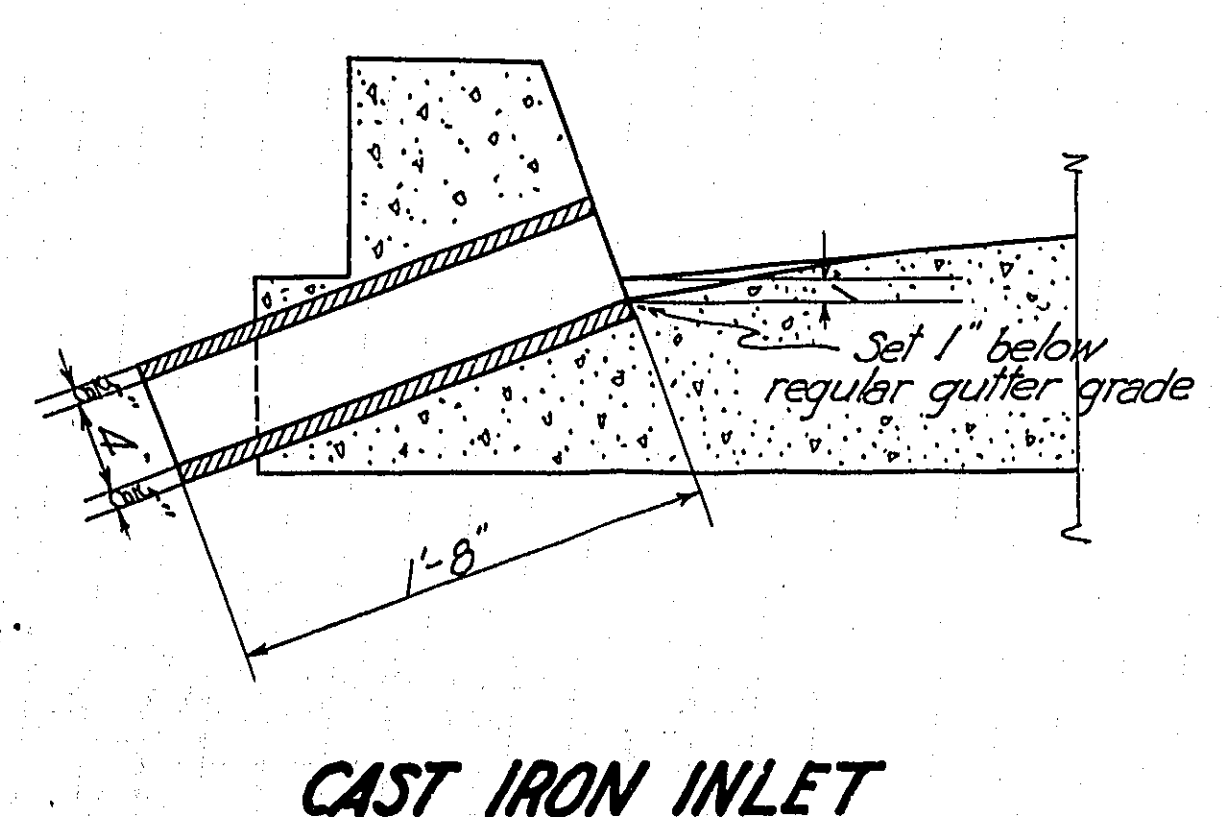
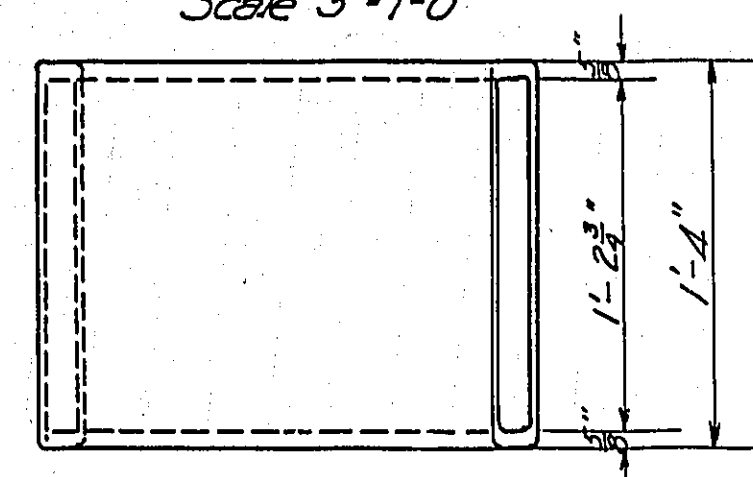
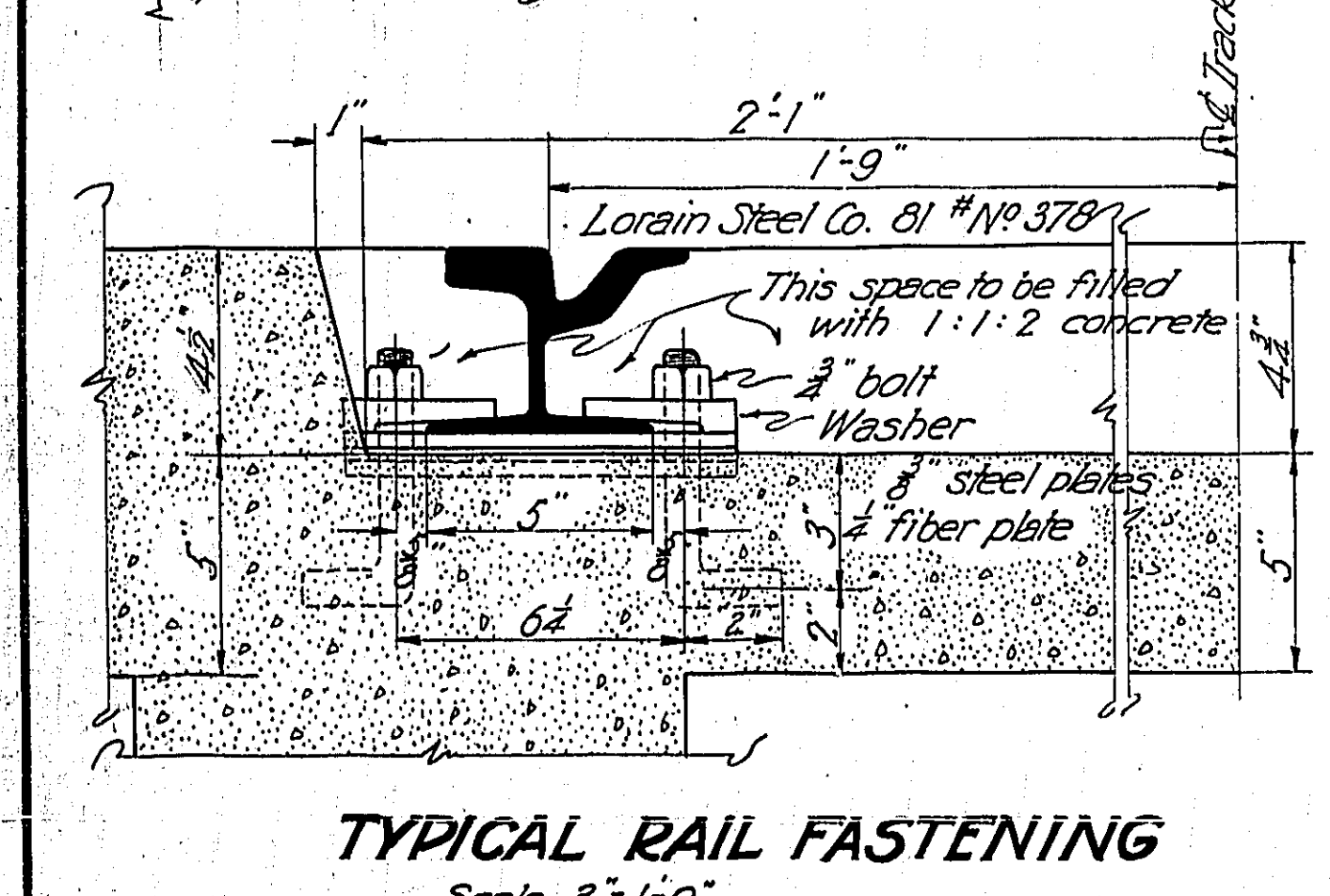
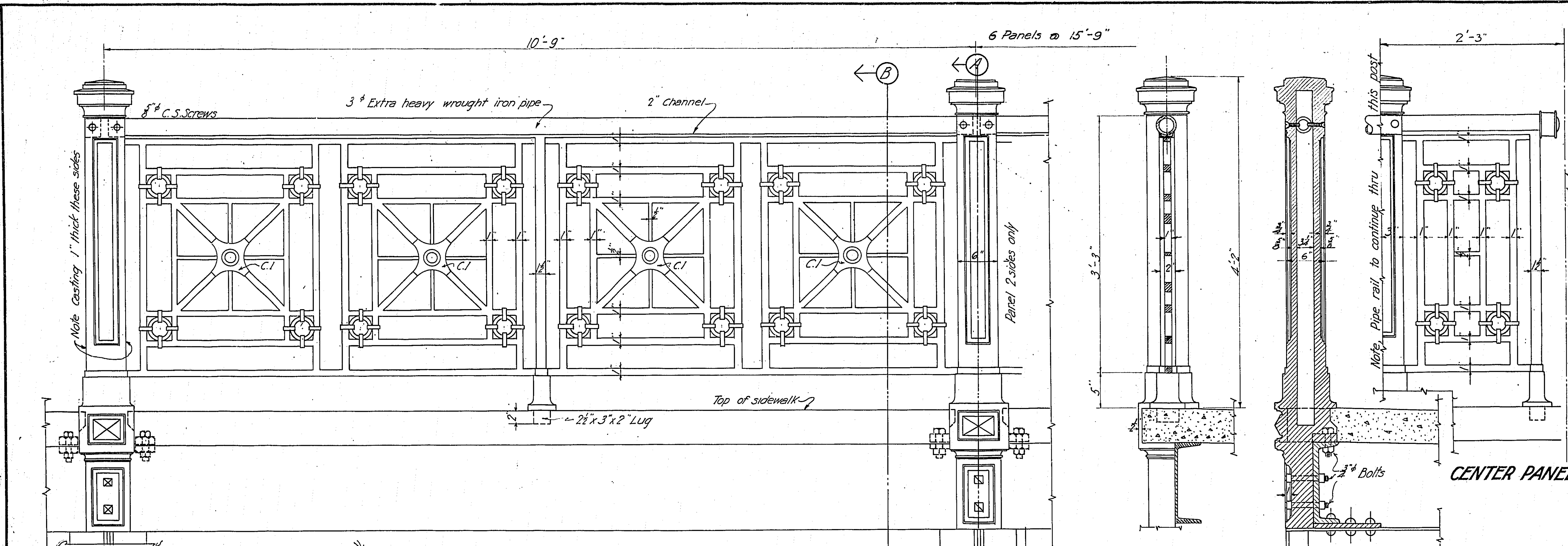


VOID-SEE SHEET L-56.

MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
 PORTLAND OREGON
 DETAILS
 OF
STAIRWAY SPAN 32
 MADE BY *John J. Co.* HEDRICK & KREMERS
 CHECKED BY *W. J. Co.* CONSULTING ENGINEERS
 TRACED BY *W. J. Co.* PORTLAND, OREGON
 CHECKED BY *W. J. Co.* DATE FEB 23 1923
 DRAWING NO. 56
 SHEETS

NOTICE: IF THIS DOCUMENT IS LESS
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Business Equipment Bureau
 1700 Southwest 11th Avenue
 Portland, Oregon 97214
 503-231-8182
3M

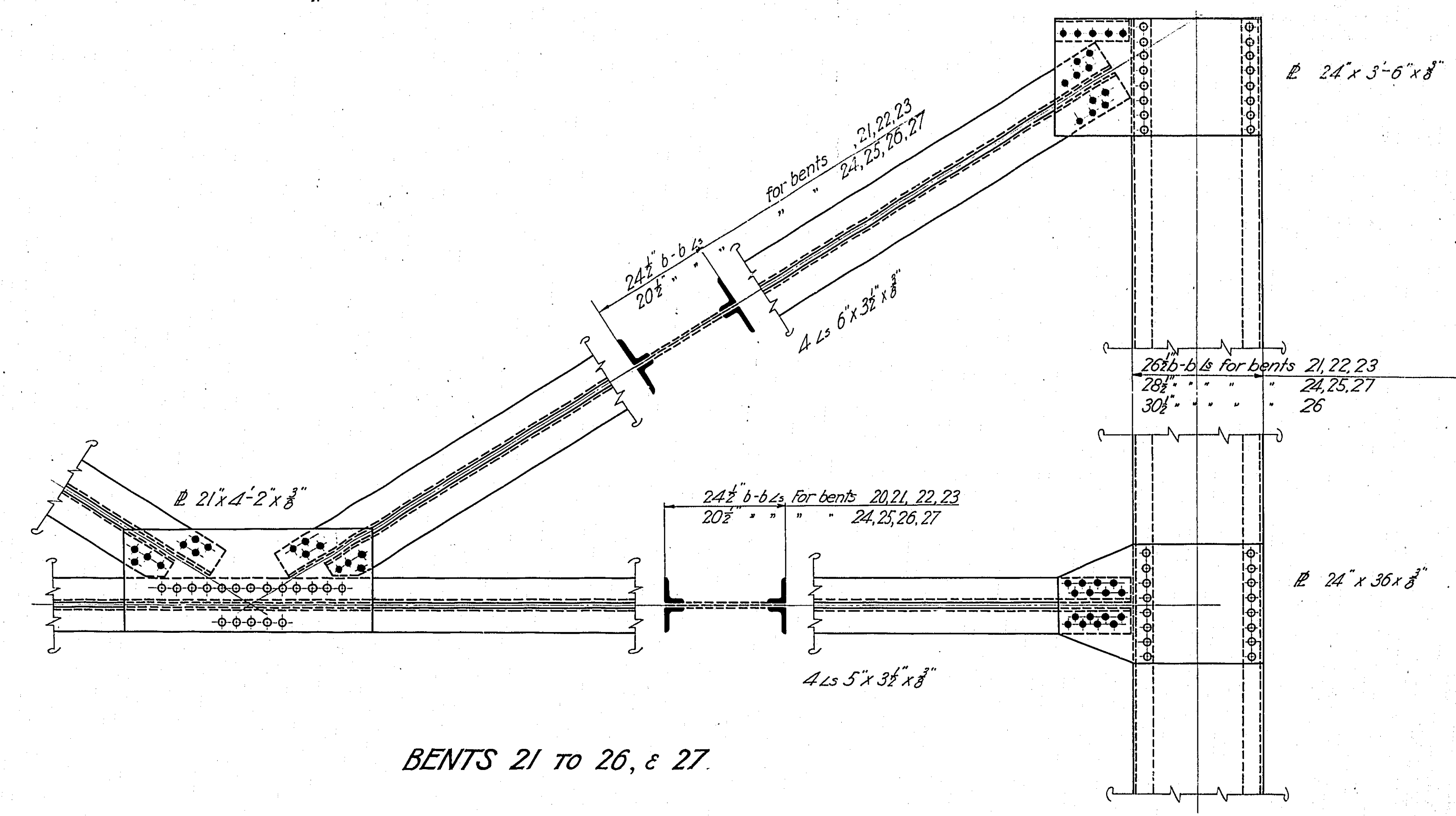
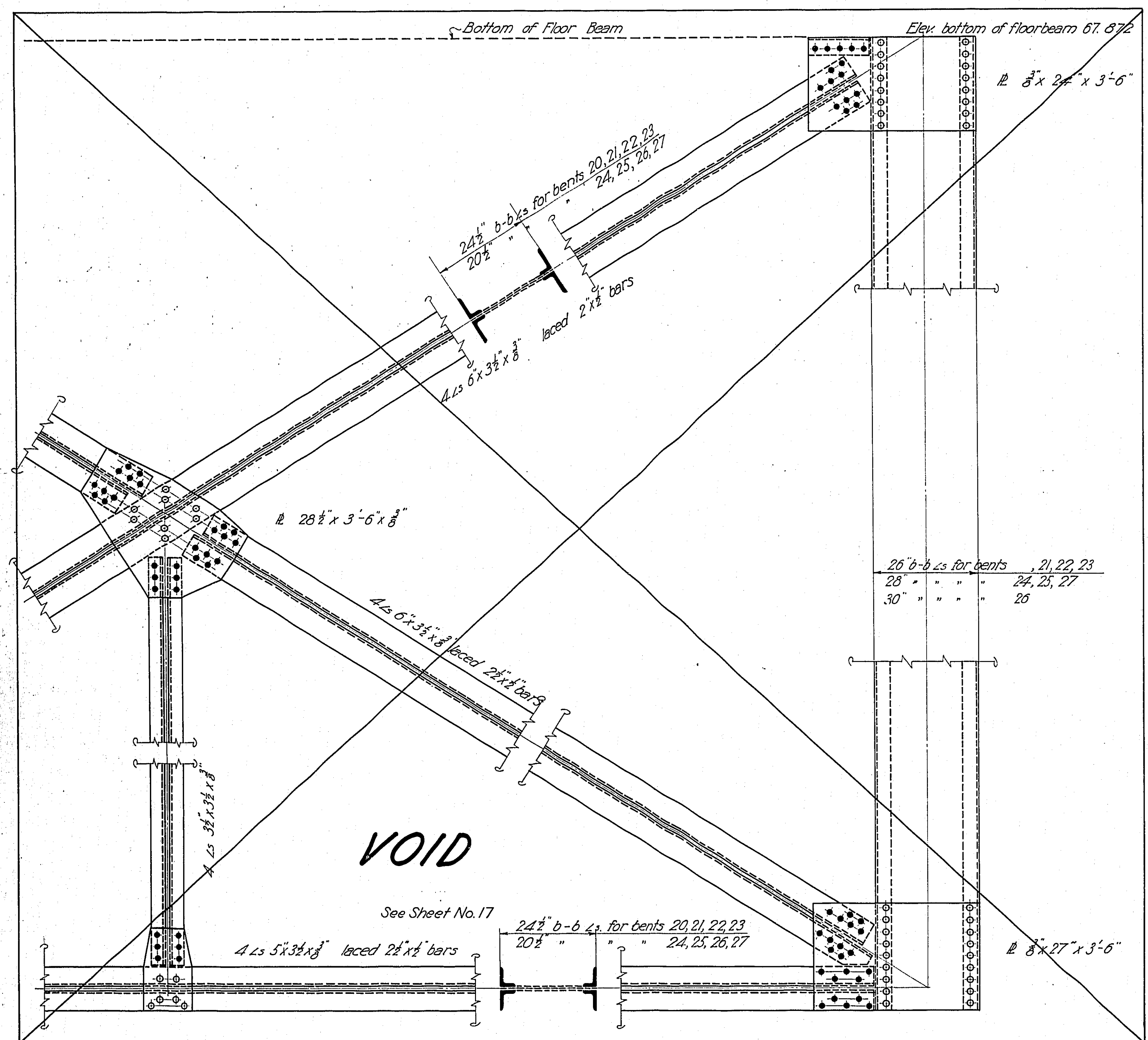


MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
PORTLAND, OREGON
MISCELLANEOUS DETAILS
MADE BY DREW
CHECKED BY HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 21, 1921
DRAWING NO. 57
SHEETS Scale as noted SHEET 1

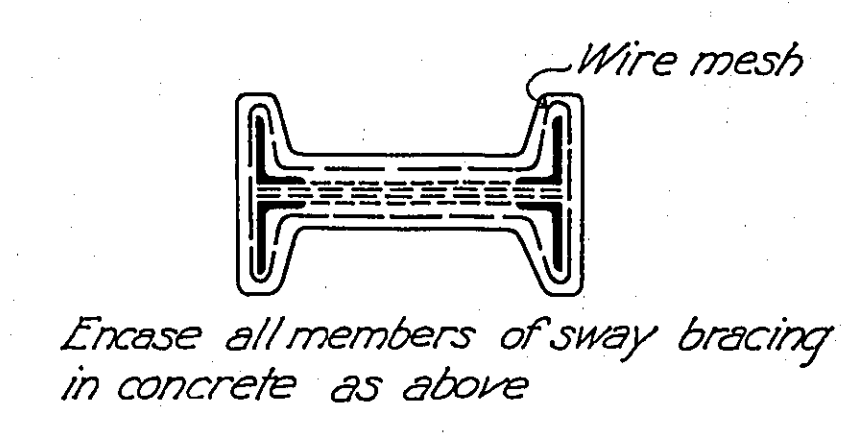
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southwest 11th Avenue
Portland, Oregon 97214
503.231.8182
3M

REVISED
2-25-24

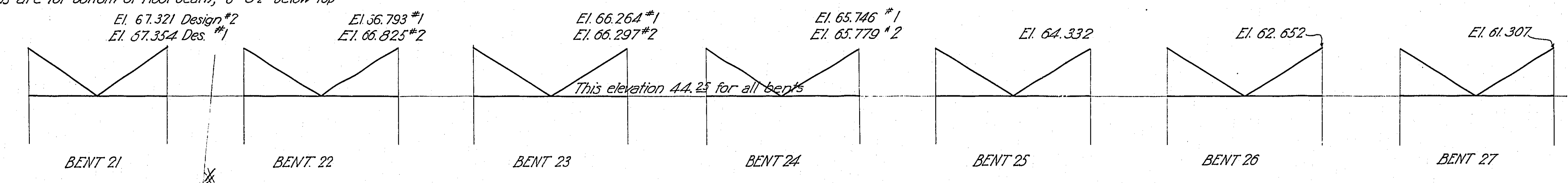


BENTS 21 to 26, & 27



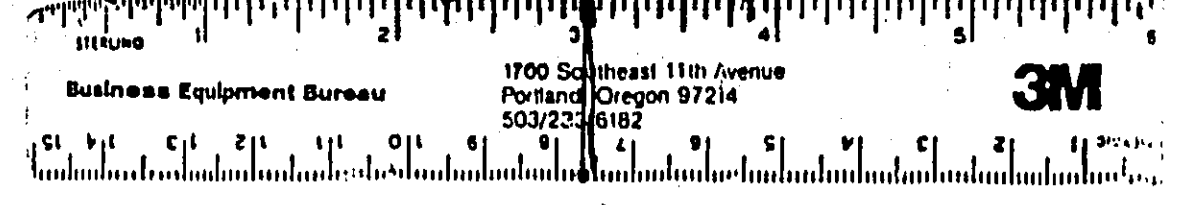
VOID-SEE SHEET L-58

Note: These elevations are for bottom of floorbeam, 6'-8 1/2" below top of roadway at crown

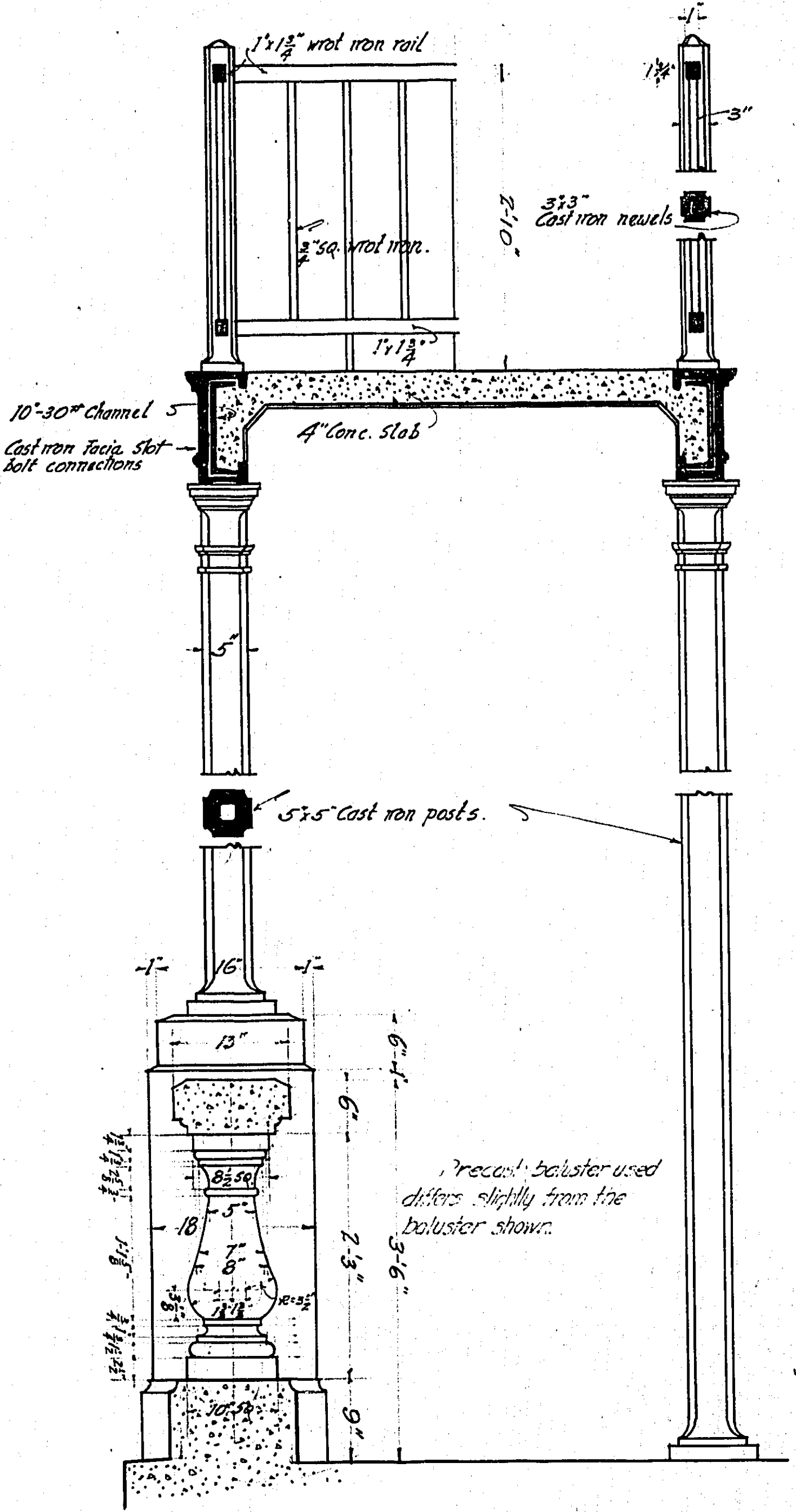
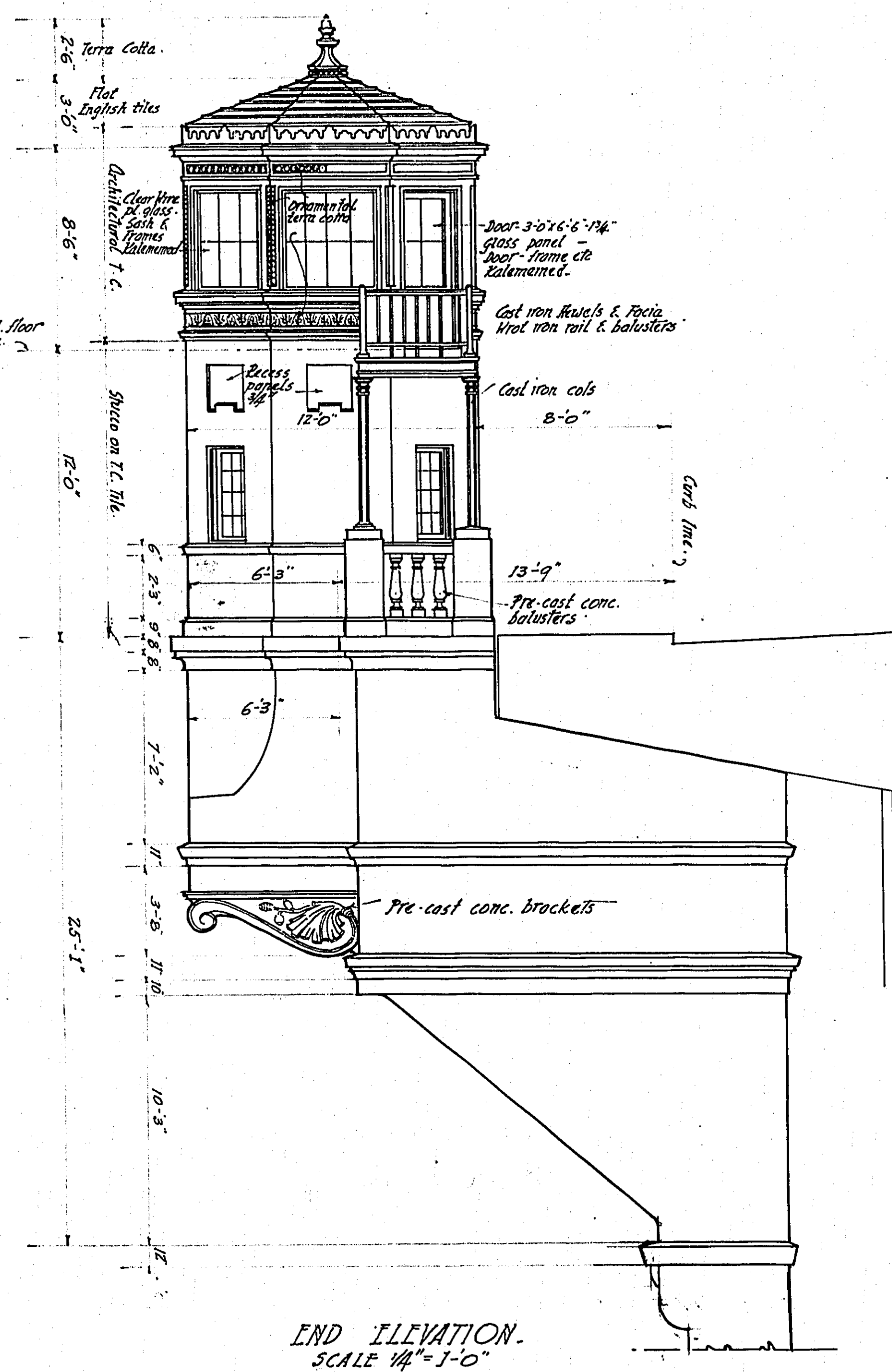
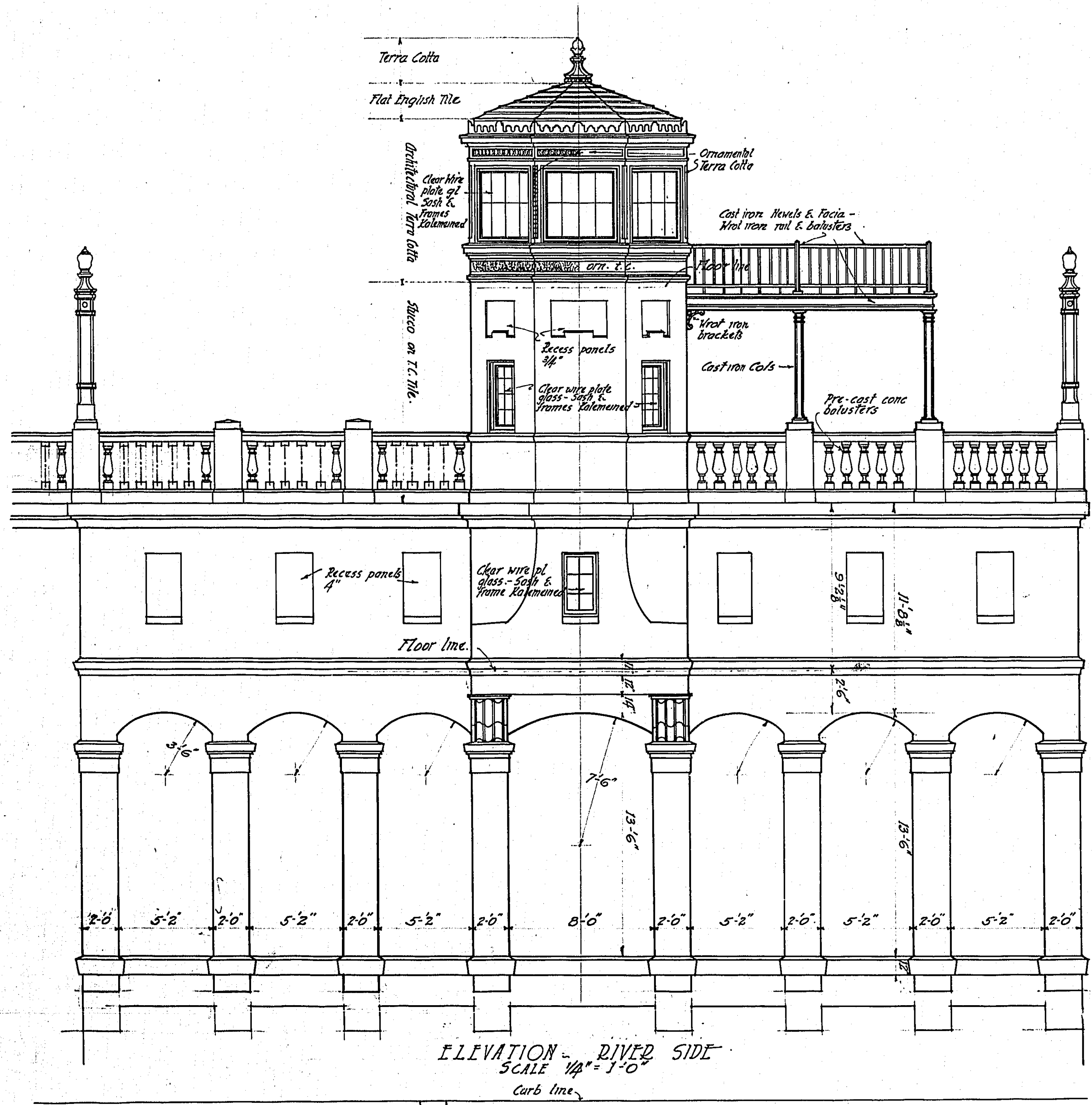


All Concrete Encasement - 1-2-4
 MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
 DETAILS
 OF
SWAY BRACING PLATE GIRDER SPANS
 MADE BY R. Country
 CHECKED BY W. J. [unclear]
 TRACED BY H. [unclear]
 CHECKED BY R. [unclear]
 DRAWING No. 61 SHEETS Scale: 3/4"=1'-0" SHEET NO. 58
 HEDRICK & KREMERS
 CONSULTING ENGINEERS
 PORTLAND, OREGON
 DATE FEB. 20, 1924

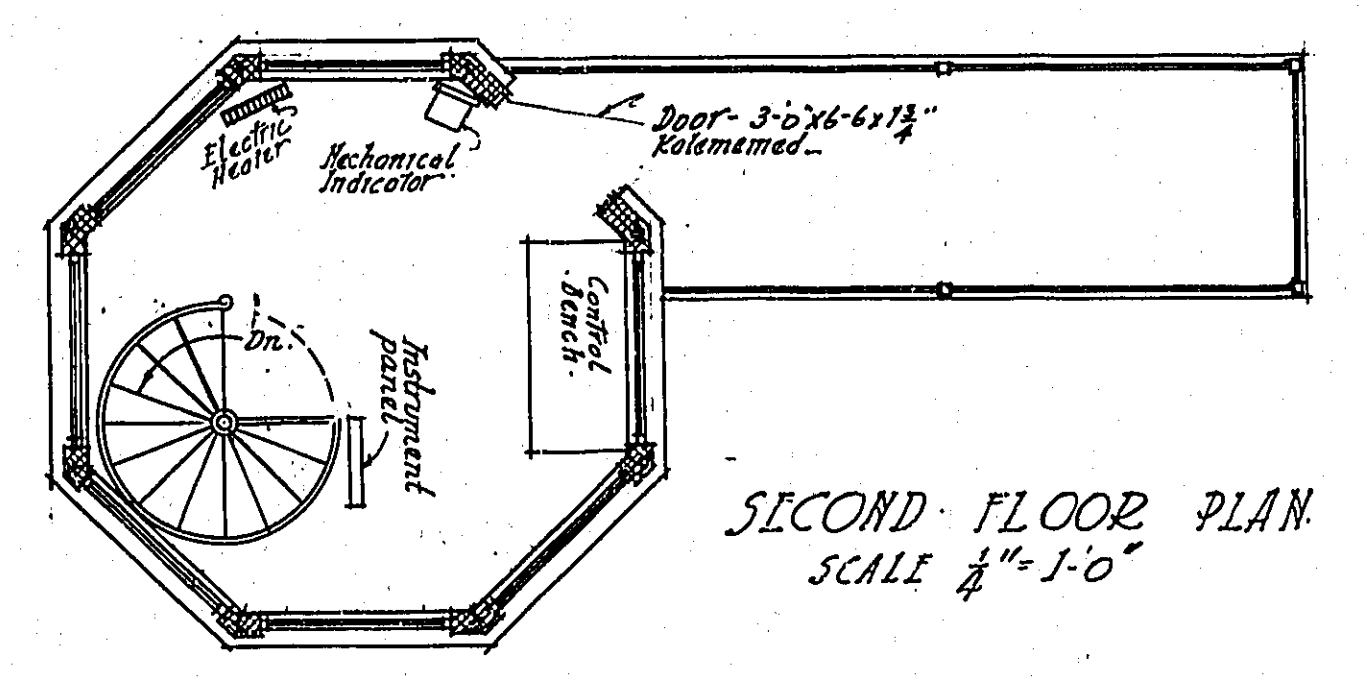
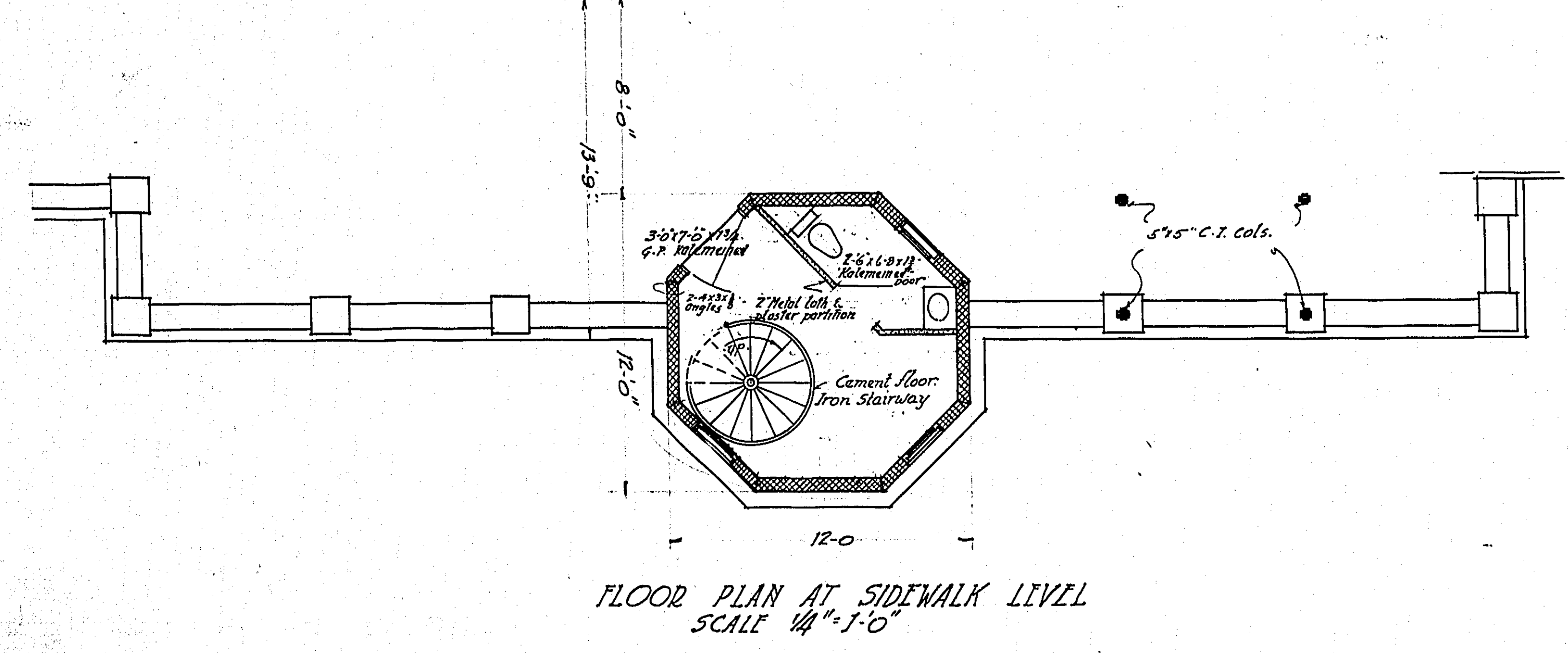
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REVISED



For complete details of Operator's House
see Sheets 15-PB-1, 15-PB-2, 15-PB-3, 15-PB-4 and
print of Terra Cotta by the Northern Clay Co.



HOUGHTALING AND DOUGAN ARCHITECTS.

MULTNOMAH COUNTY, OREGON

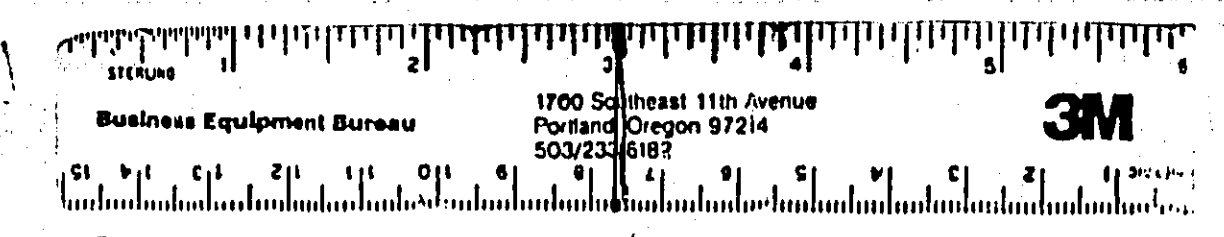
BURNSIDE BRIDGE
PORTLAND, OREGON

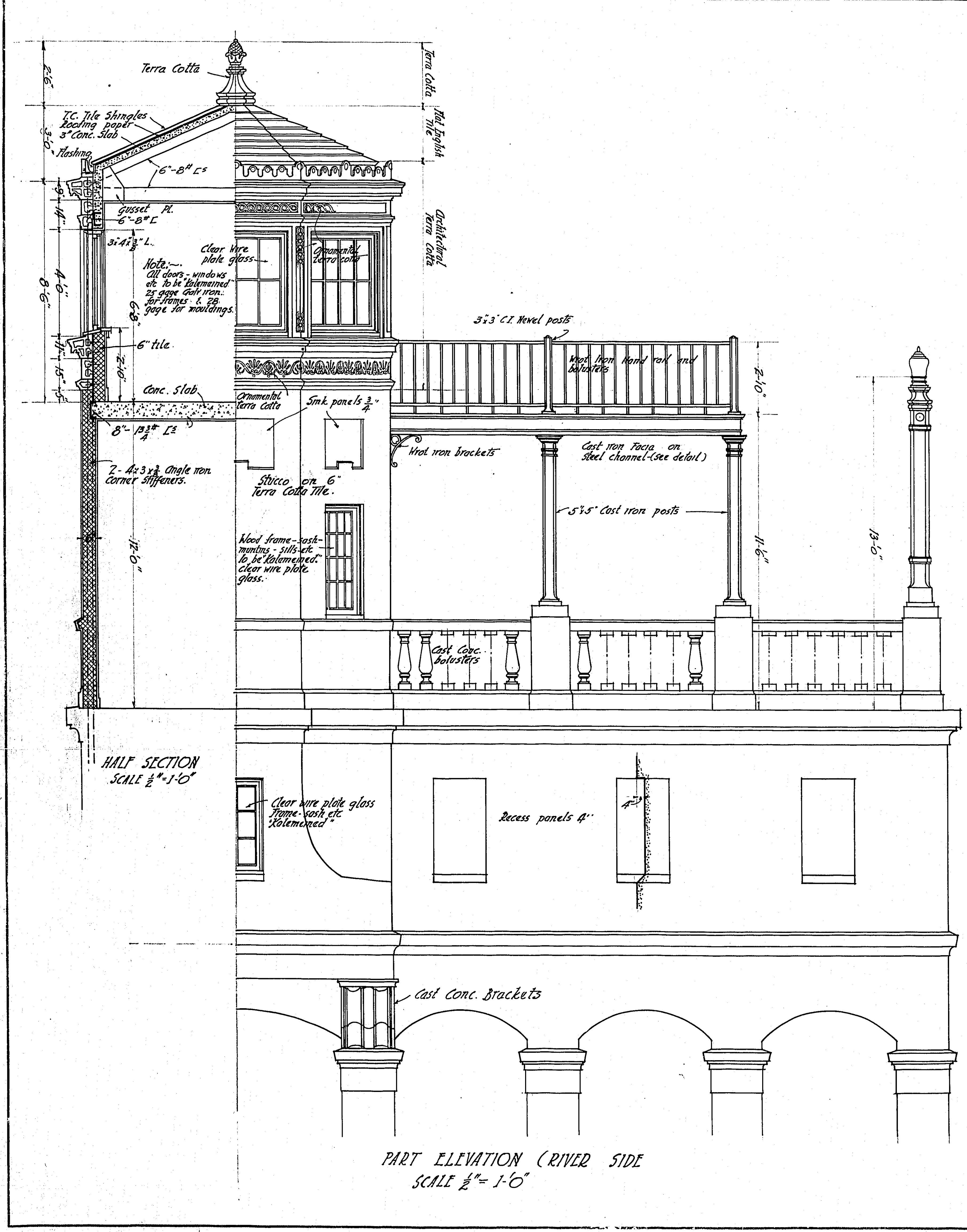
DETAILS
OF
MAIN RIVER PIERS

MADE BY HEDRICK & REMERS
CHECKED BY PORTLAND ENGINEERS
TRACED BY PORTLAND ENGINEERS
CHECKED BY PORTLAND ENGINEERS
DRAWING NO. DATE FEB. 21, 1924
SHEETS

APL
1924

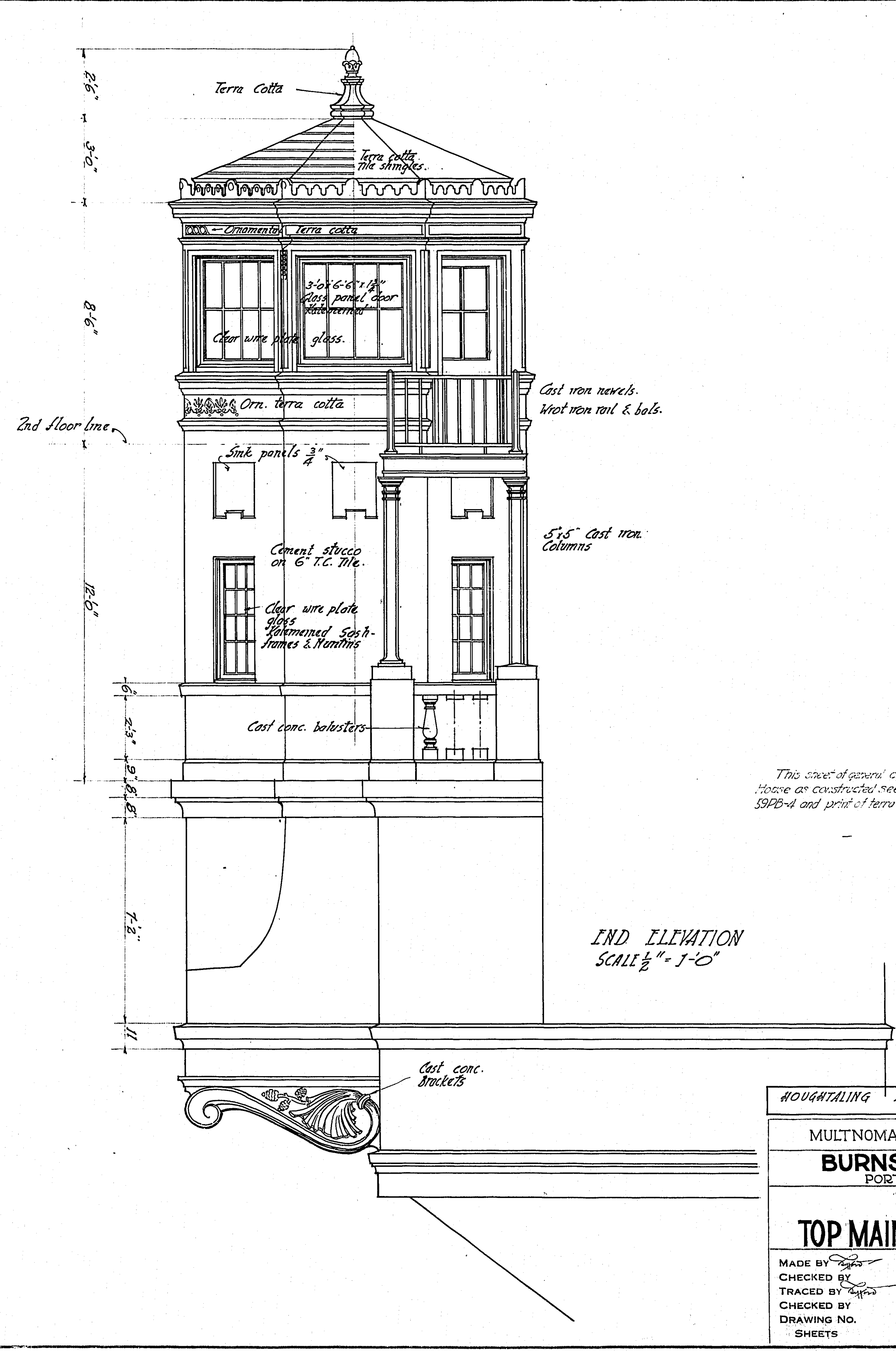
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HALF SECTION
SCALE 1/8" = 1'-0"

PART ELEVATION (RIVER SIDE)
SCALE 1/8" = 1'-0"



END ELEVATION
SCALE 1/8" = 1'-0"

This sheet of general character only. For details of Operaters House as constructed see Sheets 59PB-1, 59PB-2, 59PB-3, 59PB-4 and print of terra cotta by the Northern Clay Co.

HOUGHTALING AND DOUGAN ARCHITECTS.

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

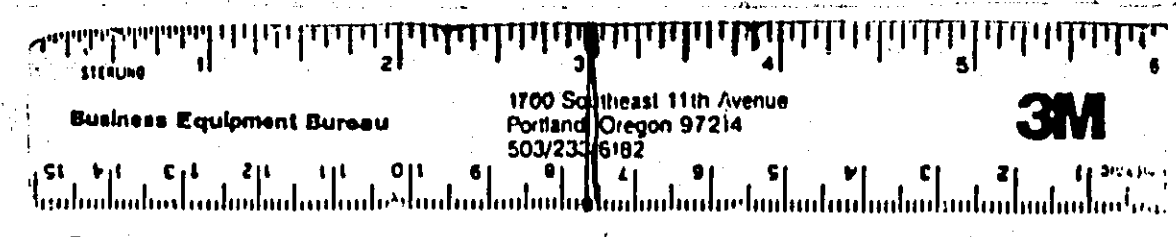
DETAILS
OF
TOP MAIN RIVER RIERS

MADE BY [Signature]
CHECKED BY [Signature]
TRACED BY [Signature]
DRAWING NO. [Signature]
SHEETS

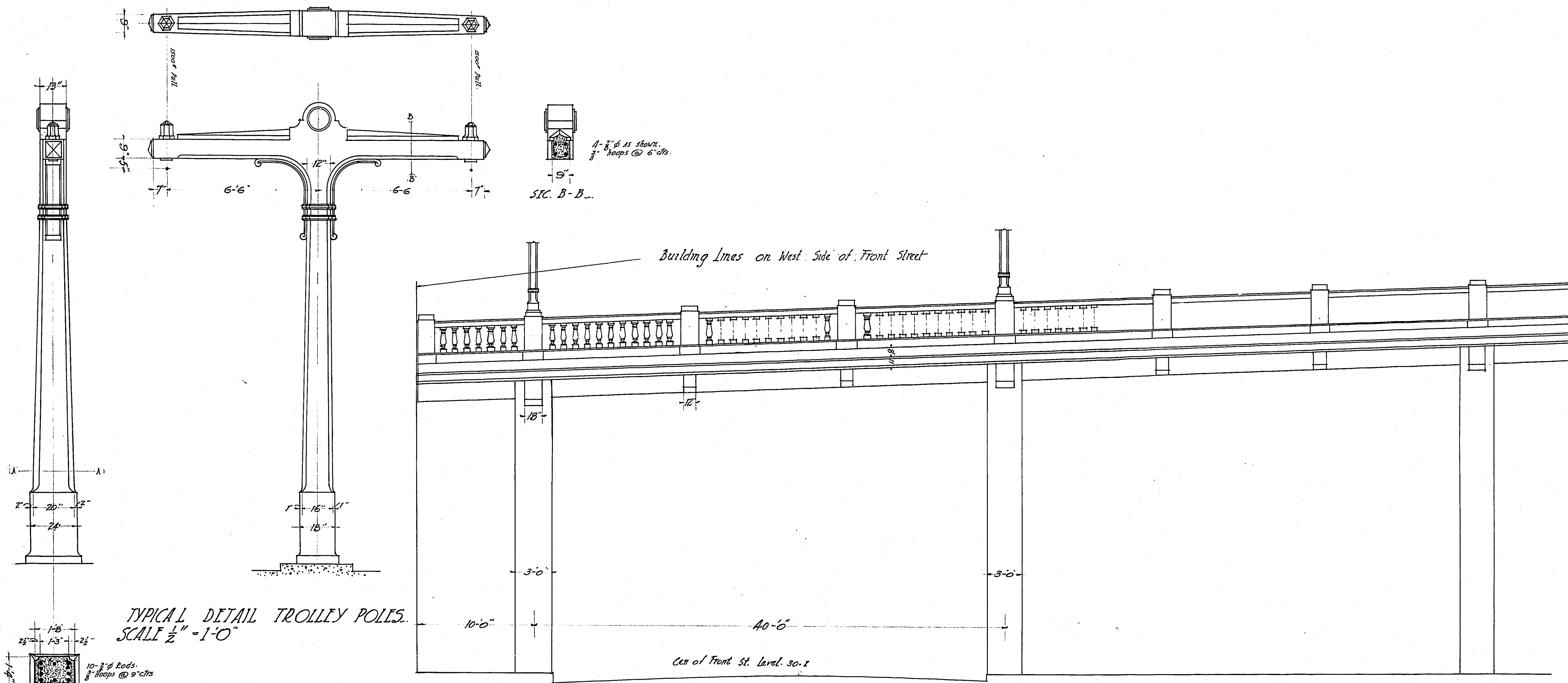
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 21, 1924

SHEET NO. **60**

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REVISED



TYPICAL DETAIL TROLLEY POLES.
SCALE $\frac{1}{2}'' = 1'-0''$

SECTION A-A

ELEVATION OF FRONT STREET CROSSING.
SCALE $\frac{1}{4}'' = 1'-0''$

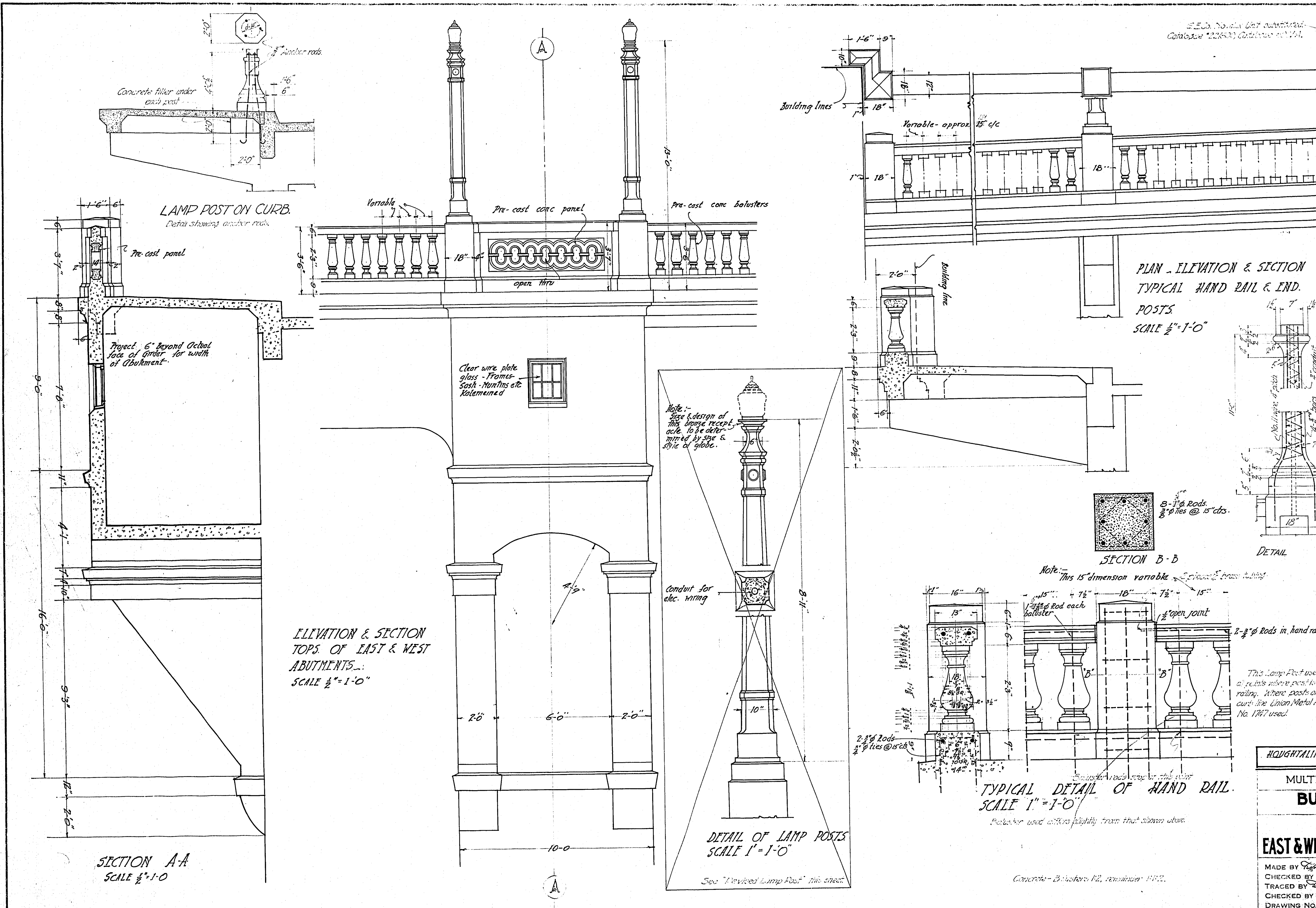
For complete detail of Trolley End see Sheet 10.5.

HOUGHTALING AND DOUGAN - ARCHITECTS.	
MULTNOMAH COUNTY, OREGON	
BURNSIDE BRIDGE	
PORTLAND, OREGON	
DETAILS OF TROLLEY POLE & RAIL	
MADE BY <i>[Signature]</i>	HEDRICK & KREMERS
CHECKED BY <i>[Signature]</i>	CONSULTING ENGINEERS
TRACED BY <i>[Signature]</i>	PORTLAND, OREGON
CHECKED BY	DATE
DRAWING NO.	SHEET NO. 61
SHEETS	

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Business Equipment Bureau 1700 Southwest 11th Avenue
 Portland, Oregon 97214
 503-233-8882

3M



LAMP POST ON CURB
Detail showing anchor rods

SECTION A-A
SCALE 1/2" = 1'-0"

ELEVATION & SECTION
TOPS OF EAST & WEST
ABUTMENTS
SCALE 1/2" = 1'-0"

DETAIL OF LAMP POSTS
SCALE 1" = 1'-0"

PLAN - ELEVATION & SECTION
TYPICAL HAND RAIL & END
POSTS
SCALE 1/2" = 1'-0"

TYPICAL DETAIL OF HAND RAIL
SCALE 1" = 1'-0"

REVISED LAMP POST

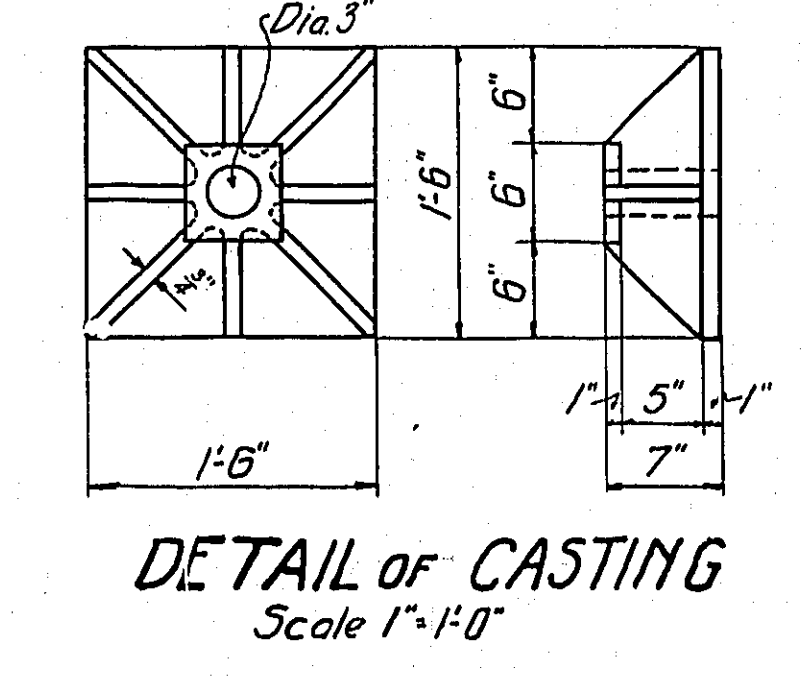
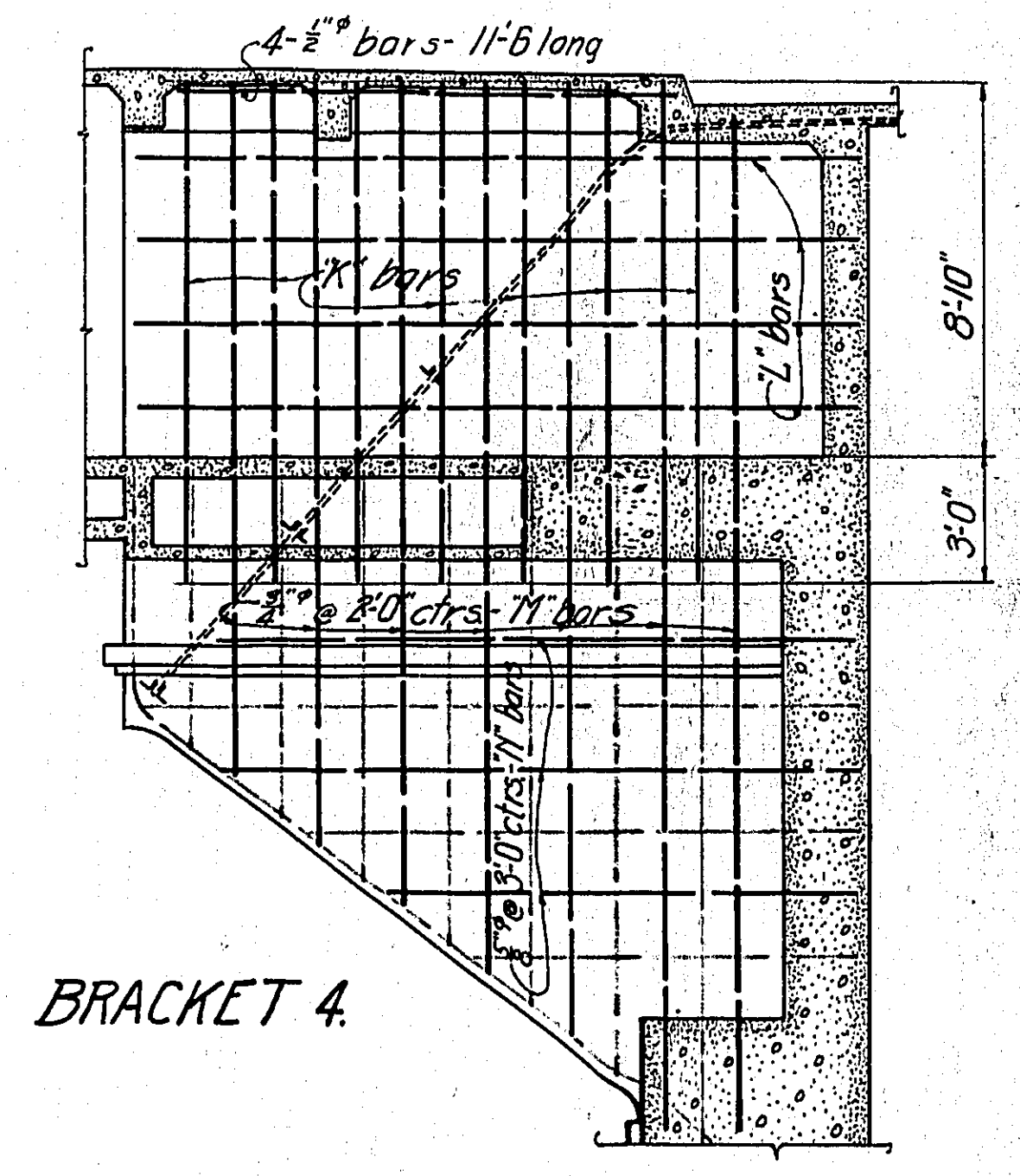
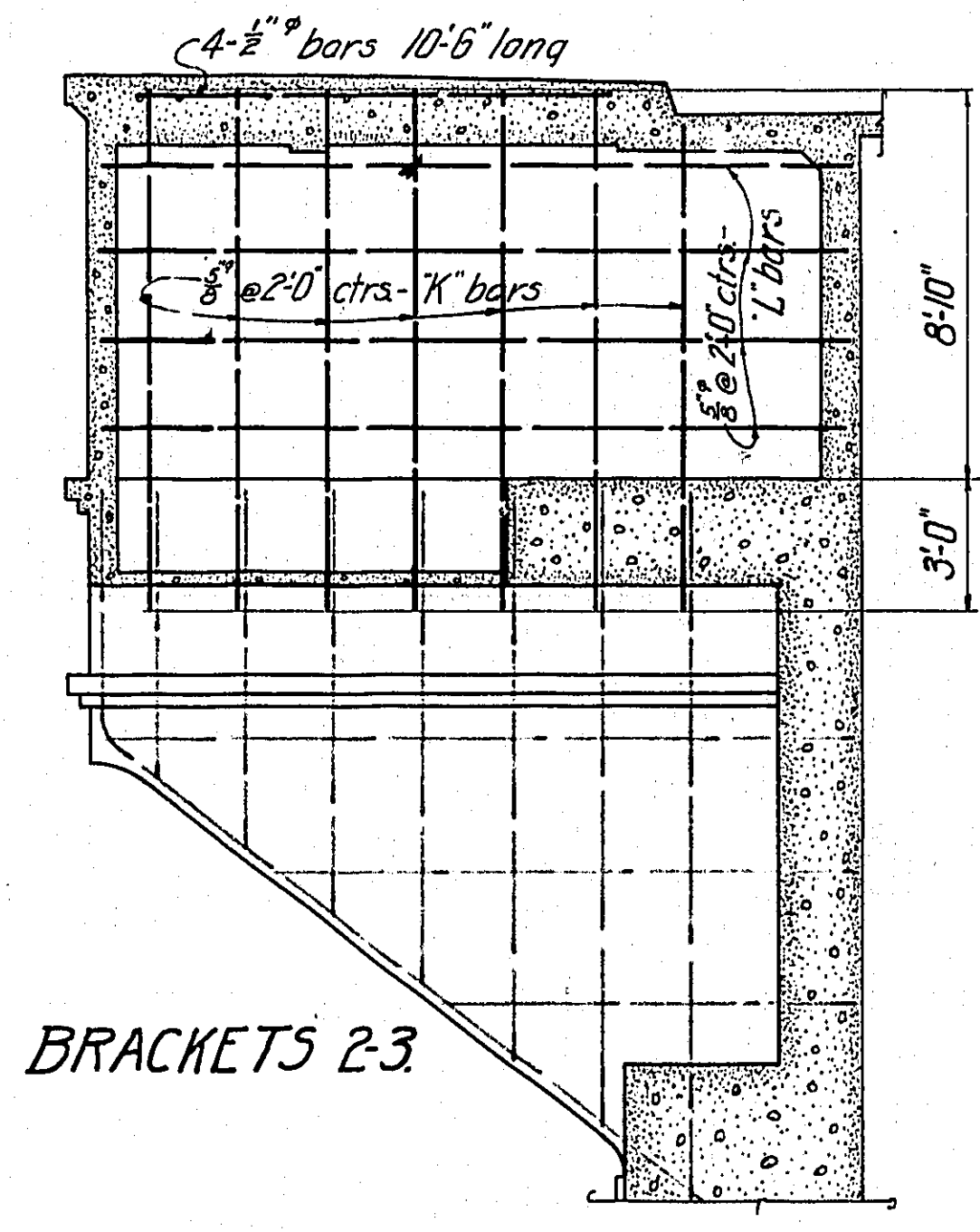
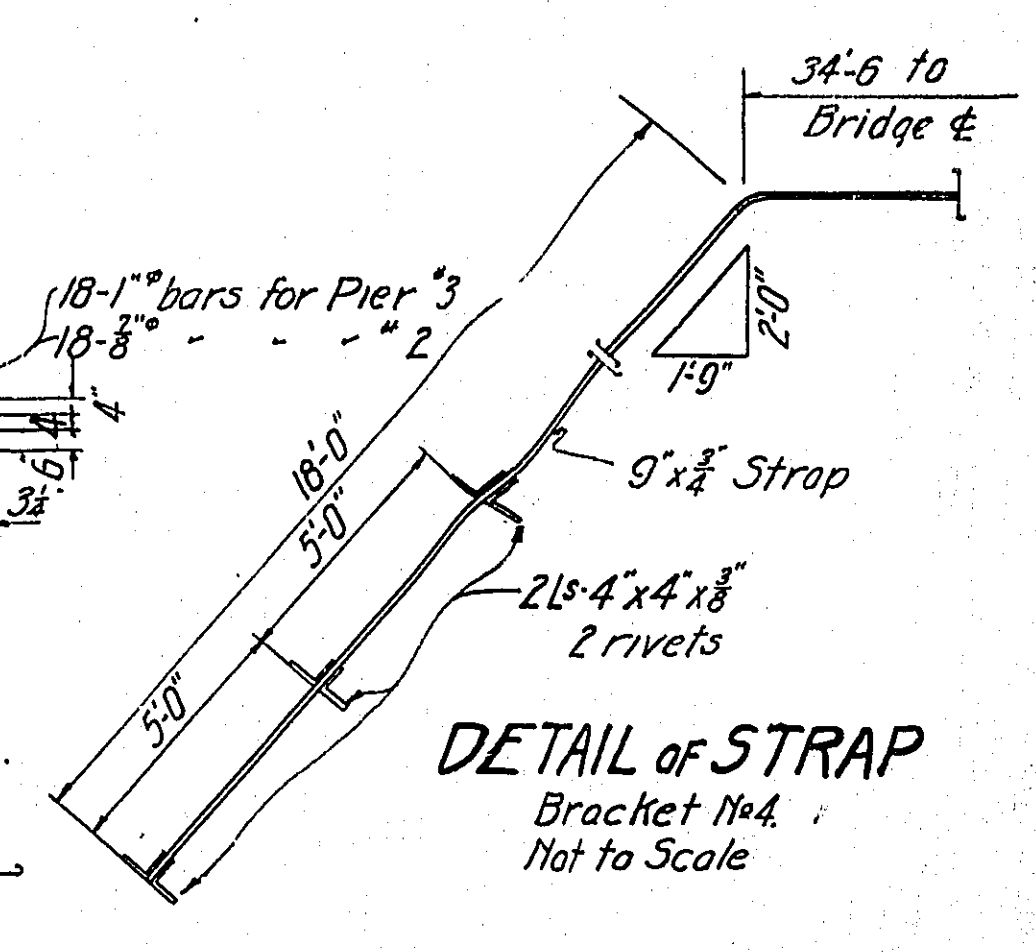
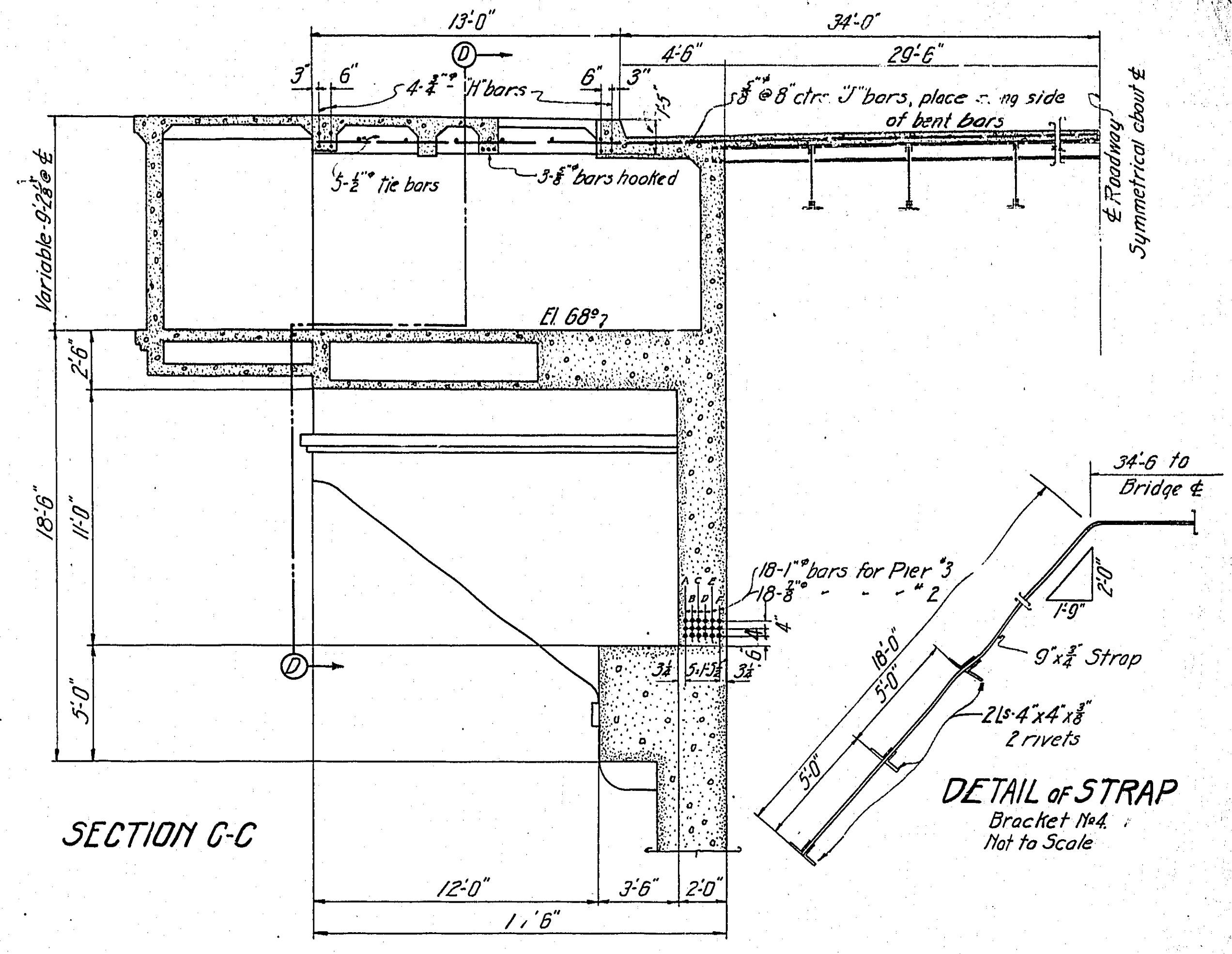
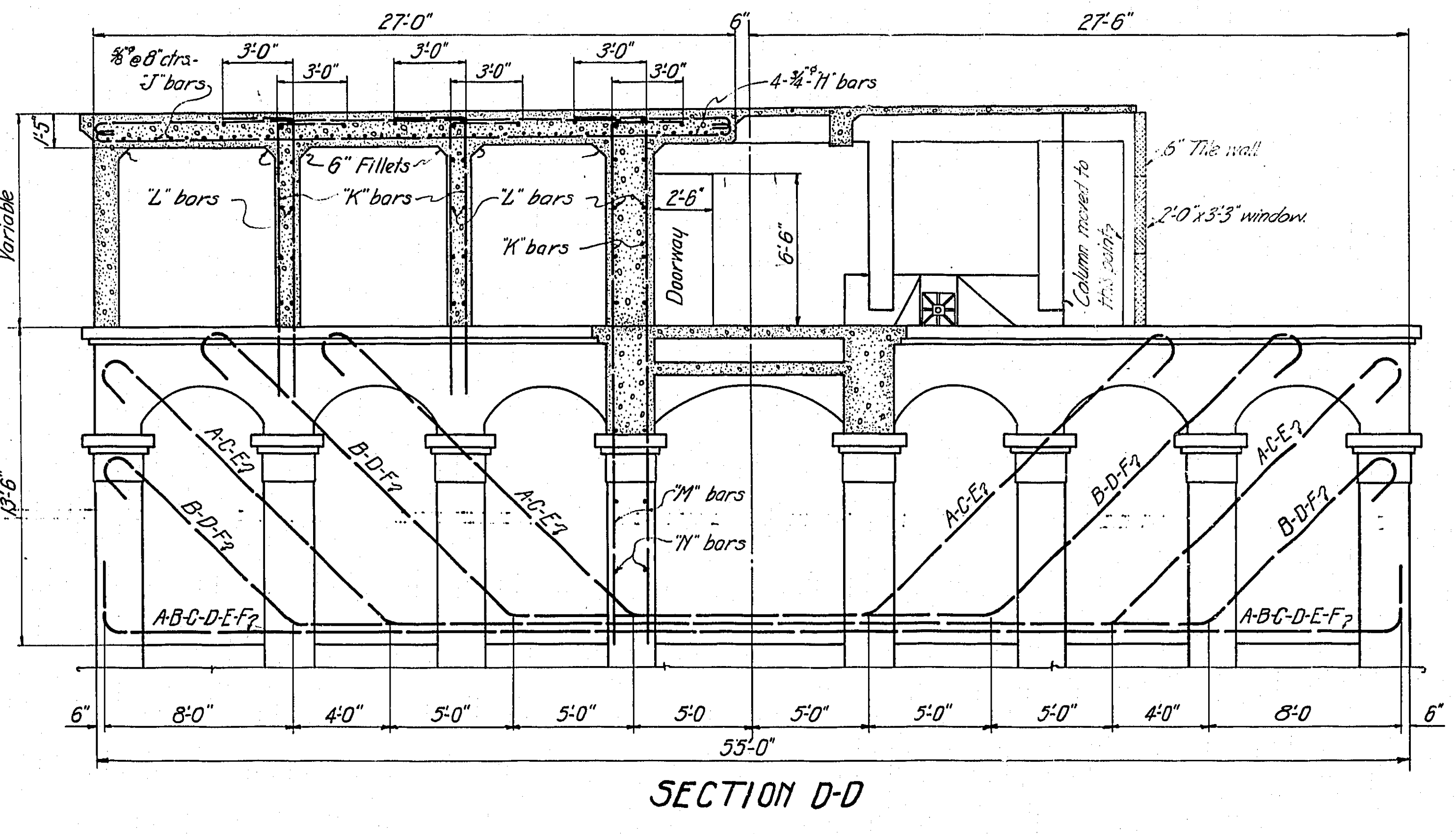
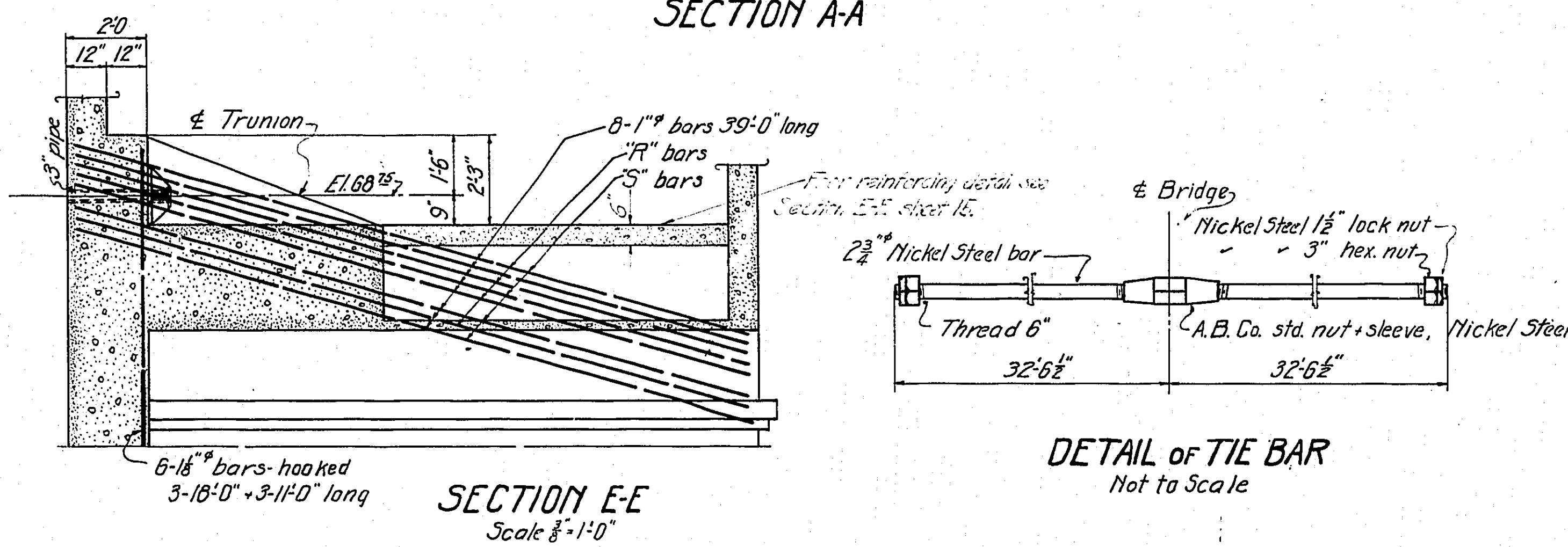
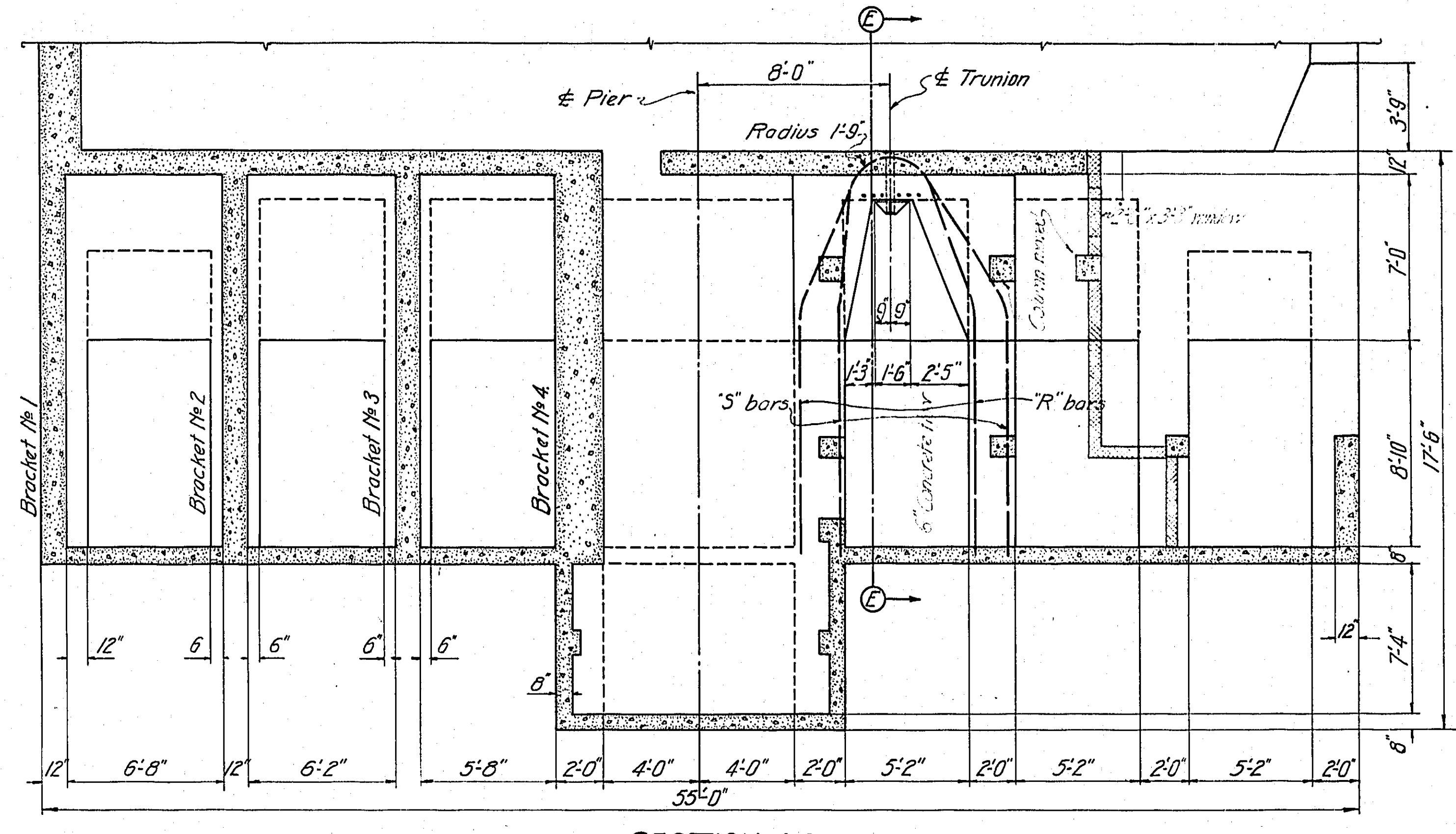
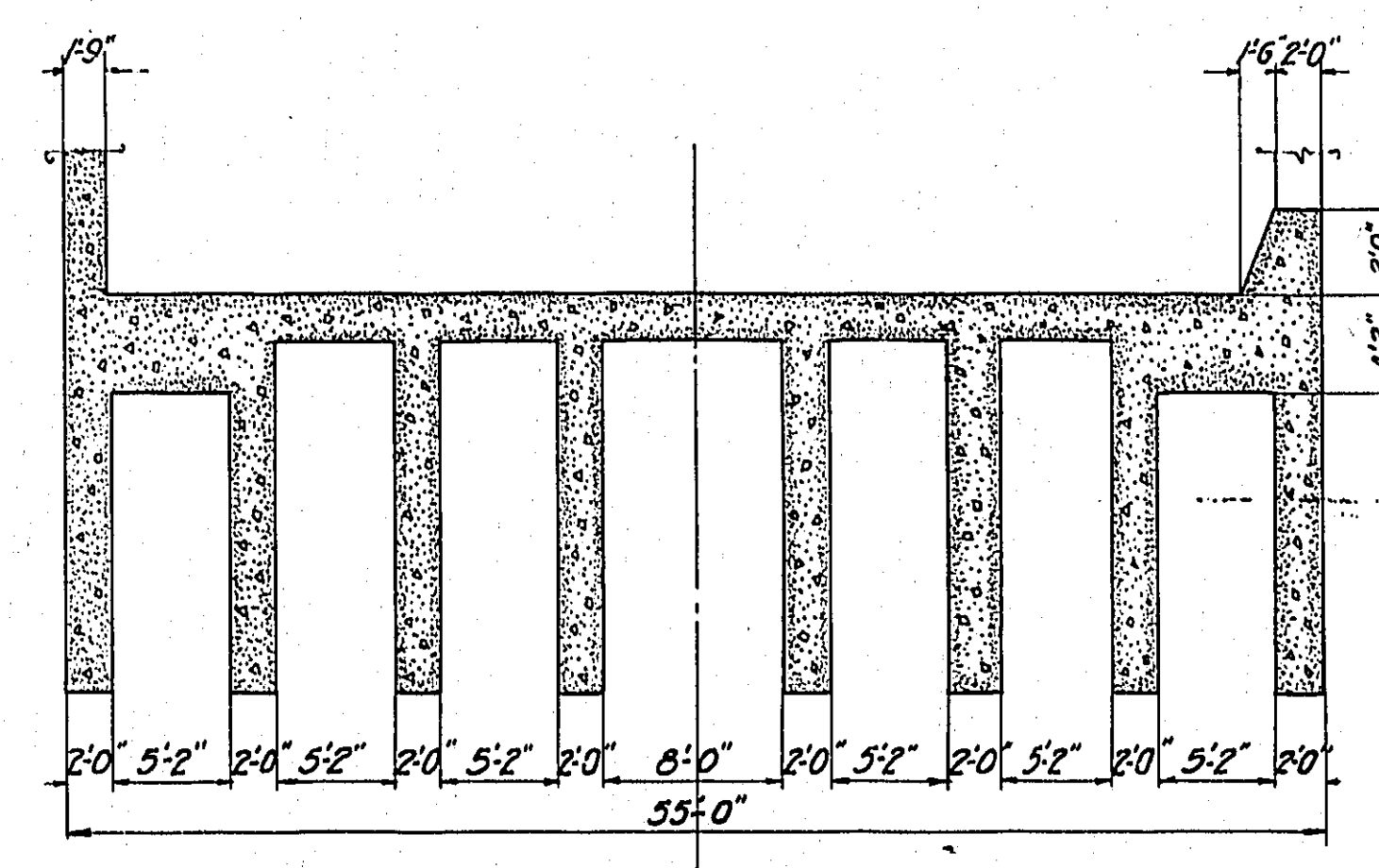
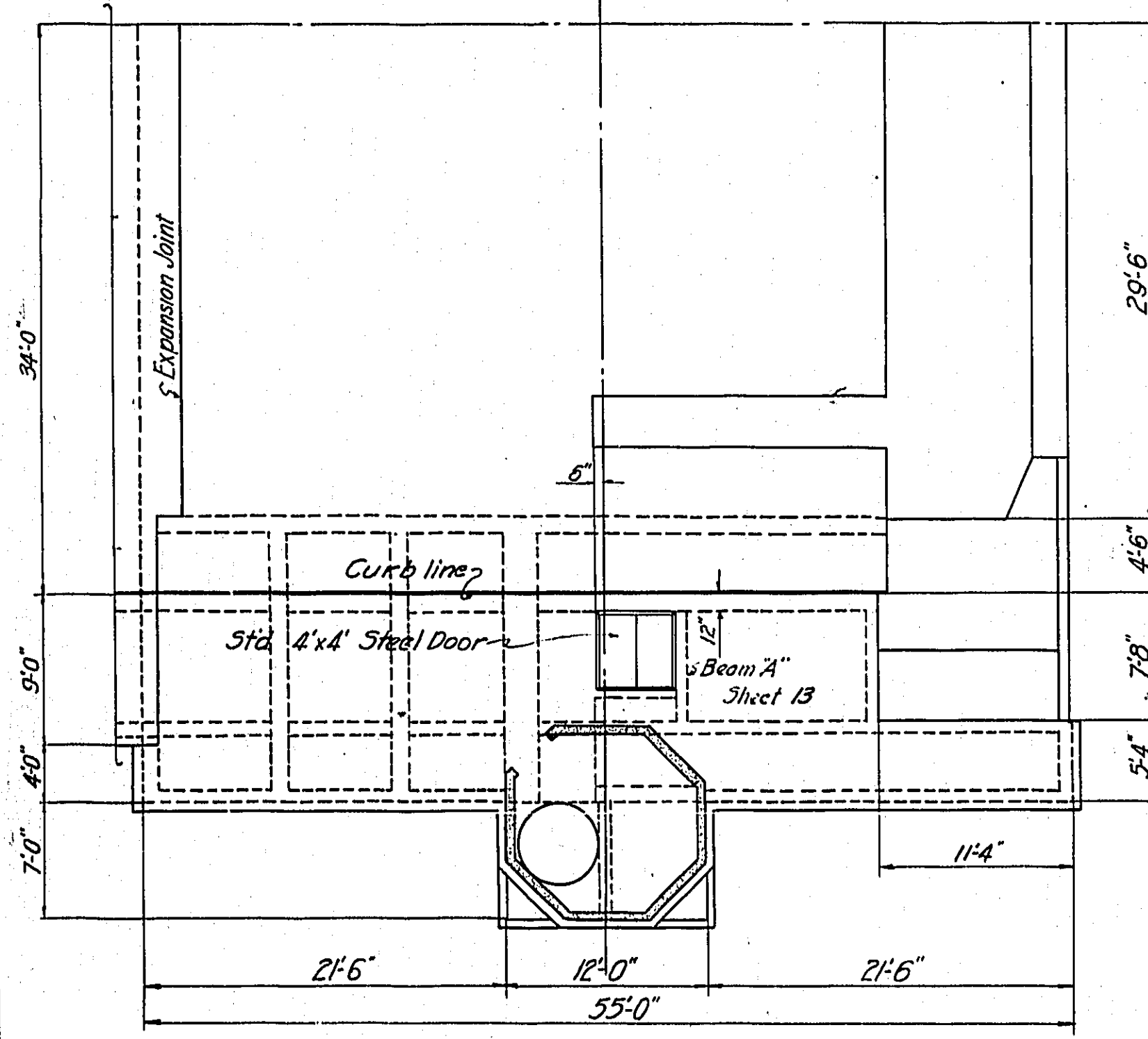
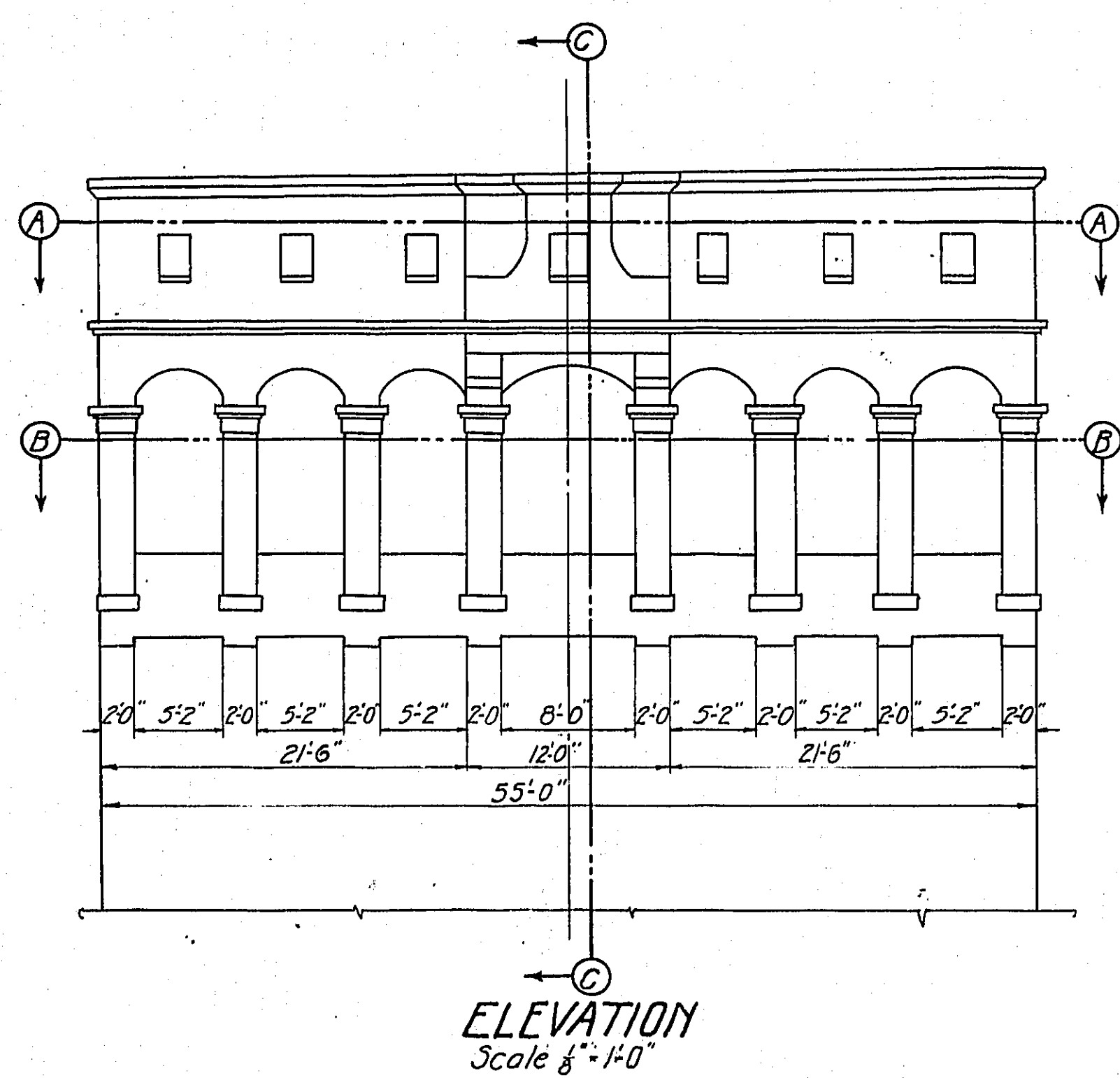
HODGHTALING AND DOUGAN - ARCHITECTS.
MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
PORTLAND, OREGON
DETAILS
OF
EAST & WEST ABUTMENT TOP & HAND RAIL
MADE BY
CHECKED BY
TRACED BY
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE
SHEET NO. 62

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Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
5032339822

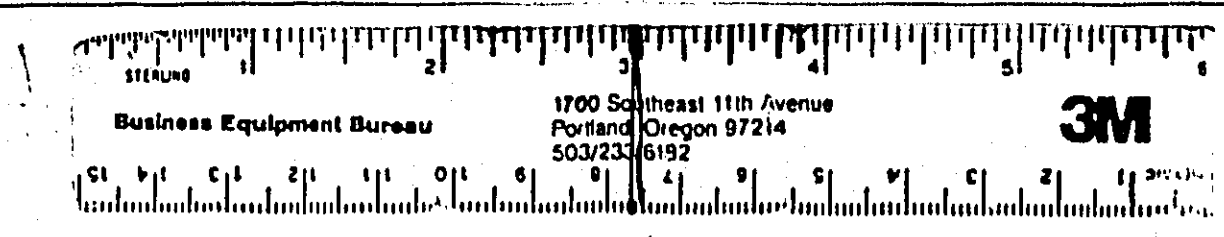
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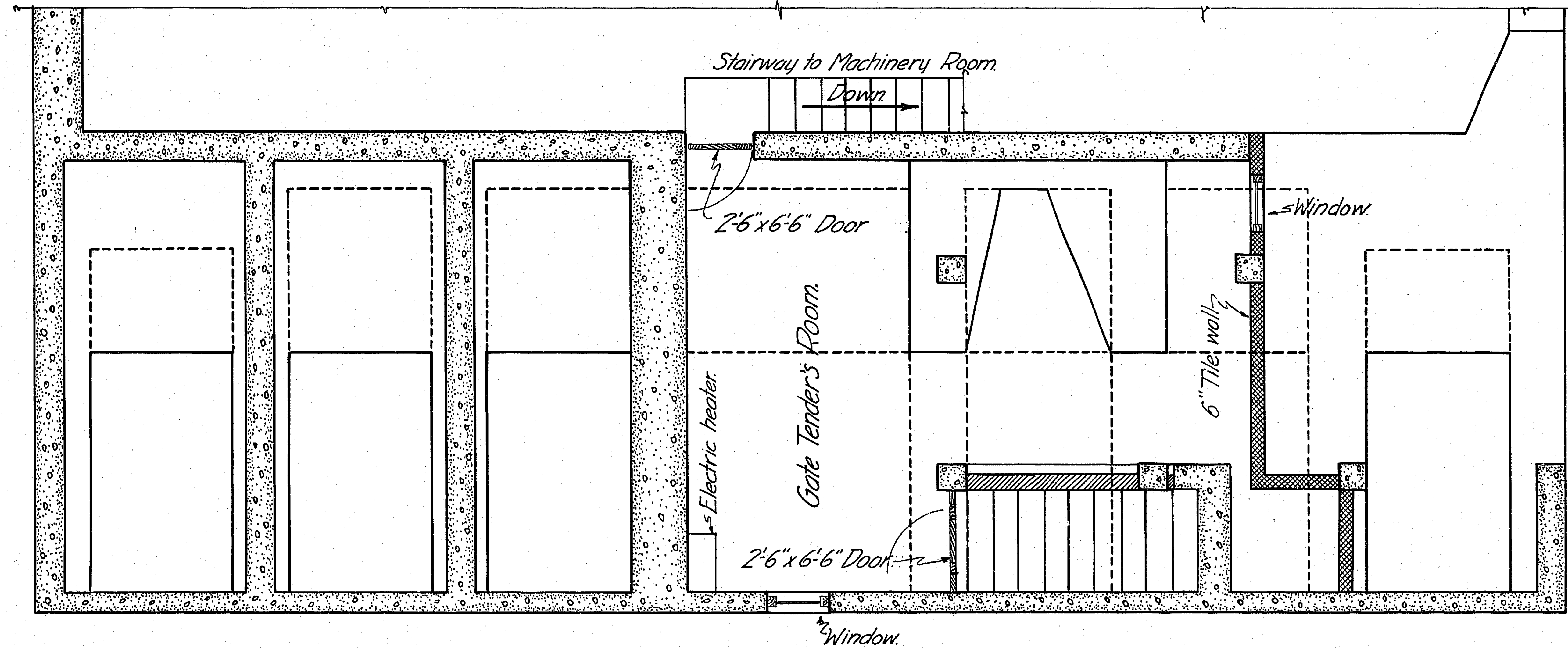


Use this sheet and sheet L-12-B with sheets L-12-B and L-7-E in case of casting the street and street L-7-B governs. For detail of stairway at north end of Piers see sheet L-12-A.

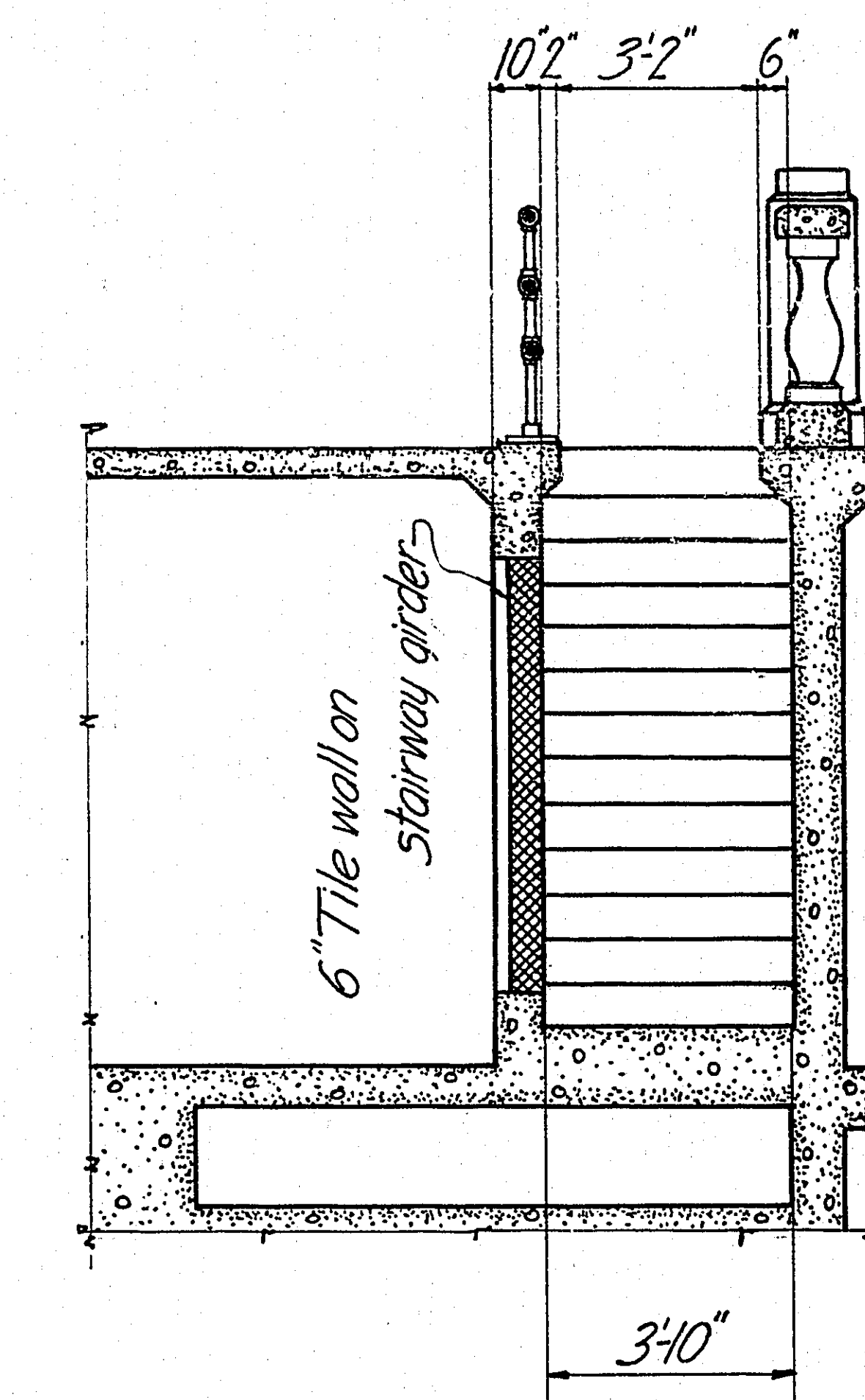
MULTNOMAH COUNTY - OREGON	
BURNSIDE BRIDGE	
PORTLAND, OREGON	
DETAILS OF	
BASCULE PIERS	
MADE BY <i>AMR</i>	GUSTAV LINDENTHAL
CHECKED BY <i>AMR</i>	CONSULTING ENGINEER
TRACED BY <i>AMR</i>	NEW YORK - PORTLAND, ORE.
CHECKED BY <i>AMR</i>	DATE: 12-3-25
DRAWING No. GL-109 B.	SHEET No. L-12
Scale: 1/8"=1'-0"	PORTLAND OFFICE
EXCEPT AS NOTED	

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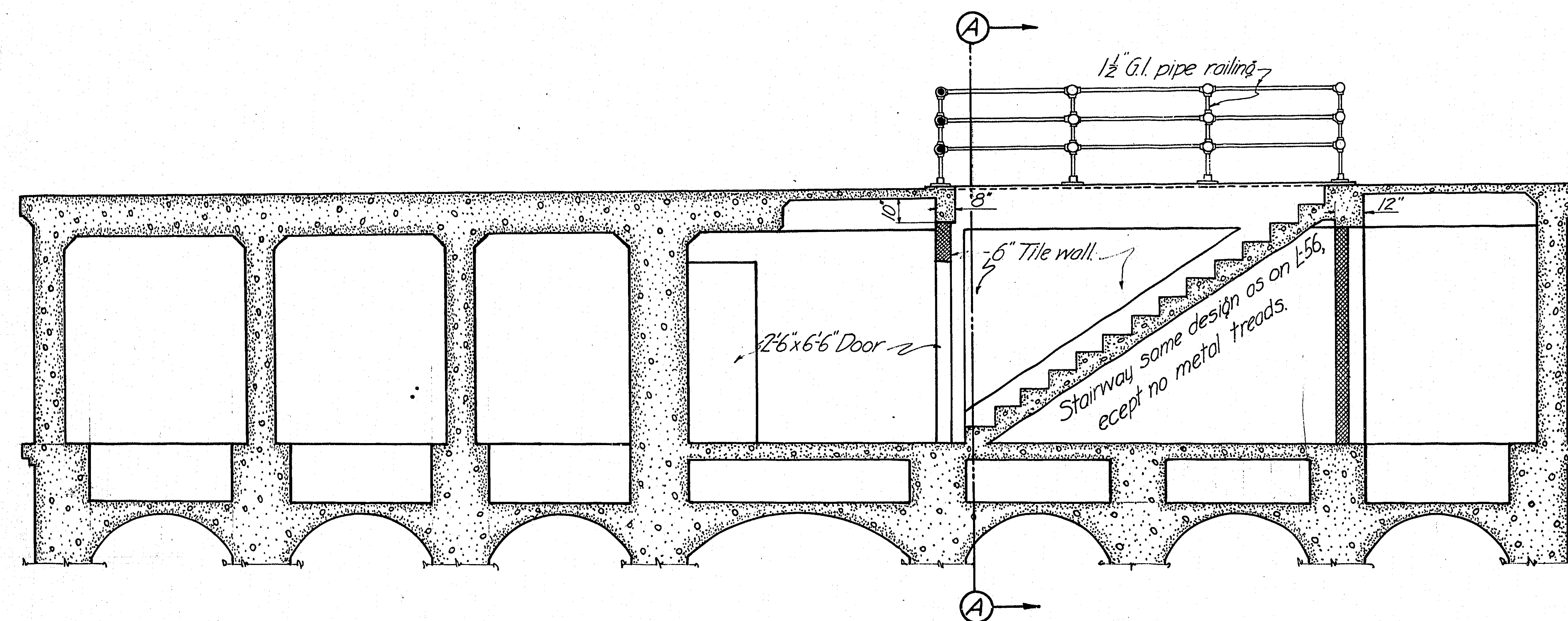




PLAN IN SECTION.



SECTION AT A-A.



SECTION THRU STAIRWAY.

BURNSIDE BRIDGE
 PLAN OF
 ROOM AND STAIRWAY
 NORTH END-PIERS 2 & 3

DATE - 12-30-25
 SCALE - 1/4" = 1'-0"

DRAWING No. 195-B

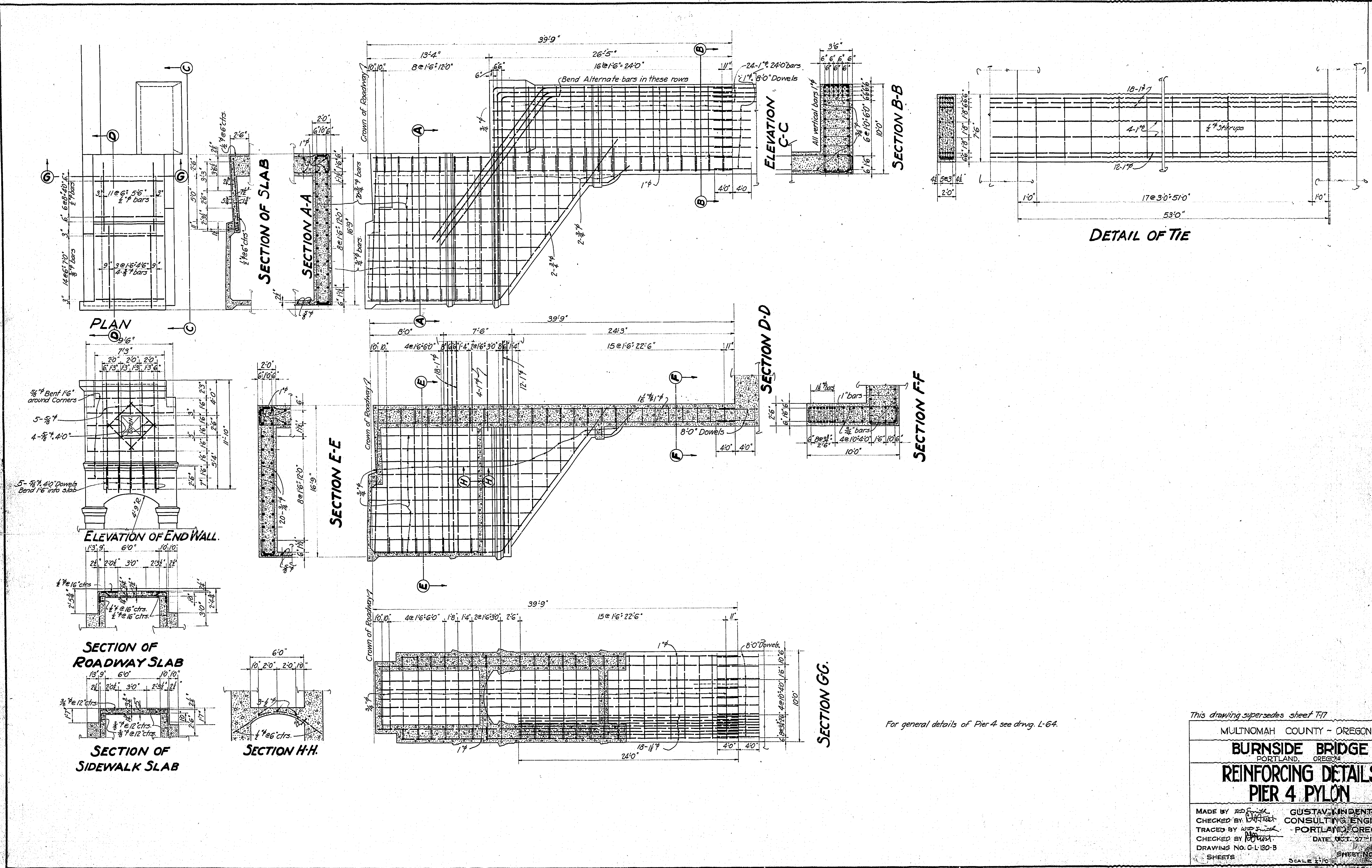
GUSTAV LINDENTHAL
 CONSULTING ENGINEER

SHEET No. L-12A.

ABJ
 GS

FL-25

REVISED

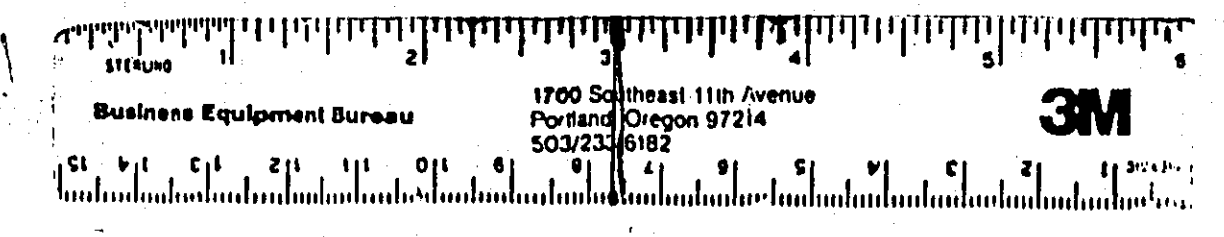


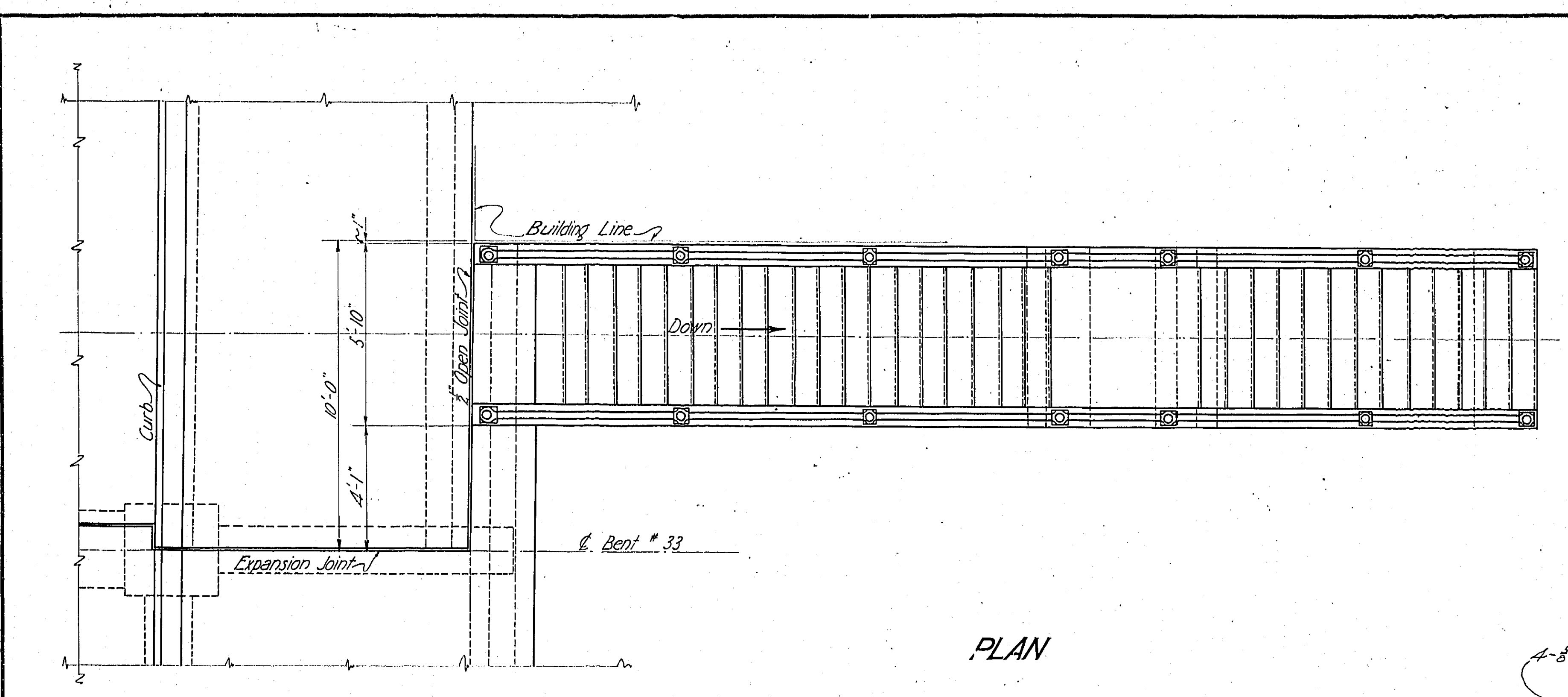
For general details of Pier 4 see drwg. L-64.

This drawing supersedes sheet T17

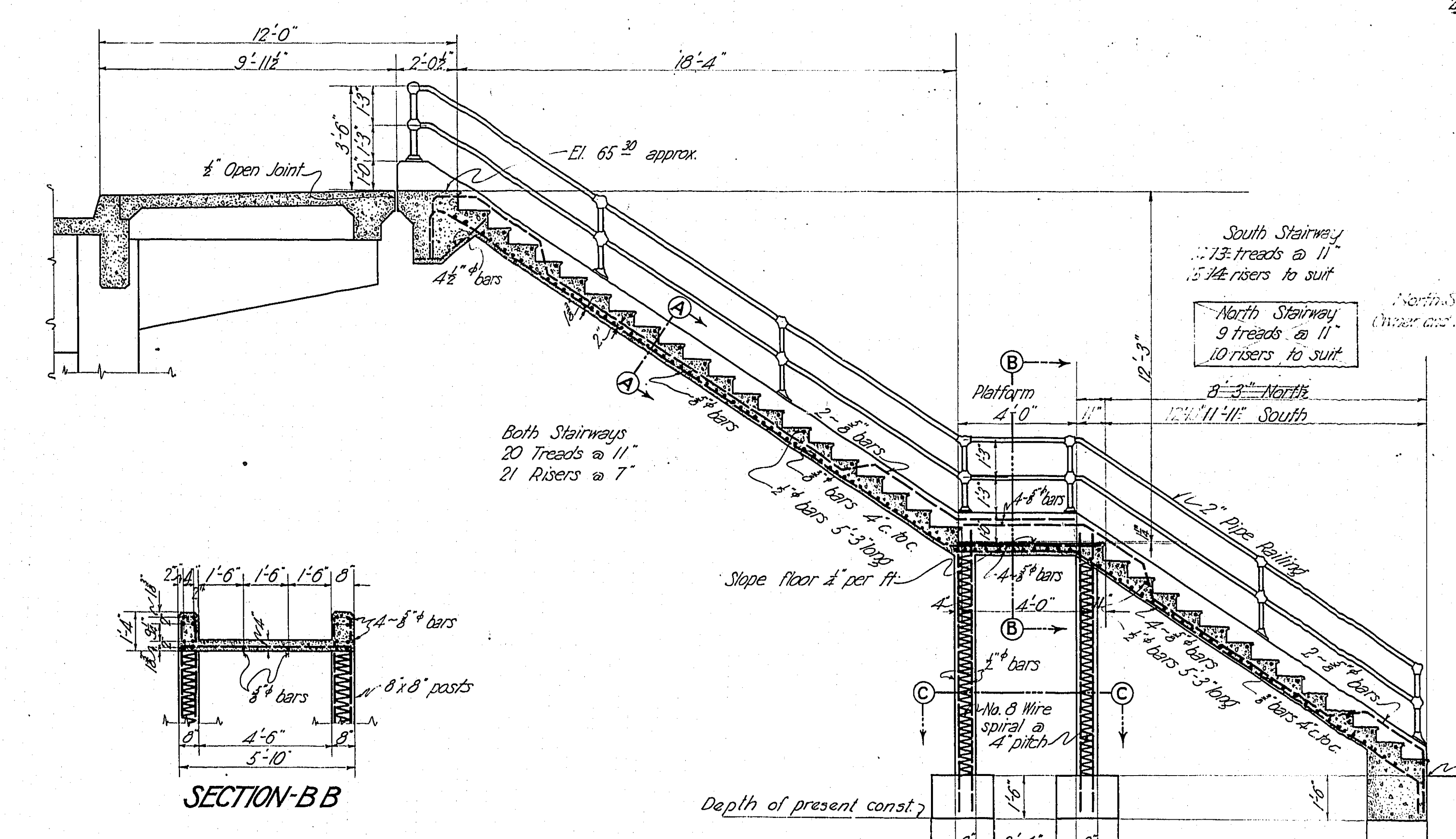
MULTNOMAH COUNTY - OREGON	
BURNSIDE BRIDGE PORTLAND, OREGON	
REINFORCING DETAILS PIER 4 PYLON	
MADE BY <i>W. J. ...</i>	GUSTAV WINDENTHALS
CHECKED BY <i>W. J. ...</i>	CONSULTING ENGINEER
TRACED BY <i>W. J. ...</i>	PORTLAND, OREGON
CHECKED BY <i>W. J. ...</i>	DATE, OCT. 27, 1924
DRAWING NO. C.L. 130-B	SHEET NO. 17
SHEETS	SCALE 1/4" = 1'-0"

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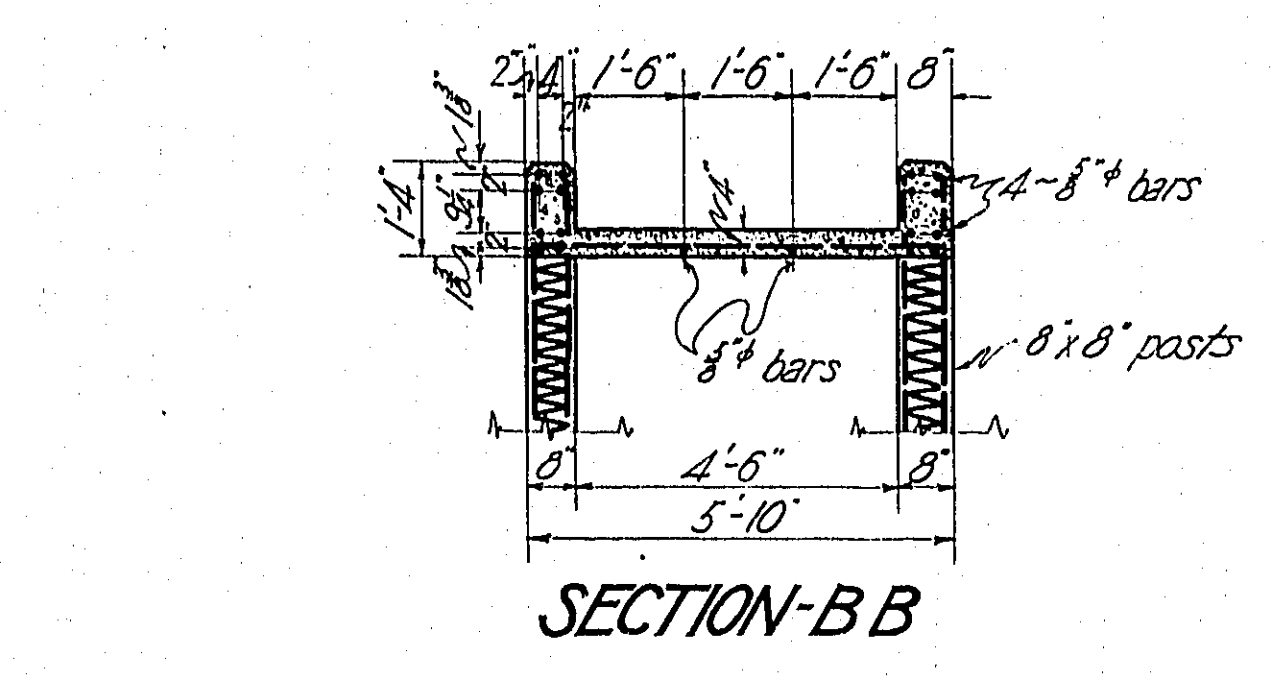




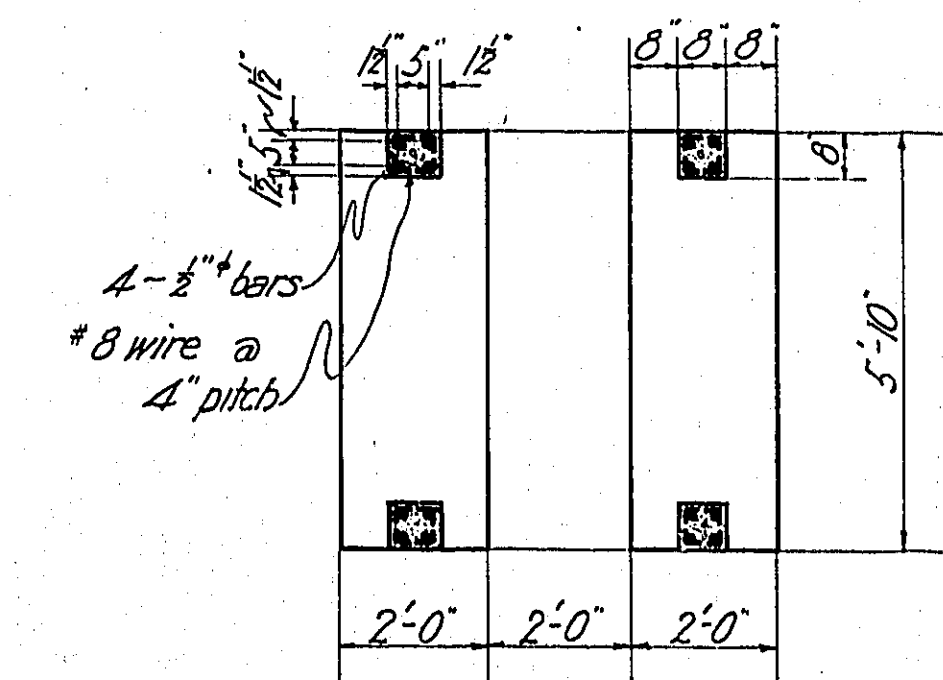
PLAN



SECTION ON CENTER LINE

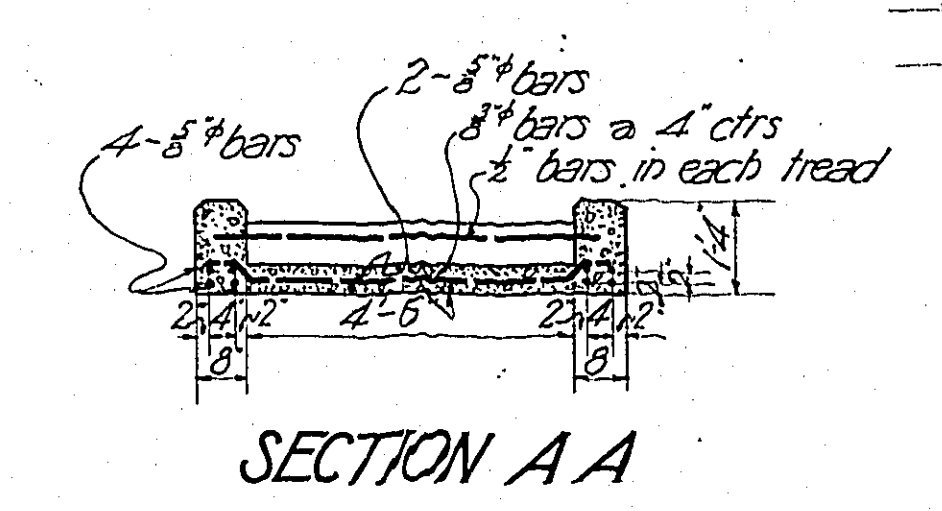


SECTION-B-B

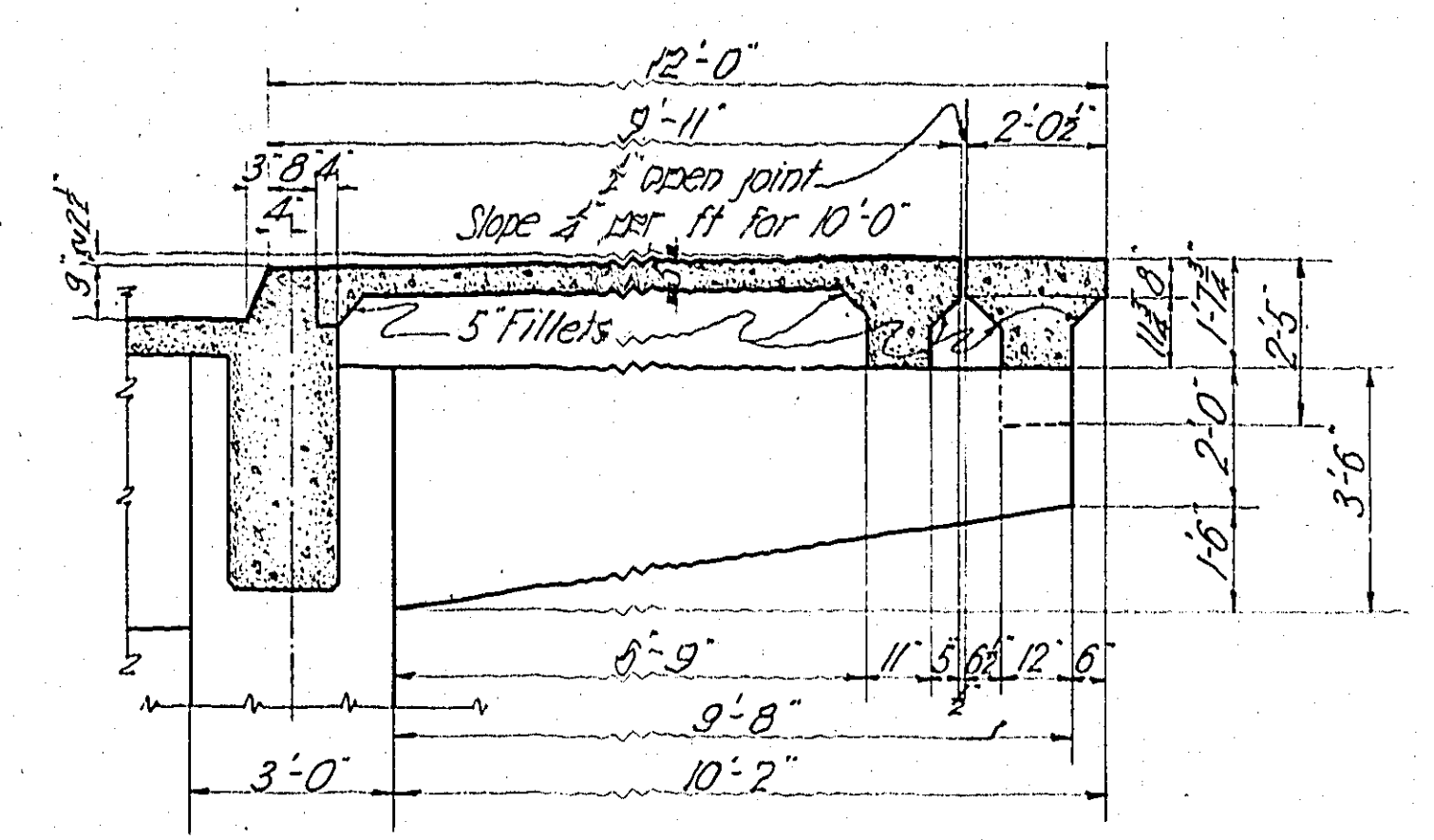


SECTION-C-C

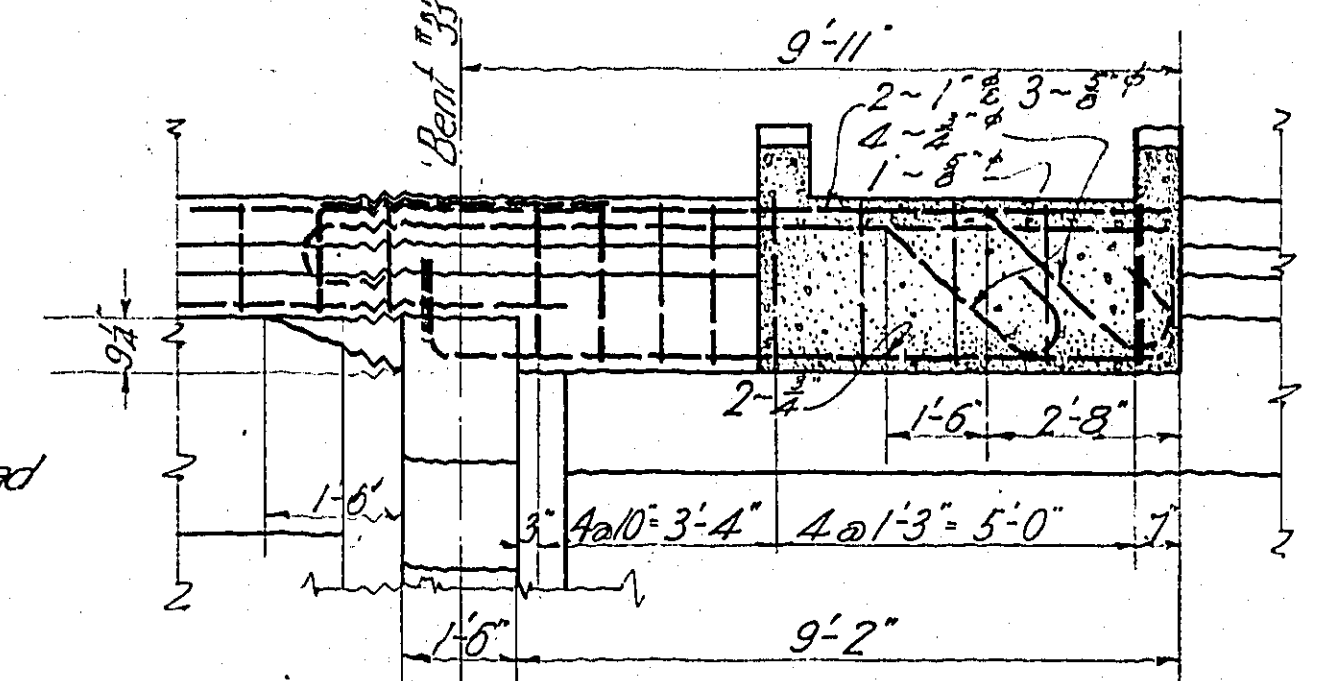
In the future piers under stairs are to be extended to the sub-grade line of basement floor of any building to be constructed in the future on adjacent lot. Piers to be mass concrete (1:3:5) or brick.
Sub-grade line of future basement



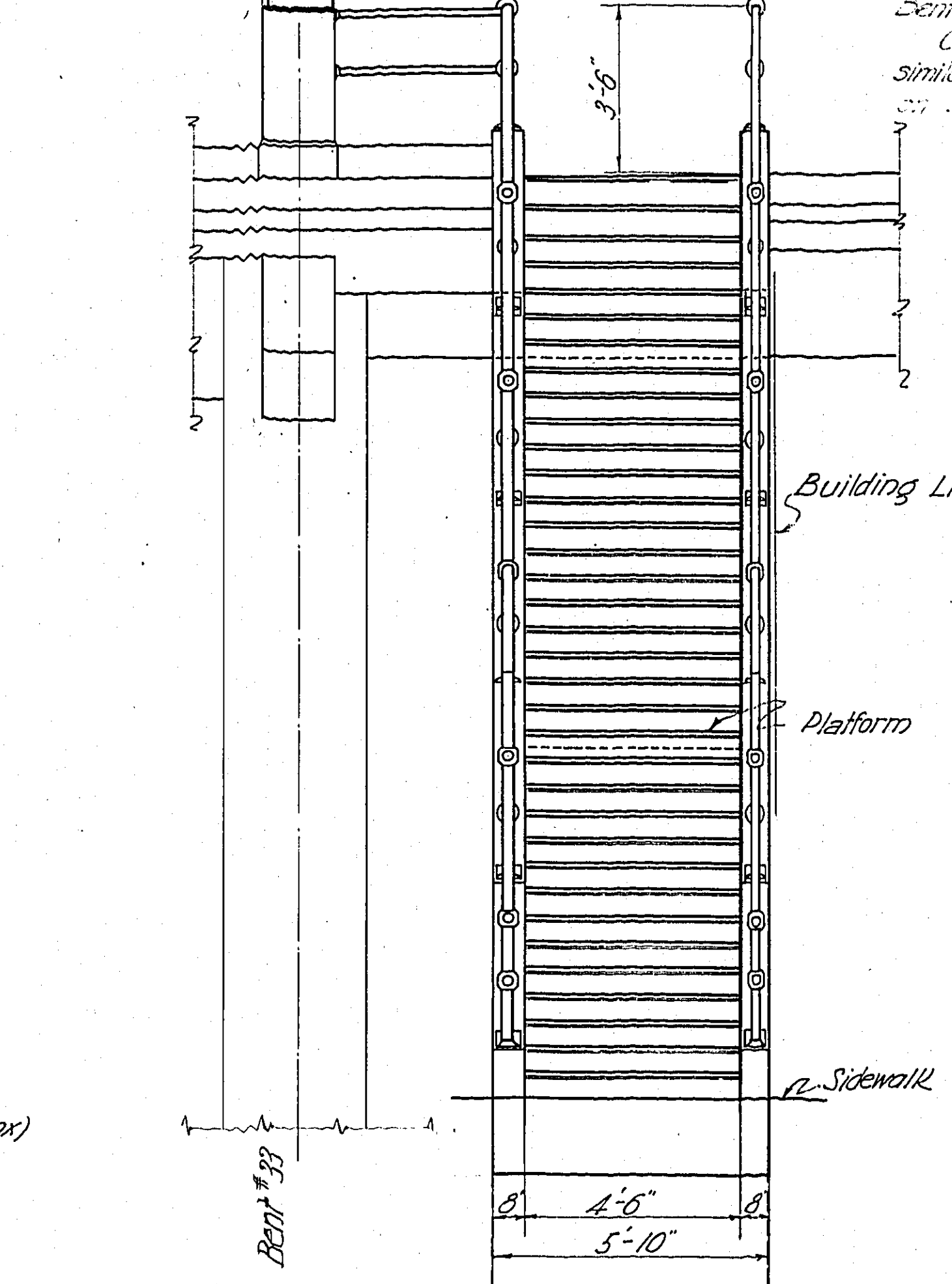
SECTION A-A



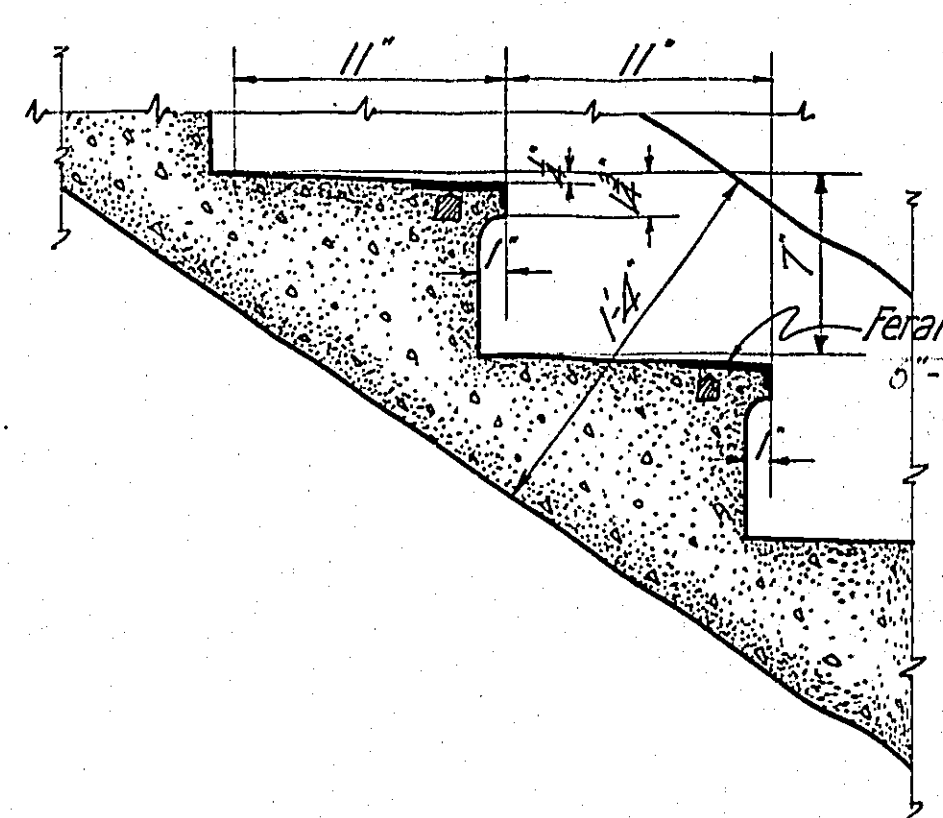
CANTILEVER AT BENT 33
See sheet 52 - revised



FASCIA CANTILEVER BENT 33
See sheet # 55



END VIEW



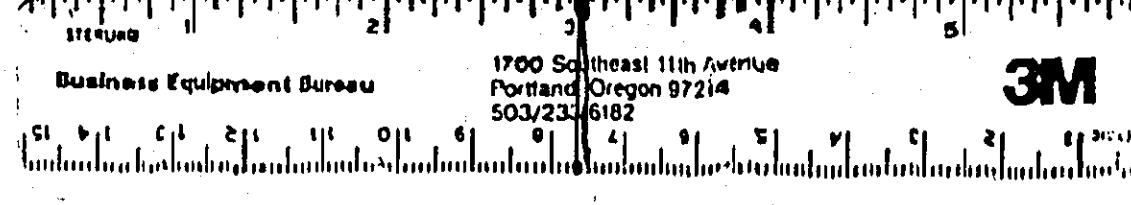
DETAIL OF TREAD
Scale: 1/2" = 1'-0"

MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
 PORTLAND OREGON
 DETAILS
 OF
STAIRWAY SPAN 32

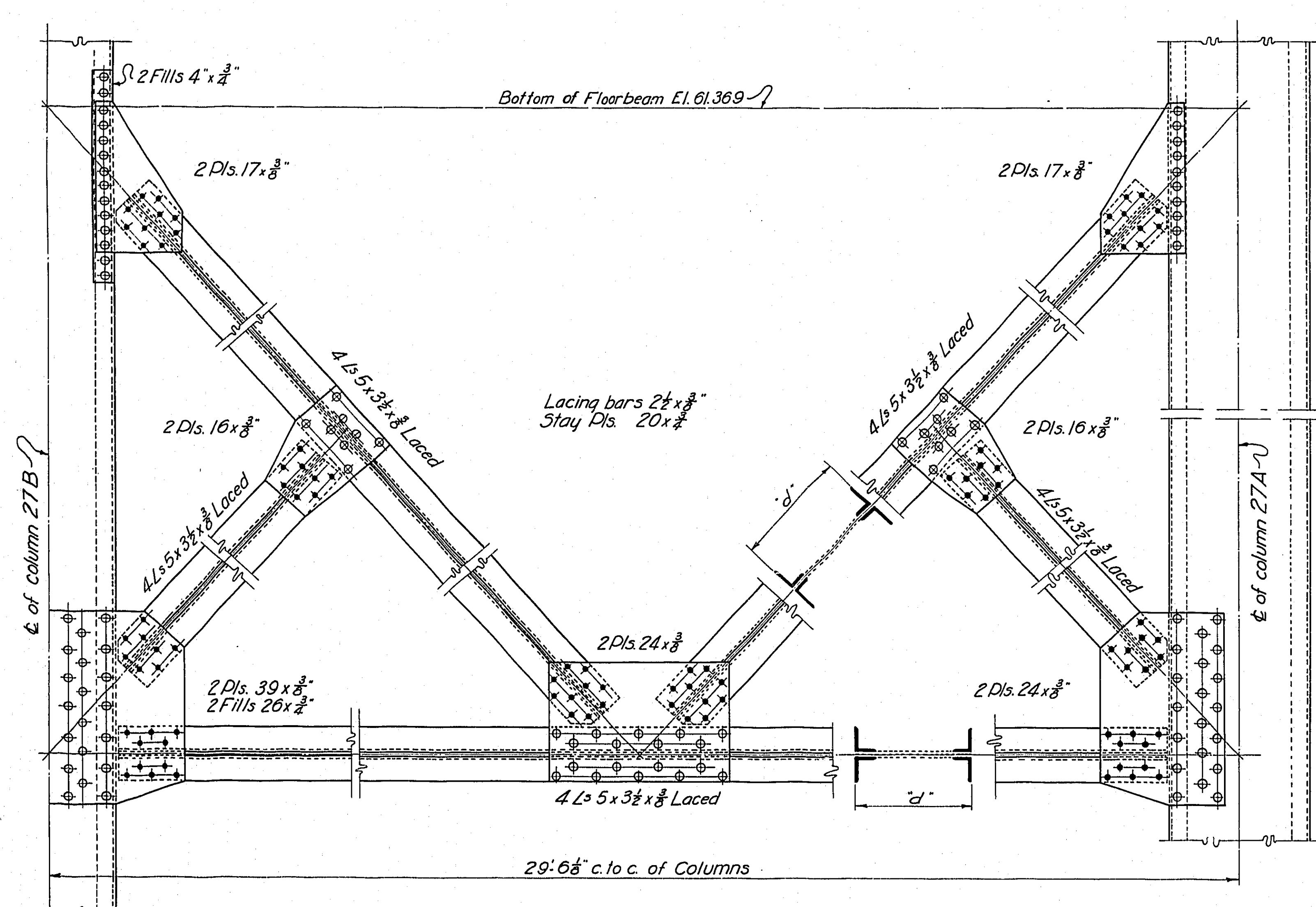
MADE BY *H. W. Dues* GUSTAV LINDENTHAL
 CONSULTING ENGINEER
 CHECKED BY *R. L. ...* NEW YORK - PORTLAND, ORE.
 TRACED BY *R. L. ...* DATE JAN. 17, 1925
 DRAWING NO. SHEET NO. **L56**
 SHEETS SCALE 3/4" = 1'-0" EXCEPT AS SHOWN

3/19/29 Pier Ext. Shown
Luce

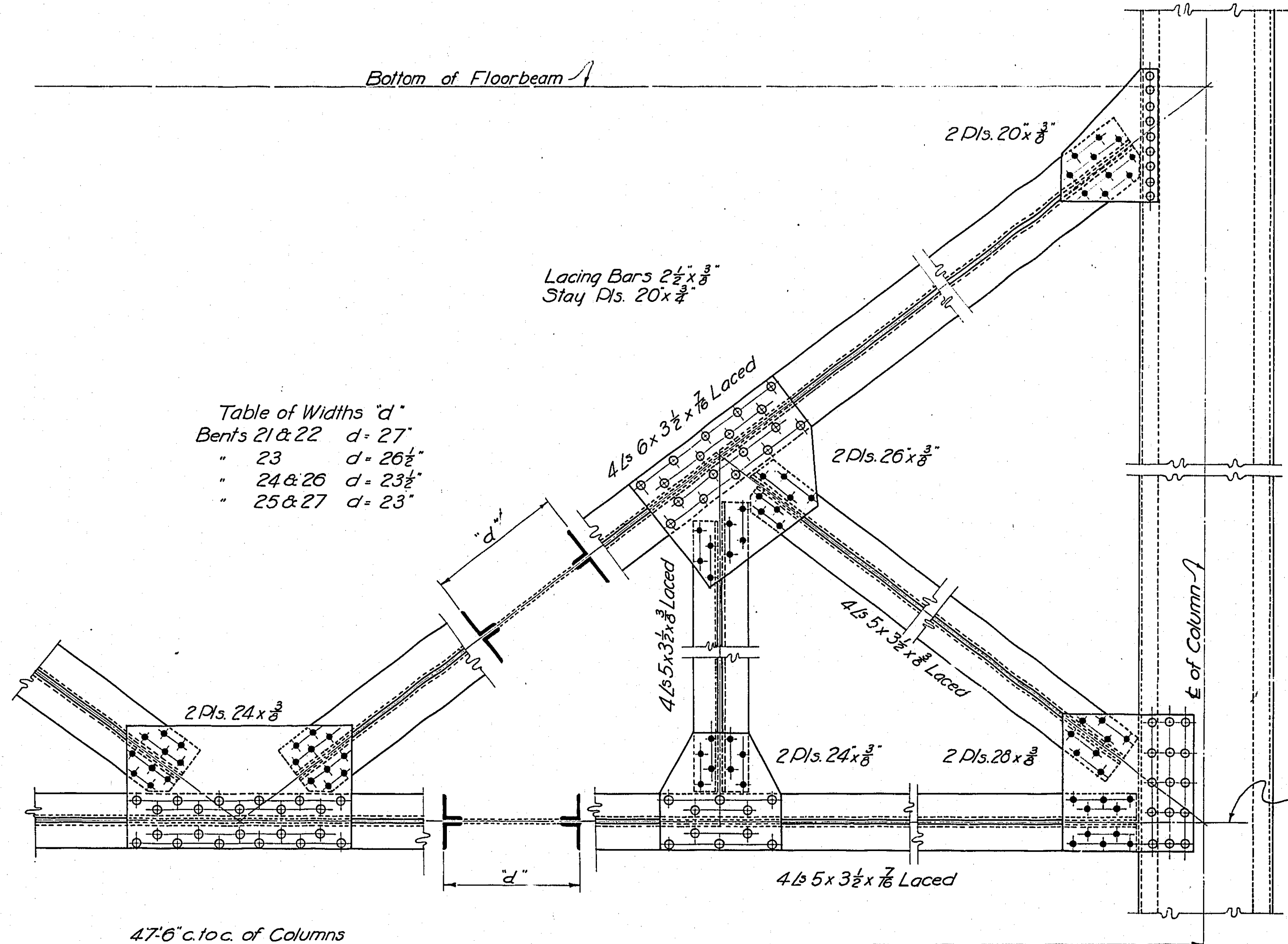
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REVISED



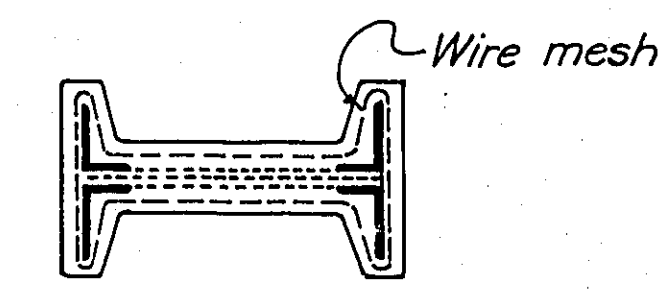
BENT 27



BENTS 21 to 26

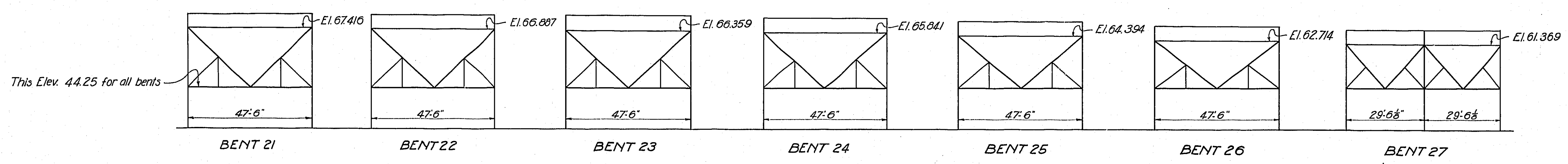
Table of Widths 'd'

Bents 21 & 22	d = 27"
" 23	d = 26 1/2"
" 24 & 26	d = 23 1/2"
" 25 & 27	d = 23"



Encase all members of sway bracing in concrete as above.

NOTE: These elevations are for bottom of floorbeam, 6'-7 1/2" below roadway grade.



See Shop Plans American Bridge Co Order 5352.

All Concrete Encasement 1:2:4 Mix

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS

OF

SWAY BRACING PLATE GIRDER SPANS

MADE BY K. H. Quicke GUSTAV LINDENTHAL

CHECKED BY CONSULTING ENGINEER

TRACED BY K. H. Quicke PORTLAND, OREGON

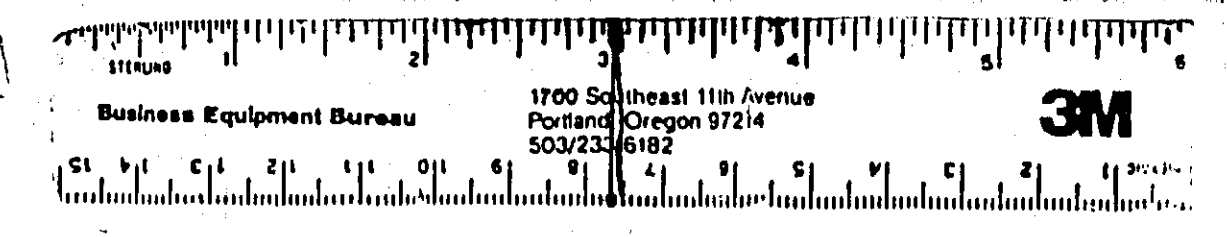
CHECKED BY DATE Aug. 10, 1924

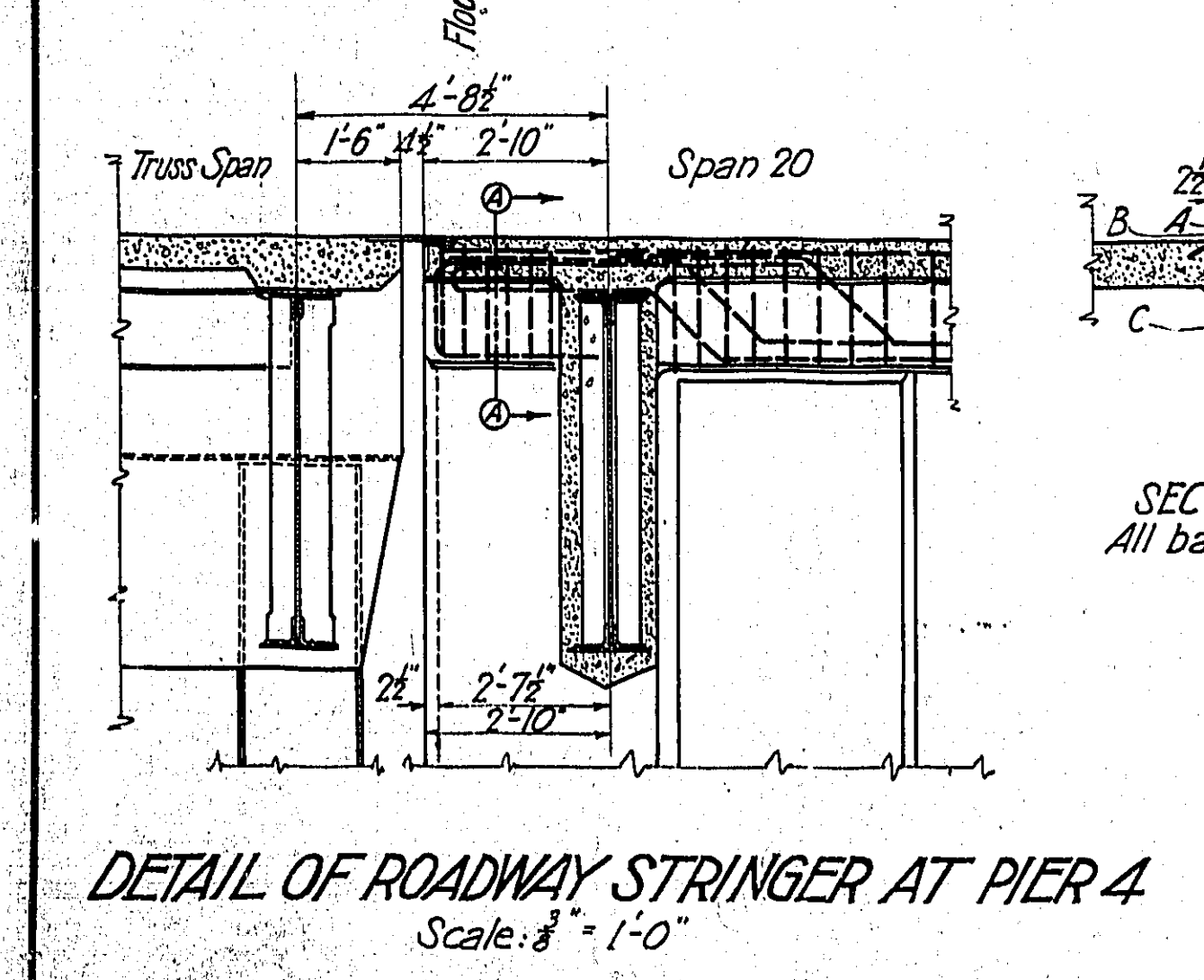
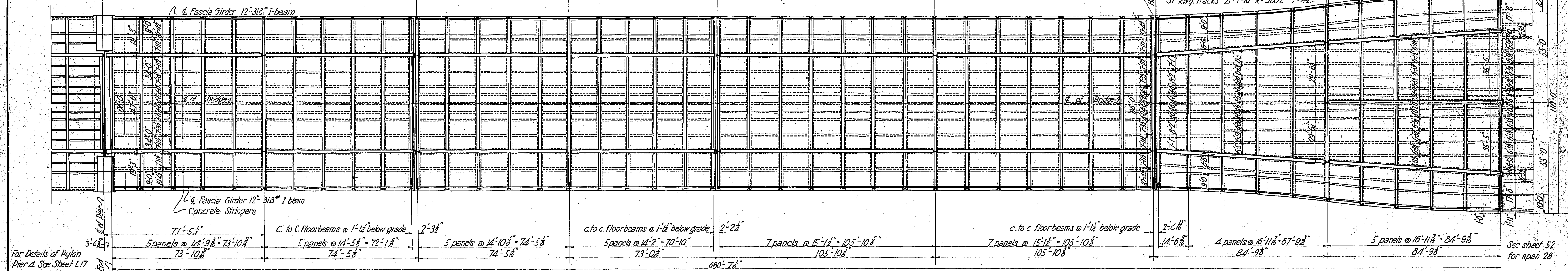
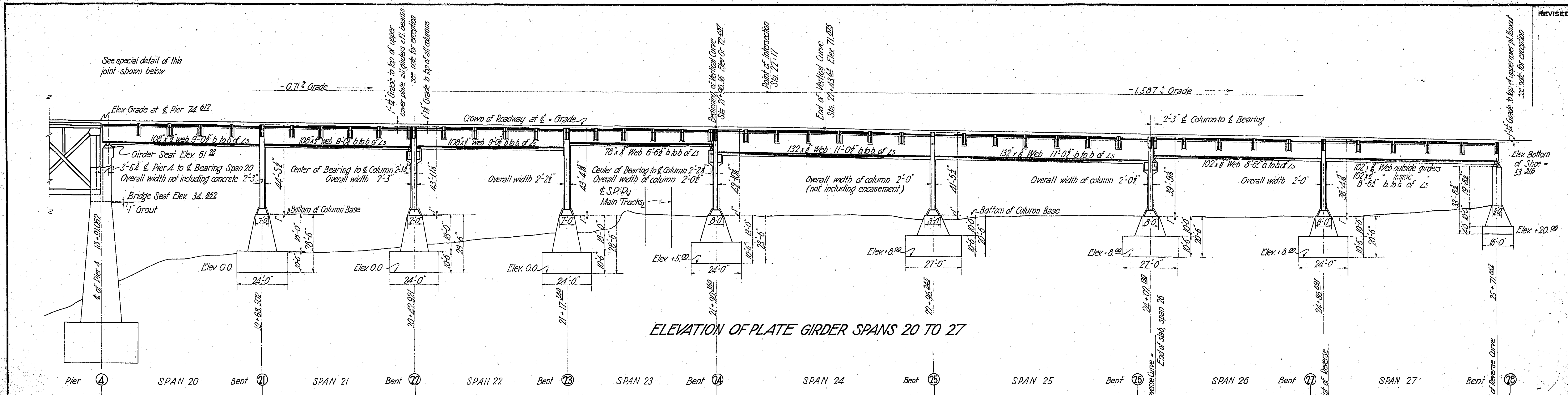
DRAWING NO. 61 SHEETS

Scale 3/4" = 1'-0"

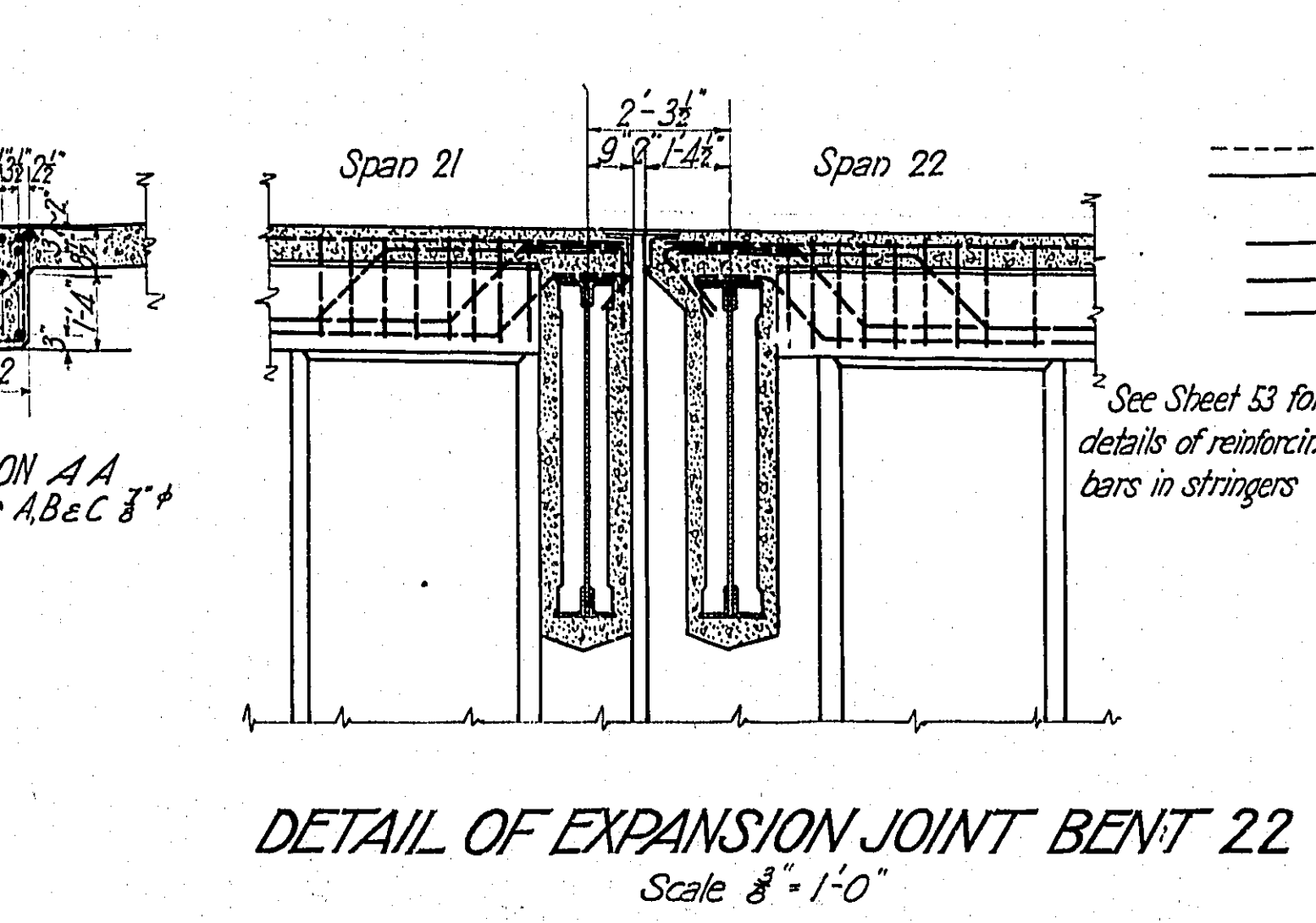
SHEET No. 58

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

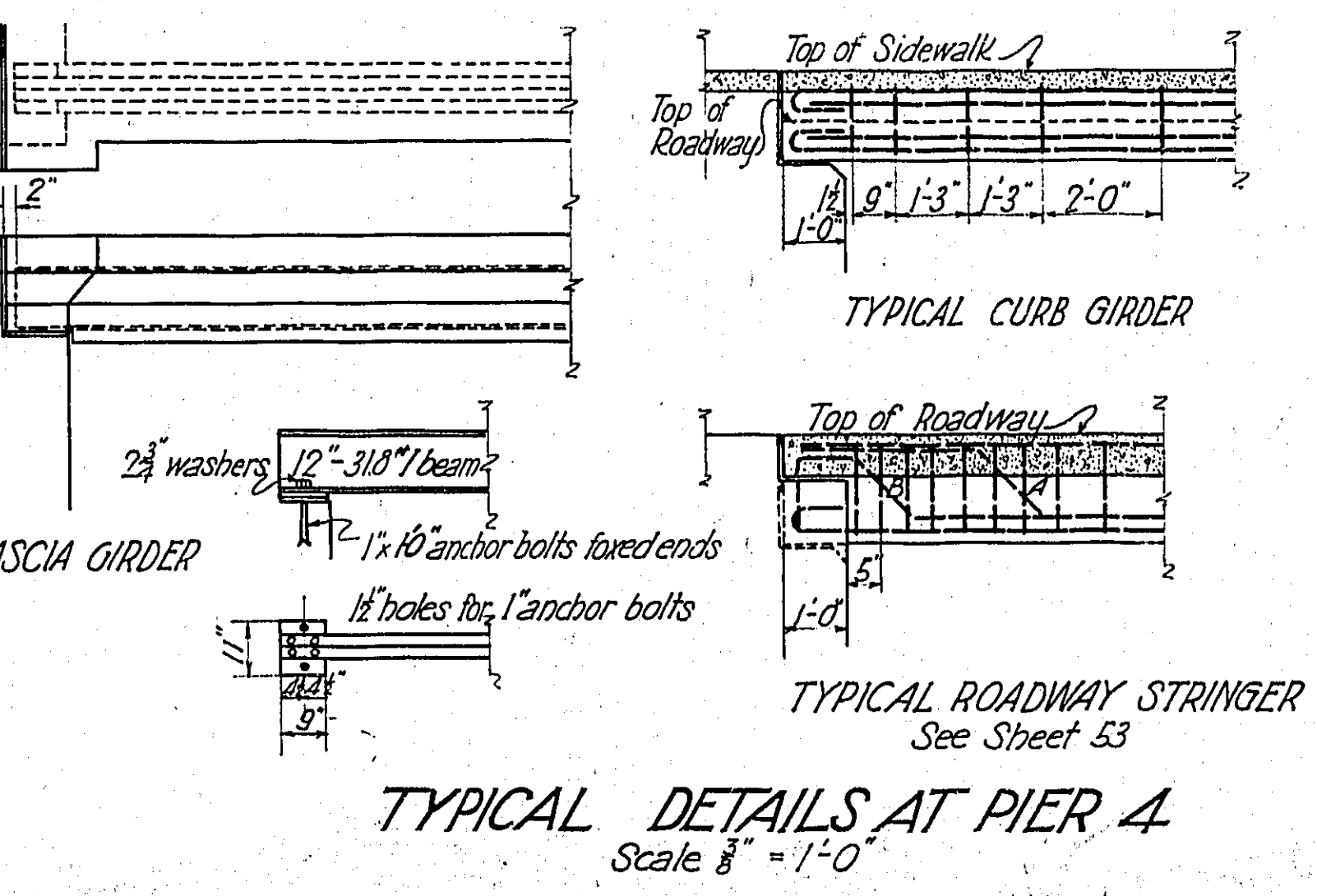




DETAIL OF ROADWAY STRINGER AT PIER 4
Scale: 3/8" = 1'-0"



DETAIL OF EXPANSION JOINT BENT 22
Scale: 3/8" = 1'-0"



GENERAL NOTES
 See sheet L 64 for details of Pylon Pier 4 and for bearing of stringers there.
 See 5" x 34 for details of span 28. The longitudinal bars in stringers will be run into stringers of steel girder span, when these are adjacent, otherwise they will hook over the steel floorbeam M.
 See sheet 45 for concrete encasement of girders and floorbeams
 - 45 - reinforcing in deck slab for spans 20 to 27 inclusive
 - 53 - stringer reinforcing for spans 20 to 27 inclusive
 - L 50 - bents 21 to 27 inclusive and encasement of bracing
 - 53 - detail of expansion joint in deck of girder spans and at Pier 4
 - 18 - piling in column footings bents 21 to 27 inclusive

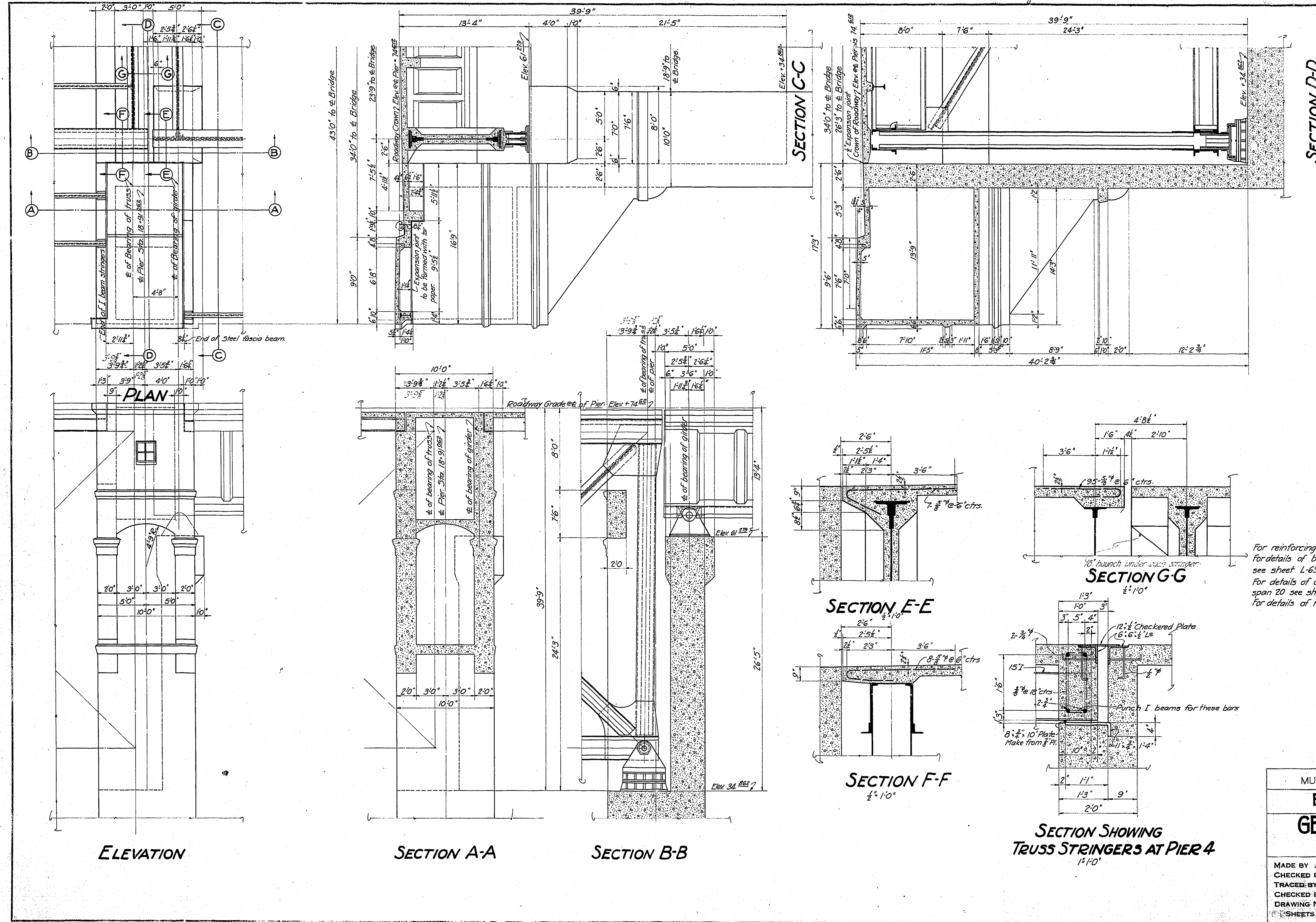
CONSTRUCTION NOTES
 The depth below grade of top cover plate of all girders and floorbeams will be 1'-1/2" except for two floor beams of span 22 under vertical curve
 All concrete in deck and stringers 1'-2" encasement 1'-2" Place 1" grout before setting column bearings or shoes

MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON

PLAN & ELEVATION SPANS 20 TO 27

MADE BY *R.M. Decker* GUSTAV LINDENTHAL
 CONSULTING ENGINEER
 CHECKED BY *R. Conroy* PORTLAND, OREGON
 DATE Oct. 16, 1924
 DRAWING NO. G.L. 132-B
 64 SHEETS SCALE 1" = 100'-0" SHEET NO. **L 63**

REVISED



ELEVATION

SECTION A-A

SECTION B-B

SECTION E-E

SECTION F-F

SECTION SHOWING TRUSS STRINGERS AT PIER 4

SECTION D-D

SECTION G-G

SECTION C-C

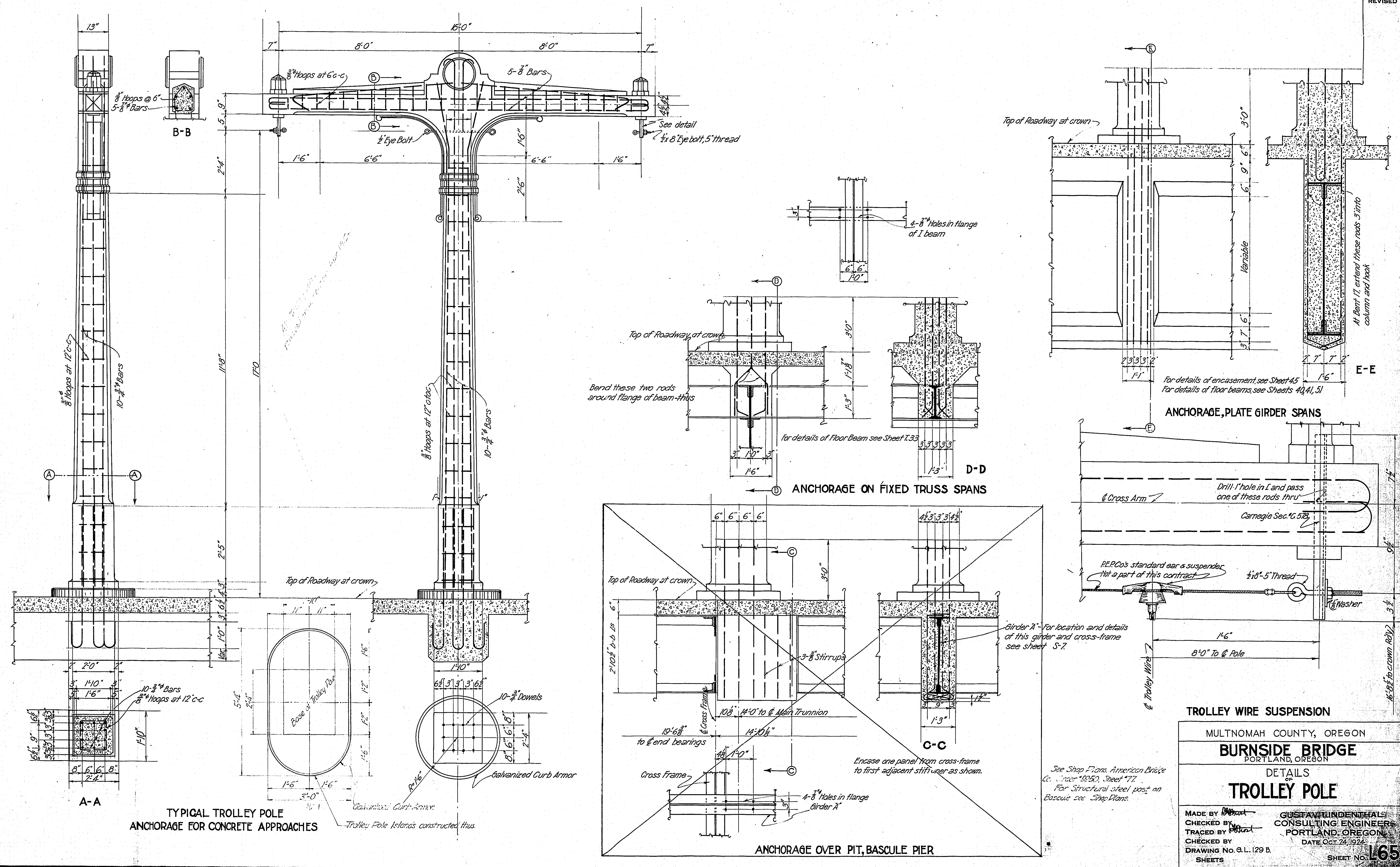
For reinforcing of Pier 4 see sheet L-17
 For details of bearing plate of steel fascia beam on Pier 4 see sheet L-63.
 For details of cantilever ends of concrete stringers span 20 see sheet L-63.
 For details of roadway expansion plate see sheet 53.

MULTNOMAH COUNTY - OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
GENERAL DETAILS
PIER 4 PYLON
 MADE BY *[Signature]*
 CHECKED BY *[Signature]*
 TRACED BY *[Signature]*
 CHECKED BY *[Signature]*
 DRAWING NO. O.L. 131 B
 SHEETS
 GUSTAV LINDENTHAL
 CONSULTING ENGINEER
 PORTLAND, OREGON
 DATE OCT. 27 1924
 SHEET NO. L64
 SCALE 1/4" = 1'-0" EXCEPT AS NOTED

NOTICE: IF THIS DOCUMENT IS LESS
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 DUE TO THE QUALITY OF THE ORIGINAL.



REVISED



TYPICAL TROLLEY POLE ANCHORAGE FOR CONCRETE APPROACHES

ANCHORAGE OVER PIT, BASCULE PIER

TROLLEY WIRE SUSPENSION

MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
 PORTLAND, OREGON
 DETAILS
TROLLEY POLE

MADE BY: *[Signature]*
 CHECKED BY: *[Signature]*
 TRACED BY: *[Signature]*
 CHECKED BY: *[Signature]*
 DRAWING NO. G.L. 129 B
 SHEETS

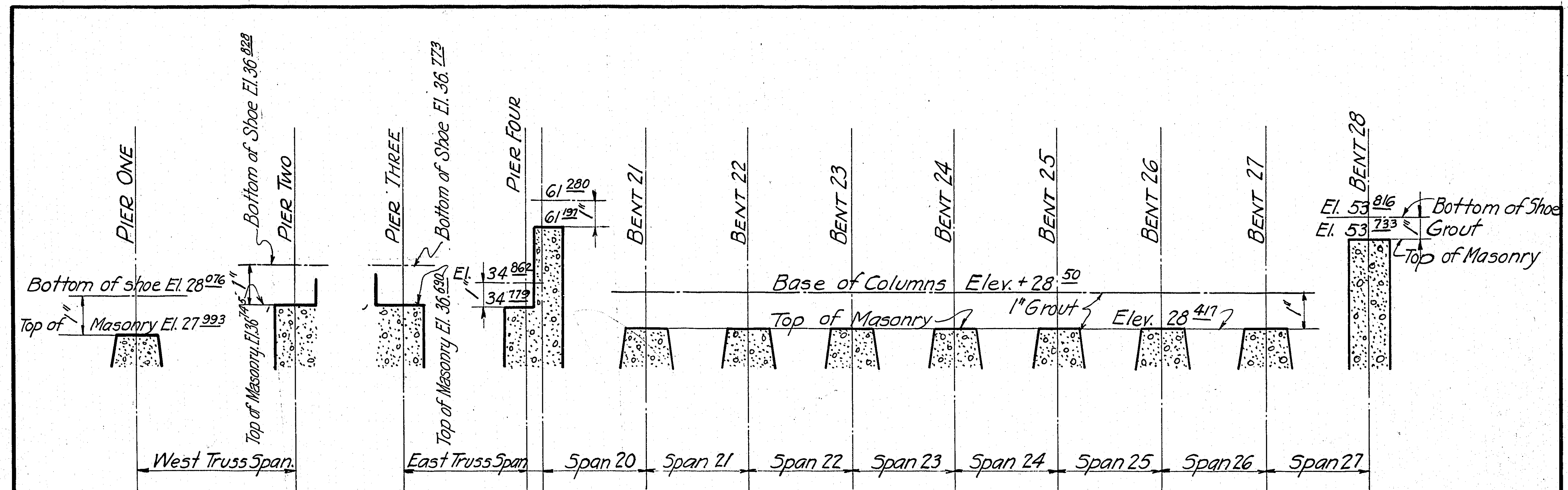
GUSTAV LINDENHEAL
 CONSULTING ENGINEER
 PORTLAND, OREGON
 DATE OCT 24, 1924

SHEET NO. **L65**

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

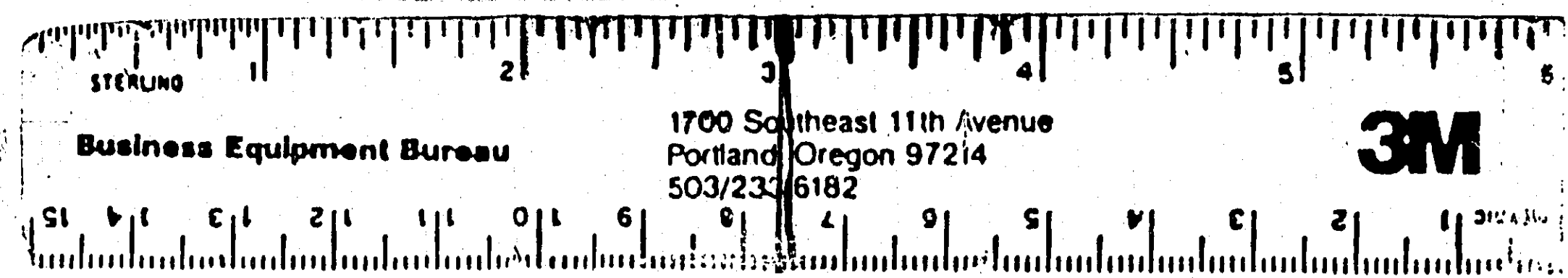
Business Equipment Bureau
 1100 Belmont 11th Avenue
 Portland, Oregon 97214
 503-241-3122

3M

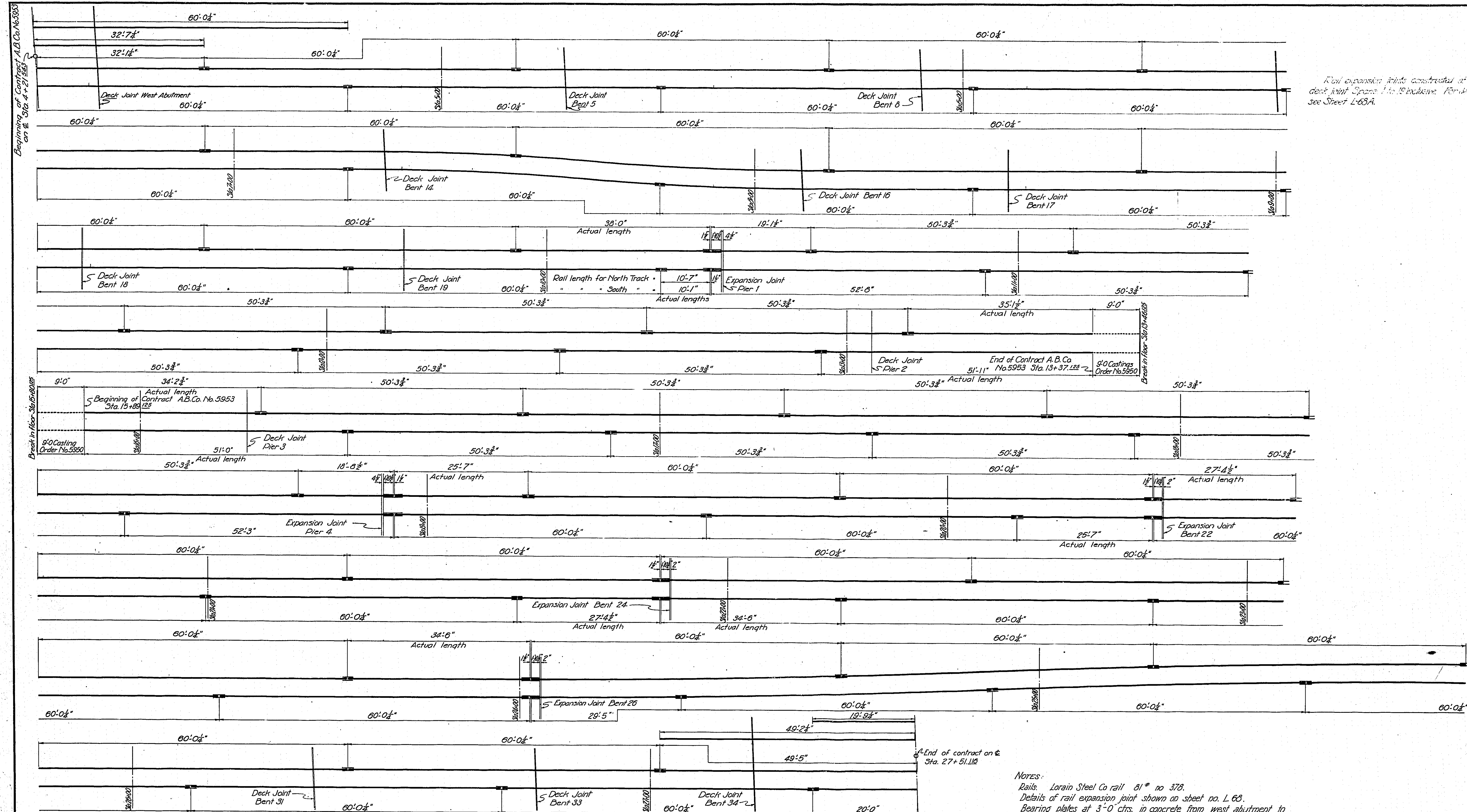


MULTNOMAH COUNTY - OREGON
BURNSIDE BRIDGE
MASONRY ELEVATIONS
 MADE BY *W.D. Smith* GUSTAV LINDENTHAL
 CHECKED BY CONSULTING ENGINEER
 TRACED BY *W.D. Smith* NEW YORK-PORTLAND-ORE
 CHECKED BY *K.H. Decker* Oct. 31 - 1924
 DRAWING No. G.L. 133-B. SHEET No. **L66** *AB1*
79

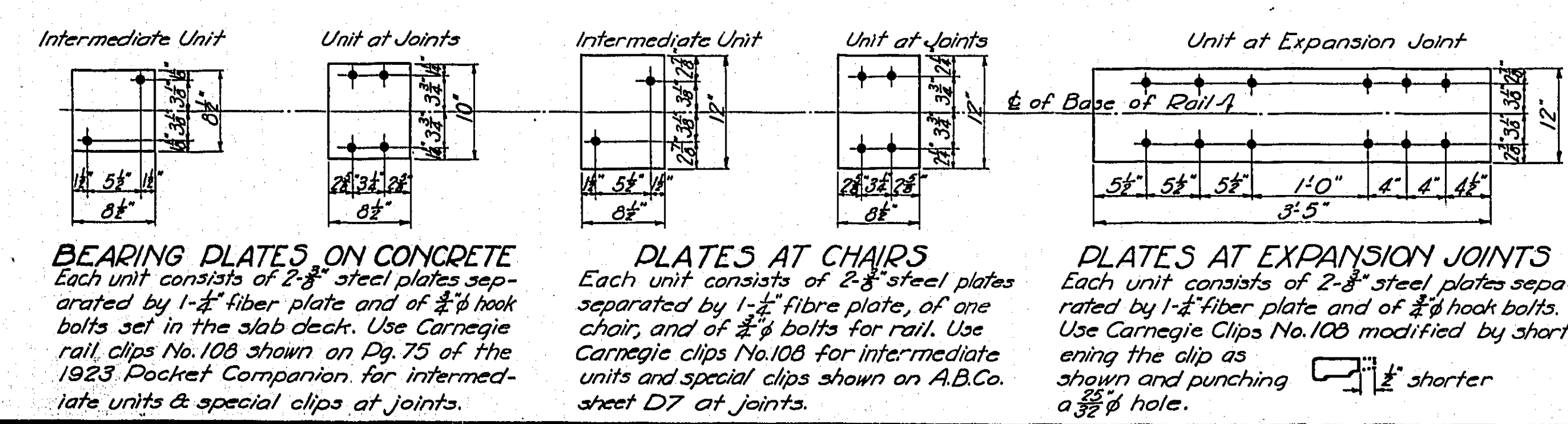
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FL25



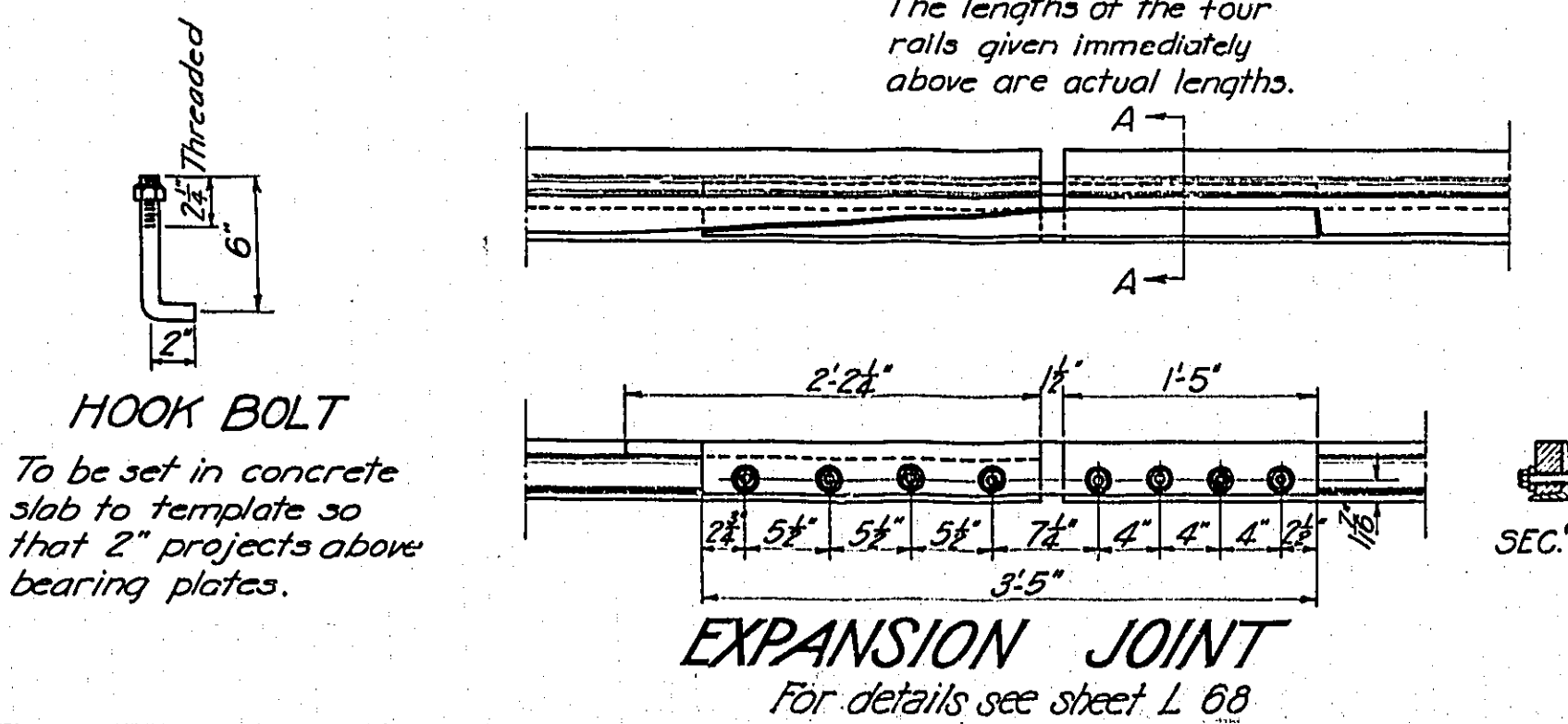
Rail expansion joints constructed at exact deck joint spans. See Expansion Details on Sheet L-63A.



BEARING PLATES ON CONCRETE
Each unit consists of 2-3" steel plates separated by 1-2" fiber plate and 2-3" hook bolts set in the slab deck. Use Carnegie rail clips No. 108 shown on Pg. 75 of the 1923 Pocket Companion for intermediate units & special clips at joints.

PLATES AT CHAIRS
Each unit consists of 2-3" steel plates separated by 1-2" fiber plate, of one chair, and of 2-3" bolts for rail. Use Carnegie clips No. 108 for intermediate units and special clips shown on A.B.Co. sheet D7 at joints.

PLATES AT EXPANSION JOINTS
Each unit consists of 2-3" steel plates separated by 1-2" fiber plate and of 2-3" hook bolts. Use Carnegie Clips No. 108 modified by shortening the clip as shown and punching a 3/8" hole.



HOOKE BOLT
To be set in concrete slab to template so that 2" projects above bearing plates.

EXPANSION JOINT
For details see Sheet L-63

Notes:
Rails - Lorain Steel Co rail 41" no 37B.
Details of rail expansion joint shown on sheet no. L-63.
Bearing plates at 3'-0" chrs. in concrete from west abutment to expansion joint pier 1, and from expansion joint pier 4 to east abutment.
Steel chairs used on both truss spans.
Spacing of chairs on truss spans as shown on sheet T-33.
Except where noted dimension given is rail length plus 1/2 inch.
South track detailed. North track same except for curves and end rails shown.
Rails on bascule detailed on American Bridge Company sheet E1 for order No. 5950.

REVISED

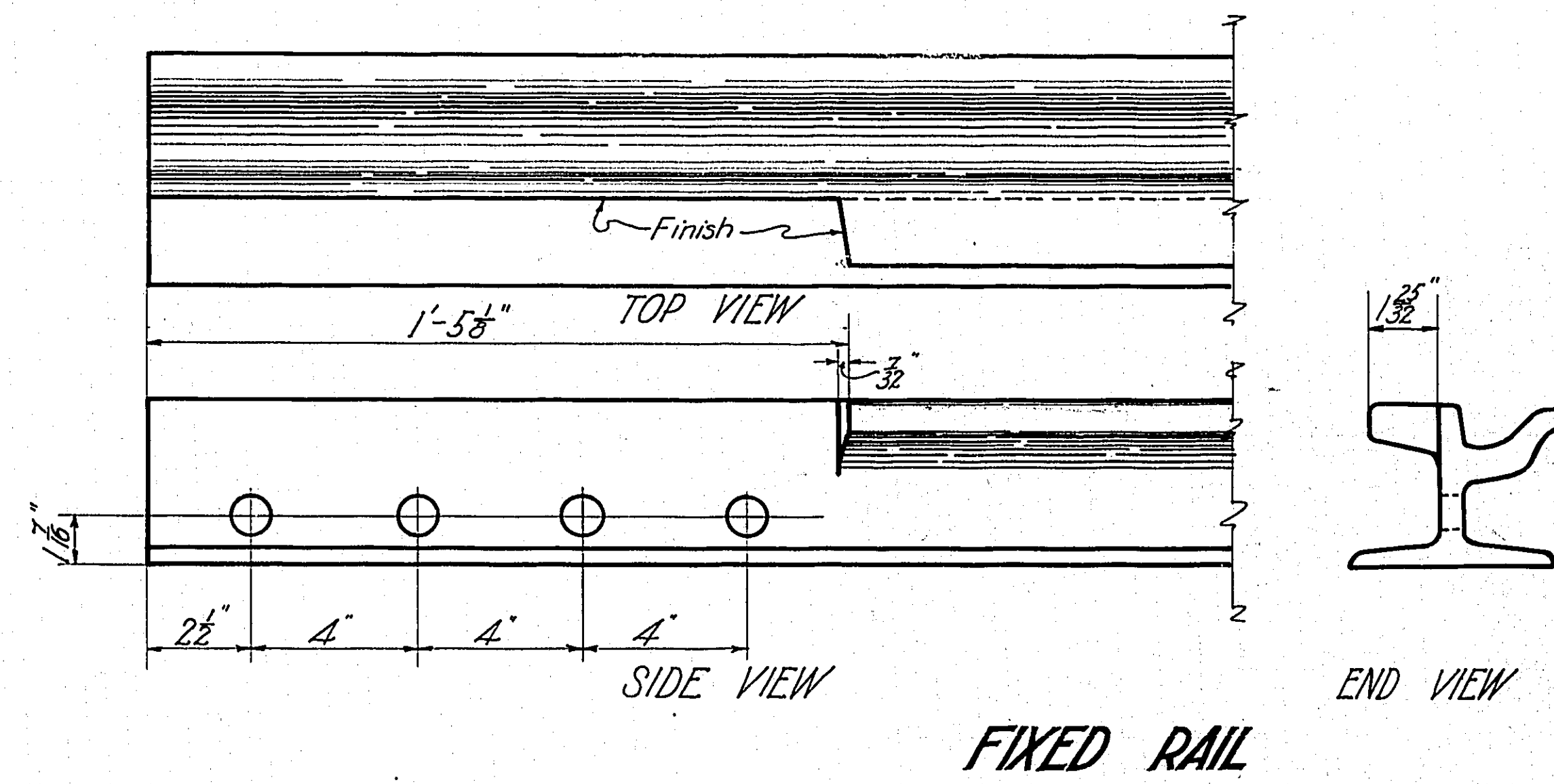
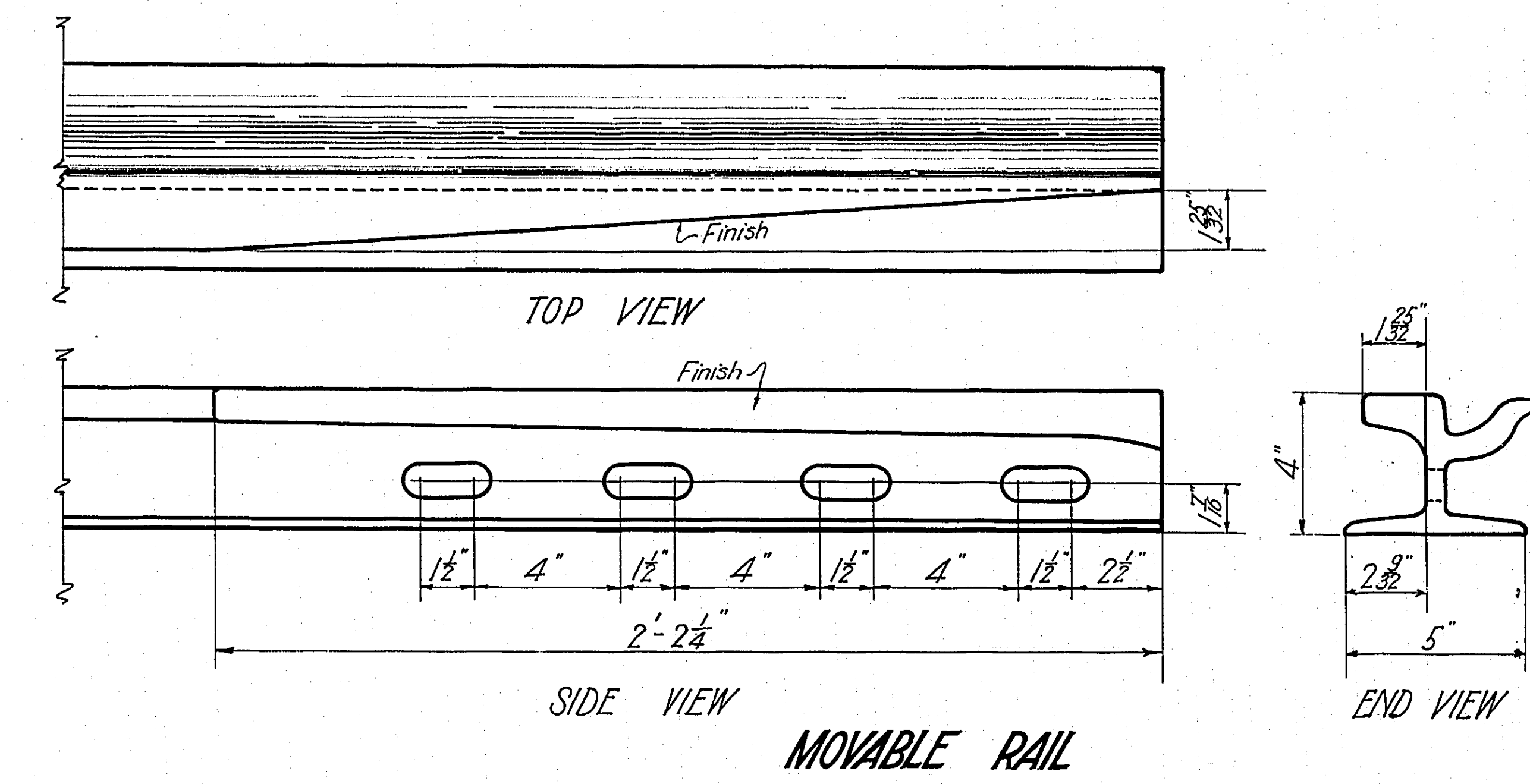
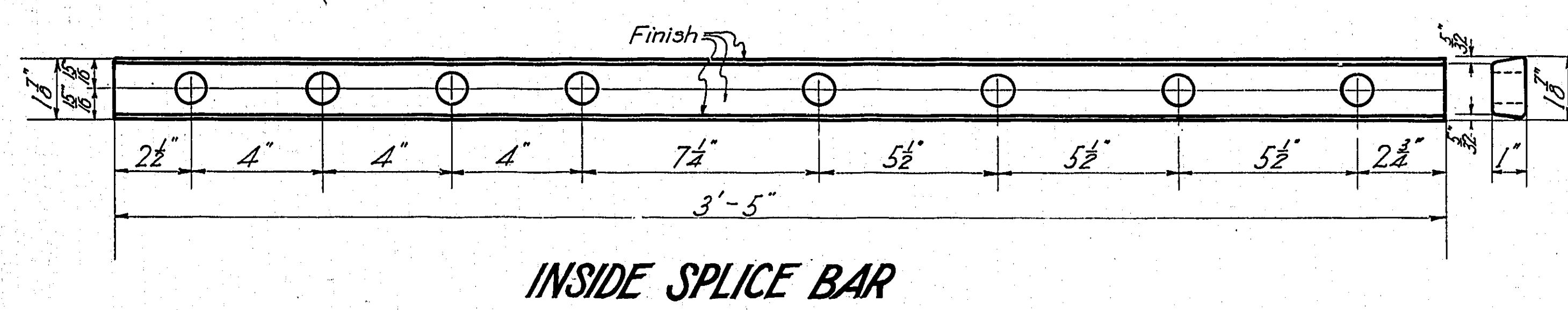
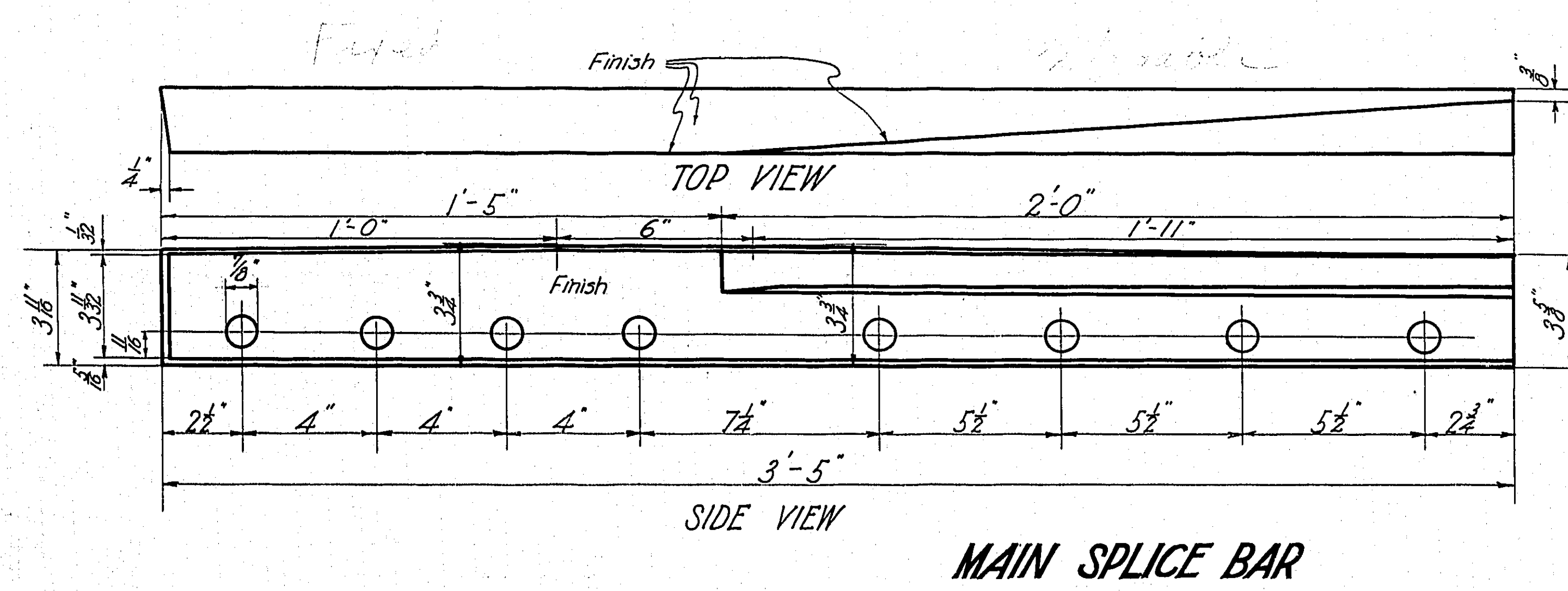
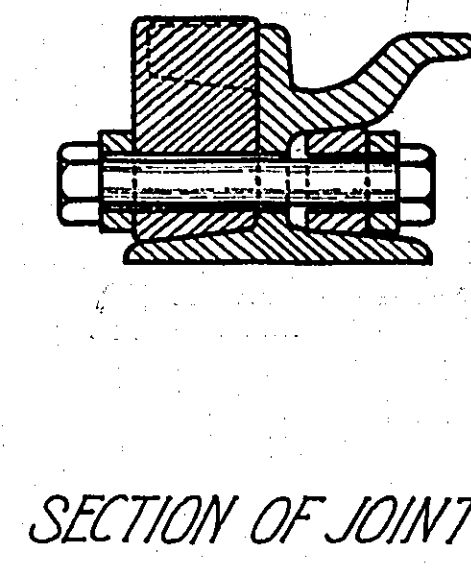
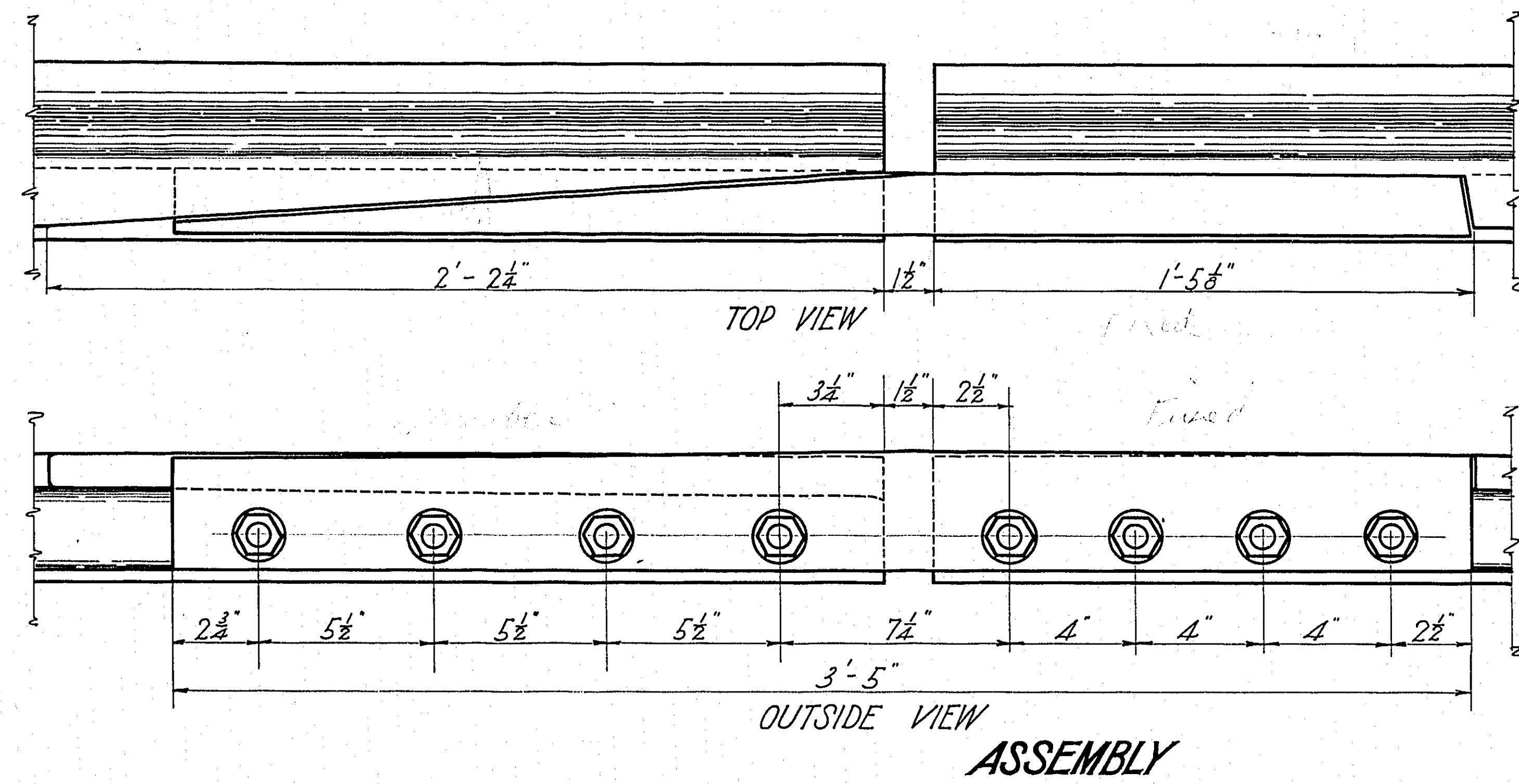
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Commercial 11th Avenue
Portland Oregon 97216
902231005

3M

MULTNOMAH COUNTY - OREGON
BURNSIDE BRIDGE
PORTLAND, OREGON
LAYOUT OF
STREET RAILWAY TRACKS

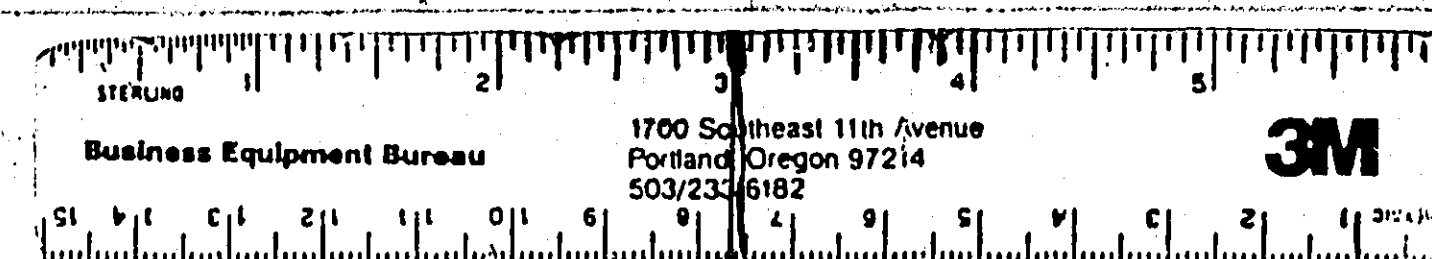
MADE BY **K. H. DICK** GUSTAV LINDENTHAL
CONSULTING ENGINEER
CHECKED BY **K. H. DICK** NEW YORK PORTLAND, ORE.
CHECKED BY **K. H. DICK** DATE: Nov 11, 1924
DRAWING NO. G-L-134-B SHEET NO. **L-67**
SHEETS PORTLAND OFFICE



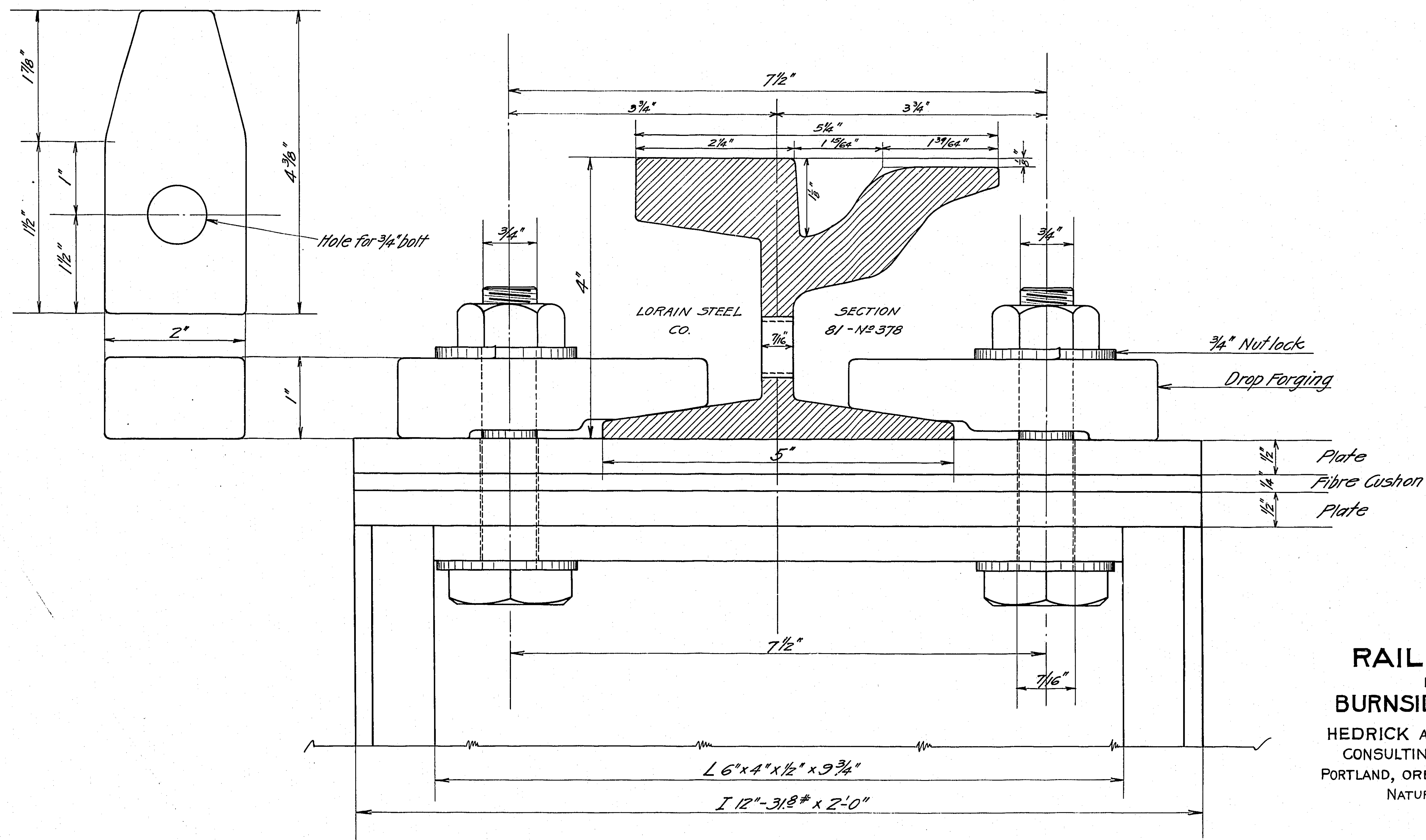
NOTE:
 Material - Manganese steel castings same as at end of bascule and finished as shown.
 3/8" holes for 1/2" track bolts
 3/8" slotted holes for expansion
 Cut and grind rails to dimensions shown
 See sheet L 67 for layout showing number of joints, location and rails affected
 See sheet L 67 for bearing plates and rail clips.

MULTNOMAH COUNTY OREGON
BURNSIDE BRIDGE
DETAIL OF TRACK EXPANSION JOINT
 MADE BY *K.H. Pickett* GUSTAV LINDENTHAL
 CHECKED BY *R. Lowrey* CONSULTING ENGINEER
 TRACED BY *R. Lowrey* NEW YORK - PORTLAND ORE
 CHECKED BY Nov. 11TH 1924
 DRAWING No. G.L. 135 B SHEET No. L 68

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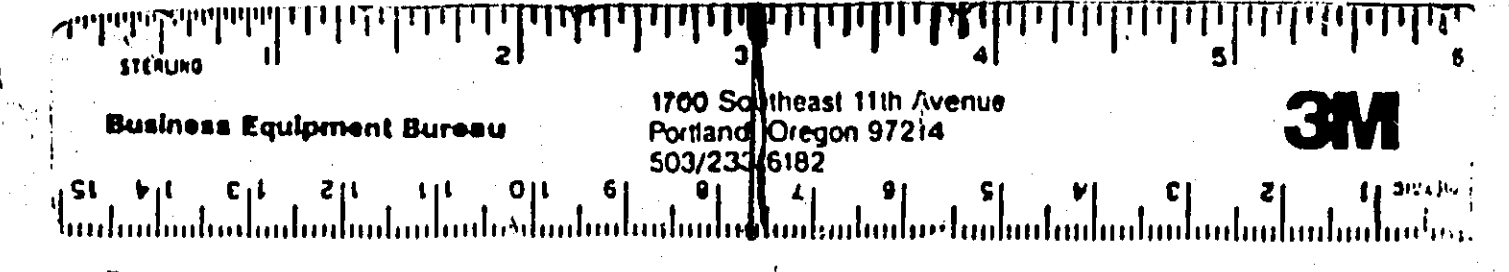
Rail Chair & Section Burnside Bridge B15



RAIL CHAIR
 FOR
BURNSIDE BRIDGE
 HEDRICK AND KREMERS
 CONSULTING ENGINEERS
 PORTLAND, ORE., FEB. 8th 1924
 NATURAL SCALE
 J.Z.

File No. B15 *L68a*
 AB/75
 FC 20

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 DUE TO THE QUALITY OF THE ORIGINAL.

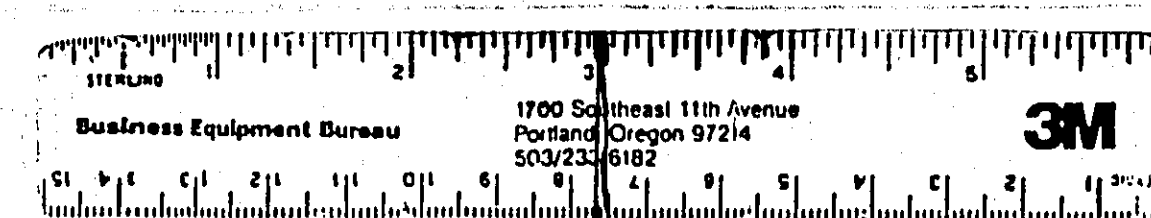


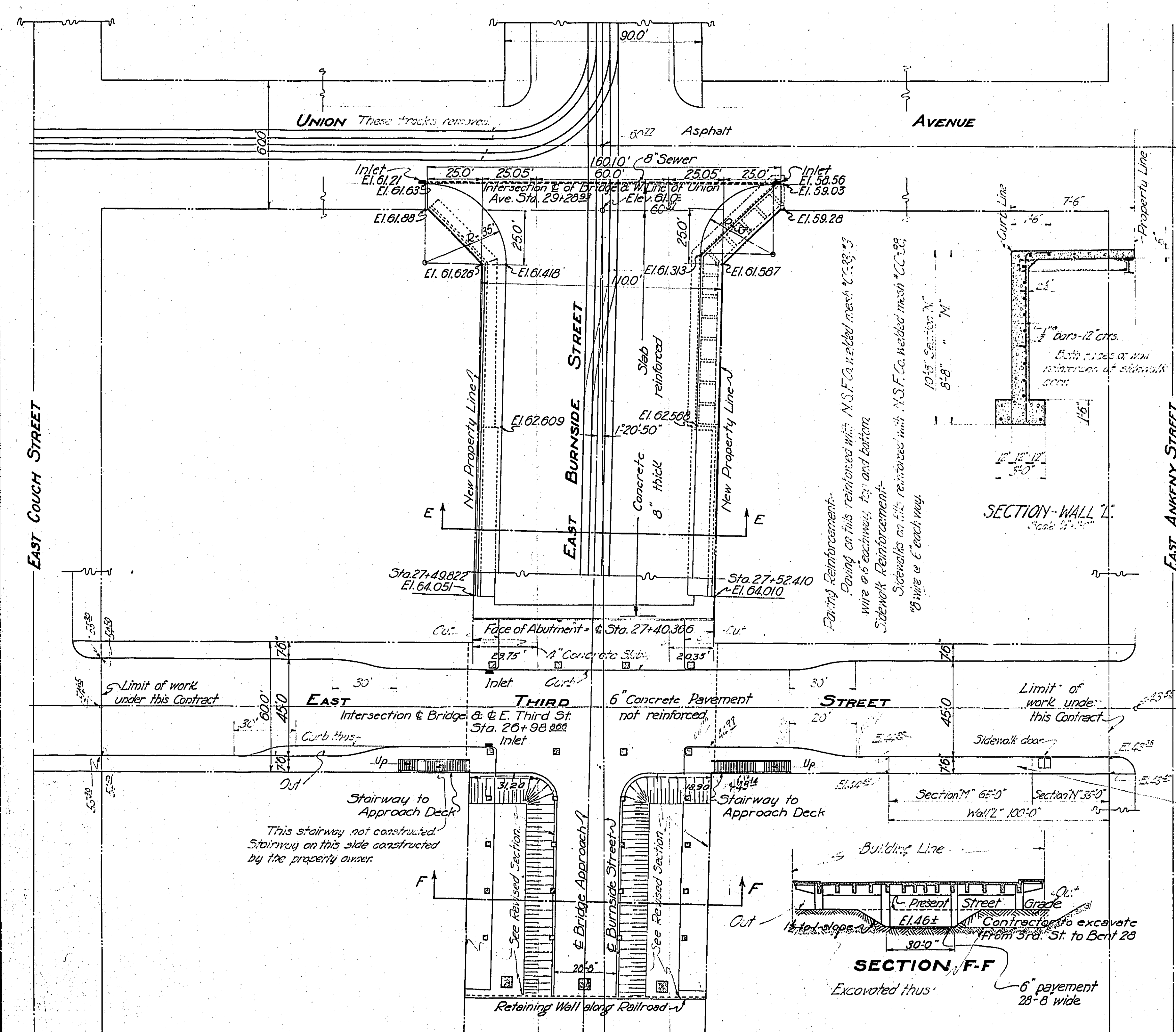
MULTNOMAH COUNTY, OREGON
PLANS
FOR
COMPLETING APPROACHES
TO
BURNSIDE BRIDGE
OVER THE WILLAMETTE RIVER
AT
PORTLAND, ORE.

GUSTAV LINDENTHAL
CONSULTING ENGINEER
NEW YORK, N.Y. & PORTLAND, ORE
1925

L 68a

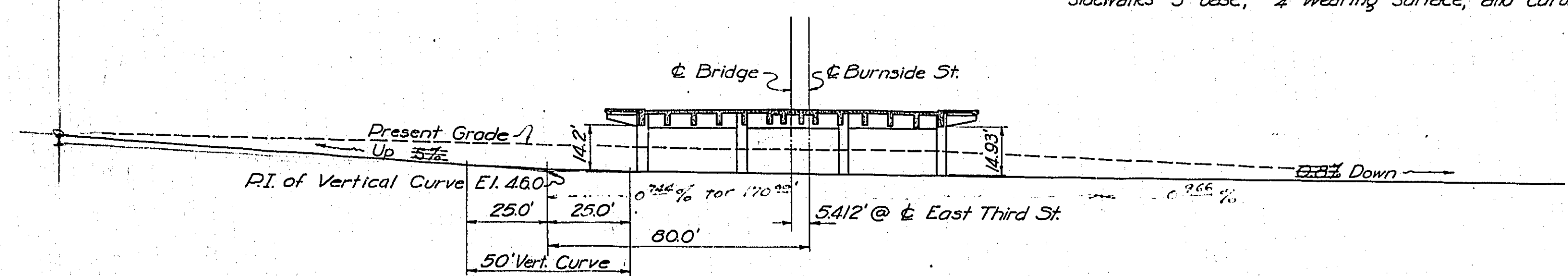
NOTICE: IF THIS DOCUMENT IS LESS
LEGIBLE THAN THIS NOTICE IT IS
DUE TO THE QUALITY OF THE ORIGINAL.



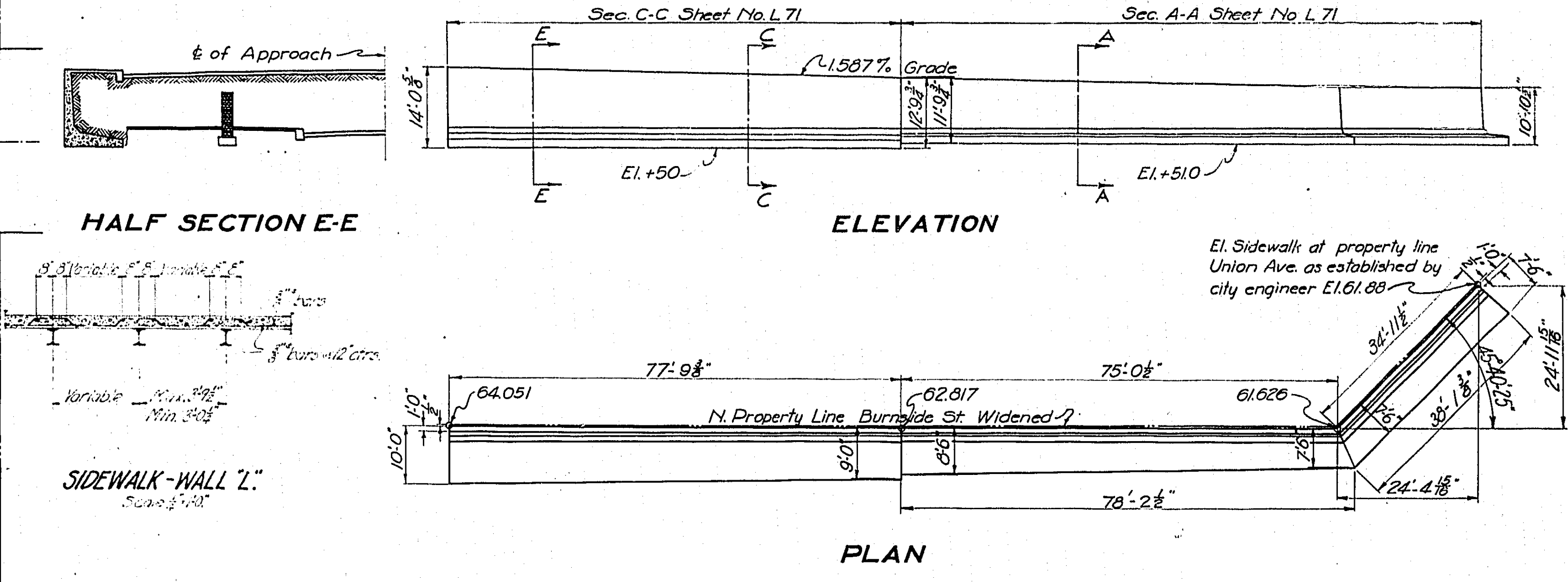


GENERAL PLAN

Contractor to excavate and repair E 3rd St between E Couch and E Arkeney Streets, also E Burnside St between center columns as shown. 6" roadway pavement not reinforced, 1:2.4 mix, sidewalks 3' base, 3" wearing surface, and curbs as per specifications



PROFILE OF EAST THIRD STREET
Scale 1" = 30'-0"

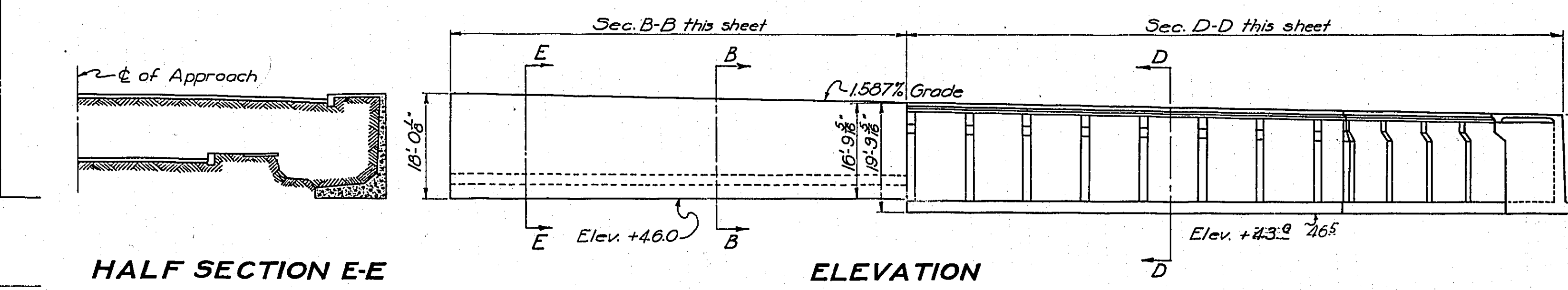


HALF SECTION E-E

ELEVATION

SIDEWALK-WALL "Z"

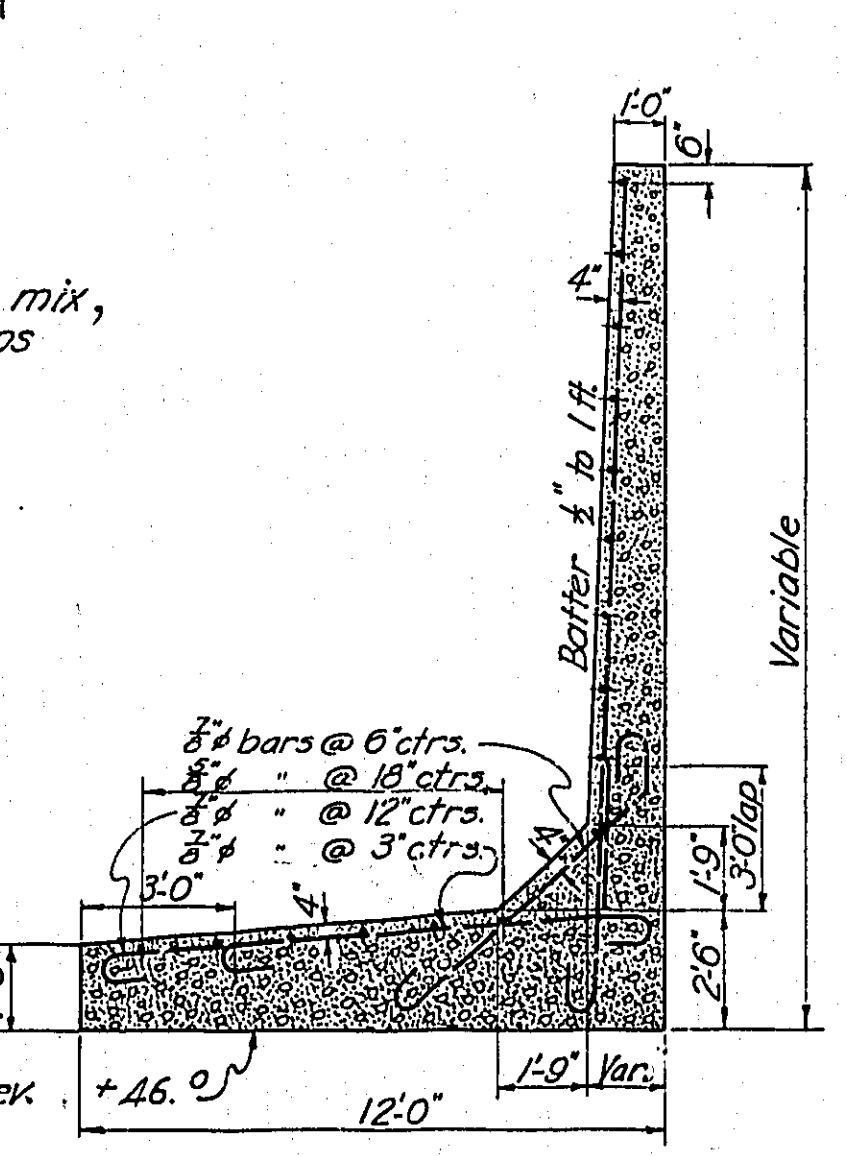
PLAN



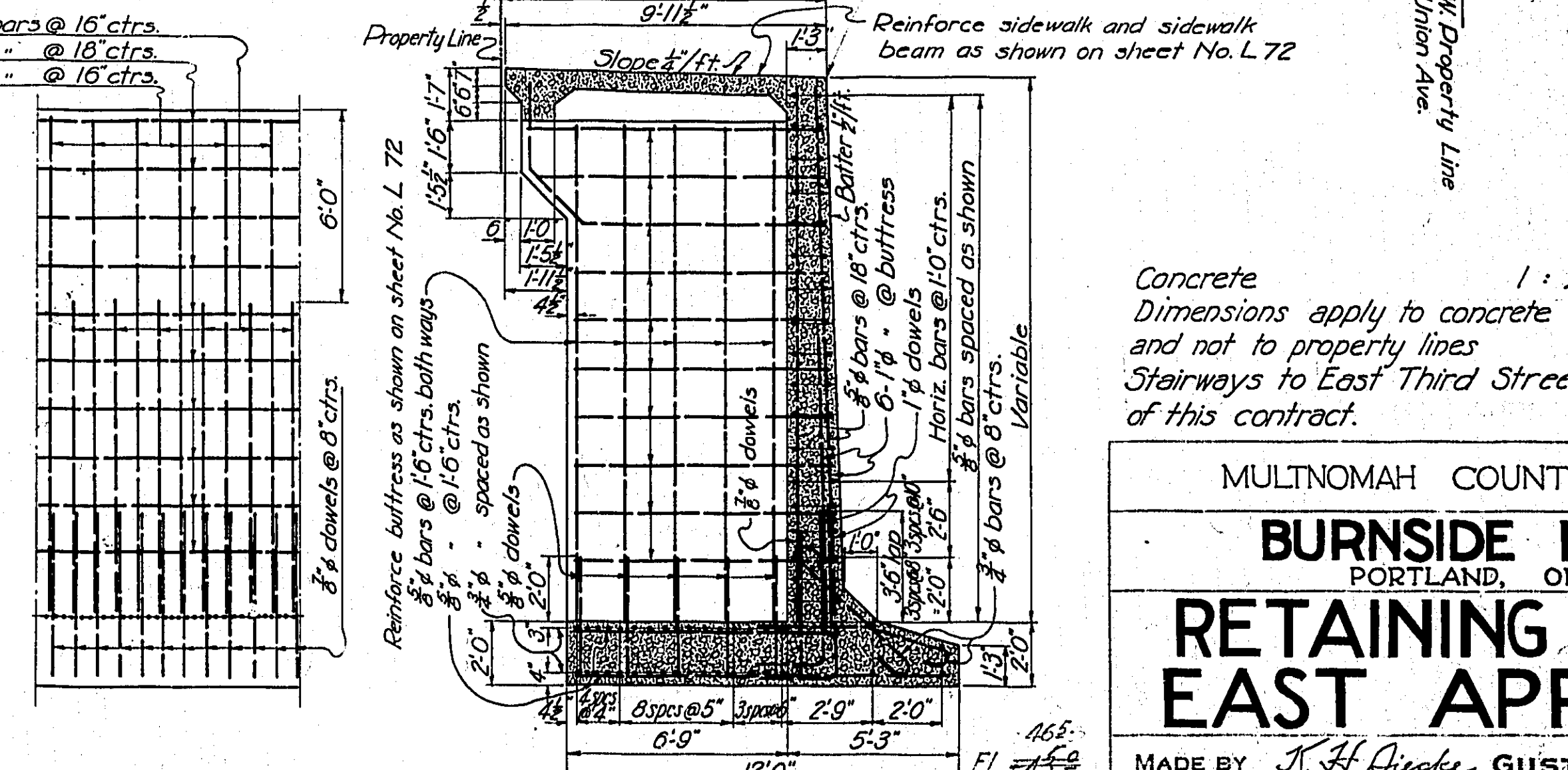
HALF SECTION E-E

ELEVATION

PLAN



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



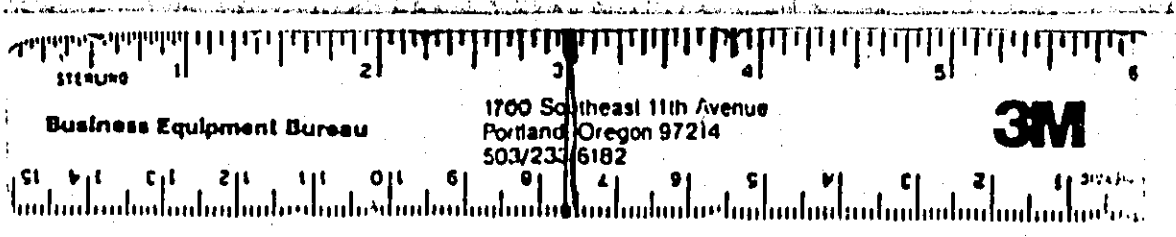
SECTION D-D
Scale 1/4" = 1'-0"

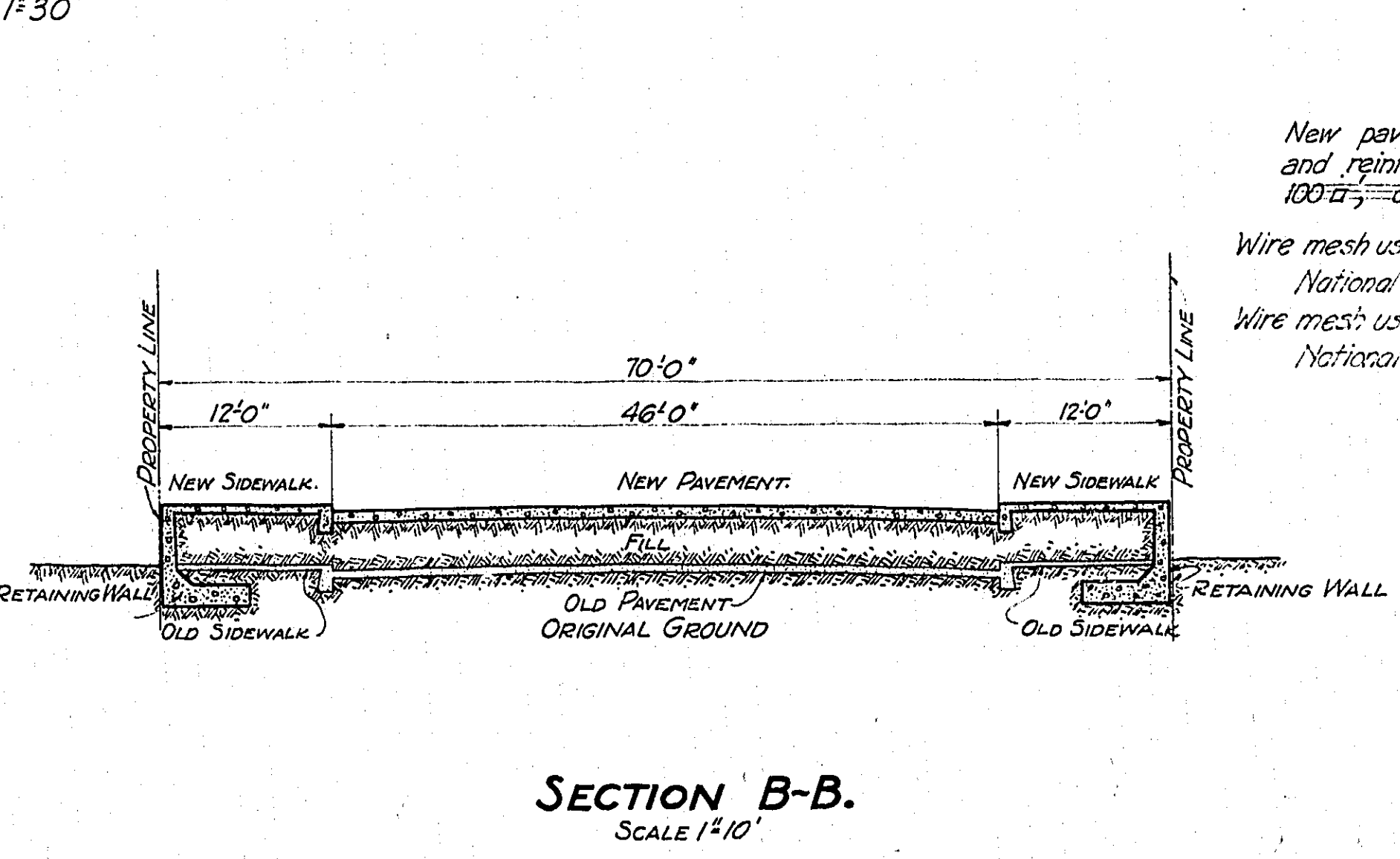
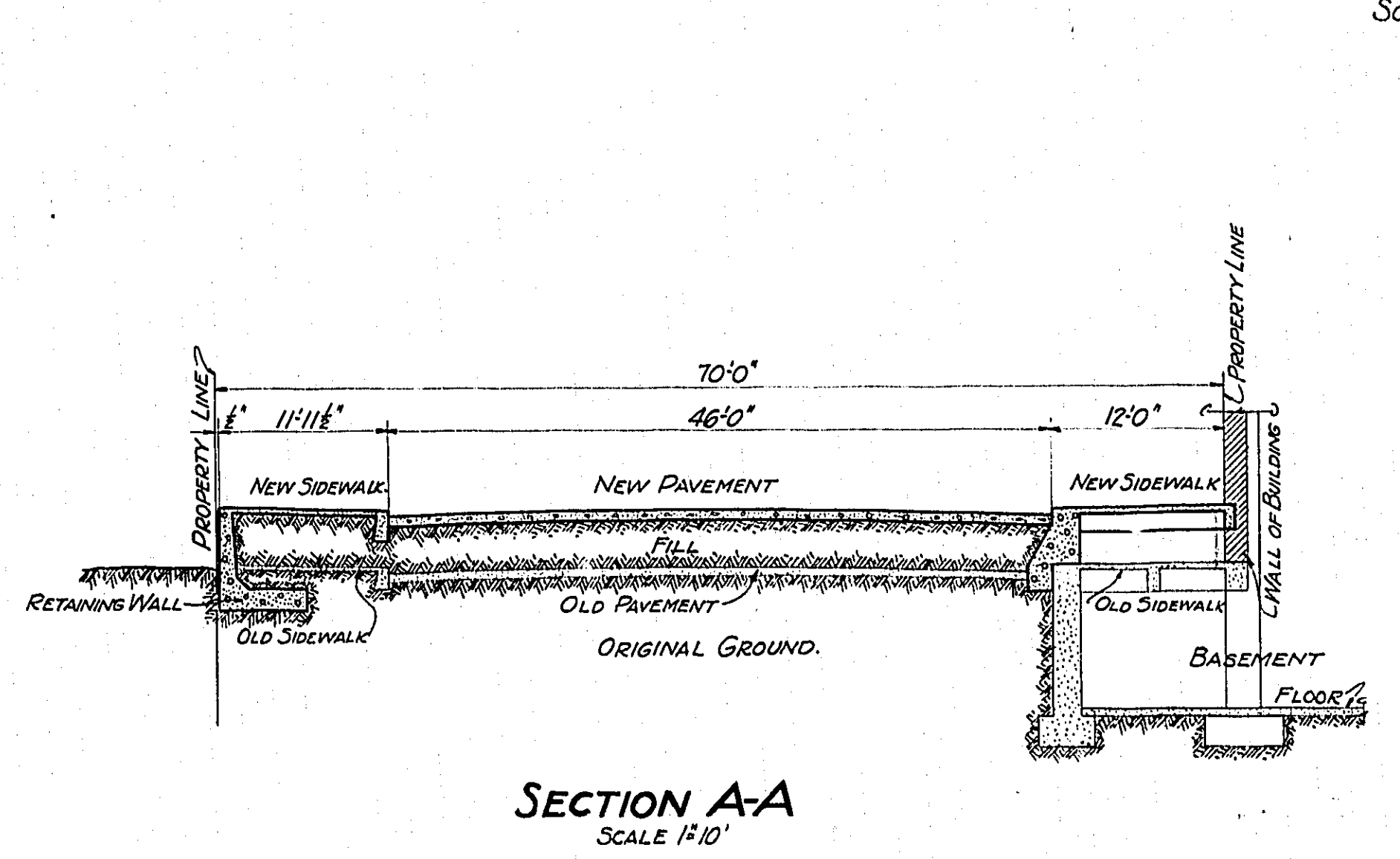
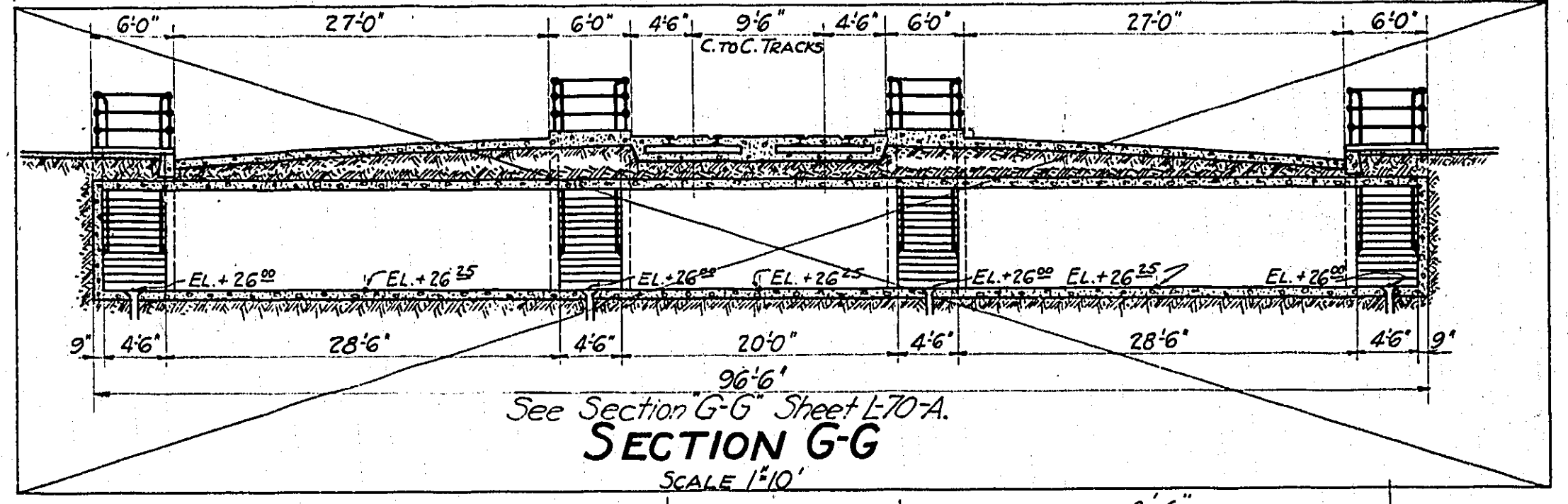
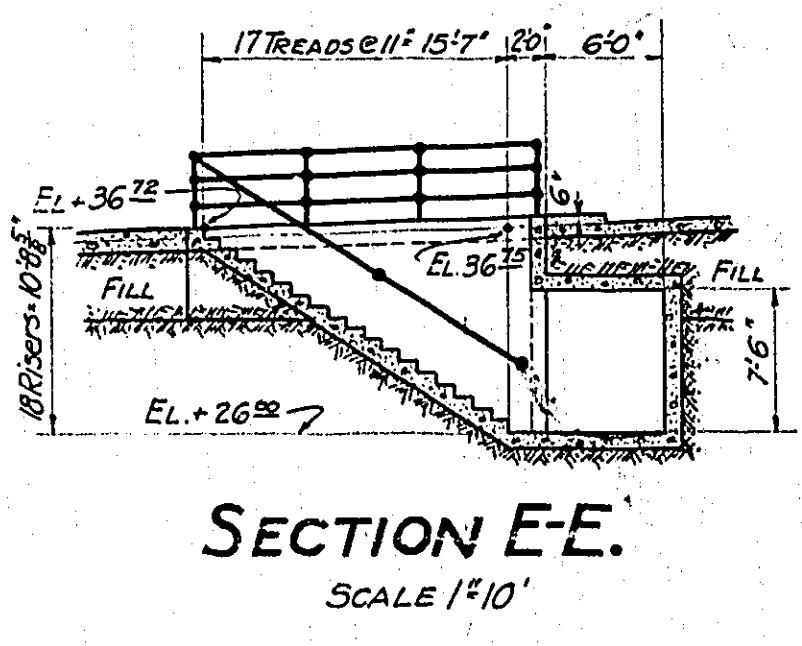
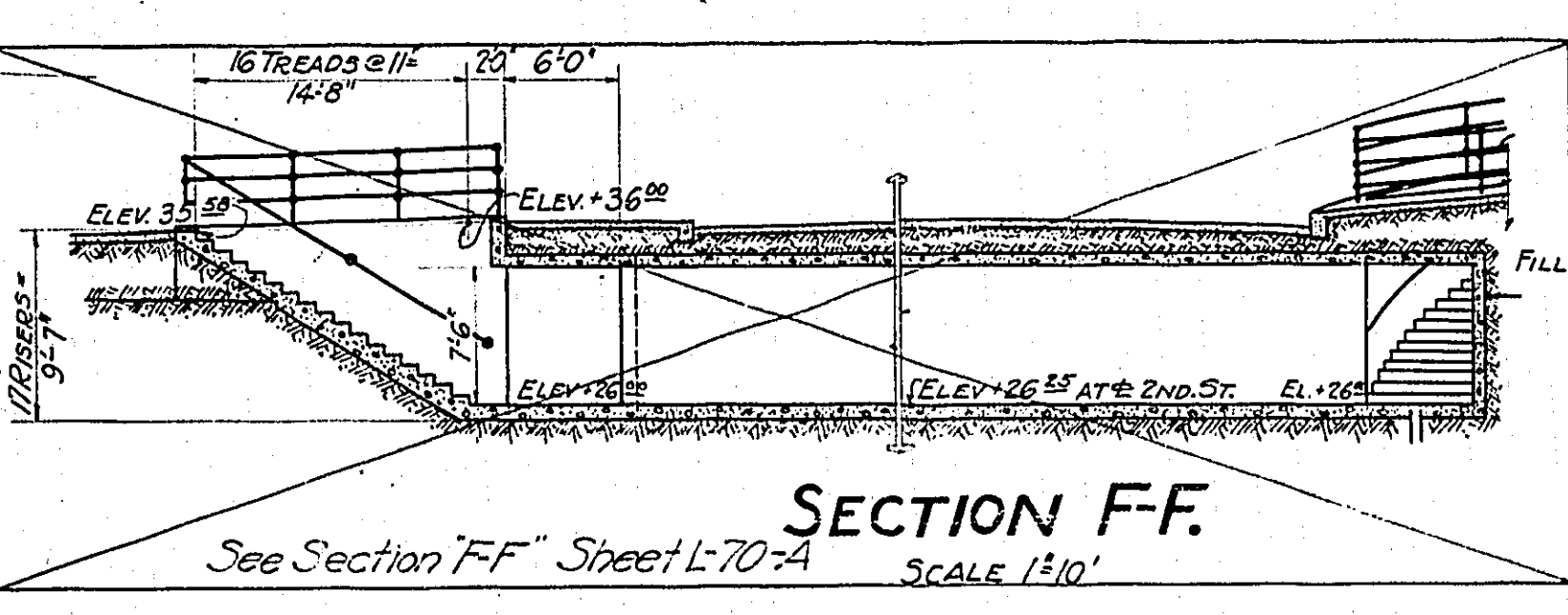
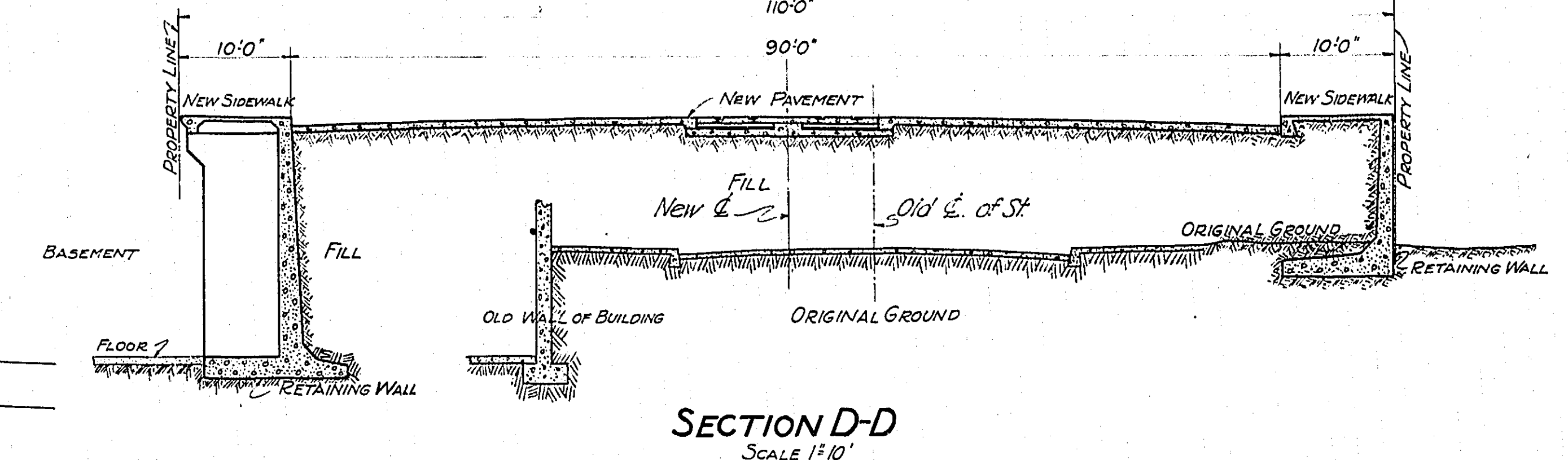
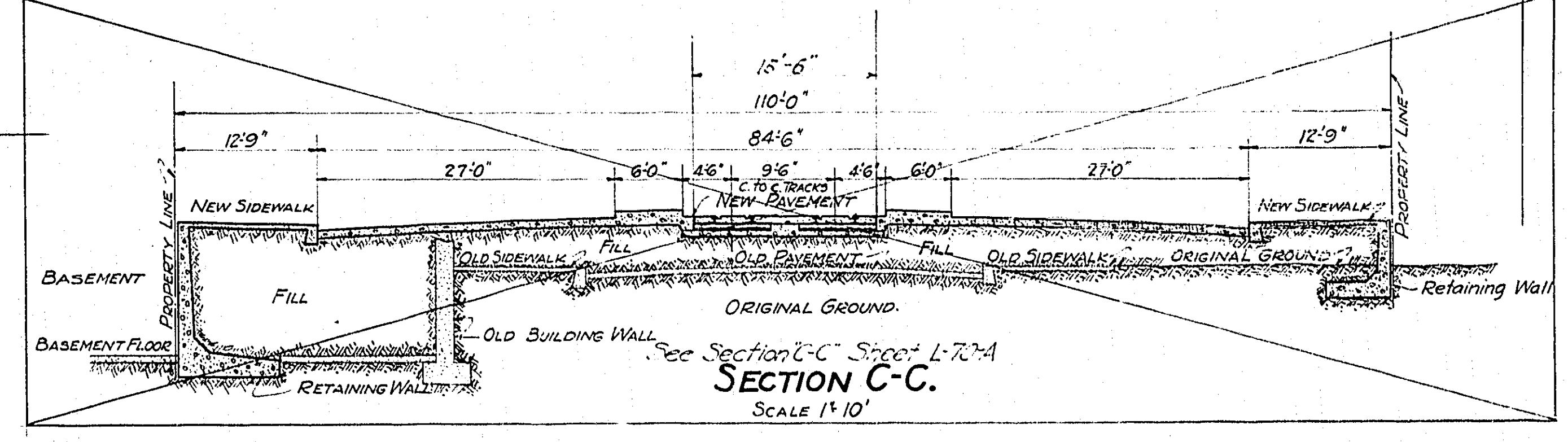
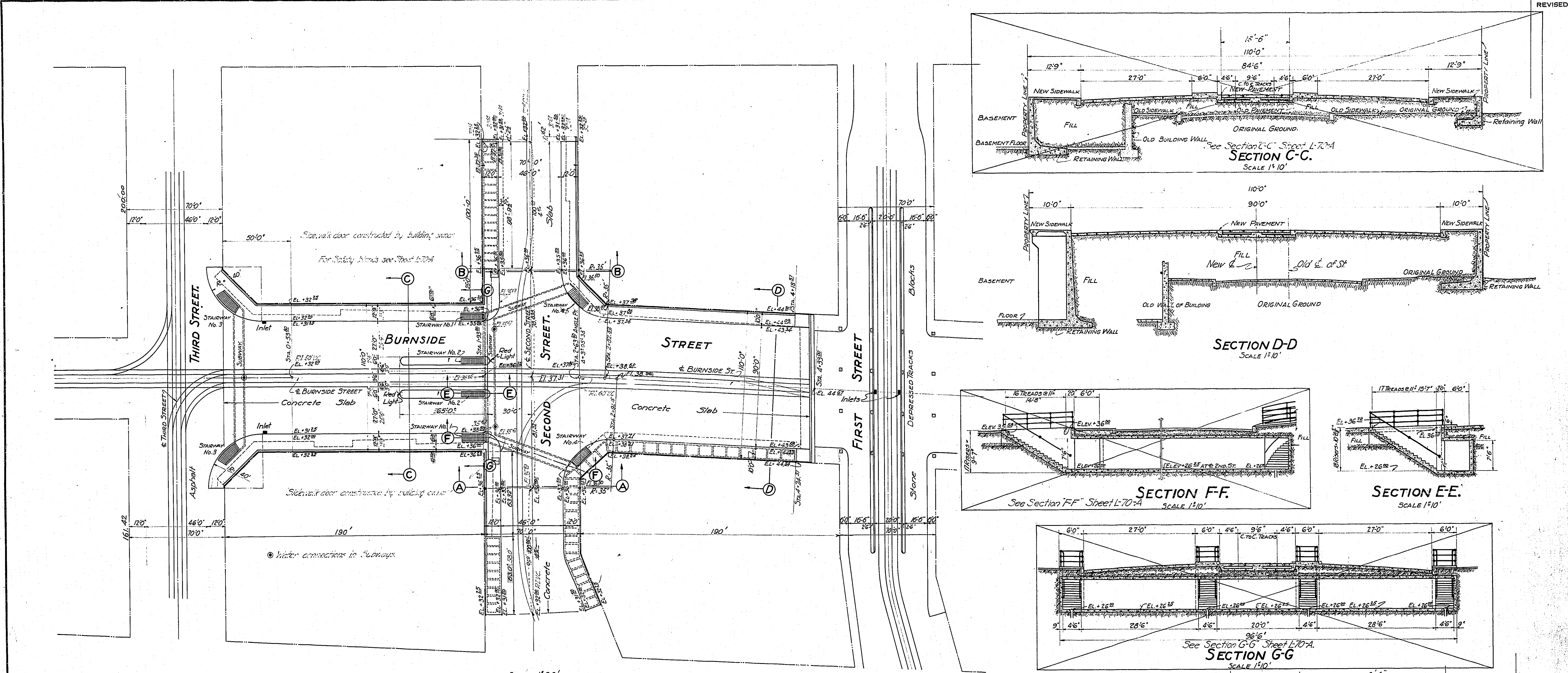
Concrete 1:2:4
Dimensions apply to concrete walls and not to property lines
Stairways to East Third Street not part of this contract.

MULTNOMAH COUNTY - OREGON
BURNSIDE BRIDGE.
PORTLAND, OREGON.
RETAINING WALLS EAST APPROACH.

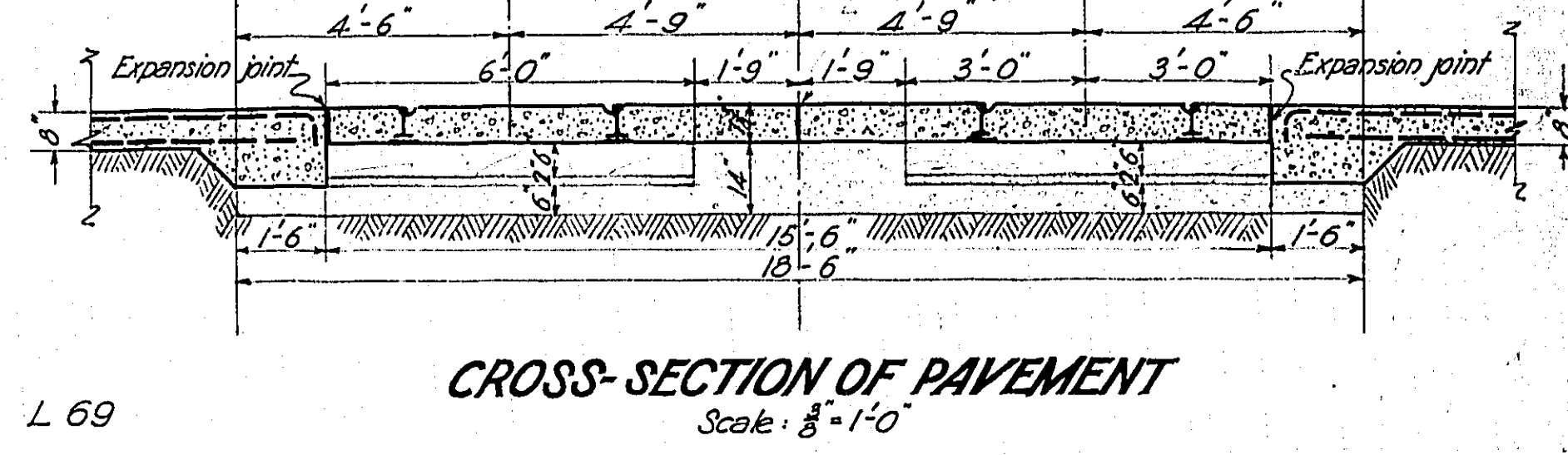
MADE BY *N.H. Dierker* GUSTAV LINDENTHAL
CONSULTING ENGINEER
CHECKED BY *N.H. Dierker* NEW YORK PORTLAND, ORE.
CHECKED BY KMS DATE Dec 1st - 1924
DRAWING NO. GL-137-B SHEET NO. L-69
SHEETS PORTLAND OFFICE

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New pavement on Burnside St and Second St to be 1:2:4 mix, and reinforced top and bottom with triangle mesh #153=69 lbs per 100 sq ft or equivalent, except between tracks as shown herewith:
 Wire mesh used in Pavings:
 National Steel Fabric Co. "CC-33" welded mesh, "3 wire x 6" each way.
 Wire mesh used in Sidewalks:
 National Steel Fabric Co. "CC-33" welded mesh, "3 wire x 3" each way.
 For East Approach see sheet L-70

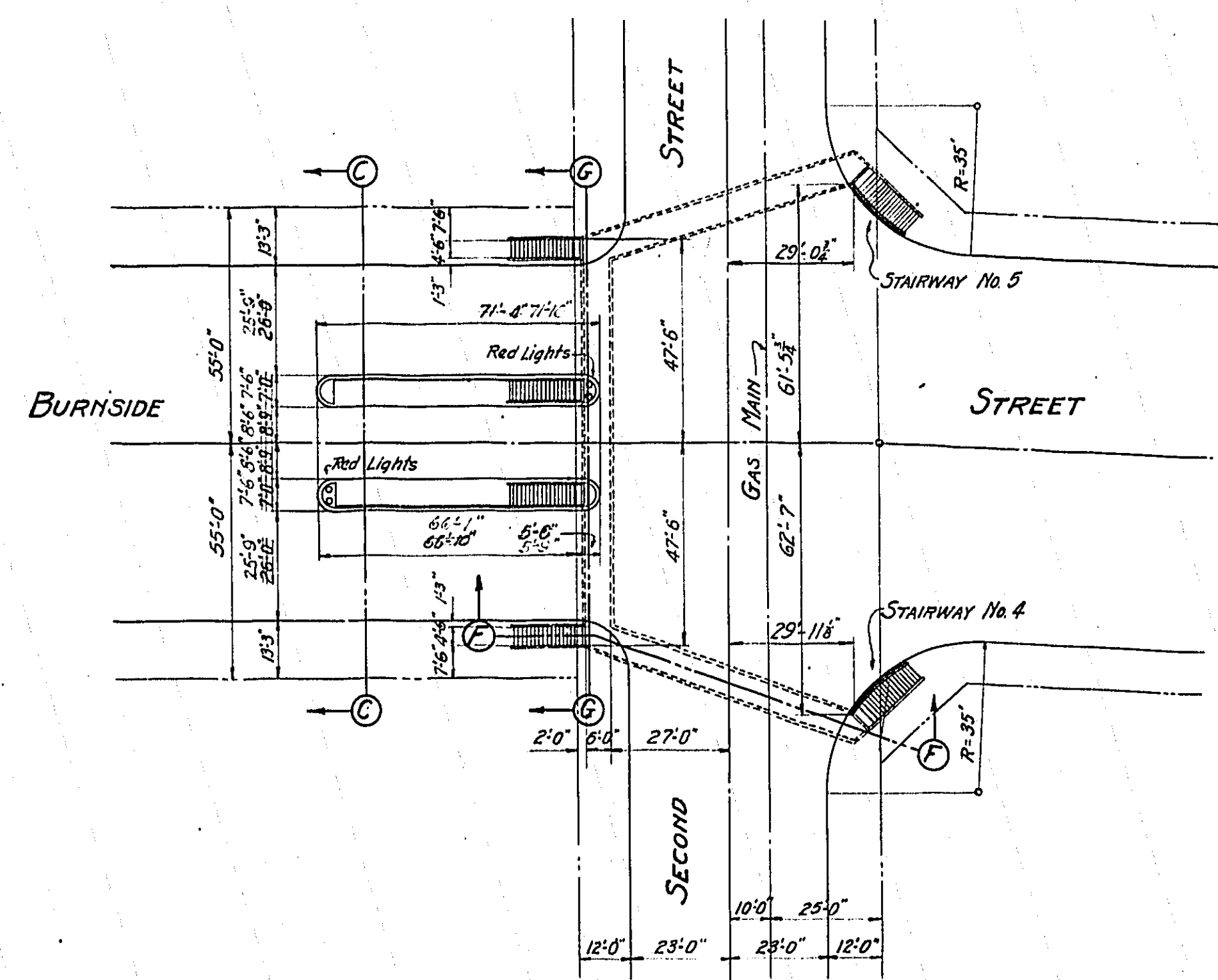


Note: Street car tracks on First Street will not be depressed for the present. Therefore no work on First Street to be done under this contract except, if any, as "Extra Work"

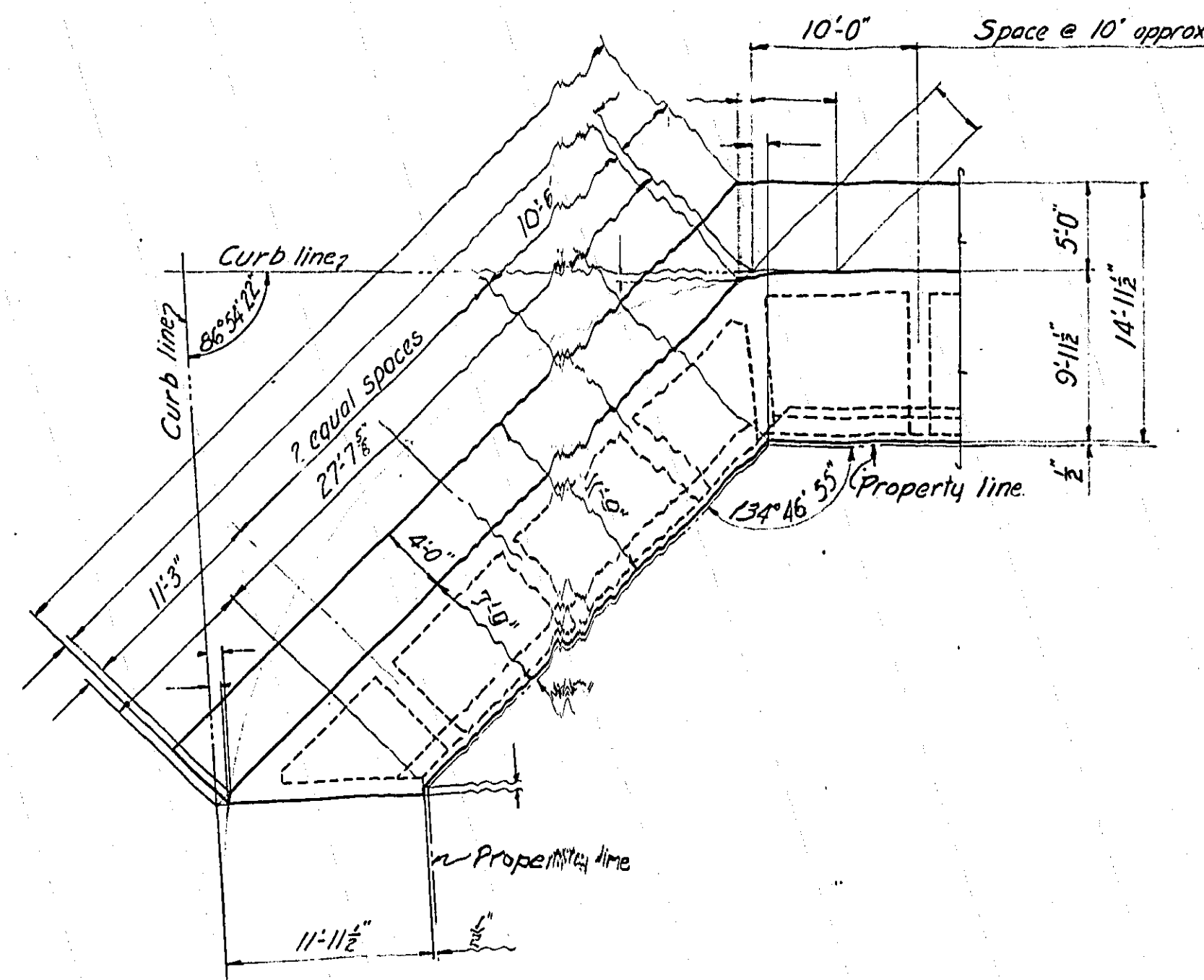
MULTNOMAH COUNTY - OREGON.
BURNSIDE BRIDGE
 PORTLAND, OREGON.
GENERAL PLAN.
WEST APPROACH FILL.
 MADE BY *G.L.* GUSTAV LINDENTHAL
 CHECKED BY *G.L.* CONSULTING ENGINEER
 TRACED BY *G.L.* NEW YORK - PORTLAND, ORE.
 CHECKED BY KHS DATE 12-8-24
 DRAWING NO. CL-138-B SHEET NO. L-70
 SHEETS SCALE: AS NOTED. PORTLAND OFFICE

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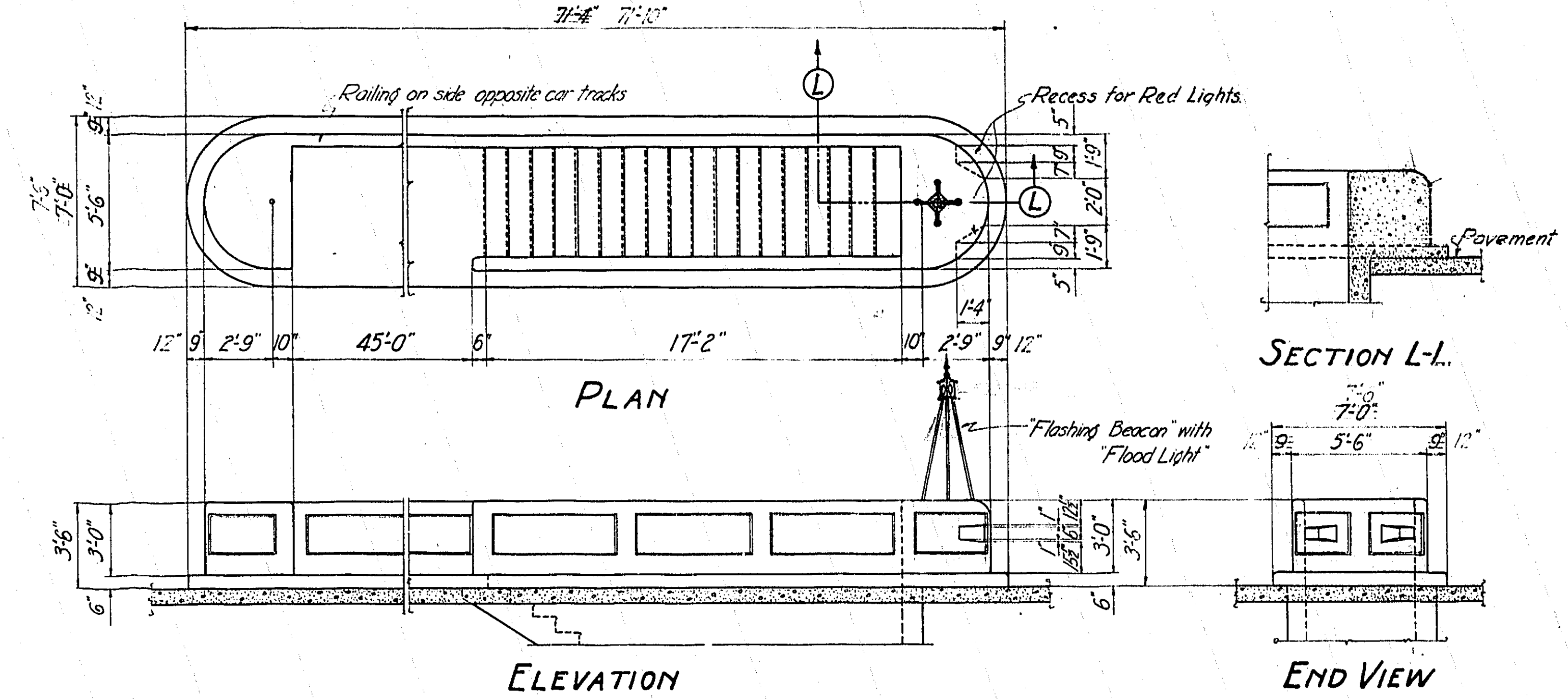
Business Equipment Bureau
 1700 Southeast 11th Avenue
 Portland, Oregon 97214
 503-233-3333
3M



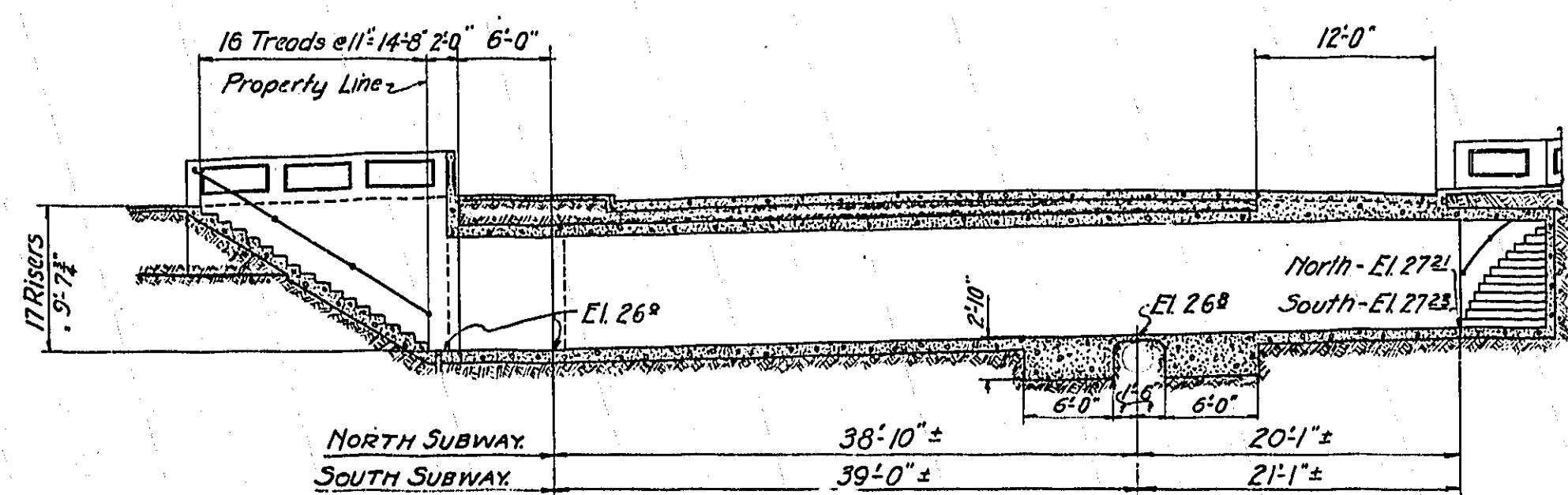
PLAN
SCALE 1"=30'



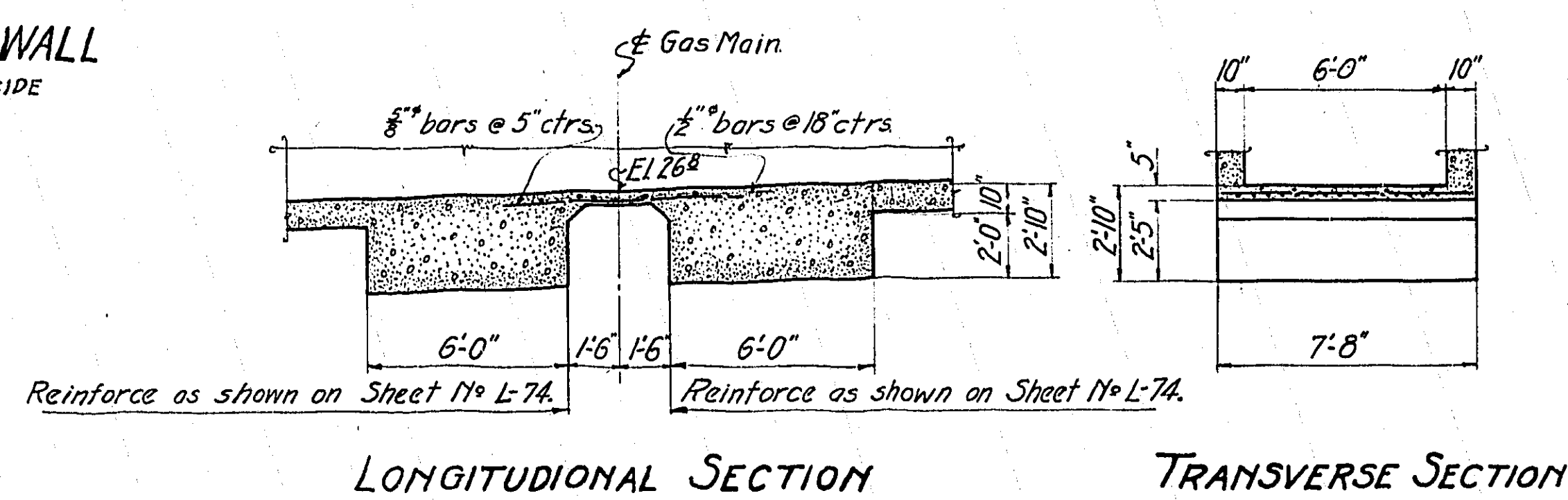
PLAN OF RETAINING WALL
S.E. CORNER 2ND AND BURNSIDE
SCALE 1/2"=1'-0"



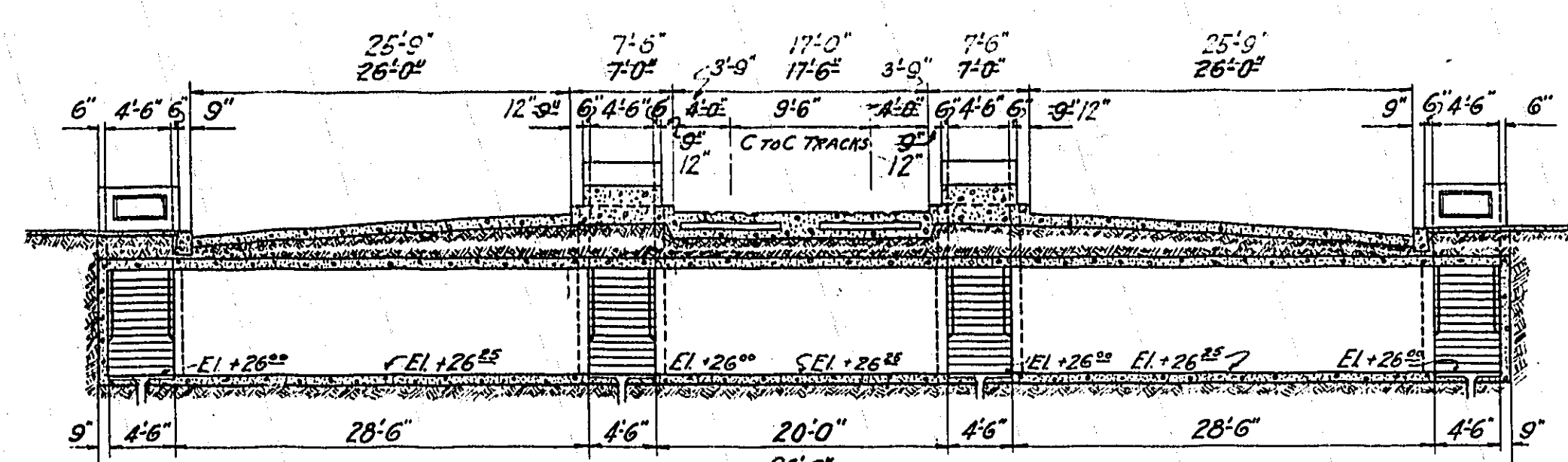
SAFETY ISLANDS.
SCALE 1/2"=1'-0"



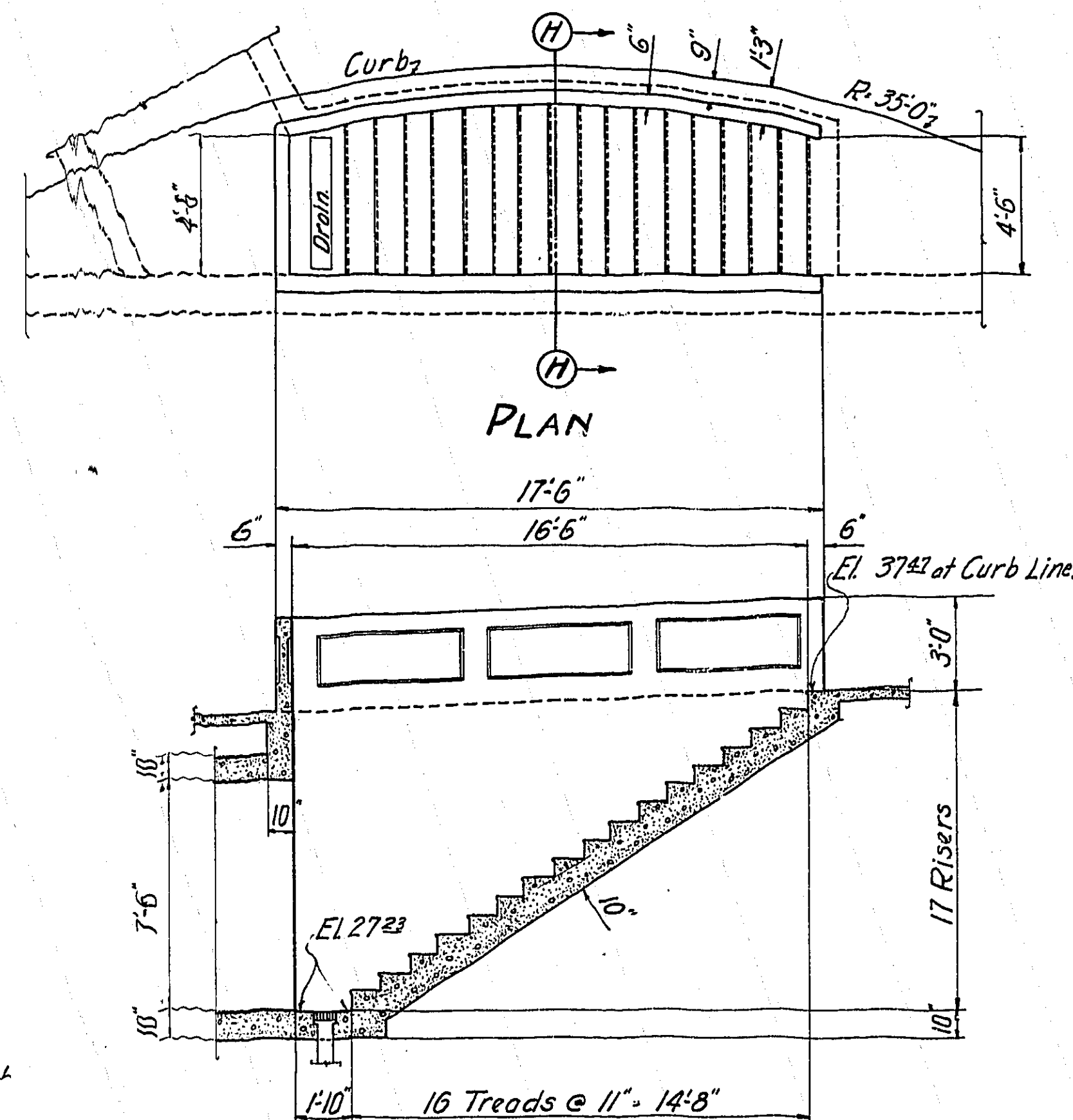
SECTION F-F
SCALE 1/2"=10'-0"



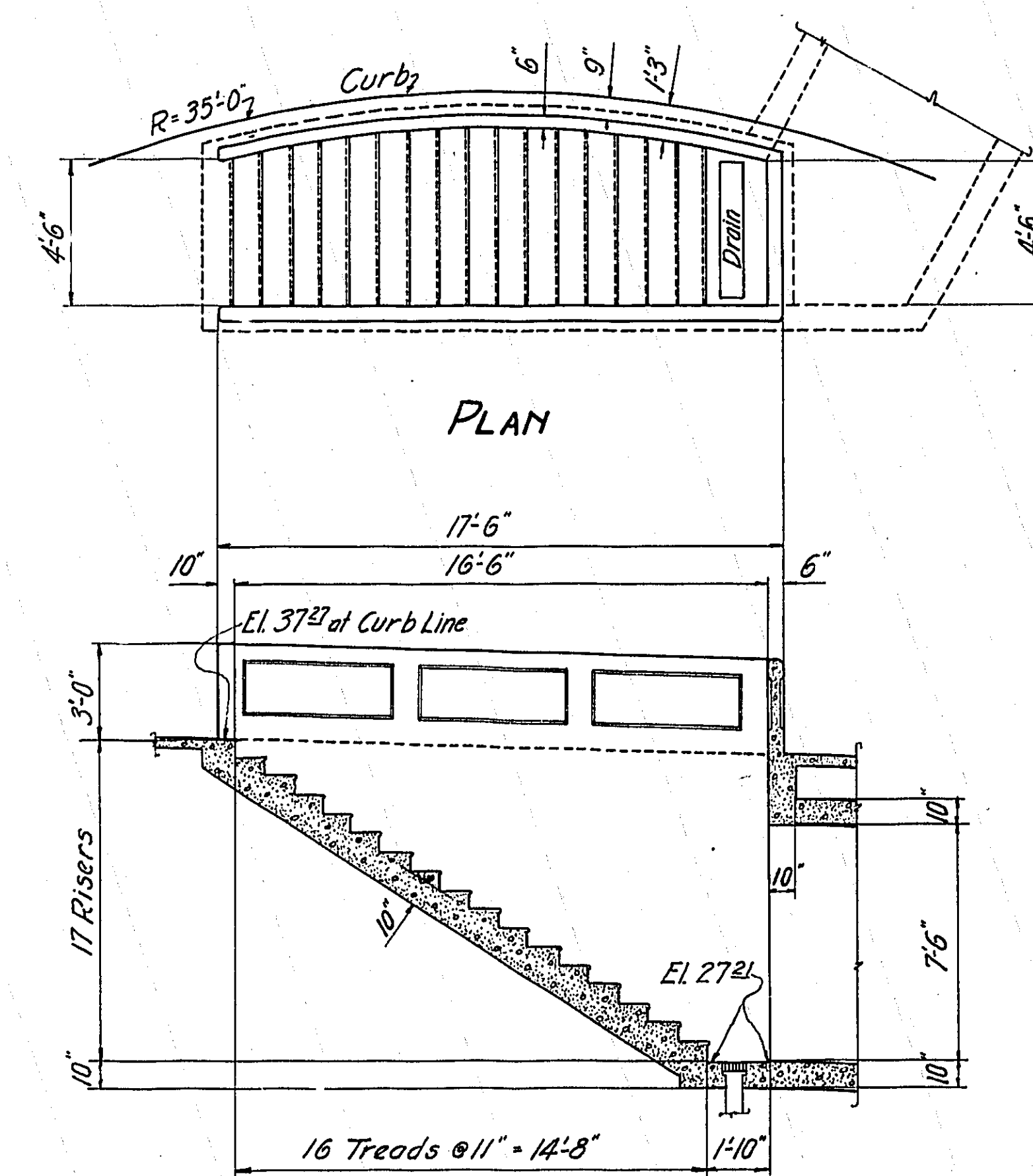
LONGITUDINAL SECTION TRANSVERSE SECTION
SUBWAY BASE SLAB AT GAS MAIN.
SCALE 1/2"=1'-0"



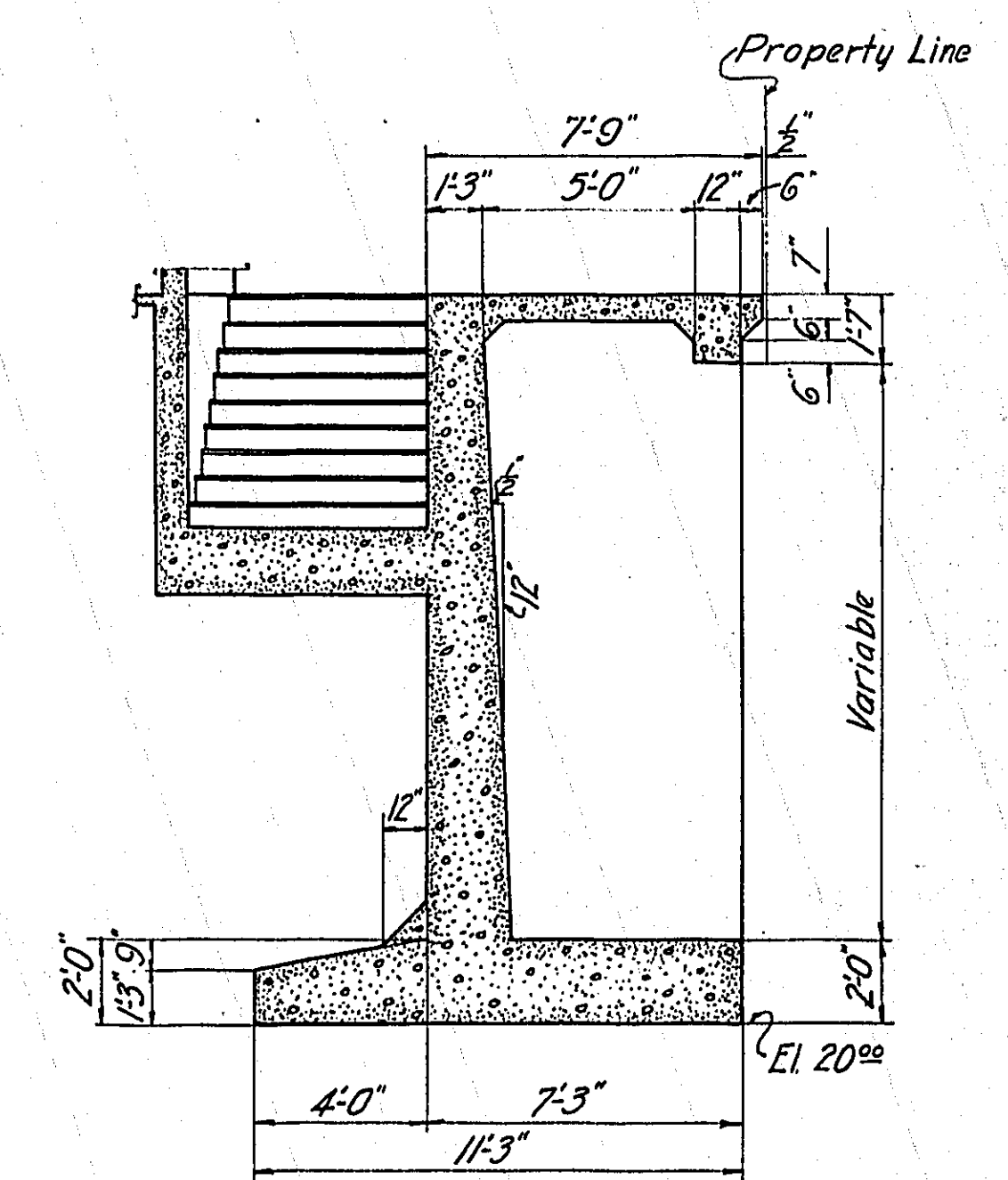
SECTION G-G.
SCALE 1/2"=1'-0"



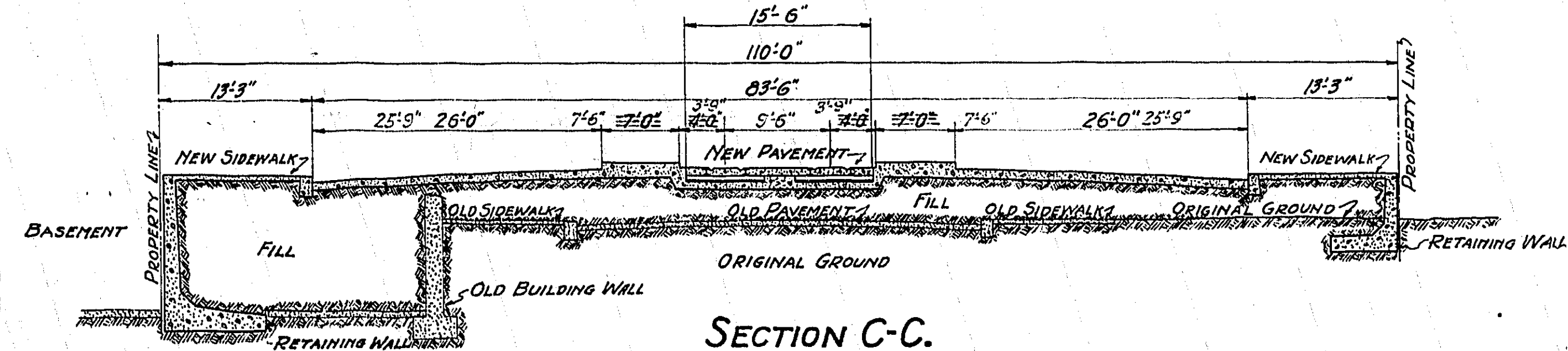
SECTION
STAIRWAY No. 4.
Reinforce as shown on Sheet No. L-74.
SCALE 1/2"=1'-0"



SECTION
STAIRWAY No. 5.
Reinforce as shown on Sheet No. L-74.
SCALE 1/2"=1'-0"



SECTION H-H.
SCALE 1/2"=1'-0"
Reinforce as shown Section B-B Sheet No. L-72.



SECTION C-C.
SCALE 1"=10'

Use with Sheets Nos. L-70-L-72-L-74.

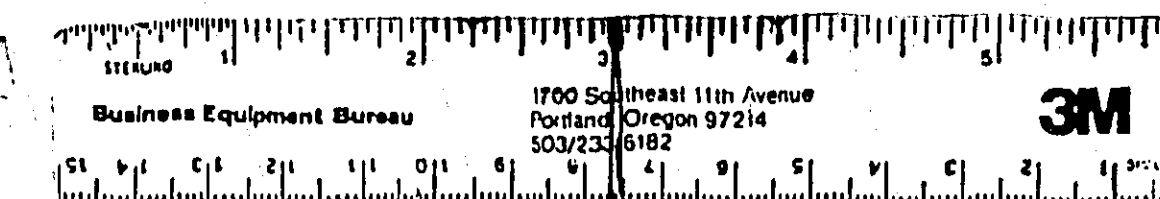
MULTNOMAH COUNTY - OREGON.

BURNSIDE BRIDGE
PORTLAND, OREGON.

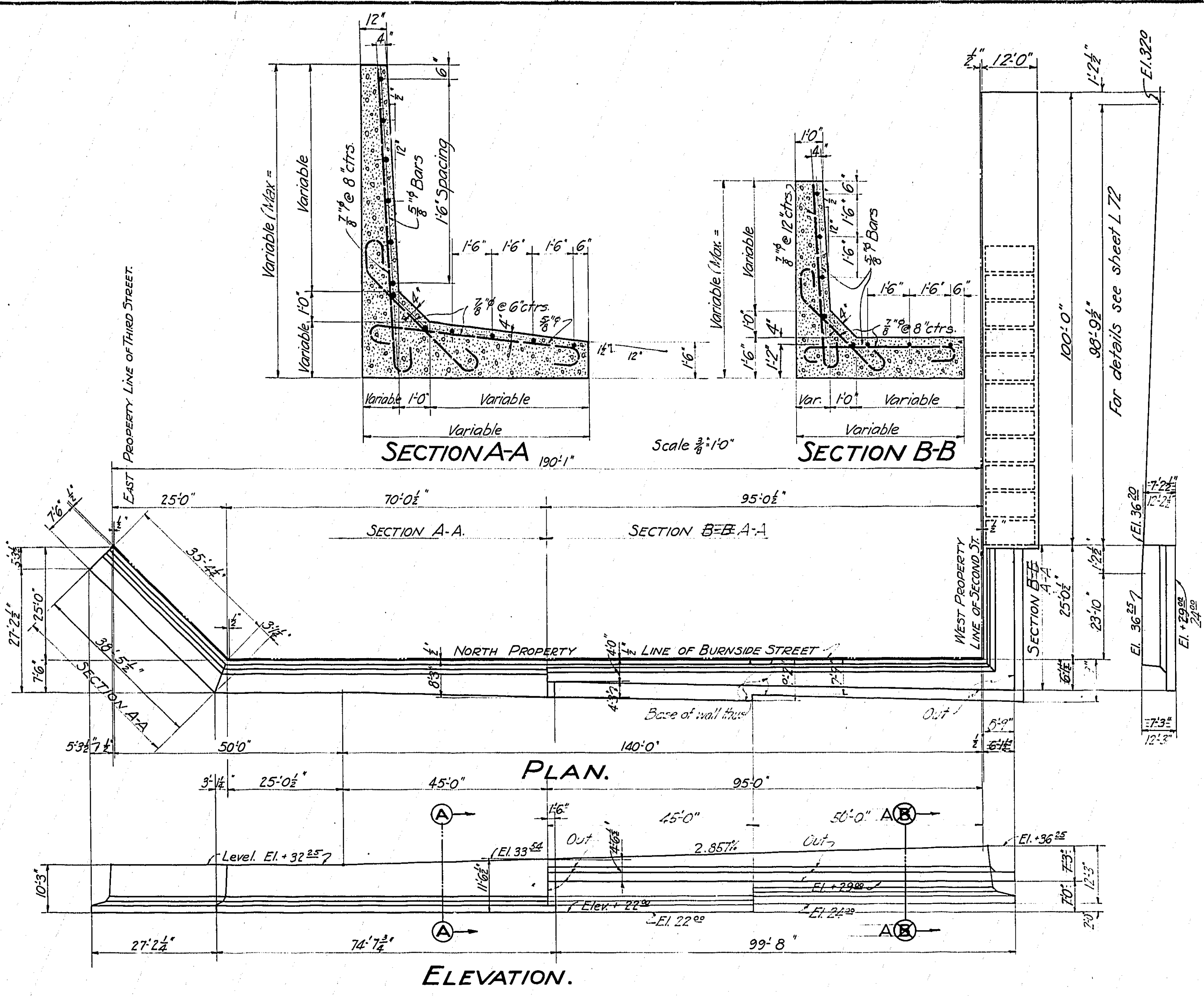
REVISIONS
WEST APPROACH

MADE BY: HMR	GUSTAV LINDENTHAL CONSULTING ENGINEER
CHECKED BY: HMR	NEW YORK, PORTLAND, ORE.
CHECKED BY: HMR	DATE: 12-28-25.
DRAWING No. GL-190-B	SHEET No. L-70-A
SCALE: As NOTED.	PORTLAND, OREGON.

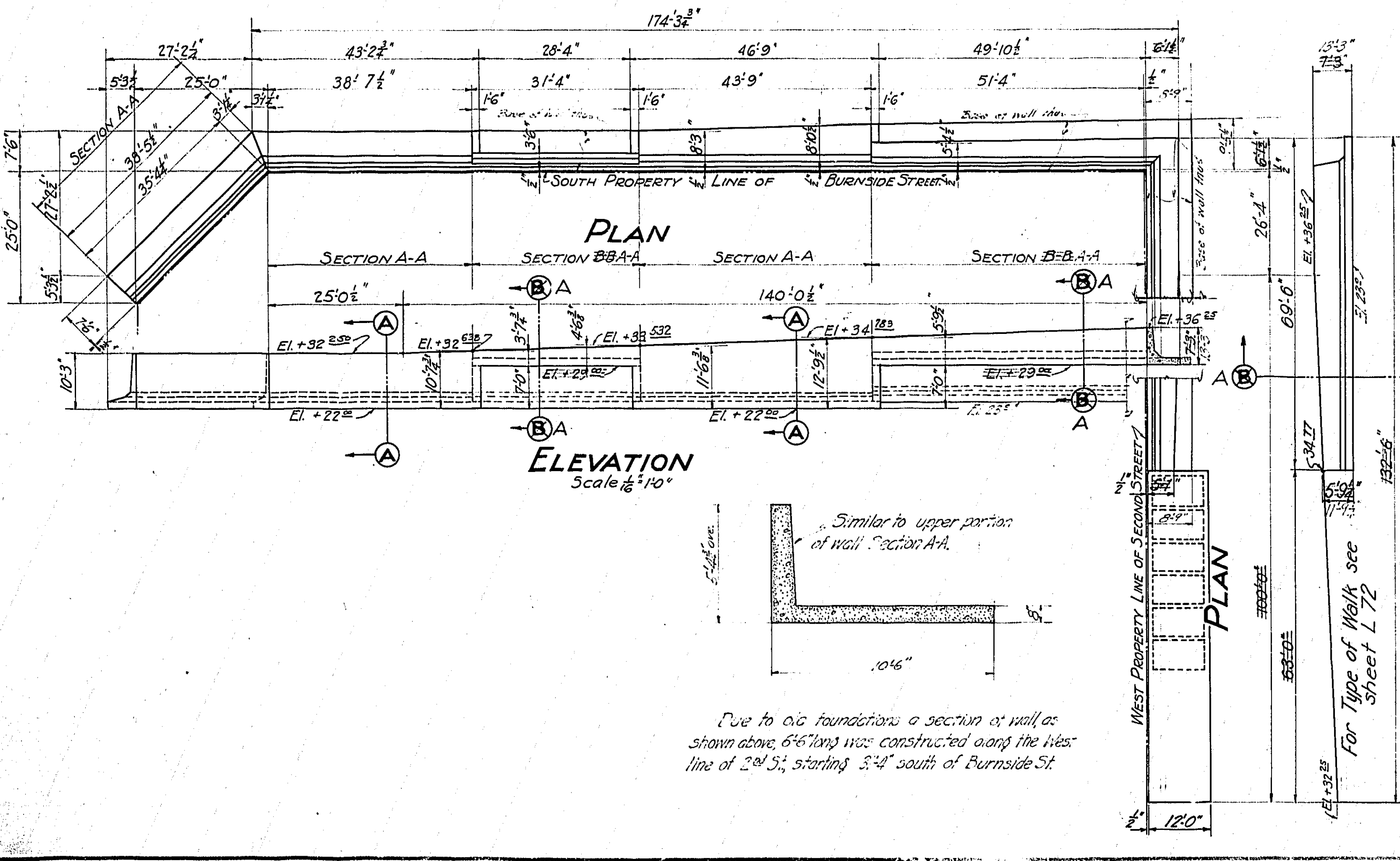
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REVISED

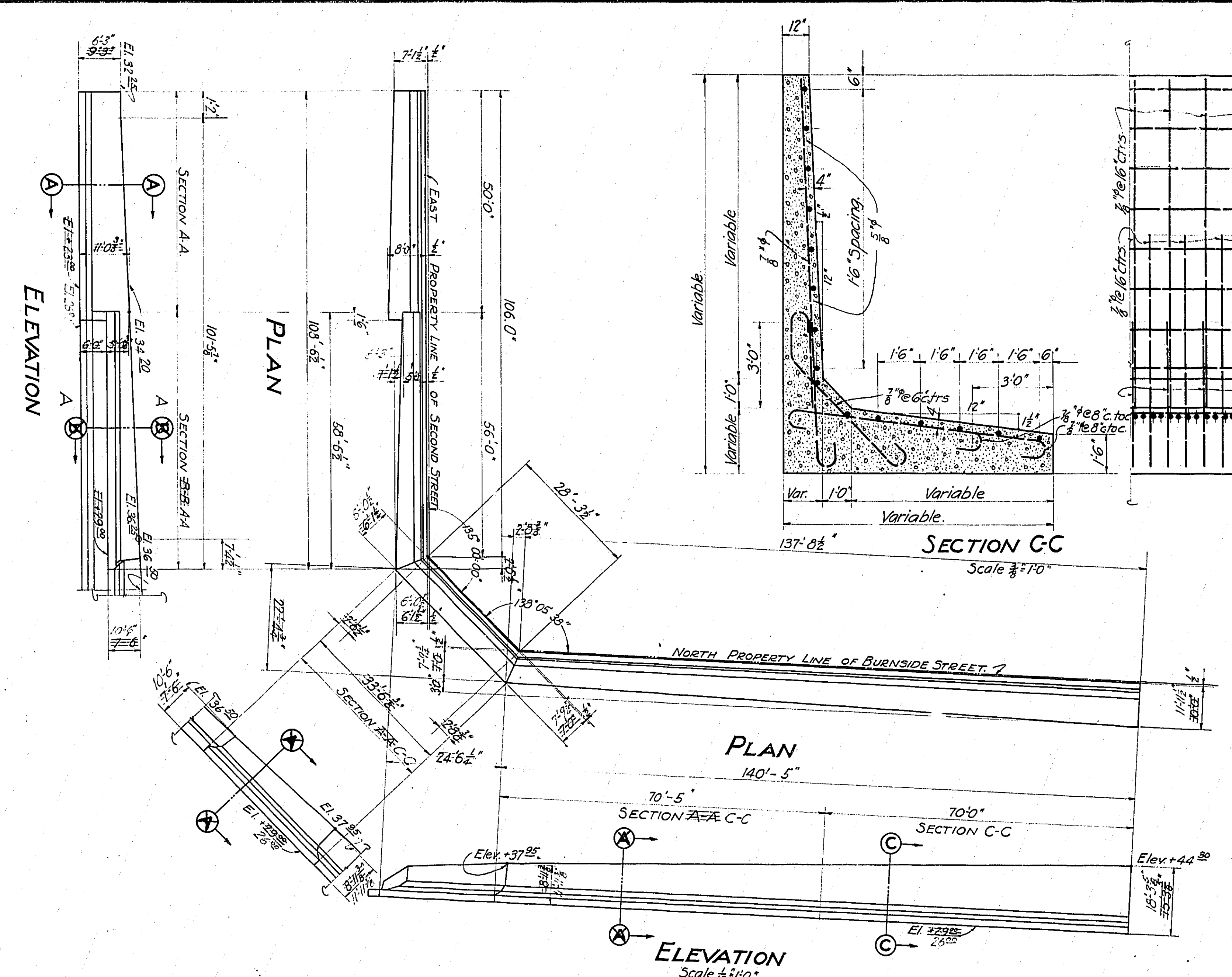


ELEVATION. Scale 3/8"=1'-0"

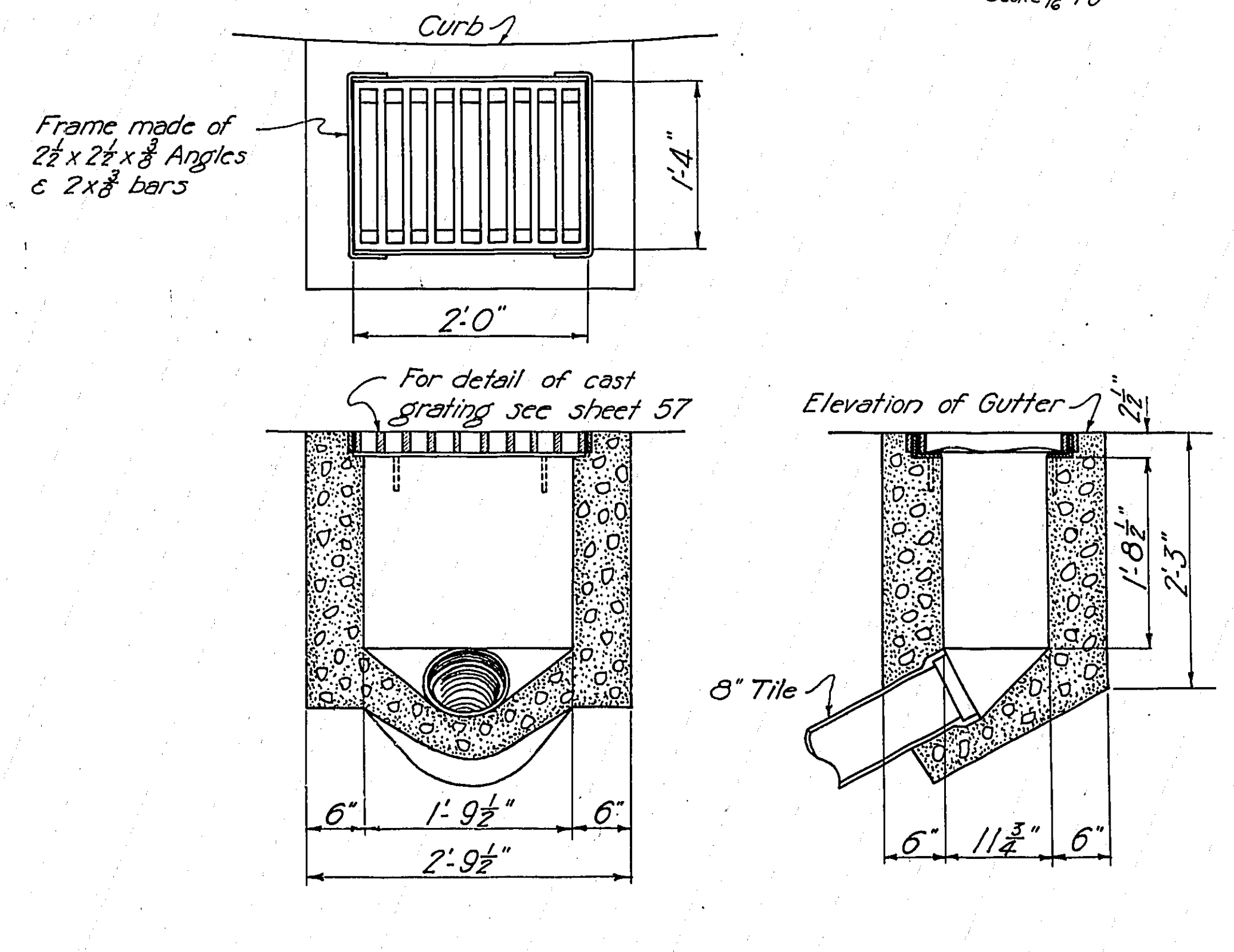


ELEVATION Scale 3/8"=1'-0"

Due to the foundation a section of wall as shown above 6'6" long was constructed along the West line of 2nd St., starting 3'4" south of Burnside St.



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



DETAIL OF INLET Scale 1"=1'-0" 1-2-4 Concrete

Concrete 1-2-4
For location see sheet L 70
For wall between 2nd & 3rd Streets on south side of Burnside Street see sheet L 72.

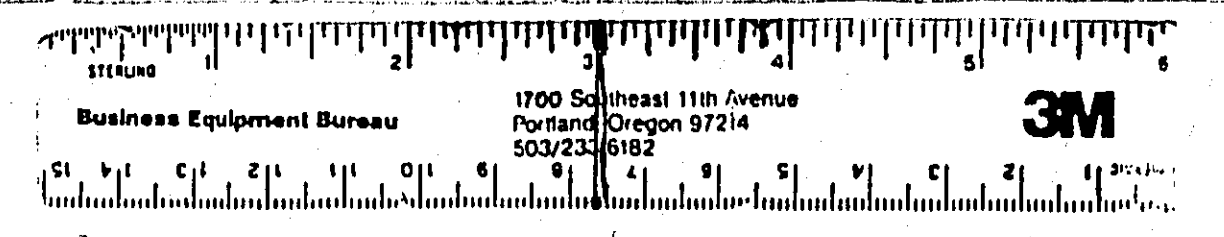
Note: References to sheets not belonging to this contract are to drawings for main contract, Burnside Bridge, on file with County Clerk.

MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
 PORTLAND-OREGON.
RETAINING WALLS
WEST APPROACH FILL

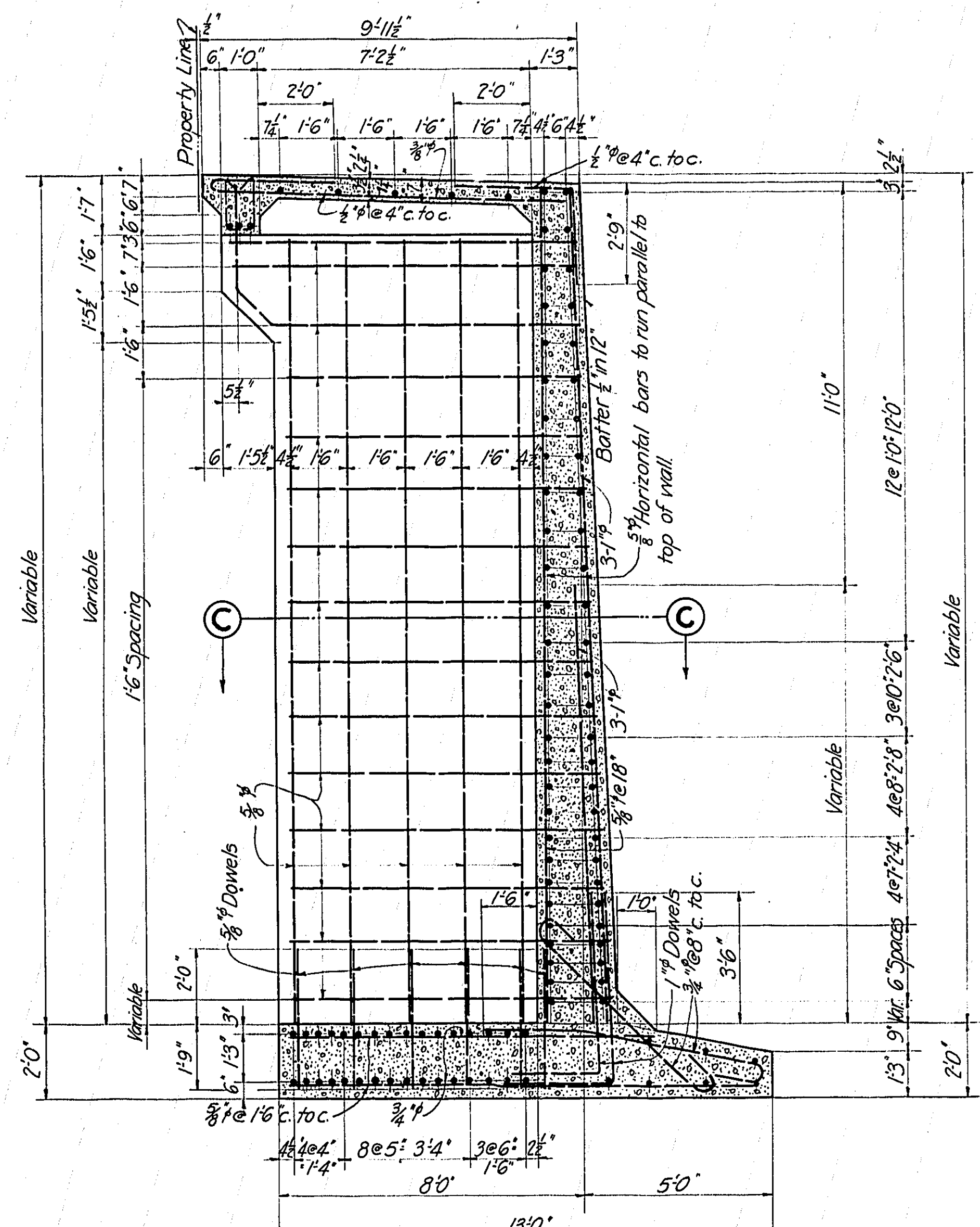
MADE BY *J.D. Smith*
 CHECKED BY *J.D. Smith*
 TRACED BY *W.D. Smith*
 CHECKED BY KHS
 DRAWING NO. GL-199-B
 SHEETS

GUSTAV LINDENTHAL
 CONSULTING ENGINEER
 NEW YORK - PORTLAND, ORE.
 DATE 12-9-24
 SHEET NO. L-71
 PORTLAND OREGON
 SCALE: AS NOTED
 ABL
 60

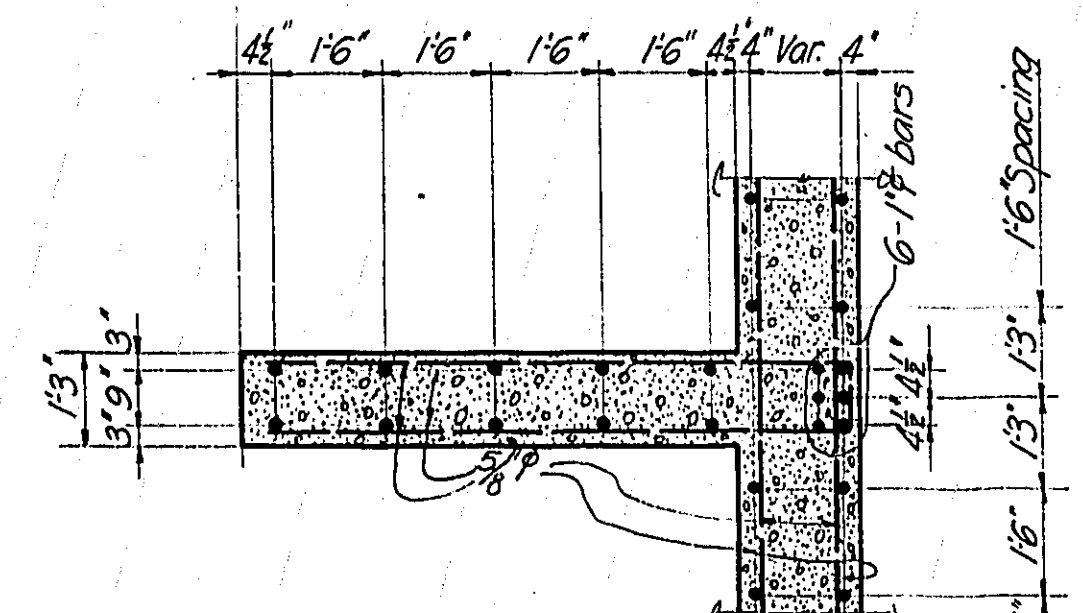
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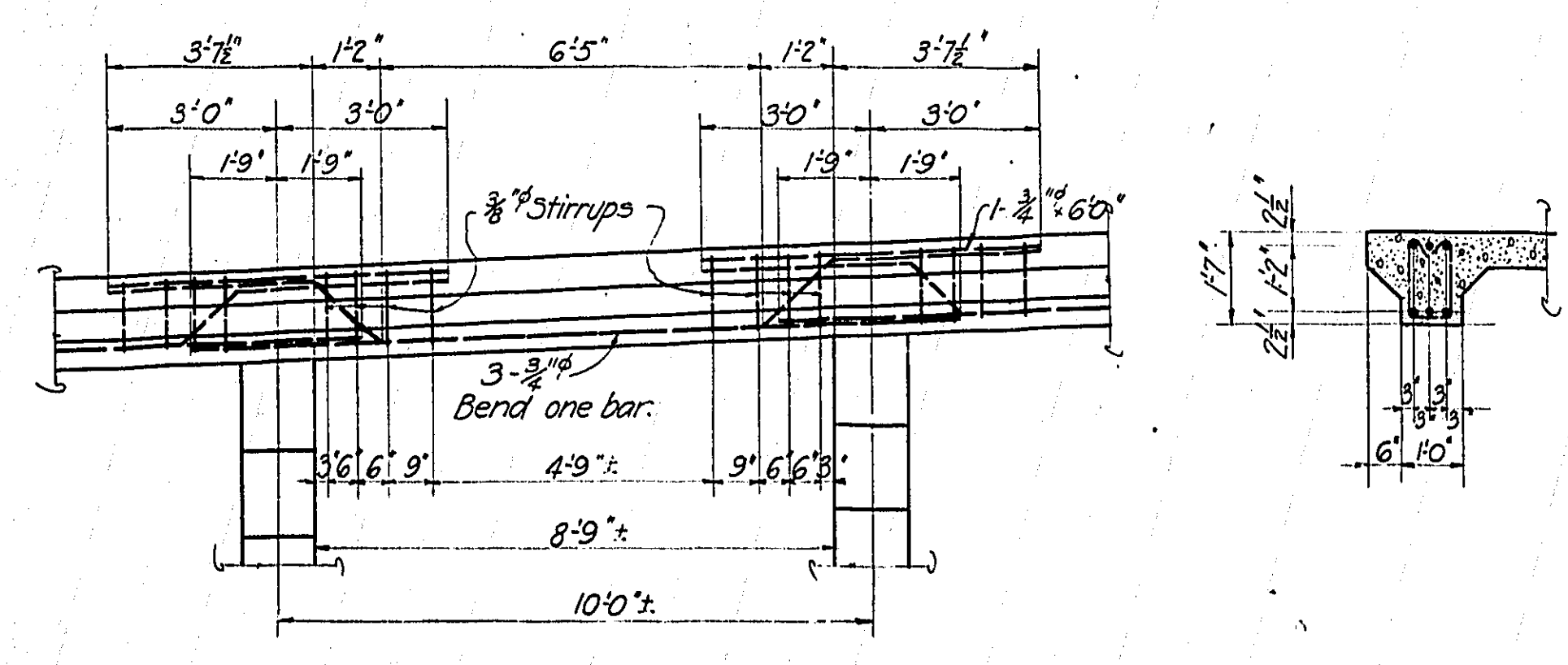
REVISED



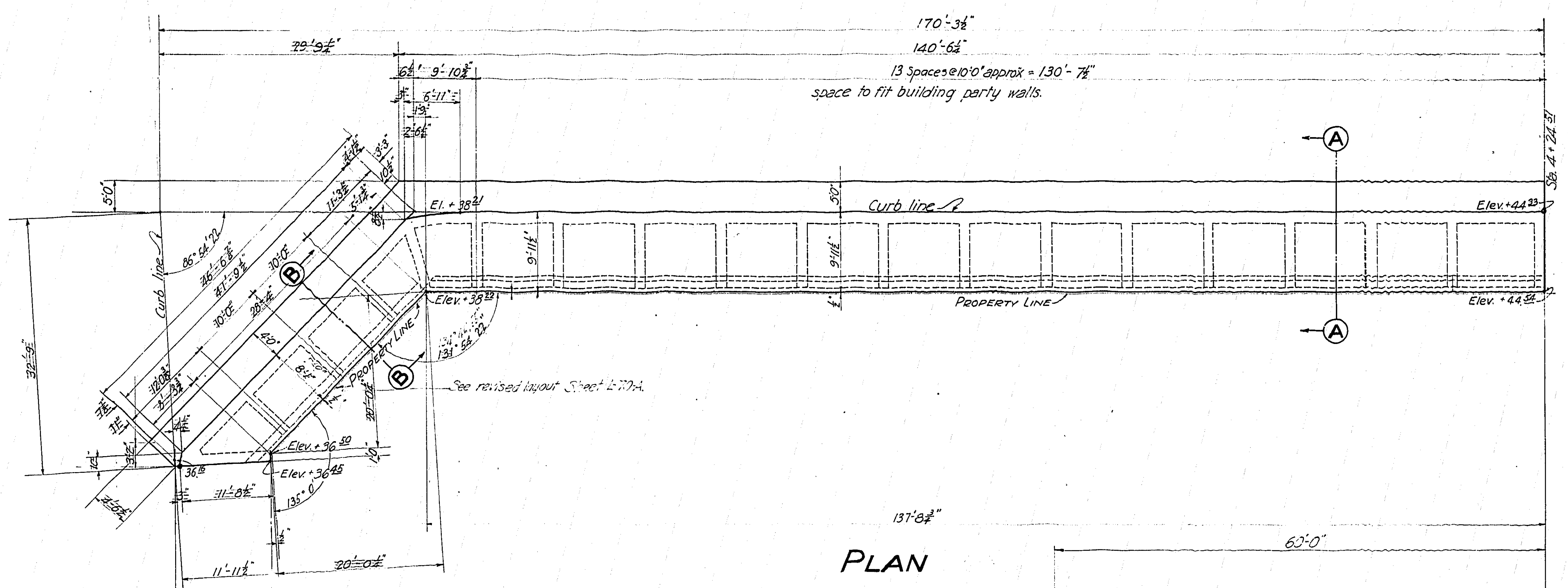
SECTION A-A.



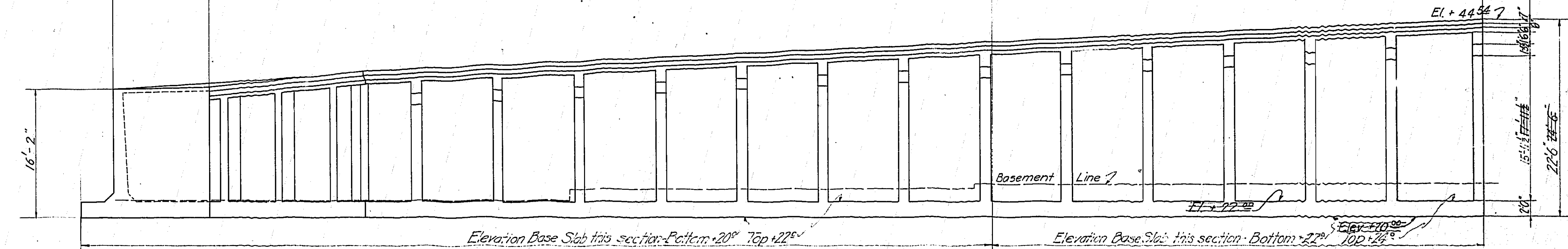
SECTION C-C.



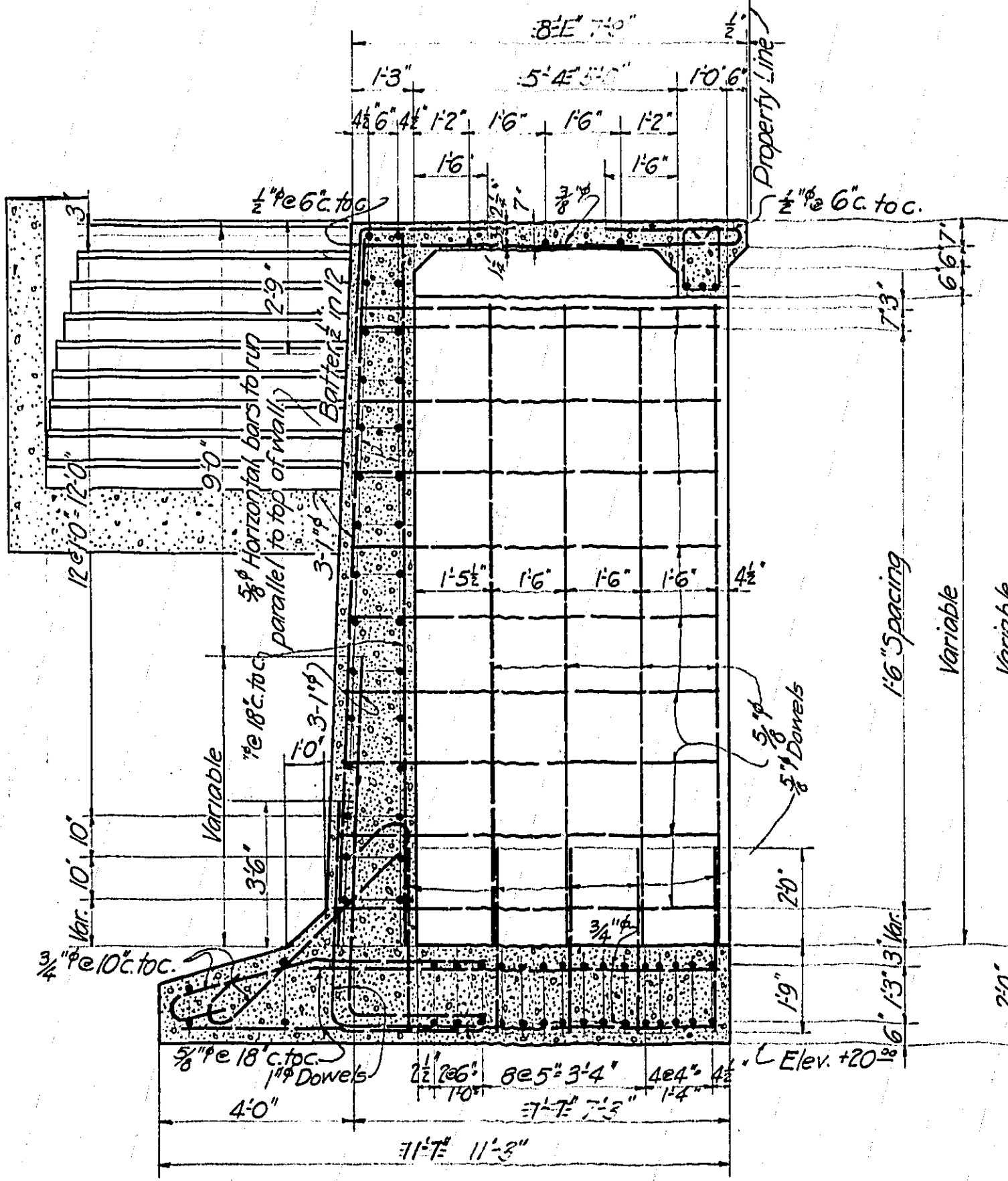
SIDEWALK BEAM.



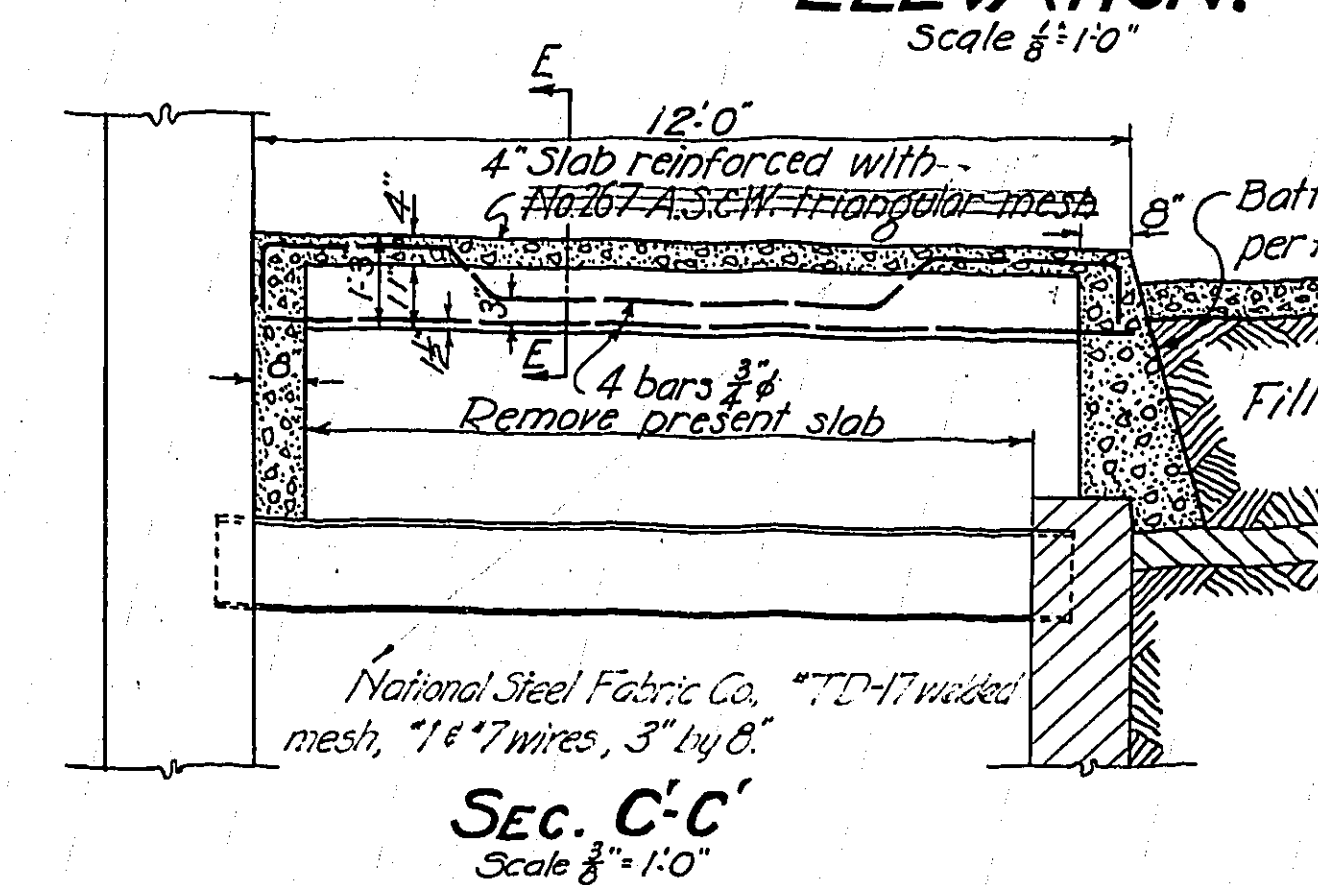
PLAN



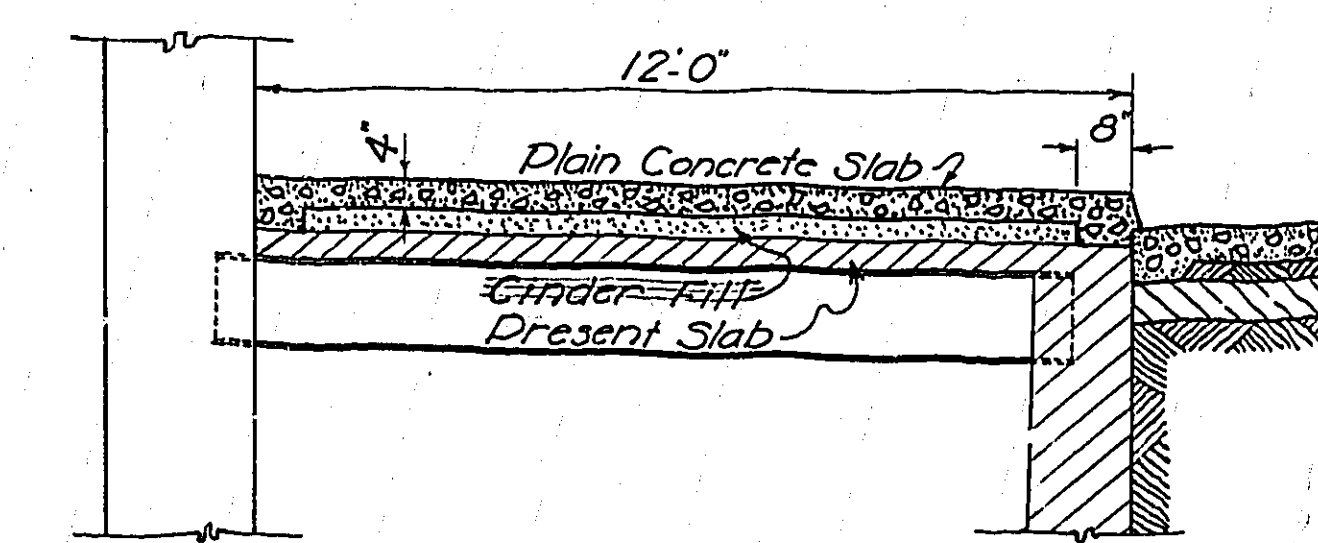
ELEVATION.



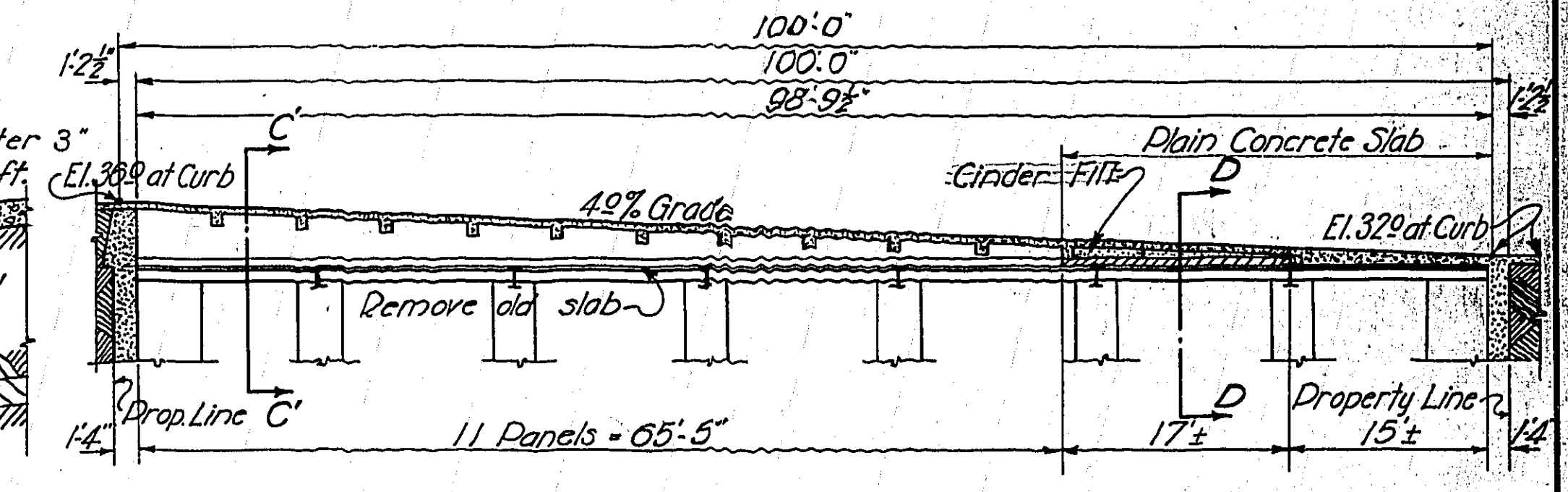
SECTION B-B.



SEC. C-C.



SEC. D-D.



LONGITUDINAL SECTION

The above details are for the reconstruction of the walk on the west side of Secord St. north of Burnside St. They will apply with slight modification to walks on both sides of Secord St. south of Burnside St.

For Location see general plan sheet L 70
 For stairway " " " " L 74
 Concrete mix 1:2:4

MULTNOMAH COUNTY - OREGON

BURNSIDE BRIDGE.
 PORTLAND, OREGON.

**WEST APPROACH
 BUTTRESS RETAINING WALL**

MADE BY *W. J. Smith*
 CHECKED BY *W. J. Smith*
 DRAWING NO. GL-140-B
 SHEETS

GUSTAV LINDENTHAL
 CONSULTING ENGINEER
 NEW YORK - PORTLAND, ORE.
 DATE: 12-24
 SHEET NO. L-112
 PORTLAND OFFICE

SCALE: AS NOTED

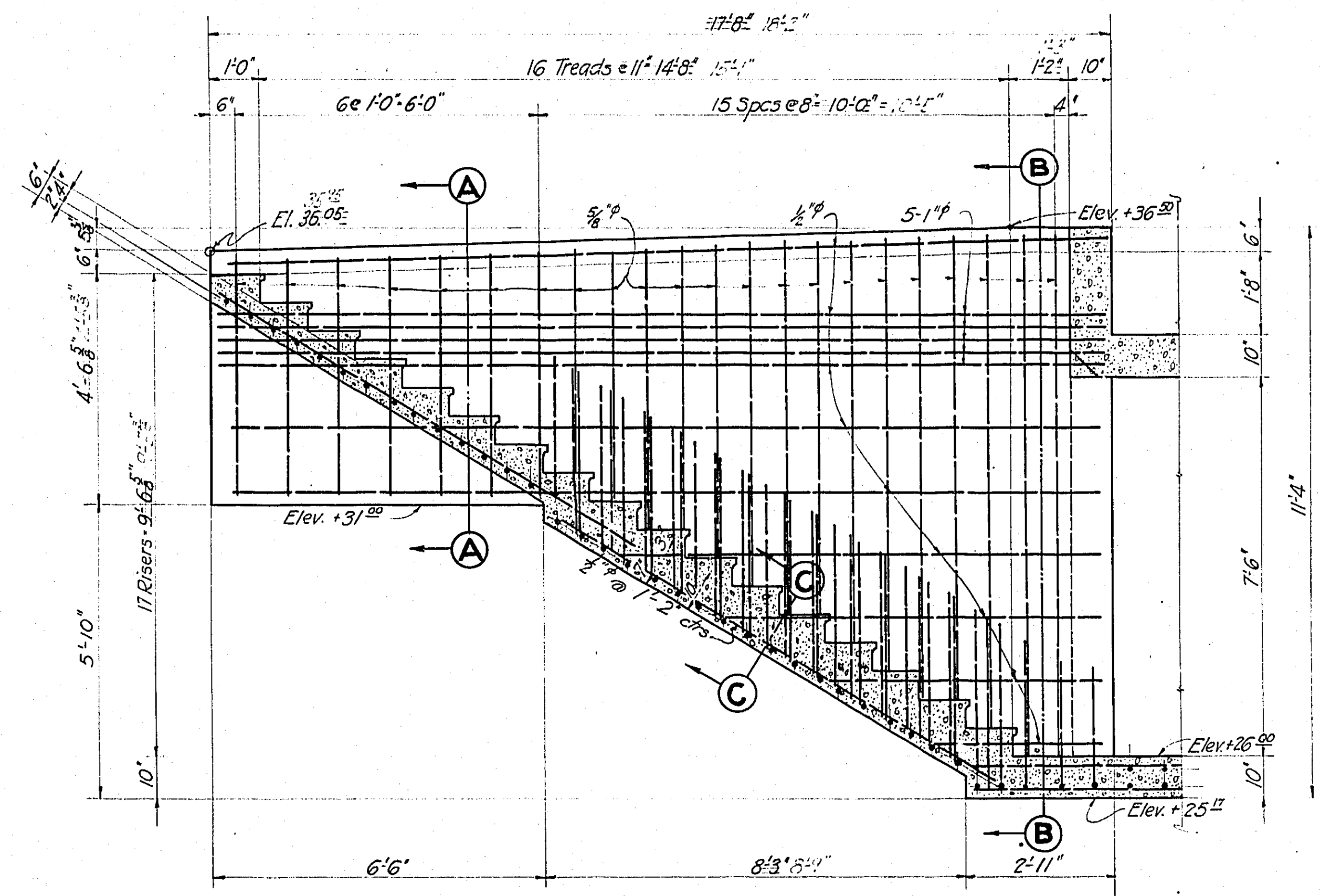
ABJ
 BT

NOTICE: IF THIS DOCUMENT IS LESS
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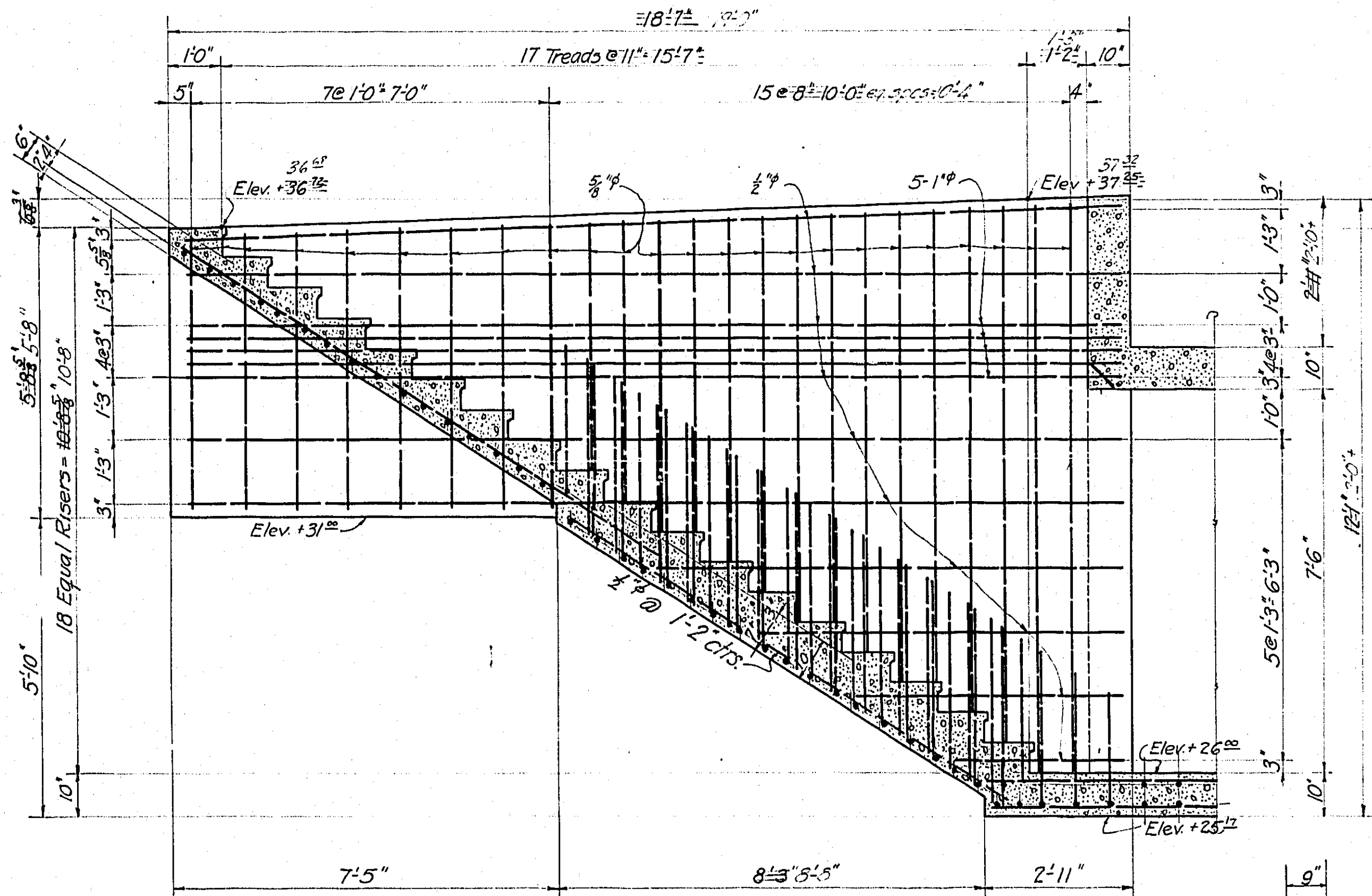
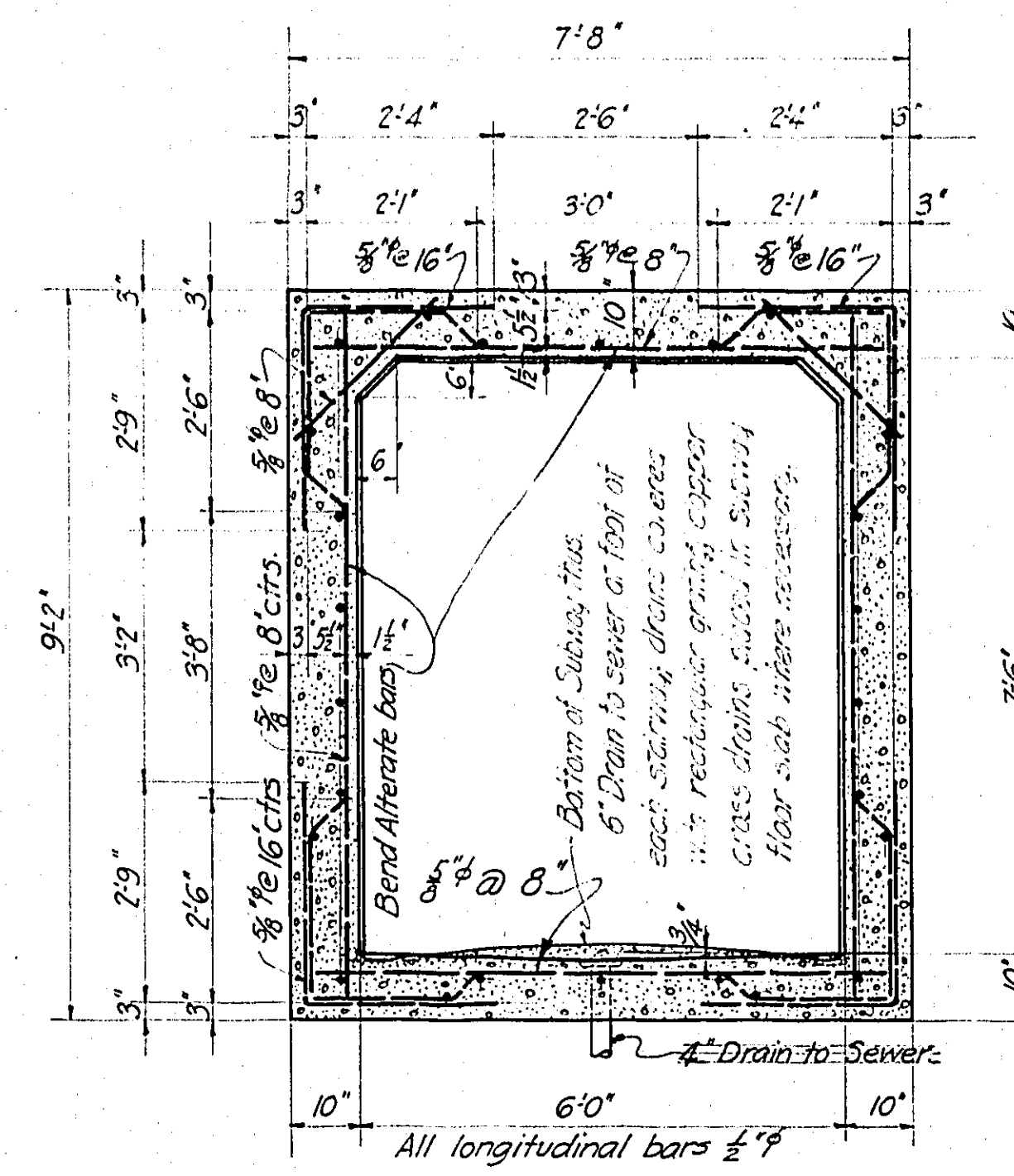
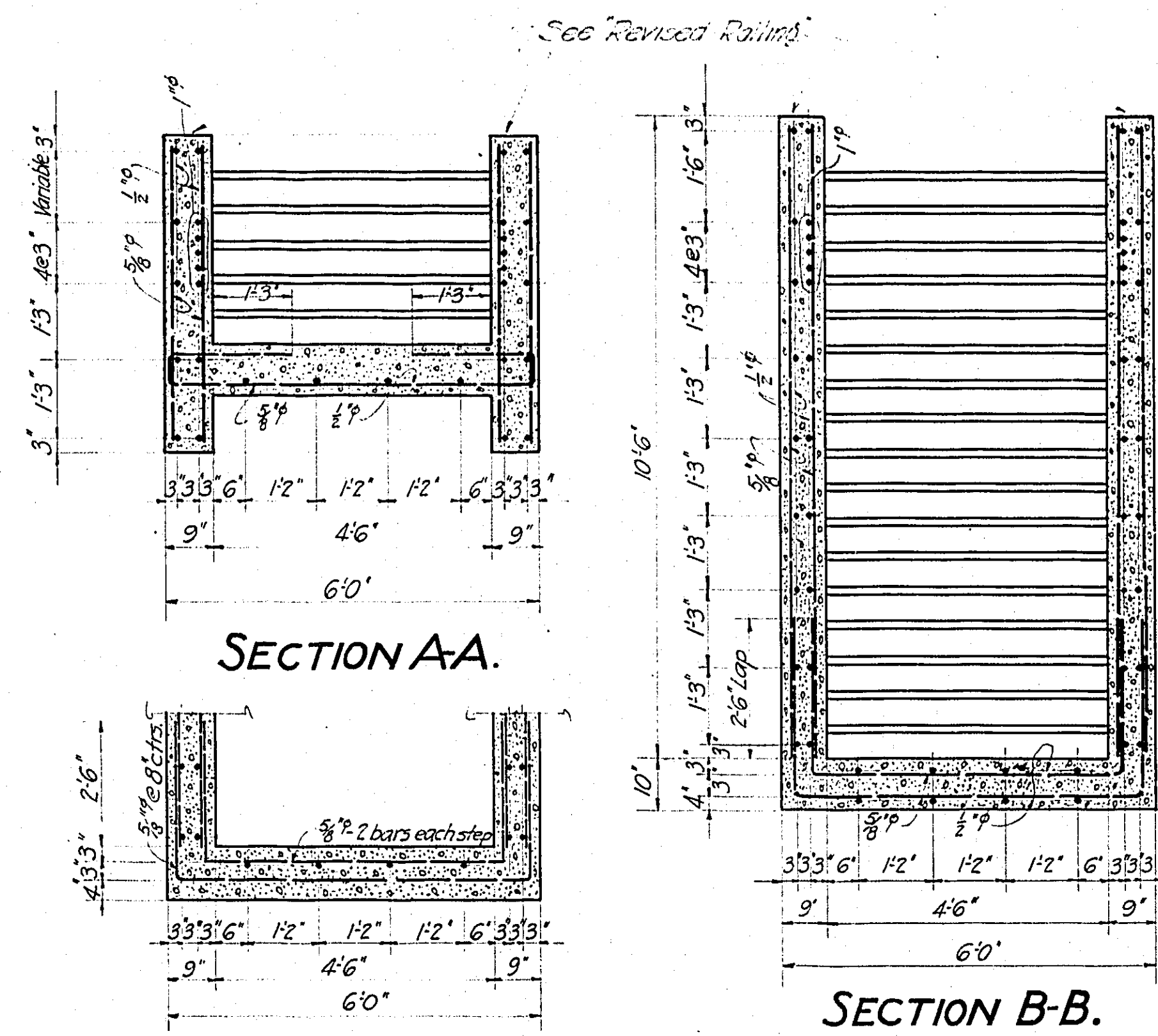
1700 Southeast 11th Avenue
 Portland, Oregon 97214
 503-241-4141

3M

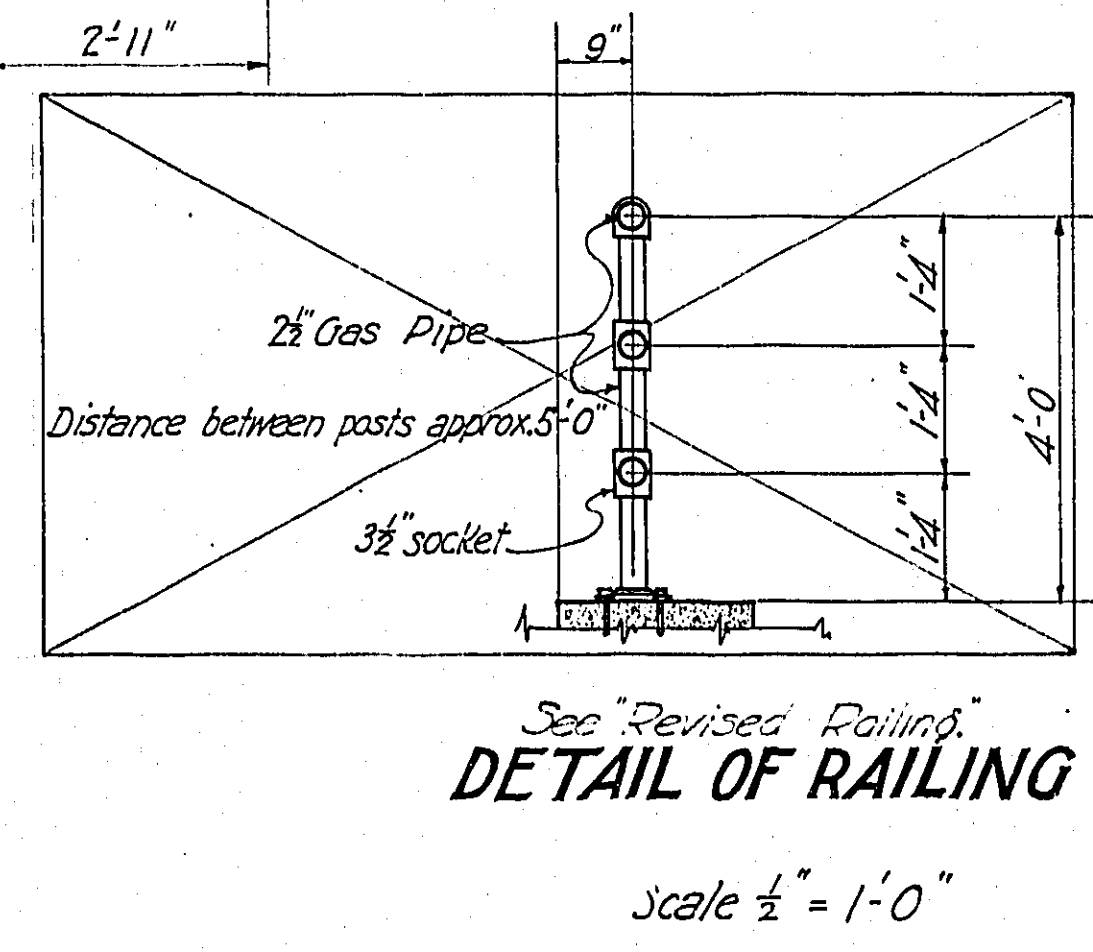
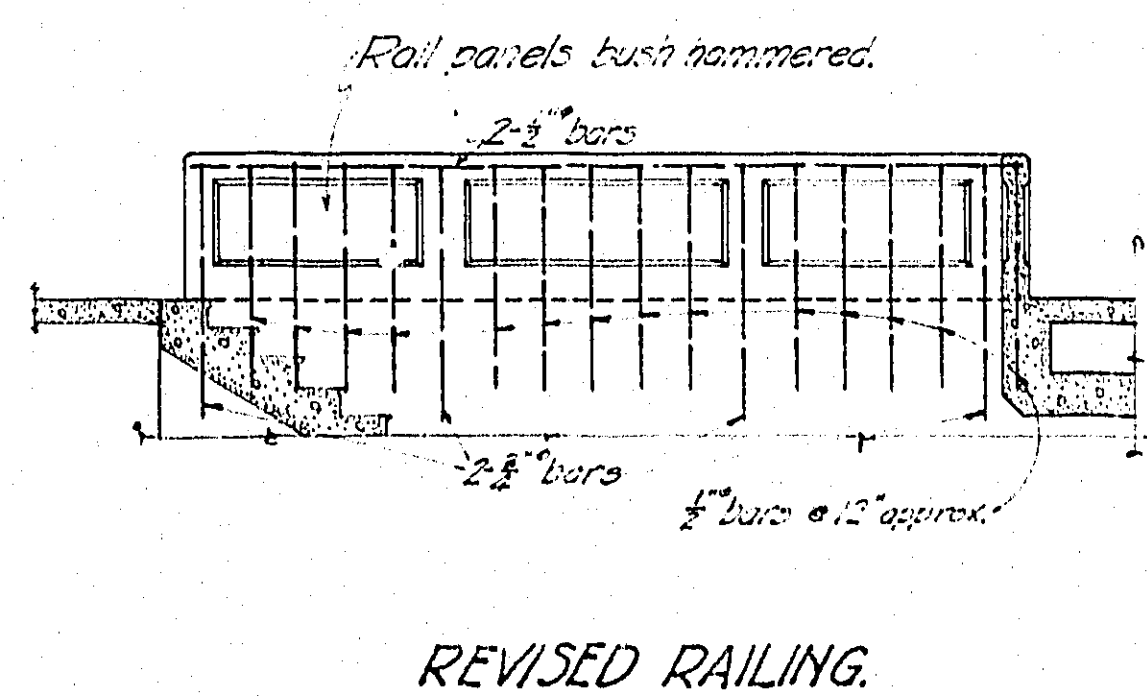
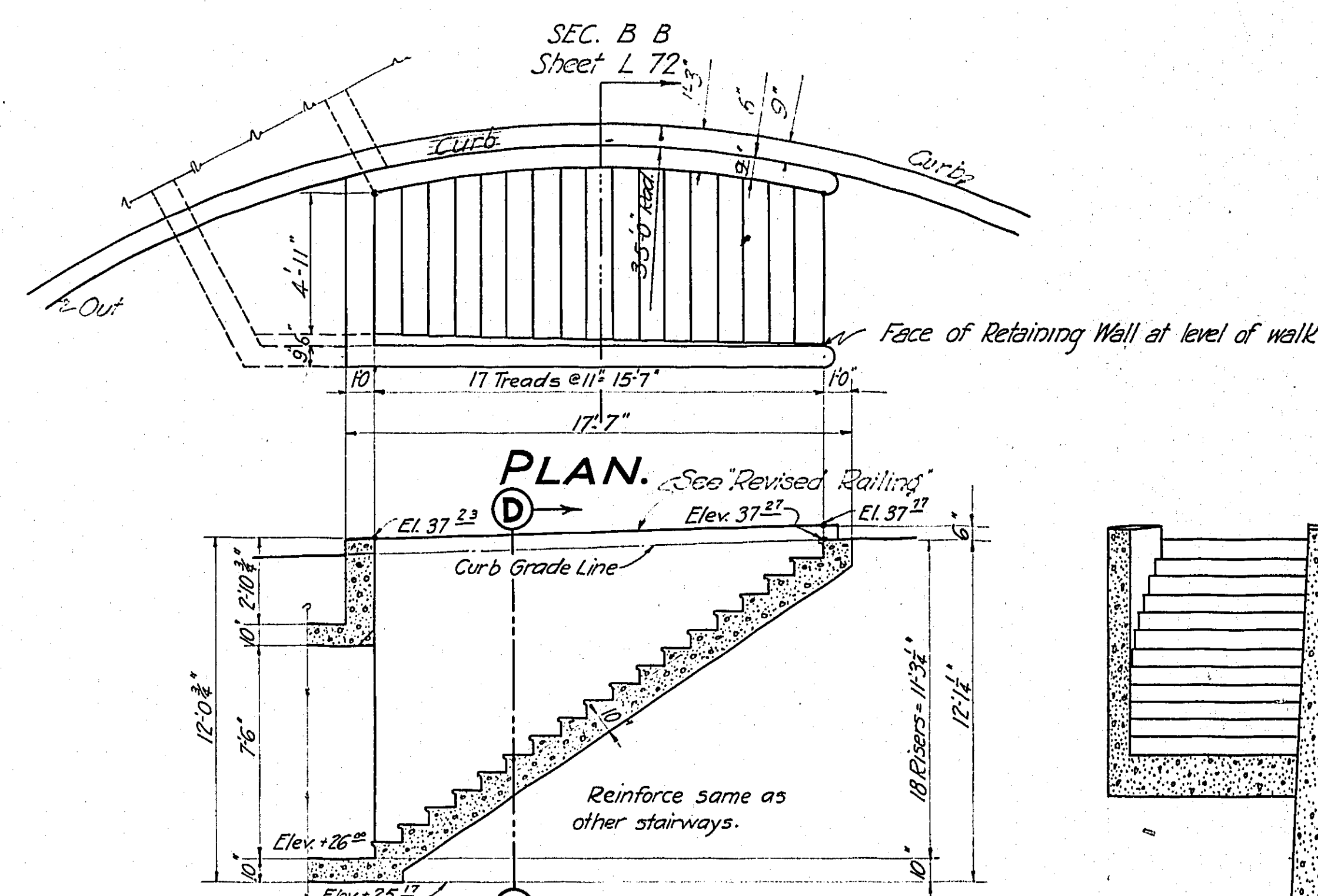
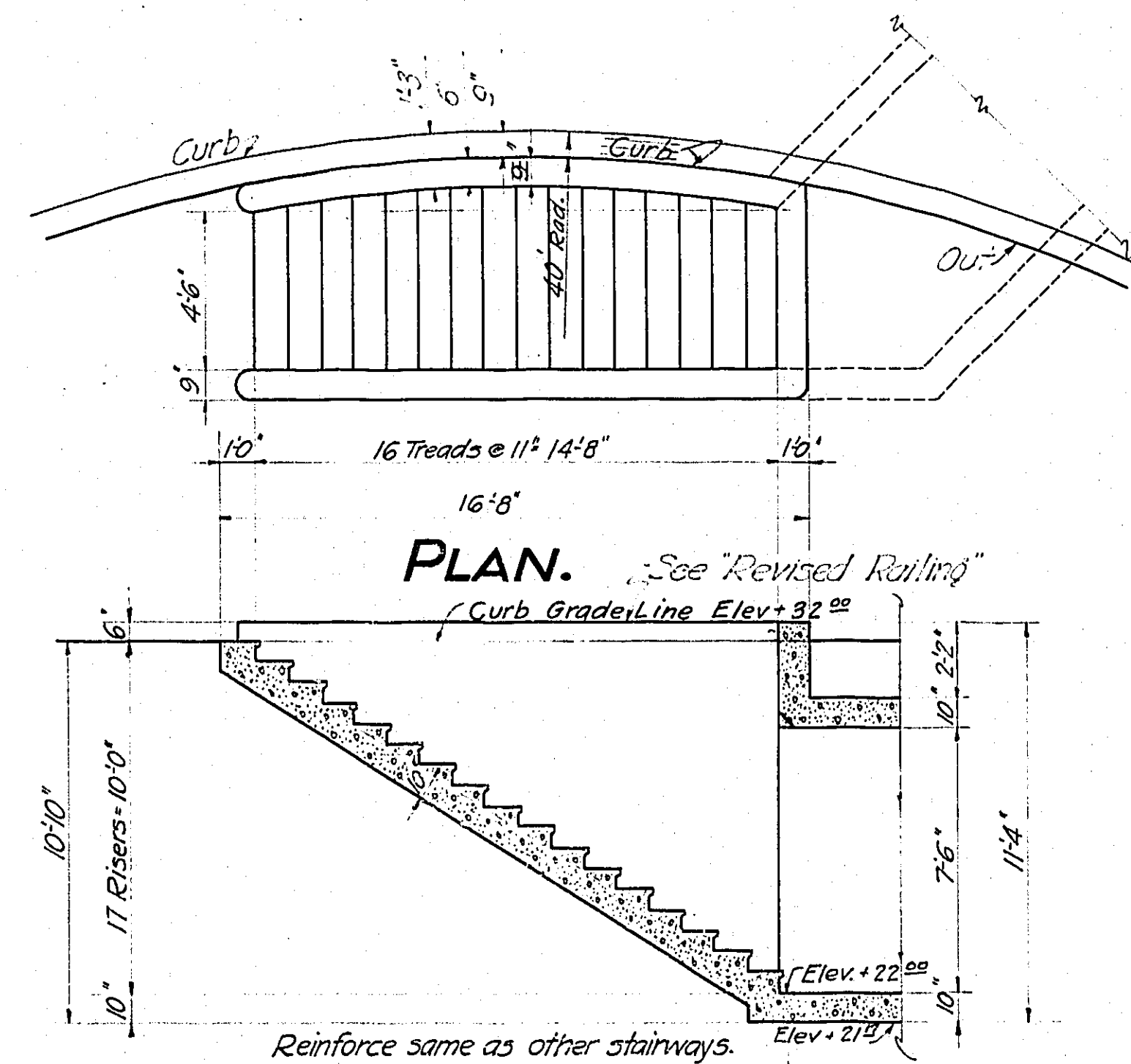
REVISED



STAIRWAY No. 1



STAIRWAY No. 2
Sections similar to Stairway No. 1



MULTNOMAH COUNTY - OREGON
BURNSIDE BRIDGE.
 PORTLAND, OREGON.
WEST APPROACH
STAIRWAYS & SUBWAYS.

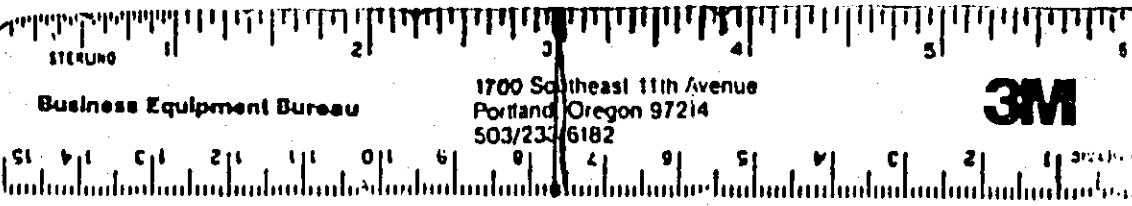
MADE BY *W.D. Smith*
 CHECKED BY *W.D. Smith*
 TRACED BY *W.D. Smith*
 CHECKED BY *K.H.S.*
 DRAWING No. GL-142-B
 SHEETS

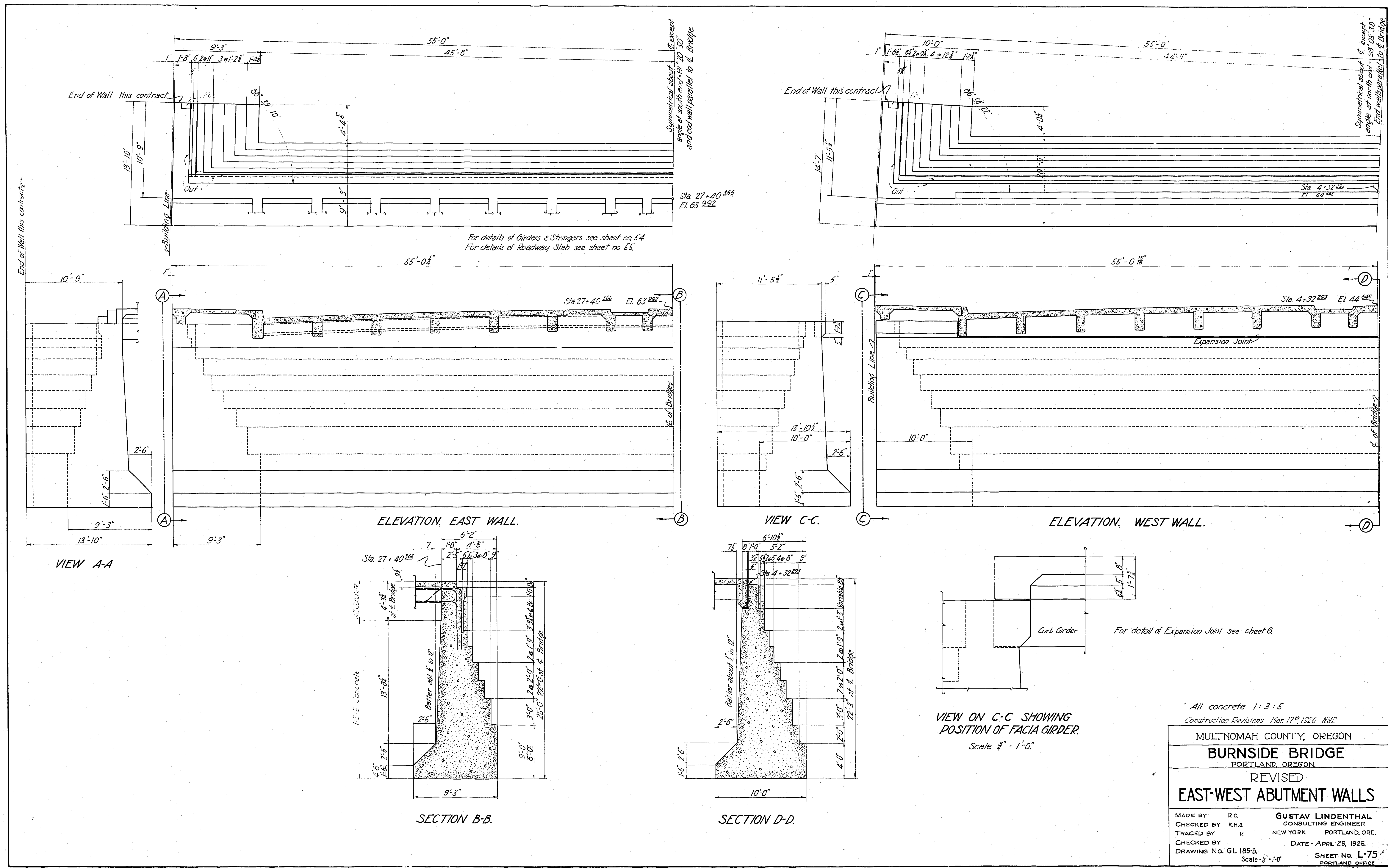
GUSTAV LINDENTHAL
 CONSULTING ENGINEER
 NEW YORK - PORTLAND, ORE.
 DATE 12-8-22

SHEET No. L-74
 SCALE: 1/4" = 1'-0" UNLESS NOTED OTHERWISE

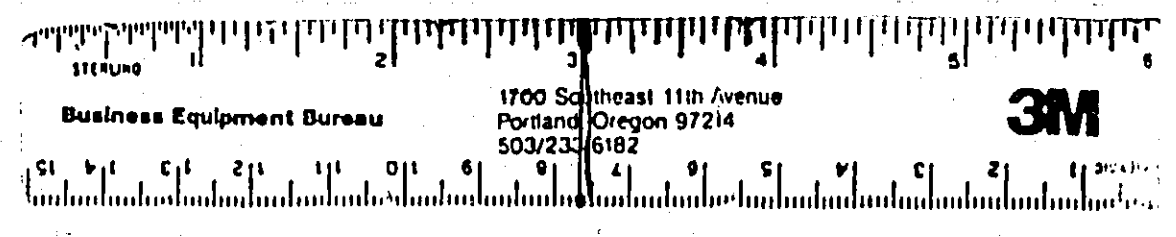
Concrete
 For retaining wall to be built in connection with
 stair wall see sheet L 72

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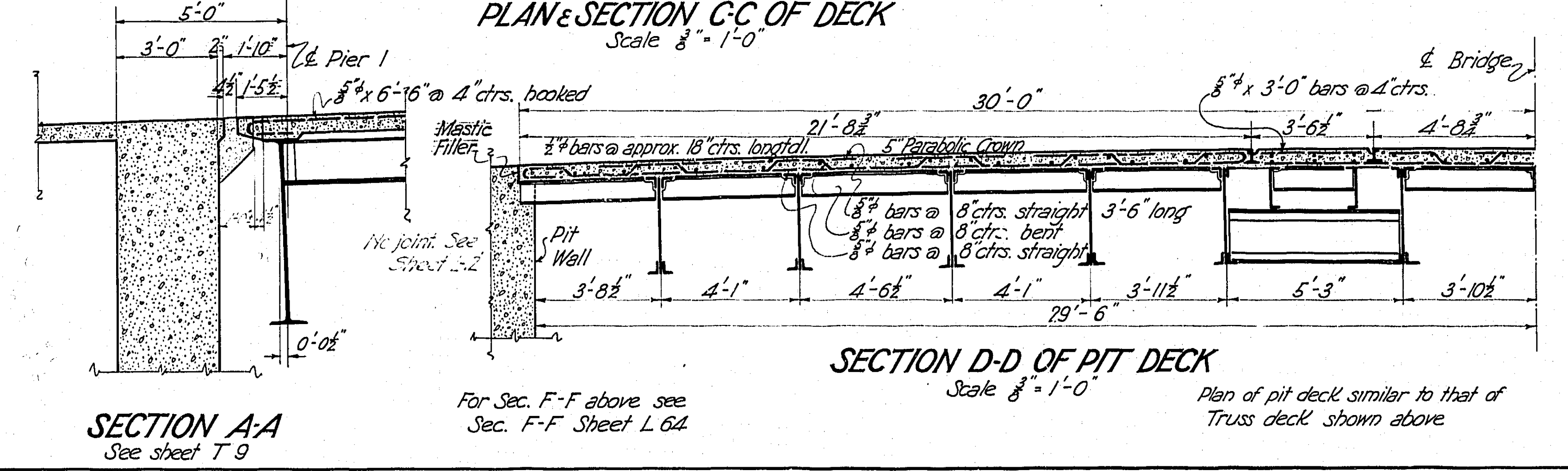
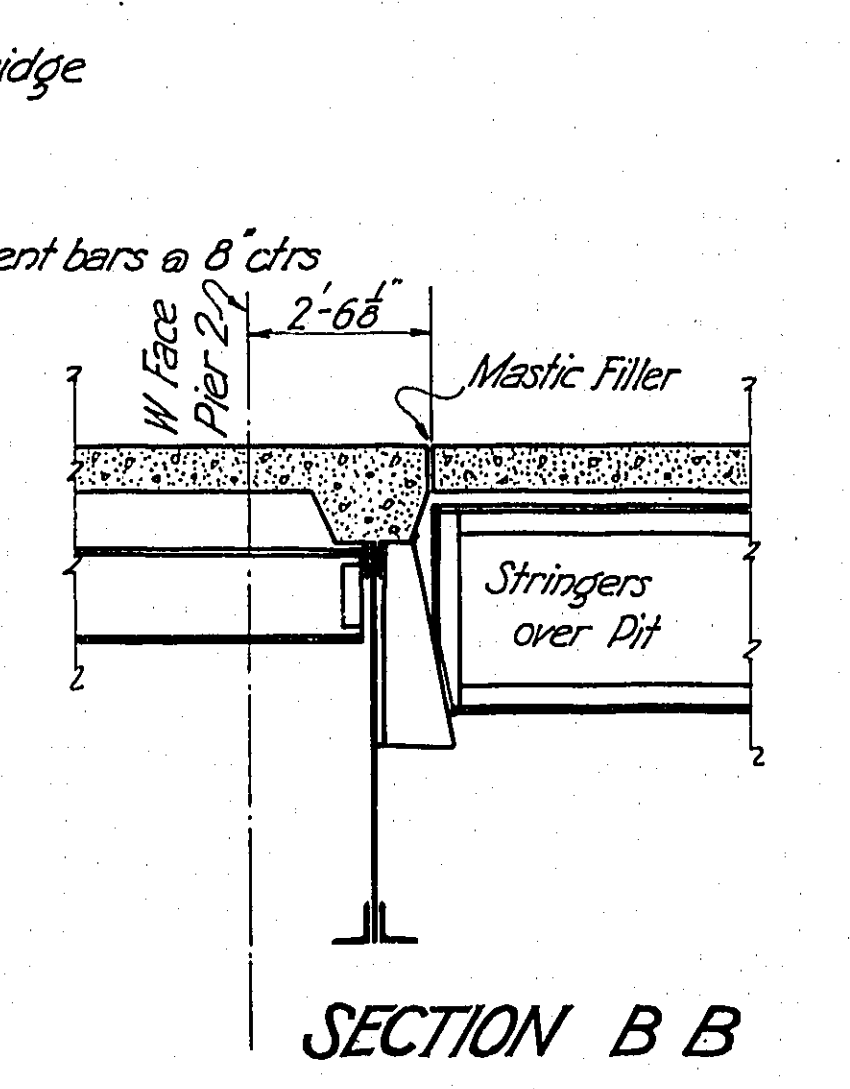
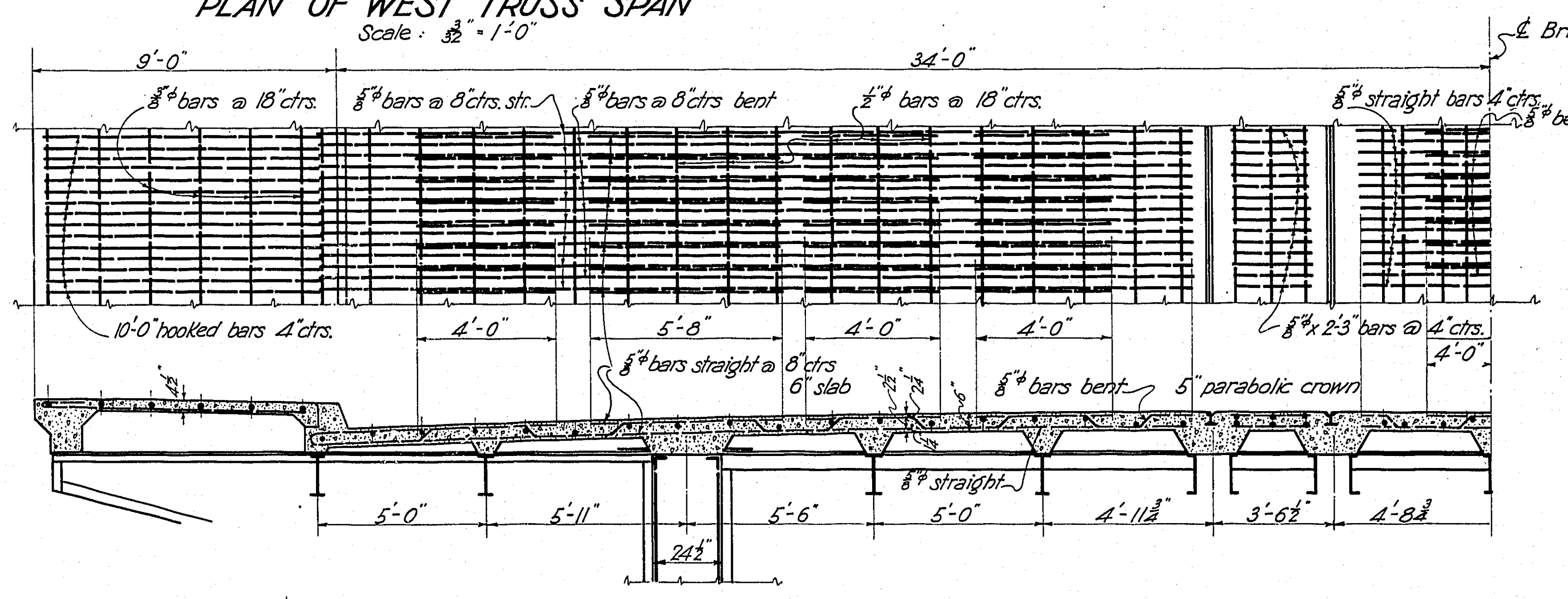
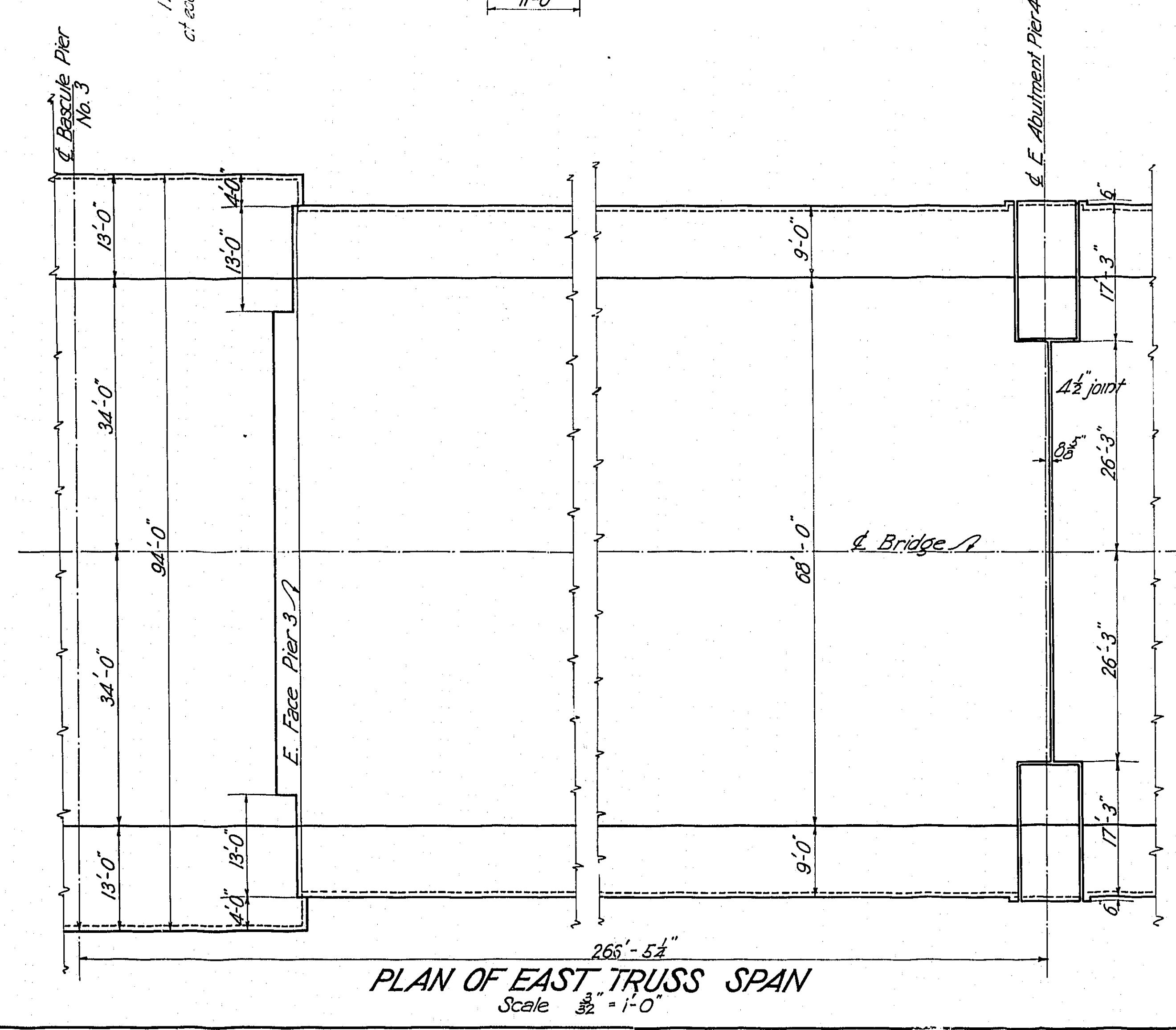
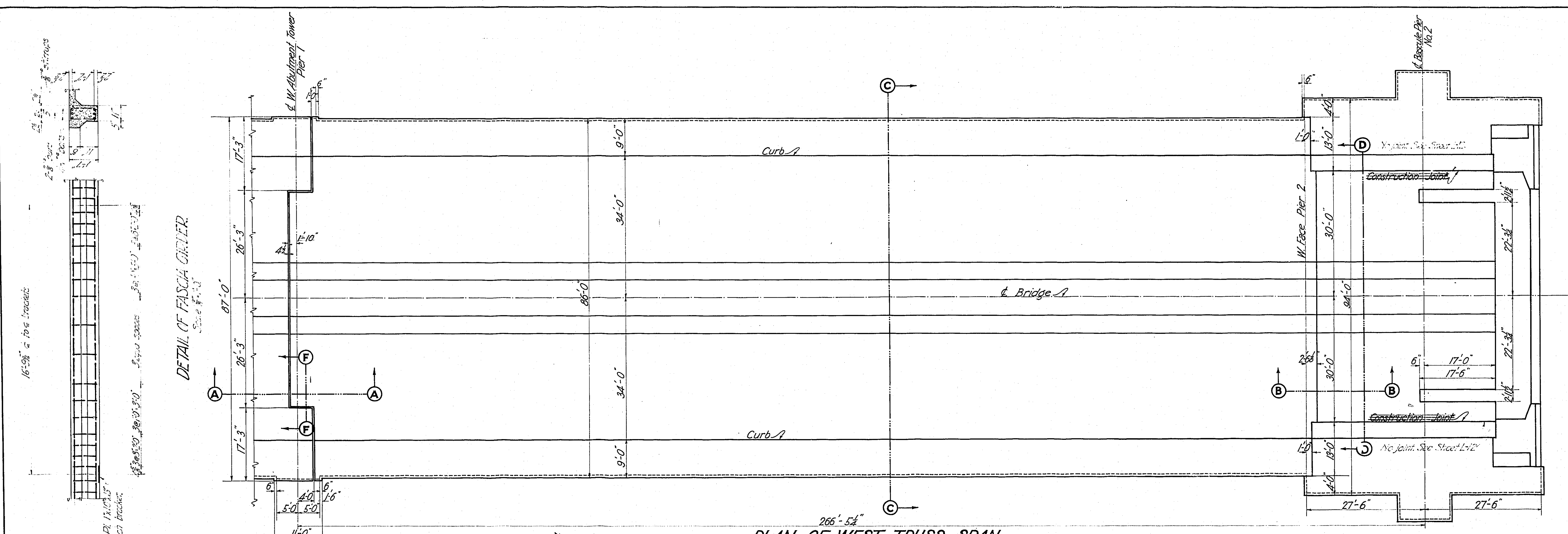


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All concrete 1:3:5
Construction Revisions Mar 17 1926 MLC

MULTNOMAH COUNTY, OREGON	
BURNSIDE BRIDGE	
PORTLAND, OREGON	
REVISED	
EAST-WEST ABUTMENT WALLS	
MADE BY R.C.	GUSTAV LINDENTHAL
CHECKED BY K.H.S.	CONSULTING ENGINEER
TRACED BY R.	NEW YORK PORTLAND, ORE.
CHECKED BY	DATE - APRIL 29, 1925.
DRAWING No. GL 185-B	SHEET No. L-75
Scale 1/4" = 1'-0"	PORTLAND OFFICE



Use this sheet with sheets L-12 & L-16. In case of conflict sheets L-12 & L-16 govern.

Concrete H.F.

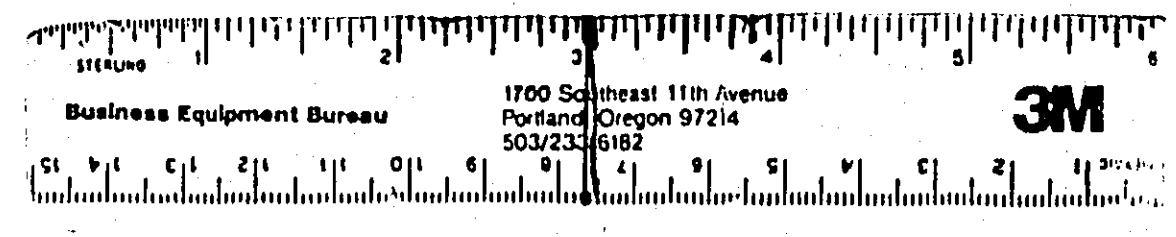
MULTNOMAH COUNTY - OREGON

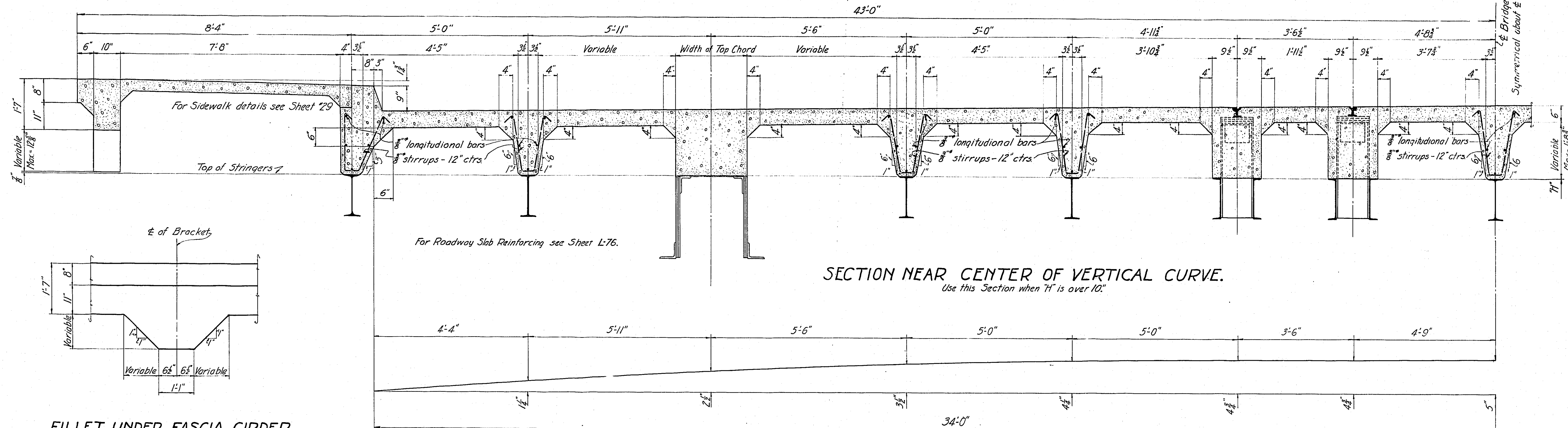
BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF
DECK ON FIXED SPANS

MADE BY R.C. GUSTAV LINDENTHAL
CHECKED BY K.H.S. CONSULTING ENGINEER
TRACED BY R.C. NEW YORK - PORTLAND, ORE.
CHECKED BY DATE JULY 16TH 1925
DRAWING NO. G.L. 187 B SHEET NO. L 76
SHEETS SCALE AS NOTED PORTLAND, OREGON

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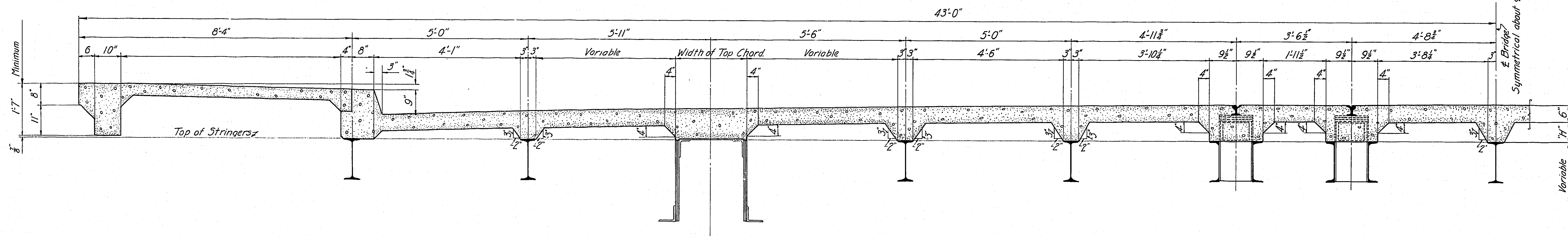
FILLET UNDER FASCIA GIRDER.

SECTION NEAR CENTER OF VERTICAL CURVE.

Use this Section when "H" is over 10'.

CAMBER DIAGRAM.

Not to Scale.



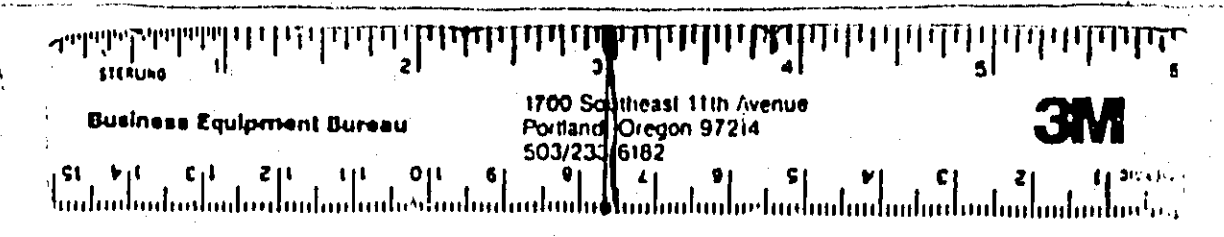
SECTION NEAR END OF SPAN.

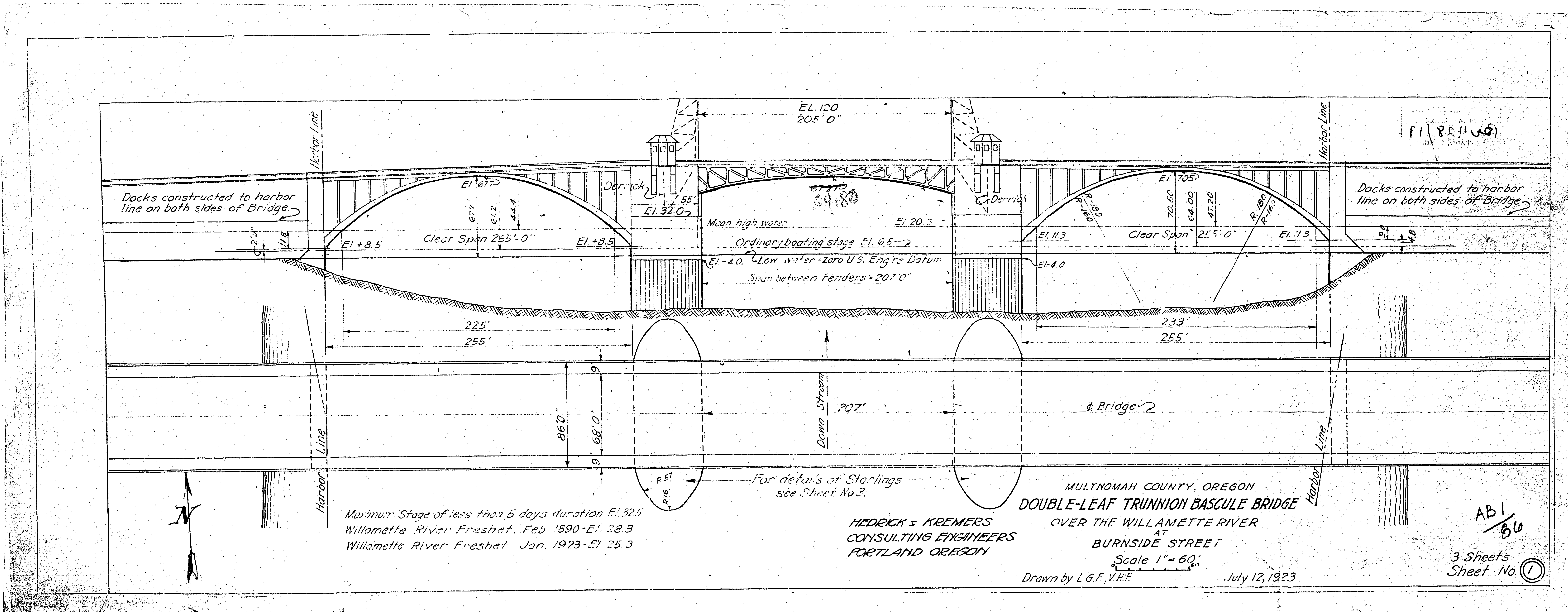
Use this Section when "H" is under 10'.

For Slab Reinforcing see Sheet L-76
Concrete 1-F-2

MULTNOMAH COUNTY - OREGON	
BURNSIDE BRIDGE	
PORTLAND, OREGON	
DETAILS OF	
DECK-WEST FIXED SPAN	
MADE BY <i>RWR</i>	GUSTAV LINDENTHAL CONSULTING ENGINEER
CHECKED BY	NEW YORK - PORTLAND, ORE.
TRACED BY <i>RWR</i>	DATE JAN. 6 th , 1926.
CHECKED BY	DRAWING NO. G.L. 191 B.
	SHEET NO. L 77
	SCALE: 3/8" = 1'-0"
	PORTLAND, OREGON.

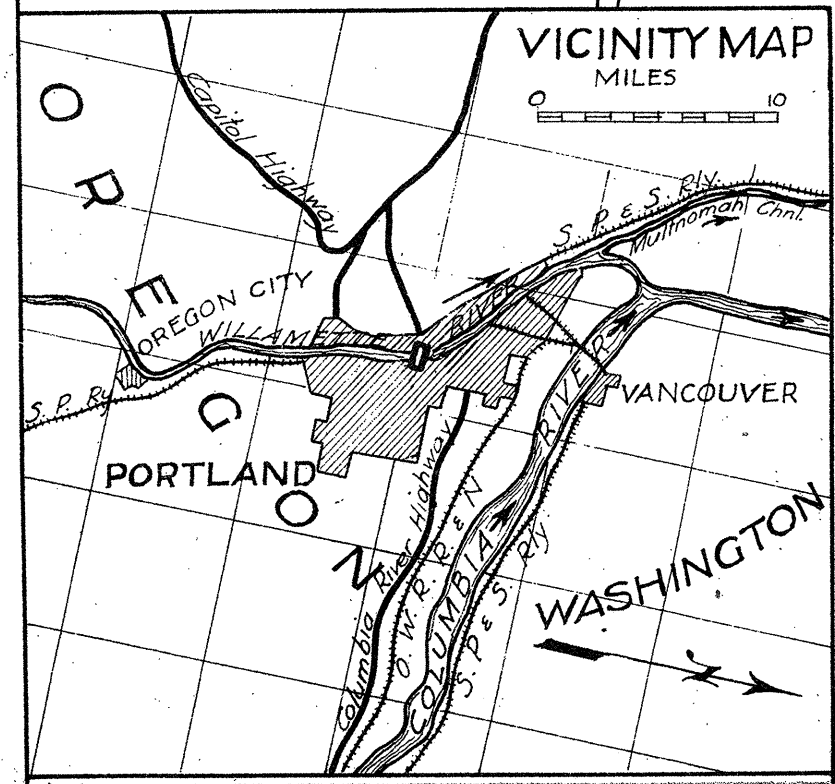
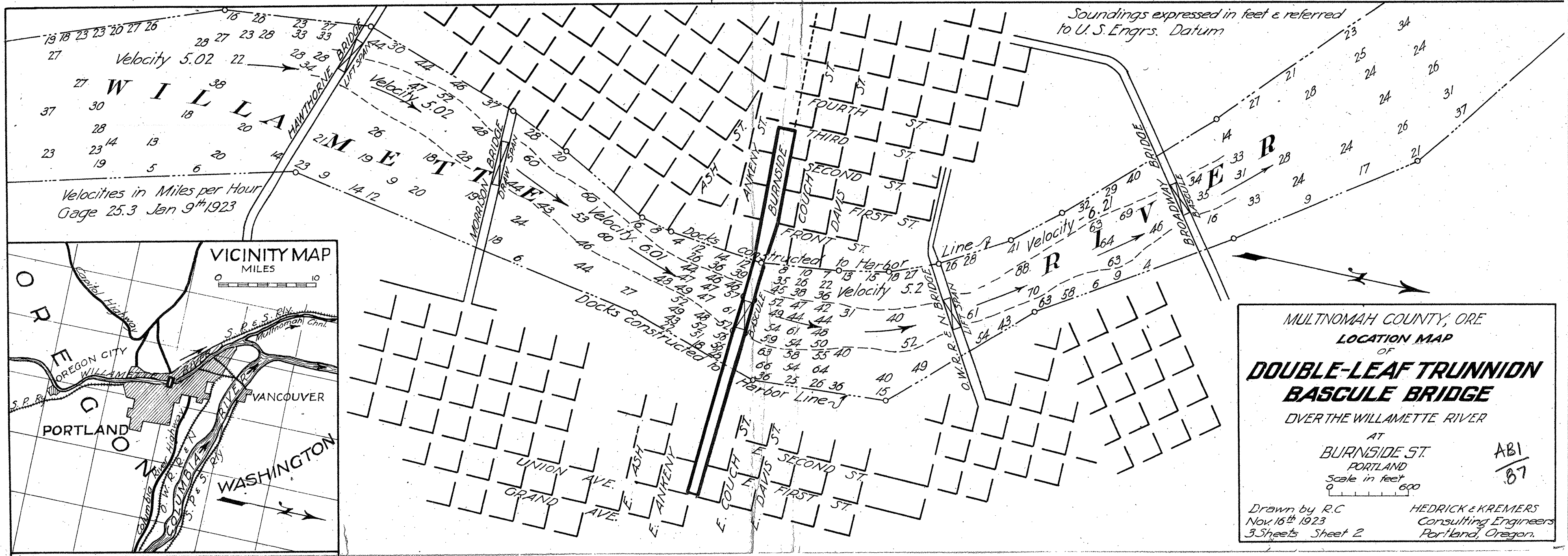
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Business Equipment Bureau
 1700 Southeast 11th Avenue
 Portland, Oregon 97214
 503/231-6182
3M

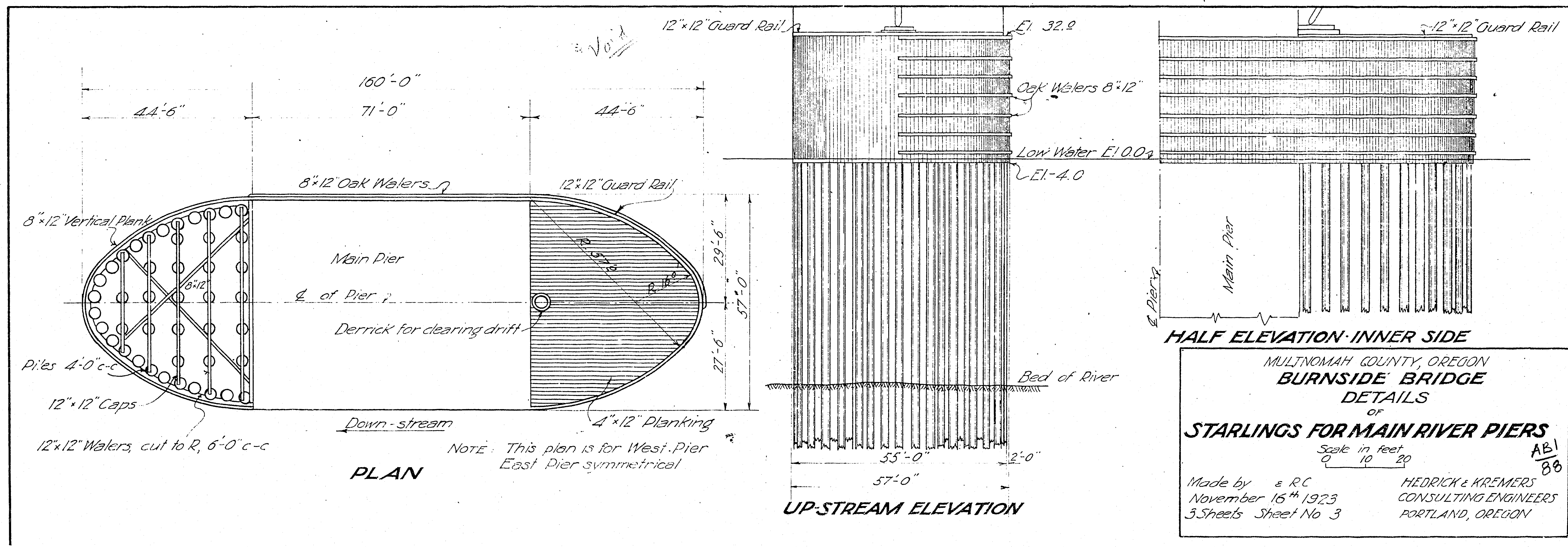


MULTNOMAH COUNTY, ORE.
LOCATION MAP
OF
DOUBLE-LEAF TRUNNION
BASCULE BRIDGE
OVER THE WILLAMETTE RIVER
AT
BURNSIDE ST.
PORTLAND.
Scale in feet
600

Drawn by R.C.
Nov. 16th 1923
3 Sheets Sheet 2

HEDRICK & KREMERS
Consulting Engineers
Portland, Oregon.

ABI
87



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