

STATE OF ARKANSAS  
STATE HIGHWAY DEPARTMENT

PLAN OF PROPOSED BRIDGE  
OVER  
BUFFALO RIVER  
SEARCY COUNTY

ROUTE 65 SEC. 5

JOB No 945

EMERGENCY FINANCIAL FEDERAL AID PROJECT No. 279-F

FEDERAL YEAR: 1928	JOB NO. 945	SHEET NO. 1	TOTAL SHEETS 10
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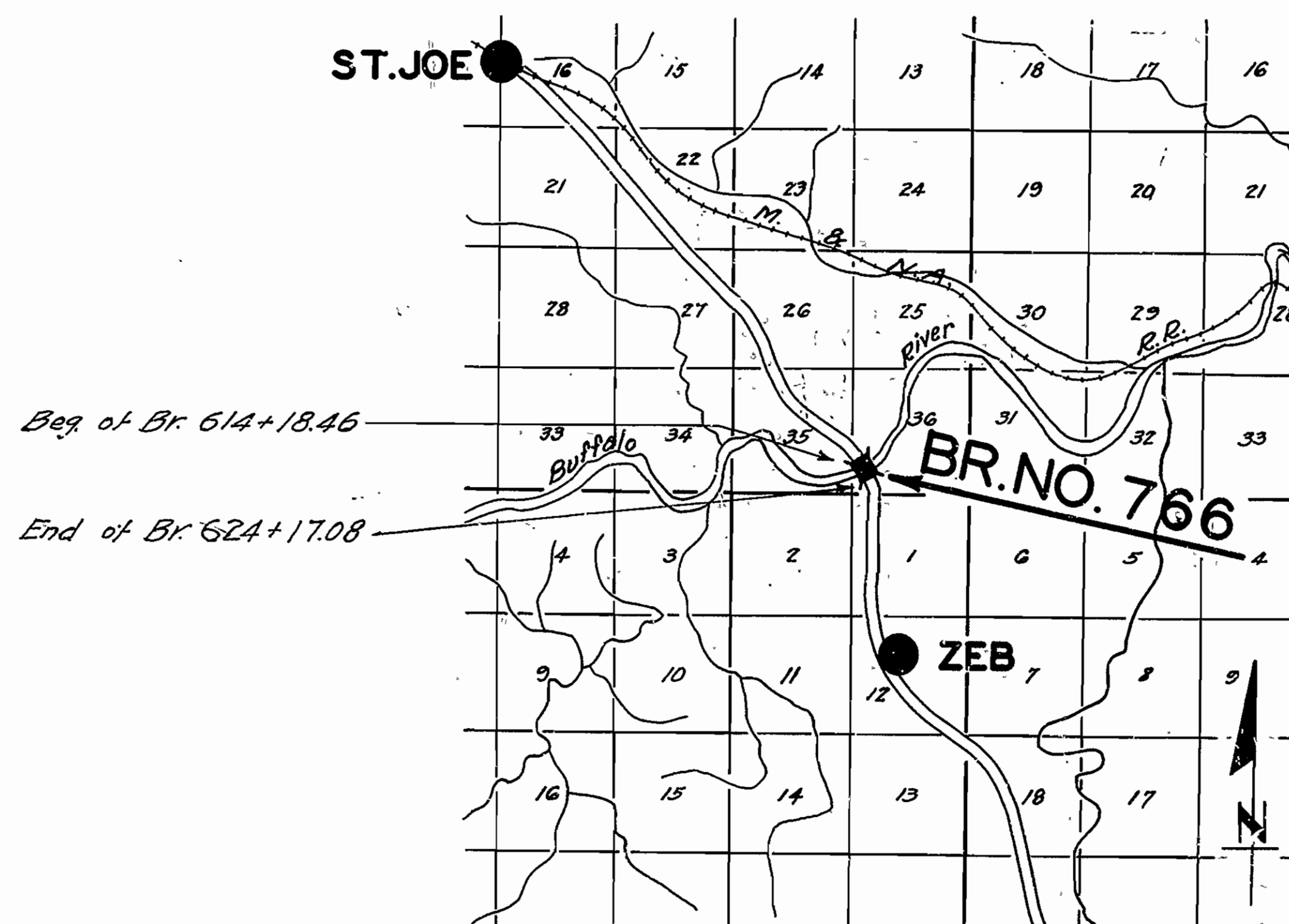
FED. ROAD DIST. No. 8	STATE AID No. 279-F	SHEET NO. 1	TOTAL SHEETS 10
Prop. Br. Buffalo R. Searcy Co. Ark. - 1125			

INDEX OF SHEETS

Sheet No.	Dwg. No.	Title
1	1125	Title Sheet Bridge No. 766
2	1126	Layout Sheet Bridge No. 766
3	1127	General Elevation and Plan
4	1128	General Elevation and Plan
5	1129	Details of Arch Span Number 1
6	1130	Details of Arch Span Number 2
7	1131	Details of Arch Span Number 3
8	1132	Details of Substructures
9	1031	Details of Standard 30'-0" R.C.D. Girder Span
10	1032	Details of Standard 45'-0" R.C.D. Girder Span

QUANTITIES

Item No.	Quantities
13	Dry Excavation for Structures 876.81 Cu. Yd.
13	Wet Excavation for Structures 368.47 Cu. Yd.
13	Rock Excavation for Structures 225.07 Cu. Yd.
54	Class 'A' Concrete 991.01 Cu. Yd.
54	Class 'B' Concrete 184.26 Cu. Yd.
54	Class 'S' Concrete 1411.56 Cu. Yd.
55	Reinforcing Steel 435,400 Lbs.
68 & 3P	Precast Concrete Piling 1964.80 Lin. Ft.
74	Concrete Railing for Strs. 2010.92 Lin. Ft.



Specifications approved by Chief, Bureau of Public Roads September 28 1925, and adopted by State Highway Commission May 30 1925 with revisions and Special Provisions as follows

REVISIONS	DATE	DESCRIPTION
PER. L. S. A. P.	Jan. 1, 1928.	June 1, 1928.
B		
C		
D		
E		
F		
G		
H		
I	May 30, 1925.	May 30, 1925.
J	May 30, 1925.	May 30, 1925.
K	May 30, 1925.	May 30, 1925.
L	Apr. 5, 1928.	

Two Sheets Special Provisions, Precast Concrete Piling - 2 sheets

LAYOUT  
Scale: 1" = 1 Mi.

GROSS LENGTH OF PROJECT 998.62 Ft. = 0.189 Mi.  
NET LENGTH OF PROJECT 998.62 Ft. = 0.189 Mi.

Revised 5-11-28  
M.B. Gann  
BRIDGE ENGINEER

APPROVED  
COMMISSIONER - STATE HIGHWAYS AND IMPROVEMENTS

APPROVED  
STATE HIGHWAY ENGINEER

RECOMMENDED FOR APPROVAL  
DISTRICT ENGINEER - BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL  
CHIEF ENGINEER - BUREAU OF PUBLIC ROADS

APPROVED  
DIRECTOR - BUREAU OF PUBLIC ROADS

M.B. Gann  
BRIDGE ENGINEER

BRIDGE NO. 766

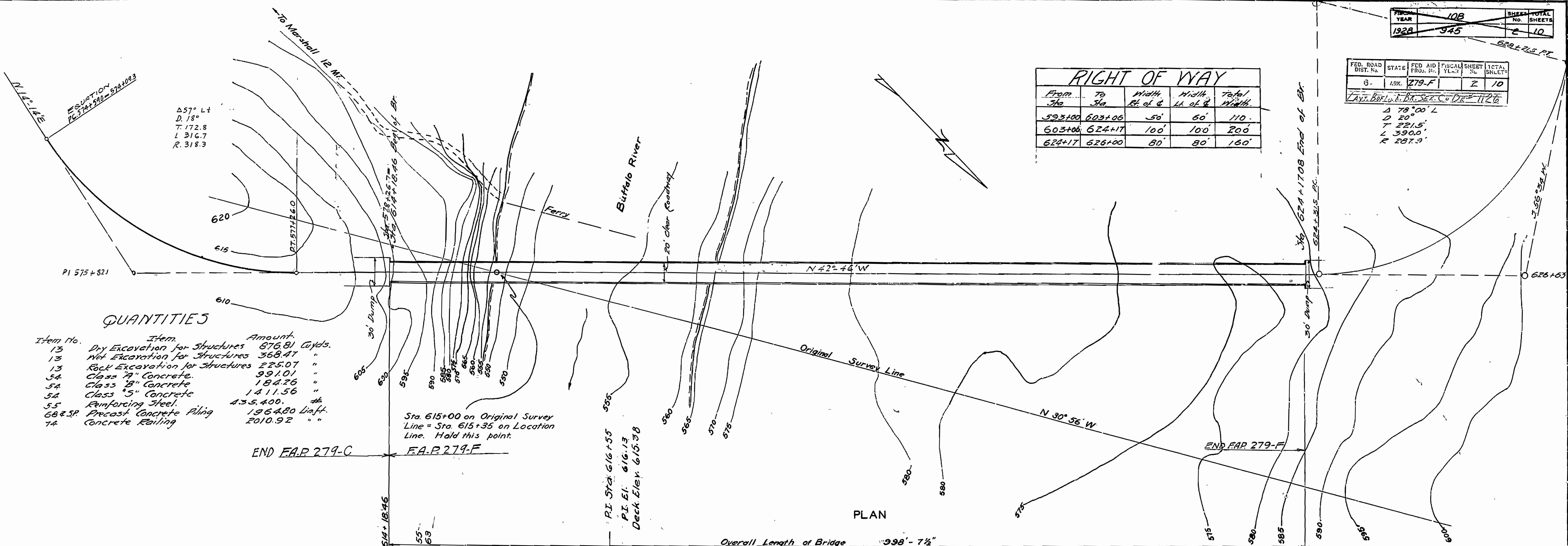
DRAWING NO. 1125

YEAR	1928	1945	SHEET NO.	10	TOTAL SHEETS	10
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FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.	279-F		2	10

VAR. BOT. L. B. SEC. Co. DR. 1126  
 Δ 78°00' L  
 D 20'  
 T 221.5'  
 L 390.0'  
 R 287.3'

From Sta.	To Sta.	Width of R.O.W.	Width of L.A.	Total Width
593+00	603+00	50'	60'	110'
603+00	624+17	100'	100'	200'
624+17	626+00	80'	80'	160'

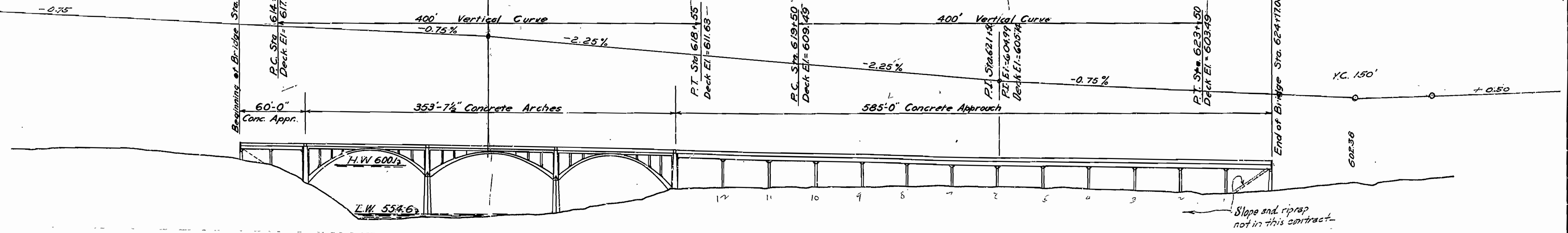


**QUANTITIES**

Item No.	Item	Amount
13	Dry Excavation for Structures	876.81 Cu. Yds.
13	Wet Excavation for Structures	368.47 "
13	Rock Excavation for Structures	225.07 "
54	Class "A" Concrete	991.01 "
54	Class "B" Concrete	184.26 "
54	Class "C" Concrete	1411.56 "
55	Reinforcing Steel	435.400 #
58 & 59	Precast Concrete Piling	196480 Lin. Ft.
74	Concrete Piling	2010.92 "

Sta. 615+00 on Original Survey Line = Sta. 615+35 on Location Line. Hold this point.  
 P.I. Sta. 616+55  
 P.I. El. 616.13  
 Deck El. 615.98

Overall Length of Bridge 398'-7 1/2"



For details see Drawings No: 1129, 1150, 1131, 1152, 1031 and 1032

B.M. No. 55 Elev. 610.66  
 Nail in root of 16' red oak on south side of tree. 2' left Sta. 613+95 on original survey.

Drainage area = 800 Sq. Mi.  
 Mountainous

LAYOUT OF  
 BRIDGE OVER BUFFALO RIVER  
 SEARCY COUNTY  
 ROUTE 65 SEC 6 4  
 ARKANSAS STATE HIGHWAY DEPARTMENT  
 LITTLE ROCK, ARK.  
 Drawn By: [Signature] Date: 8-2-28  
 Traced By: [Signature] Date: 8-2-28  
 Checked By: [Signature] Date: 8-17-28  
 Scale: 1 in. = 50 ft.  
 BRIDGE No. 766 DRAWING No. 1126

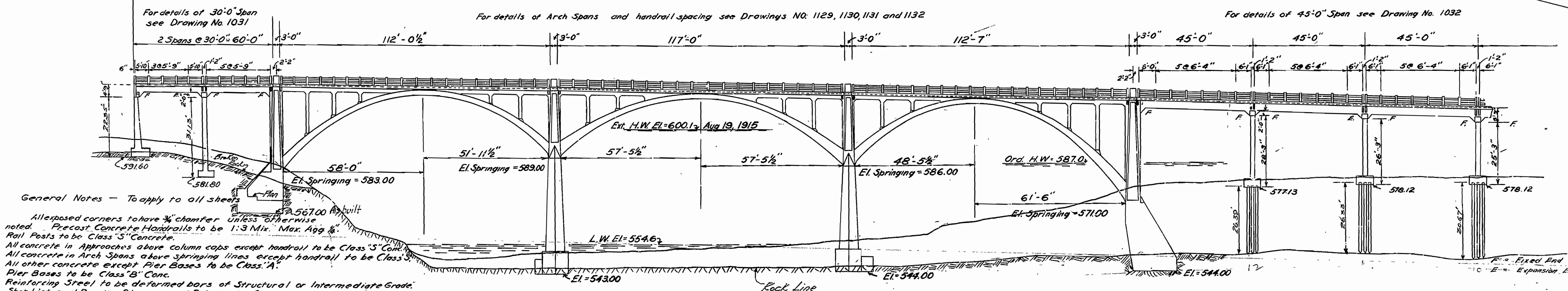
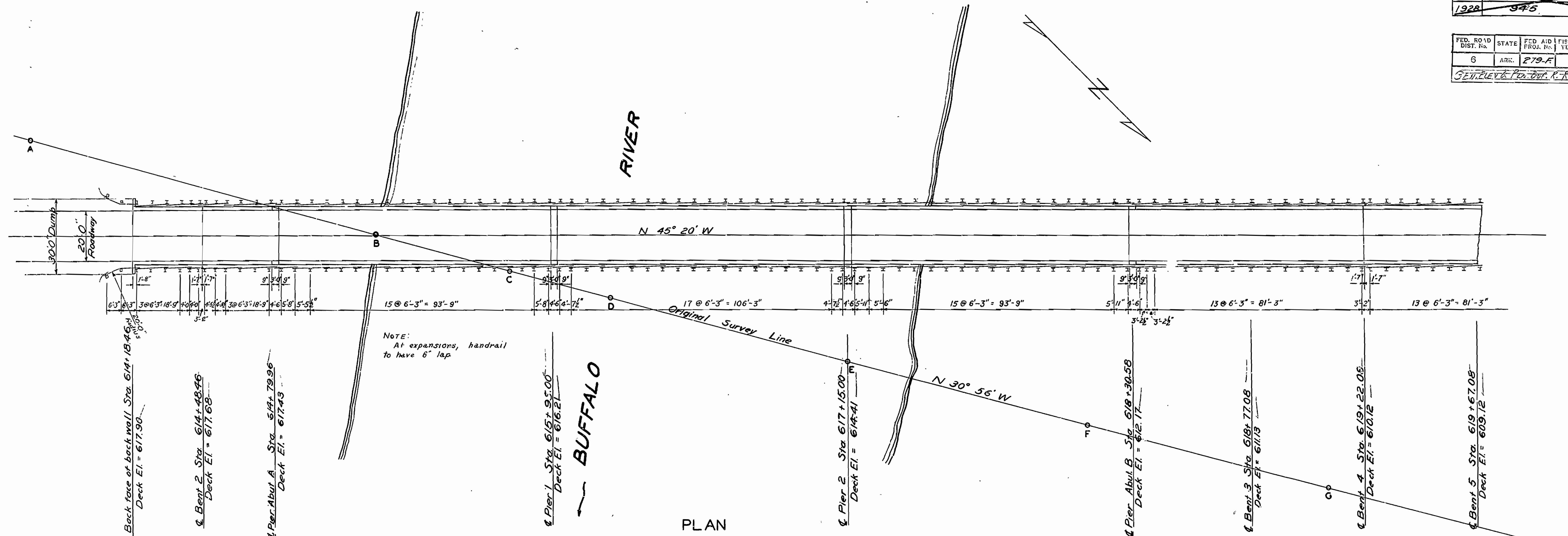
Revised 8-17-28 Alignment added

M.B. [Signature]  
 BRIDGE ENGINEER

FISCAL YEAR	1928	JOB No.	375	SHEET No.	3	TOTAL SHEETS	10
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FED. ROAD DIST. No.	6	STATE	ARK.	FED. AID PROJ. No.	279-A	FISCAL YEAR	1928	SHEET No.	3	TOTAL SHEETS	10
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GEN. ELEV. & PLAN, BRIDGE NO. 766, R. 765-D.R. 1127



**General Notes - To apply to all sheets**

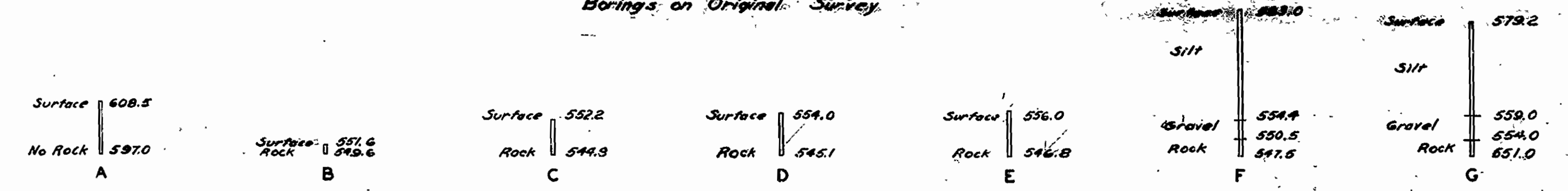
- All exposed corners to have 3/4" chamfer unless otherwise noted.
- Precast Concrete Handrails to be 1:3 Mix. Max. Agg. 1/2".
- Rail Posts to be Class "S" Concrete.
- All concrete in Approaches above column caps except handrail to be Class "S" Conc.
- All concrete in Arch Spans above springing lines except handrail to be Class "S" Conc.
- All other concrete except Pier Bases to be Class "A".
- Pier Bases to be Class "B" Conc.
- Reinforcing Steel to be deformed bars of Structural or Intermediate Grade.
- Shop List and Bending Diagrams of Reinforcing Steel must be submitted by Contractor before fabrication is begun.
- Drawings showing details of Arch Centering and Proposed Order of Concreting must be submitted by the Contractor for approval before construction of the Arches is begun.
- Roadway Drains and Expansion Devices to be paid for as Reinforcing Steel.
- Specifications: Arkansas Standard Road and Bridge Specifications adopted May 30th, 1925. Revised Jan. 1st, 1928.

Bearing Not Over 10 Tons per Sq. Ft.

Note: Arch Abutments to be carried at least 3'-0" and Piers at least 1.5' into sound rock. Excavation to be carried in a manner to avoid shattering rock faces.

Lengths of Piling are assumed for estimating quantities only. Actual lengths to be determined in the field.

Borings on Original Survey



Revised 3-2-28  
 W.B. Jones  
 BRIDGE ENGINEER

**GENERAL ELEVATION & PLAN  
 SOUTH APPROACH & ARCH SPANS  
 BRIDGE OVER BUFFALO RIVER**

ROUTE 65 SEC. 5B 4  
**ARKANSAS STATE HIGHWAY DEPARTMENT**  
 LITTLE ROCK, ARK.

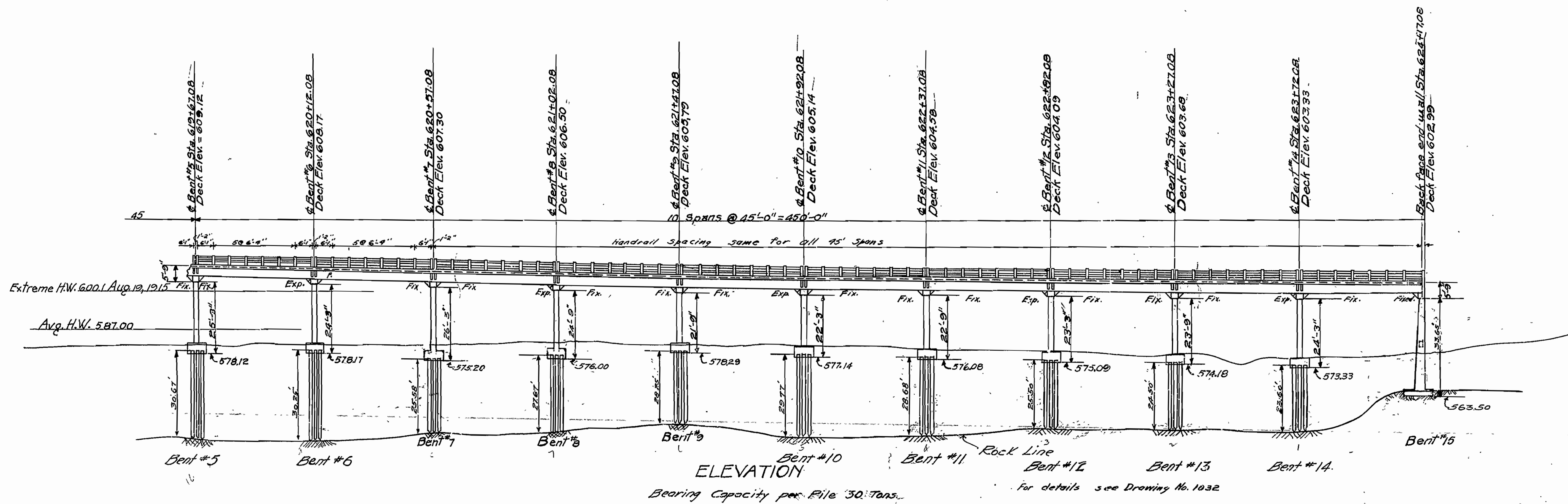
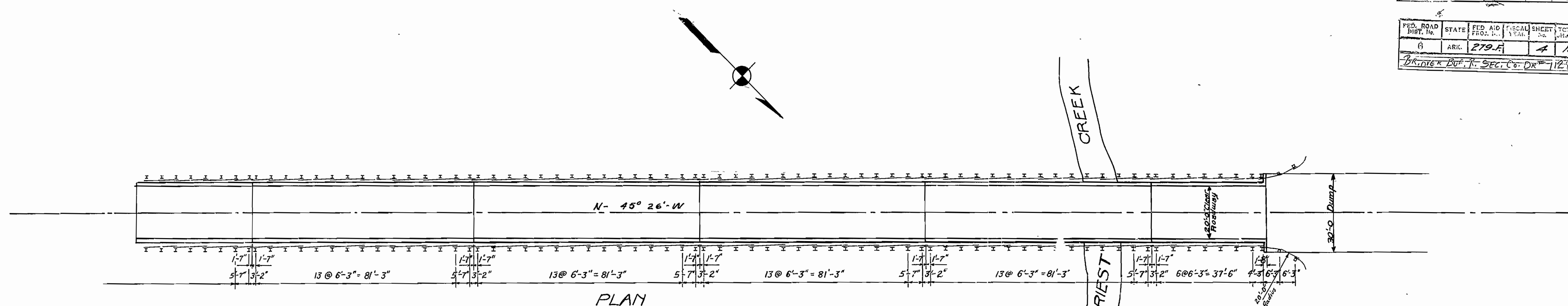
Drawn By: C.O.S. Date: 2-2-28  
 Traced By: C.O.S. Date: 2-2-28  
 Checked By: G.S.V. Date: 2-14-28

Scale: 1 in. = 20 ft.  
**BRIDGE No. 766**      **DRAWING No. 1127**

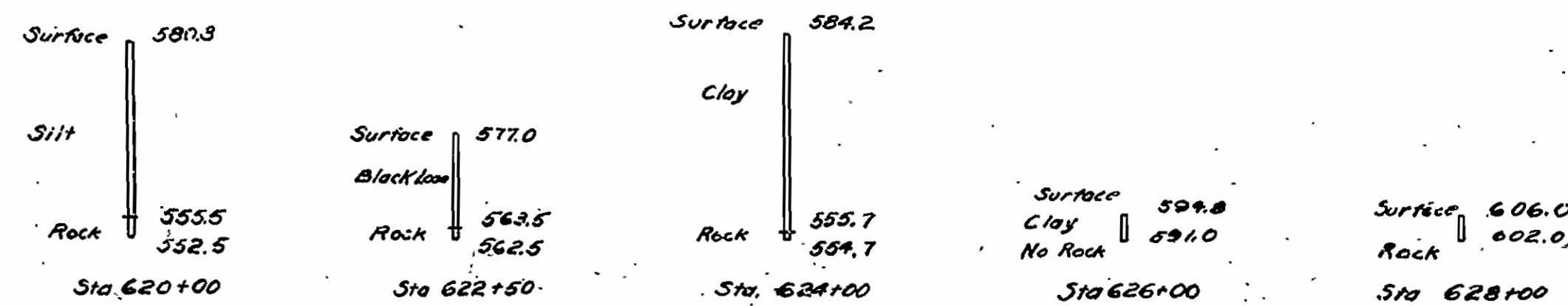
FISCAL YEAR	Job	SHEET NO.	TOTAL SHEETS
1928	945	4	10

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	279-A		4	10

DRIVER DEP. T. SEC. C. DR. 1127



Borings on Original Survey Line



Part of approach to (North)  
BRIDGE OVER BUFFALO RIVER  
SEARCEY CO.

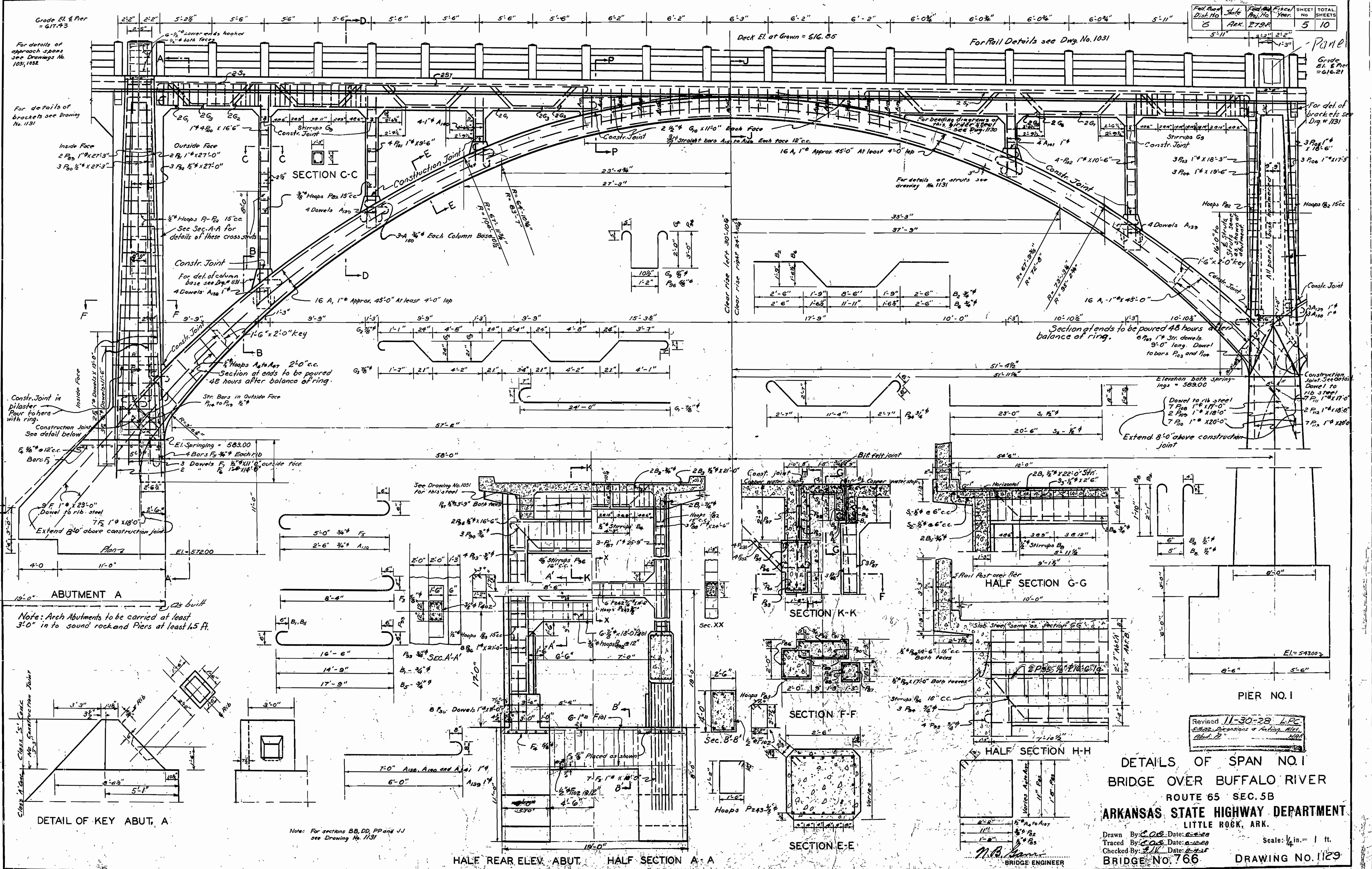
ROUTE 65 SEC 5B4  
ARKANSAS STATE HIGHWAY DEPARTMENT  
LITTLE ROCK, ARK.

Drawn By: EOG Date: 8-10-28  
Traced By: RPB Date: 8-11-28  
Checked By: CCB Date: 2-12-28  
Scale: 1 in. = 20 ft.  
BRIDGE NO. 766 DRAWING NO. 1128

Revised 4-15-28 Check line and  
loading situations 1128

M.B. Searcy  
BRIDGE ENGINEER

Dist. No.	State	Year	Sheet No.	Total Sheets
5	Ark.	1934	5	10



Grade El. & Pier = 611.43

For details of approach spans see Drawings No. 103, 103Z

For details of brackets see Drawing No. 1031

Inside Face  
2 P<sub>20</sub> 1" x 27'-3"  
3 P<sub>20</sub> 1/2" x 27'-3"

Outside Face  
2 B<sub>1</sub> 1" x 27'-0"  
3 B<sub>2</sub> 1/2" x 27'-0"

3/8" Hoops P-20 15' c.c.  
4 Dowels A<sub>130</sub> 1"

16 A, 1" approx. 45'-0" At least 4'-0" lap

1/2" Hoops A<sub>130</sub> 2'-0" c.c.  
Section at ends to be poured 48 hours after balance of ring.

Constr. Joint in pier to here pour to here with ring.

Constr. Joint See detail below

5/8" x 12' c.c. Bars B<sub>1</sub>

2 El. Springs = 563.00  
4 Bars F<sub>3</sub> 3/4" Each 1 lb

3 Dowels F<sub>1</sub> 1/2" x 11'-0" outside pier  
2 F<sub>2</sub> 1/2" x 11'-0"

9' F<sub>1</sub> 1" x 23'-0" Dowel to rib steel  
7' F<sub>1</sub> 1" x 18'-0" Extend 8'-0" above construction joint

10'-0" ABUTMENT A

Note: Arch Abutments to be carried at least 3'-0" in to sound rock and Piers at least 1.5 ft.

Class 'A' Concrete  
No. 3 Construction Joint

DETAIL OF KEY ABUT. A

3'-0"

5'-1"

10'

15'

Note: For sections BB, DD, PP and JJ see Drawing No. 1131

HALF REAR ELEV. ABUT. HALF SECTION A-A

Deck El. at Crown = 616.85

For Rail Details see Dwg. No. 1031

2 1/2" x 6" x 11'-0" Each Face

3/4" Straight Bars A<sub>130</sub> to Top Each face 12' c.c.

16 A, 1" approx. 45'-0" At least 4'-0" lap

For details of struts see drawing No. 1131

3 P<sub>20</sub> 1" x 18'-3"  
3 P<sub>20</sub> 1" x 19'-6"

Hoops P-20

4 Dowels A<sub>130</sub>

1/2" x 2'-0" Key

10'-10 1/2"

Section at ends to be poured 48 hours after balance of ring.

6 P<sub>20</sub> 1" Str. Dowels  
9'-0" long Dowel to bars P<sub>20</sub> and P<sub>20</sub>

Extend 8'-0" above construction joint

Elevation both Springs = 563.00

Construction Joint See Detail

Dowel to rib steel  
7 P<sub>20</sub> 1" x 17'-0"  
2 P<sub>20</sub> 1" x 18'-0"  
7 P<sub>20</sub> 1" x 20'-0"

2 B<sub>1</sub> 1/2" x 22'-0" Str.  
3 1/2" x 2'-0"

2 B<sub>2</sub> 1/2" x 2'-0"

2 B<sub>3</sub> 1/2" x 2'-0"

2 B<sub>4</sub> 1/2" x 2'-0"

2 B<sub>5</sub> 1/2" x 2'-0"

2 B<sub>6</sub> 1/2" x 2'-0"

2 B<sub>7</sub> 1/2" x 2'-0"

2 B<sub>8</sub> 1/2" x 2'-0"

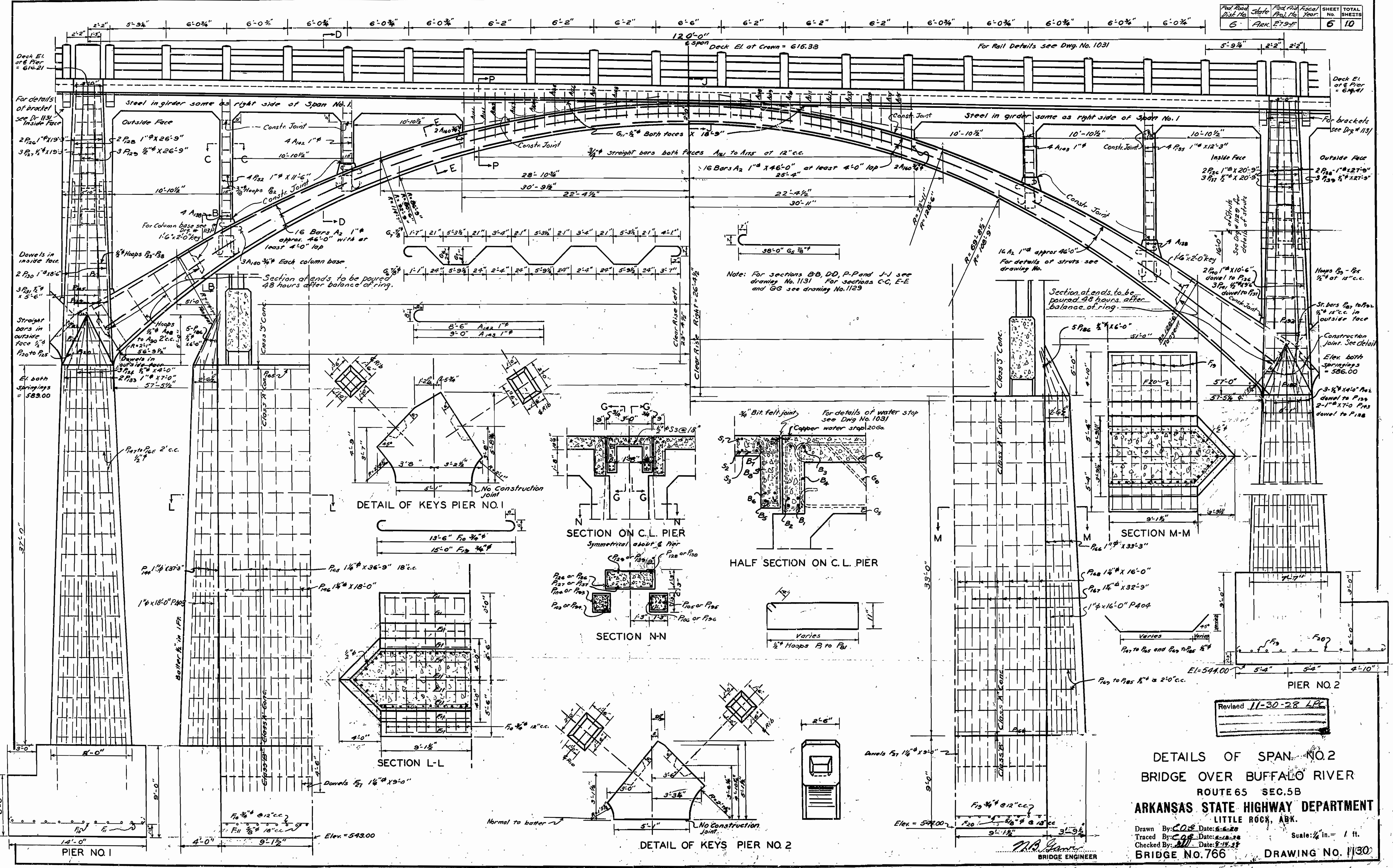
DETAILS OF SPAN NO. 1  
BRIDGE OVER BUFFALO RIVER  
ROUTE 65 SEC. 5B  
ARKANSAS STATE HIGHWAY DEPARTMENT  
LITTLE ROCK, ARK.

Drawn By: C.O.E. Date: 6-22-30  
Traced By: C.O.E. Date: 6-22-30  
Checked By: J.W. Date: 6-22-30

Scale: 1/4" = 1 ft.  
DRAWING NO. 1129

M.B. Starnes  
BRIDGE ENGINEER

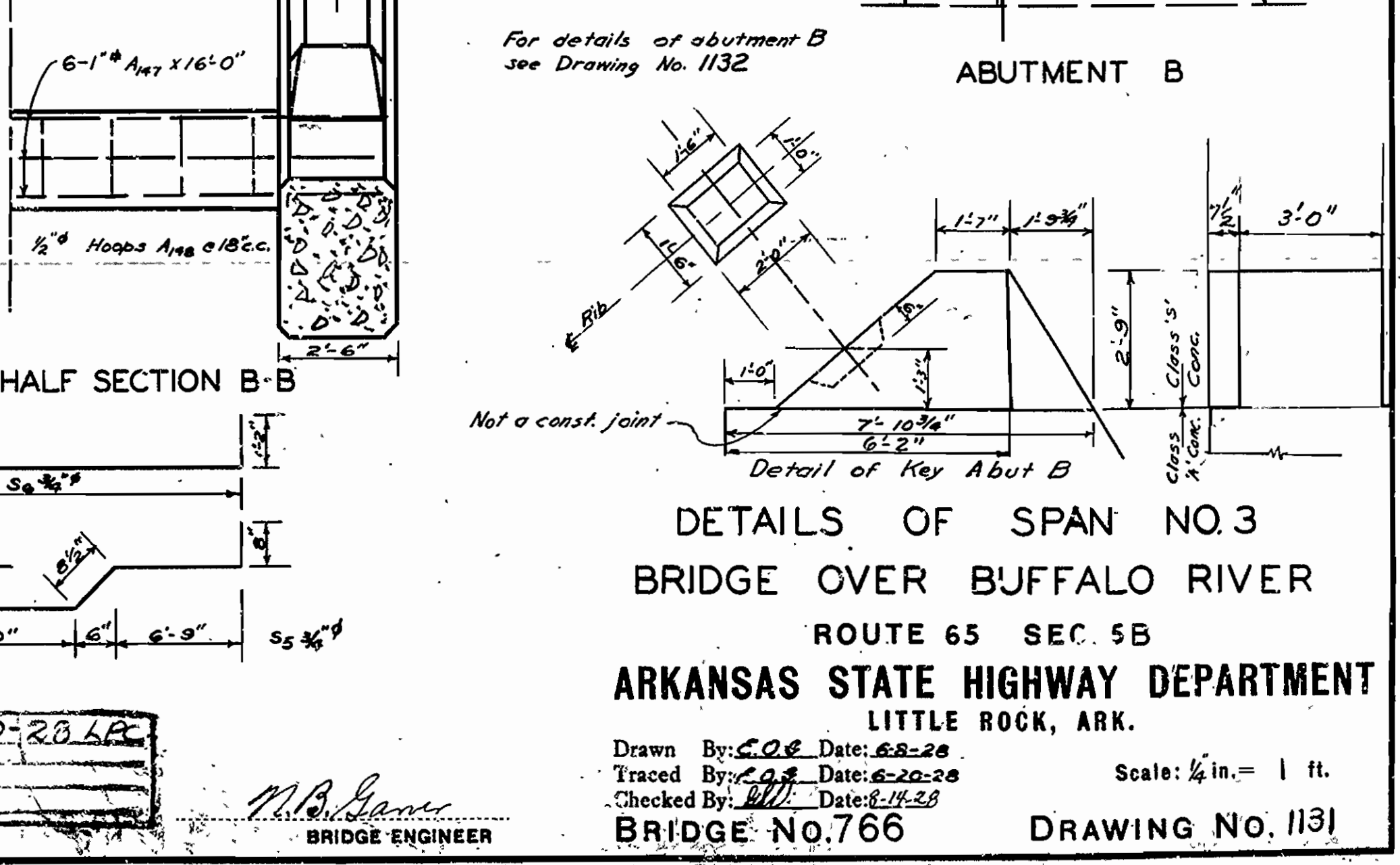
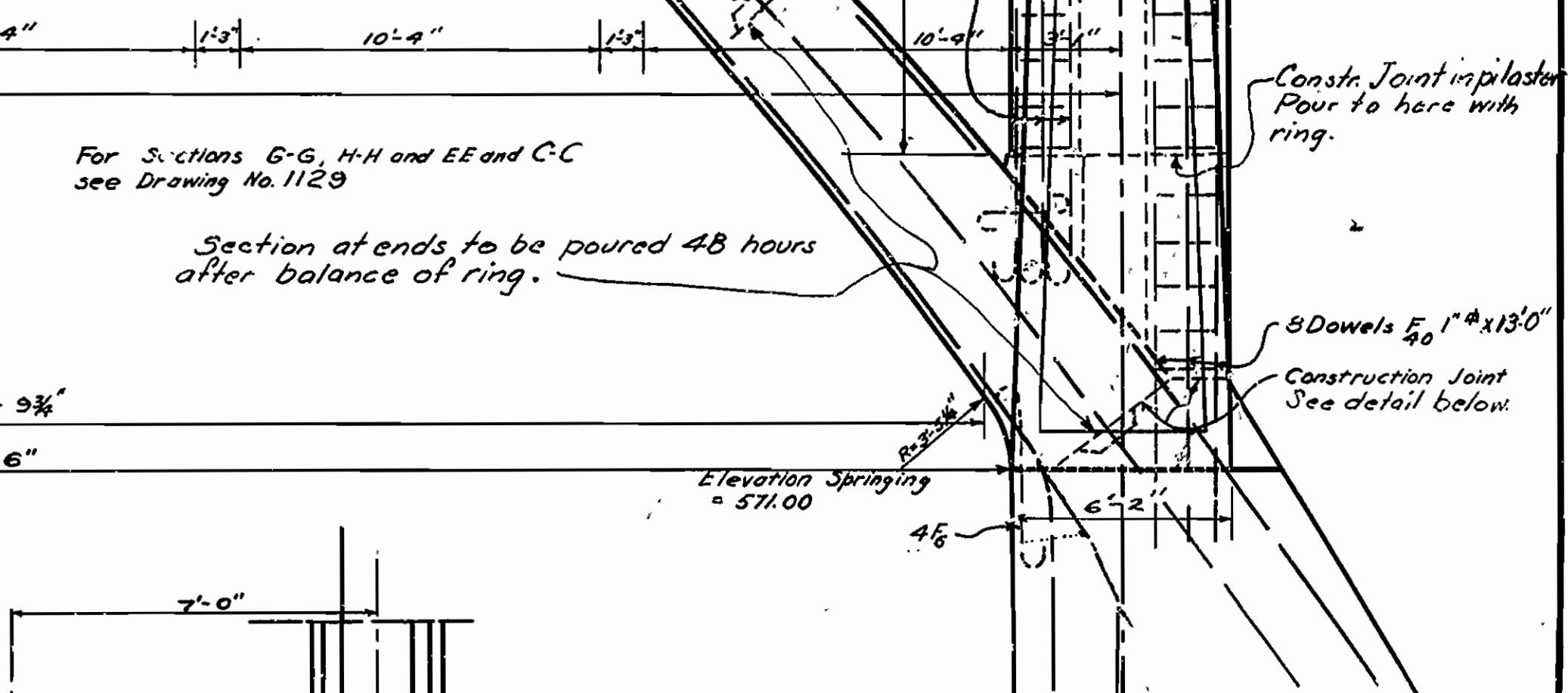
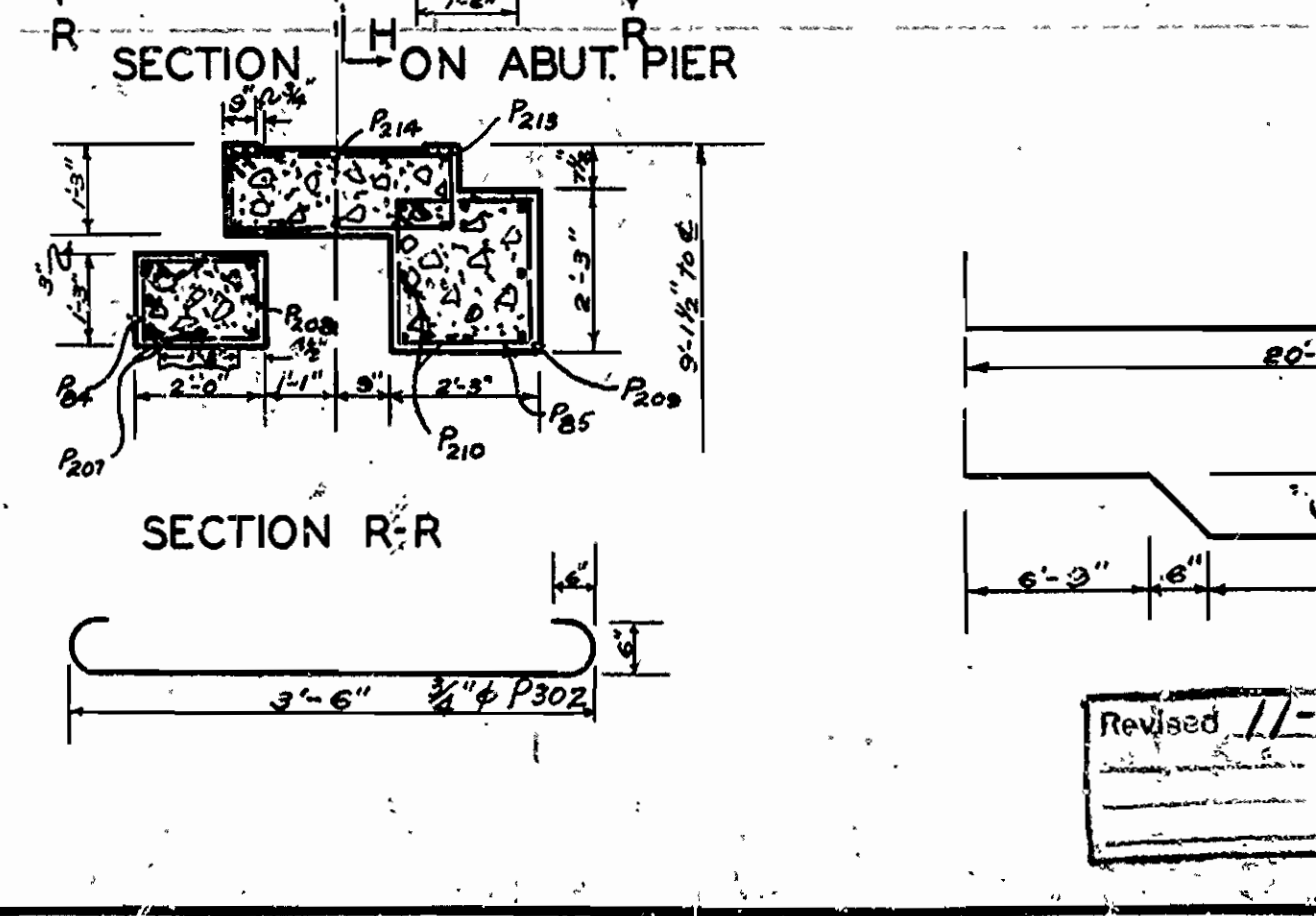
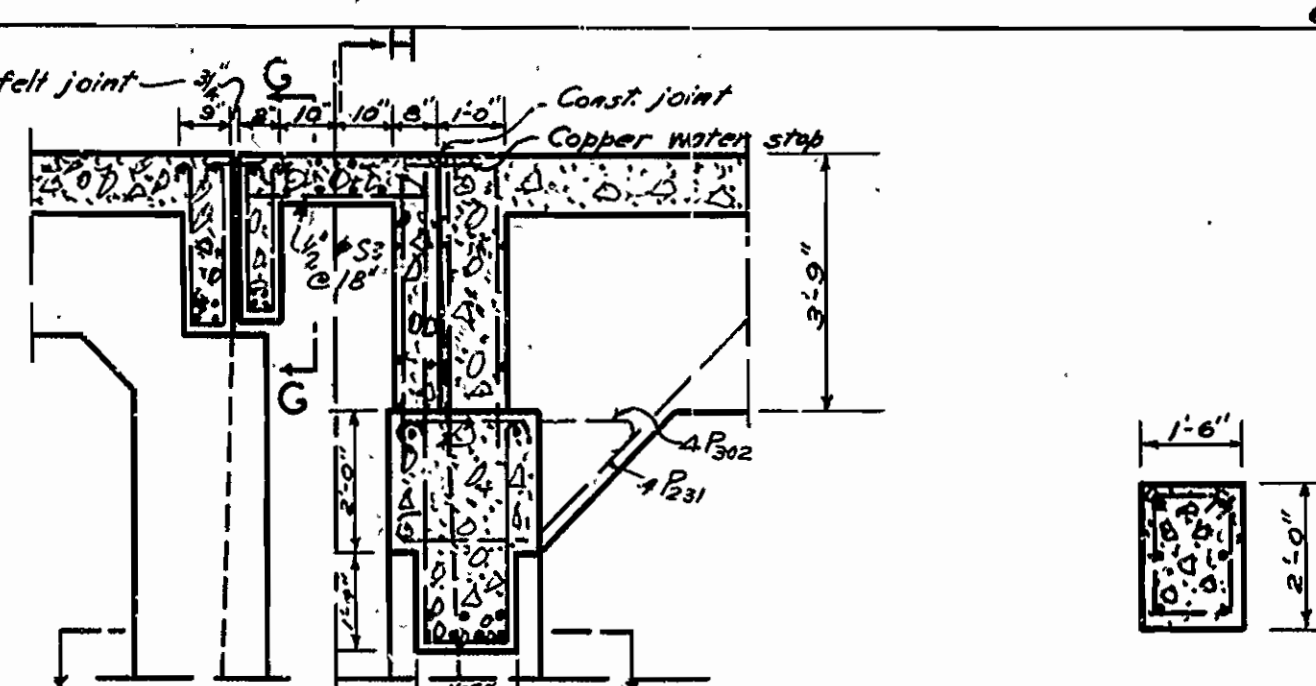
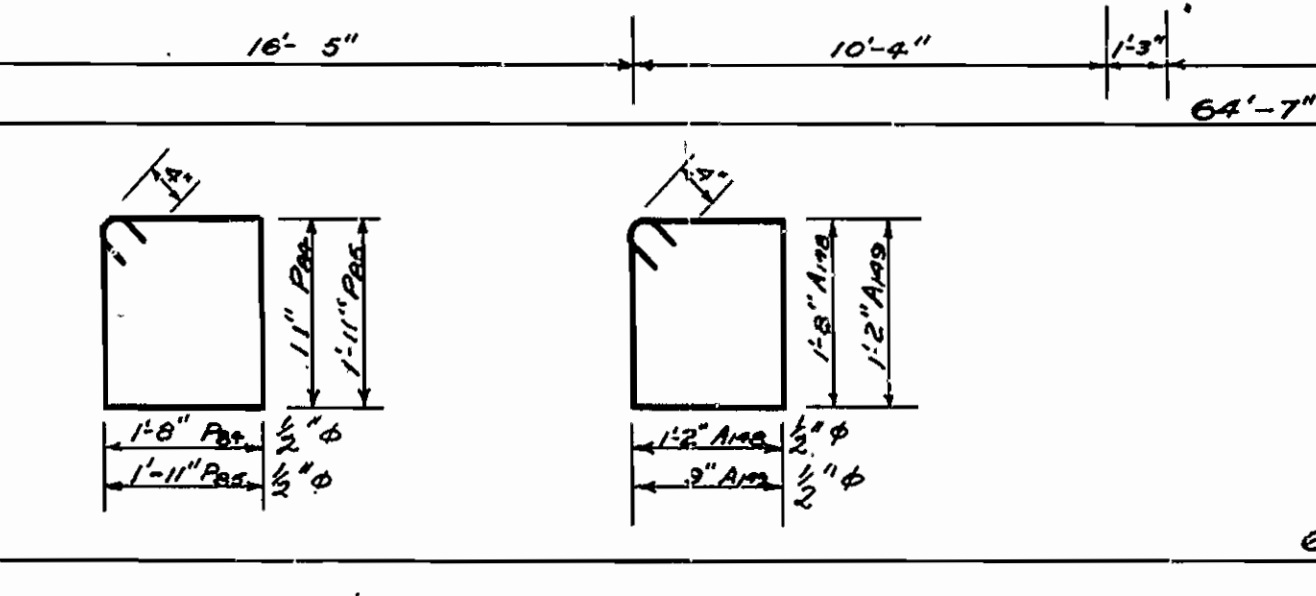
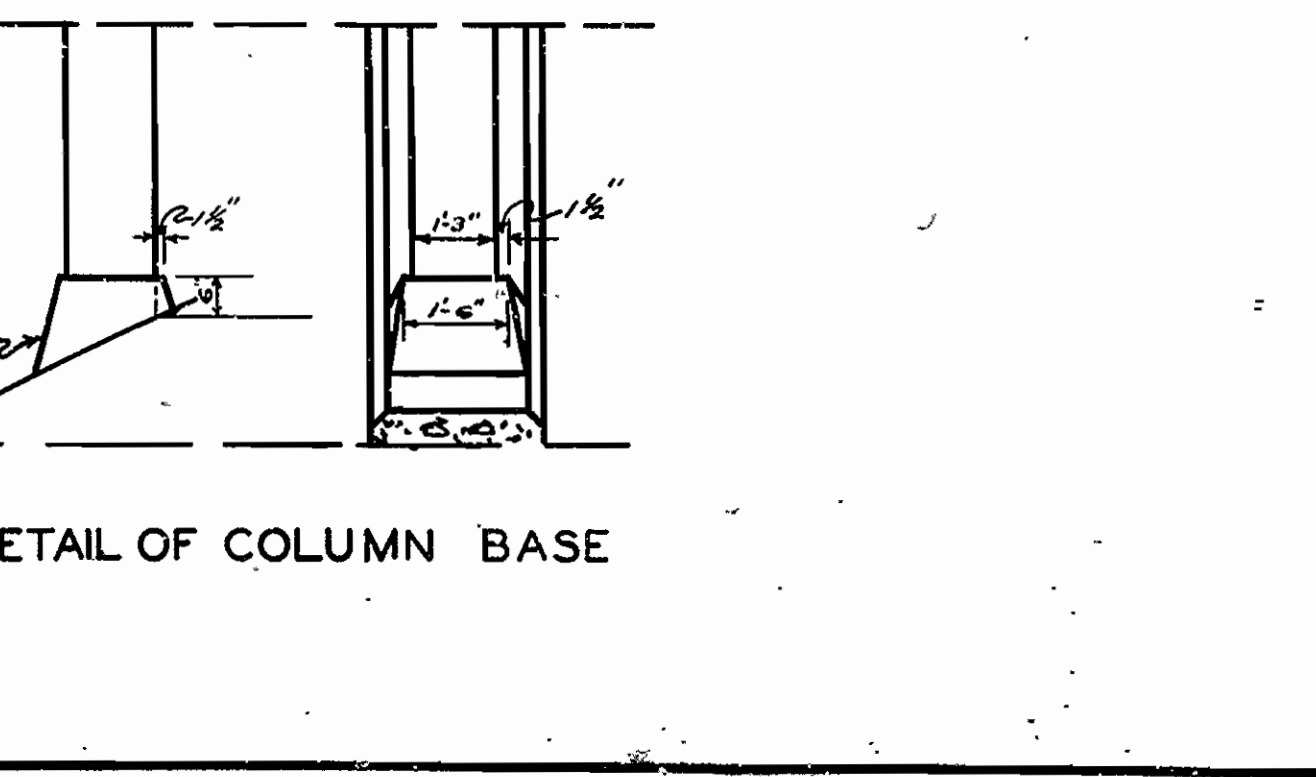
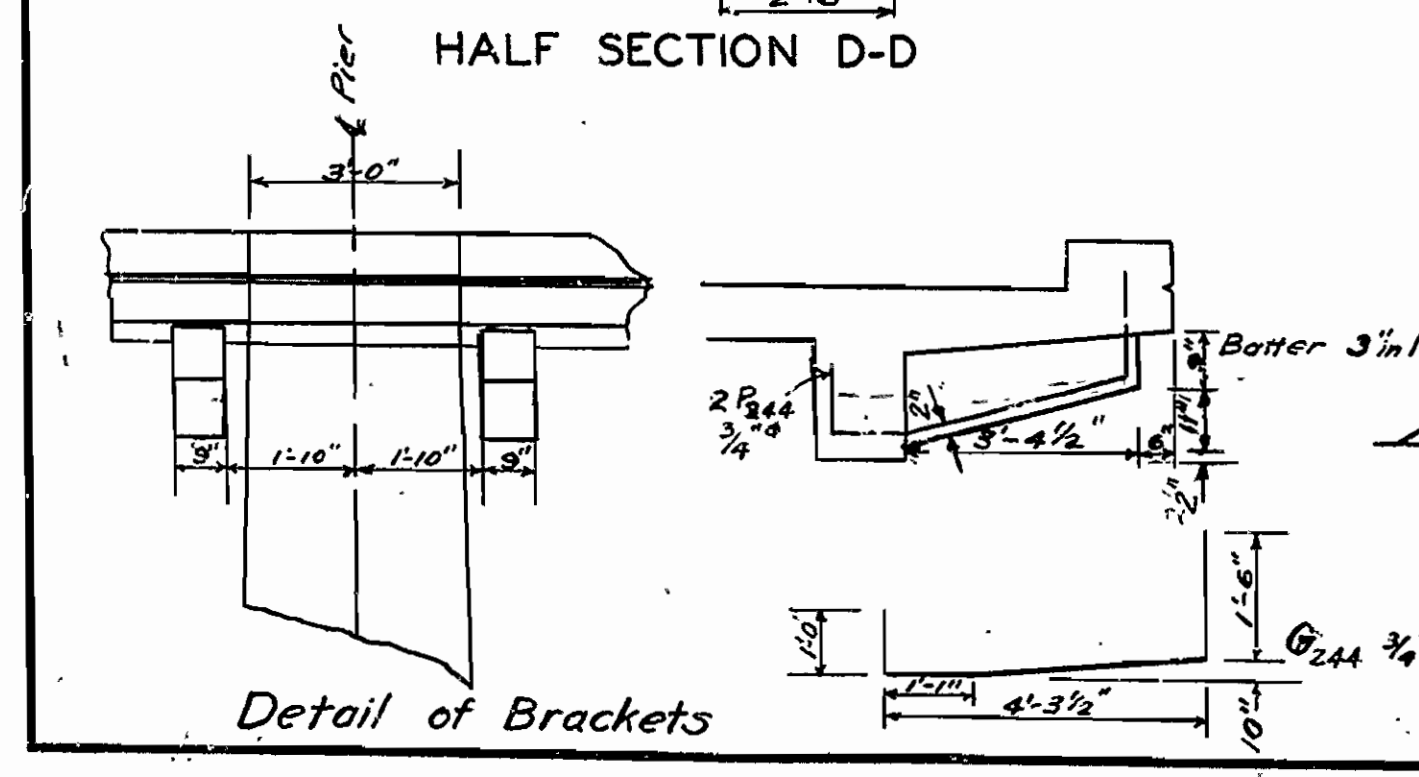
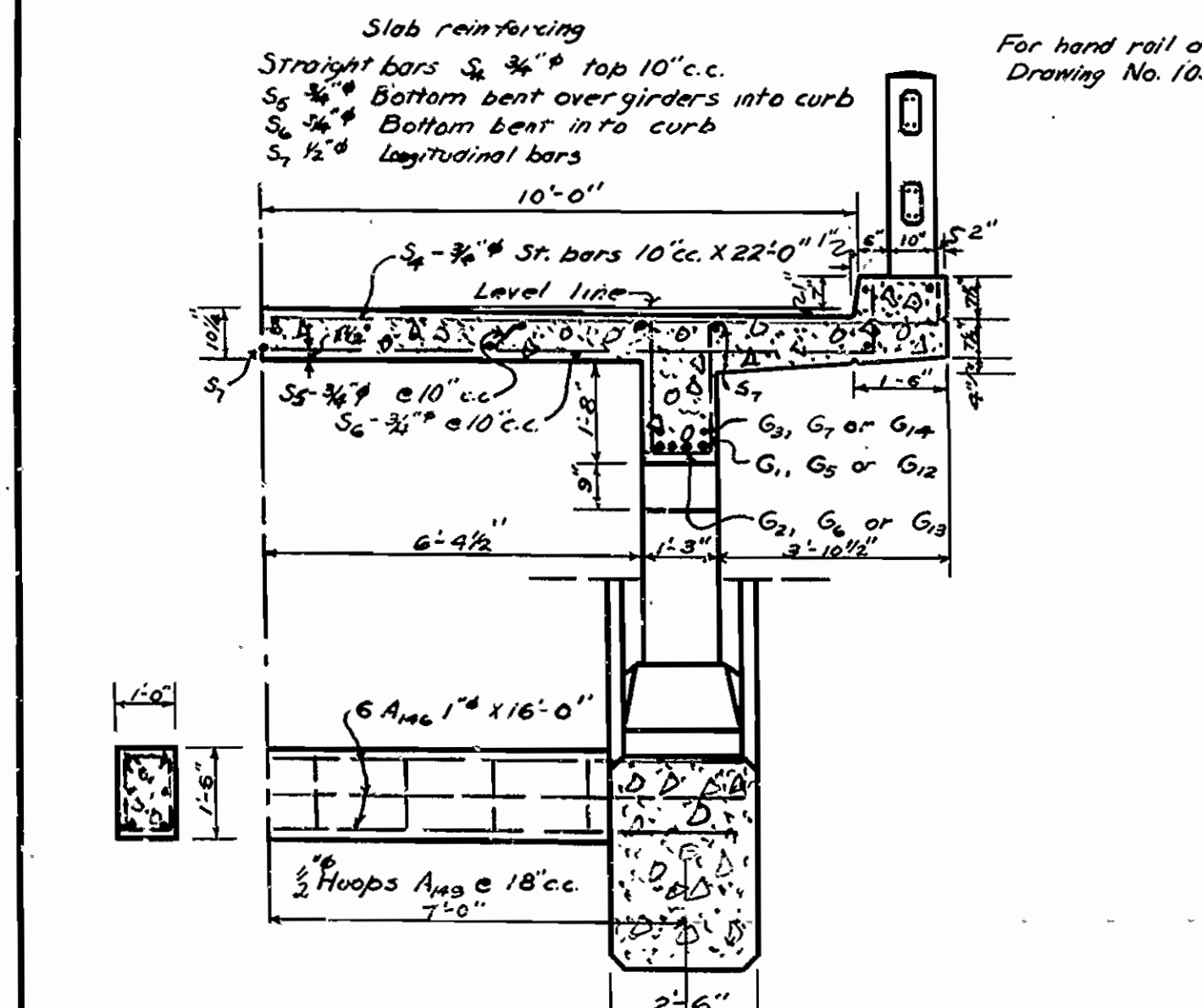
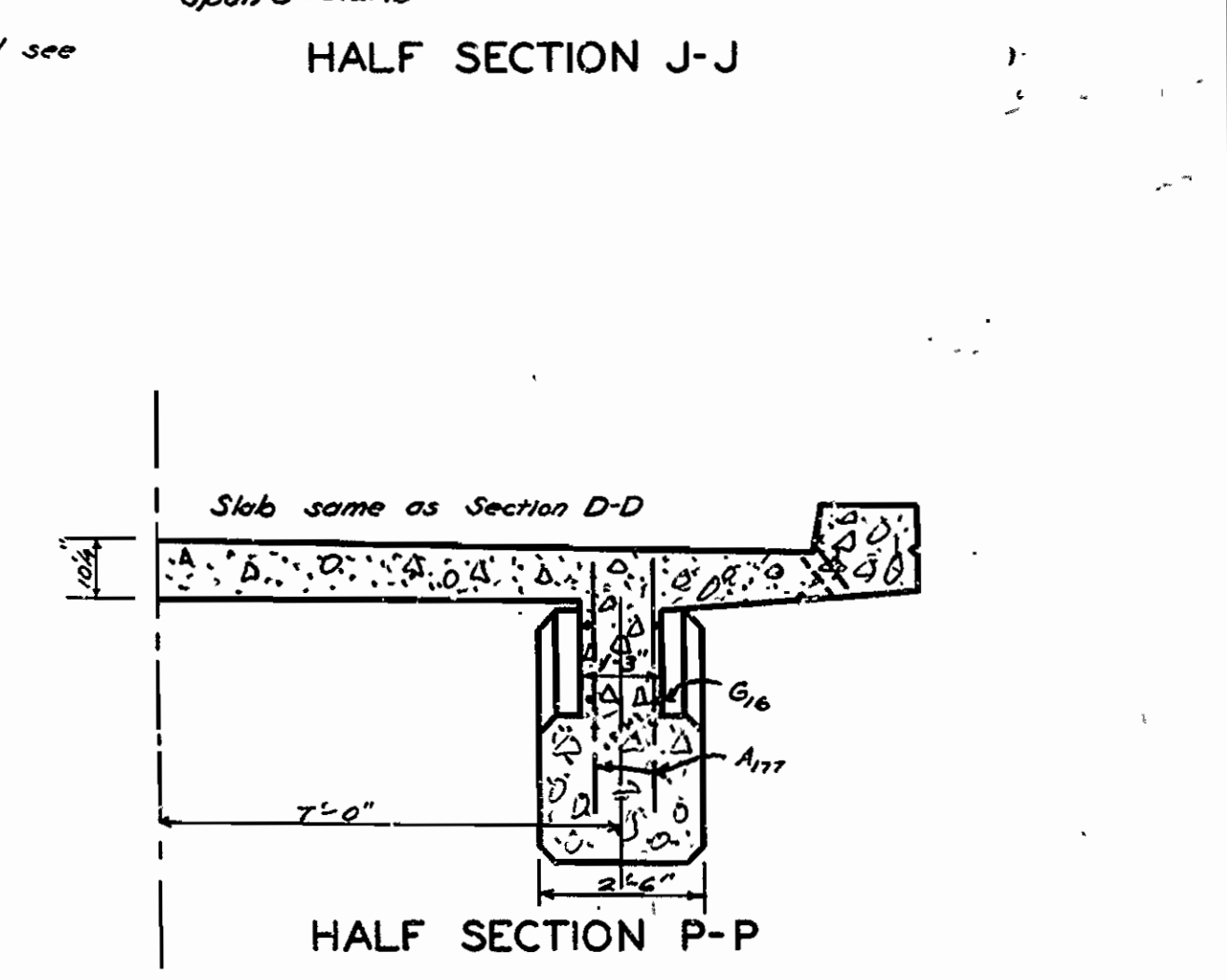
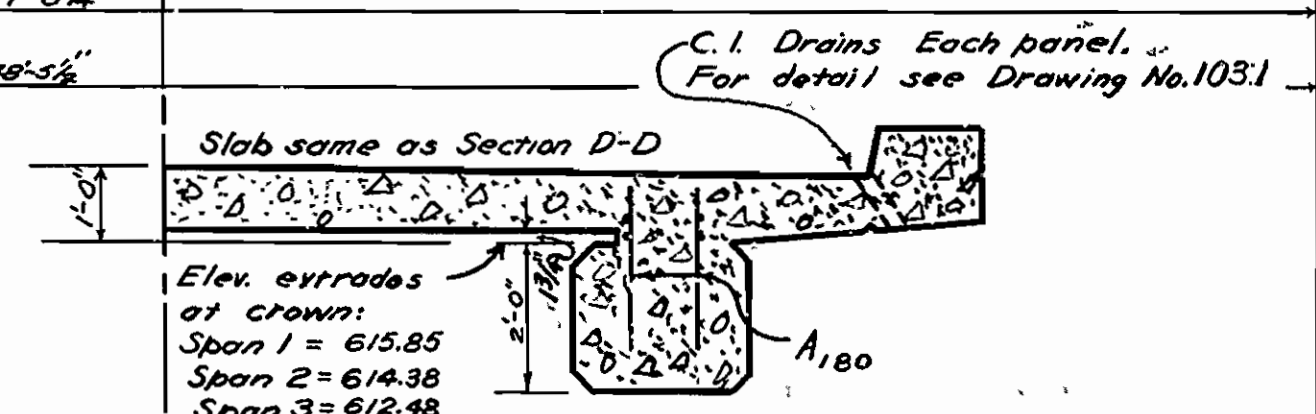
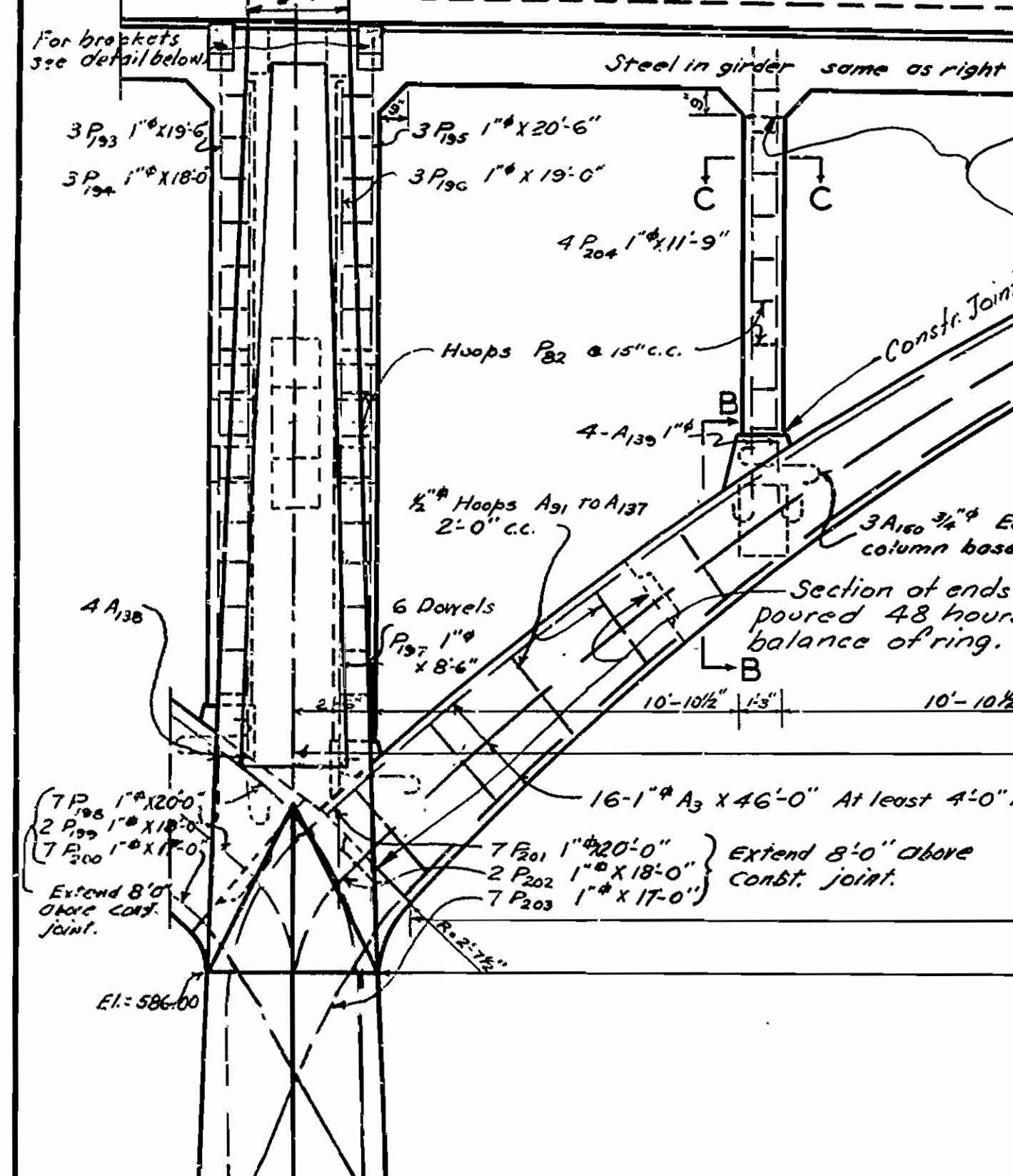
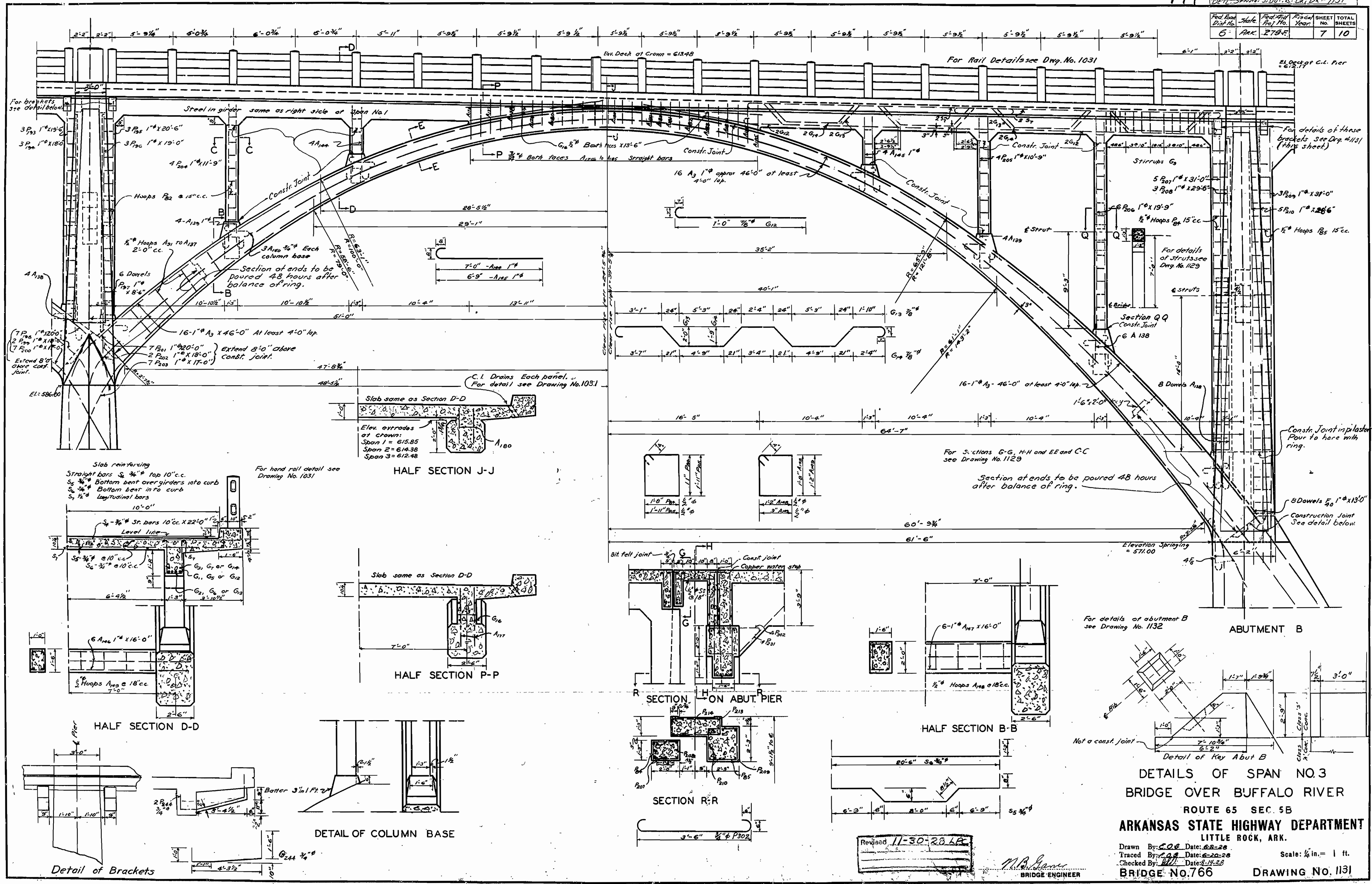
Sheet No.	Total Sheets
6	10



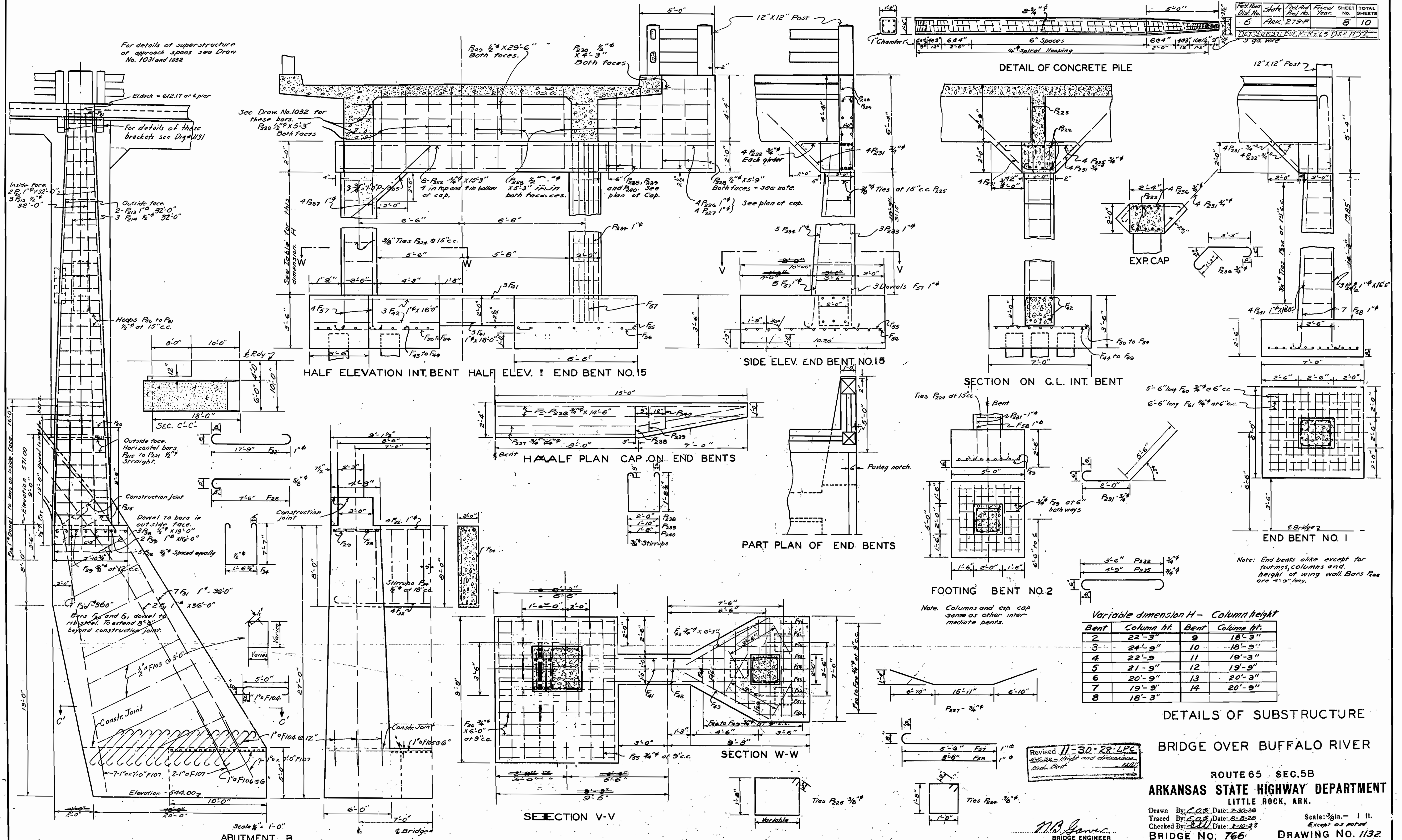
Revised 11-30-28 L.P.

Scale: 1/4" = 1 ft.  
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 Traced By: C.O.E. Date: 6-12-28  
 Checked By: M.B. Jones Date: 8-14-28  
 Bridge No. 766 DRAWING No. 1130

Proj. No.	State	Fed. Aid Dist. No.	Fiscal Year	SHEET NO.	TOTAL SHEETS
6	ARK.	2794		7	10



Dist. No.	Proj. No.	Fiscal Year	SHEET No.	TOTAL SHEETS
6	Ark. 279-F		8	10



Variable dimension H - Column height

Bent	Column ht.	Bent	Column ht.
2	22'-3"	9	18'-3"
3	24'-9"	10	18'-9"
4	22'-9"	11	19'-3"
5	21'-9"	12	19'-9"
6	20'-9"	13	20'-3"
7	19'-9"	14	20'-9"
8	18'-3"		

DETAILS OF SUBSTRUCTURE  
BRIDGE OVER BUFFALO RIVER

ROUTE 65 SEC. 5B  
ARKANSAS STATE HIGHWAY DEPARTMENT  
LITTLE ROCK, ARK.

Drawn By: C.O.S. Date: 7-30-28  
Traced By: C.O.S. Date: 8-2-28  
Checked By: J.W. Date: 8-12-28  
BRIDGE NO. 766 DRAWING NO. 1132

Revised 11-30-28 L.P.C.  
2 1/2" x 3 1/2" height and dimensions  
2nd. Bent

N.B. Gambr  
BRIDGE ENGINEER

For details of superstructure of approach spans see Draw. No. 1031 and 1032

For details of these brackets see Draw. No. 1031

Inside face  
2 P21 1" x 32'-0"  
3 P21 1/2" x 32'-0"

Hoops P24 to P21  
1/2" at 15" c.c.

Outside face  
Horizontal bars  
P21 to P21 1/2" straight

Construction joint

Dowel to bars in outside face  
3 P21 1/2" x 13'-0"  
2 P21 1" x 10'-0"

Bars P21 and P21 1/2" doweled to rib steel to extend 8'-0" beyond construction joint

Constr. Joint

Elevation 544.00

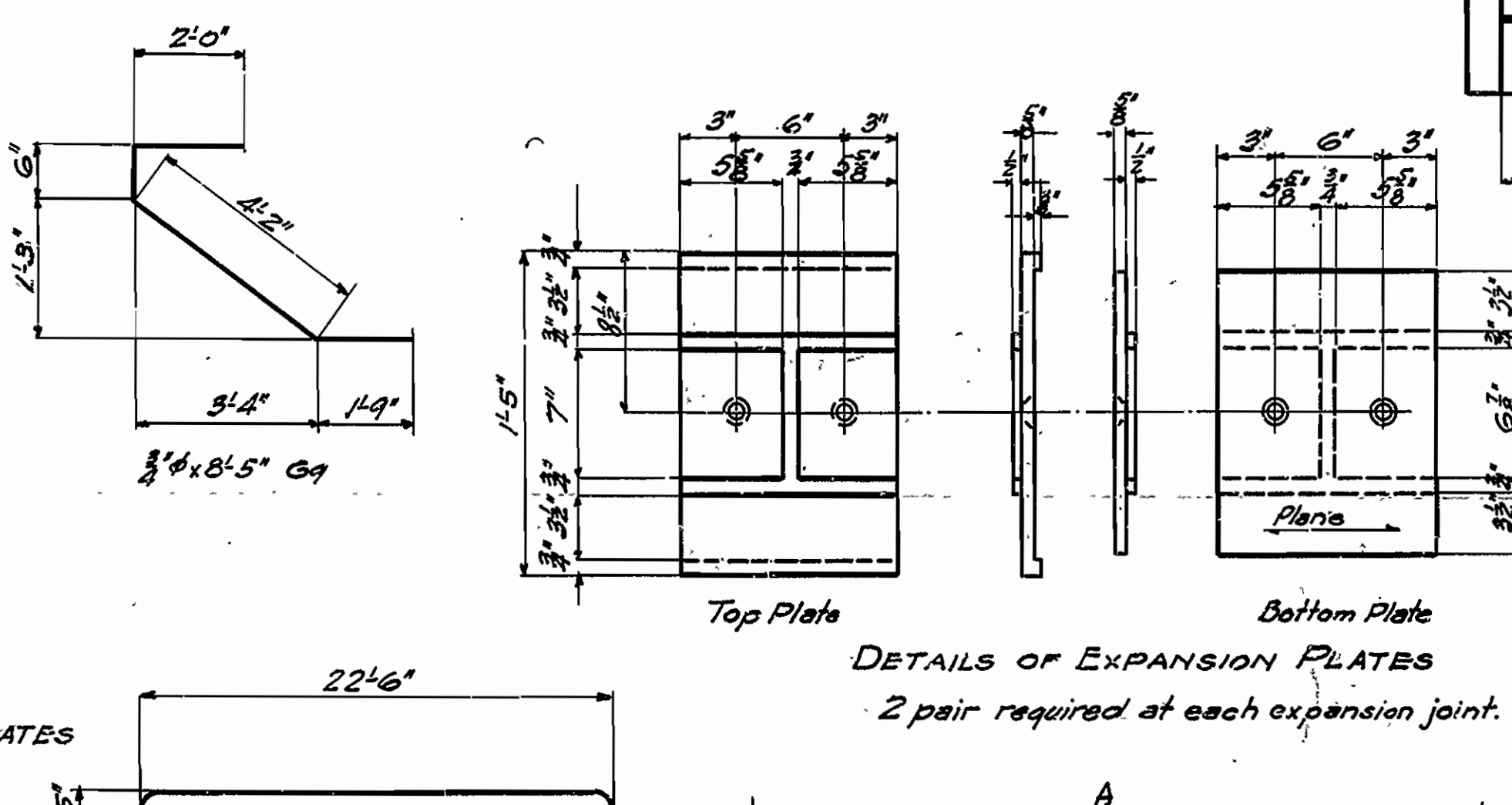
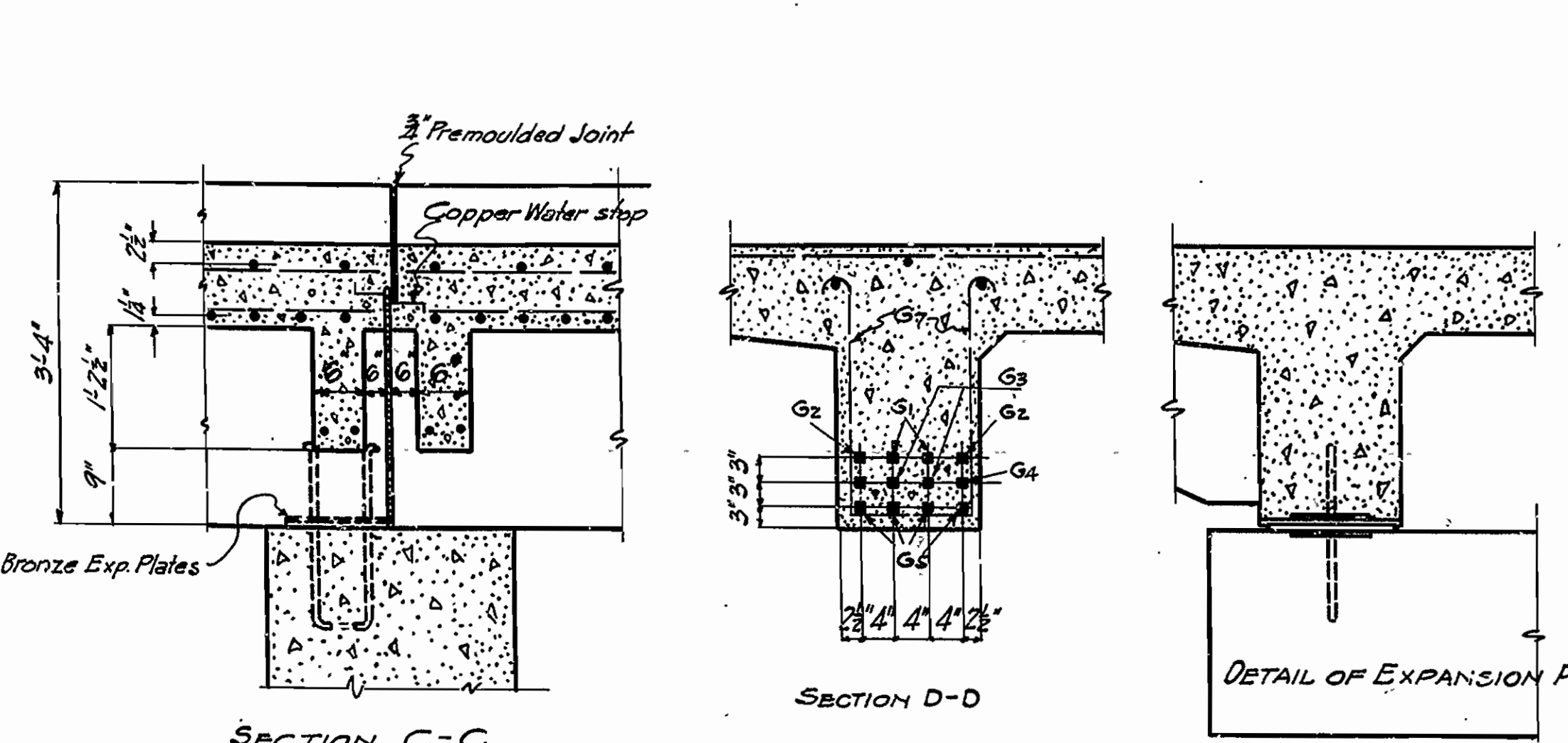
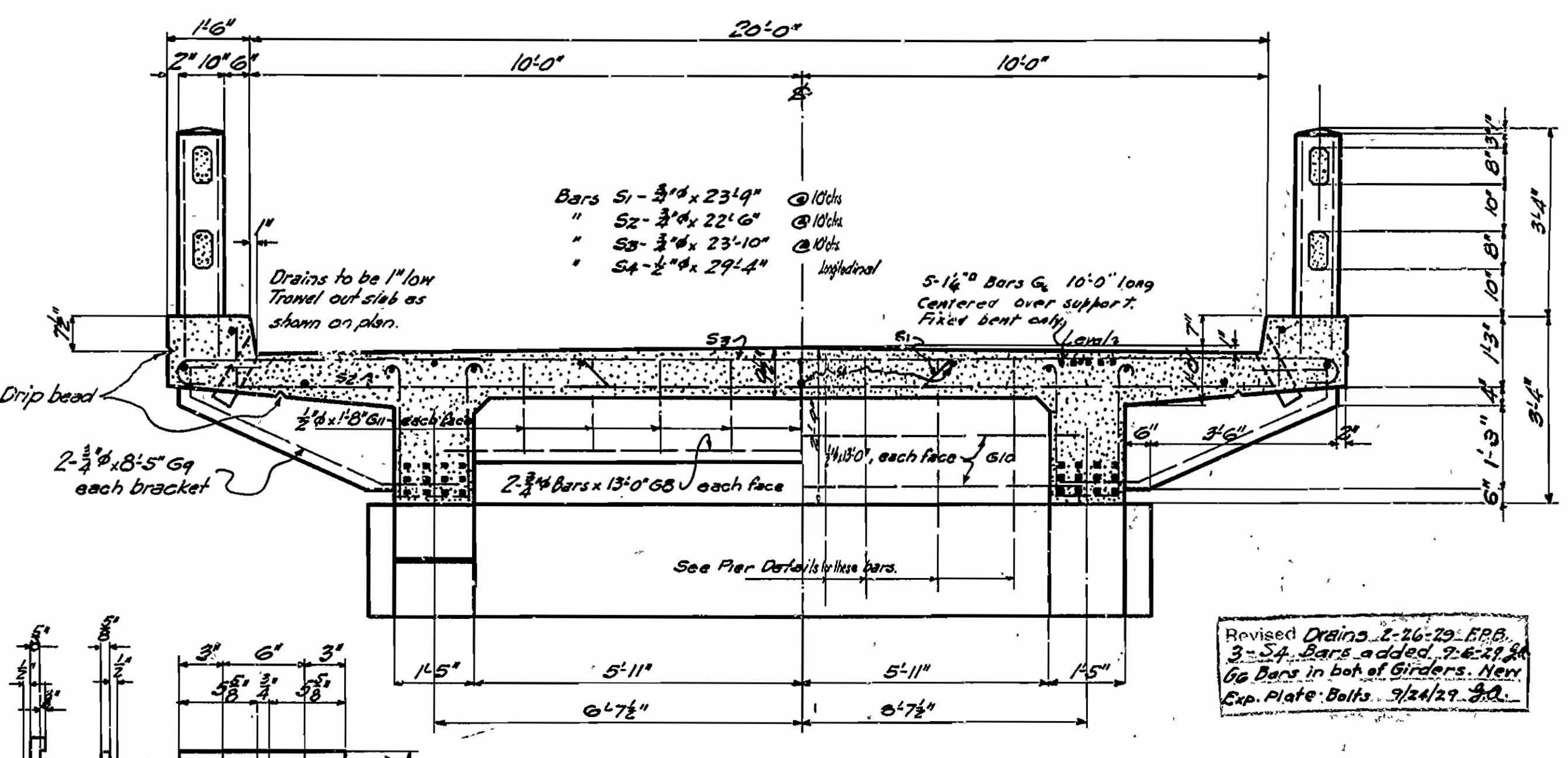
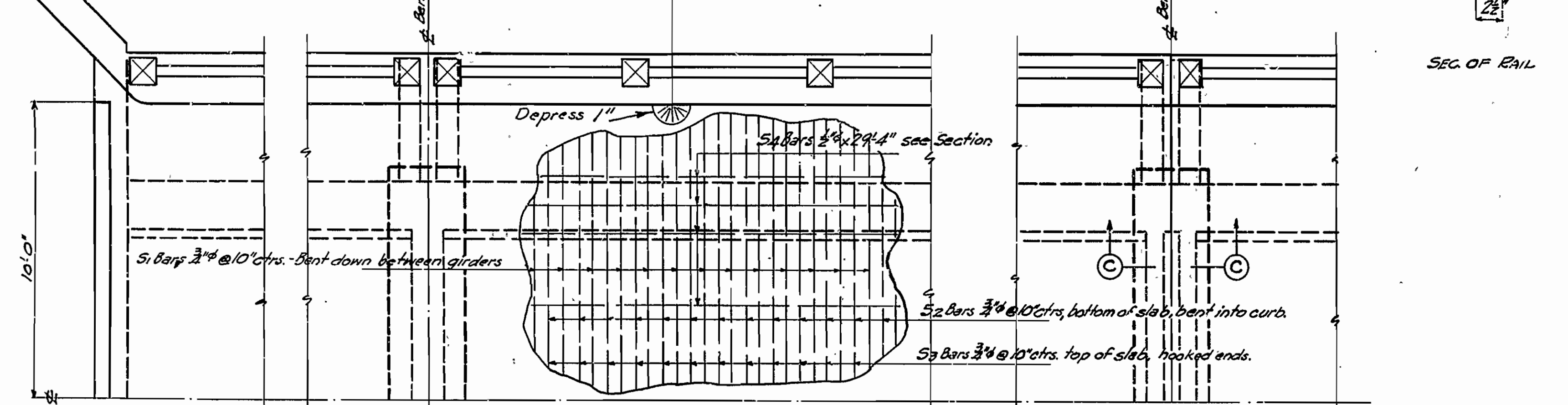
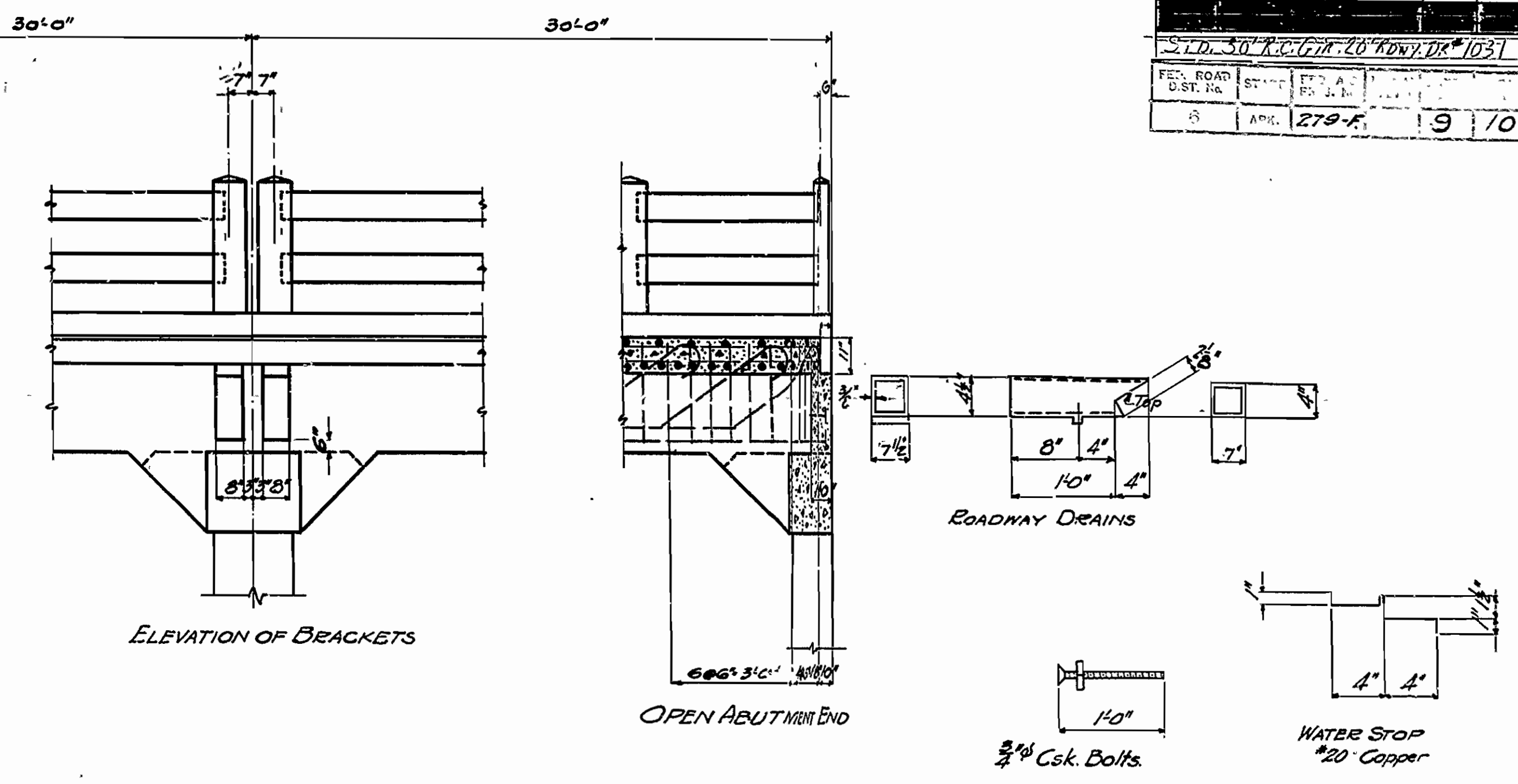
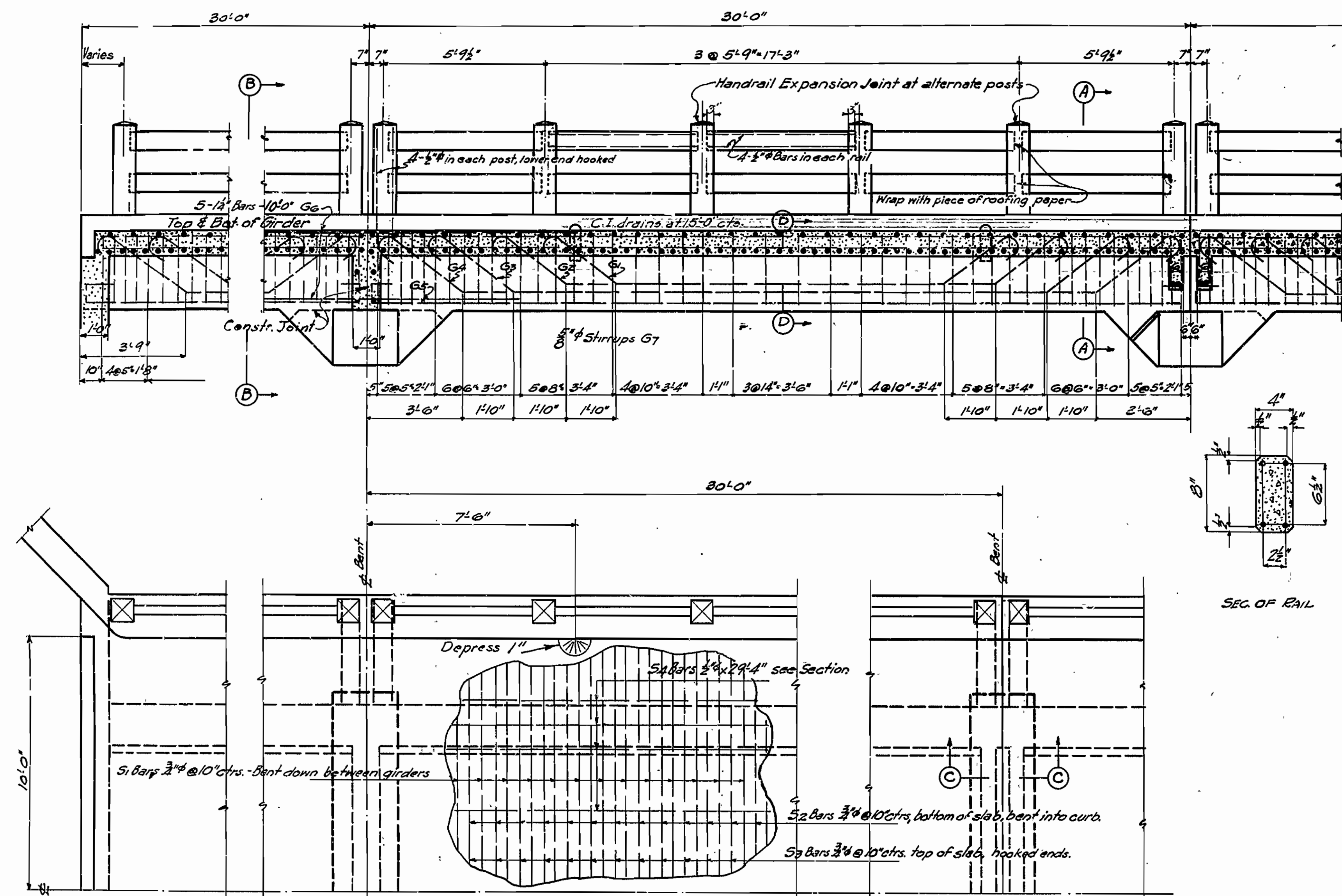
Scale 1/4" = 1'-0"  
ABUTMENT B

Note: End bents alike except for footings, columns and height of wing wall. Bars P24 are 4'-9" long.

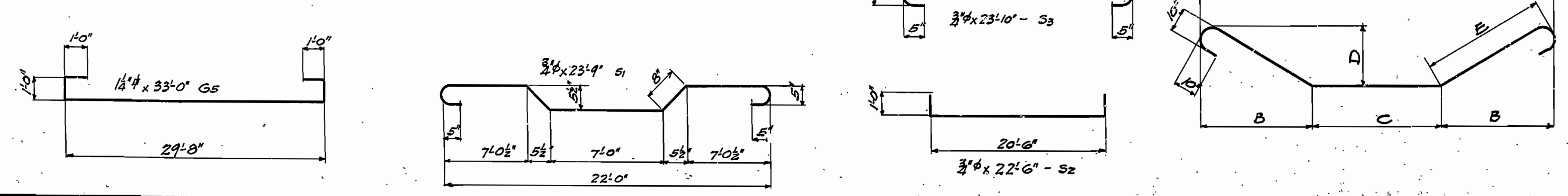
Note: Columns and exp. cap same as other intermediate bents.



FROM YEAR	JOB NO.	SHEET TOTAL SHEETS
1927	279-F	9/10
ST. D. 30" R.C. GIRDER 20" ROADWAY DR. #1031		
FED. ROAD DIST. NO.	ST. NO.	POST MILE
3	279-F	9/10



**GENERAL NOTES**  
 All exposed corners to have 3/4" chamfer unless otherwise noted.  
 Precast concrete handrails to be Class "S" concrete. Max. aggregate 3/4".  
 Rail posts to be Class "S" concrete.  
 Reinforcing steel to be deformed bars of Structural or Intermediate grade. Shop List and Bending Diagrams must be submitted by Contractor before fabrication is begun.  
 Drains and exp. devices to be paid for at unit price bid for reinforcing steel.  
 All concrete above column caps, except handrails, to be Class "S".  
 All concrete below top of column caps to be Class "A".  
 All concrete to be poured in the dry.  
 Specifications: Arkansas Standard Road and Bridge Specifications, adopted May 20, 1925, revised Jan. 1, 1928.



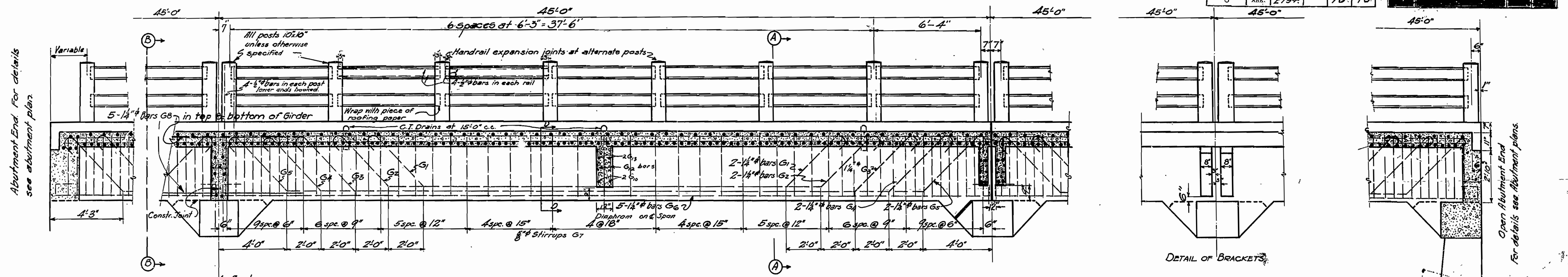
Mark	Size	Length	A	B	C	D	E
G1	1"	20'-6"	17'-9"	2'-8"	12'-5"	19'-3"	
G2	1"	24'-2"	21'-5"	2'-8"	16'-1"	19'-3"	
G3	1 1/4"	28'-0"	25'-1"	3'-0"	14'-1"	19'-3"	
G4	1 1/4"	31'-8"	28'-9"	3'-0"	22'-1"	19'-3"	

STANDARD 30" R.C. GIRDER.  
 20" ROADWAY 2 GIRDER TYPE.

ARKANSAS STATE HIGHWAY DEPARTMENT  
 LITTLE ROCK, ARK.

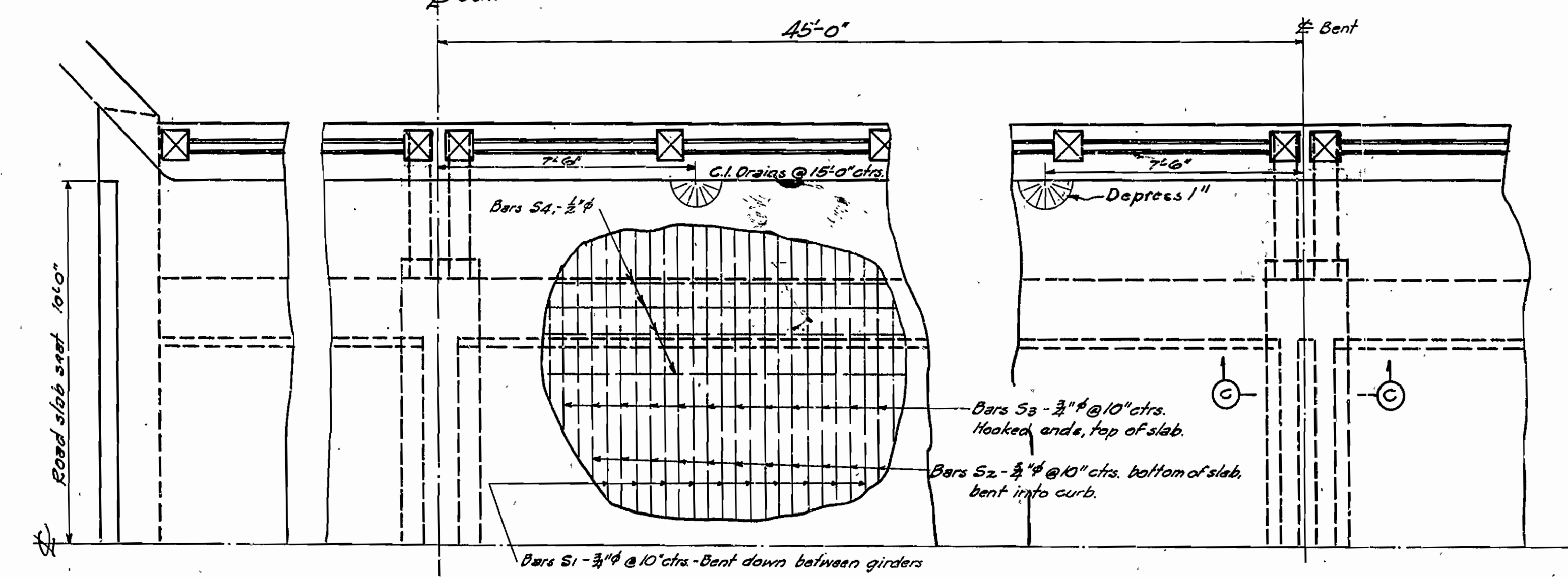
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 Checked By: *M.H.* Date: 8-12-27  
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FISCAL YEAR	JOB No.	SHEET No.	TOTAL SHEETS
6	279-F	10	10

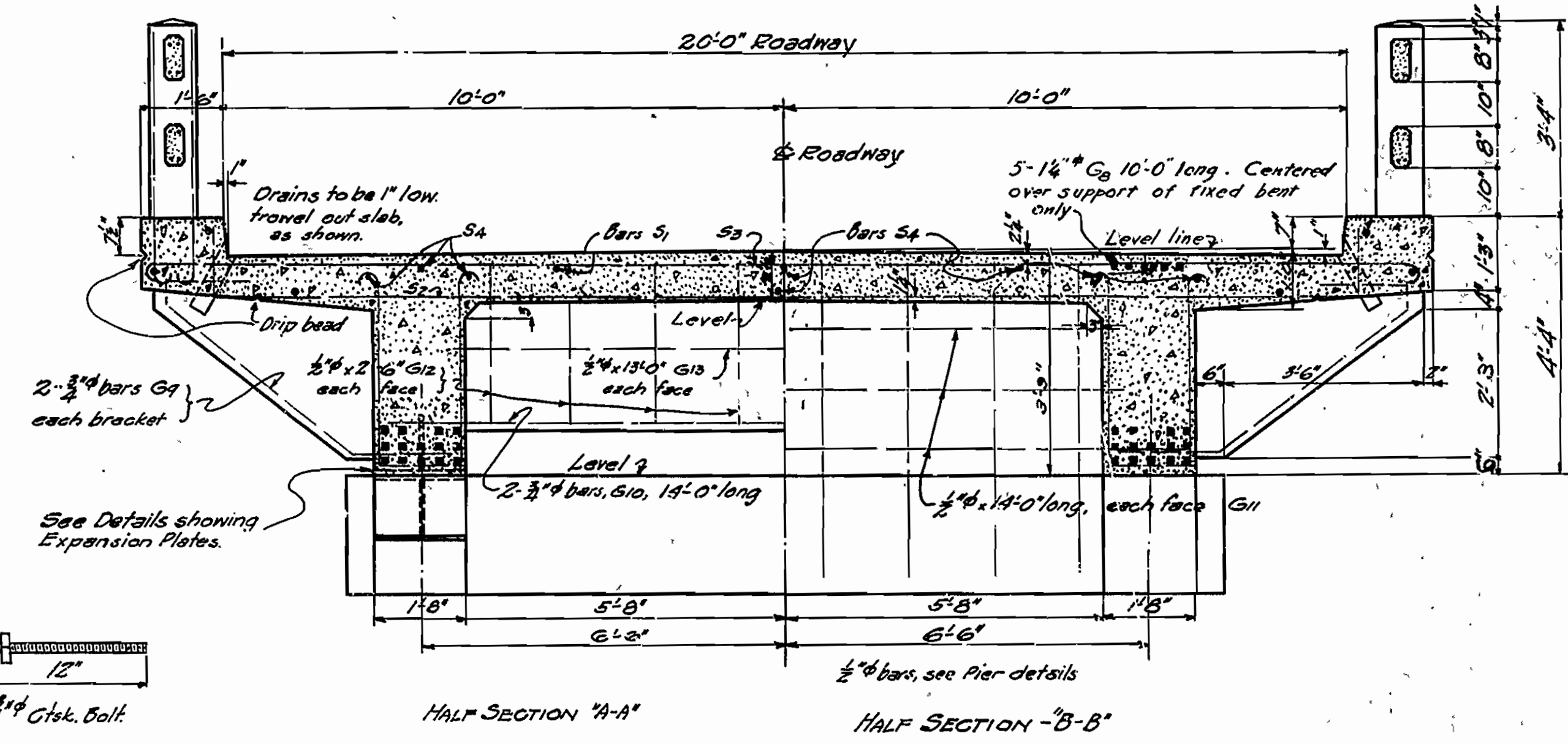


DETAIL OF BRACKETS

- Bars S1 - 3/8" @ 10" ctrs. Bent down between girders
- S2 - 3/8" @ 10" ctrs. Bottom of slab bent into curb.
- S3 - 3/8" @ 10" ctrs. Top of slab. Hooked ends.
- S4 - 1/2" Longitudinal Steel

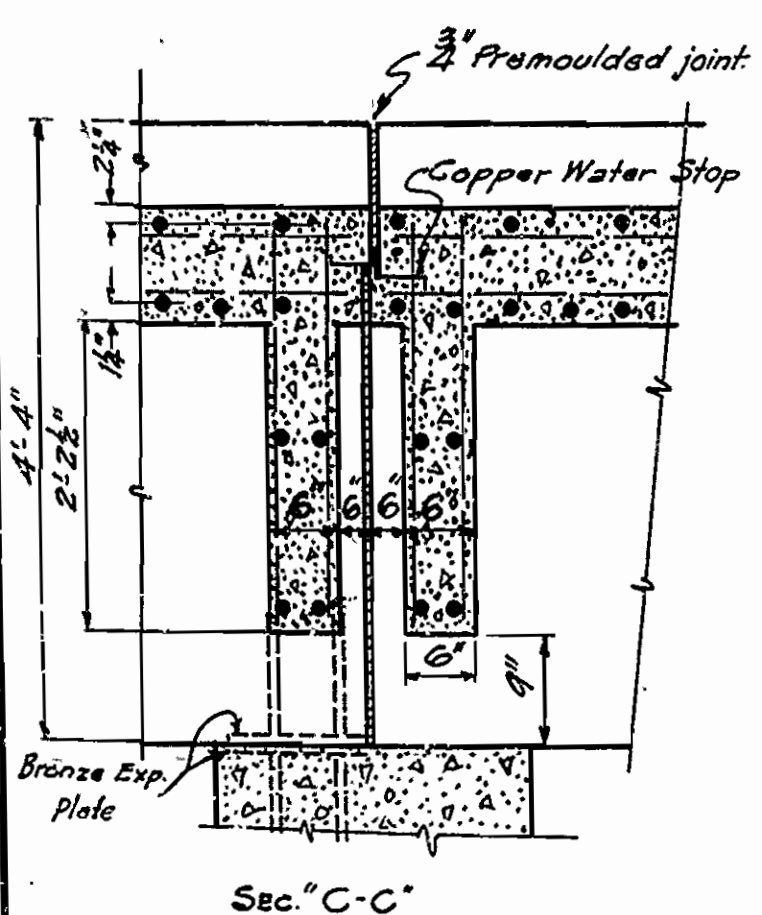


TYPICAL PLAN

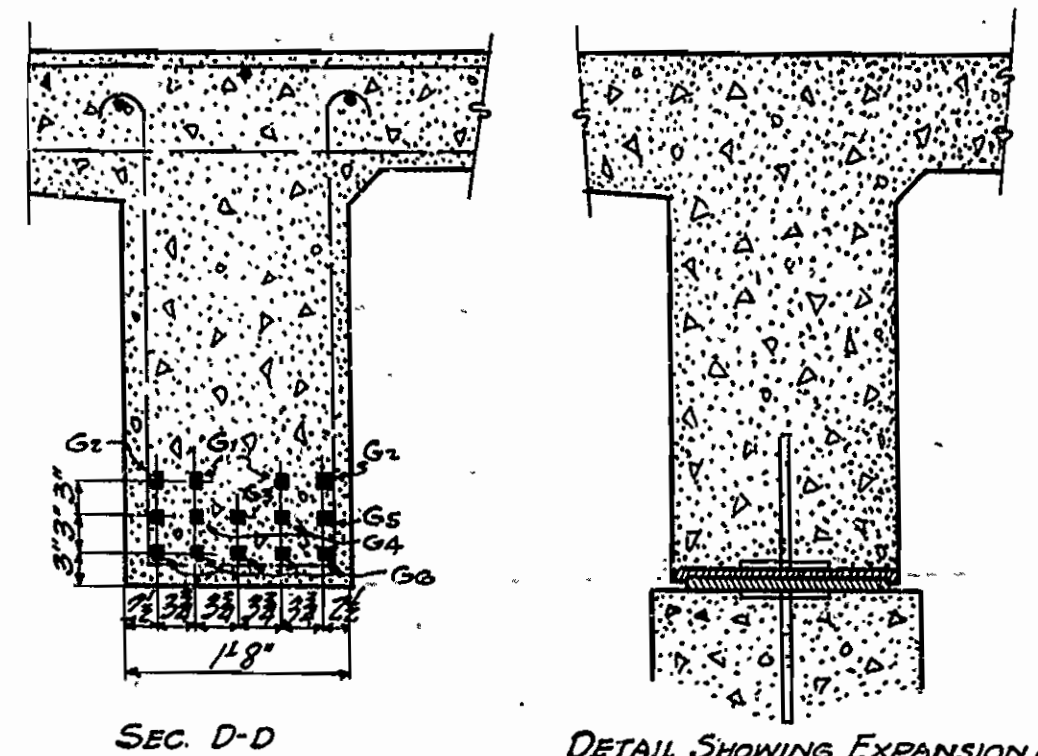


HALF SECTION "A-A"

HALF SECTION "B-B"

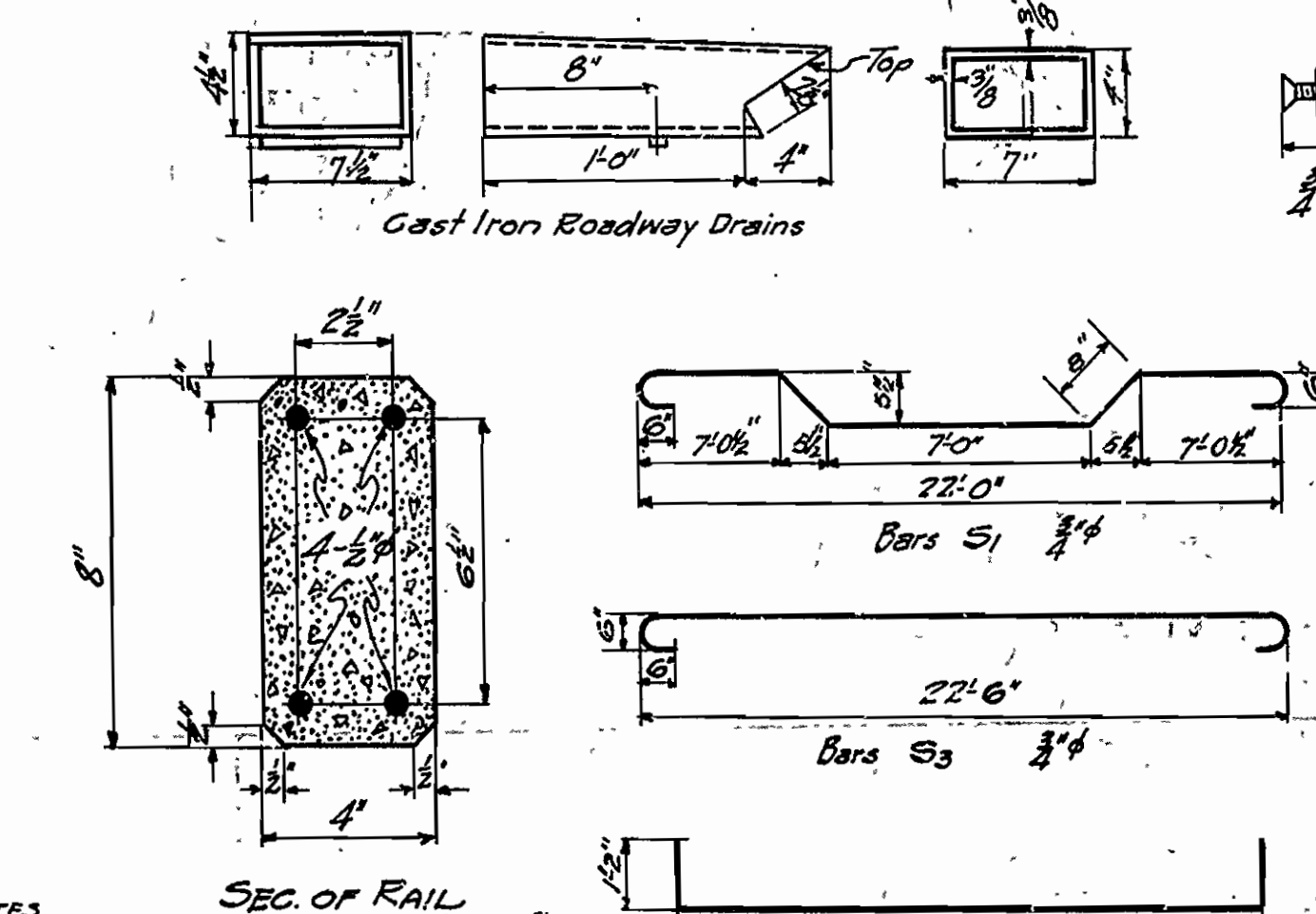


Sec. "C-C"

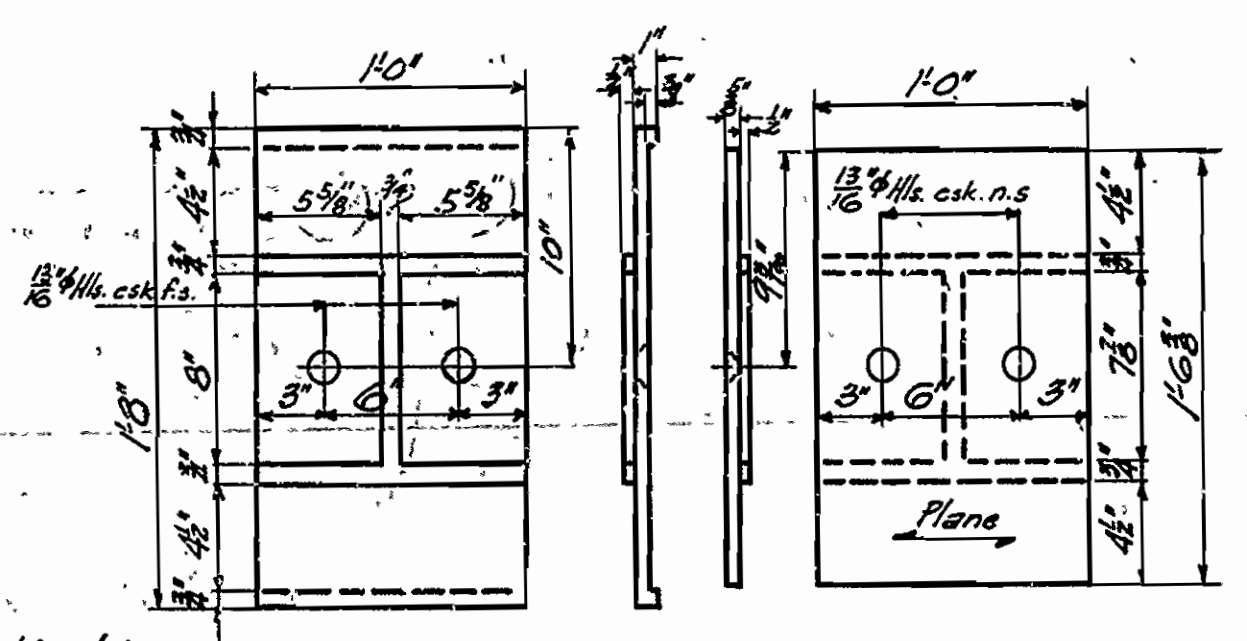


Sec. "D-D"

DETAIL SHOWING EXPANSION PLATES



SEC. OF RAIL



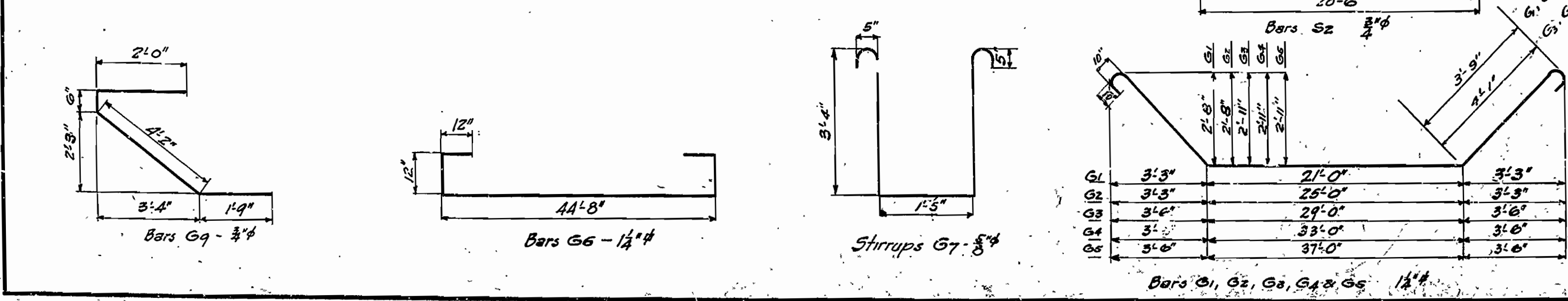
DETAIL OF BRONZE EXPANSION PLATES

GENERAL NOTES

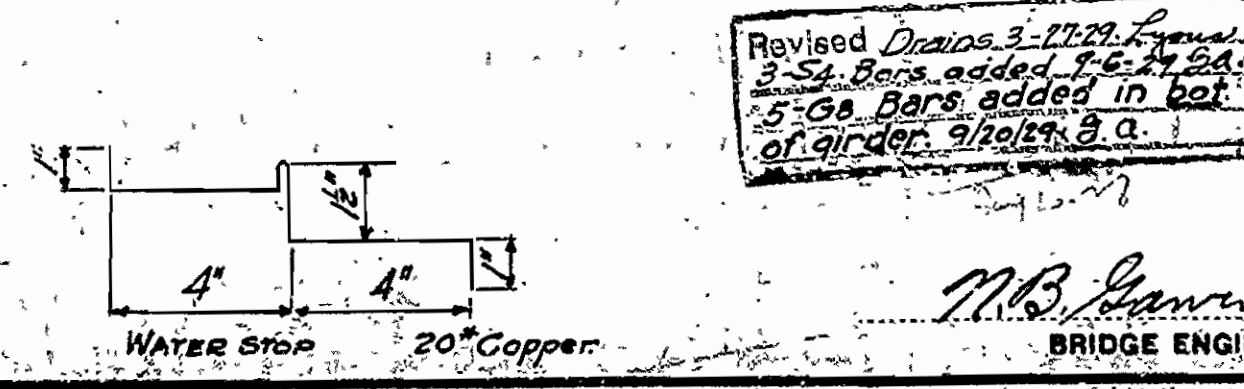
All exposed corners to have 3/8" chamfer unless otherwise noted.  
 Precast Concrete Handrail to be 2MIX. Max. aggregate 3/4".  
 Rail Posts to be Class "S" Concrete.  
 Reinforcing Steel to be deformed bars of Structural or Intermediate grade. Shop List & Bending Diagrams of Steel must be submitted by Contractor before Fabrication is begun.  
 Roadway Drains & Expansion Devices to be paid for at Unit Price bid for Reinforcing Steel.  
 All Concrete above top of Column caps, except Handrail, to be Class "S" below Class "A".  
 All concrete to be poured in the dry.  
 Specifications: Arkansas Standard Road and Bridge Specifications, adopted May 30, 1925, and revised Jan. 1, 1928.

DETAILS  
 STANDARD 45'-0" R.C. DECK GIRDER  
 20'-0" ROADWAY

ARKANSAS STATE HIGHWAY DEPARTMENT  
 LITTLE ROCK, ARK.  
 Drawn By: E.G.G. Date: 8-2-28  
 Traced By: H.H. Date: 8-2-28  
 Checked By: J.W. Date: 8-14-28  
 BRIDGE No. [ ] DRAWING No. 1032



Bars G1, G2, G3, G4, G5, G6 1/2"



WATER STOP 20" Copper

M.B. Spencer  
 BRIDGE ENGINEER