

FED. ROAD DIST. NO.	STATE	F.A.C. PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	117-A			
STATE JOB NO. 6194			1960	1	13

**STATE OF ARKANSAS  
STATE HIGHWAY COMMISSION**

**INDEX OF SHEETS**

SHEET No.	DRAWING No.	DESCRIPTION
1	6000	Title Sheet
2	6001	Schedule of Quantities
3	6002	Layout of Bridge over Fourche La Fave River
4	6007	Details of Abutments No. 1 & No. 2
5	6010	Details of Abutments No. 1 & No. 2
6	6011	Details of Piers No. 1 & No. 2
7	6012	Typical Sections of Roadway 31b
8	6013	Details of 155'-0" Arch Span
9	6014	Details of 155'-0" Arch Span
10	6015	Details of 175'-0" Arch Span
11	1691	Basis for Computing Excavation
12	2381	Project Markers, R/W Markers, and Bridge Name Plates
13	1888	Embankment Construction & Backfill for Structures

**PLAN OF PROPOSED BRIDGE  
OVER FOURCHE LAFAVE RIVER  
OLA-SOUTH ROAD  
PERRY COUNTY  
ROUTE 7 S. 8  
JOB No 8194  
FEDERAL AID PROJECT NO. 117A**

ITEM No.	ITEM	QUANTITIES	UNIT
101	Clearing	16	Acres
103	Dry Excavation for Structures	374	Cu. Yd.
103	Wet Excavation for Structures	232	Cu. Yd.
103	Solid Rock Excavation for Structures	578	Cu. Yd.
SP#802	Class A Concrete for Bridges	1,440.1	Cu. Yd.
SP#802	Class B Concrete for Bridges	362.7	Cu. Yd.
SP#802	Class C Concrete for Bridges	1,495.4	Cu. Yd.
805	Reinforcing Steel	402,010	Lb.
805	Concrete Railing	1,064	Lin. Ft.
807	Metal Bearings & Roadway Expansion Devices	18,110	Lb.
929	Bridge Name Plates	2	Each
SP	Sand and Gravel Fill	109.2	Cu. Yd.

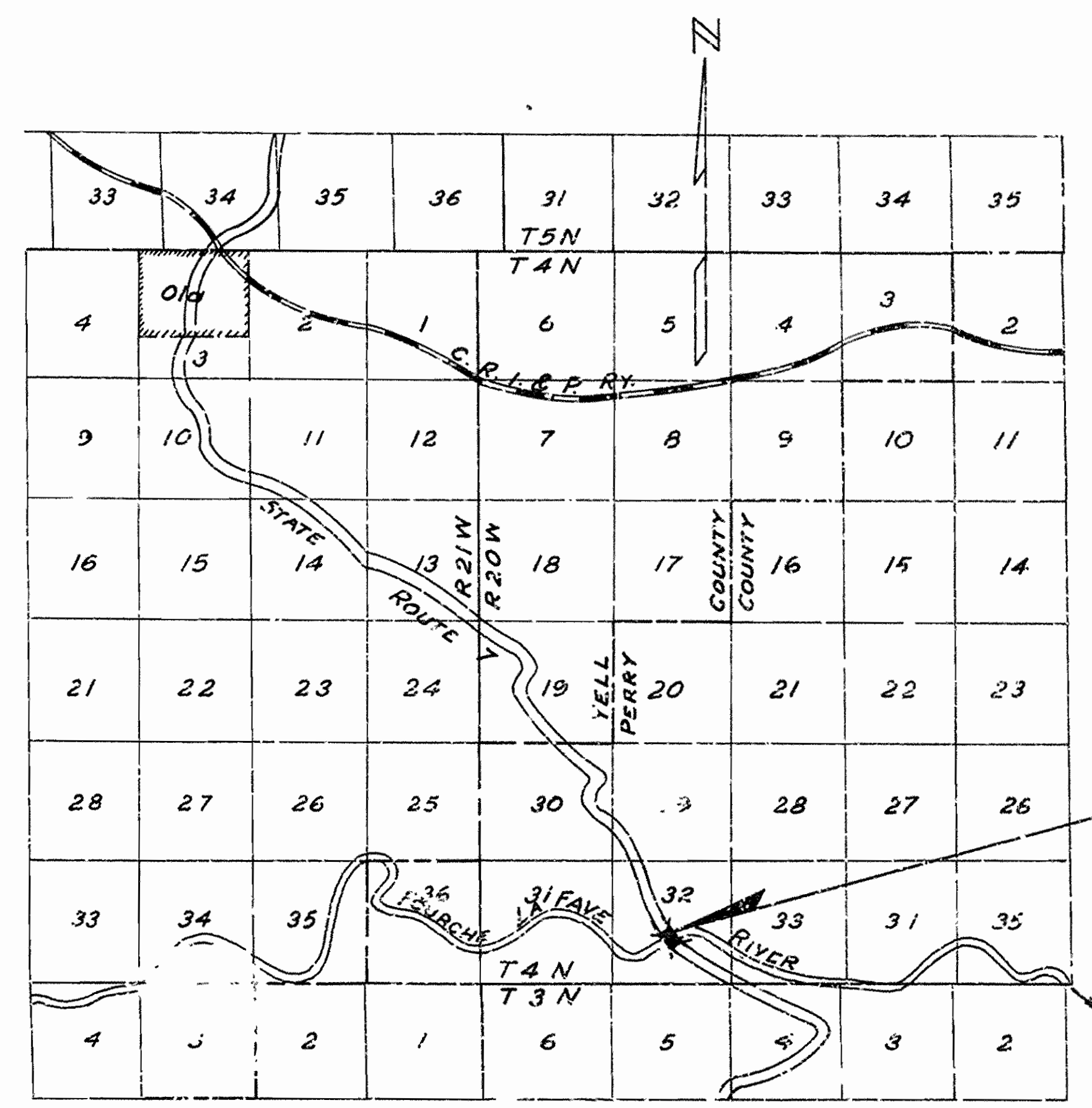
Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction, adopted March 1, 1960.

**PAMPHLETS**

DIVISION I	
DIVISION II	Part I
	8a
	8b
	8c
DIVISION III	
DIVISION IV	

**SPECIAL PROVISIONS**

	No. of Sheets
Required Special Provisions (4-10-39)	- 11
Wages of Labor	1
7-2 Unemployment Compensation or Insurance	1
8-3 Employment Centers for Labor	1
650-1 Engineer's Field Office	1
Coordination of Work	2
Special Order of Construction	1
Sand and Gravel Fill	1
853-1 Machine Mixing	1



**BRIDGE NO. 1160**  
Sta. 477+30 to Sta. 482+48  
Job No. 8194  
Federal Aid Project No. 117-A

**LAYOUT**  
Scale: 1"=1 Mile

LENGTH OF PROJECT=	518'-0"	0.098 Miles
LENGTH OF BRIDGES=	518'-0"	0.098 "
LENGTH OF EMBANKMENT=	0'-0"	0.0 "
LENGTH OF JOB=	518'-0"	0.098 "

RECOMMENDED FOR APPROVAL  
DISTRICT ENGINEER  
PUBLIC ROADS ADMINISTRATION  
FEDERAL WORKS AGENCY

APPROVED  
COMMISSIONER  
PUBLIC ROADS ADMINISTRATION  
FEDERAL WORKS AGENCY

APPROVED  
CHIEF ENGINEER  
STATE HIGHWAY DEPARTMENT

APPROVED  
STATE HIGHWAY ENGINEER

*M. O. ...*  
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	ARK.	117-A	1940	2	13
STATE JOB NO. 8194					

## SCHEDULE OF QUANTITIES - BRIDGE No. 1160

CODE NO. 951

ITEM No.	103	103	103	S.P. & B02	S.P. & B02	S.P. & B02	B03	B05	S.P.	B07	929	
ITEM	DRY EXCAVATION FOR STRUCTURES	WET EXCAVATION FOR STRUCTURES	SOLID ROCK EXCAVATION FOR STRUCTURES	CLASS "A" CONCRETE FOR BRIDGES	CLASS "B" CONCRETE FOR BRIDGES	CLASS "S" CONCRETE FOR BRIDGES	REINFORCING STEEL	CONCRETE RAILING	SAND & GRAVEL FILL	METAL BEARING & RDWY EXP. DEVICES	BRIDGE NAME PLATES TYPE "A"	
UNIT OF BRIDGE	CU YD.	CU YD.	CU YD.	CU YD.	CU YD.	CU YD.	LBS.	LIN. FT.	CU YD.	LBS.	EACH	
ABUTMENT No. 1	152		150	244.85		18.74	25,120	27	16.3	500	1	
PIER No. 1		29	170	413.45	181.35	11.71	30,900	14	38.3	950		
PIER No. 2	87	203	170	413.45	181.35	11.71	30,900	14	38.3	950		
ABUTMENT No. 2	135		88	368.35		18.74	28,060	27	16.3	500	1	
155'-0" ARCH SPAN No. 1						457.32	91,730	314		5,070		
175'-0" ARCH SPAN No. 2						519.86	103,570	354		5,070		
155'-0" ARCH SPAN No. 3						457.32	91,730	314		5,070		
<b>TOTALS</b>	374	232	578	1440.1	362.7	1,495.4	402,010	1064	109.2	18,110	2	

**ITEM NO. 101 - CLEARING**

STATION	STATION	CLEARING Acres	
477+00	478+60	0.6	
481+00	492+70	1.0	
Totals		1.6	

**SCHEDULE OF QUANTITIES**  
**BRIDGE OVER FOURCHE LAFAVE RIVER**  
**OLA-SOUTH ROAD**  
**PERRY COUNTY**  
**ROUTE 7 SEC. 8**

**ARKANSAS STATE HIGHWAY COMMISSION**  
 LITTLE ROCK, ARK.

Drawn By: *M.C.H.* Date: 6-17-40  
 Traced By: *P.A.D.* Date: 6-17-40  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_  
**BRIDGE NO. 1160**      **DRAWING NO. 6007**

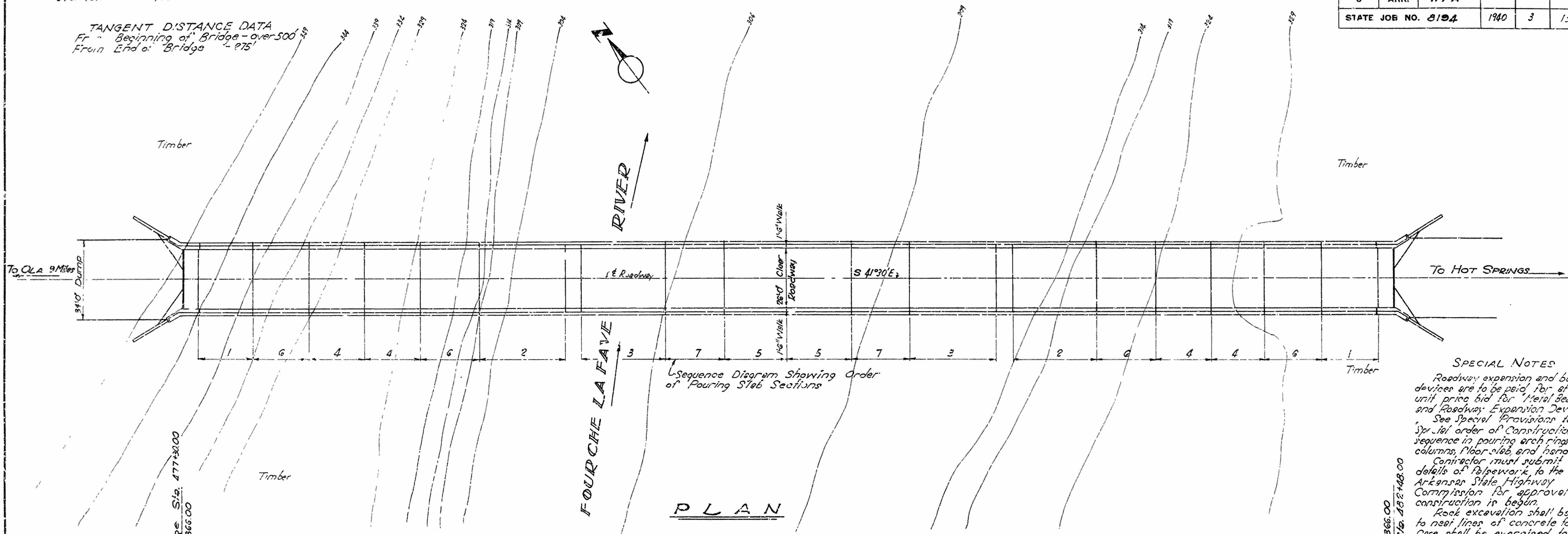
*M.C.H.*  
 PRINCIPAL HIGHWAY ENGINEER (BRIDGES)

Scale: \_\_\_\_\_ in. = \_\_\_\_\_ ft.

RIGHT OF WAY DATA  
Sta 477+00 to 481+00 - 80' R/L - 80' L/L  
Sta 481+00 to 484+00 - 125' R/L - 125' L/L

FED. ROAD DIST. NO.	STATE	F.A.P. PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	117-A			
STATE JOB NO. 8194			1940	3	13

TANGENT DISTANCE DATA  
Fr Beginning of Bridge - over 500'  
From End of Bridge - 275'

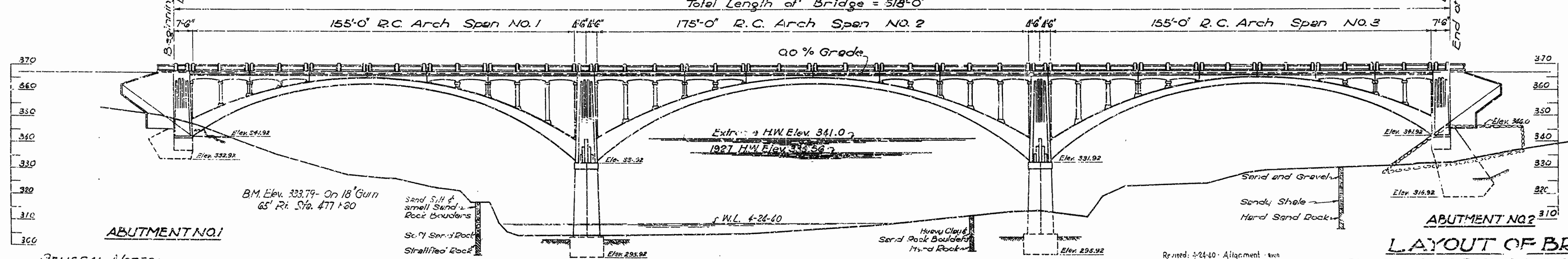


Sequence Diagram Showing Order of Pouring Slab Sections

PLAN

**SPECIAL NOTES**  
Roadway expansion and bearing devices are to be paid for at the unit price bid for "Metal Bearings and Roadway Expansion Devices." See Special Provisions for special order of construction for sequence in pouring arch rings, columns, floor slab, and handrail. Contractor must submit details of falsework to the Arkansas State Highway Commission for approval before construction is begun. Rock excavation shall be done to near lines of concrete footing. Care shall be exercised to avoid shattering rock faces by excessive blasting. Embankment and Rip Rap at bridge ends to be placed under another contract.

Total Length of Bridge = 518'-0"



ELEVATION

**GENERAL NOTES:-**  
All concrete to be poured in the dry. All exposed corners to have chamfer grad shown. Concrete in handrail to be Class S<sup>1</sup> except maximum size of aggregate to be 3/4". Concrete in arch ribs and struts and all concrete above top of column caps to be Class S<sup>2</sup>. Concrete in biers, abutments, piers and columns to be Class A unless otherwise noted. Reinforcing steel to be deformed bars of structural or intermediate grade. Shop list and bending diagrams must be submitted and approved before fabrication is begun. In general all construction joints in piers and abutments shall be horizontal and shall be provided with keys 5" deep covering the middle third of both dimensions unless otherwise shown. Specifications: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction, adopted March 1, 1940.

**FOUNDATION PRESSURES**  
Abutment No. 1 8.2 Tons  
Pier No. 1 & No. 2 8.0 Tons  
Abutment No. 2 9.8 Tons

**PIER NO. 2**  
DRAINAGE AREA  
745 Sq. Miles - Mountainous  
B.M. Elev. = 332.08 On Top 10' White Oak  
Stump - 80' right of Sta. 481+30

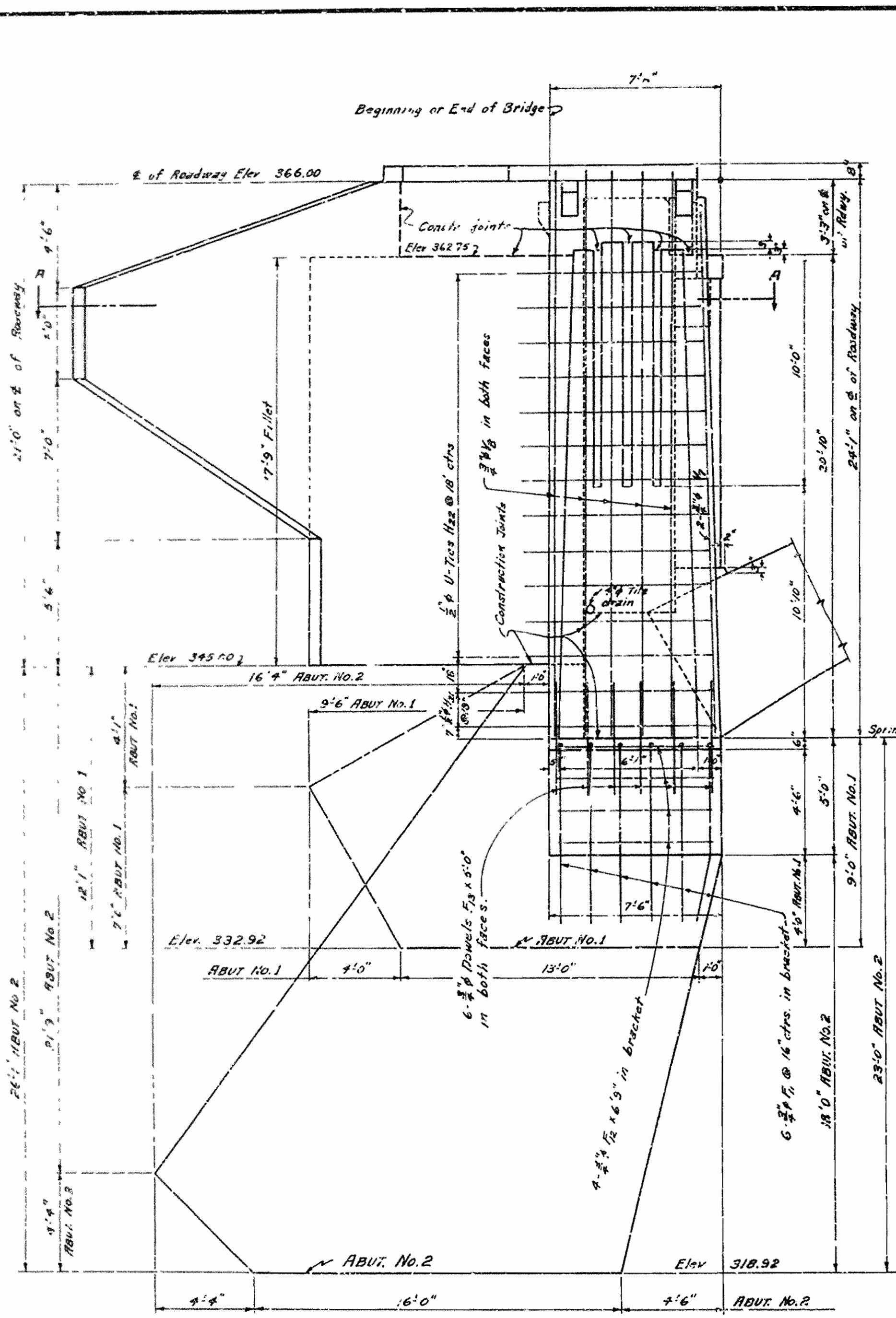
**LAYOUT OF BRIDGE**  
OVER FOURCHE LA FAVE RIVER  
OLA - SOUTH ROAD  
PERRY COUNTY  
ROUTE 7 SEC. 8 11

**ARKANSAS STATE HIGHWAY COMMISSION**  
LITTLE ROCK, ARK.  
Drawn By: H.D. Date: 2-2-37  
Traced By: H.D. Date: 2-9-37  
Checked By: Date: \_\_\_\_\_  
BRIDGE NO. 1160 DRAWING NO. 6003

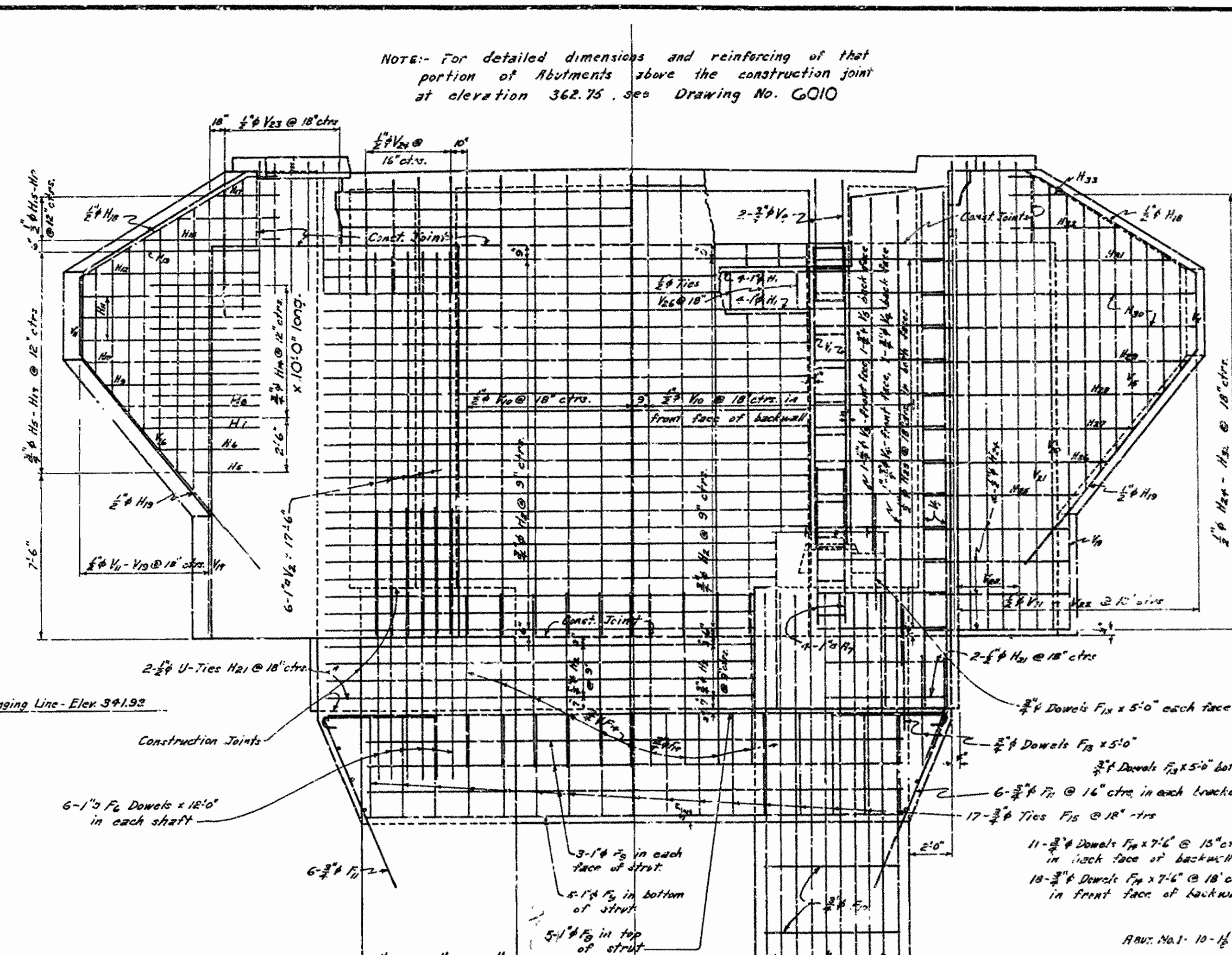
*M.D. Lewis*  
BRIDGE ENGINEER

FED. ROAD DIST. NO.	STATE	FAP PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	117-9	1940	4	13
STATE JOB NO. 2104			1940	4	13

NOTE: For detailed dimensions and reinforcing of that portion of Abutments above the construction joint at elevation 362.75, see Drawing No. 6010



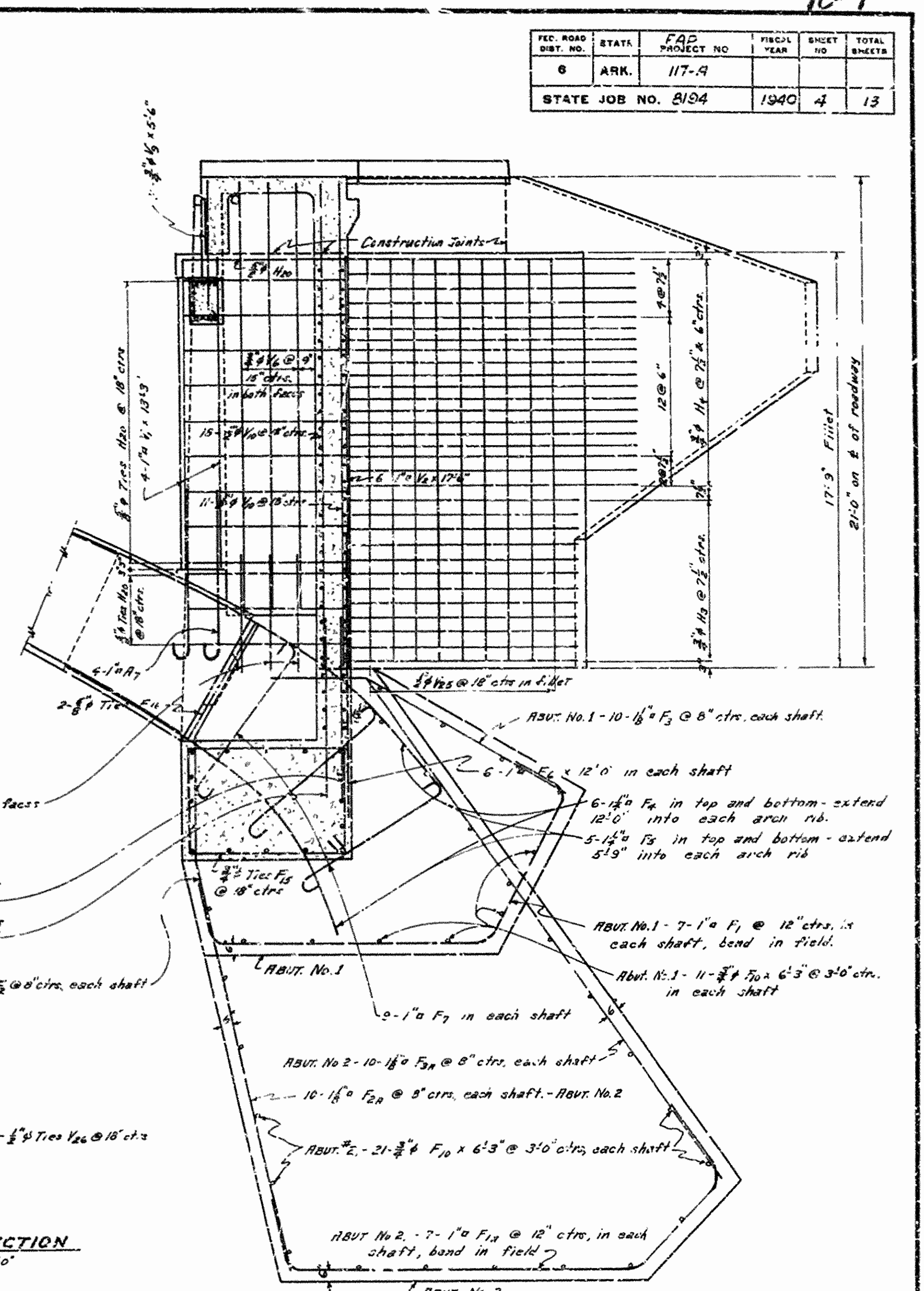
**SOUTH SIDE ELEVATION OF ABUT. NO. 1**  
**NORTH SIDE ELEVATION OF ABUT. NO. 2.**



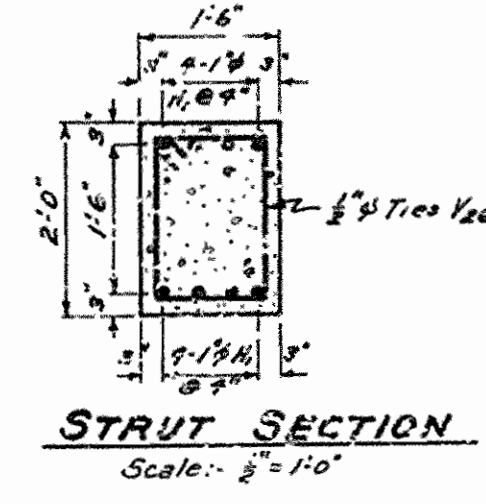
**HALF REAR ELEVATION**  
Showing back face reinforcing steel

**HALF FRONT ELEVATION**  
Showing front face reinforcing steel

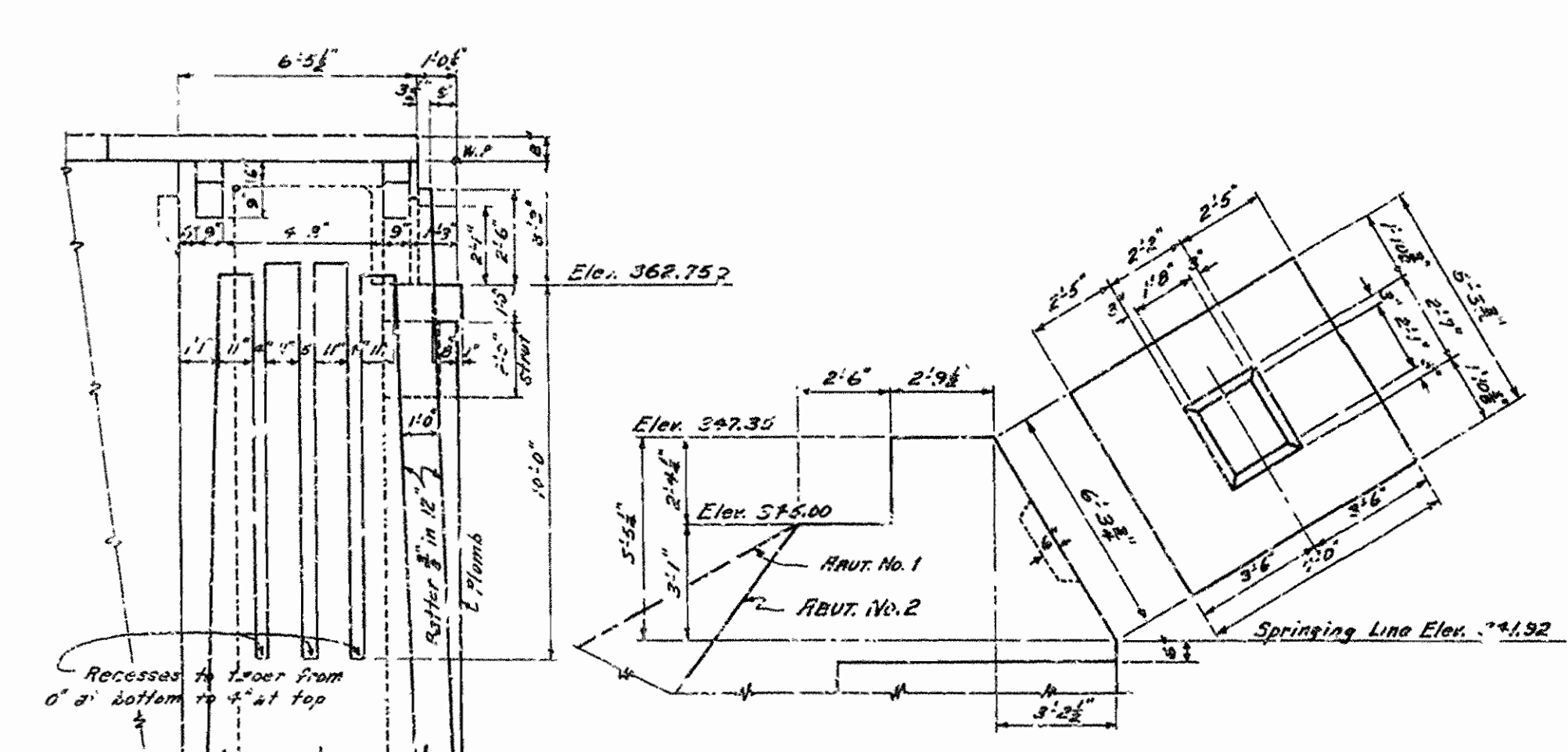
See Drawing No. 6010 for Special Construction Note.



**SECTION B-B ON E. OF ROADWAY**

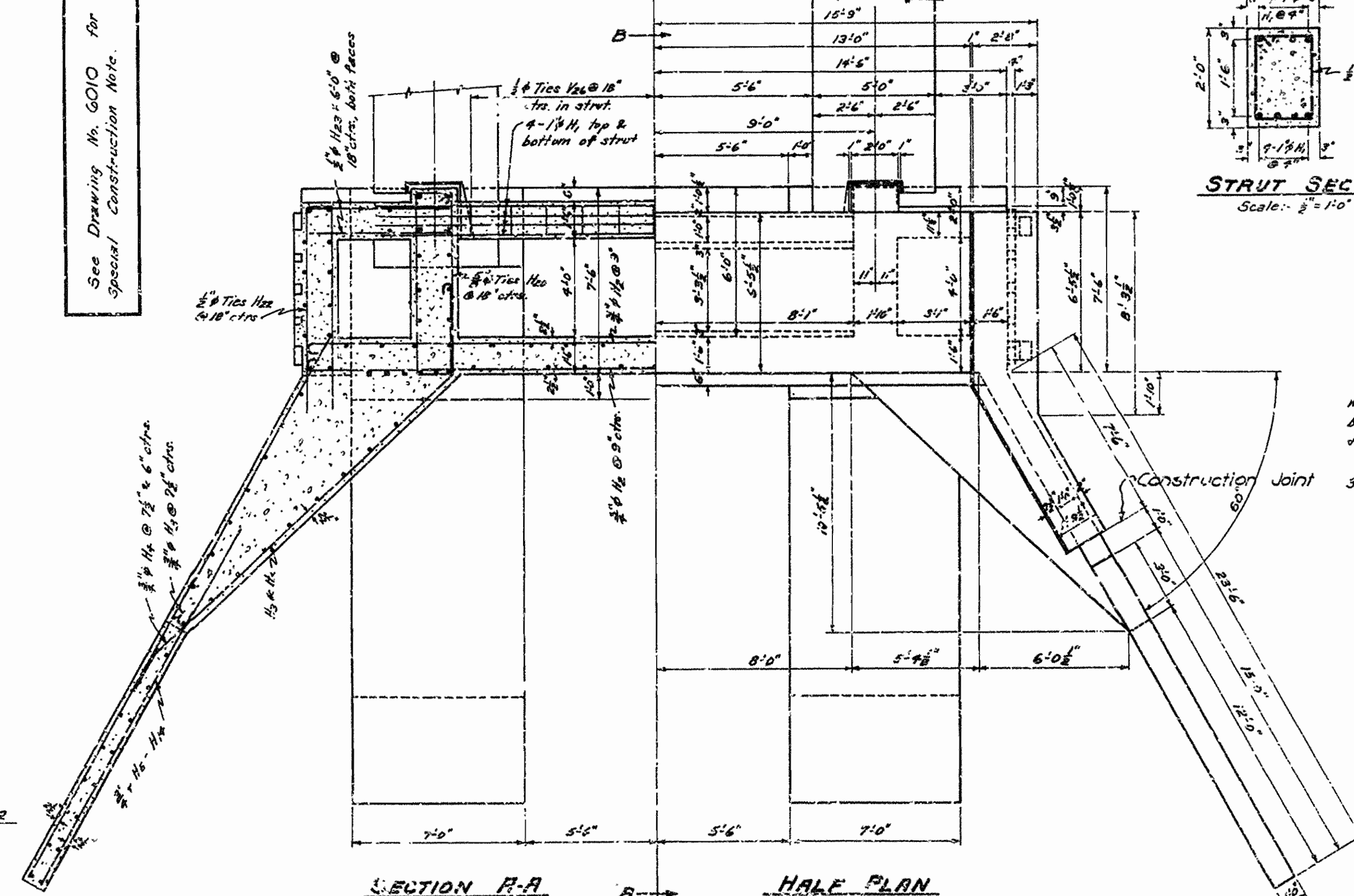


**STRUT SECTION**  
Scale: 1/2" = 1'-0"



**PART SIDE ELEV. SHOWING DIMENSIONS OF PLASTER**

**DETAIL OF SKEWBACK**



**SECTION A-A**  
ABUT. NO. 2

**HALF PLAN**  
ABUT. NO. 2.

Details of Abut. No. 1 is similar, except shafts.

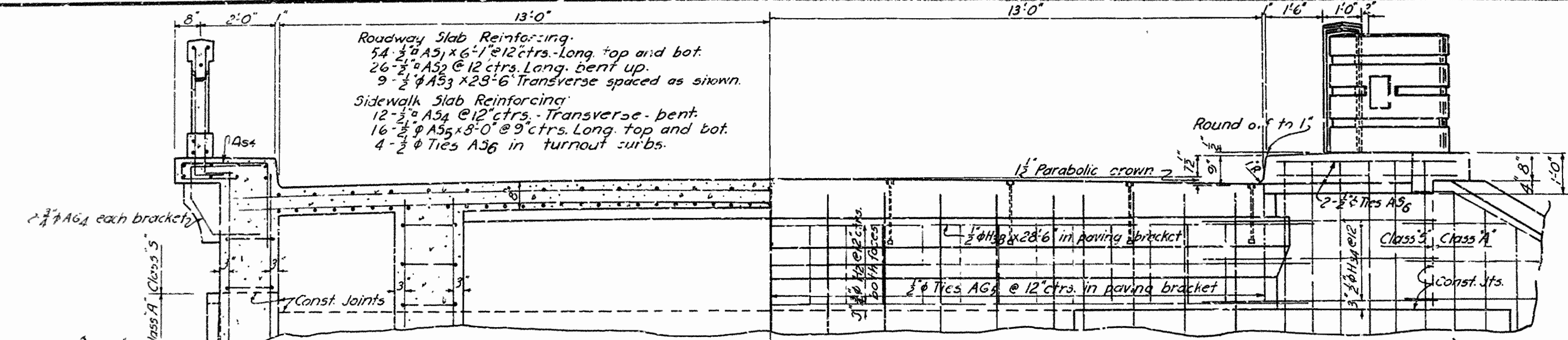
All concrete above the construction joint at Elev. 362.75, except portions of wings and outside plaster walls, to be Class 'S'. Remainder of abutments to be Class 'A' Concrete. Payment for file drawings to be included in price bid for Class 'A' Concrete.  
For details of portion of abutments above construction joint at Elev. 362.75 see Drawing No. 6010  
See Drawing No. 6010 for Special Construction Note.

**SHEET NO. 1 OF 2**  
**DETAILS OF ABUTMENTS NO. 1 & 2**  
**BRIDGE OVER FOURCHE LAFAYE RIVER**  
**OLA-SOUTH ROAD**  
**PERRY COUNTY**  
**ROUTE 7 SEC. 8**  
**ARKANSAS STATE HIGHWAY COMMISSION**  
**LITTLE ROCK, ARK.**  
Drawn By: W.C.H. Date: 5-25-40  
Traced By: W.C.H. Date: 6-4-40  
Checked By: \_\_\_\_\_ Date: \_\_\_\_\_  
Scale: 1/4" = 1'-0"  
**BRIDGE NO. 1160**      **DRAWING NO. 6009**

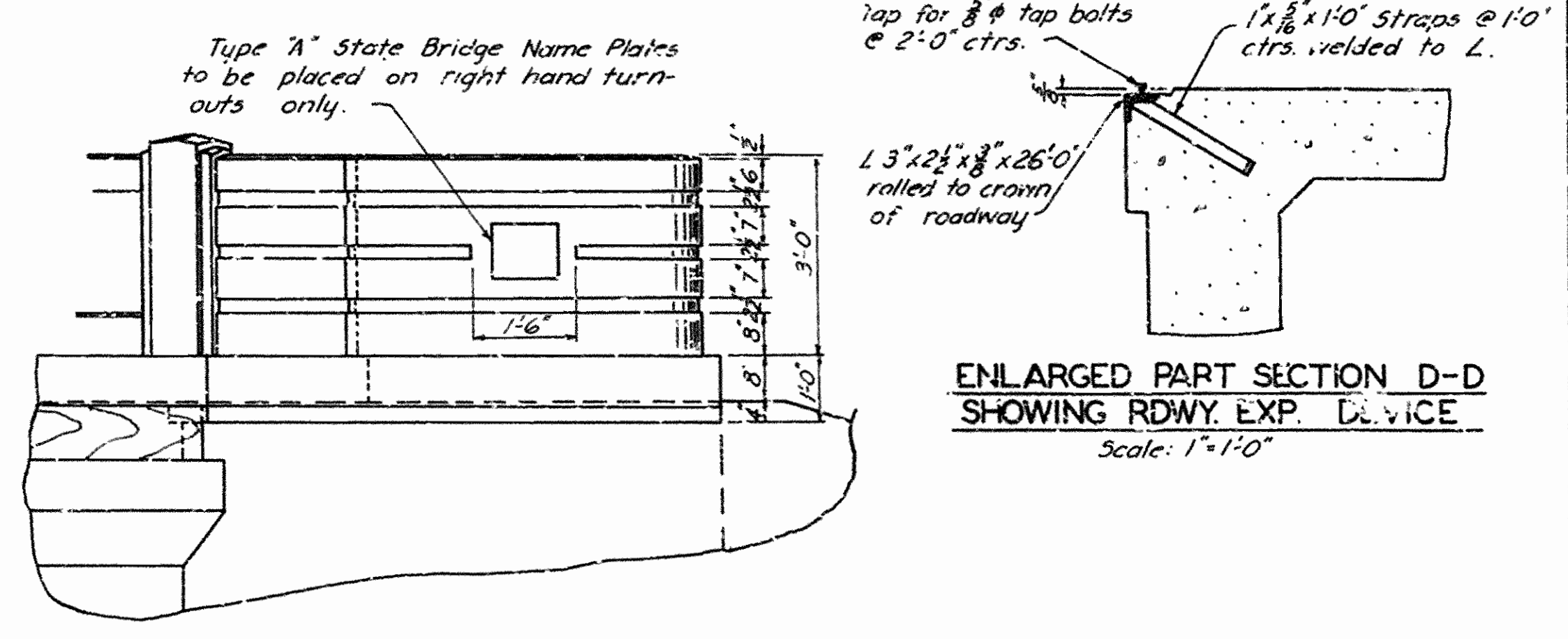
W.C.H. Principal Highway Engineer (Bridges)

FED. ROAD DIST. NO.	STATE	F. & P. PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	AR.	117-A	1940	3	13
STATE JOB NO. 8194					

Roadway Slab Reinforcing:  
 54 #5 A51 x 6'-1" @ 12 ctrs. Long. top and bot.  
 26 #5 A52 @ 12 ctrs. Long. bent up.  
 9 #5 A53 x 29'-6" Transverse spaced as shown.  
 Sidewalk Slab Reinforcing:  
 12 #5 A54 @ 12 ctrs. Transverse. bent.  
 16 #5 A55 x 8'-0" @ 9 ctrs. Long. top and bot.  
 4 #5 A56 Ties A56 in turnout curbs.

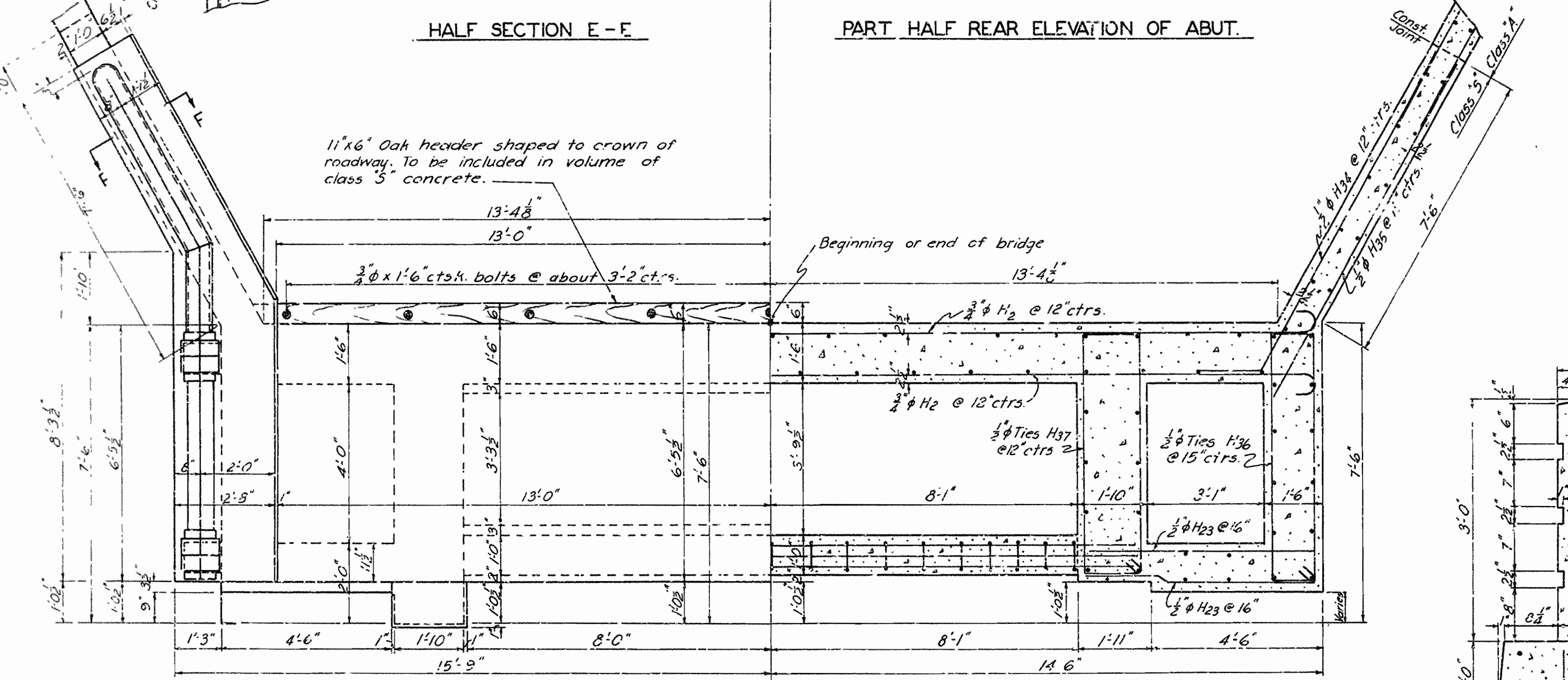


HALF SECTION E-E PART HALF REAR ELEVATION OF ABUT.



DETAIL OF TURNOUT

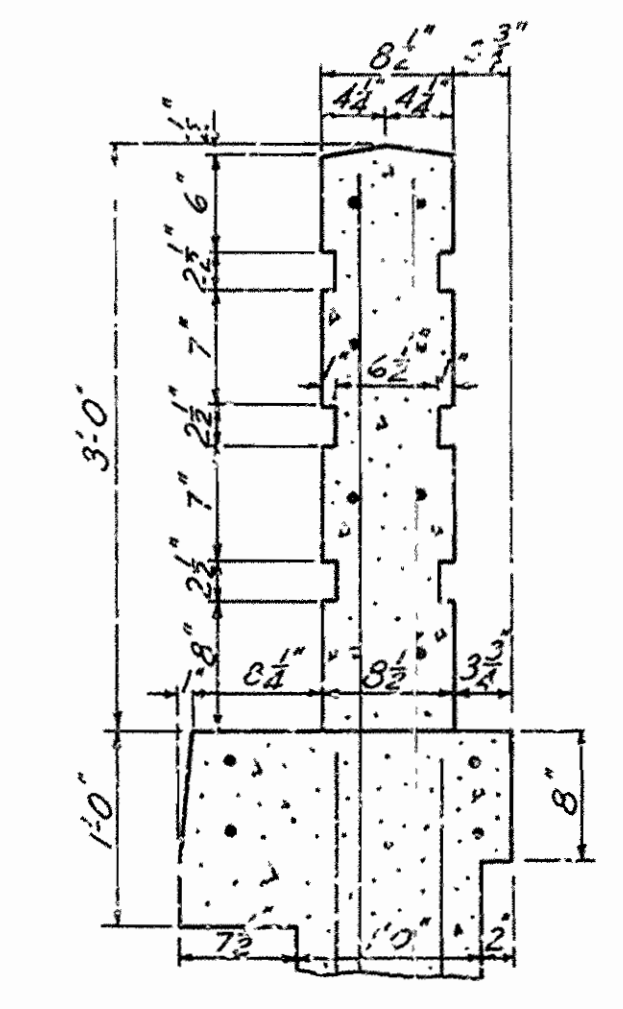
ENLARGED PART SECTION D-D SHOWING RDWY. EXP. DEVICE Scale: 1"=1'-0"



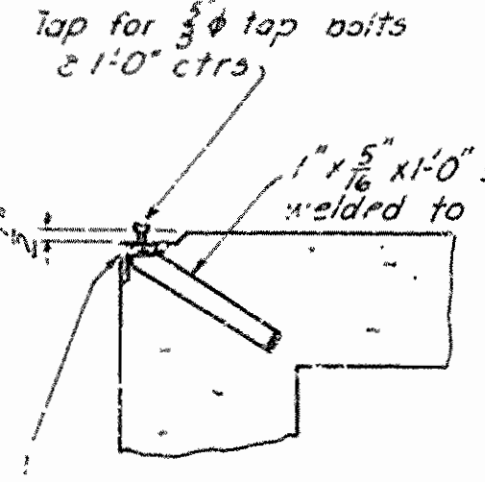
HALF PLAN OF DECK SLAB HALF SECTION C-C

**SPECIAL CONSTRUCTION NOTE**  
 The shafts and skewbacks are to be completed and back filling around shafts shall be made to natural ground line or to elevation 340.0 whichever is the lesser elevation, before the last key section of the rings are poured.  
 After the rings, struts, and pedestals have been poured the remainder of Class A Concrete shall be poured. This pour may be made before the arch centering is released if the Contractor so elects.  
 After arch centering has been released and before any of the deck of the spans are poured the earth embankment may be completed to Elevation 350.00. The remainder of the fill shall be made after the deck has been completed on the spans.  
 Adequate bracing shall be provided to prevent movement of bulkheads at the key sections of arch rings at piers and abutments.

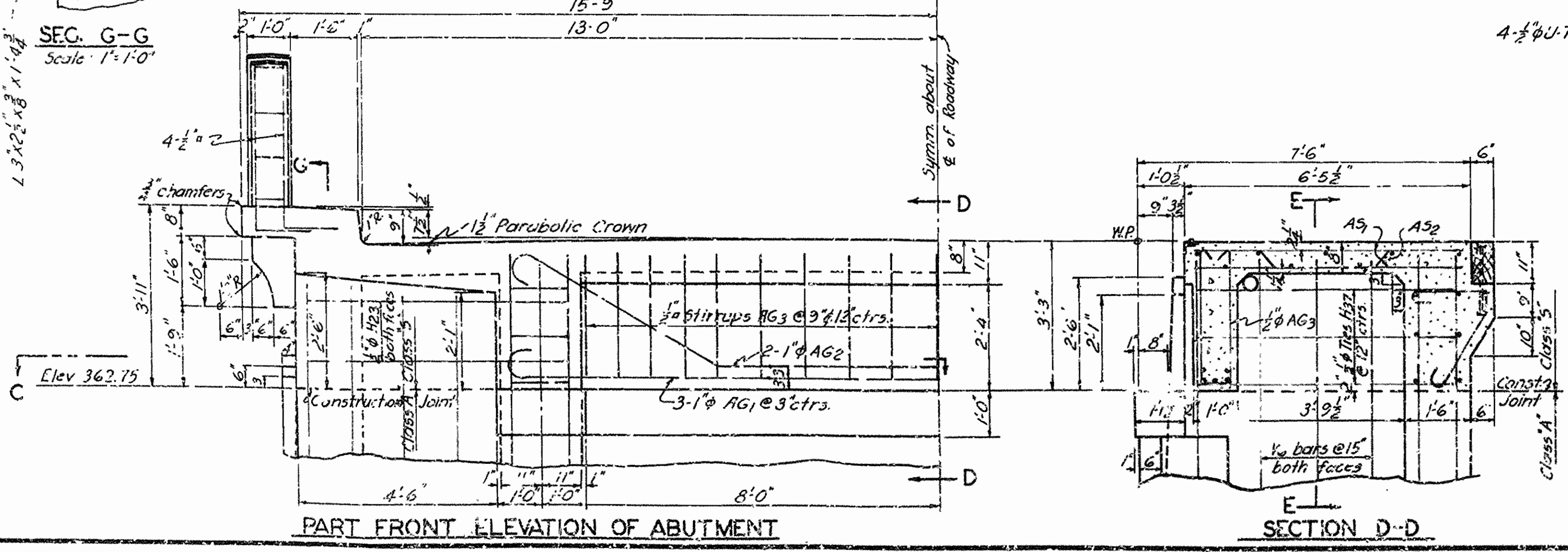
**GENERAL NOTES (Continued)**  
 Roadway and sidewalk expansion devices and oak header bolts are to be paid for at the unit price bid for "metal bearing and roadway expansion devices."  
 Sand and gravel in wells to be paid for as "sand and gravel fill."  
 For details of handrail not shown see Drawing No. 6013  
 For detail of superstructure see Drawing Nos. 6012-6015



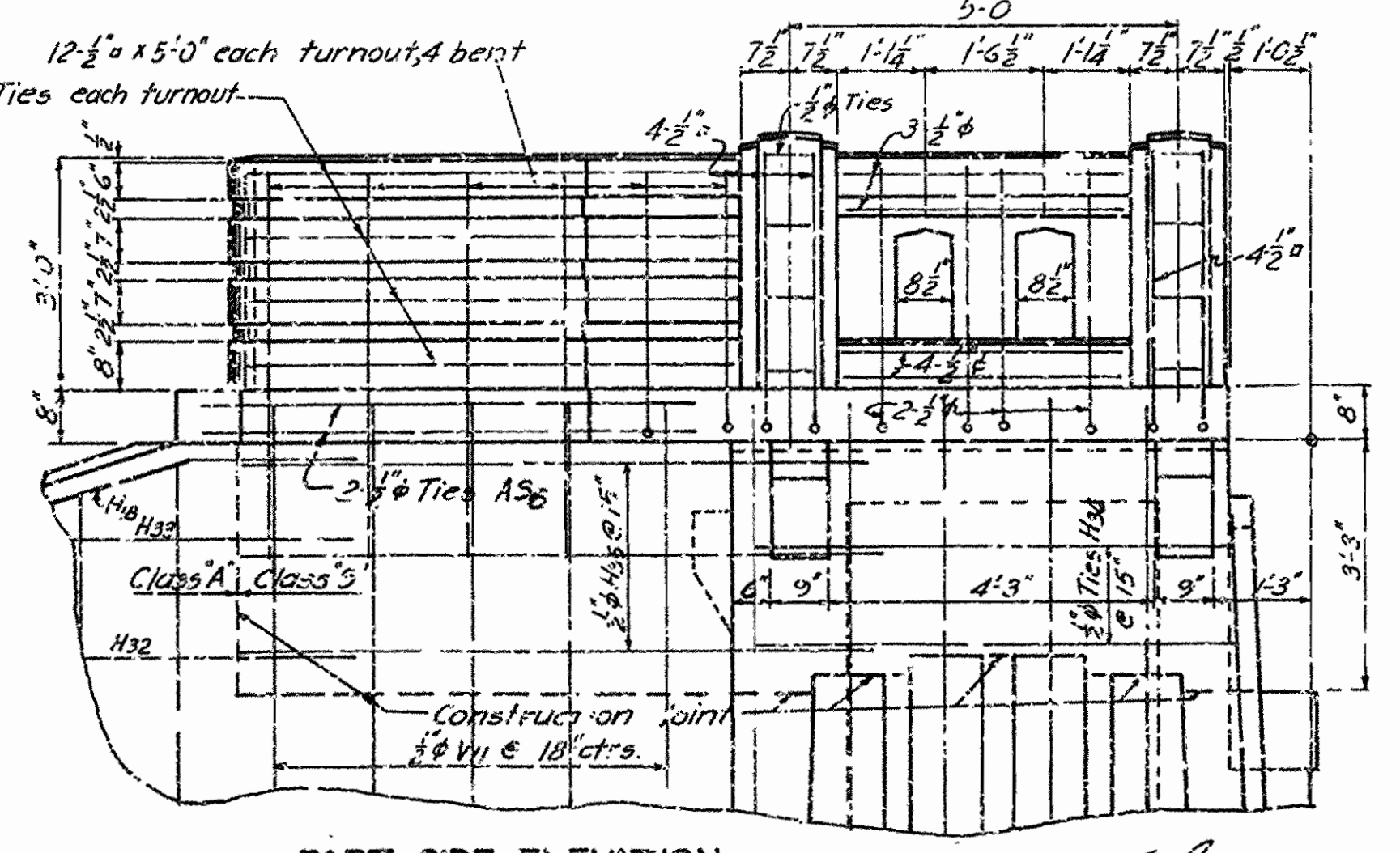
SEC. F-F OF TURNOUT Scale: 1"=1'-0"



SEC. G-G Scale: 1"=1'-0"



PART FRONT ELEVATION OF ABUTMENT SECTION D-D

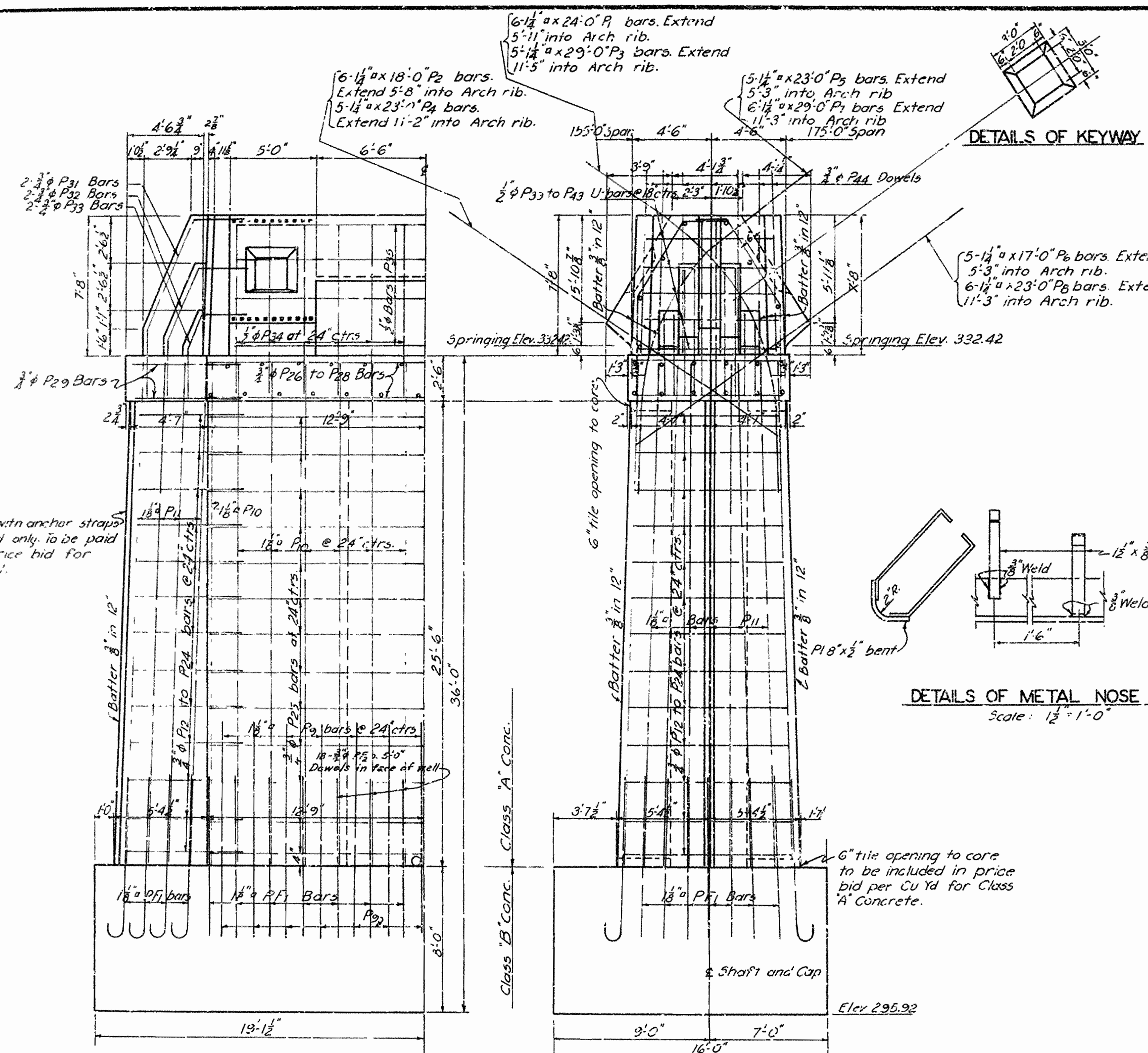


PART SIDE ELEVATION

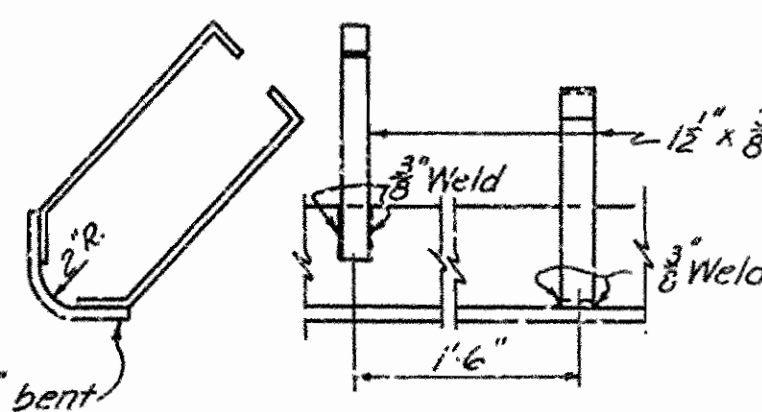
SHEET NO. 2 OF 2  
 DETAILS OF ABUTMENTS NO. 1 & 2  
 BRIDGE OVER FOURCHE, LAFAYE RIVER  
 OLA-SOUTH ROAD  
 PERRY COUNTY  
 ROUTE 7 SEC. 8  
**ARKANSAS STATE HIGHWAY COMMISSION**  
 LITTLE ROCK, ARK.  
 Drawn By: *M.H.H.* Date: 5-24-40  
 Traced By: *R.A.D.* Date: 5-20-40  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_  
 Scale:  $\frac{1}{2}$  in. = 1 ft. *Except as shown*  
 BRIDGE NO. 1160 DRAWING NO. 6010

*M.H.H.*  
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

FED. ROAD DIST. NO.	STATE	F&E PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	117-A		6	13
STATE JOB NO. 854			1940	6	13



DETAILS OF KEYWAY

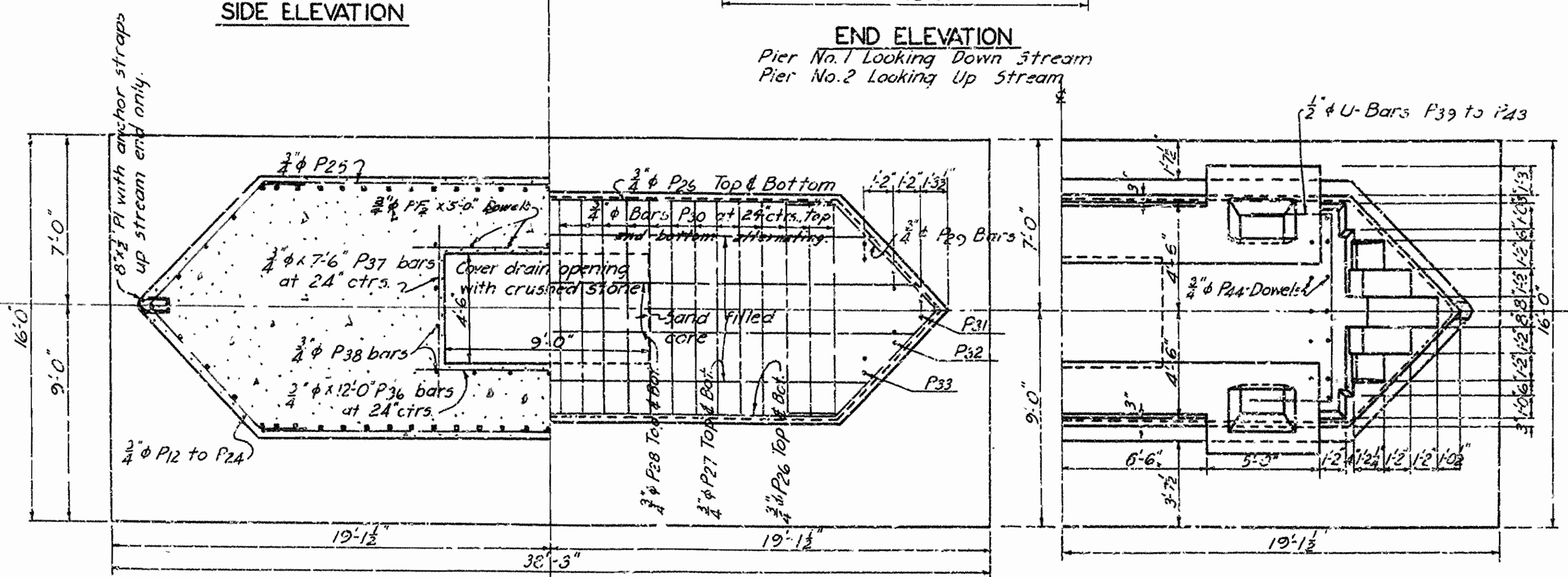


DETAILS OF METAL NOSE PLATE  
Scale: 1/2" = 1'-0"

SIDE ELEVATION

END ELEVATION

Pier No. 1 Looking Down Stream  
Pier No. 2 Looking Up Stream



HALF PLAN OF FOOTING

HALF PLAN OF CAP  
Showing steel in cap

HALF PLAN OF PIER

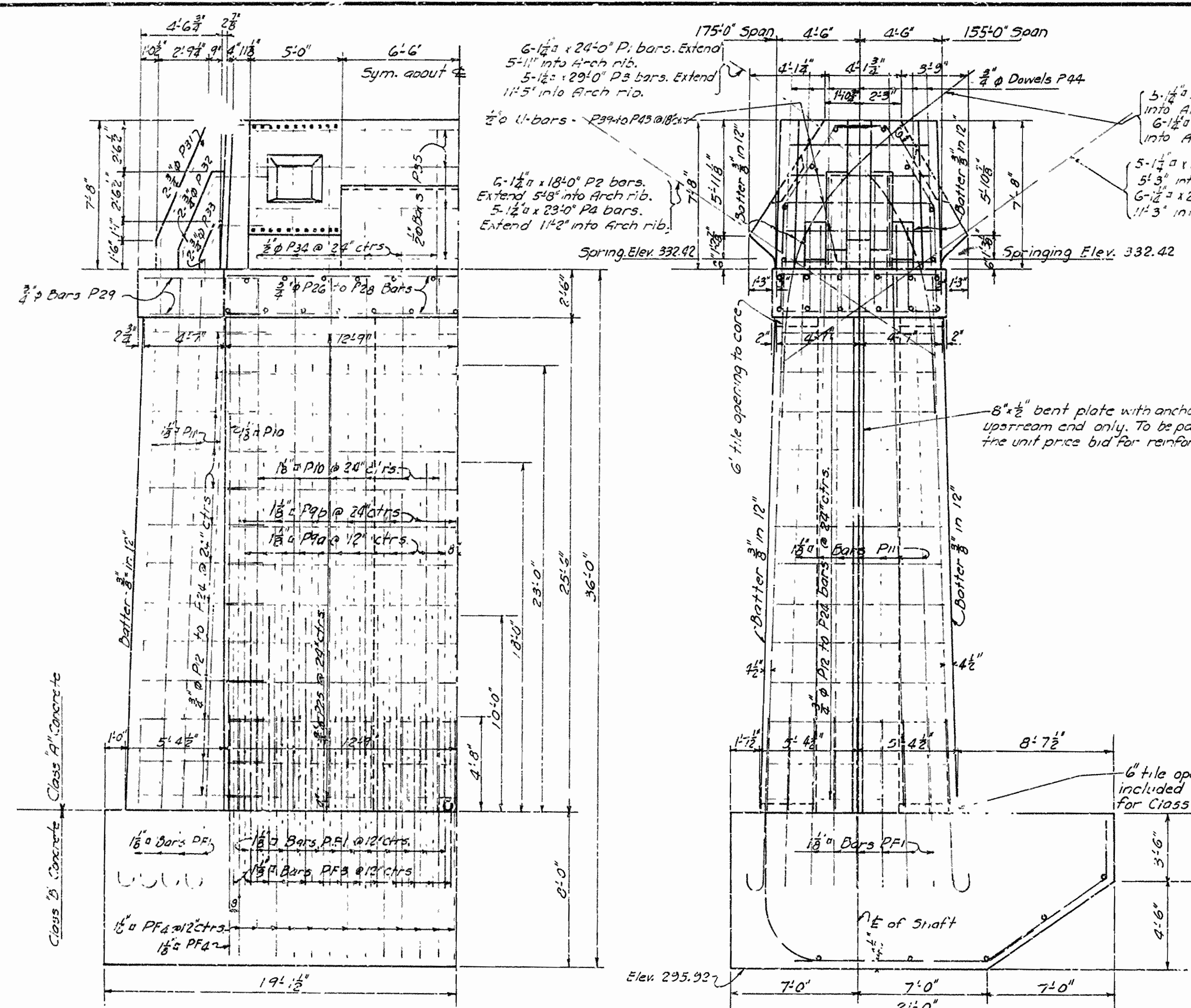
DETAILS OF PIERS 1 & 2  
 BRIDGE OVER FOURCHE LAFAVE RIVER  
 OLA - SOUTH ROAD  
 PERRY COUNTY  
 ROUTE 8 SEC. 7

ARKANSAS STATE HIGHWAY COMMISSION  
 LITTLE ROCK, ARK.  
 Drawn By: H.E.B. Date: 5-23-40  
 Traced By: D.A.P. Date: 5-25-40  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_  
 BRIDGE NO. 1160 DRAWING NO. 6011

*M. O. Gantt*  
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

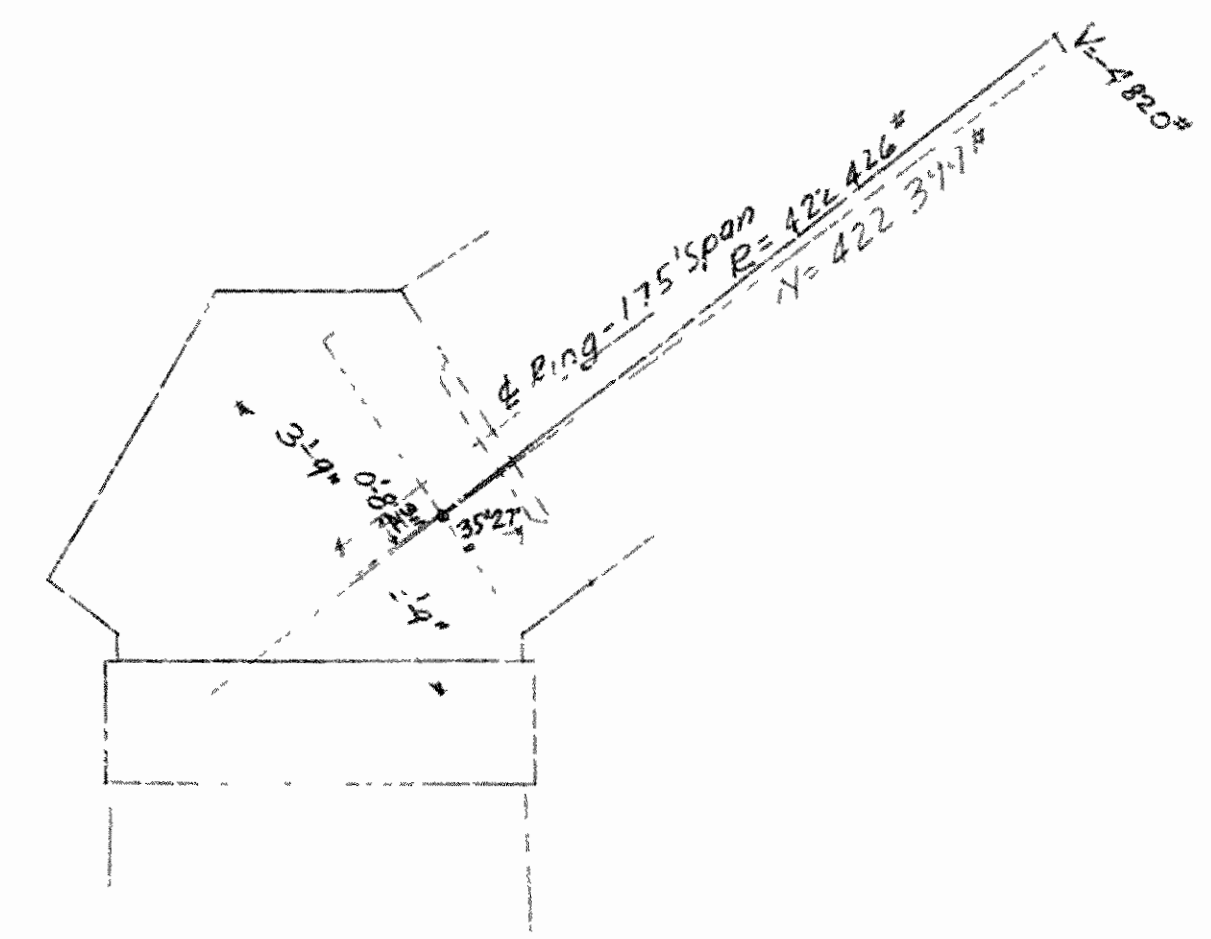
Scale: 1/2" = 1'

FED. ROAD DIST. NO.	STATE	F.S. PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	11-A		62	15
STATE JOB NO. 8196					

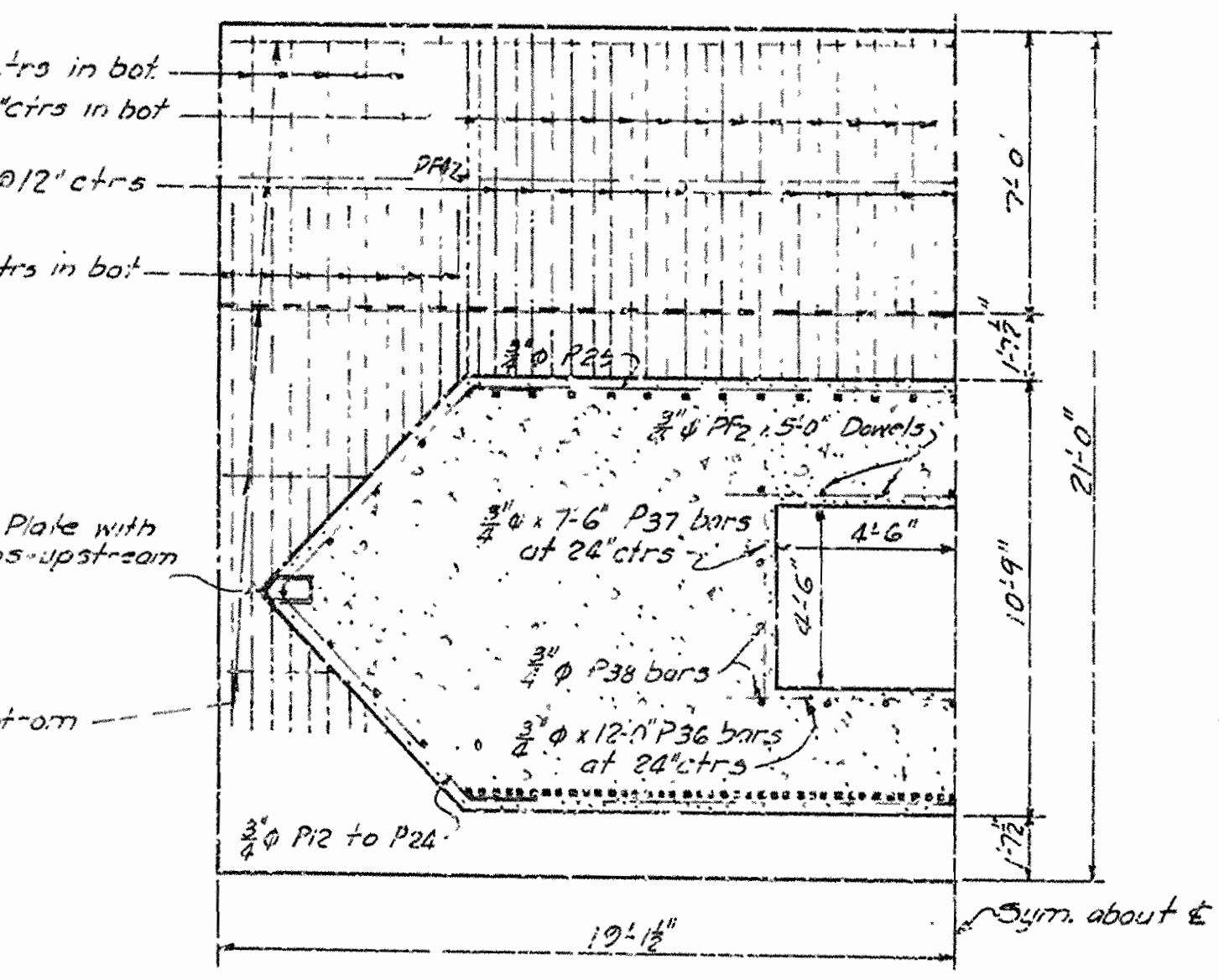


**HALF SIDE ELEVATION**  
SHOWING REINFORCING ON 175' SPAN SIDE  
OTHER SIDE AS PER ORIGINAL PLANS

**END ELEVATION**  
LOOKING DOWNSTREAM



FORCE DIAGRAM - ARCH RING - 175' SPAN



**HALF FOOTING PLAN**

Note:  
For Details not shown here, see Original Plans.

**FIELD CHANGE NO. 2**  
**REVISED DETAILS OF PIER NO. 2**  
**BRIDGE OVER FOURCHE LAFAVE RIVER**  
**OLA - SOUTH ROAD**  
**PERRY COUNTY**  
**ROUTE 8 SEC. 7**

**ARKANSAS STATE HIGHWAY COMMISSION**  
**LITTLE ROCK, ARK.**

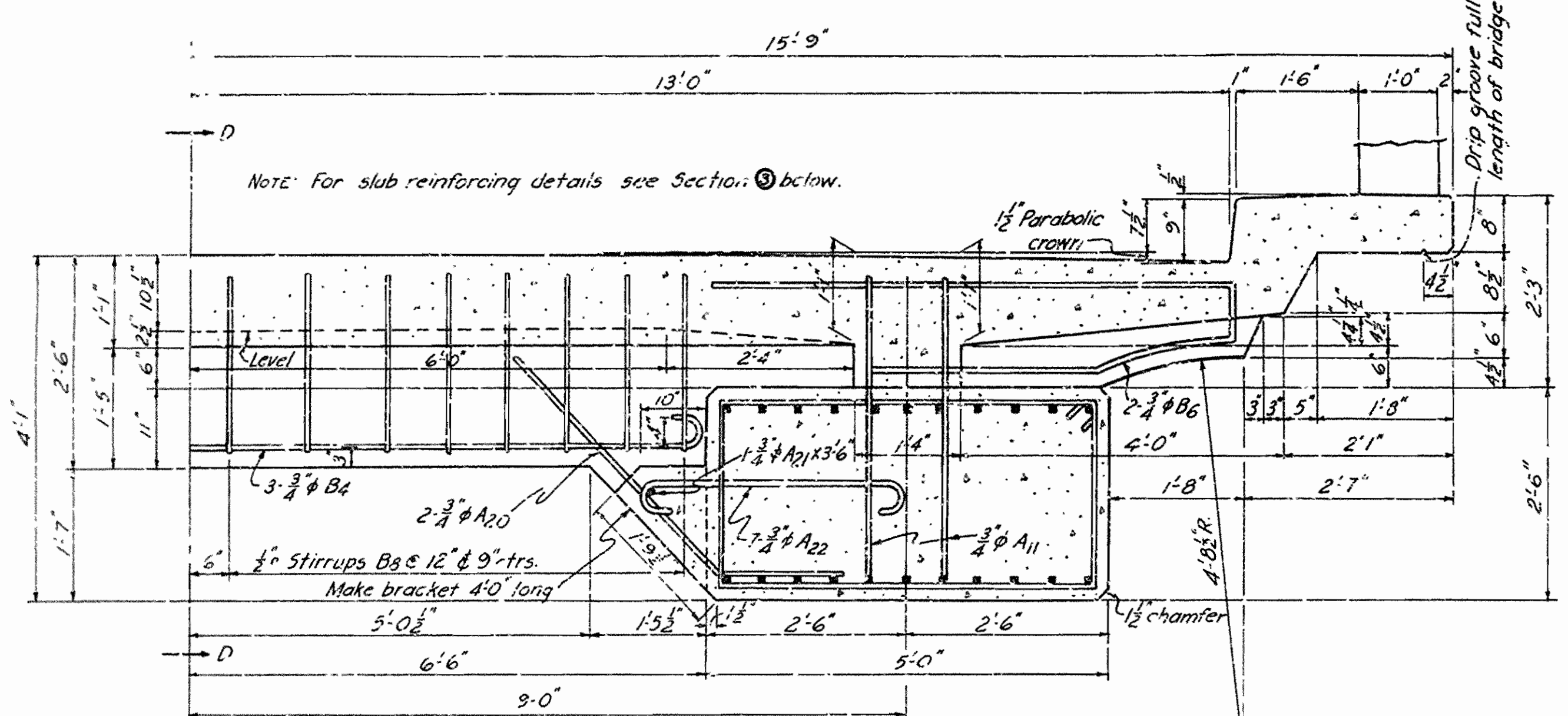
Drawn By: H.E.B. Date: 2-2-60  
Traced By: H.E.B. Date: 2-1-60  
Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

Scale: 1/2" = 1' ft.

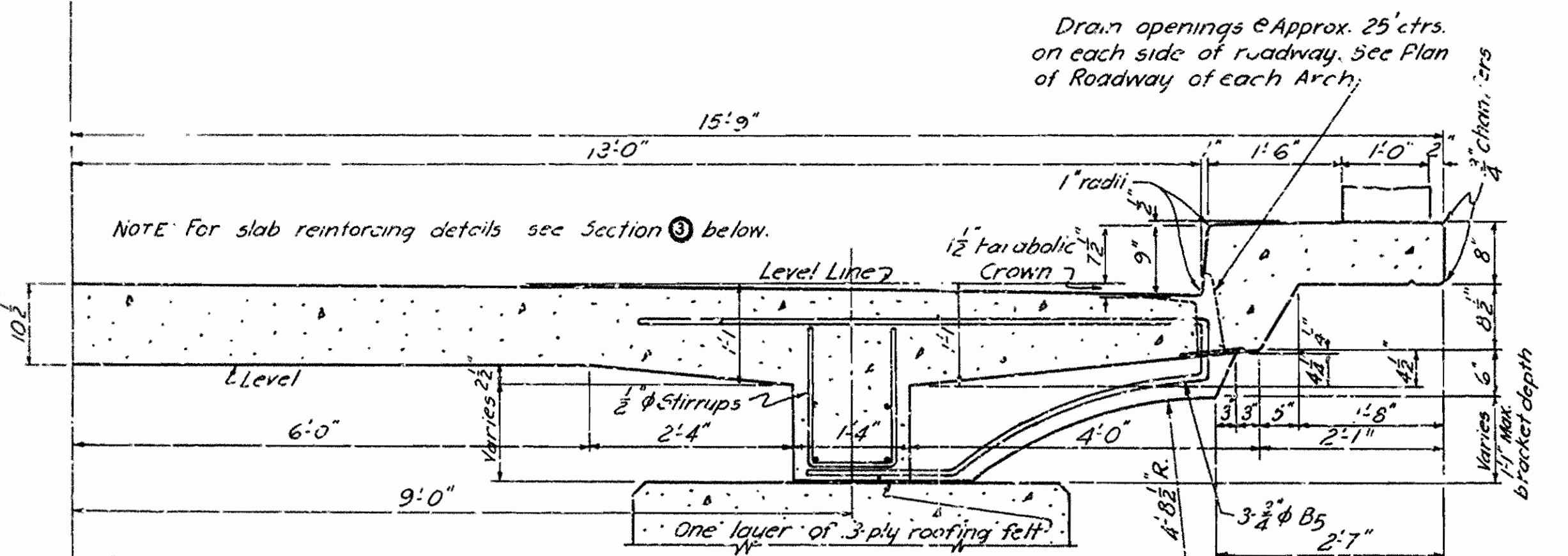
**BRIDGE NO. 1160 DRAWING NO. 6011A**

H.E.B.  
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

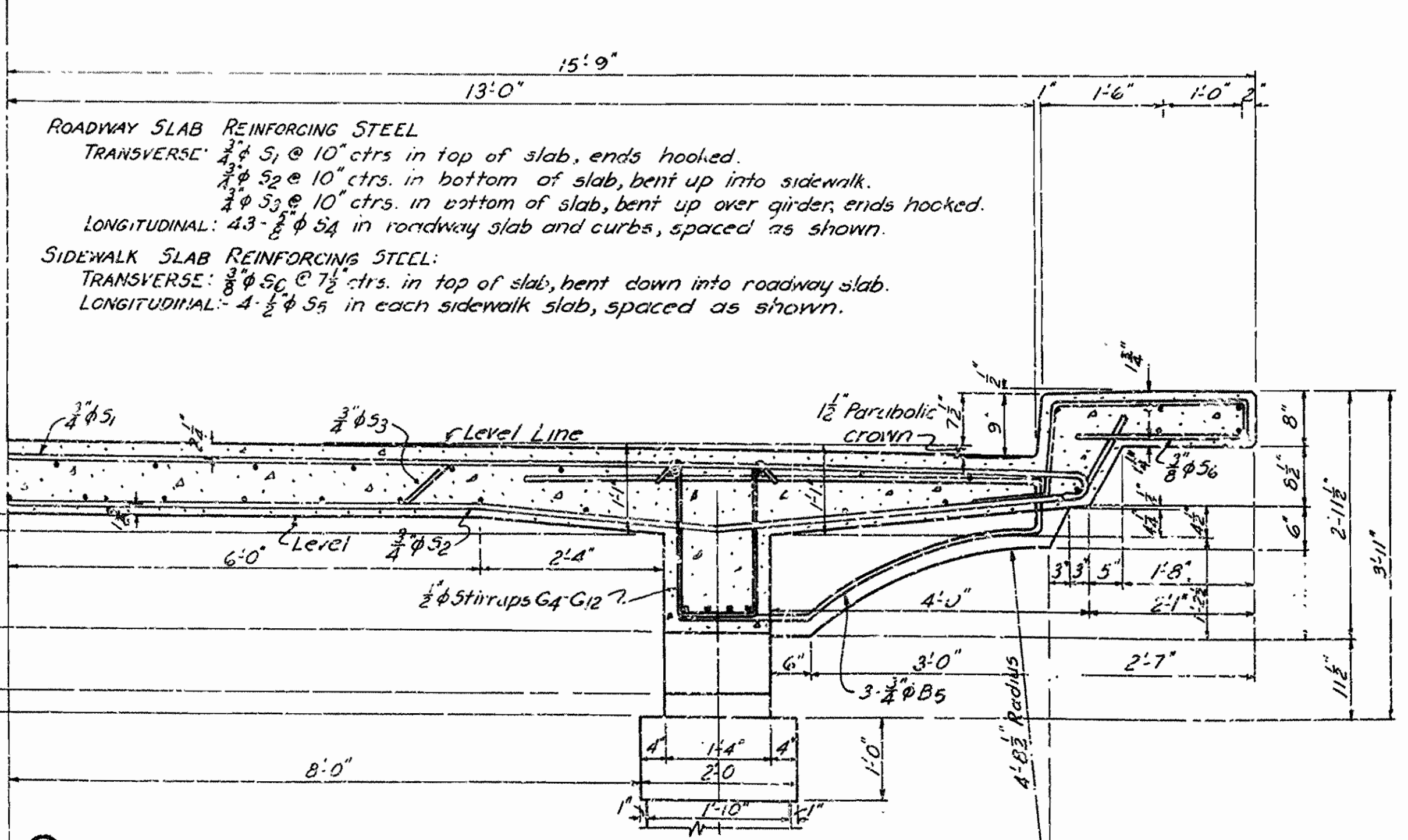
FED. ROAD DIST. NO.	STATE	F.C.D. PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	ARK.	117-A	1940	7	13
STATE JOB NO. 6134					



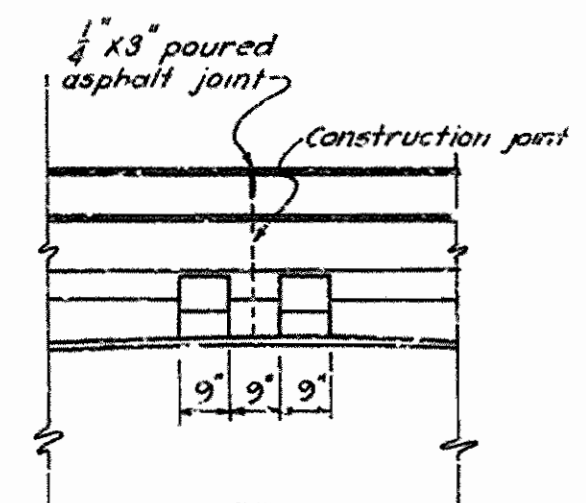
1 TYPICAL HALF SECTION OF ROADWAY SLAB AT CROWN OF ARCH



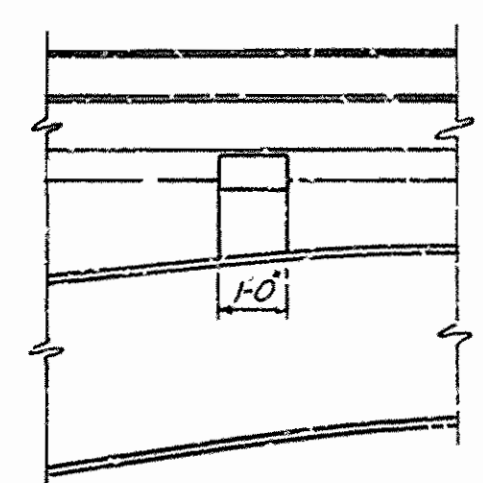
2 TYPICAL HALF SECTION OF ROADWAY SLAB ON SPANDREL WALL SECTION



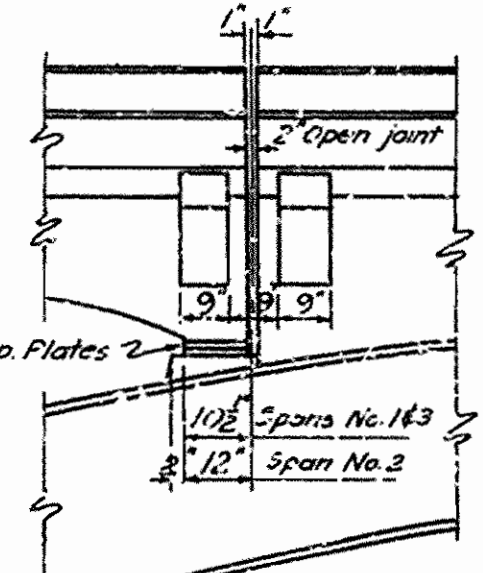
3 TYPICAL HALF SECTION OF ROADWAY SLAB AT MID GIRDER SPAN SHOWING DETAILS AT INTERMEDIATE FIXED COLUMNS



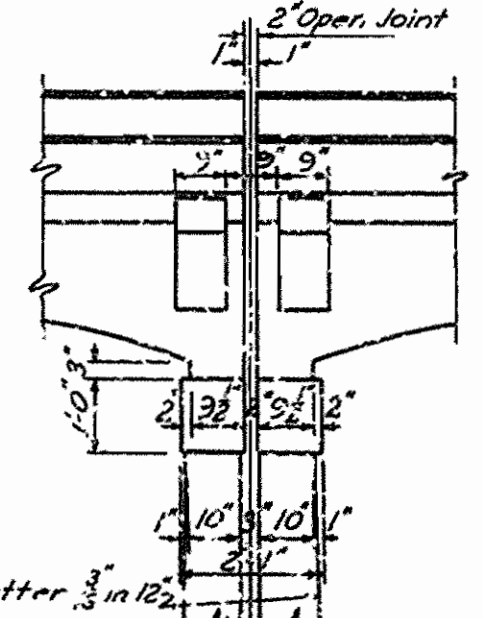
PART SIDE ELEV. AT CROWN OF ARCH Scale: 3/8" = 1'-0"



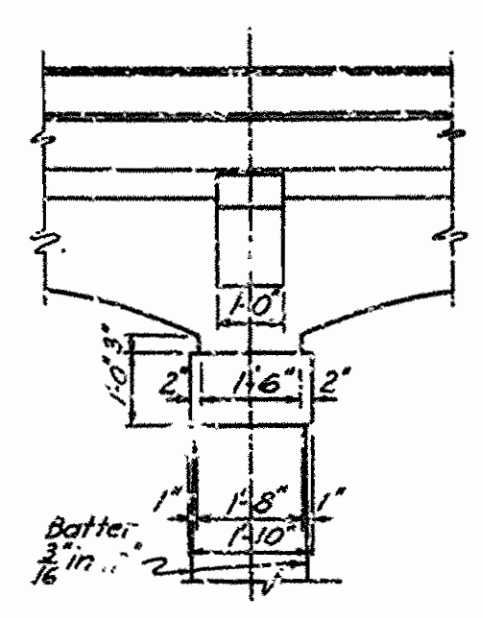
PART SIDE ELEV. NEAR CROWN OF ARCH Scale: 3/8" = 1'-0"



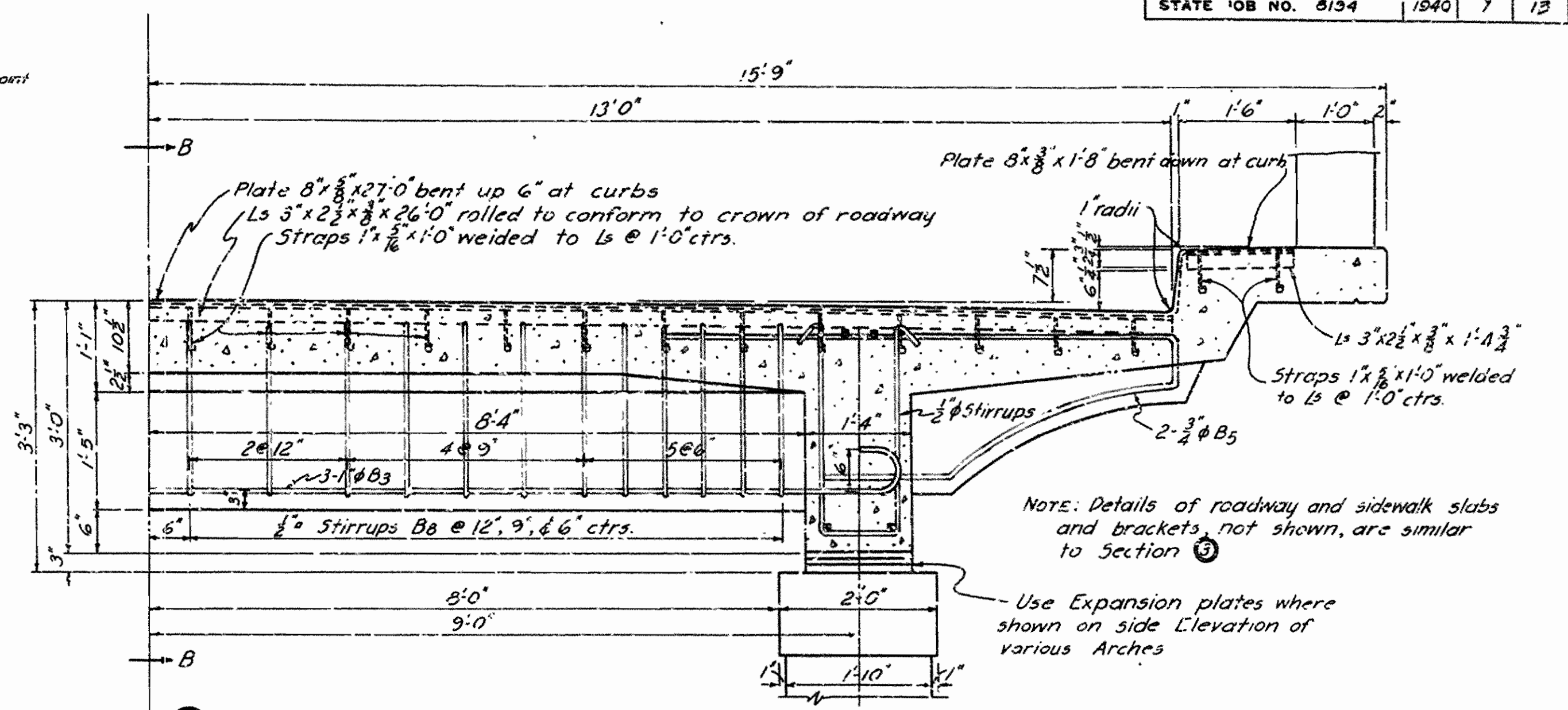
PART SIDE ELEV. AT EXPANSION JOINT NEAR CROWN OF ARCH Scale: 3/8" = 1'-0"



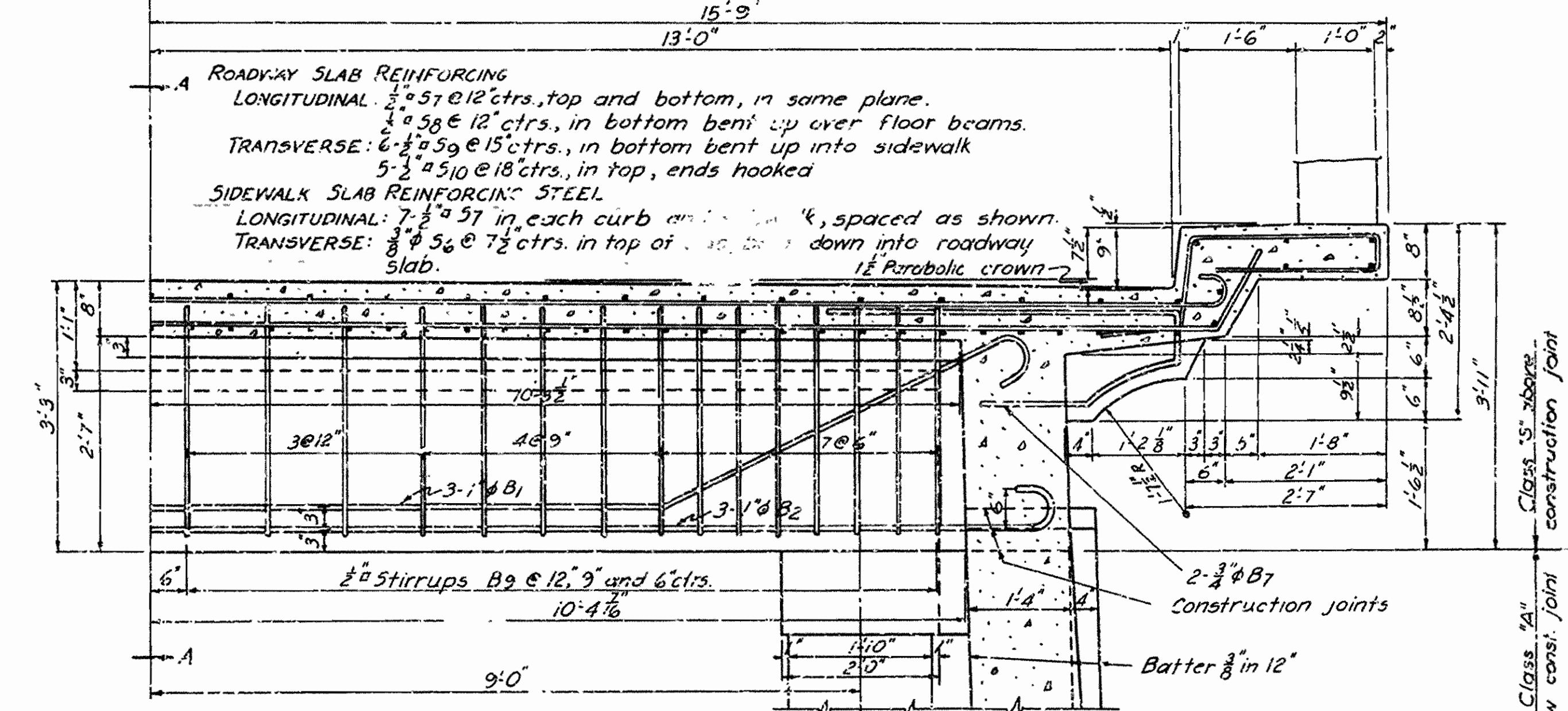
PART SIDE ELEV. AT EXP. JT. AT SPLIT COLUMNS Scale: 3/8" = 1'-0"



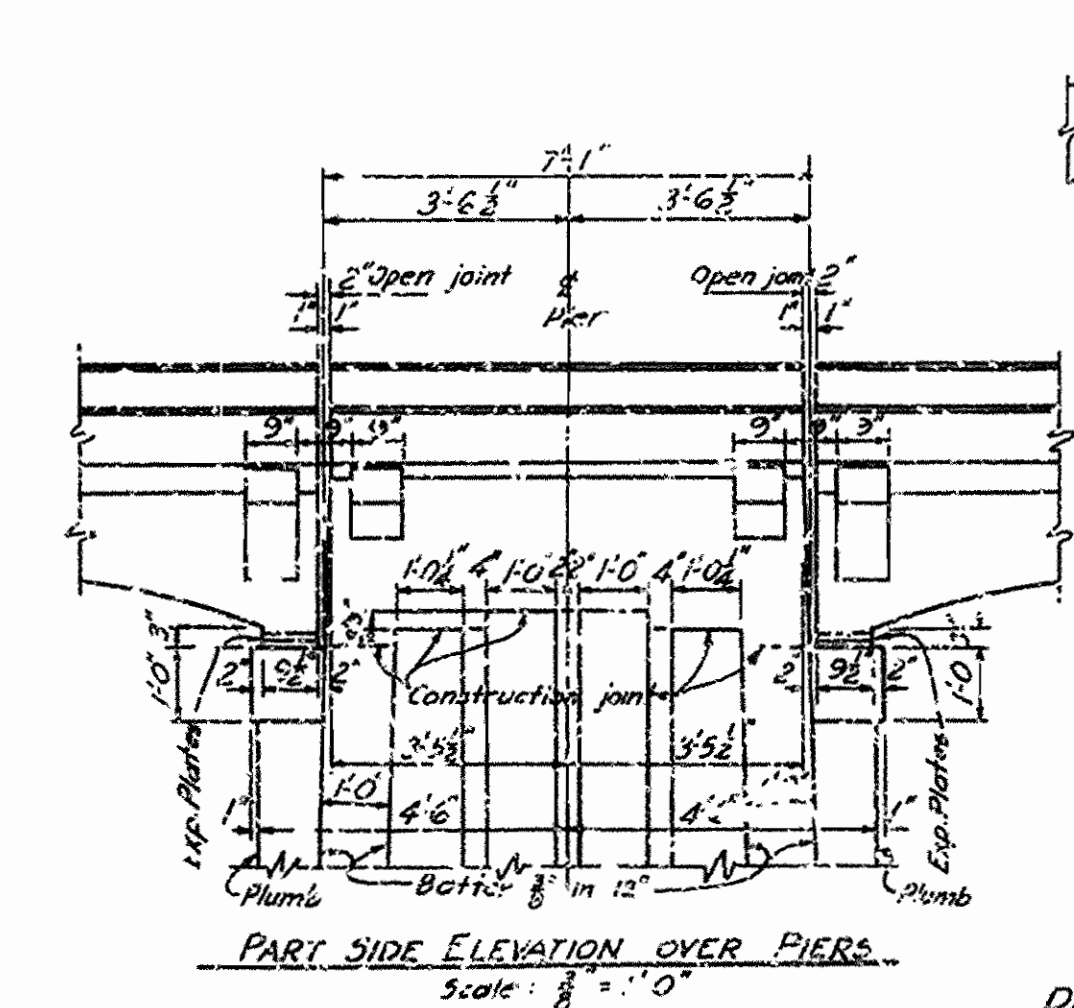
PART SIDE ELEV. AT INTERMEDIATE FIXED COLUMNS Scale: 3/8" = 1'-0"



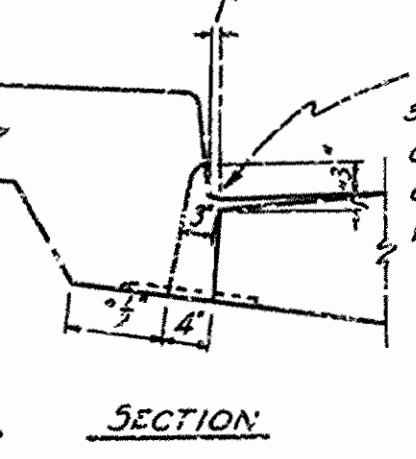
4 TYPICAL HALF SECTION NEAR ROADWAY EXPANSION JOINTS



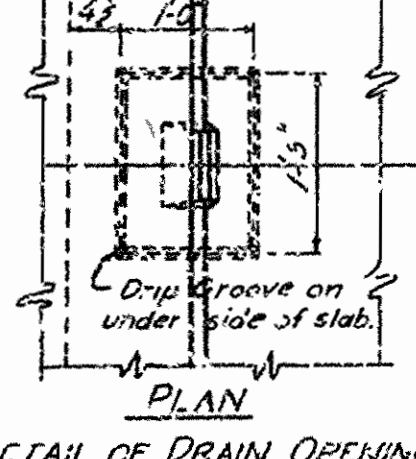
5 TYPICAL HALF SECTION OF ROADWAY ON E OF PIERS



PART SIDE ELEVATION OVER PIERS Scale: 3/8" = 1'-0"



SECTION



PLAN

NOTE: For details of Arch Spans No. 1, 2, & 3 see Drawing No. 6013, 6014 & 6015  
For sections thru floor beams see Drawing No. 6015

TYPICAL SECTIONS OF ROADWAY SLAB  
BRIDGE OVER FOURCHE LAFAVIER RIVER  
OLA - SOUTH ROAD  
PERRY COUNTY  
ROUTE 7 SEC. 8

ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

Drawn By: M.C.H. Date: 5-27-40  
Traced By: D.A.P. Date: 6-4-40  
Checked By: \_\_\_\_\_ Date: \_\_\_\_\_  
BRIDGE NO. 1160 DRAWING NO. 6014

M.C.H.  
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

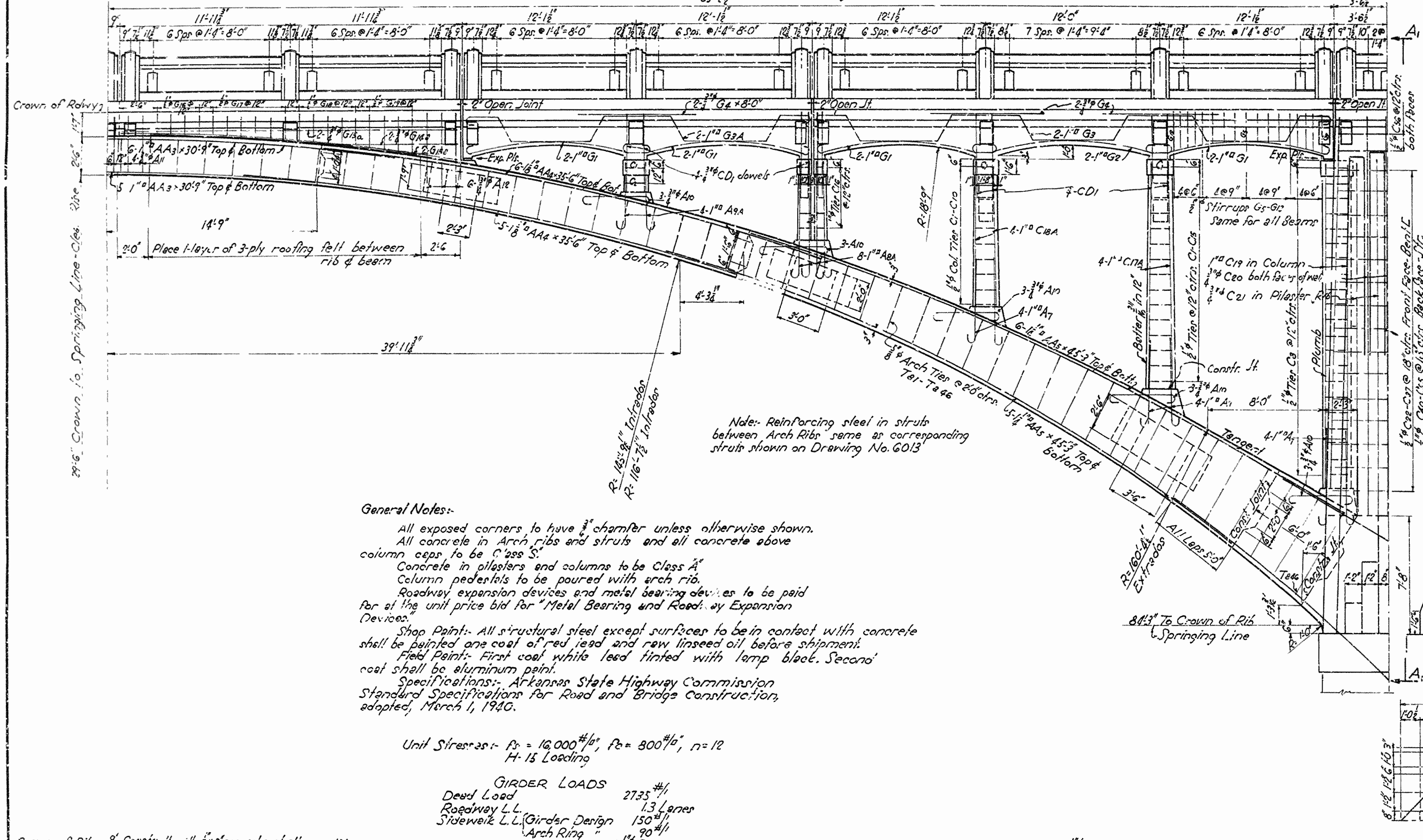
Class "A" below const. joint  
Class "B" above const. joint





FED. ROAD DIST. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	117-A	1940	9	13
STATE JOB NO. 8194					

See Drwg. No. 6013 for Handrail Detail.



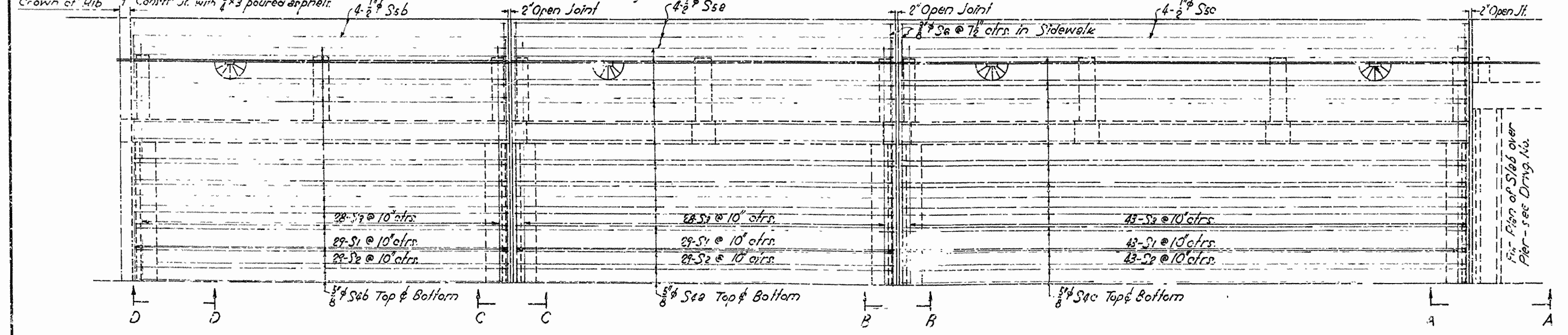
General Notes:

- All exposed corners to have 3/4" chamfer unless otherwise shown.
- All concrete in Arch ribs and struts and all concrete above column caps to be Class S.
- Concrete in pilasters and columns to be Class A.
- Column pedestals to be poured with arch rib.
- Roadway expansion devices and metal bearing devices to be paid for at the unit price bid for "Metal Bearing and Roadway Expansion Devices."
- Shop Paint: All structural steel except surfaces to be in contact with concrete shall be painted one coat of red lead and raw linseed oil before shipment.
- Field Paint: First coat white lead tinted with lamp black. Second coat shall be aluminum paint.
- Specifications: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction, adopted, March 1, 1940.

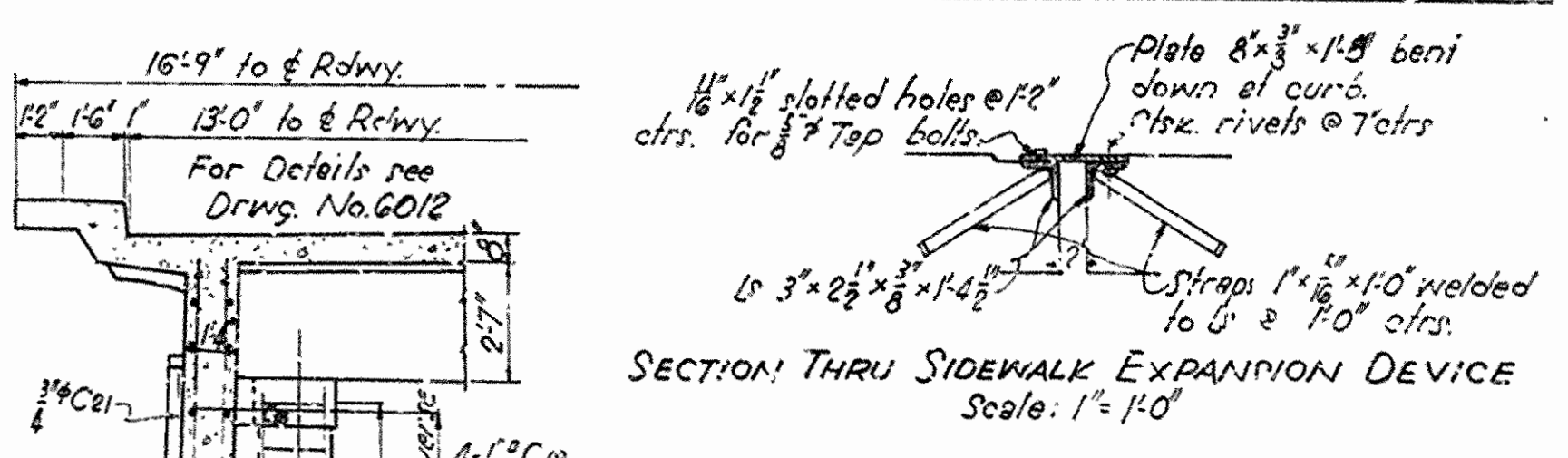
Unit Stresses:  $f_c = 16,000 \frac{lb}{sq. in.}$ ,  $f_s = 800 \frac{lb}{sq. in.}$ ,  $n = 12$   
 H-15 Loading

GIRDER LOADS

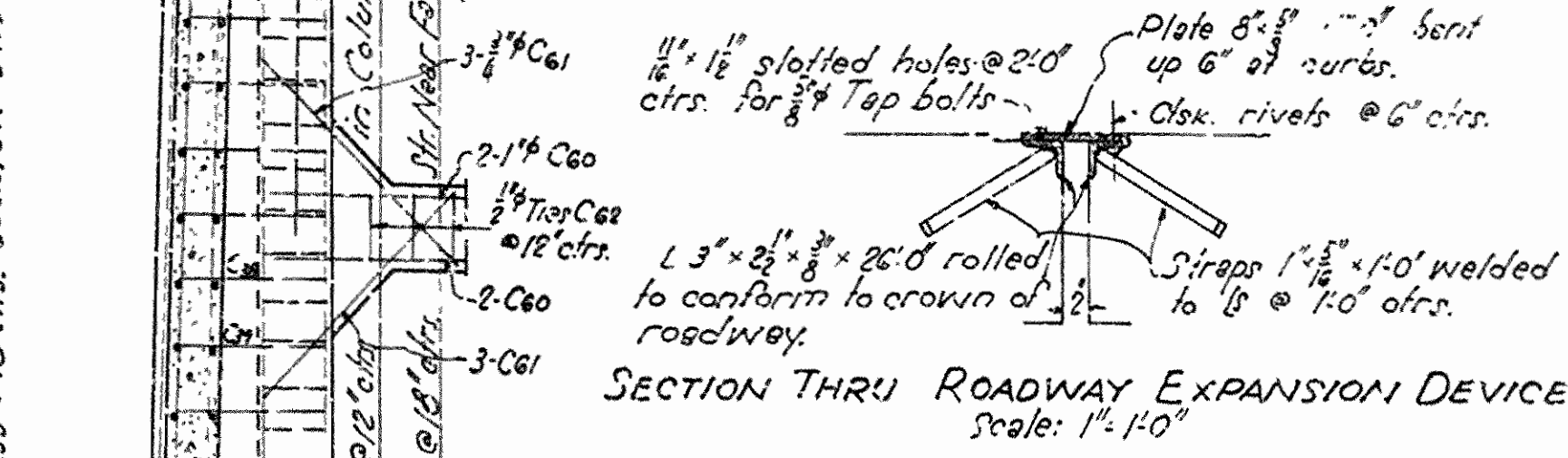
Dead Load	2735 #/ft
Roadway L.L.	1.3 Lanes
Sidewalk L.L. (Girder Design)	150 #/ft
Arch Ring	90 #/ft



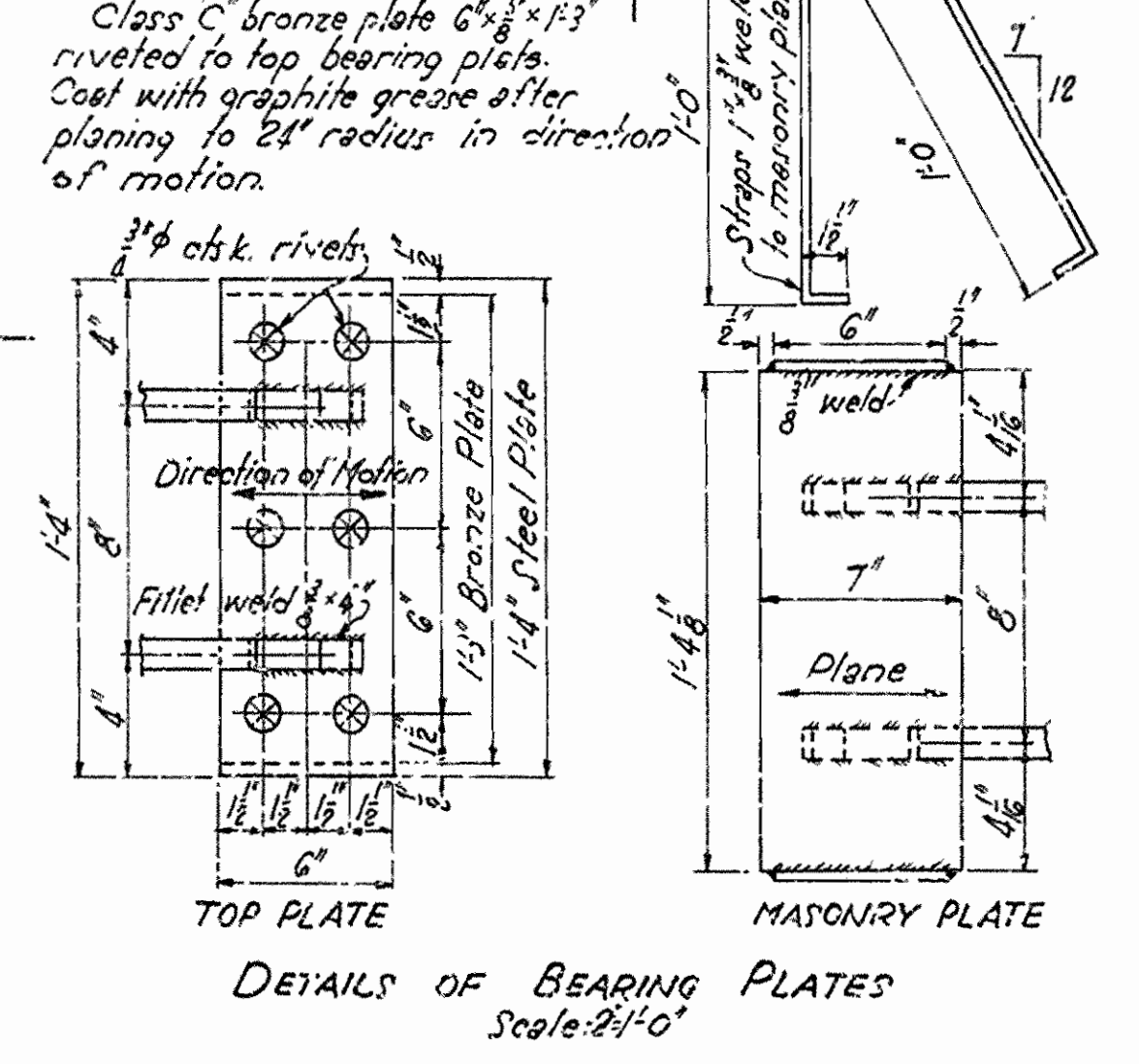
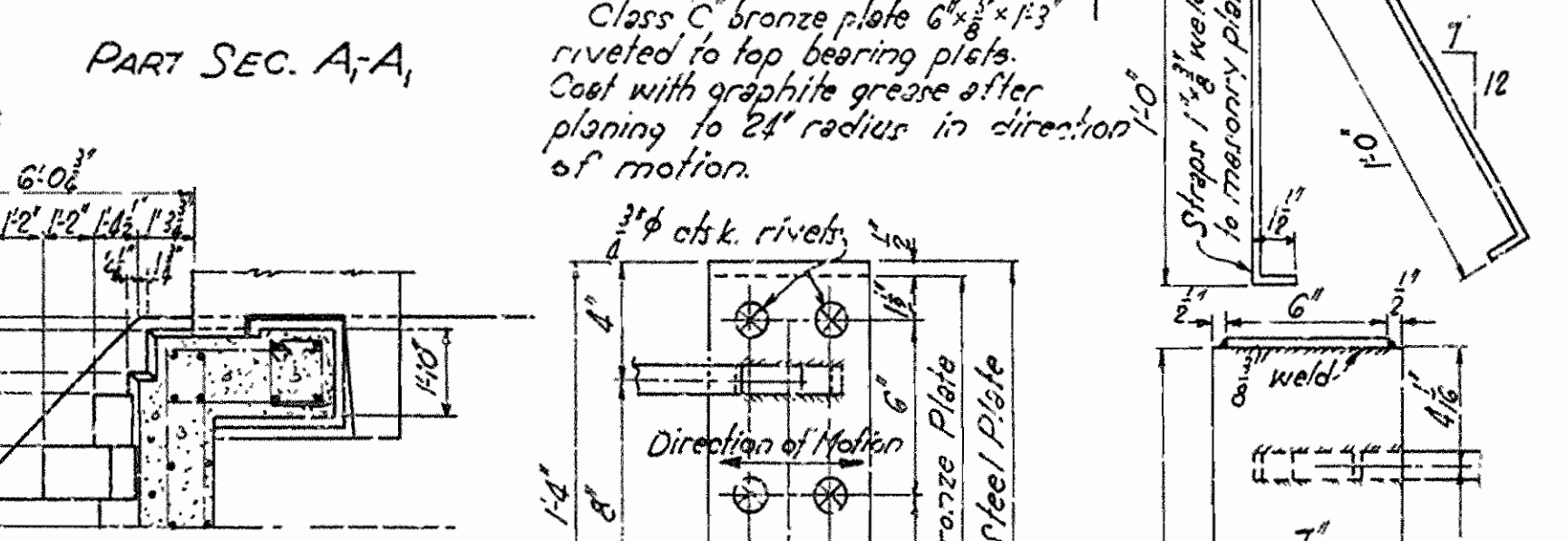
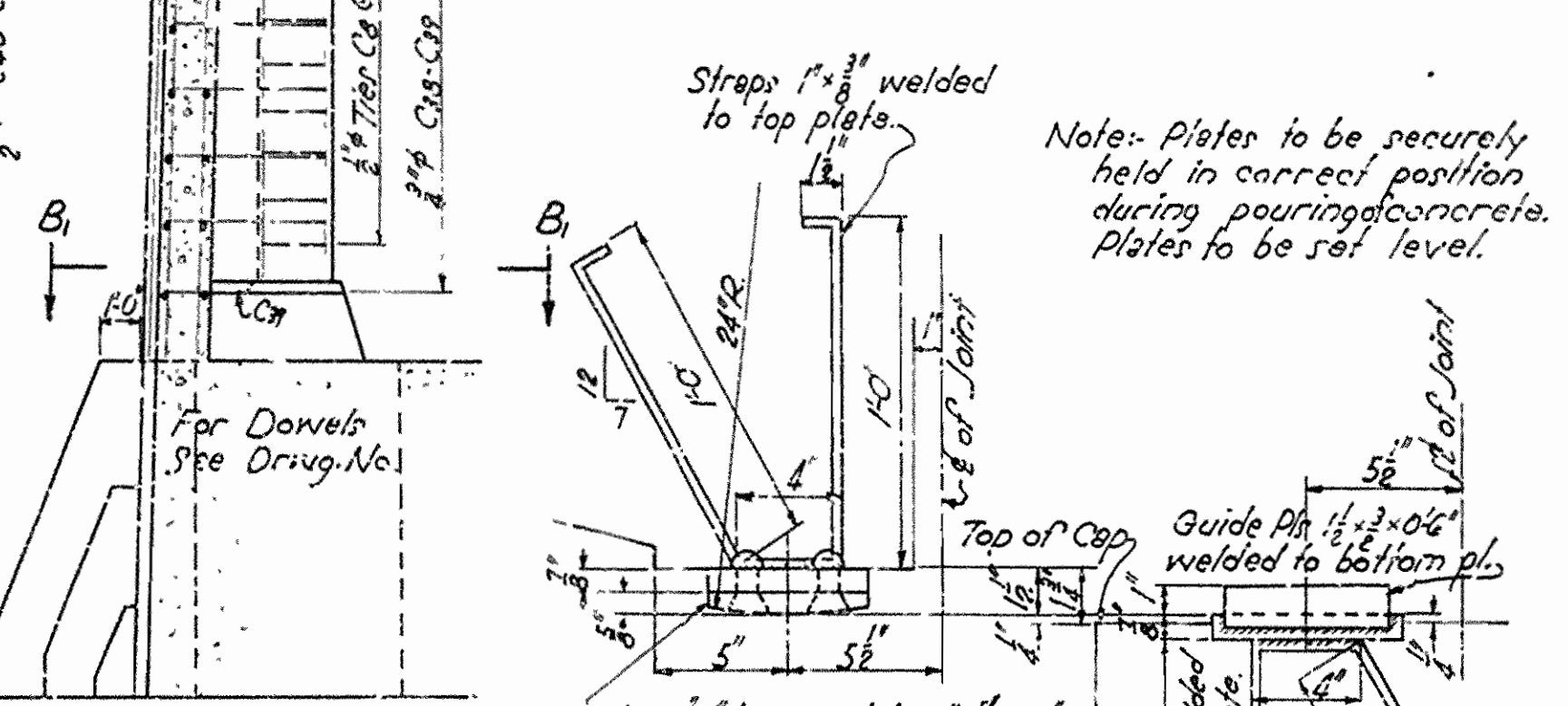
Note: For Sections A-A, B-B, C-C, & D-D see Drwg. No. 6015



Note: For other details of roadway and sidewalk expansion devices see Drawing No.



Note: Plates to be securely held in correct position during pouring of concrete. Plates to be set level.



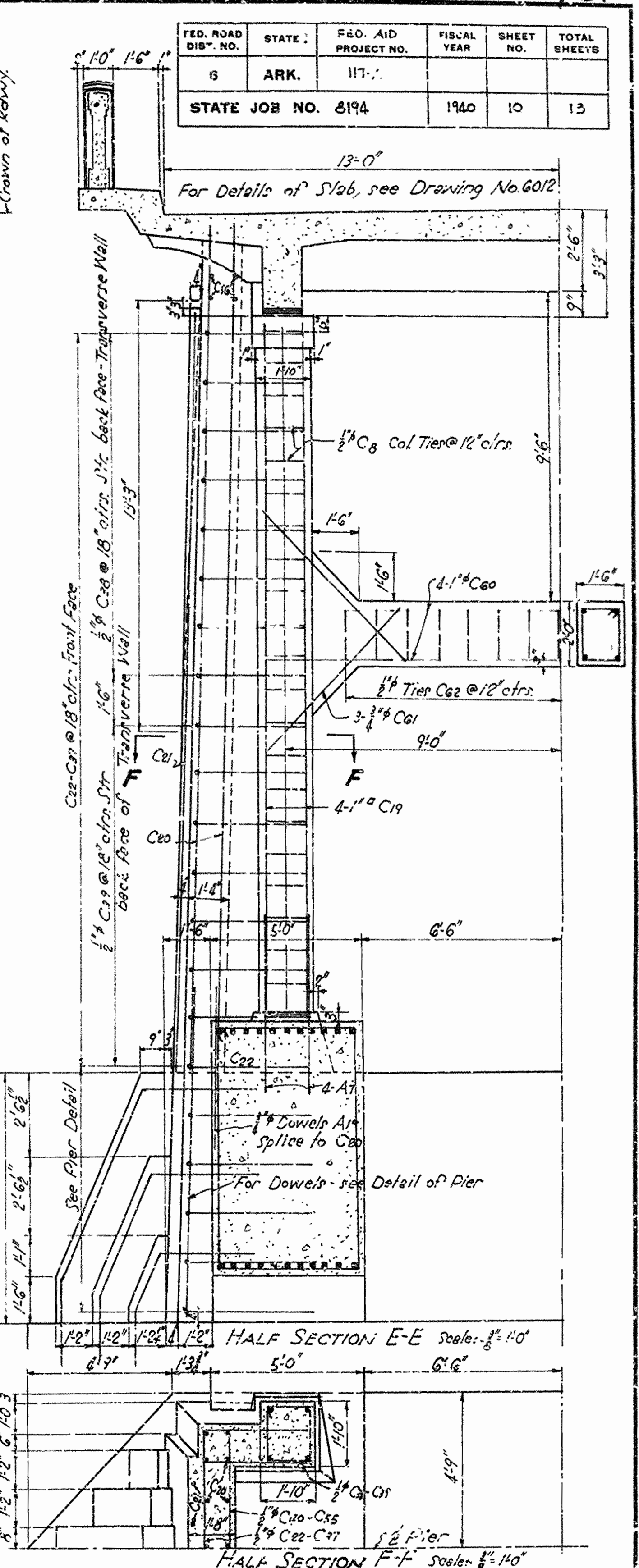
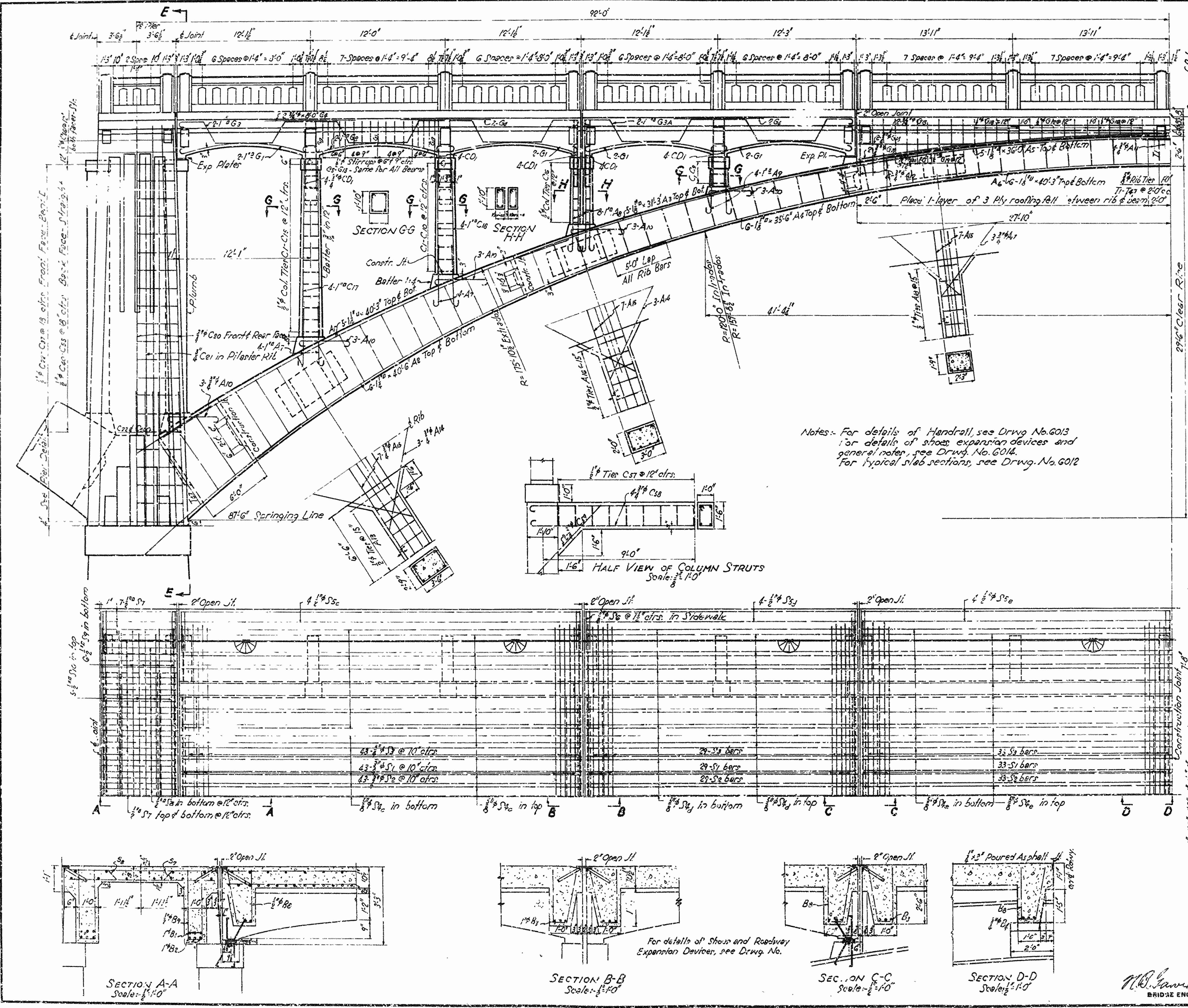
DETAILS OF PIER END SPANS 1 & 3  
 155'-0" ARCH SPAN  
 BRIDGE OVER FOURCHE LA FAVE RIVER  
 OLA SOUTH ROAD  
 PERRY COUNTY  
 ROUTE 7 SEC. 8

ARKANSAS STATE HIGHWAY COMMISSION  
 LITTLE ROCK, ARK.  
 Drawn By: B.W.D. Date: 5-24-40  
 Traced By: B.W.D. Date: 6-18-40  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_  
 BRIDGE NO. 1160 DRAWING NO. 6014

M.B. Hanna  
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	117-1	1940	10	13

STATE JOB NO. 8194



DETAILS OF 175'0" ARCH SPAN  
BRIDGE OVER FOURCHE LAFAVE RIVER  
OLA-SOUTH ROAD  
PERRY COUNTY  
Ark. 1st Sec. 8

**ARKANSAS STATE HIGHWAY COMMISSION**  
LITTLE ROCK, ARK.

Drawn By: B.W.D. Date: 5-6-40  
Traced By: B.W.D. Date: 6-12-40  
Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

Scale: 1/8" = 1'-0" (Except as Shown)

BRIDGE NO. 1160 DRAWING NO. 6015

*N.B. Davis*  
BRIDGE ENGINEER