

STATE OF ARKANSAS
STATE HIGHWAY COMMISSION

FISCAL YEAR	STATE JOB NO.	SHEET NO.	TOTAL SHEETS
1932	1146	1	1

INDEX OF SHEETS

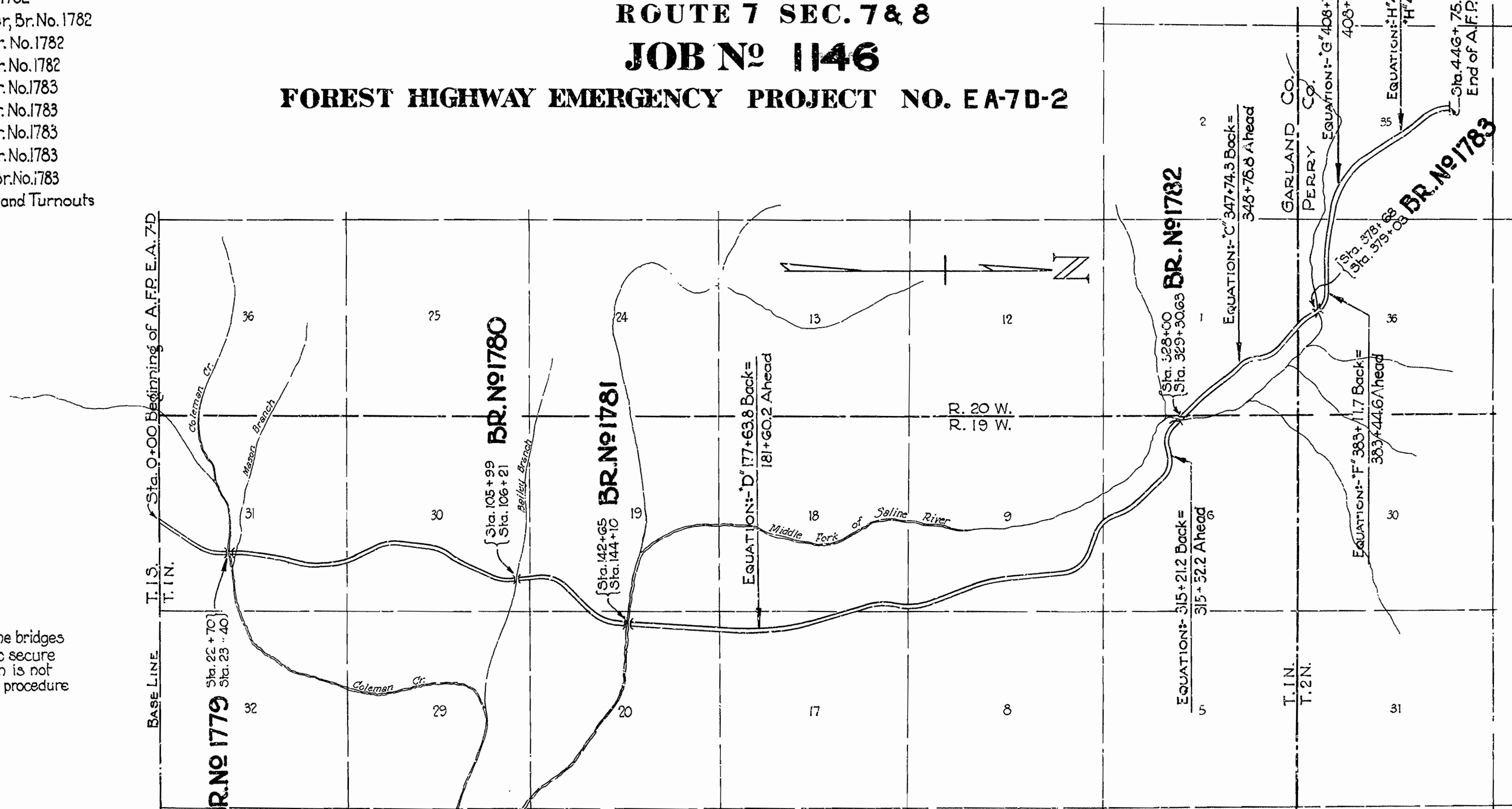
Sheet No	Drwg. No.	Description
1	3430	Title Sheet
2	3431	Layout of Brs. No. 1779 & 1780
3	3432	Layout of Br. No. 1781
4	3433	Layout of Br. No. 1782
5	3434	Layout of Br. No. 1783
6	3435	Details of Substructure Br. No. 1779
7	2274	Details of Std. 35' R.C.D. Girder, 20' Rdway, Superstr. Br. No. 1779
8	3436	Details of Br. No. 1780.
9	3437	Details of Abutments Br. No. 1781
10	3438	Details of Abutments and Arch Rib Br. No. 1781
11	3439	Details of Pier and Arch Rib Br. No. 1781
12	3440	Details of Abutments, Br. No. 1782
13	3441	Details of Abutments and Pier, Br. No. 1782
14	3442	Details of Superstructure, Br. No. 1782
15	3443	Details of Superstructure, Br. No. 1782
16	3444	Details of Abutment No. 1, Br. No. 1783
17	3445	Details of Abutment No. 1, Br. No. 1783
18	3446	Details of Abutment No. 2, Br. No. 1783
19	3447	Details of Abutment No. 2, Br. No. 1783
20	3448	Details of Superstructure, Br. No. 1783
21	3449	Details of Special Handrail and Turnouts

PLAN OF PROPOSED BRIDGES
ON
HOT SPRINGS - OLA ROAD
GARLAND AND PERRY COUNTIES
ROUTE 7 SEC. 7 & 8
JOB NO 1146
FOREST HIGHWAY EMERGENCY PROJECT NO. EA-7D-2

QUANTITIES JOB NO 1146 (UNIT 2-E.A.7D)

Item No.	Description	Quantity	Unit
13	Dry Excavation for Structures	405	Cu. Yds.
13	Wet Excavation for Structures	629	Cu. Yds.
13	Solid Rock Excavation for Structures	386	Cu. Yds.
91	Class 'A' Concrete for Bridges	783.78	Cu. Yds.
91	Class 'B' Concrete for Bridges	503.82	Cu. Yds.
92	Reinforcing Steel for Bridges	187 74/1	Lbs.
95	Rip Rap	259	Cu. Yds.
SP#58	Special Handrail	797	Lin. Ft.
SP	Cast Iron & Cast Steel	4527	Lbs.
SP	Bronze Expansion Devices	1736	Lbs.

State Furnished Material & State Std. Bronze Bridge Name Plates.



Note:
The contractor for the grading and the contractor for the bridges shall cooperate fully in grading the bridge ends in order to secure completion of the project on schedule. If proper cooperation is not secured in this manner the Engineer shall fix the order of procedure which shall be complied with by both contractors.

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

Revision	Date	Description
Pamphlet A	Revised MAR. 1st, 1931	Approved June 1st, 1931
B	Revised NOV. 1st, 1928	
C	Revised JULY 1st, 1928	Approved NOV. 24th, 1928
D	Revised JAN. 1st, 1930	
E	Revised AUG. 1st, 1929	
F	Revised JUNE 1st, 1929	
G	Revised JAN. 1st, 1929	
H	Revised JAN. 1st, 1929	
I	Revised NOV. 1st, 1931	
J	Revised NOV. 1st, 1931	
K	Revised NOV. 1st, 1931	
L	Revised MAR. 1st, 1931	Approved June 13, 1931
M	Revised SEPT. 1st, 1932	
N	Revised SEPT. 1st, 1932	
O	Revised SEPT. 1st, 1932	

SPECIAL PROVISIONS

Item	No. of Sheets
Labor	
Partial Payments Revised 9-26-32	
Subletting or assigning of contract	
Preference for domestic articles and materials	
Forest Fires	
Engineer's Field Office	
Special Handrail	
Cast Iron and Cast Steel	7-17-32
Bronze Expansion devices	7-17-32

LAYOUT
Scale: 1 in. = 2000 Ft.

LENGTH OF PROJECT	=	4,4107.3 FT. OR 8.353 MI.
LENGTH OF BRIDGES	=	402.65 FT. OR 0.076 MI.
LENGTH OF EMBANKMENT	=	4,3704.67 FT. OR 8.277 MI.
LENGTH OF JOB #1146	=	402.65 FT. OR 0.076 MI.

M.B. Gaver
BRIDGE ENGINEER

APPROVED

CHIEF ENGINEER - U. S. BUREAU OF PUBLIC ROADS

APPROVED

DISTRICT ENGINEER - BUREAU OF PUBLIC ROADS

APPROVED

CHIEF - U. S. BUREAU OF PUBLIC ROADS

APPROVED

CHAIRMAN - STATE HIGHWAY COMMISSION

APPROVED

STATE HIGHWAY ENGINEER

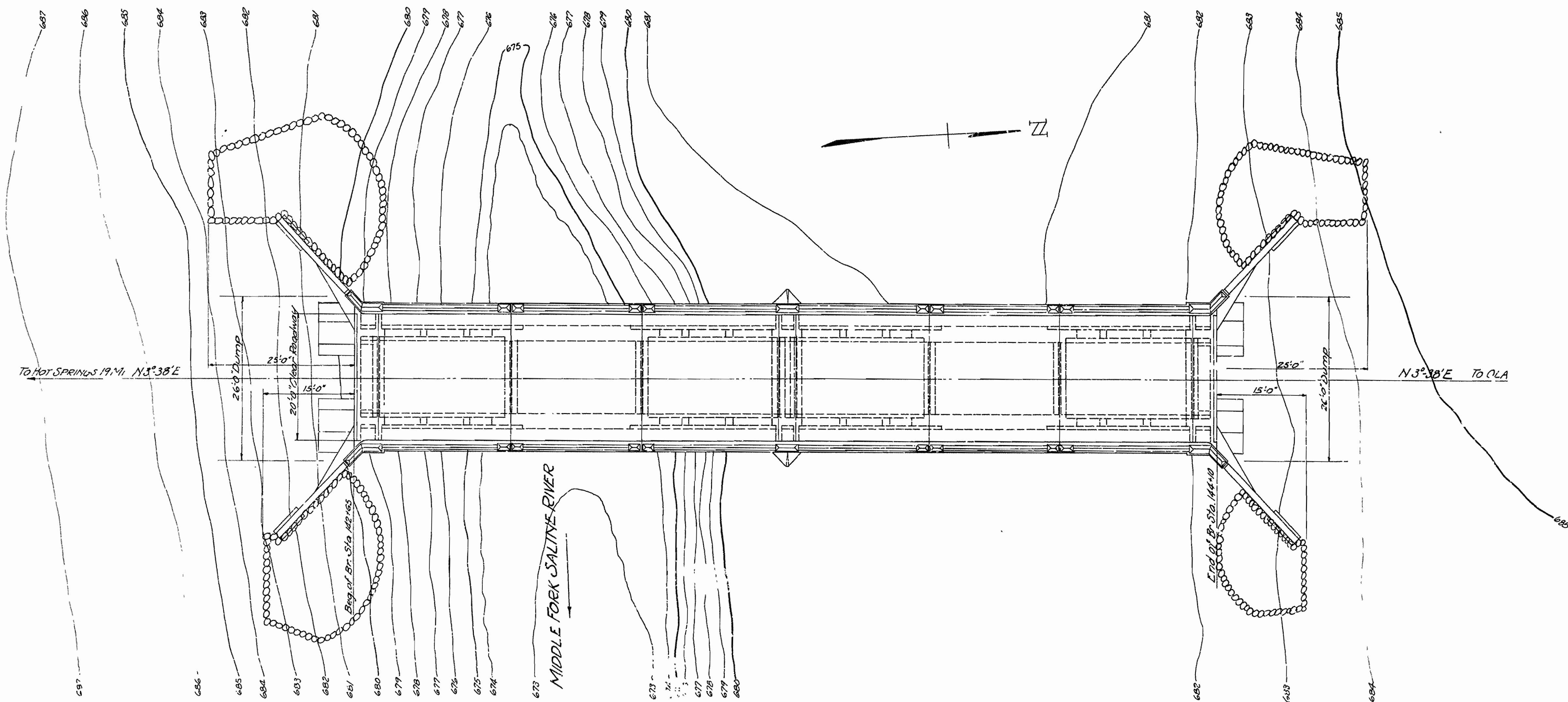
264

FISCAL YEAR	State Job No.	SHEET NO.	TOTAL SHEETS
1933	1146	3	21

FED. ROAD DIST. NO.	STAT.	ARK. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	1146		23	128

LIST OF QUANTITIES FOR BRIDGE NO. 1781

Item No.	Item	Unit	Quantity
13	Dry Excavation For Strs.	Cu.yds.	105 cu.yds.
13	Wet Excavation For Strs.	Cu.yds.	46 cu.yds.
13	Solid Rock Excavation For Strs.	Cu.yds.	82 cu.yds.
91	Class 'A' Concrete For Bridges	Cu.yds.	272.37 cu.yds.
91	Class 'S' Concrete For Bridges	Cu.yds.	194.09 cu.yds.
92	Reinforcing Steel For Bridges	Lbs.	32,808 lbs.
95	Rip Rap	Cu.yds.	80 cu.yds.
S.P.	Special Handrail	L'n. Ft.	299 l'n. ft.
S.P.	Cast Iron & Cast Steel	Lbs.	560 lbs.
S.P.	Bronze Expansion Devices	Lbs.	569 lbs.



PLAN

GENERAL NOTES:

All exposed corners to have $\frac{3}{4}$ " chamfer unless otherwise noted.

Concrete in arch rings, spandrel posts and deck to be Class 'S' concrete.

All other concrete to be Class 'A'.

All reinforcing steel to be deformed bars of structural or intermediate grade. Shop lists and bending diagrams must be submitted by the Contractor and approved before fabrication is begun.

Roadway drains are to be paid for at unit price bid for Cast Iron and Cast Steel. Bronze expansion plates, anchor bolts and copper water stops are to be paid for at the unit price bid for Bronze Expansion Devices.

Specifications: Arkansas Standard Road and Bridge Specifications adopted May, 30, 1925, and Revised.

Unit Stresses: $f_s = 16,000$; $f_c = 750$; $n = 15$.

Loading: H15.

SPECIAL NOTES:

Arch abutment and pier footings to be carried 2 ft. into sound undisturbed rock. Excavation to be done in such a manner as to avoid shattering the rock faces.

Details of falsework and the proposed order of concreting the arches must be submitted by the Contractor and approved before construction is begun.

It will be necessary for the falsework to remain under the first arch span concreted until the concrete of the second arch span has set up sufficiently to carry its own weight at which time the centering under both spans shall be lowered simultaneously.

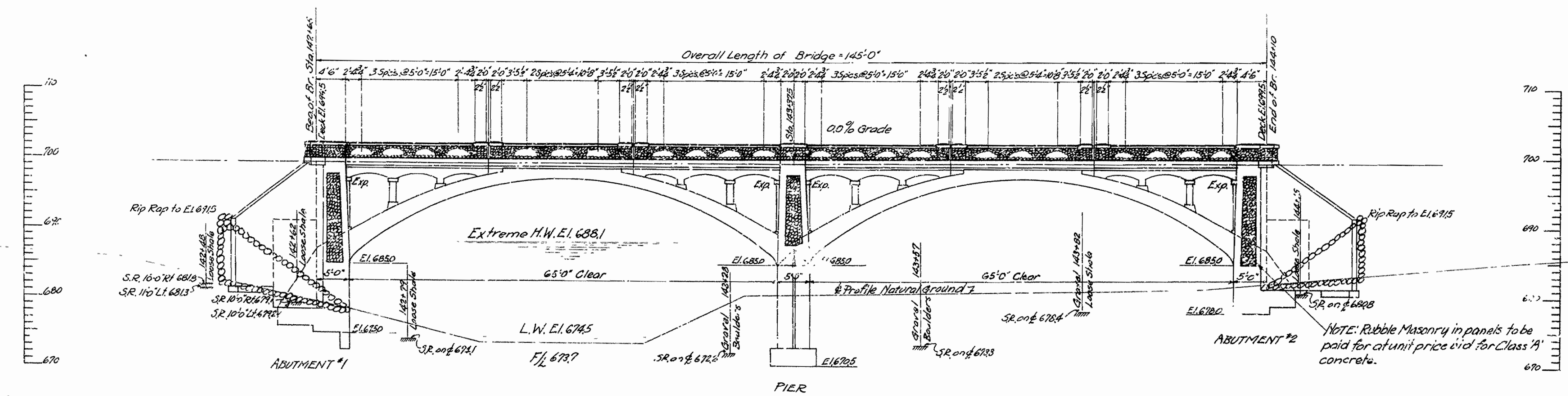
For Details of Abutments and Arch Rib see DWG. No. 3438.

For Details of Pier and Arch Rib see DWG. No. 3439.

For Details of Abutments see DWG. No. 3437.

Oak headers are to be paid for at the unit price bid for Class 'S' concrete.

Bituminous felt and bolts for oak headers are to be paid for at the unit price bid for reinforcing steel.



ELEVATION

B.M. 14 B E.I. 687.47 Nail in Roof 20" White Oak
35° 0' LT. STA. D 742+12

Drainage Area 7800 Ac. Mountainous.

**LAYOUT OF BRIDGE OVER
MIDDLE FORK OF SALINE RIVER
HOT SPRINGS - OLA ROAD
GARLAND COUNTY**

ROUTE 7 SEC. 7

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

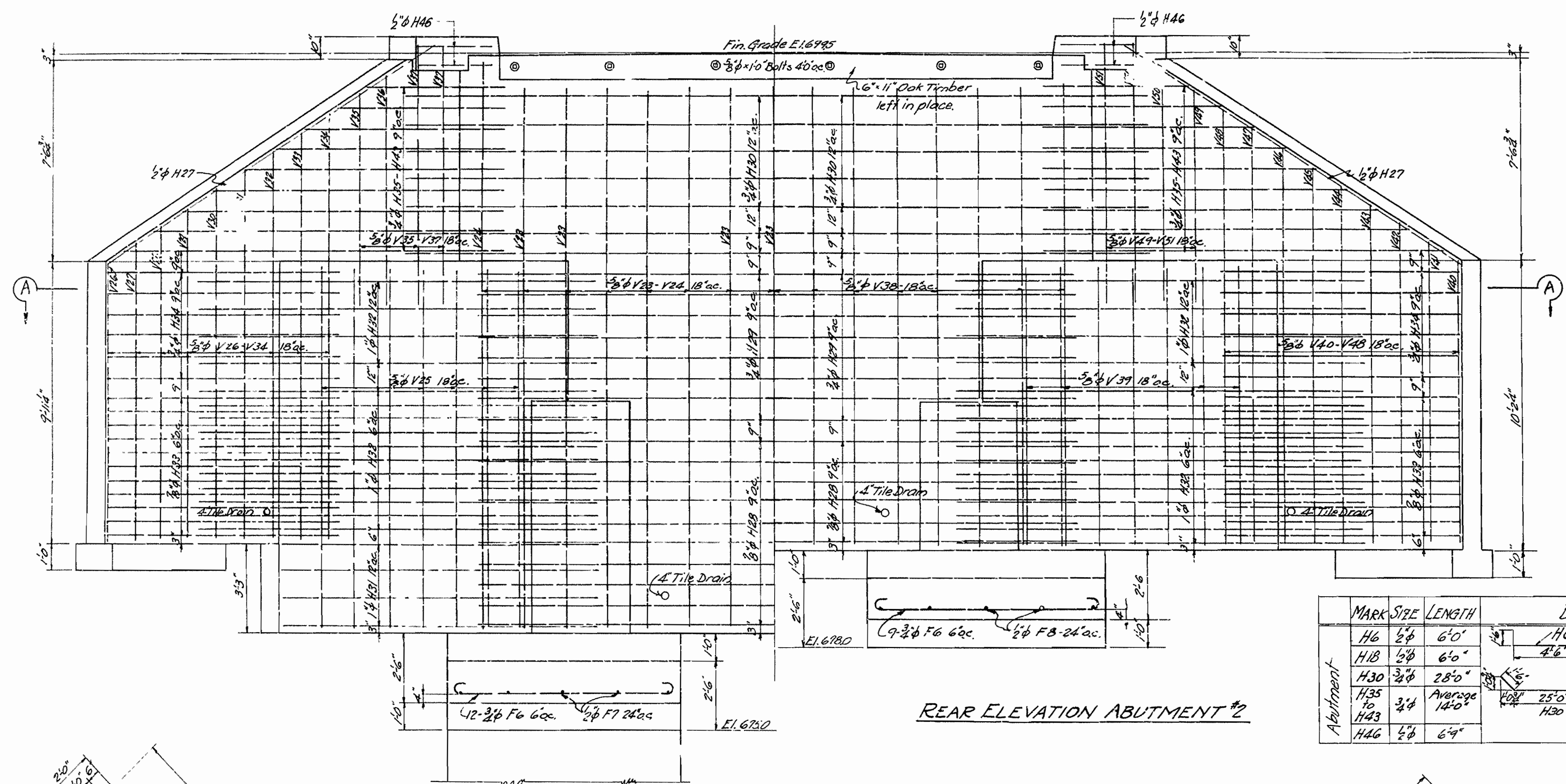
Drawn by: *W.T.M.* Date: 3-20-33
Traced by: *W.T.M.* Date: 3-27-33
Checked by: _____ Date: _____

Scale: 1 in = 10 ft.

W.T.M.
Bridge Engineer

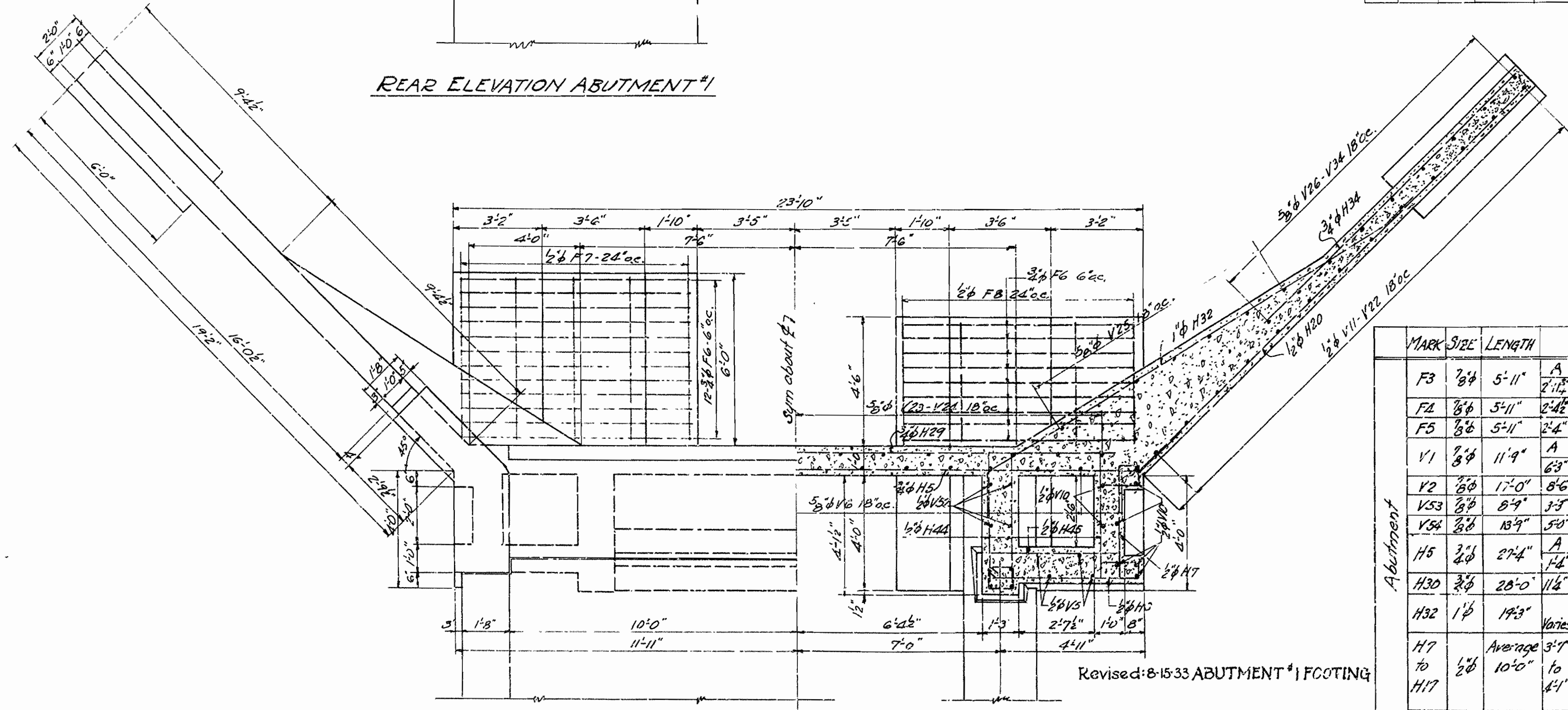
BRIDGE NO. 1781 **DRAWING NO. 3432**

FISCAL YEAR	State Job No.	SHEET NO.	TOTAL SHEETS
1933	1146	9	21
FED. ROAD DIST. NO.	STATE	ARK. PROJ. NO.	FISCAL YEAR
6	ARK.	E-4-73	34



MARK	SIZE	LENGTH	BENDING DIAGRAM
H6	5/8"	6'-0"	
H18	5/8"	6'-0"	
H30	3/4"	28'-0"	
H35 to H43	3/4"	Average 14'-0"	
H46	5/8"	6'-9"	

REAR ELEVATION ABUTMENT #2



HALF PLAN

HALF SECTION-AA

Revised: 8-15-33 ABUTMENT #1 FOOTING

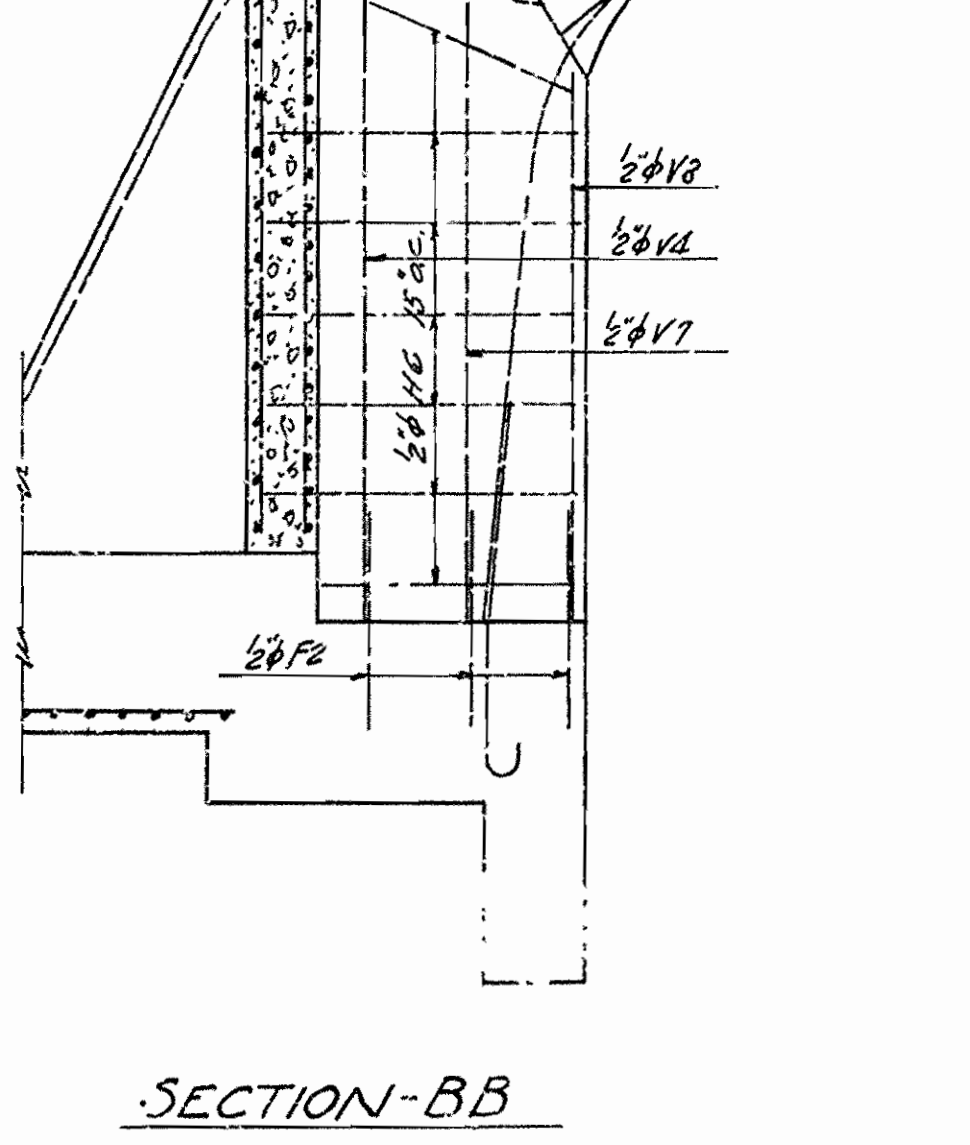
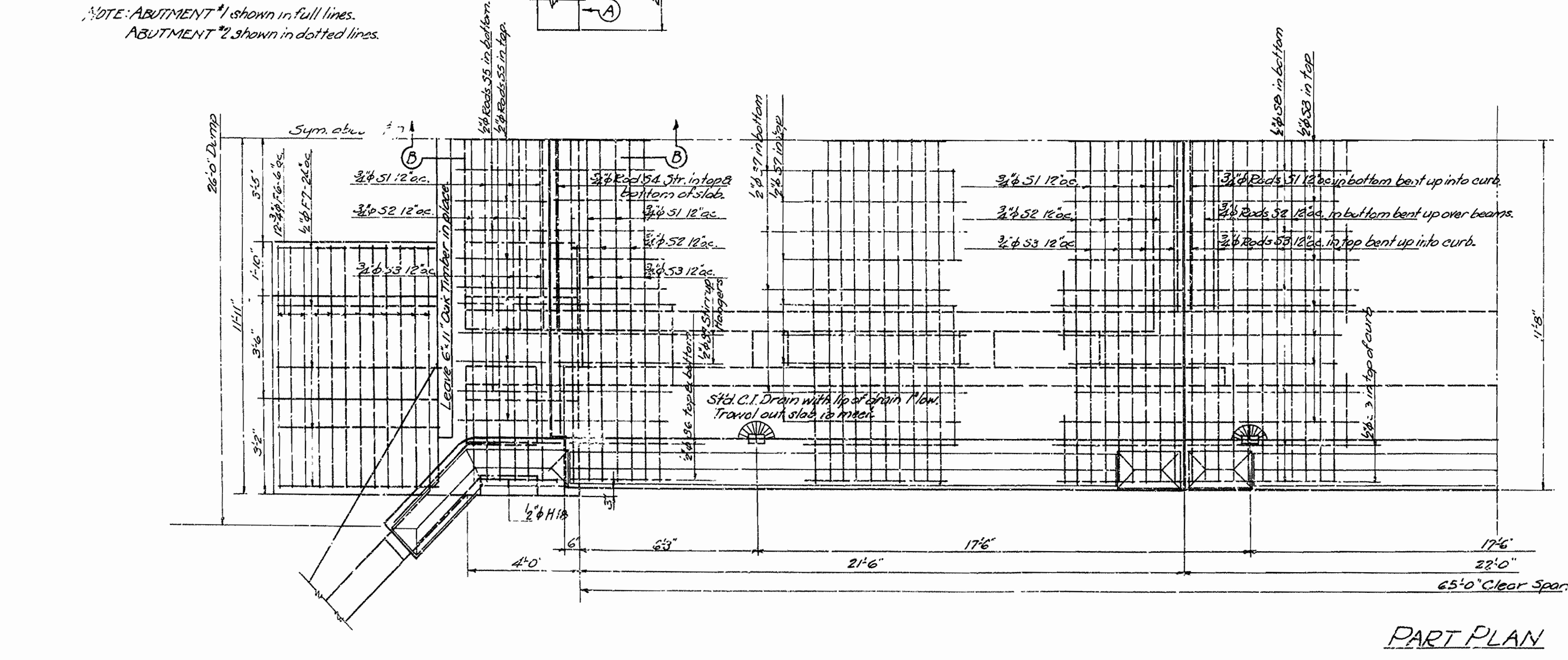
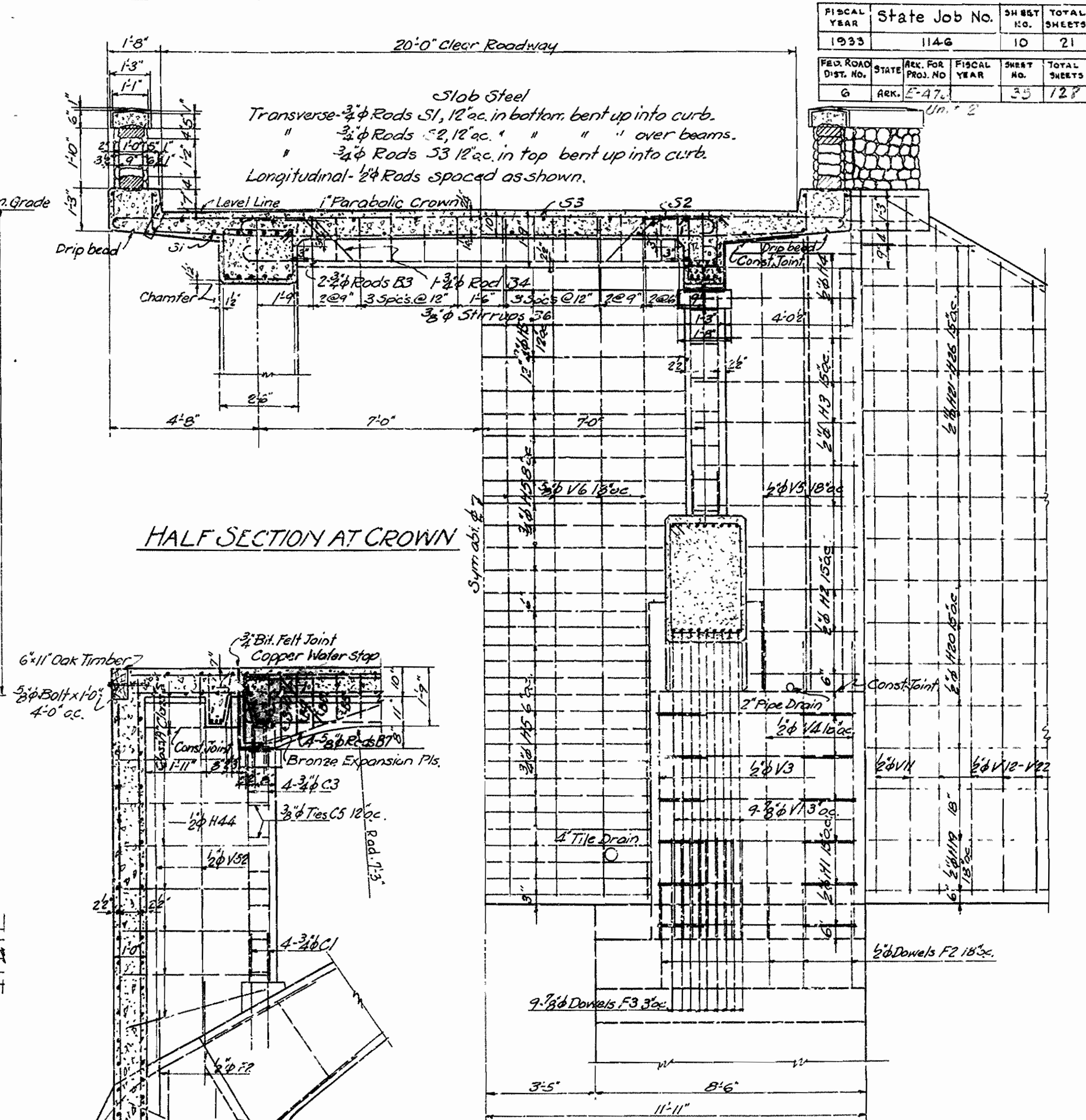
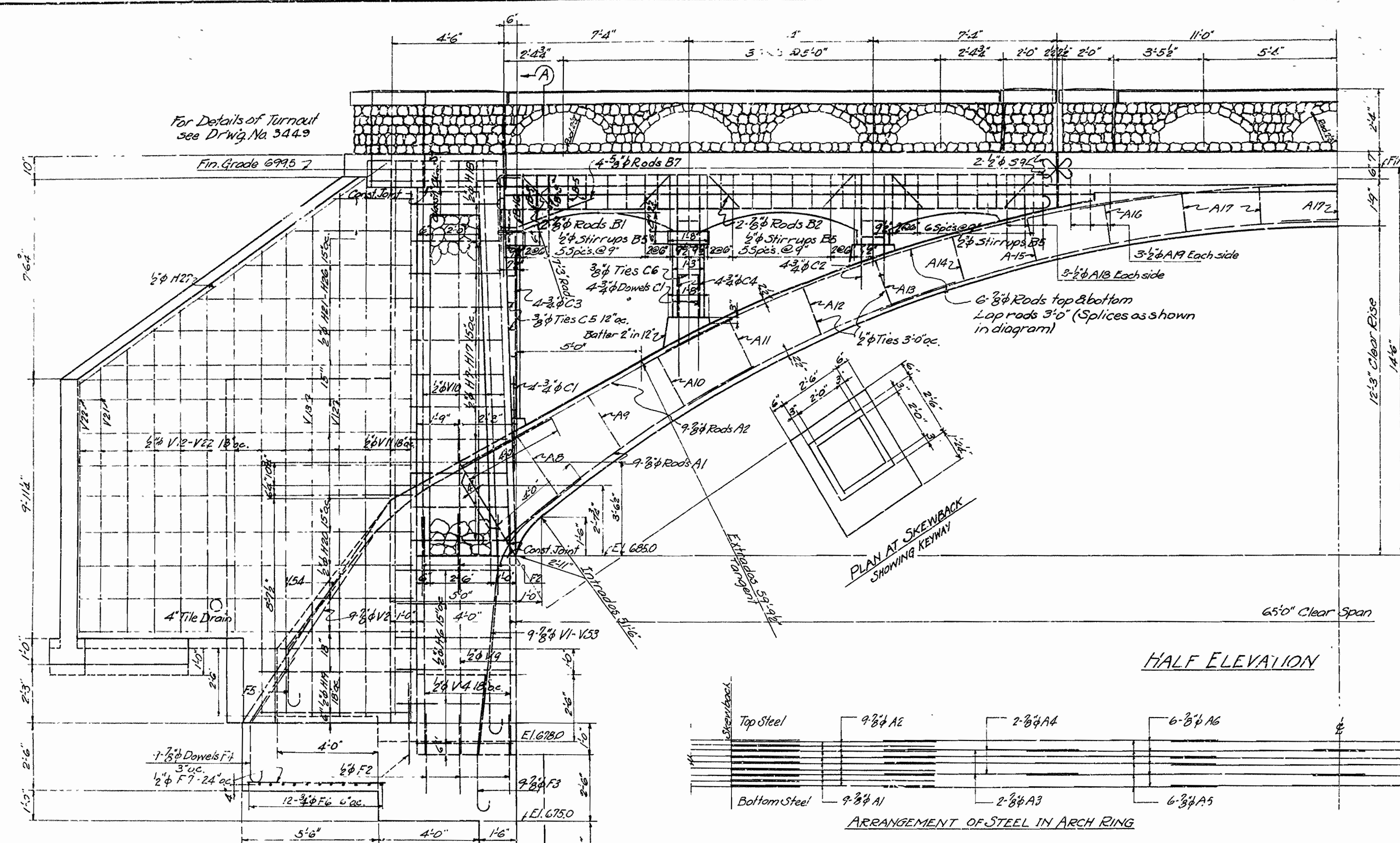
MARK	SIZE	LENGTH	BENDING DIAGRAM
F3	3/8"	5'-11"	
F4	3/8"	5'-11"	
F5	3/8"	5'-11"	
V1	3/8"	11'-9"	
V2	3/8"	17'-0"	
V53	3/8"	8'-9"	
V54	3/8"	13'-9"	
H5	3/8"	2'-4"	
H30	3/8"	20'-0"	
H32	1/2"	19'-3"	
H7 to H17	1/2"	Average 3'-7" to 10'-0"	
F6	3/4"	9'-0"	

MARK	SIZE	LENGTH	BENDING DIAGRAM
S1	3/8"	22'-6"	
S2	3/8"	24'-6"	
S3	3/8"	24'-3"	
S9	1/2"	2'-0"	
B1	3/8"	23'-6"	
B2	3/8"	26'-6"	
B3	3/8"	15'-9"	
B4	3/8"	16'-9"	
B5	1/2"	4'-3"	
B6	3/8"	3'-7"	
C5	3/8"	4'-2"	
C6	3/8"	3'-11"	
A1	3/8"	12'-0"	
A2	3/8"	1'-0"	
A3	3/8"	11'-6"	
A4	3/8"	11'-6"	
A5	3/8"	20'-0"	
A6	3/8"	20'-0"	
A7	3/8"	2'-0"	
AB to A17	1/2"	Average 9'-5" to 15'-2"	
F1	3/8"	5'-10"	
F6	1/2"	9'-4"	
F7	1/2"	9'-2"	
F8	1/2"	7'-8"	
F9	3/8"	9'-0"	
P10	3/8"	6'-0"	
P11	3/8"	5'-3"	
P12	3/8"	7'-0"	
B7	3/8"	7'-3"	
B8	3/8"	1'-9"	
B9	1/2"	5'-1"	
B10	3/8"	5'-5"	

DETAILS OF ABUTMENTS
BRIDGE OVER MIDDLE FORK - SALINE RIVER
HOT SPRINGS - OLA ROAD
GARLAND COUNTY
 ROUTE 7 SEC 7
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn by: *H.T.M.* Date: 3-30-33
 Traced by: *H.T.M.* Date: 3-20-33
 Checked by: _____ Date: _____
BRIDGE No. 1781 Scale: 3/8" = 1 ft.
DRAWING No. 3437.

H.T.M.
 Bridge Engineer

FISCAL YEAR	State Job No.	SHEET NO.	TOTAL SHEETS
1933	114-G	10	21
FED. ROAD DIST. NO.	STATE PROJ. NO.	FISCAL YEAR	SHEET NO.
6	ARK. 2-47	33	127



DETAILS OF
 ABUTMENT AND ARCH RIB
 BRIDGE OVER MIDDLE FORK-SALINE RIVER
 OLA-HOT SPRINGS ROAD
 GARLAND COUNTY
 ROUTE 7 SEC. 7

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.

Revised: 6-5-33 ABUTMENT #1 FOOTING

Drawn By: W.M. Date: 3-15-33
 Traced By: W.M. Date: 3-17-33
 Checked By: Date:

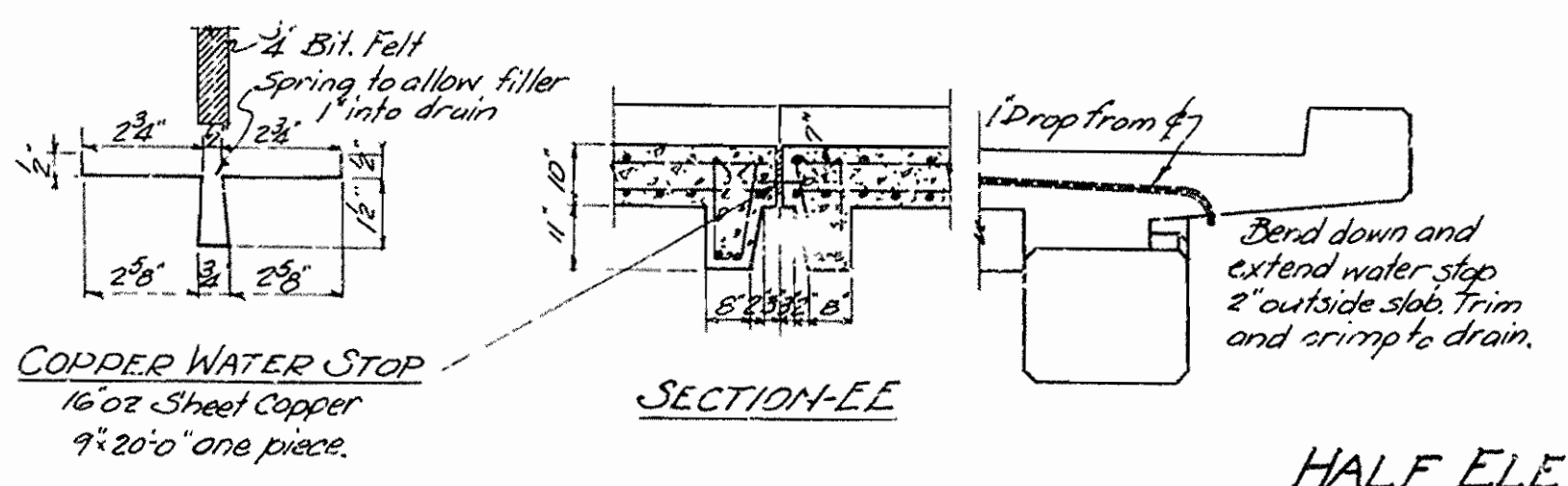
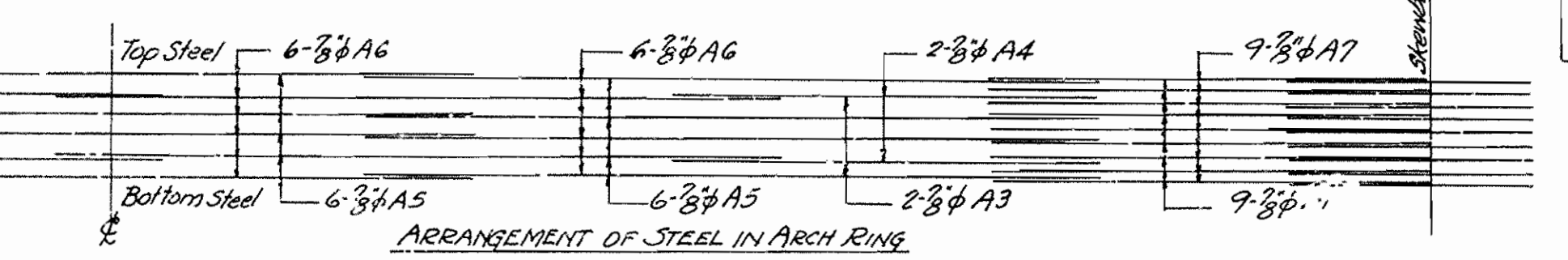
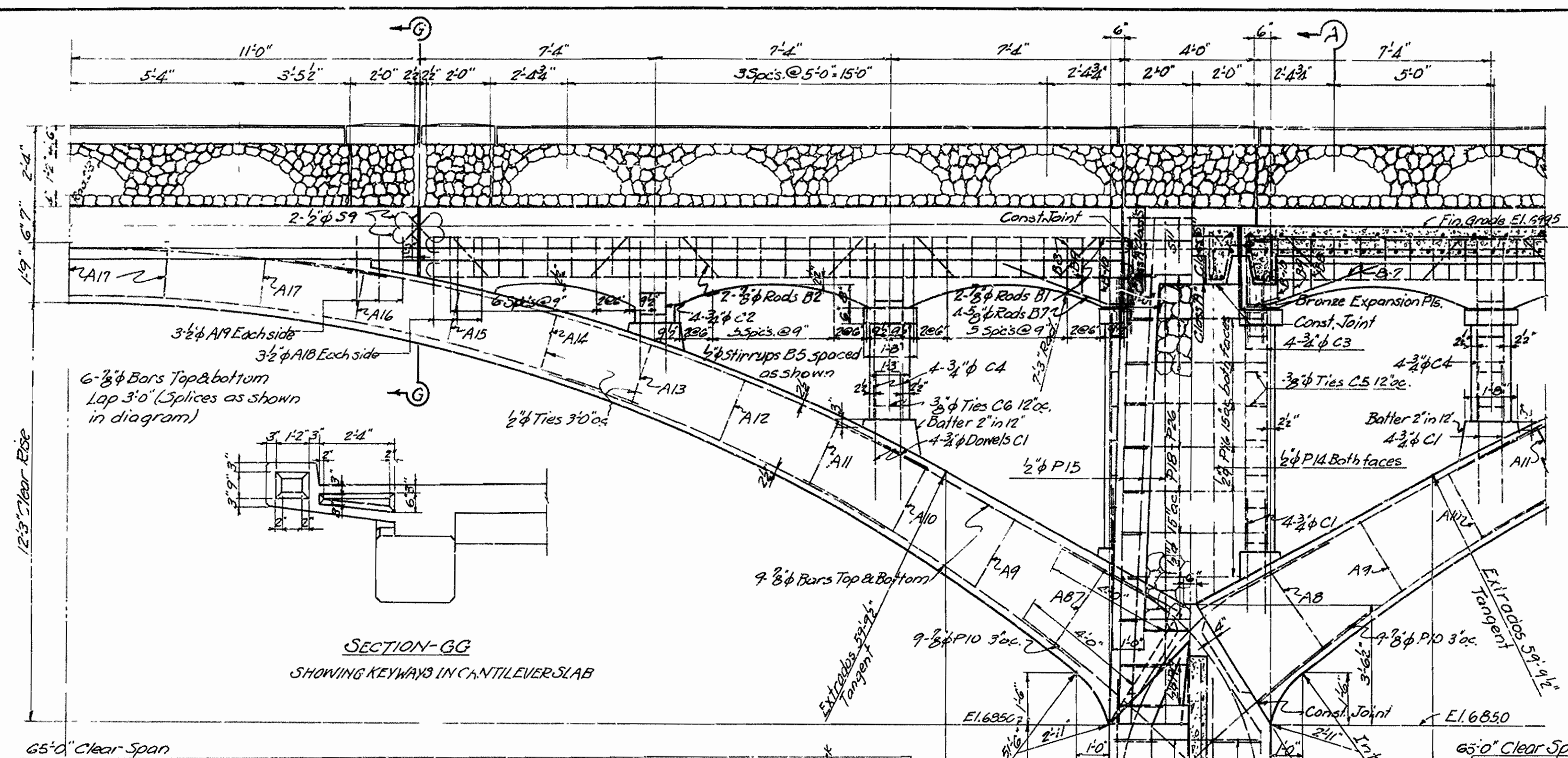
Scale: 1/8" = 1'-0"

BRIDGE ENGINEER

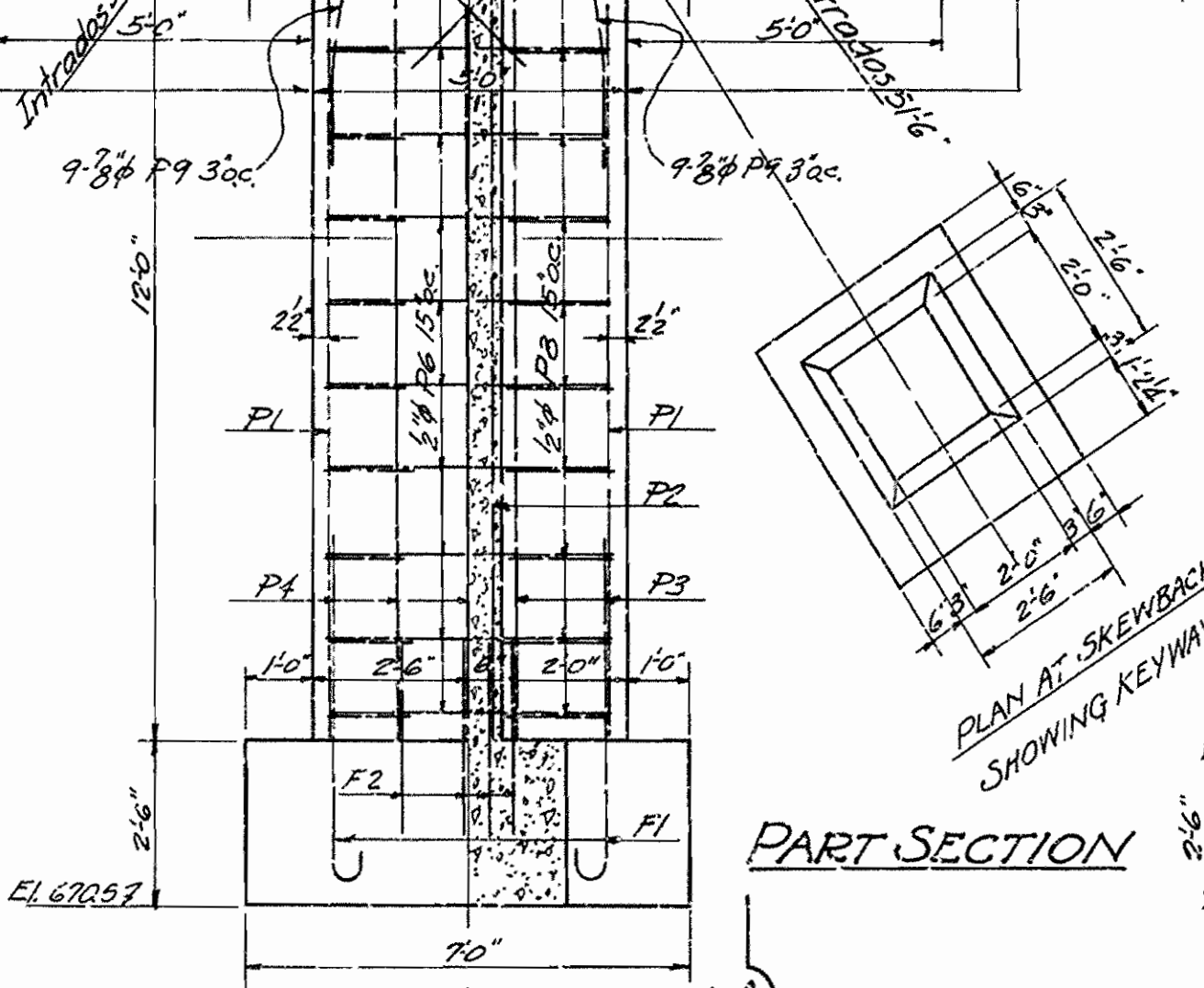
BRIDGE NO. 1781 DRAWING NO. 3438

FISCAL YEAR	State Job No.	SHEET NO.	TOTAL SHEETS
1935	114G	11	21

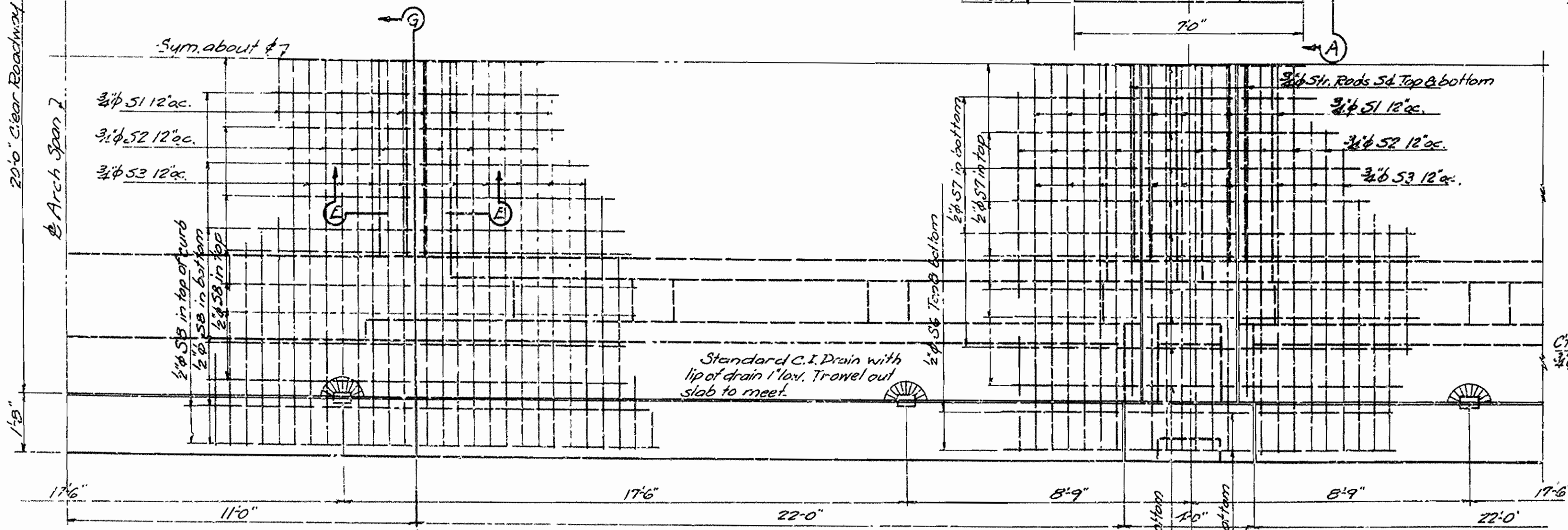
F. D. ROAD DIST. NO.	STATE	ARK. FOR. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	Ark.	477	1935	36	28



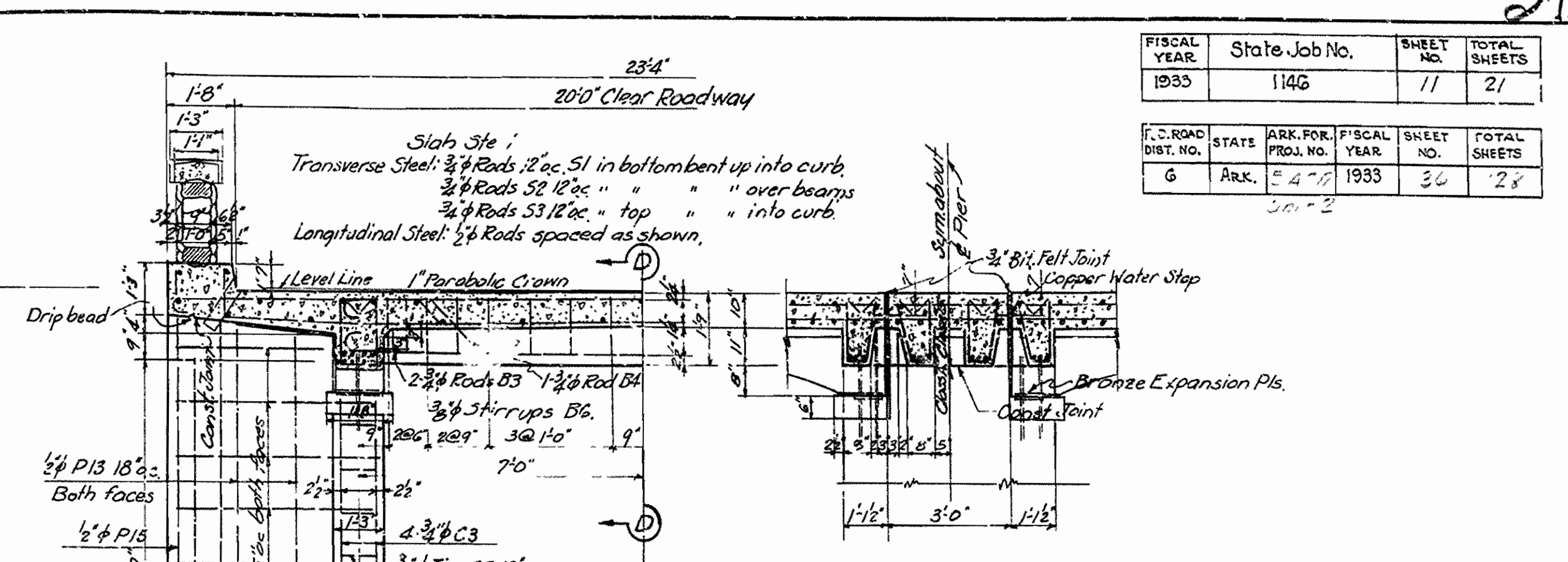
HALF ELEVATION



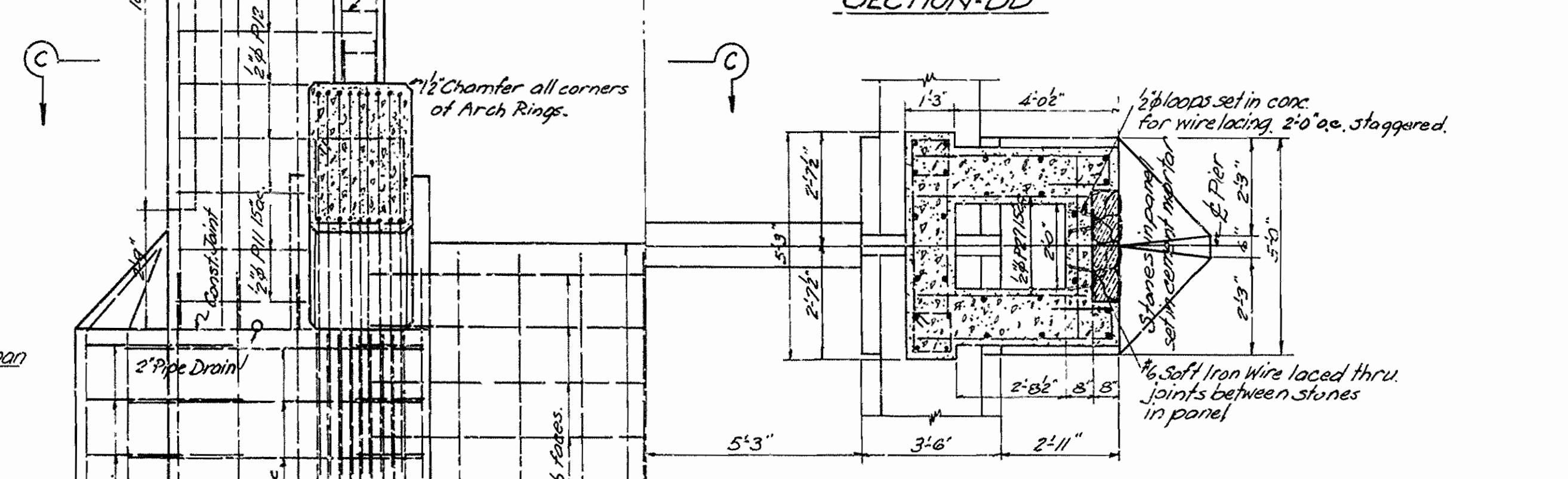
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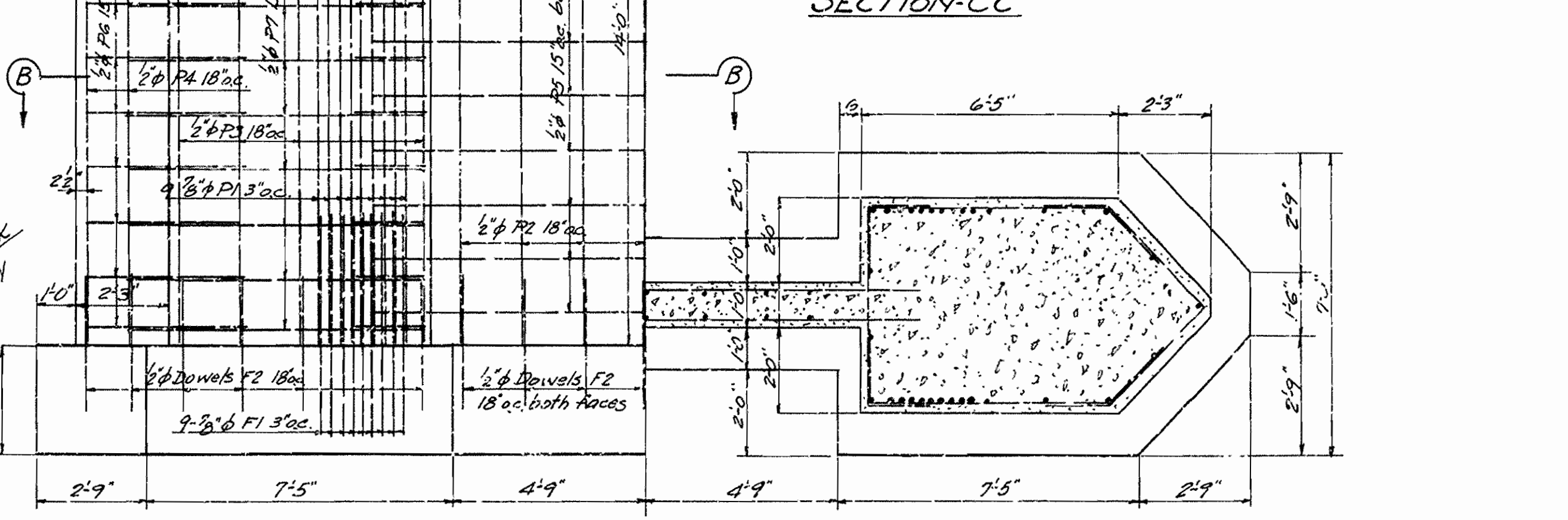
PART PLAN



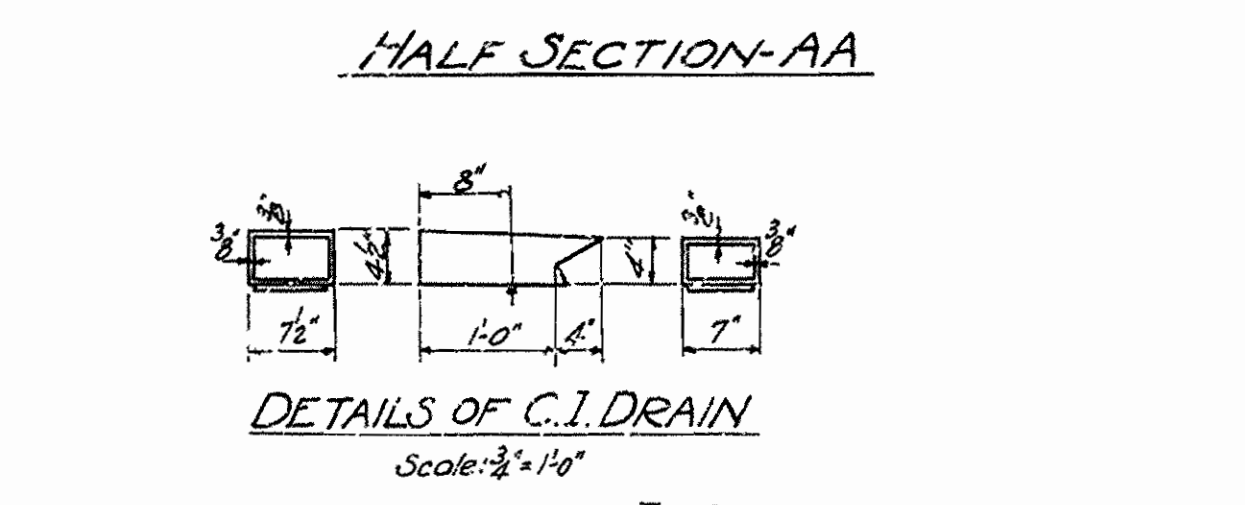
SECTION-DD



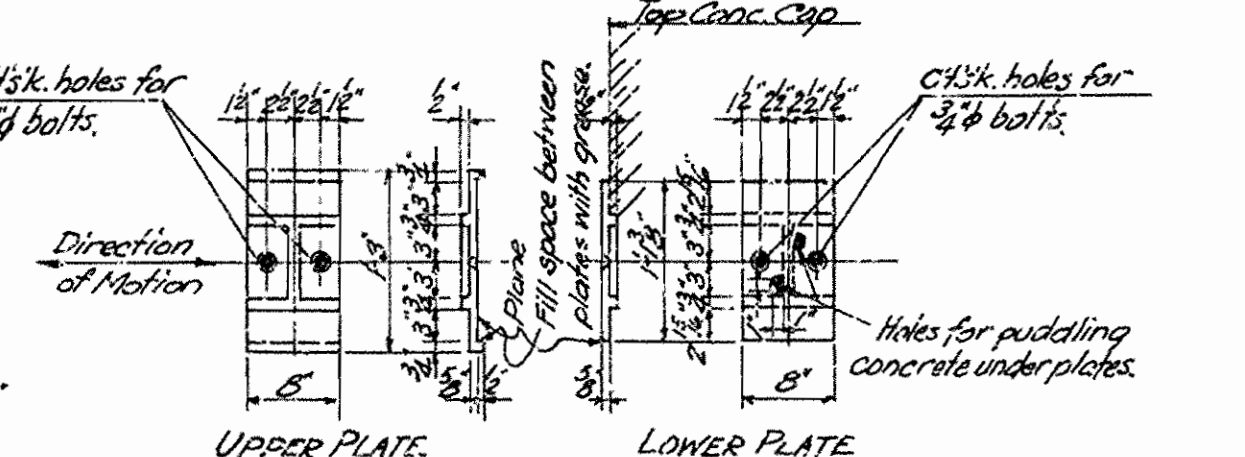
SECTION-CC



SECTION-BB



DETAILS OF C.I. DRAIN



DETAILS OF BRONZE EXPANSION PLATES

**DETAILS OF
PIER AND ARCH RIB
BRIDGE OVER MIDDLE FORK OF SALINE RIVER
HOT SPRINGS-OLA ROAD
GARLAND COUNTY
ROUTE 7 SEC. 7**

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

Drawn By: *W.T.M.* Date: 3-15-35
Traced By: *W.T.M.* Date: 3-18-35
Checked By: _____ Date: _____

Scale: 3/8" = 1'-0"
BRIDGE No. 1781 **DRAWING No. 3439**

N.B. Davis
Bridge Engineer