

| FED. ROAD DIST. NO. | STATE | FED. AID PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|----------------------|-------------|-----------|--------------|
| 6 | ARK. | 455 A(1) | | 1 | 13 |
| | | STATE JOB NO. 10232 | | 1 | 13 |

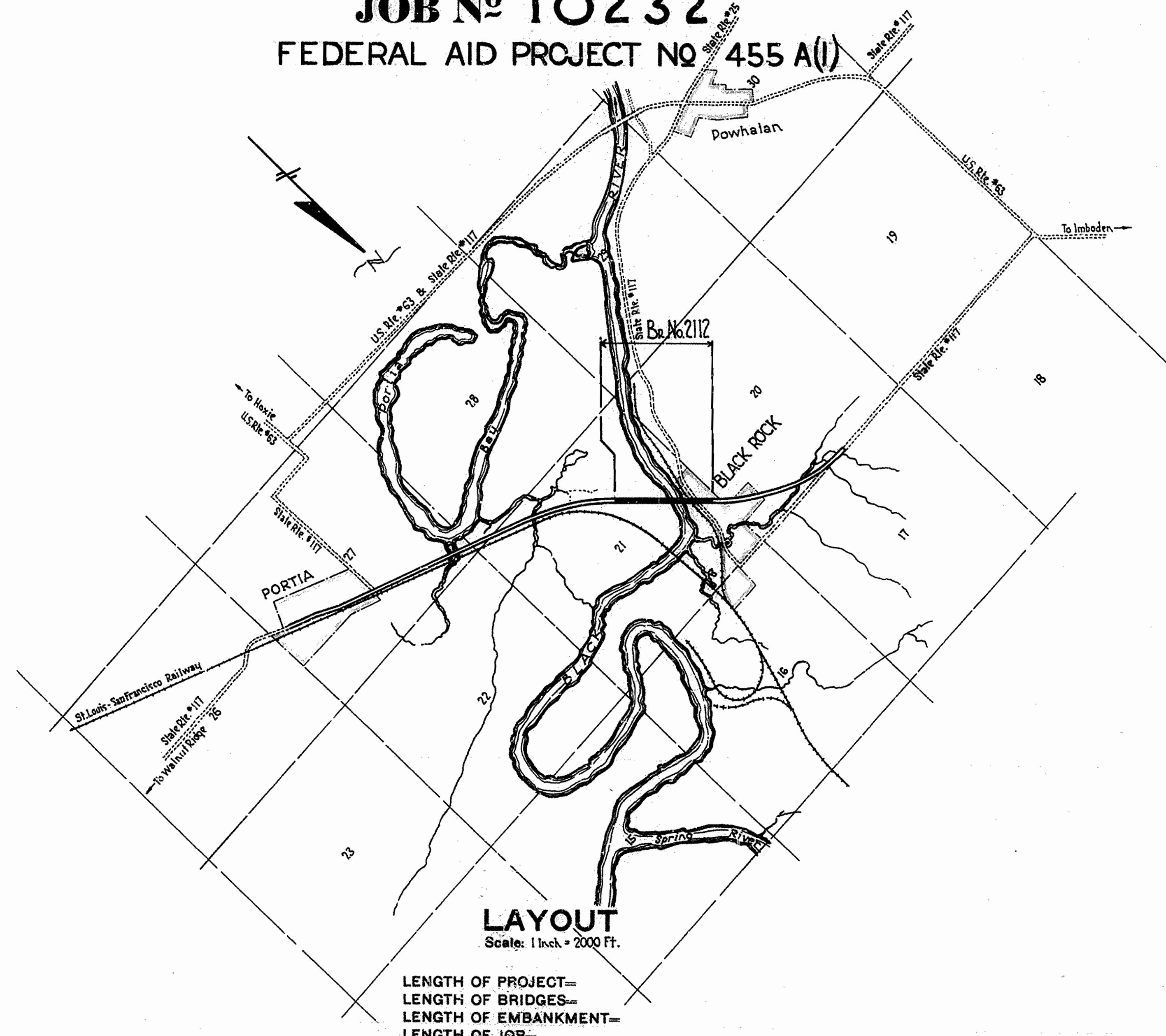
STATE OF ARKANSAS
STATE HIGHWAY COMMISSION

INDEX OF SHEETS

| Sheet No. | Drwg. No. | Title |
|-----------|-----------|--|
| 1 | 5888 | Title Sheet Job. No. 10232. |
| 2 | 5889 | Summary Sheet. |
| 3-5 | 5890-5892 | Layout of Bridge No. 2112. |
| 6 | 5893 | Details of Pier No. 1. |
| 7 | 5894 | Details of Piers No. 2 to No. 9 inclusive. |
| 8 | 5895 | Details of Pier No. 10. |
| 9 | 5896 | Details of Piers No. 11 & No. 12. |
| 10 | 5897 | Details of Piers No. 13 to No. 15 - Spans 34 & 35. |
| 11 | 5898 | Details of Spans 34 & 35. |
| 12 | 5899 | Details of Rubble Masonry Wall. |
| 13 | 1891 | Basis for Compiling Excavation for Structures. |

QUANTITIES

**PLAN OF PROPOSED BRIDGE
OVER BLACK RIVER AT BLACK ROCK**
CONTRACT NO. 1
LAWRENCE COUNTY
ROUTE 63 SEC. 3 & 4
JOB No 10232
FEDERAL AID PROJECT NO 455 A(1)



LENGTH OF PROJECT=
LENGTH OF BRIDGES=
LENGTH OF EMBANKMENT=
LENGTH OF JOB=

Contract No. 1 (Job 10232) consists of Piers No. 1 to 15 inclusive and Spans No. 34 and No. 35 (See Bridge Layout) Also rubble masonry wall.

SPECIFICATIONS
Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction, adopted March 1st, 1940, together with Special Provisions listed below.
PAMPHLETS: Division I, Division II (Parts 1, 8A, 8B, 8C, & 9), Division III and Division IV

SPECIAL PROVISIONS

| Required Special Provisions (4-10-39) | Sheets |
|--|---------|
| Wages of Labor | 1 Sheet |
| 7-2 Unemployment Compensation or Insurance | 1 |
| 8-3 Employment Centers for Labor | 1 |
| 850-1 Engineer's Field Office | 1 |
| 853-1 Machine Mixing | 1 |

APPROVED

CHAIRMAN STATE HIGHWAY COMMISSION

APPROVED

STATE HIGHWAY ENGINEER

RECOMMENDED FOR APPROVAL

DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

APPROVED

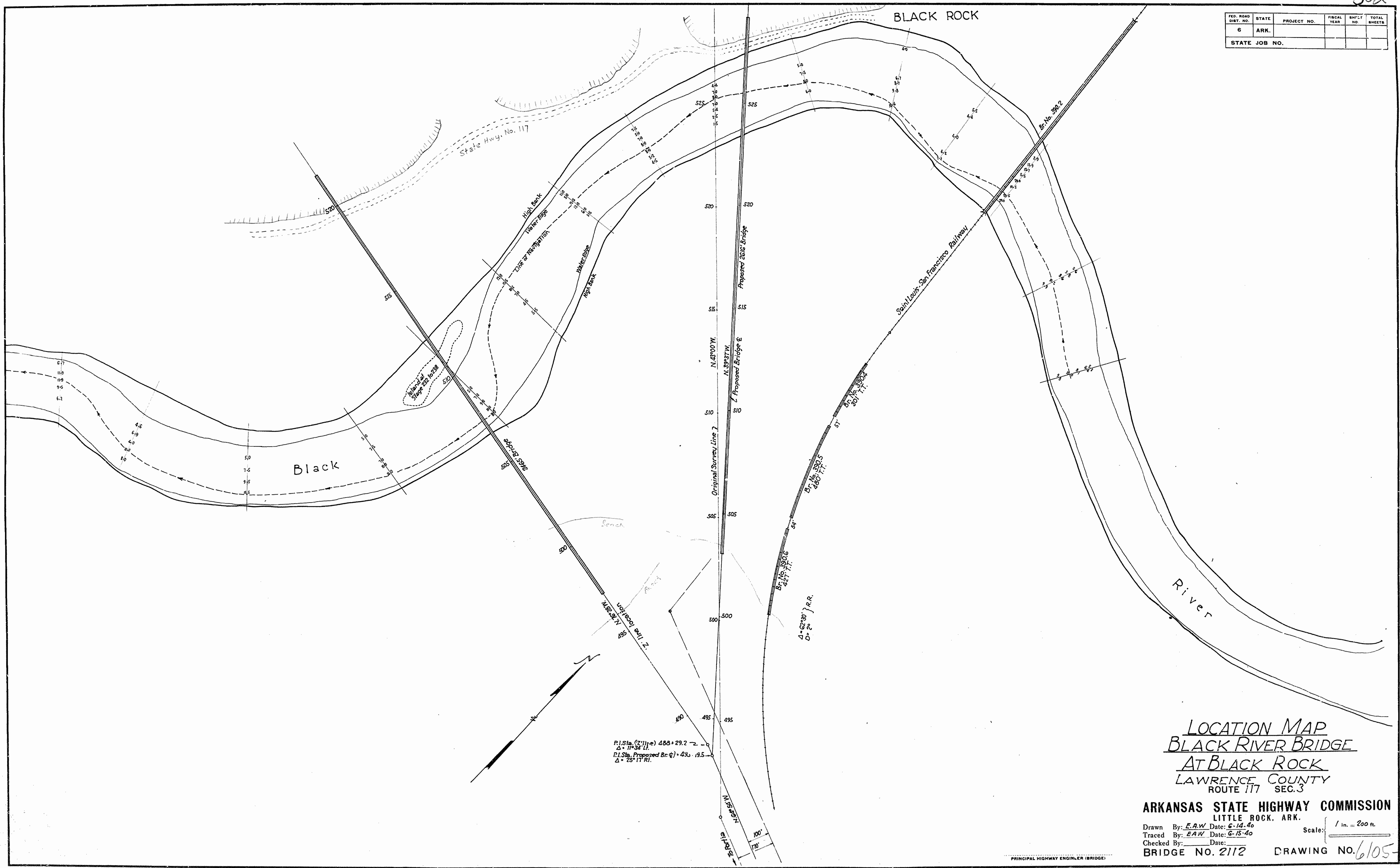
COMMISSIONER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

M. B. Lewis
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

BRIDGE No. 2112

DRAWING No. 5888

| FED. ROAD DIST. NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|-------------|-------------|-----------|--------------|
| 6 | ARK. | | | | |
| STATE JOB NO. | | | | | |



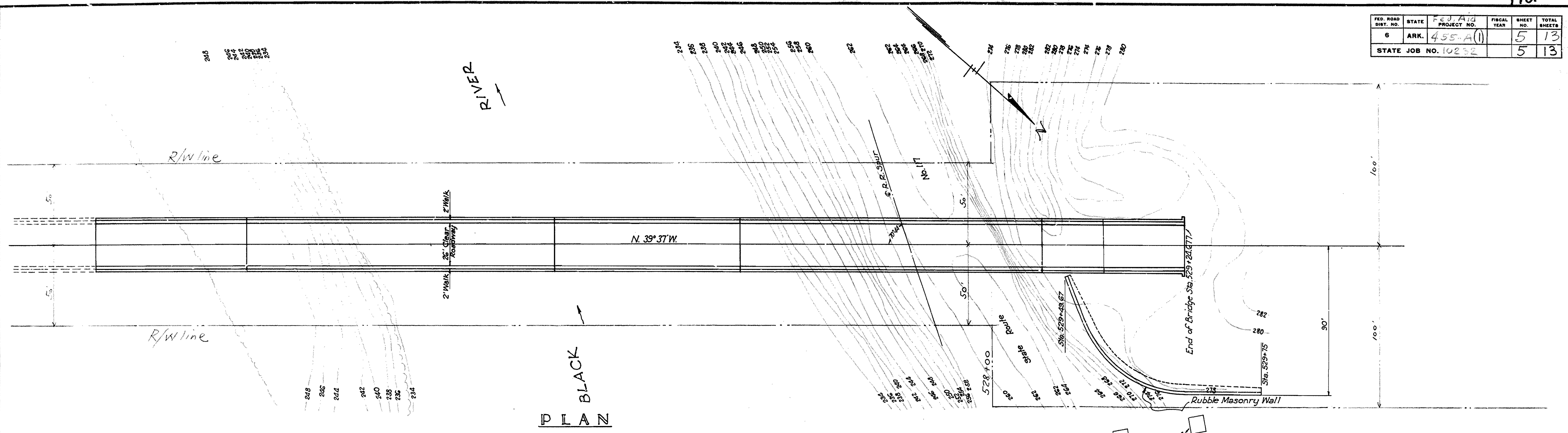
P.L. Sta. (711) 488+29.2
 $\Delta = 11^{\circ} 34' 11''$
P.L. Sta. Proposed Br. 2112 491+19.5
 $\Delta = 25^{\circ} 17' 11''$

LOCATION MAP
BLACK RIVER BRIDGE
AT BLACK ROCK
LAWRENCE COUNTY
ROUTE 117 SEC. 3

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
 Drawn By: E.A.W. Date: 6-14-40
 Traced By: E.A.W. Date: 6-15-40
 Checked By: _____ Date: _____
BRIDGE NO. 2112 **DRAWING NO. 6105-E**
 Scale: 1 in. = 200 ft.

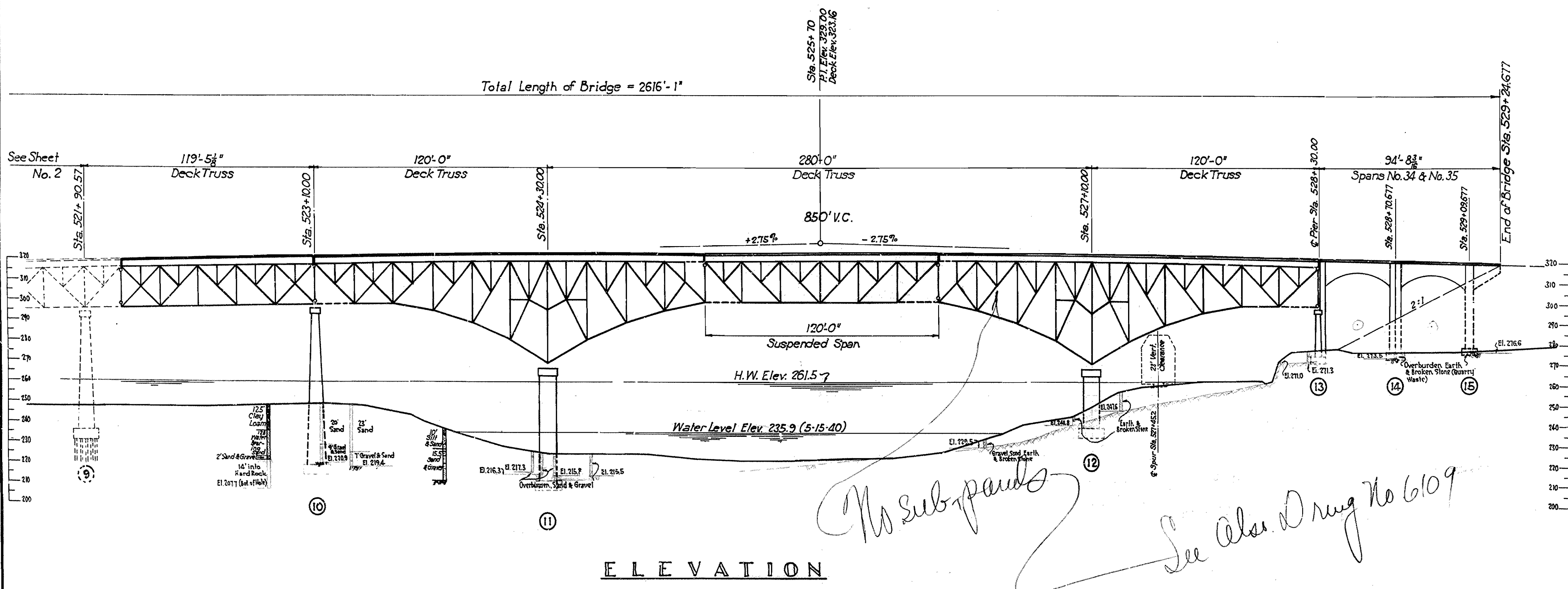
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

| FED. ROAD DIST. NO. | STATE | FED. AID PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|----------------------|-------------|-----------|--------------|
| 6 | ARK. | 455-A(1) | | 5 | 13 |
| STATE JOB NO. 10232 | | | | 5 | 13 |



Total Length of Bridge = 2616'-1"

GENERAL NOTES:
 All foundation piling under piers to be untreated. Lengths of piling assumed as 20 feet except in Pier 9 assumed 15 feet. Actual lengths are to be determined in the field by driving resistance encountered.
 For details of Piers See Drawings 5893 to 5897.
 For details of Spans 34 & 35 See Drawings 5898.
 For details of Rubble Masonry Wall See Drawing No. 5899.
 For basis for Computing Excavation for Structures See Drawing 1891.
 For Summary of Quantities. See Drawing 5889.
 For other general notes See Drawings 5893 & 5898.



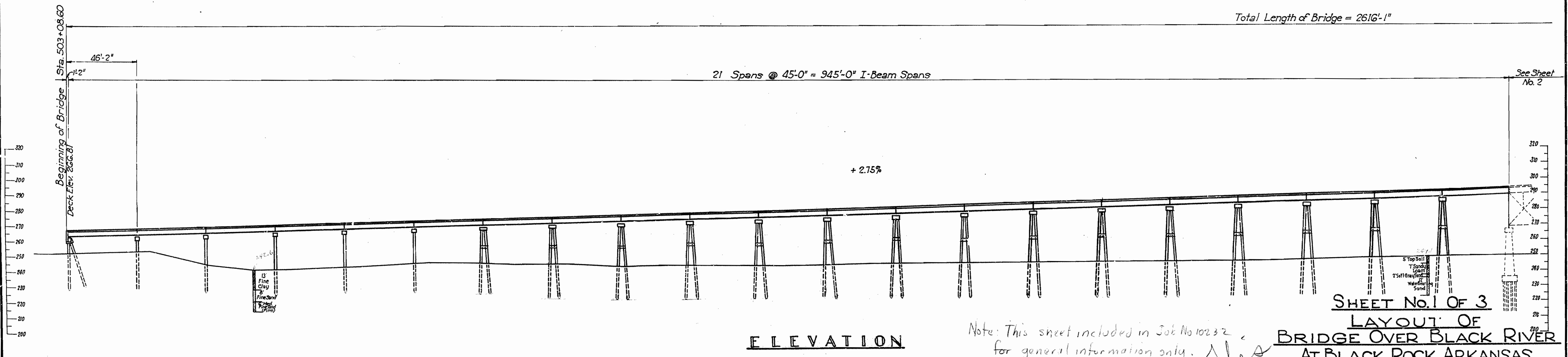
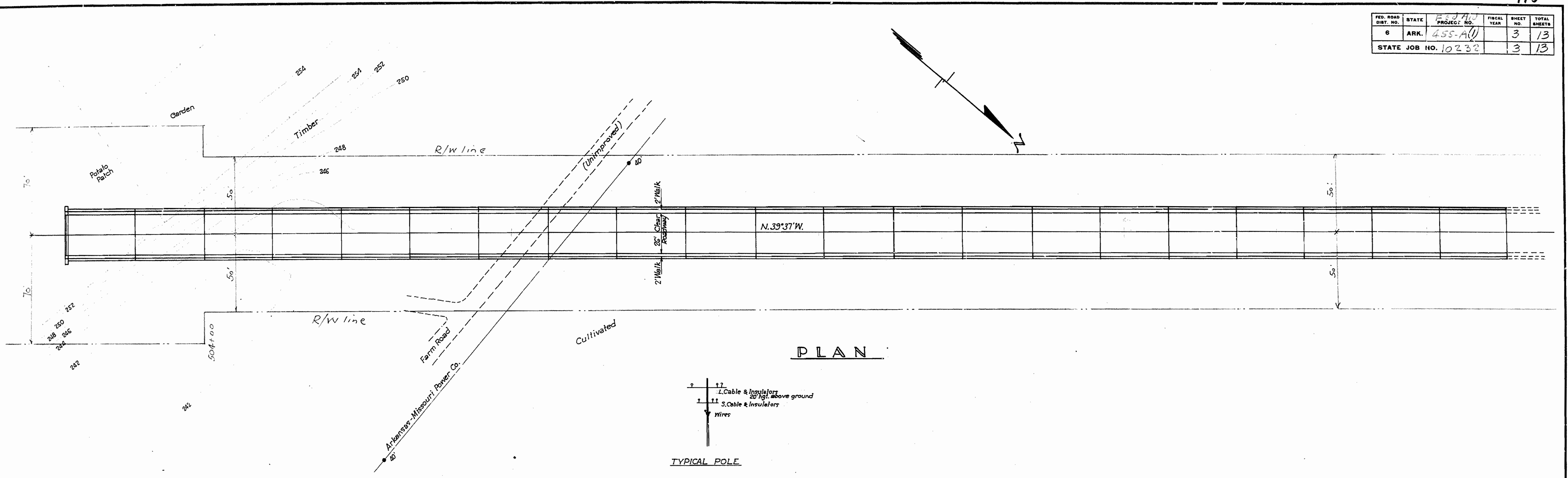
REVISED 7-18-40 Footings

SHEET No. 3 OF 3
LAYOUT OF
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
LAWRENCE COUNTY
ROUTE 63 SEC. 3&4

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: E.A.W. Date: 5-24-40
 Traced By: E.A.W. Date: 6-29-40
 Checked By: _____ Date: _____
 Scale: 1 in. = 30 ft.
BRIDGE NO. 2112 **DRAWING NO. 5892**
 Code No. 922

E.A.W.
 PRINCIPAL HIGHWAY ENGINEER (BRIDGES)

| FED. ROAD DIST. NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS | |
|---------------------|-------|-------------|-------------|-----------|--------------|----|
| 6 | ARR. | 455-A(1) | | 3 | 13 | |
| STATE JOB NO. 10232 | | | | | 3 | 13 |



ELEVATION

Total Length of Bridge = 2616'-1"

See Sheet No. 2

Do Not Use This Sheet. See Revised Layout Drawing 10/10/5

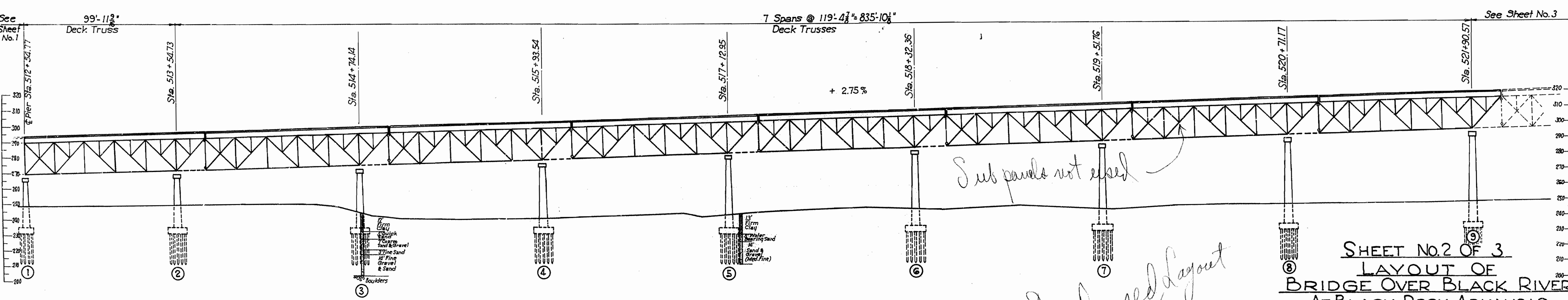
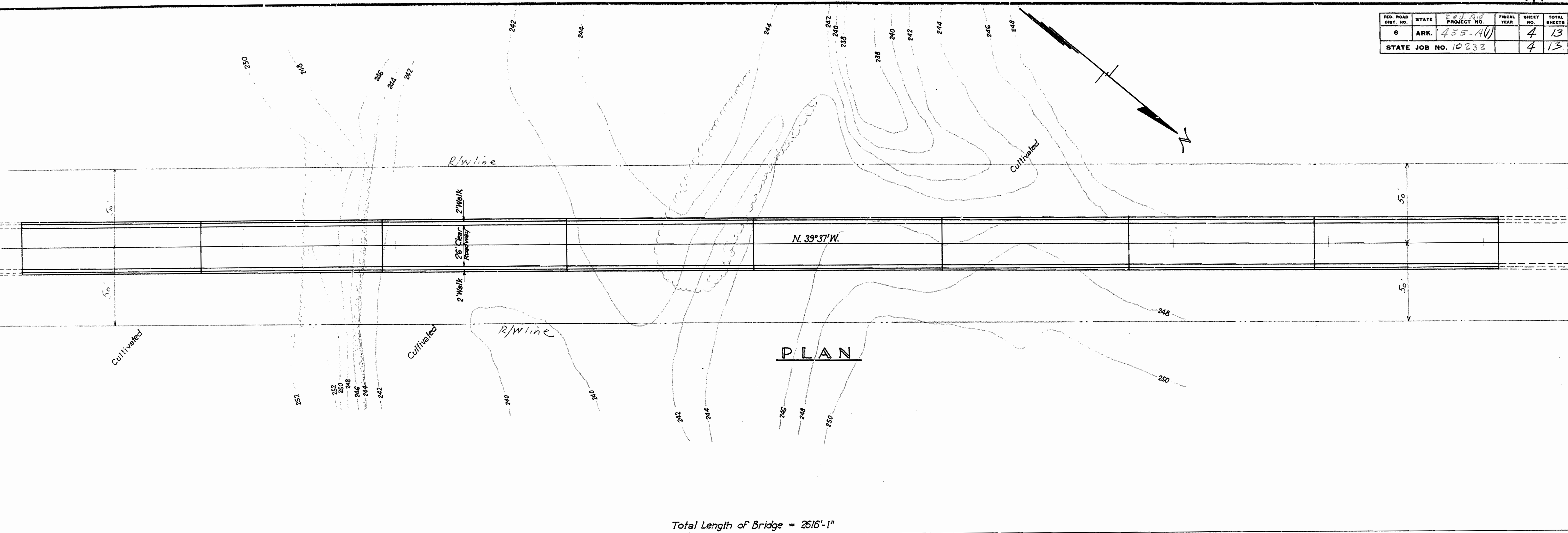
M. O. Law
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

SHEET No. 1 OF 3
LAYOUT OF
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
LAWRENCE COUNTY
ROUTE 3 SEC. 3&4

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
 Drawn By: E.A.W. Date: 5-24-40
 Traced By: E.A.W. Date: 6-28-40
 Checked By: _____ Date: _____
BRIDGE NO. 2112 **DRAWING NO. 5890**

Scale: 1 in. = 30 ft.

| FED. ROAD DIST. NO. | STATE | Fed. Aid PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|----------------------|-------------|-----------|--------------|
| 6 | ARK. | 455-A(1) | | 4 | 13 |
| STATE JOB NO. 10232 | | | | 4 | 13 |



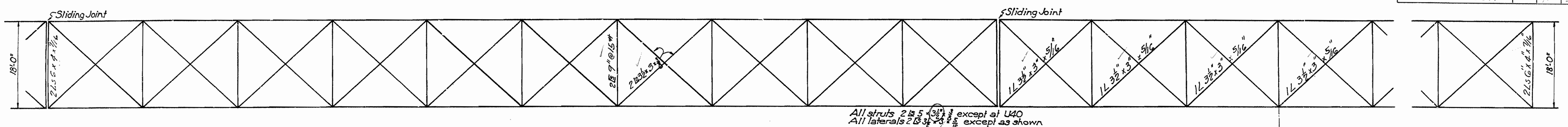
*Also See Revised Layout
Drawing 1108*

SHEET NO. 2 OF 3
LAYOUT OF
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
LAWRENCE COUNTY
ROUTE 63 SEC. 3&4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
 Drawn By: E.A.W. Date: 5-23-40
 Traced By: _____ Date: _____
 Checked By: _____ Date: _____
BRIDGE NO. 2112 DRAWING NO. 5891

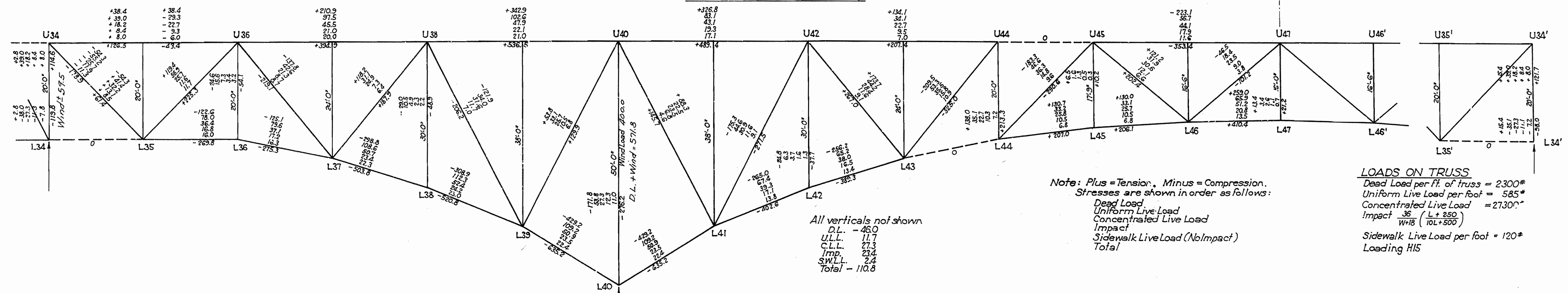
N. O. Lawrence
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

Scale: 1 in. = 30 ft.

| FED. ROAD DIST. NO. | STATE | FED. AID PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|----------------------|-------------|-----------|--------------|
| 6 | ARK. | 458 (A)(3) | | 11 | 36 |
| STATE JOB NO. 10311 | | | | | 36 |



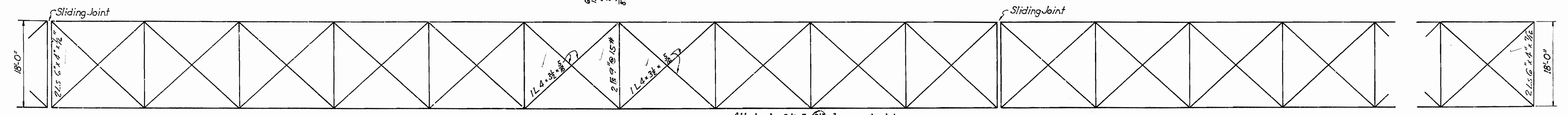
TOP CHORD BRACING



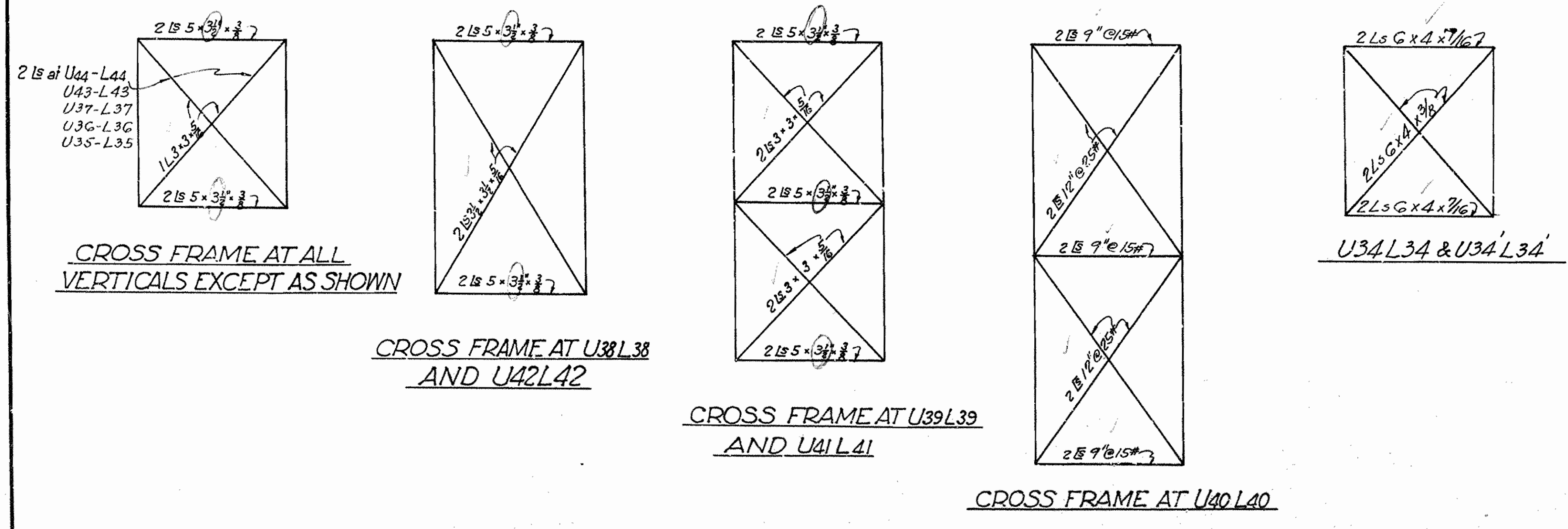
DESIGN STRESSES

Note: Plus = Tension, Minus = Compression.
 Stresses are shown in order as follows:
 Dead Load
 Uniform Live Load
 Concentrated Live Load
 Impact
 Sidewalk Live Load (No Impact)
 Total

LOADS ON TRUSS
 Dead Load per ft. of truss = 2300#
 Uniform Live Load per foot = 585#
 Concentrated Live Load = 27300#
 Impact $\frac{36}{W+8} (L+300)$
 Sidewalk Live Load per foot = 120#
 Loading H15



BOTTOM CHORD BRACING



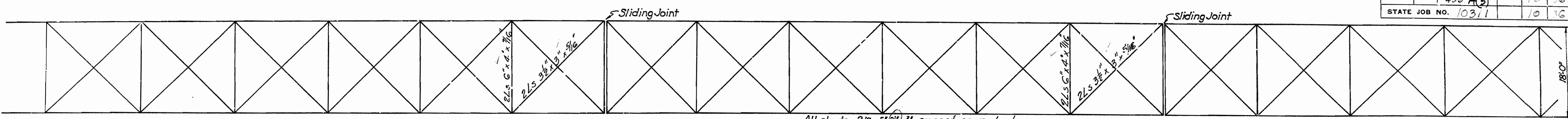
Revised 8-27-42
 REVISED Oct. 4 1946 Size of Strut Angles.

**SPANS 31-32 & 33
 STRESS SHEET
 BRIDGE OVER BLACK RIVER
 AT BLACK ROCK, ARKANSAS
 LAWRENCE COUNTY**

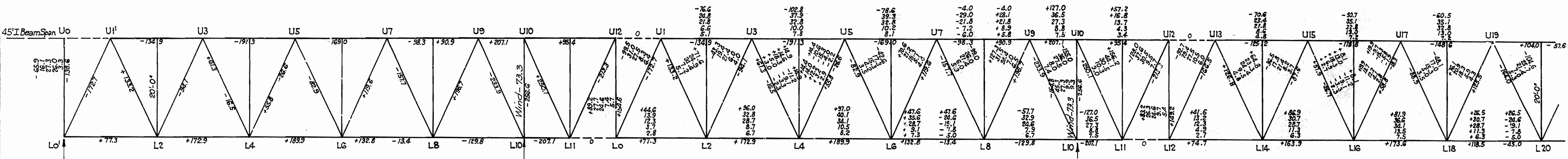
ROUTE 63 SEC 3
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: L.P.C. Date: 9-11-40
 Traced By: F.A.W. Date: 10-10-40
 Checked By: _____ Date: _____
 BRIDGE NO. 2112 DRAWING NO. 6115

H. B. Lawrence
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

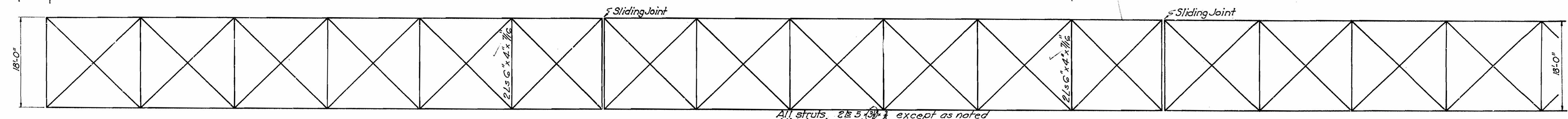
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|---------------------|-------|----------------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | Fed. Aid PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | 455 A(2) | | 10 | 36 |
| STATE JOB NO. 10311 | | | | 10 | 36 |



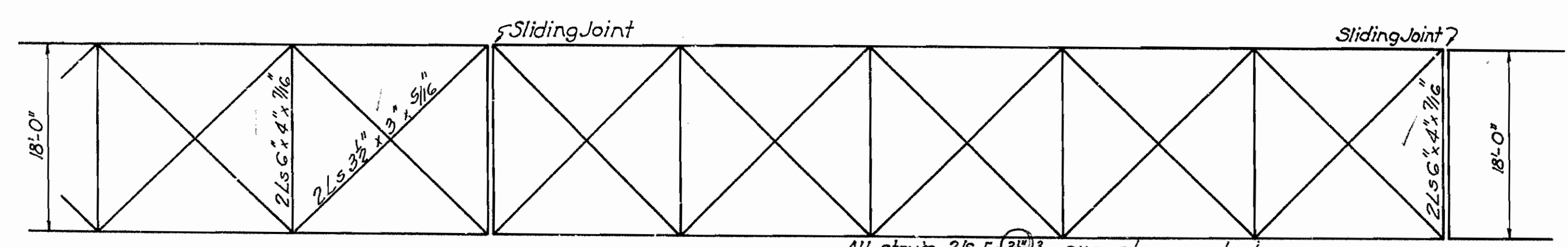
TOP CHORD BRACING



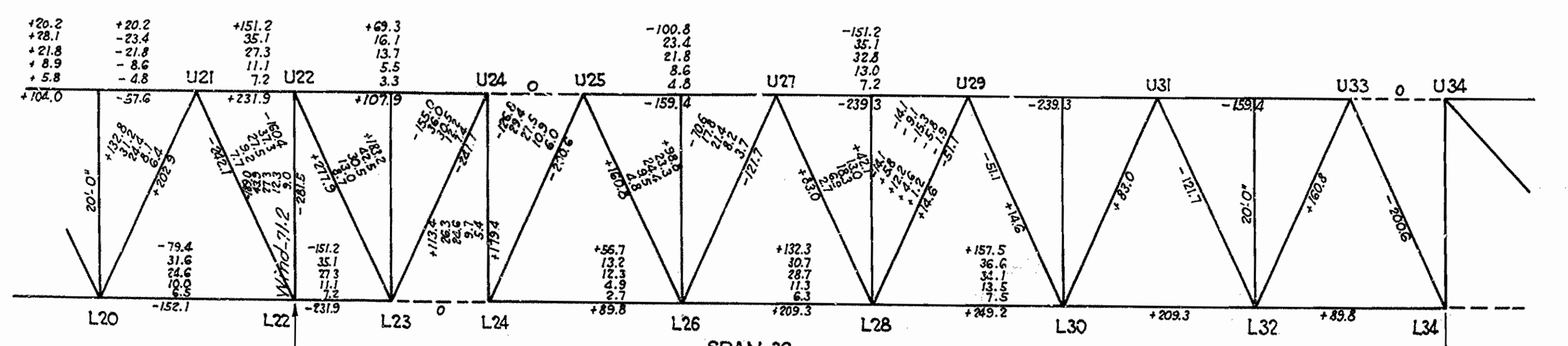
DESIGN STRESSES



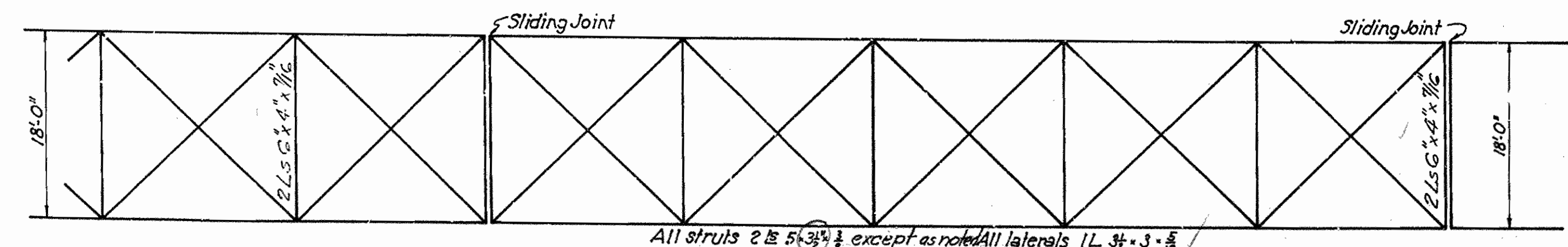
BOTTOM CHORD BRACING



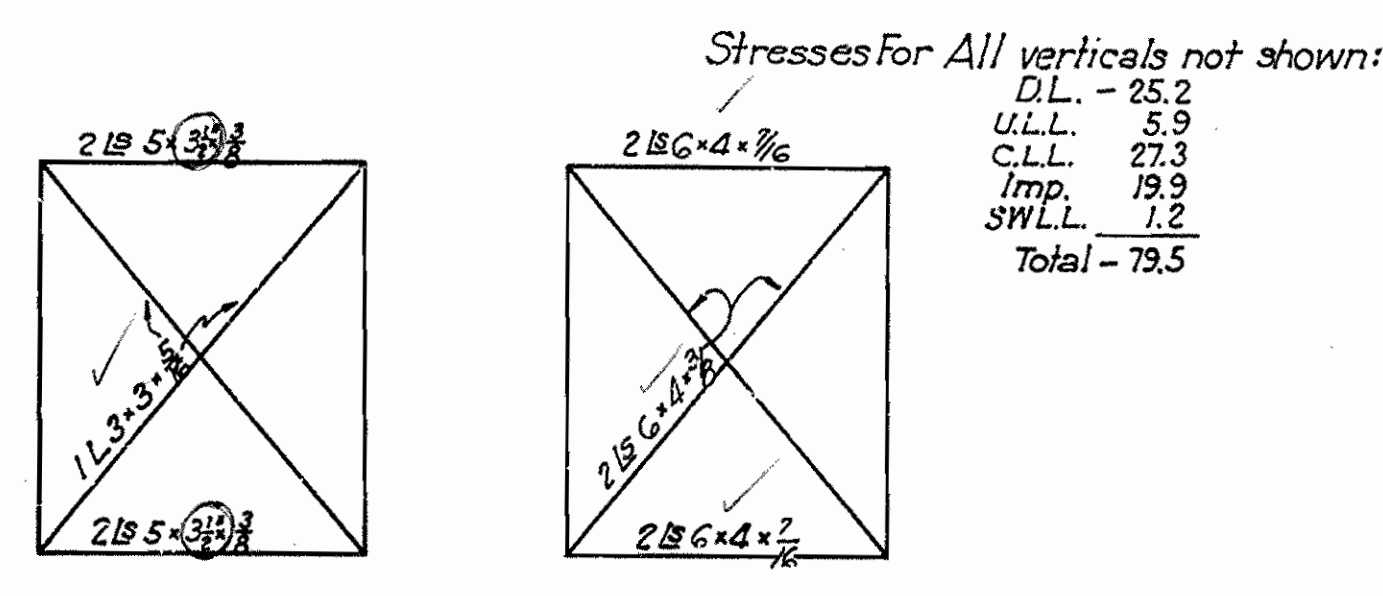
TOP CHORD BRACING



DESIGN STRESSES



BOTTOM CHORD BRACING



CROSS FRAME AT ALL VERTICALS CROSS FRAME AT PIERS

Stresses for All verticals not shown:
 D.L. - 25.2
 U.L.L. 5.9
 C.L.L. 27.3
 Imp. 19.9
 SWLL 1.2
 Total - 79.5

Note: Plus = Tension Minus = Compression
 Stresses are shown in order as follows:
 Dead Load
 Uniform Live Load
 Concentrated Live Load
 Impact
 Sidewalk Live Load (No Impact)
 Total

LOADS ON TRUSS
 Dead Load per ft. = 25.20*
 Uniform Live Load per ft. = 58.5*
 Concentrated Live Load = 27.300*
 Impact $\frac{36}{100} (L + 250)$
 Sidewalk Live Load per ft. = 120*
 LOADING H15

GENERAL NOTES FOR TRUSS SPANS: (22 to 33 INCL.)
 RIVETS: $\frac{3}{4}$ except; $\frac{1}{2}$ in rail connections and expansion devices and $\frac{3}{8}$ in flanges of C rail members.
 OPEN HOLES: To correspond in size to above. All holes in truss connections to be sub-punched $\frac{1}{8}$ smaller than rivet specified and reamed to $\frac{1}{8}$ larger than rivet specified during shop assembly. This applies to shop rivets as well as to field rivets. Members shall be match marked and a suitable diagram furnished for erection. All field connections shall be riveted.
 FLOOR SLAB: Concrete to be Class 'S'.
 SHOP PAINT: After being completely assembled and shop work is finished all pieces shall be given one coat of red lead and raw linseed oil before shipment. Omit painting of surfaces in contact with concrete.
 FIELD PAINT: First Coat - White lead tinted with lump black.
 Second Coat - Aluminum Paint.
 CAMBER: Trusses shall be cambered to fit the vertical curve shown on the layout as well as camber required for dead load only.
 SHAPES of equal or greater strength may be substituted for the structural shapes shown. Payment will be based on the weight of shapes shown or actually used, whichever is the lesser.
 DRAWINGS show general features of design only. Shop drawings shall be made in compliance with specifications, submitted and approval secured before fabrication is begun.
 SPECIFICATIONS: Arkansas Standard Specifications for Road and Bridge Construction, adopted March 1st, 1940.
 UNIT STRESSES: Concrete 800#/sq
 Reinforcing Steel 16000#/sq
 Structural Steel 18000#/sq
 ERECTION: Hoisting of roadway slabs shall follow complete erection of trusses not closer than three spans. Contractor shall furnish plan of erection, showing weight of equipment and erection stresses with 30% impact, for approval when shop drawings are submitted.

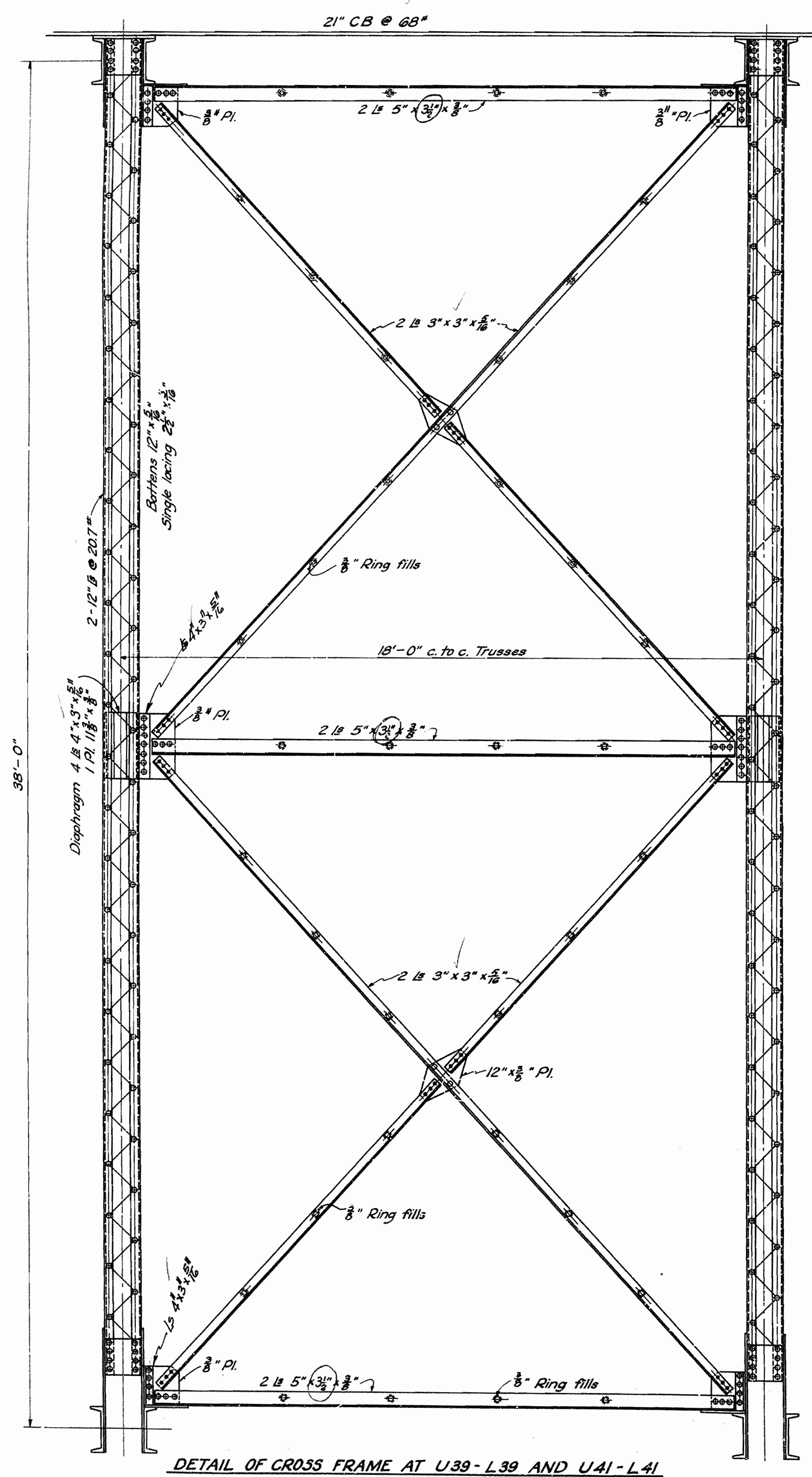
Revised 8-25-42
 REVISED Oct. 4, 1946 Size of Strut Angles

SPANS 22 to 30 INCL.
STRESS SHEET
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
LAWRENCE COUNTY

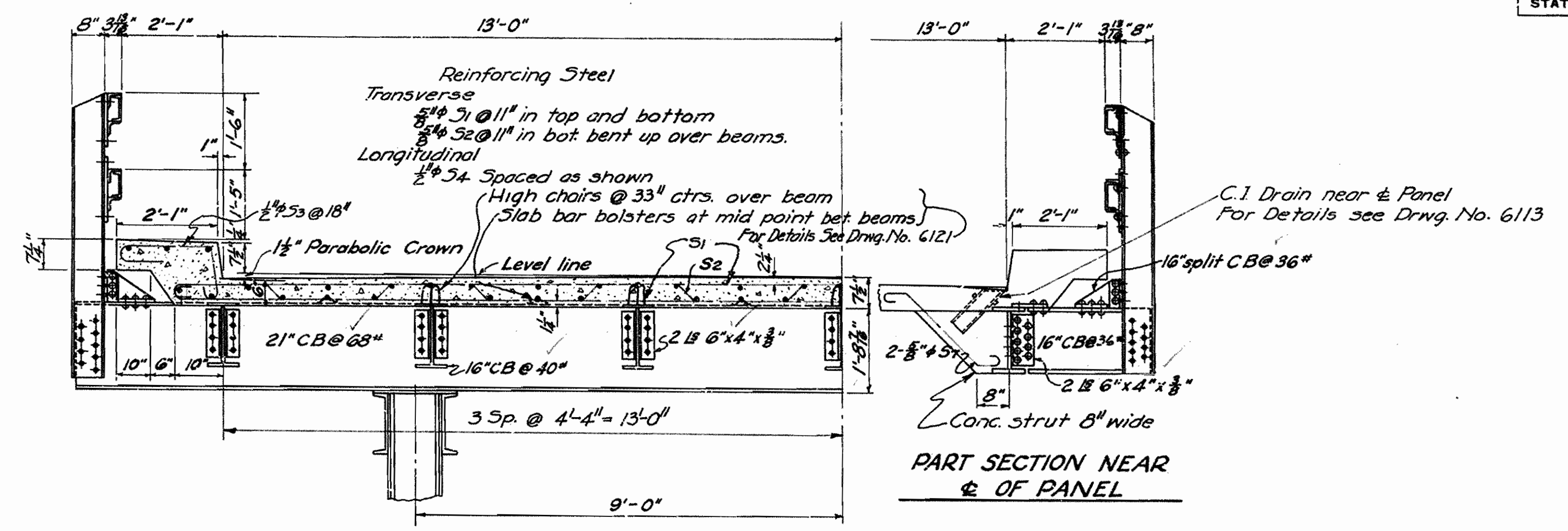
ROUTE 63 SEC. 3
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: L.P.C. Date: 9-11-40
 Traced By: E.A.W. Date: 9-30-40
 Checked By: _____ Date: _____
 BRIDGE NO. 2112 DRAWING NO. 6114

W.B. Lawry
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

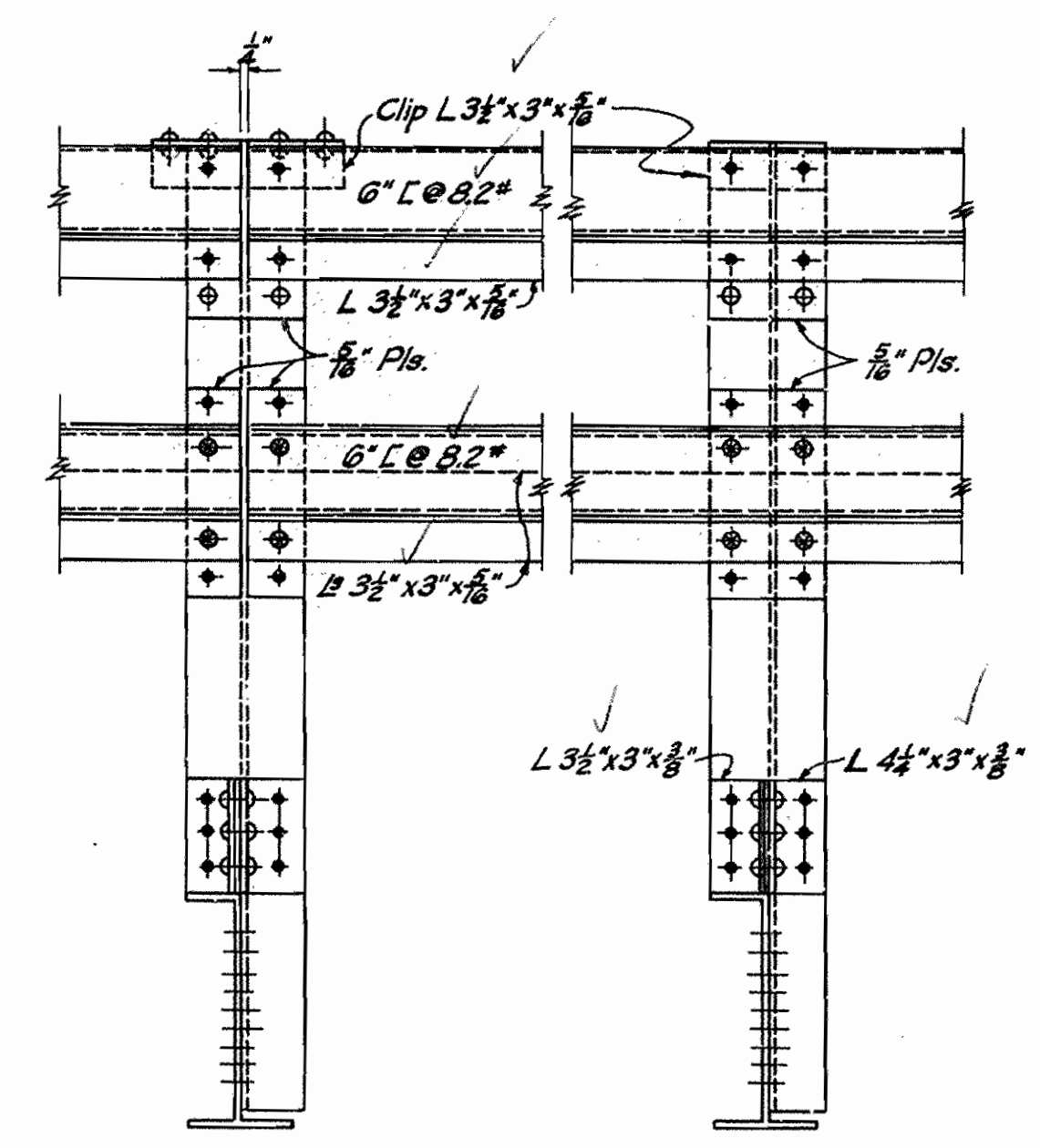
| FED. ROAD DIST. NO. | STATE | FED. AID PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|----------------------|-------------|-----------|--------------|
| 5 | ARK. | FAP-1455 A(3) | | 24 | 36 |
| STATE JOB NO. 10311 | | | | 24 | 36 |



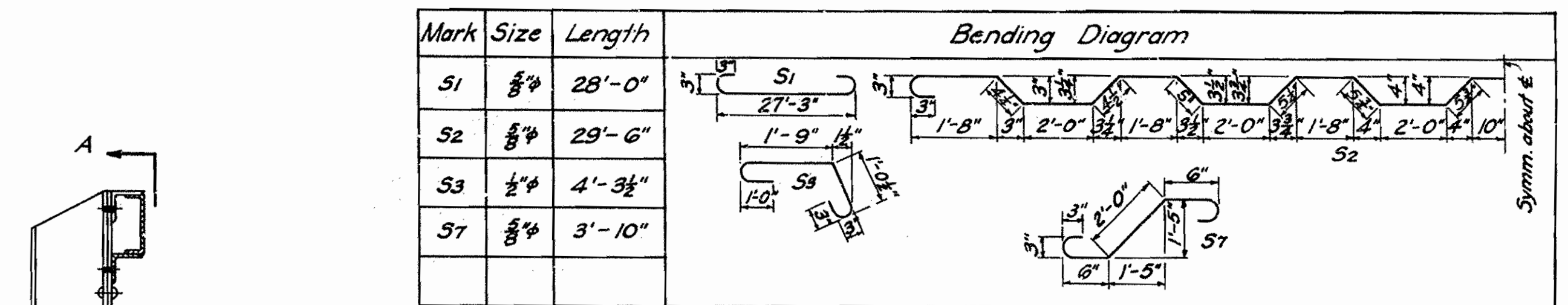
DETAIL OF CROSS FRAME AT U39-L39 AND U41-L41



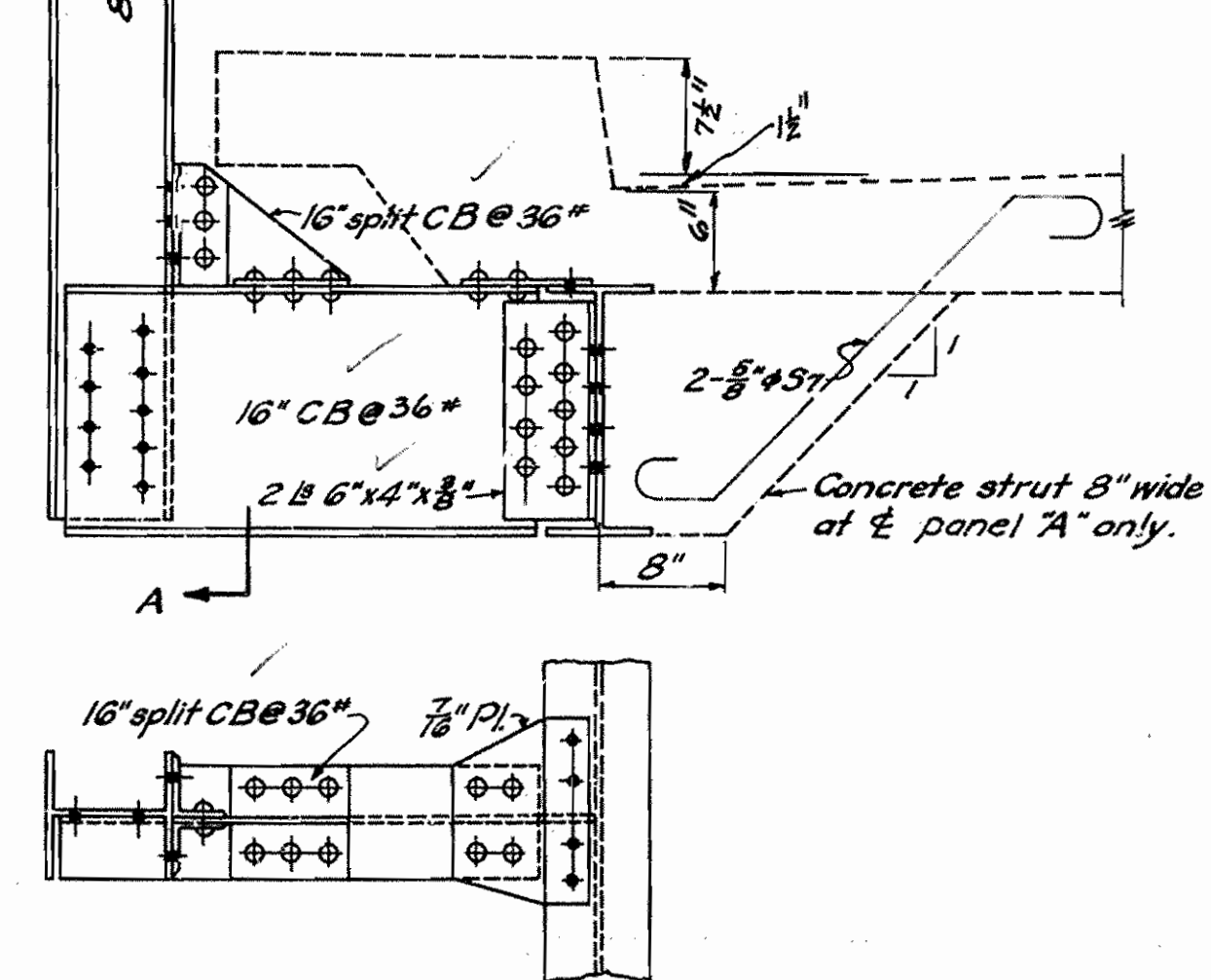
PART SECTION THRU SLAB NEAR END OF PANEL



SECTIONS A-A



HANDRAIL DETAILS
Scale: 1" = 1'-0"



Revised 8-28-42
REVISED Oct. 7, 1946 CrossFrame

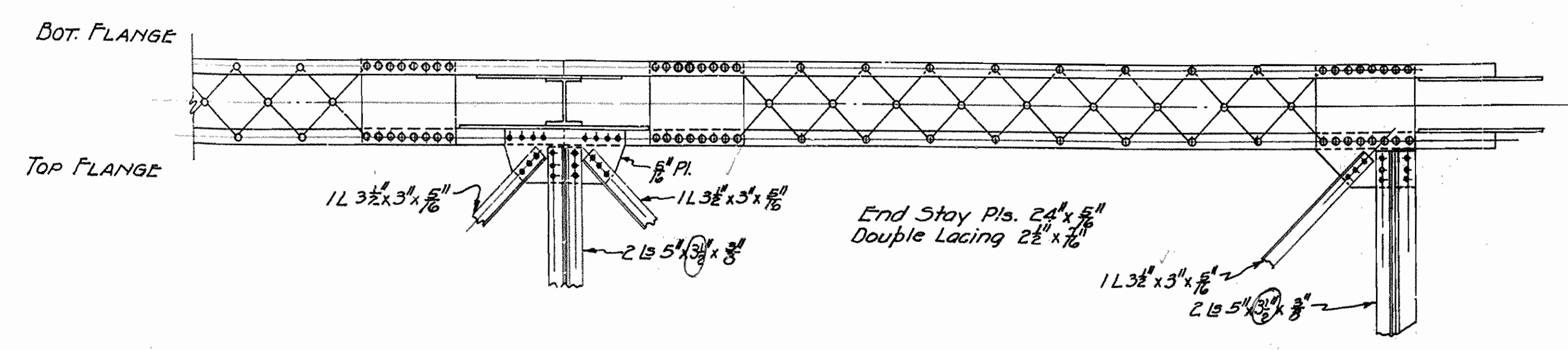
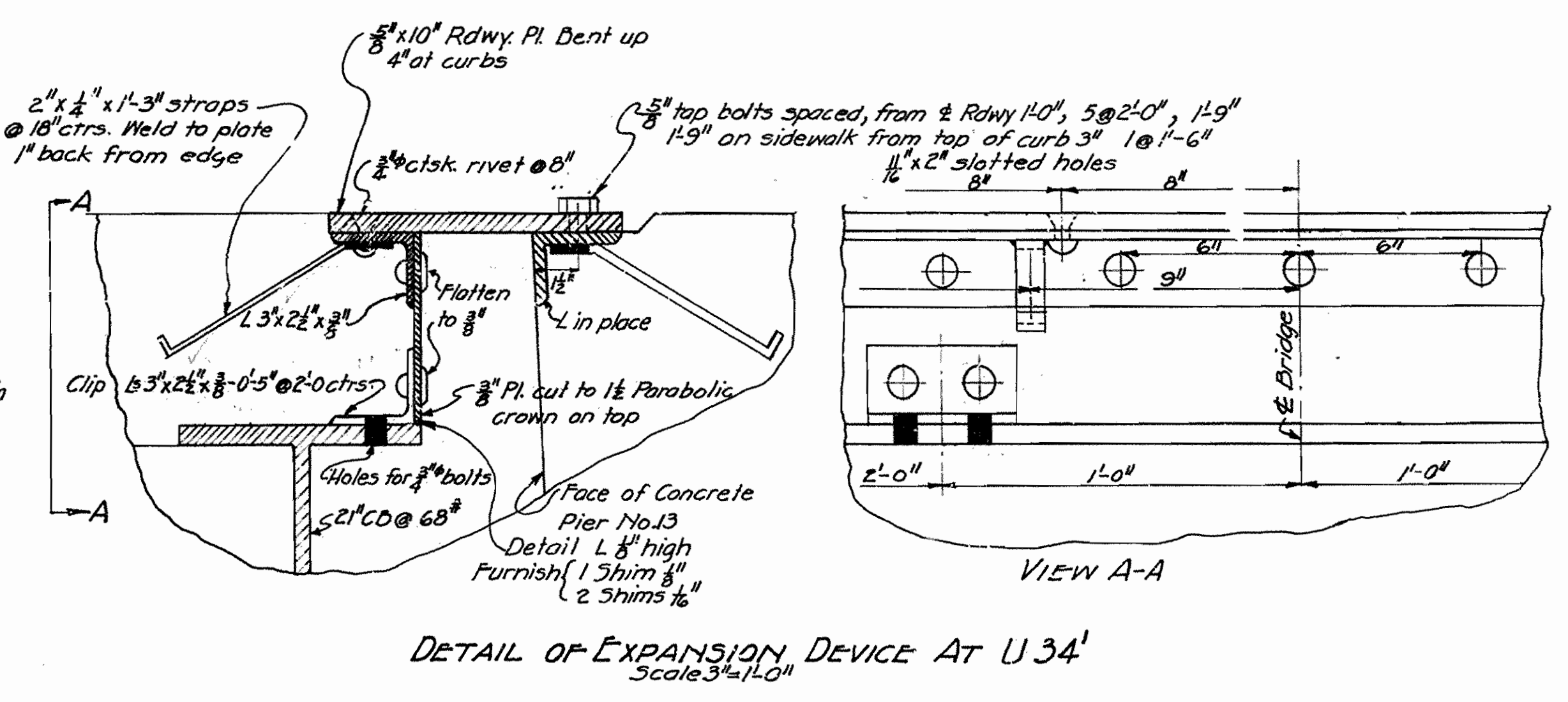
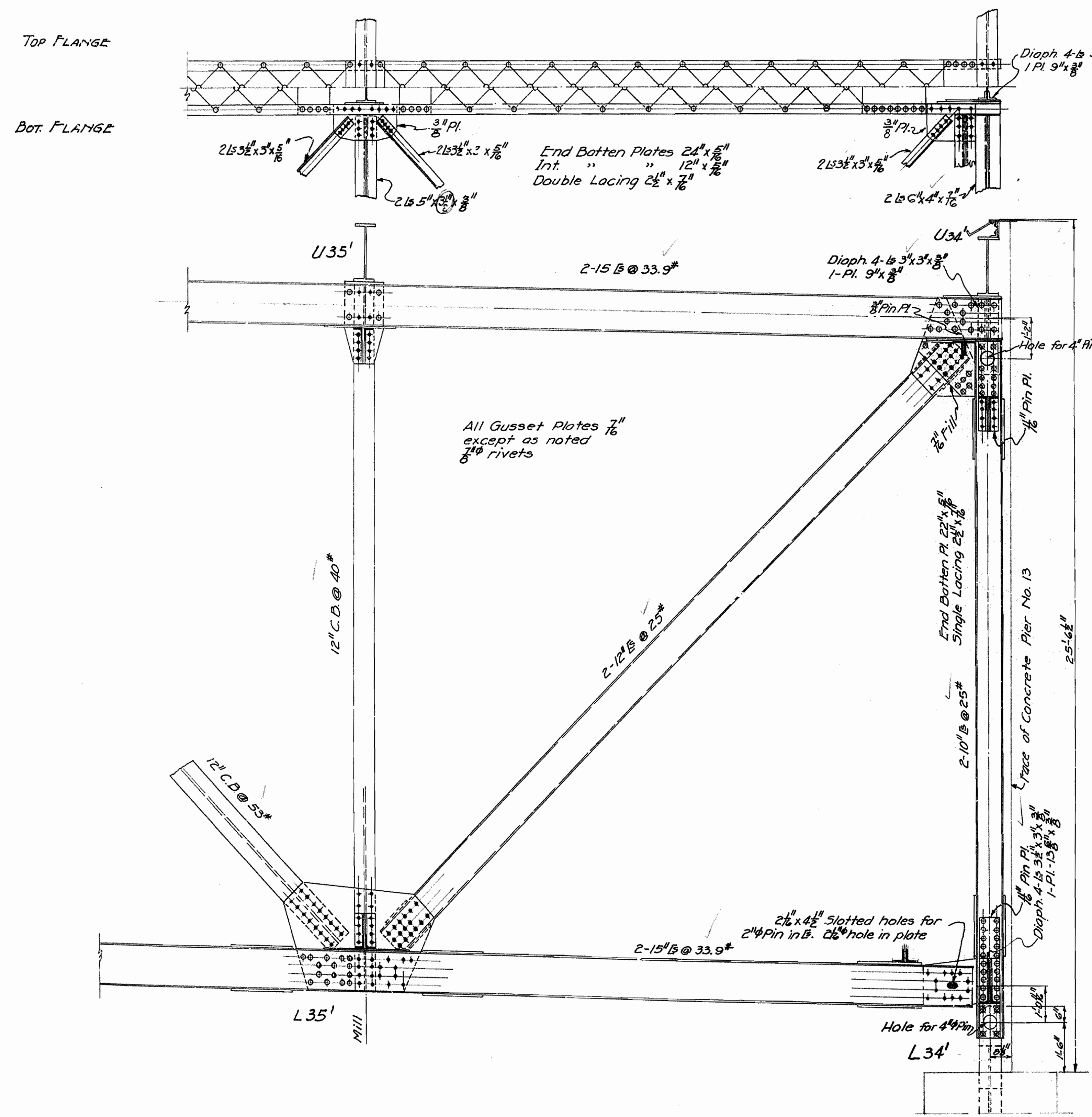
DETAILS OF 200' CANTILEVER SPAN
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
LAWRENCE COUNTY
ROUTE 63 SEC. 3

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
Drawn By: L.A.M. Date: 1-28-41
Traced By: E.R.B. Date: 2-13-41
Checked By: _____ Date: _____
BRIDGE NO. 2112 DRAWING NO. 6128

M. J. Jones
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

Scale: 1/2 in. = 1'-0 ft. and as noted

| FED. ROAD DIST. NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|---------------|-------------|-----------|--------------|
| 6 | ARK. | FAP-F-435A(3) | | 23 | 36 |
| STATE JOB NO. 10311 | | | | 23 | 36 |



Revised 8-28-42
REVISED Oct. 7, 1940 Struts

DETAILS OF
200'-0" CANTILEVER SPAN
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARK.
LAWRENCE COUNTY
ROUTE 63 SEC. 3

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

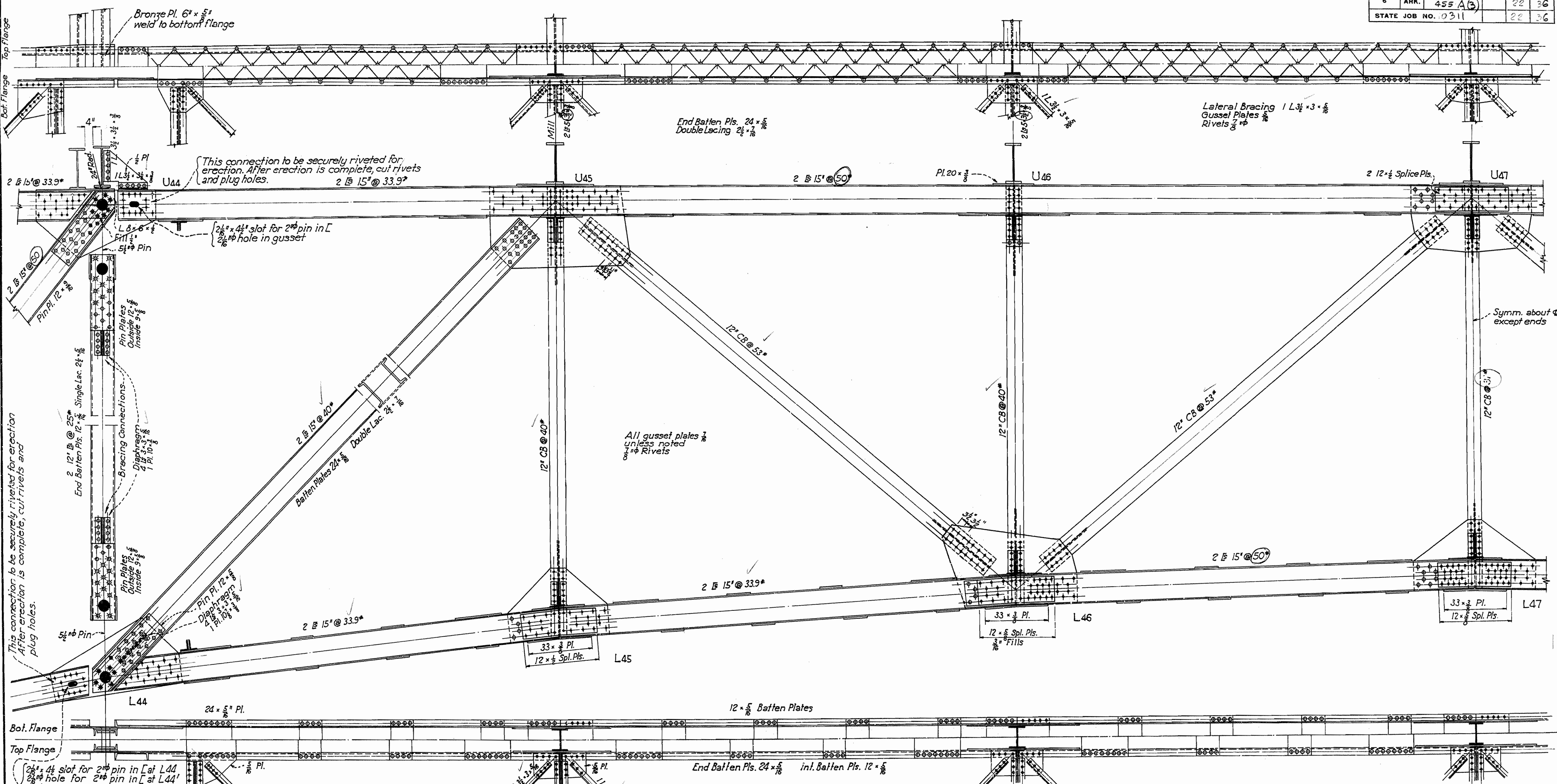
Drawn By: LAME Date: 2-12-41
Traced By: LAME Date: 2-18-41
Checked By: _____ Date: _____

Scale: 1/2" = 1 ft.
and as noted

BRIDGE NO. 2112 DRAWING NO. 6127

M. O. Lanier
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

| FED. ROAD DIST. NO. | STATE | FED. AID PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS | |
|---------------------|-------|----------------------|-------------|-----------|--------------|----|
| 6 | ARK. | 455 A(3) | | 22 | 36 | |
| STATE JOB NO. 0311 | | | | | 22 | 36 |



This connection to be securely riveted for erection. After erection is complete, cut rivets and plug holes.

This connection to be securely riveted for erection. After erection is complete, cut rivets and plug holes.

All gusset plates $\frac{7}{8}$ unless noted
 $\frac{7}{8} \phi$ Rivets

Symm. about c except ends

DETAILS OF 120' DECK TRUSS (SUSPENDED SPAN)
 BRIDGE OVER BLACK RIVER
 AT BLACK ROCK, ARKANSAS
 LAWRENCE COUNTY
 ROUTE G3 SEC. 3

Revised 8-27-42
 REVISIED Oct. 7, 1946 $L_{43} U_{44}, U_{45}, U_{46}, L_{47}, L_{48}, L_{49}, L_{50}$
 L_{44}, L_{47} & Struts

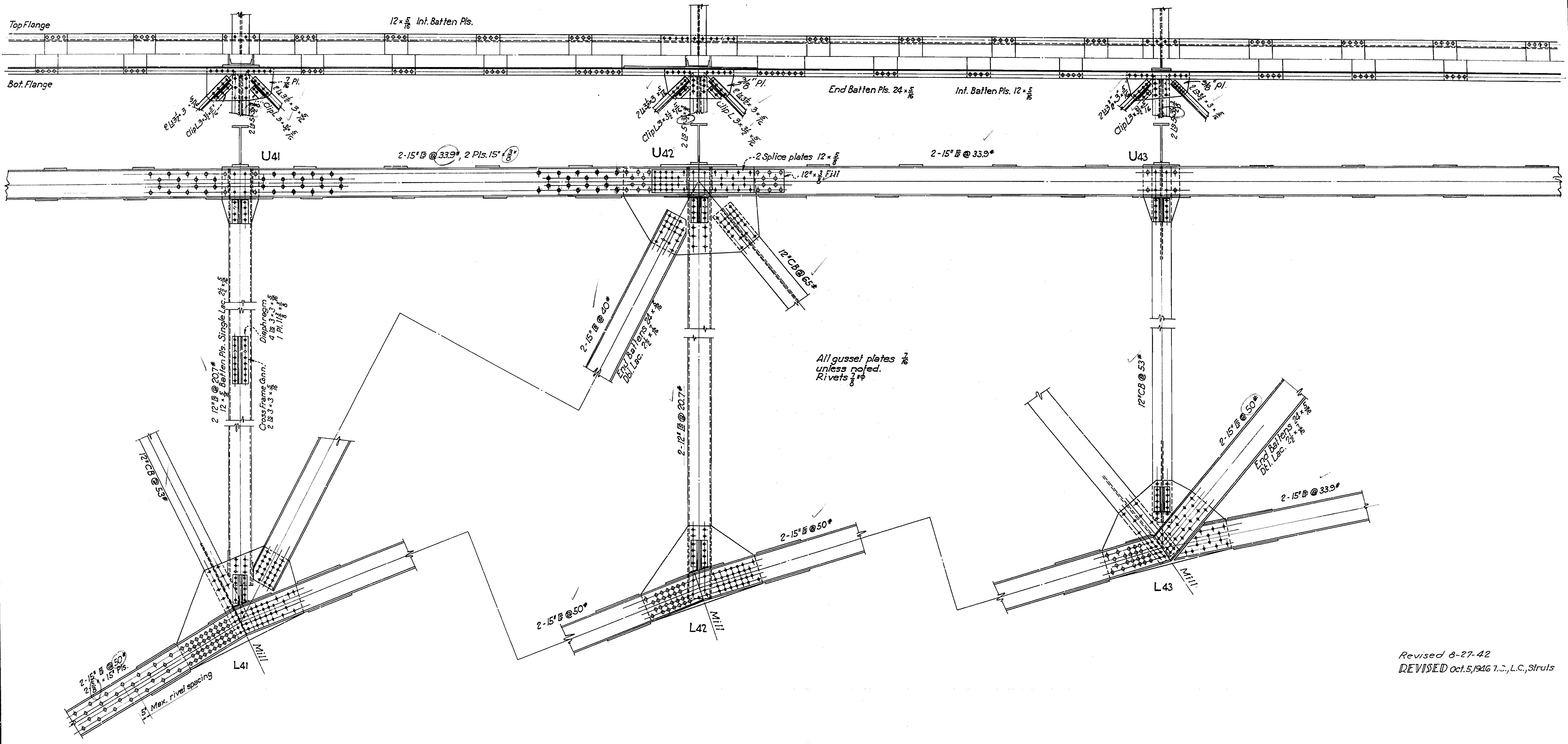
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: L.A.M.C. Date: 10-4-40
 Traced By: E.A.W. Date: 10-23-40
 Checked By: _____ Date: _____
 BRIDGE NO. 2112 DRAWING NO. 6126

M.C. Lawrence
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

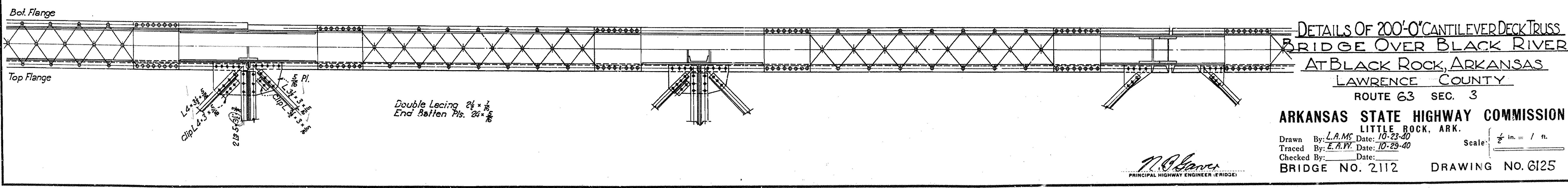
Scale: 1/2 in. = 1 ft.

PRINTED ON RECYCLED PAPER

| FED. ROAD DIST. NO. | STATE | Fed. Aid PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS | |
|---------------------|-------|----------------------|-------------|-----------|--------------|----|
| 6 | ARK. | 485 A (C) | | 21 | 36 | |
| STATE JOB NO. 10311 | | | | | 21 | 36 |



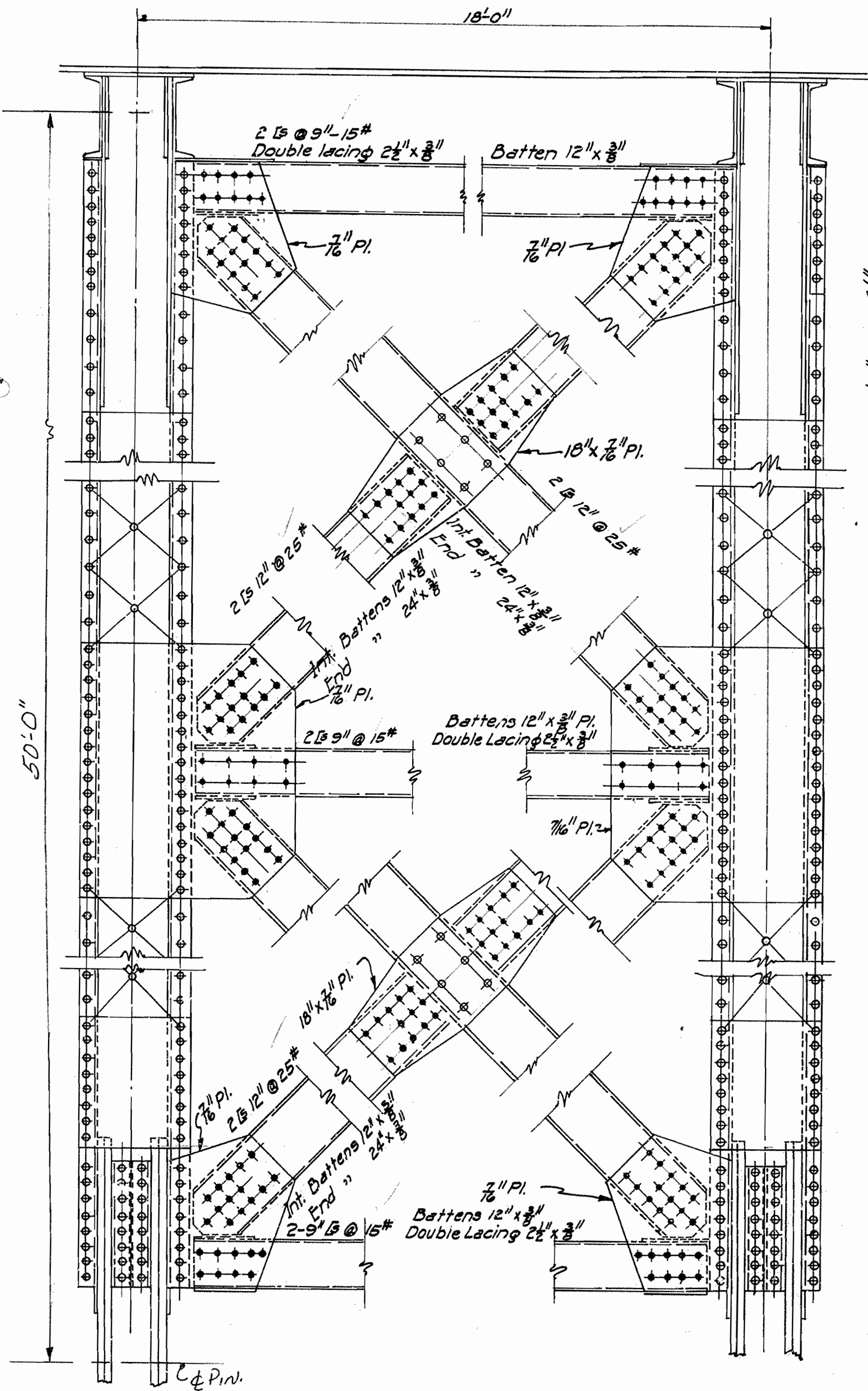
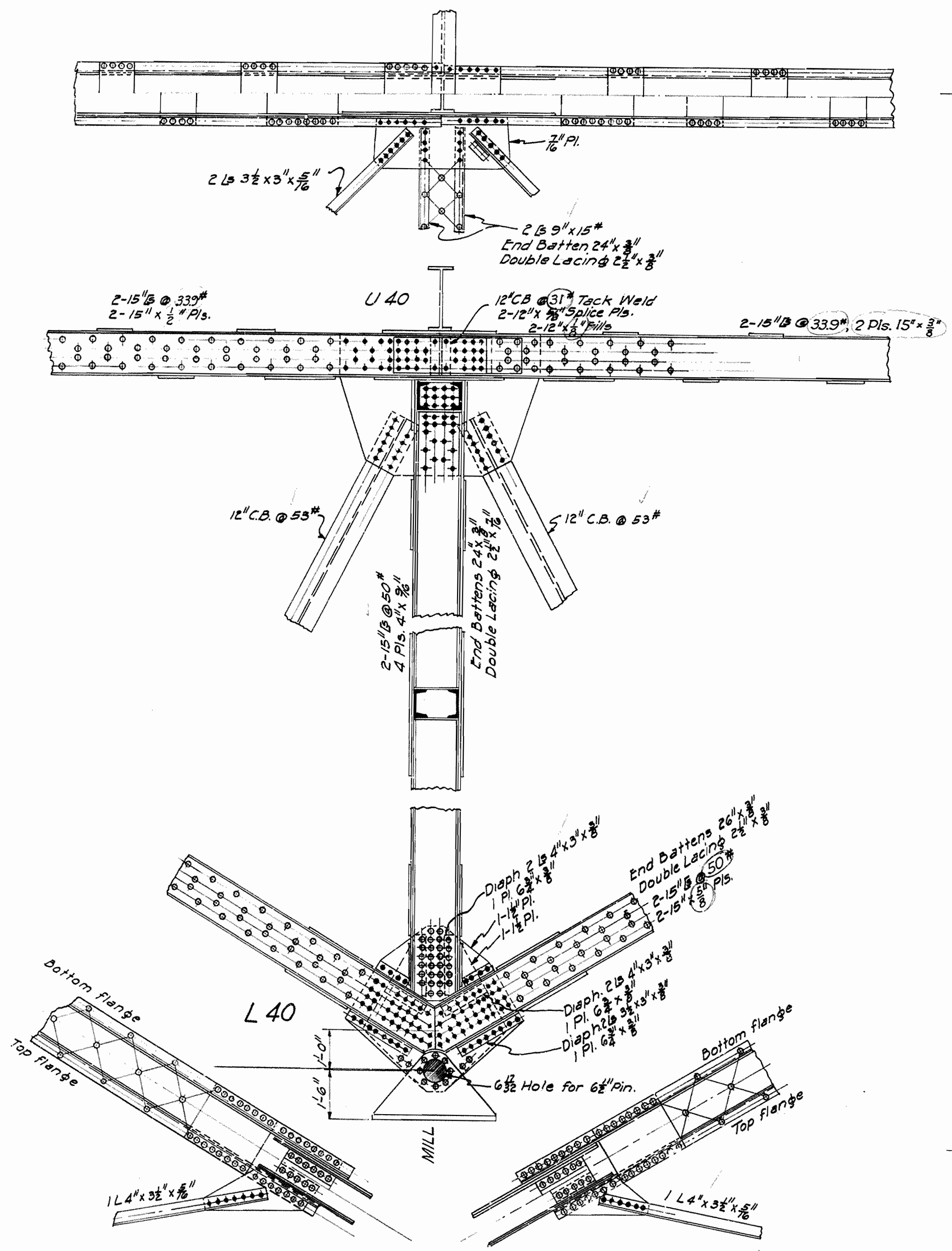
Revised 8-27-42
REVISED Oct. 5, 1946 T.C., L.C., Struts



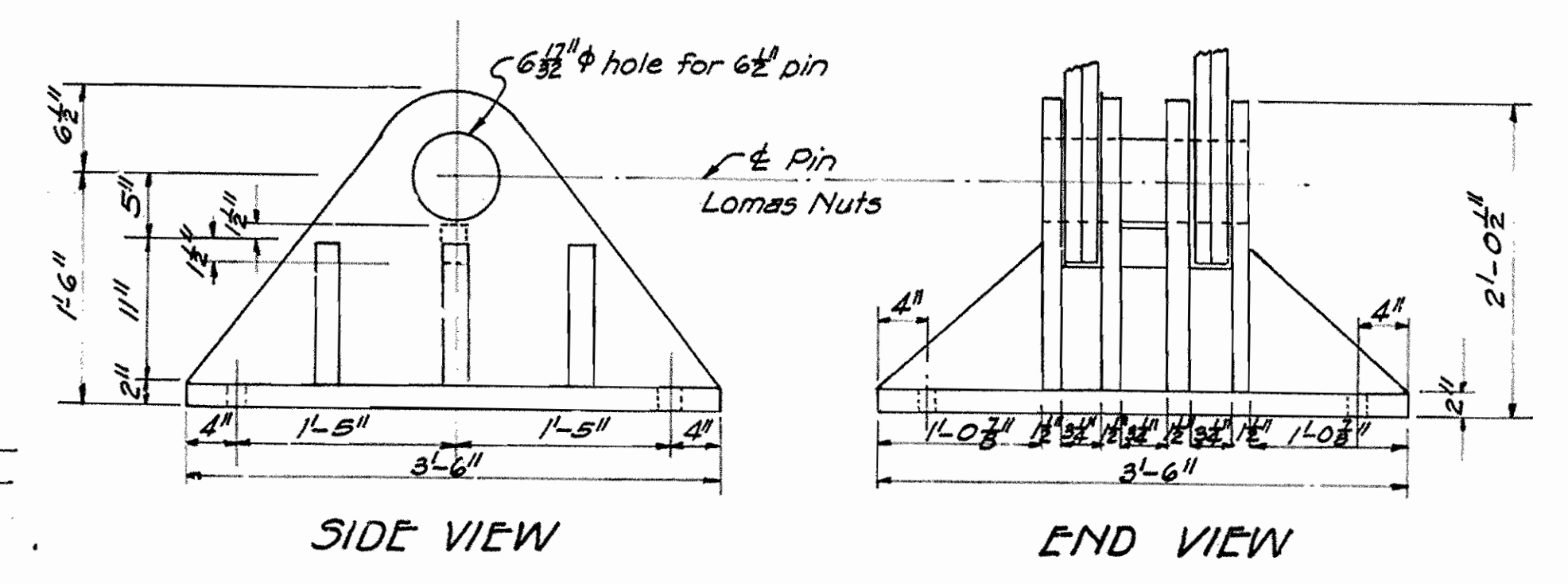
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
Drawn By: L.A.M.S. Date: 10-23-40
Traced By: E.A.V. Date: 10-29-40
Checked By: _____ Date: _____
Scale: 1/2 in. = 1 ft.
BRIDGE NO. 2112 DRAWING NO. 6125

T.O. Glavin
PRINCIPAL HIGHWAY ENGINEER (ERIDGE)

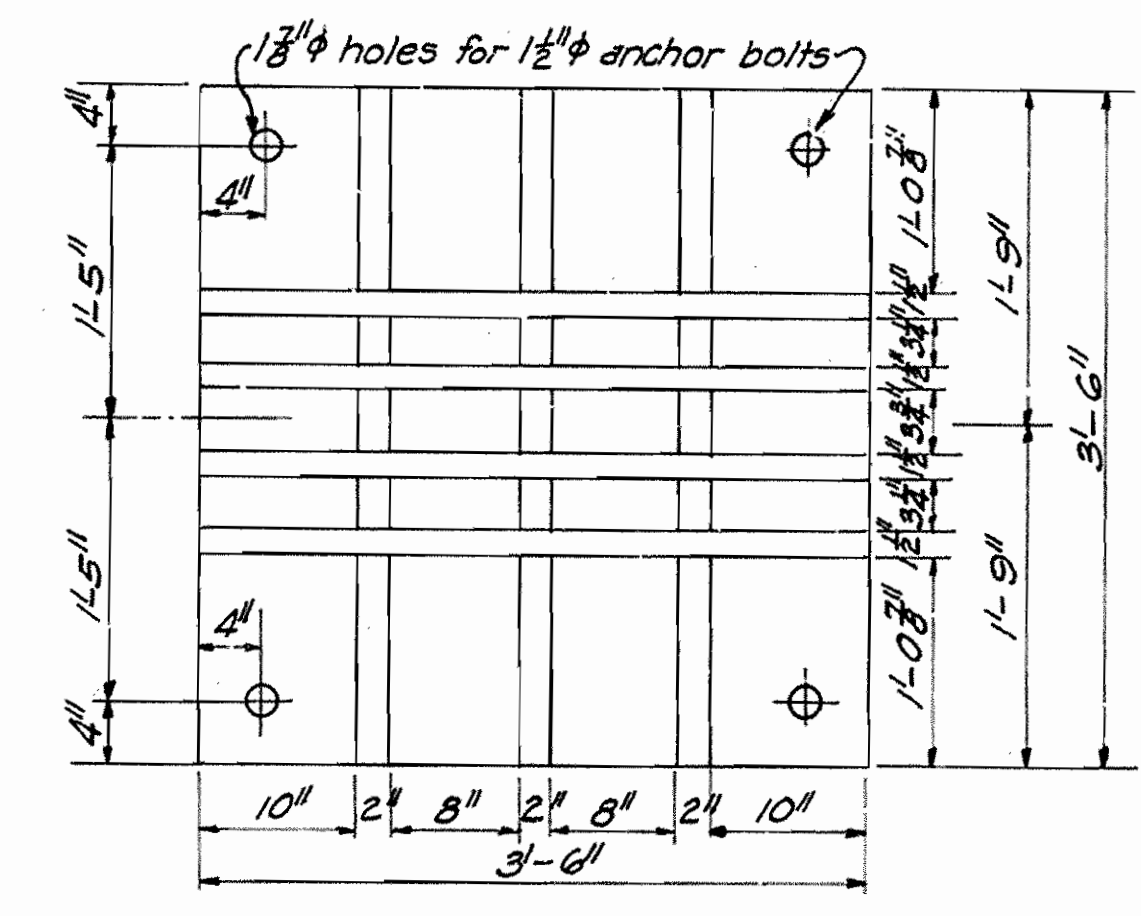
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|---------------------|-------|--------------|-------------|-----------|--------------|
| 6 | ARK. | FAP-495 A(3) | | 20 | 36 |
| STATE JOB NO. 10311 | | | | 20 | 36 |



CROSS FRAME U40-L40
Scale 3/4" = 1'-0"



SIDE VIEW
END VIEW



TOP VIEW
DETAILS OF SHOES AT L6
CAST STEEL
Scale 1" = 1'-0"

REVISED Oct. 5, 1946 T.C., L.C.

DETAILS OF 200' CANTILEVER SPAN
BRIDGE OVER BLACK RIVER
AT BLACK ROCK ARKANSAS
LAWRENCE COUNTY

ROUTE 63 SEC. 3

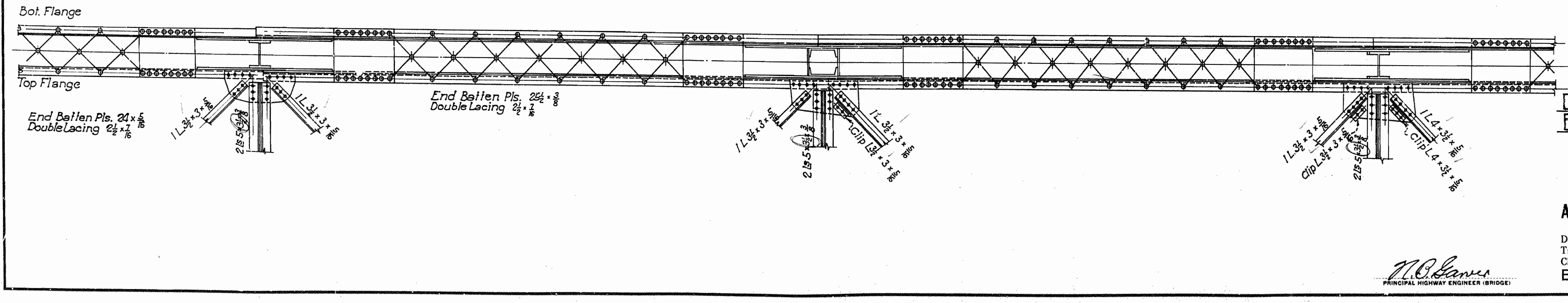
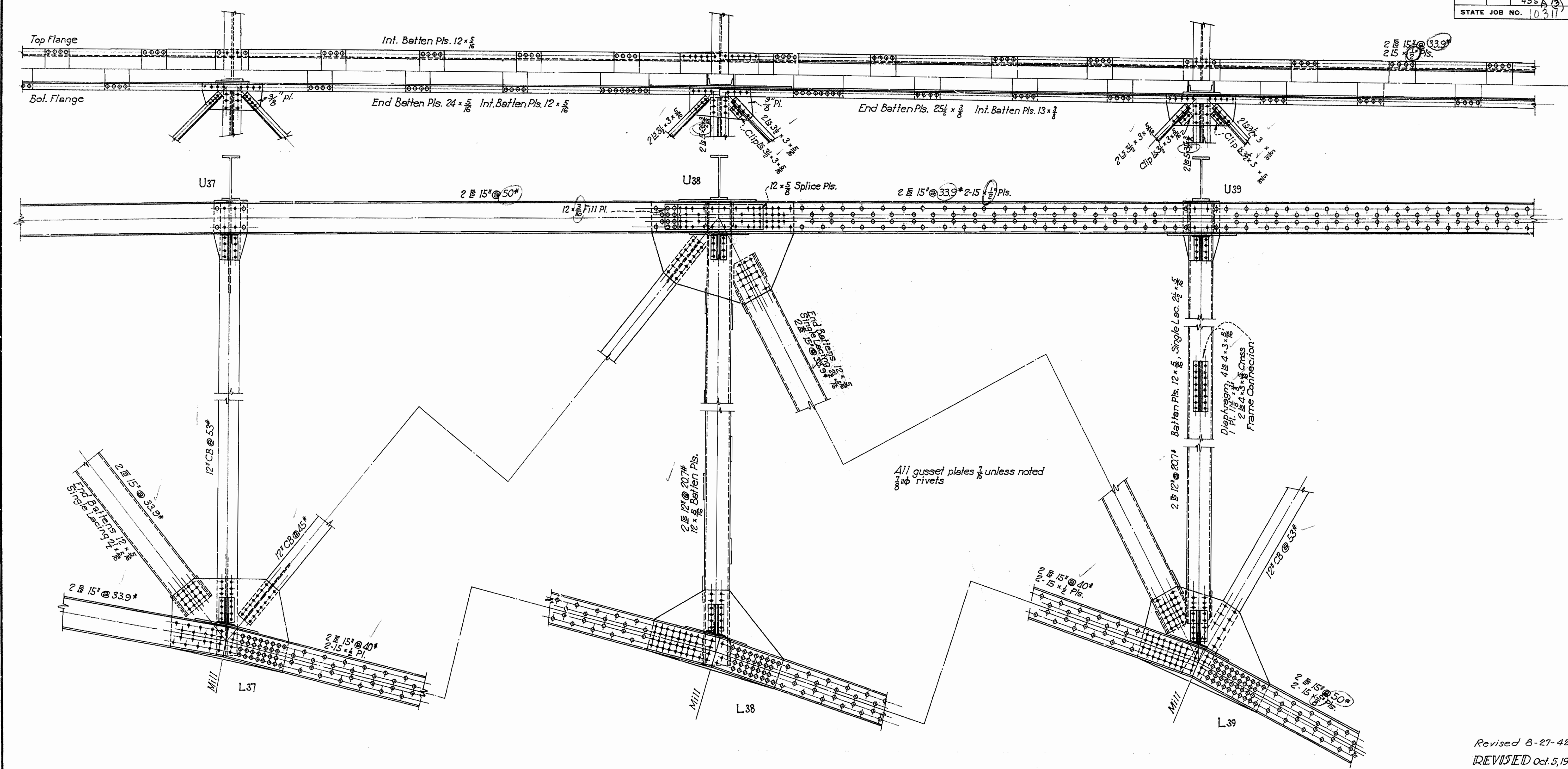
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

Drawn By: L.A.M. Date: 9-19-42
Traced By: L.A.M. Date: 10-1-42
Checked By: _____ Date: _____
Scale: 1/2" = 1' & As Noted

BRIDGE NO. 2112 DRAWING NO. 6124

M.B. Garner
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

| | | | | | |
|---------------------|-------|-----------------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | Fed. Aid PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | 5 A P - F - 455 A (3) | 19 | 36 | 36 |
| STATE JOB NO. 10317 | | | | | 19 |



Revised 8-27-42
 REVISED Oct. 5, 1946 T.C., L.C., Struts

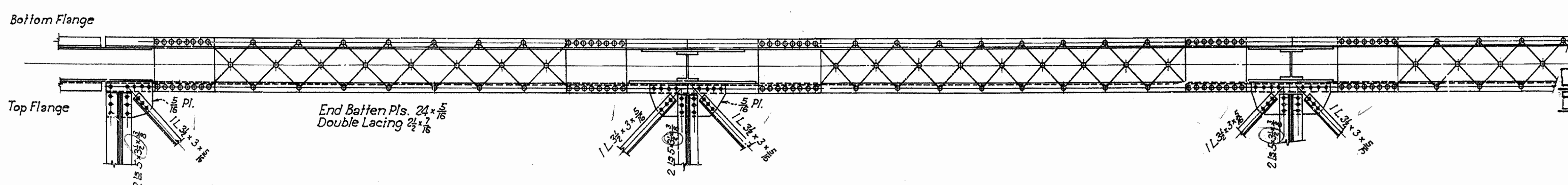
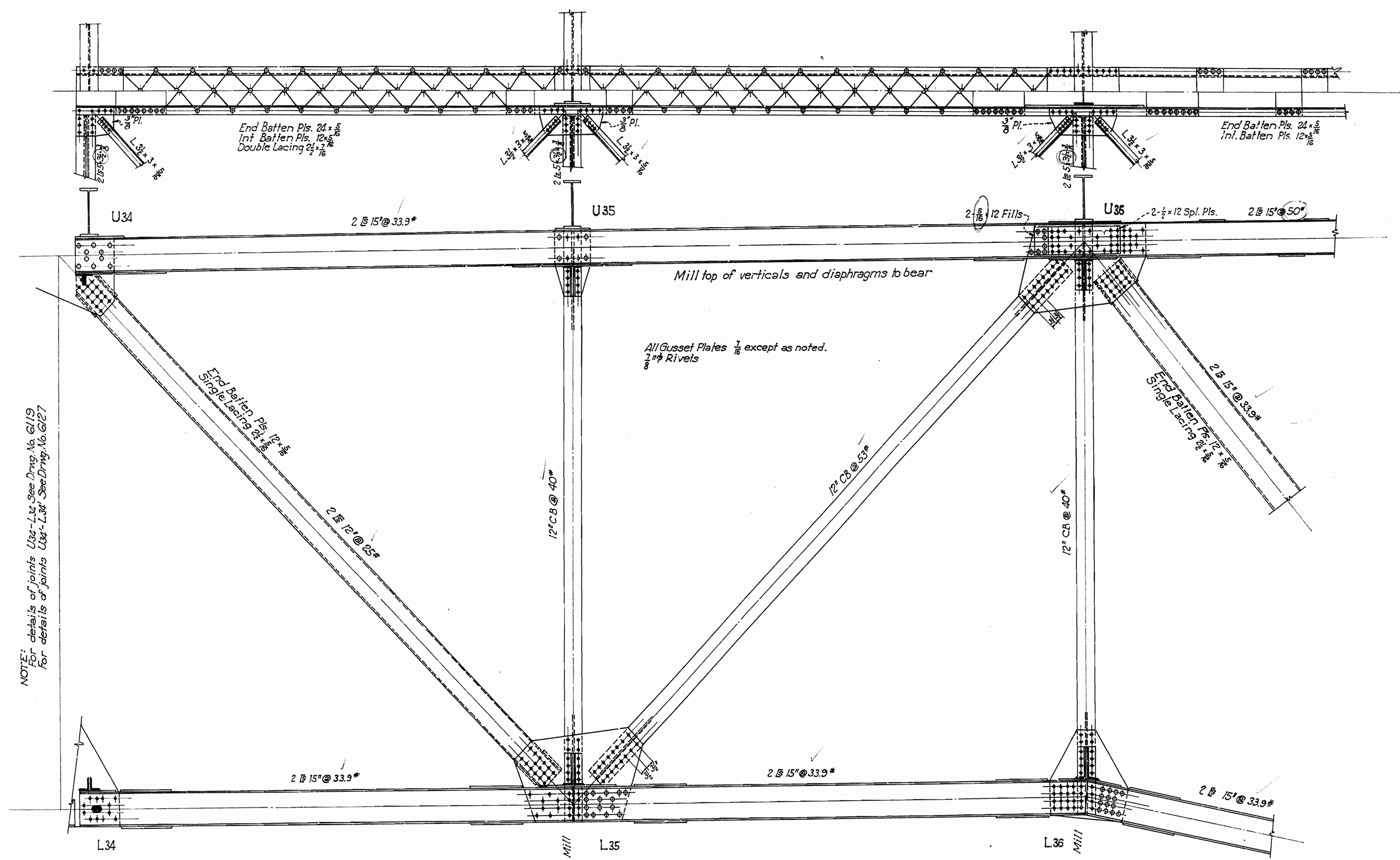
DETAILS OF 200' CANTILEVER SPAN
 BRIDGE OVER BLACK RIVER
 AT BLACK ROCK, ARKANSAS
 LAWRENCE COUNTY
 ROUTE 63 SEC. 3

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: L.A.M.S. Date: 11-12-40
 Traced By: E.A.V. Date: 11-25-40
 Checked By: _____ Date: _____
 BRIDGE NO. 2112 DRAWING NO. 6123

N.O. Lawrence
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

Scale: 1/2 in. = 1 ft.

| FED. ROAD DIST. NO. | STATE | PROJ. DIST. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|-----------------|-------------|-----------|--------------|
| 6 | ARK. | 455-A(3) | | 18 | 36 |
| STATE JOB NO. 10311 | | | | 18 | 36 |



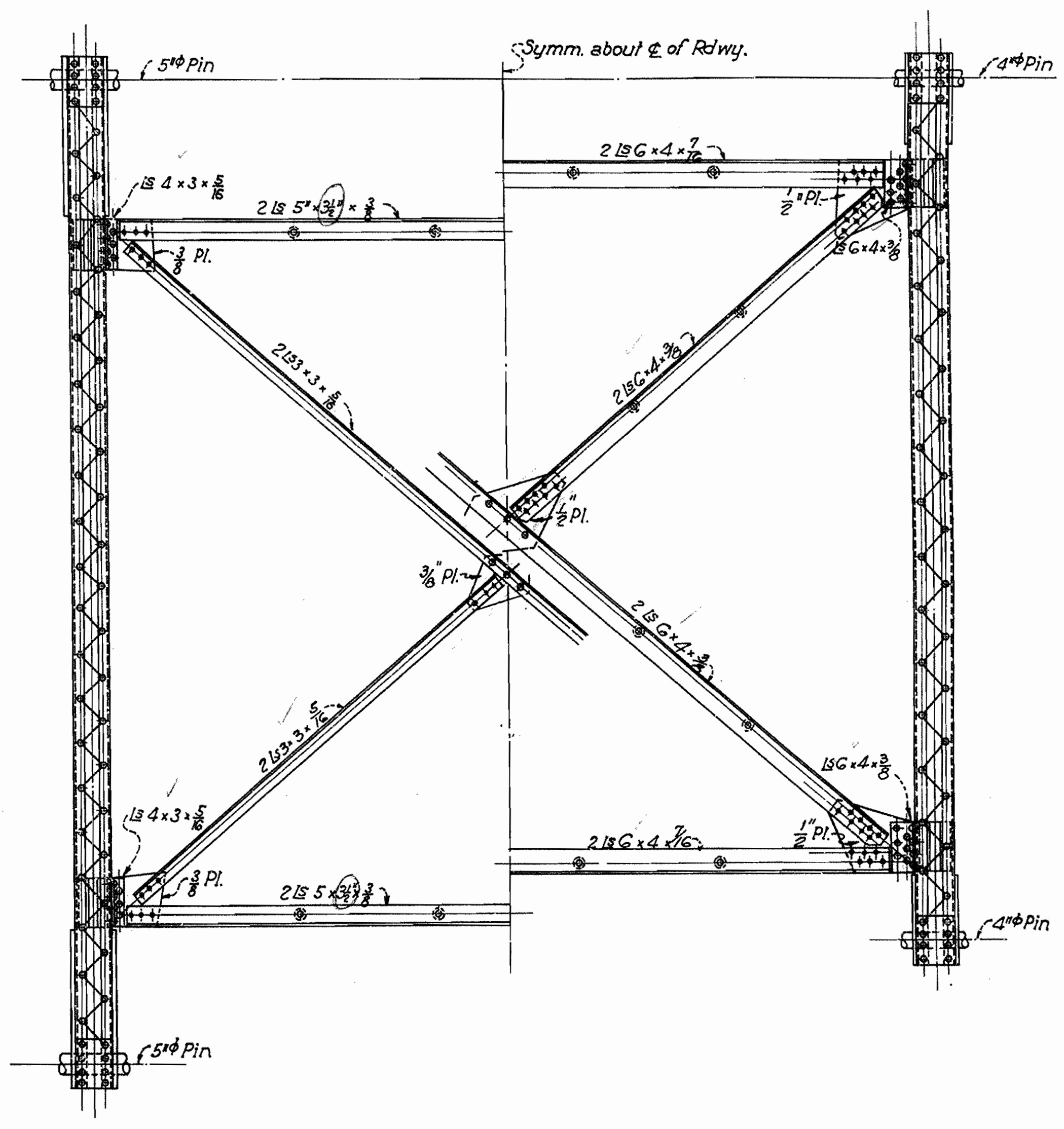
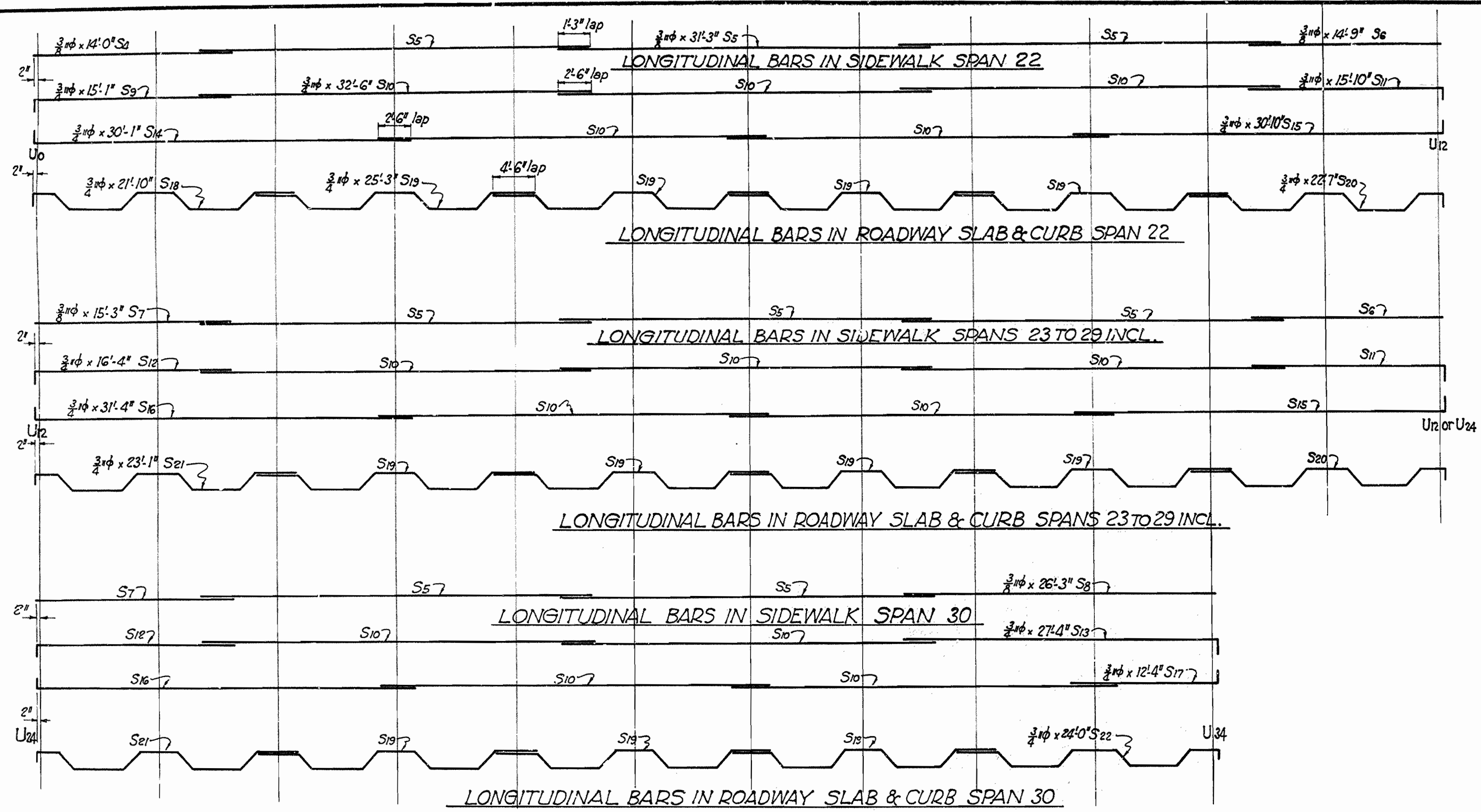
Revised 8-27-42
 REVISED Oct. 5, 1946 Use U31, Struts

DETAILS OF 200' CANTILEVER SPAN
 BRIDGE OVER BLACK RIVER
 AT BLACK ROCK, ARKANSAS
 LAWRENCE COUNTY
 ROUTE 63 SEC. 3

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: L.A.M.S. Date: 11-18-40
 Traced By: E.A.W. Date: 11-29-40
 Checked By: _____ Date: _____
 Scale: 1/2 in. = 1 ft.
 BRIDGE NO. 2112 DRAWING NO. 6122

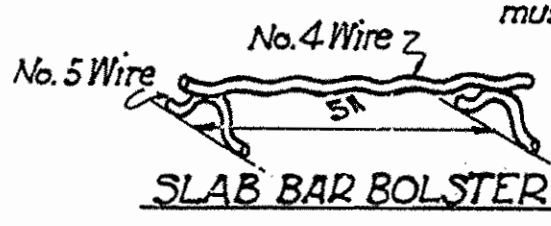
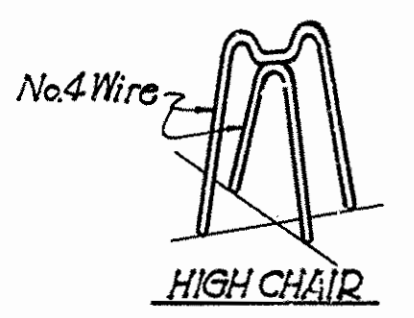
N.B. James
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

| | | | | | |
|---------------------|-------|----------------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | Fed. Aid PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | 455A(3) | | 17 | 36 |
| STATE JOB NO. 10311 | | | | 17 | 36 |

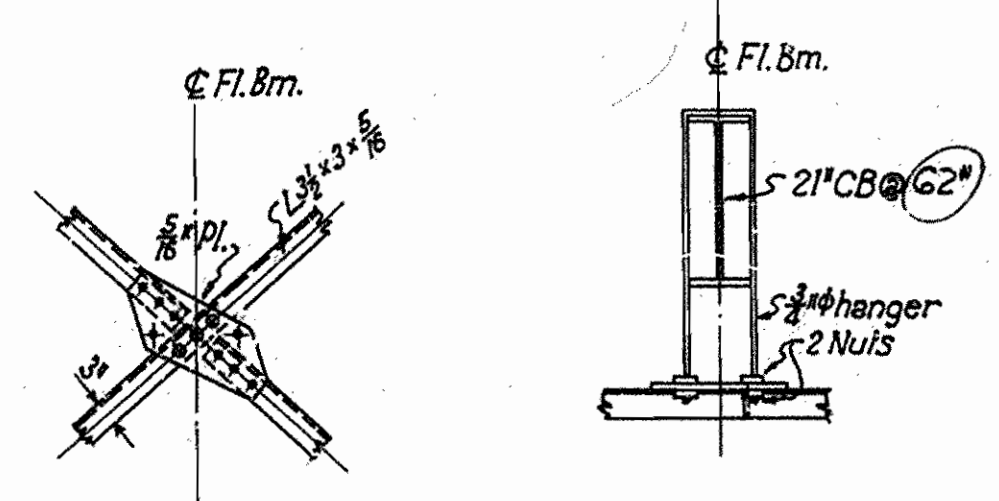


LIST OF SLAB BARS SPANS 22 TO 30 INCL.

| Mark | Size | Length | A | B | C | D | E | Bending Diagram |
|------|------|---------|-------------|-----------|------------|-------|-----------|-----------------|
| S3 | 3/8" | 4'-8" | | | | | | |
| S9 | 3/8" | 15'-1" | 14'-7 1/2" | 5 1/2" | | | | |
| S11 | 3/8" | 15'-10" | 15'-4 1/2" | 5 1/2" | | | | |
| S12 | 3/8" | 16'-4" | 15'-10 1/2" | 5 1/2" | | | | |
| S13 | 3/8" | 27'-4" | 26'-10 1/2" | 5 1/2" | | | | |
| S14 | 3/8" | 30'-1" | 29'-7 1/2" | 5 1/2" | | | | |
| S15 | 3/8" | 30'-10" | 30'-4 1/2" | 5 1/2" | | | | |
| S16 | 3/8" | 31'-4" | 30'-10 1/2" | 5 1/2" | | | | |
| S17 | 3/8" | 12'-4" | 11'-10 1/2" | 5 1/2" | | | | |
| S18 | 3/8" | 21'-10" | 1'-9" | 4'-1" | 3'-8" | 5'-0" | 4'-3 1/2" | |
| S20 | 3/8" | 22'-7" | 1'-11" | 4'-6" | 3'-10" | 5'-0" | 4'-3 1/2" | |
| S21 | 3/8" | 23'-1" | 2'-0 1/2" | 4'-9" | 3'-11 1/2" | 5'-0" | 4'-3 1/2" | |
| S22 | 3/8" | 24'-0" | 2'-3 1/2" | 5'-2 1/2" | 4'-2" | 5'-0" | 4'-3 1/2" | |
| S19 | 3/8" | 25'-3" | | | | | | |
| S1 | 5/8" | 27'-6" | | | | | | |
| S2 | 1/2" | 27'-6" | | | | | | |
| S4 | 3/8" | 14'-0" | | | | | | |
| S5 | 3/8" | 21'-3" | | | | | | |
| S6 | 3/8" | 14'-9" | | | | | | |
| S7 | 3/8" | 15'-3" | | | | | | |
| S8 | 3/8" | 26'-3" | | | | | | |
| S10 | 3/8" | 32'-6" | | | | | | |



All reinforcing steel shall be accurately located in the forms and firmly held in place by means of steel wire chair supports adequate to prevent displacement during the course of construction and to keep the steel at a proper distance from the forms. Bar supports are to be sufficient in number and sufficiently heavy to properly carry the steel they support. Wire sizes shall not be less than shown. Wire supports will not be paid for directly, but will be considered subsidiary to the item of Reinforcing Steel. Shop lists and diagrams must be submitted for approval.



CROSS FRAME'S AT HANGERS CROSS FRAME AT L34-U34

Revised 8-26-42
REVISED Oct. 5, 1946 Fl. Beam and Struts

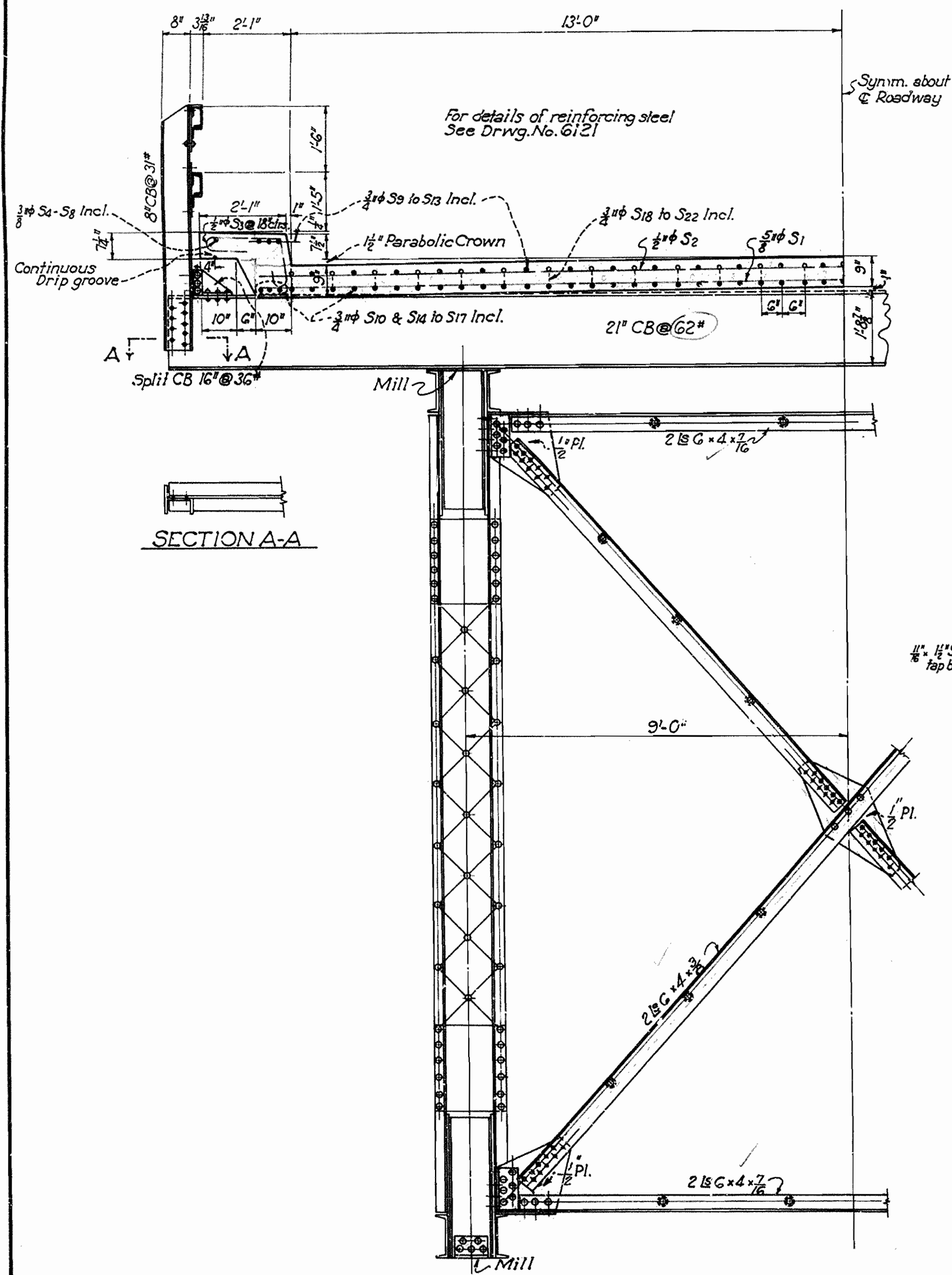
DETAILS OF CROSS FRAMES & REINFORCING STEEL
SPANS 22 TO 30 INCLUSIVE
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
LAWRENCE COUNTY
ROUTE 63 SEC. 3

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

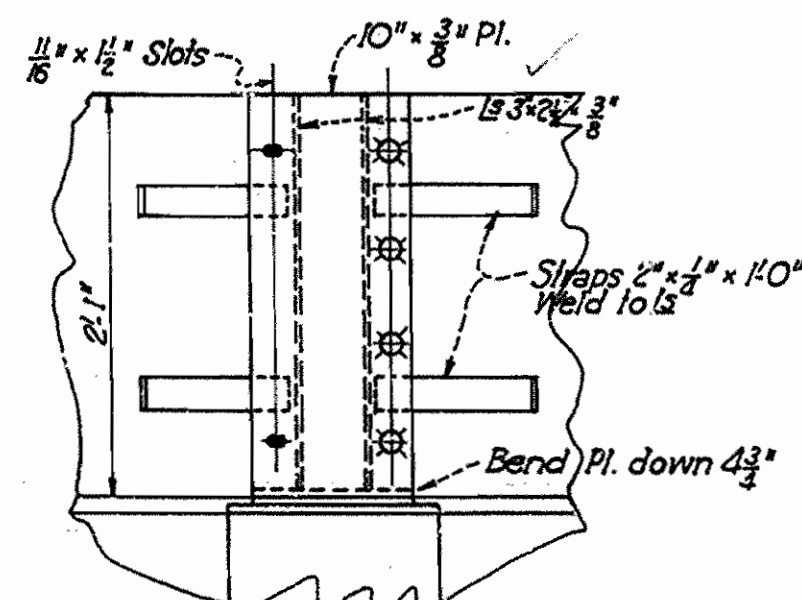
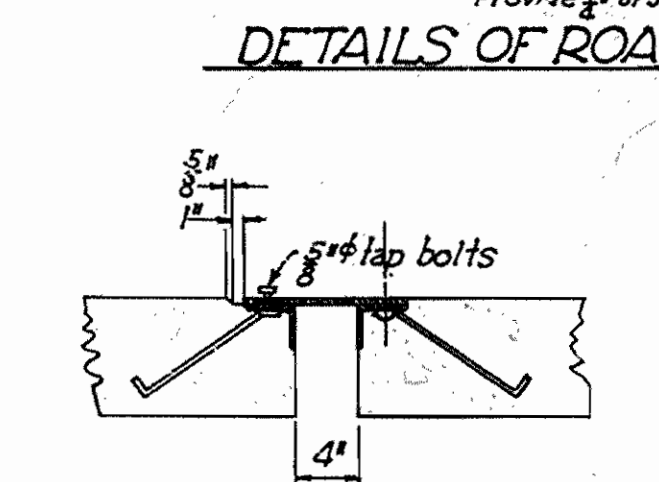
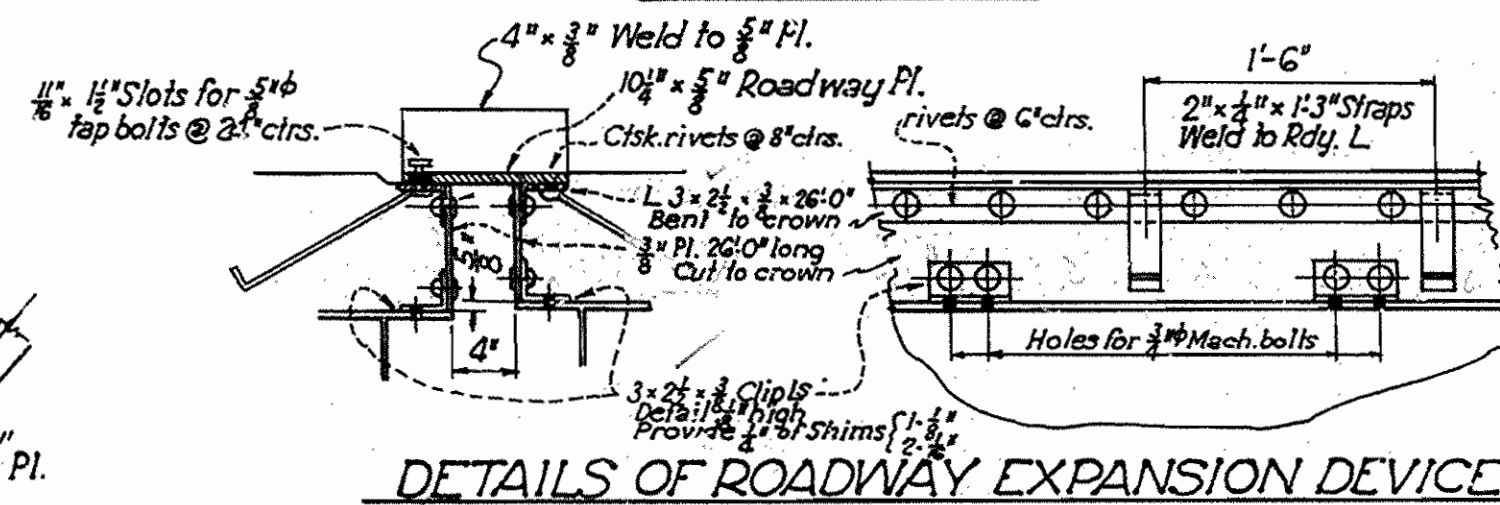
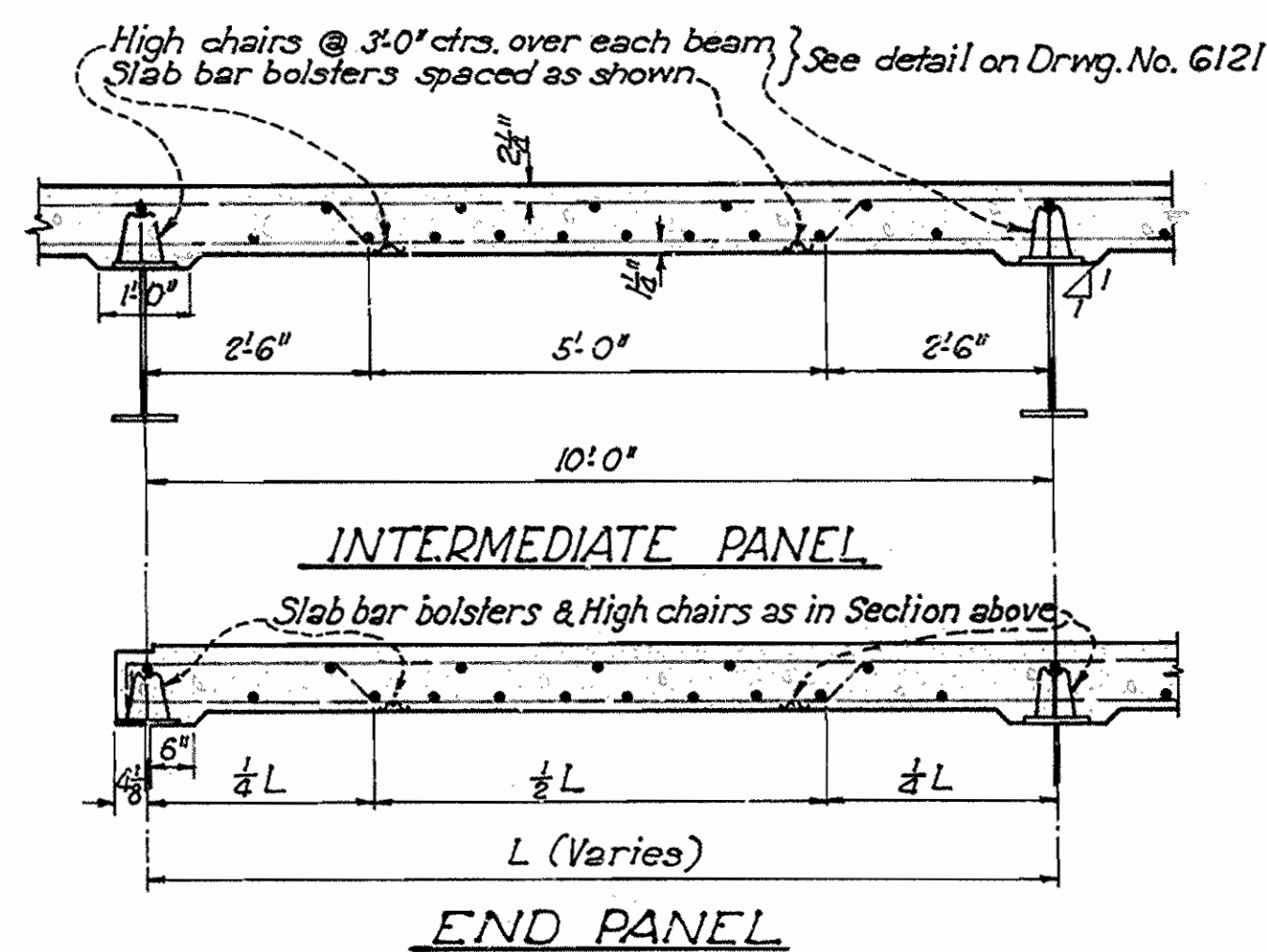
Drawn By: L.P.C. Date: 11-15-40
Traced By: E.A.W. Date: 11-21-40
Checked By: _____ Date: _____
BRIDGE NO. 2112 DRAWING NO. 6121

Principal Highway Engineer (Bridges)

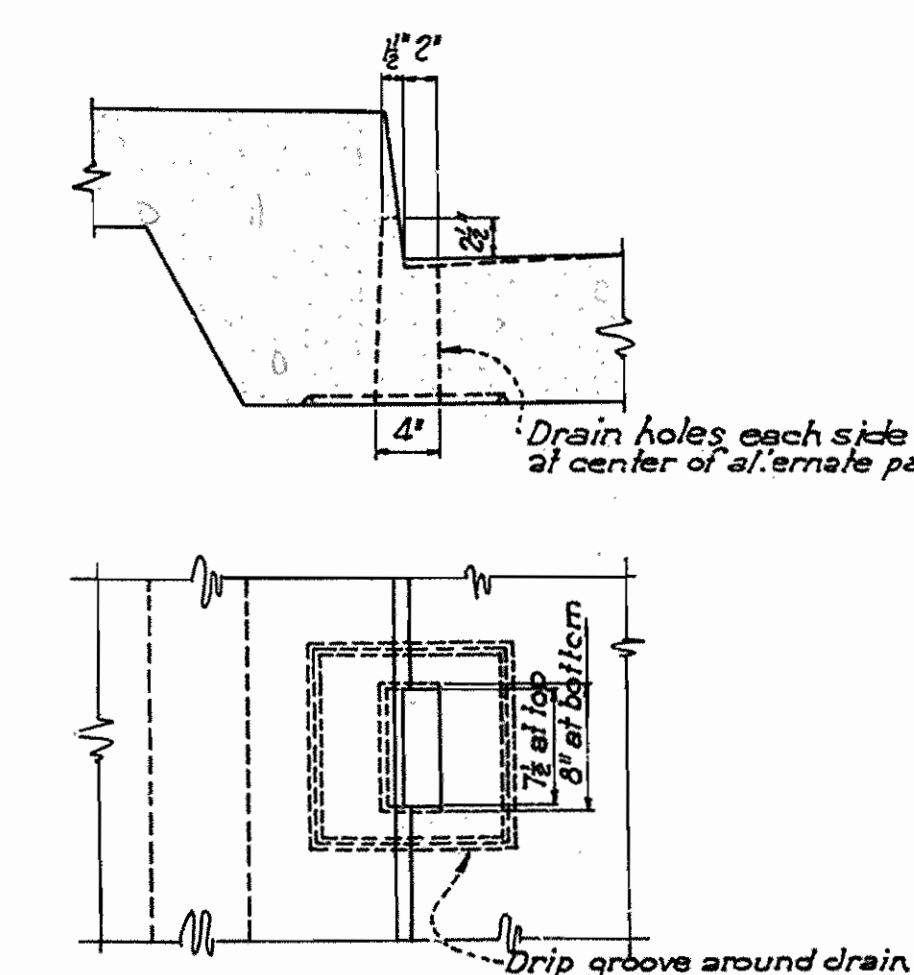
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|---------------------|-------|-------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | FA 7-5 | | 16 | 36 |
| STATE JOB NO. 10311 | | 458A(3) | | 16 | 36 |



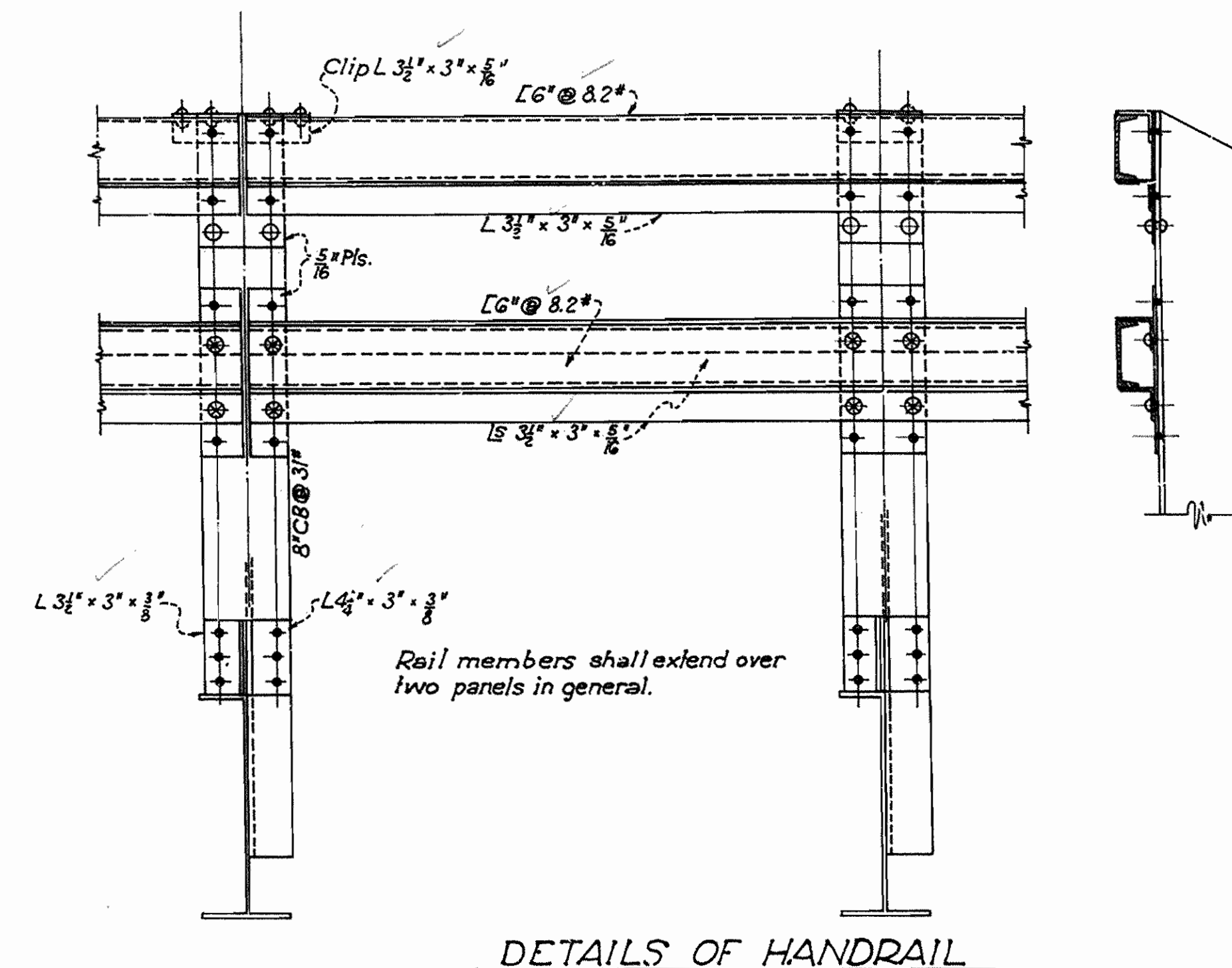
TYPICAL SECTION SHOWING CROSS FRAME AT PIERS



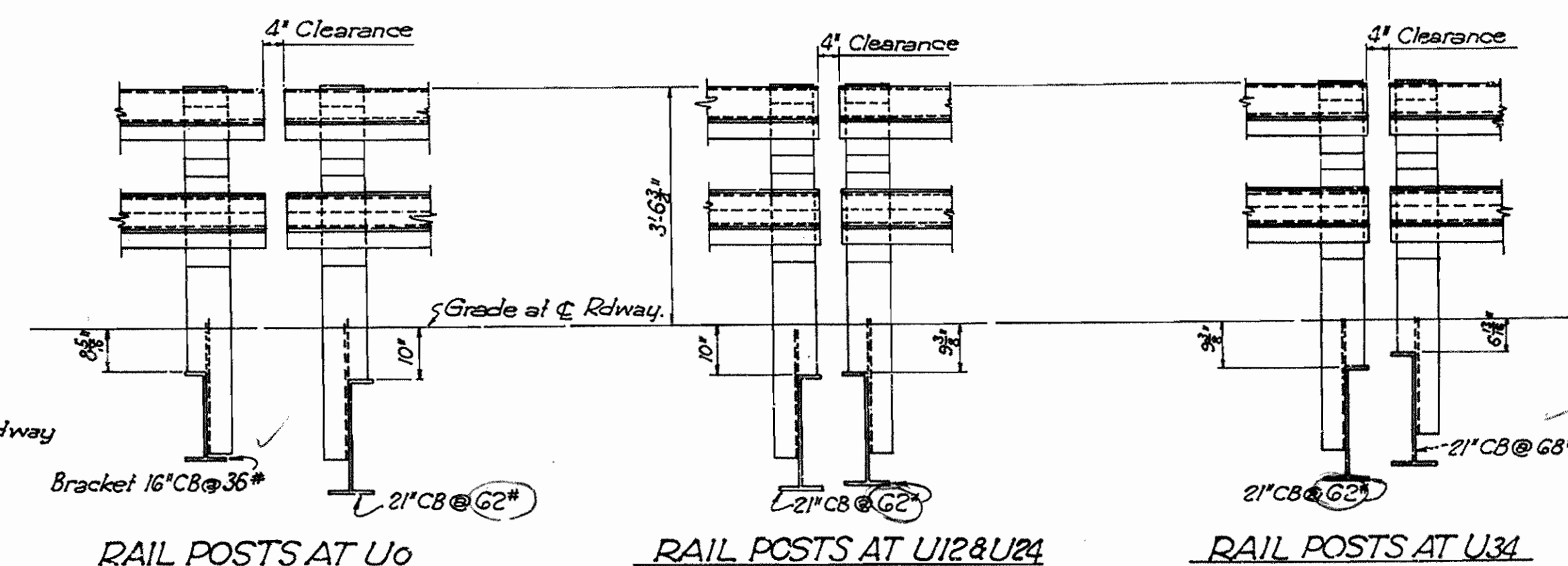
DETAILS OF SIDEWALK EXPANSION DEVICE



DETAILS OF ROADWAY DRAINS



DETAILS OF HANDRAIL



RAIL POSTS AT U0

RAIL POSTS AT U12 & U24

RAIL POSTS AT U34

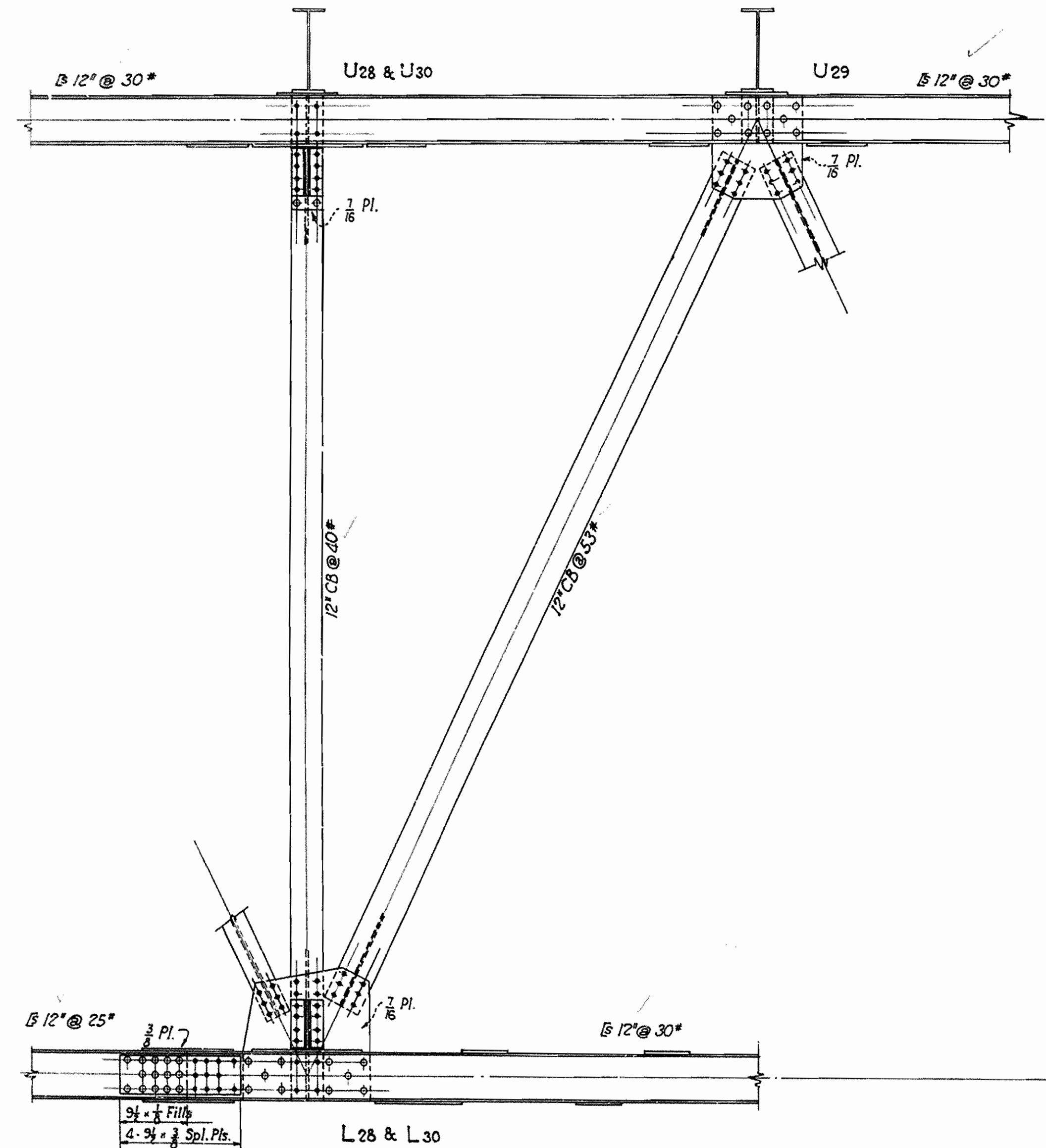
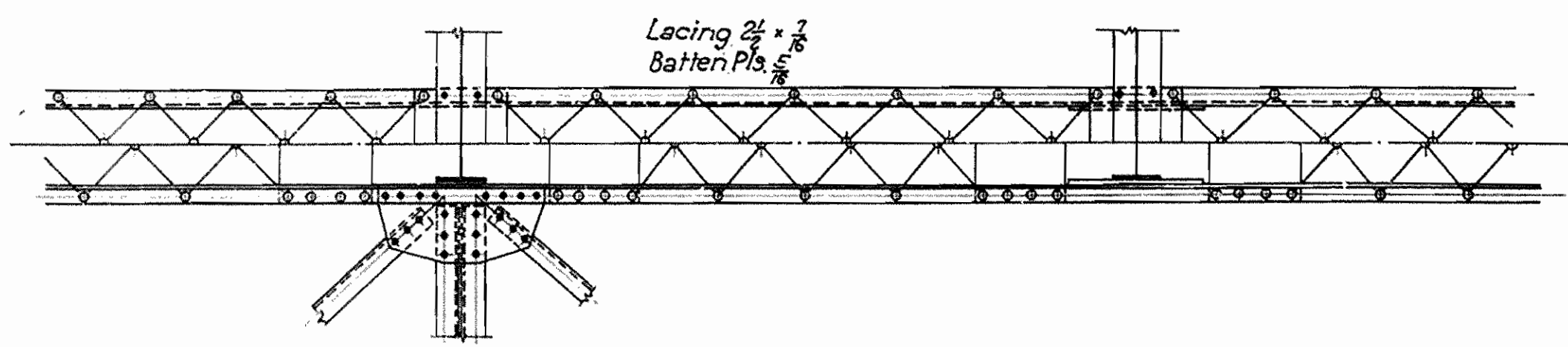
Revised 8-25-42
REVISED Oct. 5, 1946 Floor Beams

TYPICAL SECTION OF ROADWAY U0-U34
DETAILS OF HANDRAIL U0-U34
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
LAWRENCE COUNTY
ROUTE 63 SEC. 3

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
Drawn By: L.P.C. Date: 11-6-40
Traced By: E.A.W. Date: 11-7-40
Checked By: _____ Date: _____
Scale: 1/2 in. = 1 ft. and 7/16 in. = 1 ft.
BRIDGE NO. 2112 DRAWING NO. 6120

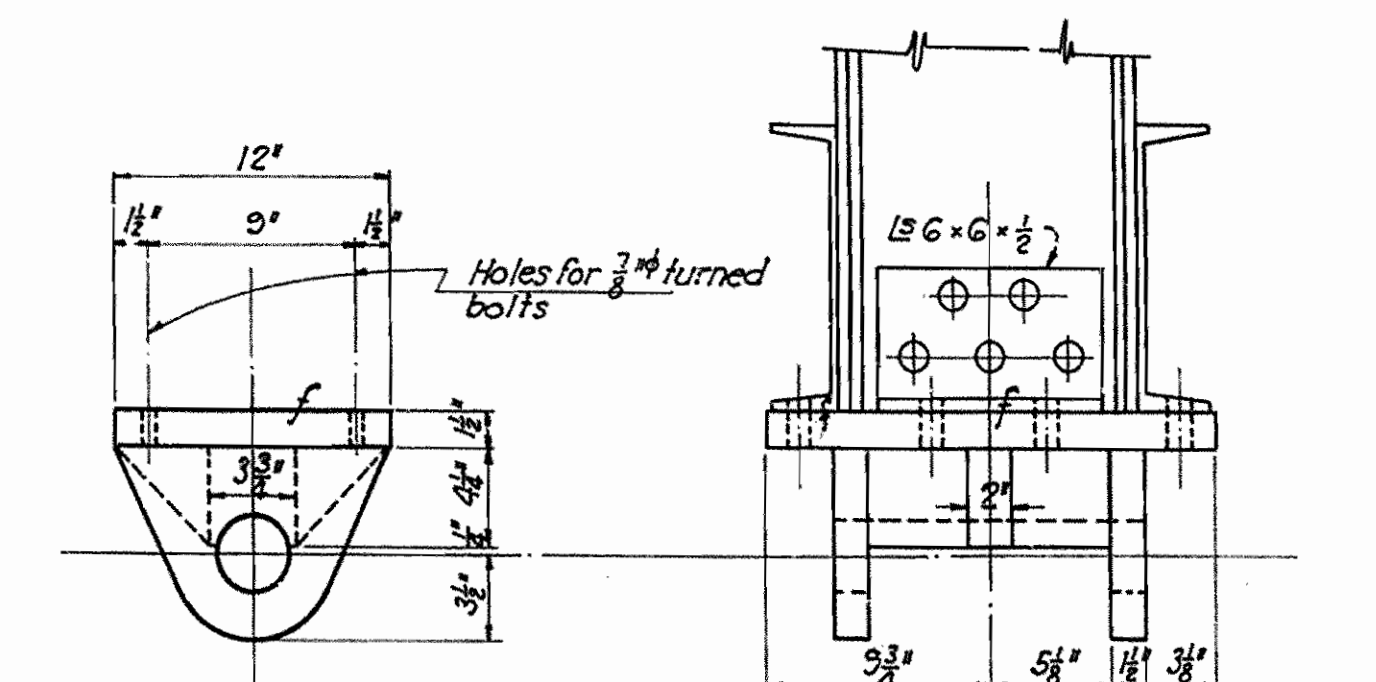
L.P.C.
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

| | | | | | |
|---------------------|-------|----------------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | Fed. Aid PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | FA-45-A(6) | | 15 | 36 |
| STATE JOB NO. 10311 | | | | 15 | 6 |

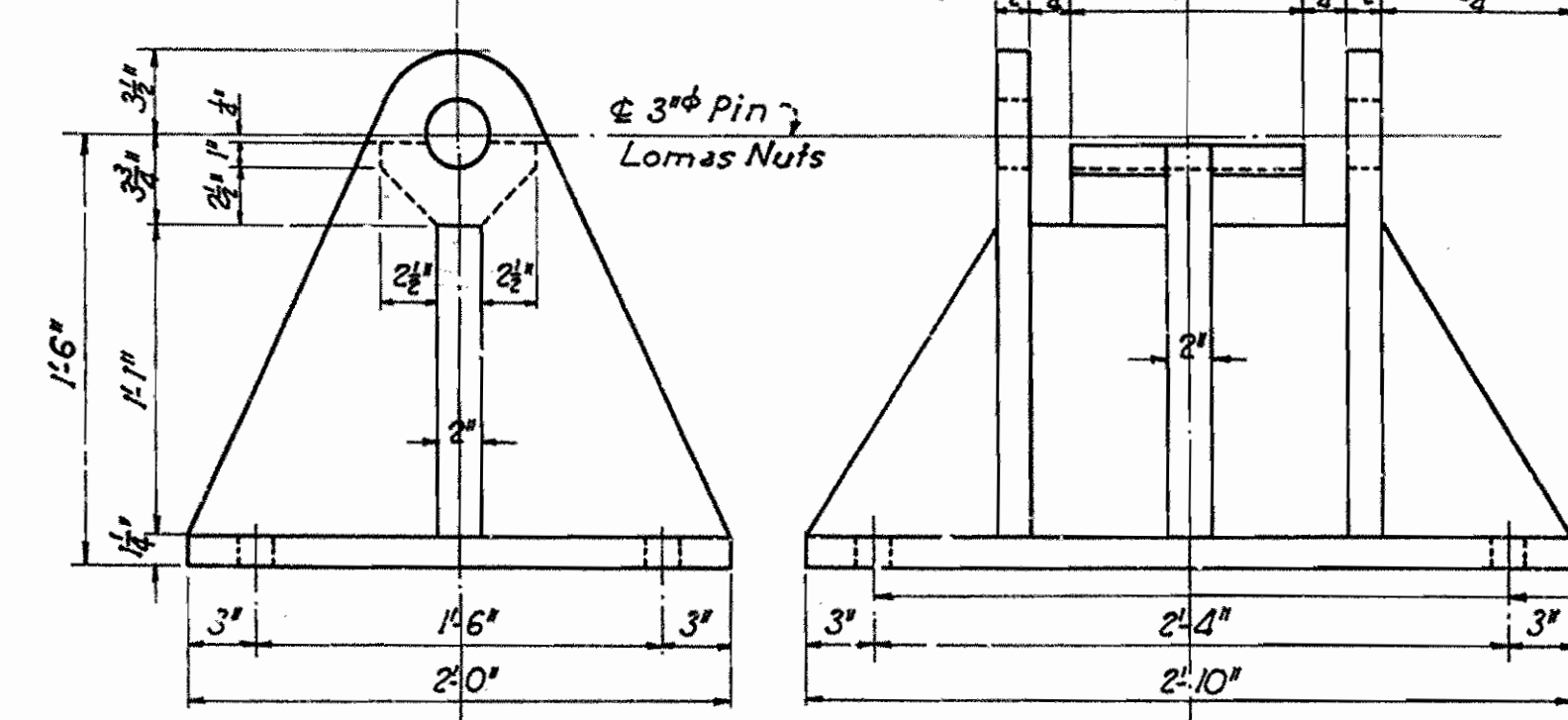


This connection to be securely riveted for erection. After erection is complete, cut rivets and plug holes.

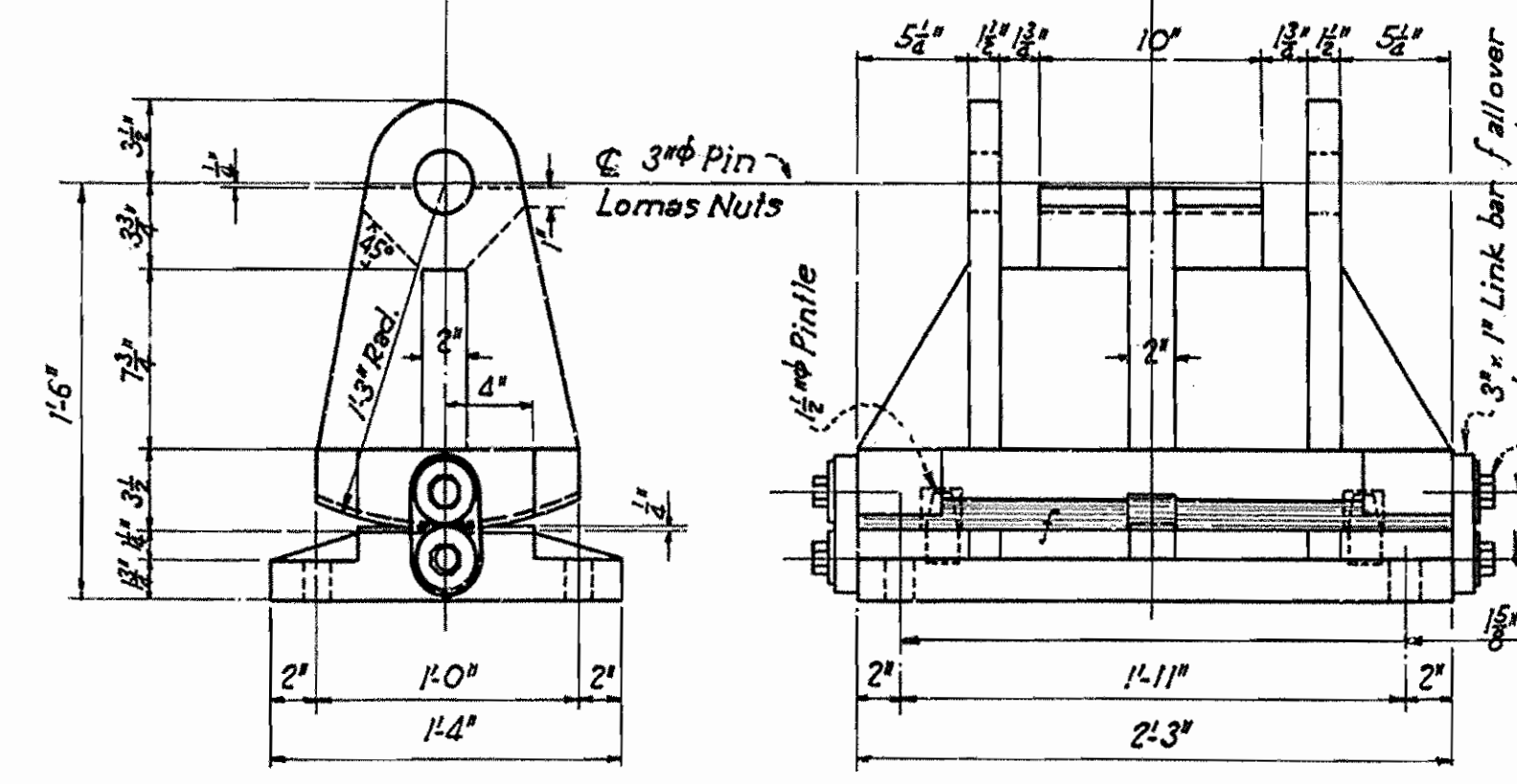
This connection to be securely riveted for erection. After erection is complete, cut rivets and plug holes.



DETAILS OF TOP CASTING (CAST STEEL)



DETAILS OF FIXED SHOE (CAST STEEL)



DETAILS OF EXPANSION SHOE (AT PIER 1 ONLY) (CAST STEEL)

1/2" Link bar / all over
1/4" Top bolts with 2 1/4" dia Phosphor bronze washer / all over
Slotted hole 1/2" x 1/16"
in link bar
1/8" Holes for 1/4" Anchor bolts

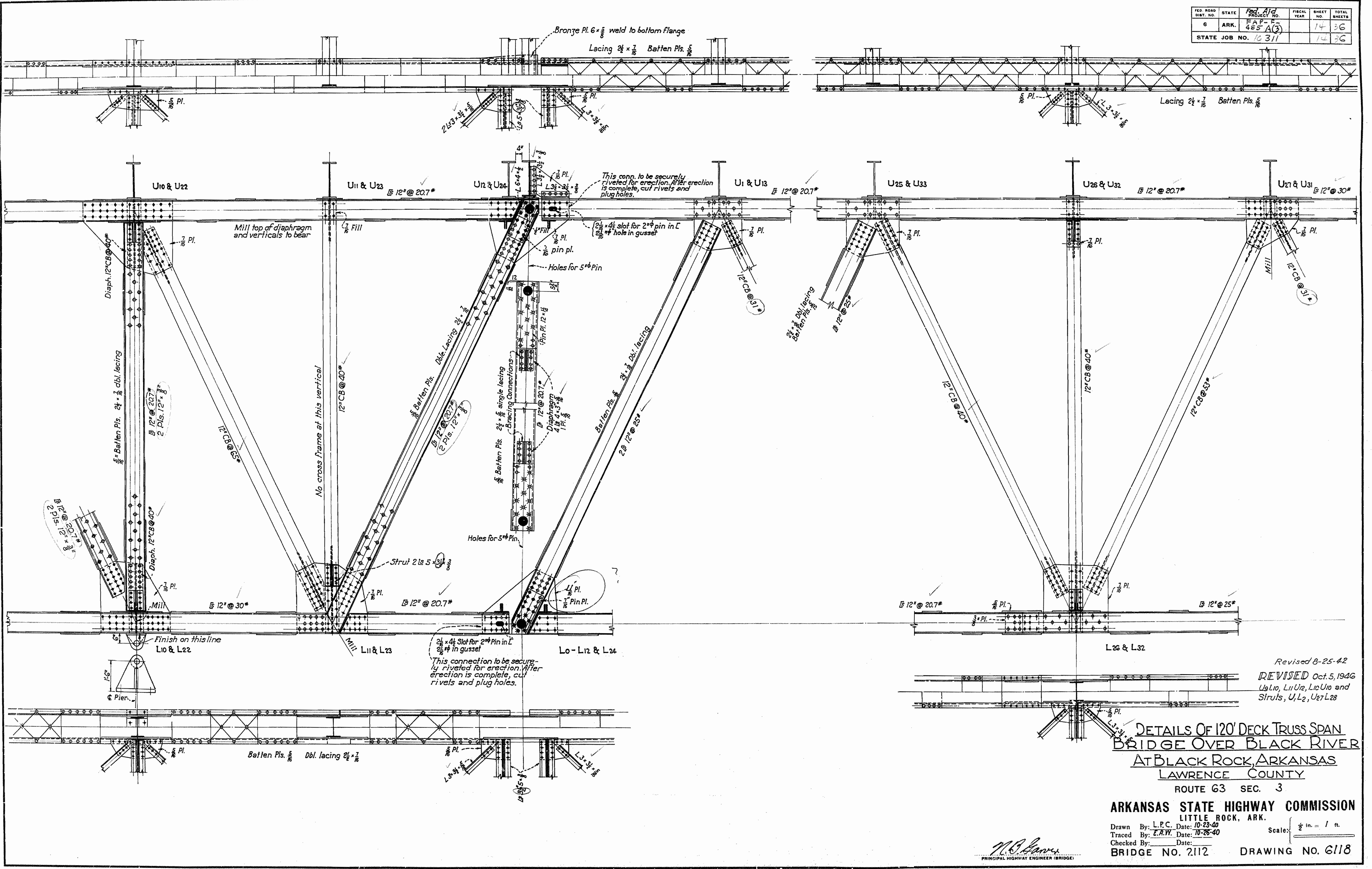
Revised 8-25-42
REVISED Oct. 5, 1946 Struts

DETAILS OF 120' DECK TRUSS SPAN
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
LAWRENCE COUNTY
ROUTE 63 SEC. 3

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
Drawn By: L.P.C. Date: 10-29-40
Traced By: F.A.W. Date: 11-7-40
Checked By: Date: _____
Scale: 1/4" = 1' and 1/2" = 1' and
BRIDGE NO. 2112 DRAWING NO. 619

H.B. Jones
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

| FED. ROAD DIST. NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|----------------------|-------------|-----------|--------------|
| 6 | ARK. | FAP-485-A(3) | | 14 | 36 |
| | | STATE JOB NO. 10 311 | | 14 | 36 |



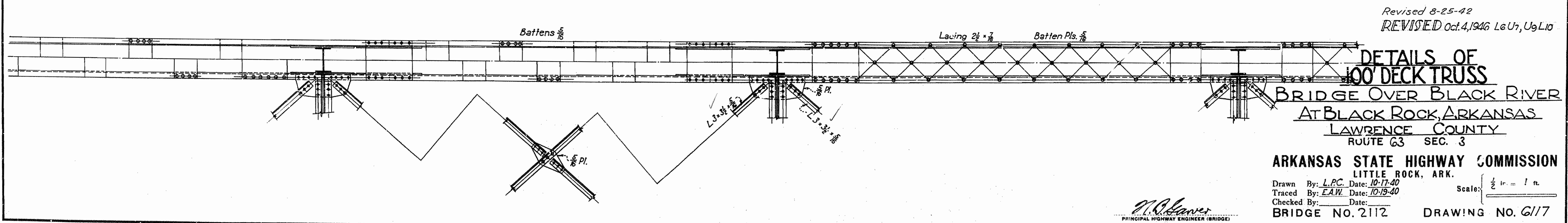
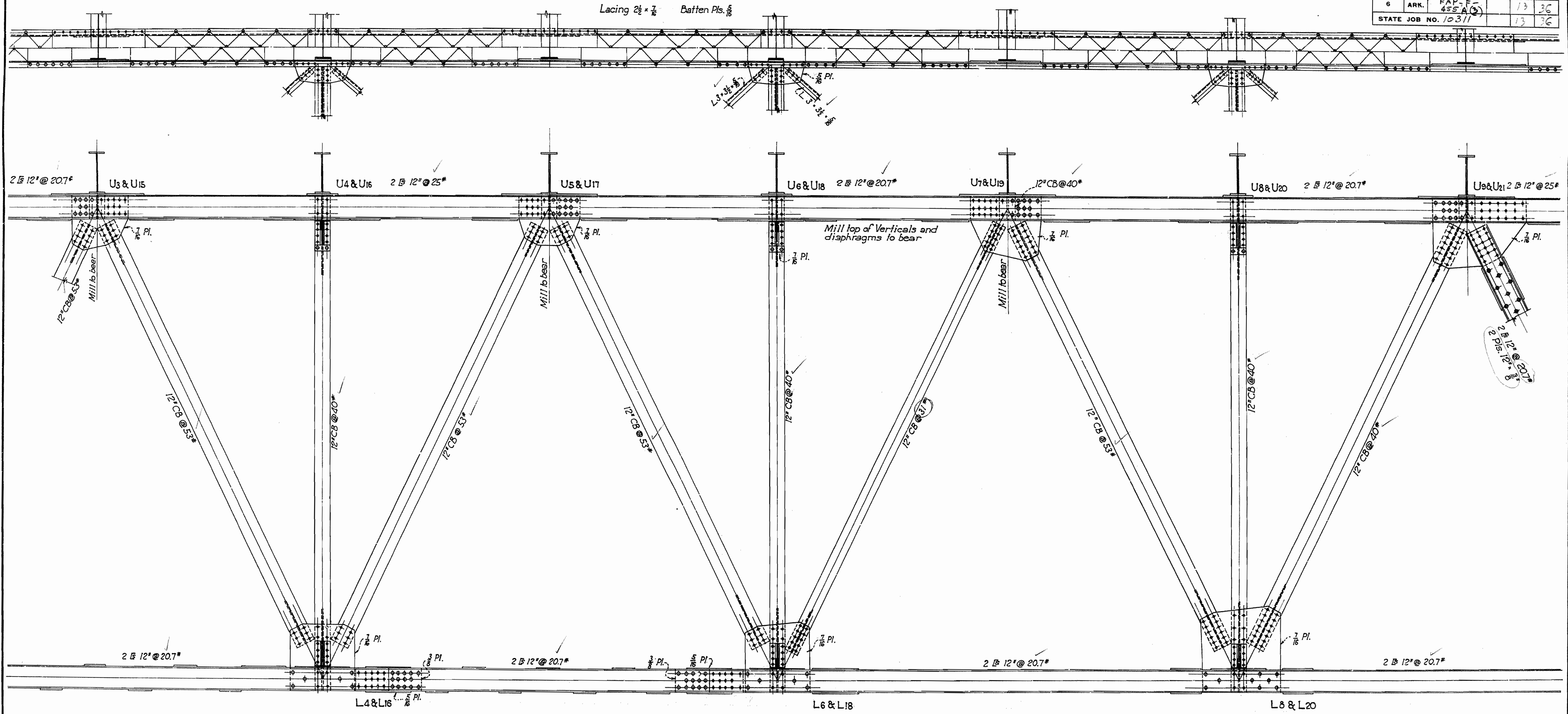
Revised 8-25-42
 REVISSED Oct. 5, 1946
 U₁₀L₁₀, L₁₁U₂, L₁₀U₁₀ and
 Struts, U₁L₂, U₂₇L₂₈

**DETAILS OF 120' DECK TRUSS SPAN
 BRIDGE OVER BLACK RIVER
 AT BLACK ROCK, ARKANSAS
 LAWRENCE COUNTY
 ROUTE 63 SEC. 3**

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: L.P.C. Date: 10-23-40
 Traced By: E.W.H. Date: 10-28-40
 Checked By: _____ Date: _____
 BRIDGE NO. 2112 DRAWING NO. 6118
 Scale: 1/2 in. = 1 ft.

L.P.C.
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

| | | | | | |
|---------------------|-------|----------------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | Fed. Aid PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | FAP-F-455A(2) | | 13 | 36 |
| STATE JOB NO. 10311 | | | | | |



Revised 8-25-42
 REVISED Oct. 4, 1946 L6, U7, U9, L10

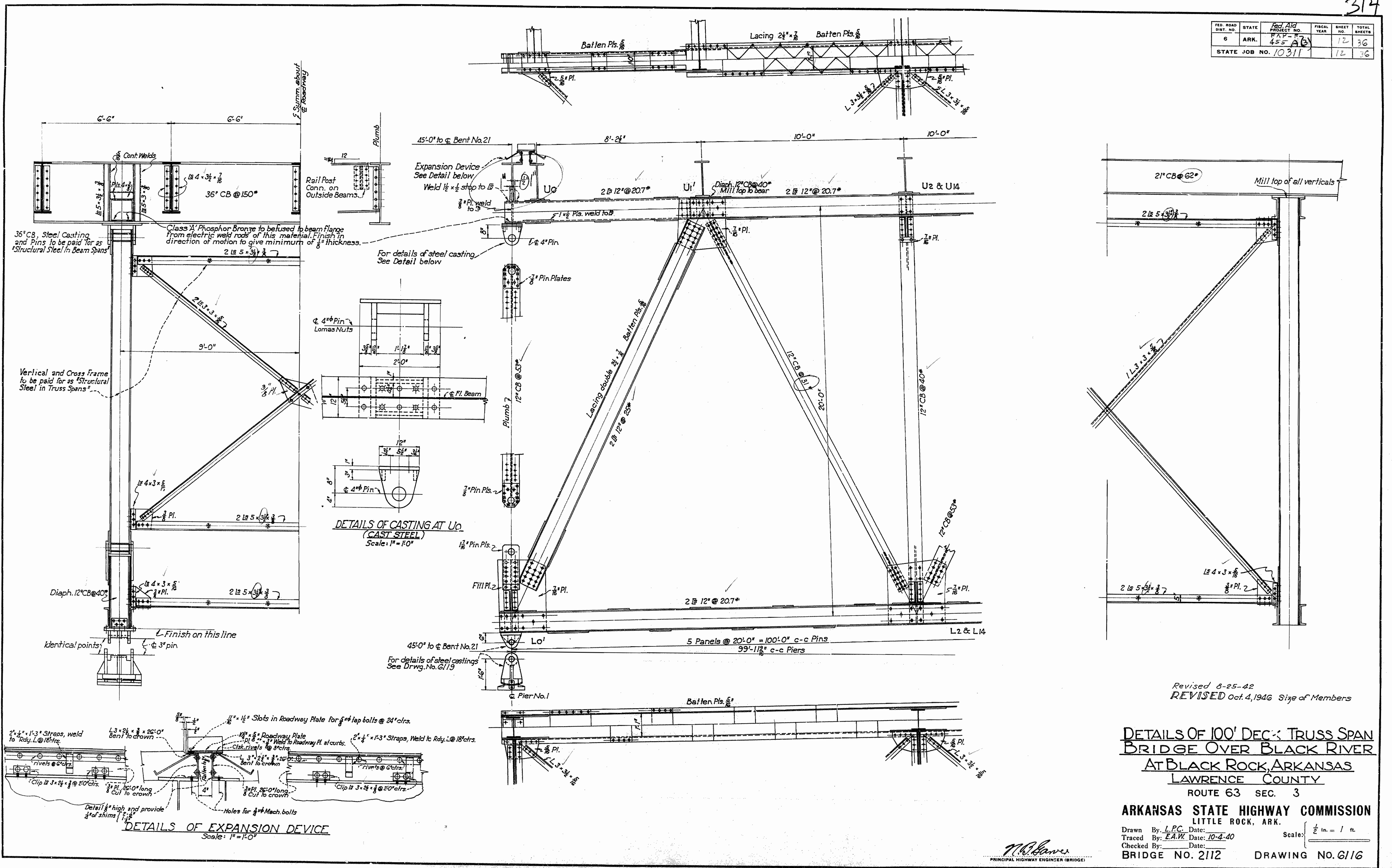
**DETAILS OF
 100' DECK TRUSS**
 BRIDGE OVER BLACK RIVER
 AT BLACK ROCK, ARKANSAS
 LAWRENCE COUNTY
 ROUTE 63 SEC. 3

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: L.P.C. Date: 10-17-40
 Traced By: E.A.W. Date: 10-19-40
 Checked By: _____ Date: _____
 Scale: 1/2" = 1' ft.
 BRIDGE NO. 2112 DRAWING NO. 6117

M. Blawie
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

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| | | | | | |
|---------------------|-------|----------------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | Fed. Aid PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | 455-AB | | 12 | 36 |
| STATE JOB NO. 10311 | | | | 12 | 36 |



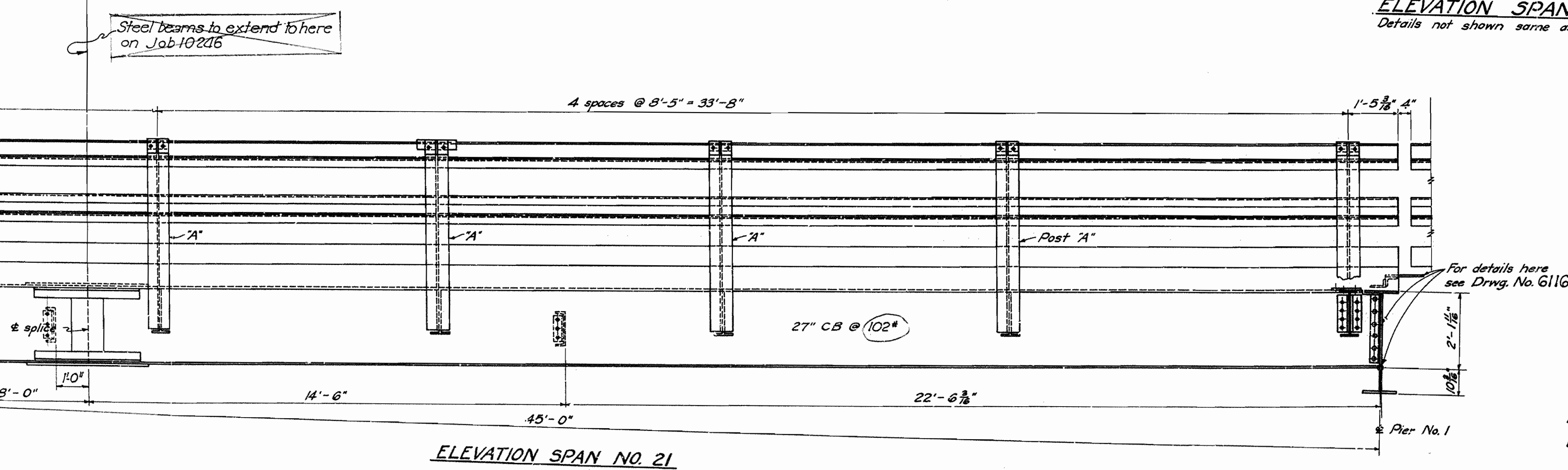
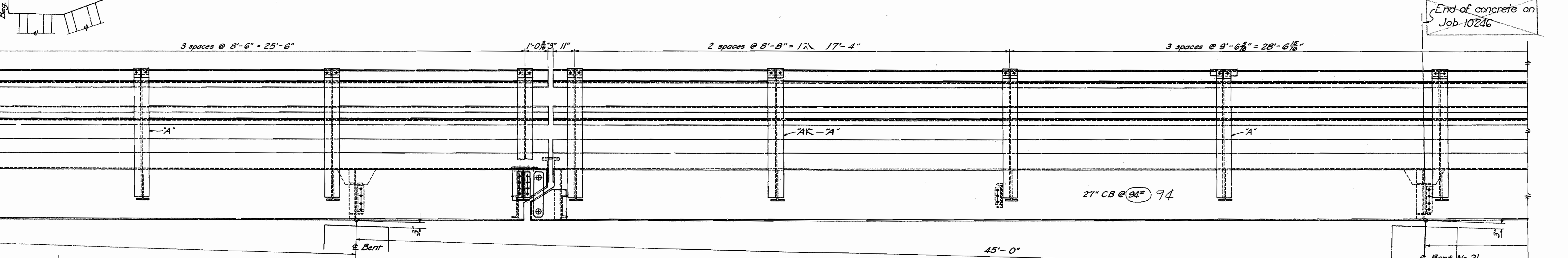
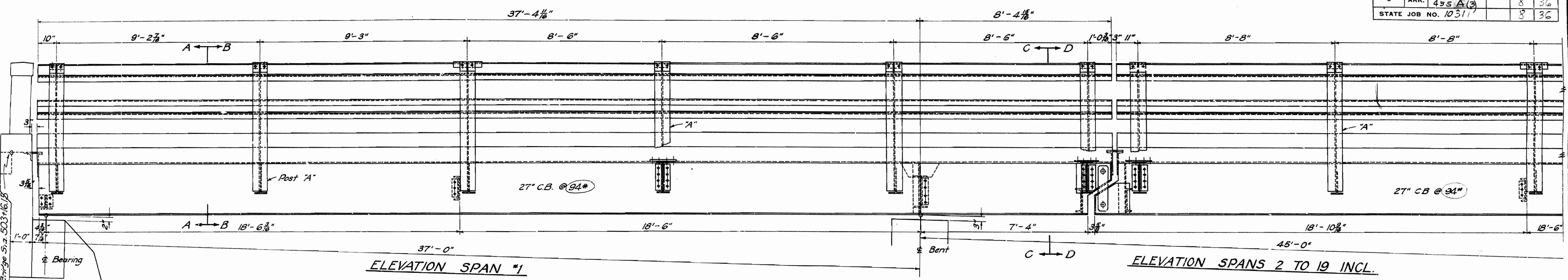
Revised 8-25-42
 REVISED Oct. 4, 1946 Size of Members

**DETAILS OF 100' DECK TRUSS SPAN
 BRIDGE OVER BLACK RIVER
 AT BLACK ROCK, ARKANSAS
 LAWRENCE COUNTY
 ROUTE 63 SEC. 3**

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: L.P.C. Date: _____
 Traced By: E.A.W. Date: 10-4-40
 Checked By: _____ Date: _____
 BRIDGE NO. 2112 DRAWING NO. 6116

M. C. Lawrence
 PRINCIPAL HIGHWAY ENGINEER (BRIDGES)

| | | | | | |
|---------------------|-------|----------------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | FED. AID PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | FAP-E-455A(3) | | 8 | 36 |
| STATE JOB NO. 10311 | | | | 8 | 36 |



| Mark | Size | Length | Bending Diagram |
|------|------|--------|-----------------|
| S1 | 5/8" | 28'-3" | |
| S2 | 5/8" | 29'-3" | |
| S3 | 1/2" | 5'-10" | |
| S5 | 1/2" | 3'-1" | |
| S7 | 5/8" | 3'-10" | |

Note: Reinforcing steel to be deformed bars of structural or intermediate grade. Shop lists and bending diagrams must be submitted and approval secured before fabrication is begun. Dimensions are to centers of bars.

SHEET 1
DETAILS OF I-BEAM SPANS
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
LAWRENCE COUNTY
ROUTE 63 SEC. 3

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.

Drawn By: L.P.C. Date: 11-21-40
 Traced By: E.R.B. Date: 1-6-41
 Checked By: _____ Date: _____

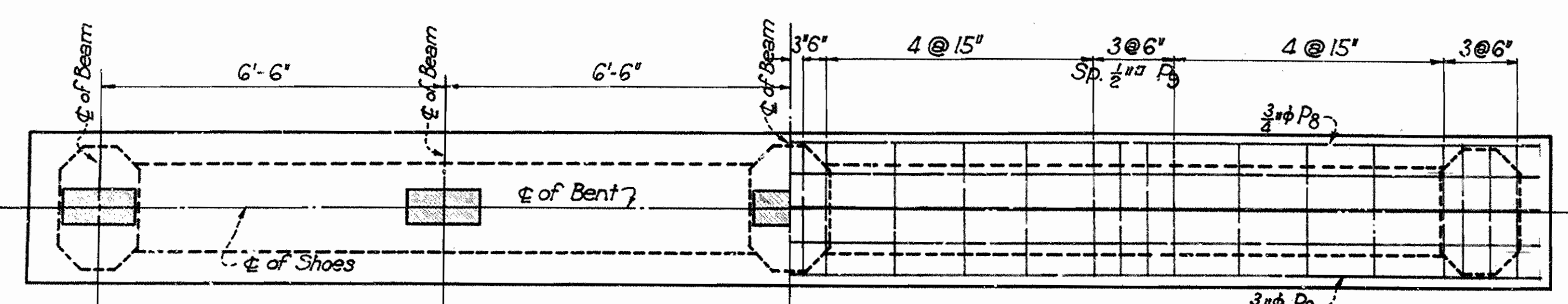
Scale: 1/2" = 1'-0"

BRIDGE NO. 2112 DRAWING NO. 6112

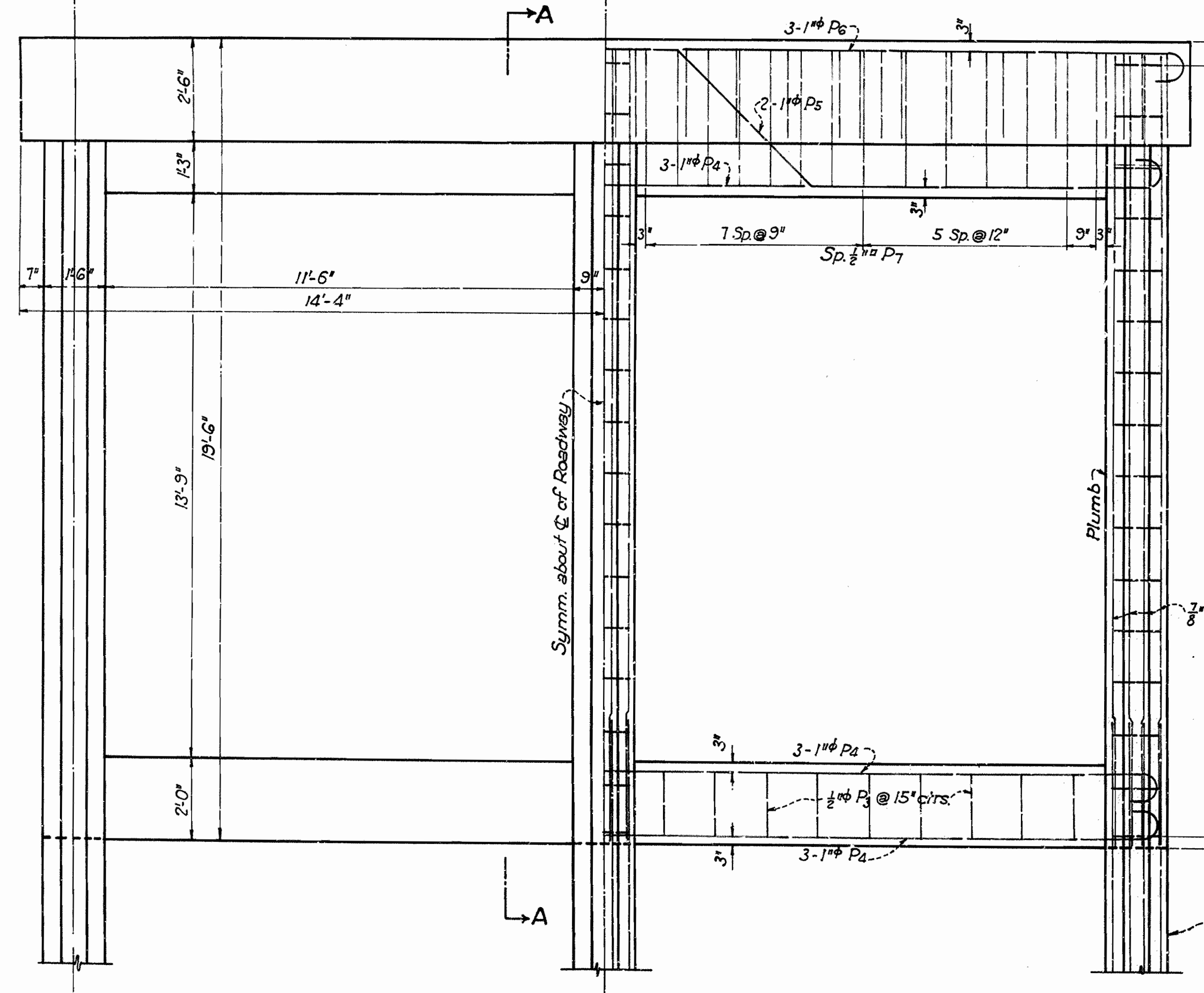
Revised 4-22-41
 REVISED Oct. 4, 1946 Wgt. of Beams

W. B. Blinn
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

| | | | | | |
|---------------------|-------|-------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | 455-A(2) | | 7 | 36 |
| STATE JOB NO. 10311 | | | | 7 | 36 |

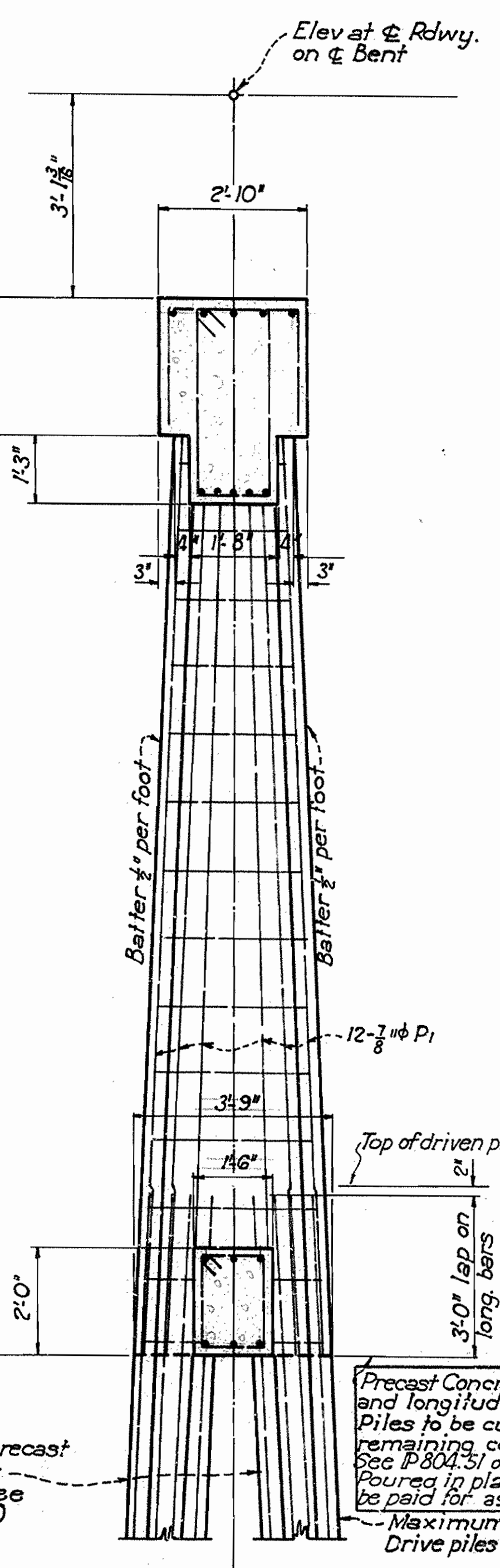


PLAN OF CAP



HALF ELEVATION OF BENT

HALF ELEVATION SHOWING REINF.



SECTION A-A

LIST OF BARS

| Mark | Size | Lgth. | A | B | Bending Diagram |
|------|--------|--------|--------------------|-----------|-----------------|
| P2 | 1/2" # | Varies | 1'-1 1/2" to 2'-0" | | |
| P3 | 1/2" # | 6'-3" | 1'-1 1/2" | 1'-7 1/2" | |
| P4 | 1" # | 29'-0" | 27'-0" | 8" | |
| P5 | 1" # | 31'-8" | | | |
| P6 | 1" # | 30'-3" | 28'-3" | 8" | |
| P7 | 1/2" # | 10'-1" | 1'-3 1/2" | 3'-4 1/2" | |
| P8 | 1/2" # | 6'-9" | 2'-1 3/4" | 2'-5 1/2" | |
| P1 | 7/8" # | 19'-3" | Straight bars | | |
| P8 | 3/4" # | 28'-0" | Straight bars | | |

All concrete in Bents to be Class 'S'.

Precast Concrete pile to be cut off here and longitudinal bars lapped as shown. Piles to be cut so as to avoid damage to remaining concrete and reinforcing steel. See P804.31 of Specifications. Poured in place concrete above this elev. shall be paid for as "Class 'S' concrete for Bridges." Maximum Bearing 31 Tons per pile. Drive piles to minimum capacity of 35 Tons.

See Special Provision "Concrete Piling"

DETAILS OF BENTS 7 TO 21 INCL.
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
LAWRENCE COUNTY

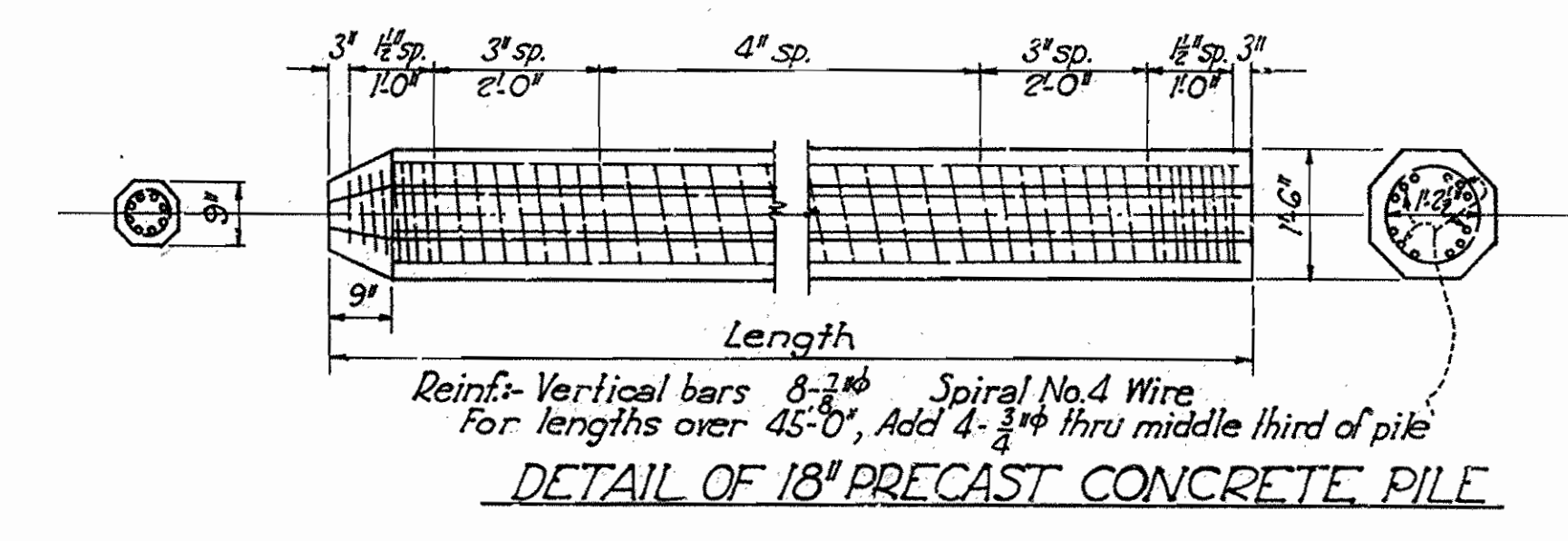
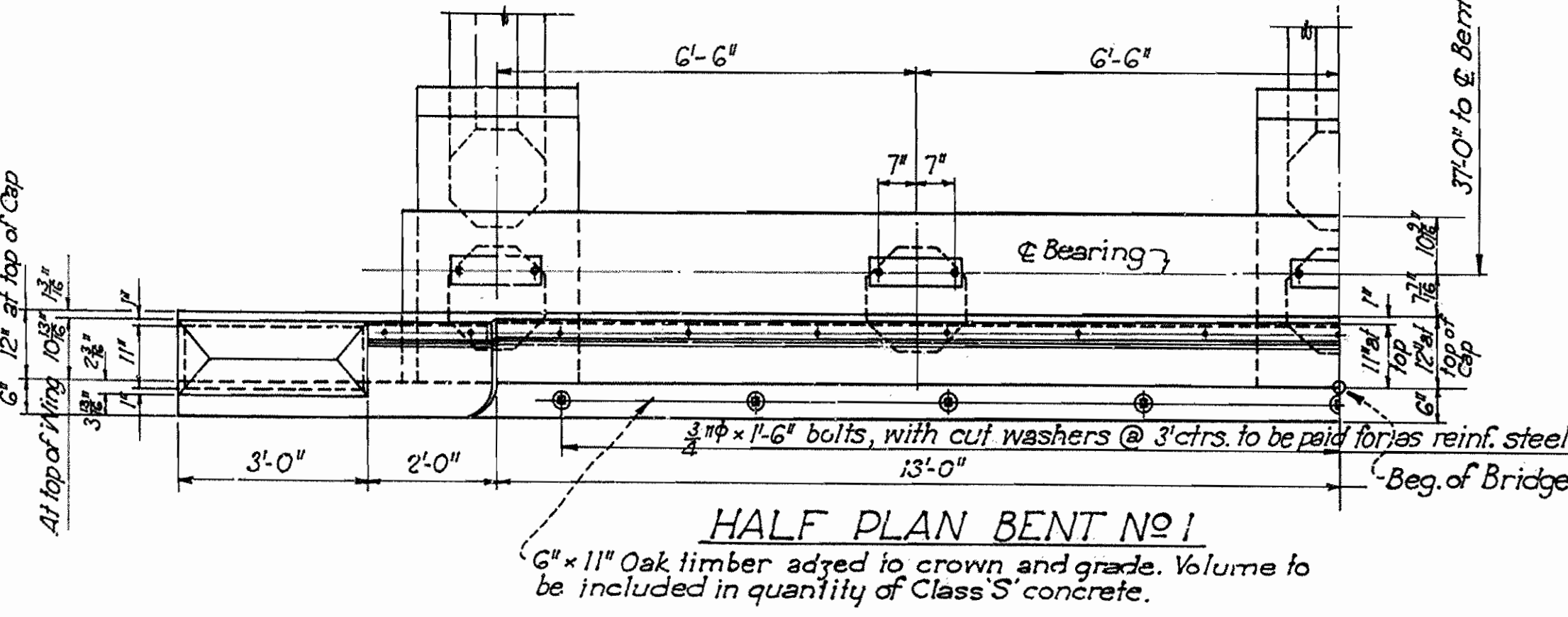
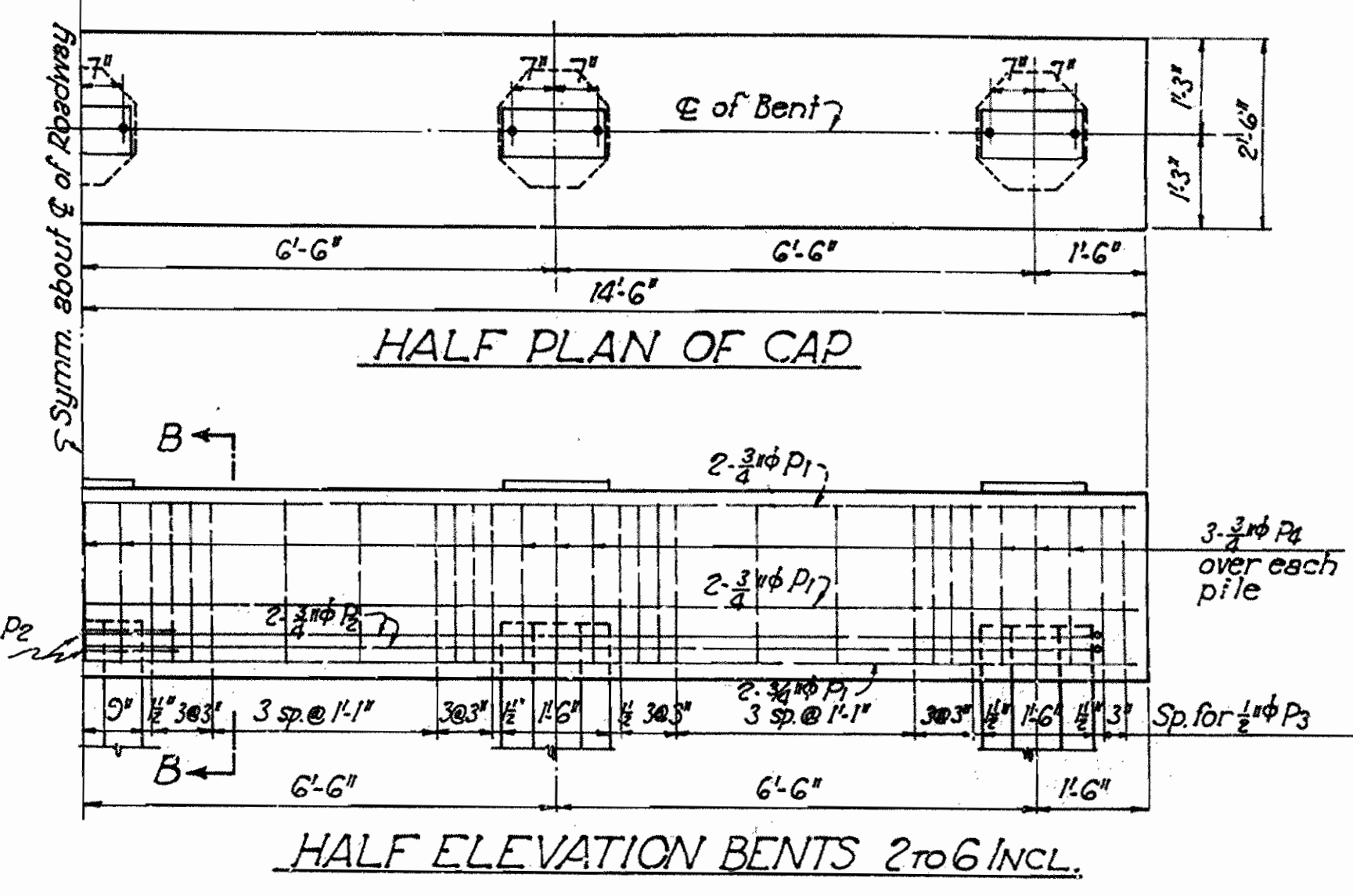
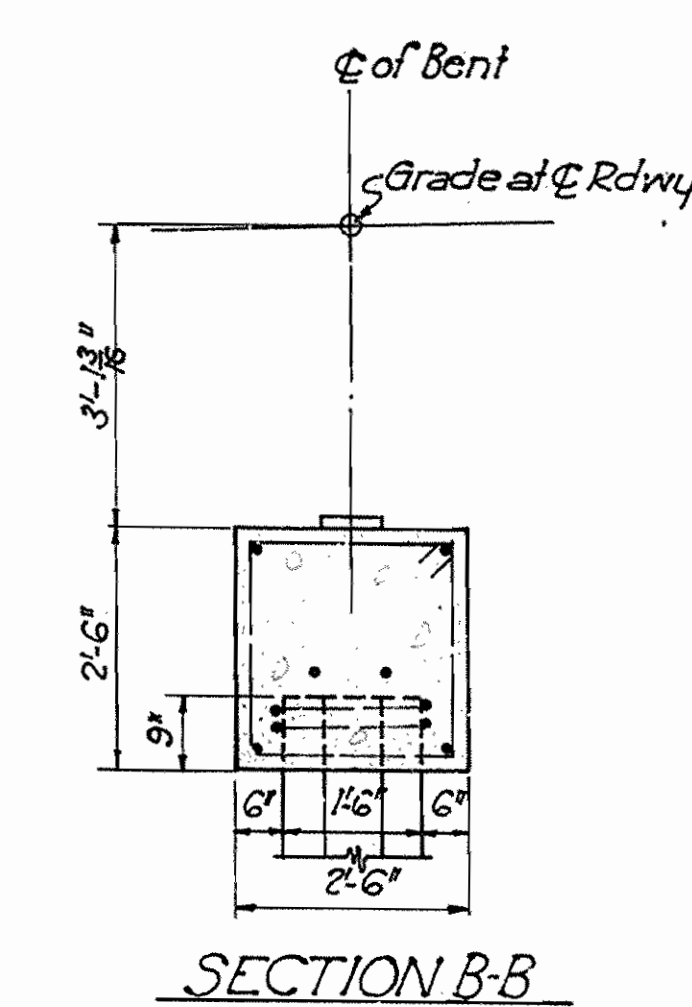
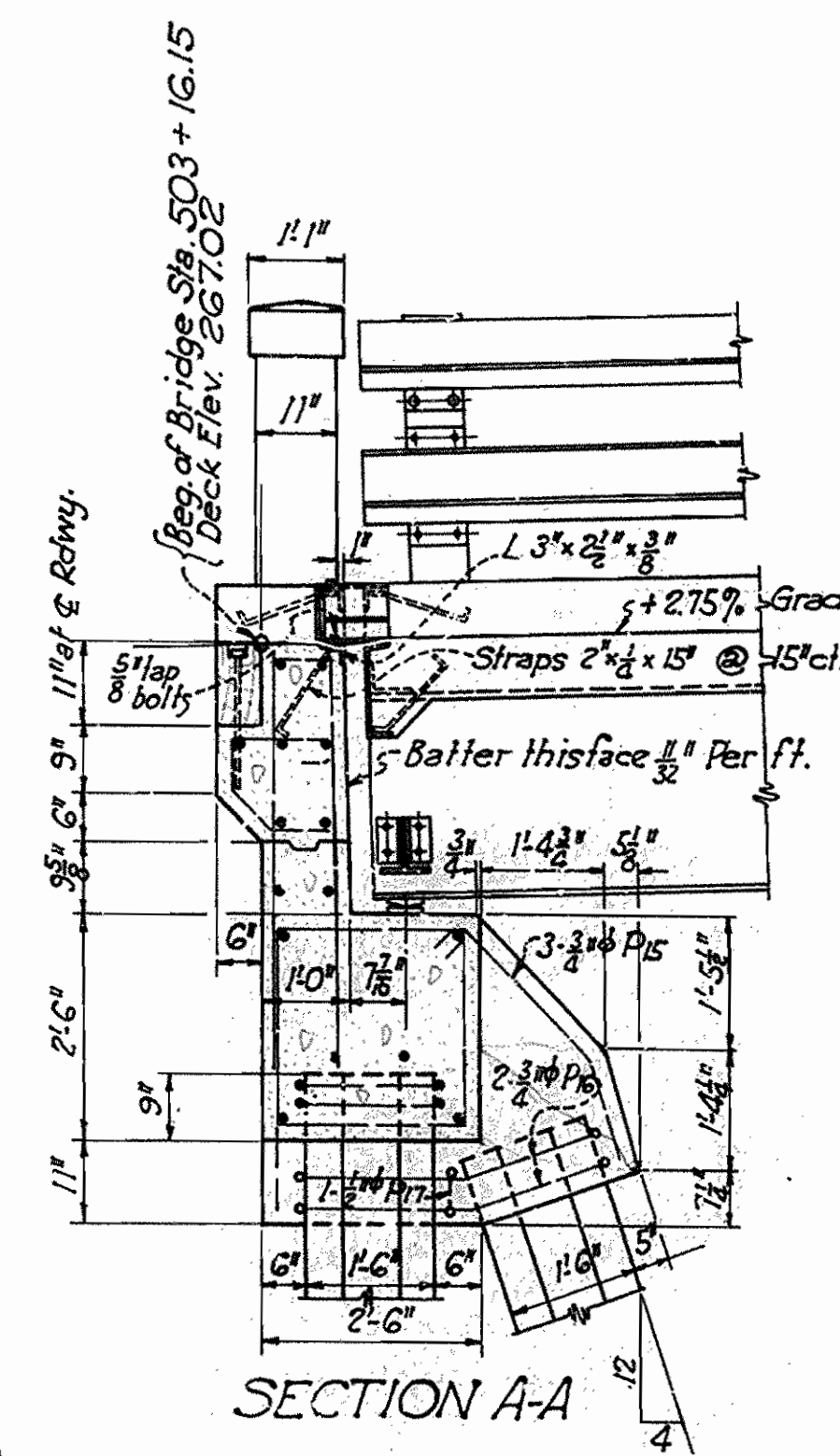
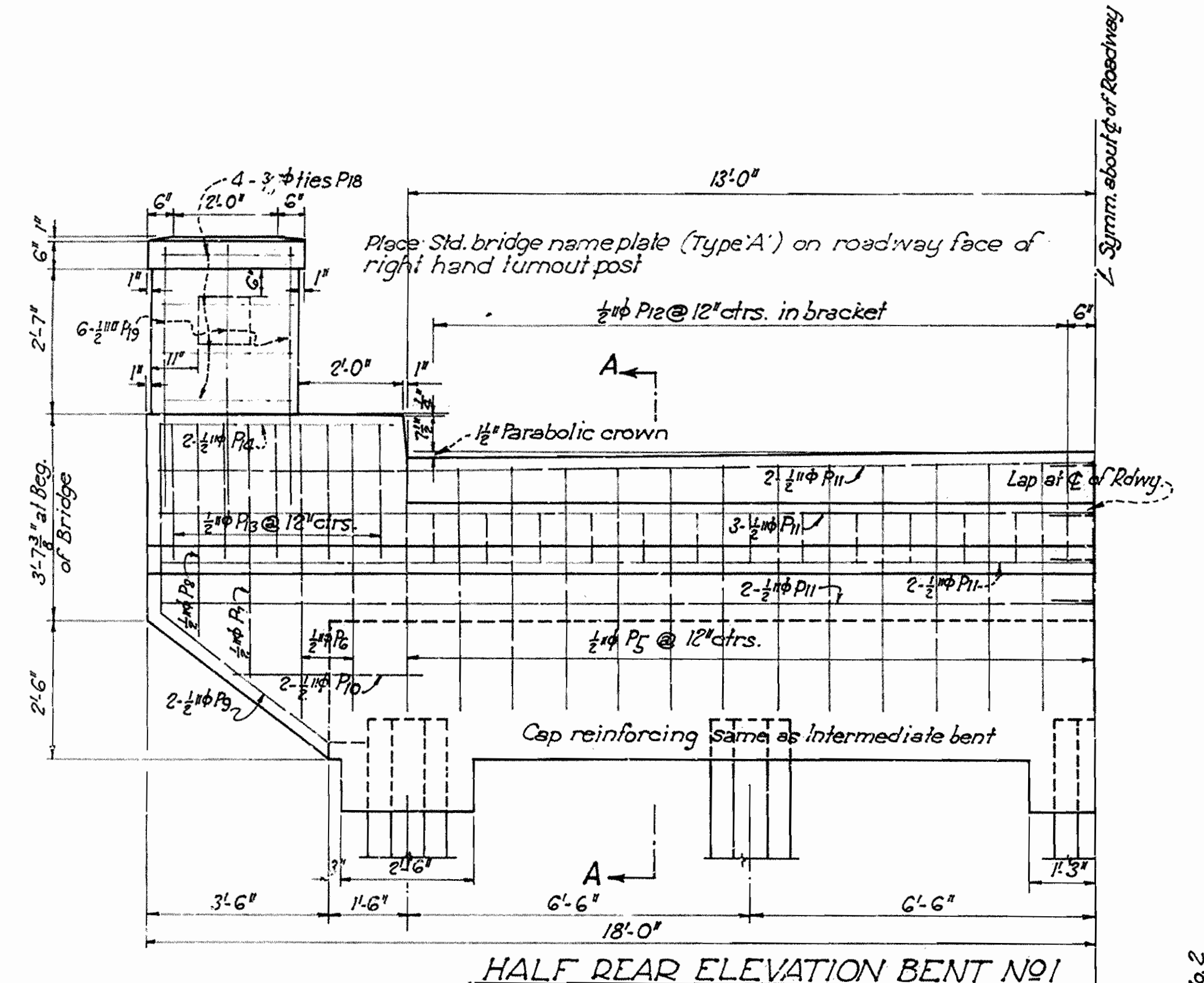
ROUTE 63 SEC. 3

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

Drawn By: L.P.C. Date: 9-20-40
Traced By: E.A.W. Date: 10-15-40
Checked By: _____ Date: _____
Scale: 1/2" = 1' n.
BRIDGE NO. 2112 DRAWING NO. G111

M. O. Lewis
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

| | | | | | |
|---------------------|-------|----------------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | Fed. Aid PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | F.A.R. - 457 A(3) | | 6 | 36 |
| STATE JOB NO. 10311 | | | | 6 | 36 |



LIST OF BENT BARS

| Mark | Size | Length | A | B | Bearing Diagram |
|------|------|---------|--------|--------|-------------------|
| P2 | 3/8" | 31'-9" | 15'-1" | 14'-7" | A P2, P4 to P8 |
| P3 | 1/2" | 9'-1" | 2'-1" | 2'-1" | |
| P4 | 3/8" | 6'-3" | 2'-1" | 2'-1" | A P3, P7, P18 |
| P5 | 1/2" | 9'-5" | 4'-5" | 7" | |
| P6 | 1/2" | 10'-11" | 5'-2" | 7" | A P2, P13 |
| P7 | 1/2" | 9'-3" | 4'-7" | 7" | |
| P8 | 1/2" | 8'-3" | 3'-10" | 7" | A P15 |
| P9 | 1/2" | 8'-0" | | | |
| P12 | 1/2" | 3'-3" | 6" | | A P16 |
| P13 | 1/2" | 4'-9" | 2'-0" | | |
| P15 | 3/4" | 8'-3" | | | A P17 |
| P16 | 3/4" | 11'-11" | | | |
| P17 | 1/2" | 5'-9" | 2'-1" | 5" | A P18 |
| P18 | 3/8" | 7'-3" | 2'-7" | 8" | |

General Notes:

Volume occupied by oak header plank is included in quantity of Class 'S' concrete. Bolt: for oak header to be paid for at the unit price bid for reinforcing steel.

Maximum computed bearing: 32 Tons per pile, Intermediate bents. Piles to be driven to a minimum capacity of 35 Tons.

For additional notes See Drwg. No. G113.

All concrete to be Class 'S'. Volume of turnout posts is included in the quantity of Class 'S' concrete.

Revised 5-12-41 Nameplates out
Revised 1-17-46 Nameplates added

DETAILS OF BENTS 1 TO 6 INCLUSIVE
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
LAWRENCE COUNTY
ROUTE 63 SEC. 3

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.

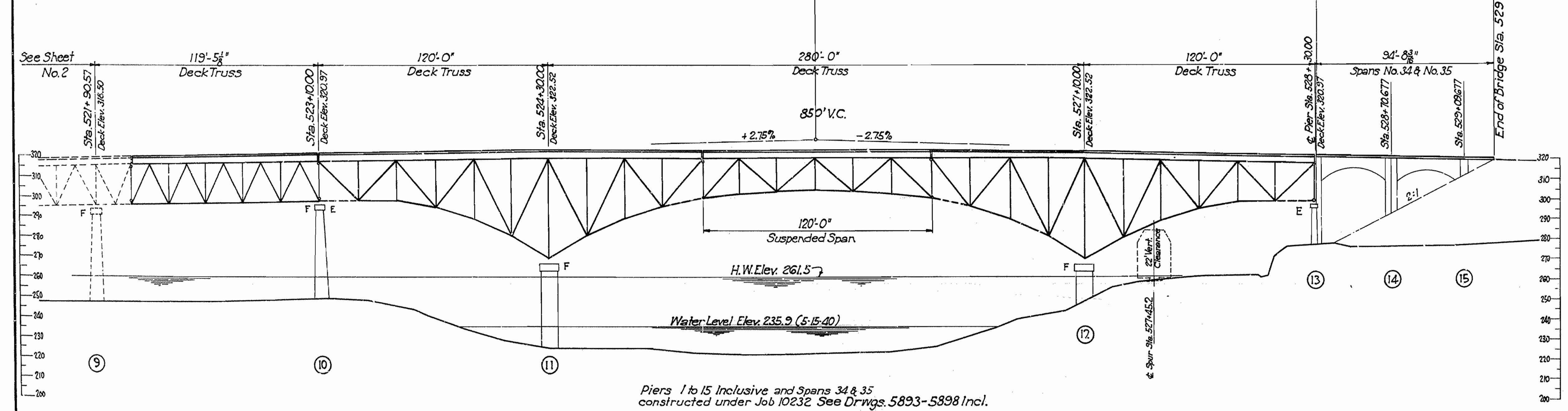
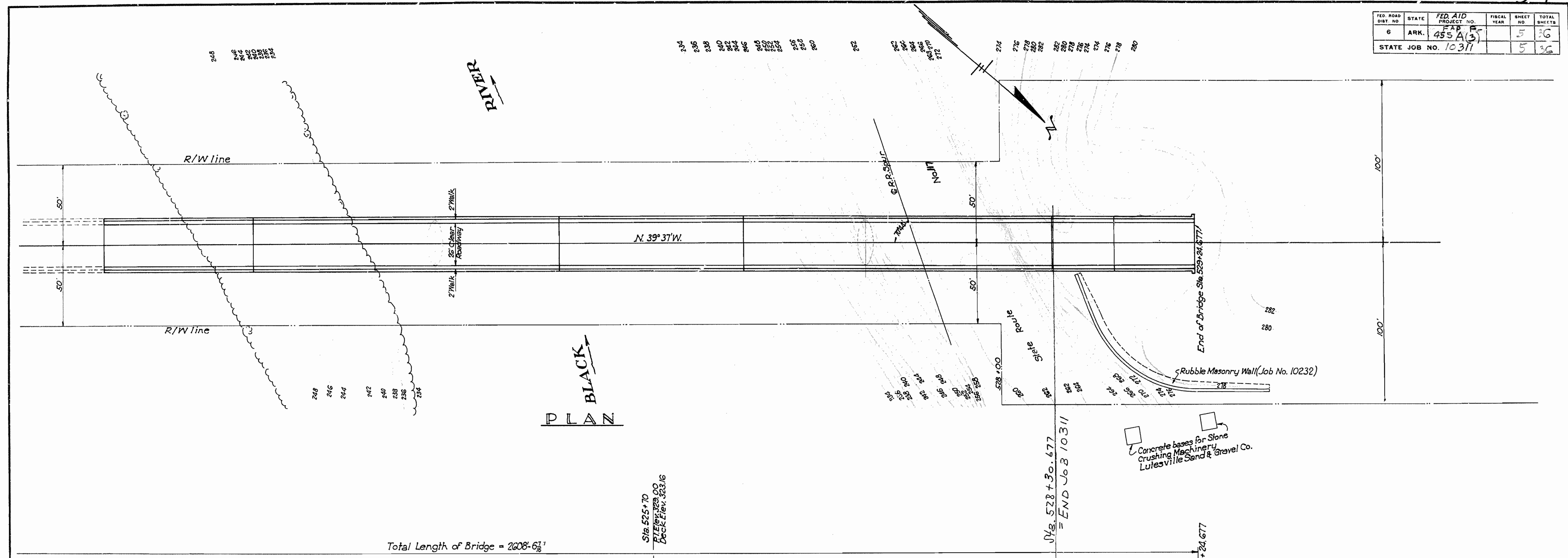
Drawn By: L.P.C. Date: 11-27-40
 Traced By: E.A.W. Date: 12-5-40
 Checked By: _____ Date: _____

Scale: 1/2" = 1'

BRIDGE NO. 2112 DRAWING NO. 6:10

L.P.C.
 PRINCIPAL HIGHWAY ENGINEER - BRIDGE

| FED. ROAD DIST. NO. | STATE | FED. AID PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS | |
|---------------------|-------|----------------------|-------------|-----------|--------------|----|
| 6 | ARK. | 455 A (3) | | 5 | 36 | |
| STATE JOB NO. 10311 | | | | | 5 | 36 |



Piers 1 to 15 Inclusive and Spans 34 & 35 constructed under Job 10232. See Drwgs. 5893-5898 Incl. For details of truss spans See Drwgs. 6114 to 6129 Incl.

Bench Mark Nail in roof 18" White Oak, 75' Rt. Sta. 539+70 Elev. 302.22.

ELEVATION

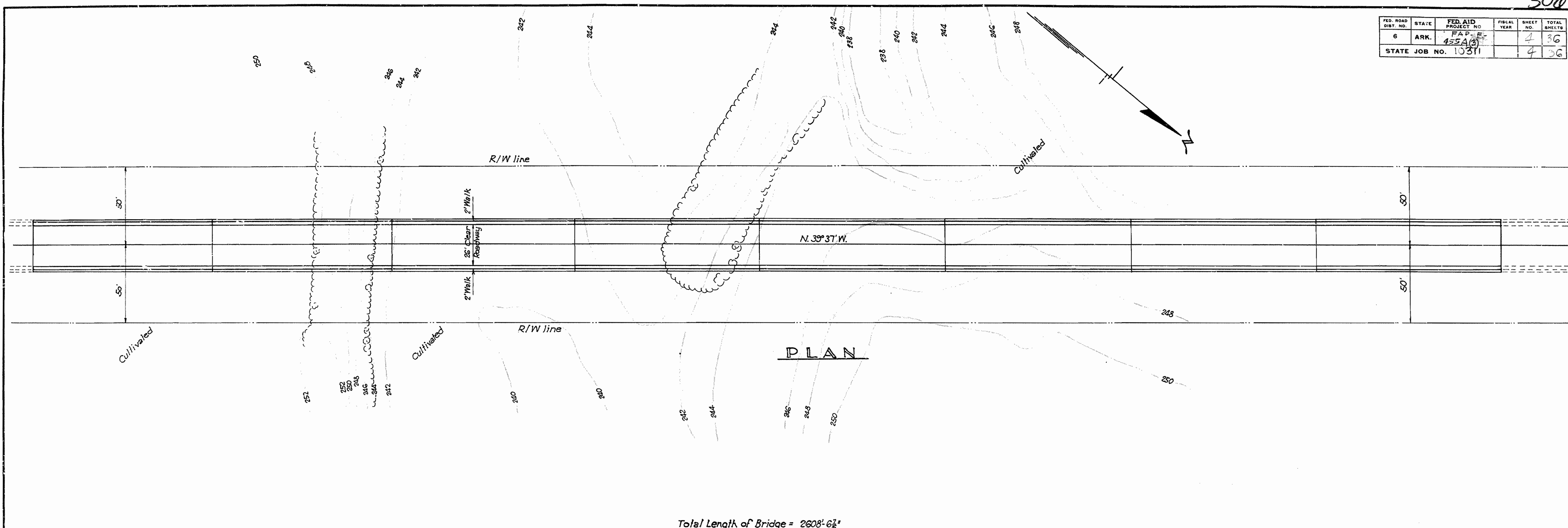
**SHEET No. 3 OF 3
LAYOUT OF
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
LAWRENCE COUNTY
ROUTE 63 SEC. 3**

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
Drawn By: E.A.W. Date: 5-24-40
Traced By: E.A.W. Date: 9-27-40
Checked By: _____ Date: _____
BRIDGE NO. 2112 DRAWING NO. 6109
Code No. 922

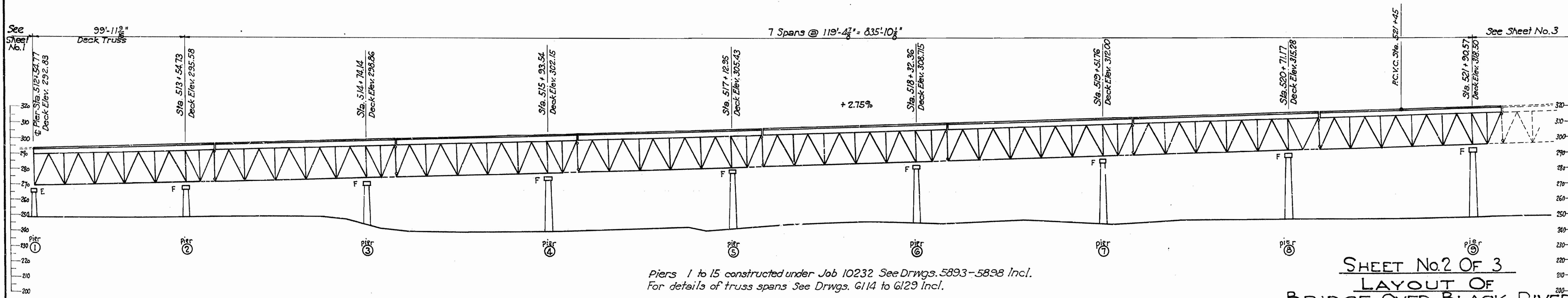
N.B. Jones
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

1 in. = 30 ft.

| FED. ROAD DIST. NO. | STATE | FED. AID PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|----------------------|-------------|-----------|--------------|
| 6 | ARK. | 455A(3) | | 4 | 36 |
| STATE JOB NO. 10311 | | | | | |



Total Length of Bridge = 2608'-6 1/8"



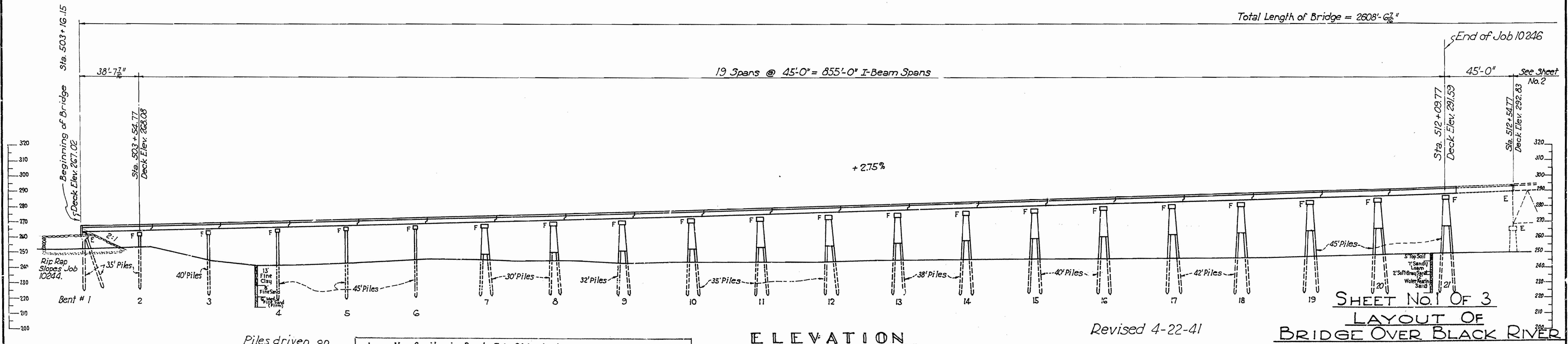
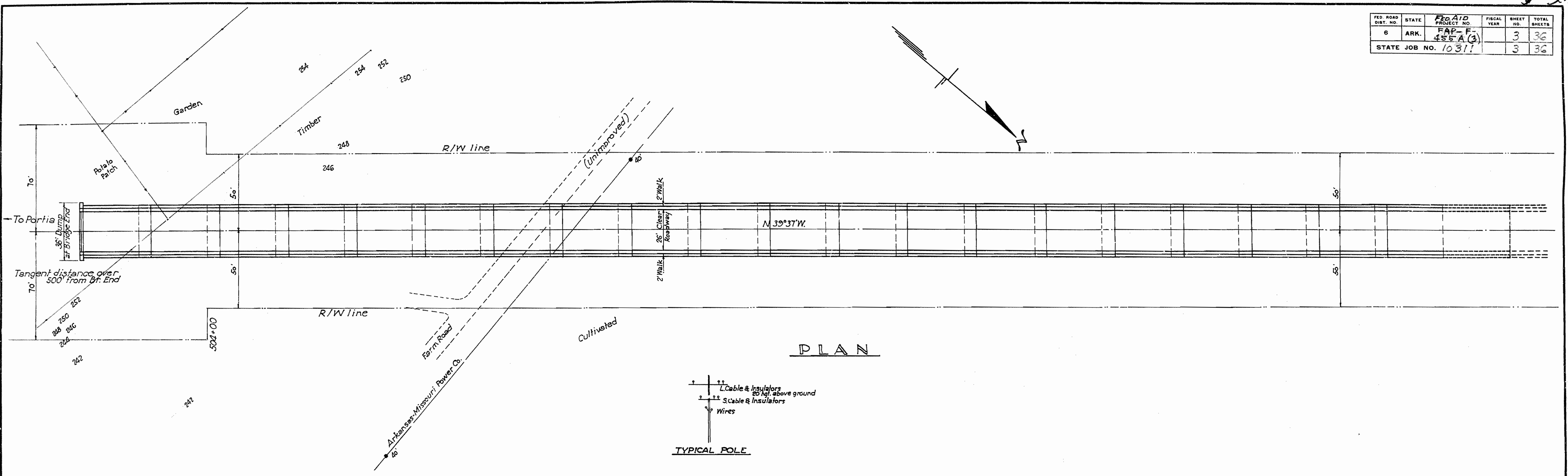
Piers 1 to 15 constructed under Job 10232 See Drwgs. 5893-5898 Incl. For details of truss spans See Drwgs. 6114 to 6129 Incl.

ELEVATION

SHEET No. 2 OF 3
LAYOUT OF
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
 LAWRENCE COUNTY
 ROUTE G3 SEC. 3
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: E.A.W. Date: 5-23-40
 Traced By: E.A.W. Date: 9-23-40
 Checked By: _____ Date: _____
 Scale: 1 in. = 30 ft.
BRIDGE NO. 2112 DRAWING NO. 6108

M. O. Lanier
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

| FED. ROAD DIST. NO. | STATE | FED. AID PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|----------------------|-------------|-----------|--------------|
| 6 | ARK. | FAP-F-455-A(3) | | 3 | 36 |
| STATE JOB NO. 10311 | | | | 3 | 36 |



Piles driven on Job 10246 See Special Provisions for Cut-off, Cut back and Build Up of Conc. Piles.

Length of piles in Bents 7 to 21 inclusive includes 3'-2" for cut-off. See IP 804.51 of Specifications Lengths of precast concrete piling shown are for estimating purposes only. Actual lengths are to be determined in the field by driving resistance encountered.

Drive one pile in each of Bents 4, 10, 15 & 19 as test piles.

For details of Bents 1 to 6 Inclusive, See Drwg. No. 6110.
For details of Bents 7 to 21 Inclusive, See Drwg. No. 6111.
For details of I-Beam Spans See Drwgs. No. 6112 & 6113.

Bench Marks
Spike in Root 24" thorn tree, 150' Rt. Sta. 499+50 Elev. 255.41
Nail in Root 30" Elm stump, 95' Ri. Sta. 485+75 Elev. 254.17

SHEET No. 1 OF 3
LAYOUT OF
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
LAWRENCE COUNTY
ROUTE G3 SEC. 3

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
Drawn By: E.A.W. Date: 5-24-40
Traced By: E.A.W. Date: 7-27-40
Checked By: _____ Date: _____
Scale: 1 in. = 30 ft.
BRIDGE NO. 2112 DRAWING NO. 6107

W. C. HANCOCK
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

Revised 4-22-41

| FED. ROAD DIST. NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------|-------------|-----------|--------------|
| 6 | ARK. | FAP-455-A(2) | | 2 | 36 |
| STATE JOB NO. 10311 | | | | 2 | 36 |

QUANTITIES JOB No. 10311

X031

| ITEM No. | ITEM | UNIT | BRIDGE No. 2112 CODE No. 922 X035 | | | | | | | | | | | BRIDGE No. 2189 CODE No. 924 | | | | BRIDGE No. 2190 CODE No. 924 | | | | TOTAL JOB No 10311 |
|----------|--|----------|-----------------------------------|--------------------|---------------------|--------|---------------------|---------|---------|----------------------|---------|----------------------|--------------------|------------------------------|--------------------|--------------------|--------------------|------------------------------|--------------------|--------------------|--------------------|--------------------|
| | | | BENT 1 | BENTS 2 to 6 Incl. | BENTS 7 to 21 Incl. | SPAN 1 | SPANS 2 to 20 Incl. | SPAN 21 | SPAN 22 | SPANS 23 to 29 Incl. | SPAN 30 | SPANS 31 to 33 Incl. | TOTAL Br. No. 2112 | BENTS 1 & 10 | BENTS 2 to 9 Incl. | SPANS 1 to 9 Incl. | TOTAL Br. No. 2189 | BENTS 1 & 7 | BENTS 2 to 6 Incl. | SPANS 1 to 6 Incl. | TOTAL Br. No. 2190 | |
| SP&B02 | Class 5 Concrete for Bridges | Cu. Yd. | 14.08 | 38.26 | 304.62 | 28.87 | 664.43 | 34.93 | 105.43 | 745.69 | 90.05 | 365.00 | 2391.36 | 27.72 | 54.60 | 235.34 | 317.66 | 31.90 | 32.15 | 156.93 | 220.98 | 2930.00 |
| SP&B03 | Reinforcing Steel | Lb. | 191 | 2,386 | 20,781 | | 5,304 | 6,657 | 23,496 | 165,669 | 19,911 | 71,820 | 316,215 | 905 | 4,186 | 20,624 | 25,715 | 1903 | 2,145 | 31,062 | 35,110 | 377,040 |
| SP&B03 | Cleaning and Placing Reinforcing Steel on Hand | Lb. | 1,545 | 3,330 | 32,539 | 5,536 | 119,035 | | | | | | 161,985 | 3,449 | 6,216 | 28,986 | 38,651 | 3,449 | 3,885 | | 7,334 | 207,970 |
| SP&B04 | Cutting Back Concrete Piles | Each | 8 | 16 | 90 | | | | | | | | 114 | | 3 | | 3 | 7 | | | 7 | 124 |
| B05 | Concrete Railing | Lin. Ft. | | | | | | | | | | | | | | | | 12 | | 384 | 396 | 396 |
| SP&B05 | Concrete Railing for Bridge No. 2189 | Lin. Ft. | | | | | | | | | | | | 12 | | 576 | 588 | | | | | 588 |
| SP&B07 | Structural Steel in Beam Spans | Lb. | 530 | | | 27,080 | 668,980 | 39,210 | | | | | 735,800 | 1,010 | | 159,190 | 160,200 | 1,010 | | 106,290 | 107,300 | 1,003,300 |
| SP&B07 | Structural Steel in Truss Spans | Lb. | | | | | | | 154,500 | 1,038,500 | 117,700 | 334,900 | 2,245,600 | | | | | | | | | 2,245,600 |
| 929 | Bridge Name Plates (Type A) | Each | 1 | | | | | | | | | | 1 | 1 | | | 1 | 1 | | | 1 | 3 |
| S.P. | Removal of Existing Bridge | Complete | | | | | | | | | | | | | | | | | | | 100% | 100% |

ADJUSTMENTS TO BE MADE TO EXISTING CONCRETE PILES

| BRIDGE No. 2112 | | | | | BRIDGE No. 2112 | | | | |
|-----------------|------------------------------------|--------------------------------|----------------------------|----------------------------|-----------------|---|-------------------------------|-------------------|----------------------------|
| Bent No. | Buildups | Total Length of Vertical Bars. | Length of Cut-off | Length of Cut-back | Bent No. | Buildups | Total Length of Vertical Bars | Length of Cut-off | Length of Cut-back |
| 1 | | | 8 Piles Total 30.2 feet | | 19 | 1 Pile No. 3 3.0 feet | 8-7/8" x 6'-0" | | 6 Piles Total 19.0 feet |
| 2 | | | 3 Piles Total 7.7 feet | | 20 | | | | 6 Piles Total 19.0 feet |
| 3 | | | 1 Pile 0.5 feet | | 21 | 2 Piles (No. 1 & 4)* Total 38.2 feet | 8-7/8" x 44'-3" | | 6 Piles Total 57.4 feet |
| 4 | 2 Piles Total 11.8 feet | 8-7/8" x 11'-10" | | 2 Piles Total 6.4 feet | BRIDGE No. 2189 | | | | |
| 5 | 5 Piles Total 39.4 feet | 8-7/8" x 39'-5" | | 5 Piles Total 16.0 feet | 3 | 1 Pile (No. 1) 13.7 feet | 8-7/8" x 13'-7" | | 1 Pile 3.2 feet |
| 6 | 5 Piles Total 35.5 feet | 8-7/8" x 35'-6" | | 5 Piles Total 16.0 feet | 3 | 1 Pile (No. 3)* 18.5 feet | 8-7/8" x 18'-6" | | 1 Pile 18.5 feet |
| 7 | | | | 6 Piles Total 19.0 feet | 8 | 1 Pile (No. 4) 13.6 feet | 8-7/8" x 13'-7" | | 1 Pile 3.2 feet |
| 8 | | | | 6 Piles Total 19.0 feet | BRIDGE No. 2190 | | | | |
| 9 | 2 Piles (1 & 4)* Total 7.1 feet | 8-7/8" x 23'-1" | | 6 Piles Total 45.7 feet | 1 | 7 Piles Total 60.5 feet | 8-7/8" x 60'-6" | | 7 Piles Total 22.4 feet |
| 10 | 1 Pile Total 16.7 feet | 8-7/8" x 19'-7" | | 6 Piles Total 19.0 feet | | | | | |
| 11 | 1 Pile (No. 4)* 11.6 feet | 8-7/8" x 14'-7" | | 6 Piles Total 33.8 feet | | | | | |
| 12 | | | | 6 Piles Total 19.0 feet | | | | | |
| 13 | | | | 6 Piles Total 19.0 feet | | | | | |
| 14 | 4 Piles Total 12.2 feet | 8-7/8" x 24'-4" | | 6 Piles Total 19.0 feet | | | | | |
| 15 | 1 Pile (No. 3) 6.7 feet | 8-7/8" x 9'-8" | | 6 Piles Total 19.0 feet | | | | | |
| 16 | | | | 6 Piles Total 19.0 feet | | | | | |
| 17 | 1 Pile (No. 1)* 17.8 feet | 8-7/8" x 20'-10" | | 6 Piles Total 37.0 feet | | | | | |
| 18 | | | | 6 Piles Total 19.0 feet | | | | | |

NOTE: Information in above table to be checked in the field
Piles marked * are to be cut back to ground line.

REVISED Oct. 4, 1946 Str. Steel Quantities.

SUMMARY OF QUANTITIES
BRIDGE OVER BLACK RIVER AND
ADJACENT RELIEF OPENINGS
AT BLACK ROCK ARKANSAS
LAWRENCE COUNTY
ROUTE 63 SEC. 3

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

Drawn By: L.P.C. Date: 1-12-46
Traced By: L.A.M.E. Date: 2-21-46
Checked By: _____ Date: _____
Scale: _____ in. = _____ ft.
BRIDGE No. 2112, 2189, 2190 DRAWING NO. 6106-A

M.B. Garner
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

| | | | | | |
|---------------------|-------|-------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | 455A(3) | | 2 | 12 |
| STATE JOB NO. 10246 | | | | 2 | 12 |

QUANTITIES JOB NO. 10246

| Item No | Item | Unit | BRIDGE NO 2112 CODE NO 922 | | | | | | BRIDGE NO 2189 CODE NO. 924 | | | | BRIDGE NO 2190 CODE NO. 924 | | | | Grand Total Job No. 10246 |
|---------|--------------------------------|----------|----------------------------|--------------------|---------------------|--------|---------------------|---------|-----------------------------|--------------------|--------------------|---------|-----------------------------|--------------------|--------------------|----------|---------------------------|
| | | | Bent 1 | Bents 2 to 6 incl. | Bents 7 to 21 incl. | Span 1 | Spans 2 to 20 incl. | Total | Bents 1 & 10 | Bents 2 to 9 incl. | Spans 1 to 9 incl. | Total | Bents 1 & 7 | Bents 2 to 6 incl. | Spans 1 to 6 incl. | Total | |
| SP&B02 | Class 5 Concrete for Bridges | Cu. Yd. | 14.08 | 32.27 | 296.10 | 28.87 | 664.38 | 1035.70 | 27.72 | 51.44 | 235.34 | 314.50 | 27.72 | 32.15 | 156.93 | 216.80 | 1567.00 |
| 803 | Reinforcing Steel | Lb. | 1768 | 4285 | 50,655 | 5,455 | 125,237 | 187,400 | 4,226 | 9,648 | 46,726 | 60,600 | 4,226 | 6,030 | 31,144 | 41,400 | 289,400 |
| 804 | Concrete Piling | Lin. Ft. | 280 | 1,050 | 3147 | | | 4,477 | 560 | 1,440 | | 2,000 | 630 | 900 | | 1,530 | 8,007 |
| 804 | Concrete Pile Cut Off | Lin. Ft. | | | 285 | | | 285 | | | | | | | | | 285 |
| 805 | Concrete Railing | Lin. Ft. | | | | | | | 12 | | 576 | 588 | 12 | | 384 | 396 | 984 |
| SP&B07 | Structural Steel in Beam Spans | Lbs. | 530 | | | 26516 | 661,954 | 689,000 | 1,010 | | 153,490 | 154,500 | 1,010 | | 102,490 | 103,500 | 947,000 |
| 929 | Bridge Name Plates (Type B) | Each | | | | | | | 1 | | | 1 | 1 | | | 1 | 2 |
| SP | Removal of Existing Bridge | Complete | | | | | | | | | | | | | Complete | Complete | |

Revised 5-12-41 Name Plates out Br. No. 2112.

SUMMARY OF QUANTITIES
 BRIDGE OVER BLACK RIVER AND
 ADJACENT RELIEF OPENINGS
 AT BLACK ROCK ARKANSAS
 LAWRENCE COUNTY
 ROUTE 63 SEC. 3

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.

Drawn By: L.R.C. Date: 4-22-41
 Traced By: L.A.M.S. Date: 4-25-41
 Checked By: _____ Date: _____
 Scale: _____ in. = ft.
 BRIDGE NO. 2112-2189-2190 DRAWING NO. 6106

L.R.C. Harver
 PRINCIPAL HIGHWAY ENGINEER (BRIDGES)

| FED. ROAD DIST. NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS | |
|---------------------|-------|-------------|-------------|-----------|--------------|----|
| 6 | ARK. | F-455A | | 1 | 36 | |
| STATE JOB NO. 10311 | | | | | 1 | 36 |

STATE OF ARKANSAS
STATE HIGHWAY COMMISSION

PLAN OF PROPOSED BRIDGES
OVER BLACK RIVER AT BLACK ROCK
& ADJACENT RELIEF OPENINGS

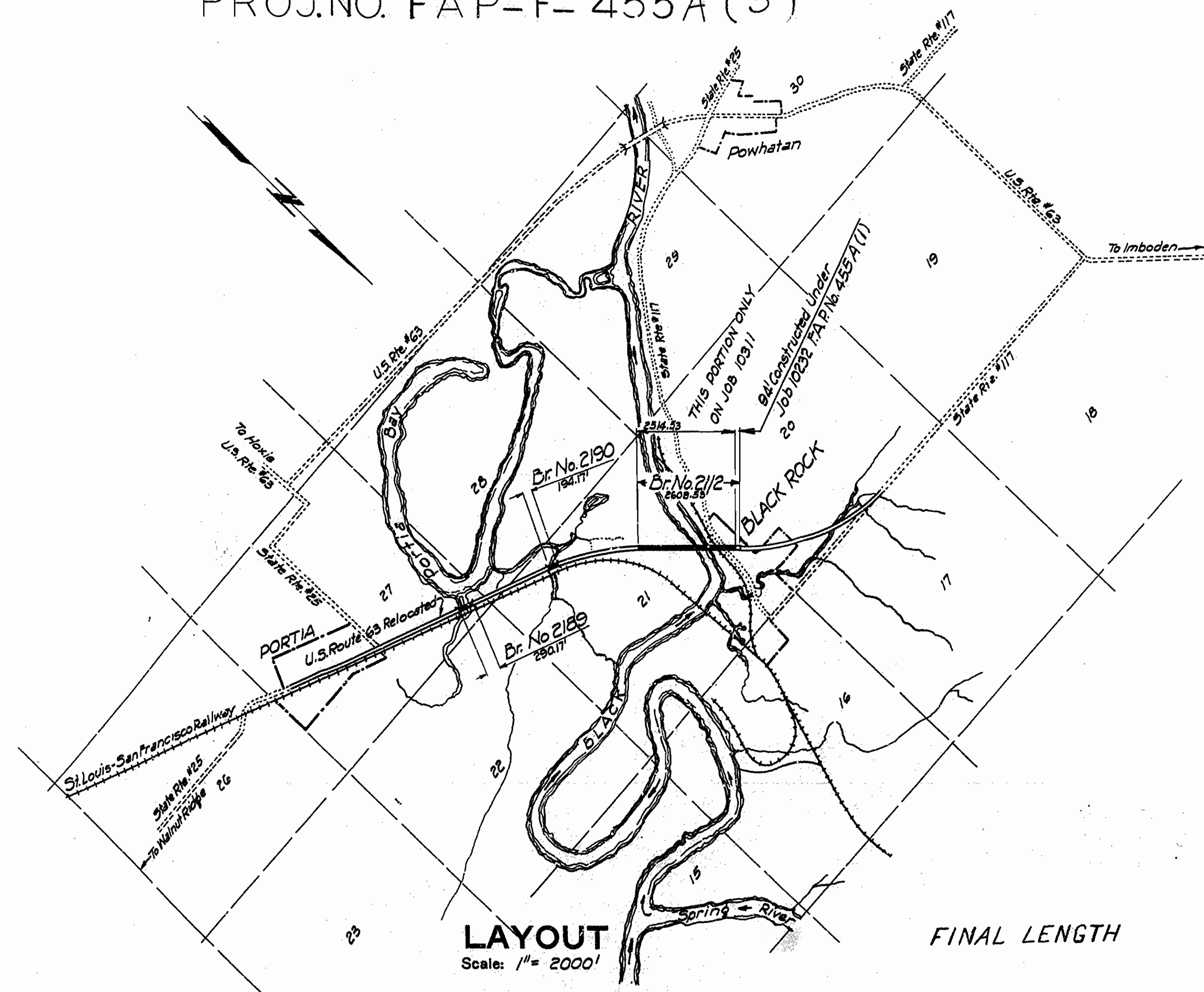
ROUTE 63 SEC. 3
JOB NO 10311
PROJ. NO. FAP-F-455A(3)

INDEX OF SHEETS

| Sheet No | Draw. No | Title |
|----------|-----------|---------------------------------------|
| 1 | 6105-A | Title Sheet Job No. 10311 |
| 2 | 6106-A | Quantity Sheet Job No. 10311 |
| 3-5 | 6107-6109 | Layout Bridge No. 2112 |
| 6 | 6110 | Details of Bents 1 to 6 Inclusive |
| 7 | 6111 | Details of Bents 7 to 21 Inclusive |
| 8-9 | 6112-6113 | Details of I-Beam Spans |
| 10 | 6114 | Stress Sheet Spans 22 to 30 Inclusive |
| 11 | 6115 | Stress Sheet Spans 31 to 33 Inclusive |
| 12-17 | 6116-6121 | Details of Spans 22 to 30 Inclusive |
| 18-25 | 6122-6129 | Details of Spans 31 to 33 Inclusive |
| 26 | 6137 | Layout of Bridge No. 2189 |
| 27 | 6138 | Layout of Bridge No. 2190 |
| 28 | 5234 | Details of Standard 32' I-Beam Spans |
| 29 | 5234-A | Details of Bents for 32' I-Beam Spans |
| 30 | 2387 | Details of Bridge Name Plates |
| 31-36 | 5893-5898 | Details of Piers And Spans in Place |

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION
STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
ADOPTED MARCH 1, 1940 WITH THE SPECIAL PROVISIONS LISTED BELOW

| No. | PAMPHLETS | | No. SHEETS |
|--------------------|---|------------|------------|
| | DIVISION | PART | |
| | I | | |
| | II | 8a, 8b, 9 | |
| | III | | |
| | IV | | |
| SPECIAL PROVISIONS | | | |
| No. | TITLE | No. SHEETS | |
| 2-1 | Required Contract Provisions | 8 | |
| | Revision of Article 2.11 (Appr. 2-8-41) | 2 | |
| 2-2 | Equipment List Required | 1 | |
| 2-4 | State License for Contractors | 1 | |
| 4-1 | Revision of Article 4.9 | 1 | |
| 8-3 | Special Provision Pertaining to the Required Contract Provisions for Federal Aid Projects | 2 | |
| 9-5 | Partial Payments | 1 | |
| 803-1 | Revision of Article 803.21 | 1 | |
| 807-4 | Revision of Article 807.29 | 1 | |
| 807-5 | Revision of Article 807.29(e) | 1 | |
| 890-1 | Engineers Field Office | 1 | |
| 853-1 | Machine Mixing | 1 | |
| Job No. 10311 | Cleaning and Placing Reinforcing Steel on Hand | 1 | |
| Job No. 10311 | Concrete Piling | 1 | |
| Job No. 10311 | Concrete Railing for Bridge 2189 | 1 | |
| Job No. 10311 | Removal of Existing Bridge (5-9-46) | 1 | |



FINAL LENGTH

| | | |
|----------------------|--|-----------------------------|
| LENGTH OF PROJECT | 2998.87 OR 0.566 MI. | 2998.87 FEET OR 0.566 MILES |
| LENGTH OF BRIDGES | 3026.87 OR 0.563 MI. | 2998.87 " " 0.566 " |
| LENGTH OF EMBANKMENT | 0 | 0.00 " " 0.000 " |
| LENGTH OF JOB | 2998.87 OR 0.566 MI. | 2998.87 " " 0.566 " |

REVISED 8-29-47 SPECIAL PROVISIONS

APPROVED

CHIEF ENGINEER - STATE HIGHWAY COMMISSION

APPROVED

CHAIRMAN - STATE HIGHWAY COMMISSION

RECOMMENDED FOR APPROVAL

DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

APPROVED

DIVISION ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

M. O. Lawrence
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

| FED. ROAD DIST. NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS | |
|---------------------|-------|-------------|-------------|-----------|--------------|----|
| 6 | ARK. | 235A(3) | | 1 | 12 | |
| STATE JOB NO. 10246 | | | | | 1 | 12 |

STATE OF ARKANSAS
STATE HIGHWAY COMMISSION

QUANTITIES

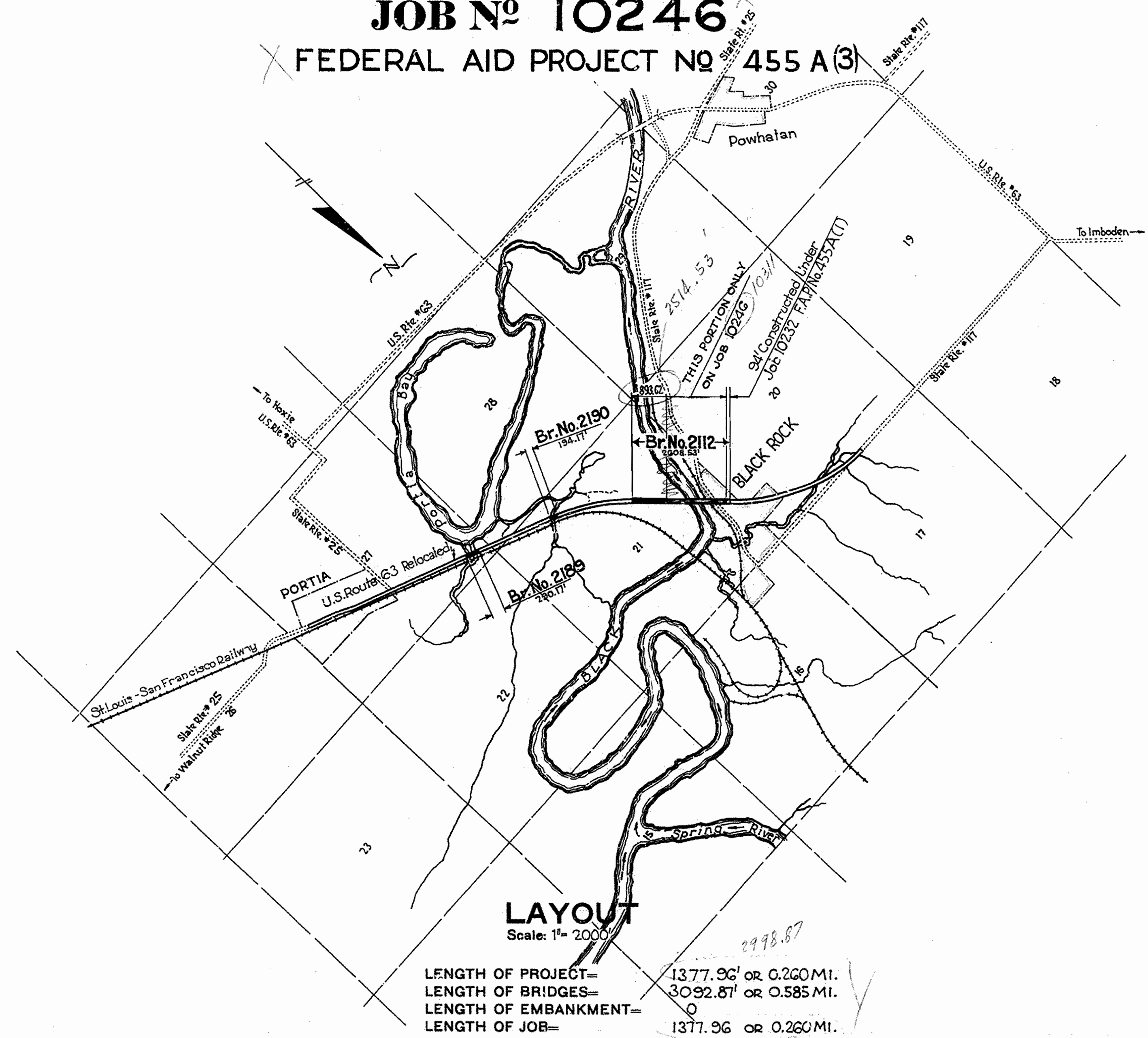
INDEX OF SHEETS

| Sheet No. | Drawing No. | Title |
|-----------|-------------|--|
| 1 | G105 | Title Sheet Job No. 10246. |
| 2 | G106 | Quantity Sheet. |
| 3 | G107 | Layout Bridge No. 2112. |
| 4 | G110 | Details of Bents 1 to 6 Inclusive. |
| 5 | G111 | Details of Bents 7 to 21 Inclusive. |
| 6-7 | G112-G113 | Details of I-Beam Spans. |
| 8 | G137 | Layout Bridge No. 2189. |
| 9 | G138 | Layout Bridge No. 2190. |
| 10 | 5234 | Details Std. 32' I-Beam Spans. |
| 11 | 5234-A | Details Bents for Std. 32' I-Beam Spans. |
| 12 | 2387 | Details Bridge NamePlates |

**PLAN OF PROPOSED BRIDGE
OVER BLACK RIVER AT BLACK ROCK
& ADJACENT RELIEF OPENINGS**

LAWRENCE COUNTY
ROUTE 63 SEC. 3
JOB NO 10246

FEDERAL AID PROJECT NO 455 A(3)



LENGTH OF PROJECT= 1377.96' OR 0.260 MI.
LENGTH OF BRIDGES= 3092.87' OR 0.585 MI.
LENGTH OF EMBANKMENT= 0
LENGTH OF JOB= 1377.96 OR 0.260 MI.

SPECIFICATIONS:
Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction, Adopted March 1st, 1940, together with Special Provisions listed.

- PAMPHLETS
DIVISION I
DIVISION II Parts 8a, 8b, 9
DIVISION III
DIVISION IV

| No. | SPECIAL PROVISIONS | Sheets |
|-------|--|--------|
| | Required Special Provisions (Appr. 5-5-41) | 12 |
| | Wages of Labor | 1 |
| 7-2 | Unemployment Compensation or Insurance | 1 |
| 8-3 | Employment Centers for Labor | 1 |
| 850-1 | Engineer's Field Office | 1 |
| 853-1 | Machine Mixing | 1 |
| | Removal of Existing Bridge (3-3-41) | 1 |
| 2-1 | Revision of Art. 2.11 of Section 2 (Appvd. 2-3-41) | 2 |
| 807-3 | Revision of Art. 807.37 | 1 |

Revised 4-22-41
Revised 5-12-41 Required Special Provisions.
Special Name Plates out.

APPROVED [Signature] CHAIRMAN STATE HIGHWAY COMMISSION

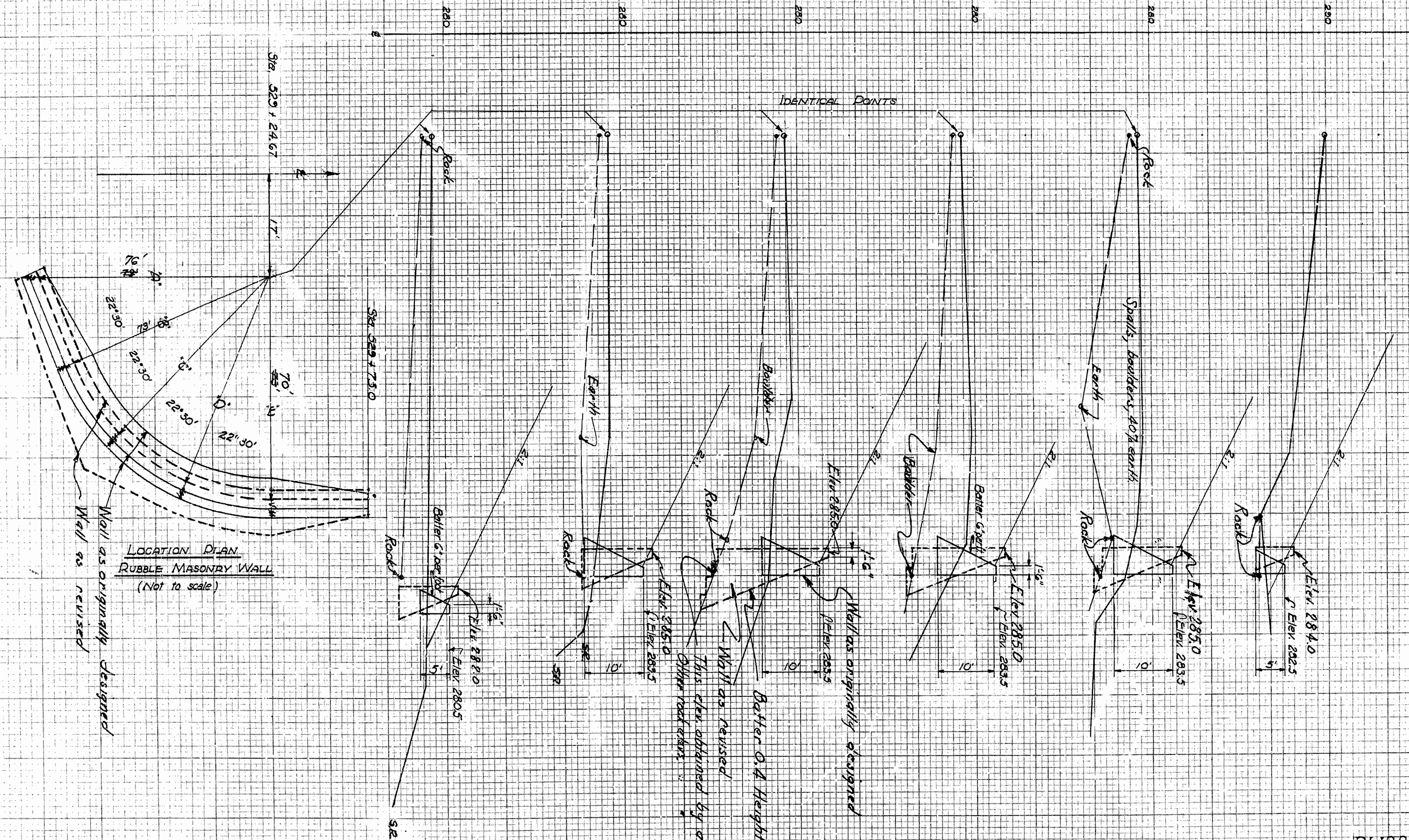
APPROVED [Signature] STATE HIGHWAY ENGINEER
RECOMMENDED FOR APPROVAL

DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

APPROVED [Signature] COMMISSIONER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

M.B. Jones
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

| | | | | | |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | Ark. | 455-A(1) | | 12 | 13 |
| STATE JOB NO. 10232 | | | | 12 | 13 |



LOCATION PLAN
RUBBLE MASONRY WALL
(Not to scale)

Wall as originally designed

Wall as revised
This elev. obtained by driving test pile
at sounding rods

Revised May 27, 1941

DETAILS OF
RUBBLE MASONRY WALL
ROUTE 63 Sec 3&4
ARKANSAS STATE HIGHWAY COMM.
Little Rock, Arkansas

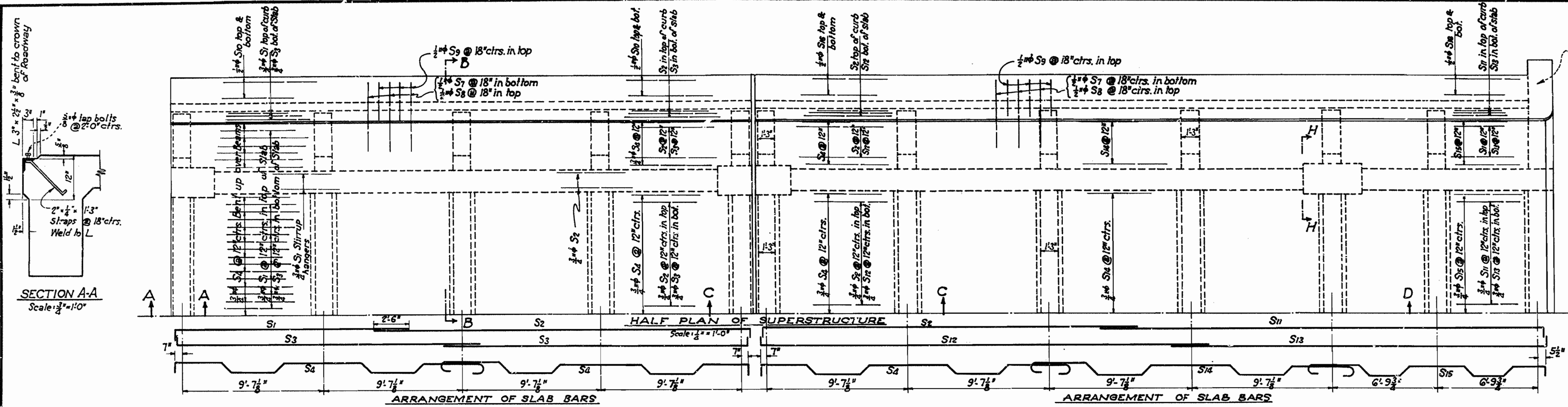
DRAWN BY: L.P.C. 6-27-40
TRACED BY: G.F.D. 6-27-40
CHECKED BY:
BRIDGE No 2112

SCALE 1/4" INCH = 10' OR
LARGER (and as noted)

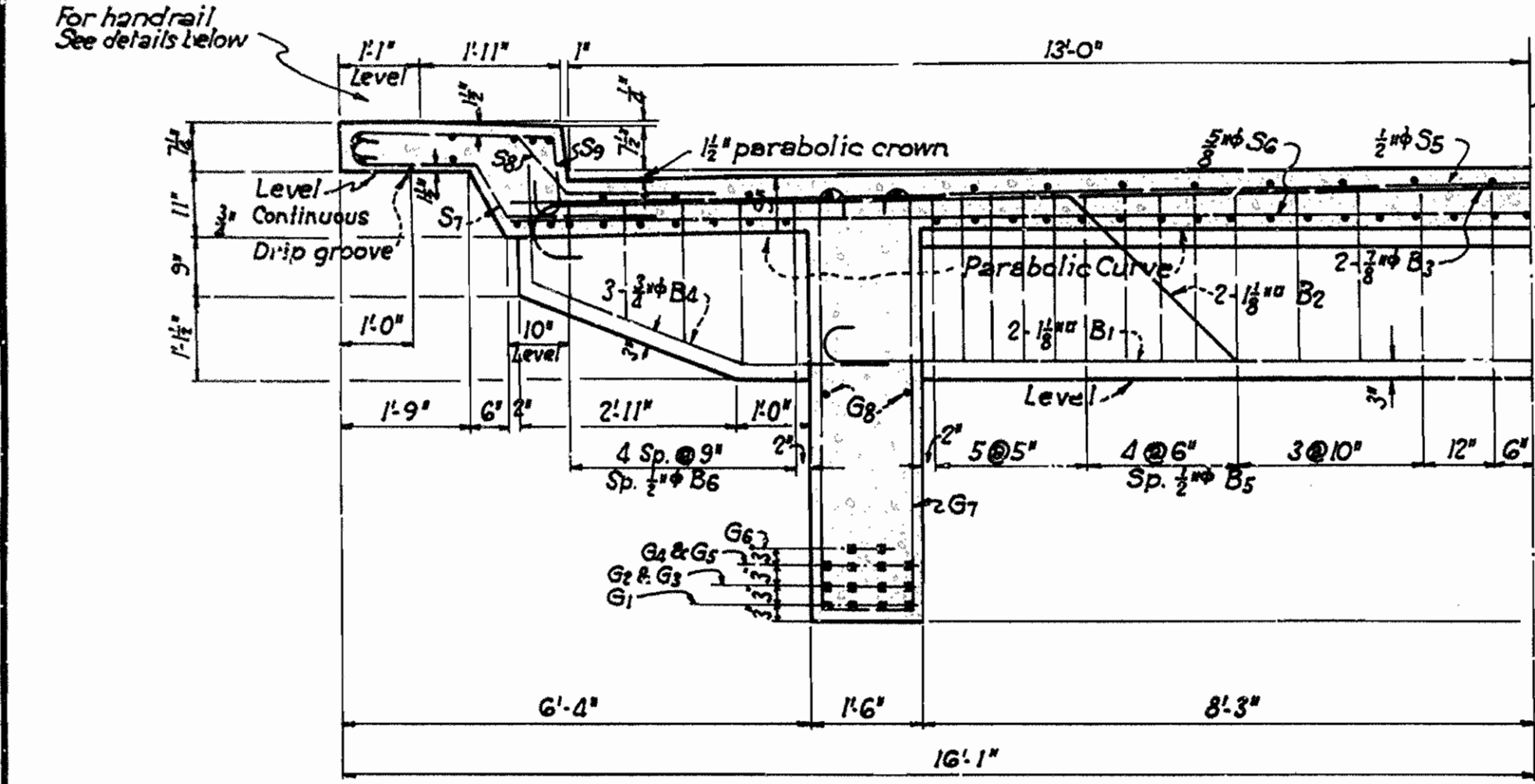
DRAWING No 3899

H.C. Law
Principal Highway Engineer (Bridge)

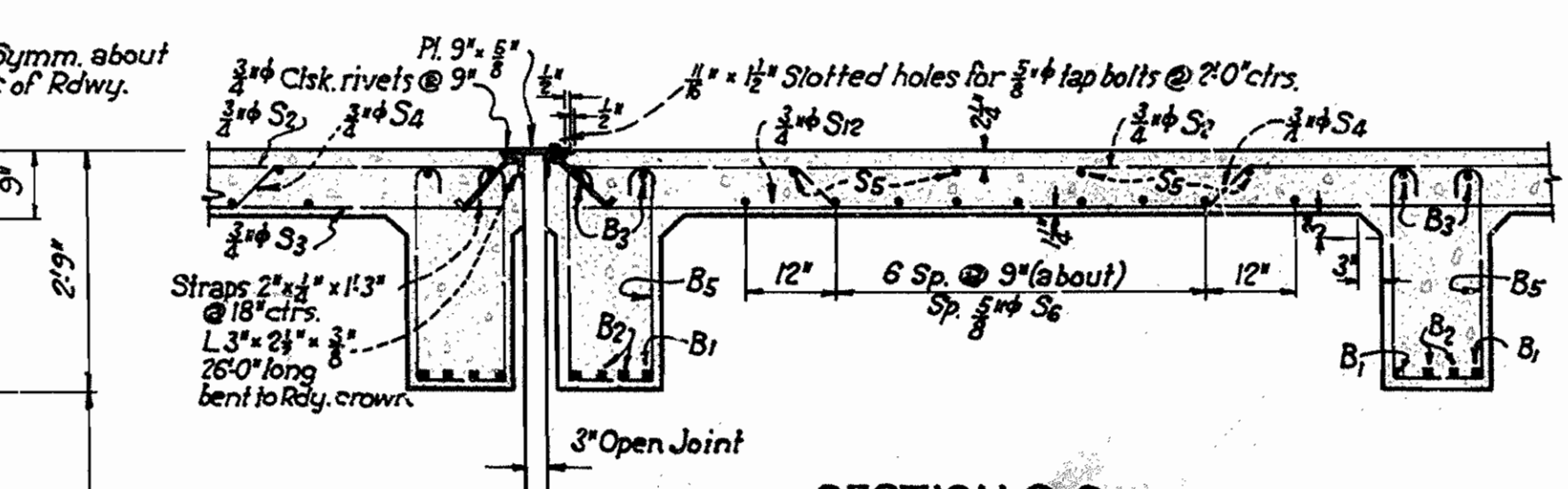
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|---------------------|-------|----------------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | FED. AID PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | 455A (1) | | 11 | 13 |
| STATE JOB NO. 10232 | | | | | 11 |
| " " No. 10311 | | | | | 36 |



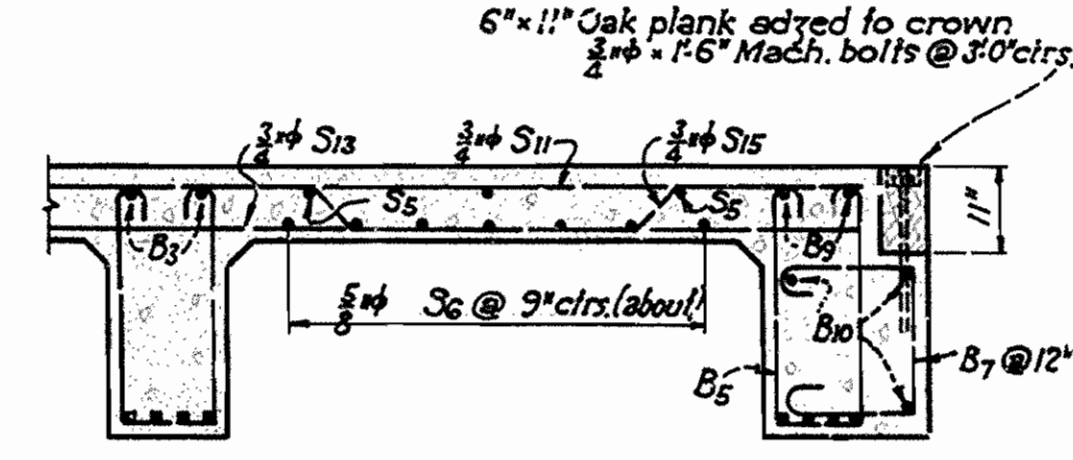
SECTION A-A
Scale: 3/4" = 1'-0"



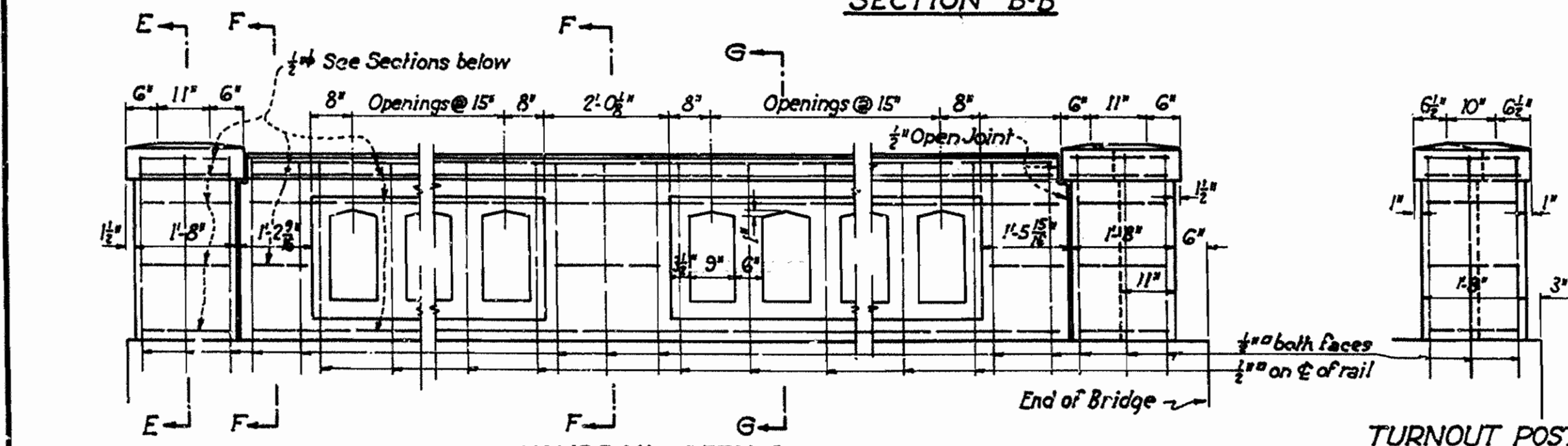
SECTION B-B



SECTION C-C

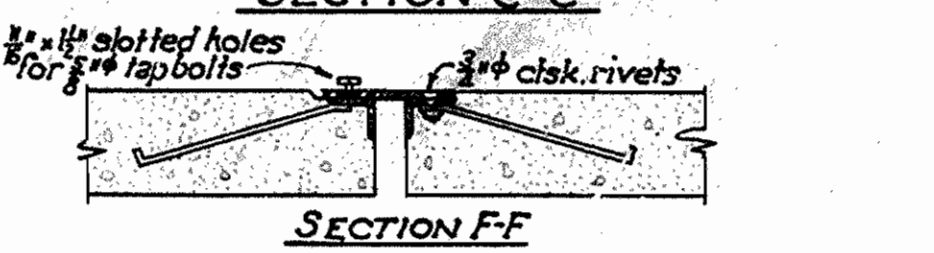


SECTION D-D

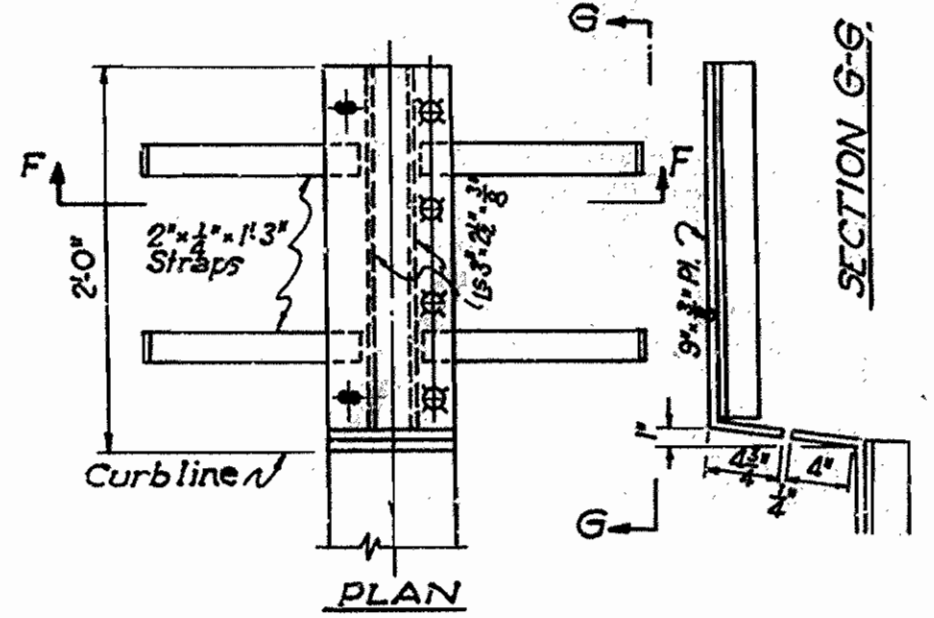


HANDRAIL DETAILS

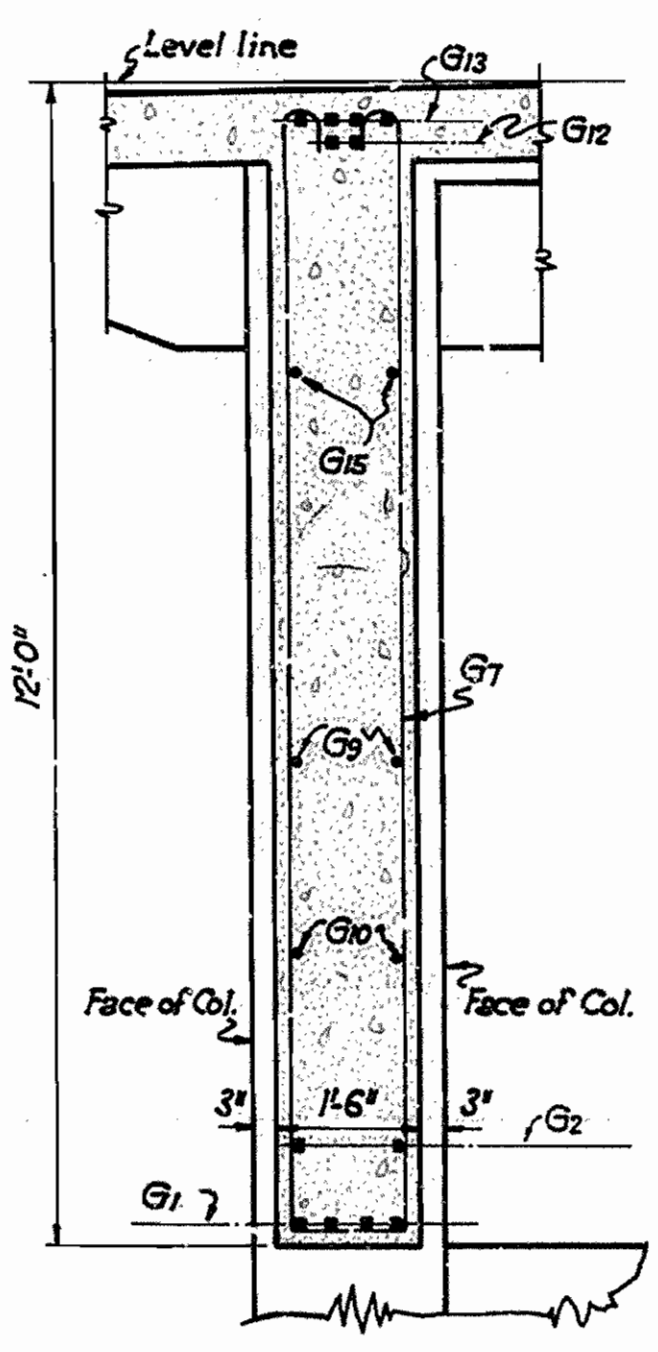
TURNOUT POST



SECTION F-F



DETAILS OF SIDEWALK EXP. DEVICE
Scale: 1/2" = 1'-0"



SECTION H-H
(See also Drwg. No. 5897 for G3 and G4 bars)

GENERAL NOTES:
 All concrete to be Class 'A' or Class 'S'. See detail drawings.
 All exposed corners to have 3/8" chamfer unless otherwise noted.
 Shop lists and bending diagrams of reinforcing steel must be submitted and approved before fabrication is begun.
 Rivets as noted.
 Shop Paint: All structural steel (except surfaces in contact with concrete) to be given one coat of red lead and raw linseed oil before shipment.
 Field Paint: 1st coat, White lead tinted with lamp black.
 2nd coat, Aluminum paint.
 Pin holes in anchors to receive one coat of white lead and tallow in shop and an additional coat after erection.
 All structural steel including anchor bolts and oak header bolts to be paid for at the unit price bid for "Metal Bearing and Roadway Expansion Devices".
 Oak header plank to be paid for at the unit price bid for "Class 'S' Concrete for Bridges".
 Drawings show general features of design only. Shop drawings for structural steel shall be submitted and approved before fabrication is begun.

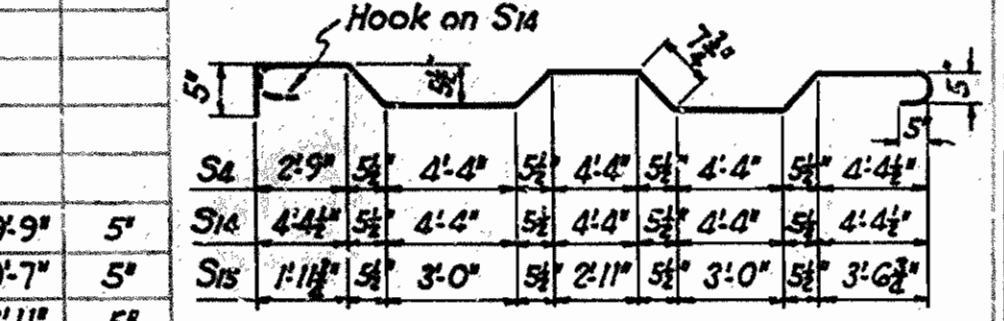
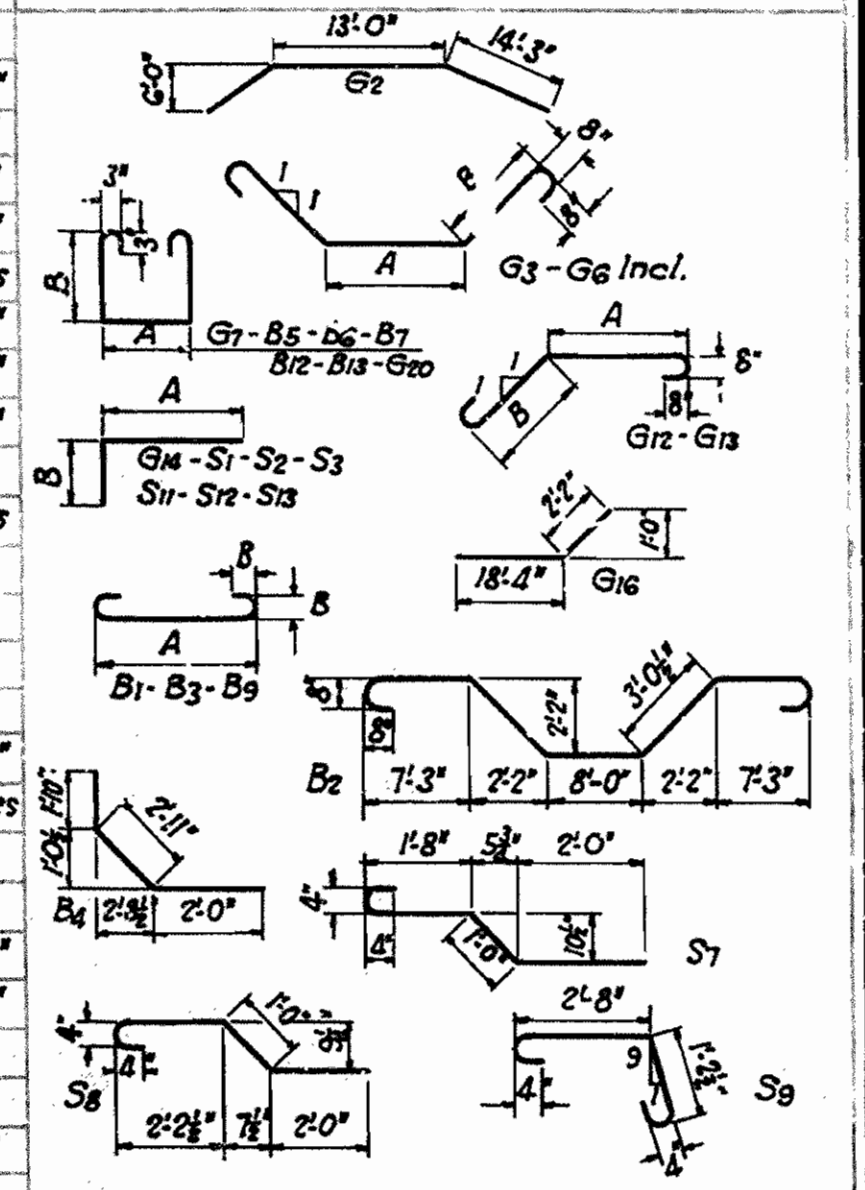
GENERAL NOTES: (Cont.)
 Specifications: Arkansas State Highway Commission, Standard Specifications for Road and Bridge Construction, adopted March 13, 1940.

Unit Stresses
 Class 'S' Concrete (n=12) 800#/sq in.
 Class 'A' Concrete (n=15) 650#/sq in.
 Reinforcing Steel 16000#/sq in.
 Structural Steel 18000#/sq in.
 Design Live Load = H15
 For additional details, See Drwg. No. 5897.

LIST OF BARS

| Mark | Size | Length | A | B |
|------|------|------------|------------|-----------|
| G2 | 1/2" | 41'-6" | | |
| G3 | 1/2" | 44'-9" | 28'-0" | 7'-4 1/2" |
| G4 | 1/2" | 40'-6" | 24'-6" | 7'-0" |
| G5 | 1/2" | 36'-6" | 20'-6" | 7'-0" |
| G6 | 1/2" | 31'-4" | 16'-0" | 6'-8" |
| G7 | 1/2" | Varies | 1'-2 1/2" | Varies |
| G12 | 1/2" | 30'-6" | 20'-6" | 8'-0" |
| G13 | 1/2" | 43'-6" | 33'-6" | 8'-0" |
| G14 | 1" | 26'-6" | 22'-0" | 3'-6" |
| G15 | 1" | 20'-6" | | |
| G20 | 1/2" | Varies | 1'-2 1/2" | Varies |
| B1 | 1/2" | 21'-0" | 19'-0" | 8" |
| B2 | 1/2" | 30'-7" | | |
| B3 | 1/2" | 28'-8" | 26'-10" | 7" |
| B4 | 1/2" | 6'-9" | | |
| B5 | 1/2" | 6'-5" | 1'-0" | 2'-3 3/8" |
| B6 | 1/2" | Varies | 1'-0 1/2" | Varies |
| B7 | 1/2" | 4'-11" | 1'-4" | 1'-5" |
| B8 | 1/2" | 35'-4" | 33'-6" | 7" |
| B9 | 1/2" | 6'-3" | 11'-0 1/2" | 2'-2 3/8" |
| B10 | 1/2" | 8'-2" | 1'-5" | 3'-0" |
| S1 | 3/4" | 16'-8" | 16'-3" | 5" |
| S2 | 3/4" | 26'-3" | 25'-10" | 5" |
| S3 | 3/4" | 21'-5" | 21'-0" | 5" |
| S4 | 3/4" | 23'-9" | | |
| S7 | 3/4" | 5'-2" | | |
| S8 | 3/4" | 5'-8 1/2" | | |
| S9 | 3/4" | 4'-10 1/2" | | |
| S11 | 3/4" | 30'-2" | 29'-9" | 5" |
| S12 | 3/4" | 31'-0" | 30'-7" | 5" |
| S13 | 3/4" | 25'-4" | 24'-11" | 5" |
| S14 | 3/4" | 25'-7" | | |
| S15 | 3/4" | 18'-1" | | |
| G1 | 1/2" | 43'-6" | | |
| G8 | 1/2" | 22'-0" | | |
| G9 | 1/2" | 10'-0" | | |
| G10 | 1/2" | 5'-0" | | |
| G15 | 1/2" | 36'-0" | | |
| G17 | 1/2" | 8'-0" | | |
| G18 | 1/2" | 11'-0" | | |
| G19 | 1/2" | 13'-0" | | |
| B8 | 1/2" | 8'-6" | | |
| B10 | 1/2" | 33'-6" | | |
| B11 | 1/2" | 3'-6" | | |
| S5 | 3/4" | 27'-6" | | |
| S6 | 3/4" | 27'-6" | | |
| S10 | 3/4" | 20'-3" | | |
| S16 | 3/4" | 27'-9" | | |

Bending Diagram



Hook on S16

Straight Bars

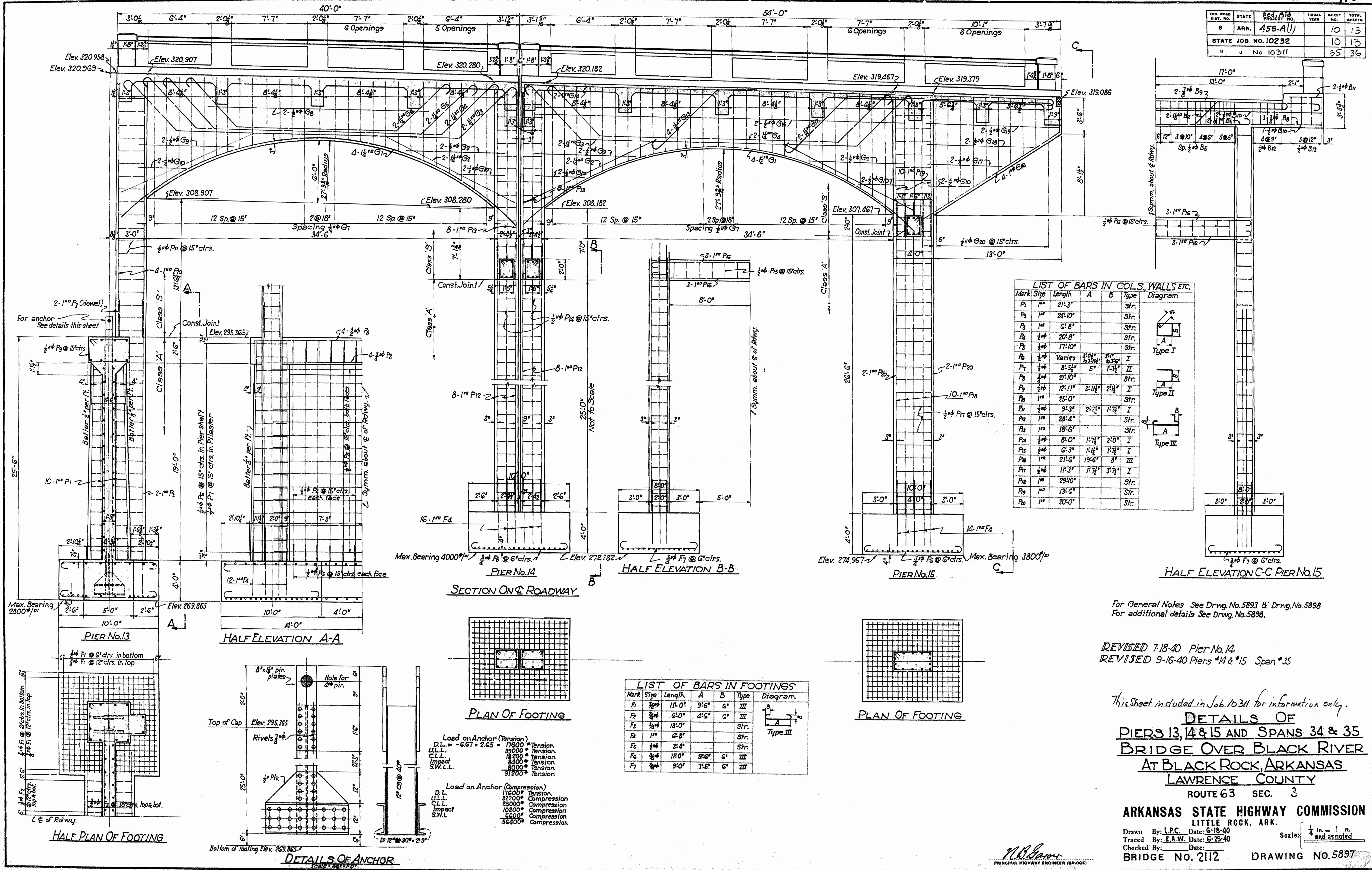
REVISED 9-16-40 Girder Reinf.

This sheet included in Job 10311 for information only.
**DETAILS OF SPANS 34 & 35
 BRIDGE OVER BLACK RIVER
 AT BLACK ROCK, ARKANSAS
 LAWRENCE COUNTY
 ROUTE G3 SEC. 3**

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: L.P.C. Date: 6-24-40
 Traced By: E.A.W. Date: 6-27-40
 Checked By: _____ Date: _____
 Scale: 1/2" = 1' and as noted
BRIDGE NO. 2112 DRAWING NO. 5898

N. B. Lewis
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

| | | | | | |
|---------------------|-------|----------------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | Fed. Aid PROJECT No. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | 455-A(1) | | 10 | 13 |
| STATE JOB NO. 10232 | | | | | 10 |
| " " No 10311 | | | | | 35 |
| | | | | | 36 |



LIST OF BARS IN COLS, WALLS ETC.

| Mark | Size | Length | A | B | Type | Diagram |
|------|------|-----------|-----------|-----------|------|----------|
| P1 | 1" | 21'-3" | | | Str. | Type I |
| P2 | 1" | 24'-10" | | | Str. | |
| P3 | 1" | 6'-8" | | | Str. | |
| P4 | 1/2" | 20'-8" | | | Str. | Type II |
| P5 | 1/2" | 17'-10" | | | Str. | |
| P6 | 1/2" | Varies | 3'-0" | 3'-0" | I | Type III |
| P7 | 1/2" | 8'-5 1/2" | 5' | 1'-7 1/2" | II | |
| P8 | 3/8" | 21'-10" | | | Str. | Type I |
| P9 | 1/2" | 12'-11" | 3'-11" | 2'-11" | I | |
| P10 | 1" | 25'-0" | | | Str. | Type II |
| P11 | 1/2" | 9'-3" | 2'-7 1/2" | 1'-7 1/2" | I | |
| P12 | 1" | 28'-4" | | | Str. | Type III |
| P13 | 1" | 18'-6" | | | Str. | |
| P14 | 1/2" | 8'-0" | 1'-7 1/2" | 2'-0" | I | Type I |
| P15 | 1/2" | 6'-3" | 1'-1 1/2" | 1'-7 1/2" | I | |
| P16 | 1" | 21'-6" | 13'-6" | 8" | III | Type II |
| P17 | 1/2" | 11'-3" | 1'-7 1/2" | 3'-7 1/2" | I | |
| P18 | 1" | 29'-10" | | | Str. | Type I |
| P19 | 1" | 13'-6" | | | Str. | |
| P20 | 1" | 20'-0" | | | Str. | Type II |
| | | | | | | |

LIST OF BARS IN FOOTINGS

| Mark | Size | Length | A | B | Type | Diagram |
|------|------|--------|-------|----|------|----------|
| F1 | 3/8" | 11'-0" | 9'-6" | 6" | III | Type III |
| F2 | 3/8" | 6'-0" | 4'-6" | 6" | III | |
| F3 | 3/8" | 13'-0" | | | Str. | Type I |
| F4 | 1" | 6'-8" | | | Str. | |
| F5 | 1/2" | 3'-4" | | | Str. | Type II |
| F6 | 3/8" | 11'-0" | 9'-6" | 6" | III | |
| F7 | 3/8" | 9'-0" | 7'-6" | 6" | III | |

Load on Anchor (Tension)
 D.L. = -6.67 x 2.65 = 17600 lbs Tension
 U.L.L. = 39000 lbs Tension
 C.L.L. = 18200 lbs Tension
 Impact = 8200 lbs Tension
 S.W.L. = 8000 lbs Tension
 91200 lbs Tension

Load on Anchor (Compression)
 D.L. = 17600 lbs Tension
 U.L.L. = 32200 lbs Compression
 C.L.L. = 25000 lbs Compression
 Impact = 10200 lbs Compression
 S.W.L. = 6600 lbs Compression
 56400 lbs Compression

For General Notes See Drwg. No. 5893 & Drwg. No. 5898
 For additional details See Drwg. No. 5898.

REVISED 7-18-40 Pier No. 14
 REVISED 9-16-40 Piers #14 & #15 Span #35

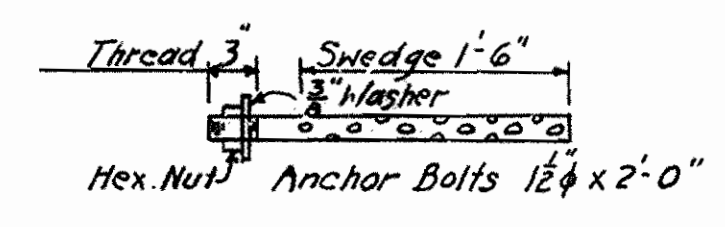
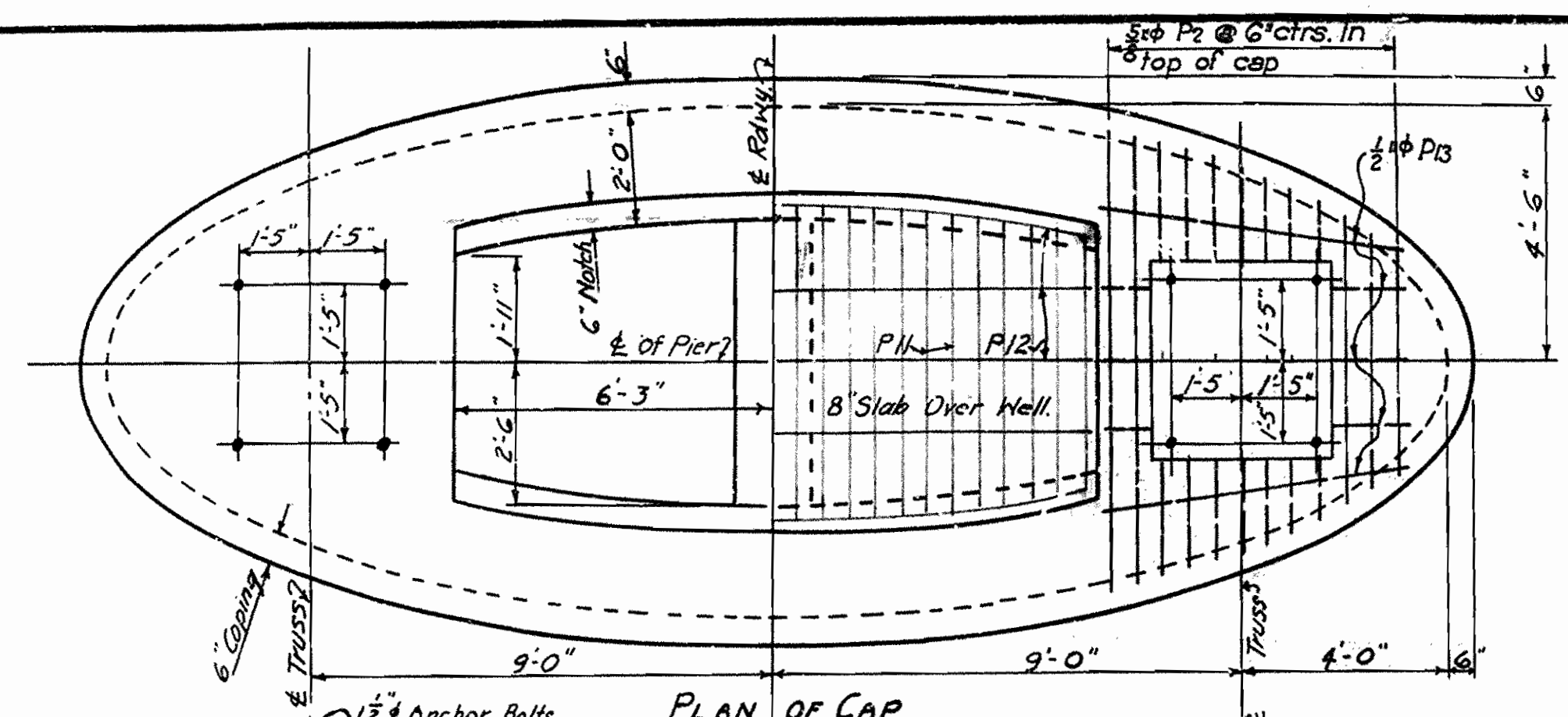
This sheet included in Job 10311 for information only.
**DETAILS OF
 PIERS 13, 14 & 15 AND SPANS 34 & 35
 BRIDGE OVER BLACK RIVER
 AT BLACK ROCK, ARKANSAS
 LAWRENCE COUNTY**
 ROUTE 63 SEC. 3

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: L.P.C. Date: 6-18-40
 Traced By: E.A.W. Date: 6-25-40
 Checked By: _____ Date: _____
BRIDGE NO. 2112 DRAWING NO. 5897

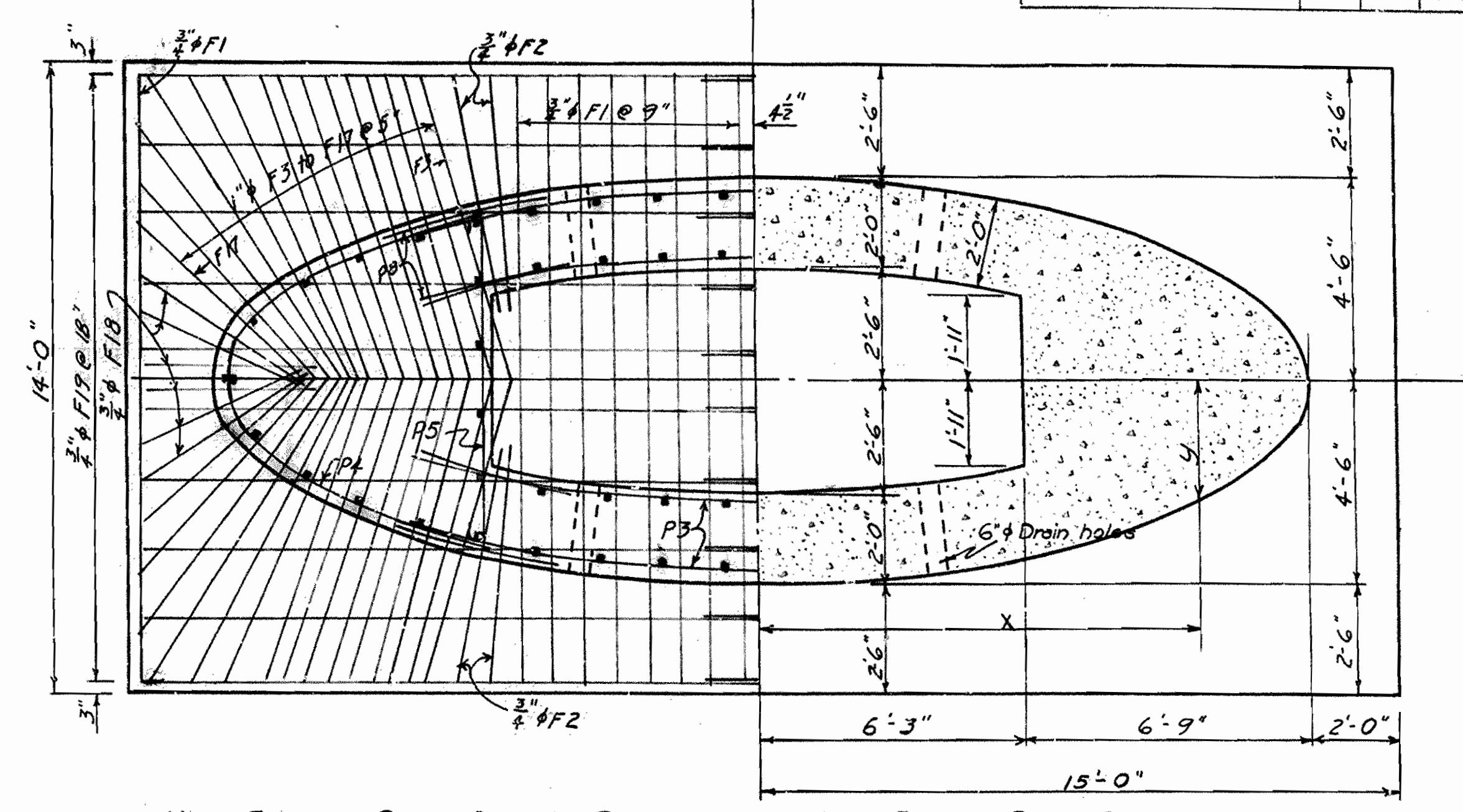
Scale: 1/4" = 1 ft. and as noted

N.A. Brown
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

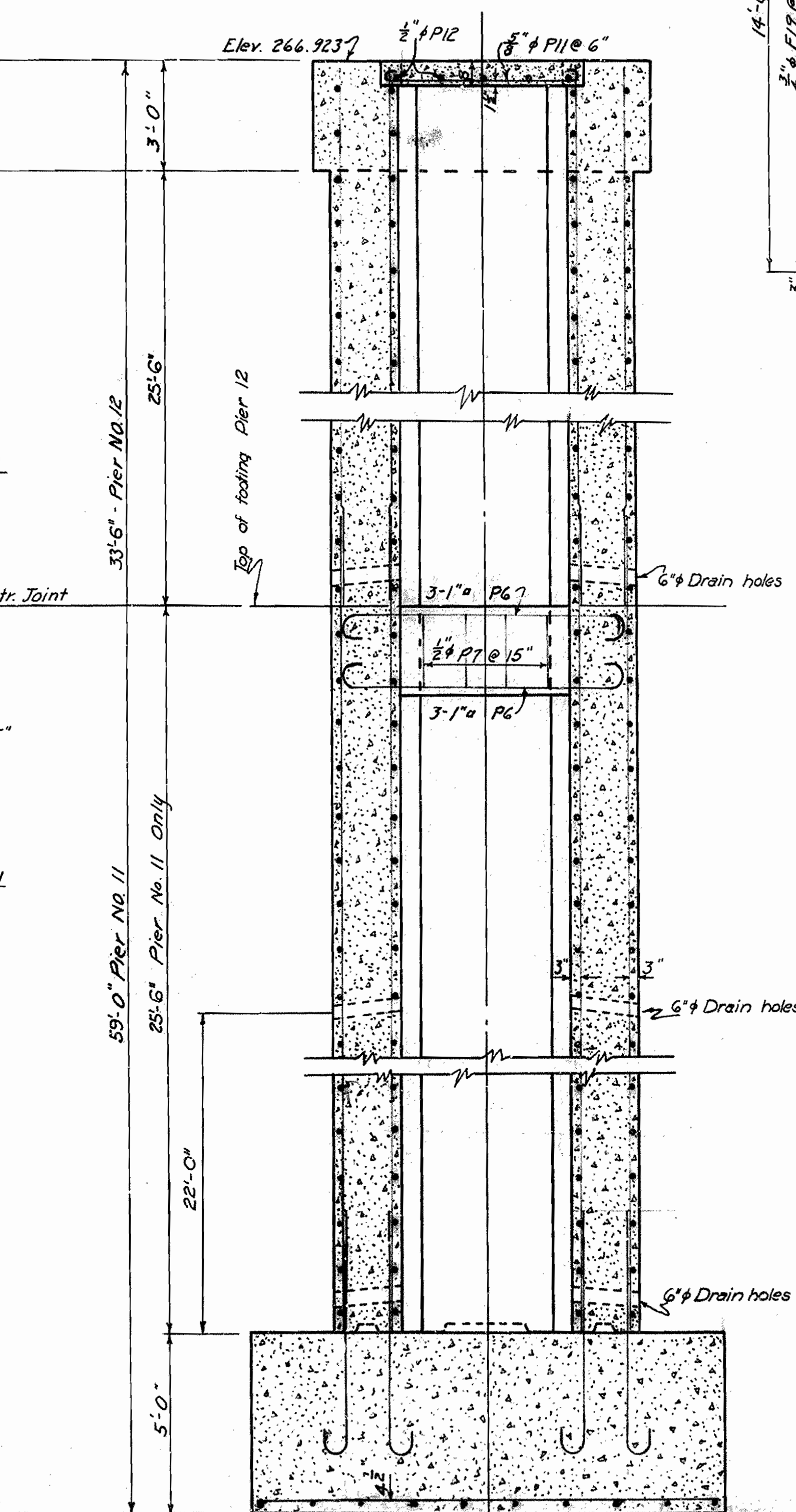
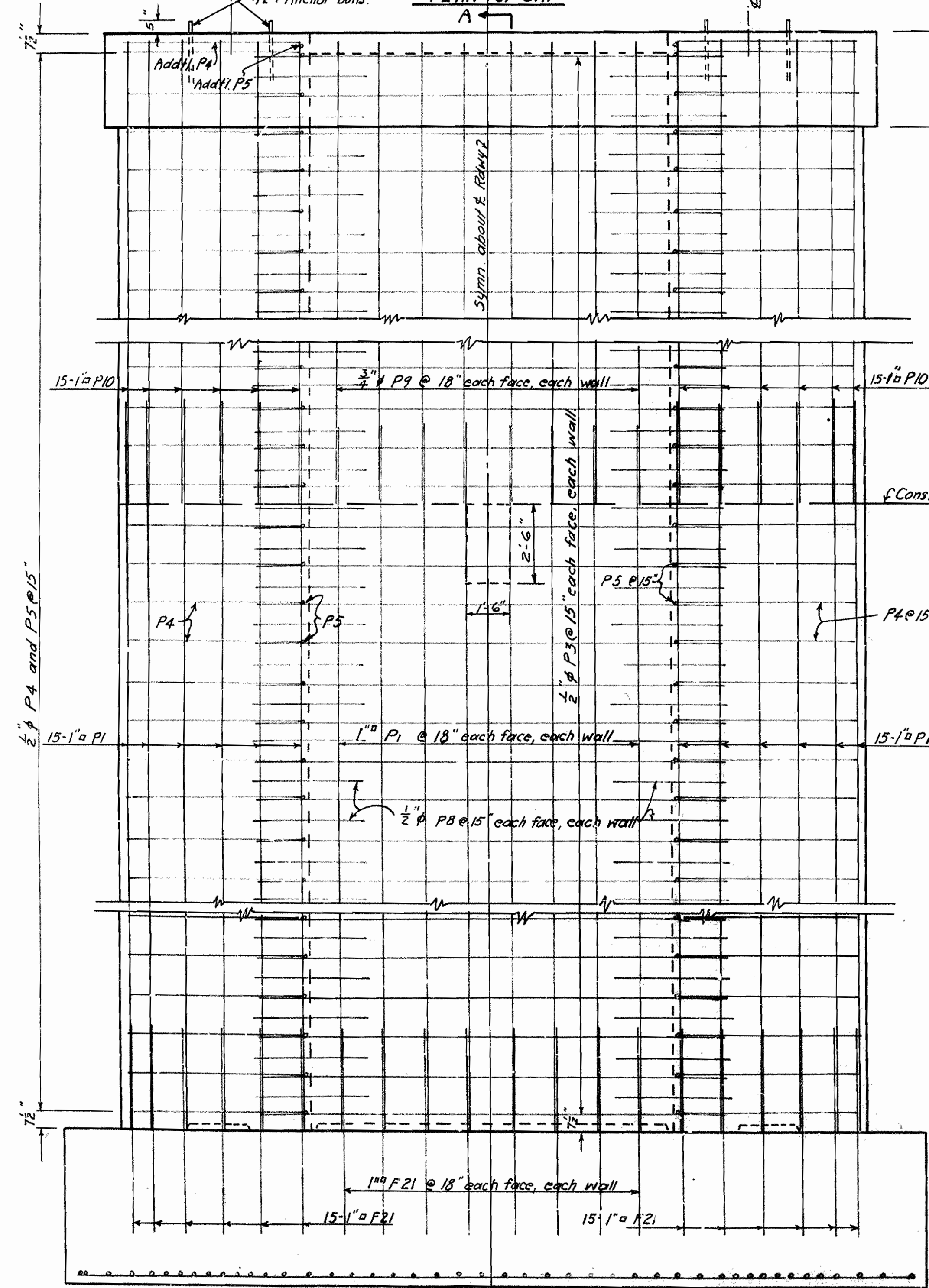
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|---------------------|-------|--------------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | F.A.P. PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | 455-A(1) | | 9 | 13 |
| STATE JOB NO. 10232 | | | | | 9 |
| No. 10311 | | | | | 34 |



D.L. from spans 1,415,000 #
 Unif. L.L. 293,000 #
 Conc. L.L. 70,000 #
 1,778,000 #



HALF FOOTING PLAN SHOWING REINFORCING
 HALF FOOTING PLAN DIMENSIONED
 Offset y = $\sqrt{1 - \frac{x^2}{169}}$ (20.25)

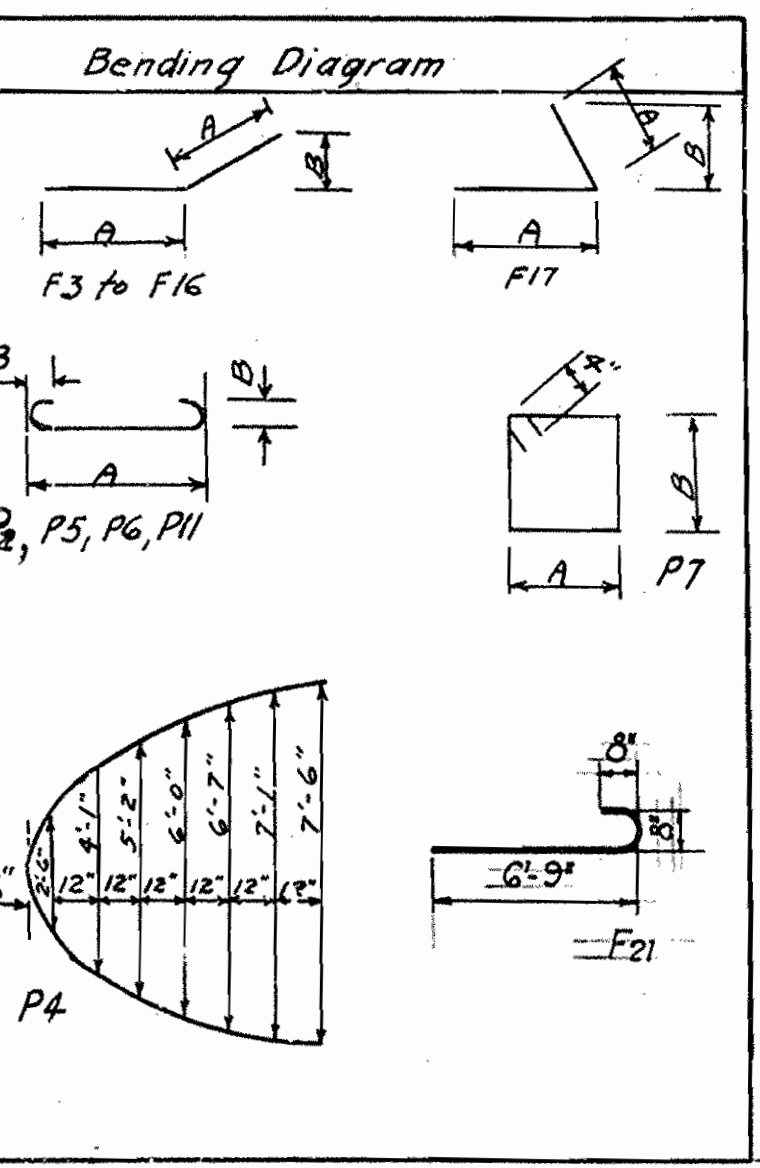


ELEVATION OF PIERS

SECTION A-A

LIST OF BARS

| Mark | Size | Lgth. | A | B |
|------|--------|--------|-----------|-----------|
| F3 | 1" # | 14'-3" | 7'-1 1/2" | 4'-0" |
| F4 | 1" # | 14'-3" | 7'-1 1/2" | 4'-1" |
| F5 | 1" # | 14'-3" | 7'-1 1/2" | 4'-2" |
| F6 | 1" # | 14'-3" | 7'-1 1/2" | 4'-3" |
| F7 | 1" # | 14'-3" | 7'-1 1/2" | 4'-5" |
| F8 | 1" # | 14'-6" | 7'-3" | 4'-7" |
| F9 | 1" # | 14'-6" | 7'-3" | 4'-8" |
| F10 | 1" # | 14'-6" | 7'-3" | 4'-9" |
| F11 | 1" # | 14'-6" | 7'-3" | 4'-10" |
| F12 | 1" # | 15'-0" | 7'-6" | 5'-8" |
| F13 | 1" # | 15'-6" | 7'-9" | 6'-5" |
| F14 | 1" # | 16'-3" | 8'-1 1/2" | 7'-5" |
| F15 | 1" # | 14'-6" | 7'-3" | 7'-0" |
| F16 | 1" # | 12'-3" | 6'-1 1/2" | 6'-1" |
| F17 | 1" # | 10'-3" | 5'-1 1/2" | 5'-0" |
| P4 | 3/4" # | 16'-0" | | |
| P5 | 3/4" # | 8'-3" | 7'-5 1/2" | 3" |
| P6 | 1" # | 10'-6" | 8'-6" | 8" |
| P7 | 3/4" # | 7'-3" | 1'-1 1/2" | 2'-1 1/2" |
| P11 | 3/4" # | Varies | Varies | 4" |
| P2 | 3/4" # | Varies | Varies | 4" |
| F1 | 1" # | 7'-9" | | |



Straight Bars

| | | |
|-----|--------|-----------------|
| F18 | 3/4" # | 4'-6" |
| F19 | 3/4" # | 16'-0" |
| F2 | 3/4" # | 5'-0" |
| F7 | 3/4" # | 13'-6" |
| P1 | 1" # | 28'-10" Pier 11 |
| P3 | 3/4" # | 16'-6" |
| P8 | 3/4" # | 4'-0" |
| P9 | 3/4" # | 28'-3" |
| P10 | 1" # | 28'-3" |
| P13 | 3/4" # | 6'-0" |
| P12 | 3/4" # | 12'-3" |

FOR GENERAL NOTES SEE DRAWING No. 5893

REVISED 7-18-40 Height of Piers
 REVISED 9-16-40 Reinf. Steel
 This Sheet included in Job 10311 for information only.
DETAILS OF PIERS 11 AND 12
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
LAWRENCE COUNTY
ROUTE 63 SEC. 3

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: L.B.C. Date: 5-14-40
 Traced By: J.P. Date: 8-12-40
 Checked By: Date:
BRIDGE NO. 2112 **DRAWING NO. 5896**
 Scale: 1/8" = 1'-0"

M.A. BERRY
 PRINCIPAL HIGHWAY ENGINEER (LICENSED)

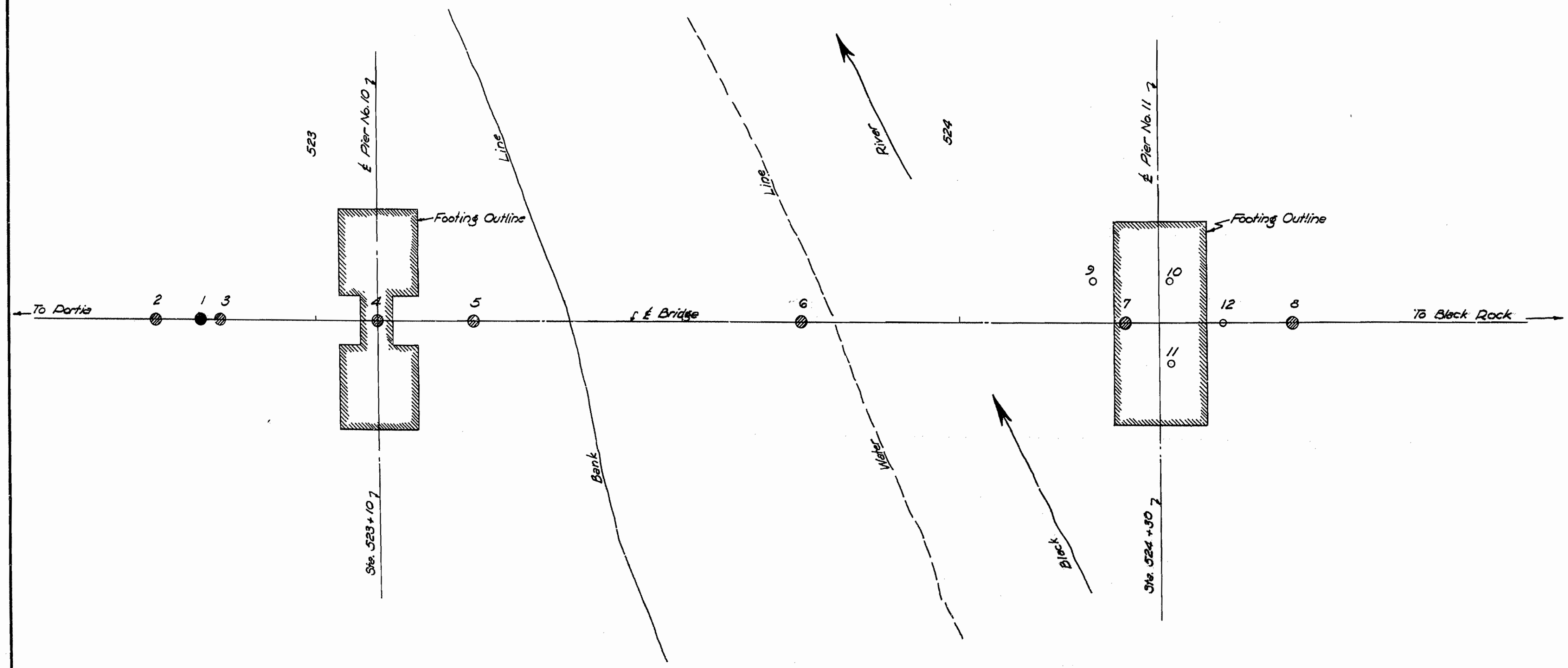
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|------------------------|-------|-------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | | | | |
| STATE JOB NO. 10 2 3 2 | | | | | |

LOG OF TEST HOLES

| HOLE No. | STATION | Location Re. & | Water Level | ELEV. SURFACE | MATERIALS ENCOUNTERED | DEPTH OF HOLE | ROCK ELEV. |
|----------|---------|----------------|-------------|---------------|---|---------------|----------------|
| 1 | 522+82 | £ | | 248.7 | 12.5' clay, 12.8' fine water bearing sand, 20' sand & gravel, & 14' solid Limestone Rock. | 41.3' | 221.7 |
| 2 | 522+75 | £ | | 248.5 | 10.0' clay, 8' fine water bearing sand, & 9.5' medium fine water bearing sand. | 27.5' | 221.0 |
| 3 | 522+85 | £ | | 249.0 | 10.0' clay, & 21.0' fine to medium fine water bearing sand - Same Pea gravel. | 31.0' | 218.0 |
| 4 | 523+10 | £ | | 249.9 | 20.0' fine sand & silt & 30' medium fine sand with trace of Pea gravel. | 29.0' | 220.9 |
| 5 | 523+25 | £ | | 249.4 | 23.0' fine sand & silt & 7.0' medium fine sand & Pea gravel. | 30.0' | 219.4 |
| 6 | 523+76 | £ | | 238.0 | 10.0' fine sand & silt. 15.5' medium fine sand & Pea gravel. | 25.5' | 212.5 |
| 7 | 524+25 | £ | | 229.3 | 13.0' open gravel & coarse sand. | 13.0' | 216.3 |
| 8 | 524+50 | £ | | 229.5 | 14.0' open gravel & coarse sand | 14.0' | 215.5 |
| 9 | 524+20 | G'Left | | 229.5 | 12.2' (drove 3/8" rod) | 12.2' | 217.3 |
| 10 | 524+32 | G'Left | | 230.0 | 14.2' (do do) | 14.2' | 215.8 |
| 11 | 524+32 | G'RT. | | 230.0 | 8.5' (drove 3/8" Rod to refusal) | 8.5' | Probably float |
| 12 | 524+40 | £ | | 229.5 | 9.5' (drove 3/8" Rod to refusal) | 9.5' | do |

LEGEND ● Well Drill ○ Wash Boring ○ Driven Rod

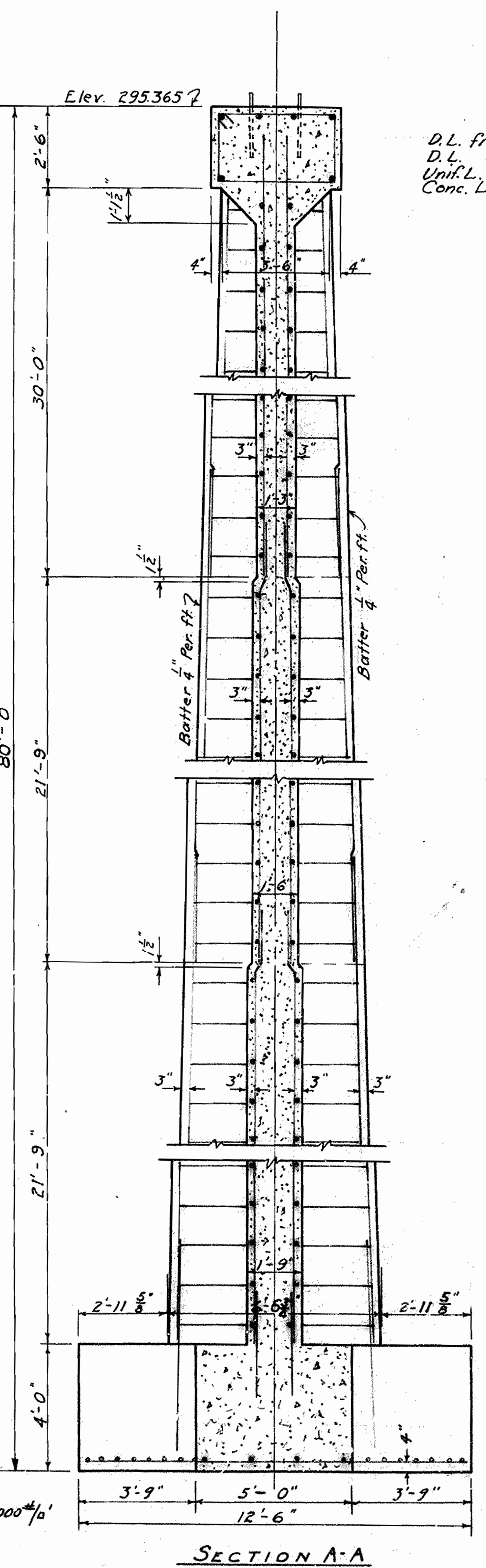
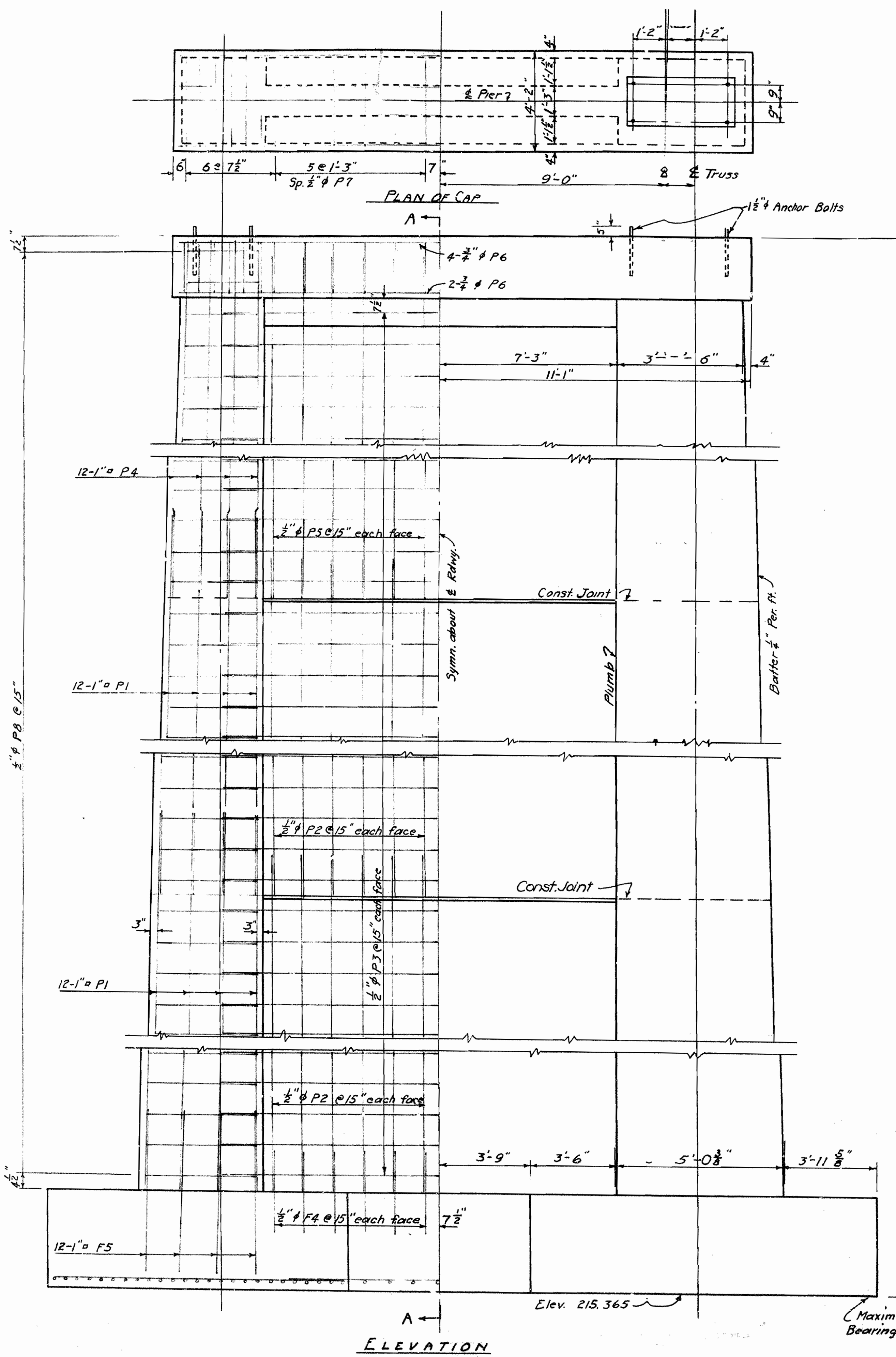
GENERAL NOTES
 Pipe casing was required through the sand strata of Hole No. 1. No seams or faults encountered in the 14' feet of Rock.
 As shown by elevations, the rock surface is uneven. Low elevation of 212.5 in hole No. 6 may indicate that either vertical seams or faults exist. No other evidence of breaks having been determined by methods employed does not definitely establish the non-existence of broken fragments overlying continuous bed rock.
 No attempt was made to drill into the rock except at Hole No. 1. At Holes 2 to 10 inclusive, the driving rod and wash boring drill reached absolute refusal, indicating stratified rock.



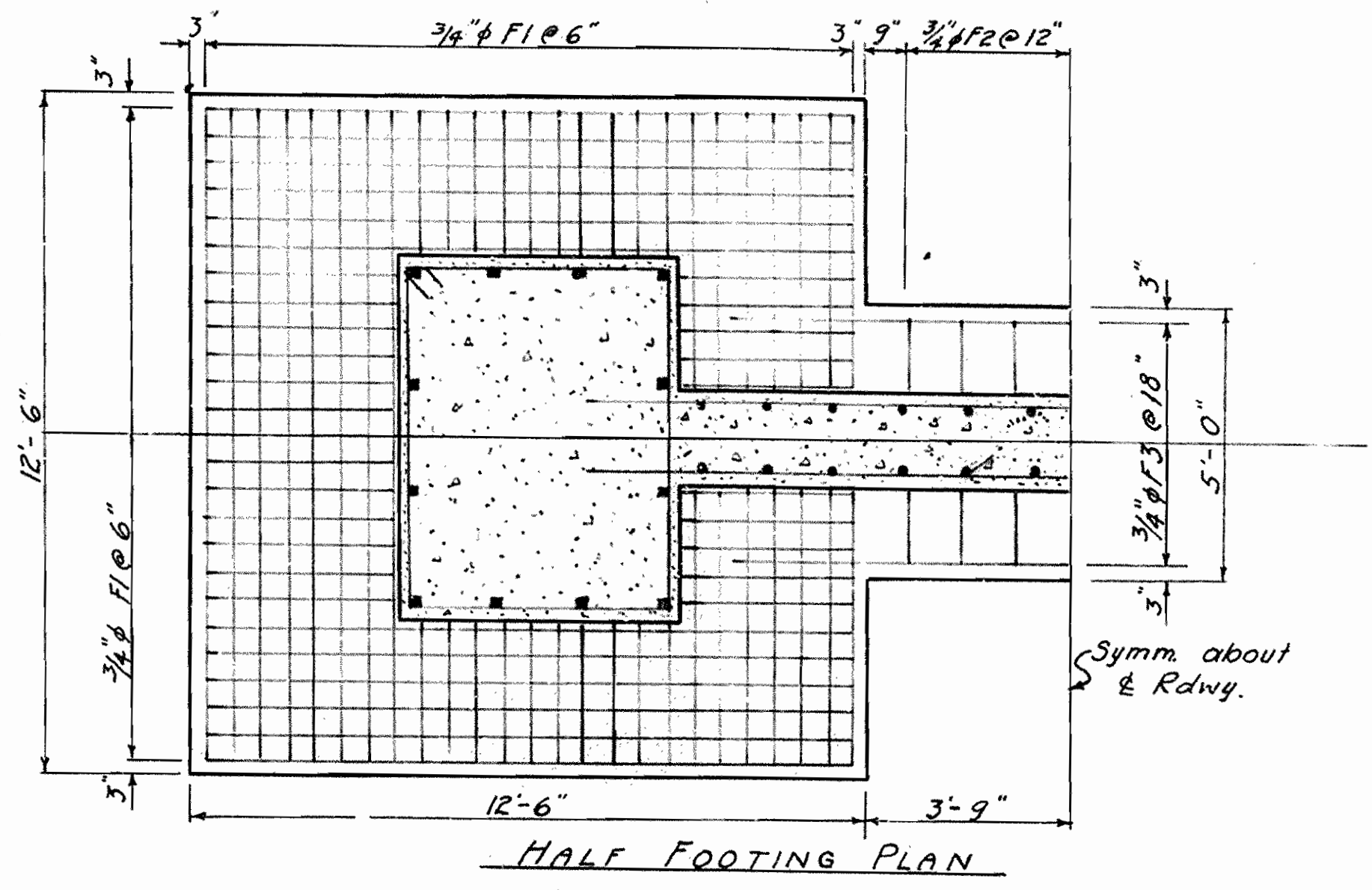
SKETCH SHOWING
 TEST HOLE DATA
 IN VICINITY OF PIERS No. 10 & 11
 OF
 BRIDGE OVER BLACK RIVER
 LAWRENCE COUNTY
 ROUTE 63 SEC. 3 & 4
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: W.A.D. Date: 2-2-40
 Traced By: G.E.D. Date: 2-14-40
 Checked By: _____ Date: _____
 BRIDGE NO. 2112 DRAWING NO. 5895A

PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

| | | | | | |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | F.A.P. PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | 455-A (1) | | 8 | 13 |
| STATE JOB NO. 10232 | | | | 8 | 13 |
| " " No. 10311 | | | | 33 | 36 |



D.L. from 100' span - 265000 #
 D.L. " anchor arm - 35000 #
 Unif. L.L. - 127000 #
 Conc. L.L. - 42000 #
 393000 #



LIST OF BARS

| Mark | Size | Lgth. | A | B | Bending Diagram |
|------|--------|-------------|---------------|-----------|-----------------|
| P7 | 1/2" φ | 12'-7" | 3'-9 1/2" | 2'-1 1/2" | |
| P8 | 1/2" φ | Ave. 17'-6" | 3'-11 1/2" | 6'-0 3/4" | |
| F1 | 3/4" φ | 12'-0" | Straight bars | | |
| F2 | 3/4" φ | 4'-6" | | | |
| F3 | 3/4" φ | 12'-6" | | | |
| F4 | 1/2" φ | 3'-4" | | | |
| F5 | 1" φ | 6'-8" | | | |
| P1 | 1" φ | 25'-1" | | | |
| P2 | 1/2" φ | 23'-5" | | | |
| P3 | 1/2" φ | 17'-10" | | | |
| P4 | 1" φ | 32'-3" | | | |
| P5 | 1/2" φ | 31'-8" | | | |
| P6 | 3/4" φ | 21'-10" | | | |

For General Notes see Drawing No. 5893

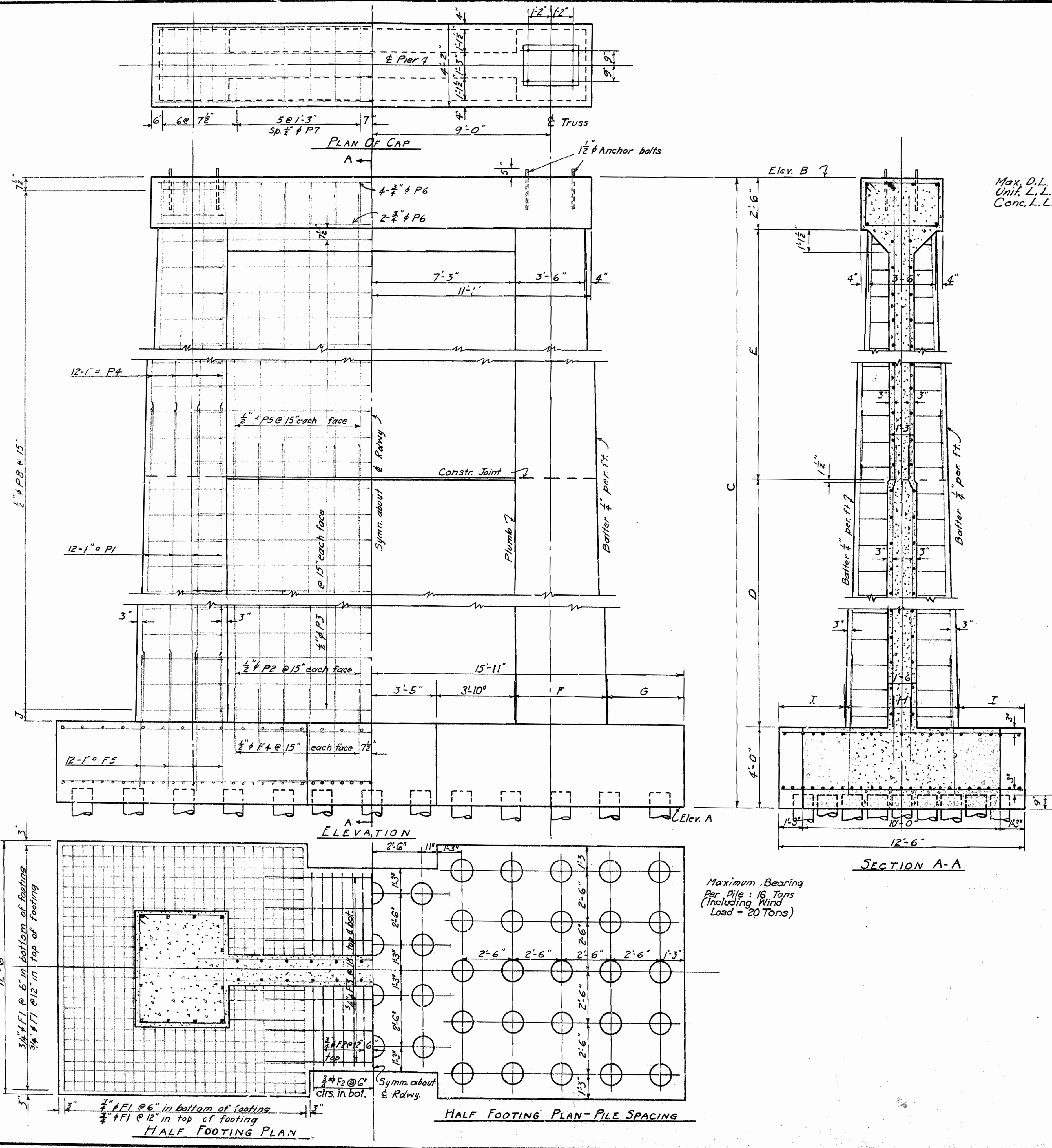
REVISED 7-18-40 Height of Pier

This sheet included in Job 10311 for information only.

DETAILS OF PIER No. 10
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
LAWRENCE COUNTY
ROUTE 63 SEC. 3
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
 Drawn By: L.P.C. Date: 5-16-40
 Traced By: J.P. Date: 6-12-40
 Checked By: Date:
 Scale: 3/8" = 1' ft.
BRIDGE NO. 2112 DRAWING NO. 5895

N.B. Larver
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

| | | | | | |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | F.A.P. PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | 435-A(1) | | 7 | 13 |
| STATE JOB NO. 10232 | | | | | 7 |
| No. 10311 | | | | | 32 |



Max. D.L. from span 700,000 #
 Unit. L.L. 145,000 #
 Conc. L.L. 50,000 #
 835,000 #

TABLE OF DIMENSIONS AND ELEVATIONS

| Pier No. | A | B | C | D | E | F | G | H | I | J |
|----------|---------|---------|--------|--------|--------|-----------|-----------|------------|-----------|-----------|
| 2 | 230.972 | 269.972 | 39'-0" | 12'-6" | 20'-0" | 4'-2 3/8" | 4'-5 3/8" | 4'-10 7/8" | 3'-9 7/8" | 7 1/2" |
| 3 | 230.756 | 273.256 | 42'-6" | 16'-0" | 20'-0" | 4'-3" | 4'-5" | 5'-0" | 3'-9" | 4 1/2" |
| 4 | 231.039 | 276.539 | 45'-6" | 19'-0" | 20'-0" | 4'-3 3/4" | 4'-4 3/4" | 5'-1 1/2" | 3'-8 1/4" | 10 1/2" |
| 5 | 230.823 | 279.823 | 49'-0" | 17'-6" | 25'-0" | 4'-4 3/8" | 4'-3 3/8" | 5'-3 3/8" | 3'-7 3/8" | 7 1/2" |
| 6 | 231.107 | 283.107 | 52'-0" | 20'-6" | 25'-0" | 4'-5 3/8" | 4'-2 3/8" | 5'-4 3/8" | 3'-6 3/8" | 1'-1 1/2" |
| 7 | 230.890 | 286.390 | 55'-6" | 24'-0" | 25'-0" | 4'-6 3/8" | 4'-1 3/8" | 5'-6 3/8" | 3'-5 3/8" | 10 1/2" |
| 8 | 230.674 | 289.674 | 59'-0" | 22'-6" | 30'-0" | 4'-7 3/8" | 4'-0 3/8" | 5'-8 3/8" | 3'-4 3/8" | 7 1/2" |
| 9 | 230.891 | 292.891 | 62'-0" | 25'-6" | 30'-0" | 4'-7 3/8" | 4'-0 3/8" | 5'-9 3/8" | 3'-4 3/8" | 1'-1 1/2" |

LIST OF BARS

| Mark | Size | Lgth. | A | B | Bending Diagram | | | | | |
|------|--------|-----------------|--------------------|--------------------|-----------------|---------|---------|--------|---------|---------|
| P7 | 1/2" φ | 12'-7" | 3'-9 1/2" | 2'-1 1/2" | | | | | | |
| P8 | 1/2" φ | Varies | 3'-7" to 4'-3" Min | 3'-0" to 5'-4" Min | | | | | | |
| Mark | Size | Lgth. all Piers | Pier 2 | Pier 3 | Pier 4 | Pier 5 | Pier 6 | Pier 7 | Pier 8 | Pier 9 |
| F1 | 3/4" φ | 12'-0" | | | | | | | | |
| F2 | 3/4" φ | 9'-6" | | | | | | | | |
| F3 | 3/4" φ | 11'-10" | | | | | | | | |
| F4 | 1/2" φ | 3'-4" | | | | | | | | |
| F5 | 1" φ | 6'-8" | | | | | | | | |
| P1 | 1" φ | | 15'-10" | 19'-4" | 22'-4" | 20'-10" | 23'-10" | 27'-4" | 25'-10" | 28'-10" |
| P2 | 1/2" φ | | 14'-2" | 17'-8" | 20'-8" | 19'-2" | 22'-2" | 25'-8" | 24'-2" | 27'-2" |
| P3 | 1/2" φ | | 17'-10" | | | | | | | |
| P4 | 1" φ | | 22'-3" | 22'-3" | 22'-3" | 27'-3" | 27'-3" | 27'-3" | 32'-3" | 32'-3" |
| P5 | 1/2" φ | | 21'-8" | 21'-8" | 21'-8" | 26'-8" | 26'-8" | 26'-8" | 31'-8" | 31'-8" |
| P6 | 3/4" φ | | 21'-10" | | | | | | | |

For General Notes See Drawing No. 5893

REVISED 9-16-40 Piling & Reinf. in Footing

This Sheet included in Job 10311 for information only.

DETAILS OF PIERS 2 TO 9 INCL.
 BRIDGE OVER BLACK RIVER
 AT BLACK ROCK, ARKANSAS
 LAWRENCE, COUNTY

ROUTE 63 SEC. 3

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.

Drawn By: L.P.C. Date: 8-16-40
 Traced By: J.P. Date: 6-16-40
 Checked By: Date:

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

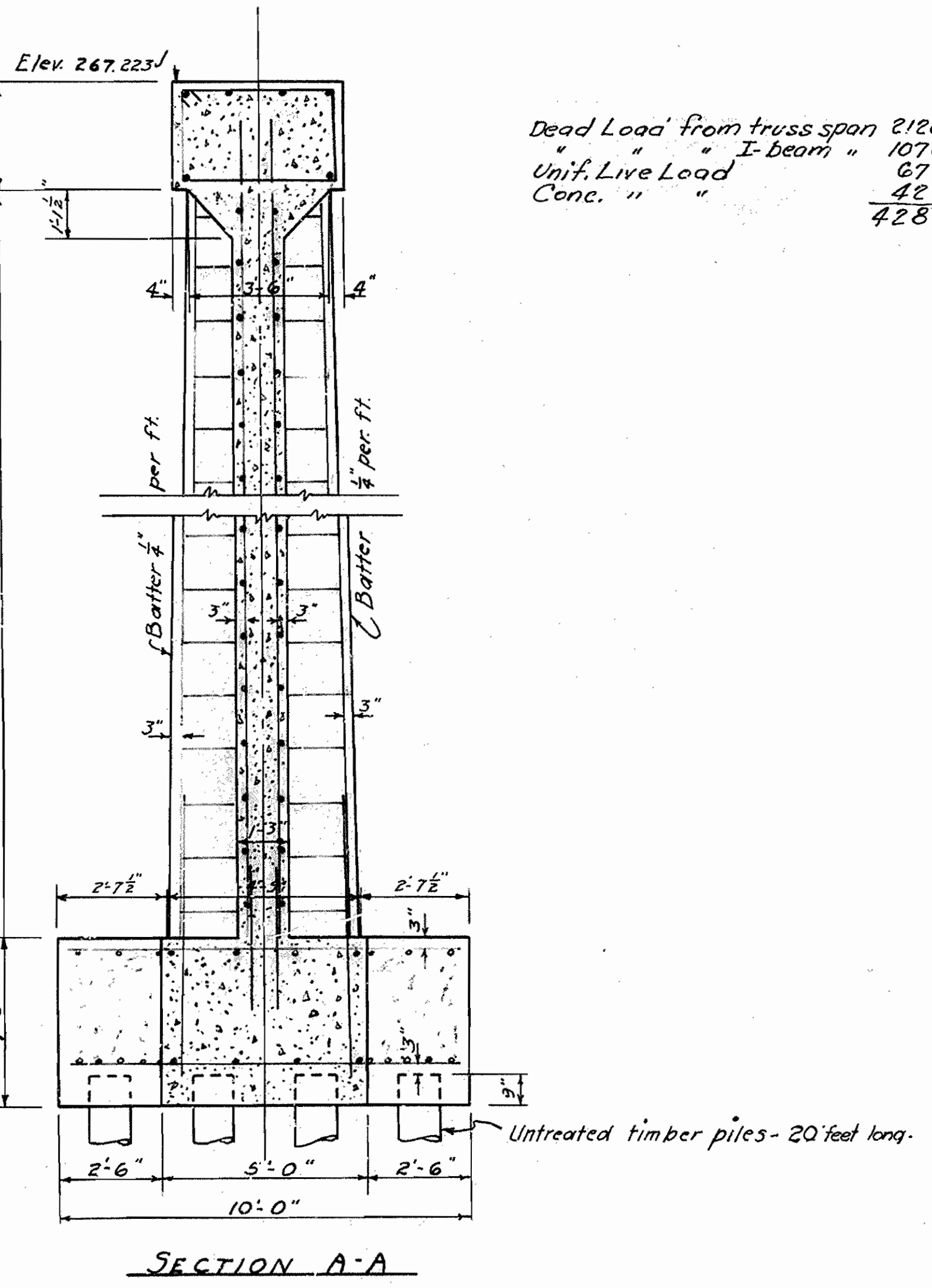
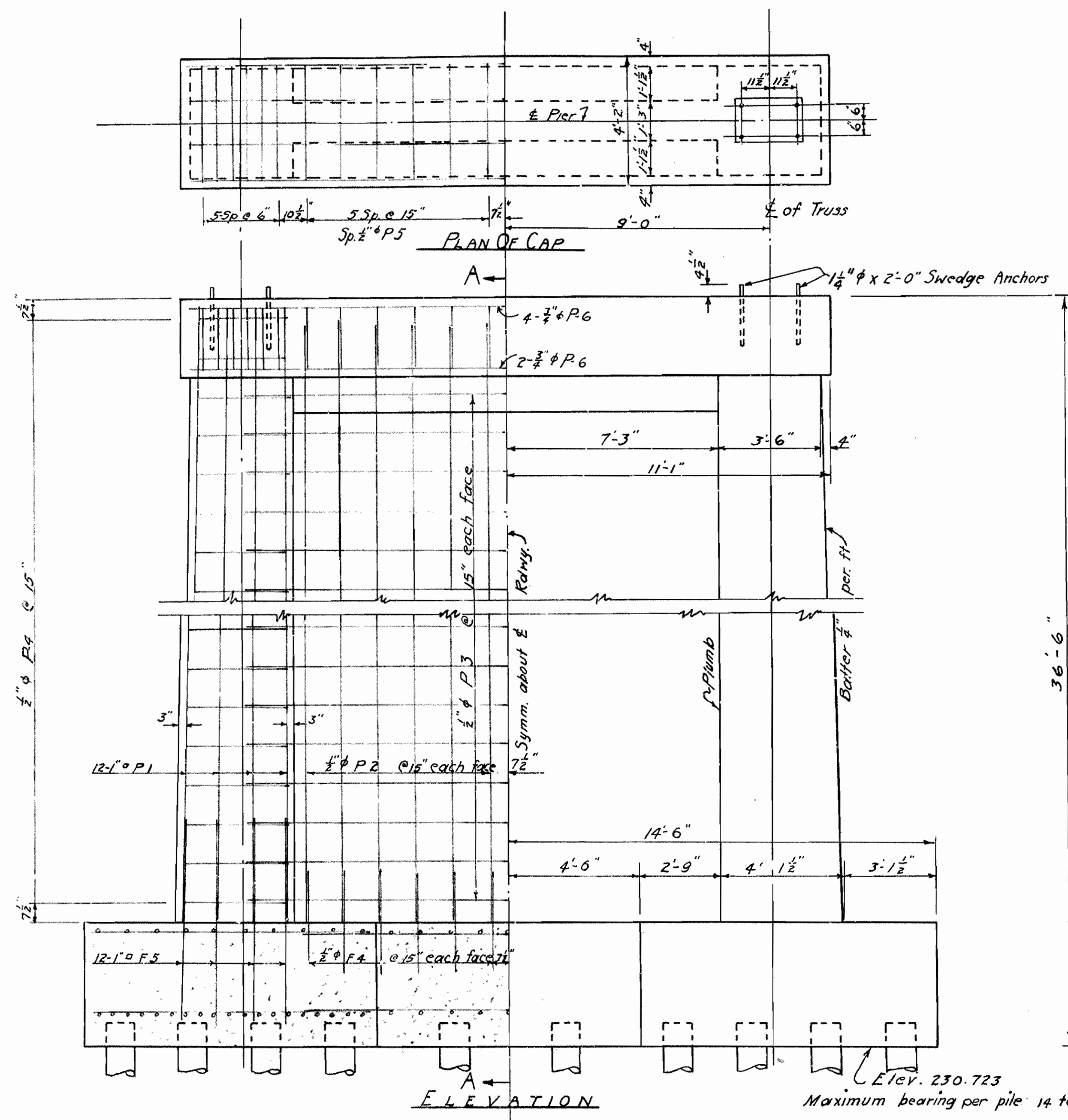
BRIDGE NO. 2112

DRAWING NO. 5894

N.B. Lawler
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

Maximum Bearing
 Per Pile: 15 Tons
 (Including Wind
 Load = 20 Tons)

| FED. ROAD DIST. NO. | STATE | F.A.P. PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS | |
|---------------------|-------|--------------------|-------------|-----------|--------------|----|
| 6 | ARK. | 455-A(1) | | 6 | 13 | |
| STATE JOB NO. 10232 | | | | | 6 | 13 |
| " " No. 10311 | | | | | 31 | 36 |

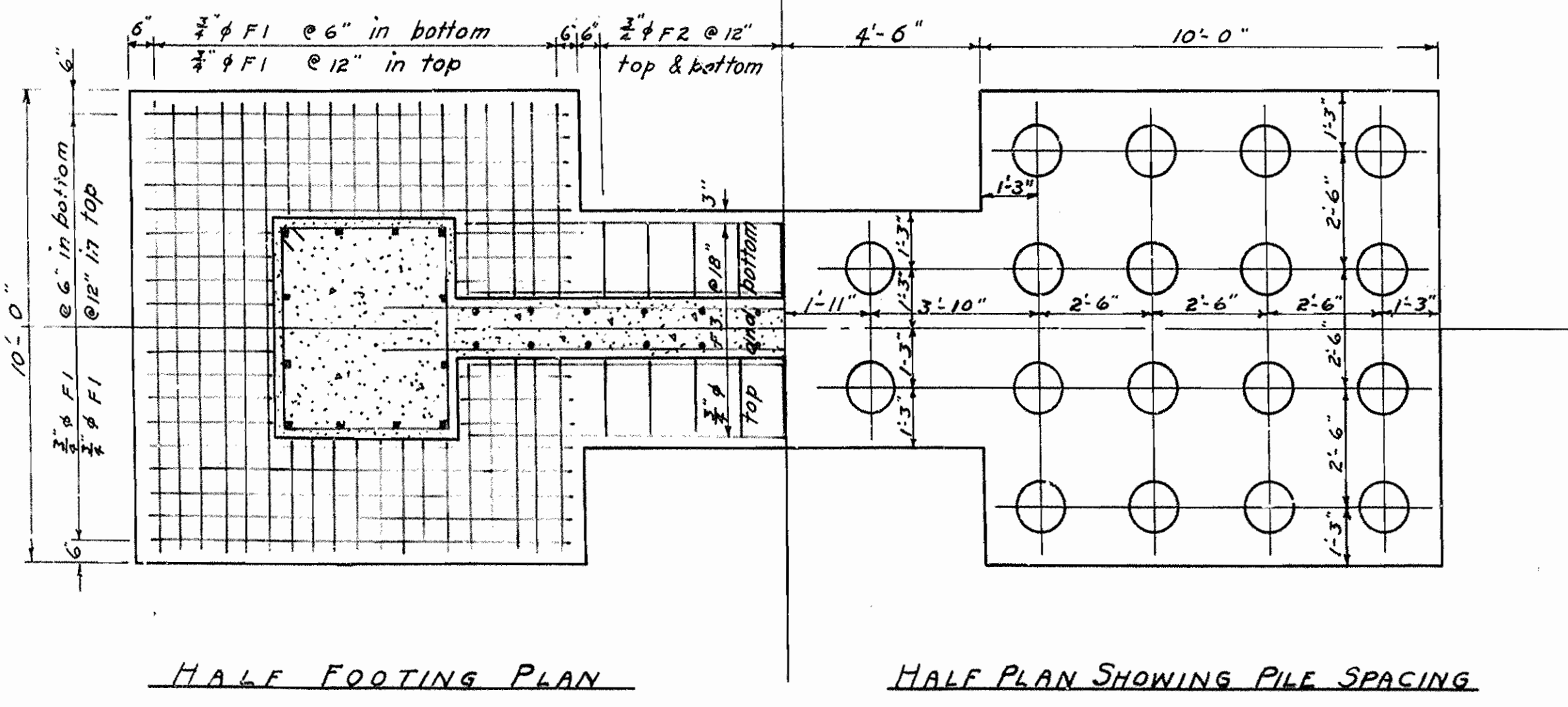


Dead Load from truss span 212000#
 " " " I-beam " 107000#
 Unif. Live Load 67000#
 Conc. " " 42000#
 428000#

LIST OF BARS

| Mark | Size | Lgth. | Bending Diagram |
|------|--------|---------|-----------------|
| P4 | 3/4" φ | Varies | |
| P5 | 3/4" φ | 12'-7" | |
| F1 | 3/4" φ | 9'-6" | Straight Bars |
| F2 | 3/4" φ | 4'-6" | |
| F3 | 3/4" φ | 14'-6" | |
| F4 | 3/4" φ | 3'-4" | |
| F5 | 1" φ | 6'-8" | |
| P1 | 1" φ | 32'-3" | |
| P2 | 1/2" φ | 31'-8" | |
| P3 | 3/4" φ | 17'-10" | |
| P6 | 3/4" φ | 21'-10" | |

GENERAL NOTES
 All concrete to be class "A". All exposed corners to be chamfered 3/4".
 All concrete to be poured in the dry.
 Construction joints where permitted shall be provided with keys 3" deep. Joints shall be horizontal. Keys in walls to be continuous and occupy the middle third of the width. Key in columns to occupy the middle third of each dimension.
 Reinforcing steel to be deformed bars of structural or intermediate grade.
 Shop lists and bending diagrams shall be submitted by contractor and shall be approved before fabrication is begun.
 All dimensions relating to reinforcing steel are to center of bars.
 Specifications: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction, adopted March 1, 1940
 Maximum Loads per Truss:
 Dead Load = 2650 #/ft.
 Unif. Live Load = 585 #/ft. (1.3 x 450)
 Conc. Live Load = 27300 # (1.3 x 21000)
 Impact = 0.816 (L + 250 / 10L + 500)
 Sidewalk L.L. = 120 #/ft.



This Sheet Included in Job 10311 for Information Only.
DETAILS OF PIER NO. 1
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
LAWRENCE, COUNTY

ROUTE 63 SEC. 3
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: L.B.C. Date: 5-21-40
 Traced By: J.P. Date: 6-8-40
 Checked By: Date:
 BRIDGE NO. 2112 DRAWING NO. 5893

M.B. Lewis
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

| | | | | | |
|---------------------|-------|----------------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | FED. AID PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | 455-A (1) | | 2 | 13 |
| STATE JOB NO. 10232 | | | | 2 | 13 |

| Item No. | Unit Of Structure Item and Unit | PIER NO.1 | PIER NO.2 | PIER NO.3 | PIER NO.4 | PIER NO.5 | PIER NO.6 | PIER NO.7 | PIER NO.8 | PIER NO.9 | PIER NO.10 | PIER NO.11 | PIER NO.12 | PIER NO.13 | PIER NO.14 | PIER NO.15 | SPAN NO.34 | SPAN NO.35 | TOTALS JOB 10232 |
|----------|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|---------------------|
| 103 | Dry Excavation for Structures Cu.Yd. | 265 | 365 | 290 | 200 | 235 | 300 | 300 | 335 | 335 | 385 | | 135 | 65 | 20 | 15 | | | * 3380 |
| 103 | Wet Excavation for Structures Cu.Yd. | | | | | | | | | | 225 | 210 | | | | | | | 435 |
| 103 | Solid Rock Excavation for Structures Cu.Yd. | | | | | | | | | | 85 | 135 | 150 | 20 | 10 | 10 | | | 410 |
| S.P. 802 | Class A Concrete for Bridges Cu.Yd. | 99.97 | 126.56 | 134.76 | 142.00 | 150.00 | 157.66 | 166.84 | 175.62 | 180.25 | 238.14 | 344.90 | 220.50 | 83.09 | 41.30 | 39.41 | | | 2301.00 |
| S.P. 802 | Class S Concrete for Bridges Cu.Yd. | | | | | | | | | | | | | | | | 93.72 | 118.38 | 212.10 |
| 803 | Reinforcing Steel Lb. | 7178 | 9122 | 9607 | 9994 | 10482 | 10869 | 11360 | 11853 | 12244 | 13755 | 18942 | 10672 | 7224 | 8543 | 6108 | 18640 | 24632 | 201225 |
| 805 | Concrete Railing Lin.Ft. | | | | | | | | | | | | | | | | 80 | 109 | 189 |
| 807 | Metal Bearing & Roadway Exp. Devices Lb. | 80 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 3150 | | | 780 | 550 | 5770 |
| 810 | Untreated Timber Piling Lin.Ft. | 720 | 1240 | 1240 | 1240 | 1240 | 1240 | 1240 | 1240 | 930 | | | | | | | | | 10330 |
| 904 | Cement Rubble Masonry Cu.Yd. | | | | | | | | | | | | | | | | | | 205 |

* Includes 135 cu.yd. estimated for excavation for rubble masonry wall.

Revised 7-18-40 Piers 10-11-12-14-15
REVISED 9-17-40

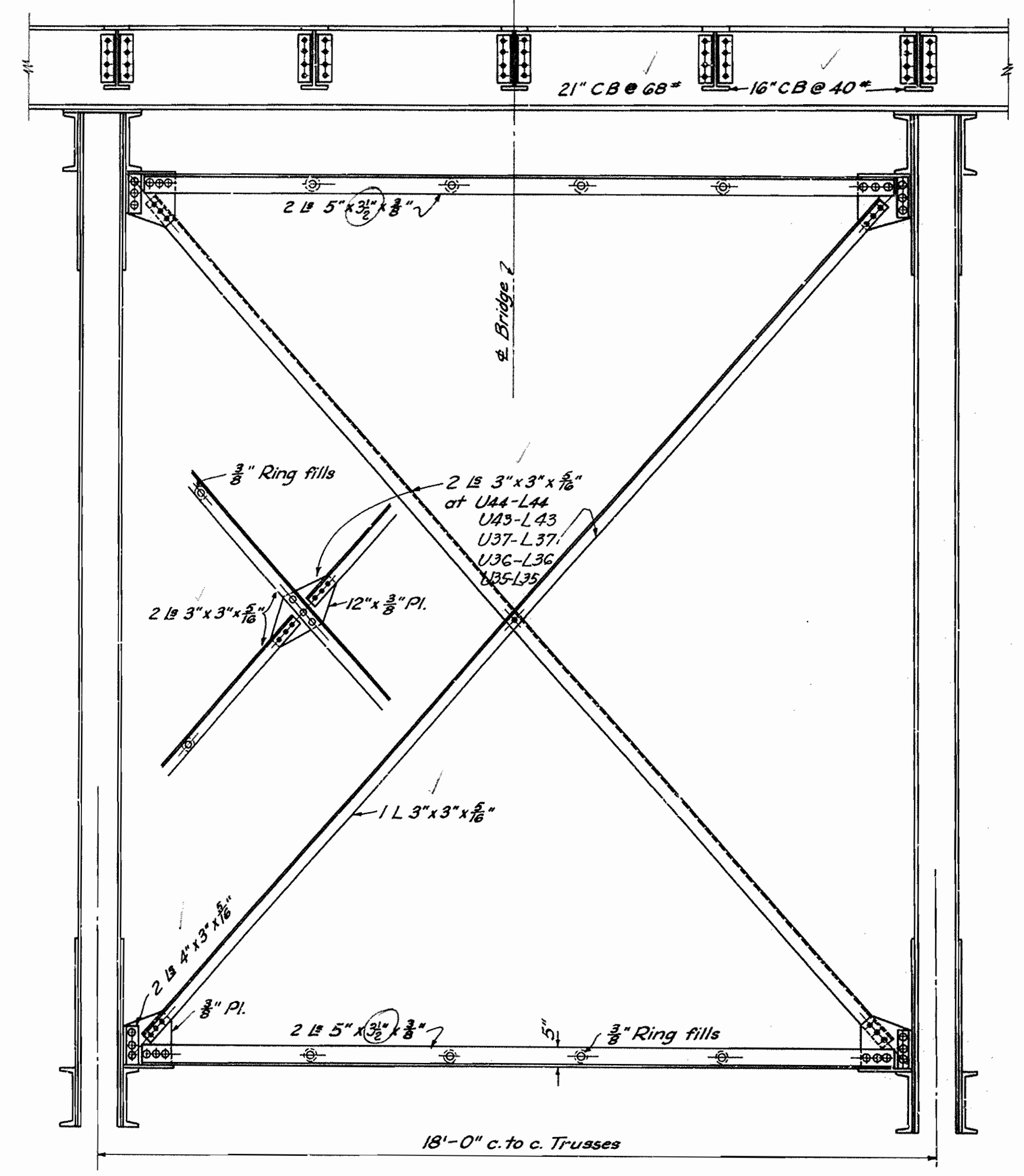
**SUMMARY OF QUANTITIES
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
LAWRENCE COUNTY
ROUTE 63 SEC. 3&4**

**ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.**
 Drawn By: EAW Date: 6-21-40
 Traced By: _____ Date: _____
 Checked By: _____ Date: _____
 BRIDGE NO. 2112 DRAWING NO. 5889

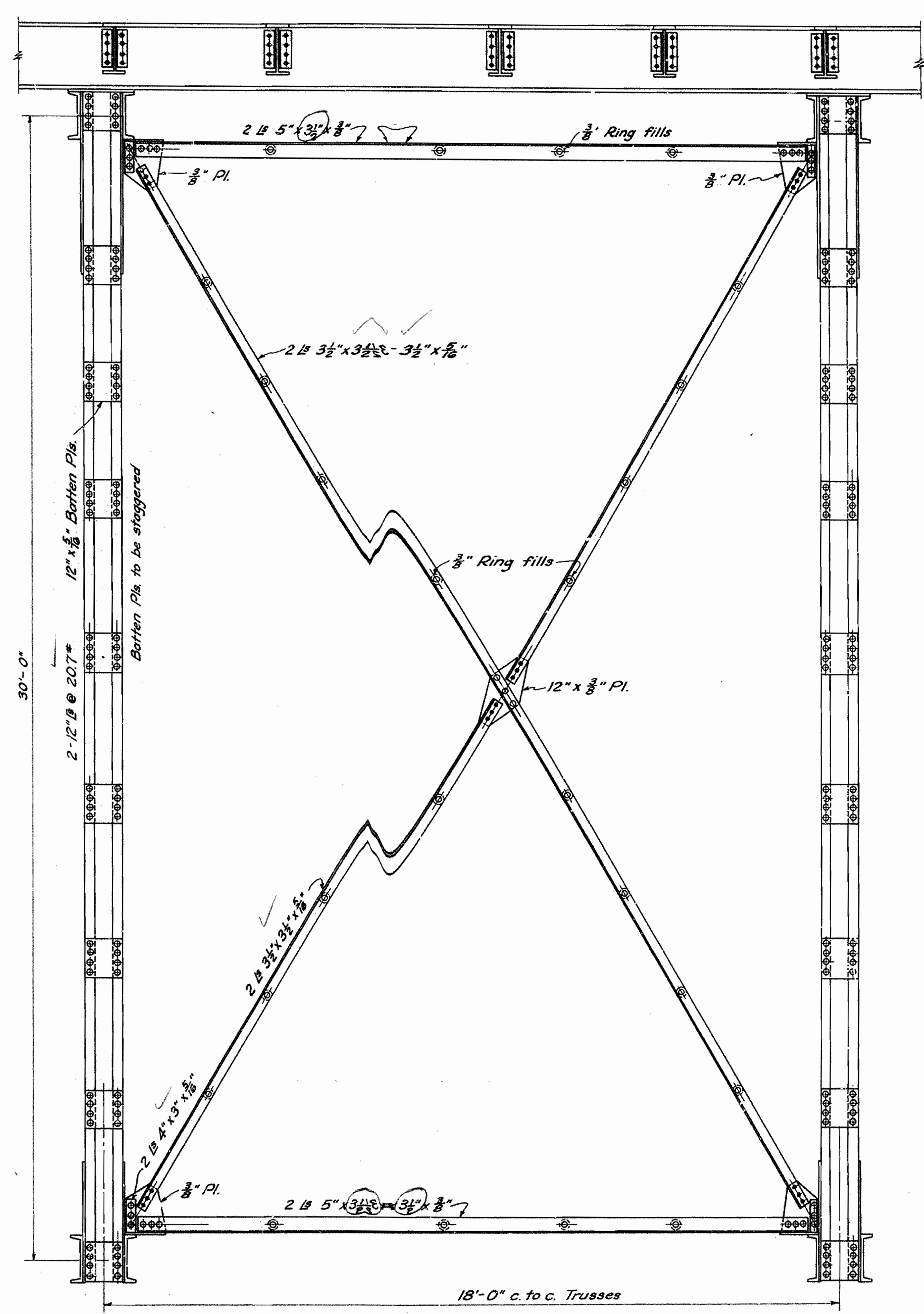
N. O. Brown
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

Scale: 1 in. = 1 ft.

| FED. ROAD DIST. NO. | STATE | FED. AID PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|----------------------|-------|----------------------|-------------|-----------|--------------|
| 6 | ARK. | FAP-455 A(3) | | 25 | 36 |
| STATE JOB NO. 102311 | | | | 25 | 36 |



DETAILS OF CROSS FRAME AT ALL VERTICALS EXCEPT AS SHOWN



DETAILS OF CROSS FRAME AT U38-L38 AND U42-L42

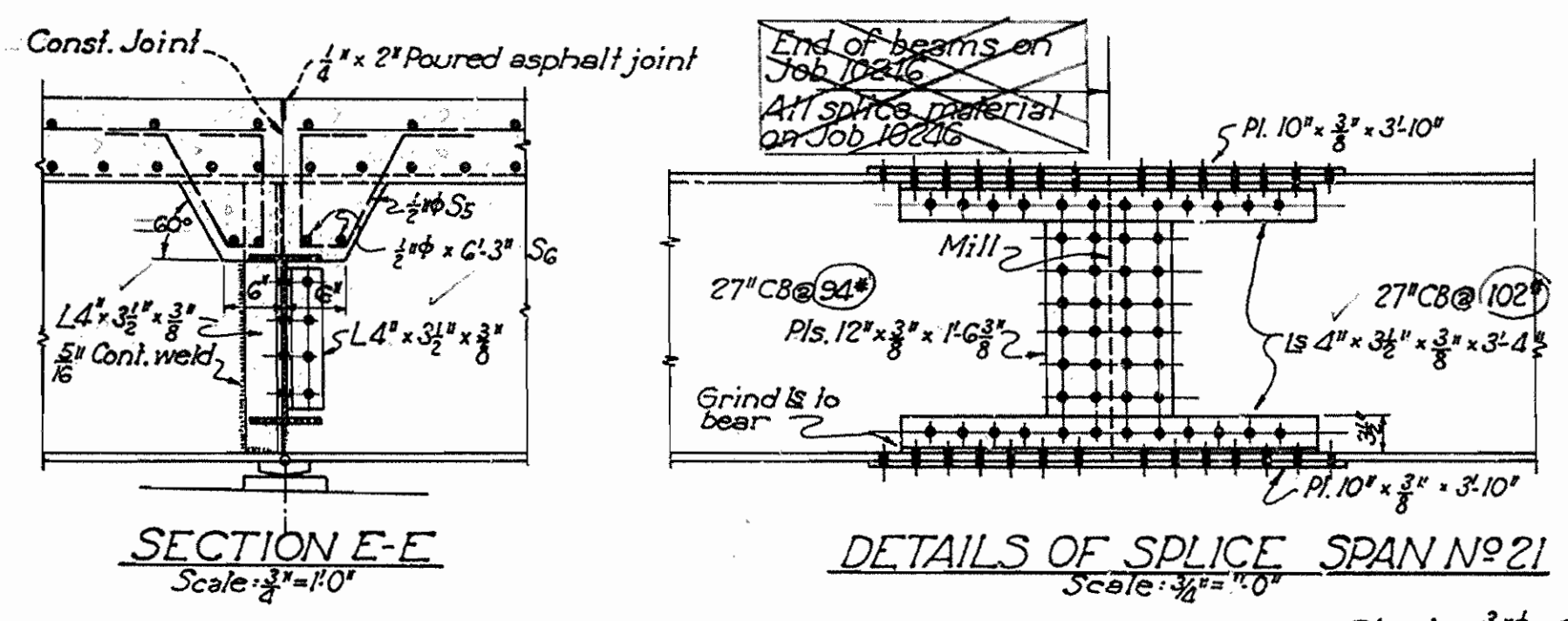
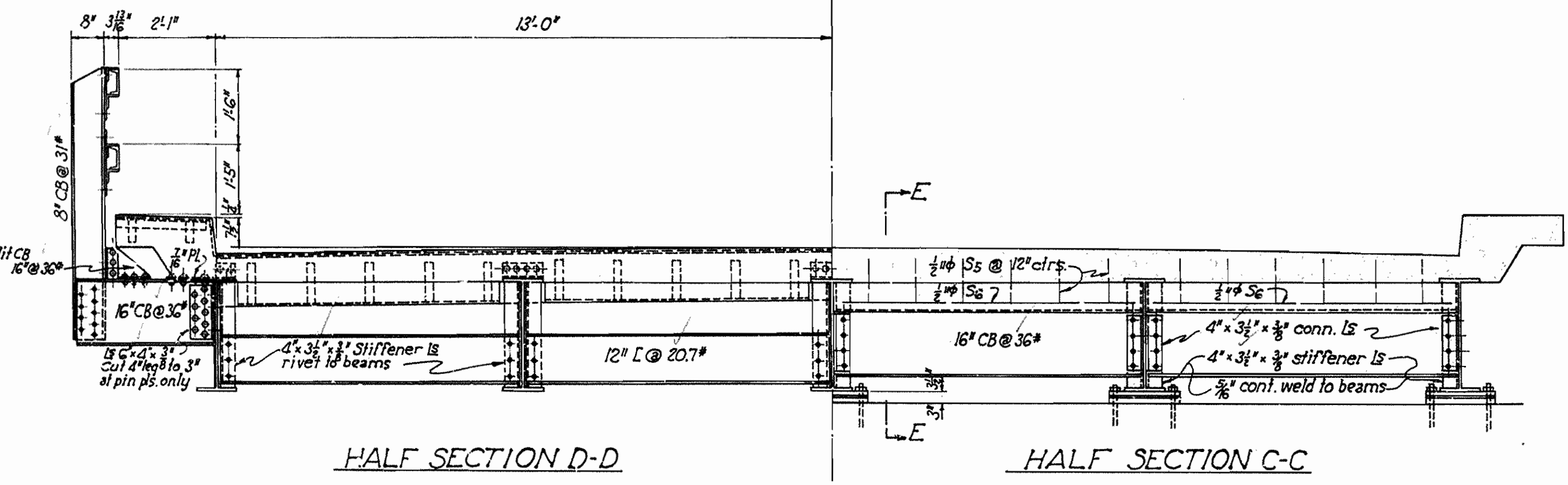
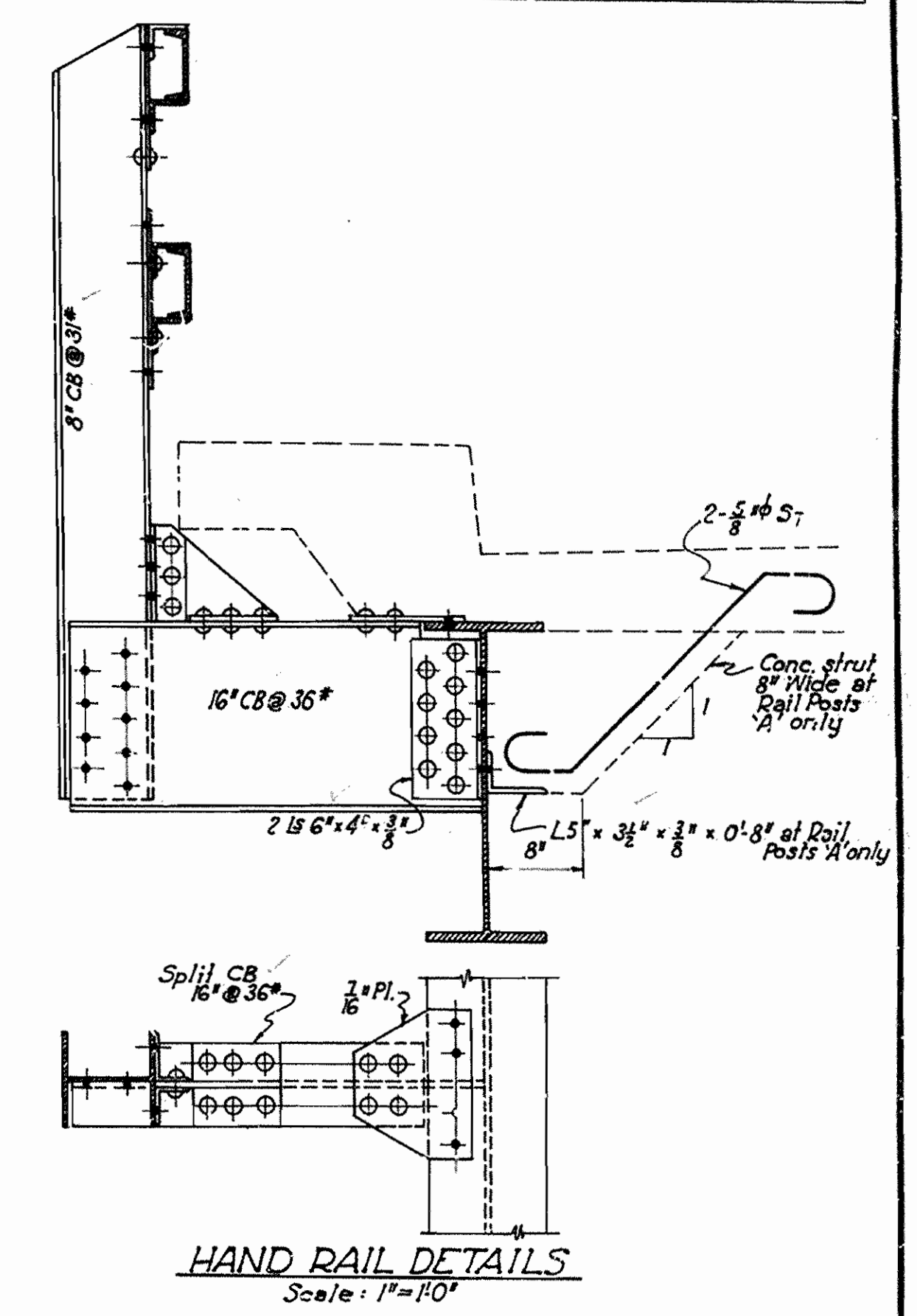
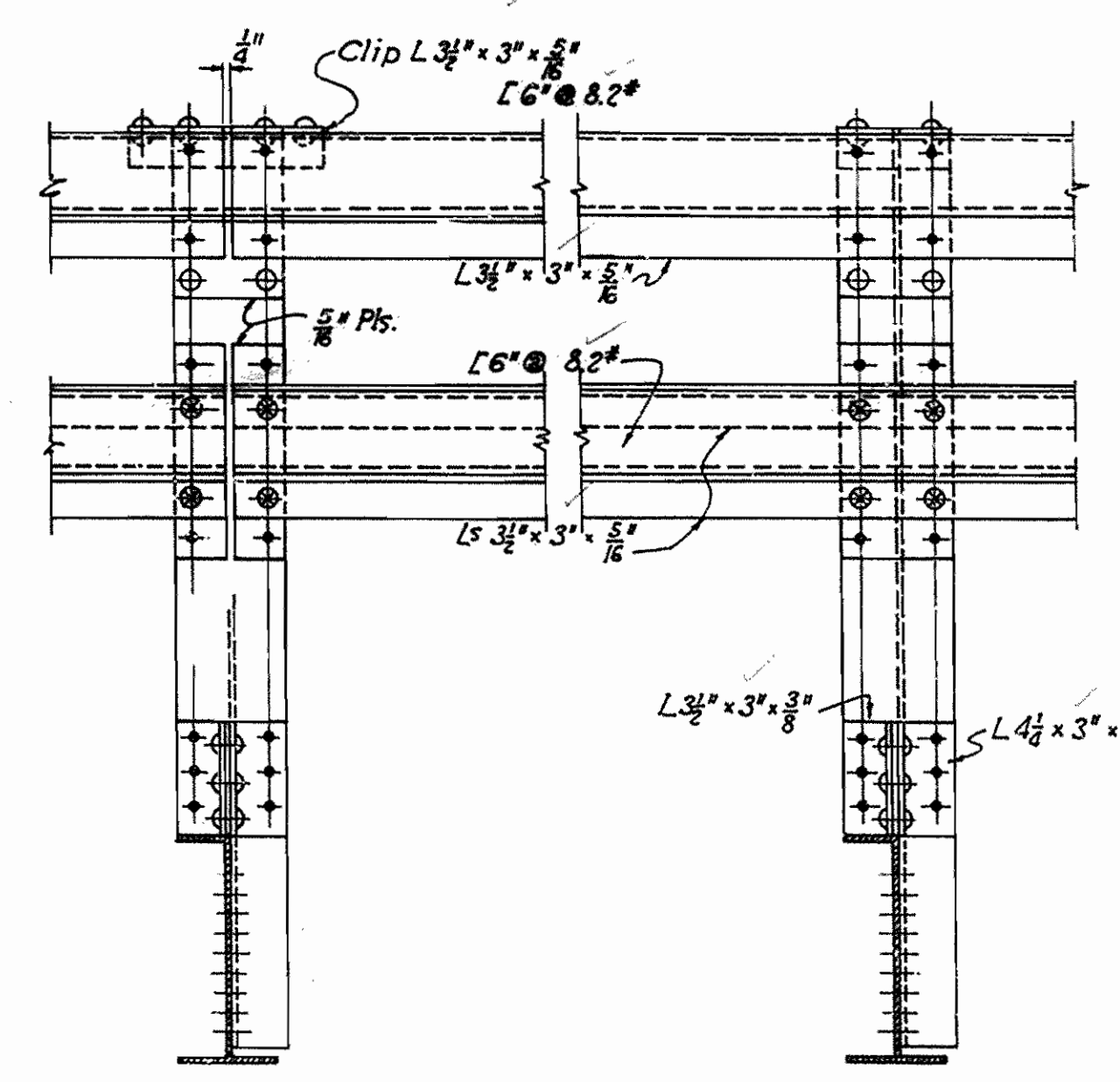
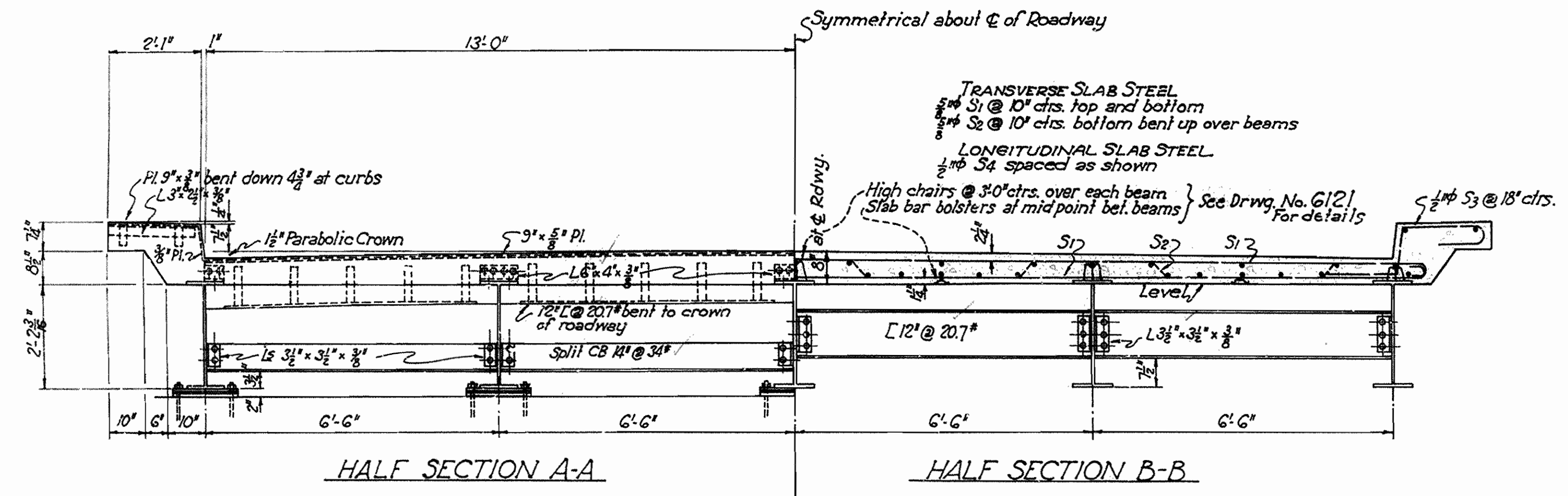
Revised 8-28-42
REVISED Oct. 7, 1946 Cross Frames

DETAILS OF CROSS FRAMES
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
LAWRENCE COUNTY
ROUTE 63 SEC. 3

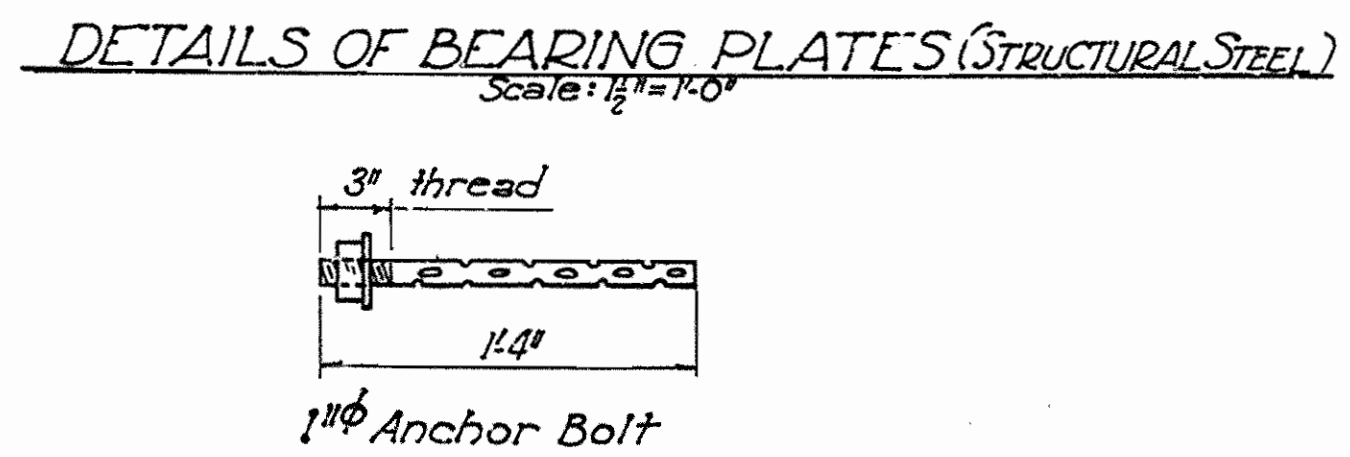
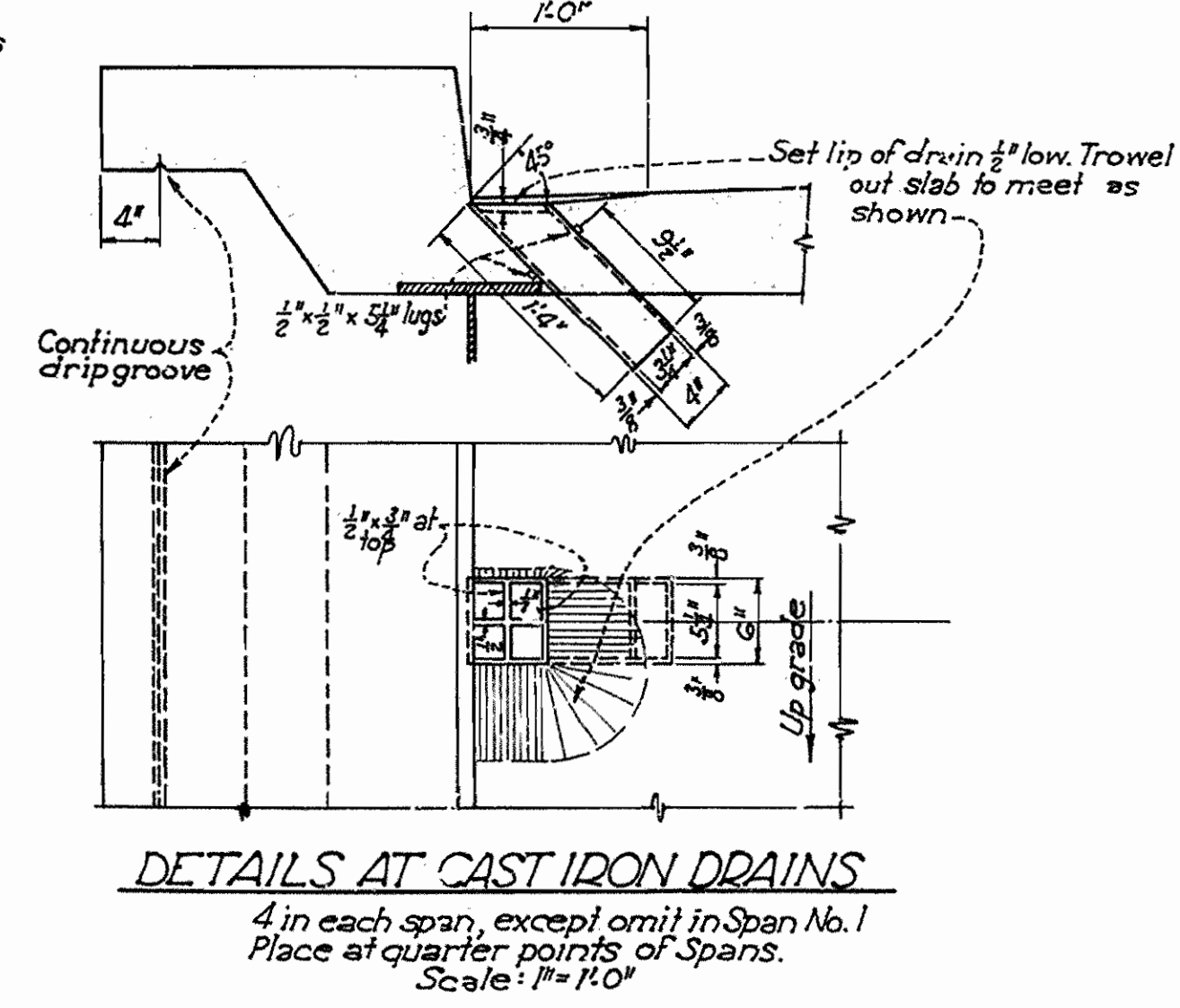
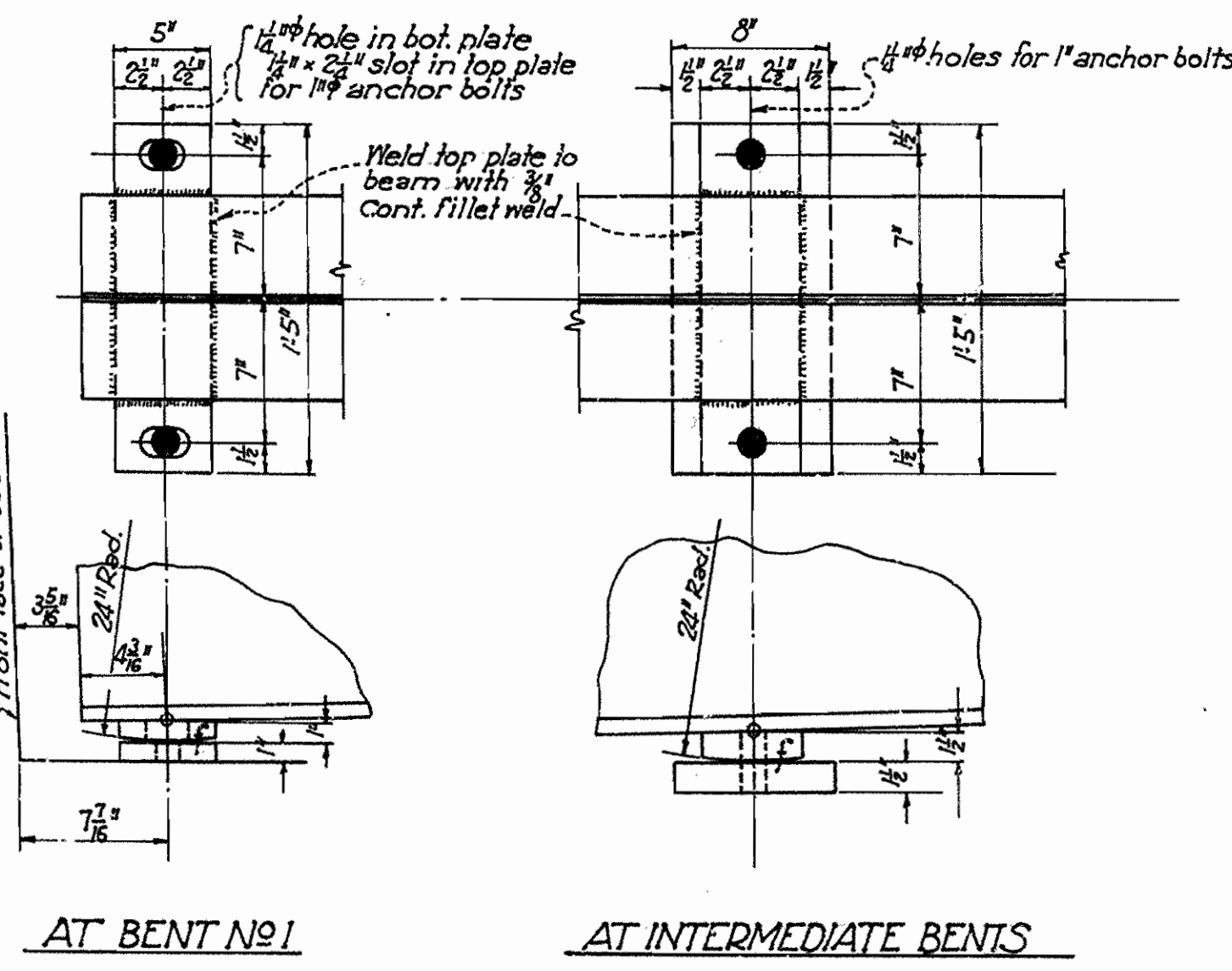
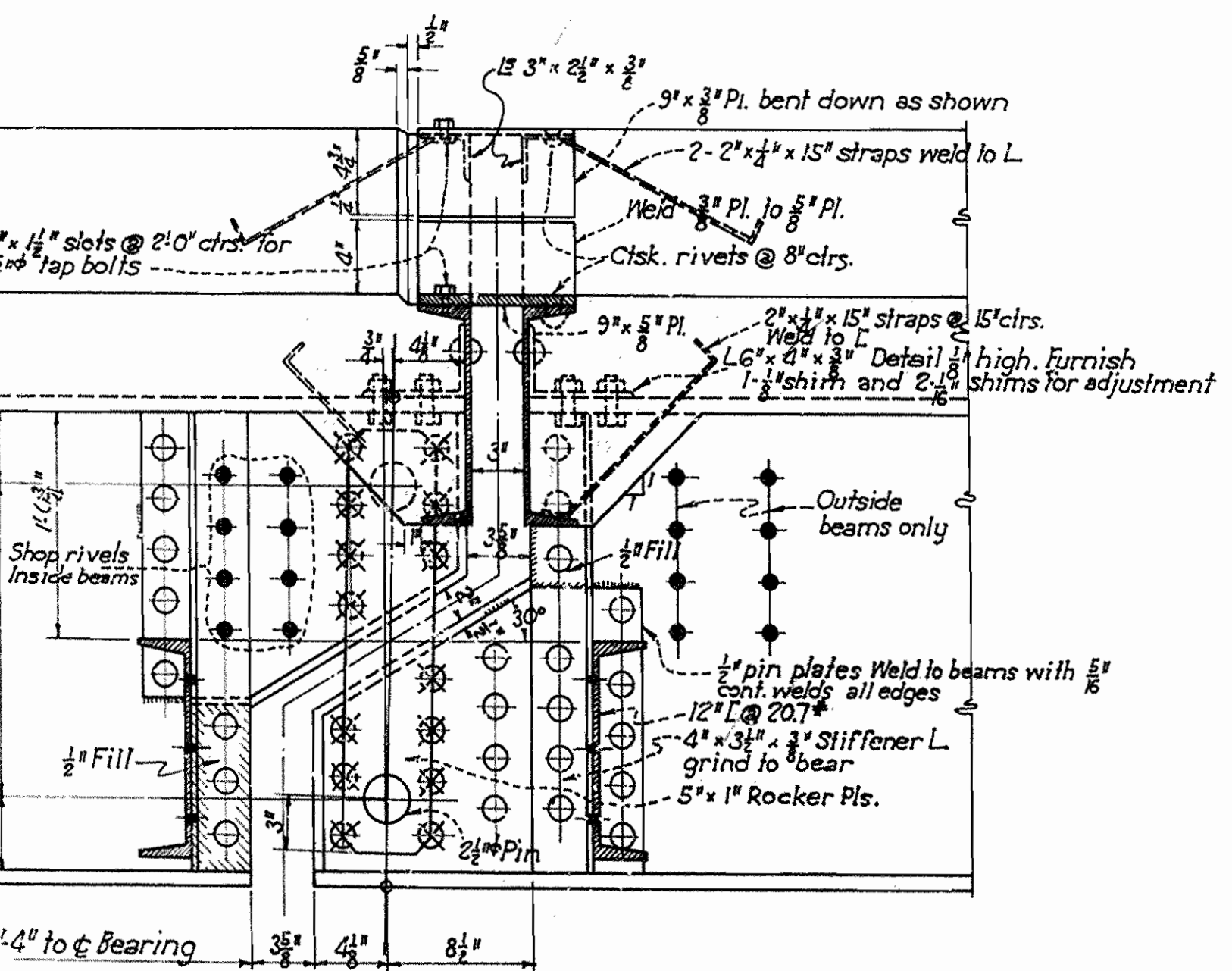
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
Drawn By: L.A.M. Date: 12-7-40
Traced By: E.R.B. Date: 2-17-40
Checked By: _____ Date: _____
Scale: 1/2 in. = 1 ft.
BRIDGE NO. 2112 DRAWING NO. 6129

N.C. Lawer
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

| | | | | | |
|---------------------|-------|----------------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | FED. AID PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| G | ARK. | 455 A(3) | | 9 | 36 |
| STATE JOB NO. 12311 | | | | 9 | 36 |



GENERAL NOTES:
 All concrete to be Class 'S'. Corners to be chamfered 3/4" unless otherwise noted.
 Rivets 3/8", Open holes 1/8". Where bolts are indicated use machine bolts.
 Cross Beam and Strut connections to be sub-punched 1/8" and reamed to a metal template.
 Ends of stiffener angles to be ground to bear against beam flanges.
 Structural shapes of equal or greater strength may be substituted for shapes shown but payment will be made on basis of shapes shown or those actually used which ever is the lesser.
 All welded connections to be 5/8" fillet shop welds except as noted.
 Shop Paint - All structural steel, except surfaces in contact with concrete, shall be given one coat of red lead and raw linseed oil before shipment.
 Field Paint - First coat, white lead; Second coat, Aluminum paint.



LOAD DISTRIBUTION TO BEAMS

| | Dead Load | Roadway Live Load | Sidewalk Live Load |
|----------------|-----------|--------------------------|--------------------|
| INTERIOR BEAMS | 850* | 1.46 Wheels or 0.65 Lane | |
| OUTSIDE BEAMS | 880* | 0.69 Wheel or 0.325 Lane | 100* |

DESIGN L.L. H15 WIDTH OF LANE 10 FEET

Revised 4-22-41
 Revised 1-17-46 Field Paint
 REVISED Oct. 4, 1946 wgt. of Beams.

UNIT STRESSES
 Class 'S' Concrete = 800#/sq
 Reinforcing Steel = 16000#/sq
 Structural Steel = 18000#/sq

SHEET 2 OF 2
DETAILS OF I-BEAM SPANS
BRIDGE OVER BLACK RIVER
AT BLACK ROCK, ARKANSAS
LAWRENCE COUNTY
 ROUTE 63 SEC. 3

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.

Drawn By: L.P.C. Date: 11-26-40
 Traced By: E.A.W. Date: 12-10-40
 Checked By: _____ Date: _____

Scale: 1/2" = 1' and as noted

BRIDGE NO. 2112 DRAWING NO. G113

M. J. Sawyer
 PRINCIPAL HIGHWAY ENGINEER (BRIDGE)