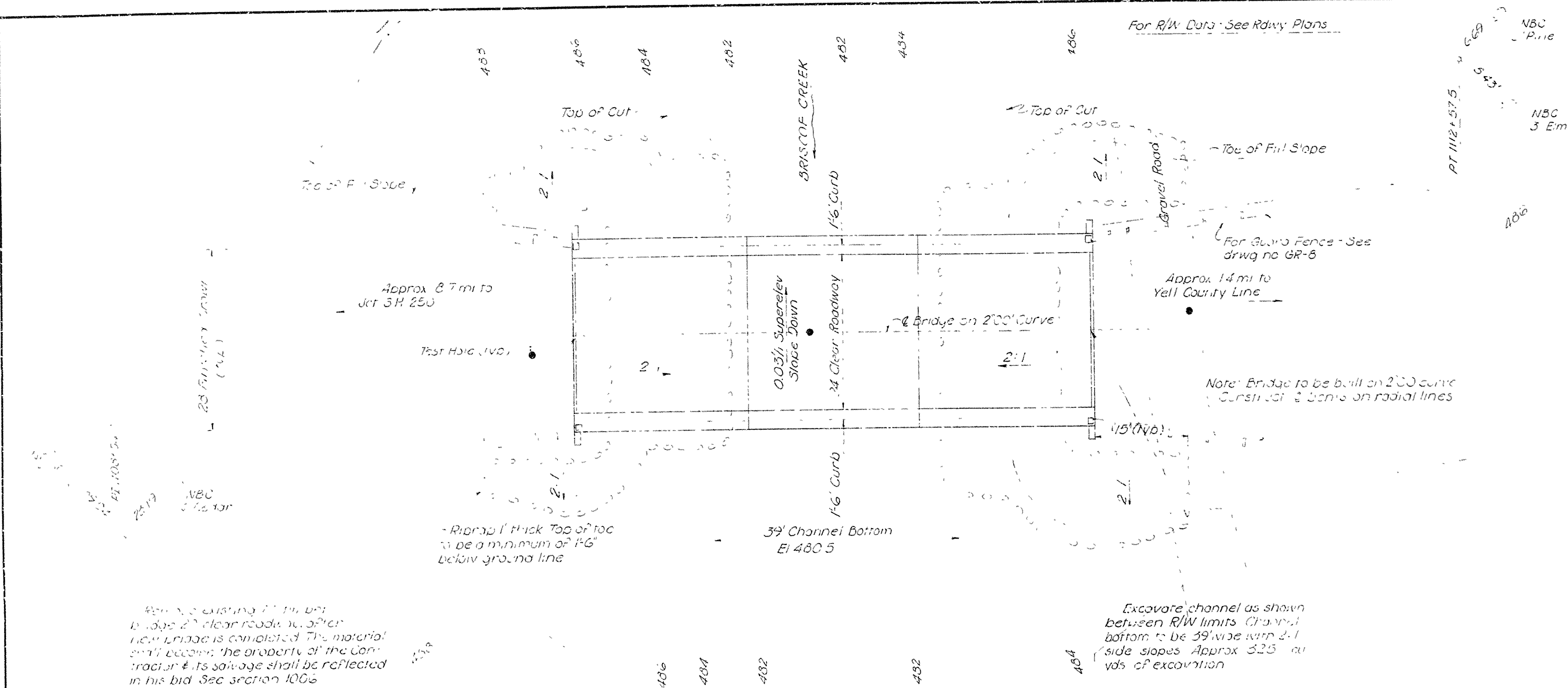


FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	14532	1966	21	36
JOB NO. 14532					



Remove existing 12' x 12' bridge. After new bridge is completed, the material shall become the property of the contractor & its salvage shall be reflected in his bid. See section 100.6

PLAN
1 = 100'
2 = 200'
3 = 400'

GENERAL NOTES
Punch Mark - Nail in side 6" sycamore, 146' Rt. Sta. 1112 + 60; Elev 486.61.
All concrete to be poured in the dry. Exposed corners to be chamfered 3/4" unless otherwise noted.
All piling shall be 12HP53 steel bearing piling and shall be driven with an approved air, steam or diesel hammer to a minimum bearing capacity of 36 tons per pile and into the material designated as shale on the boring logs. Lengths of piles shown are for estimating quantities only. Order lengths shown; cut-off or build-up, if necessary, to be paid for in accordance with the Standard Specifications. Piles in end bents to be driven after embankment is in place.
For details of substructure see dwg. no. 15093
For details of superstructure see dwg. no. 13655.

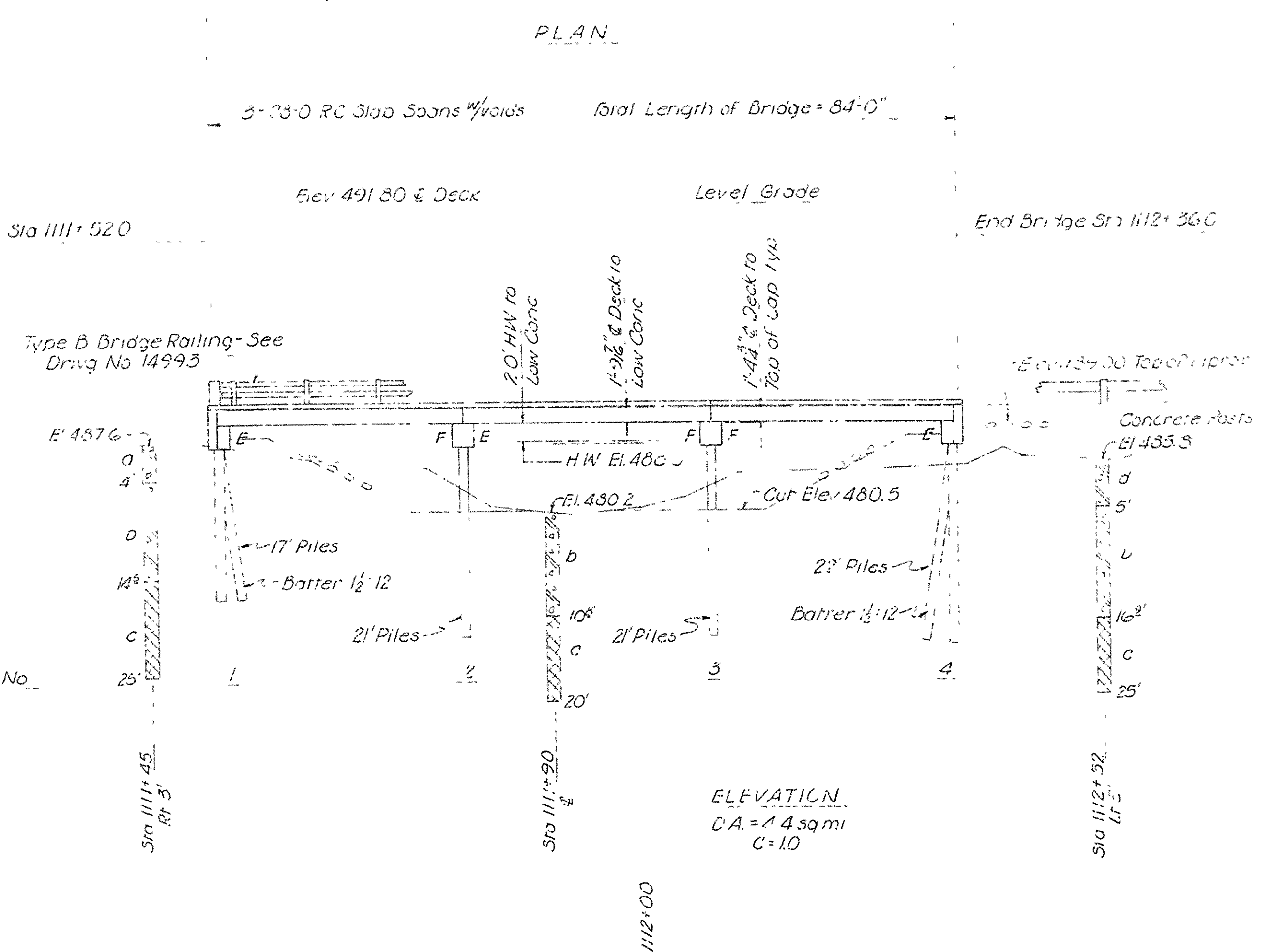
SPECIFICATIONS: Arkansas State Highway Commission Standard Specification for Highway Construction, Edition of 1953, the 1966 Supplemental Specifications thereto, and applicable Special Provisions.

DESIGN SPECIFICATIONS: AASHTO 1981
Live Loading: H15
Unit Stresses: Class S Concrete (n=10) 1,200 psi
Reinforcing Steel 20,000 psi

LAYOUT OF BRIDGE OVER
BRISCOE CREEK
OLIO - YELL COUNTY LINE
SCOTT COUNTY
ROUTE 80 SEC. 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: RWM DATE: 6-14-66
TRACED BY: DATE: 6-14-66
CHECKED BY: VAS DATE: 6-20-66
BRIDGE NO. 5092 DRAWING NO. 13653

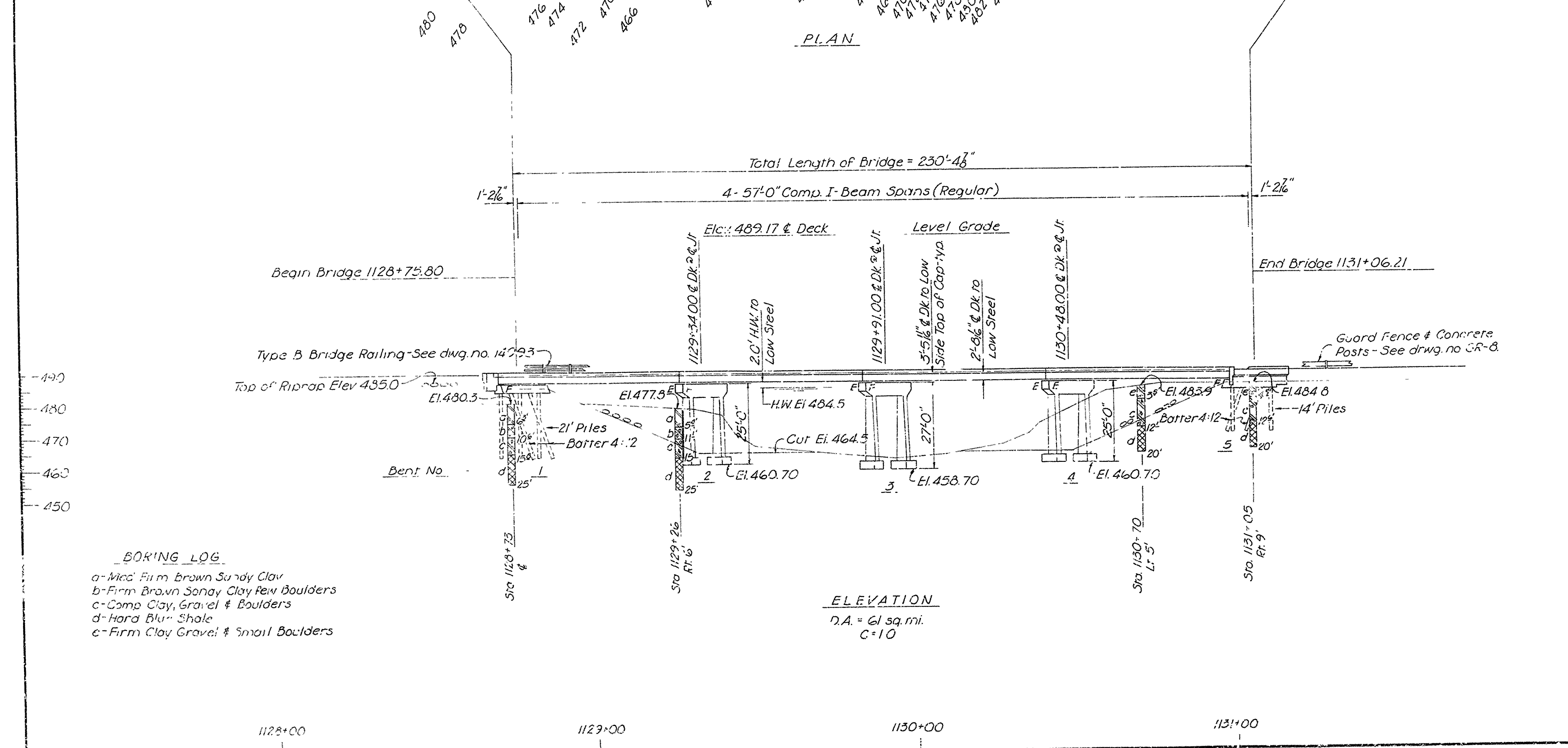
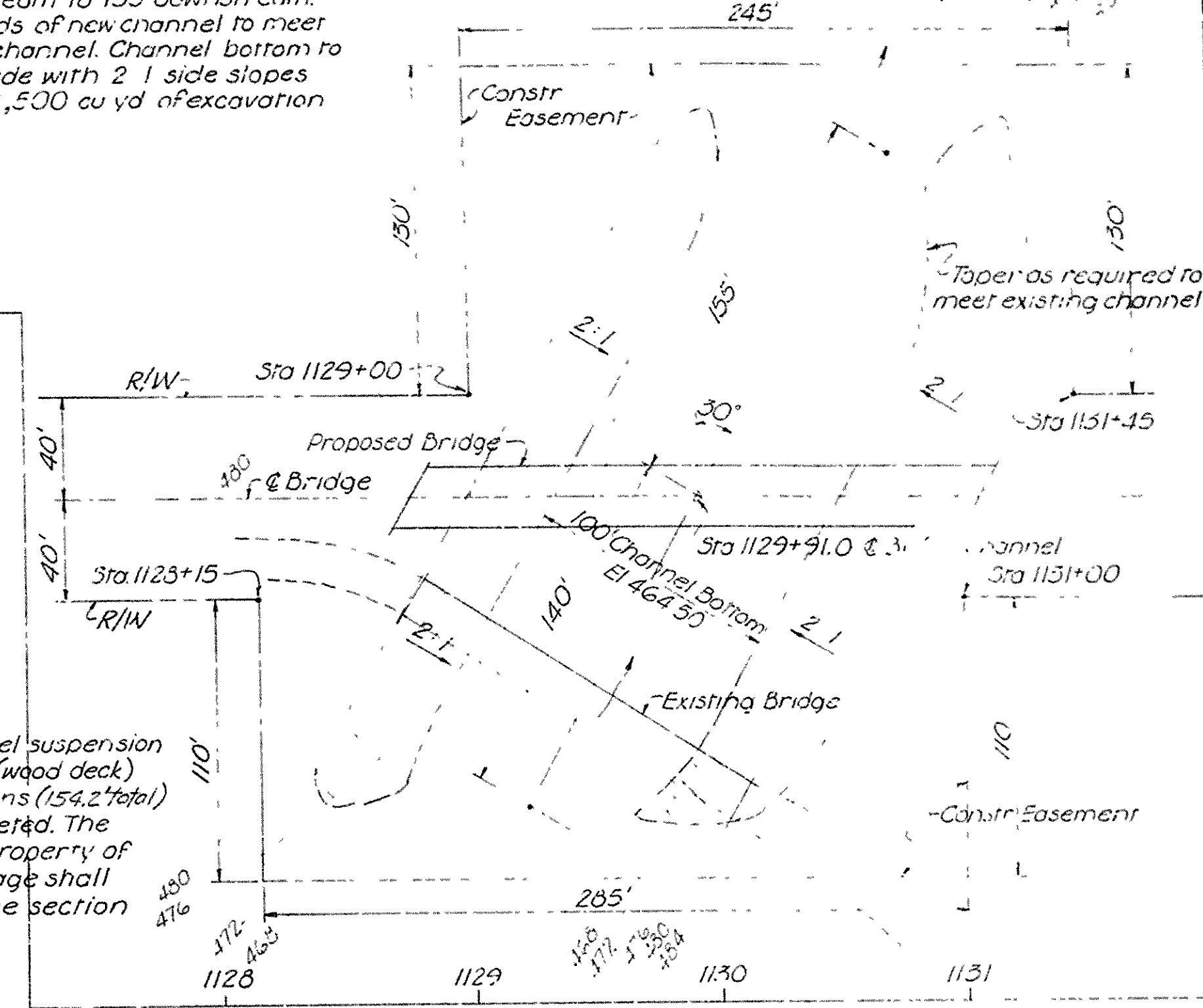
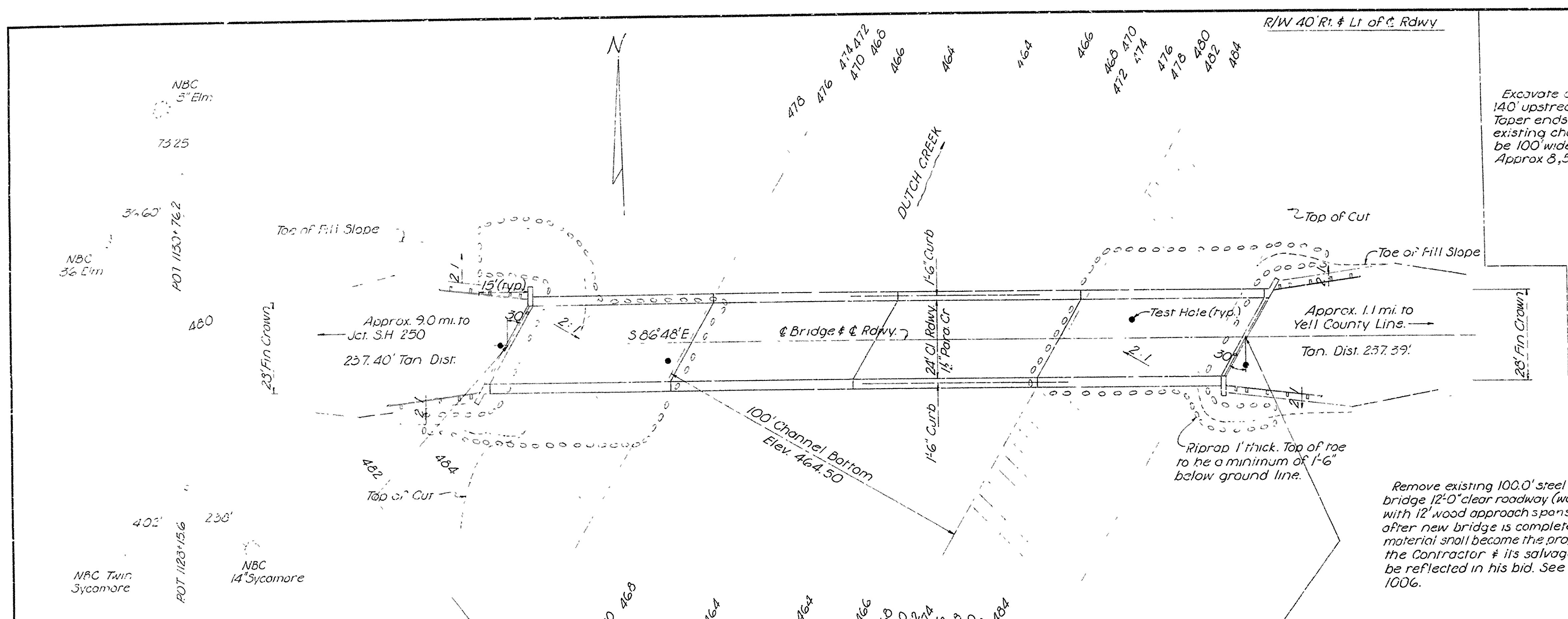
L.P. Wilson
BRIDGE ENGINEER



ELEVATION
D.A. = 1.4 sq mi
C = 10

BORING LOG
a - Firm, Brown Sandy Clay w/ Boulders
b - Silty Clay, Gravel & Boulders
c - Hard Blue Shale
d - Firm, Clay, Gravel & Boulders

FED. RD. DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	4532	22	28	
JOB NO. 4532					

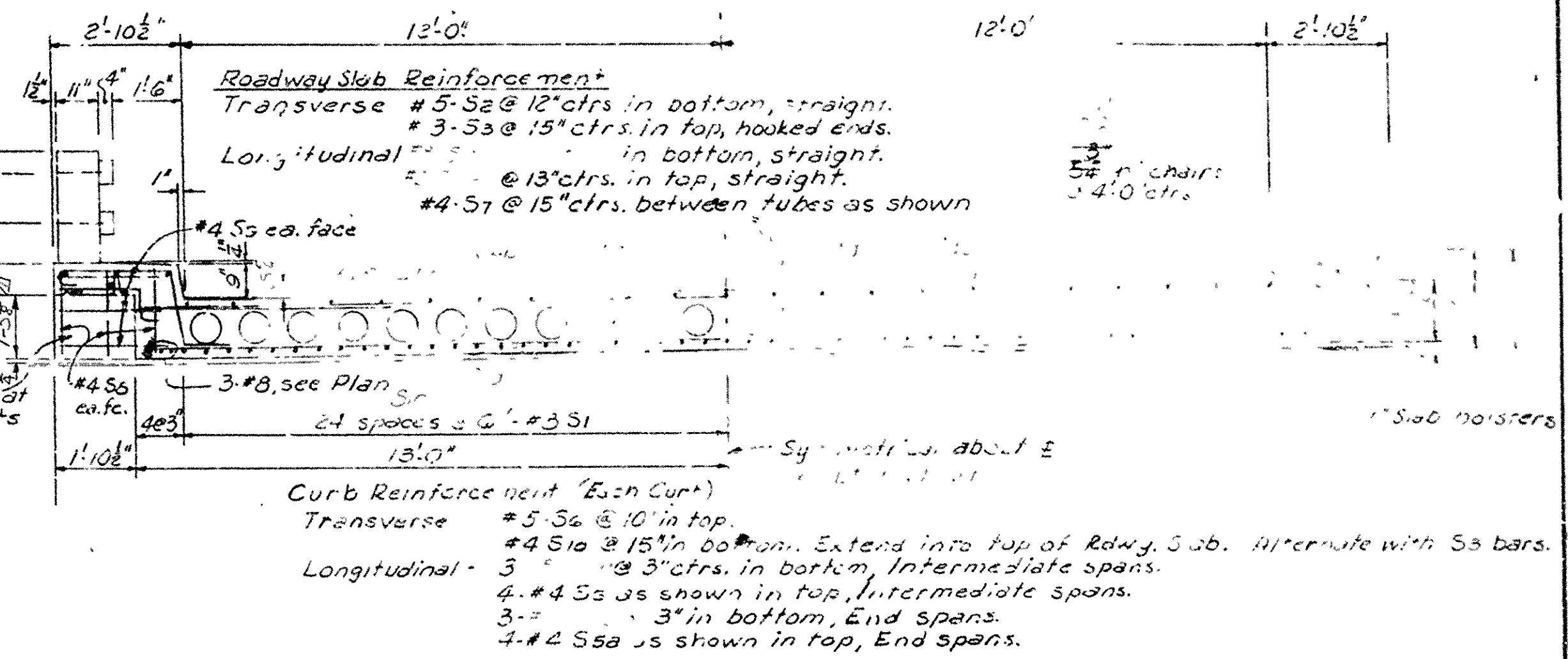
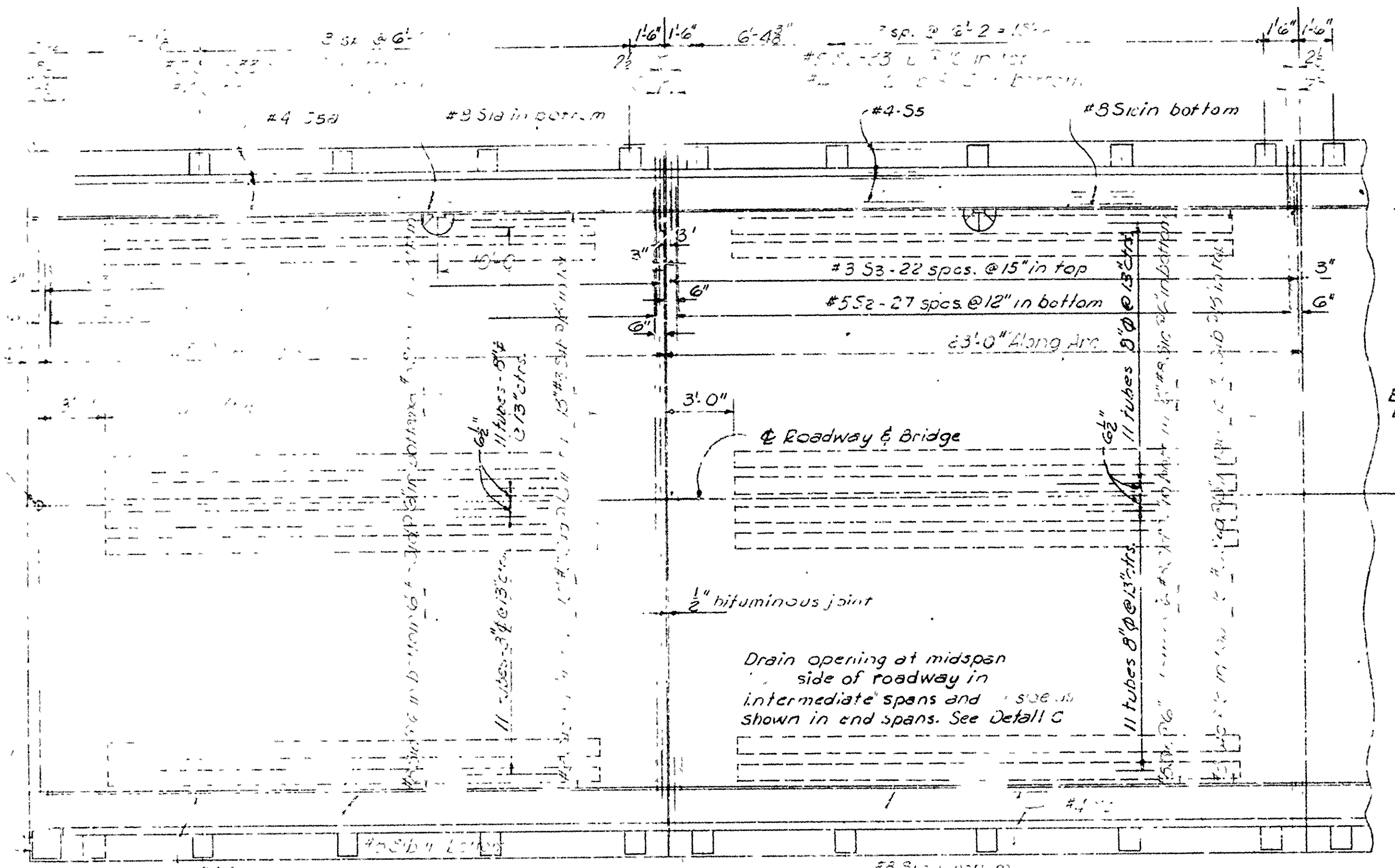


LAYOUT OF BRIDGE OVER
DUTCH CREEK
OLIO - YELL COUNTY LINE
SCOTT COUNTY
ROUTE 80 SEC. 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: RWM DATE: 6-10-66
TRACED BY: DATE: 6-20-66
CHECKED BY: DATE: 6-20-66

BRIDGE NO. 5093 DRAWING NO. 13654

1" bituminous joint (typical)

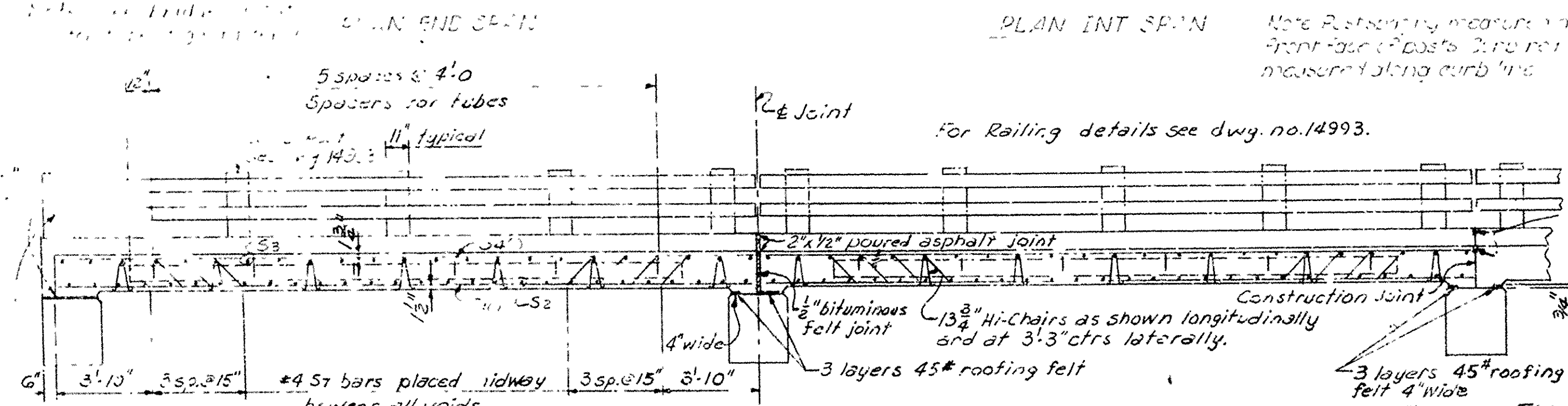


SECTION THROUGH ROADWAY
Scale: $\frac{3}{8}$ " = 1'-0"

SAR LIST

MARK	SIZE	NO. REQUIRED	LENGTH	PIN DIA.	BENDING DIAGRAMS
S10	8			5/8"	
S1	4			5/8"	
S2	5	29	28	25'-8"	
S3	3	23	23	26'-7"	
S4	3			5/8"	
S5	4		8	27'-8"	
S5a	4	9		28'-2"	
S6	5	63	68	5'-9"	
S7	4	168	168	2'-10"	
S8	4	12		1'-10"	
S9	4	12		1'-6"	
S10	4	44	44	7'-5"	
P1	6	64	60	3'-11"	
P2	3	32	40	3'-1"	
P3	3	8		4'-9"	
A1	3	8		1'-5"	
A2	5	42		2'-3"	
A3	2	27		1'-2"	
A4	2	27		1'-2"	
A5	2	27		1'-2"	
A6	2	27		1'-2"	
A7	2	27		1'-2"	
A8	2	27		1'-2"	
A9	2	27		1'-2"	
A10	2	27		1'-2"	

Dimensions are to ctrs. of bars.



LONGITUDINAL SECTION AT C

GENERAL NOTES

All concrete to be Class S. All exposed corners to be chamfered 3/4" unless otherwise noted.

Reinforcing steel to be deformed bars of intermediate or hard grade. Shop lists and bending diagrams must be submitted and approved before fabrication is begun.

All cylindrical tubes used to form voids shall be moisture protected, laminated type construction, minimum thickness 0.200", and shall be furnished complete with end closures.

All reinforcing steel and fiber tubes shall be accurately located in the forms and firmly held in place by means of steel wire supports and spacers for tubes of sufficient size and number to prevent displacement during the course of construction, but in no case of lesser design than that shown.

Wire supports for reinforcing bars will not be paid for directly, but will be considered subsidiary to the item "Reinforcing Steel".

Tubes for forming voids and wire supports and spacers for tubes will not be paid for directly, but will be considered subsidiary to the item "Class S Concrete".

Shop lists and diagrams of wire supports and spacers for tubes shall be submitted and approved before fabrication is begun.

Roofing felt, bituminous felt, and poured asphalt joints shall be measured and paid for as Class S Concrete.

For details of Concrete and Metal Bridge Railing see Dwg. No. 1-203.

Bridge Railing including all concrete posts, reinforcing steel and fastenings shall be paid for at the unit price bid per linear foot for Concrete and Metal (Aluminum or Steel) Bridge Railing.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, edition of 1959.

DESIGN SPECIFICATIONS: AASHTO 1961

Design Live Loading: H-15

Load Distribution to Slab: Dead load: 165 psf

Live Load: 0.174 wheels per foot of width plus 30% impact.

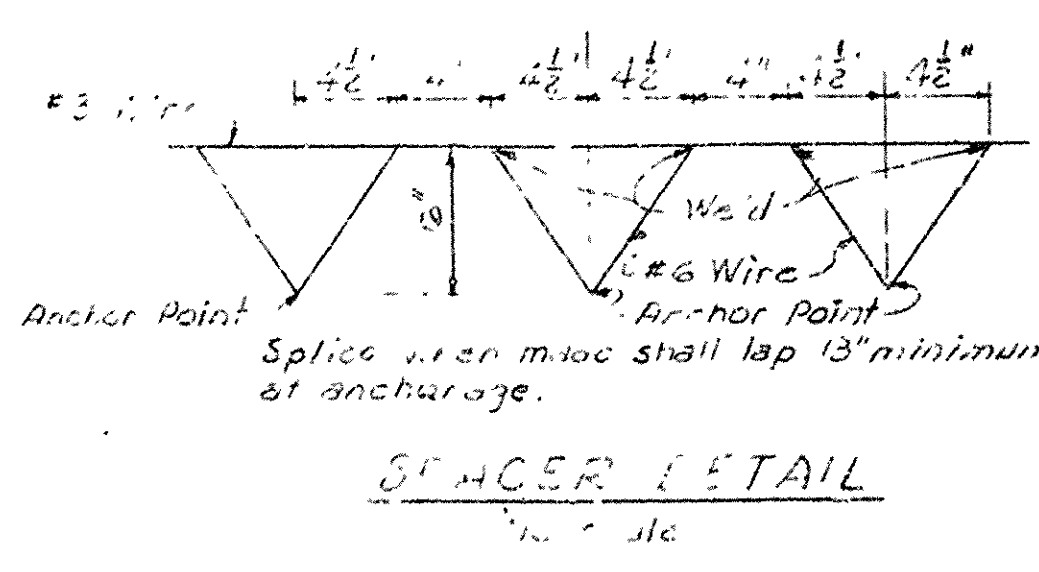
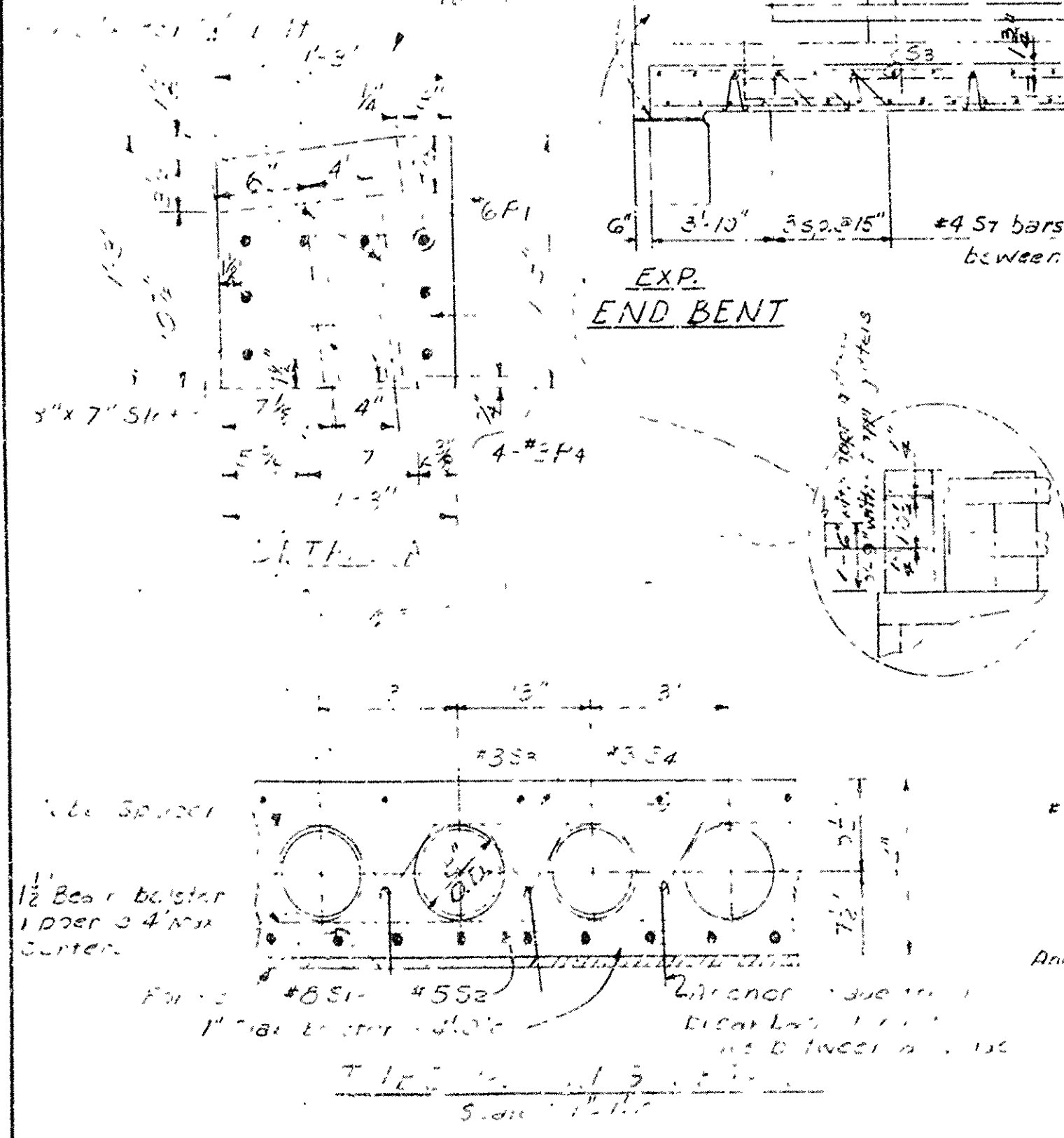
Unit Stresses:

Class S Concrete (n=10) 1,200 psi

Reinforcing Steel 20,000 psi

DETAILS OF
STANDARD 28'-0" R. C. SLAB SPANS
WITH VOIDS
24'-0" CLEAR RDWY. 1'-6" CURBS
ROUTE 2 CURVE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: P DATE: 1-1-61
TRACED BY: P DATE: 1-1-61
CHECKED BY: P DATE: 1-1-61
BRIDGE NO. 5092 DRAWING NO. 13655

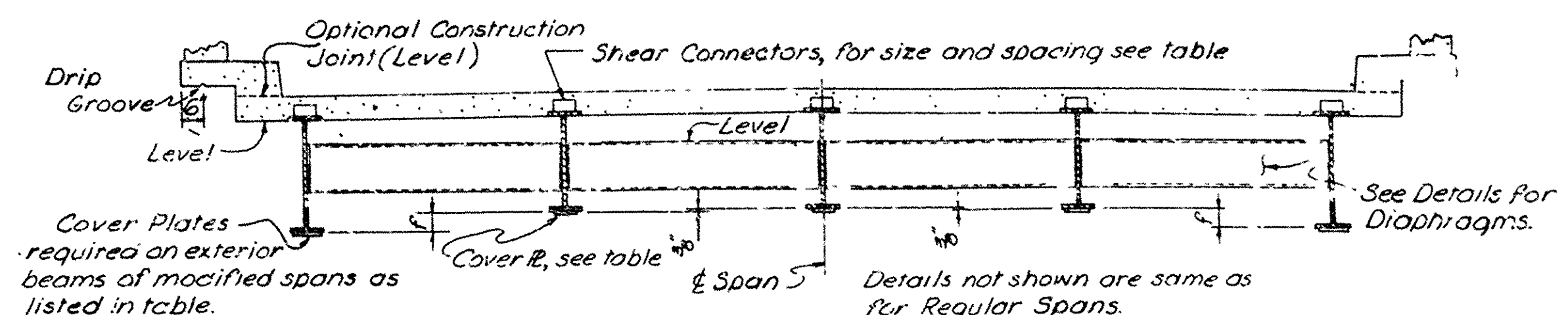


Maximum thickness of part under $\frac{3}{4} = \frac{1}{4}$
 " " " " " $\frac{3}{4} = \frac{1}{4}$ " " " "

The image contains two technical drawings. The left drawing, titled 'DETAILS OF COVER PLATE', shows a cross-section of a beam with a cover plate. Dimensions include a total width of 12 inches, a cover plate thickness of 1/2 inch, and a fillet radius of 1/8 inch. The right drawing, titled 'DIAPHRAGM DETAILS FOR 30"x36" WF BMS', shows a cross-section of a beam with a diaphragm. Dimensions include a total width of 36 inches, a diaphragm thickness of 1/2 inch, and a fillet radius of 1/8 inch. The drawings are labeled with '15 C 33.9' and '16 G x 3/8'.

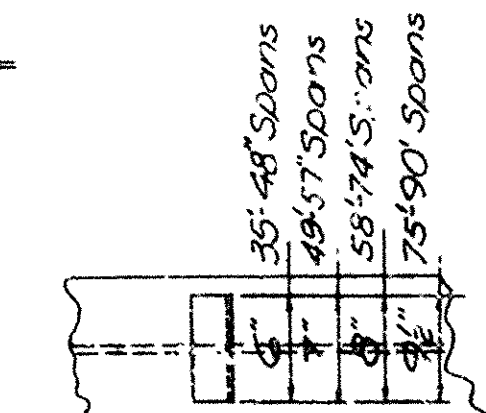
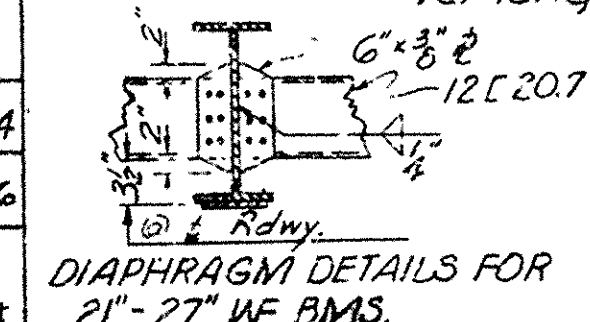
DETAILS OF COVER PLATE
Scale: 1" = 1'-0"

DIAPHRAGM DETAILS FOR 30"x36" WF BMS.

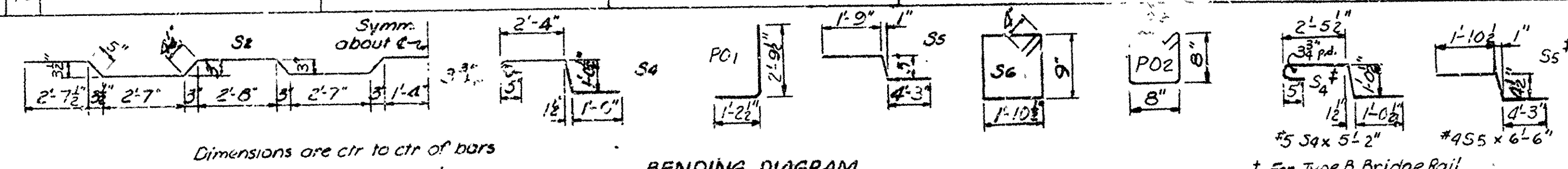


Interior beams are same as in Regular Spans. Exterior beams are the lightest section of same nominal depth as beams for longest span shown on Bridge Layout.

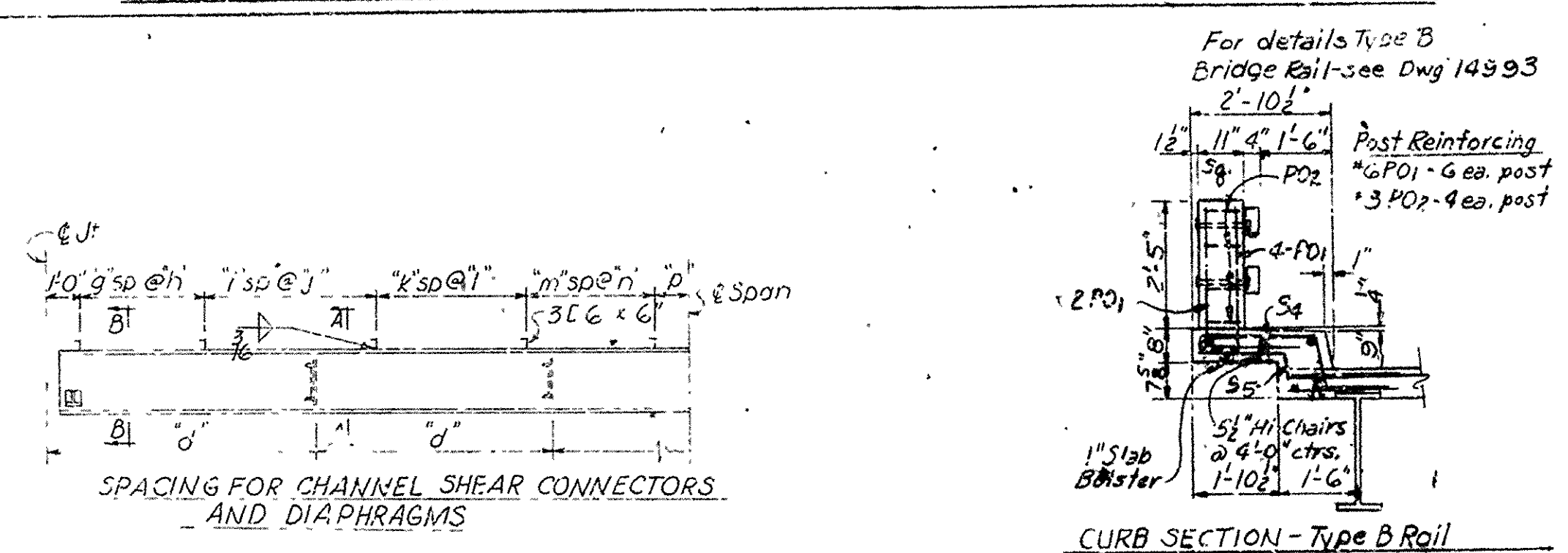
SECTION A-A MODIFIED SPANS



DETAILS OF SHEAR CONN.
No Scale



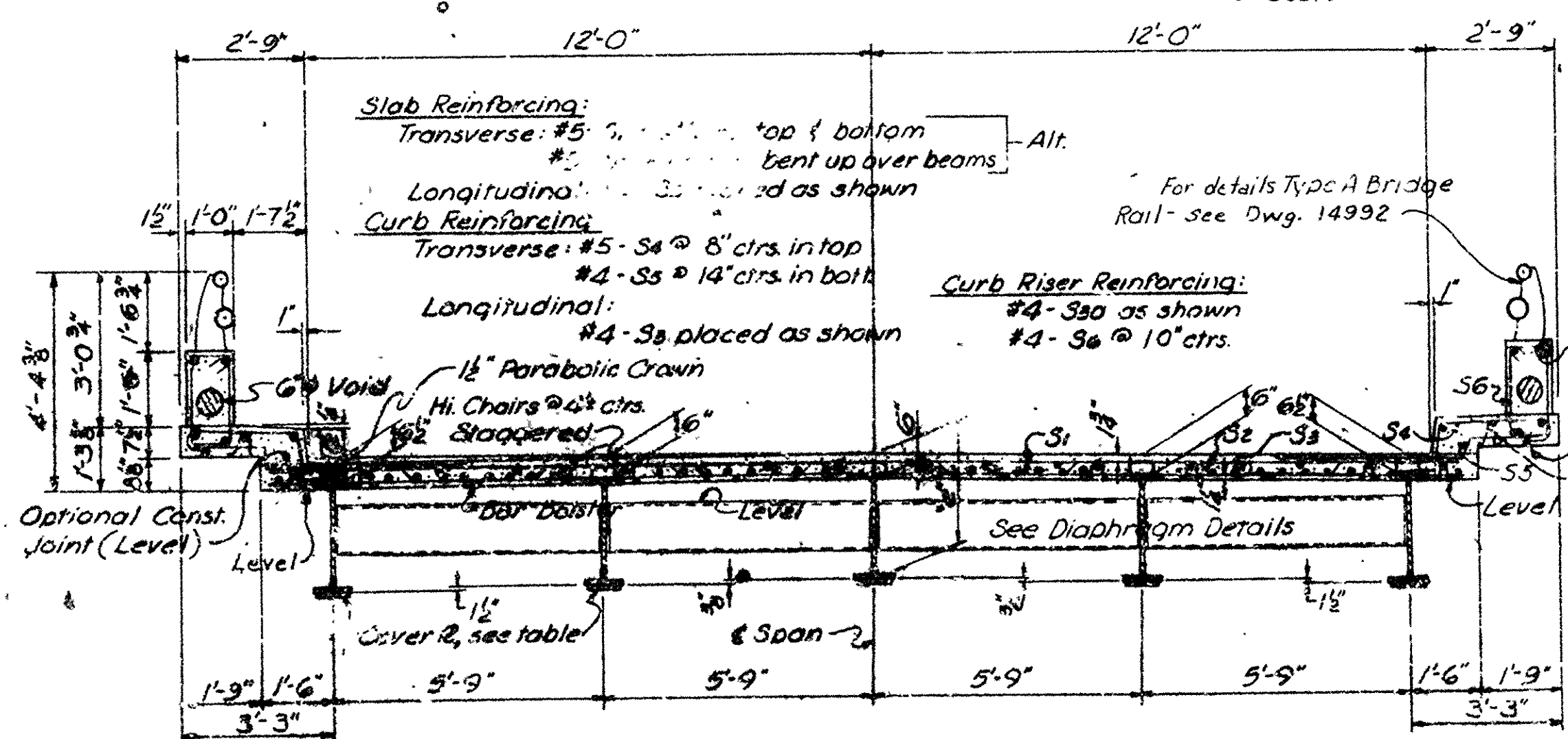
BENDING DIAGRAM



CURB SECTION - Type B Rail

SPAN		INTERIOR BEAM					EXTERIOR BEAM					POST SPACING		VARIABLES OF SHEAR CONNECTOR SPACING															
NO.	LENGTH	TYPE	BEAM SIZE	COVER IN.	e	DEAD LOAD DEFLECTION		BEAM SIZE	COVER IN.	e	DEAD LOAD DEFLECTION		DIAPHRAGM SPACING	POST SPACING			f	VARIABLES OF SHEAR CONNECTOR SPACING											
						WITH JOINT	WITHOUT JOINT				WITH JOINT	WITHOUT JOINT		a	b	c		g	h	i	j	k	l	m	n	p			
1-4	57' 0"	1" x 8"	4" x 7 1/2"	1 1/2"	33'	1 1/2"	1 1/2"	24" WF 76	7 1/2" x 1 1/2" x 37'	2 1/2"	1 1/2"	1 1/2"	2 1/2"	36" x 1 1/2"	7' 10"	7' 5"	5'	1 1/2"	8	9"	3	12"	6	14"	3	22"	12"		

Table Data, 7-7-66, FMH
Checked 7-8-66, B.V.



SECTION A-A OF REGULAR SPAN
(Regular spans have all beams of equal depth)

NOTE: Stud shear connectors, granular flux filled, ~~single~~ flanged, or equal may be used in place of the channels shown at the following ratios: 8/4" diameter steel in place of 1.82 inches of channel; 7/8" diameter steel in place of 2.52 inches of channel. All studs shall be 4" long and automatically welded to the beam flanges in accordance with recommendations of the manufacturer.

Channel sections will be used as basis for measurement of structural steel in shear connectors.

This drawing to be used with Drawing 14800 D.

All steel shall be A-36 steel unless otherwise noted.

DESIGN SPECIFICATIONS: AASD 2001

1. Dead Load: (Type A Rail)

	12' Beam (without const. j)	12' Beam (with const. j)	12' Beam (without const. j)	12' Beam (with const. j)
a. To 10" Beam (without const. j)	1837% + 115% (off of 10")	253% + 1.1% (off of 10")	1837% + 115% (off of 10")	253% + 1.1% (off of 10")
b. To Composite Beam (with const. j)	253% + 1.1% (off of 10")	1837% + 115% (off of 10")	253% + 1.1% (off of 10")	1837% + 115% (off of 10")

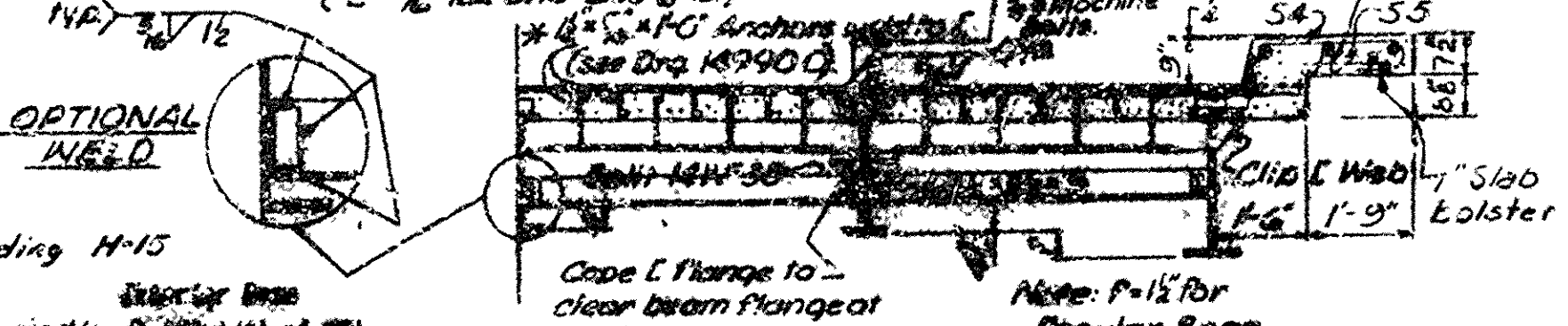
2. (Two) 1981

a. To Composite Beam	1,000 shins	1,000 shins + 1000
b. To WF Beam (without constr.)	1,267 #/ft	
c. To Comp. Beam (with constr.)	28,000 psi	
d. To Composite Beam	29,360 psi	

1A. Dead Load : (Type B Bolt)

- a. To WF Beam (without constr.)	437 #/ft + 1.15 (#/ft of Wf)	753 #/ft + 1.15 (#/ft of Wf)
(with constr. ft.)	457 #/ft + 1.15 (#/ft of Wf)	763 #/ft + 1.15 (#/ft of Wf)
b. To Comp. Beam (without constr.)	281 #/ft	281 #/ft
(with constr. ft.)	290 #/ft	290 #/ft

Expansion Device: Preformed Joint Sealer (See Special Provisions)
Roadway 1'-12" x 24'-0" (Bent to crown)
Cmn. @ 6'-5 1/2" x 3'-0" 5" Min. Chair
Detail device is high and provide 1/2" of shims @ 4'-0" cirs.
(2'-4" on and one's 1/2")
Notes for
1"



DETAILS OF STANDARD
35'-90" COMPOSITE I-BEAM SPANS
24'-0" CLEAR RDWY. 1'-6" OR 1'-7½" CURBS
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.
DRAWN BY: JAS DATE: 10-6-64

BRIDGE NO. 5093 DRAWING NO. 13658

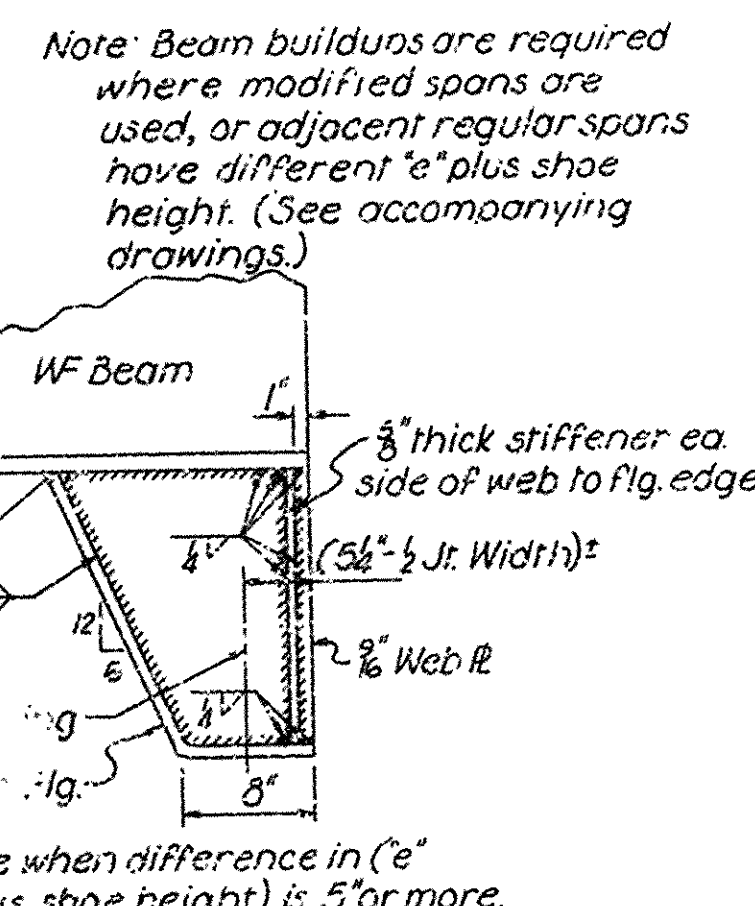
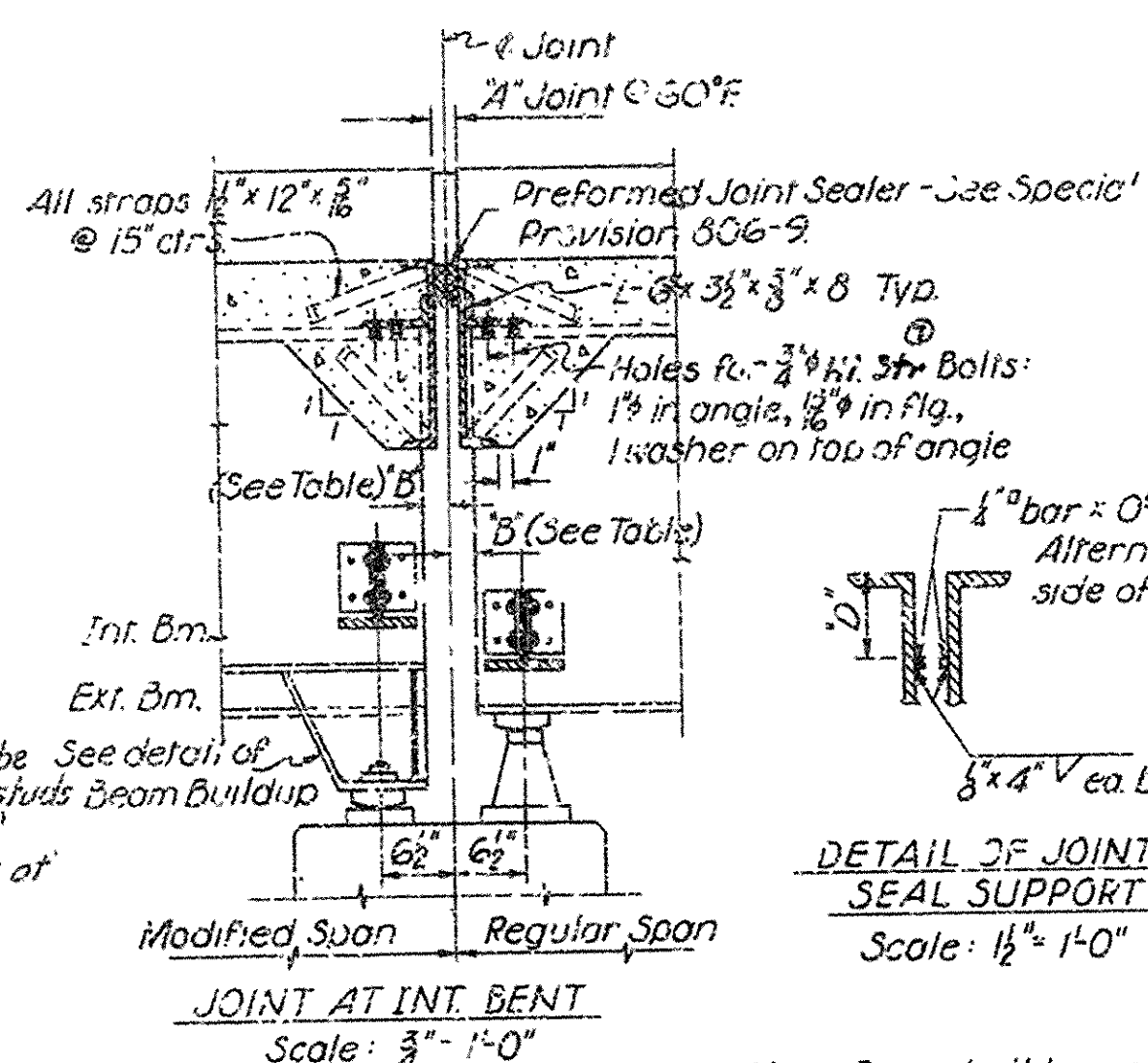
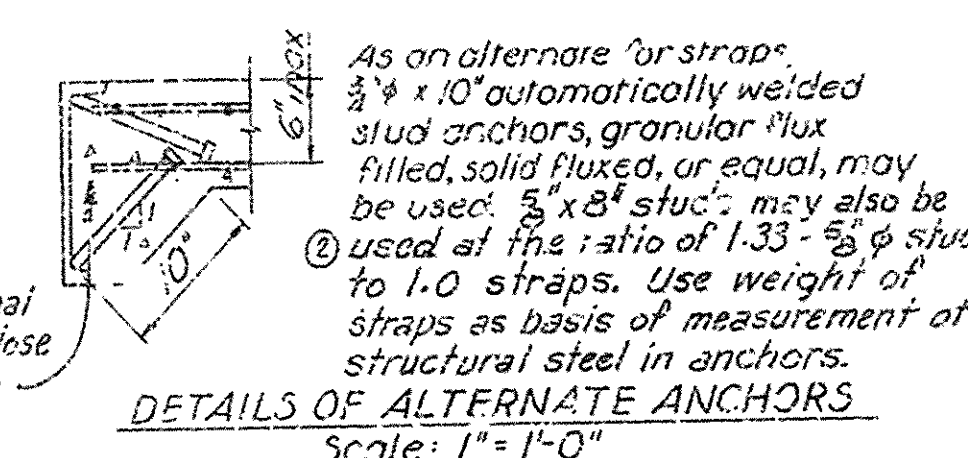
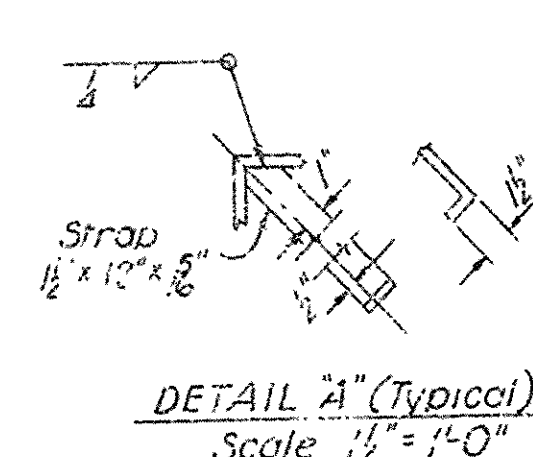
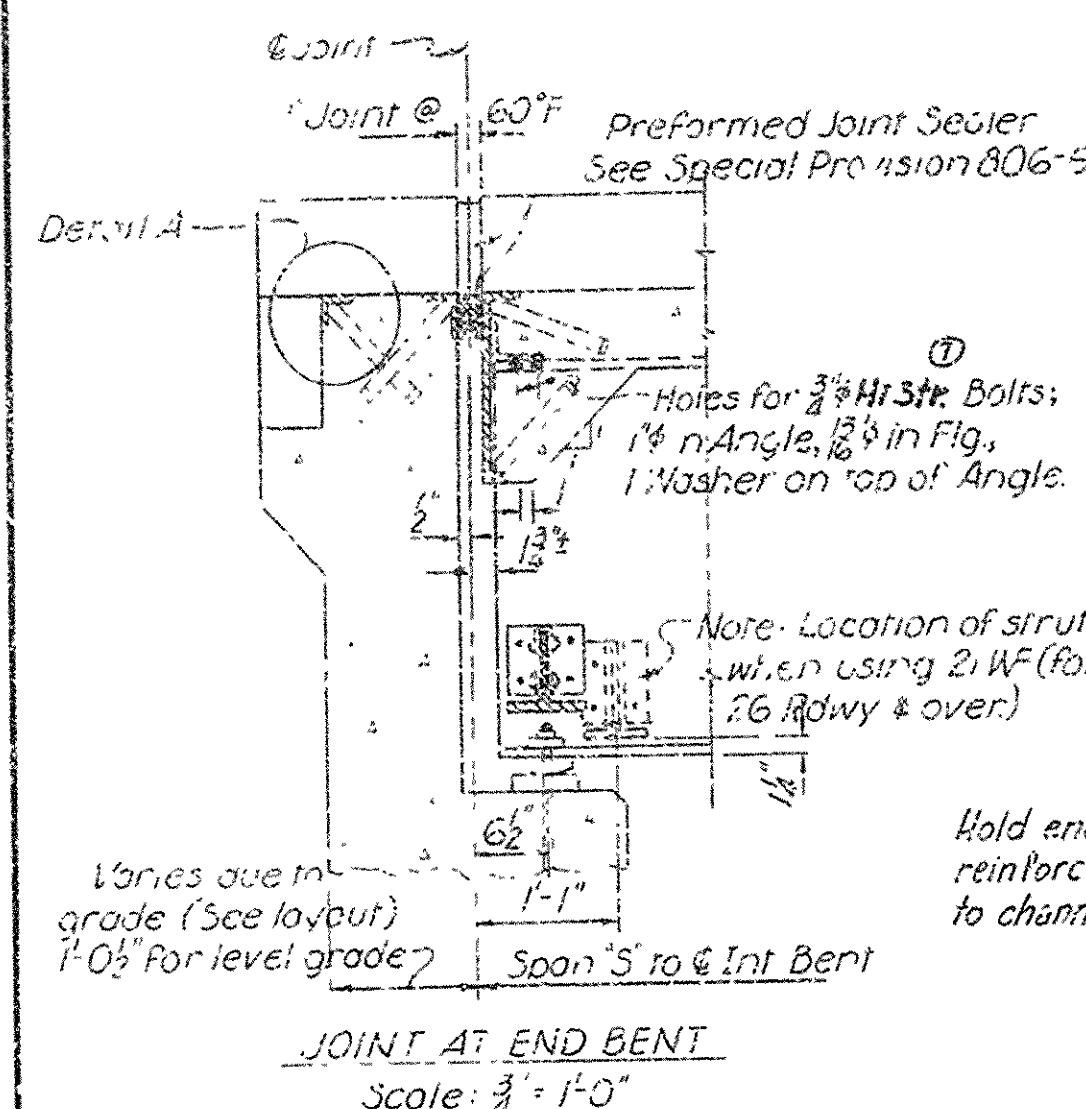
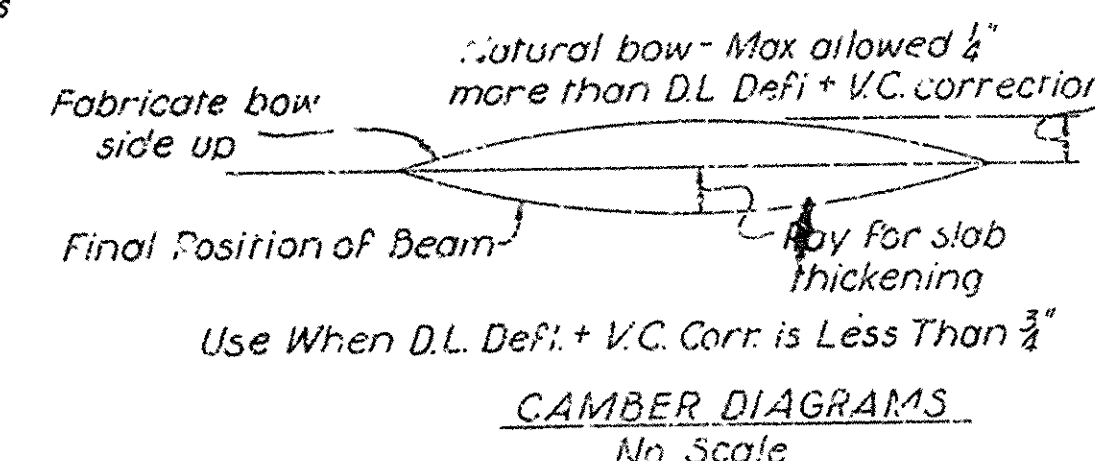
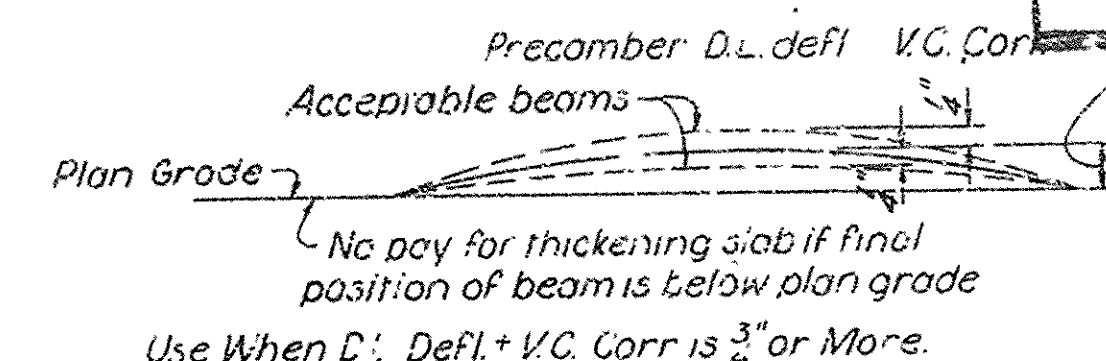
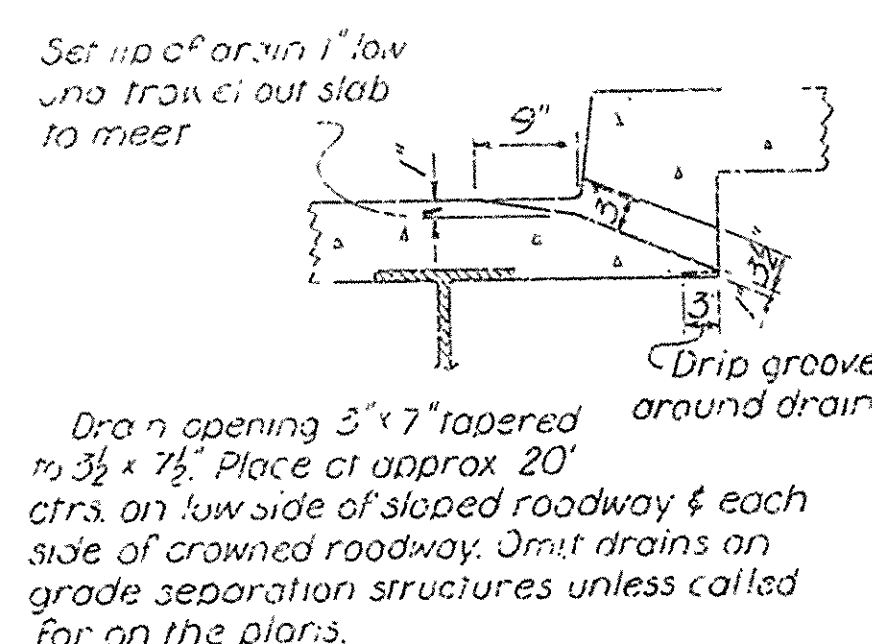
Revised 2-19-65. Added Type B
Bridge Rail, FMH.

Revised: Added Joint
Sealer 9-17-65 RWM
This drawing adapted from Std. Dwg. 15740.

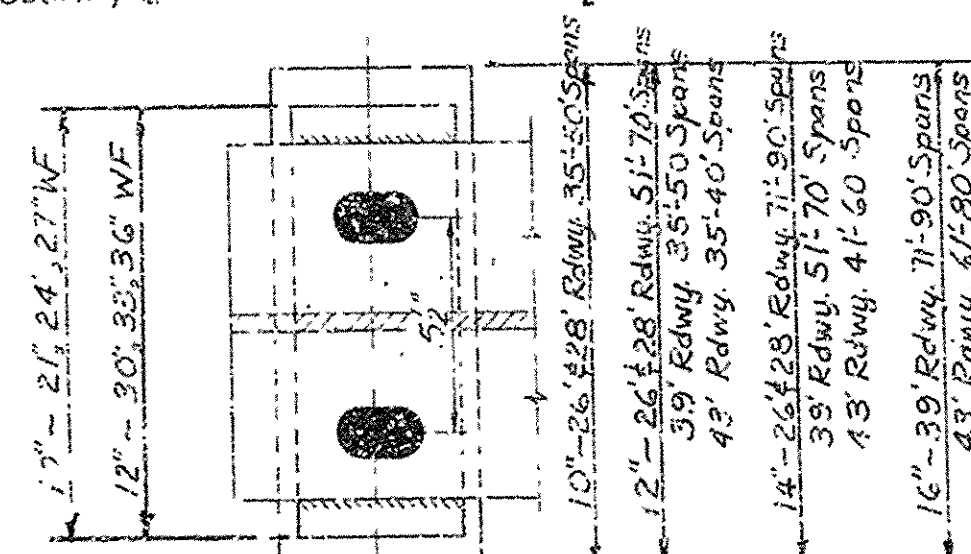
DATE	DATE	DATE	DATE	PER. ROAD	STATE	ED. AID	FISCAL	BI-EXT	TOTAL
REVISED	FILMED	REVISION	FILED	NO.		PROJ.	YEAR	NO.	SHEETS
		2-10-69	592-2-11-69	6	ARK.				

GENERAL NOTES

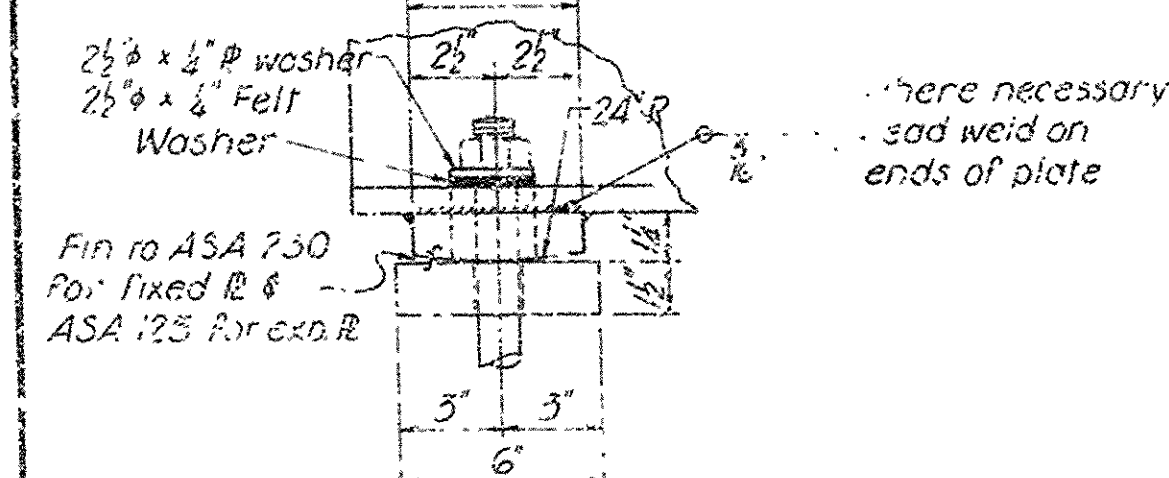
1. All concrete to be Class S. All exposed corners to be chamfered 3/4" unless otherwise noted.
2. Field connections to be riveted or bolted with high strength bolts. Plugs: 3/4" ϕ , open holes 13/16" ϕ except where noted otherwise.
3. Structural shapes of equal or greater strength may be substituted for shapes shown, but payment will be made on the basis of shapes shown or those actually used, whichever is less.
4. All welded connections to be 5/16" fillet shop welds except as noted. All welding shall conform to the American Welding Society Standard Specifications for Welded Highway and Railway Bridges, current edition.
5. 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.
6. Field Paint: First coat-red lead tinted with lamp black. Second coat-aluminum paint.
7. All metal bearing and roadway expansion devices to be paid for as "Structural Steel in Beam Spans." Bearings shall be finally seated in accordance with Sec. 206.54, including alternate, of the Standard Specifications. This work and material to be considered as subsidiary to the item "Structural Steel in Beam Spans" and will not be paid for directly.
8. This drawing shows general features of design only. Shop drawings shall be made in accordance with the Specifications, submitted and approved before fabrication is begun.
9. All steel shall be ASTM A-36 unless otherwise noted.
10. Anchor bolts shall be galvanized to conform to ASTM Specification. Designation A153.
11. Reinforcing steel to be deformed bars of intermediate or hard grade. The reinforcing steel is to be accurately located in the forms and firmly held in place by steel wire supports, sufficient in number and size to prevent displacement during the course of construction. The wire supports will not be paid for directly but will be considered subsidiary to the item of "Reinforcing Steel."
12. Shop lists and bending diagrams of reinforcing steel, including wire supports, shall be submitted and approved before fabrication is begun.
13. Slew. Pouring Note: Floor slabs may be poured in one continuous operation with a strikeoff extending over the whole span length, or may be poured in increments with the center one-third to one-half span length poured first. After the center section is poured, not less than 72 hours shall elapse before pouring the end sections. End sections may be poured simultaneously. If not poured simultaneously, 48 hours shall elapse between end section pours. A minimum of 72 hours shall elapse (1) between completion of the slab and the pouring of the curb section if poured separately, and (2) between the completion of the curb and the pouring of the type A rail parapet. Posts for Type C rail may be poured 24 hours after completion of the curb.
14. For details of Bridge Rating see Div. No. 14992 or 44922 as shown on Bridge Layout.
15. SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction Edition of 1959, the 1960 Supplemental Specifications thereto and applicable Special Provisions.

DETAILS OF BEAM BUILDUP
No ScaleSECTION THRU DRAIN
Scale: 3/4" = 1'-0"

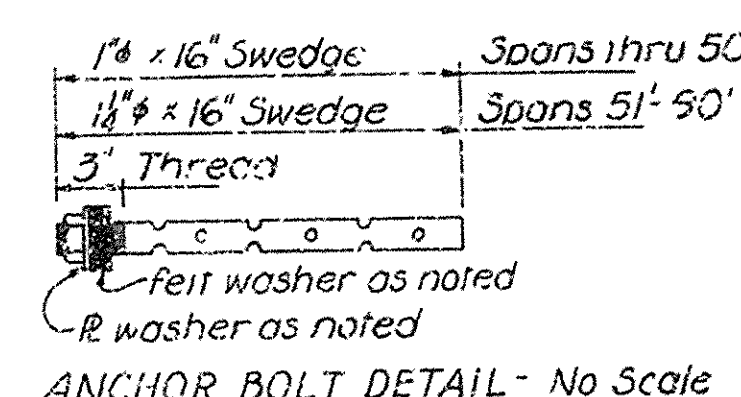
Expansion Shoe: (All spans thru 50')
21" \times 12" slots in Sole R. & Bm. Flg. with 1/2" holes in Masonry R.
Fixed Shoe:
1/2" holes in Masonry R., Sole R. & Bm. Flg. for spans thru 50'.
1/2" holes for spans over 50'.



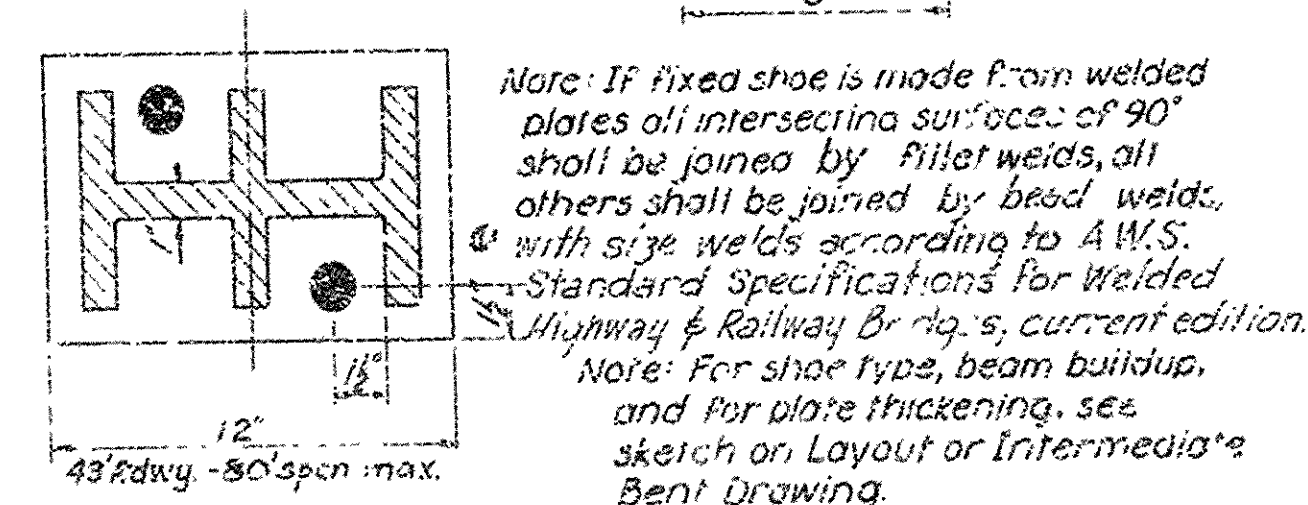
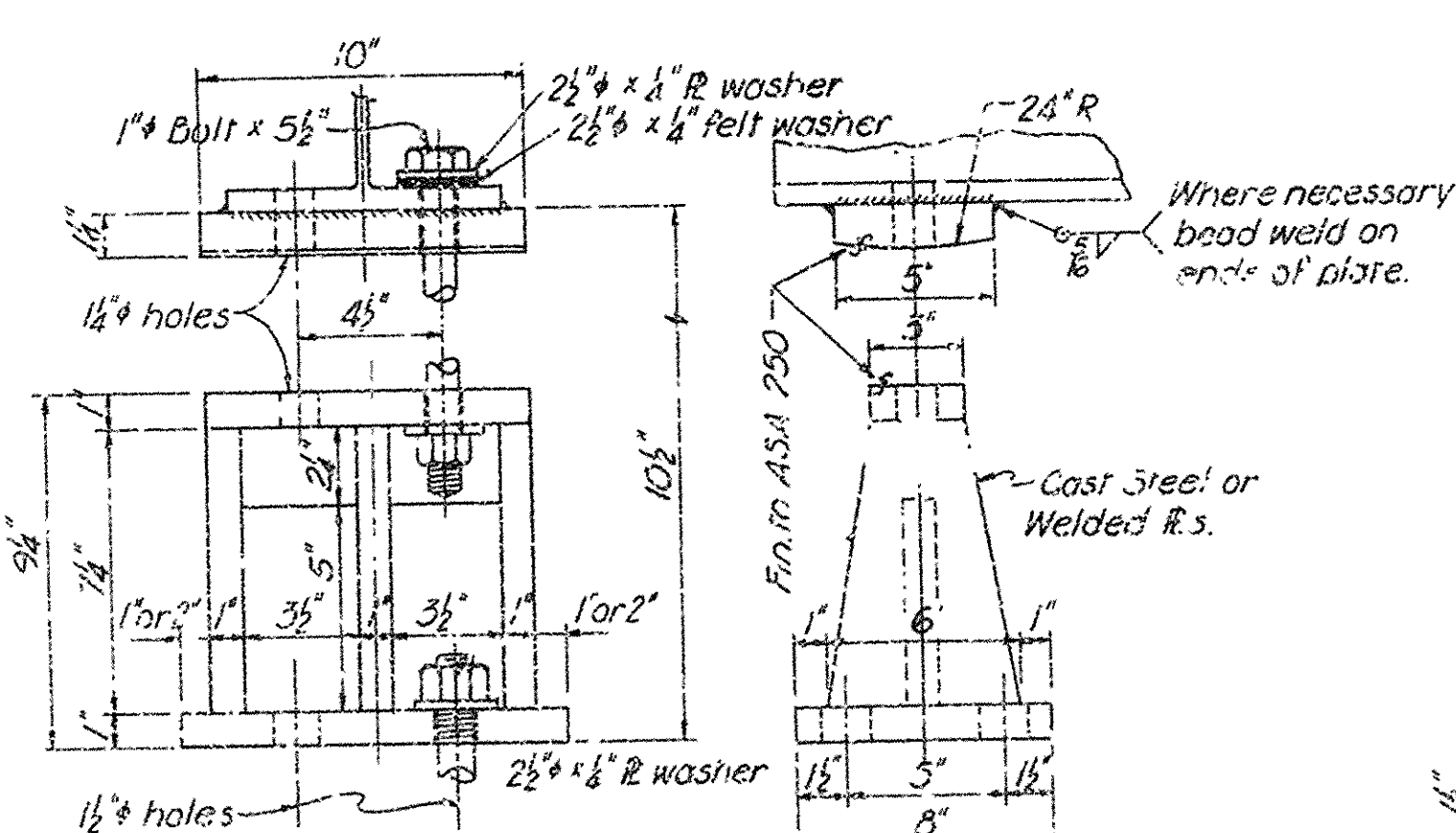
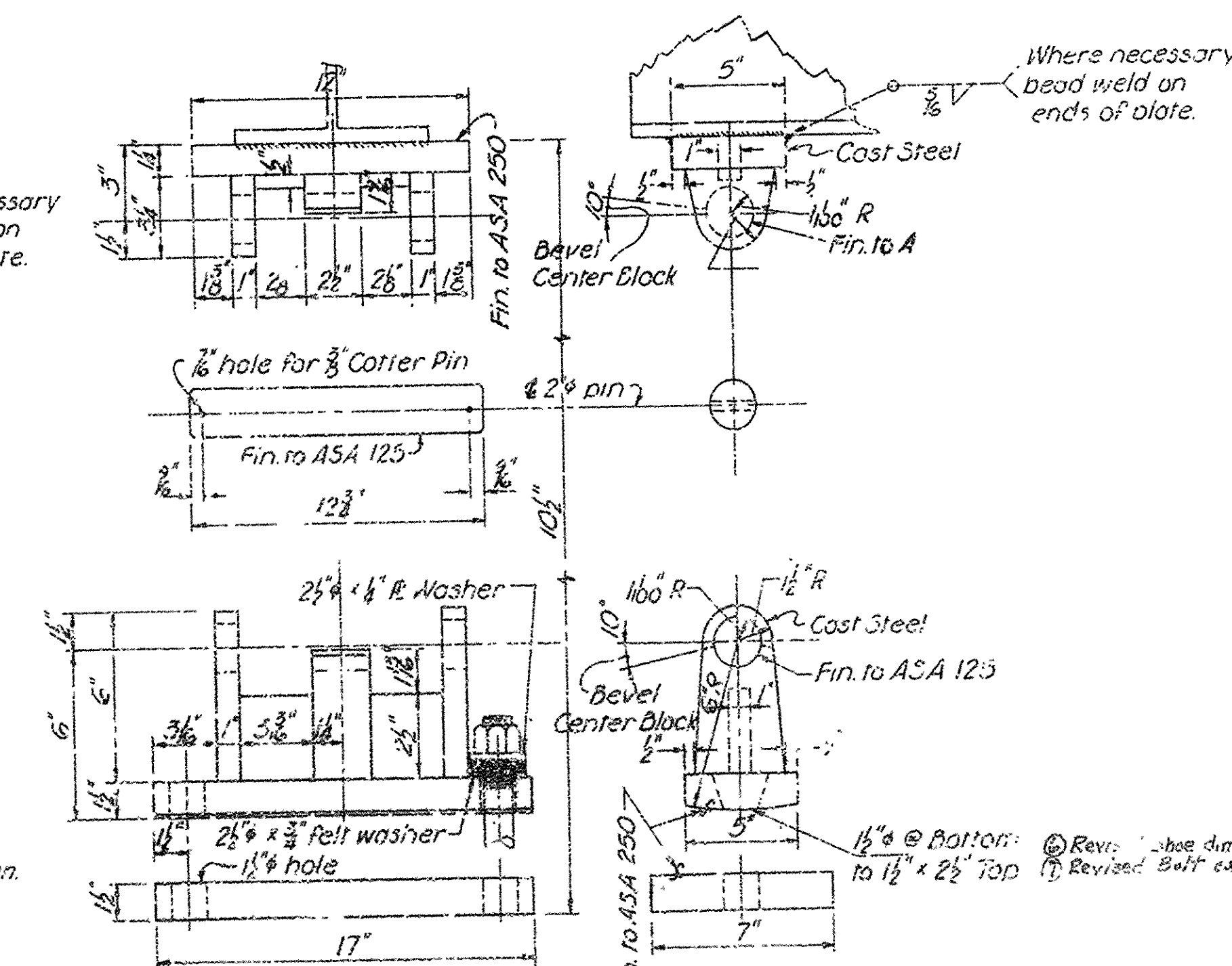
Note: H2O Live Load - 26"
HS2C Live Load - 39" \times 43" Rdwy.

TYPE B FIXED OR
EXPANSION SHOE - Scale: 1/2" = 1'

Use for end bents - all spans
Use for int. bents - 35' - 50' spans, unless otherwise shown

SEAL PLACEMENT IN CURB
Scale: 3/4" = 1'-0"

ANCHOR BOLT DETAIL - No Scale

TYPE A FIXED SHOE
Scale: 3/4" = 1'TYPE A EXPANSION SHOE
Scale: 1/2" = 1'

Note: This drawing adapted from drawing

EXPANSION JOINT DATA

Total Length of Spans Excluding at Bent or Pier	A' (Joint Width Perpendicular to Webs @ 60°F)	Seal Width	A' @ 60°F Joint Seal	B
To 80'	1"	1 1/2"	1 1/2"	1 1/2"
Over 80' to 100'	1 1/4"	2"	1 1/2"	1 1/2"
Over 100' to 130'	1 1/2"	2 1/2"	1 1/2"	1 1/2"
Over 130' to 150'	2"	3"	1 1/2"	1 1/2"
Over 150' to 180'	2 1/4"	3 1/2"	1 1/2"	1 1/2"

- Note: All joints at Abutments and at Fix-Fix joints shall be 1"
- The Dimension 'D' shall conform to the recommendations of the seal manufacturer as approved by the Bridge Engineer. The depth of the seal shall be approximately equal to the uncompressed width of the seal.
- ③ Joints shown are to be used at skew angles up to and including 15° for joints to be used at skew angles greater than 15° see supplemental details.

DETAILS COMMON TO STANDARD 35'-90'

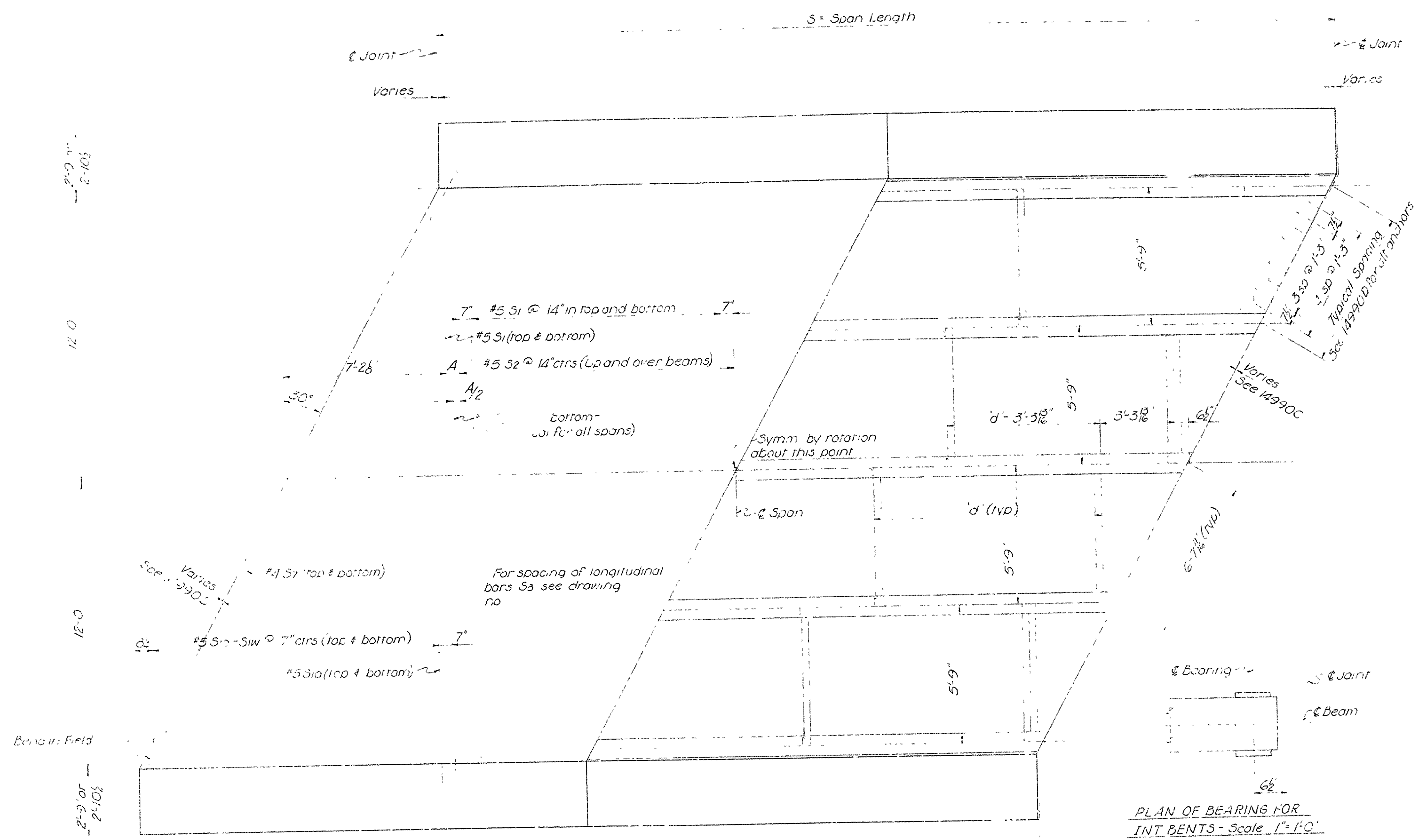
COMPOSITE I-BEAM SPANS

ALL ROADWAYS

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

BRIDGE NO. 14990D
DRAWN BY: R.W. DATE: 1-4-67
TRACED BY: DATE: 1-4-67
CHECKED BY: OPL DATE: 1-5-67
BRIDGE ENGINEER: [Signature]
DATE: 1-5-67



VARIABLES

S	No	d	A	S1	S2	S3	S	No	d	A	S1	S2	S3
35	3	15'-3"	11 1/2	30	17	4	58	3	17'-10 1/2	9 3/8	30	17	4
36	2	15'-9 3/8	3 1/2	40	17	-	59	3	18'-2 3/8	1'-3 3/8	30	17	4
37	2	16'-3 3/8	9 3/8	40	17	4	60	3	18'-6 3/8	7 3/8	30	17	4
38	2	16'-9 3/8	1'-5 3/8	40	17	4	61	3	18'-10 3/8	1'-1 3/8	30	17	4
39	2	17'-3 3/8	7 3/8	41	-	-	62	3	17'-2 3/8	5 3/8	30	17	4
40	2	17'-9 3/8	1'-1 3/8	41	-	4	63	3	18'-5 3/8	11 3/8	30	17	4
41	2	18'-3 3/8	5 3/8	43	13	-	64	3	19'-10 3/8	3 3/8	30	17	4
42	2	18'-9 3/8	11 3/8	43	13	4	65	4	15'-1 3/8	9 3/8	30	17	4
43	2	19'-3 3/8	3 3/8	50	25	-	66	4	15'-4 3/8	1'-3 3/8	30	17	4
44	2	19'-9 3/8	9 3/8	50	25	4	67	4	15'-7 3/8	7 3/8	30	17	4
45	3	13'-6 3/8	1'-5 3/8	-	25	4	68	4	15'-10 3/8	1'-1 3/8	30	17	4
46	3	13'-10 3/8	7 3/8	56	-	-	69	4	16'-1 3/8	5 3/8	30	17	4
47	3	14'-2 3/8	1'-1 3/8	56	27	4	70	4	16'-4 3/8	11 3/8	30	17	4
48	3	14'-6 3/8	5 3/8	60	27	-	71	4	16'-7 3/8	3 3/8	100	17	4
49	3	14'-10 3/8	11 3/8	60	27	4	72	4	16'-10 3/8	9 3/8	100	17	4
50	3	15'-2 3/8	3 3/8	64	31	-	73	4	17'-1 3/8	1'-3 3/8	100	17	4
51	3	15'-6 3/8	9 3/8	64	31	4	74	4	17'-4 3/8	7 3/8	104	17	4
52	3	15'-10 3/8	1'-3 3/8	64	31	4	75	4	17'-7 3/8	1'-1 3/8	104	17	4
53	3	16'-2 3/8	7 3/8	63	33	-	80	4	18'-10 3/8	1'-1 3/8	112	55	4
54	3	16'-6 3/8	1'-1 3/8	63	33	4	85	5	16'-1 3/8	3 3/8	104	17	4
55	3	16'-10 3/8	5 3/8	72	35	-	90	5	17'-1 3/8	5 3/8	120	17	4
56	3	17'-2 3/8	11 3/8	72	35	4							
57	3	17'-6 3/8	3 3/8	76	37	-							

7 Mo. #4 S3 @ 14" ctrs (bottom of curb)
4 Mo. #5 S4 @ 7 1/2" ctrs (top of curb)

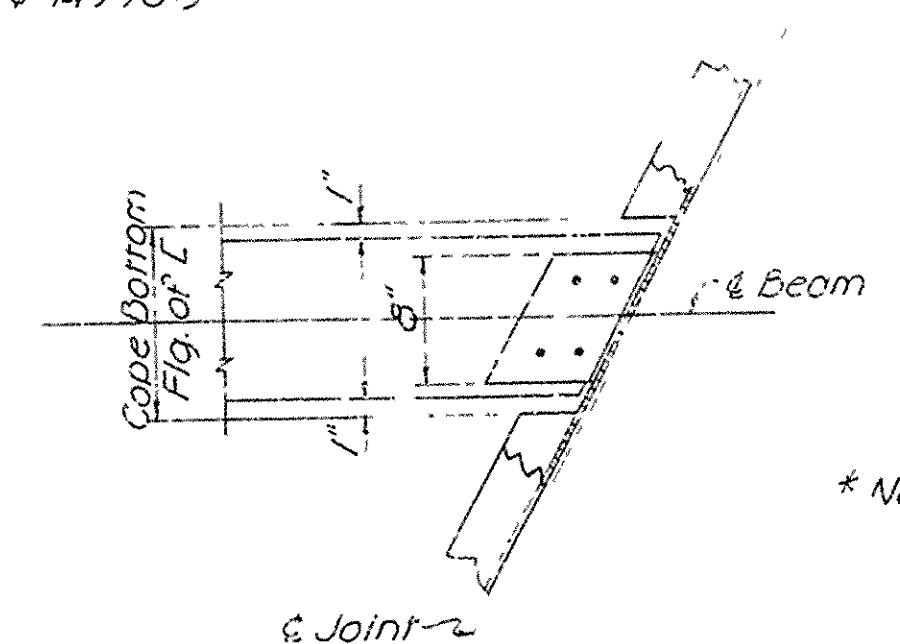
BAR LIST

Bar	No	Length	Pin Dia	Bending Diagram
S1	5	See table 2'-8"	S1r	<p style="text-align: center;">symm about C</p>
S1a-S1b	5	See table 23'-8" to 1'-5"	S1r	
S2	5	See table 26'-5"	1 1/2"	
S3	4	See table 23'-7"	S1r	
S4	5	See table 25'-3"	S1r	

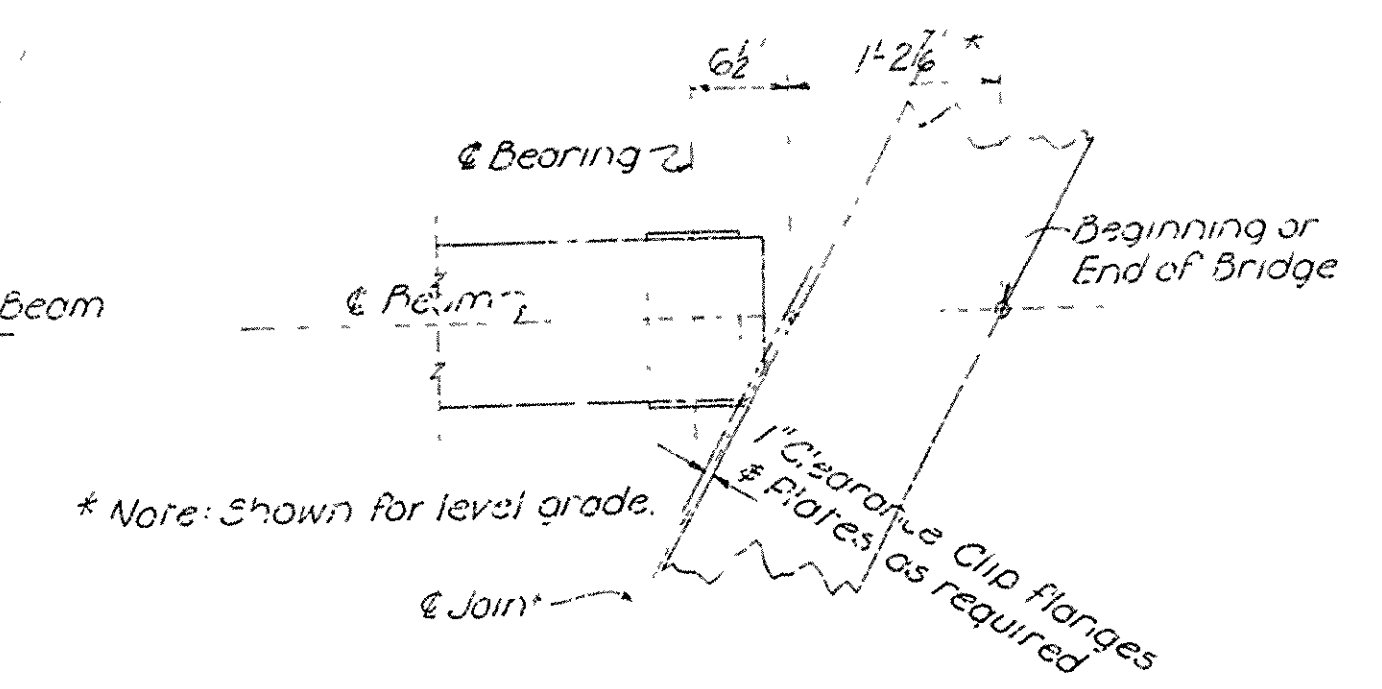
For number, length & diagrams of S3, S4, S5, S6 & S3a see drawing no.

Dimensions are in ctrs of bars

For details not shown see drawing nos. # 149900



DETAILS OF CHANNEL CONNECTION - Scale: 1"=1'-0"



PLAN OF BEARING FOR END BENTS - Scale: 1"=1'-0"

**DETAILS OF STANDARD
35'-90' COMPOSITE I-BEAM SPANS
24' CLEAR RDWY. 1'-6" or 1'-7 1/2" CURBS
30° SKEW LEFT FORWARD**

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: RWM DATE: 6-28-66
 TRACED BY: FMH DATE: 6-30-66 SCALE: 3/8"=1'-0" as shown
 CHECKED BY: FMH DATE: 6-30-66

BRIDGE NO. DRAWING NO. 15140A

L.P. Carlson
BRIDGE ENGINEER