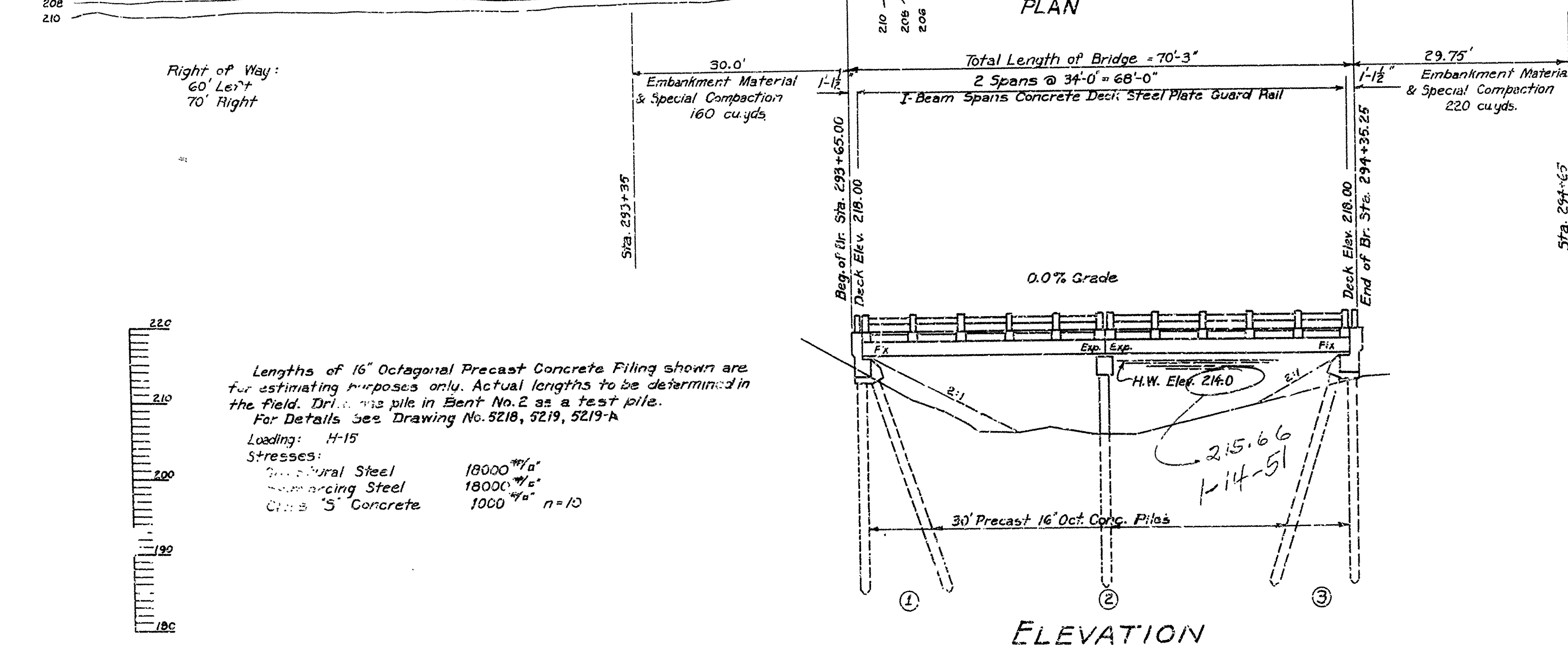
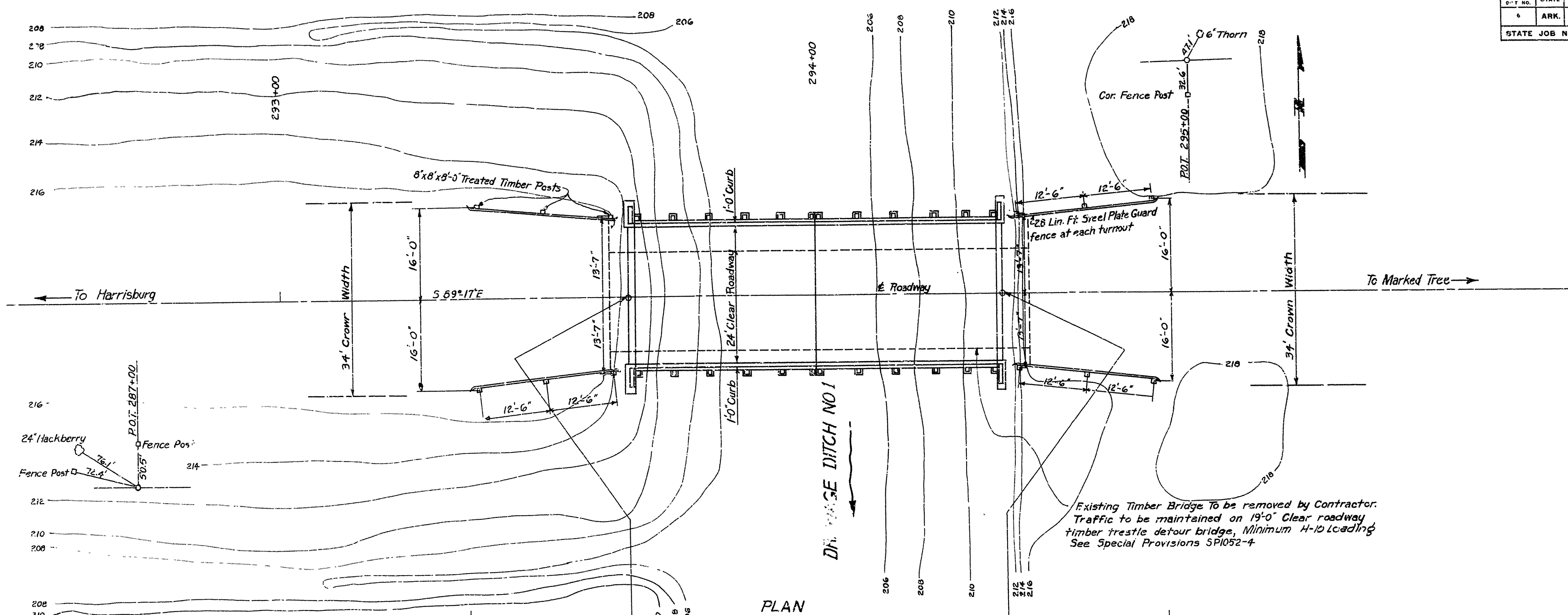


FED. ROAD DIST NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	5 179 (4)		3	13
STATE JOB NO. 10340				3	13



Lengths of 16" Octagonal Precast Concrete Filing shown are for estimating purposes only. Actual lengths to be determined in the field. Drive this pile in Bent No.2 as a test pile.  
For Details See Drawing No. 5218, 5219, 5219-A

Loading: H-15

Stresses:

Stresses:

Structural Steel	18000 $\frac{\text{lb}}{\text{in}^2}$
Reinforcing Steel	18000 $\frac{\text{lb}}{\text{in}^2}$
Class "S" Concrete	1000 $\frac{\text{lb}}{\text{in}^2}$ $n=10$

Reinforcing Steel

Class "S" Concrete 1000  $\gamma^a$   $n=10$

B. 41. R R. Spike in 12" Cottonwood Tree  
50' Lk Sta. 306+00 Elev. 212.09

LAYOUT OF  
BRIDGE OVER DRAINAGE DITCH NO. 1  
HARRISBURG-HARRISBURG CORNER  
POINSETT COUNTY  
ROUTE 14 SEC. 14

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

Drawn By: L.A.Mc. Date: 3-2-50  
Traced By: WWM Date: 3-11-50  
Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

Traced By: WVVM Date: 3-11-5

Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

Scale: 1 in. = 10 ft

Checked By: \_\_\_\_\_ Date: \_\_\_\_\_  
BRIDGE NO. 2594

DRAWING NO. 7615

*N. J. Garner*  
N. J. Garner, Jr., President, N. J. Garner & Co., Inc.

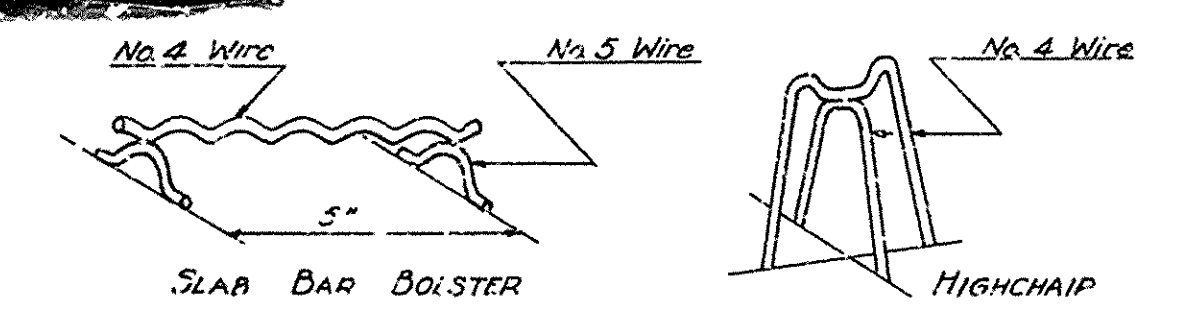


FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.				
STATE JOB NO.					

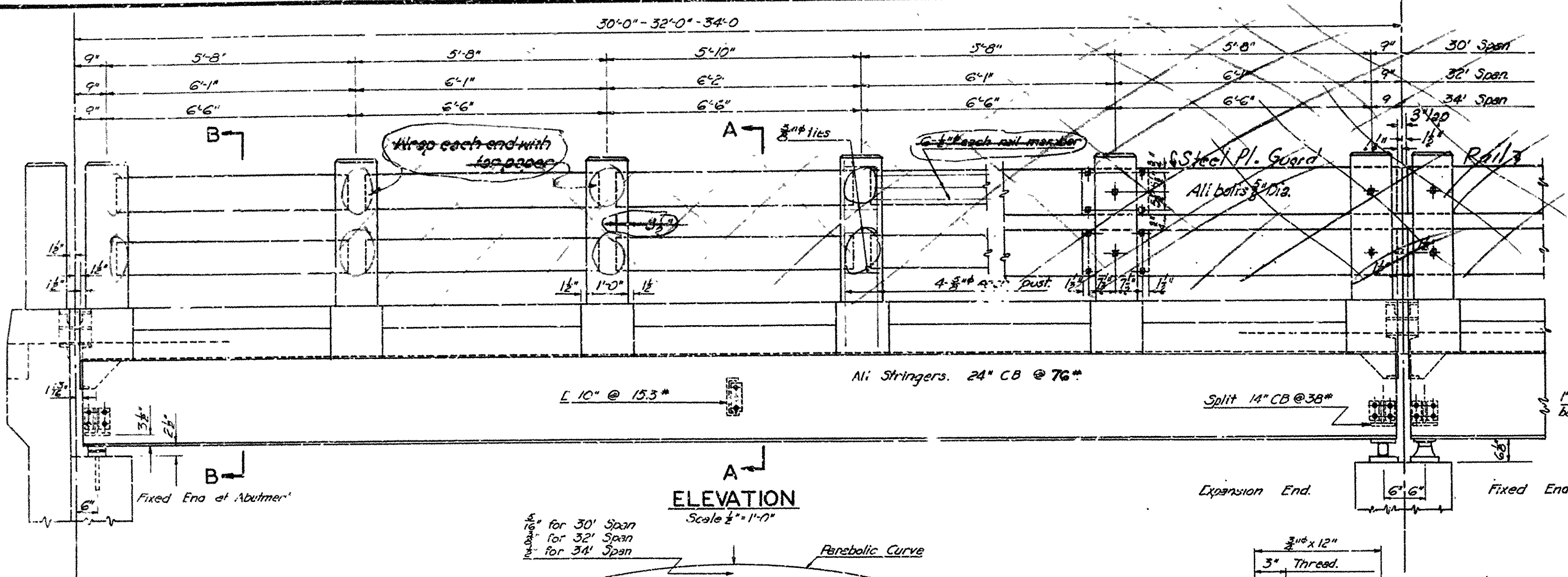
**LOADING H-15**  
Load Distribution Outside Beams  
Dead Load Per Foot = 975 #  
Live Load Per Foot = 184 #  
Conc. Live Load = 3200 # Mom.  
7500 # Shear  
Truck Live Load = 0.82 Wheel  
Load Distribution Inside Beams  
Dead Load Per Foot = 650 #  
Live Load Per Foot = 264 #  
Conc. Live Load = 1425 # Mom.  
10,725 # Shear  
Truck Live Load = 1.1 Wheel

**STRESSES**  
Structural Steel = 18,000 #/sq.  
Reinforcing Steel = 18,000 #/sq.  
Concrete (f'c) = 1000 #/sq.  
**GENERAL NOTES**

All concrete to be Class "S". All exposed corners to have 3" chamfer unless otherwise noted.  
Reinforcing Steel: Open holes 1/2" where bolts are indicated use machine bolts.  
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 whichever is the lesser.  
All welded connections to be 3/8" 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 two coats of white lead before shipment.  
Field Paint: First, White Lead tinted with Lamp black, Second coat, Aluminum.  
All bearing and roadway expansion devices to be paid for as "Structural Steel in Beam Spans".  
Weight of C.I. Drains to be included in weight of Reinforcing Steel.  
Care shall be exercised to obtain 90° in the angle between flange and web of beams at bearing points.  
This drawing shows general features of design only. Shop drawings shall be made in accordance with the Specifications, submitted and approval secured before fabrication is begun.  
In order to secure a good riding surface it will be required that the floor slab be struck off from curb to curb with a half span length longitudinal strike-off. The strike-off shall be sufficiently stiff so as to have no appreciable vertical deflection.  
SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction, Adopted March 1st 1940.

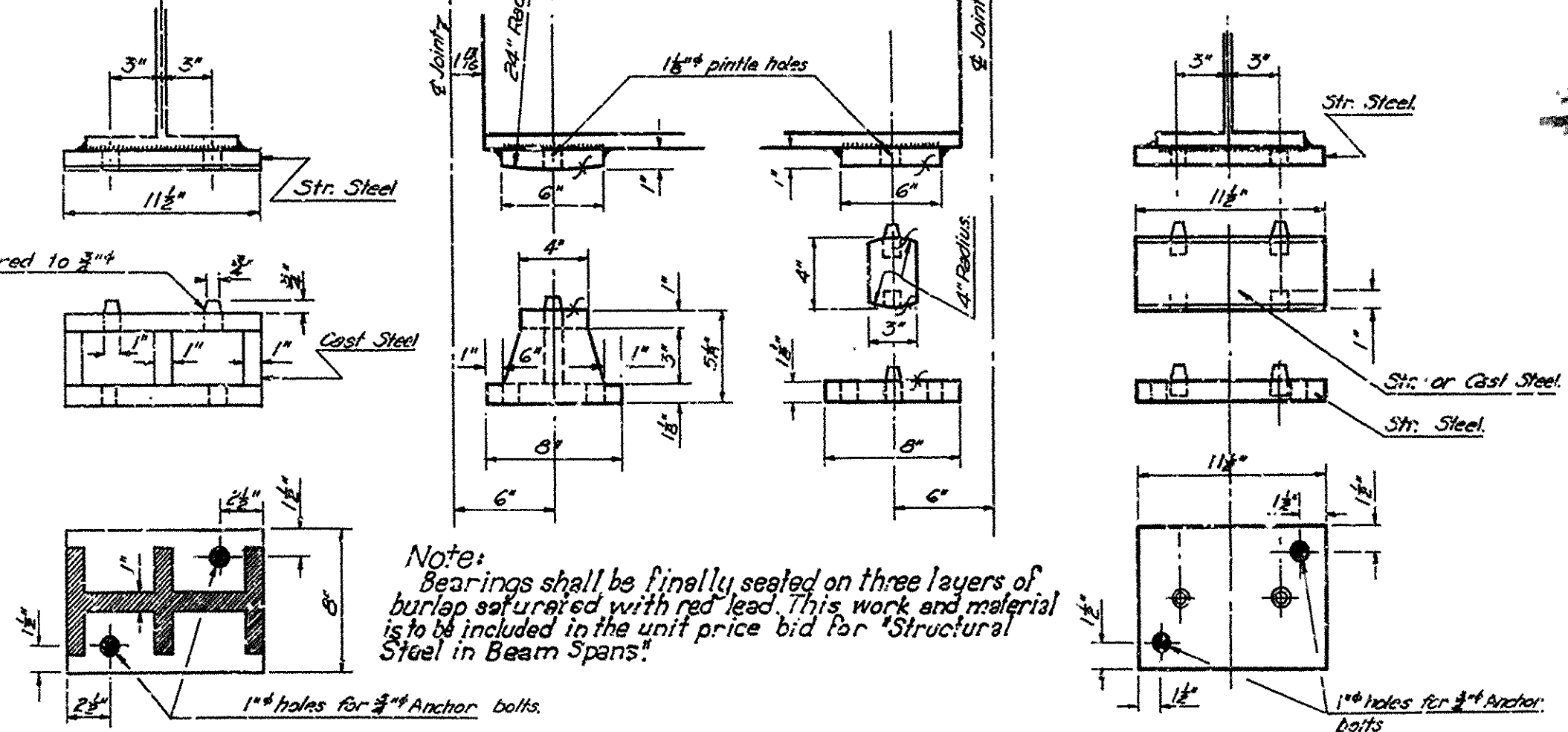


All reinforcing steel shall be accurately located in the forms and firmly held in place by means of steel wire chair supports adequate to prevent displacement during the course of construction and to keep the steel a proper distance from the forms.  
Bar supports are to be sufficient in number and sufficiently 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.



**PLATES AT ABUTMENT**  
Scale 1/8" = 1'-0"

**SWEDGED ANCHOR BOLT**



**LIST OF BENT BARS**

Mark	Size	Length	Bending Diagram
S1	5/8"	25'-9"	
S2	5/8"	26'-0"	
S3	5/8"	26'-0"	
S4	5/8"	3'-4"	
S5	5/8"	5'-6"	
S6	5/8"	5'-3"	
S7	5/8"	5'-3"	

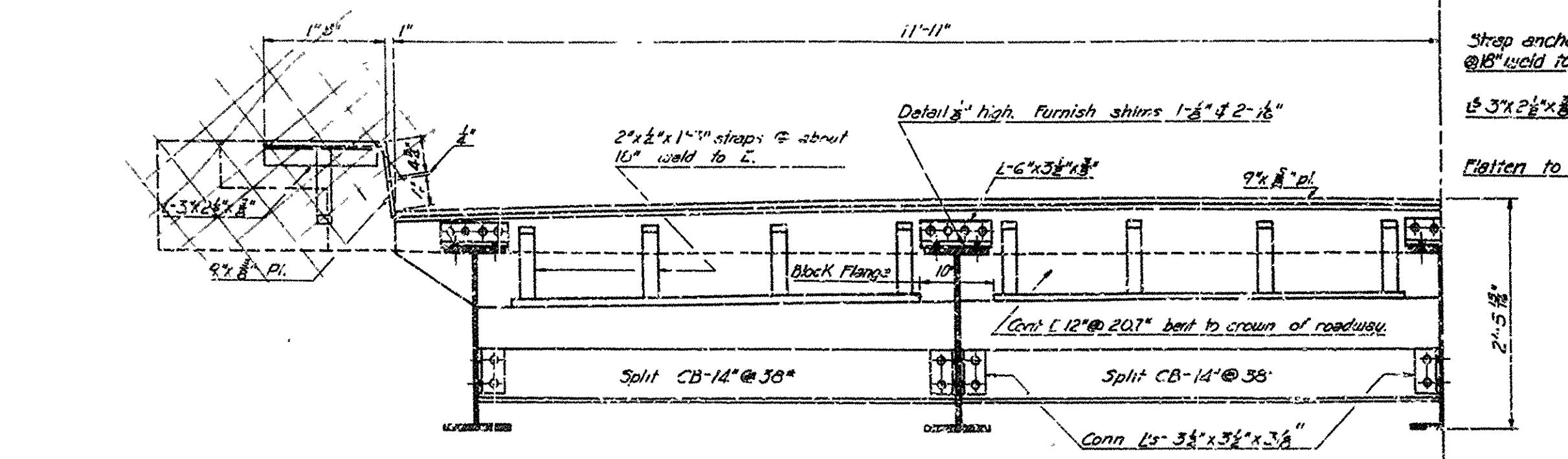
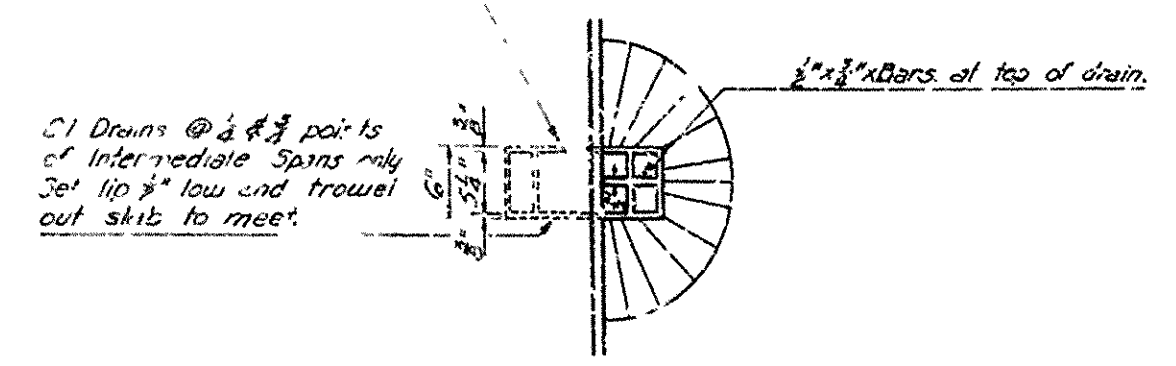
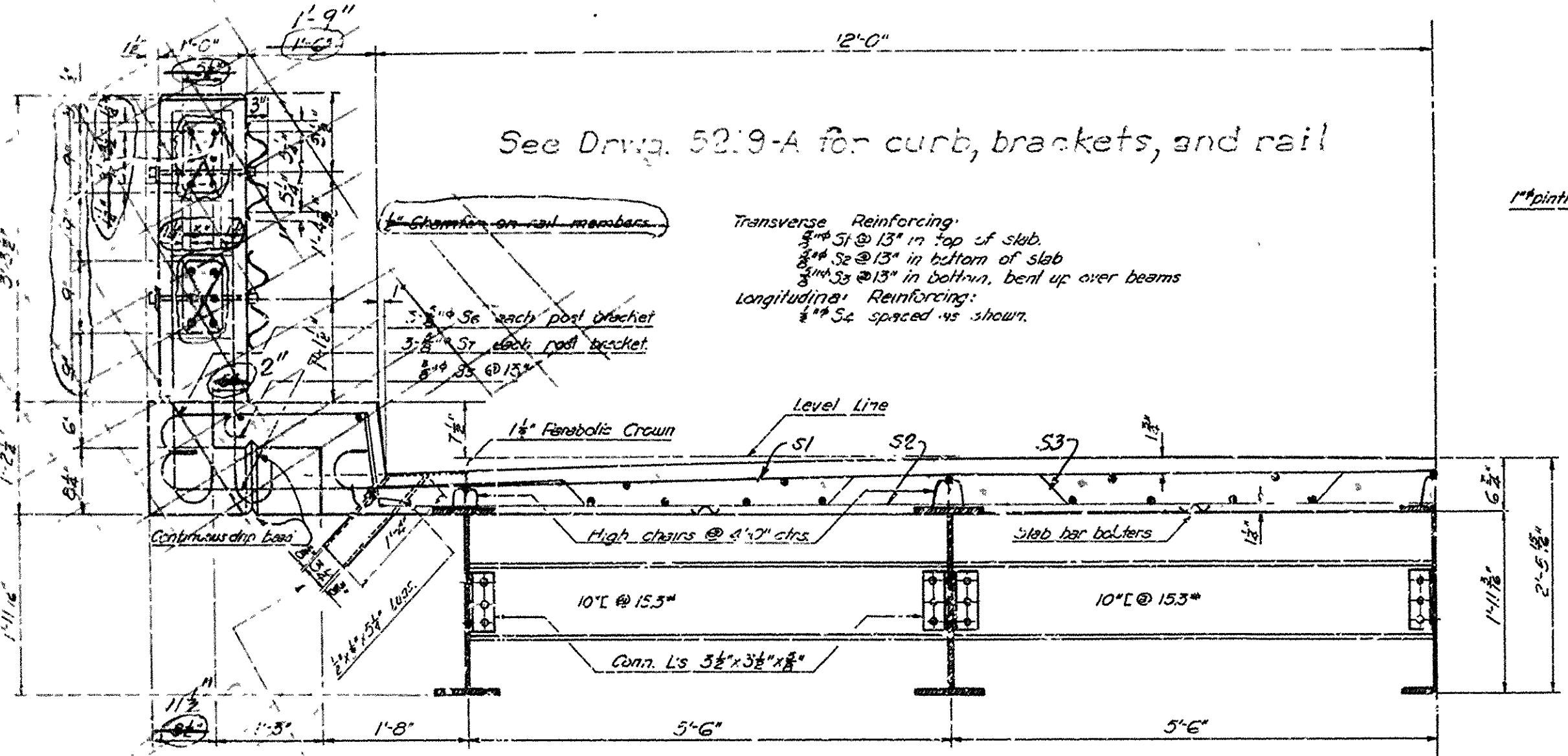
Revised 8-14-48 Handrail Curb & brackets  
Revised 12-9-46 Bars S1 & S3  
" 2-28-47 Wl. of 24" CB  
" 4-5-47 Ribbed Bolts  
" 7-29-48 Handrail (Note Details shown thus do not apply after this revision date)  
See also DWG. No. 5219-1

**DETAILS OF STANDARD 30'-32'-34' I-BEAM SPANS  
24'-0" CLEAR ROADWAY 1'-6" WALKWAY**

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

Drawn By: L.P.C. Date: 8-30-44  
Traced By: S.W.B. Date: 4-30-46  
Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

Scale: 3/4" = 1'-0"  
AS SHOWN  
**DRAWING NO. 5219.**



**JOINT AT ABUTMENT**

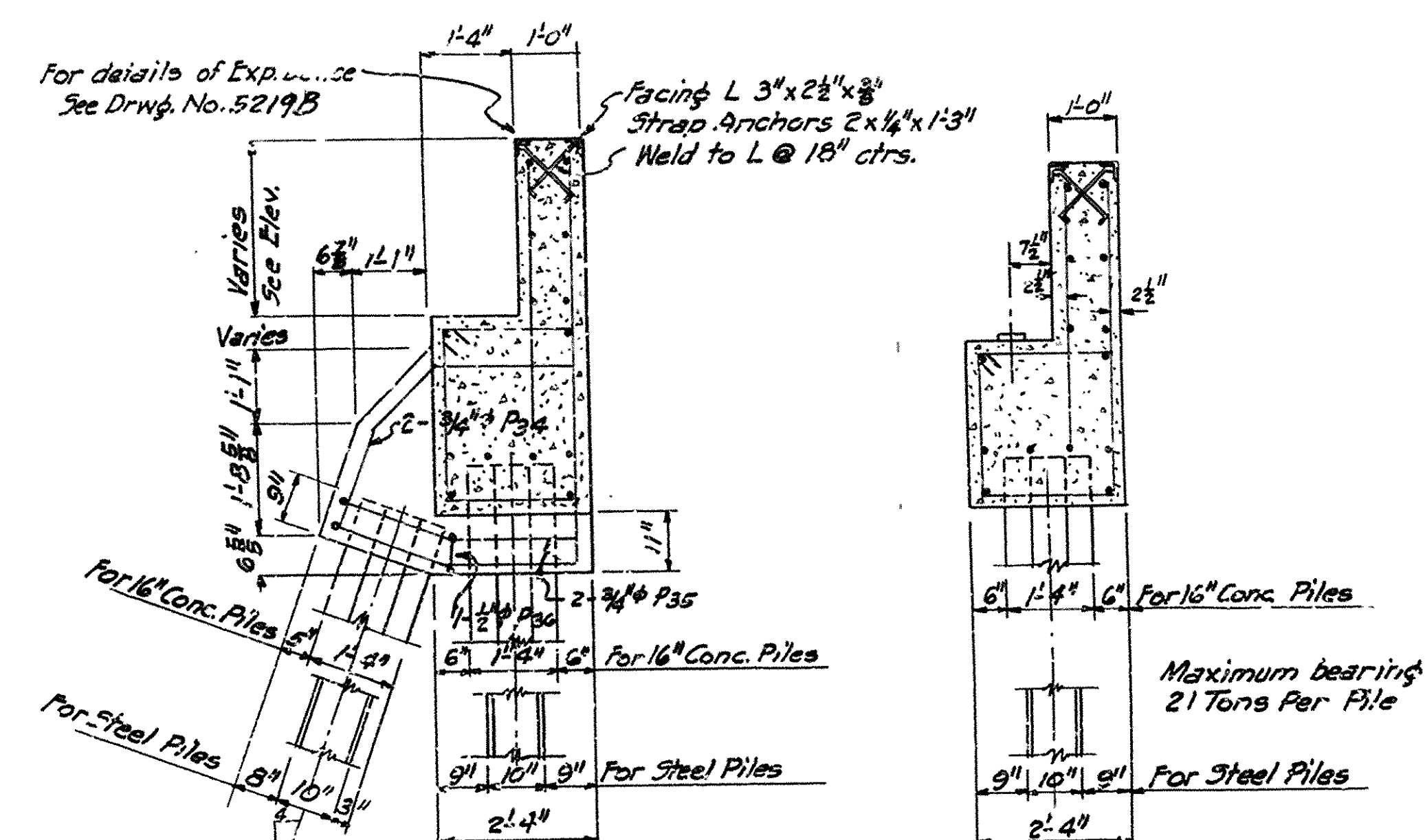
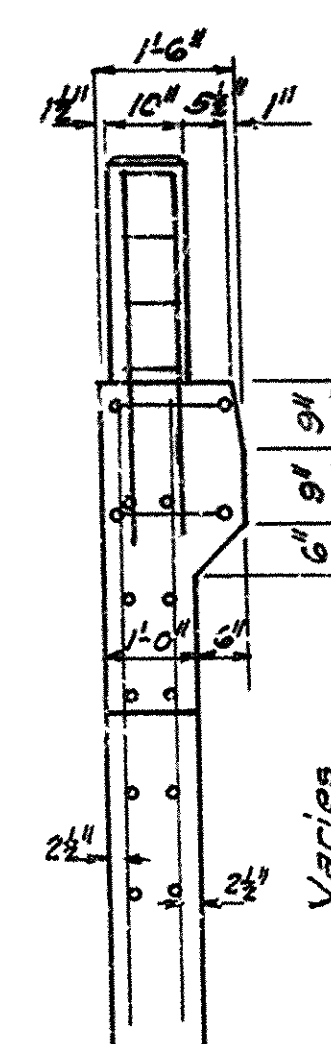
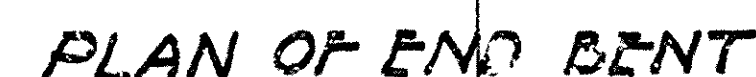
**JOINT AT INTERMEDIATE BENT**

M.B. Garver  
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)



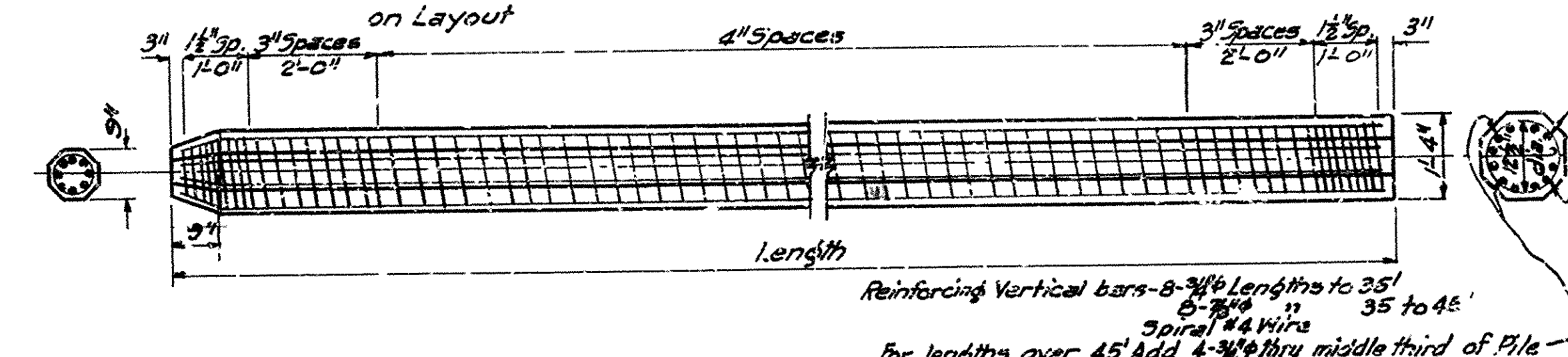


**FRONT ELEVATION END BENT**  
Cap Reinforcing Same as Intermediate Bent.



SECTION AT BATTER PILES      SECTION BETWEEN BATTER PILES

Use batter piles only when shown  
on Layout



### DETAILS OF 16" PRECAST CONCRETE PILE

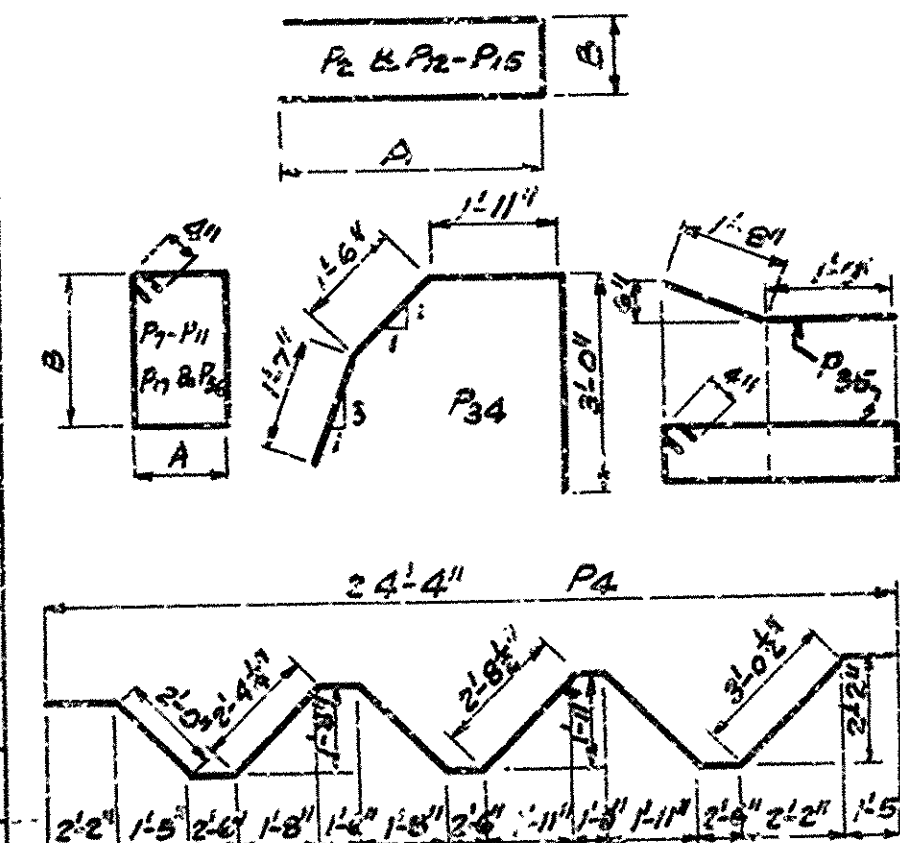
Note: When called for on Bridge Layout use steel bearing piles BF10" @ 42" instead of concrete piles. Note changes in dimensions at piles and number of bars in Caps

### LIST OF BENT BARS

Mark	Size	Length	A	B
P <sub>2</sub>	3/4"φ	27'-5"	13'-0"	1'-5"
P <sub>4</sub>	1"φ	28'-9"		
P <sub>7</sub>	1/2"φ	8'-9"	1'-11"	2'-11"
P <sub>8</sub>	1/2"φ	9'-3"	1'-11"	2'-4"
P <sub>9</sub>	1/2"φ	9'-9"	1'-11"	2'-7"
P <sub>10</sub>	1/2"φ	10'-3"	1'-11"	2'-10"
P <sub>11</sub>	1/2"φ	10'-9"	1'-11"	3'-1"
P <sub>12</sub>	3/4"φ	6'-1"	1'-11"	2'-1"
P <sub>13</sub>	3/4"φ	6'-7"	1'-11"	2'-4"
P <sub>14</sub>	3/4"φ	7'-1"	1'-11"	2'-7"
P <sub>15</sub>	3/4"φ	8'-1"	1'-11"	3'-1"
P <sub>17</sub>	1/2"φ	11'-9"	1'-11"	4'-5"
P <sub>34</sub>	3/4"φ	8'-0"		
P <sub>35</sub>	3/4"φ	11'-3"		
P <sub>36</sub>	1/2"φ	5'-5"	5"	1'-11"

Diagram

Diagrams



General Notes:

All concrete to be Class "5"  
Pile to be driven to a minimum capacity of 28 Tons.  
Facing angle at end bent and strap anchors to be  
included in the quantity for "Structural Steel In Beam Spans"  
See Drawg. No. 52193 for additional general notes.

STANDARD  
DETAILS OF PILE BENTS  
FOR 34' I-BEAM SPAN ON 3° CURVE  
28' CLEAR ROADWAY 14" CURBS

ROUTE	SEC.
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
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90	90
91	91
92	92
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95	95
96	96
97	97
98	98
99	99
100	100

ARKANSAS STATE HIGHWAY COMMISSION

ARKANSAS STATE HIGHWAY  
LITTLE ROCK, ARK.

Drawn By: E.A.W Date: 8-9-49

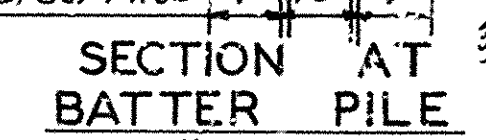
Traced By: L.A.M.E. Date: 8-11-49

Checked By: \_\_\_\_\_  
BRIDGE NO. \_\_\_\_\_

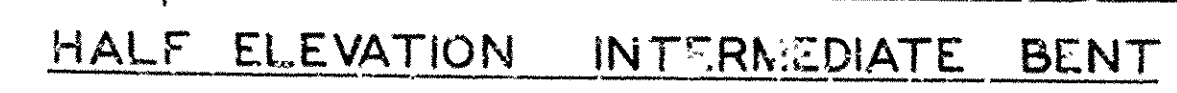
DRAWING NO. 52/8-A

*H. B. Barnes*  
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)





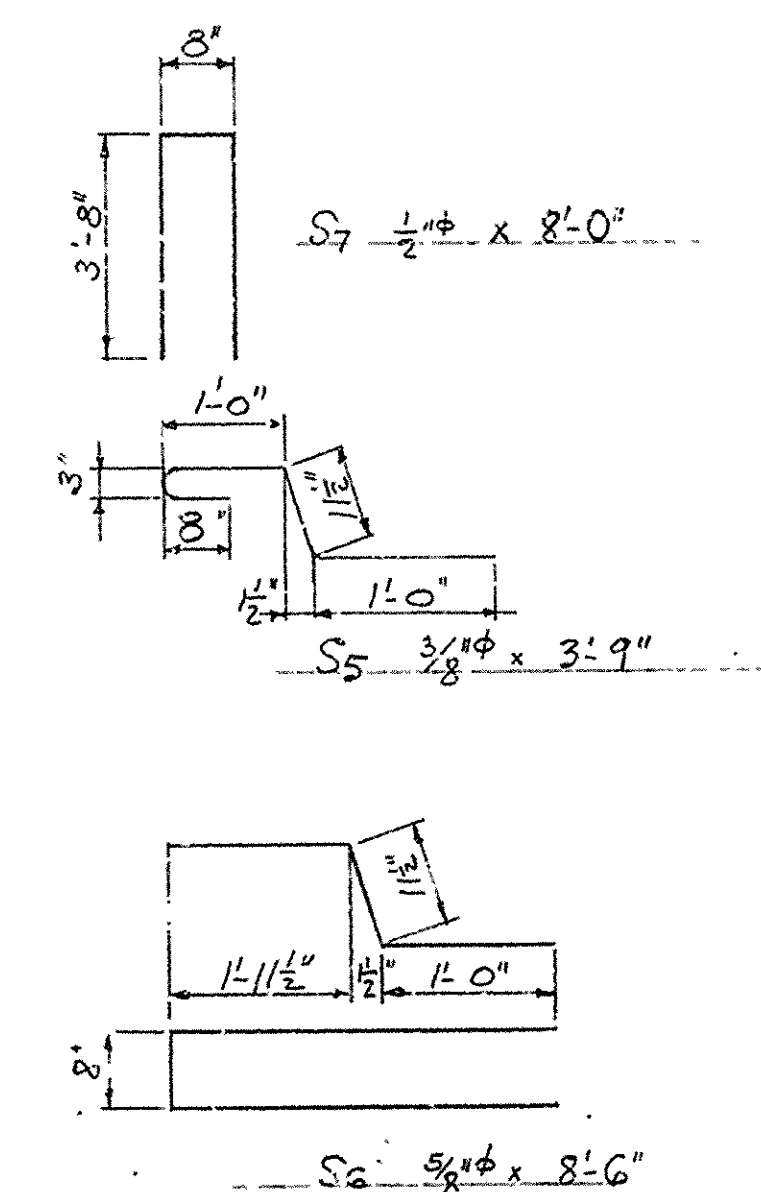
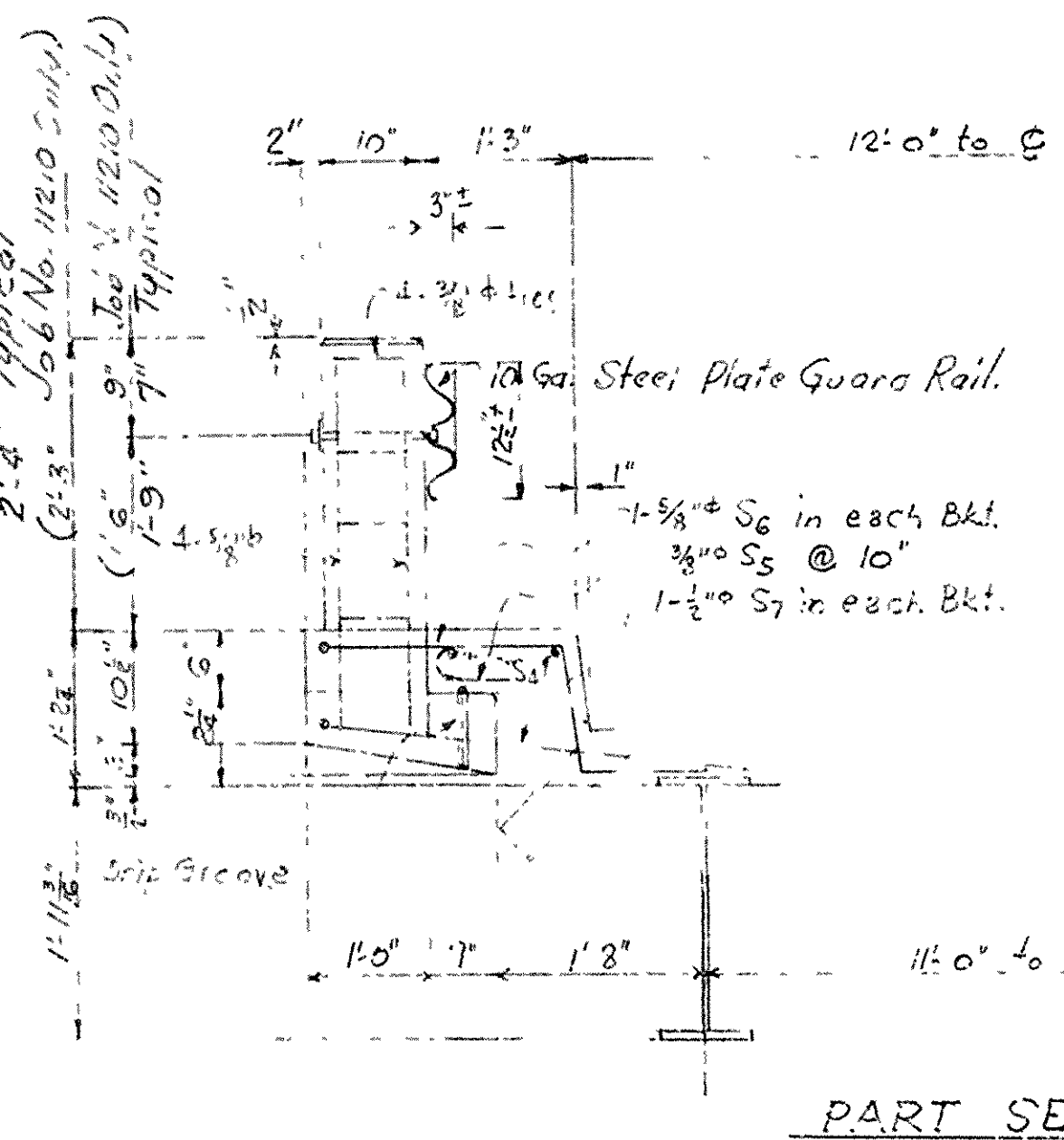
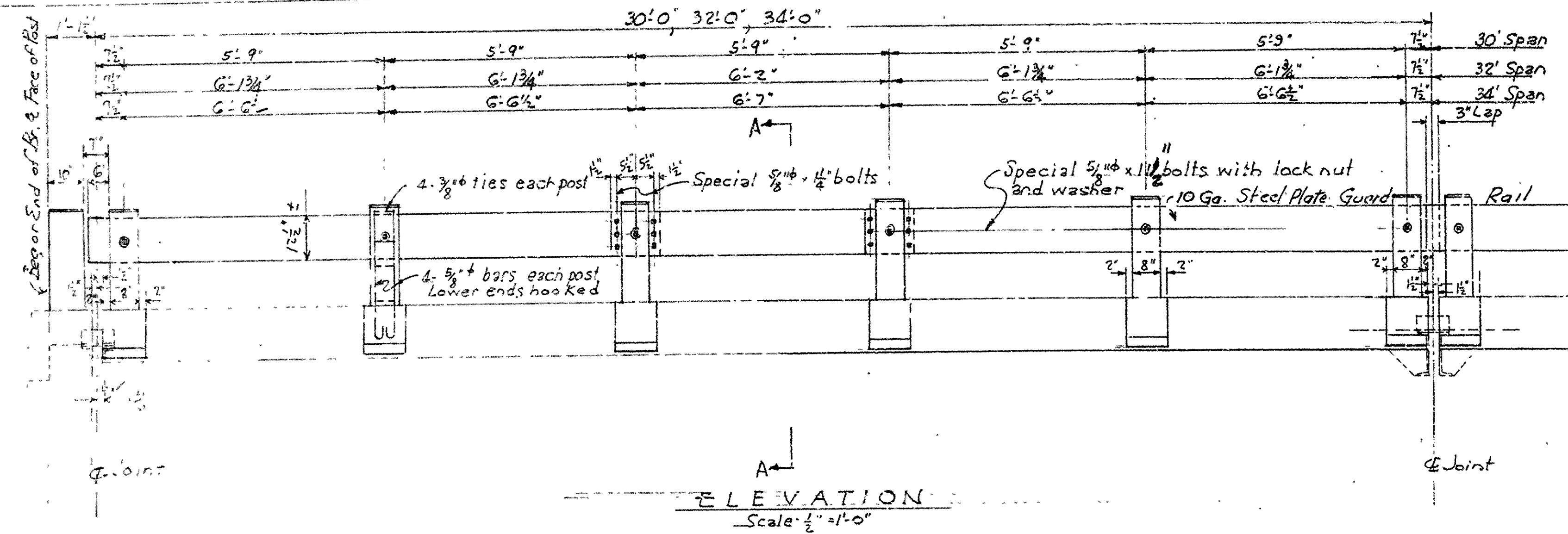
HALF PLAN OF END BENT



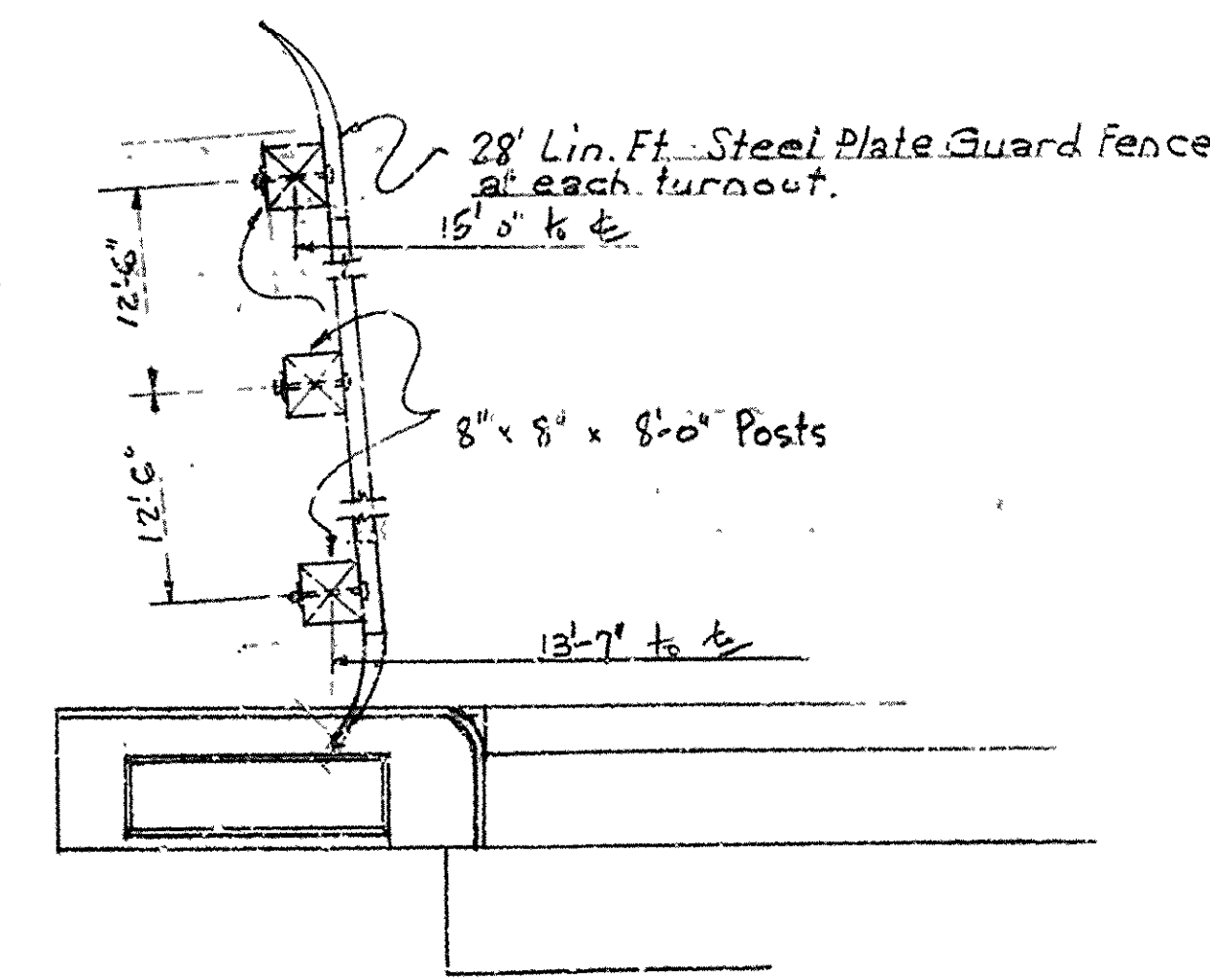
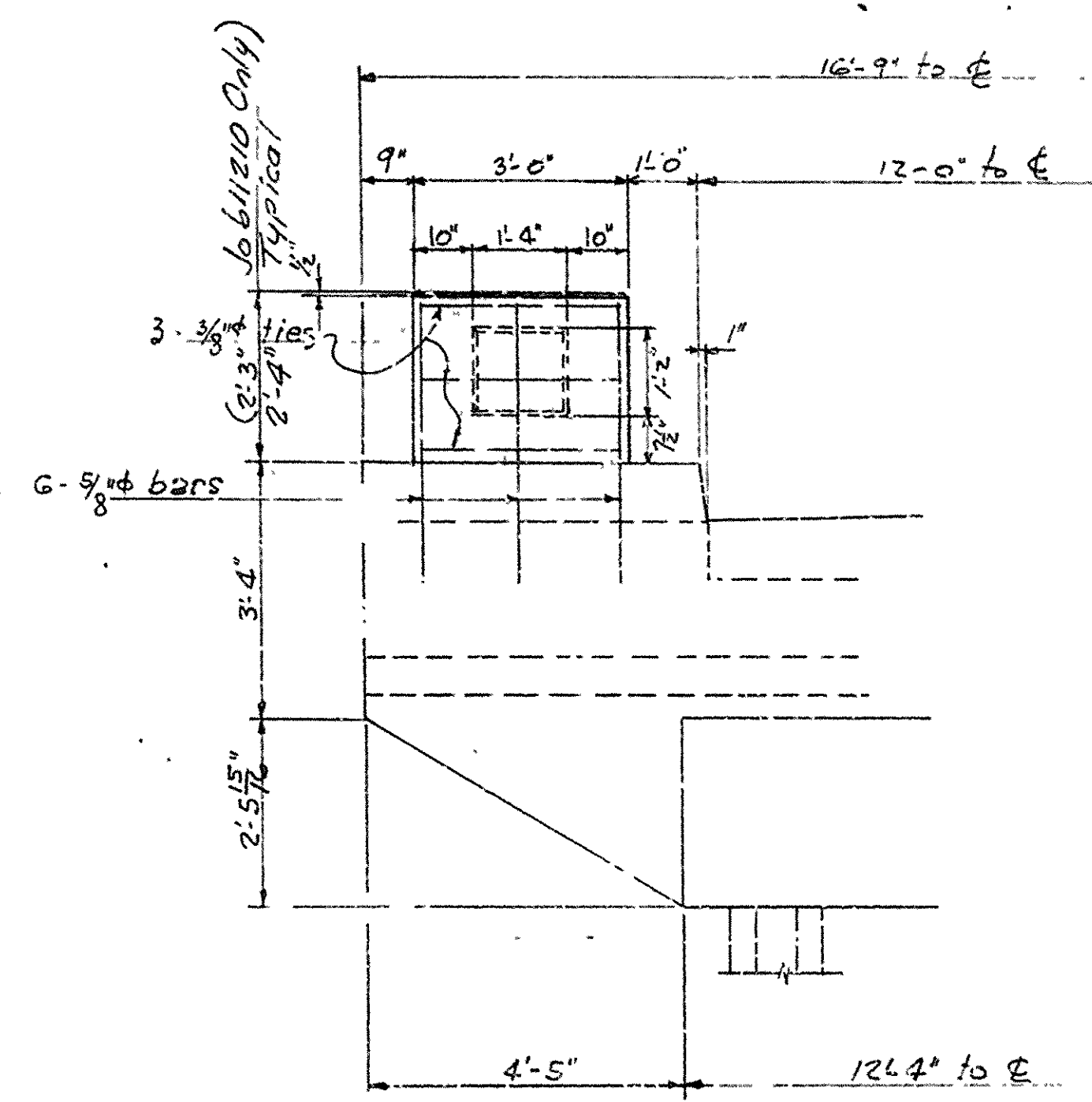
LIST OF BENT BARS

*N.B. Garner*  
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

DESIGN NO.	STATE JOB NO.
6	



Above bars replace bars of same marks shown on Drawg. No. 5219 other bars are as shown on Drawg. No. 5219.



The Steel Plate Guard Rail shall be of the type shown or an equivalent rigid type as approved by the Engineer. The Steel Plate Guard Rail, including the concrete posts, shall be paid for at the unit price bid per linear foot for "Steel Plate Guard Rail".

DETAILS OF STEEL PLATE GUARD RAIL  
REVISING CURB HANDRAIL  
STANDARD 30', 32', 34' I-BEAM SPANS  
24' 0" CLEAR ROADWAY

E.A.W. 8-13-48 Scale: 3/4" = 1'-0" and as noted

DRAWING NO. 5219-A



FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	S 179(4)		1	13
STATE JOB NO. 10340					13

INDEX OF SHEETS

SHEET NO.	DRWG. NO.	DESCRIPTION
1	7613	Title Sheet Job No. 10340
2	7614	Quantity Sheet
3	7615	Layout Br. No. 2594
4	7616	Layout Br. No. 2595
5	7617	Layout Br. No. 519
6	5218	Details of Bents
7-8	5219-5219-A	Details of 34' I-Beam Spans
9	1888	Embankment at Bridge Ends
10	1891	Basis for Computing Excavation for Structures
11	1896	Standard Barricade, Warning and Signs
12	2988	Bridge Name Plates
13	GR5	Steel Plate Guard Fence

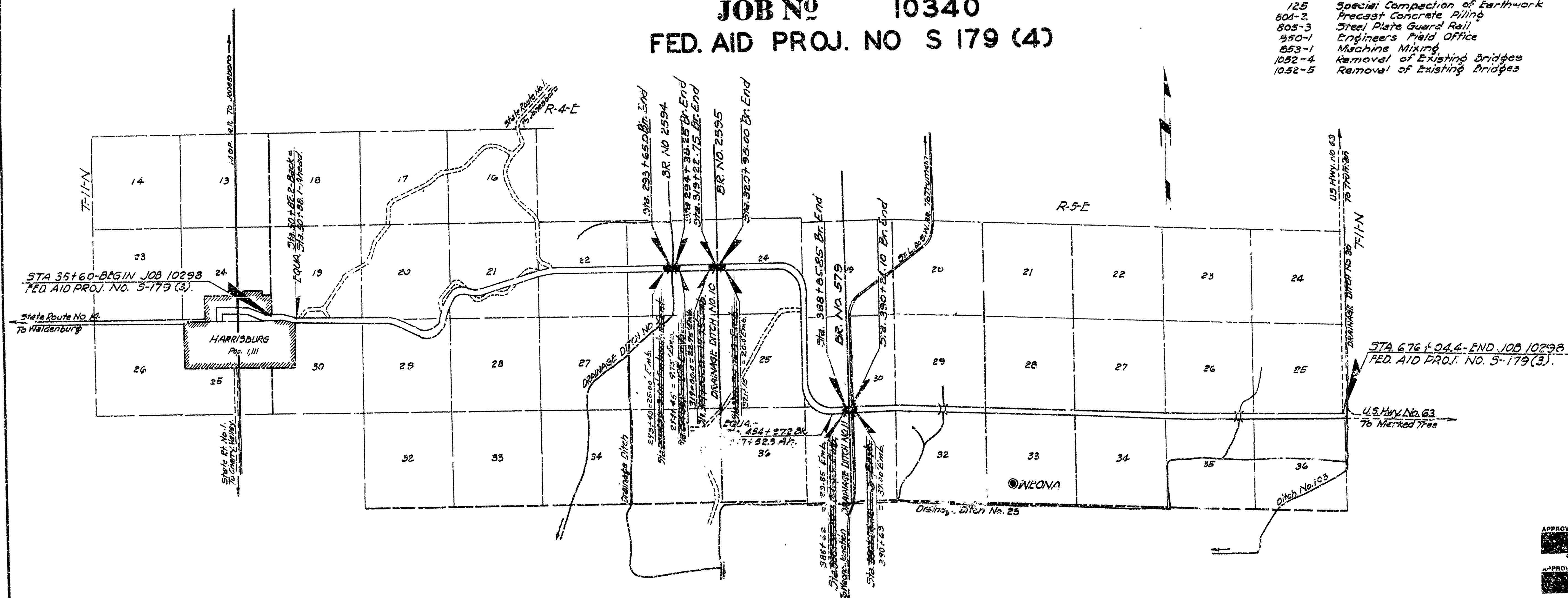
PLAN OF PROPOSED BRIDGES  
HARRISBURG - HARRISBURG CORNER

POINSETT COUNTY  
ROUTE 14 SEC. 14  
JOB NO 10340  
FED. AID PROJ. NO S 179 (4)

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

PAMPHLETS	PART
I	
II	1, 3, 5, 8B, 9
III	
IV	

No.	SPECIAL PROVISIONS TITLE	No. SHEETS
	Required Contract Provisions	7
2-1	Revision of Article 2.11 (Appr. 2-3-41)	2
2-2	Equipment List Required	1
2-4	State License For Contractors	1
4-1	Revision of Article 4.9	1
8-5	Special Provisions Pertaining to the Required Contract Provisions for Federal Aid Projects	2
9-5	Partial Payments	1
104-27	Embankment Material	2
125	Special Compaction of Earthwork	3
804-2	Precast Concrete Piling	1
805-3	Steel Plate Guard Rail	1
950-1	Engineers Field Office	1
953-1	Machine Mixing	1
1052-4	Removal of Existing Bridges	1
1052-5	Removal of Existing Bridges	1



LAYOUT  
Scale: 1" = 3000'

FINAL LENGTH

LENGTH OF PROJECT	= 521.10 Lin. Ft. = 0.982 Miles	PROJECT	= 521.10 FEET OR 0.982 MILES
LENGTH OF BRIDGES	= 380.75 Lin. Ft. = 0.702 "	ROADWAY	= 140.35 " = 0.026 "
LENGTH OF EMBANKMENT	= 140.35 Lin. Ft. = 0.262 "	BRIDGES	= 380.75 " = 0.702 "
LENGTH OF JOB	= 521.10 Lin. Ft. = 0.982 "	JOB	= 521.10 " = 0.982 "

N.B. Barker  
BRIDGE ENGINEER

BRIDGE No. 2594, 2515, 579 DRAWING No. 7613

APPROVED  
CHIEF ENGINEER-STATE HIGHWAY COMMISSION

APPROVED  
CHAIRMAN-STATE HIGHWAY COMMISSION

RECOMMENDED FOR APPROVAL  
DISTRICT ENGINEER  
DEPARTMENT OF COMMERCE  
BUREAU OF PUBLIC ROADS

APPROVED  
DISTRICT ENGINEER  
DEPARTMENT OF COMMERCE  
BUREAU OF PUBLIC ROADS

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	5 179 (4)		2	13
STATE JOB NO. 10340					2 13

BRIDGE QUANTITIES CODE NO. X031

Item No.	Item	Unit	Bridge No. 2594				Bridge No. 2595				Bridge No. 579				Total Job No. 5327
			Bents No. 1 & 3	Bent No. 2	Spans 1 & 2	Total	Bents No. 1 & 6	Bents No. 2-5 Incl.	Spans 1-5 Incl.	Total	Bents No. 1 & 5	Bents No. 2-4 Incl.	Spans 1-4 Incl.	Total	
103	Dry Excavation For Structures	Cu. yd.	15			15	15			15	40			40	70
SP101-27	Embankment Material	Cu. yd.	380			380	565			565	1,500			1,500	2,445
SP125	Special Compaction of Earthwork	Cu. yd.	380			380	565			565	1,500			1,500	2,445
SP&802	Class "S" Concrete For Bridges	Cu. yd.	21.82	5.17	38.26	65.25	21.82	20.68	95.65	138.15	21.82	15.51	76.52	113.85	317.25
803	Reinforcing Steel	Lb.	3044	940	7472	11456	3044	3760	10680	25494	3044	2820	14946	20810	57750
SP&804	Concrete Piling	Lin. Ft.	420	120		540	420	560		980	420	420		840	2360
SP805-3	Steel Plate Guard Rail	Lin. Ft.	12		136	148	12		340	352	12		272	284	784
807	Structural Steel in Beam Spans	Lb.	1235		33190	34425	1235		83303	84618	1235		66652	67887	186930
906	24" Spelter Coated C.M. Pipe Culvert	Lin. Ft.									64			64	64
925	Steel Plate Guard Fence	Lin. Ft.	112			112	112			112	112			112	336
929	Bridge Name Plates (Type "A")	Each	1			1	1			1	1			1	3
SP1052-4	Removal of Existing Bridges	Each				1								1	2
SP1052-5	Removal of Existing Bridges	Each								1					1

SUMMARY OF QUANTITIES  
HARRISBURG-HARRISBURG CORNER BRIDGES  
POINSETT COUNTY

ROUTE 14 SEC. 14

ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

Drawn By: L.P.C. Date: 3-11-50  
Traced By: W.W.M. Date: 3-12-50  
Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

BRIDGE NO. 2594, 2595 & 579 DRAWING NO. 7614

*N.B. Lamm*  
ENGINEER