

FED. DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	231-D		1	40

State Job No. 2-223

STATE OF ARKANSAS  
STATE HIGHWAY COMMISSION

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PLAN OF PROPOSED BRIDGES  
BAYOU BARTHOLOMEW & ADJACENT OPENINGS

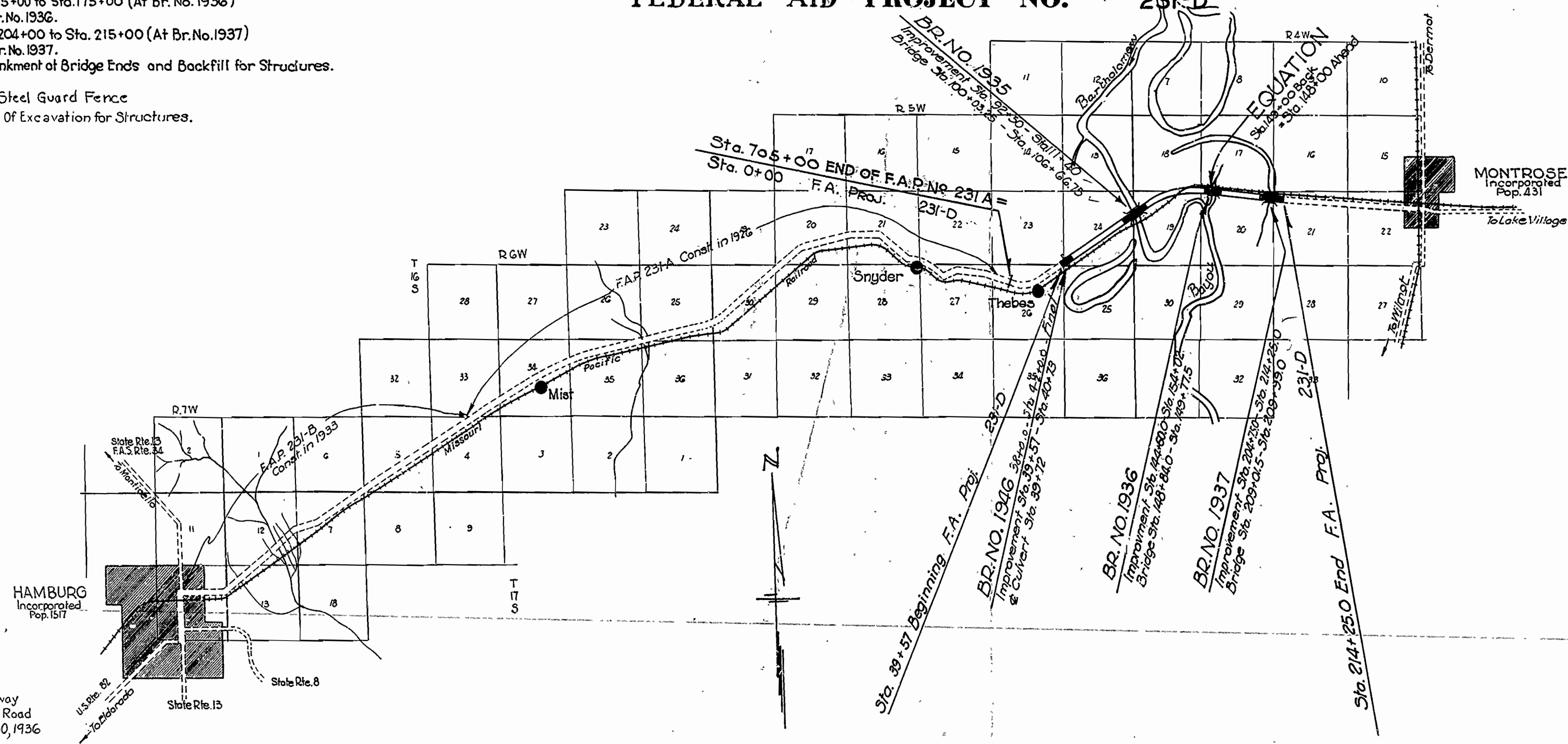
HAMBURG-MONTROSE ROAD

ASHLEY COUNTY

ROUTE 82 SEC. 9

JOB No 2223

FEDERAL AID PROJECT NO. 231-D



QUANTITIES

Item No.	Item	Quantity	Unit
101	Clearing	6.65	Acres
101	Grubbing	3.76	Acres
102	Common Excavation	27464	Cu.Yds.
103	Dry Excavation for Structures	65	Cu.Yds.
103	Wet Excavation for Structures	621	Cu.Yds.
901	Class 'A' Concrete	28.19	Cu.Yds.
902	Reinforcing Steel	3564	Lbs.
906	18" Reinforced Concrete Pipe Culvert	57	Lin.Ft.
802	Class 'A' Concrete for Bridges	345.92	Cu.Yds.
802	Class 'S' Concrete for Bridges	1260.63	Cu.Yds.
802	Seal Concrete for Bridges	175.18	Cu.Yds.
803	Reinforcing Steel	364,379	Lbs.
804	16" Concrete Piling	1,700	Lin.Ft.
804	18" Concrete Piling	3,690	Lin.Ft.
805	Concrete Railing	1,708	Lin.Ft.
SP487	Structural Steel In Truss Spans	149,349	Lbs.
SP351	Metal Bearing Devices	29,406	Lbs.
810	Untreated Timber Piling	2,600	Lin.Ft.
SP450	Bronze State Bridge Nameplates (Type)	4	Each
SP450	Bronze Project Marker Plaques	8	Each
5P	Removal Of Existing Bridges	Lump Sum	
115	Fence Moved and Reconstructed	2,29	Rods
404	Gravel Surface Course Class 5-5	1572	Cu.Yds.
3P	Maintaining Traffic	Lump Sum	
119	Moving Buildings Class 2	1	Bldg.
119	Moving Buildings Class 5	1	Bldg.
925	Steel Plate Guard Fence	1288	Lin.Ft.
926	Sodding	2090	Squares
NON-PARTICIPATING ITEMS			
119	Reconstructing Foundations and Appurtenances - Class 5	1	Bldg.

Specifications: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction Adopted June 30, 1936 with Special Provisions as Follows:

DIVISION	PART	NO.	ITEM	NO. OF SHEETS	DATE
1	1				
2	1				
2	4				
2	8-a				
2	8-b				
2	8-c				
3	9				
4					
Required Special Provisions					
		12	Wages of Labor		Approved 9-30-36
		1	Employment Centers for Labor		
		1	Partial Payments		
		3	Design Specifications For Bridges		9-11-36
		1	Metal Bearing Devices		9-1-36
		1	Bronze Project Marker Plaques and Bronze State Bridge Name Plates.		8-19-36
		1	Engineer's Field Office		8-22-36
		1	Maintaining Traffic		8-14-35
		1	Removal of Existing Bridges		9-1-36

LAYOUT

Scale:

LENGTH OF PROJECT	=	3928.0 FT. = 0.757 MI.	4287.0 FT. = 0.810 MI.
LENGTH OF BRIDGES	=	954.5 FT. = 0.180 MI.	754.5 FT. = 0.140 MI.
LENGTH OF EMBANKMENT	=	3043.5 FT. = 0.576 MI.	3327.5 FT. = 0.630 MI.
LENGTH OF JOB	=	3928.0 FT. = 0.757 MI.	4287.0 FT. = 0.810 MI.

Revised 9-10-36  
Revised 10-23-36  
Rev. 11-24-36 Common Excav. Class 'A' Conc. Reinf. Steel

M.B. Lewis  
BRIDGE ENGINEER

APPROVED  
CHIEF ENGINEER - U. S. BUREAU OF PUBLIC ROADS

APPROVED  
DISTRICT ENGINEER - U. S. BUREAU OF PUBLIC ROADS

APPROVED  
CHIEF - U. S. BUREAU OF PUBLIC ROADS

APPROVED  
CHAIRMAN - STATE HIGHWAY COMMISSION

APPROVED  
STATE HIGHWAY ENGINEER

# SCHEDULE OF BRIDGE QUANTITIES (CODE NO. 920 & 950)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	231-D		2	40

State Job No. 2-223

ITEM	Item No. 103 Dry Excavation For Structures Cu. Yds.	Item No. 103 Wet Excavation For Structures Cu. Yds.	Item No. 802 Class 'A' Concrete For Bridges Cu. Yds.	Item No. 802 Class 'S' Concrete For Bridges Cu. Yds.	Item No. 802 Rein. Steel For Bridges Lbs.	Item No. 804 16" Concrete Piling Lin. Ft.	Item No. 804 18" Concrete Piling Lin. Ft.	Item No. 805 Concrete Railing Lin. Ft.	Item No. SP800 Structural Steel In Truss Spans Lbs.	Item No. SP801 Metal Bearing Devices Lbs.	Item No. 810 Untreated Timber Piling Lin. Ft.	Item No. SP950 Bronze Plate Br. Name Pls. Type B' Each	Item No. 3P Removal Of Existing Bridges
End Bent No. 1	8			14.50	2130		200	6.0				1	
Bents No. 2 to 10 Inclusive				48.60	9637		2490						
Bent No. 11				7.75	1550		400						
Piers No. 1 & 2		602	345.92		175.18	28238					2600		
Bent No. 12				6.69	1399		400						
End Bent No. 13	13			17.01	2333		200					1	
Span No. 1				48.72	14415		79.5	1245	1226				
Spans No. 2 to 9 Inclusive				389.76	115320		640.0	6640	9808				
Span No. 10				48.85	14429		80.0	858	1226				
Spans No. 11 & 13				136.26	38262		198.5	1770	2760				
Span No. 12 (Steel Truss)				81.73	17436			128378	2350				
Span No. 14				68.13	19131		100.0	1328	1380				
TOTALS	21	602	345.92	868.00	175.18	264480	3690	1110.0	140219	18750	2600	2	
End Bents No. 1 & 7	9			24.78	3464	360		12.0				1	
Bents No. 2 to 6 Inclusive				21.20	3305	800							
Spans No. 1 & 6				69.62	19632			127.0	2490	2368			
Spans No. 2 to 5 Inclusive				139.32	39264			256.0	3320	4736			
TOTALS	9			254.92	65665	1160		395.0	5810	7104		1	
End Bents No. 1 & 4	20			24.78	3464	300		12.0					
Bents No. 2 & 3				8.48	1322	240							
Spans No. 1 & 3				69.62	19632			127.0	2490	2368			
Span No. 2				34.83	9816			64.0	830	1184			
TOTALS	20			137.71	34234	540		203.0	3320	3552		1	
GRAND TOTALS	50	602	345.92	1260.63	175.18	364379	1700	3690	1708.0	149349	29406	2600	4 lump sum

CODE NO. 920  
 BR. NO. 1935  
 CODE NO. 950  
 BR. NO. 1937

### REMOVAL OF EXISTING BRIDGES

Location	% of Lump Sum Cost
Br. No. 1935	85
Br. No. 1936	10
Br. No. 1937	5

### SODDING

Sta.	Sta.	Sodding Squares
39+57	40+73	60
92+50	100+03.25	480
106+66.75	111+40	320
144+60	148+84	260
149+77.5	154+02	370
204+75	209+01.5	375
209+99	214+25	225
Totals		2090

### STEEL PLATE GUARD FENCE

Sta.	Sta.	Left Lin. Ft.	Right Lin. Ft.	Total Lin. Ft.
99+07.25	100+03.25	96	96	192
106+66.75	108+98.75	232		232
106+66.75	107+62.75		96	96
147+88	148+84	96	96	192
149+77.5	150+73.5	96	96	192
208+05.5	209+01.5	96	96	192
209+99	210+95	96	96	192
Total				1288

### MAINTAINING TRAFFIC

Station	Station	% of Lump Sum Cost
39+57	40+73	2.0
144+60.0	154+02.0	5.0
204+75.0	214+25.0	3.0

### GRAVEL SURFACE COURSE (To be placed in 2 equal courses)

Sta.	To Sta.	Cu. Yds.
Culv. 39+57	40+73	57
Br. No. 92+50	100+03.25	377
1935 106+66.75	111+40	288
Br. No. 144+60	148+84	212
1936 149+77.5	154+02	212
Br. No. 204+75	209+01.5	213
1937 209+99	214+25	213
Totals		1572

### EARTH WORK

Sta.	To Sta.	Common Excav. Cu. Yds.
Culv. 39+57	40+73	712
Br. No. 92+50	100+03.25	3064
1935 106+66.75	111+40	4659
Br. No. 144+60	148+84	5439
1936 149+77.5	154+02	6145
Br. No. 204+75	209+01.5	6638
1937 209+99	214+25	7106
Totals		29403

### CLEARING & GRUBBING

Sta.	To Sta.	Clearing Acres	Grubbing Acres
100+50	106+50	2.9	0.01
147+75	154+00	2.0	2.0
200+00	210+00	1.75	1.75
Totals		6.65	3.76

### ROADWAY SUMMARY

Item No.	Item	Quantity	Unit
101	Clearing	6.65	Acres
101	Grubbing	3.76	Acres
102	Common Excavation	27464	Cu. Yds.
103	Dry Excavation For Structures	15	Cu. Yds.
103	Wet Excavation For Structures	19	Cu. Yds.
901	Class 'A' Concrete	28.19	Cu. Yds.
902	Reinforcing Steel	3564	Lbs.
906	18" Reinforced Concrete Pipe Culvert	57	Lin. Ft.
SP950	Bronze Project Marker Plates	8	Each
115	Fence Moved and Reconstructed	229	Rods
404	Gravel Surface Course (To be placed in 2 equal courses)	1572	Cu. Yds.
925	Steel Plate Guard Fence	1288	Lin. Ft.
* SP	Maintaining Traffic		lump sum
119	Moving Buildings Class 2	1	Building
119	Moving Buildings Class 5	1	Building
926	Sodding	2090	Squares
Non-Participating Items			
119	Reconstructing Foundations and Apertures Class 5	1	Building

\* See Drwg Nos. 4043 & 4036

### RIGHT OF WAY MARKERS

Sta.	Class 'A' Conc. Cu. Yds.	Rein. Steel Lbs.
38+00 Rt. & Lt.	0.054	11.8
43+00 Rt. & Lt.	0.054	11.8
92+50 to Sta.		
111+40 18 Posts	0.486	106.2
144+60 to Sta.		
154+02 14 Posts	0.378	82.6
200+00 to Sta.		
214+25 16 Posts	0.432	94.4
Totals	1.404	306.8

### PROJECT MARKERS

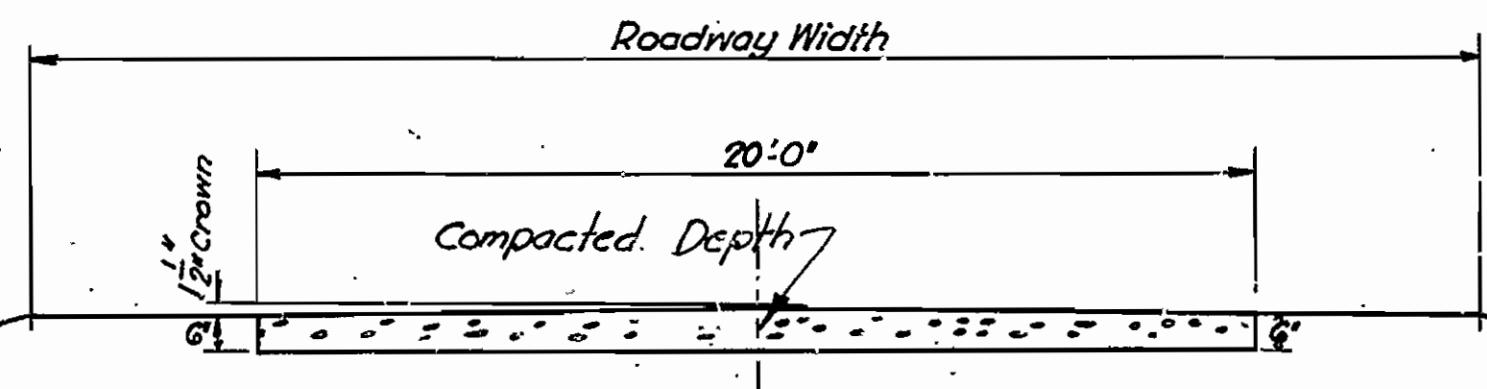
Sta.	Class 'A' Conc. Cu. Yds.	Rein. Steel Lbs.	Bronze Pla. Each
39+57	0.13	15	1
40+73	0.13	15	1
92+50	0.13	15	1
111+40	0.13	15	1
144+60	0.13	15	1
154+02	0.13	15	1
204+75	0.13	15	1
214+25	0.13	15	1
Totals	1.04	120	8

### DRAINAGE STRUCTURES

Sta.	Structure	Dry Excavation For Str. Cu. Yds.	Wet Excavation For Str. Cu. Yds.	Class 'A' Concrete Cu. Yds.	Rein. Steel Lbs.	18" Rein. Conc. Pipe Lin. Ft.
39+72	5' x 3' x 52" RC Culv.	5	19	25.75	3138	57
110+40	18" RC Pipe No. 10	10				57
Totals		15	19	25.75	3138	57

### FENCE MOVED AND RECONSTRUCTED

Sta. to Sta.	Rods - Rt.	Rods - Lt.	Total Rods
99+20 to 99+84	10.9		10.9
99+84 to 100+03		3.2	3.2
106+38 to 110+80.35	40.8		40.8
106+68 to 110+80.35		376	376
147+75 to 154+00	49		49
200+00 to 213+50	87.5		87.5
Totals	188.20	40.8	229.0



TYPICAL SECTION GRAVEL SURFACE COURSE CLASS 3-5  
 50 Cu. Yds. per Station. (Estimated)  
 To be placed in 2 equal courses.

## SUMMARY SHEET

JOB NO. 2-223

F.A. PROJ. No.

231-D

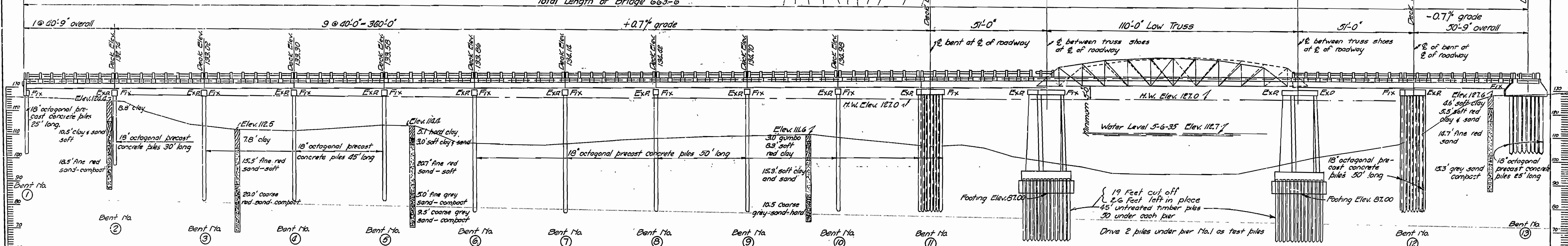
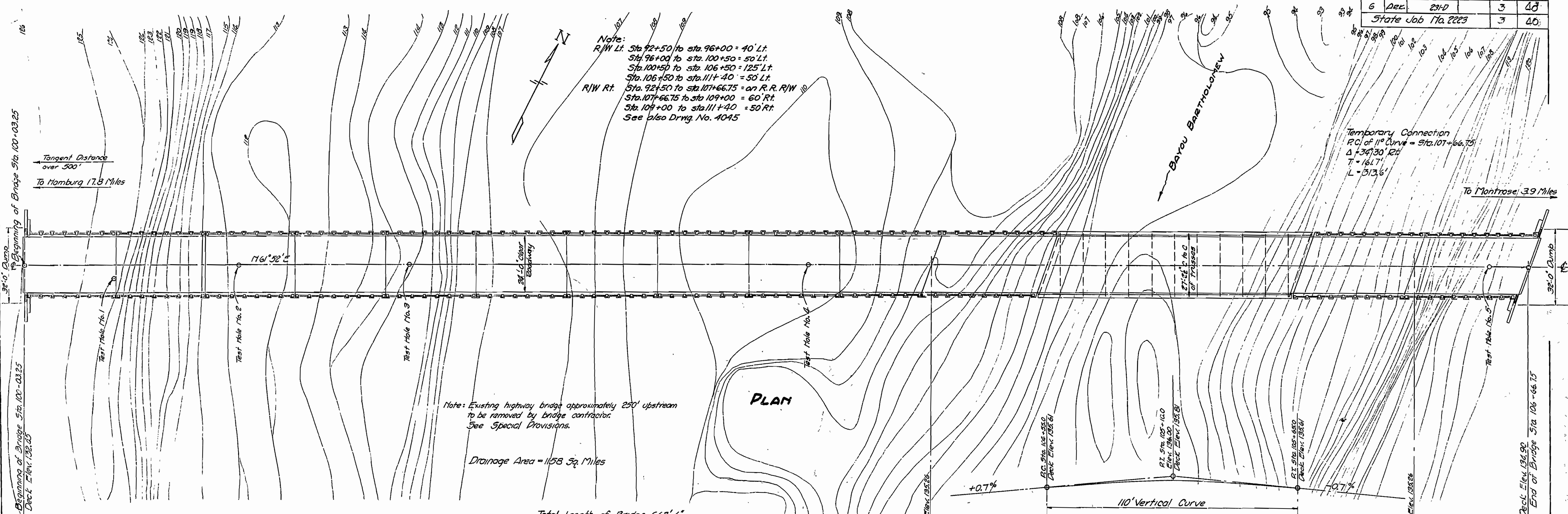
Revised 9-3-36  
 REVISED 10-23-36

Rev. 11-24-36  
 Common Excav. Class 'A' Conc. Rein. Steel

BRS. No. 1935-36-37

DRWG. No. 4034

Proj. No.	State	FED. AID	FISCAL	SHEET	TOTAL	
6	Ark.	2310	YEAR	3	48	
State Job No. 2223					3	48



Note: Drive one pile in Bent No. 3 and one pile in Bent No. 7 as Test Piles.

General Notes:

Concrete piling as shown on Drwg. 4039 to be used. (Piling shown on Drwg. 2214 not to be used.)  
 No compensation will be made for untreated timber pile cut off.  
 Payment will be made on actual length left in place.  
 Lengths of piling shown are for estimating purposes only.  
 Actual lengths to be determined in the field.  
 Volume occupied by embedded pile heads not to be included in pay quantities for concrete.

ELEVATION

QUANTITIES

For details of Bent No. 1, see Drwg. No.	2214 & 4039
" " " Bents 2 to 10, incl. see Drwg. No.	4039
" " " Bents 11, 12 & 13	4038
" " " Piers 1 and 2	4037
" " " Spans 1 to 9, incl.	2214
" " " Spans 10, 11, 13 & 14	2214, 4040 & 4041
" " " Span 12 (Truss)	2451 & 4042

Item No.	Item	Quantity	Unit
103	Dry Excavation for Structures	21	Cu. Yds.
103	Wet Excavation for Structures	602	Cu. Yds.
802	Class "A" Concrete for Bridges	315.92	Cu. Yds.
802	Class "S" Concrete for Bridges	863.00	Cu. Yds.
802	Seal Concrete for Bridges	175.10	Cu. Yds.
803	Reinforcing Steel	2644.60	Lbs.
804	18" Concrete Piling	3690	Lin. Ft.
805	Concrete Railing	1110	Lin. Ft.
SP 807	Structural Steel in Truss Spans	140219	Lbs.
SP 851	Metal Bearing Devices	18750	Lbs.
810	Untreated Timber Piling	2600	Lin. Ft.
SP 950	Bronze-Steel Bridge Name Plates (type "B")	2	Each
SP	Removal of Existing Bridges		Lump Sum

Revised 9-3-36

LAYOUT OF  
 BRIDGE OVER BAYOU BARTHOLOMEW  
 HAMBURG - MONTROSE ROAD  
 ASHLEY COUNTY  
 ROUTE 82 Sec. 9  
 ARKANSAS STATE HIGHWAY COMMISSION  
 LITTLE ROCK - ARK.

Drawn by L.R.C. Date: 7-8-35  
 Traced by S.D. Date: 7-11-35  
 Checked by

M.B. Barber  
 Bridge Engineer

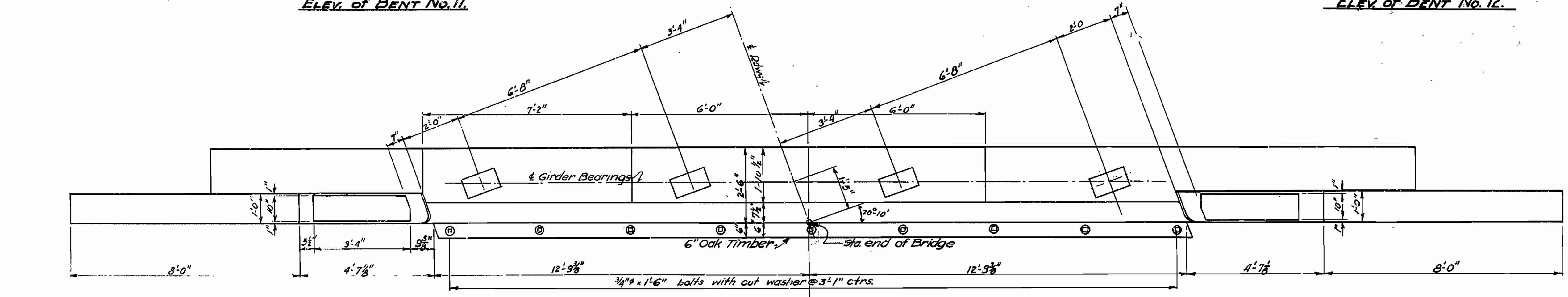
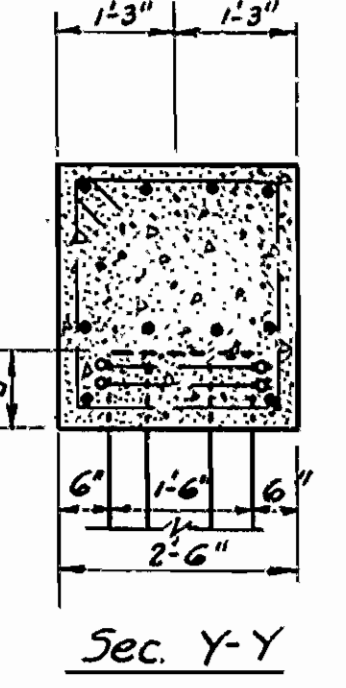
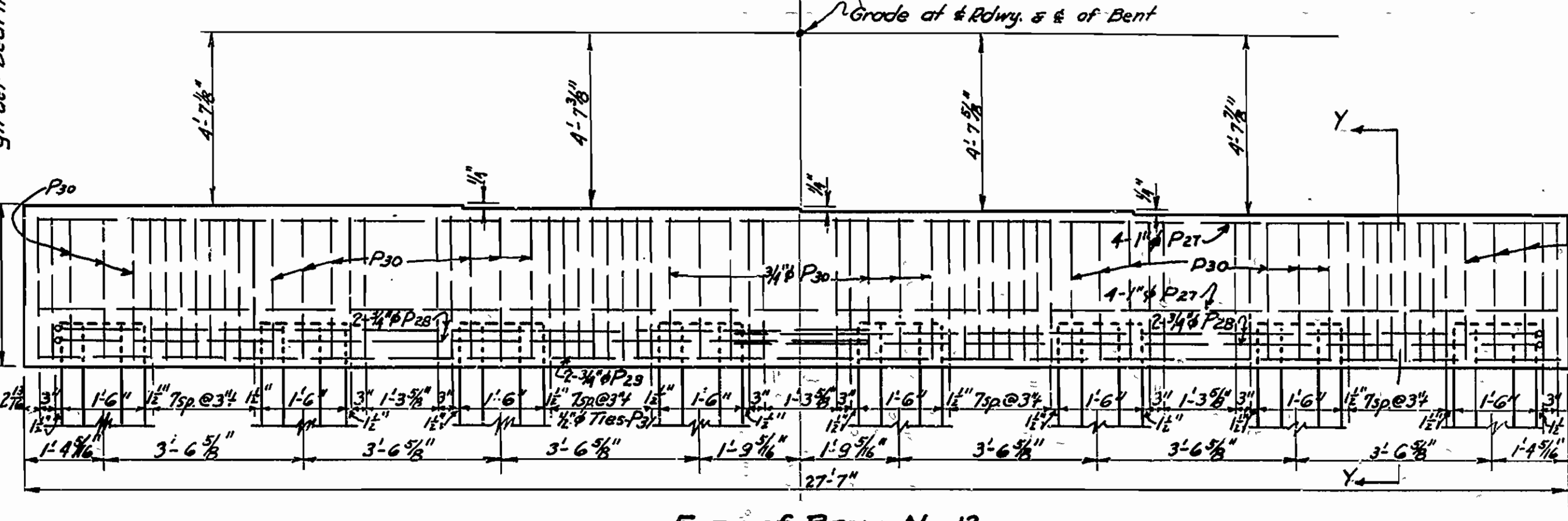
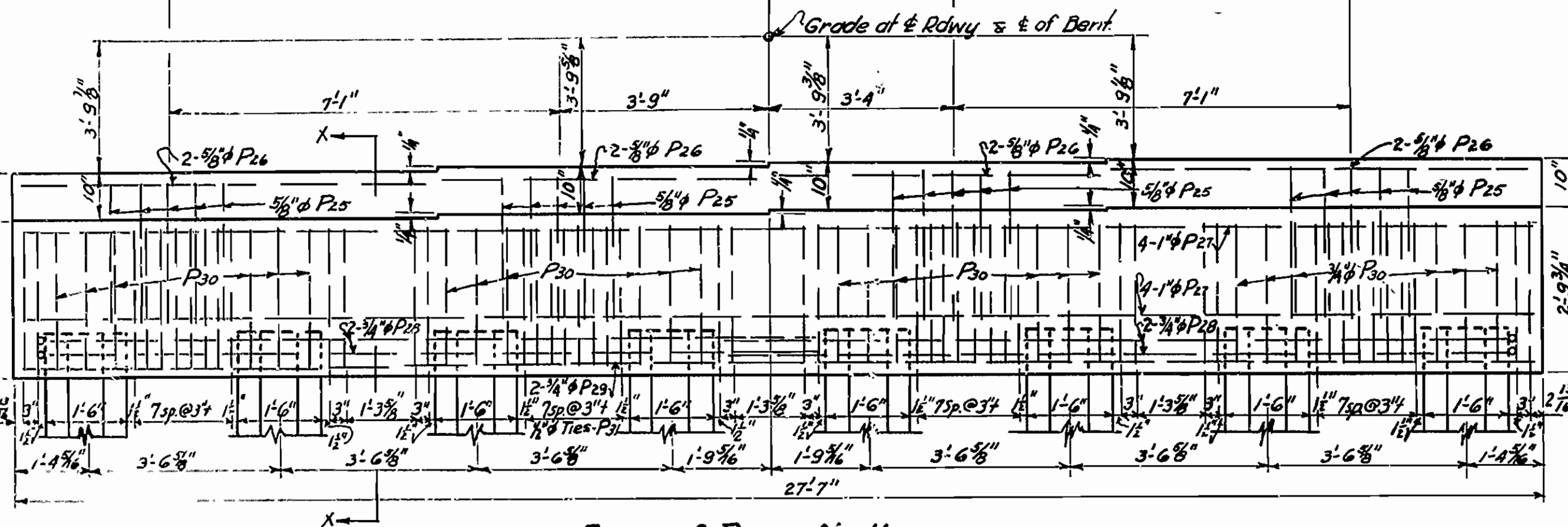
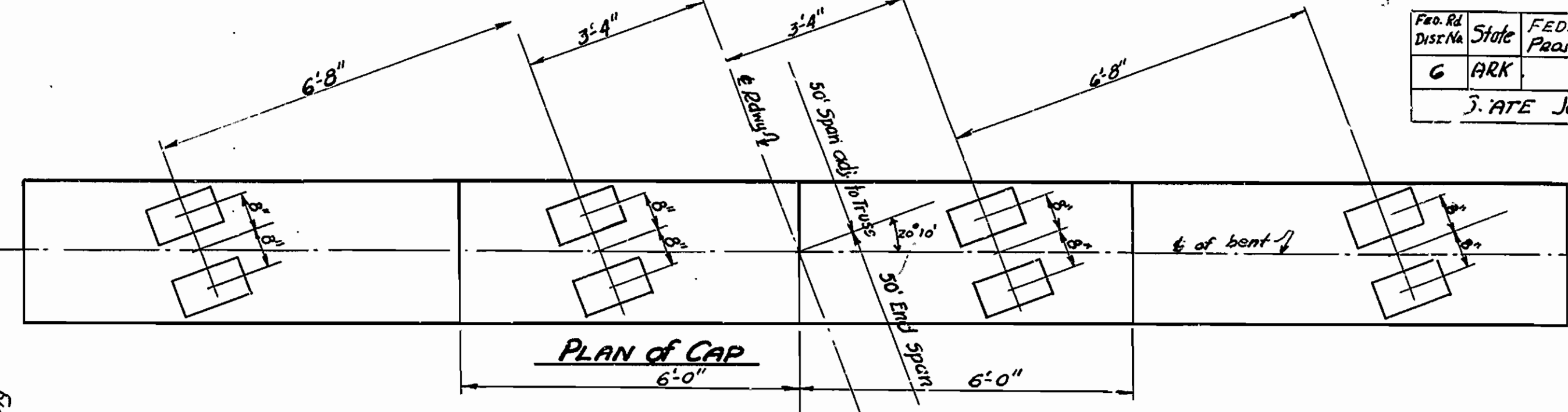
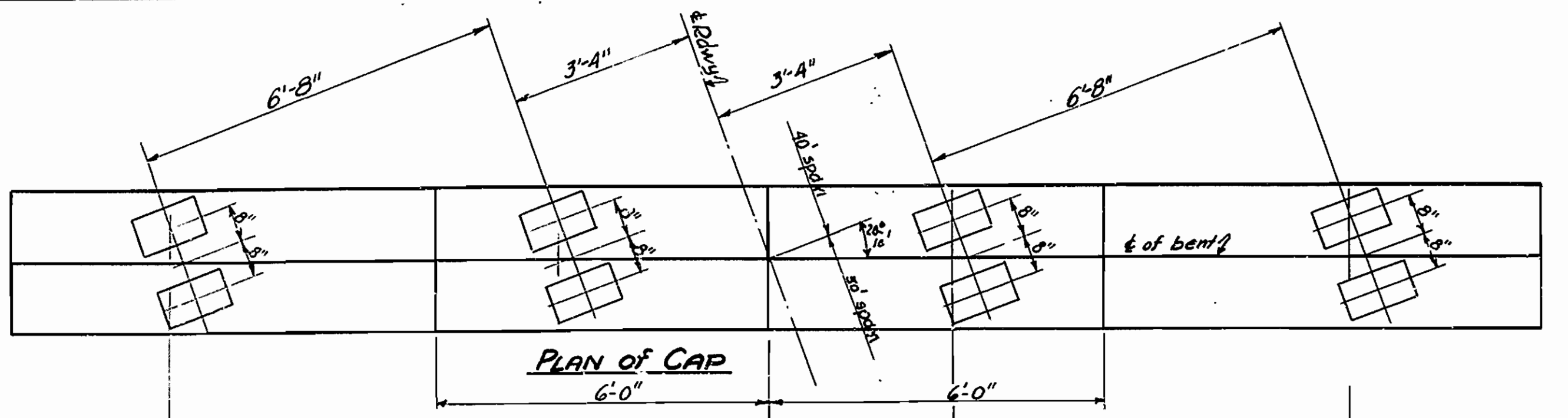
BRIDGE No. 1935  
 DRAWG. No. 4035

CODE NO. 920

B.M. Elev. 126.50 Nail in roof of 30' Red Oak  
 100' Rt. of Sta. 100+00

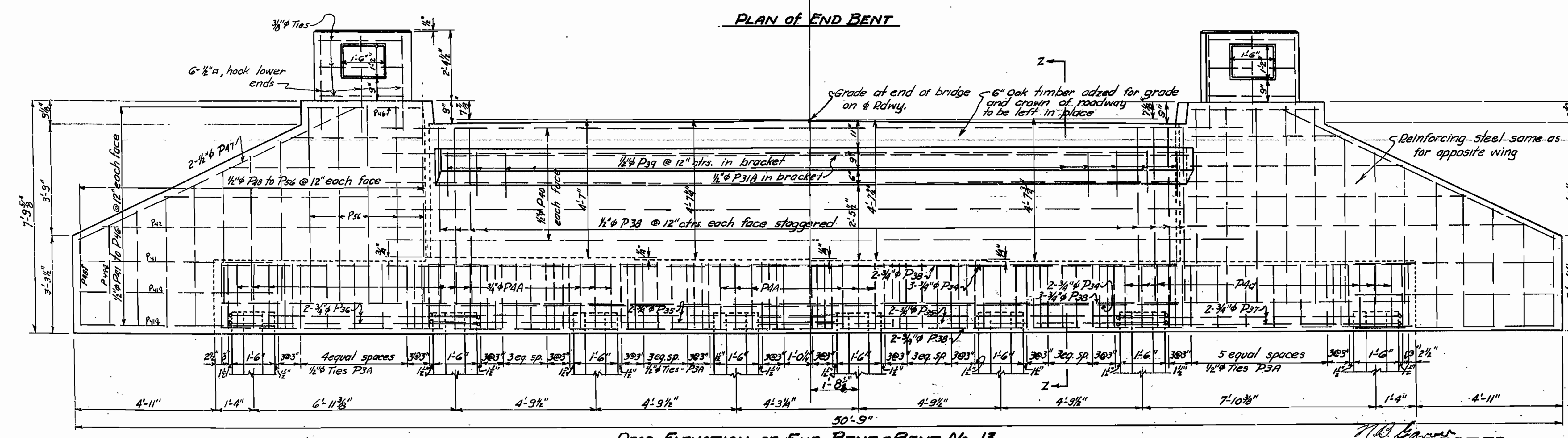
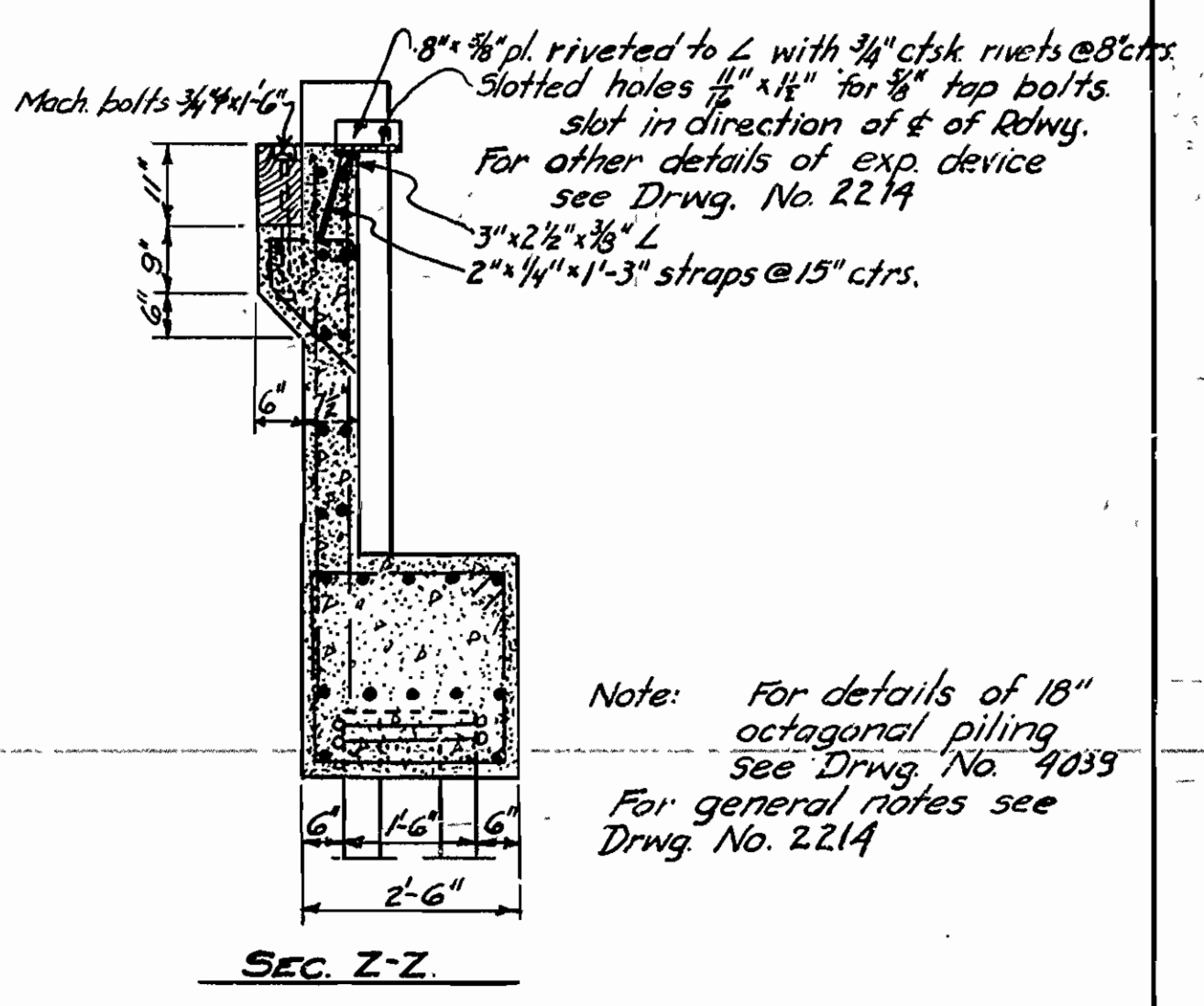


FED. DIST. No.	State	FED. AID PROJ. No.	FISCAL YEAR.	SHEET No.	TOTAL SHEETS.
6	ARK	23FD		6	40
STATE JOB NO. 2-223					



MARK	SIZE	LENGTH	a	b	c
P30	1/2" #	9'-1"	2'-1"	2'-1"	
P40	3/4" #	6'-3"	2'-1"	2'-1"	
P28	3/4" #	30'-9"	1'-7"	14'-7"	
P30	3/4" #	6'-9"	2'-1"	2'-4"	
P25	5/8" #	6'-3"	0'-11"	2'-8"	
P31	1/2" #	9'-7"	2'-1"	2'-4"	
P35	3/4" #	29'-3"	1'-7"	13'-10"	
P36	3/4" #	22'-0"	1'-7"	8'-7"	
P37	3/4" #	23'-0"	1'-7"	9'-6"	
P39	1/2" #	2'-11"			

BENDING DIAGRAM

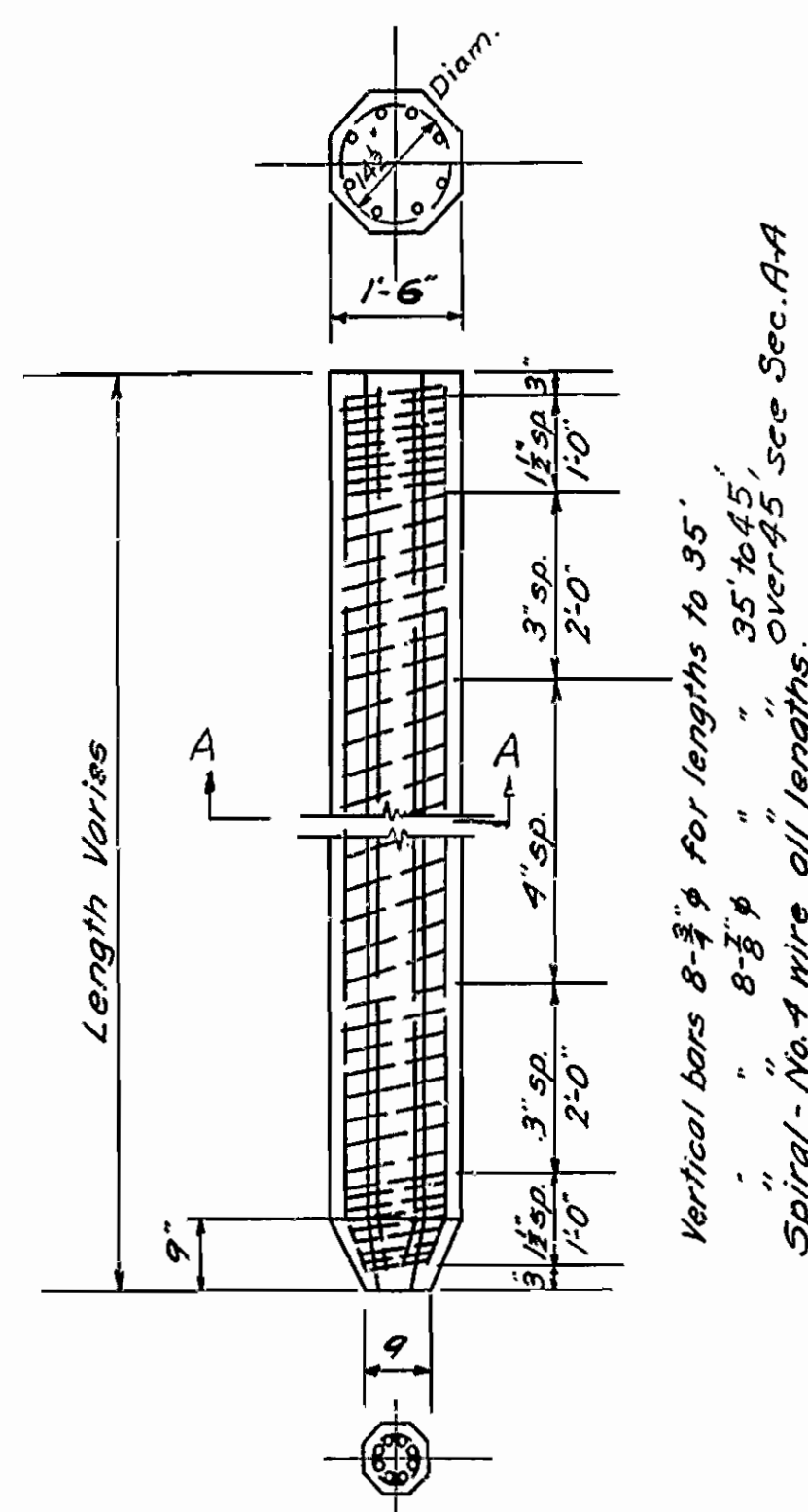


DETAILS OF SKEWED BENTS  
BRIDGE OVER BAYOU BARTHOLOMEW  
HAMBURG-MONTROSE ROAD  
ASHLEY COUNTY  
ROUTE 82 SECTION 9

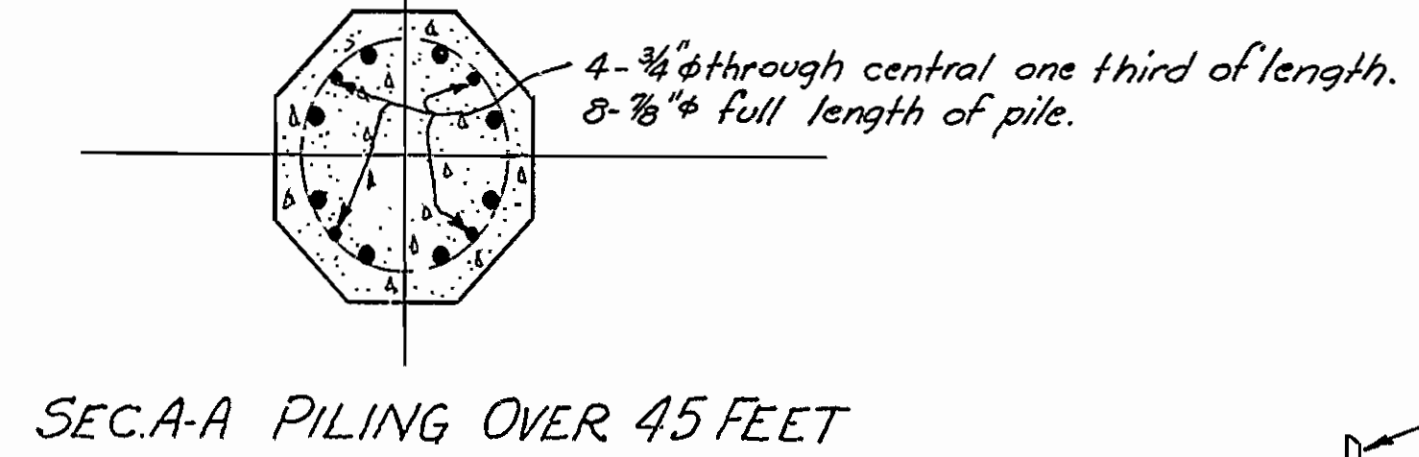
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARKANSAS

SCALE: 1/2"=1'-0"  
DRAWN BY: L.P.C. DATE: 7-26-35  
TRACED BY: M.K. DATE: 8-8-35  
CHECKED BY: DATE:

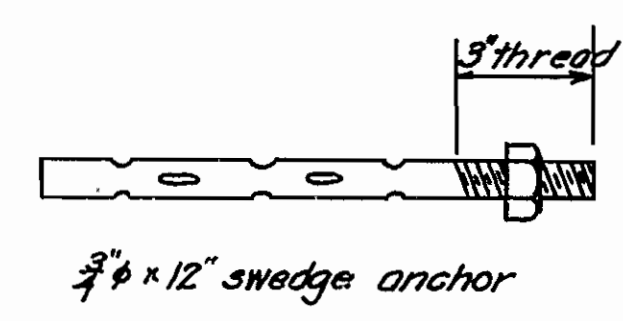
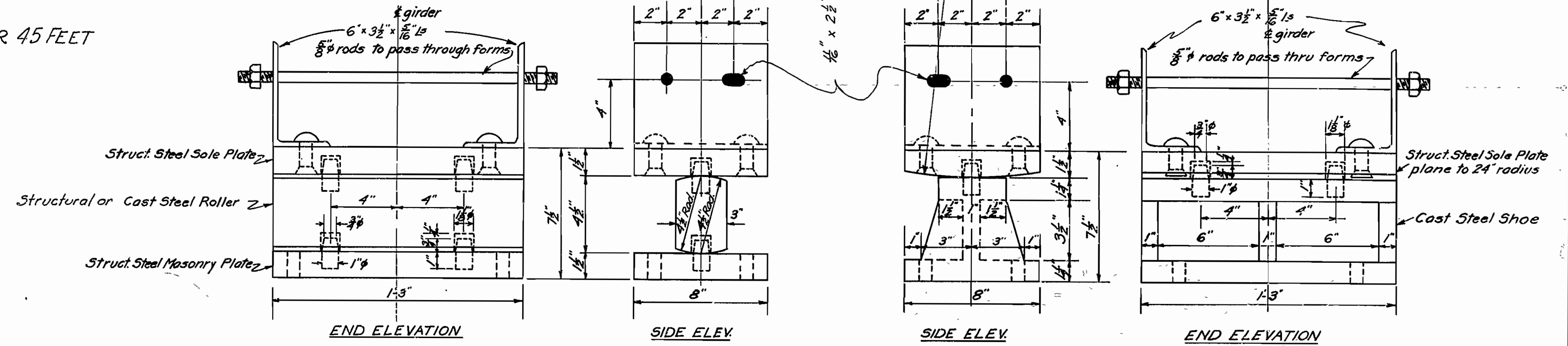
BRIDGE NO. 1935 DRWG. NO. 4038



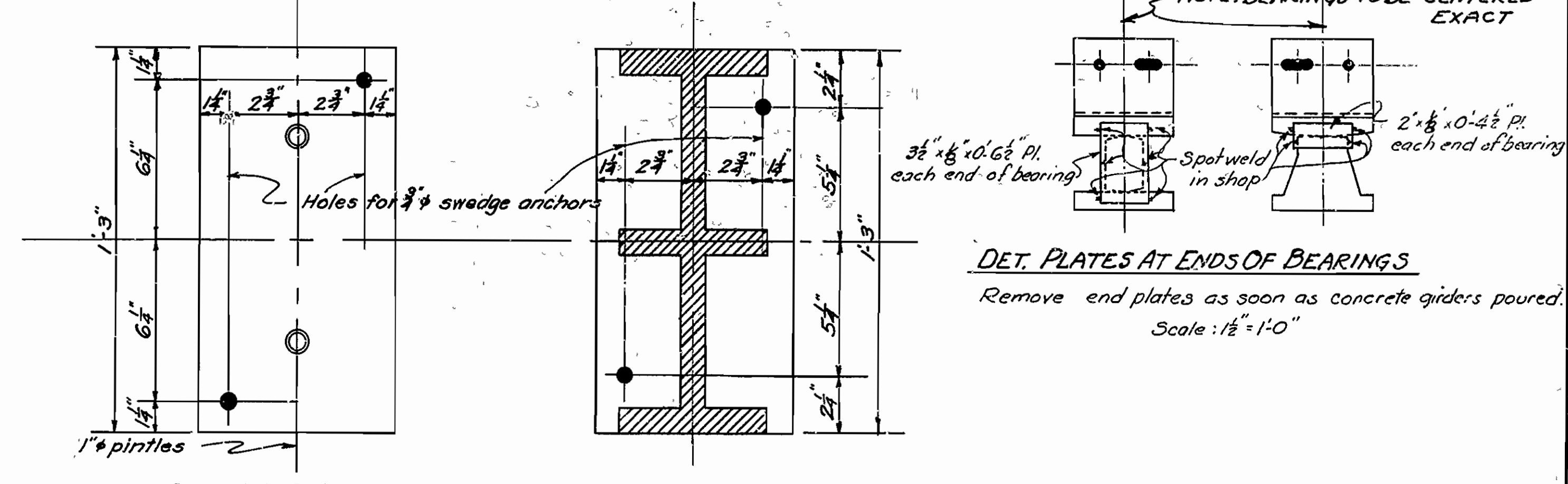
DETAIL OF 18" PRECAST CONCRETE PILE



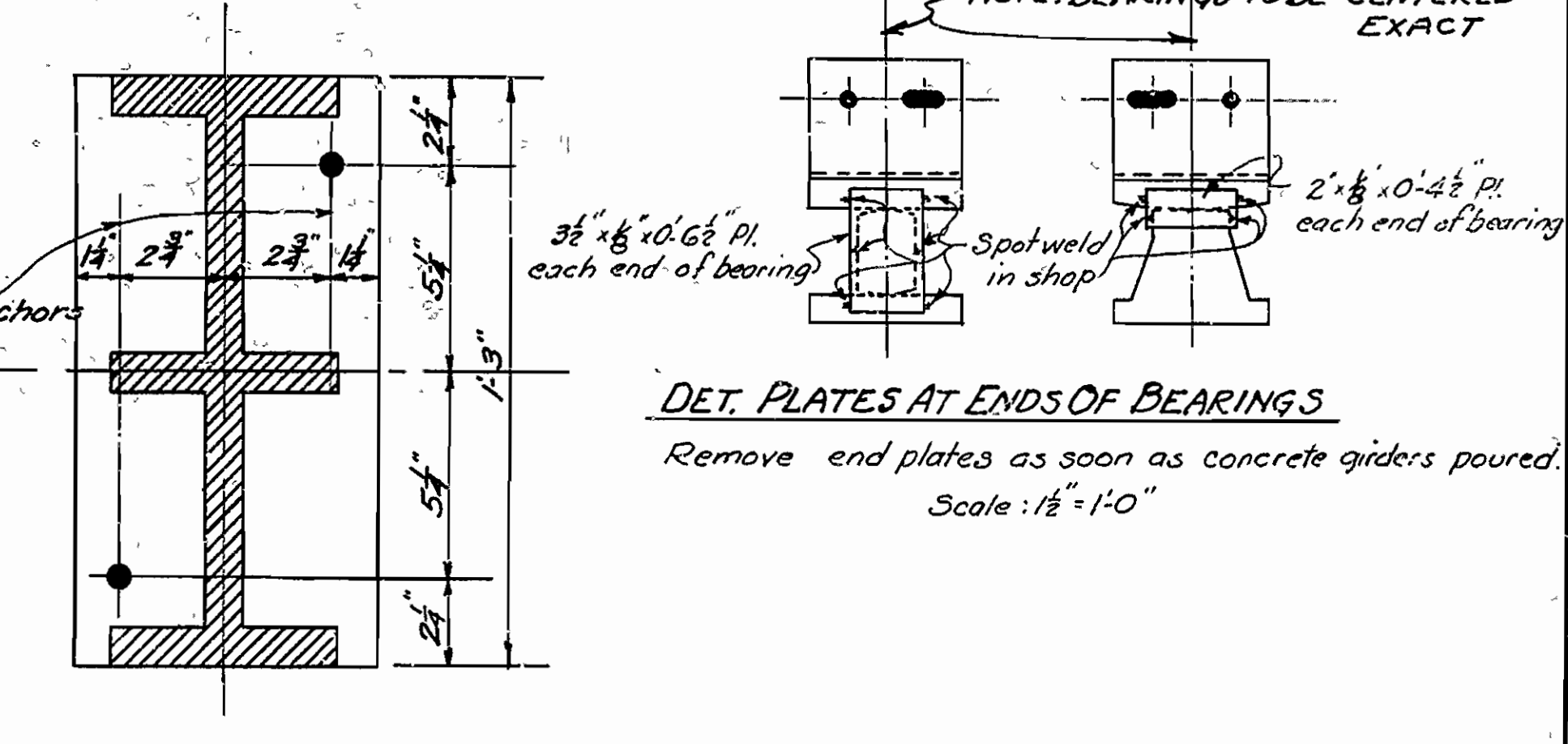
SEC. A-A PILING OVER 45 FEET



3/8" x 12" swedge anchor

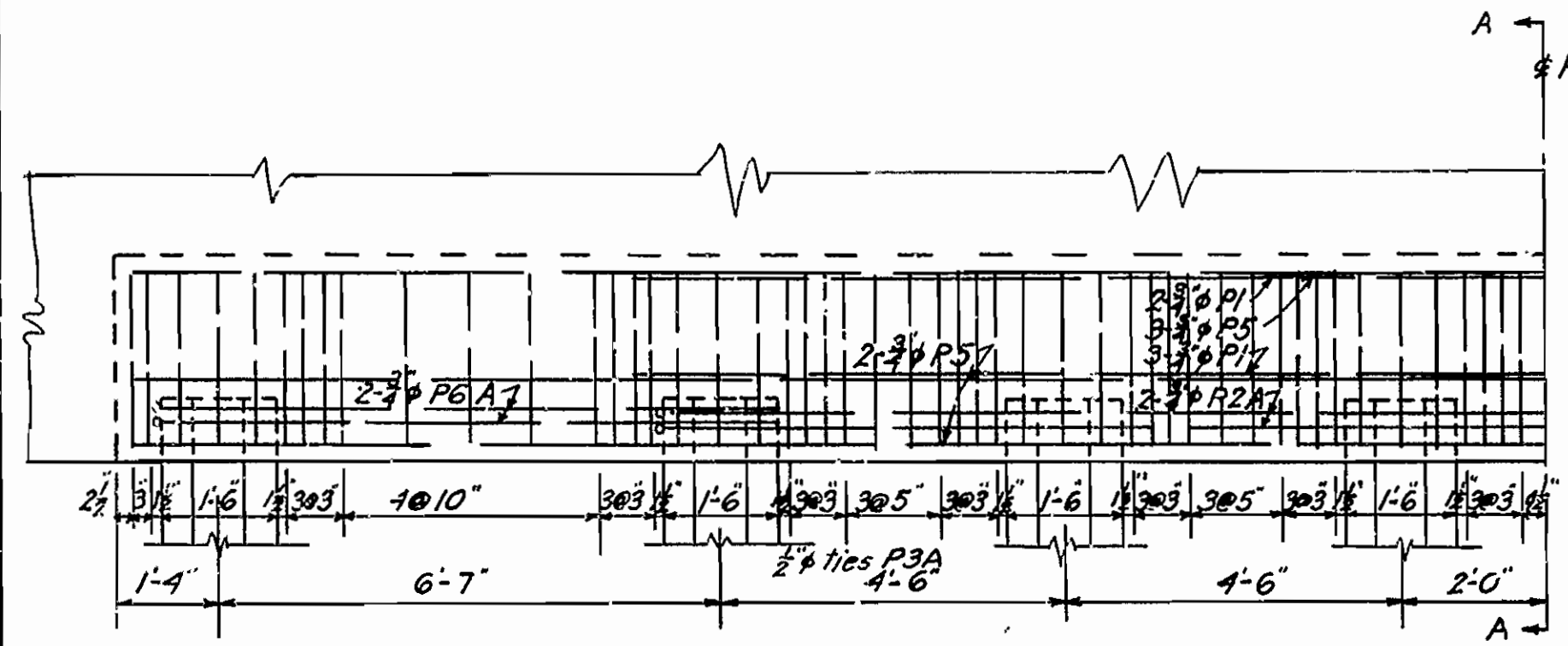


DETAILS OF EXPANSION BEARING FOR 50 FT. SPANS  
Scale: 3" = 1'-0"

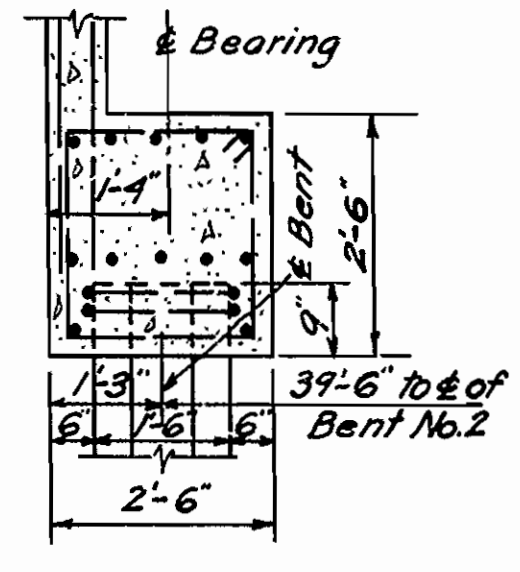


DETAILS OF FIXED BEARING FOR 50 SPANS  
Scale: 3" = 1'-0"

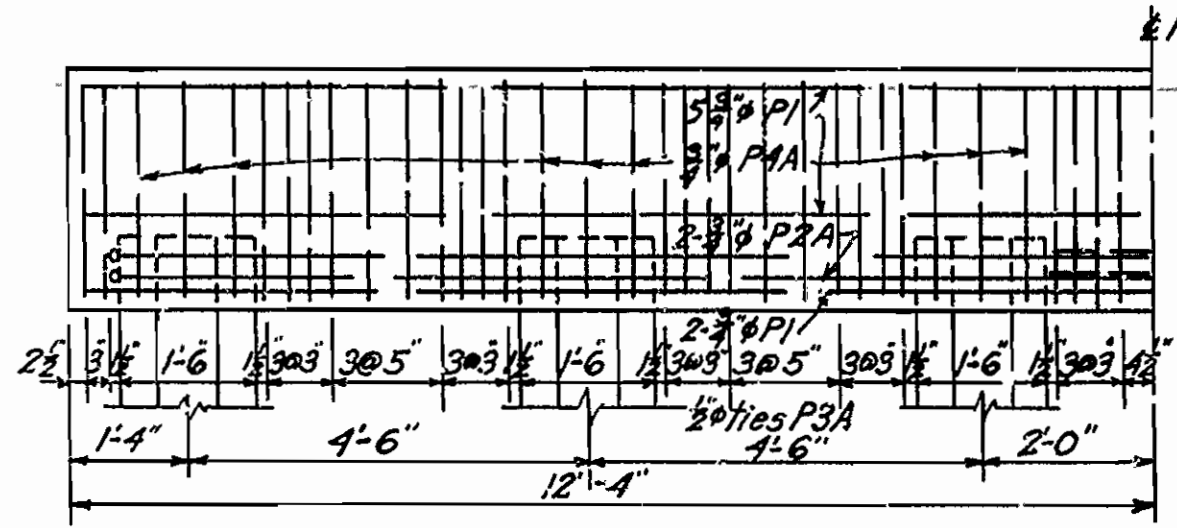
NOTE: BEARINGS TO BE CENTERED EXACT  
2 x 6 x 0.4 1/2" Pl. each end of bearing  
Spotweld in shop  
Remove end plates as soon as concrete girders poured.  
Scale: 1/2" = 1'-0"



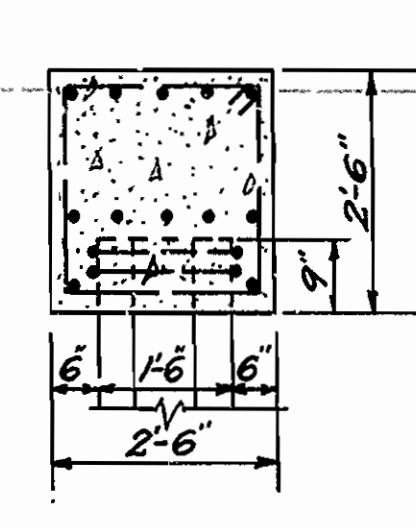
PART REAR ELEV. OF BENT No. 1  
Details not shown same as on Drwg. No.  
Scale: 1/2" = 1'-0"



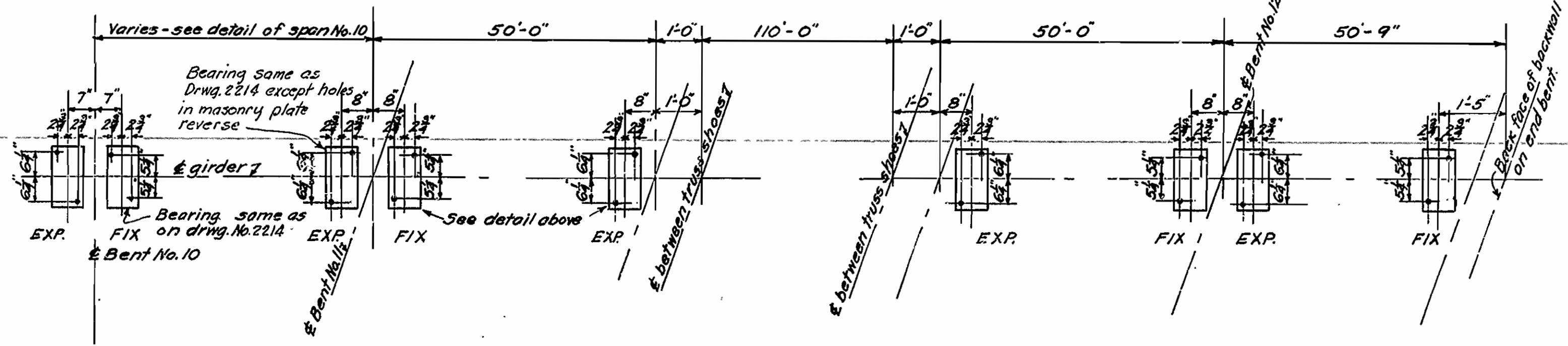
SEC. A-A



HALF ELEV. BENTS 2 TO 10 INCLUSIVE  
Scale: 1/2" = 1'-0"



SEC. THRU CAP



PART PLAN OF ANCHOR BOLT SPACING

Mark	Size	Length	a	b	Bend
P2A	3/8"	27'-7"	1'-7"	13'-0"	
P3A	3/8"	9'-1"	2'-1"	2'-1"	
P4A	3/8"	6'-3"	2'-1"	2'-1"	
P6A	3/8"	21'-3"	1'-7"	8'-3"	

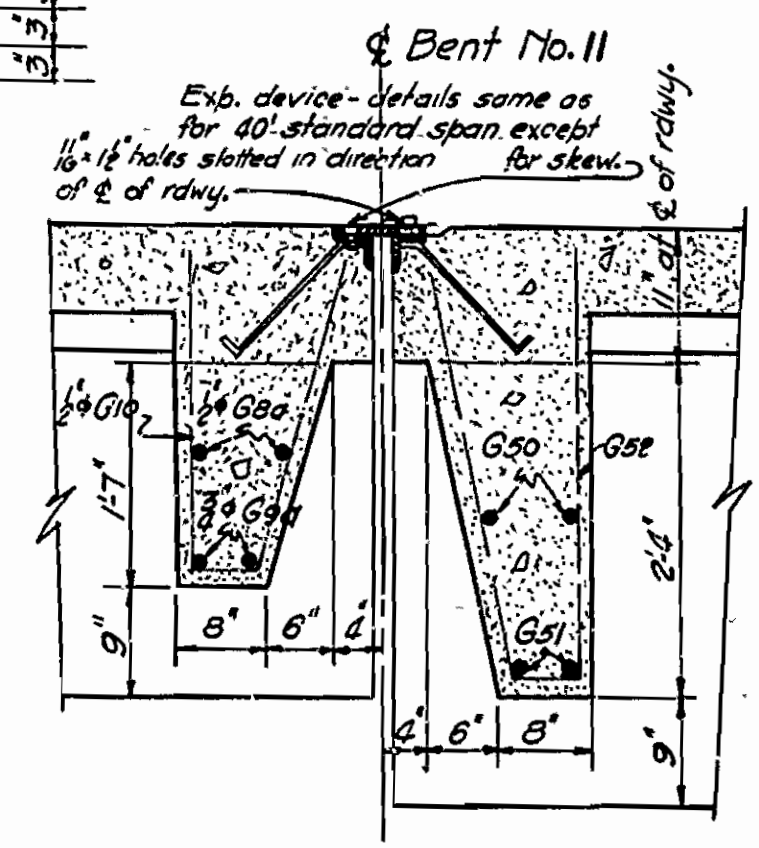
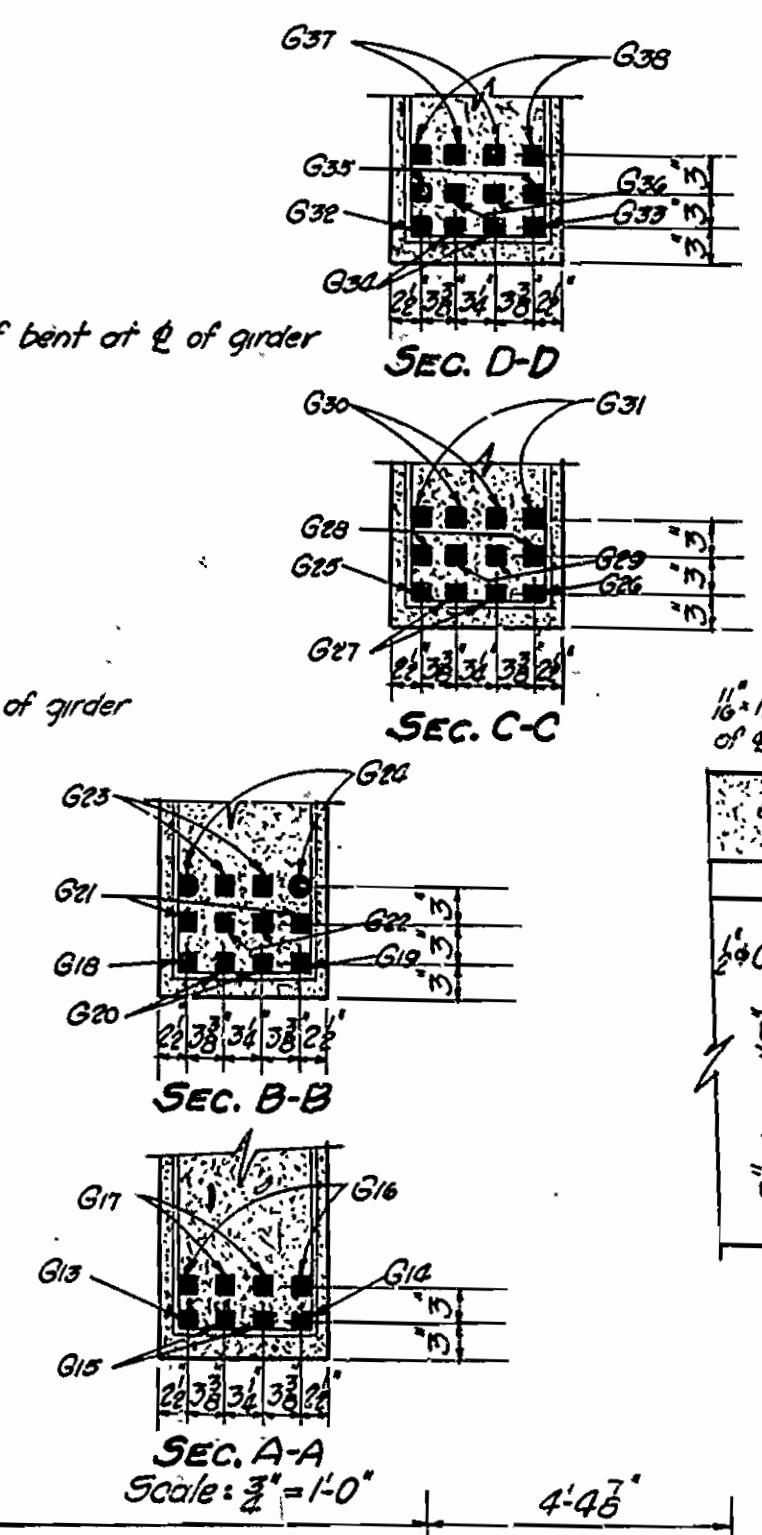
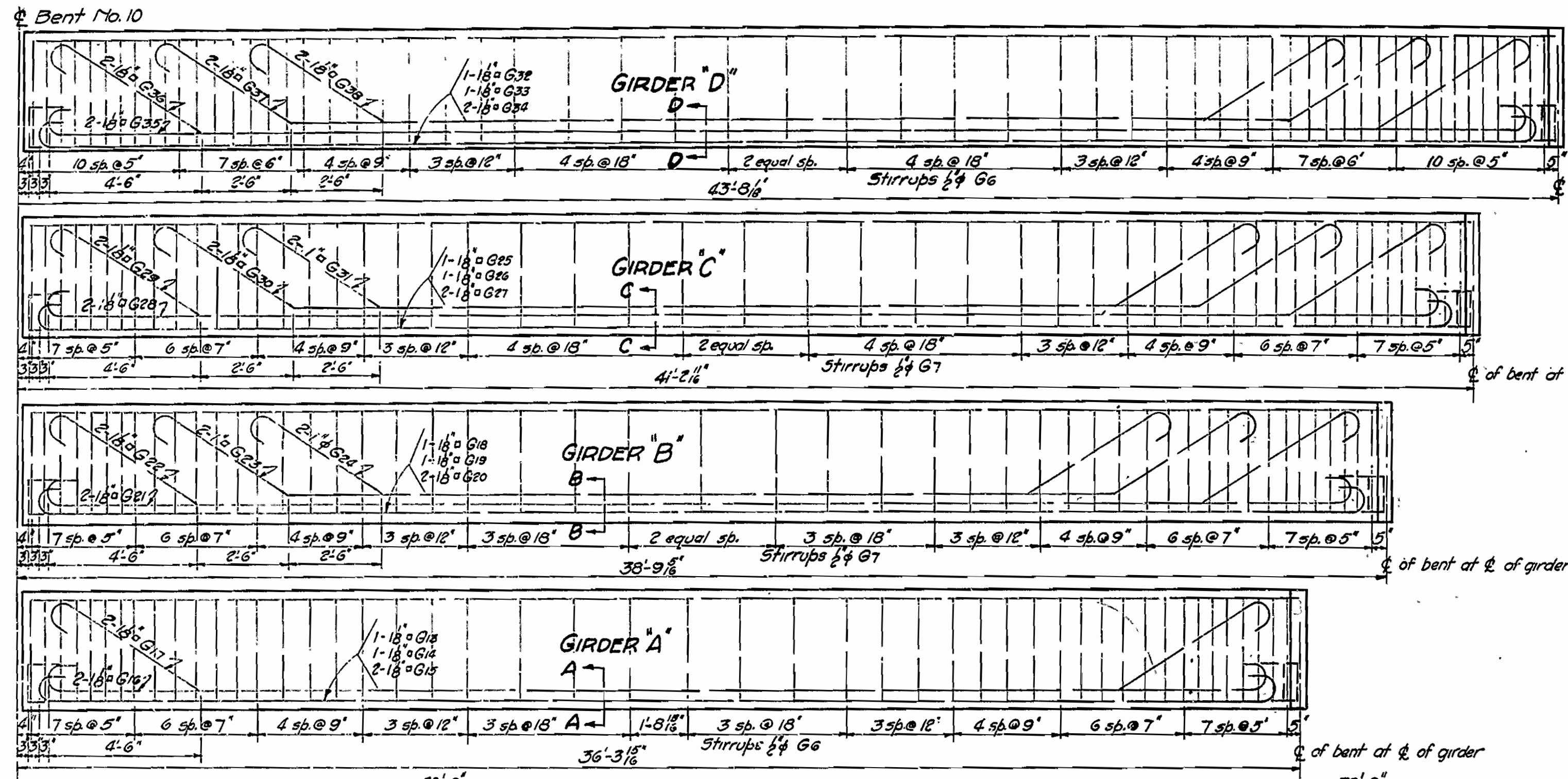
Revised 9-3-36 Bearings and Pile Reinforcing. L.P.C.  
10-26-36 End plates on bearings

DETAILS OF BENTS 1 TO 10 INCLUSIVE AND  
DETAILS OF BEARINGS FOR 50' SPANS  
BRIDGE OVER BAYOU BARTHOLOMEW  
HAMBURG - MONTROSE ROAD  
ASHLEY COUNTY  
ROUTE 82 SEC. 9

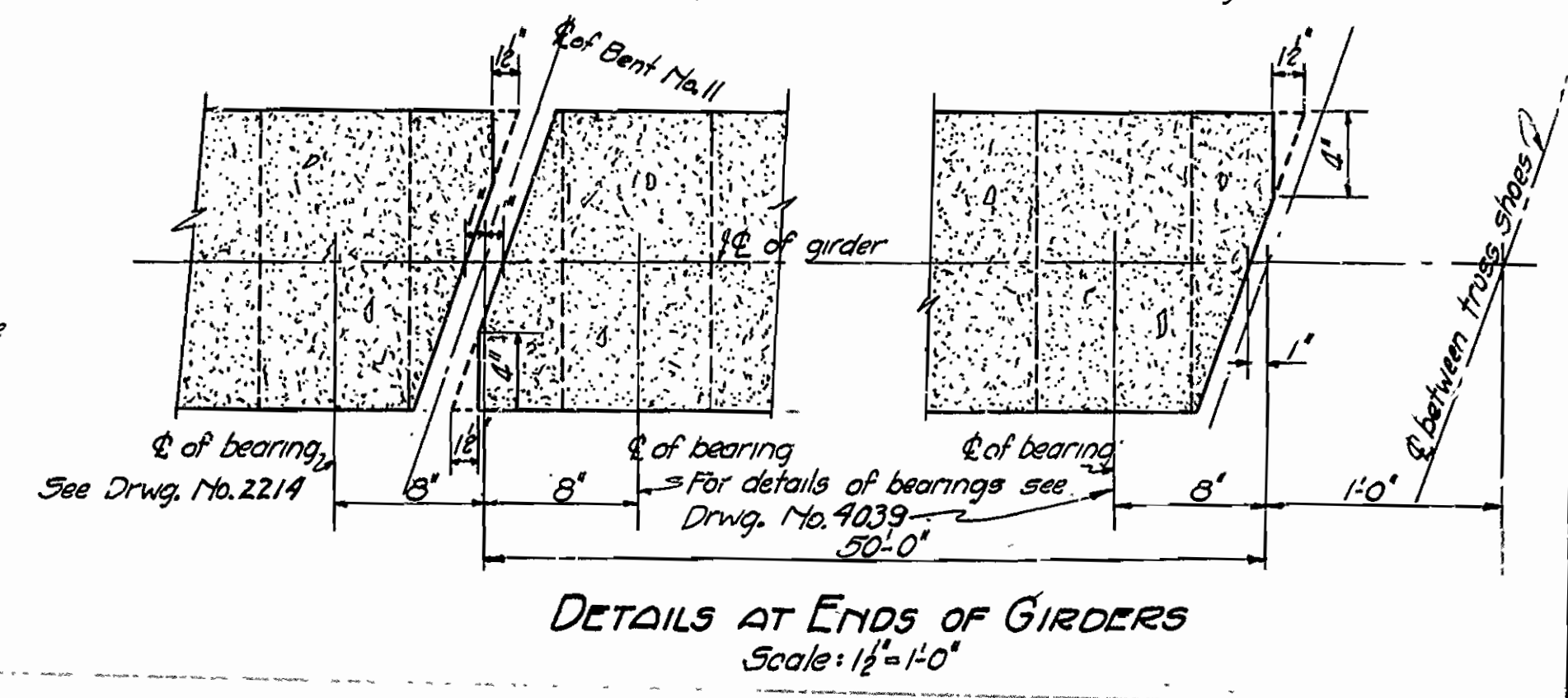
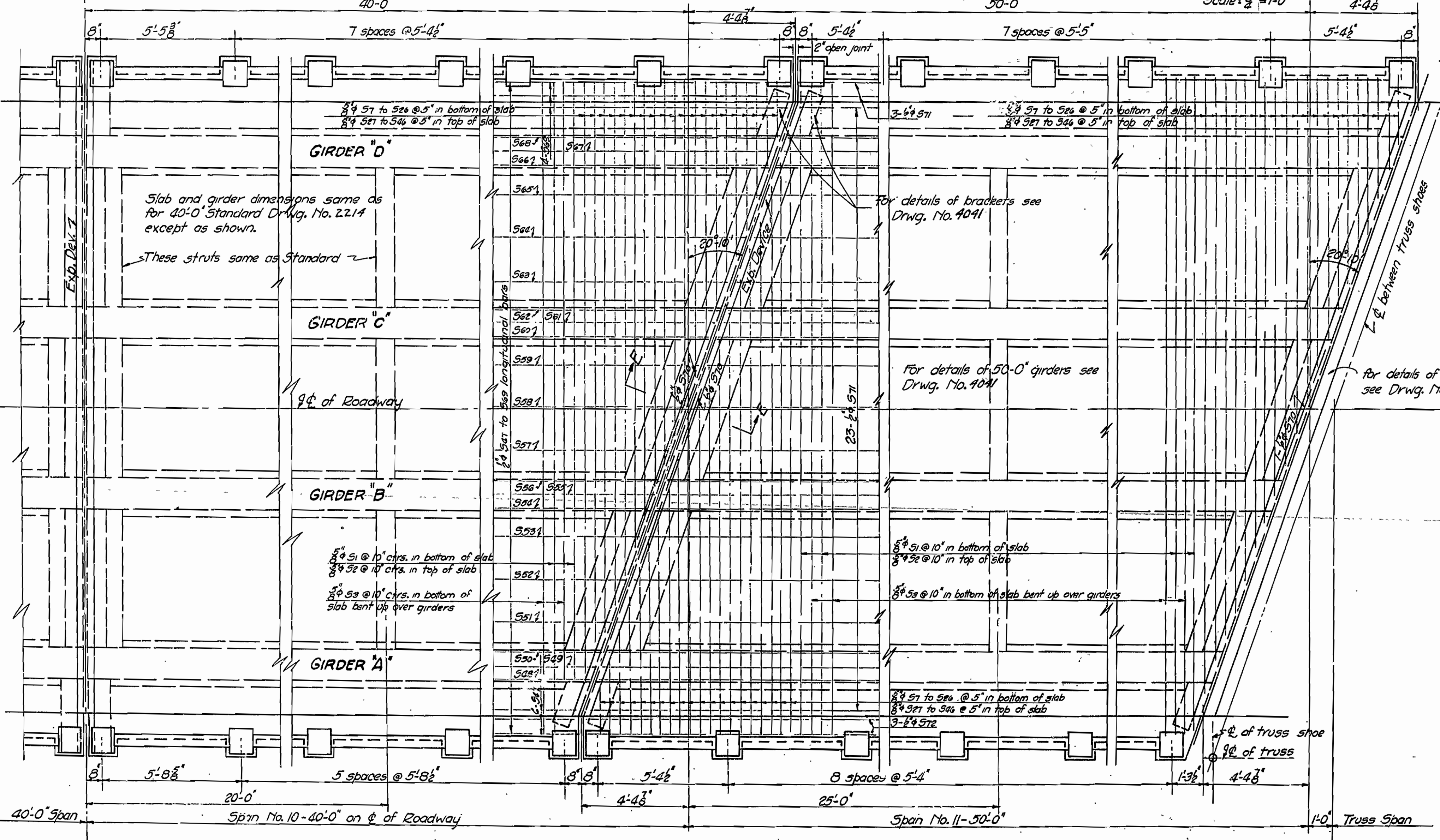
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
Drawn By: L.P.C. Date: 8-1-35  
Traced By: B.V. Date: 8-8-35  
Checked By: Date:  
Scale: As shown  
BRIDGE NO. 1935 DRAWING NO. 4039

W. B. K...  
BRIDGE ENGINEER

Proj. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.	231-0		9	40
State Job No. 2-223					40



Mark	Size	Length	D	E	S	L	Bending Diagram
57 to 526	5/8"	Varies	Varies				
57 to 526	5/8"	Varies	Varies				
G13	18#	39'8"	35'7"				
G14	18#	39'11"	35'11"				
G18	18#	42'1"	38'1"				
G19	18#	42'5"	38'4"				
G25	18#	44'7"	40'8"				
G26	18#	44'10"	40'10"				
G30	18#	47'0"	42'11"				
G33	18#	47'3"	43'3"				
G15	18#	37'4"	35'4"				
G16	18#	36'10"	34'10"				
G20	18#	39'10"	37'10"				
G21	18#	39'4"	37'4"				
G27	18#	42'3"	40'3"				
G28	18#	41'9"	39'9"				
G32	18#	44'8"	42'8"				
G35	18#	44'2"	42'2"				
G17	18#	37'3"	2'3"	4'8"	4'9"	25'9"	
G22	18#	39'9"	2'3"	4'4"	4'9"	28'3"	
G23	17#	33'9"	2'0"	3'11"	4'3"	23'3"	
G24	17#	28'9"	2'0"	3'11"	4'3"	18'3"	
G29	18#	42'3"	2'3"	4'4"	4'9"	30'9"	
G30	18#	36'3"	2'0"	3'11"	4'3"	25'3"	
G21	17#	31'3"	2'0"	3'11"	4'3"	20'9"	
G26	18#	44'9"	2'3"	4'4"	4'9"	33'3"	
G37	18#	39'9"	2'0"	3'11"	4'3"	23'3"	
G38	18#	33'9"	2'0"	3'11"	4'3"	23'3"	



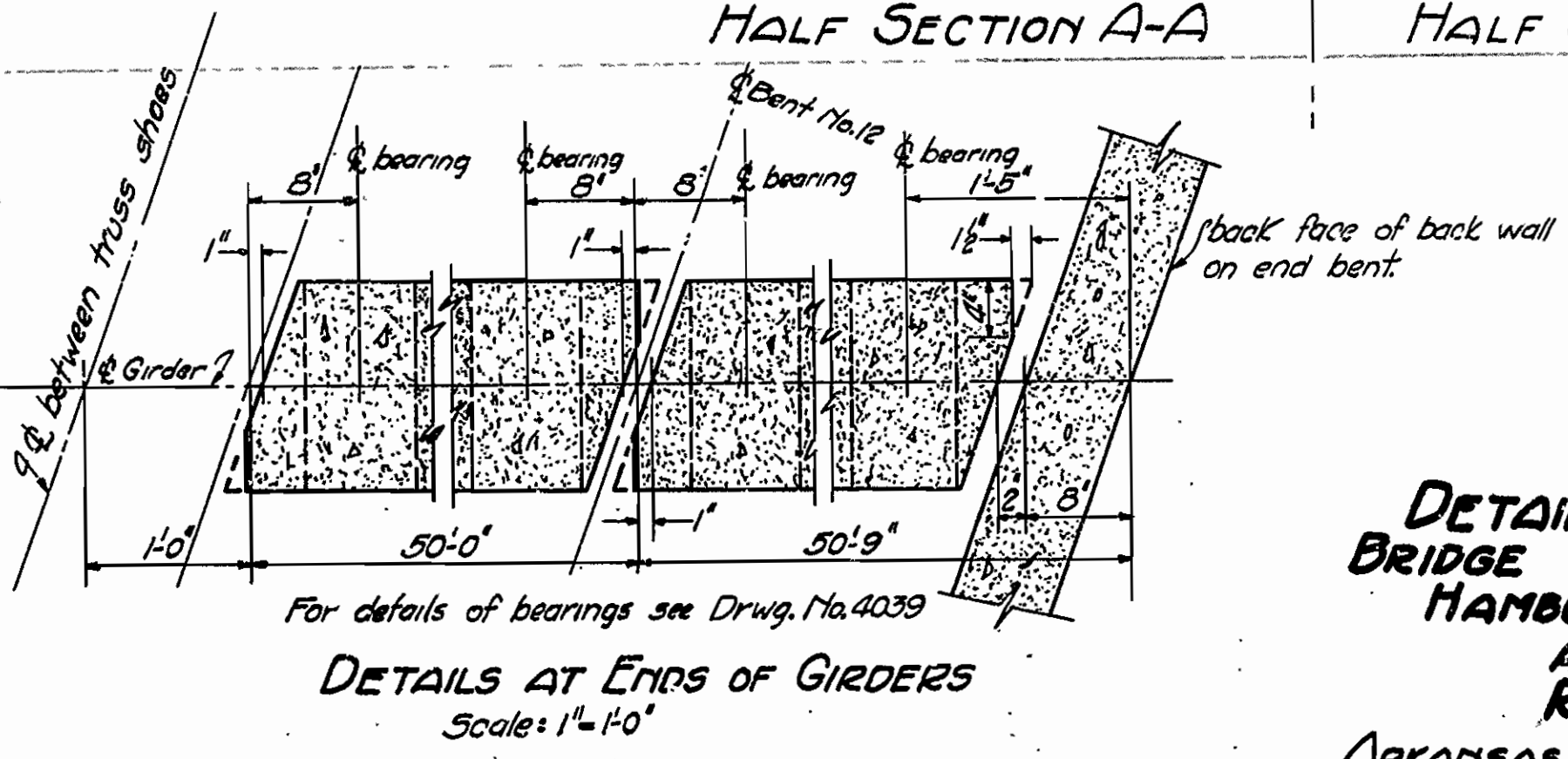
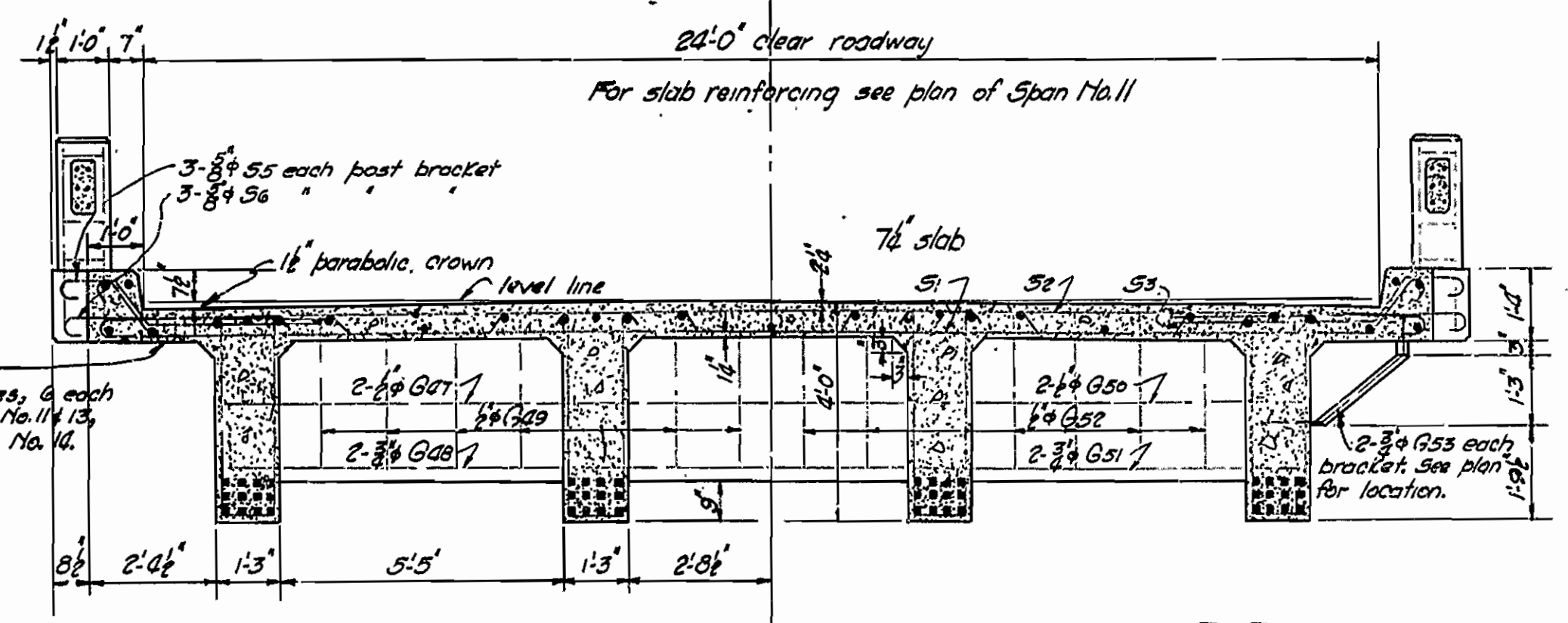
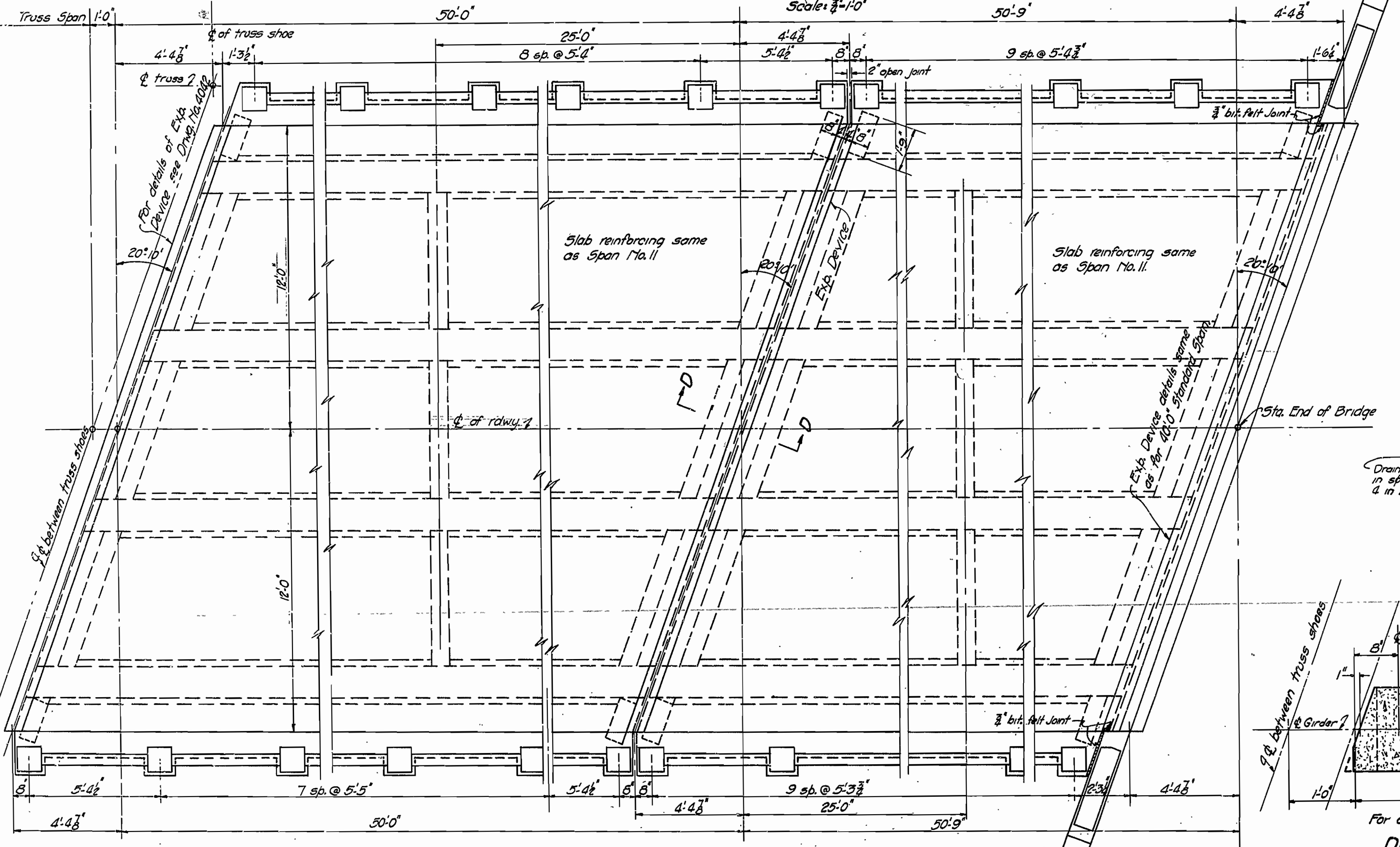
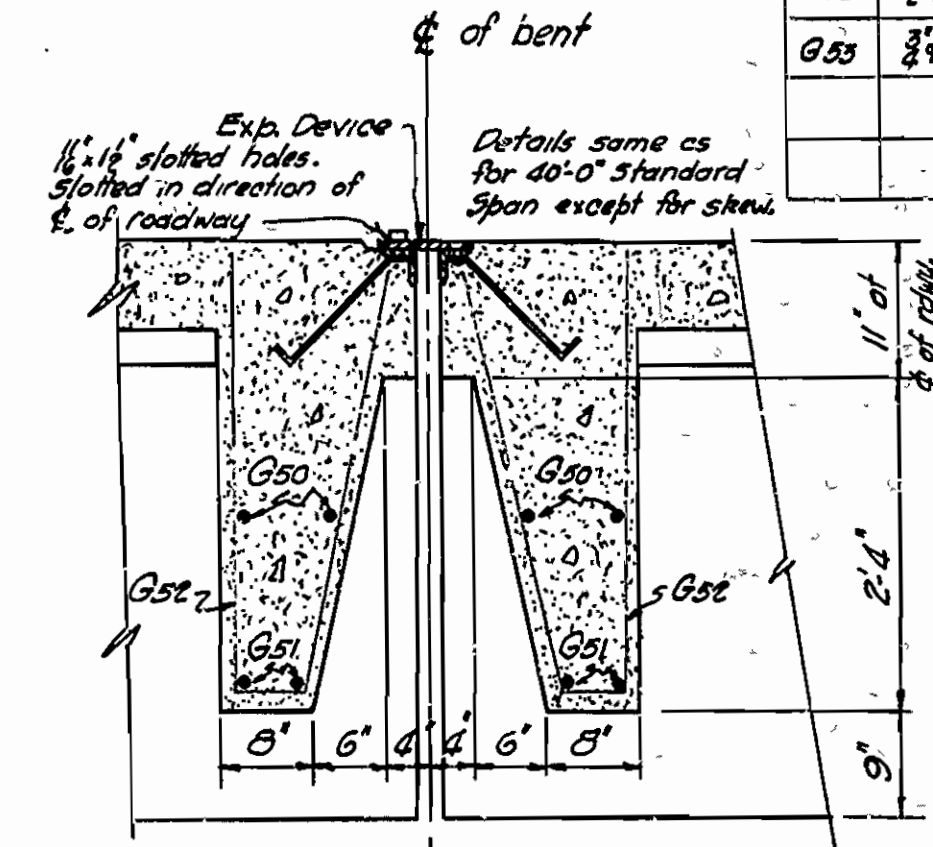
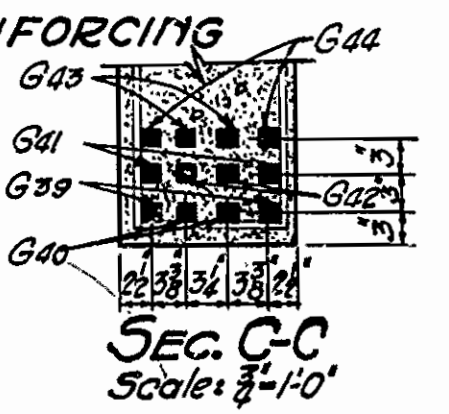
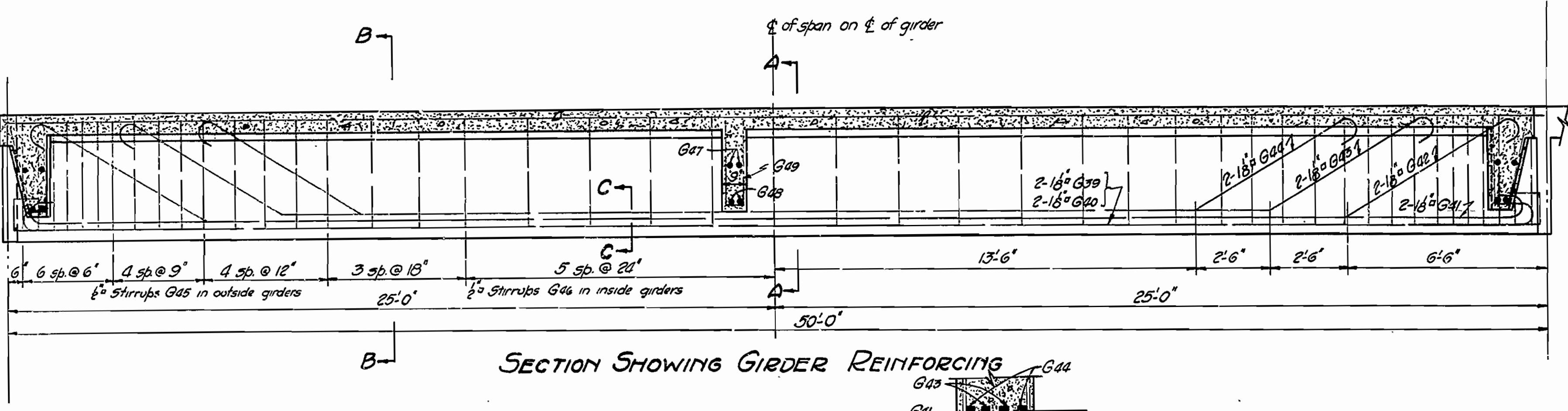
**DETAILS OF SPANS No. 10 & 11**  
 BRIDGE OVER BAYOU BARTHOLOMEW  
 HAMBURG - MONTROSE ROAD  
 ASHLEY COUNTY  
 ROUTE 82 SEC. 9  
 ARKANSAS STATE HIGHWAY COMMISSION  
 LITTLE ROCK - ARK.

Drawn by L.R.G. Dates 1-20-35  
 Traced by J.D. 7-21-35  
 Checked by \_\_\_\_\_  
 Bridge Engineer BRIDGE No. 1935 DRWG. No. 40

**PLAN OF SPANS No. 10 & 11**  
 For general notes and details see Drwg. No. 2214

Proj. No.	State	FED. AID	FISCAL	SHEET	TOTAL	
Dist. No.		Plan. No.	Year	No.	Sheets	
6	ARK.	231-D		10	40	
State Job No. 2-223					10	40

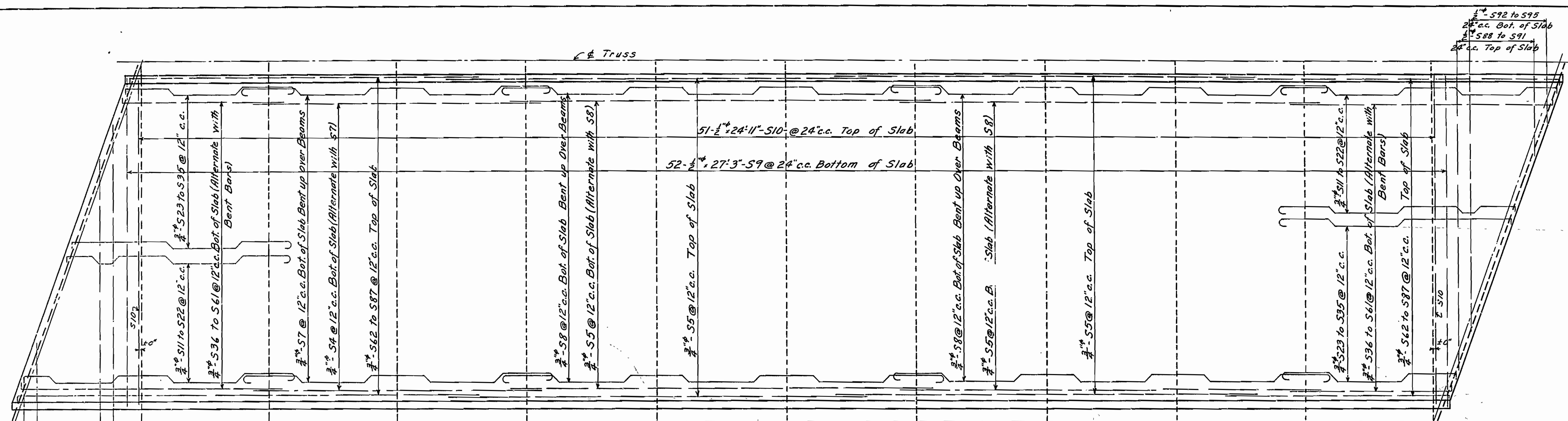
Mark	Size	Length	D	E	S	L	Bending Diagram
G39	1 1/2"	53'5"					
G40	1 1/2"	51'0"	49'0"				
G41	1 1/2"	50'6"	48'6"				
G42	1 1/2"	51'6"	3'0"	5'7"	6'3"	7'0"	
G43	1 1/2"	45'6"	2'9"	5'2"	5'9"	32'0"	
G44	1 1/2"	40'6"	2'9"	5'2"	5'9"	27'0"	
G45	1 1/2"	8'9 1/2"					
G46	1 1/2"	8'10 1/2"					
G49	1 1/2"	6'3"					
G52	1 1/2"	6'3"					
G53	1 1/2"	7'9"					



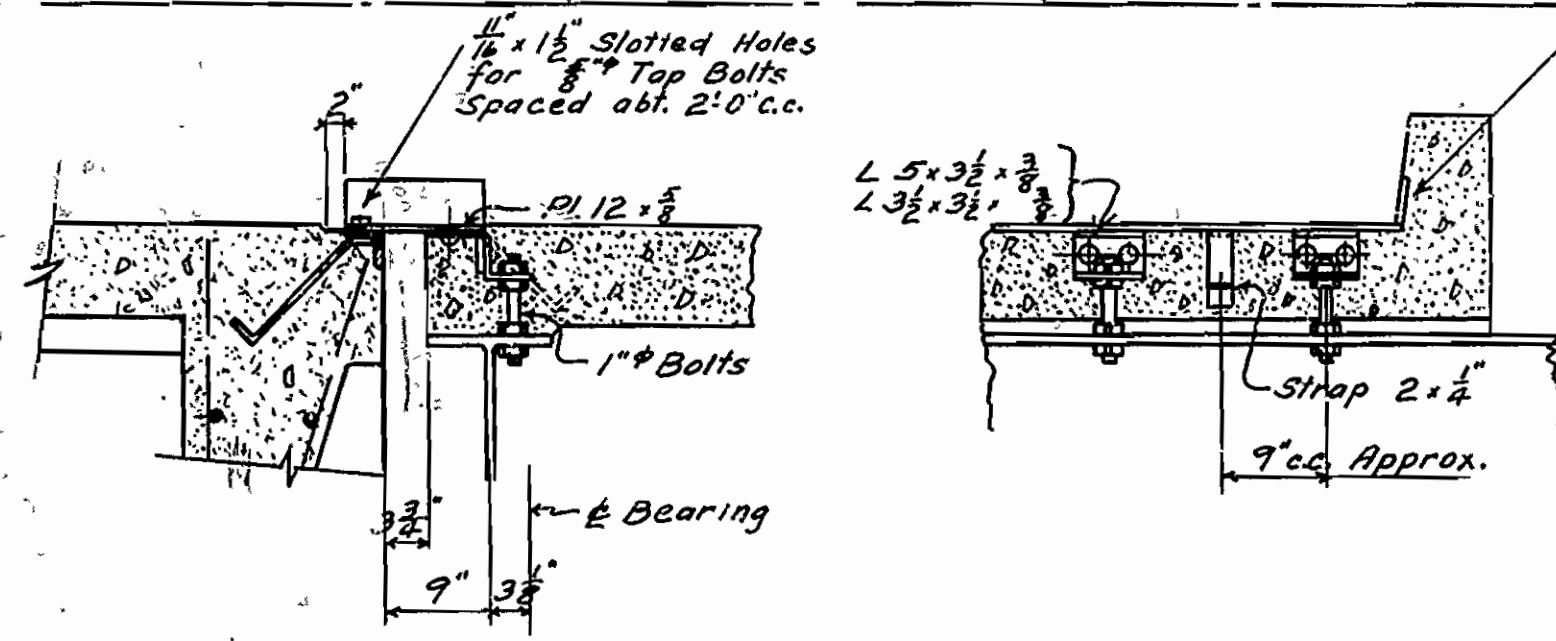
**DETAILS OF SPANS No. 13 & 14**  
**BRIDGE OVER BAYOU BARTHOLOMEW**  
**HAMBURG - MONTROSE ROAD**  
**ASHLEY COUNTY**  
**ROUTE 82 SEC. 9**  
**ARKANSAS STATE HIGHWAY COMMISSION**  
**LITTLE ROCK - ARK.**  
 Drawn by L.R.G. Date: 7-24-35  
 Traced by S.L.D. Date: 8-1-35. Scale: 3/4" = 1'-0" and as noted.  
 Checked by *[Signature]*  
**BRIDGE No. 1935** **DRWG. No. 4041**

*[Signature]*  
 Bridge Engineer



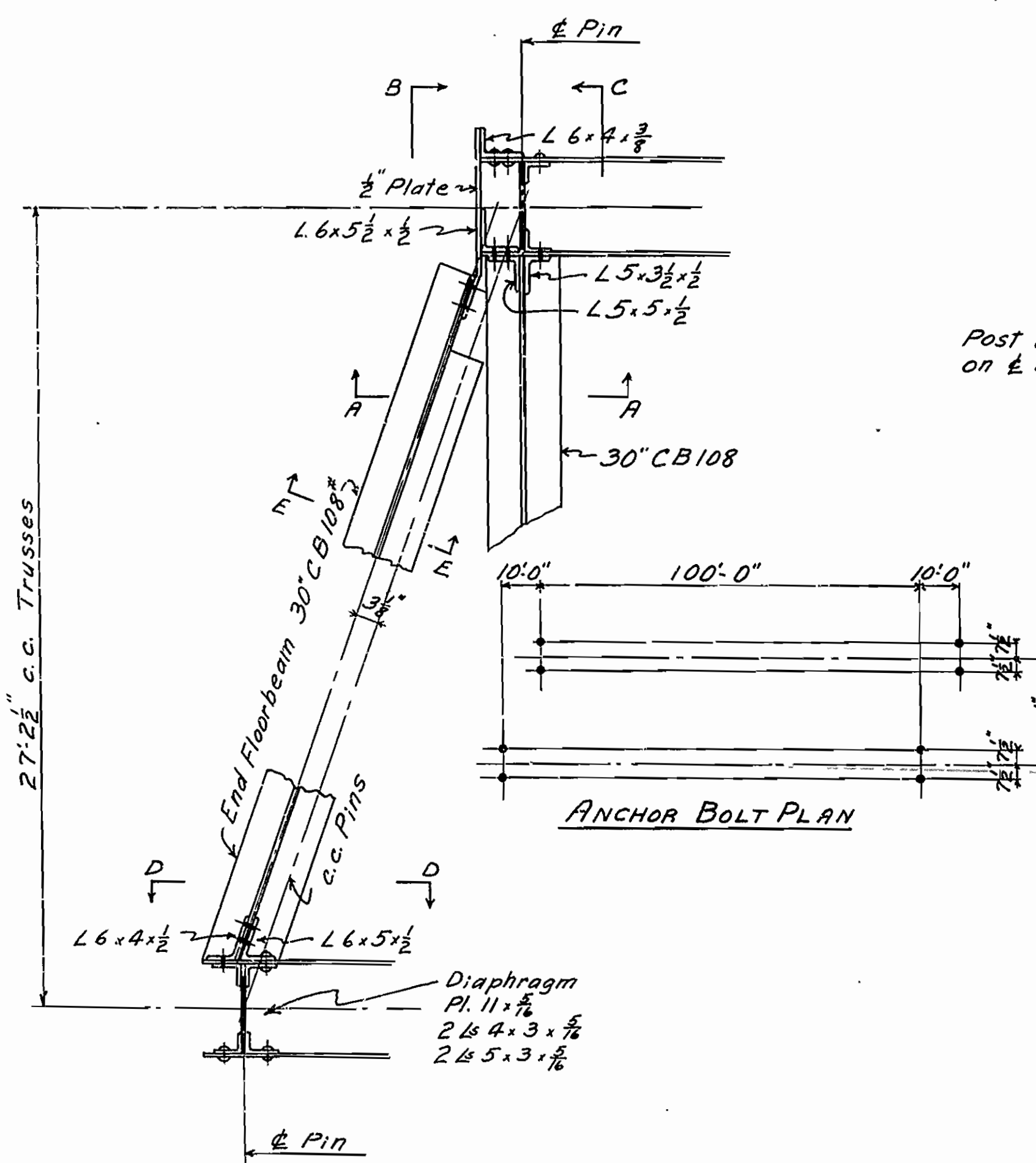


PLAN SLAB REINFORCING  
Scale: 1/4" = 1 Ft.

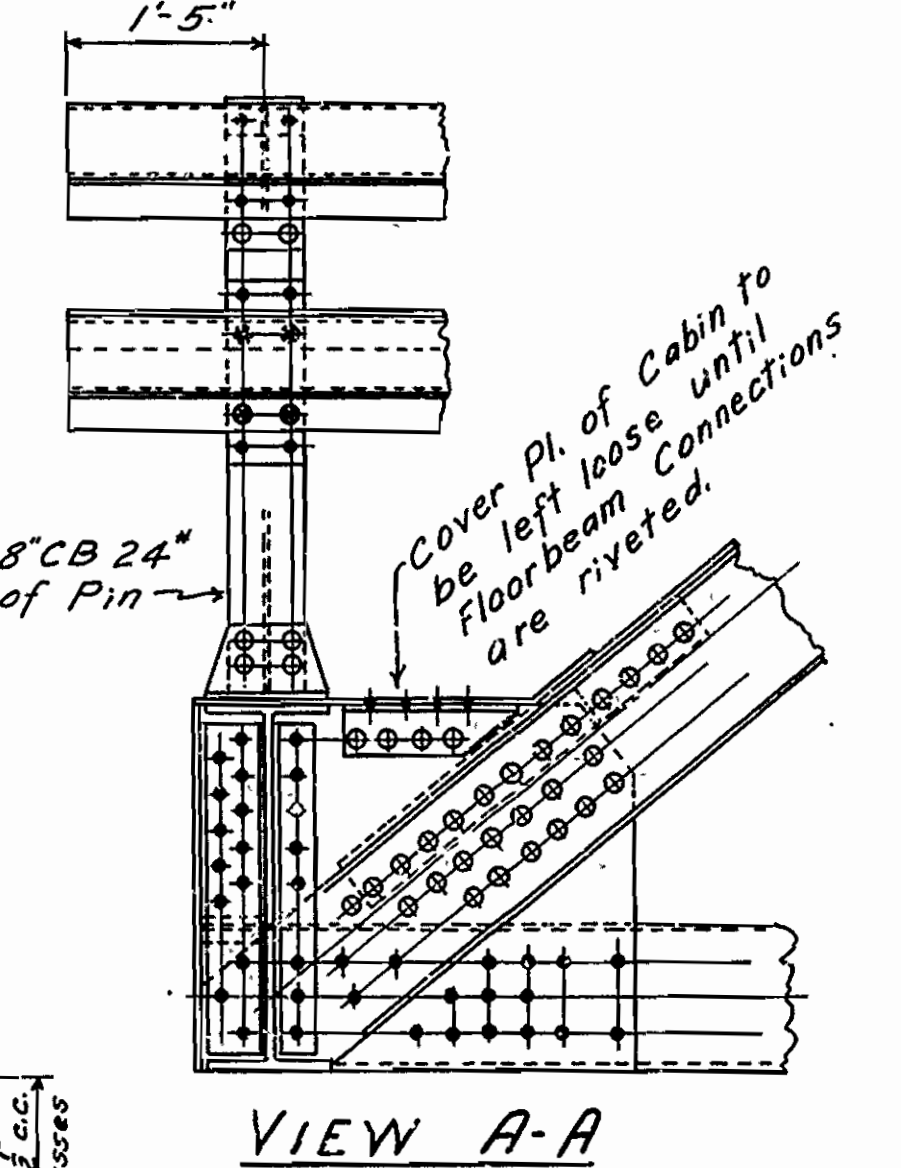


SECTION E-E  
DETAILS OF EXPANSION JOINT  
(Both Ends of Truss Alike)

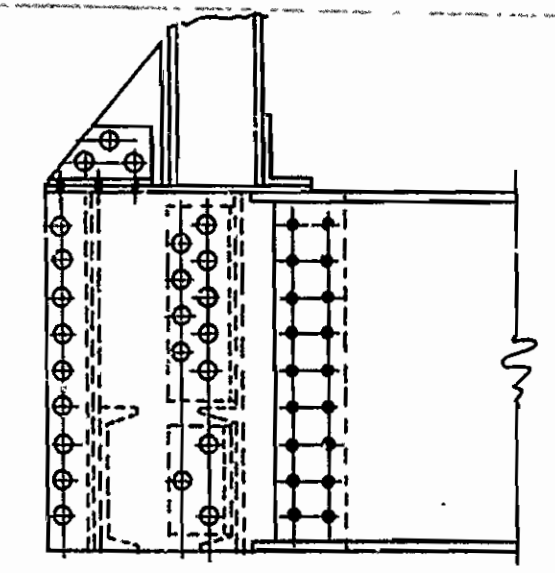
Mark	Size	Length	A	Bending
S11 to S22	3/4"	23'-10" to 19'-9"	5'-0" to 11'-2"	2'-0" 5/8" A 5/8" 4'-1" 5/8" 5'-0" 5/8" 4'-1"
S23 to S35	3/4"	19'-0" to 14'-7 1/2"	7'-7" to 3'-2"	A 5/8" 5'-0" 5/8" 4'-1"
S36 to S61	3/4"	21'-10" to 12'-8"	21'-5" to 12'-3"	A
S62 to S87	3/4"	36'-10" to 27'-8"	36'-5" to 27'-3"	
S88 to S91	1/2"	22'-3" to 5'-10"		Straight Rods
S92 to S95	1/2"	20'-8" to 4'-3 1/2"	19'-6" to 3'-1 1/2"	A



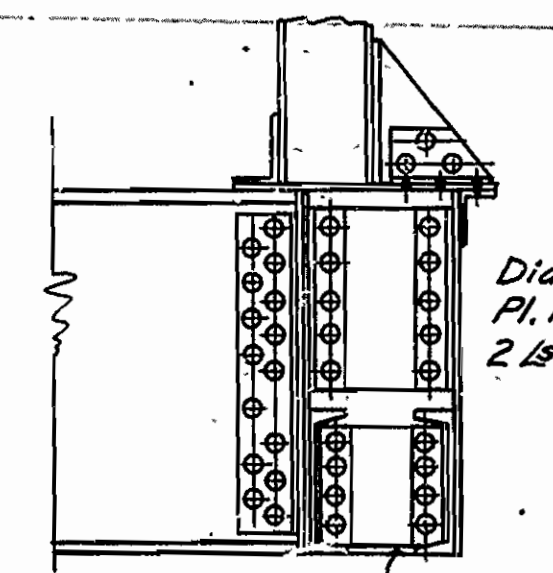
PART PLAN SHOWING END DETAILS



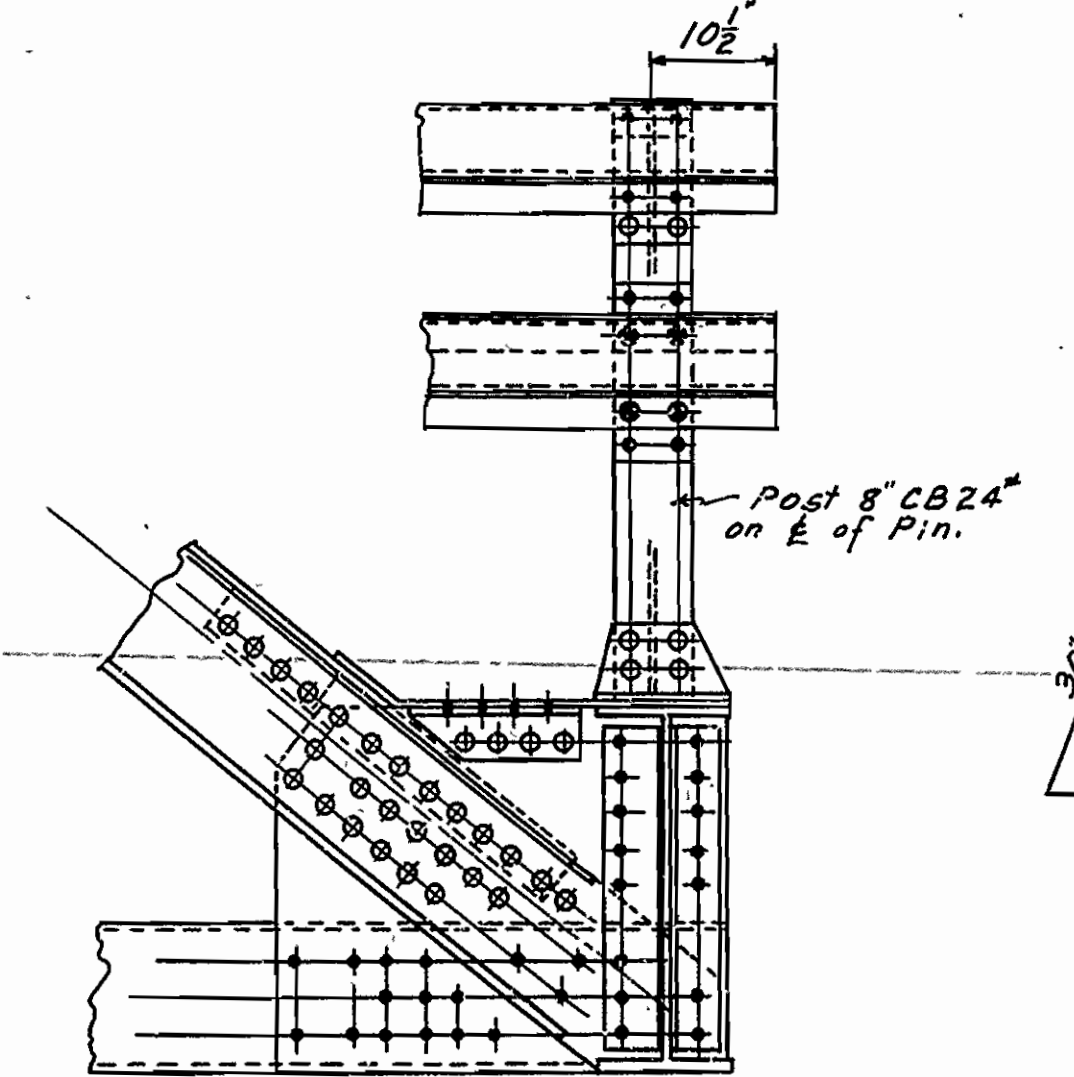
VIEW A-A



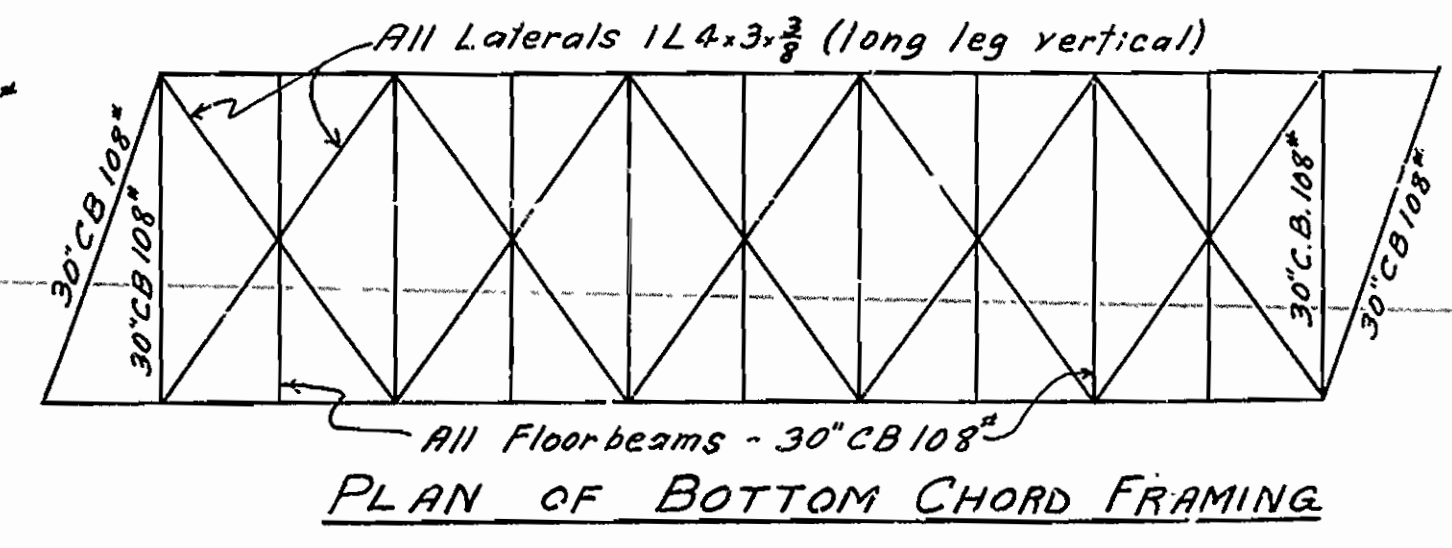
VIEW B



VIEW C



VIEW D-D



PLAN OF BOTTOM CHORD FRAMING

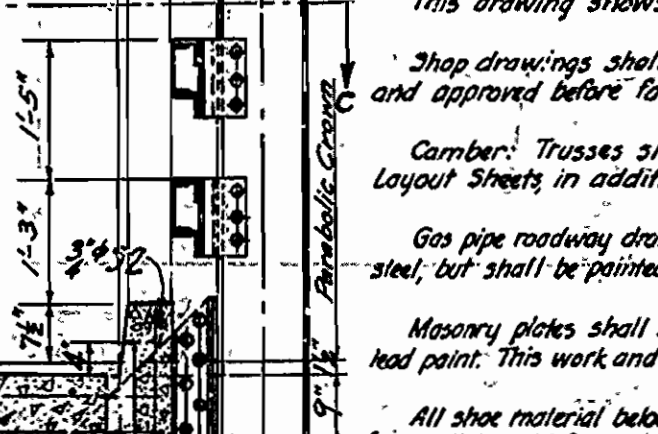
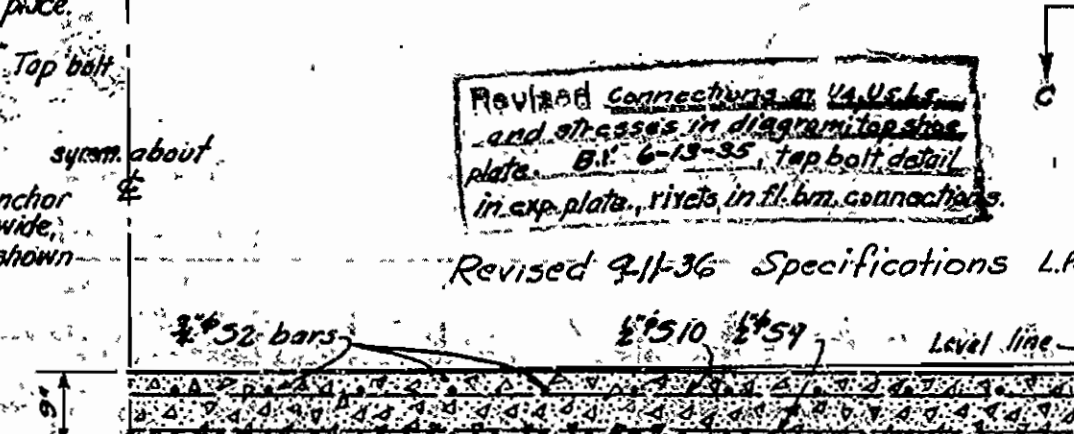
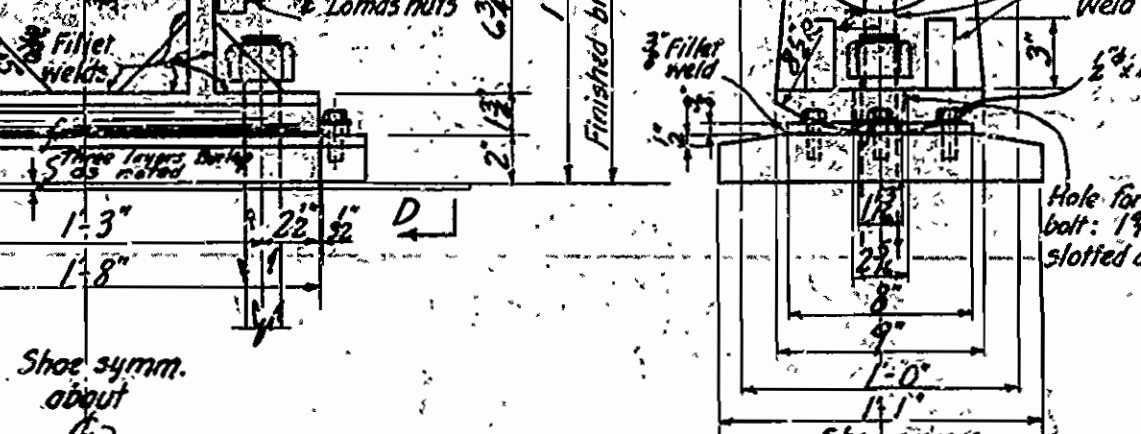
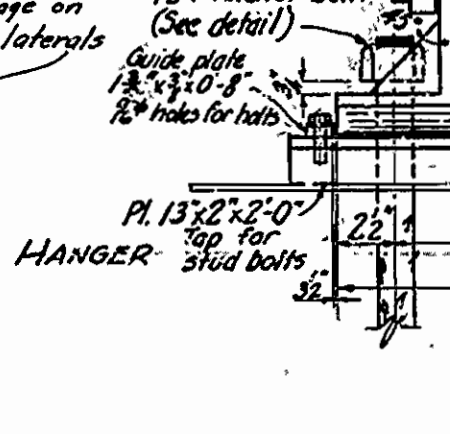
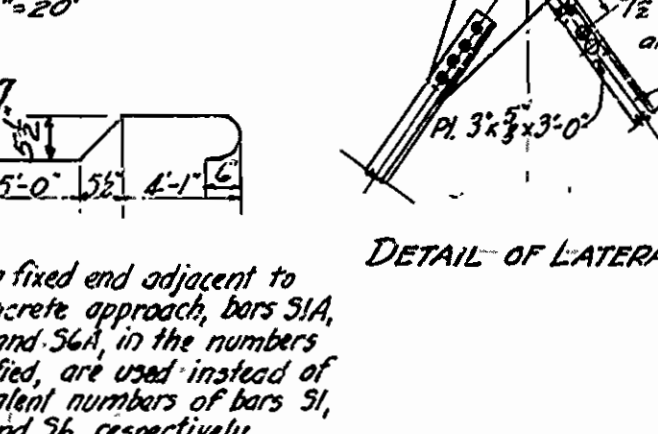
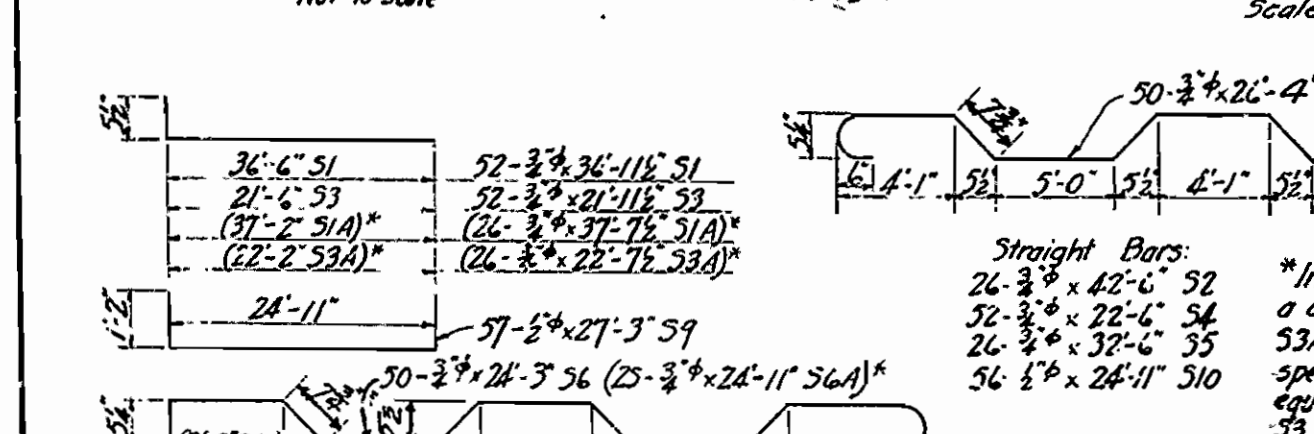
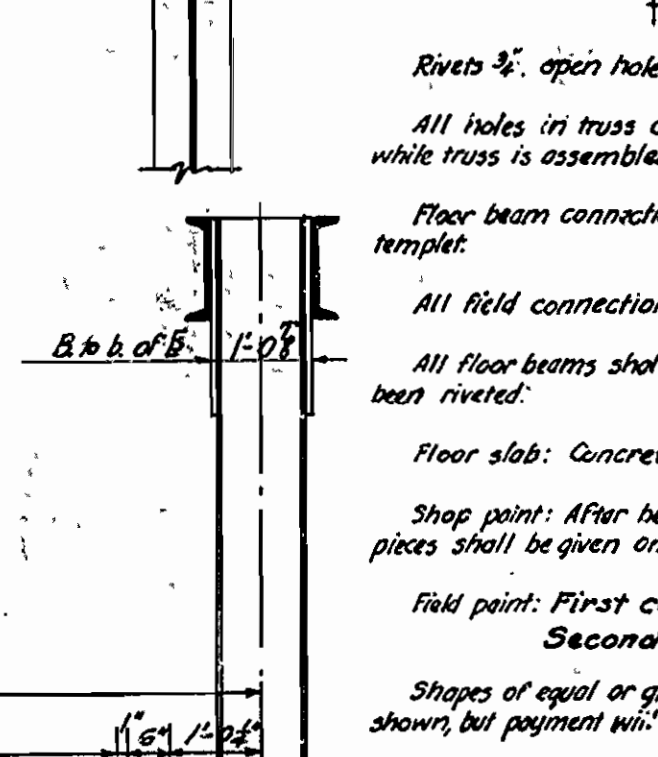
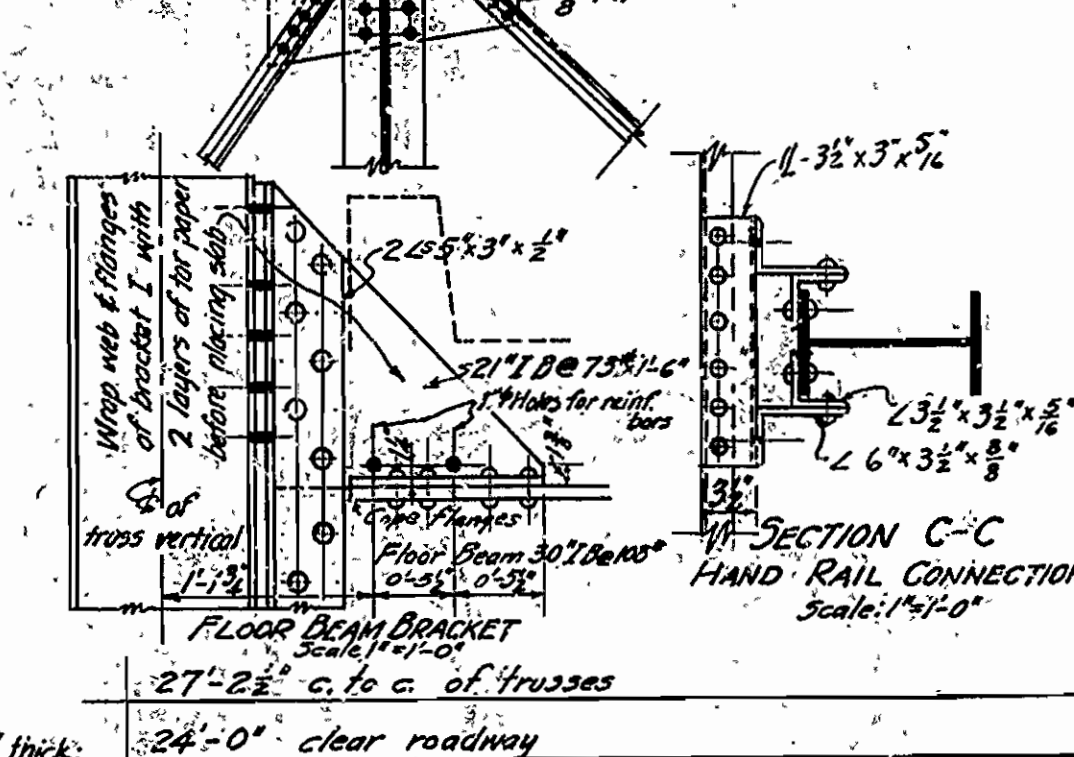
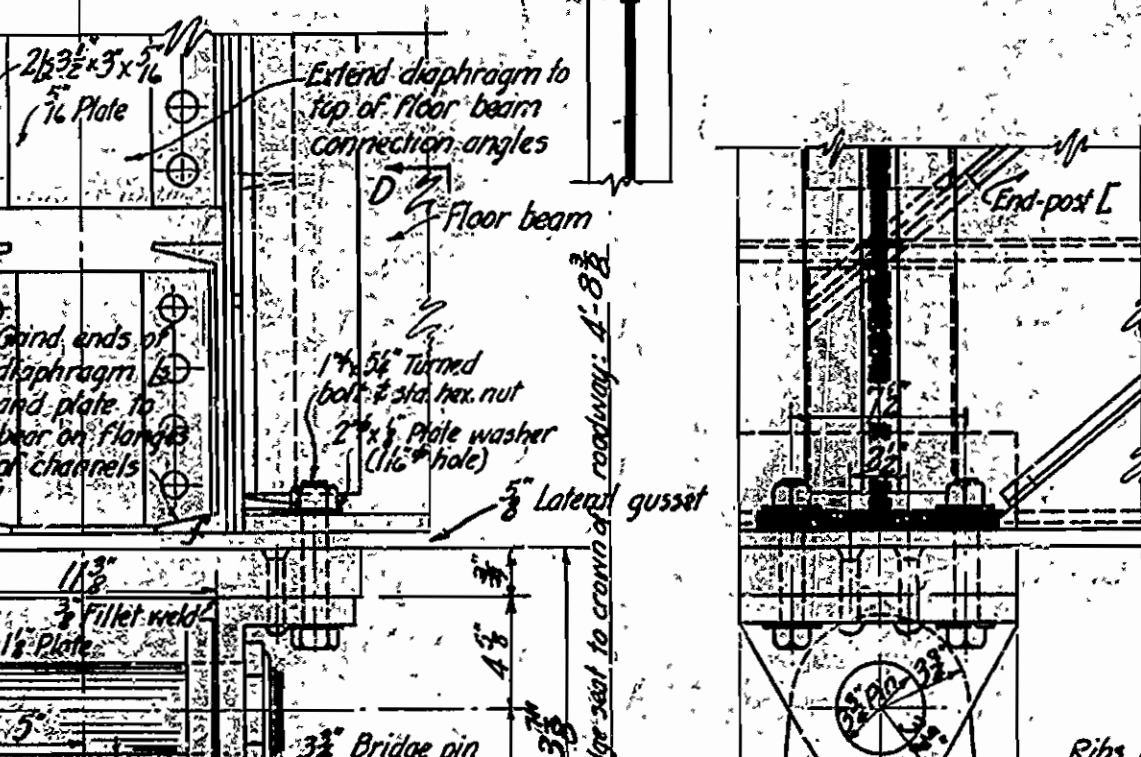
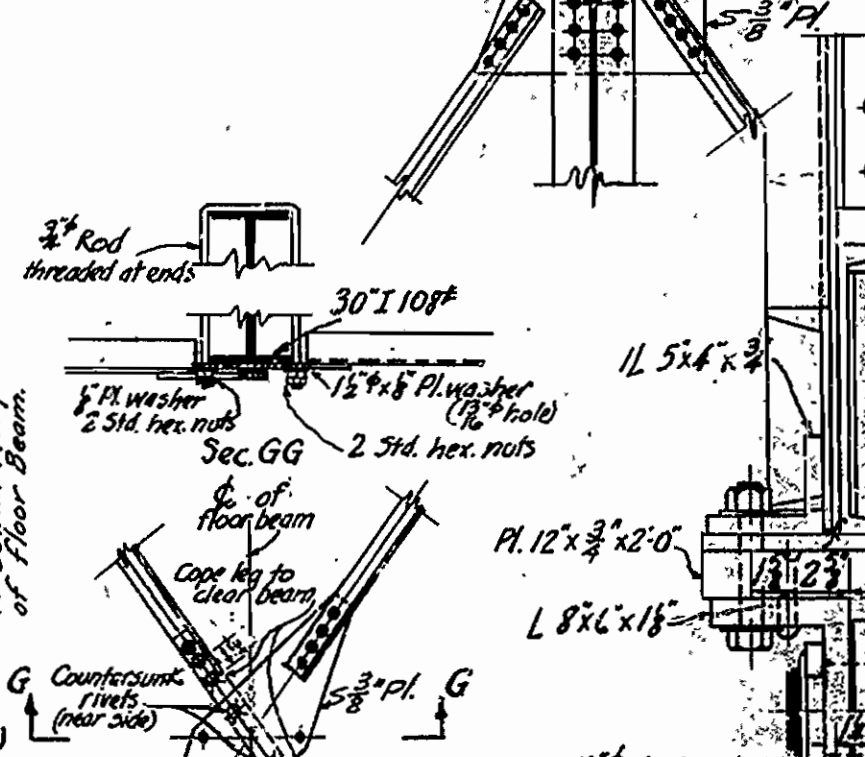
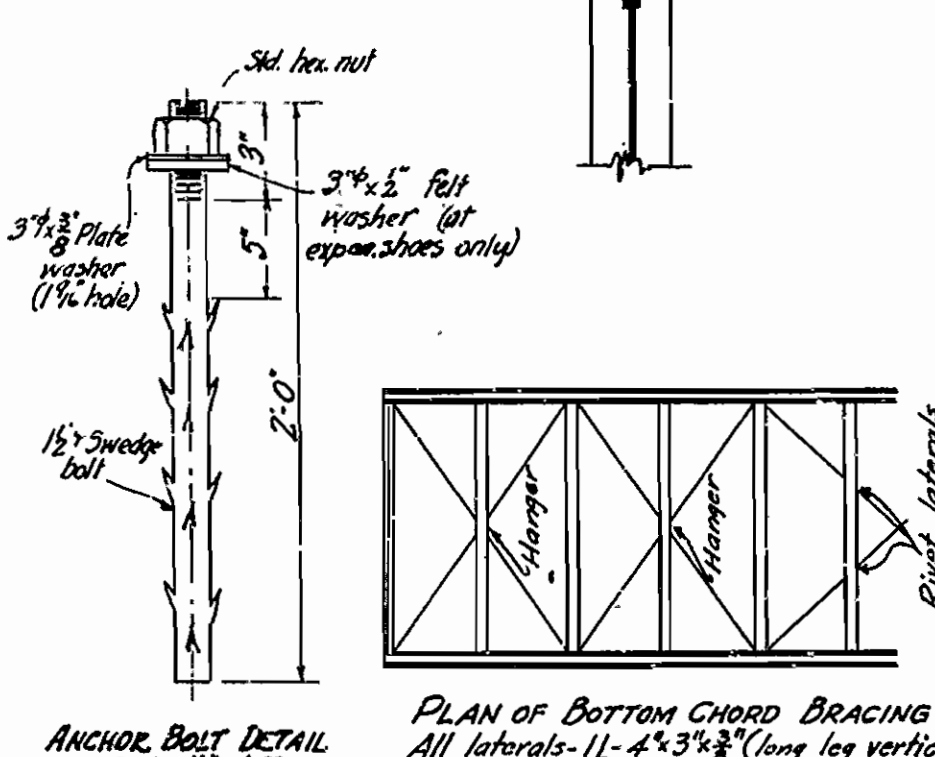
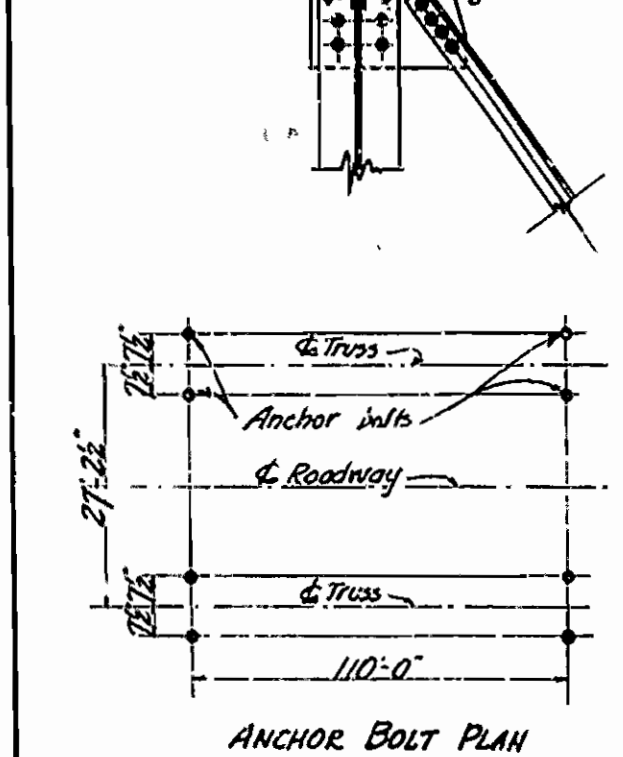
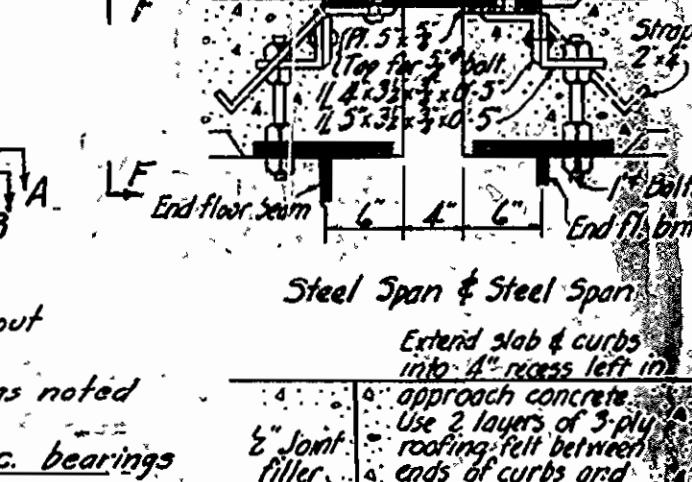
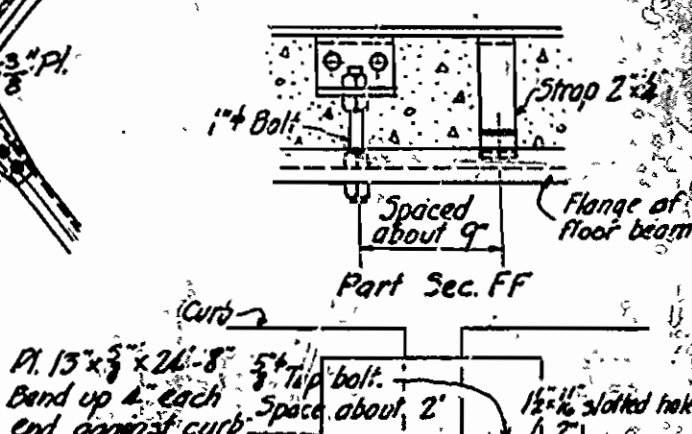
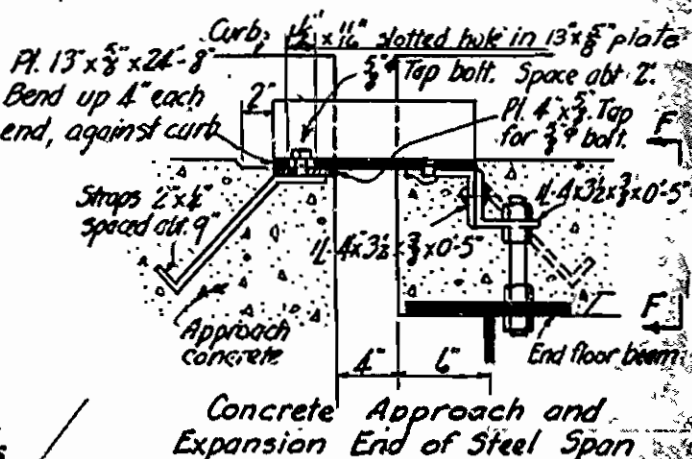
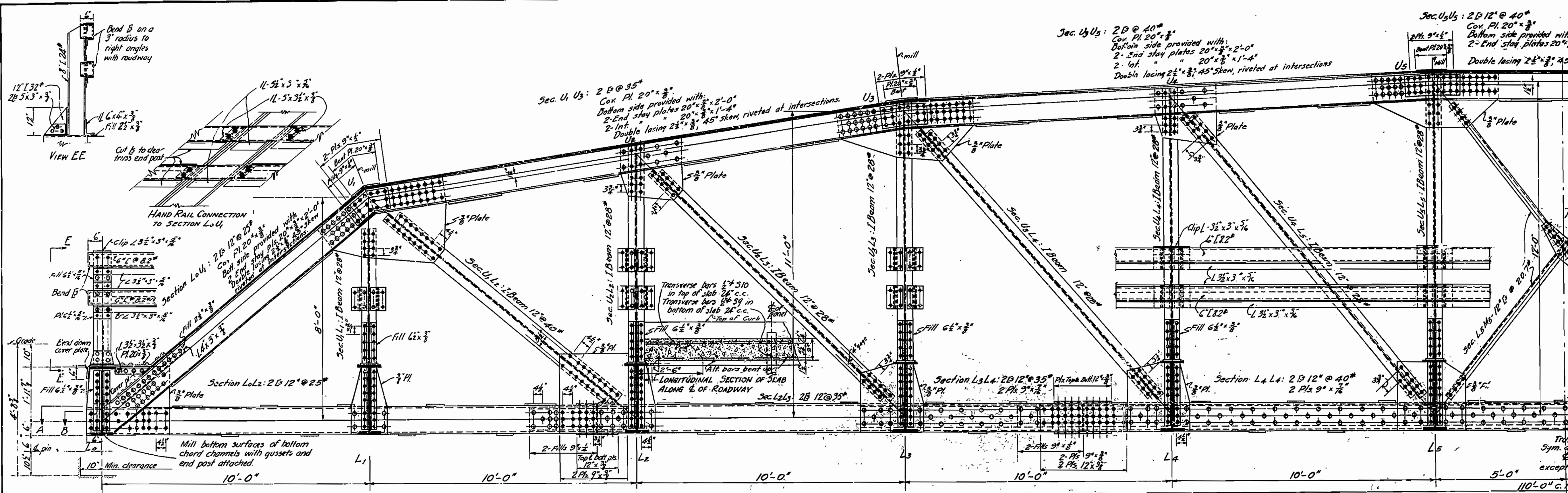
SPECIAL DETAILS  
110'-0" LOW TRUSS SPAN  
24'-0" CLEAR ROADWAY  
ONE PANEL SKEW  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK-ARK.

N.B. Lawrence  
Bridge Engineer

Drawn by B.G. Date 6-29-35  
Traced by B.G. Date 7-2-35  
Checked by Date  
BRIDGE No. 1935

Scale: 3/8" = 1'-0", Unless Noted  
DRWG. No. 4042

FED. ROAD DIST. NO.	STATE	U.S.P.K. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.			11	24



DESIGN STRESSES

Reaction	D-1370	D-2089	D-2390	D-2659	D-2710
D-1203	L-60	L-92	L-1174	L-1174	L-1203
L-304	T-11	T-3174	T-201	T-224	T-224
L-101	T-209	T-3649	T-3649	T-3649	T-3649

UNIT STRESSES

Concrete	750 lb/sq. in.
Reinforcing steel	16,000
Structural steel	16,000

FLOOR BEAM DATA

Dead load moment	= 118,000 ft.-lb.
Live load moment	= 220,000
Impact @ 30%	= 64,000
Total moment	= 402,000
Required section modulus	= 303 in. <sup>3</sup>
Sec. modulus of 30 I 108*	= 299.2

GENERAL NOTES

- Rivets 3/4" open holes 1/2"; except in flanges of 6" x 5" rivets, 1/4" holes.
- All holes in truss connections to be sub-punched to 1/2" and reamed to size while truss is assembled. This applies to field as well as shop rivets.
- Floor beam connections shall be sub-punched to 1/2" and reamed to a metal template.
- All field connections shall be riveted.
- All floor beams shall be milled to exact length after framing angles have been riveted.
- Floor slab: Concrete to be Class S. One inch has been added for wear.
- Shop paint: After being completely assembled and shop work is finished, all pieces shall be given one coat of red lead and one coat of zinc chromate.
- Field paint: First coat - white lead tinted with lamp black. Second coat - Aluminum.
- Shapes of equal or greater strength may be substituted for structural shapes shown, but payment will be made in accordance with sizes shown on this plan.
- This drawing shows general features of design only.
- Shop drawings shall be made in compliance with specifications, submitted and approved before fabrication is begun.
- Camber: Trusses shall be cambered to fit the vertical curve shown on the layout sheets in addition to that required for dead load only.
- Gas pipe roadway drains shall be paid for at the unit price bid for reinforcing steel, but shall be painted the same as is specified for structural steel.
- Masonry plates shall be finally seated on three layers of burlap saturated with red lead paint. This work and material shall be included in unit price bid for Machine Bedding Devices.
- All shoe material below lateral plates, including anchor bolts, is considered, and will be paid for at the unit price bid for "Machine Bedding Devices", unless otherwise provided for.
- Specifications: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction adopted June 30, 1936, and Special Provision for Design Specifications for Bridges dated 9-11-36.

QUANTITIES

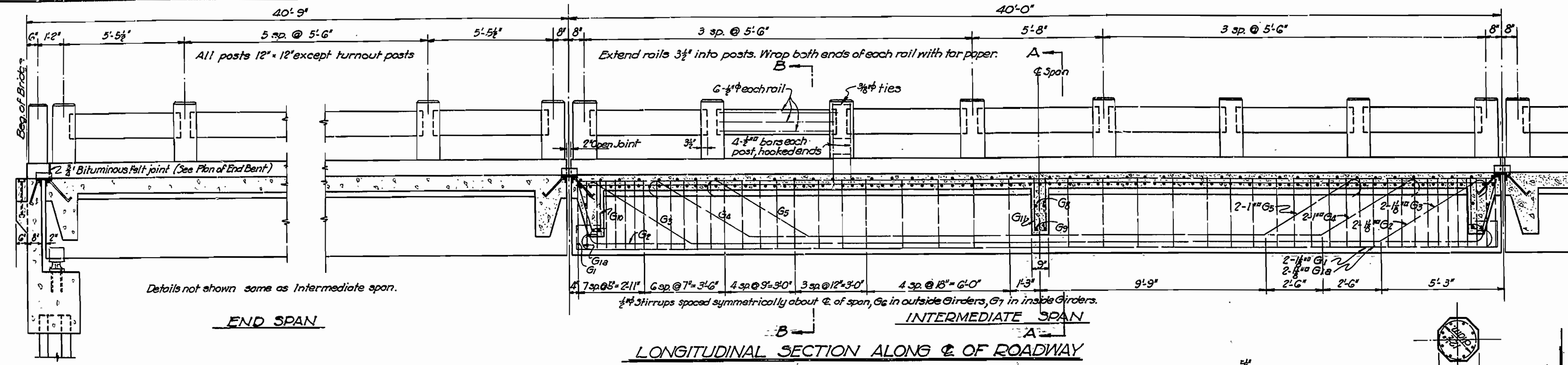
Item	Quantity	Unit
Class S concrete	11,211 cu. yd.	cu. yd.
Reinforcing steel	17,260 lb.	lb.
Structural steel	123,360 lb.	lb.
Machine bedding devices	2,280 -lb.	-lb.

110'-0" LOW TRUSS SPAN  
24'-0" CLEAR ROADWAY  
ARKANSAS HIGHWAY COMMISSION  
LITTLE ROCK, ARKANSAS

Drawn By: R.E. Hays Date: 4-30-34  
Traced By: J.P. Hays Date: 5-18-34  
Checked By: Date: \_\_\_\_\_

Scale: 1/4" = 1'-0" except as noted

BRIDGE No. \_\_\_\_\_ DRAWING No. 2451



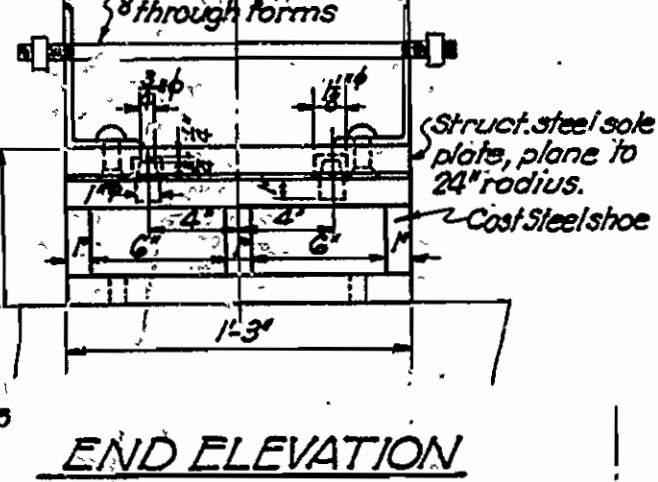
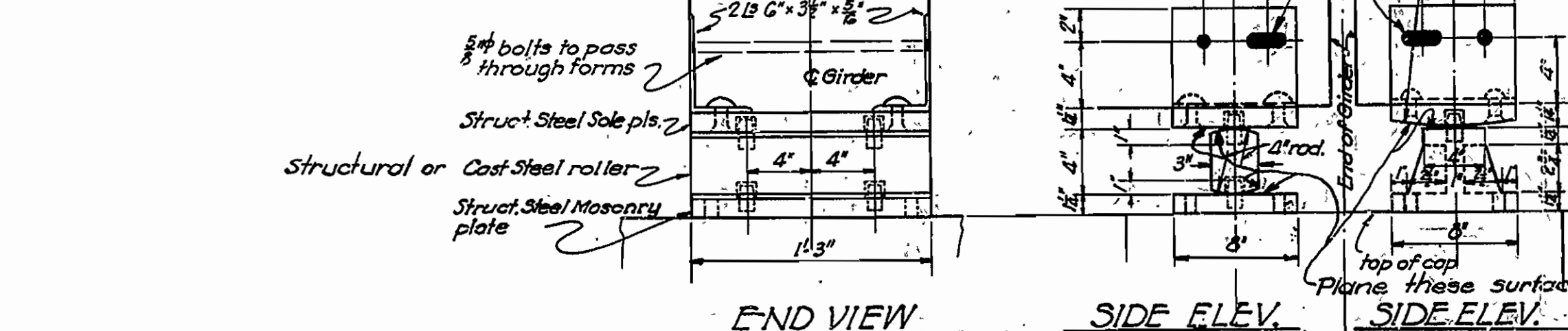
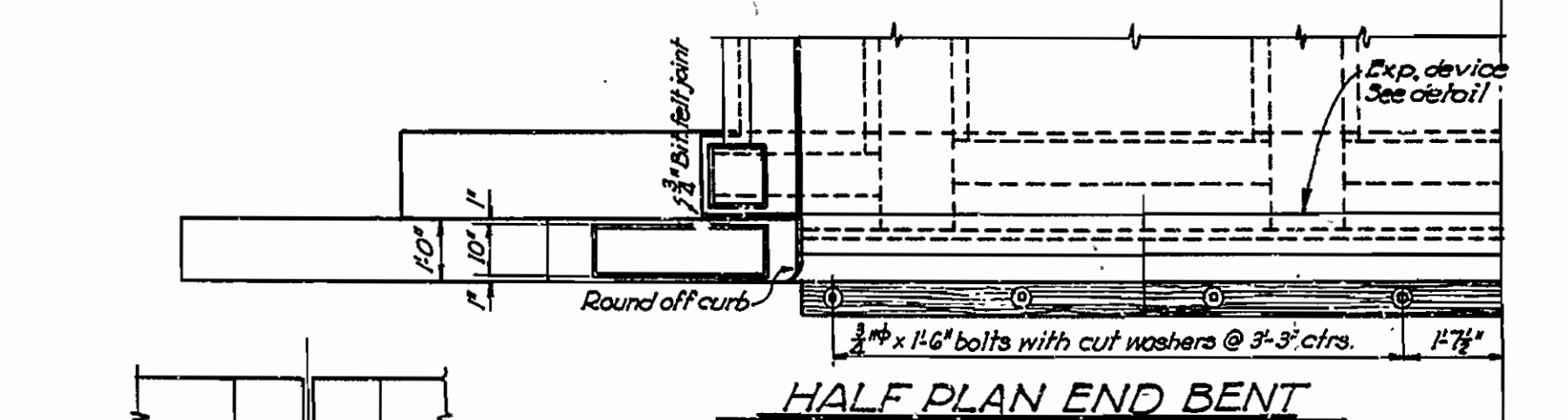
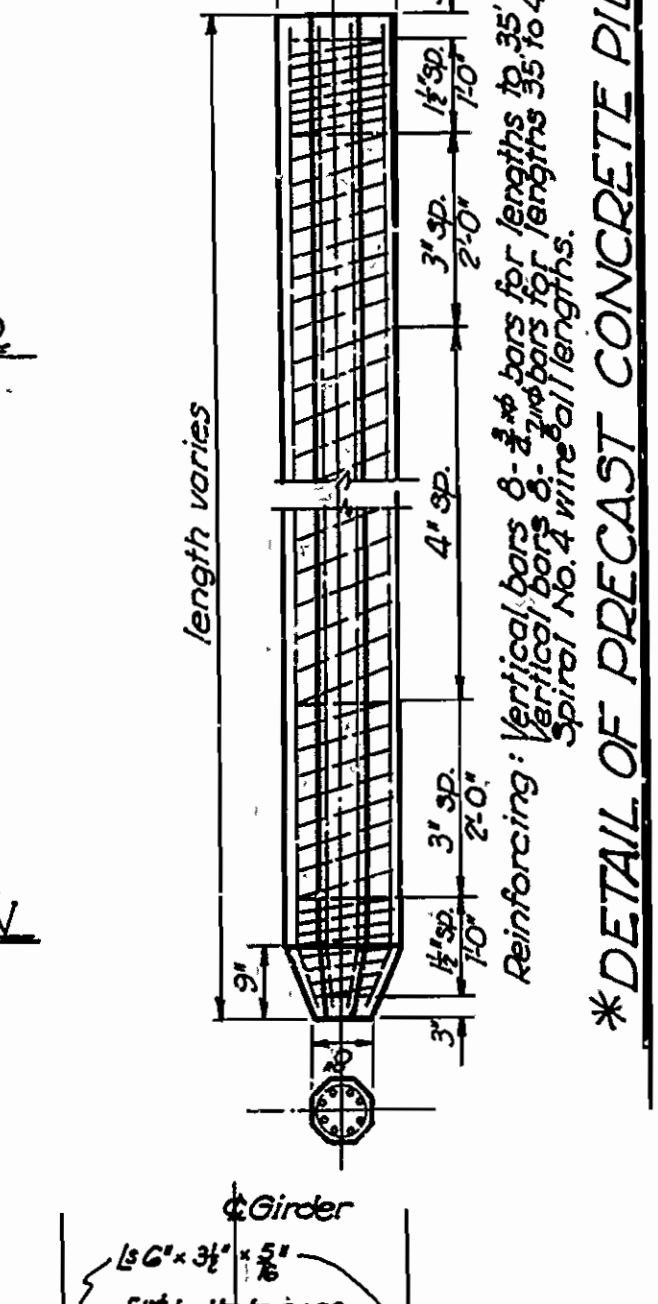
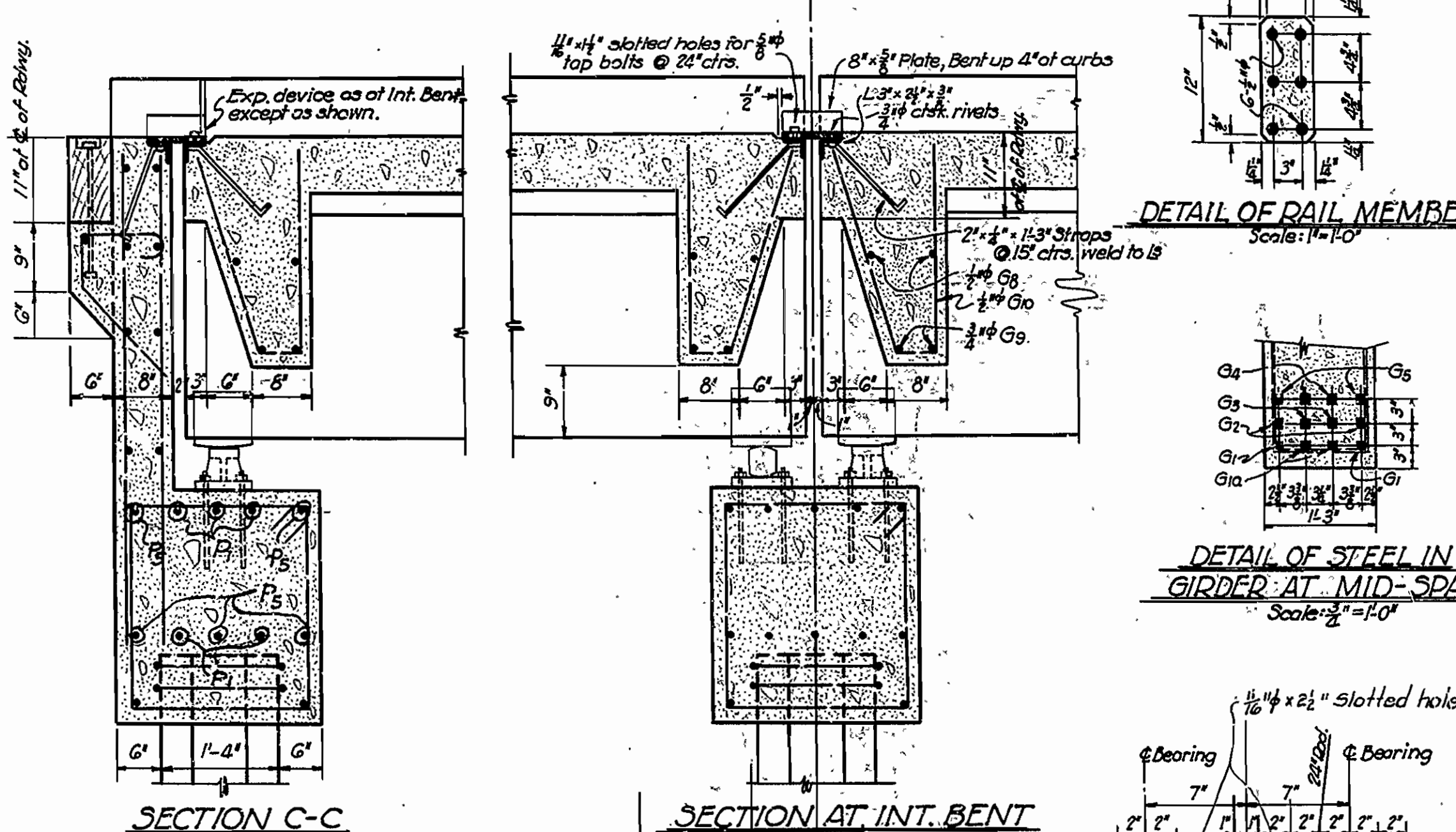
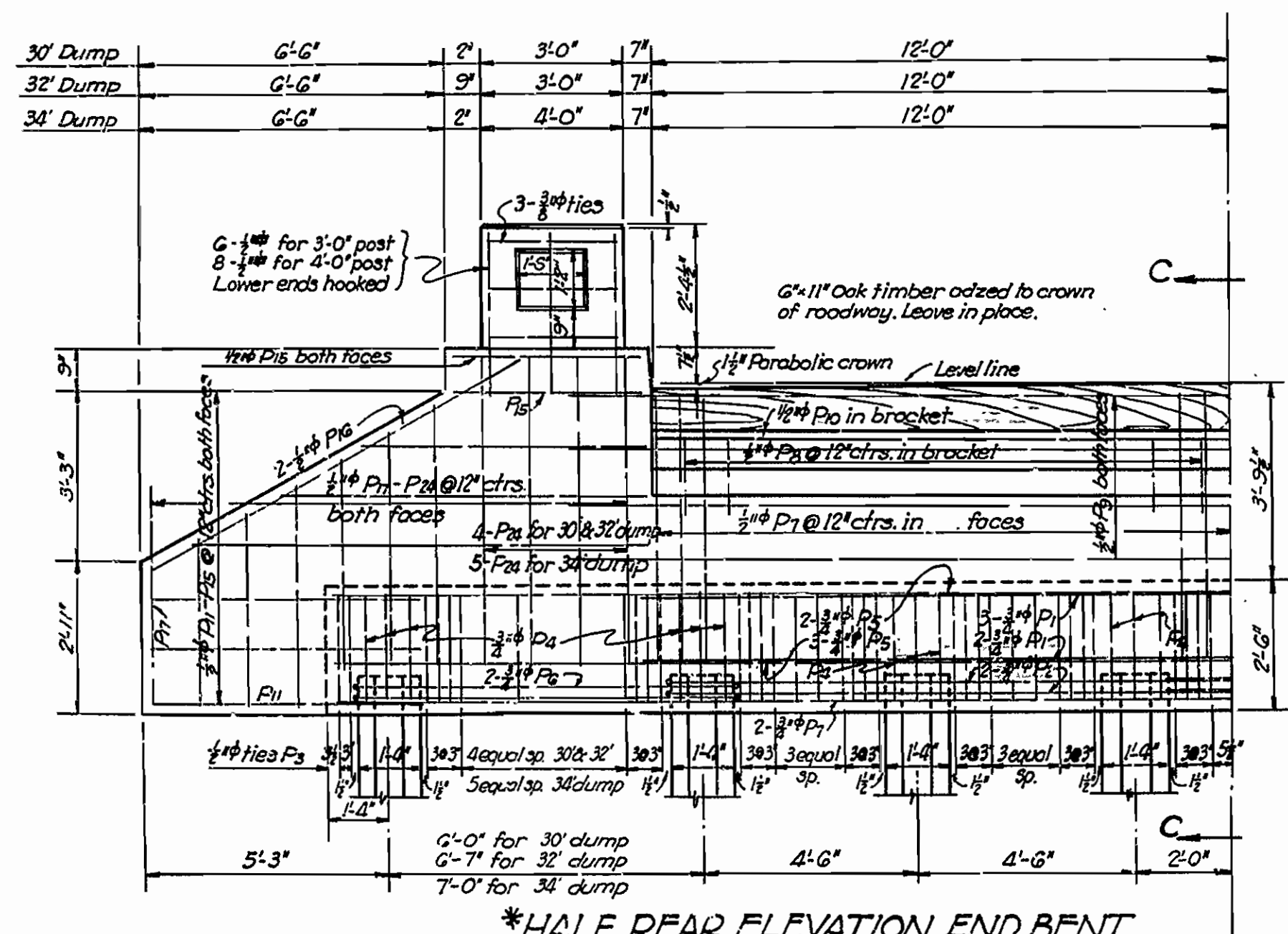
**Bending Diagram**

Mark	Size	Length
S1	3/8"	27'-5"
S2	3/8"	26'-5"
S3	3/8"	27'-2"
S4	3/8"	5'-9"
S5	3/8"	5'-6"
G1	1/2"	43'-6"
G2	1/2"	41'-0"
G3	1/2"	41'-1"
G4	1/2"	35'-1"
G5	1/2"	30'-1"
G6	1/2"	7'-3 1/2"
G7	1/2"	7'-4 1/2"
G8	1/2"	4'-9"
G9	1/2"	4'-9"
G10	1/2"	10'-0"
P1	3/8"	27'-5"
P2	3/8"	26'-5"
P3	3/8"	27'-2"
P4	3/8"	5'-9"
P5	3/8"	5'-6"
P6	3/8"	27'-5"
P7	3/8"	26'-5"
P8	3/8"	27'-2"

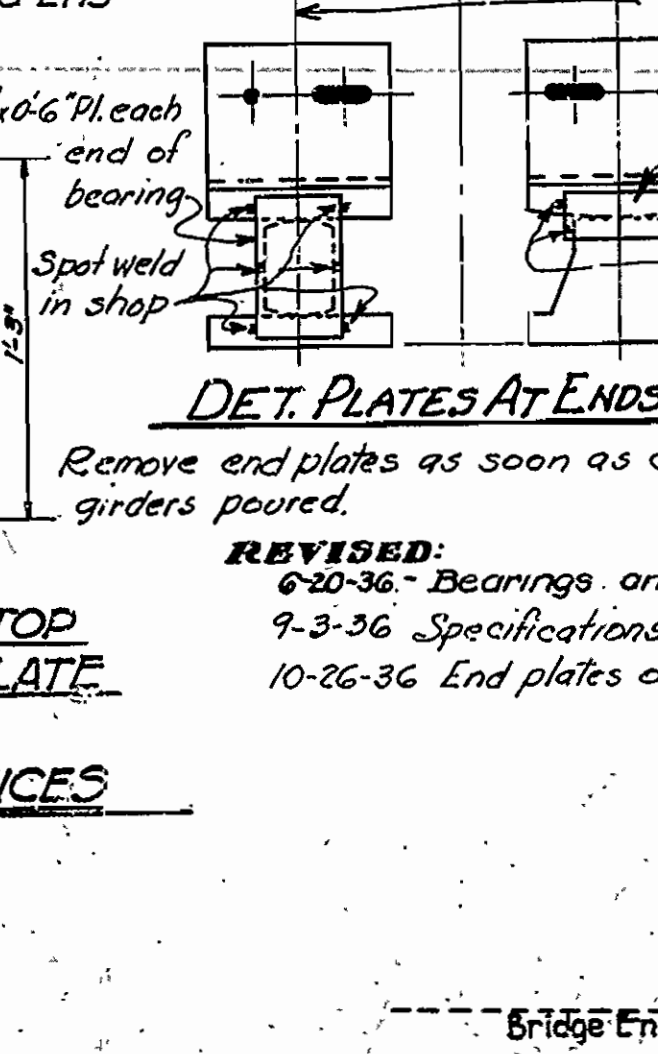
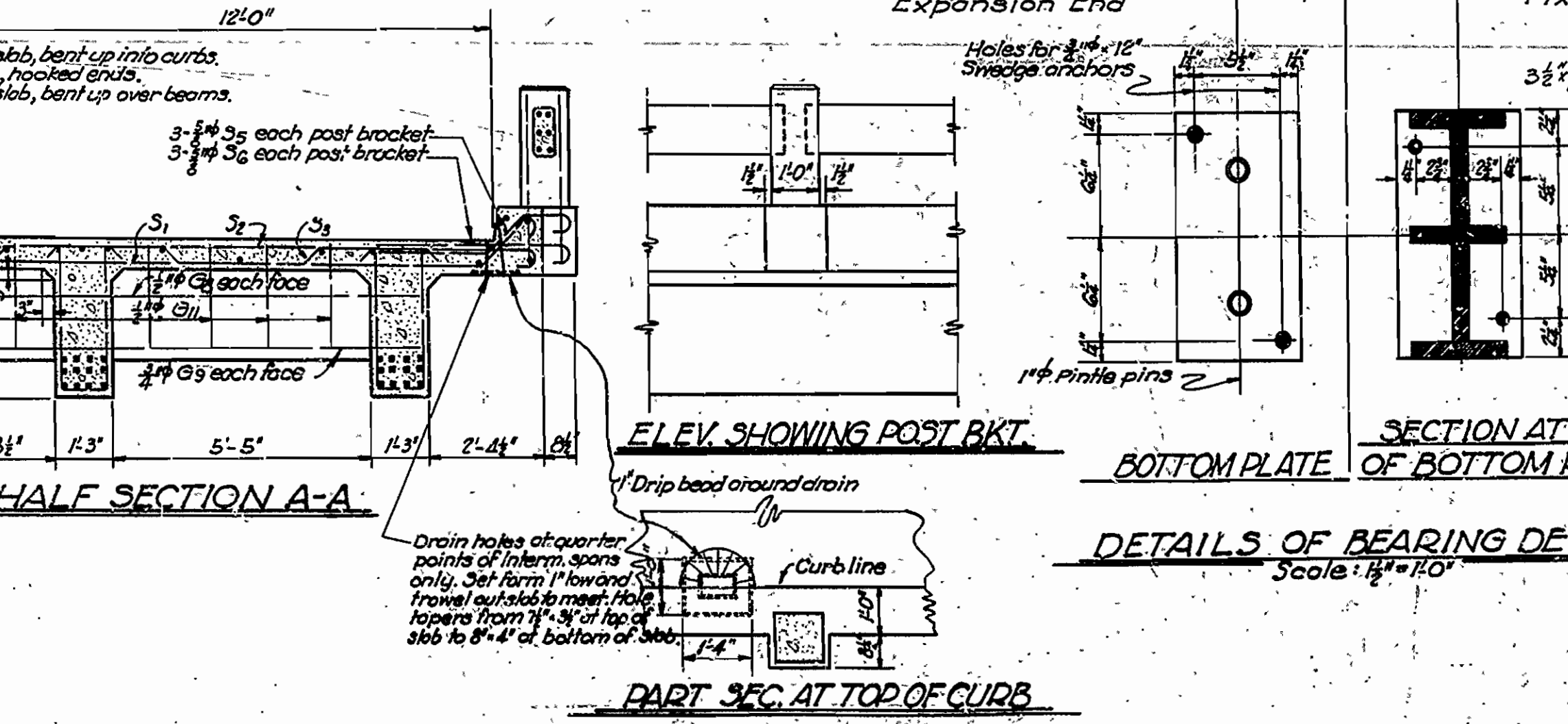
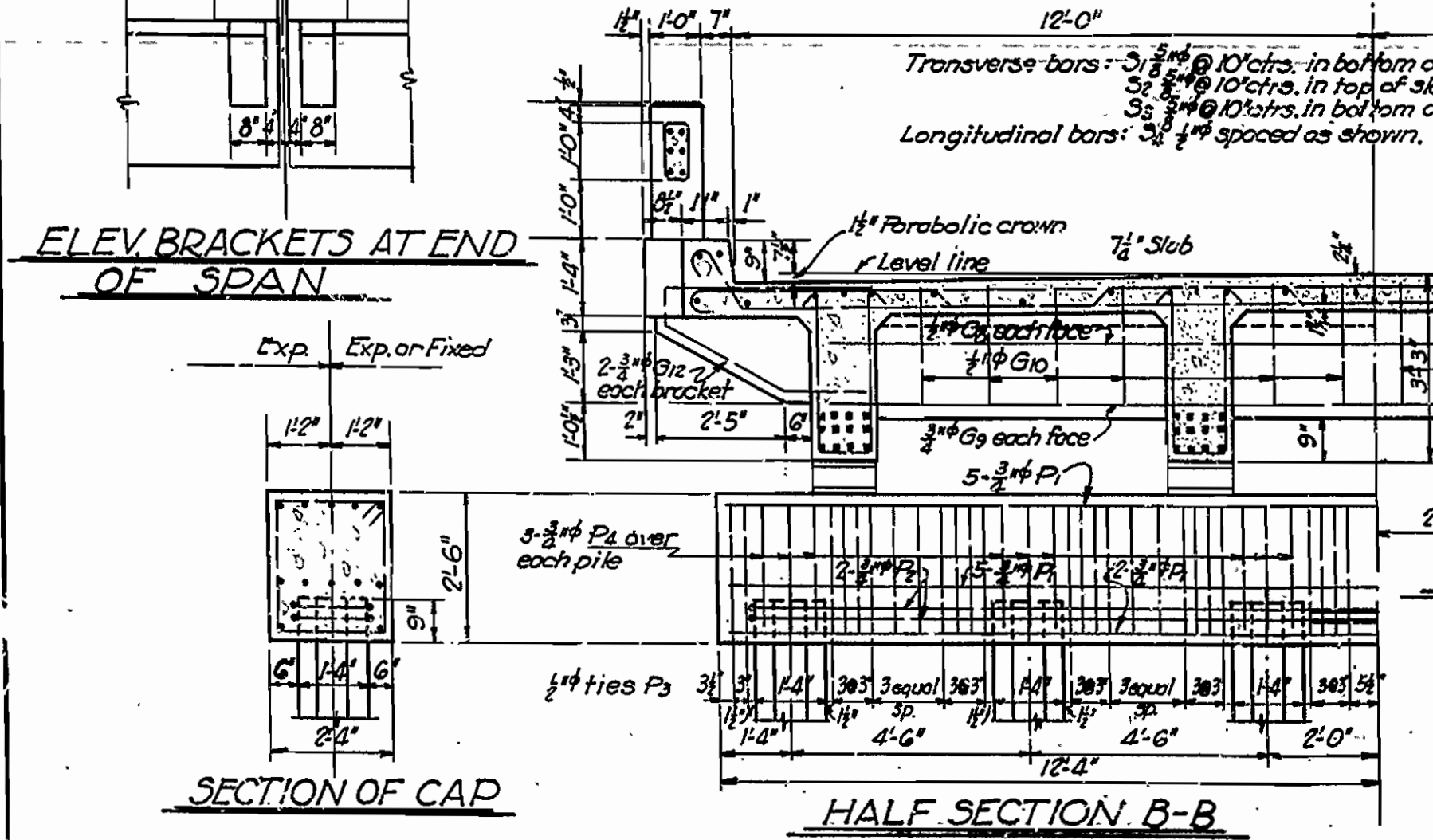
**DETAIL OF RAIL MEMBER**  
Scale: 1/4" = 1'-0"

**DETAIL OF STEEL IN GIRDER AT MID-SPAN**  
Scale: 3/8" = 1'-0"

**\*DETAIL OF PRECAST CONCRETE PILE**  
Reinforcing: Vertical bars 6 #4 bars for lengths 35 to 45  
Spiral No. 4 wire for lengths



**GENERAL NOTES:**  
 All exposed corners to have 3/4" chamfer unless otherwise noted.  
 All concrete to be Class 3.  
 Reinforcing steel to be deformed bars of Structural or Intermediate grade. Shop lists and bending diagrams must be submitted by Contractor and be approved before fabrication is begun.  
 Bituminous felt to be paid for of the unit price bid for reinforcing steel. All dimensions relating to reinforcing steel are center to center of bars. Volumes of Oak headers to be included in the quantity of Class 3 Concrete.  
 Structural steel expansion devices at all floor slab joints shall be paid for of the unit price bid for Structural Steel in Truss Spans where a Truss is used on a job. If no Truss is used this item shall be paid for under a special provision.  
 Give 3/4" Open holes 13/16".  
 Shop Point: All structural steel and cast steel shall be given one coat of red lead and raw linseed oil before shipment except surfaces in contact with concrete.  
 Field Point: 1st coat: White lead tinted with lamp black.  
 2nd coat: Aluminum paint.  
 Shop drawings shall be made in compliance with the specifications and be approved before fabrication is begun.  
 Specifications: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction adopted June 30, 1940.  
 UNIT STRESSES: fs = 16000 psi, fc = 8000 psi, n = 12  
 LOADING: H-15 Truck Loading  
 MAXIMUM COMPUTED BEARING = 25.5 tons Per Pile.



**DETAILS OF STANDARD 40'-0" R.C.D. GIRDER CONCRETE PILE BENTS 24'-0" CLEAR ROADWAY**

ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

Drawn By: LRC Date: \_\_\_\_\_  
 Traced By: JAW Date: \_\_\_\_\_  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

Scale: 3/8" = 1'-0" as noted.

Bridge Engineer: \_\_\_\_\_

BRIDGE NO. \_\_\_\_\_ DRWG. NO. 2214