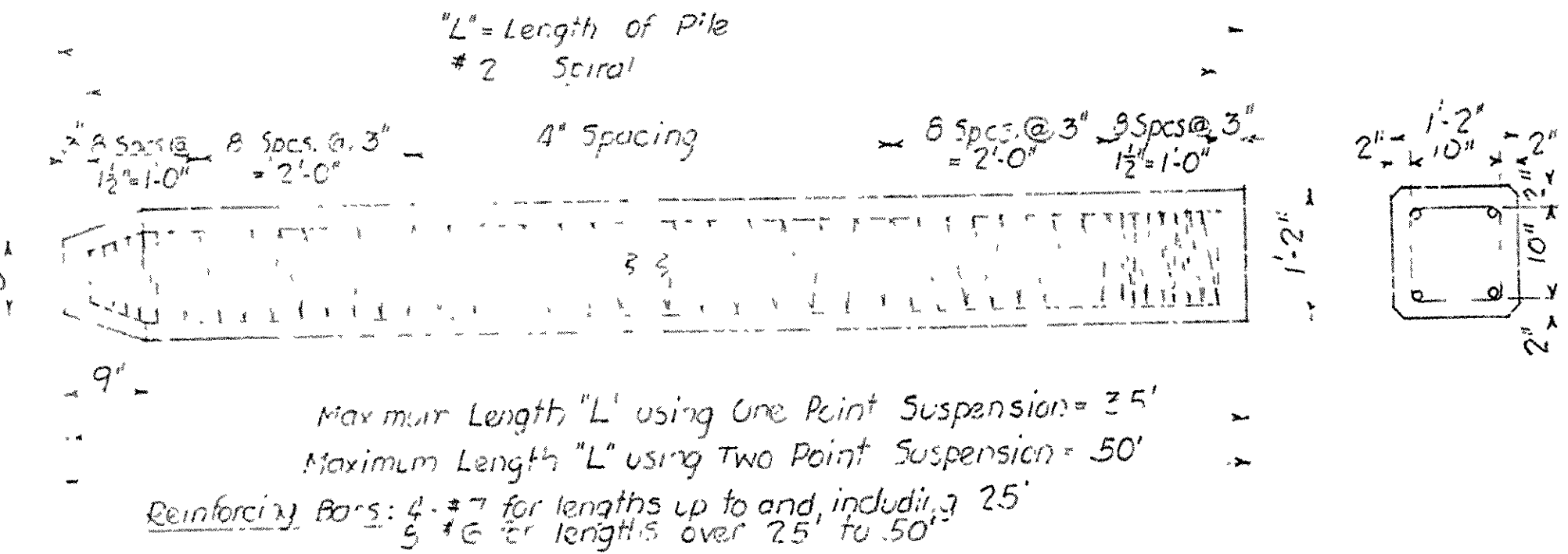
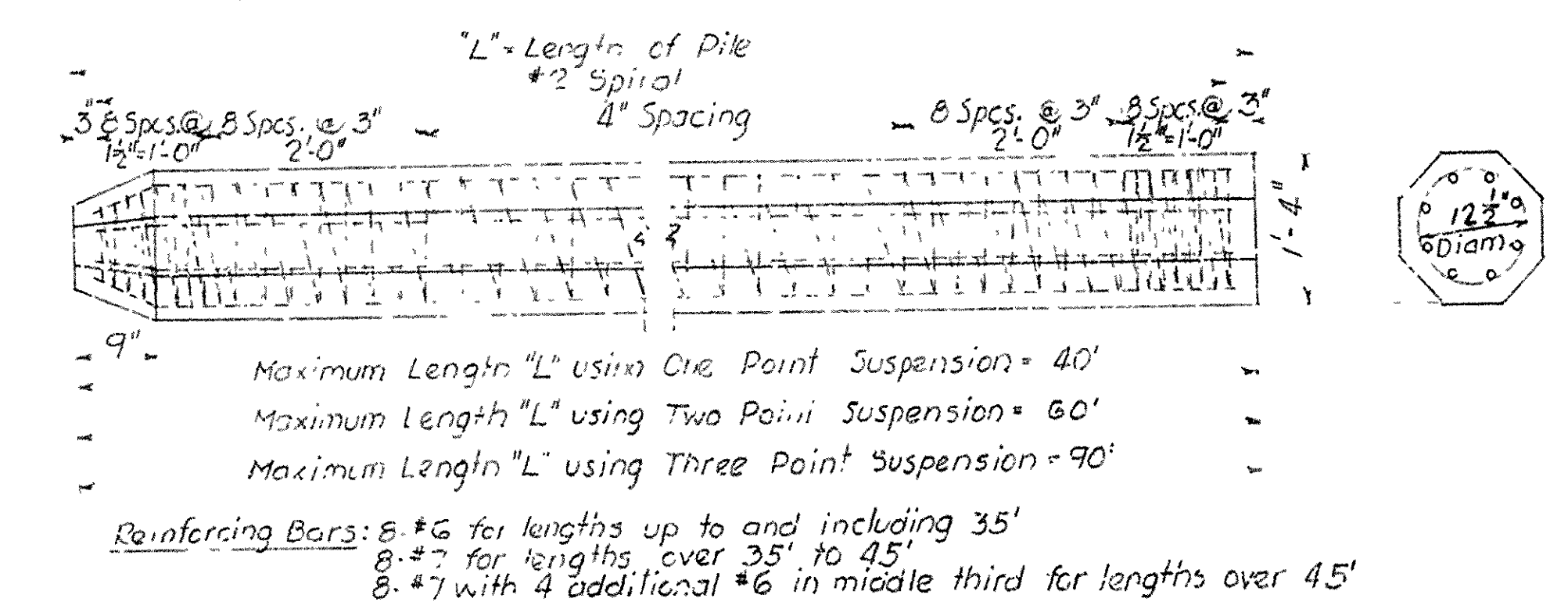


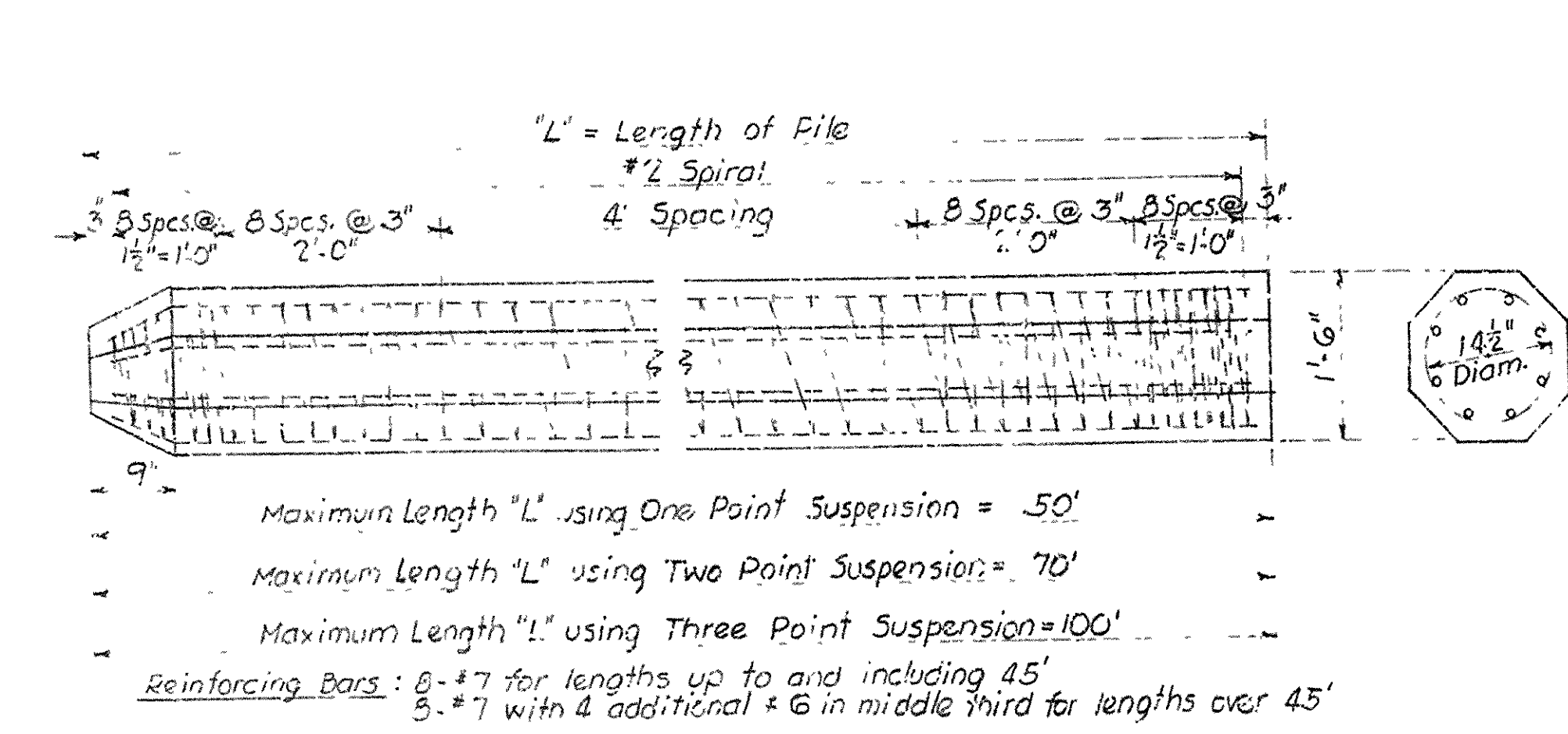
### DETAILS OF 12" SQUARE PILE



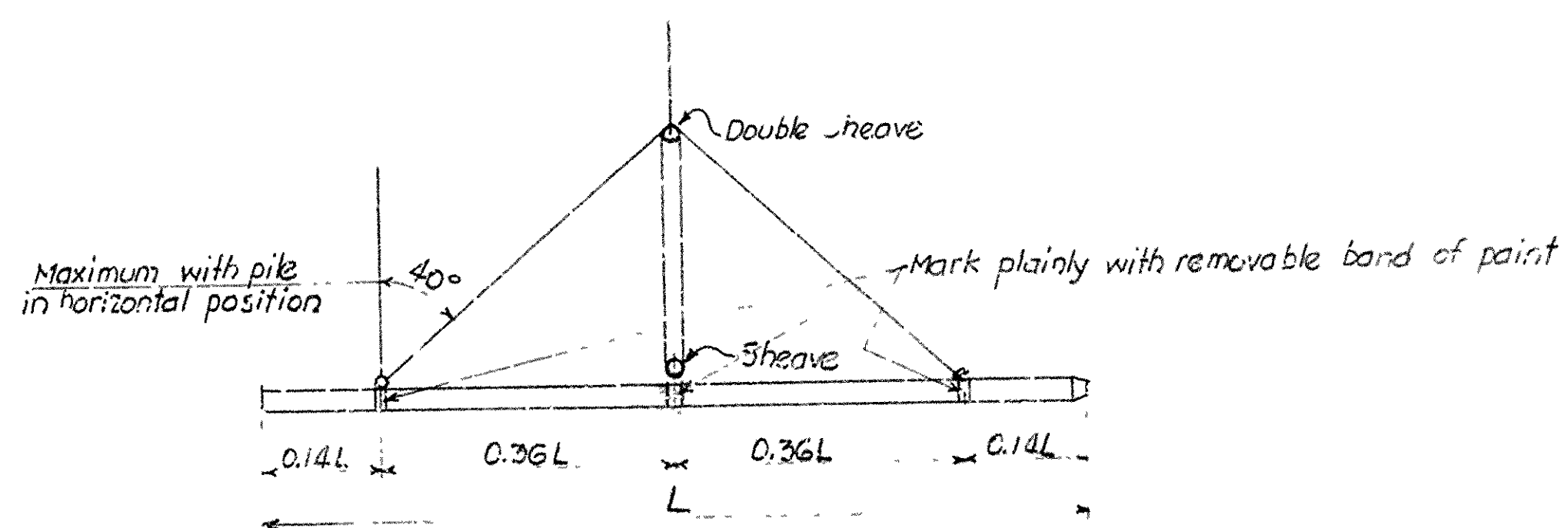
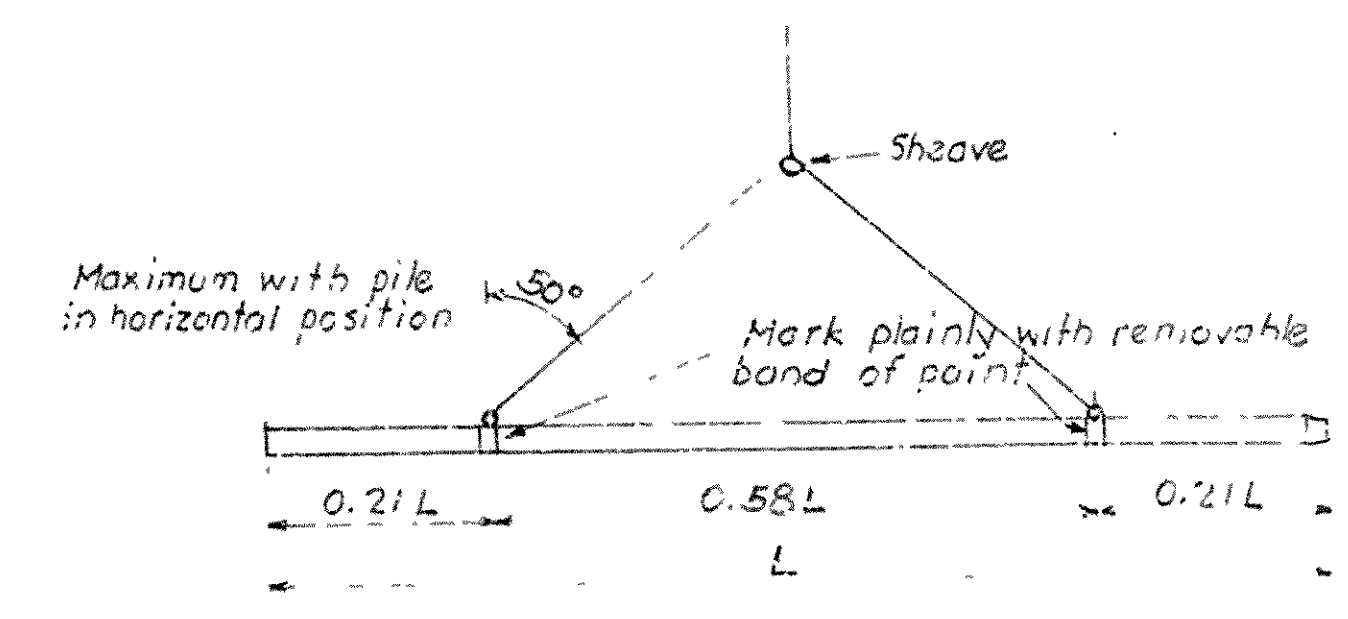
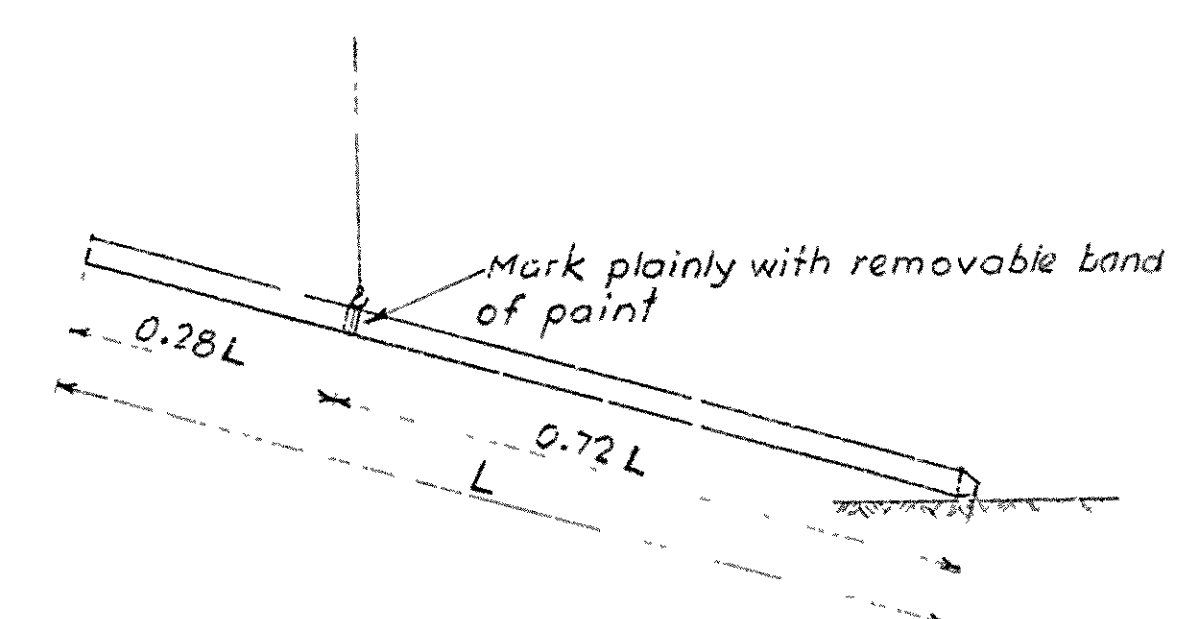
### DETAILS OF 14" SQUARE PILE



### DETAILS OF 16" OCTAGONAL PILE



### DETAILS OF 18" OCTAGONAL PILE



### GENERAL NOTES

All concrete to be Class "S"  
Longitudinal reinforcing steel shall be determined bars of intermediate grade, unless otherwise modified by Special Provisions. Spiral shall be formed from plain round billet steel reinforcing bars.  
SPECIFICATION 5: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959.

### Prestressing Alternate:-

As an alternate to the reinforcement shown, these piles may be prestressed by the use of steel strands of high tensile cold-drawn uncoated stress-relieved wire strands having an ultimate tensile strength of not less than 250,000 p.s.i. and an elongation at rupture of not less than 3% in 10'; number and size of strands and prestressing load to be as follows:-

File Size	Wire Strands No. Nominal Dia.	* Prestressing Force Per Strand
12" Square	8 3/16"	10150*
14" Square	12 3/16"	10150*
16" Octagonal	12 3/8"	14000*
18" Octagonal	16 3/8"	14000*

\* Prestressing force to be not more than 0.7 of the ultimate value of strand.

To permit splicing for buildup, where necessary, of prestressed piles, reinforcing as shown in details shall be provided in butt end of pile for a length of 5' and 6' for No. 6 & No. 7 bars respectively.

### DETAILS OF STANDARD PRECAST CONCRETE PILES

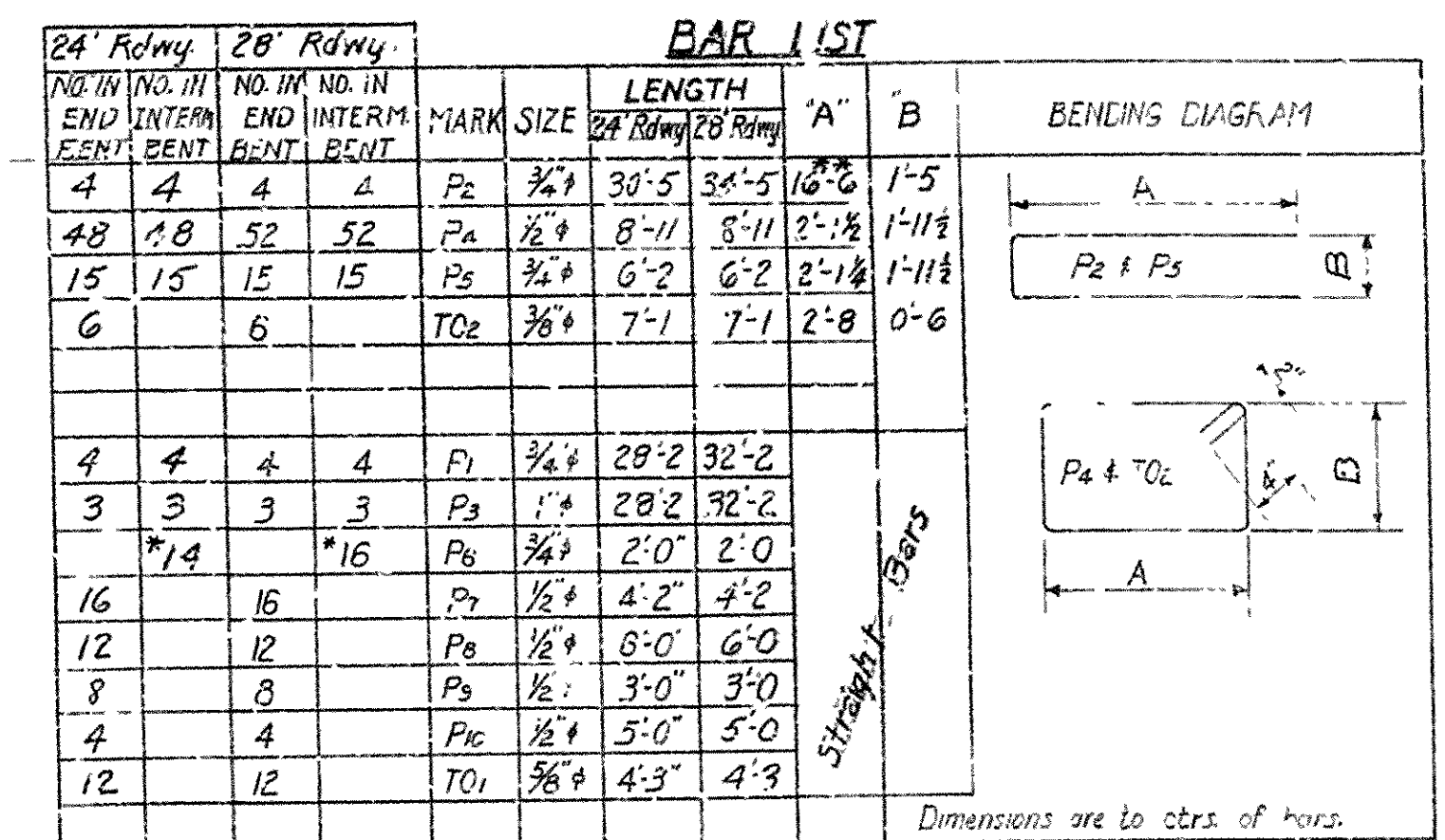
ROUTE SEC.  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

Revisions:-  
Provisions for prestressing 1-6-58 H.B.  
Prestressing strands, forces 4-14-58 H.B.  
Number Prestressing Strands 16" Pile 10-31-58 H.B.  
General Notes 2-26-60 A.T.

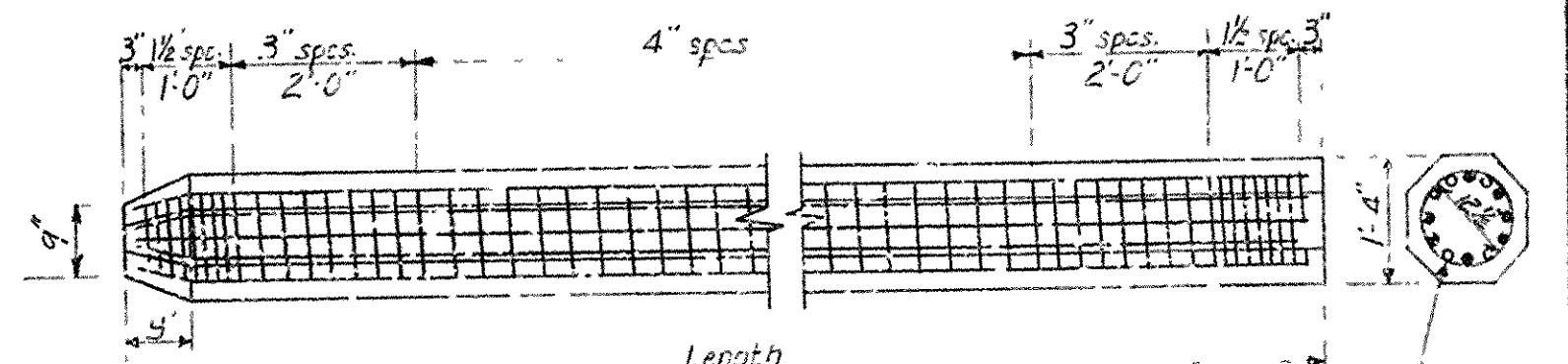
DRAWN BY: L.W.H. DATE: 7-26-58  
TRACED BY: J.A. DATE: 4-27-58  
CHECKED BY: J.A. DATE: 7-27-58  
RETRACTED BY: J.A. DATE: 4-2-58  
BRIDGE NO. DRAWING NO. 2382

J.P. Carlson  
BRIDGE DESIGN ENGINEER

See Revised 5-22-61



NOTE:  
All concrete to be Class "S".  
For additional General Notes and details  
of slab spans see Drawgs. 5386 & 5387.

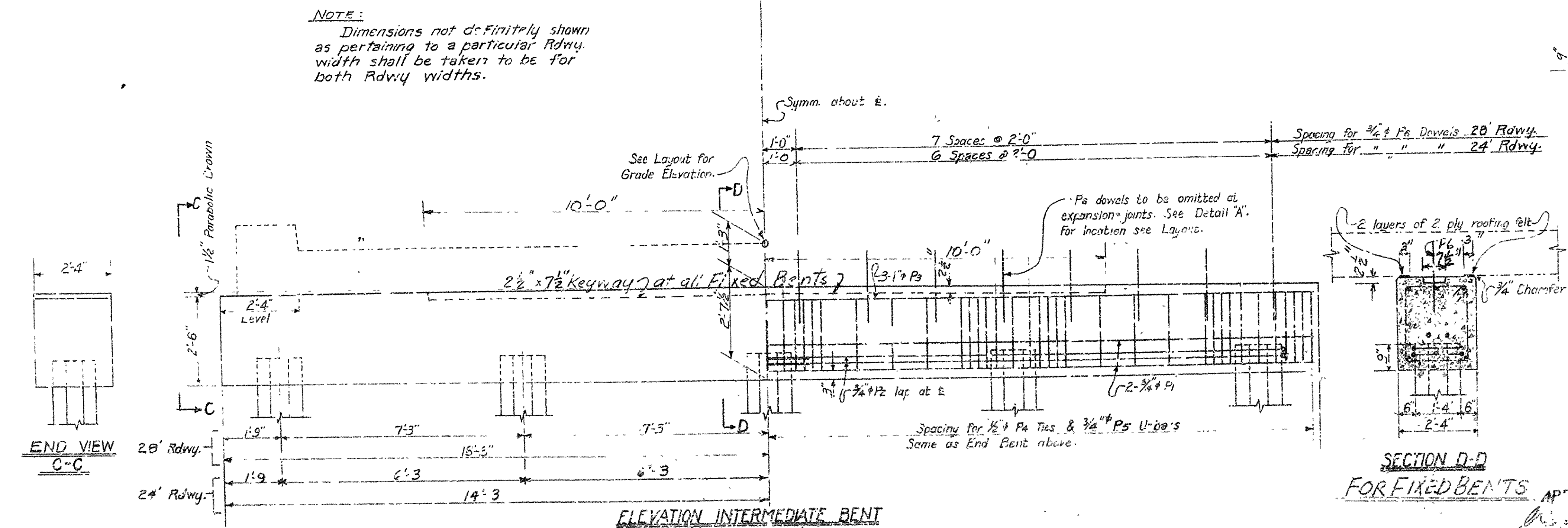


DETAILS OF 15" PRECAST CONCRETE PILES

DET ILS OF R.C. PILE BENTS  
FOR 25.5'-30.0'-25.5' & 25.5'-25.5' .  
R.C. SLABS  
28'-0" CLEAR RDWY. 2 CURBS @ 1'-6"  
2'-0" " " " @ 1'-6"

Drawn By: B.R. Date: 4-18 Scale:  $\frac{1}{2}$ " = 1 ft.  
Traced By: Date:  
Checked By: JME Date: 4-27-51

DRAWING NO. 5385







Technical drawing of a bridge section showing a cross-section of a bridge deck and abutment. The drawing includes dimensions for various components, reinforcement details, and construction notes.

**Dimensions:**

- Overall width: 25'-6"
- Span length: 15'-0"
- Abutment wall thickness: 1'-0"
- Drainage opening: 1'-0" x 1'-0"
- Reinforcement spacing: 12" on center, 14" on center, 16" on center, 18" on center, 20" on center
- Reinforcement diameter: 1/2" and 3/8"
- Reinforcement placement: 1/2" in bottom, 1/2" in top, 1/2" in bottom bent up, 1/2" in bottom bent up at intermediate supports, 1/2" in bottom bent up at intermediate supports

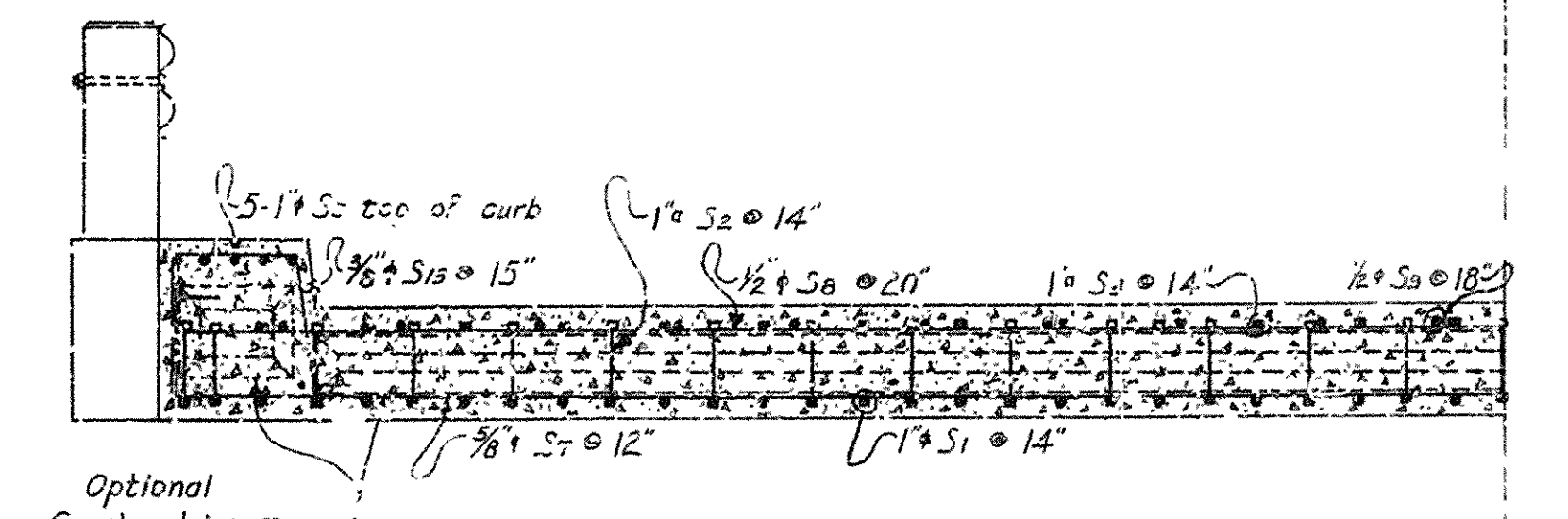
**Notes:**

- When optional construction joints are used pour both end sections before pouring middle section. Also, chamfer corners 1/2" at constr. joints in slab spans on outside face of curb, top of curb and roadway face of curb.
- Optional Constr. Joint
- Sym. abt. & Rdwy.

QUARTER PLAN  
 $S = a/s = \frac{36}{28} = 1$

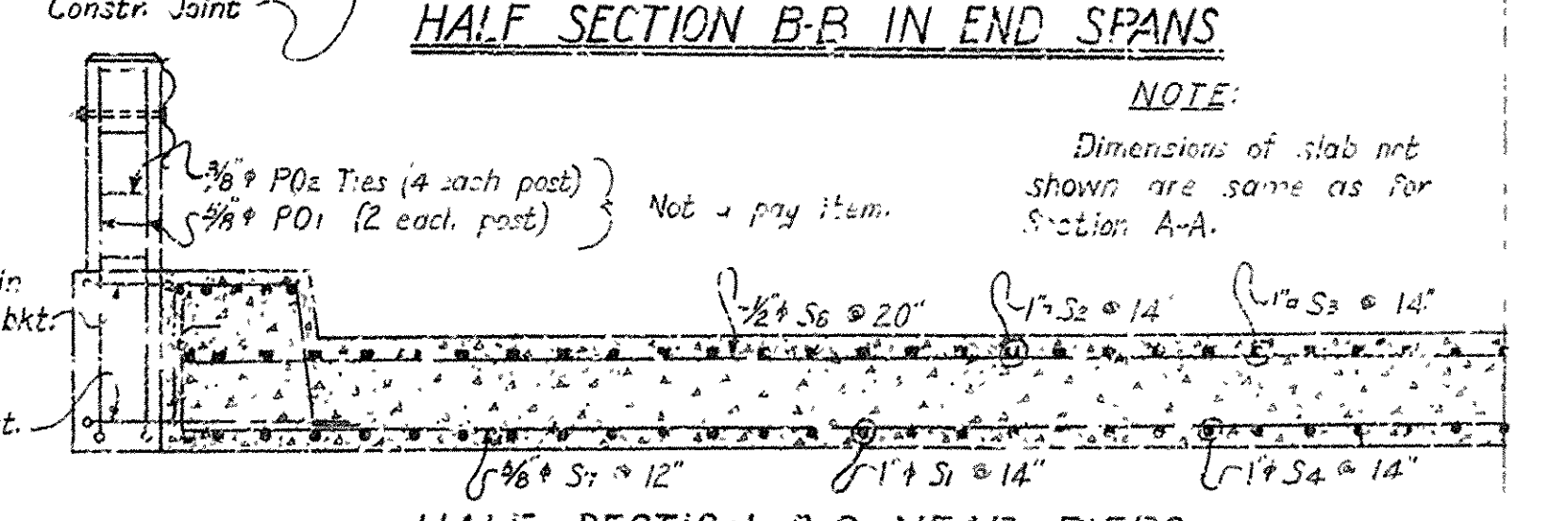
[illegible]

HALF SECTION A-A AT ABUTMENTS

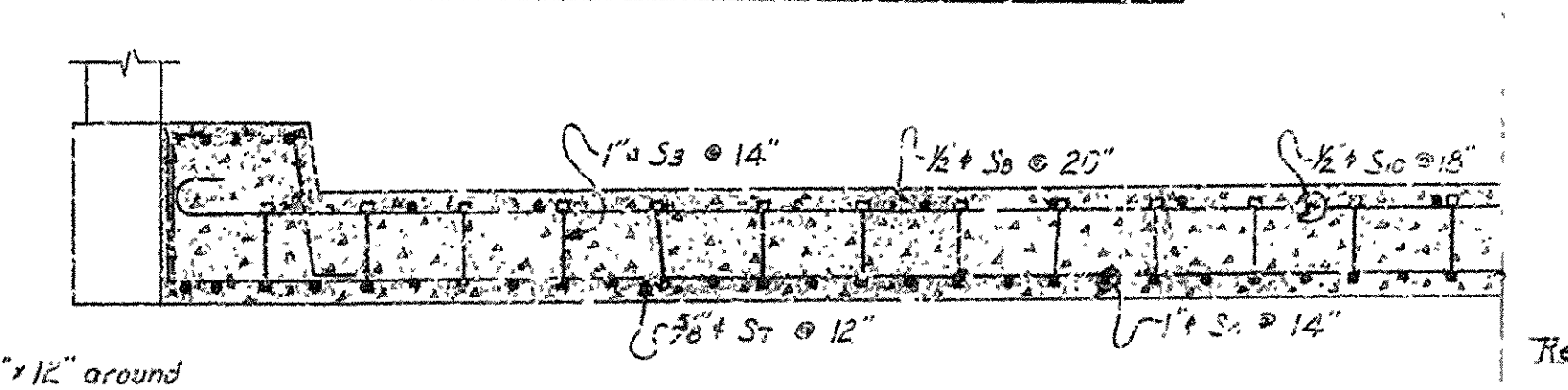


HALF SECTION B-B IN END SPANS

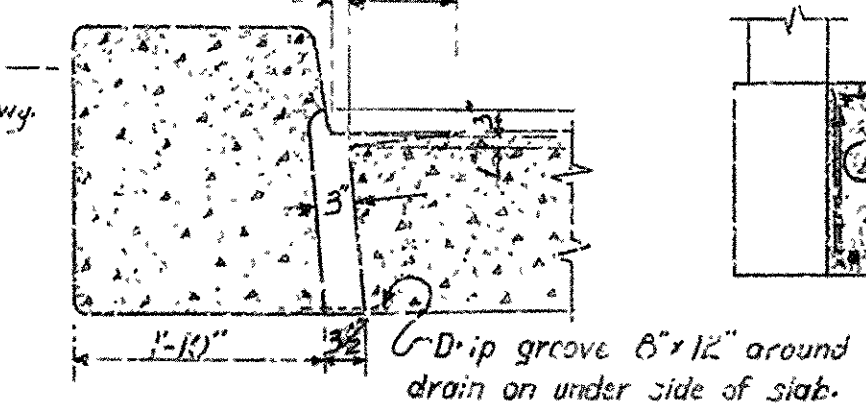
NOTE:  
Dimensions of slab not shown are same as for section A-A.



HALF SECTION C-C NEAR PIERS



HALF SECTION D-D IN CENTER SPAN



SECTION THRU DRAIN OPENINGS

5 1/2"

1 1/2"

10 1/2"

1 1/2"

SECTION OF RAIL

Scale: 1" = 1'-0"

SECTION OF RAIL  
Scale: 1 1/2" = 1'-0"

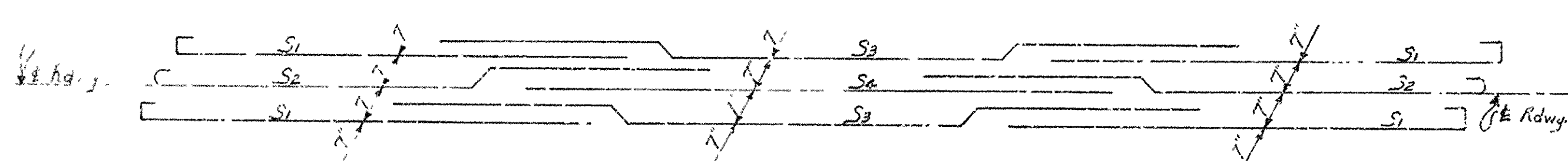


DIAGRAM SHOWING ARRANGEMENT OF MAIN LONGITUDINAL REINFORCING BARS IN ALTERNATE ROWS

GENERAL NOTES

All concrete to be Shrink Comp. All expansion joints to be eliminating & unless otherwise noted the "strong" concrete to be 4000 psi or higher of internally cured. Shop notes and detailing diagrams must be submitted for review and approval secured before fabrication can begin.

All reinforcement to be welded to the bars in the form and firmly held in place by means of steel wire chairs. The reinforcement must be installed in accordance during the course of construction and so as to provide a proper reinforcement. Reinforcement will not be paid for unless it is shown on the drawings and approved by the Engineer. Shop notes and detailing diagrams must be submitted for review and approval.

Figure 10. Reinforcement details for the concrete bridge piers for Shrink Comp. concrete.

The other reinforcement details for the bridge piers are on an end sheet right type of reinforcement by the Engineer. Reinforcement details, including all of these pieces, shall be paid for at the unit price bid per linear foot for Steel Plate Girder Rail.

SECTION 707. Bridge for the Highway Council near Stamford, Spent down the River and bridge.

Contract No. MICHIGAN 1940

Or see Specifications BQ-2 near the end of the book.

[illegible]

Revisions:

Pouring sequence 1 PC 6-23-52  
Include 24'-0" Clear Rowwy CRB 2-23-52

DETAILS OF STANDARD 8'-0"  
THREE SPAN CONTINUOUS R.C. SLAB  
SPAN LENGTHS 25'-6"-30'-0"-25'-6"  
28'-0" CLEAR ROWY. 2 CURBS @ 1'-6"  
24'-0" CLEAR ROWY. 2 CURBS @ 1'-6"

ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

Drawn By: E.S. Date: 4-12-51  
Traced By: Date:  
Checked By: J.H.K. Date: 4-30-51

Scale: 1" = 1'-0"  
Except as noted

DRAWING NO. 338A

6	ARK.	FI 520 (6)	3	123
STATE JOB NO. 11415				

## SUMMARY OF BRIDGE QUANTITIES CODE NO. X020

ITEM NO.	ITEM	UNIT	BRIDGE NO. 2808				BRIDGE NO. 2809				BRIDGE NO. 2810				TOTAL JOB 11415
			BENTS 1 & 4	BENTS 2 & 3	SPANS 1-3 INCL.	TOTAL	BENTS 1 & 7	BENTS 2-6 INCL.	SPANS 1-6 INCL.	TOTAL	BENTS 1 & 4	BENTS 2 & 3	SPANS 1-3 INCL.	TOTAL	
103	Dry Excavation for Structures	Cu.Yd.	85			85	80			80	80			80	245
SP&802	Class "S" Concrete for Bridges	Cu.Yd.	18.60	15.36	128.46	162.50	17.24	35.10	256.68	309.02	17.24	14.04	128.41	159.69	631.21
SP&803	Reinforcing Steel	Lb.	2735	2472	26,273	31,480	2600	5710	52,680	60,990	2600	2300	26,340	31,240	123,710
SP&804	Concrete Piling (16" Octagonal)	Lin.Ft.	250	305		555	400	1130		1530	350	355		705	2790
SP805-3	Steel Plate Guard Rail (10 gage)	Lin.Ft.			164.9	164.9			328	328			166	166	658.9
929	Bridge Name Plates (Type 'C')	Each	1			1	1			1	1			1	3

## STEEL ALLOCATION DATA

Code No.		
02	Reinforcing Bars	85.35 Tons
17	Other Mill Products	1.35 Tons
	Total	86.70 Tons
80	Class "B" Products (information only)	3.30 Tons

Revised 12/17/51 Steel Allocation Data

SUMMARY OF BRIDGE QUANTITIES  
MARION-TURRELL ROAD  
CRITTENDEN COUNTY  
ROUTE 61 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

Drawn By: WWM Date: 6-8-51  
Traced By: Date:  
Checked By: Date: 6-27-51

*W. W. W.*  
Bridge Design Engineer

BRIDGES 2808, 2809 & 2810 DRAWING NO. 3010











DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FILE NO.	STATE	FILE NO.	STATE	FILE NO.	STATE
				6	ARK	7-55-1171, 17			
				JOB NO.		11864			

① 2809AR-2810R QUANT. SHT. 19217

### SCHEDULE OF BRIDGE QUANTITIES

BRIDGE NO.	CODE NO.	NAME	PLATE	UNIT	ITEM NO.	501	SP # 802	SP # 802	803	804	804	*SP # 805	806	812	SP JOB 11864
				UNIT OF STRUCTURE	ITEM	COMMON EXCAVATION FOR STRUCTURES - BRIDGE	CLASS "S"	CLASS "S (AE)"	BOILED LINSEED OIL	REINFORCING STEEL (GRADE 40)	REINFORCING STEEL (GRADE 60)	PRECAST CONCRETE PILING (16" OCT)	METAL BRIDGE RAILING (TYPE A)	BRIDGE NAME PLATES (TYPE C)	REMODELING EXISTING BRIDGES
						CU. YD.	CU. YD.	CU. YD.	GAL.	LB.	LB.	LIN. FT.	LIN. FT.	EACH	LUMP SUM
2809R	1020	BIG CREEK		END BENTS 1 & 7	32	6.66				1116		208			
				INTERIOR BENTS 2-6		10.44				2144		580			
				2-81'0" CONT. R.C. SLAB UNITS				311.50	16.2		35460		319.0	1	
				TOTAL FOR BRIDGE 2809R	32	17.10		311.50	16.2	3260	35460	788	319.0	1	0.33
2809AR	1020	BIG CREEK		END BENTS 1 & 7	32	6.66				1116		208			
				INTERIOR BENTS 2-6		10.44				2144		580			
				2-81'0" CONT. R.C. SLAB UNITS				311.50	16.2		35460		319.0	1	
				TOTAL FOR BRIDGE 2809AR	32	17.10		311.50	16.2	3260	35460	788	319.0	1	0.33
2810R	1021	DRY BAYOU		END BENTS 1 & 4	32	6.66				1116		140			
				INTERIOR BENTS 2 & 3		4.14				854		140			
				81'0" CONT. R.C. SLAB UNIT				156.10	8.1		17830		157.0	1	
				TOTAL FOR BRIDGE 2810R	32	10.80		156.10	8.1	1970	17830	280	157.0	1	0.17
2810AR	1021	DRY BAYOU		END BENTS 1 & 4	32	6.66				1116		140			
				INTERIOR BENTS 2 & 3		4.14				854		140			
				81'0" CONT. R.C. SLAB UNIT				156.10	8.1		17830		157.0	1	
				TOTAL FOR BRIDGE 2810AR	32	10.80		156.10	8.1	1970	17830	280	157.0	1	0.17
TOTAL FOR JOB 11864						128	55.80	935.20	43.6	10,460	106,580	2136	952.0	4	1.00

\* SP REFERS TO SP 802-5

SCHEDULE OF BRIDGE QUANTITIES  
CLARKDALE-MISS. CO. LINE RECONST.  
CRITTENDEN COUNTY  
ROUTE 55 SEC. 11  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: JCK DATE: 2-26-75  
CHECKED BY: JCK DATE: 2-27-75  
DESIGNED BY: JCK DATE: 2-26-75  
SCALE: None  
BRIDGE NO. 2809AR, 2809R, 2810AR & 2810R DRAWING NO. 19217

*David P. Puckett*  
BRIDGE ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	I-55-1(7)17	11	82
JOB NO. 11864								
① 2809AR, 2809R LAYOUT 19218								

# GENERAL NOTES

BENCH MARK: "C" CUT ON DROP INLET 2' LT. STA. 912+62. ELEV. 219.91.

ALL PILING SHALL BE 16" OCTAGONAL PRECAST CONCRETE AND SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER TO A MINIMUM BEARING CAPACITY OF 44 TONS PER PILE AND TO A MINIMUM PENETRATION OF 20" BELOW THE GROUND LINE. LENGTHS OF PILING SHOWN ARE BASED ON PILING DRIVEN IN THE EXISTING BRIDGE NO. 2809A.

ALL CONCRETE IN THE SUPERSTRUCTURE SHALL BE CLASS 5 (A1). ALL CONCRETE IN THE SUBSTRUCTURE SHALL BE CLASS 5 AND SHALL BE POURED IN THE DRY. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

THE CONTRACTOR SHALL MAKE CHECK MEASUREMENTS OF THE EXISTING BRIDGE AND MAKE ADJUSTMENTS NECESSARY TO FIT THE NEW WORK TO THE EXISTING STRUCTURE.

PLANS OF THE EXISTING STRUCTURE WILL BE MADE AVAILABLE TO THE CONTRACTOR UPON REQUEST. FOR PLANS OF EXISTING STRUCTURE, SEE DWG. NOS. 5385, 5386, 8012 & 8870. FOR DETAILS OF WIDENING BENTS, SEE DWG. NO. 19219 & 19220. FOR DETAILS OF WIDENING SPANS, SEE DWG. NOS. 19221 & 19222.

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1972 AND APPLICABLE SPECIAL PROVISIONS.

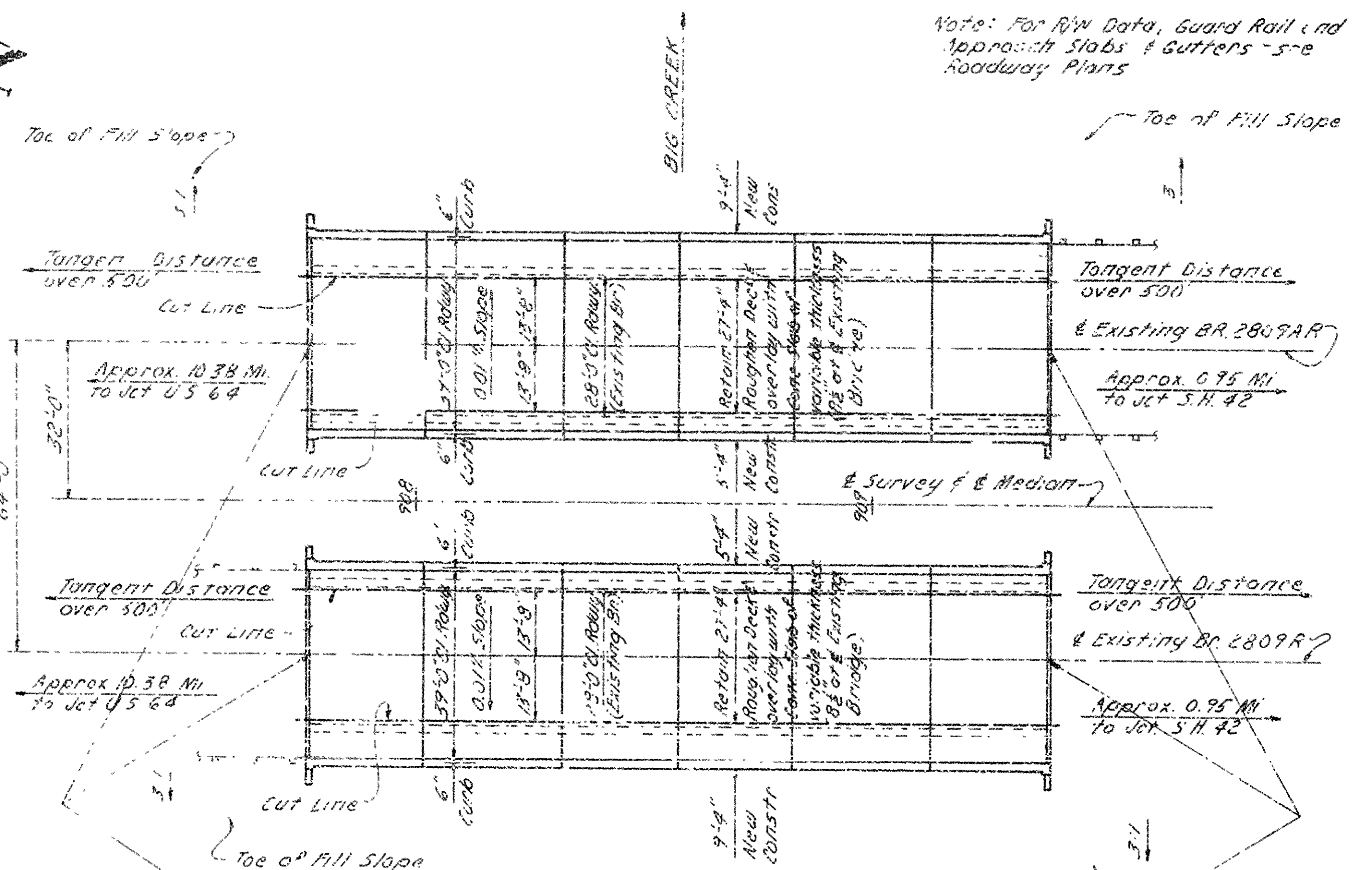
DESIGN SPECIFICATIONS: AASHTO 1973

LIVE LOADING: HS 20 AND SPECIAL INTERSTATE LOADING

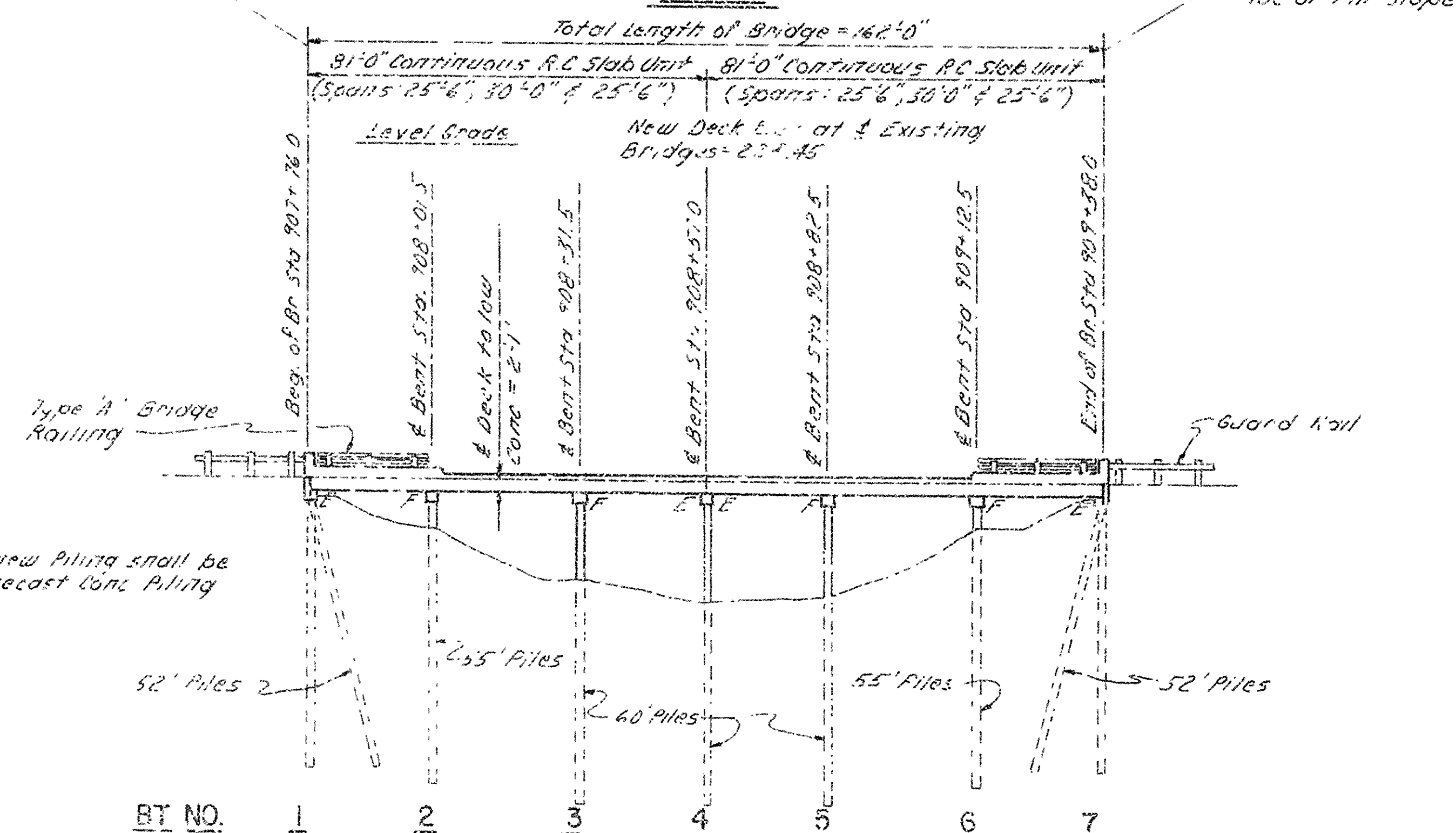
UNIT STRESSES:  
SUPERSTRUCTURE: CLASS 5 (A1) CONCRETE (N=10) 1,400 PSI  
REINFORCING STEEL (A615, GRADE 60) 24,000 PSI

SUBSTRUCTURE: CLASS 5 CONCRETE (N=10) 1,200 PSI  
REINFORCING STEEL (A615, GRADE 40) 20,000 PSI

THE EXISTING PLATE GUARD RAIL IS TO BE SALVAGED AND SHALL REMAIN THE PROPERTY OF THE STATE.



## PLAN



## ELEVATION

LAYOUT OF BRIDGES OVER  
BIG CREEK  
CLARKDALE-MISS. CO. LINE RECONST.  
CRITTENDEN COUNTY  
ROUTE 55 SEC. 11  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: J.P.S. DATE: 2-14-75  
CHECKED BY: JCK DATE: 2-26-75  
DESIGNED BY: JCK DATE: 2-75  
SCALE: 1" = 20'-0"  
BRIDGE NO. 2809AR & 2809R  
DRAWING NO. 19218

*David Pinkerton*  
BRIDGE ENGINEER







DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	REV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK	I-55-1(71)17	13	83
				JOB NO. 11864				
				2809R & 2809AR - BENT DTLS - 19220				

# BAR LIST - PER BENT

MARK	NO.	REQ'D	LENGTH	PIN DIA.	BENDING DIAGRAMS
B401	23	8'-10"	2"		
B402	6	6'-2"	2"		
B403	8	3'-11"	5/8"		
B404	10	2'-11"	5/8"		
B405	12	4'-6"	5/8"		
B406	8	4'-4"	5/8"		
B407	2	3'-2"	5/8"		
B408	E	7'-2"	5/8"		
B601	5	7'-10"	4 1/2"		
B602	6	7'-0"	3 3/4"		
B603	5	4'-6"	4 1/2"		
B604	6	5'-0"	3 3/4"		
B701	16	2'-0"	5/8"		

## GENERAL NOTES

STRIP, CLEAN, AND RETAIN EXISTING WINGWALL REINFORCEMENT EXTENDING FROM THE EXISTING END BENT CAP INTO THE NEW CAP A MINIMUM OF 2'-0"

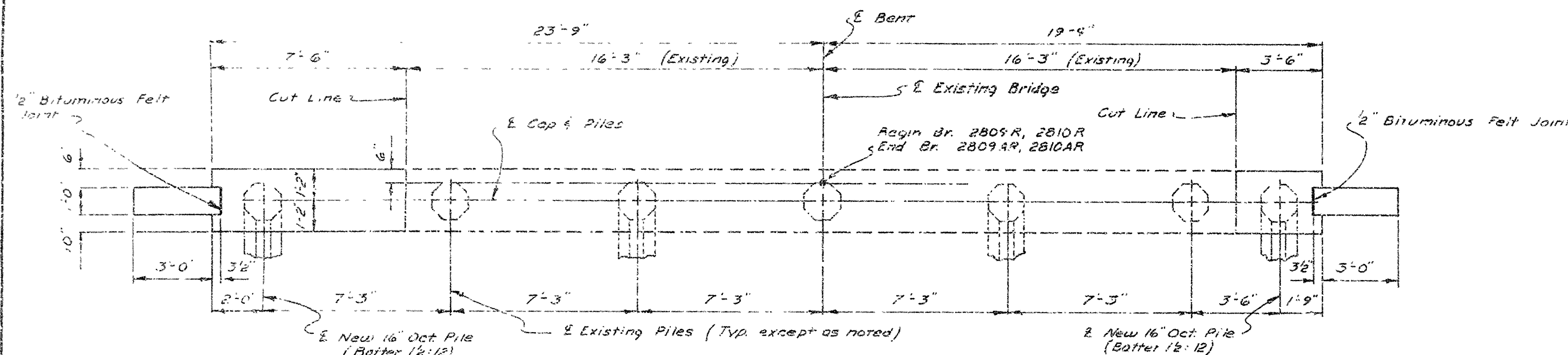
ALL NEW CONCRETE IN THE SUBSTRUCTURE WILL BE CLASS S. ALL EXPOSED CORNERS WILL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

NEW REINFORCING SHALL BE ASTM A615, GRADE 40. SHOP LISTS AND BENDING DIAGRAMS MUST BE SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN.

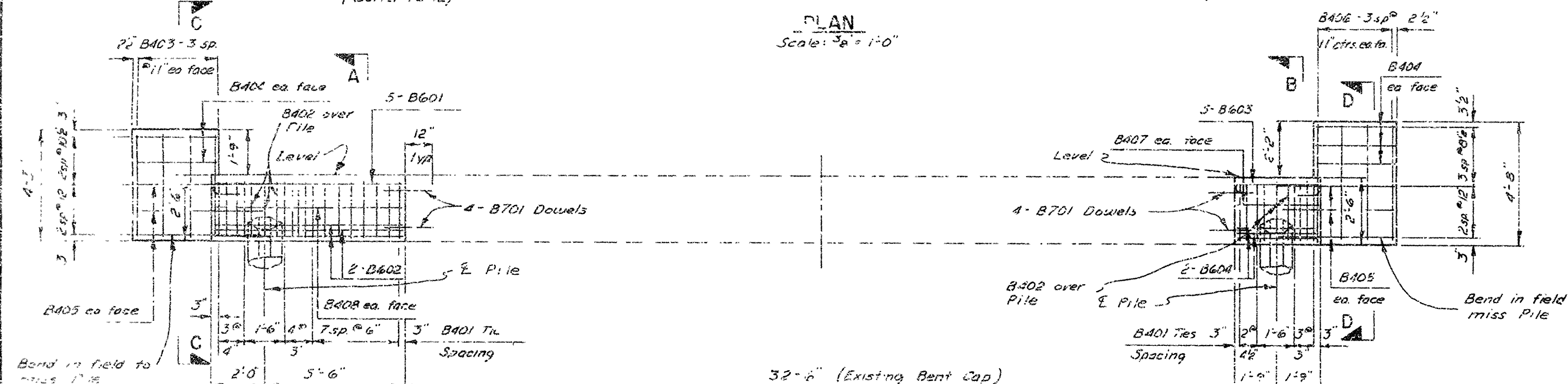
IN GENERAL, ALL CONSTRUCTION JOINTS SHALL BE HORIZONTAL AND PROVIDED WITH KEYS NOT LESS THAN 1-1/2" HIGH COVERING THE MIDDLE THIRD OF BOTH DIMENSIONS.

FOR ADDITIONAL GENERAL NOTES, SEE BRIDGE LAYOUT DRAWING NO. 19218 OR 19223

UNIT STRESSES: CLASS S CONCRETE (N=10) 1,200 PSI  
REINFORCING STEEL (A615-40) 20,000 PSI

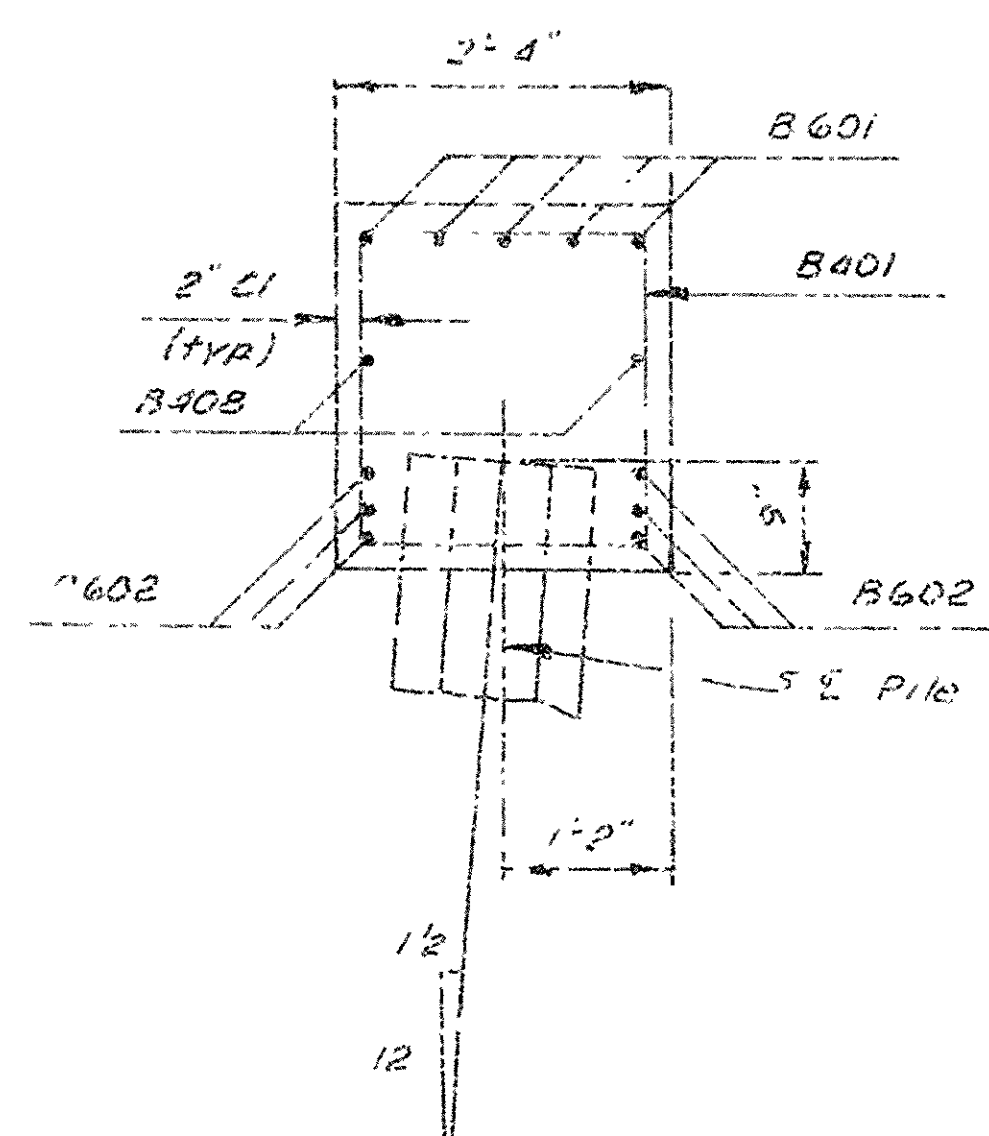


PLAN  
Scale: 3/8" = 1'-0"

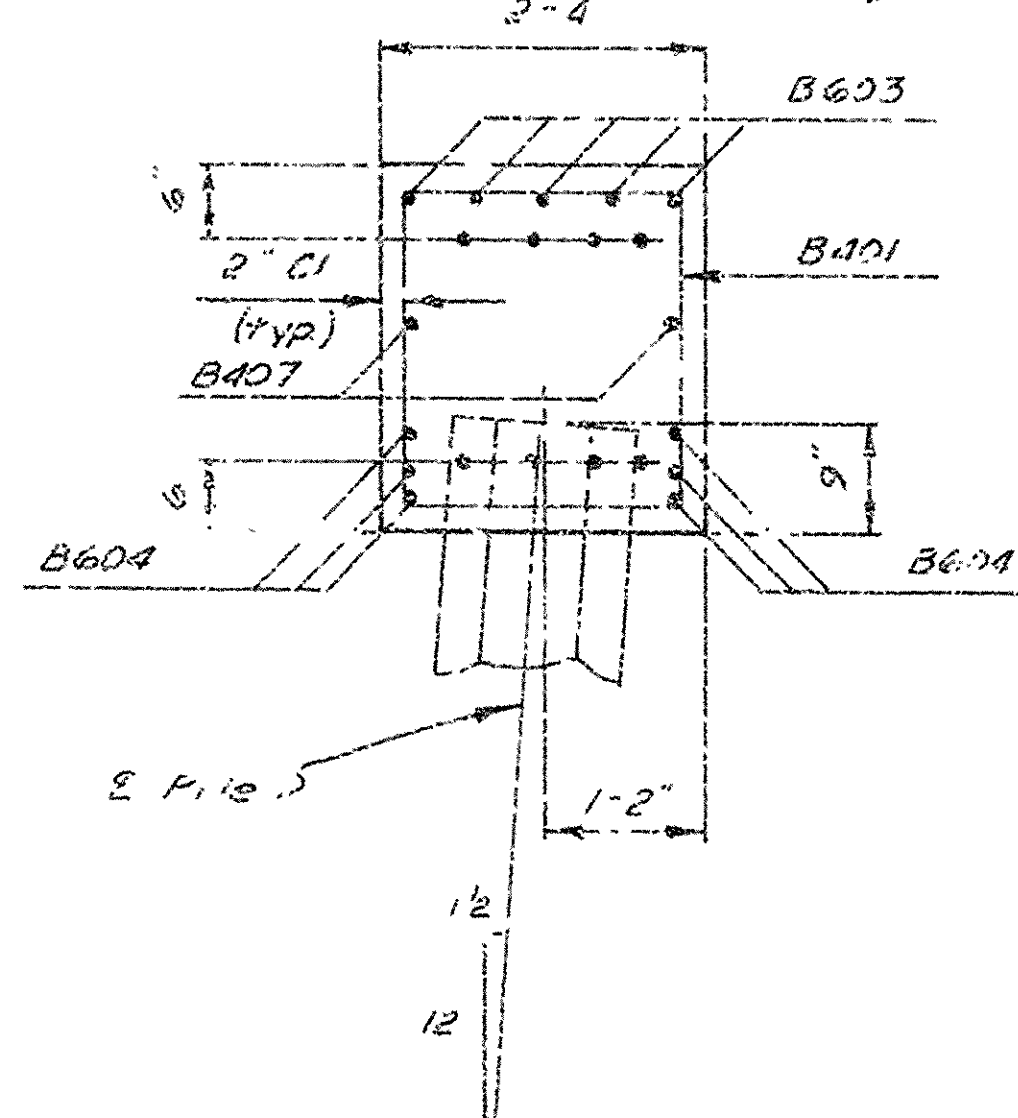


## ELEVATION

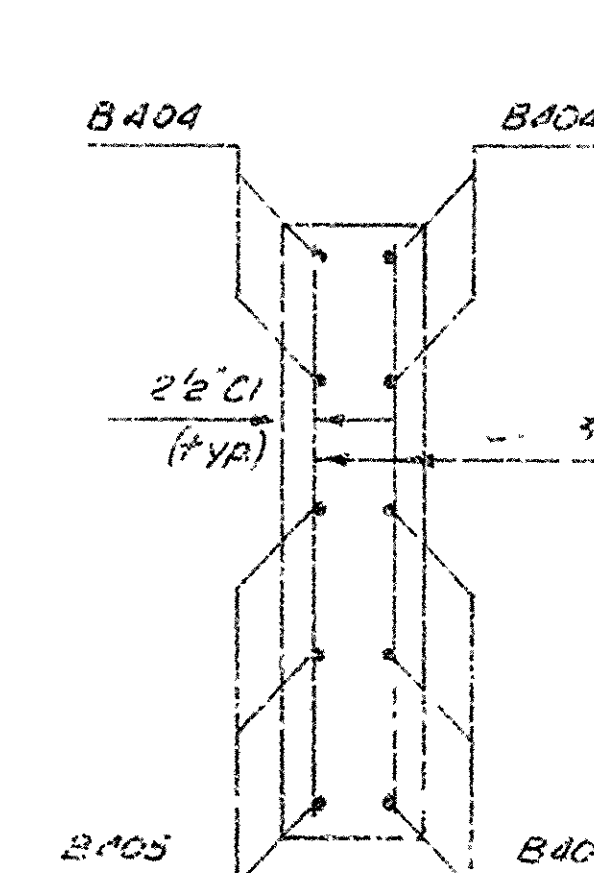
Scale: 3/8" = 1'-0"  
(Looking Forward for Bridges 2809AR & 2810AR)  
(Looking Back for Bridges 2809A & 2810A)



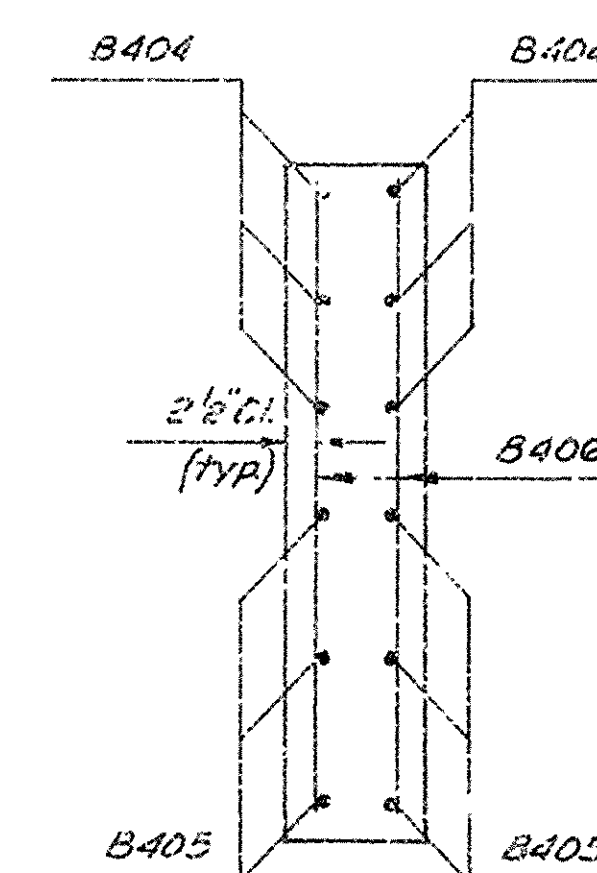
SECTION A-A  
Scale: 3/4" = 1'-0"



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



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



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

SHEET 2 OF 2  
DETAILS FOR WIDENING BENTS  
BRIDGE OVER BIG CREEK  
AND DRY BAYOU  
CLARKDALE-MISS. CO. LINE  
RECONSTRUCTION  
CRITTENDEN COUNTY

ROUTE I-55 SEC. 11

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK

DRAWN BY: TEB DATE: 2-19-75  
CHECKED BY: JCK DATE: 2-20-75  
DESIGNED BY: JCK DATE: 2-18-75

BRIDGE NO. 2809R & 2809AR  
BRIDGE NO. 2810R & 2810AR

DRAWING NO. 19220

*Steve Pinkerton*  
BRIDGE ENGINEER







