

6	AFK	385(2)			
JOB NO.		9390	3	93	

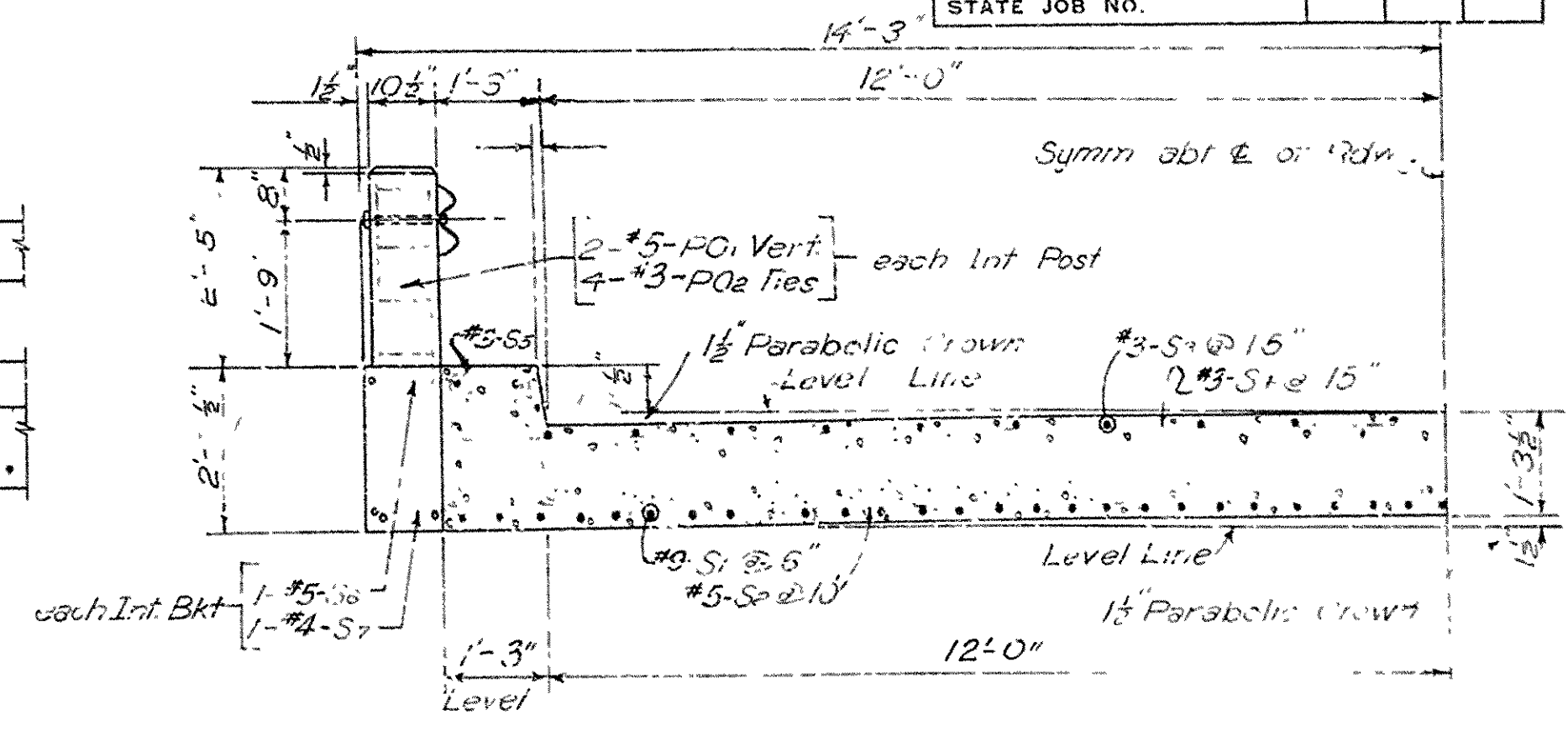
CODE	ITEM No.		SP-801-2	SP-801-2	SP-801-2	SP-802	SP-802	SP-803	SP-805-6	909	929	SP-1052-11
	Item		Dry Excavation For Structures	Wet Excavation For Structures	Solid Rock Excavation For Structures	Class "A" Concrete For Bridges	Class "S" Concrete For Bridges	Reinforcing Steel	Steel Plate Guard (10 Ga.)	Riprap	Bridge Name Plates (Type C)	Removal Of Existing Bridge Structures
	Unit Of Bridge	Unit	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Lb.	Lin. Ft.	Cu. Yd.	Ea.	Comp. Item
X-020	Bent 1		65	12	3	13.10	7.30	2,109		56		
	Bent 2			18	3	14.30	6.11	2,414				
	Bent 3			16	3	14.30	6.11	2,414				
	Bent 4		24	10	3	14.30	6.11	2,414				
	Bent 5		57	19	3.5	13.29	7.30	2,140		60		
	Spans 1 & 4						78.10	13,354	116		1	
	Spans 2 & 3						77.50	13,365	112			
	TOTALS FOR BRIDGE No. 3097		146	75	15.5	69.29	188.53	38,210	228	116	1	0%
	Bent 1		52	22	35	11.50	7.31	1,955		51		
	Bent 2		14	24	3	12.44	6.11	2,101				
	Bent 3		6	24	3	13.16	6.11	2,221				
	Bent 4		8	24	3	13.87	6.11	2,342				
	Bent 5		9	24	3	14.30	6.11	2,414				
	Bent 6			24	3	14.30	6.11	2,414				
	Bent 7		4	24	3	14.30	6.11	2,414				
	Bent 8		84	24	3.5	12.78	7.30	2,058		59		
	Spans 1 & 7						78.10	13,354	116		1	
	Spans 2, 3, 4, 5 & 6						193.75	33,400	280			
	TOTALS FOR BRIDGE No. 3096		177	190	25	106.65	323.12	64,673	396	110	1	86%
	TOTALS FOR JOB 9390		323	265	40.5	175.94	511.65	102,883	624	226	2	86%

SUMMARY OF BRIDGE QUANTITIES  
DUTCH MILLS — CANE HILL  
WASHINGTON COUNTY  
ROUTE 45 SEC. 3  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARKANSAS

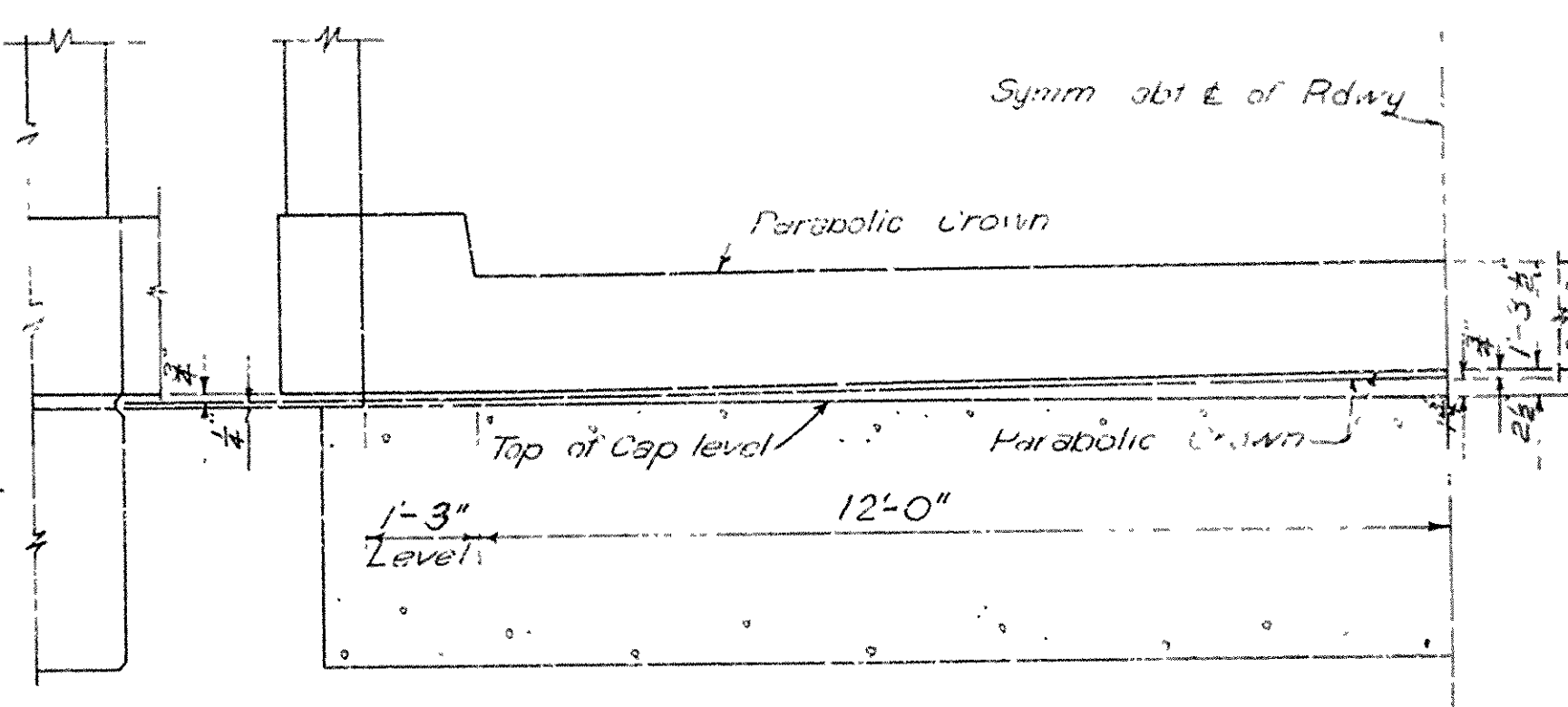
DRAWN BY: \_\_\_\_\_







TYPICAL CROSS SECTION  
SCALE  $\frac{1}{2}'' = 1'-0''$



SHOWING HOW THICKNESS OF PARABOLIC SLAB IS  
INCREASED AT BENT TO MEET LEVEL CAP.  
SCALE  $\frac{1}{4}'' = 1'-0''$

HALF PLAN INTERMEDIATE SPAN

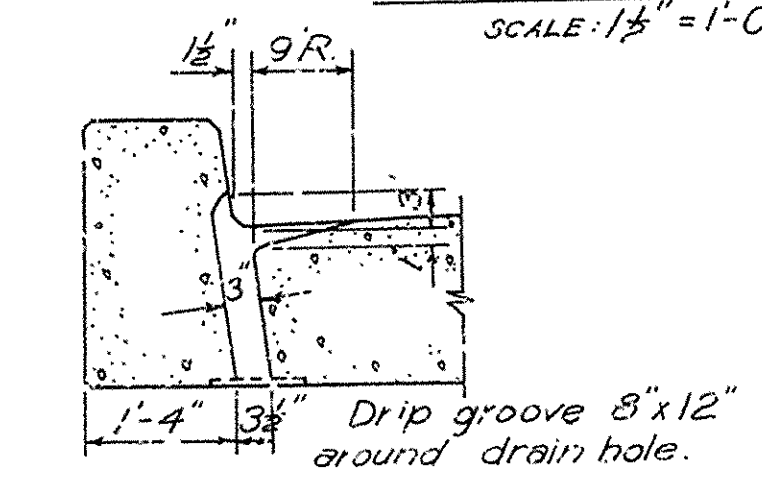
SHOWING STEEL IN TOP OF SLAB  
B.C.T. SLAB STEEL SAME AS SHOWN FOR EN. SPAN

H 15 LOADING (A.A.S.H.O. 1957 REVISED)

LOAD DISTRIBUTION TO SLAB:  
Dead Load = 209 <sup>40</sup>/<sub>100</sub>  
Live Load = 0.182 Wheel/ft. width  
Impact = 30%

OR LANE LOADS  
Uniform Load = 43.6 #/ft  
Concentrated LL = 1227 #  
Impact = 30%

SECT. OF GUARD RAIL  
SCALE:  $1/2" = 1'-0"$



DETAIL B  
SECTION THRU DRAIN OPENING  
SCALE:  $\frac{3}{4}'' = 1'-0''$

Revisions:  
Add'd 2'-2 1/2" to Ss W.W.M. 5-26-54  
Changed S2 to straight bar W.W.M 11-1-54  
Changed note for payment of Bituminous  
and Roofing felt F.R.B. 5-4-56  
Changed bar designation and roadway  
to gutter line. W.E.W. 11-7-57  
Steel Plate Guard splices; Notes for  
reinforcing steel and Bridge Railing;  
Design Loading (1957). L.H.T. 9-15-54  
Revised Guard Rail Note J.M.H. 7-15-66

24'-0" CLEAR RDWY. 1'-0" CURBS

Drawn By: W. W. M. Date: 5-5-52 Scale: As noted  
Traced By: L. W. H. Date: 6-15-55 and PPF 6-17-55  
Checked By: — Date: 5-13-56  
BRIDGE NO. DRAWING NO. 5492

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FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK	S-343(5)		23	72
STATE JOB NO. 8481					

STRAIGHT BARS				
Mark	Size	No. in Bents	End	Length
P1	#9	8	8	14'-2" 9
P2	#8	2	2	27'-2"
P3	#8	4		2'-1"
P4	"	4		2'-9"
P10	"	4		3'-4"
P11	"	4		4'-0"
P12	"	12		6'-4"
P3	#4	4		4'-5"

BENT BARS					
Mark	Size	No. in Bents End Interm.	Length	A	B
F <sub>1</sub>	#6	varies**36	6'-0"	4'-6"	6"
F <sub>2</sub>	#9	8	6'-9"	5'-6"	10"
F <sub>3</sub>	#6	18	A+1'-6"	(4'-6")	6"
P <sub>1</sub>	#6	14***14 or 28	3'-0"	2'-0"	1'-0"
P <sub>2</sub>	#4	varies	7'-3"	1'-7 1/2"	1'-7 1/2"
P <sub>20</sub> to P <sub>21</sub>	#4	varies	6'-5"	1'-7 1/2"	1'-3/4" min increased 2 1/2" per ft
P <sub>3</sub>	#9	3***3	20'-6"	18'-0"	10"
P <sub>5</sub>	#8	3	29'-3"	27'-0"	9"
P <sub>6</sub>	#4	31	9'-1"	1'-7 1/2"	2'-7 1/2"

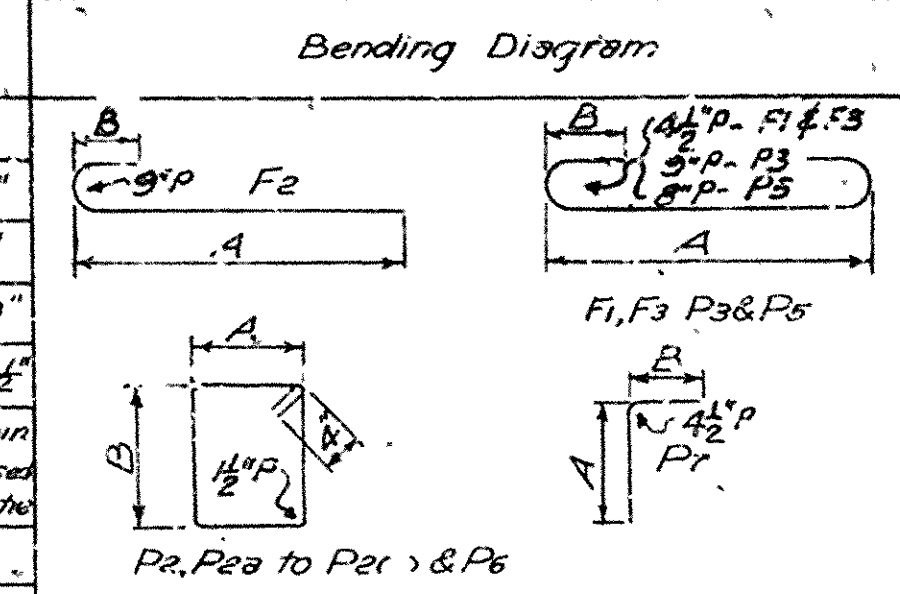
90° F<sub>2</sub>

F<sub>1</sub>, F<sub>3</sub> P<sub>3</sub> & P<sub>5</sub>

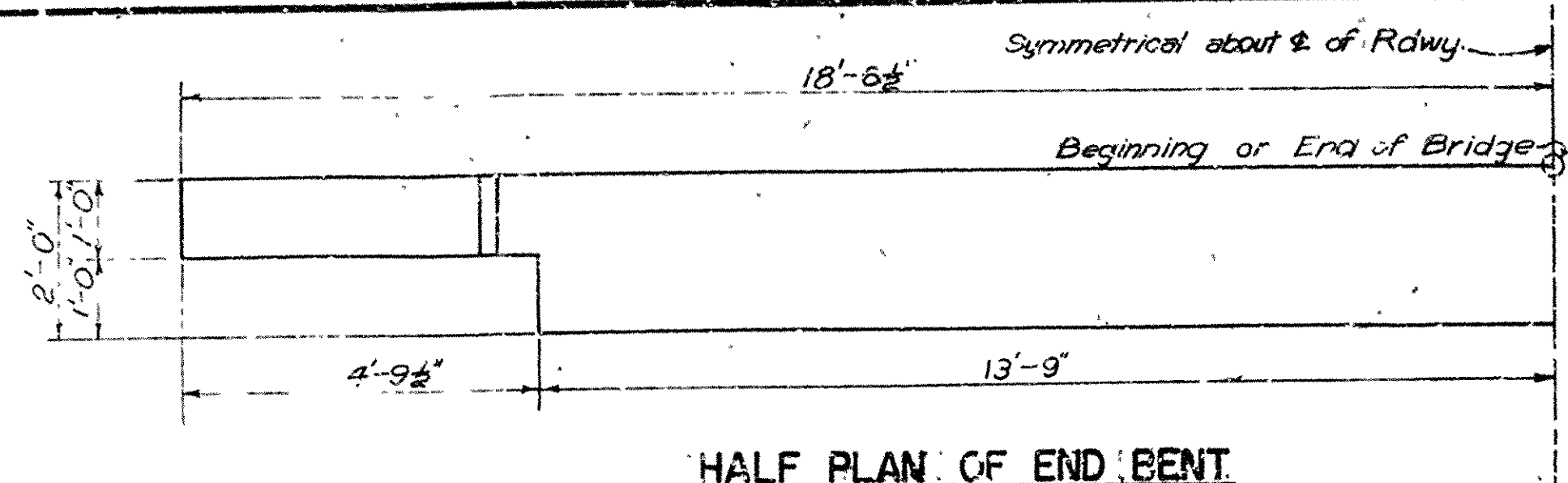
P<sub>2</sub>, P<sub>20</sub> to P<sub>21</sub> & P<sub>6</sub>

P<sub>1</sub>

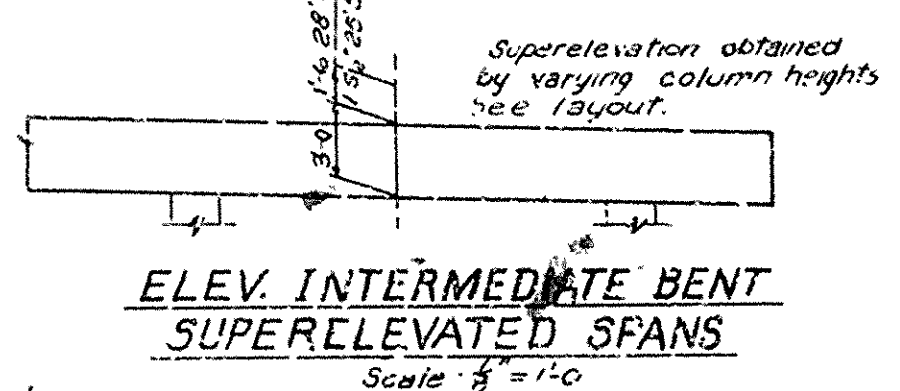
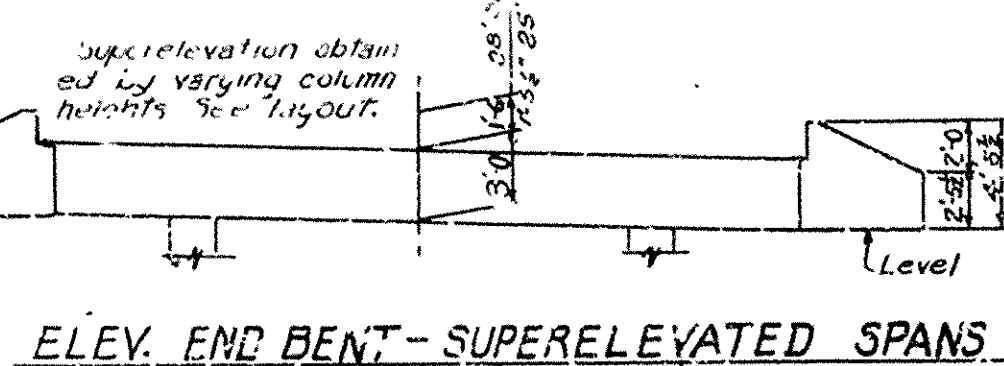
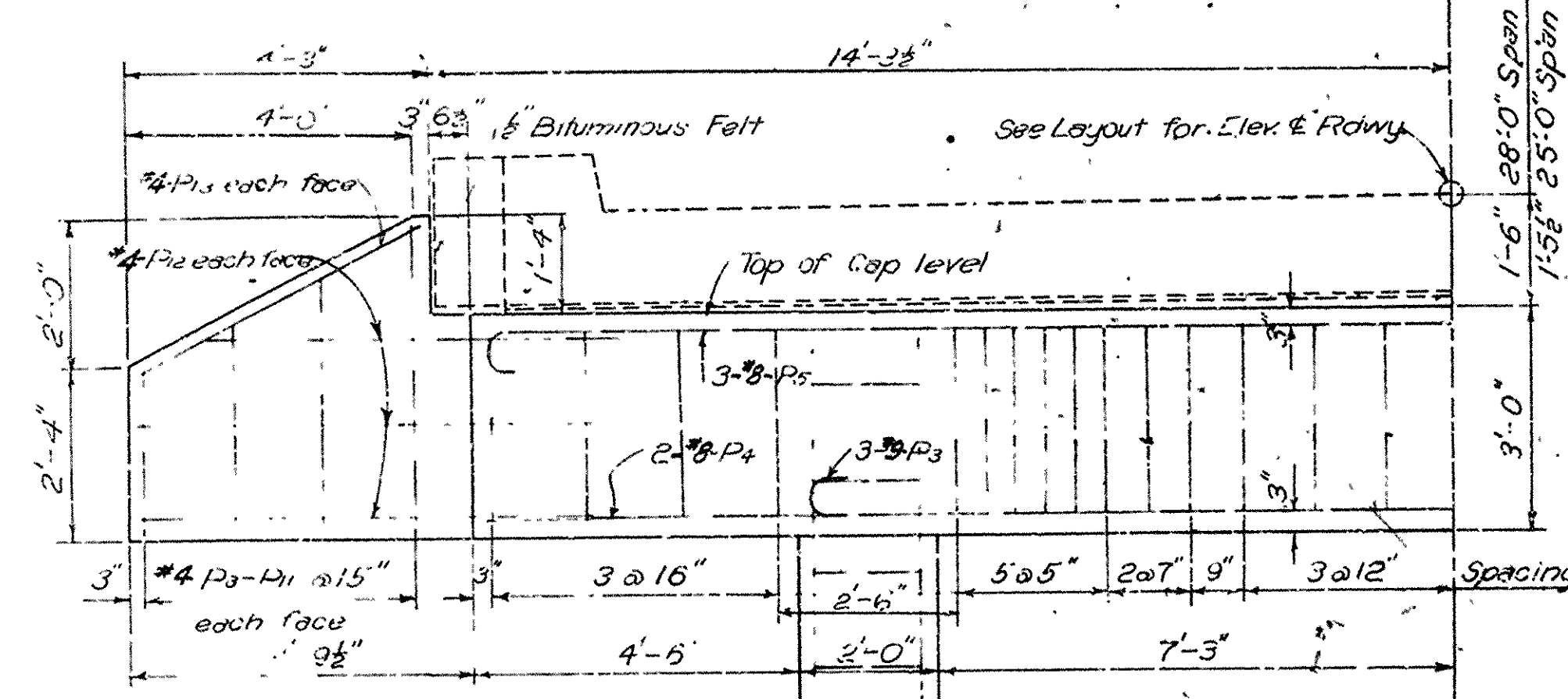
Dimensions are to ctrs of bars.



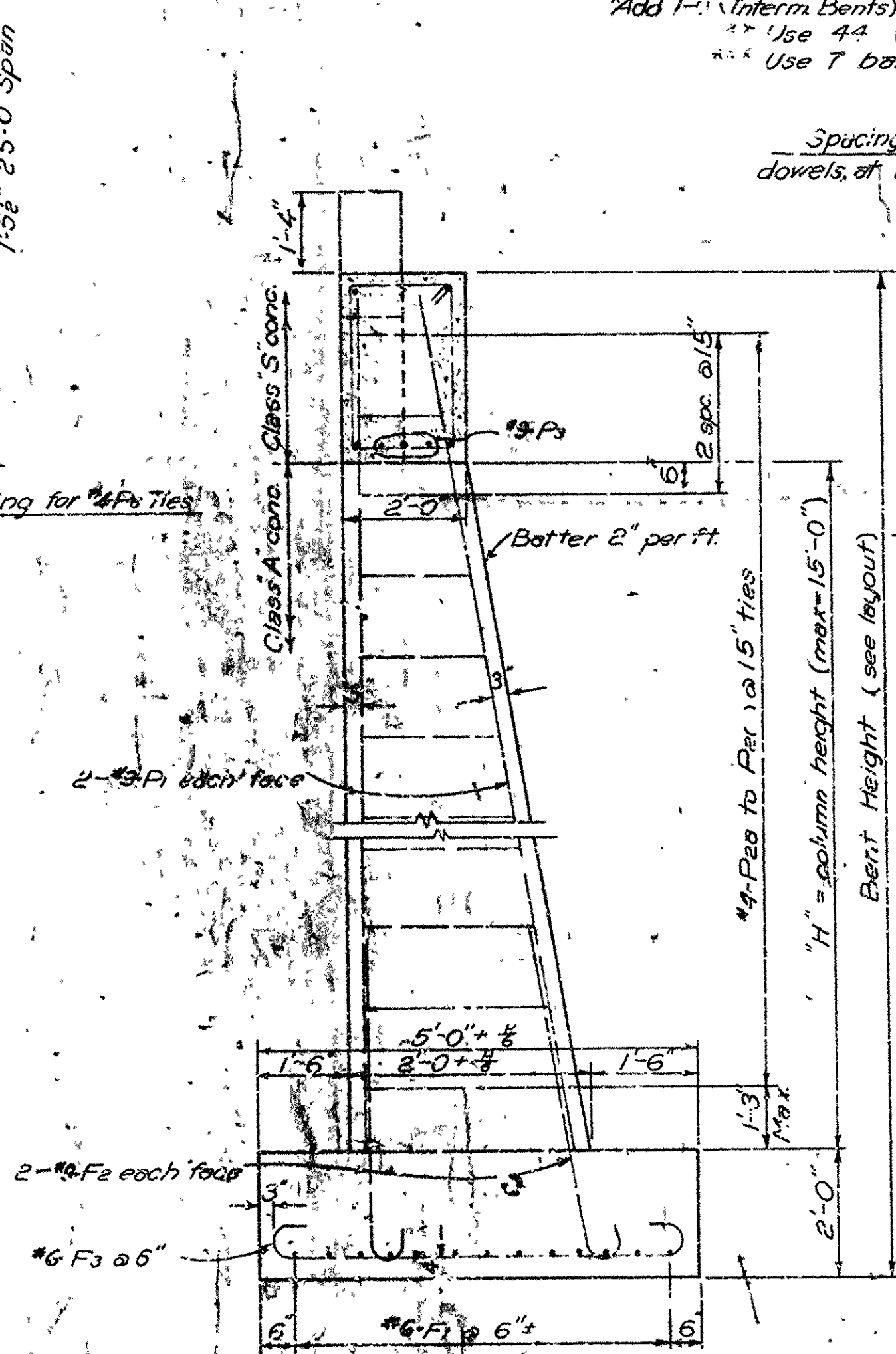
\*Add 1-1/2" (Interm. Bents) when col. height exceeds 20' \*\*\*Use 14 if Exp-Fix and 23 if Fix-Fix. Omit entirely if Exp-Exp. See Layout for location. Also, use 14 at End Bent when Fixed.  
\*\*Use 44 when col. height exceeds 20' \*\*\*Use 7 bars when col. hgt exceeds 20'



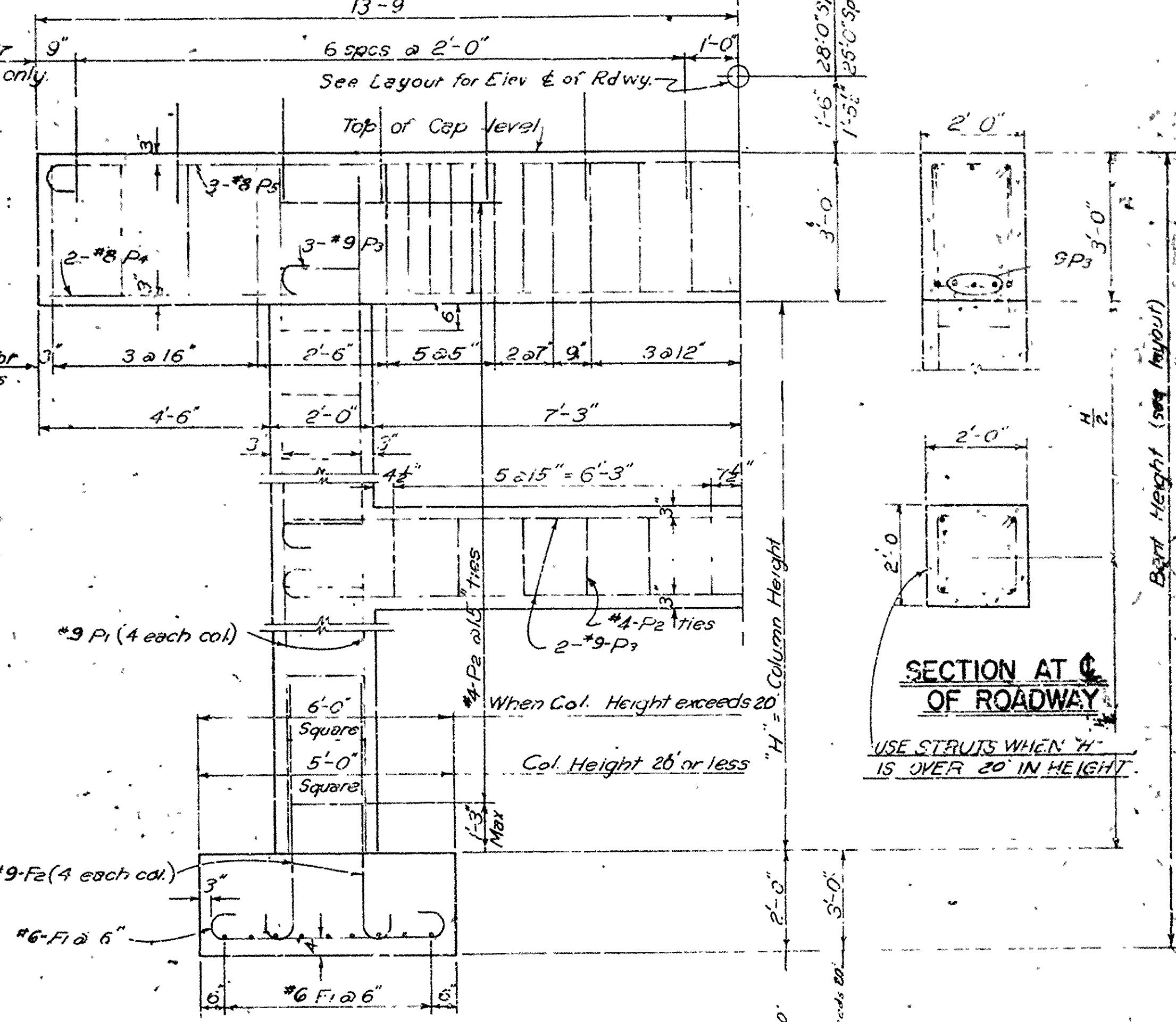
HALF PLAN OF END BENT



HALF ELEVATION OF END BENT



SECTION ON C. RDWY END BENT



HALF ELEVATION INTERMEDIATE BENT

SECTION AT C OF ROADWAY  
USE STRUTS WHEN "H" IS OVER 20' IN HEIGHT

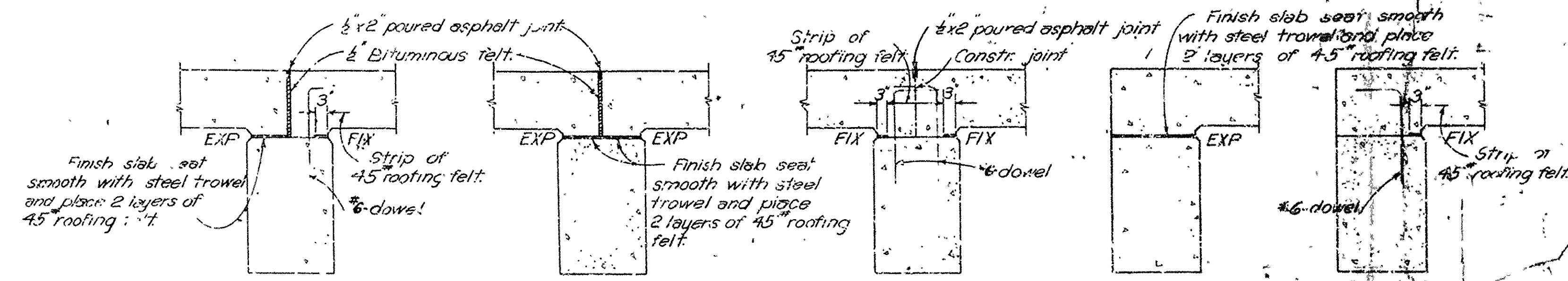
NOTES

For General Notes and Details of superstructure see Drawing No. 5492.  
All concrete in footings and columns to be Class "A".  
All concrete in caps and wings to be Class "S".  
All exposed corners to have 3/4" chamfer unless noted otherwise.  
Maximum bearing = 7200psi at End Bents and 6200psi at Interm. Bents.

Revised to show super-elevated caps. (WMM 4-25-54)  
Revised Interm. Bent Height limitations. (WMM 10-27-54)  
Revised to include 25'-0" Span Bents (F.R.B. 6-14-55)  
Revised bar designation and details (WEM 11-7-57)  
Revised Column Height limitations (S.A.B. 1-20-60)

DETAILS OF  
STANDARD R.C. BENTS  
FOR 25'-0" & 28'-0" R.C. SLAB SPANS  
24'-0" CLEAR RDWY. 1'-0" CURBS

Class "A" Concrete (f' = 15) = 340 #/cu ft.  
Class "S" Concrete (f' = 10) = 1200 #/cu ft.  
Reinforcing Steel (f' = 20,000) = 20,000 #/cu ft.



INTERM. BENT EXP-FIX

INTERM. BENT EXP-EXP

INTERM. BENT FIX-FIX

END BENT EXP

END BENT FIX

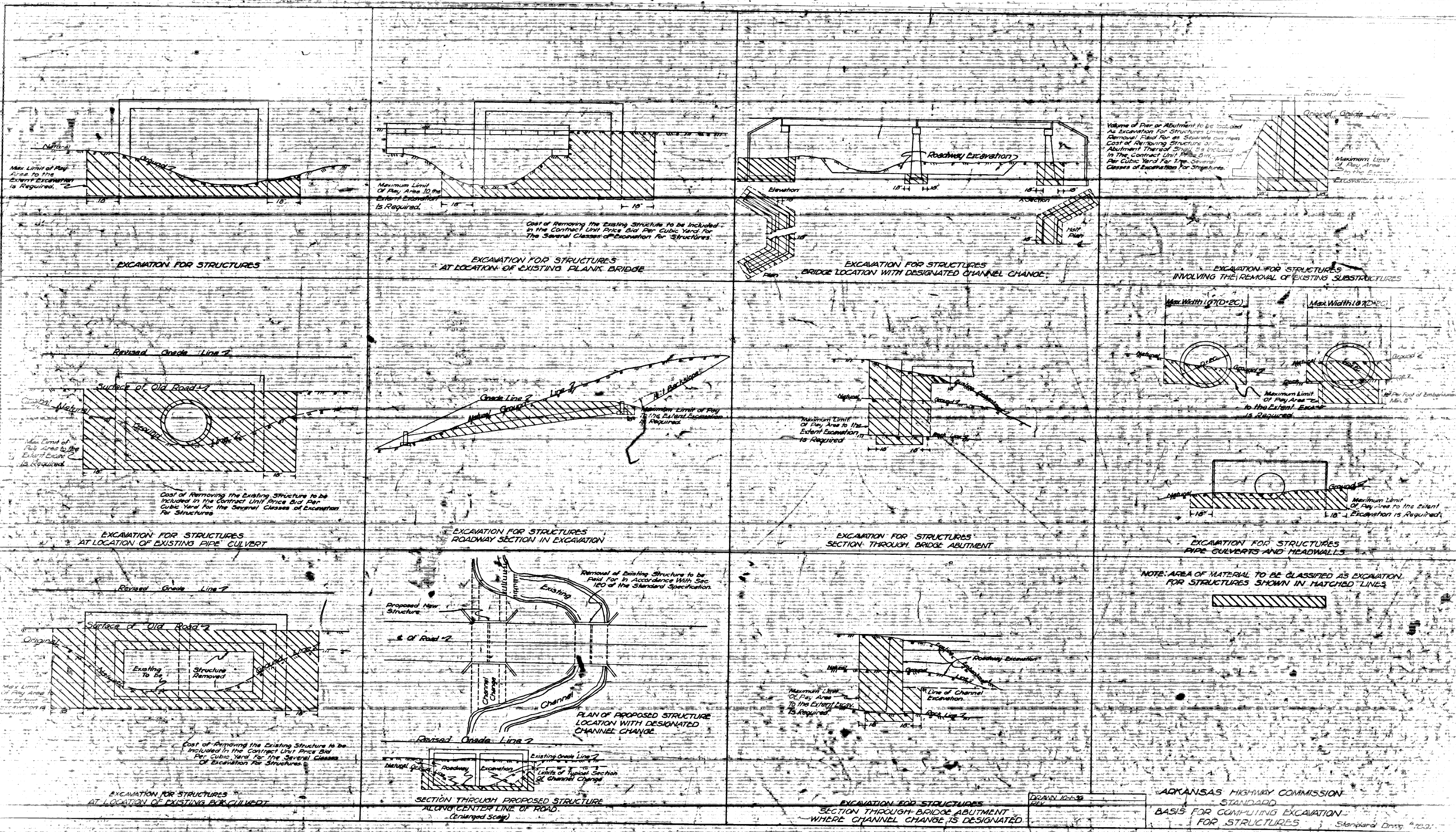
SECTIONS ON C. RDWY. SHOWING FIXED & EXPANSION SLAB ENDS. SEE LAYOUT FOR LOCATION

ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
Drawn By: WMM Date: 10-22-53  
Traced By: LWH Date: 8-6-54  
Checked By: JEH Date: 7-2-54  
BRIDGE NO. DRAWING NO. 5491



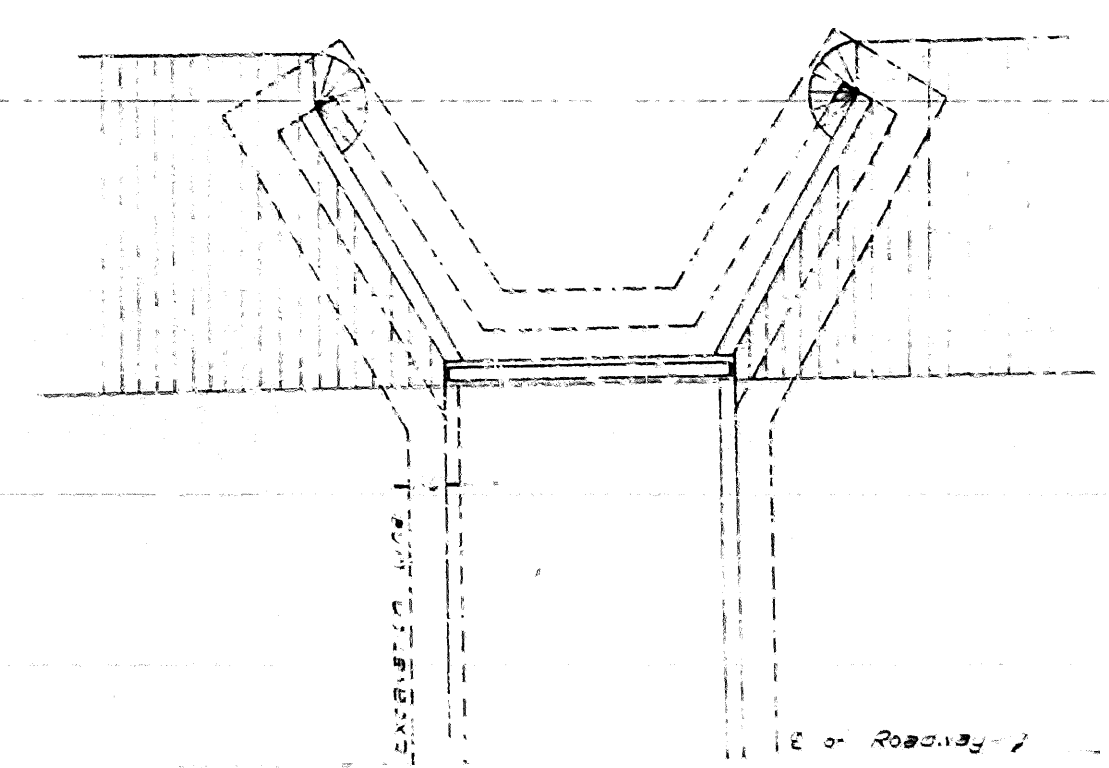








FOOD ROAD DIST. NO.	STATE	F.C. AND PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.				
JOB NO.					



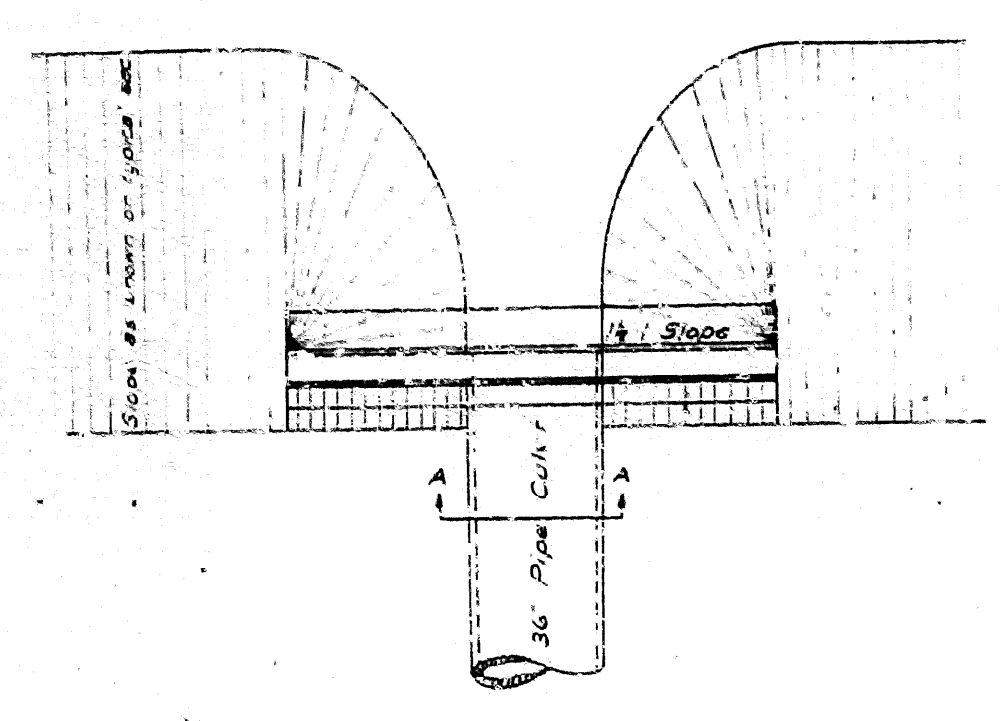
PLAN

Construct embankment in 4' or 6' (Loose Measure) Horizontal Layers, as required

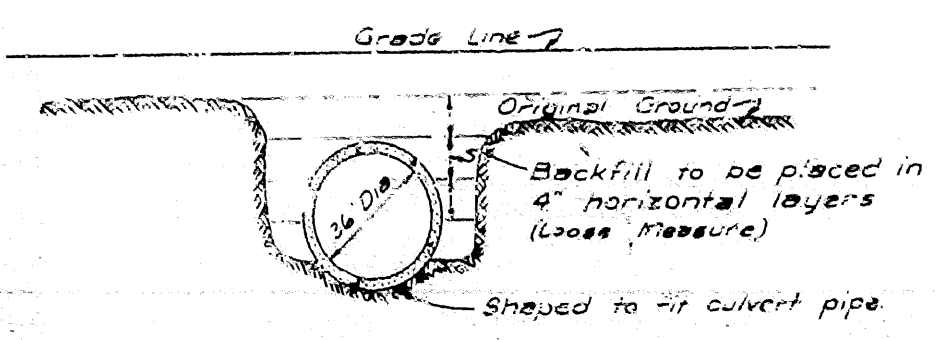
Backfill to be placed in 4' (Loose Measure) Horizontal Layers

LONGITUDINAL SECTION

BOX CULVERT

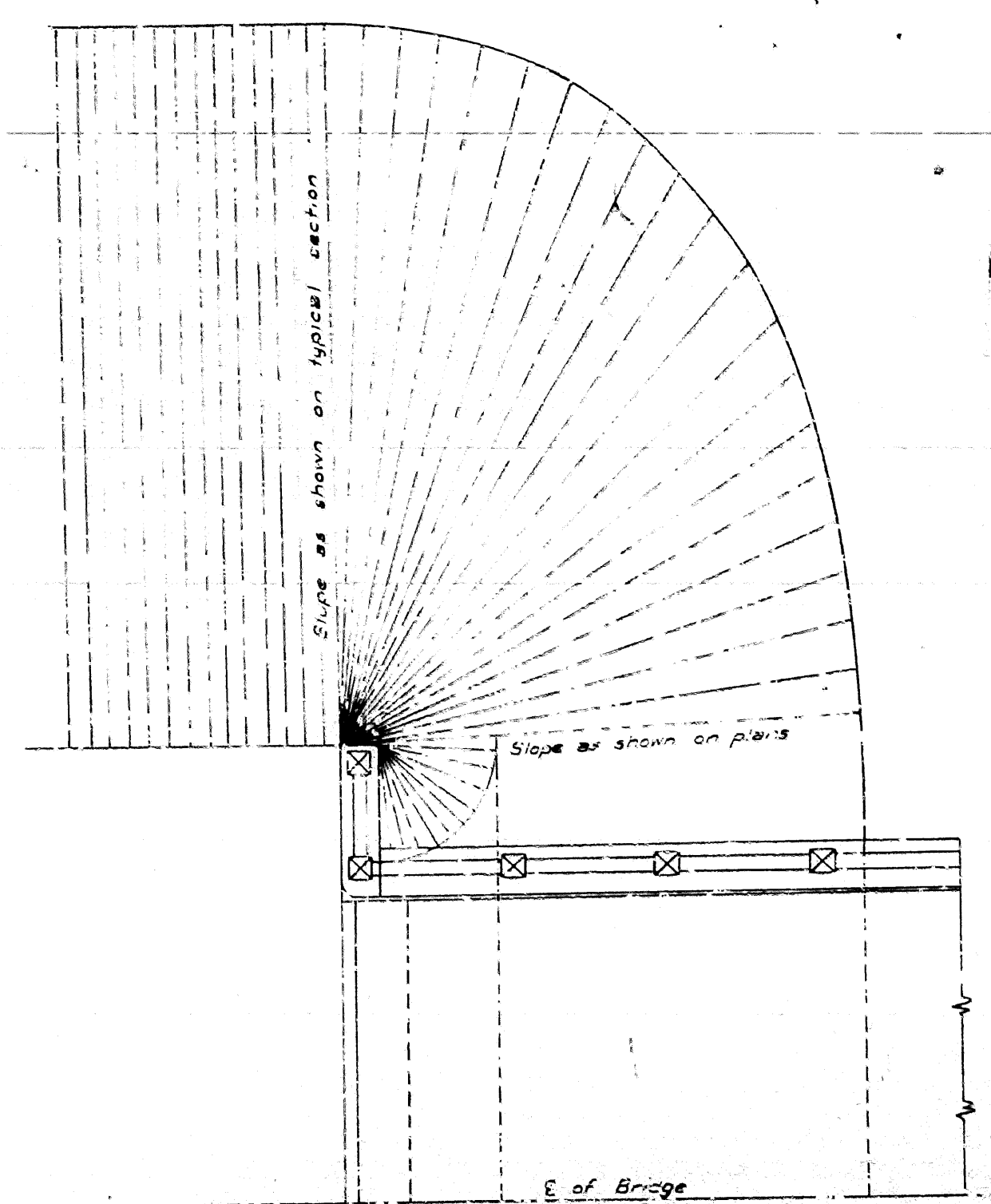


PLAN

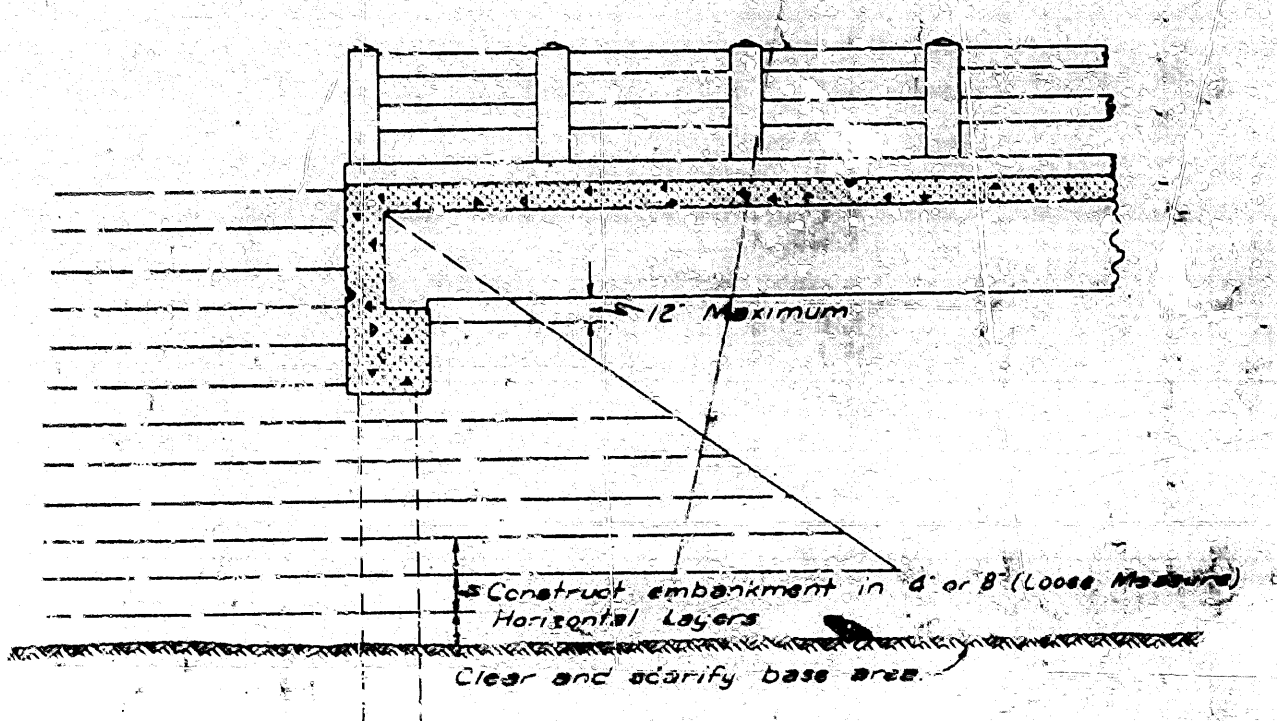


SECTION A-A

PIPE CULVERT

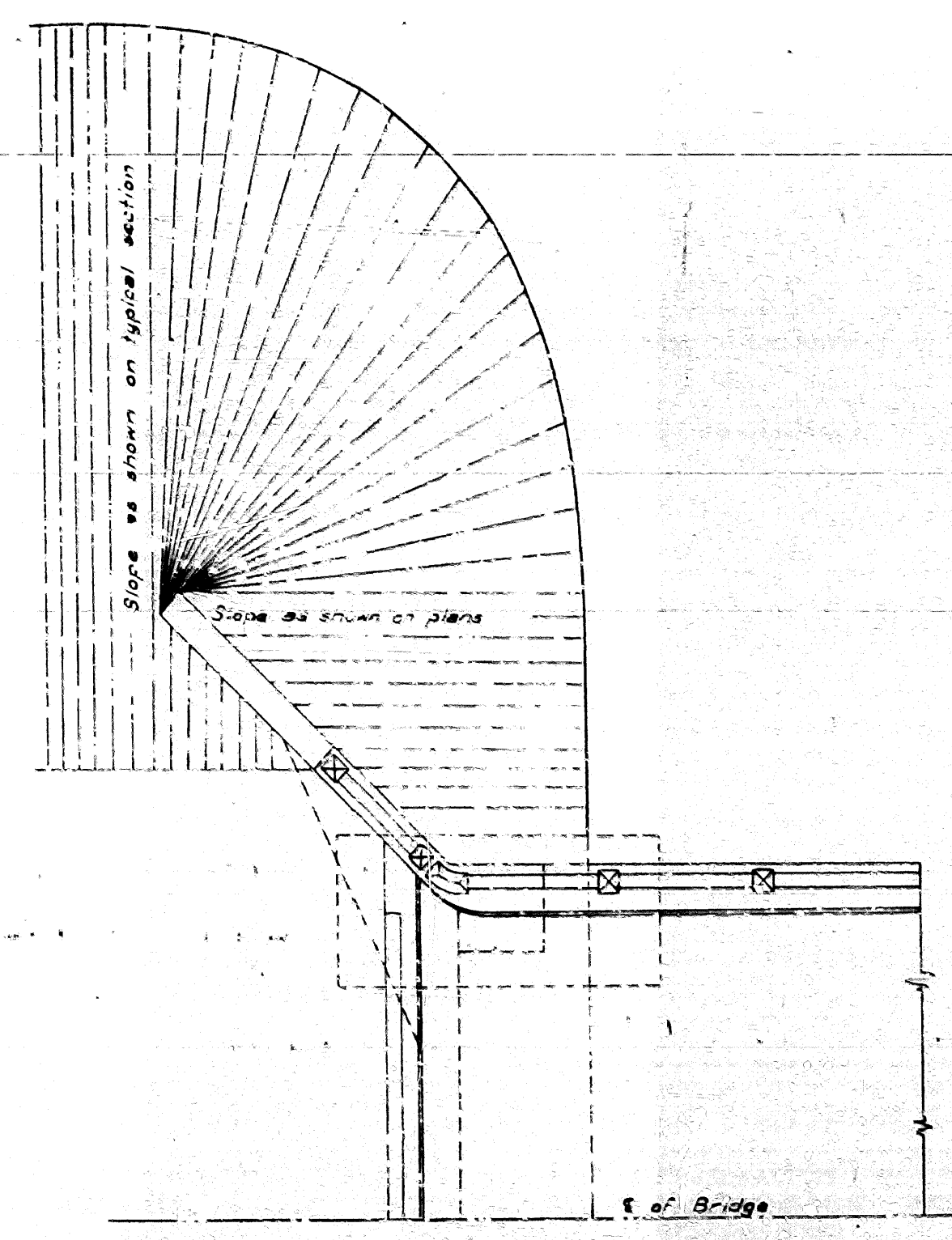


HALF PLAN

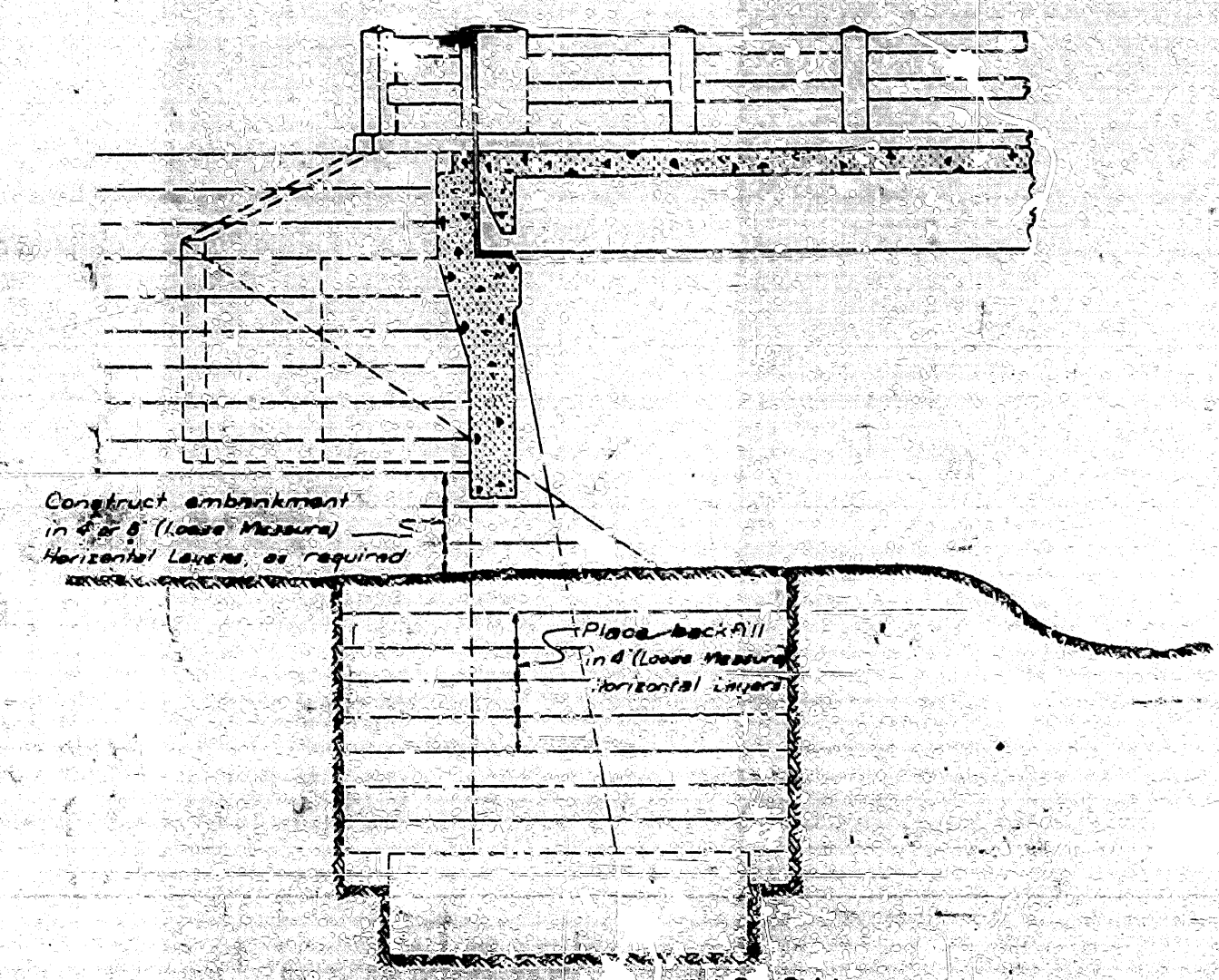


LONGITUDINAL SECTION

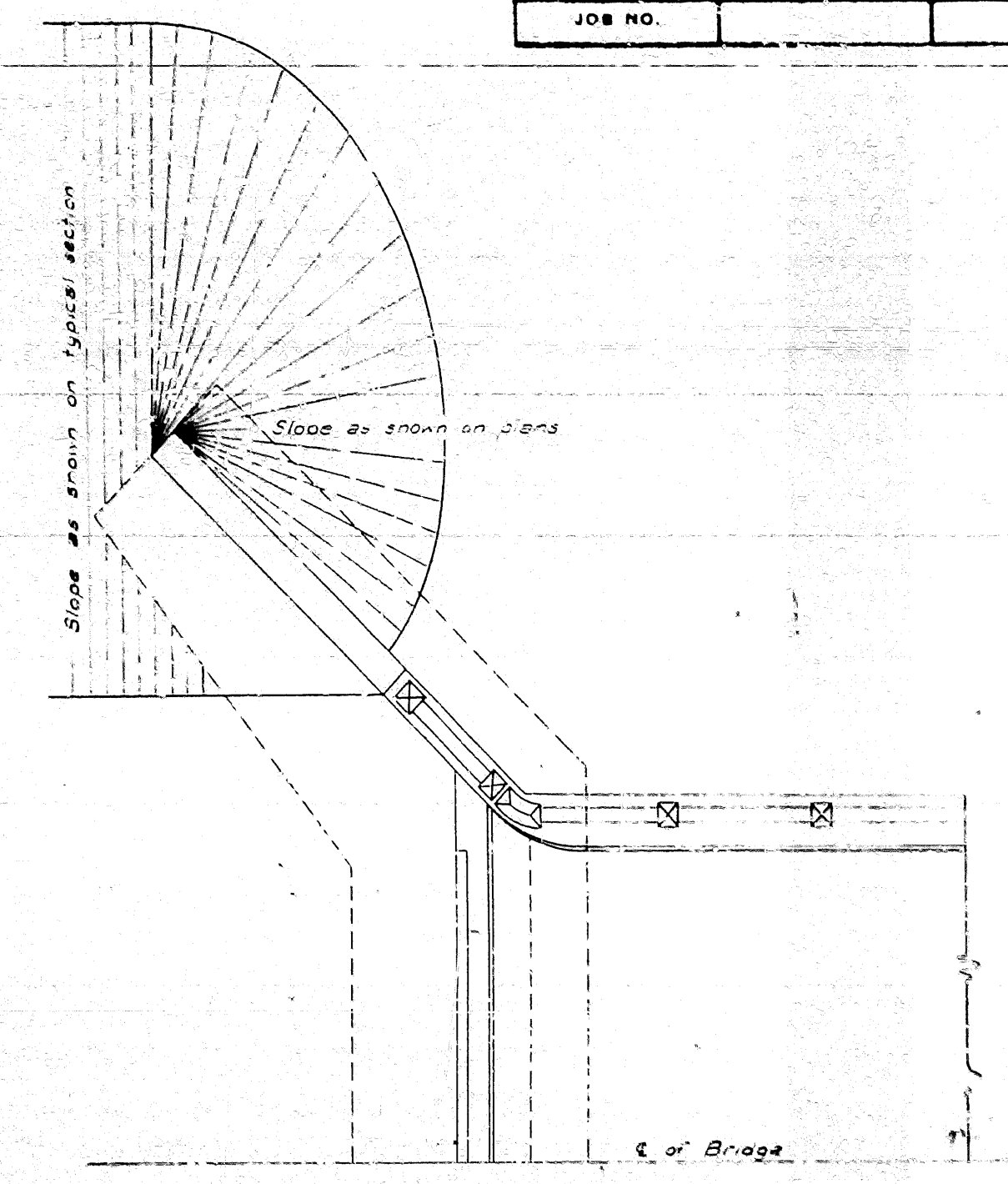
OPEN END ABUTMENT



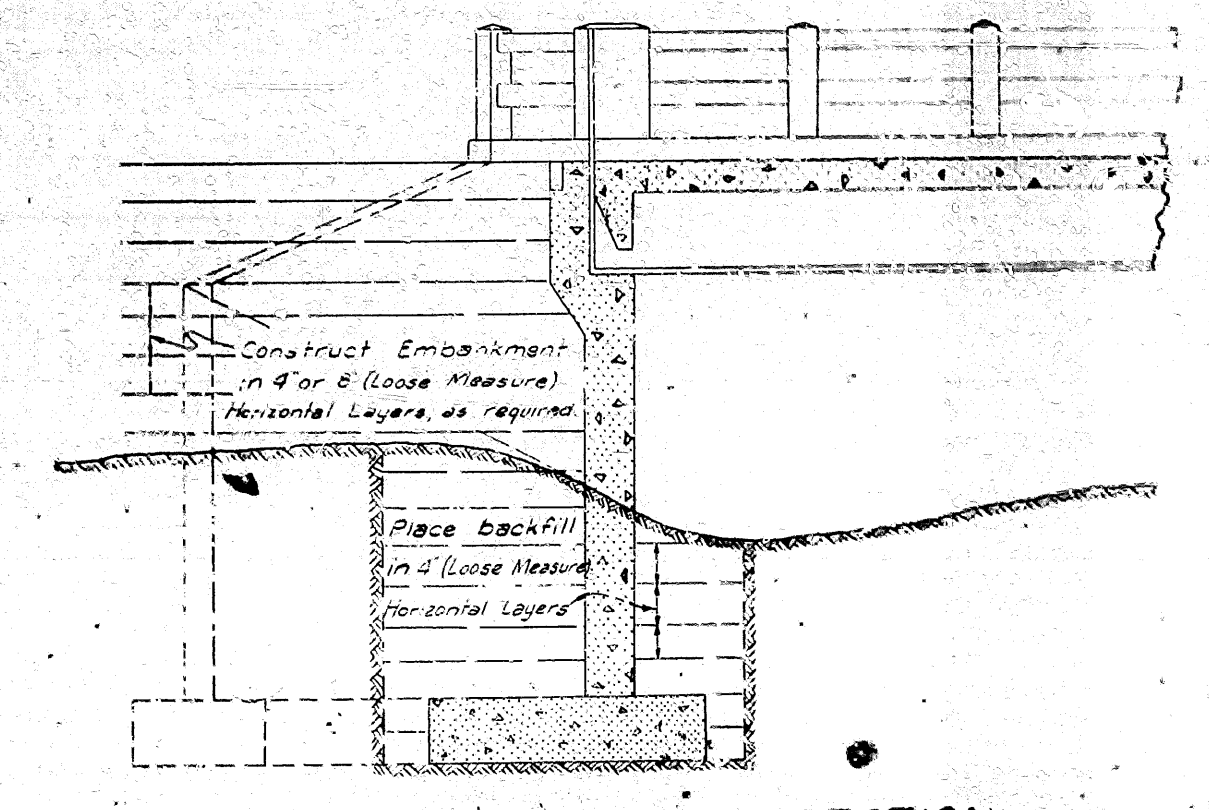
HALF PLAN



LONGITUDINAL SECTION  
SEMI-OPEN ABUTMENT



HALF PLAN



LONGITUDINAL SECTION

WINGWALL ABUTMENT

Notes relative to construction of bridge-end embankments and backfilling excavations shall be applicable to backfilling culvert excavations and the construction of embankments over and adjacent to culverts.

### CONSTRUCTION OF THE BRIDGE-END EMBANKMENT

The bridge-end embankment shall be understood to mean not less than 20 feet of embankment adjacent to the end of the bridge together with the side slopes and slopes underneath the bridge-end and around the end of wingwalls.

The surface area to be occupied by this embankment shall first be cleared of all debris and vegetable matter and then scarified so as to completely expose the raw earth. The foregoing shall be done before any of the base surface is covered by material taken from the structure excavations.

Embankment material shall be of approved quality free from light and porous or perishable matter.

The fill shall be constructed in horizontal layers to the thickness required as specified in the specifications for Embankment Material, Section 106 and shall be compacted in accordance with the specifications for Special Compaction of Earthwork, Section 107.

### BACKFILLING EXCAVATION

In so far as is practicable, abutment excavations shall be cut to the size shown by the plans with allowance of 18" on all sides as permitted by the specifications. Greatly oversize and flared cuts, sometimes made to avoid the use of shoring, will not be permitted.

When the abutment excavation is ready for backfill it shall be cleared of all interfering material, unless directed by the engineer, and of all debris and unsuitable fill material.

The space around the wall or columns shall then be carefully filled to the original ground line in horizontal layers to the thickness specified in the specifications for Embankment Material, Section 106 and shall be compacted in accordance with the specifications for Special Compaction of Earthwork, Section 107.

## ARKANSAS STATE HIGHWAY COMMISSION DETAILS OF EMBANKMENT CONSTRUCTION AT BRIDGE ENDS AND BACKFILL FOR STRUCTURES