

INDEX OF SHEETS

SHEET NO.	TITLE SHEET
1	TITLE SHEET
2	FLARED CURB & GUTTER
3	CONCRETE TILE SLOPE DRAINS
4	PIPE HANDRAIL
5	ROAD PLAN & PROFILE - CANNONS CREEK
6	BRIDGE PLAN & PROFILE
7	BENT DETAILS
8	30' SUPERSTRUCTURE DETAILS
9	ROAD PLAN & PROFILE - KINGS CREEK
10	BRIDGE PLAN & PROFILE
11	BENT DETAILS
12	30' SUPERSTRUCTURE DETAILS

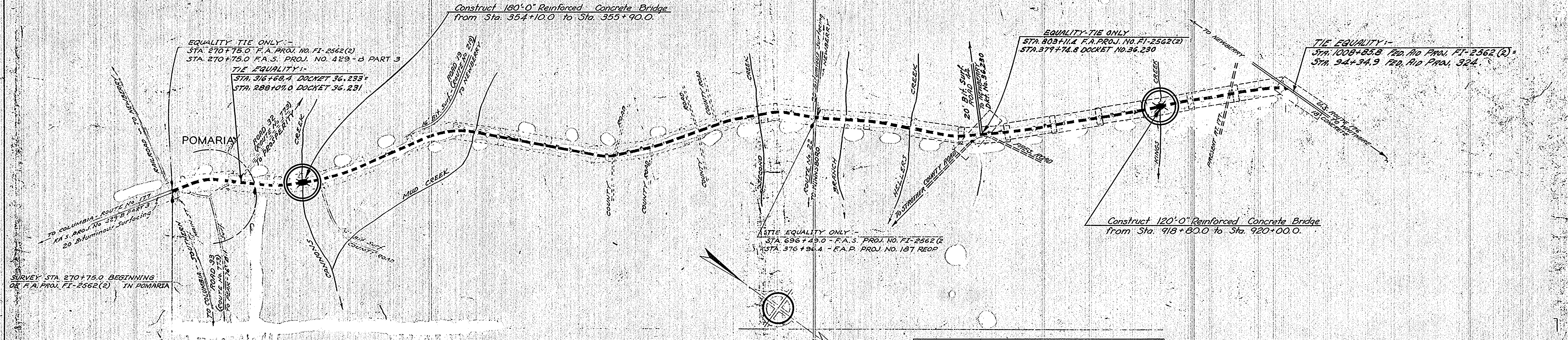
**SOUTH CAROLINA
STATE HIGHWAY DEPARTMENT
COLUMBIA**

**PLAN AND PROFILE OF PROPOSED
STATE HIGHWAY**

FEDERAL AID PROJECT NO. FI-2562(5)
S.C. DOCKET NO. 36.241
ROUTE NO. 177
NEWBERRY COUNTY
BRIDGES OVER
CANNONS CREEK & KINGS CREEK

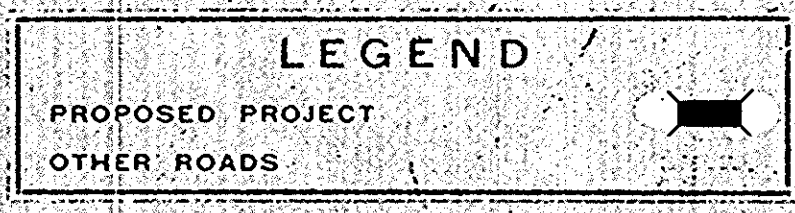
SUMMARY OF ESTIMATED QUANTITIES

Item	Cannons Creek	Kings Creek	Total
Class "A" Concrete	C.Y. 287.05	C.Y. 195.27	C.Y. 482.32
Reinforcing Steel	Lbs. 68,424	Lbs. 45,882	Lbs. 114,306
16" Pre-cast Concrete Piling	L.F. 995	L.F. 625	L.F. 1,620
Pre-cast Concrete Tile Slope Drains	L.F. 120	L.F. 45	L.F. 165
Pipe Handrail	L.F. 360	L.F. 240	L.F. 600



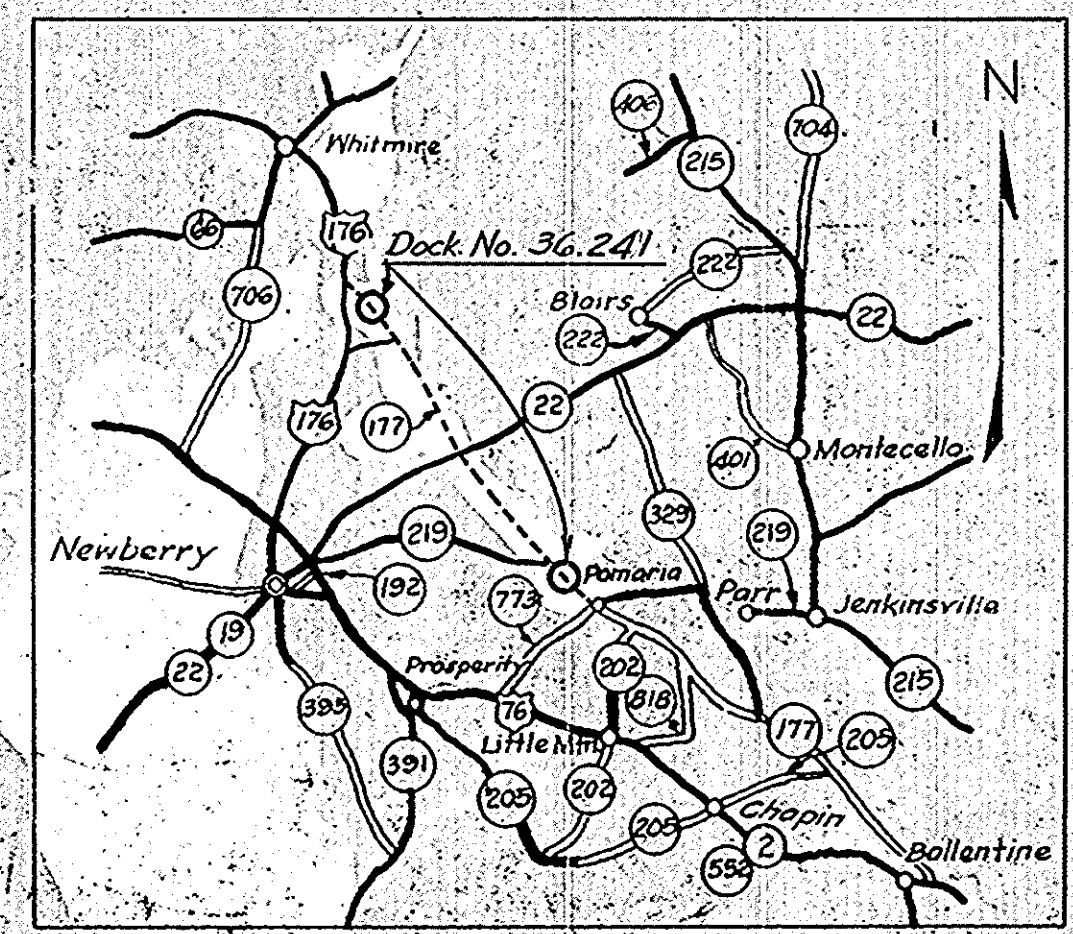
CONVENTIONAL SIGNS

State Line	Trolley Poles
County Line	Power Poles
City or Town Lines	Telephone or Telegraph Poles
Property Line	Marsh
Fence	Trees
Retaining Wall	Brush
Existing Road	Stumps
C and R.O.W. Lines of Proposed Road	Buildings
Railroad	Bridge
Levee or Embankment	Concrete Box Culvert
Guard Rail	Pipe Culvert
Point of Intersection (P. I.)	Drop Inlet and Culvert
	Hub on Center Line



LAYOUT
Scale: 1 inch = 3000 feet

Net Length of Roadway	0.000 Miles
Net Length of Bridges	0.056 Miles
Net Length of Project	0.056 Miles
Length of Exceptions	0.000 Miles
Gross Length of Project	0.056 Miles



Note: All workmanship and materials on this project to conform with South Carolina State Highway Department Standard Specifications for Highway Construction dated March 15th, 1939, as approved by the Administrator, Federal Works Agency.

APPROVED

S. N. Pearson
STATE HIGHWAY ENGINEER 10/19/48

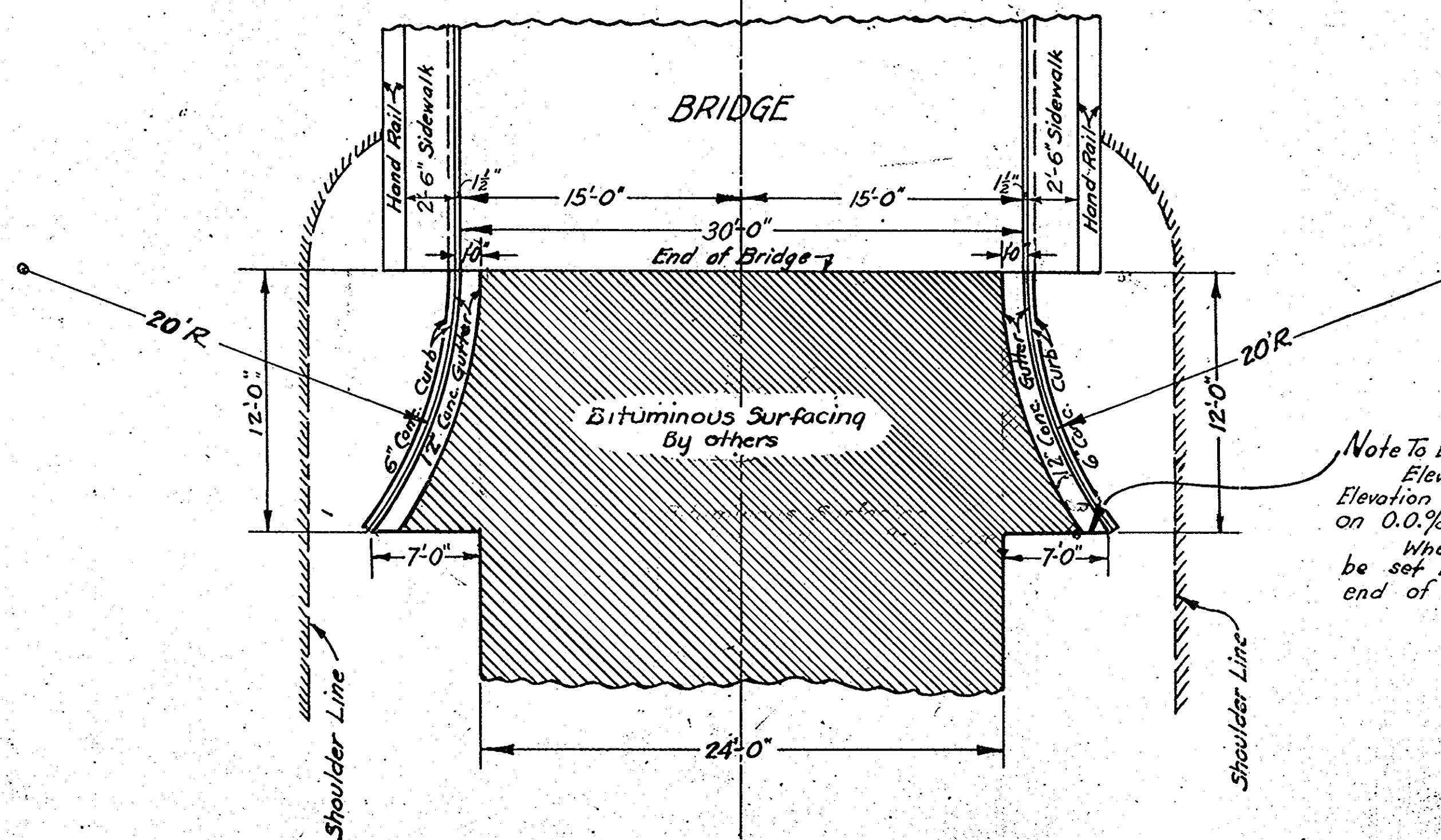
RECOMMENDED FOR APPROVAL

DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

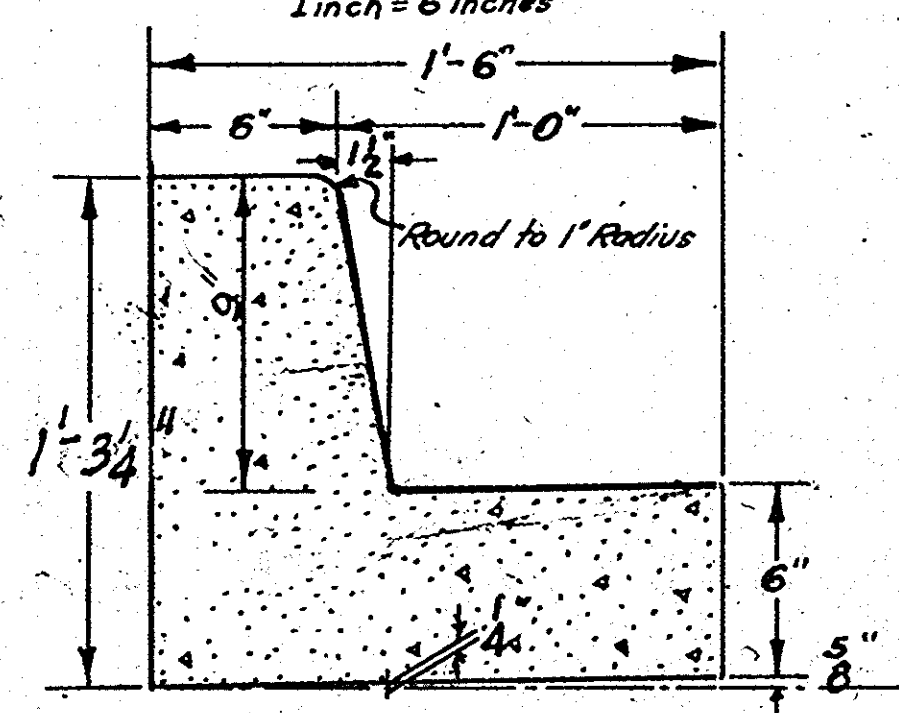
APPROVED

DIVISION ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

SKETCH
SHOWING
FLARE AT BRIDGE ENDS
Scale
1 inch = 5 feet



DETAIL
OF
CONC. CURB AND GUTTER
Scale
1 inch = 6 inches



CURB & GUTTER QUANTITIES - ONE END - ONE BRIDGE
Class "A" Concrete for one end of bridge = 112 C.Y.

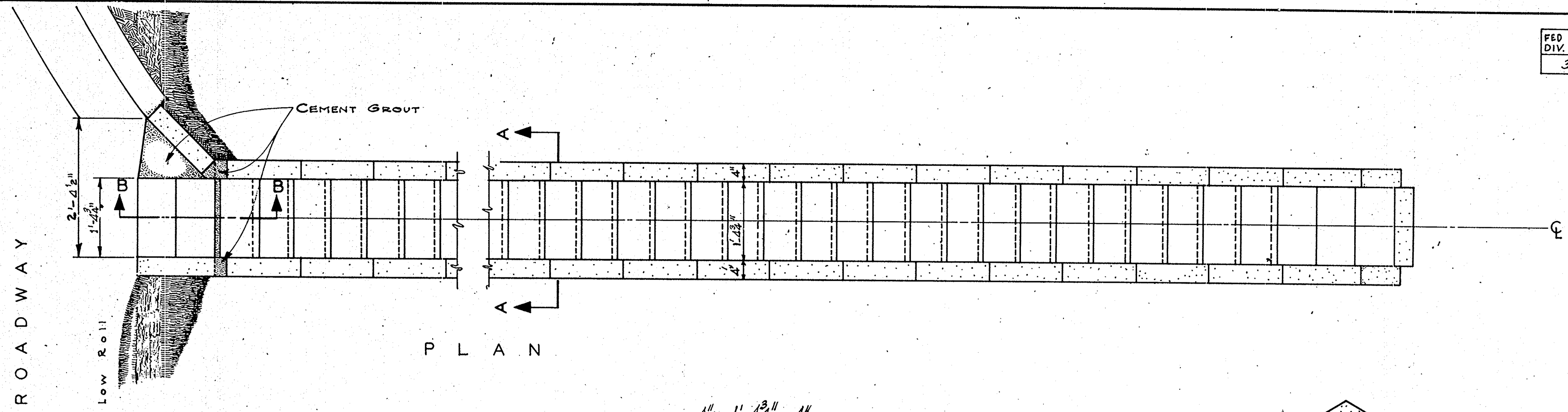
Note To Engineers:
Elevation of this point to be set 6" below
Elevation of gutter at end of Bridge where approach is
on 0.0% grade.
When the approach is on a grade this point should
be set (6" ± 1% of grade x 12') below elevation of gutter at
end of bridge.

All costs of constructing the concrete curb and
gutter at the ends of the bridge will be included
in payment for the concrete involved at the Unit
Price Bid for Class "A" Concrete.

S. C. STATE HIGHWAY DEPARTMENT
COLUMBIA
DETAIL OF
CURB AND GUTTER FOR SLOPE
DRAINS AT ENDS OF BRIDGE

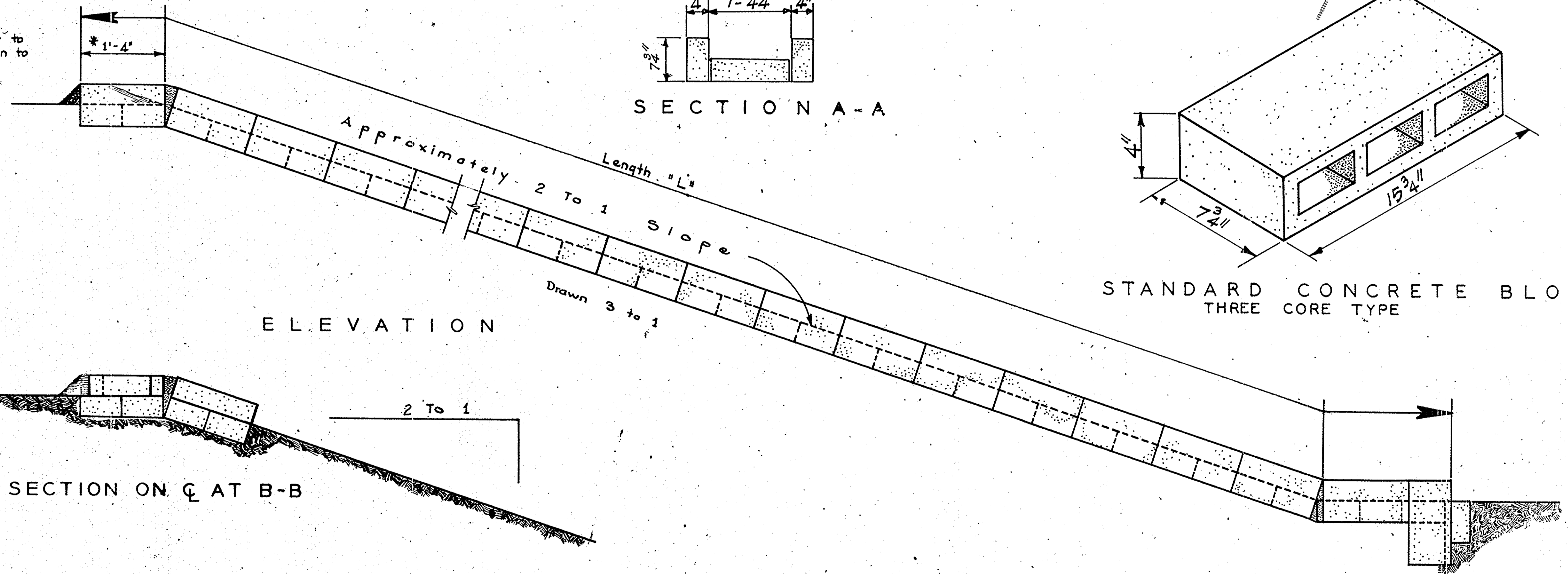
S. C. DOCKET NO. 36.241, NEWBERRY COUNTY
ROUTE NO. 177 DATE OCT. 1948

FED ROAD DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	NEWBERRY	36.241	177	3	12



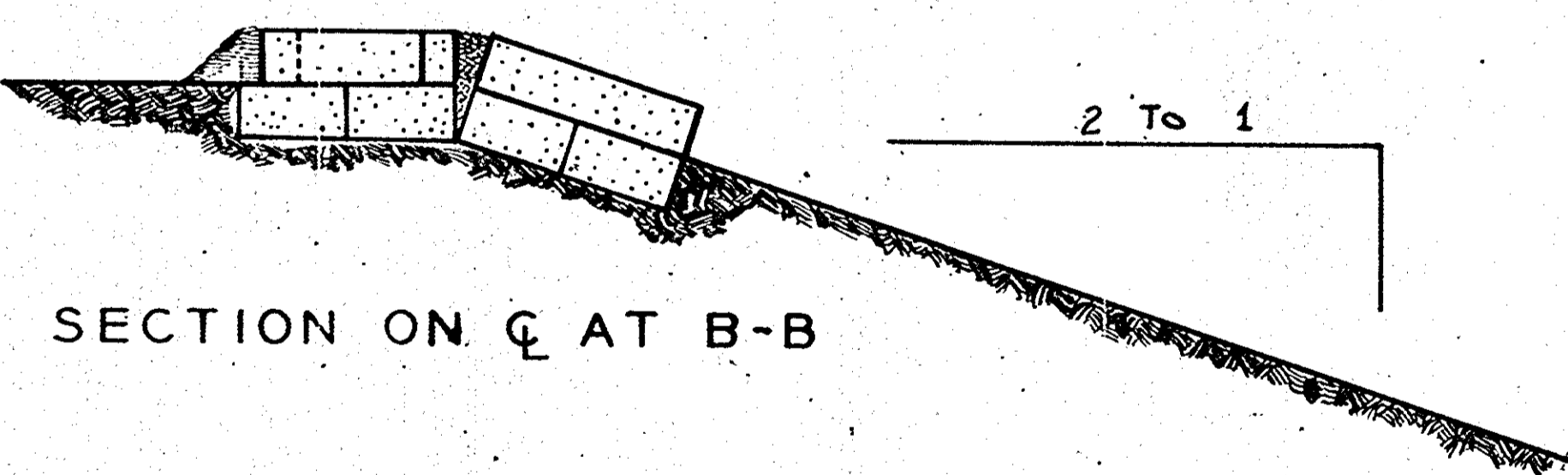
P L A N

* Resident Engineer to vary this dimension to suit shoulder



E L E V A T I O N

STANDARD CONCRETE BLOCK
THREE CORE TYPE



SECTION ON C AT B-B

CANNONS CREEK 120 ✓
KINGS CREEK 45 ✓
TOTAL LENGTH 165 ✓ FT.

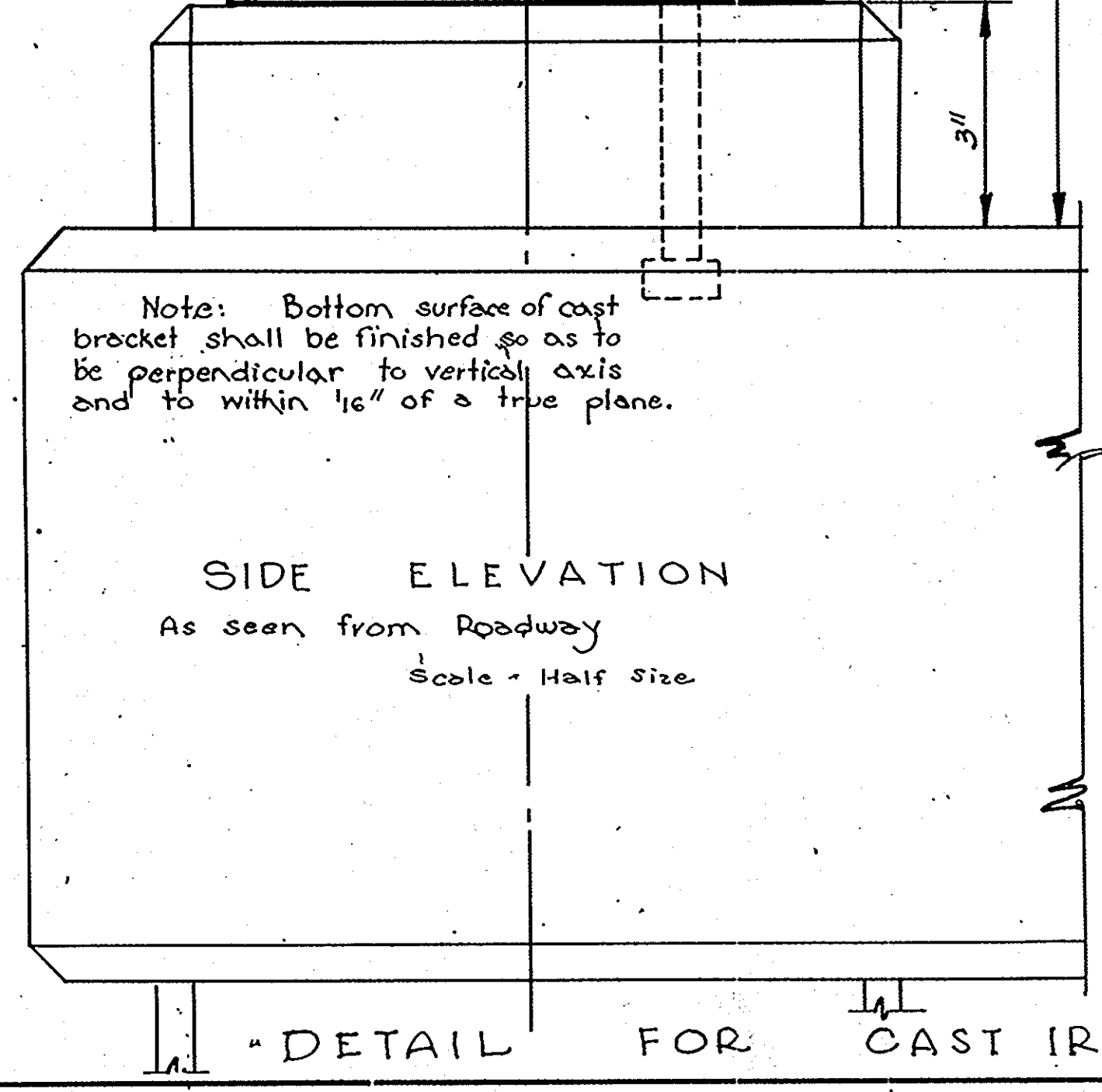
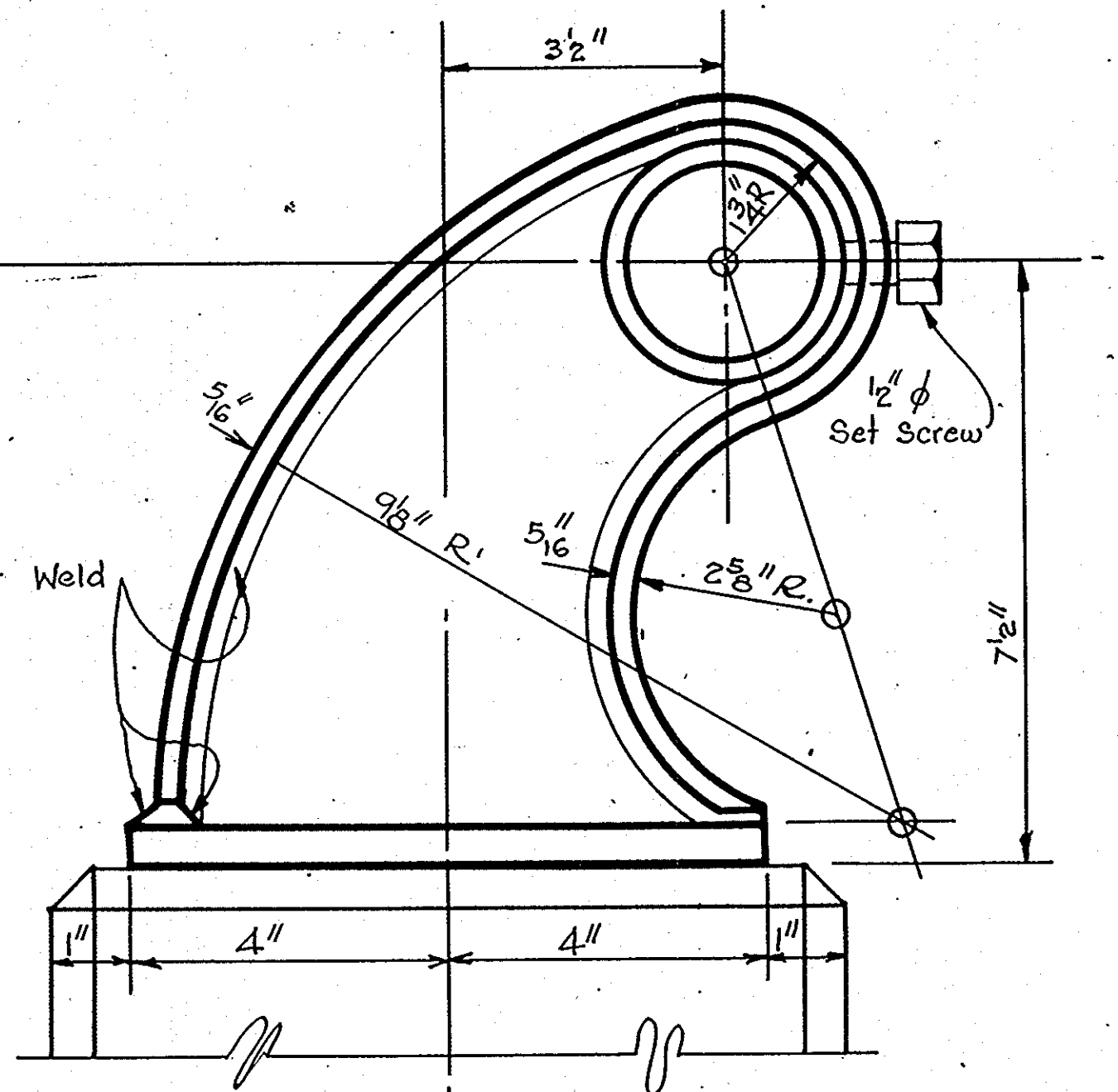
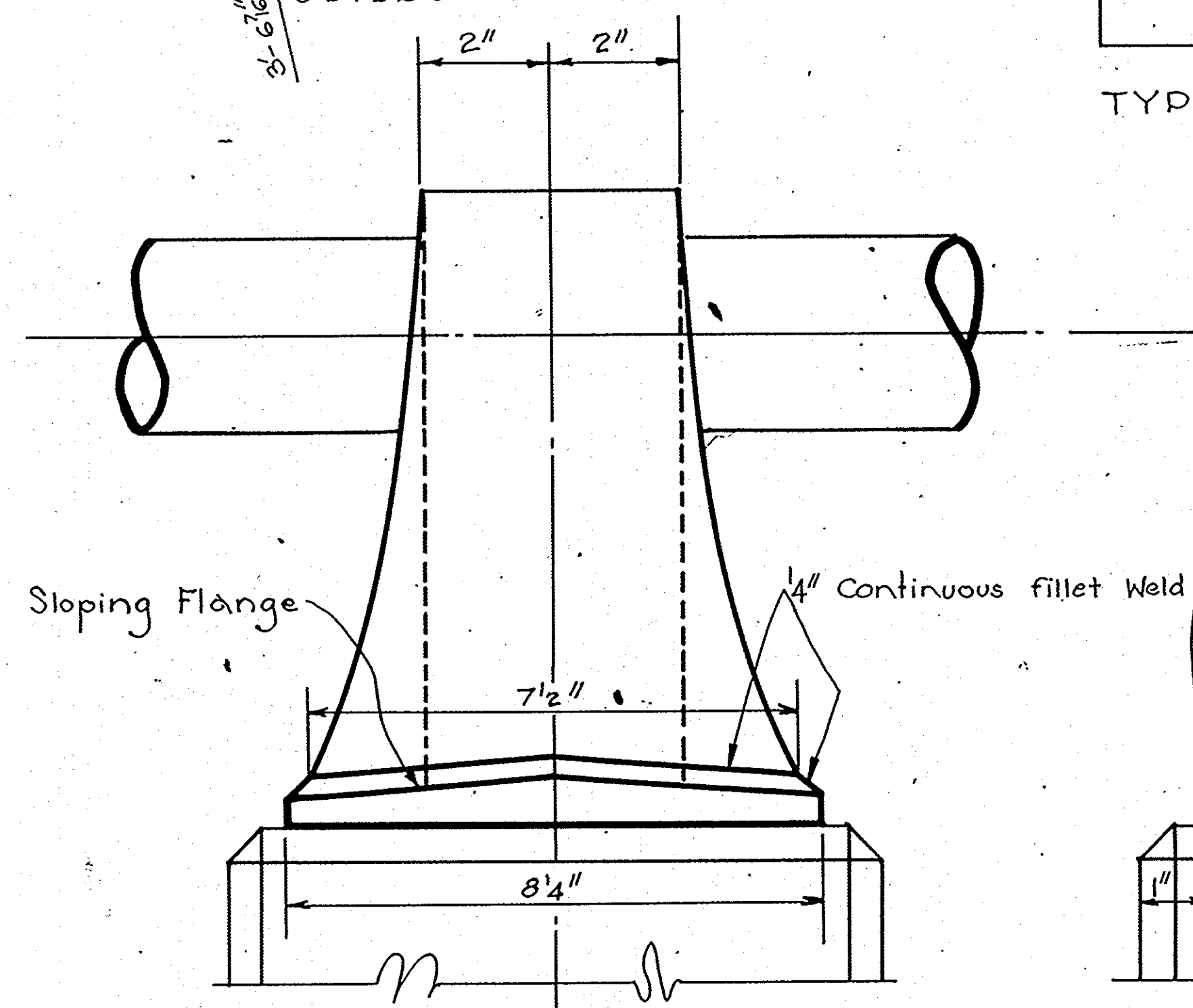
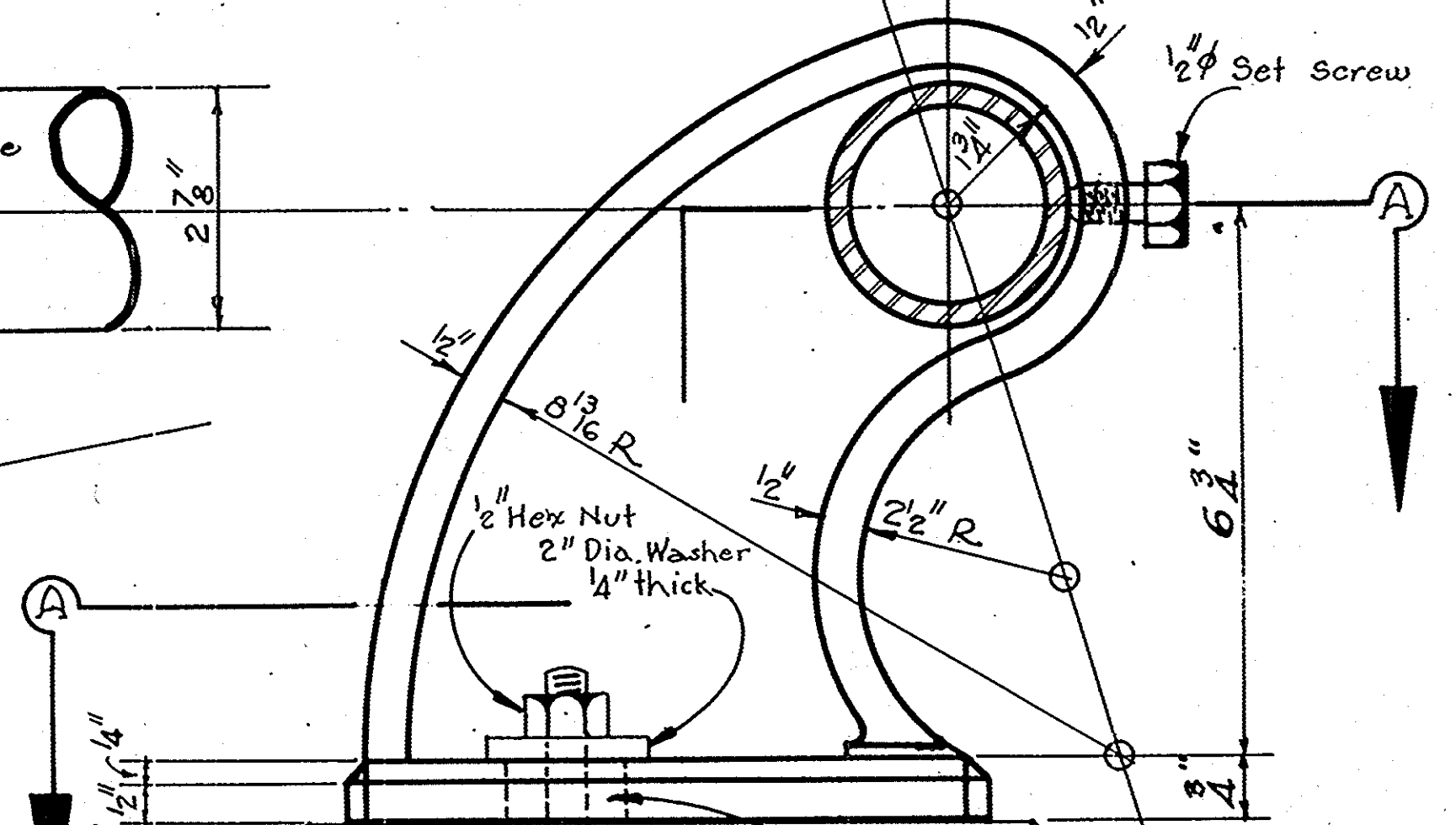
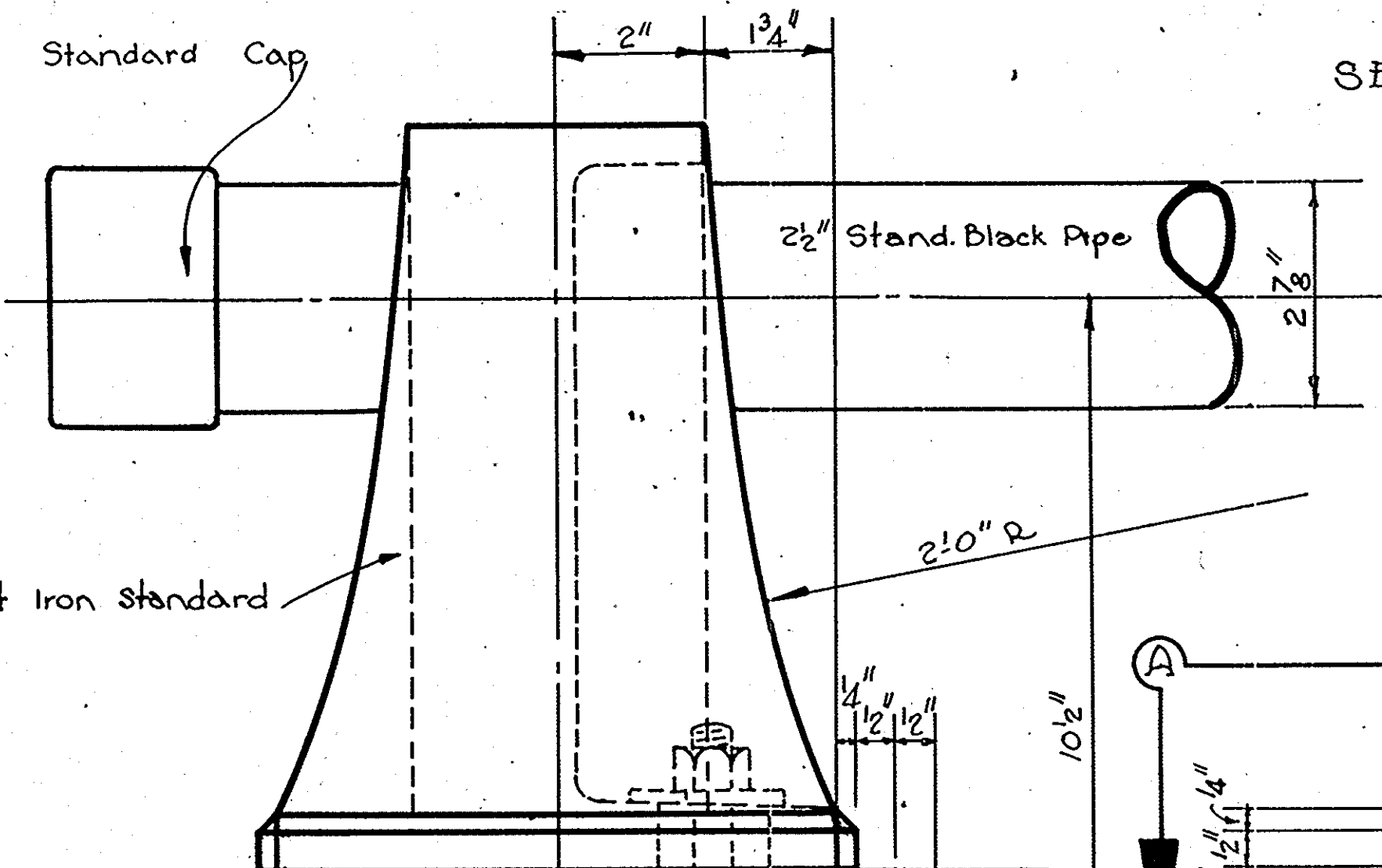
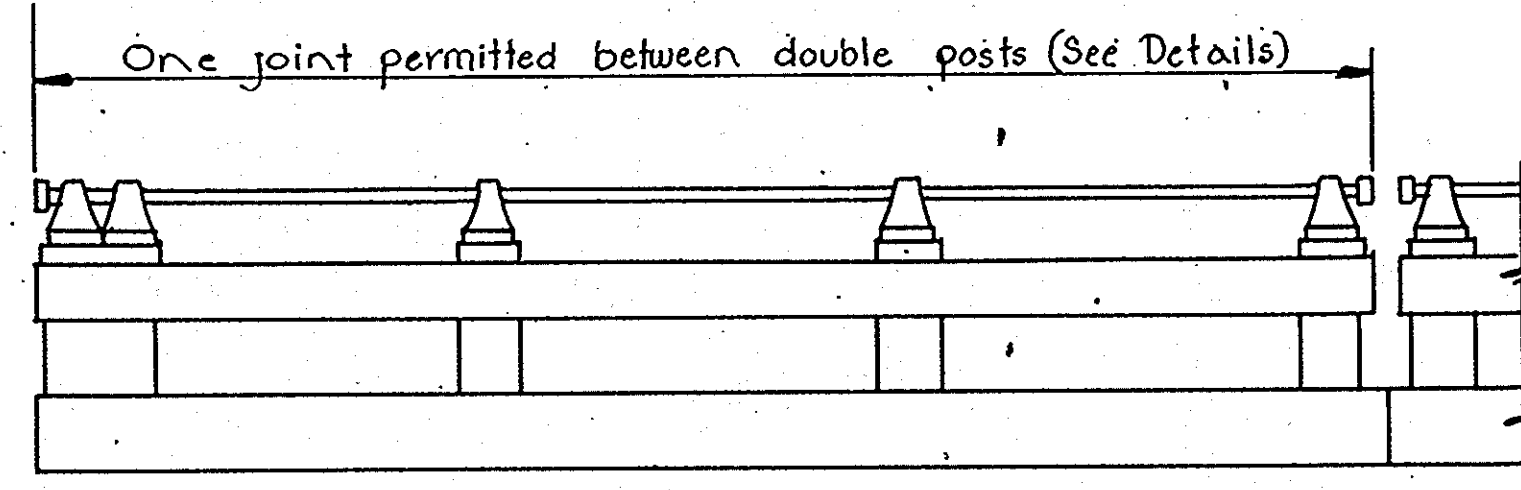
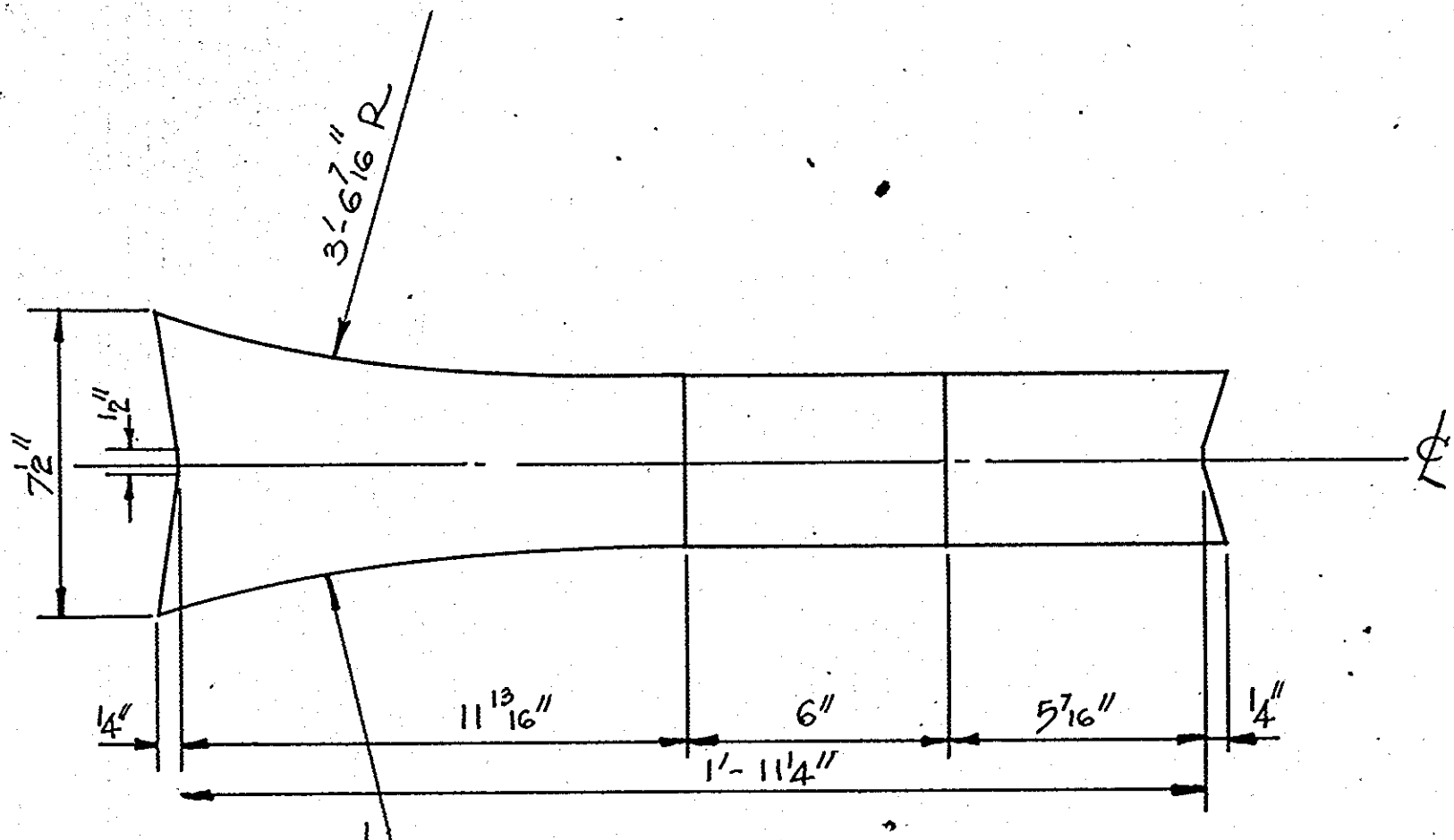
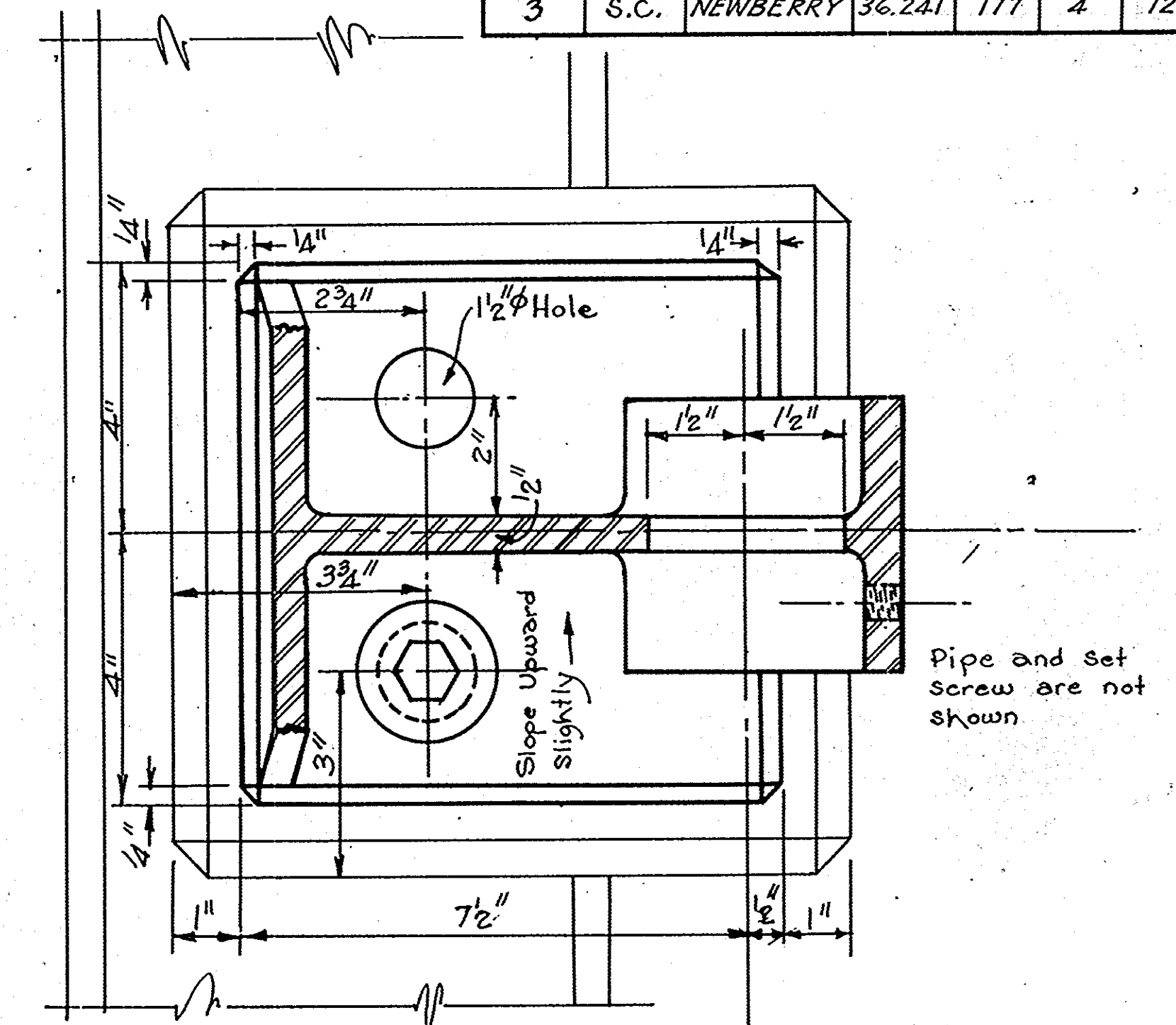
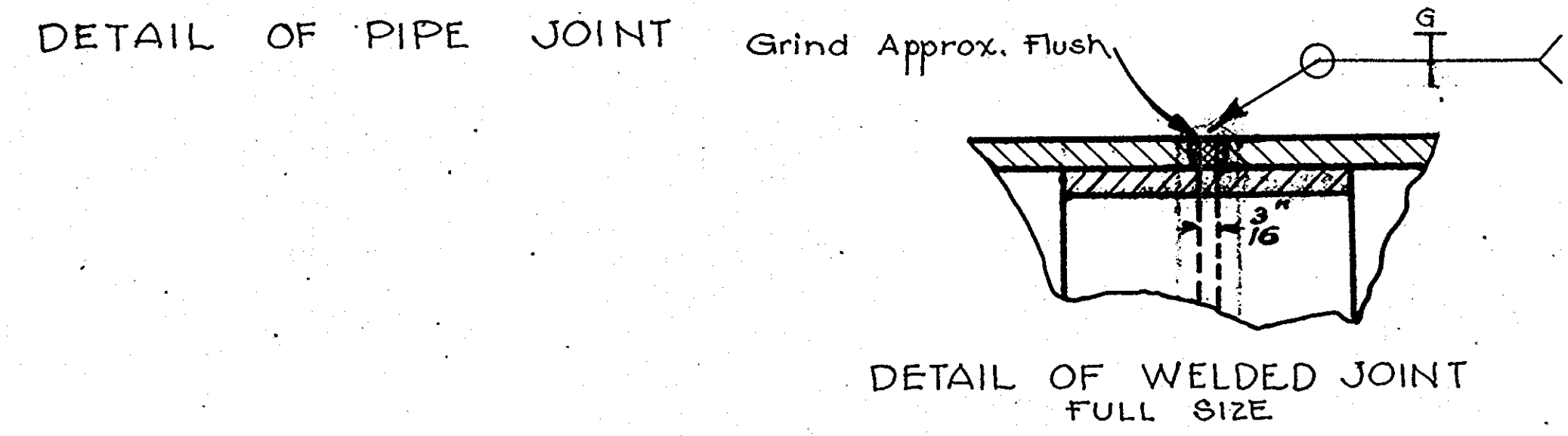
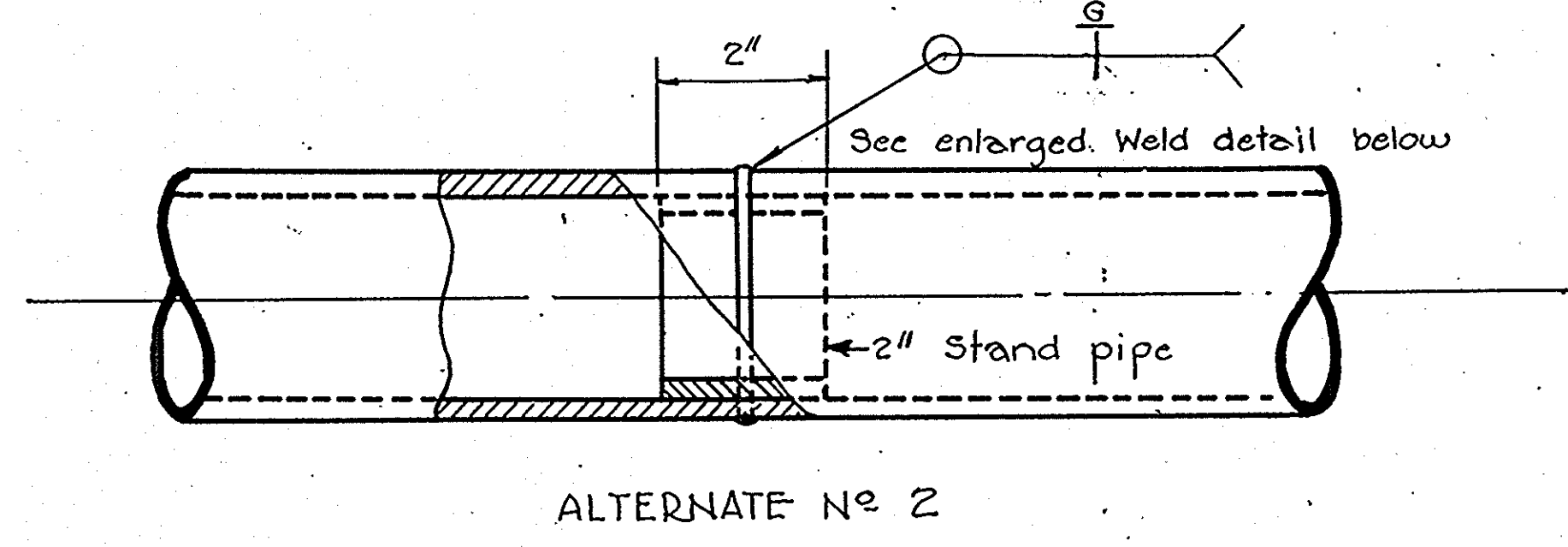
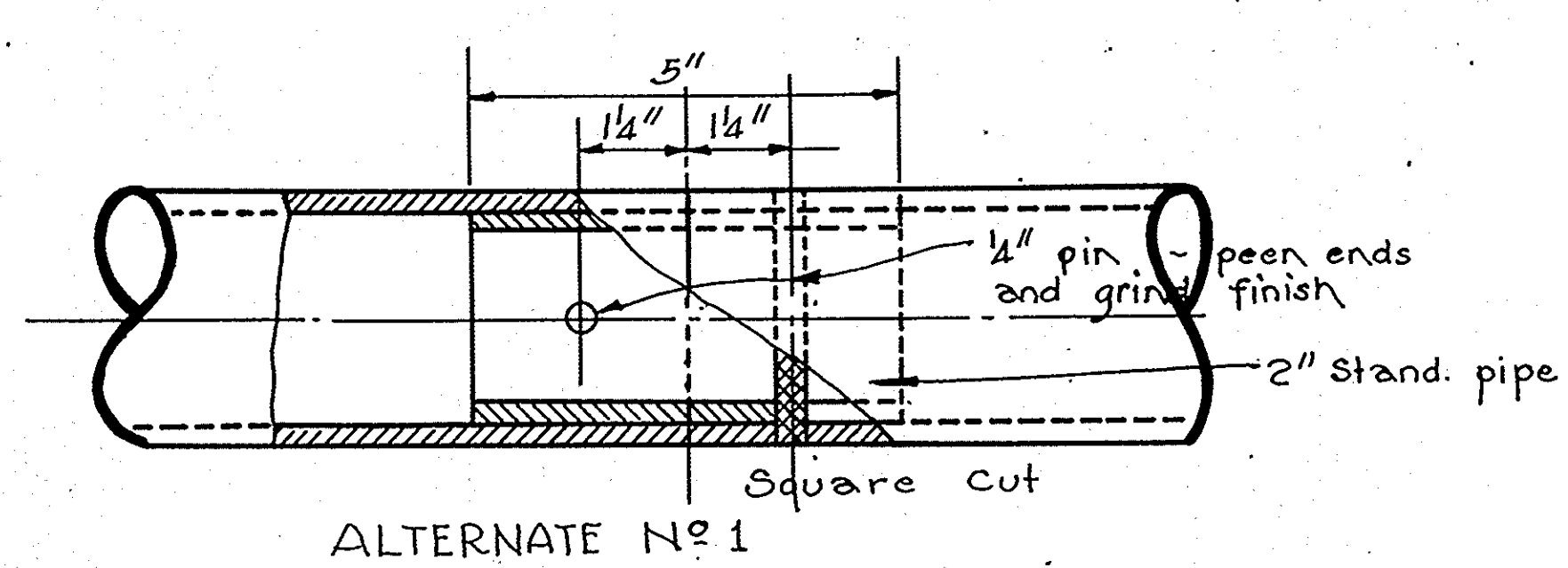
Scale 1" = 1ft

NOTE: Necessary concrete and extra blocks at end of drain will be paid for as 2 feet of slope drain at unit price bid per lin. ft. All blocks shall be laid with a 1/2" joint of 1:3 Mortar. All costs of necessary excavation for the construction of the slope drains shall be included in the unit-price bid per lin. ft. of concrete Tile Slope Drains.

S . C . STATE HIGHWAY DEPARTMENT
COLUMBIA
**TYPICAL CONCRETE TILE
SLOPE DRAINS**

S C DOCKET NO. 36.241 NEWBERRY COUNTY
ROUTE NO. 177 DATE OCT. 1948

Rev.	WRT	5-47
QUANT.	R.W./B.M.C.	10-48
Tr.	W.R.T.	
Dr.	W.R.T.	



Details not shown shall be the same or as closely similar as practicable to those shown for Cast Iron Standard. Accessible welds shall be ground to a smooth surface. Omit duck between post top and standard.

Approx Weight = 24 Lbs. Each.

Shape plate to fit periphery of stem and weld all contacts.

Note: Bottom surface of cast bracket shall be finished so as to be perpendicular to vertical axis and to within 1/16 of a true plane.

Space between bolts and edges of holes to be filled with molten lead.

REV.	W.R.T.	8-47
QUAN.		
TR.	W.R.T.	8-47
DR.	W.R.T.	8-47
DES.		
BY	CK'D	DATE

The Contractor may use either the Fabricated or Cast Iron Standard

S. C. STATE HIGHWAY DEPARTMENT
COLUMBIA
DETAILS OF PIPE RAILING
FOR BRIDGE OVER
CANNONS CREEK
AND
KINGS CREEK
DOCKET NO. 36.241 ROUTE NO. 177
COUNTY, NEWBERRY DATE, OCT. 1948

FED. ROAD DIST. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	J.C.	NEWBERRY	36.241	177	51	127

MRS. MAUDE J. PINNER
D-8-17-43

P.I. = 340+31.2 (No R.C.P.)
Δ = 15°-52' L.
D = 100.00'
T = 798.4
L = 1586.7
E = 55.37

55 ft. of 36 in. R.C. Pipe in place
Place 116 ft. of 36 in. R.C. Pipe

15 ft. of 15 in. R.C. pipe
Place 26 ft. of 15 in. R.C. Pipe

Out Ramp
Est. 50 C.Y.

Mrs. MAUDE J. PINNER
D-8-17-43

ANNIE L. JOHNSTON &
W.D. HATTON
D-8-17-43

SUBER EST.
By Individual Heirs
Deeds 9-25-43
10-5-43
12-12-43

MRS. MAUDE J. PINNER
ASHEVILLE, N.C.
D-8-17-43

DE. R.J. JOHNSTON
ASHEVILLE, N.C.

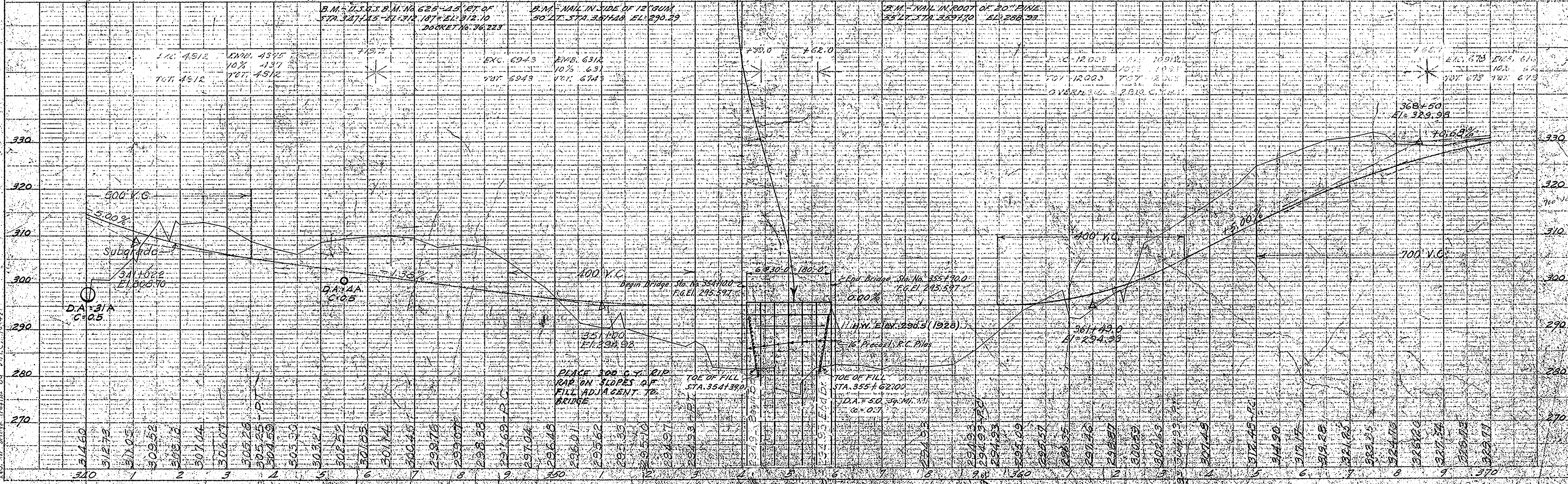
Construct 100' R.C. Bridge from T
Sta. 354+10.0 to Sta. 355+90.0.
100' R.C. BRIDGE FROM T
UNDER THE LATERAL ALIGNMENT FROM
-10' 354+10 TO STA. 355+90
CONSTRUCTION SHALL BE PERFORMED
BY THE ROAD CONTRACTOR.

SUBER EST.
By Individual Heirs
(See Above)

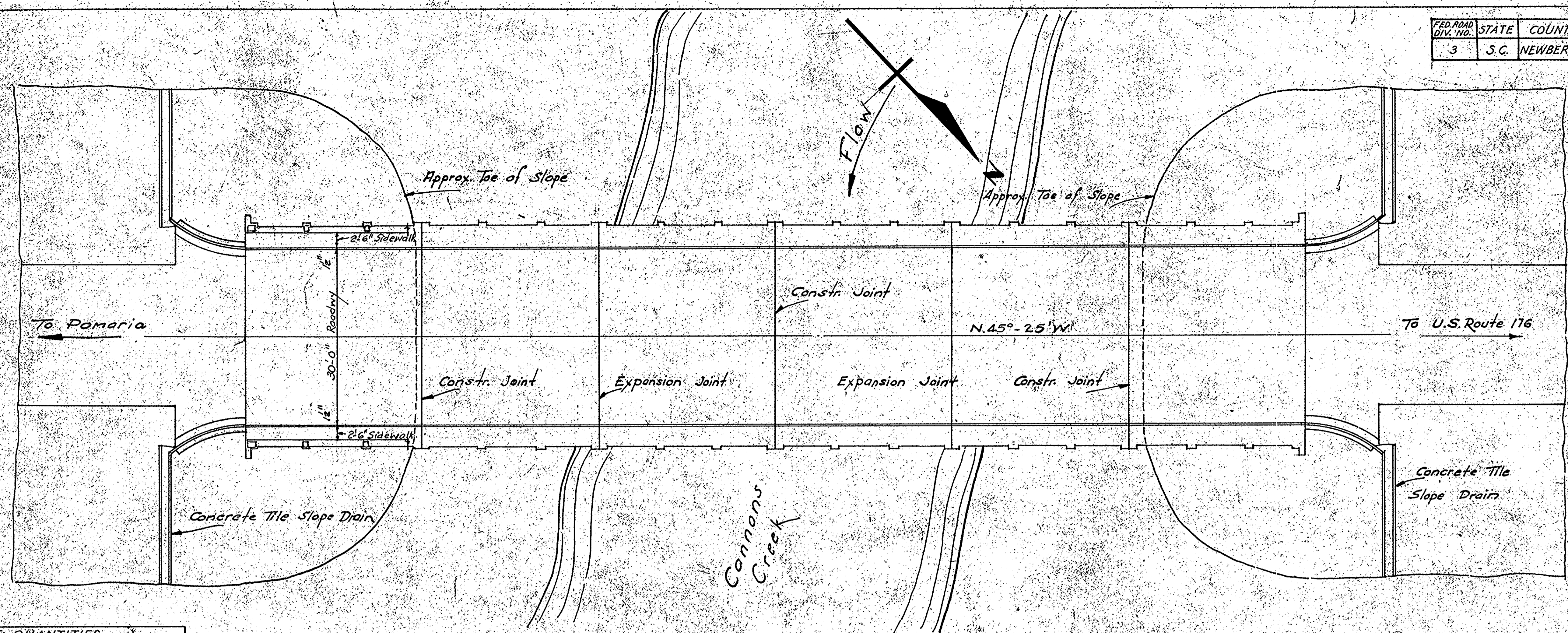
D. T. WICKER
D-8-5-43

DATE
BY
CHECKED
NOTED
NOTE BOOK
ALIGNED CHECKED
RT. OF WAY CHECKED

PROFILE
STATIONED
PLOTTED
NOTED
NOTE BOOK
GRADES CHECKED
B.M. LOCATED
BY
DATE



Profile drawn by S.M.C. 10-18

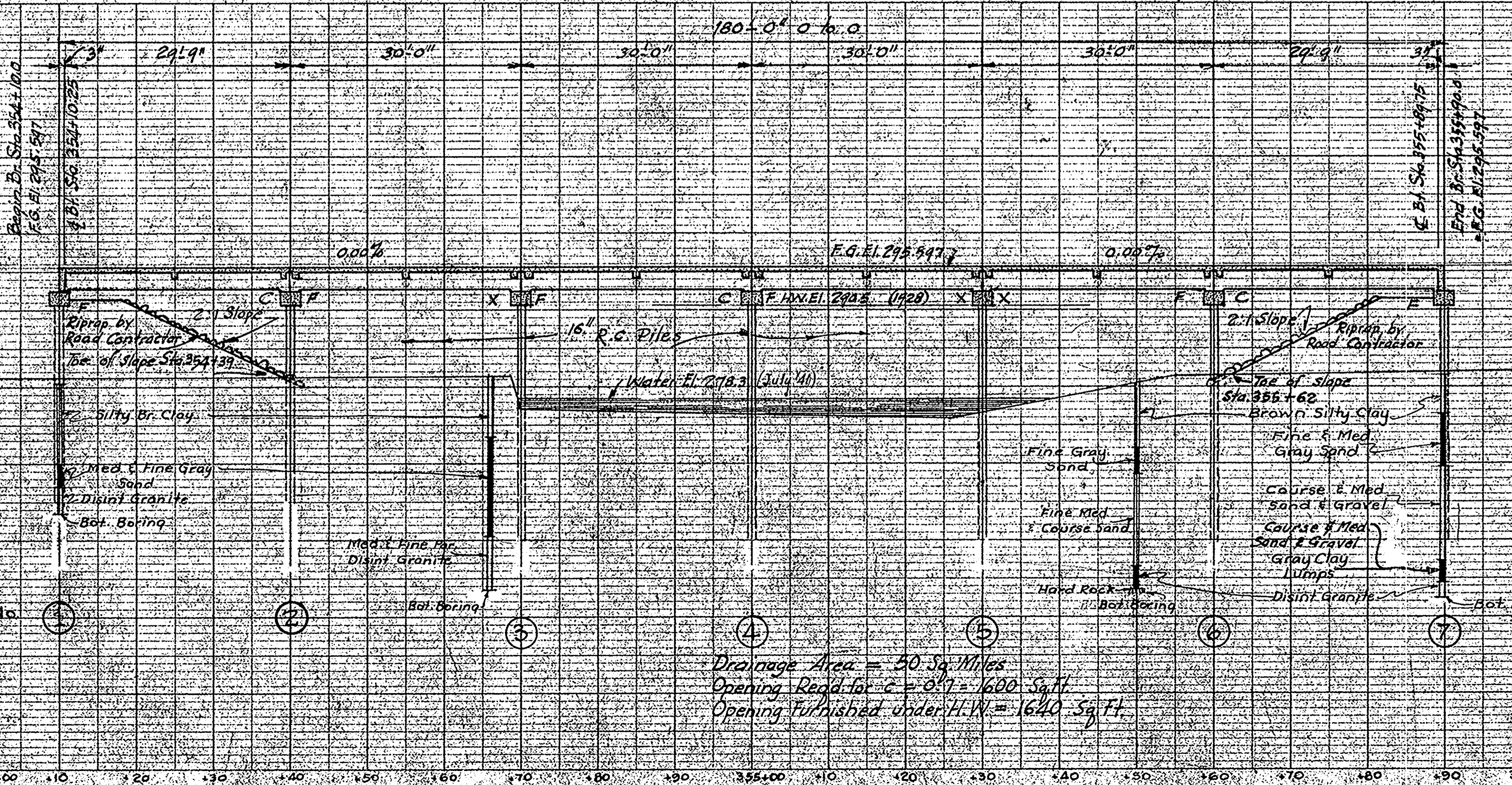


DATE: _____
 SURVEYED: _____
 PLANNED: _____
 CHECKED: _____
 NOTE BOOK NO.: _____
 BY: _____

DATE: _____
 SURVEYED: _____
 PLANNED: _____
 CHECKED: _____
 NOTE BOOK NO.: _____
 BY: _____

SUMMARY OF QUANTITIES

Bent No.	Class 'A' Concrete	Rein Steel	16" Pre-Cast Conc. Piling	Conc. Tile Slope Drain	Pipe Handrail
Reqd.	C.Y.	Lbs.	L.F.	L.F.	L.F.
1	5.45	852	See Total		
2	5.45	852			
3	5.45	852			
4	5.45	852			
5	5.45	830			
6	5.45	852			
7	5.45	852			
30' End Span	2	84.30	20,806	120	120
30' Int. Span	4	161.76	41,676		240
2" Curb & Gutter	2	2.24			
Totals	287.05	68,424	995	120	360



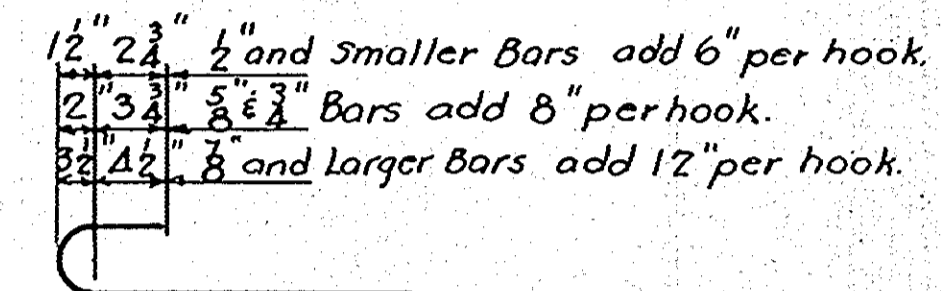
Notes:
 Construct Concrete Curb, Gutter, and Concrete Tile Slope Drains on both sides of roadway at both ends of bridge.
 Fill at beginning and end of bridge to be in place before piles for end bents are driven.
 All cost of excavation necessary for construction of end bents and to remove fill under bridge down to 1' below top of End Bent Cap shall be included in the Unit Price Bid for Class A concrete.

S.C. STATE HIGHWAY DEPARTMENT
 COLUMBIA
PLAN & PROFILE
 BRIDGE OVER
CANNONS CREEK
 DOCKET NO. 36-241
 COUNTY-NEWBERRY
 ROUTE NO. 177
 OCTOBER 1946

FED. ROAD DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	NEWBERRY	36.241	177	7	12

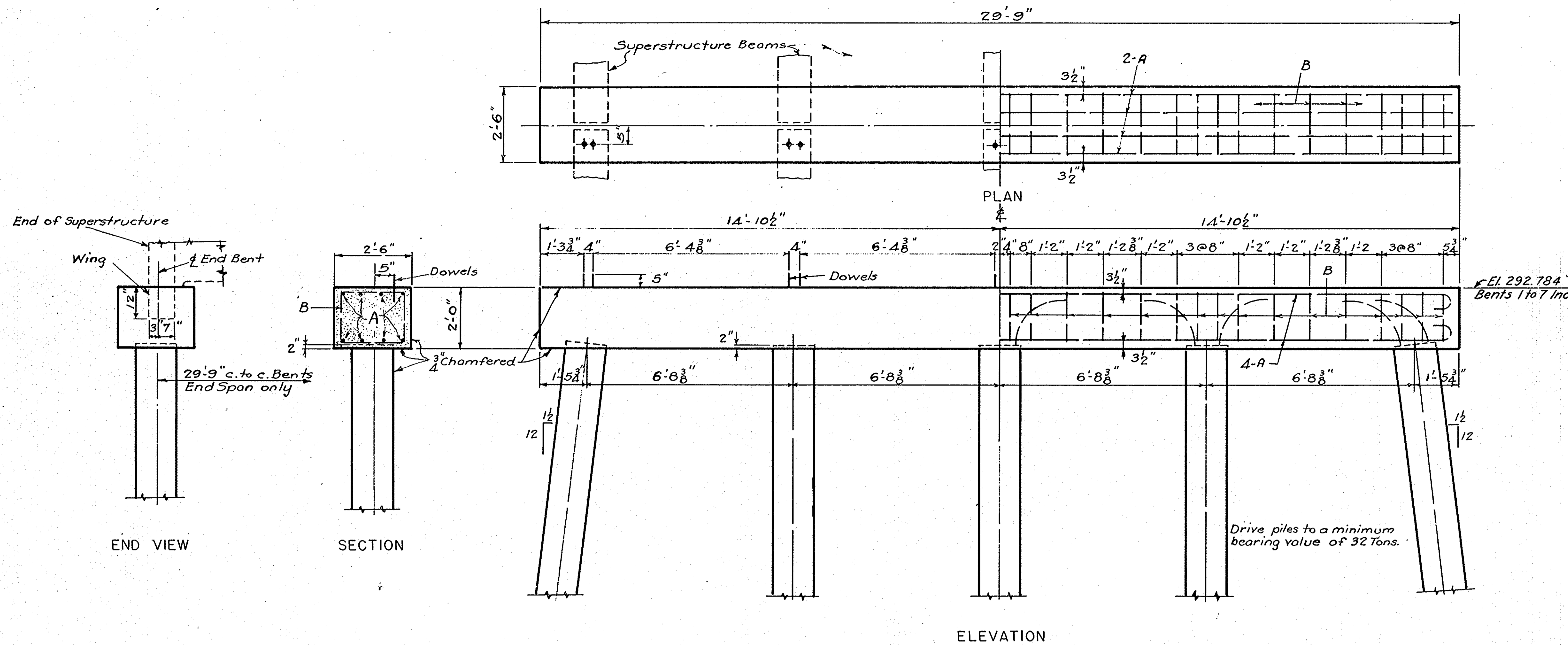
STEEL SCHEDULE				BENDING DETAILS	
MARK	NO.	SIZE	LENGTH		
A	8	1"φ	31'-3"	A	
B	32	2"φ	7'-8"	29'-3"	
* Dowels	10	1"φ	0'-10"	B	
CONC. CL. A				5.45	C.Y.
REIN. STEEL				*852	LBS.

* Deduct 10 Dowels (22 Lbs) for Bent No. 5.



HOOK DETAILS

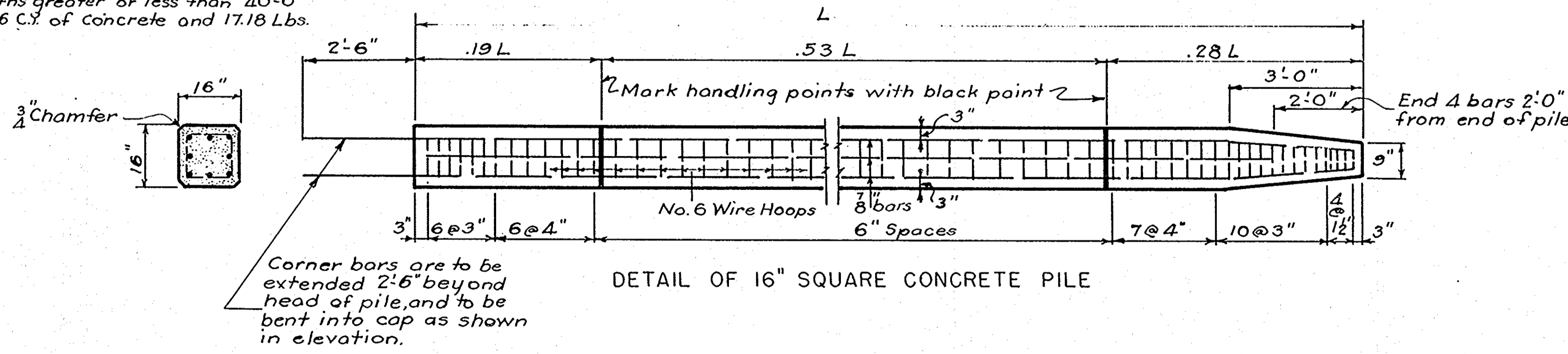
Notes -
 All concrete to be Class "A".
 All exposed edges to be chamfered 3/4" unless otherwise noted.



El. 292.784
 Bents 1 to 7 Incl.

Drive piles to a minimum bearing value of 32 Tons.

QUANTITIES FOR 40'-0" PILE
 Concrete - 2.560 C.Y. Reinforcing Steel - 690 Lbs.
 For quantities for lengths greater or less than 40'-0" add or subtract 0.066 C.Y. of concrete and 17.18 Lbs. of Reinforcing Steel.



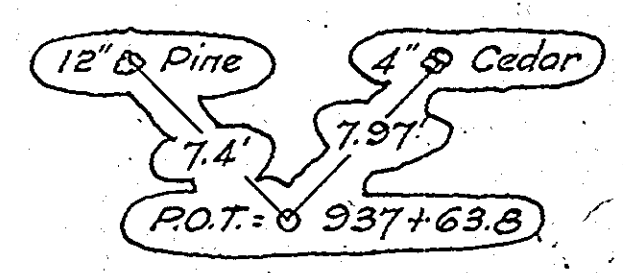
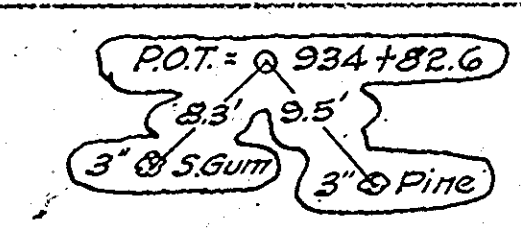
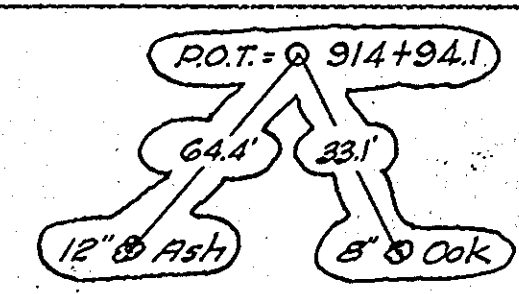
DETAIL OF 16" SQUARE CONCRETE PILE

Corner bars are to be extended 2'-6" beyond head of pile, and to be bent into cap as shown in elevation.

Rev.	R.W.H.	B.M.C.	10-48
	For Dock. 36.241		
Quon.	Eng.	Amc.	10-48
Traced	Eng.	Amc.	10-48
Dwn.	Eng.	Amc.	10-48
Des.	W.E.C.	Amc.	10-48
By	Ch'd.	Date	

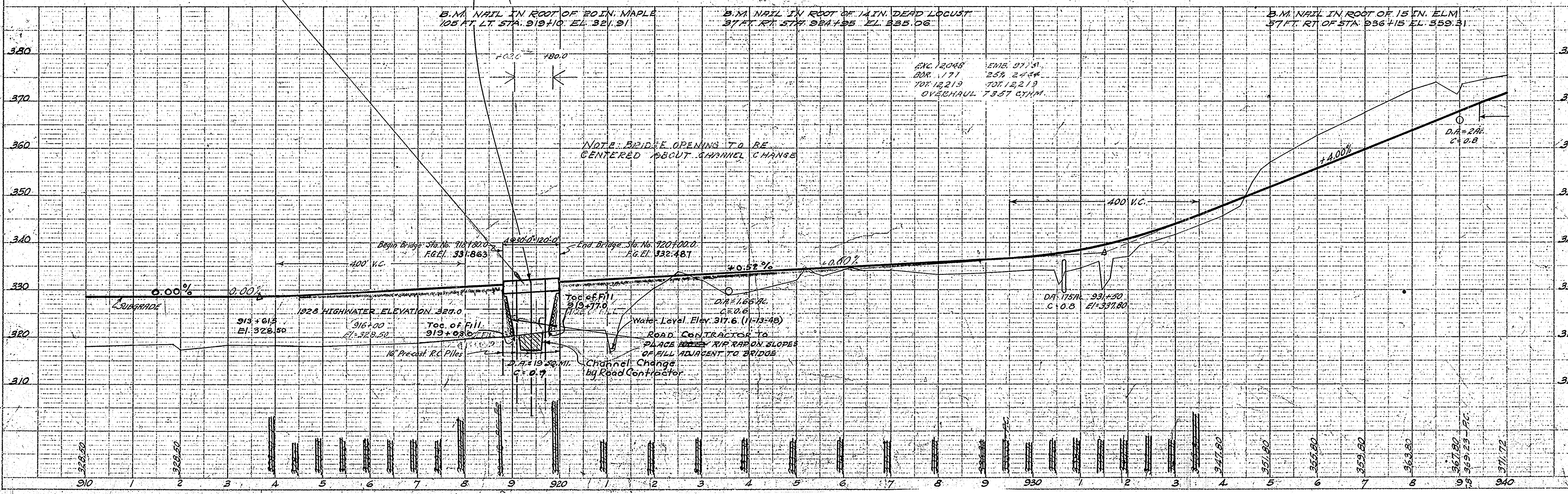
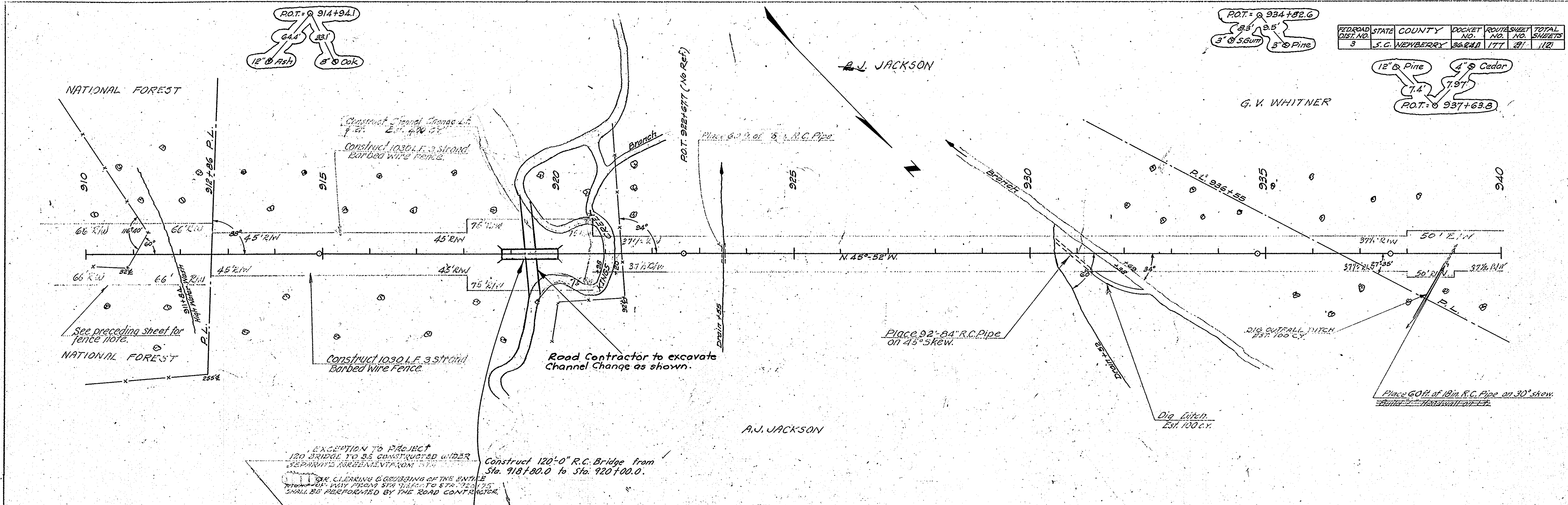
S. C. STATE HIGHWAY DEPARTMENT
 COLUMBIA
BENT FOR 30' SPAN
 FOR BRIDGE OVER
CANNONS CREEK
 DOCKET NO. 36.241 ROUTE NO. 177
 COUNTY NEWBERRY DATE OCT. 1948
16" R.C. PILE BENT C30-30-2.5 1948

FED. ROAD DIST. NO.	STATE	COUNTY	DOCKET NO.	ROUTE SHEET NO.	TOTAL SHEETS
3	S.C.	NEWBERRY	3684A	177	178



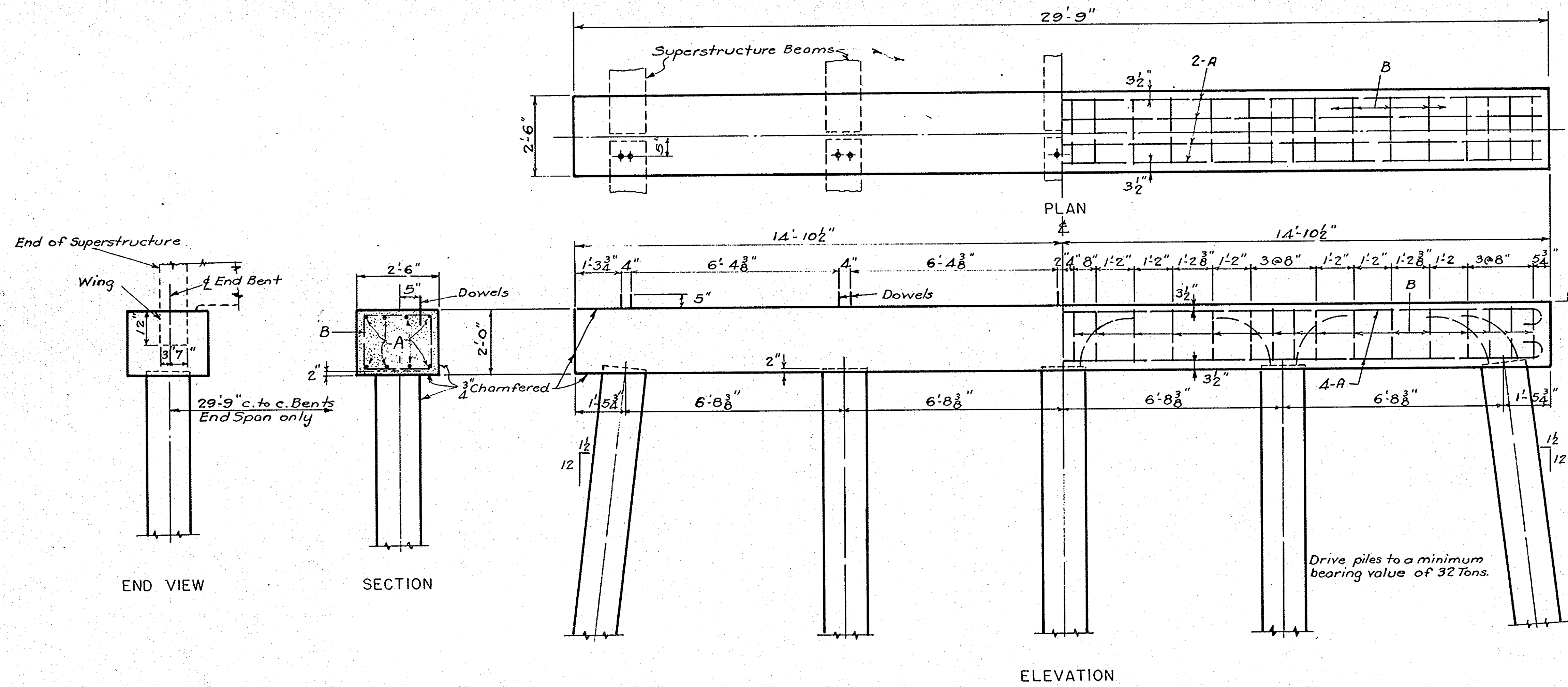
DATE	BY	REVISION
		PLAN SURVEYED
		NOTED
		ALIGNED
		PLANNED
		CONSTRUCTION
		NO.

DATE	BY	REVISION
		PROFILE SURVEYED
		NOTED
		GRADINGS CHECKED
		STRUCTURE NOTATIONS CHECKED
		NO.



M. H. C. B. M. G. 10-47
 D-X 10-47
 10-47

FED. ROAD DIV. No.	STATE	COUNTY	DOCKET No.	ROUTE No.	SHEET No.	TOTAL SHEETS
3	S.C.	NEWBERRY	36.241	177	11	12



Bent 1 El. 329.052
 Bent 2 El. 329.206
 Bent 3 El. 329.362
 Bent 4 El. 329.518
 Bent 5 El. 329.673

STEEL SCHEDULE			
MARK	NO	SIZE	LENGTH
A	8	1"φ	31'-3"
B	32	1/2"φ	7'-8"
* Dowels	10	1"φ	0'-10"

BENDING DETAILS

CONC. CL. A 5.45 C.Y.
 REINF. STEEL *852 LBS

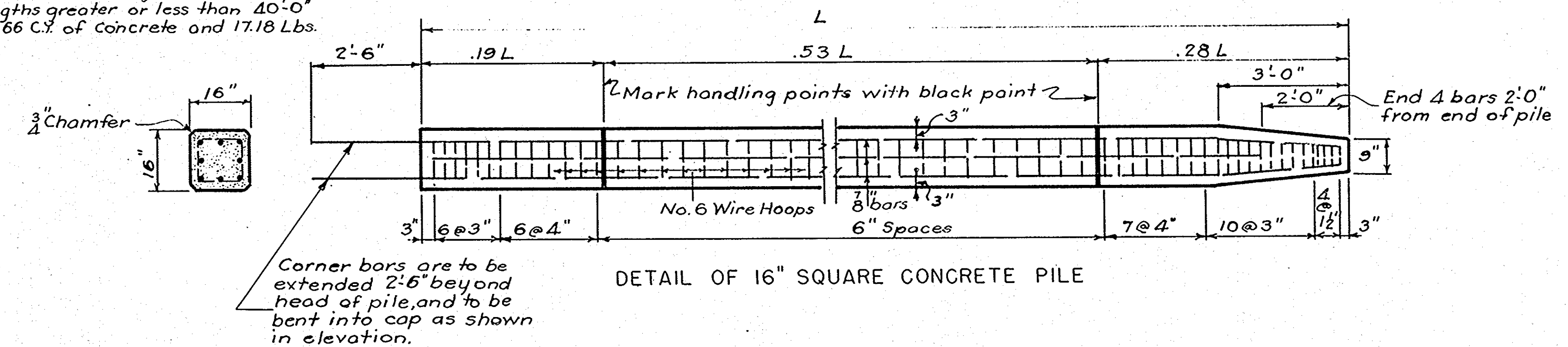
* Deduct 10 Dowels (22 Lbs) for Bent No. 4.

1/2" 2 1/2" 1/2" and smaller Bars add 6" per hook.
 2 3/4" 3" 3 1/2" Bars add 8" per hook.
 4" 4 1/2" 5" and larger Bars add 12" per hook.

HOOK DETAILS

Notes -
 All concrete to be Class "A".
 All exposed edges to be chamfered.
 3/4" unless otherwise noted.

QUANTITIES FOR 40'-0" PILE
 Concrete - 2.560 C.Y. Reinforcing Steel - 690 Lbs.
 For Quantities for lengths greater or less than 40'-0"
 add or subtract 0.066 C.Y. of Concrete and 17.18 Lbs.
 of Reinforcing Steel.

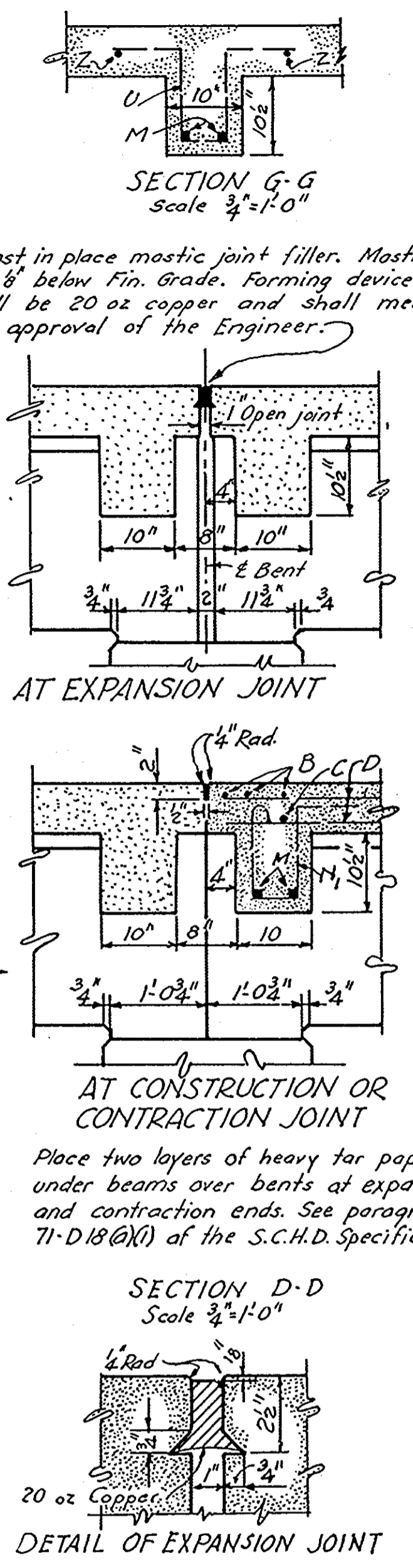
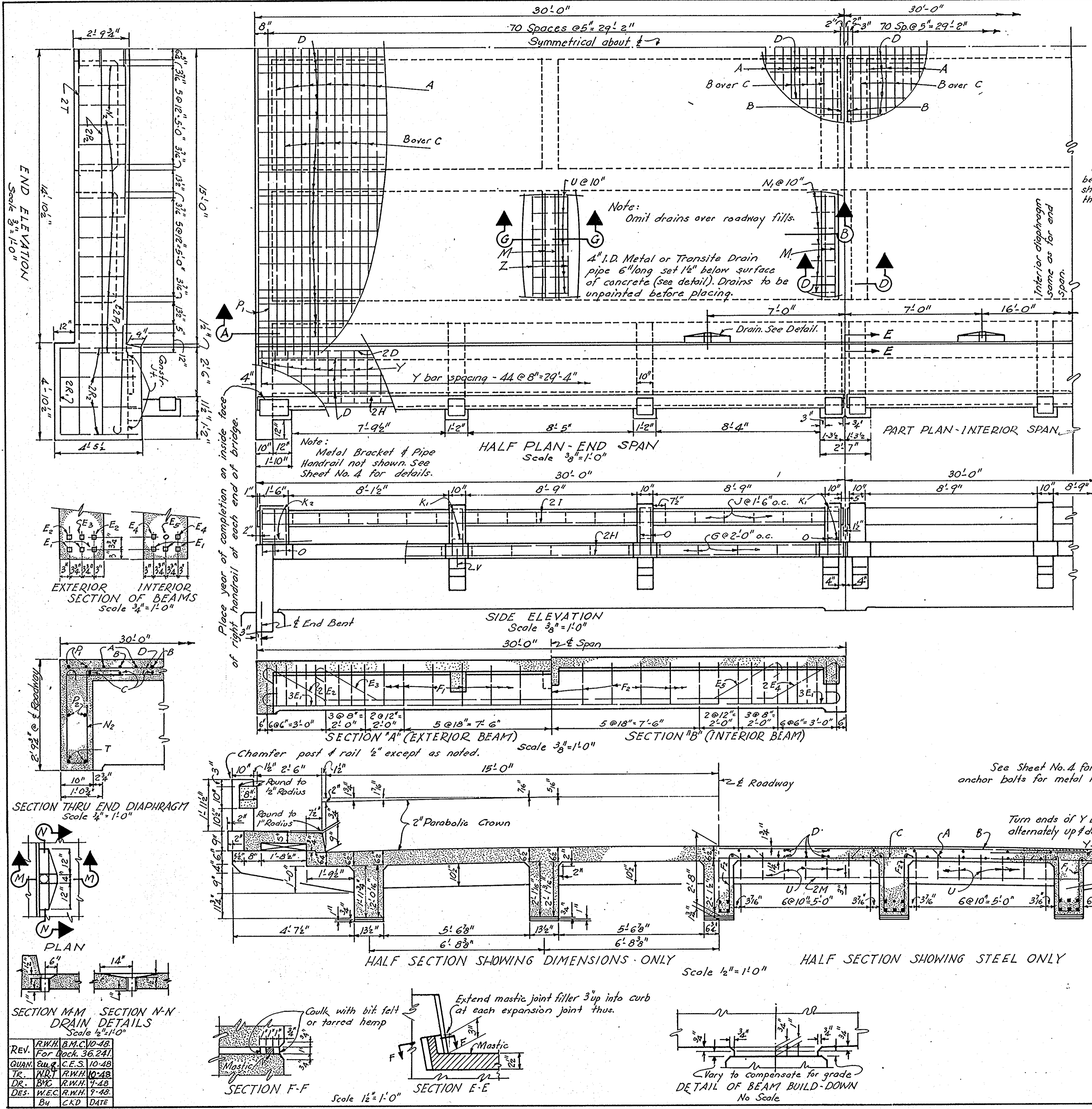


Corner bars are to be extended 2'-6" beyond head of pile, and to be bent into cap as shown in elevation.

Rev.	R.W.H. B.M.C.	10-48
	For Dock. 36.241	
Quon.	E.W.G. B.M.C.	10-48
Traced	E.W.G. B.M.C.	10-48
Dwn.	E.W.G. B.M.C.	10-48
Des.	W.E.C. B.M.C.	10-48
By	Ch'd	Date

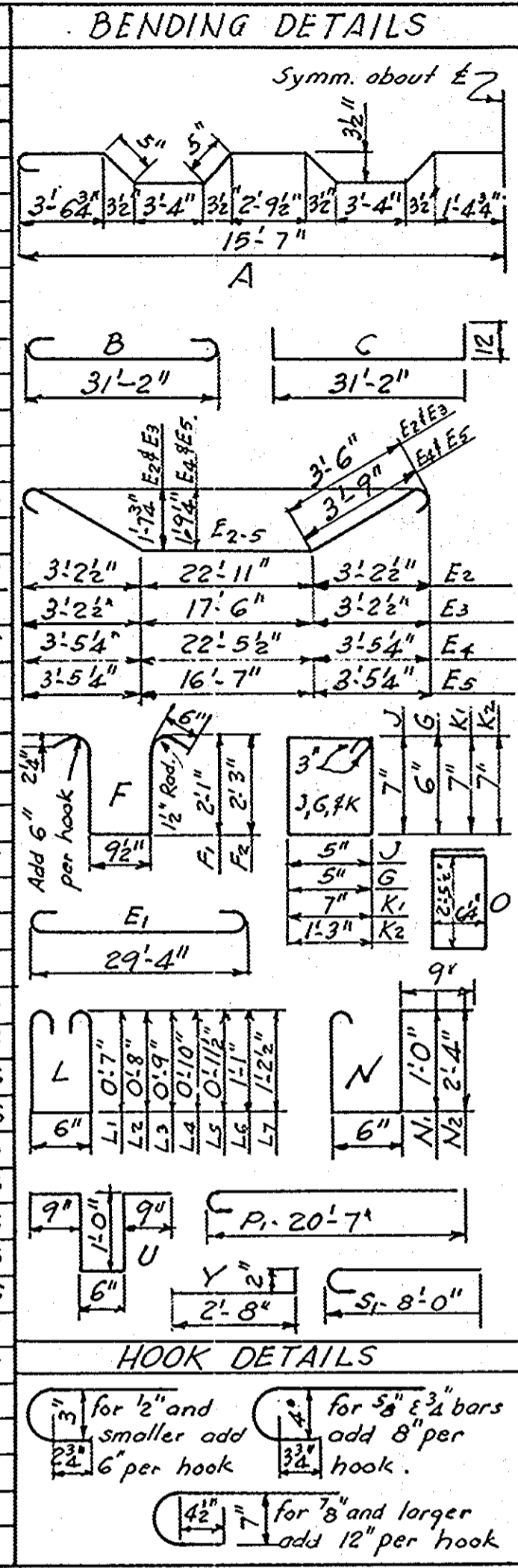
S. C. STATE HIGHWAY DEPARTMENT
 COLUMBIA
BENT FOR 30' SPAN
 FOR BRIDGE OVER
KINGS CREEK
 DOCKET NO. 36.241 ROUTE NO. 177
 COUNTY NEWBERRY DATE OCT. 1948
16" R.C. PILE BENT C30-30-2.5 1948

FED. ROAD DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	NEWBERRY	36.241	177	12	12



STEEL SCHEDULE								BENDING DETAILS	
ONE INTERIOR SPAN								Symm. about E-Z	
Mark	Size	No	Length	D	Mark	Size	No	Length	D
A	1/2"	34	33'-2"	B Lc	1/2"	8	2'-10"	B	
B	1/2"	39	32'-2"	B L3	1/2"	8	3'-0"	B	
C	1/2"	35	33'-2"	B L4	1/2"	8	3'-2"	B	
D	1/2"	62	29'-8"	S L5	1/2"	8	3'-5"	B	
E1	1/2"	15	31'-4"	B L6	1/2"	8	3'-8"	B	
E2	1/2"	4	31'-11"	B L7	1/2"	8	3'-11"	B	
E3	1/2"	2	26'-6"	B M	1"	6	27'-6"	S	
E4	1/2"	6	32'-0"	B N	1/2"	56	3'-9"	B	
E5	1/2"	3	26'-1"	B O	1/2"	16	6'-6"	B	
F1	1/2"	66	5'-11"	B S1	1/2"	16	8'-8"	B	
F2	1/2"	99	6'-3"	B S2	1/2"	16	5'-0"	S	
G	1/2"	30	2'-4"	B U	1/2"	28	4'-0"	B	
H	1/2"	8	29'-8"	S V	3/8"	8	0'-10"	S	
I	1/2"	8	29'-8"	S Y	3/8"	90	2'-10"	B	
J	1/2"	36	2'-6"	B Z	1/2"	2	25'-11"	S	
K1	1/2"	16	2'-10"	B					
L1	1/2"	8	2'-8"	B					

ONE END SPAN									
Mark	Size	No	Length	D	Mark	Size	No	Length	D
A	1/2"	34	33'-2"	B Lc	1/2"	6	3'-8"	B	
B	1/2"	30	32'-2"	B L7	1/2"	6	3'-11"	B	
C	1/2"	35	33'-2"	B M	1"	4	27'-6"	S	
D	1/2"	62	29'-8"	S N1	1/2"	28	3'-9"	B	
E1	1/2"	15	31'-4"	B N2	1/2"	28	6'-5"	B	
E2	1/2"	4	31'-11"	B O	1/2"	18	6'-6"	B	
E3	1/2"	2	26'-6"	B P1	1/2"	4	21'-1"	B	
E4	1/2"	6	32'-0"	B P2	1/2"	4	20'-7"	S	
E5	1/2"	3	26'-1"	B R1	1/2"	4	4'-6"	S	
F1	1/2"	66	5'-11"	B R2	1/2"	16	4'-0"	S	
F2	1/2"	99	6'-3"	B S1	1/2"	12	8'-8"	B	
G	1/2"	30	2'-4"	B S2	1/2"	12	5'-0"	S	
H	1/2"	8	29'-8"	S T	3/8"	4	20'-10"	S	
I	1/2"	8	29'-8"	S U	1/2"	28	4'-0"	B	
J	1/2"	36	2'-6"	B V	1/2"	6	0'-10"	S	
K1	1/2"	12	2'-10"	B Y	3/8"	90	2'-10"	B	
K2	1/2"	4	4'-2"	B Z	1/2"	2	25'-11"	S	
L1	1/2"	6	2'-8"	B					
L2	1/2"	6	2'-10"	B					
L3	1/2"	6	3'-0"	B					
L4	1/2"	6	3'-2"	B					
L5	1/2"	6	3'-5"	B					



SUMMARY OF QUANTITIES			
	ONE INTERIOR SPAN	ONE END SPAN	
Class "A" Concrete	40.44	42.45	C.Y.
Reinforcing Steel	10,419	10,403	Lbs.
Pipe Handrail	60	60	L.F.

BREAKDOWN OF CONCRETE QUANTITIES		
	ONE INT. SPAN	ONE END SPAN
Beams, Slab, Brackets	34.96	36.82
Sidewalk	3.96	4.05
Handrail & Posts	1.52	1.58
Totals	40.44	42.45

S. C. STATE HIGHWAY DEPARTMENT
COLUMBIA

30' SPAN 30' R'D'WY 2.5'SW
FOR BRIDGE OVER
KINGS CREEK

DOCKET NO. 36.241 ROUTE NO. 177
COUNTY NEWBERRY DATE OCT. 1948
C 30-30-2.5 1948

REV.	R.W.H.	A.M.C.V.O.-48
		For Dack. 36.241
QUAN.	R.W.H.	C.E.S. 10-48
TR.	N.R.T.	R.W.H. 10-48
DR.	B.Y.C.	R.W.H. 7-48
DES.	W.E.C.	R.W.H. 7-48
	B4	CKD DATE

Scale as noted