FED. AID PROJ. NO.	FED. ROAD DIST. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.
	1A	S.C.	Newberry	36.241	177	1-A

SOUTH CAROLINA STATE HIGHWAY DEPARTMENT

FINAL CONSTRUCTION PLANS

BRIDGE

OVER CANNONS CREEK & KINGS CREEK

DOCKET NO. 36.241 F.A. PROJ. NO. FI-2562 (5)

COUNTY NEWBERRY

ON RT. 177 BETWEEN POMARIA AND U.S. 176

CONTRACTOR JOS. W. BARNWELL, JR.

TYPE OF BRIDGE REINF. CONCRETE

BRIDGE ENGINEER W. J. GOODING, JR.

BRIDGE FIELD ENGINEER

RESIDENT ENGINEER E. S. SUTHERLAND

INDEX

PROGRESS DATA

CONTRACT AWARDED NOV. 29 1948

WORK BEGAN FEB. 1 1949

PROJECT ACCEPTED 19

NOTES TO RESIDENT ENGINEER:

Notes on recapitulation sheets should be read carefully and complied with in full. The Resident Engineer should personally check the plans against the following list:—

	RES. ENG'R. CHECK	COL'A. OFFICE CHECK
1. Ink drawings and computations of all excavation, showing division of Dry, Wet and Rock excavation.		
2. Ink drawings on translucent paper of pile bents or foundation piles and pile record, so arranged that the location of each pile, its length, penetration and bearing capacity is shown.	✓	✓
3. Ink drawings on translucent paper of all changes from plans, with computations of changes in Quantities.		
4. Summary of Quantities.	✓	✓
5. Cement record to substantiate adjustments.	✓	✓
6. P.R. 47 - 2 copies (Federal Aid Project only).		
7. Force Account Claims and bills (if necessary).		
8. Adjustment of cement cost due to variation in yield (5 copies).		
9. Cement Invoices accompanying adjustments.		
10. Freight Bills and Register.	✓	
11. Overrun and Underrun sheets (2 copies).		
12. Property Releases (if necessary).		
13. Estimate (5 copies).		
14. Statement of the amount to be deducted due to overtime.		
15. Letter of Transmittal.		
16. Final Roadway Profile.		✓
17. Tie between S.C.H.D. Datum and Mean Sea Level.		

Overruns and Underruns are to be explained in such a manner as to leave no doubts as to the reasons.

Following data to be inked on front of each note book:— Docket Number (as shown by original plans), Book Number, Contents, Contractor, Resident Engineer, Date Completed, Type of Bridge.

THE FINAL NOTE BOOKS, PROPERLY MARKED AND DESCRIBED, SUBMITTED HEREWITH AS A PART OF THESE FINAL CONSTRUCTION PLANS ARE AS FOLLOWS:—

BOOK NO. Book No 1 CANNONS CREEK BR.

BOOK NO. " " 2 KINGS " "

BOOK NO.

BOOK NO.

BOOK NO.

DIARY

DATA CORRECT E. S. Sutherland RESIDENT ENGINEER — DATE 2-2-50

PLANS AND QUANTITIES CHKD. Bridge Estimate Engineer — DATE 3-17-50

EXAMINED ASSISTANT BRIDGE ENGINEER — DATE

SOURCE OF SUPPLY OF MATERIAL

ITEM	MANUFACTURER	GRADE
SAND	DIXIANA	#10
	COLUMBIA S.C.	
CRUSHED STONE	BLAIR	#4
	BLAIR S.C.	
GRAVEL		
CEMENT	VOLUNTEER	TYPE II
	KNOXVILLE TENN.	
REINF. STEEL	ALABAMA STEEL CO	
	BIRMINGHAM ALA.	
STRUCT. STEEL		
TREATED TIMBER		
STEEL H PILING		
TR. STRUCT. TIMBER		
HARDWARE		
EXPANSION PLATES		
PAINT	Sou. Coating & Chemical Co	
	Sumter S.C.	
WATERPROOFING		
HANDRAIL (STEEL)	UNION IRON WORKS	
	UNION, S.C.	

TABLE OF OVERRUNS AND UNDERRUNS

ITEM	UNIT	PLAN QUANTITIES	RES. ENGINEER QUANTITIES	PAY QUANTITIES COL'A. OFFICE	OVERRUN	UNDERRUN	EXPLANATION
EXCAVATION							
DRY EXCAVATION	C.Y.						
WET "	C.Y.						
ROCK "	C.Y.						
WET AND DRY EXCAV.	C.Y.						
CEMENT							
CLASS "AA" CONCRETE	C.Y.						
CLASS "A" CONCRETE	C.Y.	482.32 ✓	482.32 ✓				
REINFORCING STEEL							
REINFORCING STEEL	LBS.	114,306 ✓	114,306 ✓				
STRUCTURAL TIMBER							
TREATED STRUCT. TIMBER	M.B.M.						
UNTREATED STRUCT. TIMBER	M.B.M.						
HARDWARE							
HARDWARE	LBS.						
STRUCTURAL STEEL							
STRUCTURAL STEEL	LBS.						
STEEL SUPERSTRUCTURE	L. SUM						
PILING							
UNTREATED TIMBER PILING	L.F.						
CREOSOTED " "	L.F.						
CUT-OFF C.T. PILING @ 40 %	L.F.						
CUT-OFF C.T. PILING @ 25 %	L.F.						
16 IN. PRE-CAST R.C. PILING	L.F.	1620 ✓	1674.42 ✓		54.42 ✓		Necessary to obtain bearing
IN. PRE-CAST R.C. PILING	L.F.						
STEEL H PILING (IN LBS.)	L.F.						
PAINTING							
FIELD PAINTING STRUCTURAL STEEL	L.SUM						
HANDRAIL							
METAL HANDRAIL	L.F.						
PIPE "	L.F.	600 ✓	600 ✓				
TIMBER "	L.F.						
OTHER ITEMS							
PRE-CAST CONC. TILE SLOPE DRAINS	L.F.	165 ✓	177.5 ✓		12.5 ✓		Necessary to fit fill Slopes

FED. ROAD DIV. NO.	STATE	COUNTY	FED. AID PROJ. NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	NEWBERRY	FI-2562(5)	177	1	19

INDEX OF SHEETS

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

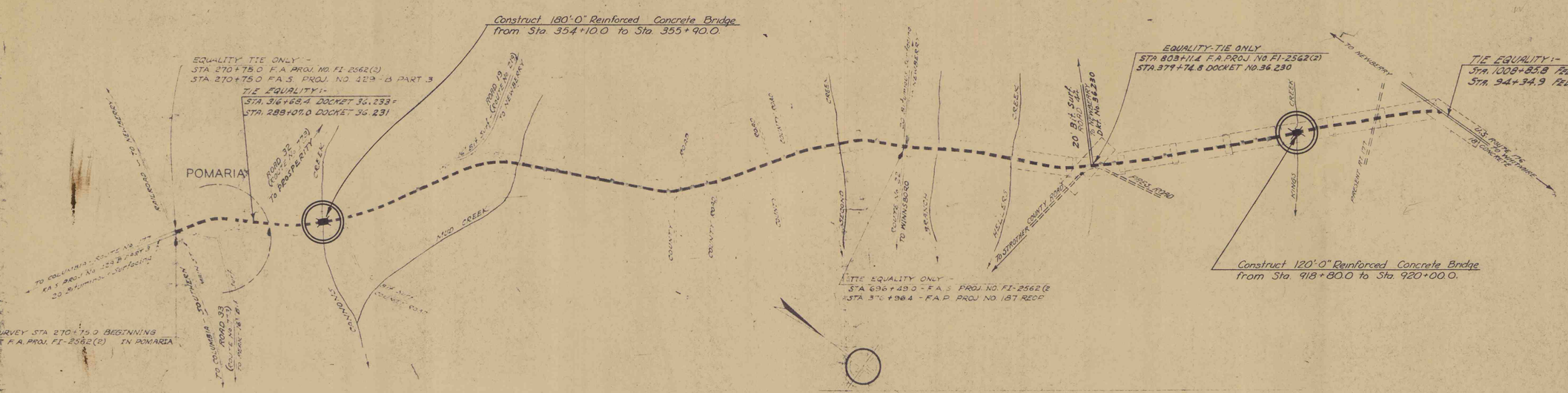
NEWBERRY COUNTY

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	C.Y.
Reinforcing Steel	Lbs.	68,424	Lbs.	45,882	Lbs.	114,306	Lbs.
16" Pre-cast Concrete Piling	L.F.	995	L.F.	625	L.F.	1620	L.F.
Pre-cast Concrete Tile Slope Drains	L.F.	120	L.F.	45	L.F.	165	L.F.
Pipe Handrail	L.F.	360	L.F.	240	L.F.	600	L.F.



CONVENTIONAL SIGNS

State Line		Trolley Poles	
County Line		Power Poles	
Civil Twp. Lines		Telephone or Telegraph Poles	
Property Lines		Marsh	
Fence		Trees	
Retaining Wall		Brush	
Existing Road		Stumps	
℄ 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	

LEGEND

PROPOSED PROJECT

OTHER ROADS

LAYOUT

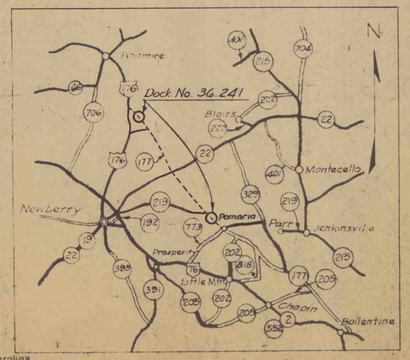
Scale 1 inch = 3000 feet

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

Exceptions in Stationing

STA. 311+42.3 = STA. 310+95.1

STA. 564+83.8 = STA. 565+13.3



Note: All workmanship and material 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. Pearman
STATE HIGHWAY ENGINEER

DATE 10/19/40

RECOMMENDED FOR APPROVAL:

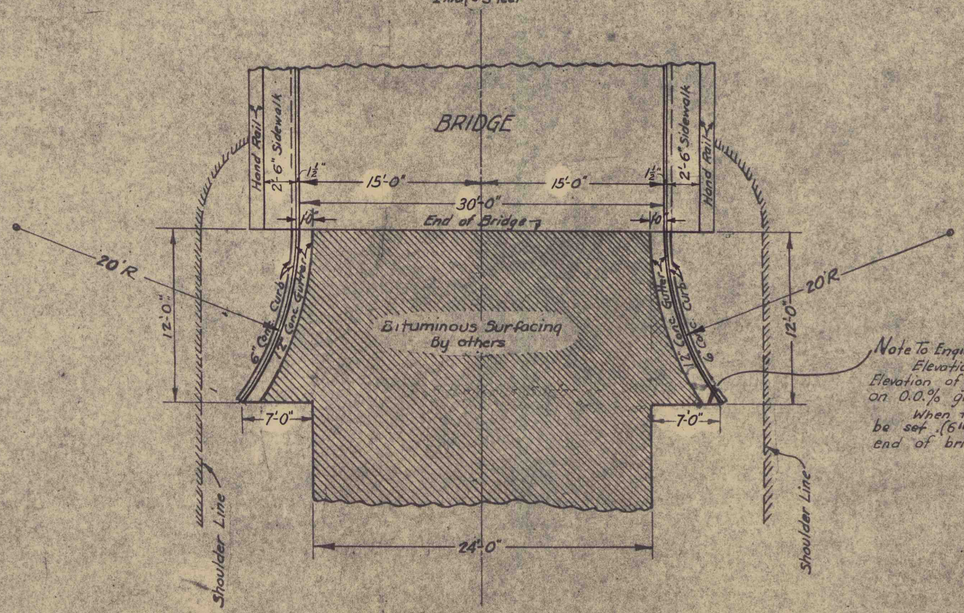
DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

APPROVED

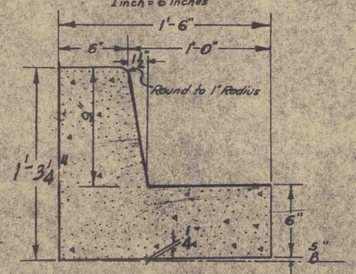
DIVISION ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

F.A. ROAD DIV. NO.	STATE	COUNTY	DOCKET NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	NEWBERRY	36.241	177	2	19

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 = 11.2 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" ± % of grade x 12") Below elevation of gutter at end of bridge.

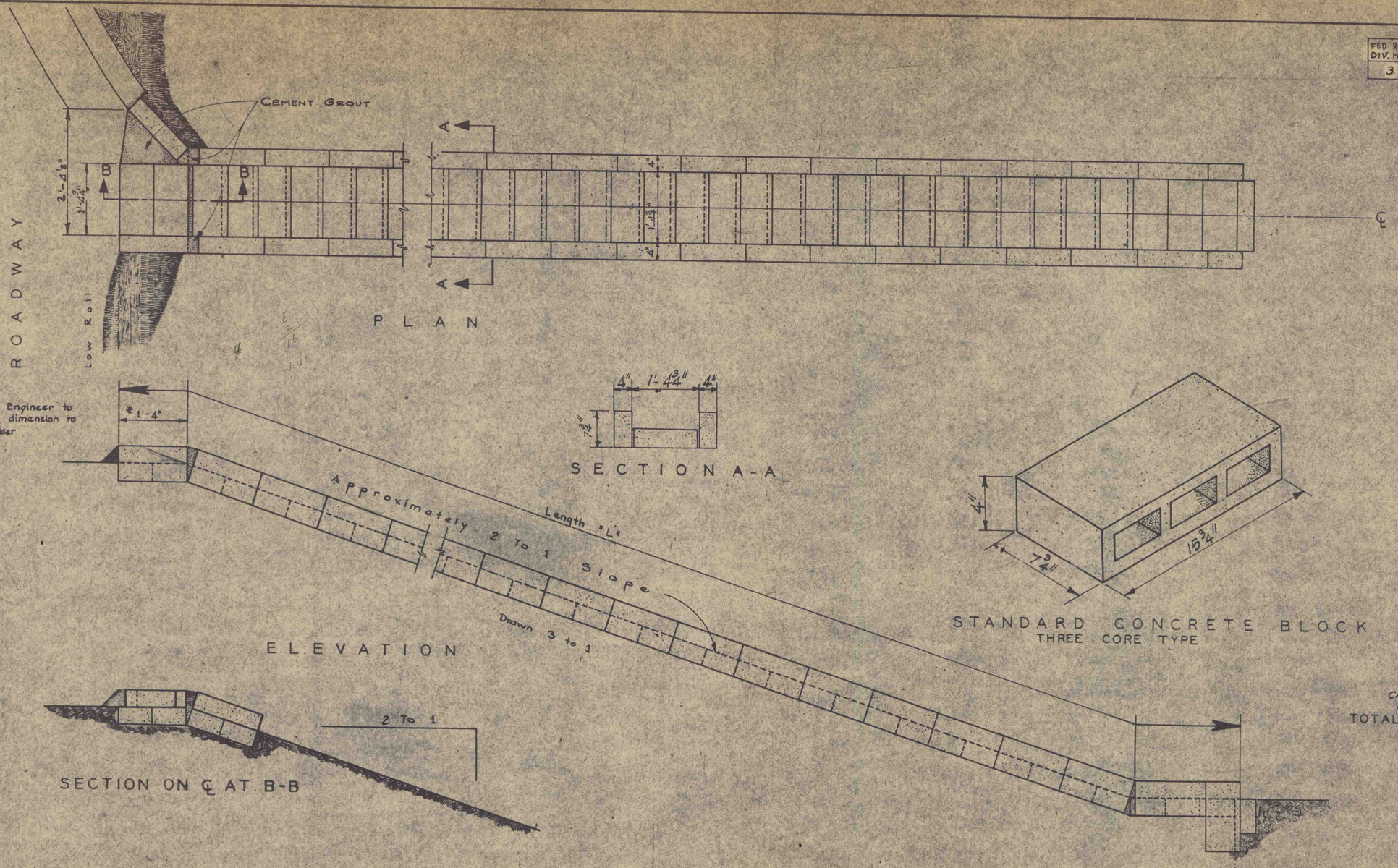
All costs of constructing the concrete curb and gutter at the ends of the bridge will be included in payment for the concrete involved at the Unit Price Bid for Class "A" Concrete.

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

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

For Dock. 36.241 R.W.N. 10-48 V.B. M.C.C. 10-48

FED ROAD DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	NEWBERRY	36.241	177	3	18



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

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 ½" 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.

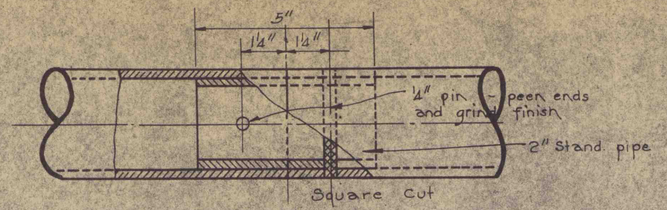
Rev.	W.R.T.		5-47
Quantity	R.W.H.	B.M.C.	10-48
Tr.	W.R.T.		
Dr.	W.R.T.		

S. C. STATE HIGHWAY DEPARTMENT
COLUMBIA

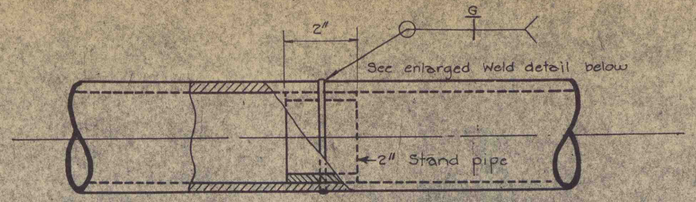
TYPICAL CONCRETE TILE SLOPE DRAINS

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

FED ROAD DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	NEWBERRY	36.241	177	4	19

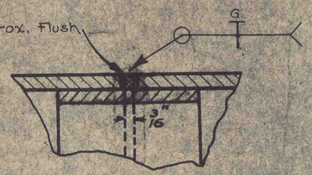


ALTERNATE Nº 1

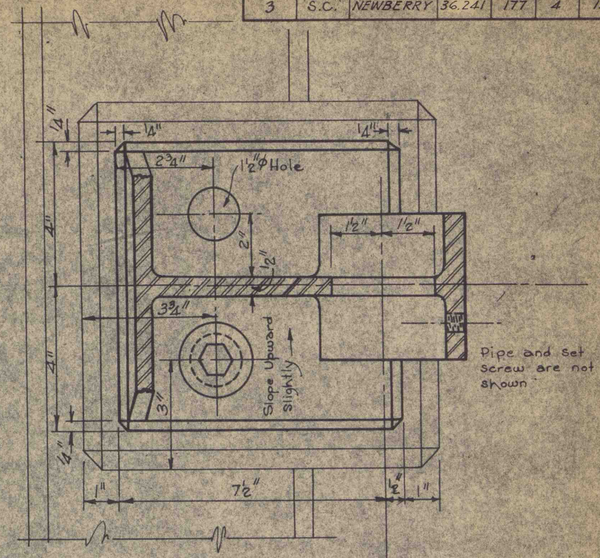


ALTERNATE Nº 2

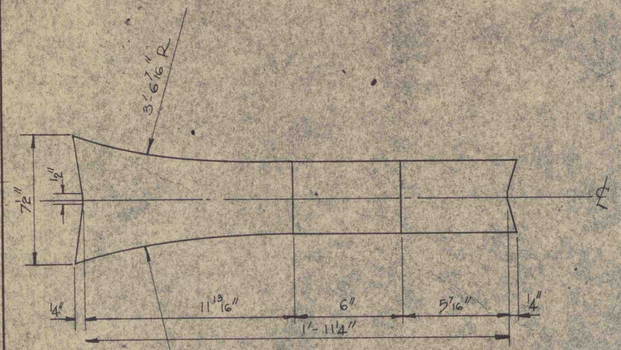
DETAIL OF PIPE JOINT



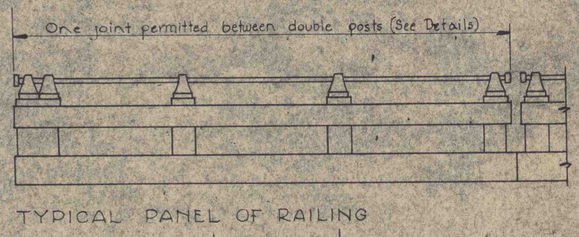
DETAIL OF WELDED JOINT
FULL SIZE



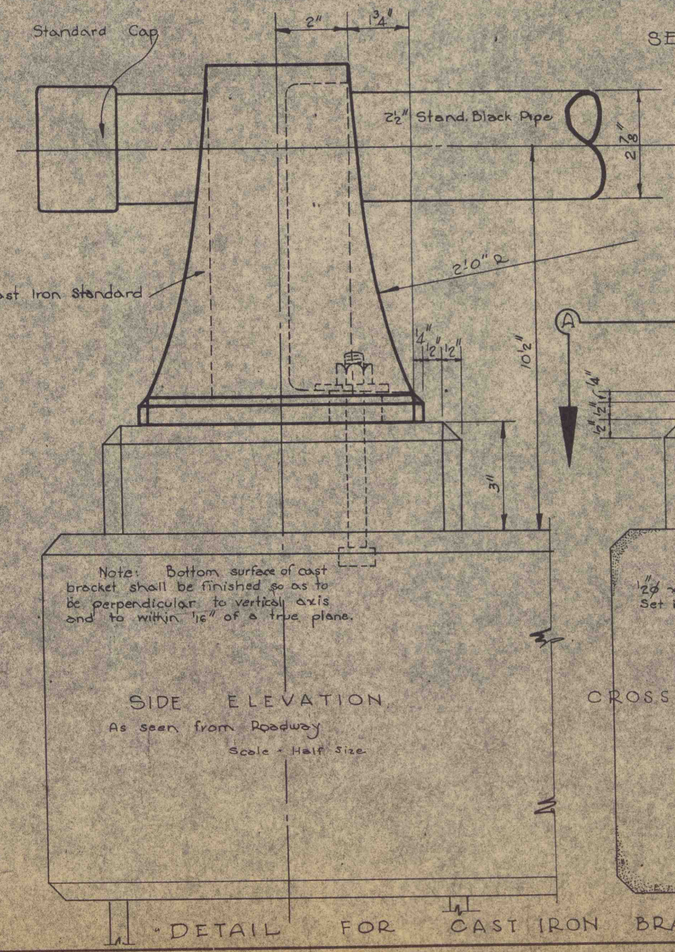
SECTION A-A



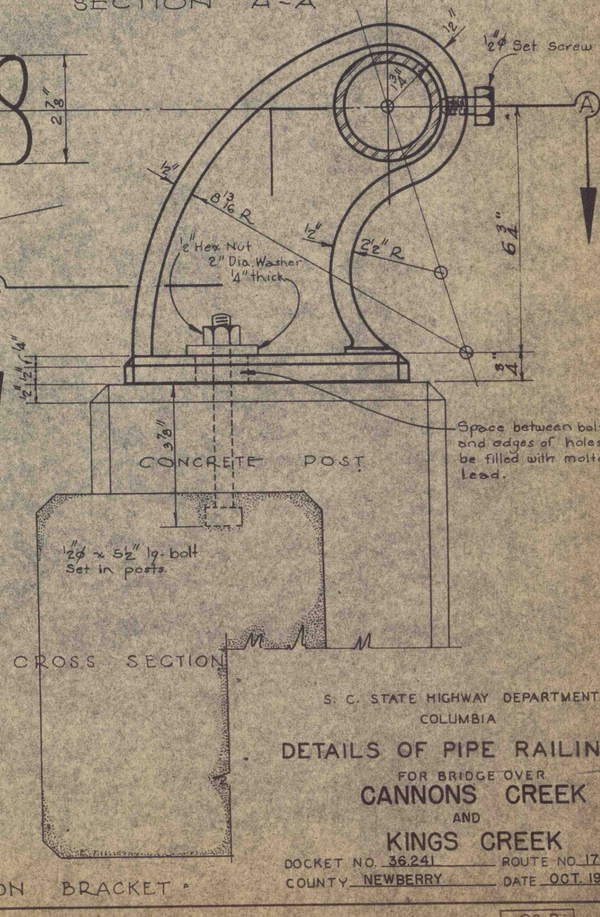
DEVELOPED VIEW OF COVER PLATE



TYPICAL PANEL OF RAILING



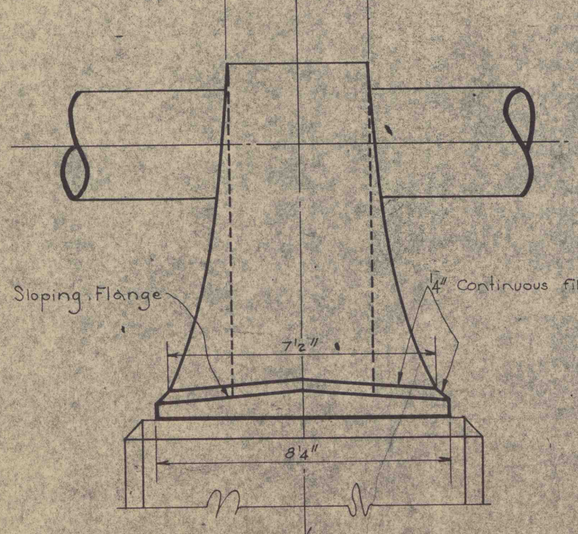
SIDE ELEVATION
As seen from Roadway
Scale - Half Size

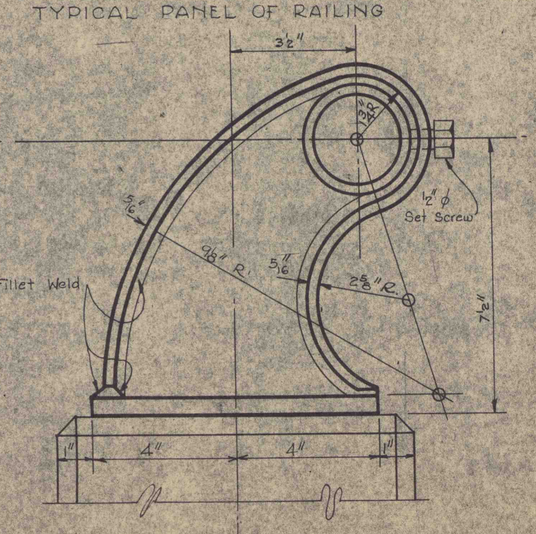


CONCRETE POST

CROSS SECTION

DETAIL FOR CAST IRON BRACKET

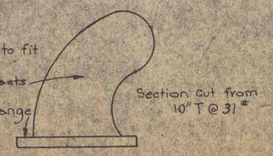




Details not shown shall be the same or as closely similar as practicable to those shown for Cast Iron Standard. Accessible welds shall be ground to a smooth surface. Omit duck between post top and standard.

Approx. Weight = 24 Lbs. Each.

FABRICATED RAILING STANDARD



The Contractor may use either the Fabricated or Cast Iron Standard

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

S. C. STATE HIGHWAY DEPARTMENT
COLUMBIA

DETAILS OF PIPE RAILING

FOR BRIDGE OVER

CANNONS CREEK
AND
KINGS CREEK

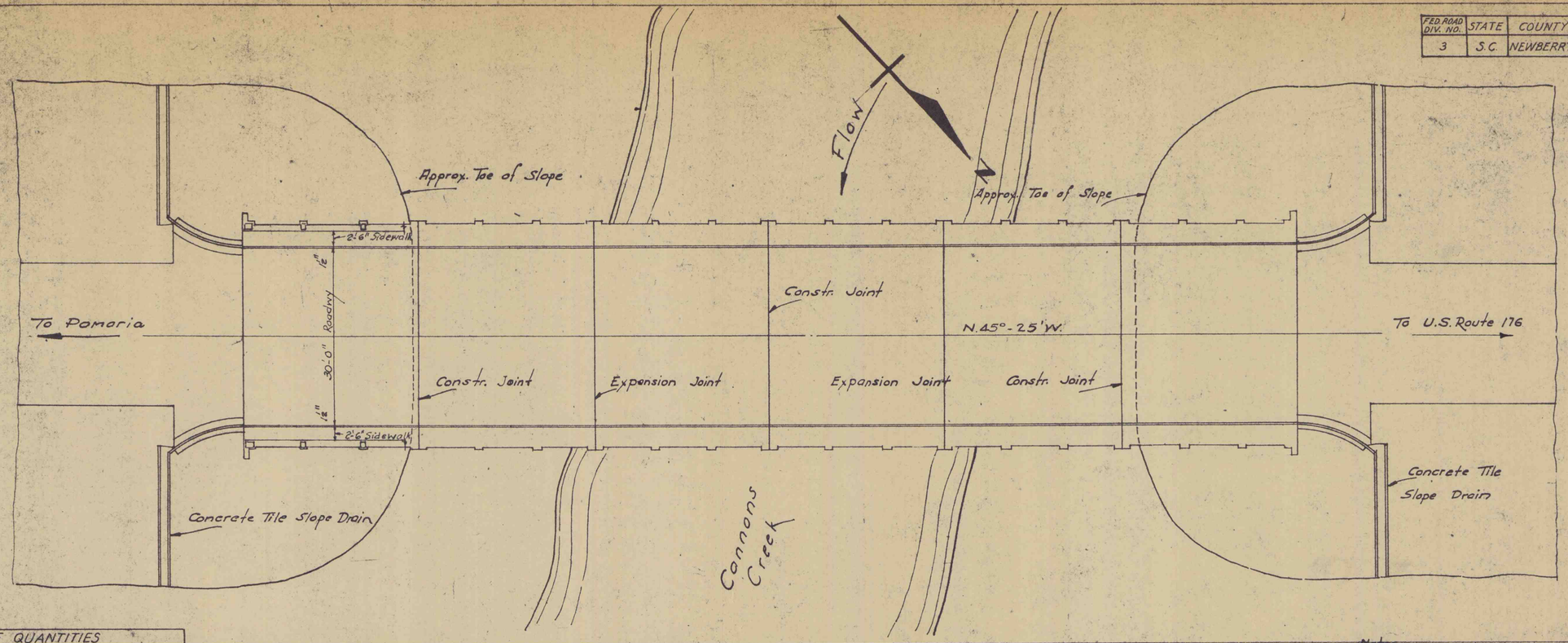
DOCKET NO. 36.241 ROUTE NO. 177

COUNTY NEWBERRY DATE OCT. 1948

23R

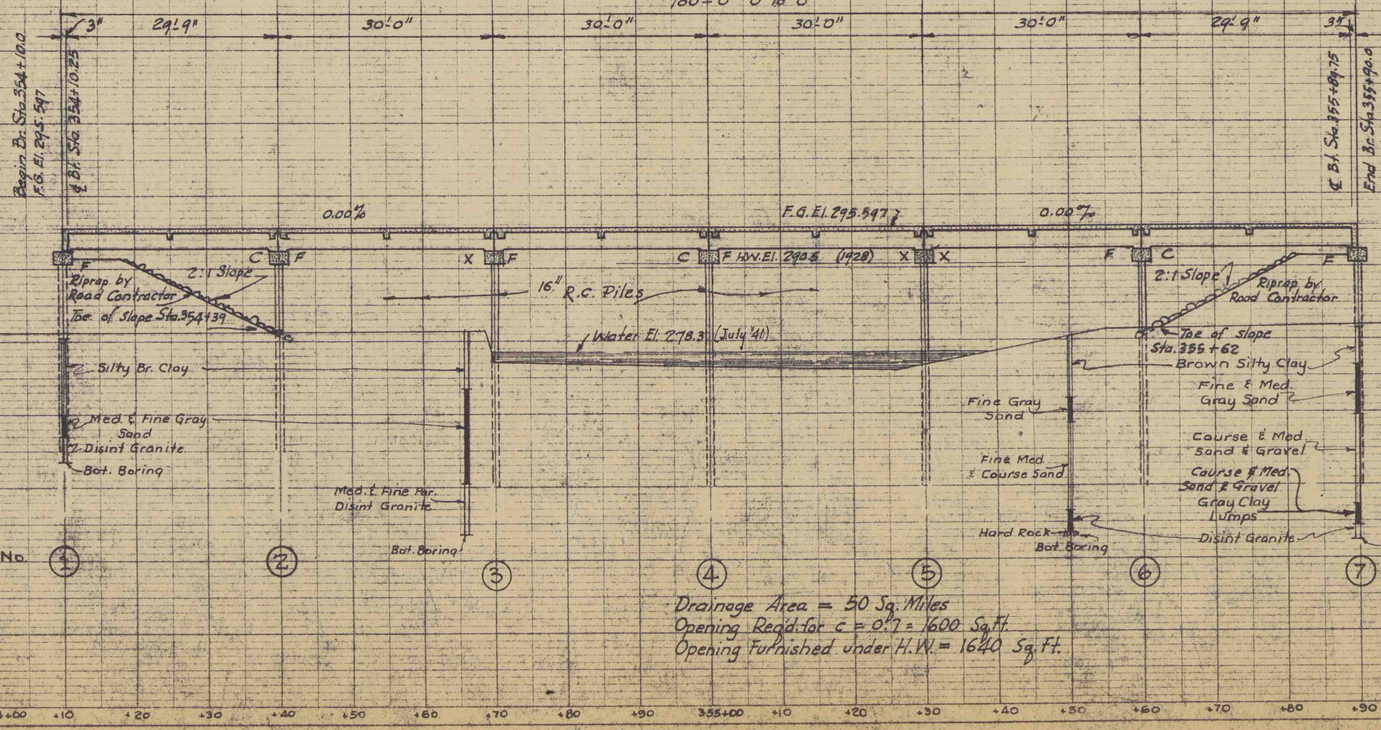
FED. ROAD DIST. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	NEWBERRY	36.241	177	5	19

FED. ROAD DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	NEWBERRY	36.241	177	6	19



SUMMARY OF QUANTITIES

	No. Reqd	Class "A" Concrete C.Y.	Reinf. Steel Lbs.	16" Pre-Cast Conc. Piling L.F.	Conc. Tile Slope Drain L.F.	Pipe Handrail L.F.
Bent No. 1	1	5.45	852	See Total	—	—
" " 2	1	5.45	852	" "	—	—
" " 3	1	5.45	852	" "	—	—
" " 4	1	5.45	852	" "	—	—
" " 5	1	5.45	830	" "	—	—
" " 6	1	5.45	852	" "	—	—
" " 7	1	5.45	852	" "	—	—
30' End Span	2	84.90	20,806	—	120	120
30' Int. Span	4	161.76	41,676	—	—	240
1' Curb & Gutter	2	2.24	—	—	—	—
Totals		287.05	68,424	995	120	360



Drainage Area = 50 Sq. Miles
Opening Reqd. for C = 0.7 = 1600 Sq. Ft.
Opening Furnished under H.W. = 1640 Sq. Ft.

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

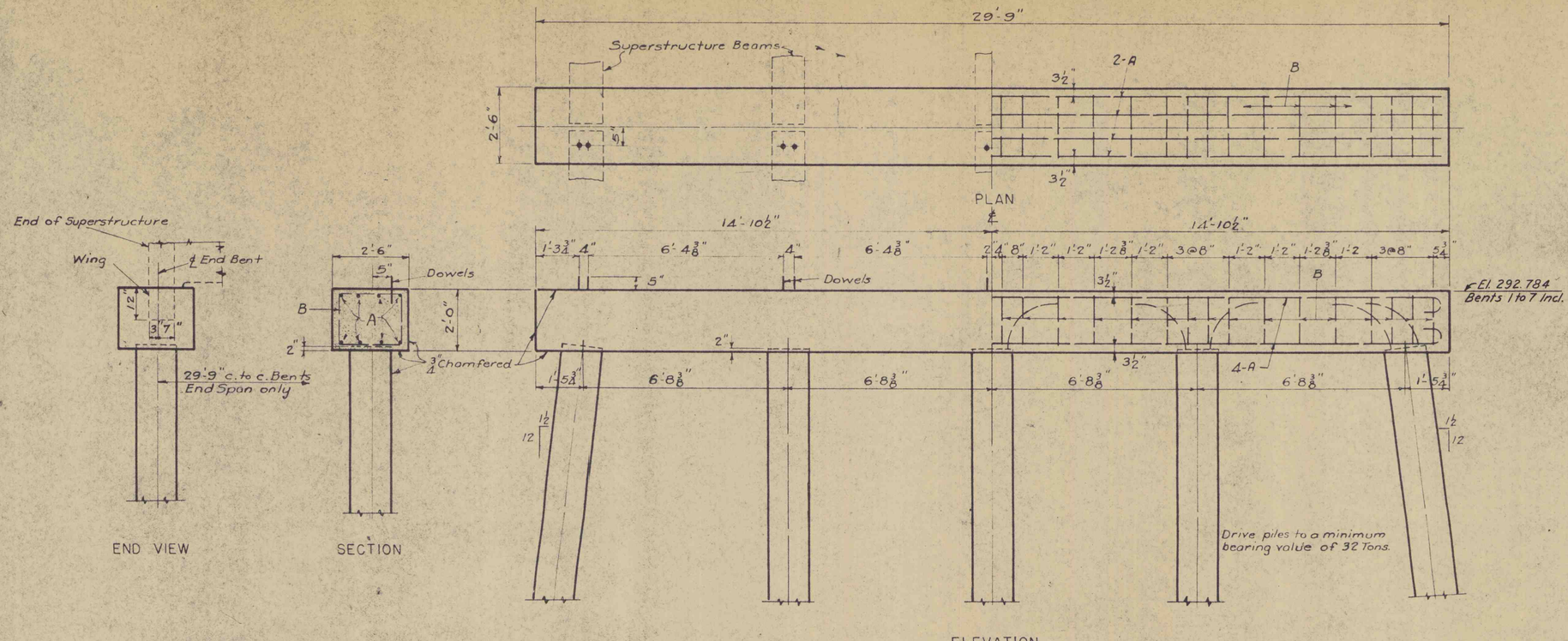
CANNONS CREEK

DOCKET NO. 36.241 — ROUTE NO. 177.

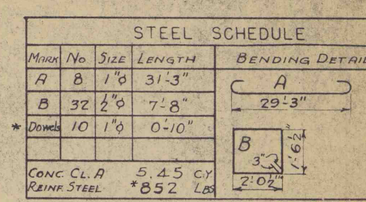
COUNTY - NEWBERRY — OCTOBER 1948

PLATE 1 - PLAN - PROFILE C. P. & S. E. STANDARD
CHARLES BRUNING CO. INC., NEW YORK

Fed Road Div No	State	County	Docket No.	Route No.	Sheet No.	Total Sheets
3	S.C.	NEWBERRY	36241	177	7	19

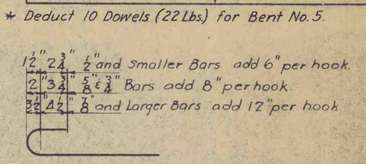


STEEL SCHEDULE				
Mark	No	Size	Length	Bending Details
A	8	1" ⌀	31'-3"	
B	32	½" ⌀	7'-8"	
* Dowels	10	1" ⌀	0'-10"	
Conc Cl. A		5.45 C.Y.		
Reinf. Steel		*852 Lbs.		



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

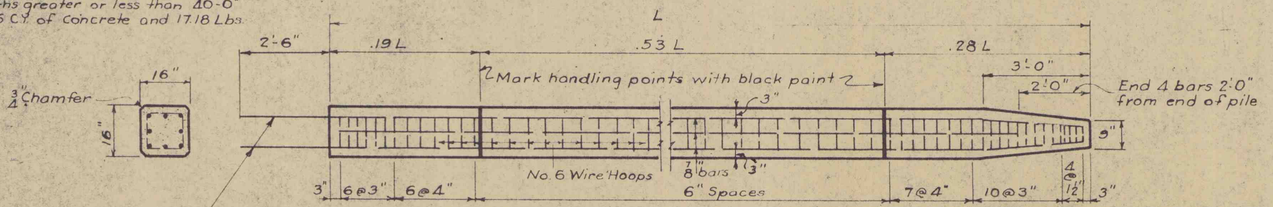
½" 2¾" ½" and Smaller Bars add 6" per hook.
⅝" 3¾" ⅝" & ¾" Bars add 8" per hook.
¾" 4½" ⅞" and Larger Bars add 12" per hook.



HOOK DETAILS

Notes:—
All concrete to be Class "A".
All exposed edges to be chamfered ¾" 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.



DETAIL OF 16" SQUARE CONCRETE PILE

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

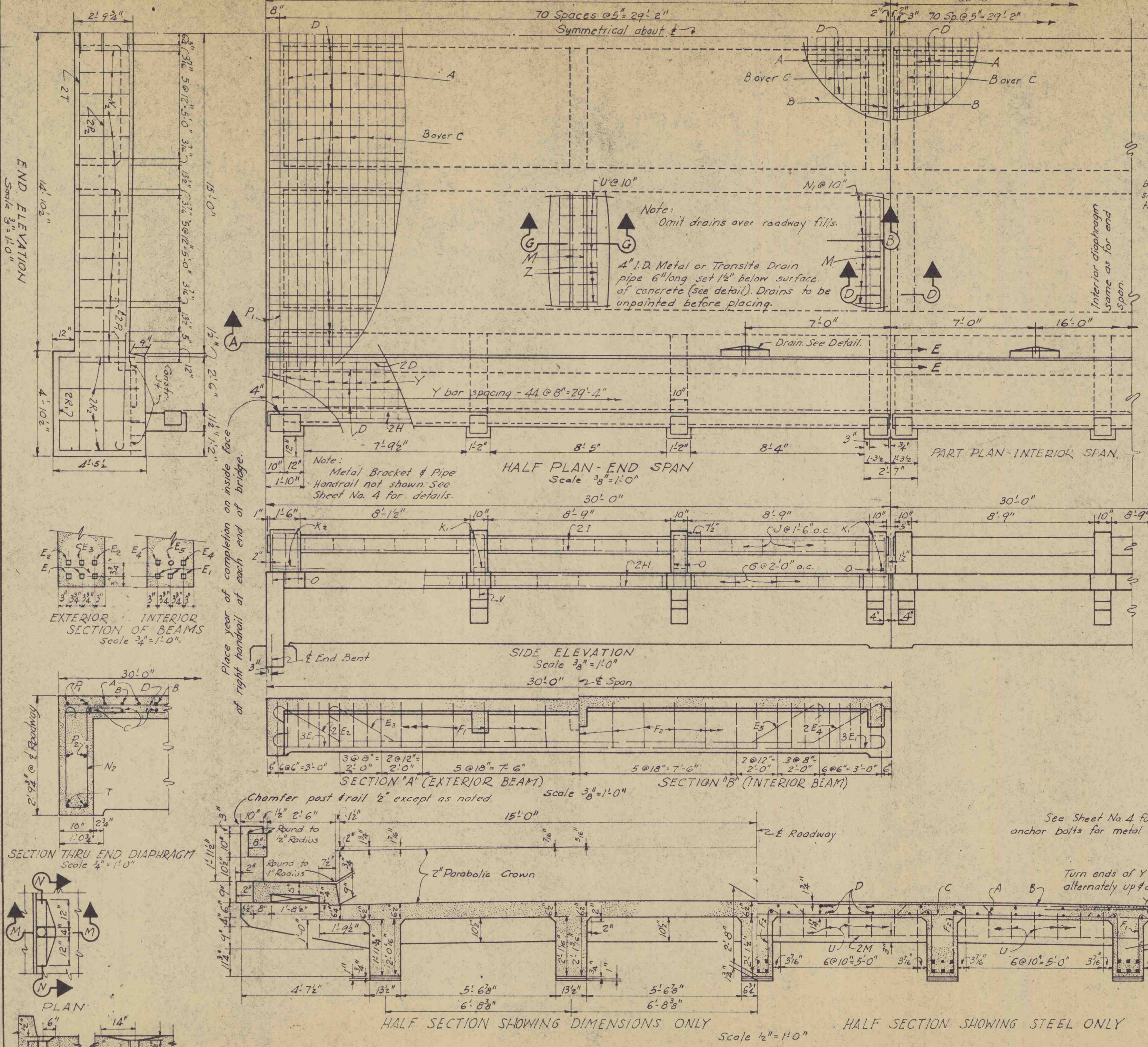
S. C. STATE HIGHWAY DEPARTMENT
COLUMBIA

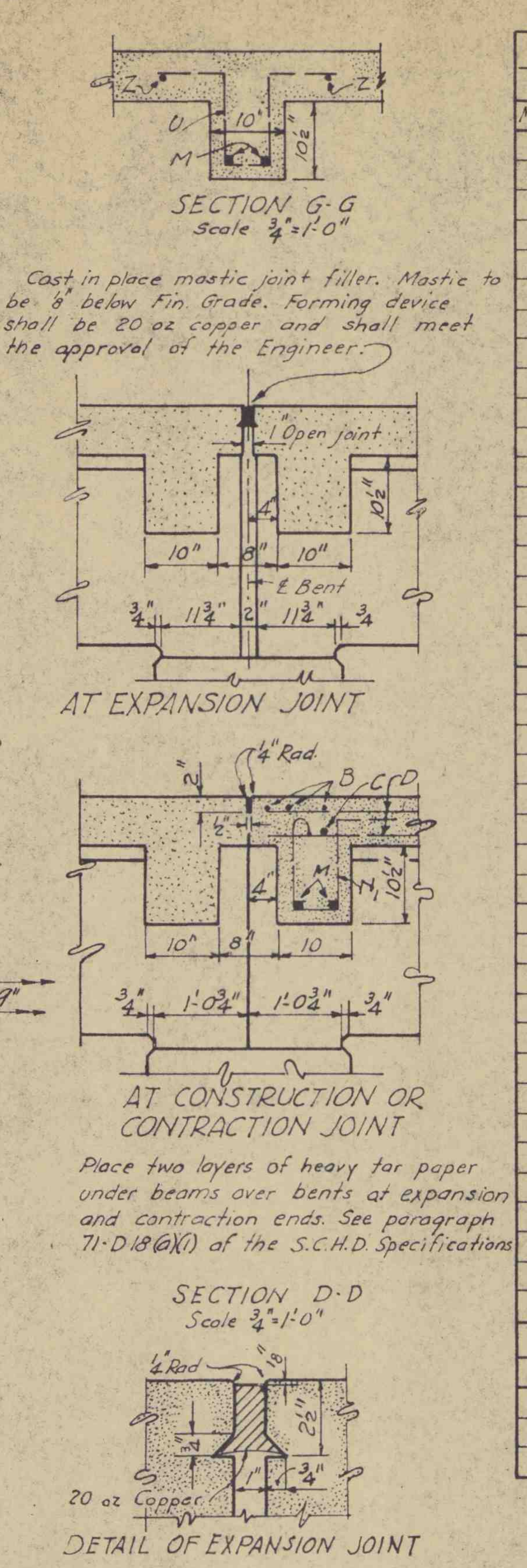
BENT FOR 30' SPAN
FOR BRIDGE OVER
CANNONS CREEK

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

16" R.C. PILE BENT C30-30-2.5 1948

FED ROAD DIV NO.	STATE	COUNTY	DOCKET No.	ROUTE NO	SHEET No.	TOTAL SHEETS
3	S.C.	NEWBERRY	36.241	177	8	19





STEEL SCHEDULE

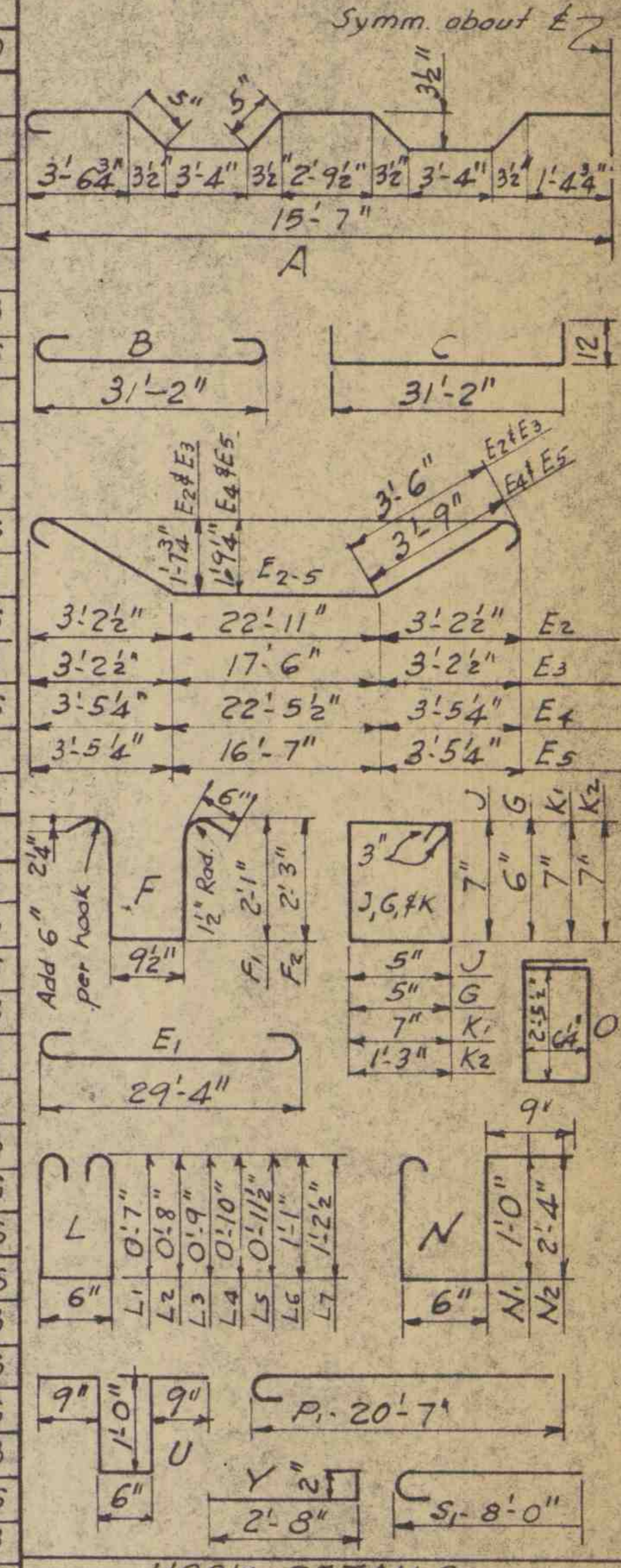
ONE INTERIOR SPAN

Mark	Size	No	Length	D	Mark	Size	No	Length	D
A	½"φ	34	33'-2"	B	L_2	½"φ	8	2'-10"	B
B	½"φ	39	32'-2"	B	L_3	½"φ	8	3'-0"	B
C	½"φ	35	33'-2"	B	L_4	½"φ	8	3'-2"	B
D	½"φ	62	29'-8"	S	L_5	½"φ	8	3'-5"	B
E_1	1¼"□	15	31'-4"	B	L_6	½"φ	8	3'-8"	B
E_2	1⅛"□	4	31'-11"	B	L_7	½"φ	8	3'-11"	B
E_3	1¼"□	2	26'-6"	B	M	1"□	6	27'-6"	S
E_4	1⅛"□	6	32'-0"	B	N_1	½"φ	56	3'-9"	B
E_5	1"φ	3	26'-1"	B	O	½"φ	16	6'-6"	B
F_1	½"φ	66	5'-11"	B	S_1	¾"φ	16	8'-8"	B
F_2	½"φ	99	6'-3"	B	S_2	¾"φ	16	5'-0"	S
G	¼"φ	30	2'-4"	B	U	½"φ	28	4'-0"	B
H	½"φ	8	29'-8"	S	V	¾"φ	8	0'-10"	S
I	½"φ	8	29'-8"	S	Y	⅜"φ	90	2'-10"	B
J	¼"φ	36	2'-6"	B	Z	½"φ	2	25'-1"	S
K_1	¼"φ	16	2'-10"	B					
L_1	½"φ	8	2'-8"	B					

ONE END SPAN

Mark	Size	No	Length	D	Mark	Size	No	Length	D
A	½"φ	34	33'-2"	B	L_6	½"φ	6	3'-8"	B
B	½"φ	36	32'-2"	B	L_7	½"φ	6	3'-11"	B
C	½"φ	35	33'-2"	B	M	1"□	4	27'-6"	S
D	½"φ	62	29'-8"	S	N_1	½"φ	28	3'-9"	B
E_1	1¼"□	15	31'-4"	B	N_2	½"φ	28	6'-5"	B
E_2	1⅛"□	4	31'-11"	B	O	½"φ	18	6'-6"	B
E_3	1¼"□	2	26'-6"	B	P_1	½"φ	4	21'-1"	B
E_4	1⅛"□	6	32'-0"	B	P_2	½"φ	4	20'-7"	S
E_5	1"φ	3	26'-1"	B	R_1	½"φ	4	4'-6"	S
F_1	½"φ	66	5'-11"	B	R_2	½"φ	16	4'-0"	S
F_2	½"φ	99	6'-3"	B	S_1	¾"φ	12	8'-8"	B
G	¼"φ	30	2'-4"	B	S_2	¾"φ	12	5'-0"	S
H	½"φ	8	29'-8"	S	T	¾"φ	4	20'-10"	S
I	½"φ	8	29'-8"	S	U	½"φ	28	4'-0"	B
J	¼"φ	36	2'-6"	B	V	¾"φ	6	0'-10"	S
K_1	¼"φ	12	2'-10"	B	Y	⅜"φ	90	2'-10"	B
K_2	¼"φ	4	4'-2"	B	Z	½"φ	2	25'-1"	S
L_1	½"φ	6	2'-8"	B					
L_2	½"φ	6	2'-10"	B					
L_3	½"φ	6	3'-0"	B					
L_4	½"φ	6	3'-2"	B					
L_5	½"φ	6	3'-5"	B					

BENDING DETAILS



HOOK DETAILS

for ½" and smaller add 6" per hook
for ⅝" & ¾" bars add 8" per hook.
for ⅞" and larger add 12" per hook

SUMMARY OF QUANTITIES

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

Notes:

Design Data: A.A.S.H.O. Specifications (1944); H20-S16 Live Load; fs=20,000 #/□", fc=1,000 #/□", n=10, v=90 #/□", u=225 #/□".

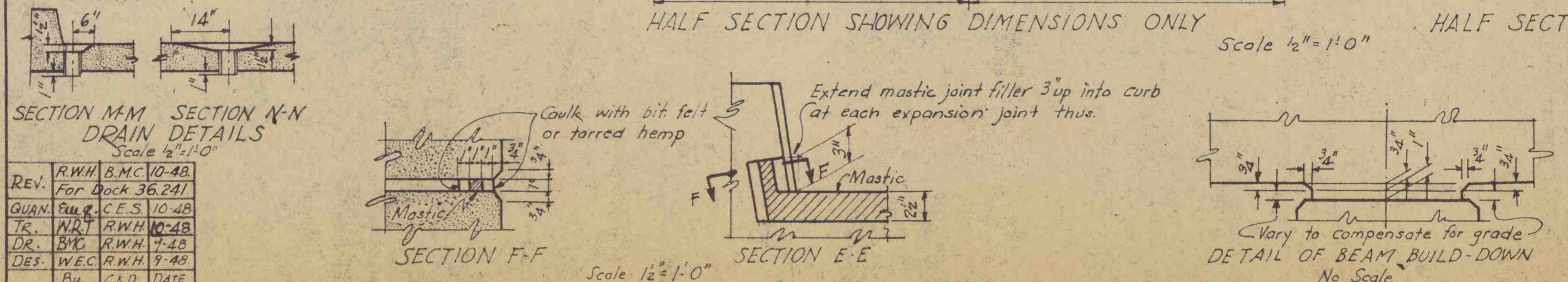
All concrete shall be Class "A".

Diaphragms, brackets, and wings shall be cast monolithic with slab and beams.

Exposed edges shall be chamfered ¾" unless otherwise specified.

No sidewalk concrete shall be cast until beam falsework has been struck.

Structural grade reinforcing steel not permitted.



REV.	R.W.H.	B.M.C.	10-48
	For Dock 36.241		
QUAN.	Eng.	C.E.S.	10-48
TR.	W.R.T.	R.W.H.	10-48
DR.	BMC	R.W.H.	7-48
DES.	W.E.C.	R.W.H.	9-48
	By	CKD	DATE

BREAKDOWN OF CONCRETE QUANTITIES

	ONE INT. SPAN	ONE END SPAN
Beams, Slab, Brackets	34.96 C.Y.	36.82 C.Y.
Sidewalk	3.96 C.Y.	4.05 C.Y.
Handrail & Posts	1.52 C.Y.	1.58 C.Y.
Totals	40.44 C.Y.	42.45 C.Y.

Scale as noted

S. C. STATE HIGHWAY DEPARTMENT
COLUMBIA

30' SPAN 30' R'D'W'Y 2.5' SW.

FOR BRIDGE OVER

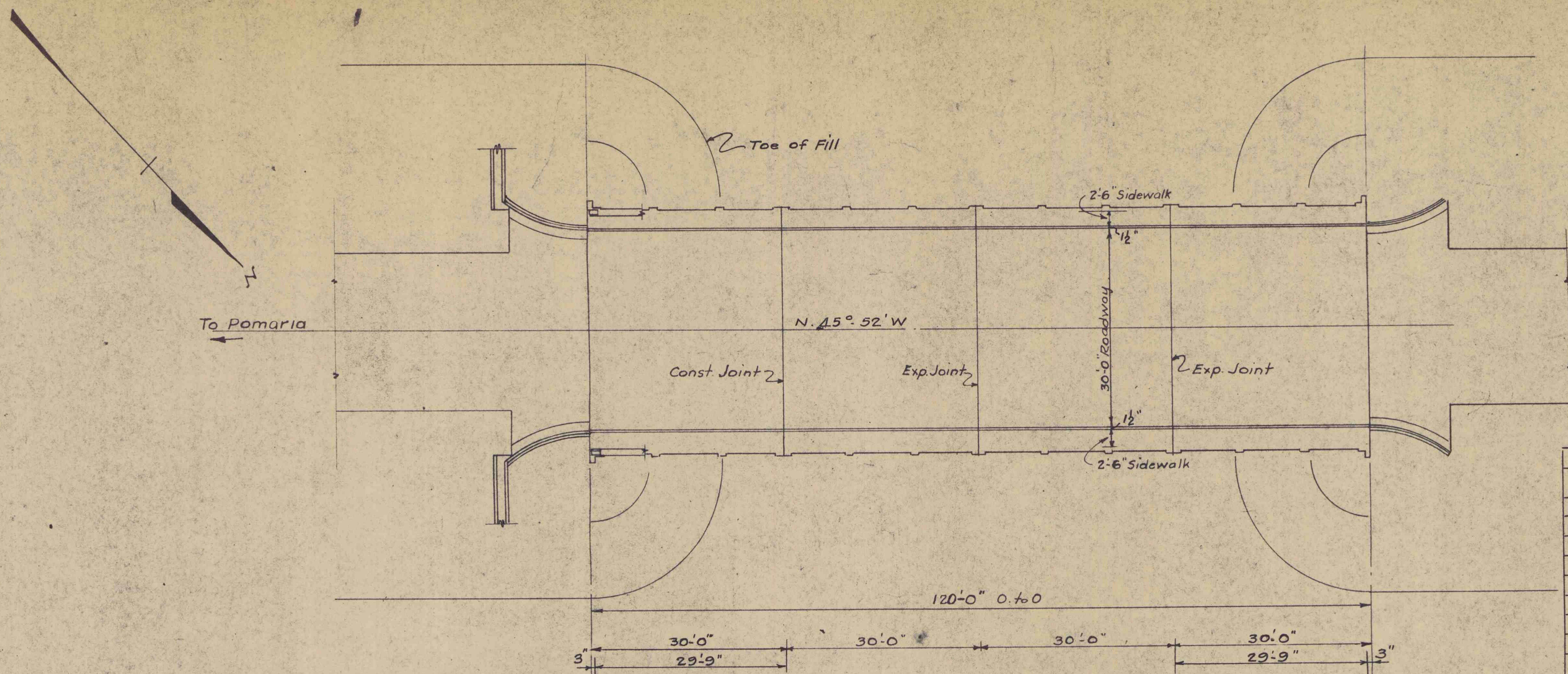
CANNONS CREEK

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

C 30-30-2.5 1948

FED. ROAD DIST. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	NEWBERRY	36.248	177	9	19

FED. ROAD DIV. NO.	STATE	COUNTY	DOCKET NO.	PROJECT NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	NEWBERRY	36.241		177	10	19



SUMMARY OF QUANTITIES

	No. Req'd.	Cem. Conc. Cl. "A"	Reinf. Steel	16" Precast Conc. Piling	Conc. Tile Slope Drain	Pipe Handrail
Bent 1	1	5.45	852	See Total	—	—
" 2	1	5.45	852	"	—	—
" 3	1	5.45	852	"	—	—
" 4	1	5.45	830	"	—	—
" 5	1	5.45	852	"	—	—
30 Ft. End Span	2	84.90	20806	—	See Total	120
30 Ft. Int Span	2	80.88	20838	—	—	120
Fl. Curb & Gutter	2	2.24		—	—	—
Total		195.27 C.Y.	45,882 Lbs.	625 L.F.	45 L.F.	240 L.F.

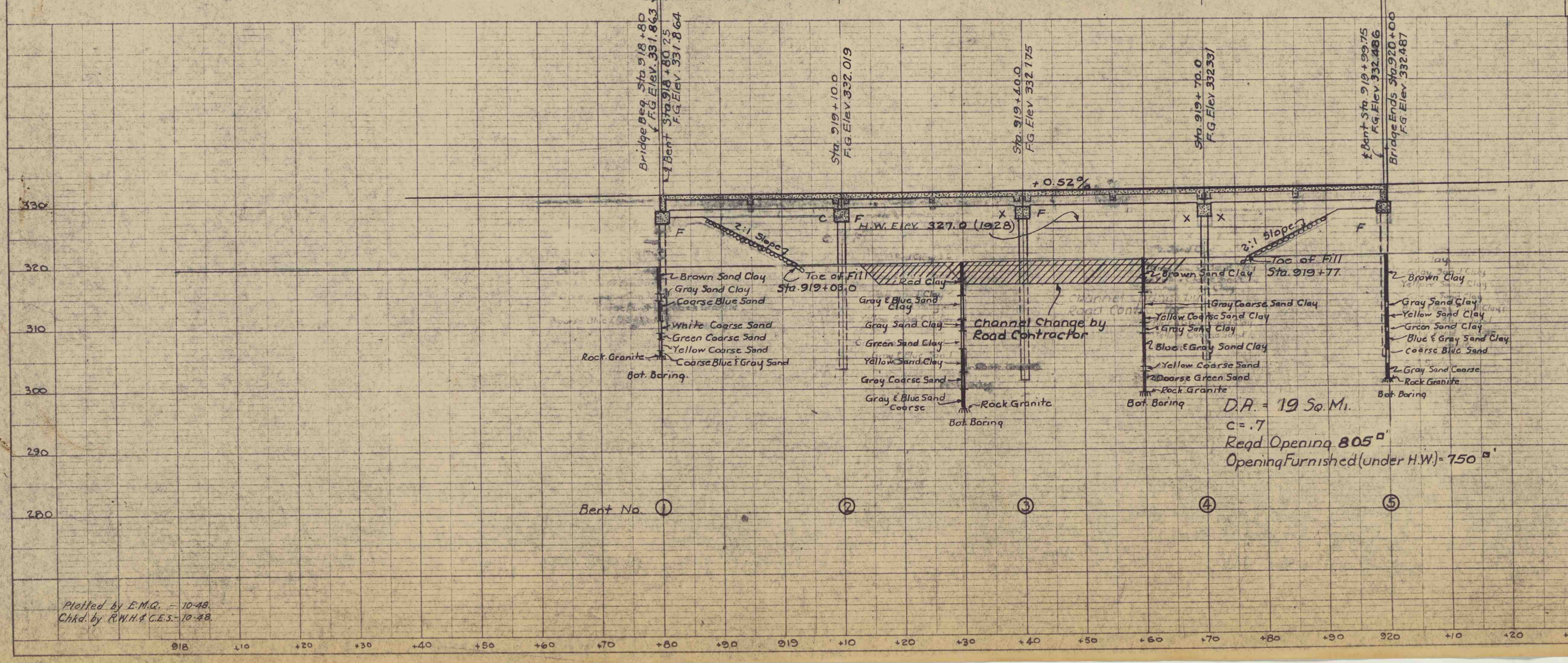
Notes:-

Fills at ends of bridge to be in place before piles for End Bents are driven.

All costs of necessary excavation to construct 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.

Construct flared curb & gutter on both sides of roadway at each end of bridge.

Construct Concrete Tile Slope Drains on both sides of roadway at beginning of bridge only.

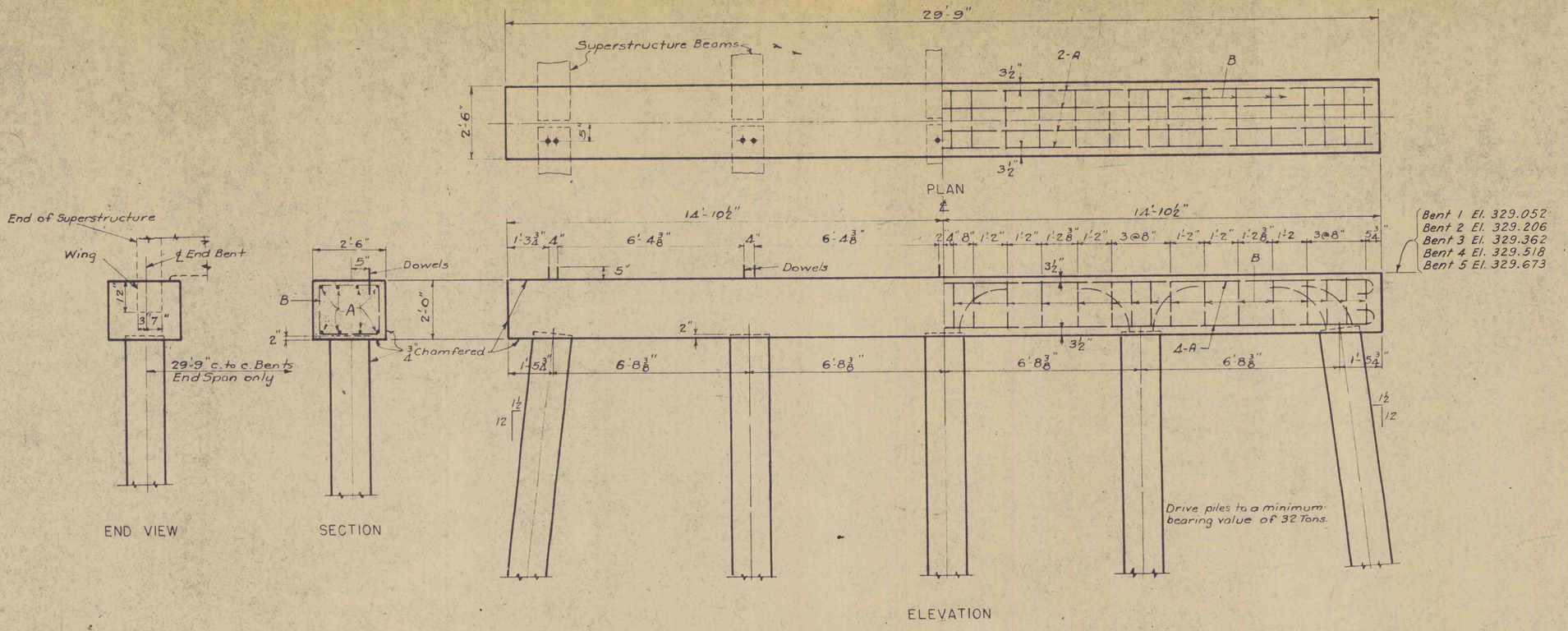


S.C. STATE HIGHWAY DEPARTMENT
COLUMBIA

PLAN & PROFILE
BRIDGE OVER
KINGS CREEK

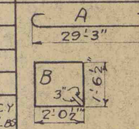
DOCKET NO. 36.241 — ROUTE NO. 177
COUNTY - NEWBERRY — OCTOBER 1948

FED ROAD DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	NEWBERRY	36.241	177	11	19

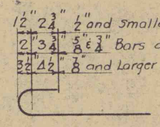


STEEL SCHEDULE

MARK	NO	SIZE	LENGTH	BENDING DETAILS
A	8	1"ø	31'-3"	
B	32	½"ø	7'-8"	
* Dowels	10	1"ø	0'-10"	
CONC. CL. A			5.45 CY	
REINF. STEEL			*852 Lbs.	



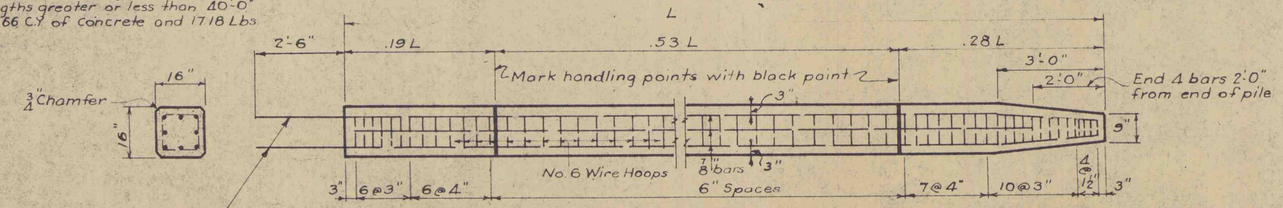
* Deduct 10 Dowels (22 Lbs.) for Bent No. 4.



HOOK DETAILS

Notes —
All concrete to be Class "A".
All exposed edges to be chamfered ¾" 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



DETAIL OF 16" SQUARE CONCRETE PILE

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

S. C. STATE HIGHWAY DEPARTMENT
COLUMBIA

BENT FOR 30' SPAN

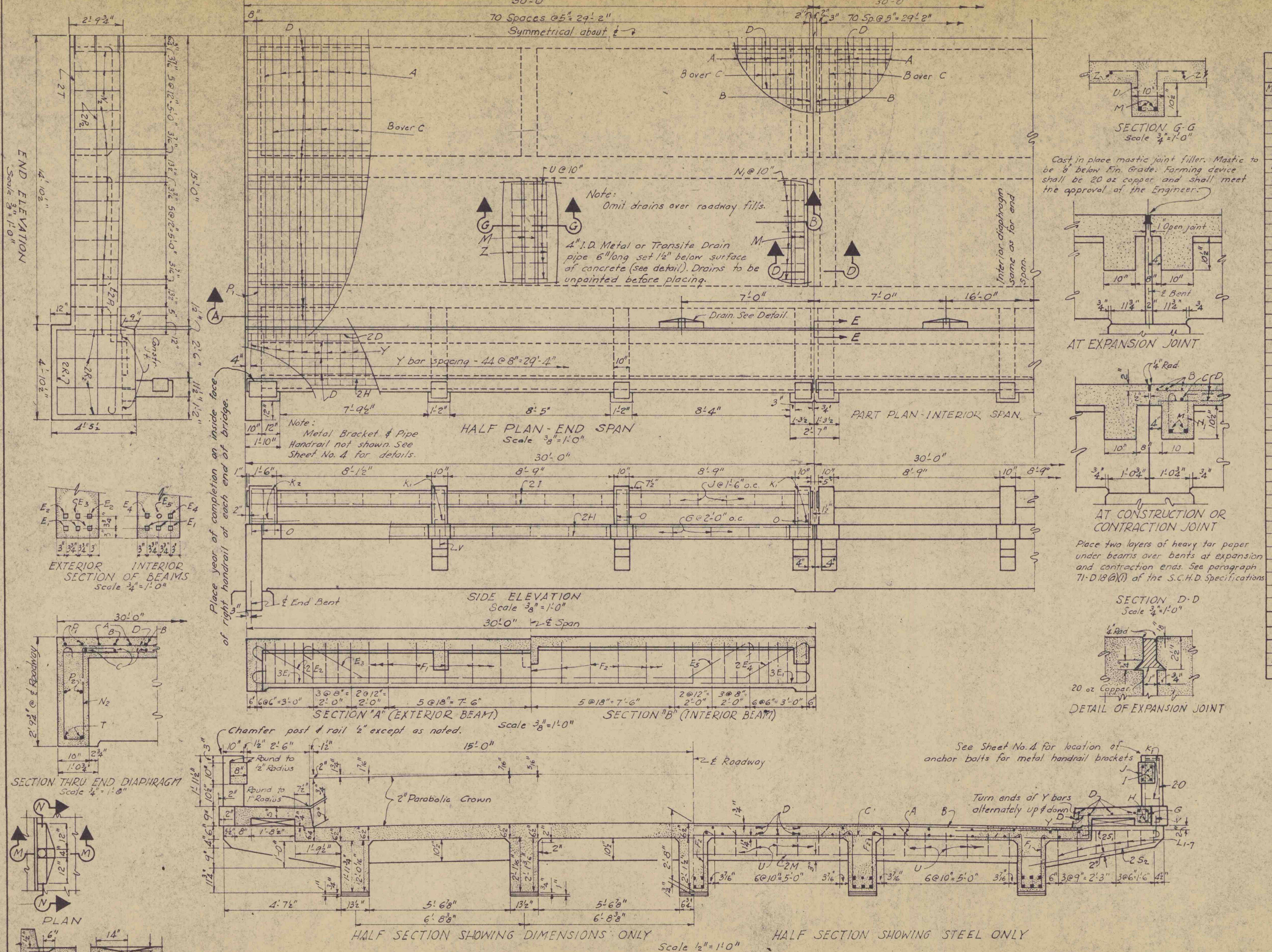
FOR BRIDGE OVER

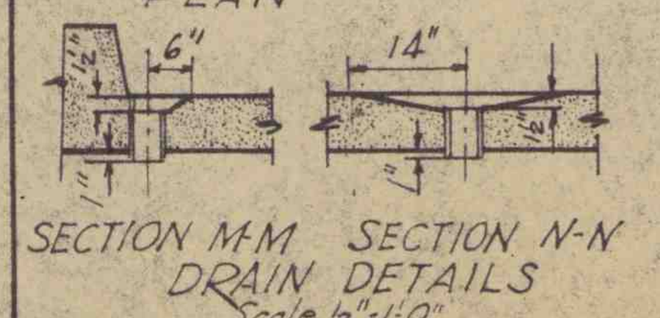
KINGS CREEK

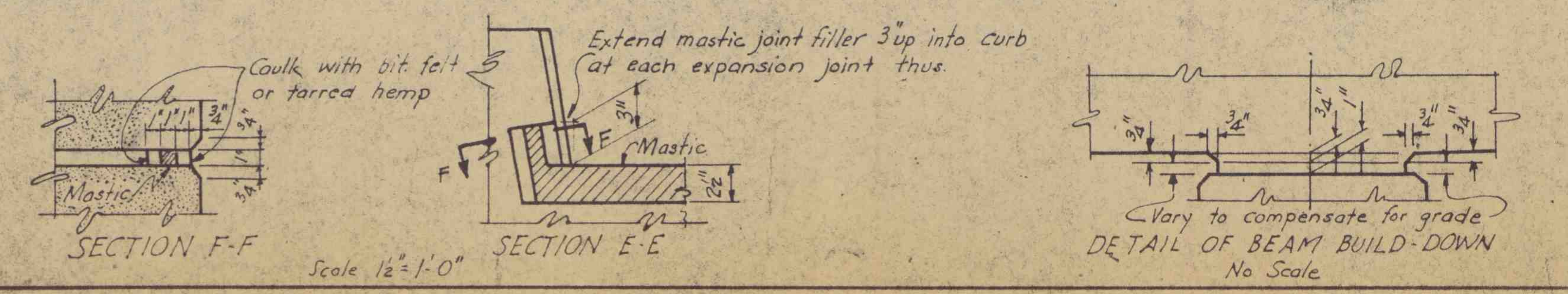
DOCKET NO. 36.241 ROUTE NO. 177
COUNTY NEWBERRY DATE OCT. 1948

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	19







REV.	R.W.H.	B.M.C.	10-48.
	For Dock. 36.241		
QUAN.	Em g.	C.E.S.	10-48
TR.	N.R.T.	R.W.H.	10-48
DR.	BMC	R.W.H.	9-48
DES.	W.E.C.	R.W.H.	9-48
	By	CKD.	DATE

STEEL SCHEDULE

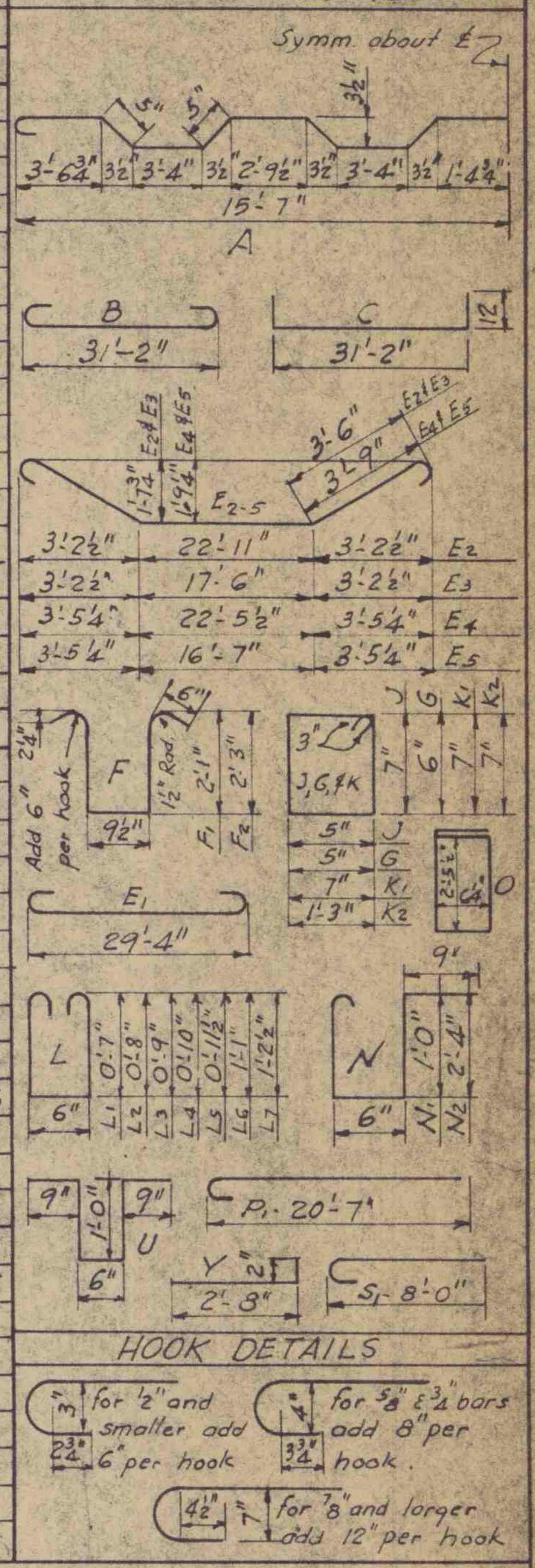
ONE INTERIOR SPAN

Mark	Size	No	Length	D	Mark	Size	No	Length	D
A	½"φ	34	33'-2"	B	L2	½"φ	8	2'-10"	B
B	½"φ	39	32'-2"	B	L3	½"φ	8	3'-0"	B
C	½"φ	35	33'-2"	B	L4	½"φ	8	3'-2"	B
D	½"φ	62	29'-8"	S	L5	½"φ	8	3'-5"	B
E1	1¼"□	15	31'-4"	B	L6	½"φ	8	3'-8"	B
E2	1⅛"□	4	31'-11"	B	L7	½"φ	8	3'-11"	B
E3	1¼"□	2	26'-6"	B	M	1"□	6	27'-6"	S
E4	1⅛"□	6	32'-0"	B	N1	½"φ	56	3'-9"	B
E5	1"φ	3	26'-1"	B	O	½"φ	16	6'-6"	B
F1	½"φ	66	5'-11"	B	S1	¾"φ	16	8'-8"	B
F2	½"φ	99	6'-3"	B	S2	¾"φ	16	5'-0"	S
G	¼"φ	30	2'-4"	B	U	½"φ	28	4'-0"	B
H	½"φ	8	29'-8"	S	V	¾"φ	8	0'-10"	S
I	½"φ	8	29'-8"	S	Y	⅜"φ	90	2'-10"	B
J	¼"φ	36	2'-6"	B	Z	½"φ	2	25'-1"	S
K1	¼"φ	16	2'-10"	B					
L1	½"φ	8	2'-8"	B					

ONE END SPAN

Mark	Size	No	Length	D	Mark	Size	No	Length	D
A	½"φ	34	33'-2"	B	L6	½"φ	6	3'-8"	B
B	½"φ	36	32'-2"	B	L7	½"φ	6	3'-11"	B
C	½"φ	35	33'-2"	B	M	1"□	4	27'-6"	S
D	½"φ	62	29'-8"	S	N1	½"φ	28	3'-9"	B
E1	1¼"□	15	31'-4"	B	N2	½"φ	28	6'-5"	B
E2	1⅛"□	4	31'-11"	B	O	½"φ	18	6'-6"	B
E3	1¼"□	2	26'-6"	B	P1	½"φ	4	21'-1"	B
E4	1⅛"□	6	32'-0"	B	P2	½"φ	4	20'-7"	S
E5	1"φ	3	26'-1"	B	R1	½"φ	4	4'-6"	S
F1	½"φ	66	5'-11"	B	R2	½"φ	16	4'-0"	S
F2	½"φ	99	6'-3"	B	S1	¾"φ	12	8'-8"	B
G	¼"φ	30	2'-4"	B	S2	¾"φ	12	5'-0"	S
H	½"φ	8	29'-8"	S	T	¾"φ	4	20'-10"	S
I	½"φ	8	29'-8"	S	U	½"φ	28	4'-0"	B
J	¼"φ	36	2'-6"	B	V	¾"φ	6	0'-10"	S
K1	¼"φ	12	2'-10"	B	Y	⅜"φ	90	2'-10"	B
K2	¼"φ	4	4'-2"	B	Z	½"φ	2	25'-1"	S
L1	½"φ	6	2'-8"	B					
L2	½"φ	6	2'-10"	B					
L3	½"φ	6	3'-0"	B					
L4	½"φ	6	3'-2"	B					
L5	½"φ	6	3'-5"	B					

BENDING DETAILS



SUMMARY OF QUANTITIES

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

Notes:

Design Data: A.A.S.H.O. Specifications (1944); H 20-S16 Live Load; fs=20,000 #/□", fc=1,000 #/□", n=10, v=90 #/□", u=225 #/□".

All concrete shall be Class "A".

Diaphragms, brackets, and wings shall be cast monolithic with slab and beams.

Exposed edges shall be chamfered ¾" unless otherwise specified.

No sidewalk concrete shall be cast until beam falsework has been struck.

Structural grade reinforcing steel not permitted.

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

Scale as noted

S. C. STATE HIGHWAY DEPARTMENT
COLUMBIA

30' SPAN 30' R'D'W'Y 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

CROSS SECTION

Scale 1 Inch=5 Feet

FED. ROAD DIST. NO.	STATE	COUNTY	FED. AID PROJ. NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
14	S. C.	NEWBERRY	2562(5)	177	13	19

Ground Surface Platted by JRM
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Template Sections Platted by
" " Checked by
Areas by
" Checked by
Template Sections Revised by
" " Checked by
Final Areas by
" " Checked by
Quantities Transferred and Inked by

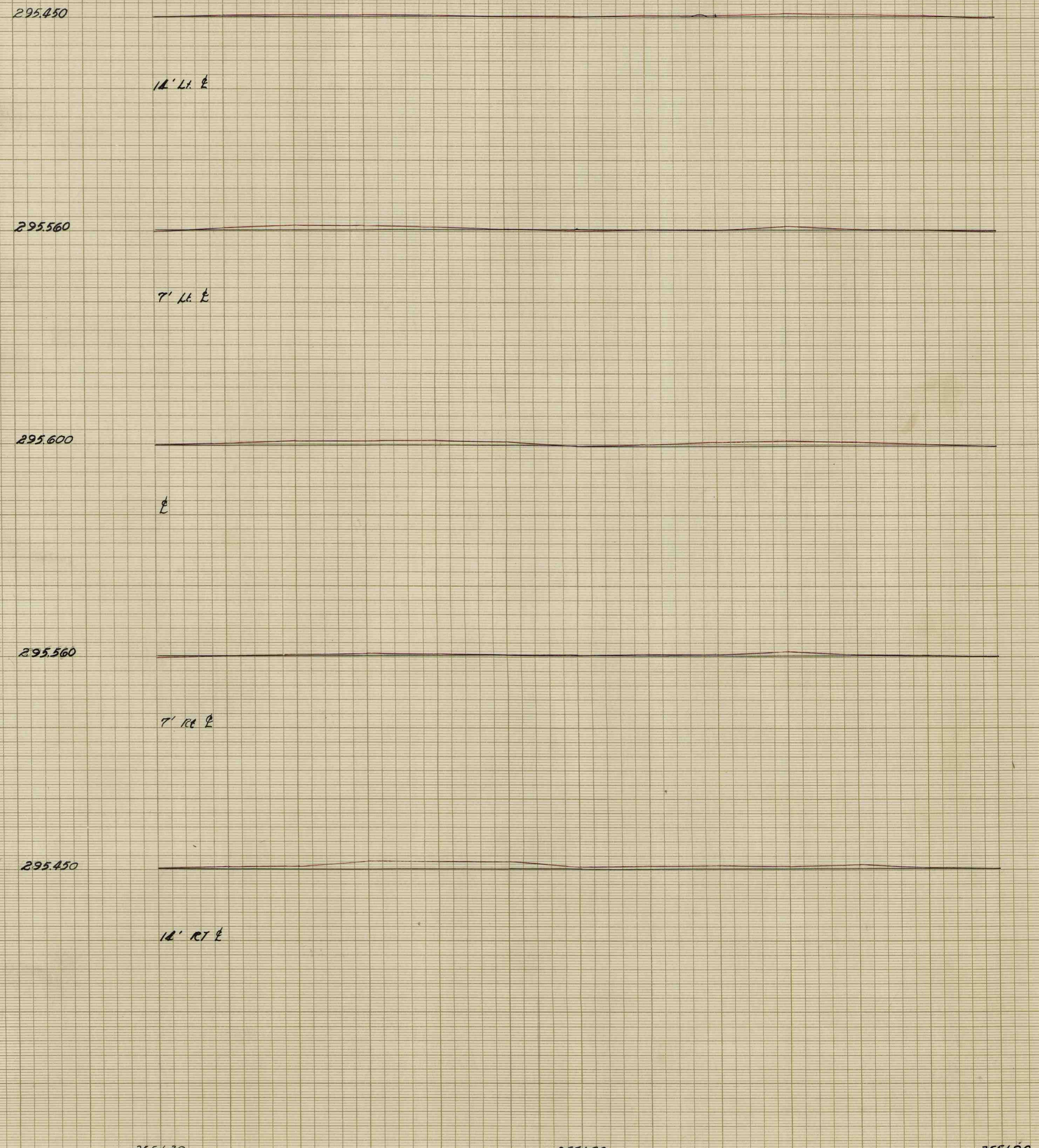
CHARLES BRUNING CO., INC.
NEW YORK, N.Y.

CROSS SECTION
SCALE 1 INCH=5 FEET

FED. ROAD DIST. NO.	STATE	COUNTY	FED. AID PROJ. NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
14	S. C.	NEWBERRY	2562(5)	177	14	19

B-1 P-51-55

PROFILE CANNONS CREEK BRIDGE



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" " Checked by
Areas by
" Checked by
Template Sections Revised by
" " Checked by
Final Areas by
" " Checked by
Quantities Transferred and Inked by

CHARLES BRUNING CO., INC.
NEW YORK, N. Y.

CROSS SECTION

SCALE 1 INCH = 5 FEET

FED. ROAD DIST. NO.	STATE	COUNTY	FED. AID PROJ. NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
14	S. C.	Newberry	2562(5)	177	15	19

B-2-D 25-29

PROFILE KINGS CREEK BRIDGE

20 10 0 10 20 25 20 10 0 10 20 25 20 10 0 10 20

331.800
331.700

F.G. 331.718
14' Lt. ℄
F.G. 332.342

331.700
331.800

F.G. 331.827
7' Lt. ℄
F.G. 332.487

331.700
331.800

F.G. 331.863
℄
F.G. 332.451

331.900
331.800

F.G. 331.827
7' Rt. ℄
F.G. 332.342

331.800
331.700

F.G. 331.718
14' Rt. ℄
F.G. 332.451

918+80 919+10 919+40 919+70 920+00

20 10 0 10 20 25 20 10 0 10 20 25 20 10 0 10 20

SCALE
1" = 5' HORIZONTAL
1" = 0.125' VERTICAL

Ground Surface Platted by
" " Checked by
Template Sections Platted by
" " Checked by
Areas by
" Checked by
Template Sections Revised by
" " Checked by
Final Areas by
" " Checked by
Quantities Transferred and Inked by

CHARLES BRUNING CO., INC. NEW YORK, N.Y.

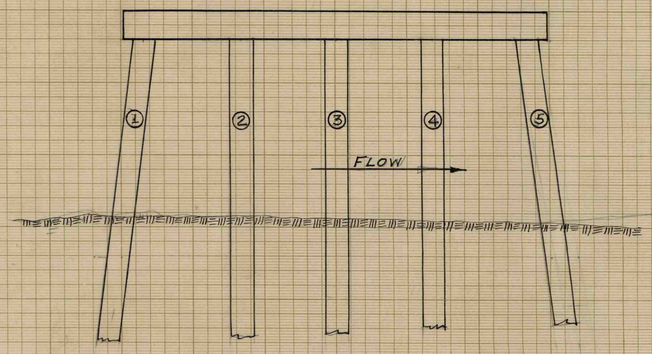
CROSS SECTION

SCALE 1 INCH = 5 FEET

FED. ROAD DIST. NO.	STATE	COUNTY	FED. AID PROJ. NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
14	S. C.	Newberry	2562(5)	177	16	19

20 10 0 10 20 25 20 10 0 10 20 25 20 10 0 10 20

CANNONS CREEK

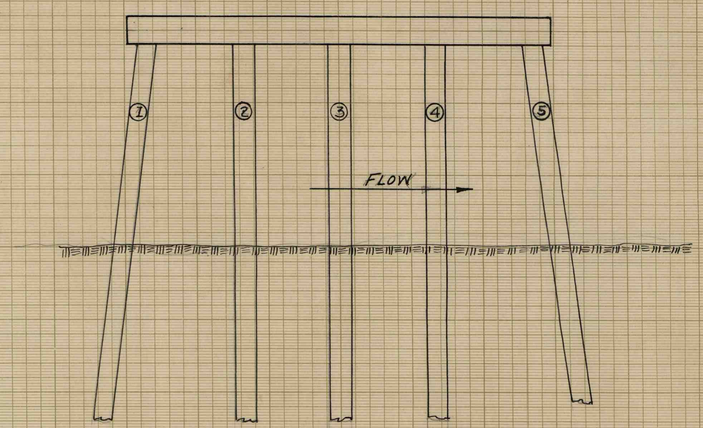


ELEVATION

Note: Bents Numbered Same as on Plan Sheet No 6

BENT No	PILING	ELEV CUT OFF	ELEV. GROUND	LENGTH ABOVE GR.	LENGTH IN PLACE	PENETRATION
	1	290.951			25.0	
	2	"			25.3	
1	3	"			25.0	
	4	"			"	
	5	"			"	
	1	"			27.2	
	2	"			26.9	
2	3	"			27.9	
	4	"			28.4	
	5	"			25.9	
	1	"			29.3	
	2	"			31.0	
3	3	"			"	
	4	"			29.9	
	5	"			31.0	
	1	"			31.0	
	2	"			"	
4	3	"			"	
	4	"			"	
	5	"			"	
	1	"			31.0	
	2	"			31.9	
5	3	"			32.0	
	4	"			33.5	
	5	"			34.5	
	1	"			31.0	
	2	"			36.0	
6	3	"			36.5	
	4	"			36.9	
	5	"			36.5	
	1	"			27.2	
	2	"			26.0	
7	3	"			26.1	
	4	"			25.6	
	5	"			28.2	

KINGS CREEK



ELEVATION

Note: Bents Numbered Same as on Plan Sheet No 10

BENT No	PILING	ELEV. CUT OFF	ELEV. GROUND	LENGTH ABOVE GR	LENGTH IN PLACE	PENETRATION
	1	327.219	326.8	0.4	22.00	21.6
	2	"	"	"	"	"
1	3	"	"	"	"	"
	4	"	"	"	"	"
	5	"	"	"	"	"
	1	327.373	320.4	7.0	27.00	20.0
	2	"	"	"	"	"
2	3	"	"	"	"	"
	4	"	"	"	"	"
	5	"	"	"	"	"
	1	327.529	316.5	11.0	27.00	16.0
	2	"	"	"	"	"
3	3	"	"	"	"	"
	4	"	"	"	"	"
	5	"	"	"	"	"
	1	327.685	321.2	6.5	27.00	20.5
	2	"	"	"	"	"
4	3	"	"	"	"	"
	4	"	"	"	"	"
	5	"	"	"	"	"
	1	327.840	326.1	1.7	22.00	20.3
	2	"	"	"	"	"
5	3	"	"	"	24.45	22.8
	4	"	"	"	24.47	22.8
	5	"	"	"	22.00	20.3

Ground Surface Platted by .....
" " Checked by .....
Template Sections Platted by .....
" " Checked by .....
Areas by .....
" Checked by .....
Template Sections Revised by .....
" " Checked by .....
Final Areas by .....
" " Checked by .....
Quantities Transferred and Inked by .....

CHARLES BRUNING CO., INC.
NEW YORK, N. Y.

20 10 0 10 20 25 20 10 0 10 20 25 20 10 0 10 20

POURING RECORD ON DOCKET NO. 36.241

CANNONS CREEK & KINGS CREEK BRIDGE

Fed Road Div No	State	County	Docket No	Route No.	Sheet No	Total Sheets
3	S.C.	NEWBERRY	36.241	177	17	19

CANNONS CREEK

DATE	PART OF STRUCTURE	CEMENT TYPE	CEMENT BRAND	COARSE AGGREGATE TYPE	COARSE AGGREGATE SOURCE	SAND SOURCE	APPROX QUANT. C.Y.	THERO BAGS REQ'D	TOTAL BAGS USED	CEMENT NOT TO BE ADJUSTED PAR. 71G 5 (a) WASTE	PAR. 71G 5 (a) BEYOND PAY LINES	PAR. 71G 5 (c) OVER OR UNDER THEO	NET CEMENT TO BE ADJUSTED
10-19	CAPS – 1 & 3	II	VOLUNTEER	#4	BLAIR	DIXIANA	10.90	68	69	+			1 68
10-20	" 2 & 4	"	"	"	"	"	10.90	68	75	2			5 73
10-28	SLAB #1	"	"	"	"	"	36.82	230	247	+			17 246
11-3	" #2	"	"	"	"	"	34.96	219	231	+			12 230
11-9	" #3	"	"	"	"	"	34.96	219	234	+			15 233
11-10	CAP #5	"	"	"	"	"	5.45	34	34	+			33
11-17	SLAB #4	"	"	"	"	"	34.96	219	235	3			13 232
11-21	CAP #6-7	"	"	"	"	"	10.90	68	72	+			4 71
11-25	SLAB #5	"	"	"	"	"	34.96	219	228 230	2			9 226
11-29	SIDEWALK #1	"	"	"	"	"	4.05	26	26	+			25
12-2	" #2	"	"	"	"	"	3.96	25	26	1			25
12-5	SLAB #6	"	"	"	"	"	36.82	230	244	+			14 243
12-8	SIDEWALK #3	"	"	"	"	"	3.96	25	26	1			25
12-16	RAIL 1-2-3 RT.	"	"	"	"	"	2.31	15	16	+			1 15
12-16	SIDEWALK #4	"	"	"	"	"	3.96	25	26	0			1 26
12-22	WALK #5	"	"	"	"	"	3.96	25	27	1			1 26
12-29	RAIL 1-2-3 LT.	"	"	"	"	"	2.31	15	15	+			14
"	WALK SLAB #6	"	"	"	"	"	4.05	26	26	0			26
1-3	RAIL 4-5-6 LT.	"	"	"	"	"	2.31	15	15	+			14
1-6	RAIL 4-5-6 RT.	"	"	"	"	"	2.31	15	15	2			13
1-6	Curb & Gutter S End	"	"	"	"	"	1.12	7	7	0			7
1-10	" " " N End	"	"	"	"	"	1.12	7	7	2			5
									1903.	27			1876
CARRIED FORWARD							287.05					93	93

PILING – CANNONS CREEK & KINGS CREEK

DATE	PART OF STRUCTURE	CEMENT TYPE	CEMENT BRAND	COARSE AGGREGATE TYPE	COARSE AGGREGATE SOURCE	SAND SOURCE	APPROX QUANT. C.Y.	THERO BAGS REQ'D	TOTAL BAGS USED	CEMENT NOT TO BE ADJUSTED PAR. 71G 5 (a) WASTE	PAR. 71G 5 (a) BEYOND PAY LINES	PAR. 71G 5 (c) OVER OR UNDER THEO	NET CEMENT TO BE ADJUSTED
2-14	PILING – 5.25	II	VOLUNTEER	#4	BLAIR	DIXIANA	7.85	49	51	1			50 1
2-15	5-25	"	"	"	"	"	7.85	49	52	1			51 2
2-17	5-31	"	"	"	"	"	9.83	62	63	+			62 1
2-18	5-25	"	"	"	"	"	7.85	49	52	1			51 2
2-21	5-31	"	"	"	"	"	9.83	62	62	+			61
2-22	5-31	"	"	"	"	"	9.83	62	64	1			63 1
2-23	5-31	"	"	"	"	"	9.83	62	63	+			62 1
2-25	5-22	"	"	"	"	"	6.86	43	44	+			43 1
2-28	5-27	"	"	"	"	"	8.51	53	55	1			54 1
3-2	5-22	"	"	"	"	"	6.86	43	44	+			43 1
3-3	5-27	"	"	"	"	"	8.51	53	55	1			54 1
3-7	5-27	"	"	"	"	"	8.51	53	55	1			54 1
11-10-9	Pile Ext.								2	0			
Nov 6-18	" " Bt. 6								12	1			11
									660	12			698
CARRIED FORWARD													13

KINGS CREEK

DATE	PART OF STRUCTURE	CEMENT TYPE	CEMENT BRAND	COARSE AGGREGATE TYPE	COARSE AGGREGATE SOURCE	SAND SOURCE	APPROX QUANT. C.Y.	THERO BAGS REQ'D	TOTAL BAGS USED	CEMENT NOT TO BE ADJUSTED PAR. 71G 5 (a) WASTE	PAR. 71G 5 (a) BEYOND PAY LINES	PAR. 71G 5 (c) OVER OR UNDER THEO	NET CEMENT TO BE ADJUSTED
7-29	CAPS 5 & 4	II	VOLUNTEER	#4	BLAIR	DIXIANA	10.90	68	75	2			73 5
8-10	" 3 & 2	"	"	"	"	"	10.90	68	73	1			72 4
7-16	SLAB #4	"	"	"	"	"	36.82	230	242	1			241 11
8-25	" #3	"	"	"	"	"	34.96	219	220	+			219 1
9-1	" #2	"	"	"	"	"	34.96	219	220	+			219 1
9-2	CAP #1	"	"	"	"	"	5.45	34	35	+			34 1
9-12	SLAB #1	"	"	"	"	"	36.82	230	237	1			236 6
9-20	SIDEWALK #4	"	"	"	"	"	4.05	26	27	+			26 1
9-21	" #3	"	"	"	"	"	3.96	25	26	+			25 1
9-23	" #2	"	"	"	"	"	3.96	25	25	+			24
9-28	" #1	"	"	"	"	"	4.05	26	26	+			25
10-4	HANDRAIL LT. SIDE	"	"	"	"	"	3.10	20	20	+			19
10-7	" RT. "	"	"	"	"	"	3.10	20	21	+			20 1
1-16	Curb & Gutter S End	"	"	"	"	"	1.12	7	7	+			6
1-16	" " " N "	"	"	"	"	"	1.12	7	7	0			7
									1261	15			1246
CARRIED FORWARD							195.27					32	32
GRAND TOTAL							482.32		3824	50 / 54			138 / 3774 / 3770

PILE RECORD ON DOCKET NO. 36.241

Fed. Road Dist. No.	State	County	Docket No.	Route No.	Sheet No.	Total Sheets
14	S.C.	Newberry	36.241	177	18	19

WEIGHT OF HAMMER 5000 LBS FALL 3' TYPE SINGLE ACTING STEAM

CANNONS CREEK B-1 - P 5-12

BENT NO.	FOOTING	PILE NO.	DATE DRIVEN	DIAMETER BUTT	DIAMETER TIP	PENETRATION	PEN. PER BLOW	BEARING	ELEVATION PILE TIP	ELEVATION CUT-OFF	LENGTH IN PLACE	ORIGINAL LENGTH	LENGTH CUT-OFF	PAY LENGTH	C.O. AT 0.40 OF UNIT PRICE	C.O. AT 0.25 OF UNIT PRICE
		1	Sept 29				1/8	46.0T	290.951	290.951	25.0	25.0		25.0		
		2	"				1/4	33.3	290.651	"	25.3	"		25.3		
1		3	"				3/16	38.7	290.951	"	25.0	"		25.0		
		4	"				1/8	46.0	"	"	25.0	"		25.0		
		5	"				1/8	46.0	"	"	25.0	"		25.0		
		1	Oct 3				1/8	46.0	288.751	"	27.2	25.0		27.2		
		2	"				1/8	46.0	289.051	"	26.9	"		26.9		
2		3	"				5/32	42.1	288.051	"	27.9	"		27.9		
		4	"				5/32	42.1	287.551	"	28.4	"		28.4		
		5	"				3/16	38.7	290.051	"	25.9	"		25.9		
		1	Oct 6				0	75+	292.651	"	29.3	31.0	1.7	31.0		
		2	"				1/32	64.8	290.951	"	31.0	"		"		
3		3	"				1/16	57.1	290.951	"	31.0	"		"		
		4	"				0	75+	292.051	"	29.9	"	1.1	"		
		5	"				1/10	50.0	290.951	"	31.0	"		"		
		1	Oct 7				1/5	37.5	290.951	"	31.0	31.0		31.0		
		2	"				1/6	40.9	"	"	"	"		"		
4		3	"				1/6	40.9	"	"	"	"		"		
		4	"				1/7	43.7	"	"	"	"		"		
		5	"				1/32	64.8	"	"	"	"		"		
		1	Oct 11				1/6	40.9	"	"	"	31.0		31.0		
		2	"				1/7	43.7	290.051	"	31.9	"		31.9		
5		3	"				1/7	43.7	289.951	"	32.0	"		32.0		
		4	"				1/7	43.7	288.451	"	33.5	"		33.5		
		5	"				1/7	43.7	287.451	"	34.5	"		34.5		
		1	Oct 13				1/5	37.5	290.951	"	31.0	31.0		31.0		
		2	"				1/6	40.9	285.951	"	36.0	"		36.0		
6		3	"				1/6	40.9	285.251	"	36.5	"		36.5		
		4	"				1/6	40.9	285.051	"	36.9	"		36.9		
		5	"				1/6	40.9	285.451	"	36.5	"		36.5		
		1	Oct 14				1/5	37.5	288.751	"	27.2	25.0		27.2		
		2	"				1/5	37.5	289.951	"	26.0	"		26.0		
7		3	"				1/5	37.5	289.851	"	26.1	"		26.1		
		4	"				1/5	37.5	290.351	"	25.6	"		25.6		
		5	"				1/4	33.3	287.751	"	28.2	"		28.2		
											1041.7			1044.5		
TOTAL														1044.5		

KINGS CREEK B-2 - P-6

BENT NO.	FOOTING	PILE NO.	DATE DRIVEN	DIAMETER BUTT	DIAMETER TIP	PENETRATION	PEN. PER BLOW	BEARING	ELEVATION PILE TIP	ELEVATION CUT-OFF	LENGTH IN PLACE	ORIGINAL LENGTH	LENGTH CUT-OFF	PAY LENGTH	C.O. AT 0.40 OF UNIT PRICE	C.O. AT 0.25 OF UNIT PRICE
		1	July 20			21.6	5/32	42.1	327.219	327.219	22.00	22.00		22.00		
		2	"			"	1/4	33.3	"	"	"	"		"		
1		3	July 21			"	1/4	33.3	"	"	"	"		"		
		4	"			"	3/16	38.7	"	"	"	"		"		
		5	"			"	3/16	38.7	"	"	"	"		"		
		1	July 18			20.0	5/32	42.1	327.373	327.373	27.00	27.00		27.00		
		2	"			"	3/16	38.7	"	"	"	"		"		
2		3	July 19			"	5/32	42.1	"	"	"	"		"		
		4	"			"	5/32	42.1	"	"	"	"		"		
		5	"			"	5/32	42.1	"	"	"	"		"		
		1	July 14			16.0	5/32	42.1	327.529	327.529	27.00	27.00		27.00		
		2	"			"	3/32	51.0	"	"	"	"		"		
3		3	"			"	5/32	42.1	"	"	"	"		"		
		4	"			"	5/32	42.1	"	"	"	"		"		
		5	"			"	3/32	51.0	"	"	"	"		"		
		1	July 12			20.5	1/4	33.3	327.685	327.685	27.00	27.00		27.00		
		2	"			"	3/32	51.0	"	"	"	"		"		
4		3	"			"	3/32	51.0	"	"	"	"		"		
		4	"			"	5/32	42.1	"	"	"	"		"		
		5	"			"	3/32	51.0	"	"	"	"		"		
		1	July 8			20.3	1/4	33.3	327.840	327.840	22.00	22.00		22.00		
		2	"			"	3/16	38.7	"	"	"	"		"		
5		3	July 9			22.8	1/4	33.3	325.390	"	24.45	"		24.45		
		4	"			22.8	1/4	33.3	325.370	"	24.47	"		24.47		
		5	"			20.3	1/4	33.3	327.840	"	22.00	"		22.00		
TOTAL														629.92		
GRAND TOTAL														1674.42		

40 X 60 = 2400 L.F.
1674.42
725.58

12 x 5 = 60 piles
one 40'-0" pile = 2.560 C.Y.
2.560 x 60 = 153.60
725.58 x .066 = 47.89
105.71

NOTES CONCERNING ANY UNUSUAL FOUNDATION CONDITION

BENT NO.	FOOTING	PILE NO.	REMARKS

BRIDGE DEPARTMENT

SUMMARY OF FINAL CONSTRUCTION QUANTITIES

DOCKET NO. 36.241

PIERS OR BENTS

ITEM	PLAN ELEVATION UPSTREAM	PLAN ELEVATION DNSTREAM	FINAL ELEVATION UPSTREAM	FINAL ELEVATION DNSTREAM	DIFFERENCE UPSTREAM	DIFFERENCE DNSTREAM	DRY EXCAVATION	WET EXCAVATION	ROCK EXCAVATION	TREATED TIMBER PILING	UNTREATED TIMBER PILING	REINFORCED CONC. PILING	STEEL H-PILING	CLASS "A-A" CONCRETE	CLASS "A" CONCRETE	CLASS "B" CONCRETE	REINFORCING STEEL	STRUCTURAL STEEL	TREATED STRUC. TIMBER	WELDING		REMARKS	SHEET REF.
CANNONS CREEK												1044.5											
1 - Caps															38.15		5942						B-2-P-2
2 - C&G															2.24								B-1-49-50
KINGS CREEK												629.92											
1 - Caps															27.25		4238						B-2-P-2
2 - C&G															2.24								
											Cannon Creek												
Bent 1												125.30			5.45		852						
2												136.30			5.45		852						
3												155.00			5.45		852						
4												155.00			5.45		852						
5												162.90			5.45		8.30						
6												176.80			5.45		8.52						
7												133.10			5.45		8.52						
												1047.5			38.15		5942						
				Sub Total																			
											17 mgs	Creek											
Bt 1												110.00			5.45		852						
2												135.00			5.45		852						
3												175.00			5.45		852						
4												135.00			5.45		8.30						
5												119.92			5.45		8.52						
				Sub Total								629.92			27.25		4238						
TOTAL												1674.42			69.88 / 65.40		10,180						

SUPERSTRUCTURE

ITEM	PLAN QUANTITIES CONCRETE	PLAN QUANTITIES REIN. STEEL	PLAN QUANTITIES STRUC. STEEL	CONCRETE	REINFORCING STEEL	STRUCTURAL STEEL (LBS.)	STRUCTURAL STEEL (L.S.)	TREATED STRUC. TIMBER	UNTREATED STRUC. TIMBER	WELDING	HARDWARE	WATER PROOFING	PIPE HANDRAIL	SLOPE DRAINS		REMARKS	SHEET REF.
		CANNONS		CREEK													
1	246.66			246.66													B-1-P15-50
2		62,482			62,482												
3													360				
Curb + Gutter				2.24										114.0			B-1-P 56
				248.90													
		KINGS		CREEK													
1	165.78			165.78													B-2-P.4
2		41,644			41,644												
Curb + Gutter 3				2.24									240				
4														63.5			B2-P.4
				168.02													
				416.92													
TOTAL	412.44	104,126		412.44	104,126								600	177.5			