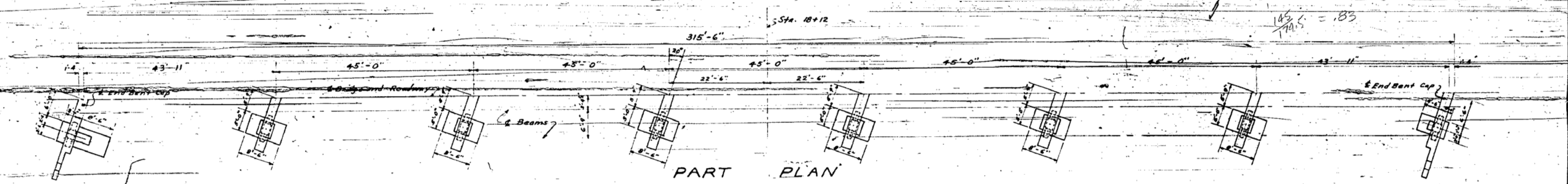
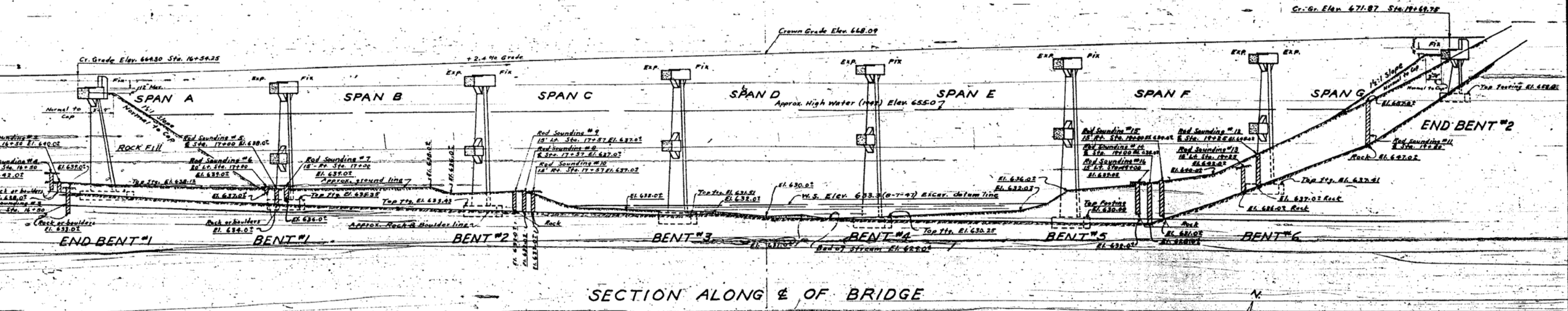


NOTE: This bridge shall be built on a +2.4% grade. The handrails, slabs and curbs shall conform to the grade. The handrail posts shall be built vertical. The elevations shown do not include any allowance for dead load deflection, which shall be provided for in addition to the elevations given. The finished structure shall have the elevations given.



**GENERAL NOTE**

**SURFACE FINISH:** Concrete surfaces to be finished in accordance with the specifications except that the substructure concrete shall be given a Class 2 surface finish.

**CONCRETE:** All concrete, except that in handrails, shall be compacted by Mechanical Vibration. See Specifications.

**EXCAVATION AND FOUNDATION DATA:** The excavation and foundation data, and all elevations of ground line and water surfaces given are believed to be correct and are furnished for the convenience of bidders, but the State Highway and Public Works Commission assumes no responsibility for, nor guarantees as correct, any of the information given. See Specifications.

**MAINTENANCE AND REMOVAL OF EXISTING STRUCTURE**  
 After serving as a temporary crossing, the superstructure of the existing 2 @ 60' low steel trusses on concrete abutments and pier located 1500' up stream shall be completely removed. Substructure to be left in place. See Specifications.

**NOTE:** For Design Data and portions of General Note not shown hereon, See Sheet No. S-3

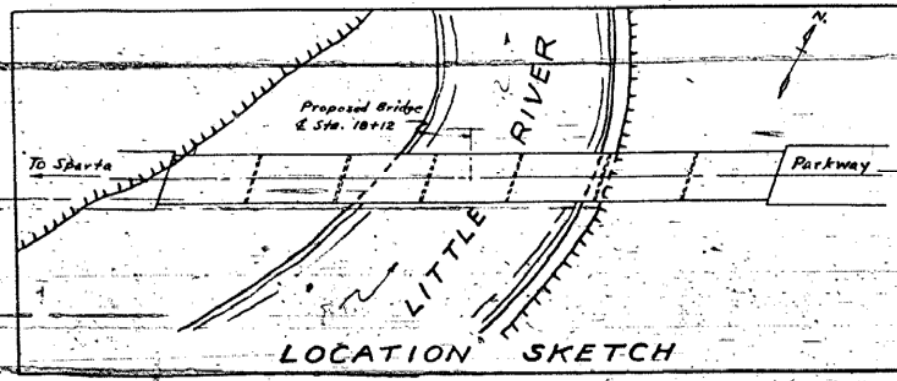
**NOTE:** Footings for bents #1-#2-#3-#4-#5 to be carried at least 12" into rock. Footings for Bent #6 and End Bents #1 & #2 to be carried at least 6" into rock. All footings to have minimum thickness as shown.

Computed Foundation loads:  
 End Bent #1 - 4 tons per sq. ft.  
 Int. Bents - 2 1/2 tons per sq. ft.  
 End Bent #2 - 4 tons per sq. ft.

	Class A Concrete		Reinf. Steel (approx) Lbs.	Structural Method A Steel (approx) Lbs.	Excavation Wet Cu. Yd.	Excavation Dry Cu. Yd.	Maint. & Removal Existing Struct.
	Cu. Yds.	Lbs.					
Superstructure	190.2	43,389	141,500	14			
End Bent No. 1	28.2	4,050				35	
Bent No. 1	51.0	3,163			7.5	30	
Bent No. 2	33.6	5,369			15	25	
Bent No. 3	36.5	5,575			20		
Bent No. 4	38.8	5,735			20		
Bent No. 5	40.2	5,828			40	20	
Bent No. 6	33.8	5,391				70	
End Bent No. 2	15.9	2,425				60	
Totals	442.3	82,925	141,500	14	100	240	Lump Sum

Bench Mark: Nail in foot 15" wild cherry 33' Rt Sta. 17+05 El. 638.78

PROJECT NO. 7095  
 ALLEGHANY COUNTY  
 STATION: 18+12



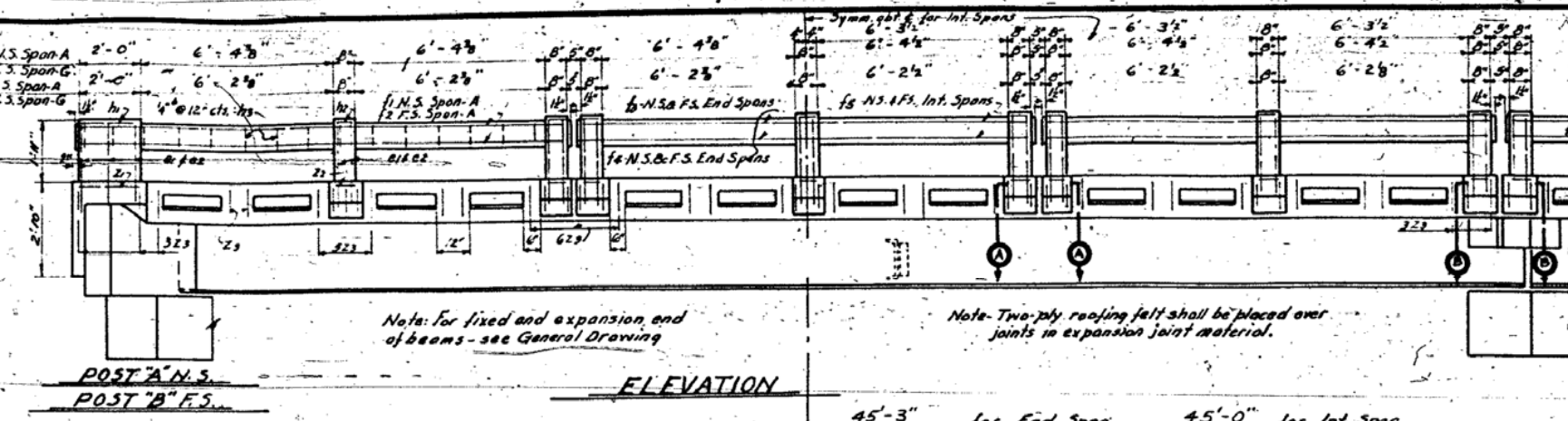
STATE OF NORTH CAROLINA  
 STATE HIGHWAY AND PUBLIC WORKS COMMISSION

GENERAL DRAWING  
 FOR BRIDGE OVER  
 LITTLE RIVER

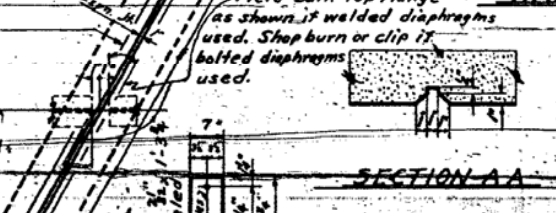
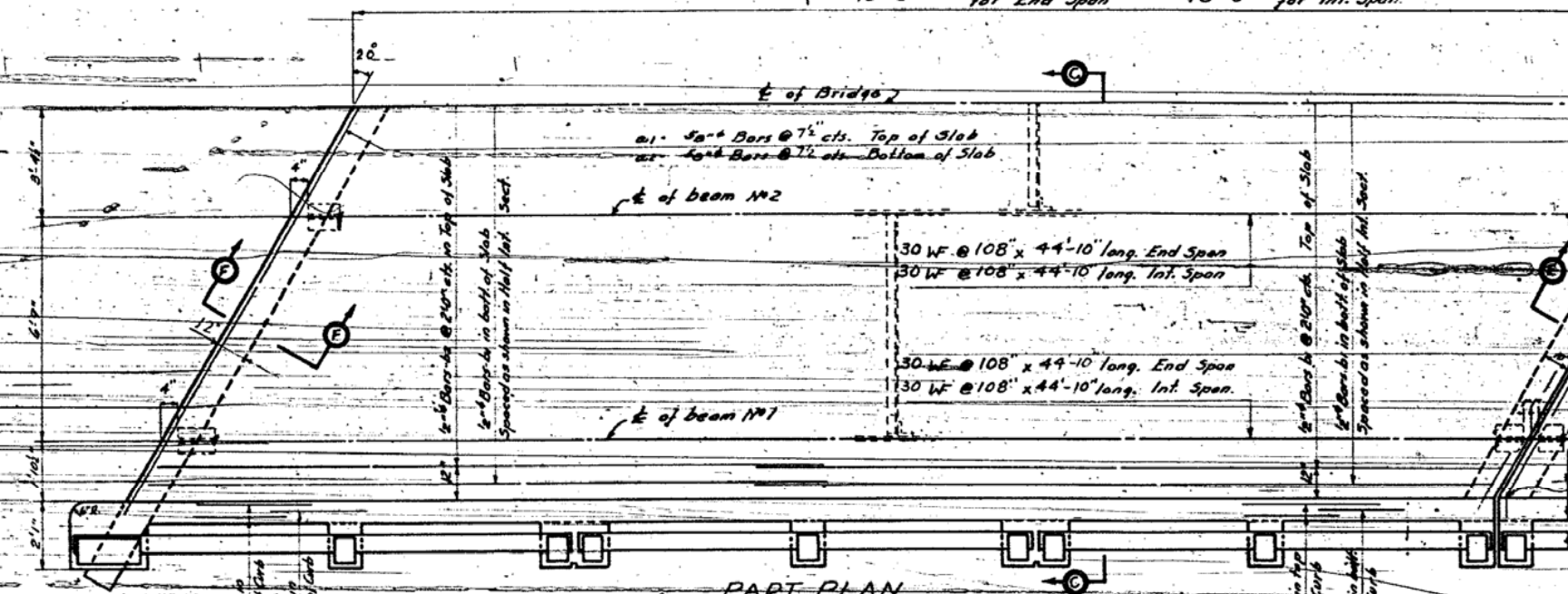
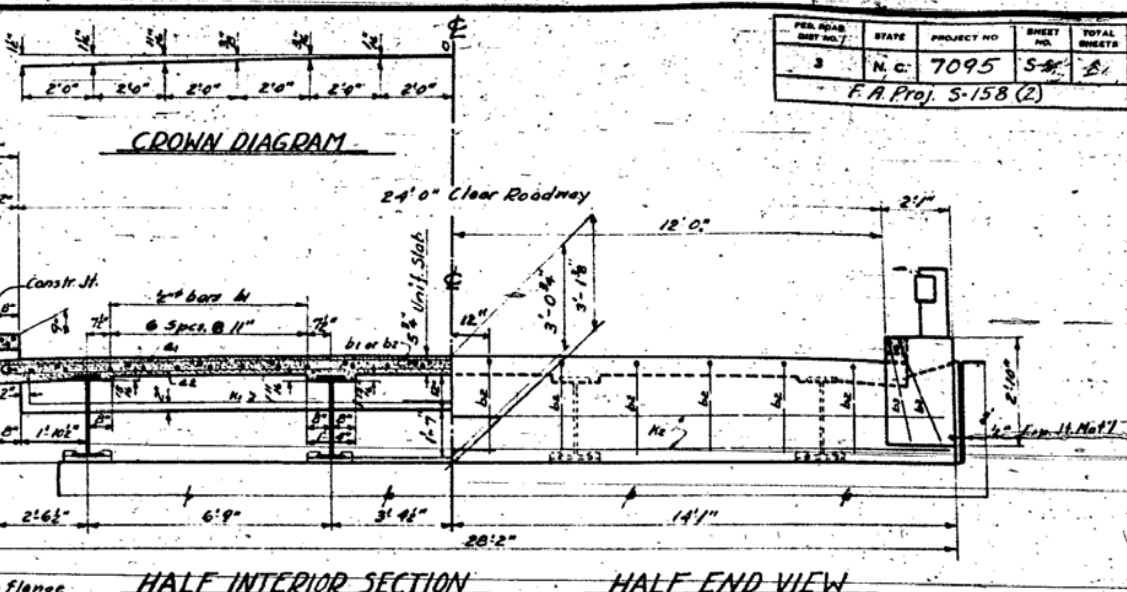
FEB. 1948

SUBMITTED BY: J.P. [Signature]  
 APPROVED BY: W. [Signature]

ASSEMBLED BY: [Signature] DATE: [Date]  
 CHECKED BY: [Signature] DATE: [Date]  
 DESIGNED BY: R.A. Stein DATE: Feb. 1948  
 DRAWN BY: [Signature] DATE: [Date]  
 CHECKED BY: W.J. Bram DATE: Mar. 1948



NOTE: Method "A" waterproofing to be placed over the fill side of joints between substructure and superstructure. Strips of waterproofing to be 2'-0" wide and placed symmetrical about the joints. See Specs.



**DESIGN DATA**

Specifications Assumed Live Load Impact Allowance Stress in Extreme Fibers of Structural Steel Reinforcing Steel in Tension Concrete in Compression Concrete in Shear Equivalent Fluid Pressure of Earth

A.A.S.H.O. (1944) N-15-44 (1 Lane) H-10 Slab See Specifications 18000 lbs. per sq. in. 1000 " " " 90 " " " 30 " " " cu. ft.

**GENERAL NOTE**

**CONCRETE:** All concrete to be Class "A", standard size No. 3 coarse aggregate to be used throughout. No construction joints will be permitted except at top of curb. All exposed corners of concrete shall be chamfered 1", except corners of haunches and expansion joints. Corners on rails and posts shall be chamfered 3/4", corners on expansion joints shall be chamfered 1" unless otherwise noted.

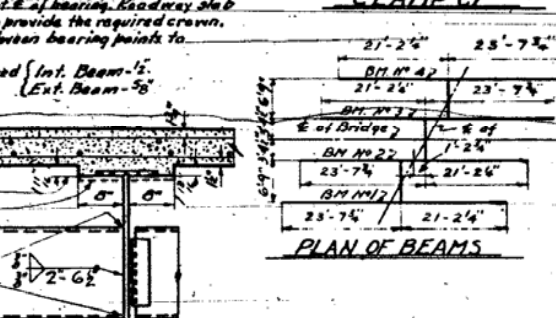
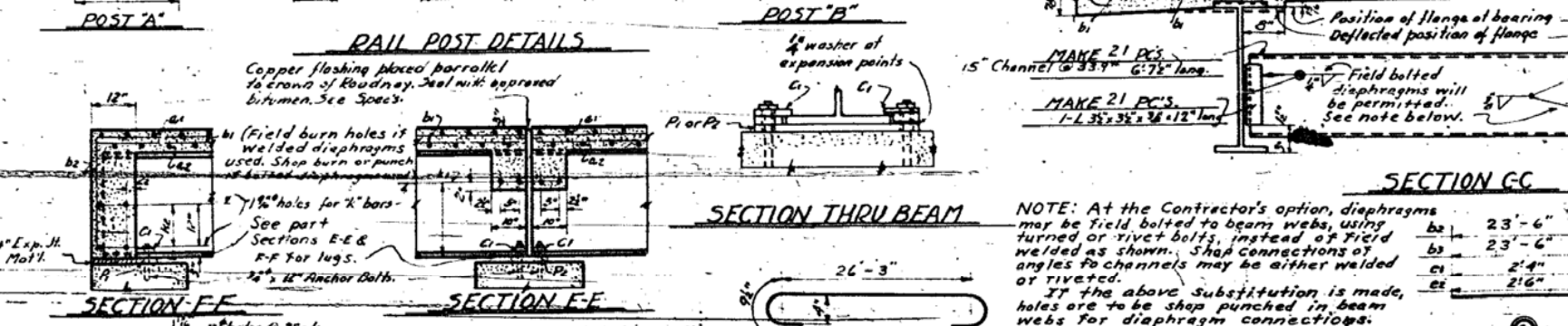
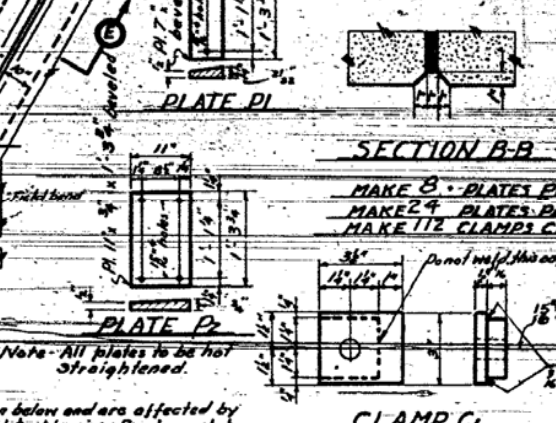
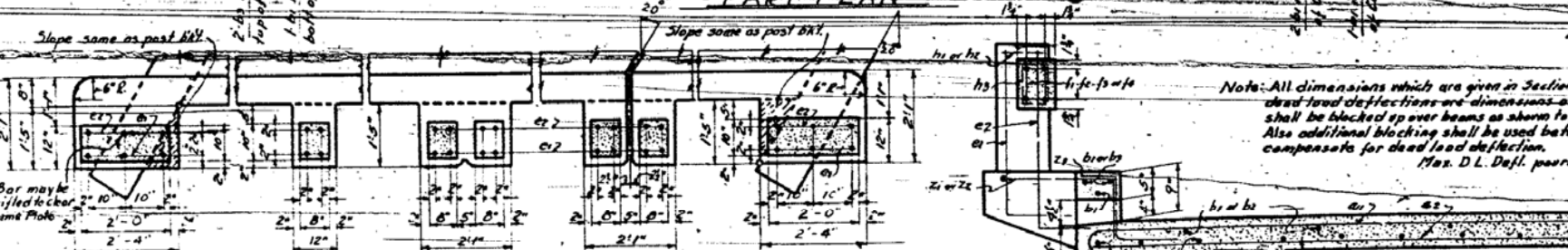
**REINFORCING STEEL:** All reinforcing steel shall be deformed bars. All dimensions relative to reinforcing steel are to centers of bars. No splices other than those shown on plans will be permitted. All reinforcing steel shall be securely held in correct position.

**EXPANSION JOINT MATERIAL:** Expansion joint material may be either rubber compound or cork conforming to the requirements of A.S.T.M. Specifications M50.

**STRUCTURAL STEEL:** Structural steel shall be given one shop coat and one field coat of red lead and lastly, two field coats of aluminum paint. See specifications. Detail drawings shall be submitted to the Bridge Engineer for approval. No unchecked drawings will be accepted.

**NAME PLATES:** Two name plates shall be provided for the bridge. One shall be placed on each side of the bridge and the other on the bridge.

**MATERIAL AND WORKMANSHIP:** All material and workmanship shall be in accordance with the Specifications of the N.C. State Highway and Public Works Commission.



**BILL OF MATERIAL**

7 SPANS

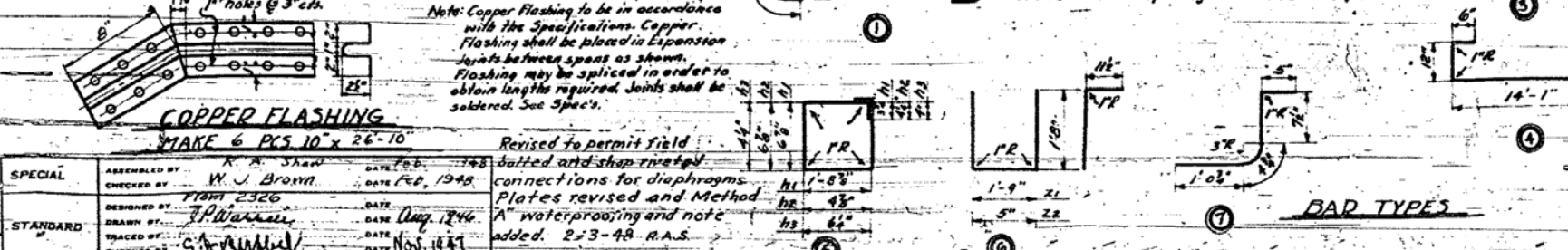
Bar No.	Size	Type	Length	Weight
a1	476	5/8"	21'-10"	13817
a2	469	5/8"	26'-7"	13002
b1	598	3/4"	23'-6"	9387
b2	24	3/4"	26'-3"	427
b3	8	3/4"	26'-11"	177
c1	256	3/4"	3'-10"	635
c2	256	3/4"	3'-7"	612
d1	8	3/4"	16'-0"	83
d2	8	3/4"	13'-8"	84
d3	16	3/4"	14'-8"	157
d4	16	3/4"	14'-4"	133
d5	120	3/4"	14'-7"	1164
e1	4	3/4"	5'-3"	8
e2	122	3/4"	2'-0"	122
e3	634	3/4"	2'-5"	256
f1	48	3/4"	15'-7"	1123
f2	16	3/4"	16'-4"	392
f3	4	3/4"	7'-0"	29
f4	122	3/4"	6'-5"	721
f5	630	3/4"	7'-2 1/2"	1032
Reinforcing Steel Lbs.				43389
Class "A" Concrete Cu. Yds.				190.2
Structural Steel Lbs. (Approx)				141,500
Method "A" Waterproofing Sq. Yds.				44

PROJECT NO. 7095  
ALLEGHANY COUNTY  
STATION: 18 + 12  
20° L. H. SKEW

STATE OF NORTH CAROLINA  
STATE HIGHWAY AND  
PUBLIC WORKS COMMISSION

STANDARD COUNTY TYPE  
I BEAM SUPERSTRUCTURE  
WITH CONCRETE FLOOR & RAILS  
7 SINGLE 45'-0" SPANS  
24'-0" ROADWAY  
AUGUST 1946

SUBMITTED BY: J.P. ...  
APPROVED BY: W. Vance ...



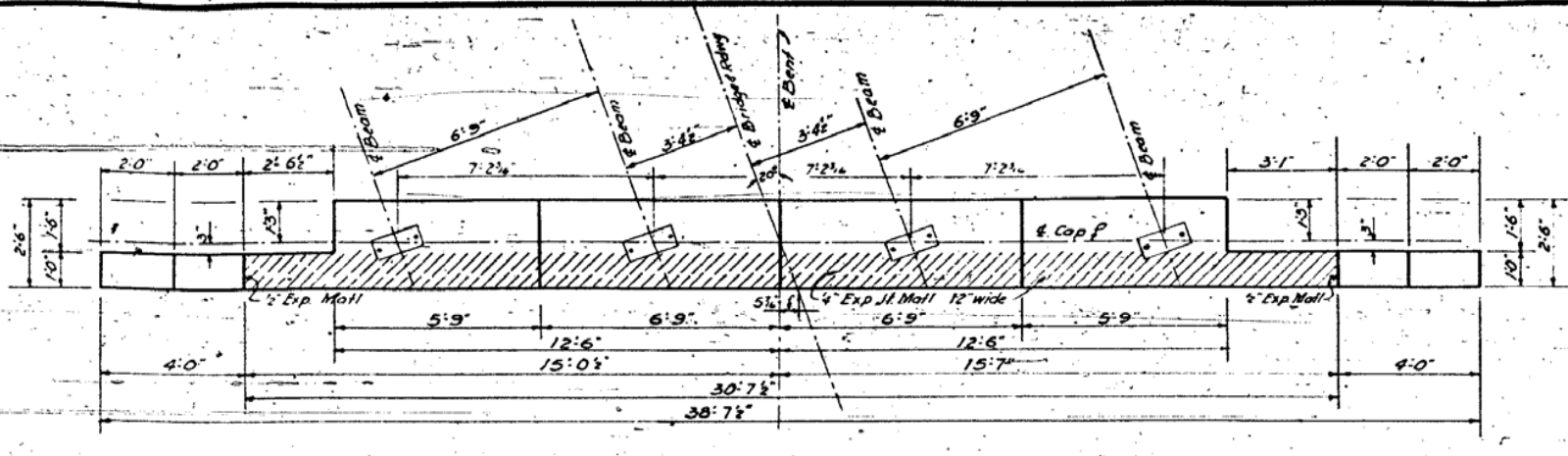
SPECIAL ASSEMBLED BY: K. A. Shaw, W. J. Brown, DATE: Feb. 1948

DESIGNED BY: T. B. ... DATE: Aug. 1946

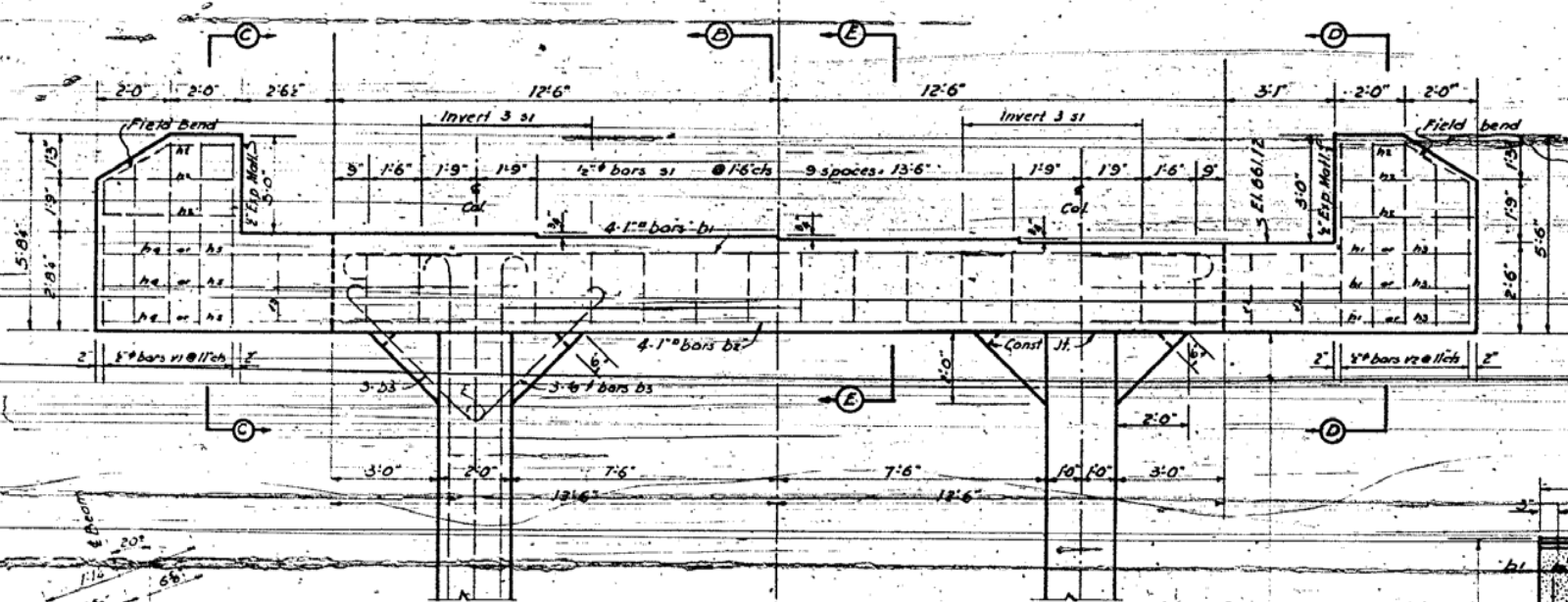
DRAWN BY: ... DATE: Nov. 1947

CHECKED BY: ... DATE: Nov. 1947

Revised to permit field bolted and shop riveted connections for diaphragms. Plates revised and Method "A" waterproofing and note added. 2-3-48 R.A.S.

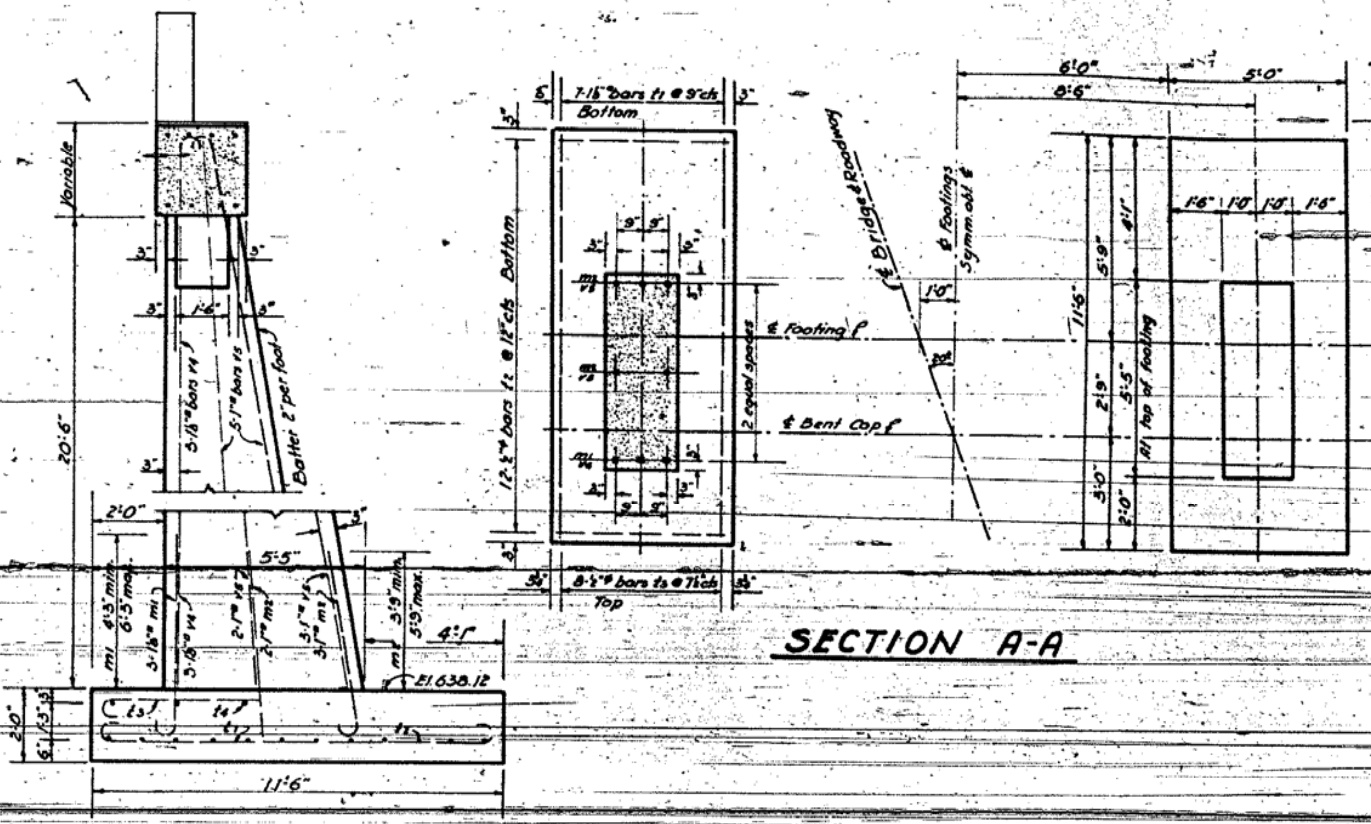
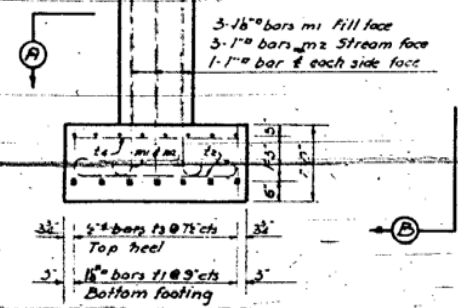


PLAN OF CAP END BENT NO.1



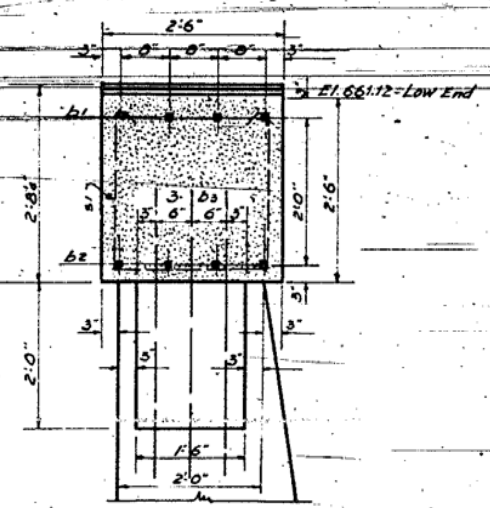
ELEVATION

ANCHOR BOLT SETTING

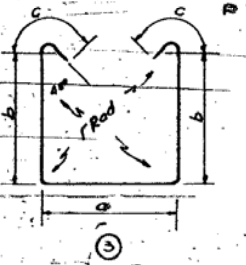


SECTION B-B

SECTION A-A



SECTION E-E



BAR TYPES

NOTE  
For Design Data and General Note see Sheet No. 5-2 & 5-3  
For spacing of h bars in Ear Walls see Section C-C & D-D End Bent No. 2 Sheet No. 5-4

BILL OF MATERIAL END BENT NO.1								
Bar	Number	Size	Type	a	b	c	Length	Weight
b1	4	1"	1	24'-0"	1'-3"	6"	26'-6"	360
b2	4	1"	Str	-	-	-	24'-6"	333
b3	12	5/8"	1	5'-0"	1'-0"	4"	7'-0"	88
s1	14	5/8"	3	2'-2"	2'-1"	5"	7'-2"	67
h1	3	5/8"	Str	-	-	-	8'-10"	18
h2	12	5/8"	Str	-	-	-	3'-9"	30
h3	3	1"	Str	-	-	-	10'-7"	85
h4	3	5/8"	Str	-	-	-	8'-4"	17
h5	3	1"	Str	-	-	-	10'-1"	81
l1	14	1/2"	1	10'-2"	1'-6"	8"	13'-2"	794
l2	24	5/8"	1	4'-3"	1'-0"	4"	6'-3"	100
l3	16	5/8"	2	4'-0"	1'-0"	4"	5'-0"	53
l4	6	5/8"	Str	-	-	-	4'-6"	18
m1	6	1/2"	2	7'-4"	1'-6"	8"	8'-10"	228
m2	10	1"	2	6'-11"	1'-3"	6"	8'-2"	278
vi	10	5/8"	Str	-	-	-	5'-4"	36
v2	10	5/8"	Str	-	-	-	5'-2"	35
v3	6	5/8"	Str	-	-	-	2'-2"	9
v4	6	1/2"	2	22'-5"	1'-8"	8"	23'-9"	813
v5	10	1"	2	22'-6"	1'-3"	6"	23'-9"	807

Reinforcing Steel Lbs. 4050  
Class A Concrete Cu Yds 285

PROJECT NO. 7095  
ALLEGHANY COUNTY  
STATION: 18+12

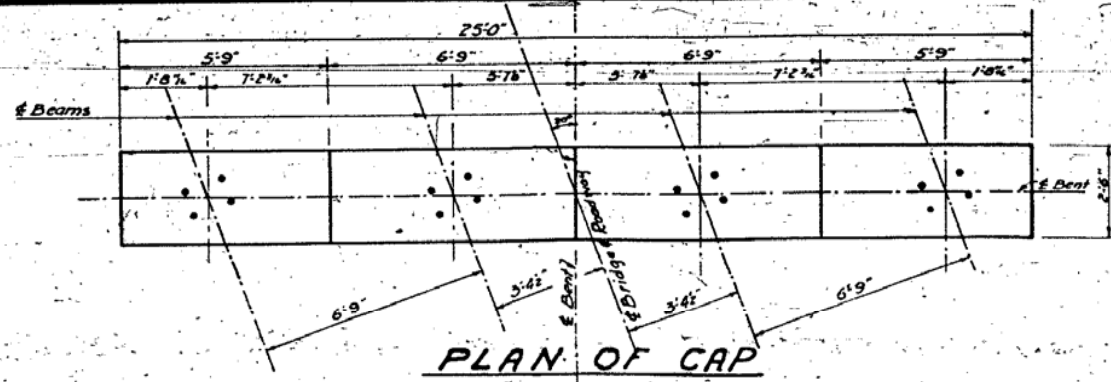
END BENT NO.1 20'L.H.

STATE OF NORTH CAROLINA  
STATE HIGHWAY AND  
PUBLIC WORKS COMMISSION

SUBSTRUCTURE DETAILS  
FOR BRIDGE OVER  
LITTLE RIVER  
FEB. 1948

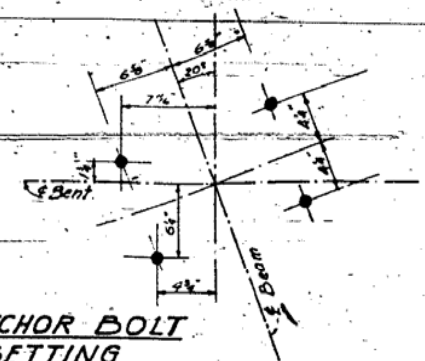
DESIGNED BY J.W. Sheldon DATE Feb. 1948  
DRAWN BY J.H. Clark DATE Feb. 1948  
CHECKED BY W.J. Brown DATE Mar. 1948

SUBMITTED BY J.P. Swartz ENGINEER  
APPROVED BY Wallace Brown STATE HIGHWAY ENGINEER

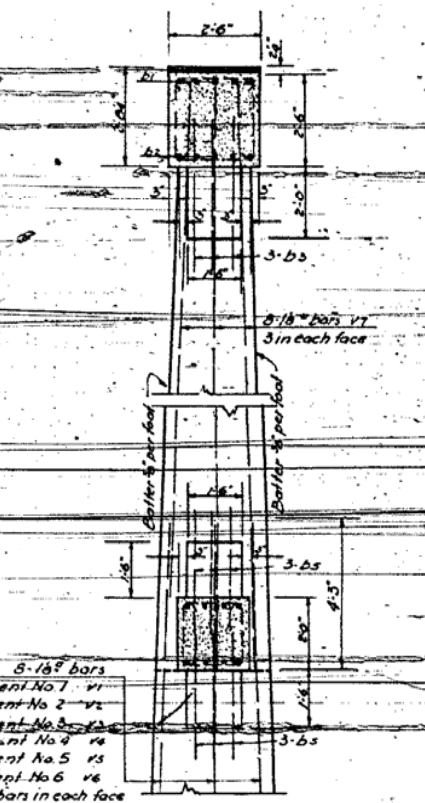


PLAN OF CAP

ANCHOR BOLT SETTING

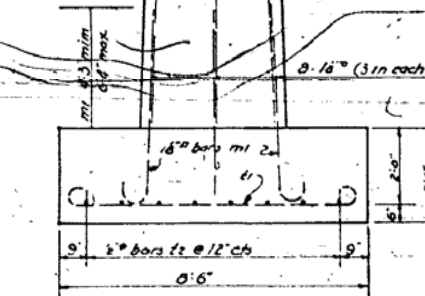


- Bent No. 1 E1.662.18
- Bent No. 2 E1.663.26
- Bent No. 3 E1.664.34
- Bent No. 4 E1.665.42
- Bent No. 5 E1.666.50
- Bent No. 6 E1.667.58



SECTION B-B

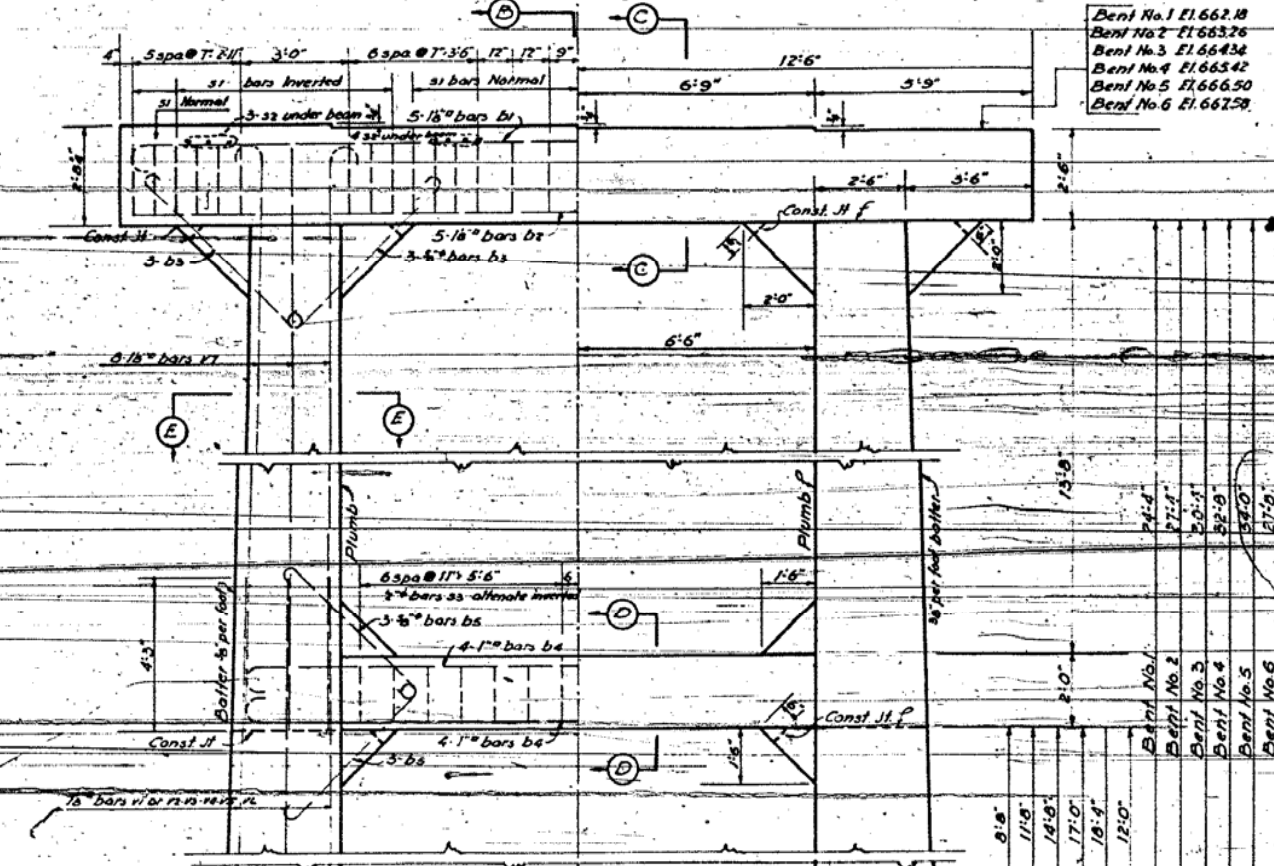
- Bent No. 1 vs
- Bent No. 2 vs
- Bent No. 4 vs
- Bent No. 5 vs
- Bent No. 6 vs



ELEVATION

DESIGNED BY: H.V. Sheldon  
 DRAWN BY: J.H. Clark  
 TRACED BY: J.H. Clark  
 CHECKED BY: W.J. Brown

DATE: Feb. 1948  
 DATE: Feb. 1948  
 DATE: Feb. 1948  
 DATE: Mar. 1948



SECTION C-C

SECTION D-D

BAR TYPES

BILL OF MATERIAL FOR ONE BENT

Bar	No.	Size	Type	a	b	c	Length	Weight
b1	5	16 <sup>#</sup>	1	25'-10"	1'-8"	8"	26'-10"	577
b2	5	16 <sup>#</sup>	Str	-	-	-	24'-6"	527
b3	12	6 <sup>#</sup>	1	5'-6"	1'-0"	4"	7'-6"	94
b4	8	1 <sup>#</sup>	1	18'-0"	1'-3"	6"	20'-6"	558
b5	12	6 <sup>#</sup>	1	5'-0"	1'-0"	4"	7'-0"	88
s1	30	4 <sup>#</sup>	3	2'-2"	2'-1"	5"	7'-2"	144
s2	14	4 <sup>#</sup>	4	2'-1"	-	5"	2'-11"	27
s3	14	4 <sup>#</sup>	3	1'-8"	1'-7"	5"	5'-8"	53
t1	20	6 <sup>#</sup>	1	7'-8"	1'-0"	4"	9'-8"	202
te	16	4 <sup>#</sup>	Str	-	-	-	4'-6"	47
m1	16	16 <sup>#</sup>	2	8'-0"	1'-6"	8"	9'-6"	654
v1	16	16 <sup>#</sup>	2	17'-5"	1'-6"	8"	18'-11"	1302

NOTE:  
 For Design Data and General Note  
 see Sheet No. 5-2 & 5-3

Bent No.	Reinforcing Steel Lbs.	Class A Concrete Cu.Yds.	Total Weight
Bent No. 1	5163	310	890
Bent No. 2	5369	336	1096
Bent No. 3	5575	365	1302
Bent No. 4	5735	388	1462
Bent No. 5	5828	402	1555
Bent No. 6	5391	338	1118

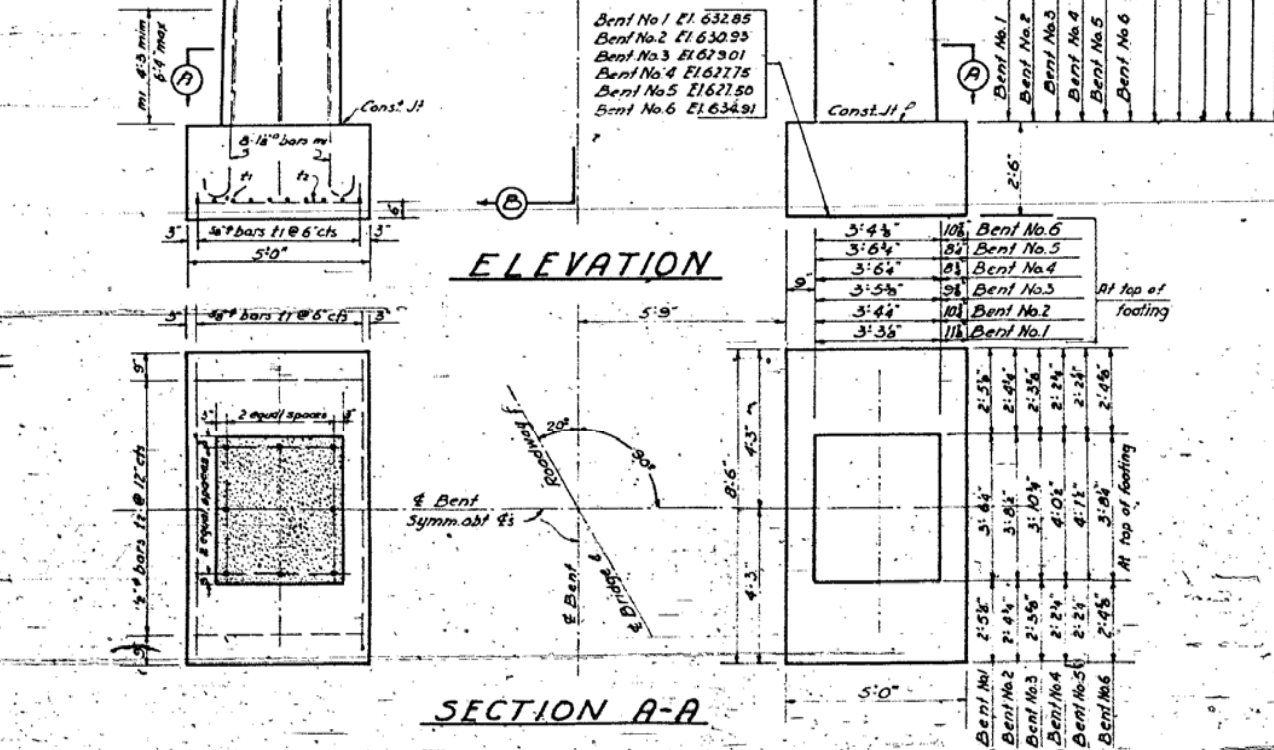
PROJECT NO. 7095  
 ALLEGHANY COUNTY  
 STATION: 18+12

INTERIOR BENTS No. 1-2-3-4-5-6

STATE OF NORTH CAROLINA  
 STATE HIGHWAY AND  
 PUBLIC WORKS COMMISSION

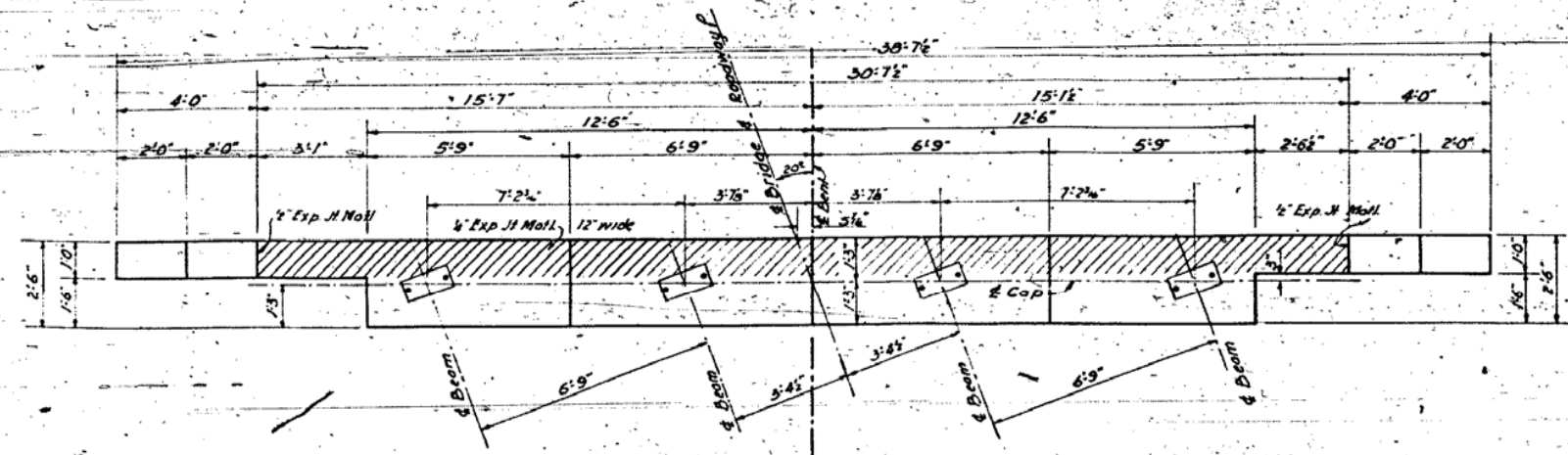
SUBSTRUCTURE DETAILS  
 FOR BRIDGE OVER  
 LITTLE RIVER  
 FEB. 1948

SUBMITTED BY: J.P. ...  
 APPROVED BY: W. Vance ...  
 DATE: 3-10-48

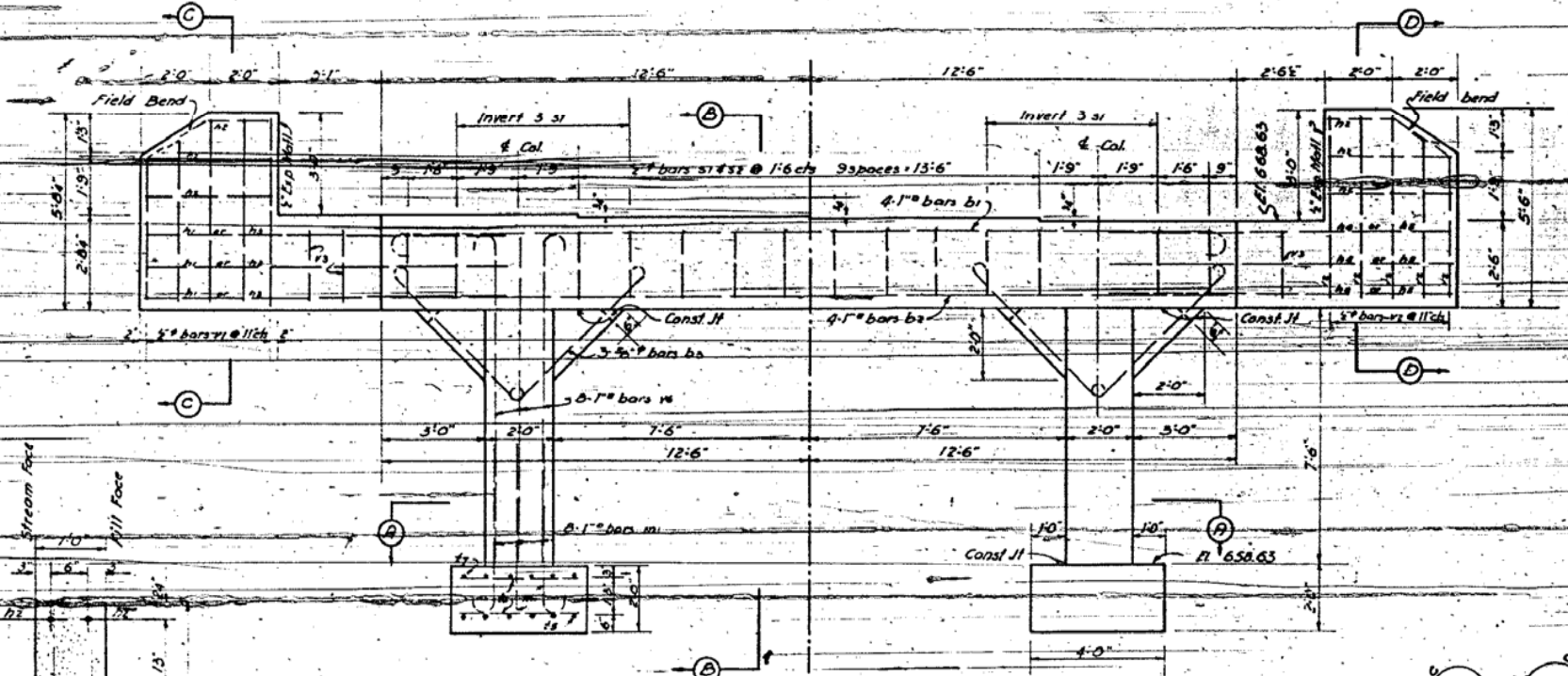


SECTION A-A

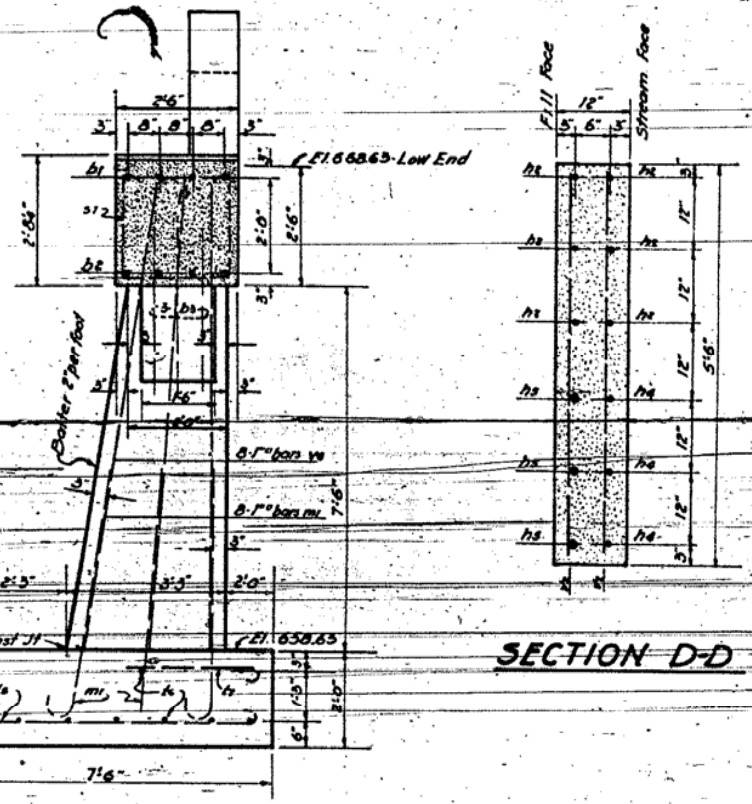
Bent No.	Reinforcing Steel Lbs.	Class A Concrete Cu.Yds.	Total Weight
Bent No. 1	5163	310	890
Bent No. 2	5369	336	1096
Bent No. 3	5575	365	1302
Bent No. 4	5735	388	1462
Bent No. 5	5828	402	1555
Bent No. 6	5391	338	1118



PLAN OF CAP END BENT NO. 2



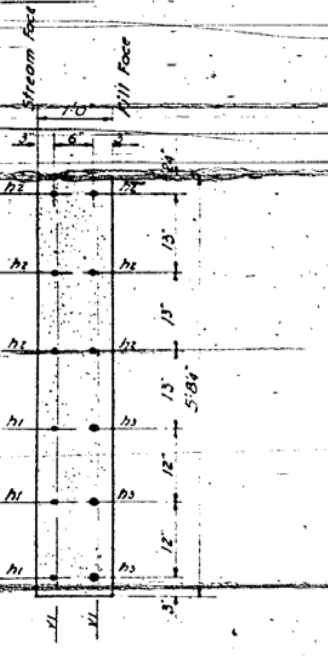
ELEVATION



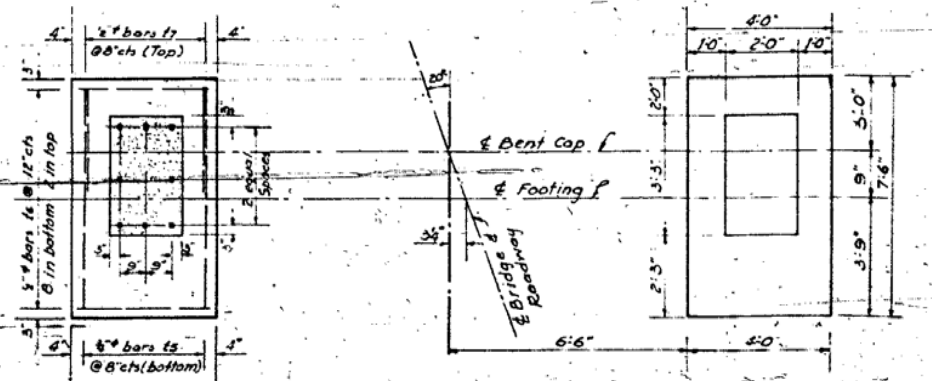
SECTION B-B

SECTION D-D

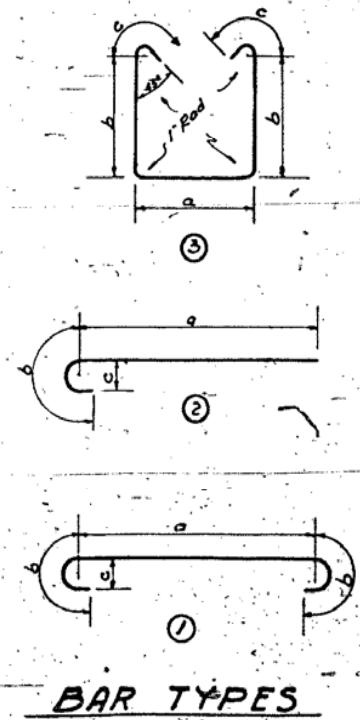
NOTE  
For Design Data and General Note see Sheet No. S-2 & S-3.  
For Anchor Bolt Setting see detail on End Bent No. 1 Sheet No. S-4.



SECTION CC



SECTION A-A



BAR TYPES

BILL OF MATERIAL - END BENT NO. 2								
Bar	Number	Size	Type	a	b	c	Length	Weight
b1	4	1"	1	24'0"	1'3"	6"	26'6"	360
b2	4	1"	Str.	-	-	-	24'6"	333
b3	12	5/8"	1	5'0"	1'0"	4"	7'0"	88
b4	14	5/8"	3	2'2"	2'1"	5"	7'2"	67
h1	3	5/8"	Str.	-	-	-	8'10"	18
h2	12	5/8"	Str.	-	-	-	3'9"	30
h3	3	1"	Str.	-	-	-	10'7"	85
h4	3	5/8"	Str.	-	-	-	8'4"	17
h5	3	1"	Str.	-	-	-	10'1"	81
v1	10	5/8"	Str.	-	-	-	5'4"	36
v2	10	5/8"	Str.	-	-	-	6'2"	35
v3	6	5/8"	Str.	-	-	-	2'2"	9
v4	16	1"	2	9'5"	1'3"	6"	10'6"	571
m1	16	1"	2	6'11"	1'3"	6"	8'2"	444
f1	12	5/8"	1	6'6"	1'3"	6"	9'0"	162
f2	20	5/8"	Str.	-	-	-	3'8"	49
f3	12	5/8"	2	4'0"	1'0"	4"	5'0"	40

Reinforcing Steel Lbs. 2425  
Class A Concrete CuYds. 159

PROJECT NO. 7095  
ALLEGHANY COUNTY  
STATION: 18+12  
END BENT NO. 2 20' L.H.

STATE OF NORTH CAROLINA  
STATE HIGHWAY AND  
PUBLIC WORKS COMMISSION  
RALEIGH

SUBSTRUCTURE DETAILS  
FOR BRIDGE OVER  
LITTLE RIVER  
FEB. 1948

DESIGNED BY: H.M. Sheldon DATE: Feb. 1948  
DRAWN BY: J.H. Clark DATE: Feb. 1948  
CHECKED BY: W.C. Brown DATE: Feb. 1948

APPROVED BY: W.C. Brown DATE: 3-10-48  
STATE HIGHWAY ENGINEER