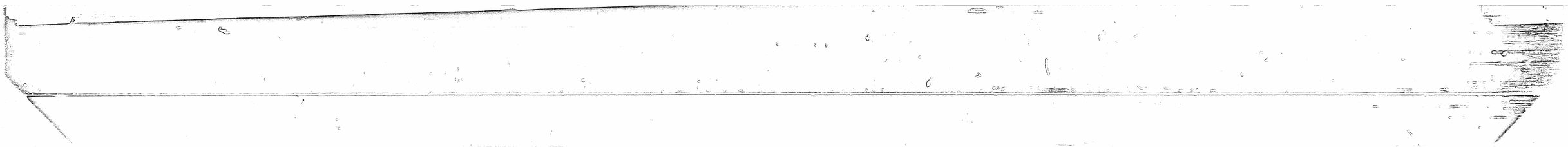

STATE	PROJECT NO.
N. C.	8.11028
F. 75-4(2)	

22

heet S-N.

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Bent No. 4,
sheet S-N.

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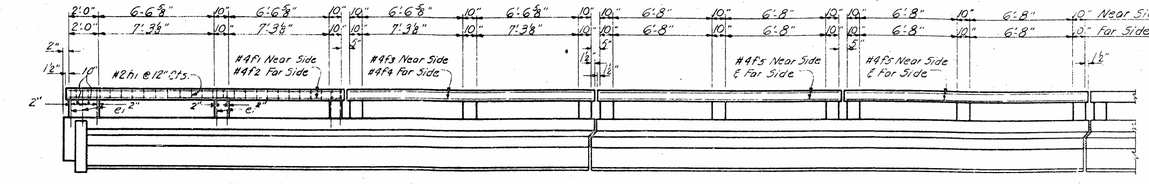
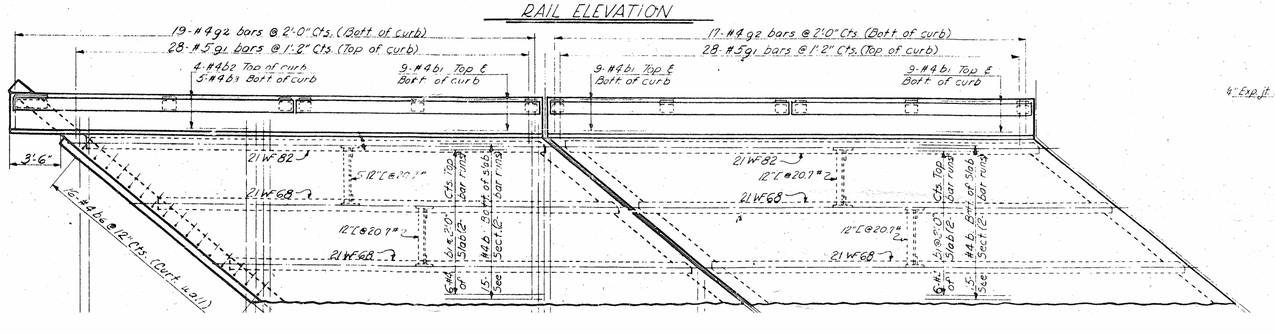
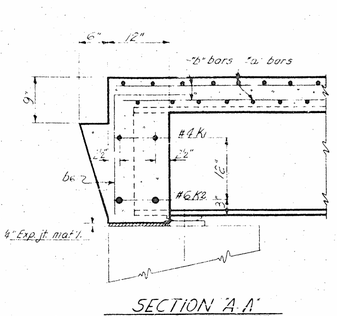
FED. ROAD REGION	STATE	PROJECT NO.
3	N. C.	8.1102
F. A. PROJECT	F 75-4	

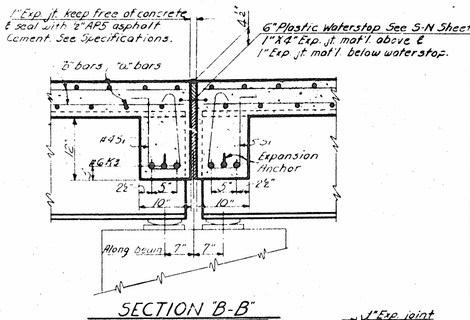
23

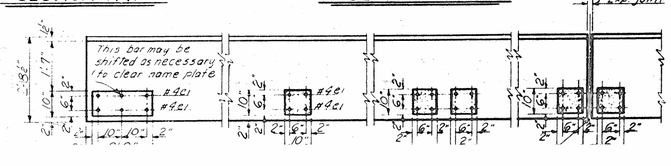


RAIL ELEVATION

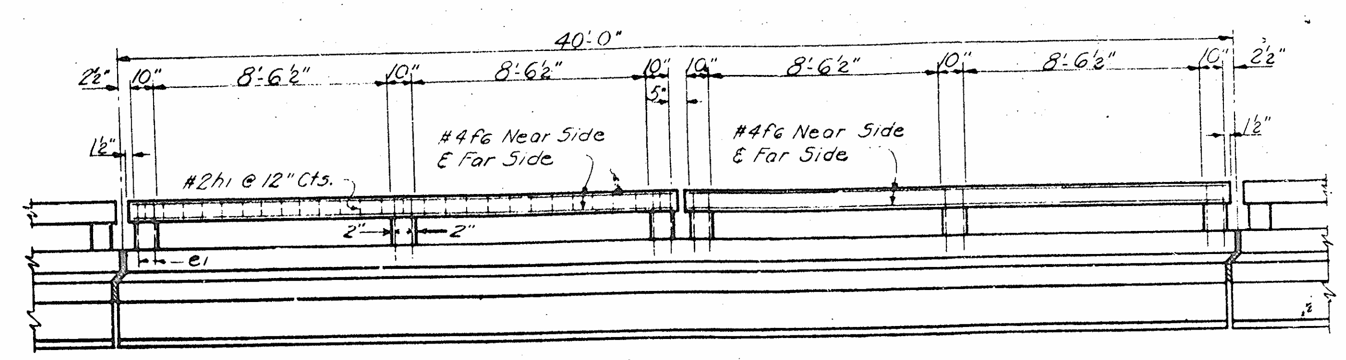




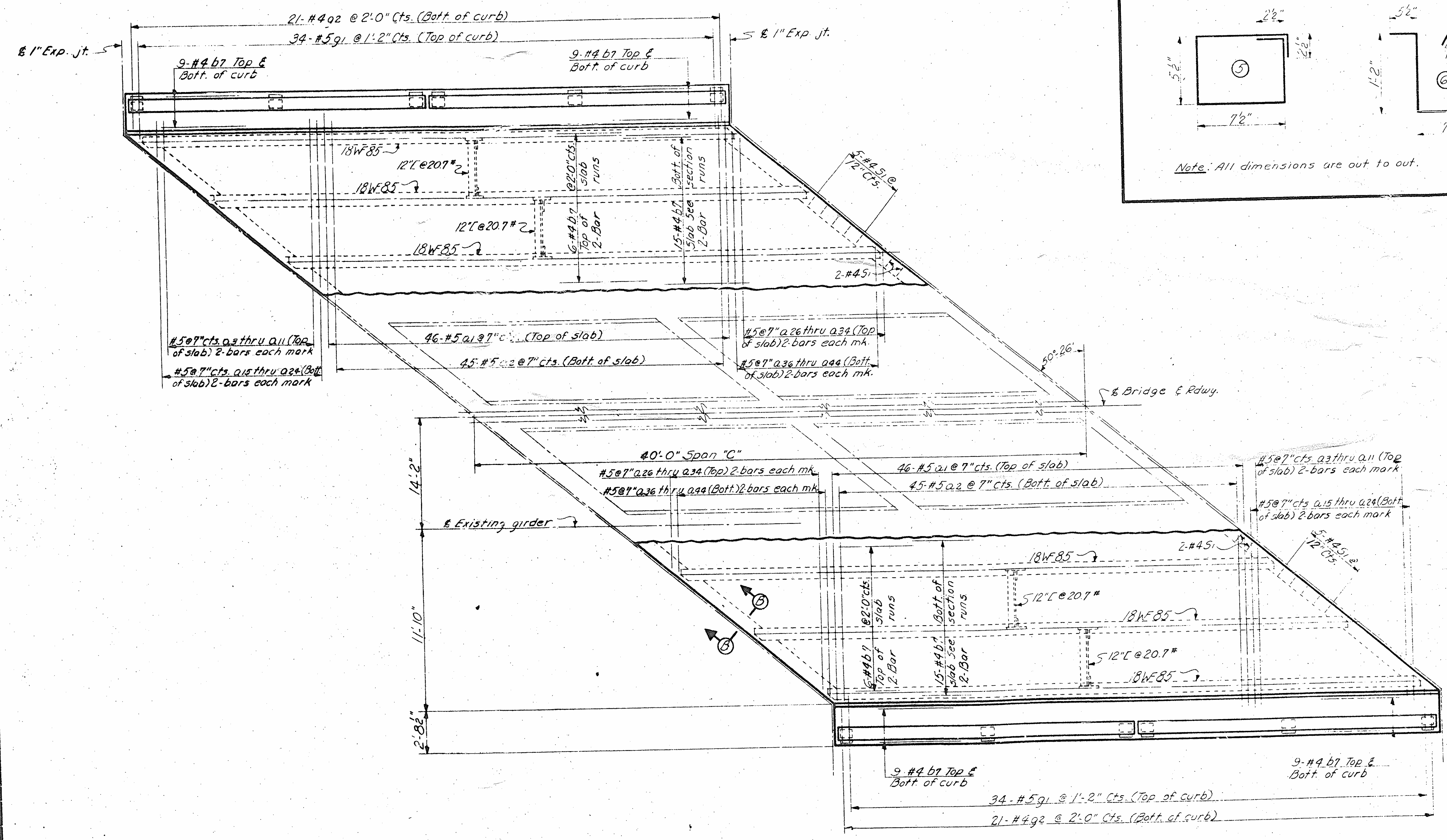




Fed. Road Region	State	Project No.
3	N.C.	811028
F. A. Project	F 75-4(2)	

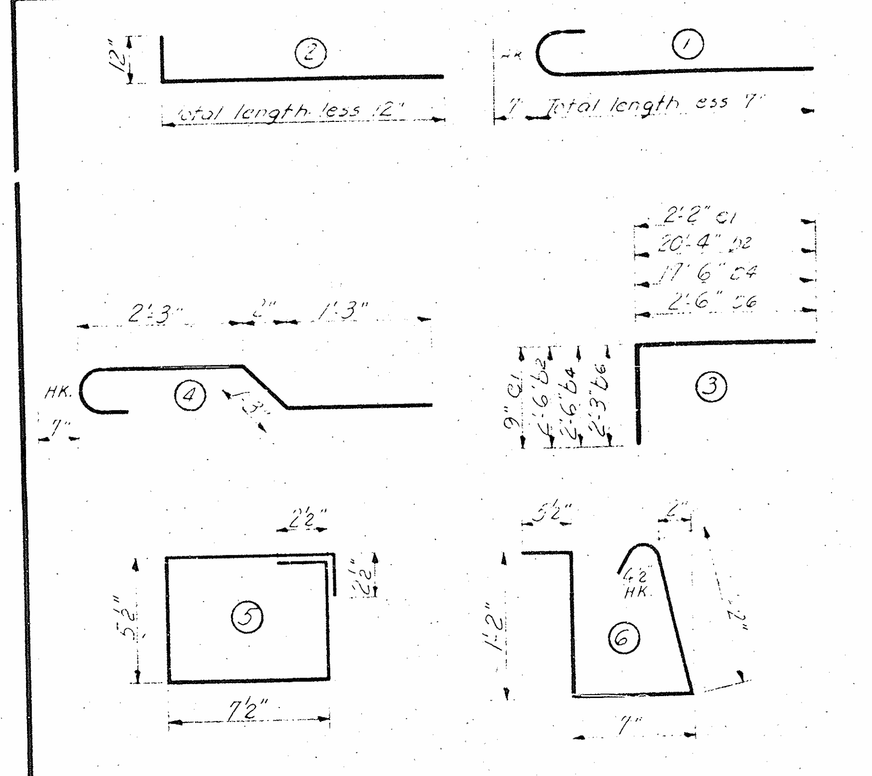


RAIL ELEVATION ~ SPAN "C"



PLAN ~ SPAN "C"

BAR BENDING DETAILS



Note: All dimensions are out to out.

TOTAL BILL OF MATERIAL FOR SPANS "A" "B" "C" "D" & "E"

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
a1	364	#5	1	12'-2"	4,619
a2	354	#5	2	12'-5"	4,585
a3	20	#5		11'-3"	235
a4	20	#5	1	10'-3"	214
a5	20	#5	1	9'-4"	195
a6	20	#5	1	8'-4"	174
a7	20	#5	1	7'-5"	155
a8	20	#5	1	6'-5"	134
a9	20	#5	1	5'-6"	115
a10	20	#5	1	4'-6"	94
a11	20	#5	1	3'-6"	73
a15	20	#5	2	11'-9"	245
a16	20	#5	2	10'-9"	224
a17	20	#5	2	9'-10"	205
a18	20	#5	2	8'-10"	184
a19	20	#5	2	7'-11"	165
a20	20	#5	2	6'-11"	144
a21	20	#5	2	5'-11"	123
a22	20	#5	2	5'-0"	104
a23	20	#5	2	4'-0"	83
a24	20	#5	2	3'-1"	64
a26	20	#5	Str.	9'-9"	203
a27	20	#5	Str.	8'-10"	184
a25	20	#5	Str.	7'-10"	163
a29	20	#5	Str.	6'-11"	144
a30	20	#5	Str.	5'-11"	123
a31	20	#5	Str.	5'-0"	104
a32	20	#5	Str.	4'-0"	83
a33	20	#5	Str.	3'-1"	64
a34	20	#5	Str.	2'-1"	43
a36	20	#5	Str.	9'-10"	205
a37	20	#5	Str.	8'-11"	186
a38	20	#5	Str.	7'-11"	165
a39	20	#5	Str.	7'-0"	146
a40	20	#5	Str.	6'-0"	125
a41	20	#5	Str.	5'-1"	106
a42	20	#5	Str.	4'-1"	85
a43	20	#5	Str.	3'-1"	64
a44	20	#5	Str.	2'-2"	45
b1	444	#4	Str.	16'-10"	4,993
b2	8	#4	3	22'-10"	122
b3	10	#4	Str.	20'-4"	136
b4	8	#4	3	20'-0"	107
b5	10	#4	Str.	17'-6"	117
b6	64	#4	3	4'-9"	203
b7	120	#4	Str.	20'-7"	1,650
e1	243	#4	3	2'-11"	483

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
f1	8	#4	Str.	16'-9"	90
f2	8	#4	Str.	18'-2"	97
f3	8	#4	Str.	15'-7"	83
f4	8	#4	Str.	17'-0"	91
f5	32	#4	Str.	15'-10"	338
f6	16	#4	Str.	19'-7"	209
g1	292	#5	4	5'-4"	1,624
g2	182	#4	Str.	2'-4"	284
h1	348	#2	5	2'-7"	150
K1	8	#4	Str.	20'-11"	112
K2	8	#6	Str.	20'-11"	251
K3	32	#6	Str.	15'-11"	765
S1	192	#4	6	3'-9"	481

Reinforcing Steel Lbs.	26,758
Structural Steel Approx. Lbs.	83,700
Class "A" Conc. Cu. Yds.	144.0

PROJECT No. 811028

BEAUFORT COUNTY

STATION: 109+20.05

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH

SUPERSTRUCTURE
SPAN "C"

JUNE 1962

REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

Sheet No. 5-3
Total Sheets 12

DRAWN BY Charley A. King, Jr. DATE June 1962
CHECKED BY L.L.G. E.M.W. DATE June 1962

SOUTHERLAND BLUE PRINT CO., CHARLOTTE, N.C.

24

FED. ROAD REGION	STATE	PROJECT NO.
3	N. C.	8.1028
F. A. PROJECT	F 75-4(2)	

TYPE	LENGTH	WEIGHT
..rt	16'-9"	90
..rt	22'-2"	97
..ar	15'-7"	83
..rt	17'-0"	91
..rt	15'-10"	338
Str.	19'-7"	209
4	5'-4"	1624
Str.	2'-4"	284
Str.	2'-7"	150
Str.	20'-11"	112
Str.	20'-11"	251
Str.	15'-11"	765
6	3'-3"	481

Steel Lbs. 26,758
Steel Approx. Lbs. 89,700
Conc. Cu. Yds. 144.0

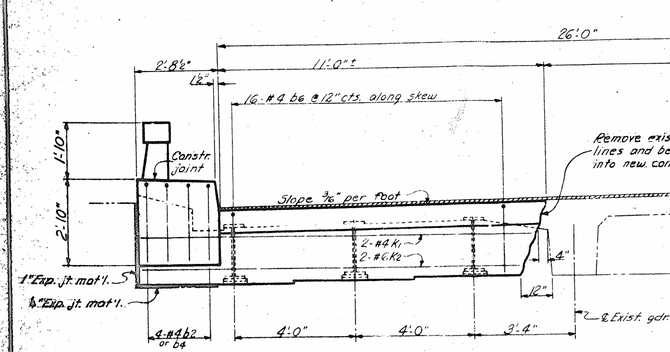
No. 8.1102.8
COUNTY
109 + 20.05

NORTH CAROLINA
DAY COMMISSION
RUCTURE
"C"

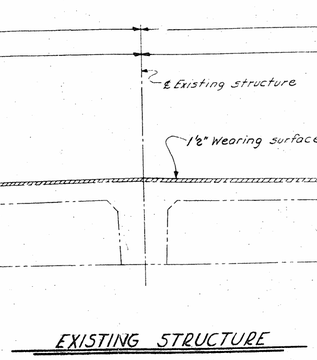
SHEET NO. S-3
TOTAL SHEETS 12

25

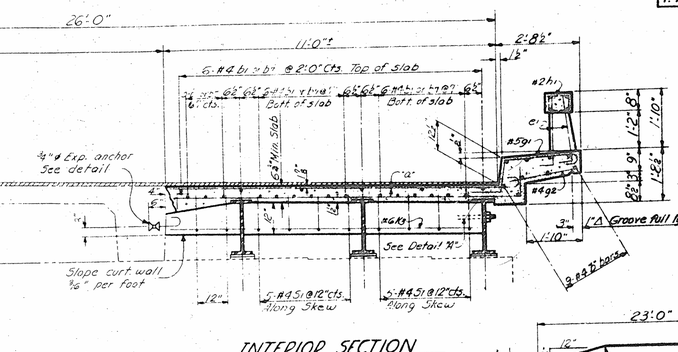
FED. ROAD REGION	STATE	PROJECT NO.
3	N. C.	8.1028
F. A. PROJECT	F 75-4(2)	



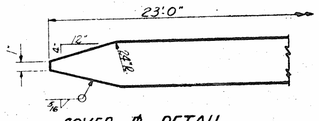
END VIEW



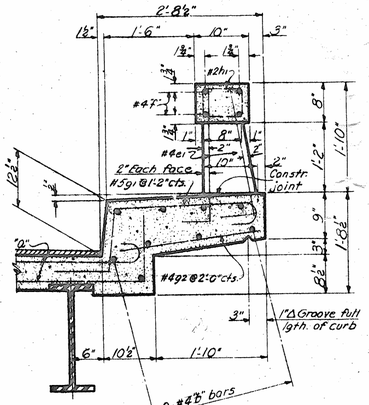
EXISTING STRUCTURE



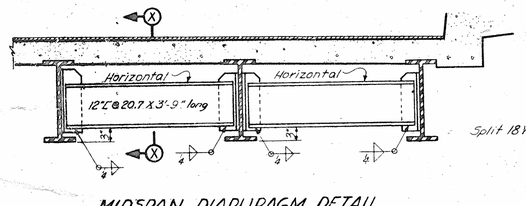
INTERIOR SECTION



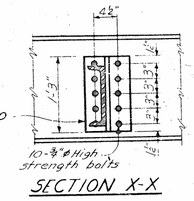
COVER ℔ DETAIL



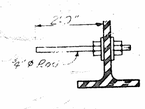
SECTION THRU CURB



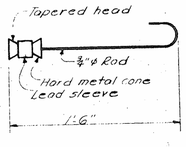
MIDSPAN DIAPHRAGM DETAIL



SECTION X-X

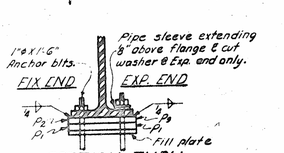


DETAIL "A"

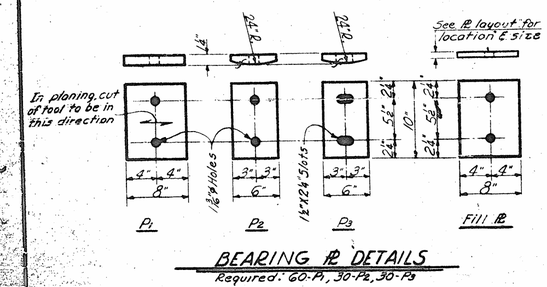


EXPANSION ANCHOR

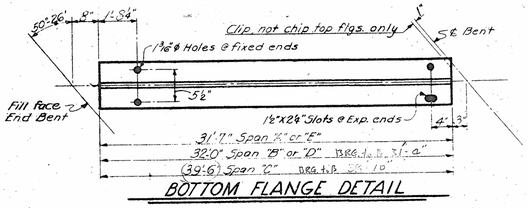
Exp. Anchors to be "American" Expansion Anchors or an approved equal.
Total No. Required: 16



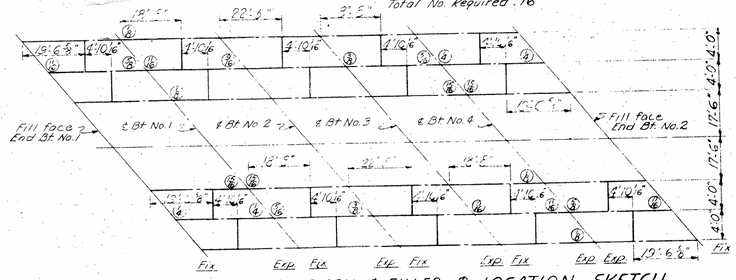
SECTION THRU BEAM



SECTION THRU CURB



BOTTOM FLANGE DETAIL



STEEL DIAPH. & FILLER ℔ LOCATION SKETCH

○ Denotes Filler Plates

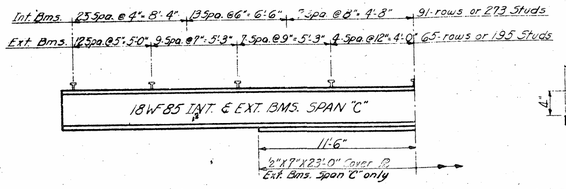
NOTE: At the Contractor's option, 3" @ G# channels may be used in lieu of the stud shear connectors. See sheet S-N.

All beams, cover plates and channel shear connectors shall be of ASTM A36 grade structural steel. See Sheet S-N.

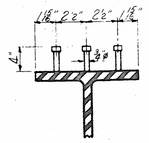
SECTION THRU CURB

BEARING ℔ DETAILS

Required: 60-P1, 30-P2, 30-P3



SHEAR CONNECTOR SPACING



STUD DETAIL

DEFLECTION TABLE

	SPAN A, B, D & E		SPAN C	
	INT.	EXT.	INT.	EXT.
Dead Load Deflection	4"	3/16"	½"	3/16"
Deflection due to Bldg. wt.	1/16"	1/16"	½"	½"
TOTAL DEFLECTION	5/16"	3/16"	1"	¾"
Vertical Curve Ordinate	5"	5"	5"	5"
CAMBER BEAMS	0"	0"	1"	1"

No Camber other than natural mill Camber is required in Spans "A", "B", "D" & "E".

PROJECT NO. 8.1102.8
BEAUFORT COUNTY
STATION: 109 + 20.05

REVISIONS	NO.	DATE	BY
	1		
	2		
	3		
	4		

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH

SUPERSTRUCTURE SECTIONS AND STRUCTURAL STEEL DETAILS

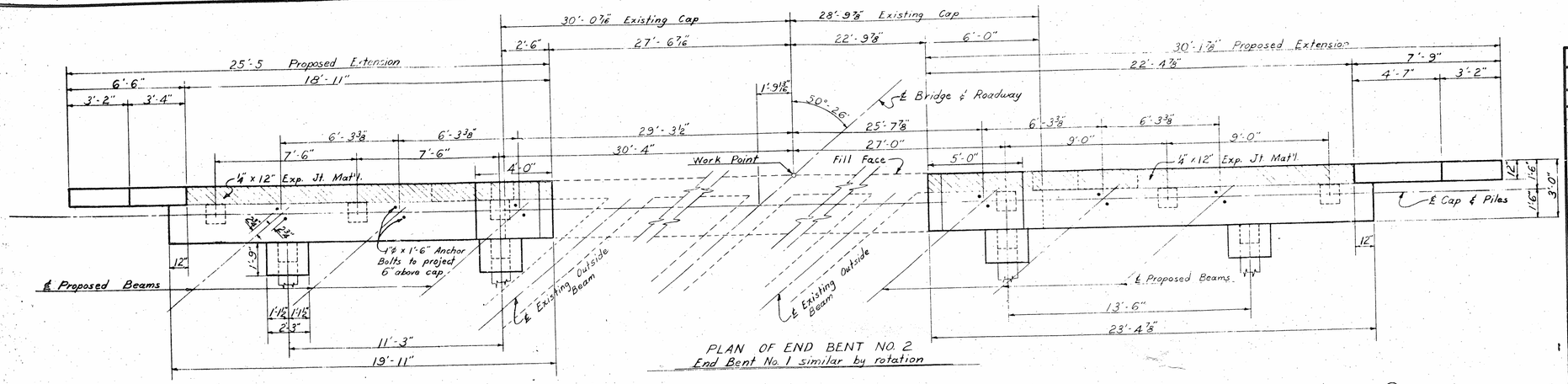
JUNE-1962

SHEET NO. S-4
TOTAL SHEETS 12

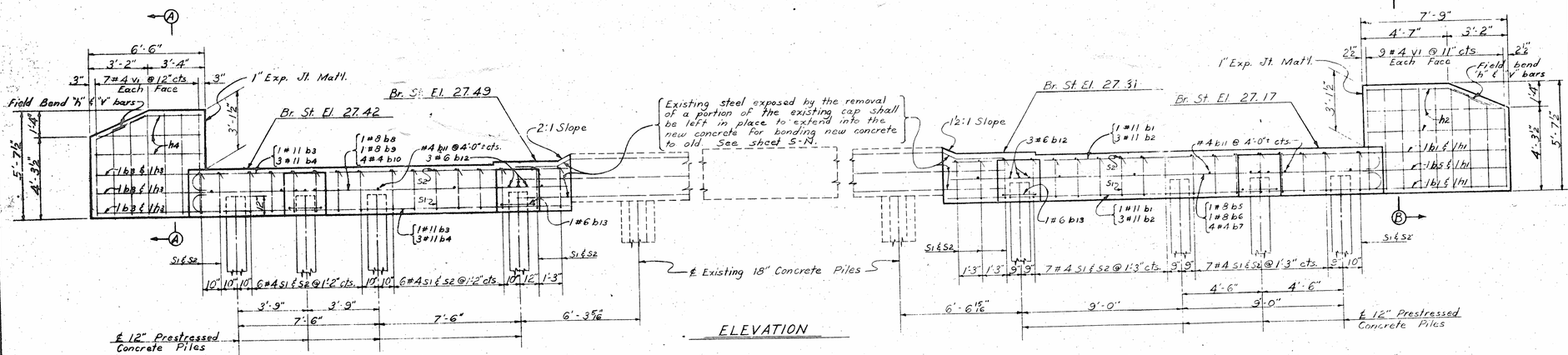
DRAWN BY: Harley Pan Kang Jr. DATE: June 1962
TRACED BY: A. T. & E. S. Thrift DATE: June 1962
BLUE PRINT BY: BLUE PRINT CO., CHARLOTTE, N. C.

STATE PROJECT
N. C. 8.11028

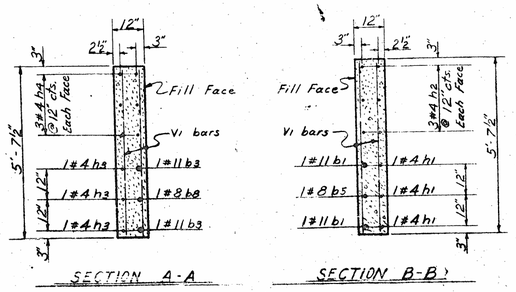
FED. ROA DIST. NO. 3
F. A. PRO.



PLAN OF END BENT NO. 2
End Bent No. 1 similar by rotation

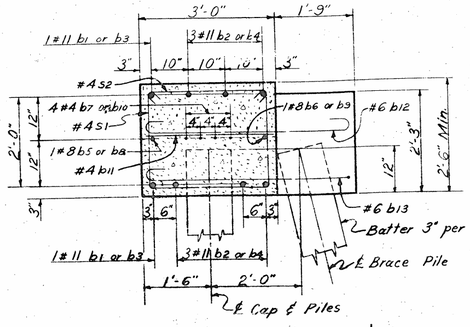


ELEVATION

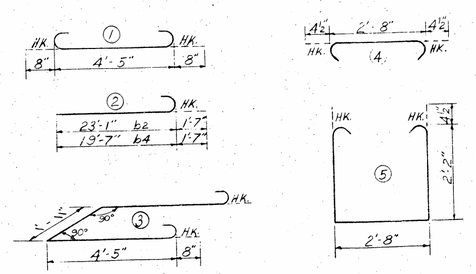


SECTION A-A

SECTION B-B



SECTION THRU CAP



BAR DETAILS
All bar dimensions are out to out.

BILL OF M.

FOR ONE BENT

BAR	NO.	SIZE	TYPE	
b1	2	#11	Str.	
b2	6	#11	2	6
b3	2	#11	Str.	4
b4	6	#11	2	2
b5	1	#8	Str.	23
b6	1	#8	Str.	23
b7	4	#4	Str.	23
b8	1	#8	Str.	25
b9	1	#8	Str.	19'
b10	4	#4	Str.	19'
b11	11	#4	Str.	2'-8
b12	12	#6	1	5'-9
b13	4	#6	3	12'-1"
h1	3	#4	Str.	8'-1"
h2	6	#4	Str.	7'-5"
h3	3	#4	Str.	6'-10"
h4	6	#4	Str.	6'-2"
S1	34	#4	5	7'-9" 1
S2	34	#4	4	3'-5" 3
V1	32	#4	Str.	5'-4" 114

Reinforcing Steel, Lbs. = 3,070
Class 'A' Concrete, Cu. Yds. = 15.5
12" Prestressed Concrete Piles
No. = 10 Lin. Ft. = 390

PROJECT NO. 8.11028
BEAUFORT COUNTY
STATION: 109 + 20.05

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISS
RALEIGH

SUBSTRUCTURE
END BENT NO. 1 & N
June, 1962

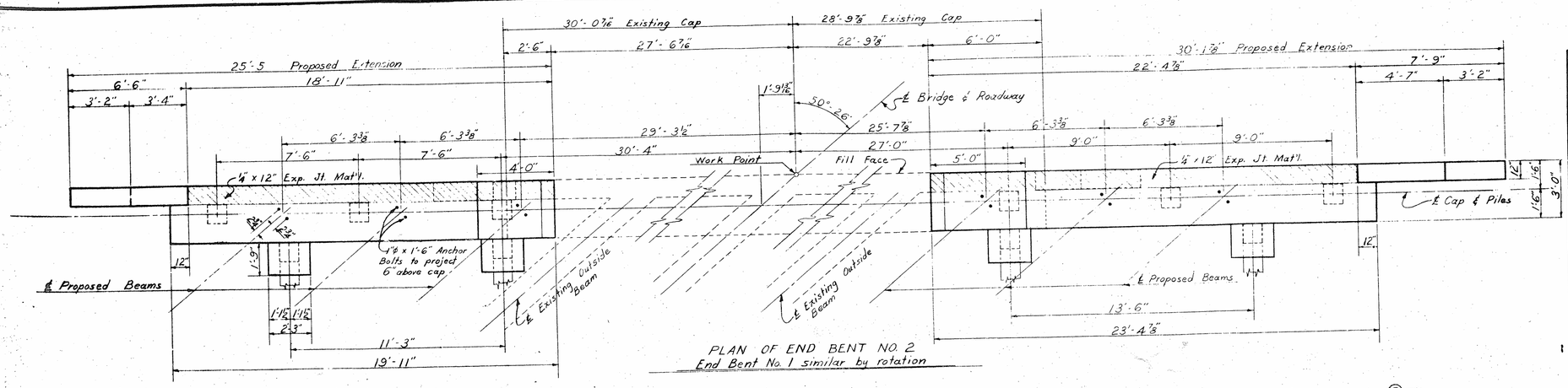
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

DESIGNED BY C. H. Jr. Watts DATE June 1962
DRAWN BY [illegible] DATE June 1962

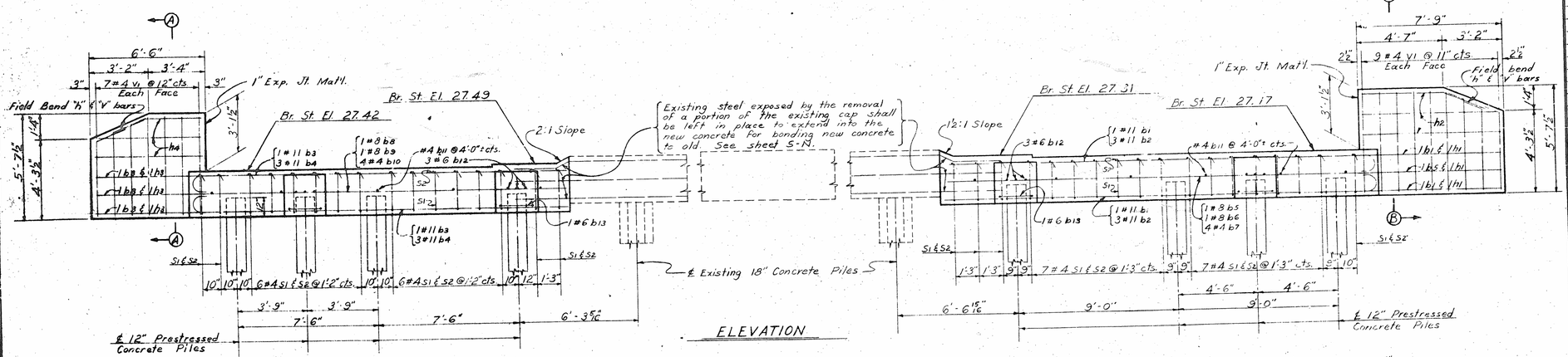
8.11028
COUNTY
20.05
CAROLINA
COMMISSION
IONS
UP
SCREEDS
1961
SHEET NO. S-5
TOTAL SHEETS 12

SECTIONS (Indices)

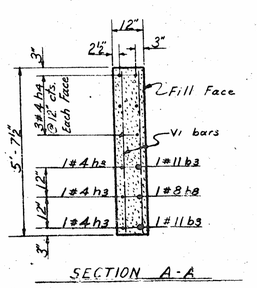
FED. ROAD DIST. NO.	STATE	PROJECT NO.
3	N. C.	8.11028
F. A. PROJECT	F 75-4(2)	



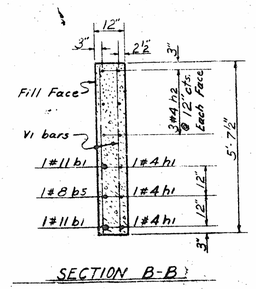
PLAN OF END BENT NO. 2
End Bent No. 1 similar by rotation



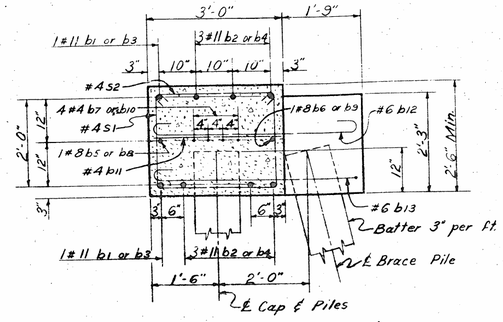
ELEVATION



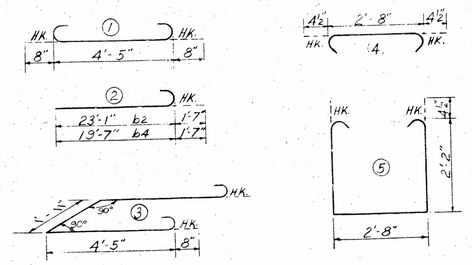
SECTION A-A



SECTION B-B



SECTION THRU CAP



BAR DETAILS
All bar dimensions are out to out.

BILL OF MATERIAL
FOR ONE BENT (2 REQ'D)

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
b1	2	#11	Str.	29'-10"	317
b2	6	#11	2	24'-8"	786
b3	2	#11	Str.	25'-1"	267
b4	6	#11	2	21'-2"	675
b5	1	#8	Str.	29'-10"	80
b6	1	#8	Str.	23'-1"	62
b7	4	#4	Str.	23'-1"	62
b8	1	#8	Str.	25'-1"	67
b9	1	#8	Str.	19'-7"	52
b10	4	#4	Str.	19'-7"	52
b11	11	#4	Str.	2'-8"	20
b12	12	#6	1	5'-9"	104
b13	4	#6	3	12'-1"	73
h1	3	#4	Str.	8'-1"	16
h2	6	#4	Str.	7'-5"	30
h3	3	#4	Str.	6'-10"	14
h4	6	#4	Str.	6'-2"	25
S1	34	#4	5	7'-9"	176
S2	34	#4	4	3'-5"	78
V1	32	#4	Str.	5'-4"	114

Reinforcing Steel, Lbs. = 3,070
Class "A" Concrete, Cu. Yds. = 15.5
12" Prestressed Concrete Piles
No. = 10 Lin. Ft. = 390

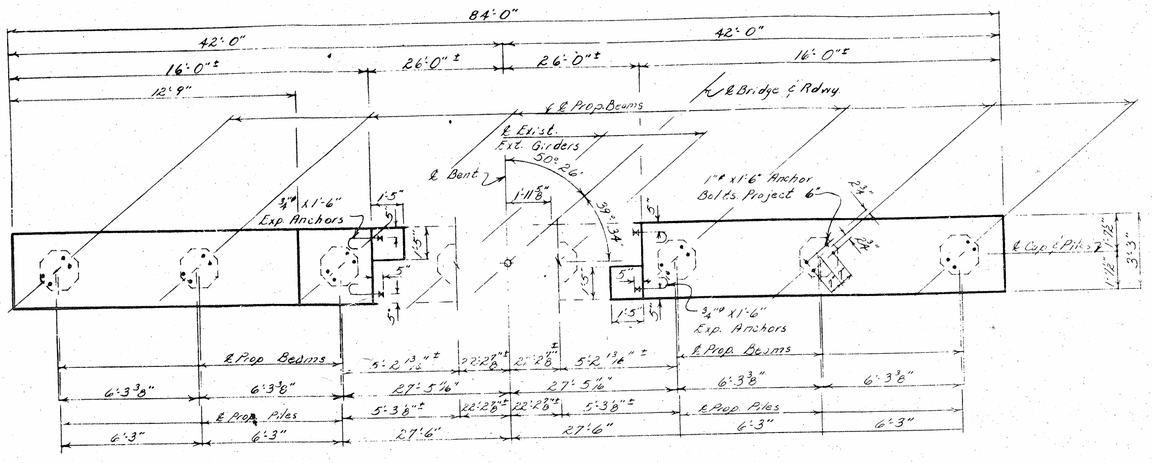
PROJECT NO. 8.11028
BEAUFORT COUNTY
STATION: 109 + 20.05

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH

SUBSTRUCTURE
END BENT NO. 1 & N
June, 1962

REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

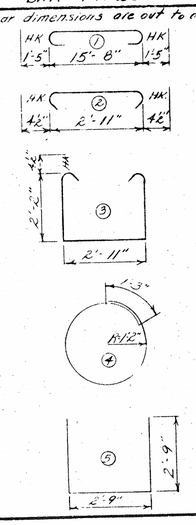
FED. ROAD DIST. NO.	STATE	PROJECT NO.
3	N. C.	8.11028
F. A. PROJECT	F 75 4(2)	



PLAN OF CAP
for Bent No. 1
Bent No. 4 Similar by Rotation

BAR TYPES

All bar dimensions are out to out.

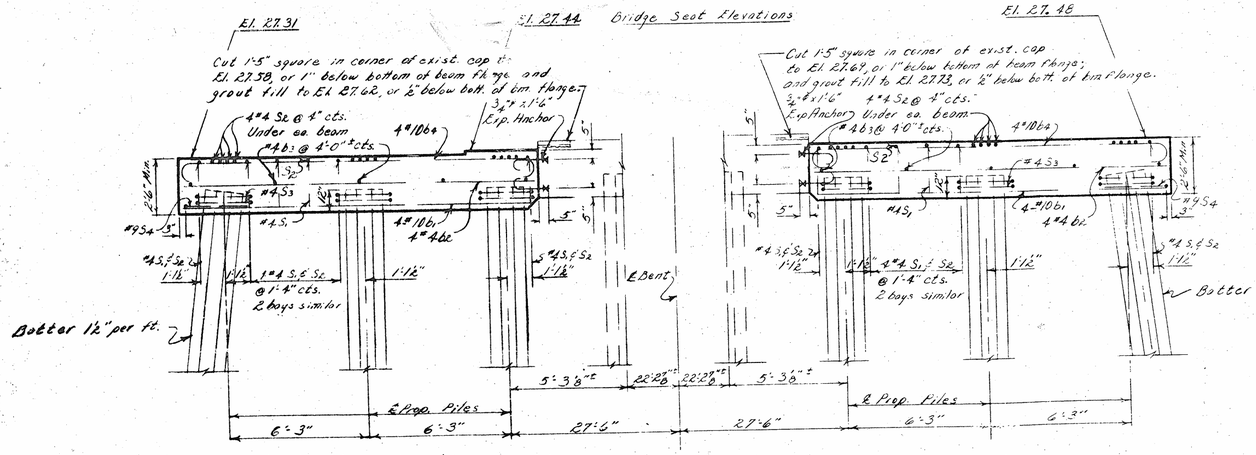


BILL OF MATERIAL

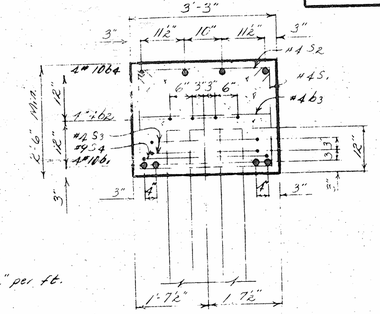
FOR ONE BENT (2 Reqd)

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
b1	8	#10	Str.	15'-8"	539
b2	8	#4	Str.	15'-8"	84
b3	10	#4	Str.	2'-11"	19
b4	8	#10	1	18'-5"	637
s1	20	#4	3	8'-0"	107
s2	14	#4	2	3'-8"	108
s3	12	#4	4	8'-7"	69
s4	2	#9	5	8'-3"	56

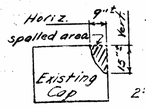
Class "A" Concrete Cu. Yds. 92
Reinforcing Steel Lbs. 1619
20" Prestr. Octagonal Concrete Piles No. 6 Lin. Ft. 270
¾" ℄ Expansion Anchors No. 8



ELEVATION



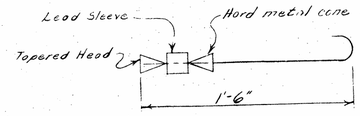
SECTION THRU CAP



SECTION OF CAP
showing
SPALL PATCH DETAIL

PATCHING EXISTING SPALLED AREAS

The contractor will be required to patch spalled areas (approximately eleven) on the existing pier caps as directed by the Engineer. Spalled areas shall be prepared to eliminate feather edges by cutting out the existing concrete to a minimum depth of 1" over the entire area to be patched. An approved bonding agent shall be applied over the area to be patched, and a Class A Concrete mix patch placed over the bonding agent. The patch shall be constructed to the same neat lines as the existing cap, and shall be given a finished texture similar to that of the existing cap. No separate measurement or payment will be made for this work, but the entire cost of same shall be included in the unit contract price bid per cu. yd. for Class A Concrete.



¾"# EXPANSION ANCHOR DETAIL

Note: Anchors to be American Expansion Anchors or approved equal.

PROJECT NO. 8.11028
BEAUFORT COUNTY
STATION: 109+20.05

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH

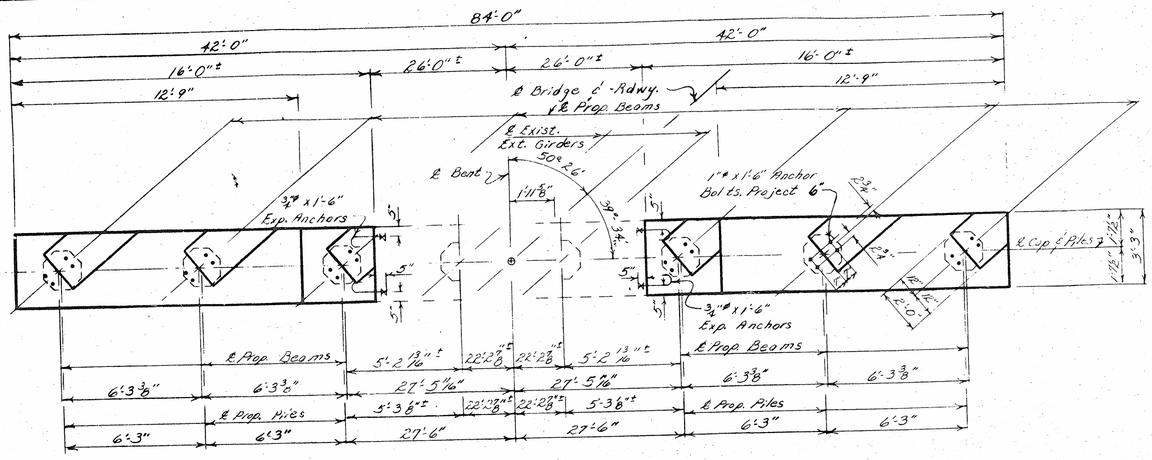
SUBSTRUCTURE
BENTS No. 1 and No. 4

June, 1962

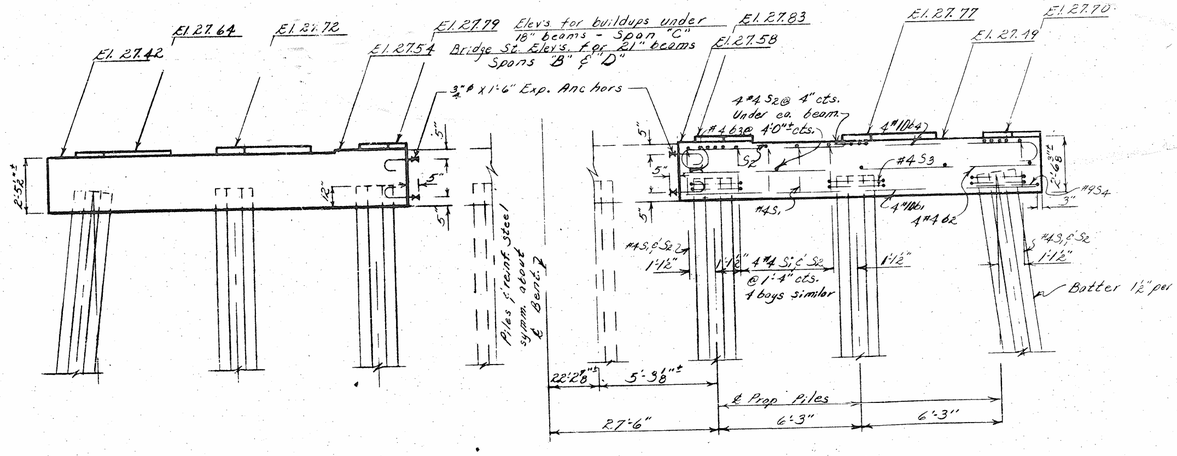
REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	5-7
1			3			TOTAL SHEETS
2			4			12

DRAWN BY N. C. Chapman DATE June 1962
TRACED BY Otis J. Smalley DATE June 1962
CHECKED BY

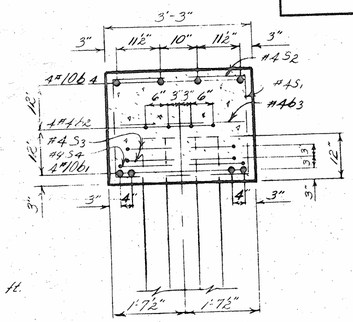
FED. ROAD DIST. NO.	STATE	PROJECT NO.
3	N. C.	8.11028
F. A. PROJECT	F 75-4(2)	



PLAN OF CAP
for Bent No. 2
Bent No. 3 Similar by Rotation



ELEVATION

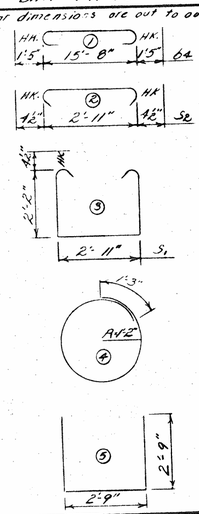


SECTION THRU CAP

NOTE: See Bent No. 1 for detail of Expansion Anchor.

BAR TYPES

All bar dimensions are out to out.



BILL OF MATERIAL

FOR ONE BENT (2 Reqd)

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	6	#10	Str.	15'-8"	539
B2	8	#4	Str.	15'-8"	84
B3	10	#4	Str.	2'-11"	19
B4	8	#10	1	18'-6"	637
S1	20	#4	3	8'-0"	107
S2	14	#4	2	3'-8"	108
S3	12	#4	4	8'-7"	69
S4	2	#9	5	8'-3"	56

Class "A" Concrete Cu. Yds. 9.9
Reinforcing Steel Lbs. 1619
60" Prestr. Octagonal Concrete Piles No. 6 Lin. Ft. 300
3/4" Expansion Anchors No. 2

PROJECT NO. 8.11028
BEAUFORT COUNTY
STATION: 1091 20.05

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH
SUBSTRUCTURE
BENTS No. 2 and No. 3

June, 1962

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S-8
1			3			TOTAL SHEETS
2			4			12

DRAWN BY E. M. Champion DATE June 1962
CHECKED BY [illegible] DATE June 1962

SOUTHERLAND BLUE PRINT CO., CHARLOTTE N. C.

29

	STATE	PROJECT NO.
	N. C.	811028
PROJECT	F 75-4(2)	

MATERIAL

MENT (2 Reqd)

	TYPE	LENGTH	WEIGHT
	Str.	15'8"	539
	Str.	15'8"	84
	Str.	2'11"	19
	1	18'6"	637
	3	8'0"	107
	2	3'8"	108
		8'7"	60
	5	8'3"	50

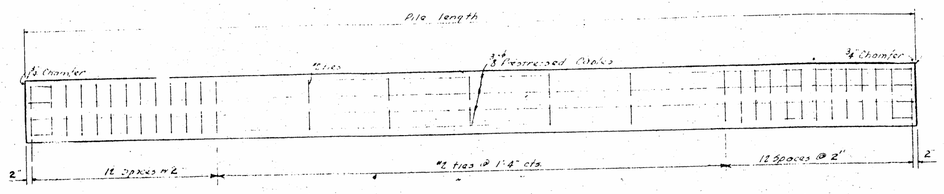
crete Cu Yds. 9.9
Steel Lbs 1619
Octagonal
ret: Piles No. 6
Lin Ft 300
n Inches No. 8

NO. 8.11028
COUNTY
091 20.05

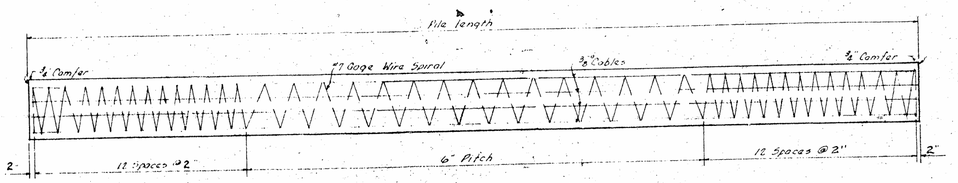
H CAROLINA
Y COMMISSION
T U.A.E.
and No. 3

DATE	SHEET NO.
	5-B
	TOTAL SHEETS
	12

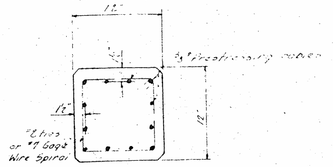
FED. ROAD DIST. NO.	STATE	PROJECT NO.	SHEET NO.
3	N. C.	811028	
F.A. Proj. F 75-4 (2)			



PILE

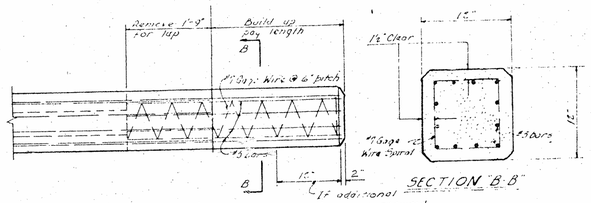


ALTERNATE PILE



TYPICAL SECTION

Wt. of Pile = 150 Lbs. per foot length

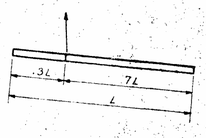


PILE BUILD-UP

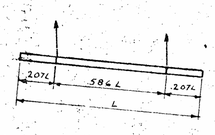
If additional reinforcing is required 2" pitch shall be used for spiral wire within these limits.

SECTION "B-B"

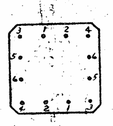
Devices for lifting the piles from the casting beds shall be approved by the Engineer. Where ends will be exposed to view in the structure, inserts set in the piles to receive threaded eye bolts or similar approved devices shall be used. Loops of cable cast in the pile will not be permitted except for piles for end bents and foundations which will not be exposed to view. The use of satisfactory clamps or slings will be permitted where this is practicable without the use of lifting devices cast in the piles. After eye bolts or other attachments have been removed, the openings shall be repaired in a satisfactory manner before delivery to the bridge site in order to obtain a uniform appearance. It will not be necessary to remove loops of cable or other lifting devices in piles for end bents and foundations which will not be exposed to view.



Method of picking up piles
up to 50 feet
1 pick up point



Method of picking up Piles
51 feet to 70 feet
2 pick up points



TYPICAL PATTERN FOR BURNING CABLES

If cable stress is to be relieved by burning, the cables shall be burned in opposite pairs as indicated in the pattern shown above. Cables 1-1 to be burned before 2-2 etc.
Not more than 4 cables, see 5-5 and 6-6, may be burned at any one section before these same pairs of cables are burned at both ends of the bed and between each pair of piles in the bed.

NOTES

In driving piles, a method approved by the Engineer shall be used, whereby the head of the piles is not damaged.

All material and workmanship as per the Specifications of North Carolina State Highway Commission and the Special Provisions.

The contractor may use either #2 ties or #7 Gage Wire Spiral as shown.

Build up where necessary shall be done in accordance with the specifications, except that the reinforcing steel required in the build-ups shall be included in the contract unit price per foot for the pile and will not be paid for as reinforcing steel.

DESIGN DATA:
Concrete: f'c = 5,000 p.s.i.
f'c = 2,000 p.s.i.
Tension = None
Cables: Tensile (Ultimate) = 250,000 p.s.i.
(Required) = 175,000 p.s.i.
(Design) = 140,000 p.s.i.
Impact in handling = 100%

	No.	Size	Length	Lin. Ft.	
	20	12	39'-0"	780'-0"	

PROJECT NO. 8.11028
BEAUFORT COUNTY
STATION: 109+20.05

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH

STANDARD
12" PRESTRESSED CONC.
PILES

MARCH, 1957

SPECIAL	ASSEMBLED BY: J. V. Bennett	DATE: 6-26-62
	CHECKED BY: J. M. Mace	DATE: June, 1962
STANDARD	DESIGNED BY:	DATE:
	DRAWN BY:	DATE:
	TRACED BY: Trudy S. Johnson	DATE: 7-27
	CHECKED BY: C. E. Reynolds	DATE: 7-27

Revised to show pattern for cable burning. Jan. 5, 1959 R.A.S. By RHH

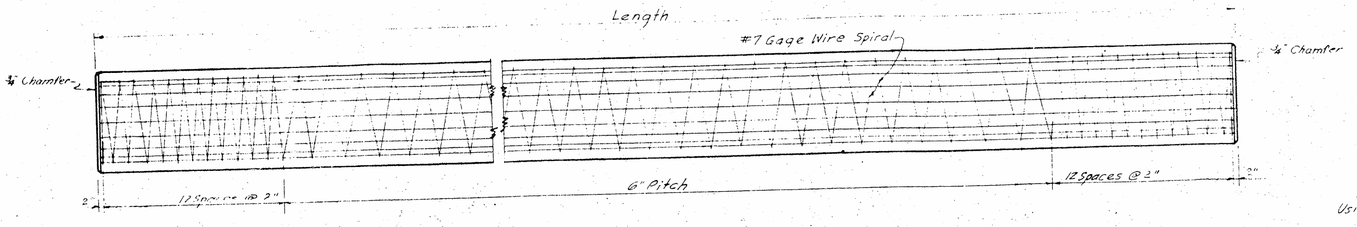
Revised for spacing of wire spiral at ends of Pile. Nov. 9, 1959 R.A.S. By RHH

Revised for note concerning Pick Up 6-13-67 JAO

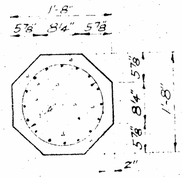
Revised to delete up lifts 10-27-67 JAO

FED. ROAD DIST. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	N.C.	8.11028	S-19	72
F.A. Proj.	F 75-4(2)			

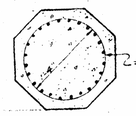
31



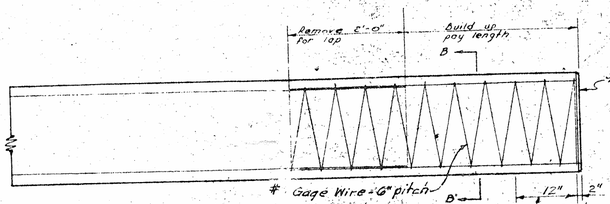
Pile



Typical Section
Using 16-⅜" Cables for lengths thru 50'

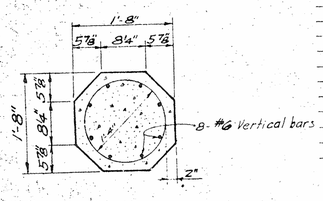


Typical Section
Using 24-⅜" Cables for lengths 51' thru 67'



Pile Build up

Note: If additional driving is required, 2" pitch shall be used for spiral wire within these limits.



Section B-B

PILES REQUIRED			
No	Size	Length	Lin. ft.
12	1'-8"	45'	540'
12	1'-8"	50'	600'
Total			1140'

Design Data:-
Concrete :- f'_c = 5000 Lbs per Sq. Inch.
f_c = 2000 Lbs per Sq. Inch.
Tension = None
Cables: Tensile (Ultimate) = 250,000 Lbs per Sq. Inch.
(Applied) = 175,000 Lbs per Sq. Inch.
(Design) = 140,000 Lbs per Sq. Inch.
Impact in handling = 100%

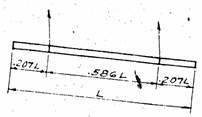
General Note:-
In driving piles, a method approved by the engineer shall be used, whereby the head of the pile is not damaged.

Build-up, where necessary, shall be done in accordance with the specifications, except that the reinforcing steel required in the build-ups shall be included in the contract unit price per foot for the pile and will not be paid for as reinforcing steel.

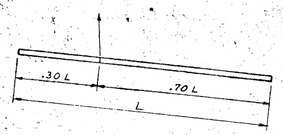
All material and workmanship as per the specifications of the North Carolina State Highway Commission and the Special Provisions.

Devices for lifting the piles from the casting beds shall be approved by the Engineer. These devices shall consist of inserts set in the piles to receive threaded eye-bolts or similar approved devices. The use of loops of cable cast in the piles for use as lifting devices will not be permitted. The use of satisfactory clamps or slings will be permitted where this is practicable without the use of lifting devices cast in the piles. After eye-bolts or other attachments have been removed the openings shall be repaired in a satisfactory manner before delivery to the bridge site in order to obtain a uniform appearance.

Because of the resulting surface finish, slip-form method of casting piles will not be permitted.

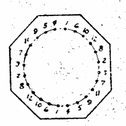


Method of picking up Piles
56 feet to 80 feet
2 pick up points



Method of picking up piles
up to 55 feet.
1 pick up point

If cable stress is relieved by burning, the cables shall be burned in opposite pairs as indicated in the typical pattern shown for any number of cables. Burn in opposite pairs and symmetrical about both vertical and horizontal axes. Cables 1-1 shall be burned before 2-2, etc. Not more than 4 cables, say 5-5 and 6-6, may be burned at any one section before these same pairs of cables are burned at both ends of the bed and between each pair of piles in the bed.



Typical Pattern for Burning Cables

QUANTITIES FOR ONE 1'-8" OCTAGONAL PILE						
Length	Concrete	Pile Wt.	One Pickup Point		Two Pickup Points	
	Cu. yds.	Tons	.30L	.70L	.207L	.586L
25'-0"	2.13	4.31	7'-6"	17'-6"		
30'-0"	2.55	5.16	9'-0"	21'-0"		
35'-0"	2.98	6.03	10'-6"	24'-6"		
40'-0"	3.40	6.89	12'-0"	28'-0"		
45'-0"	3.83	7.75	13'-6"	31'-6"		
50'-0"	4.26	8.62	15'-0"	35'-0"		
55'-0"	4.68	9.48	16'-6"	38'-6"		
60'-0"	5.11	10.34			12'-5"	35'-2"
65'-0"	5.53	11.20			13'-5½"	38'-1"
70'-0"	5.96	12.06			14'-6"	41'-0"

SPECIAL	ASSEMBLED BY: R.F. Bennett	DATE: 6-26-62	
	CHECKED BY: Ted O. Chapman	DATE: 6-26-62	
STANDARD	DESIGNED BY: J. T. Ward	DATE: Aug. 1956	
	DRAWN BY: " "	DATE:	
	TRACED BY:	DATE:	
	CHECKED BY: A. L. Bennett	DATE: Aug. 1956	

Revised to clarify buildup detail 3/8/60 M.S.B. V.B.P.T.
Revised to add notes and sketch regarding burning of cables Jan. 6, 1960 J.R.W. V. Pruitt
Revised for note regarding slip form method of casting piles. 12-18-59 J.H.B. v R.W.W.
Revised for spacing of wire Spiral at ends of pile. Nov. 9, 1954 R.A.S. v by [illegible]
Revised to add table of additional Data, 5-27-59 R.A.S. v by J.L.S.
Revised for note concerning R.E.U.P. 6-15-57 H.A.C. v L.M.T.
Revised for pick up points 5/30/57 by E.T.L. [illegible]

PROJECT No. 8.11028
BEAUFORT COUNTY
STATION: 109+20.05

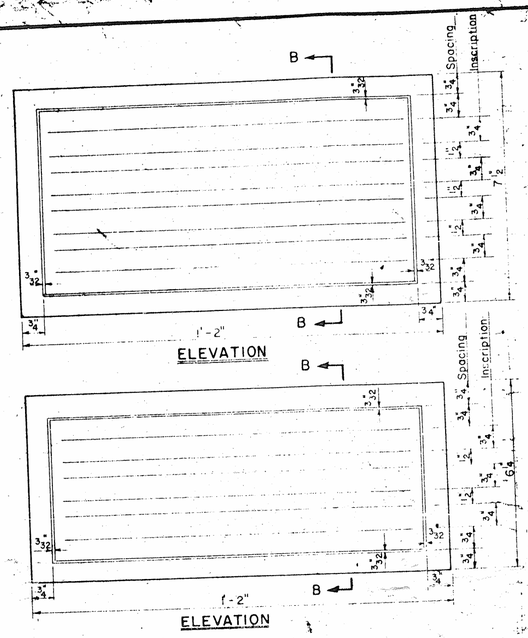
STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH

STANDARD
1'-8" PRE-STRESSED
OCTAGONAL CONCRETE PILES

August, 1956

SHEET S-19

SOUTHERLAND BLUE PRINT CO., CHARLOTTE, N. C.



BEAUFORT COUNTY
PROJECT 8.11028
FEDERAL AID
*1963

DETAIL SHOWING CORRECT WORDING
NAME PLATE USING FOUR LINES

*The date to be shown on the name plates is the year in which the structure will be finished. This date shall be verified by the Resident Engineer before the name plate inscription is ordered.

*

DETAIL SHOWING CORRECT WORDING
NAME PLATE USING THREE LINES

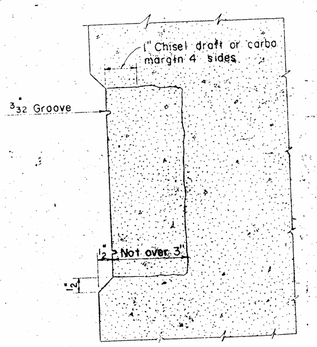
GENERAL NOTES

For bridges on which there will be two-way traffic, 2 name plates are required for each bridge. For bridges on which there will be one-way traffic, one name plate is required for each bridge. Name plate to be placed on the right hand end post approaching the bridge, and shall be placed parallel to grade of curb. See LOCATION DETAIL."

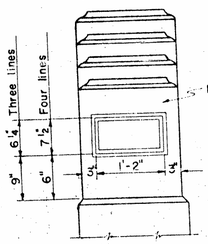
The name plates are to be made of granite. Granits shall be light gray, fine or medium grained, sound in quality and free from defects that would mar its appearance. Exposed face of plates to have a fine rubbed finish.

Lettering shall be sandblast sunk, 3/4" high, vertical, Modern Roman style. The wording shall be as shown in the "DETAIL SHOWING CORRECT WORDING."

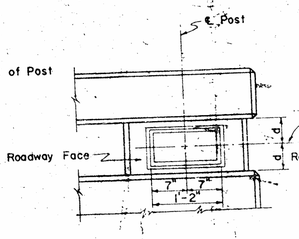
The entire cost of the name plates, complete in place, shall be included in the contract price bid for Class "A" Concrete.



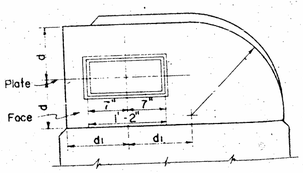
SECTION B-B



FOR BALUSTER TYPE RAIL



FOR BAR TYPE RAIL

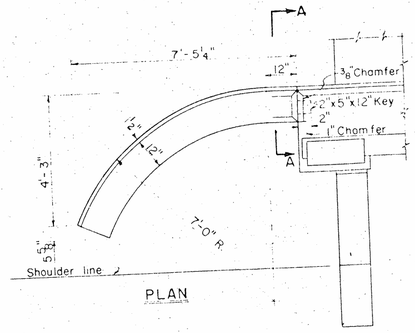


FOR ALUMINUM RAIL

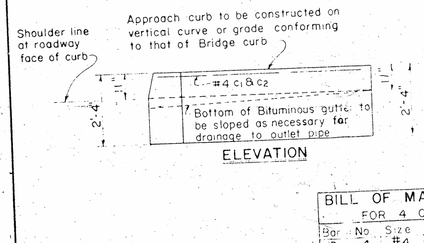
LOCATION DETAIL FOR NAME PLATES

SPECIAL	ASSEMBLED BY Charles A. Long, Jr.	DATE Sept. 1962
	CHECKED BY	DATE
STANDARD	DESIGNED BY H. J. Hagan	DATE Sept 1, 1960
	TRACED BY	DATE
	CHECKED BY Chas. J. Meeks	DATE Sept 2, 1960

NAME PLATES



PLAN

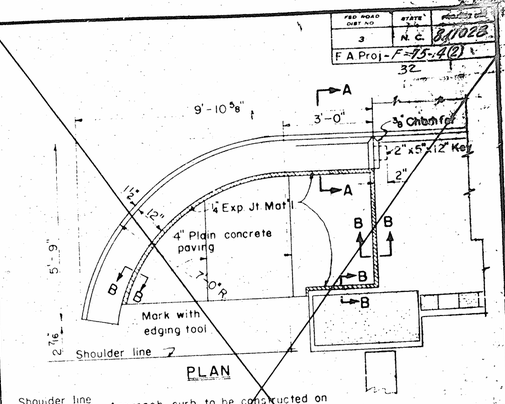


ELEVATION

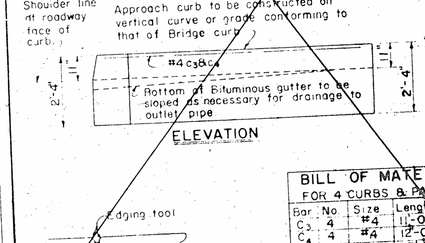
BILL OF MATERIAL
FOR 4 CURBS

Bar	No	Size	Length	Weight
C1	4	#4	7'-9"	21
C2	4	#4	8'-6"	23
C3	16	#4	3'-0"	32
Reinforcing Steel				76 Lbs
Class "A" Concrete				3.2 C.Y.

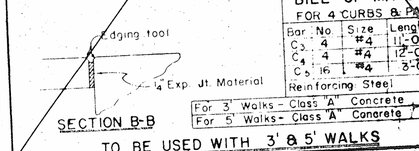
TO BE USED WITH 12" & 18" CURBS



PLAN



ELEVATION

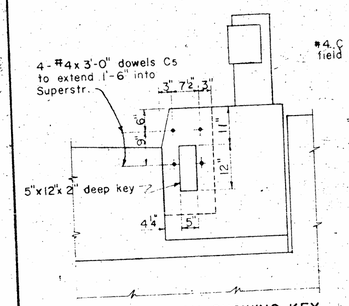


SECTION B-B

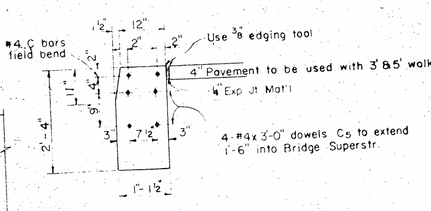
BILL OF MATERIAL
FOR 4 CURBS & PAVING

Bar	No	Size	Length	Weight
C3	4	#4	11'-0"	29
C4	4	#4	12'-0"	32
C5	16	#4	3'-0"	32
Reinforcing Steel				93 Lbs
For 3' Walks - Class "A" Concrete				5.1 C.Y.
For 5' Walks - Class "A" Concrete				5.8 C.Y.

TO BE USED WITH 3' & 5' WALKS



END ELEVATION SHOWING KEY IN SUPERSTRUCTURE



SECTION A-A

NOTE: The excavation for curbs will not be measured and paid for as a separate item. The entire cost for same is to be included in the unit price bid for Class "A" Concrete.

Drains and Bituminous surfacing at ends of Bridge to be furnished and placed by the Roadway Contractor.

APPROACH CURBS

FED. ROAD DIST. NO.	STATE	SHEET NO.
3	N.C.	8.11028

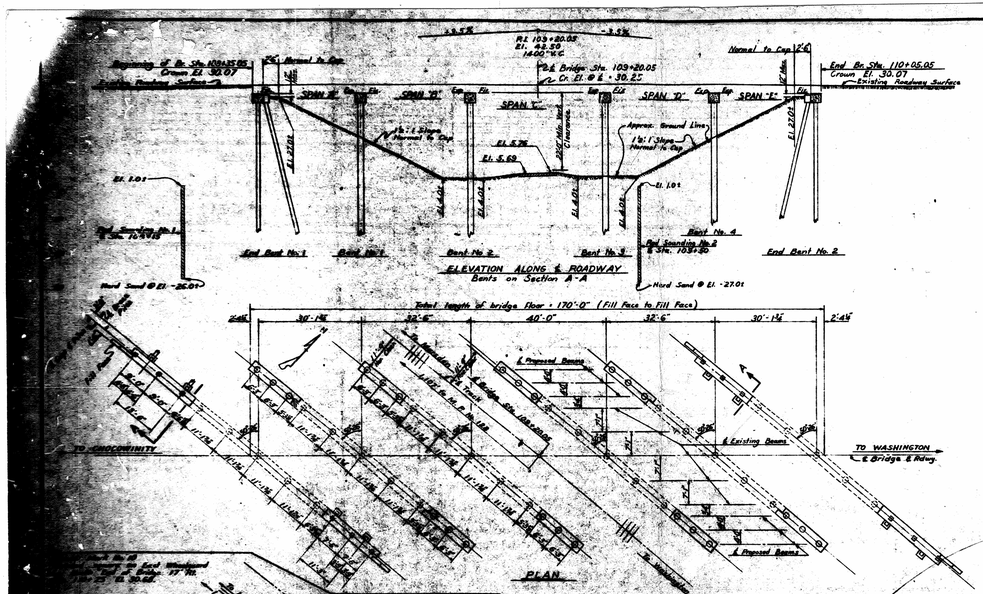
F.A. Proj. F-15-4(2)

32

PROJECT NO. 8.11028
BEAUFORT COUNTY
STATION: 109+20.05

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH
STANDARD
APPROACH CURBS
AND
NAME PLATES
SEPT. 1960

REVISIONS	DATE



NOTES:

Assumed Live Load = H20-S16-44

For other design data and general note see sheet S-N.

No test piles are required. Order length shall be 35 Ft for End Bent No. 1, 45 Ft. for Bent No. 1, 30 Ft. for Bent No. 2 and No. 3, 45 Ft. for Bent No. 4, and 35 Ft. for End Bent No. 2.

Piles for End Bent No. 1 and End Bent No. 2 to be driven to a minimum bearing capacity of 25 tons each. Piles for Bent No. 1, No. 2, No. 3 and No. 4 to be driven to a minimum bearing capacity of 27 tons each.

The contractor will be required to excavate completely through the fill at End Bent No. 1, Bent No. 1, Bent No. 4, and End Bent No. 2 before driving piles. See sheet-S-K.

Traffic to be maintained, see Special Provisions.

Rod Soundings taken from original survey made in 1948.

I-Beam lengths are subject to change to fit actual grade lengths. Span lengths to be checked by the Engineer as early as is practical in order to determine whether I-beam lengths as shown on plans are correct.

Removal of Existing Structure At Station 104+96

Remove existing R.C. D.E. bridge now abandoned 23 end containing 47 Spans (2@ 32'-0" & 21@ 29'-0") 32' roadway on precast concrete pile bents. Remove superstructure completely, substructure down to 2' below subgrade or natural ground in accordance with the Specifications and the Special Provisions.

Proposed 1½" wearing surface to be placed by Roadway Contractor.

Bridge No. 17-15-10

PROJECT NO. B-1822
BEAUFORT COUNTY
STATION: 103+20.05

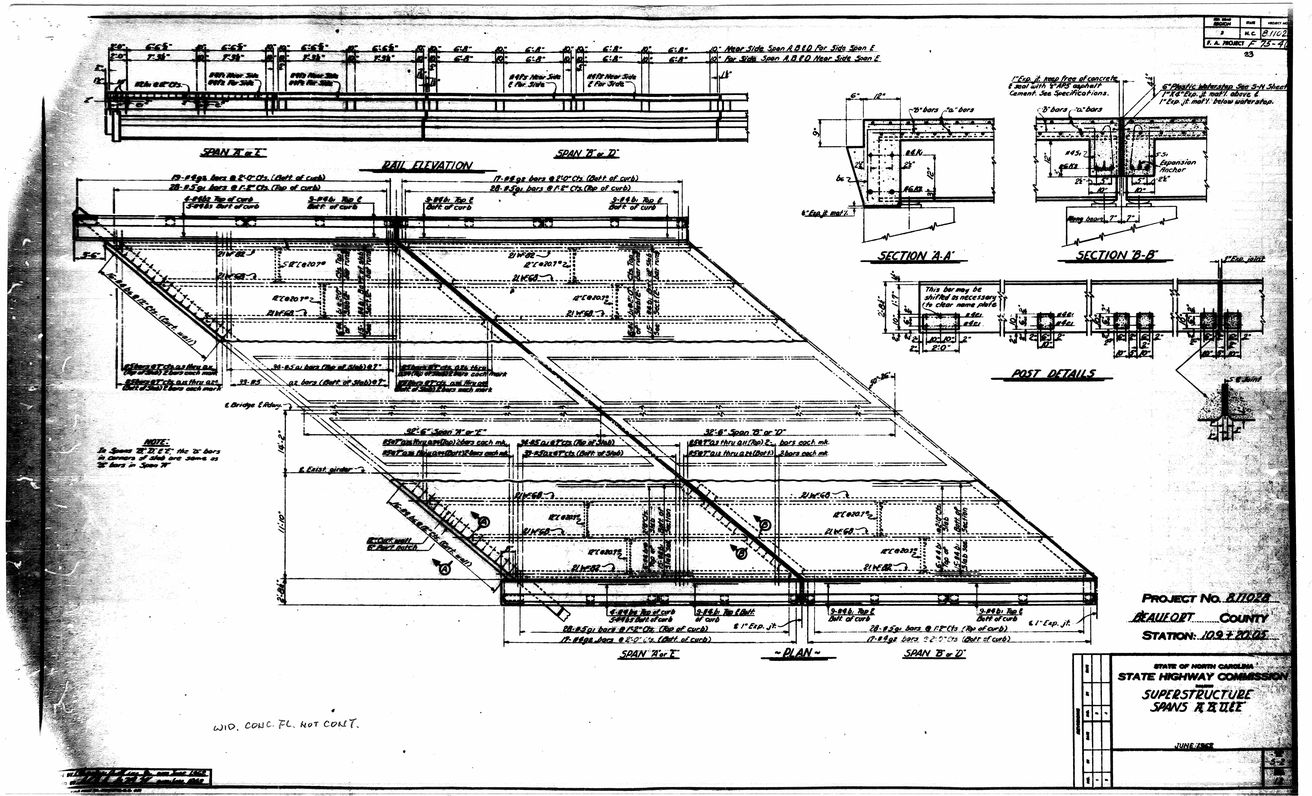
TOTAL BILL OF MATERIAL

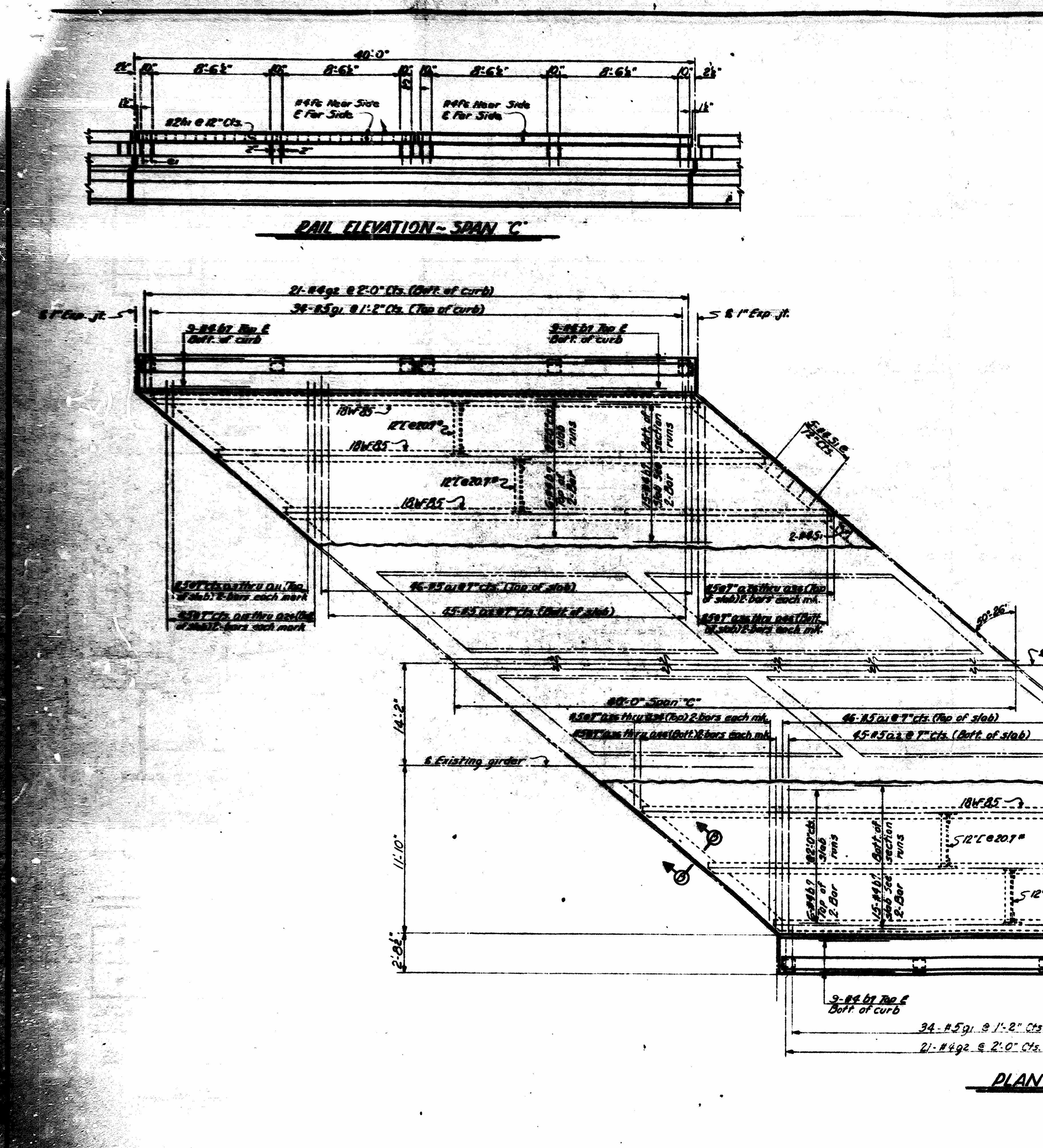
	Class 'A' Concrete Cu. Yds.	Paint Steel Lbs.	Structural Steel Approx. Lbs.	12" Sq. Prest. Conc. Piles No.	Lin. Ft.	20" Rnd Prest. Conc. Piles No.	Lin. Ft.	Removal of Bridge Sta. 104+96 Each, Lump Sum
Superstructure	144.0	26,758	83,700					L.S.
End Bent No. 1	15.5	3,070		10	350			
Bent No. 1	9.2	1,619				6	270	
Bent No. 2	9.3	1,619				6	300	
Bent No. 3	9.3	1,619				6	300	
Bent No. 4	9.2	1,619				6	270	
End Bent No. 2	15.5	3,070		10	350			
Approach Slabs	9.8							
Totals	216.4	39,420	83,700	20	700	24	1140	L.S.

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
GENERAL DRAWING
FOR BRIDGE OVER
NORFOLK SOUTHERN R.R.
ON U.S. 17 BETWEEN
CHOCOWINITY AND WASHINGTON
Plans 1956

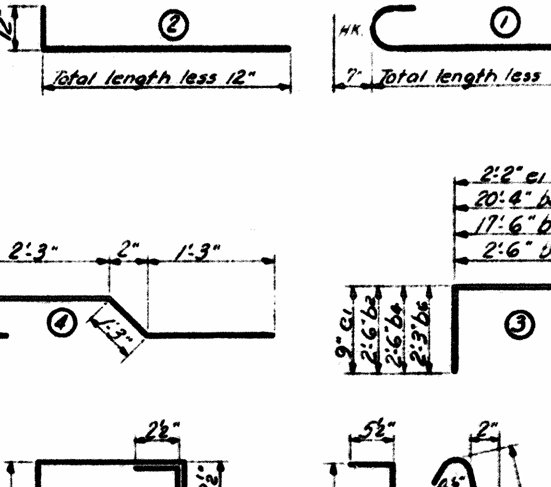
9	N.C.	2117	
F.A. PROJECT	F 73-4		
	S.C.		

S-1
S-2


RAIL ELEVATION
SPAN "A" or "C"
SPAN "B" or "D"
SECTION "A-A"
SECTION "B-B"
POST DETAILS
~PLAN~
NOTE:
PROJECT NO. B-1102A
BEAUFORT COUNTY
STATION: 109+87.05
STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
SUPERSTRUCTURE
SPANS "A" & "C"
JUNE 1962
W/D. CONC. FL. NOT CONT.



BAR BENDING DETAILS



Note: All dimensions are out to out.

TOTAL BILL OF MATERIAL FOR SPANS "A" "B" "C" "D" & "E"

FED. ROAD REGION	STATE
3	N. C. 8
F. A. PROJECT F 75-4	

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
a1	364	#5	1	12'-2"	4,619	f1	8	#4	Str.	16'-9"	90
a2	354	#5	2	12'-5"	4,585	f2	8	#4	Str.	18'-2"	97
a3	20	#5	1	11'-3"	235	f3	8	#4	Str.	15'-7"	83
a4	20	#5	1	10'-3"	214	f4	8	#4	Str.	17'-0"	91
a5	20	#5	1	9'-4"	195	f5	32	#4	Str.	15'-10"	338
a6	20	#5	1	8'-4"	174	f6	16	#4	Str.	19'-7"	209
a7	20	#5	1	7'-5"	155						
a8	20	#5	1	6'-5"	134						
a9	20	#5	1	5'-6"	115	g1	292	#5	4	5'-4"	1,624
a10	20	#5	1	4'-6"	94	g2	182	#4	Str.	2'-4"	284
a11	20	#5	1	3'-6"	73						
a15	20	#5	2	11'-9"	245						
a16	20	#5	2	10'-9"	224	h1	348	#2	5	2'-7"	150
a17	20	#5	2	9'-10"	205						
a18	20	#5	2	8'-10	184						
a19	20	#5	2	7'-11"	165						
a20	20	#5	2	6'-11"	144	k1	8	#4	Str.	20'-11"	112
a21	20	#5	2	5'-11"	123	k2	8	#6	Str.	20'-11"	251
a22	20	#5	2	5'-0"	104	k3	32	#6	Str.	15'-11"	765
a23	20	#5	2	4'-0"	83						
a24	20	#5	2	3'-1"	64						
a26	20	#5	Str.	9'-9"	203	s1	192	#4	6	3'-9"	481
a27	20	#5	Str.	8'-10"	184						
a28	20	#5	Str.	7'-10"	163						
a29	20	#5	Str.	6'-11"	144						
a30	20	#5	Str.	5'-11"	123						
a31	20	#5	Str.	5'-0"	104						
a32	20	#5	Str.	4'-0"	83						
a33	20	#5	Str.	3'-1"	64						
a34	20	#5	Str.	2'-1"	43						
a36	20	#5	Str.	9'-10"	205						
a37	20	#5	Str.	8'-11"	186						
a38	20	#5	Str.	7'-11"	165						
a39	20	#5	Str.	7'-0"	146						
a40	20	#5	Str.	6'-0"	125						
a41	20	#5	Str.	5'-1"	106						
a42	20	#5	Str.	4'-1"	85						
a43	20	#5	Str.	3'-1"	64						
a44	20	#5	Str.	2'-2"	45						
b1	444	#4	Str.	16'-10"	4,993						
b2	8	#4	3	22'-10"	122						
b3	10	#4	Str.	20'-4"	136						
b4	8	#4	3	20'-0"	107						
b5	10	#4	Str.	17'-6"	117						
b6	64	#4	3	4'-9"	203						
b7	120	#4	Str.	20'-7"	1,650						
						Reinforcing Steel Lbs.					26,738
						Structural Steel Approx. Lbs.					83,700
c1	248	#4	3	2'-11"	483	Class "A" Conc. Cu. Yds.					144.0

PROJECT NO. 8.11028

BEAUFORT COUNTY

STATION: 109+20.05

STATE OF NORTH CAROLINA

STATE HIGHWAY COMMISSION

RALEIGH

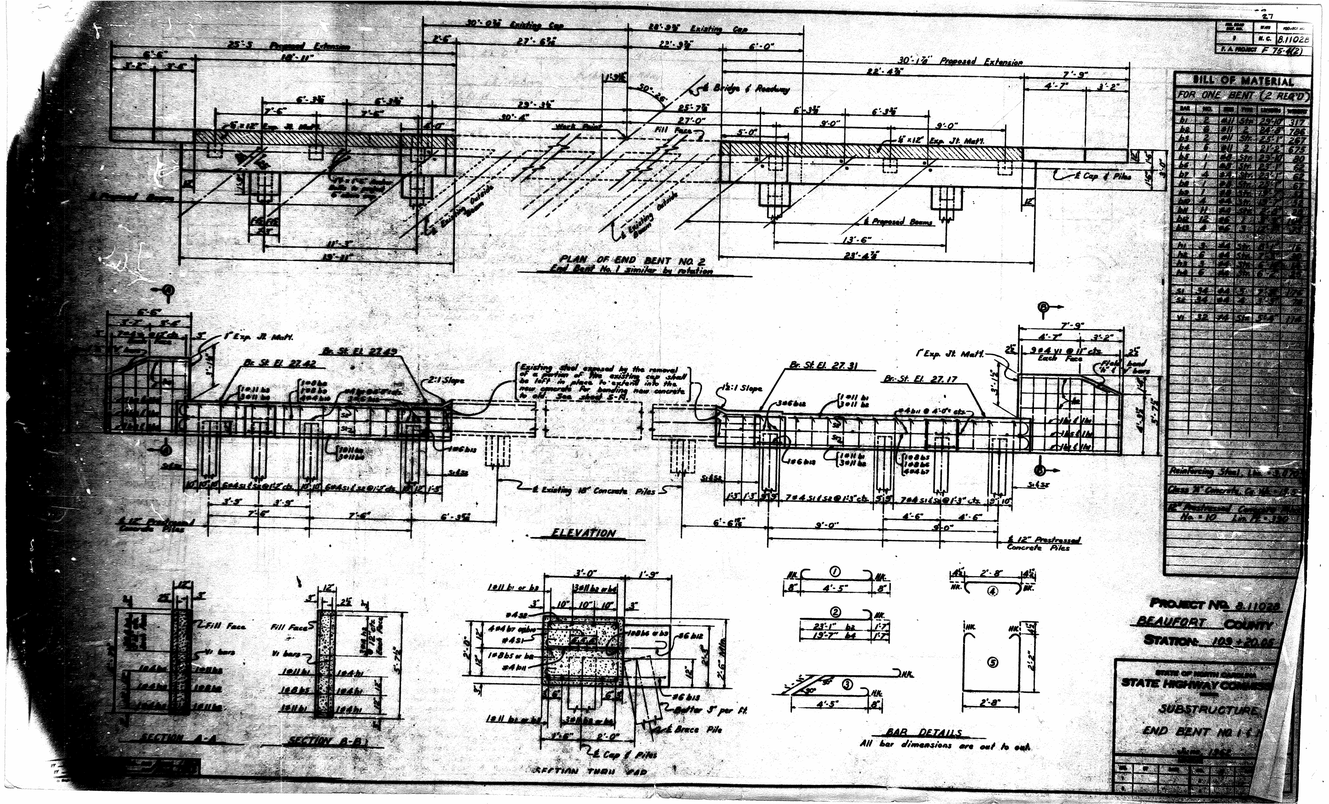
SUPERSTRUCTURE

SPAN "C"

JUNE 1962

S-3

12


PLAN OF END BENT NO. 2
End Bent No. 1 similar by rotation
ELEVATION
SECTION A-A
SECTION B-B
BAR DETAILS
All bar dimensions are out to out.
BILL OF MATERIAL
FOR ONE BENT (2 REQ'D)
PROJECT NO. B-11022
BEAUFORT COUNTY
STATION 109+20.65
STATE HIGHWAY COMMISSION
SUBSTRUCTURE
END BENT NO 1 & 2