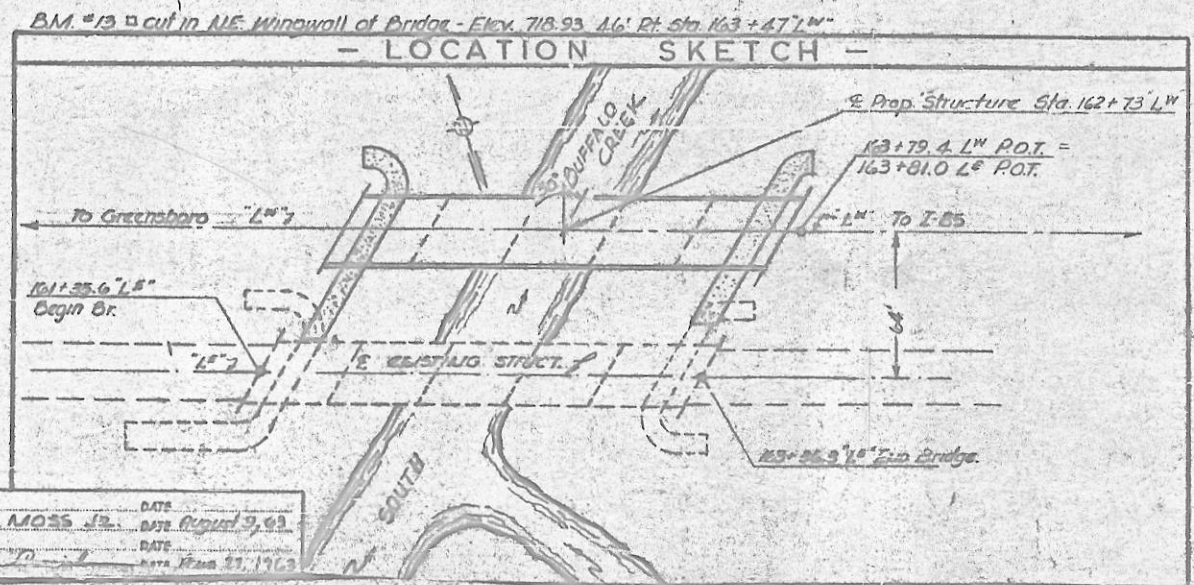


**NOTES**

- ASSUMED LIVE LOAD:** H-20 5-16 (W) OR ALTERNATE LOADING
- FOR OTHER DESIGN DATA AND GENERAL NOTE:** SEE SHEET 3-N.
- COMPUTED FOUNDATION LOAD:** COMPUTED FOUNDATION LOAD FOR BENT NO. 2 & BENT NO. 3 EQUALS 32 TONS
- FOOTINGS INTO ROCK:** FOOTINGS TO BE CARRIED AT LEAST 6" INTO EDGE WITH MINIMUM THICKNESS AS SHOWN ON PLANS.
- TEST PILES:** NO TEST PILES ARE REQUIRED. CAPACITY LENGTHS SHALL BE 27' FOR END BENT NO. 1, BENT NO. 3 & END BENT NO. 2.
- PILE CAPACITIES:** PILES FOR END BENT NO. 1 & END BENT NO. 2 SHALL BE DRIVEN TO MINIMUM BEARING CAPACITY OF 29 TONS EACH, FOR BENT NO. 3 AND BENT NO. 4 30 TONS EACH.
- PILES THROUGH FILL:** PILES FOR END BENT NO. 1 & END BENT NO. 2 TO BE DRIVEN THROUGH THE ROADWAY FILL.
- EXCAVATION:** THE MATERIAL SHOWN IN CROSSHATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 25.0' EACH SIDE OF C BRIDGE 14" AS DIRECTED BY THE ENGINEER. THIS WORK TO BE MEASURED AND PAID FOR AS UNCLASSIFIED EXCAVATION STRUCTURES.
- TRAFFIC:** TRAFFIC TO BE MAINTAINED OVER EXISTING STRUCTURE.

I hereby certify that this structure was built according to plans, with changes made as noted -  
 Signed: R. P. H. ... dated 1/16/68  
 Resident Engineer

#121



**- TOTAL BILL OF MATERIAL -**

	CLASS "A" CONC.	REINFORCING STEEL	STRUCTURAL STEEL	12" PRESTR. CONC. PILES	RIP RAP CONC.	EXCAVATION CU. YDS.	UNCLASSIFIED EXCAVATION STRUCTURES	12" PRESTR. CONC. PILES 5' OUTSIDE 11" DIA.	12" Prestr. Conc. Piles Cut-off
	CU. YDS.	LBS.	APPROX. LB.	NO. LIFTS.	SQ. YDS.	WET. DRY.	CU. YDS.		
<b>SUPERSTRUCTURE</b>	211.2	52111	28600						
END BENT NO. 1	12.6	7284		8	270.0	231.74	197.5	63.0	8
BENT NO. 2	7.1	1431		6	221.6		200	60.6	6
BENT NO. 3	20.5	3071		6	211.6		210.0		6
BENT NO. 4	7.1	1431		6	211.6		210.0		6
END BENT NO. 2	12.6	7284		8	270.0	207.0		63.0	8
APPROACH CURBS	5.2	76							
<b>TOTALS</b>	272.3	70,959	28,600	38	1,192.8	438.74	407.5	113.6	28

**PROJECT No. 9-15333**  
**GUILFORD COUNTY**  
**STATION: 162+73.14'**

**STATE OF NORTH CAROLINA**  
**STATE HIGHWAY COMMISSION**  
**GENERAL DRAWING**  
 BRIDGE OVER SOUTH BUFFALO CREEK  
 MOODY ROAD BETWEEN S.E. GREENSBORO AND I-85.  
 April 1968

DESIGNED BY C.D. MOSS JR. DATE April 2, 68  
 DRAWN BY DATE April 9, 68  
 TRACED BY DATE March 27, 1968

**NOTES**

ASSIGNED LIVE LOAD = H20-S16 (44) OR ALTERNATE LOADS

CONCRETE IN COMPRESSION - 4000 LBS PER SQ IN  
 REINFORCING STEEL IN TENSION - 60000 LBS PER SQ IN  
 STRESS IN EXTREME FIBER - 4000 LBS PER SQ IN  
 STRUCTURAL STEEL - 50,000 LBS PER SQ IN

FOR OTHER DESIGN DATA AND GENERAL NOTES SEE SHEET S-N

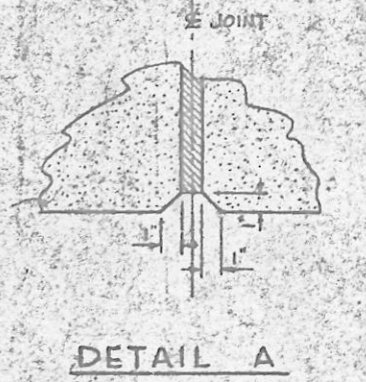
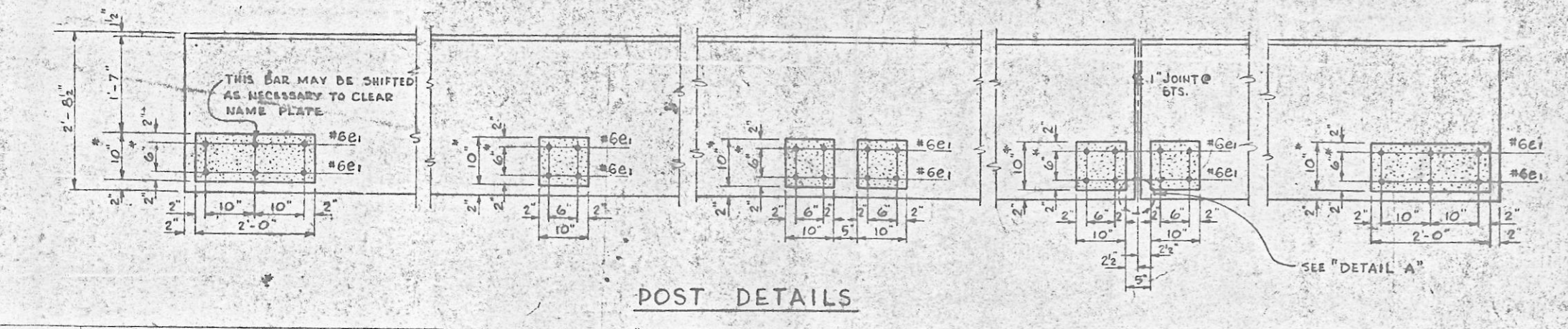
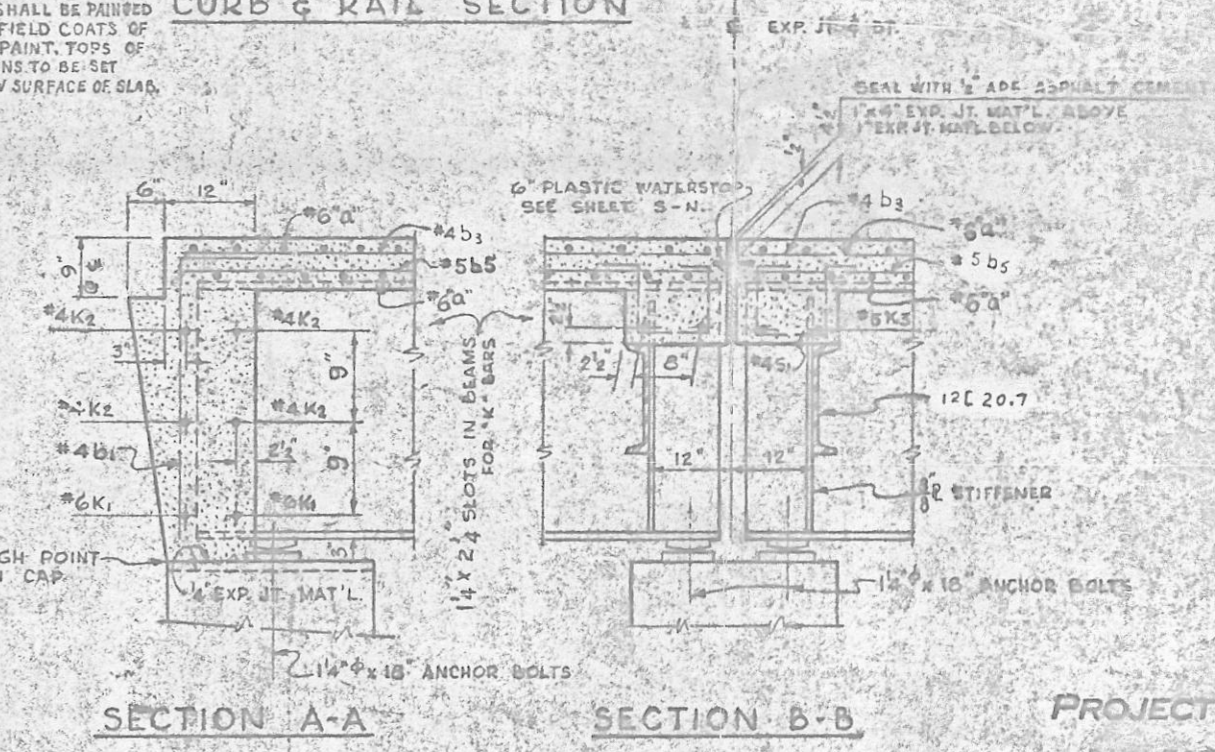
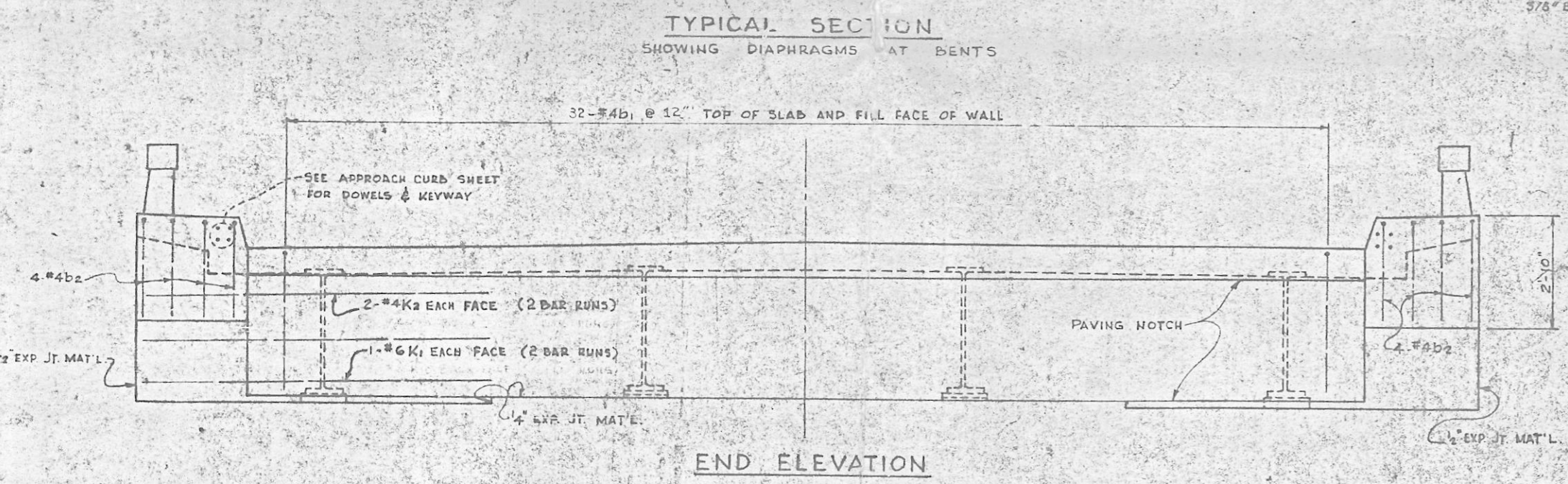
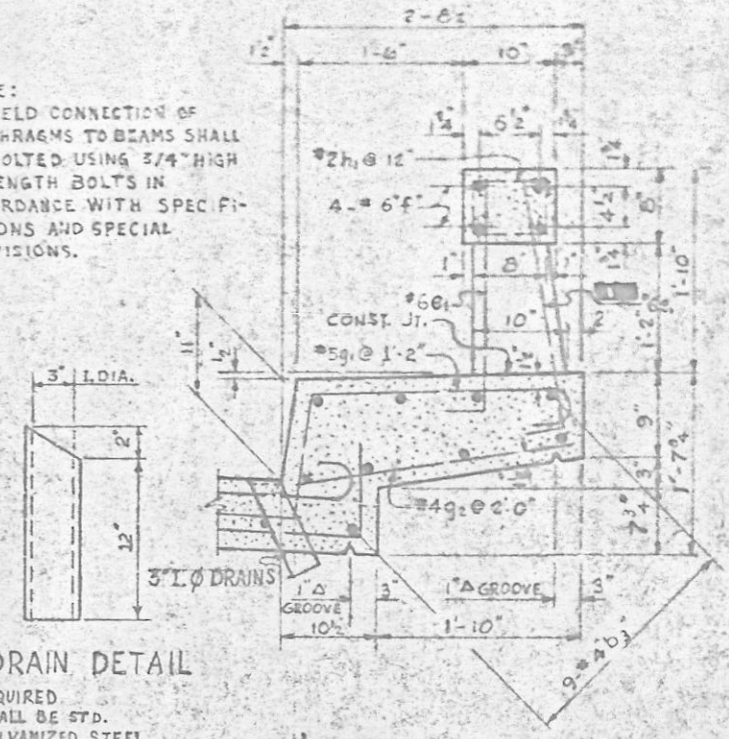
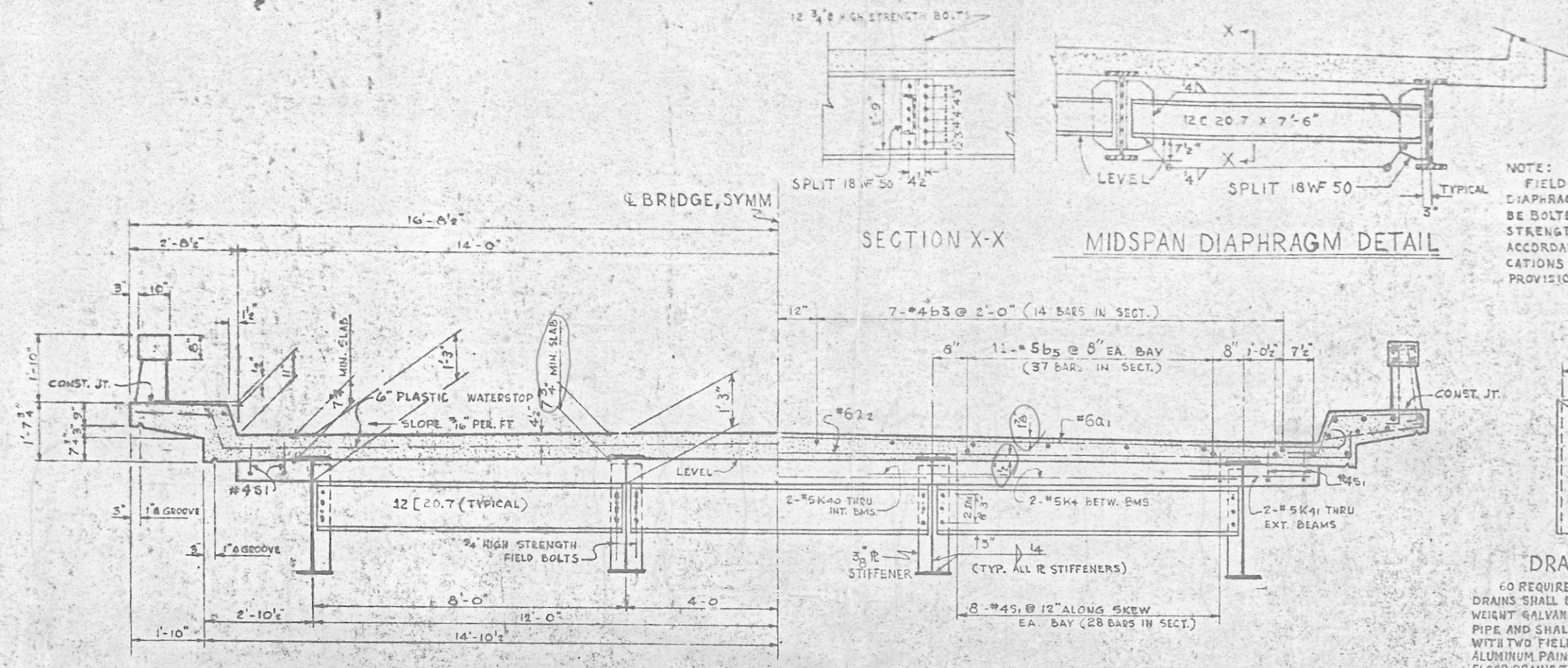
FOR BARS INDICATED AND NO BAR MARK SHOWN SEE CONCRETE PLAN FOR THE DIFFERENT BAYS

EXPANSION JOINTS TO BE JOINT FREE OF CONCRETE AND SEALED WITH A 1/2" ASPHALT CEMENT

ALL BEAMS AND COVER PLATES SHALL BE ASTM A-36 GRADE STRUCTURAL STEEL SEE SHEET S-N

NOTE: FIELD CONNECTION OF DIAPHRAGMS TO BEAMS SHALL BE BOLTED USING 3/4" HIGH STRENGTH BOLTS IN ACCORDANCE WITH SPECIFICATIONS AND SPECIAL PROVISIONS.

60 REQUIRED DRAINS SHALL BE STD. WEIGHT GALVANIZED STEEL PIPE AND SHALL BE PAINTED WITH TWO FIELD COATS OF ALUMINUM PAINT. TOPS OF FLOOR DRAINS TO BE SET 3/8" BELOW SURFACE OF SLAB.

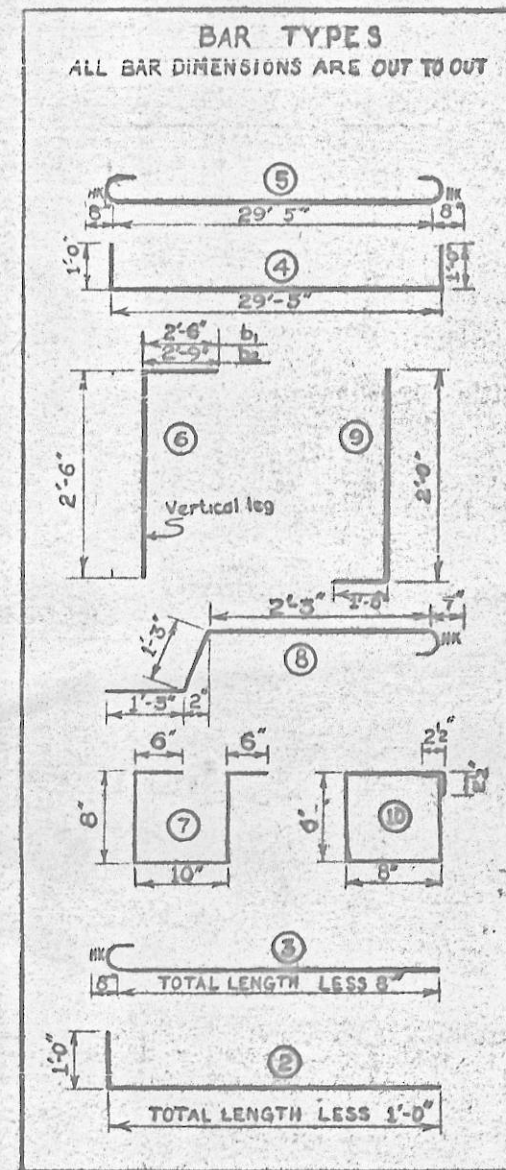
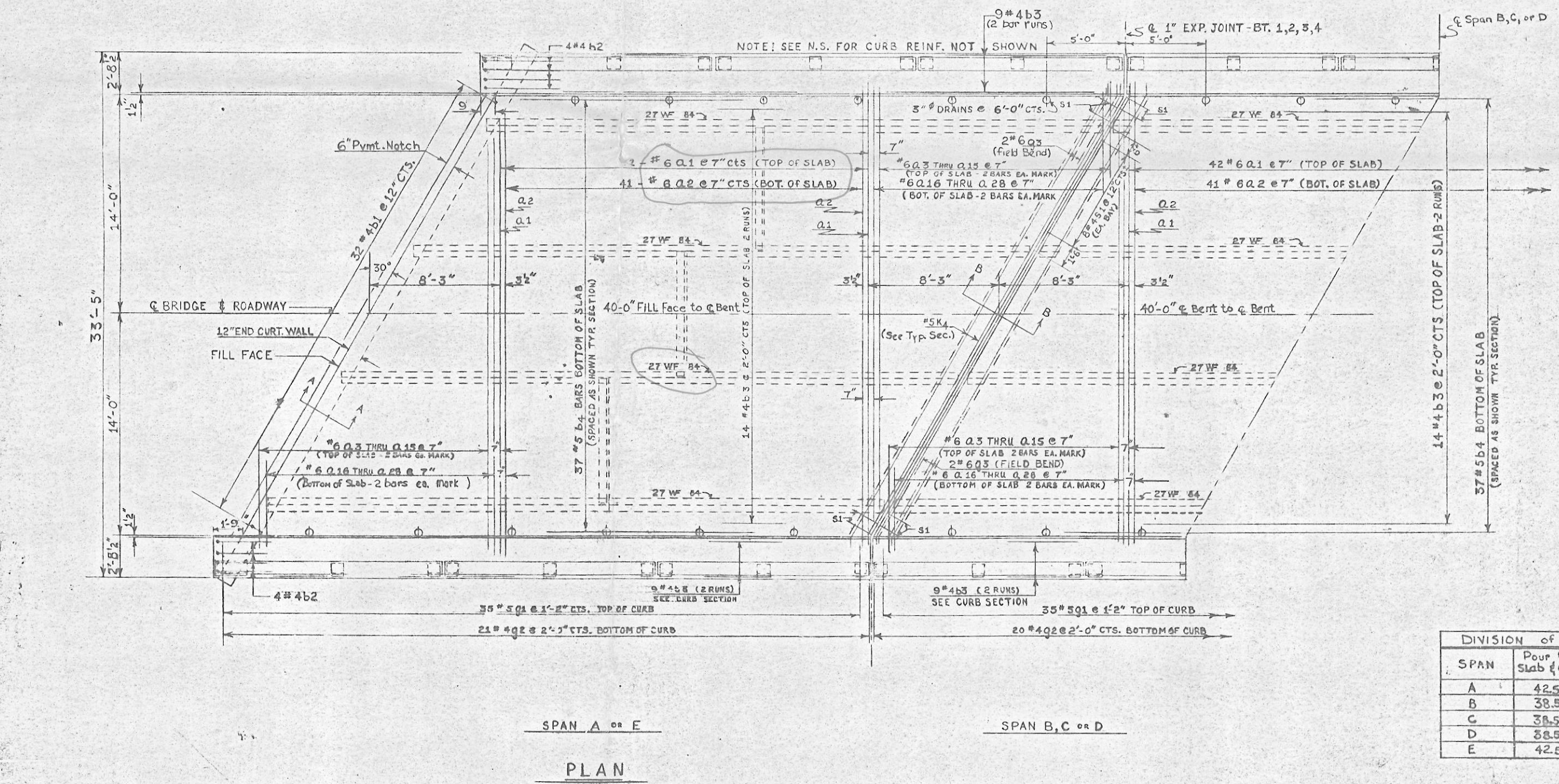
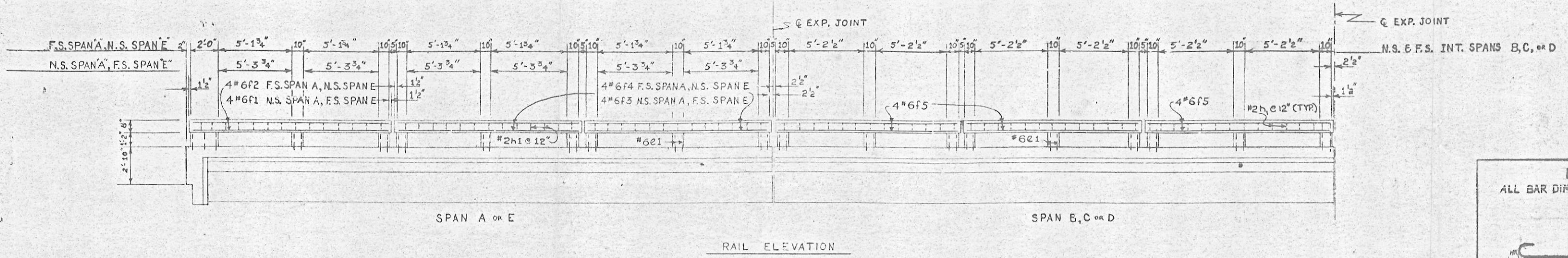


PROJECT NO. B1533  
 GUILFORD COUNTY  
 STATION: 162+73

STATE OF NORTH CAROLINA	
STATE HIGHWAY COMMISSION	
RALEIGH	
STANDARD TYPICAL SECTIONS	
28' ROADWAY - 18" CURBS - 30' SKEW	
4 STEEL BEAMS - H20-S16 (44) L.L.	
TAPEDED CONC. POST & RAIL	
MAY 1962	
REVISION	DATE
BY	
DATE	
BY	
DATE	
BY	
DATE	

SPECIAL STANDARD DRAWN BY RAY BARNES DATE JUNE 1962  
 CHECKED BY E.C. ALFORD, JR. DATE MAY 1962  
 CHECKED BY R.E. FRYER, II DATE JUNE 1962

\* At Bottom of Posts



BILL OF MATERIAL			
TOTAL FOR FIVE SPANS			
BAR	NO.	SIZE	TYPE
Q1	210	#6	5
Q2	205	#6	4
b1	64	#4	6
b2	16	#4	6
b3	520	#4	STR.
b4	185	#5	STR.
F1	8	#6	STR.
F2	8	#6	STR.
F3	16	#6	STR.
F4	16	#6	STR.
F5	72	#6	STR.
K1	8	#6	STR.
K2	16	#4	STR.
Q3	16	#6	STR.
K4	48	#5	STR.
K40	52	#5	STR.
K41	32	#5	STR.
Q4	568	#6	3
Q5	350	#5	8
Q6	204	#4	STR.
h1	400	#2	10
S1	224	#4	7
Q7	20	#6	3
Q8	20	#6	3
Q9	20	#6	3
Q10	20	#6	3
Q11	20	#6	3
Q12	20	#6	3
Q13	20	#6	3
Q14	20	#6	3
Q15	20	#6	3
Q16	20	#6	2
Q17	20	#6	2
Q18	20	#6	2
Q19	20	#6	2
Q20	20	#6	2
Q21	20	#6	2
Q22	20	#6	2
Q23	20	#6	2
Q24	20	#6	2
Q25	20	#6	2
Q26	20	#6	2
Q27	20	#6	2
Q28	20	#6	2

REINFORCING STEEL (ASTM A618)  
CLASS "A" CONCRETE (CYLINDRICAL)  
STRUCTURAL STEEL (APPROX. 150) @ 600

PROJECT No. 8.15555  
GUILFORD COUNTY  
STATION: 162 + 73

DIVISION OF CONCRETE		
SPAN	Pour # 1 Slab & Curb	Pour # 2 Rest of Rail
A	42.5	2.2
B	38.5	2.1
C	38.5	2.1
D	38.5	2.1
E	42.5	2.2

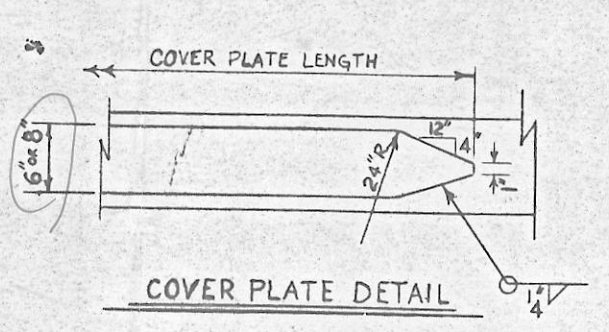
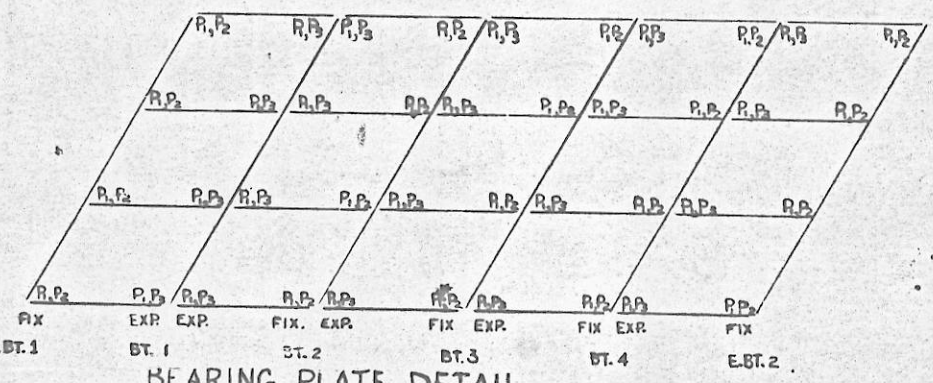
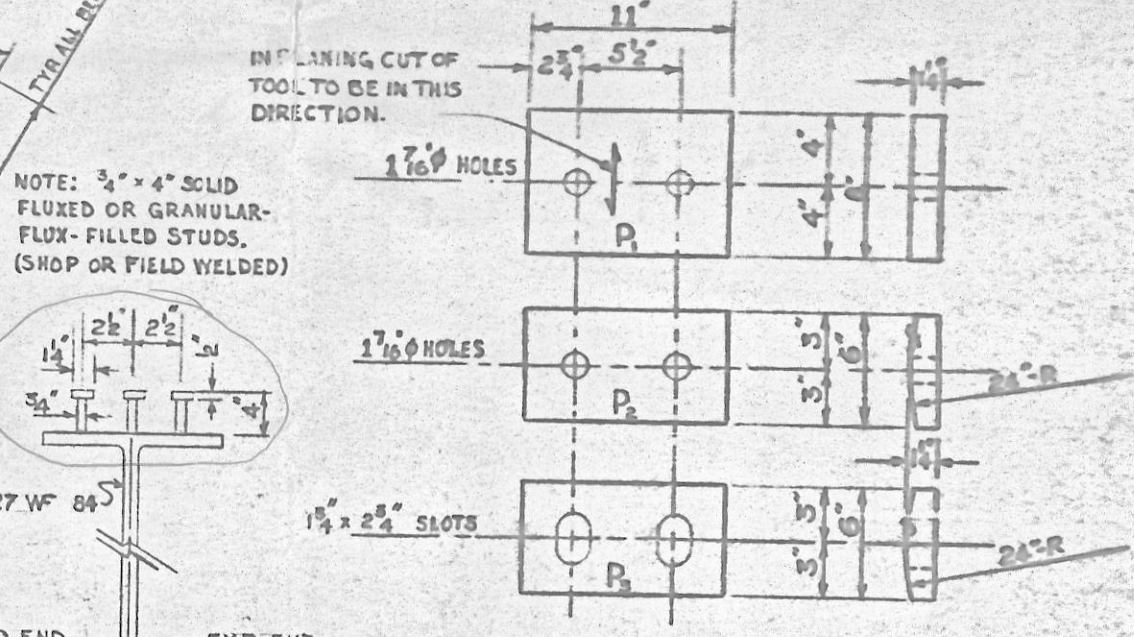
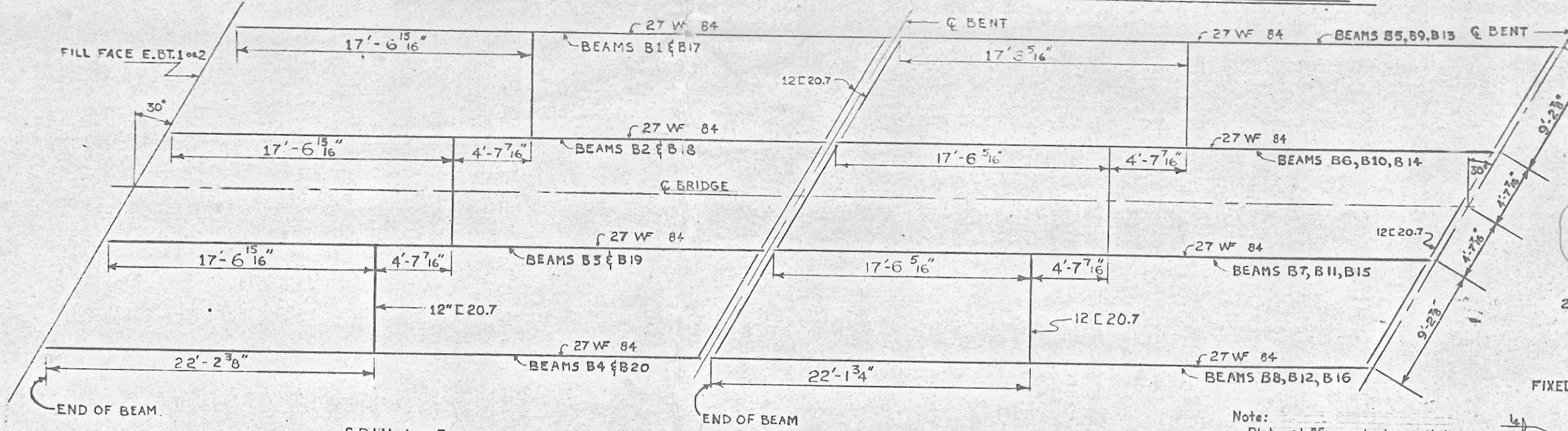
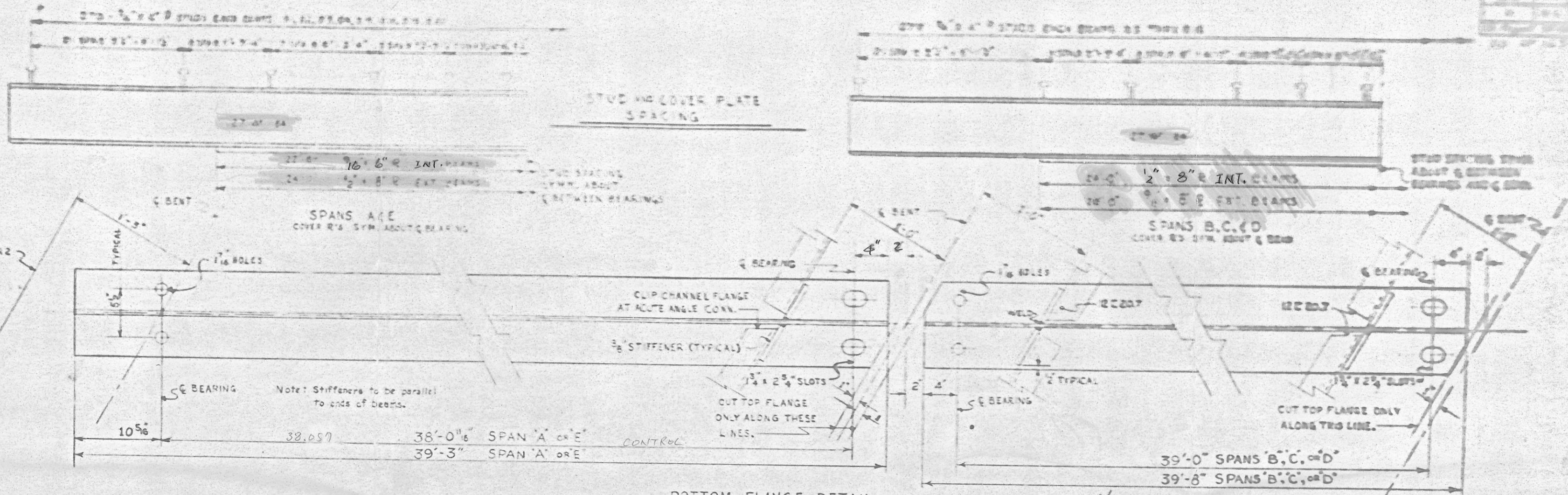
STATE OF NORTH CAROLINA  
STATE HIGHWAY COMMISSION  
RAILROAD

**SUPERSTRUCTURE**  
PLAN AND ELEVATION

June '63

DATE: \_\_\_\_\_  
BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
DESIGNED BY: \_\_\_\_\_

SPECIAL DESIGNED BY: RAY BARNES DATE: JUNE 26, '63  
DRAWN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
TRACED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



Note:  
Plate stiffeners to be omitted at end bents and on outside of exterior beams.

**DEAD LOAD DEFLECTION**

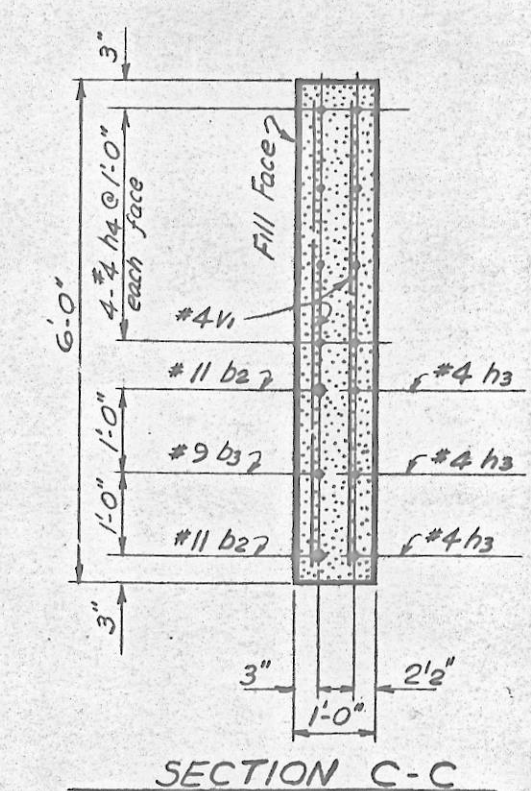
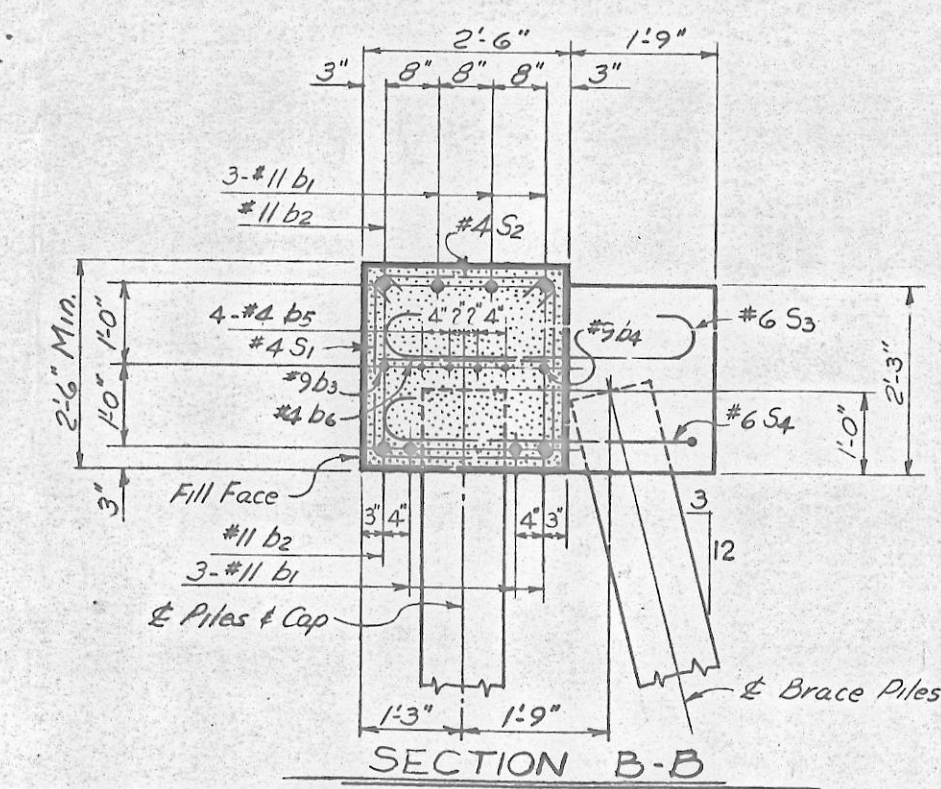
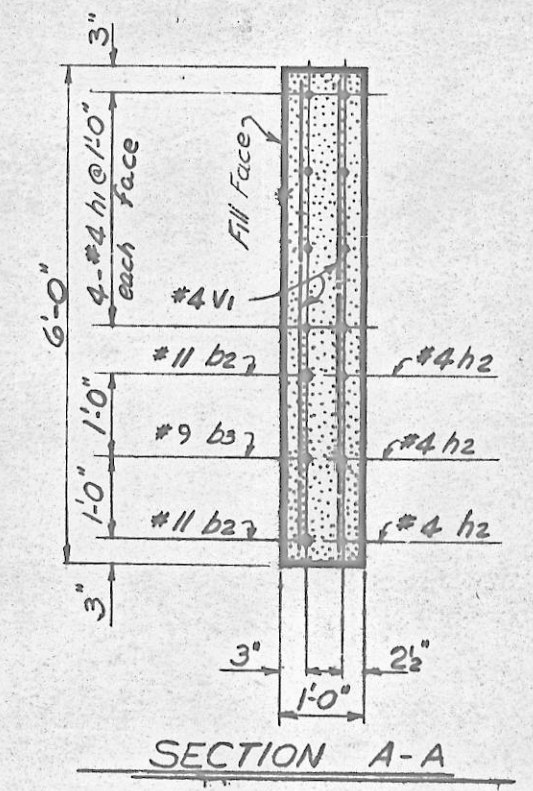
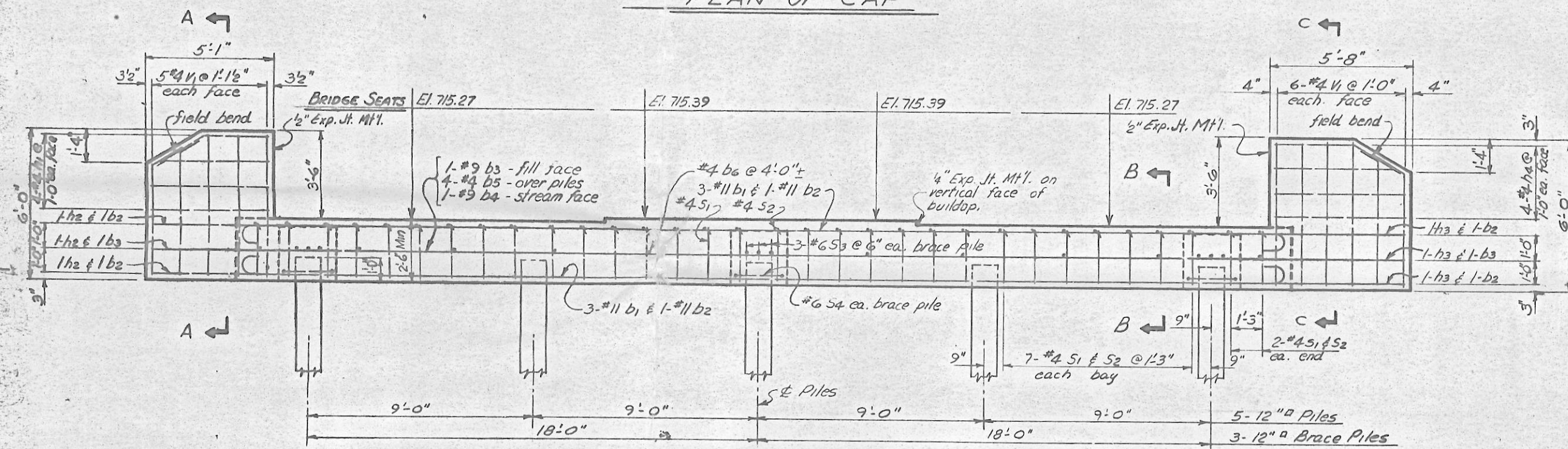
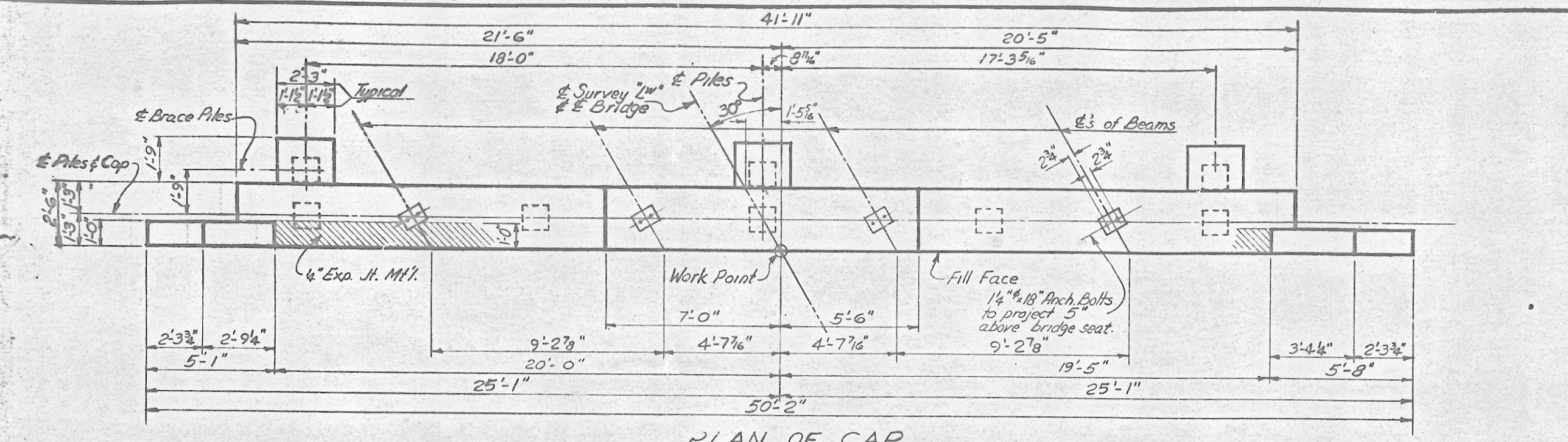
	SPAN A OR E		SPAN B, C, D	
	EXT. BMS.	INT. BMS.	EXT. BMS.	INT. BMS.
DEFLECTION DUE TO WEIGHT OF BEAM	1/16"	1/16"	1/16"	1/16"
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD	1/2"	5/8"	9/16"	7/16"
TOTAL DEAD LOAD DEFLECTION	9/16"	7/16"	5/8"	1/2"
CAMBER	0	0	0	0

NO CAMBER OTHER THAN NATURAL MILL CAMBER REQUIRED FOR ANY SPAN.

**BEARING PLATE DETAIL**  
PROJECT NO. B.15513  
GUILFORD COUNTY  
STATION: 162+73

DATE	BY	STATE OF NORTH CAROLINA	
		STATE HIGHWAY COMMISSION	
		STRUCTURAL STEEL	
		162+73	

DESIGNED BY RAY BARNES DATE JULY 1, 1965  
DRAWN BY DATE  
CHECKED BY George Daniels DATE Aug 27, 1965



**BAR DETAILS**  
 All bar dimensions are out to out

sides a, b, & c - horizontal  
 hooks - plumb

**BILL OF MATERIAL**  
 For 1 End Bent - Two Piles

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
b1	6	#11		44'-7"	1623
b2	2	#11	Str.	49'-8"	928
b3	1	#9	Str.	41'-5"	141
b4	1	#9	Str.	41'-5"	141
b5	8	#4	Str.	21'-4"	116
b6	10	#4	Str.	2'-2"	16
h1	8	#4	Str.	4'-9"	29
h2	3	#4	Str.	4'-10"	10
h3	3	#4	Str.	5'-11"	12
h4	8	#4	Str.	5'-6"	29
S1	32	#4		7'-5"	153
S2	32	#4		2'-11"	62
S3	9	#6		5'-3"	71
S4	3	#6		11'-1"	50
V1	22	#4	Str.	5'-8"	83

Reinforcing Steel - 2884-Lbs.  
 Class "A" Concrete - 12.6 Cu.Yds.  
 12" Pressed Concrete Piles  
 N<sup>o</sup> 8 - 216 Lm.Ft.

Piles shall be driven to a minimum bearing capacity of 29 tons each.  
 \* Pile heads have been deducted.

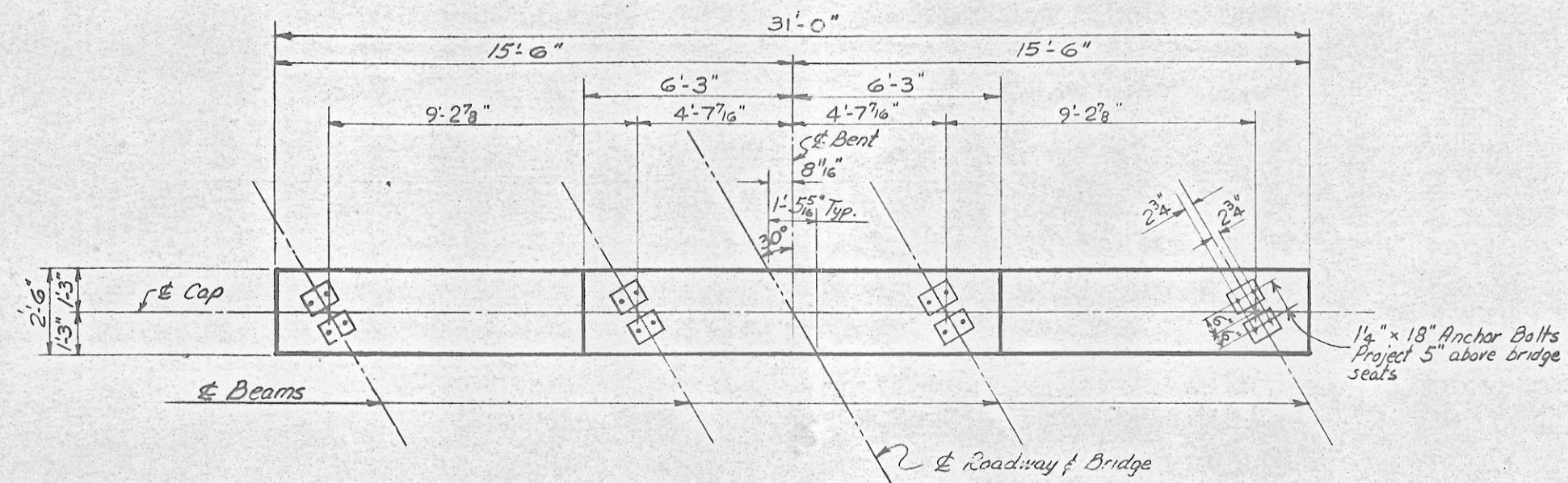
**PROJECT NO. 815333**  
**GUILFORD COUNTY**  
**STATION: 162+73-72**

STATE OF NORTH CAROLINA  
 STATE HIGHWAY COMMISSION  
 DIVISION

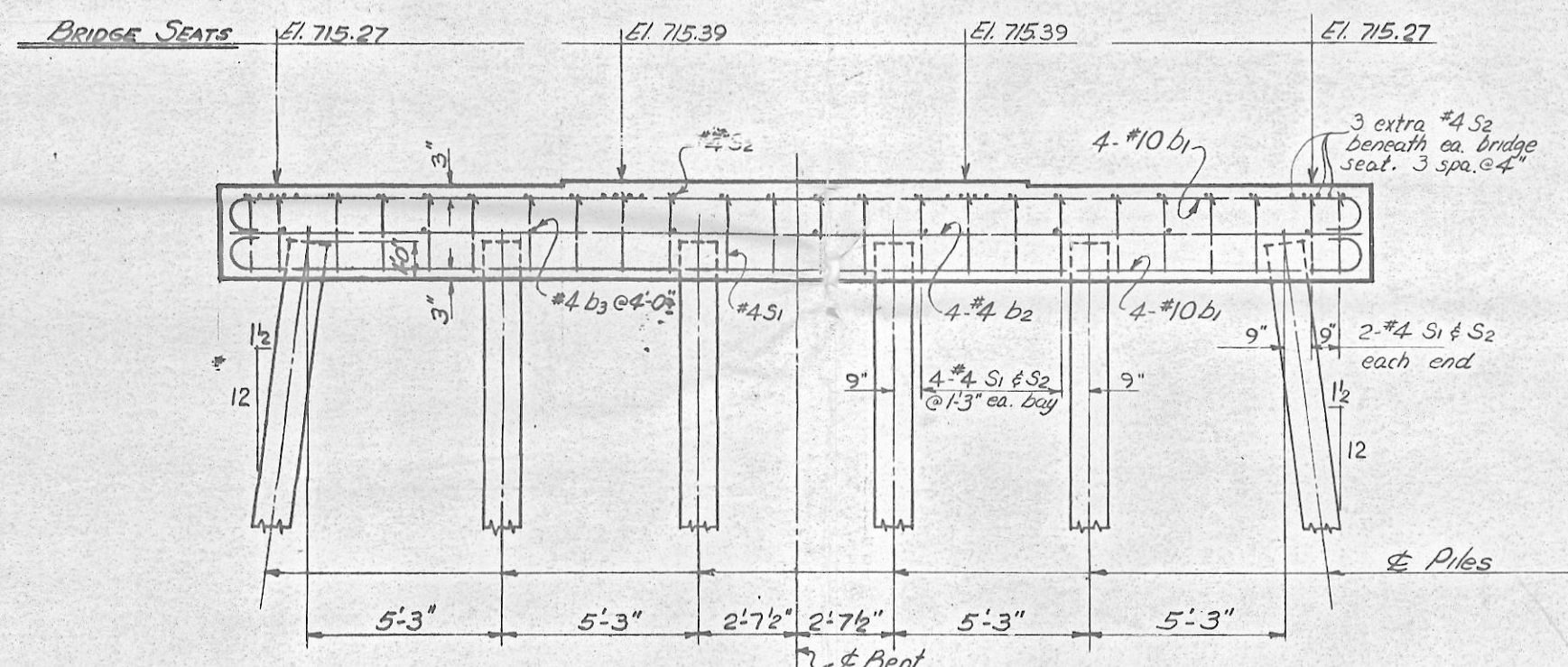
**SUBSTRUCTURE**  
**END BENT NO. 1 OR NO. 2**  
 July 1963

REVISIONS

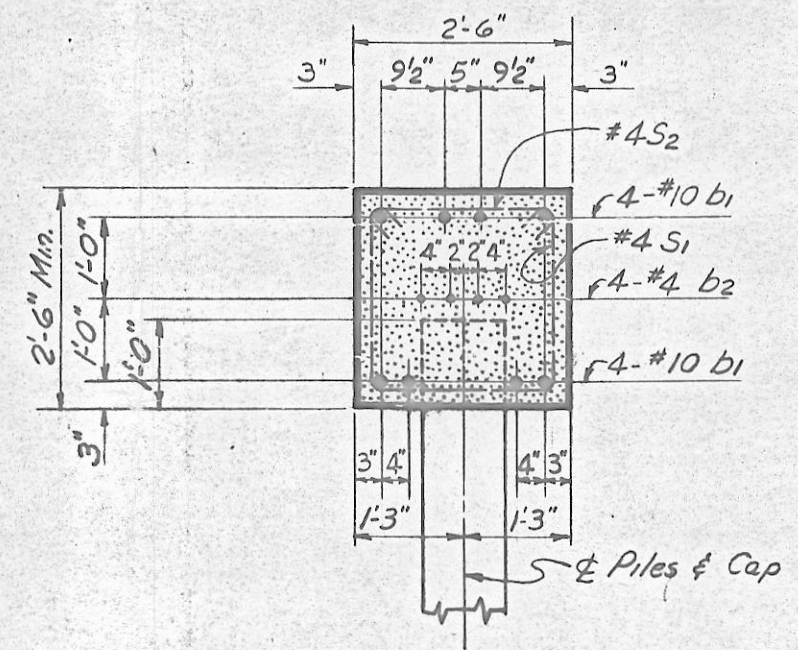
NO.	BY	DATE	NO.	BY	DATE
1			2		
2			3		



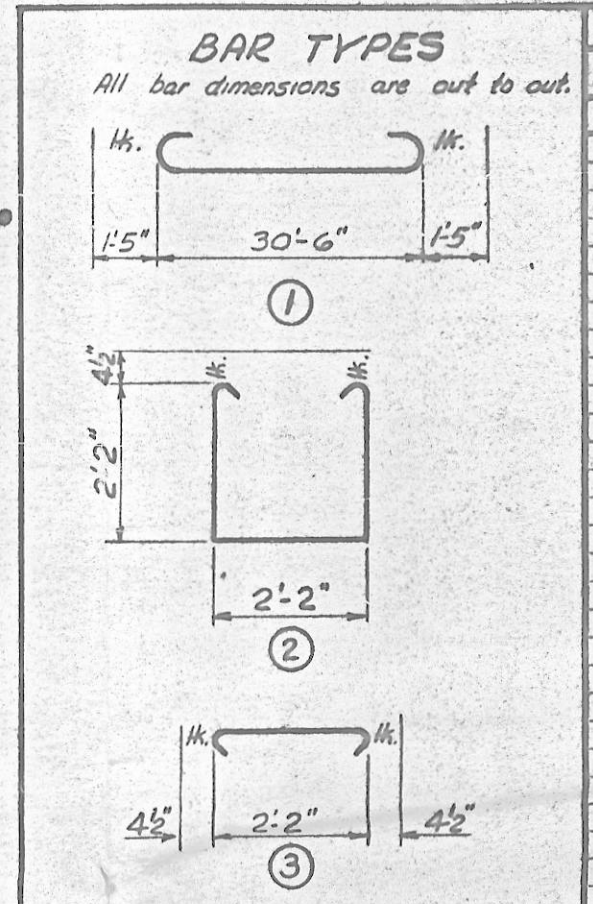
PLAN OF CAP



ELEVATION



SECTION THRU CAP



BAR TYPES

All bar dimensions are out to out.

BILL OF MATERIAL

FOR ONE BENT-TWO REQS.

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
b1	8	#10	1	33'-4"	1147
b2	8	#4 Str	15	11'-1"	85
b3	9	#4 Str	2	2'-2"	13
S1	24	#4	2	7'-3"	116
S2	36	#4	3	2'-11"	70

Reinforcing Steel - A51 U.S.  
 Class "A" Concrete - 7100 psi  
 12" Prestressed Concrete Pile  
 12" - 6"  
 Lin. Pile - 162

\* Pile heads have been checked

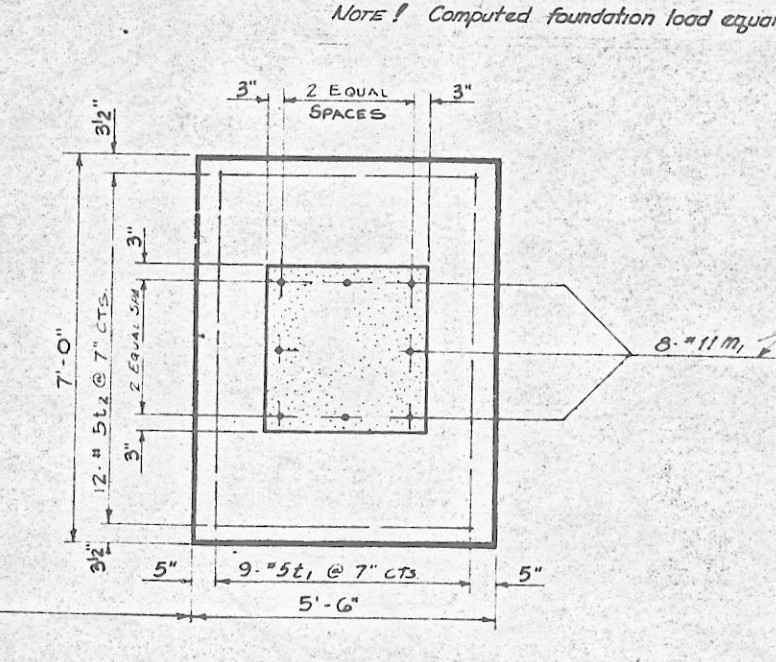
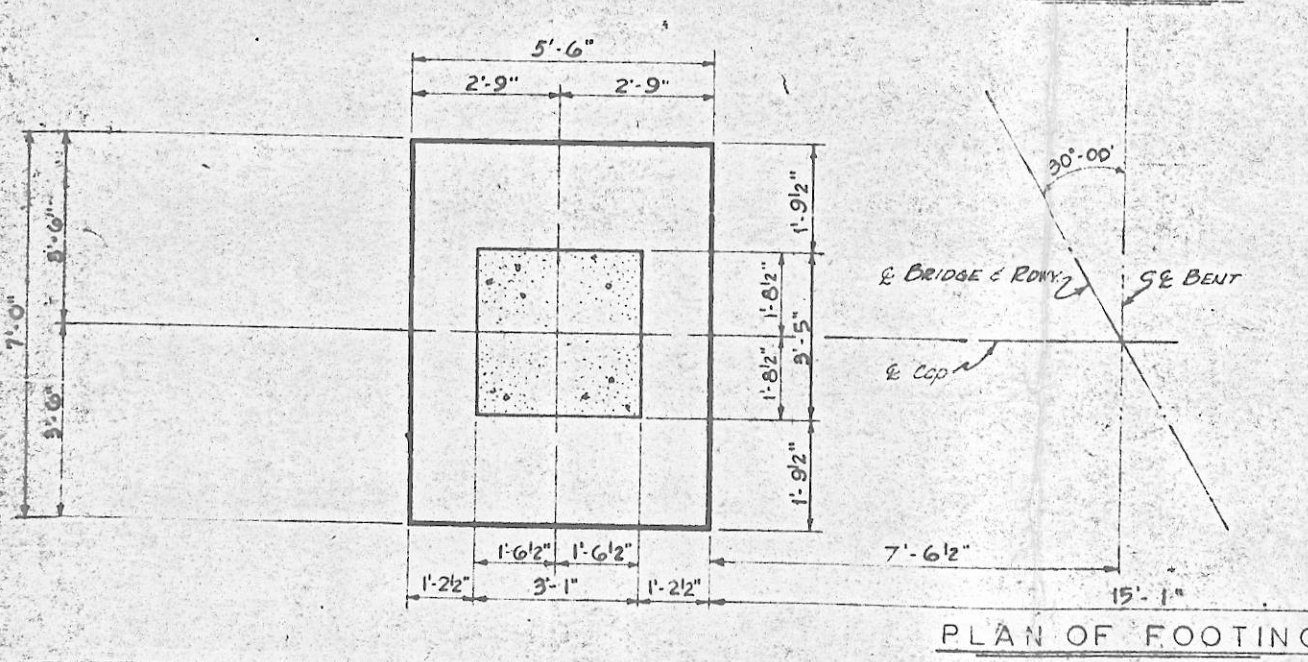
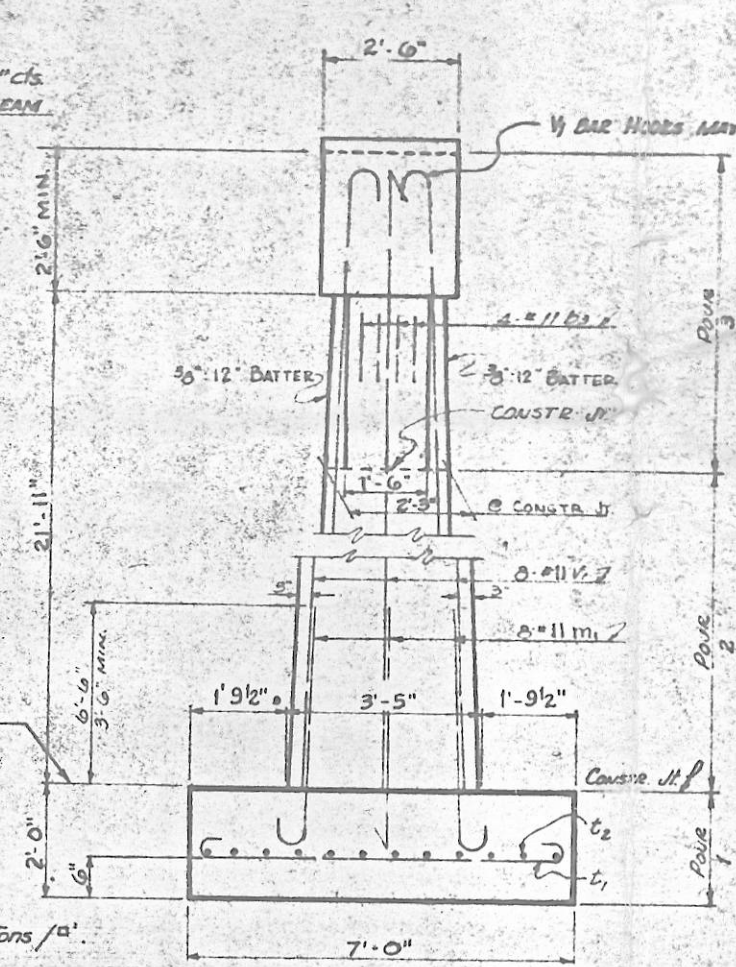
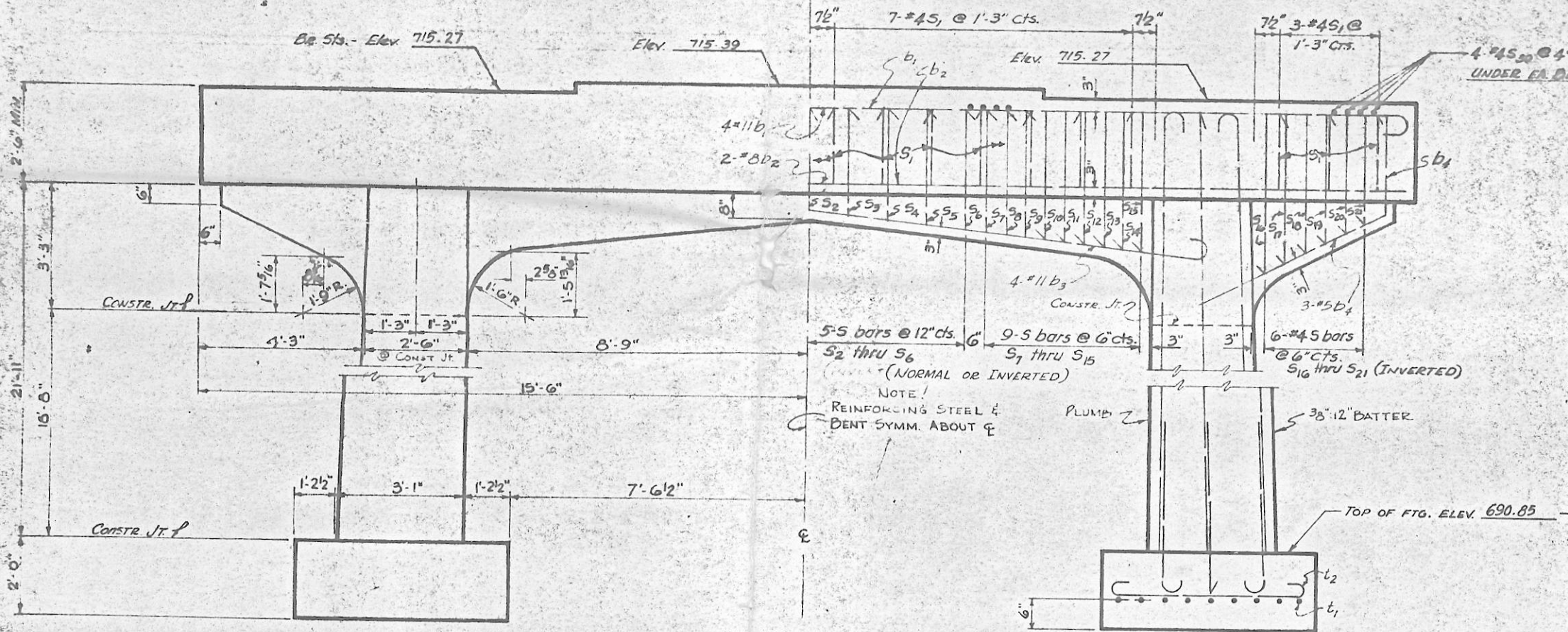
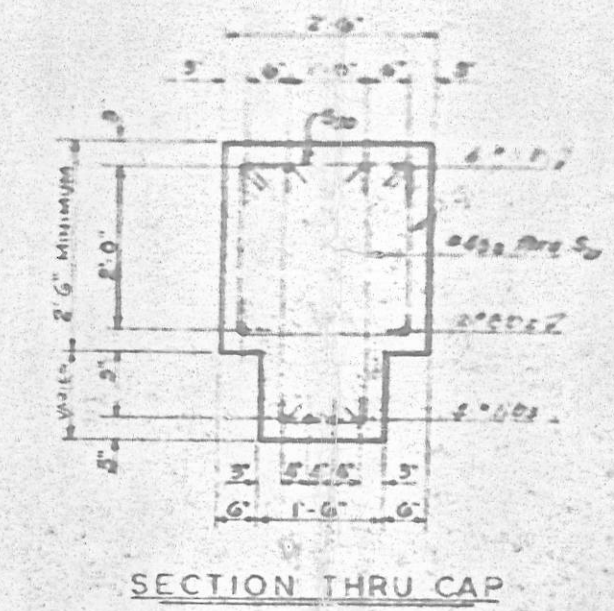
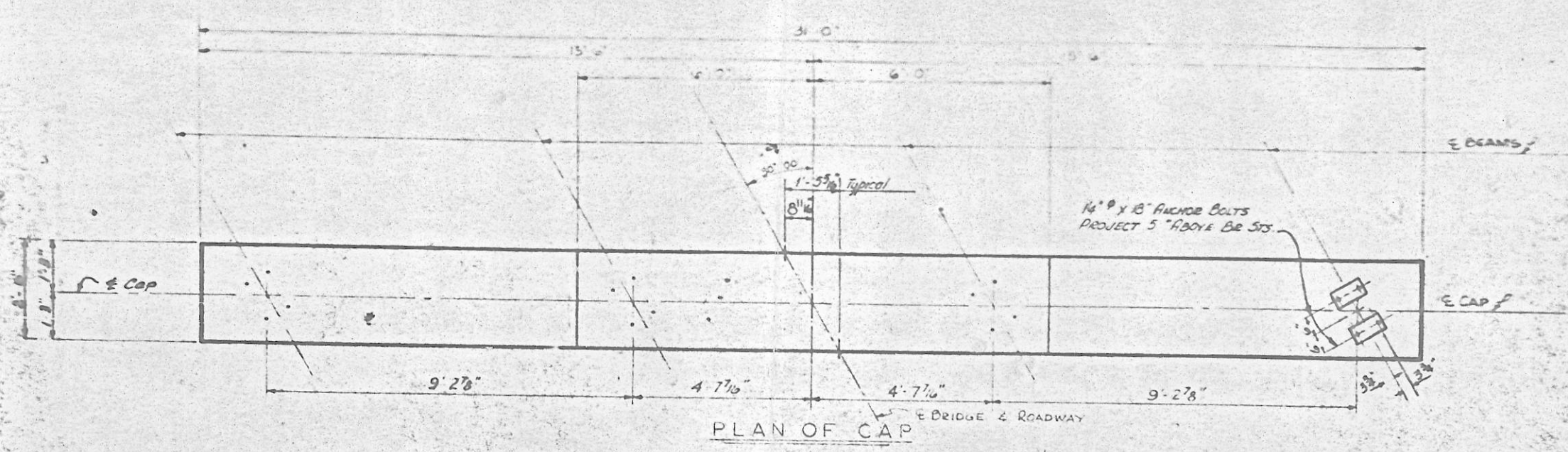
PROJECT NO. 815333  
 GUILFORD COUNTY  
 STATION: 162+73-2'

NOTE! Piles shall be driven to a minimum bearing capacity of 30 tons each.

STATE OF NORTH CAROLINA  
 STATE HIGHWAY COMMISSION  
 SUBSTRUCTURE  
 BENT NO. 1 OR NO. 4

JULY 1963

REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			1		
2			2		

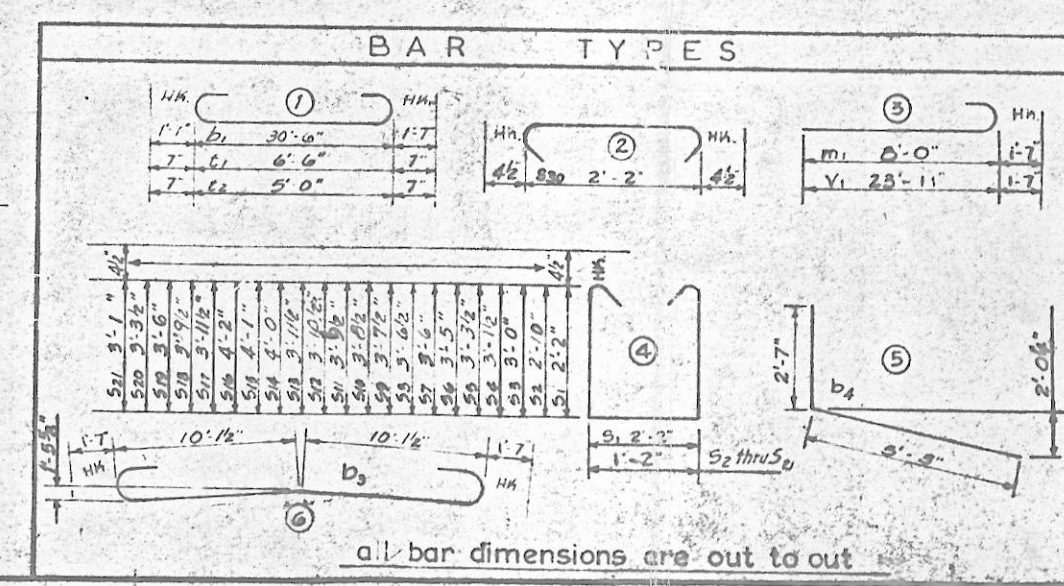


CONG. BY POURS	
POUR	CU. YDS.
POUR 1	5.7
POUR 2	11.0
POUR 3	11.8
<b>TOTAL</b>	<b>28.5 *</b>

\* For 1 BENT ONLY

BILL OF MATERIAL	
NO.	DESCRIPTION
1	4 #4
2	4 #4
3	4 #4
4	4 #4
5	4 #4
6	4 #4
7	4 #4
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98	4 #4
99	4 #4
100	4 #4

REINFORCING STEEL	
NO.	DESCRIPTION
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99	4 #4
100	4 #4



**PROJECT NO. 8.15333**  
**GUILFORD COUNTY**  
**STATION: 162 + 73.24**

STATE OF NORTH CAROLINA  
**STATE HIGHWAY COMMISSION**

SUBSTRUCTURE  
**BENT NO. 2**  
**and**  
**BENT NO. 3**

REVISIONS			
NO.	BY	DATE	DESCRIPTION

DRAWN BY: C. D. HARRIS  
 CHECKED BY: George Vannell  
 DATE: July 26, 1963