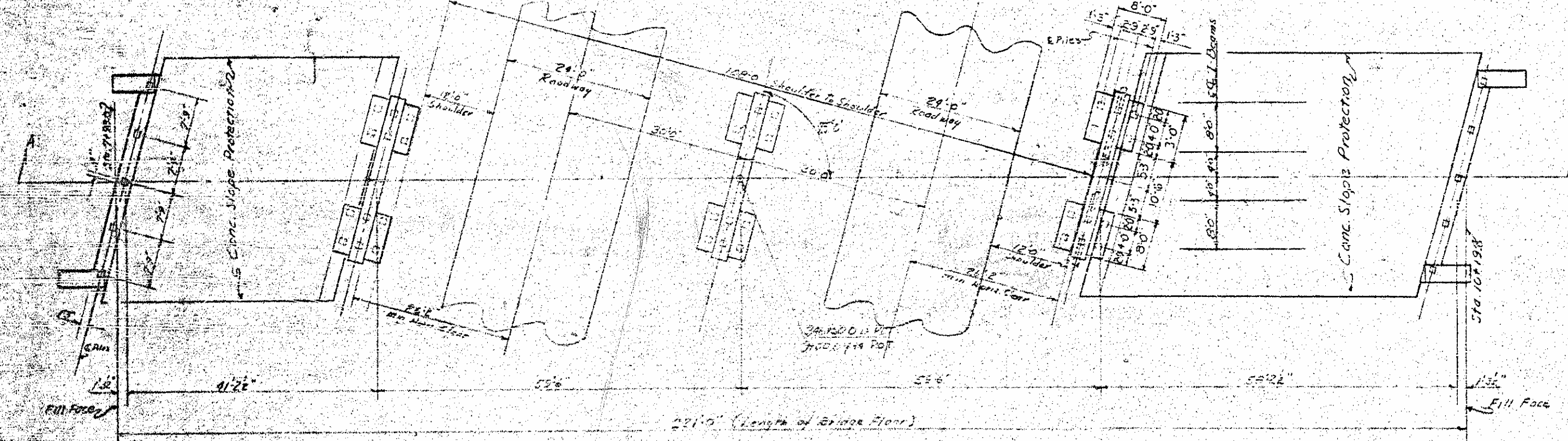
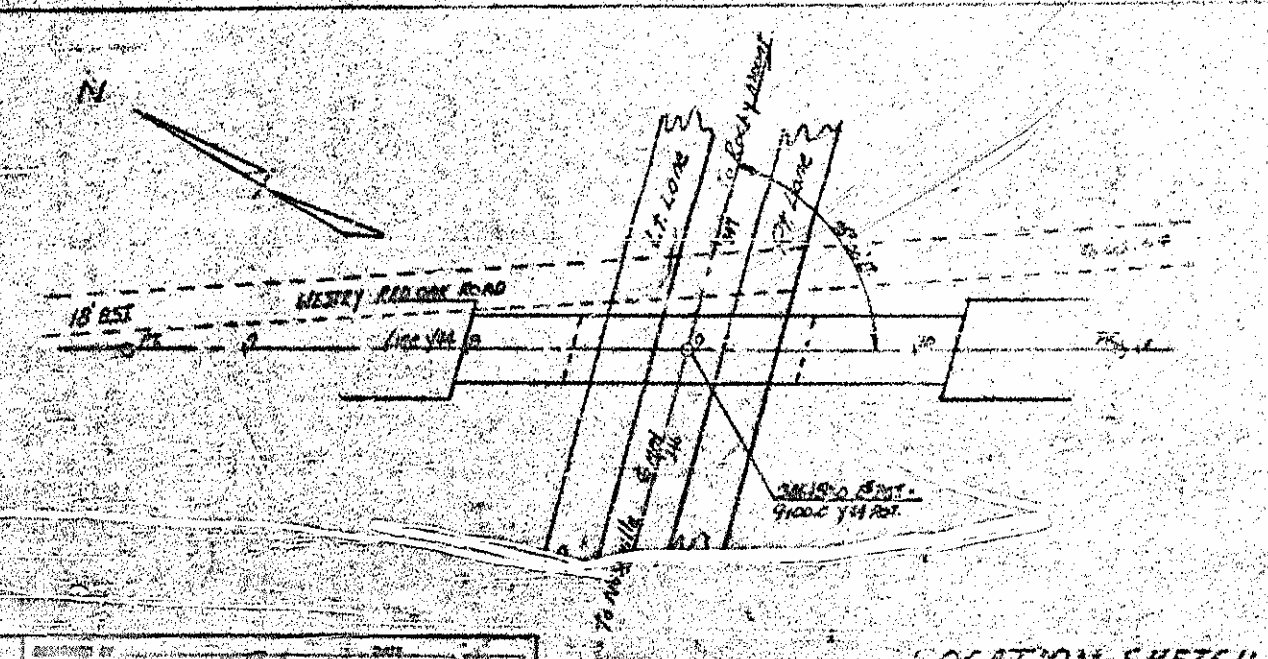


NOTES
 Assumed live load H20-S16
 For other design data & general notes see sheet SM
 Exposed concrete surfaces to be given a class I surface finish in accordance with the specifications
 Piles for End Bent 1 to be driven to a minimum bearing capacity of 29 tons each. Piles for End Bent No 2 to be driven to a minimum bearing capacity of 30 tons each. No Test piles will be required. Order lengths shall be 27 for End Bent 1 & 18 for End Bent 2
 Work is not to be started on Bents 1-2&3 until the roadway section has been excavated by the roadway contractor. Unclassified Structure Excavation for Bents 1,2&3 is to be measured from the surface of the cut.



Traffic on Worry Red Oak Road to be detoured during construction.
 Bench Mark: #4 2 Nails in rear of 29' Oak 130' Lr. Sta. 529+50 Elevation 110.50
 For painting requirements for structural steel see Special Provisions.
 Shaded areas to be excavated by the structure contractor. See Special Provisions.
 Piles for Bents 1,2&3 to be driven to a minimum bearing capacity of 29 tons each. Order lengths shall be 15 for Bent 1; 24 for Bent 2; and 27 for Bent 3.
 I hereby certify that this structure was built according to this plan and revisions as noted.
 Special Engineer



TOTAL BILL OF MATERIAL

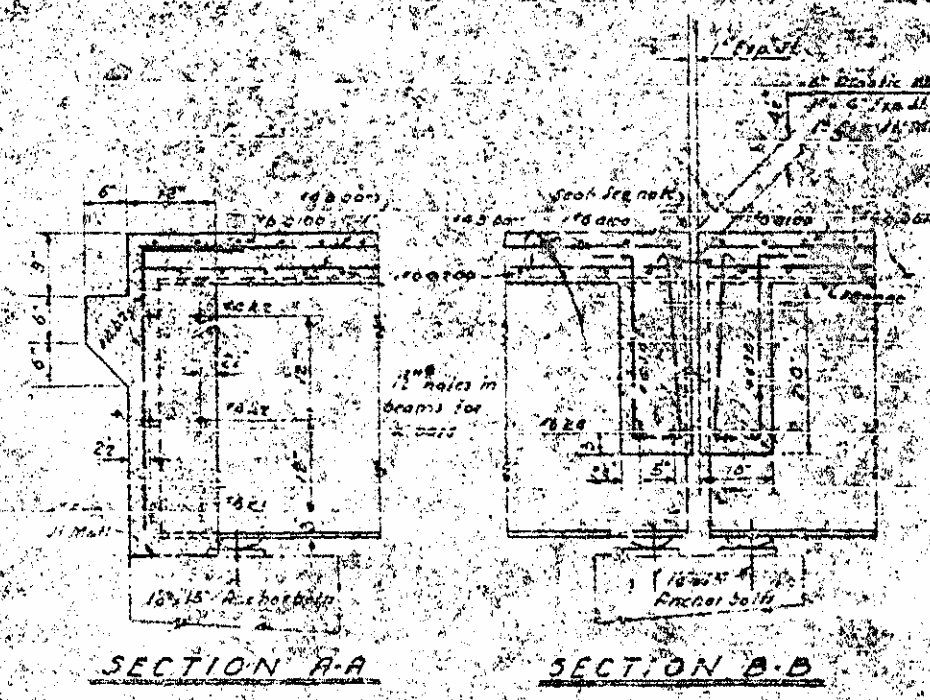
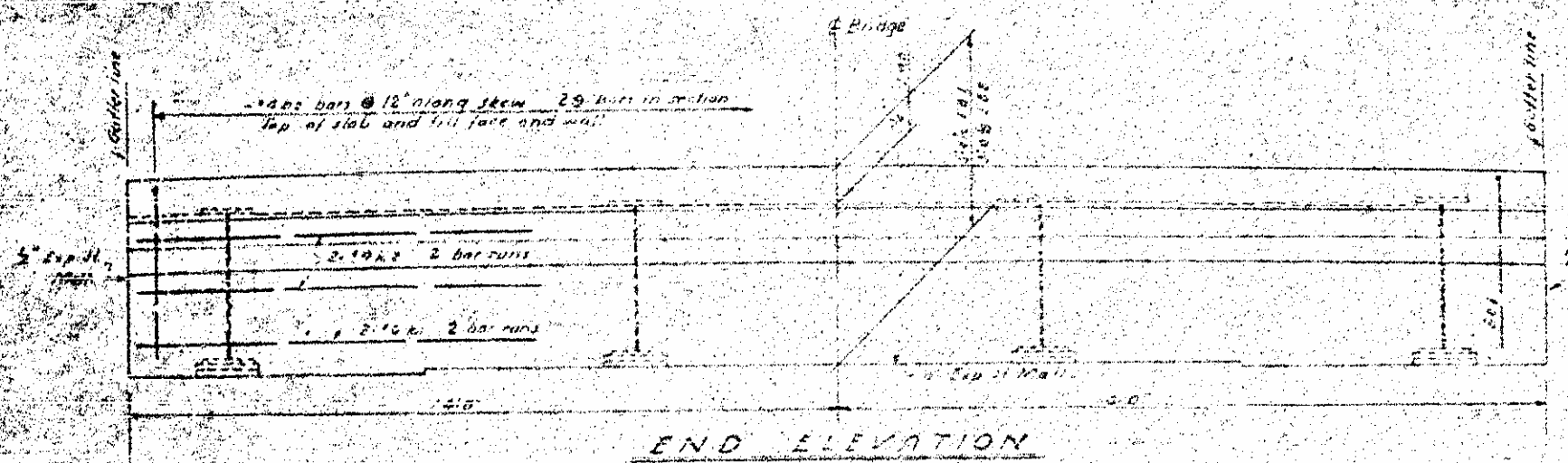
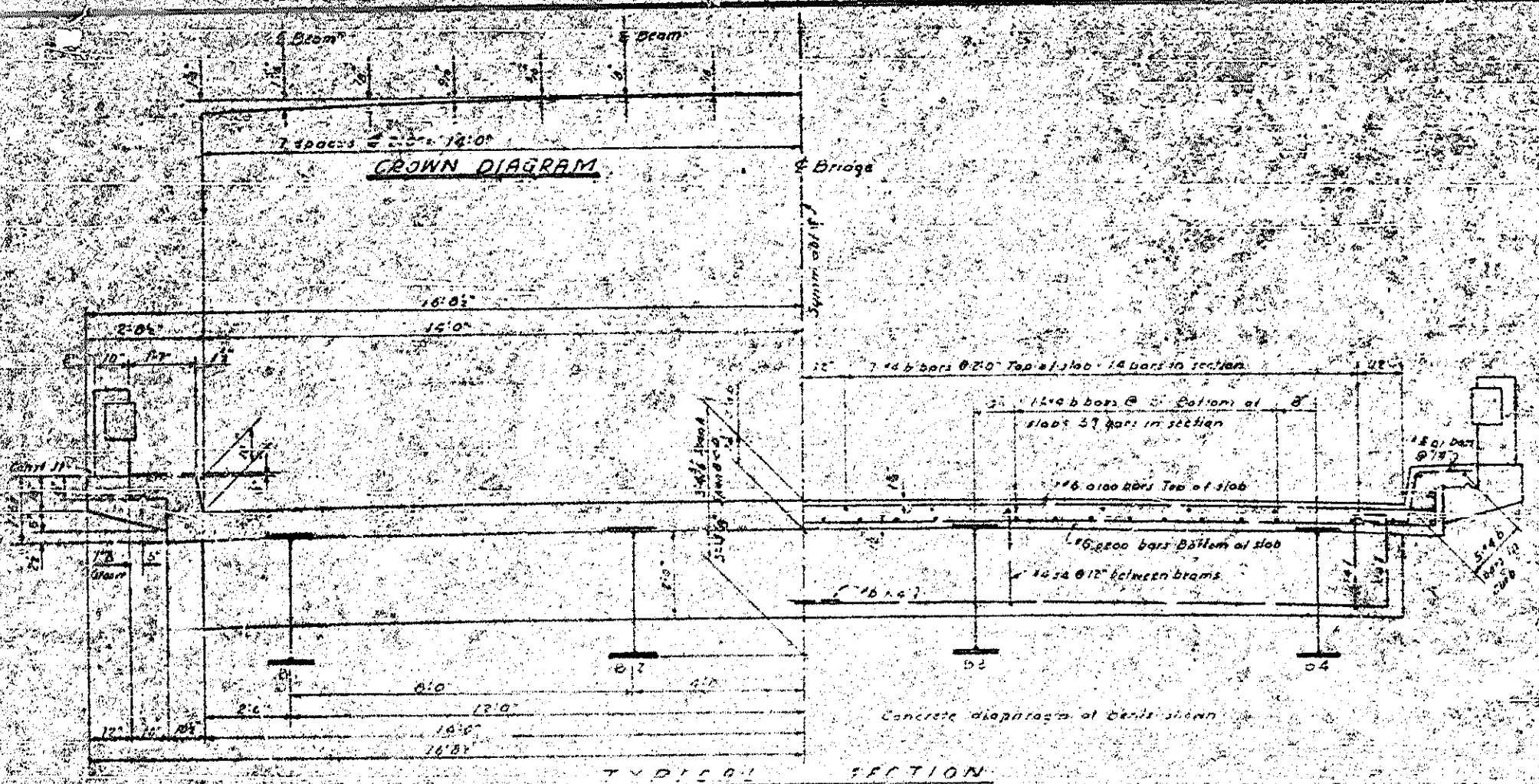
	1055 "A" CORNERS	Welding	Structural Steel	Uncl. Str.	12" R. Piles	4" Slope Protection
	Qty	Qty	Qty	Qty	Qty	Qty
Superstructure	202.7	5080.4	149300	-	-	-
End Bent 1	14.2	2746	-	-	5	135
Bent 2	25.3	4771	-	-	12	200
Bent 3	30.3	5526	-	-	12	200
End Bent 2	14.5	2767	-	-	5	90
Approaches	32	76	-	-	-	-
Total	202.7	7126	149300	0	34	525

PROJECT NO. 811638
NASH. COUNTY
STATION: 346+50.0 ±
9100.0 Yca

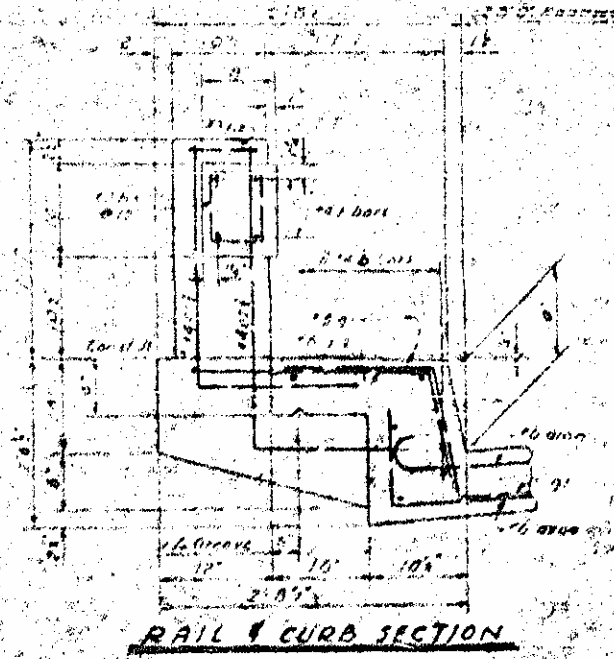
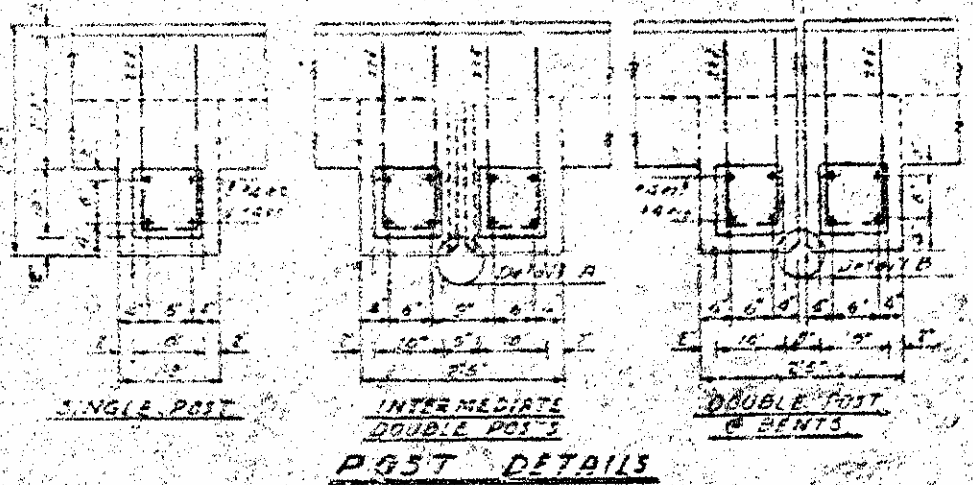
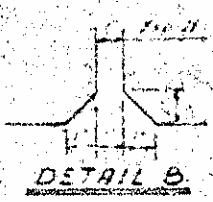
STATE OF NORTH CAROLINA
 STATE HIGHWAY COMMISSION
 GENERAL DRAWING
 BRIDGE OVER PROJECT
 BETWEEN
 NASHVILLE AND ROCKY MOUNT
 JULY 1957

DESIGNED BY
 DRAWN BY
 CHECKED BY
 DATE

REVISION #2 - To add foundation piles for Bents 1&2
 REVISION #1 - To add foundation piles for Bent 3



NOTE
 As shown in detail
 For cast in place concrete deck
 see concrete plan for the distribution
 of the reinforcement steel in the
 slabs.

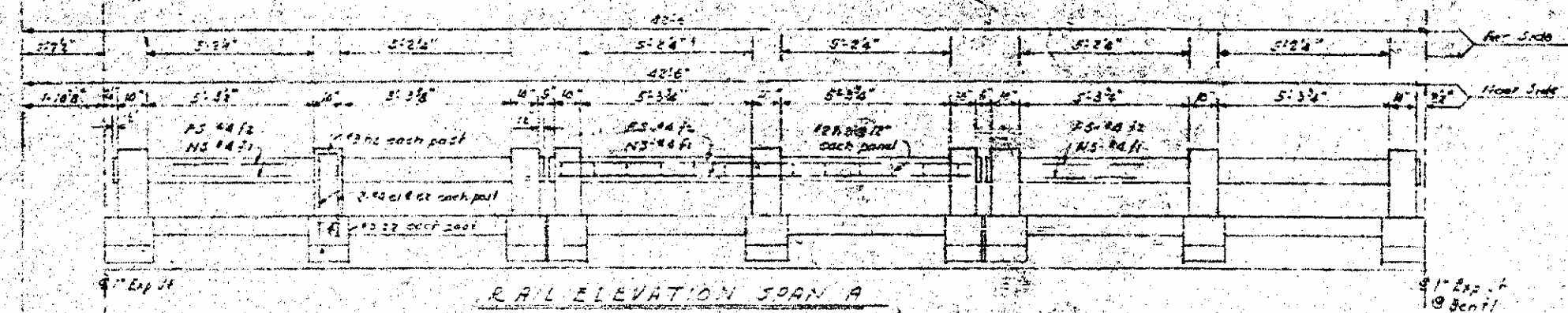


PROJECT NO. 0-11619
 NASH COUNTY
 STATION 346+50.00

RED OAK ROAD OVER PROJECT
 STATE OF NORTH CAROLINA
 STATE HIGHWAY COMMISSION
 SUPERSTRUCTURE
 TYPICAL SECTIONS, REINFORCEMENT
 AT BEAM ENDS CONCRETE SLAB
 23' ROADWAY 18" CURB
 JULY 1959

DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE

DATE	STATUS	PROJECT NO.
7/21/55	REVISED	78-2493
F. B. ROBERTSON, P. E.		



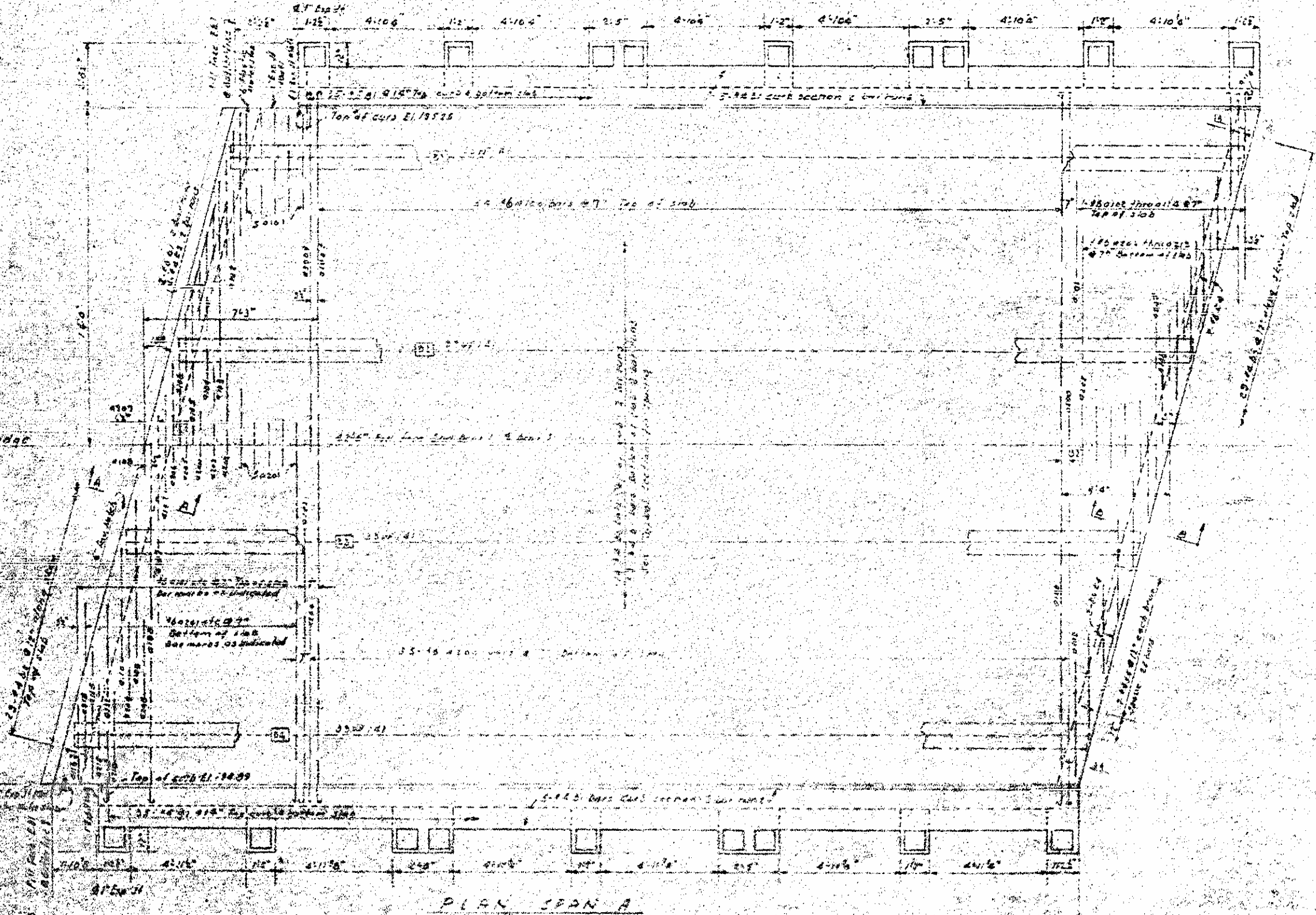
NOTE

Dead load deflection of beams as follows:

Due to beams alone	21.34"	42.68"
Due to imposed load	7.0"	14.0"
Total DL deflection	28.34"	56.68"

V.C. ordinate 6' 0"

Beams not shop centered



PROJECT No. 871638

WASH COUNTY

SECTION 244-500-15

RAD OAK ROAD OVER BRIDGE

STATE OF NORTH CAROLINA

STATE HIGHWAY COMMISSION

DESIGNED BY

SUBSTRUCTURE

CONCRETE PLAN

SPAN A

11/5/55

1" Exp. Jk
@ Bent 1 or 2

1" Exp. Jk
@ Bent 2 or 3

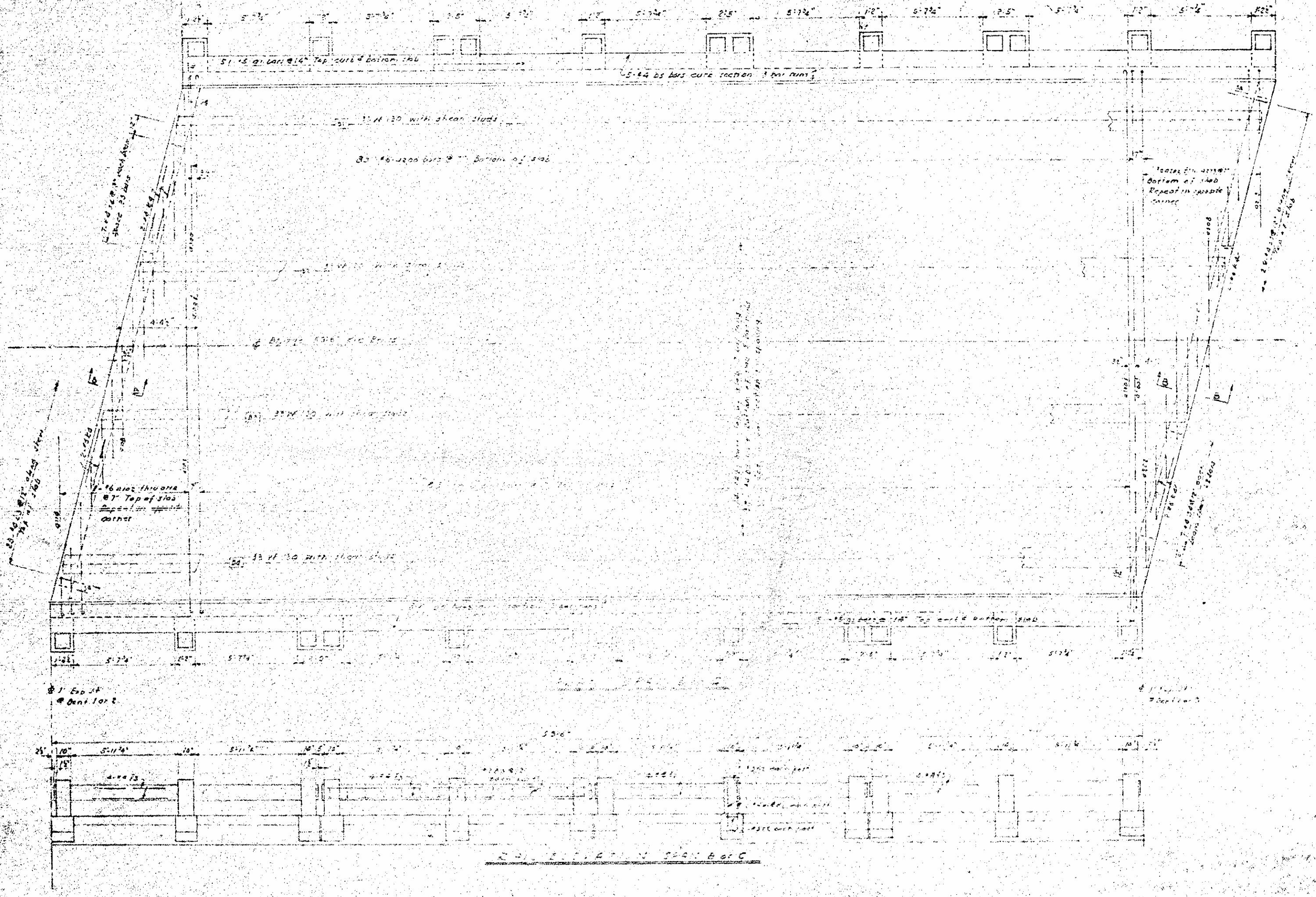
NOTE

Dead Load deflection of beams
as follows

	21" x 30"	22" x 23"
Due to beam alone	1/2"	1/8"
Due to spaced slab	1/2"	1/8"
Total DL deflection	1"	1"

VC ordinate 1" 1/2" 1"

All beams to be shop numbered.



PROJECT No. 3.11638
FLASH COUNTY
STATION 346+50.0 IS
RED OAK ROAD OVER PROJECT

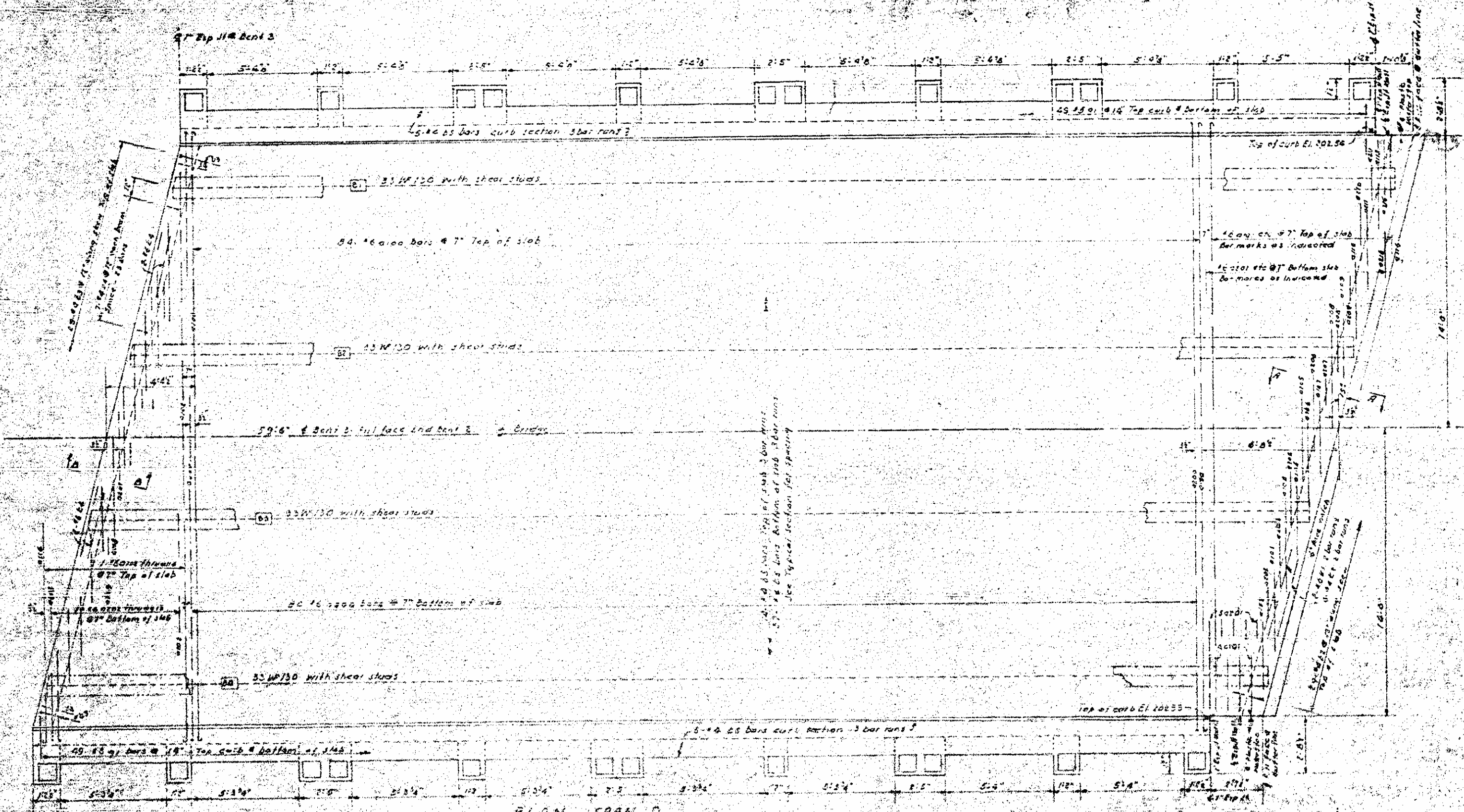
STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH
SUPERSTRUCTURE
CONCRETE PLAN
SPAN B & C
JULY 1953

NO.	BY	DATE	REV.	REVISION
1				
2				
3				

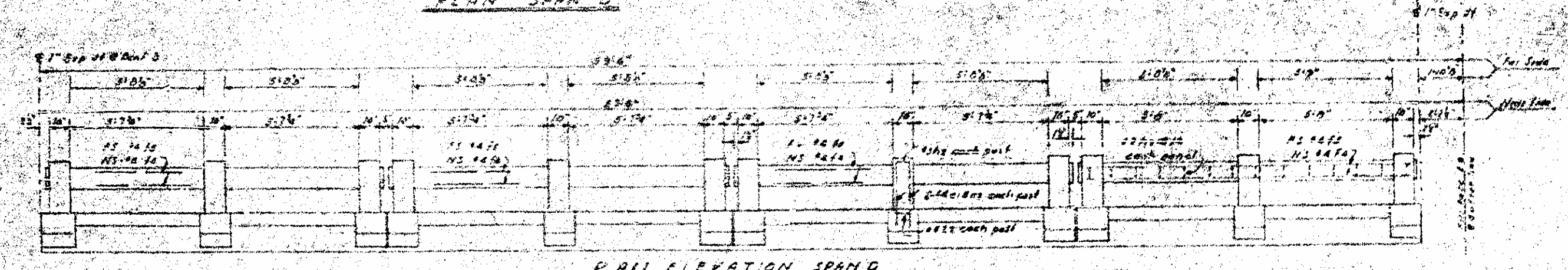
DATE: 7-1-53
DRAWN BY: [illegible]
CHECKED BY: [illegible]

80-249

Dead load deflections and UC ordinate for span 6 are the same as for span 5C.



PLAN SPAN D

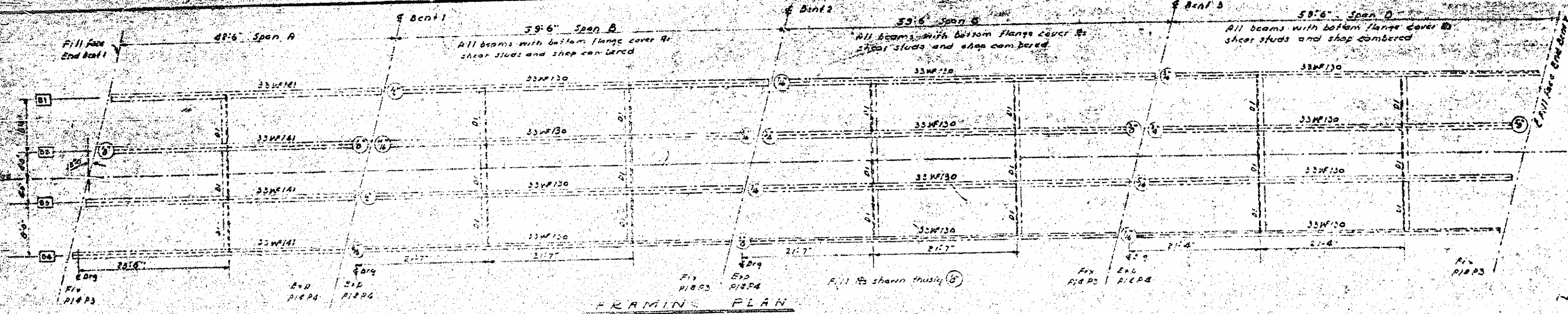


RAIL ELEVATION SPAN D

PROJECT No 81162
 NASH COUNTY
 STATION 340+500 IS
 RED OAK ROAD OVER PROJECT
 STATE OF NORTH CAROLINA
 STATE HIGHWAY COMMISSION
 SUPERSTRUCTURE
 CONCRETE PLAN
 SPAN D

MAY 1959

PLAN NO.	DATE	PROJECT NO.
81-244	11/13/30	
P.A. PROJECT F-67(9)		

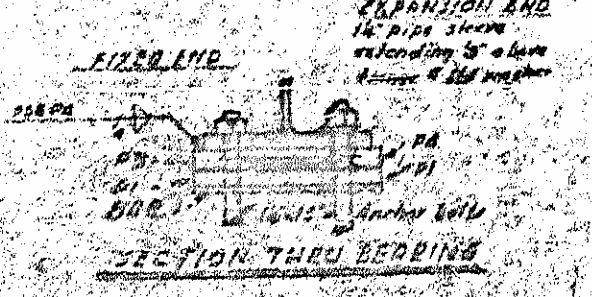
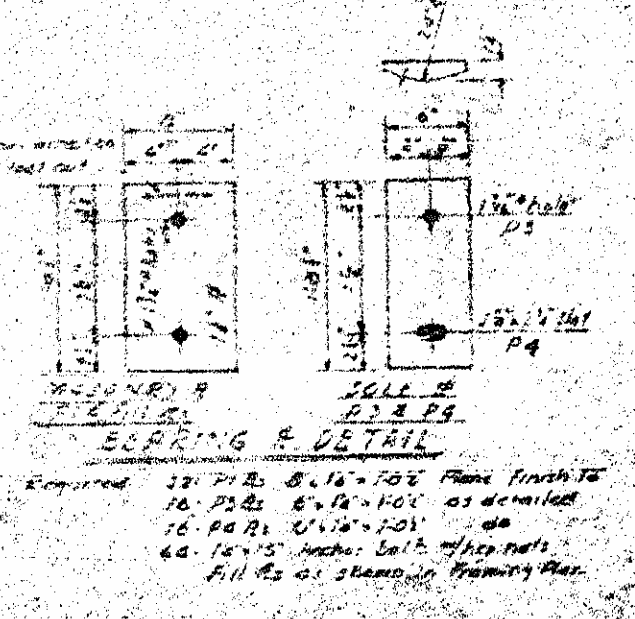
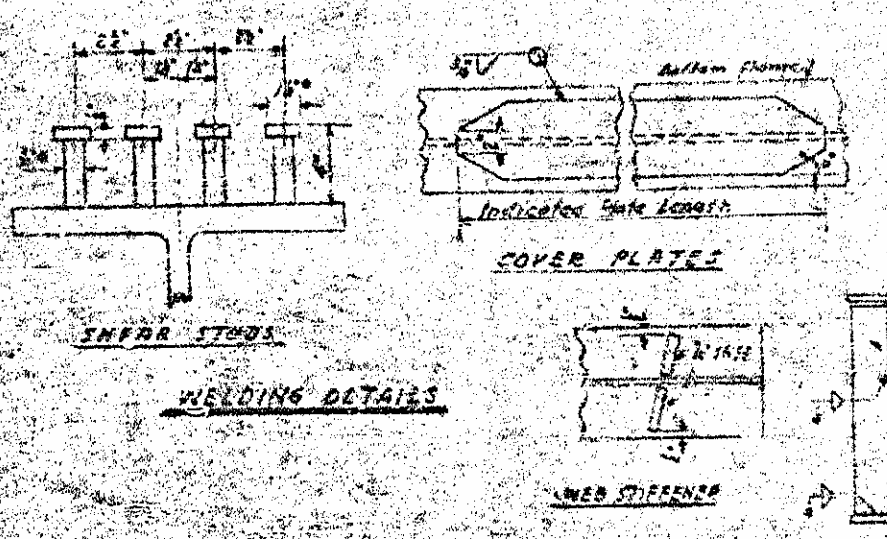
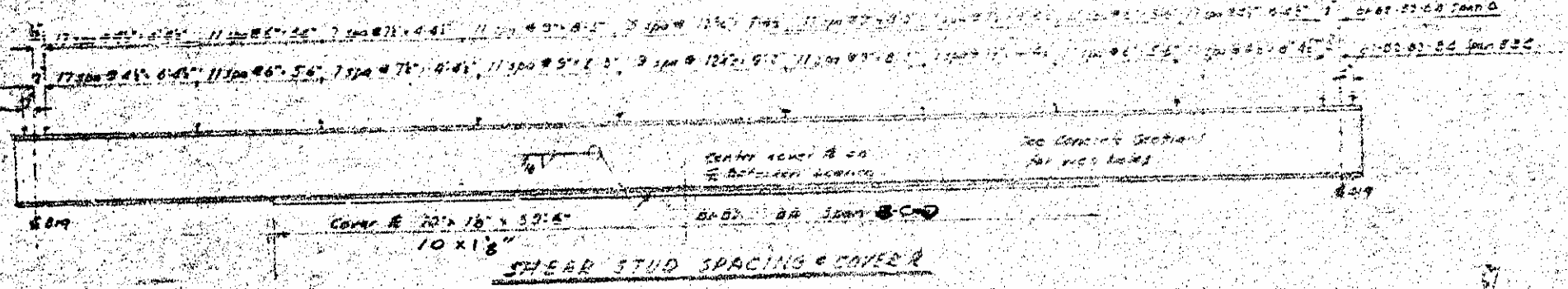
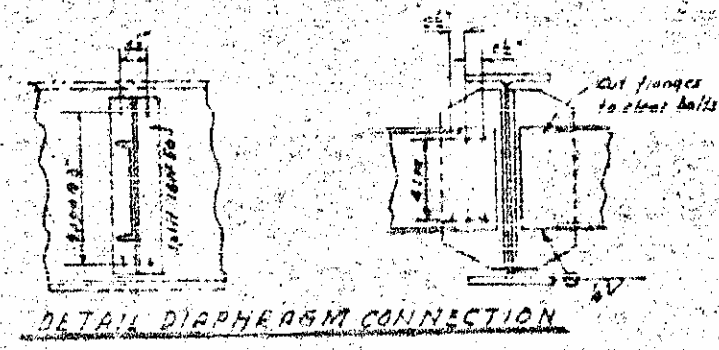
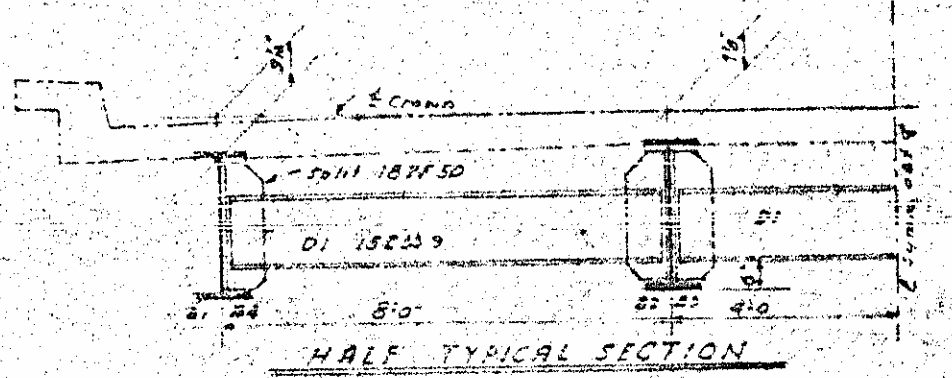
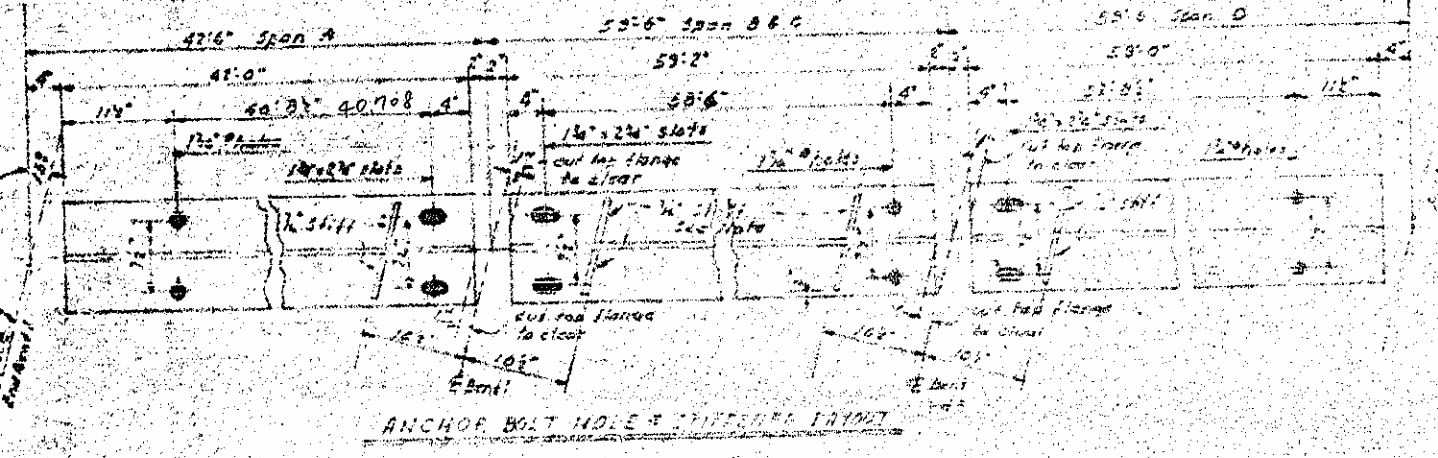


NOTE

Beams in Span A & D to be shop combed as follows:
 81' & 83' 12"
 82' & 83' 12"

Web stiffeners are not required on outside of exterior beams at interior bents or on end of any beam at end bents.

At Contractors option SWS brackets may be used in lieu of the stud shear connectors. See Special Provisions.

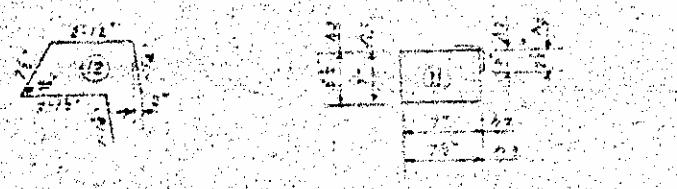
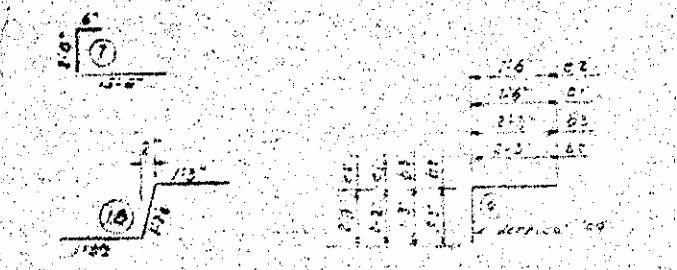
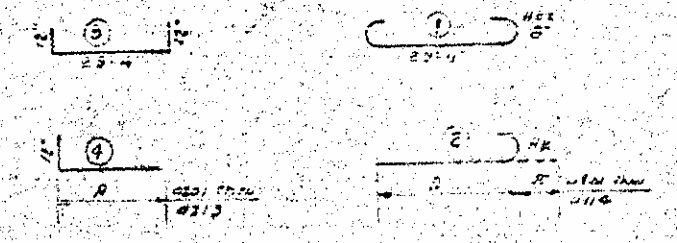


PROJECT No. 211236
 NASH County
 STATION 346-506.11
 P.A.D. ROAD OVER PROJECT

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
SUPERSTRUCTURE STRUCTURAL STEEL

REINFORCING STEEL BAR SCHEDULE

Bar Mark	No.	Size	Type	Length	Weight	Bars per span				Bar Mark	No.	Size	Type	Variable Dimen.	Length	Weight	Bars per span			
						A	B	C	D								A	B	C	D
b1	122	#4	Str.	21'9"	1773	122				29										
b2	58	#4	6	5'6"	273	29	58	58	29											
b3	174	#4	6	5'6"	407	29	58	58	29											
b4	549	#4	5fr	20'8"	7379		183	183	183											
k1	8	#6	5fr	15'6"	106	4			4											
k2	16	#6	5fr	15'0"	180	8			8											
k4	24	#6	7	18'0"	649	4	8	8	4											
q1	322	#5	18	31'8"	1458	70	102	102	70											
q4	138	#4	22	5'8"	522	23	46	46	23											
c1	150	#5	5	3'8"	441	38	48	48	38											
c2	180	#4	6	4'3"	511	36	48	48	36											
h2	90	#2	11	2'10"	96	18	24	24	18											
h3	430	#2	11	2'7"	185	78	120	120	78											
z2	80	#5	12	7'1"	665	18	24	24	18											
f1	12	#4	5fr	13'1"	105	12														
f2	12	#4	5fr	12'10"	103	12														
f3	64	#4		14'5"	616		32	32												
f4	18	#4		13'9"	157				16											
f5	16	#4	5fr	14'0"	150				16											
a100	314	#6	1											30'5"	12223	54	88	88	54	
a101	9	#6	2											28'6"	292	5			4	
a102	8	#6	2											27'5"	293	5			4	
a103	8	#6	2											25'7"	315	2	2	2	2	
a104	8	#6	2											23'5"	289	2	2	2	2	
a105	8	#6	2											21'2"	262	2	2	2	2	
a106	8	#6	2											19'0"	236	2	2	2	2	
a107	8	#6	2											16'10"	210	2	2	2	2	
a108	8	#6	2											14'8"	184	2	2	2	2	
a109	8	#6	2											12'5"	158	2	2	2	2	
a110	8	#6	2											10'2"	132	2	2	2	2	
a111	8	#6	2											8'0"	106	2	2	2	2	
a112	6	#6	2											6'0"	60	1	2	2	1	
a113	6	#6	2											3'10"	41	1	2	2	1	
a114	6	#6	2											1'8"	21	1	2	2	1	
a115	2	#6	5fr											5'4"	16	1			1	
a116	2	#6	5fr											5'2"	10	1			1	
a200	317	#6	3											31'4"	14919	55	89	89	54	
a201	10	#6	4											29'6"	443	5			5	
a202	8	#6	4											26'8"	322	2	2	2	2	
a203	8	#6	4											24'6"	288	2	2	2	2	
a204	8	#6	4											22'4"	260	2	2	2	2	
a205	8	#6	4											20'1"	233	2	2	2	2	
a206	8	#6	4											17'11"	207	2	2	2	2	
a207	8	#6	4											15'9"	181	2	2	2	2	
a208	8	#6	4											13'7"	155	2	2	2	2	
a209	8	#6	4											11'5"	129	2	2	2	2	
a210	8	#6	4											9'3"	103	2	2	2	2	
a211	7	#6	4											7'1"	87	1	2	2	1	
a212	6	#6	4											4'11"	53	1	2	2	1	
a213	6	#6	4											2'9"	34	1	2	2	1	
a215	1	#6	5fr											6'5"	19	1			1	
a216	2	#6	5fr											4'3"	15	1			1	

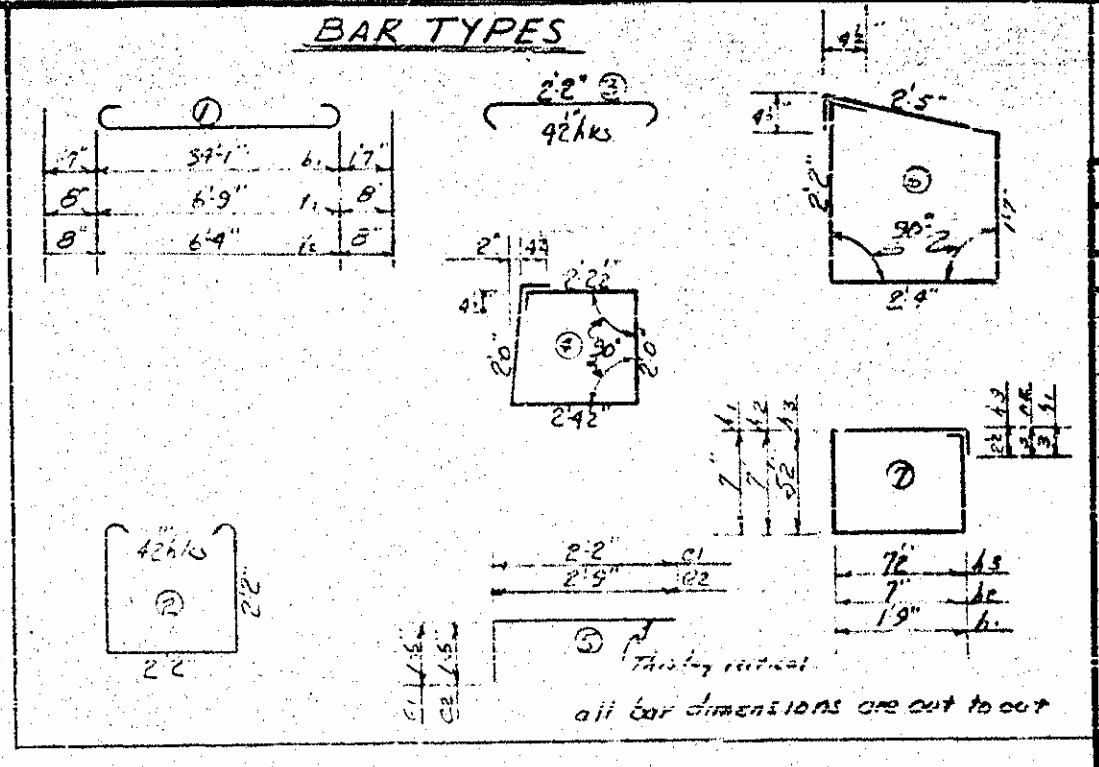
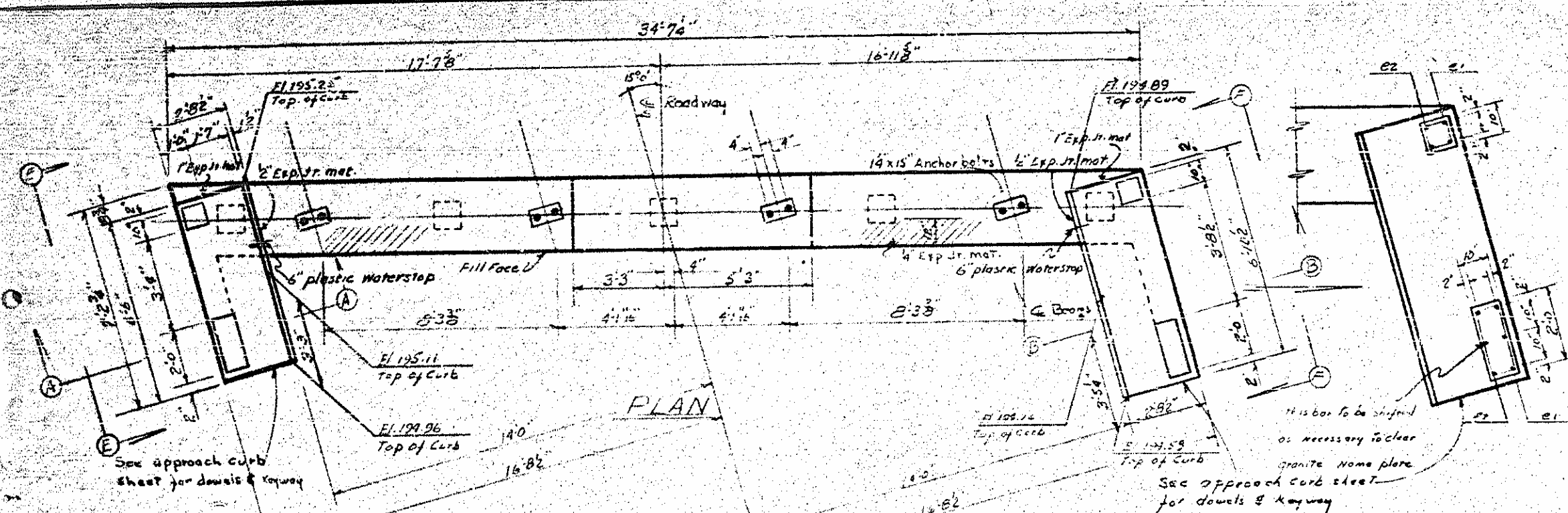


BAR TYPES

Dimensions are subject to cut

SUPERSTRUCTURE QUANTITIES	
Class A Concrete	203.7 C.Y.
Reinforcing Steel	37804 lbs
Spectral Steel Approx.	149,300 lbs

PROJECT NO. B.11630
 I.N.S.H.
 1944-5007
 REP. OF MASS. CIVIL ENGINEERING
 SUPERSTRUCTURE
 BILL OF MATERIALS

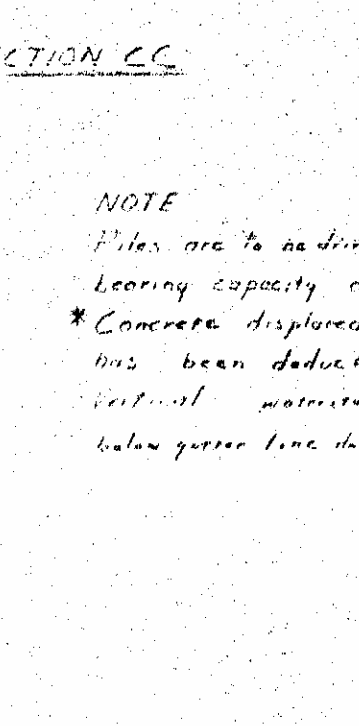
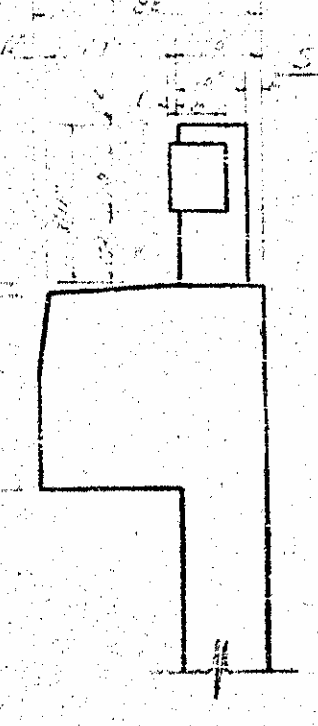
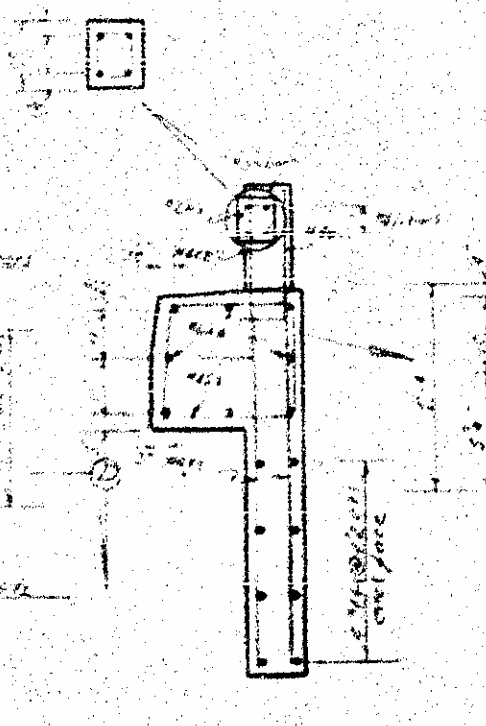
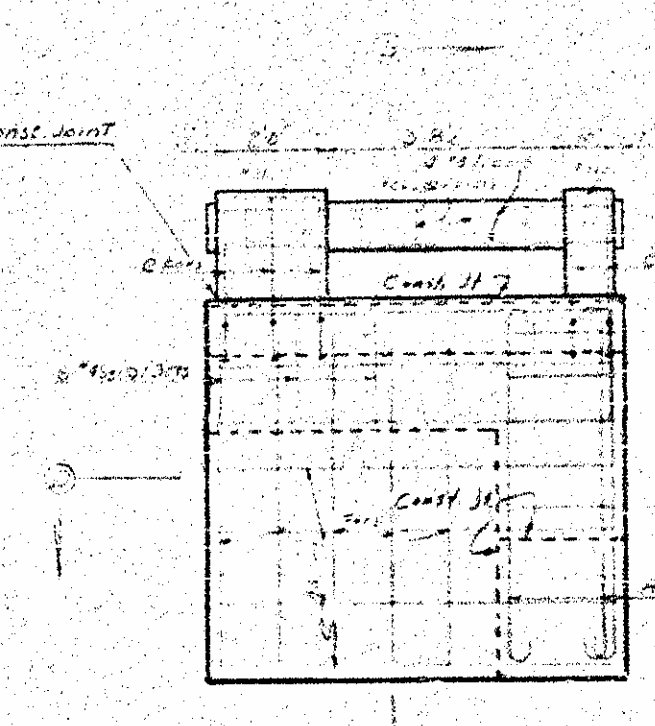
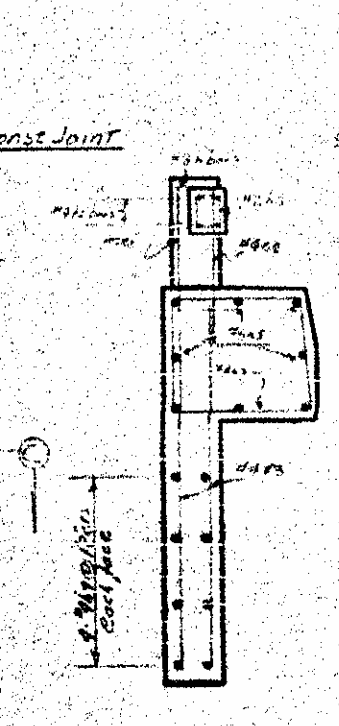
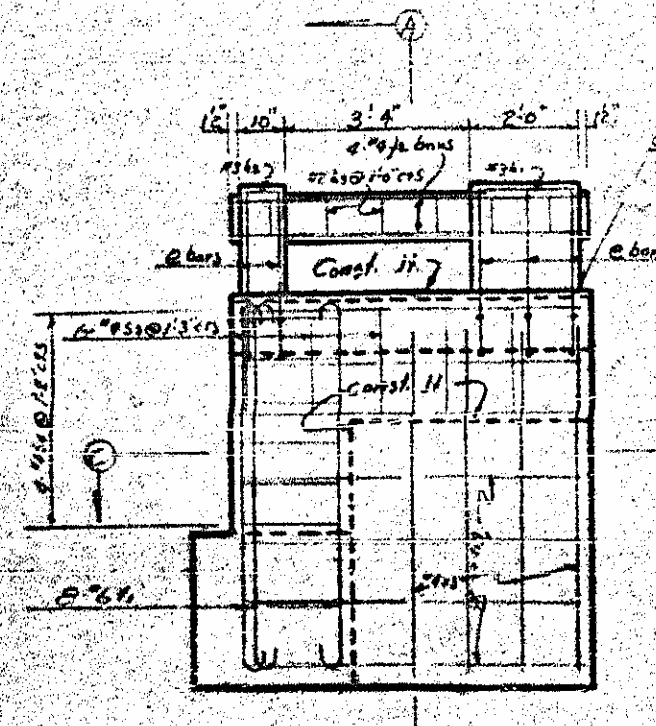
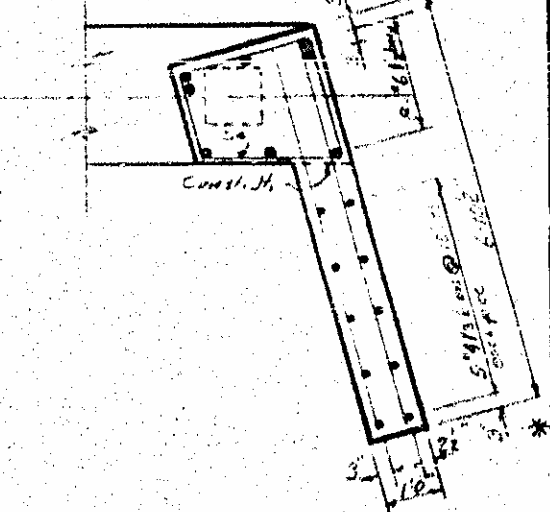
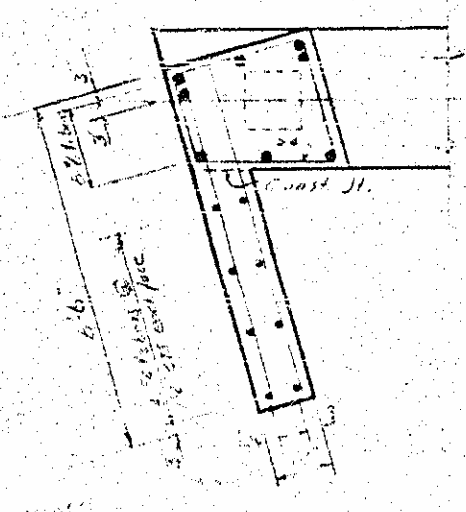
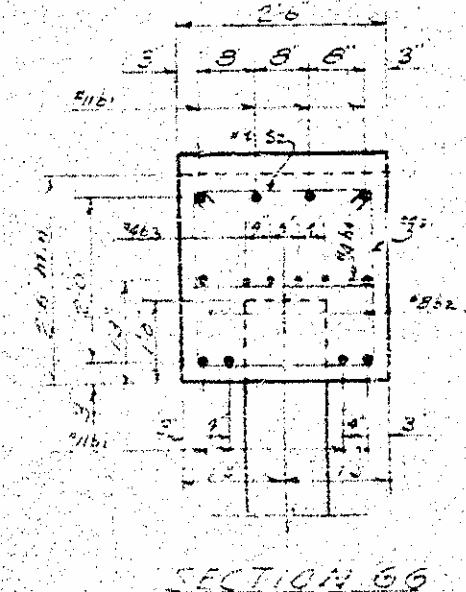
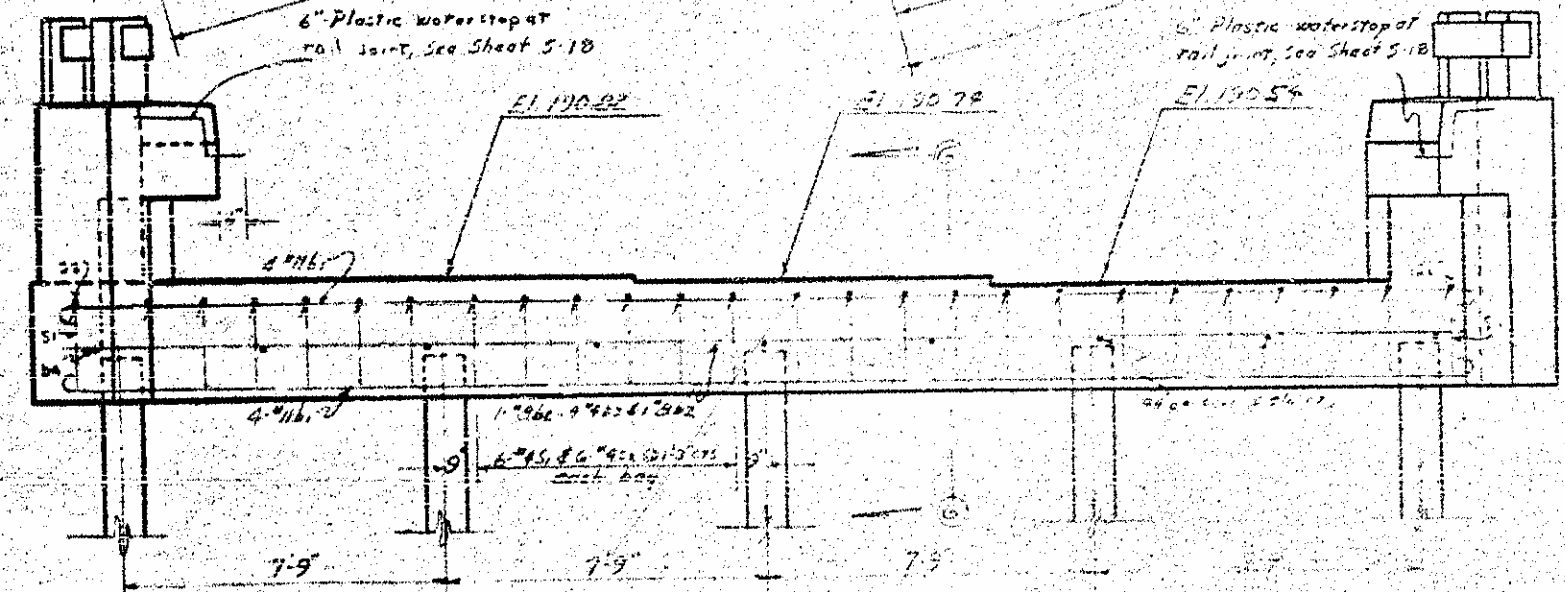


PROJECT NO. 811638
 N.C. 811638
 F.A. Proj. F-62(3)
 83-249

BILL OF MATERIAL

BAR NO.	NO.	SIZE	TYPE	LENGTH	WEIGHT
61	8	#11	1	37'3"	1503
62	2	#8	SPR.	34'	102
63	8	#4	SPR.	17'8"	94
64	9	#4	SPR.	2'2"	12
65	26	#4	2	7'3"	126
66	26	#4	9	2'11"	51
67	12	#4	4	9'4"	25
68	8	#4	6	9'3"	49
69	4	#4	SPR.	6'6"	17
70	7	#7	SPR.	6'2"	16
71	10	#4	5	3'8"	24
72	10	#4	5	4'3"	28
73	2	#1	7	5'2"	4
74	3	#3	7	2'10"	2
75	13	#2	7	2'7"	6
76	8	#6	SPR.	6'5"	77
77	8	#6	SPR.	6'0"	72
78	9	#6	SPR.	6'5"	84
79	3	#4	SPR.	6'0"	32
80	8	#6	1	8'1"	97
81	8	#6	1	7'8"	92
82	18	#4	SPR.	6'0"	72

Reinf. Steel Use #76
 Class A Concrete C-4 14.3
 E. 12' Post. Comp. Piles 45, 135
 No cut-offs, pile driven
 to plan grade

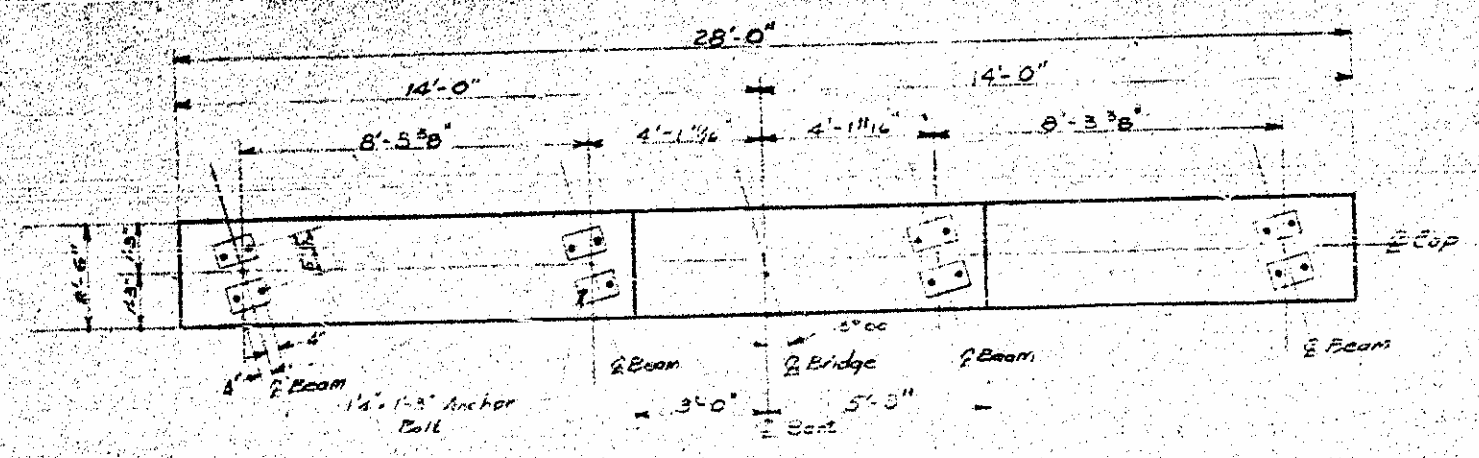


NOTE
 Piles are to be driven to a minimum
 bearing capacity of 29 tons each
 * Concrete displaced by pile heads
 has been deducted.
 Vertical waterstop around joint
 below gutter line down to bridge seat.

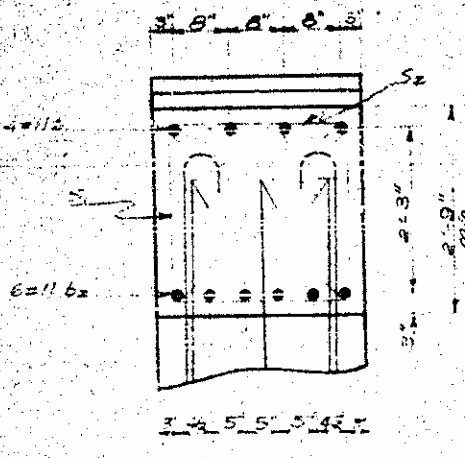
PROJECT NO. 811638
 NASH COUNTY
 STATION: 346+50.15

STATE OF NORTH CAROLINA
 STATE HIGHWAY COMMISSION
 SUBSTRUCTURE
 END BENT NO. 1
 JULY 1959

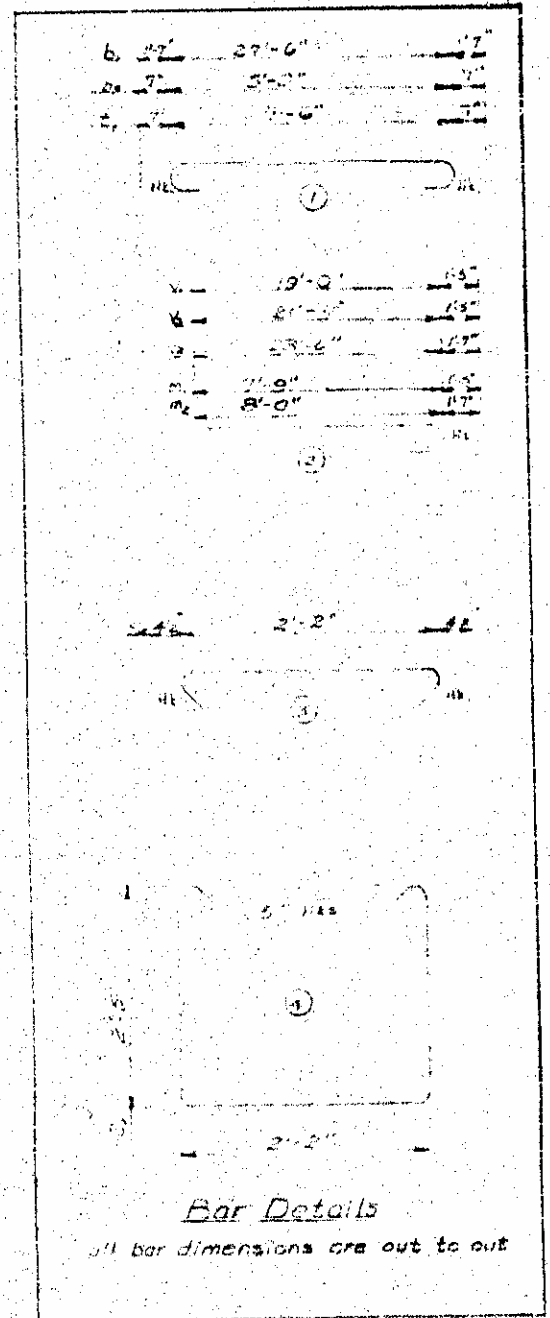
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 CHECKED BY: [Signature]
 DATE: July 1959



Cap Plan



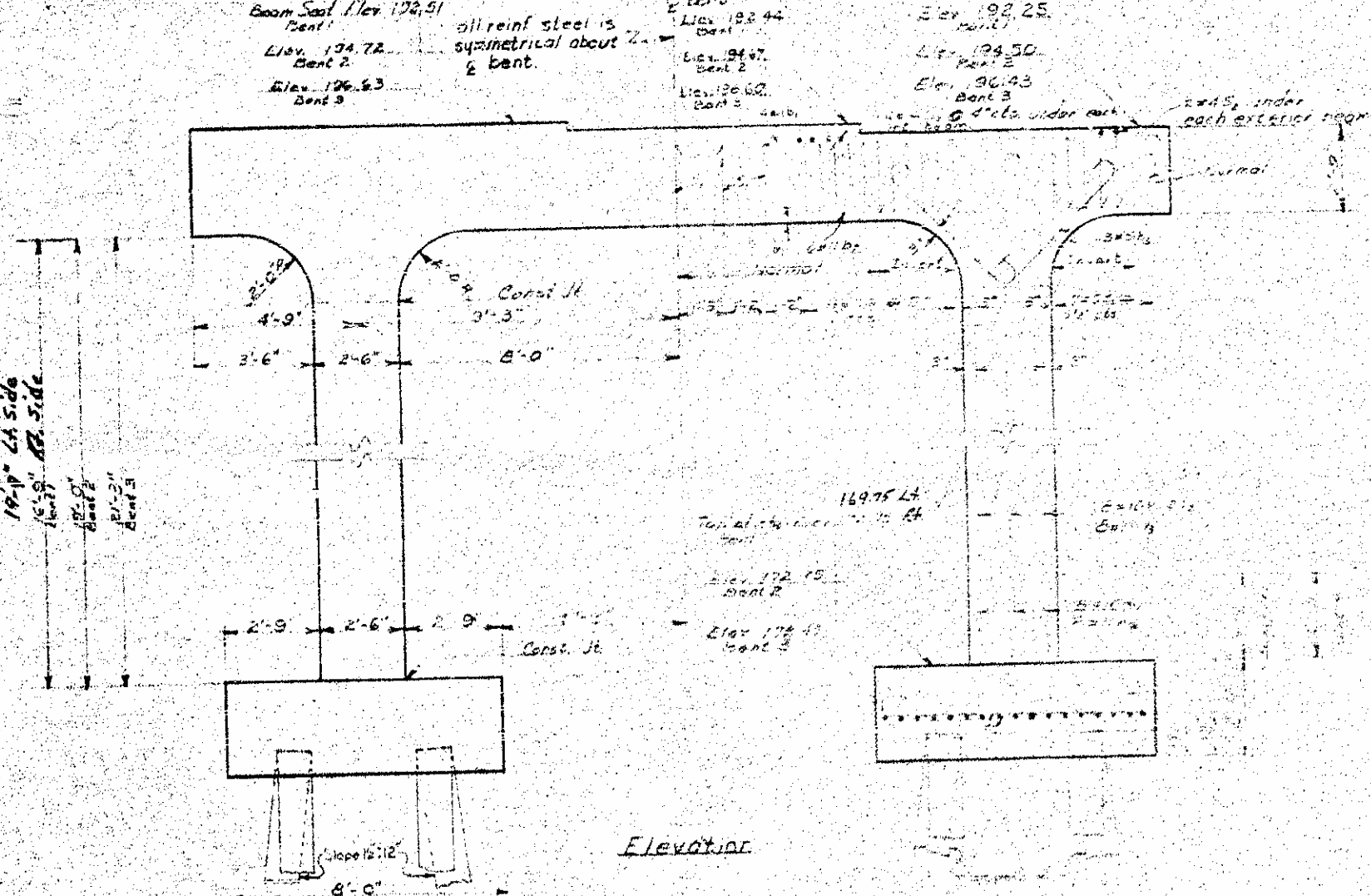
Part Section A-A



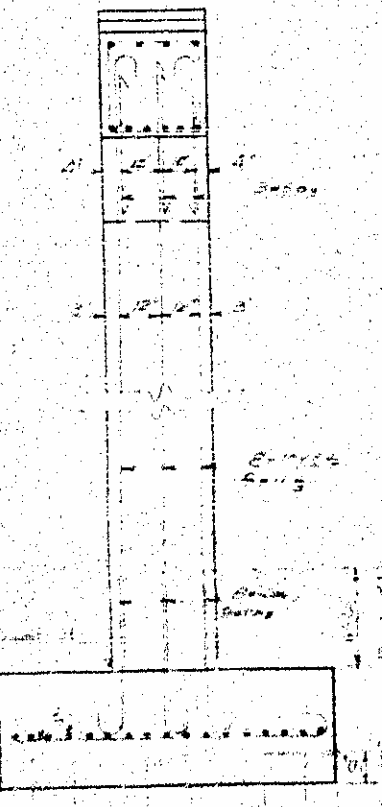
Bar Details

BILL OF MATERIAL						
One bent --- three required						
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	
b	4	#11	F	20'-0"	69.0	
ba	6	#11	F	27'-6"	97.7	
bb	12	#5	F	6'-2"	27.7	
Bent 1	V	16	#10	2	20'-5"	140.6
Bent 2	Va	16	#10	F	22'-8"	156.1
Bent 3	Va	16	#11	F	25'-1"	210.2
Bent 1&2	M	16	#10	F	3'-2"	1.01
Bent 3	M	16	#11	F	3'-7"	1.12
b	6B	#5	J	8'-8"	61.2	
S	#1	#3	A	7'-10"	25.5	
S	#2	#4	A	2'-11"	2.3	
Bent 1	Reinforcing Steel			451.0 lbs		
	Class "A" Concrete			28.7 cu yd		
	Unclassified Structure Foundation			12-12" Prestressed Conc. Piles	100.0	
Bent 2	Reinforcing Steel			477.0 lbs		
	Class "A" Concrete			29.7 cu yd		
	Unclassified Structure Foundation			12-12" Prestressed Conc. Piles	100.0	
Bent 3	Reinforcing Steel			577.0 lbs		
	Class "A" Concrete			30.3 cu yd		
	Unclassified Structure Foundation			12-12" Prestressed Conc. Piles	100.0	
Bent 1				3.7		
Bent 2				4.0		
Bent 3				12.7		
Total				5	20.4	

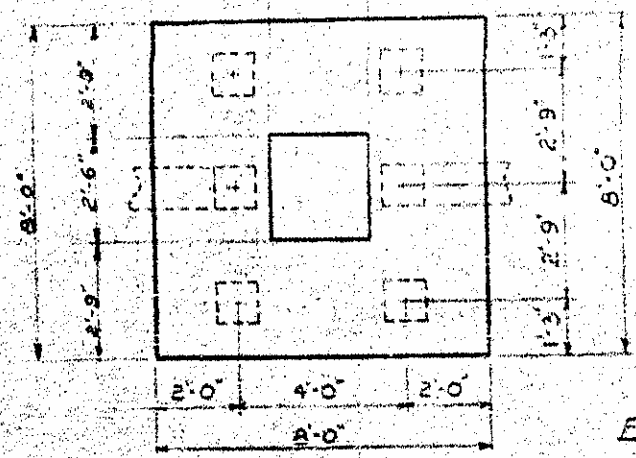
Note:
 1. Top steel may be shifted to clear anchor bolts.
 2. All dimensions are the same for Bents 1, 2 & 3 unless otherwise noted.
 3. Piles for Bents 1 & 2 to be driven to minimum bearing capacity of 10 tons each.



Elevation



Section A-B



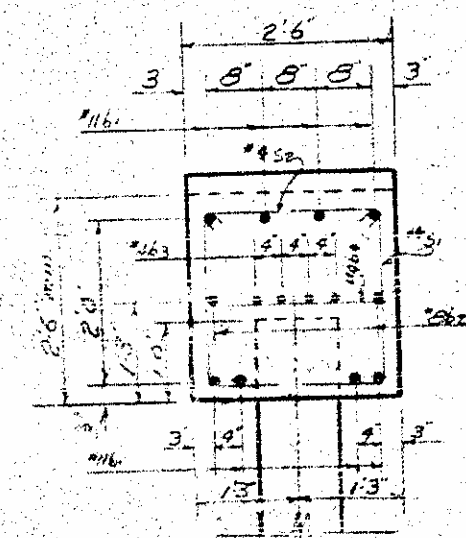
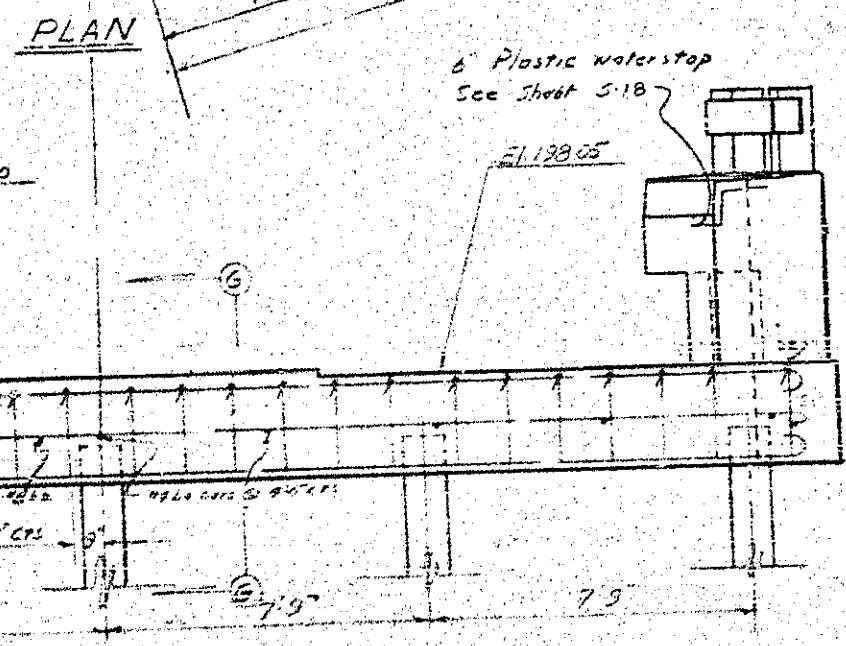
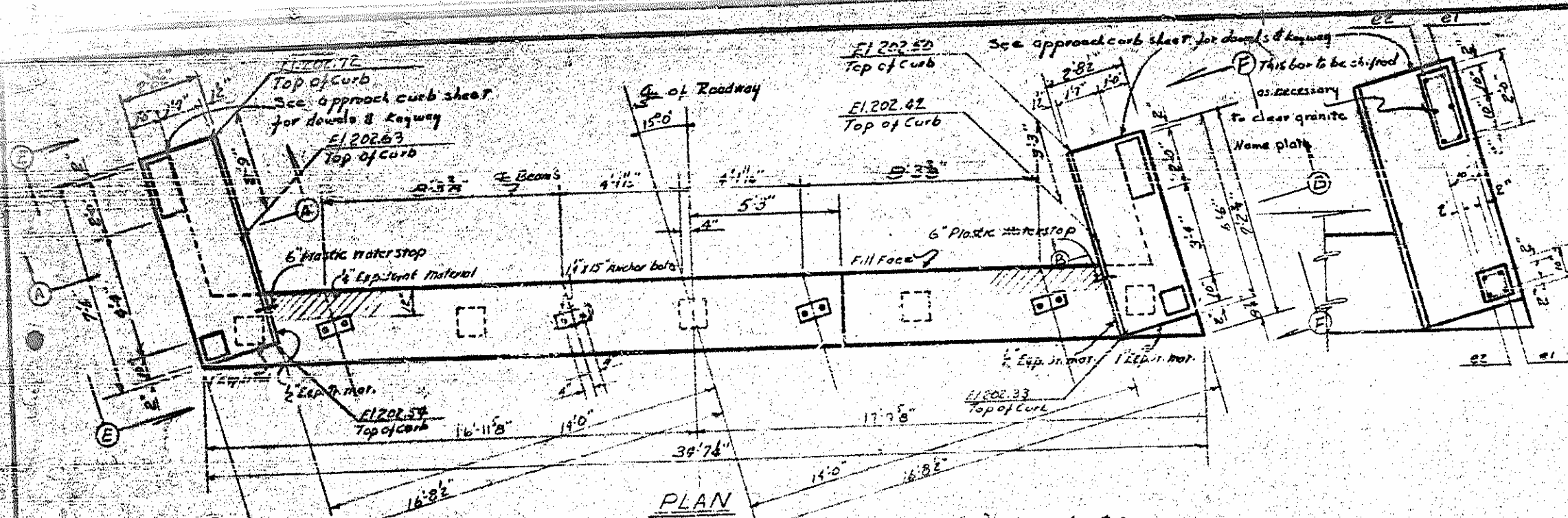
Footings Plan

PROJECT NO. 8.11638
 NASH COUNTY
 STATION: 346+50

STATE OF NORTH CAROLINA
 STATE HIGHWAY COMMISSION
 Bents 1-2&3
 July 1959

DESIGNED BY: C.S. Hicks
 CHECKED BY: J.S. Hicks
 DATE: July 1959

Revision 2 - To add foundation piles for Bents 1&2 by C.K.K. by: A.L.B.
 Revision 3 - To add foundation piles for Bent 3 by C.K.K. by: A.L.B.



BAR TYPES

1"	34-1"	6-12"
2"	6-6"	1-8"
3"	6-3"	1-8"

all bar dimensions are out to out

BILL OF MATERIAL

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
b1	8	#1	L	37-3"	1583
b2	2	#8	Spr.	38-1"	182
b3	8	#4	Spr.	17-8"	94
b4	9	#4	Spr.	2-2"	13
S1	26	#4	2	7-3"	126
S2	24	#4	3	2-10"	281
S3	12	#4	4	2-9"	75
S4	10	#4	6	2-3"	62
J1	4	#4	Spr.	9-2"	19
J2	4	#4	Spr.	6-2"	16
B1	10	#4	5	3-8"	24
B2	10	#4	5	4-5"	28
A1	2	#3	7	5-2"	4
A2	2	#3	7	2-10"	2
A3	13	#2	7	2-9"	6
A4	8	#6	Spr.	7-0"	89
A5	8	#6	Spr.	6-0"	72
A6	8	#4	Spr.	7-0"	57
A7	8	#4	Spr.	6-0"	32
V1	8	#4	1	7-10"	99
V2	8	#4	1	7-7"	91
V3	18	#4	Spr.	6-0"	72

Rein. Steel lbs. 2767
 Class A Concrete cu. yds. 115
 5-12" Dia. Cast. Piles 15, 50
 No cut-off in pile driver
 in plan elevation

NOTE
 Piles are to be driven to a minimum
 bearing capacity of 30 tons each.
 * Concrete displaced by pile heads
 has been deducted.
 Vertical waterstop extends from
 2" below gutter line down to bridge seat.

PROJECT NO. 811638
 NASH COUNTY
 STATION 346+50 L

STATE OF NORTH CAROLINA
 STATE HIGHWAY COMMISSION
 SUBSTRUCTURE
 END BENT NO 2

JULY 1952

