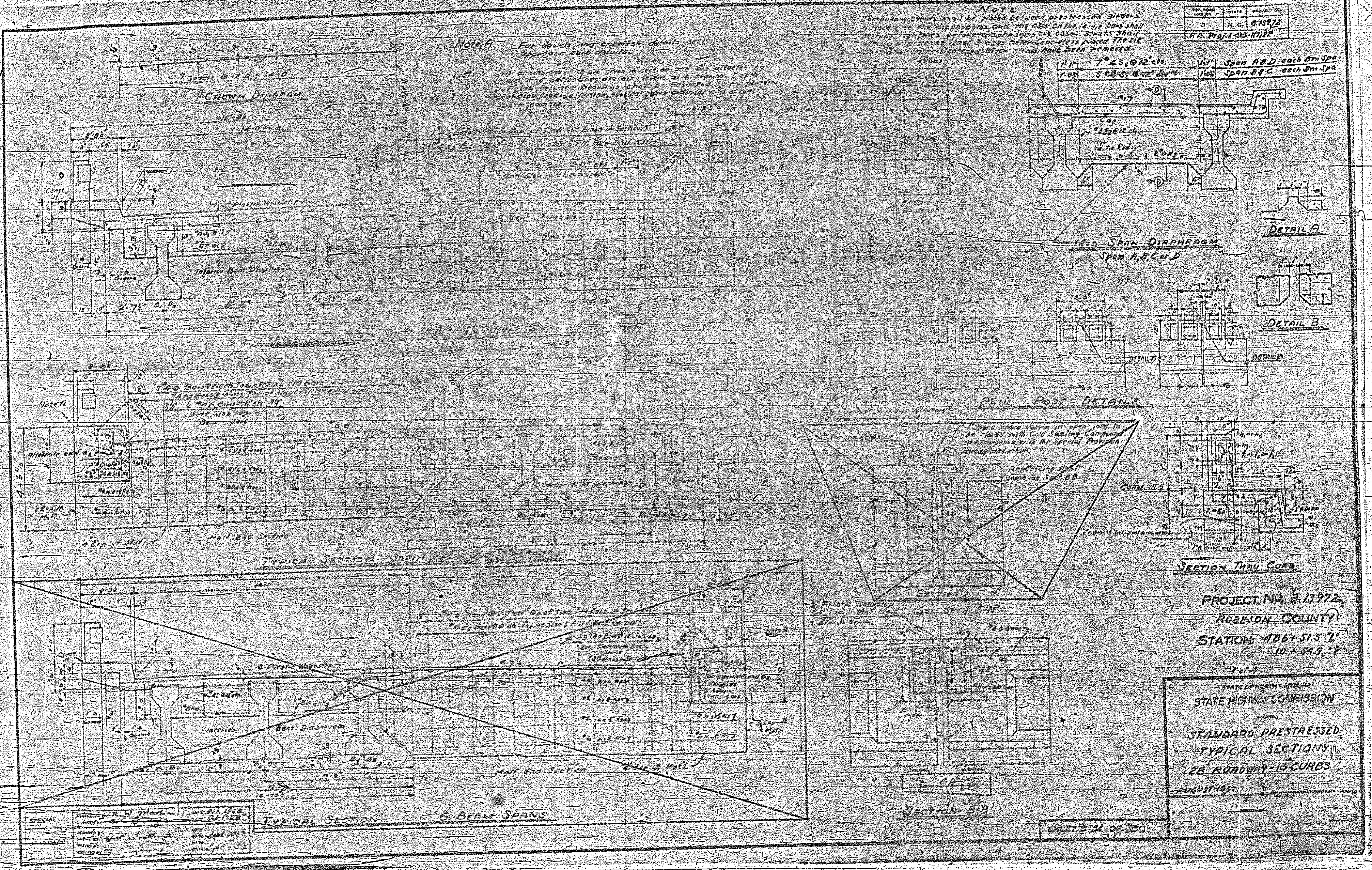
PROJECT NO.

COUNTY

STATION:

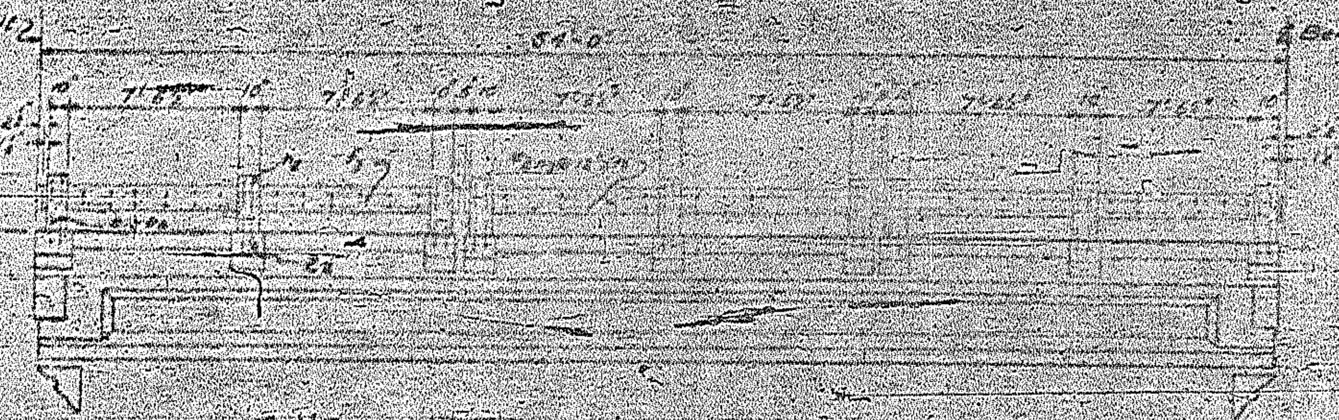
STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH



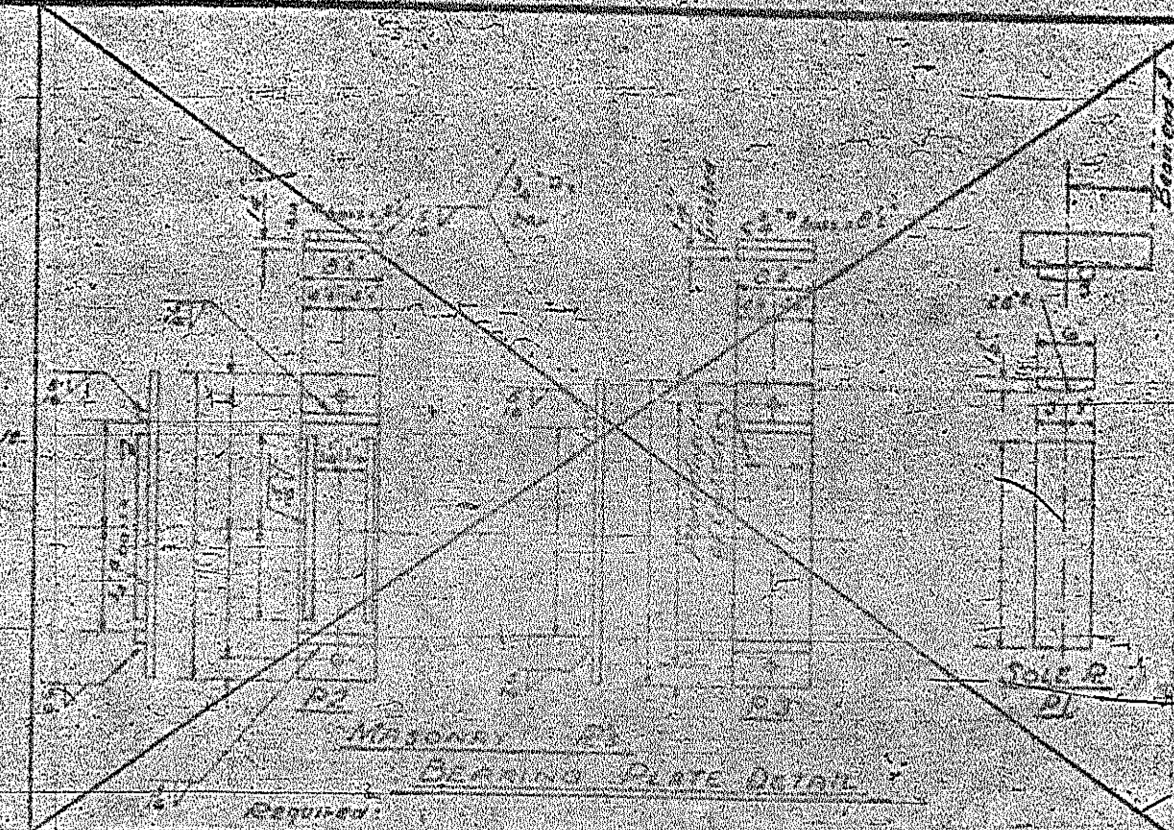
NOTE
Span A & D each Bm Spa
Span B & C each Bm Spa
F.A. Proj. I-95-1(7)122
N. C.
8.13972
Note A
CROWN DIAGRAM
Interior Bent Diaphragm
TYPICAL SECTION
SECTION D-D
Span A, B, C or D
MID SPAN DIAPHRAGM
Span A, B, C or D
DETAIL A
DETAIL B
RAIL POST DETAILS
Half End Section
Reinforcing steel same as Sec. B-B
SECTION
SECTION THRU. CURB
TYPICAL SECTION 6 BEAM SPANS
SECTION B-B
PROJECT NO. 8.13972
ROBESON COUNTY
STATION: 486+51.5 "L"
10+64.9 "Y"
1 of 4
STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
STANDARD PRESTRESSED
TYPICAL SECTIONS
28' ROADWAY - 18" CURBS
AUGUST 1957

FED. ROAD DIST. NO.	STATE	PROJECT NO.
3	N.C.	8.13972

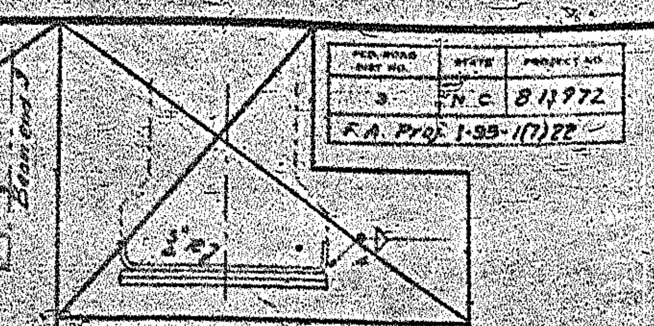
F.A. Proj. I-95-1(7)22

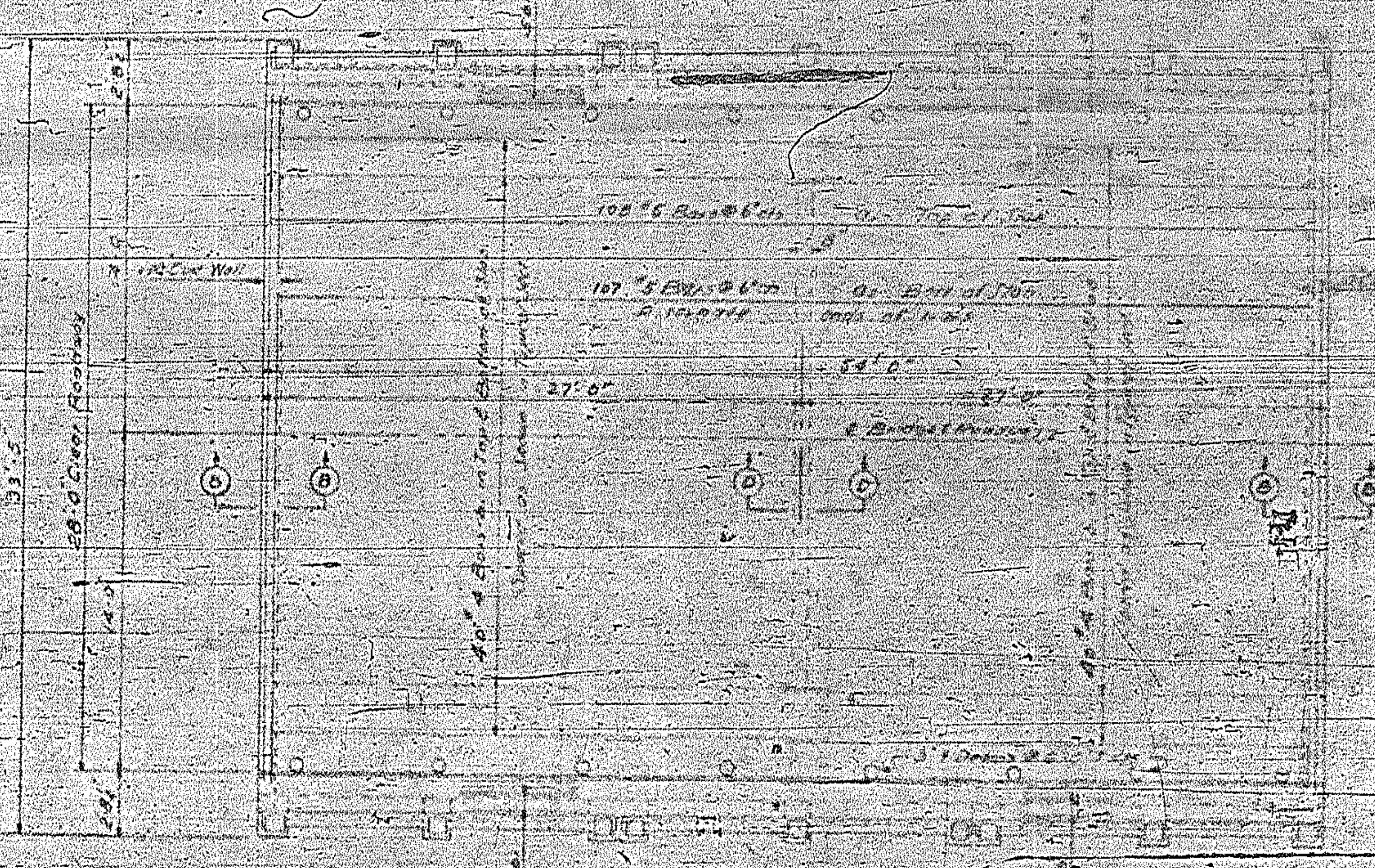


ELEVATION

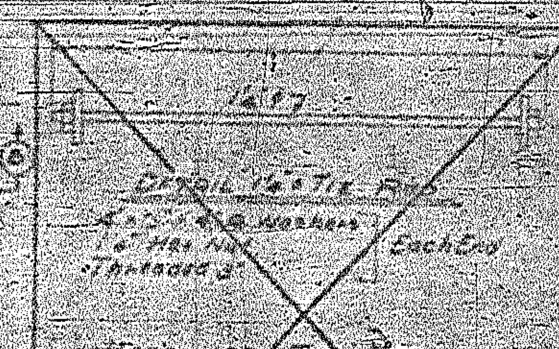


MASONRY P3
BEARING PLATE DETAIL
Required:





PLAN

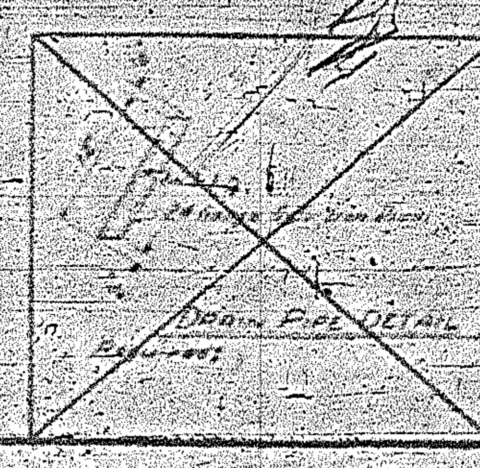


DETAIL 1¼" TIE ROD

HARDWARE TIE BARS

Item	No.	Weight
1¼" φ Rods &		
Washers		
1¼" Hex Nuts		
Total		

Hardware not a pay item, entire cost to be included in contract unit price for Prestressed Girders.



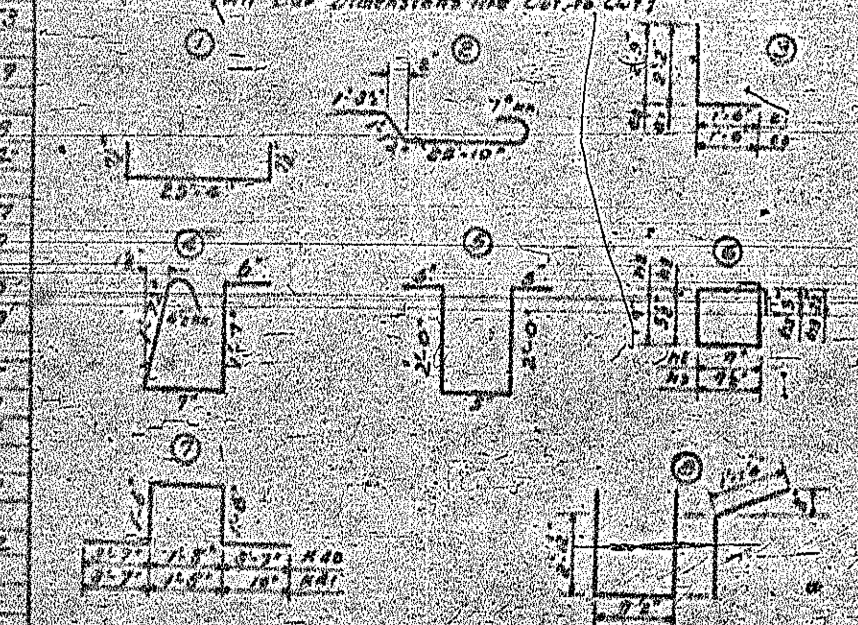
DRAIN PIPE DETAIL
Required:

BAR SCHEDULE FOR ONE SPAN TWO REQUIRED

Bar	No.	Size	Type	Length	Weight
D1	100	#6	1	30'-7"	3,465
D2	107	#5	2	31'-10"	3,553
B1	150	#4	Str.	19'-3"	7,929
C1	36	#4	3	3'-8"	88
C2	36	#4	3	4'-3"	102
S1	44	#4	4	4'-8"	137
S2	20	#4	5	5'-3"	70
H2	18	#3	6	2'-10"	19
H3	119	#4	6	2'-7"	19
K1	8	#4	Str.	5'-5"	65
K40	12	#8	7	11'-7"	371
K41	8	#8	7	8'-10"	189
E2	16	#4	8	7'-1"	133
E2	24	#4	Str.	17'-7"	282

Bar Types

(All Bar Dimensions Are Out-to-Out)



SUPERSTRUCTURE QUANTITIES FOR ONE SPAN TWO REQUIRED

Class A Concrete	48.1 C.Y.
Reinforcing Steel	15,432 Lb.
Prestressed Concrete Girders	268 Lin. Ft.

PROJECT NO. 8.13972
ROBESON COUNTY
STATION: 406+51.5 "L"
10+54.9 "Y"

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STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION

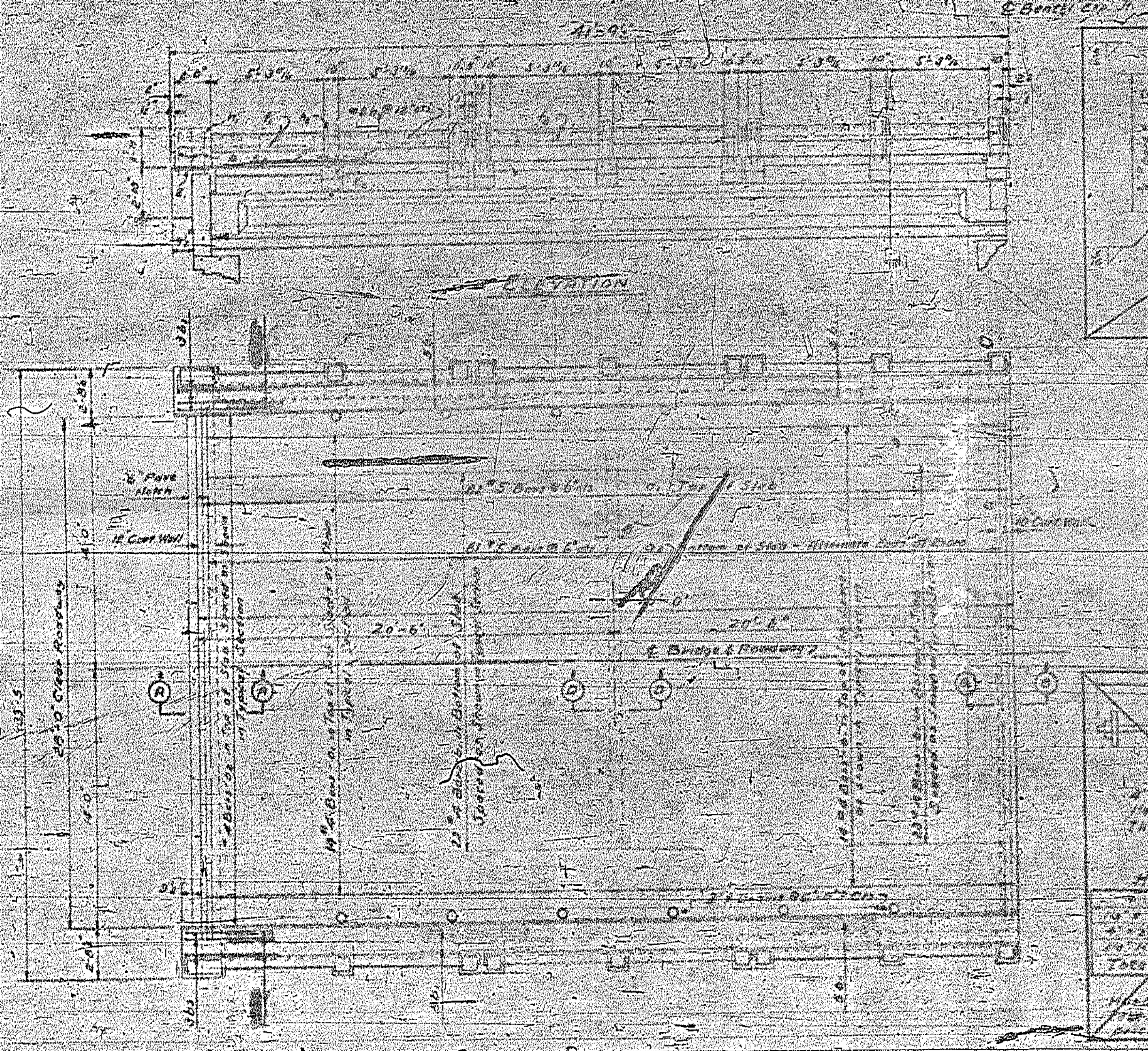
STANDARD INTERIOR SPAN
PRESTRESSED CONCRETE GIRDERS
28' ROADWAY - 18" CURBS
SPAN B & C

AUGUST 1959

SHEET 3 OF 50

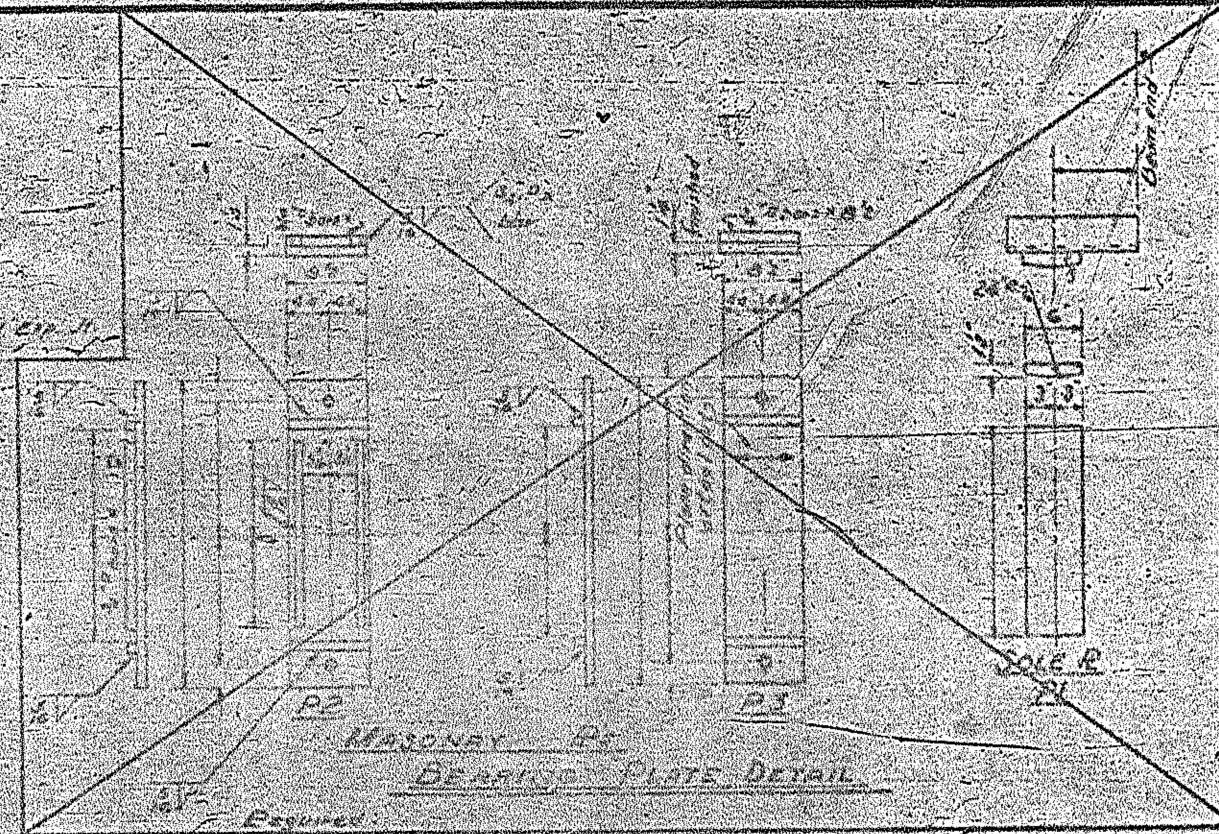
SPECIAL	E. W. Martin	Oct. 1958
		Oct. 1958
STANDARD	C. Smith	Sept. 1957

3	N.C.	8.13972
F.A. Proj. I-95-1(7)20		

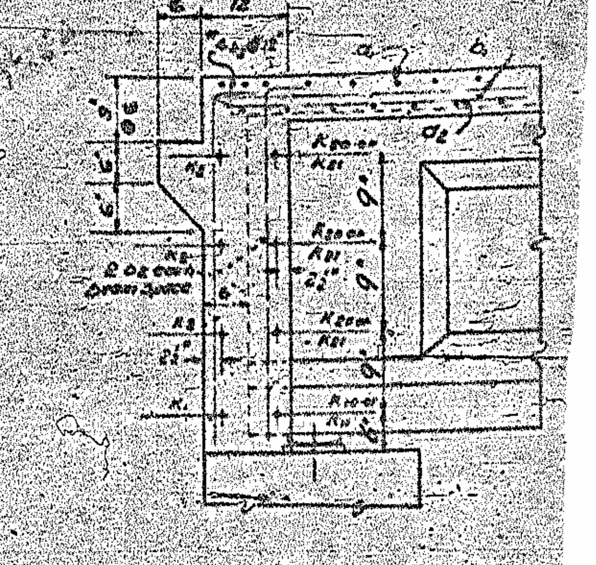


ELEVATION

PLAN



BEARING PLATE DETAIL



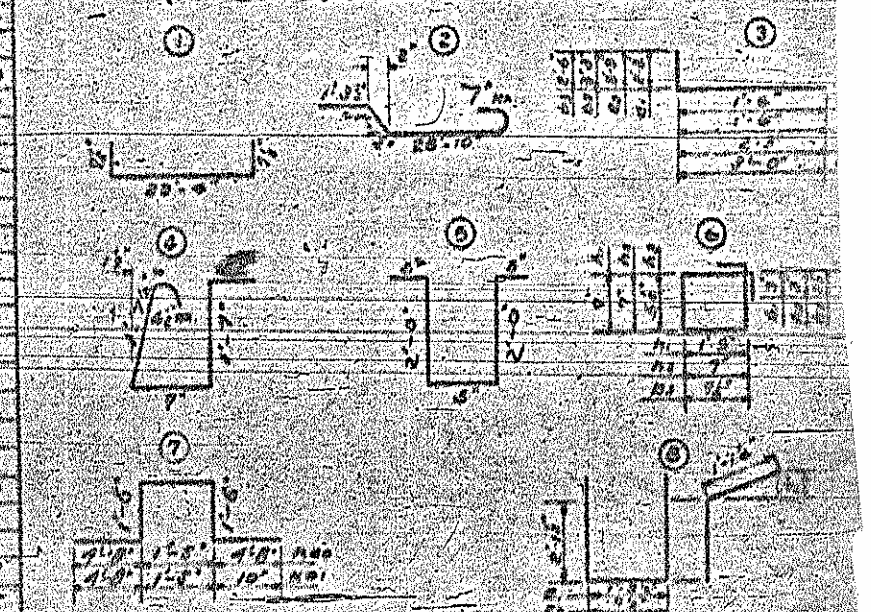
SECTION A-A

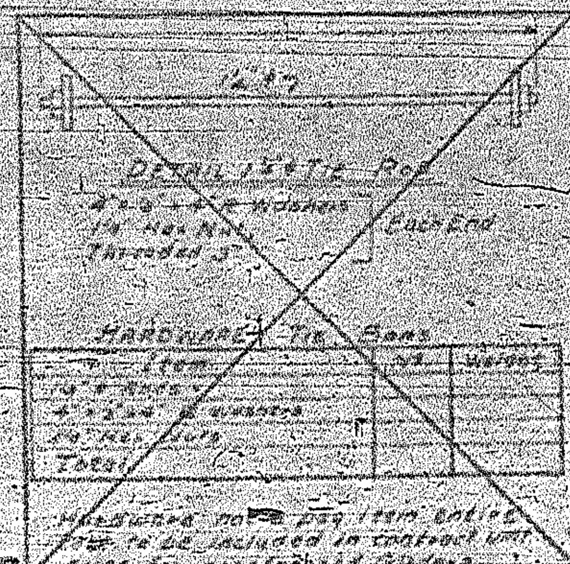
BAR SCHEDULE FOR ONE SPAN TWO REQUIRED

Bar	No.	Size	Type	Length	Weight
a1	82	#5	1	30'-7"	2,618
a2	81	#5	2	31'-10"	2,689
b1	94	#4	Str.	21'-8"	1,360
b2	35	#4	3	5'-6"	129
b3	6	#4	3	5'-6"	22
c1	36	#4	3	3'-8"	93
c2	38	#4	3	6'-3"	108
d1	23	#4	4	4'-8"	72
d2	21	#4	5	5'-3"	74
h1	2	#3	6	5'-2"	4
h2	16	#3	6	2'-10"	17
h3	84	#2	6	2'-7"	36
K1	2	#6	Str.	17'-8"	53
K10	3	#6	Str.	6'-4"	29
K11	2	#6	Str.	3'-6"	11
K2	6	#4	Str.	17'-4"	69
K20	9	#4	Str.	7'-4"	44
K21	6	#4	Str.	3'-10	15
K3	6	#6	Str.	7'-4"	66
K30	4	#8	7	13'-9"	147
K31	4	#8	7	9'-11"	106
Z1	2	#5	8	8'-3"	17
Z2	16	#4	8	7'-1"	118
f1	8	#4	Str.	14'-3"	76
f2	16	#5	Str.	13'-1"	140

Bar Types

(All Bar Dimensions Are Out to Out)

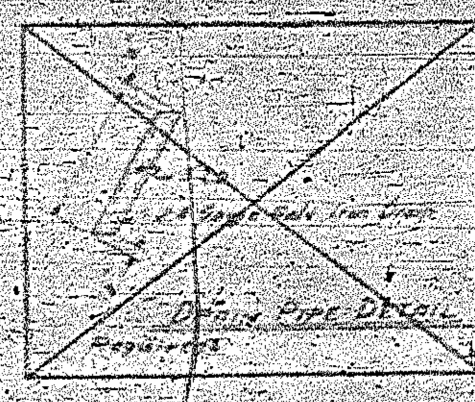




DETAIL 1 3/4" TIE ROD

HARDWARE TIE BARS

Hardware not a pay item entire cost to be included in contract unit price for prestressed girders.



DRAIN PIPE DETAIL

SUPERSTRUCTURE QUANTITIES FOR ONE SPAN 2 REQUIRED

Class "A" Concrete	87.3 C.Y.
Reinforcing Steel	8,711 Lb.
Prestressed Concrete Girders	161.33 Lin. Ft.

PROJECT NO. 8.13972

ROBESON COUNTY

STATION: 486+51.5 "L"
10+59.9 "Y"

3 of 4

STATE OF NORTH CAROLINA

STATE HIGHWAY COMMISSION

STANDARD END SPAN

PRESTRESSED CONCRETE GIRDER

28' ROADWAY - 18" CURBS

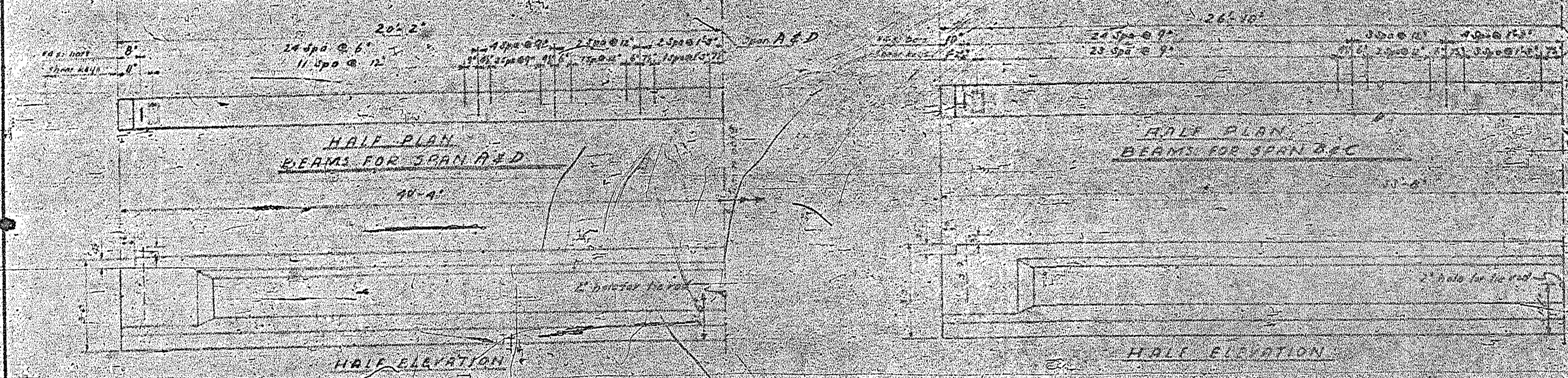
SPAN A & D

AUGUST 1957

SHEET 3.3C OF 3C

Fed. Road Dist. No.	State	Project No.
3	N.C.	8.13972

F.A. Proj. I-95-1(7)22



NOTE

All prestress strands to be ¾" Stress Relieved Cable and each cable to be prestressed at [illegible] lbs.

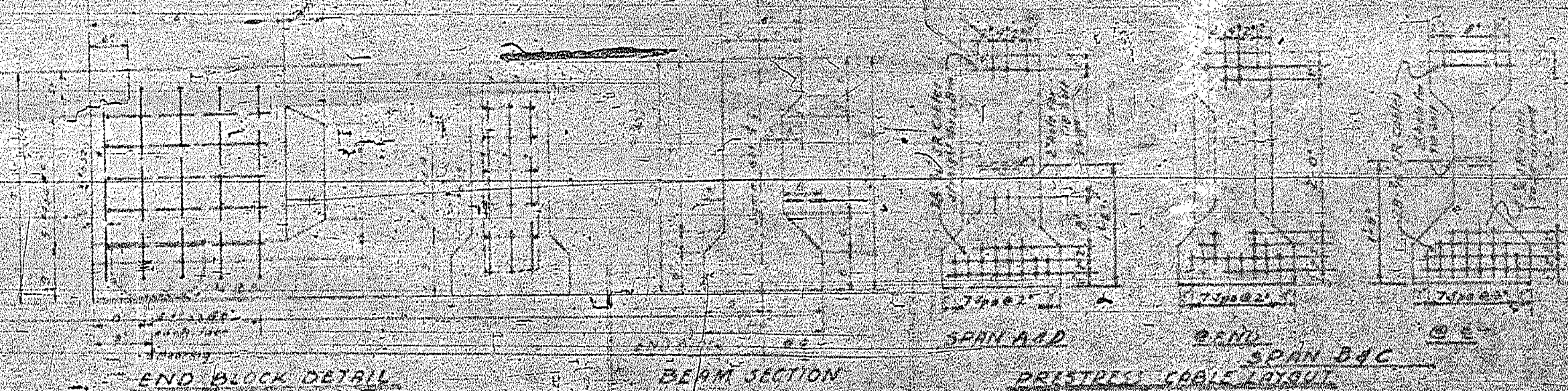
Cable shall be cut off with in [illegible] of end of beam.

The prestressed beams shall be formed and cast in accordance with the Special Provisions. In the handling of beams they must be maintained in an upright position at all times and must be picked up from points within the solid bearing blocks of the beam ends. Disregard of this requirement may lead to collapse of the member.

Embedded [illegible] loose bearing [illegible] necessary fill plates [illegible] Anchor bolts with hexnuts and ¾ tie rod assemblies are not contract pay items and are to be included in the cost of Prestressed Concrete Beams.

No surface finish will be required for prestressed concrete beams. However the outside face of exterior beams shall be carefully cleaned of drippings and other discolorations.

No surface finish will be required for prestressed concrete girders. However the outside faces of exterior girders shall be carefully cleaned of drippings and other discoloration.



REINFORCING STEEL FOR ONE (1) BEAM

	Bar	No.	Size	Type	Length	Weight	Bending Diagrams
A&D Beam	[illegible]	65	[illegible]	[illegible]	[illegible]	293	
Beam	[illegible]		[illegible]	[illegible]	[illegible]		
B&C Beam	[illegible]	63	[illegible]	[illegible]	[illegible]	289	
Beam	[illegible]		[illegible]	[illegible]	[illegible]		
	[illegible]	6	[illegible]	[illegible]	[illegible]	20	
	[illegible]	[illegible]	[illegible]	8	[illegible]	47	
	[illegible]	10	[illegible]	8	[illegible]	33	

Dimensions are out out

Bearing Plate Notes

Where finish is called for on bearing plates the finished surface shall be coated with a hot mixture of white lead and tallow. See Specifications.

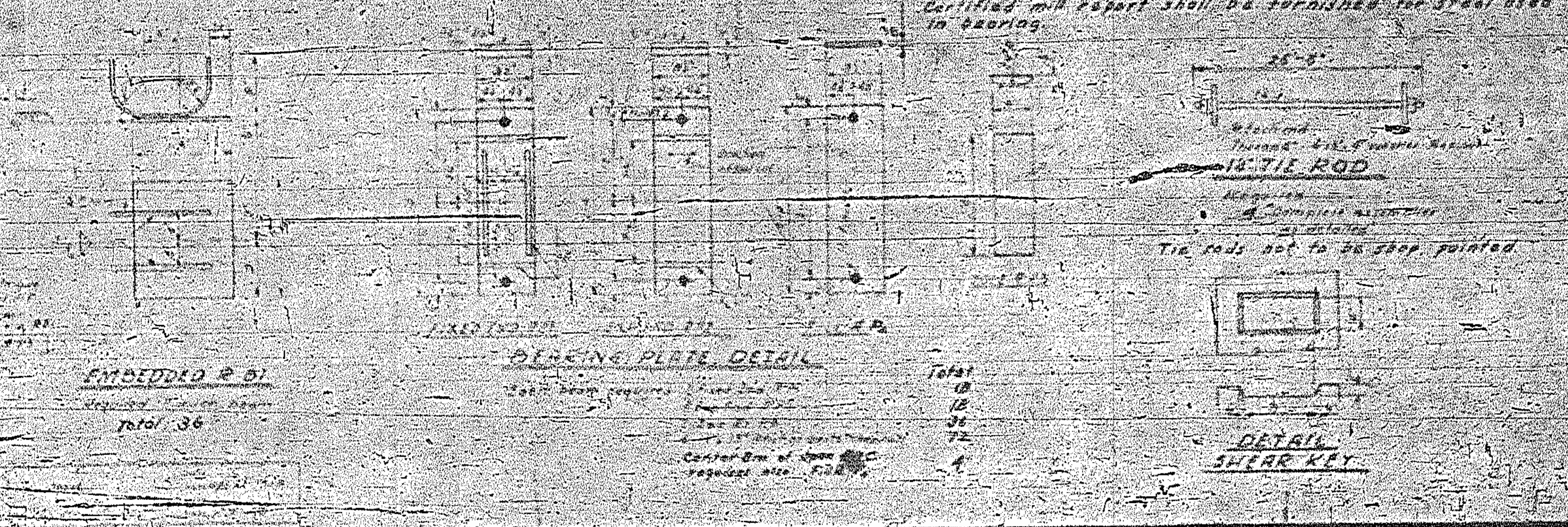
Certified mill report shall be furnished for steel used in bearing.

BEAMS REQUIRED

8 @ 40'-4"	Length	322'-8"	LF
10 @ 53'-8"	Length	536'-8"	LF
@	Length		LF
@	Length		LF

DEFLECTIONS

	Ext. Bm.	Int. Bm.
Spans B&C		
Camber with beam in place	[illegible]	[illegible]
Defl. due to superstructure dead load	[illegible]	[illegible]
Net	[illegible]	[illegible]
Spans A&D		
Camber with beam in place	[illegible]	[illegible]
Defl. due to superstructure dead load	[illegible]	[illegible]
Net	[illegible]	[illegible]



QUANTITIES ONE (1) BEAM

Reinforcing Steel		
A&D Beam	413	Lb.
Beam		Lb.
B&C Beam	409	Lb.
Beam		Lb.
5000 psi Concrete		
A&D Beam	3.9	CY
Beam		CY
B&C Beam	5.2	CY
Beam		CY
¾" S.R. Cables		
A&D Beam	26	No.
Beam		No.
B&C Beam	28	No.
Beam		No.
Embedded ℞ B1 A, B, C, D	2	

PROJECT No. 8.13972
ROBESON COUNTY
STATION: 186+51.5 "L"
10+54.9 "Y"

4 of 4

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH

STANDARD
36" PRESTRESSED
CONCRETE BEAM
SPAN A, B, C & D
APRIL 1958