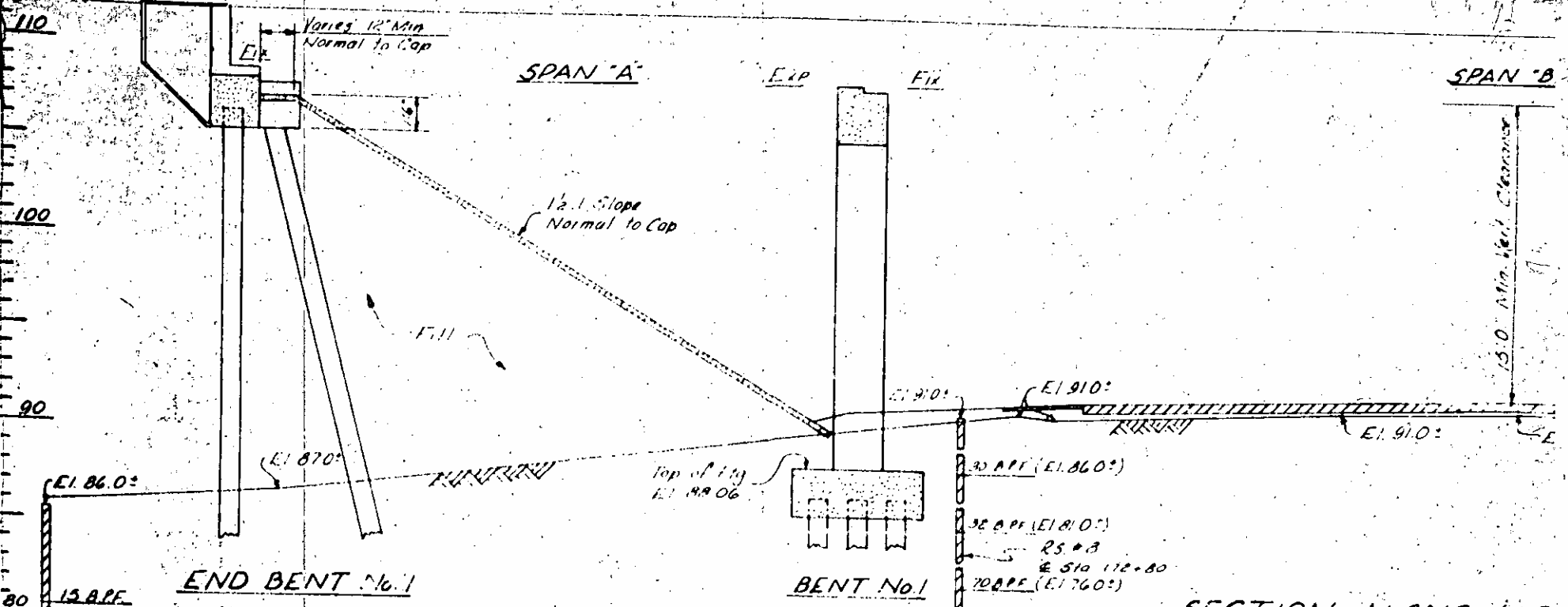


421-28-40 W
SAMPSON

PI 173+00
EI 115.74
880' VC

+0.825%

Fill Face E.B.#1
Sta 172+41.39
Ct EI 111.92



110
100
90

80
70
60
EI 600'

END BENT No. 1

BENT No. 1

SECTION ALONG & O
27'-0" SHFT. OF & M
BENTS ALONG SECTION

Note: All elevations taken
44' W of & M station

131'-0 1/2" Length of Bridge Floor along A

66'-7 1/2" Slope
68'-0" Shoulder to
44'-0" Pavement

15'-0" Min. side Clear

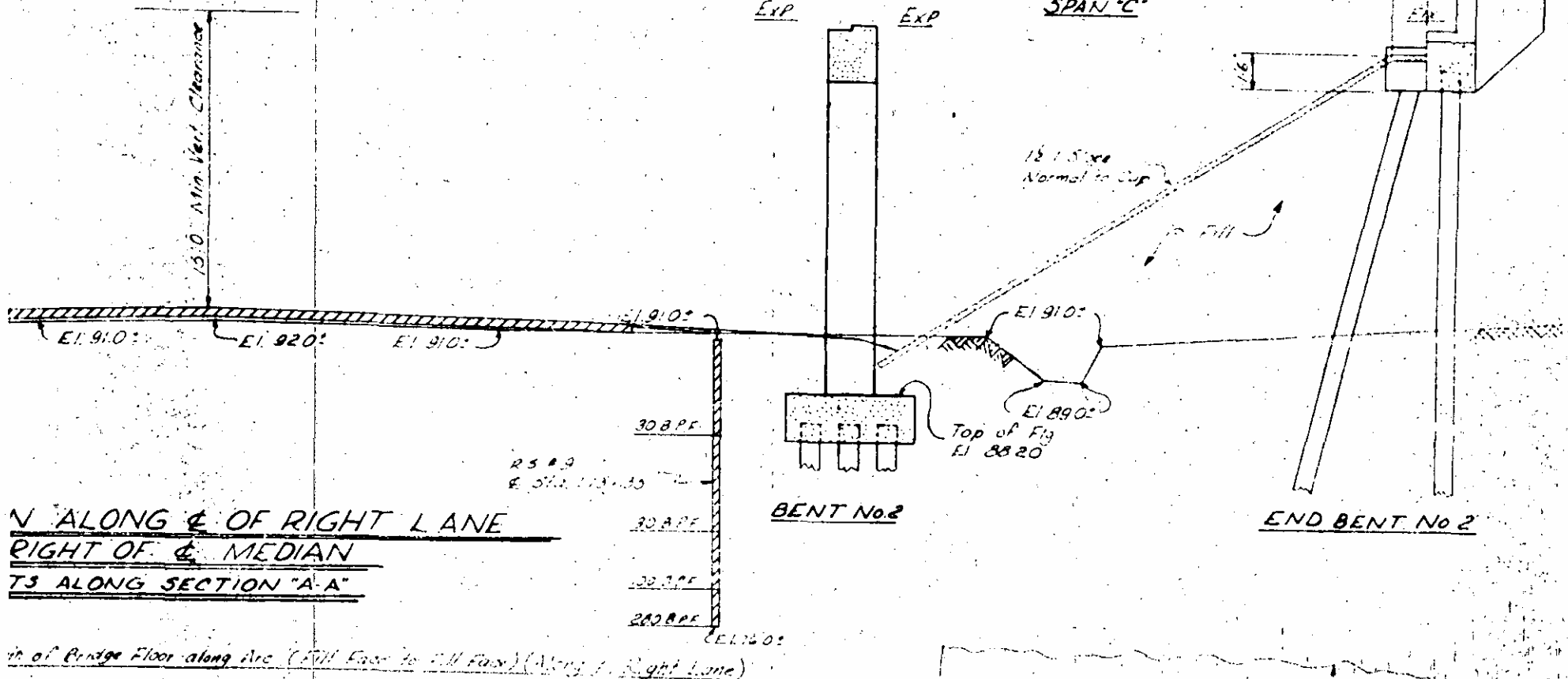


173.00
115.74
980 VC

-2.343%

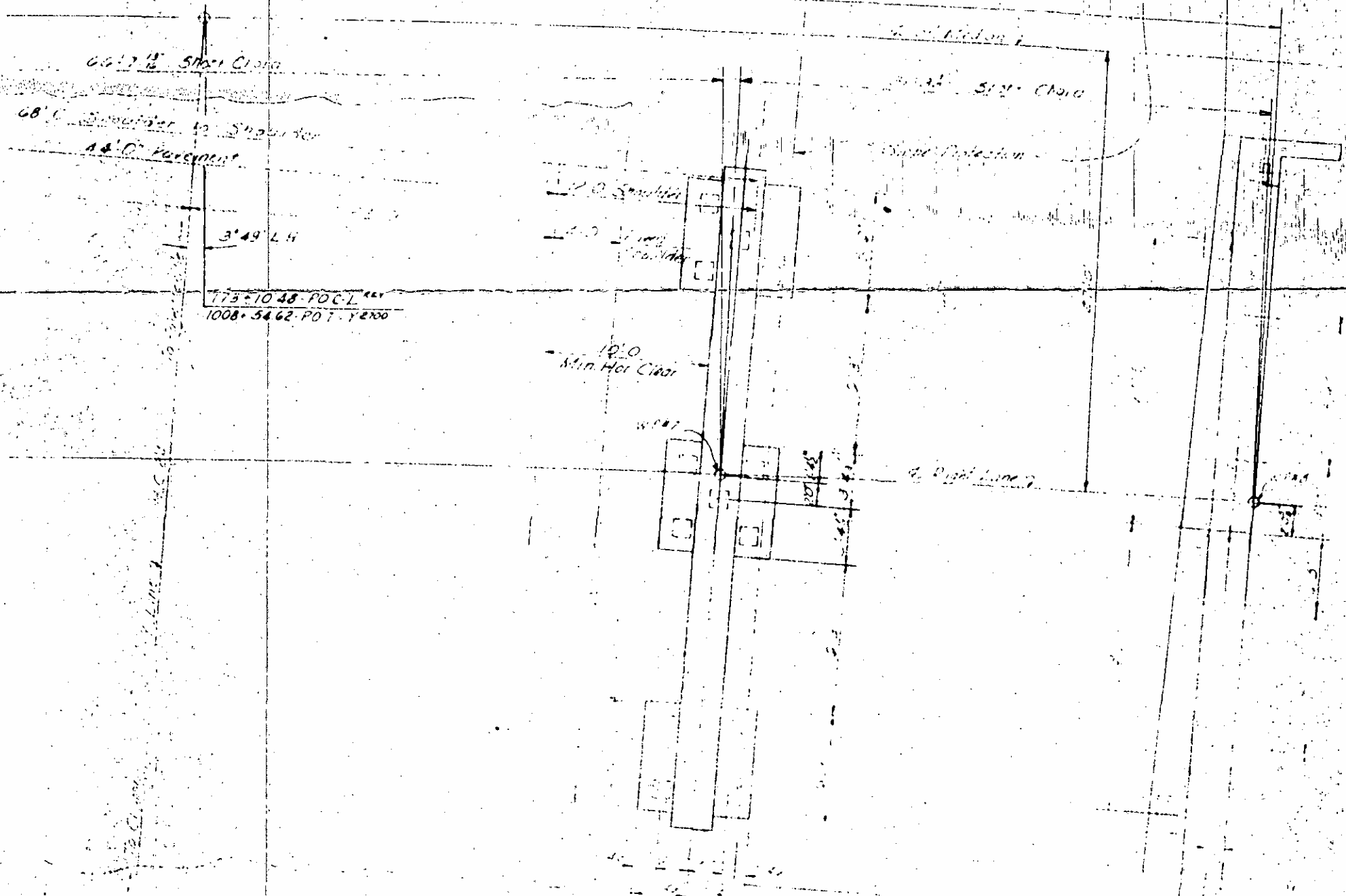
SPAN "B"

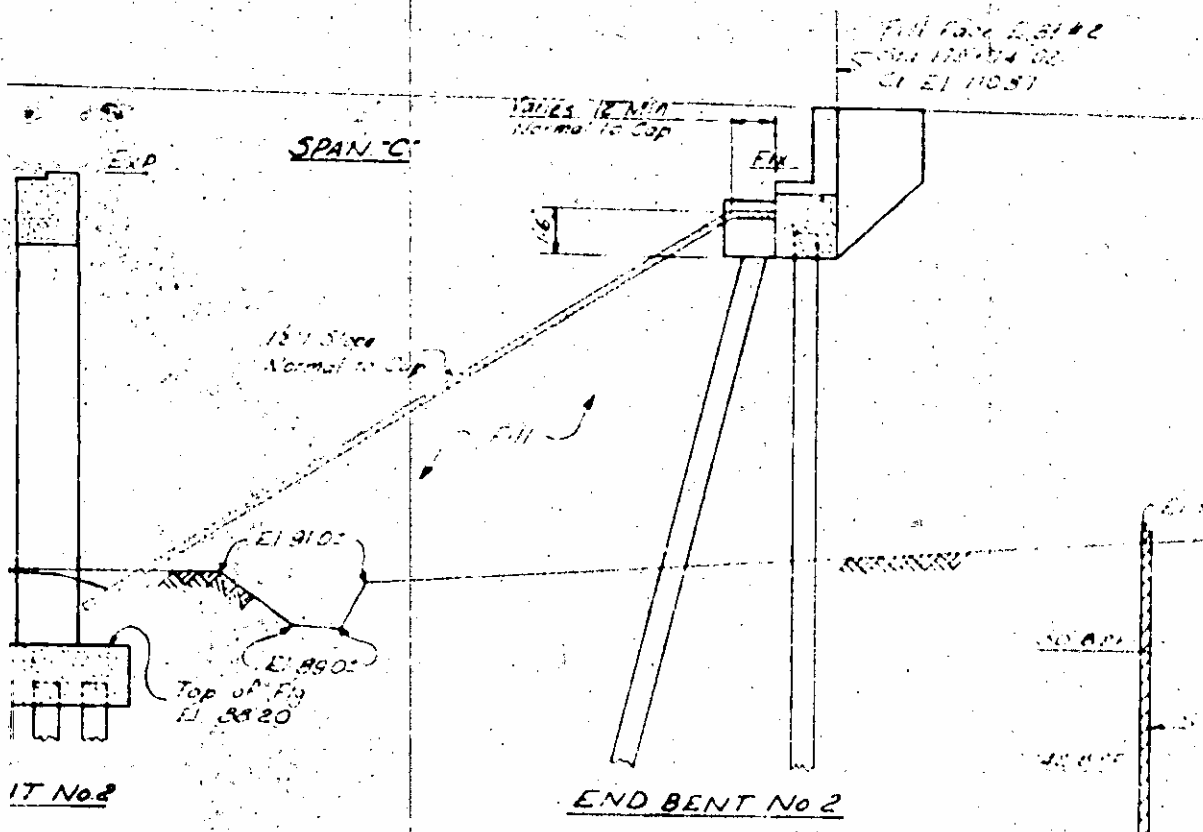
SPAN "C"



N ALONG & OF RIGHT LANE
RIGHT OF & MEDIAN
TS ALONG SECTION "A-A"

in of Bridge Floor along Arc (Fill Face to Fill Face) (Along Right Lane)





I HEREBY CERTIFY THAT THIS STRUCTURE WAS BUILT ACCORDING TO PLAN REVISIONS APPROVED BY ME AS ENGINEER.

 PROJECT ENGINEER

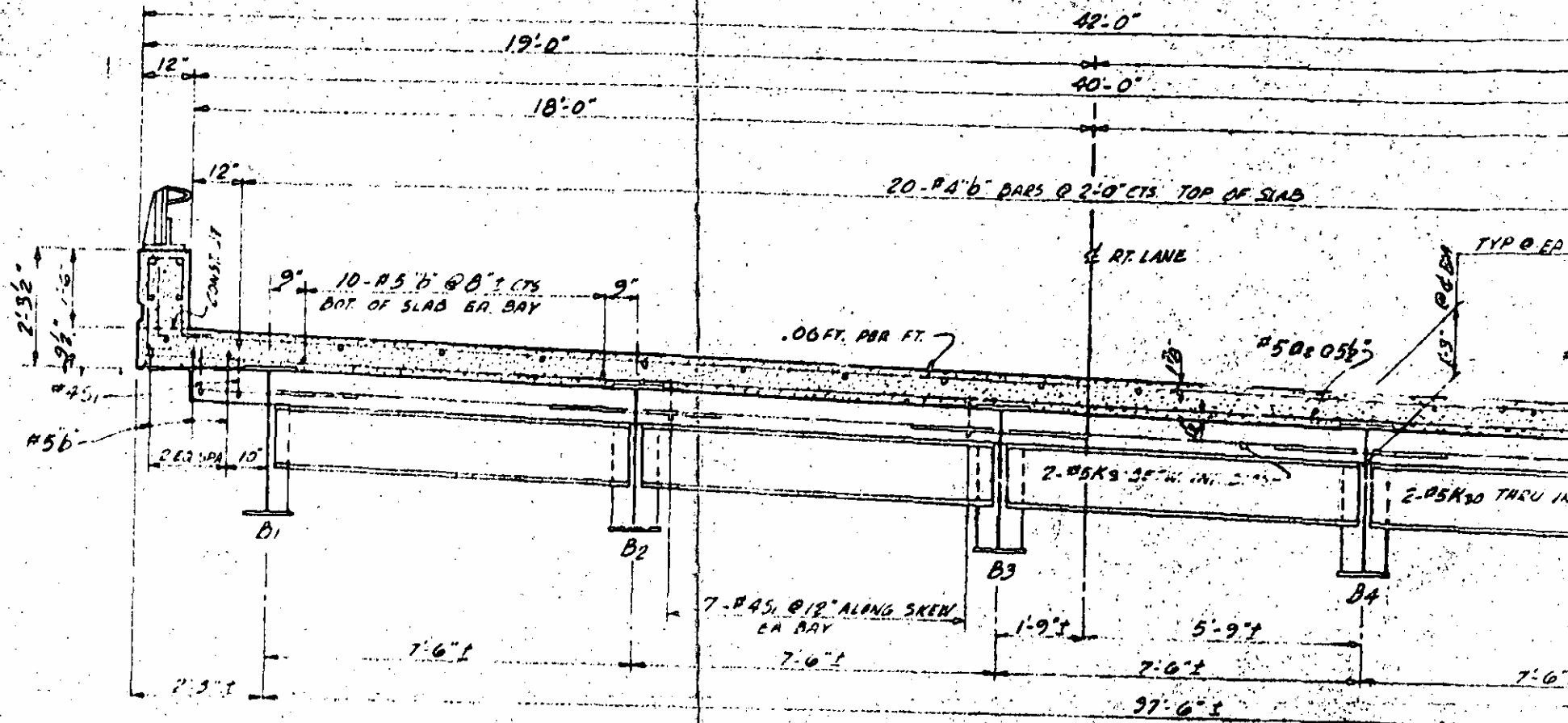
PROJECT NO. 1002

COUNTY

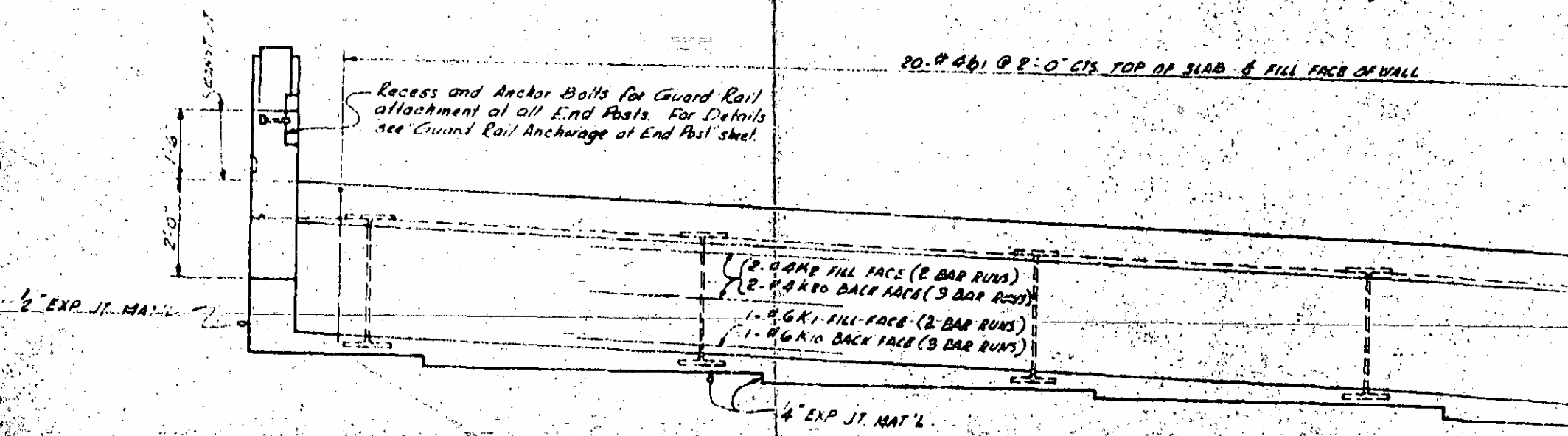
STATION 173+10.48-POC-L REV.
 1008+5462-POT-YR100

STATE OF NORTH CAROLINA
 STATE HIGHWAY COMMISSION

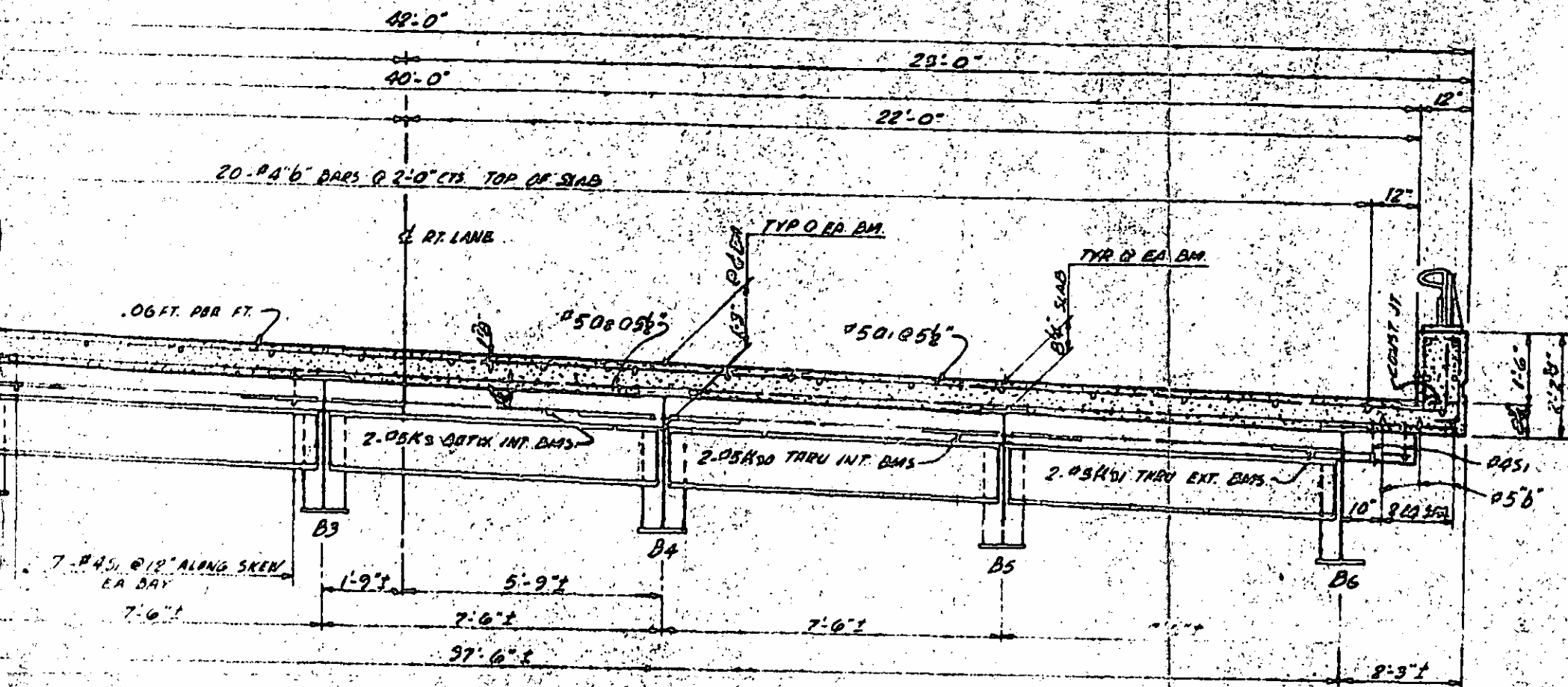
RIGHT LANE



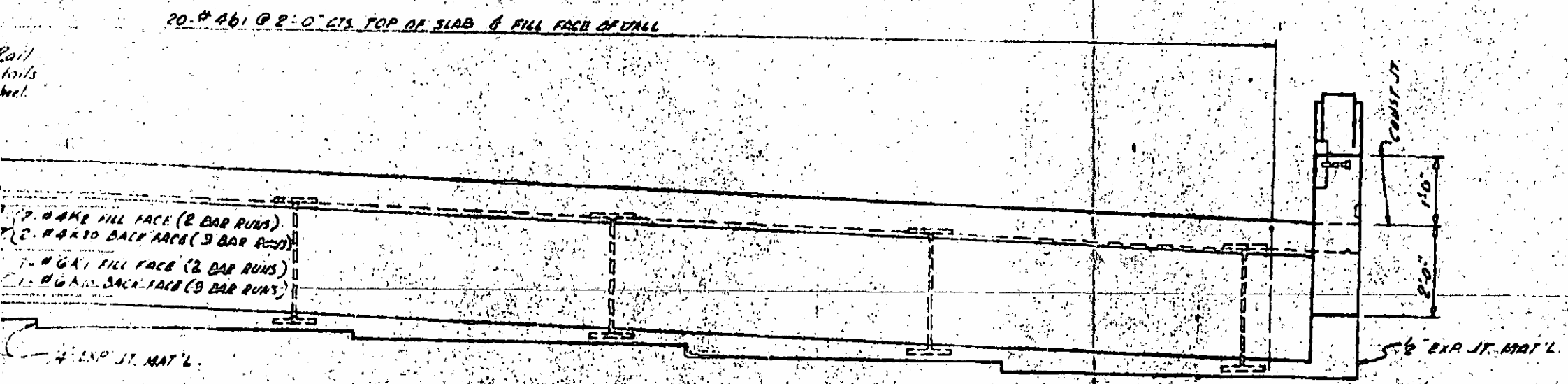
TYPICAL SECTION
(SHOWING DIAPHRAGMS AT BENTS)



END ELEVATION



TYPICAL SECTION
(SHOWING DIAPHRAGMS AT BENTS)

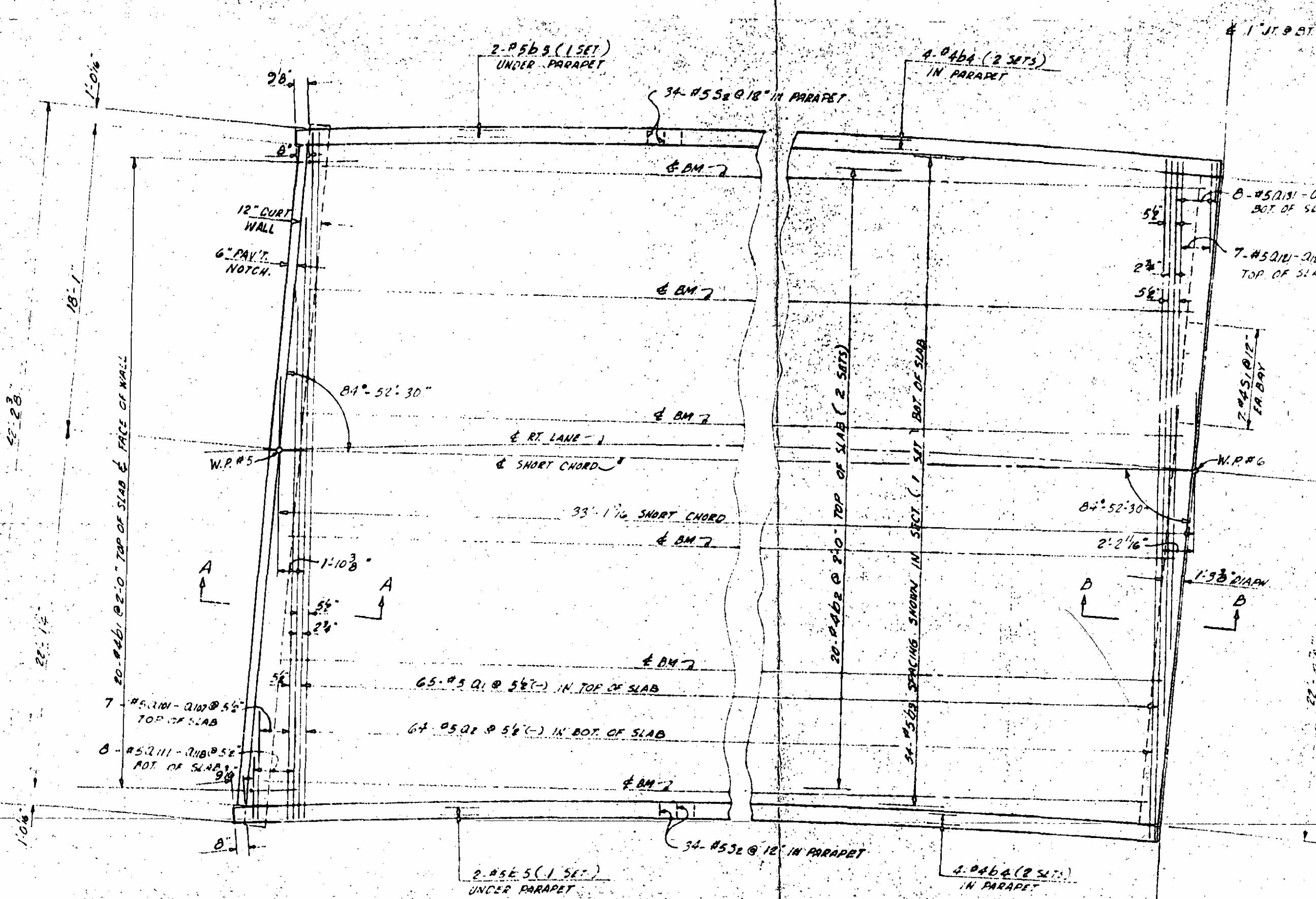


END ELEVATION

22-28

22-14

22-22



2-#5@5 (1 SET)
UNDER PARAPET

4-#4@4 (2 SETS)
IN PARAPET

34-#5@18" IN PARAPET

12" CURT
WALL
6" PAV'T.
NOTCH.

20-#4@8" @ 2'-0" TOP OF SLAB & FACE OF WALL

84°-52'-30"

W.P.#5

& RT. LANE - 1
& SHORT CHORD

33'-1 1/4" SHORT CHORD

A

A

1'-10 3/8"

5 1/2"

2 1/2"

84°-52'-30"

2'-2 1/8"

B

1'-3 3/8" DIAPH

B

8-#5@18" - DIA.
BOT. OF SLAB

7-#5@18" - DIA.
TOP OF SLAB

2-#4@12"
FA. BAY

W.P.#6

20-#4@8" @ 2'-0" TOP OF SLAB (2 SETS)

34-#5@8" SPACING SHOWN IN SECT. (1 SET) BOT. OF SLAB

2-#5@5 (1 SET)
UNDER PARAPET

34-#5@12" IN PARAPET

4-#4@4 (2 SETS)
IN PARAPET

PLAN

SPAN A - RT. LANE

NOTE: POSTS AND RAIL ARE NOT SHOWN

33 W 118
30 W 99

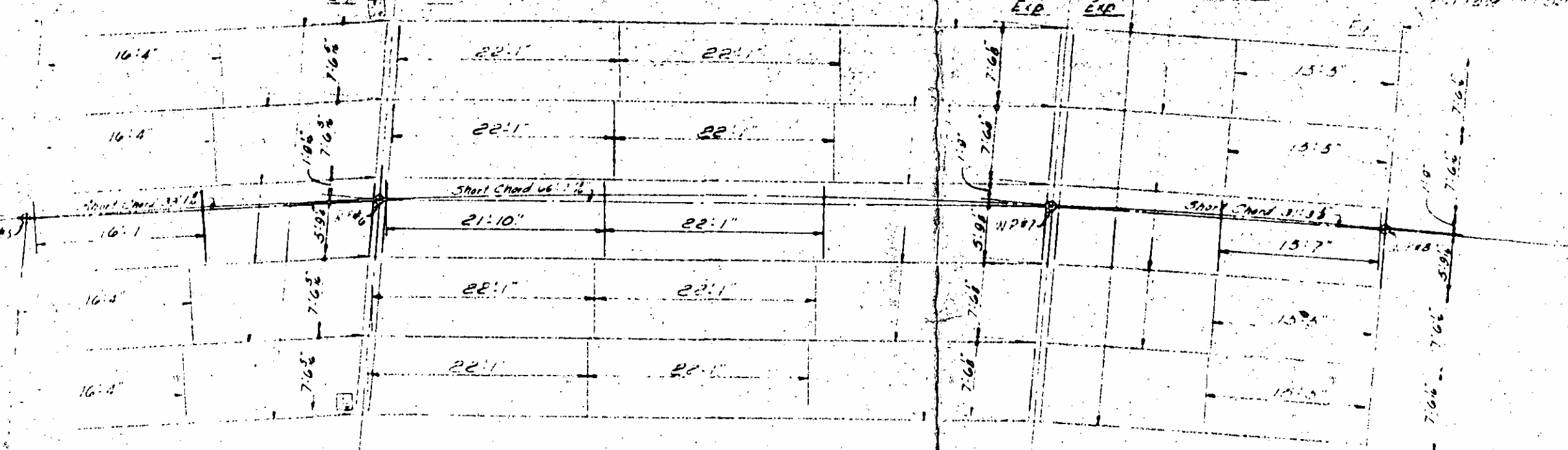
Bent #1

33 W 118
30 W 99

30 W 99

33 W 118
30 W 99

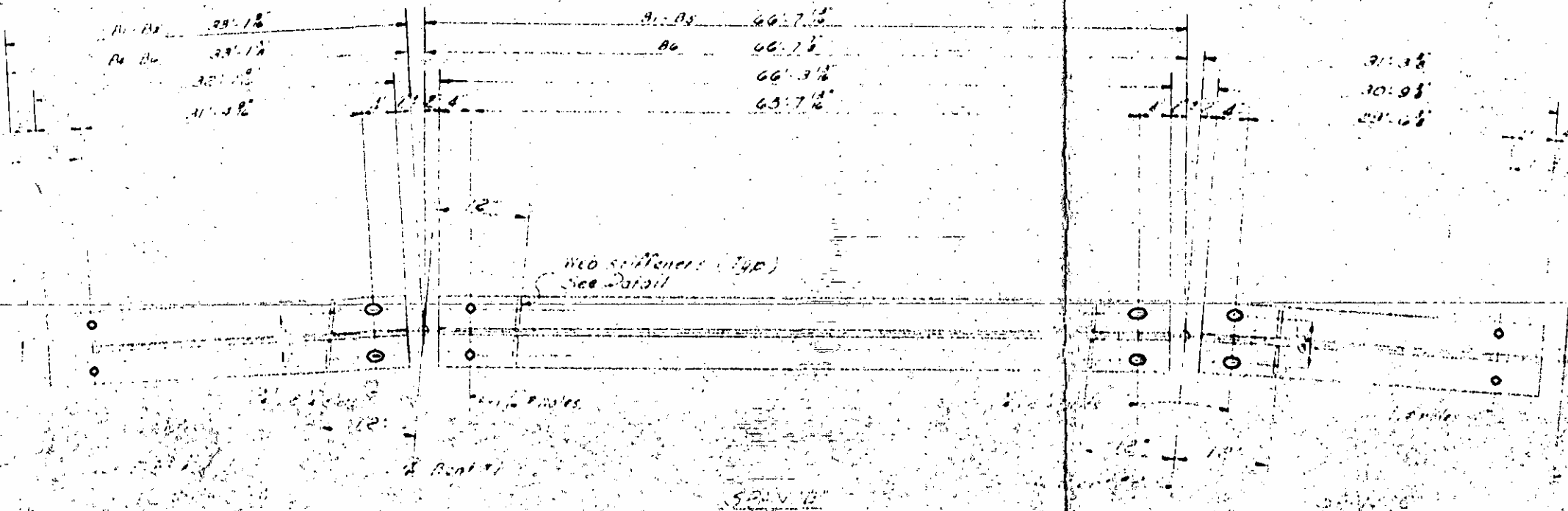
Bent #2



SPAN A SPAN B SPAN C

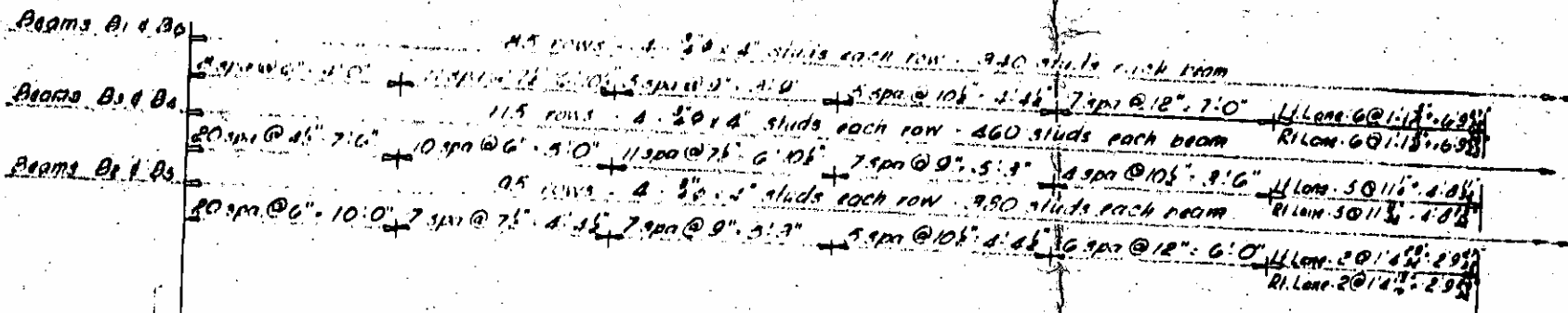
STRUCTURAL STEEL PLAN

Legend:
 [Symbol] Indicates field to be covered



BOTTOM FLANGE DETAIL

(Top flange detail)



Beam B1
Cover 12 - 10' x 11' - 27'0"

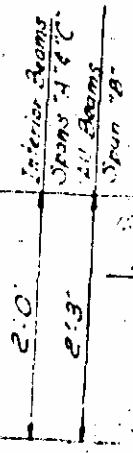
Beam B2 & B3
Cover 2 - 10' x 11' - 27'0"

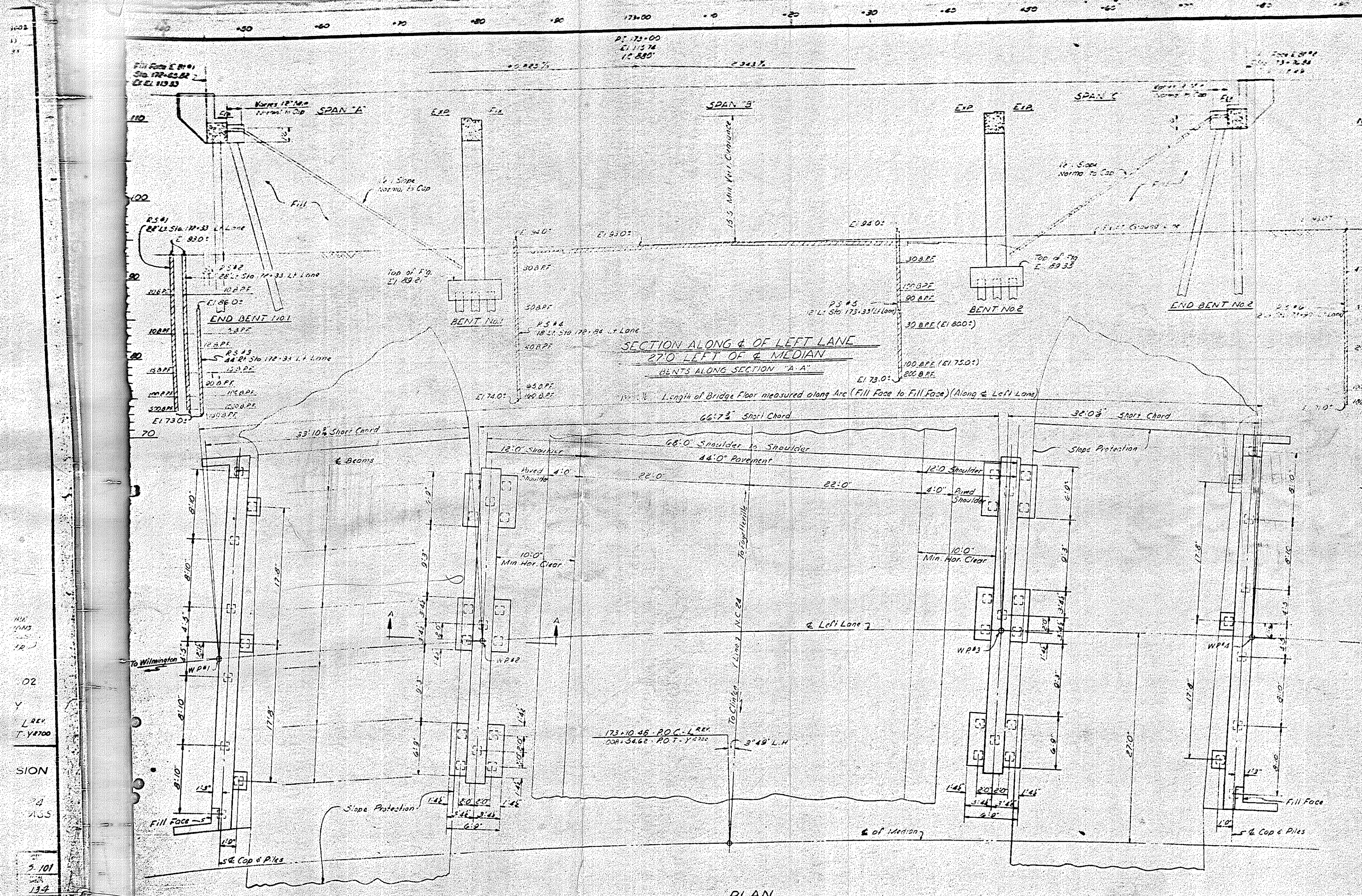
BEAM ELEVATION AND STUD SPACING

COVER PLATE WELD DETAIL

Beam
Typical

NO PLANNING REQUIRED FOR FILL R'S





NO.	BY	DATE	REVISIONS
1	D.H.W.	2-15-67	
2			

SHEET 08 OF 102

**SECTION ALONG & OF LEFT LANE
27.0' LEFT OF & MEDIAN**

BENTS ALONG SECTION "A-A"

Length of Bridge Floor measured along line (Fill Face to Fill Face) (Along & Left Lane)

NOTE: Spacing of members to be checked on 1/2" scale.

I HEREBY CERTIFY THAT THIS STRUCTURE WAS BUILT ACCORDING TO PLANS:
SIGNED: *[Signature]*
RESIDENT ENGINEER

PROJECT No. 8 1273002
SAMPSON COUNTY
STATION: 173+10.48 P.O.C. L REV
1008-5462 P.O.T. Y 0200

STATE OF NORTH CAROLINA STATE HIGHWAY COMMISSION			
GENERAL DRAWING FOR DUAL BRIDGES OVER NC 24 ON PROJECT CLINTON BY-PASS LEFT LANE			
MAY 1965		REVISIONS	
NO.	BY	DATE	NO. BY DATE
1	D.H.W.	2-15-67	
2			

134

PLAN

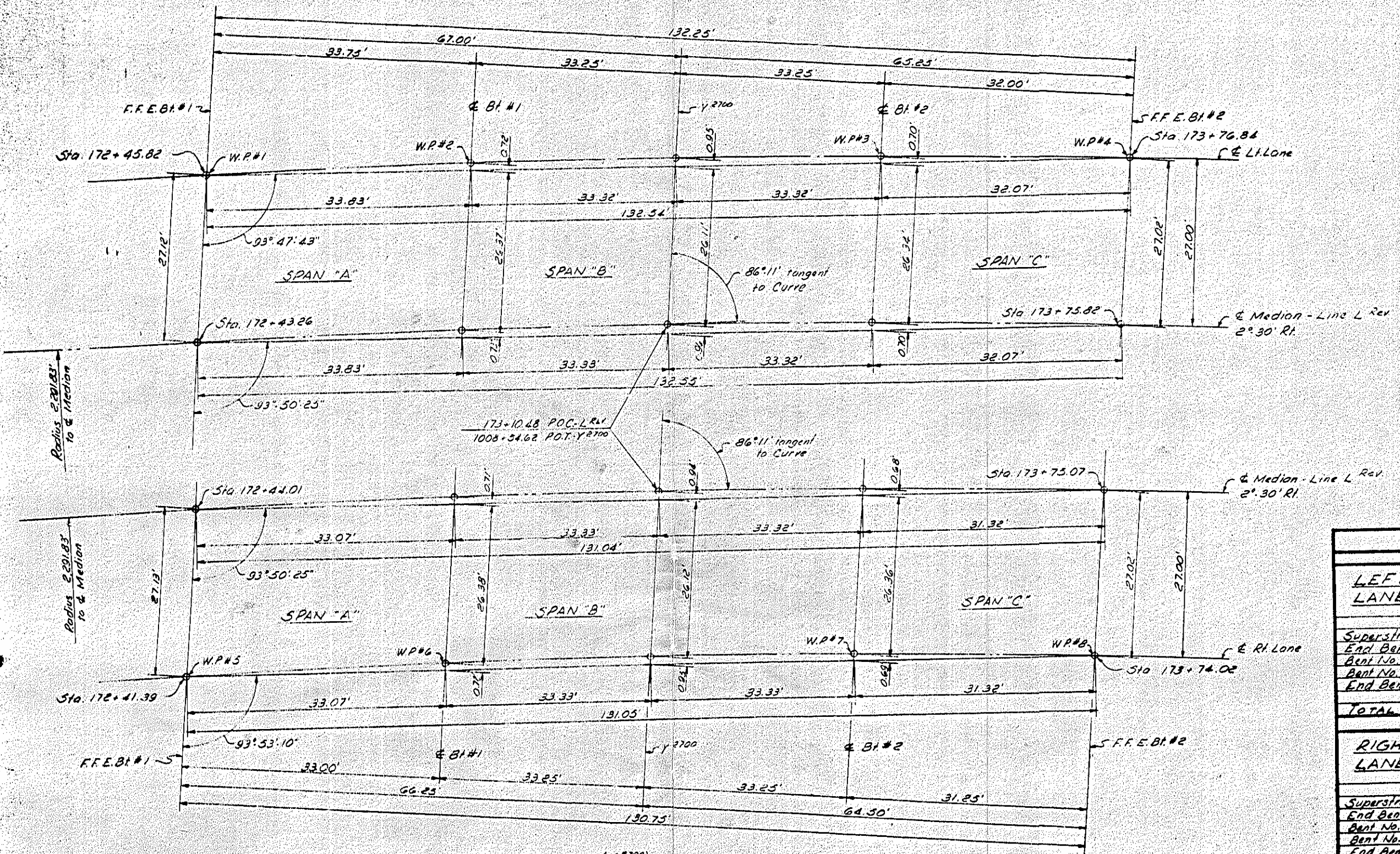
Rev. No. 1 - Revised to change length of bridge floor on 2-15-67 B.S.P.

DESIGNED BY S. J. SANTO-TOMAS DATE MAY 1965
CHECKED BY *[Signature]* DATE 1965

421-28-40W

NOTES

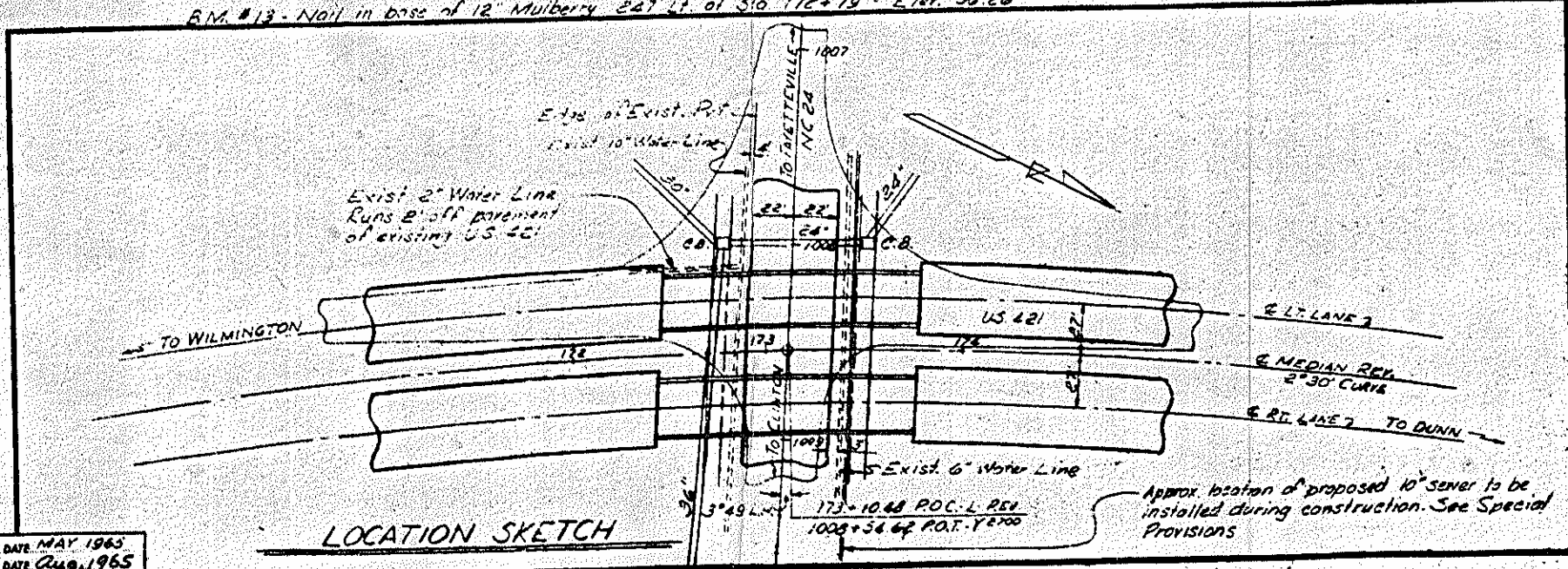
Assumed Live Load - H-20-316(44) or Alternate Loading
 For other design data and general notes, see Sheet S-11.
 All piles for End Bents and Interior Bents shall be driven to a minimum bearing capacity of 30 tons each. The contractor shall be responsible for determining lengths of piles required. See Special Provisions. For note regarding alternate type of piles, see Pile Sheet. The contractor will be required to excavate completely through the fill at End Bents before driving End Bent piles. See Sheet S-11.
 The roadway contractor will be required to remove the existing pavement and scarify the roadbed to a minimum depth of 6" within the area of the End Bent piles. This note applies to Left Lane Bridge only.
 No work shall be started on Interior Bents for Left Lane Bridge until after roadway section has been excavated by the roadway contractor. Unclassified Structure Excavation for Interior Bents shall be measured from surface of road way cut for Left Lane Bridge and from existing ground line for Right Lane Bridge.
 The length of bridge was computed on the basis of no ditch section with the 5% at slope 2'-0" outside 4'-0" shoulder.
 Traffic on U.S. 421 will be detoured and traffic on N.C. 24 will be maintained during construction.
 The existing 10" water main located approximately 4'-3" south of the existing pavement of N.C. 24, the existing 6" water main located approximately 3'-3" north of the existing pavement of N.C. 24, and the existing 2" water main that runs out from the existing 10" water main 2'-3" off the pavement of the existing U.S. 421 shall be protected during construction. See Location Sketch for note regarding proposed 10" sewer.



NOTE: All Bents are parallel to base line (Y=700)

CURVE LAYOUT

B.M. #13 - Nail in base of 12' Mulberry 247' E of Sta. 172+78 - Elev. 96.26



LOCATION SKETCH

LEFT LANE	9,344'-10"
RIGHT LANE	15,334'-0"
CONC. PILES	15,437'-10"
W.P. LINES	9,363'-0"
TOTAL	48,501'-8"

TOTAL BILL OF MATERIAL

LEFT LANE	Class "A" Concrete	Reinforcing Steel	Structural Steel	12" Square Prest. Conc. Piles	PILES	Fluted Tubular Steel Shell	Unclassified Structure Excavation	Concrete Slope Protection	One Bar Metal Rail
	Cu. Yds.	Lbs.	APPROX. LBS.	No. / Lin. Ft.	No. / Lin. Ft.	No. / Lin. Ft.	Cu. Yds.	Sq. Yds.	Lin. Ft.
Superstructure	173.5	39,357	121,920	6	432	0	324	196	252.82
End Bent No. 1	15.8	2,941		12	270	13	270	64,527.4	
Bent No. 1	36.3	6,101		13	270	13	270	6,027.53	
Bent No. 2	35.9	6,028		9	270	9	270	193.79	
End Bent No. 2	15.9	2,927		9	270	9	270	57.4	242.82
TOTAL	271.4'	57,440'	121,920'	18	1,182	40	1,182	113,551	398.66'

RIGHT LANE	Class "A" Concrete	Reinforcing Steel	Structural Steel	12" Square Prest. Conc. Piles	PILES	Fluted Tubular Steel Shell	Unclassified Structure Excavation	Concrete Slope Protection	One Bar Metal Rail
Cu. Yds.	Lbs.	APPROX. LBS.	No. / Lin. Ft.	No. / Lin. Ft.	No. / Lin. Ft.	Cu. Yds.	Sq. Yds.	Lin. Ft.	
Superstructure	171.5	39,002	120,300	6	432	0	324	196	249.82
End Bent No. 1	14.8	2,833		12	270	13	270	64,527.4	
Bent No. 1	36.1	6,101		13	270	13	270	6,027.53	
Bent No. 2	36.3	6,027		9	270	9	270	193.79	
End Bent No. 2	15.7	2,920		9	270	9	270	57.4	242.82
TOTAL	274.4'	57,033'	120,300'	18	1,332	40	1,332	113,551	398.66'

END BENT NO. 1	9,455'-0"
BENT NO. 1	15,403'-8"
BENT NO. 2	15,527'-0"
END BENT NO. 2	9,360'-0"
TOTAL	48,745'-8"

PROJECT No. 81273002
 SAMPSON COUNTY
 STATION: 173+10.48 P.O.C. L.R.V.
 1008+34.62 P.O.T. Y=700

STATE OF NORTH CAROLINA
 STATE HIGHWAY COMMISSION
 GENERAL DRAWING
 FOR DUAL BRIDGES OVER NC 24
 ON PROJECT CLINTON BY-PASS
 LEFT AND RIGHT LANE
 MAY 1965

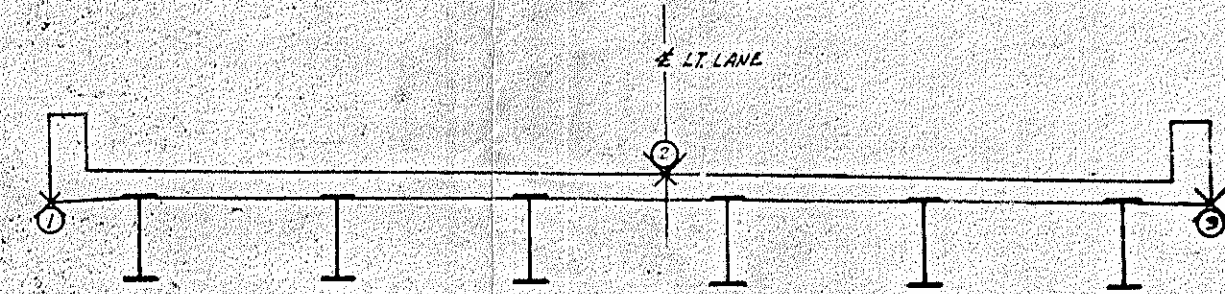
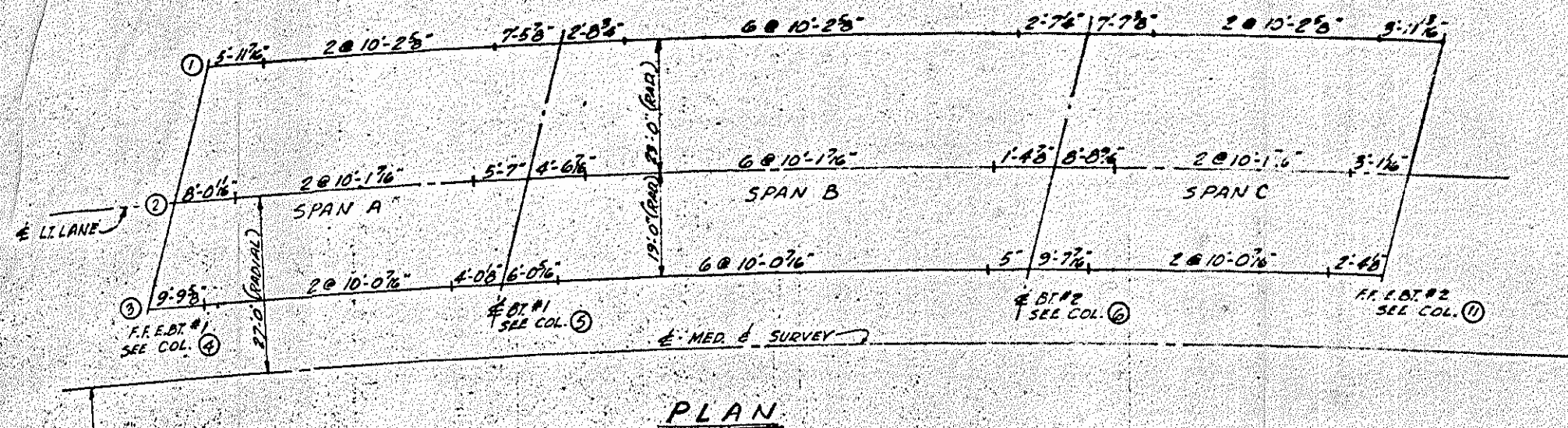
REVISIONS		DATE
NO.	BY	DATE
1		5-10-65
2		1-14-65

DESIGNED BY: J. L. SILVIO-TOMAS DATE: MAY 1965
 CHECKED BY: [Signature] DATE: Aug. 1965

Column 1 Bottom of overhang		Column 2 Cut Roadway		Column 3 Bottom of overhang	
Dist	Elev	Dist	Elev	Dist	Elev
175+80.0	172+53.79	175+80.0	172+53.79	175+80.0	172+53.79
5'-11 1/2"	.816	0'-0"	.200	9'-9 1/2"	.479
	.795		.187		.417
	.690		.165		.323
7'-0"	.641	5'-7"	.125	4'-0"	.266
2'-0"	.622	4'-6"	.094	4'-0"	.266
	.550		.072		.218
	.475		.067		.197
	.395		.067		.197
	.327		.060		.179
2'-7 1/2"	.197	1'-4 1/2"	.096	5'-0"	.795
7'-2 1/2"	.115	0'-0"	.515	9'-7 1/2"	.706
	.115		.515		.609
	.045		.517		.500
9'-11 1/2"	.117	3'-1 1/2"	112.286	2'-8 1/2"	110.484

GRADE DATA +2.0% -3.2%

P: 530 173+00
P: Elev 115.78
Length of Curve 280'
G: +2.0% to 62'-2.93%
SHEET 107 of 108



TYPICAL SECTION

HEADERS

Column 1 Fill Face E 01	Column 2 Cut Road	Column 3 Cut Road	Column 4 Cut Road	Column 5 Cut Road	Column 6 Cut Road	Column 7 Cut Road	Column 8 Cut Road	Column 9 Cut Road	Column 10 Cut Road	Column 11 Cut Road	
Dist	Elev	Dist	Elev	Dist	Elev	Dist	Elev	Dist	Elev	Dist	Elev
175+80.0	172+53.79	175+80.0	172+53.79	175+80.0	172+53.79	175+80.0	172+53.79	175+80.0	172+53.79	175+80.0	172+53.79
2'-0"	.523	2'-0"	.315	2'-0"	.706	2'-0"	.559	2'-0"	.479	2'-0"	.478
2'-0"	.404		.195		.667		.440		.360		.359
2'-0"	.286	114.078		549		.120					
2'-0"	.166	113.957		.499		.001					
2'-0"	114.047	.829		.910		112.683					
2'-0"	113.979	.720		.191		112.683					
	.610			113.072							
	.691	.681		112.955							
	.572	.563	2'-0"	.834							
	.453	.444	2'-0"	.715							
	.334	.325	2'-0"	.596							
	.215	.206	2'-0"	.477							
	113.026	112.807	2'-0"	.357							
	112.917	.769	2'-0"	.238							
	.650	2'-0"	.119								
	.740	2'-0"	112.800								
	.620	2'-0"	111.804								
	.501	2'-0"	111.262								
2'-0"	.385	2'-0"	111.643								
Rt. Gutter	112.283	Rt. Gutter	.085	Rt. Gutter	111.524						

Elevations shown in columns 1 thru 11 are final required elevations of the completed structure. In setting up the form and screed elevations must be made for deflections where required.
For columns 4 thru 11 given elevations are at 20' intervals radial from the left gutter line to the right gutter line.

SUPERIMPOSED DEAD LOAD DEFLECTION (inches)

INT.	SPAN DEFLECTION			
	A	B	C	D
INT.	1/8"	1/8"	3/16"	
EXT.	1/8"	1/8"	3/16"	

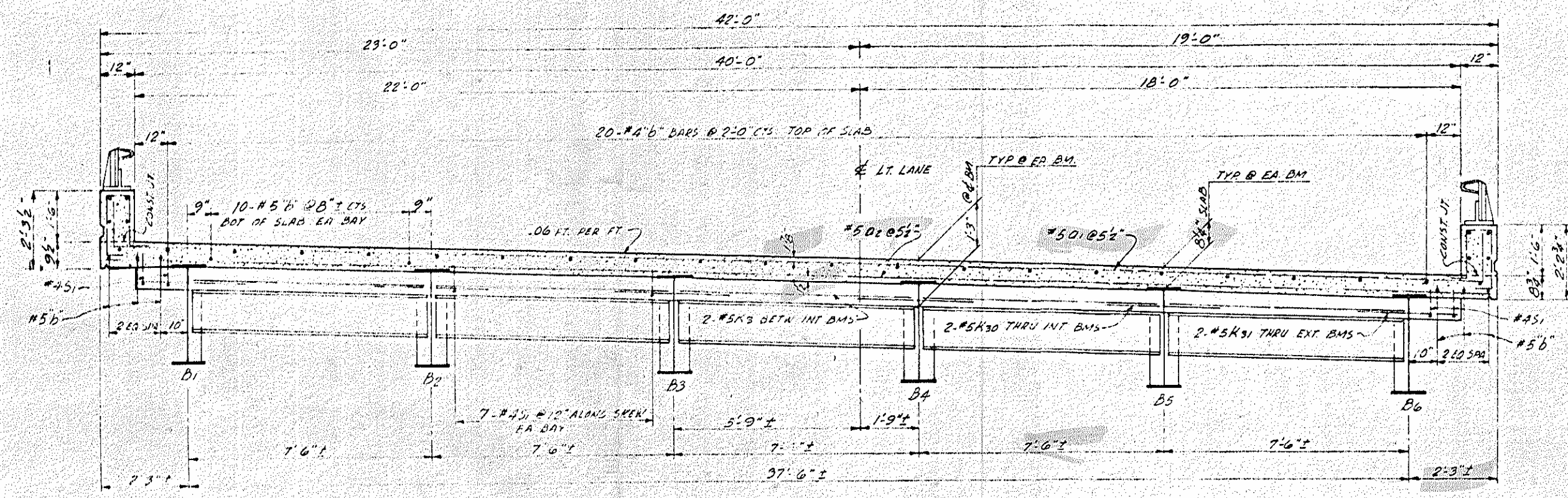
PROJECT No. 2.1273002
SAMPSON COUNTY
STATION 173+10.48-1-

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
ELEVATIONS FOR SETTING UP FORMS AND SCREEDS LI LANE
1962
5-105
TOTAL SHEETS 138

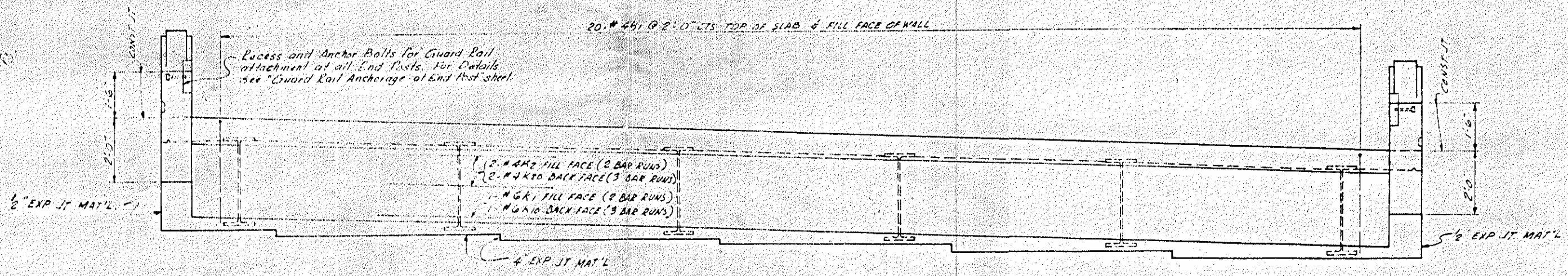
DRAWN BY R. G. RUTHERFORD JR. 11/21/62
CHECKED BY GEORGE R. HANCOCK 11/21/62

PROJECT NO.
 B.1273002
 S. 60-1600 (2)
 OF 185

FD. ROAD DIST. NO.	STATE	PROJECT NO.
3	N. C.	B1173002
TRA PROJECT		6-50-1600 (2)
SHEET 114 of 185		



TYPICAL SECTION
 (SHOWING DIAPHRAGMS AT BENTS)



END ELEVATION

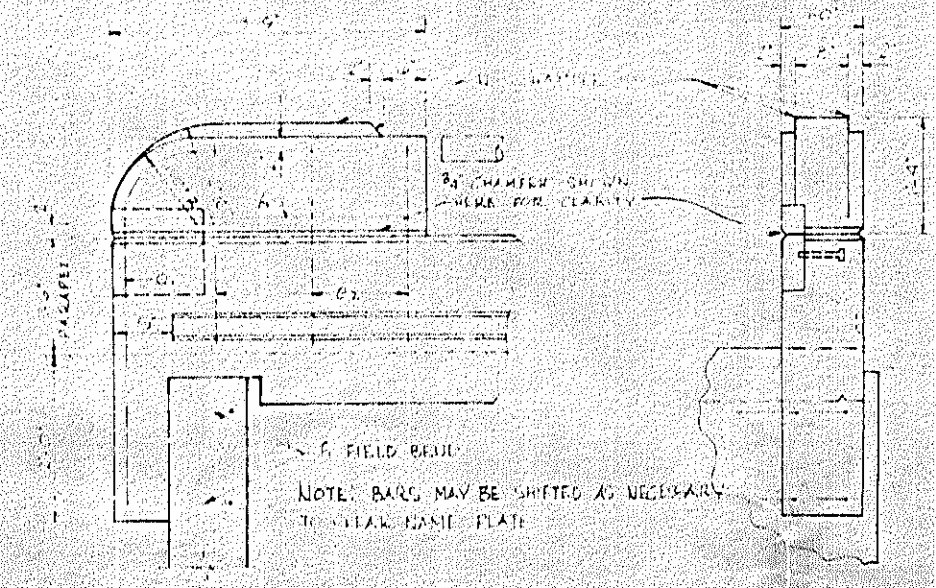
PROJECT NO.
 B.1273002
 JNTY
 0.98-L

PROJECT NO. B.1273002
 SAMPSON COUNTY
 STATION: 173+10.98-L
 LT. LANE

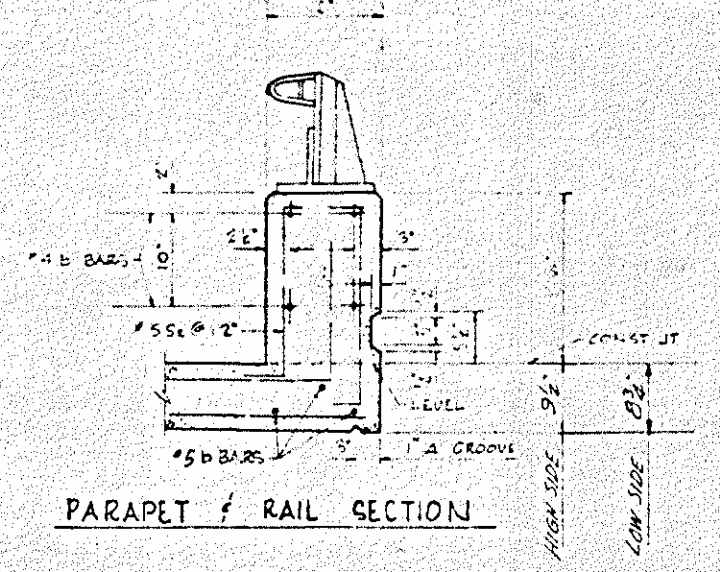
STATE OF NORTH CAROLINA
 STATE HIGHWAY COMMISSION
 SUPERSTRUCTURE
 STANDARD TYPICAL SECTION
 40' ROADWAY - 6 STEEL BEAMS
 MAINT - 1965

NO.	BY	DATE	NO.	BY	DATE	SHEET NO.
1			1			5-112
2			2			134

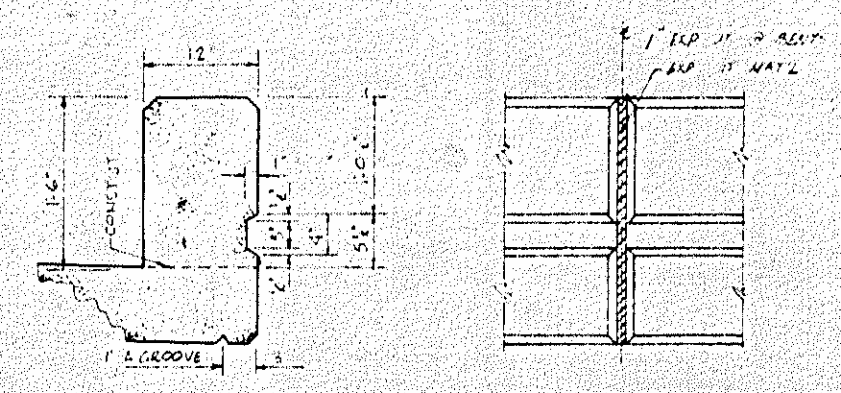
DRAWN BY S. S. ALFORD, JR. DATE APR 65
 CHECKED BY GEORGE B. HYNNE DATE MAY 1965



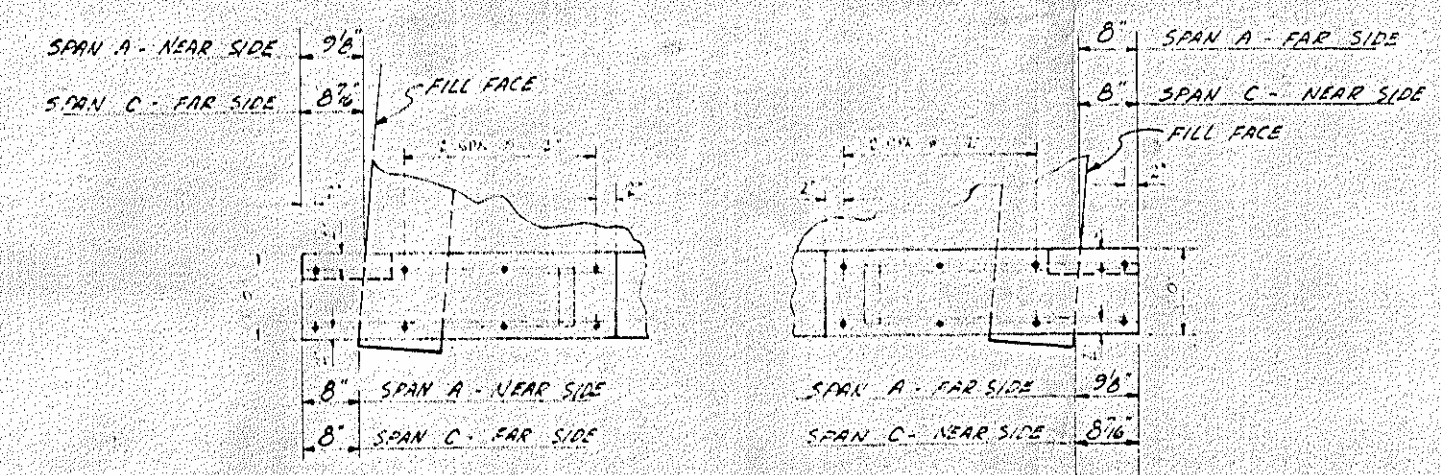
END POST DETAILS



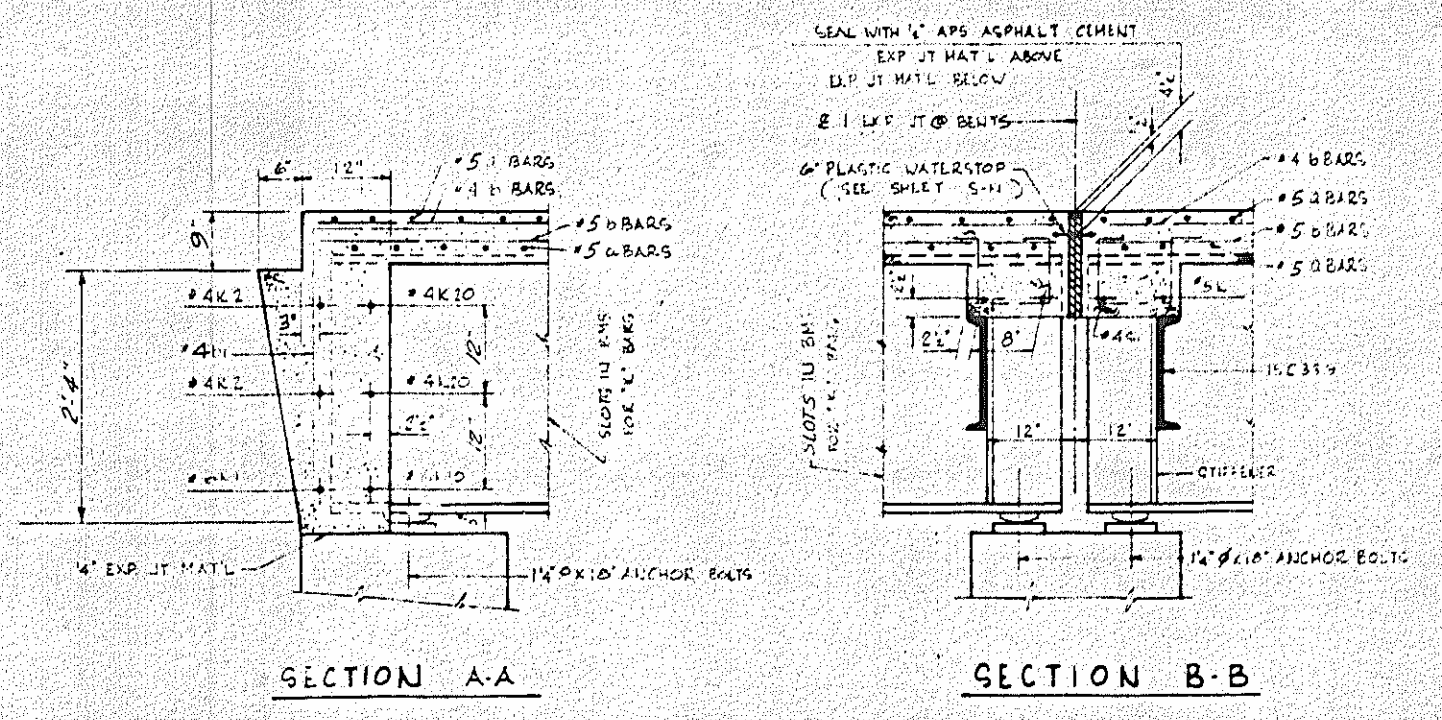
PARAPET & RAIL SECTION



DETAIL RAIL BASE GROOVE



END POST DETAILS



SECTION A-A

SECTION B-B

REINFORCEMENT BARS #20 - 50 (50) OR EQUIVALENT
 TENSILE STRENGTH 100,000 PSI
 YIELDING STRENGTH IN TENSILE 20,000 PSI PER BAR
 SURFACE AREA PER SQUARE FOOT OF
 STRUCTURAL STEEL 2.33
 CONCRETE COMPRESSIVE STRENGTH 3,000 PSI
 ALL DIMENSIONS ARE IN FEET AND INCHES
 UNLESS OTHERWISE SPECIFIED
 EXPANSION JOINTS TO BE KEPT FREE OF OBSTACLES
 TO ALLOW FOR FREE MOVEMENT

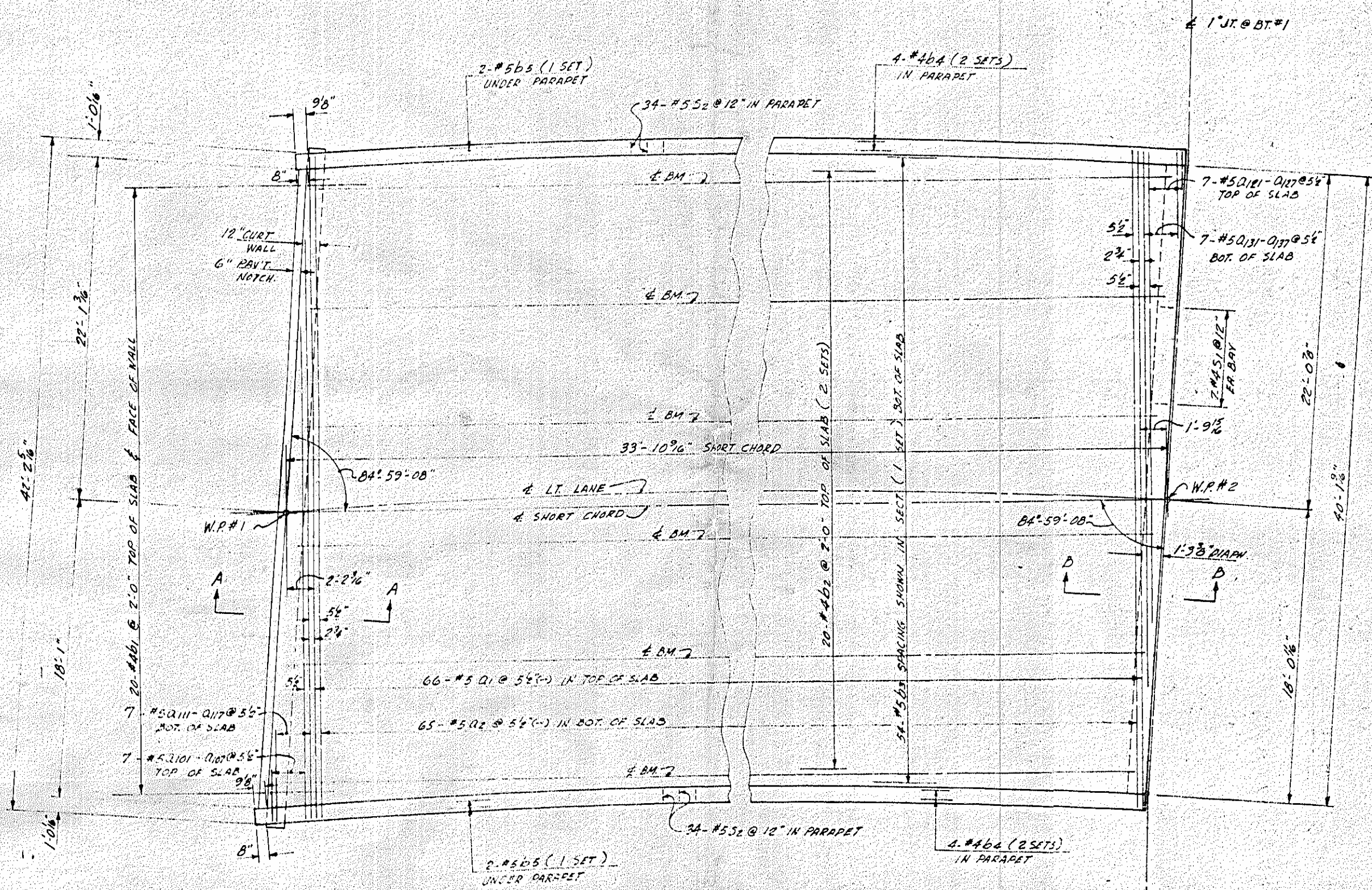
PROJECT NO. 8-1273002
 SAMPSON COUNTY
 STATION: 173 + 10.48-L-
 LT LANE

STATE OF NORTH CAROLINA
 STATE HIGHWAY COMMISSION
 1 BM SUPERSTRUCTURE
 DETAILS FOR ONE BAR METAL
 RAIL

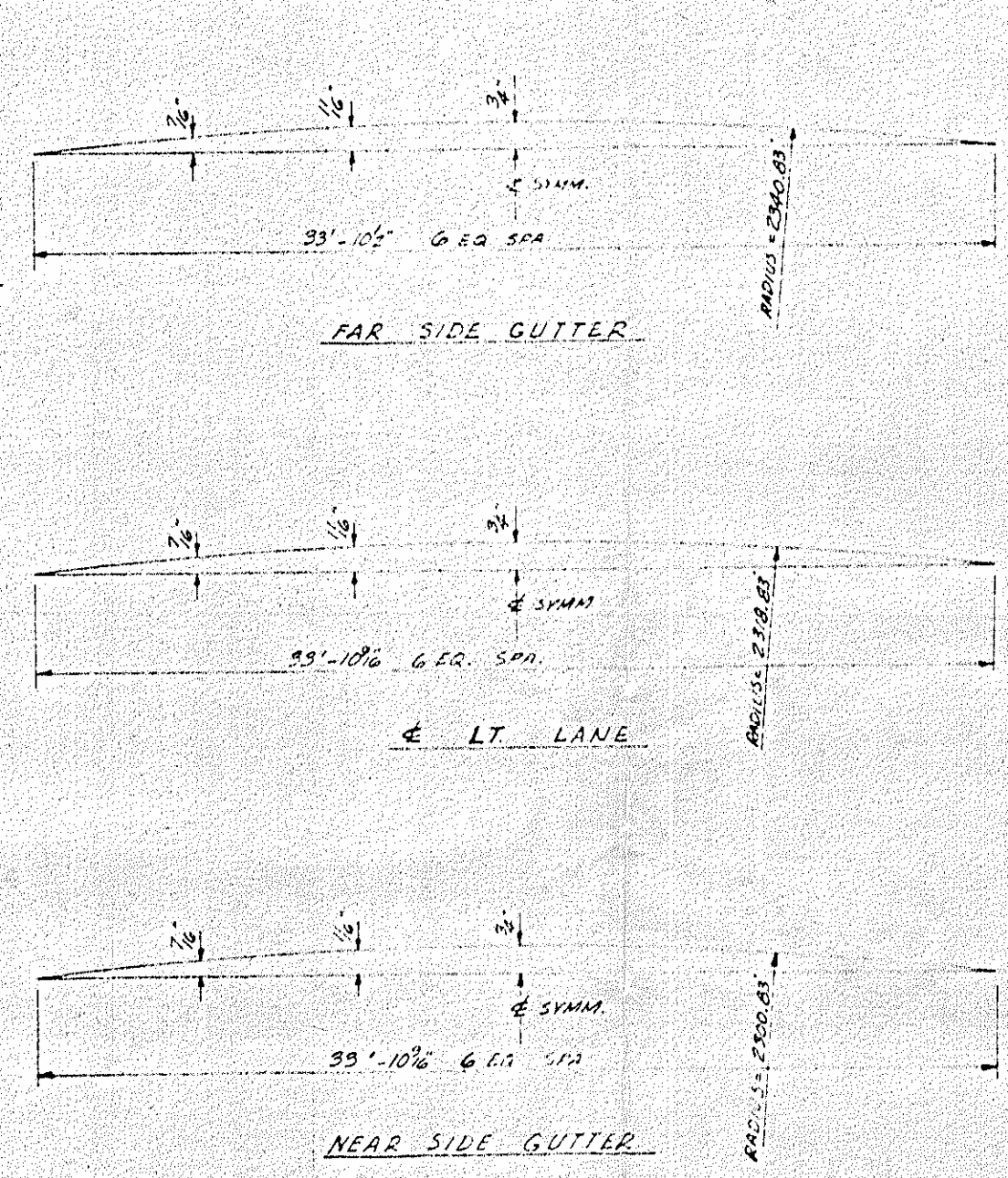
NO.		DATE		REVISIONS		SHEET NO.
1	2	1	2	1	2	
1						5-113
2						134

DESIGNED BY E.G. ALFORD, JR.
 DATE APR '65
 CHECKED BY GEORGE S. NYANE
 DATE MAY '65

FED. ROAD DIV. NO.	STATE	PROJECT NO.
	N.C.	8.1273002
F.A. PROJECT 6-50-1606(13)		
SHEET 116 OF 185		



PLAN
SPAN A - LT. LANE
NOTE: FOSTS AND RAIL ARE NOT SHOWN.



CURVE OFFSETS
NOTE: SHORT CHORD IS MEASURED FROM
FULL FACE OF E.B.T. #1 TO E.B.T. #1

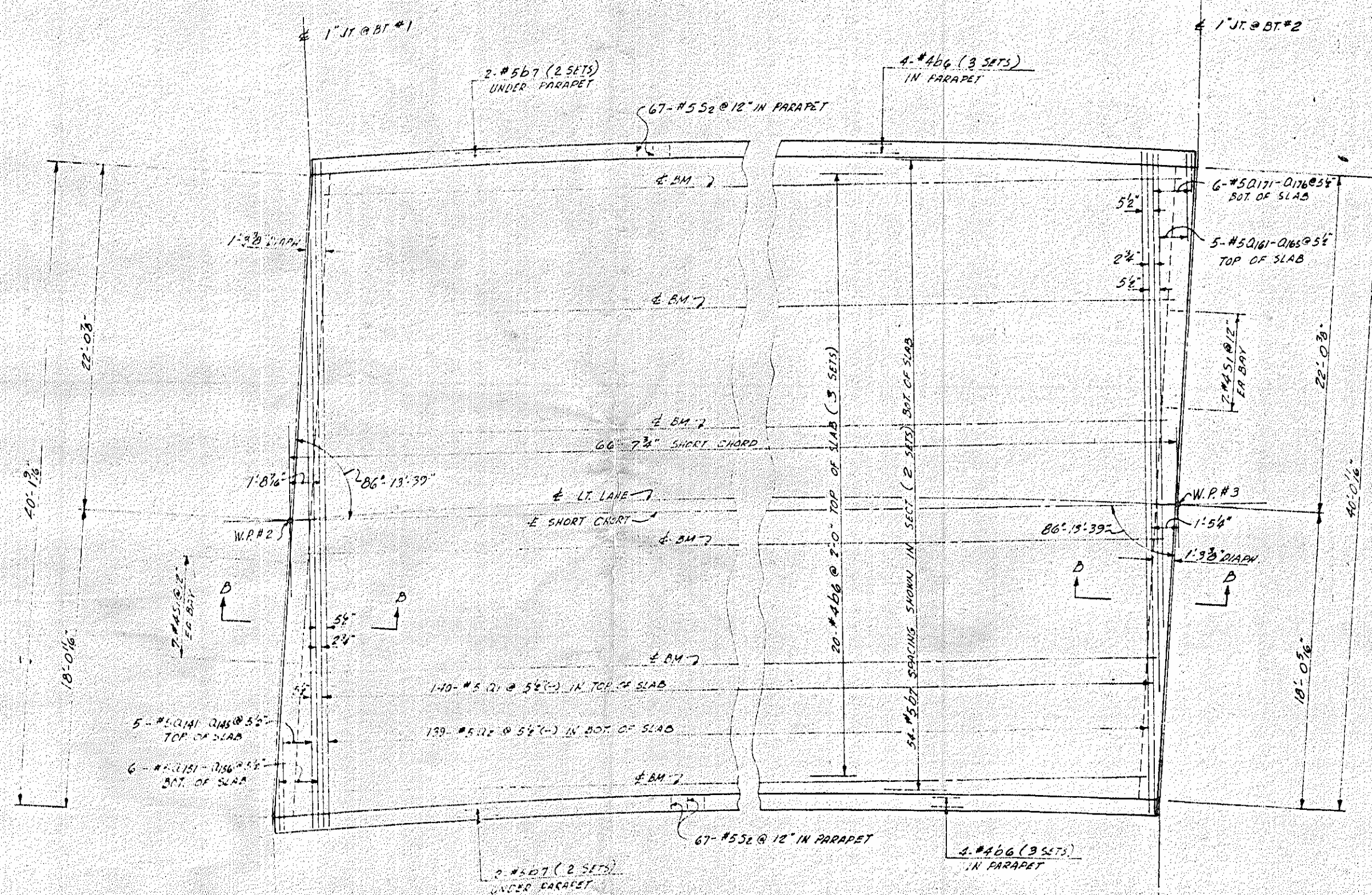
PROJECT No. 8.1273002
SAMPSON COUNTY
STATION 175+10.48 L.

STATE OF NORTH CAROLINA					
STATE HIGHWAY COMMISSION					
SUPERSTRUCTURE					
SPAN A					
LEFT LANE					
APRIL 1965					
NO.	BY	DATE	NO.	BY	DATE
SHEET NO. 3-119			TOTAL SHEETS 134		

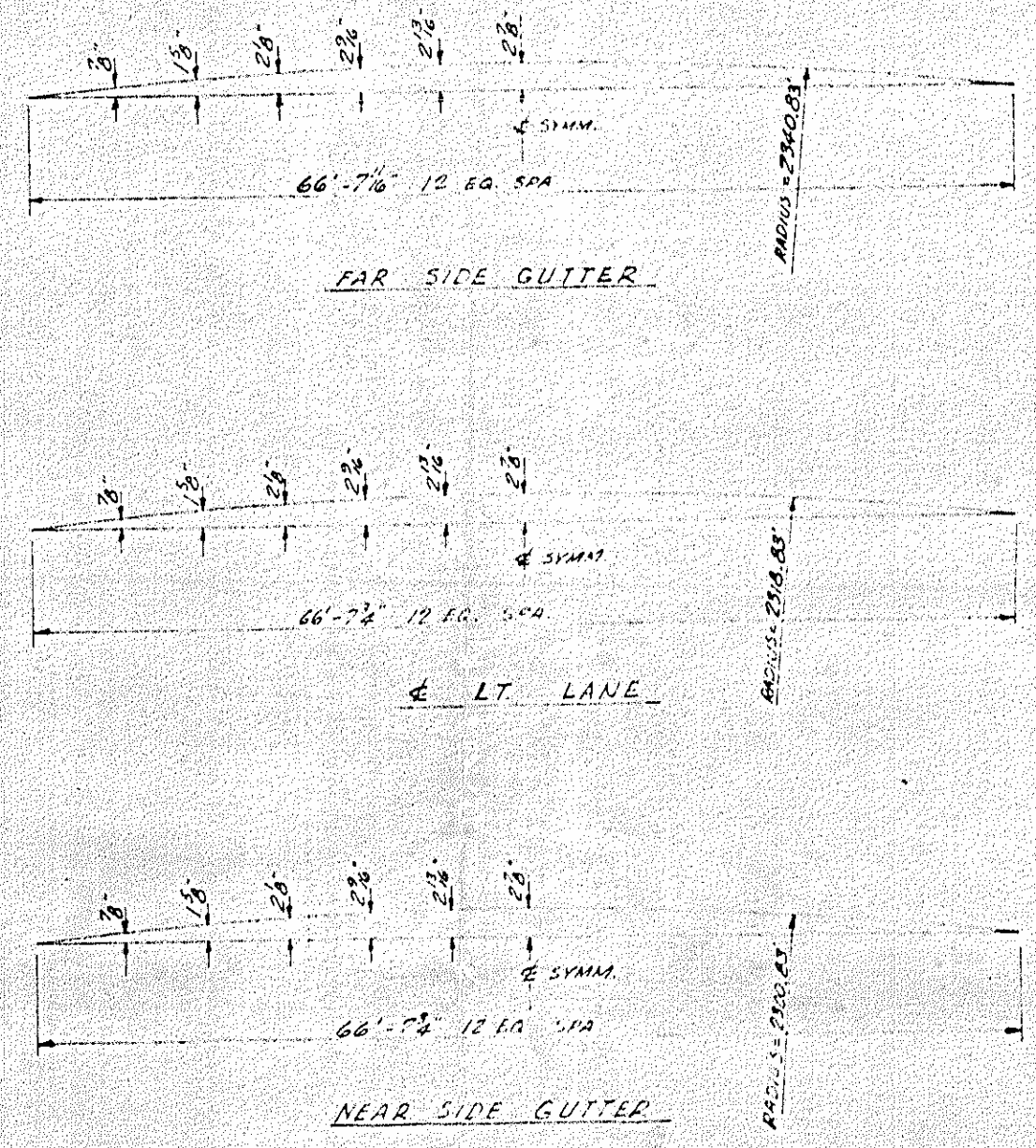
NOTE: "D" BARS SHALL BE PLACED PERPENDICULAR TO THE 4 LANE SHORT CHORD & SPACED ALONG THE SHORT CHORD.

DRAWN BY E. G. A. FORD, JR. DATE APR 65
CHECKED BY GEORGE B. SYMONE DATE MAY 65

FED. ROAD DIV. NO.	STATE	PROJECT NO.
3	N.C.	B.1273002
F.A. PROJECT	S-60-1400(1)	
SHEET 117 of 185		



PLAN
SPAN B - LT. LANE
 NOTE: POSTS AND RAIL ARE NOT SHOWN.



CURVE OFFSETS
 NOTE: SHORT CHORD IS MEASURED FROM # BT #1 TO # BT #2

PROJECT No. B.1273002
 SAMPSON COUNTY
 STATION: 173 + 10.48 - 1

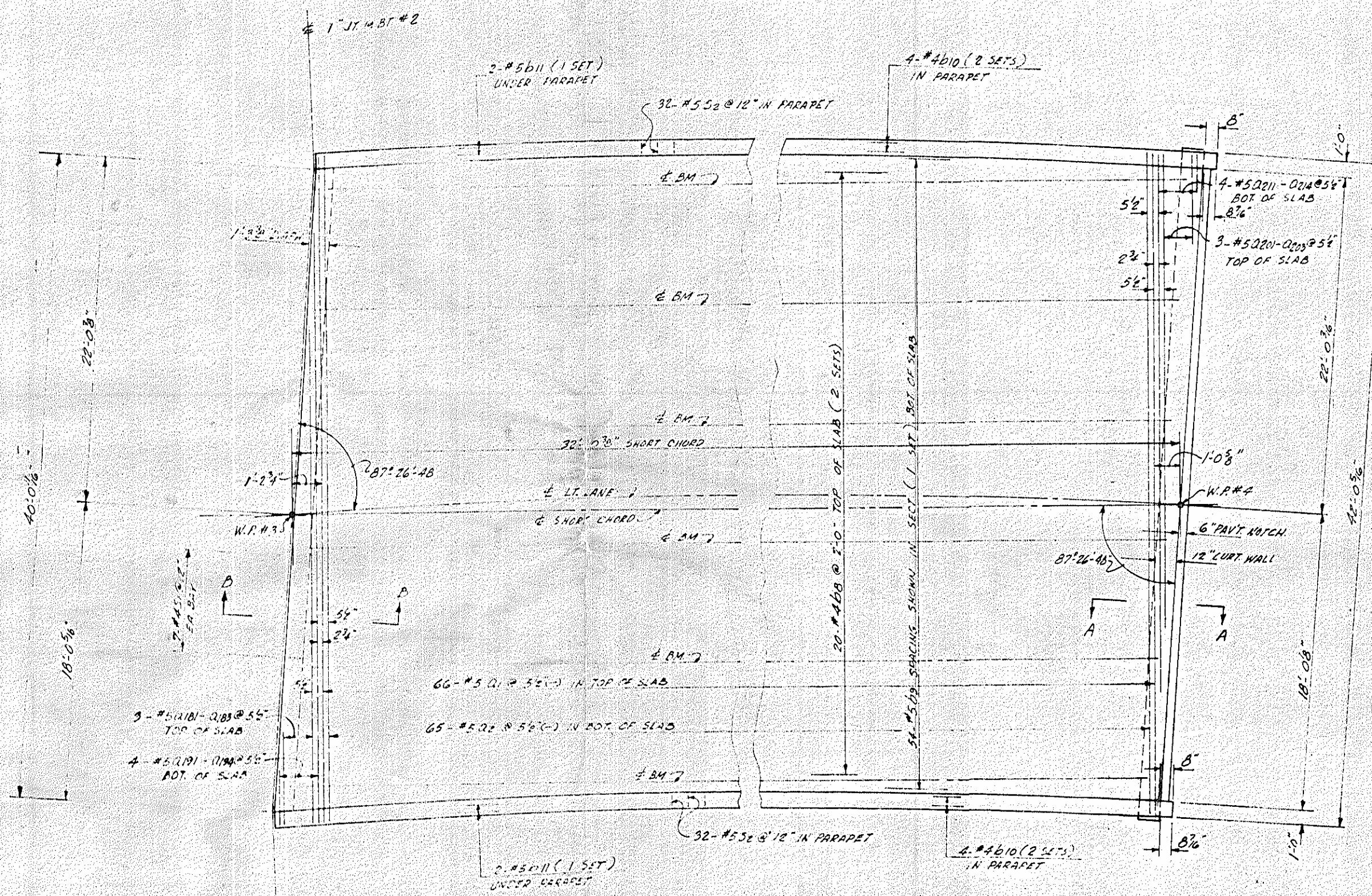
STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
 DIVISION
SUPERSTRUCTURE
 SPAN B
 LEFT LANE
 APRIL 1965

NO.	BY	DATE	NO.	BY	DATE

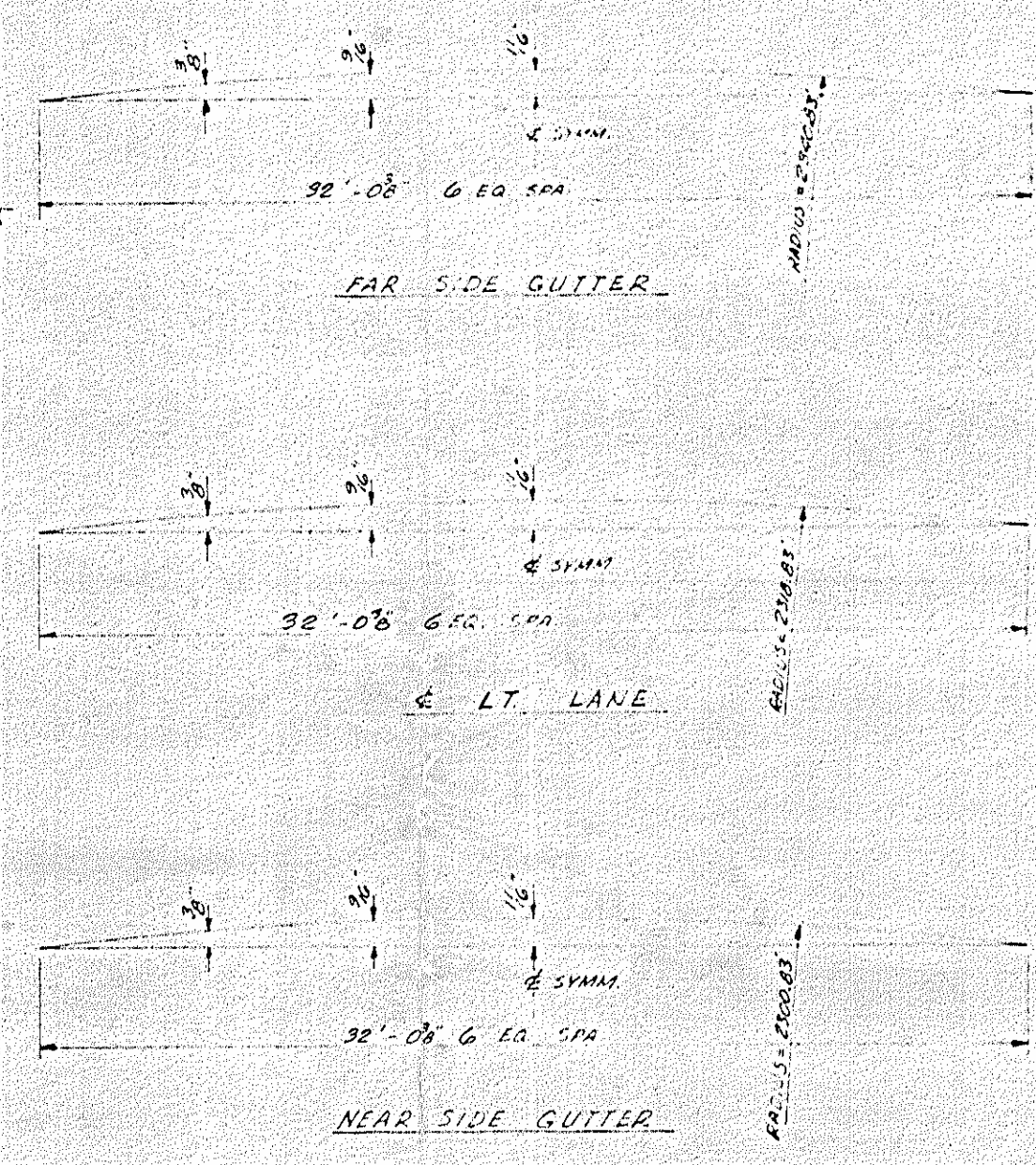
DRIVER NO. 5-115
 TOTAL SHEETS 134

DRAWN BY: G. A. FLOTT, JR. DATE: APR 65
 CHECKED BY: GEORGE GUYMON, DATE: MAY 65

NOTE: "D" BARS SHALL BE PLACED PERPENDICULAR TO THE LT. LANE SHORT CHORD & SPACED ALONG THE SHORT CHORD.



PLAN
SPAN C - LT. LANE
 NOTE: POSTS AND RAIL ARE NOT SHOWN.



CURVE OFFSETS
 NOTE: SHORT CHORD IS MEASURED FROM
 & BT # 2 TO FILL FACE OF E. BT # 2.

NOTE: "D" BARS SHALL BE PLACED PERPENDICULAR
 TO THE & LANE SHORT CHORD & SPACED ALONG
 THE SHORT CHORD.

PROJECT NO. B.1273002
 SAMPSON COUNTY
 STATION 173+10.48

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
 RALEIGH
SUPERSTRUCTURE
 SPAN C
 LEFT LANE

APRIL 1965

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

SHEET NO. 5-116
 TOTAL SHEETS 134

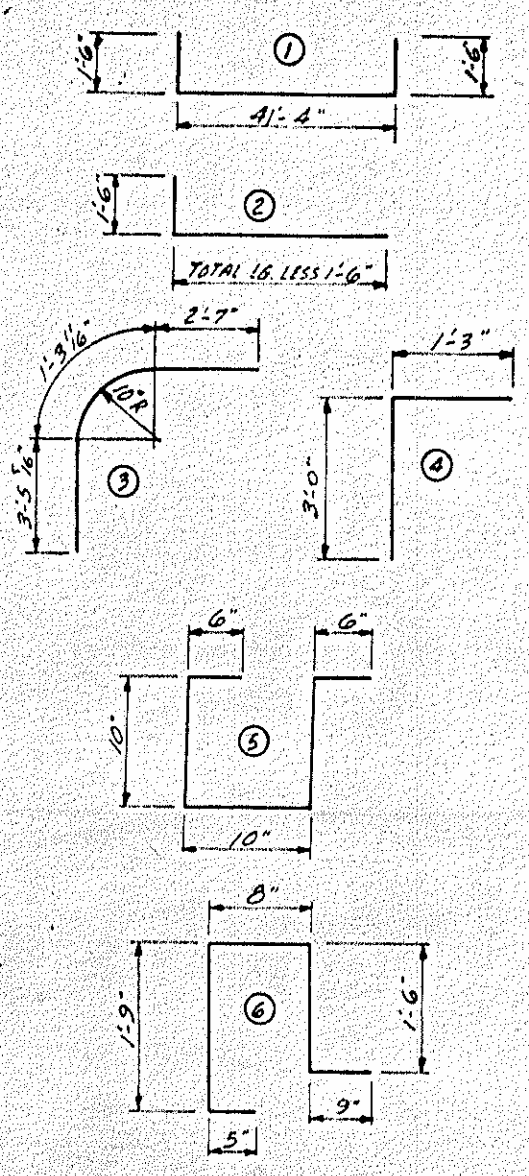
002
 UNTY
 ON

5-115
 134

DESIGNED BY: E. G. ALLARD, JR. DATE: APR 65
 CHECKED BY: GEORGE B. WYNNIE DATE: MAY 65

Bar No.	Size	Type	Length	Wt.	Bar No.	Size	Type	Length	Wt.	Bar No.	Size	Type	Length	Wt.	Bar No.	Size	Type	Length	Wt.	Bar No.	Size	Type	Length	Wt.
Q1	#5		44'-4"	12577	Q161	#5	2	35'-5"	97	B1	#4	A	4'-3"	114										
Q2	#5	STR	41'-8"	11690	Q162	#5	1	28'-6"	80	B2	#4	STR	17'-5"	465										
Q101	#5	2	37'-1"	99	Q163	#5	1	21'-6"	58	B3	#5	STR	33'-6"	1807										
Q102	#5		31'-10"	83	Q164	#5	2	14'-7"	15	B4	#4	STR	17'-10"	191										
Q103	#5		26'-8"	70	Q165	#5	2	7'-7"	8	B5	#5	STR	34'-3"	143										
Q104	#5		21'-5"	57	Q171	#5	STR	37'-3"	99	B6	#4	STR	23'-0"	621										
Q105	#5		16'-2"	42	Q172	#5		30'-7"	82	B7	#4	STR	16'-6"	441										
Q106	#5		11'-0"	29	Q173	#5		23'-7"	65	B8	#5	STR	31'-8"	1788										
Q107	#5	2	5'-9"	6	Q174	#5		16'-8"	17	B10	#4	STR	16'-10"	180										
Q111	#5	STR	38'-2"	100	Q175	#5		9'-8"	10	B11	#5	STR	32'-5"	135										
Q112	#5		33'-1"	85	Q176	#5	STR	2'-8"	3	C1	#4	B	7'-4"	39										
Q113	#5		27'-11"	70	Q181	#5	2	32'-3"	94	C2	#4	STR	2'-6"	40										
Q114	#5		22'-8"	57	Q182	#5	2	21'-11"	63	F1	#4	STR	3'-5"	55										
Q115	#5		17'-5"	42	Q183	#5	2	11'-8"	12	S1	#5	B	3'-6"	85										
Q116	#5		12'-2"	29	Q192	#5	STR	25'-8"	77	S2	#5	B	5'-1"	1410										
Q117	#5	STR	7'-0"	7	Q193	#5	STR	15'-5"	16	N1	#4	STR	22'-1"	135										
Q121	#5	2	37'-1"	99	Q194	#5	STR	5'-1"	5	N10	#4	STR	15'-5"	139										
Q122	#5		31'-10"	83	Q201	#5	2	32'-3"	94	N2	#4	STR	21'-8"	116										
Q123	#5		26'-7"	70	Q202	#5	2	21'-11"	63	N10	#4	STR	14'-11"	120										
Q124	#5		21'-5"	57	Q203	#5	2	11'-7"	12	N3	#5	STR	7'-3"	202										
Q125	#5		16'-2"	42	Q211	#5	STR	35'-7"	97	N30	#5	STR	3'-10"	188										
Q126	#5		11'-0"	29	Q212	#5	STR	25'-7"	87	N31	#5	STR	3'-0"	50										
Q127	#5	2	5'-8"	6	Q213	#5	STR	15'-3"	16															
Q131	#5	STR	38'-2"	100	Q214	#5	STR	5'-0"	5															
Q132	#5		33'-1"	85																				
Q133	#5		27'-10"	70																				
Q134	#5		22'-8"	57																				
Q135	#5		17'-5"	42																				
Q136	#5		12'-2"	29																				
Q137	#5	STR	6'-11"	7																				
Q141	#5	2	35'-5"	97																				
Q142	#5		28'-6"	80																				
Q143	#5		21'-6"	58																				
Q144	#5		14'-7"	15																				
Q145	#5	2	7'-7"	8																				
Q151	#5	STR	37'-3"	99																				
Q152	#5		30'-7"	82																				
Q153	#5		23'-7"	65																				
Q154	#5		16'-8"	17																				
Q155	#5		9'-8"	10																				
Q156	#5	STR	2'-8"	3																				

REINFORCING STEEL	LBS	39,357			
CLASS "A" CONCRETE	CU YDS				
SPAN	SLAB	PARAPET	END	PIERS	TOTAL
A	43.5	3.0	3		97.6
B	73.1	7.3			80.4
C	41.5	3.7			45.2
TOTAL					173.2

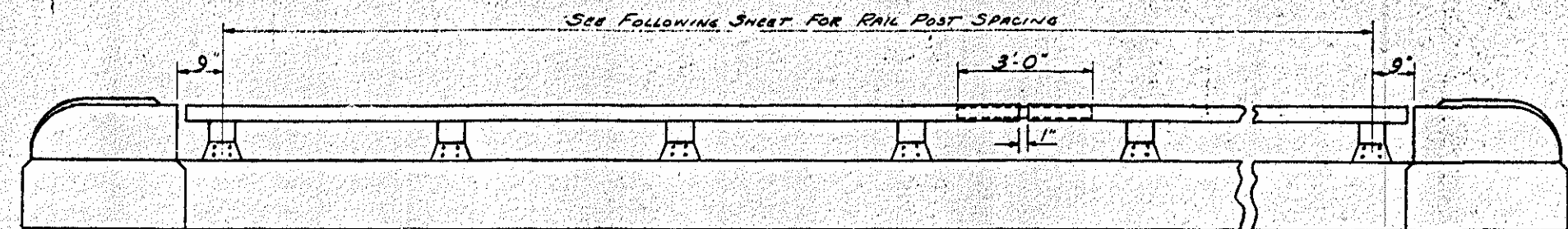


BAR TYPES
ALL DIMENSIONS ARE OUT TO OUT

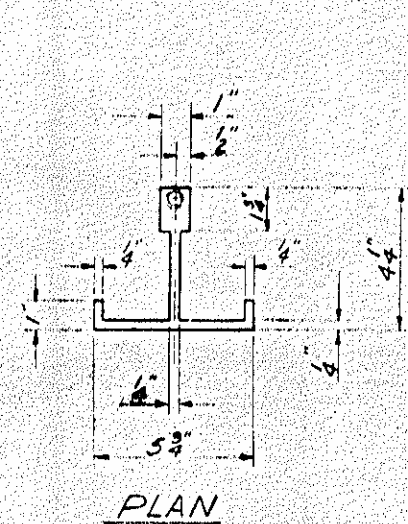
PROJECT NO. 8.1273002
SAMPSON COUNTY
STATION: 173 + 10.48-L

SPECIAL
DESIGNED BY: E. G. ALFORD, JR.
CHECKED BY: GEORGE B. WYNN
DATE: APR '65
DATE: MAY '65

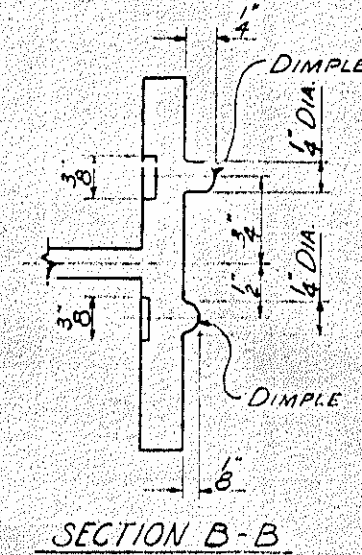
STATE OF NORTH CAROLINA	
STATE HIGHWAY COMMISSION	
RALEIGH	
BILL OF MATERIAL	
LEFT LANE	
APRIL 1965	
DATE	5/17/65
BY	TSC



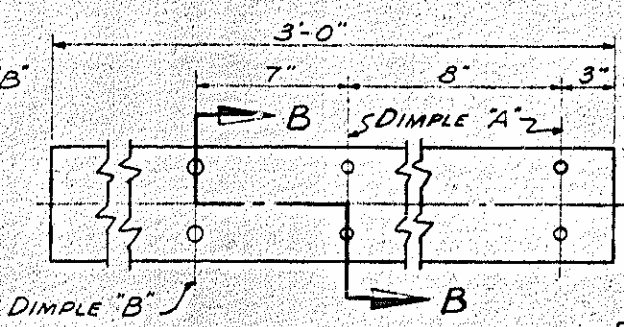
ELEVATION



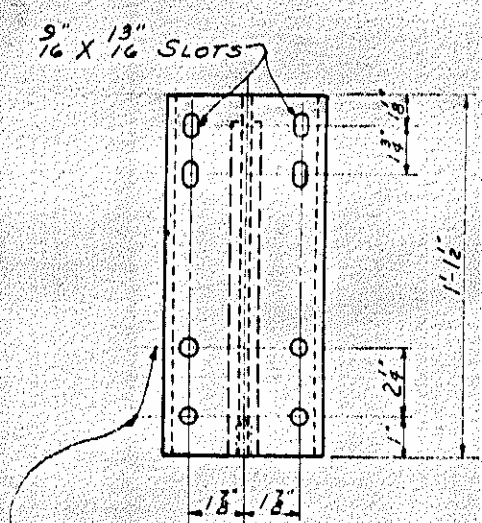
PLAN



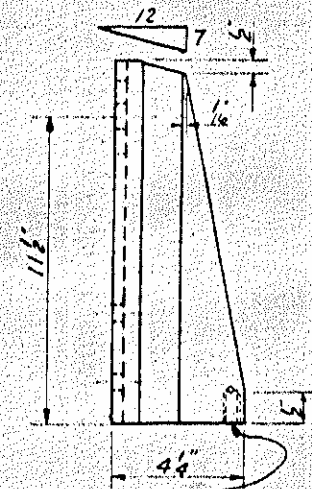
SECTION B-B



BAR SECTION EXPANSION BAR DETAILS

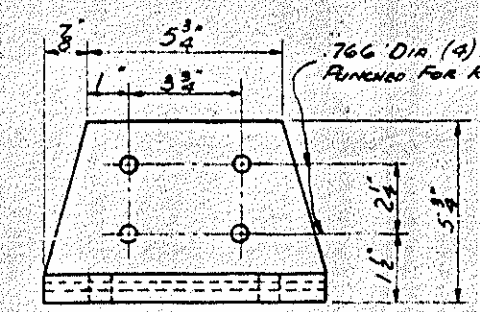


FRONT ELEVATION

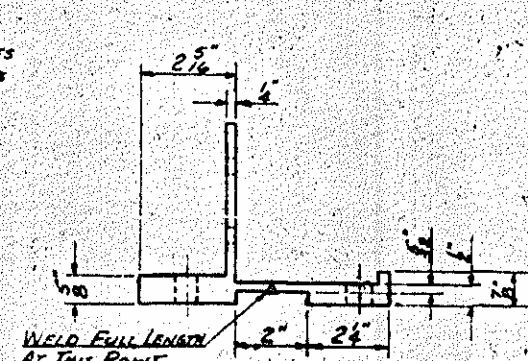


SIDE ELEVATION

DETAILS OF POST

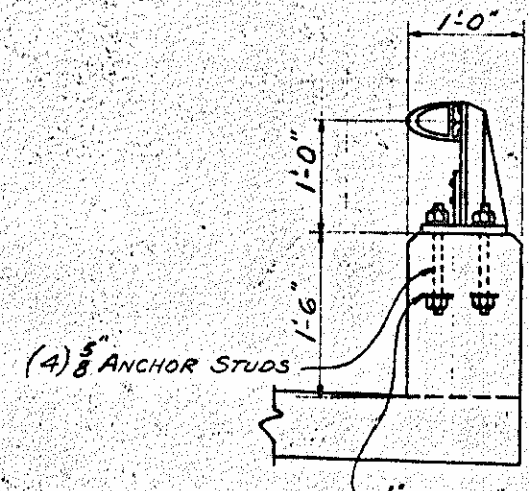


FRONT ELEVATION

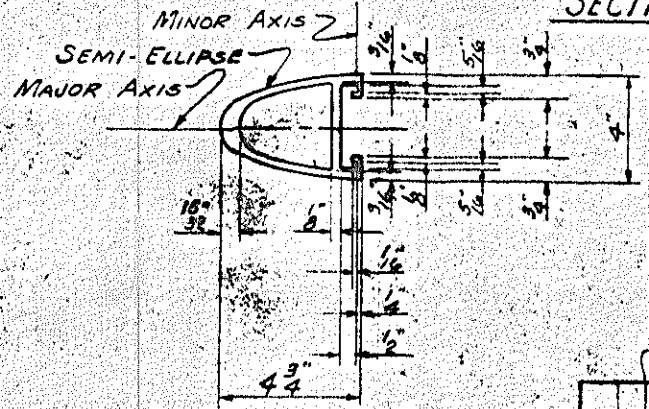


SIDE ELEVATION

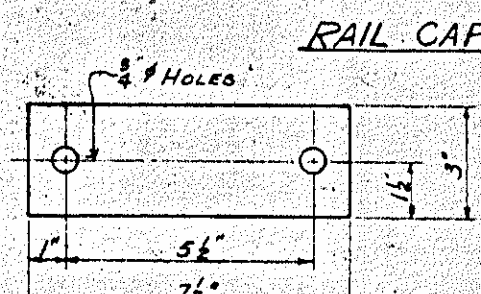
POST BASE DETAILS



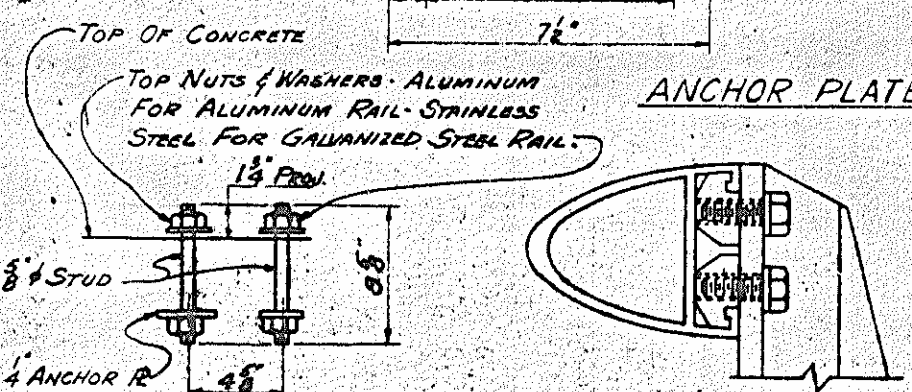
SECTION THRU PARAPET & RAIL



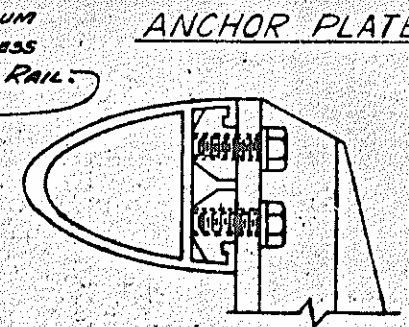
RAIL SECTION



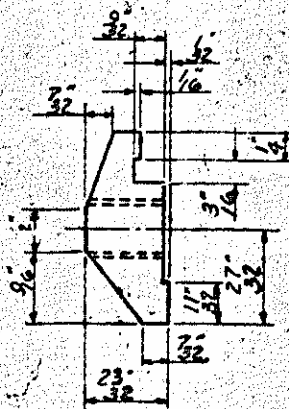
RAIL CAP



ANCHOR ASSEMBLY



CLAMP & RAIL ASSEMBLY



CLAMP BAR DETAIL (2 REQUIRED PER POST)

AT THE CONTRACTORS OPTION METAL RAIL MAY BE EITHER ALUMINUM OR GALVANIZED STEEL IN ACCORDANCE WITH THE REQUIREMENTS OF THE GENERAL NOTES AND THE FOLLOWING SPECIFICATIONS FOR THE ALTERNATE MATERIALS; HOWEVER THE CONTRACTOR WILL BE REQUIRED TO USE THE SAME RAIL MATERIAL ON ALL STRUCTURES ON THE PROJECT FOR WHICH METAL RAIL IS DESIGNATED.

ALUMINUM RAILS
 MATERIAL FOR POSTS, BASES & RAILS, EXPANSION BARS, CLAMP BARS & ALUMINUM NUTS SHALL BE A.S.T.M. B 211 ALLOY 6061 OR 6062-T6.
 MATERIAL FOR ALUMINUM WASHER SHALL BE A.S.T.M. B 203 SHALL BE A.S.T.M. B 316 ALLOY 6061 OR 6062-T6. RIVETS SHALL BE BUTTON HEAD & CONE POINT COLO DRIVEN AS PER DRAWING.

GENERAL NOTES.
 1. RAILING SHALL BE CONTINUOUS FROM END POST TO END POST OF BRIDGE. EACH JOINT IN RAIL LENGTH SHALL BE SPICED AS DETAILED. PANEL LENGTHS OF RAIL SHALL BE ATTACHED TO A MINIMUM OF FOUR POSTS.
 2. END OF RAIL TO CLEAR FACE OF CONCRETE END POST BY 1 1/2".
 3. MATERIAL FOR ANCHOR STUDS SHALL BE TYPE 430 STAINLESS STEEL WITH MINIMUM 70,000 P.S.I. ULTIMATE STRENGTH. THREADS TO BE ROLLED & NOT CUT. STUDS TO BE EMBEDDED 7" IN CONCRETE. NUTS SHALL BE AMERICAN STANDARD FINISHED HEXAGON THICK NUTS, CLASS 2B THREAD. ANCHOR PLATES SHALL BE A.S.T.M. A7 OR A36. MACHINE SCREWS FOR RAIL ATTACHMENT SHALL BE STAINLESS STEEL.
 4. CERTIFIED MILL REPORTS ARE REQUIRED FOR RAILS & POSTS. SHOP INSPECTION IS NOT REQUIRED.
 5. METAL RAIL POSTS TO BE SET NORMAL TO CURB GRADE.
 6. METHOD OF MEASUREMENT FOR METAL RAILS: UNLESS OTHERWISE STATED, THE LENGTH OF METAL RAILS TO BE PAID FOR SHALL BE THE CONTINUOUS HORIZONTAL LENGTH MEASURED FROM INSIDE TO INSIDE OF CONCRETE POSTS ALONG OUTSIDE OF PARAPET.

GALVANIZED STEEL RAILS
 MATERIALS AND GALVANIZING ARE TO CONFORM TO THE FOLLOWING SPECIFICATIONS.
 RAIL POST & POST BASE: A.S.T.M. A36 GRADE STRUCTURAL STEEL GALVANIZED TO A.S.T.M. A-123.
 RAIL & EXPANSION BAR: A.S.T.M. A36 GRADE STRUCTURAL STEEL GALVANIZED TO A.S.T.M. A-123.
 CLOSURE PLATES & SHIMS: STEEL A36 GRADE C - GALVANIZED TO A.S.T.M. A123
 NUTS & WASHERS FOR TOP END OF ANCHOR ASSEMBLY FOR STEEL RAIL SHALL BE TYPE 430 STAINLESS STEEL.

THE CUT ENDS OF GALVANIZED STEEL RAILING, AFTER GRINDING SMOOTH, SHALL BE GIVEN TWO COATS OF ZINC PAINT MEETING THE REQUIREMENTS OF FEDERAL SPECIFICATION MIL-P-26315 USAF TYPE 1.

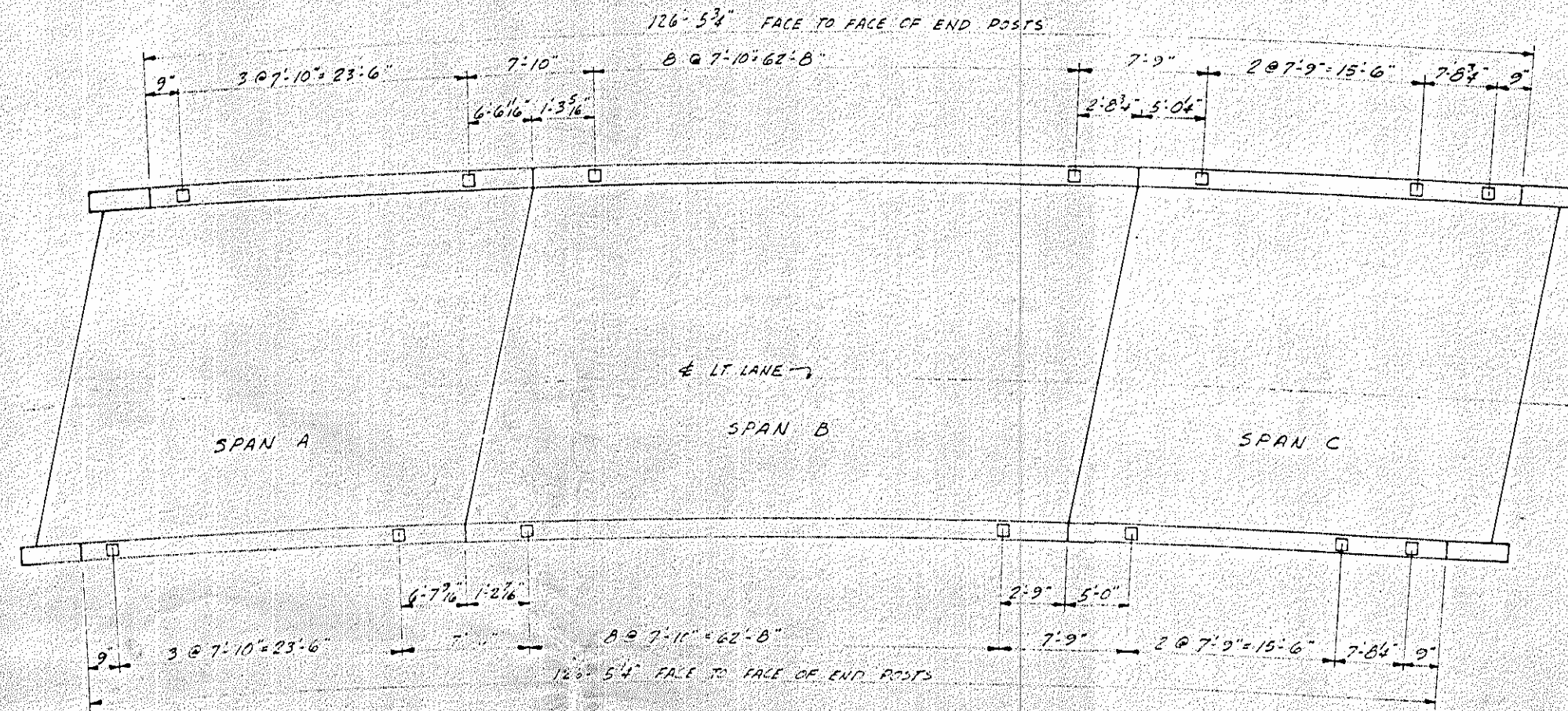
PAY LENGTH: 299.94' RT LANE
 PAY LENGTH: 282.92' LT LANE

PROJECT NO. 8.1273002
 SAMPSON COUNTY
 STATION: 173+10.48
 RT. or LT. LANE

STATE OF NORTH CAROLINA	
STATE HIGHWAY COMMISSION	
RAILROAD	
STANDARD	
1 BAR	
METAL RAIL	
DATE	1964
REVISION	5-118
DATE	JULY
DATE	1964

STANDARD-RDU-7-23-64 V-64 R.H.

DRAWN BY: A. G. ALFORD, JR. DATE: APR. 65
 CHECKED BY: GEORGE W. WYMAN DATE: MAY 65



PLAN SHOWING RAIL POST SPACING

NOTE: DIMENSIONS SHOWN ARE HORIZONTAL ARC LENGTHS MEASURED ALONG OUTSIDE OF PARAPET

PROJECT No. 8.1273002
 SAMPSON COUNTY
 STATION: 173 + 10.48

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
 RALEIGH
RAIL POST SPACING
LT. LANE
 APRIL 1965

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

TOTAL SHEETS	134
SHEET NO.	5.120

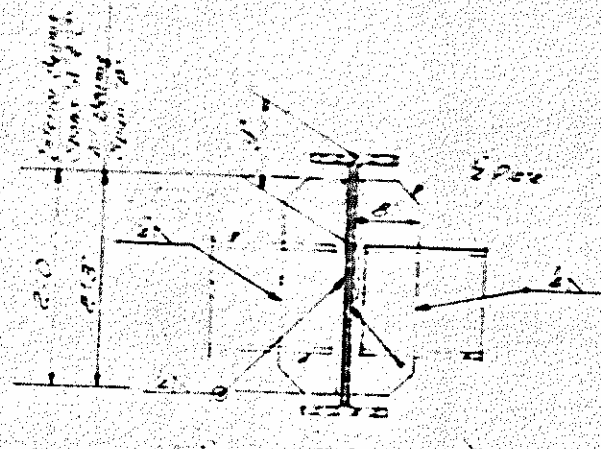
DRAWN BY: E. E. ... DATE: APR 65
 CHECKED BY: ... DATE: ... 65

SOUTHERN BLUE PRINT CO., CHARLOTTE, N. C. - 19

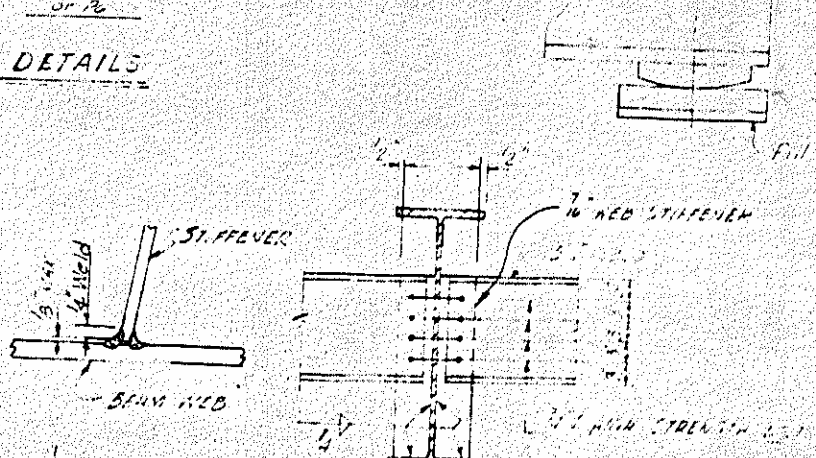
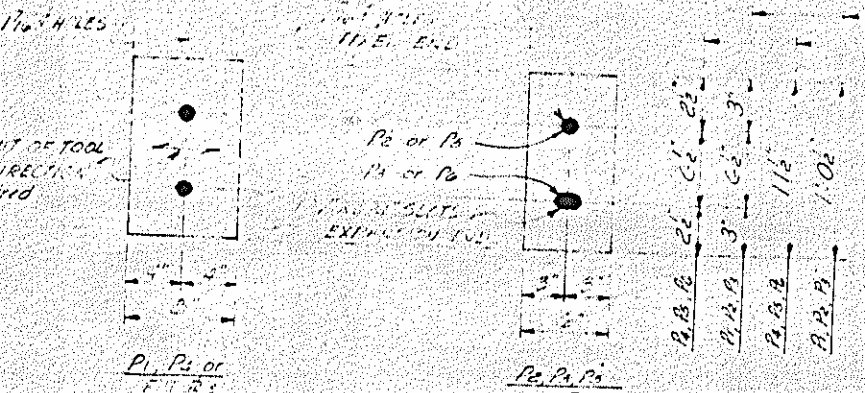
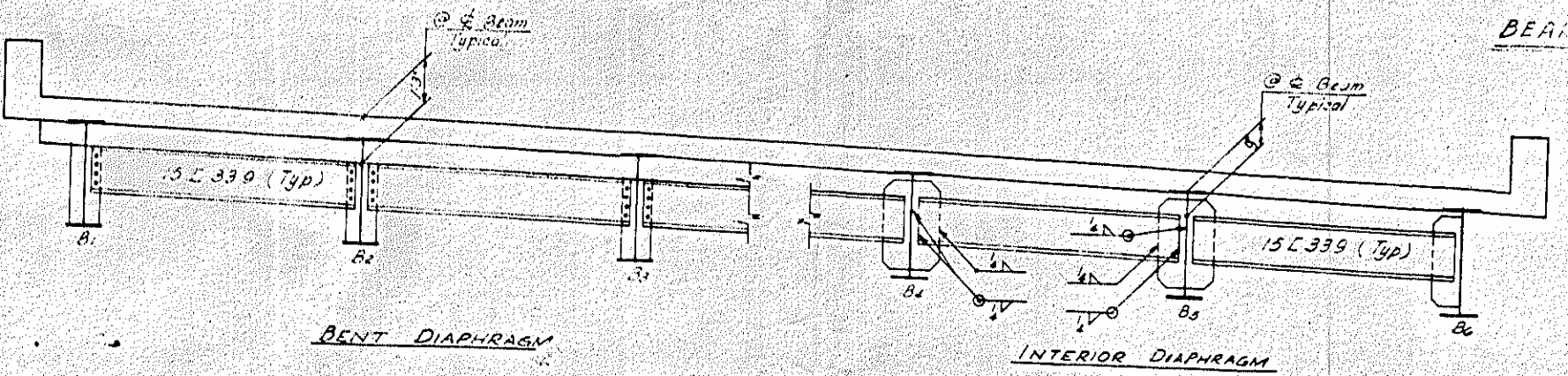
Beams B1 & B2
 Beams B3 & B4
 Beams B5 & B6

At spans - 2 rows of 2 #4 bars each row - 400 #4 bars each beam
 11.5' spans - 2 rows of 2 #4 bars each row - 260 #4 bars each beam
 10' spans - 2 rows of 2 #4 bars each row - 200 #4 bars each beam
 8' spans - 2 rows of 2 #4 bars each row - 160 #4 bars each beam
 7' spans - 2 rows of 2 #4 bars each row - 140 #4 bars each beam
 6' spans - 2 rows of 2 #4 bars each row - 120 #4 bars each beam

Cover A - 2" (1.5" min)
 Cover B - 1.5" (1.0" min)



BEAM ELEVATION AND STUD BARLING



STUD DETAILS

DETAIL AT BEARINGS

PROJECT No. 81273032
 SAMPSON COUNTY
 STATION: 173+10.48 - POC - L
 LEFT & RIGHT LANE

STATE OF NORTH CAROLINA
 STATE HIGHWAY COMMISSION

STRUCTURAL STEEL

BEARING PLATES REQUIRED
 20 - 8" x 14" x 1/2" Plate finish to 1/4"
 10 - 6" x 14" x 1/2" As detailed
 10 - 6" x 14" x 1/2" As detailed
 10 - 6" x 14" x 1/2" As detailed
 8 - 6" x 14" x 1/2" As detailed
 8 - 6" x 14" x 1/2" As detailed

FILL PLATES REQUIRED
 2 - 8" x 14" x 1/2"

NOTE: One set of above R's required for each lane.

STRUCTURAL STEEL APPROXIMATE WEIGHT = 120,300 LBS. LT. LANE
 DEAD LOAD DEFLECTIONS AND BEAM CAMBER

SPAN	DEFLECTION	DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD	TOTAL DEAD LOAD DEFLECTION	VERTICAL CURVE ORDINATE	SUPER ELEVATION	CAMBER
SPAN 'A'	EXTERIOR OMS	0"	0"	0"	0"	0"
	INTERIOR OMS	0"	0"	0"	0"	0"
SPAN 'B'	EXTERIOR OMS	0"	0"	0"	0"	0"
	INTERIOR OMS	0"	0"	0"	0"	0"
SPAN 'C' LT. LANE	EXTERIOR OMS	0"	0"	0"	0"	0"
	INTERIOR OMS	0"	0"	0"	0"	0"
SPAN 'C' RT. LANE	EXTERIOR OMS	0"	0"	0"	0"	0"
	INTERIOR OMS	0"	0"	0"	0"	0"

MAILED 1965

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

5-122

DESIGNED BY S. L. SANTO-TOMAS DATE APRIL 1965
 CHECKED BY GEORGE B. WYNNIE DATE MAY 1965

S. L. SANTO-TOMAS DATE APRIL 1965
 GEORGE B. WYNNIE DATE MAY 1965

4. RT Lane

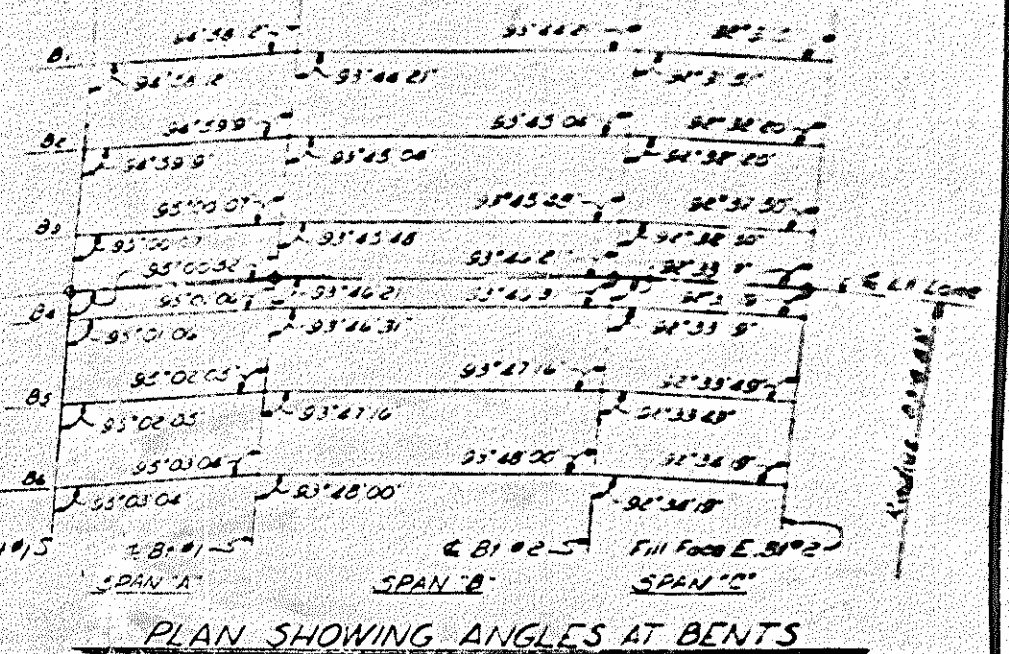
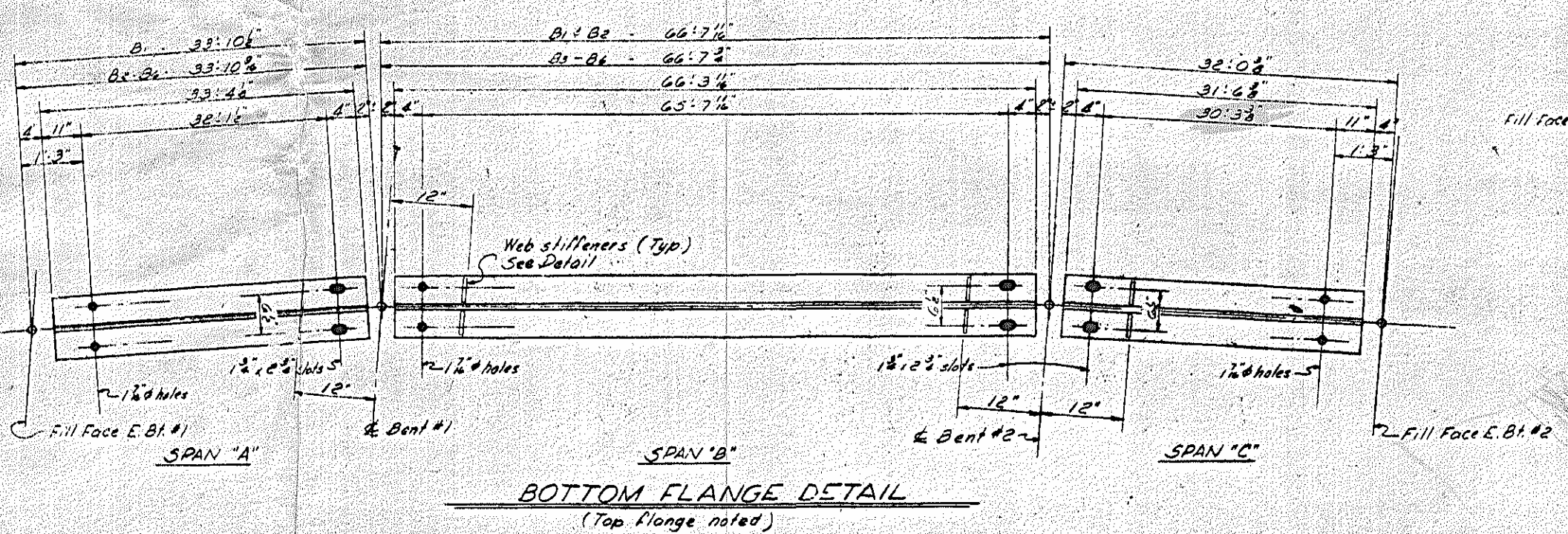
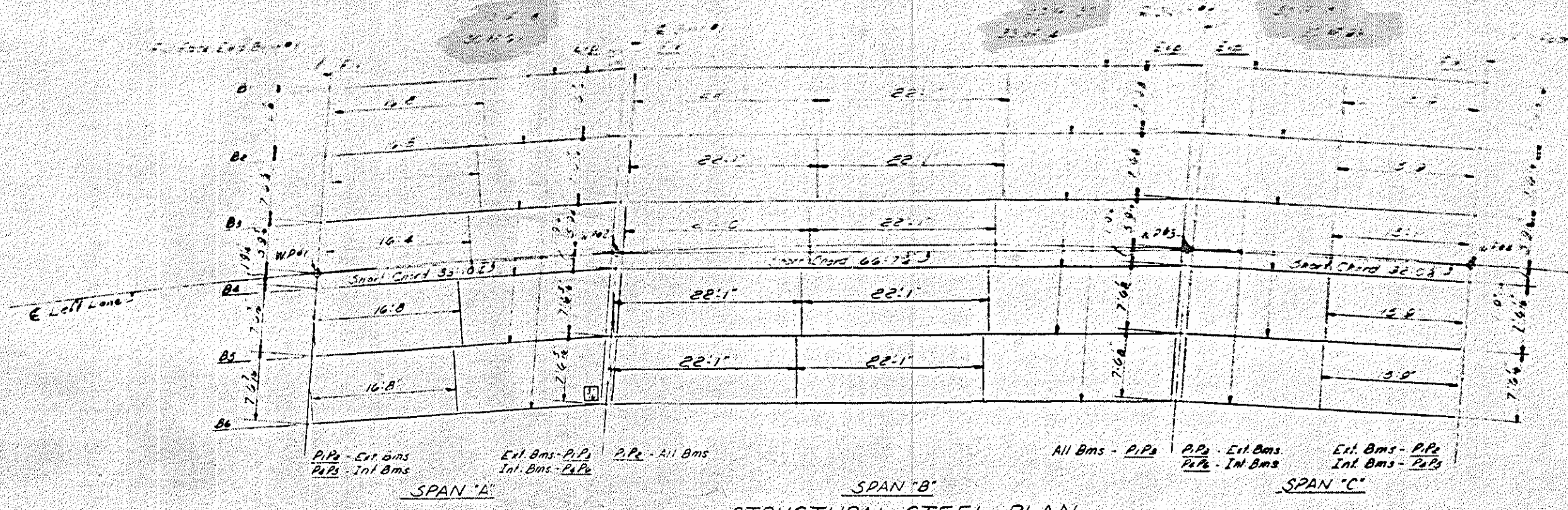
775002

UNTY

MISSION

5-121

5-121



NOTE
The contractor may, at his option but without change in the contract price, of structural steel, use split IWF-50 connections bolted to the beam web and welded to the channel diaphragm in lieu of the welded plate intermediate diaphragm connections shown.

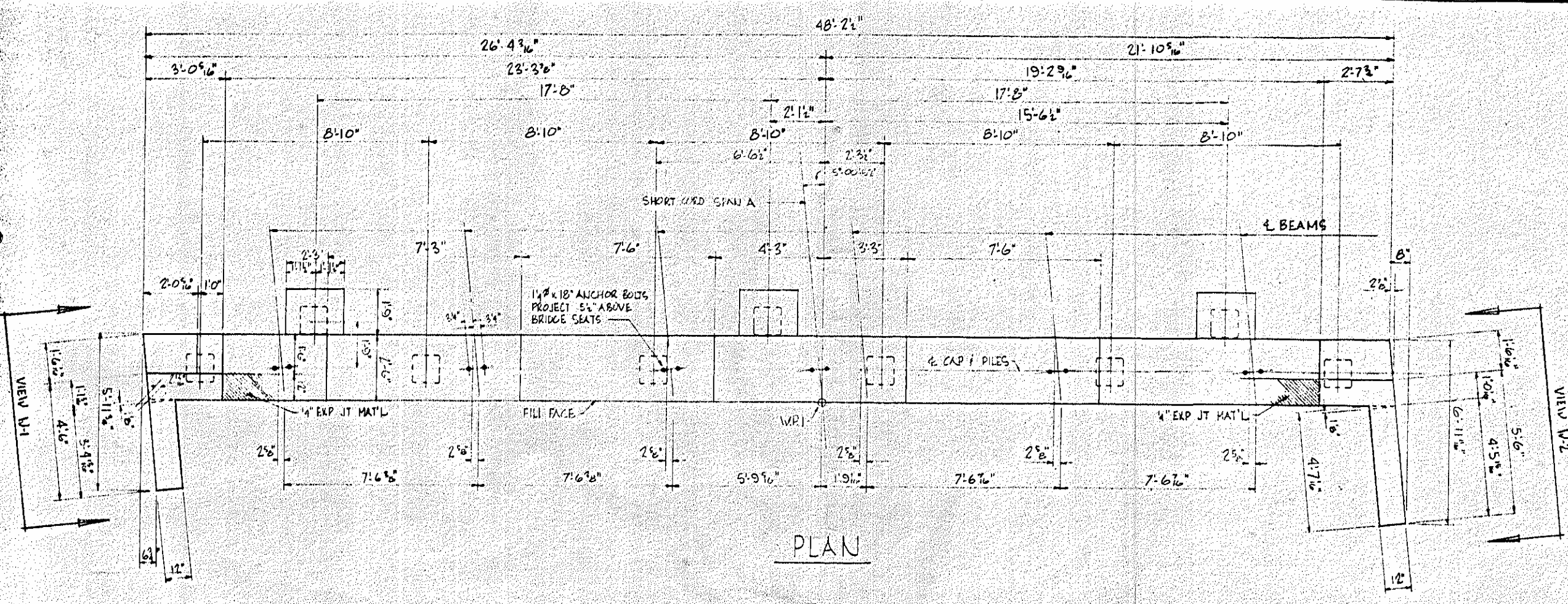
NOTE
In lieu of the welding procedure for shop and field welds indicated for the interior diaphragm connections, the contractor may at his option, shop weld the connector plates to the beam webs and field weld the channels to the connector plates. Special care in handling the beams must be observed if connector plates are shop welded to the beam webs.

PROJECT No. 8.1273002
SAMPSON COUNTY
STATION: 173+10.48 - POC-L

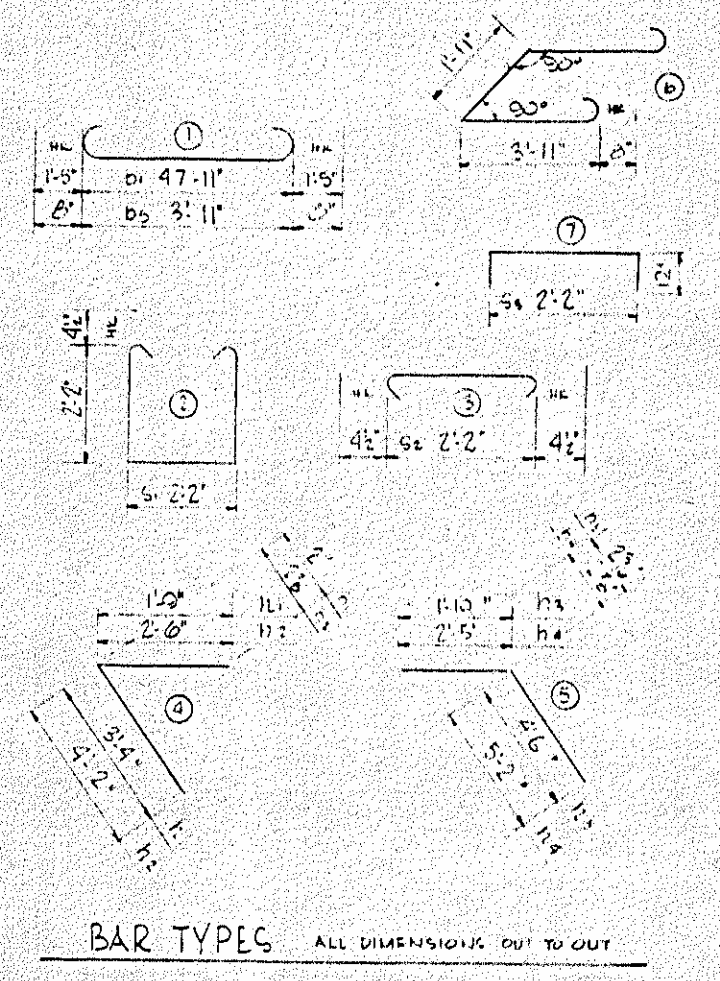
STATE OF NORTH CAROLINA STATE HIGHWAY COMMISSION					
SUPERSTRUCTURE STRUCTURAL STEEL LEFT LANE					
APRIL 1965					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			2		
3			4		

S. J. SANTO-TOMAS APRIL 1965
G. B. BROWN MAY 1965

NO. ROAD DIST. NO. DATE PROJECT NO.
 1 N.C. B.1273002
 F. A. PROJECT 5-50-1600(2)
 SHEET 130 OF 185



PLAN

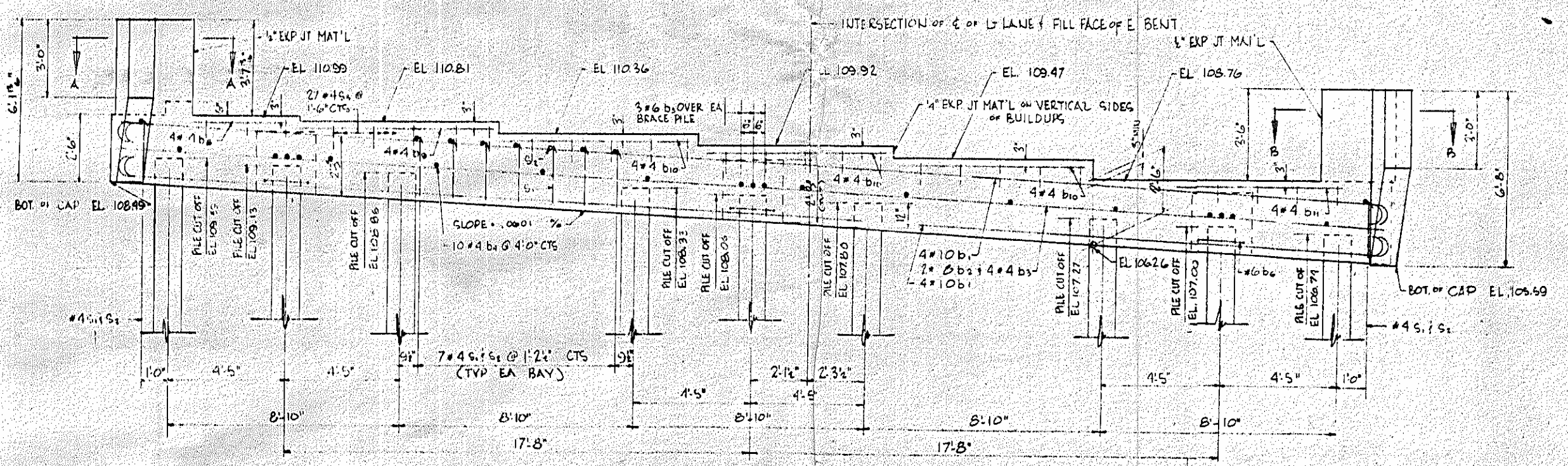


BAR TYPES ALL DIMENSIONS OUT TO OUT

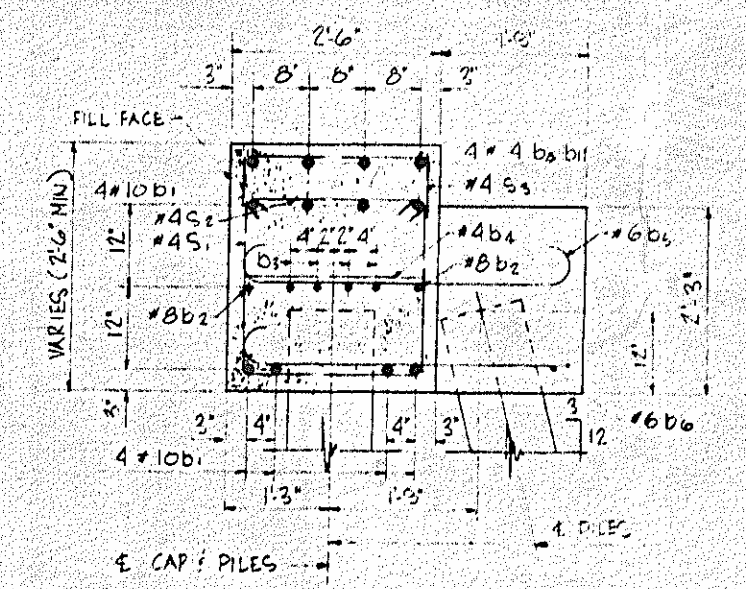
BILL OF MATERIAL
 FOR ONE B BENT ONLY

BAR NO.	SIZE	TYPE	LENGTH	WEIGHT
b1	#10	1	50'-9"	1747
b2	#8	STR	47'-11"	256
b3	#4	STR	24'-7"	131
b4	#4	STR	2'-7"	14
b5	#6	1	5'-3"	71
b6	#6	6	11'-1"	50
h1	#4	4	5'-1"	24
h2	#4	4	6'-2"	31
h3	#4	5	6'-4"	30
h4	#4	5	7'-7"	35
G1	#4	2	7'-3"	175
G2	#4	3	2'-11"	72
G3	#4	7	4'-2"	75
u	#4	STR	5'-10"	58
v	#4	STR	6'-4"	63
b7	#4	STR	5'-6"	15
b8	#4	STR	8'-5"	23
b9	#4	STR	8'-9"	70
b10	#4	STR	6'-3"	17

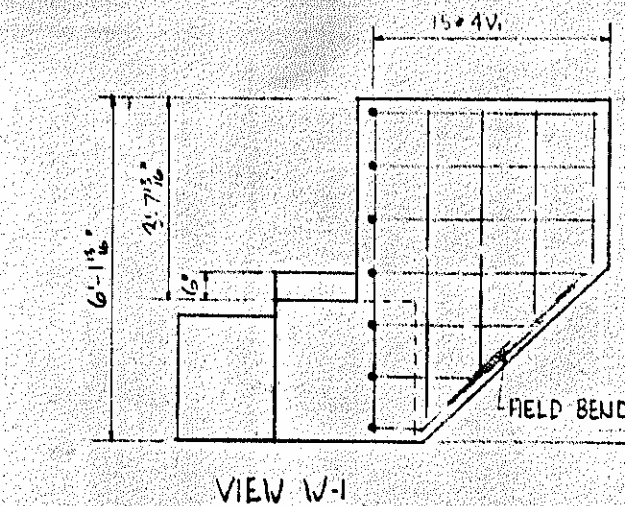
REINFORCING STEEL LBS 23,100
 CLASS "A" CONC. CU YDS 15.8
 PILES 10'-0" L.W. FT 324
 344'-10"



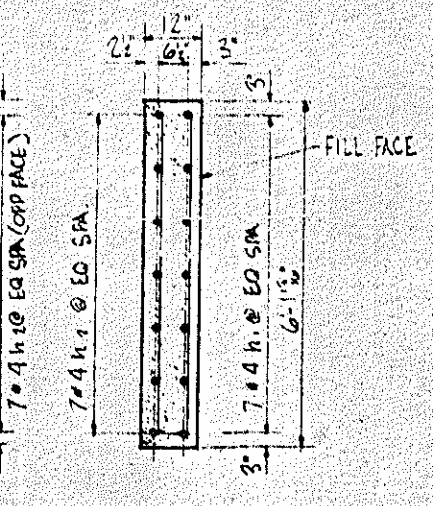
ELEVATION



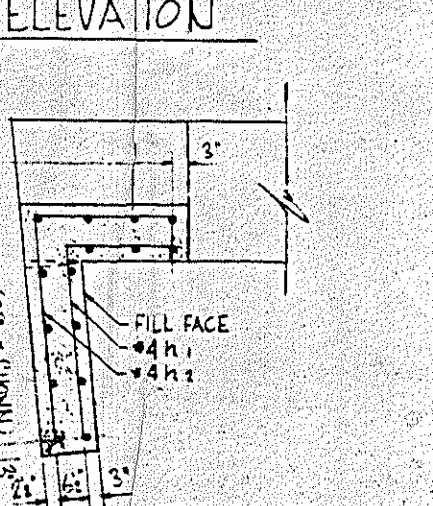
SECTION THRU CAP



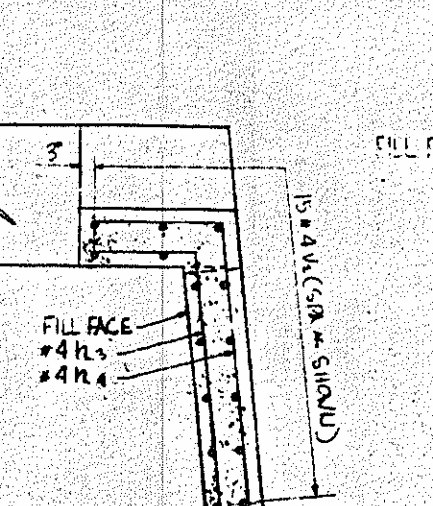
VIEW W-1



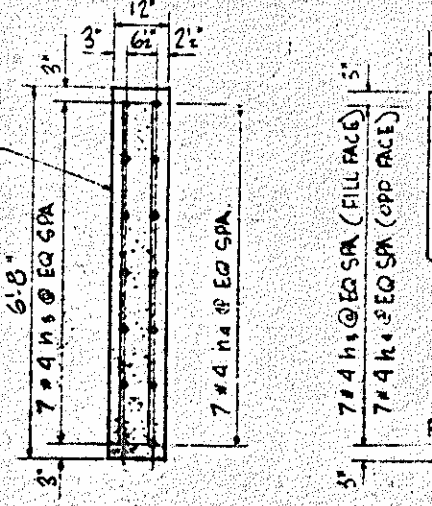
SECTION THRU W-1



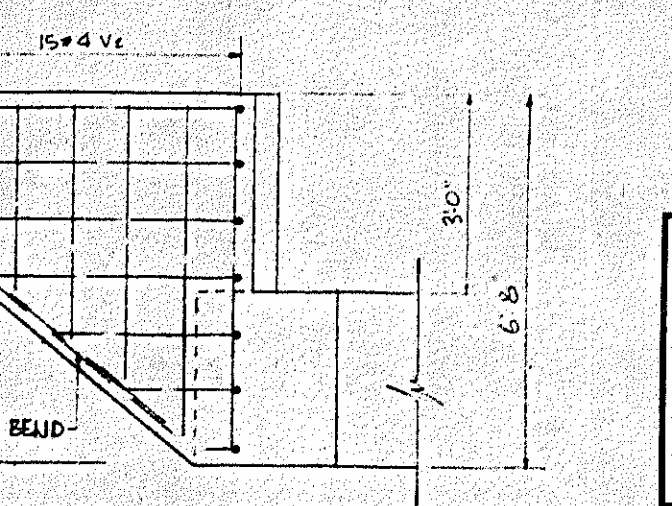
SECTION AA



SECTION BB



SECTION THRU W-2



VIEW W-2

PROJECT NO. B.1273002
 SAMSON COUNTY
 STATION: 173+104.8
 LEFT LAJE

STATE OF NORTH CAROLINA
 STATE HIGHWAY COMMISSION

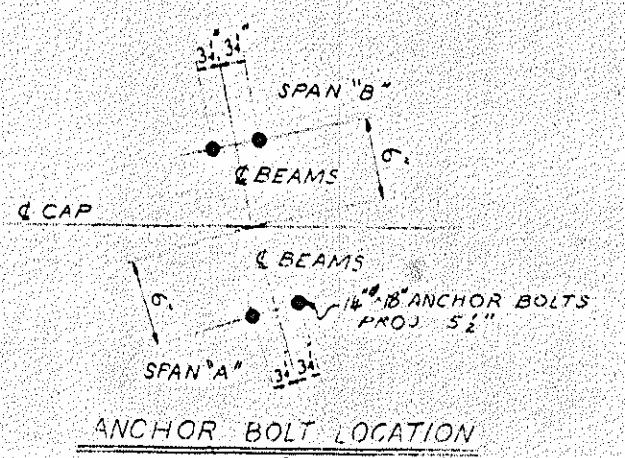
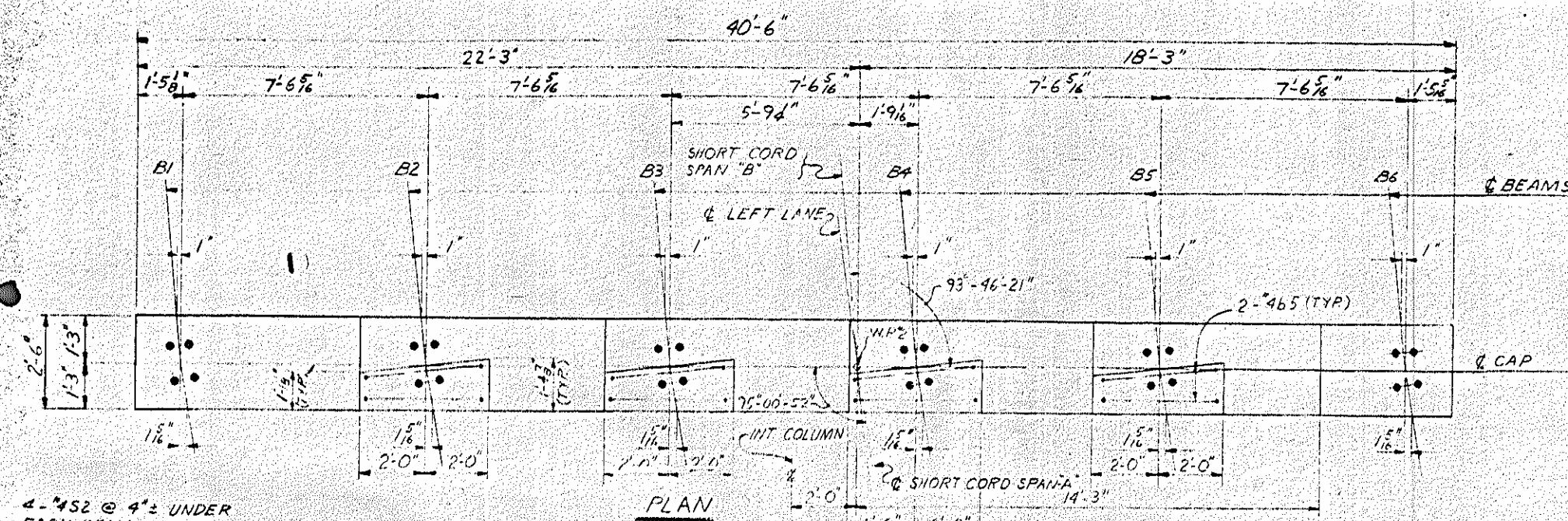
END BENT # 1
 MAY 1965

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

5-128
 154

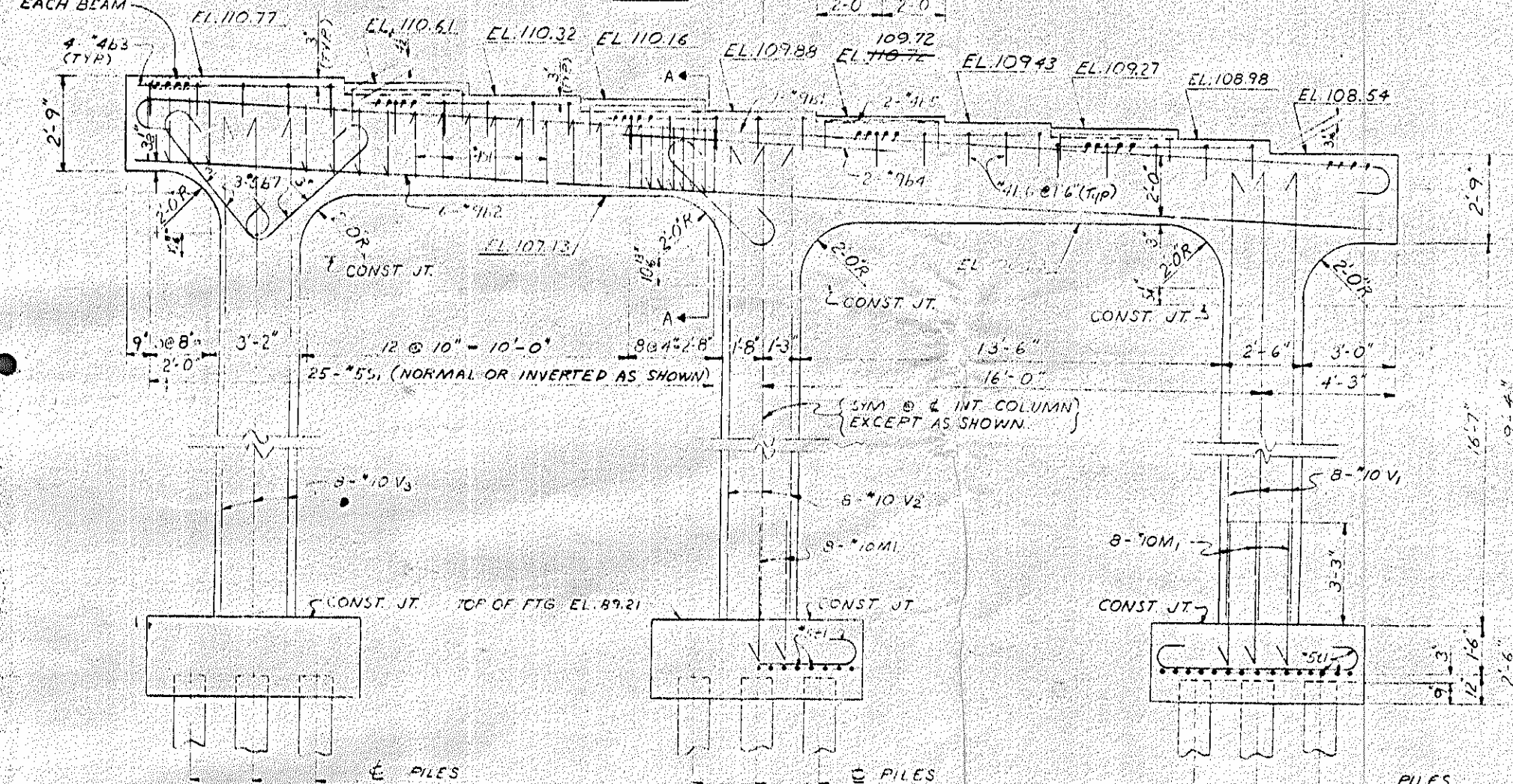
DESIGNED BY: P. L. HANCOCK DATE: 5/7/65
 CHECKED BY: GEORGE B. WYNN DATE: 3/21/65

DRAWN BY: CHECKED:



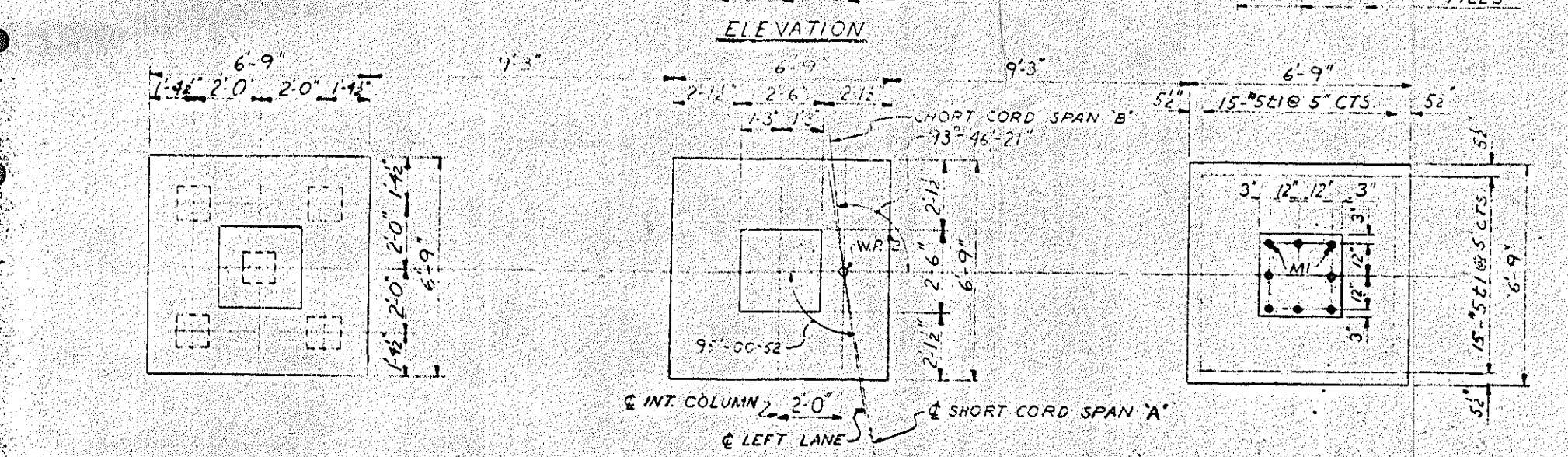
BAR TYPES
ALL DIMENSIONS ARE OUT TO OUT

1.5"	4.7"	M1
1.5"	18.1"	V1
1.5"	10.0"	V2
1.5"	2.0"	V3

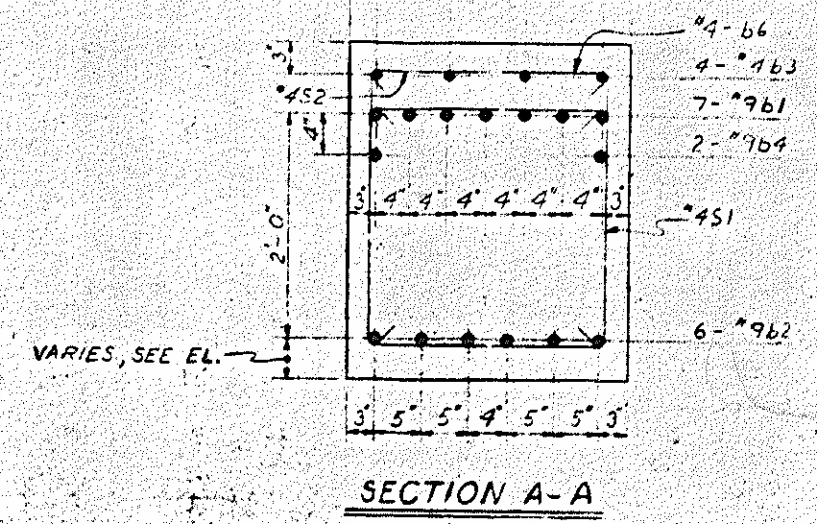


HOOKS OF V BARS MAY BE TURNED AS NECESSARY FOR PLACING REINFORCING

END ELEVATION



FOOTING PLAN



SECTION A-A

BILL OF MATERIAL
BENT ONLY

BAR NO.	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	7	#3	S	17'-8"	1015
B2	6	#1	STR.	40'-2"	819
B3	10	#4	STR.	6'-7"	88
B4	7	#9	STR.	8'-0"	54
B5	8	#1	S	5'-2"	20
B6	25	#3	S	4'-2"	70
B7	8	#5	S	6'-2"	116
V1	50	#5	V	7'-8"	382
V2	24	#4	V	2'-11"	47
M1	8	#0	M	20'-3"	697
V2	8	#10	V	21'-5"	743
V3	8	#10	V	21'-5"	773
M1	24	#10	M	6'-0"	620
B1	90	#5	S	7'-5"	696

REINFORCING STEEL 185-6117

1.5" x 7" CONC.	11.105
POUR #1	12
POUR #2	10.5
POUR #3	13.1
TOTAL	36.7

* 1/4" CONC. DISPLACED BY SQUARE PILE HEADS HAS BEEN DEDUCTED.
PROJECT NO. 4-1273002
SAMPSON COUNTY
STATION: 173+10.42-L-REV

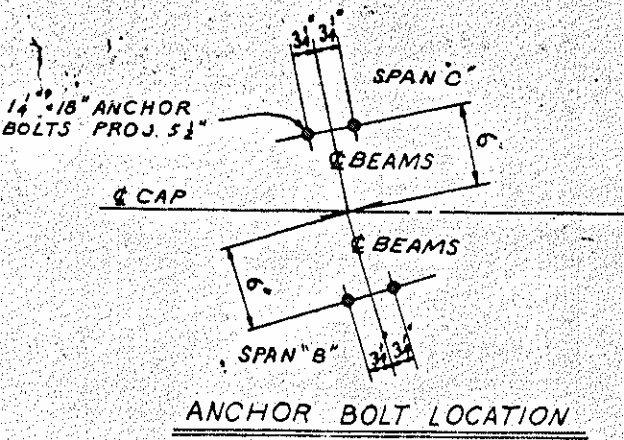
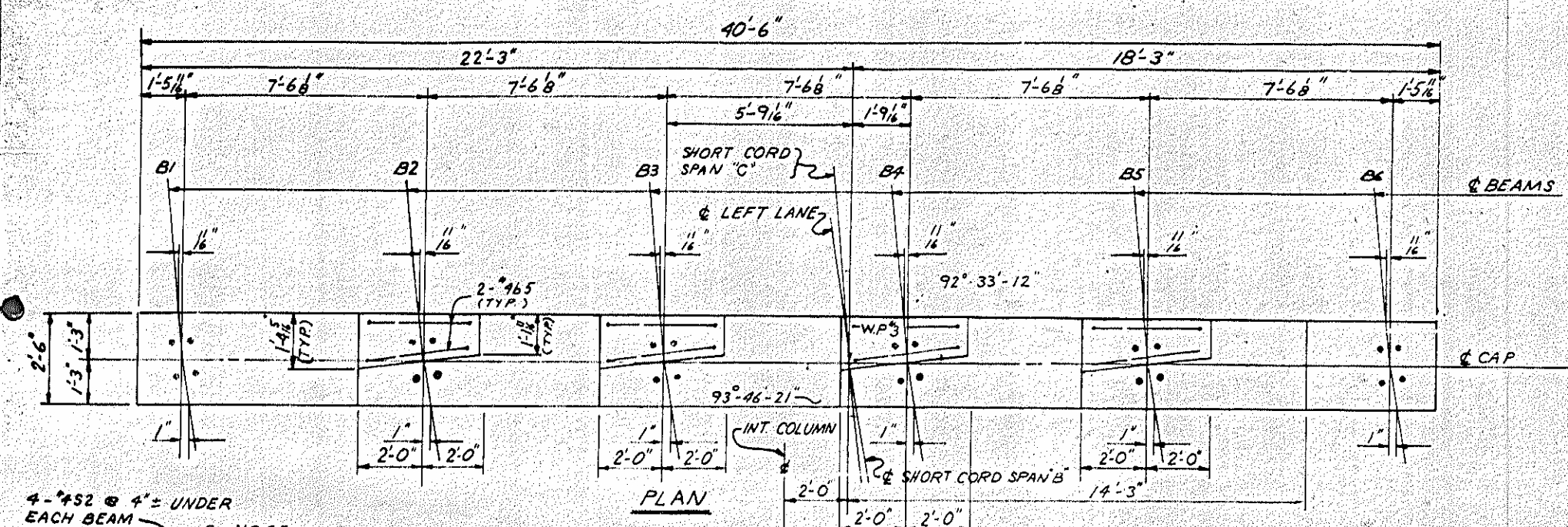
STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
BENT #1
LEFT LANE
MAY 1965

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

TOTAL 192

DESIGNED BY S. SULLIVAN DATE 5 MAY 65
CHECKED BY R. P. POPEL DATE 10 MAY 1965

PROJECT NO. 8-1273-002
 STATE HIGHWAY COMMISSION
 SHEET 132 OF 185



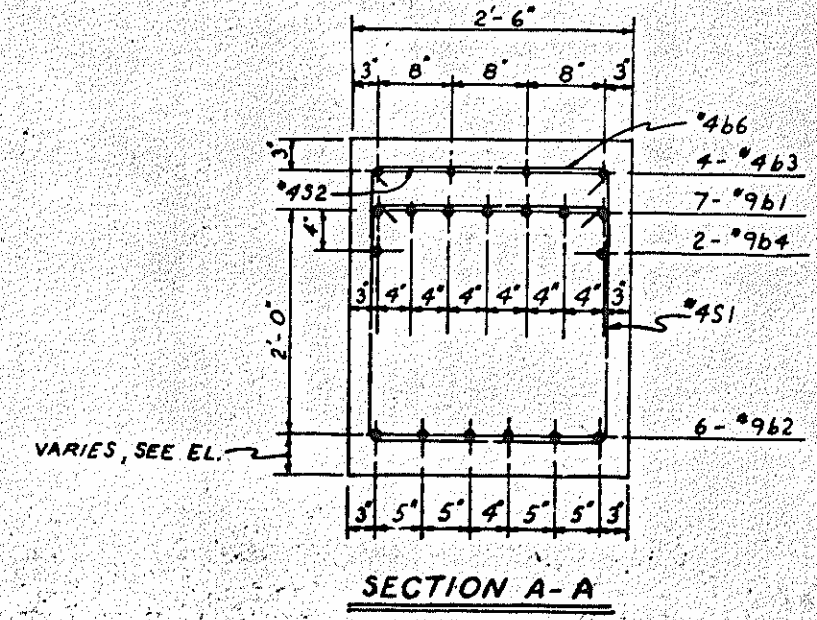
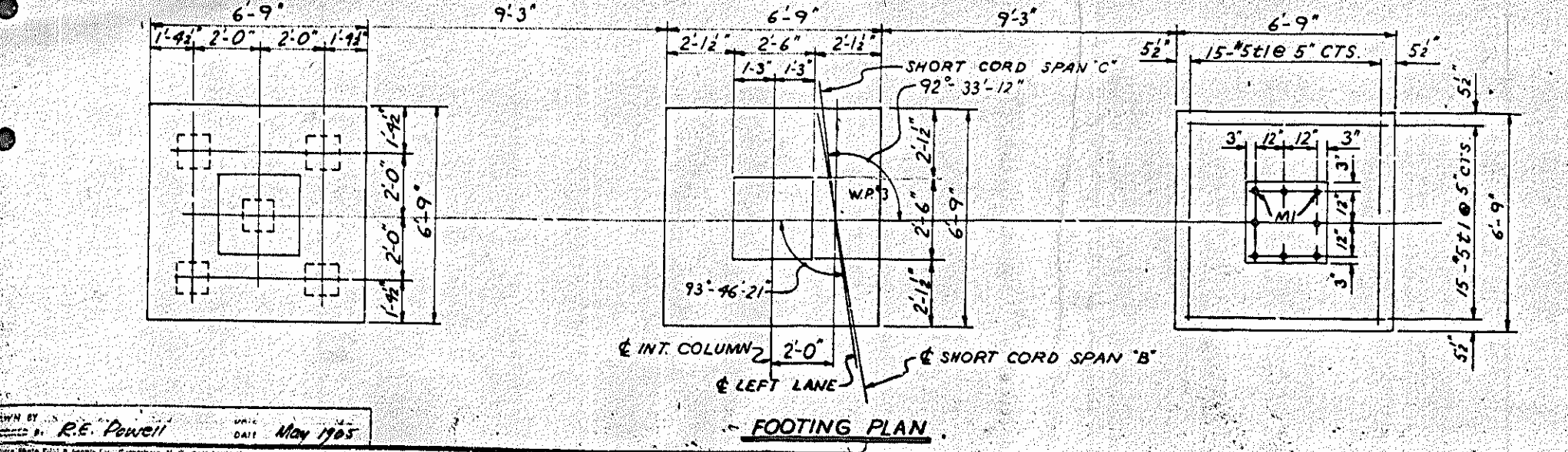
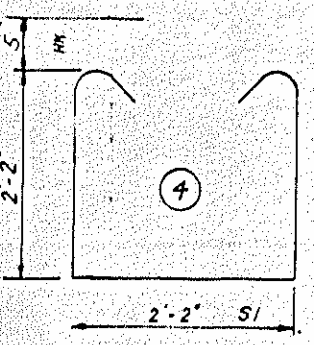
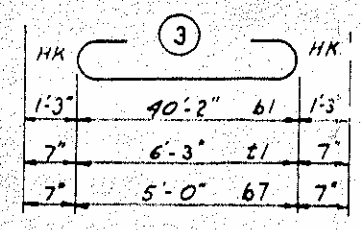
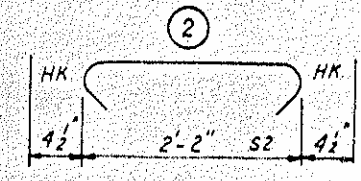
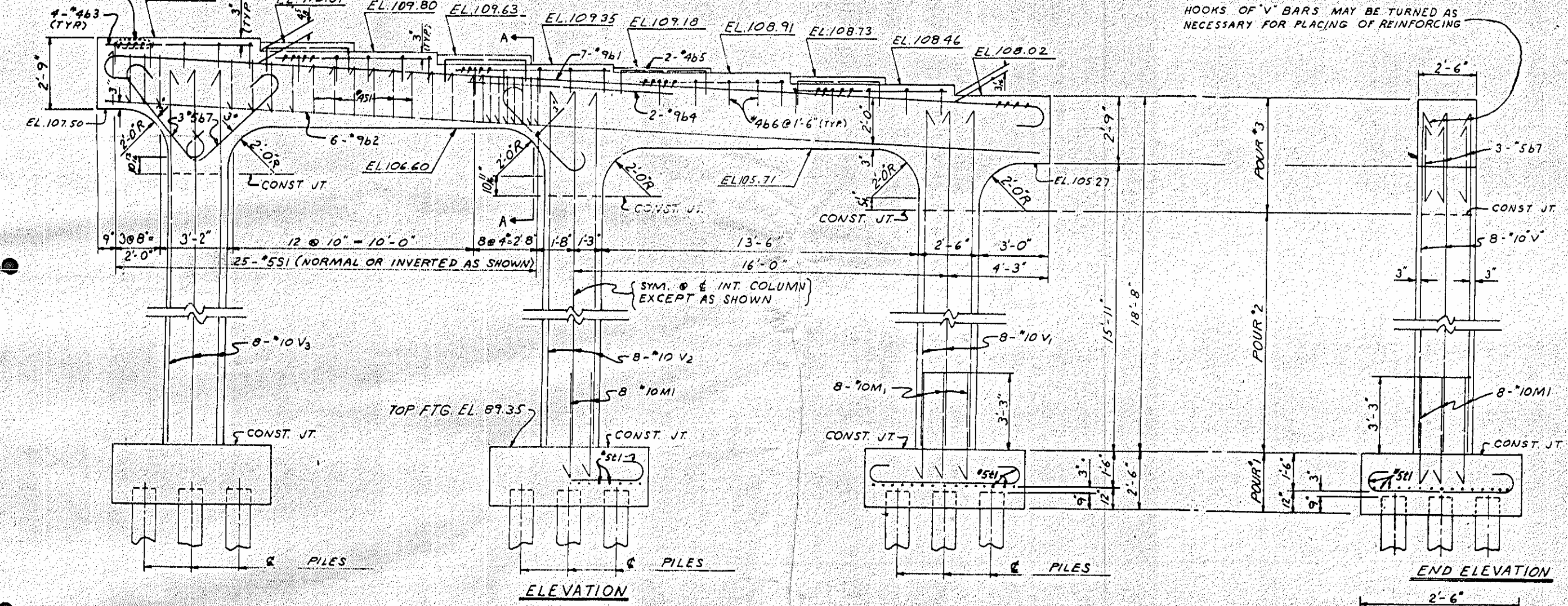
BAR TYPES
 ALL DIMENSIONS ARE OUT TO OUT

NO.	SIZE	TYPE	LENGTH	WEIGHT
1	1-5"	4-7"	M1	
2	1-5"	18-2"	V1	
3	1-5"	19-6"	V2	
4	1-5"	20-4"	V3	

BILL OF MATERIAL
 ONE BENT ONLY

BAR NO.	NO.	SIZE	TYPE	LENGTH	WEIGHT
61	7	#9	3	42'-8"	1015
62	6	#9	STR.	40'-2"	819
63	20	#4	STR.	6'-7"	88
64	2	#9	STR.	8'-0"	54
65	8	#4	5	5'-2"	28
66	25	#4	5	4'-2"	70
67	18	#5	3	6'-2"	116
S1	50	#5	4	7'-4"	382
S2	24	#4	2	2'-11"	47
V1	8	#10	1	19'-7"	674
V2	8	#10	1	20'-11"	720
V3	8	#10	1	21'-9"	749
M	24	#10	1	6'-0"	620
E1	90	#5	3	7'-5"	696

NOTE:
 HOOKS OF 'V' BARS MAY BE TURNED AS NECESSARY FOR PLACING OF REINFORCING

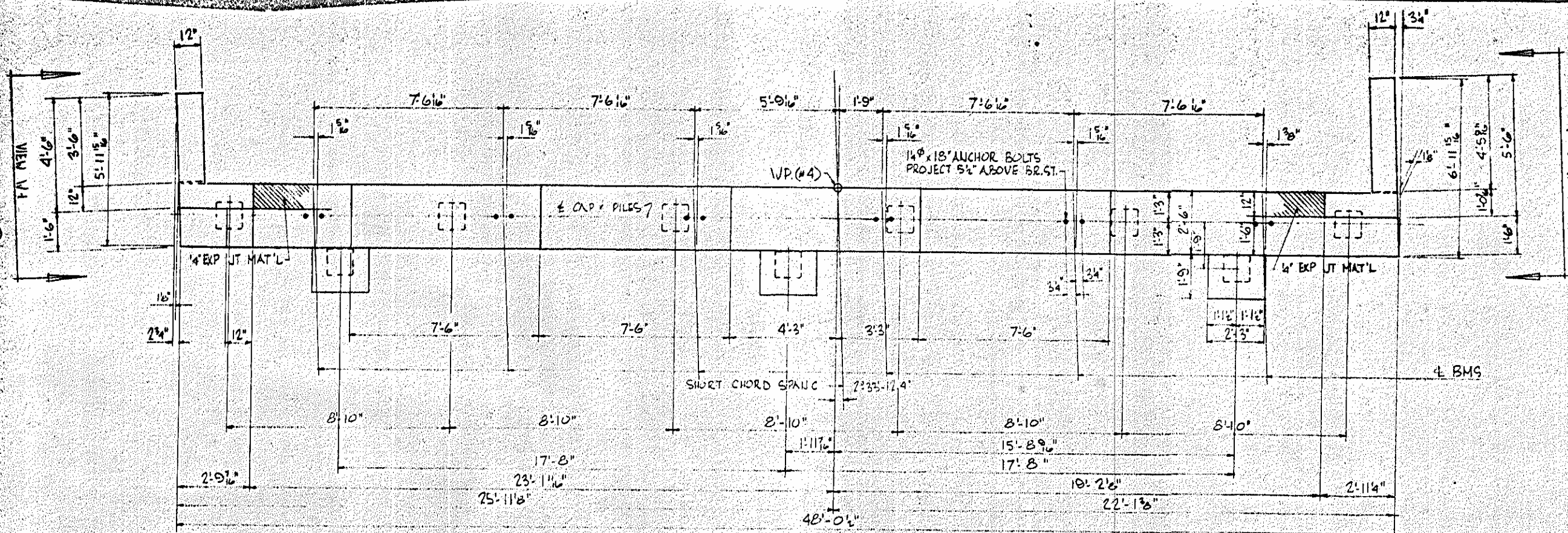


REINFORCING STEEL LBS = 6,078
 CLASS 'A' CONC. CU. YDS.
 POUR #1 12.2
 POUR #2 18.1
 POUR #3 13.6
 TOTAL 35.9
 PILES
 NO. 15 LIN. FT. 270
 457'-10 1/2"

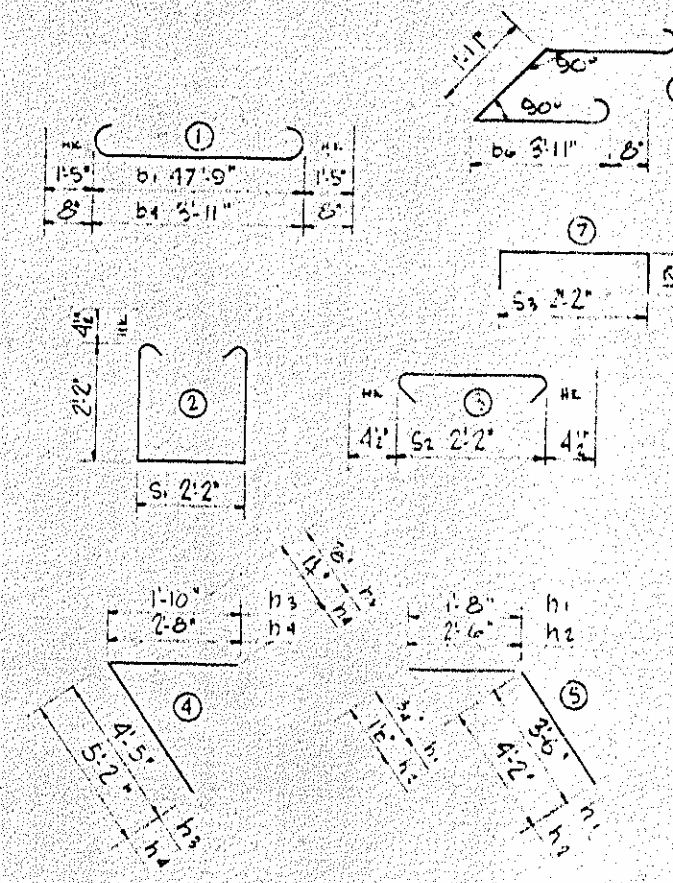
NOTE: CONCRETE DISPLACED BY SQUARE PILE HEADS HAS BEEN DEDUCTED
 PROJECT NO. 8-1273-002
 SAMPSON COUNTY
 STATION: 173 + 10.48-1.00

STATE OF NORTH CAROLINA
 STATE HIGHWAY COMMISSION
 BENT 2
 LEFT LANE
 MAY 1965
 NO. 11 DATE 5-130
 134

DRAWN BY: R.E. Powell
 DATE: May 1965



PLAN

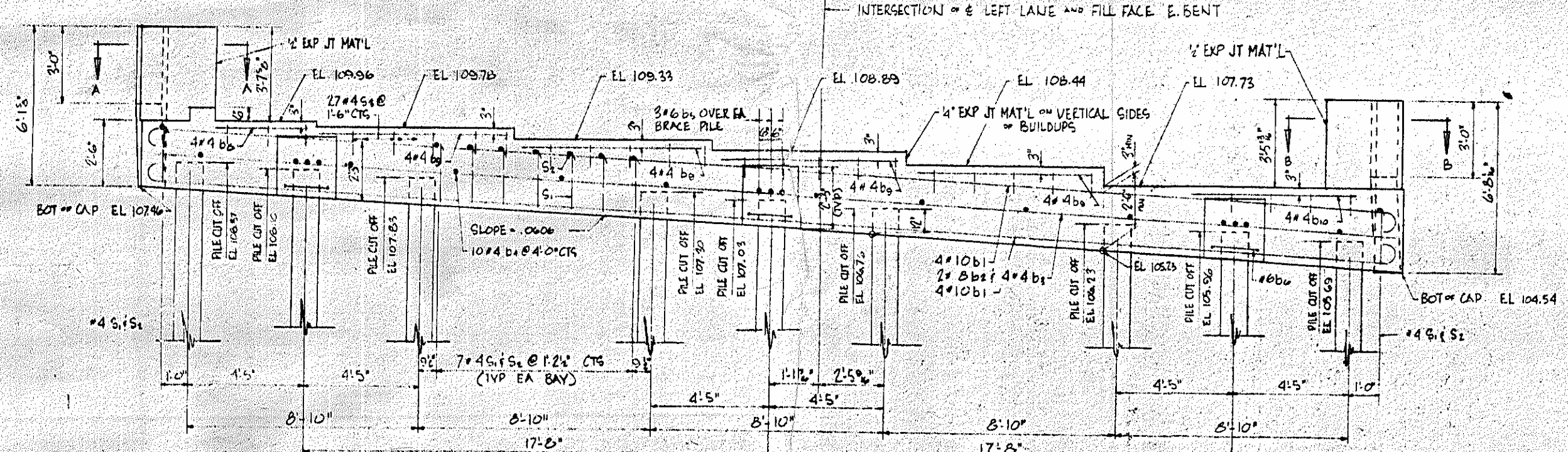


BAR TYPES ALL DIMENSIONS OUT TO OUT

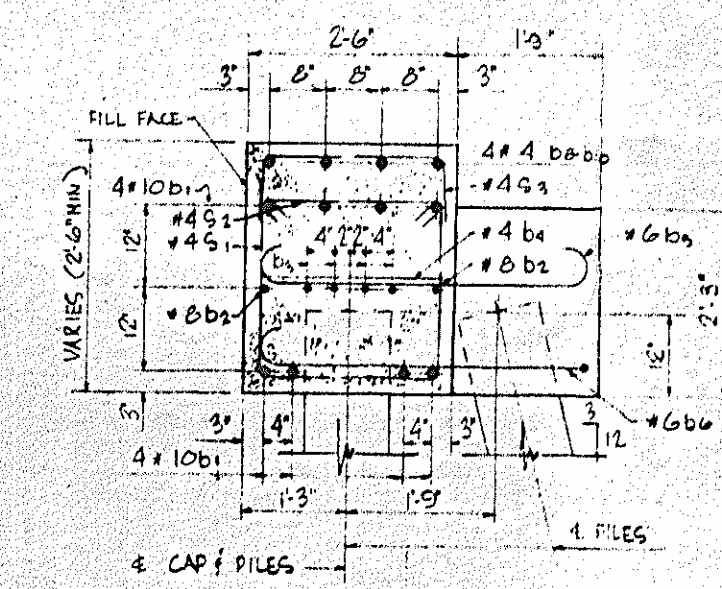
BILL OF MATERIAL FOR ONE E. BENT ONLY

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
D1	2	#10		12.7'	1741
D2	2	#6	STR	47.0'	255
D3	8	#4	STR	24.6'	151
D4	10	#4	STR	7.2'	14
D5	9	#6		5.3'	71
D6	3	#6		11.1'	50
D7	4	#4	STR	3.6'	9
D8	16	#4	STR	7.3'	77
D9	4	#4	STR	7.0'	19
E1	7	#4		5.9'	24
E2	7	#4		6.8'	31
E3	7	#4		6.3'	29
E4	7	#4		7.10'	37
S1	37	#4		7.3'	179
S2	37	#4		7.11'	72
S3	27	#4		7.4'	75
V1	13	#4	STR	5.10'	51
V2	17	#4	STR	6.4'	72

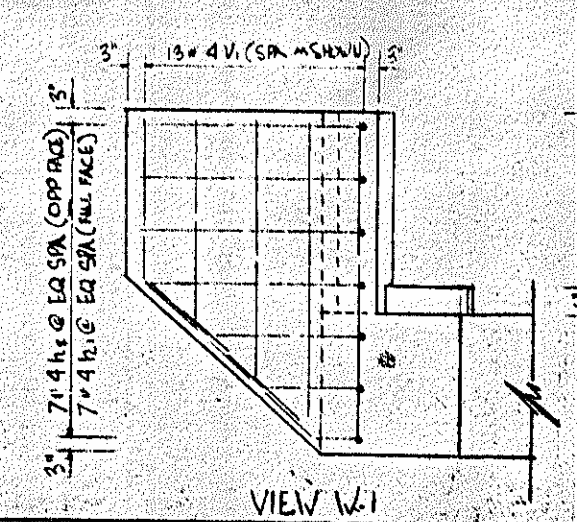
REINFORCING STEEL LBS 2997
 * CLASS "A" CONC CURBS 15.9
 PILES 1010 LIN. FT 324
 969'-0"



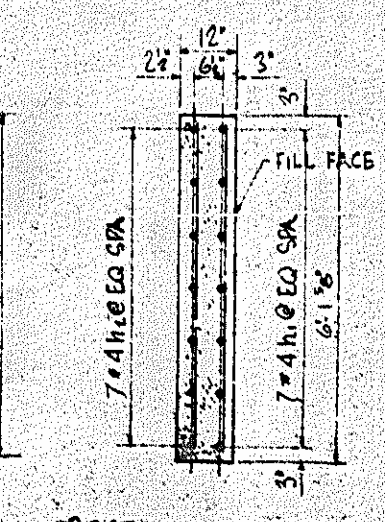
ELEVATION



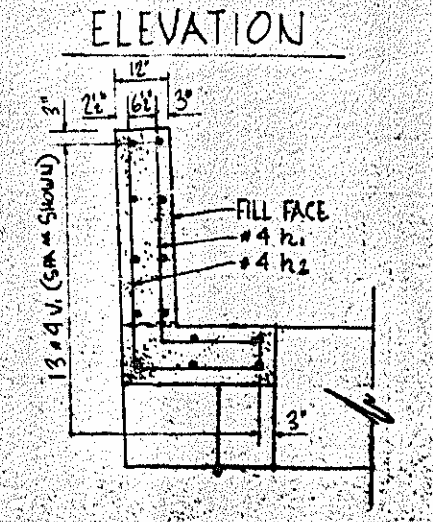
SECTION THRU CAP



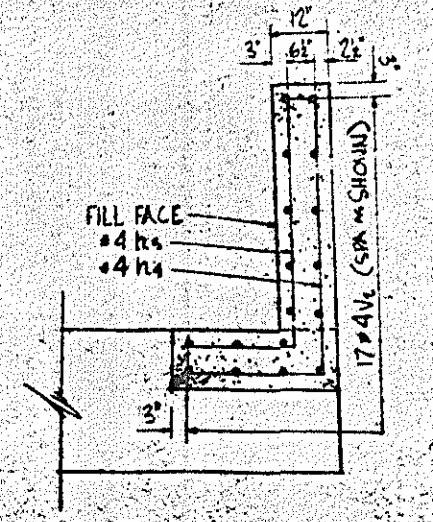
VIEW W-1



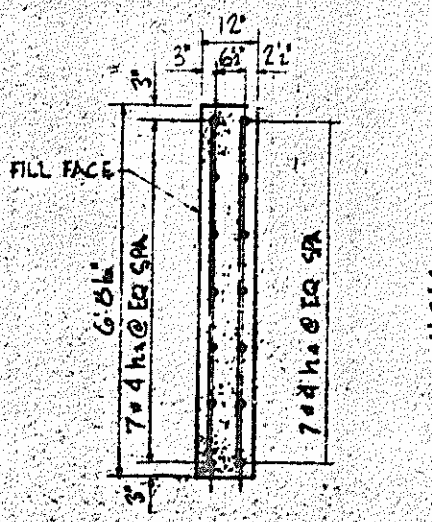
SECTION THRU W-1



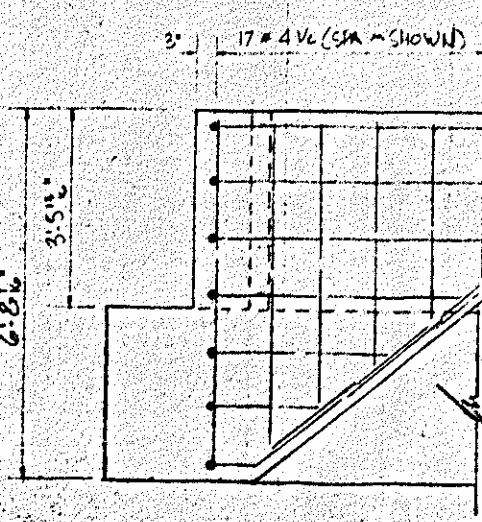
SECTION A-A



SECTION B-B



SECTION THRU W-2



VIEW W-2

PROJECT NO. 8-1273002
 SAMPSON COUNTY
 STATION: 173 + 10.48 LEFT LANE

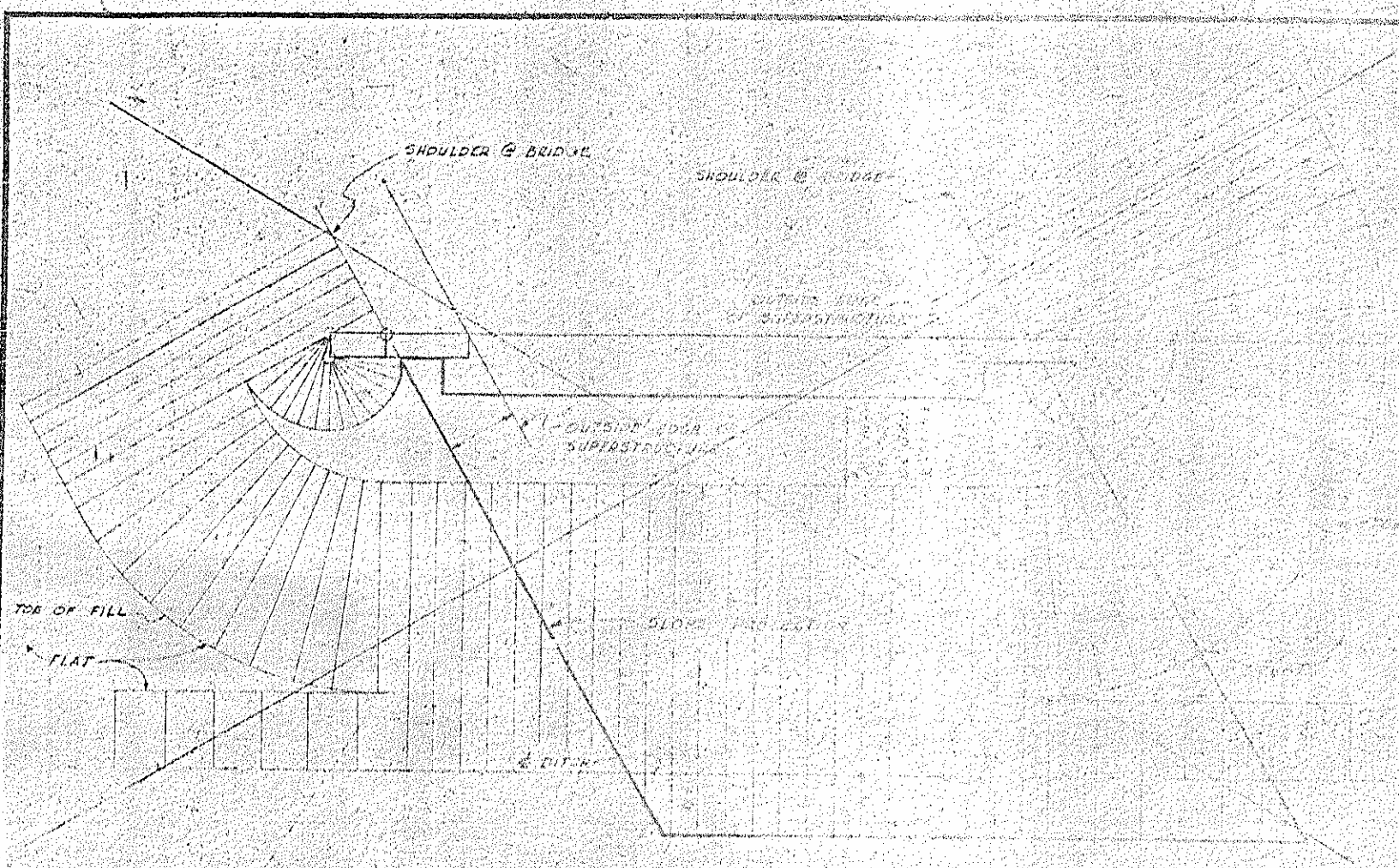
STATE OF NORTH CAROLINA
 STATE HIGHWAY COMMISSION
 BALANCE

END BENT # 2
 MAY 1965

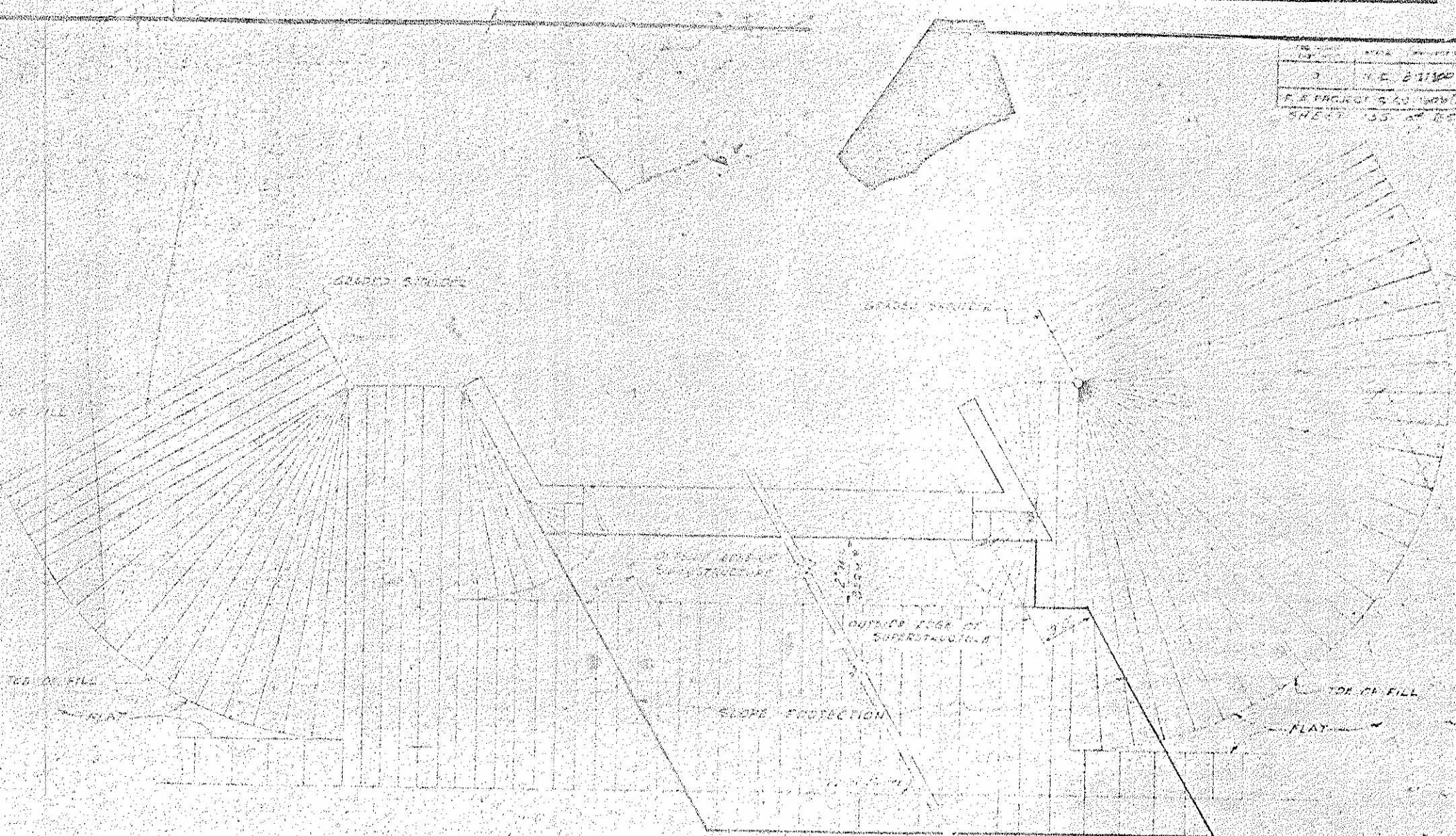
REVISIONS			
NO.	BY	DATE	DESCRIPTION
1			
2			

DRAWN BY: DI MARSHALL DATE: 5/7/65
 CHECKED BY: GEORGE RAYMOND DATE: 5/14/65
 SCALE: 1/4" = 1'-0"

PROJECT NO. 8127300
 SHEET 2 OF 2

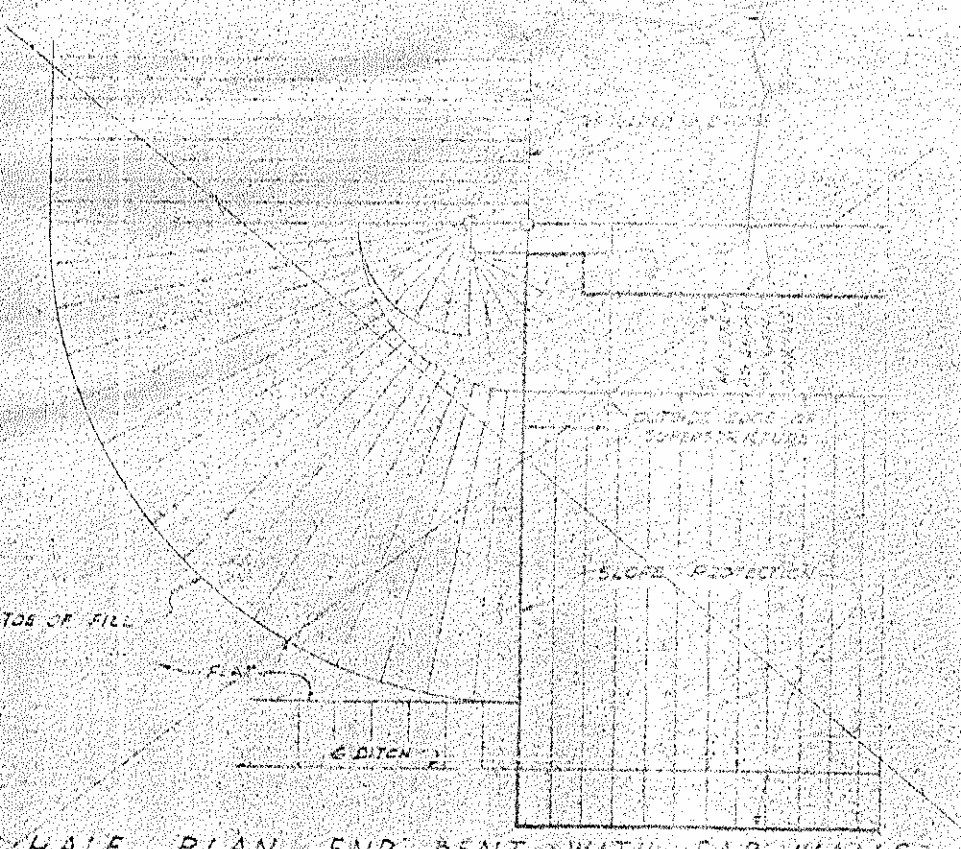


END BENT WITH EAR WALLS - 90°



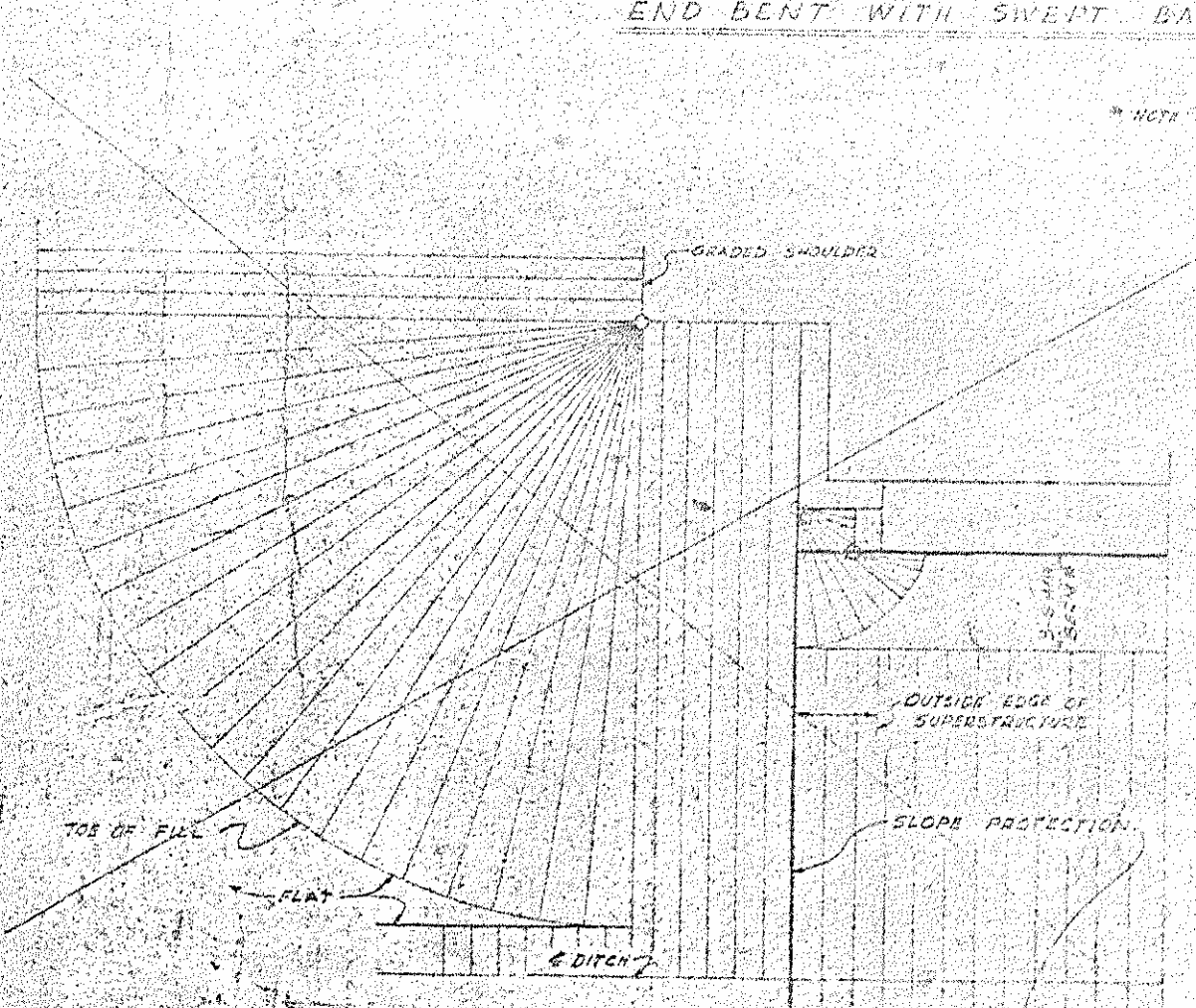
END BENT WITH SWEEP BACK WINGS - SKEWED

NOTE: LARY BERM WIDTH AS NECESSARY TO FIT IN TO SLOPE ALIGNMENT



HALF PLAN END BENT WITH EAR WALLS - 90°

NOTE: OTHER SIDE SIMILAR



HALF PLAN END BENT WITH SWEEP BACK WINGS - 90°

NOTE: OTHER SIDE SIMILAR

PROJECT NO. 8127300
 SAMPSON COUNTY
 STATION: 173+10.48 1/2

SHEET 2 OF 2

STATE OF NORTH CAROLINA
 STATE HIGHWAY COMMISSION
 RALEIGH
 STANDARD
 SLOPE PROTECTION PAVING
 DETAILS
 FEBRUARY 1964

ASSEMBLED BY: S. J. PHILLIPS, DATE: MARCH 1964
 CHECKED BY: E. G. ALFORD, JR., DATE: MARCH 1964
 DRAWN BY: E. G. ALFORD, JR., DATE: FEB. 1964
 CHECKED BY: S. J. PHILLIPS, DATE: MARCH 1964

SEE P. 13 TO ELIMINATE 10' CURBS AT THE 10' SLOPE FOR DRAINED BRIDGES. V.G.T.P.
 IN LARY TO FACE OF CURBS AND FROM OUTSIDE EDGE OF SUPERSTRUCTURE TO OUTSIDE SLOPE PROTECTION.

5-133
 154